Providing Ground Solutions

Derwent Valley Property Developments Ltd

The Network Building

Preliminary Basement Impact Assessment

RM02 Lab Scheme

Rev 1

April, 2021

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Reference	CGL/09528B	Revision	0	Issue Date	March 2021
		Revision	1	Issue Date	April 2021

Contents

FIGURES

APPENDICES

1. INTRODUCTION

Card Geotechnics Limited (CGL) has been instructed by Blackburn & Co acting on behalf of Derwent Valley Property Developments Ltd ("the Client") to produce a Preliminary Basement Impact Assessment (BIA) for the proposed redevelopment works at The Network Building, W1T 4TW. This Preliminary Basement Impact Assessment has been undertaken in accordance with the following London Borough of Camden documentation outlining requirements related to basements within the borough:

- Camden geological, hydrogeological and hydrological study. Guidance for subterranean development. ARUP. (November 2010)[1].
- Camden Local Plan (CLP) 2017. Policy A5 Basements, Camden Planning Guidance Basements (November 2017)[2];
- Camden Planning Guidance: Basements (CPG) March 2018, replacing the Camden Planning Guidance 4: Basements and Lightwells (July 2015)[3];

In line with CPG4, the Basement Impact Assessment procedure includes the following stages:

- **Stage 1:** Screening
- **Stage 2:** Scoping
- **Stage 3:** Site investigation and study
- **Stage 4:** Impact assessment
- **Stage 5:** Review and decision making

This preliminary BIA report provides information for stages 1 to 4 of the London Borough of Camden BIA process. Data from onsite intrusive site investigations has been used to derive geotechnical parameters for the site. Subsequently, a Ground Movement Assessment (GMA) and Building Damage Assessment (BDA) on adjacent neighbouring buildings and highways have been undertaken and reported. Findings from CGL's onsite intrusive site investigation are presented separately in a Geotechnical and Geoenvironmental Interpretative Report[4]. Once the final scheme is fully confirmed and the second phase of the site investigation is completed, this report will be updated based on the findings and the final BIA report will be completed.

[1] Camden geological, hydrogeological and hydrological study. Guidance for subterranean development. ARUP. (November 2010)
[2] Camden Local Plan (CLP) 2017. Policy A5 Basements, Camden Planning Guidance Basements (November 2017)
[3] Camden Planning Guidance: Basements (CPG) March 2018, replacing the Camden Planning Guidance 4: Basements and Lightwells (July 2015)
[4] CGL. The Network Building. Geotechnical and Geoenvironmental Interpretative Report. Ref. CGL_09528_GGIR_Oct2020

2. SITE CONTEXT

2.1 Site Location

The site is located at 95 – 100 Tottenham Court Road and 76 – 80 Whitfield Street, termed "The Network Building" and 88 Whitfield Street. The approximate postcode for the site is W1T 4TW and the approximate grid reference for the site centre is 529376E, 182015N. The site is located within the London Borough of Camden and lies in the southern portion of the street block bounded by Tottenham Court Road (east), Howland Street (south), Whitfield Street (west) and Maple Street (north). The block is bisected north to south by Cypress Place, a pedestrian street.

A site location plan is included in Figure 1.

2.2 Site Description

The site is roughly rectangular in plan and occupies an area of approximately 0.27 hectares. The site is presently occupied by a six-storey office and retail building. There is a single storey basement occupying nearly the entire footprint to the west of Cypress Place. The basement links under the pedestrian street and expands under part of the site in the eastern section. The existing structure is believed to be a mix of steel and concrete with parts of the building being developed at different times. The existing basement slab was found to be 250mm thick and it was found to be supported by shallow concrete footings, the configuration and the underside of which were not proven by the probes undertaken in TP03 & TP04[4], respectively. The site is still live and in use by occupants.

The existing single basement finished floor level (FFL) is at approximately +25.17m above Ordnance Datum (mOD) while the FFL of the existing ground floor is assumed to be at +28.10mOD. The site is generally flat with a gentle downward slope from northwest to southeast from a Whitfield Street pavement level of circa +28.00mOD to a Howland Street pavement level of approximately +27.80mOD. Ground level also remains generally flat along Cypress Place with a gentle downward slope from a Howland Street road level of +27.72mOD along the southern boundary of the site to a Cypress Place road level of approximately +26.70mOD in the central area of the site[5].

A site layout plan is presented in Figure 2.

[5] *Point Surveyors (May 2020). Topographic Survey- Sheet 2. Dwg no. P1618/T/02*

2.3 Proposed Development

The proposed development comprises the demolition of the existing office and retail building and the construction of a new eight-storey building, with a lowered single basement level across the entire footprint of the site[6]. The proposed building uses include laboratories and associated office space, commercial space, plant areas and a cycle storage at the basement level. No areas of soft landscaping are proposed.

Based on the provisional basement information provided by AKTII, the building is to be supported by a raft foundation[7]. The B1 raft foundation is understood to be 1500mm thick. The proposed B1 slab surface level (SSL) is to be formed at approximately 2.8m below the existing basement level (mbbl) at +22.36mOD. Due to the measured variable groundwater level on site, to enable the construction of the proposed lowered basement and in order to achieve the water cut-off, a 600mm hard/firm secant piled wall with a male to male spacing of 800mm c/c is proposed to be cast around the entire perimeter of the site. The proposed secant wall is understood to be designed to resist lateral loads only and it is assumed to be installed from a piling platform level at +27.00mOD. This piling platform is anticipated to be formed by backfilling the basement footprint during/after the demolition works. The surrounding pavement areas at +28.00mOD will be back propped against the basement wall to limit the potential movements to acceptable values.

Proposed development plans are included in Figure 2.

2.4 Critical Sections for Analysis

The site is bounded by Tottenham Court Road to the east, Howland Street to the south, Whitfield Street to the west and “The Qube” to the north. “The Qube” is a 6-storey office and commercial building with a single level stepped basement that is located roughly at 1m from the proposed internal basement liner wall[8]. The pavements of the aforementioned highways/streets are immediately adjacent to the external face of the proposed capping beam, with the carriageway starting approximately between 5m to 7m from the proposed basement. The location of the critical sections assessed is presented within the site layout plan in Figure 2.

4 no. critical sections have been outlined for the building impact assessment:

[6] *AKTII Ltd (December 2020). 4921 Network Building – Stage 2 Report. Rev. P02*
[7] *AKTII Ltd (December 2020). Basement General Arrangement. Ref. 4921-AKT-XX-B1-DR-S-099. Rev. P03*
[8] *AKTII Ltd (December 2020). Long Section C. Ref. 4921-AKT-XX-ZZ-DR-S-502. Rev. P03*

- ***Critical Section 1 (CS1):*** This section extends 20m perpendicularly to the eastern proposed basement line going across Tottenham Court Road, the critical highway adjacent to site to the east.

- ***Critical Section 2 (CS2):*** This section extends 15m perpendicularly to the southern proposed basement line going across Howland Street, the critical road adjacent to site to the south.

- ***Critical Section 3 (CS3):*** This section extends 10m perpendicularly to the western proposed basement line going across Whitfield Street, the critical road adjacent to site to the west.

- ***Critical Section 4 (CS4):*** This section extends 50m perpendicularly to the northern proposed basement line going across "The Qube", the critical neighbouring building adjacent to site to the north.

Foundation and dimension details for the critical sections identified above are summarised in Table 1 and are based on structural information provided by AKTII[6] presented in Appendix A and google earth imagery.

Table 1. Summary of assumed dimensions and foundation depths for the critical buildings/highways

Critical Section (CS)	*Boundary Direction*	*Distance from internal face of the liner wall (m)*	*Length [m]*	*Height [m]*	*Foundation Level [mOD]*
Tottenham Court Road (CS1)	East	~ 0	20[a]	N/A	+27.00[d,e]
Howland Street (CS2)	South	~ 0	15[a]	N/A	+27.00[d,e]
Whitfield Street (CS3)	West	~ 0	10[a]	N/A	+27.00[d,e]
The Qube (CS4)	North	1.0	50	28[b]	+24.36[c]

Notes:

a. From pavement adjacent to the proposed basement to the opposite side of the road.
b. Assumed a height per storey of 4m for a six-storey building with a single basement level.
c. Assumed to be founded at +24.36mOD, to be confirmed once the supplementary site investigation is completed. This is conservative since the fact that the basement step is not considered in the analysis.
d. Assumed design ground level is +27.00mOD.
e. Assumed to be founded at 0m below ground level.

If the Damage Category for these critical buildings/assets lies within acceptable limits (Category 1 or below), then the impact on other neighbouring properties located at a greater distance from the proposed excavation will also be acceptable.

3. SCREENING

3.1 Introduction

CGL has carried out a screening process based on relevant Camden Planning Guidelines (CPG)[1,2,3]. Relevant questions for the site in Camden and proposed development are presented below. Appropriate responses are provided where there is no requirement for further investigation and assessment.

The CGL Geotechnical and Geoenvironmental Interpretative Report[4] has been completed, which includes the desk study information referred to in the following sections and reference should be made to this report for full details.

3.2 Subterranean (Groundwater) Flow

This section answers questions relating to groundwater flow.

Table 2. Subterranean (Groundwater) Flow

Question	*Response*	*Action Required*
1a. Is the site located directly above an aquifer?	Yes. The site is underlain by the Lynch Hill Gravel Formation, designated as a Secondary A aquifer.	Impact Assessment
1b. Will the proposed basement extend beneath the water table surface?	Yes. Groundwater monitoring results at The Network Building indicate that the groundwater is at +**23.62mOD** at the centre of the site and lowers down to **+23.15mOD** in a northeast to southwest direction. This possibly intermittent groundwater is located within the Lynch Hill Gravel Member. The SSL of the existing B1 basement is at +25.17mOD. As part of the proposed development, the slab surface level (SSL) of the new B1 basement is anticipated to be at +22.36mOD. Given that the B1 raft slab is proposed to be 1500mm thick, the formation level of the B1 raft is expected to be at **+20.86mOD** (within the London Clay). Therefore, the formation level would be up to 2.8m below the highest recorded groundwater on site. Due to the measured variable groundwater level on site, in order to achieve the water cut-off, a 600mm secant piled wall with a male to male spacing of 800mm c/c is proposed to be cast around the entire perimeter of the site.	Impact Assessment
2. Is the site within 100m of a watercourse, well, or potential spring line?	No. There are no neighbouring local water features. The nearest watercourse is the Boating Lake which forms part of the lost River Tyburn, which passes approximately 1.2km northwest of the site at its closest point. The River Thames is approximately 1.90km southeast.	None
3. Is the site within the catchment of the pond chains on Hampstead Heath?	No. The site is located approximately 4.30km from the closest point of the Hampstead Chain Catchment.	None

4. Will the proposed basement development result in a change in the proportion of hard surfaced/paved areas?	Not anticipated, others to confirm. The proposed development and basement will not affect the proportion of hard surfaced/paved areas as the footprint of the proposed basement and development covers an area which is already hardstanding (concrete and paving slabs).	None
5. As part of site drainage, will more surface water than at present be discharged to ground (e.g. via soakaways and/or SUDS)?	Not anticipated, others to confirm.	Confirmation by others
6. Is the lowest point of the proposed excavation close to, or lower than, the mean water level in any local pond or spring lines?	No. There are no local water features in the vicinity of the site.	None

In summary, the site is underlain by the Lynch Hill Gravel formation, designated as a Secondary A aquifer. Groundwater monitoring results indicate that the groundwater is approximately at a level of approximately +23.18mOD to +23.62mOD, located within the Lynch Hill Gravel Member. The formation level of the proposed B1 raft slab is anticipated to be at +20.86mOD, approximately 2.8m below the shallowest recorded groundwater level.

Due to the measured variable groundwater level on site, a 600mm secant piled wall with a male to male spacing of 800mm c/c is proposed to be cast around the entire perimeter of the site. The proposed secant pile wall when toed into the relatively impermeable London Clay is expected to provide adequate groundwater cut-off to the excavation.

In light of the above, it is considered that further assessment is required in relation to subterranean (groundwater) flow.

3.3 Slope & Land Stability

This section answers questions relating to site topography, trees, neighbouring infrastructure and potential ground movements associated with basement development.

Table 3. Slope/Land Stability

Question	*Response*	*Action Required*
1. Does the site include slopes, natural or manmade, greater than about 1 in 8?	No. The site is generally flat with a gentle downward slope from northwest to southeast from a Whitfield Street pavement level of circa +28.00mOD to a Howland Street pavement level of approximately +27.80mOD. Ground level also remains generally flat along Cypress place with a gentle downward slope from a Howland Street road level of +27.72mOD along the southern boundary of the site to a Cypress Place road level of approximately +26.70mOD in the central area of the site.	None
2. Will the proposed re-profiling of the landscaping at site change slopes at the property boundary to greater than about 1 in 8?	No.	None
3. Does the development neighbour land including railway cuttings and the like with a slope greater than about 1 in 8?	No.	None
4. Is the site within a wider hillside setting in which the general slope is greater than about 1 in 8?	No. In a wider context, the site is located within a relatively flat area in the London Borough of Camden.	None
5. Is the London Clay the shallowest stratum on site?	No. The London Clay is overlain by approximately 2m of River Terrace Deposits (lynch Hill Gravel Member) and approximately 2.5m of Made Ground at the site.	None
6. Will any trees be felled as part of the proposed development and/or are any works proposed within any tree protection zones where trees are to be retained?	No. No vegetation is located onsite in the existing condition.	None
7. Is there a history of shrink/swell subsidence in the local area and/or evidence of such at the site?	There is a moderate risk for heave in the London Clay.	Impact Assessment
8. Is the site within 100m of a watercourse or a potential spring line?	No. There are no local water features in the vicinity of the site.	None
9. Is the site within an area of previously worked ground?	No. The closest known area of worked ground is located 6m south of the site location.	None
10a. Is the site within an aquifer?	Yes. The site is underlain by the Lynch Hill Gravel formation, designated as a Secondary A aquifer.	Impact Assessment

Question	*Response*	*Action Required*
10b. If yes to (a), will the proposed basement extend beneath the water table such that dewatering may be required during construction?	There is a risk of encountering groundwater during the excavation works within the Lynch Hill Gravels; hence, temporary dewatering may be required. However, a permanent dewatering system will not be required. The proposed secant pile wall is expected to provide adequate groundwater cut-off to the excavation. Assuming the piles are installed correctly to achieve the required interlock, groundwater ingress into the excavation is expected to be minimal. It is noted that residual seepage may occur due to a lack of successful interlock of the secant piles, and this should be taken into account by the piled wall designer in accordance with CIRIA guidance[9]. Hence, minor seepage into the basement may be mitigated using sumps or other localised measures.	Investigation and Assessment (in relation to Section 3.2)
11. Is the site within 50m of the Hampstead Heath ponds?	No. The site is located approximately 4.30km from the closest point of the Hampstead Chain Catchment.	None
12. Is the site within 5m of a highway or pedestrian right of way?	Yes. The site is located within the southern portion of the street block bounded by Tottenham Court Road (east), Howland Street (south), Whitfield Street (west) and Maple Street (north). The block is currently bisected north to south by Cypress Place, a pedestrian street.	Impact assessment
13. Will the proposed basement significantly increase the differential depth of foundations relative to neighbouring properties?	Yes. It is understood that the adjacent building "The Qube", located along the north-western boundary, has an existing basement structure, with formation level at approximately +24.40mOD[8]. However, it steps down to a lower formation level that is unknown at the time of writing the report. The SSL of the existing basement is roughly +25.17mOD. The existing B1 slab was found to be 250mm thick. Hence, the formation level of the existing basement slab is anticipated to be at approximately +24.92mOD. The proposed formation level of the Network Building, however, is approximately +20.86mOD. For the purpose of this report, the proposed basement is assumed to be founded below the depth of the neighbouring basement. Consequently, it has been identified that the differential depth of the proposed foundation relative to "The Qube" and the roads in the vicinity increases some 4m. The depth and geometry of the existing and neighbouring building foundations should be confirmed by means of internal foundation inspection pits that are proposed as part of the supplementary site investigation in Section 6. The surrounding highways, Tottenham Court Road to the east, Whitfield Street to the west and Howland Street to the south have a road level of approximately +27.76mOD, +27.83mOD and +27.65mOD, respectively[5].	Impact assessment

[9] *CIRIA C515 (2001). Guidance on Groundwater control – design and practice.*

Question	*Response*	*Action Required*
14. Is the site over (or within the exclusion zone of) any tunnels?	Yes. A preliminary site constraint section indicates the presence of **two tunnels of the London Underground Limited (LUL) Northern Line** that run parallel to the eastern boundary of the site[6]. The entire site appears to fall within the LUL zone of influence; however, the exact location in plan of both tunnels with respect to site should be confirmed. The Stage 2 report[6] also indicates the presence of sewer and water mains adjacent to site. **Two main combined sewers** run in a north to south direction under Tottenham Court Road and Whitfield Street, respectively. The sewers have a nominal internal diameter (from the soffit to the invert) that range between 1320mm and 1170mm. **Another main combined sewer** with a 1550mm internal diameter runs in a west to east direction under Howland Street. It is suggested that the invert level of the combined sewers may range between +22.70mOD and +23.77mOD; however, the exact invert levels of the assets in the vicinity of the site are not known. The distance from the centrelines to the corresponding site boundaries as well as the construction material of the assets is not known. The site is situated within the Crossrail 2 safeguarding zone for future proposed works. Based on preliminary information from the Tottenham Court Road Factsheet[10], Crossrail 2 Information for Developers document[11] and online sources[12], the proposed tunnel diameters are likely to be 7.8m. The Crossrail 2 Factsheet states that the tunnels will be at "around 20m below ground level". To protect the Crossrail 2 infrastructure the foundations of proposed structures should avoid entering a zone 7.5m vertically up from the tunnel crown or 6.5m horizontally out from the tunnel walls. These exclusion zones consider the construction tolerance, exclusion zone and the alignment adjustment zone. As a result, any proposed foundations should not be founded below +14.50mOD.	Sewer and Tunnel Impact Assessment required; however, these will likely be required and undertaken once phase 2 of the site investigation is completed and will form a separate submission to the relevant asset operators under a separate cover.

In summary, a review of local topography suggests that the site and wider region around the perimeter do not exceed a gradient of 1 in 8, and the existing site is relatively flat. No trees are to be felled as part of the proposed works[13]. The London Clay is overlain by approximately 2.5m of River Terrace Deposits (Lynch Hill Gravel Member) and approximately 2.5m of Made Ground at the site. There is a moderate risk of heave within the London Clay.

There is a risk of encountering groundwater during the excavation works within the Lynch Hill Gravels; hence, temporary dewatering may be required. Assuming the secant wall piles are installed correctly to achieve the required interlock, groundwater ingress into the excavation is expected to be minimal. Hence, a permanent dewatering system is not deemed necessary. However, it is noted that residual seepage may occur due to a lack of successful interlock of the secant piles, and this should be taken

[10] Crossrail 2 (October 2015). Crossrail 2 factsheet: Tottenham Court Road Station
[11] Crossrail 2 (June 2017). Crossrail 2 Tunnel Section: Information for Developers.
[12] Crossrail 2 (2020). https://cr2.maps.arcgis.com/apps/webappviewer/index.html?id=21a7f72dfd0c443db5733bd81a707a67 (last accessed March 2021).
[13] Arup (2010) *Camden geological, hydrogeological and hydrological study. Guidance for subterranean development.* 213923, Issue01, 18 November 2010

into account by the piled wall designer in accordance with CIRIA guidance[9]. It is anticipated that minor seepage into the basement may be mitigated using sumps or other localised measures. This should be considered by the contactor as part of the temporary works designs for the development.

It is understood that the adjacent building "The Qube", located along the north-western boundary has an existing basement structure with formation level at approximately +24.40mOD[8]. However, it steps down to a lower formation level that is unknown at the time of writing the report.

The existing basement level is roughly +25.17mOD; while the proposed formation level of the Network Building is approximately +20.86mOD. For the purpose of this report, the proposed basement is assumed to be founded below the depth of the neighbouring basement.

Two tunnels of the London Underground Limited (LUL) Northern Line are present running parallel to the eastern boundary of the site[6]. The entire site appears to fall within the LUL zone of influence; however, the exact location in plan of both tunnels with respect to site is unknown. The site is also situated within the Crossrail 2 safeguarding zone for future proposed works[10].

Several sewer and water mains with various diameters are present in the vicinity of site[6]. Two main combined sewers run in a north to south direction under Tottenham Court Road and Whitfield Street, respectively. The sewers have a nominal internal diameter (from the soffit to the invert) that range between 1320mm and 1170mm. Another main combined sewer with a 1550mm internal diameter runs in a west to east direction under Howland Street. However, the distance from the centrelines to the corresponding site boundaries as well as the construction material of the assets is not known.

It is anticipated that ground movements will occur associated with the enabling works (demolition and infilling), excavation and construction of the new proposed basement. A ground movement assessment is required to investigate the magnitude of ground movements around the basement perimeter and to assess the potential impact on critical neighbouring properties and roads.

The impact assessment of the aforementioned assets will most likely be required and undertaken once phase 2 of the site investigation is completed and will form a separate submission to the relevant asset operators under a separate cover.

3.4 Surface Flow and Flooding

This section answers questions relating to the impact of the proposed development on existing drainage, permeable surfacing and flood risk.

Table 4. Surface Flow and Flooding

Question	*Response*	*Action Required*
1. Is the site within the catchment of the pond chains on Hampstead Heath?	No. The site is located approximately 4.30km from the closest point of the Hampstead Chain Catchment.	None
2. As part of the proposed site drainage, will surface water flows (e.g. volume of rainfall and peak run-off), be materially changed from the existing route?	Not anticipated, to be confirmed by others. Surface water management systems are to be incorporated into the scheme to enable post development surface run-off rates are not exceed the pre-development run-off rates. The existing site condition is currently hardstanding and the extent of does not change in the proposed development.	None
3. Will the proposed development result in a change in the proportion of hard surfaced/paved external areas?	No. The proposed development and basement will not affect the proportion of hard surfaced/paved areas as the footprint of the proposed basement and development covers an area which is already hardstanding (concrete and paving slabs).	None
4. Will the proposed basement result in a change to the profile of the inflows of surface water being received by adjacent properties or downstream watercourses?	No.	None.
5. Will the proposed basement result in changes to the quality of surface water being received by adjacent properties or downstream watercourses?	No.	None
6. Is the site in an area known to be at risk from surface flooding or is it at risk from flooding because the proposed basement is below the static water level of a nearby surface water feature?	No. The site is located in an area of 'Low' flood risk from rivers and seas in accordance with EA mapping[14]. The site is located outside of the area protected by flood defences. The central area of the site is considered to be at low risk from surface water flooding. The site is not considered to be at risk from flooding from reservoirs.	None

In summary, the site is located approximately 4.30km from the closest point of the Hampstead Chain Catchment. Surface water management systems are to be incorporated into the scheme to enable post development surface water run-off rates to not exceed the pre-development run-off rates. The proposed development and basement will not affect the proportion of hard surfaced/paved areas as the footprint of the proposed basement and development covers an area which is already hardstanding (concrete and paving slabs). The site is not recorded to be within an area at risk from surface water flooding or flooding from rivers and seas. It is therefore considered that no further assessment is required in relation to surface flow and flooding.

[14] https://flood-warning-information.service.gov.uk/long-term-flood-risk/map *(accessed March 2021).*

4. SCOPE OF PROPOSED ASSESSMENT

On the basis of the screening exercise within Section 3, it is considered a Basement Impact Assessment (BIA) is required for this site comprising a Subterranean (Groundwater) Flow assessment, Land Stability assessment and Building Damage Assessment, which addresses the following outlined in Table 5. The results of this scope are presented in Section 7, Section 8 and Section 9.

Table 5. Summary of Screening and Basement Impact Assessment Requirements

Item	*Description*
1.	***Subterranean (Groundwater) Flow*** ***Action: Investigation and Assessment*** – The site is underlain by the Lynch Hill Gravel formation, designated as a Secondary A aquifer. Groundwater monitoring results indicate that the groundwater is approximately at a level of approximately +23.15mOD to +23.62mOD, located within the Lynch Hill Gravel Member. The formation level of the proposed B1 raft slab is anticipated to be at +20.86mOD, approximately 2.8m below the shallowest recorded groundwater level. Due to the measured variable groundwater level on site, a 600mm secant piled wall with a male to male spacing of 800mm c/c is proposed to be cast around the entire perimeter of the site. The proposed secant pile wall is expected to provide adequate groundwater cut-off to the excavation when toed into the London Clay. With regards to ***groundwater flow obstructions***, investigation and qualitative impact assessments have been undertaken in Section 7.
2.	***Slope (Land Stability)*** ***Action: Investigation and Assessment*** – It is understood that the adjacent building "The Qube", located along the north-western boundary, has an existing basement structure. It is understood that the formation level of The Qube's existing basement adjacent to site is approximately +24.40mOD[8]. However, it steps down to a lower formation level that is unknown at the time of writing the report. The existing basement level is roughly +25.17mOD; while the proposed formation level of the Network Building is approximately +20.86mOD. For the purpose of this report, the proposed basement is assumed to be founded below the depth of the neighbouring basement. The depth and geometry of the existing and neighbouring building foundations should be confirmed by means of internal foundation inspection pits that are proposed as part of the supplementary site investigation in Section 6. The surrounding highways, Tottenham Court Road to the east, Whitfield Street to the west and Howland Street to the south have a road level of approximately +27.76mOD, +27.83mOD and +27.65mOD, respectively[5]. In regard to ***Land Stability*** a ground movement assessment and building damage assessment have been undertaken in Section 8 and Section 9 respectively.
3.	***Surface Flow and Flooding*** ***Action: None Required*** – The site is located approximately 4.30km from the closest point of the Hampstead Chain Catchment. Surface water management systems are to be incorporated into the scheme to see that post development surface water run-off rates do not exceed the pre-development run-off rates. The proposed development and basement will not affect the proportion of hard surfaced/paved areas as the footprint of the proposed basement and development covers an area which is already hardstanding (concrete and paving slabs). The site is not recorded to be within an area at risk from surface water flooding or flooding from rivers and seas. It is therefore considered that no further assessment is required in relation to surface flow and flooding. It is therefore considered that no further assessment is required in relation to ***Surface Flow and Flooding***.

It should be noted that the impact assessments on Thames Water (TW) and London Underground Limited (LUL) assets is beyond the scope of this Basement Impact Assessment (BIA) report. However, these will likely be required and undertaken at a later date under separate cover and following appropriate correspondence with the relevant asset operators.

5. GROUND INVESTIGATION – STAGE 2

A site-specific ground investigation was undertaken by CGL[4] at The Network Building between 10th August and 3rd September comprised:

- One external cable percussive borehole (BH01) from existing ground level (+26.93mOD) to a depth of 30.00mbgl (-3.07mOD), including in-situ Standard Penetration Tests (SPTs), soil sampling, laboratory testing and installation of groundwater and gas monitoring standpipes;
- One internal cable percussive borehole (BH02) from existing basement floor level (+25.17mOD) to a depth of 10.00mbbl (+15.17mOD), including in-situ Standard Penetration Tests (SPTs), soil sampling, laboratory testing and installation of a groundwater monitoring standpipe; and,
- Three hand-dug foundation inspection pits (TP1, TP3 and TP4) to a depth between 1.5mbbl (+23.67mOD) and 2.30mmbl (+22.87mOD) to determine the basement slab thickness, the foundation geometry to the retaining boundary wall and perimeter columns, and to locate ground beams/pile caps.

The investigation was generally undertaken in accordance with the requirements of BS 5930:2015[15] and BS 10175:2011+A2:2017[16]. The materials encountered within the trial pits were logged by an Engineer from CGL and representative soil samples retrieved and sent for laboratory analysis. Representative soil samples were submitted to i2 Analytical UK Ltd (a UKAS and MCERTS accredited laboratory) for chemical testing. Analysis included Geotechnical and Geoenvironmental soils laboratory testing and the results are included in the CGL Geotechnical and Geoenvironmental Factual and Interpretative Report[4].

Ground and Groundwater conditions are also included in the CGL Geotechnical and Geoenvironmental Factual and Interpretative Report[4], which also contains derivation of the geotechnical design parameters carried forward and used in this Basement Impact Assessment. These geotechnical design parameters are based on the in-situ SPT data, soil descriptions, results of the laboratory testing and published data for the well-studied London geology and are summarised in Table 6 below.

Plots of SPT 'N60' values versus level (mOD) and undrained shear strength (cu) versus level (mOD) are provided in Figure 3 and Figure 4.

[15] British Standards Institution (2015) *Code of practice for site investigations.* BS 5930:2015
[16] British Standards Institution (2017) *Investigation of potentially contaminated sites – Code of practice.* BS 10175:2011+A2:2017

These values are unfactored (Serviceability Limit State) and are considered to be 'moderately conservative' design parameters.

Table 6. Geotechnical Design Parameters

Stratum	*Design Level (mbgl) [mOD]*	*Bulk Unit Weight γ_b (kN/m³)*	*Undrained Cohesion c_u [c'] (kPa)*	*Friction Angle ϕ' (°)*	*Young's Modulus E_u [E'] (MPa)*
Made Ground (Granular)	0.00 [+27.0]	19[a]	-	30[a]	[14][b]
Lynch Hill Gravel Member (Granular)	2.5 [+24.5]	19[a]	-	32[a]	[30][b]
London Clay Formation (Cohesive)	4.5 [+22.5]	21[a]	$60 + 6.5z$[e,f] [5][c]	22[a]	$36 + 3.9z$[f,g] $[27 + 2.9z]$[f,h]
Lambeth Group (Cohesive)	23.0 [+4.0]	21[a]	$180 + 12.1z$[i,j]	22[a]	$144 + 9.7z$[i,k] $[115 + 7.8z]$[i,l]

Notes:

a. *British Standards (2015). Code of practice for earth retaining structures. BS 8002-2015.*
b. *E' = 2 x N60, where 7 and 15 have been adopted as N60 values for Made Ground and Lynch Hill Gravels. CIRIA C760 (2017). Guidance on embedded retaining wall design.*
c. *Stroud, M.A. (1975). The standard penetration test in insensitive clay and soft rock. Proceedings of the European. Symposium on Penetration Testing, 2, 367-375.*
d. *z = depth below surface of the weathered London Clay*
e. *z = depth below surface of the London Clay*
f. *Based upon moderately conservative (initial SPT 'N' value = 13) where (cu = SPT 'N' x f1) where f1 = 4.5, CIRIA R143 (1995), The Standard Penetration Test – Methods and Use. Peck, R.B., Hanson, W.E., and Thornburn, T.H., Foundation Engineering, 2nd Edn. John Wiley, New York, (1967); Stroud, M.A., The standard penetration test in insensitive clays and soft rocks, proceedings of the European symposium on penetration; White et al, 2019, An update of the SPT-cu correlation proposed by M. Stroud in 1974, Proceedings of the XVII ECSMGE 2019.*
g. *Based on Eu = 600 x Cu - Burland, Standing J.R., and Jardine F.M. (eds) (2001), Building response to tunnelling, case studies from construction of the Jubilee Line Extension London, CIRIA Special Publication 200.*
h. *Based on 0.75 x Eu. Burland, J.B et al (Ed.) (2001) Building response to tunnelling, case studies from construction of the Jubilee Line Extension London, CIRIA Special Publication 200.*
i. *z = depth below surface of the Lambeth Group*
j. *Based upon moderately conservative (initial SPT 'N' value = 36) where (cu = SPT 'N' x f1) where f1 = 5, CIRIA R143 (1995), The Standard Penetration Test – Methods and Use. Peck, R.B., Hanson, W.E., and Thornburn, T.H., Foundation Engineering, 2nd Edn. John Wiley, New York, (1967); Stroud, M.A., The standard penetration test in insensitive clays and soft rocks, proceedings of the European symposium on penetration; White et al, 2019, An update of the SPT-cu correlation proposed by M. Stroud in 1974, Proceedings of the XVII ECSMGE 2019.*
k. *Based on Eu = 800 x Cu - Burland, Standing J.R., and Jardine F.M. (eds) (2001), Building response to tunnelling, case studies from construction of the Jubilee Line Extension London, CIRIA Special Publication 200.*
l. *Based on 0.80 x Eu. Burland, J.B et al (Ed.) (2001) Building response to tunnelling, case studies from construction of the Jubilee Line Extension London, CIRIA Special Publication 200.*

The shallowest groundwater levels monitored in BH01 and BH02 are +23.62mOD and +23.15mOD. This suggests that the groundwater level reduces in a northeast to southwest direction. A design water level of +23.62mOD has been assumed based on the shallowest worst-case monitored groundwater level to date.

6. SUPPLEMENTARY GROUND INVESTIGATION – STAGE 3

Due to the access restraints in relation to the occupied IKEA store, it was not permitted to enter the existing building located to the east of Cypress Place. It was therefore agreed that due to the limited site access, a phased Site Investigation approach was more appropriate. This way, the first phase would inform the second phase and ground and groundwater findings encountered during the first phase would be validated through the second.

That is why, in Phase 1, CGL only completed an external 30m borehole, an internal 10m borehole and three internal foundation inspection pits to better understand the ground and groundwater conditions on site, to identify the thickness of the basement slab and its relationship with the existing brick retaining wall along the southern boundary, to locate any ground beams/pile caps and to allow for soils testing for Geoenvironmental (contamination) and Geotechnical properties to define the ground model for the site.

It is therefore proposed to undertake four additional internal foundation inspection pits to determine the party wall foundation relationship and geometry and to allow for additional geotechnical and geoenvironmental testing to validate the defined ground model for the site. An additional 30m borehole below the existing basement located in the eastern site without entering the tunnel exclusion zone under Tottenham Court Road is also proposed to prove the top of the Lambeth Group and as a result de-risk a potential depression in the Lambeth Group as encountered on the nearby UCLH Proton Beam site[17]. Additionally, three perimeter wall and three floor slab non-destructive scans are also required to adequately evaluate the construction and thickness of the structural elements noted above.

[17] https://www.geplus.co.uk/news/industry-urged-to-publish-more-details-of-ground-conditions-13-09-2018/ (last accessed March 2021)

7. SUBTERRANEAN GROUNDWATER FLOW

7.1 Introduction

This section addresses outstanding issues raised by the screening process regarding groundwater flow.

The surface of the London Clay is known to slope in a south-south westerly direction towards the River Thames beyond the site extent based on available BGS[18] records and hence, groundwater is also expected to flow predominantly in that same direction over the relatively impermeable London Clay surface.

Based on information from the site investigation and groundwater monitoring[4] undertaken by CGL, the groundwater depth and elevation varies spatially across site. In general, the groundwater elevation is roughly +23.62mOD at the centre of the site, and it reduces to +23.15mOD towards the southwest of the site. This agrees with the expected groundwater flow direction, based on the typical dip of the surface of the London Clay mentioned above.

7.2 Impact on Groundwater Flows due to Basement Construction

Based on the findings of the site investigation and subsequent monitoring of installations, groundwater will most likely be encountered during excavation works for the new deeper basement across the entire footprint of the site.

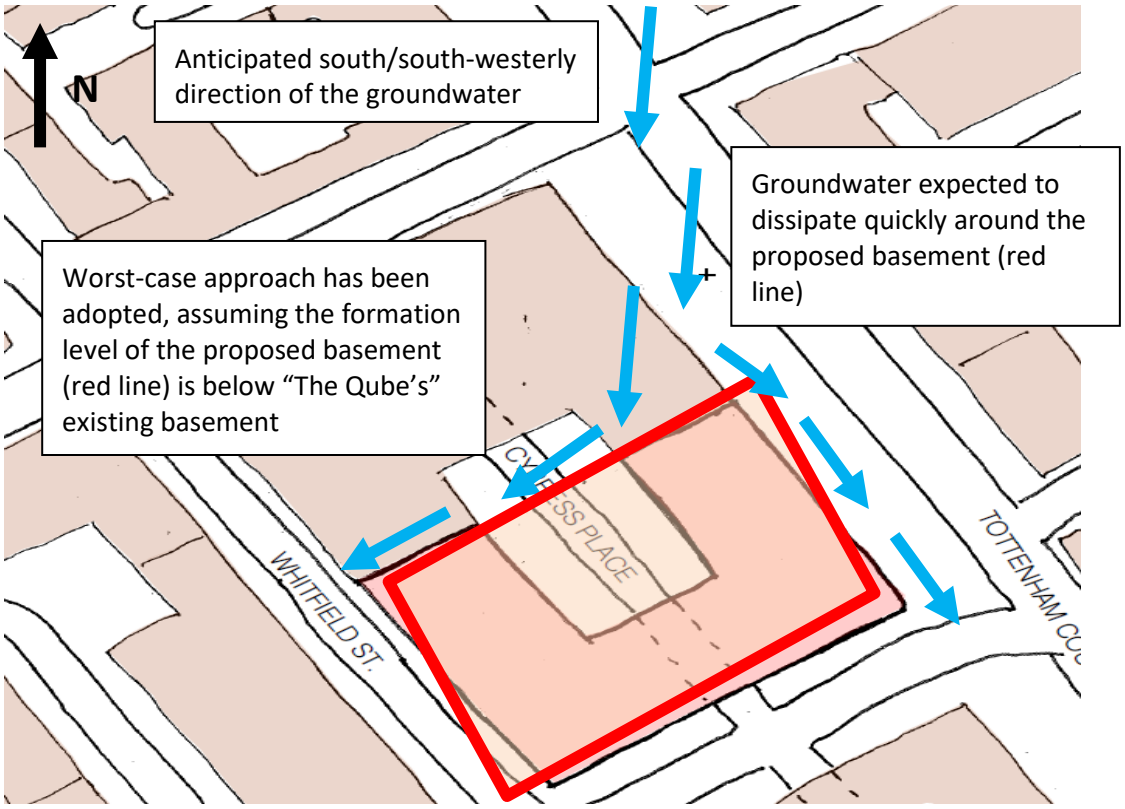
Due to the presence of shallow groundwater within the Lynch Hill Gravel, a secant piled wall is to be installed to facilitate construction of the new deeper basement area. The proposed basement is anticipated to be founded at +20.86mOD in the London Clay, with secant piles installed into the London Clay to provide a cut off to further water ingress during excavation, as well as to support lateral soil loads in the temporary and permanent conditions. It is noted that residual seepage may occur due to a lack of successful interlock of the secant piles, and this should be taken into account by the piled wall designer in accordance with CIRIA guidance[9]. Hence, minor seepage into the basement may be mitigated using sumps or other localised measures.

The new basement area to be constructed at The Network building measures approximately 50m by 50m, and for the purpose of this report is assumed to be founded below the depth of the neighbouring basement. Given the orientation of the proposed building and the expected groundwater flow direction as shown in Plate 1, it is anticipated that water will flow around the proposed basement due to relatively high lateral permeability within the Lynch Hill Gravel Member and consequently pore

[18] https://mapapps.bgs.ac.uk/geologyofbritain/home.html (accessed March 2021)

water pressures are expected to dissipate relatively quickly. Therefore, the construction of the proposed basement is likely to have a negligible impact on the groundwater regime in the vicinity of the site. No significant change in groundwater pressures around the site perimeter is anticipated in the long-term condition, and therefore significant ground movements / settlement due to changing groundwater levels are not expected to occur either.

Plate 1. Anticipated groundwater flow post-construction of the proposed redevelopment (blue: potential groundwater path; red: indicative site boundary for The Network Building)



7.3 Impact on Adjacent Properties & Infrastructure

Based on structural information available as part of the PBIA for scheme RM01[19], there is one single storey basement within the immediate vicinity of the site to the north under "The Qube". It is understood that the formation level of The Qube's existing basement is at approximately +24.36mOD[8]; however, it steps down to a lower formation level that is unknown at the time of writing the report.

Any potential rise in groundwater level due to the proposed development basement and corresponding impact on adjacent properties or infrastructure is considered to be negligible given the size and orientation of the basement in relation to the regional groundwater flow direction and high permeability of the granular soils in which the water flows above the surface of the impermeable London Clay.

[19] *CGL (November 2020). The Network Building – Preliminary Basement Impact Assessment. Ref. CGL/09528.*

8. LAND STABILITY

8.1 Introduction

This section provides details of calculations undertaken to determine potential ground movements that may result from the proposed enabling, excavation and construction works for the proposed basement and to assess how the associated ground movement mechanisms may potentially affect adjacent buildings and roads.

A ground movement assessment has been undertaken using OASYS Limited PDISP (Pressure Induced DISPlacement) analysis software to compute vertical ground movements and WALLAP (pseudo-FE retaining wall analysis software) to compute potential horizontal ground movements for the secant wall line. The aim of the Ground Movement Assessment is to determine the potential impact of the proposed redevelopment on the surrounding party wall building and adjacent highways.

Proposed development drawings provided by the Structural Engineer are provided in Appendix A.

8.2 Assumed Basement Construction Methodology

The existing building with a reduced single basement is expected to be demolished and the existing basement footprint subsequently infilled to form a consistent piling platform level across the site at +27.00mOD. Surrounding pavement areas at some +28.00mOD are anticipated to be back propped against the basement wall to limit potential movements to acceptable values.

For this preliminary assessment, a bottom-up methodology is to be adopted. The proposed basement construction sequence comprises installation of a perimeter secant piled wall followed by localised excavation of up to 1m to enable the construction of the capping beam and corbels as required to subsequently install a high-level temporary propping frame. Excavation will then commence to B1 formation level at +20.86mOD. Once the B1 level raft has been cast, the substructure will be built up to ground floor slab level, following which the high-level temporary prop will be removed.

It should be noted that AKTII[6] shows two levels of temporary propping in the indicative construction sequence sketches provided. However, to be conservative, CGL has modelled a single high-temporary prop and has found the predicted movements affecting the critical neighbouring buildings and roads to be acceptable. Once the final scheme is fully confirmed and the second phase of the site investigation is completed, the final basement construction methodology will be determined and if this varies from the one assumed in the current preliminary report, then the analysis and the impact assessments should be reviewed.

8.3 Potential Ground Movement Mechanisms

The following construction processes and effects are likely to give rise to ground movements, the impacts of which will be assessed in this report:

- ***Enabling Works:*** This comprises the demolition of the existing building and the infilling of the existing basement up to +27.00mOD to form the piling platform. This is likely to generate vertical ground movements. In areas where net unloading takes place, heave movements will govern; otherwise, in areas where net loading occurs, settlements are anticipated.

- ***Installation of the secant piled wall:*** This is likely to generate lateral and vertical ground movements proportional to the embedded length of the piles. It is understood that that the secant pile wall will be installed to sustain lateral loads in the temporary and permanent conditions.

- ***Excavation of the proposed basement:*** The London Clay is susceptible to short term heave and time dependant swelling on unloading, which will occur as a result of basement excavation, generating upward ground movements.

- ***Deflection of the piled wall:*** Deflections occur as the excavation sequence proceeds and the piled wall is loaded with retained earth and water pressures, which can give rise to lateral and vertical ground movements in both the temporary and permanent condition.

- ***Ground Movements due to application of structural loads:*** The net load applied to the soil across the raft foundation is likely to generate settlement around the excavation and is the net difference between the structural loads of the new building offset by the unload due to the basement dig.

- ***Long* term ground movements:** The net loading on formation soils will generate ground movement in the long-term permanent condition.

8.4 Ground Movements Arising from Secant Piled Wall Installation

Lateral ground movements and settlements are generated during the stages of installation of the piled wall. Guidance provided by CIRIA C760[20] suggests that worst-case horizontal movements and settlements due to installation of the concrete secant pile wall in stiff soil can be assumed to be equal to 0.08% and 0.05% of the pile length, respectively. The influence of the installation movements at

[20] *CIRIA C760: Guidance on Embedded Retaining Wall Design.*

ground level extends beyond the wall to a distance of 2 and 1.5 times the installation depth for vertical and horizontal ground movements, respectively, which is assumed to dissipate parabolically with distance from the wall.

Background studies[21] on the effects of piled wall installations within the London area indicate that movements due to secant piled wall can be overpredicted following CIRIA´s guidance, particularly where a 'hit and miss' piling methodology is adopted alongside good construction control. Therefore, the selection of a moderately conservative estimate of pile installation movements as opposed to worst case is considered appropriate and consequently, horizontal and vertical movements due to installation of the concrete secant piled wall have been assumed to be equal to 0.02%.

The secant wall is not designed to be load bearing and it is anticipated to only support lateral loads in both the temporary and permanent conditions. Therefore, the toe level is mainly governed by water cut-off and rotational stability requirements. To enable the water tightness of the proposed basement, it is recommended that the secant pile wall is toed at least 2m in the London Clay Formation and even deeper, if required, for stability purposes. This is discussed in detail in Section 8.5.

Table 7 below summarises anticipated ground movements at the wall arising due to installation of the piled wall at ground surface.

Table 7. Summary of Installation Movements from CIRIA C760

Section	*Pile Toe (mOD)*	*Pile Length (m)*	*Max vertical ground movements due to pile installation (mm)*	*Max horizontal ground movements due to pile installation (mm)*
Critical Sections 1, 2 & 3	+14.50[a]	12.50[b]	~2.5[c]	~2.5[c]
Critical Sections 4	+14.50[a]	12.50[b]	~2[d]	~2[d]

Notes:

a. Preliminary wall stability check has indicated this pile toe level. To be refined once supplementary site investigation is completed.
b. Based on a ground level of +27.00mOD and limited to +14.50mOD by the proposed Crossrail 2 works.
c. Vertical and Horizontal movements at the wall at ground level.
d. Vertical and Horizontal movements at the Qube, assuming the depth of "The Qube" is some 2.6mbgl.

8.5 Ground Movements Arising from Wall Deflection

Lateral ground movements and settlements are generated during the stages of excavation in front of the secant piled wall. Lateral ground movements due to excavation have been calculated using the commercial software WALLAP. Maximum ground settlement behind the wall is expected to be half the maximum horizontal wall deflection based on analysis reported in CIRIA C760[20].

[21] *Prediction of party wall movements using CIRIA Report C580. R. Ball, N. Langdon, M. Creighton (2014).*

8.5.1 WALLAP Assumptions

The WALLAP analysis has been undertaken based on the general assumptions as described below:

- Serviceability limit state (SLS) criteria have been used to determine wall deflections.
- The design of the secant piled wall is governed by stability and not axial capacity requirements. Hence, the toe level is taken at +14.50mOD for all design sections CS1 to CS4.
- For the short-term analysis, undrained parameters have been used for the London Clay Formation. Drained parameters have been adopted in the long-term permanent condition analysis.
- As recommended in CIRIA 760[20], for a non-load bearing retaining wall, a wall friction coefficient of 0.5 and 0 has been used in the short- and long-term for the London Clay Formation. However, a wall friction coefficient of 1 has been used for the Lynch Hill Gravels and the Made Ground both in the short- and in the long-term.
- An accidental over dig of 500mm has been allowed for in the ULS condition.
- Secant piled wall to be sufficiently propped during basement excavation to limit wall deflections. To be conservative, and for the purpose of this preliminary report, a single high-level temporary prop (+27.80mOD) has been assumed within the model.
- Groundwater is assumed to be within the Lynch Hill Gravel horizon at a design water level of +23.62mOD with hydrostatic pore water pressure profile being applied at this depth within the model;
- A permanent 0.325m thick ground floor slab[22] and a permanent 1.5m thick B1 raft slab[7] have been modelled with a long-term concrete Young's Modulus of 15GPa;
- Hard/Firm secant pile wall with male piles of 600mm diameter at 800mm spacing have been modelled with an initial moment of inertia of 0.00795m^4/m (I_{gross}) and EI per unit length of wall 222660kN/m^2/m. In accordance with recommendations in CIRIA 760[20], the following cracked section moduli have been adopted over the lifetime of the wall:
    - Construction stage – Cracked Section Modulus = 0.7 x EI_{gross}
    - Long-term – Cracked Section Modulus = 0.5 x EI_{gross}

[22] *AKTII Ltd (December 2020). Ground Floor General Arrangement. Ref. 4921-AKT-XX-GF-DR-S-100. Rev. P03*

Table 8. Secant Piled Wall Properties Summary

Secant Piled Wall	Second moment of area, Igross (m4/m run)	Young Modulus EC (kN/m2)	Stiffness EIgross (kNm2/m run)	Stiffness EIgross (kNm2/m run) Construction Stage	Stiffness EIgross (kNm2/m run) Long-Term stage
600mm at 800mm c/c	0.00795	$2.8x10^7$	$2.226x10^5$	$1.558x10^5$	$1.113x10^5$

Assumed surcharge pressures for the critical sections are detailed in Table 9 below.

Table 9. ***Summary of Assumed Surcharge Pressures***

Sections	Description	Unfactored Load (kN/m^2) (- Unload) (+ Load) [Assumed Footing Depth]
CS1, CS2 & CS3	Pavement surcharge of 5kPa, located 0.10m from proposed secant piled wall line.	+5kPa [0.0mbgl; +27.00mOD]
CS1, CS2 & CS3	Roadway surcharge of 20kPa, located 5.10m from proposed secant piled wall line.	+20kPa [0.0mbgl; +27.00mOD]
CS4[a]	Footing of the neighbouring The Qube (six-storey & single basement), located at 0.5m from the northern secant piled wall line.	+105kPa (footprint pressure) [+2.5mbgl; +24.36mOD][8]

Notes:

a. This is modelled as a 1m wide footing strip supporting a line load of 105kPa assuming 15kPa/storey.

The temporary propping frame properties are conservatively assumed based on information from relevant CGL's experience of similar works. Strut properties for B1 and GF slabs, however, are in line with structural information provided by AKTII Ltd[7,22].

The following temporary and permanent strut properties have been adopted.

Table 10. Summary of temporary and permanent strut properties[c]

Struts	Strut elevation [mOD]	Strut Spacing [m]	X-section area of strut [m2]	Young Modulus [kN/m2]	Free Length [m]	Strut inclination [°]
High Temp. Prop	+27.80	1	1	40000[a]	1	0
Proposed B1 raft[b]	+21.61	1	1.5	$1.5 x10^7$	25[d]	0
Proposed GF slab[b]	+27.40	1	0.325	$1.5 x10^7$	25[d]	0

Notes:

a. WALLAP assumes that struts provide an elastic support with a spring constant per unit length of the wall. A typical conventional industry standard value (and CGL experience of similar works) has been assumed for the temporary prop in absence of further information, keeping the rest of the properties equal to 1.
b. Proposed B1 ad GF slabs have been assumed based on structural information provided by AKTII.
c. The pertinent results (displacements) from the preliminary analysis are not particularly sensitive to the typical values adopted.
d. Assumed half of the basement width.

The following construction sequence has been assumed:

1. Apply surcharge loading (highways and party wall – if applicable);
2. Install secant piled retaining wall from PPL at ~27mOD;
3. Reduce wall stiffness to 70% short-term stiffness (EI_{70});
4. Excavate to +26.00mOD to enable capping beam and corbel construction;
5. Install high level temporary propping frame at +27.80mOD;
6. Excavate on passive side of wall to proposed B1 formation level (+20.86mOD) and install B1 raft slab (centreline of the 1500mm thick raft at +21.61mOD);
7. Install proposed ground floor slab (centre line of the 325mm thick slab at +27.40mOD);
8. Remove high temporary prop at +27.80mOD;
9. Reduce wall stiffness to 50% short-term stiffness (EI_{50}); and,
10. Apply long-term ground and groundwater conditions.

8.5.2 WALLAP Results

Values for the maximum displacements of the wall and the corresponding horizontal deflections anticipated for CS1 to CS4, considering the combined effect of the installation of the piled wall and its deflection due to the proposed excavation works, are summarised in Table 11 below. Maximum ground settlement behind the wall is expected to be half the maximum horizontal wall deflection based on analyses reported in CIRIA C760[20].

A summary of the WALLAP analysis is summarised in Table 11 below and is described in detail in Appendix C.

Table 11. Combined Pile Wall Installation & Deflection Movements from WALLAP

Critical Section	*Maximum SLS Pile Wall Deflection (mm)*	*Level of Maximum Deflection (mOD)*	*Horizontal deflection at the start of adjacent structure inclusive of pile install movements (mm)* [a]	*Vertical settlement at the start of the adjacent structure inclusive of pile install movements (mm)* [a]
CS1 – Tottenham Court Road	9	+23.62	~11.50[b]	~11.50[b]
CS2 – Howland Street				
CS3 – Whitfield Street				
CS4 – The Qube	9	+24.36	~11[c]	~6[c]

Notes:

a. Horizontal deflections and vertical movements have been computed based on maximum deflections predicted in WALLAP, which is considered to be conservative.
b. Assumed at 0m behind the proposed secant piled wall.
c. Assumed at 0.5m behind the proposed secant piled wall.

Regarding the predicted wall displacements that may be expected during excavation, it should be noted that WALLAP uses a Winkler Spring analysis to determine the wall displacements. In a Winkler medium, springs are used to represent a continuum and there is no transfer of shear stresses between

the springs. In general, the application of this concept leads to an overestimation of structural deformations and consequently, ground movements.

8.6 Ground Movements due to demolition, excavation & construction

8.6.1 Introduction

The analysis has been undertaken using OASYS Limited PDISP (Pressure Induced DISPlacement) software to model potential vertical displacements induced by the enabling works (demolition and backfilling), basement excavation and applied new structural loading associated with the proposed development. PDISP assumes that the ground behaves as an elastic material under loading, with movements calculated based on the applied loads (kPa), soil stiffness (E' and E_u) and Poisson's Ratio (v' and v_u) for each soil stratum. The rigid boundary in the analysis has been taken at -10.00mOD, approximately 30m below the formation level of the proposed basement raft.

The following analysis stages have been analysed:

1. **Enabling Works** (including demolition of existing building and infilling of the existing basement) – short-term condition (undrained analysis)
2. **Enabling Works & Excavation** – short-term condition (undrained analysis)
3. **Enabling Works, Excavation & Construction** – short-term condition (undrained analysis)
4. **Enabling Works, Excavation & Construction** – long-term net loading condition (drained analysis)

The analysis stages outlined above have been considered for the calculation of vertical (z-axis) movements for the CS1 to CS4 defined in Section 2.4. Displacements for the different analysis stages have been calculated based on anticipated demolition works, proposed excavation and construction loads, discussed in the following section 8.6.2.

8.6.2 Loading Assessment

The existing loading has been carried forward from the Preliminary Basement Impact Assessment undertaken by CGL for the RM01 scheme[19]. The proposed structural loading information has been provided by AKTII[23] and is presented in Appendix B. Table 12 summarises the net loading/unloading pressures adopted to account for the proposed enabling works that would take place prior to the excavation of the proposed basement. These enabling works would include the demolition of the existing building and the subsequent infilling of the existing basement.

Ten distinct areas have been defined based on the current information of the existing building presented in Preliminary Basement Impact Assessment for the RM01 scheme and are displayed in

[23] *AKTII (March 2021). Network Building Lab Scheme – Raft Loading. Ref. 4921-S-HSK-002. Rev. P01*

Figure 5. These pressures have been estimated assuming an existing basement formation level of +24.92mOD, a post-enabling works ground level of +27.00mOD and a soil bulk unit weight of 20kN/m^3.

Table 12. Summary of Unloading Conditions due to the Enabling Works

Demolition Areas	*Formation Level (mOD)*	*Existing Building Demolition Unload (kPa)[h]*	*Existing Basement Infilling Load (kPa)[h]*	*Net Load (kPa)[h]*
Enabling Works 1.1[a]	+24.92[g]	-23.00	41.6	18.6
Enabling Works 1.2[a]	+24.92[g]	-23.00	41.6	18.6
Enabling Works 2[b]	+24.92[g]	-30.00	41.60	11.60
Enabling Works 3[c]	+24.92[g]	-41.00	41.60	0.60
Enabling Works 4[d]	+24.92[g]	-53.00	41.60	-11.40
Enabling Works 5.1[e]	+27.00	-52.00	0.00	-52.00
Enabling Works 5.2[e]	+27.00	-52.00	0.00	-52.00
Enabling Works 5.3[e]	+27.00	-52.00	0.00	-52.00
Enabling Works 6.1[f]	+24.92[g]	-60.00	41.60	-18.40
Enabling Works 6.2[f]	+24.92[g]	-60.00	41.60	-18.40

Notes:

a. This corresponds to the demolition of one existing storey and the demolition and infilling of a single basement level.
b. This corresponds to the demolition of two existing storeys and the demolition and infilling of a single basement level.
c. This corresponds to the demolition of four existing storeys and the demolition and infilling of a single basement level.
d. This corresponds to the demolition of five existing storeys and the demolition and infilling of a single basement level.
e. This corresponds to the demolition of six existing storeys.
f. This corresponds to the demolition of six existing storeys and the demolition and infilling of a single basement level.
g. Based on the SSL of the existing B1 being +25.17mOD and the thickness of the B1 slab being 250mm[4]
h. -ve indicates unloading/+ve indicates loading

Table 13 below summarises the unloading pressures adopted to account for the proposed single-level basement excavation. These have been derived based on a post-enabling works ground level of +27.00mOD, a soil bulk unit weight of 20 kN/m^3 and a proposed formation level of +20.86mOD. These excavation unloads have been adopted as a conservative and rationalised assumption to suit appropriate input into our analysis models. The plan extent of the unloading areas due to the proposed excavation works is illustrated in Figure 6.

Table 13. Summary of Unloading Conditions due to Excavation

Basement Area	*Post-demolition ground level (mOD)*	*Proposed Excavation Level (mOD)*	*Excavation Load (kPa)[a,b]*
EXC1 EXC2	+27.00	+20.86	-123
EXC3[c]		+19.86[c]	-143

Notes:

a. Negative values indicate unloading.

b. The unit weight of the gravels is assumed to be 19 kN/m³ while the adopted unit weight of the London Clay is 21 kN/m³. Since both materials will be excavated, an average of 20 kN/m³ has been used to calculate the excavation unloads for simplicity.
c. An additional 1m excavation has been assumed for the core area.

For this preliminary assessment, the unfactored structural loads provided by AKTII[23] are assumed to be supported by a raft foundation. It is understood that the sum of the column and core wall loads to be supported on the ground bearing B1 raft slab have been evenly distributed over two major loading zones (divided into three distinct areas). The proposed loading areas, the modelled formation level and the proposed construction load pressures are outlined in Table 14 below and illustrated in Figure 7.

Table 14. Summary of the Proposed B1 Raft Net Loading Condition

Loading Area	*Formation Level (mOD)*	*Excavation Unload (kPa)*	*Construction Load (kPa)*	*Net Load (kPa)*
C1 C2	+20.86	-123	165	42
C3	+19.86	-143	180	37

8.7 Ground Movement Assessment Methodology

The soils at existing building ground formation level will be subject to either heave or settlement depending on whether net loading/unloading occurs due to the enabling works. Soils at proposed basement raft foundation level will be subject to stress relief during excavation to proposed B1 formation, followed by an increase in load associated with the proposed building superstructure development and raft loading.

A serviceability limit state (SLS) analysis has been undertaken for the stages defined in Section 8.6.1, using geotechnical soil parameters outlined in Table 6. Displacement lines have been added to the analysis model corresponding to the line and level of the critical sections outlined in Section 2.4. The analysis output is discussed separately for each GMA stage in the following sections below.

The PDISP output in Appendix D.

8.8 Ground Movements Arising from Enabling Works & Excavation

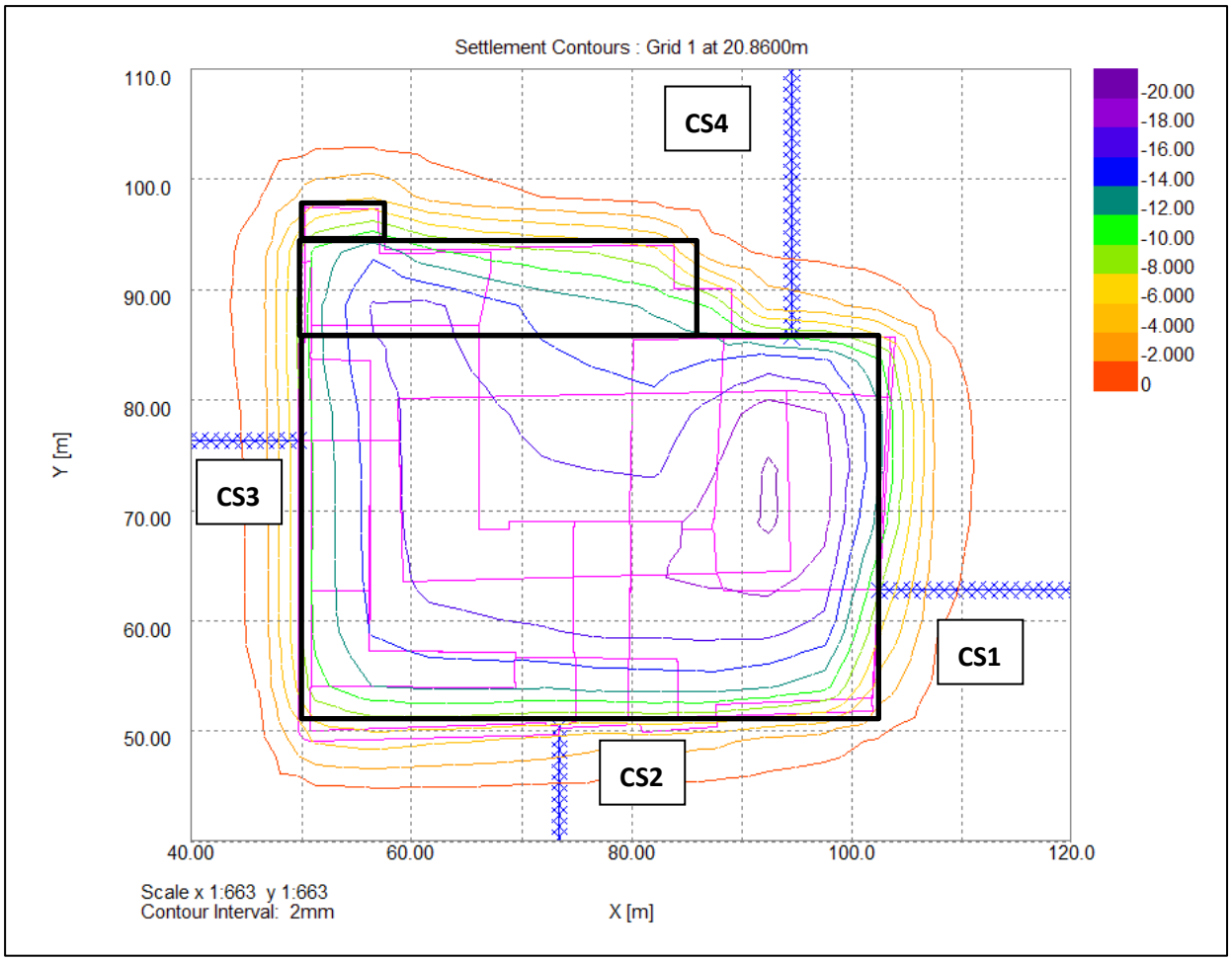
A short-term vertical ground movement assessment has been undertaken to assess heave due to excavation unloading inclusive of the enabling works, applying undrained (short-term) geotechnical soil parameters.

Results of the analysis predict a maximum short-term heave of approximately 18mm to 20mm at the central single level basement raft area at a formation level of +20.86mOD. This maximum heave reduces to approximately 10.0mm to 12.0mm of heave along the entire perimeter of the proposed basement.

Vertical ground movements due to demolition and excavation reduce to negligible movements <1mm at distances of approximately 5m west and south of the basement perimeter and approximately 7m east and north of the basement perimeter.

A vertical ground movement contour plot illustrating short-term heave movements due to total unloading, inclusive of demolition and excavation unloading, is presented in Plate 1 below.

Plate 1. Vertical Ground Movement Plot – Excavation & Demolition Short-term (Black: indicative raft layout, Blue: indicative critical sections)



8.9 Ground Movements Arising from Construction

A degree of settlement is anticipated to occur due to the application of proposed structural loads within the proposed raft structure. This net loading effect is assessed in both the short term and long-term case at the proposed raft formation level of +20.86mOD, using undrained and drained soil parameters, respectively.

8.9.1 Ground Movements Arising from Net Loading– Short-Term

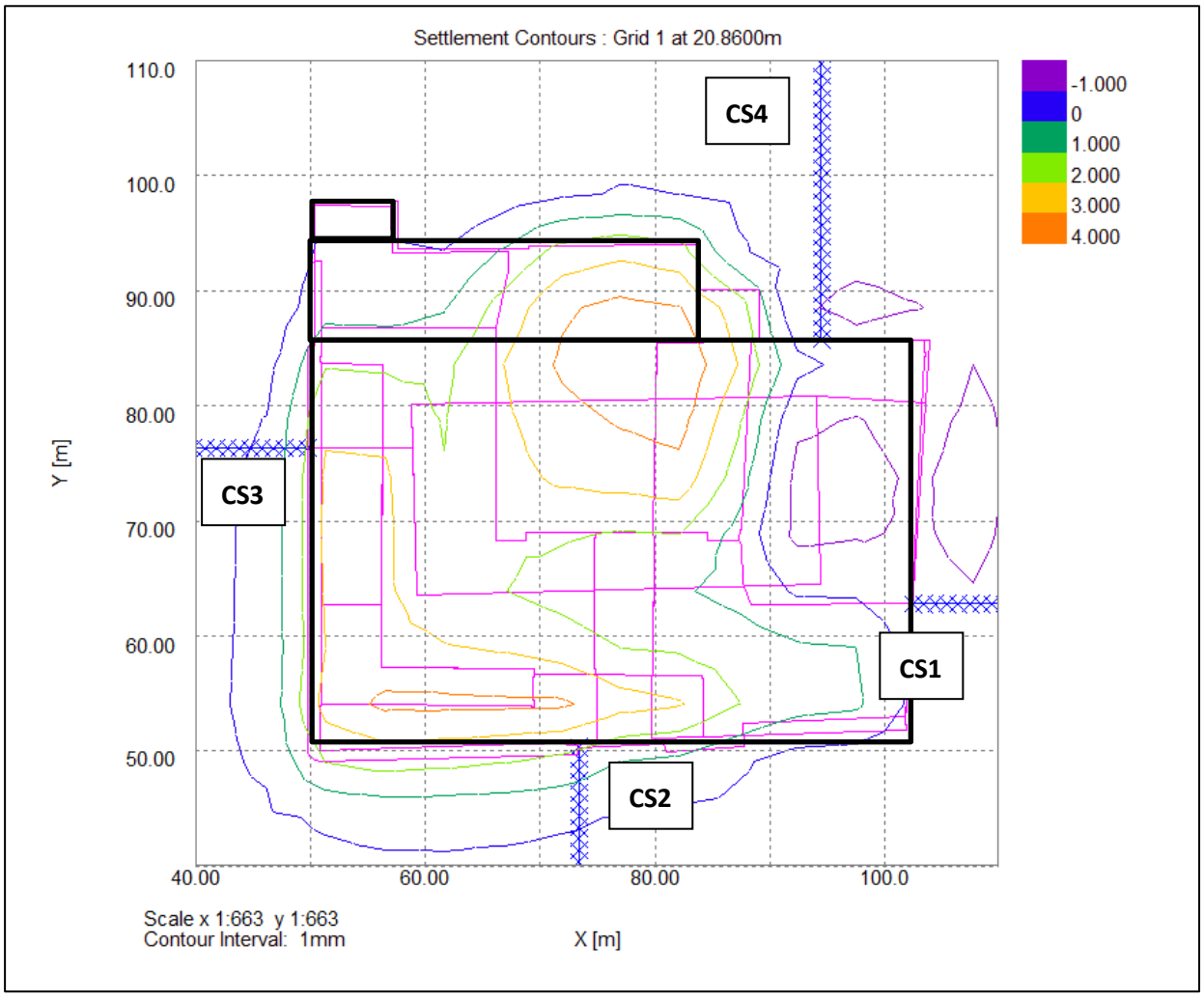
Maximum short-term settlement due to net loading is mainly identified over the south-western and north-central raft areas and it is anticipated to be approximately 3mm to 4mm of settlement. A value

between 1mm to 2mm of short-term settlement due to net loading is present in the remaining north-western and south-central raft areas. A slight heave of 1mm is anticipated mainly along the eastern boundary of the proposed raft.

Vertical ground movements due to net loading reduce to negligible movements <1mm at distances of approximately 5m of the proposed basement.

A vertical ground movement contour plot illustrating resulting short-term vertical movements due to net loading (including demolition, excavation and proposed raft loading) at the proposed formation level of +20.86mOD is illustrated in Plate 2.

Plate 2. Vertical Ground Movement Plot – Demolition, Excavation & Loading Short-Term (Black: indicative raft layout, Blue: indicative critical sections)



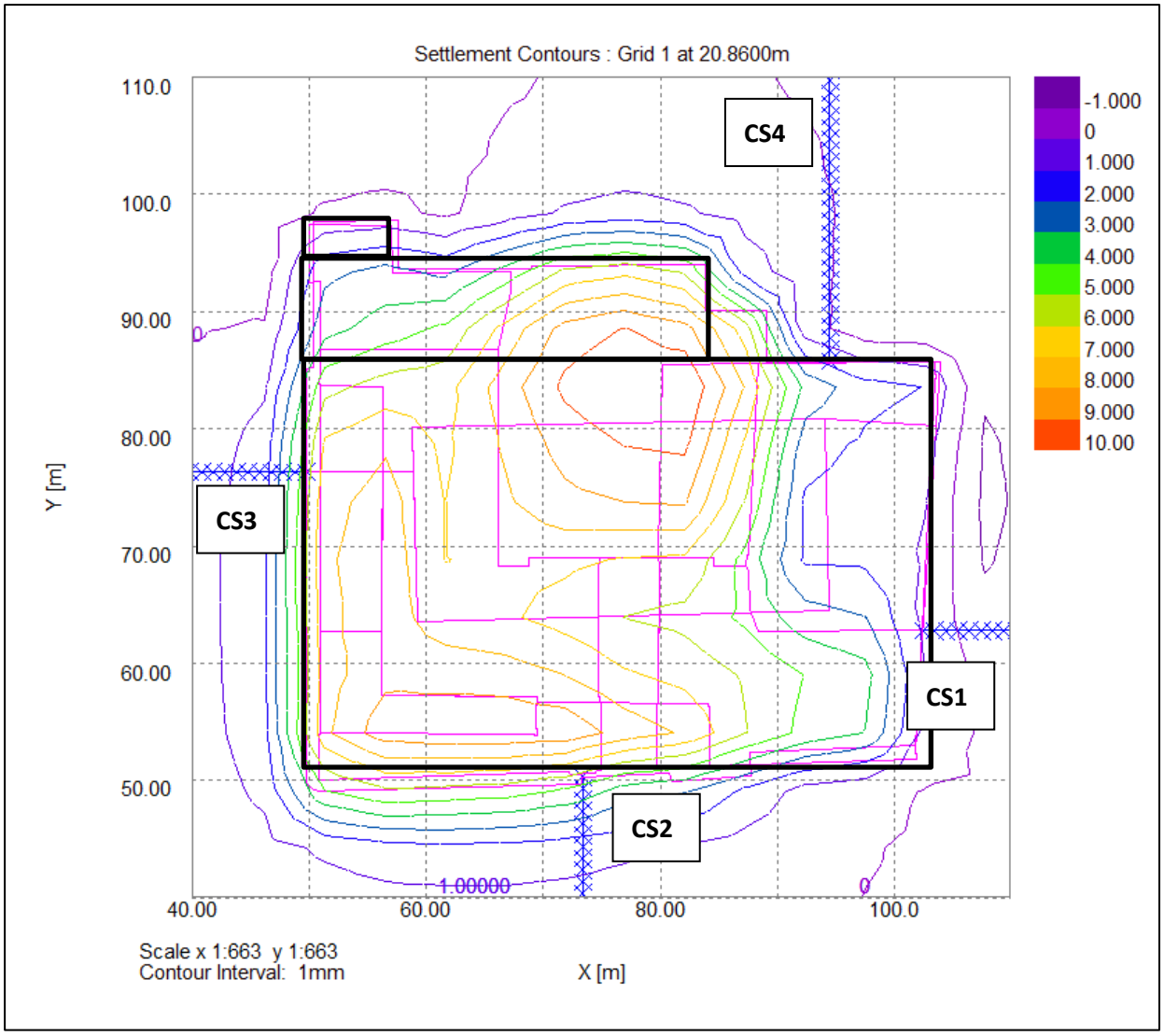
8.9.2 Ground Movements Arising from Net Loading – Long-Term

Maximum long-term total movement due to net loading is located in the central and western raft areas and it is anticipated to be approximately 8mm to 10mm settlement at +20.86mOD. A value between 2mm to 7mm of long-term settlement due to net loading is present in the remaining raft areas. Vertical

movements reduce to very minor settlement or heave movements within 1mm along the perimeter of the proposed raft.

A vertical ground movement contour plot illustrating resulting long-term vertical movements due to net loading (including demolition, excavation and proposed loading) at the proposed raft formation level of +20.86mOD is illustrated in Plate 3 below.

Plate 3. Vertical Ground Movement Plot – Demolition, Excavation & Loading Long-Term (Black: indicative raft layout, Blue: indicative critical sections)



9. BUILDING DAMAGE ASSESSMENT

9.1 Introduction

The calculated ground movements have been used to assess potential 'damage categories' that may apply to neighbouring properties due to the proposed basement construction and assumed construction sequence. The methodology proposed by Burland and Wroth[24] and later supplemented by the work of Boscardin and Cording[25] has been used, as described in CIRIA Special Publication 200[26] and CIRIA C76020. General damage categories are summarised in Table 15 below:

Table 15. Classification of Damage Visible to Walls (Reproduction of Table 2.5, CIRIA C760[20])

Category	*Description*
0 (Negligible)	Negligible – hairline cracks.
1 (Very Slight)	Fine cracks that can easily be treated during normal decoration (crack width <1mm).
2 (Slight)	Cracks easily filled, redecoration probably required. Some repointing may be required externally (crack width <5mm).
3 (Moderate)	The cracks require some opening up and can be patched by a mason. Recurrent cracks can be masked by suitable linings. Repointing of external brickwork and possibly a small amount of brickwork to be replaced (crack width 5-15mm or a number of cracks > 3mm).
4 (Severe)	Extensive repair work involving breaking-out and replacing sections of walls, especially over doors and windows (crack width 15-25mm but also depends on number of cracks).
5 (Very Severe)	This requires a major repair involving partial or complete re-building (crack width usually >25mm but depends on number of cracks).

The above criteria are primarily relevant for assessing masonry structures founded on strip footings. The assessment assumes that the neighbouring properties are fully flexible and deform to follow the profile of the ground i.e. wall stiffness is ignored. These assumptions are considered to be conservative for the purpose of this assessment. According to Skempton and MacDonald (1956)[27], the differential movement criteria typical for limiting damage to structural elements is 1 in 500.

The resulting ground movements that may affect the critical neighbouring property are derived from the enabling works, installation of the secant piled wall, basement excavation works and resulting wall

[24] *Burland, J.B., and Wroth, C.P. (1974). Settlement of buildings and associated damage, State of the art review. Conf on Settlement of Structures, Cambridge, Pentech Press, London, pp611-654*
[25] *Boscardin, M.D., and Cording, E.G., (1989). Building response to excavation induced settlement. J Geotech Eng, ASCE, 115 (1); pp 1-21*
[26] *Burland, Standing J.R., and Jardine F.M. (eds) (2001), Building response to tunnelling, case studies from construction of the Jubilee Line Extension London, CIRIA Special Publication 200*
[27] *Skempton, A.W and MacDonald, D.H (1956). Allowable settlement of buildings. Proceedings of the Institute of Civil Engineers, 3, Vol. 5, pp 727-768.*

deflections and construction loads in the short and long-term condition. Wall installation and deflection movements were discussed in Sections 8.4 & 8.5, respectively. The remaining ground movements due to enabling works, excavation and construction works have been obtained from a PDisp analysis, based on anticipated enabling works and proposed excavation and construction loads, discussed in Sections 8.8 & 8.9 of this report.

To capture the ground movements affecting the critical assets in the vicinity, four displacement lines with 1 metre intervals, described in section 2.4 and presented in Figure 2, have been modelled. Adopted length, height and width of the critical neighbouring buildings/assets have been summarised in Table 1.

The resulting ground movement profiles have been used to calculate the deflection ratio and horizontal strain imposed on the structure. These have been plotted on the corresponding damage assessment interaction diagram to determine the Damage Category of the critical buildings.

9.2 Impact Assessment – Tottenham Court Road (CS1)

Combined vertical profiles at +27.00mOD for the road are presented in Plate 4 and horizontal movements due to installation and deflection of the secant wall are shown in Plate 5.

It can be observed that the worst-case movements at +27.00mOD are anticipated to occur over the excavation stage in the short-term condition. Approximately, 6mm of heave is expected below Tottenham Court Road at +27.00mOD whereas almost 2mm of settlement is expected on the opposite end of the road at the same level.

A maximum horizontal movement of almost 12mm and 0mm is anticipated under Tottenham Court Road at +27.00mOD, 0m and 20m away from the proposed basement, respectively. This accounts for horizontal ground movements induced by installation of the secant piled wall and the deflection of the wall due to the proposed excavation works.

These values are not expected to significantly affect the roadway and are considered to be within acceptable limits.

Plate 4. Cumulative Vertical Displacements – Tottenham Court Road

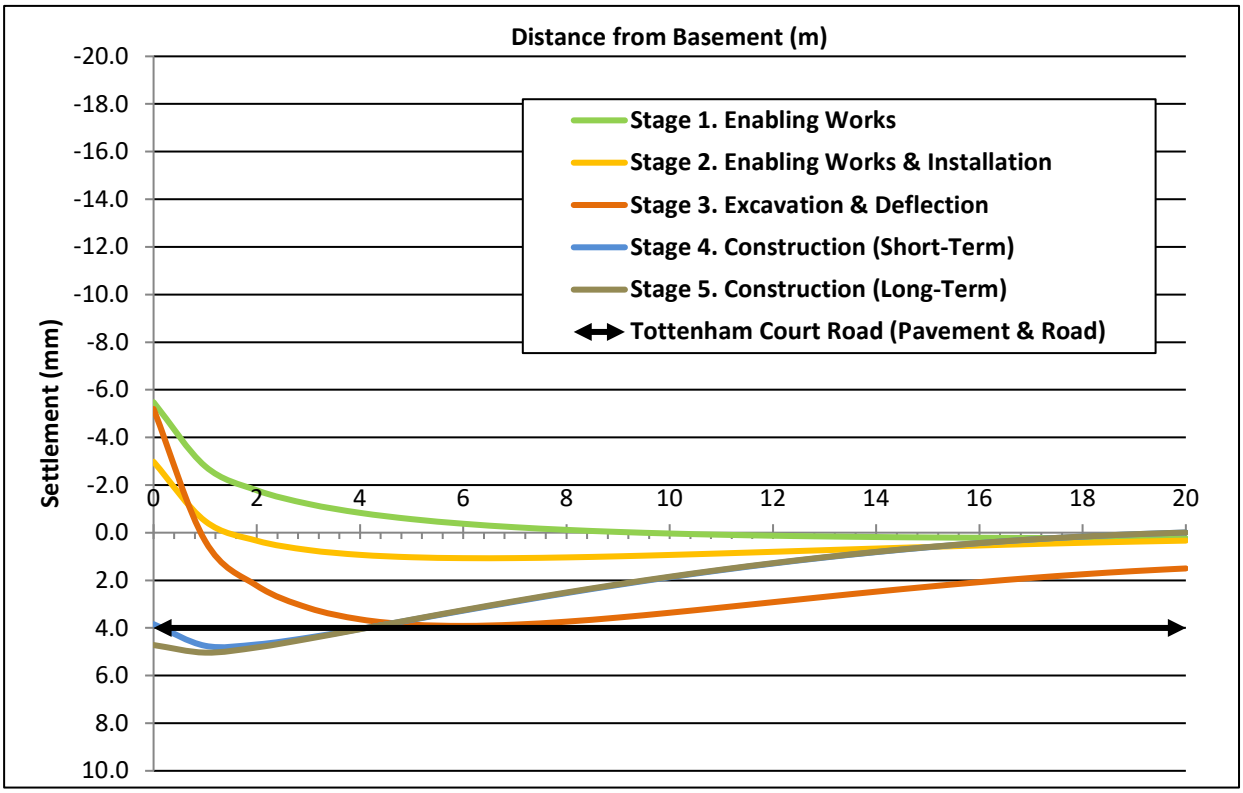
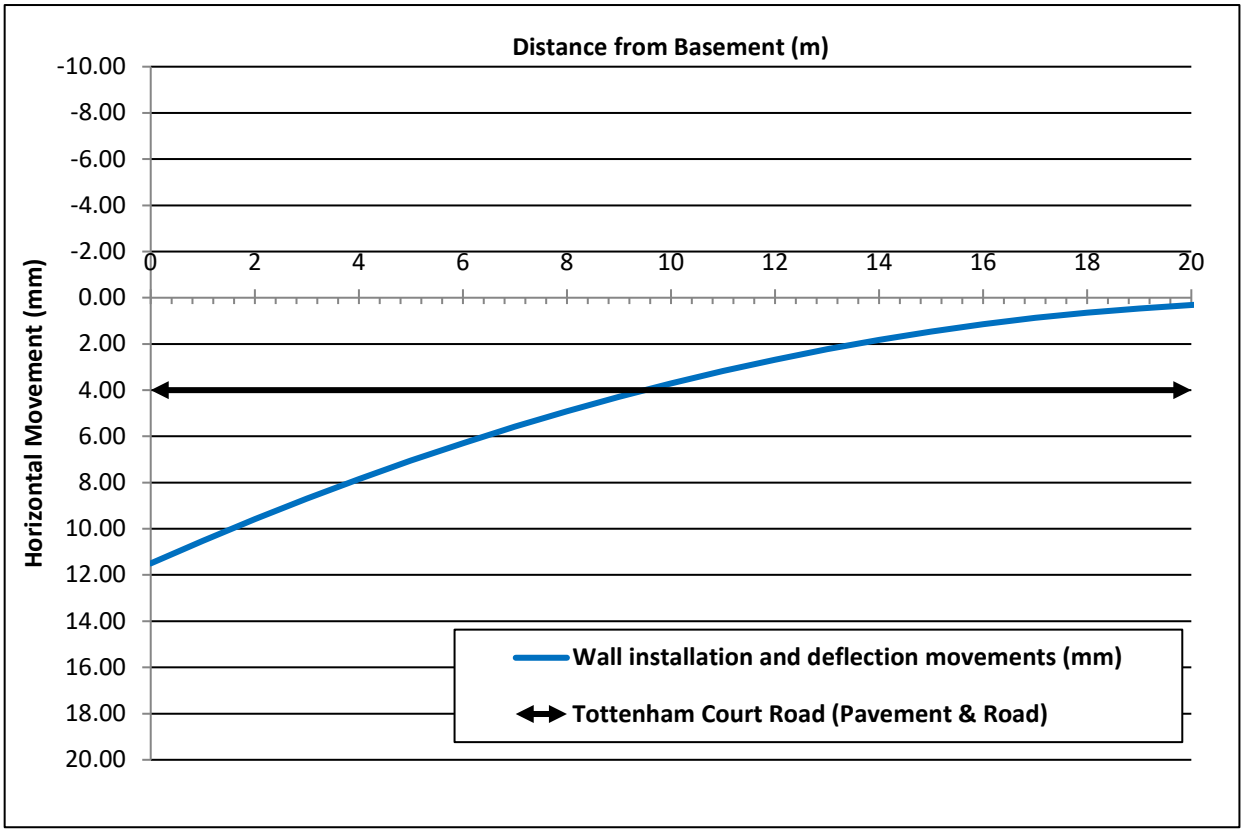


Plate 5. Cumulative Horizontal Displacements – Tottenham Court Road



9.3 Impact Assessment – Howland Street (CS2)

Combined vertical profiles at +27.00mOD for the road are presented in Plate 6 and horizontal movements due to installation and deflection of the secant wall are shown in Plate 7.

It can be observed that the worst-case movements at +27.00mOD are anticipated to occur over the construction stage in the long-term condition. Approximately, 14mm of settlement is expected below Howland Street at +27.00mOD whereas 1mm of settlement is expected on the opposite end of the road at the same level.

A maximum horizontal movement of almost 12mm and almost 1mm is anticipated under Howland Street at +27.00mOD, 0m and 15m away from the proposed basement, respectively. This accounts for horizontal ground movements induced by installation of the secant piled wall and the deflection of the wall due to the proposed excavation works.

These values are not expected to significantly affect the roadway and are considered to be within acceptable limits.

Plate 6. Cumulative Vertical Displacements – Howland Street

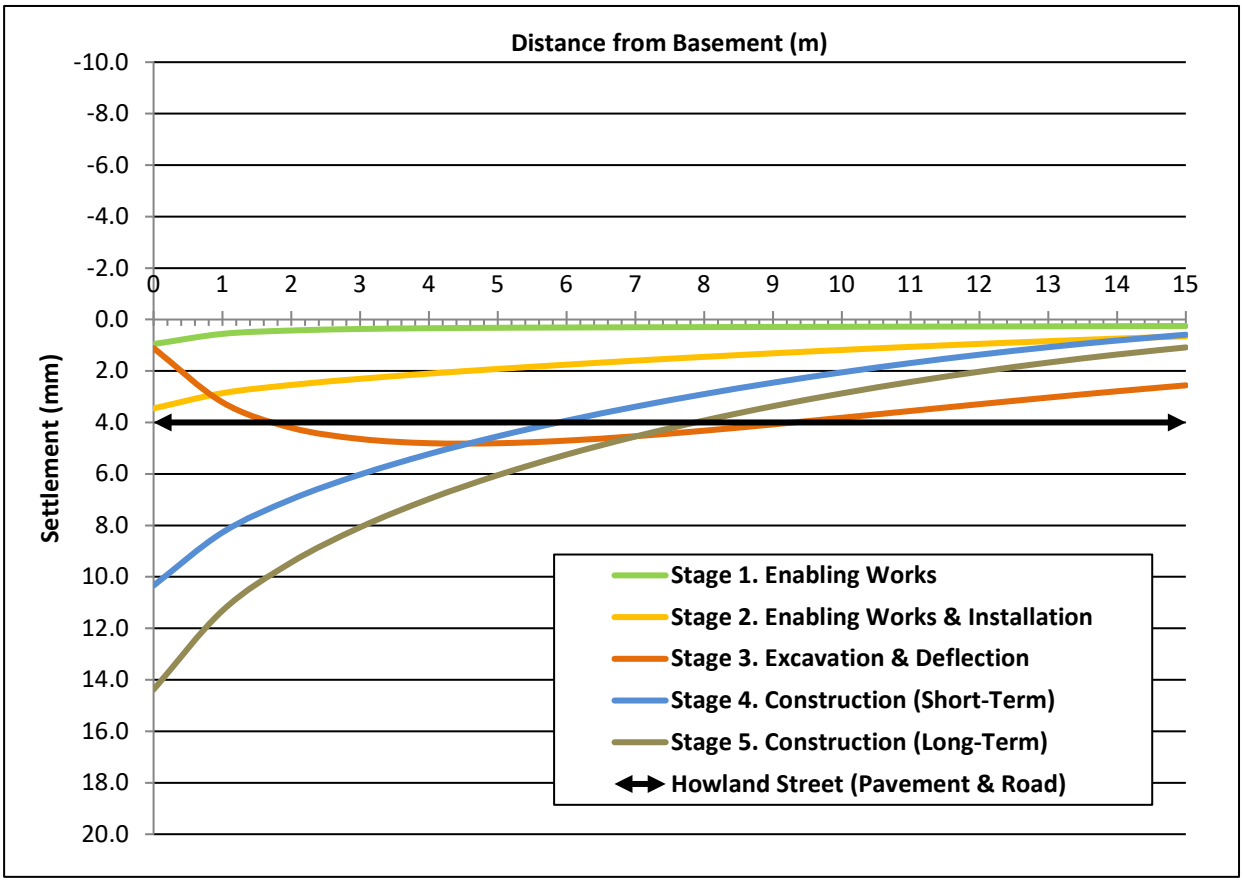
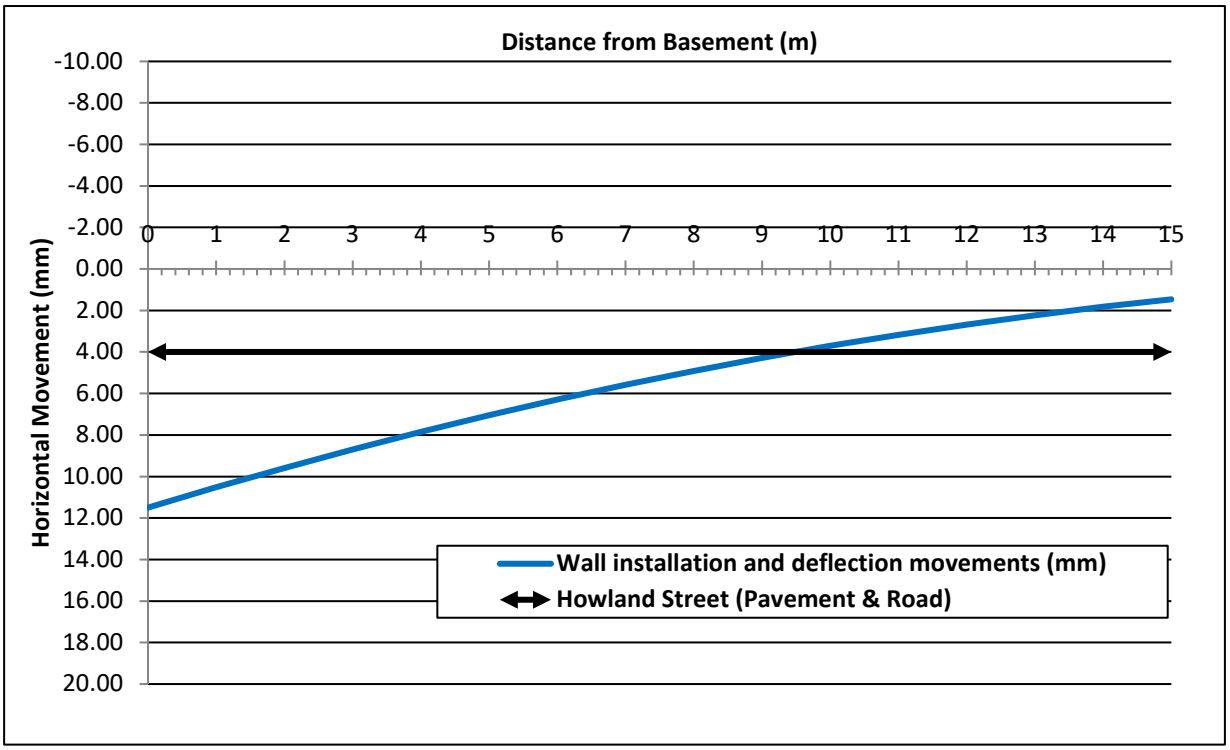


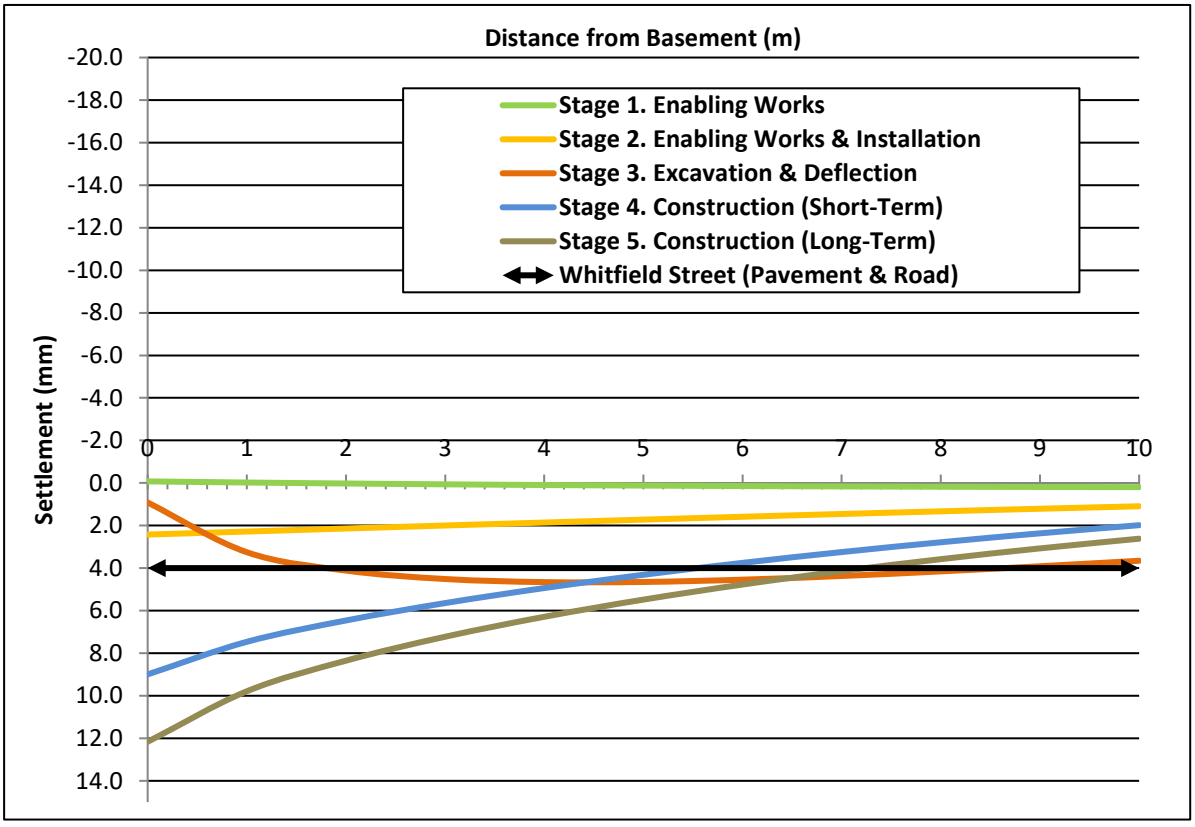
Plate 7. Cumulative Horizontal Displacements – Howland Street



9.4 Impact Assessment – Whitfield Street (CS3)

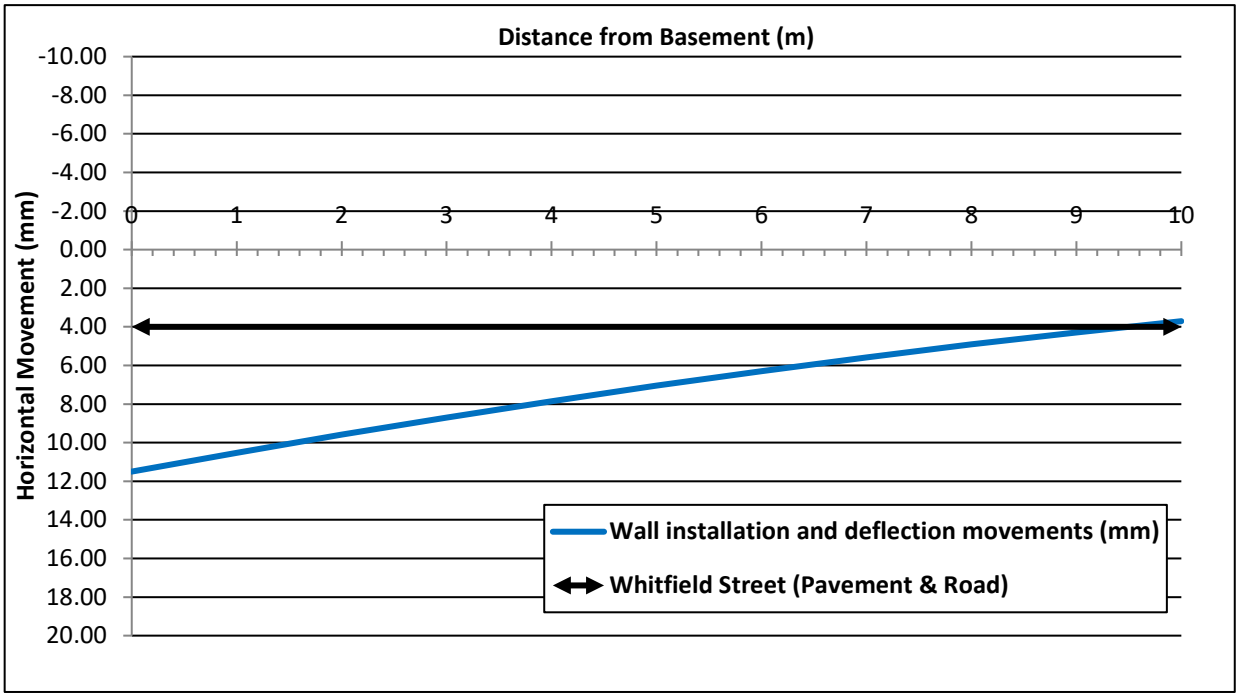
Combined vertical profiles at +27.00mOD for the road are presented in Plate 8 and horizontal movements due to installation and deflection of the secant wall are shown in Plate 9.

Plate 8. Cumulative Vertical Displacements – Whitfield Street



It can be observed that the worst-case movements at +27.00mOD are anticipated to occur over the construction stage in the long-term condition. Approximately, 12mm of settlement is expected below Whitfield Street at +27.00mOD whereas 3mm of settlement is expected on the opposite end of the road at the same level.

Plate 9. Cumulative Horizontal Displacements – Whitfield Street



A maximum horizontal movement of almost 12mm and 4mm is anticipated under Whitfield Street at +27.00mOD, 0m and 10m away from the proposed basement, respectively. This accounts for horizontal ground movements induced by installation of the secant piled wall and the deflection of the wall due to the proposed excavation works.

These values are not expected to significantly affect the roadway and are considered to be within acceptable limits.

9.5 Impact Assessment – The Qube (CS4)

Combined vertical profiles at foundation level are presented in Plate 10 and horizontal movements due to installation and deflection of the secant wall are shown in Plate *11*.

It can be observed that the worst-case vertical movements at foundation level are anticipated to occur over the excavation stage. Approximately, 5mm of heave is expected below “The Qube” at +24.36mOD 0.5m away from the proposed basement whereas almost no vertical displacement is expected on the opposite end of the building at the same level. A maximum deflection of 5.5mm that results in a deflection ratio of **0.022%** is anticipated over the length along which the vertical movements are maximum (0.5m and 25m away from the proposed basement).

Plate 10. Cumulative Vertical Displacements – The Qube

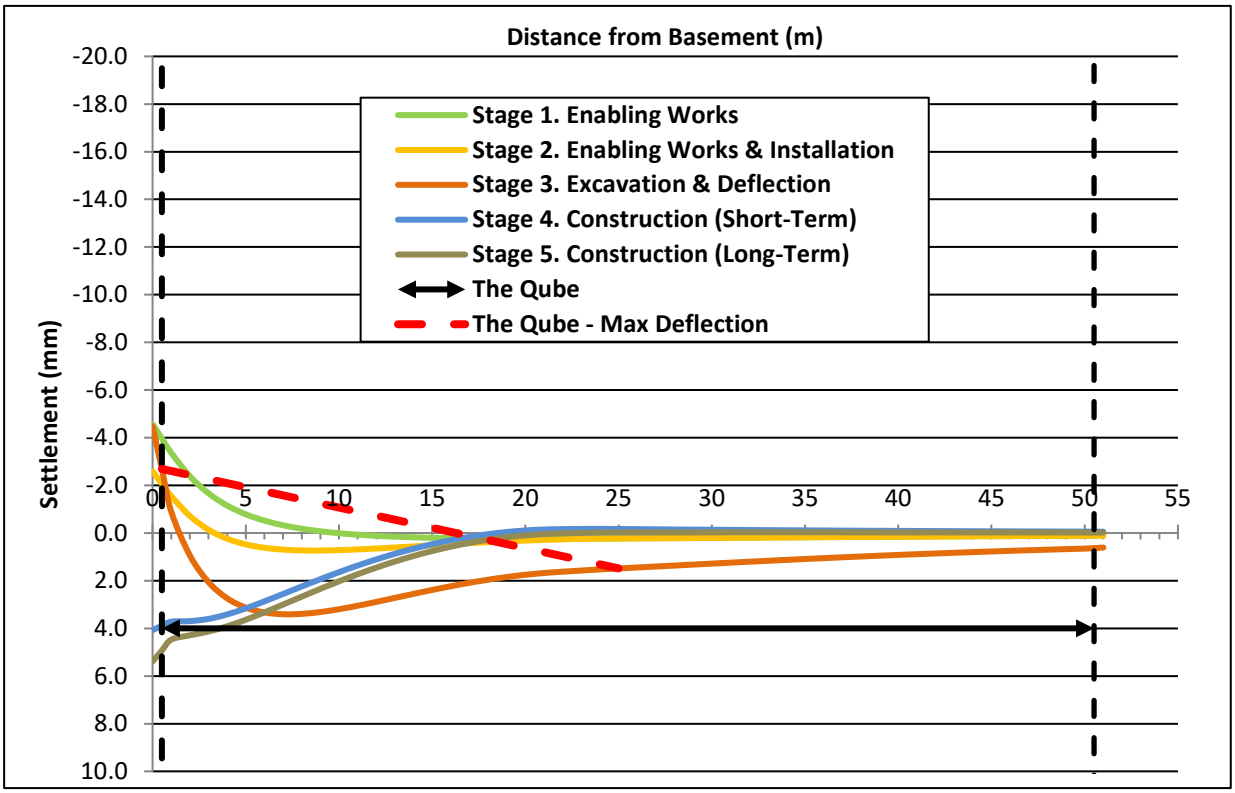
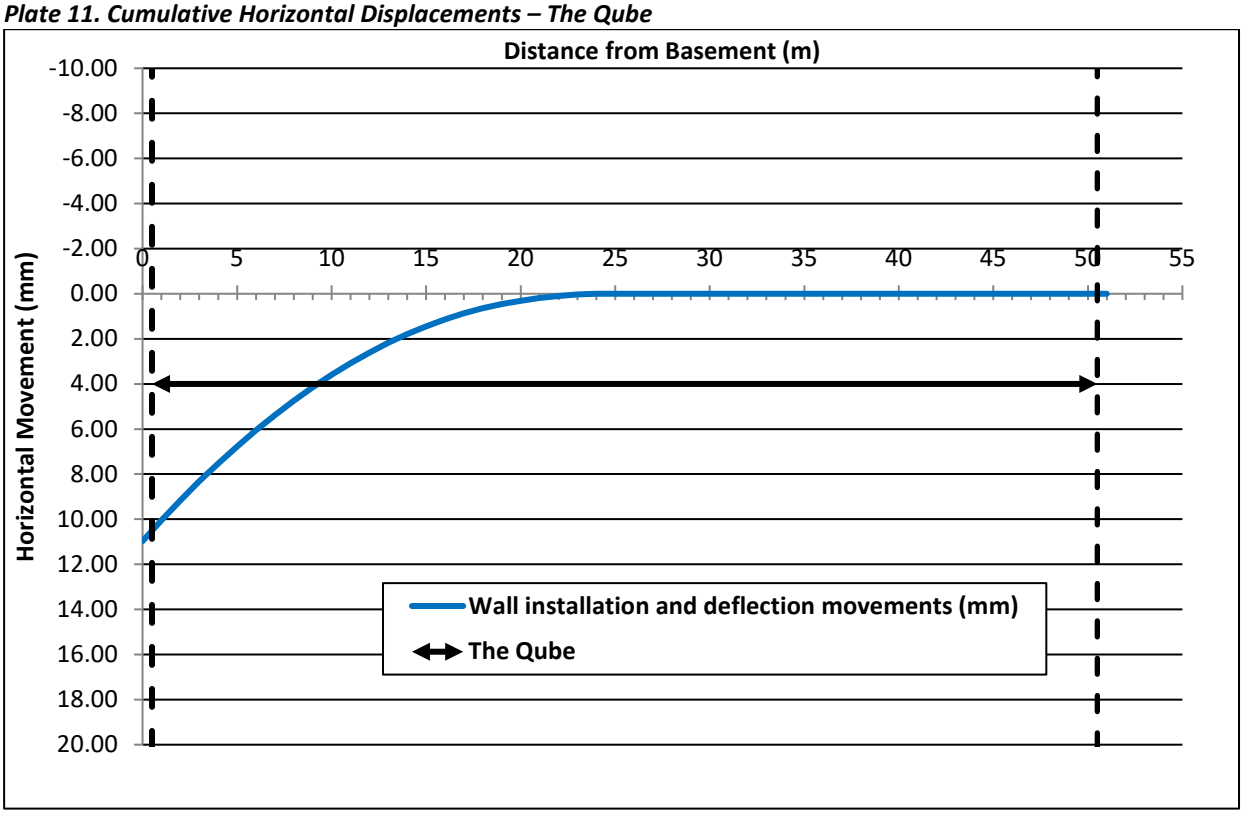


Plate 11. Cumulative Horizontal Displacements – The Qube



A total maximum horizontal movement of approximately 11mm is predicted under "The Qube" at +24.36mOD, 0.5m away from the proposed basement. Horizontal movements tend to 0mm some 25m away from the proposed basement. Hence, this results in a horizontal strain of some **0.043%,** over the length along which the strains are maximum (0.5m and 25m away from the proposed basement).

The maximum differential settlement anticipated is approximately 5mm, which corresponds to an angular distortion of **~1/4949** over the length along which the strain is maximum. This value is well within the acceptable published limits[27] for preventing excess cracking and damage to load bearing walls and partitions.

The computed values of deflection ratio and horizontal strain correspond to a Damage Category 1 (slight). The corresponding Damage Assessment Plot is presented in Plate 12 for L/H = 1.78.

Plate 12. Building Damage Assessment Plot (L/H = 1.78) – The Qube

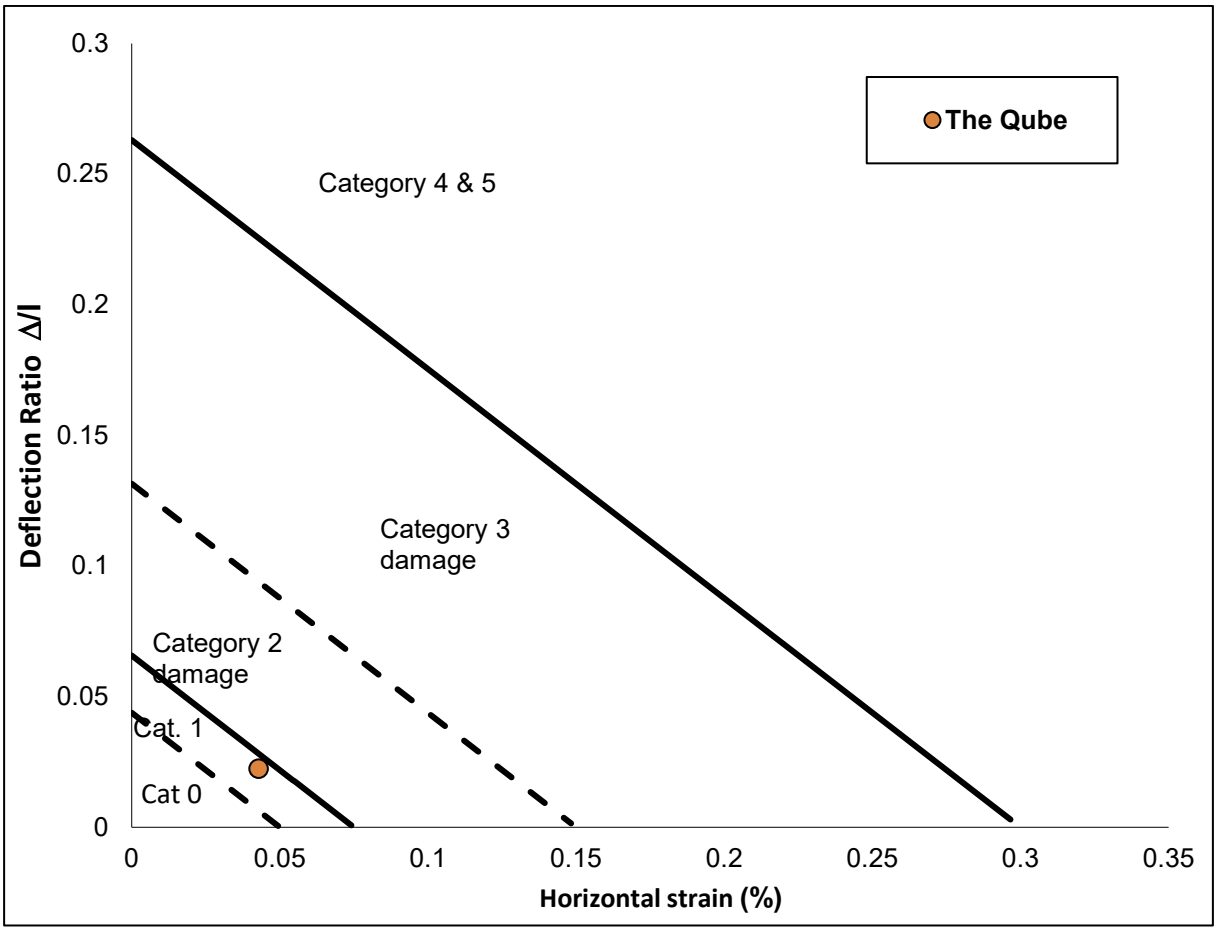


Table 16 below summarises the ground movements and corresponding damage category for The Qube.

Table 16. The Qube Summary

Building	*Façade Dimensions L/H*	*Calculated Maximum Deflection (mm)*	*Net Horizontal Movement (mm)*	*Angular Distortion*	*Deflection Ratio Δ/L[a] (%)*	*Horizontal Strain δ_h/L[b] (%)*	*Damage Category*
The Qube	1.78	5.5[c,d]	10.5	1/4949[c]	0.022[c]	0.043[c]	1 (slight)

Notes:

a. See Figure 2.18 (a) CIRIA C760 (2017) Guidance on embedded retaining wall design. (L = length of adjacent structure in metres, perpendicular to basement; Δ = relative deflection)
b. See Box 2.5 (v) CIRIA C760 (2017) Guidance on embedded retaining wall design. (δh = horizontal movement in metres)
c. Length used to calculate this is conservatively taken as 24.50m (between 0.5 and 25m from proposed basement), the length over which anticipated strains are maximum

d. Measured vertically from Plate 10

10. CONSTRUCTION MONITORING

The results of the ground movement analysis suggest that with good construction control, maximum damage to the critical neighbouring building, i.e. "The Qube", generated by the assumed construction methods and sequence are likely to not exceed Category 1 'Very Slight Damage'. The proposed works are not expected to significantly affect Tottenham Court Road, Howland Street and Whitfield Street either. However, considering that the assessed building is still relatively close to the boundary of Category 2 – 'Slight' damage, a formal structural monitoring strategy of the secant piled wall capping beam and neighbouring property façade is deemed necessary to control and manage risk.

The system should operate broadly in accordance with the 'Observational Method' as defined in CIRIA Report 185[28]. Monitoring can be undertaken by installing survey targets along the top of the secant piled wall and ideally on the façade of the neighbouring property. Baseline values should be established prior to commencement of works as outlined below:

- Monitoring targets installed on the facade of the neighbouring building and baseline reading established prior to demolition/enabling works and piles installation.
- Monitoring targets installed along the capping beam once constructed and baseline readings established prior to the main basement excavation works commencing.

Monitoring of these targets should be carried out at regular time intervals during enabling works, pile wall installation and basement excavation/construction works (minimum 3 times per week), and the results should be analysed to determine if any horizontal translation of the wall or tilt/settlement of the neighbouring structure is occurring. Regular monitoring of these targets will allow ground movement trends to be detected early and mitigation strategies to be implemented to control further movement. Monitoring data should be checked against predefined trigger limits and can also be analysed to assess and manage the damage of the adjacent building as construction progresses. However, the final monitoring proposal to be implemented should be discussed and agreed with the main contractor.

It is recommended that a condition survey is undertaken on all adjacent property facades and prior to the works commencing and ideally when monitoring baseline values are established. Existing cracks or

[28] Nicholson, D., Tse, Che-Ming., Penny, C., The Observational Method in ground engineering: principles and applications, CIRIA report R185, 1999.

structural defects should be carefully recorded, documented and regularly inspected as construction progresses.

11. NON-TECHNICAL SUMMARY

- The findings of this Preliminary Basement Impact Assessment are informed by the site investigation undertaken by CGL and the proposed construction sequence and loading information provided by AKTII. This should be updated, as part of the final Basement Impact Assessment, based on the findings of the supplementary site investigation proposed in Section 6, required to confirm the foundation depth and geometry of the party wall building, to validate the ground and groundwater conditions encountered during phase 1 of the investigation and to evaluate the construction and thickness of the perimeter wall and floor slabs in the eastern side of the existing building;

- The construction of the basement will generate ground movements due to a variety of causes including short-term vertical movements due to enabling works and excavation; ground movements due to secant pile installation and deflection; ground movements due to the application of net structural loads both in the short and long-term conditions; and long-term ground movements as a result of pore pressures re-equilibrating within the London Clay Formation over time;

- Based on the findings of the assessment undertaken it is considered that the proposed basement development will have a negligible effect on groundwater flow, surface water and flooding at this site.

- A detailed ground movement analysis has been carried out using OASYS Limited PDISP (Pressure Induced DISPlacement) and WALLAP analysis software, to determine the potential impact of the proposed development on the adjacent neighbouring buildings/roadways.

- The structural information included in the Preliminary Basement Impact Assessment undertaken for the RM01 scheme suggests the presence of a stepped basement under “The Qube”; however, the foundation levels are not confirmed. The SSL of the shallower section of the stepped basement is located at approximately +24.36mOD; while the SSL of the deeper section is unknown. Therefore, pending the confirmation of the above foundation levels, for the purpose of this report a foundation level of +24.36mOD has been assumed.

- A Building Impact Assessment has been undertaken to one neighbouring building and three roads. An assessment of the results of the detailed ground movement analysis and displacement profiles of the above indicate that, with good construction and groundwater control[9] and high level of workmanship, these movements can be controlled to within damage category 1 (very

slight) for "The Qube" according to Burland and Wroth (1974)[24] and Boscardin and Cording (1989)[25]. This damage category is within allowable limits as specified by Camden Planning Guidance: Basements (CPG) March 2018. The impact of the proposed works on the neighbouring roads is also deemed to be acceptable.

- It is recommended that a condition survey is undertaken and an appropriate monitoring regime is adopted to manage risk and potential damage to neighbouring structures as enabling, excavation and construction works progress on site; however, the details of the methodology will be developed with the party wall surveyors prior to site works commencing. It is not appropriate at this stage to incorporate a detailed methodology for monitoring, which for practical reasons may ultimately conflict with that proposed and agreed between the PW surveyors.

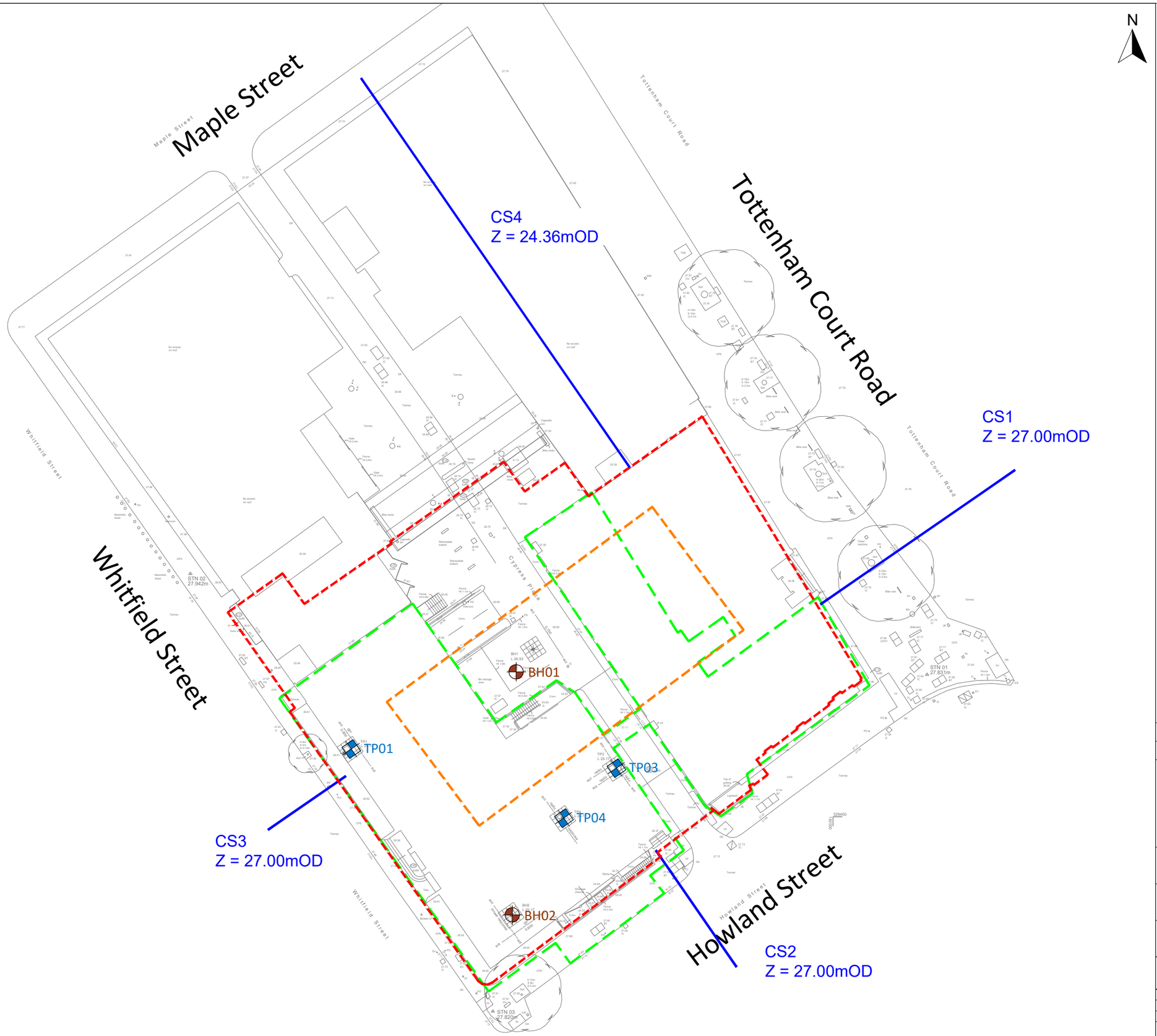
- Residual impacts: the proposed basement is not expected to effect groundwater and will be designed and constructed in order to mitigate against the potential impacts to surface water and ground movements. It is anticipated that there will be no long-term impact on groundwater, surface water and flooding, and the effects of long-term heave/settlement are 'very slight' as demonstrated by the ground movement analysis.

- Cumulative impacts: It is anticipated that water will flow around and below the proposed basement due to relatively high lateral permeability within the Lynch Hill Gravel Member, and is therefore unlikely to impact surrounding properties and have a negligible impact on groundwater flow or level in the vicinity of the site. There is 'very slight' potential for a cumulative impact on groundwater levels resulting from the basement excavation.

- It should be noted that the impact assessments on Thames Water (TW) and London Underground Limited (LUL) assets is beyond the scope of this Basement Impact Assessment (BIA) report. However, these impact assessment will likely be required and undertaken at a later date under separate cover and following appropriate correspondence with the relevant asset operators.

FIGURES

Client	Project	Job No
Derwent Valley Property Developments Ltd	**The Network Building**	**CGL/09528B**
CGL	Title **Site Location Plan**	**Figure 1**



N

KEY

- Borehole
- Trial Pit
- Extent of Existing Basement
  SSL: 25.17mOD
  FL: 24.92mOD
- Extent of Proposed Basement
  SSL: 22.36mOD
  FL: 20.86mOD
- Core Area
  SSL: 21.36mOD (assumed)
  FL: 19.86mOD
- Critical Section Line

Notes

1. Do not scale from this drawing.
2. Extent of proposed basement taken from AKTII drawing '4921-AKT-XX-B1-DR-S-099' Rev P3 (03/12/2020).
3. Core Area approximately measured from AKTII drawing '4921-AKT-XX-ZZ-DR-S-500' Rev P3 (03/12/2020).
4. SSL = Structural Slab Level
5. FL = Formation Level
6. mOD = metres aboves Ordnance Datum

Rev	Date	Comments
P01	16/03/2021	-

Card Geotechnics Ltd
4 Godalming Business Centre
Woolsack Way
Godalming
Surrey
GU7 1XW
T: 01483 310600

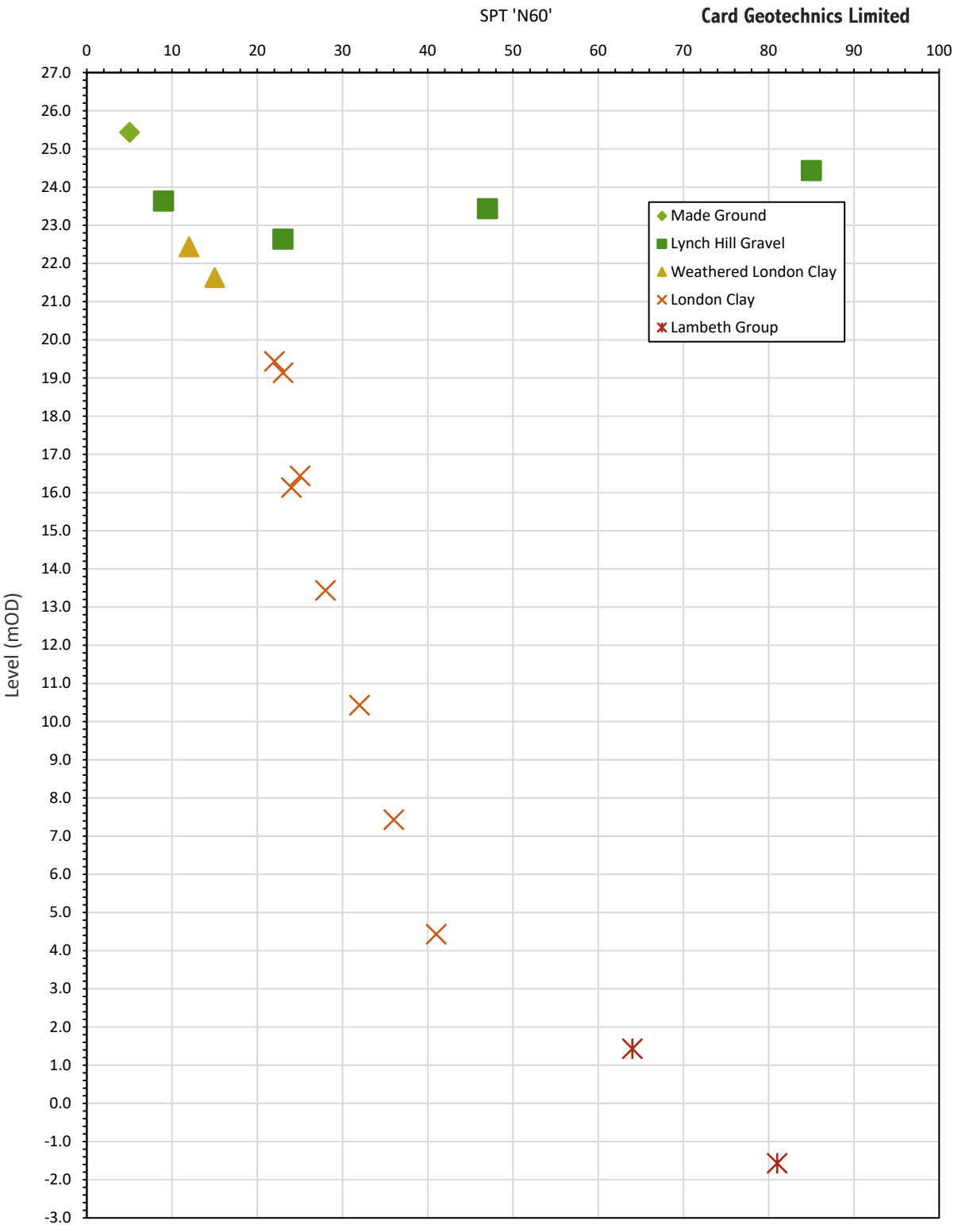
Project: **The Network Building**

Client: **Derwent Valley Property Developments Ltd**

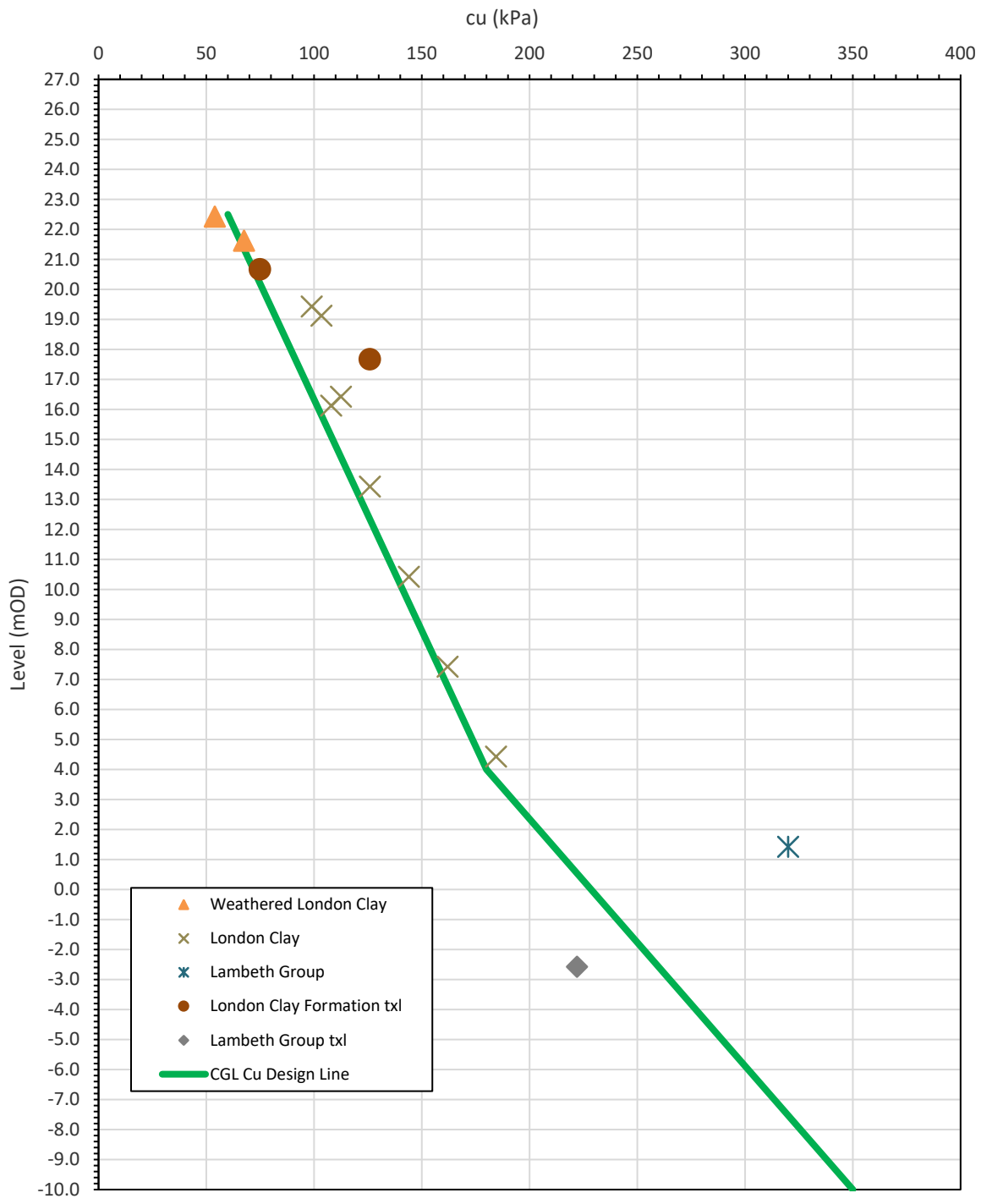
Drawing title: **Figure 2 - Site Layout Plan**

Scale(s)	Job No.
NTS	**CGL/09528B**

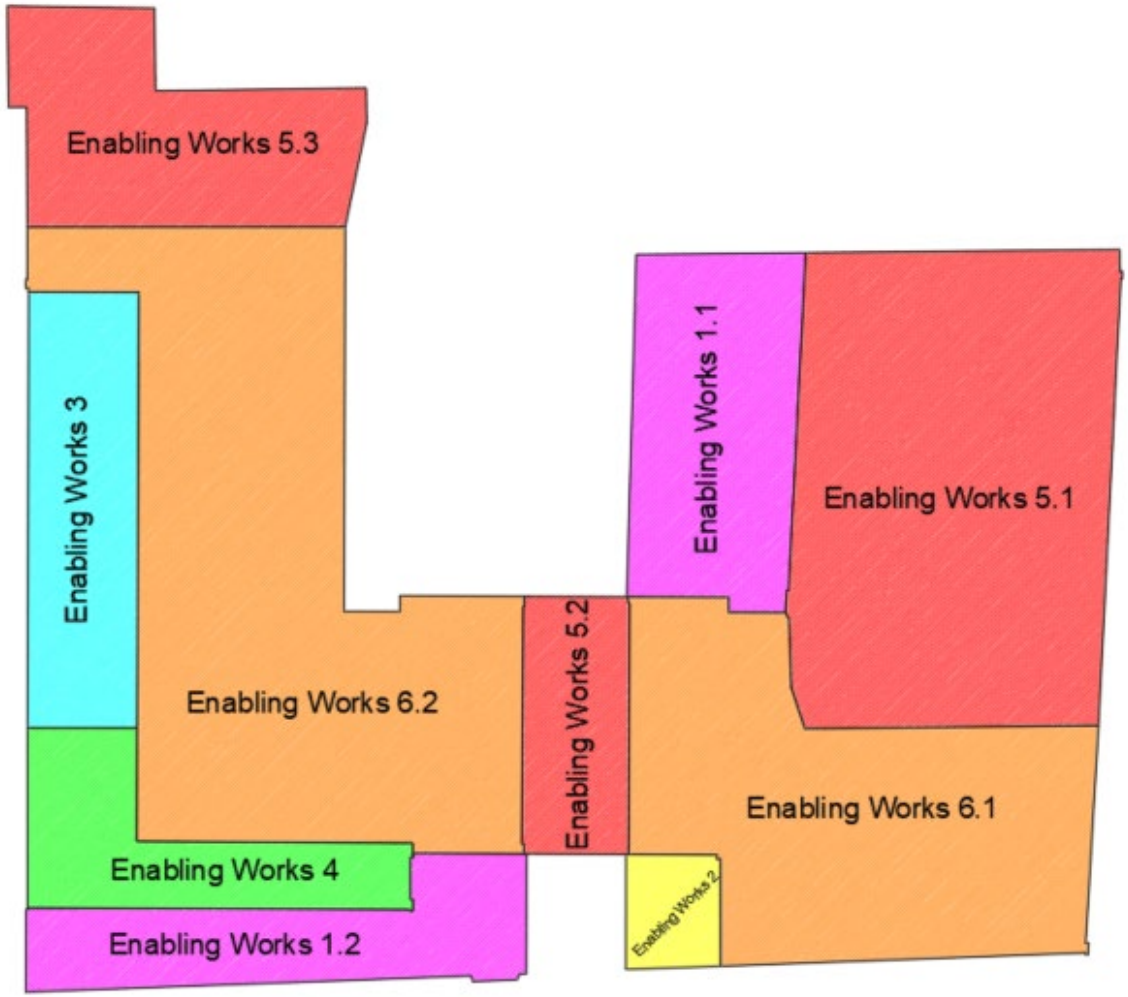
Drawn	TSB	16/03/21	Dwg No. **CGL/09528B-002**	Rev. **P01**
Checked				
Approved				



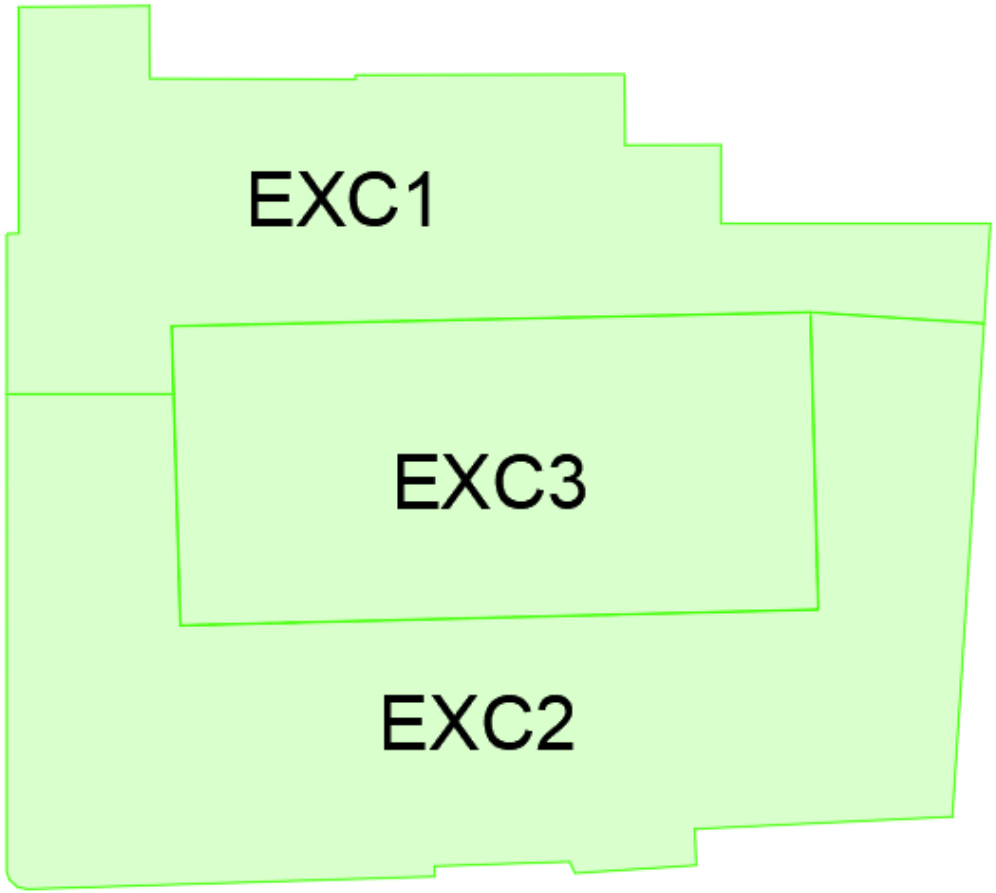
Client	Project	Job No
Derwent Valley Property Developments Ltd	**The Network Building**	**CGL/09528B**
	Title	
	Standard Penetration Test (SPT) 'N60' Value versus Level (mOD)	**Figure 3**



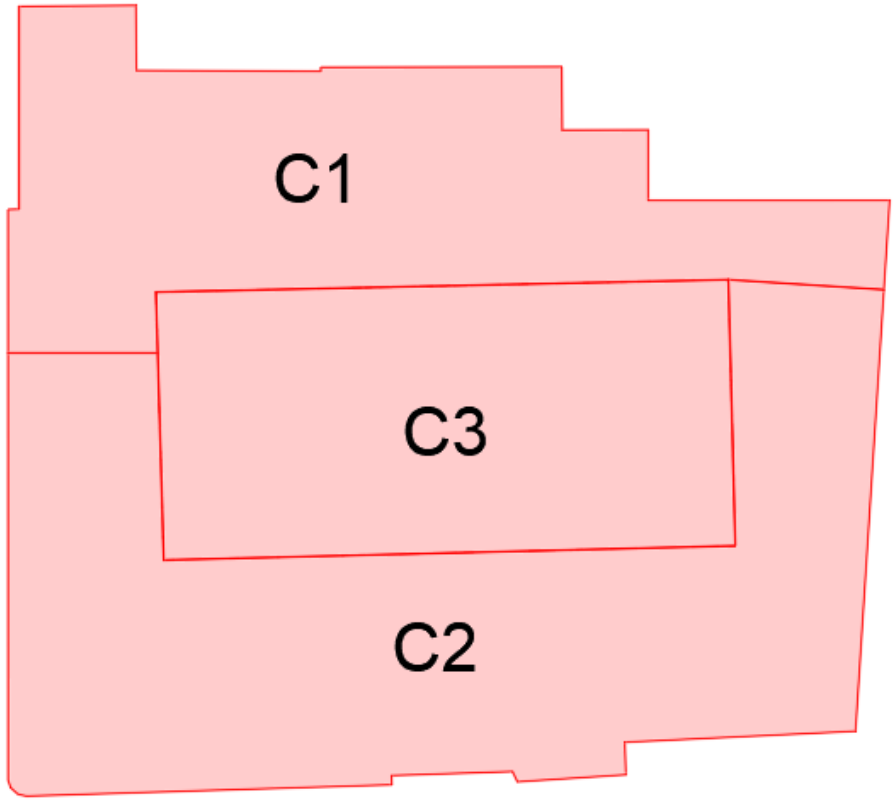
Client	Project	Job No
Derwent Valley Property Developments Ltd	**The Network Building**	**CGL/09528B**
CGL	Title **Undrained Shear Strength (cu) versus Level (mOD)**	**Figure 4**



Client	Project	Job No
Derwent Valley Property Developments Ltd	**The Network Building**	**CGL/09528B**
CGL	Title **Load Area Plan – Proposed Demolition Unloading**	**Figure 5**



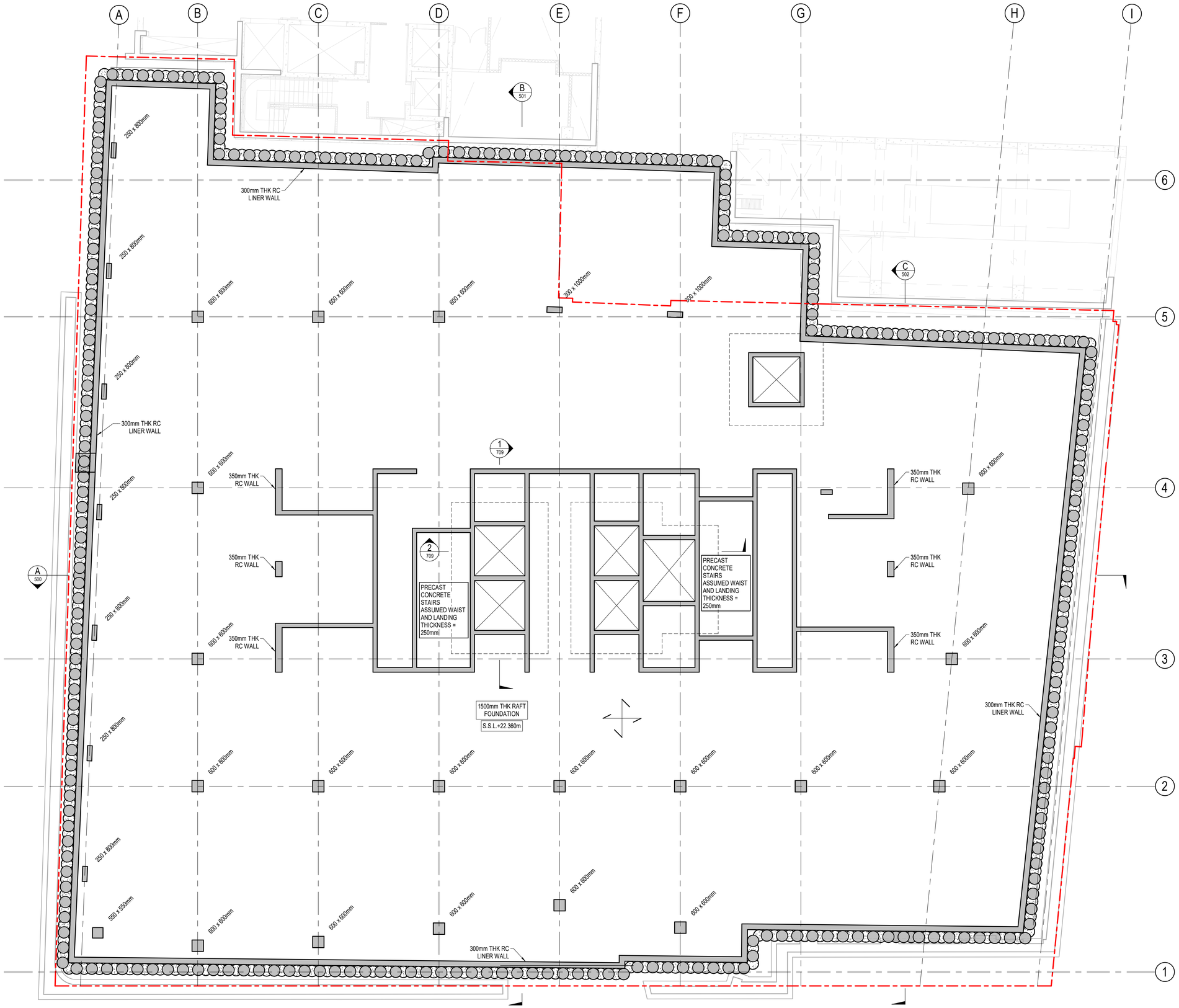
Client	Project	Job No
Derwent Valley Property Developments Ltd	**The Network Building**	**CGL/09528B**
CGL	Title **Load Area Plan – Proposed Excavation Unloading**	**Figure 6**



Client	Project	Job No
Derwent Valley Property Developments Ltd	**The Network Building**	**CGL/09528**
CGL	Title **Load Area Plan – Proposed Construction Loading**	**Figure 7**

APPENDIX A

Proposed Development Drawings



SECANT WALL: HARD-FIRM 600mm DIAMETER AT 800mm C/C. FEMALE PILES TO BE EMBEDDED MINIMUM 1m INTO THE LONDON CLAY STRATA IN ORDER TO FORM A COFFERDAM. TWO LEVELS OF TEMPORARY PROPS ASSUMED UNTIL CONSTRUCTION OF GROUND FLOOR SLAB IS COMPLETE

NOTES

1. DO NOT SCALE FROM THIS DRAWING.
2. ALL DIMENSIONS ARE IN MILLIMETRES AND ALL LEVELS ARE IN METRES.
3. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
4. BUILDERSWORK OPENINGS ARE NOT YET INCORPORATED IN SCHEME. AN ALLOWENCE FOR THE COST AND COMPLECITY OF THESE OPENINGS SHOULD BE MADE.
5. A FIRE RESISTANCE PERIOD OF 90 MINUTES HAS BEEN ASSUMED
6. BEAM DEPTHS INCLUDE SLAB THICKNESS U.N.O.

ALL RC WALLS TO BE 250mm THICK U.N.O.

ALL CONCRETE SLABS TO BE C50/60 CONCRETE RAFT TO BE C35/45, CONCRETE WALLS TO BE C35/45

ALL CONCRETE SLABS AND WALLS TO BE C35/45

ALL REINFORCEMENT TO BE GRADE B500

FOR ANY REQUIRED AREAS OF VISUAL CONCRETE, REFER TO ARCHITECT'S INFORMATION

ALL STEEL TO BE GRADE S355 U.N.O.

REQUIREMENT FOR VIBRATION ISOLATION FROM EXTERNAL FORCES TO BE CONFIRMED BY ACOUSTIC SPECIALIST

U.N.O. CAPPING BEAM TO BE 1050Wx1200DP mm

ALL WALLS TO BE CONSTRUCTED WITH 15mm TOLERANCE IN SUPERSTRUCTURE

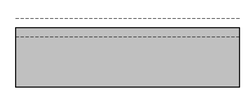
WATERPROOFING STRATEGY TO BE DEVELOPED BY THE ARCHITECT. ADEQUATE ALLOWANCE TO BE MADE WITHIN THE COST PLAN

ALLOWANCE TO BE MADE FOR TEMPORARY WORKS AND PROPPING OF THE RETAINING WALL DURING EXCAVATION WORKS UNTIL THE GROUND FLOOR SLAB IS BUILT. NOTE THAT IT IS ASSUMED THAT THE BASEMENT WILL AS BACKFILLED (PARTIALLY USING DEMOLITION MATERIALS) AND THE SECANT WALL WILL BE INSTALLED FROM GROUND FLOOR LEVEL

NOTE: INTERLOCK OF THE SECANT WALL AT 1m BELOW CLAY LEVEL IS REQUIRED IN ORDER TO FORM A COFFERDAM TO REDUCE THE REQUIREMENT FOR DEWATERING. HOWEVER AN ALLOWANCE IS TO BE MADE FOR INTERMITTENT DEWATERING OF THE BASEMENT UNTIL THE WATERPROOFING AND STRUCTURE IS INSTALLED

ALLOWANCE TO BE MADE FOR CLAY HEAVE BOARDS UNDER RAFT

ALLOWANCE TO BE MADE FOR REGULARLY SPACED GALVANIZED STEEL DOWELS BETWEEN THE SECANT WALL AND LINER WALL AND RAFT



CONSTRUCTION TOLERANCES - RC SLAB/BEAM

REV	DATE	DESCRIPTION	BY	CHECKED
P3	03.12.20	STAGE 2 ISSUE	PG	JC
P2	11.11.20	STAGE 2 ISSUE	PG	JC
P1	30.10.20	STAGE 2 ISSUE	PG	JC

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CLIENT

DERWENT LONDON

PROJECT

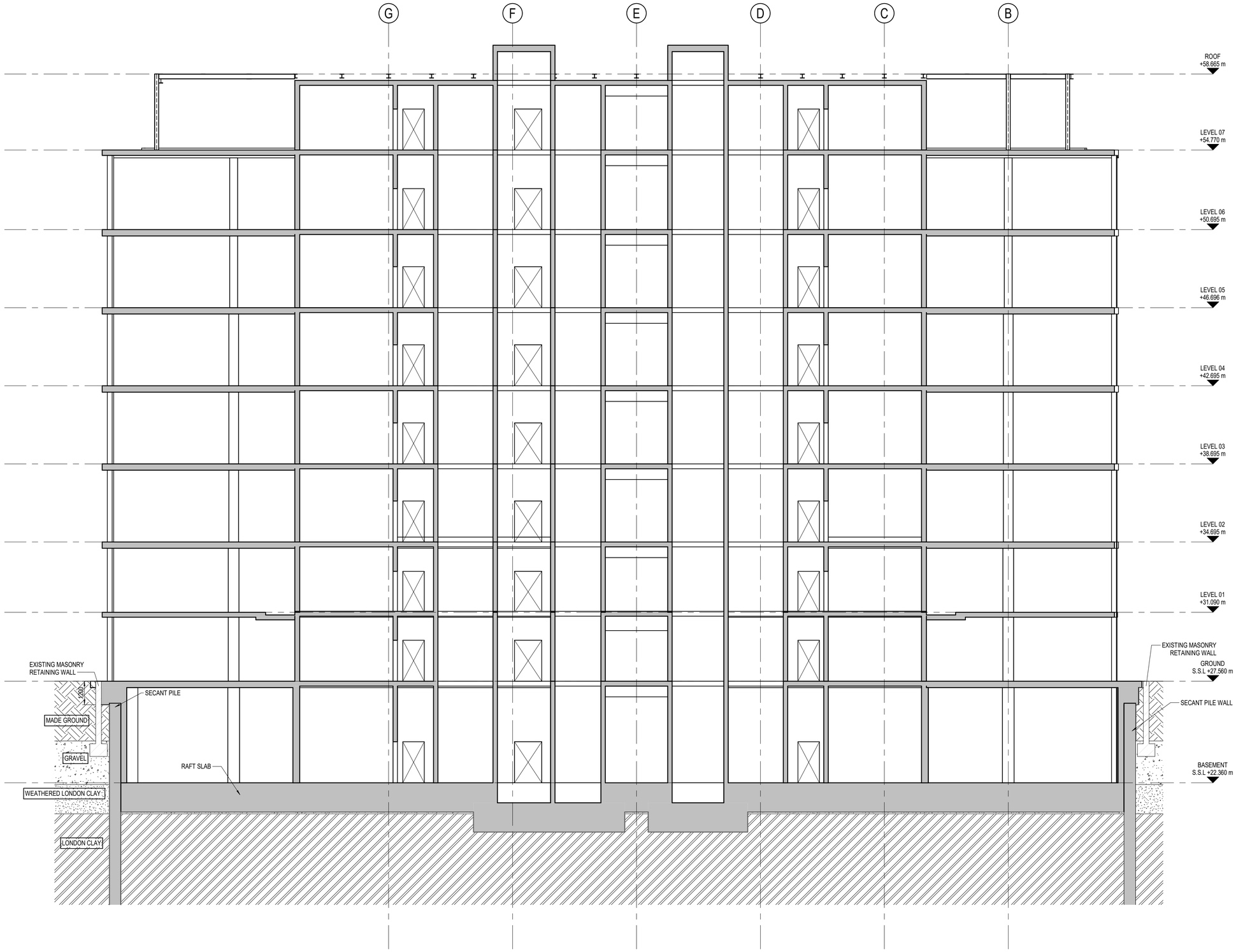
NETWORK BUILDING

TITLE

BASEMENT
GENERAL ARRANGEMENT

PG	OCT'20	JC	A1
DRAWN BY	DRAWN DATE	CHECKED BY	SHEET SIZE
4921	STAGE 2		1:100
PROJECT No.	PROJECT STAGE	SUITABILITY CODE	SCALE

4921	AKT	XX	B1	DR	S	099	P3
PROJECT ID	ORIGINATOR	ZONE	LEVEL	TYPE	ROLE	DRAWING No.	REVISION



NOTES

1. DO NOT SCALE FROM THIS DRAWING.
2. ALL DIMENSIONS ARE IN MILLIMETRES AND ALL LEVELS ARE IN METRES.
3. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.

- ALL RC WALLS TO BE 250mm THICK U.N.O.
- ALL CONCRETE SLABS TO BE C50/60 CONCRETE RAFT TO BE C35/45, CONCRETE WALLS TO BE C35/45
- ALL CONCRETE SLABS AND WALLS TO BE C35/45
- ALL REINFORCEMENT TO BE GRADE B500
- FOR ANY REQUIRED AREAS OF VISUAL CONCRETE, REFER TO ARCHITECT'S INFORMATION
- ALL STEEL TO BE GRADE S355 U.N.O.
- REQUIREMENT FOR VIBRATION ISOLATION FROM EXTERNAL FORCES TO BE CONFIRMED BY ACOUSTIC SPECIALIST
- U.N.O. CAPPING BEAM TO BE 1050Wx1200DP mm
- ALL WALLS TO BE CONSTRUCTED WITH 15mm TOLERANCE IN SUPERSTRUCTURE
- ALLOW FOR EXPOSED CONCRETE SOFFITS ON ALL LEVELS. ARCHITECT TO CONFIRM QUALITY OF FINISH.
- RISER OUTSIDE CORES ARE TO BE COORDINATED AND ADDED AT THE NEXT STAGE. ADEQUATE ALLOWANCE TO BE MADE.
- ALL WALLS TO BE CONSTRUCTED WITH 15mm TOLERANCE IN SUPERSTRUCTURE.

REV	DATE	DESCRIPTION	BY	CHECKED
P3	03.12.20	STAGE 2 ISSUE	PG	JC
P2	11.11.20	STAGE 2 ISSUE	PG	JC
P1	30.10.20	STAGE 2 ISSUE	PG	JC

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NETWORK BUILDING

PROJECT

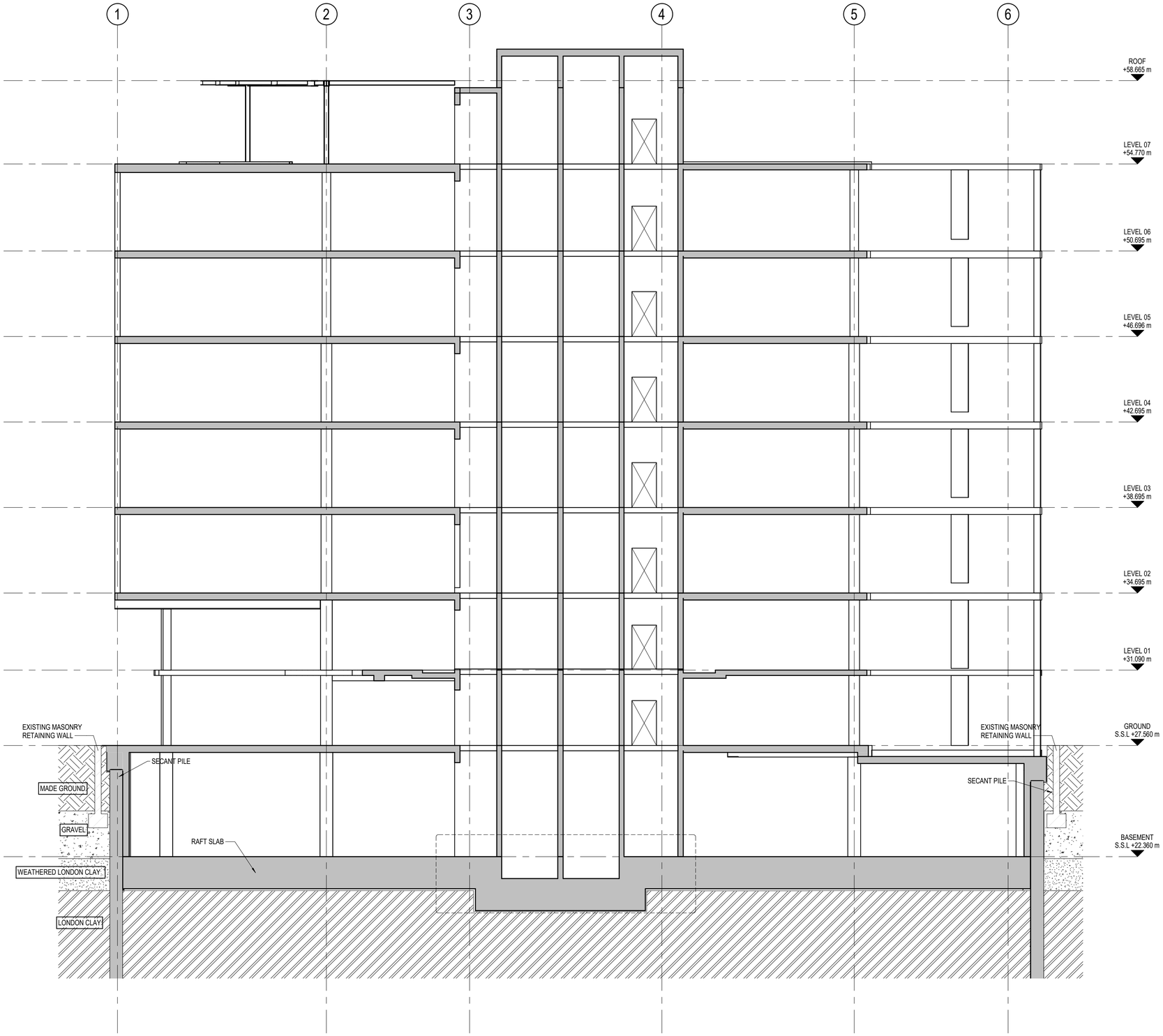
LONG SECTION A

TITLE

PG DRAWN BY	OCT'20 DRAWN DATE	JC CHECKED BY	A1 SHEET SIZE
4921 PROJECT No.	PROJECT STAGE	S0 SUITABILITY CODE	1:100 SCALE

DRAFT

4921	AKT	XX	ZZ	DR	S	500	P3
PROJECT ID	ORIGINATOR	ZONE	LEVEL	TYPE	ROLE	DRAWING No.	REVISION



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ALL RC WALLS TO BE 250mm THICK U.N.O.

ALL CONCRETE SLABS TO BE C50/60 CONCRETE RAFT TO BE C35/45, CONCRETE WALLS TO BE C35/45

ALL CONCRETE SLABS AND WALLS TO BE C35/45

ALL REINFORCEMENT TO BE GRADE B500

FOR ANY REQUIRED AREAS OF VISUAL CONCRETE, REFER TO ARCHITECT'S INFORMATION

ALL STEEL TO BE GRADE S355 U.N.O.

REQUIREMENT FOR VIBRATION ISOLATION FROM EXTERNAL FORCES TO BE CONFIRMED BY ACOUSTIC SPECIALIST

U.N.O. CAPPING BEAM TO BE 1050Wx1200DP mm

ALL WALLS TO BE CONSTRUCTED WITH 15mm TOLERANCE IN SUPERSTRUCTURE

ALLOW FOR EXPOSED CONCRETE SOFFITS ON ALL LEVELS. ARCHITECT TO CONFIRM QUALITY OF FINISH.

RISER OUTSIDE CORES ARE TO BE COORDINATED AND ADDED AT THE NEXT STAGE. ADEQUATE ALLOWANCE TO BE MADE.

ALL WALLS TO BE CONSTRUCTED WITH 15mm TOLERANCE IN SUPERSTRUCTURE.

REV	DATE	DESCRIPTION	BY	CHECKED
P3	03.12.20	STAGE 2 ISSUE	PG	JC
P2	11.11.20	STAGE 2 ISSUE	PG	JC
P1	30.10.20	STAGE 2 ISSUE	PG	JC

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NETWORK BUILDING

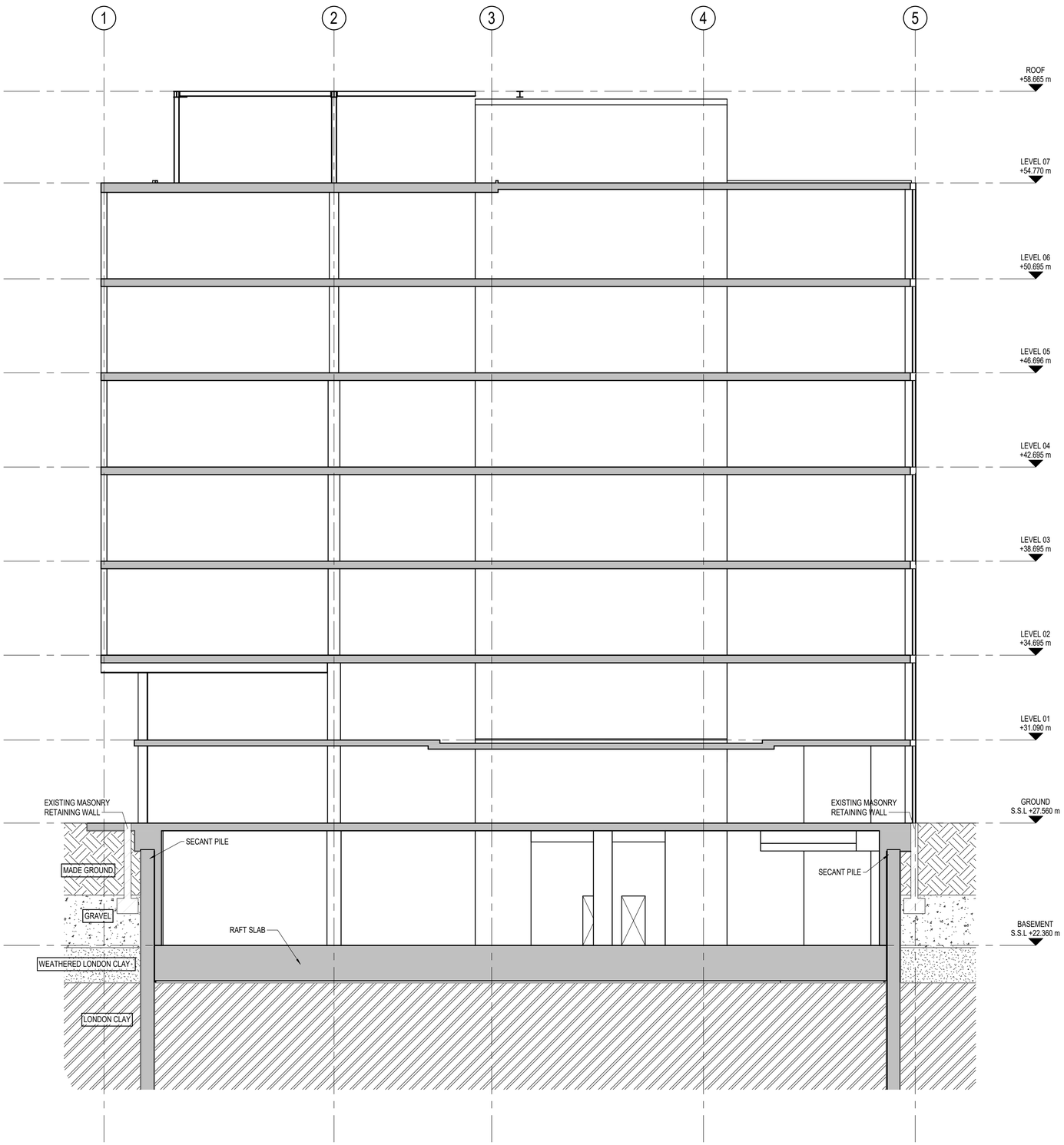
PROJECT

LONG SECTION B

TITLE

PG	OCT'20	JC	A1
DRAWN BY	DRAWN DATE	CHECKED BY	SHEET SIZE
4921	STAGE 2		1:100
PROJECT No.	PROJECT STAGE	SUITABILITY CODE	SCALE

4921	AKT	XX	ZZ	DR	S	501	P3
PROJECT ID	ORIGINATOR	ZONE	LEVEL	TYPE	ROLE	DRAWING No.	REVISION



NOTES

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ALL RC WALLS TO BE 250mm THICK U.N.O.

ALL CONCRETE SLABS TO BE C50/60 CONCRETE RAFT TO BE C35/45, CONCRETE WALLS TO BE C35/45

ALL CONCRETE SLABS AND WALLS TO BE C35/45

ALL REINFORCEMENT TO BE GRADE B500

FOR ANY REQUIRED AREAS OF VISUAL CONCRETE, REFER TO ARCHITECT'S INFORMATION

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REQUIREMENT FOR VIBRATION ISOLATION FROM EXTERNAL FORCES TO BE CONFIRMED BY ACOUSTIC SPECIALIST

U.N.O. CAPPING BEAM TO BE 1050Wx1200DP mm

ALL WALLS TO BE CONSTRUCTED WITH 15mm TOLERANCE IN SUPERSTRUCTURE

ALLOW FOR EXPOSED CONCRETE SOFFITS ON ALL LEVELS. ARCHITECT TO CONFIRM QUALITY OF FINISH.

RISER OUTSIDE CORES ARE TO BE COORDINATED AND ADDED AT THE NEXT STAGE. ADEQUATE ALLOWANCE TO BE MADE.

ALL WALLS TO BE CONSTRUCTED WITH 15mm TOLERANCE IN SUPERSTRUCTURE.

REV	DATE	DESCRIPTION	BY	CHECKED
P3	03.12.20	STAGE 2 ISSUE	PG	JC
P2	11.11.20	STAGE 2 ISSUE	PG	JC
P1	30.10.20	STAGE 2 ISSUE	PG	JC

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PROJECT

LONG SECTION C

TITLE

PG DRAWN BY	OCT'20 DRAWN DATE	JC CHECKED BY	A1 SHEET SIZE
4921 PROJECT No.	STAGE 2 PROJECT STAGE	SUITABILITY CODE	1:100 SCALE

4921	AKT	XX	ZZ	DR	S	502	P3
PROJECT ID	ORIGINATOR	ZONE	LEVEL	TYPE	ROLE	DRAWING No.	REVISION

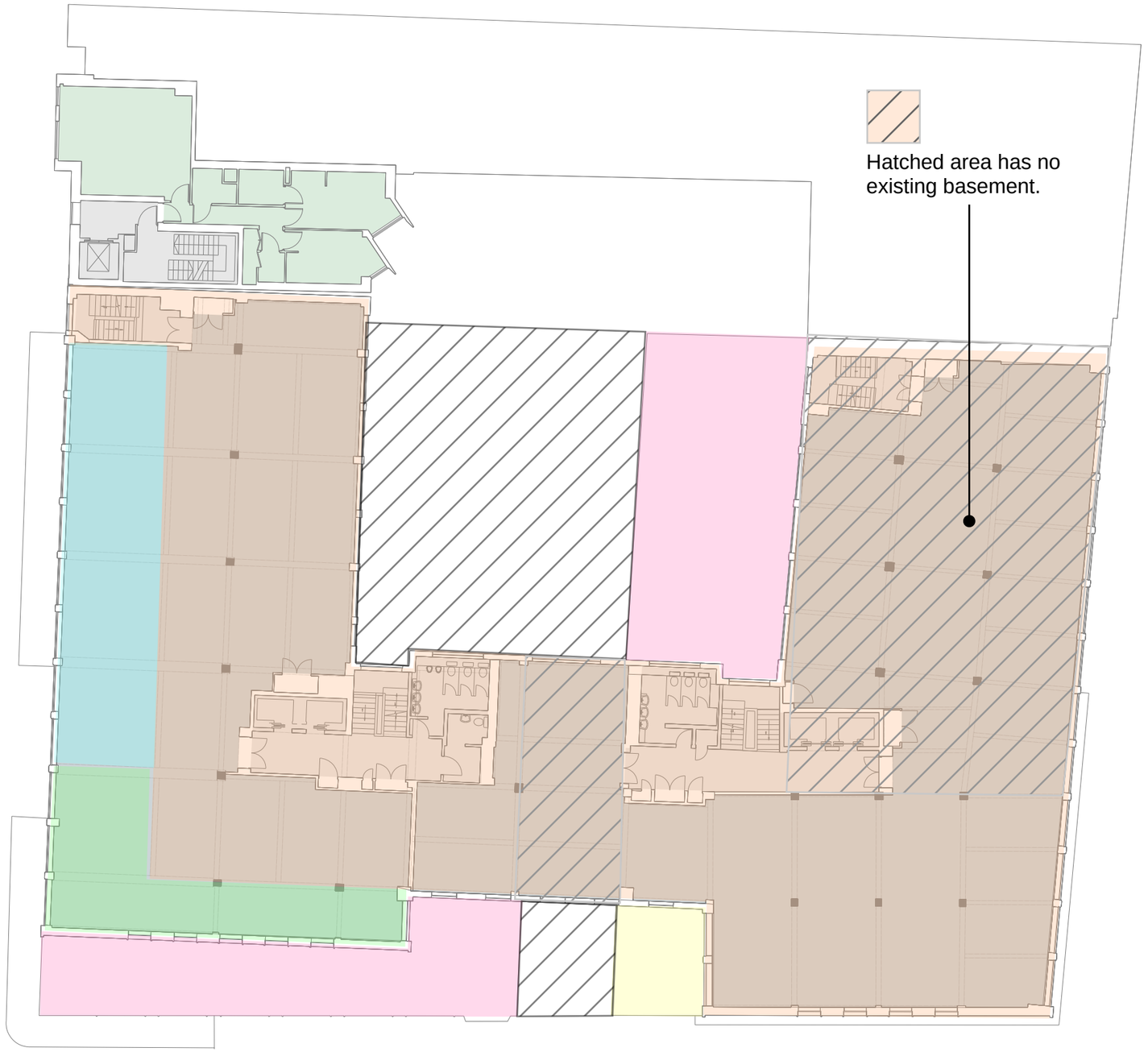
APPENDIX B

Structural Loading Information

Existing Build-up

Existing structure consists of hollow pot floors spanning between concrete encased steel beams. The following has been allowed for in the assumed existing loads.

Dead (Assumed)	(kN/m2)
200mm thick hollow pot floor(equivalent to 135mm solid RC slab):	3.4
Concrete encased steel beams:	1.0
Ceiling & Services	0.15
Raised floor	0.4
	(4.95)
Live	2.5
Office	**(2.5)**
(partition allowance ignored)	
Total	**7.45**



Existing Summary Plan

Summary of load change from existing

Existing 6 storeys above ground.
Existing load 60kN/m2 incl. basement slab.
Existing load 52kN/m2 at ground floor level.

Existing 5 storeys above ground.
Existing load 53kN/m2 incl. basement slab.

Existing 4 storeys above ground.
Existing load 41kN/m2 incl. basement slab.

Existing 2 storeys above ground.
Existing load 30kN/m2 incl. basement slab.

Existing 1 storeys above ground.
Existing load 23kN/m2 incl. basement slab.

No existing building.

Note: Loads are unfactored and include dead and live loads.

EWP Mark-up
Network Building
2170754

Summary of Existing Loads

NETWORK BUILDING LAB SCHEME - RAFT LOADING

NOTES:

1. FOR STRUCTURAL INFORMATION, REFER TO DRAWINGS 4921-AKT-XX-B1-DR-S-099 TO 4921-AKT-XX-RF-DR-S-108.

2. BASED ON HOK ARCHITECTURAL INFORMATION RECEIVED 26.10.2020.

3. INFORMATION IS SUBJECT TO CHANGE DURING DESIGN PROGRESSION.

LEGEND

GENERAL BUILDING AREA:
DL - 125 kN/m^2
LL - 40 kN/m^2

CORE AREA:
DL - 155kN/m^2
LL - 25kN/m^2

Note: Loads are unfactored and include live load reduction.

REV	DATE	DESCRIPTION	BY	CHECKED
P1	03.11.2020	RAFT LOADING FOR BASEMENT IMPACT ASSESSMENT (BY OTHERS)	LM	JC

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PROJECT: NETWORK BUILDING			TITLE: NETWORK BUILDING LAB SCHEME - RAFT LOADING	
DATE: 03.11.2020	SCALE: NTS	CAD FILENAME:	STATUS:	
DRAWN: LM	CHECKED: JC	PROJECT No.: 4921	DRAWING No.: 4921-S-HSK-002	REV: P1

APPENDIX C

WALLAP Analysis Outputs

Units: kN,m

INPUT DATA

SOIL PROFILE

Stratum no.	Elevation of top of stratum	Soil types Left side	Right side
1	27.00	2 MG (drained)	2 MG (drained)
2	24.50	1 Lynch Hill Gravels	1 Lynch Hill Gravels
3	22.50	3 LCF (undrained)	3 LCF (undrained)

SOIL PROPERTIES

No.	Soil type Description (Datum elev.)	Bulk density kN/m3	Young's Modulus Eh,kN/m2 (dEh/dy)	At rest coeff. Ko (dKo/dy)	Consol state. NC/OC (Nu)	Active limit Ka (Kac)	Passive limit Kp (Kpc)	Cohesion kN/m2 (dc/dy)
1	Lynch Hill Gravels	19.00	30000	0.470	OC (0.200)	0.250 (0.000)	5.788 (0.000)	
2	MG (drained)	19.00	14000	0.500	OC (0.200)	0.273 (0.000)	5.026 (0.000)	
3	LCF (undr.. (22.50)	21.00	36000 (3900)	1.000	OC (0.490)	1.000 (2.389)	1.000 (2.390)	60.00u (6.500)
4	LCF (drai.. (22.50)	21.00	27000 (2900)	0.625	OC (0.200)	0.455 (1.349)	2.198 (2.965)	5.000d
5	Fill	20.00	50000	0.384	OC (0.200)	0.197 (0.000)	8.446 (0.000)	

Additional soil parameters associated with Ka and Kp

No.	Soil type Description	--- parameters for Ka --- Soil friction angle	Wall adhesion coeff.	Back-fill angle	--- parameters for Kp --- Soil friction angle	Wall adhesion coeff.	Back-fill angle
1	Lynch Hill Gravels	32.00	1.000	0.00	32.00	1.000	0.00
2	MG (drained)	30.00	1.000	0.00	30.00	1.000	0.00
3	LCF (undrained)	0.00	0.500	0.00	0.00	0.500	0.00
4	LCF (drained)	22.00	0.000	0.00	22.00	0.000	0.00
5	Fill	38.00	0.670	0.00	38.00	0.670	0.00

GROUND WATER CONDITIONS

Density of water = 10.00 kN/m3
Initial water pressure profile = Profile number 1

Automatic water pressure balancing at toe of wall : Yes

Water press. profile no.	Left side Point no.	Elev. m	Piezo elev. m	Water press. kN/m2	Right side Point no.	Elev. m	Piezo elev. m	Water press. kN/m2	
1	1	23.62	23.62	0.0	1	23.62	23.62	0.0	
2	1	23.62	23.62	0.0	1	20.86	20.86	0.0	MC+WC
					2	20.86	20.86	0.0	
3	1	26.00	26.00	0.0	1	20.86	20.86	0.0	MC+WC
					2	20.86	26.00	51.4	

WALL PROPERTIES

Type of structure = Fully Embedded Wall
Elevation of toe of wall = 14.50
Maximum finite element length = 0.80 m
Youngs modulus of wall E = 2.8000E+07 kN/m2
Moment of inertia of wall I = 7.9500E-03 m4/m run
E.I = 222600 kN.m2/m run
Yield Moment of wall = Not defined

STRUTS and ANCHORS

Strut/ anchor no.	Elev.	Strut spacing m	X-section area of strut sq.m	Youngs modulus kN/m2	Free length m	Inclin -ation (degs)	Pre- stress /strut kN	Tension allowed
1	21.61	1.00	1.500000	1.500E+07	25.00	0.00	0	No
2	27.40	1.00	0.325000	1.500E+07	25.00	0.00	0	No
3	27.80	1.00	1.000000	40000	1.00	0.00	0	No

SURCHARGE LOADS

Surch -arge no.	Elev.	Distance from wall	Length parallel to wall	Width perpend. to wall	Surcharge ----- kN/m2 ----- Near edge	Far edge	Equiv. soil type	Partial factor/ Category
1	27.00	0.10(L)	30.00	5.00	5.00	=	N/A	1.00 Var
2	27.00	5.10(L)	30.00	8.00	20.00	=	N/A	1.00 Var
3	20.86	-0.00(R)	30.00	25.00	52.00	=	N/A	1.00 -

Note: L = Left side, R = Right side
Limit State Categories P/U = Permanent Unfavourable
P/F = Permanent Favourable
Var = Variable (unfavourable)

CONSTRUCTION STAGES

Construction stage no.	Stage description
1	Apply surcharge no.1 at elevation 27.00
2	Apply surcharge no.2 at elevation 27.00
3	Change EI of wall to 155860 kN.m2/m run Yield moment not defined Reset wall displacements to zero at this stage
4	Install strut or anchor no.3 at elevation 27.80
5	Apply water pressure profile no.2 (Mod. Conserv.)
6	Excavate to elevation 20.86 on RIGHT side
7	Install strut or anchor no.1 at elevation 21.61
8	Install strut or anchor no.2 at elevation 27.40
9	Remove strut or anchor no.3 at elevation 27.80
10	Change properties of soil type 3 to soil type 4 Ko pressures will be reset
11	Change EI of wall to 111330 kN.m2/m run Yield moment not defined Allow wall to relax with new modulus value
12	Apply surcharge no.3 at elevation 20.86
13	Apply water pressure profile no.3 (Mod. Conserv.)

FACTORS OF SAFETY and ANALYSIS OPTIONS

Limit State options: Serviceability Limit State
All loads and soil strengths are unfactored

Stability analysis:
Method of analysis - Strength Factor method
Factor on soil strength for calculating wall depth = 1.00

Parameters for undrained strata:
Minimum equivalent fluid density = 5.00 kN/m3
Maximum depth of water filled tension crack = 0.00 m

Bending moment and displacement calculation:
Method - Subgrade reaction model using Influence Coefficients
Open Tension Crack analysis? - No
Non-linear Modulus Parameter (L) = 12.50 m

Boundary conditions:
Length of wall (normal to plane of analysis) = 20.00 m

Width of excavation on Left side of wall = 20.00 m
Width of excavation on Right side of wall = 20.00 m

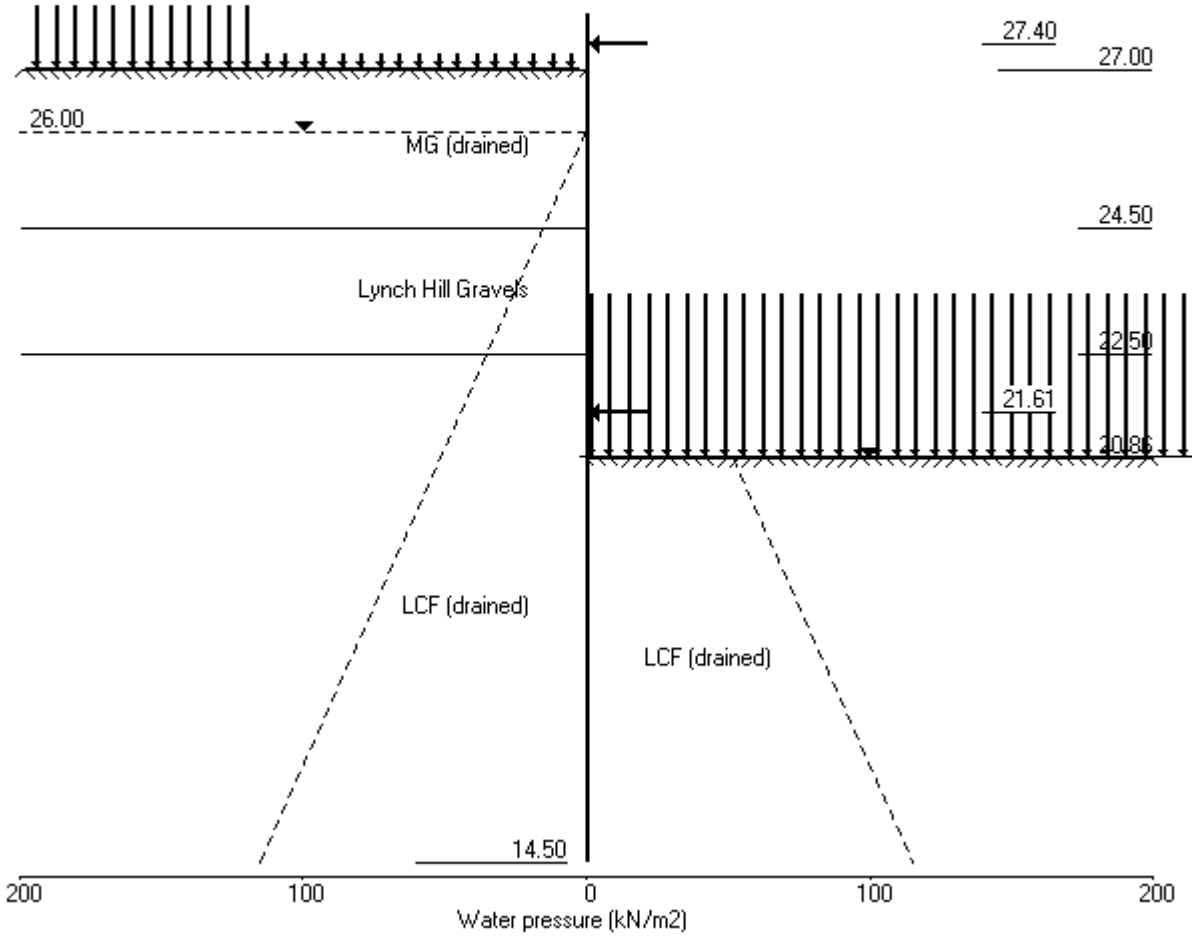
Distance to rigid boundary on Left side = 20.00 m
Distance to rigid boundary on Right side = 20.00 m

OUTPUT OPTIONS

Stage no.	Stage description	Output options: Displacement Bending mom. Shear force	Active, Passive pressures	Graph. output
1	Apply surcharge no.1 at elev. 27.00	Yes	Yes	Yes
2	Apply surcharge no.2 at elev. 27.00	Yes	Yes	Yes
3	Change EI of wall to 155860kN.m2/m run	Yes	Yes	Yes
4	Install strut no.3 at elev. 27.80	Yes	Yes	Yes
5	Apply water pressure profile no.2	Yes	Yes	Yes
6	Excav. to elev. 20.86 on RIGHT side	Yes	Yes	Yes
7	Install strut no.1 at elev. 21.61	Yes	Yes	Yes
8	Install strut no.2 at elev. 27.40	Yes	Yes	Yes
9	Remove strut no.3 at elev. 27.80	Yes	Yes	Yes
10	Change soil type 3 to soil type 4	Yes	Yes	Yes
11	Change EI of wall to 111330kN.m2/m run	No	Yes	Yes
12	Apply surcharge no.3 at elev. 20.86	Yes	Yes	Yes
13	Apply water pressure profile no.3	Yes	Yes	Yes
*	Summary output	Yes	-	Yes

Units: kN,m

Stage No.13 Apply water pressure profile no.3 (Mod. Conserv.)



Units: kN,m

Stage No. 3 Change EI of wall to 155860 kN.m2/m run
Yield moment not defined
Reset wall displacements to zero at this stage

STABILITY ANALYSIS of Fully Embedded Wall according to Strength Factor method
Factor of safety on soil strength

Stage No.	--- G.L. --- Act.	Pass.	Strut Elev.	FoS for toe elev. = 14.50 Factor of Safety	Moment equilib. at elev.	Toe elev. for FoS = 1.000 Toe elev.	Wall Penetr -ation	Direction of failure
3	27.00	27.00	Cant.	Conditions not suitable for FoS calc.				

BENDING MOMENT and DISPLACEMENT ANALYSIS of Fully Embedded Wall
Analysis options
Length of wall perpendicular to section = 20.00m
Subgrade reaction model - Boussinesq Influence coefficients
Soil deformations are elastic until the active or passive limit is reached
Open Tension Crack analysis - No

Rigid boundaries: Left side 20.00 from wall
Right side 20.00 from wall
Limit State: Serviceability Limit State
Calculated Bending Moments and Strut Forces are to be multiplied by a factor of 1.35 to obtain values for structural design. See summary for factored values.

*** Wall displacements reset to zero at stage 3

Node no.	Y coord	Nett pressure kN/m2	Wall disp. m	Wall rotation rad.	Shear force kN/m	Bending moment kN.m/m	Strut forces kN/m	EI of wall kN.m2/m
1	27.80	0.00	-0.000	-1.02E-16	0.0	-0.0		155860
2	27.40	0.00	-0.000	-1.02E-16	0.0	0.0		155860
3	27.00	0.00	-0.000	-1.02E-16	0.0	-0.0		155860
4	26.50	0.25	-0.000	-1.02E-16	0.1	0.0		155860
5	26.00	0.14	-0.000	-1.03E-16	0.2	0.1		155860
6	25.25	0.17	-0.000	-1.14E-16	0.3	0.3		155860
7	24.50	0.20	-0.000	-1.43E-16	0.4	0.5		155860
		-1.07	-0.000	-1.43E-16	0.4	0.5		
8	24.06	-1.10	-0.000	-1.70E-16	-0.1	0.6		155860
9	23.62	-1.13	-0.000	-2.06E-16	-0.5	0.5		155860
10	23.06	-1.16	0.000	-2.66E-16	-1.2	0.0		155860
11	22.50	-1.20	0.000	-3.42E-16	-1.8	-0.8		155860
		1.24	0.000	-3.42E-16	-1.8	-0.8		
12	22.05	1.10	0.000	-4.12E-16	-1.3	-1.5		155860
13	21.61	0.95	0.000	-4.87E-16	-0.9	-2.0		155860
14	20.86	0.69	0.000	-6.01E-16	-0.3	-2.3		155860
15	20.43	0.55	0.000	-6.48E-16	0.0	-2.4		155860
16	20.00	0.42	0.000	-6.62E-16	0.2	-2.3		155860
17	19.20	0.21	0.000	-5.62E-16	0.5	-2.0		155860
18	18.40	0.04	0.000	-3.56E-16	0.6	-1.5		155860
19	17.60	-0.07	0.000	-1.58E-16	0.6	-1.0		155860
20	16.80	-0.15	0.000	1.99E-17	0.5	-0.6		155860
21	16.00	-0.20	0.000	9.81E-17	0.3	-0.3		155860
22	15.25	-0.23	0.000	4.28E-17	0.2	-0.1		155860
23	14.50	-0.25	0.000	1.29E-18	0.0	0.0		---

(continued)

Stage No.3 Change EI of wall to 155860 kN.m2/m run
Yield moment not defined
Reset wall displacements to zero at this stage

Node no.	Y coord	LEFT side						
			Effective stresses				Total earth pressure	Coeff. of subgrade reaction
		Water press. kN/m2	Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2		
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		0.00	0.00	0.00	0.00	0.00	0.00	4500
4	26.50	0.00	13.26	3.62	66.67	5.34	5.34	4500
5	26.00	0.00	23.41	6.39	117.65	10.12	10.12	4500
6	25.25	0.00	38.09	10.40	191.43	17.32	17.32	4500
7	24.50	0.00	52.75	14.41	265.13	24.51	24.51	4500
		0.00	52.75	13.17	305.31	22.45	22.45	9643
8	24.06	0.00	61.39	15.33	355.30	26.40	26.40	9643
9	23.62	0.00	70.05	17.49	405.42	30.35	30.35	9643
10	23.06	5.60	75.49	18.85	436.91	32.75	38.35	5507
11	22.50	11.20	80.93	20.21	468.42	35.15	46.35	5507
		Total>	92.13	22.50m	235.53	89.31	89.31	9629
12	22.05	Total>	101.79	24.73m	252.10	98.73	98.73	10093
13	21.61	Total>	111.43	26.95m	268.65	108.14	108.14	10557
14	20.86	Total>	127.63	30.70m	296.50	123.98	123.98	11340
15	20.43	Total>	136.88	32.85m	312.43	133.05	133.05	11788
16	20.00	Total>	146.10	35.00m	328.33	142.10	142.10	12237
17	19.20	Total>	163.19	39.00m	357.85	158.93	158.93	13071
18	18.40	Total>	180.19	43.00m	387.27	175.75	175.75	13906
19	17.60	Total>	197.10	47.00m	416.61	192.54	192.54	14740
20	16.80	Total>	213.93	51.00m	445.88	209.32	209.32	15575
21	16.00	Total>	230.71	55.00m	475.08	226.08	226.08	16409
22	15.25	Total>	246.38	58.75m	502.41	241.78	241.78	17192
23	14.50	Total>	262.02	62.50m	529.69	257.47	257.47	17974

Node no.	Y coord	RIGHT side						
			Effective stresses				Total earth pressure	Coeff. of subgrade reaction
		Water press. kN/m2	Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2		
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		0.00	0.00	0.00	0.00	0.00	0.00	4500
4	26.50	0.00	9.50	2.59	47.75	5.10	5.10	4500
5	26.00	0.00	19.00	5.19	95.50	9.98	9.98	4500
6	25.25	0.00	33.25	9.08	167.12	17.14	17.14	4500
7	24.50	0.00	47.50	12.97	238.74	24.30	24.30	4500
		0.00	47.50	11.86	274.92	23.51	23.51	9643
8	24.06	0.00	55.86	13.95	323.31	27.49	27.49	9643
9	23.62	0.00	64.22	16.04	371.69	31.47	31.47	9643
10	23.06	5.60	69.26	17.30	400.86	33.91	39.51	5507
11	22.50	11.20	74.30	18.55	430.03	36.35	47.55	5507
		Total>	85.50	22.50m	228.90	88.07	88.07	9629
12	22.05	Total>	94.85	24.73m	245.15	97.63	97.63	10093
13	21.61	Total>	104.19	26.95m	261.41	107.19	107.19	10557
14	20.86	Total>	119.94	30.70m	288.81	123.28	123.28	11340
15	20.43	Total>	128.97	32.85m	304.52	132.49	132.49	11788
16	20.00	Total>	138.00	35.00m	320.23	141.68	141.68	12237
17	19.20	Total>	154.80	39.00m	349.46	158.73	158.73	13071

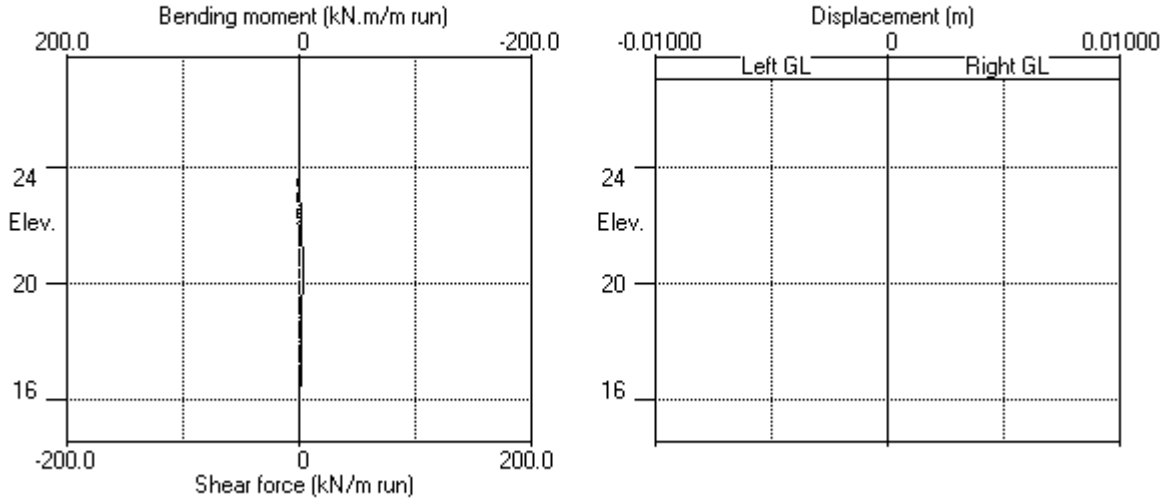
(continued)

Stage No.3 Change EI of wall to 155860 kN.m2/m run
Yield moment not defined
Reset wall displacements to zero at this stage

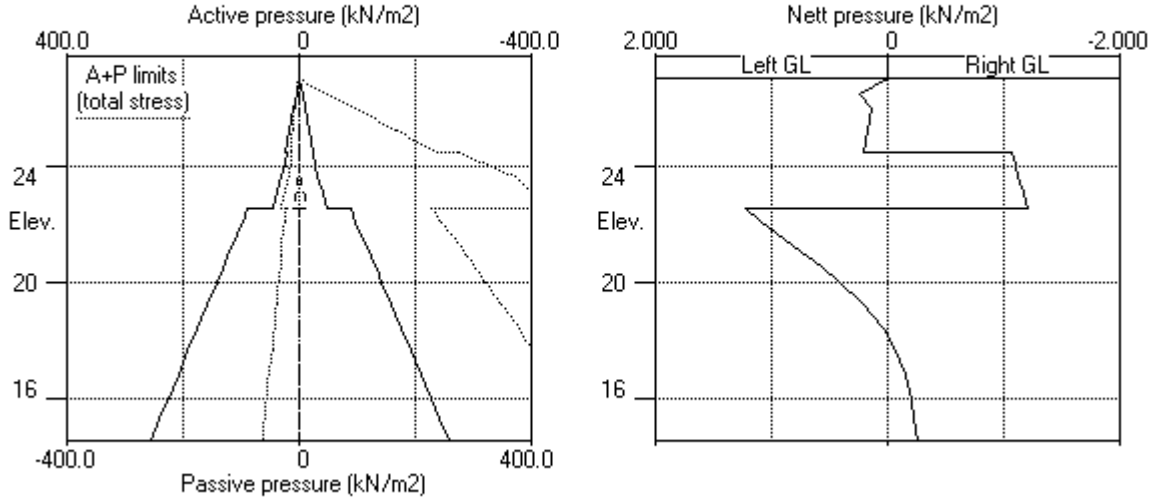
Node no.	Y coord	RIGHT side						
			Effective stresses				Total earth pressure	Coeff. of subgrade reaction
		Water press.	Vertic -al	Active limit	Passive limit	Earth pressure		
		kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m3
18	18.40	Total>	171.60	43.00m	378.69	175.70	175.70	13906
19	17.60	Total>	188.40	47.00m	407.92	192.61	192.61	14740
20	16.80	Total>	205.20	51.00m	437.14	209.47	209.47	15575
21	16.00	Total>	222.00	55.00m	466.37	226.28	226.28	16409
22	15.25	Total>	237.75	58.75m	493.77	242.01	242.01	17192
23	14.50	Total>	253.50	62.50m	521.17	257.72	257.72	17974

Units: kN,m

Stage No.3 Change EI of wall to 155860kN.m2/m run



Stage No.3 Change EI of wall to 155860kN.m2/m run



Units: kN,m

Stage No. 6 Excavate to elevation 20.86 on RIGHT side

STABILITY ANALYSIS of Fully Embedded Wall according to Strength Factor method

Factor of safety on soil strength

Stage No.	--- G.L. --- Act.	Pass.	Strut Elev.	FoS for toe elev. = 14.50 Factor of Safety	Moment equilib. at elev.	Toe elev. for FoS = 1.000 Toe elev.	Wall Penetr -ation	Direction of failure
6	27.00	20.86	27.80	3.079	n/a	20.39	0.47	L to R

BENDING MOMENT and DISPLACEMENT ANALYSIS of Fully Embedded Wall

Analysis options

Length of wall perpendicular to section = 20.00m
Subgrade reaction model - Boussinesq Influence coefficients
Soil deformations are elastic until the active or passive limit is reached
Open Tension Crack analysis - No

Rigid boundaries: Left side 20.00 from wall
Right side 20.00 from wall

Limit State: Serviceability Limit State

Calculated Bending Moments and Strut Forces are to be multiplied by a factor of 1.35 to obtain values for structural design. See summary for factored values.

*** Wall displacements reset to zero at stage 3

Node no.	Y coord	Nett pressure kN/m2	Wall disp. m	Wall rotation rad.	Shear force kN/m	Bending moment kN.m/m	Strut forces kN/m	EI of wall kN.m2/m
1	27.80	0.00	0.001	-2.43E-03	-37.8	-0.0	37.8	155860
2	27.40	0.00	0.002	-2.41E-03	-37.8	-15.1		155860
3	27.00	0.00	0.003	-2.36E-03	-37.8	-30.2		155860
4	26.50	3.62	0.004	-2.23E-03	-36.9	-48.9		155860
5	26.00	6.39	0.005	-2.04E-03	-34.4	-66.8		155860
6	25.25	10.40	0.007	-1.66E-03	-28.1	-90.4		155860
7	24.50	14.41	0.008	-1.18E-03	-18.8	-108.1		155860
		13.17	0.008	-1.18E-03	-18.8	-108.1		
8	24.06	15.33	0.008	-8.73E-04	-12.5	-115.0		155860
9	23.62	17.49	0.008	-5.41E-04	-5.3	-119.0		155860
10	23.06	23.70	0.009	-1.13E-04	6.3	-118.9		155860
11	22.50	29.91	0.008	2.98E-04	21.3	-111.3		155860
		22.50	0.008	2.98E-04	21.3	-111.3		
12	22.05	25.55	0.008	5.93E-04	32.0	-97.1		155860
13	21.61	34.54	0.008	8.40E-04	45.3	-80.0		155860
14	20.86	52.27	0.007	1.10E-03	77.9	-34.8		155860
		-48.85	0.007	1.10E-03	77.9	-34.8		
15	20.43	-43.91	0.007	1.15E-03	57.9	-5.8		155860
16	20.00	-37.94	0.006	1.13E-03	40.3	15.0		155860
17	19.20	-26.03	0.005	9.97E-04	14.7	35.2		155860
18	18.40	-15.17	0.005	7.98E-04	-1.7	38.7		155860
19	17.60	-6.61	0.004	6.10E-04	-10.4	32.4		155860
20	16.80	-0.42	0.004	4.66E-04	-13.3	21.9		155860
21	16.00	4.10	0.003	3.79E-04	-11.8	11.1		155860
22	15.25	7.73	0.003	3.43E-04	-7.3	3.4		155860
23	14.50	11.86	0.003	3.35E-04	0.0	-0.0		---

At elev. 27.80 Strut force = 37.8 kN/strut = 37.8 kN/m run

(continued)

Stage No.6 Excavate to elevation 20.86 on RIGHT side

LEFT side

Node no.	Y coord	Water press. kN/m2	Effective stresses: Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2	Total earth pressure kN/m2	Coeff. of subgrade reaction kN/m3
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		0.00	0.00	0.00	0.00	0.00	0.00	2192
4	26.50	0.00	13.26	3.62	66.67	3.62	3.62a	2192
5	26.00	0.00	23.41	6.39	117.65	6.39	6.39a	2192
6	25.25	0.00	38.09	10.40	191.43	10.40	10.40a	2192
7	24.50	0.00	52.75	14.41	265.13	14.41	14.41a	2192
		0.00	52.75	13.17	305.31	13.17	13.17a	4696
8	24.06	0.00	61.39	15.33	355.30	15.33	15.33a	4696
9	23.62	0.00	70.05	17.49	405.42	17.49	17.49a	4696
10	23.06	4.60	76.49	19.10	442.69	19.10	23.70a	4696
11	22.50	9.20	82.93	20.71	479.98	20.71	29.91a	4696
		Total>	92.13	22.50m	235.53	22.50	22.50a	8416
12	22.05	Total>	101.79	24.73m	252.10	25.55	25.55	8822
13	21.61	Total>	111.43	26.95m	268.65	34.54	34.54	9228
14	20.86	Total>	127.63	30.70m	296.50	52.27	52.27	9911
15	20.43	Total>	136.88	32.85m	312.43	63.52	63.52	10304
16	20.00	Total>	146.10	35.00m	328.33	75.22	75.22	10696
17	19.20	Total>	163.19	39.00m	357.85	97.29	97.29	11425
18	18.40	Total>	180.19	43.00m	387.27	118.89	118.89	12154
19	17.60	Total>	197.10	47.00m	416.61	139.48	139.48	12884
20	16.80	Total>	213.93	51.00m	445.88	159.04	159.04	13613
21	16.00	Total>	230.71	55.00m	475.08	177.89	177.89	14343
22	15.25	Total>	246.38	58.75m	502.41	195.31	195.31	15026
23	14.50	Total>	262.02	62.50m	529.69	212.99	212.99	15710

RIGHT side

Node no.	Y coord	Water press. kN/m2	Effective stresses: Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2	Total earth pressure kN/m2	Coeff. of subgrade reaction kN/m3
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
4	26.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
5	26.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
6	25.25	0.00	0.00	0.00	0.00	0.00	0.00	0.0
7	24.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
8	24.06	0.00	0.00	0.00	0.00	0.00	0.00	0.0
9	23.62	0.00	0.00	0.00	0.00	0.00	0.00	0.0
10	23.06	0.00	0.00	0.00	0.00	0.00	0.00	0.0
11	22.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
12	22.05	0.00	0.00	0.00	0.00	0.00	0.00	0.0
13	21.61	0.00	0.00	0.00	0.00	0.00	0.00	0.0
14	20.86	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		Total>	0.00	0.00	168.87	101.11	101.11	13074
15	20.43	Total>	9.03	2.15m	184.58	107.44	107.44	13592
16	20.00	Total>	18.06	4.30m	200.30	113.16	113.16	14109
17	19.20	Total>	34.89	8.30m	229.55	123.32	123.32	15071
18	18.40	Total>	51.75	12.30m	258.84	134.06	134.06	16033
19	17.60	Total>	68.67	16.30m	288.19	146.09	146.09	16995
20	16.80	Total>	85.67	20.30m	317.61	159.46	159.46	17957
21	16.00	Total>	102.74	24.30m	347.11	173.79	173.79	18920

(continued)

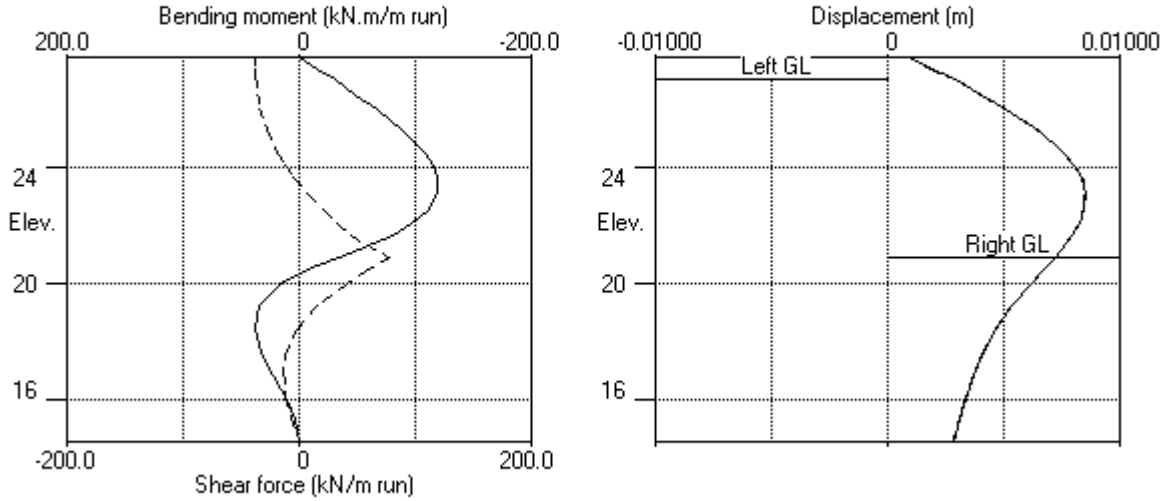
Stage No.6 Excavate to elevation 20.86 on RIGHT side

Node no.	Y coord	RIGHT side						
		Effective stresses					Total earth pressure	Coeff. of subgrade reaction
		Water press.	Vertic -al	Active limit	Passive limit	Earth pressure		
		kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m3
22	15.25	Total>	118.84	28.05m	374.86	187.58	187.58	19822
23	14.50	Total>	135.02	31.80m	402.69	201.12	201.12	20724

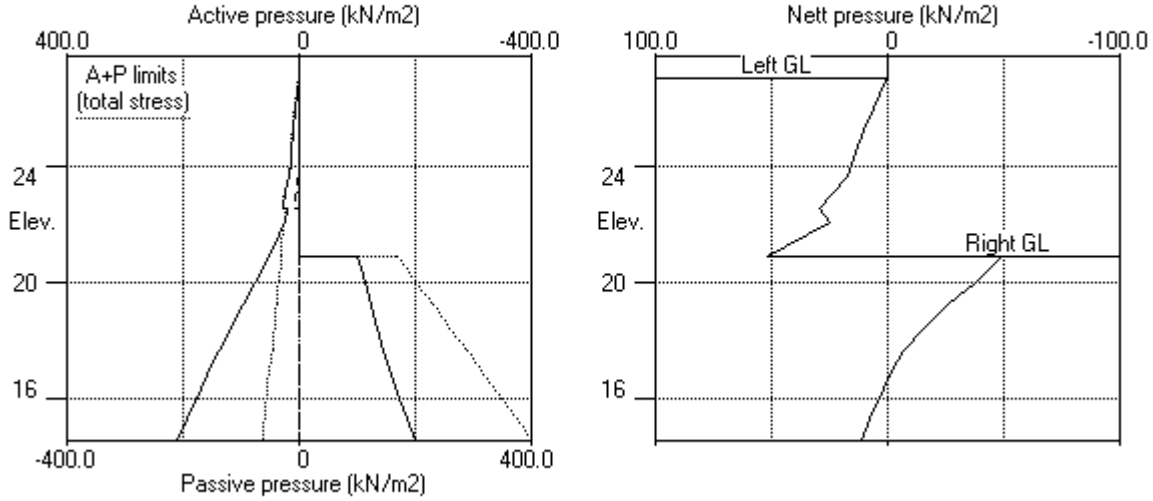
Note: 22.50a Soil pressure at active limit
123.45p Soil pressure at passive limit

Units: kN,m

Stage No.6 Excav. to elev. 20.86 on RIGHT side



Stage No.6 Excav. to elev. 20.86 on RIGHT side



Units: kN,m

Stage No. 10 Change properties of soil type 3 to soil type 4
Ko pressures will be reset

STABILITY ANALYSIS of Fully Embedded Wall according to Strength Factor method
Factor of safety on soil strength

Stage No.	--- G.L. --- Act.	Pass.	Strut Elev.	FoS for toe elev. = 14.50 Factor of Safety	Moment equilib. at elev.	Toe elev. for FoS = 1.000 Toe elev.	Wall Penetr -ation	Direction of failure
10	27.00	20.86		More than one strut. No FoS calc.				

BENDING MOMENT and DISPLACEMENT ANALYSIS of Fully Embedded Wall
Analysis options
Length of wall perpendicular to section = 20.00m
Subgrade reaction model - Boussinesq Influence coefficients
Soil deformations are elastic until the active or passive limit is reached
Open Tension Crack analysis - No

Rigid boundaries: Left side 20.00 from wall
Right side 20.00 from wall
Limit State: Serviceability Limit State
Calculated Bending Moments and Strut Forces are to be multiplied by a factor of 1.35 to obtain values for structural design. See summary for factored values.

*** Wall displacements reset to zero at stage 3

Node no.	Y coord	Nett pressure kN/m2	Wall disp. m	Wall rotation rad.	Shear force kN/m	Bending moment kN.m/m	Strut forces kN/m	EI of wall kN.m2/m
1	27.80	0.00	0.001	-1.84E-03	0.0	-0.0		155860
2	27.40	0.00	0.002	-1.84E-03	0.0	-0.0	31.1	155860
		0.00	0.002	-1.84E-03	-31.1	-0.0		
3	27.00	0.00	0.003	-1.82E-03	-31.1	-12.4		155860
4	26.50	4.80	0.004	-1.76E-03	-29.9	-27.8		155860
5	26.00	8.09	0.005	-1.64E-03	-26.6	-42.0		155860
6	25.25	12.90	0.006	-1.40E-03	-18.8	-59.3		155860
7	24.50	17.34	0.007	-1.09E-03	-7.4	-69.4		155860
		19.45	0.007	-1.09E-03	-7.4	-69.4		
8	24.06	21.73	0.007	-8.93E-04	1.6	-70.7		155860
9	23.62	23.63	0.007	-6.96E-04	11.6	-67.8		155860
10	23.06	28.88	0.008	-4.71E-04	26.3	-57.3		155860
11	22.50	33.27	0.008	-3.02E-04	43.7	-37.7		155860
		63.67	0.008	-3.02E-04	43.7	-37.7		
12	22.05	69.24	0.008	-2.38E-04	73.3	-9.3		155860
13	21.61	74.11	0.008	-2.73E-04	105.2	30.5	227.9	155860
		74.11	0.008	-2.73E-04	-122.7	30.5		
14	20.86	80.43	0.008	-2.62E-04	-64.7	-39.6		155860
		65.60	0.008	-2.62E-04	-64.7	-39.6		
15	20.43	54.90	0.009	-1.28E-04	-38.8	-61.7		155860
16	20.00	44.32	0.009	5.14E-05	-17.5	-73.7		155860
17	19.20	25.90	0.008	4.24E-04	10.6	-76.1		155860
18	18.40	10.04	0.008	7.69E-04	25.0	-61.8		155860
19	17.60	-2.94	0.007	1.02E-03	27.8	-40.9		155860
20	16.80	-9.22	0.006	1.18E-03	23.0	-21.2		155860
21	16.00	-11.93	0.005	1.25E-03	14.5	-7.1		155860
22	15.25	-13.64	0.004	1.27E-03	4.9	-0.7		155860

(continued)

Stage No.10 Change properties of soil type 3 to soil type 4
Ko pressures will be reset

Node no.	Y coord	Nett pressure kN/m2	Wall disp. m	Wall rotation rad.	Shear force kN/m	Bending moment kN.m/m	Strut forces kN/m	EI of wall kN.m2/m
23	14.50	0.54	0.003	1.27E-03	0.0	0.0		---
At elev. 27.40 Strut force =			31.1 kN/strut =		31.1 kN/m run			
At elev. 21.61 Strut force =			227.9 kN/strut =		227.9 kN/m run			

Node no.	Y coord	LEFT side: Water press. kN/m2	Effective stresses: Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2	Total earth pressure kN/m2	Coeff. of subgrade reaction kN/m3
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		0.00	0.00	0.00	0.00	0.00	0.00	3177
4	26.50	0.00	13.26	3.62	66.67	4.80	4.80	3177
5	26.00	0.00	23.41	6.39	117.65	8.09	8.09	3177
6	25.25	0.00	38.09	10.40	191.43	12.90	12.90	3177
7	24.50	0.00	52.75	14.41	265.13	17.34	17.34	3177
		0.00	52.75	13.17	305.31	19.45	19.45	6808
8	24.06	0.00	61.39	15.33	355.30	21.73	21.73	6808
9	23.62	0.00	70.05	17.49	405.42	23.63	23.63	6808
10	23.06	4.60	76.49	19.10	442.69	24.27	28.88	6808
11	22.50	9.20	82.93	20.71	479.98	24.07	33.27	6808
		9.20	82.93	30.98	197.10	54.47	63.67	6127
12	22.05	12.86	88.93	33.71	210.29	56.38	69.24	6420
13	21.61	16.52	94.91	36.44	223.44	57.59	74.11	5882
14	20.86	22.68	104.95	41.00	245.50	57.75	80.43	6315
15	20.43	26.21	110.66	43.60	258.06	57.30	83.51	6563
16	20.00	29.75	116.36	46.19	270.57	56.96	86.71	6811
17	19.20	36.32	126.87	50.98	293.68	57.65	93.97	7272
18	18.40	42.89	137.29	55.72	316.59	61.00	103.90	7734
19	17.60	49.47	147.63	60.42	339.32	67.35	116.81	8195
20	16.80	56.04	157.89	65.09	361.88	80.55	136.59	8656
21	16.00	62.61	168.09	69.73	384.29	97.51	160.12	9118
22	15.25	68.78	177.61	74.06	405.20	114.42	183.20	9550
23	14.50	74.94	187.08	78.37	426.03	132.39	207.32	9983

Node no.	Y coord	RIGHT side: Water press. kN/m2	Effective stresses: Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2	Total earth pressure kN/m2	Coeff. of subgrade reaction kN/m3
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
4	26.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
5	26.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
6	25.25	0.00	0.00	0.00	0.00	0.00	0.00	0.0
7	24.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
8	24.06	0.00	0.00	0.00	0.00	0.00	0.00	0.0
9	23.62	0.00	0.00	0.00	0.00	0.00	0.00	0.0
10	23.06	0.00	0.00	0.00	0.00	0.00	0.00	0.0
11	22.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
12	22.05	0.00	0.00	0.00	0.00	0.00	0.00	0.0
13	21.61	0.00	0.00	0.00	0.00	0.00	0.00	0.0
14	20.86	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		0.00	0.00	0.00	14.83	14.83	14.83p	6315

(continued)

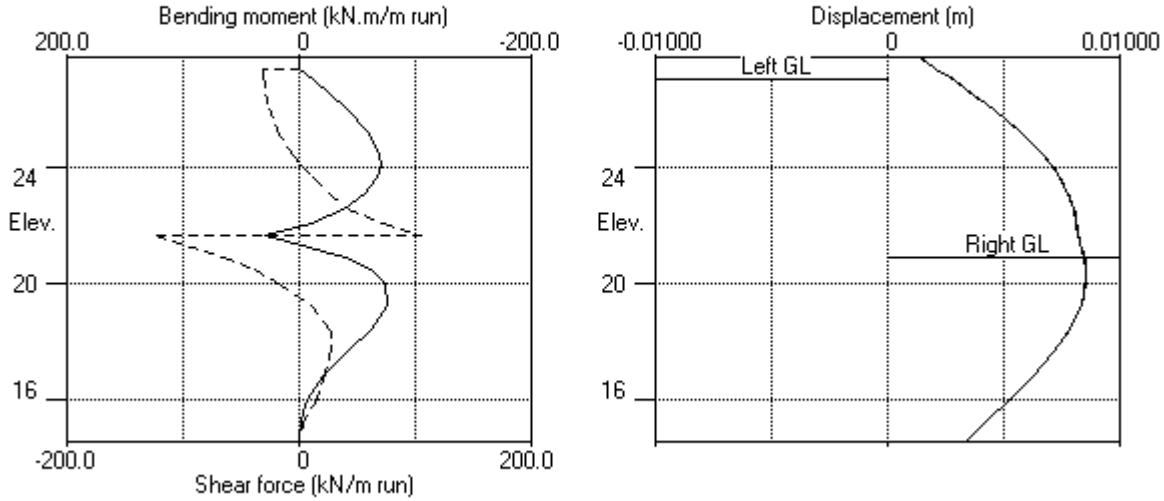
Stage No.10 Change properties of soil type 3 to soil type 4
Ko pressures will be reset

Node no.	Y coord	RIGHT side						
			Effective stresses				Total earth pressure	Coeff. of subgrade reaction
		Water press.	Vertic -al	Active limit	Passive limit	Earth pressure		
		kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m3
15	20.43	5.07	3.96	0.00	23.54	23.54	28.60p	6563
16	20.00	10.13	7.93	0.00	32.26	32.26	42.39p	6811
17	19.20	19.56	15.33	0.23	48.52	48.52	68.08p	7272
18	18.40	28.99	22.77	3.61	64.87	64.87	93.85p	7734
19	17.60	38.41	30.26	7.02	81.34	81.34	119.75p	8195
20	16.80	47.84	37.83	10.46	97.97	97.97	145.81p	8656
21	16.00	57.27	45.48	13.95	114.78	114.78	172.05p	9118
22	15.25	66.10	52.73	17.25	130.73	130.73	196.84p	9550
23	14.50	74.94	60.08	20.59	146.88	131.85	206.79	9983

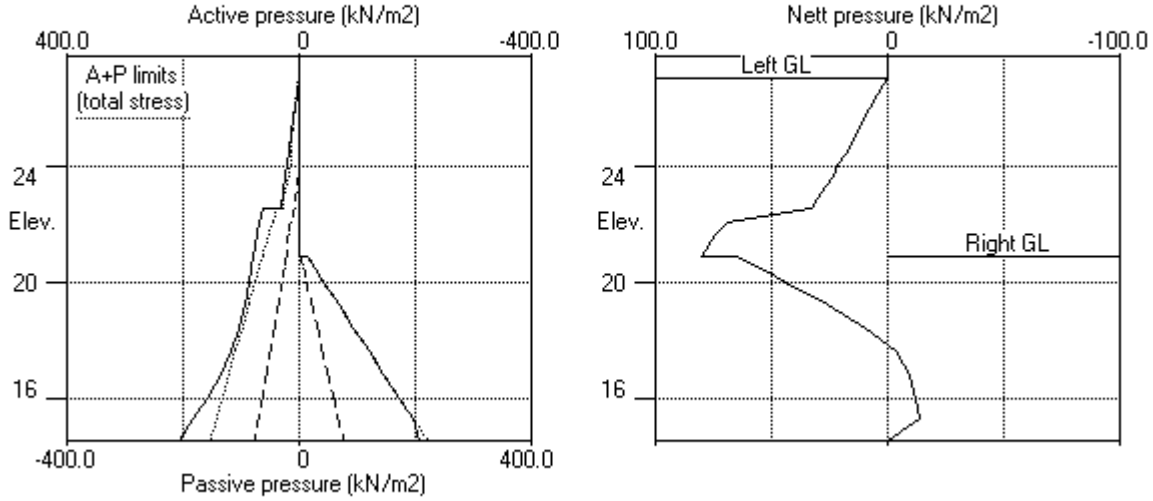
Note: 12.34a Soil pressure at active limit
196.84p Soil pressure at passive limit

Units: kN,m

Stage No.10 Change soil type 3 to soil type 4



Stage No.10 Change soil type 3 to soil type 4



Units: kN,m

Stage No. 11 Change EI of wall to 111330 kN.m2/m run
Yield moment not defined
Allow wall to relax with new modulus value

STABILITY ANALYSIS of Fully Embedded Wall according to Strength Factor method
Factor of safety on soil strength

Stage No.	--- G.L. --- Act.	Pass.	Strut Elev.	FoS for toe elev. = 14.50 Factor of Safety	Moment equilib. at elev.	Toe elev. for FoS = 1.000 Toe elev.	Wall Penetr -ation	Direction of failure
11	27.00	20.86		More than one strut. No FoS calc.				

BENDING MOMENT and DISPLACEMENT ANALYSIS of Fully Embedded Wall
Analysis options
Length of wall perpendicular to section = 20.00m
Subgrade reaction model - Boussinesq Influence coefficients
Soil deformations are elastic until the active or passive limit is reached
Open Tension Crack analysis - No

Rigid boundaries: Left side 20.00 from wall
Right side 20.00 from wall
Limit State: Serviceability Limit State
Calculated Bending Moments and Strut Forces are to be multiplied by a factor of 1.35 to obtain values for structural design. See summary for factored values.

*** Wall displacements reset to zero at stage 3

Node no.	Y coord	Nett pressure kN/m2	Wall disp. m	Wall rotation rad.	Shear force kN/m	Bending moment kN.m/m	Strut forces kN/m	EI of wall kN.m2/m
1	27.80	0.00	0.001	-1.98E-03	0.0	-0.0		111330
2	27.40	0.00	0.002	-1.98E-03	0.0	-0.0	27.3	111330
		0.00	0.002	-1.98E-03	-27.3	-0.0		
3	27.00	0.00	0.003	-1.96E-03	-27.3	-11.3		111330
4	26.50	4.57	0.004	-1.88E-03	-26.2	-25.1		111330
5	26.00	7.73	0.005	-1.75E-03	-23.1	-37.9		111330
6	25.25	12.41	0.006	-1.45E-03	-15.5	-53.3		111330
7	24.50	16.82	0.007	-1.07E-03	-4.6	-61.6		111330
		18.35	0.007	-1.07E-03	-4.6	-61.6		
8	24.06	20.69	0.007	-8.40E-04	4.0	-62.1		111330
9	23.62	22.74	0.008	-6.10E-04	13.6	-58.4		111330
10	23.06	28.25	0.008	-3.58E-04	27.9	-47.0		111330
11	22.50	32.96	0.008	-1.90E-04	45.0	-26.7		111330
		63.39	0.008	-1.90E-04	45.0	-26.7		
12	22.05	69.14	0.008	-1.57E-04	74.5	2.3		111330
13	21.61	74.10	0.008	-2.65E-04	106.3	42.6	229.6	111330
		74.10	0.008	-2.65E-04	-123.3	42.6		
14	20.86	80.23	0.008	-3.49E-04	-65.4	-27.8		111330
		65.40	0.008	-3.49E-04	-65.4	-27.8		
15	20.43	54.49	0.009	-2.18E-04	-39.6	-50.1		111330
16	20.00	43.70	0.009	-1.99E-05	-18.5	-62.4		111330
17	19.20	25.03	0.008	4.06E-04	9.0	-65.6		111330
18	18.40	9.17	0.008	8.02E-04	22.7	-52.7		111330
19	17.60	-3.61	0.007	1.08E-03	24.9	-33.5		111330
20	16.80	-9.56	0.006	1.24E-03	19.6	-15.9		111330
21	16.00	-11.90	0.005	1.31E-03	11.0	-4.0		111330

(continued)

Stage No.11 Change EI of wall to 111330 kN.m2/m run
Yield moment not defined
Allow wall to relax with new modulus value

Node no.	Y coord	Nett pressure kN/m2	Wall disp. m	Wall rotation rad.	Shear force kN/m	Bending moment kN.m/m	Strut forces kN/m	EI of wall kN.m2/m
22	15.25	-11.31	0.004	1.31E-03	2.3	0.3		111330
23	14.50	5.05	0.003	1.31E-03	0.0	0.0		---

At elev. 27.40 Strut force = 27.3 kN/strut = 27.3 kN/m run
At elev. 21.61 Strut force = 229.6 kN/strut = 229.6 kN/m run

LEFT side

Node no.	Y coord	Water press. kN/m2	Effective stresses: Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2	Total earth pressure kN/m2	Coeff. of subgrade reaction kN/m3
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		0.00	0.00	0.00	0.00	0.00	0.00	2195
4	26.50	0.00	13.26	3.62	66.67	4.57	4.57	2195
5	26.00	0.00	23.41	6.39	117.65	7.73	7.73	2195
6	25.25	0.00	38.09	10.40	191.43	12.41	12.41	2195
7	24.50	0.00	52.75	14.41	265.13	16.82	16.82	2195
		0.00	52.75	13.17	305.31	18.35	18.35	4703
8	24.06	0.00	61.39	15.33	355.30	20.69	20.69	4703
9	23.62	0.00	70.05	17.49	405.42	22.74	22.74	4703
10	23.06	4.60	76.49	19.10	442.69	23.65	28.25	4703
11	22.50	9.20	82.93	20.71	479.98	23.75	32.96	4703
		9.20	82.93	30.98	197.10	54.18	63.39	4233
12	22.05	12.86	88.93	33.71	210.29	56.28	69.14	4435
13	21.61	16.52	94.91	36.44	223.44	57.58	74.10	4638
14	20.86	22.68	104.95	41.00	245.50	57.55	80.23	4979
15	20.43	26.21	110.66	43.60	258.06	56.89	83.10	5174
16	20.00	29.75	116.36	46.19	270.57	56.35	86.09	5370
17	19.20	36.32	126.87	50.98	293.68	56.79	93.11	5734
18	18.40	42.89	137.29	55.72	316.59	60.13	103.02	6097
19	17.60	49.47	147.63	60.42	339.32	66.68	116.14	6461
20	16.80	56.04	157.89	65.09	361.88	80.21	136.25	6825
21	16.00	62.61	168.09	69.73	384.29	97.52	160.14	27777
22	15.25	68.78	177.61	74.06	405.20	115.59	184.36	29095
23	14.50	74.94	187.08	78.37	426.03	134.64	209.58	30412

RIGHT side

Node no.	Y coord	Water press. kN/m2	Effective stresses: Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2	Total earth pressure kN/m2	Coeff. of subgrade reaction kN/m3
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
4	26.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
5	26.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
6	25.25	0.00	0.00	0.00	0.00	0.00	0.00	0.0
7	24.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
8	24.06	0.00	0.00	0.00	0.00	0.00	0.00	0.0
9	23.62	0.00	0.00	0.00	0.00	0.00	0.00	0.0
10	23.06	0.00	0.00	0.00	0.00	0.00	0.00	0.0
11	22.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
12	22.05	0.00	0.00	0.00	0.00	0.00	0.00	0.0

(continued)

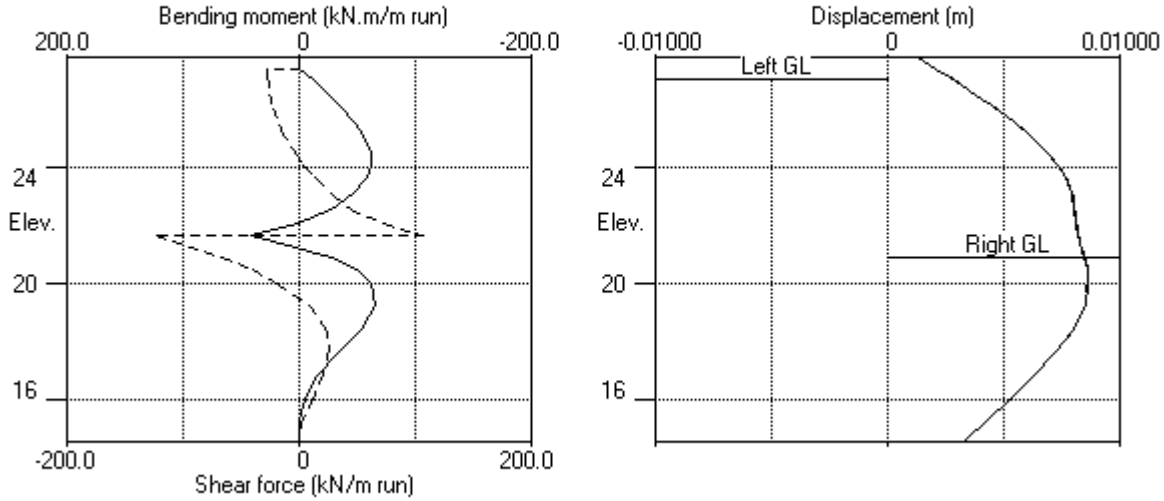
Stage No.11 Change EI of wall to 111330 kN.m2/m run
Yield moment not defined
Allow wall to relax with new modulus value

Node no.	Y coord	RIGHT side Water press. kN/m2	Effective stresses Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2	Total earth pressure kN/m2	Coeff. of subgrade reaction kN/m3
13	21.61	0.00	0.00	0.00	0.00	0.00	0.00	0.0
14	20.86	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		0.00	0.00	0.00	14.83	14.83	14.83p	7826
15	20.43	5.07	3.96	0.00	23.54	23.54	28.60p	8133
16	20.00	10.13	7.93	0.00	32.26	32.26	42.39p	8440
17	19.20	19.56	15.33	0.23	48.52	48.52	68.08p	9012
18	18.40	28.99	22.77	3.61	64.87	64.87	93.85p	9584
19	17.60	38.41	30.26	7.02	81.34	81.34	119.75p	10155
20	16.80	47.84	37.83	10.46	97.97	97.97	145.81p	10727
21	16.00	57.27	45.48	13.95	114.78	114.77	172.03	27777
22	15.25	66.10	52.73	17.25	130.73	129.57	195.67	29095
23	14.50	74.94	60.08	20.59	146.88	129.59	204.53	30412

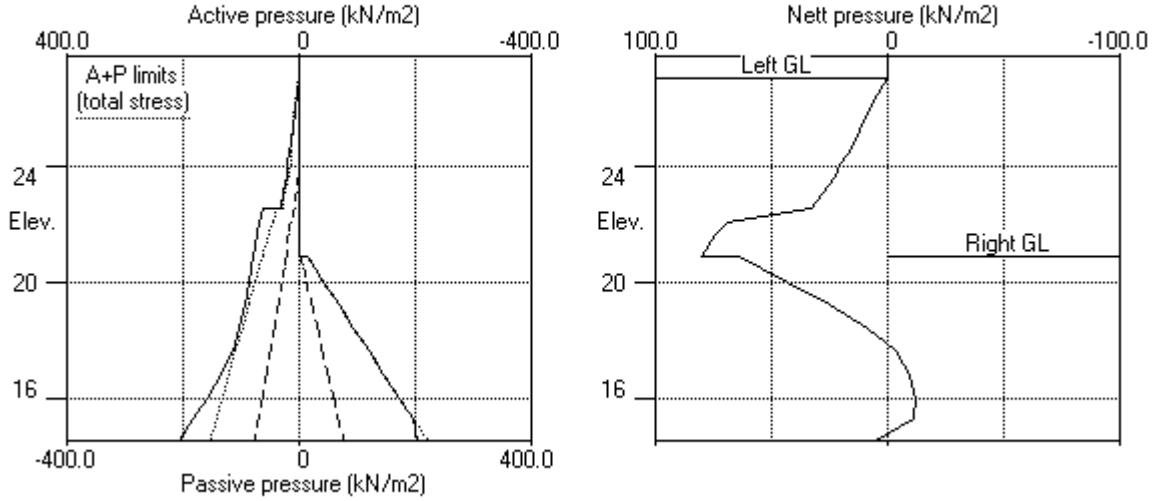
Note: 12.34a Soil pressure at active limit
145.81p Soil pressure at passive limit

Units: kN,m

Stage No.11 Change EI of wall to 111330kN.m2/m run



Stage No.11 Change EI of wall to 111330kN.m2/m run



Units: kN,m

Summary of results

LIMIT STATE PARAMETERS

Limit State: Serviceability Limit State
All loads and soil strengths are unfactored

STABILITY ANALYSIS of Fully Embedded Wall according to Strength Factor method

Factor of safety on soil strength

Stage No.	--- G.L. --- Act.	Pass.	Strut Elev.	FoS for toe elev. = 14.50 Factor of Safety	Moment equilib. at elev.	Toe elev. for FoS = 1.000 Toe elev.	Wall Penetr -ation	Direction of failure
1	27.00	27.00	Cant.	Conditions not suitable for FoS calc.				
2	27.00	27.00	Cant.	Conditions not suitable for FoS calc.				
3	27.00	27.00	Cant.	Conditions not suitable for FoS calc.				
4	27.00	27.00		No analysis at this stage				
5	27.00	27.00	27.80	Conditions not suitable for FoS calc.				
6	27.00	20.86	27.80	3.079	n/a	20.39	0.47	L to R
7	27.00	20.86		No analysis at this stage				

All remaining stages have more than one strut - FoS calculation n/a

Units: kN,m

Summary of results

BENDING MOMENT and DISPLACEMENT ANALYSIS of Fully Embedded Wall

Analysis options

Length of wall perpendicular to section = 20.00m
Subgrade reaction model - Boussinesq Influence coefficients
Soil deformations are elastic until the active or passive limit is reached
Open Tension Crack analysis - No

Rigid boundaries: Left side 20.00 from wall
Right side 20.00 from wall

Limit State: Serviceability Limit State

Calculated Bending Moments and Strut Forces have been multiplied by a factor of 1.35 to obtain values for structural design.

Bending moment, shear force and displacement envelopes

Node no.	Y coord	Displacement		Bending moment Calculated		Bending moment Factored		Shear force Calculated		Shear force Factored	
		max.	min.	max.	min.	max.	min.	max.	min.	max.	min.
		m	m	kN.m/m		kN.m/m		kN/m	kN/m	kN/m	kN/m
1	27.80	0.001	-0.000	0	-0	0	-0	0	-38	0	-51
2	27.40	0.002	-0.000	0	-15	0	-20	0	-41	0	-55
3	27.00	0.003	-0.000	0	-30	0	-41	0	-41	0	-55
4	26.50	0.004	-0.000	0	-49	0	-66	0	-40	0	-54
5	26.00	0.005	-0.000	0	-67	0	-90	0	-38	0	-51
6	25.25	0.007	-0.000	0	-90	0	-122	0	-31	0	-42
7	24.50	0.008	-0.000	1	-108	1	-146	0	-22	1	-29
8	24.06	0.008	-0.000	1	-115	1	-155	4	-15	5	-21
9	23.62	0.009	-0.000	0	-119	1	-161	15	-8	20	-10
10	23.06	0.009	0.000	0	-119	0	-160	37	-2	50	-3
11	22.50	0.009	0.000	0	-111	0	-150	63	-2	84	-2
12	22.05	0.008	0.000	2	-97	3	-131	100	-1	134	-2
13	21.61	0.008	0.000	43	-80	57	-108	140	-123	189	-166
14	20.86	0.008	0.000	0	-40	0	-53	78	-65	105	-88
15	20.43	0.009	0.000	0	-62	0	-83	58	-40	78	-53
16	20.00	0.009	0.000	15	-74	20	-100	40	-18	54	-25
17	19.20	0.008	0.000	35	-76	47	-103	15	0	20	0
18	18.40	0.008	0.000	39	-62	52	-83	25	-2	34	-2
19	17.60	0.007	0.000	32	-41	44	-55	28	-10	38	-14
20	16.80	0.006	0.000	22	-21	30	-29	23	-13	31	-18
21	16.00	0.005	0.000	11	-7	15	-10	15	-12	20	-16
22	15.25	0.004	0.000	3	-1	5	-1	5	-7	7	-10
23	14.50	0.003	-0.000	0	-0	0	-0	0	0	0	0

Summary of results (continued)

Calculated Bending Moments and Strut Forces have been multiplied by a factor of 1.35 to obtain values for structural design.

Maximum and minimum bending moment and shear force at each stage

Stage	Bending moment						Shear force					
no.	Calculated				Factored		Calculated				Factored	
	max.	elev.	min.	elev.	max.	min.	max.	elev.	min.	elev.	max.	min.
	kN.m/m		kN.m/m		kN.m/m		kN/m		kN/m		kN/m	kN/m
1	0	24.06	-1	20.86	1	-1	0	24.50	-1	22.50	1	-1
2	1	24.06	-2	20.43	1	-3	1	18.40	-2	22.50	1	-2
3	1	24.06	-2	20.43	1	-3	1	18.40	-2	22.50	1	-2
4	No calculation at this stage											
5	0	15.25	-3	22.50	0	-4	1	19.20	-2	23.06	1	-3
6	39	18.40	-119	23.62	52	-161	78	20.86	-38	27.80	105	-51
7	No calculation at this stage											
8	No calculation at this stage											
9	38	18.40	-117	23.06	51	-158	77	20.86	-41	27.40	104	-55
10	30	21.61	-76	19.20	41	-103	105	21.61	-123	21.61	142	-166
11	43	21.61	-66	19.20	57	-89	106	21.61	-123	21.61	144	-166
12	29	21.61	-67	24.06	39	-91	102	21.61	-109	21.61	138	-147
13	41	21.61	-96	24.06	56	-129	140	21.61	-115	21.61	189	-155

Maximum and minimum displacement at each stage

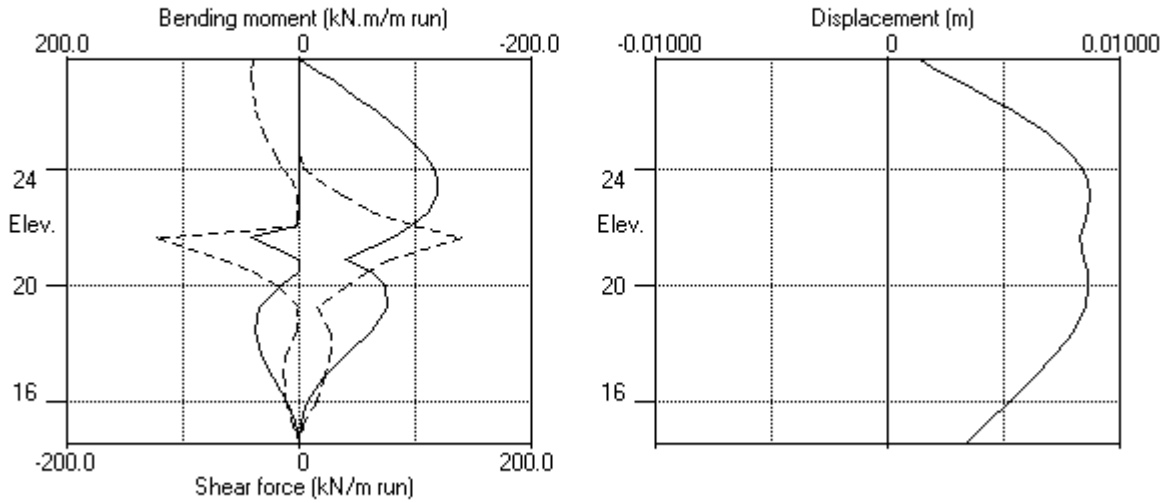
Stage no.	Displacement maximum	elev.	minimum	elev.	Stage description
	m		m		
1	0.000	27.80	0.000	27.80	Apply surcharge no.1 at elev. 27.00
2	0.000	20.00	0.000	27.80	Apply surcharge no.2 at elev. 27.00
3	0.000	16.80	-0.000	27.80	Change EI of wall to 155860kN.m2/m run
4	No calculation at this stage				Install strut no.3 at elev. 27.80
5	0.000	23.06	-0.000	14.50	Apply water pressure profile no.2
6	0.009	23.06	0.000	27.80	Excav. to elev. 20.86 on RIGHT side
7	No calculation at this stage				Install strut no.1 at elev. 21.61
8	No calculation at this stage				Install strut no.2 at elev. 27.40
9	0.008	23.06	0.000	27.80	Remove strut no.3 at elev. 27.80
10	0.009	20.00	0.000	27.80	Change soil type 3 to soil type 4
11	0.009	20.00	0.000	27.80	Change EI of wall to 111330kN.m2/m run
12	0.008	20.43	0.000	27.80	Apply surcharge no.3 at elev. 20.86
13	0.009	23.06	0.000	27.80	Apply water pressure profile no.3

Strut forces at each stage (horizontal components)

Stage	Strut no. 1 at elev. 21.61			Strut no. 2 at elev. 27.40			Strut no. 3 at elev. 27.80		
no.	--Calculated--		Factored	--Calculated--		Factored	--Calculated--		Factored
	kN per m run	kN per strut	kN per strut	kN per m run	kN per strut	kN per strut	kN per m run	kN per strut	kN per strut
5	---	---	---	---	---	---	0	0	0
6	---	---	---	---	---	---	38	38	51
9	slack	slack	slack	41	41	55	---	---	---
10	228	228	308	31	31	42	---	---	---
11	230	230	310	27	27	37	---	---	---
12	211	211	285	28	28	38	---	---	---
13	255	255	344	38	38	52	---	---	---

Units: kN,m

Bending moment, shear force, displacement envelopes



Units: kN,m

INPUT DATA

SOIL PROFILE

Stratum no.	Elevation of top of stratum	Soil types Left side	Right side
1	27.00	2 MG (drained)	2 MG (drained)
2	24.50	1 Lynch Hill Gravels	1 Lynch Hill Gravels
3	22.50	3 LCF (undrained)	3 LCF (undrained)

SOIL PROPERTIES (Unfactored SLS soil strengths)

-- Soil type -- No.	Description (Datum elev.)	Bulk density kN/m3	Young's Modulus Eh,kN/m2 (dEh/dy)	At rest coeff. Ko (dKo/dy)	Consol state. NC/OC (Nu)	Active limit Ka (Kac)	Passive limit Kp (Kpc)	Cohesion kN/m2 (dc/dy)
1	Lynch Hill Gravels	19.00	30000	0.470	OC (0.200)	0.250 (0.000)	5.788 (0.000)	
2	MG (drained)	19.00	14000	0.500	OC (0.200)	0.273 (0.000)	5.026 (0.000)	
3	LCF (undr.. (22.50)	21.00	36000 (3900)	1.000	OC (0.490)	1.000 (2.389)	1.000 (2.390)	60.00u (6.500)
4	LCF (drai.. (22.50)	21.00	27000 (2900)	0.625	OC (0.200)	0.455 (1.349)	2.198 (2.965)	5.000d
5	Fill	20.00	50000	0.384	OC (0.200)	0.197 (0.000)	8.446 (0.000)	

Additional soil parameters associated with Ka and Kp

------- Soil type ------- No.	Description	--- parameters for Ka --- Soil friction angle	Wall adhesion coeff.	Back-fill angle	--- parameters for Kp --- Soil friction angle	Wall adhesion coeff.	Back-fill angle
1	Lynch Hill Gravels	32.00	1.000	0.00	32.00	1.000	0.00
2	MG (drained)	30.00	1.000	0.00	30.00	1.000	0.00
3	LCF (undrained)	0.00	0.500	0.00	0.00	0.500	0.00
4	LCF (drained)	22.00	0.000	0.00	22.00	0.000	0.00
5	Fill	38.00	0.670	0.00	38.00	0.670	0.00

GROUND WATER CONDITIONS

Density of water = 10.00 kN/m3
Initial water pressure profile = Profile number 1

Automatic water pressure balancing at toe of wall : Yes

Water press. profile no.	Left side Point no.	Elev. m	Piezo elev. m	Water press. kN/m2	Right side Point no.	Elev. m	Piezo elev. m	Water press. kN/m2	
1	1	23.62	23.62	0.0	1	23.62	23.62	0.0	
2	1	23.62	23.62	0.0	1	20.36	20.36	0.0	MC+WC
					2	20.36	20.36	0.0	
3	1	26.00	26.00	0.0	1	20.86	20.86	0.0	MC+WC
					2	20.86	26.00	51.4	

WALL PROPERTIES

Type of structure = Fully Embedded Wall
Elevation of toe of wall = 14.50
Maximum finite element length = 0.80 m
Youngs modulus of wall E = 2.8000E+07 kN/m2
Moment of inertia of wall I = 7.9500E-03 m4/m run
E.I = 222600 kN.m2/m run
Yield Moment of wall = Not defined

STRUTS and ANCHORS

Strut/ anchor no.	Elev.	Strut spacing m	X-section area of strut sq.m	Youngs modulus kN/m2	Free length m	Inclin -ation (degs)	Pre- stress /strut kN	Tension allowed
1	21.61	1.00	1.500000	1.500E+07	25.00	0.00	0	No
2	27.40	1.00	0.325000	1.500E+07	25.00	0.00	0	No
3	27.80	1.00	1.000000	40000	1.00	0.00	0	No

SURCHARGE LOADS

Surch -arge no.	Elev.	Distance from wall	Length parallel to wall	Width perpend. to wall	Surcharge ----- kN/m2 ----- Near edge	Far edge	Equiv. soil type	Partial factor/ Category
1	27.00	0.10(L)	30.00	5.00	5.00	=	N/A	1.30 Var
2	27.00	5.10(L)	30.00	8.00	20.00	=	N/A	1.30 Var
3	20.86	-0.00(R)	30.00	25.00	52.00	=	N/A	1.00 -

Note: L = Left side, R = Right side
Limit State Categories P/U = Permanent Unfavourable
P/F = Permanent Favourable
Var = Variable (unfavourable)

CONSTRUCTION STAGES

Construction stage no.	Stage description
1	Apply surcharge no.1 at elevation 27.00
2	Apply surcharge no.2 at elevation 27.00
3	Change EI of wall to 155860 kN.m2/m run Yield moment not defined Reset wall displacements to zero at this stage
4	Install strut or anchor no.3 at elevation 27.80
5	Apply water pressure profile no.2 (Worst Cred.)
6	Excavate to elevation 20.36 on RIGHT side
7	Fill to elevation 20.86 on RIGHT side with soil type 5
8	Install strut or anchor no.1 at elevation 21.61
9	Install strut or anchor no.2 at elevation 27.40
10	Remove strut or anchor no.3 at elevation 27.80
11	Change properties of soil type 3 to soil type 4 Ko pressures will be reset
12	Change EI of wall to 111330 kN.m2/m run Yield moment not defined Allow wall to relax with new modulus value
13	Apply surcharge no.3 at elevation 20.86
14	Apply water pressure profile no.3 (Worst Cred.)

FACTORS OF SAFETY and ANALYSIS OPTIONS

Limit State options: ULS DA1 Combination 2
Water pressures : Worst Credible
Partial factor on C' = 1.250
Partial factor on Phi' = 1.250
Partial factor on Cu = 1.400
Partial factor on Soil Modulus = 1.000
Partial factor on Permanent Unfavourable loads = 1.000
Partial factor on Permanent Favourable loads = 1.000
Partial factor on Variable Unfavourable loads = 1.300

Stability analysis:
Method of analysis - Strength Factor method
Overall factor on soil strength for calculating wall depth = 1.00

Parameters for undrained strata:
Minimum equivalent fluid density = 5.00 kN/m3
Maximum depth of water filled tension crack = 0.00 m

Bending moment and displacement calculation:
Method - Subgrade reaction model using Influence Coefficients
Open Tension Crack analysis? - No
Non-linear Modulus Parameter (L) = 12.50 m

Boundary conditions:
Length of wall (normal to plane of analysis) = 20.00 m

Width of excavation on Left side of wall = 20.00 m

Width of excavation on Right side of wall = 20.00 m

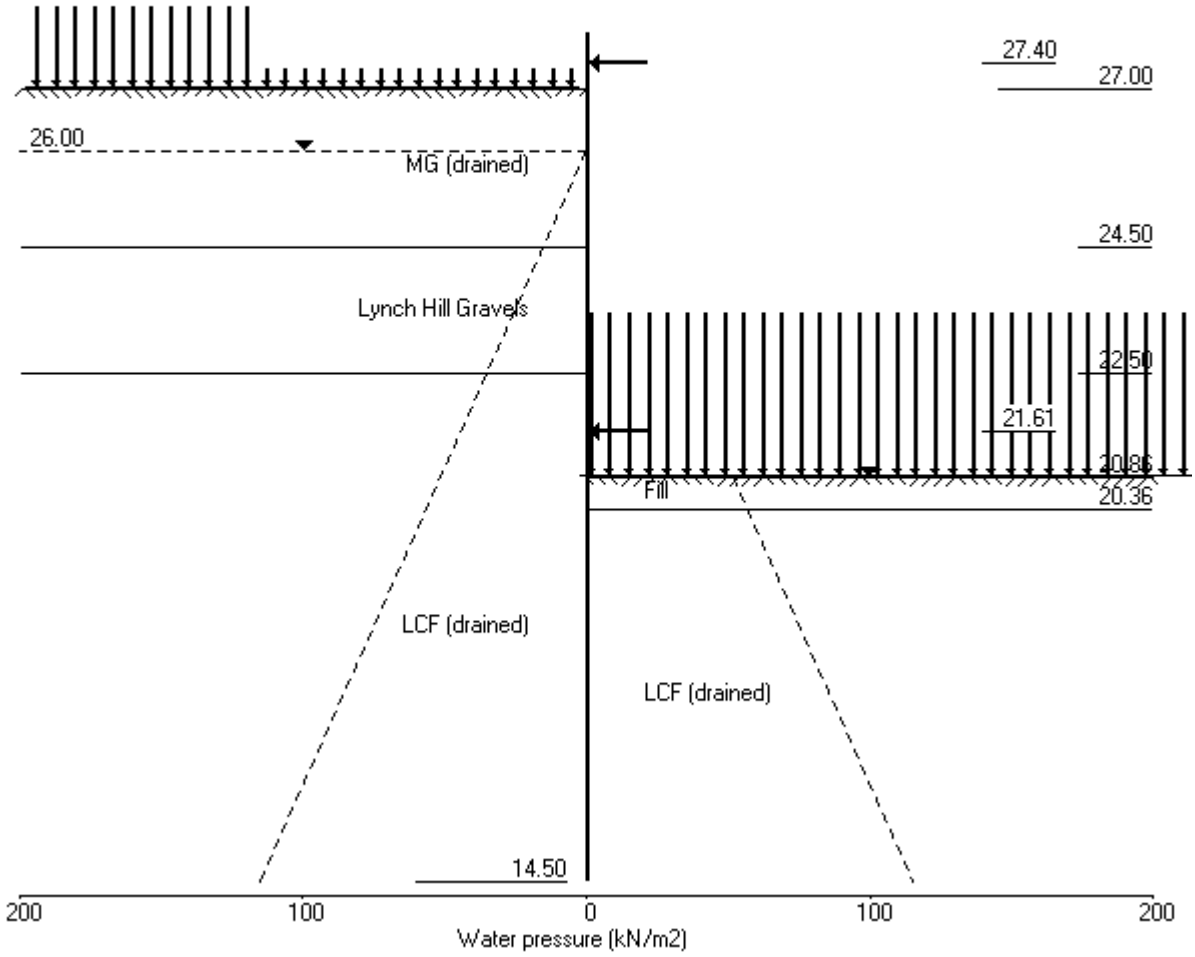
Distance to rigid boundary on Left side = 20.00 m
Distance to rigid boundary on Right side = 20.00 m

OUTPUT OPTIONS

Stage no.	Stage description	Output options: Displacement, Bending mom., Shear force	Active, Passive pressures	Graph. output
1	Apply surcharge no.1 at elev. 27.00	Yes	Yes	Yes
2	Apply surcharge no.2 at elev. 27.00	Yes	Yes	Yes
3	Change EI of wall to 155860kN.m2/m run	Yes	Yes	Yes
4	Install strut no.3 at elev. 27.80	Yes	Yes	Yes
5	Apply water pressure profile no.2	Yes	Yes	Yes
6	Excav. to elev. 20.36 on RIGHT side	Yes	Yes	Yes
7	Fill to elev. 20.86 on RIGHT side	Yes	Yes	Yes
8	Install strut no.1 at elev. 21.61	Yes	Yes	Yes
9	Install strut no.2 at elev. 27.40	Yes	Yes	Yes
10	Remove strut no.3 at elev. 27.80	Yes	Yes	Yes
11	Change soil type 3 to soil type 4	Yes	Yes	Yes
12	Change EI of wall to 111330kN.m2/m run	No	Yes	Yes
13	Apply surcharge no.3 at elev. 20.86	Yes	Yes	Yes
14	Apply water pressure profile no.3	Yes	Yes	Yes
*	Summary output	Yes	-	Yes

Units: kN,m

Stage No.14 Apply water pressure profile no.3 (Worst Cred.)



Units: kN,m

Stage No. 3 Change EI of wall to 155860 kN.m2/m run
Yield moment not defined
Reset wall displacements to zero at this stage

STABILITY ANALYSIS of Fully Embedded Wall according to Strength Factor method
Factor of safety on soil strength

Stage No.	--- G.L. --- Act.	Pass.	Strut Elev.	Overall FoS for toe elev. = 14.50 Factor of Safety	Moment equilib. at elev.	Toe elev. for FoS = 1.000 Toe elev.	Wall Penetr -ation	Direction of failure
3	27.00	27.00	Cant.	Conditions not suitable for FoS calc.				

BENDING MOMENT and DISPLACEMENT ANALYSIS of Fully Embedded Wall
Analysis options
Length of wall perpendicular to section = 20.00m
Subgrade reaction model - Boussinesq Influence coefficients
Soil deformations are elastic until the active or passive limit is reached
Open Tension Crack analysis - No

Rigid boundaries: Left side 20.00 from wall
Right side 20.00 from wall
Limit State: ULS DA1 Combination 2

*** Wall displacements reset to zero at stage 3

Node no.	Y coord	Nett pressure kN/m2	Wall disp. m	Wall rotation rad.	Shear force kN/m	Bending moment kN.m/m	Strut forces kN/m	EI of wall kN.m2/m
1	27.80	0.00	-0.000	-2.24E-16	0.0	-0.0		155860
2	27.40	0.00	-0.000	-2.24E-16	0.0	0.0		155860
3	27.00	0.00	-0.000	-2.24E-16	0.0	-0.0		155860
4	26.50	0.32	-0.000	-2.24E-16	0.1	0.1		155860
5	26.00	0.18	-0.000	-2.27E-16	0.2	0.1		155860
6	25.25	0.23	-0.000	-2.44E-16	0.4	0.4		155860
7	24.50	0.26	0.000	-2.84E-16	0.5	0.7		155860
		-1.38	0.000	-2.84E-16	0.5	0.7		
8	24.06	-1.42	0.000	-3.20E-16	-0.1	0.8		155860
9	23.62	-1.46	0.000	-3.64E-16	-0.7	0.6		155860
10	23.06	-1.51	0.000	-4.29E-16	-1.5	0.0		155860
11	22.50	-1.56	0.000	-5.01E-16	-2.4	-1.1		155860
		1.61	0.000	-5.01E-16	-2.4	-1.1		
12	22.05	1.43	0.000	-5.57E-16	-1.7	-2.0		155860
13	21.61	1.24	0.000	-6.02E-16	-1.1	-2.6		155860
14	20.86	0.90	0.000	-6.10E-16	-0.3	-3.0		155860
15	20.36	0.69	0.000	-5.45E-16	0.1	-3.1		155860
16	19.78	0.47	0.000	-4.09E-16	0.4	-2.9		155860
17	19.20	0.27	0.000	-2.62E-16	0.6	-2.6		155860
18	18.40	0.06	0.000	-4.54E-17	0.8	-2.0		155860
19	17.60	-0.09	0.000	2.10E-16	0.7	-1.3		155860
20	16.80	-0.19	0.000	5.22E-16	0.6	-0.8		155860
21	16.00	-0.26	0.000	7.79E-16	0.4	-0.3		155860
22	15.25	-0.30	0.000	8.64E-16	0.2	-0.1		155860
23	14.50	-0.33	0.000	8.76E-16	0.0	0.0		---

(continued)

Stage No.3 Change EI of wall to 155860 kN.m2/m run
Yield moment not defined
Reset wall displacements to zero at this stage

Node no.	Y coord	LEFT side						
			Effective stresses				Total earth pressure	Coeff. of subgrade reaction
		Water press. kN/m2	Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2		
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		0.00	0.00	0.00	0.00	0.00	0.00	6231
4	26.50	0.00	14.39	4.94	51.54	5.52	5.52	6231
5	26.00	0.00	24.73	8.49	88.55	10.31	10.31	6231
6	25.25	0.00	39.54	13.57	141.57	17.52	17.52	6231
7	24.50	0.00	54.33	18.65	194.52	24.74	24.74	2529
		0.00	54.33	17.27	217.36	22.49	22.49	5418
8	24.06	0.00	63.05	20.04	252.25	26.44	26.44	5418
9	23.62	0.00	71.80	22.82	287.26	30.40	30.40	5418
10	23.06	5.60	77.36	24.59	309.51	32.81	38.41	5418
11	22.50	11.20	82.92	26.36	331.78	35.22	46.42	5418
		Total>	94.12	22.50m	196.57	90.45	90.45	9494
12	22.05	Total>	103.87	24.73m	211.26	99.90	99.90	9952
13	21.61	Total>	113.60	26.95m	225.93	109.33	109.33	10409
14	20.86	Total>	129.93	30.70m	250.58	125.19	125.19	11181
15	20.36	Total>	140.76	33.20m	266.96	135.74	135.74	11695
16	19.78	Total>	153.27	36.10m	285.90	147.97	147.97	12291
17	19.20	Total>	165.71	39.00m	304.78	160.18	160.18	12888
18	18.40	Total>	182.76	43.00m	330.71	176.99	176.99	13711
19	17.60	Total>	199.71	47.00m	356.54	193.79	193.79	14534
20	16.80	Total>	216.56	51.00m	382.27	210.56	210.56	15356
21	16.00	Total>	233.32	58.78	407.91	227.31	227.31	16179
22	15.25	Total>	248.97	66.11	431.89	242.99	242.99	16951
23	14.50	Total>	264.58	73.39	455.81	258.66	258.66	17722

Node no.	Y coord	RIGHT side						
			Effective stresses				Total earth pressure	Coeff. of subgrade reaction
		Water press. kN/m2	Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2		
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		0.00	0.00	0.00	0.00	0.00	0.00	6231
4	26.50	0.00	9.50	3.26	34.02	5.20	5.20	6231
5	26.00	0.00	19.00	6.52	68.03	10.13	10.13	6231
6	25.25	0.00	33.25	11.41	119.05	17.30	17.30	6231
7	24.50	0.00	47.50	16.30	170.08	24.47	24.47	2529
		0.00	47.50	15.10	190.05	23.87	23.87	5418
8	24.06	0.00	55.86	17.76	223.50	27.86	27.86	5418
9	23.62	0.00	64.22	20.41	256.95	31.86	31.86	5418
10	23.06	5.60	69.26	22.01	277.11	34.32	39.92	5418
11	22.50	11.20	74.30	23.62	297.28	36.78	47.98	5418
		Total>	85.50	22.50m	187.94	88.84	88.84	9494
12	22.05	Total>	94.85	24.73m	202.23	98.47	98.47	9952
13	21.61	Total>	104.19	26.95m	216.51	108.09	108.09	10409
14	20.86	Total>	119.94	30.70m	240.59	124.29	124.29	11181
15	20.36	Total>	130.44	33.20m	256.64	135.05	135.05	11695
16	19.78	Total>	142.62	36.10m	275.25	147.50	147.50	12291
17	19.20	Total>	154.80	39.00m	293.87	159.90	159.90	12888

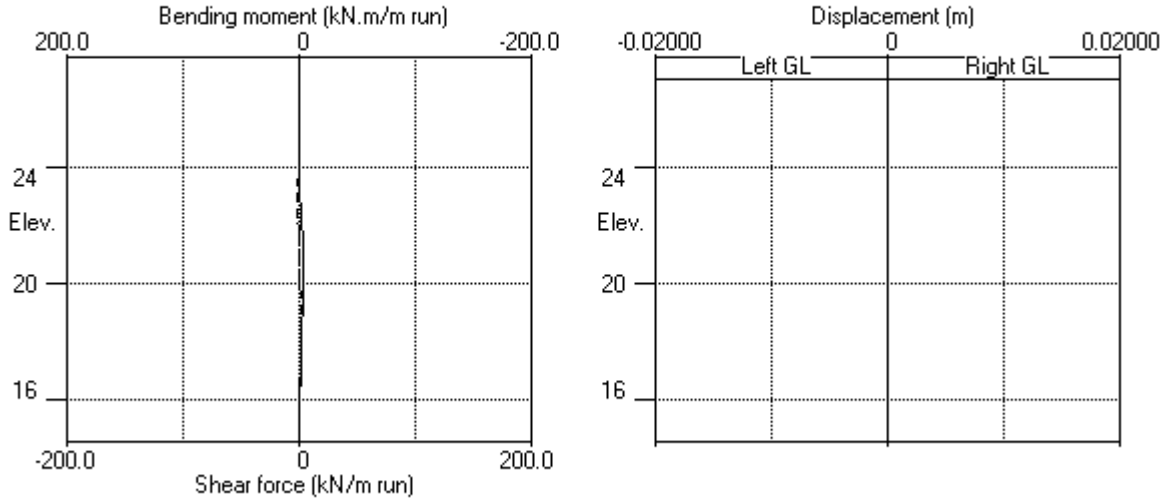
(continued)

Stage No.3 Change EI of wall to 155860 kN.m2/m run
Yield moment not defined
Reset wall displacements to zero at this stage

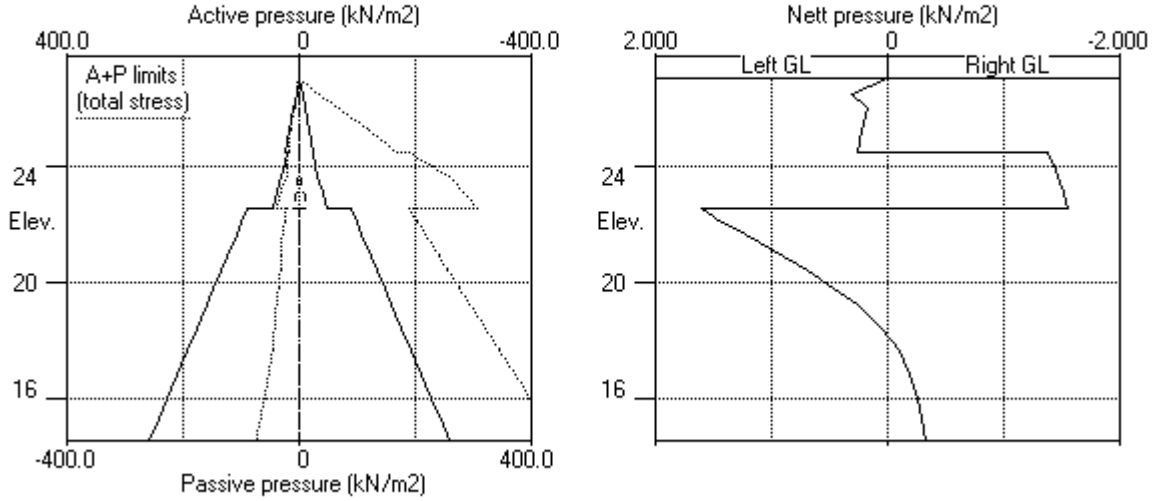
Node no.	Y coord	RIGHT side						
			Effective stresses				Total earth pressure	Coeff. of subgrade reaction
		Water press. kN/m2	Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2		
18	18.40	Total>	171.60	43.00m	319.55	176.93	176.93	13711
19	17.60	Total>	188.40	47.00m	345.23	193.88	193.88	14534
20	16.80	Total>	205.20	51.00m	370.91	210.75	210.75	15356
21	16.00	Total>	222.00	55.00m	396.59	227.57	227.57	16179
22	15.25	Total>	237.75	58.75m	420.66	243.29	243.29	16951
23	14.50	Total>	253.50	62.50m	444.73	258.98	258.98	17722

Units: kN,m

Stage No.3 Change EI of wall to 155860kN.m2/m run



Stage No.3 Change EI of wall to 155860kN.m2/m run



Units: kN,m

Stage No. 6 Excavate to elevation 20.36 on RIGHT side

STABILITY ANALYSIS of Fully Embedded Wall according to Strength Factor method

Factor of safety on soil strength

Stage No.	--- G.L. --- Act.	Pass.	Strut Elev.	Overall FoS for toe elev. = 14.50 Factor of Safety	Moment equilib. at elev.	Toe elev. for FoS = 1.000 Toe elev.	Wall Penetr -ation	Direction of failure
6	27.00	20.36	27.80	1.990	n/a	19.56	0.80	L to R

BENDING MOMENT and DISPLACEMENT ANALYSIS of Fully Embedded Wall

Analysis options

Length of wall perpendicular to section = 20.00m
Subgrade reaction model - Boussinesq Influence coefficients
Soil deformations are elastic until the active or passive limit is reached
Open Tension Crack analysis - No

Rigid boundaries: Left side 20.00 from wall
Right side 20.00 from wall

Limit State: ULS DA1 Combination 2

*** Wall displacements reset to zero at stage 3

Node no.	Y coord	Nett pressure kN/m2	Wall disp. m	Wall rotation rad.	Shear force kN/m	Bending moment kN.m/m	Strut forces kN/m	EI of wall kN.m2/m
1	27.80	0.00	0.001	-3.03E-03	-48.7	-0.0	48.7	155860
2	27.40	0.00	0.002	-3.01E-03	-48.7	-19.5		155860
3	27.00	0.00	0.004	-2.93E-03	-48.7	-38.9		155860
4	26.50	4.94	0.005	-2.77E-03	-47.4	-63.0		155860
5	26.00	8.49	0.006	-2.53E-03	-44.1	-85.9		155860
6	25.25	13.57	0.008	-2.04E-03	-35.8	-116.1		155860
7	24.50	18.65	0.009	-1.42E-03	-23.7	-138.7		155860
		17.27	0.009	-1.42E-03	-23.7	-138.7		
8	24.06	20.04	0.010	-1.02E-03	-15.5	-147.3		155860
9	23.62	22.82	0.010	-5.98E-04	-6.1	-152.1		155860
10	23.06	29.36	0.010	-5.21E-05	8.5	-151.6		155860
11	22.50	35.89	0.010	4.73E-04	26.8	-141.9		155860
		22.50	0.010	4.73E-04	26.8	-141.9		
12	22.05	24.73	0.010	8.53E-04	37.3	-127.6		155860
13	21.61	26.95	0.010	1.18E-03	48.8	-108.5		155860
14	20.86	37.32	0.009	1.56E-03	72.9	-55.1		155860
15	20.36	52.49	0.008	1.66E-03	95.4	-13.5		155860
		-73.68	0.008	1.66E-03	95.4	-13.5		
16	19.78	-61.77	0.007	1.61E-03	56.1	36.0		155860
17	19.20	-45.53	0.006	1.42E-03	25.0	58.1		155860
18	18.40	-25.61	0.005	1.10E-03	-3.5	63.6		155860
19	17.60	-10.36	0.004	7.95E-04	-17.9	52.6		155860
20	16.80	0.17	0.004	5.65E-04	-21.9	34.9		155860
21	16.00	7.30	0.003	4.28E-04	-19.0	17.4		155860
22	15.25	12.57	0.003	3.73E-04	-11.5	5.2		155860
23	14.50	18.11	0.003	3.61E-04	0.0	0.0		---

At elev. 27.80 Strut force = 48.7 kN/strut = 48.7 kN/m run

(continued)

Stage No.6 Excavate to elevation 20.36 on RIGHT side

Node no.	Y coord	LEFT side						
			Effective stresses				Total earth pressure	Coeff. of subgrade reaction
		Water press. kN/m2	Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2		kN/m3
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		0.00	0.00	0.00	0.00	0.00	0.00	2274
4	26.50	0.00	14.39	4.94	51.54	4.94	4.94a	2274
5	26.00	0.00	24.73	8.49	88.55	8.49	8.49a	2274
6	25.25	0.00	39.54	13.57	141.57	13.57	13.57a	2274
7	24.50	0.00	54.33	18.65	194.52	18.65	18.65a	2274
		0.00	54.33	17.27	217.36	17.27	17.27a	4873
8	24.06	0.00	63.05	20.04	252.25	20.04	20.04a	4873
9	23.62	0.00	71.80	22.82	287.26	22.82	22.82a	4873
10	23.06	4.38	78.58	24.98	314.39	24.98	29.36a	4873
11	22.50	8.76	85.36	27.13	341.53	27.13	35.89a	4873
		Total>	94.12	22.50m	196.57	22.50	22.50a	8675
12	22.05	Total>	103.87	24.73m	211.26	24.73	24.73a	9094
13	21.61	Total>	113.60	26.95m	225.93	26.95	26.95a	9512
14	20.86	Total>	129.93	30.70m	250.58	37.32	37.32	10217
15	20.36	Total>	140.76	33.20m	266.96	52.49	52.49	10687
16	19.78	Total>	153.27	36.10m	285.90	71.21	71.21	11232
17	19.20	Total>	165.71	39.00m	304.78	90.08	90.08	11777
18	18.40	Total>	182.76	43.00m	330.72	115.07	115.07	12529
19	17.60	Total>	199.71	47.00m	356.54	138.14	138.14	13281
20	16.80	Total>	216.56	51.00m	382.27	159.28	159.28	14032
21	16.00	Total>	233.32	58.77	407.91	179.04	179.04	14784
22	15.25	Total>	248.97	66.11	431.89	197.00	197.00	15489
23	14.50	Total>	264.58	73.39	455.82	215.10	215.10	16194

Node no.	Y coord	RIGHT side						
			Effective stresses				Total earth pressure	Coeff. of subgrade reaction
		Water press. kN/m2	Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2		kN/m3
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
4	26.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
5	26.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
6	25.25	0.00	0.00	0.00	0.00	0.00	0.00	0.0
7	24.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
8	24.06	0.00	0.00	0.00	0.00	0.00	0.00	0.0
9	23.62	0.00	0.00	0.00	0.00	0.00	0.00	0.0
10	23.06	0.00	0.00	0.00	0.00	0.00	0.00	0.0
11	22.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
12	22.05	0.00	0.00	0.00	0.00	0.00	0.00	0.0
13	21.61	0.00	0.00	0.00	0.00	0.00	0.00	0.0
14	20.86	0.00	0.00	0.00	0.00	0.00	0.00	0.0
15	20.36	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		Total>	0.00	0.00	126.17	126.17	126.17p	15698
16	19.78	Total>	12.18	2.90m	144.79	132.98	132.98	16499
17	19.20	Total>	24.37	5.80m	163.42	135.61	135.61	17300
18	18.40	Total>	41.21	9.80m	189.14	140.68	140.68	18404
19	17.60	Total>	58.10	13.80m	214.91	148.50	148.50	19509
20	16.80	Total>	75.06	17.80m	240.74	159.11	159.11	20613
21	16.00	Total>	92.10	21.80m	266.66	171.74	171.74	21718

(continued)

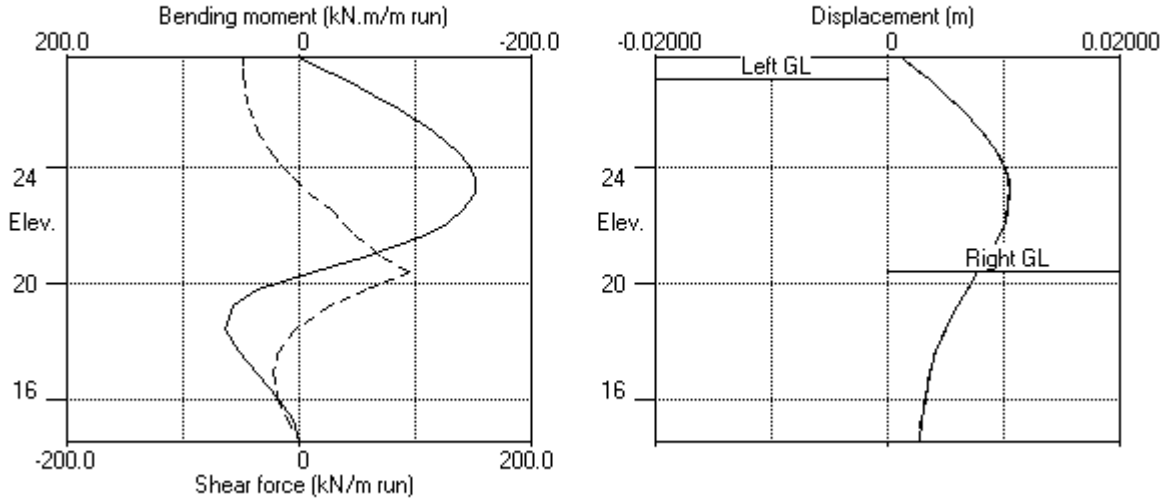
Stage No.6 Excavate to elevation 20.36 on RIGHT side

Node no.	Y coord	RIGHT side						
		Effective stresses					Total earth pressure	Coeff. of subgrade reaction
		Water press.	Vertic -al	Active limit	Passive limit	Earth pressure		
		kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m3
22	15.25	Total>	108.17	25.55m	291.05	184.43	184.43	22753
23	14.50	Total>	124.32	29.30m	315.53	196.99	196.99	23789

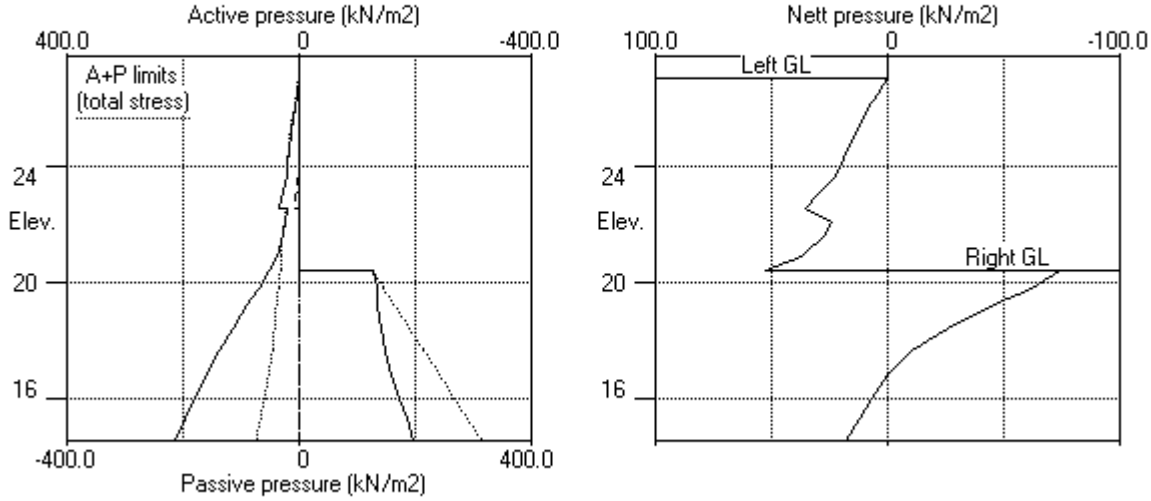
Note: 26.95a Soil pressure at active limit
126.17p Soil pressure at passive limit

Units: kN,m

Stage No.6 Excav. to elev. 20.36 on RIGHT side



Stage No.6 Excav. to elev. 20.36 on RIGHT side



Units: kN,m

Stage No. 7 Fill to elevation 20.86 on RIGHT side with soil type 5

STABILITY ANALYSIS of Fully Embedded Wall according to Strength Factor method

Factor of safety on soil strength

Stage No.	--- G.L. --- Act.	Pass.	Strut Elev.	Overall FoS for toe elev. = 14.50 Factor of Safety	Moment equilib. at elev.	Toe elev. for FoS = 1.000 Toe elev.	Wall Penetr -ation	Direction of failure
7	27.00	20.86	27.80	2.117	n/a	19.71	1.15	L to R

BENDING MOMENT and DISPLACEMENT ANALYSIS of Fully Embedded Wall

Analysis options

Length of wall perpendicular to section = 20.00m
Subgrade reaction model - Boussinesq Influence coefficients
Soil deformations are elastic until the active or passive limit is reached
Open Tension Crack analysis - No

Rigid boundaries: Left side 20.00 from wall
Right side 20.00 from wall

Limit State: ULS DA1 Combination 2

*** Wall displacements reset to zero at stage 3

Node no.	Y coord	Nett pressure kN/m2	Wall disp. m	Wall rotation rad.	Shear force kN/m	Bending moment kN.m/m	Strut forces kN/m	EI of wall kN.m2/m
1	27.80	0.00	0.001	-3.02E-03	-49.2	-0.0	49.2	155860
2	27.40	0.00	0.002	-3.00E-03	-49.2	-19.7		155860
3	27.00	0.00	0.004	-2.92E-03	-49.2	-39.4		155860
4	26.50	4.94	0.005	-2.75E-03	-48.0	-63.7		155860
5	26.00	8.51	0.006	-2.51E-03	-44.6	-86.9		155860
6	25.25	13.62	0.008	-2.02E-03	-36.3	-117.5		155860
7	24.50	18.74	0.009	-1.40E-03	-24.2	-140.4		155860
		17.46	0.009	-1.40E-03	-24.2	-140.4		
8	24.06	20.30	0.010	-9.90E-04	-15.9	-149.2		155860
9	23.62	23.16	0.010	-5.60E-04	-6.3	-154.1		155860
10	23.06	29.82	0.010	-6.16E-06	8.5	-153.7		155860
11	22.50	36.50	0.010	5.26E-04	27.1	-143.9		155860
		23.56	0.010	5.26E-04	27.1	-143.9		
12	22.05	26.08	0.010	9.12E-04	38.2	-129.4		155860
13	21.61	28.63	0.009	1.24E-03	50.3	-109.7		155860
14	20.86	39.64	0.008	1.62E-03	75.9	-54.7		155860
15	20.36	52.67	0.008	1.72E-03	99.0	-11.5		155860
		-77.62	0.008	1.72E-03	99.0	-11.5		
16	19.78	-64.65	0.007	1.66E-03	57.7	39.5		155860
17	19.20	-47.45	0.006	1.46E-03	25.2	62.1		155860
18	18.40	-26.47	0.005	1.12E-03	-4.3	67.1		155860
19	17.60	-10.50	0.004	7.98E-04	-19.1	55.2		155860
20	16.80	0.46	0.003	5.57E-04	-23.1	36.5		155860
21	16.00	7.81	0.003	4.14E-04	-19.8	18.1		155860
22	15.25	13.16	0.003	3.57E-04	-12.0	5.3		155860
23	14.50	18.73	0.002	3.44E-04	0.0	0.0		---

At elev. 27.80 Strut force = 49.2 kN/strut = 49.2 kN/m run

(continued)

Stage No.7 Fill to elevation 20.86 on RIGHT side with soil type 5

Node no.	Y coord	LEFT side: Water press. kN/m2	Effective stresses: Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2	Total earth pressure kN/m2	Coeff. of subgrade reaction kN/m3
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		0.00	0.00	0.00	0.00	0.00	0.00	21168
4	26.50	0.00	14.39	4.94	51.54	4.94	4.94a	2359
5	26.00	0.00	24.73	8.49	88.55	8.51	8.51	2359
6	25.25	0.00	39.54	13.57	141.57	13.62	13.62	2359
7	24.50	0.00	54.33	18.65	194.52	18.74	18.74	2359
		0.00	54.33	17.27	217.36	17.46	17.46	5055
8	24.06	0.00	63.05	20.04	252.25	20.30	20.30	5055
9	23.62	0.00	71.80	22.82	287.26	23.16	23.16	5055
10	23.06	4.38	78.58	24.98	314.39	25.44	29.82	5055
11	22.50	8.76	85.36	27.13	341.53	27.73	36.50	5055
		Total> 94.12	22.50m	196.57	23.56	23.56	8945	
12	22.05	Total> 103.87	24.73m	211.26	26.08	26.08	9377	
13	21.61	Total> 113.60	26.95m	225.93	28.63	28.63	9808	
14	20.86	Total> 129.93	30.70m	250.58	39.64	39.64	10535	
15	20.36	Total> 140.76	33.20m	266.96	55.27	55.27	11019	
16	19.78	Total> 153.27	36.10m	285.90	74.51	74.51	11581	
17	19.20	Total> 165.71	39.00m	304.78	93.85	93.85	12143	
18	18.40	Total> 182.76	43.00m	330.72	119.37	119.37	12919	
19	17.60	Total> 199.71	47.00m	356.54	142.81	142.81	13694	
20	16.80	Total> 216.56	51.00m	382.27	164.18	164.18	14469	
21	16.00	Total> 233.32	58.77	407.91	184.06	184.06	15245	
22	15.25	Total> 248.97	66.11	431.89	202.07	202.07	15971	
23	14.50	Total> 264.58	73.39	455.82	220.20	220.20	16698	

Node no.	Y coord	RIGHT side: Water press. kN/m2	Effective stresses: Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2	Total earth pressure kN/m2	Coeff. of subgrade reaction kN/m3
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
4	26.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
5	26.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
6	25.25	0.00	0.00	0.00	0.00	0.00	0.00	0.0
7	24.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
8	24.06	0.00	0.00	0.00	0.00	0.00	0.00	0.0
9	23.62	0.00	0.00	0.00	0.00	0.00	0.00	0.0
10	23.06	0.00	0.00	0.00	0.00	0.00	0.00	0.0
11	22.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
12	22.05	0.00	0.00	0.00	0.00	0.00	0.00	0.0
13	21.61	0.00	0.00	0.00	0.00	0.00	0.00	0.0
14	20.86	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		0.00	0.00	0.00	0.00	0.00	0.00	8847
15	20.36	0.00	10.00	2.59	53.85	2.59	2.59a	8847
		Total> 10.00	2.50m	136.18	132.89	132.89	11488	
16	19.78	Total> 22.19	5.40m	154.80	139.16	139.16	12074	
17	19.20	Total> 34.39	8.30m	173.44	141.30	141.30	12660	
18	18.40	Total> 51.25	12.30m	199.18	145.84	145.84	13468	
19	17.60	Total> 68.17	16.30m	224.98	153.31	153.31	14277	
20	16.80	Total> 85.17	20.30m	250.85	163.72	163.72	15085	

(continued)

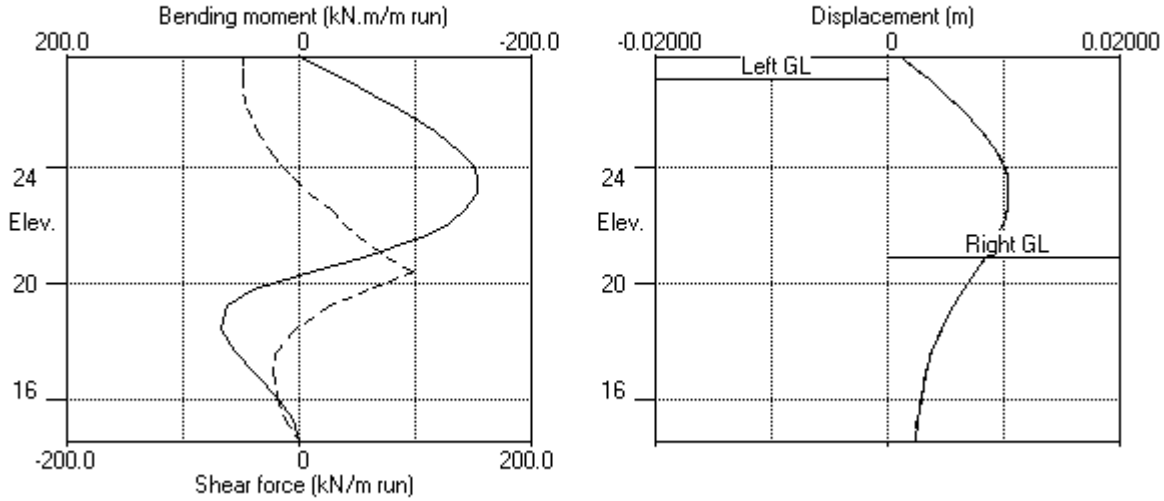
Stage No.7 Fill to elevation 20.86 on RIGHT side with soil type 5

Node no.	Y coord	RIGHT side						
		Effective stresses					Total earth pressure	Coeff. of subgrade reaction
		Water press.	Vertic -al	Active limit	Passive limit	Earth pressure		
		kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m3
21	16.00	Total>	102.24	24.30m	276.80	176.25	176.25	15893
22	15.25	Total>	118.34	28.05m	301.22	188.91	188.91	16651
23	14.50	Total>	134.52	31.80m	325.73	201.47	201.47	17409

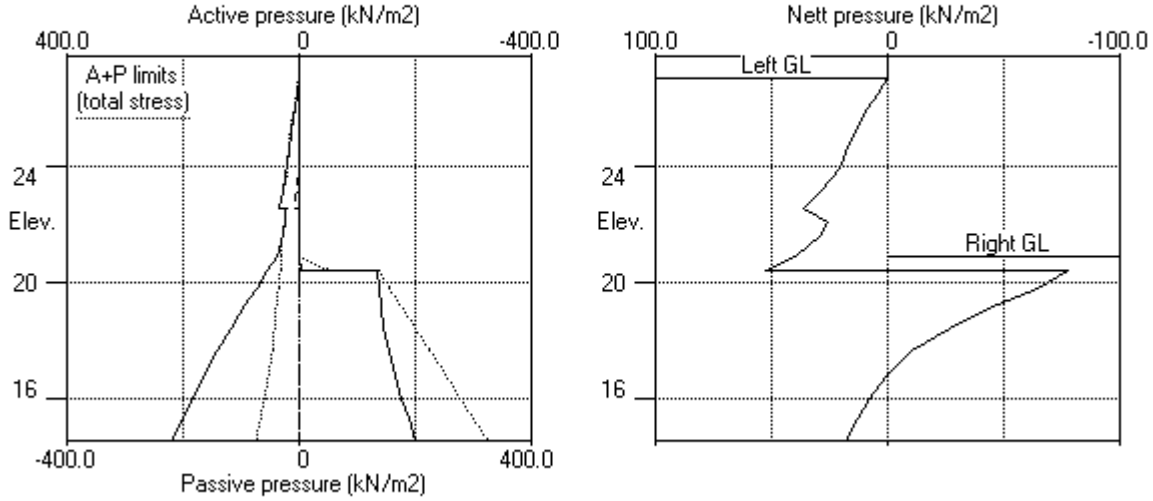
Note: 2.59a Soil pressure at active limit
123.45p Soil pressure at passive limit

Units: kN,m

Stage No.7 Fill to elev. 20.86 on RIGHT side



Stage No.7 Fill to elev. 20.86 on RIGHT side



Units: kN,m

Stage No. 11 Change properties of soil type 3 to soil type 4
Ko pressures will be reset

STABILITY ANALYSIS of Fully Embedded Wall according to Strength Factor method
Factor of safety on soil strength

Stage No.	--- G.L. --- Act.	Pass.	Strut Elev.	Overall FoS for toe elev. = 14.50 Factor of Safety	Moment equilib. at elev.	Toe elev. for FoS = 1.000 Toe elev.	Wall Penetr -ation	Direction of failure
11	27.00	20.86		More than one strut. No FoS calc.				

BENDING MOMENT and DISPLACEMENT ANALYSIS of Fully Embedded Wall
Analysis options
Length of wall perpendicular to section = 20.00m
Subgrade reaction model - Boussinesq Influence coefficients
Soil deformations are elastic until the active or passive limit is reached
Open Tension Crack analysis - No

Rigid boundaries: Left side 20.00 from wall
Right side 20.00 from wall
Limit State: ULS DA1 Combination 2

*** Wall displacements reset to zero at stage 3

Node no.	Y coord	Nett pressure kN/m2	Wall disp. m	Wall rotation rad.	Shear force kN/m	Bending moment kN.m/m	Strut forces kN/m	EI of wall kN.m2/m
1	27.80	0.00	0.002	-2.11E-03	0.0	-0.0		155860
2	27.40	0.00	0.003	-2.11E-03	0.0	-0.0	37.5	155860
		0.00	0.003	-2.11E-03	-37.5	-0.0		
3	27.00	0.00	0.003	-2.09E-03	-37.5	-15.0		155860
4	26.50	6.88	0.005	-2.02E-03	-35.8	-33.5		155860
5	26.00	11.31	0.005	-1.88E-03	-31.2	-50.4		155860
6	25.25	17.68	0.007	-1.59E-03	-20.4	-70.1		155860
7	24.50	23.52	0.008	-1.23E-03	-4.9	-79.9		155860
		27.72	0.008	-1.23E-03	-4.9	-79.9		
8	24.06	30.80	0.008	-1.00E-03	8.0	-79.3		155860
9	23.62	33.31	0.009	-7.87E-04	22.1	-72.7		155860
10	23.06	38.51	0.009	-5.56E-04	42.2	-54.8		155860
11	22.50	42.38	0.009	-4.15E-04	64.8	-24.8		155860
		66.87	0.009	-4.15E-04	64.8	-24.8		
12	22.05	71.39	0.010	-4.00E-04	95.6	10.9		155860
13	21.61	74.89	0.010	-5.09E-04	128.1	60.8	276.9	155860
		74.89	0.010	-5.09E-04	-148.7	60.8		
14	20.86	78.26	0.010	-6.20E-04	-91.3	-20.3		155860
15	20.36	50.37	0.010	-5.05E-04	-59.1	-56.9		155860
		50.84	0.010	-5.05E-04	-59.1	-56.9		
16	19.78	42.86	0.011	-2.67E-04	-32.0	-77.2		155860
17	19.20	34.82	0.011	3.29E-05	-9.4	-89.9		155860
18	18.40	23.60	0.011	4.82E-04	13.9	-89.7		155860
19	17.60	12.22	0.010	8.93E-04	28.2	-73.9		155860
20	16.80	0.65	0.009	1.20E-03	33.4	-49.8		155860
21	16.00	-11.12	0.008	1.39E-03	29.2	-25.0		155860
22	15.25	-16.50	0.007	1.46E-03	18.9	-3.6		155860
23	14.50	-33.77	0.006	1.47E-03	0.0	0.0		---

At elev. 27.40 Strut force = 37.5 kN/strut = 37.5 kN/m run
At elev. 21.61 Strut force = 276.9 kN/strut = 276.9 kN/m run

(continued)

Stage No.11 Change properties of soil type 3 to soil type 4
Ko pressures will be reset

LEFT side

Node no.	Y coord	Water press.	Effective stresses: Vertic -al	Active limit	Passive limit	Earth pressure	Total earth pressure	Coeff. of subgrade reaction
		kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m3
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		0.00	0.00	0.00	0.00	0.00	0.00	3162
4	26.50	0.00	14.39	4.94	51.54	6.88	6.88	3162
5	26.00	0.00	24.73	8.49	88.55	11.31	11.31	3162
6	25.25	0.00	39.54	13.57	141.57	17.68	17.68	3162
7	24.50	0.00	54.33	18.65	194.52	23.52	23.52	3162
		0.00	54.33	17.27	217.36	27.72	27.72	6777
8	24.06	0.00	63.05	20.04	252.25	30.80	30.80	6777
9	23.62	0.00	71.80	22.82	287.26	33.31	33.31	6777
10	23.06	4.38	78.58	24.98	314.39	34.13	38.51	6777
11	22.50	8.76	85.36	27.13	341.53	33.62	42.38	6777
		8.76	85.36	39.38	172.18	58.11	66.87	6099
12	22.05	12.24	91.63	42.70	184.02	59.15	71.39	6390
13	21.61	15.73	97.88	46.01	195.81	59.16	74.89	5450
14	20.86	21.59	108.34	51.55	215.57	56.66	78.26	5851
15	20.36	25.51	115.26	55.21	228.64	55.21	80.72a	6118
16	19.78	30.04	123.22	59.43	243.68	59.43	89.48a	6428
17	19.20	34.58	131.13	63.62	258.60	63.62	98.20a	6738
18	18.40	40.84	141.92	69.34	278.99	69.34	110.18a	7165
19	17.60	47.10	152.61	74.99	299.17	74.99	122.09a	7593
20	16.80	53.36	163.20	80.60	319.16	80.60	133.96a	8020
21	16.00	59.62	173.70	86.17	339.00	86.17	145.78a	8448
22	15.25	65.48	183.49	91.35	357.48	97.19	162.67	8849
23	14.50	71.35	193.22	96.50	375.86	96.50	167.86a	27144

RIGHT side

Node no.	Y coord	Water press.	Effective stresses: Vertic -al	Active limit	Passive limit	Earth pressure	Total earth pressure	Coeff. of subgrade reaction
		kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m3
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
4	26.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
5	26.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
6	25.25	0.00	0.00	0.00	0.00	0.00	0.00	0.0
7	24.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
8	24.06	0.00	0.00	0.00	0.00	0.00	0.00	0.0
9	23.62	0.00	0.00	0.00	0.00	0.00	0.00	0.0
10	23.06	0.00	0.00	0.00	0.00	0.00	0.00	0.0
11	22.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
12	22.05	0.00	0.00	0.00	0.00	0.00	0.00	0.0
13	21.61	0.00	0.00	0.00	0.00	0.00	0.00	0.0
14	20.86	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		0.00	0.00	0.00	0.00	0.00	0.00	9213
15	20.36	0.00	10.00	2.59	53.85	30.35	30.35	9213
		0.00	10.00	0.00	29.88	29.88	29.88p	6118
16	19.78	7.06	15.13	2.19	39.56	39.56	46.62p	6428
17	19.20	14.12	20.26	4.91	49.26	49.26	63.38p	6738
18	18.40	23.87	27.39	8.68	62.71	62.71	86.58p	7165
19	17.60	33.61	34.57	12.48	76.27	76.27	109.87p	7593

(continued)

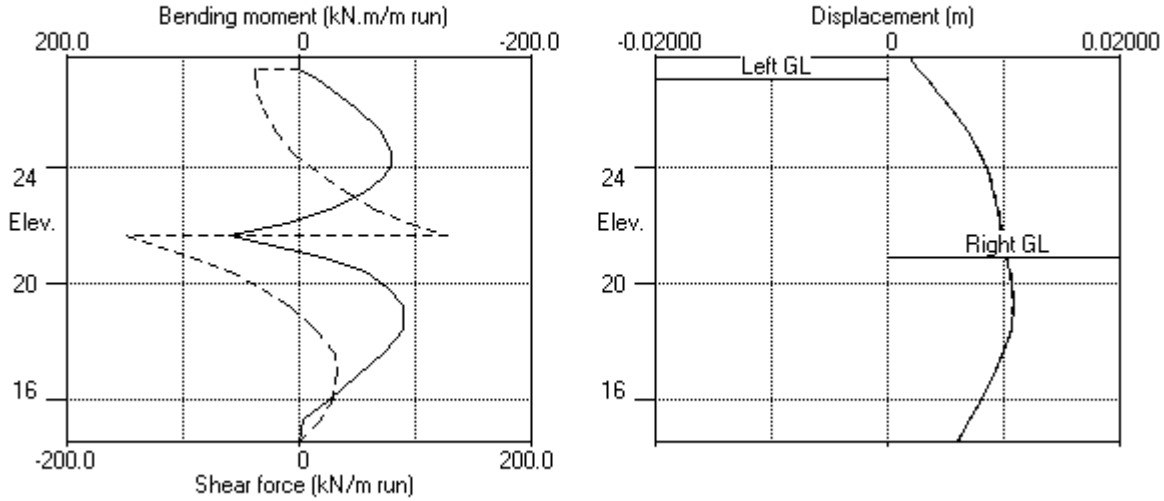
Stage No.11 Change properties of soil type 3 to soil type 4
Ko pressures will be reset

Node no.	Y coord	RIGHT side Water press.	Effective stresses Vertic -al	Active limit	Passive limit	Earth pressure	Total earth pressure	Coeff. of subgrade reaction
		kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m3
20	16.80	43.35	41.82	16.32	89.96	89.96	133.31p	8020
21	16.00	53.09	49.15	20.21	103.81	103.81	156.90p	8448
22	15.25	62.22	56.12	23.90	116.96	116.96	179.18p	8849
23	14.50	71.35	63.17	27.63	130.27	130.27	201.62p	27144

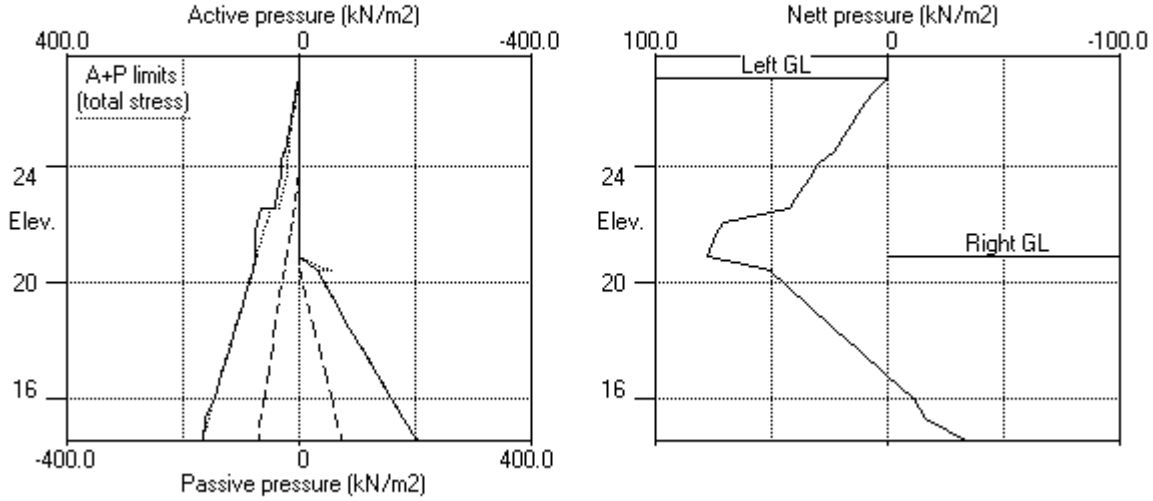
Note: 167.86a Soil pressure at active limit
201.62p Soil pressure at passive limit

Units: kN,m

Stage No.11 Change soil type 3 to soil type 4



Stage No.11 Change soil type 3 to soil type 4



Units: kN,m

Stage No. 12 Change EI of wall to 111330 kN.m2/m run
Yield moment not defined
Allow wall to relax with new modulus value

STABILITY ANALYSIS of Fully Embedded Wall according to Strength Factor method
Factor of safety on soil strength

Stage No.	--- G.L. --- Act.	Pass.	Strut Elev.	Overall FoS for toe elev. = 14.50 Factor of Safety	Moment equilib. at elev.	Toe elev. for FoS = 1.000 Toe elev.	Wall Penetr -ation	Direction of failure
12	27.00	20.86		More than one strut. No FoS calc.				

BENDING MOMENT and DISPLACEMENT ANALYSIS of Fully Embedded Wall
Analysis options
Length of wall perpendicular to section = 20.00m
Subgrade reaction model - Boussinesq Influence coefficients
Soil deformations are elastic until the active or passive limit is reached
Open Tension Crack analysis - No

Rigid boundaries: Left side 20.00 from wall
Right side 20.00 from wall
Limit State: ULS DA1 Combination 2

*** Wall displacements reset to zero at stage 3

Node no.	Y coord	Nett pressure kN/m2	Wall disp. m	Wall rotation rad.	Shear force kN/m	Bending moment kN.m/m	Strut forces kN/m	EI of wall kN.m2/m
1	27.80	0.00	0.002	-2.29E-03	0.0	-0.0		111330
2	27.40	0.00	0.003	-2.29E-03	0.0	-0.0	33.4	111330
		0.00	0.003	-2.29E-03	-33.4	-0.0		
3	27.00	0.00	0.004	-2.26E-03	-33.4	-13.7		111330
4	26.50	6.61	0.005	-2.17E-03	-31.8	-30.6		111330
5	26.00	10.89	0.006	-2.00E-03	-27.4	-46.0		111330
6	25.25	17.14	0.007	-1.64E-03	-16.9	-63.6		111330
7	24.50	22.96	0.008	-1.19E-03	-1.8	-71.6		111330
		26.52	0.008	-1.19E-03	-1.8	-71.6		
8	24.06	29.71	0.009	-9.26E-04	10.5	-70.0		111330
9	23.62	32.41	0.009	-6.73E-04	24.2	-62.6		111330
10	23.06	37.94	0.009	-4.19E-04	43.9	-43.7		111330
11	22.50	42.15	0.009	-2.96E-04	66.3	-12.8		111330
		66.66	0.009	-2.96E-04	66.3	-12.8		
12	22.05	71.35	0.010	-3.36E-04	97.0	23.6		111330
13	21.61	74.85	0.010	-5.52E-04	129.6	74.1	279.8	111330
		74.85	0.010	-5.52E-04	-150.2	74.1		
14	20.86	77.76	0.010	-8.14E-04	-93.0	-7.8		111330
15	20.36	48.12	0.011	-7.21E-04	-61.5	-45.0		111330
		50.84	0.011	-7.21E-04	-61.5	-45.0		
16	19.78	42.86	0.011	-4.59E-04	-34.3	-66.4		111330
17	19.20	34.82	0.011	-1.02E-04	-11.8	-80.3		111330
18	18.40	23.60	0.011	4.49E-04	11.5	-81.7		111330
19	17.60	12.22	0.011	9.62E-04	25.9	-67.5		111330
20	16.80	0.65	0.010	1.35E-03	31.0	-45.1		111330
21	16.00	-11.12	0.008	1.58E-03	26.8	-21.8		111330
22	15.25	-17.31	0.007	1.65E-03	16.2	-1.8		111330

(continued)

Stage No.12 Change EI of wall to 111330 kN.m2/m run
Yield moment not defined
Allow wall to relax with new modulus value

Node no.	Y coord	Nett pressure kN/m2	Wall disp. m	Wall rotation rad.	Shear force kN/m	Bending moment kN.m/m	Strut forces kN/m	EI of wall kN.m2/m
23	14.50	-25.83	0.006	1.65E-03	0.0	0.0		---
At elev. 27.40 Strut force =			33.4 kN/strut =			33.4 kN/m run		
At elev. 21.61 Strut force =			279.8 kN/strut =			279.8 kN/m run		

LEFT side

Node no.	Y coord	Water press. kN/m2	Effective stresses: Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2	Total earth pressure kN/m2	Coeff. of subgrade reaction kN/m3
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		0.00	0.00	0.00	0.00	0.00	0.00	2114
4	26.50	0.00	14.39	4.94	51.54	6.61	6.61	2114
5	26.00	0.00	24.73	8.49	88.55	10.89	10.89	2114
6	25.25	0.00	39.54	13.57	141.57	17.14	17.14	2114
7	24.50	0.00	54.33	18.65	194.52	22.96	22.96	2114
		0.00	54.33	17.27	217.36	26.52	26.52	4530
8	24.06	0.00	63.05	20.04	252.25	29.71	29.71	4530
9	23.62	0.00	71.80	22.82	287.26	32.41	32.41	4530
10	23.06	4.38	78.58	24.98	314.39	33.56	37.94	4530
11	22.50	8.76	85.36	27.13	341.53	33.38	42.15	4530
		8.76	85.36	39.38	172.18	57.89	66.66	4077
12	22.05	12.24	91.63	42.70	184.02	59.11	71.35	4272
13	21.61	15.73	97.88	46.01	195.81	59.12	74.85	12548
14	20.86	21.59	108.34	51.55	215.57	56.17	77.76	4795
15	20.36	25.51	115.26	55.21	228.64	55.21	80.72a	5014
16	19.78	30.04	123.22	59.43	243.68	59.43	89.48a	5268
17	19.20	34.58	131.13	63.62	258.60	63.62	98.20a	5522
18	18.40	40.84	141.92	69.34	278.99	69.34	110.18a	5873
19	17.60	47.10	152.61	74.99	299.17	74.99	122.09a	6223
20	16.80	53.36	163.20	80.60	319.16	80.60	133.96a	6573
21	16.00	59.62	173.70	86.17	339.00	86.17	145.78a	6924
22	15.25	65.48	183.49	91.35	357.48	96.38	161.87	7252
23	14.50	71.35	193.22	96.50	375.86	100.47	171.83	131359

RIGHT side

Node no.	Y coord	Water press. kN/m2	Effective stresses: Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2	Total earth pressure kN/m2	Coeff. of subgrade reaction kN/m3
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
4	26.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
5	26.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
6	25.25	0.00	0.00	0.00	0.00	0.00	0.00	0.0
7	24.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
8	24.06	0.00	0.00	0.00	0.00	0.00	0.00	0.0
9	23.62	0.00	0.00	0.00	0.00	0.00	0.00	0.0
10	23.06	0.00	0.00	0.00	0.00	0.00	0.00	0.0
11	22.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
12	22.05	0.00	0.00	0.00	0.00	0.00	0.00	0.0
13	21.61	0.00	0.00	0.00	0.00	0.00	0.00	0.0

(continued)

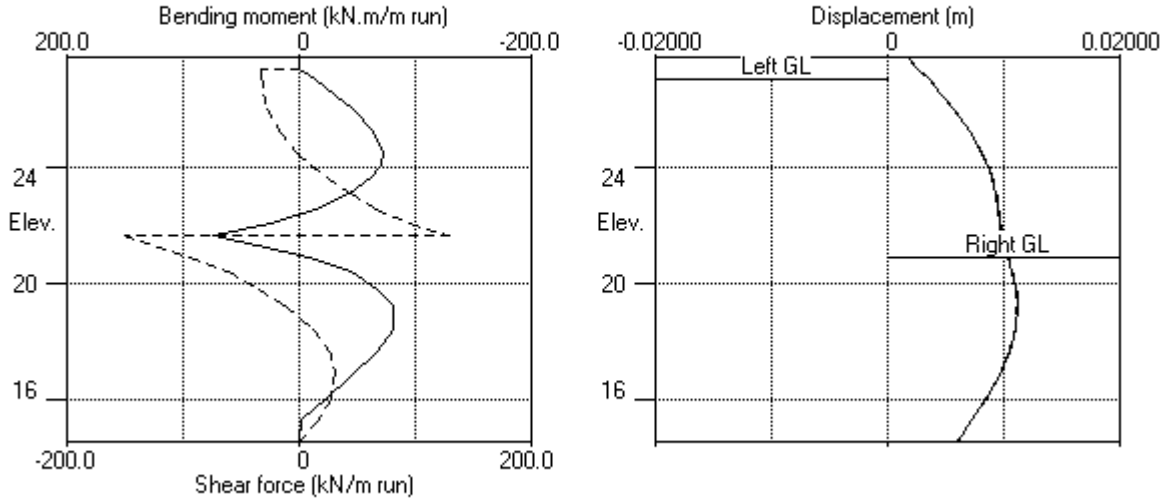
Stage No.12 Change EI of wall to 111330 kN.m2/m run
Yield moment not defined
Allow wall to relax with new modulus value

Node no.	Y coord	RIGHT side ------- Effective stresses ------- Water press. kN/m2	Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2	Total earth pressure kN/m2	Coeff. of subgrade reaction kN/m3
14	20.86	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		0.00	0.00	0.00	0.00	0.00	0.00	10847
15	20.36	0.00	10.00	2.59	53.85	32.60	32.60	10847
		0.00	10.00	0.00	29.88	29.88	29.88p	7204
16	19.78	7.06	15.13	2.19	39.56	39.56	46.62p	7569
17	19.20	14.12	20.26	4.91	49.26	49.26	63.38p	7934
18	18.40	23.87	27.39	8.68	62.71	62.71	86.58p	8437
19	17.60	33.61	34.57	12.48	76.27	76.27	109.87p	8940
20	16.80	43.35	41.82	16.32	89.96	89.96	133.31p	9444
21	16.00	53.09	49.15	20.21	103.81	103.81	156.90p	9947
22	15.25	62.22	56.12	23.90	116.96	116.96	179.18p	10419
23	14.50	71.35	63.17	27.63	130.27	126.30	197.65	131359

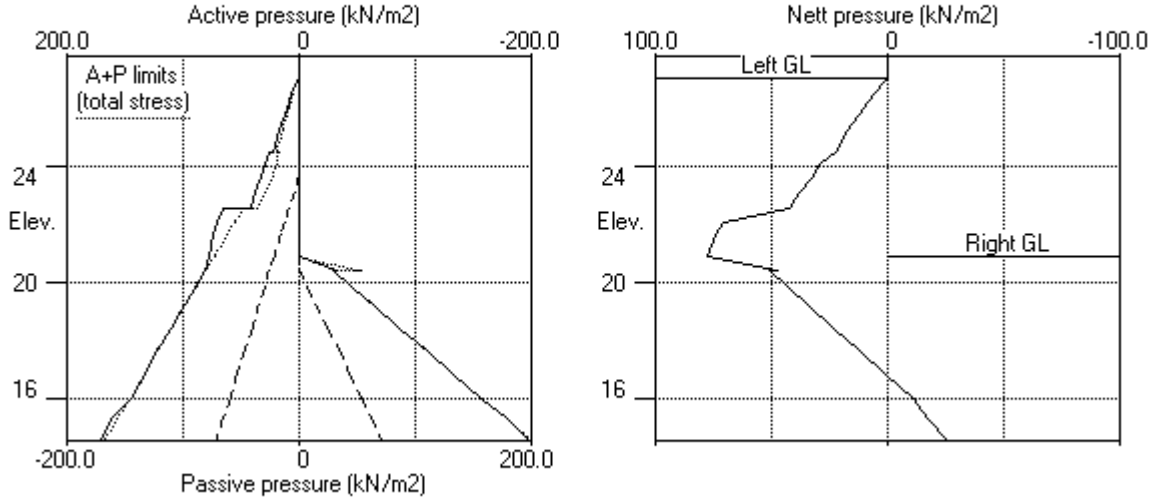
Note: 145.78a Soil pressure at active limit
179.18p Soil pressure at passive limit

Units: kN,m

Stage No.12 Change EI of wall to 111330kN.m2/m run



Stage No.12 Change EI of wall to 111330kN.m2/m run



Units: kN,m

Summary of results

LIMIT STATE PARAMETERS

Limit State: ULS DA1 Combination 2
Water pressures : Worst Credible
Partial factor on C' = 1.250
Partial factor on Phi' = 1.250
Partial factor on Cu = 1.400
Partial factor on Soil Modulus = 1.000
Partial factor on Permanent Unfavourable loads = 1.000
Partial factor on Permanent Favourable loads = 1.000
Partial factor on Variable Unfavourable loads = 1.300

STABILITY ANALYSIS of Fully Embedded Wall according to Strength Factor method

Factor of safety on soil strength

Stage No.	G.L. Act.	G.L. Pass.	Strut Elev.	Overall FoS for toe elev. = 14.50 Factor of Safety	Moment equilib. at elev.	Toe elev. for FoS = 1.000 Toe elev.	Wall Penetr -ation	Direction of failure
1	27.00	27.00	Cant.	Conditions not suitable for FoS calc.				
2	27.00	27.00	Cant.	Conditions not suitable for FoS calc.				
3	27.00	27.00	Cant.	Conditions not suitable for FoS calc.				
4	27.00	27.00		No analysis at this stage				
5	27.00	27.00	27.80	Conditions not suitable for FoS calc.				
6	27.00	20.36	27.80	1.990	n/a	19.56	0.80	L to R
7	27.00	20.86	27.80	2.117	n/a	19.71	1.15	L to R
8	27.00	20.86		No analysis at this stage				

All remaining stages have more than one strut - FoS calculation n/a

Units: kN,m

Summary of results

BENDING MOMENT and DISPLACEMENT ANALYSIS of Fully Embedded Wall

Analysis options

Length of wall perpendicular to section = 20.00m
Subgrade reaction model - Boussinesq Influence coefficients
Soil deformations are elastic until the active or passive limit is reached
Open Tension Crack analysis - No

Rigid boundaries: Left side 20.00 from wall
Right side 20.00 from wall

Limit State: ULS DA1 Combination 2

Bending moment, shear force and displacement envelopes

Node no.	Y coord	Displacement maximum	Displacement minimum	Bending moment maximum	Bending moment minimum	Shear force maximum	Shear force minimum
		m	m	kN.m/m	kN.m/m	kN/m	kN/m
1	27.80	0.002	-0.000	0.0	-0.0	0.0	-49.2
2	27.40	0.003	-0.000	0.0	-19.7	0.0	-53.4
3	27.00	0.004	-0.000	0.0	-39.4	0.0	-53.4
4	26.50	0.005	-0.000	0.1	-63.7	0.1	-52.2
5	26.00	0.006	-0.000	0.1	-86.9	0.2	-48.8
6	25.25	0.008	-0.000	0.4	-117.5	0.4	-40.4
7	24.50	0.009	0.000	0.7	-140.4	0.5	-28.0
8	24.06	0.010	0.000	0.8	-149.2	10.5	-19.4
9	23.62	0.010	0.000	0.6	-154.1	24.4	-9.5
10	23.06	0.010	0.000	0.2	-153.7	51.1	-2.2
11	22.50	0.010	0.000	0.0	-143.9	81.8	-2.4
12	22.05	0.010	0.000	23.6	-129.4	120.3	-1.7
13	21.61	0.010	0.000	74.1	-110.0	161.6	-150.2
14	20.86	0.010	0.000	1.4	-55.9	75.9	-93.0
15	20.36	0.011	0.000	0.0	-56.9	99.0	-61.5
16	19.78	0.011	0.000	39.5	-77.2	57.7	-34.3
17	19.20	0.011	0.000	62.1	-89.9	25.6	-12.4
18	18.40	0.011	0.000	67.1	-89.7	13.9	-4.3
19	17.60	0.011	0.000	55.2	-73.9	28.2	-19.1
20	16.80	0.010	0.000	36.5	-49.8	33.4	-23.1
21	16.00	0.008	0.000	18.1	-25.0	29.2	-19.8
22	15.25	0.007	0.000	5.3	-3.6	18.9	-12.0
23	14.50	0.006	-0.000	0.0	-0.0	0.0	-0.0

Summary of results (continued)

Maximum and minimum bending moment and shear force at each stage

Stage	Bending moment				Shear force			
no.	maximum	elev.	minimum	elev.	maximum	elev.	minimum	elev.
	kN.m/m		kN.m/m		kN/m		kN/m	
1	0.6	24.06	-0.9	20.86	0.5	24.50	-1.2	22.50
2	0.8	24.06	-3.1	20.36	0.8	18.40	-2.4	22.50
3	0.8	24.06	-3.1	20.36	0.8	18.40	-2.4	22.50
4	No calculation at this stage							
5	0.0	24.50	-3.2	21.61	0.8	18.40	-2.2	23.06
6	63.6	18.40	-152.1	23.62	95.4	20.36	-48.7	27.80
7	67.1	18.40	-154.1	23.62	99.0	20.36	-49.2	27.80
8	No calculation at this stage							
9	No calculation at this stage							
10	66.0	18.40	-150.8	23.06	98.3	20.36	-53.4	27.40
11	60.8	21.61	-89.9	19.20	128.1	21.61	-148.7	21.61
12	74.1	21.61	-81.7	18.40	129.6	21.61	-150.2	21.61
13	60.2	21.61	-75.6	24.50	125.3	21.61	-135.7	21.61
14	69.6	21.61	-102.5	24.06	161.6	21.61	-140.0	21.61

Maximum and minimum displacement at each stage

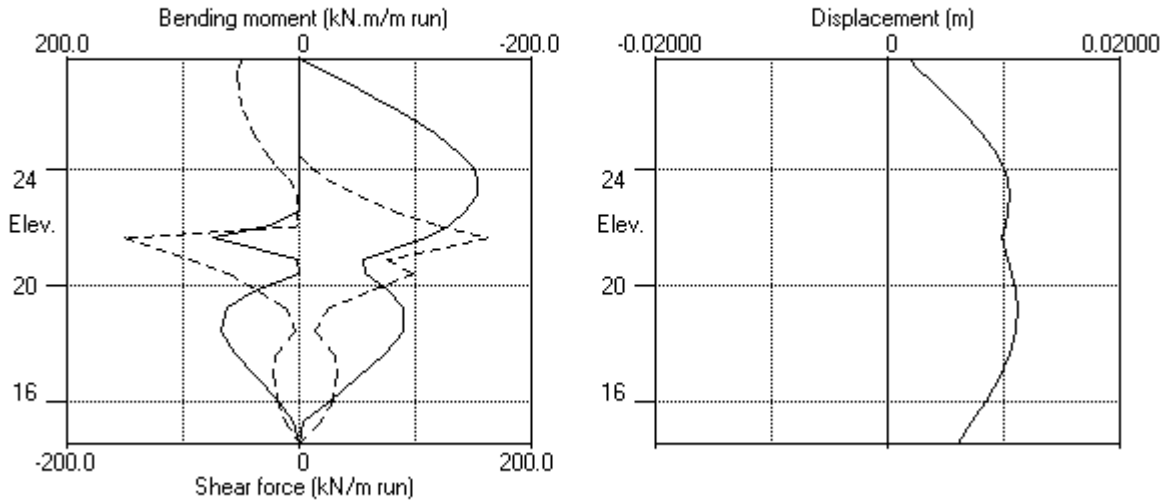
Stage	Displacement				Stage description
no.	maximum	elev.	minimum	elev.	
	m		m		
1	0.000	27.80	0.000	27.80	Apply surcharge no.1 at elev. 27.00
2	0.000	19.78	0.000	27.80	Apply surcharge no.2 at elev. 27.00
3	0.000	18.40	-0.000	27.80	Change EI of wall to 155860kN.m2/m run
4	No calculation at this stage				Install strut no.3 at elev. 27.80
5	0.000	23.06	-0.000	14.50	Apply water pressure profile no.2
6	0.010	23.06	0.000	27.80	Excav. to elev. 20.36 on RIGHT side
7	0.010	23.06	0.000	27.80	Fill to elev. 20.86 on RIGHT side
8	No calculation at this stage				Install strut no.1 at elev. 21.61
9	No calculation at this stage				Install strut no.2 at elev. 27.40
10	0.010	23.06	0.000	27.80	Remove strut no.3 at elev. 27.80
11	0.011	19.20	0.000	27.80	Change soil type 3 to soil type 4
12	0.011	19.20	0.000	27.80	Change EI of wall to 111330kN.m2/m run
13	0.011	19.20	0.000	27.80	Apply surcharge no.3 at elev. 20.86
14	0.010	19.78	0.000	27.80	Apply water pressure profile no.3

Strut forces at each stage (horizontal components)

Stage	Strut no. 1 at elev. 21.61		Strut no. 2 at elev. 27.40		Strut no. 3 at elev. 27.80	
no.	kN/m run	kN/strut	kN/m run	kN/strut	kN/m run	kN/strut
5	---	---	---	---	0.08	0.08
6	---	---	---	---	48.66	48.66
7	---	---	---	---	49.20	49.20
10	slack	slack	53.39	53.39	---	---
11	276.87	276.87	37.50	37.50	---	---
12	279.78	279.78	33.40	33.40	---	---
13	260.97	260.97	34.53	34.53	---	---
14	301.59	301.59	43.53	43.53	---	---

Units: kN,m

Bending moment, shear force, displacement envelopes



Units: kN,m

INPUT DATA

SOIL PROFILE

Stratum no.	Elevation of top of stratum	Soil types Left side	Right side
1	27.00	2 MG (drained)	2 MG (drained)
2	24.50	1 Lynch Hill Gravels	1 Lynch Hill Gravels
3	22.50	3 LCF (undrained)	3 LCF (undrained)

SOIL PROPERTIES

-- Soil type -- No.	Description (Datum elev.)	Bulk density kN/m3	Young's Modulus Eh,kN/m2 (dEh/dy)	At rest coeff. Ko (dKo/dy)	Consol state. NC/OC (Nu)	Active limit Ka (Kac)	Passive limit Kp (Kpc)	Cohesion kN/m2 (dc/dy)
1	Lynch Hill Gravels	19.00	30000	0.470	OC (0.200)	0.250 (0.000)	5.788 (0.000)	
2	MG (drained)	19.00	14000	0.500	OC (0.200)	0.273 (0.000)	5.026 (0.000)	
3	LCF (undr.. (22.50)	21.00	36000 (3900)	1.000	OC (0.490)	1.000 (2.389)	1.000 (2.390)	60.00u (6.500)
4	LCF (drai.. (22.50)	21.00	27000 (2900)	0.625	OC (0.200)	0.455 (1.349)	2.198 (2.965)	5.000d
5	Fill	20.00	50000	0.384	OC (0.200)	0.197 (0.000)	8.446 (0.000)	

Additional soil parameters associated with Ka and Kp

------- Soil type ------- No.	Description	--- parameters for Ka --- Soil friction angle	Wall adhesion coeff.	Back-fill angle	--- parameters for Kp --- Soil friction angle	Wall adhesion coeff.	Back-fill angle
1	Lynch Hill Gravels	32.00	1.000	0.00	32.00	1.000	0.00
2	MG (drained)	30.00	1.000	0.00	30.00	1.000	0.00
3	LCF (undrained)	0.00	0.500	0.00	0.00	0.500	0.00
4	LCF (drained)	22.00	0.000	0.00	22.00	0.000	0.00
5	Fill	38.00	0.670	0.00	38.00	0.670	0.00

GROUND WATER CONDITIONS

Density of water = 10.00 kN/m3
Initial water pressure profile = Profile number 1

Automatic water pressure balancing at toe of wall : Yes

Water press. profile no.	Left side Point no.	Elev. m	Piezo elev. m	Water press. kN/m2	Right side Point no.	Elev. m	Piezo elev. m	Water press. kN/m2	
1	1	23.62	23.62	0.0	1	23.62	23.62	0.0	
2	1	23.62	23.62	0.0	1	20.86	20.86	0.0	MC+WC
					2	20.86	20.86	0.0	
3	1	26.00	26.00	0.0	1	20.86	20.86	0.0	MC+WC
					2	20.86	26.00	51.4	

WALL PROPERTIES

Type of structure = Fully Embedded Wall
Elevation of toe of wall = 14.50
Maximum finite element length = 0.80 m
Youngs modulus of wall E = 2.8000E+07 kN/m2
Moment of inertia of wall I = 7.9500E-03 m4/m run
E.I = 222600 kN.m2/m run
Yield Moment of wall = Not defined

STRUTS and ANCHORS

Strut/ anchor no.	Elev.	Strut spacing m	X-section area of strut sq.m	Youngs modulus kN/m2	Free length m	Inclin -ation (degs)	Pre- stress /strut kN	Tension allowed
1	21.61	1.00	1.500000	1.500E+07	25.00	0.00	0	No
2	27.40	1.00	0.325000	1.500E+07	25.00	0.00	0	No
3	27.80	1.00	1.000000	40000	1.00	0.00	0	No

SURCHARGE LOADS

Surch -arge no.	Elev.	Distance from wall	Length parallel to wall	Width perpend. to wall	Surcharge ----- kN/m2 ----- Near edge	Far edge	Equiv. soil type	Partial factor/ Category
1	24.36	0.50(L)	10.00	1.00	105.00	=	N/A	1.00 P/U
2	24.36	5.50(L)	10.00	1.00	105.00	=	N/A	1.00 P/U
3	20.86	-0.00(R)	30.00	25.00	52.00	=	N/A	1.00 -

Note: L = Left side, R = Right side
Limit State Categories P/U = Permanent Unfavourable
P/F = Permanent Favourable
Var = Variable (unfavourable)

CONSTRUCTION STAGES

Construction stage no.	Stage description
1	Apply surcharge no.1 at elevation 24.36
2	Apply surcharge no.2 at elevation 24.36
3	Change EI of wall to 155860 kN.m2/m run Yield moment not defined Reset wall displacements to zero at this stage
4	Excavate to elevation 26.00 on RIGHT side
5	Install strut or anchor no.3 at elevation 27.80
6	Apply water pressure profile no.2 (Mod. Conserv.)
7	Excavate to elevation 20.86 on RIGHT side
8	Install strut or anchor no.1 at elevation 21.61
9	Install strut or anchor no.2 at elevation 27.40
10	Remove strut or anchor no.3 at elevation 27.80
11	Change properties of soil type 3 to soil type 4 Ko pressures will be reset
12	Change EI of wall to 111330 kN.m2/m run Yield moment not defined Allow wall to relax with new modulus value
13	Apply surcharge no.3 at elevation 20.86
14	Apply water pressure profile no.3 (Mod. Conserv.)

FACTORS OF SAFETY and ANALYSIS OPTIONS

Limit State options: Serviceability Limit State
All loads and soil strengths are unfactored

Stability analysis:
Method of analysis - Strength Factor method
Factor on soil strength for calculating wall depth = 1.00

Parameters for undrained strata:
Minimum equivalent fluid density = 5.00 kN/m3
Maximum depth of water filled tension crack = 0.00 m

Bending moment and displacement calculation:
Method - Subgrade reaction model using Influence Coefficients
Open Tension Crack analysis? - No
Non-linear Modulus Parameter (L) = 12.50 m

Boundary conditions:
Length of wall (normal to plane of analysis) = 20.00 m

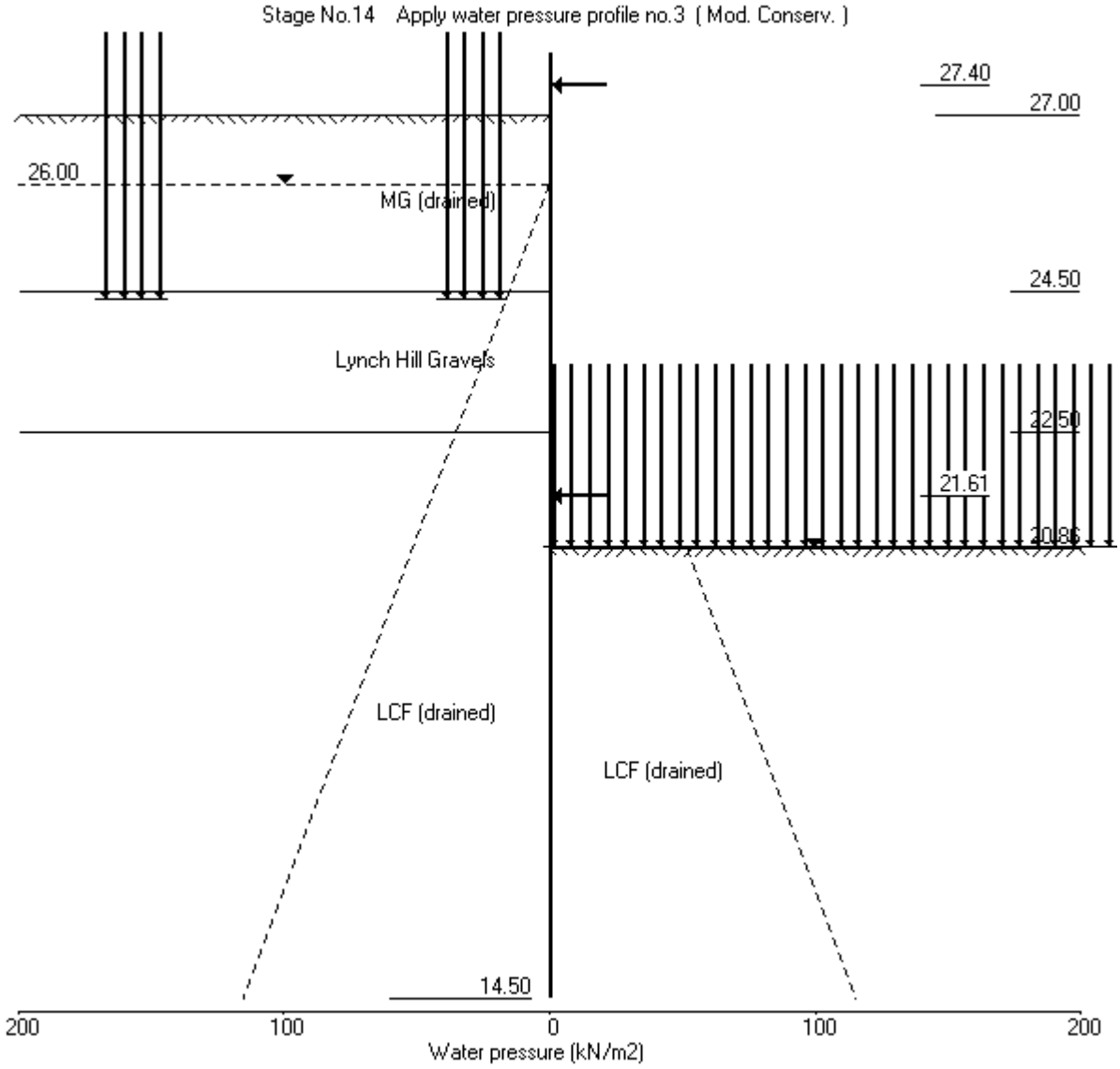
Width of excavation on Left side of wall = 20.00 m
Width of excavation on Right side of wall = 20.00 m

Distance to rigid boundary on Left side = 20.00 m
Distance to rigid boundary on Right side = 20.00 m

OUTPUT OPTIONS

Stage no.	Stage description	Output options: Displacement, Bending mom., Shear force	Active, Passive pressures	Graph. output
1	Apply surcharge no.1 at elev. 24.36	Yes	Yes	Yes
2	Apply surcharge no.2 at elev. 24.36	Yes	Yes	Yes
3	Change EI of wall to 155860kN.m2/m run	Yes	Yes	Yes
4	Excav. to elev. 26.00 on RIGHT side	Yes	Yes	Yes
5	Install strut no.3 at elev. 27.80	Yes	Yes	Yes
6	Apply water pressure profile no.2	Yes	Yes	Yes
7	Excav. to elev. 20.86 on RIGHT side	Yes	Yes	Yes
8	Install strut no.1 at elev. 21.61	Yes	Yes	Yes
9	Install strut no.2 at elev. 27.40	Yes	Yes	Yes
10	Remove strut no.3 at elev. 27.80	Yes	Yes	Yes
11	Change soil type 3 to soil type 4	Yes	Yes	Yes
12	Change EI of wall to 111330kN.m2/m run	No	Yes	Yes
13	Apply surcharge no.3 at elev. 20.86	Yes	Yes	Yes
14	Apply water pressure profile no.3	Yes	Yes	Yes
*	Summary output	Yes	-	Yes

Units: kN,m


Stage No.14 Apply water pressure profile no.3 (Mod. Conserv.)
27.40
27.00
26.00
MG (drained)
24.50
Lynch Hill Gravels
22.50
21.61
20.86
LCF (drained)
LCF (drained)
14.50
200
100
0
100
200
Water pressure (kN/m2)

Units: kN,m

Stage No. 4 Excavate to elevation 26.00 on RIGHT side

STABILITY ANALYSIS of Fully Embedded Wall according to Strength Factor method

Factor of safety on soil strength

Stage No.	--- G.L. --- Act.	Pass.	Strut Elev.	FoS for toe elev. = 14.50 Factor of Safety	Moment equilib. at elev.	Toe elev. for FoS = 1.000 Toe elev.	Wall Penetr -ation	Direction of failure
4	27.00	26.00	Cant.	5.666	15.61	25.75	0.25	L to R

BENDING MOMENT and DISPLACEMENT ANALYSIS of Fully Embedded Wall

Analysis options

Length of wall perpendicular to section = 20.00m
Subgrade reaction model - Boussinesq Influence coefficients
Soil deformations are elastic until the active or passive limit is reached
Open Tension Crack analysis - No

Rigid boundaries: Left side 20.00 from wall
Right side 20.00 from wall

Limit State: Serviceability Limit State

Calculated Bending Moments and Strut Forces are to be multiplied by a factor of 1.35 to obtain values for structural design. See summary for factored values.

*** Wall displacements reset to zero at stage 3

Node no.	Y coord	Nett pressure kN/m2	Wall disp. m	Wall rotation rad.	Shear force kN/m	Bending moment kN.m/m	Strut forces kN/m	EI of wall kN.m2/m
1	27.80	0.00	0.002	2.41E-04	0.0	0.0		155860
2	27.40	0.00	0.002	2.41E-04	0.0	-0.0		155860
3	27.00	0.00	0.002	2.41E-04	0.0	-0.0		155860
4	26.50	2.59	0.001	2.40E-04	0.6	0.2		155860
5	26.00	5.19	0.001	2.38E-04	2.6	0.9		155860
6	25.25	-4.57	0.001	2.21E-04	2.8	4.1		155860
7	24.50	-4.55	0.001	1.85E-04	-0.6	5.0		155860
		-15.18	0.001	1.85E-04	-0.6	5.0		
8	24.36	-15.20	0.001	1.76E-04	-2.7	4.7		155860
9	23.62	-7.97	0.001	1.27E-04	-11.3	-0.7		155860
10	23.06	-5.02	0.001	9.04E-05	-14.9	-8.1		155860
11	22.50	-5.29	0.001	6.09E-05	-17.8	-17.3		155860
		23.42	0.001	6.09E-05	-17.8	-17.3		
12	22.05	18.70	0.001	4.48E-05	-8.4	-23.0		155860
13	21.61	13.69	0.001	3.47E-05	-1.2	-25.0		155860
14	20.86	6.44	0.001	2.71E-05	6.3	-22.5		155860
15	20.43	3.23	0.001	2.64E-05	8.4	-19.3		155860
16	20.00	0.72	0.001	2.72E-05	9.2	-15.5		155860
17	19.20	-2.29	0.001	3.04E-05	8.6	-8.2		155860
18	18.40	-3.57	0.001	3.36E-05	6.3	-2.4		155860
19	17.60	-3.62	0.001	3.59E-05	3.4	1.2		155860
20	16.80	-2.83	0.001	3.68E-05	0.8	2.6		155860
21	16.00	-1.40	0.000	3.69E-05	-0.9	2.1		155860
22	15.25	0.45	0.000	3.68E-05	-1.2	0.9		155860
23	14.50	2.83	0.000	3.67E-05	0.0	0.0		---

(continued)

Stage No.4 Excavate to elevation 26.00 on RIGHT side

LEFT side

Node no.	Y coord	Water press.	Effective stresses: Vertic-al	Active limit	Passive limit	Earth pressure	Total earth pressure	Coeff. of subgrade reaction
		kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m3
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		0.00	0.00	0.00	0.00	0.00	0.00	3185
4	26.50	0.00	9.50	2.59	47.75	2.59	2.59a	3185
5	26.00	0.00	19.00	5.19	95.50	5.19	5.19a	3185
6	25.25	0.00	33.25	9.08	167.12	11.71	11.71	3185
7	24.50	0.00	47.50	12.97	238.74	18.88	18.88	3185
		0.00	47.50	11.86	274.92	11.90	11.90	6824
8	24.36	0.00	50.16	12.53	290.32	13.15	13.15	6824
9	23.62	0.00	94.38	23.57	546.27	27.20	27.20	6824
10	23.06	5.60	112.70	28.14	652.26	32.74	38.34	6824
11	22.50	11.20	118.09	29.49	683.45	35.03	46.23	6824
		Total> 129.29	22.50m	272.68	108.60	108.60		11671
12	22.05	Total> 135.96	24.73m	286.27	114.30	114.30		12233
13	21.61	Total> 142.05	26.95m	299.28	119.59	119.59		12796
14	20.86	Total> 152.63	30.70m	321.50	129.22	129.22		13744
15	20.43	Total> 159.09	32.85m	334.64	135.41	135.41		14288
16	20.00	Total> 165.84	35.00m	348.07	142.10	142.10		14832
17	19.20	Total> 179.06	39.00m	373.72	155.70	155.70		15843
18	18.40	Total> 192.95	43.00m	400.04	170.50	170.50		16855
19	17.60	Total> 207.33	47.00m	426.85	186.17	186.17		17866
20	16.80	Total> 222.09	51.00m	454.03	202.44	202.44		18878
21	16.00	Total> 237.13	55.00m	481.50	219.19	219.19		19889
22	15.25	Total> 251.45	58.75m	507.47	235.26	235.26		20837
23	14.50	Total> 265.94	62.50m	533.61	251.68	251.68		21786

RIGHT side

Node no.	Y coord	Water press.	Effective stresses: Vertic-al	Active limit	Passive limit	Earth pressure	Total earth pressure	Coeff. of subgrade reaction
		kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m3
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
4	26.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
5	26.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		0.00	0.00	0.00	0.00	0.00	0.00	2724
6	25.25	0.00	14.25	3.89	71.62	16.28	16.28	2724
7	24.50	0.00	28.50	7.79	143.26	23.43	23.43	2724
		0.00	28.50	7.12	164.97	27.08	27.08	5838
8	24.36	0.00	31.16	7.78	180.37	28.35	28.35	5838
9	23.62	0.00	45.23	11.30	261.80	35.17	35.17	5838
10	23.06	5.60	50.28	12.56	291.04	37.75	43.35	5838
11	22.50	11.20	55.34	13.82	320.31	40.33	51.53	5838
		Total> 66.54	17.50m	209.94	85.18	85.18		10137
12	22.05	Total> 75.90	19.73m	226.21	95.61	95.61		10625
13	21.61	Total> 85.27	21.95m	242.49	105.89	105.89		11114
14	20.86	Total> 101.07	25.70m	269.94	122.79	122.79		11938
15	20.43	Total> 110.13	27.85m	285.68	132.19	132.19		12410
16	20.00	Total> 119.20	30.00m	301.43	141.38	141.38		12882
17	19.20	Total> 136.08	34.00m	330.74	157.99	157.99		13760
18	18.40	Total> 152.98	38.00m	360.07	174.07	174.07		14639
19	17.60	Total> 169.89	42.00m	389.41	189.79	189.79		15517

(continued)

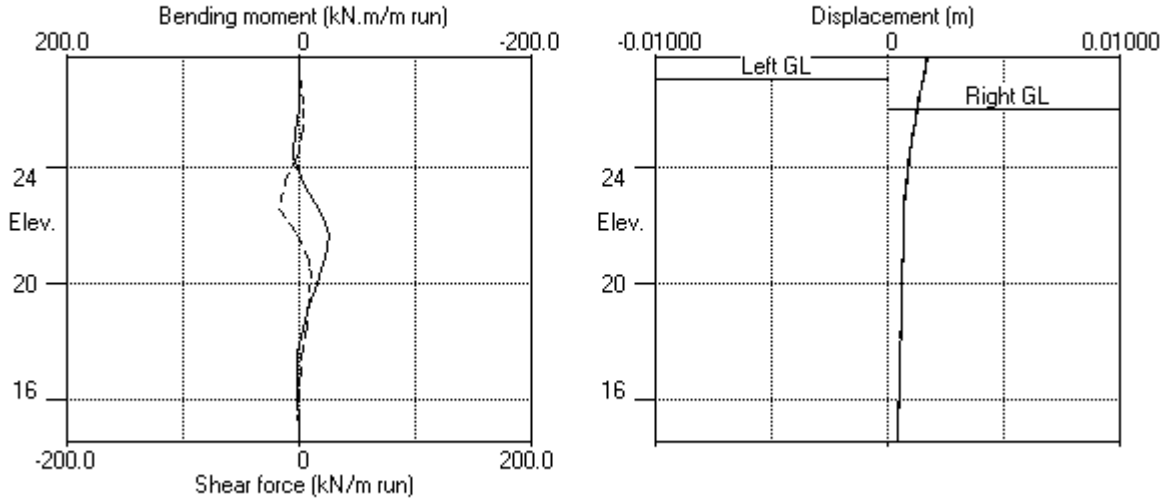
Stage No.4 Excavate to elevation 26.00 on RIGHT side

Node no.	Y coord	RIGHT side						
		Effective stresses					Total earth pressure	Coeff. of subgrade reaction
		Water press.	Vertic -al	Active limit	Passive limit	Earth pressure		
		kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m3
20	16.80	Total>	186.82	46.00m	418.77	205.27	205.27	16396
21	16.00	Total>	203.77	50.00m	448.14	220.59	220.59	17274
22	15.25	Total>	219.67	53.75m	475.69	234.80	234.80	18098
23	14.50	Total>	235.59	57.50m	503.26	248.85	248.85	18922

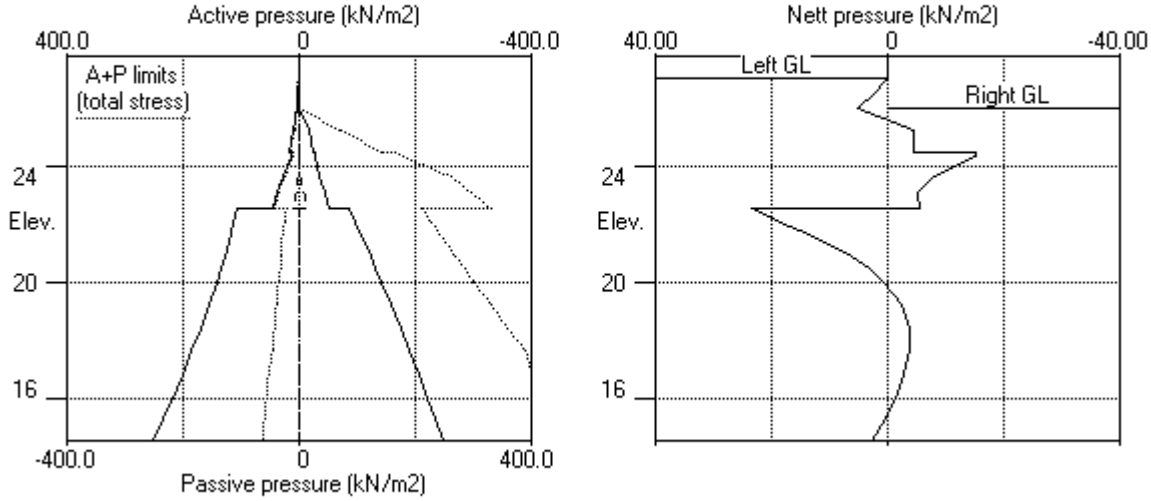
Note: 5.19a Soil pressure at active limit
123.45p Soil pressure at passive limit

Units: kN,m

Stage No.4 Excav. to elev. 26.00 on RIGHT side



Stage No.4 Excav. to elev. 26.00 on RIGHT side



Units: kN,m

Stage No. 7 Excavate to elevation 20.86 on RIGHT side

STABILITY ANALYSIS of Fully Embedded Wall according to Strength Factor method

Factor of safety on soil strength

Stage No.	--- G.L. --- Act.	Pass.	Strut Elev.	FoS for toe elev. = 14.50 Factor of Safety	Moment equilib. at elev.	Toe elev. for FoS = 1.000 Toe elev.	Wall Penetr -ation	Direction of failure
7	27.00	20.86	27.80	2.774	n/a	20.35	0.51	L to R

BENDING MOMENT and DISPLACEMENT ANALYSIS of Fully Embedded Wall

Analysis options

Length of wall perpendicular to section = 20.00m
Subgrade reaction model - Boussinesq Influence coefficients
Soil deformations are elastic until the active or passive limit is reached
Open Tension Crack analysis - No

Rigid boundaries: Left side 20.00 from wall
Right side 20.00 from wall

Limit State: Serviceability Limit State

Calculated Bending Moments and Strut Forces are to be multiplied by a factor of 1.35 to obtain values for structural design. See summary for factored values.

*** Wall displacements reset to zero at stage 3

Node no.	Y coord	Nett pressure kN/m2	Wall disp. m	Wall rotation rad.	Shear force kN/m	Bending moment kN.m/m	Strut forces kN/m	EI of wall kN.m2/m
1	27.80	0.00	0.003	-2.32E-03	-42.5	0.0	42.5	155860
2	27.40	0.00	0.004	-2.30E-03	-42.5	-17.0		155860
3	27.00	0.00	0.005	-2.23E-03	-42.5	-34.0		155860
4	26.50	2.59	0.006	-2.09E-03	-41.9	-55.1		155860
5	26.00	5.19	0.007	-1.88E-03	-39.9	-75.6		155860
6	25.25	9.08	0.008	-1.45E-03	-34.6	-103.0		155860
7	24.50	12.97	0.009	-9.22E-04	-26.3	-126.0		155860
		11.86	0.009	-9.22E-04	-26.3	-126.0		
8	24.36	12.53	0.009	-8.12E-04	-24.6	-129.6		155860
9	23.62	23.57	0.009	-2.04E-04	-11.3	-143.3		155860
10	23.06	32.99	0.009	2.61E-04	4.6	-145.4		155860
11	22.50	39.19	0.009	6.94E-04	24.8	-137.3		155860
		34.78	0.009	6.94E-04	24.8	-137.3		
12	22.05	40.17	0.009	9.91E-04	41.5	-122.6		155860
13	21.61	46.66	0.008	1.23E-03	60.8	-99.9		155860
14	20.86	61.21	0.007	1.44E-03	101.2	-40.1		155860
		-64.58	0.007	1.44E-03	101.2	-40.1		
15	20.43	-57.99	0.007	1.44E-03	74.9	-2.6		155860
16	20.00	-49.93	0.006	1.36E-03	51.7	24.1		155860
17	19.20	-33.87	0.005	1.12E-03	18.2	49.1		155860
18	18.40	-19.41	0.004	8.39E-04	-3.1	52.5		155860
19	17.60	-8.23	0.004	5.92E-04	-14.2	43.5		155860
20	16.80	-0.30	0.003	4.16E-04	-17.6	29.3		155860
21	16.00	5.45	0.003	3.14E-04	-15.6	14.9		155860
22	15.25	10.18	0.003	2.75E-04	-9.7	4.6		155860
23	14.50	15.65	0.002	2.66E-04	-0.0	-0.0		---

At elev. 27.80 Strut force = 42.5 kN/strut = 42.5 kN/m run

(continued)

Stage No.7 Excavate to elevation 20.86 on RIGHT side

Node no.	Y coord	LEFT side						
			Effective stresses				Total earth pressure	Coeff. of subgrade reaction
		Water press. kN/m2	Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2		kN/m3
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		0.00	0.00	0.00	0.00	0.00	0.00	2319
4	26.50	0.00	9.50	2.59	47.75	2.59	2.59a	2319
5	26.00	0.00	19.00	5.19	95.50	5.19	5.19a	2319
6	25.25	0.00	33.25	9.08	167.12	9.08	9.08a	2319
7	24.50	0.00	47.50	12.97	238.74	12.97	12.97a	2319
		0.00	47.50	11.86	274.92	11.86	11.86a	4970
8	24.36	0.00	50.16	12.53	290.32	12.53	12.53a	4970
9	23.62	0.00	94.38	23.57	546.27	23.57	23.57a	4970
10	23.06	4.60	113.69	28.39	658.04	28.39	32.99a	4970
11	22.50	9.20	120.08	29.99	695.01	29.99	39.19a	4970
		Total> 129.29	22.50m	272.68	34.78	34.78		8818
12	22.05	Total> 135.96	24.73m	286.27	40.17	40.17		9243
13	21.61	Total> 142.05	26.95m	299.28	46.66	46.66		9668
14	20.86	Total> 152.63	30.70m	321.50	61.21	61.21		10384
15	20.43	Total> 159.09	32.85m	334.64	71.32	71.32		10795
16	20.00	Total> 165.84	35.00m	348.07	82.23	82.23		11206
17	19.20	Total> 179.06	39.00m	373.72	103.46	103.46		11970
18	18.40	Total> 192.95	43.00m	400.04	124.55	124.55		12734
19	17.60	Total> 207.33	47.00m	426.85	144.72	144.72		13498
20	16.80	Total> 222.09	51.00m	454.03	163.89	163.89		14263
21	16.00	Total> 237.13	55.00m	481.50	182.42	182.42		15027
22	15.25	Total> 251.45	58.75m	507.47	199.71	199.71		15743
23	14.50	Total> 265.94	62.50m	533.61	217.51	217.51		16460

Node no.	Y coord	RIGHT side						
			Effective stresses				Total earth pressure	Coeff. of subgrade reaction
		Water press. kN/m2	Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2		kN/m3
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
4	26.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
5	26.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
6	25.25	0.00	0.00	0.00	0.00	0.00	0.00	0.0
7	24.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
8	24.36	0.00	0.00	0.00	0.00	0.00	0.00	0.0
9	23.62	0.00	0.00	0.00	0.00	0.00	0.00	0.0
10	23.06	0.00	0.00	0.00	0.00	0.00	0.00	0.0
11	22.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
12	22.05	0.00	0.00	0.00	0.00	0.00	0.00	0.0
13	21.61	0.00	0.00	0.00	0.00	0.00	0.00	0.0
14	20.86	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		Total> 0.00	0.00	168.87	125.79	125.79		15541
15	20.43	Total> 9.03	2.15m	184.58	129.31	129.31		16156
16	20.00	Total> 18.06	4.30m	200.30	132.16	132.16		16771
17	19.20	Total> 34.89	8.30m	229.55	137.33	137.33		17914
18	18.40	Total> 51.75	12.30m	258.84	143.97	143.97		19058
19	17.60	Total> 68.67	16.30m	288.19	152.96	152.96		20202
20	16.80	Total> 85.67	20.30m	317.61	164.19	164.19		21346
21	16.00	Total> 102.74	24.30m	347.11	176.96	176.96		22489

(continued)

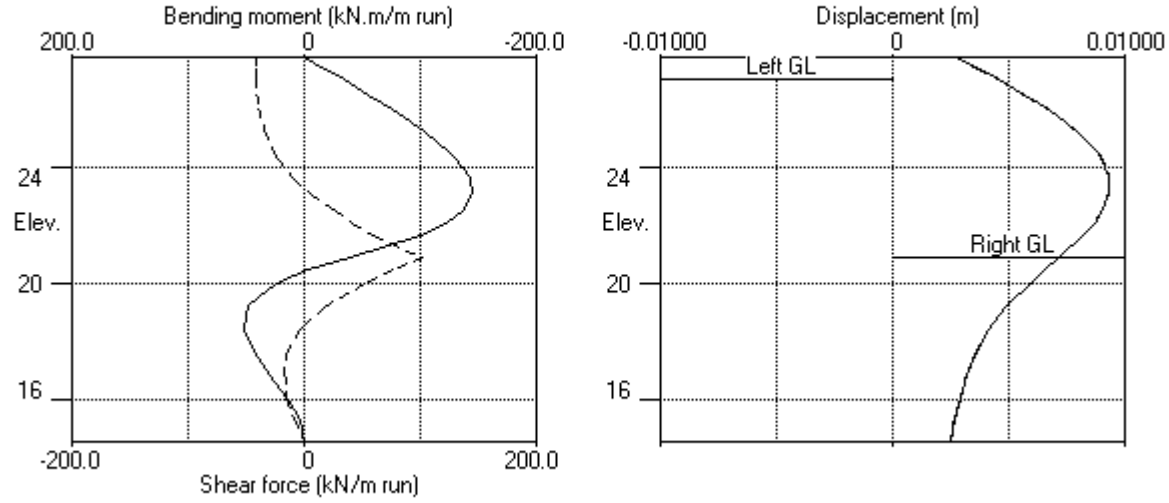
Stage No.7 Excavate to elevation 20.86 on RIGHT side

Node no.	Y coord	RIGHT side						
		Effective stresses					Total earth pressure	Coeff. of subgrade reaction
		Water press.	Vertic -al	Active limit	Passive limit	Earth pressure		
		kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m3
22	15.25	Total>	118.84	28.05m	374.86	189.53	189.53	23561
23	14.50	Total>	135.02	31.80m	402.69	201.85	201.85	24634

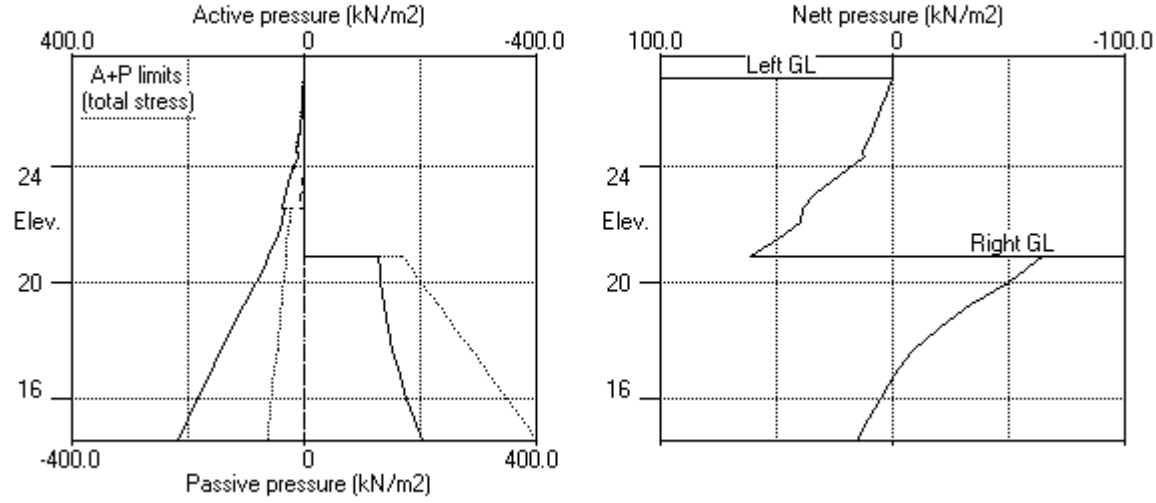
Note: 39.19a Soil pressure at active limit
123.45p Soil pressure at passive limit

Units: kN,m

Stage No.7 Excav. to elev. 20.86 on RIGHT side



Stage No.7 Excav. to elev. 20.86 on RIGHT side



Units: kN,m

Stage No. 11 Change properties of soil type 3 to soil type 4
Ko pressures will be reset

STABILITY ANALYSIS of Fully Embedded Wall according to Strength Factor method
Factor of safety on soil strength

Stage No.	--- G.L. --- Act.	Pass.	Strut Elev.	FoS for toe elev. = 14.50 Factor of Safety	Moment equilib. at elev.	Toe elev. for FoS = 1.000 Toe elev.	Wall Penetr -ation	Direction of failure
11	27.00	20.86		More than one strut. No FoS calc.				

BENDING MOMENT and DISPLACEMENT ANALYSIS of Fully Embedded Wall
Analysis options
Length of wall perpendicular to section = 20.00m
Subgrade reaction model - Boussinesq Influence coefficients
Soil deformations are elastic until the active or passive limit is reached
Open Tension Crack analysis - No

Rigid boundaries: Left side 20.00 from wall
Right side 20.00 from wall

Limit State: Serviceability Limit State
Calculated Bending Moments and Strut Forces are to be multiplied by a factor of 1.35 to obtain values for structural design. See summary for factored values.

*** Wall displacements reset to zero at stage 3

Node no.	Y coord	Nett pressure kN/m2	Wall disp. m	Wall rotation rad.	Shear force kN/m	Bending moment kN.m/m	Strut forces kN/m	EI of wall kN.m2/m
1	27.80	0.00	0.003	-1.59E-03	0.0	0.0		155860
2	27.40	0.00	0.004	-1.59E-03	0.0	-0.0	33.6	155860
		0.00	0.004	-1.59E-03	-33.6	-0.0		
3	27.00	0.00	0.004	-1.57E-03	-33.6	-13.4		155860
4	26.50	4.10	0.005	-1.51E-03	-32.5	-30.1		155860
5	26.00	7.35	0.006	-1.38E-03	-29.7	-45.7		155860
6	25.25	12.23	0.007	-1.12E-03	-22.3	-64.8		155860
7	24.50	16.67	0.008	-7.99E-04	-11.5	-77.7		155860
		19.79	0.008	-7.99E-04	-11.5	-77.7		
8	24.36	20.55	0.008	-7.33E-04	-8.7	-79.1		155860
9	23.62	31.33	0.008	-3.98E-04	10.5	-78.9		155860
10	23.06	39.55	0.008	-1.88E-04	30.4	-67.6		155860
11	22.50	43.47	0.008	-6.27E-05	53.6	-44.0		155860
		87.68	0.008	-6.27E-05	53.6	-44.0		
12	22.05	90.90	0.008	-5.75E-05	93.3	-11.2		155860
13	21.61	92.90	0.008	-1.76E-04	134.2	39.5	281.8	155860
		92.90	0.008	-1.76E-04	-147.5	39.5		
14	20.86	94.18	0.009	-2.86E-04	-77.4	-44.4		155860
		79.35	0.009	-2.86E-04	-77.4	-44.4		
15	20.43	65.89	0.009	-1.85E-04	-46.2	-70.9		155860
16	20.00	52.75	0.009	-1.77E-05	-20.7	-85.2		155860
17	19.20	30.31	0.009	3.70E-04	12.6	-88.5		155860
18	18.40	11.49	0.008	7.58E-04	29.3	-72.1		155860
19	17.60	-3.44	0.008	1.06E-03	32.5	-48.0		155860
20	16.80	-11.05	0.007	1.26E-03	26.7	-25.3		155860
21	16.00	-13.37	0.006	1.36E-03	17.0	-9.1		155860
22	15.25	-14.24	0.004	1.39E-03	6.6	-1.5		155860

(continued)

Stage No.11 Change properties of soil type 3 to soil type 4
Ko pressures will be reset

Node no.	Y coord	Nett pressure kN/m2	Wall disp. m	Wall rotation rad.	Shear force kN/m	Bending moment kN.m/m	Strut forces kN/m	EI of wall kN.m2/m
23	14.50	-3.35	0.003	1.40E-03	0.0	-0.0		---
At elev. 27.40 Strut force =		33.6 kN/strut =			33.6 kN/m run			
At elev. 21.61 Strut force =		281.8 kN/strut =			281.8 kN/m run			

Node no.	Y coord	LEFT side: Water press. kN/m2	Effective stresses: Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2	Total earth pressure kN/m2	Coeff. of subgrade reaction kN/m3
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		0.00	0.00	0.00	0.00	0.00	0.00	3170
4	26.50	0.00	9.50	2.59	47.75	4.10	4.10	3170
5	26.00	0.00	19.00	5.19	95.50	7.35	7.35	3170
6	25.25	0.00	33.25	9.08	167.12	12.23	12.23	3170
7	24.50	0.00	47.50	12.97	238.74	16.67	16.67	3170
		0.00	47.50	11.86	274.92	19.79	19.79	6793
8	24.36	0.00	50.16	12.53	290.32	20.55	20.55	6793
9	23.62	0.00	94.38	23.57	546.27	31.33	31.33	6793
10	23.06	4.60	113.69	28.39	658.04	34.94	39.55	6793
11	22.50	9.20	120.08	29.99	695.01	34.26	43.47	6793
		9.20	120.08	47.89	278.76	78.48	87.68	6114
12	22.05	12.86	123.10	49.26	285.39	78.04	90.90	6406
13	21.61	16.52	125.54	50.37	290.76	76.38	92.90	5809
14	20.86	22.68	129.95	52.38	300.45	71.50	94.18	6236
15	20.43	26.21	132.87	53.71	306.88	68.28	94.49	6481
16	20.00	29.75	136.09	55.17	313.95	65.39	95.14	6726
17	19.20	36.32	142.74	58.20	328.57	62.07	98.39	7181
18	18.40	42.89	148.09	60.63	340.33	62.45	105.35	7637
19	17.60	49.47	157.87	65.08	361.82	66.85	116.31	8092
20	16.80	56.04	166.05	68.80	379.79	78.71	134.75	8548
21	16.00	62.61	174.52	72.65	398.41	96.06	158.68	9004
22	15.25	68.78	182.67	76.36	416.33	113.82	182.60	9431
23	14.50	74.94	191.00	80.15	434.63	133.06	208.00	9858

Node no.	Y coord	RIGHT side: Water press. kN/m2	Effective stresses: Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2	Total earth pressure kN/m2	Coeff. of subgrade reaction kN/m3
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
4	26.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
5	26.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
6	25.25	0.00	0.00	0.00	0.00	0.00	0.00	0.0
7	24.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
8	24.36	0.00	0.00	0.00	0.00	0.00	0.00	0.0
9	23.62	0.00	0.00	0.00	0.00	0.00	0.00	0.0
10	23.06	0.00	0.00	0.00	0.00	0.00	0.00	0.0
11	22.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
12	22.05	0.00	0.00	0.00	0.00	0.00	0.00	0.0
13	21.61	0.00	0.00	0.00	0.00	0.00	0.00	0.0
14	20.86	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		0.00	0.00	0.00	14.83	14.83	14.83p	6236

(continued)

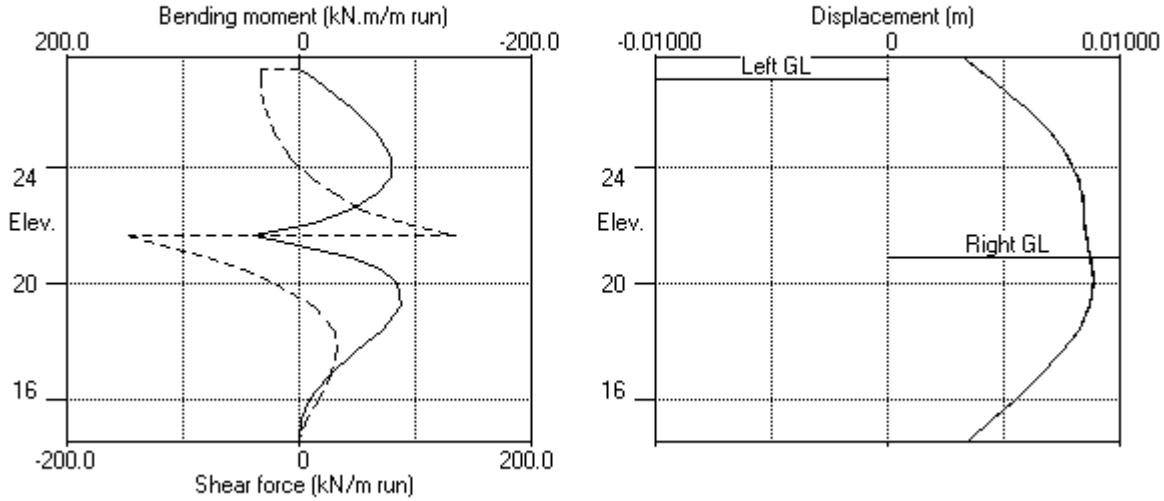
Stage No.11 Change properties of soil type 3 to soil type 4
Ko pressures will be reset

Node no.	Y coord	RIGHT side Water press. kN/m2	Effective stresses Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2	Total earth pressure kN/m2	Coeff. of subgrade reaction kN/m3
15	20.43	5.07	3.96	0.00	23.54	23.54	28.60p	6481
16	20.00	10.13	7.93	0.00	32.26	32.26	42.39p	6726
17	19.20	19.56	15.33	0.23	48.52	48.52	68.08p	7181
18	18.40	28.99	22.77	3.61	64.87	64.87	93.85p	7637
19	17.60	38.41	30.26	7.02	81.34	81.34	119.75p	8092
20	16.80	47.84	37.83	10.46	97.97	97.97	145.81p	8548
21	16.00	57.27	45.48	13.95	114.78	114.78	172.05p	9004
22	15.25	66.10	52.73	17.25	130.73	130.73	196.84p	9431
23	14.50	74.94	60.08	20.59	146.88	136.42	211.36	9858

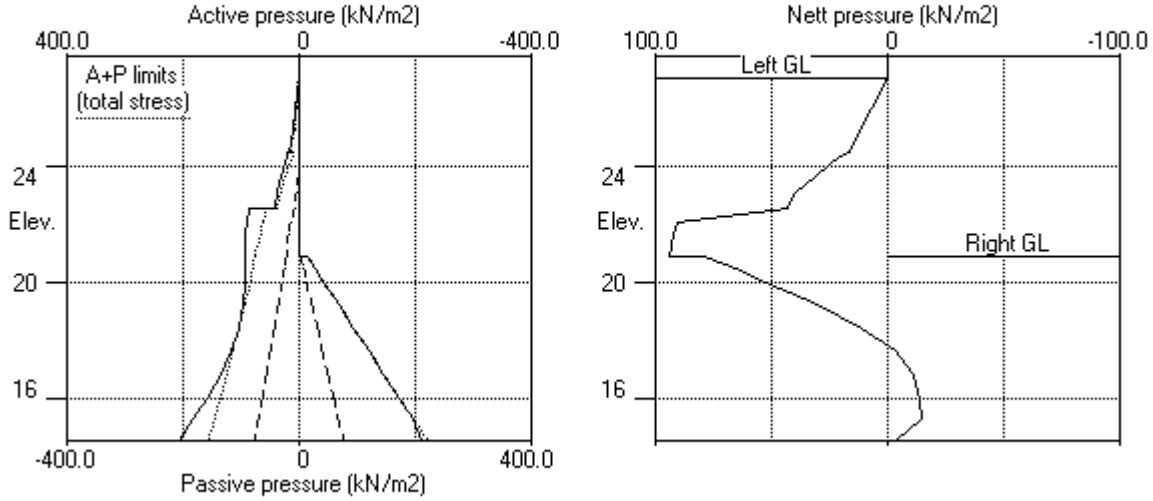
Note: 12.34a Soil pressure at active limit
196.84p Soil pressure at passive limit

Units: kN,m

Stage No.11 Change soil type 3 to soil type 4



Stage No.11 Change soil type 3 to soil type 4



Units: kN,m

Stage No. 12 Change EI of wall to 111330 kN.m2/m run
Yield moment not defined
Allow wall to relax with new modulus value

STABILITY ANALYSIS of Fully Embedded Wall according to Strength Factor method
Factor of safety on soil strength

Stage No.	--- G.L. --- Act.	Pass.	Strut Elev.	FoS for toe elev. = 14.50 Factor of Safety	Moment equilib. at elev.	Toe elev. for FoS = 1.000 Toe elev.	Wall Penetr -ation	Direction of failure
12	27.00	20.86		More than one strut. No FoS calc.				

BENDING MOMENT and DISPLACEMENT ANALYSIS of Fully Embedded Wall
Analysis options
Length of wall perpendicular to section = 20.00m
Subgrade reaction model - Boussinesq Influence coefficients
Soil deformations are elastic until the active or passive limit is reached
Open Tension Crack analysis - No

Rigid boundaries: Left side 20.00 from wall
Right side 20.00 from wall
Limit State: Serviceability Limit State
Calculated Bending Moments and Strut Forces are to be multiplied by a factor of 1.35 to obtain values for structural design. See summary for factored values.

*** Wall displacements reset to zero at stage 3

Node no.	Y coord	Nett pressure kN/m2	Wall disp. m	Wall rotation rad.	Shear force kN/m	Bending moment kN.m/m	Strut forces kN/m	EI of wall kN.m2/m
1	27.80	0.00	0.003	-1.76E-03	0.0	0.0		111330
2	27.40	0.00	0.004	-1.76E-03	0.0	-0.0	29.8	111330
		0.00	0.004	-1.76E-03	-29.8	-0.0		
3	27.00	0.00	0.005	-1.74E-03	-29.8	-12.3		111330
4	26.50	3.68	0.005	-1.65E-03	-28.9	-27.4		111330
5	26.00	6.71	0.006	-1.50E-03	-26.3	-41.6		111330
6	25.25	11.37	0.007	-1.18E-03	-19.5	-58.6		111330
7	24.50	15.77	0.008	-7.79E-04	-9.3	-69.5		111330
		17.85	0.008	-7.79E-04	-9.3	-69.5		
8	24.36	18.64	0.008	-6.98E-04	-6.8	-70.5		111330
9	23.62	29.79	0.008	-2.96E-04	11.1	-68.1		111330
10	23.06	38.49	0.009	-5.53E-05	30.2	-55.4		111330
11	22.50	42.95	0.008	6.72E-05	53.0	-30.6		111330
		87.22	0.008	6.72E-05	53.0	-30.6		
12	22.05	90.76	0.008	3.38E-05	92.6	2.7		111330
13	21.61	93.36	0.008	-1.72E-04	133.6	53.2	279.4	111330
		93.36	0.008	-1.72E-04	-145.8	53.2		
14	20.86	93.82	0.009	-3.97E-04	-75.6	-30.6		111330
		78.99	0.009	-3.97E-04	-75.6	-30.6		
15	20.43	65.12	0.009	-3.00E-04	-44.6	-57.4		111330
16	20.00	51.58	0.009	-1.12E-04	-19.5	-72.2		111330
17	19.20	28.61	0.009	3.39E-04	12.5	-76.7		111330
18	18.40	9.70	0.008	7.91E-04	27.9	-62.0		111330
19	17.60	-4.90	0.008	1.13E-03	29.8	-40.0		111330
20	16.80	-11.93	0.007	1.34E-03	23.1	-19.6		111330
21	16.00	-13.57	0.006	1.44E-03	12.9	-5.8		111330

(continued)

Stage No.12 Change EI of wall to 111330 kN.m2/m run
Yield moment not defined
Allow wall to relax with new modulus value

Node no.	Y coord	Nett pressure kN/m2	Wall disp. m	Wall rotation rad.	Shear force kN/m	Bending moment kN.m/m	Strut forces kN/m	EI of wall kN.m2/m
22	15.25	-11.74	0.004	1.46E-03	3.4	-0.3		111330
23	14.50	2.78	0.003	1.46E-03	0.0	-0.0		---

At elev. 27.40 Strut force = 29.8 kN/strut = 29.8 kN/m run
At elev. 21.61 Strut force = 279.4 kN/strut = 279.4 kN/m run

LEFT side

Node no.	Y coord	Effective stresses: Water press. kN/m2	Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2	Total earth pressure kN/m2	Coeff. of subgrade reaction kN/m3
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		0.00	0.00	0.00	0.00	0.00	0.00	3358
4	26.50	0.00	9.50	2.59	47.75	3.68	3.68	3358
5	26.00	0.00	19.00	5.19	95.50	6.71	6.71	3358
6	25.25	0.00	33.25	9.08	167.12	11.37	11.37	3358
7	24.50	0.00	47.50	12.97	238.74	15.77	15.77	3358
		0.00	47.50	11.86	274.92	17.85	17.85	7195
8	24.36	0.00	50.16	12.53	290.32	18.64	18.64	7195
9	23.62	0.00	94.38	23.57	546.27	29.79	29.79	7195
10	23.06	4.60	113.69	28.39	658.04	33.89	38.49	7195
11	22.50	9.20	120.08	29.99	695.01	33.75	42.95	7195
		9.20	120.08	47.89	278.76	78.01	87.22	6476
12	22.05	12.86	123.10	49.26	285.39	77.90	90.76	6785
13	21.61	16.52	125.54	50.37	290.76	76.84	93.36	174322
14	20.86	22.68	129.95	52.38	300.45	71.14	93.82	7617
15	20.43	26.21	132.87	53.71	306.88	67.51	93.73	7916
16	20.00	29.75	136.09	55.17	313.95	64.22	93.97	8215
17	19.20	36.32	142.74	58.20	328.57	60.37	96.69	8771
18	18.40	42.89	148.09	60.63	340.33	60.66	103.55	9328
19	17.60	49.47	157.87	65.08	361.82	65.38	114.85	9884
20	16.80	56.04	166.05	68.80	379.79	77.84	133.88	10441
21	16.00	62.61	174.52	72.65	398.41	95.87	158.48	10997
22	15.25	68.78	182.67	76.36	416.33	115.07	183.85	33699
23	14.50	74.94	191.00	80.15	434.63	136.13	211.07	35226

RIGHT side

Node no.	Y coord	Effective stresses: Water press. kN/m2	Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2	Total earth pressure kN/m2	Coeff. of subgrade reaction kN/m3
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
4	26.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
5	26.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
6	25.25	0.00	0.00	0.00	0.00	0.00	0.00	0.0
7	24.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
8	24.36	0.00	0.00	0.00	0.00	0.00	0.00	0.0
9	23.62	0.00	0.00	0.00	0.00	0.00	0.00	0.0
10	23.06	0.00	0.00	0.00	0.00	0.00	0.00	0.0
11	22.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
12	22.05	0.00	0.00	0.00	0.00	0.00	0.00	0.0

(continued)

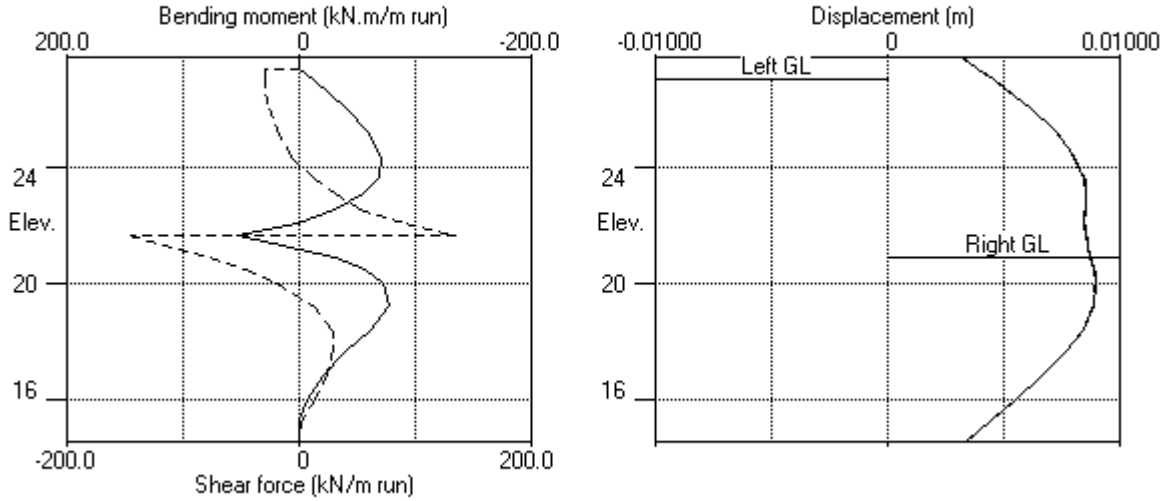
Stage No.12 Change EI of wall to 111330 kN.m2/m run
Yield moment not defined
Allow wall to relax with new modulus value

Node no.	Y coord	RIGHT side ------- Effective stresses ------- Water press. kN/m2	Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2	Total earth pressure kN/m2	Coeff. of subgrade reaction kN/m3
13	21.61	0.00	0.00	0.00	0.00	0.00	0.00	0.0
14	20.86	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		0.00	0.00	0.00	14.83	14.83	14.83p	7617
15	20.43	5.07	3.96	0.00	23.54	23.54	28.60p	7916
16	20.00	10.13	7.93	0.00	32.26	32.26	42.39p	8215
17	19.20	19.56	15.33	0.23	48.52	48.52	68.08p	8771
18	18.40	28.99	22.77	3.61	64.87	64.87	93.85p	9328
19	17.60	38.41	30.26	7.02	81.34	81.34	119.75p	9884
20	16.80	47.84	37.83	10.46	97.97	97.97	145.81p	10441
21	16.00	57.27	45.48	13.95	114.78	114.78	172.05p	10997
22	15.25	66.10	52.73	17.25	130.73	129.48	195.59	33699
23	14.50	74.94	60.08	20.59	146.88	133.35	208.29	35226

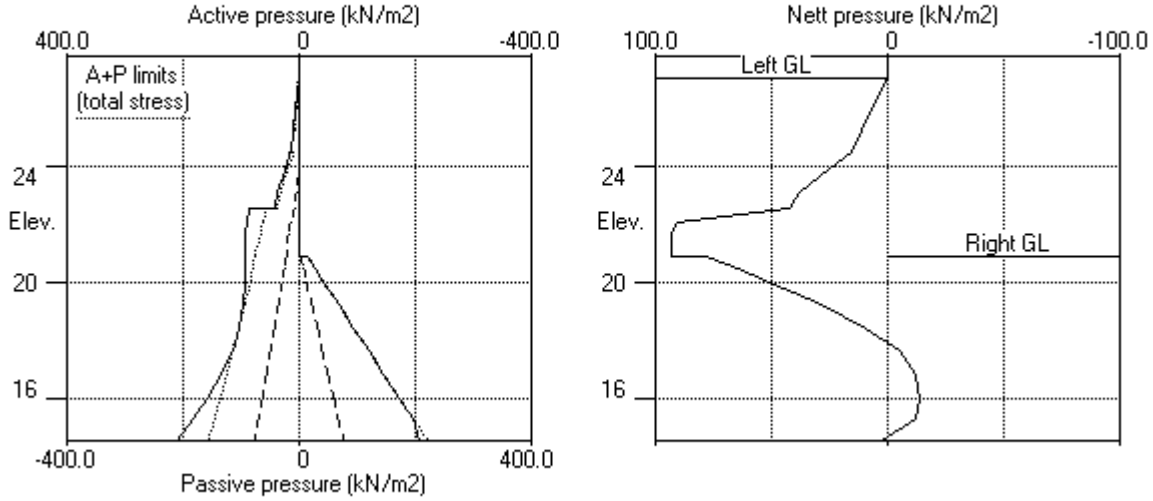
Note: 12.34a Soil pressure at active limit
172.05p Soil pressure at passive limit

Units: kN,m

Stage No.12 Change EI of wall to 111330kN.m2/m run



Stage No.12 Change EI of wall to 111330kN.m2/m run



Units: kN,m

Summary of results

LIMIT STATE PARAMETERS

Limit State: Serviceability Limit State
All loads and soil strengths are unfactored

STABILITY ANALYSIS of Fully Embedded Wall according to Strength Factor method

Factor of safety on soil strength

Stage No.	--- G.L. --- Act.	Pass.	Strut Elev.	FoS for toe elev. = 14.50 Factor of Safety	Moment equilib. at elev.	Toe elev. for FoS = 1.000 Toe elev.	Wall Penetr -ation	Direction of failure
1	27.00	27.00	Cant.	Conditions not suitable for FoS calc.				
2	27.00	27.00	Cant.	Conditions not suitable for FoS calc.				
3	27.00	27.00		No analysis at this stage				
4	27.00	26.00	Cant.	5.666	15.61	25.75	0.25	L to R
5	27.00	26.00		No analysis at this stage				
6	27.00	26.00	27.80	9.750	n/a	25.94	0.06	L to R
7	27.00	20.86	27.80	2.774	n/a	20.35	0.51	L to R
8	27.00	20.86		No analysis at this stage				

All remaining stages have more than one strut - FoS calculation n/a

Units: kN,m

Summary of results

BENDING MOMENT and DISPLACEMENT ANALYSIS of Fully Embedded Wall

Analysis options

Length of wall perpendicular to section = 20.00m
Subgrade reaction model - Boussinesq Influence coefficients
Soil deformations are elastic until the active or passive limit is reached
Open Tension Crack analysis - No

Rigid boundaries: Left side 20.00 from wall
Right side 20.00 from wall

Limit State: Serviceability Limit State

Calculated Bending Moments and Strut Forces have been multiplied by a factor of 1.35 to obtain values for structural design.

Bending moment, shear force and displacement envelopes

Node no.	Y coord	Displacement		Bending moment Calculated		Bending moment Factored		Shear force Calculated		Shear force Factored	
		max.	min.	max.	min.	max.	min.	max.	min.	max.	min.
		m	m	kN.m/m		kN.m/m		kN/m	kN/m	kN/m	kN/m
1	27.80	0.003	0.000	0	-0	0	-0	0	-43	0	-57
2	27.40	0.004	0.000	0	-17	0	-23	0	-46	0	-62
3	27.00	0.005	0.000	0	-34	0	-46	0	-46	0	-62
4	26.50	0.006	0.000	0	-55	0	-74	1	-46	1	-61
5	26.00	0.007	0.000	1	-76	1	-102	3	-44	4	-59
6	25.25	0.008	0.000	4	-103	6	-139	3	-38	4	-51
7	24.50	0.009	0.000	5	-126	7	-170	0	-30	0	-40
8	24.36	0.009	0.000	5	-130	6	-175	0	-28	0	-38
9	23.62	0.009	0.000	0	-143	0	-194	12	-14	16	-19
10	23.06	0.009	0.000	0	-145	0	-196	38	-16	51	-21
11	22.50	0.009	0.000	0	-137	0	-185	69	-18	93	-24
12	22.05	0.009	0.000	3	-123	4	-166	116	-8	157	-11
13	21.61	0.009	0.000	53	-100	72	-135	166	-148	224	-199
14	20.86	0.009	0.000	0	-44	0	-60	101	-77	137	-104
15	20.43	0.009	0.000	0	-71	0	-96	75	-46	101	-62
16	20.00	0.009	0.000	24	-85	33	-115	52	-21	70	-28
17	19.20	0.009	0.000	49	-88	66	-119	19	0	25	0
18	18.40	0.008	0.000	53	-72	71	-97	29	-3	40	-4
19	17.60	0.008	0.000	44	-48	59	-65	33	-14	44	-19
20	16.80	0.007	0.000	29	-25	40	-34	27	-18	36	-24
21	16.00	0.006	0.000	15	-9	20	-12	17	-16	23	-21
22	15.25	0.004	0.000	5	-1	6	-2	7	-10	9	-13
23	14.50	0.003	0.000	0	-0	0	-0	0	-0	0	-0

Summary of results (continued)

Calculated Bending Moments and Strut Forces have been multiplied by a factor of 1.35 to obtain values for structural design.

Maximum and minimum bending moment and shear force at each stage

Stage	Bending moment						Shear force					
no.	Calculated				Factored		Calculated				Factored	
	max.	elev.	min.	elev.	max.	min.	max.	elev.	min.	elev.	max.	min.
	kN.m/m		kN.m/m		kN.m/m		kN/m		kN/m		kN/m	kN/m
1	4	16.80	-28	22.05	5	-37	11	20.00	-11	22.50	14	-15
2	3	16.80	-28	21.61	4	-37	10	20.00	-12	22.50	13	-16
3	No calculation at this stage											
4	5	24.50	-25	21.61	7	-34	9	20.00	-18	22.50	12	-24
5	No calculation at this stage											
6	4	24.50	-26	21.61	6	-35	10	20.00	-16	22.50	13	-22
7	53	18.40	-145	23.06	71	-196	101	20.86	-43	27.80	137	-57
8	No calculation at this stage											
9	No calculation at this stage											
10	52	18.40	-143	23.06	70	-193	100	20.86	-46	27.40	135	-62
11	40	21.61	-88	19.20	53	-119	134	21.61	-148	21.61	181	-199
12	53	21.61	-77	19.20	72	-104	134	21.61	-146	21.61	180	-197
13	39	21.61	-75	24.36	53	-101	129	21.61	-131	21.61	175	-177
14	51	21.61	-101	24.36	68	-137	166	21.61	-137	21.61	224	-185

Maximum and minimum displacement at each stage

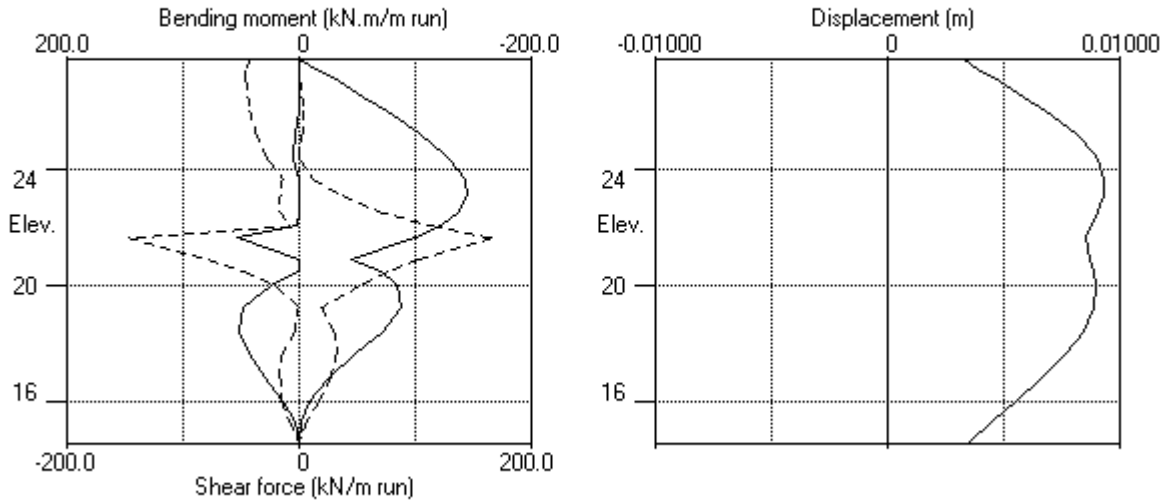
Stage	Displacement				Stage description
no.	maximum	elev.	minimum	elev.	
	m		m		
1	0.001	21.61	-0.000	27.80	Apply surcharge no.1 at elev. 24.36
2	0.001	21.61	-0.000	27.80	Apply surcharge no.2 at elev. 24.36
3	Wall displacements reset to zero				Change EI of wall to 155860kN.m2/m run
4	0.002	27.80	0.000	27.80	Excav. to elev. 26.00 on RIGHT side
5	No calculation at this stage				Install strut no.3 at elev. 27.80
6	0.002	27.80	0.000	27.80	Apply water pressure profile no.2
7	0.009	23.62	0.000	27.80	Excav. to elev. 20.86 on RIGHT side
8	No calculation at this stage				Install strut no.1 at elev. 21.61
9	No calculation at this stage				Install strut no.2 at elev. 27.40
10	0.009	23.62	0.000	27.80	Remove strut no.3 at elev. 27.80
11	0.009	20.00	0.000	27.80	Change soil type 3 to soil type 4
12	0.009	20.00	0.000	27.80	Change EI of wall to 111330kN.m2/m run
13	0.009	23.06	0.000	27.80	Apply surcharge no.3 at elev. 20.86
14	0.009	23.62	0.000	27.80	Apply water pressure profile no.3

Strut forces at each stage (horizontal components)

Stage	Strut no. 1 at elev. 21.61			Strut no. 2 at elev. 27.40			Strut no. 3 at elev. 27.80		
no.	--Calculated--		Factored	--Calculated--		Factored	--Calculated--		Factored
	kN per m run	kN per strut	kN per strut	kN per m run	kN per strut	kN per strut	kN per m run	kN per strut	kN per strut
6	---	---	---	---	---	---	0	0	0
7	---	---	---	---	---	---	43	43	57
10	slack	slack	slack	46	46	62	---	---	---
11	282	282	380	34	34	45	---	---	---
12	279	279	377	30	30	40	---	---	---
13	261	261	352	31	31	42	---	---	---
14	303	303	408	40	40	54	---	---	---

Units: kN,m

Bending moment, shear force, displacement envelopes



Units: kN,m

INPUT DATA

SOIL PROFILE

Stratum no.	Elevation of top of stratum	Soil types Left side	Right side
1	27.00	2 MG (drained)	2 MG (drained)
2	24.50	1 Lynch Hill Gravels	1 Lynch Hill Gravels
3	22.50	3 LCF (undrained)	3 LCF (undrained)

SOIL PROPERTIES (Unfactored SLS soil strengths)

No.	Soil type Description (Datum elev.)	Bulk density kN/m3	Young's Modulus Eh,kN/m2 (dEh/dy)	At rest coeff. Ko (dKo/dy)	Consol state. NC/OC (Nu)	Active limit Ka (Kac)	Passive limit Kp (Kpc)	Cohesion kN/m2 (dc/dy)
1	Lynch Hill Gravels	19.00	30000	0.470	OC (0.200)	0.250 (0.000)	5.788 (0.000)	
2	MG (drained)	19.00	14000	0.500	OC (0.200)	0.273 (0.000)	5.026 (0.000)	
3	LCF (undr.. (22.50)	21.00	36000 (3900)	1.000	OC (0.490)	1.000 (2.389)	1.000 (2.390)	60.00u (6.500)
4	LCF (drai.. (22.50)	21.00	27000 (2900)	0.625	OC (0.200)	0.455 (1.349)	2.198 (2.965)	5.000d
5	Fill	20.00	50000	0.384	OC (0.200)	0.197 (0.000)	8.446 (0.000)	

Additional soil parameters associated with Ka and Kp

Soil type No.	Description	--- parameters for Ka --- Soil friction angle	Wall adhesion coeff.	Back-fill angle	--- parameters for Kp --- Soil friction angle	Wall adhesion coeff.	Back-fill angle
1	Lynch Hill Gravels	32.00	1.000	0.00	32.00	1.000	0.00
2	MG (drained)	30.00	1.000	0.00	30.00	1.000	0.00
3	LCF (undrained)	0.00	0.500	0.00	0.00	0.500	0.00
4	LCF (drained)	22.00	0.000	0.00	22.00	0.000	0.00
5	Fill	38.00	0.670	0.00	38.00	0.670	0.00

GROUND WATER CONDITIONS

Density of water = 10.00 kN/m3
Initial water pressure profile = Profile number 1

Automatic water pressure balancing at toe of wall : Yes

Water press. profile no.	Left side Point no.	Elev. m	Piezo elev. m	Water press. kN/m2	Right side Point no.	Elev. m	Piezo elev. m	Water press. kN/m2	
1	1	23.62	23.62	0.0	1	23.62	23.62	0.0	
2	1	23.62	23.62	0.0	1	20.36	20.36	0.0	MC+WC
					2	20.36	20.36	0.0	
3	1	26.00	26.00	0.0	1	21.61	21.61	0.0	MC+WC
					2	21.61	26.00	43.9	

WALL PROPERTIES

Type of structure = Fully Embedded Wall
Elevation of toe of wall = 14.50
Maximum finite element length = 0.80 m
Youngs modulus of wall E = 2.8000E+07 kN/m2
Moment of inertia of wall I = 7.9500E-03 m4/m run
E.I = 222600 kN.m2/m run
Yield Moment of wall = Not defined

STRUTS and ANCHORS

Strut/ anchor no.	Elev.	Strut spacing m	X-section area of strut sq.m	Youngs modulus kN/m2	Free length m	Inclin -ation (degs)	Pre- stress /strut kN	Tension allowed
1	21.61	1.00	1.500000	1.500E+07	25.00	0.00	0	No
2	27.40	1.00	0.600000	1.500E+07	25.00	0.00	0	No
3	27.80	1.00	1.000000	40000	1.00	0.00	0	No

SURCHARGE LOADS

Surch -arge no.	Elev.	Distance from wall	Length parallel to wall	Width perpend. to wall	Surcharge ----- kN/m2 ----- Near edge	Far edge	Equiv. soil type	Partial factor/ Category
1	24.36	0.50(L)	10.00	1.00	105.00	=	N/A	1.00 P/U
2	24.36	5.50(L)	10.00	1.00	105.00	=	N/A	1.00 P/U
3	20.86	-0.00(R)	30.00	25.00	57.00	=	N/A	1.00 -

Note: L = Left side, R = Right side
Limit State Categories P/U = Permanent Unfavourable
P/F = Permanent Favourable
Var = Variable (unfavourable)

CONSTRUCTION STAGES

Construction stage no.	Stage description
1	Apply surcharge no.1 at elevation 24.36
2	Apply surcharge no.2 at elevation 24.36
3	Change EI of wall to 155860 kN.m2/m run Yield moment not defined Reset wall displacements to zero at this stage
4	Excavate to elevation 26.00 on RIGHT side
5	Install strut or anchor no.3 at elevation 27.80
6	Apply water pressure profile no.2 (Worst Cred.)
7	Excavate to elevation 20.36 on RIGHT side
8	Fill to elevation 20.86 on RIGHT side with soil type 5
9	Install strut or anchor no.1 at elevation 21.61
10	Install strut or anchor no.2 at elevation 27.40
11	Remove strut or anchor no.3 at elevation 27.80
12	Change properties of soil type 3 to soil type 4 Ko pressures will be reset
13	Change EI of wall to 111330 kN.m2/m run Yield moment not defined Allow wall to relax with new modulus value
14	Apply surcharge no.3 at elevation 20.86
15	Apply water pressure profile no.3 (Worst Cred.)

FACTORS OF SAFETY and ANALYSIS OPTIONS

Limit State options: ULS DA1 Combination 2
Water pressures : Worst Credible
Partial factor on C' = 1.250
Partial factor on Phi' = 1.250
Partial factor on Cu = 1.400
Partial factor on Soil Modulus = 1.000
Partial factor on Permanent Unfavourable loads = 1.000
Partial factor on Permanent Favourable loads = 1.000
Partial factor on Variable Unfavourable loads = 1.300

Stability analysis:
Method of analysis - Strength Factor method
Overall factor on soil strength for calculating wall depth = 1.00

Parameters for undrained strata:
Minimum equivalent fluid density = 5.00 kN/m3
Maximum depth of water filled tension crack = 0.00 m

Bending moment and displacement calculation:
Method - Subgrade reaction model using Influence Coefficients
Open Tension Crack analysis? - No
Non-linear Modulus Parameter (L) = 12.50 m

Boundary conditions:
Length of wall (normal to plane of analysis) = 20.00 m

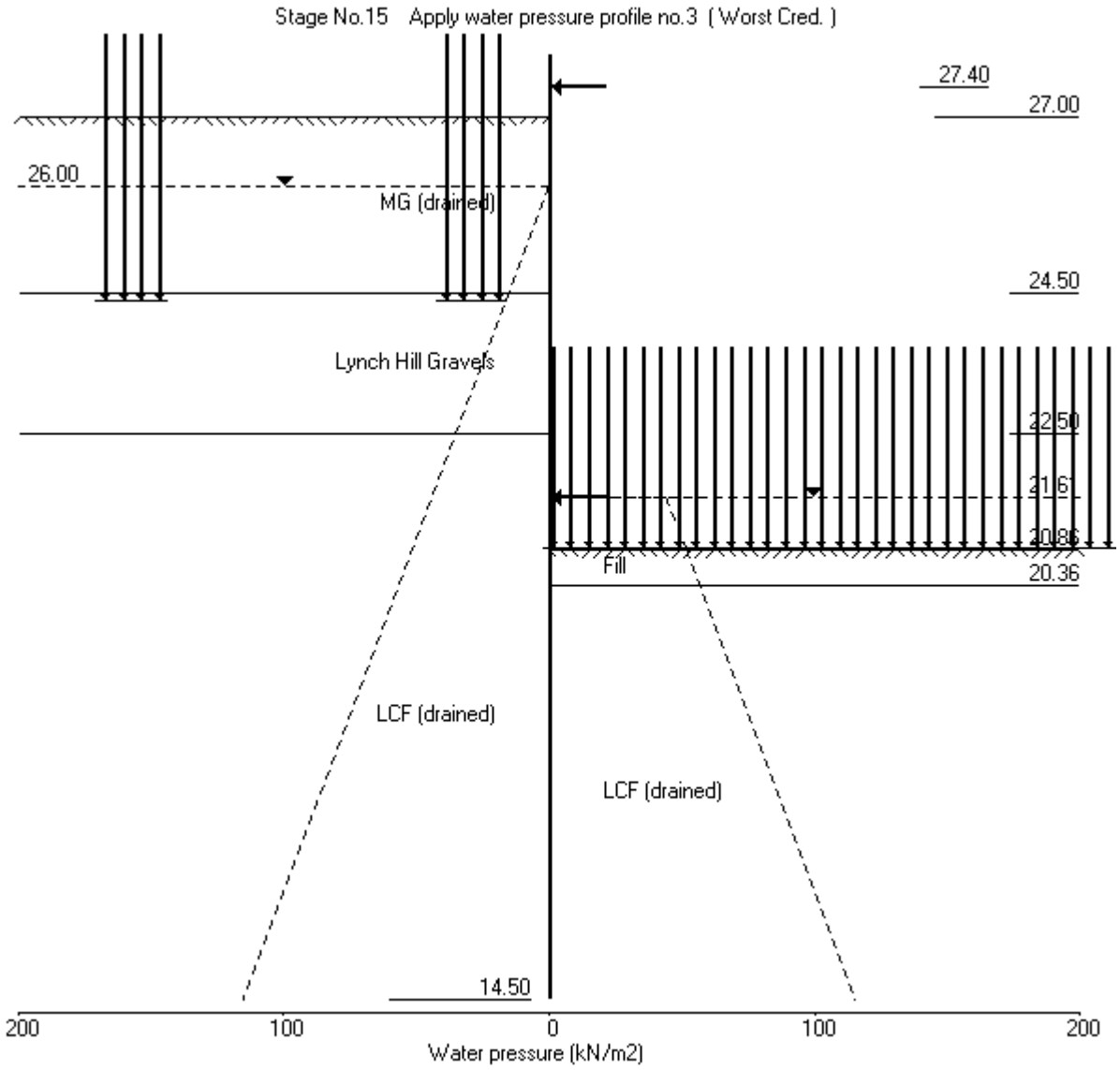
Width of excavation on Left side of wall = 20.00 m
Width of excavation on Right side of wall = 20.00 m

Distance to rigid boundary on Left side = 20.00 m
Distance to rigid boundary on Right side = 20.00 m

OUTPUT OPTIONS

Stage no.	Stage description	Output options: Displacement, Bending mom., Shear force	Active, Passive pressures	Graph. output
1	Apply surcharge no.1 at elev. 24.36	Yes	Yes	Yes
2	Apply surcharge no.2 at elev. 24.36	Yes	Yes	Yes
3	Change EI of wall to 155860kN.m2/m run	Yes	Yes	Yes
4	Excav. to elev. 26.00 on RIGHT side	Yes	Yes	Yes
5	Install strut no.3 at elev. 27.80	Yes	Yes	Yes
6	Apply water pressure profile no.2	Yes	Yes	Yes
7	Excav. to elev. 20.36 on RIGHT side	Yes	Yes	Yes
8	Fill to elev. 20.86 on RIGHT side	Yes	Yes	Yes
9	Install strut no.1 at elev. 21.61	Yes	Yes	Yes
10	Install strut no.2 at elev. 27.40	Yes	Yes	Yes
11	Remove strut no.3 at elev. 27.80	Yes	Yes	Yes
12	Change soil type 3 to soil type 4	Yes	Yes	Yes
13	Change EI of wall to 111330kN.m2/m run	No	Yes	Yes
14	Apply surcharge no.3 at elev. 20.86	Yes	Yes	Yes
15	Apply water pressure profile no.3	Yes	Yes	Yes
*	Summary output	Yes	-	Yes

Units: kN,m


Stage No.15 Apply water pressure profile no.3 (Worst Cred.)
27.40
27.00
26.00
MG (drained)
24.50
Lynch Hill Gravels
22.50
21.61
20.86
Fill
20.36
LCF (drained)
LCF (drained)
14.50
200
100
0
100
200
Water pressure (kN/m2)

Units: kN,m

Stage No. 4 Excavate to elevation 26.00 on RIGHT side

STABILITY ANALYSIS of Fully Embedded Wall according to Strength Factor method
Factor of safety on soil strength

Stage No.	--- G.L. --- Act.	Pass.	Strut Elev.	Overall FoS for toe elev. = 14.50 Factor of Safety	Moment equilib. at elev.	Toe elev. for FoS = 1.000 Toe elev.	Wall Penetr -ation	Direction of failure
4	27.00	26.00	Cant.	4.220	15.56	25.13	0.87	L to R

BENDING MOMENT and DISPLACEMENT ANALYSIS of Fully Embedded Wall
Analysis options
Length of wall perpendicular to section = 20.00m
Subgrade reaction model - Boussinesq Influence coefficients
Soil deformations are elastic until the active or passive limit is reached
Open Tension Crack analysis - No

Rigid boundaries: Left side 20.00 from wall
Right side 20.00 from wall
Limit State: ULS DA1 Combination 2

*** Wall displacements reset to zero at stage 3

Node no.	Y coord	Nett pressure kN/m2	Wall disp. m	Wall rotation rad.	Shear force kN/m	Bending moment kN.m/m	Strut forces kN/m	EI of wall kN.m2/m
1	27.80	0.00	0.002	3.04E-04	0.0	-0.0		155860
2	27.40	0.00	0.002	3.04E-04	0.0	0.0		155860
3	27.00	0.00	0.002	3.04E-04	0.0	-0.0		155860
4	26.50	3.26	0.002	3.04E-04	0.8	0.2		155860
5	26.00	6.52	0.001	3.01E-04	3.3	1.2		155860
6	25.25	-6.21	0.001	2.83E-04	3.4	4.8		155860
7	24.50	-6.20	0.001	2.43E-04	-1.3	5.9		155860
		-14.24	0.001	2.43E-04	-1.3	5.9		
8	24.36	-14.57	0.001	2.33E-04	-3.3	5.6		155860
9	23.62	-6.83	0.001	1.80E-04	-11.2	-0.1		155860
10	23.06	-3.27	0.001	1.40E-04	-14.0	-7.2		155860
11	22.50	-3.86	0.001	1.06E-04	-16.0	-15.6		155860
		21.25	0.001	1.06E-04	-16.0	-15.6		
12	22.05	17.02	0.001	8.47E-05	-7.5	-20.7		155860
13	21.61	12.47	0.001	6.78E-05	-1.0	-22.5		155860
14	20.86	5.83	0.001	4.83E-05	5.9	-20.2		155860
15	20.36	2.48	0.001	4.05E-05	8.0	-16.6		155860
16	19.78	-0.34	0.001	3.49E-05	8.6	-11.7		155860
17	19.20	-2.15	0.000	3.19E-05	7.9	-6.9		155860
18	18.40	-3.33	0.000	3.01E-05	5.7	-1.6		155860
19	17.60	-3.37	0.000	2.96E-05	3.0	1.6		155860
20	16.80	-2.62	0.000	2.94E-05	0.6	2.7		155860
21	16.00	-1.27	0.000	2.92E-05	-1.0	2.1		155860
22	15.25	0.50	0.000	2.90E-05	-1.2	0.9		155860
23	14.50	2.80	0.000	2.89E-05	-0.0	-0.0		---

(continued)

Stage No.4 Excavate to elevation 26.00 on RIGHT side

Node no.	Y coord	LEFT side						
		Water press. kN/m2	Effective stresses Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2	Total earth pressure kN/m2	Coeff. of subgrade reaction kN/m3
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		0.00	0.00	0.00	0.00	0.00	0.00	3489
4	26.50	0.00	9.50	3.26	34.02	3.26	3.26a	3489
5	26.00	0.00	19.00	6.52	68.03	6.52	6.52a	3489
6	25.25	0.00	33.25	11.41	119.05	11.41	11.41a	3489
7	24.50	0.00	47.50	16.30	170.08	18.29	18.29	3489
		0.00	47.50	15.10	190.05	15.10	15.10a	7476
8	24.36	0.00	50.16	15.94	200.69	15.94	15.94a	7476
9	23.62	0.00	94.38	30.00	377.63	30.00	30.00a	7476
10	23.06	5.60	112.70	35.82	450.90	35.82	41.42a	7476
11	22.50	11.20	118.09	37.53	472.46	37.53	48.73a	7476
		Total> 129.29	26.86	231.74	108.08	108.08		12694
12	22.05	Total> 135.96	28.59	243.35	114.04	114.04		13306
13	21.61	Total> 142.05	29.75	254.39	119.56	119.56		13918
14	20.86	Total> 152.63	32.01	273.28	129.52	129.52		14949
15	20.36	Total> 160.16	34.00	286.37	136.94	136.94		15637
16	19.78	Total> 169.39	36.79	302.03	146.32	146.32		16434
17	19.20	Total> 179.06	40.02	318.14	156.41	156.41		17232
18	18.40	Total> 192.95	45.04	340.91	171.28	171.28		18332
19	17.60	Total> 207.33	50.54	364.17	186.95	186.95		19432
20	16.80	Total> 222.09	56.42	387.80	203.21	203.21		20532
21	16.00	Total> 237.13	62.59	411.72	219.91	219.91		21632
22	15.25	Total> 251.45	68.58	434.36	235.93	235.93		22664
23	14.50	Total> 265.94	74.75	457.17	252.30	252.30		23695

Node no.	Y coord	RIGHT side						
		Water press. kN/m2	Effective stresses Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2	Total earth pressure kN/m2	Coeff. of subgrade reaction kN/m3
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
4	26.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
5	26.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		0.00	0.00	0.00	0.00	0.00	0.00	3516
6	25.25	0.00	14.25	4.89	51.03	17.62	17.62	3516
7	24.50	0.00	28.50	9.78	102.06	24.49	24.49	3516
		0.00	28.50	9.06	114.04	29.34	29.34	7534
8	24.36	0.00	31.16	9.91	124.69	30.51	30.51	7534
9	23.62	0.00	45.23	14.38	180.98	36.83	36.83	7534
10	23.06	5.60	50.28	15.98	201.19	39.09	44.69	7534
11	22.50	11.20	55.34	17.59	221.42	41.39	52.59	7534
		Total> 66.54	17.50m	168.98	86.83	86.83		12786
12	22.05	Total> 75.90	19.73m	183.28	97.02	97.02		13402
13	21.61	Total> 85.27	21.95m	197.59	107.09	107.09		14019
14	20.86	Total> 101.07	25.70m	221.71	123.69	123.69		15058
15	20.36	Total> 111.60	28.20m	237.80	134.46	134.46		15750
16	19.78	Total> 123.84	31.10m	256.47	146.66	146.66		16554
17	19.20	Total> 136.08	34.00m	275.14	158.57	158.57		17357
18	18.40	Total> 152.98	38.00m	300.92	174.61	174.61		18465
19	17.60	Total> 169.89	42.00m	326.71	190.32	190.32		19573

(continued)

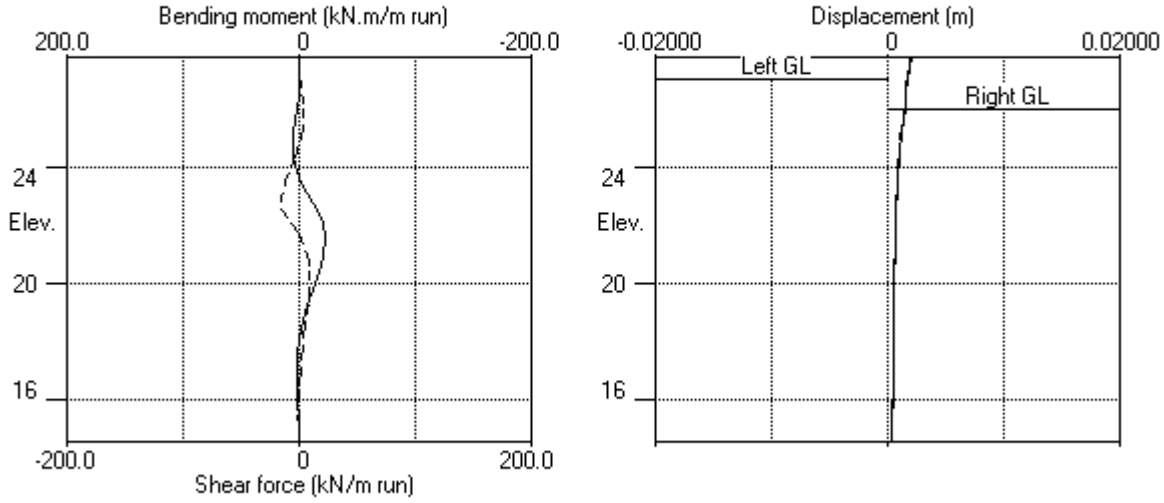
Stage No.4 Excavate to elevation 26.00 on RIGHT side

Node no.	Y coord	RIGHT side						
		Effective stresses					Total earth pressure	Coeff. of subgrade reaction
		Water press.	Vertic -al	Active limit	Passive limit	Earth pressure		
		kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m3
20	16.80	Total>	186.82	46.00m	352.53	205.83	205.83	20681
21	16.00	Total>	203.77	50.00m	378.35	221.18	221.18	21790
22	15.25	Total>	219.67	53.75m	402.58	235.42	235.42	22828
23	14.50	Total>	235.59	57.50m	426.82	249.50	249.50	23867

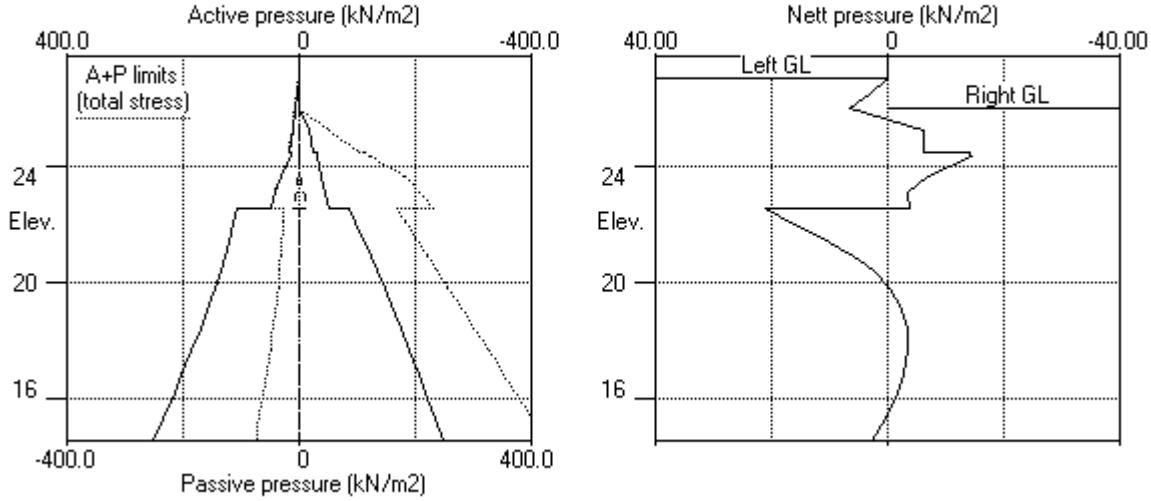
Note: 48.73a Soil pressure at active limit
123.45p Soil pressure at passive limit

Units: kN,m

Stage No.4 Excav. to elev. 26.00 on RIGHT side



Stage No.4 Excav. to elev. 26.00 on RIGHT side



Units: kN,m

Stage No. 7 Excavate to elevation 20.36 on RIGHT side

STABILITY ANALYSIS of Fully Embedded Wall according to Strength Factor method

Factor of safety on soil strength

Stage No.	--- G.L. --- Act.	Pass.	Strut Elev.	Overall FoS for toe elev. = 14.50 Factor of Safety	Moment equilib. at elev.	Toe elev. for FoS = 1.000 Toe elev.	Wall Penetr -ation	Direction of failure
7	27.00	20.36	27.80	1.839	n/a	19.47	0.89	L to R

BENDING MOMENT and DISPLACEMENT ANALYSIS of Fully Embedded Wall

Analysis options

Length of wall perpendicular to section = 20.00m
Subgrade reaction model - Boussinesq Influence coefficients
Soil deformations are elastic until the active or passive limit is reached
Open Tension Crack analysis - No

Rigid boundaries: Left side 20.00 from wall
Right side 20.00 from wall

Limit State: ULS DA1 Combination 2

*** Wall displacements reset to zero at stage 3

Node no.	Y coord	Nett pressure kN/m2	Wall disp. m	Wall rotation rad.	Shear force kN/m	Bending moment kN.m/m	Strut forces kN/m	EI of wall kN.m2/m
1	27.80	0.00	0.003	-2.85E-03	-51.9	-0.0	51.9	155860
2	27.40	0.00	0.004	-2.82E-03	-51.9	-20.8		155860
3	27.00	0.00	0.006	-2.74E-03	-51.9	-41.5		155860
4	26.50	3.26	0.007	-2.57E-03	-51.1	-67.3		155860
5	26.00	6.52	0.008	-2.31E-03	-48.7	-92.3		155860
6	25.25	11.41	0.010	-1.79E-03	-41.9	-126.0		155860
7	24.50	16.30	0.011	-1.14E-03	-31.5	-153.4		155860
		15.10	0.011	-1.14E-03	-31.5	-153.4		
8	24.36	15.94	0.011	-1.00E-03	-29.4	-157.7		155860
9	23.62	30.00	0.011	-2.58E-04	-12.4	-173.7		155860
10	23.06	40.59	0.011	3.15E-04	7.4	-175.4		155860
11	22.50	47.07	0.011	8.50E-04	31.9	-164.5		155860
		26.86	0.011	8.50E-04	31.9	-164.5		
12	22.05	28.59	0.011	1.22E-03	44.3	-147.5		155860
13	21.61	29.75	0.010	1.53E-03	57.3	-124.9		155860
14	20.86	44.10	0.009	1.86E-03	84.9	-64.2		155860
15	20.36	57.80	0.008	1.92E-03	110.4	-15.9		155860
		-68.38	0.008	1.92E-03	110.4	-15.9		
16	19.78	-69.26	0.007	1.83E-03	70.5	36.1		155860
17	19.20	-58.25	0.006	1.59E-03	33.5	71.2		155860
18	18.40	-32.94	0.005	1.18E-03	-2.9	79.1		155860
19	17.60	-13.59	0.004	8.12E-04	-21.6	65.9		155860
20	16.80	-0.26	0.003	5.40E-04	-27.1	44.1		155860
21	16.00	8.81	0.003	3.83E-04	-23.7	22.1		155860
22	15.25	15.66	0.003	3.21E-04	-14.5	6.6		155860
23	14.50	23.00	0.002	3.07E-04	-0.0	0.0		---

At elev. 27.80 Strut force = 51.9 kN/strut = 51.9 kN/m run

(continued)

Stage No.7 Excavate to elevation 20.36 on RIGHT side

Node no.	Y coord	LEFT side						
		Effective stresses				Total earth pressure	Coeff. of subgrade reaction
		Water press. kN/m2	Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2	kN/m2	kN/m3
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		0.00	0.00	0.00	0.00	0.00	0.00	2348
4	26.50	0.00	9.50	3.26	34.02	3.26	3.26a	2348
5	26.00	0.00	19.00	6.52	68.03	6.52	6.52a	2348
6	25.25	0.00	33.25	11.41	119.05	11.41	11.41a	2348
7	24.50	0.00	47.50	16.30	170.08	16.30	16.30a	2348
		0.00	47.50	15.10	190.05	15.10	15.10a	5032
8	24.36	0.00	50.16	15.94	200.69	15.94	15.94a	5032
9	23.62	0.00	94.38	30.00	377.63	30.00	30.00a	5032
10	23.06	4.38	113.91	36.21	455.77	36.21	40.59a	5032
11	22.50	8.76	120.52	38.31	482.22	38.31	47.07a	5032
		Total> 129.29	26.86	231.74	26.86	26.86a	8911	
12	22.05	Total> 135.96	28.59	243.35	28.59	28.59a	9341	
13	21.61	Total> 142.05	29.75	254.39	29.75	29.75a	9770	
14	20.86	Total> 152.63	32.00	273.28	44.10	44.10	10494	
15	20.36	Total> 160.16	33.99	286.37	57.80	57.80	10977	
16	19.78	Total> 169.39	36.79	302.03	75.53	75.53	11537	
17	19.20	Total> 179.06	40.02	318.14	94.01	94.01	12097	
18	18.40	Total> 192.95	45.03	340.91	118.84	118.84	12869	
19	17.60	Total> 207.33	50.54	364.17	141.82	141.82	13642	
20	16.80	Total> 222.09	56.42	387.80	162.83	162.83	14414	
21	16.00	Total> 237.13	62.58	411.72	182.48	182.48	15186	
22	15.25	Total> 251.45	68.58	434.36	200.47	200.47	15910	
23	14.50	Total> 265.94	74.75	457.18	218.87	218.87	16634	

Node no.	Y coord	RIGHT side						
		Effective stresses				Total earth pressure	Coeff. of subgrade reaction
		Water press. kN/m2	Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2	kN/m2	kN/m3
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
4	26.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
5	26.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
6	25.25	0.00	0.00	0.00	0.00	0.00	0.00	0.0
7	24.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
8	24.36	0.00	0.00	0.00	0.00	0.00	0.00	0.0
9	23.62	0.00	0.00	0.00	0.00	0.00	0.00	0.0
10	23.06	0.00	0.00	0.00	0.00	0.00	0.00	0.0
11	22.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
12	22.05	0.00	0.00	0.00	0.00	0.00	0.00	0.0
13	21.61	0.00	0.00	0.00	0.00	0.00	0.00	0.0
14	20.86	0.00	0.00	0.00	0.00	0.00	0.00	0.0
15	20.36	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		Total> 0.00	0.00	126.17	126.17	126.17p	18138	
16	19.78	Total> 12.18	2.90m	144.79	144.79	144.79p	19063	
17	19.20	Total> 24.37	5.80m	163.42	152.25	152.25	19988	
18	18.40	Total> 41.21	9.80m	189.14	151.78	151.78	21264	
19	17.60	Total> 58.10	13.80m	214.91	155.41	155.41	22540	
20	16.80	Total> 75.06	17.80m	240.74	163.09	163.09	23817	
21	16.00	Total> 92.10	21.80m	266.66	173.67	173.67	25093	

(continued)

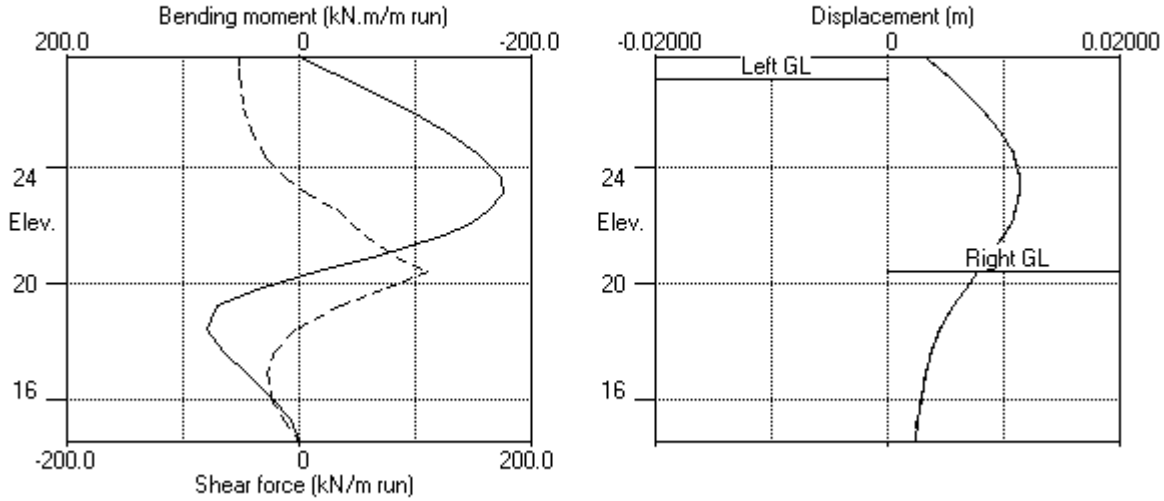
Stage No.7 Excavate to elevation 20.36 on RIGHT side

Node no.	Y coord	RIGHT side						
		Effective stresses					Total earth pressure	Coeff. of subgrade reaction
		Water press.	Vertic -al	Active limit	Passive limit	Earth pressure		
		kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m3
22	15.25	Total>	108.17	25.55m	291.05	184.82	184.82	26289
23	14.50	Total>	124.32	29.30m	315.53	195.87	195.87	27485

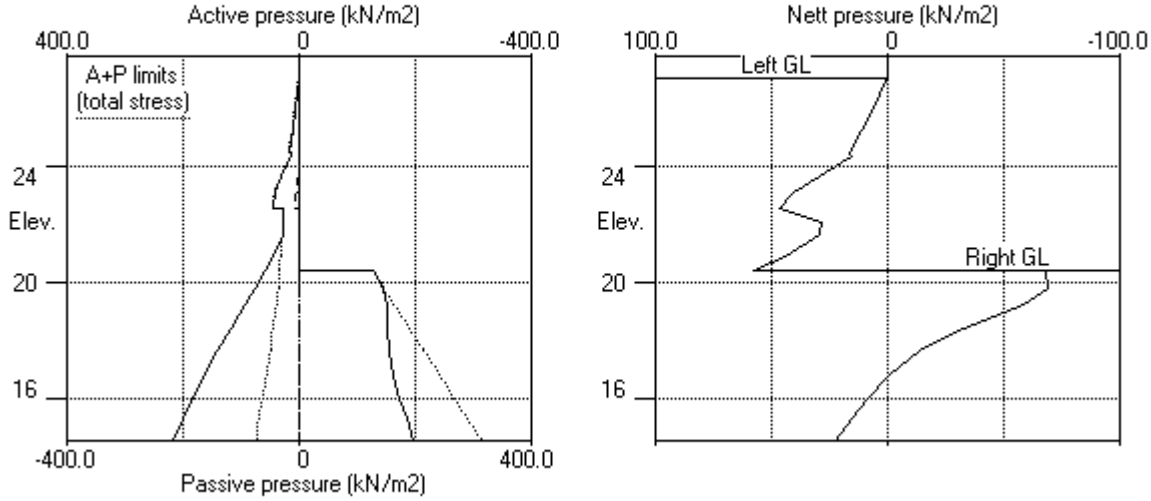
Note: 29.75a Soil pressure at active limit
144.79p Soil pressure at passive limit

Units: kN,m

Stage No.7 Excav. to elev. 20.36 on RIGHT side



Stage No.7 Excav. to elev. 20.36 on RIGHT side



Units: kN,m

Stage No. 8 Fill to elevation 20.86 on RIGHT side with soil type 5

STABILITY ANALYSIS of Fully Embedded Wall according to Strength Factor method

Factor of safety on soil strength

Stage No.	--- G.L. --- Act.	Pass.	Strut Elev.	Overall FoS for toe elev. = 14.50 Factor of Safety	Moment equilib. at elev.	Toe elev. for FoS = 1.000 Toe elev.	Wall Penetr -ation	Direction of failure
8	27.00	20.86	27.80	1.947	n/a	19.63	1.23	L to R

BENDING MOMENT and DISPLACEMENT ANALYSIS of Fully Embedded Wall

Analysis options

Length of wall perpendicular to section = 20.00m
Subgrade reaction model - Boussinesq Influence coefficients
Soil deformations are elastic until the active or passive limit is reached
Open Tension Crack analysis - No

Rigid boundaries: Left side 20.00 from wall
Right side 20.00 from wall

Limit State: ULS DA1 Combination 2

*** Wall displacements reset to zero at stage 3

Node no.	Y coord	Nett pressure kN/m2	Wall disp. m	Wall rotation rad.	Shear force kN/m	Bending moment kN.m/m	Strut forces kN/m	EI of wall kN.m2/m
1	27.80	0.00	0.003	-2.84E-03	-52.5	-0.0	52.5	155860
2	27.40	0.00	0.004	-2.81E-03	-52.5	-21.0		155860
3	27.00	0.00	0.006	-2.73E-03	-52.5	-42.0		155860
4	26.50	3.26	0.007	-2.56E-03	-51.6	-68.0		155860
5	26.00	6.54	0.008	-2.30E-03	-49.2	-93.3		155860
6	25.25	11.46	0.010	-1.77E-03	-42.4	-127.3		155860
7	24.50	16.40	0.011	-1.11E-03	-32.0	-155.1		155860
		15.29	0.011	-1.11E-03	-32.0	-155.1		
8	24.36	16.16	0.011	-9.75E-04	-29.8	-159.5		155860
9	23.62	30.34	0.011	-2.20E-04	-12.6	-175.7		155860
10	23.06	41.05	0.011	3.61E-04	7.4	-177.5		155860
11	22.50	47.67	0.011	9.04E-04	32.2	-166.5		155860
		27.92	0.011	9.04E-04	32.2	-166.5		
12	22.05	29.94	0.010	1.28E-03	45.1	-149.3		155860
13	21.61	31.43	0.010	1.59E-03	58.8	-126.2		155860
14	20.86	46.42	0.008	1.93E-03	88.0	-63.9		155860
15	20.36	57.98	0.007	1.98E-03	114.1	-13.9		155860
		-72.32	0.007	1.98E-03	114.1	-13.9		
16	19.78	-72.14	0.006	1.88E-03	72.2	39.6		155860
17	19.20	-60.16	0.005	1.63E-03	33.8	75.1		155860
18	18.40	-33.80	0.004	1.20E-03	-3.8	82.6		155860
19	17.60	-13.73	0.003	8.14E-04	-22.8	68.5		155860
20	16.80	0.03	0.003	5.32E-04	-28.3	45.6		155860
21	16.00	9.32	0.002	3.69E-04	-24.5	22.8		155860
22	15.25	16.25	0.002	3.05E-04	-15.0	6.8		155860
23	14.50	23.63	0.002	2.90E-04	-0.0	0.0		---

At elev. 27.80 Strut force = 52.5 kN/strut = 52.5 kN/m run

(continued)

Stage No.8 Fill to elevation 20.86 on RIGHT side with soil type 5

LEFT side

Node no.	Y coord	Water press. kN/m2	Effective stresses: Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2	Total earth pressure kN/m2	Coeff. of subgrade reaction kN/m3
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		0.00	0.00	0.00	0.00	0.00	0.00	21212
4	26.50	0.00	9.50	3.26	34.02	3.26	3.26a	2359
5	26.00	0.00	19.00	6.52	68.03	6.54	6.54	2359
6	25.25	0.00	33.25	11.41	119.05	11.46	11.46	2359
7	24.50	0.00	47.50	16.30	170.08	16.40	16.40	2359
		0.00	47.50	15.10	190.05	15.29	15.29	5055
8	24.36	0.00	50.16	15.94	200.69	16.16	16.16	5055
9	23.62	0.00	94.38	30.00	377.63	30.34	30.34	5055
10	23.06	4.38	113.91	36.21	455.77	36.67	41.05	5055
11	22.50	8.76	120.52	38.31	482.22	38.91	47.67	5055
		Total> 129.29	26.86	231.74	27.92	27.92		8946
12	22.05	Total> 135.96	28.59	243.35	29.94	29.94		9377
13	21.61	Total> 142.05	29.75	254.39	31.43	31.43		9808
14	20.86	Total> 152.63	32.00	273.28	46.42	46.42		10535
15	20.36	Total> 160.16	33.99	286.37	60.57	60.57		11020
16	19.78	Total> 169.39	36.79	302.03	78.83	78.83		11582
17	19.20	Total> 179.06	40.02	318.14	97.78	97.78		12144
18	18.40	Total> 192.95	45.03	340.91	123.14	123.14		12919
19	17.60	Total> 207.33	50.54	364.17	146.49	146.49		13694
20	16.80	Total> 222.09	56.42	387.80	167.73	167.73		14470
21	16.00	Total> 237.13	62.58	411.72	187.50	187.50		15245
22	15.25	Total> 251.45	68.58	434.36	205.55	205.55		15972
23	14.50	Total> 265.94	74.75	457.18	223.97	223.97		16699

RIGHT side

Node no.	Y coord	Water press. kN/m2	Effective stresses: Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2	Total earth pressure kN/m2	Coeff. of subgrade reaction kN/m3
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
4	26.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
5	26.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
6	25.25	0.00	0.00	0.00	0.00	0.00	0.00	0.0
7	24.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
8	24.36	0.00	0.00	0.00	0.00	0.00	0.00	0.0
9	23.62	0.00	0.00	0.00	0.00	0.00	0.00	0.0
10	23.06	0.00	0.00	0.00	0.00	0.00	0.00	0.0
11	22.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
12	22.05	0.00	0.00	0.00	0.00	0.00	0.00	0.0
13	21.61	0.00	0.00	0.00	0.00	0.00	0.00	0.0
14	20.86	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		0.00	0.00	0.00	0.00	0.00	0.00	8847
15	20.36	0.00	10.00	2.59	53.85	2.59	2.59a	8847
		Total> 10.00	2.50m	136.18	132.89	132.89		11488
16	19.78	Total> 22.19	5.40m	154.80	150.97	150.97		12074
17	19.20	Total> 34.39	8.30m	173.44	157.94	157.94		12660
18	18.40	Total> 51.25	12.30m	199.18	156.94	156.94		13468
19	17.60	Total> 68.17	16.30m	224.98	160.22	160.22		14277
20	16.80	Total> 85.17	20.30m	250.85	167.70	167.70		15085

(continued)

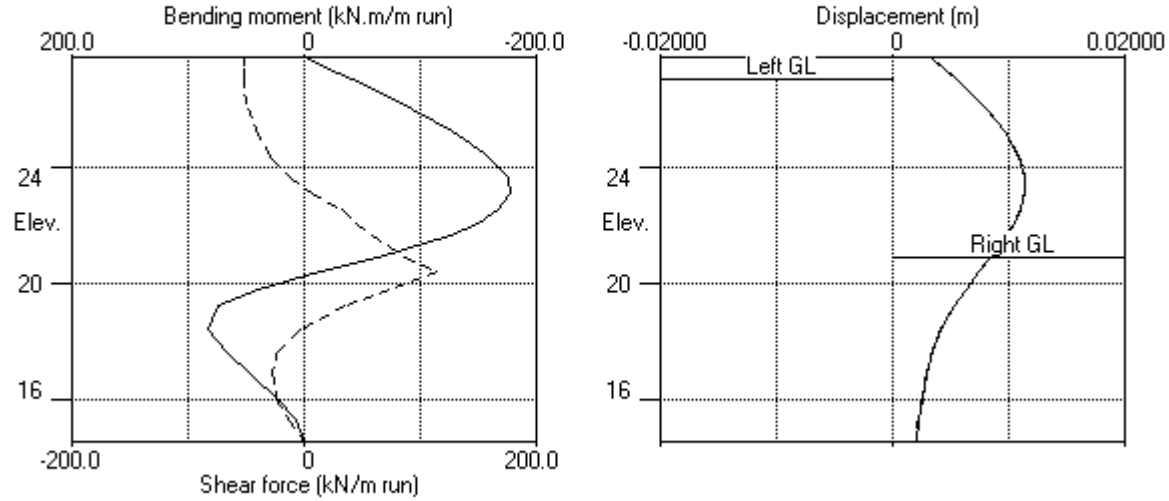
Stage No.8 Fill to elevation 20.86 on RIGHT side with soil type 5

Node no.	Y coord	RIGHT side						
		Effective stresses					Total earth pressure	Coeff. of subgrade reaction
		Water press.	Vertic -al	Active limit	Passive limit	Earth pressure		
		kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m3
21	16.00	Total>	102.24	24.30m	276.80	178.18	178.18	15893
22	15.25	Total>	118.34	28.05m	301.22	189.30	189.30	16651
23	14.50	Total>	134.52	31.80m	325.73	200.34	200.34	17409

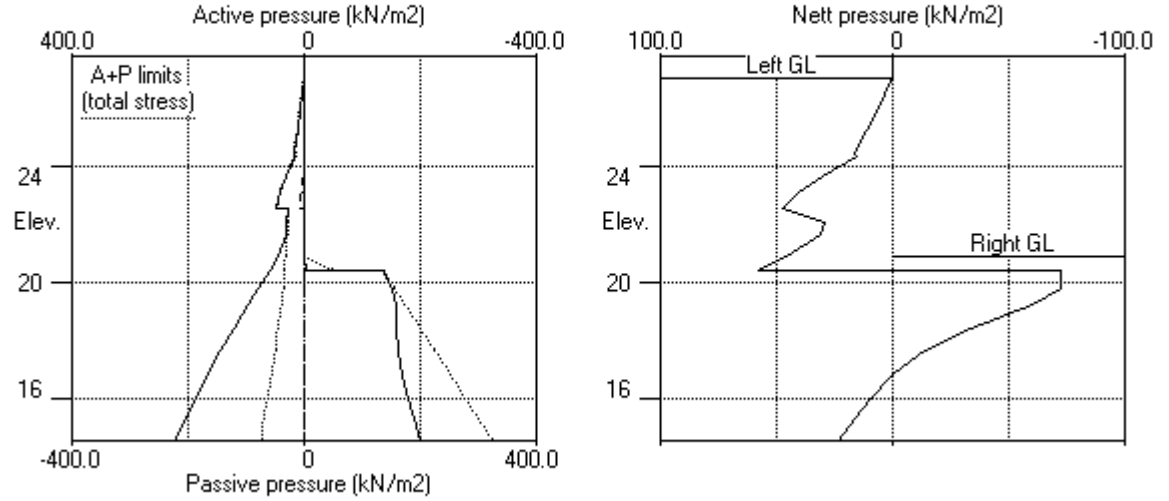
Note: 2.59a Soil pressure at active limit
123.45p Soil pressure at passive limit

Units: kN,m

Stage No.8 Fill to elev. 20.86 on RIGHT side



Stage No.8 Fill to elev. 20.86 on RIGHT side



Units: kN,m

Stage No. 12 Change properties of soil type 3 to soil type 4
Ko pressures will be reset

STABILITY ANALYSIS of Fully Embedded Wall according to Strength Factor method
Factor of safety on soil strength

Stage No.	--- G.L. --- Act.	Pass.	Strut Elev.	Overall FoS for toe elev. = 14.50 Factor of Safety	Moment equilib. at elev.	Toe elev. for FoS = 1.000 Toe elev.	Wall Penetr -ation	Direction of failure
12	27.00	20.86		More than one strut. No FoS calc.				

BENDING MOMENT and DISPLACEMENT ANALYSIS of Fully Embedded Wall
Analysis options
Length of wall perpendicular to section = 20.00m
Subgrade reaction model - Boussinesq Influence coefficients
Soil deformations are elastic until the active or passive limit is reached
Open Tension Crack analysis - No

Rigid boundaries: Left side 20.00 from wall
Right side 20.00 from wall
Limit State: ULS DA1 Combination 2

*** Wall displacements reset to zero at stage 3

Node no.	Y coord	Nett pressure kN/m2	Wall disp. m	Wall rotation rad.	Shear force kN/m	Bending moment kN.m/m	Strut forces kN/m	EI of wall kN.m2/m
1	27.80	0.00	0.004	-1.65E-03	0.0	-0.0		155860
2	27.40	0.00	0.005	-1.65E-03	0.0	-0.0	34.3	155860
		0.00	0.005	-1.65E-03	-34.3	-0.0		
3	27.00	0.00	0.005	-1.63E-03	-34.3	-13.7		155860
4	26.50	6.05	0.006	-1.56E-03	-32.8	-30.7		155860
5	26.00	10.78	0.007	-1.44E-03	-28.6	-46.2		155860
6	25.25	17.43	0.008	-1.18E-03	-18.0	-63.6		155860
7	24.50	23.37	0.009	-8.74E-04	-2.7	-71.4		155860
		30.24	0.009	-8.74E-04	-2.7	-71.4		
8	24.36	31.29	0.009	-8.14E-04	1.6	-71.5		155860
9	23.62	45.14	0.009	-5.41E-04	29.9	-60.4		155860
10	23.06	53.79	0.009	-4.20E-04	57.6	-36.1		155860
11	22.50	56.42	0.010	-4.40E-04	88.4	5.0		155860
		91.35	0.010	-4.40E-04	88.4	5.0		
12	22.05	92.73	0.010	-5.97E-04	129.4	53.6		155860
13	21.61	92.09	0.010	-9.24E-04	170.5	120.6	351.6	155860
		92.09	0.010	-9.24E-04	-181.1	120.6		
14	20.86	87.31	0.011	-1.38E-03	-113.8	19.5		155860
15	20.36	46.79	0.012	-1.43E-03	-80.3	-27.4		155860
		61.12	0.012	-1.43E-03	-80.3	-27.4		
16	19.78	51.40	0.013	-1.32E-03	-47.7	-64.7		155860
17	19.20	41.89	0.013	-1.09E-03	-20.6	-79.1		155860
18	18.40	29.00	0.014	-6.93E-04	7.7	-86.6		155860
19	17.60	16.26	0.014	-2.79E-04	25.9	-74.9		155860
20	16.80	3.58	0.015	5.71E-05	33.8	-52.1		155860
21	16.00	-9.10	0.014	2.70E-04	31.6	-26.5		155860
22	15.25	-21.03	0.014	3.59E-04	20.3	-7.3		155860
23	14.50	-33.05	0.014	3.79E-04	0.0	0.0		---

At elev. 27.40 Strut force = 34.3 kN/strut = 34.3 kN/m run
At elev. 21.61 Strut force = 351.6 kN/strut = 351.6 kN/m run

(continued)

Stage No.12 Change properties of soil type 3 to soil type 4
Ko pressures will be reset

Node no.	Y coord	LEFT side						
			Effective stresses				Total earth pressure	Coeff. of subgrade reaction
		Water press.	Vertic -al	Active limit	Passive limit	Earth pressure		
		kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m3
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		0.00	0.00	0.00	0.00	0.00	0.00	3161
4	26.50	0.00	9.50	3.26	34.02	6.05	6.05	3161
5	26.00	0.00	19.00	6.52	68.03	10.78	10.78	3161
6	25.25	0.00	33.25	11.41	119.05	17.43	17.43	3161
7	24.50	0.00	47.50	16.30	170.08	23.37	23.37	3161
		0.00	47.50	15.10	190.05	30.24	30.24	6774
8	24.36	0.00	50.16	15.94	200.69	31.29	31.29	6774
9	23.62	0.00	94.38	30.00	377.63	45.14	45.14	6774
10	23.06	4.38	113.91	36.21	455.77	49.41	53.79	6774
11	22.50	8.76	120.52	38.31	482.22	47.66	56.42	6774
		8.76	120.52	58.00	238.58	82.58	91.35	6096
12	22.05	12.24	123.71	59.69	244.60	80.49	92.73	6388
13	21.61	15.73	126.33	61.08	249.54	76.36	92.09	5649
14	20.86	21.59	131.03	63.57	258.43	65.72	87.31	6064
15	20.36	25.51	134.66	65.49	265.27	65.49	91.00a	6341
16	19.78	30.04	139.35	67.97	274.13	67.97	98.02a	6663
17	19.20	34.58	144.48	70.69	283.82	70.69	105.27a	6984
18	18.40	40.84	152.11	74.73	298.23	74.73	115.57a	7427
19	17.60	47.10	160.24	79.03	313.57	79.03	126.13a	7870
20	16.80	53.36	168.73	83.53	329.61	83.53	136.89a	8313
21	16.00	59.62	177.51	88.18	346.20	88.18	147.80a	8756
22	15.25	65.48	185.96	92.66	362.15	92.66	158.14a	9171
23	14.50	71.35	194.58	97.22	378.43	97.22	168.58a	9587

Node no.	Y coord	RIGHT side						
			Effective stresses				Total earth pressure	Coeff. of subgrade reaction
		Water press.	Vertic -al	Active limit	Passive limit	Earth pressure		
		kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m3
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
4	26.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
5	26.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
6	25.25	0.00	0.00	0.00	0.00	0.00	0.00	0.0
7	24.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
8	24.36	0.00	0.00	0.00	0.00	0.00	0.00	0.0
9	23.62	0.00	0.00	0.00	0.00	0.00	0.00	0.0
10	23.06	0.00	0.00	0.00	0.00	0.00	0.00	0.0
11	22.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
12	22.05	0.00	0.00	0.00	0.00	0.00	0.00	0.0
13	21.61	0.00	0.00	0.00	0.00	0.00	0.00	0.0
14	20.86	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		0.00	0.00	0.00	0.00	0.00	0.00	9548
15	20.36	0.00	10.00	2.59	53.85	44.21	44.21	9548
		0.00	10.00	0.00	29.88	29.88	29.88p	6341
16	19.78	7.06	15.13	2.19	39.56	39.56	46.62p	6663
17	19.20	14.12	20.26	4.91	49.26	49.26	63.38p	6984
18	18.40	23.87	27.39	8.68	62.71	62.71	86.58p	7427
19	17.60	33.61	34.57	12.48	76.27	76.27	109.87p	7870

(continued)

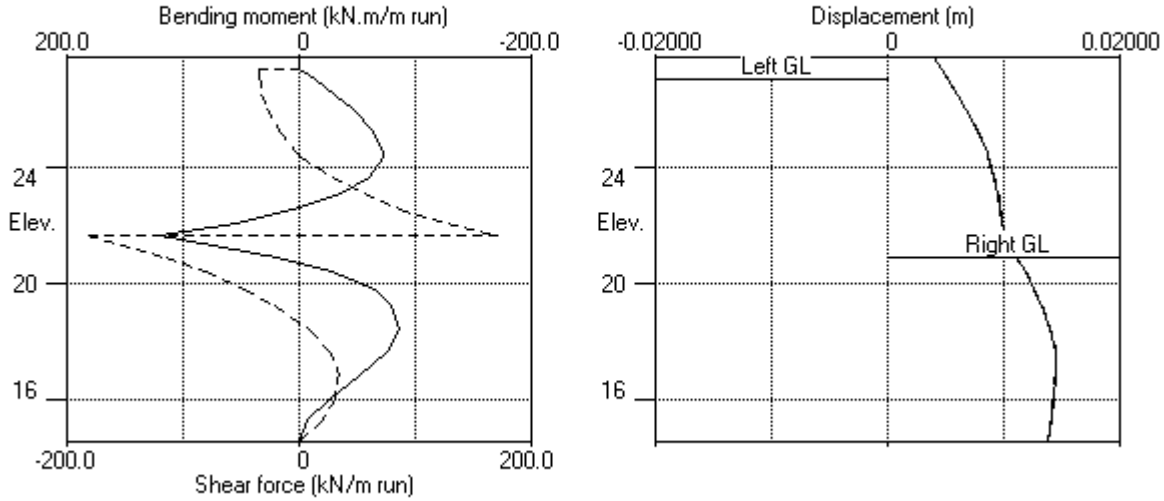
Stage No.12 Change properties of soil type 3 to soil type 4
Ko pressures will be reset

Node no.	Y coord	RIGHT side Water press.	Effective stresses Vertic -al	Active limit	Passive limit	Earth pressure	Total earth pressure	Coeff. of subgrade reaction
		kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m2	kN/m3
20	16.80	43.35	41.82	16.32	89.96	89.96	133.31p	8313
21	16.00	53.09	49.15	20.21	103.81	103.81	156.90p	8756
22	15.25	62.22	56.12	23.90	116.96	116.96	179.18p	9171
23	14.50	71.35	63.17	27.63	130.27	130.27	201.62p	9587

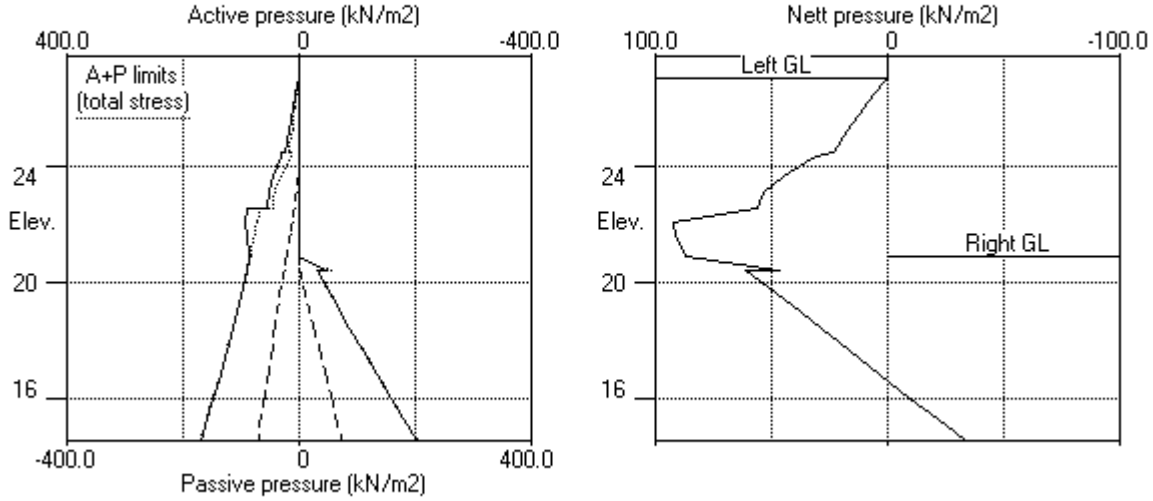
Note: 168.58a Soil pressure at active limit
201.62p Soil pressure at passive limit

Units: kN,m

Stage No.12 Change soil type 3 to soil type 4



Stage No.12 Change soil type 3 to soil type 4



Units: kN,m

Stage No. 13 Change EI of wall to 111330 kN.m2/m run
Yield moment not defined
Allow wall to relax with new modulus value

STABILITY ANALYSIS of Fully Embedded Wall according to Strength Factor method
Factor of safety on soil strength

Stage No.	--- G.L. --- Act.	Pass.	Strut Elev.	Overall FoS for toe elev. = 14.50 Factor of Safety	Moment equilib. at elev.	Toe elev. for FoS = 1.000 Toe elev.	Wall Penetr -ation	Direction of failure
13	27.00	20.86		More than one strut. No FoS calc.				

BENDING MOMENT and DISPLACEMENT ANALYSIS of Fully Embedded Wall
Analysis options
Length of wall perpendicular to section = 20.00m
Subgrade reaction model - Boussinesq Influence coefficients
Soil deformations are elastic until the active or passive limit is reached
Open Tension Crack analysis - No

Rigid boundaries: Left side 20.00 from wall
Right side 20.00 from wall
Limit State: ULS DA1 Combination 2

*** Wall displacements reset to zero at stage 3

Node no.	Y coord	Nett pressure kN/m2	Wall disp. m	Wall rotation rad.	Shear force kN/m	Bending moment kN.m/m	Strut forces kN/m	EI of wall kN.m2/m
1	27.80	0.00	0.004	-1.83E-03	0.0	-0.0		111330
2	27.40	0.00	0.005	-1.83E-03	0.0	-0.0	31.8	111330
		0.00	0.005	-1.83E-03	-31.8	-0.0		
3	27.00	0.00	0.005	-1.81E-03	-31.8	-12.9		111330
4	26.50	5.54	0.006	-1.72E-03	-30.4	-28.9		111330
5	26.00	10.03	0.007	-1.56E-03	-26.5	-43.5		111330
6	25.25	16.47	0.008	-1.22E-03	-16.6	-59.6		111330
7	24.50	22.41	0.009	-8.28E-04	-2.0	-66.1		111330
		28.17	0.009	-8.28E-04	-2.0	-66.1		
8	24.36	29.29	0.009	-7.51E-04	2.0	-65.9		111330
9	23.62	43.68	0.009	-4.06E-04	29.0	-53.6		111330
10	23.06	52.94	0.010	-2.64E-04	56.1	-28.4		111330
11	22.50	56.18	0.010	-3.13E-04	86.6	13.3		111330
		91.13	0.010	-3.13E-04	86.6	13.3		
12	22.05	93.01	0.010	-5.46E-04	127.6	62.0		111330
13	21.61	92.18	0.010	-1.01E-03	168.8	128.5	349.0	111330
		92.18	0.010	-1.01E-03	-180.2	128.5		
14	20.86	86.28	0.011	-1.67E-03	-113.3	26.9		111330
15	20.36	43.50	0.012	-1.76E-03	-80.8	-20.8		111330
		61.12	0.012	-1.76E-03	-80.8	-20.8		
16	19.78	51.40	0.013	-1.62E-03	-48.2	-59.7		111330
17	19.20	41.89	0.014	-1.31E-03	-21.1	-75.5		111330
18	18.40	29.00	0.015	-7.69E-04	7.2	-84.6		111330
19	17.60	16.26	0.015	-2.03E-04	25.3	-74.0		111330
20	16.80	3.58	0.015	2.57E-04	33.3	-51.7		111330
21	16.00	-9.10	0.015	5.50E-04	31.0	-26.3		111330
22	15.25	-21.03	0.014	6.69E-04	19.7	-7.2		111330

(continued)

Stage No.13 Change EI of wall to 111330 kN.m2/m run
Yield moment not defined
Allow wall to relax with new modulus value

Node no.	Y coord	Nett pressure kN/m2	Wall disp. m	Wall rotation rad.	Shear force kN/m	Bending moment kN.m/m	Strut forces kN/m	EI of wall kN.m2/m
23	14.50	-31.63	0.014	6.96E-04	0.0	0.0		---
At elev. 27.40 Strut force =			31.8 kN/strut =			31.8 kN/m run		
At elev. 21.61 Strut force =			349.0 kN/strut =			349.0 kN/m run		

Node no.	Y coord	LEFT side ------- Effective stresses ------- Water press. kN/m2	Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2	Total earth pressure kN/m2	Coeff. of subgrade reaction kN/m3
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		0.00	0.00	0.00	0.00	0.00	0.00	3435
4	26.50	0.00	9.50	3.26	34.02	5.54	5.54	3435
5	26.00	0.00	19.00	6.52	68.03	10.03	10.03	3435
6	25.25	0.00	33.25	11.41	119.05	16.47	16.47	3435
7	24.50	0.00	47.50	16.30	170.08	22.41	22.41	3435
		0.00	47.50	15.10	190.05	28.17	28.17	7360
8	24.36	0.00	50.16	15.94	200.69	29.29	29.29	7360
9	23.62	0.00	94.38	30.00	377.63	43.68	43.68	7360
10	23.06	4.38	113.91	36.21	455.77	48.56	52.94	7360
11	22.50	8.76	120.52	38.31	482.22	47.42	56.18	7360
		8.76	120.52	58.00	238.58	82.37	91.13	6624
12	22.05	12.24	123.71	59.69	244.60	80.76	93.01	30241
13	21.61	15.73	126.33	61.08	249.54	76.46	92.18	31621
14	20.86	21.59	131.03	63.57	258.43	64.69	86.28	6721
15	20.36	25.51	134.66	65.49	265.27	65.49	91.00a	7028
16	19.78	30.04	139.35	67.97	274.13	67.97	98.02a	7384
17	19.20	34.58	144.48	70.69	283.82	70.69	105.27a	7740
18	18.40	40.84	152.11	74.73	298.23	74.73	115.57a	8231
19	17.60	47.10	160.24	79.03	313.57	79.03	126.13a	8722
20	16.80	53.36	168.73	83.53	329.61	83.53	136.89a	9213
21	16.00	59.62	177.51	88.18	346.20	88.18	147.80a	9704
22	15.25	65.48	185.96	92.66	362.15	92.66	158.14a	10165
23	14.50	71.35	194.58	97.22	378.43	97.93	169.29	300623

Node no.	Y coord	RIGHT side ------- Effective stresses ------- Water press. kN/m2	Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2	Total earth pressure kN/m2	Coeff. of subgrade reaction kN/m3
1	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.0
2	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.0
3	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
4	26.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
5	26.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
6	25.25	0.00	0.00	0.00	0.00	0.00	0.00	0.0
7	24.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
8	24.36	0.00	0.00	0.00	0.00	0.00	0.00	0.0
9	23.62	0.00	0.00	0.00	0.00	0.00	0.00	0.0
10	23.06	0.00	0.00	0.00	0.00	0.00	0.00	0.0
11	22.50	0.00	0.00	0.00	0.00	0.00	0.00	0.0
12	22.05	0.00	0.00	0.00	0.00	0.00	0.00	0.0
13	21.61	0.00	0.00	0.00	0.00	0.00	0.00	0.0

(continued)

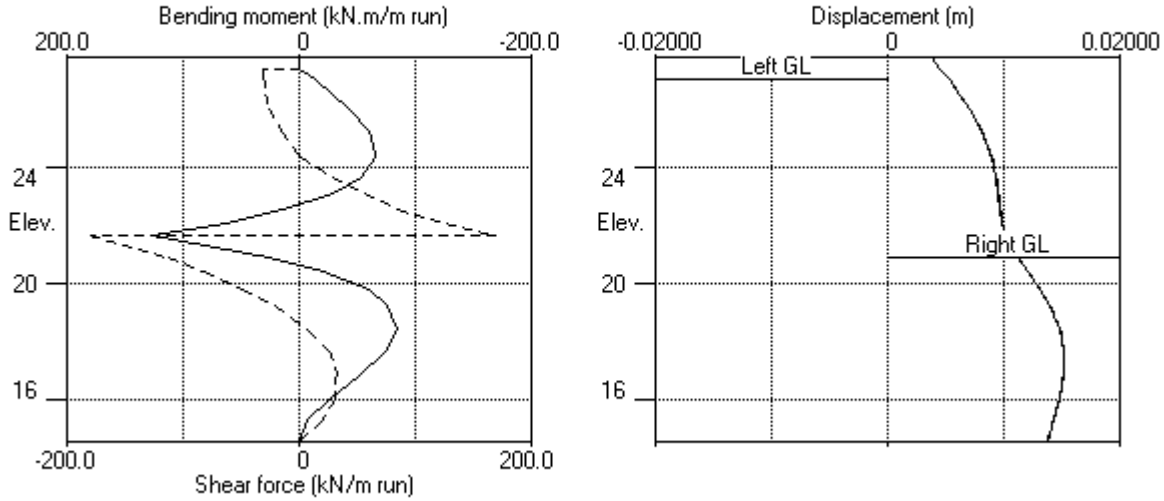
Stage No.13 Change EI of wall to 111330 kN.m2/m run
Yield moment not defined
Allow wall to relax with new modulus value

Node no.	Y coord	RIGHT side ------- Effective stresses ------- Water press. kN/m2	Vertic -al kN/m2	Active limit kN/m2	Passive limit kN/m2	Earth pressure kN/m2	Total earth pressure kN/m2	Coeff. of subgrade reaction kN/m3
14	20.86	0.00	0.00	0.00	0.00	0.00	0.00	0.0
		0.00	0.00	0.00	0.00	0.00	0.00	10583
15	20.36	0.00	10.00	2.59	53.85	47.50	47.50	10583
		0.00	10.00	0.00	29.88	29.88	29.88p	7028
16	19.78	7.06	15.13	2.19	39.56	39.56	46.62p	7384
17	19.20	14.12	20.26	4.91	49.26	49.26	63.38p	7740
18	18.40	23.87	27.39	8.68	62.71	62.71	86.58p	8231
19	17.60	33.61	34.57	12.48	76.27	76.27	109.87p	8722
20	16.80	43.35	41.82	16.32	89.96	89.96	133.31p	9213
21	16.00	53.09	49.15	20.21	103.81	103.81	156.90p	9704
22	15.25	62.22	56.12	23.90	116.96	116.96	179.18p	10165
23	14.50	71.35	63.17	27.63	130.27	129.56	200.91	300623

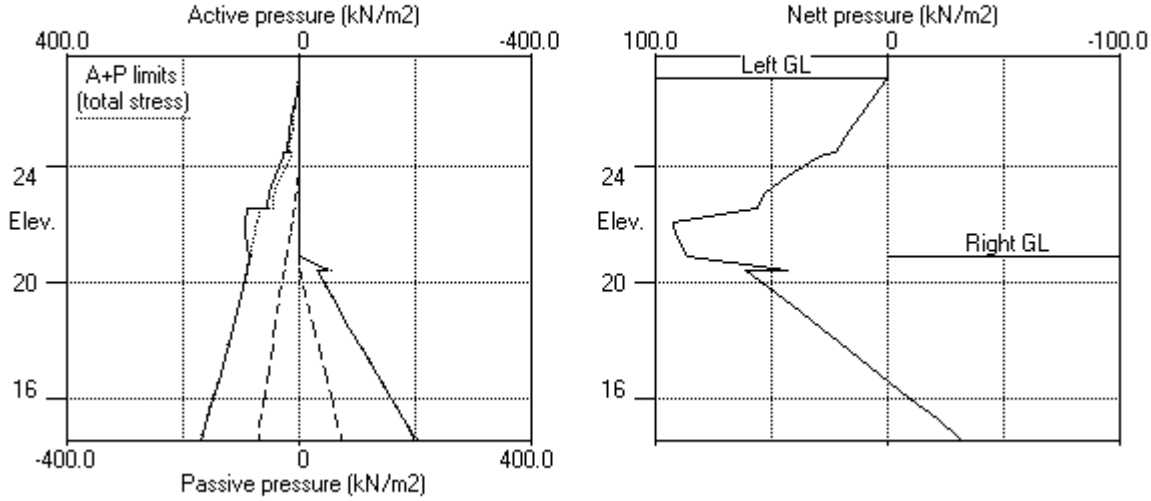
Note: 158.14a Soil pressure at active limit
179.18p Soil pressure at passive limit

Units: kN,m

Stage No.13 Change EI of wall to 111330kN.m2/m run



Stage No.13 Change EI of wall to 111330kN.m2/m run



Units: kN,m

Summary of results

LIMIT STATE PARAMETERS

Limit State: ULS DA1 Combination 2
Water pressures : Worst Credible
Partial factor on C' = 1.250
Partial factor on Phi' = 1.250
Partial factor on Cu = 1.400
Partial factor on Soil Modulus = 1.000
Partial factor on Permanent Unfavourable loads = 1.000
Partial factor on Permanent Favourable loads = 1.000
Partial factor on Variable Unfavourable loads = 1.300

STABILITY ANALYSIS of Fully Embedded Wall according to Strength Factor method

Factor of safety on soil strength

Stage No.	--- G.L. --- Act.	Pass.	Strut Elev.	Overall FoS for toe elev. = 14.50 Factor of Safety	Moment equilib. at elev.	Toe elev. for FoS = 1.000 Toe elev.	Wall Penetr -ation	Direction of failure
1	27.00	27.00	Cant.	Conditions not suitable for FoS calc.				
2	27.00	27.00	Cant.	Conditions not suitable for FoS calc.				
3	27.00	27.00		No analysis at this stage				
4	27.00	26.00	Cant.	4.220	15.56	25.13	0.87	L to R
5	27.00	26.00		No analysis at this stage				
6	27.00	26.00	27.80	7.020	n/a	25.88	0.12	L to R
7	27.00	20.36	27.80	1.839	n/a	19.47	0.89	L to R
8	27.00	20.86	27.80	1.947	n/a	19.63	1.23	L to R
9	27.00	20.86		No analysis at this stage				
10	27.00	20.86		No analysis at this stage				
11	27.00	20.86		More than one strut. No FoS calc.				
12	27.00	20.86		More than one strut. No FoS calc.				
13	27.00	20.86		More than one strut. No FoS calc.				
14	27.00	20.86		More than one strut. No FoS calc.				

Units: kN,m

Summary of results

BENDING MOMENT and DISPLACEMENT ANALYSIS of Fully Embedded Wall

Analysis options

Length of wall perpendicular to section = 20.00m
Subgrade reaction model - Boussinesq Influence coefficients
Soil deformations are elastic until the active or passive limit is reached
Open Tension Crack analysis - No

Rigid boundaries: Left side 20.00 from wall
Right side 20.00 from wall

Limit State: ULS DA1 Combination 2

Bending moment, shear force and displacement envelopes

Node no.	Y coord	Displacement maximum	Displacement minimum	Bending moment maximum	Bending moment minimum	Shear force maximum	Shear force minimum
		m	m	kN.m/m	kN.m/m	kN/m	kN/m
1	27.80	0.004	0.000	0.0	-0.0	0.0	-52.5
2	27.40	0.005	0.000	0.0	-21.0	0.0	-57.4
3	27.00	0.006	0.000	0.0	-42.0	0.0	-57.4
4	26.50	0.007	0.000	0.2	-68.0	0.8	-56.6
5	26.00	0.008	0.000	1.2	-93.3	3.3	-54.1
6	25.25	0.010	0.000	4.8	-127.3	3.4	-47.0
7	24.50	0.011	0.000	5.9	-155.1	0.0	-36.2
8	24.36	0.011	0.000	5.6	-159.5	2.0	-33.9
9	23.62	0.011	0.000	0.0	-175.7	29.9	-15.9
10	23.06	0.011	0.000	0.0	-177.5	57.6	-14.4
11	22.50	0.011	0.000	13.3	-166.5	88.4	-16.0
12	22.05	0.011	0.000	62.0	-149.5	129.4	-7.5
13	21.61	0.010	0.000	128.5	-127.1	170.5	-181.1
14	20.86	0.011	0.000	26.9	-65.5	88.0	-113.8
15	20.36	0.012	0.000	0.0	-27.4	114.1	-80.8
16	19.78	0.013	0.000	39.6	-64.7	72.4	-48.2
17	19.20	0.014	0.000	75.1	-79.1	34.4	-21.1
18	18.40	0.015	0.000	82.6	-86.6	7.7	-3.8
19	17.60	0.015	0.000	68.5	-74.9	25.9	-22.8
20	16.80	0.015	0.000	45.6	-52.1	33.8	-28.3
21	16.00	0.015	0.000	22.8	-26.5	31.6	-24.5
22	15.25	0.014	0.000	6.8	-7.3	20.3	-15.0
23	14.50	0.014	0.000	0.0	-0.0	0.0	-0.0

Summary of results (continued)

Maximum and minimum bending moment and shear force at each stage

Stage	Bending moment				Shear force			
no.	maximum	elev.	minimum	elev.	maximum	elev.	minimum	elev.
	kN.m/m		kN.m/m		kN/m		kN/m	
1	3.5	16.80	-27.7	22.05	10.4	20.36	-11.4	22.50
2	2.6	16.80	-27.6	21.61	9.8	19.78	-11.8	22.50
3	No calculation at this stage							
4	5.9	24.50	-22.5	21.61	8.6	19.78	-16.0	22.50
5	No calculation at this stage							
6	4.7	24.50	-23.0	21.61	8.8	19.78	-14.4	23.06
7	79.1	18.40	-175.4	23.06	110.4	20.36	-51.9	27.80
8	82.6	18.40	-177.5	23.06	114.1	20.36	-52.5	27.80
9	No calculation at this stage							
10	No calculation at this stage							
11	81.4	18.40	-175.3	23.06	113.5	20.36	-57.4	27.40
12	120.6	21.61	-86.6	18.40	170.5	21.61	-181.1	21.61
13	128.5	21.61	-84.6	18.40	168.8	21.61	-180.2	21.61
14	113.2	21.61	-74.8	18.40	164.1	21.61	-164.3	21.61
15	0.0	27.80	0.0	27.80	0.0	27.80	0.0	27.80

Maximum and minimum displacement at each stage

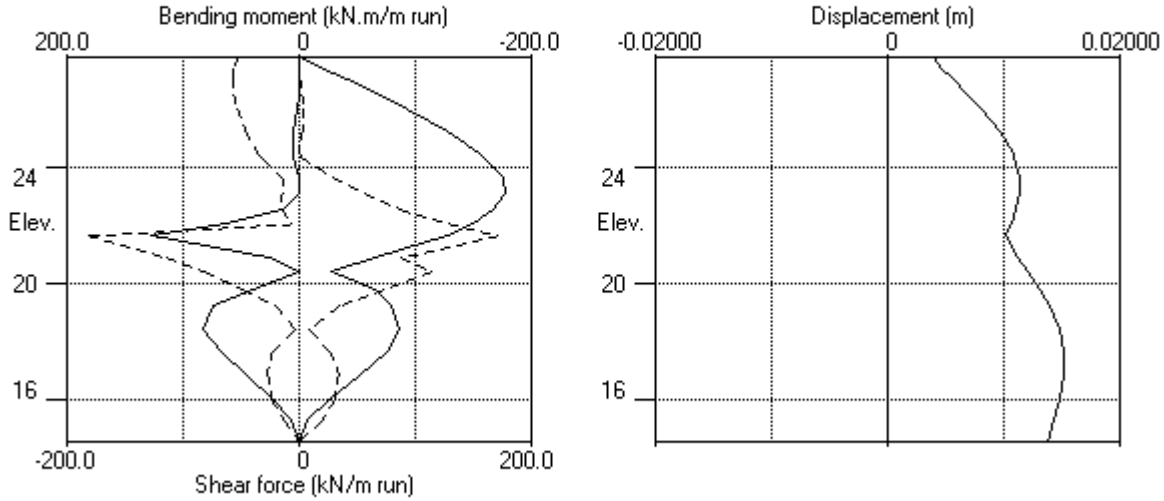
Stage	Displacement				Stage description
no.	maximum	elev.	minimum	elev.	
	m		m		
1	0.001	21.61	-0.000	27.80	Apply surcharge no.1 at elev. 24.36
2	0.001	21.61	-0.000	27.80	Apply surcharge no.2 at elev. 24.36
3	Wall displacements reset to zero				Change EI of wall to 155860kN.m2/m run
4	0.002	27.80	0.000	27.80	Excav. to elev. 26.00 on RIGHT side
5	No calculation at this stage				Install strut no.3 at elev. 27.80
6	0.002	27.80	0.000	27.80	Apply water pressure profile no.2
7	0.011	23.62	0.000	27.80	Excav. to elev. 20.36 on RIGHT side
8	0.011	23.62	0.000	27.80	Fill to elev. 20.86 on RIGHT side
9	No calculation at this stage				Install strut no.1 at elev. 21.61
10	No calculation at this stage				Install strut no.2 at elev. 27.40
11	0.011	23.62	0.000	27.80	Remove strut no.3 at elev. 27.80
12	0.015	16.80	0.000	27.80	Change soil type 3 to soil type 4
13	0.015	17.60	0.000	27.80	Change EI of wall to 111330kN.m2/m run
14	0.014	17.60	0.000	27.80	Apply surcharge no.3 at elev. 20.86
15	0.000	27.80	0.000	27.80	Apply water pressure profile no.3

Strut forces at each stage (horizontal components)

Stage	Strut no. 1 at elev. 21.61		Strut no. 2 at elev. 27.40		Strut no. 3 at elev. 27.80	
no.	kN/m run	kN/strut	kN/m run	kN/strut	kN/m run	kN/strut
6	---	---	---	---	0.33	0.33
7	---	---	---	---	51.93	51.93
8	---	---	---	---	52.46	52.46
11	slack	slack	57.43	57.43	---	---
12	351.59	351.59	34.33	34.33	---	---
13	349.00	349.00	31.78	31.78	---	---
14	328.39	328.39	33.03	33.03	---	---

Units: kN,m

Bending moment, shear force, displacement envelopes



APPENDIX D

PDSIP Analysis Outputs

Analysis Options

Analysis: Boussinesq
Global Poisson's ratio: 0.50
Maximum allowable ratio between values of E: 1.5
Horizontal rigid boundary level: -10.00 [m OD]
Stiffness for horizontal displacement calculations: Weighted average
Using legacy heave correction factor: No
Displacements at load centroids: Yes

Soil ProfilesSoil Profile 1

Layer	Level at top	Number of intermediate displacement levels	Youngs Modulus Top	Youngs Modulus Btm	Poissons ratio	Non-linear curve
	[mOD]		[kN/m²]	[kN/m²]		
1	27.000	10	14000.	14000.	0.20000	None
2	24.500	8	30000.	30000.	0.20000	None
3	22.500	74	36000.	108000.	0.50000	None
4	4.0000	52	144000.	279800.	0.50000	None

Soil Zones

Zone	Name	X coordinates min [m]	X coordinates max [m]	Y coordinates min [m]	Y coordinates max [m]	Profile
1	Boundary	0.00000	153.90850	0.00000	147.59380	Soil Profile 1

Load Data

Load ref.	Name	Shape	Orientation of Plane	Load position: Centre of load (Global) X [m]	Y [m]	Z (level) [m]	Angle of local x from [Degrees]	Width x or Radius [m]	Length y [m]	Polygon Coordinates [m]	Rectangle tolerance [%]	Number of rectangles	Load value: Normal (local z) [kN/m²]	Tangential (local x) [kN/m²]	Tangential (local y) [kN/m²]
1	Enabling Works 1.1	Polygonal	Horizontal	N/A	N/A	24.92000	N/A	N/A	N/A	(80.2,85.5) (88.3,85.6) (87.5,69.3) (87.4,69.3) (87.3,68.3) (84.6,68.3) (84.6,69) (79.7,69) (80.2,85.5)	10.000	4	18.600	N/A	N/A
2	Enabling Works 1.2	Polygonal	Horizontal	N/A	N/A	24.92000	N/A	N/A	N/A	(50.8,54) (50.8,50) (72.2,50.8) (72.3,50.5) (74.4,50.6) (74.6,50.9) (74.9,50.9) (74.9,56.6) (69.4,56.7) (69.4,56.5) (69.3,56.5) (69.3,54.4) (69.4,54.4) (69.4,53.9) (69.3,53.9) (69.3,54) (50.9,54) (50.9,54) (50.8,54)	10.000	9	18.600	N/A	N/A
3	Enabling Works 2	Polygonal	Horizontal	N/A	N/A	24.92000	N/A	N/A	N/A	(79.7,56.6) (79.7,51.1) (84.2,51.2) (84.2,56.4) (84,56.4) (84,56.6) (79.7,56.6)	10.000	2	11.600	N/A	N/A
4	Enabling Works 3	Polygonal	Horizontal	N/A	N/A	24.92000	N/A	N/A	N/A	(51,83.7) (56.3,83.7) (56.2,62.7) (50.9,62.7) (51,83.7)	10.000	1	0.60000	N/A	N/A
5	Enabling Works 4	Polygonal	Horizontal	N/A	N/A	24.92000	N/A	N/A	N/A	(51.2,62.7) (56.2,62.7) (56.2,57.3) (68.6,57.2) (69.4,57.2) (69.4,56.5) (69.3,56.5) (69.3,54.4) (69.4,54.4) (69.4,53.9) (69.3,53.9) (69.3,54) (50.9,54) (50.9,62.7) (51.2,62.7)	10.000	5	-11.400	N/A	N/A
6	Enabling Works 5.1	Polygonal	Horizontal	N/A	N/A	27.00000	N/A	N/A	N/A	(88.3,85.6) (103,85.7) (103,84.7) (104,84.7) (104,84.3) (103,84.3) (102,62.8) (88.3,62.7) (87.6,64.7) (87.5,67.9) (87.3,68.3) (87.4,69.3) (87.5,69.3) (88.3,85.6)	10.000	8	-52.000	N/A	N/A
7	Enabling Works 5.2	Polygonal	Horizontal	N/A	N/A	27.00000	N/A	N/A	N/A	(79.7,69) (79.8,68.6) (79.8,57.6) (79.8,56.6) (74.8,56.6) (74.7,57.1) (74.6,57.1) (74.7,68.5) (74.8,68.5) (74.8,68.8) (74.8,69) (75,69) (79.7,69)	10.000	4	-52.000	N/A	N/A
8	Enabling Works 5.3	Polygonal	Horizontal	N/A	N/A	27.00000	N/A	N/A	N/A	(50.9,86.8) (50.9,92.6) (50,92.6) (49.9,97.4) (57,97.3) (57.1,93.3) (67.2,93.5) (67.2,91.8) (66.2,86.8) (50.9,86.8)	10.000	6	-52.000	N/A	N/A
9	Enabling Works 6.1	Polygonal	Horizontal	N/A	N/A	24.92000	N/A	N/A	N/A	(79.7,69) (84.6,69) (84.6,68.3) (87.3,68.3) (87.5,67.9) (87.6,64.7) (88.3,62.7) (102,62.8) (102,52.4) (102,52.4) (102,51.8) (102,51.8) (102,51.9) (84.2,51.2) (84.2,56.4) (84,56.4) (84,56.6) (79.8,56.6) (79.8,68.6) (79.7,69)	10.000	17	-18.400	N/A	N/A
10	Enabling Works 6.2	Polygonal	Horizontal	N/A	N/A	24.92000	N/A	N/A	N/A	(51,83.7) (51,83.8) (50.8,83.8) (50.8,84.3) (50.9,84.3) (50.9,86.8) (66.2,86.8) (66.1,68.3) (68.8,68.3) (68.8,69.1) (74.8,69) (74.8,68.5) (74.7,68.5) (74.6,57.1) (74.7,57.1) (74.8,56.6) (69.4,56.7) (69.4,56.5) (69.4,57.2) (56.2,57.3) (56.3,83.7) (51,83.7)	10.000	9	-18.400	N/A	N/A
11	EXC1	Polygonal	Horizontal	N/A	N/A	20.86000	N/A	N/A	N/A	(50.4,97.7) (50.4,85.2) (49.7,85.2) (49.7,76.4) (58.9,76.4) (58.8,80.1) (94,80.9) (104,80.3) (104,85.8) (89.1,85.8) (89.1,90.1) (83.8,90.1) (83.7,94) (68.9,94) (68.9,93.7) (57.6,93.8) (57.6,97.8) (50.4,97.7)	10.000	14	-123.00	N/A	N/A
12	EXC2	Polygonal	Horizontal	N/A	N/A	20.86000	N/A	N/A	N/A	(104,80.3) (102,53.1) (87.6,52.4) (87.7,50.4) (81,50) (80.7,50.6) (73.3,50.4) (73.3,49.8) (50.8,49.1) (50.3,49.2) (49.9,49.6) (49.7,50.1) (49.7,76.4) (58.9,76.4) (59.3,63.6) (94.4,64.5) (94,80.9) (104,80.3)	10.000	20	-123.00	N/A	N/A
13	EXC3	Polygonal	Horizontal	N/A	N/A	19.86000	N/A	N/A	N/A	(58.8,80.1) (94,80.9) (94.4,64.5) (59.3,63.6) (58.8,80.1)	10.000	2	-143.00	N/A	N/A

Polygonal Loads' Rectangles

No.	Centre of load X [m]	Centre of load Y [m]	Angle of local x from global X [Degrees]	Width x [m]	Depth y [m]
Load 1 : Enabling Works 1.1					
(Edge 1 optimal)					
1	85.96575	68.62430	-90.000	0.72060	2.7389
2	86.25496	85.51930	-90.000	0.080600	4.0650

No.	Centre of load X	Y	Angle of local x from global X	Width x	Depth y
3	83.90496	77.39135	-90.000	16.175	7.9464
4	83.53306	69.15790	-90.000	0.29160	7.6579
Load 2 : Enabling Works 1.2					
(Edge 8 optimal)					
1	74.72227	53.76071	179.70	0.29834	5.7764
2	74.50608	53.69022	179.70	0.13328	5.9196
3	73.38191	53.60396	179.70	2.1141	6.1038
4	72.27104	53.65303	179.70	0.10809	6.0171
5	70.82165	53.69847	179.70	2.7911	5.9413
6	69.36205	55.45700	179.70	0.11140	2.0256
7	69.34631	52.28483	179.70	0.14490	3.2210
8	60.08459	52.17200	179.70	18.377	3.6701
9	50.86525	51.98391	179.70	0.059351	3.9657
Load 3 : Enabling Works 2					
(Edge 6 optimal)					
1	84.10209	53.82223	179.70	0.17084	5.1608
2	81.83703	53.88717	179.70	4.3426	5.4473
Load 4 : Enabling Works 3					
(Edge 1 optimal)					
1	53.57203	73.19282	89.768	20.955	5.2830
Load 5 : Enabling Works 4					
(Edge 5 optimal)					
1	69.35496	53.93215	89.790	0.073173	0.14390
2	60.16382	54.24442	89.790	0.46665	18.523
3	60.10138	55.49083	89.790	2.0257	18.398
4	60.16260	56.85433	89.790	0.70086	18.521
5	53.53159	59.98233	89.790	5.4340	5.2588
Load 6 : Enabling Works 5.1					
(Edge 1 optimal)					
1	87.39194	68.73367	177.17	0.10142	1.1364
2	103.47440	84.49295	177.17	0.057148	0.35654
3	102.87954	73.74655	177.17	0.051448	21.875
4	102.83684	74.00626	177.17	0.059465	22.397
5	95.82251	74.19070	177.17	13.970	22.928
6	88.47096	74.61110	177.17	0.75634	21.938
7	88.02372	75.92575	177.17	0.26668	19.295
8	87.89848	76.77219	177.17	0.066950	17.597
Load 7 : Enabling Works 5.2					
(Edge 2 optimal)					
1	77.30828	62.82955	179.71	4.7194	12.389
2	74.86860	62.84227	179.71	0.16007	12.389
3	74.71247	62.84688	179.71	0.057203	11.400
4	79.73953	62.71925	179.71	0.14339	12.195
Load 8 : Enabling Works 5.3					
(Edge 9 optimal)					
1	67.01345	92.21826	-179.22	0.36715	2.5219
2	66.65756	91.38615	-179.22	0.36715	4.1763
3	66.30167	90.55403	-179.22	0.36715	5.8308
4	61.61512	90.10464	-179.22	9.0173	6.6023
5	53.97184	92.08378	-179.22	6.2083	10.579
6	50.39858	94.99581	-179.22	0.85857	4.8591
Load 9 : Enabling Works 6.1					
(Edge 20 optimal)					
1	79.73580	68.96266	-0.29546	0.071904	0.098465
2	79.80721	68.86498	-0.29546	0.071904	0.29301
3	81.94089	62.80476	-0.29546	4.2276	12.389
4	84.14830	62.69382	-0.29546	0.17106	12.586
5	84.40097	60.11840	-0.29546	0.29922	17.734
6	85.91269	59.78219	-0.29546	2.7202	16.952
7	87.36286	59.72483	-0.29546	0.18066	16.731
8	87.50962	58.82734	-0.29546	0.12210	14.925
9	87.89653	57.52027	-0.29546	0.66520	12.282
10	94.98145	57.19077	-0.29546	13.508	11.106
11	101.80604	52.08427	-0.29546	0.11115	0.54843
12	101.82779	58.02577	-0.29546	0.093376	9.5824
13	101.92566	58.89788	-0.29546	0.093376	7.8402
14	102.02354	59.77000	-0.29546	0.093376	6.0979
15	102.12141	60.64211	-0.29546	0.093376	4.3556
16	102.21929	61.51423	-0.29546	0.093376	2.6134
17	102.31716	62.38634	-0.29546	0.093376	0.87113
Load 10 : Enabling Works 6.2					
(Edge 19 optimal)					
1	61.15982	72.00771	-0.29653	9.8648	29.566
2	67.42842	62.74639	-0.29653	2.6850	11.122
3	69.11334	63.12129	-0.29653	0.68088	11.893
4	72.06678	62.85738	-0.29653	5.2215	12.389
5	74.69732	56.89668	-0.29653	0.10120	0.49514
6	74.74200	68.79252	-0.29653	0.055268	0.49027
7	50.85415	84.06772	-0.29653	0.069227	0.43996
8	50.93103	85.31834	-0.29653	0.071589	2.9447
9	53.61552	85.23107	-0.29653	5.2971	3.1193
Load 11 : EXC1					
(Edge 13 optimal)					
1	50.04601	80.78658	-179.87	0.67978	8.8417
2	58.84914	77.30161	-179.87	0.099530	1.8718
3	103.87257	85.48760	-179.87	0.073162	0.55001
4	103.80067	84.93758	-179.87	0.073162	1.6500
5	103.72878	84.38756	-179.87	0.073162	2.7501
6	103.65689	83.83753	-179.87	0.073162	3.8501
7	103.58499	83.28751	-179.87	0.073162	4.9501
8	98.76706	83.16569	-179.87	9.5632	5.1925
9	91.52313	83.29188	-179.87	4.9240	4.9381
10	86.42394	85.40210	-179.87	5.2646	9.3806
11	76.35295	87.22981	-179.87	14.818	13.475
12	63.86077	86.97412	-179.87	10.167	13.508
13	58.19769	85.05828	-179.87	1.1676	17.385
14	53.99163	87.04706	-179.87	7.1828	21.363
Load 12 : EXC2					
(Edge 1 optimal)					
1	91.02065	58.49006	-178.57	7.0904	11.837
2	84.17299	57.21037	-178.57	6.6647	14.053
3	80.69623	57.21634	-178.57	0.28636	13.867
4	76.83058	57.26453	-178.57	7.4401	13.577
5	66.28351	56.68028	-178.57	13.677	14.217
6	54.86653	62.79515	-178.57	8.7457	27.150
7	50.26568	62.75183	-178.57	0.45528	27.236
8	50.02226	62.17289	-178.57	0.060376	25.967
9	49.96988	60.12975	-178.57	0.14661	21.733
10	49.89530	57.25032	-178.57	0.14661	15.705
11	49.82072	54.37089	-178.57	0.14661	9.6765
12	49.76968	52.45372	-178.57	0.051377	5.5520
13	49.74219	51.49880	-178.57	0.051377	3.3312
14	49.71470	50.54388	-178.57	0.051377	1.1104
15	103.34668	78.91126	-178.57	0.48491	2.7344
16	102.92925	76.20893	-178.57	0.48491	8.2032
17	102.51183	73.50659	-178.57	0.48491	13.672
18	102.09441	70.80425	-178.57	0.48491	19.141
19	101.67699	68.10192	-178.57	0.48491	24.609
20	97.91350	66.78001	-178.57	7.1059	27.743
Load 13 : EXC3					
(Edge 2 optimal)					
1	76.62937	72.27446	1.4338	35.142	16.443
2	58.92796	75.98621	1.4338	0.063687	8.2501

Displacement Data

Ref.	Type	Name	Direction of Extrusion	First point X [m]	First point Y [m]	First point Z(level) [m]	Second point X [m]	Second point Y [m]	Second point Z(level) [m]	No. of intrvls across extrusion/line	Extrusion Depth [m]	No. of intrvls along extrusion	Calculate	Show Detailed results
1	Line	Tottenham Court Road	N/A	102.43574	62.82325	27.00000	127.43574	62.82325	27.00000	25	N/A	N/A	Yes	Yes
2	Line	Howland Street	N/A	73.35504	50.35844	27.00000	73.35504	35.35844	27.00000	15	N/A	N/A	Yes	Yes
3	Line	Whitfield Street	N/A	49.69721	76.36573	27.00000	39.69721	76.36573	27.00000	10	N/A	N/A	Yes	Yes
4	Line	Qube	N/A	94.43186	85.76132	24.36000	94.43186	137.76132	24.36000	52	N/A	N/A	Yes	Yes
5	Grid	Raft Formation	Global X	0.00000	0.00000	20.86000	N/A	147.59400	20.86000	30	153.90900	30	Yes	Yes

Ref.	Type	Name	Direction of Extrusion	Line/Line for extrusion First point X [m]	First point Y [m]	First point Z(level) [m]	Second point X [m]	Second point Y [m]	Second point Z(level) [m]	No. of intrvls across extrusion/line	Extrusion Depth [m]	No. of intrvls along extrusion	Calculate	Show Detailed results

Warnings

(1)The displacement location of Grid 5 at (153.909, 0.000, 20.860)m lies wide of all soil zones. The first soil profile will be used.There are more displacement locations for which this warning applies. Only one is detailed here.

RESULTS FOR GRIDS

Analysis: Boussinesq
Global Poisson's ratio: 0.50
Horizontal rigid boundary level: -10.00 [m OD]

The maximum displacement difference between the Boussinesq method (-25.087mm) and the Mindlin method (-20.101mm) occurs at point X = 57.68470m, Y = 91.26023m, level = 27.000mOD, and is 4.9856mm.

Name	Location X [m]	Location Y [m]	Z[Level] [mOD]	Displacement Z [mm]	Stresses Calc Level [mOD]	Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]
Enabling Works 1.1	83.93674	77.19338	24.92000	-13.587	24.815	17.278	37.807	940.90E-6
Enabling Works 1.2	63.82263	52.65957	24.92000	-9.6905	24.815	18.580	51.543	856.27E-6
Enabling Works 2	81.91347	53.88372	24.92000	-11.569	24.815	11.022	25.567	579.45E-6
Enabling Works 3	53.57175	73.19850	24.92000	-12.667	24.815	0.57984	-0.39031	55.277E-6
Enabling Works 4	57.97182	57.03782	24.92000	-15.016	24.815	-11.452	-36.493	-460.25E-6
Enabling Works 5.1	95.37095	74.24229	27.00000	-29.604	26.886	-52.000	-154.24	-0.0022537
Enabling Works 5.2	77.25530	62.82244	27.00000	-26.942	26.886	-51.998	-151.34	-0.0022950
Enabling Works 5.3	57.68470	91.26023	27.00000	-25.087	26.886	-51.998	-152.37	-0.0022802
Enabling Works 6.1	90.34978	58.88939	24.92000	-17.928	24.815	-19.395	-67.326	-700.63E-6
Enabling Works 6.2	63.18110	70.26044	24.92000	-18.617	24.815	-18.429	-56.557	-771.64E-6
EXC1	70.60521	86.38667	20.86000	-14.221	20.815	-127.07	-383.73	29.717E-6
EXC2	75.82670	61.11070	20.86000	-17.098	20.815	-148.81	-412.25	-401.61E-6
EXC3	76.59711	72.27559	19.86000	-16.494	19.837	-148.40	-465.45	218.18E-6
Tottenham Court Road	102.43574	62.82325	27.00000	-12.195	26.886	-5.8892	-34.513	-11.741E-6
	103.43574	62.82325	27.00000	-6.0445	26.886	-0.0087426	-2.9111	40.838E-6
	104.43574	62.82325	27.00000	-3.5923	26.886	-0.0011301	-1.3305	18.910E-6
	105.43574	62.82325	27.00000	-2.1095	26.886	-332.13E-6	-0.81820	11.660E-6
	106.43574	62.82325	27.00000	-1.1057	26.886	-138.41E-6	-0.56973	8.1272E-6
	107.43574	62.82325	27.00000	-0.39044	26.886	-69.920E-6	-0.42486	6.0635E-6
	108.43574	62.82325	27.00000	0.13251	26.886	-39.878E-6	-0.33095	4.7245E-6
	109.43574	62.82325	27.00000	0.51958	26.886	-24.718E-6	-0.26574	3.7942E-6
	110.43574	62.82325	27.00000	0.80712	26.886	-16.275E-6	-0.21821	3.1159E-6
	111.43574	62.82325	27.00000	1.0200	26.886	-11.219E-6	-0.18231	2.6035E-6
	112.43574	62.82325	27.00000	1.1758	26.886	-8.0157E-6	-0.15444	2.2056E-6
	113.43574	62.82325	27.00000	1.2877	26.886	-5.8944E-6	-0.13233	1.8899E-6
	114.43574	62.82325	27.00000	1.3653	26.886	-4.4382E-6	-0.11446	1.6348E-6
	115.43574	62.82325	27.00000	1.4161	26.886	-3.4083E-6	-0.099823	1.4258E-6
	116.43574	62.82325	27.00000	1.4460	26.886	-2.6617E-6	-0.087673	1.2522E-6
	117.43574	62.82325	27.00000	1.4593	26.886	-2.1088E-6	-0.077483	1.1067E-6
	118.43574	62.82325	27.00000	1.4597	26.886	-1.6919E-6	-0.068858	0.0
	119.43574	62.82325	27.00000	1.4500	26.886	-1.3724E-6	-0.061498	0.0
	120.43574	62.82325	27.00000	1.4324	26.886	-1.1242E-6	-0.055172	0.0
	121.43574	62.82325	27.00000	1.4088	26.886	0.0	-0.049701	0.0
	122.43574	62.82325	27.00000	1.3806	26.886	0.0	-0.044941	0.0
	123.43574	62.82325	27.00000	1.3491	26.886	0.0	-0.040779	0.0
	124.43574	62.82325	27.00000	1.3150	26.886	0.0	-0.037121	0.0
	125.43574	62.82325	27.00000	1.2793	26.886	0.0	-0.033893	0.0
	126.43574	62.82325	27.00000	1.2425	26.886	0.0	-0.031032	0.0
	127.43574	62.82325	27.00000	1.2051	26.886	0.0	-0.028488	0.0
Howland Street	73.35504	50.35844	27.00000	-5.8917	26.886	-17.782E-6	-0.15926	2.2736E-6
	73.35504	49.35844	27.00000	-3.1800	26.886	-11.043E-6	-0.12824	1.8310E-6
	73.35504	48.35844	27.00000	-1.6119	26.886	-7.2065E-6	-0.10569	1.5093E-6
	73.35504	47.35844	27.00000	-0.62649	26.886	-4.9016E-6	-0.088798	1.2681E-6
	73.35504	46.35844	27.00000	0.060722	26.886	-3.4525E-6	-0.075792	1.0824E-6
	73.35504	45.35844	27.00000	0.55820	26.886	-2.5058E-6	-0.065549	0.0
	73.35504	44.35844	27.00000	0.92381	26.886	-1.8662E-6	-0.057323	0.0
	73.35504	43.35844	27.00000	1.1932	26.886	-1.4215E-6	-0.050602	0.0
	73.35504	42.35844	27.00000	1.3905	26.886	-1.1042E-6	-0.045029	0.0
	73.35504	41.35844	27.00000	1.5324	26.886	0.0	-0.040347	0.0
	73.35504	40.35844	27.00000	1.6314	26.886	0.0	-0.036371	0.0
	73.35504	39.35844	27.00000	1.6969	26.886	0.0	-0.032958	0.0
	73.35504	38.35844	27.00000	1.7362	26.886	0.0	-0.030005	0.0
	73.35504	37.35844	27.00000	1.7548	26.886	0.0	-0.027429	0.0
	73.35504	36.35844	27.00000	1.7572	26.886	0.0	-0.025166	0.0
	73.35504	35.35844	27.00000	1.7469	26.886	0.0	-0.023166	0.0
Whitfield Street	49.69721	76.36573	27.00000	-6.0848	26.886	-4.9607E-6	-0.10131	1.4468E-6
	48.69721	76.36573	27.00000	-3.1419	26.886	-4.3365E-6	-0.093585	1.3366E-6
	47.69721	76.36573	27.00000	-1.7017	26.886	-3.7475E-6	-0.086048	1.2289E-6
	46.69721	76.36573	27.00000	-0.75466	26.886	-3.2079E-6	-0.078818	1.1257E-6
	45.69721	76.36573	27.00000	-0.085879	26.886	-2.7258E-6	-0.071990	1.0282E-6
	44.69721	76.36573	27.00000	0.40148	26.886	-2.3039E-6	-0.065622	0.0
	43.69721	76.36573	27.00000	0.76158	26.886	-1.9406E-6	-0.059746	0.0
	42.69721	76.36573	27.00000	1.0285	26.886	-1.6315E-6	-0.054367	0.0
	41.69721	76.36573	27.00000	1.2251	26.886	-1.3708E-6	-0.049475	0.0
	40.69721	76.36573	27.00000	1.3680	26.886	-1.1524E-6	-0.045045	0.0
	39.69721	76.36573	27.00000	1.4690	26.886	0.0	-0.041047	0.0
Qube	94.43186	85.76132	24.36000	-10.947	24.244	-25.138	-58.748	-613.88E-6
	94.43186	86.76132	24.36000	-6.8084	24.244	-14.228	-42.791	-283.84E-6
	94.43186	87.76132	24.36000	-4.4323	24.244	-7.2204	-30.246	-87.180E-6
	94.43186	88.76132	24.36000	-2.7987	24.244	-3.6656	-21.582	-2.7446E-6
	94.43186	89.76132	24.36000	-1.6337	24.244	-1.9575	-15.805	27.065E-6
	94.43186	90.76132	24.36000	-0.78071	24.244	-1.1108	-11.911	34.975E-6
	94.43186	91.76132	24.36000	-0.14354	24.244	-0.66700	-9.2197	34.784E-6
	94.43186	92.76132	24.36000	0.33875	24.244	-0.42069	-7.3064	31.882E-6
	94.43186	93.76132	24.36000	0.70633	24.244	-0.27669	-5.9097	28.330E-6
	94.43186	94.76132	24.36000	0.98685	24.244	-0.18861	-4.8653	24.891E-6
	94.43186	95.76132	24.36000	1.2001	24.244	-0.13259	-4.0674	21.812E-6
	94.43186	96.76132	24.36000	1.3607	24.244	-0.095719	-3.4461	19.145E-6
	94.43186	97.76132	24.36000	1.4796	24.244	-0.070732	-2.9542	16.865E-6
	94.43186	98.76132	24.36000	1.5653	24.244	-0.053352	-2.5587	14.924E-6
	94.43186	99.76132	24.36000	1.6245	24.244	-0.040982	-2.2364	13.270E-6
	94.43186	100.76132	24.36000	1.6623	24.244	-0.031996	-1.9706	11.858E-6
	94.43186	101.76132	24.36000	1.6829	24.244	-0.025348	-1.7489	10.646E-6
	94.43186	102.76132	24.36000	1.6895	24.244	-0.020347	-1.5622	9.6007E-6
	94.43186	103.76132	24.36000	1.6850	24.244	-0.016528	-1.4034	8.6950E-6
	94.43186	104.76132	24.36000	1.6716	24.244	-0.013572	-1.2673	7.9060E-6
	94.43186	105.76132	24.36000	1.6510	24.244	-0.011255	-1.1498	7.2149E-6
	94.43186	106.76132	24.36000	1.6249	24.244	-0.0094168	-1.0475	6.6067E-6
	94.43186	107.76132	24.36000	1.5943	24.244	-0.0079437	-0.95798	6.0688E-6
	94.43186	108.76132	24.36000	1.5603	24.244	-0.0067513	-0.87914	5.5909E-6
	94.43186	109.76132	24.36000	1.5238	24.244	-0.0057773	-0.80933	5.1645E-6
	94.43186	110.76132	24.36000	1.4855	24.244	-0.0049749	-0.74722	4.7824E-6
	94.43186	111.76132	24.36000	1.4460	24.244	-0.0043087	-0.69169	4.4389E-6
	94.43186	112.76132	24.36000	1.4057	24.244	-0.0037515	-0.64183	4.1288E-6
	94.43186	113.76132	24.36000	1.3649	24.244	-0.0032823	-0.59690	3.8481E-6
	94.43186	114.76132	24.36000	1.3242	24.244	-0.0028847	-0.55626	3.5930E-6
	94.43186	115.76132	24.36000	1.2836	24.244	-0.0025458	-0.51938	3.3607E-6
	94.43186	116.76132	24.36000	1.2434	24.244	-0.0022554	-0.48580	3.1485E-6
	94.43186	117.76132	24.36000	1.2038	24.244	-0.0020052	-0.45515	2.9541E-6
	94.43186	118.76132	24.36000	1.1649	24.244	-0.0017887	-0.42709	2.7757E-6
	94.43186	119.76132	24.36000	1.1269	24.244	-0.0016005	-0.40134	2.6116E-6
	94.43186	120.76132	24.36000	1.0897	24.244	-0.0014362	-0.37765	2.4602E-6
	94.43186	121.76132	24.36000	1.0535	24.244	-0.0012922	-0.35582	2.3205E-6
	94.43186	122.76132	24.36000	1.0182	24.244	-0.0011656	-0.33566	2.1911E-6
	94.43186	123.76132	24.36000	0.98404	24.244	-0.0010539	-0.31701	2.0712E-6
	94.43186	124.76132	24.36000	0.95089	24.244	-955.01E-6	-0.29971	1.9599E-6
	94.43186	125.76132	24.36000	0.91878	24.244	-867.20E-6	-0.28366	1.8564E-6

Name	Location X [m]	Location Y [m]	Z[Level] [mOD]	Displacement Z [mm]	Calc Level [mOD]	Stresses Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]
	94.43186	126.76132	24.36000	0.88773	24.244	-789.03E-6	-0.26873	1.7600E-6
	94.43186	127.76132	24.36000	0.85771	24.244	-719.25E-6	-0.25483	1.6701E-6
	94.43186	128.76132	24.36000	0.82873	24.244	-656.81E-6	-0.24186	1.5861E-6
	94.43186	129.76132	24.36000	0.80076	24.244	-600.80E-6	-0.22975	1.5077E-6
	94.43186	130.76132	24.36000	0.77378	24.244	-550.45E-6	-0.21844	1.4342E-6
	94.43186	131.76132	24.36000	0.74778	24.244	-505.10E-6	-0.20784	1.3654E-6
	94.43186	132.76132	24.36000	0.72271	24.244	-464.17E-6	-0.19791	1.3008E-6
	94.43186	133.76132	24.36000	0.69857	24.244	-427.15E-6	-0.18860	1.2402E-6
	94.43186	134.76132	24.36000	0.67532	24.244	-393.62E-6	-0.17985	1.1833E-6
	94.43186	135.76132	24.36000	0.65294	24.244	-363.19E-6	-0.17163	1.1297E-6
	94.43186	136.76132	24.36000	0.63139	24.244	-335.53E-6	-0.16390	1.0792E-6
	94.43186	137.76132	24.36000	0.61065	24.244	-310.35E-6	-0.15661	1.0317E-6
Raft Formation	0.00000	0.00000	20.86000	0.20959	20.815	-204.00E-6	-0.079153	0.0
	5.13030	0.00000	20.86000	0.23013	20.815	-240.67E-6	-0.087562	1.0203E-6
	10.26060	0.00000	20.86000	0.25361	20.815	-283.96E-6	-0.096854	1.1279E-6
	15.39090	0.00000	20.86000	0.27899	20.815	-334.83E-6	-0.10707	1.2461E-6
	20.52120	0.00000	20.86000	0.30611	20.815	-394.32E-6	-0.11823	1.3752E-6
	25.65150	0.00000	20.86000	0.33468	20.815	-463.42E-6	-0.13032	1.5148E-6
	30.78180	0.00000	20.86000	0.36427	20.815	-543.05E-6	-0.14330	1.6645E-6
	35.91210	0.00000	20.86000	0.39427	20.815	-633.87E-6	-0.15707	1.8231E-6
	41.04240	0.00000	20.86000	0.42390	20.815	-736.20E-6	-0.17147	1.9886E-6
	46.17270	0.00000	20.86000	0.45225	20.815	-849.68E-6	-0.18626	2.1584E-6
	51.30300	0.00000	20.86000	0.47833	20.815	-972.95E-6	-0.20114	2.3289E-6
	56.43330	0.00000	20.86000	0.50110	20.815	-0.0011032	-0.21572	2.4956E-6
	61.56360	0.00000	20.86000	0.51959	20.815	-0.0012359	-0.22950	2.6528E-6
	66.69390	0.00000	20.86000	0.53300	20.815	-0.0013645	-0.24193	2.7943E-6
	71.82420	0.00000	20.86000	0.54070	20.815	-0.0014809	-0.25240	2.9132E-6
	76.95450	0.00000	20.86000	0.54234	20.815	-0.0015761	-0.26029	3.0026E-6
	82.08480	0.00000	20.86000	0.53787	20.815	-0.0016417	-0.26507	3.0564E-6
	87.21510	0.00000	20.86000	0.52753	20.815	-0.0016712	-0.26633	3.0702E-6
	92.34540	0.00000	20.86000	0.51182	20.815	-0.0016610	-0.26389	3.0420E-6
	97.47570	0.00000	20.86000	0.49146	20.815	-0.0016116	-0.25783	2.9724E-6
	102.60600	0.00000	20.86000	0.46734	20.815	-0.0015273	-0.24846	2.8653E-6
	107.73630	0.00000	20.86000	0.44043	20.815	-0.0014154	-0.23634	2.7268E-6
	112.86660	0.00000	20.86000	0.41172	20.815	-0.0012849	-0.22214	2.5646E-6
	117.99690	0.00000	20.86000	0.38214	20.815	-0.0011451	-0.20660	2.3870E-6
	123.12720	0.00000	20.86000	0.35250	20.815	-0.0010044	-0.19041	2.2017E-6
	128.25750	0.00000	20.86000	0.32350	20.815	-869.25E-6	-0.17418	2.0158E-6
	133.38780	0.00000	20.86000	0.29565	20.815	-744.21E-6	-0.15838	1.8345E-6
	138.51810	0.00000	20.86000	0.26933	20.815	-631.80E-6	-0.14335	1.6619E-6
	143.64840	0.00000	20.86000	0.24476	20.815	-532.99E-6	-0.12931	1.5004E-6
	148.77870	0.00000	20.86000	0.22207	20.815	-447.66E-6	-0.11638	1.3515E-6
	153.90900	0.00000	20.86000	0.20128	20.815	-374.93E-6	-0.10460	1.2157E-6 !
	0.00000	4.91980	20.86000	0.22880	20.815	-238.85E-6	-0.087023	1.0140E-6
	5.13030	4.91980	20.86000	0.25404	20.815	-284.70E-6	-0.096902	1.1285E-6
	10.26060	4.91980	20.86000	0.28185	20.815	-339.58E-6	-0.10794	1.2562E-6
	15.39090	4.91980	20.86000	0.31223	20.815	-405.04E-6	-0.12020	1.3980E-6
	20.52120	4.91980	20.86000	0.34505	20.815	-482.75E-6	-0.13376	1.5546E-6
	25.65150	4.91980	20.86000	0.38002	20.815	-574.47E-6	-0.14864	1.7261E-6
	30.78180	4.91980	20.86000	0.41662	20.815	-681.93E-6	-0.16481	1.9123E-6
	35.91210	4.91980	20.86000	0.45410	20.815	-806.75E-6	-0.18218	2.1120E-6
	41.04240	4.91980	20.86000	0.49147	20.815	-950.19E-6	-0.20059	2.3232E-6
	46.17270	4.91980	20.86000	0.52752	20.815	-0.0011128	-0.21977	2.5429E-6
	51.30300	4.91980	20.86000	0.56089	20.815	-0.0012937	-0.23936	2.7666E-6
	56.43330	4.91980	20.86000	0.59017	20.815	-0.0014899	-0.25884	2.9886E-6
	61.56360	4.91980	20.86000	0.61405	20.815	-0.0016950	-0.27757	3.2014E-6
	66.69390	4.91980	20.86000	0.63138	20.815	-0.0018987	-0.29475	3.3961E-6
	71.82420	4.91980	20.86000	0.64131	20.815	-0.0020873	-0.30948	3.5625E-6
	76.95450	4.91980	20.86000	0.64337	20.815	-0.0022449	-0.32082	3.6902E-6
	82.08480	4.91980	20.86000	0.63748	20.815	-0.0023556	-0.32789	3.7693E-6
	87.21510	4.91980	20.86000	0.62399	20.815	-0.0024072	-0.33001	3.7925E-6
	92.34540	4.91980	20.86000	0.60360	20.815	-0.0023927	-0.32686	3.7559E-6
	97.47570	4.91980	20.86000	0.57731	20.815	-0.0023130	-0.31851	3.6607E-6
	102.60600	4.91980	20.86000	0.54635	20.815	-0.0021758	-0.30548	3.5124E-6
	107.73630	4.91980	20.86000	0.51204	20.815	-0.0019948	-0.28865	3.3210E-6
	112.86660	4.91980	20.86000	0.47572	20.815	-0.0017867	-0.26908	3.0984E-6
	117.99690	4.91980	20.86000	0.43862	20.815	-0.0015678	-0.24791	2.8575E-6
	123.12720	4.91980	20.86000	0.40181	20.815	-0.0013521	-0.22619	2.6098E-6
	128.25750	4.91980	20.86000	0.36614	20.815	-0.0011497	-0.20475	2.3650E-6
	133.38780	4.91980	20.86000	0.33225	20.815	-966.99E-6	-0.18422	2.1304E-6
	138.51810	4.91980	20.86000	0.30056	20.815	-806.67E-6	-0.16503	1.9105E-6
	143.64840	4.91980	20.86000	0.27129	20.815	-669.10E-6	-0.14740	1.7083E-6
	148.77870	4.91980	20.86000	0.24454	20.815	-553.00E-6	-0.13143	1.5246E-6
	153.90900	4.91980	20.86000	0.22028	20.815	-456.19E-6	-0.11709	1.3596E-6 !
	0.00000	9.83960	20.86000	0.25070	20.815	-279.85E-6	-0.095679	1.1143E-6
	5.13030	9.83960	20.86000	0.28022	20.815	-337.27E-6	-0.10729	1.2487E-6
	10.26060	9.83960	20.86000	0.31311	20.815	-407.02E-6	-0.12042	1.4004E-6
	15.39090	9.83960	20.86000	0.34946	20.815	-491.49E-6	-0.13519	1.5710E-6
	20.52120	9.83960	20.86000	0.38920	20.815	-593.41E-6	-0.15172	1.7617E-6
	25.65150	9.83960	20.86000	0.43204	20.815	-715.69E-6	-0.17010	1.9733E-6
	30.78180	9.83960	20.86000	0.47740	20.815	-861.46E-6	-0.19035	2.2061E-6
	35.91210	9.83960	20.86000	0.52434	20.815	-0.0010339	-0.21242	2.4593E-6
	41.04240	9.83960	20.86000	0.57159	20.815	-0.0012363	-0.23614	2.7309E-6
	46.17270	9.83960	20.86000	0.61755	20.815	-0.0014714	-0.26125	3.0175E-6
	51.30300	9.83960	20.86000	0.66039	20.815	-0.0017405	-0.28730	3.3142E-6
	56.43330	9.83960	20.86000	0.69819	20.815	-0.0020416	-0.31369	3.6135E-6
	61.56360	9.83960	20.86000	0.72911	20.815	-0.0023667	-0.33955	3.9059E-6
	66.69390	9.83960	20.86000	0.75157	20.815	-0.0026999	-0.36377	4.1788E-6
	71.82420	9.83960	20.86000	0.76442	20.815	-0.0030171	-0.38500	4.4171E-6
	76.95450	9.83960	20.86000	0.76699	20.815	-0.0032885	-0.40175	4.6042E-6
	82.08480	9.83960	20.86000	0.75921	20.815	-0.0034838	-0.41254	4.7242E-6
	87.21510	9.83960	20.86000	0.74155	20.815	-0.0035780	-0.41621	4.7639E-6
	92.34540	9.83960	20.86000	0.71500	20.815	-0.0035576	-0.41211	4.7165E-6
	97.47570	9.83960	20.86000	0.68095	20.815	-0.0034233	-0.40035	4.5830E-6
	102.60600	9.83960	20.86000	0.64109	20.815	-0.0031907	-0.38174	4.3726E-6
	107.73630	9.83960	20.86000	0.59723	20.815	-0.0028866	-0.35775	4.1014E-6
	112.86660	9.83960	20.86000	0.55116	20.815	-0.0025427	-0.33014	3.7892E-6
	117.99690	9.83960	20.86000	0.50453	20.815	-0.0021892	-0.30072	3.4559E-6
	123.12720	9.83960	20.86000	0.45872	20.815	-0.0018499	-0.27105	3.1193E-6
	128.25750	9.83960	20.86000	0.41480	20.815	-0.0015404	-0.24234	2.7929E-6
	133.38780	9.83960	20.86000	0.37353	20.815	-0.0012689	-0.21540	2.4860E-6
	138.51810	9.83960	20.86000	0.33537	20.815	-0.0010375	-0.19070	2.2040E-6
	143.64840	9.83960	20.86000	0.30054	20.815	-844.21E-6	-0.16845	1.9493E-6
	148.77870	9.83960	20.86000	0.26904	20.815	-685.30E-6	-0.14863	1.7221E-6
	153.90900	9.83960	20.86000	0.24078	20.815	-555.98E-6	-0.13115	1.5213E-6 !
	0.00000	14.75940	20.86000	0.27422	20.815	-328.00E-6	-0.10517	1.2240E-6
	5.13030	14.75940	20.86000	0.30866	20.815	-399.99E-6	-0.11882	1.3819E-6
	10.26060	14.75940	20.86000	0.34748	20.815	-488.81E-6	-0.13444	1.5624E-6
	15.39090	14.75940	20.86000	0.39089	20.815	-598.17E-6	-0.15226	1.7678E-6
	20.52120	14.75940	20.86000	0.43895	20.815	-732.33E-6	-0.17249	2.0008E-6
	25.65150	14.75940	20.86000	0.49139	20.815	-896.02E-6	-0.19530	2.2631E-6
	30.78180	14.75940	20.86000	0.54757	20.815	-0.0010945	-0.22081	2.5558E-6
	35.91210	14.75940	20.86000	0.60635	20.815	-0.0013335	-0.24903	2.8789E-6
	41.04240	14.75940	20.86000	0.66610	20.815	-0.0016197	-0.27984	3.2308E-6
	46.17270	14.75940	20.86000	0.72468	20.815	-0.0019609	-0.31298	3.6081E-6
	51.30300	14.75940	20.86000	0.77965	20.815	-0.0023649	-0.34802	4.0055E-6
	56.43330	14.75940	20.86000	0.82839	20.815	-0.0028353	-0.38423	4.4144E-6
	61.56360	14.75940	20.86000	0.86842	20.815	-0.0033651	-0.42057	4.8227E-6
	66.69390	14.75940	20.86000	0.89755	20.815	-0.0039304	-0.45548	5.2129E-6
	71.82420	14.75940	20.86000	0.91416	20.815	-0.0044877	-0.48693	5.5628E-6
	76.95450	14.75940	20.86000	0.91737	20.815	-0.0049788	-0.51247	5.8456E-6
	82.08480	14.75940	20.86000	0.90708	20.815	-0.0053414	-0.52959	6.0338E-6
	87.21510	14.75940	20.86000	0.88396	20.815	-0.0055234	-0.53612	6.1042E-6
	92.34540	14.75940	20.86000	0.84941	20.815	-0.0054952	-0.53083	6.0430E-6
	97.47570	14.75940	20.86000	0.80535	20.815	-0.0052579	-0.51374	5.8507E-6
	102.60600	14.75940	20.86000	0.75407	20.815	-0.0048437	-0.48631	5.5429E-6
	107.73630	14.75940	20.86000	0.69803	20.815	-0.0043085	-0.45104	5.1474E-6
	112.86660	14.75940	20.86000	0.63962	20.815	-0.0037163	-0.41100	4.6978E-6
	117.99690	14.75940	20.86000	0.58102	20.815	-0.0031248	-0.36913	4.2267E-6
	123.12720	14.75940	20.86000	0.52403	20.815	-0.0025755	-0.32784	3.7610E-6
	128.25750	14.75940	20.86000	0.46999	20.815	-0.0020916	-0.28883	3.3198E-6
	133.38780	14.75940	20.86000	0.41979	20.815	-0.0016815	-0.25310	2.9144E-6
	138.51810	14.75940	20.86000	0.37392	20.815	-0.0013433	-0.22109	2.5502E-6
	143.64840	14.75940	20.86000	0.33253	20.815	-0.0010697	-0.19286	2.2282E-6
	148.77870	14.75940	20.86000	0.29554	20.815	-851.15E-6	-0.16823	1.9465E-6
	153.90900	14.75940	20.86000	0.26271	20.815	-678.04E-6	-0.14689	1.7019E-6 !
	0.00000	19.67920	20.86000	0.29922	20.815	-384.41E-6	-0.11551	1.3435E-6
	5.13030	19.67920	20.86000	0.33923	20.815	-474.72E-6	-0.13156	1.5289E-6
	10.26060	19.67920	20.86000	0.38486	20.815	-588.05E-6	-0.15017	1.7436E-6
	15.39090	19.67920	20.86000	0.43654	20.815	-730.06E-6	-0.17170	1.9915E-6

Name	Location			Displacement		Stresses		
	X [m]	Y [m]	Z[Level] [mOD]	Z [mm]	Calc Level [mOD]	Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]
	20.52120	19.67920	20.86000	0.49446	20.815	-907.36E-6	-0.19652	2.2769E-6
	25.65150	19.67920	20.86000	0.55847	20.815	-0.0011273	-0.22497	2.6034E-6
	30.78180	19.67920	20.86000	0.62783	20.815	-0.0013981	-0.25729	2.9736E-6
	35.91210	19.67920	20.86000	0.70116	20.815	-0.0017285	-0.29362	3.3888E-6
	41.04240	19.67920	20.86000	0.77631	20.815	-0.0021304	-0.33392	3.8481E-6
	46.17270	19.67920	20.86000	0.85049	20.815	-0.0026215	-0.37802	4.3490E-6
	51.30300	19.67920	20.86000	0.92048	20.815	-0.0032267	-0.42558	4.8864E-6
	56.43330	19.67920	20.86000	0.98286	20.815	-0.0039707	-0.47594	5.4518E-6
	61.56360	19.67920	20.86000	1.0343	20.815	-0.0048598	-0.52792	6.0313E-6
	66.69390	19.67920	20.86000	1.0718	20.815	-0.0058616	-0.57949	6.6019E-6
	71.82420	19.67920	20.86000	1.0932	20.815	-0.0068951	-0.62756	7.1302E-6
	76.95450	19.67920	20.86000	1.0972	20.815	-0.0078387	-0.66806	7.5728E-6
	82.08480	19.67920	20.86000	1.0837	20.815	-0.0085565	-0.69645	7.8810E-6
	87.21510	19.67920	20.86000	1.0537	20.815	-0.0089325	-0.70859	8.0104E-6
	92.34540	19.67920	20.86000	1.0091	20.815	-0.0088984	-0.70190	7.9329E-6
	97.47570	19.67920	20.86000	0.95253	20.815	-0.0084538	-0.67621	7.6468E-6
	102.60600	19.67920	20.86000	0.88706	20.815	-0.0076704	-0.63410	7.1797E-6
	107.73630	19.67920	20.86000	0.81592	20.815	-0.0066732	-0.58028	6.5825E-6
	112.86660	19.67920	20.86000	0.74228	20.815	-0.0056017	-0.52026	5.9151E-6
	117.99690	19.67920	20.86000	0.66896	20.815	-0.0045710	-0.45906	5.2324E-6
	123.12720	19.67920	20.86000	0.59831	20.815	-0.0036531	-0.40042	4.5758E-6
	128.25750	19.67920	20.86000	0.53201	20.815	-0.0028785	-0.34663	3.9711E-6
	133.38780	19.67920	20.86000	0.47113	20.815	-0.0022487	-0.29875	3.4307E-6
	138.51810	19.67920	20.86000	0.41616	20.815	-0.0017492	-0.25698	2.9577E-6
	143.64840	19.67920	20.86000	0.36716	20.815	-0.0013594	-0.22105	2.5492E-6
	148.77870	19.67920	20.86000	0.32389	20.815	-0.0010581	-0.19040	2.1997E-6
	153.90900	19.67920	20.86000	0.28592	20.815	-826.31E-6	-0.16438	1.9022E-6 !
	0.00000	24.59900	20.86000	0.32544	20.815	-450.23E-6	-0.12670	1.4728E-6
	5.13030	24.59900	20.86000	0.37167	20.815	-563.57E-6	-0.14555	1.6902E-6
	10.26060	24.59900	20.86000	0.42501	20.815	-708.43E-6	-0.16771	1.9454E-6
	15.39090	24.59900	20.86000	0.48618	20.815	-893.45E-6	-0.19376	2.2450E-6
	20.52120	24.59900	20.86000	0.55561	20.815	-0.0011289	-0.22431	2.5956E-6
	25.65150	24.59900	20.86000	0.63324	20.815	-0.0014258	-0.25995	3.0038E-6
	30.78180	24.59900	20.86000	0.71826	20.815	-0.0017953	-0.30116	3.4751E-6
	35.91210	24.59900	20.86000	0.80880	20.815	-0.0022474	-0.34827	4.0126E-6
	41.04240	24.59900	20.86000	0.90199	20.815	-0.0027955	-0.40135	4.6169E-6
	46.17270	24.59900	20.86000	0.99413	20.815	-0.0034719	-0.46036	5.2864E-6
	51.30300	24.59900	20.86000	1.0813	20.815	-0.0043460	-0.52530	6.0185E-6
	56.43330	24.59900	20.86000	1.1593	20.815	-0.0055152	-0.59604	6.8085E-6
	61.56360	24.59900	20.86000	1.2242	20.815	-0.0070490	-0.67176	7.6440E-6
	66.69390	24.59900	20.86000	1.2718	20.815	-0.0089214	-0.75006	8.4980E-6
	71.82420	24.59900	20.86000	1.2990	20.815	-0.010975	-0.82636	9.3220E-6
	76.95450	24.59900	20.86000	1.3040	20.815	-0.012934	-0.89367	10.044E-6
	82.08480	24.59900	20.86000	1.2867	20.815	-0.014476	-0.94342	10.574E-6
	87.21510	24.59900	20.86000	1.2485	20.815	-0.015323	-0.96724	10.824E-6
	92.34540	24.59900	20.86000	1.1922	20.815	-0.015305	-0.95936	10.732E-6
	97.47570	24.59900	20.86000	1.1211	20.815	-0.014411	-0.91896	10.289E-6
	102.60600	24.59900	20.86000	1.0393	20.815	-0.012811	-0.85100	9.5469E-6
	107.73630	24.59900	20.86000	0.95064	20.815	-0.010815	-0.76490	8.6056E-6
	112.86660	24.59900	20.86000	0.85914	20.815	-0.0087541	-0.67130	7.5786E-6
	117.99690	24.59900	20.86000	0.76842	20.815	-0.0068709	-0.57908	6.5615E-6
	123.12720	24.59900	20.86000	0.68156	20.815	-0.0052831	-0.49395	5.6172E-6
	128.25750	24.59900	20.86000	0.60077	20.815	-0.0040133	-0.41867	4.7775E-6
	133.38780	24.59900	20.86000	0.52737	20.815	-0.0030313	-0.35392	4.0514E-6
	138.51810	24.59900	20.86000	0.46187	20.815	-0.0022872	-0.29919	3.4345E-6
	143.64840	24.59900	20.86000	0.40417	20.815	-0.0017297	-0.25339	2.9161E-6
	148.77870	24.59900	20.86000	0.35382	20.815	-0.0013142	-0.21527	2.4829E-6
	153.90900	24.59900	20.86000	0.31014	20.815	-0.0010046	-0.18361	2.1219E-6 !
	0.00000	29.51880	20.86000	0.35251	20.815	-526.65E-6	-0.13873	1.6113E-6
	5.13030	29.51880	20.86000	0.40552	20.815	-668.86E-6	-0.16080	1.8656E-6
	10.26060	29.51880	20.86000	0.46741	20.815	-854.28E-6	-0.18716	2.1689E-6
	15.39090	29.51880	20.86000	0.53925	20.815	-0.0010963	-0.21870	2.5308E-6
	20.52120	29.51880	20.86000	0.62176	20.815	-0.0014108	-0.25639	2.9626E-6
	25.65150	29.51880	20.86000	0.71500	20.815	-0.0018145	-0.30126	3.4756E-6
	30.78180	29.51880	20.86000	0.81782	20.815	-0.0023194	-0.35422	4.0799E-6
	35.91210	29.51880	20.86000	0.92740	20.815	-0.0029225	-0.41582	4.7824E-6
	41.04240	29.51880	20.86000	1.0393	20.815	-0.0036054	-0.48613	5.5844E-6
	46.17270	29.51880	20.86000	1.1485	20.815	-0.0043858	-0.56506	6.4843E-6
	51.30300	29.51880	20.86000	1.2508	20.815	-0.0054413	-0.65339	7.4849E-6
	56.43330	29.51880	20.86000	1.3430	20.815	-0.0071437	-0.75297	8.5948E-6
	61.56360	29.51880	20.86000	1.4212	20.815	-0.0098337	-0.86497	9.8159E-6
	66.69390	29.51880	20.86000	1.4798	20.815	-0.013577	-0.98760	11.125E-6
	71.82420	29.51880	20.86000	1.5138	20.815	-0.018059	-1.1144	12.457E-6
	76.95450	29.51880	20.86000	1.5202	20.815	-0.022575	-1.2332	13.693E-6
	82.08480	29.51880	20.86000	1.4990	20.815	-0.026262	-1.3266	14.661E-6
	87.21510	29.51880	20.86000	1.4527	20.815	-0.028409	-1.3767	15.174E-6
	92.34540	29.51880	20.86000	1.3852	20.815	-0.028546	-1.3697	15.086E-6
	97.47570	29.51880	20.86000	1.3006	20.815	-0.026578	-1.3023	14.364E-6
	102.60600	29.51880	20.86000	1.2033	20.815	-0.022952	-1.1850	13.114E-6
	107.73630	29.51880	20.86000	1.0976	20.815	-0.018555	-1.0386	11.549E-6
	112.86660	29.51880	20.86000	0.98766	20.815	-0.014276	-0.88545	9.9000E-6
	117.99690	29.51880	20.86000	0.87799	20.815	-0.010639	-0.74159	8.3380E-6
	123.12720	29.51880	20.86000	0.77289	20.815	-0.0077900	-0.61518	6.9531E-6
	128.25750	29.51880	20.86000	0.67557	20.815	-0.0056608	-0.50841	5.7738E-6
	133.38780	29.51880	20.86000	0.58788	20.815	-0.0041105	-0.42026	4.7928E-6
	138.51810	29.51880	20.86000	0.51046	20.815	-0.0029961	-0.34837	3.9874E-6
	143.64840	29.51880	20.86000	0.44305	20.815	-0.0021986	-0.29006	3.3304E-6
	148.77870	29.51880	20.86000	0.38490	20.815	-0.0016272	-0.24281	2.7954E-6
	153.90900	29.51880	20.86000	0.33502	20.815	-0.0012159	-0.20447	2.3594E-6 !
	0.00000	34.43860	20.86000	0.37989	20.815	-614.77E-6	-0.15150	1.7583E-6
	5.13030	34.43860	20.86000	0.44012	20.815	-792.96E-6	-0.17726	2.0546E-6
	10.26060	34.43860	20.86000	0.51125	20.815	-0.0010305	-0.20855	2.4139E-6
	15.39090	34.43860	20.86000	0.59475	20.815	-0.0013482	-0.24670	2.8509E-6
	20.52120	34.43860	20.86000	0.69169	20.815	-0.0017720	-0.29329	3.3834E-6
	25.65150	34.43860	20.86000	0.80208	20.815	-0.0023282	-0.35009	4.0312E-6
	30.78180	34.43860	20.86000	0.92386	20.815	-0.0030246	-0.41879	4.8138E-6
	35.91210	34.43860	20.86000	1.0518	20.815	-0.0037947	-0.50032	5.7445E-6
	41.04240	34.43860	20.86000	1.1771	20.815	-0.0044032	-0.59396	6.8232E-6
	46.17270	34.43860	20.86000	1.2910	20.815	-0.0045157	-0.69786	8.0400E-6
	51.30300	34.43860	20.86000	1.3917	20.815	-0.0044592	-0.81370	9.4030E-6
	56.43330	34.43860	20.86000	1.4843	20.815	-0.0059046	-0.95049	10.959E-6
	61.56360	34.43860	20.86000	1.5693	20.815	-0.010476	-1.1173	12.758E-6
	66.69390	34.43860	20.86000	1.6378	20.815	-0.018642	-1.3161	14.806E-6
	71.82420	34.43860	20.86000	1.6796	20.815	-0.029860	-1.5400	17.041E-6
	76.95450	34.43860	20.86000	1.6886	20.815	-0.042013	-1.7668	19.277E-6
	82.08480	34.43860	20.86000	1.6651	20.815	-0.052270	-1.9589	21.172E-6
	87.21510	34.43860	20.86000	1.6149	20.815	-0.058732	-2.0746	22.304E-6
	92.34540	34.43860	20.86000	1.5439	20.815	-0.059855	-2.0777	22.302E-6
	97.47570	34.43860	20.86000	1.4564	20.815	-0.054970	-1.9560	21.043E-6
	102.60600	34.43860	20.86000	1.3555	20.815	-0.045412	-1.7337	18.768E-6
	107.73630	34.43860	20.86000	1.2428	20.815	-0.034303	-1.4636	15.986E-6
	112.86660	34.43860	20.86000	1.1203	20.815	-0.024476	-1.1973	13.204E-6
	117.99690	34.43860	20.86000	0.99369	20.815	-0.016993	-0.96422	10.730E-6
	123.12720	34.43860	20.86000	0.86997	20.815	-0.011692	-0.77247	8.6636E-6
	128.25750	34.43860	20.86000	0.75483	20.815	-0.0080538	-0.61950	6.9947E-6
	133.38780	34.43860	20.86000	0.65148	20.815	-0.0055878	-0.49915	5.6676E-6
	138.51810	34.43860	20.86000	0.56099	20.815	-0.0039184	-0.40488	4.6188E-6
	143.64840	34.43860	20.86000	0.48301	20.815	-0.0027826	-0.33097	3.7904E-6
	148.77870	34.43860	20.86000	0.41648	20.815	-0.0020029	-0.27277	3.1342E-6
	153.90900	34.43860	20.86000	0.36002	20.815	-0.0014615	-0.22667	2.6116E-6 !
	0.00000	39.35840	20.86000	0.40691	20.815	-715.43E-6	-0.16487	1.9118E-6
	5.13030	39.35840	20.86000	0.47462	20.815	-938.15E-6	-0.19479	2.2555E-6
	10.26060	39.35840	20.86000	0.55541	20.815	-0.0012424	-0.23178	2.6794E-6
	15.39090	39.35840	20.86000	0.65123	20.815	-0.0016609	-0.27781	3.2054E-6
	20.52120	39.35840	20.86000	0.76346	20.815	-0.0022376	-0.33541	3.8618E-6
	25.65150	39.35840	20.86000	0.89176	20.815	-0.0030206	-0.40769	4.6834E-6
	30.78180	39.35840	20.86000	1.0319	20.815	-0.0040155	-0.49795	5.7089E-6
	35.91210	39.35840	20.86000	1.1725	20.815	-0.0049700	-0.60813	6.9697E-6
	41.04240	39.35840	20.86000	1.2916	20.815	-0.0046049	-0.73449	8.4673E-6
	46.17270	39.35840	20.86000	1.3629	20.815	715.51E-6	-0.86339	10.169E-6
	51.30300	39.35840	20.86000	1.3914	20.815	0.012899	-0.98949	12.080E-6
	56.43330	39.35840	20.86000	1.4296	20.815	0.020819	-1.1535	14.286E-6
	61.56360	39.35840	20.86000	1.4992	20.815	0.014932	-1.3973	16.943E-6
	66.69390	39.35840	20.86000	1.5745	20.815	-0.0049931	-1.7306	20.157E-6
	71.82420	39.35840	20.86000	1.6278	20.815	-0.039981	-2.1611	23.982E-6
	76.95450	39.35840	20.86000	1.6429	20.815	-0.082340	-2.6484	28.214E-6
	82.08480	39.35840	20.86000	1.6214	20.815	-0.11804	-3.0940	32.191E-6
	87.21510	39.35840	20.86000	1.5840	20.815	-0.14388	-3.4000	34.875E-6
	92.34540	39.35840	20.86000	1.5408	20.815	-0.15178	-3.4535	35.225E-6
	97.47570	39.35840	20.86000	1.4902	20.815	-0.13724	-3.2066	32.837E-6

Name	Location X [m]	Location Y [m]	Z[Level] [mOD]	Displacement Z [mm]	Calc Level [mOD]	Stresses Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]
	102.60600	39.35840	20.86000	1.4316	20.815	-0.10504	-2.7226	28.285E-6
	107.73630	39.35840	20.86000	1.3521	20.815	-0.070212	-2.1614	22.919E-6
	112.86660	39.35840	20.86000	1.2412	20.815	-0.044409	-1.6628	17.971E-6
	117.99690	39.35840	20.86000	1.1079	20.815	-0.027945	-1.2706	13.943E-6
	123.12720	39.35840	20.86000	0.96869	20.815	-0.017779	-0.97507	10.829E-6
	128.25750	39.35840	20.86000	0.83593	20.815	-0.011498	-0.75508	8.4662E-6
	133.38780	39.35840	20.86000	0.71629	20.815	-0.0075771	-0.59124	6.6794E-6
	138.51810	39.35840	20.86000	0.61204	20.815	-0.0050936	-0.46845	5.3243E-6
	143.64840	39.35840	20.86000	0.52298	20.815	-0.0034930	-0.37558	4.2896E-6
	148.77870	39.35840	20.86000	0.44774	20.815	-0.0024423	-0.30460	3.4926E-6
	153.90900	39.35840	20.86000	0.38452	20.815	-0.0017395	-0.24974	2.8729E-6 !
	0.00000	44.27820	20.86000	0.43279	20.815	-829.01E-6	-0.17863	2.0695E-6
	5.13030	44.27820	20.86000	0.50796	20.815	-0.0011061	-0.21315	2.4653E-6
	10.26060	44.27820	20.86000	0.59847	20.815	-0.0014948	-0.25660	2.9621E-6
	15.39090	44.27820	20.86000	0.70679	20.815	-0.0020465	-0.31184	3.5917E-6
	20.52120	44.27820	20.86000	0.83453	20.815	-0.0028374	-0.38285	4.3980E-6
	25.65150	44.27820	20.86000	0.98053	20.815	-0.0039690	-0.47502	5.4412E-6
	30.78180	44.27820	20.86000	1.1366	20.815	-0.0055007	-0.59528	6.8001E-6
	35.91210	44.27820	20.86000	1.2781	20.815	-0.0069118	-0.74978	8.5656E-6
	41.04240	44.27820	20.86000	1.3452	20.815	-0.0033415	-0.93072	10.817E-6
	46.17270	44.27820	20.86000	1.2211	20.815	0.036502	-1.0715	13.876E-6
	51.30300	44.27820	20.86000	0.86494	20.815	0.18704	-1.0636	19.088E-6
	56.43330	44.27820	20.86000	0.64865	20.815	0.30964	-1.1047	23.893E-6
	61.56360	44.27820	20.86000	0.66108	20.815	0.31718	-1.4271	27.947E-6
	66.69390	44.27820	20.86000	0.75001	20.815	0.26351	-1.9824	32.579E-6
	71.82420	44.27820	20.86000	0.84109	20.815	0.10324	-2.9161	37.900E-6
	76.95450	44.27820	20.86000	0.89482	20.815	-0.14136	-4.2024	44.392E-6
	82.08480	44.27820	20.86000	0.86113	20.815	-0.30996	-5.4100	52.636E-6
	87.21510	44.27820	20.86000	0.89488	20.815	-0.48735	-6.4220	58.274E-6
	92.34540	44.27820	20.86000	1.0010	20.815	-0.54912	-6.6937	59.289E-6
	97.47570	44.27820	20.86000	1.1118	20.815	-0.49157	-6.1014	54.359E-6
	102.60600	44.27820	20.86000	1.2579	20.815	-0.32380	-4.7831	44.784E-6
	107.73630	44.27820	20.86000	1.3518	20.815	-0.16505	-3.3824	33.923E-6
	112.86660	44.27820	20.86000	1.3229	20.815	-0.085073	-2.3661	24.801E-6
	117.99690	44.27820	20.86000	1.2095	20.815	-0.046891	-1.6877	18.176E-6
	123.12720	44.27820	20.86000	1.0633	20.815	-0.027145	-1.2306	13.502E-6
	128.25750	44.27820	20.86000	0.91526	20.815	-0.016338	-0.91625	10.189E-6
	133.38780	44.27820	20.86000	0.77978	20.815	-0.0101178	-0.69564	7.8143E-6
	138.51810	44.27820	20.86000	0.66177	20.815	-0.0065428	-0.53778	6.0878E-6
	143.64840	44.27820	20.86000	0.56159	20.815	-0.0043281	-0.42272	4.8140E-6
	148.77870	44.27820	20.86000	0.47766	20.815	-0.0029388	-0.33736	3.8600E-6
	153.90900	44.27820	20.86000	0.40776	20.815	-0.0020434	-0.27297	3.1351E-6 !
	0.00000	49.19800	20.86000	0.45664	20.815	-955.13E-6	-0.19249	2.2279E-6
	5.13030	49.19800	20.86000	0.53892	20.815	-0.0012977	-0.23196	2.6796E-6
	10.26060	49.19800	20.86000	0.63878	20.815	-0.0017912	-0.28254	3.2565E-6
	15.39090	49.19800	20.86000	0.75918	20.815	-0.0025156	-0.34827	4.0032E-6
	20.52120	49.19800	20.86000	0.90188	20.815	-0.0036008	-0.43511	4.9852E-6
	25.65150	49.19800	20.86000	1.0645	20.815	-0.0052599	-0.55210	6.3012E-6
	30.78180	49.19800	20.86000	1.2330	20.815	-0.0077991	-0.71327	8.1054E-6
	35.91210	49.19800	20.86000	1.3622	20.815	-0.011082	-0.93939	10.646E-6
	41.04240	49.19800	20.86000	1.3164	20.815	-0.0062737	-1.2459	14.418E-6
	46.17270	49.19800	20.86000	0.62921	20.815	0.17281	-1.5370	24.150E-6
	51.30300	49.19800	20.86000	-4.3202	20.815	-116.31	-299.24	-583.84E-6
	56.43330	49.19800	20.86000	-4.9094	20.815	-3.0775	-74.370	765.30E-6
	61.56360	49.19800	20.86000	-4.3940	20.815	3.8536	-17.589	342.49E-6
	66.69390	49.19800	20.86000	-3.9945	20.815	3.8854	-11.541	272.54E-6
	71.82420	49.19800	20.86000	-3.5134	20.815	2.9626	-9.9881	221.77E-6
	76.95450	49.19800	20.86000	-2.7146	20.815	0.073284	-9.3548	112.49E-6
	82.08480	49.19800	20.86000	-3.0488	20.815	-0.56617	-13.777	141.90E-6
	87.21510	49.19800	20.86000	-2.5136	20.815	-3.2935	-17.546	90.056E-6
	92.34540	49.19800	20.86000	-1.3479	20.815	-3.6972	-16.922	68.499E-6
	97.47570	49.19800	20.86000	-0.73791	20.815	-3.4250	-15.255	58.507E-6
	102.60600	49.19800	20.86000	0.30360	20.815	-1.7013	-10.156	59.362E-6
	107.73630	49.19800	20.86000	1.1131	20.815	-0.44028	-5.5827	50.072E-6
	112.86660	49.19800	20.86000	1.3329	20.815	-0.16704	-3.4020	34.082E-6
	117.99690	49.19800	20.86000	1.2862	20.815	-0.078738	-2.2355	23.489E-6
	123.12720	49.19800	20.86000	1.1472	20.815	-0.041021	-1.5402	16.650E-6
	128.25750	49.19800	20.86000	0.98854	20.815	-0.022852	-1.0999	12.117E-6
	133.38780	49.19800	20.86000	0.83895	20.815	-0.013426	-0.80899	9.0315E-6
	138.51810	49.19800	20.86000	0.70800	20.815	-0.0082476	-0.61021	6.8787E-6
	143.64840	49.19800	20.86000	0.59725	20.815	-0.0052646	-0.47045	5.3418E-6
	148.77870	49.19800	20.86000	0.50508	20.815	-0.0034744	-0.36969	4.2210E-6
	153.90900	49.19800	20.86000	0.42889	20.815	-0.0023609	-0.29543	3.3877E-6 !
	0.00000	54.11780	20.86000	0.47755	20.815	-0.0010924	-0.20606	2.3825E-6
	5.13030	54.11780	20.86000	0.56624	20.815	-0.0015119	-0.25072	2.8924E-6
	10.26060	54.11780	20.86000	0.67458	20.815	-0.0021332	-0.30893	3.5545E-6
	15.39090	54.11780	20.86000	0.80597	20.815	-0.0030754	-0.38617	4.4287E-6
	20.52120	54.11780	20.86000	0.96227	20.815	-0.0045482	-0.49091	5.6074E-6
	25.65150	54.11780	20.86000	1.1398	20.815	-0.0069479	-0.63705	7.2399E-6
	30.78180	54.11780	20.86000	1.3183	20.815	-0.011116	-0.84953	9.5893E-6
	35.91210	54.11780	20.86000	1.4305	20.815	-0.019123	-1.1794	13.183E-6
	41.04240	54.11780	20.86000	1.2569	20.815	-0.036114	-1.7560	19.358E-6
	46.17270	54.11780	20.86000	-0.076592	20.815	-0.036775	-3.1437	35.640E-6
	51.30300	54.11780	20.86000	-9.2909	20.815	-122.24	-367.56	9.8853E-6
	56.43330	54.11780	20.86000	-12.009	20.815	-122.22	-371.56	57.649E-6
	61.56360	54.11780	20.86000	-12.551	20.815	-122.75	-373.88	65.949E-6
	66.69390	54.11780	20.86000	-12.586	20.815	-122.20	-374.23	89.803E-6
	71.82420	54.11780	20.86000	-12.378	20.815	-118.31	-372.52	206.86E-6
	76.95450	54.11780	20.86000	-12.842	20.815	-127.07	-382.25	12.228E-6
	82.08480	54.11780	20.86000	-12.985	20.815	-126.13	-386.34	93.508E-6
	87.21510	54.11780	20.86000	-13.113	20.815	-137.32	-399.20	-150.00E-6
	92.34540	54.11780	20.86000	-12.228	20.815	-139.02	-401.50	-182.66E-6
	97.47570	54.11780	20.86000	-10.840	20.815	-138.25	-397.49	-202.87E-6
	102.60600	54.11780	20.86000	-3.0112	20.815	-6.6903	-24.823	55.835E-6
	107.73630	54.11780	20.86000	0.56519	20.815	-1.0553	-9.0197	68.778E-6
	112.86660	54.11780	20.86000	1.2604	20.815	-0.31784	-4.8020	45.215E-6
	117.99690	54.11780	20.86000	1.3315	20.815	-0.12872	-2.9062	29.608E-6
	123.12720	54.11780	20.86000	1.2150	20.815	-0.060197	-1.8915	20.102E-6
	128.25750	54.11780	20.86000	1.0515	20.815	-0.031025	-1.2963	14.136E-6
	133.38780	54.11780	20.86000	0.89055	20.815	-0.017210	-0.92466	10.257E-6
	138.51810	54.11780	20.86000	0.74837	20.815	-0.010123	-0.68144	7.6494E-6
	143.64840	54.11780	20.86000	0.62827	20.815	-0.0062492	-0.51602	5.8425E-6
	148.77870	54.11780	20.86000	0.52879	20.815	-0.0040173	-0.39983	4.5560E-6
	153.90900	54.11780	20.86000	0.44705	20.815	-0.0026733	-0.31596	3.6180E-6 !
	0.00000	59.03760	20.86000	0.49466	20.815	-0.0012378	-0.21889	2.5281E-6
	5.13030	59.03760	20.86000	0.58869	20.815	-0.0017458	-0.26878	3.0963E-6
	10.26060	59.03760	20.86000	0.70412	20.815	-0.0025189	-0.33487	3.8455E-6
	15.39090	59.03760	20.86000	0.84474	20.815	-0.0037290	-0.42424	4.8530E-6
	20.52120	59.03760	20.86000	1.0125	20.815	-0.0056918	-0.54823	6.2405E-6
	25.65150	59.03760	20.86000	1.2025	20.815	-0.0090415	-0.72619	8.2133E-6
	30.78180	59.03760	20.86000	1.3900	20.815	-0.015288	-0.99501	11.152E-6
	35.91210	59.03760	20.86000	1.4915	20.815	-0.029338	-1.4392	15.876E-6
	41.04240	59.03760	20.86000	1.2373	20.815	-0.078379	-2.3247	24.550E-6
	46.17270	59.03760	20.86000	-0.40963	20.815	-0.48967	-5.1131	42.814E-6
	51.30300	59.03760	20.86000	-10.540	20.815	-128.33	-377.10	-92.842E-6
	56.43330	59.03760	20.86000	-14.209	20.815	-134.84	-390.29	-167.33E-6
	61.56360	59.03760	20.86000	-15.266	20.815	-137.78	-396.89	-193.43E-6
	66.69390	59.03760	20.86000	-15.571	20.815	-138.22	-399.18	-181.73E-6
	71.82420	59.03760	20.86000	-15.843	20.815	-140.33	-402.03	-222.76E-6
	76.95450	59.03760	20.86000	-16.340	20.815	-145.23	-407.11	-335.64E-6
	82.08480	59.03760	20.86000	-16.406	20.815	-143.65	-410.69	-238.18E-6
	87.21510	59.03760	20.86000	-16.555	20.815	-144.08	-415.57	-195.81E-6
	92.34540	59.03760	20.86000	-16.511	20.815	-146.21	-419.19	-228.27E-6
	97.47570	59.03760	20.86000	-15.166	20.815	-145.64	-415.58	-250.81E-6
	102.60600	59.03760	20.86000	-5.9523	20.815	-11.446	-40.984	78.082E-6
	107.73630	59.03760	20.86000	-0.078965	20.815	-2.1524	-13.284	80.213E-6
	112.86660	59.03760	20.86000	1.1345	20.815	-0.56604	-6.4757	56.132E-6
	117.99690	59.03760	20.86000	1.3470	20.815	-0.19855	-3.6458	35.837E-6
	123.12720	59.03760	20.86000	1.2633	20.815	-0.083881	-2.2530	23.514E-6
	128.25750	59.03760	20.86000	1.1003	20.815	-0.040252	-1.4875	16.058E-6
	133.38780	59.03760	20.86000	0.93154	20.815	-0.021204	-1.0326	11.384E-6
	138.51810	59.03760	20.86000	0.78062	20.815	-0.012002	-0.74569	8.3380E-6
	143.64840	59.03760	20.86000	0.65301	20.815	-0.0071957	-0.55604	6.2792E-6
	148.77870	59.03760	20.86000	0.54764	20.815	-0.0045224	-0.42575	4.8427E-6
	153.90900	59.03760	20.86000	0.46141	20.815	-0.0029564	-0.33331	3.8119E-6 !
	0.00000	63.95740	20.86000	0.50718	20.815	-0.0013867	-0.23045	2.6587E-6
	5.13030	63.95740	20.86000	0.60517	20.815	-0.0019932	-0.28539	3.2828E-6
	10.26060	63.95740	20.86000	0.72585	20.815	-0.0029420	-0.35925	4.1172E-6
	15.39090	63.95740	20.86000	0.87330	20.815	-0.0044750	-0.46091	5.2575E-6
	20.52120	63.95740	20.86000	1.0495	20.815	-0.0070478	-0.60475	6.8568E-6

Name	Location			Displacement	Stresses			
	X [m]	Y [m]	Z[Level] [mOD]	Z [mm]	Calc Level [mOD]	Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]
	25.65150	63.95740	20.86000	1.2488	20.815	-0.011584	-0.81561	9.1743E-6
	30.78180	63.95740	20.86000	1.4436	20.815	-0.020212	-1.1405	12.688E-6
	35.91210	63.95740	20.86000	1.5425	20.815	-0.039169	-1.6835	18.399E-6
	41.04240	63.95740	20.86000	1.2586	20.815	-0.095889	-2.7418	28.834E-6
	46.17270	63.95740	20.86000	-0.46133	20.815	-0.39531	-5.6504	52.453E-6
	51.30300	63.95740	20.86000	-10.629	20.815	-125.56	-376.02	-7.9417E-6
	56.43330	63.95740	20.86000	-14.696	20.815	-133.89	-392.18	-111.38E-6
	61.56360	63.95740	20.86000	-16.608	20.815	-17.274	-55.429	42.373E-6
	66.69390	63.95740	20.86000	-17.059	20.815	-18.548	-72.346	196.22E-6
	71.82420	63.95740	20.86000	-17.446	20.815	-44.700	-163.99	351.18E-6
	76.95450	63.95740	20.86000	-17.892	20.815	-148.27	-367.75	-905.40E-6
	82.08480	63.95740	20.86000	-17.917	20.815	-147.76	-396.73	-546.99E-6
	87.21510	63.95740	20.86000	-18.325	20.815	-149.53	-410.05	-452.91E-6
	92.34540	63.95740	20.86000	-18.764	20.815	-155.93	-422.24	-535.02E-6
	97.47570	63.95740	20.86000	-17.287	20.815	-156.16	-428.53	-469.50E-6
	102.60600	63.95740	20.86000	-8.4350	20.815	-20.539	-90.146	335.19E-6
	107.73630	63.95740	20.86000	-0.66784	20.815	-3.9333	-17.934	72.071E-6
	112.86660	63.95740	20.86000	0.99448	20.815	-0.89326	-8.1738	64.549E-6
	117.99690	63.95740	20.86000	1.3403	20.815	-0.27839	-4.3419	41.201E-6
	123.12720	63.95740	20.86000	1.2913	20.815	-0.10845	-2.5730	26.408E-6
	128.25750	63.95740	20.86000	1.1325	20.815	-0.049154	-1.6488	17.640E-6
	133.38780	63.95740	20.86000	0.95944	20.815	-0.024846	-1.1202	12.286E-6
	138.51810	63.95740	20.86000	0.80279	20.815	-0.013642	-0.79634	8.8754E-6
	143.64840	63.95740	20.86000	0.67006	20.815	-0.0079936	-0.58687	6.6134E-6
	148.77870	63.95740	20.86000	0.56062	20.815	-0.0049365	-0.44536	5.0585E-6
	153.90900	63.95740	20.86000	0.47129	20.815	-0.0031835	-0.34626	3.9560E-6 !
	0.00000	68.87720	20.86000	0.51453	20.815	-0.0015319	-0.24019	2.7680E-6
	5.13030	68.87720	20.86000	0.61485	20.815	-0.0022434	-0.29972	3.4423E-6
	10.26060	68.87720	20.86000	0.73859	20.815	-0.0033887	-0.38087	4.3554E-6
	15.39090	68.87720	20.86000	0.88994	20.815	-0.0053024	-0.49441	5.6219E-6
	20.52120	68.87720	20.86000	1.0708	20.815	-0.0086376	-0.65809	7.4274E-6
	25.65150	68.87720	20.86000	1.2751	20.815	-0.014738	-0.90266	10.086E-6
	30.78180	68.87720	20.86000	1.4736	20.815	-0.026563	-1.2849	14.160E-6
	35.91210	68.87720	20.86000	1.5715	20.815	-0.051387	-1.9202	20.750E-6
	41.04240	68.87720	20.86000	1.2788	20.815	-0.11081	-3.0892	32.389E-6
	46.17270	68.87720	20.86000	-0.44539	20.815	-0.28682	-5.8481	58.599E-6
	51.30300	68.87720	20.86000	-10.556	20.815	-124.10	-374.66	27.841E-6
	56.43330	68.87720	20.86000	-14.775	20.815	-132.71	-391.06	-83.127E-6
	61.56360	68.87720	20.86000	-17.068	20.815	-16.878	-39.008	-136.60E-6
	66.69390	68.87720	20.86000	-17.214	20.815	-12.886	-34.804	-45.283E-6
	71.82420	68.87720	20.86000	-17.240	20.815	-13.290	-33.781	-71.531E-6
	76.95450	68.87720	20.86000	-17.424	20.815	-15.433	-34.353	-140.36E-6
	82.08480	68.87720	20.86000	-17.375	20.815	-10.464	-32.739	15.813E-6
	87.21510	68.87720	20.86000	-18.703	20.815	-20.847	-48.291	-167.41E-6
	92.34540	68.87720	20.86000	-20.262	20.815	-40.233	-73.385	-555.90E-6
	97.47570	68.87720	20.86000	-18.562	20.815	-164.04	-437.89	-637.00E-6
	102.60600	68.87720	20.86000	-11.031	20.815	-146.71	-396.36	-514.32E-6
	107.73630	68.87720	20.86000	-1.1149	20.815	-5.3999	-21.510	62.396E-6
	112.86660	68.87720	20.86000	0.87584	20.815	-1.1747	-9.4530	69.657E-6
	117.99690	68.87720	20.86000	1.3211	20.815	-0.34487	-4.8397	44.706E-6
	123.12720	68.87720	20.86000	1.2998	20.815	-0.12783	-2.7900	28.274E-6
	128.25750	68.87720	20.86000	1.1466	20.815	-0.055816	-1.7534	18.633E-6
	133.38780	68.87720	20.86000	0.97262	20.815	-0.027452	-1.1751	12.838E-6
	138.51810	68.87720	20.86000	0.81353	20.815	-0.014773	-0.82719	9.1979E-6
	143.64840	68.87720	20.86000	0.67842	20.815	-0.0085284	-0.60528	6.8108E-6
	148.77870	68.87720	20.86000	0.56701	20.815	-0.0052079	-0.45689	5.1845E-6
	153.90900	68.87720	20.86000	0.47617	20.815	-0.0033297	-0.35380	4.0394E-6 !
	0.00000	73.79700	20.86000	0.51635	20.815	-0.0016637	-0.24754	2.8498E-6
	5.13030	73.79700	20.86000	0.61720	20.815	-0.0024801	-0.31088	3.5651E-6
	10.26060	73.79700	20.86000	0.74158	20.815	-0.0038326	-0.39834	4.5450E-6
	15.39090	73.79700	20.86000	0.89361	20.815	-0.0061757	-0.52266	5.9231E-6
	20.52120	73.79700	20.86000	1.0750	20.815	-0.010447	-0.70544	7.9200E-6
	25.65150	73.79700	20.86000	1.2790	20.815	-0.018690	-0.98487	10.912E-6
	30.78180	73.79700	20.86000	1.4752	20.815	-0.035611	-1.4319	15.568E-6
	35.91210	73.79700	20.86000	1.5665	20.815	-0.072634	-2.1866	23.130E-6
	41.04240	73.79700	20.86000	1.2606	20.815	-0.15878	-3.5568	36.192E-6
	46.17270	73.79700	20.86000	-0.47679	20.815	-0.37372	-6.5630	63.936E-6
	51.30300	73.79700	20.86000	-10.582	20.815	-124.19	-375.45	33.929E-6
	56.43330	73.79700	20.86000	-14.885	20.815	-132.77	-391.78	-76.727E-6
	61.56360	73.79700	20.86000	-17.095	20.815	-16.637	-38.407	-135.17E-6
	66.69390	73.79700	20.86000	-16.755	20.815	-8.5626	-27.692	23.546E-6
	71.82420	73.79700	20.86000	-16.171	20.815	-3.1015	-18.626	109.52E-6
	76.95450	73.79700	20.86000	-15.960	20.815	-1.9981	-15.152	107.59E-6
	82.08480	73.79700	20.86000	-15.742	20.815	6.0661	-9.0266	319.86E-6
	87.21510	73.79700	20.86000	-17.810	20.815	-12.607	-34.657	-37.172E-6
	92.34540	73.79700	20.86000	-20.232	20.815	-40.858	-72.618	-586.94E-6
	97.47570	73.79700	20.86000	-18.844	20.815	-165.89	-440.46	-672.02E-6
	102.60600	73.79700	20.86000	-12.184	20.815	-148.94	-410.52	-426.47E-6
	107.73630	73.79700	20.86000	-1.3477	20.815	-6.1168	-23.009	54.734E-6
	112.86660	73.79700	20.86000	0.81101	20.815	-1.3142	-9.9347	70.402E-6
	117.99690	73.79700	20.86000	1.3001	20.815	-0.37581	-5.0025	45.528E-6
	123.12720	73.79700	20.86000	1.2915	20.815	-0.13615	-2.8519	28.708E-6
	128.25750	73.79700	20.86000	1.1427	20.815	-0.058469	-1.7800	18.852E-6
	133.38780	73.79700	20.86000	0.97044	20.815	-0.028428	-1.1878	12.953E-6
	138.51810	73.79700	20.86000	0.81222	20.815	-0.015176	-0.83385	9.2620E-6
	143.64840	73.79700	20.86000	0.67759	20.815	-0.0087115	-0.60906	6.8488E-6
	148.77870	73.79700	20.86000	0.56647	20.815	-0.0052980	-0.45919	5.2082E-6
	153.90900	73.79700	20.86000	0.47581	20.815	-0.0033770	-0.35527	4.0550E-6 !
	0.00000	78.71680	20.86000	0.51254	20.815	-0.0017704	-0.25197	2.8980E-6
	5.13030	78.71680	20.86000	0.61210	20.815	-0.0026807	-0.31798	3.6415E-6
	10.26060	78.71680	20.86000	0.73466	20.815	-0.0042301	-0.41016	4.6699E-6
	15.39090	78.71680	20.86000	0.88409	20.815	-0.0070135	-0.54316	6.1344E-6
	20.52120	78.71680	20.86000	1.0617	20.815	-0.012342	-0.74273	8.2913E-6
	25.65150	78.71680	20.86000	1.2600	20.815	-0.023342	-1.0565	11.590E-6
	30.78180	78.71680	20.86000	1.4471	20.815	-0.048134	-1.5782	16.846E-6
	35.91210	78.71680	20.86000	1.5230	20.815	-0.10985	-2.5051	25.560E-6
	41.04240	78.71680	20.86000	1.1874	20.815	-0.27992	-4.2893	40.529E-6
	46.17270	78.71680	20.86000	-0.60846	20.815	-0.78087	-8.2609	69.535E-6
	51.30300	78.71680	20.86000	-10.781	20.815	-125.26	-378.57	32.795E-6
	56.43330	78.71680	20.86000	-15.069	20.815	-134.03	-395.48	-77.673E-6
	61.56360	78.71680	20.86000	-16.953	20.815	-17.535	-42.476	-119.01E-6
	66.69390	78.71680	20.86000	-16.390	20.815	-8.5773	-29.186	40.587E-6
	71.82420	78.71680	20.86000	-15.437	20.815	-1.6562	-16.208	132.05E-6
	76.95450	78.71680	20.86000	-15.073	20.815	0.61350	-10.241	141.95E-6
	82.08480	78.71680	20.86000	-14.800	20.815	8.6585	-3.2629	343.52E-6
	87.21510	78.71680	20.86000	-16.724	20.815	-9.8104	-28.860	-6.7113E-6
	92.34540	78.71680	20.86000	-19.164	20.815	-38.864	-67.865	-572.49E-6
	97.47570	78.71680	20.86000	-18.072	20.815	-164.54	-436.15	-675.20E-6
	102.60600	78.71680	20.86000	-12.252	20.815	-148.98	-410.92	-423.23E-6
	107.73630	78.71680	20.86000	-1.2643	20.815	-6.1339	-22.001	42.283E-6
	112.86660	78.71680	20.86000	0.83605	20.815	-1.2715	-9.4165	65.816E-6
	117.99690	78.71680	20.86000	1.2876	20.815	-0.35899	-4.7618	43.293E-6
	123.12720	78.71680	20.86000	1.2694	20.815	-0.13024	-2.7362	27.557E-6
	128.25750	78.71680	20.86000	1.1216	20.815	-0.056237	-1.7206	18.234E-6
	133.38780	78.71680	20.86000	0.95329	20.815	-0.027502	-1.1553	12.604E-6
	138.51810	78.71680	20.86000	0.79904	20.815	-0.014758	-0.81507	9.0561E-6
	143.64840	78.71680	20.86000	0.66768	20.815	-0.0085077	-0.59765	6.7219E-6
	148.77870	78.71680	20.86000	0.55905	20.815	-0.0051922	-0.45196	5.1271E-6
	153.90900	78.71680	20.86000	0.47024	20.815	-0.0033191	-0.35053	4.0014E-6 !
	0.00000	83.63660	20.86000	0.50328	20.815	-0.0018393	-0.25305	2.9083E-6
	5.13030	83.63660	20.86000	0.59982	20.815	-0.0028187	-0.32026	3.6634E-6
	10.26060	83.63660	20.86000	0.71824	20.815	-0.0045232	-0.41488	4.7150E-6
	15.39090	83.63660	20.86000	0.86201	20.815	-0.0076815	-0.55308	6.2273E-6
	20.52120	83.63660	20.86000	1.0319	20.815	-0.014003	-0.76426	8.4857E-6
	25.65150	83.63660	20.86000	1.2199	20.815	-0.027935	-1.1059	12.008E-6
	30.78180	83.63660	20.86000	1.3929	20.815	-0.062631	-1.7003	17.769E-6
	35.91210	83.63660	20.86000	1.4476	20.815	-0.16360	-2.8366	27.561E-6
	41.04240	83.63660	20.86000	1.0707	20.815	-0.52142	-5.2932	43.811E-6
	46.17270	83.63660	20.86000	-0.83271	20.815	-2.1262	-11.620	61.585E-6
	51.30300	83.63660	20.86000	-11.398	20.815	-132.63	-389.00	-104.42E-6
	56.43330	83.63660	20.86000	-15.761	20.815	-142.41	-407.58	-230.79E-6
	61.56360	83.63660	20.86000	-16.710	20.815	-145.44	-411.87	-287.32E-6
	66.69390	83.63660	20.86000	-15.643	20.815	-134.20	-395.72	-80.811E-6
	71.82420	83.63660	20.86000	-14.394	20.815	-125.08	-380.01	55.953E-6
	76.95450	83.63660	20.86000	-13.802	20.815	-122.48	-373.20	67.834E-6
	82.08480	83.63660	20.86000	-13.253	20.815	-115.64	-366.96	235.39E-6
	87.21510	83.63660	20.86000	-14.057	20.815	-129.30	-385.64	-26.553E-6
	92.34540	83.63660	20.86000	-14.966	20.815	-152.31	-413.70	-507.86E-6
	97.47570	83.63660	20.86000	-14.327	20.815	-154.14	-418.09	-520.96E-6
	102.60600	83.63660	20.86000	-10.206	20.815	-142.71	-399.86	-332.34E-6

Name	Location			Displacement		Stresses		
	X [m]	Y [m]	Z[Level] [mOD]	Z [mm]	Calc Level [mOD]	Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]
	107.73630	83.63660	20.86000	-0.60676	20.815	-4.7023	-17.553	40.490E-6
	112.86660	83.63660	20.86000	0.98034	20.815	-0.99742	-7.8629	57.225E-6
	117.99690	83.63660	20.86000	1.2873	20.815	-0.29412	-4.1498	38.389E-6
	123.12720	83.63660	20.86000	1.2350	20.815	-0.11116	-2.4625	25.014E-6
	128.25750	83.63660	20.86000	1.0850	20.815	-0.049586	-1.5850	16.874E-6
	133.38780	83.63660	20.86000	0.92242	20.815	-0.024857	-1.0823	11.840E-6
	138.51810	83.63660	20.86000	0.77491	20.815	-0.013591	-0.77317	8.6049E-6
	143.64840	83.63660	20.86000	0.64931	20.815	-0.0079478	-0.57227	6.4434E-6
	148.77870	83.63660	20.86000	0.54519	20.815	-0.0049046	-0.43589	4.9484E-6
	153.90900	83.63660	20.86000	0.45977	20.815	-0.0031627	-0.33997	3.8828E-6 !
	0.00000	88.55640	20.86000	0.48901	20.815	-0.0018599	-0.25052	2.8779E-6
	5.13030	88.55640	20.86000	0.58098	20.815	-0.0028698	-0.31719	3.6255E-6
	10.26060	88.55640	20.86000	0.69324	20.815	-0.0046518	-0.41140	4.6695E-6
	15.39090	88.55640	20.86000	0.82878	20.815	-0.0080202	-0.54987	6.1777E-6
	20.52120	88.55640	20.86000	0.98791	20.815	-0.014966	-0.76386	8.4471E-6
	25.65150	88.55640	20.86000	1.1625	20.815	-0.030989	-1.1169	12.030E-6
	30.78180	88.55640	20.86000	1.3201	20.815	-0.073883	-1.7528	17.989E-6
	35.91210	88.55640	20.86000	1.3594	20.815	-0.21433	-3.0454	28.225E-6
	41.04240	88.55640	20.86000	0.96338	20.815	-0.81672	-6.1456	43.418E-6
	46.17270	88.55640	20.86000	-0.97060	20.815	-4.2702	-15.162	27.628E-6
	51.30300	88.55640	20.86000	-11.477	20.815	-142.66	-397.62	-356.53E-6
	56.43330	88.55640	20.86000	-16.217	20.815	-154.13	-417.81	-523.74E-6
	61.56360	88.55640	20.86000	-16.418	20.815	-152.67	-416.31	-490.10E-6
	66.69390	88.55640	20.86000	-14.923	20.815	-139.13	-398.73	-219.21E-6
	71.82420	88.55640	20.86000	-13.367	20.815	-126.15	-381.00	29.963E-6
	76.95450	88.55640	20.86000	-12.634	20.815	-123.55	-374.66	47.181E-6
	82.08480	88.55640	20.86000	-11.717	20.815	-122.96	-373.13	49.915E-6
	87.21510	88.55640	20.86000	-9.7348	20.815	-126.76	-377.71	-30.090E-6
	92.34540	88.55640	20.86000	-3.2639	20.815	-9.3879	-25.651	-29.516E-6
	97.47570	88.55640	20.86000	-2.4897	20.815	-9.7562	-26.692	-30.270E-6
	102.60600	88.55640	20.86000	-1.1526	20.815	-6.2724	-19.956	13.377E-6
	107.73630	88.55640	20.86000	0.52322	20.815	-2.0678	-10.842	54.496E-6
	112.86660	88.55640	20.86000	1.1837	20.815	-0.58896	-5.7469	46.761E-6
	117.99690	88.55640	20.86000	1.2843	20.815	-0.20400	-3.3295	31.928E-6
	123.12720	88.55640	20.86000	1.1869	20.815	-0.084797	-2.0916	21.585E-6
	128.25750	88.55640	20.86000	1.0343	20.815	-0.040256	-1.3979	15.005E-6
	133.38780	88.55640	20.86000	0.87969	20.815	-0.021076	-0.98003	10.772E-6
	138.51810	88.55640	20.86000	0.74134	20.815	-0.011892	-0.71355	7.9643E-6
	143.64840	88.55640	20.86000	0.62362	20.815	-0.0071205	-0.53569	6.0429E-6
	148.77870	88.55640	20.86000	0.52567	20.815	-0.0044741	-0.41248	4.6886E-6
	153.90900	88.55640	20.86000	0.44493	20.815	-0.0029260	-0.32444	3.7087E-6 !
	0.00000	93.47620	20.86000	0.47038	20.815	-0.0018263	-0.24439	2.8070E-6
	5.13030	93.47620	20.86000	0.55653	20.815	-0.0028193	-0.30868	3.5273E-6
	10.26060	93.47620	20.86000	0.66103	20.815	-0.0045760	-0.39933	4.5304E-6
	15.39090	93.47620	20.86000	0.78638	20.815	-0.0079115	-0.53233	5.9755E-6
	20.52120	93.47620	20.86000	0.93265	20.815	-0.014840	-0.73777	8.1450E-6
	25.65150	93.47620	20.86000	1.0925	20.815	-0.031016	-1.0773	11.564E-6
	30.78180	93.47620	20.86000	1.2377	20.815	-0.075216	-1.6927	17.237E-6
	35.91210	93.47620	20.86000	1.2807	20.815	-0.22532	-2.9623	26.863E-6
	41.04240	93.47620	20.86000	0.94534	20.815	-0.91366	-6.0984	39.446E-6
	46.17270	93.47620	20.86000	-0.76780	20.815	-5.2103	-15.545	-1.0096E-6
	51.30300	93.47620	20.86000	-10.649	20.815	-145.14	-397.36	-447.05E-6
	56.43330	93.47620	20.86000	-13.611	20.815	-151.33	-409.94	-517.63E-6
	61.56360	93.47620	20.86000	-10.555	20.815	-144.15	-385.23	-554.67E-6
	66.69390	93.47620	20.86000	-9.1484	20.815	-134.89	-372.94	-372.69E-6
	71.82420	93.47620	20.86000	-8.4272	20.815	-125.66	-369.10	-92.463E-6
	76.95450	93.47620	20.86000	-7.8289	20.815	-123.64	-364.53	-75.212E-6
	82.08480	93.47620	20.86000	-6.5885	20.815	-123.52	-363.04	-88.229E-6
	87.21510	93.47620	20.86000	-0.66887	20.815	-1.1287	-9.2406	68.783E-6
	92.34540	93.47620	20.86000	0.28414	20.815	-1.8586	-10.819	61.603E-6
	97.47570	93.47620	20.86000	0.61358	20.815	-1.9395	-10.945	60.236E-6
	102.60600	93.47620	20.86000	0.90632	20.815	-1.3824	-8.9260	56.145E-6
	107.73630	93.47620	20.86000	1.1965	20.815	-0.68236	-6.0901	47.502E-6
	112.86660	93.47620	20.86000	1.3072	20.815	-0.28630	-3.8905	35.619E-6
	117.99690	93.47620	20.86000	1.2533	20.815	-0.12436	-2.5240	25.271E-6
	123.12720	93.47620	20.86000	1.1223	20.815	-0.059018	-1.7009	17.904E-6
	128.25750	93.47620	20.86000	0.97149	20.815	-0.030489	-1.1911	12.919E-6
	133.38780	93.47620	20.86000	0.82748	20.815	-0.016914	-0.86273	9.5401E-6
	138.51810	93.47620	20.86000	0.70030	20.815	-0.0099499	-0.64326	7.2069E-6
	143.64840	93.47620	20.86000	0.59204	20.815	-0.0061456	-0.49162	5.5594E-6
	148.77870	93.47620	20.86000	0.50153	20.815	-0.0039545	-0.38377	4.3695E-6
	153.90900	93.47620	20.86000	0.42645	20.815	-0.0026348	-0.30512	3.4919E-6 !
	0.00000	98.39600	20.86000	0.44820	20.815	-0.0017399	-0.23494	2.6990E-6
	5.13030	98.39600	20.86000	0.52762	20.815	-0.0026687	-0.29517	3.3738E-6
	10.26060	98.39600	20.86000	0.62324	20.815	-0.0042959	-0.37932	4.3052E-6
	15.39090	98.39600	20.86000	0.73710	20.815	-0.0073455	-0.50144	5.6325E-6
	20.52120	98.39600	20.86000	0.86929	20.815	-0.013565	-0.68731	7.5970E-6
	25.65150	98.39600	20.86000	1.0141	20.815	-0.027700	-0.98829	10.635E-6
	30.78180	98.39600	20.86000	1.1508	20.815	-0.064734	-1.5174	15.546E-6
	35.91210	98.39600	20.86000	1.2182	20.815	-0.18218	-2.5559	23.608E-6
	41.04240	98.39600	20.86000	1.0421	20.815	-0.66210	-4.9072	34.317E-6
	46.17270	98.39600	20.86000	0.098166	20.815	-3.1410	-10.970	18.175E-6
	51.30300	98.39600	20.86000	-3.1831	20.815	-10.789	-26.822	-65.164E-6
	56.43330	98.39600	20.86000	-3.8733	20.815	-11.454	-30.183	-49.080E-6
	61.56360	98.39600	20.86000	-1.4267	20.815	-6.0157	-19.187	13.396E-6
	66.69390	98.39600	20.86000	-0.53939	20.815	-3.1688	-13.202	43.425E-6
	71.82420	98.39600	20.86000	626.20E-6	20.815	-1.1225	-8.2942	57.882E-6
	76.95450	98.39600	20.86000	0.34006	20.815	-0.40765	-5.8590	54.468E-6
	82.08480	98.39600	20.86000	0.71970	20.815	-0.29026	-5.1087	49.791E-6
	87.21510	98.39600	20.86000	1.1842	20.815	-0.37280	-5.1632	47.522E-6
	92.34540	98.39600	20.86000	1.3997	20.815	-0.48322	-5.4881	47.447E-6
	97.47570	98.39600	20.86000	1.4388	20.815	-0.49476	-5.3853	45.833E-6
	102.60600	98.39600	20.86000	1.4247	20.815	-0.39054	-4.6548	40.924E-6
	107.73630	98.39600	20.86000	1.3873	20.815	-0.24536	-3.5994	33.641E-6
	112.86660	98.39600	20.86000	1.3069	20.815	-0.13463	-2.6152	25.980E-6
	117.99690	98.39600	20.86000	1.1844	20.815	-0.071453	-1.8699	19.451E-6
	123.12720	98.39600	20.86000	1.0418	20.815	-0.038806	-1.3490	14.482E-6
	128.25750	98.39600	20.86000	0.89939	20.815	-0.021977	-0.99137	10.873E-6
	133.38780	98.39600	20.86000	0.76858	20.815	-0.013011	-0.74372	8.2794E-6
	138.51810	98.39600	20.86000	0.65399	20.815	-0.0080280	-0.56924	6.4051E-6
	143.64840	98.39600	20.86000	0.55621	20.815	-0.0051406	-0.44385	5.0336E-6
	148.77870	98.39600	20.86000	0.47394	20.815	-0.0034014	-0.35194	4.0151E-6
	153.90900	98.39600	20.86000	0.40517	20.815	-0.0023168	-0.28330	3.2469E-6 !
	0.00000	103.31580	20.86000	0.42337	20.815	-0.0016093	-0.22272	2.5600E-6
	5.13030	103.31580	20.86000	0.49549	20.815	-0.0024364	-0.27756	3.1752E-6
	10.26060	103.31580	20.86000	0.58159	20.815	-0.0038546	-0.35304	4.0119E-6
	15.39090	103.31580	20.86000	0.68332	20.815	-0.0064351	-0.46035	5.1819E-6
	20.52120	103.31580	20.86000	0.80086	20.815	-0.011482	-0.61919	6.8702E-6
	25.65150	103.31580	20.86000	0.93052	20.815	-0.022265	-0.86617	9.3918E-6
	30.78180	103.31580	20.86000	1.0594	20.815	-0.047913	-1.2740	13.279E-6
	35.91210	103.31580	20.86000	1.1540	20.815	-0.11718	-1.9957	19.317E-6
	41.04240	103.31580	20.86000	1.1394	20.815	-0.32931	-3.3559	27.822E-6
	46.17270	103.31580	20.86000	0.88958	20.815	-0.97974	-5.8709	34.444E-6
	51.30300	103.31580	20.86000	0.43444	20.815	-2.1323	-9.1110	31.887E-6
	56.43330	103.31580	20.86000	0.36028	20.815	-2.2778	-10.128	38.710E-6
	61.56360	103.31580	20.86000	0.74804	20.815	-1.4422	-8.5586	49.722E-6
	66.69390	103.31580	20.86000	1.1079	20.815	-0.81292	-6.5484	48.284E-6
	71.82420	103.31580	20.86000	1.3476	20.815	-0.40628	-4.8519	42.685E-6
	76.95450	103.31580	20.86000	1.4938	20.815	-0.20903	-3.8083	37.376E-6
	82.08480	103.31580	20.86000	1.5914	20.815	-0.15081	-3.3609	34.172E-6
	87.21510	103.31580	20.86000	1.6505	20.815	-0.15447	-3.2609	32.868E-6
	92.34540	103.31580	20.86000	1.6415	20.815	-0.17083	-3.2491	32.152E-6
	97.47570	103.31580	20.86000	1.5717	20.815	-0.16912	-3.1101	30.580E-6
	102.60600	103.31580	20.86000	1.4701	20.815	-0.14209	-2.7675	27.507E-6
	107.73630	103.31580	20.86000	1.3528	20.815	-0.10246	-2.2921	23.318E-6
	112.86660	103.31580	20.86000	1.2236	20.815	-0.066416	-1.8055	18.872E-6
	117.99690	103.31580	20.86000	1.0869	20.815	-0.040898	-1.3878	14.863E-6
	123.12720	103.31580	20.86000	0.95037	20.815	-0.024936	-1.0606	11.582E-6
	128.25750	103.31580	20.86000	0.82181	20.815	-0.015399	-0.81478	9.0301E-6
	133.38780	103.31580	20.86000	0.70596	20.815	-0.0097275	-0.63244	7.0877E-6
	138.51810	103.31580	20.86000	0.60466	20.815	-0.0063062	-0.49705	5.6175E-6
	143.64840	103.31580	20.86000	0.51777	20.815	-0.0041958	-0.39571	4.5013E-6
	148.77870	103.31580	20.86000	0.44407	20.815	-0.0028614	-0.31901	3.6472E-6
	153.90900	103.31580	20.86000	0.38194	20.815	-0.0019967	-0.26025	2.9873E-6 !
	0.00000	108.23560	20.86000	0.39680	20.815	-0.0014483	-0.20846	2.3982E-6
	5.13030	108.23560	20.86000	0.46141	20.815	-0.0021522	-0.25713	2.9451E-6
	10.26060	108.23560	20.86000	0.53781	20.815	-0.0033217	-0.32273	3.6746E-6
	15.39090	108.23560	20.86000	0.62729	20.815	-0.0053616	-0.41349	4.6691E-6
	20.52120	108.23560	20.86000	0.73014	20.815	-0.0091227	-0.54286	6.0566E-6
	25.65150	108.23560	20.86000	0.84424	20.815	-0.016502	-0.73351	8.0363E-6

Name	Location X [m]	Location Y [m]	Z[Level] [mOD]	Displacement Z [mm]	Calc Level [mOD]	Stresses Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]
	30.78180	108.23560	20.86000	0.96262	20.815	-0.031958	-1.0242	10.906E-6
	35.91210	108.23560	20.86000	1.0699	20.815	-0.066196	-1.4789	15.043E-6
	41.04240	108.23560	20.86000	1.1402	20.815	-0.14273	-2.1857	20.649E-6
	46.17270	108.23560	20.86000	1.1515	20.815	-0.29150	-3.1759	27.040E-6
	51.30300	108.23560	20.86000	1.1368	20.815	-0.46796	-4.1716	32.518E-6
	56.43330	108.23560	20.86000	1.1945	20.815	-0.50885	-4.5861	35.947E-6
	61.56360	108.23560	20.86000	1.3405	20.815	-0.39926	-4.2855	36.278E-6
	66.69390	108.23560	20.86000	1.4922	20.815	-0.26668	-3.6601	33.603E-6
	71.82420	108.23560	20.86000	1.5992	20.815	-0.16533	-3.0380	29.866E-6
	76.95450	108.23560	20.86000	1.6537	20.815	-0.10574	-2.5852	26.647E-6
	82.08480	108.23560	20.86000	1.6635	20.815	-0.080664	-2.3295	24.526E-6
	87.21510	108.23560	20.86000	1.6344	20.815	-0.075019	-2.2073	23.289E-6
	92.34540	108.23560	20.86000	1.5691	20.815	-0.075142	-2.1250	22.318E-6
	97.47570	108.23560	20.86000	1.4715	20.815	-0.071909	-2.0031	21.000E-6
	102.60600	108.23560	20.86000	1.3560	20.815	-0.062343	-1.8084	19.049E-6
	107.73630	108.23560	20.86000	1.2312	20.815	-0.048732	-1.5575	16.581E-6
	112.86660	108.23560	20.86000	1.1029	20.815	-0.035089	-1.2912	13.933E-6
	117.99690	108.23560	20.86000	0.97594	20.815	-0.024003	-1.0448	11.429E-6
	123.12720	108.23560	20.86000	0.85468	20.815	-0.016039	-0.83567	9.2530E-6
	128.25750	108.23560	20.86000	0.74278	20.815	-0.010675	-0.66684	7.4585E-6
	133.38780	108.23560	20.86000	0.64243	20.815	-0.0071592	-0.53390	6.0205E-6
	138.51810	108.23560	20.86000	0.55436	20.815	-0.0048676	-0.43028	4.8838E-6
	143.64840	108.23560	20.86000	0.47823	20.815	-0.0033645	-0.34961	3.9890E-6
	148.77870	108.23560	20.86000	0.41306	20.815	-0.0023663	-0.28659	3.2837E-6
	153.90900	108.23560	20.86000	0.35758	20.815	-0.0016932	-0.23703	2.7252E-6 !
	0.00000	113.15540	20.86000	0.36934	20.815	-0.0012724	-0.19297	2.2223E-6
	5.13030	113.15540	20.86000	0.42652	20.815	-0.0018483	-0.23519	2.6982E-6
	10.26060	113.15540	20.86000	0.49344	20.815	-0.0027693	-0.29075	3.3184E-6
	15.39090	113.15540	20.86000	0.57105	20.815	-0.0042964	-0.36521	4.1395E-6
	20.52120	113.15540	20.86000	0.65963	20.815	-0.0069260	-0.46693	5.2419E-6
	25.65150	113.15540	20.86000	0.75804	20.815	-0.011622	-0.60834	6.7378E-6
	30.78180	113.15540	20.86000	0.86271	20.815	-0.020242	-0.80710	8.7692E-6
	35.91210	113.15540	20.86000	0.96674	20.815	-0.036101	-1.0847	11.472E-6
	41.04240	113.15540	20.86000	1.0609	20.815	-0.063658	-1.4552	14.853E-6
	46.17270	113.15540	20.86000	1.1397	20.815	-0.10366	-1.8914	18.568E-6
	51.30300	113.15540	20.86000	1.2110	20.815	-0.14218	-2.2836	21.818E-6
	56.43330	113.15540	20.86000	1.2914	20.815	-0.15468	-2.4824	23.714E-6
	61.56360	113.15540	20.86000	1.3810	20.815	-0.13638	-2.4413	23.876E-6
	66.69390	113.15540	20.86000	1.4604	20.815	-0.10490	-2.2448	22.677E-6
	71.82420	113.15540	20.86000	1.5116	20.815	-0.075765	-2.0063	20.902E-6
	76.95450	113.15540	20.86000	1.5283	20.815	-0.055631	-1.8021	19.212E-6
	82.08480	113.15540	20.86000	1.5114	20.815	-0.044848	-1.6584	17.904E-6
	87.21510	113.15540	20.86000	1.4644	20.815	-0.040336	-1.5621	16.931E-6
	92.34540	113.15540	20.86000	1.3921	20.815	-0.038253	-1.4815	16.058E-6
	97.47570	113.15540	20.86000	1.3002	20.815	-0.035672	-1.3865	15.033E-6
	102.60600	113.15540	20.86000	1.1957	20.815	-0.031375	-1.2627	13.730E-6
	107.73630	113.15540	20.86000	1.0849	20.815	-0.025730	-1.1139	12.180E-6
	112.86660	113.15540	20.86000	0.97296	20.815	-0.019830	-0.95484	10.519E-6
	117.99690	113.15540	20.86000	0.86384	20.815	-0.014607	-0.80137	8.9004E-6
	123.12720	113.15540	20.86000	0.76068	20.815	-0.010471	-0.66386	7.4306E-6
	128.25750	113.15540	20.86000	0.66575	20.815	-0.0074134	-0.54661	6.1608E-6
	133.38780	113.15540	20.86000	0.58032	20.815	-0.0052393	-0.44962	5.0979E-6
	138.51810	113.15540	20.86000	0.50479	20.815	-0.0037213	-0.37073	4.2246E-6
	143.64840	113.15540	20.86000	0.43887	20.815	-0.0026671	-0.30707	3.5138E-6
	148.77870	113.15540	20.86000	0.38185	20.815	-0.0019331	-0.25581	2.9374E-6
	153.90900	113.15540	20.86000	0.33281	20.815	-0.0014183	-0.21447	2.4698E-6 !
	0.00000	118.07520	20.86000	0.34176	20.815	-0.0010957	-0.17699	2.0409E-6
	5.13030	118.07520	20.86000	0.39184	20.815	-0.0015520	-0.21298	2.4476E-6
	10.26060	118.07520	20.86000	0.44980	20.815	-0.0022518	-0.25910	2.9648E-6
	15.39090	118.07520	20.86000	0.51630	20.815	-0.0033509	-0.31889	3.6285E-6
	20.52120	118.07520	20.86000	0.59151	20.815	-0.0051153	-0.39711	4.4854E-6
	25.65150	118.07520	20.86000	0.67476	20.815	-0.0079893	-0.49992	5.5920E-6
	30.78180	118.07520	20.86000	0.76407	20.815	-0.012668	-0.63427	7.0055E-6
	35.91210	118.07520	20.86000	0.85595	20.815	-0.020056	-0.80540	8.7557E-6
	41.04240	118.07520	20.86000	0.94598	20.815	-0.030771	-1.0105	10.788E-6
	46.17270	118.07520	20.86000	1.0308	20.815	-0.043778	-1.2286	12.892E-6
	51.30300	118.07520	20.86000	1.1097	20.815	-0.055079	-1.4162	14.697E-6
	56.43330	118.07520	20.86000	1.1833	20.815	-0.059605	-1.5257	15.825E-6
	61.56360	118.07520	20.86000	1.2485	20.815	-0.055994	-1.5397	16.117E-6
	66.69390	118.07520	20.86000	1.2982	20.815	-0.047453	-1.4800	15.716E-6
	71.82420	118.07520	20.86000	1.3259	20.815	-0.038159	-1.3859	14.938E-6
	76.95450	118.07520	20.86000	1.3283	20.815	-0.030745	-1.2903	14.076E-6
	82.08480	118.07520	20.86000	1.3059	20.815	-0.025959	-1.2091	13.290E-6
	87.21510	118.07520	20.86000	1.2610	20.815	-0.023233	-1.1417	12.595E-6
	92.34540	118.07520	20.86000	1.1975	20.815	-0.021474	-1.0783	11.912E-6
	97.47570	118.07520	20.86000	1.1198	20.815	-0.019715	-1.0078	11.146E-6
	102.60600	118.07520	20.86000	1.0327	20.815	-0.017466	-0.92424	10.243E-6
	107.73630	118.07520	20.86000	0.94092	20.815	-0.014754	-0.82858	9.2150E-6
	112.86660	118.07520	20.86000	0.84826	20.815	-0.011897	-0.72687	8.1206E-6
	117.99690	118.07520	20.86000	0.75793	20.815	-0.0092366	-0.62643	7.0343E-6
	123.12720	118.07520	20.86000	0.67234	20.815	-0.0069837	-0.53312	6.0175E-6
	128.25750	118.07520	20.86000	0.59316	20.815	-0.0051974	-0.45028	5.1071E-6
	133.38780	118.07520	20.86000	0.52135	20.815	-0.0038404	-0.37900	4.3175E-6
	138.51810	118.07520	20.86000	0.45725	20.815	-0.0028355	-0.31890	3.6468E-6
	143.64840	118.07520	20.86000	0.40070	20.815	-0.0021009	-0.26883	3.0844E-6
	148.77870	118.07520	20.86000	0.35124	20.815	-0.0015666	-0.22737	2.6162E-6
	153.90900	118.07520	20.86000	0.30825	20.815	-0.0011776	-0.19313	2.2276E-6 !
	0.00000	122.99500	20.86000	0.31471	20.815	-928.83E-6	-0.16118	1.8609E-6
	5.13030	122.99500	20.86000	0.35818	20.815	-0.0012817	-0.19143	2.2039E-6
	10.26060	122.99500	20.86000	0.40791	20.815	-0.0018000	-0.22919	2.6293E-6
	15.39090	122.99500	20.86000	0.46431	20.815	-0.0025716	-0.27655	3.1586E-6
	20.52120	122.99500	20.86000	0.52744	20.815	-0.0037298	-0.33606	3.8169E-6
	25.65150	122.99500	20.86000	0.59677	20.815	-0.0054658	-0.41043	4.6295E-6
	30.78180	122.99500	20.86000	0.67101	20.815	-0.0080193	-0.50188	5.6140E-6
	35.91210	122.99500	20.86000	0.74799	20.815	-0.011601	-0.61048	6.7636E-6
	41.04240	122.99500	20.86000	0.82488	20.815	-0.016179	-0.73149	8.0240E-6
	46.17270	122.99500	20.86000	0.89878	20.815	-0.021159	-0.85283	9.2742E-6
	51.30300	122.99500	20.86000	0.96715	20.815	-0.025280	-0.95589	10.340E-6
	56.43330	122.99500	20.86000	1.0275	20.815	-0.027215	-1.0227	11.057E-6
	61.56360	122.99500	20.86000	1.0768	20.815	-0.026539	-1.0459	11.353E-6
	66.69390	122.99500	20.86000	1.1114	20.815	-0.023983	-1.0316	11.275E-6
	71.82420	122.99500	20.86000	1.1284	20.815	-0.020758	-0.99438	10.951E-6
	76.95450	122.99500	20.86000	1.1262	20.815	-0.017829	-0.94817	10.512E-6
	82.08480	122.99500	20.86000	1.1055	20.815	-0.015621	-0.90148	10.041E-6
	87.21510	122.99500	20.86000	1.0679	20.815	-0.014079	-0.85620	9.5632E-6
	92.34540	122.99500	20.86000	1.0162	20.815	-0.012901	-0.80976	9.0591E-6
	97.47570	122.99500	20.86000	0.95365	20.815	-0.011764	-0.75845	8.4964E-6
	102.60600	122.99500	20.86000	0.88381	20.815	-0.010479	-0.70012	7.8564E-6
	107.73630	122.99500	20.86000	0.80999	20.815	-0.0090269	-0.63532	7.1462E-6
	112.86660	122.99500	20.86000	0.73517	20.815	-0.0075090	-0.56682	6.3949E-6
	117.99690	122.99500	20.86000	0.66179	20.815	-0.0060564	-0.49830	5.6411E-6
	123.12720	122.99500	20.86000	0.59177	20.815	-0.0047690	-0.43307	4.9201E-6
	128.25750	122.99500	20.86000	0.52644	20.815	-0.0036937	-0.37341	4.2570E-6
	133.38780	122.99500	20.86000	0.46659	20.815	-0.0028329	-0.32046	3.6652E-6
	138.51810	122.99500	20.86000	0.41259	20.815	-0.0021632	-0.27445	3.1482E-6
	143.64840	122.99500	20.86000	0.36441	20.815	-0.0016513	-0.23504	2.7033E-6
	148.77870	122.99500	20.86000	0.32181	20.815	-0.0012640	-0.20160	2.3240E-6
	153.90900	122.99500	20.86000	0.28436	20.815	-972.08E-6	-0.17336	2.0025E-6 !
	0.00000	127.91480	20.86000	0.28866	20.815	-778.25E-6	-0.14599	1.6878E-6
	5.13030	127.91480	20.86000	0.32613	20.815	-0.0010464	-0.17118	1.9743E-6
	10.26060	127.91480	20.86000	0.36850	20.815	-0.0014242	-0.20182	2.3210E-6
	15.39090	127.91480	20.86000	0.41597	20.815	-0.0019588	-0.23910	2.7402E-6
	20.52120	127.91480	20.86000	0.46849	20.815	-0.0027140	-0.28426	3.2441E-6
	25.65150	127.91480	20.86000	0.52559	20.815	-0.0037673	-0.33833	3.8422E-6
	30.78180	127.91480	20.86000	0.58628	20.815	-0.0051937	-0.40164	4.5358E-6
	35.91210	127.91480	20.86000	0.64898	20.815	-0.0070230	-0.47301	5.3099E-6
	41.04240	127.91480	20.86000	0.71161	20.815	-0.0091657	-0.54875	6.1242E-6
	46.17270	127.91480	20.86000	0.77176	20.815	-0.011343	-0.62219	6.9102E-6
	51.30300	127.91480	20.86000	0.82691	20.815	-0.013113	-0.68465	7.5817E-6
	56.43330	127.91480	20.86000	0.87455	20.815	-0.014059	-0.72839	8.0623E-6
	61.56360	127.91480	20.86000	0.91217	20.815	-0.014034	-0.74982	8.3150E-6
	66.69390	127.91480	20.86000	0.93752	20.815	-0.013231	-0.75077	8.3544E-6
	71.82420	127.91480	20.86000	0.94899	20.815	-0.012037	-0.73671	8.2313E-6
	76.95450	127.91480	20.86000	0.94594	20.815	-0.010808	-0.71376	8.0050E-6
	82.08480	127.91480	20.86000	0.92880	20.815	-0.0097469	-0.68630	7.7197E-6
	87.21510	127.91480	20.86000	0.89888	20.815	-0.0088851	-0.65610	7.3953E-6
	92.34540	127.91480	20.86000	0.85815	20.815	-0.0081454	-0.62293	7.0317E-6
	97.47570	127.91480	20.86000	0.80899	20.815	-0.0074235	-0.58584	6.6214E-6
	102.60600	127.91480	20.86000	0.75392	20.815	-0.0066496	-0.54429	6.1605E-6
	107.73630	127.91480	20.86000	0.69540	20.815	-0.0058117	-0.49881	5.6557E-6

Name	Location			Displacement	Stresses			
	X [m]	Y [m]	Z[Level] [mOD]	Z [mm]	Calc Level [mOD]	Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]
	112.86660	127.91480	20.86000	0.63568	20.815	-0.0049448	-0.45090	5.1233E-6
	117.99690	127.91480	20.86000	0.57663	20.815	-0.0041029	-0.40256	4.5850E-6
	123.12720	127.91480	20.86000	0.51977	20.815	-0.0033336	-0.35574	4.0621E-6
	128.25750	127.91480	20.86000	0.46619	20.815	-0.0026658	-0.31196	3.5712E-6
	133.38780	127.91480	20.86000	0.41658	20.815	-0.0021087	-0.27212	3.1229E-6
	138.51810	127.91480	20.86000	0.37131	20.815	-0.0016574	-0.23665	2.7220E-6
	143.64840	127.91480	20.86000	0.33047	20.815	-0.0012991	-0.20554	2.3692E-6
	148.77870	127.91480	20.86000	0.29395	20.815	-0.0010182	-0.17856	2.0620E-6
	153.90900	127.91480	20.86000	0.26151	20.815	-799.81E-6	-0.15531	1.7965E-6 !
	0.00000	132.83460	20.86000	0.26397	20.815	-646.92E-6	-0.13174	1.5250E-6
	5.13030	132.83460	20.86000	0.29609	20.815	-848.57E-6	-0.15259	1.7629E-6
	10.26060	132.83460	20.86000	0.33199	20.815	-0.0011216	-0.17736	2.0442E-6
	15.39090	132.83460	20.86000	0.37174	20.815	-0.0014906	-0.20666	2.3755E-6
	20.52120	132.83460	20.86000	0.41518	20.815	-0.0019847	-0.24104	2.7621E-6
	25.65150	132.83460	20.86000	0.46189	20.815	-0.0026335	-0.28076	3.2059E-6
	30.78180	132.83460	20.86000	0.51104	20.815	-0.0034561	-0.32552	3.7028E-6
	35.91210	132.83460	20.86000	0.56141	20.815	-0.0044427	-0.37408	4.2385E-6
	41.04240	132.83460	20.86000	0.61140	20.815	-0.0055302	-0.42394	4.7860E-6
	46.17270	132.83460	20.86000	0.65910	20.815	-0.0065904	-0.47136	5.3057E-6
	51.30300	132.83460	20.86000	0.70249	20.815	-0.0074519	-0.51197	5.7525E-6
	56.43330	132.83460	20.86000	0.73953	20.815	-0.0079641	-0.54203	6.0876E-6
	61.56360	132.83460	20.86000	0.76835	20.815	-0.0080691	-0.55961	6.2904E-6
	66.69390	132.83460	20.86000	0.78742	20.815	-0.0078241	-0.56512	6.3638E-6
	71.82420	132.83460	20.86000	0.79575	20.815	-0.0073613	-0.56071	6.3283E-6
	76.95450	132.83460	20.86000	0.79299	20.815	-0.0068185	-0.54911	6.2111E-6
	82.08480	132.83460	20.86000	0.77951	20.815	-0.0062879	-0.53255	6.0352E-6
	87.21510	132.83460	20.86000	0.75625	20.815	-0.0058012	-0.51229	5.8144E-6
	92.34540	132.83460	20.86000	0.72462	20.815	-0.0053446	-0.48874	5.5539E-6
	97.47570	132.83460	20.86000	0.68633	20.815	-0.0048872	-0.46190	5.2546E-6
	102.60600	132.83460	20.86000	0.64322	20.815	-0.0044055	-0.43185	4.9186E-6
	107.73630	132.83460	20.86000	0.59709	20.815	-0.0038958	-0.39912	4.5520E-6
	112.86660	132.83460	20.86000	0.54964	20.815	-0.0033726	-0.36465	4.1654E-6
	117.99690	132.83460	20.86000	0.50231	20.815	-0.0028600	-0.32963	3.7720E-6
	123.12720	132.83460	20.86000	0.45628	20.815	-0.0023816	-0.29527	3.3851E-6
	128.25750	132.83460	20.86000	0.41246	20.815	-0.0019544	-0.26256	3.0160E-6
	133.38780	132.83460	20.86000	0.37146	20.815	-0.0015862	-0.23223	2.6725E-6
	138.51810	132.83460	20.86000	0.33362	20.815	-0.0012779	-0.20465	2.3594E-6
	143.64840	132.83460	20.86000	0.29911	20.815	-0.0010250	-0.17998	2.0784E-6
	148.77870	132.83460	20.86000	0.26792	20.815	-820.71E-6	-0.15815	1.8292E-6
	153.90900	132.83460	20.86000	0.23992	20.815	-657.25E-6	-0.13901	1.6101E-6 !
	0.00000	137.75440	20.86000	0.24086	20.815	-535.17E-6	-0.11861	1.3747E-6
	5.13030	137.75440	20.86000	0.26829	20.815	-685.93E-6	-0.13582	1.5715E-6
	10.26060	137.75440	20.86000	0.29860	20.815	-882.82E-6	-0.15582	1.7996E-6
	15.39090	137.75440	20.86000	0.33177	20.815	-0.0011382	-0.17890	2.0618E-6
	20.52120	137.75440	20.86000	0.36759	20.815	-0.0014648	-0.20526	2.3599E-6
	25.65150	137.75440	20.86000	0.40567	20.815	-0.0018728	-0.23483	2.6930E-6
	30.78180	137.75440	20.86000	0.44531	20.815	-0.0023640	-0.26716	3.0555E-6
	35.91210	137.75440	20.86000	0.48555	20.815	-0.0029243	-0.30126	3.4364E-6
	41.04240	137.75440	20.86000	0.52515	20.815	-0.0035165	-0.33548	3.8177E-6
	46.17270	137.75440	20.86000	0.56266	20.815	-0.0040797	-0.36767	4.1760E-6
	51.30300	137.75440	20.86000	0.59653	20.815	-0.0045412	-0.39546	4.4861E-6
	56.43330	137.75440	20.86000	0.62524	20.815	-0.0048401	-0.41684	4.7269E-6
	61.56360	137.75440	20.86000	0.64742	20.815	-0.0049507	-0.43071	4.8859E-6
	66.69390	137.75440	20.86000	0.66199	20.815	-0.0048904	-0.43702	4.9621E-6
	71.82420	137.75440	20.86000	0.66830	20.815	-0.0047072	-0.43660	4.9637E-6
	76.95450	137.75440	20.86000	0.66613	20.815	-0.0044567	-0.43069	4.9030E-6
	82.08480	137.75440	20.86000	0.65574	20.815	-0.0041810	-0.42044	4.7924E-6
	87.21510	137.75440	20.86000	0.63782	20.815	-0.0039009	-0.40670	4.6408E-6
	92.34540	137.75440	20.86000	0.61338	20.815	-0.0036185	-0.38991	4.4535E-6
	97.47570	137.75440	20.86000	0.58364	20.815	-0.0033268	-0.37037	4.2342E-6
	102.60600	137.75440	20.86000	0.54994	20.815	-0.0030197	-0.34836	3.9865E-6
	107.73630	137.75440	20.86000	0.51361	20.815	-0.0026977	-0.32436	3.7159E-6
	112.86660	137.75440	20.86000	0.47593	20.815	-0.0023683	-0.29902	3.4297E-6
	117.99690	137.75440	20.86000	0.43801	20.815	-0.0020435	-0.27310	3.1366E-6
	123.12720	137.75440	20.86000	0.40078	20.815	-0.0017357	-0.24740	2.8455E-6
	128.25750	137.75440	20.86000	0.36496	20.815	-0.0014547	-0.22259	2.5639E-6
	133.38780	137.75440	20.86000	0.33110	20.815	-0.0012064	-0.19920	2.2979E-6
	138.51810	137.75440	20.86000	0.29953	20.815	-992.60E-6	-0.17758	2.0514E-6
	143.64840	137.75440	20.86000	0.27042	20.815	-812.42E-6	-0.15790	1.8265E-6
	148.77870	137.75440	20.86000	0.24384	20.815	-662.92E-6	-0.14019	1.6238E-6
	153.90900	137.75440	20.86000	0.21974	20.815	-540.29E-6	-0.12441	1.4427E-6 !
	0.00000	142.67420	20.86000	0.21944	20.815	-441.72E-6	-0.10666	1.2376E-6
	5.13030	142.67420	20.86000	0.24281	20.815	-554.27E-6	-0.12085	1.4004E-6
	10.26060	142.67420	20.86000	0.26835	20.815	-696.55E-6	-0.13703	1.5854E-6
	15.39090	142.67420	20.86000	0.29598	20.815	-874.58E-6	-0.15530	1.7938E-6
	20.52120	142.67420	20.86000	0.32550	20.815	-0.0010936	-0.17568	2.0255E-6
	25.65150	142.67420	20.86000	0.35651	20.815	-0.0013562	-0.19800	2.2785E-6
	30.78180	142.67420	20.86000	0.38847	20.815	-0.0016598	-0.22184	2.5479E-6
	35.91210	142.67420	20.86000	0.42060	20.815	-0.0019933	-0.24646	2.8254E-6
	41.04240	142.67420	20.86000	0.45194	20.815	-0.0023356	-0.27077	3.0990E-6
	46.17270	142.67420	20.86000	0.48141	20.815	-0.0026566	-0.29349	3.3545E-6
	51.30300	142.67420	20.86000	0.50785	20.815	-0.0029229	-0.31323	3.5771E-6
	56.43330	142.67420	20.86000	0.53015	20.815	-0.0031072	-0.32885	3.7542E-6
	61.56360	142.67420	20.86000	0.54732	20.815	-0.0031969	-0.33966	3.8780E-6
	66.69390	142.67420	20.86000	0.55858	20.815	-0.0031968	-0.34548	3.9464E-6
	71.82420	142.67420	20.86000	0.56348	20.815	-0.0031253	-0.34662	3.9623E-6
	76.95450	142.67420	20.86000	0.56187	20.815	-0.0030054	-0.34364	3.9314E-6
	82.08480	142.67420	20.86000	0.55393	20.815	-0.0028570	-0.33715	3.8604E-6
	87.21510	142.67420	20.86000	0.54016	20.815	-0.0026921	-0.32767	3.7549E-6
	92.34540	142.67420	20.86000	0.52126	20.815	-0.0025155	-0.31560	3.6193E-6
	97.47570	142.67420	20.86000	0.49812	20.815	-0.0023274	-0.30125	3.4574E-6
	102.60600	142.67420	20.86000	0.47173	20.815	-0.0021277	-0.28495	3.2729E-6
	107.73630	142.67420	20.86000	0.44307	20.815	-0.0019184	-0.26708	3.0703E-6
	112.86660	142.67420	20.86000	0.41309	20.815	-0.0017042	-0.24812	2.8551E-6
	117.99690	142.67420	20.86000	0.38266	20.815	-0.0014916	-0.22861	2.6333E-6
	123.12720	142.67420	20.86000	0.35250	20.815	-0.0012877	-0.20907	2.4110E-6
	128.25750	142.67420	20.86000	0.32321	20.815	-0.0010984	-0.18999	2.1935E-6
	133.38780	142.67420	20.86000	0.29523	20.815	-927.50E-6	-0.17176	1.9854E-6
	138.51810	142.67420	20.86000	0.26888	20.815	-777.09E-6	-0.15467	1.7898E-6
	143.64840	142.67420	20.86000	0.24435	20.815	-647.34E-6	-0.13887	1.6087E-6
	148.77870	142.67420	20.86000	0.22173	20.815	-537.19E-6	-0.12444	1.4432E-6
	153.90900	142.67420	20.86000	0.20101	20.815	-444.80E-6	-0.11141	1.2932E-6 !
	0.00000	147.59400	20.86000	0.19975	20.815	-364.48E-6	-0.095894	1.1138E-6 !
	5.13030	147.59400	20.86000	0.21964	20.815	-448.64E-6	-0.10761	1.2485E-6 !
	10.26060	147.59400	20.86000	0.24114	20.815	-552.00E-6	-0.12073	1.3990E-6 !
	15.39090	147.59400	20.86000	0.26416	20.815	-677.37E-6	-0.13527	1.5655E-6 !
	20.52120	147.59400	20.86000	0.28849	20.815	-826.63E-6	-0.15119	1.7472E-6 !
	25.65150	147.59400	20.86000	0.31378	20.815	-999.74E-6	-0.16828	1.9419E-6 !
	30.78180	147.59400	20.86000	0.33959	20.815	-0.0011935	-0.18619	2.1455E-6 !
	35.91210	147.59400	20.86000	0.36529	20.815	-0.0014005	-0.20439	2.3520E-6 !
	41.04240	147.59400	20.86000	0.39017	20.815	-0.0016086	-0.22216	2.5534E-6 !
	46.17270	147.59400	20.86000	0.41339	20.815	-0.0018023	-0.23868	2.7407E-6 !
	51.30300	147.59400	20.86000	0.43412	20.815	-0.0019650	-0.25312	2.9046E-6 !
	56.43330	147.59400	20.86000	0.45153	20.815	-0.0020835	-0.26477	3.0374E-6 !
	61.56360	147.59400	20.86000	0.46490	20.815	-0.0021509	-0.27318	3.1338E-6 !
	66.69390	147.59400	20.86000	0.47370	20.815	-0.0021682	-0.27817	3.1917E-6 !
	71.82420	147.59400	20.86000	0.47756	20.815	-0.0021423	-0.27981	3.2119E-6 !
	76.95450	147.59400	20.86000	0.47640	20.815	-0.0020834	-0.27836	3.1970E-6 !
	82.08480	147.59400	20.86000	0.47034	20.815	-0.0020008	-0.27415	3.1505E-6 !
	87.21510	147.59400	20.86000	0.45972	20.815	-0.0019014	-0.26751	3.0760E-6 !
	92.34540	147.59400	20.86000	0.44506	20.815	-0.0017892	-0.25874	2.9769E-6 !
	97.47570	147.59400	20.86000	0.42700	20.815	-0.0016663	-0.24810	2.8562E-6 !
	102.60600	147.59400	20.86000	0.40624	20.815	-0.0015341	-0.23589	2.7173E-6 !
	107.73630	147.59400	20.86000	0.38354	20.815	-0.0013950	-0.22241	2.5639E-6 !
	112.86660	147.59400	20.86000	0.35962	20.815	-0.0012519	-0.20802	2.3999E-6 !
	117.99690	147.59400	20.86000	0.33512	20.815	-0.0011092	-0.19311	2.2298E-6 !
	123.12720	147.59400	20.86000	0.31063	20.815	-970.72E-6	-0.17806	2.0578E-6 !
	128.25750	147.59400	20.86000	0.28662	20.815	-840.31E-6	-0.16321	1.8879E-6 !
	133.38780	147.59400	20.86000	0.26348	20.815	-720.63E-6	-0.14886	1.7235E-6 !
	138.51810	147.59400	20.86000	0.24148	20.815	-613.28E-6	-0.13522	1.5671E-6 !
	143.64840	147.59400	20.86000	0.22080	20.815	-518.83E-6	-0.12246	1.4205E-6 !
	148.77870	147.59400	20.86000	0.20155	20.815	-437.02E-6	-0.11066	1.2848E-6 !
	153.90900	147.59400	20.86000	0.18376	20.815	-367.07E-6	-0.099857	1.1603E-6 !

! Point lies outside soil zones. Results calculated for this point assume a soil zone with properties of the first soil profile.

Analysis Options

Analysis: Boussinesq
Global Poisson's ratio: 0.50
Maximum allowable ratio between values of E: 1.5
Horizontal rigid boundary level: -10.00 [m OD]
Stiffness for horizontal displacement calculations: Weighted average
Using legacy heave correction factor: No
Displacements at load centroids: Yes

Soil ProfilesSoil Profile 1

Layer	Level at top	Number of intermediate displacement levels	Youngs Modulus Top	Youngs Modulus Btm	Poissons ratio	Non-linear curve
	[mOD]		[kN/m²]	[kN/m²]		
1	27.000	10	14000.	14000.	0.20000	None
2	24.500	8	30000.	30000.	0.20000	None
3	22.500	74	36000.	108000.	0.50000	None
4	4.0000	52	144000.	279800.	0.50000	None

Soil Zones

Zone	Name	X coordinates min	X coordinates max	Y coordinates min	Y coordinates max	Profile
		[m]	[m]	[m]	[m]	
1	Boundary	0.00000	153.90850	0.00000	147.59380	Soil Profile 1

Load Data

Load ref.	Name	Shape	Orientation of Plane	Load position: Centre of load (Global) X [m]	Y [m]	Z (level) [m]	Angle of local x from [Degrees]	Width x or Radius [m]	Length y [m]	Polygon Coordinates [m]	Rectangle tolerance [%]	Number of rectangles	Load value: Normal (local z) [kN/m²]	Tangential (local x) [kN/m²]	Tangential (local y) [kN/m²]
1	Enabling Works 1.1	Polygonal	Horizontal	N/A	N/A	24.92000	N/A	N/A	N/A	(80.2,85.5) (88.3,85.6) (87.5,69.3) (87.4,69.3) (87.3,68.3) (84.6,68.3) (84.6,69) (79.7,69) (80.2,85.5)	10.000	4	18.600	N/A	N/A
2	Enabling Works 1.2	Polygonal	Horizontal	N/A	N/A	24.92000	N/A	N/A	N/A	(50.8,54) (50.8,50) (72.2,50.8) (72.3,50.5) (74.4,50.6) (74.6,50.9) (74.9,50.9) (74.9,56.6) (69.4,56.7) (69.4,56.5) (69.3,56.5) (69.3,54.4) (69.4,54.4) (69.4,53.9) (69.3,53.9) (69.3,54) (50.9,54) (50.9,54) (50.8,54)	10.000	9	18.600	N/A	N/A
3	Enabling Works 2	Polygonal	Horizontal	N/A	N/A	24.92000	N/A	N/A	N/A	(79.7,56.6) (79.7,51.1) (84.2,51.2) (84.2,56.4) (84,56.4) (84,56.6) (79.7,56.6)	10.000	2	11.600	N/A	N/A
4	Enabling Works 3	Polygonal	Horizontal	N/A	N/A	24.92000	N/A	N/A	N/A	(51,83.7) (56.3,83.7) (56.2,62.7) (50.9,62.7) (51,83.7)	10.000	1	0.60000	N/A	N/A
5	Enabling Works 4	Polygonal	Horizontal	N/A	N/A	24.92000	N/A	N/A	N/A	(51.2,62.7) (56.2,62.7) (56.2,57.3) (68.6,57.2) (69.4,57.2) (69.4,56.5) (69.3,56.5) (69.3,54.4) (69.4,54.4) (69.4,53.9) (69.3,53.9) (69.3,54) (50.9,54) (50.9,62.7) (51.2,62.7)	10.000	5	-11.400	N/A	N/A
6	Enabling Works 5.1	Polygonal	Horizontal	N/A	N/A	27.00000	N/A	N/A	N/A	(88.3,85.6) (103,85.7) (103,84.7) (104,84.7) (104,84.3) (103,84.3) (102,62.8) (88.3,62.7) (87.6,64.7) (87.5,67.9) (87.3,68.3) (87.4,69.3) (87.5,69.3) (88.3,85.6)	10.000	8	-52.000	N/A	N/A
7	Enabling Works 5.2	Polygonal	Horizontal	N/A	N/A	27.00000	N/A	N/A	N/A	(79.7,69) (79.8,68.6) (79.8,57.6) (79.8,56.6) (74.8,56.6) (74.7,57.1) (74.6,57.1) (74.7,68.5) (74.8,68.5) (74.8,68.8) (74.8,69) (75,69) (79.7,69)	10.000	4	-52.000	N/A	N/A
8	Enabling Works 5.3	Polygonal	Horizontal	N/A	N/A	27.00000	N/A	N/A	N/A	(50.9,86.8) (50.9,92.6) (50,92.6) (49.9,97.4) (57,97.3) (57.1,93.3) (67.2,93.5) (67.2,91.8) (66.2,86.8) (50.9,86.8)	10.000	6	-52.000	N/A	N/A
9	Enabling Works 6.1	Polygonal	Horizontal	N/A	N/A	24.92000	N/A	N/A	N/A	(79.7,69) (84.6,69) (84.6,68.3) (87.3,68.3) (87.5,67.9) (87.6,64.7) (88.3,62.7) (102,62.8) (102,52.4) (102,52.4) (102,51.8) (102,51.8) (102,51.9) (84.2,51.2) (84.2,56.4) (84,56.4) (84,56.6) (79.8,56.6) (79.8,68.6) (79.7,69)	10.000	17	-18.400	N/A	N/A
10	Enabling Works 6.2	Polygonal	Horizontal	N/A	N/A	24.92000	N/A	N/A	N/A	(51,83.7) (51,83.8) (50.8,83.8) (50.8,84.3) (50.9,84.3) (50.9,86.8) (66.2,86.8) (66.1,68.3) (68.8,68.3) (68.8,69.1) (74.8,69) (74.8,68.5) (74.7,68.5) (74.6,57.1) (74.7,57.1) (74.8,56.6) (69.4,56.7) (69.4,56.5) (69.4,57.2) (56.2,57.3) (56.3,83.7) (51,83.7)	10.000	9	-18.400	N/A	N/A
11	C1	Polygonal	Horizontal	N/A	N/A	20.86000	N/A	N/A	N/A	(50.4,97.7) (50.4,85.2) (49.7,85.2) (49.7,76.4) (58.9,76.4) (58.8,80.1) (94,80.9) (104,80.3) (104,85.8) (89.1,85.8) (89.1,90.1) (83.8,90.1) (83.7,94) (68.9,94) (68.9,93.7) (57.6,93.8) (57.6,97.8) (50.4,97.7)	10.000	14	42.000	N/A	N/A
12	C2	Polygonal	Horizontal	N/A	N/A	20.86000	N/A	N/A	N/A	(104,80.3) (102,53.1) (87.6,52.4) (87.7,50.4) (81,50) (80.7,50.6) (73.3,50.4) (73.3,49.8) (50.8,49.1) (50.3,49.2) (49.9,49.6) (49.7,50.1) (49.7,76.4) (58.9,76.4) (59.3,63.6) (94.4,64.5) (94,80.9) (104,80.3)	10.000	20	42.000	N/A	N/A
13	C3	Polygonal	Horizontal	N/A	N/A	19.86000	N/A	N/A	N/A	(58.8,80.1) (94,80.9) (94.4,64.5) (59.3,63.6) (58.8,80.1)	10.000	2	37.000	N/A	N/A

Polygonal Loads' Rectangles

No.	Centre of load X [m]	Centre of load Y [m]	Angle of local x from global X [Degrees]	Width x [m]	Depth y [m]
Load 1 : Enabling Works 1.1					
(Edge 1 optimal)					
1	85.96575	68.62430	-90.000	0.72060	2.7389
2	86.25496	85.51930	-90.000	0.080600	4.0650

No.	Centre of load X	Y	Angle of local x from global X	Width x	Depth y
3	83.90496	77.39135	-90.000	16.175	7.9464
4	83.53306	69.15790	-90.000	0.29160	7.6579
Load 2 : Enabling Works 1.2					
(Edge 8 optimal)					
1	74.72227	53.76071	179.70	0.29834	5.7764
2	74.50608	53.69022	179.70	0.13328	5.9196
3	73.38191	53.60396	179.70	2.1141	6.1038
4	72.27104	53.65303	179.70	0.10809	6.0171
5	70.82165	53.69847	179.70	2.7911	5.9413
6	69.36205	55.45700	179.70	0.11140	2.0256
7	69.34631	52.28483	179.70	0.14490	3.2210
8	60.08459	52.17200	179.70	18.377	3.6701
9	50.86525	51.98391	179.70	0.059351	3.9657
Load 3 : Enabling Works 2					
(Edge 6 optimal)					
1	84.10209	53.82223	179.70	0.17084	5.1608
2	81.83703	53.88717	179.70	4.3426	5.4473
Load 4 : Enabling Works 3					
(Edge 1 optimal)					
1	53.57203	73.19282	89.768	20.955	5.2830
Load 5 : Enabling Works 4					
(Edge 5 optimal)					
1	69.35496	53.93215	89.790	0.073173	0.14390
2	60.16382	54.24442	89.790	0.46665	18.523
3	60.10138	55.49083	89.790	2.0257	18.398
4	60.16260	56.85433	89.790	0.70086	18.521
5	53.53159	59.98233	89.790	5.4340	5.2588
Load 6 : Enabling Works 5.1					
(Edge 1 optimal)					
1	87.39194	68.73367	177.17	0.10142	1.1364
2	103.47440	84.49295	177.17	0.057148	0.35654
3	102.87954	73.74655	177.17	0.051448	21.875
4	102.83684	74.00626	177.17	0.059465	22.397
5	95.82251	74.19070	177.17	13.970	22.928
6	88.47096	74.61110	177.17	0.75634	21.938
7	88.02372	75.92575	177.17	0.26668	19.295
8	87.89848	76.77219	177.17	0.066950	17.597
Load 7 : Enabling Works 5.2					
(Edge 2 optimal)					
1	77.30828	62.82955	179.71	4.7194	12.389
2	74.86860	62.84227	179.71	0.16007	12.389
3	74.71247	62.84688	179.71	0.057203	11.400
4	79.73953	62.71925	179.71	0.14339	12.195
Load 8 : Enabling Works 5.3					
(Edge 9 optimal)					
1	67.01345	92.21826	-179.22	0.36715	2.5219
2	66.65756	91.38615	-179.22	0.36715	4.1763
3	66.30167	90.55403	-179.22	0.36715	5.8308
4	61.61512	90.10464	-179.22	9.0173	6.6023
5	53.97184	92.08378	-179.22	6.2083	10.579
6	50.39858	94.99581	-179.22	0.85857	4.8591
Load 9 : Enabling Works 6.1					
(Edge 20 optimal)					
1	79.73580	68.96266	-0.29546	0.071904	0.098465
2	79.80721	68.86498	-0.29546	0.071904	0.29301
3	81.94089	62.80476	-0.29546	4.2276	12.389
4	84.14830	62.69382	-0.29546	0.17106	12.586
5	84.40097	60.11840	-0.29546	0.29922	17.734
6	85.91269	59.78219	-0.29546	2.7202	16.952
7	87.36286	59.72483	-0.29546	0.18066	16.731
8	87.50962	58.82734	-0.29546	0.12210	14.925
9	87.89653	57.52027	-0.29546	0.66520	12.282
10	94.98145	57.19077	-0.29546	13.508	11.106
11	101.80604	52.08427	-0.29546	0.11115	0.54843
12	101.82779	58.02577	-0.29546	0.093376	9.5824
13	101.92566	58.89788	-0.29546	0.093376	7.8402
14	102.02354	59.77000	-0.29546	0.093376	6.0979
15	102.12141	60.64211	-0.29546	0.093376	4.3556
16	102.21929	61.51423	-0.29546	0.093376	2.6134
17	102.31716	62.38634	-0.29546	0.093376	0.87113
Load 10 : Enabling Works 6.2					
(Edge 19 optimal)					
1	61.15982	72.00771	-0.29653	9.8648	29.566
2	67.42842	62.74639	-0.29653	2.6850	11.122
3	69.11334	63.12129	-0.29653	0.68088	11.893
4	72.06678	62.85738	-0.29653	5.2215	12.389
5	74.69732	56.89668	-0.29653	0.10120	0.49514
6	74.74200	68.79252	-0.29653	0.055268	0.49027
7	50.85415	84.06772	-0.29653	0.069227	0.43996
8	50.93103	85.31834	-0.29653	0.071589	2.9447
9	53.61552	85.23107	-0.29653	5.2971	3.1193
Load 11 : C1					
(Edge 13 optimal)					
1	50.04601	80.78658	-179.87	0.67978	8.8417
2	58.84914	77.30161	-179.87	0.099530	1.8718
3	103.87257	85.48760	-179.87	0.073162	0.55001
4	103.80067	84.93758	-179.87	0.073162	1.6500
5	103.72878	84.38756	-179.87	0.073162	2.7501
6	103.65689	83.83753	-179.87	0.073162	3.8501
7	103.58499	83.28751	-179.87	0.073162	4.9501
8	98.76706	83.16569	-179.87	9.5632	5.1925
9	91.52313	83.29188	-179.87	4.9240	4.9381
10	86.42394	85.40210	-179.87	5.2646	9.3806
11	76.35295	87.22981	-179.87	14.818	13.475
12	63.86077	86.97412	-179.87	10.167	13.508
13	58.19769	85.05828	-179.87	1.1676	17.385
14	53.99163	87.04706	-179.87	7.1828	21.363
Load 12 : C2					
(Edge 1 optimal)					
1	91.02065	58.49006	-178.57	7.0904	11.837
2	84.17299	57.21037	-178.57	6.6647	14.053
3	80.69623	57.21634	-178.57	0.28636	13.867
4	76.83058	57.26453	-178.57	7.4401	13.577
5	66.28351	56.68028	-178.57	13.677	14.217
6	54.86653	62.79515	-178.57	8.7457	27.150
7	50.26568	62.75183	-178.57	0.45528	27.236
8	50.02226	62.17289	-178.57	0.060376	25.967
9	49.96988	60.12975	-178.57	0.14661	21.733
10	49.89530	57.25032	-178.57	0.14661	15.705
11	49.82072	54.37089	-178.57	0.14661	9.6765
12	49.76968	52.45372	-178.57	0.051377	5.5520
13	49.74219	51.49880	-178.57	0.051377	3.3312
14	49.71470	50.54388	-178.57	0.051377	1.1104
15	103.34668	78.91126	-178.57	0.48491	2.7344
16	102.92925	76.20893	-178.57	0.48491	8.2032
17	102.51183	73.50659	-178.57	0.48491	13.672
18	102.09441	70.80425	-178.57	0.48491	19.141
19	101.67699	68.10192	-178.57	0.48491	24.609
20	97.91350	66.78001	-178.57	7.1059	27.743
Load 13 : C3					
(Edge 2 optimal)					
1	76.62937	72.27446	1.4338	35.142	16.443
2	58.92796	75.98621	1.4338	0.063687	8.2501

Displacement Data

Ref.	Type	Name	Direction of Extrusion	Line/Line for extrusion First point X [m]	First point Y [m]	First point Z(level) [m]	Second point X [m]	Second point Y [m]	Second point Z(level) [m]	No. of intrvls across extrusion/line	Extrusion Depth [m]	No. of intrvls along extrusion	Calculate	Show Detailed results
1	Line	Tottenham Court Road	N/A	102.43574	62.82325	27.00000	127.43574	62.82325	27.00000	25	N/A	N/A	Yes	Yes
2	Line	Howland Street	N/A	73.35504	50.35844	27.00000	73.35504	35.35844	27.00000	15	N/A	N/A	Yes	Yes
3	Line	Whitfield Street	N/A	49.69721	76.36573	27.00000	39.69721	76.36573	27.00000	10	N/A	N/A	Yes	Yes
4	Line	Qube	N/A	94.43186	85.76132	24.36000	94.43186	137.76132	24.36000	52	N/A	N/A	Yes	Yes
5	Grid	Raft Formation	Global X	0.00000	0.00000	20.86000	N/A	147.59400	20.86000	30	153.90900	30	Yes	Yes

Ref.	Type	Name	Direction of Extrusion	Line/Line for extrusion First point X [m]	First point Y [m]	First point Z(level) [m]	Second point X [m]	Second point Y [m]	Second point Z(level) [m]	No. of intrvls across extrusion/line	Extrusion Depth [m]	No. of intrvls along extrusion	Calculate	Show Detailed results

Warnings

(1)The displacement location of Grid 5 at (153.909, 0.000, 20.860)m lies wide of all soil zones. The first soil profile will be used.There are more displacement locations for which this warning applies. Only one is detailed here.

RESULTS FOR GRIDS

Analysis: Boussinesq
Global Poisson's ratio: 0.50
Horizontal rigid boundary level: -10.00 [m OD]

The maximum displacement difference between the Boussinesq method (-9.4966mm) and the Mindlin method (-12.644mm) occurs at point X = 57.68470m, Y = 91.26023m, level = 27.000mOD, and is 3.1478mm.

Name	Location X [m]	Location Y [m]	Location Z[Level] [mOD]	Displacement Z [mm]	Stresses Calc Level [mOD]	Stresses Vert Stress [kN/m²]	Stresses Sum Princ [kN/m²]	Stresses Vert Strain [-]
Enabling Works 1.1	83.93674	77.19338	24.92000	5.6291	24.815	17.278	37.807	940.90E-6
Enabling Works 1.2	63.82263	52.65957	24.92000	5.9989	24.815	18.580	51.543	856.27E-6
Enabling Works 2	81.91347	53.88372	24.92000	4.3175	24.815	11.022	25.567	579.45E-6
Enabling Works 3	53.57175	73.19850	24.92000	3.7625	24.815	0.57984	-0.39031	55.277E-6
Enabling Works 4	57.97182	57.03782	24.92000	2.5045	24.815	-11.452	-36.493	-460.25E-6
Enabling Works 5.1	95.37095	74.24229	27.00000	-11.374	26.886	-52.000	-154.24	-0.0022537
Enabling Works 5.2	77.25530	62.82244	27.00000	-8.0538	26.886	-51.998	-151.34	-0.0022950
Enabling Works 5.3	57.68470	91.26023	27.00000	-9.4966	26.886	-51.998	-152.37	-0.0022802
Enabling Works 6.1	90.34978	58.88939	24.92000	-0.12198	24.815	-19.395	-67.326	-700.63E-6
Enabling Works 6.2	63.18110	70.26044	24.92000	0.64126	24.815	-18.429	-56.557	-771.64E-6
C1	70.60521	86.38667	20.86000	3.8179	20.815	37.935	109.20	54.061E-6
C2	75.82670	61.11070	20.86000	1.5852	20.815	16.189	79.778	-366.71E-6
C3	76.59711	72.27559	19.86000	3.0070	19.837	31.723	96.716	-16.671E-6
Tottenham Court Road	102.43574	62.82325	27.00000	-3.1573	26.886	-5.8892	-34.513	-11.741E-6
	103.43574	62.82325	27.00000	-1.6452	26.886	-0.0087426	-2.9111	40.838E-6
	104.43574	62.82325	27.00000	-1.1238	26.886	-0.0011301	-1.3305	18.910E-6
	105.43574	62.82325	27.00000	-0.86097	26.886	-332.13E-6	-0.81820	11.660E-6
	106.43574	62.82325	27.00000	-0.69987	26.886	-138.41E-6	-0.56973	8.1272E-6
	107.43574	62.82325	27.00000	-0.58918	26.886	-69.920E-6	-0.42486	6.0635E-6
	108.43574	62.82325	27.00000	-0.50743	26.886	-39.878E-6	-0.33095	4.7245E-6
	109.43574	62.82325	27.00000	-0.44395	26.886	-24.718E-6	-0.26574	3.7942E-6
	110.43574	62.82325	27.00000	-0.39283	26.886	-16.275E-6	-0.21821	3.1159E-6
	111.43574	62.82325	27.00000	-0.35052	26.886	-11.219E-6	-0.18231	2.6035E-6
	112.43574	62.82325	27.00000	-0.31476	26.886	-8.0157E-6	-0.15444	2.2056E-6
	113.43574	62.82325	27.00000	-0.28408	26.886	-5.8944E-6	-0.13233	1.8899E-6
	114.43574	62.82325	27.00000	-0.25743	26.886	-4.4382E-6	-0.11446	1.6348E-6
	115.43574	62.82325	27.00000	-0.23408	26.886	-3.4083E-6	-0.099823	1.4258E-6
	116.43574	62.82325	27.00000	-0.21347	26.886	-2.6617E-6	-0.087673	1.2522E-6
	117.43574	62.82325	27.00000	-0.19518	26.886	-2.1088E-6	-0.077483	1.1067E-6
	118.43574	62.82325	27.00000	-0.17889	26.886	-1.6919E-6	-0.068858	0.0
	119.43574	62.82325	27.00000	-0.16431	26.886	-1.3724E-6	-0.061498	0.0
	120.43574	62.82325	27.00000	-0.15122	26.886	-1.1242E-6	-0.055172	0.0
	121.43574	62.82325	27.00000	-0.13946	26.886	0.0	-0.049701	0.0
	122.43574	62.82325	27.00000	-0.12885	26.886	0.0	-0.044941	0.0
	123.43574	62.82325	27.00000	-0.11926	26.886	0.0	-0.040779	0.0
	124.43574	62.82325	27.00000	-0.11059	26.886	0.0	-0.037121	0.0
	125.43574	62.82325	27.00000	-0.10272	26.886	0.0	-0.033893	0.0
	126.43574	62.82325	27.00000	-0.095577	26.886	0.0	-0.031032	0.0
	127.43574	62.82325	27.00000	-0.089080	26.886	0.0	-0.028488	0.0
Howland Street	73.35504	50.35844	27.00000	3.3367	26.886	-17.782E-6	-0.15926	2.2736E-6
	73.35504	49.35844	27.00000	1.8812	26.886	-11.043E-6	-0.12824	1.8310E-6
	73.35504	48.35844	27.00000	1.1720	26.886	-7.2065E-6	-0.10569	1.5093E-6
	73.35504	47.35844	27.00000	0.75768	26.886	-4.9016E-6	-0.088798	1.2681E-6
	73.35504	46.35844	27.00000	0.48298	26.886	-3.4525E-6	-0.075792	1.0824E-6
	73.35504	45.35844	27.00000	0.28977	26.886	-2.5058E-6	-0.065549	0.0
	73.35504	44.35844	27.00000	0.14943	26.886	-1.8662E-6	-0.057323	0.0
	73.35504	43.35844	27.00000	0.045664	26.886	-1.4215E-6	-0.050602	0.0
	73.35504	42.35844	27.00000	-0.031739	26.886	-1.1042E-6	-0.045029	0.0
	73.35504	41.35844	27.00000	-0.089584	26.886	0.0	-0.040347	0.0
	73.35504	40.35844	27.00000	-0.13263	26.886	0.0	-0.036371	0.0
	73.35504	39.35844	27.00000	-0.16434	26.886	0.0	-0.032958	0.0
	73.35504	38.35844	27.00000	-0.18726	26.886	0.0	-0.030005	0.0
	73.35504	37.35844	27.00000	-0.20335	26.886	0.0	-0.027429	0.0
	73.35504	36.35844	27.00000	-0.21408	26.886	0.0	-0.025166	0.0
	73.35504	35.35844	27.00000	-0.22063	26.886	0.0	-0.023166	0.0
Whitfield Street	49.69721	76.36573	27.00000	1.9960	26.886	-4.9607E-6	-0.10131	1.4468E-6
	48.69721	76.36573	27.00000	1.0700	26.886	-4.3365E-6	-0.093585	1.3366E-6
	47.69721	76.36573	27.00000	0.64459	26.886	-3.7475E-6	-0.086048	1.2289E-6
	46.69721	76.36573	27.00000	0.37650	26.886	-3.2079E-6	-0.078818	1.1257E-6
	45.69721	76.36573	27.00000	0.19376	26.886	-2.7258E-6	-0.071990	1.0282E-6
	44.69721	76.36573	27.00000	0.064624	26.886	-2.3039E-6	-0.065622	0.0
	43.69721	76.36573	27.00000	-0.028241	26.886	-1.9406E-6	-0.059746	0.0
	42.69721	76.36573	27.00000	-0.095453	26.886	-1.6315E-6	-0.054367	0.0
	41.69721	76.36573	27.00000	-0.14400	26.886	-1.3708E-6	-0.049475	0.0
	40.69721	76.36573	27.00000	-0.17869	26.886	-1.1524E-6	-0.045045	0.0
	39.69721	76.36573	27.00000	-0.20298	26.886	0.0	-0.041047	0.0
Qube	94.43186	85.76132	24.36000	-2.3994	24.244	-25.138	-58.748	-613.88E-6
	94.43186	86.76132	24.36000	-2.1891	24.244	-14.228	-42.791	-283.84E-6
	94.43186	87.76132	24.36000	-1.6734	24.244	-7.2204	-30.246	-87.180E-6
	94.43186	88.76132	24.36000	-1.2552	24.244	-3.6656	-21.582	-2.7446E-6
	94.43186	89.76132	24.36000	-0.95723	24.244	-1.9575	-15.805	27.065E-6
	94.43186	90.76132	24.36000	-0.75166	24.244	-1.1108	-11.911	34.975E-6
	94.43186	91.76132	24.36000	-0.61008	24.244	-0.66700	-9.2197	34.784E-6
	94.43186	92.76132	24.36000	-0.51159	24.244	-0.42069	-7.3064	31.882E-6
	94.43186	93.76132	24.36000	-0.44193	24.244	-0.27669	-5.9097	28.330E-6
	94.43186	94.76132	24.36000	-0.39163	24.244	-0.18861	-4.8653	24.891E-6
	94.43186	95.76132	24.36000	-0.35439	24.244	-0.13259	-4.0674	21.812E-6
	94.43186	96.76132	24.36000	-0.32606	24.244	-0.095719	-3.4461	19.145E-6
	94.43186	97.76132	24.36000	-0.30384	24.244	-0.070732	-2.9542	16.865E-6
	94.43186	98.76132	24.36000	-0.28585	24.244	-0.053352	-2.5587	14.924E-6
	94.43186	99.76132	24.36000	-0.27081	24.244	-0.040982	-2.2364	13.270E-6
	94.43186	100.76132	24.36000	-0.25783	24.244	-0.031996	-1.9706	11.858E-6
	94.43186	101.76132	24.36000	-0.24632	24.244	-0.025348	-1.7489	10.646E-6
	94.43186	102.76132	24.36000	-0.23587	24.244	-0.020347	-1.5622	9.6007E-6
	94.43186	103.76132	24.36000	-0.22618	24.244	-0.016528	-1.4034	8.6950E-6
	94.43186	104.76132	24.36000	-0.21707	24.244	-0.013572	-1.2673	7.9060E-6
	94.43186	105.76132	24.36000	-0.20842	24.244	-0.011255	-1.1498	7.2149E-6
	94.43186	106.76132	24.36000	-0.20014	24.244	-0.0094168	-1.0475	6.6067E-6
	94.43186	107.76132	24.36000	-0.19217	24.244	-0.0079437	-0.95798	6.0688E-6
	94.43186	108.76132	24.36000	-0.18448	24.244	-0.0067513	-0.87914	5.5909E-6
	94.43186	109.76132	24.36000	-0.17705	24.244	-0.0057773	-0.80933	5.1645E-6
	94.43186	110.76132	24.36000	-0.16987	24.244	-0.0049749	-0.74722	4.7824E-6
	94.43186	111.76132	24.36000	-0.16293	24.244	-0.0043087	-0.69169	4.4389E-6
	94.43186	112.76132	24.36000	-0.15623	24.244	-0.0037515	-0.64183	4.1288E-6
	94.43186	113.76132	24.36000	-0.14976	24.244	-0.0032823	-0.59690	3.8481E-6
	94.43186	114.76132	24.36000	-0.14352	24.244	-0.0028847	-0.55626	3.5930E-6
	94.43186	115.76132	24.36000	-0.13752	24.244	-0.0025458	-0.51938	3.3607E-6
	94.43186	116.76132	24.36000	-0.13174	24.244	-0.0022554	-0.48580	3.1485E-6
	94.43186	117.76132	24.36000	-0.12619	24.244	-0.0020052	-0.45515	2.9541E-6
	94.43186	118.76132	24.36000	-0.12087	24.244	-0.0017887	-0.42709	2.7757E-6
	94.43186	119.76132	24.36000	-0.11576	24.244	-0.0016005	-0.40134	2.6116E-6
	94.43186	120.76132	24.36000	-0.11087	24.244	-0.0014362	-0.37765	2.4602E-6
	94.43186	121.76132	24.36000	-0.10619	24.244	-0.0012922	-0.35582	2.3205E-6
	94.43186	122.76132	24.36000	-0.10172	24.244	-0.0011656	-0.33566	2.1911E-6
	94.43186	123.76132	24.36000	-0.097442	24.244	-0.0010539	-0.31701	2.0712E-6
	94.43186	124.76132	24.36000	-0.093357	24.244	-955.01E-6	-0.29971	1.9599E-6
	94.43186	125.76132	24.36000	-0.089457	24.244	-867.20E-6	-0.28366	1.8564E-6

Name	Location X [m]	Location Y [m]	Displacement Z[Level] [mOD]	Displacement Z [mm]	Stresses Calc Level [mOD]	Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]	
	94.43186	126.76132	24.36000	-0.085736	24.244	-789.03E-6	-0.26873	1.7600E-6	
	94.43186	127.76132	24.36000	-0.082186	24.244	-719.25E-6	-0.25483	1.6701E-6	
	94.43186	128.76132	24.36000	-0.078801	24.244	-656.81E-6	-0.24186	1.5861E-6	
	94.43186	129.76132	24.36000	-0.075574	24.244	-600.80E-6	-0.22975	1.5077E-6	
	94.43186	130.76132	24.36000	-0.072498	24.244	-550.45E-6	-0.21844	1.4342E-6	
	94.43186	131.76132	24.36000	-0.069567	24.244	-505.10E-6	-0.20784	1.3654E-6	
	94.43186	132.76132	24.36000	-0.066774	24.244	-464.17E-6	-0.19791	1.3008E-6	
	94.43186	133.76132	24.36000	-0.064112	24.244	-427.15E-6	-0.18860	1.2402E-6	
	94.43186	134.76132	24.36000	-0.061575	24.244	-393.62E-6	-0.17985	1.1833E-6	
	94.43186	135.76132	24.36000	-0.059158	24.244	-363.19E-6	-0.17163	1.1297E-6	
	94.43186	136.76132	24.36000	-0.056854	24.244	-335.53E-6	-0.16390	1.0792E-6	
	94.43186	137.76132	24.36000	-0.054658	24.244	-310.35E-6	-0.15661	1.0317E-6	
Raft Formation	0.00000	0.00000	20.86000	-0.029335	20.815	-204.00E-6	-0.073348	0.0	
	5.13030	0.00000	20.86000	-0.032756	20.815	-240.67E-6	-0.081051	0.0	
	10.26060	0.00000	20.86000	-0.036517	20.815	-283.95E-6	-0.089552	1.0421E-6	
	15.39090	0.00000	20.86000	-0.040604	20.815	-334.83E-6	-0.098888	1.1500E-6	
	20.52120	0.00000	20.86000	-0.044979	20.815	-394.32E-6	-0.10908	1.2677E-6	
	25.65150	0.00000	20.86000	-0.049572	20.815	-463.42E-6	-0.12012	1.3950E-6	
	30.78180	0.00000	20.86000	-0.054281	20.815	-543.04E-6	-0.13199	1.5316E-6	
	35.91210	0.00000	20.86000	-0.058964	20.815	-633.87E-6	-0.14460	1.6765E-6	
	41.04240	0.00000	20.86000	-0.063445	20.815	-736.20E-6	-0.15783	1.8284E-6	
	46.17270	0.00000	20.86000	-0.067522	20.815	-849.67E-6	-0.17149	1.9849E-6	
	51.30300	0.00000	20.86000	-0.070986	20.815	-972.94E-6	-0.18534	2.1433E-6	
	56.43330	0.00000	20.86000	-0.073637	20.815	-0.0011032	-0.19902	2.2994E-6	
	61.56360	0.00000	20.86000	-0.075311	20.815	-0.0012359	-0.21210	2.4485E-6	
	66.69390	0.00000	20.86000	-0.075897	20.815	-0.0013645	-0.22407	2.5844E-6	
	71.82420	0.00000	20.86000	-0.075348	20.815	-0.0014808	-0.23432	2.7008E-6	
	76.95450	0.00000	20.86000	-0.073694	20.815	-0.0015761	-0.24226	2.7908E-6	
	82.08480	0.00000	20.86000	-0.071028	20.815	-0.0016417	-0.24735	2.8483E-6	
	87.21510	0.00000	20.86000	-0.067502	20.815	-0.0016711	-0.24916	2.8685E-6	
	92.34540	0.00000	20.86000	-0.063307	20.815	-0.0016610	-0.24748	2.8490E-6	
	97.47570	0.00000	20.86000	-0.058653	20.815	-0.0016116	-0.24232	2.7902E-6	
	102.60600	0.00000	20.86000	-0.053748	20.815	-0.0015273	-0.23399	2.6953E-6	
	107.73630	0.00000	20.86000	-0.048787	20.815	-0.0014154	-0.22297	2.5698E-6	
	112.86660	0.00000	20.86000	-0.043930	20.815	-0.0012849	-0.20990	2.4208E-6	
	117.99690	0.00000	20.86000	-0.039304	20.815	-0.0011451	-0.19548	2.2563E-6	
	123.12720	0.00000	20.86000	-0.034997	20.815	-0.0010044	-0.18037	2.0838E-6	
	128.25750	0.00000	20.86000	-0.031059	20.815	-869.25E-6	-0.16516	1.9098E-6	
	133.38780	0.00000	20.86000	-0.027511	20.815	-744.21E-6	-0.15029	1.7396E-6	
	138.51810	0.00000	20.86000	-0.024351	20.815	-631.79E-6	-0.13612	1.5770E-6	
	143.64840	0.00000	20.86000	-0.021561	20.815	-532.99E-6	-0.12286	1.4247E-6	
	148.77870	0.00000	20.86000	-0.019112	20.815	-447.66E-6	-0.11062	1.2839E-6	
	153.90900	0.00000	20.86000	-0.016971	20.815	-374.93E-6	-0.099462	1.1554E-6	!
	0.00000	4.91980	20.86000	-0.032578	20.815	-238.84E-6	-0.080552	0.0	
	5.13030	4.91980	20.86000	-0.036667	20.815	-284.70E-6	-0.089578	1.0424E-6	
	10.26060	4.91980	20.86000	-0.041221	20.815	-339.58E-6	-0.099641	1.1587E-6	
	15.39090	4.91980	20.86000	-0.046238	20.815	-405.04E-6	-0.11081	1.2876E-6	
	20.52120	4.91980	20.86000	-0.051682	20.815	-482.74E-6	-0.12314	1.4297E-6	
	25.65150	4.91980	20.86000	-0.057479	20.815	-574.46E-6	-0.13665	1.5853E-6	
	30.78180	4.91980	20.86000	-0.063504	20.815	-681.93E-6	-0.15134	1.7541E-6	
	35.91210	4.91980	20.86000	-0.069576	20.815	-806.75E-6	-0.16715	1.9354E-6	
	41.04240	4.91980	20.86000	-0.075458	20.815	-950.18E-6	-0.18396	2.1278E-6	
	46.17270	4.91980	20.86000	-0.080875	20.815	-0.0011128	-0.20157	2.3290E-6	
	51.30300	4.91980	20.86000	-0.085532	20.815	-0.0012937	-0.21970	2.5356E-6	
	56.43330	4.91980	20.86000	-0.089145	20.815	-0.0014899	-0.23791	2.7427E-6	
	61.56360	4.91980	20.86000	-0.091475	20.815	-0.0016950	-0.25564	2.9438E-6	
	66.69390	4.91980	20.86000	-0.092358	20.815	-0.0018987	-0.27216	3.1307E-6	
	71.82420	4.91980	20.86000	-0.091724	20.815	-0.0020873	-0.28660	3.2937E-6	
	76.95450	4.91980	20.86000	-0.089607	20.815	-0.0022449	-0.29803	3.4224E-6	
	82.08480	4.91980	20.86000	-0.086138	20.815	-0.0023556	-0.30555	3.5068E-6	
	87.21510	4.91980	20.86000	-0.081527	20.815	-0.0024071	-0.30846	3.5392E-6	
	92.34540	4.91980	20.86000	-0.076040	20.815	-0.0023927	-0.30637	3.5152E-6	
	97.47570	4.91980	20.86000	-0.069971	20.815	-0.0023129	-0.29931	3.4351E-6	
	102.60600	4.91980	20.86000	-0.063612	20.815	-0.0021758	-0.28772	3.3038E-6	
	107.73630	4.91980	20.86000	-0.057226	20.815	-0.0019948	-0.27240	3.1302E-6	
	112.86660	4.91980	20.86000	-0.051036	20.815	-0.0017867	-0.25437	2.9257E-6	
	117.99690	4.91980	20.86000	-0.045206	20.815	-0.0015678	-0.23471	2.7023E-6	
	123.12720	4.91980	20.86000	-0.039844	20.815	-0.0013521	-0.21440	2.4713E-6	
	128.25750	4.91980	20.86000	-0.035006	20.815	-0.0011497	-0.19427	2.2420E-6	
	133.38780	4.91980	20.86000	-0.030708	20.815	-966.99E-6	-0.17494	2.0213E-6	
	138.51810	4.91980	20.86000	-0.026933	20.815	-806.67E-6	-0.15683	1.8141E-6	
	143.64840	4.91980	20.86000	-0.023644	20.815	-669.10E-6	-0.14015	1.6230E-6	
	148.77870	4.91980	20.86000	-0.020795	20.815	-552.99E-6	-0.12501	1.4492E-6	
	153.90900	4.91980	20.86000	-0.018334	20.815	-456.19E-6	-0.11141	1.2929E-6	!
	0.00000	9.83960	20.86000	-0.036118	20.815	-279.85E-6	-0.088468	1.0295E-6	
	5.13030	9.83960	20.86000	-0.040992	20.815	-337.27E-6	-0.099051	1.1519E-6	
	10.26060	9.83960	20.86000	-0.046495	20.815	-407.01E-6	-0.11098	1.2895E-6	
	15.39090	9.83960	20.86000	-0.052642	20.815	-491.49E-6	-0.12436	1.4438E-6	
	20.52120	9.83960	20.86000	-0.059412	20.815	-593.40E-6	-0.13932	1.6159E-6	
	25.65150	9.83960	20.86000	-0.066728	20.815	-715.68E-6	-0.15591	1.8066E-6	
	30.78180	9.83960	20.86000	-0.074441	20.815	-861.45E-6	-0.17418	2.0160E-6	
	35.91210	9.83960	20.86000	-0.082319	20.815	-0.0010339	-0.19409	2.2439E-6	
	41.04240	9.83960	20.86000	-0.090051	20.815	-0.0012363	-0.21557	2.4891E-6	
	46.17270	9.83960	20.86000	-0.097258	20.815	-0.0014714	-0.23843	2.7494E-6	
	51.30300	9.83960	20.86000	-0.10353	20.815	-0.0017405	-0.26237	3.0213E-6	
	56.43330	9.83960	20.86000	-0.10846	20.815	-0.0020416	-0.28692	3.2990E-6	
	61.56360	9.83960	20.86000	-0.11172	20.815	-0.0023667	-0.31133	3.5744E-6	
	66.69390	9.83960	20.86000	-0.11306	20.815	-0.0026999	-0.33460	3.8361E-6	
	71.82420	9.83960	20.86000	-0.11237	20.815	-0.0030171	-0.35543	4.0696E-6	
	76.95450	9.83960	20.86000	-0.10969	20.815	-0.0032885	-0.37232	4.2585E-6	
	82.08480	9.83960	20.86000	-0.10519	20.815	-0.0034838	-0.38379	4.3864E-6	
	87.21510	9.83960	20.86000	-0.099163	20.815	-0.0035780	-0.38862	4.4397E-6	
	92.34540	9.83960	20.86000	-0.091977	20.815	-0.0035575	-0.38608	4.4106E-6	
	97.47570	9.83960	20.86000	-0.084038	20.815	-0.0034232	-0.37617	4.2989E-6	
	102.60600	9.83960	20.86000	-0.075753	20.815	-0.0031907	-0.35961	4.1126E-6	
	107.73630	9.83960	20.86000	-0.067492	20.815	-0.0028866	-0.33775	3.8665E-6	
	112.86660	9.83960	20.86000	-0.059558	20.815	-0.0025427	-0.31227	3.5792E-6	
	117.99690	9.83960	20.86000	-0.052171	20.815	-0.0021892	-0.28488	3.2699E-6	
	123.12720	9.83960	20.86000	-0.045467	20.815	-0.0018498	-0.25711	2.9555E-6	
	128.25750	9.83960	20.86000	-0.039506	20.815	-0.0015404	-0.23011	2.6493E-6	
	133.38780	9.83960	20.86000	-0.034288	20.815	-0.0012689	-0.20471	2.3604E-6	
	138.51810	9.83960	20.86000	-0.029774	20.815	-0.0010375	-0.18136	2.0942E-6	
	143.64840	9.83960	20.86000	-0.025899	20.815	-844.21E-6	-0.16027	1.8533E-6	
	148.77870	9.83960	20.86000	-0.022588	20.815	-685.30E-6	-0.14148	1.6380E-6	
	153.90900	9.83960	20.86000	-0.019766	20.815	-555.98E-6	-0.12487	1.4475E-6	!
	0.00000	14.75940	20.86000	-0.039940	20.815	-328.00E-6	-0.097136	1.1297E-6	
	5.13030	14.75940	20.86000	-0.045724	20.815	-399.99E-6	-0.10955	1.2730E-6	
	10.26060	14.75940	20.86000	-0.052347	20.815	-488.81E-6	-0.12369	1.4360E-6	
	15.39090	14.75940	20.86000	-0.059855	20.815	-598.17E-6	-0.13977	1.6211E-6	
	20.52120	14.75940	20.86000	-0.068249	20.815	-732.32E-6	-0.15795	1.8300E-6	
	25.65150	14.75940	20.86000	-0.077457	20.815	-896.02E-6	-0.17840	2.0644E-6	
	30.78180	14.75940	20.86000	-0.087304	20.815	-0.0010945	-0.20119	2.3253E-6	
	35.91210	14.75940	20.86000	-0.097498	20.815	-0.0013334	-0.22639	2.6129E-6	
	41.04240	14.75940	20.86000	-0.10762	20.815	-0.0016197	-0.25396	2.9267E-6	
	46.17270	14.75940	20.86000	-0.11716	20.815	-0.0019609	-0.28380	3.2652E-6	
	51.30300	14.75940	20.86000	-0.12556	20.815	-0.0023649	-0.31567	3.6255E-6	
	56.43330	14.75940	20.86000	-0.13227	20.815	-0.0028353	-0.34912	4.0019E-6	
	61.56360	14.75940	20.86000	-0.13681	20.815	-0.0033651	-0.38330	4.3847E-6	
	66.69390	14.75940	20.86000	-0.13885	20.815	-0.0039304	-0.41680	4.7585E-6	
	71.82420	14.75940	20.86000	-0.13820	20.815	-0.0044877	-0.44768	5.1016E-6	
	76.95450	14.75940	20.86000	-0.13490	20.815	-0.0049787	-0.47348	5.3875E-6	
	82.08480	14.75940	20.86000	-0.12915	20.815	-0.0053413	-0.49166	5.5882E-6	
	87.21510	14.75940	20.86000	-0.12135	20.815	-0.0055233	-0.49995	5.6792E-6	
	92.34540	14.75940	20.86000	-0.11198	20.815	-0.0054952	-0.49699	5.6454E-6	
	97.47570	14.75940	20.86000	-0.10160	20.815	-0.0052578	-0.48267	5.4855E-6	
	102.60600	14.75940	20.86000	-0.090777	20.815	-0.0048437	-0.45823	5.2130E-6	
	107.73630	14.75940	20.86000	-0.080043	20.815	-0.0043084	-0.42605	4.8538E-6	
	112.86660	14.75940	20.86000	-0.069821	20.815	-0.0037163	-0.38901	4.4395E-6	
	117.99690	14.75940	20.86000	-0.060414	20.815	-0.0031248	-0.34996	4.0016E-6	
	123.12720	14.75940	20.86000	-0.051996	20.815	-0.0025755	-0.31124	3.5660E-6	
	128.25750	14.75940	20.86000	-0.044628	20.815	-0.0020916	-0.27450	3.1514E-6	
	133.38780	14.75940	20.86000	-0.038283	20.815	-0.0016815	-0.24074	2.7692E-6	
	138.51810	14.75940	20.86000	-0.032893	20.815	-0.0013433	-0.21043	2.4250E-6	
	143.64840	14.75940	20.86000	-0.028322	20.815	-0.0010697	-0.18364	2.1199E-6	
	148.77870	14.75940	20.86000	-0.024483	20.815	-851.14E-6	-0.16025	1.8527E-6	
	153.90900	14.75940	20.86000	-0.021257	20.815	-678.03E-6	-0.13996	1.6205E-6	!
	0.00000	19.67920	20.86000	-0.044011	20.815	-384.40E-6	-0.10658	1.2387E-6	
	5.13030	19.67920	20.86000	-0.050833	20.815	-474.72E-6	-0.12113	1.4064E-6	
	10.26060	19.67920	20.86000	-0.058757	20.815	-588.05E-6	-0.13792	1.5997E-6	
	15.39090	19.67920	20.86000	-0.067875	20.815	-730.05E-6	-0.15726	1.8219E-6	

Name	Location X [m]	Location Y [m]	Z[Level] [mOD]	Displacement Z [mm]	Calc Level [mOD]	Stresses Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]	
	20.52120	19.67920	20.86000	-0.078225	20.815	-907.35E-6	-0.17943	2.0761E-6	
	25.65150	19.67920	20.86000	-0.089745	20.815	-0.0011273	-0.20469	2.3652E-6	
	30.78180	19.67920	20.86000	-0.10223	20.815	-0.0013980	-0.23325	2.6912E-6	
	35.91210	19.67920	20.86000	-0.11530	20.815	-0.0017285	-0.26524	3.0554E-6	
	41.04240	19.67920	20.86000	-0.12839	20.815	-0.0021304	-0.30072	3.4581E-6	
	46.17270	19.67920	20.86000	-0.14082	20.815	-0.0026215	-0.33976	3.8995E-6	
	51.30300	19.67920	20.86000	-0.15186	20.815	-0.0032267	-0.38239	4.3790E-6	
	56.43330	19.67920	20.86000	-0.16081	20.815	-0.0039707	-0.42841	4.8934E-6	
	61.56360	19.67920	20.86000	-0.16708	20.815	-0.0048597	-0.47703	5.4334E-6	
	66.69390	19.67920	20.86000	-0.17018	20.815	-0.0058615	-0.52648	5.9790E-6	
	71.82420	19.67920	20.86000	-0.16984	20.815	-0.0068950	-0.57374	6.4979E-6	
	76.95450	19.67920	20.86000	-0.16603	20.815	-0.0078386	-0.61475	6.9464E-6	
	82.08480	19.67920	20.86000	-0.15896	20.815	-0.0085565	-0.64485	7.2747E-6	
	87.21510	19.67920	20.86000	-0.14910	20.815	-0.0089324	-0.65976	7.4367E-6	
	92.34540	19.67920	20.86000	-0.13705	20.815	-0.0088984	-0.65670	7.4019E-6	
	97.47570	19.67920	20.86000	-0.12358	20.815	-0.0084538	-0.63524	7.1655E-6	
	102.60600	19.67920	20.86000	-0.10947	20.815	-0.0076703	-0.59770	6.7520E-6	
	107.73630	19.67920	20.86000	-0.095476	20.815	-0.0066732	-0.54847	6.2087E-6	
	112.86660	19.67920	20.86000	-0.082241	20.815	-0.0056016	-0.49282	5.5927E-6	
	117.99690	19.67920	20.86000	-0.070199	20.815	-0.0045710	-0.43562	4.9570E-6	
	123.12720	19.67920	20.86000	-0.059581	20.815	-0.0036531	-0.38051	4.3418E-6	
	128.25750	19.67920	20.86000	-0.050445	20.815	-0.0028785	-0.32975	3.7727E-6	
	133.38780	19.67920	20.86000	-0.042719	20.815	-0.0022487	-0.28443	3.2625E-6	
	138.51810	19.67920	20.86000	-0.036262	20.815	-0.0017492	-0.24481	2.8147E-6	
	143.64840	19.67920	20.86000	-0.030902	20.815	-0.0013594	-0.21068	2.4273E-6	
	148.77870	19.67920	20.86000	-0.026465	20.815	-0.0010581	-0.18152	2.0954E-6	
	153.90900	19.67920	20.86000	-0.022790	20.815	-826.31E-6	-0.15674	1.8124E-6	!
	0.00000	24.59900	20.86000	-0.048271	20.815	-450.23E-6	-0.11682	1.3566E-6	
	5.13030	24.59900	20.86000	-0.056254	20.815	-563.57E-6	-0.13385	1.5528E-6	
	10.26060	24.59900	20.86000	-0.065658	20.815	-708.42E-6	-0.15378	1.7818E-6	
	15.39090	24.59900	20.86000	-0.076640	20.815	-893.44E-6	-0.17706	2.0488E-6	
	20.52120	24.59900	20.86000	-0.089290	20.815	-0.0011288	-0.20416	2.3589E-6	
	25.65150	24.59900	20.86000	-0.10356	20.815	-0.0014258	-0.23550	2.7166E-6	
	30.78180	24.59900	20.86000	-0.11919	20.815	-0.0017953	-0.27142	3.1256E-6	
	35.91210	24.59900	20.86000	-0.13562	20.815	-0.0022473	-0.31211	3.5878E-6	
	41.04240	24.59900	20.86000	-0.15207	20.815	-0.0027955	-0.35773	4.1044E-6	
	46.17270	24.59900	20.86000	-0.16761	20.815	-0.0034718	-0.40858	4.6780E-6	
	51.30300	24.59900	20.86000	-0.18141	20.815	-0.0043459	-0.46538	5.3146E-6	
	56.43330	24.59900	20.86000	-0.19280	20.815	-0.0055151	-0.52894	6.0201E-6	
	61.56360	24.59900	20.86000	-0.20117	20.815	-0.0070489	-0.59921	6.7916E-6	
	66.69390	24.59900	20.86000	-0.20593	20.815	-0.0089213	-0.67421	7.6069E-6	
	71.82420	24.59900	20.86000	-0.20658	20.815	-0.010975	-0.74943	8.4183E-6	
	76.95450	24.59900	20.86000	-0.20289	20.815	-0.012934	-0.81777	9.1520E-6	
	82.08480	24.59900	20.86000	-0.19497	20.815	-0.014476	-0.87043	9.7164E-6	
	87.21510	24.59900	20.86000	-0.18321	20.815	-0.015323	-0.89881	10.020E-6	
	92.34540	24.59900	20.86000	-0.16829	20.815	-0.015305	-0.89683	9.9973E-6	
	97.47570	24.59900	20.86000	-0.15113	20.815	-0.014411	-0.86322	9.6340E-6	
	102.60600	24.59900	20.86000	-0.13284	20.815	-0.012811	-0.80247	8.9767E-6	
	107.73630	24.59900	20.86000	-0.11458	20.815	-0.010815	-0.72348	8.1190E-6	
	112.86660	24.59900	20.86000	-0.097360	20.815	-0.0087541	-0.63648	7.1695E-6	
	117.99690	24.59900	20.86000	-0.081853	20.815	-0.0068708	-0.55007	6.2206E-6	
	123.12720	24.59900	20.86000	-0.068396	20.815	-0.0052831	-0.46989	5.3345E-6	
	128.25750	24.59900	20.86000	-0.057032	20.815	-0.0040133	-0.39870	4.5429E-6	
	133.38780	24.59900	20.86000	-0.047615	20.815	-0.0030313	-0.33731	3.8562E-6	
	138.51810	24.59900	20.86000	-0.039902	20.815	-0.0022872	-0.28530	3.2714E-6	
	143.64840	24.59900	20.86000	-0.033619	20.815	-0.0017297	-0.24172	2.7790E-6	
	148.77870	24.59900	20.86000	-0.028509	20.815	-0.0013142	-0.20540	2.3670E-6	
	153.90900	24.59900	20.86000	-0.024344	20.815	-0.0010046	-0.17521	2.0232E-6	!
	0.00000	29.51880	20.86000	-0.052635	20.815	-526.65E-6	-0.12781	1.4831E-6	
	5.13030	29.51880	20.86000	-0.061884	20.815	-668.85E-6	-0.14773	1.7121E-6	
	10.26060	29.51880	20.86000	-0.072928	20.815	-854.28E-6	-0.17137	1.9834E-6	
	15.39090	29.51880	20.86000	-0.086010	20.815	-0.0010962	-0.19943	2.3045E-6	
	20.52120	29.51880	20.86000	-0.10128	20.815	-0.0014107	-0.23264	2.6835E-6	
	25.65150	29.51880	20.86000	-0.11869	20.815	-0.0018145	-0.27168	3.1280E-6	
	30.78180	29.51880	20.86000	-0.13784	20.815	-0.0023194	-0.31706	3.6434E-6	
	35.91210	29.51880	20.86000	-0.15780	20.815	-0.0029224	-0.36891	4.2313E-6	
	41.04240	29.51880	20.86000	-0.17721	20.815	-0.0036053	-0.42708	4.8907E-6	
	46.17270	29.51880	20.86000	-0.19474	20.815	-0.0043857	-0.49192	5.6249E-6	
	51.30300	29.51880	20.86000	-0.20976	20.815	-0.0054412	-0.56569	6.4544E-6	
	56.43330	29.51880	20.86000	-0.22245	20.815	-0.0071435	-0.65245	7.4138E-6	
	61.56360	29.51880	20.86000	-0.23282	20.815	-0.0098335	-0.75514	8.5255E-6	
	66.69390	29.51880	20.86000	-0.24019	20.815	-0.013576	-0.87259	9.7736E-6	
	71.82420	29.51880	20.86000	-0.24357	20.815	-0.018059	-0.99818	11.091E-6	
	76.95450	29.51880	20.86000	-0.24212	20.815	-0.022575	-1.1191	12.353E-6	
	82.08480	29.51880	20.86000	-0.23541	20.815	-0.026262	-1.2178	13.382E-6	
	87.21510	29.51880	20.86000	-0.22344	20.815	-0.028408	-1.2758	13.989E-6	
	92.34540	29.51880	20.86000	-0.20657	20.815	-0.028546	-1.2790	14.021E-6	
	97.47570	29.51880	20.86000	-0.18568	20.815	-0.026578	-1.2232	13.434E-6	
	102.60600	29.51880	20.86000	-0.16232	20.815	-0.022952	-1.1179	12.326E-6	
	107.73630	29.51880	20.86000	-0.13848	20.815	-0.018555	-0.98318	10.897E-6	
	112.86660	29.51880	20.86000	-0.11591	20.815	-0.014276	-0.84037	9.3703E-6	
	117.99690	29.51880	20.86000	-0.095794	20.815	-0.010639	-0.70524	7.9109E-6	
	123.12720	29.51880	20.86000	-0.078639	20.815	-0.0077900	-0.58590	6.6091E-6	
	128.25750	29.51880	20.86000	-0.064460	20.815	-0.0056608	-0.48473	5.4955E-6	
	133.38780	29.51880	20.86000	-0.052976	20.815	-0.0041104	-0.40098	4.5662E-6	
	138.51810	29.51880	20.86000	-0.043777	20.815	-0.0029961	-0.33255	3.8015E-6	
	143.64840	29.51880	20.86000	-0.036440	20.815	-0.0021986	-0.27697	3.1766E-6	
	148.77870	29.51880	20.86000	-0.030585	20.815	-0.0016272	-0.23189	2.6671E-6	
	153.90900	29.51880	20.86000	-0.025891	20.815	-0.0012159	-0.19527	2.2514E-6	!
	0.00000	34.43860	20.86000	-0.056989	20.815	-614.77E-6	-0.13952	1.6176E-6	
	5.13030	34.43860	20.86000	-0.067573	20.815	-792.96E-6	-0.16274	1.8841E-6	
	10.26060	34.43860	20.86000	-0.080378	20.815	-0.0010305	-0.19075	2.2047E-6	
	15.39090	34.43860	20.86000	-0.095746	20.815	-0.0013482	-0.22457	2.5909E-6	
	20.52120	34.43860	20.86000	-0.11390	20.815	-0.0017720	-0.26537	3.0553E-6	
	25.65150	34.43860	20.86000	-0.13473	20.815	-0.0023282	-0.31428	3.6105E-6	
	30.78180	34.43860	20.86000	-0.15746	20.815	-0.0030245	-0.37206	4.2647E-6	
	35.91210	34.43860	20.86000	-0.18025	20.815	-0.0037946	-0.43834	5.0163E-6	
	41.04240	34.43860	20.86000	-0.20005	20.815	-0.0044031	-0.51102	5.8488E-6	
	46.17270	34.43860	20.86000	-0.21403	20.815	-0.0045153	-0.58802	6.7495E-6	
	51.30300	34.43860	20.86000	-0.22279	20.815	-0.0044587	-0.67432	7.7655E-6	
	56.43330	34.43860	20.86000	-0.23088	20.815	-0.0059040	-0.78557	9.0216E-6	
	61.56360	34.43860	20.86000	-0.24133	20.815	-0.010475	-0.93546	10.621E-6	
	66.69390	34.43860	20.86000	-0.25318	20.815	-0.018641	-1.1263	12.576E-6	
	71.82420	34.43860	20.86000	-0.26395	20.815	-0.029860	-1.3497	14.805E-6	
	76.95450	34.43860	20.86000	-0.27097	20.815	-0.042012	-1.5817	17.102E-6	
	82.08480	34.43860	20.86000	-0.27207	20.815	-0.052269	-1.7839	19.117E-6	
	87.21510	34.43860	20.86000	-0.26614	20.815	-0.058732	-1.9147	20.425E-6	
	92.34540	34.43860	20.86000	-0.25191	20.815	-0.059855	-1.9369	20.647E-6	
	97.47570	34.43860	20.86000	-0.22910	20.815	-0.054969	-1.8365	19.640E-6	
	102.60600	34.43860	20.86000	-0.20008	20.815	-0.045412	-1.6362	17.623E-6	
	107.73630	34.43860	20.86000	-0.16883	20.815	-0.034302	-1.3865	15.081E-6	
	112.86660	34.43860	20.86000	-0.13894	20.815	-0.024476	-1.1376	12.502E-6	
	117.99690	34.43860	20.86000	-0.11256	20.815	-0.016993	-0.91809	10.188E-6	
	123.12720	34.43860	20.86000	-0.090536	20.815	-0.011692	-0.73666	8.2429E-6	
	128.25750	34.43860	20.86000	-0.072786	20.815	-0.0080538	-0.59141	6.6646E-6	
	133.38780	34.43860	20.86000	-0.058781	20.815	-0.0055878	-0.47683	5.4054E-6	
	138.51810	34.43860	20.86000	-0.047842	20.815	-0.0039184	-0.38693	4.4079E-6	
	143.64840	34.43860	20.86000	-0.039317	20.815	-0.0027826	-0.31635	3.6187E-6	
	148.77870	34.43860	20.86000	-0.032649	20.815	-0.0020028	-0.26074	2.9928E-6	
	153.90900	34.43860	20.86000	-0.027398	20.815	-0.0014615	-0.21666	2.4940E-6	!
	0.00000	39.35840	20.86000	-0.061190	20.815	-715.43E-6	-0.15182	1.7585E-6	
	5.13030	39.35840	20.86000	-0.073132	20.815	-938.14E-6	-0.17878	2.0675E-6	
	10.26060	39.35840	20.86000	-0.087755	20.815	-0.0012424	-0.21186	2.4453E-6	
	15.39090	39.35840	20.86000	-0.10551	20.815	-0.0016609	-0.25258	2.9091E-6	
	20.52120	39.35840	20.86000	-0.12669	20.815	-0.0022375	-0.30282	3.4790E-6	
	25.65150	39.35840	20.86000	-0.15103	20.815	-0.0030205	-0.36455	4.1766E-6	
	30.78180	39.35840	20.86000	-0.17700	20.815	-0.0040154	-0.43914	5.0179E-6	
	35.91210	39.35840	20.86000	-0.20045	20.815	-0.0049698	-0.52508	5.9940E-6	
	41.04240	39.35840	20.86000	-0.21305	20.815	-0.0046045	-0.61281	7.0376E-6	
	46.17270	39.35840	20.86000	-0.20437	20.815	716.48E-6	-0.68190	8.0369E-6	
	51.30300	39.35840	20.86000	-0.17722	20.815	0.012901	-0.73302	9.0670E-6	
	56.43330	39.35840	20.86000	-0.15789	20.815	0.020821	-0.83583	10.554E-6	
	61.56360	39.35840	20.86000	-0.16160	20.815	0.014935	-1.0471	12.829E-6	
	66.69390	39.35840	20.86000	-0.18261	20.815	-0.0049905	-1.3702	15.923E-6	
	71.82420	39.35840	20.86000	-0.21422	20.815	-0.039979	-1.8060	19.809E-6	
	76.95450	39.35840	20.86000	-0.24833	20.815	-0.082338	-2.3082	24.217E-6	
	82.08480	39.35840	20.86000	-0.27656	20.815	-0.11804	-2.7755	28.449E-6	
	87.21510	39.35840	20.86000	-0.29729	20.815	-0.14388	-3.1145	31.521E-6	
	92.34540	39.35840	20.86000	-0.30239	20.815	-0.15178	-3.2102	32.367E-6	
	97.47570	39.35840	20.86000	-0.28497	20.815	-0.13724	-3.0080	30.504E-6	

Name	Location X [m]	Location Y [m]	Z[Level] [mOD]	Displacement Z [mm]	Calc Level [mOD]	Stresses Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]	
	102.60600	39.35840	20.86000	-0.25021	20.815	-0.10504	-2.5692	26.483E-6	
	107.73630	39.35840	20.86000	-0.20844	20.815	-0.070212	-2.0486	21.594E-6	
	112.86660	39.35840	20.86000	-0.16797	20.815	-0.044409	-1.5815	17.015E-6	
	117.99690	39.35840	20.86000	-0.13286	20.815	-0.027945	-1.2114	13.248E-6	
	123.12720	39.35840	20.86000	-0.10433	20.815	-0.017779	-0.93119	10.314E-6	
	128.25750	39.35840	20.86000	-0.082035	20.815	-0.011498	-0.72184	8.0756E-6	
	133.38780	39.35840	20.86000	-0.064975	20.815	-0.0075771	-0.56554	6.3774E-6	
	138.51810	39.35840	20.86000	-0.052024	20.815	-0.0050935	-0.44821	5.0864E-6	
	143.64840	39.35840	20.86000	-0.042183	20.815	-0.0034930	-0.35937	4.0992E-6	
	148.77870	39.35840	20.86000	-0.034651	20.815	-0.0024423	-0.29143	3.3380E-6	
	153.90900	39.35840	20.86000	-0.028826	20.815	-0.0017395	-0.23891	2.7456E-6	!
	0.00000	44.27820	20.86000	-0.065075	20.815	-829.00E-6	-0.16454	1.9039E-6	
	5.13030	44.27820	20.86000	-0.078337	20.815	-0.0011061	-0.19567	2.2599E-6	
	10.26060	44.27820	20.86000	-0.094750	20.815	-0.0014947	-0.23454	2.7029E-6	
	15.39090	44.27820	20.86000	-0.11489	20.815	-0.0020464	-0.28342	3.2578E-6	
	20.52120	44.27820	20.86000	-0.13910	20.815	-0.0028374	-0.34528	3.9567E-6	
	25.65150	44.27820	20.86000	-0.16686	20.815	-0.0039689	-0.42371	4.8383E-6	
	30.78180	44.27820	20.86000	-0.19538	20.815	-0.0055005	-0.52204	5.9395E-6	
	35.91210	44.27820	20.86000	-0.21603	20.815	-0.0069115	-0.63853	7.2585E-6	
	41.04240	44.27820	20.86000	-0.20603	20.815	-0.0033404	-0.74519	8.6375E-6	
	46.17270	44.27820	20.86000	-0.11532	20.815	0.036506	-0.71804	9.7230E-6	
	51.30300	44.27820	20.86000	0.081625	20.815	0.18706	-0.38998	11.175E-6	
	56.43330	44.27820	20.86000	0.21747	20.815	0.30967	-0.22470	13.555E-6	
	61.56360	44.27820	20.86000	0.23340	20.815	0.31721	-0.49695	17.019E-6	
	66.69390	44.27820	20.86000	0.18882	20.815	0.26353	-1.0584	21.724E-6	
	71.82420	44.27820	20.86000	0.092362	20.815	0.10325	-2.0414	27.623E-6	
	76.95450	44.27820	20.86000	-0.03985	20.815	-0.14135	-3.4002	34.966E-6	
	82.08480	44.27820	20.86000	-0.14373	20.815	-0.30995	-4.6541	43.757E-6	
	87.21510	44.27820	20.86000	-0.26690	20.815	-0.48734	-5.7723	50.641E-6	
	92.34540	44.27820	20.86000	-0.35555	20.815	-0.54911	-6.1855	53.318E-6	
	97.47570	44.27820	20.86000	-0.36536	20.815	-0.49157	-5.7069	49.724E-6	
	102.60600	44.27820	20.86000	-0.32275	20.815	-0.32380	-4.5053	41.520E-6	
	107.73630	44.27820	20.86000	-0.26229	20.815	-0.16505	-3.2049	31.837E-6	
	112.86660	44.27820	20.86000	-0.20534	20.815	-0.085072	-2.2524	23.464E-6	
	117.99690	44.27820	20.86000	-0.15762	20.815	-0.046891	-1.6115	17.281E-6	
	123.12720	44.27820	20.86000	-0.12025	20.815	-0.027145	-1.1771	12.873E-6	
	128.25750	44.27820	20.86000	-0.092164	20.815	-0.016338	-0.87724	9.7308E-6	
	133.38780	44.27820	20.86000	-0.071444	20.815	-0.0101178	-0.66631	7.4698E-6	
	138.51810	44.27820	20.86000	-0.056214	20.815	-0.0065428	-0.51518	5.8222E-6	
	143.64840	44.27820	20.86000	-0.044953	20.815	-0.0043281	-0.40492	4.6048E-6	
	148.77870	44.27820	20.86000	-0.036528	20.815	-0.0029388	-0.32308	3.6923E-6	
	153.90900	44.27820	20.86000	-0.030132	20.815	-0.0020434	-0.26135	2.9986E-6	!
	0.00000	49.19800	20.86000	-0.068474	20.815	-955.12E-6	-0.17742	2.0509E-6	
	5.13030	49.19800	20.86000	-0.082944	20.815	-0.0012977	-0.21309	2.4579E-6	
	10.26060	49.19800	20.86000	-0.10102	20.815	-0.0017912	-0.25844	2.9732E-6	
	15.39090	49.19800	20.86000	-0.12341	20.815	-0.0025155	-0.31673	3.6326E-6	
	20.52120	49.19800	20.86000	-0.15050	20.815	-0.0036007	-0.39257	4.4853E-6	
	25.65150	49.19800	20.86000	-0.18152	20.815	-0.0052599	-0.49235	5.5992E-6	
	30.78180	49.19800	20.86000	-0.21214	20.815	-0.0077989	-0.62440	7.0612E-6	
	35.91210	49.19800	20.86000	-0.22771	20.815	-0.011081	-0.79478	8.9473E-6	
	41.04240	49.19800	20.86000	-0.18022	20.815	-0.0062713	-0.96804	11.152E-6	
	46.17270	49.19800	20.86000	0.12012	20.815	0.17285	-0.70015	14.318E-6	
	51.30300	49.19800	20.86000	2.0594	20.815	42.842	104.11	286.87E-6	
	56.43330	49.19800	20.86000	2.4407	20.815	6.3014	29.451	-123.91E-6	
	61.56360	49.19800	20.86000	2.2655	20.815	4.0408	9.4467	31.438E-6	
	66.69390	49.19800	20.86000	2.0902	20.815	3.9412	6.3565	64.234E-6	
	71.82420	49.19800	20.86000	1.7405	20.815	2.9860	2.9287	70.839E-6	
	76.95450	49.19800	20.86000	1.0077	20.815	0.074797	-4.2027	52.014E-6	
	82.08480	49.19800	20.86000	0.81107	20.815	-0.56243	-7.1233	63.868E-6	
	87.21510	49.19800	20.86000	0.14854	20.815	-3.2916	-12.986	36.550E-6	
	92.34540	49.19800	20.86000	-0.41107	20.815	-3.6971	-15.248	48.843E-6	
	97.47570	49.19800	20.86000	-0.50372	20.815	-3.4250	-13.978	43.512E-6	
	102.60600	49.19800	20.86000	-0.43941	20.815	-1.7013	-9.4387	50.930E-6	
	107.73630	49.19800	20.86000	-0.33800	20.815	-0.44028	-5.2754	46.463E-6	
	112.86660	49.19800	20.86000	-0.25464	20.815	-0.16704	-3.2412	32.193E-6	
	117.99690	49.19800	20.86000	-0.18800	20.815	-0.078738	-2.1381	22.346E-6	
	123.12720	49.19800	20.86000	-0.13842	20.815	-0.041021	-1.4759	15.894E-6	
	128.25750	49.19800	20.86000	-0.10300	20.815	-0.022852	-1.0548	11.587E-6	
	133.38780	49.19800	20.86000	-0.077989	20.815	-0.013426	-0.77600	8.6440E-6	
	138.51810	49.19800	20.86000	-0.060255	20.815	-0.0082476	-0.58529	6.5858E-6	
	143.64840	49.19800	20.86000	-0.047518	20.815	-0.0052646	-0.45112	5.1146E-6	
	148.77870	49.19800	20.86000	-0.038209	20.815	-0.0034744	-0.35437	4.0411E-6	
	153.90900	49.19800	20.86000	-0.031270	20.815	-0.0023609	-0.28307	3.2426E-6	!
	0.00000	54.11780	20.86000	-0.071219	20.815	-0.0010923	-0.19013	2.1954E-6	
	5.13030	54.11780	20.86000	-0.086712	20.815	-0.0015119	-0.23061	2.6561E-6	
	10.26060	54.11780	20.86000	-0.10622	20.815	-0.0021332	-0.28298	3.2496E-6	
	15.39090	54.11780	20.86000	-0.13058	20.815	-0.0030754	-0.35179	4.0248E-6	
	20.52120	54.11780	20.86000	-0.16027	20.815	-0.0045481	-0.44379	5.0537E-6	
	25.65150	54.11780	20.86000	-0.19432	20.815	-0.0069478	-0.56945	6.4455E-6	
	30.78180	54.11780	20.86000	-0.22725	20.815	-0.011116	-0.74594	8.3722E-6	
	35.91210	54.11780	20.86000	-0.23978	20.815	-0.019122	-1.0030	11.110E-6	
	41.04240	54.11780	20.86000	-0.16589	20.815	-0.036110	-1.3883	15.038E-6	
	46.17270	54.11780	20.86000	0.27958	20.815	-0.036708	-1.8130	20.007E-6	
	51.30300	54.11780	20.86000	3.4117	20.815	42.758	121.96	74.209E-6	
	56.43330	54.11780	20.86000	4.2010	20.815	42.782	120.94	87.028E-6	
	61.56360	54.11780	20.86000	4.2068	20.815	42.245	118.78	93.473E-6	
	66.69390	54.11780	20.86000	4.1863	20.815	42.804	118.49	116.64E-6	
	71.82420	54.11780	20.86000	4.1575	20.815	46.694	120.09	234.88E-6	
	76.95450	54.11780	20.86000	3.3885	20.815	37.930	110.18	42.426E-6	
	82.08480	54.11780	20.86000	3.0892	20.815	38.872	106.04	124.27E-6	
	87.21510	54.11780	20.86000	2.0254	20.815	27.678	92.237	-108.13E-6	
	92.34540	54.11780	20.86000	1.3823	20.815	25.984	88.198	-120.39E-6	
	97.47570	54.11780	20.86000	1.1780	20.815	26.747	90.674	-122.56E-6	
	102.60600	54.11780	20.86000	-0.26626	20.815	-6.6849	-18.284	-20.809E-6	
	107.73630	54.11780	20.86000	-0.44657	20.815	-1.0552	-8.4855	62.502E-6	
	112.86660	54.11780	20.86000	-0.32236	20.815	-0.31784	-4.5829	42.642E-6	
	117.99690	54.11780	20.86000	-0.22521	20.815	-0.12872	-2.7860	28.196E-6	
	123.12720	54.11780	20.86000	-0.15861	20.815	-0.060197	-1.8162	19.217E-6	
	128.25750	54.11780	20.86000	-0.11413	20.815	-0.031025	-1.2452	13.537E-6	
	133.38780	54.11780	20.86000	-0.084289	20.815	-0.017210	-0.88823	9.8293E-6	
	138.51810	54.11780	20.86000	-0.063940	20.815	-0.010123	-0.65440	7.3317E-6	
	143.64840	54.11780	20.86000	-0.049753	20.815	-0.0062491	-0.49532	5.5993E-6	
	148.77870	54.11780	20.86000	-0.039617	20.815	-0.0040172	-0.38360	4.3653E-6	
	153.90900	54.11780	20.86000	-0.032193	20.815	-0.0026733	-0.30297	3.4654E-6	!
	0.00000	59.03760	20.86000	-0.073165	20.815	-0.0012378	-0.20226	2.3328E-6	
	5.13030	59.03760	20.86000	-0.089427	20.815	-0.0017458	-0.24765	2.8481E-6	
	10.26060	59.03760	20.86000	-0.11004	20.815	-0.0025189	-0.30740	3.5228E-6	
	15.39090	59.03760	20.86000	-0.13597	20.815	-0.0037290	-0.38751	4.4214E-6	
	20.52120	59.03760	20.86000	-0.16781	20.815	-0.0056917	-0.49732	5.6424E-6	
	25.65150	59.03760	20.86000	-0.20459	20.815	-0.0090413	-0.65214	7.3433E-6	
	30.78180	59.03760	20.86000	-0.24032	20.815	-0.015287	-0.87964	9.7961E-6	
	35.91210	59.03760	20.86000	-0.25397	20.815	-0.029337	-1.2390	13.523E-6	
	41.04240	59.03760	20.86000	-0.17695	20.815	-0.078374	-1.9014	19.577E-6	
	46.17270	59.03760	20.86000	0.24801	20.815	-0.48960	-3.6268	25.354E-6	
	51.30300	59.03760	20.86000	3.0434	20.815	36.666	112.80	-32.904E-6	
	56.43330	59.03760	20.86000	3.3281	20.815	30.157	102.62	-142.71E-6	
	61.56360	59.03760	20.86000	3.0564	20.815	27.216	95.997	-168.59E-6	
	66.69390	59.03760	20.86000	2.8988	20.815	26.783	93.687	-156.73E-6	
	71.82420	59.03760	20.86000	2.5606	20.815	24.669	90.825	-197.58E-6	
	76.95450	59.03760	20.86000	1.9875	20.815	19.773	85.739	-310.41E-6	
	82.08480	59.03760	20.86000	1.8611	20.815	21.347	82.159	-212.88E-6	
	87.21510	59.03760	20.86000	1.5333	20.815	20.921	77.238	-170.05E-6	
	92.34540	59.03760	20.86000	1.1139	20.815	18.793	73.558	-201.86E-6	
	97.47570	59.03760	20.86000	0.99821	20.815	19.358	76.753	-219.44E-6	
	102.60600	59.03760	20.86000	-0.35424	20.815	-11.414	-26.369	-92.500E-6	
	107.73630	59.03760	20.86000	-0.64918	20.815	-2.1524	-12.543	71.503E-6	
	112.86660	59.03760	20.86000	-0.41701	20.815	-0.56604	-6.2030	52.928E-6	
	117.99690	59.03760	20.86000	-0.26884	20.815	-0.19855	-3.5049	34.181E-6	
	123.12720	59.03760	20.86000	-0.17963	20.815	-0.083881	-2.1680	22.515E-6	
	128.25750	59.03760	20.86000	-0.12472	20.815	-0.040252	-1.4314	15.399E-6	
	133.38780	59.03760	20.86000	-0.089871	20.815	-0.021204	-0.99328	10.923E-6	
	138.51810	59.03760	20.86000	-0.067010	20.815	-0.012002	-0.71690	7.9998E-6	
	143.64840	59.03760	20.86000	-0.051518	20.815	-0.0071957	-0.53423	6.0231E-6	
	148.77870	59.03760	20.86000	-0.040678	20.815	-0.0045224	-0.40879	4.6434E-6	
	153.90900	59.03760	20.86000	-0.032861	20.815	-0.0029564	-0.31983	3.6534E-6	!
	0.00000	63.95740	20.86000	-0.074201	20.815	-0.0013867	-0.21333	2.4575E-6	
	5.13030	63.95740	20.86000	-0.090928	20.815	-0.0019932	-0.26353	3.0260E-6	
	10.26060	63.95740	20.86000	-0.11224	20.815	-0.0029420	-0.33069	3.7816E-6	
	15.39090	63.95740	20.86000	-0.13923	20.815	-0.0044749	-0.42249	4.8061E-6	
	20.52120	63.95740	20.86000	-0.17265	20.815	-0.0070477	-0.55112	6.2267E-6	

Name	Location			Displacement		Stresses		
	X	Y	Z[Level]	Z	Calc Level	Vert Stress	Sum Princ	Vert Strain
	[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m²]	[kN/m²]	[-]
	25.65150	63.95740	20.86000	-0.21168	20.815	-0.011584	-0.73704	8.2512E-6
	30.78180	63.95740	20.86000	-0.25039	20.815	-0.020211	-1.0173	11.240E-6
	35.91210	63.95740	20.86000	-0.26745	20.815	-0.039168	-1.4691	15.880E-6
	41.04240	63.95740	20.86000	-0.19307	20.815	-0.095885	-2.2927	23.557E-6
	46.17270	63.95740	20.86000	0.24032	20.815	-0.39524	-4.1213	34.490E-6
	51.30300	63.95740	20.86000	3.1403	20.815	39.435	113.94	51.344E-6
	56.43330	63.95740	20.86000	3.1665	20.815	31.113	100.14	-79.886E-6
	61.56360	63.95740	20.86000	2.2611	20.815	-17.141	-30.089	-250.64E-6
	66.69390	63.95740	20.86000	2.0295	20.815	-17.792	-28.458	-292.76E-6
	71.82420	63.95740	20.86000	1.5969	20.815	-14.502	-3.5117	-469.91E-6
	76.95450	63.95740	20.86000	1.1385	20.815	14.261	61.023	-214.30E-6
	82.08480	63.95740	20.86000	1.1166	20.815	16.986	67.472	-194.00E-6
	87.21510	63.95740	20.86000	0.66634	20.815	15.399	64.988	-220.76E-6
	92.34540	63.95740	20.86000	-0.12666	20.815	9.0455	58.727	-371.15E-6
	97.47570	63.95740	20.86000	-0.15485	20.815	8.8370	63.693	-436.86E-6
	102.60600	63.95740	20.86000	-0.79721	20.815	-17.852	-23.054	-358.37E-6
	107.73630	63.95740	20.86000	-0.96122	20.815	-3.9333	-17.068	61.891E-6
	112.86660	63.95740	20.86000	-0.52935	20.815	-0.89325	-7.8641	60.911E-6
	117.99690	63.95740	20.86000	-0.31313	20.815	-0.27839	-4.1861	39.370E-6
	123.12720	63.95740	20.86000	-0.19870	20.815	-0.10845	-2.4811	25.328E-6
	128.25750	63.95740	20.86000	-0.13350	20.815	-0.049154	-1.5892	16.939E-6
	133.38780	63.95740	20.86000	-0.094133	20.815	-0.024846	-1.0789	11.800E-6
	138.51810	63.95740	20.86000	-0.069180	20.815	-0.013642	-0.76636	8.5231E-6
	143.64840	63.95740	20.86000	-0.052674	20.815	-0.0079936	-0.56432	6.3484E-6
	148.77870	63.95740	20.86000	-0.041323	20.815	-0.0049365	-0.42791	4.8535E-6
	153.90900	63.95740	20.86000	-0.033239	20.815	-0.0031835	-0.33244	3.7937E-6 !
	0.00000	68.87720	20.86000	-0.074268	20.815	-0.0015319	-0.22279	2.5636E-6
	5.13030	68.87720	20.86000	-0.091120	20.815	-0.0022434	-0.27746	3.1808E-6
	10.26060	68.87720	20.86000	-0.11268	20.815	-0.0033887	-0.35171	4.0128E-6
	15.39090	68.87720	20.86000	-0.14015	20.815	-0.0053024	-0.45505	5.1595E-6
	20.52120	68.87720	20.86000	-0.17448	20.815	-0.0086375	-0.60298	6.7800E-6
	25.65150	68.87720	20.86000	-0.21521	20.815	-0.014738	-0.82170	9.1346E-6
	30.78180	68.87720	20.86000	-0.25696	20.815	-0.026563	-1.1577	12.666E-6
	35.91210	68.87720	20.86000	-0.27892	20.815	-0.051386	-1.6995	18.157E-6
	41.04240	68.87720	20.86000	-0.20981	20.815	-0.11080	-2.6312	27.008E-6
	46.17270	68.87720	20.86000	0.23537	20.815	-0.28674	-4.3141	40.579E-6
	51.30300	68.87720	20.86000	3.2234	20.815	40.903	115.24	87.788E-6
	56.43330	68.87720	20.86000	3.1691	20.815	32.288	100.62	-44.134E-6
	61.56360	68.87720	20.86000	2.0234	20.815	-16.878	-36.008	-171.84E-6
	66.69390	68.87720	20.86000	2.1391	20.815	-12.886	-33.292	-63.051E-6
	71.82420	68.87720	20.86000	2.1122	20.815	-13.290	-32.405	-87.694E-6
	76.95450	68.87720	20.86000	1.9244	20.815	-15.433	-32.984	-156.45E-6
	82.08480	68.87720	20.86000	2.0056	20.815	-10.464	-31.323	0.0
	87.21510	68.87720	20.86000	0.66937	20.815	-20.847	-46.683	-186.31E-6
	92.34540	68.87720	20.86000	-1.2480	20.815	-40.233	-69.667	-599.57E-6
	97.47570	68.87720	20.86000	-1.0982	20.815	0.96391	53.909	-599.41E-6
	102.60600	68.87720	20.86000	-0.88743	20.815	18.123	71.337	-199.34E-6
	107.73630	68.87720	20.86000	-1.2200	20.815	-5.3999	-20.559	51.214E-6
	112.86660	68.87720	20.86000	-0.62087	20.815	-1.1747	-9.1231	65.782E-6
	117.99690	68.87720	20.86000	-0.34657	20.815	-0.34487	-4.6763	42.786E-6
	123.12720	68.87720	20.86000	-0.21179	20.815	-0.12783	-2.6947	27.154E-6
	128.25750	68.87720	20.86000	-0.13891	20.815	-0.055816	-1.6920	17.912E-6
	133.38780	68.87720	20.86000	-0.096448	20.815	-0.027452	-1.1328	12.342E-6
	138.51810	68.87720	20.86000	-0.070187	20.815	-0.014773	-0.79666	8.8393E-6
	143.64840	68.87720	20.86000	-0.053109	20.815	-0.0085284	-0.58238	6.5418E-6
	148.77870	68.87720	20.86000	-0.041503	20.815	-0.0052079	-0.43922	4.9768E-6
	153.90900	68.87720	20.86000	-0.033304	20.815	-0.0033296	-0.33983	3.8753E-6 !
	0.00000	73.79700	20.86000	-0.073359	20.815	-0.0016637	-0.23011	2.6449E-6
	5.13030	73.79700	20.86000	-0.089988	20.815	-0.0024801	-0.28857	3.3029E-6
	10.26060	73.79700	20.86000	-0.11133	20.815	-0.0038325	-0.36909	4.2014E-6
	15.39090	73.79700	20.86000	-0.13868	20.815	-0.0061756	-0.48319	5.4593E-6
	20.52120	73.79700	20.86000	-0.17325	20.815	-0.010447	-0.65015	7.2704E-6
	25.65150	73.79700	20.86000	-0.21517	20.815	-0.018689	-0.90363	9.9580E-6
	30.78180	73.79700	20.86000	-0.26038	20.815	-0.035611	-1.3044	14.070E-6
	35.91210	73.79700	20.86000	-0.29065	20.815	-0.072633	-1.9657	20.534E-6
	41.04240	73.79700	20.86000	-0.23826	20.815	-0.15878	-3.0996	30.821E-6
	46.17270	73.79700	20.86000	0.18052	20.815	-0.37365	-5.0413	46.060E-6
	51.30300	73.79700	20.86000	3.1404	20.815	40.810	114.33	95.136E-6
	56.43330	73.79700	20.86000	3.1022	20.815	32.228	99.763	-36.162E-6
	61.56360	73.79700	20.86000	2.0464	20.815	-16.637	-35.655	-167.50E-6
	66.69390	73.79700	20.86000	2.6128	20.815	-8.5626	-26.388	8.2284E-6
	71.82420	73.79700	20.86000	3.1938	20.815	-3.1015	-17.502	96.315E-6
	76.95450	73.79700	20.86000	3.4042	20.815	-1.9981	-14.075	94.940E-6
	82.08480	73.79700	20.86000	3.6406	20.815	6.0661	-7.9456	307.16E-6
	87.21510	73.79700	20.86000	1.5274	20.815	-12.607	-33.411	-51.801E-6
	92.34540	73.79700	20.86000	-1.2795	20.815	-40.858	-68.987	-629.59E-6
	97.47570	73.79700	20.86000	-1.3489	20.815	-0.88589	51.345	-634.48E-6
	102.60600	73.79700	20.86000	-0.86237	20.815	16.048	72.199	-282.61E-6
	107.73630	73.79700	20.86000	-1.3194	20.815	-6.1168	-21.991	42.780E-6
	112.86660	73.79700	20.86000	-0.65758	20.815	-1.3142	-9.6004	66.474E-6
	117.99690	73.79700	20.86000	-0.35836	20.815	-0.37581	-4.8395	43.613E-6
	123.12720	73.79700	20.86000	-0.21528	20.815	-0.13615	-2.7572	27.596E-6
	128.25750	73.79700	20.86000	-0.13968	20.815	-0.058469	-1.7191	18.136E-6
	133.38780	73.79700	20.86000	-0.096349	20.815	-0.028428	-1.1458	12.460E-6
	138.51810	73.79700	20.86000	-0.069858	20.815	-0.015176	-0.80351	8.9055E-6
	143.64840	73.79700	20.86000	-0.052759	20.815	-0.0087115	-0.58628	6.5811E-6
	148.77870	73.79700	20.86000	-0.041196	20.815	-0.0052980	-0.44159	5.0014E-6
	153.90900	73.79700	20.86000	-0.033052	20.815	-0.0033770	-0.34135	3.8914E-6 !
	0.00000	78.71680	20.86000	-0.071520	20.815	-0.0017704	-0.23475	2.6956E-6
	5.13030	78.71680	20.86000	-0.087595	20.815	-0.0026807	-0.29597	3.3829E-6
	10.26060	78.71680	20.86000	-0.10827	20.815	-0.0042301	-0.38136	4.3315E-6
	15.39090	78.71680	20.86000	-0.13491	20.815	-0.0070134	-0.50438	5.6787E-6
	20.52120	78.71680	20.86000	-0.16902	20.815	-0.012342	-0.68855	7.6547E-6
	25.65150	78.71680	20.86000	-0.21165	20.815	-0.023342	-0.97710	10.657E-6
	30.78180	78.71680	20.86000	-0.26117	20.815	-0.048134	-1.4538	15.384E-6
	35.91210	78.71680	20.86000	-0.30568	20.815	-0.10985	-2.2896	23.029E-6
	41.04240	78.71680	20.86000	-0.29280	20.815	-0.27992	-3.8420	35.273E-6
	46.17270	78.71680	20.86000	0.032217	20.815	-0.78080	-6.7586	51.886E-6
	51.30300	78.71680	20.86000	2.8448	20.815	39.740	110.99	96.684E-6
	56.43330	78.71680	20.86000	2.8050	20.815	30.968	96.287	-39.738E-6
	61.56360	78.71680	20.86000	1.9483	20.815	-17.534	-36.944	-183.98E-6
	66.69390	78.71680	20.86000	2.8026	20.815	-8.5764	-24.719	-11.870E-6
	71.82420	78.71680	20.86000	3.6582	20.815	-1.6557	-12.436	87.753E-6
	76.95450	78.71680	20.86000	4.0949	20.815	0.61407	-6.5816	98.971E-6
	82.08480	78.71680	20.86000	4.3668	20.815	8.6590	0.27459	301.98E-6
	87.21510	78.71680	20.86000	2.1573	20.815	-9.8100	-25.604	-44.955E-6
	92.34540	78.71680	20.86000	-0.82851	20.815	-38.863	-62.648	-633.76E-6
	97.47570	78.71680	20.86000	-1.0645	20.815	0.46208	55.897	-640.45E-6
	102.60600	78.71680	20.86000	-0.59013	20.815	16.015	75.302	-320.25E-6
	107.73630	78.71680	20.86000	-1.2475	20.815	-6.1339	-20.964	30.103E-6
	112.86660	78.71680	20.86000	-0.62728	20.815	-1.2715	-9.0993	62.090E-6
	117.99690	78.71680	20.86000	-0.34378	20.815	-0.35899	-4.6083	41.489E-6
	123.12720	78.71680	20.86000	-0.20763	20.815	-0.13024	-2.6464	26.502E-6
	128.25750	78.71680	20.86000	-0.13532	20.815	-0.056237	-1.6623	17.549E-6
	133.38780	78.71680	20.86000	-0.093708	20.815	-0.027502	-1.1148	12.129E-6
	138.51810	78.71680	20.86000	-0.068168	20.815	-0.014758	-0.78560	8.7099E-6
	143.64840	78.71680	20.86000	-0.051630	20.815	-0.0085077	-0.57542	6.4607E-6
	148.77870	78.71680	20.86000	-0.040414	20.815	-0.0051922	-0.43472	4.9245E-6
	153.90900	78.71680	20.86000	-0.032492	20.815	-0.0033191	-0.33685	3.8406E-6 !
	0.00000	83.63660	20.86000	-0.068852	20.815	-0.0018393	-0.23626	2.7110E-6
	5.13030	83.63660	20.86000	-0.084074	20.815	-0.0028187	-0.29889	3.4123E-6
	10.26060	83.63660	20.86000	-0.10366	20.815	-0.0045232	-0.38704	4.3878E-6
	15.39090	83.63660	20.86000	-0.12902	20.815	-0.0076814	-0.51575	5.7888E-6
	20.52120	83.63660	20.86000	-0.16196	20.815	-0.014003	-0.71239	7.8763E-6
	25.65150	83.63660	20.86000	-0.20459	20.815	-0.027935	-1.0303	11.120E-6
	30.78180	83.63660	20.86000	-0.25870	20.815	-0.062630	-1.5825	16.385E-6
	35.91210	83.63660	20.86000	-0.32313	20.815	-0.16360	-2.6333	25.172E-6
	41.04240	83.63660	20.86000	-0.38066	20.815	-0.52141	-4.8709	38.850E-6
	46.17270	83.63660	20.86000	-0.29540	20.815	-2.1261	-10.204	44.948E-6
	51.30300	83.63660	20.86000	1.9291	20.815	32.369	100.36	-38.219E-6
	56.43330	83.63660	20.86000	1.8439	20.815	22.592	85.123	-203.81E-6
	61.56360	83.63660	20.86000	1.7750	20.815	19.558	80.682	-258.57E-6
	66.69390	83.63660	20.86000	2.9833	20.815	30.800	96.627	-49.667E-6
	71.82420	83.63660	20.86000	4.1570	20.815	39.919	112.17	89.075E-6
	76.95450	83.63660	20.86000	4.6587	20.815	42.524	118.88	102.10E-6
	82.08480	83.63660	20.86000	4.8403	20.815	49.359	124.88	272.52E-6
	87.21510	83.63660	20.86000	2.9801	20.815	35.699	105.63	17.239E-6
	92.34540	83.63660	20.86000	0.26662	20.815	12.692	76.487	-451.30E-6
	97.47570	83.63660	20.86000	-0.34156	20.815	10.856	72.433	-468.38E-6
	102.60600	83.63660	20.86000	-0.0063287	20.815	22.283	86.614	-232.21E-6

Name	Location			Displacement	Stresses			
	X [m]	Y [m]	Z[Level] [mOD]	Z [mm]	Calc Level [mOD]	Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]
	107.73630	83.63660	20.86000	-0.99885	20.815	-4.7023	-16.672	30.137E-6
	112.86660	83.63660	20.86000	-0.53471	20.815	-0.99741	-7.5945	54.072E-6
	117.99690	83.63660	20.86000	-0.30579	20.815	-0.29412	-4.0150	36.805E-6
	123.12720	83.63660	20.86000	-0.19016	20.815	-0.11116	-2.3813	24.060E-6
	128.25750	83.63660	20.86000	-0.12645	20.815	-0.049586	-1.5311	16.241E-6
	133.38780	83.63660	20.86000	-0.088810	20.815	-0.024857	-1.0444	11.394E-6
	138.51810	83.63660	20.86000	-0.065266	20.815	-0.013591	-0.74519	8.2762E-6
	143.64840	83.63660	20.86000	-0.049803	20.815	-0.0079477	-0.55097	6.1932E-6
	148.77870	83.63660	20.86000	-0.039203	20.815	-0.0049046	-0.41926	4.7530E-6
	153.90900	83.63660	20.86000	-0.031654	20.815	-0.0031627	-0.32670	3.7270E-6 !
	0.00000	88.55640	20.86000	-0.065489	20.815	-0.0018599	-0.23438	2.6881E-6
	5.13030	88.55640	20.86000	-0.079615	20.815	-0.0028698	-0.29675	3.3853E-6
	10.26060	88.55640	20.86000	-0.097755	20.815	-0.0046518	-0.38494	4.3587E-6
	15.39090	88.55640	20.86000	-0.12131	20.815	-0.0080202	-0.51468	5.7643E-6
	20.52120	88.55640	20.86000	-0.15228	20.815	-0.014966	-0.71542	7.8780E-6
	25.65150	88.55640	20.86000	-0.19367	20.815	-0.030989	-1.0471	11.210E-6
	30.78180	88.55640	20.86000	-0.25054	20.815	-0.073883	-1.6452	16.725E-6
	35.91210	88.55640	20.86000	-0.33338	20.815	-0.21433	-2.8617	26.068E-6
	41.04240	88.55640	20.86000	-0.46989	20.815	-0.81672	-5.7686	38.989E-6
	46.17270	88.55640	20.86000	-0.71284	20.815	-4.2701	-13.967	13.593E-6
	51.30300	88.55640	20.86000	0.64340	20.815	22.339	88.935	-257.52E-6
	56.43330	88.55640	20.86000	0.59473	20.815	10.870	74.817	-495.90E-6
	61.56360	88.55640	20.86000	0.91319	20.815	12.325	76.568	-465.17E-6
	66.69390	88.55640	20.86000	2.3709	20.815	25.870	94.118	-193.96E-6
	71.82420	88.55640	20.86000	3.8376	20.815	38.851	111.83	55.534E-6
	76.95450	88.55640	20.86000	4.3138	20.815	41.451	118.06	73.951E-6
	82.08480	88.55640	20.86000	4.0548	20.815	42.039	118.83	85.614E-6
	87.21510	88.55640	20.86000	2.5152	20.815	38.240	110.51	49.483E-6
	92.34540	88.55640	20.86000	-0.82954	20.815	-9.3877	-23.165	-58.724E-6
	97.47570	88.55640	20.86000	-1.2852	20.815	-9.7561	-24.816	-52.309E-6
	102.60600	88.55640	20.86000	-1.0439	20.815	-6.2723	-18.622	-2.2909E-6
	107.73630	88.55640	20.86000	-0.68882	20.815	-2.0677	-10.392	49.219E-6
	112.86660	88.55640	20.86000	-0.41206	20.815	-0.58896	-5.5506	44.456E-6
	117.99690	88.55640	20.86000	-0.25510	20.815	-0.20400	-3.2193	30.633E-6
	123.12720	88.55640	20.86000	-0.16672	20.815	-0.084796	-2.0214	20.760E-6
	128.25750	88.55640	20.86000	-0.11456	20.815	-0.040256	-1.3497	14.439E-6
	133.38780	88.55640	20.86000	-0.082289	20.815	-0.021076	-0.94528	10.363E-6
	138.51810	88.55640	20.86000	-0.061440	20.815	-0.011892	-0.68753	7.6586E-6
	143.64840	88.55640	20.86000	-0.047420	20.815	-0.0071205	-0.51565	5.8074E-6
	148.77870	88.55640	20.86000	-0.037638	20.815	-0.0044740	-0.39668	4.5029E-6
	153.90900	88.55640	20.86000	-0.030578	20.815	-0.0029260	-0.31174	3.5595E-6 !
	0.00000	93.47620	20.86000	-0.061595	20.815	-0.0018263	-0.22906	2.6269E-6
	5.13030	93.47620	20.86000	-0.074445	20.815	-0.0028193	-0.28942	3.3010E-6
	10.26060	93.47620	20.86000	-0.090871	20.815	-0.0045760	-0.37461	4.2400E-6
	15.39090	93.47620	20.86000	-0.11217	20.815	-0.0079115	-0.49983	5.5936E-6
	20.52120	93.47620	20.86000	-0.14033	20.815	-0.014840	-0.69362	7.6263E-6
	25.65150	93.47620	20.86000	-0.17871	20.815	-0.031016	-1.0147	10.829E-6
	30.78180	93.47620	20.86000	-0.23397	20.815	-0.075215	-1.5984	16.129E-6
	35.91210	93.47620	20.86000	-0.32257	20.815	-0.22532	-2.8057	25.022E-6
	41.04240	93.47620	20.86000	-0.49505	20.815	-0.91366	-5.7868	35.785E-6
	46.17270	93.47620	20.86000	-0.88777	20.815	-5.2103	-14.554	-12.654E-6
	51.30300	93.47620	20.86000	0.24375	20.815	19.859	88.693	-342.07E-6
	56.43330	93.47620	20.86000	0.22330	20.815	13.667	80.289	-461.59E-6
	61.56360	93.47620	20.86000	0.013581	20.815	20.650	81.156	-225.65E-6
	66.69390	93.47620	20.86000	1.0856	20.815	29.936	94.578	-56.044E-6
	71.82420	93.47620	20.86000	2.3593	20.815	39.315	110.64	85.762E-6
	76.95450	93.47620	20.86000	2.7320	20.815	41.331	115.49	99.922E-6
	82.08480	93.47620	20.86000	2.3736	20.815	41.459	115.75	101.34E-6
	87.21510	93.47620	20.86000	0.11865	20.815	-1.1286	-7.5353	48.751E-6
	92.34540	93.47620	20.86000	-0.50056	20.815	-1.8585	-10.056	52.639E-6
	97.47570	93.47620	20.86000	-0.68704	20.815	-1.9395	-10.440	54.303E-6
	102.60600	93.47620	20.86000	-0.60911	20.815	-1.3824	-8.5679	51.939E-6
	107.73630	93.47620	20.86000	-0.44542	20.815	-0.68236	-5.8679	44.891E-6
	112.86660	93.47620	20.86000	-0.30270	20.815	-0.28630	-3.7562	34.041E-6
	117.99690	93.47620	20.86000	-0.20491	20.815	-0.12436	-2.4378	24.259E-6
	123.12720	93.47620	20.86000	-0.14197	20.815	-0.059018	-1.6422	17.214E-6
	128.25750	93.47620	20.86000	-0.10148	20.815	-0.030489	-1.1491	12.426E-6
	133.38780	93.47620	20.86000	-0.074925	20.815	-0.016914	-0.83159	9.1742E-6
	138.51810	93.47620	20.86000	-0.057045	20.815	-0.0099499	-0.61948	6.9276E-6
	143.64840	93.47620	20.86000	-0.044653	20.815	-0.0061456	-0.47302	5.3409E-6
	148.77870	93.47620	20.86000	-0.035808	20.815	-0.0039545	-0.36895	4.1953E-6
	153.90900	93.47620	20.86000	-0.029315	20.815	-0.0026348	-0.29310	3.3507E-6 !
	0.00000	98.39600	20.86000	-0.057346	20.815	-0.0017398	-0.22055	2.5300E-6
	5.13030	98.39600	20.86000	-0.068816	20.815	-0.0026687	-0.27725	3.1634E-6
	10.26060	98.39600	20.86000	-0.083360	20.815	-0.0042959	-0.35660	4.0383E-6
	15.39090	98.39600	20.86000	-0.10209	20.815	-0.0073455	-0.47197	5.2863E-6
	20.52120	98.39600	20.86000	-0.12676	20.815	-0.013565	-0.64799	7.1352E-6
	25.65150	98.39600	20.86000	-0.16040	20.815	-0.027700	-0.93387	9.9957E-6
	30.78180	98.39600	20.86000	-0.20905	20.815	-0.064734	-1.4381	14.614E-6
	35.91210	98.39600	20.86000	-0.28691	20.815	-0.18218	-2.4307	22.137E-6
	41.04240	98.39600	20.86000	-0.43230	20.815	-0.66210	-4.6792	31.638E-6
	46.17270	98.39600	20.86000	-0.72977	20.815	-3.1410	-10.377	11.214E-6
	51.30300	98.39600	20.86000	-0.77899	20.815	-10.780	-19.232	-154.01E-6
	56.43330	98.39600	20.86000	-0.83109	20.815	-11.443	-21.881	-146.26E-6
	61.56360	98.39600	20.86000	-0.96390	20.815	-6.0157	-17.855	-2.2512E-6
	66.69390	98.39600	20.86000	-0.54280	20.815	-3.1688	-12.049	29.879E-6
	71.82420	98.39600	20.86000	-0.12333	20.815	-1.1225	-7.1445	44.376E-6
	76.95450	98.39600	20.86000	0.056918	20.815	-0.40762	-4.7613	41.574E-6
	82.08480	98.39600	20.86000	-0.0037473	20.815	-0.29024	-4.2129	39.268E-6
	87.21510	98.39600	20.86000	-0.21475	20.815	-0.37280	-4.6182	41.119E-6
	92.34540	98.39600	20.86000	-0.36981	20.815	-0.48321	-5.1367	43.320E-6
	97.47570	98.39600	20.86000	-0.41591	20.815	-0.49476	-5.1329	42.868E-6
	102.60600	98.39600	20.86000	-0.37690	20.815	-0.39054	-4.4680	38.730E-6
	107.73630	98.39600	20.86000	-0.30027	20.815	-0.24536	-3.4655	32.068E-6
	112.86660	98.39600	20.86000	-0.22379	20.815	-0.13463	-2.5213	24.877E-6
	117.99690	98.39600	20.86000	-0.16312	20.815	-0.071453	-1.8034	18.670E-6
	123.12720	98.39600	20.86000	-0.11933	20.815	-0.038806	-1.3008	13.915E-6
	128.25750	98.39600	20.86000	-0.088725	20.815	-0.021977	-0.95541	10.450E-6
	133.38780	98.39600	20.86000	-0.067417	20.815	-0.013011	-0.71625	7.9567E-6
	138.51810	98.39600	20.86000	-0.052421	20.815	-0.0080280	-0.54782	6.1533E-6
	143.64840	98.39600	20.86000	-0.041673	20.815	-0.0051406	-0.42682	4.8336E-6
	148.77870	98.39600	20.86000	-0.033805	20.815	-0.0034014	-0.33819	3.8535E-6
	153.90900	98.39600	20.86000	-0.027915	20.815	-0.0023168	-0.27204	3.1146E-6 !
	0.00000	103.31580	20.86000	-0.052914	20.815	-0.0016093	-0.20937	2.4031E-6
	5.13030	103.31580	20.86000	-0.062974	20.815	-0.0024364	-0.26111	2.9819E-6
	10.26060	103.31580	20.86000	-0.075583	20.815	-0.0038545	-0.33244	3.7699E-6
	15.39090	103.31580	20.86000	-0.091625	20.815	-0.0064351	-0.43407	4.8731E-6
	20.52120	103.31580	20.86000	-0.11246	20.815	-0.011482	-0.58488	6.4670E-6
	25.65150	103.31580	20.86000	-0.14036	20.815	-0.022265	-0.82003	8.8498E-6
	30.78180	103.31580	20.86000	-0.17947	20.815	-0.047913	-1.2095	12.522E-6
	35.91210	103.31580	20.86000	-0.23803	20.815	-0.11718	-1.9007	18.201E-6
	41.04240	103.31580	20.86000	-0.33205	20.815	-0.32931	-3.2048	26.047E-6
	46.17270	103.31580	20.86000	-0.48047	20.815	-0.97974	-5.6043	31.313E-6
	51.30300	103.31580	20.86000	-0.64054	20.815	-2.1323	-8.6458	26.422E-6
	56.43330	103.31580	20.86000	-0.68697	20.815	-2.2778	-9.5876	32.360E-6
	61.56360	103.31580	20.86000	-0.60597	20.815	-1.4422	-8.0946	44.271E-6
	66.69390	103.31580	20.86000	-0.46557	20.815	-0.81292	-6.1225	43.280E-6
	71.82420	103.31580	20.86000	-0.33059	20.815	-0.40627	-4.4431	37.882E-6
	76.95450	103.31580	20.86000	-0.25410	20.815	-0.20903	-3.4274	32.901E-6
	82.08480	103.31580	20.86000	-0.24462	20.815	-0.15080	-3.0334	30.324E-6
	87.21510	103.31580	20.86000	-0.27379	20.815	-0.15447	-3.0039	29.848E-6
	92.34540	103.31580	20.86000	-0.29794	20.815	-0.17083	-3.0529	29.847E-6
	97.47570	103.31580	20.86000	-0.29366	20.815	-0.16912	-2.9585	28.799E-6
	102.60600	103.31580	20.86000	-0.26222	20.815	-0.14209	-2.6498	26.124E-6
	107.73630	103.31580	20.86000	-0.21678	20.815	-0.10246	-2.2018	22.258E-6
	112.86660	103.31580	20.86000	-0.17057	20.815	-0.066416	-1.7372	18.069E-6
	117.99690	103.31580	20.86000	-0.13105	20.815	-0.040898	-1.3361	14.256E-6
	123.12720	103.31580	20.86000	-0.10020	20.815	-0.024936	-1.0212	11.119E-6
	128.25750	103.31580	20.86000	-0.077168	20.815	-0.015399	-0.78425	8.6714E-6
	133.38780	103.31580	20.86000	-0.060249	20.815	-0.0097275	-0.60847	6.8060E-6
	138.51810	103.31580	20.86000	-0.047828	20.815	-0.0063062	-0.47794	5.3930E-6
	143.64840	103.31580	20.86000	-0.038625	20.815	-0.0041958	-0.38027	4.3199E-6
	148.77870	103.31580	20.86000	-0.031710	20.815	-0.0028614	-0.30637	3.4987E-6
	153.90900	103.31580	20.86000	-0.026426	20.815	-0.0019967	-0.24979	2.8644E-6 !
	0.00000	108.23560	20.86000	-0.048455	20.815	-0.0014483	-0.19618	2.2539E-6
	5.13030	108.23560	20.86000	-0.057143	20.815	-0.0021521	-0.24217	2.7694E-6
	10.26060	108.23560	20.86000	-0.067876	20.815	-0.0033217	-0.30427	3.4578E-6
	15.39090	108.23560	20.86000	-0.081298	20.815	-0.0053616	-0.39036	4.3974E-6
	20.52120	108.23560	20.86000	-0.098356	20.815	-0.0091226	-0.51337	5.7100E-6
	25.65150	108.23560	20.86000	-0.12050	20.815	-0.016502	-0.69509	7.5850E-6

Name	Location			Displacement	Stresses			
	X [m]	Y [m]	Z[Level] [mOD]	Z [mm]	Calc Level [mOD]	Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]
	30.78180	108.23560	20.86000	-0.15005	20.815	-0.031957	-0.97286	10.304E-6
	35.91210	108.23560	20.86000	-0.19052	20.815	-0.066196	-1.4085	14.215E-6
	41.04240	108.23560	20.86000	-0.24613	20.815	-0.14273	-2.0863	19.481E-6
	46.17270	108.23560	20.86000	-0.31636	20.815	-0.29150	-3.0345	25.378E-6
	51.30300	108.23560	20.86000	-0.38268	20.815	-0.46796	-3.9828	30.300E-6
	56.43330	108.23560	20.86000	-0.41272	20.815	-0.50885	-4.3687	33.393E-6
	61.56360	108.23560	20.86000	-0.39796	20.815	-0.39925	-4.0644	33.680E-6
	66.69390	108.23560	20.86000	-0.35671	20.815	-0.26668	-3.4438	31.062E-6
	71.82420	108.23560	20.86000	-0.31090	20.815	-0.16533	-2.8295	27.417E-6
	76.95450	108.23560	20.86000	-0.27688	20.815	-0.10574	-2.3902	24.356E-6
	82.08480	108.23560	20.86000	-0.25916	20.815	-0.080664	-2.1555	22.482E-6
	87.21510	108.23560	20.86000	-0.25102	20.815	-0.075018	-2.0593	21.551E-6
	92.34540	108.23560	20.86000	-0.24142	20.815	-0.075141	-2.0028	20.882E-6
	97.47570	108.23560	20.86000	-0.22331	20.815	-0.071909	-1.9034	19.828E-6
	102.60600	108.23560	20.86000	-0.19649	20.815	-0.062342	-1.7276	18.100E-6
	107.73630	108.23560	20.86000	-0.16515	20.815	-0.048732	-1.4927	15.820E-6
	112.86660	108.23560	20.86000	-0.13419	20.815	-0.035089	-1.2397	13.328E-6
	117.99690	108.23560	20.86000	-0.10692	20.815	-0.024003	-1.0040	10.950E-6
	123.12720	108.23560	20.86000	-0.084595	20.815	-0.016039	-0.80334	8.8731E-6
	128.25750	108.23560	20.86000	-0.067095	20.815	-0.010675	-0.64102	7.1551E-6
	133.38780	108.23560	20.86000	-0.053667	20.815	-0.0071592	-0.51311	5.7761E-6
	138.51810	108.23560	20.86000	-0.043435	20.815	-0.0048676	-0.41336	4.6850E-6
	143.64840	108.23560	20.86000	-0.035616	20.815	-0.0033645	-0.33571	3.8257E-6
	148.77870	108.23560	20.86000	-0.029589	20.815	-0.0023663	-0.27506	3.1483E-6
	153.90900	108.23560	20.86000	-0.024890	20.815	-0.0016932	-0.22738	2.6118E-6 !
	0.00000	113.15540	20.86000	-0.044097	20.815	-0.0012724	-0.18176	2.0907E-6
	5.13030	113.15540	20.86000	-0.051506	20.815	-0.0018483	-0.22172	2.5398E-6
	10.26060	113.15540	20.86000	-0.060506	20.815	-0.0027693	-0.27437	3.1259E-6
	15.39090	113.15540	20.86000	-0.071536	20.815	-0.0042964	-0.34506	3.9027E-6
	20.52120	113.15540	20.86000	-0.085193	20.815	-0.0069260	-0.44183	4.9470E-6
	25.65150	113.15540	20.86000	-0.10230	20.815	-0.011622	-0.57666	6.3655E-6
	30.78180	113.15540	20.86000	-0.12393	20.815	-0.020242	-0.76655	8.2927E-6
	35.91210	113.15540	20.86000	-0.15126	20.815	-0.036101	-1.0322	10.855E-6
	41.04240	113.15540	20.86000	-0.18477	20.815	-0.063658	-1.3870	14.053E-6
	46.17270	113.15540	20.86000	-0.22206	20.815	-0.10366	-1.8043	17.545E-6
	51.30300	113.15540	20.86000	-0.25568	20.815	-0.14218	-2.1775	20.572E-6
	56.43330	113.15540	20.86000	-0.27604	20.815	-0.15468	-2.3627	22.308E-6
	61.56360	113.15540	20.86000	-0.27939	20.815	-0.13638	-2.3152	22.395E-6
	66.69390	113.15540	20.86000	-0.26971	20.815	-0.10490	-2.1179	21.186E-6
	71.82420	113.15540	20.86000	-0.25392	20.815	-0.075765	-1.8824	19.446E-6
	76.95450	113.15540	20.86000	-0.23767	20.815	-0.055631	-1.6848	17.834E-6
	82.08480	113.15540	20.86000	-0.22321	20.815	-0.044848	-1.5511	16.643E-6
	87.21510	113.15540	20.86000	-0.20945	20.815	-0.040336	-1.4671	15.816E-6
	92.34540	113.15540	20.86000	-0.19392	20.815	-0.038253	-1.3995	15.095E-6
	97.47570	113.15540	20.86000	-0.17508	20.815	-0.035671	-1.3170	14.216E-6
	102.60600	113.15540	20.86000	-0.15329	20.815	-0.031375	-1.2044	13.045E-6
	107.73630	113.15540	20.86000	-0.13031	20.815	-0.025730	-1.0655	11.612E-6
	112.86660	113.15540	20.86000	-0.10821	20.815	-0.019830	-0.91505	10.052E-6
	117.99690	113.15540	20.86000	-0.088523	20.815	-0.014607	-0.76879	8.5176E-6
	123.12720	113.15540	20.86000	-0.071929	20.815	-0.010471	-0.63721	7.1176E-6
	128.25750	113.15540	20.86000	-0.058455	20.815	-0.0074134	-0.52477	5.9042E-6
	133.38780	113.15540	20.86000	-0.047750	20.815	-0.0052393	-0.43163	4.8865E-6
	138.51810	113.15540	20.86000	-0.039329	20.815	-0.0037213	-0.35582	4.0494E-6
	143.64840	113.15540	20.86000	-0.032713	20.815	-0.0026671	-0.29463	3.3676E-6
	148.77870	113.15540	20.86000	-0.027492	20.815	-0.0019331	-0.24536	2.8145E-6
	153.90900	113.15540	20.86000	-0.023341	20.815	-0.0014183	-0.20562	2.3658E-6 !
	0.00000	118.07520	20.86000	-0.039939	20.815	-0.0010957	-0.16684	1.9215E-6
	5.13030	118.07520	20.86000	-0.046194	20.815	-0.0015520	-0.20091	2.3058E-6
	10.26060	118.07520	20.86000	-0.053660	20.815	-0.0022518	-0.24465	2.7950E-6
	15.39090	118.07520	20.86000	-0.062613	20.815	-0.0033509	-0.30143	3.4234E-6
	20.52120	118.07520	20.86000	-0.073401	20.815	-0.0051153	-0.37586	4.2357E-6
	25.65150	118.07520	20.86000	-0.086437	20.815	-0.0079892	-0.47385	5.2857E-6
	30.78180	118.07520	20.86000	-0.10215	20.815	-0.012668	-0.60209	6.6275E-6
	35.91210	118.07520	20.86000	-0.12080	20.815	-0.020056	-0.76563	8.2885E-6
	41.04240	118.07520	20.86000	-0.14203	20.815	-0.030771	-0.96167	10.214E-6
	46.17270	118.07520	20.86000	-0.16422	20.815	-0.043778	-1.1698	12.201E-6
	51.30300	118.07520	20.86000	-0.18419	20.815	-0.055078	-1.3478	13.894E-6
	56.43330	118.07520	20.86000	-0.19844	20.815	-0.059605	-1.4500	14.935E-6
	61.56360	118.07520	20.86000	-0.20514	20.815	-0.055994	-1.4596	15.175E-6
	66.69390	118.07520	20.86000	-0.20486	20.815	-0.047453	-1.3984	14.757E-6
	71.82420	118.07520	20.86000	-0.19958	20.815	-0.038159	-1.3054	13.992E-6
	76.95450	118.07520	20.86000	-0.19124	20.815	-0.030745	-1.2131	13.169E-6
	82.08480	118.07520	20.86000	-0.18095	20.815	-0.025959	-1.1372	12.446E-6
	87.21510	118.07520	20.86000	-0.16892	20.815	-0.023233	-1.0765	11.829E-6
	92.34540	118.07520	20.86000	-0.15497	20.815	-0.021474	-1.0204	11.232E-6
	97.47570	118.07520	20.86000	-0.13921	20.815	-0.019715	-0.95725	10.552E-6
	102.60600	118.07520	20.86000	-0.12224	20.815	-0.017466	-0.88068	9.7314E-6
	107.73630	118.07520	20.86000	-0.10509	20.815	-0.014754	-0.79146	8.7789E-6
	112.86660	118.07520	20.86000	-0.088800	20.815	-0.011896	-0.69549	7.7520E-6
	117.99690	118.07520	20.86000	-0.074164	20.815	-0.0092366	-0.60006	6.7245E-6
	123.12720	118.07520	20.86000	-0.061569	20.815	-0.0069837	-0.51102	5.7578E-6
	128.25750	118.07520	20.86000	-0.051065	20.815	-0.0051974	-0.43175	4.8895E-6
	133.38780	118.07520	20.86000	-0.042481	20.815	-0.0038404	-0.36344	4.1347E-6
	138.51810	118.07520	20.86000	-0.035543	20.815	-0.0028355	-0.30578	3.4927E-6
	143.64840	118.07520	20.86000	-0.029958	20.815	-0.0021009	-0.25773	2.9540E-6
	148.77870	118.07520	20.86000	-0.025454	20.815	-0.0015666	-0.21793	2.5052E-6
	153.90900	118.07520	20.86000	-0.021806	20.815	-0.0011776	-0.18505	2.1327E-6 !
	0.00000	122.99500	20.86000	-0.036045	20.815	-928.82E-6	-0.15201	1.7532E-6
	5.13030	122.99500	20.86000	-0.041290	20.815	-0.0012817	-0.18067	2.0775E-6
	10.26060	122.99500	20.86000	-0.047438	20.815	-0.0017999	-0.21649	2.4801E-6
	15.39090	122.99500	20.86000	-0.054654	20.815	-0.0025715	-0.26148	2.9815E-6
	20.52120	122.99500	20.86000	-0.063125	20.815	-0.0037298	-0.31809	3.6058E-6
	25.65150	122.99500	20.86000	-0.073034	20.815	-0.0054658	-0.38893	4.3769E-6
	30.78180	122.99500	20.86000	-0.084513	20.815	-0.0080192	-0.47614	5.3115E-6
	35.91210	122.99500	20.86000	-0.097519	20.815	-0.011601	-0.57976	6.4027E-6
	41.04240	122.99500	20.86000	-0.11165	20.815	-0.016179	-0.69519	7.5975E-6
	46.17270	122.99500	20.86000	-0.12594	20.815	-0.021159	-0.81072	8.7793E-6
	51.30300	122.99500	20.86000	-0.13890	20.815	-0.025280	-0.90834	9.7810E-6
	56.43330	122.99500	20.86000	-0.14999	20.815	-0.027215	-0.97080	10.447E-6
	61.56360	122.99500	20.86000	-0.15516	20.815	-0.026539	-0.99110	10.709E-6
	66.69390	122.99500	20.86000	-0.15725	20.815	-0.023983	-0.97566	10.618E-6
	71.82420	122.99500	20.86000	-0.15568	20.815	-0.020758	-0.93877	10.298E-6
	76.95450	122.99500	20.86000	-0.15107	20.815	-0.017829	-0.89435	9.8792E-6
	82.08480	122.99500	20.86000	-0.14399	20.815	-0.015620	-0.85063	9.4435E-6
	87.21510	122.99500	20.86000	-0.13481	20.815	-0.014079	-0.80921	9.0112E-6
	92.34540	122.99500	20.86000	-0.12388	20.815	-0.012901	-0.76718	8.5588E-6
	97.47570	122.99500	20.86000	-0.11168	20.815	-0.011764	-0.72048	8.0502E-6
	102.60600	122.99500	20.86000	-0.098808	20.815	-0.010479	-0.66670	7.4637E-6
	107.73630	122.99500	20.86000	-0.085957	20.815	-0.0090269	-0.60621	6.8042E-6
	112.86660	122.99500	20.86000	-0.073763	20.815	-0.0075090	-0.54168	6.0995E-6
	117.99690	122.99500	20.86000	-0.062692	20.815	-0.0060564	-0.47672	5.3875E-6
	123.12720	122.99500	20.86000	-0.052994	20.815	-0.0047690	-0.41461	4.7032E-6
	128.25750	122.99500	20.86000	-0.044726	20.815	-0.0036937	-0.35765	4.0718E-6
	133.38780	122.99500	20.86000	-0.037807	20.815	-0.0028329	-0.30699	3.5070E-6
	138.51810	122.99500	20.86000	-0.032082	20.815	-0.0021632	-0.26292	3.0128E-6
	143.64840	122.99500	20.86000	-0.027372	20.815	-0.0016513	-0.22516	2.5872E-6
	148.77870	122.99500	20.86000	-0.023499	20.815	-0.0012640	-0.19309	2.2241E-6
	153.90900	122.99500	20.86000	-0.020307	20.815	-972.08E-6	-0.16600	1.9161E-6 !
	0.00000	127.91480	20.86000	-0.032453	20.815	-778.25E-6	-0.13775	1.5909E-6
	5.13030	127.91480	20.86000	-0.036830	20.815	-0.0010464	-0.16162	1.8620E-6
	10.26060	127.91480	20.86000	-0.041873	20.815	-0.0014242	-0.19069	2.1902E-6
	15.39090	127.91480	20.86000	-0.047672	20.815	-0.0019588	-0.22611	2.5875E-6
	20.52120	127.91480	20.86000	-0.054319	20.815	-0.0027140	-0.26905	3.0654E-6
	25.65150	127.91480	20.86000	-0.061879	20.815	-0.0037673	-0.32051	3.6329E-6
	30.78180	127.91480	20.86000	-0.070359	20.815	-0.0051937	-0.38082	4.2912E-6
	35.91210	127.91480	20.86000	-0.079644	20.815	-0.0070230	-0.44882	5.0257E-6
	41.04240	127.91480	20.86000	-0.089416	20.815	-0.0091657	-0.52095	5.7976E-6
	46.17270	127.91480	20.86000	-0.099107	20.815	-0.011343	-0.59075	6.5408E-6
	51.30300	127.91480	20.86000	-0.10794	20.815	-0.013113	-0.64986	7.1730E-6
	56.43330	127.91480	20.86000	-0.11511	20.815	-0.014059	-0.69087	7.6215E-6
	61.56360	127.91480	20.86000	-0.11999	20.815	-0.014034	-0.71044	7.8523E-6
	66.69390	127.91480	20.86000	-0.12228	20.815	-0.013231	-0.71049	7.8811E-6
	71.82420	127.91480	20.86000	-0.12197	20.815	-0.012037	-0.69651	7.7591E-6
	76.95450	127.91480	20.86000	-0.11923	20.815	-0.010808	-0.67456	7.5445E-6
	82.08480	127.91480	20.86000	-0.11435	20.815	-0.0097469	-0.64887	7.2800E-6
	87.21510	127.91480	20.86000	-0.10764	20.815	-0.0088851	-0.62105	6.9835E-6
	92.34540	127.91480	20.86000	-0.099478	20.815	-0.0081454	-0.59068	6.6528E-6
	97.47570	127.91480	20.86000	-0.090325	20.815	-0.0074235	-0.55659	6.2777E-6
	102.60600	127.91480	20.86000	-0.080679	20.815	-0.0066496	-0.51809	5.8527E-6
	107.73630	127.91480	20.86000	-0.071037	20.815	-0.0058117	-0.47558	5.3827E-6

Name	Location X [m]	Location Y [m]	Z[Level] [mOD]	Displacement Z [mm]	Calc Level [mOD]	Stresses Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]
	112.86660	127.91480	20.86000	-0.061827	20.815	-0.0049448	-0.43047	4.8833E-6
	117.99690	127.91480	20.86000	-0.053362	20.815	-0.0041029	-0.38472	4.3754E-6
	123.12720	127.91480	20.86000	-0.045822	20.815	-0.0033336	-0.34022	3.8798E-6
	128.25750	127.91480	20.86000	-0.039266	20.815	-0.0026658	-0.29849	3.4130E-6
	133.38780	127.91480	20.86000	-0.033665	20.815	-0.0021087	-0.26045	2.9857E-6
	138.51810	127.91480	20.86000	-0.028934	20.815	-0.0016574	-0.22653	2.6030E-6
	143.64840	127.91480	20.86000	-0.024965	20.815	-0.0012991	-0.19675	2.2658E-6
	148.77870	127.91480	20.86000	-0.021642	20.815	-0.0010182	-0.17091	1.9721E-6
	153.90900	127.91480	20.86000	-0.018859	20.815	-799.81E-6	-0.14863	1.7181E-6 !
	0.00000	132.83460	20.86000	-0.029177	20.815	-646.92E-6	-0.12435	1.4381E-6
	5.13030	132.83460	20.86000	-0.032821	20.815	-848.56E-6	-0.14411	1.6632E-6
	10.26060	132.83460	20.86000	-0.036950	20.815	-0.0011216	-0.16761	1.9297E-6
	15.39090	132.83460	20.86000	-0.041611	20.815	-0.0014906	-0.19544	2.2437E-6
	20.52120	132.83460	20.86000	-0.046840	20.815	-0.0019847	-0.22812	2.6102E-6
	25.65150	132.83460	20.86000	-0.052647	20.815	-0.0026335	-0.26590	3.0313E-6
	30.78180	132.83460	20.86000	-0.058993	20.815	-0.0034561	-0.30850	3.5027E-6
	35.91210	132.83460	20.86000	-0.065760	20.815	-0.0044427	-0.35471	4.0109E-6
	41.04240	132.83460	20.86000	-0.072720	20.815	-0.0055302	-0.40214	4.5298E-6
	46.17270	132.83460	20.86000	-0.079521	20.815	-0.0065904	-0.44716	5.0214E-6
	51.30300	132.83460	20.86000	-0.085715	20.815	-0.0074518	-0.48560	5.4426E-6
	56.43330	132.83460	20.86000	-0.090835	20.815	-0.0079641	-0.51386	5.7567E-6
	61.56360	132.83460	20.86000	-0.094482	20.815	-0.0080691	-0.53019	5.9448E-6
	66.69390	132.83460	20.86000	-0.096396	20.815	-0.0078241	-0.53506	6.0106E-6
	71.82420	132.83460	20.86000	-0.096468	20.815	-0.0073613	-0.53063	5.9749E-6
	76.95450	132.83460	20.86000	-0.094728	20.815	-0.0068185	-0.51960	5.8645E-6
	82.08480	132.83460	20.86000	-0.091314	20.815	-0.0062879	-0.50415	5.7016E-6
	87.21510	132.83460	20.86000	-0.086454	20.815	-0.0058012	-0.48542	5.4987E-6
	92.34540	132.83460	20.86000	-0.080451	20.815	-0.0053446	-0.46371	5.2597E-6
	97.47570	132.83460	20.86000	-0.073659	20.815	-0.0048872	-0.43888	4.9842E-6
	102.60600	132.83460	20.86000	-0.066456	20.815	-0.0044055	-0.41094	4.6729E-6
	107.73630	132.83460	20.86000	-0.059202	20.815	-0.0038958	-0.38031	4.3310E-6
	112.86660	132.83460	20.86000	-0.052200	20.815	-0.0033726	-0.34786	3.9681E-6
	117.99690	132.83460	20.86000	-0.045678	20.815	-0.0028600	-0.31474	3.5971E-6
	123.12720	132.83460	20.86000	-0.039774	20.815	-0.0023816	-0.28213	3.2308E-6
	128.25750	132.83460	20.86000	-0.034547	20.815	-0.0019544	-0.25101	2.8802E-6
	133.38780	132.83460	20.86000	-0.029998	20.815	-0.0015862	-0.22208	2.5532E-6
	138.51810	132.83460	20.86000	-0.026083	20.815	-0.0012779	-0.19574	2.2547E-6
	143.64840	132.83460	20.86000	-0.022739	20.815	-0.0010250	-0.17215	1.9865E-6
	148.77870	132.83460	20.86000	-0.019894	20.815	-820.71E-6	-0.15128	1.7484E-6
	153.90900	132.83460	20.86000	-0.017474	20.815	-657.25E-6	-0.13296	1.5390E-6 !
	0.00000	137.75440	20.86000	-0.026215	20.815	-535.17E-6	-0.11198	1.2968E-6
	5.13030	137.75440	20.86000	-0.029245	20.815	-685.93E-6	-0.12829	1.4831E-6
	10.26060	137.75440	20.86000	-0.032627	20.815	-882.81E-6	-0.14727	1.6991E-6
	15.39090	137.75440	20.86000	-0.036381	20.815	-0.0011382	-0.16919	1.9477E-6
	20.52120	137.75440	20.86000	-0.040513	20.815	-0.0014648	-0.19423	2.2304E-6
	25.65150	137.75440	20.86000	-0.045008	20.815	-0.0018728	-0.22234	2.5463E-6
	30.78180	137.75440	20.86000	-0.049816	20.815	-0.0023640	-0.25309	2.8902E-6
	35.91210	137.75440	20.86000	-0.054837	20.815	-0.0029243	-0.28551	3.2514E-6
	41.04240	137.75440	20.86000	-0.059905	20.815	-0.0035165	-0.31804	3.6127E-6
	46.17270	137.75440	20.86000	-0.064793	20.815	-0.0040797	-0.34859	3.9518E-6
	51.30300	137.75440	20.86000	-0.069223	20.815	-0.0045412	-0.37490	4.2446E-6
	56.43330	137.75440	20.86000	-0.072903	20.815	-0.0048401	-0.39507	4.4711E-6
	61.56360	137.75440	20.86000	-0.075572	20.815	-0.0049507	-0.40808	4.6200E-6
	66.69390	137.75440	20.86000	-0.077035	20.815	-0.0048903	-0.41392	4.6907E-6
	71.82420	137.75440	20.86000	-0.077184	20.815	-0.0047072	-0.41345	4.6917E-6
	76.95450	137.75440	20.86000	-0.076005	20.815	-0.0044566	-0.40789	4.6352E-6
	82.08480	137.75440	20.86000	-0.073573	20.815	-0.0041810	-0.39836	4.5329E-6
	87.21510	137.75440	20.86000	-0.070040	20.815	-0.0039009	-0.38562	4.3932E-6
	92.34540	137.75440	20.86000	-0.065625	20.815	-0.0036185	-0.37008	4.2206E-6
	97.47570	137.75440	20.86000	-0.060585	20.815	-0.0033268	-0.35194	4.0177E-6
	102.60600	137.75440	20.86000	-0.055193	20.815	-0.0030197	-0.33143	3.7875E-6
	107.73630	137.75440	20.86000	-0.049710	20.815	-0.0026977	-0.30894	3.5346E-6
	112.86660	137.75440	20.86000	-0.044354	20.815	-0.0023683	-0.28508	3.2659E-6
	117.99690	137.75440	20.86000	-0.039296	20.815	-0.0020435	-0.26058	2.9895E-6
	123.12720	137.75440	20.86000	-0.034645	20.815	-0.0017357	-0.23621	2.7140E-6
	128.25750	137.75440	20.86000	-0.030459	20.815	-0.0014547	-0.21263	2.4469E-6
	133.38780	137.75440	20.86000	-0.026753	20.815	-0.0012064	-0.19035	2.1940E-6
	138.51810	137.75440	20.86000	-0.023509	20.815	-992.59E-6	-0.16973	1.9592E-6
	143.64840	137.75440	20.86000	-0.020692	20.815	-812.41E-6	-0.15094	1.7447E-6
	148.77870	137.75440	20.86000	-0.018259	20.815	-662.92E-6	-0.13402	1.5512E-6
	153.90900	137.75440	20.86000	-0.016160	20.815	-540.28E-6	-0.11893	1.3783E-6 !
	0.00000	142.67420	20.86000	-0.023553	20.815	-441.72E-6	-0.10073	1.1678E-6
	5.13030	142.67420	20.86000	-0.026074	20.815	-554.27E-6	-0.11418	1.3219E-6
	10.26060	142.67420	20.86000	-0.028848	20.815	-696.55E-6	-0.12952	1.4972E-6
	15.39090	142.67420	20.86000	-0.031880	20.815	-874.58E-6	-0.14686	1.6947E-6
	20.52120	142.67420	20.86000	-0.035162	20.815	-0.0010936	-0.16622	1.9144E-6
	25.65150	142.67420	20.86000	-0.038671	20.815	-0.0013562	-0.18744	2.1544E-6
	30.78180	142.67420	20.86000	-0.042356	20.815	-0.0016598	-0.21010	2.4099E-6
	35.91210	142.67420	20.86000	-0.046136	20.815	-0.0019933	-0.23349	2.6730E-6
	41.04240	142.67420	20.86000	-0.049893	20.815	-0.0023356	-0.25659	2.9324E-6
	46.17270	142.67420	20.86000	-0.053470	20.815	-0.0026566	-0.27815	3.1743E-6
	51.30300	142.67420	20.86000	-0.056687	20.815	-0.0029229	-0.29686	3.3847E-6
	56.43330	142.67420	20.86000	-0.059354	20.815	-0.0031072	-0.31163	3.5519E-6
	61.56360	142.67420	20.86000	-0.061295	20.815	-0.0031969	-0.32183	3.6685E-6
	66.69390	142.67420	20.86000	-0.062372	20.815	-0.0031968	-0.32731	3.7329E-6
	71.82420	142.67420	20.86000	-0.062501	20.815	-0.0031253	-0.32839	3.7481E-6
	76.95450	142.67420	20.86000	-0.061660	20.815	-0.0030054	-0.32563	3.7199E-6
	82.08480	142.67420	20.86000	-0.059891	20.815	-0.0028570	-0.31961	3.6544E-6
	87.21510	142.67420	20.86000	-0.057297	20.815	-0.0026921	-0.31083	3.5571E-6
	92.34540	142.67420	20.86000	-0.054028	20.815	-0.0025155	-0.29963	3.4317E-6
	97.47570	142.67420	20.86000	-0.050267	20.815	-0.0023274	-0.28628	3.2814E-6
	102.60600	142.67420	20.86000	-0.046207	20.815	-0.0021277	-0.27105	3.1095E-6
	107.73630	142.67420	20.86000	-0.042034	20.815	-0.0019184	-0.25429	2.9200E-6
	112.86660	142.67420	20.86000	-0.037910	20.815	-0.0017042	-0.23644	2.7178E-6
	117.99690	142.67420	20.86000	-0.033963	20.815	-0.0014916	-0.21800	2.5087E-6
	123.12720	142.67420	20.86000	-0.030279	20.815	-0.0012877	-0.19949	2.2984E-6
	128.25750	142.67420	20.86000	-0.026912	20.815	-0.0010984	-0.18137	2.0922E-6
	133.38780	142.67420	20.86000	-0.023884	20.815	-927.50E-6	-0.16403	1.8944E-6
	138.51810	142.67420	20.86000	-0.021192	20.815	-777.09E-6	-0.14773	1.7083E-6
	143.64840	142.67420	20.86000	-0.018819	20.815	-647.34E-6	-0.13266	1.5358E-6
	148.77870	142.67420	20.86000	-0.016739	20.815	-537.19E-6	-0.11889	1.3779E-6
	153.90900	142.67420	20.86000	-0.014923	20.815	-444.80E-6	-0.10644	1.2349E-6 !
	0.00000	147.59400	20.86000	-0.021171	20.815	-364.48E-6	-0.090571	1.0513E-6 !
	5.13030	147.59400	20.86000	-0.023270	20.815	-448.64E-6	-0.10168	1.1788E-6 !
	10.26060	147.59400	20.86000	-0.025551	20.815	-552.00E-6	-0.11412	1.3214E-6 !
	15.39090	147.59400	20.86000	-0.028009	20.815	-677.37E-6	-0.12793	1.4792E-6 !
	20.52120	147.59400	20.86000	-0.030632	20.815	-826.63E-6	-0.14304	1.6515E-6 !
	25.65150	147.59400	20.86000	-0.033392	20.815	-999.73E-6	-0.15928	1.8361E-6 !
	30.78180	147.59400	20.86000	-0.036246	20.815	-0.0011935	-0.17630	2.0292E-6 !
	35.91210	147.59400	20.86000	-0.039129	20.815	-0.0014005	-0.19359	2.2251E-6 !
	41.04240	147.59400	20.86000	-0.041953	20.815	-0.0016086	-0.21046	2.4160E-6 !
	46.17270	147.59400	20.86000	-0.044611	20.815	-0.0018023	-0.22615	2.5935E-6 !
	51.30300	147.59400	20.86000	-0.046979	20.815	-0.0019650	-0.23984	2.7487E-6 !
	56.43330	147.59400	20.86000	-0.048928	20.815	-0.0020835	-0.25089	2.8743E-6 !
	61.56360	147.59400	20.86000	-0.050342	20.815	-0.0021509	-0.25886	2.9655E-6 !
	66.69390	147.59400	20.86000	-0.051123	20.815	-0.0021682	-0.26359	3.0205E-6 !
	71.82420	147.59400	20.86000	-0.051210	20.815	-0.0021423	-0.26518	3.0401E-6 !
	76.95450	147.59400	20.86000	-0.050585	20.815	-0.0020834	-0.26387	3.0268E-6 !
	82.08480	147.59400	20.86000	-0.049273	20.815	-0.0020007	-0.25999	2.9841E-6 !
	87.21510	147.59400	20.86000	-0.047343	20.815	-0.0019014	-0.25384	2.9154E-6 !
	92.34540	147.59400	20.86000	-0.044899	20.815	-0.0017892	-0.24569	2.8235E-6 !
	97.47570	147.59400	20.86000	-0.042066	20.815	-0.0016663	-0.23577	2.7113E-6 !
	102.60600	147.59400	20.86000	-0.038984	20.815	-0.0015341	-0.22434	2.5817E-6 !
	107.73630	147.59400	20.86000	-0.035784	20.815	-0.0013949	-0.21169	2.4380E-6 !
	112.86660	147.59400	20.86000	-0.032585	20.815	-0.0012519	-0.19814	2.2838E-6 !
	117.99690	147.59400	20.86000	-0.029484	20.815	-0.0011091	-0.18406	2.1234E-6 !
	123.12720	147.59400	20.86000	-0.026551	20.815	-970.72E-6	-0.16980	1.9608E-6 !
	128.25750	147.59400	20.86000	-0.023831	20.815	-840.31E-6	-0.15571	1.7998E-6 !
	133.38780	147.59400	20.86000	-0.021349	20.815	-720.63E-6	-0.14206	1.6437E-6 !
	138.51810	147.59400	20.86000	-0.019111	20.815	-613.28E-6	-0.12909	1.4950E-6 !
	143.64840	147.59400	20.86000	-0.017111	20.815	-518.82E-6	-0.11692	1.3555E-6 !
	148.77870	147.59400	20.86000	-0.015335	20.815	-437.02E-6	-0.10567	1.2261E-6 !
	153.90900	147.59400	20.86000	-0.013764	20.815	-367.06E-6	-0.095357	1.1074E-6 !

! Point lies outside soil zones. Results calculated for this point assume a soil zone with properties of the first soil profile.

Analysis Options

Analysis: Boussinesq
Global Poisson's ratio: 0.20
Maximum allowable ratio between values of E: 1.5
Horizontal rigid boundary level: -10.00 [m OD]
Stiffness for horizontal displacement calculations: Weighted average
Using legacy heave correction factor: No
Displacements at load centroids: Yes

Soil ProfilesSoil Profile 1

Layer	Level at top	Number of intermediate displacement levels	Youngs Modulus Top	Youngs Modulus Btm	Poissons ratio	Non-linear curve
	[mOD]		[kN/m²]	[kN/m²]		
1	27.000	10	14000.	14000.	0.20000	None
2	24.500	8	30000.	30000.	0.20000	None
3	22.500	74	27000.	81000.	0.20000	None
4	4.0000	52	115000.	224000.	0.20000	None

Soil Zones

Zone	Name	X coordinates min [m]	X coordinates max [m]	Y coordinates min [m]	Y coordinates max [m]	Profile
1	Boundary	0.00000	153.90850	0.00000	147.59380	Soil Profile 1

Load Data

Load ref.	Name	Shape	Orientation of Plane	Load position: Centre of load (Global) X [m]	Y [m]	Z (level) [m]	Angle of local x from [Degrees]	Width x or Radius [m]	Length y [m]	Polygon Coordinates [m]	Rectangle tolerance [%]	Number of rectangles	Load value: Normal (local z) [kN/m²]	Tangential (local x) [kN/m²]	Tangential (local y) [kN/m²]
1	Enabling Works 1.1	Polygonal	Horizontal	N/A	N/A	24.92000	N/A	N/A	N/A	(80.2,85.5) (88.3,85.6) (87.5,69.3) (87.4,69.3) (87.3,68.3) (84.6,68.3) (84.6,69) (79.7,69) (80.2,85.5)	10.000	4	18.600	N/A	N/A
2	Enabling Works 1.2	Polygonal	Horizontal	N/A	N/A	24.92000	N/A	N/A	N/A	(50.8,54) (50.8,50) (72.2,50.8) (72.3,50.5) (74.4,50.6) (74.6,50.9) (74.9,50.9) (74.9,56.6) (69.4,56.7) (69.4,56.5) (69.3,56.5) (69.3,54.4) (69.4,54.4) (69.4,53.9) (69.3,53.9) (69.3,54) (50.9,54) (50.9,54) (50.8,54)	10.000	9	18.600	N/A	N/A
3	Enabling Works 2	Polygonal	Horizontal	N/A	N/A	24.92000	N/A	N/A	N/A	(79.7,56.6) (79.7,51.1) (84.2,51.2) (84.2,56.4) (84,56.4) (84,56.6) (79.7,56.6)	10.000	2	11.600	N/A	N/A
4	Enabling Works 3	Polygonal	Horizontal	N/A	N/A	24.92000	N/A	N/A	N/A	(51,83.7) (56.3,83.7) (56.2,62.7) (50.9,62.7) (51,83.7)	10.000	1	0.60000	N/A	N/A
5	Enabling Works 4	Polygonal	Horizontal	N/A	N/A	24.92000	N/A	N/A	N/A	(51.2,62.7) (56.2,62.7) (56.2,57.3) (68.6,57.2) (69.4,57.2) (69.4,56.5) (69.3,56.5) (69.3,54.4) (69.4,54.4) (69.4,53.9) (69.3,53.9) (69.3,54) (50.9,54) (50.9,62.7) (51.2,62.7)	10.000	5	-11.400	N/A	N/A
6	Enabling Works 5.1	Polygonal	Horizontal	N/A	N/A	27.00000	N/A	N/A	N/A	(88.3,85.6) (103,85.7) (103,84.7) (104,84.7) (104,84.3) (103,84.3) (102,62.8) (88.3,62.7) (87.6,64.7) (87.5,67.9) (87.3,68.3) (87.4,69.3) (87.5,69.3) (88.3,85.6)	10.000	8	-52.000	N/A	N/A
7	Enabling Works 5.2	Polygonal	Horizontal	N/A	N/A	27.00000	N/A	N/A	N/A	(79.7,69) (79.8,68.6) (79.8,57.6) (79.8,56.6) (74.8,56.6) (74.7,57.1) (74.6,57.1) (74.7,68.5) (74.8,68.5) (74.8,68.8) (74.8,69) (75,69) (79.7,69)	10.000	4	-52.000	N/A	N/A
8	Enabling Works 5.3	Polygonal	Horizontal	N/A	N/A	27.00000	N/A	N/A	N/A	(50.9,86.8) (50.9,92.6) (50,92.6) (49.9,97.4) (57,97.3) (57.1,93.3) (67.2,93.5) (67.2,91.8) (66.2,86.8) (50.9,86.8)	10.000	6	-52.000	N/A	N/A
9	Enabling Works 6.1	Polygonal	Horizontal	N/A	N/A	24.92000	N/A	N/A	N/A	(79.7,69) (84.6,69) (84.6,68.3) (87.3,68.3) (87.5,67.9) (87.6,64.7) (88.3,62.7) (102,62.8) (102,52.4) (102,52.4) (102,51.8) (102,51.8) (102,51.9) (84.2,51.2) (84.2,56.4) (84,56.4) (84,56.6) (79.8,56.6) (79.8,68.6) (79.7,69)	10.000	17	-18.400	N/A	N/A
10	Enabling Works 6.2	Polygonal	Horizontal	N/A	N/A	24.92000	N/A	N/A	N/A	(51,83.7) (51,83.8) (50.8,83.8) (50.8,84.3) (50.9,84.3) (50.9,86.8) (66.2,86.8) (66.1,68.3) (68.8,68.3) (68.8,69.1) (74.8,69) (74.8,68.5) (74.7,68.5) (74.6,57.1) (74.7,57.1) (74.8,56.6) (69.4,56.7) (69.4,56.5) (69.4,57.2) (56.2,57.3) (56.3,83.7) (51,83.7)	10.000	9	-18.400	N/A	N/A
11	C1	Polygonal	Horizontal	N/A	N/A	20.86000	N/A	N/A	N/A	(50.4,97.7) (50.4,85.2) (49.7,85.2) (49.7,76.4) (58.9,76.4) (58.8,80.1) (94,80.9) (104,80.3) (104,85.8) (89.1,85.8) (89.1,90.1) (83.8,90.1) (83.7,94) (68.9,94) (68.9,93.7) (57.6,93.8) (57.6,97.8) (50.4,97.7)	10.000	14	42.000	N/A	N/A
12	C2	Polygonal	Horizontal	N/A	N/A	20.86000	N/A	N/A	N/A	(104,80.3) (102,53.1) (87.6,52.4) (87.7,50.4) (81,50) (80.7,50.6) (73.3,50.4) (73.3,49.8) (50.8,49.1) (50.3,49.2) (49.9,49.6) (49.7,50.1) (49.7,76.4) (58.9,76.4) (59.3,63.6) (94.4,64.5) (94,80.9) (104,80.3)	10.000	20	42.000	N/A	N/A
13	C3	Polygonal	Horizontal	N/A	N/A	19.86000	N/A	N/A	N/A	(58.8,80.1) (94,80.9) (94.4,64.5) (59.3,63.6) (58.8,80.1)	10.000	2	37.000	N/A	N/A

Polygonal Loads' Rectangles

No.	Centre of load X [m]	Centre of load Y [m]	Angle of local x from global X [Degrees]	Width x [m]	Depth y [m]
Load 1 : Enabling Works 1.1					
(Edge 1 optimal)					
1	85.96575	68.62430	-90.000	0.72060	2.7389
2	86.25496	85.51930	-90.000	0.080600	4.0650

No.	Centre of load X	Y	Angle of local x from global X	Width x	Depth y
3	83.90496	77.39135	-90.000	16.175	7.9464
4	83.53306	69.15790	-90.000	0.29160	7.6579
Load 2 : Enabling Works 1.2					
(Edge 8 optimal)					
1	74.72227	53.76071	179.70	0.29834	5.7764
2	74.50608	53.69022	179.70	0.13328	5.9196
3	73.38191	53.60396	179.70	2.1141	6.1038
4	72.27104	53.65303	179.70	0.10809	6.0171
5	70.82165	53.69847	179.70	2.7911	5.9413
6	69.36205	55.45700	179.70	0.11140	2.0256
7	69.34631	52.28483	179.70	0.14490	3.2210
8	60.08459	52.17200	179.70	18.377	3.6701
9	50.86525	51.98391	179.70	0.059351	3.9657
Load 3 : Enabling Works 2					
(Edge 6 optimal)					
1	84.10209	53.82223	179.70	0.17084	5.1608
2	81.83703	53.88717	179.70	4.3426	5.4473
Load 4 : Enabling Works 3					
(Edge 1 optimal)					
1	53.57203	73.19282	89.768	20.955	5.2830
Load 5 : Enabling Works 4					
(Edge 5 optimal)					
1	69.35496	53.93215	89.790	0.073173	0.14390
2	60.16382	54.24442	89.790	0.46665	18.523
3	60.10138	55.49083	89.790	2.0257	18.398
4	60.16260	56.85433	89.790	0.70086	18.521
5	53.53159	59.98233	89.790	5.4340	5.2588
Load 6 : Enabling Works 5.1					
(Edge 1 optimal)					
1	87.39194	68.73367	177.17	0.10142	1.1364
2	103.47440	84.49295	177.17	0.057148	0.35654
3	102.87954	73.74655	177.17	0.051448	21.875
4	102.83684	74.00626	177.17	0.059465	22.397
5	95.82251	74.19070	177.17	13.970	22.928
6	88.47096	74.61110	177.17	0.75634	21.938
7	88.02372	75.92575	177.17	0.26668	19.295
8	87.89848	76.77219	177.17	0.066950	17.597
Load 7 : Enabling Works 5.2					
(Edge 2 optimal)					
1	77.30828	62.82955	179.71	4.7194	12.389
2	74.86860	62.84227	179.71	0.16007	12.389
3	74.71247	62.84688	179.71	0.057203	11.400
4	79.73953	62.71925	179.71	0.14339	12.195
Load 8 : Enabling Works 5.3					
(Edge 9 optimal)					
1	67.01345	92.21826	-179.22	0.36715	2.5219
2	66.65756	91.38615	-179.22	0.36715	4.1763
3	66.30167	90.55403	-179.22	0.36715	5.8308
4	61.61512	90.10464	-179.22	9.0173	6.6023
5	53.97184	92.08378	-179.22	6.2083	10.579
6	50.39858	94.99581	-179.22	0.85857	4.8591
Load 9 : Enabling Works 6.1					
(Edge 20 optimal)					
1	79.73580	68.96266	-0.29546	0.071904	0.098465
2	79.80721	68.86498	-0.29546	0.071904	0.29301
3	81.94089	62.80476	-0.29546	4.2276	12.389
4	84.14830	62.69382	-0.29546	0.17106	12.586
5	84.40097	60.11840	-0.29546	0.29922	17.734
6	85.91269	59.78219	-0.29546	2.7202	16.952
7	87.36286	59.72483	-0.29546	0.18066	16.731
8	87.50962	58.82734	-0.29546	0.12210	14.925
9	87.89653	57.52027	-0.29546	0.66520	12.282
10	94.98145	57.19077	-0.29546	13.508	11.106
11	101.80604	52.08427	-0.29546	0.11115	0.54843
12	101.82779	58.02577	-0.29546	0.093376	9.5824
13	101.92566	58.89788	-0.29546	0.093376	7.8402
14	102.02354	59.77000	-0.29546	0.093376	6.0979
15	102.12141	60.64211	-0.29546	0.093376	4.3556
16	102.21929	61.51423	-0.29546	0.093376	2.6134
17	102.31716	62.38634	-0.29546	0.093376	0.87113
Load 10 : Enabling Works 6.2					
(Edge 19 optimal)					
1	61.15982	72.00771	-0.29653	9.8648	29.566
2	67.42842	62.74639	-0.29653	2.6850	11.122
3	69.11334	63.12129	-0.29653	0.68088	11.893
4	72.06678	62.85738	-0.29653	5.2215	12.389
5	74.69732	56.89668	-0.29653	0.10120	0.49514
6	74.74200	68.79252	-0.29653	0.055268	0.49027
7	50.85415	84.06772	-0.29653	0.069227	0.43996
8	50.93103	85.31834	-0.29653	0.071589	2.9447
9	53.61552	85.23107	-0.29653	5.2971	3.1193
Load 11 : C1					
(Edge 13 optimal)					
1	50.04601	80.78658	-179.87	0.67978	8.8417
2	58.84914	77.30161	-179.87	0.099530	1.8718
3	103.87257	85.48760	-179.87	0.073162	0.55001
4	103.80067	84.93758	-179.87	0.073162	1.6500
5	103.72878	84.38756	-179.87	0.073162	2.7501
6	103.65689	83.83753	-179.87	0.073162	3.8501
7	103.58499	83.28751	-179.87	0.073162	4.9501
8	98.76706	83.16569	-179.87	9.5632	5.1925
9	91.52313	83.29188	-179.87	4.9240	4.9381
10	86.42394	85.40210	-179.87	5.2646	9.3806
11	76.35295	87.22981	-179.87	14.818	13.475
12	63.86077	86.97412	-179.87	10.167	13.508
13	58.19769	85.05828	-179.87	1.1676	17.385
14	53.99163	87.04706	-179.87	7.1828	21.363
Load 12 : C2					
(Edge 1 optimal)					
1	91.02065	58.49006	-178.57	7.0904	11.837
2	84.17299	57.21037	-178.57	6.6647	14.053
3	80.69623	57.21634	-178.57	0.28636	13.867
4	76.83058	57.26453	-178.57	7.4401	13.577
5	66.28351	56.68028	-178.57	13.677	14.217
6	54.86653	62.79515	-178.57	8.7457	27.150
7	50.26568	62.75183	-178.57	0.45528	27.236
8	50.02226	62.17289	-178.57	0.060376	25.967
9	49.96988	60.12975	-178.57	0.14661	21.733
10	49.89530	57.25032	-178.57	0.14661	15.705
11	49.82072	54.37089	-178.57	0.14661	9.6765
12	49.76968	52.45372	-178.57	0.051377	5.5520
13	49.74219	51.49880	-178.57	0.051377	3.3312
14	49.71470	50.54388	-178.57	0.051377	1.1104
15	103.34668	78.91126	-178.57	0.48491	2.7344
16	102.92925	76.20893	-178.57	0.48491	8.2032
17	102.51183	73.50659	-178.57	0.48491	13.672
18	102.09441	70.80425	-178.57	0.48491	19.141
19	101.67699	68.10192	-178.57	0.48491	24.609
20	97.91350	66.78001	-178.57	7.1059	27.743
Load 13 : C3					
(Edge 2 optimal)					
1	76.62937	72.27446	1.4338	35.142	16.443
2	58.92796	75.98621	1.4338	0.063687	8.2501

Displacement Data

Ref.	Type	Name	Direction of Extrusion	First point X [m]	First point Y [m]	First point Z(level) [m]	Second point X [m]	Second point Y [m]	Second point Z(level) [m]	No. of intrvls across extrusion/line	Extrusion Depth [m]	No. of intrvls along extrusion	Calculate	Show Detailed results
1	Line	Tottenham Court Road	N/A	102.43574	62.82325	27.00000	127.43574	62.82325	27.00000	25	N/A	N/A	Yes	Yes
2	Line	Howland Street	N/A	73.35504	50.35844	27.00000	73.35504	35.35844	27.00000	15	N/A	N/A	Yes	Yes
3	Line	Whitfield Street	N/A	49.69721	76.36573	27.00000	39.69721	76.36573	27.00000	10	N/A	N/A	Yes	Yes
4	Line	Qube	N/A	94.43186	85.76132	24.36000	94.43186	137.76132	24.36000	52	N/A	N/A	Yes	Yes
5	Grid	Raft Formation	Global X	0.00000	0.00000	20.86000	N/A	147.59400	20.86000	30	153.90900	30	Yes	Yes

Ref.	Type	Name	Direction of Extrusion	Line/Line for extrusion First point X [m]	First point Y [m]	First point Z(level) [m]	Second point X [m]	Second point Y [m]	Second point Z(level) [m]	No. of intrvls across extrusion/line	Extrusion Depth [m]	No. of intrvls along extrusion	Calculate	Show Detailed results

Warnings

(1)The displacement location of Grid 5 at (153.909, 0.000, 20.860)m lies wide of all soil zones. The first soil profile will be used.There are more displacement locations for which this warning applies. Only one is detailed here.

RESULTS FOR GRIDS

Analysis: Boussinesq
Global Poisson's ratio: 0.20
Horizontal rigid boundary level: -10.00 [m OD]

The maximum displacement difference between the Boussinesq method (-4.8168mm) and the Mindlin method (-8.7384mm) occurs at point X = 77.25530m, Y = 62.82244m, level = 27.000mOD, and is 3.9216mm.

Name	Location X [m]	Location Y [m]	Z[Level] [mOD]	Displacement Z [mm]	Stresses Calc Level [mOD]	Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]
Enabling Works 1.1	83.93674	77.19338	24.92000	11.250	24.815	17.278	30.246	0.0010489
Enabling Works 1.2	63.82263	52.65957	24.92000	11.745	24.815	18.580	41.234	0.0010035
Enabling Works 2	81.91347	53.88372	24.92000	9.0036	24.815	11.022	20.454	652.50E-6
Enabling Works 3	53.57175	73.19850	24.92000	8.7731	24.815	0.57984	-0.31224	54.162E-6
Enabling Works 4	57.97182	57.03782	24.92000	7.6447	24.815	-11.452	-29.194	-564.51E-6
Enabling Works 5.1	95.37095	74.24229	27.00000	-10.787	26.886	-52.000	-123.39	-0.0026944
Enabling Works 5.2	77.25530	62.82244	27.00000	-4.8168	26.886	-51.998	-121.07	-0.0027274
Enabling Works 5.3	57.68470	91.26023	27.00000	-7.8225	26.886	-51.998	-121.90	-0.0027155
Enabling Works 6.1	90.34978	58.88939	24.92000	2.9798	24.815	-19.395	-53.861	-892.99E-6
Enabling Works 6.2	63.18110	70.26044	24.92000	4.8904	24.815	-18.429	-45.246	-933.23E-6
C1	70.60521	86.38667	20.86000	9.5842	20.815	37.935	87.362	878.80E-6
C2	75.82670	61.11070	20.86000	6.6703	20.815	16.189	63.823	208.73E-6
C3	76.59711	72.27559	19.86000	8.5736	19.837	31.723	77.373	649.72E-6
Tottenham Court Road	102.43574	62.82325	27.00000	-2.2816	26.886	-5.8892	-27.611	-110.35E-6
	103.43574	62.82325	27.00000	-1.3581	26.886	-0.0087426	-2.3289	32.521E-6
	104.43574	62.82325	27.00000	-0.99904	26.886	-0.0011301	-1.0644	15.108E-6
	105.43574	62.82325	27.00000	-0.81279	26.886	-332.13E-6	-0.65456	9.3224E-6
	106.43574	62.82325	27.00000	-0.69054	26.886	-138.41E-6	-0.45579	6.4994E-6
	107.43574	62.82325	27.00000	-0.59970	26.886	-69.920E-6	-0.33989	4.8496E-6
	108.43574	62.82325	27.00000	-0.52761	26.886	-39.878E-6	-0.26476	3.7789E-6
	109.43574	62.82325	27.00000	-0.46808	26.886	-24.718E-6	-0.21259	3.0349E-6
	110.43574	62.82325	27.00000	-0.41767	26.886	-16.275E-6	-0.17457	2.4925E-6
	111.43574	62.82325	27.00000	-0.37423	26.886	-11.219E-6	-0.14585	2.0826E-6
	112.43574	62.82325	27.00000	-0.33634	26.886	-8.0157E-6	-0.12355	1.7644E-6
	113.43574	62.82325	27.00000	-0.30301	26.886	-5.8944E-6	-0.10586	1.5118E-6
	114.43574	62.82325	27.00000	-0.27352	26.886	-4.4382E-6	-0.091571	1.3078E-6
	115.43574	62.82325	27.00000	-0.24730	26.886	-3.4083E-6	-0.079858	1.1405E-6
	116.43574	62.82325	27.00000	-0.22393	26.886	-2.6617E-6	-0.070139	1.0018E-6
	117.43574	62.82325	27.00000	-0.20303	26.886	-2.1088E-6	-0.061987	0.0
	118.43574	62.82325	27.00000	-0.18432	26.886	-1.6919E-6	-0.055086	0.0
	119.43574	62.82325	27.00000	-0.16754	26.886	-1.3724E-6	-0.049198	0.0
	120.43574	62.82325	27.00000	-0.15247	26.886	-1.1242E-6	-0.044138	0.0
	121.43574	62.82325	27.00000	-0.13892	26.886	0.0	-0.039761	0.0
	122.43574	62.82325	27.00000	-0.12672	26.886	0.0	-0.035953	0.0
	123.43574	62.82325	27.00000	-0.11573	26.886	0.0	-0.032623	0.0
	124.43574	62.82325	27.00000	-0.10583	26.886	0.0	-0.029697	0.0
	125.43574	62.82325	27.00000	-0.096884	26.886	0.0	-0.027114	0.0
	126.43574	62.82325	27.00000	-0.088806	26.886	0.0	-0.024826	0.0
	127.43574	62.82325	27.00000	-0.081502	26.886	0.0	-0.022790	0.0
Howland Street	73.35504	50.35844	27.00000	7.3818	26.886	-17.782E-6	-0.12741	1.8186E-6
	73.35504	49.35844	27.00000	4.9205	26.886	-11.043E-6	-0.10259	1.4646E-6
	73.35504	48.35844	27.00000	3.6237	26.886	-7.2065E-6	-0.084556	1.2073E-6
	73.35504	47.35844	27.00000	2.8082	26.886	-4.9016E-6	-0.071039	1.0144E-6
	73.35504	46.35844	27.00000	2.2317	26.886	-3.4525E-6	-0.060634	0.0
	73.35504	45.35844	27.00000	1.8010	26.886	-2.5058E-6	-0.052440	0.0
	73.35504	44.35844	27.00000	1.4683	26.886	-1.8662E-6	-0.045858	0.0
	73.35504	43.35844	27.00000	1.2056	26.886	-1.4215E-6	-0.040481	0.0
	73.35504	42.35844	27.00000	0.99505	26.886	-1.1042E-6	-0.036023	0.0
	73.35504	41.35844	27.00000	0.82432	26.886	0.0	-0.032278	0.0
	73.35504	40.35844	27.00000	0.68466	26.886	0.0	-0.029096	0.0
	73.35504	39.35844	27.00000	0.56965	26.886	0.0	-0.026367	0.0
	73.35504	38.35844	27.00000	0.47440	26.886	0.0	-0.024004	0.0
	73.35504	37.35844	27.00000	0.39516	26.886	0.0	-0.021943	0.0
	73.35504	36.35844	27.00000	0.32900	26.886	0.0	-0.020133	0.0
	73.35504	35.35844	27.00000	0.27358	26.886	0.0	-0.018533	0.0
Whitfield Street	49.69721	76.36573	27.00000	5.1637	26.886	-4.9607E-6	-0.081044	1.1573E-6
	48.69721	76.36573	27.00000	3.3948	26.886	-4.3365E-6	-0.074868	1.0692E-6
	47.69721	76.36573	27.00000	2.5343	26.886	-3.7475E-6	-0.068838	0.0
	46.69721	76.36573	27.00000	1.9595	26.886	-3.2079E-6	-0.063055	0.0
	45.69721	76.36573	27.00000	1.5441	26.886	-2.7258E-6	-0.057592	0.0
	44.69721	76.36573	27.00000	1.2315	26.886	-2.3039E-6	-0.052498	0.0
	43.69721	76.36573	27.00000	0.99022	26.886	-1.9406E-6	-0.047797	0.0
	42.69721	76.36573	27.00000	0.80077	26.886	-1.6315E-6	-0.043494	0.0
	41.69721	76.36573	27.00000	0.65012	26.886	-1.3708E-6	-0.039580	0.0
	40.69721	76.36573	27.00000	0.52917	26.886	-1.1524E-6	-0.036036	0.0
	39.69721	76.36573	27.00000	0.43131	26.886	0.0	-0.032838	0.0
Qube	94.43186	85.76132	24.36000	-1.0844	24.244	-25.138	-46.999	-692.21E-6
	94.43186	86.76132	24.36000	-1.4349	24.244	-14.228	-34.233	-340.89E-6
	94.43186	87.76132	24.36000	-1.0791	24.244	-7.2204	-24.196	-127.51E-6
	94.43186	88.76132	24.36000	-0.72603	24.244	-3.6656	-17.266	-31.521E-6
	94.43186	89.76132	24.36000	-0.45883	24.244	-1.9575	-12.644	5.9918E-6
	94.43186	90.76132	24.36000	-0.27248	24.244	-1.1108	-9.5288	19.094E-6
	94.43186	91.76132	24.36000	-0.14763	24.244	-0.66700	-7.3757	22.491E-6
	94.43186	92.76132	24.36000	-0.066468	24.244	-0.42069	-5.8451	22.140E-6
	94.43186	93.76132	24.36000	-0.015443	24.244	-0.27669	-4.7278	20.451E-6
	94.43186	94.76132	24.36000	0.015106	24.244	-0.18861	-3.8922	18.404E-6
	94.43186	95.76132	24.36000	0.031880	24.244	-0.13259	-3.2539	16.389E-6
	94.43186	96.76132	24.36000	0.039485	24.244	-0.095719	-2.7569	14.551E-6
	94.43186	97.76132	24.36000	0.041085	24.244	-0.070732	-2.3633	12.926E-6
	94.43186	98.76132	24.36000	0.038859	24.244	-0.053352	-2.0470	11.512E-6
	94.43186	99.76132	24.36000	0.034311	24.244	-0.040982	-1.7892	10.288E-6
	94.43186	100.76132	24.36000	0.028476	24.244	-0.031996	-1.5765	9.2302E-6
	94.43186	101.76132	24.36000	0.022060	24.244	-0.025348	-1.3992	8.3138E-6
	94.43186	102.76132	24.36000	0.015535	24.244	-0.020347	-1.2497	7.5178E-6
	94.43186	103.76132	24.36000	0.0092111	24.244	-0.016528	-1.1227	6.8238E-6
	94.43186	104.76132	24.36000	0.0032810	24.244	-0.013572	-1.0139	6.2162E-6
	94.43186	105.76132	24.36000	-0.0021443	24.244	-0.011255	-0.91981	5.6819E-6
	94.43186	106.76132	24.36000	-0.0070103	24.244	-0.0094168	-0.83801	5.2100E-6
	94.43186	107.76132	24.36000	-0.011301	24.244	-0.0079437	-0.76638	4.7915E-6
	94.43186	108.76132	24.36000	-0.015027	24.244	-0.0067513	-0.70331	4.4187E-6
	94.43186	109.76132	24.36000	-0.018215	24.244	-0.0057773	-0.64747	4.0854E-6
	94.43186	110.76132	24.36000	-0.020900	24.244	-0.0049749	-0.59777	3.7862E-6
	94.43186	111.76132	24.36000	-0.023125	24.244	-0.0043087	-0.55335	3.5166E-6
	94.43186	112.76132	24.36000	-0.024933	24.244	-0.0037515	-0.51347	3.2731E-6
	94.43186	113.76132	24.36000	-0.026369	24.244	-0.0032823	-0.47752	3.0522E-6
	94.43186	114.76132	24.36000	-0.027474	24.244	-0.0028847	-0.44501	2.8513E-6
	94.43186	115.76132	24.36000	-0.028289	24.244	-0.0025458	-0.41550	2.6682E-6
	94.43186	116.76132	24.36000	-0.028850	24.244	-0.0022554	-0.38864	2.5007E-6
	94.43186	117.76132	24.36000	-0.029192	24.244	-0.0020052	-0.36412	2.3472E-6
	94.43186	118.76132	24.36000	-0.029345	24.244	-0.0017887	-0.34167	2.2062E-6
	94.43186	119.76132	24.36000	-0.029337	24.244	-0.0016005	-0.32107	2.0764E-6
	94.43186	120.76132	24.36000	-0.029193	24.244	-0.0014362	-0.30212	1.9567E-6
	94.43186	121.76132	24.36000	-0.028935	24.244	-0.0012922	-0.28466	1.8460E-6
	94.43186	122.76132	24.36000	-0.028581	24.244	-0.0011656	-0.26853	1.7436E-6
	94.43186	123.76132	24.36000	-0.028149	24.244	-0.0010539	-0.25360	1.6485E-6
	94.43186	124.76132	24.36000	-0.027653	24.244	-955.01E-6	-0.23977	1.5603E-6
	94.43186	125.76132	24.36000	-0.027107	24.244	-867.20E-6	-0.22693	1.4782E-6

Name	Location X [m]	Location Y [m]	Z[Level] [mOD]	Displacement Z [mm]	Calc Level [mOD]	Stresses Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]	
	94.43186	126.76132	24.36000	-0.026521	24.244	-789.03E-6	-0.21498	1.4017E-6	
	94.43186	127.76132	24.36000	-0.025905	24.244	-719.25E-6	-0.20386	1.3303E-6	
	94.43186	128.76132	24.36000	-0.025268	24.244	-656.81E-6	-0.19349	1.2637E-6	
	94.43186	129.76132	24.36000	-0.024616	24.244	-600.80E-6	-0.18380	1.2013E-6	
	94.43186	130.76132	24.36000	-0.023954	24.244	-550.45E-6	-0.17475	1.1430E-6	
	94.43186	131.76132	24.36000	-0.023290	24.244	-505.10E-6	-0.16627	1.0883E-6	
	94.43186	132.76132	24.36000	-0.022625	24.244	-464.17E-6	-0.15833	1.0370E-6	
	94.43186	133.76132	24.36000	-0.021965	24.244	-427.15E-6	-0.15088	0.0	
	94.43186	134.76132	24.36000	-0.021312	24.244	-393.62E-6	-0.14388	0.0	
	94.43186	135.76132	24.36000	-0.020668	24.244	-363.19E-6	-0.13731	0.0	
	94.43186	136.76132	24.36000	-0.020035	24.244	-335.53E-6	-0.13112	0.0	
	94.43186	137.76132	24.36000	-0.019415	24.244	-310.35E-6	-0.12529	0.0	
Raft Formation	0.00000	0.00000	20.86000	-0.010361	20.815	-204.00E-6	-0.059678	0.0	
	5.13030	0.00000	20.86000	-0.011363	20.815	-240.67E-6	-0.064841	0.0	
	10.26060	0.00000	20.86000	-0.012415	20.815	-283.95E-6	-0.071642	0.0	
	15.39090	0.00000	20.86000	-0.013499	20.815	-334.83E-6	-0.079110	0.0	
	20.52120	0.00000	20.86000	-0.014592	20.815	-394.32E-6	-0.087264	0.0	
	25.65150	0.00000	20.86000	-0.015668	20.815	-463.42E-6	-0.096099	0.0	
	30.78180	0.00000	20.86000	-0.016698	20.815	-543.04E-6	-0.10559	0.0	
	35.91210	0.00000	20.86000	-0.017658	20.815	-633.87E-6	-0.11568	0.0	
	41.04240	0.00000	20.86000	-0.018529	20.815	-736.20E-6	-0.12626	0.0	
	46.17270	0.00000	20.86000	-0.019305	20.815	-849.67E-6	-0.13720	0.0	
	51.30300	0.00000	20.86000	-0.019986	20.815	-972.94E-6	-0.14827	0.0	
	56.43330	0.00000	20.86000	-0.020575	20.815	-0.0011032	-0.15922	0.0	
	61.56360	0.00000	20.86000	-0.021072	20.815	-0.0012359	-0.16968	1.0168E-6	
	66.69390	0.00000	20.86000	-0.021469	20.815	-0.0013645	-0.17925	1.0719E-6	
	71.82420	0.00000	20.86000	-0.021741	20.815	-0.0014808	-0.18746	1.1189E-6	
	76.95450	0.00000	20.86000	-0.021856	20.815	-0.0015761	-0.19381	1.1552E-6	
	82.08480	0.00000	20.86000	-0.021779	20.815	-0.0016417	-0.19788	1.1782E-6	
	87.21510	0.00000	20.86000	-0.021479	20.815	-0.0016711	-0.19933	1.1862E-6	
	92.34540	0.00000	20.86000	-0.020938	20.815	-0.0016610	-0.19798	1.1781E-6	
	97.47570	0.00000	20.86000	-0.020158	20.815	-0.0016116	-0.19386	1.1542E-6	
	102.60600	0.00000	20.86000	-0.019161	20.815	-0.0015273	-0.18719	1.1155E-6	
	107.73630	0.00000	20.86000	-0.017989	20.815	-0.0014154	-0.17837	1.0645E-6	
	112.86660	0.00000	20.86000	-0.016692	20.815	-0.0012849	-0.16792	1.0039E-6	
	117.99690	0.00000	20.86000	-0.015329	20.815	-0.0011451	-0.15638	0.0	
	123.12720	0.00000	20.86000	-0.013951	20.815	-0.0010044	-0.14430	0.0	
	128.25750	0.00000	20.86000	-0.012605	20.815	-869.25E-6	-0.13212	0.0	
	133.38780	0.00000	20.86000	-0.011326	20.815	-744.21E-6	-0.12024	0.0	
	138.51810	0.00000	20.86000	-0.010135	20.815	-631.79E-6	-0.10890	0.0	
	143.64840	0.00000	20.86000	-0.0090467	20.815	-532.99E-6	-0.098287	0.0	
	148.77870	0.00000	20.86000	-0.0080645	20.815	-447.66E-6	-0.088498	0.0	
	153.90900	0.00000	20.86000	-0.0071872	20.815	-374.93E-6	-0.079570	0.0	!
	0.00000	4.91980	20.86000	-0.011318	20.815	-238.84E-6	-0.064441	0.0	
	5.13030	4.91980	20.86000	-0.012459	20.815	-284.70E-6	-0.071663	0.0	
	10.26060	4.91980	20.86000	-0.013655	20.815	-339.58E-6	-0.079712	0.0	
	15.39090	4.91980	20.86000	-0.014880	20.815	-405.04E-6	-0.088647	0.0	
	20.52120	4.91980	20.86000	-0.016098	20.815	-482.74E-6	-0.098510	0.0	
	25.65150	4.91980	20.86000	-0.017270	20.815	-574.46E-6	-0.10932	0.0	
	30.78180	4.91980	20.86000	-0.018356	20.815	-681.93E-6	-0.12107	0.0	
	35.91210	4.91980	20.86000	-0.019324	20.815	-806.75E-6	-0.13372	0.0	
	41.04240	4.91980	20.86000	-0.020160	20.815	-950.18E-6	-0.14717	0.0	
	46.17270	4.91980	20.86000	-0.020878	20.815	-0.0011128	-0.16126	0.0	
	51.30300	4.91980	20.86000	-0.021510	20.815	-0.0012937	-0.17576	1.0527E-6	
	56.43330	4.91980	20.86000	-0.022097	20.815	-0.0014899	-0.19033	1.1366E-6	
	61.56360	4.91980	20.86000	-0.022672	20.815	-0.0016950	-0.20452	1.2178E-6	
	66.69390	4.91980	20.86000	-0.023234	20.815	-0.0018987	-0.21773	1.2930E-6	
	71.82420	4.91980	20.86000	-0.023752	20.815	-0.0020873	-0.22928	1.3582E-6	
	76.95450	4.91980	20.86000	-0.024160	20.815	-0.0022449	-0.23842	1.4096E-6	
	82.08480	4.91980	20.86000	-0.024378	20.815	-0.0023556	-0.24444	1.4431E-6	
	87.21510	4.91980	20.86000	-0.024328	20.815	-0.0024071	-0.24677	1.4558E-6	
	92.34540	4.91980	20.86000	-0.023953	20.815	-0.0023927	-0.24510	1.4459E-6	
	97.47570	4.91980	20.86000	-0.023230	20.815	-0.0023129	-0.23945	1.4135E-6	
	102.60600	4.91980	20.86000	-0.022176	20.815	-0.0021758	-0.23018	1.3605E-6	
	107.73630	4.91980	20.86000	-0.020844	20.815	-0.0019948	-0.21792	1.2905E-6	
	112.86660	4.91980	20.86000	-0.019311	20.815	-0.0017867	-0.20350	1.2080E-6	
	117.99690	4.91980	20.86000	-0.017663	20.815	-0.0015678	-0.18776	1.1176E-6	
	123.12720	4.91980	20.86000	-0.015982	20.815	-0.0013521	-0.17152	1.0239E-6	
	128.25750	4.91980	20.86000	-0.014339	20.815	-0.0011497	-0.15542	0.0	
	133.38780	4.91980	20.86000	-0.012782	20.815	-966.99E-6	-0.13996	0.0	
	138.51810	4.91980	20.86000	-0.011344	20.815	-806.67E-6	-0.12546	0.0	
	143.64840	4.91980	20.86000	-0.010041	20.815	-669.10E-6	-0.11212	0.0	
	148.77870	4.91980	20.86000	-0.0088791	20.815	-552.99E-6	-0.10001	0.0	
	153.90900	4.91980	20.86000	-0.0078525	20.815	-456.19E-6	-0.089127	0.0	!
	0.00000	9.83960	20.86000	-0.012322	20.815	-279.85E-6	-0.070775	0.0	
	5.13030	9.83960	20.86000	-0.013609	20.815	-337.27E-6	-0.079241	0.0	
	10.26060	9.83960	20.86000	-0.014947	20.815	-407.01E-6	-0.088781	0.0	
	15.39090	9.83960	20.86000	-0.016296	20.815	-491.49E-6	-0.099492	0.0	
	20.52120	9.83960	20.86000	-0.017599	20.815	-593.40E-6	-0.11145	0.0	
	25.65150	9.83960	20.86000	-0.018788	20.815	-715.68E-6	-0.12473	0.0	
	30.78180	9.83960	20.86000	-0.019796	20.815	-861.45E-6	-0.13934	0.0	
	35.91210	9.83960	20.86000	-0.020576	20.815	-0.0010339	-0.15527	0.0	
	41.04240	9.83960	20.86000	-0.021123	20.815	-0.0012363	-0.17245	1.0341E-6	
	46.17270	9.83960	20.86000	-0.021495	20.815	-0.0014714	-0.19074	1.1399E-6	
	51.30300	9.83960	20.86000	-0.021806	20.815	-0.0017405	-0.20990	1.2498E-6	
	56.43330	9.83960	20.86000	-0.022191	20.815	-0.0020416	-0.22953	1.3615E-6	
	61.56360	9.83960	20.86000	-0.022763	20.815	-0.0023667	-0.24907	1.4717E-6	
	66.69390	9.83960	20.86000	-0.023560	20.815	-0.0026999	-0.26768	1.5758E-6	
	71.82420	9.83960	20.86000	-0.024530	20.815	-0.0030171	-0.28434	1.6683E-6	
	76.95450	9.83960	20.86000	-0.025543	20.815	-0.0032885	-0.29786	1.7428E-6	
	82.08480	9.83960	20.86000	-0.026423	20.815	-0.0034838	-0.30703	1.7929E-6	
	87.21510	9.83960	20.86000	-0.026990	20.815	-0.0035780	-0.31089	1.8136E-6	
	92.34540	9.83960	20.86000	-0.027097	20.815	-0.0035575	-0.30886	1.8016E-6	
	97.47570	9.83960	20.86000	-0.026665	20.815	-0.0034232	-0.30093	1.7570E-6	
	102.60600	9.83960	20.86000	-0.025693	20.815	-0.0031907	-0.28769	1.6827E-6	
	107.73630	9.83960	20.86000	-0.024253	20.815	-0.0028866	-0.27020	1.5846E-6	
	112.86660	9.83960	20.86000	-0.022468	20.815	-0.0025427	-0.24982	1.4698E-6	
	117.99690	9.83960	20.86000	-0.020479	20.815	-0.0021892	-0.22791	1.3458E-6	
	123.12720	9.83960	20.86000	-0.018418	20.815	-0.0018498	-0.20568	1.2193E-6	
	128.25750	9.83960	20.86000	-0.016394	20.815	-0.0015404	-0.18409	1.0956E-6	
	133.38780	9.83960	20.86000	-0.014484	20.815	-0.0012689	-0.16376	0.0	
	138.51810	9.83960	20.86000	-0.012736	20.815	-0.0010375	-0.14509	0.0	
	143.64840	9.83960	20.86000	-0.011169	20.815	-844.21E-6	-0.12822	0.0	
	148.77870	9.83960	20.86000	-0.0097875	20.815	-685.30E-6	-0.11318	0.0	
	153.90900	9.83960	20.86000	-0.0085828	20.815	-555.98E-6	-0.099896	0.0	!
	0.00000	14.75940	20.86000	-0.013360	20.815	-328.00E-6	-0.077709	0.0	
	5.13030	14.75940	20.86000	-0.014790	20.815	-399.99E-6	-0.087636	0.0	
	10.26060	14.75940	20.86000	-0.016257	20.815	-488.81E-6	-0.098954	0.0	
	15.39090	14.75940	20.86000	-0.017690	20.815	-598.17E-6	-0.11182	0.0	
	20.52120	14.75940	20.86000	-0.018990	20.815	-732.32E-6	-0.12636	0.0	
	25.65150	14.75940	20.86000	-0.020030	20.815	-896.02E-6	-0.14272	0.0	
	30.78180	14.75940	20.86000	-0.020682	20.815	-0.0010945	-0.16096	0.0	
	35.91210	14.75940	20.86000	-0.020851	20.815	-0.0013334	-0.18111	1.0847E-6	
	41.04240	14.75940	20.86000	-0.020539	20.815	-0.0016197	-0.20317	1.2122E-6	
	46.17270	14.75940	20.86000	-0.019898	20.815	-0.0019609	-0.22704	1.3489E-6	
	51.30300	14.75940	20.86000	-0.019229	20.815	-0.0023649	-0.25254	1.4935E-6	
	56.43330	14.75940	20.86000	-0.018903	20.815	-0.0028353	-0.27930	1.6435E-6	
	61.56360	14.75940	20.86000	-0.019234	20.815	-0.0033651	-0.30664	1.7949E-6	
	66.69390	14.75940	20.86000	-0.020353	20.815	-0.0039304	-0.33344	1.9416E-6	
	71.82420	14.75940	20.86000	-0.022176	20.815	-0.0044877	-0.35814	2.0754E-6	
	76.95450	14.75940	20.86000	-0.024431	20.815	-0.0049787	-0.37879	2.1863E-6	
	82.08480	14.75940	20.86000	-0.026738	20.815	-0.0053413	-0.39332	2.2638E-6	
	87.21510	14.75940	20.86000	-0.028694	20.815	-0.0055233	-0.39996	2.2985E-6	
	92.34540	14.75940	20.86000	-0.029960	20.815	-0.0054952	-0.39759	2.2848E-6	
	97.47570	14.75940	20.86000	-0.030328	20.815	-0.0052578	-0.38613	2.2219E-6	
	102.60600	14.75940	20.86000	-0.029755	20.815	-0.0048437	-0.36659	2.1150E-6	
	107.73630	14.75940	20.86000	-0.028351	20.815	-0.0043084	-0.34084	1.9738E-6	
	112.86660	14.75940	20.86000	-0.026325	20.815	-0.0037163	-0.31121	1.8104E-6	
	117.99690	14.75940	20.86000	-0.023923	20.815	-0.0031248	-0.27997	1.6369E-6	
	123.12720	14.75940	20.86000	-0.021374	20.815	-0.0025755	-0.24899	1.4634E-6	
	128.25750	14.75940	20.86000	-0.018857	20.815	-0.0020916	-0.21960	1.2974E-6	
	133.38780	14.75940	20.86000	-0.016492	20.815	-0.0016815	-0.19259	1.1436E-6	
	138.51810	14.75940	20.86000	-0.014347	20.815	-0.0013433	-0.16834	1.0044E-6	
	143.64840	14.75940	20.86000	-0.012450	20.815	-0.0010697	-0.14692	0.0	
	148.77870	14.75940	20.86000	-0.010801	20.815	-851.14E-6	-0.12820	0.0	
	153.90900	14.75940	20.86000	-0.0093829	20.815	-678.03E-6	-0.11197	0.0	!
	0.00000	19.67920	20.86000	-0.014414	20.815	-384.40E-6	-0.085266	0.0	
	5.13030	19.67920	20.86000	-0.015980	20.815	-474.72E-6	-0.096903	0.0	
	10.26060	19.67920	20.86000	-0.017544	20.815	-588.05E-6	-0.11034	0.0	
	15.39090	19.67920	20.86000	-0.018985	20.815	-730.05E-6	-0.12580	0.0	

Name	Location			Displacement		Stresses		
	X [m]	Y [m]	Z[Level] [mOD]	Z [mm]	Calc Level [mOD]	Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]
	20.52120	19.67920	20.86000	-0.020120	20.815	-907.35E-6	-0.14354	0.0
	25.65150	19.67920	20.86000	-0.020703	20.815	-0.0011273	-0.16375	0.0
	30.78180	19.67920	20.86000	-0.020456	20.815	-0.0013980	-0.18660	1.1167E-6
	35.91210	19.67920	20.86000	-0.019149	20.815	-0.0017285	-0.21219	1.2646E-6
	41.04240	19.67920	20.86000	-0.016748	20.815	-0.0021304	-0.24058	1.4274E-6
	46.17270	19.67920	20.86000	-0.013580	20.815	-0.0026215	-0.27181	1.6046E-6
	51.30300	19.67920	20.86000	-0.010380	20.815	-0.0032267	-0.30591	1.7956E-6
	56.43330	19.67920	20.86000	-0.0081033	20.815	-0.0039707	-0.34273	1.9983E-6
	61.56360	19.67920	20.86000	-0.0075607	20.815	-0.0048597	-0.38163	2.2086E-6
	66.69390	19.67920	20.86000	-0.0091150	20.815	-0.0058615	-0.42118	2.4188E-6
	71.82420	19.67920	20.86000	-0.012599	20.815	-0.0068950	-0.45900	2.6169E-6
	76.95450	19.67920	20.86000	-0.017426	20.815	-0.0078386	-0.49180	2.7870E-6
	82.08480	19.67920	20.86000	-0.022771	20.815	-0.0085565	-0.51598	2.9109E-6
	87.21510	19.67920	20.86000	-0.027755	20.815	-0.0089324	-0.52781	2.9715E-6
	92.34540	19.67920	20.86000	-0.031619	20.815	-0.0088984	-0.52536	2.9574E-6
	97.47570	19.67920	20.86000	-0.033869	20.815	-0.0084538	-0.50820	2.8666E-6
	102.60600	19.67920	20.86000	-0.034372	20.815	-0.0076703	-0.47816	2.7078E-6
	107.73630	19.67920	20.86000	-0.033320	20.815	-0.0066732	-0.43877	2.4985E-6
	112.86660	19.67920	20.86000	-0.031114	20.815	-0.0056016	-0.39426	2.2599E-6
	117.99690	19.67920	20.86000	-0.028212	20.815	-0.0045710	-0.34850	2.0119E-6
	123.12720	19.67920	20.86000	-0.025021	20.815	-0.0036531	-0.30441	1.7701E-6
	128.25750	19.67920	20.86000	-0.021845	20.815	-0.0028785	-0.26380	1.5448E-6
	133.38780	19.67920	20.86000	-0.018879	20.815	-0.0022487	-0.22754	1.3413E-6
	138.51810	19.67920	20.86000	-0.016222	20.815	-0.0017492	-0.19585	1.1615E-6
	143.64840	19.67920	20.86000	-0.013909	20.815	-0.0013594	-0.16854	1.00500E-6
	148.77870	19.67920	20.86000	-0.011930	20.815	-0.0010581	-0.14521	0.0
	153.90900	19.67920	20.86000	-0.010257	20.815	-826.31E-6	-0.12539	0.0 !
	0.00000	24.59900	20.86000	-0.015465	20.815	-450.23E-6	-0.093453	0.0
	5.13030	24.59900	20.86000	-0.017147	20.815	-563.57E-6	-0.10708	0.0
	10.26060	24.59900	20.86000	-0.018758	20.815	-708.42E-6	-0.12303	0.0
	15.39090	24.59900	20.86000	-0.020087	20.815	-893.44E-6	-0.14165	0.0
	20.52120	24.59900	20.86000	-0.020797	20.815	-0.0011288	-0.16333	0.0
	25.65150	24.59900	20.86000	-0.020398	20.815	-0.0014258	-0.18840	1.1269E-6
	30.78180	24.59900	20.86000	-0.018264	20.815	-0.0017953	-0.21713	1.2931E-6
	35.91210	24.59900	20.86000	-0.013775	20.815	-0.0022473	-0.24969	1.4801E-6
	41.04240	24.59900	20.86000	-0.0066677	20.815	-0.0027955	-0.28618	1.6882E-6
	46.17270	24.59900	20.86000	0.0024653	20.815	-0.0034718	-0.32686	1.9176E-6
	51.30300	24.59900	20.86000	0.011878	20.815	-0.0043459	-0.37230	2.1695E-6
	56.43330	24.59900	20.86000	0.019119	20.815	-0.0055151	-0.42315	2.4442E-6
	61.56360	24.59900	20.86000	0.022106	20.815	-0.0070489	-0.47937	2.7387E-6
	66.69390	24.59900	20.86000	0.019963	20.815	-0.0089213	-0.53937	3.0444E-6
	71.82420	24.59900	20.86000	0.013105	20.815	-0.010975	-0.59955	3.3442E-6
	76.95450	24.59900	20.86000	0.0028604	20.815	-0.012934	-0.65421	3.6131E-6
	82.08480	24.59900	20.86000	-0.0089803	20.815	-0.014476	-0.69634	3.8191E-6
	87.21510	24.59900	20.86000	-0.020525	20.815	-0.015323	-0.71904	3.9295E-6
	92.34540	24.59900	20.86000	-0.030079	20.815	-0.015305	-0.71746	3.9203E-6
	97.47570	24.59900	20.86000	-0.036507	20.815	-0.014411	-0.69058	3.7854E-6
	102.60600	24.59900	20.86000	-0.039487	20.815	-0.012811	-0.64198	3.5411E-6
	107.73630	24.59900	20.86000	-0.039441	20.815	-0.010815	-0.57879	3.2202E-6
	112.86660	24.59900	20.86000	-0.037201	20.815	-0.0087541	-0.50918	2.8615E-6
	117.99690	24.59900	20.86000	-0.033669	20.815	-0.0068708	-0.44006	2.4991E-6
	123.12720	24.59900	20.86000	-0.029598	20.815	-0.0052831	-0.37591	2.1569E-6
	128.25750	24.59900	20.86000	-0.025519	20.815	-0.0040133	-0.31896	1.8478E-6
	133.38780	24.59900	20.86000	-0.021743	20.815	-0.0030313	-0.26985	1.5769E-6
	138.51810	24.59900	20.86000	-0.018415	20.815	-0.0022872	-0.22824	1.3442E-6
	143.64840	24.59900	20.86000	-0.015571	20.815	-0.0017297	-0.19337	1.1467E-6
	148.77870	24.59900	20.86000	-0.013186	20.815	-0.0013142	-0.16432	0.0
	153.90900	24.59900	20.86000	-0.011207	20.815	-0.0010046	-0.14017	0.0 !
	0.00000	29.51880	20.86000	-0.016492	20.815	-526.65E-6	-0.10225	0.0
	5.13030	29.51880	20.86000	-0.018264	20.815	-668.85E-6	-0.11818	0.0
	10.26060	29.51880	20.86000	-0.019852	20.815	-854.28E-6	-0.13710	0.0
	15.39090	29.51880	20.86000	-0.020903	20.815	-0.0010962	-0.15955	0.0
	20.52120	29.51880	20.86000	-0.020812	20.815	-0.0014107	-0.18611	1.1132E-6
	25.65150	29.51880	20.86000	-0.018613	20.815	-0.0018145	-0.21735	1.2937E-6
	30.78180	29.51880	20.86000	-0.012907	20.815	-0.0023194	-0.25365	1.5022E-6
	35.91210	29.51880	20.86000	-0.0020137	20.815	-0.0029224	-0.29513	1.7394E-6
	41.04240	29.51880	20.86000	0.015319	20.815	-0.0036053	-0.34166	2.0053E-6
	46.17270	29.51880	20.86000	0.038384	20.815	-0.0043857	-0.39353	2.3010E-6
	51.30300	29.51880	20.86000	0.063053	20.815	-0.0054412	-0.45255	2.6312E-6
	56.43330	29.51880	20.86000	0.082739	20.815	-0.0071435	-0.52196	3.0021E-6
	61.56360	29.51880	20.86000	0.091997	20.815	-0.0098335	-0.60411	3.4157E-6
	66.69390	29.51880	20.86000	0.088947	20.815	-0.013576	-0.69807	3.8638E-6
	71.82420	29.51880	20.86000	0.074867	20.815	-0.018059	-0.79855	4.3248E-6
	76.95450	29.51880	20.86000	0.052899	20.815	-0.022575	-0.89529	4.7613E-6
	82.08480	29.51880	20.86000	0.026944	20.815	-0.026262	-0.97425	5.1174E-6
	87.21510	29.51880	20.86000	0.0010124	20.815	-0.028408	-1.0207	5.3276E-6
	92.34540	29.51880	20.86000	-0.021076	20.815	-0.028546	-1.0232	5.3381E-6
	97.47570	29.51880	20.86000	-0.036617	20.815	-0.026578	-0.97853	5.1323E-6
	102.60600	29.51880	20.86000	-0.044948	20.815	-0.022952	-0.89435	4.7412E-6
	107.73630	29.51880	20.86000	-0.047174	20.815	-0.018555	-0.78654	4.2310E-6
	112.86660	29.51880	20.86000	-0.045174	20.815	-0.014276	-0.67229	3.6759E-6
	117.99690	29.51880	20.86000	-0.040792	20.815	-0.010639	-0.56419	3.1353E-6
	123.12720	29.51880	20.86000	-0.035457	20.815	-0.0077900	-0.46872	2.6442E-6
	128.25750	29.51880	20.86000	-0.030093	20.815	-0.0056608	-0.38778	2.2171E-6
	133.38780	29.51880	20.86000	-0.025202	20.815	-0.0041104	-0.32079	1.8555E-6
	138.51810	29.51880	20.86000	-0.020983	20.815	-0.0029961	-0.26604	1.5544E-6
	143.64840	29.51880	20.86000	-0.017461	20.815	-0.0021986	-0.22157	1.3057E-6
	148.77870	29.51880	20.86000	-0.014576	20.815	-0.0016272	-0.18551	1.1012E-6
	153.90900	29.51880	20.86000	-0.012233	20.815	-0.0012159	-0.15622	0.0 !
	0.00000	34.43860	20.86000	-0.017475	20.815	-614.77E-6	-0.11162	0.0
	5.13030	34.43860	20.86000	-0.019307	20.815	-792.96E-6	-0.13019	0.0
	10.26060	34.43860	20.86000	-0.020796	20.815	-0.0010305	-0.15260	0.0
	15.39090	34.43860	20.86000	-0.021374	20.815	-0.0013482	-0.17965	1.0750E-6
	20.52120	34.43860	20.86000	-0.020007	20.815	-0.0017720	-0.21229	1.2636E-6
	25.65150	34.43860	20.86000	-0.014878	20.815	-0.0023282	-0.25143	1.4879E-6
	30.78180	34.43860	20.86000	-0.0029934	20.815	-0.0030245	-0.29765	1.7514E-6
	35.91210	34.43860	20.86000	0.020044	20.815	-0.0037946	-0.35067	2.0547E-6
	41.04240	34.43860	20.86000	0.059079	20.815	-0.0044031	-0.40882	2.3962E-6
	46.17270	34.43860	20.86000	0.11523	20.815	-0.0045153	-0.47041	2.7779E-6
	51.30300	34.43860	20.86000	0.17887	20.815	-0.0044587	-0.53946	3.2127E-6
	56.43330	34.43860	20.86000	0.23051	20.815	-0.0059040	-0.62846	3.7160E-6
	61.56360	34.43860	20.86000	0.25519	20.815	-0.010475	-0.74837	4.2955E-6
	66.69390	34.43860	20.86000	0.25005	20.815	-0.018641	-0.90102	4.9451E-6
	71.82420	34.43860	20.86000	0.21946	20.815	-0.029860	-1.0798	5.6432E-6
	76.95450	34.43860	20.86000	0.17115	20.815	-0.042012	-1.2653	6.3493E-6
	82.08480	34.43860	20.86000	0.11373	20.815	-0.052269	-1.4271	6.9775E-6
	87.21510	34.43860	20.86000	0.055205	20.815	-0.058732	-1.5317	7.3899E-6
	92.34540	34.43860	20.86000	0.0046111	20.815	-0.059855	-1.5495	7.4591E-6
	97.47570	34.43860	20.86000	-0.030963	20.815	-0.054969	-1.4692	7.1396E-6
	102.60600	34.43860	20.86000	-0.050483	20.815	-0.045412	-1.3090	6.4947E-6
	107.73630	34.43860	20.86000	-0.057334	20.815	-0.034302	-1.1092	5.6606E-6
	112.86660	34.43860	20.86000	-0.056011	20.815	-0.024476	-0.91004	4.7822E-6
	117.99690	34.43860	20.86000	-0.050360	20.815	-0.016993	-0.73447	3.9634E-6
	123.12720	34.43860	20.86000	-0.043099	20.815	-0.011692	-0.58933	3.2532E-6
	128.25750	34.43860	20.86000	-0.035851	20.815	-0.0080538	-0.47313	2.6619E-6
	133.38780	34.43860	20.86000	-0.029396	20.815	-0.0055878	-0.38147	2.1802E-6
	138.51810	34.43860	20.86000	-0.023986	20.815	-0.0039184	-0.30954	1.7923E-6
	143.64840	34.43860	20.86000	-0.019598	20.815	-0.0027826	-0.25308	1.4812E-6
	148.77870	34.43860	20.86000	-0.016099	20.815	-0.0020028	-0.20859	1.2317E-6
	153.90900	34.43860	20.86000	-0.013326	20.815	-0.0014615	-0.17332	1.0311E-6 !
	0.00000	39.35840	20.86000	-0.018400	20.815	-715.43E-6	-0.12146	0.0
	5.13030	39.35840	20.86000	-0.020267	20.815	-938.14E-6	-0.14303	0.0
	10.26060	39.35840	20.86000	-0.021588	20.815	-0.0012424	-0.16949	1.0153E-6
	15.39090	39.35840	20.86000	-0.021510	20.815	-0.0016609	-0.20207	1.2037E-6
	20.52120	39.35840	20.86000	-0.018378	20.815	-0.0022375	-0.24226	1.4339E-6
	25.65150	39.35840	20.86000	-0.0090233	20.815	-0.0030205	-0.29164	1.7139E-6
	30.78180	39.35840	20.86000	0.012481	20.815	-0.0040154	-0.35131	2.0504E-6
	35.91210	39.35840	20.86000	0.056723	20.815	-0.0049698	-0.42006	2.4453E-6
	41.04240	39.35840	20.86000	0.14020	20.815	-0.0046045	-0.49025	2.8988E-6
	46.17270	39.35840	20.86000	0.27791	20.815	716.48E-6	-0.54552	3.4452E-6
	51.30300	39.35840	20.86000	0.45075	20.815	0.012901	-0.58642	4.1596E-6
	56.43330	39.35840	20.86000	0.58961	20.815	0.020821	-0.66867	4.9728E-6
	61.56360	39.35840	20.86000	0.65040	20.815	0.014935	-0.83769	5.8105E-6
	66.69390	39.35840	20.86000	0.63797	20.815	-0.0049905	-1.0962	6.6812E-6
	71.82420	39.35840	20.86000	0.56623	20.815	-0.039979	-1.4448	7.5501E-6
	76.95450	39.35840	20.86000	0.45478	20.815	-0.082338	-1.8466	8.4753E-6
	82.08480	39.35840	20.86000	0.32501	20.815	-0.11804	-2.2204	9.4754E-6
	87.21510	39.35840	20.86000	0.18774	20.815	-0.14388	-2.4916	10.203E-6
	92.34540	39.35840	20.86000	0.067438	20.815	-0.15178	-2.5681	10.386E-6
	97.47570	39.35840	20.86000	-0.013281	20.815	-0.13724	-2.4064	9.9193E-6

Name	Location			Displacement	Stresses			
	X [m]	Y [m]	Z[Level] [mOD]	Z [mm]	Calc Level [mOD]	Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]
	102.60600	39.35840	20.86000	-0.055648	20.815	-0.10504	-2.0554	8.9299E-6
	107.73630	39.35840	20.86000	-0.071349	20.815	-0.070212	-1.6389	7.6298E-6
	112.86660	39.35840	20.86000	-0.071362	20.815	-0.044409	-1.2652	6.2581E-6
	117.99690	39.35840	20.86000	-0.063592	20.815	-0.027945	-0.96912	5.0220E-6
	123.12720	39.35840	20.86000	-0.053237	20.815	-0.017779	-0.74495	3.9995E-6
	128.25750	39.35840	20.86000	-0.043141	20.815	-0.011498	-0.57747	3.1862E-6
	133.38780	39.35840	20.86000	-0.034470	20.815	-0.0075771	-0.45243	2.5501E-6
	138.51810	39.35840	20.86000	-0.027468	20.815	-0.0050935	-0.35857	2.0553E-6
	143.64840	39.35840	20.86000	-0.021984	20.815	-0.0034930	-0.28750	1.6702E-6
	148.77870	39.35840	20.86000	-0.017743	20.815	-0.0024423	-0.23315	1.3691E-6
	153.90900	39.35840	20.86000	-0.014470	20.815	-0.0017395	-0.19113	1.1322E-6 !
	0.00000	44.27820	20.86000	-0.019256	20.815	-829.00E-6	-0.13163	0.0
	5.13030	44.27820	20.86000	-0.021148	20.815	-0.0011061	-0.15654	0.0
	10.26060	44.27820	20.86000	-0.022267	20.815	-0.0014947	-0.18763	1.1195E-6
	15.39090	44.27820	20.86000	-0.021426	20.815	-0.0020464	-0.22674	1.3438E-6
	20.52120	44.27820	20.86000	-0.016188	20.815	-0.0028374	-0.27622	1.6242E-6
	25.65150	44.27820	20.86000	-0.0015497	20.815	-0.0039689	-0.33897	1.9748E-6
	30.78180	44.27820	20.86000	0.032908	20.815	-0.0055005	-0.41763	2.4101E-6
	35.91210	44.27820	20.86000	0.10933	20.815	-0.0069115	-0.51082	2.9410E-6
	41.04240	44.27820	20.86000	0.27528	20.815	-0.0033404	-0.59615	3.6100E-6
	46.17270	44.27820	20.86000	0.62114	20.815	0.036506	-0.57444	4.9720E-6
	51.30300	44.27820	20.86000	1.1696	20.815	0.18706	-0.31199	8.9878E-6
	56.43330	44.27820	20.86000	1.5748	20.815	0.30967	-0.17976	12.769E-6
	61.56360	44.27820	20.86000	1.7048	20.815	0.31721	-0.39756	14.417E-6
	66.69390	44.27820	20.86000	1.6635	20.815	0.26353	-0.84675	15.214E-6
	71.82420	44.27820	20.86000	1.4760	20.815	0.10325	-1.6331	14.115E-6
	76.95450	44.27820	20.86000	1.1865	20.815	-0.14135	-2.7201	11.730E-6
	82.08480	44.27820	20.86000	0.89047	20.815	-0.30995	-3.7233	11.678E-6
	87.21510	44.27820	20.86000	0.53359	20.815	-0.48734	-4.6178	10.613E-6
	92.34540	44.27820	20.86000	0.21415	20.815	-0.54911	-4.9484	10.362E-6
	97.47570	44.27820	20.86000	0.029159	20.815	-0.49157	-4.5655	10.127E-6
	102.60600	44.27820	20.86000	-0.058713	20.815	-0.32380	-3.6043	10.411E-6
	107.73630	44.27820	20.86000	-0.091327	20.815	-0.16505	-2.5639	9.8606E-6
	112.86660	44.27820	20.86000	-0.094091	20.815	-0.085072	-1.8019	8.0924E-6
	117.99690	44.27820	20.86000	-0.082423	20.815	-0.046891	-1.2892	6.3153E-6
	123.12720	44.27820	20.86000	-0.066826	20.815	-0.027145	-0.94168	4.8801E-6
	128.25750	44.27820	20.86000	-0.052342	20.815	-0.016338	-0.70179	3.7833E-6
	133.38780	44.27820	20.86000	-0.040533	20.815	-0.0101178	-0.53305	2.9575E-6
	138.51810	44.27820	20.86000	-0.031435	20.815	-0.0065428	-0.41214	2.3365E-6
	143.64840	44.27820	20.86000	-0.024590	20.815	-0.0043281	-0.32393	1.8671E-6
	148.77870	44.27820	20.86000	-0.019474	20.815	-0.0029388	-0.25847	1.5091E-6
	153.90900	44.27820	20.86000	-0.015638	20.815	-0.0020434	-0.20908	1.2333E-6 !
	0.00000	49.19800	20.86000	-0.020039	20.815	-955.12E-6	-0.14194	0.0
	5.13030	49.19800	20.86000	-0.021966	20.815	-0.0012977	-0.17047	1.0194E-6
	10.26060	49.19800	20.86000	-0.022909	20.815	-0.0017912	-0.20675	1.2282E-6
	15.39090	49.19800	20.86000	-0.021337	20.815	-0.0025155	-0.25338	1.4932E-6
	20.52120	49.19800	20.86000	-0.013991	20.815	-0.0036007	-0.31405	1.8325E-6
	25.65150	49.19800	20.86000	0.0061693	20.815	-0.0052599	-0.39388	2.2703E-6
	30.78180	49.19800	20.86000	0.054881	20.815	-0.0077989	-0.49952	2.8368E-6
	35.91210	49.19800	20.86000	0.16974	20.815	-0.011081	-0.63582	3.5675E-6
	41.04240	49.19800	20.86000	0.45219	20.815	-0.0062713	-0.77443	4.6169E-6
	46.17270	49.19800	20.86000	1.2559	20.815	0.17285	-0.56012	10.008E-6
	51.30300	49.19800	20.86000	4.9683	20.815	42.842	83.288	0.0010888
	56.43330	49.19800	20.86000	5.8900	20.815	6.3014	23.561	89.276E-6
	61.56360	49.19800	20.86000	5.7257	20.815	4.0408	7.5573	104.57E-6
	66.69390	49.19800	20.86000	5.4693	20.815	3.9412	5.0852	116.31E-6
	71.82420	49.19800	20.86000	4.8544	20.815	2.9860	2.3429	97.583E-6
	76.95450	49.19800	20.86000	3.5630	20.815	0.074797	-3.3622	23.880E-6
	82.08480	49.19800	20.86000	3.1085	20.815	-0.56243	-5.6987	14.563E-6
	87.21510	49.19800	20.86000	1.8244	20.815	-3.2916	-10.388	-58.656E-6
	92.34540	49.19800	20.86000	0.60573	20.815	-3.6971	-12.199	-62.559E-6
	97.47570	49.19800	20.86000	0.18312	20.815	-3.4250	-11.183	-58.695E-6
	102.60600	49.19800	20.86000	-0.027711	20.815	-1.7013	-7.5510	-16.647E-6
	107.73630	49.19800	20.86000	-0.11840	20.815	-0.44028	-4.2204	9.8922E-6
	112.86660	49.19800	20.86000	-0.12993	20.815	-0.16704	-2.5930	9.9676E-6
	117.99690	49.19800	20.86000	-0.10995	20.815	-0.078738	-1.7105	7.7580E-6
	123.12720	49.19800	20.86000	-0.084999	20.815	-0.041021	-1.1807	5.8562E-6
	128.25750	49.19800	20.86000	-0.063738	20.815	-0.022852	-0.84383	4.4284E-6
	133.38780	49.19800	20.86000	-0.047580	20.815	-0.013426	-0.62080	3.3852E-6
	138.51810	49.19800	20.86000	-0.035808	20.815	-0.0082476	-0.46823	2.6239E-6
	143.64840	49.19800	20.86000	-0.027338	20.815	-0.0052646	-0.36089	2.0635E-6
	148.77870	49.19800	20.86000	-0.021232	20.815	-0.0034744	-0.28350	1.6458E-6
	153.90900	49.19800	20.86000	-0.016787	20.815	-0.0023609	-0.22646	1.3303E-6 !
	0.00000	54.11780	20.86000	-0.020745	20.815	-0.0010923	-0.15211	0.0
	5.13030	54.11780	20.86000	-0.022745	20.815	-0.0015119	-0.18449	1.0992E-6
	10.26060	54.11780	20.86000	-0.023607	20.815	-0.0021332	-0.22639	1.3384E-6
	15.39090	54.11780	20.86000	-0.021514	20.815	-0.0030754	-0.28143	1.6479E-6
	20.52120	54.11780	20.86000	-0.012499	20.815	-0.0045481	-0.35503	2.0537E-6
	25.65150	54.11780	20.86000	0.012238	20.815	-0.0069478	-0.45556	2.5934E-6
	30.78180	54.11780	20.86000	0.072999	20.815	-0.011116	-0.59675	3.3214E-6
	35.91210	54.11780	20.86000	0.22017	20.815	-0.019122	-0.80239	4.3090E-6
	41.04240	54.11780	20.86000	0.59715	20.815	-0.036110	-1.1106	5.6016E-6
	46.17270	54.11780	20.86000	1.7570	20.815	-0.036708	-1.4504	7.7081E-6
	51.30300	54.11780	20.86000	7.7967	20.815	42.758	97.567	996.21E-6
	56.43330	54.11780	20.86000	9.6014	20.815	42.782	96.750	0.0010022
	61.56360	54.11780	20.86000	9.8358	20.815	42.245	95.024	992.86E-6
	66.69390	54.11780	20.86000	9.8605	20.815	42.804	94.789	0.0010153
	71.82420	54.11780	20.86000	9.7314	20.815	46.694	96.073	0.0011535
	76.95450	54.11780	20.86000	8.5548	20.815	37.930	88.143	873.73E-6
	82.08480	54.11780	20.86000	7.8714	20.815	38.872	84.832	929.91E-6
	87.21510	54.11780	20.86000	6.0578	20.815	27.678	73.790	578.22E-6
	92.34540	54.11780	20.86000	4.7028	20.815	25.984	70.559	534.78E-6
	97.47570	54.11780	20.86000	3.9761	20.815	26.747	72.539	551.07E-6
	102.60600	54.11780	20.86000	0.72826	20.815	-6.6849	-14.627	-159.68E-6
	107.73630	54.11780	20.86000	-0.16680	20.815	-1.0552	-6.7884	2.8632E-6
	112.86660	54.11780	20.86000	-0.19268	20.815	-0.31784	-3.6663	11.024E-6
	117.99690	54.11780	20.86000	-0.15039	20.815	-0.12872	-2.2288	9.1265E-6
	123.12720	54.11780	20.86000	-0.10857	20.815	-0.060197	-1.4530	6.8414E-6
	128.25750	54.11780	20.86000	-0.077233	20.815	-0.031025	-0.99620	5.0759E-6
	133.38780	54.11780	20.86000	-0.055369	20.815	-0.017210	-0.71059	3.8056E-6
	138.51810	54.11780	20.86000	-0.040384	20.815	-0.010123	-0.52352	2.8998E-6
	143.64840	54.11780	20.86000	-0.030087	20.815	-0.0062491	-0.39626	2.2480E-6
	148.77870	54.11780	20.86000	-0.022925	20.815	-0.0040172	-0.30688	1.7719E-6
	153.90900	54.11780	20.86000	-0.017858	20.815	-0.0026733	-0.24238	1.4183E-6 !
	0.00000	59.03760	20.86000	-0.021370	20.815	-0.0012378	-0.16181	0.0
	5.13030	59.03760	20.86000	-0.023505	20.815	-0.0017458	-0.19812	1.1758E-6
	10.26060	59.03760	20.86000	-0.024444	20.815	-0.0025189	-0.24592	1.4463E-6
	15.39090	59.03760	20.86000	-0.022198	20.815	-0.0037290	-0.31001	1.8024E-6
	20.52120	59.03760	20.86000	-0.012352	20.815	-0.0056917	-0.39785	2.2790E-6
	25.65150	59.03760	20.86000	0.015018	20.815	-0.0090413	-0.52171	2.9292E-6
	30.78180	59.03760	20.86000	0.082954	20.815	-0.015287	-0.70371	3.8348E-6
	35.91210	59.03760	20.86000	0.24814	20.815	-0.029337	-0.99123	5.1082E-6
	41.04240	59.03760	20.86000	0.66490	20.815	-0.078374	-1.5211	6.5848E-6
	46.17270	59.03760	20.86000	1.8615	20.815	-0.48960	-2.9014	0.0
	51.30300	59.03760	20.86000	7.5559	20.815	36.666	90.240	813.08E-6
	56.43330	59.03760	20.86000	8.7434	20.815	30.157	82.094	619.39E-6
	61.56360	59.03760	20.86000	8.6098	20.815	27.216	76.798	542.01E-6
	66.69390	59.03760	20.86000	8.4608	20.815	26.783	74.950	537.29E-6
	71.82420	59.03760	20.86000	7.9891	20.815	24.669	72.660	472.18E-6
	76.95450	59.03760	20.86000	7.1276	20.815	19.773	68.591	313.60E-6
	82.08480	59.03760	20.86000	6.6734	20.815	21.347	65.727	390.71E-6
	87.21510	59.03760	20.86000	5.8836	20.815	20.921	61.790	399.39E-6
	92.34540	59.03760	20.86000	4.9642	20.815	18.793	58.847	337.80E-6
	97.47570	59.03760	20.86000	4.3597	20.815	19.358	61.402	343.06E-6
	102.60600	59.03760	20.86000	1.0234	20.815	-11.414	-21.095	-296.95E-6
	107.73630	59.03760	20.86000	-0.36170	20.815	-2.1524	-10.034	-18.045E-6
	112.86660	59.03760	20.86000	-0.30337	20.815	-0.56604	-4.9624	9.8138E-6
	117.99690	59.03760	20.86000	-0.20589	20.815	-0.19855	-2.8039	10.105E-6
	123.12720	59.03760	20.86000	-0.13670	20.815	-0.083881	-1.7344	7.7144E-6
	128.25750	59.03760	20.86000	-0.091921	20.815	-0.040252	-1.1451	5.6623E-6
	133.38780	59.03760	20.86000	-0.063289	20.815	-0.021204	-0.79462	4.1820E-6
	138.51810	59.03760	20.86000	-0.044795	20.815	-0.012002	-0.57352	3.1425E-6
	143.64840	59.03760	20.86000	-0.032624	20.815	-0.0071957	-0.42739	2.4075E-6
	148.77870	59.03760	20.86000	-0.024431	20.815	-0.0045224	-0.32703	1.8792E-6
	153.90900	59.03760	20.86000	-0.018780	20.815	-0.0029564	-0.25586	1.4921E-6 !
	0.00000	63.95740	20.86000	-0.021902	20.815	-0.0013867	-0.17066	1.0173E-6
	5.13030	63.95740	20.86000	-0.024246	20.815	-0.0019932	-0.21083	1.2461E-6
	10.26060	63.95740	20.86000	-0.025462	20.815	-0.0029420	-0.26456	1.5471E-6
	15.39090	63.95740	20.86000	-0.023539	20.815	-0.0044749	-0.33799	1.9496E-6
	20.52120	63.95740	20.86000	-0.013952	20.815	-0.0070477	-0.44090	2.4977E-6

Name	Location			Displacement	Stresses			
	X [m]	Y [m]	Z[Level] [mOD]	Z [mm]	Calc Level [mOD]	Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]
	25.65150	63.95740	20.86000	0.013592	20.815	-0.011584	-0.58963	3.2592E-6
	30.78180	63.95740	20.86000	0.083115	20.815	-0.020211	-0.81385	4.3398E-6
	35.91210	63.95740	20.86000	0.25347	20.815	-0.039168	-1.1753	5.8919E-6
	41.04240	63.95740	20.86000	0.68279	20.815	-0.095885	-1.8341	7.8879E-6
	46.17270	63.95740	20.86000	1.9126	20.815	-0.39524	-3.2970	5.8001E-6
	51.30300	63.95740	20.86000	7.7492	20.815	39.435	91.149	911.49E-6
	56.43330	63.95740	20.86000	8.5633	20.815	31.113	80.111	667.77E-6
	61.56360	63.95740	20.86000	7.4070	20.815	-17.141	-24.071	-493.60E-6
	66.69390	63.95740	20.86000	7.1536	20.815	-17.792	-22.767	-526.26E-6
	71.82420	63.95740	20.86000	6.6135	20.815	-14.502	-2.8094	-527.64E-6
	76.95450	63.95740	20.86000	5.9798	20.815	14.261	48.819	230.27E-6
	82.08480	63.95740	20.86000	5.7026	20.815	16.986	53.978	300.41E-6
	87.21510	63.95740	20.86000	4.7936	20.815	15.399	51.990	253.19E-6
	92.34540	63.95740	20.86000	3.4351	20.815	9.0455	46.981	45.690E-6
	97.47570	63.95740	20.86000	3.0190	20.815	8.8370	50.955	12.953E-6
	102.60600	63.95740	20.86000	0.71619	20.815	-17.852	-18.443	-555.62E-6
	107.73630	63.95740	20.86000	-0.74385	20.815	-3.9333	-13.654	-62.321E-6
	112.86660	63.95740	20.86000	-0.45341	20.815	-0.89325	-6.2913	5.8386E-6
	117.99690	63.95740	20.86000	-0.26900	20.815	-0.27839	-3.3489	10.518E-6
	123.12720	63.95740	20.86000	-0.16539	20.815	-0.10845	-1.9849	8.3601E-6
	128.25750	63.95740	20.86000	-0.10579	20.815	-0.049154	-1.2713	6.1183E-6
	133.38780	63.95740	20.86000	-0.070334	20.815	-0.024846	-0.86313	4.4743E-6
	138.51810	63.95740	20.86000	-0.048533	20.815	-0.013642	-0.61309	3.3288E-6
	143.64840	63.95740	20.86000	-0.034686	20.815	-0.0079936	-0.45145	2.5283E-6
	148.77870	63.95740	20.86000	-0.025611	20.815	-0.0049365	-0.34232	1.9595E-6
	153.90900	63.95740	20.86000	-0.019478	20.815	-0.0031835	-0.26595	1.5468E-6 !
	0.00000	68.87720	20.86000	-0.022323	20.815	-0.0015319	-0.17823	1.0592E-6
	5.13030	68.87720	20.86000	-0.024949	20.815	-0.0022434	-0.22197	1.3065E-6
	10.26060	68.87720	20.86000	-0.026648	20.815	-0.0033887	-0.28137	1.6357E-6
	15.39090	68.87720	20.86000	-0.025561	20.815	-0.0053024	-0.36404	2.0818E-6
	20.52120	68.87720	20.86000	-0.017422	20.815	-0.0086375	-0.48239	2.6980E-6
	25.65150	68.87720	20.86000	0.0076395	20.815	-0.014738	-0.65736	3.5650E-6
	30.78180	68.87720	20.86000	0.073056	20.815	-0.026563	-0.92618	4.8049E-6
	35.91210	68.87720	20.86000	0.23734	20.815	-0.051386	-1.3596	6.5876E-6
	41.04240	68.87720	20.86000	0.66151	20.815	-0.11080	-2.1049	9.0240E-6
	46.17270	68.87720	20.86000	1.9115	20.815	-0.28674	-3.4513	10.845E-6
	51.30300	68.87720	20.86000	7.8627	20.815	40.903	92.189	960.14E-6
	56.43330	68.87720	20.86000	8.5464	20.815	32.288	80.497	709.53E-6
	61.56360	68.87720	20.86000	6.9788	20.815	-16.878	-28.806	-454.06E-6
	66.69390	68.87720	20.86000	7.1829	20.815	-12.886	-26.634	-317.59E-6
	71.82420	68.87720	20.86000	7.2035	20.815	-13.290	-25.924	-337.21E-6
	76.95450	68.87720	20.86000	6.9286	20.815	-15.433	-26.387	-414.89E-6
	82.08480	68.87720	20.86000	6.8018	20.815	-10.464	-25.059	-236.40E-6
	87.21510	68.87720	20.86000	4.7113	20.815	-20.847	-37.346	-549.75E-6
	92.34540	68.87720	20.86000	1.8589	20.815	-40.233	-55.734	-0.0011634
	97.47570	68.87720	20.86000	1.8259	20.815	0.96391	43.127	-234.00E-6
	102.60600	68.87720	20.86000	0.87475	20.815	18.123	57.069	323.77E-6
	107.73630	68.87720	20.86000	-1.0804	20.815	-5.3999	-16.447	-99.959E-6
	112.86660	68.87720	20.86000	-0.58500	20.815	-1.1747	-7.2985	1.5673E-6
	117.99690	68.87720	20.86000	-0.32151	20.815	-0.34487	-3.7410	10.476E-6
	123.12720	68.87720	20.86000	-0.18788	20.815	-0.12783	-2.1557	8.7020E-6
	128.25750	68.87720	20.86000	-0.11606	20.815	-0.055816	-1.3536	6.3836E-6
	133.38780	68.87720	20.86000	-0.075292	20.815	-0.027452	-0.90626	4.6466E-6
	138.51810	68.87720	20.86000	-0.051039	20.815	-0.014773	-0.63733	3.4382E-6
	143.64840	68.87720	20.86000	-0.036006	20.815	-0.0085284	-0.46591	2.5988E-6
	148.77870	68.87720	20.86000	-0.026330	20.815	-0.0052079	-0.35138	2.0060E-6
	153.90900	68.87720	20.86000	-0.019883	20.815	-0.0033296	-0.27186	1.5783E-6 !
	0.00000	73.79700	20.86000	-0.022602	20.815	-0.0016637	-0.18409	1.0910E-6
	5.13030	73.79700	20.86000	-0.025562	20.815	-0.0024801	-0.23085	1.3533E-6
	10.26060	73.79700	20.86000	-0.027921	20.815	-0.0038325	-0.29527	1.7061E-6
	15.39090	73.79700	20.86000	-0.028139	20.815	-0.0061756	-0.38655	2.1900E-6
	20.52120	73.79700	20.86000	-0.022596	20.815	-0.010447	-0.52012	2.8664E-6
	25.65150	73.79700	20.86000	-0.0027207	20.815	-0.018689	-0.72290	3.8272E-6
	30.78180	73.79700	20.86000	0.052400	20.815	-0.035611	-1.0435	5.2001E-6
	35.91210	73.79700	20.86000	0.19690	20.815	-0.072633	-1.5725	7.1229E-6
	41.04240	73.79700	20.86000	0.58642	20.815	-0.15878	-2.4797	9.5686E-6
	46.17270	73.79700	20.86000	1.7859	20.815	-0.37365	-4.0330	11.224E-6
	51.30300	73.79700	20.86000	7.6852	20.815	40.810	91.467	961.19E-6
	56.43330	73.79700	20.86000	8.4018	20.815	32.228	79.811	711.58E-6
	61.56360	73.79700	20.86000	6.9831	20.815	-16.637	-28.524	-446.77E-6
	66.69390	73.79700	20.86000	7.8407	20.815	-8.5626	-21.110	-189.64E-6
	71.82420	73.79700	20.86000	8.7191	20.815	-3.1015	-14.002	-28.869E-6
	76.95450	73.79700	20.86000	9.0017	20.815	-1.9981	-11.260	-4.5649E-6
	82.08480	73.79700	20.86000	9.0972	20.815	6.0661	-6.3565	267.90E-6
	87.21510	73.79700	20.86000	5.9468	20.815	-12.607	-26.729	-306.49E-6
	92.34540	73.79700	20.86000	1.8543	20.815	-40.858	-55.189	-0.0011903
	97.47570	73.79700	20.86000	1.4983	20.815	-0.88589	41.076	-290.69E-6
	102.60600	73.79700	20.86000	1.0376	20.815	16.048	57.759	241.44E-6
	107.73630	73.79700	20.86000	-1.2121	20.815	-6.1168	-17.593	-119.73E-6
	112.86660	73.79700	20.86000	-0.64492	20.815	-1.3142	-7.6803	-1.2831E-6
	117.99690	73.79700	20.86000	-0.34546	20.815	-0.37581	-3.8716	10.131E-6
	123.12720	73.79700	20.86000	-0.19768	20.815	-0.13615	-2.2058	8.7030E-6
	128.25750	73.79700	20.86000	-0.12023	20.815	-0.058469	-1.3753	6.4193E-6
	133.38780	73.79700	20.86000	-0.077130	20.815	-0.028428	-0.91665	4.6750E-6
	138.51810	73.79700	20.86000	-0.051868	20.815	-0.015176	-0.64281	3.4573E-6
	143.64840	73.79700	20.86000	-0.036380	20.815	-0.0087115	-0.46902	2.6114E-6
	148.77870	73.79700	20.86000	-0.026495	20.815	-0.0052980	-0.35327	2.0144E-6
	153.90900	73.79700	20.86000	-0.019948	20.815	-0.0033770	-0.27308	1.5842E-6 !
	0.00000	78.71680	20.86000	-0.022704	20.815	-0.0017704	-0.18780	1.1102E-6
	5.13030	78.71680	20.86000	-0.026013	20.815	-0.0026807	-0.23678	1.3829E-6
	10.26060	78.71680	20.86000	-0.029132	20.815	-0.0042301	-0.30509	1.7527E-6
	15.39090	78.71680	20.86000	-0.030980	20.815	-0.0070134	-0.40350	2.2647E-6
	20.52120	78.71680	20.86000	-0.028937	20.815	-0.012342	-0.55084	2.9876E-6
	25.65150	78.71680	20.86000	-0.016642	20.815	-0.023342	-0.78168	4.0205E-6
	30.78180	78.71680	20.86000	0.021843	20.815	-0.048134	-1.1631	5.4782E-6
	35.91210	78.71680	20.86000	0.12946	20.815	-0.10985	-1.8317	7.3475E-6
	41.04240	78.71680	20.86000	0.43788	20.815	-0.27992	-3.0736	8.7356E-6
	46.17270	78.71680	20.86000	1.4728	20.815	-0.78080	-5.4069	4.5248E-6
	51.30300	78.71680	20.86000	7.1404	20.815	39.740	88.793	937.71E-6
	56.43330	78.71680	20.86000	7.8740	20.815	30.968	77.030	681.63E-6
	61.56360	78.71680	20.86000	6.8070	20.815	-17.534	-29.555	-474.03E-6
	66.69390	78.71680	20.86000	8.1357	20.815	-8.5764	-19.775	-198.53E-6
	71.82420	78.71680	20.86000	9.4248	20.815	-1.6557	-9.9488	0.0
	76.95450	78.71680	20.86000	10.050	20.815	0.61407	-5.2653	56.080E-6
	82.08480	78.71680	20.86000	10.201	20.815	8.6590	0.21967	324.17E-6
	87.21510	78.71680	20.86000	6.8618	20.815	-9.8100	-20.483	-240.47E-6
	92.34540	78.71680	20.86000	2.4576	20.815	-38.863	-50.118	-0.0011471
	97.47570	78.71680	20.86000	1.8308	20.815	0.46208	44.718	-262.83E-6
	102.60600	78.71680	20.86000	1.4384	20.815	16.015	60.241	224.62E-6
	107.73630	78.71680	20.86000	-1.1268	20.815	-6.1339	-16.771	-125.53E-6
	112.86660	78.71680	20.86000	-0.61599	20.815	-1.2715	-7.2794	-2.1918E-6
	117.99690	78.71680	20.86000	-0.33310	20.815	-0.35899	-3.6866	9.6040E-6
	123.12720	78.71680	20.86000	-0.19178	20.815	-0.13024	-2.1171	8.3697E-6
	128.25750	78.71680	20.86000	-0.11715	20.815	-0.056237	-1.3299	6.2188E-6
	133.38780	78.71680	20.86000	-0.075395	20.815	-0.027502	-0.89186	4.5545E-6
	138.51810	78.71680	20.86000	-0.050831	20.815	-0.014758	-0.62848	3.3833E-6
	143.64840	78.71680	20.86000	-0.035730	20.815	-0.0085077	-0.46033	2.5646E-6
	148.77870	78.71680	20.86000	-0.026069	20.815	-0.0051922	-0.34777	1.9840E-6
	153.90900	78.71680	20.86000	-0.019659	20.815	-0.0033191	-0.26948	1.5638E-6 !
	0.00000	83.63660	20.86000	-0.022590	20.815	-0.0018393	-0.18901	1.1152E-6
	5.13030	83.63660	20.86000	-0.026211	20.815	-0.0028187	-0.23911	1.3923E-6
	10.26060	83.63660	20.86000	-0.030078	20.815	-0.0045232	-0.30963	1.7701E-6
	15.39090	83.63660	20.86000	-0.033640	20.815	-0.0076814	-0.41260	2.2966E-6
	20.52120	83.63660	20.86000	-0.035479	20.815	-0.014003	-0.56991	3.0447E-6
	25.65150	83.63660	20.86000	-0.032095	20.815	-0.027935	-0.82424	4.1145E-6
	30.78180	83.63660	20.86000	-0.014685	20.815	-0.062630	-1.2660	5.5782E-6
	35.91210	83.63660	20.86000	0.040656	20.815	-0.16360	-2.1066	7.0497E-6
	41.04240	83.63660	20.86000	0.21076	20.815	-0.52141	-3.8967	4.8141E-6
	46.17270	83.63660	20.86000	0.85443	20.815	-2.1261	-8.1632	-28.783E-6
	51.30300	83.63660	20.86000	5.6925	20.815	32.369	80.288	713.87E-6
	56.43330	83.63660	20.86000	6.4107	20.815	22.592	68.098	422.67E-6
	61.56360	83.63660	20.86000	6.6452	20.815	19.558	64.545	330.87E-6
	66.69390	83.63660	20.86000	8.4894	20.815	30.800	77.302	673.60E-6
	71.82420	83.63660	20.86000	10.230	20.815	39.919	89.740	938.49E-6
	76.95450	83.63660	20.86000	10.939	20.815	42.524	95.106	0.0010028
	82.08480	83.63660	20.86000	10.934	20.815	49.359	99.905	0.0012297
	87.21510	83.63660	20.86000	7.9515	20.815	35.699	84.504	812.66E-6
	92.34540	83.63660	20.86000	3.6939	20.815	12.692	61.190	93.746E-6
	97.47570	83.63660	20.86000	2.3456	20.815	10.856	57.946	45.042E-6
	102.60600	83.63660	20.86000	1.9773	20.815	22.283	69.291	403.59E-6

Name	Location X [m]	Location Y [m]	Z[Level] [mOD]	Displacement Z [mm]	Calc Level [mOD]	Stresses Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]	
	107.73630	83.63660	20.86000	-0.86275	20.815	-4.7023	-13.337	-93.216E-6	
	112.86660	83.63660	20.86000	-0.51083	20.815	-0.99741	-6.0756	0.0	
	117.99690	83.63660	20.86000	-0.28922	20.815	-0.29412	-3.2120	9.0687E-6	
	123.12720	83.63660	20.86000	-0.17199	20.815	-0.11116	-1.9050	7.7580E-6	
	128.25750	83.63660	20.86000	-0.10753	20.815	-0.049586	-1.2249	5.8110E-6	
	133.38780	83.63660	20.86000	-0.070393	20.815	-0.024857	-0.83548	4.3007E-6	
	138.51810	83.63660	20.86000	-0.048074	20.815	-0.013591	-0.59615	3.2246E-6	
	143.64840	83.63660	20.86000	-0.034127	20.815	-0.0079477	-0.44078	2.4632E-6	
	148.77870	83.63660	20.86000	-0.025091	20.815	-0.0049046	-0.33541	1.9173E-6	
	153.90900	83.63660	20.86000	-0.019036	20.815	-0.0031627	-0.26136	1.5188E-6	!
	0.00000	88.55640	20.86000	-0.022229	20.815	-0.0018599	-0.18750	1.1050E-6	
	5.13030	88.55640	20.86000	-0.026070	20.815	-0.0028698	-0.23740	1.3797E-6	
	10.26060	88.55640	20.86000	-0.030544	20.815	-0.0046518	-0.30795	1.7548E-6	
	15.39090	88.55640	20.86000	-0.035598	20.815	-0.0080202	-0.41175	2.2785E-6	
	20.52120	88.55640	20.86000	-0.040966	20.815	-0.014966	-0.57234	3.0237E-6	
	25.65150	88.55640	20.86000	-0.045964	20.815	-0.030989	-0.83764	4.0837E-6	
	30.78180	88.55640	20.86000	-0.049179	20.815	-0.073883	-1.3162	5.4695E-6	
	35.91210	88.55640	20.86000	-0.048109	20.815	-0.21433	-2.2894	6.2875E-6	
	41.04240	88.55640	20.86000	-0.036682	20.815	-0.81672	-4.6149	-1.7884E-6	
	46.17270	88.55640	20.86000	0.075054	20.815	-4.2701	-11.174	-90.526E-6	
	51.30300	88.55640	20.86000	3.6379	20.815	22.339	71.148	394.05E-6	
	56.43330	88.55640	20.86000	4.4718	20.815	10.870	59.854	33.619E-6	
	61.56360	88.55640	20.86000	5.1871	20.815	12.325	61.254	79.560E-6	
	66.69390	88.55640	20.86000	7.3204	20.815	25.870	75.294	500.81E-6	
	71.82420	88.55640	20.86000	9.4084	20.815	38.851	89.460	900.09E-6	
	76.95450	88.55640	20.86000	10.051	20.815	41.451	94.448	966.61E-6	
	82.08480	88.55640	20.86000	9.3836	20.815	42.039	95.063	984.84E-6	
	87.21510	88.55640	20.86000	6.5087	20.815	38.240	88.408	883.74E-6	
	92.34540	88.55640	20.86000	0.47447	20.815	-9.3877	-18.532	-236.82E-6	
	97.47570	88.55640	20.86000	-0.64416	20.815	-9.7561	-19.853	-242.40E-6	
	102.60600	88.55640	20.86000	-0.71519	20.815	-6.2723	-14.898	-142.47E-6	
	107.73630	88.55640	20.86000	-0.58792	20.815	-2.0677	-8.3140	-25.644E-6	
	112.86660	88.55640	20.86000	-0.37325	20.815	-0.58896	-4.4405	5.6820E-6	
	117.99690	88.55640	20.86000	-0.22901	20.815	-0.20400	-2.5754	8.4683E-6	
	123.12720	88.55640	20.86000	-0.14395	20.815	-0.084796	-1.6171	6.9448E-6	
	128.25750	88.55640	20.86000	-0.093605	20.815	-0.040256	-1.0798	5.2526E-6	
	133.38780	88.55640	20.86000	-0.063075	20.815	-0.021076	-0.75622	3.9462E-6	
	138.51810	88.55640	20.86000	-0.044022	20.815	-0.011892	-0.55002	2.9994E-6	
	143.64840	88.55640	20.86000	-0.031774	20.815	-0.0071205	-0.41252	2.3172E-6	
	148.77870	88.55640	20.86000	-0.023663	20.815	-0.0044740	-0.31734	1.8203E-6	
	153.90900	88.55640	20.86000	-0.018132	20.815	-0.0029260	-0.24939	1.4527E-6	!
	0.00000	93.47620	20.86000	-0.021605	20.815	-0.0018263	-0.18325	1.0796E-6	
	5.13030	93.47620	20.86000	-0.025531	20.815	-0.0028193	-0.23153	1.3448E-6	
	10.26060	93.47620	20.86000	-0.030366	20.815	-0.0045760	-0.29969	1.7058E-6	
	15.39090	93.47620	20.86000	-0.036421	20.815	-0.0079115	-0.39986	2.2081E-6	
	20.52120	93.47620	20.86000	-0.044261	20.815	-0.014840	-0.55490	2.9191E-6	
	25.65150	93.47620	20.86000	-0.055180	20.815	-0.031016	-0.81178	3.9206E-6	
	30.78180	93.47620	20.86000	-0.072730	20.815	-0.075215	-1.2787	5.1849E-6	
	35.91210	93.47620	20.86000	-0.10806	20.815	-0.22532	-2.2446	5.5936E-6	
	41.04240	93.47620	20.86000	-0.19743	20.815	-0.91366	-4.6294	-5.3423E-6	
	46.17270	93.47620	20.86000	-0.38242	20.815	-5.2103	-11.643	-122.93E-6	
	51.30300	93.47620	20.86000	2.7294	20.815	19.859	70.955	302.04E-6	
	56.43330	93.47620	20.86000	3.3041	20.815	13.667	64.231	111.36E-6	
	61.56360	93.47620	20.86000	2.7754	20.815	20.650	64.925	369.55E-6	
	66.69390	93.47620	20.86000	4.3247	20.815	29.936	75.663	651.39E-6	
	71.82420	93.47620	20.86000	6.2003	20.815	39.315	88.515	923.45E-6	
	76.95450	93.47620	20.86000	6.6936	20.815	41.331	92.390	974.98E-6	
	82.08480	93.47620	20.86000	5.8662	20.815	41.459	92.601	978.47E-6	
	87.21510	93.47620	20.86000	1.6208	20.815	-1.1286	-6.0283	-4.6593E-6	
	92.34540	93.47620	20.86000	0.26950	20.815	-1.8585	-8.0448	-19.466E-6	
	97.47570	93.47620	20.86000	-0.31046	20.815	-1.9395	-8.3523	-20.582E-6	
	102.60600	93.47620	20.86000	-0.42387	20.815	-1.3824	-6.8544	-9.0241E-6	
	107.73630	93.47620	20.86000	-0.35341	20.815	-0.68236	-4.6943	3.7609E-6	
	112.86660	93.47620	20.86000	-0.25124	20.815	-0.28630	-3.0050	8.0657E-6	
	117.99690	93.47620	20.86000	-0.16986	20.815	-0.12436	-1.9503	7.5451E-6	
	123.12720	93.47620	20.86000	-0.11438	20.815	-0.059018	-1.3138	6.0133E-6	
	128.25750	93.47620	20.86000	-0.078178	20.815	-0.030489	-0.91927	4.6140E-6	
	133.38780	93.47620	20.86000	-0.054670	20.815	-0.016914	-0.66528	3.5328E-6	
	138.51810	93.47620	20.86000	-0.039248	20.815	-0.0099499	-0.49558	2.7313E-6	
	143.64840	93.47620	20.86000	-0.028951	20.815	-0.0061456	-0.37842	2.1402E-6	
	148.77870	93.47620	20.86000	-0.021927	20.815	-0.0039545	-0.29516	1.7008E-6	
	153.90900	93.47620	20.86000	-0.017024	20.815	-0.0026348	-0.23448	1.3702E-6	!
	0.00000	98.39600	20.86000	-0.020726	20.815	-0.0017398	-0.17644	1.0402E-6	
	5.13030	98.39600	20.86000	-0.024585	20.815	-0.0026687	-0.22180	1.2895E-6	
	10.26060	98.39600	20.86000	-0.029483	20.815	-0.0042959	-0.28528	1.6261E-6	
	15.39090	98.39600	20.86000	-0.035914	20.815	-0.0073455	-0.37758	2.0898E-6	
	20.52120	98.39600	20.86000	-0.044829	20.815	-0.013565	-0.51840	2.7383E-6	
	25.65150	98.39600	20.86000	-0.058280	20.815	-0.027700	-0.74710	3.6400E-6	
	30.78180	98.39600	20.86000	-0.081194	20.815	-0.064734	-1.1505	4.7751E-6	
	35.91210	98.39600	20.86000	-0.12638	20.815	-0.18218	-1.9446	5.3356E-6	
	41.04240	98.39600	20.86000	-0.22742	20.815	-0.66210	-3.7433	-1.4366E-6	
	46.17270	98.39600	20.86000	-0.42522	20.815	-3.1410	-8.3019	-66.069E-6	
	51.30300	98.39600	20.86000	0.093570	20.815	-10.780	-15.385	-308.88E-6	
	56.43330	98.39600	20.86000	0.24271	20.815	-11.443	-17.505	-320.54E-6	
	61.56360	98.39600	20.86000	-0.15460	20.815	-6.0157	-14.284	-136.66E-6	
	66.69390	98.39600	20.86000	0.48157	20.815	-3.1688	-9.6395	-58.733E-6	
	71.82420	98.39600	20.86000	1.1276	20.815	-1.1225	-5.7156	-6.3881E-6	
	76.95450	98.39600	20.86000	1.3640	20.815	-0.40762	-3.8091	8.5431E-6	
	82.08480	98.39600	20.86000	1.1328	20.815	-0.29024	-3.3704	10.207E-6	
	87.21510	98.39600	20.86000	0.58474	20.815	-0.37280	-3.6945	9.1344E-6	
	92.34540	98.39600	20.86000	0.12560	20.815	-0.48321	-4.1094	7.5826E-6	
	97.47570	98.39600	20.86000	-0.12975	20.815	-0.49476	-4.1063	7.1294E-6	
	102.60600	98.39600	20.86000	-0.21495	20.815	-0.39054	-3.5744	7.7149E-6	
	107.73630	98.39600	20.86000	-0.20601	20.815	-0.24536	-2.7724	8.1474E-6	
	112.86660	98.39600	20.86000	-0.16466	20.815	-0.13463	-2.0170	7.5774E-6	
	117.99690	98.39600	20.86000	-0.12210	20.815	-0.071453	-1.4427	6.3538E-6	
	123.12720	98.39600	20.86000	-0.088176	20.815	-0.038806	-1.0406	5.0618E-6	
	128.25750	98.39600	20.86000	-0.063550	20.815	-0.021977	-0.76433	3.9631E-6	
	133.38780	98.39600	20.86000	-0.046291	20.815	-0.013011	-0.57300	3.1014E-6	
	138.51810	98.39600	20.86000	-0.034303	20.815	-0.0080280	-0.43825	2.4443E-6	
	143.64840	98.39600	20.86000	-0.025939	20.815	-0.0051406	-0.34146	1.9464E-6	
	148.77870	98.39600	20.86000	-0.020032	20.815	-0.0034014	-0.27055	1.5674E-6	
	153.90900	98.39600	20.86000	-0.015793	20.815	-0.0023168	-0.21763	1.2766E-6	!
	0.00000	103.31580	20.86000	-0.019628	20.815	-0.0016093	-0.16749	0.0	
	5.13030	103.31580	20.86000	-0.023277	20.815	-0.0024364	-0.20889	1.2173E-6	
	10.26060	103.31580	20.86000	-0.027959	20.815	-0.0038545	-0.26595	1.5216E-6	
	15.39090	103.31580	20.86000	-0.034189	20.815	-0.0064351	-0.34726	1.9340E-6	
	20.52120	103.31580	20.86000	-0.042914	20.815	-0.011482	-0.46790	2.5002E-6	
	25.65150	103.31580	20.86000	-0.056004	20.815	-0.022265	-0.65603	3.2737E-6	
	30.78180	103.31580	20.86000	-0.077314	20.815	-0.047913	-0.96761	4.2618E-6	
	35.91210	103.31580	20.86000	-0.11484	20.815	-0.11718	-1.5206	5.1226E-6	
	41.04240	103.31580	20.86000	-0.18312	20.815	-0.32931	-2.5639	5.6848E-6	
	46.17270	103.31580	20.86000	-0.29116	20.815	-0.97974	-4.4835	-8.7410E-6	
	51.30300	103.31580	20.86000	-0.37501	20.815	-2.1323	-6.9166	-36.827E-6	
	56.43330	103.31580	20.86000	-0.33844	20.815	-2.2778	-7.6701	-37.576E-6	
	61.56360	103.31580	20.86000	-0.17536	20.815	-1.4422	-6.4757	-13.643E-6	
	66.69390	103.31580	20.86000	0.075923	20.815	-0.81292	-4.8980	0.0	
	71.82420	103.31580	20.86000	0.30507	20.815	-0.40627	-3.5545	6.9983E-6	
	76.95450	103.31580	20.86000	0.40510	20.815	-0.20903	-2.7419	9.3225E-6	
	82.08480	103.31580	20.86000	0.34970	20.815	-0.15080	-2.4267	9.5364E-6	
	87.21510	103.31580	20.86000	0.19328	20.815	-0.15447	-2.4031	9.2507E-6	
	92.34540	103.31580	20.86000	0.031747	20.815	-0.17083	-2.4423	8.8813E-6	
	97.47570	103.31580	20.86000	-0.076241	20.815	-0.16912	-2.3668	8.4725E-6	
	102.60600	103.31580	20.86000	-0.12288	20.815	-0.14209	-2.1198	7.9412E-6	
	107.73630	103.31580	20.86000	-0.12664	20.815	-0.10246	-1.7615	7.1852E-6	
	112.86660	103.31580	20.86000	-0.10983	20.815	-0.066416	-1.3898	6.2113E-6	
	117.99690	103.31580	20.86000	-0.087667	20.815	-0.040898	-1.0688	5.1599E-6	
	123.12720	103.31580	20.86000	-0.067330	20.815	-0.024936	-0.81693	4.1815E-6	
	128.25750	103.31580	20.86000	-0.051012	20.815	-0.015399	-0.62740	3.3525E-6	
	133.38780	103.31580	20.86000	-0.038682	20.815	-0.0097275	-0.48677	2.6845E-6	
	138.51810	103.31580	20.86000	-0.029604	20.815	-0.0063062	-0.38235	2.1588E-6	
	143.64840	103.31580	20.86000	-0.022972	20.815	-0.0041958	-0.30421	1.7485E-6	
	148.77870	103.31580	20.86000	-0.018110	20.815	-0.0028614	-0.24510	1.4282E-6	
	153.90900	103.31580	20.86000	-0.014515	20.815	-0.0019967	-0.19983	1.1771E-6	!
	0.00000	108.23560	20.86000	-0.018365	20.815	-0.0014483	-0.15694	0.0	
	5.13030	108.23560	20.86000	-0.021698	20.815	-0.0021521	-0.19374	1.1331E-6	
	10.26060	108.23560	20.86000	-0.025958	20.815	-0.0033217	-0.24342	1.4004E-6	
	15.39090	108.23560	20.86000	-0.031579	20.815	-0.0053616	-0.31229	1.7553E-6	
	20.52120	108.23560	20.86000	-0.039303	20.815	-0.0091226	-0.41069	2.2305E-6	
	25.65150	108.23560	20.86000	-0.050420	20.815	-0.016502	-0.55607	2.8640E-6	

Name	Location			Displacement	Stresses			
	X [m]	Y [m]	Z[Level] [mOD]	Z [mm]	Calc Level [mOD]	Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]
	30.78180	108.23560	20.86000	-0.067152	20.815	-0.031957	-0.77829	3.6754E-6
	35.91210	108.23560	20.86000	-0.092928	20.815	-0.066196	-1.1268	4.5719E-6
	41.04240	108.23560	20.86000	-0.13118	20.815	-0.14273	-1.6690	5.0922E-6
	46.17270	108.23560	20.86000	-0.17840	20.815	-0.29150	-2.4276	4.2525E-6
	51.30300	108.23560	20.86000	-0.21113	20.815	-0.46796	-3.1863	2.3717E-6
	56.43330	108.23560	20.86000	-0.19590	20.815	-0.50885	-3.4950	2.7689E-6
	61.56360	108.23560	20.86000	-0.12673	20.815	-0.39925	-3.2515	5.3638E-6
	66.69390	108.23560	20.86000	-0.028666	20.815	-0.26668	-2.7551	7.2373E-6
	71.82420	108.23560	20.86000	0.059428	20.815	-0.16533	-2.2636	7.9683E-6
	76.95450	108.23560	20.86000	0.10326	20.815	-0.10574	-1.9122	8.0065E-6
	82.08480	108.23560	20.86000	0.092261	20.815	-0.080664	-1.7244	7.7726E-6
	87.21510	108.23560	20.86000	0.042776	20.815	-0.075018	-1.6475	7.5028E-6
	92.34540	108.23560	20.86000	-0.015494	20.815	-0.075141	-1.6022	7.2148E-6
	97.47570	108.23560	20.86000	-0.059446	20.815	-0.071909	-1.5227	6.8379E-6
	102.60600	108.23560	20.86000	-0.081211	20.815	-0.062342	-1.3821	6.3164E-6
	107.73630	108.23560	20.86000	-0.084309	20.815	-0.048732	-1.1941	5.6505E-6
	112.86660	108.23560	20.86000	-0.076391	20.815	-0.035089	-0.99176	4.8952E-6
	117.99690	108.23560	20.86000	-0.064176	20.815	-0.024003	-0.80320	4.1305E-6
	123.12720	108.23560	20.86000	-0.051746	20.815	-0.016039	-0.64267	3.4240E-6
	128.25750	108.23560	20.86000	-0.040924	20.815	-0.010675	-0.51282	2.8120E-6
	133.38780	108.23560	20.86000	-0.032186	20.815	-0.0071592	-0.41048	2.3030E-6
	138.51810	108.23560	20.86000	-0.025395	20.815	-0.0048676	-0.33069	1.8891E-6
	143.64840	108.23560	20.86000	-0.020206	20.815	-0.0033645	-0.26857	1.5564E-6
	148.77870	108.23560	20.86000	-0.016260	20.815	-0.0023663	-0.22005	1.2899E-6
	153.90900	108.23560	20.86000	-0.013250	20.815	-0.0016932	-0.18191	1.0762E-6 !
	0.00000	113.15540	20.86000	-0.017001	20.815	-0.0012724	-0.14541	0.0
	5.13030	113.15540	20.86000	-0.019956	20.815	-0.0018483	-0.17737	1.0420E-6
	10.26060	113.15540	20.86000	-0.023682	20.815	-0.0027693	-0.21949	1.2713E-6
	15.39090	113.15540	20.86000	-0.028496	20.815	-0.0042964	-0.27605	1.5682E-6
	20.52120	113.15540	20.86000	-0.034891	20.815	-0.0069260	-0.35347	1.9545E-6
	25.65150	113.15540	20.86000	-0.043606	20.815	-0.011622	-0.46133	2.4538E-6
	30.78180	113.15540	20.86000	-0.055661	20.815	-0.020242	-0.61324	3.0816E-6
	35.91210	113.15540	20.86000	-0.072096	20.815	-0.036101	-0.82578	3.8172E-6
	41.04240	113.15540	20.86000	-0.092856	20.815	-0.063658	-1.1096	4.5597E-6
	46.17270	113.15540	20.86000	-0.11425	20.815	-0.10366	-1.4434	5.1476E-6
	51.30300	113.15540	20.86000	-0.12698	20.815	-0.14218	-1.7420	5.5703E-6
	56.43330	113.15540	20.86000	-0.12069	20.815	-0.15468	-1.8902	6.0287E-6
	61.56360	113.15540	20.86000	-0.093514	20.815	-0.13638	-1.8522	6.4787E-6
	66.69390	113.15540	20.86000	-0.054612	20.815	-0.10490	-1.6944	6.6732E-6
	71.82420	113.15540	20.86000	-0.018693	20.815	-0.075765	-1.5059	6.5879E-6
	76.95450	113.15540	20.86000	0.0015364	20.815	-0.055631	-1.3478	6.3541E-6
	82.08480	113.15540	20.86000	0.0015410	20.815	-0.044848	-1.2409	6.0893E-6
	87.21510	113.15540	20.86000	-0.013797	20.815	-0.040336	-1.1737	5.8381E-6
	92.34540	113.15540	20.86000	-0.034397	20.815	-0.038253	-1.1196	5.5775E-6
	97.47570	113.15540	20.86000	-0.051208	20.815	-0.035671	-1.0536	5.2608E-6
	102.60600	113.15540	20.86000	-0.059878	20.815	-0.031375	-0.96354	4.8581E-6
	107.73630	113.15540	20.86000	-0.060564	20.815	-0.025730	-0.85241	4.3739E-6
	112.86660	113.15540	20.86000	-0.055783	20.815	-0.019830	-0.73204	3.8415E-6
	117.99690	113.15540	20.86000	-0.048371	20.815	-0.014607	-0.61503	3.3047E-6
	123.12720	113.15540	20.86000	-0.040416	20.815	-0.010471	-0.50977	2.8006E-6
	128.25750	113.15540	20.86000	-0.033085	20.815	-0.0074134	-0.41981	2.3519E-6
	133.38780	113.15540	20.86000	-0.026846	20.815	-0.0052393	-0.34530	1.9667E-6
	138.51810	113.15540	20.86000	-0.021766	20.815	-0.0037213	-0.28466	1.6438E-6
	143.64840	113.15540	20.86000	-0.017724	20.815	-0.0026671	-0.23571	1.3767E-6
	148.77870	113.15540	20.86000	-0.014543	20.815	-0.0019331	-0.19628	1.1573E-6
	153.90900	113.15540	20.86000	-0.012043	20.815	-0.0014183	-0.16450	0.0 !
	0.00000	118.07520	20.86000	-0.015599	20.815	-0.0010957	-0.13347	0.0
	5.13030	118.07520	20.86000	-0.018157	20.815	-0.0015520	-0.16073	0.0
	10.26060	118.07520	20.86000	-0.021321	20.815	-0.0022518	-0.19572	1.1417E-6
	15.39090	118.07520	20.86000	-0.025300	20.815	-0.0033509	-0.24115	1.3851E-6
	20.52120	118.07520	20.86000	-0.030379	20.815	-0.0051153	-0.30069	1.6918E-6
	25.65150	118.07520	20.86000	-0.036924	20.815	-0.0079892	-0.37908	2.0750E-6
	30.78180	118.07520	20.86000	-0.045310	20.815	-0.012668	-0.48168	2.5420E-6
	35.91210	118.07520	20.86000	-0.055668	20.815	-0.020056	-0.61251	3.0840E-6
	41.04240	118.07520	20.86000	-0.067334	20.815	-0.030771	-0.76934	3.6639E-6
	46.17270	118.07520	20.86000	-0.078114	20.815	-0.043778	-0.93584	4.2182E-6
	51.30300	118.07520	20.86000	-0.084249	20.815	-0.055078	-1.0783	4.6858E-6
	56.43330	118.07520	20.86000	-0.082241	20.815	-0.059605	-1.1600	5.0277E-6
	61.56360	118.07520	20.86000	-0.071618	20.815	-0.055994	-1.1676	5.2114E-6
	66.69390	118.07520	20.86000	-0.055839	20.815	-0.047453	-1.1187	5.2258E-6
	71.82420	118.07520	20.86000	-0.040561	20.815	-0.038159	-1.0443	5.1090E-6
	76.95450	118.07520	20.86000	-0.030786	20.815	-0.030745	-0.97051	4.9254E-6
	82.08480	118.07520	20.86000	-0.028576	20.815	-0.025959	-0.90976	4.7247E-6
	87.21510	118.07520	20.86000	-0.032514	20.815	-0.023233	-0.86120	4.5229E-6
	92.34540	118.07520	20.86000	-0.039041	20.815	-0.021474	-0.81632	4.3078E-6
	97.47570	118.07520	20.86000	-0.044587	20.815	-0.019715	-0.76580	4.0574E-6
	102.60600	118.07520	20.86000	-0.047062	20.815	-0.017466	-0.70454	3.7581E-6
	107.73630	118.07520	20.86000	-0.046124	20.815	-0.014754	-0.63317	3.4128E-6
	112.86660	118.07520	20.86000	-0.042576	20.815	-0.011896	-0.55639	3.0392E-6
	117.99690	118.07520	20.86000	-0.037596	20.815	-0.0092366	-0.48004	2.6608E-6
	123.12720	118.07520	20.86000	-0.032206	20.815	-0.0069837	-0.40881	2.2991E-6
	128.25750	118.07520	20.86000	-0.027075	20.815	-0.0051974	-0.34540	1.9689E-6
	133.38780	118.07520	20.86000	-0.022541	20.815	-0.0038404	-0.29075	1.6775E-6
	138.51810	118.07520	20.86000	-0.018707	20.815	-0.0028355	-0.24463	1.4263E-6
	143.64840	118.07520	20.86000	-0.015551	20.815	-0.0021009	-0.20618	1.2130E-6
	148.77870	118.07520	20.86000	-0.012988	20.815	-0.0015666	-0.17434	1.0335E-6
	153.90900	118.07520	20.86000	-0.010919	20.815	-0.0011776	-0.14804	0.0 !
	0.00000	122.99500	20.86000	-0.014214	20.815	-928.82E-6	-0.12161	0.0
	5.13030	122.99500	20.86000	-0.016390	20.815	-0.0012817	-0.14454	0.0
	10.26060	122.99500	20.86000	-0.019022	20.815	-0.0017999	-0.17319	1.0176E-6
	15.39090	122.99500	20.86000	-0.022236	20.815	-0.0025715	-0.20919	1.2141E-6
	20.52120	122.99500	20.86000	-0.026181	20.815	-0.0037298	-0.25447	1.4543E-6
	25.65150	122.99500	20.86000	-0.031012	20.815	-0.0054658	-0.31115	1.7442E-6
	30.78180	122.99500	20.86000	-0.036818	20.815	-0.0080192	-0.38091	2.0853E-6
	35.91210	122.99500	20.86000	-0.043476	20.815	-0.011601	-0.46380	2.4701E-6
	41.04240	122.99500	20.86000	-0.050433	20.815	-0.016179	-0.55615	2.8766E-6
	46.17270	122.99500	20.86000	-0.056528	20.815	-0.021159	-0.64857	3.2685E-6
	51.30300	122.99500	20.86000	-0.060174	20.815	-0.025280	-0.72667	3.6030E-6
	56.43330	122.99500	20.86000	-0.060075	20.815	-0.027215	-0.77664	3.8433E-6
	61.56360	122.99500	20.86000	-0.056119	20.815	-0.026539	-0.79288	3.9705E-6
	66.69390	122.99500	20.86000	-0.049666	20.815	-0.023983	-0.78053	3.9892E-6
	71.82420	122.99500	20.86000	-0.042952	20.815	-0.020758	-0.75102	3.9255E-6
	76.95450	122.99500	20.86000	-0.038021	20.815	-0.017829	-0.71548	3.8130E-6
	82.08480	122.99500	20.86000	-0.035840	20.815	-0.015620	-0.68051	3.6769E-6
	87.21510	122.99500	20.86000	-0.036042	20.815	-0.014079	-0.64737	3.5272E-6
	92.34540	122.99500	20.86000	-0.037364	20.815	-0.012901	-0.61374	3.3607E-6
	97.47570	122.99500	20.86000	-0.038401	20.815	-0.011764	-0.57638	3.1694E-6
	102.60600	122.99500	20.86000	-0.038217	20.815	-0.010479	-0.53336	2.9481E-6
	107.73630	122.99500	20.86000	-0.036549	20.815	-0.0090269	-0.48497	2.6955E-6
	112.86660	122.99500	20.86000	-0.033656	20.815	-0.0075090	-0.43334	2.4331E-6
	117.99690	122.99500	20.86000	-0.030035	20.815	-0.0060564	-0.38137	2.1620E-6
	123.12720	122.99500	20.86000	-0.026181	20.815	-0.0047690	-0.33169	1.8991E-6
	128.25750	122.99500	20.86000	-0.022460	20.815	-0.0036937	-0.28612	1.6540E-6
	133.38780	122.99500	20.86000	-0.019089	20.815	-0.0028329	-0.24559	1.4324E-6
	138.51810	122.99500	20.86000	-0.016157	20.815	-0.0021632	-0.21034	1.2367E-6
	143.64840	122.99500	20.86000	-0.013673	20.815	-0.0016513	-0.18013	1.0666E-6
	148.77870	122.99500	20.86000	-0.011602	20.815	-0.0012640	-0.15447	0.0
	153.90900	122.99500	20.86000	-0.0098890	20.815	-972.08E-6	-0.13280	0.0 !
	0.00000	127.91480	20.86000	-0.012886	20.815	-778.25E-6	-0.11020	0.0
	5.13030	127.91480	20.86000	-0.014714	20.815	-0.0010464	-0.12929	0.0
	10.26060	127.91480	20.86000	-0.016876	20.815	-0.0014242	-0.15255	0.0
	15.39090	127.91480	20.86000	-0.019441	20.815	-0.0019588	-0.18088	1.0598E-6
	20.52120	127.91480	20.86000	-0.022479	20.815	-0.0027140	-0.21524	1.2467E-6
	25.65150	127.91480	20.86000	-0.026039	20.815	-0.0037673	-0.25641	1.4651E-6
	30.78180	127.91480	20.86000	-0.030106	20.815	-0.0051937	-0.30466	1.7138E-6
	35.91210	127.91480	20.86000	-0.034530	20.815	-0.0070230	-0.35906	1.9859E-6
	41.04240	127.91480	20.86000	-0.038945	20.815	-0.0091657	-0.41676	2.2669E-6
	46.17270	127.91480	20.86000	-0.042751	20.815	-0.011343	-0.47260	2.5349E-6
	51.30300	127.91480	20.86000	-0.045238	20.815	-0.013113	-0.51989	2.7647E-6
	56.43330	127.91480	20.86000	-0.045876	20.815	-0.014059	-0.55270	2.9347E-6
	61.56360	127.91480	20.86000	-0.044627	20.815	-0.014034	-0.56835	3.0337E-6
	66.69390	127.91480	20.86000	-0.042038	20.815	-0.013231	-0.56839	3.0641E-6
	71.82420	127.91480	20.86000	-0.039012	20.815	-0.012037	-0.55721	3.0390E-6
	76.95450	127.91480	20.86000	-0.036413	20.815	-0.010808	-0.53965	2.9752E-6
	82.08480	127.91480	20.86000	-0.034701	20.815	-0.0097469	-0.51910	2.8863E-6
	87.21510	127.91480	20.86000	-0.033823	20.815	-0.0088851	-0.49684	2.7792E-6
	92.34540	127.91480	20.86000	-0.033341	20.815	-0.0081454	-0.47254	2.6548E-6
	97.47570	127.91480	20.86000	-0.032714	20.815	-0.0074235	-0.44527	2.5110E-6
	102.60600	127.91480	20.86000	-0.031551	20.815	-0.0066496	-0.41447	2.3471E-6
	107.73630	127.91480	20.86000	-0.029716	20.815	-0.0058117	-0.38046	2.1655E-6

Name	Location			Displacement		Stresses		
	X [m]	Y [m]	Z[Level] [mOD]	Z [mm]	Calc Level [mOD]	Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]
	112.86660	127.91480	20.86000	-0.027304	20.815	-0.0049448	-0.34438	1.9720E-6
	117.99690	127.91480	20.86000	-0.024538	20.815	-0.0041029	-0.30777	1.7743E-6
	123.12720	127.91480	20.86000	-0.021662	20.815	-0.0033336	-0.27218	1.5802E-6
	128.25750	127.91480	20.86000	-0.018876	20.815	-0.0026658	-0.23879	1.3961E-6
	133.38780	127.91480	20.86000	-0.016312	20.815	-0.0021087	-0.20836	1.2263E-6
	138.51810	127.91480	20.86000	-0.014034	20.815	-0.0016574	-0.18122	1.0732E-6
	143.64840	127.91480	20.86000	-0.012061	20.815	-0.0012991	-0.15740	0.0
	148.77870	127.91480	20.86000	-0.010378	20.815	-0.0010182	-0.13672	0.0
	153.90900	127.91480	20.86000	-0.0089562	20.815	-799.81E-6	-0.11890	0.0 !
	0.00000	132.83460	20.86000	-0.011641	20.815	-646.92E-6	-0.099477	0.0
	5.13030	132.83460	20.86000	-0.013165	20.815	-848.56E-6	-0.11529	0.0
	10.26060	132.83460	20.86000	-0.014929	20.815	-0.0011216	-0.13409	0.0
	15.39090	132.83460	20.86000	-0.016967	20.815	-0.0014906	-0.15635	0.0
	20.52120	132.83460	20.86000	-0.019306	20.815	-0.0019847	-0.18249	1.0689E-6
	25.65150	132.83460	20.86000	-0.021950	20.815	-0.0026335	-0.21272	1.2339E-6
	30.78180	132.83460	20.86000	-0.024855	20.815	-0.0034561	-0.24680	1.4165E-6
	35.91210	132.83460	20.86000	-0.027901	20.815	-0.0044427	-0.28377	1.6111E-6
	41.04240	132.83460	20.86000	-0.030862	20.815	-0.0055302	-0.32171	1.8079E-6
	46.17270	132.83460	20.86000	-0.033422	20.815	-0.0065904	-0.35773	1.9938E-6
	51.30300	132.83460	20.86000	-0.035241	20.815	-0.0074518	-0.38848	2.1541E-6
	56.43330	132.83460	20.86000	-0.036077	20.815	-0.0079641	-0.41109	2.2765E-6
	61.56360	132.83460	20.86000	-0.035903	20.815	-0.0080691	-0.42415	2.3544E-6
	66.69390	132.83460	20.86000	-0.034935	20.815	-0.0078241	-0.42804	2.3880E-6
	71.82420	132.83460	20.86000	-0.033547	20.815	-0.0073613	-0.42450	2.3832E-6
	76.95450	132.83460	20.86000	-0.032110	20.815	-0.0068185	-0.41568	2.3484E-6
	82.08480	132.83460	20.86000	-0.030851	20.815	-0.0062879	-0.40332	2.2908E-6
	87.21510	132.83460	20.86000	-0.029795	20.815	-0.0058012	-0.38834	2.2153E-6
	92.34540	132.83460	20.86000	-0.028805	20.815	-0.0053446	-0.37097	2.1236E-6
	97.47570	132.83460	20.86000	-0.027688	20.815	-0.0048872	-0.35111	2.0163E-6
	102.60600	132.83460	20.86000	-0.026294	20.815	-0.0044055	-0.32876	1.8944E-6
	107.73630	132.83460	20.86000	-0.024572	20.815	-0.0038958	-0.30425	1.7600E-6
	112.86660	132.83460	20.86000	-0.022571	20.815	-0.0033726	-0.27829	1.6170E-6
	117.99690	132.83460	20.86000	-0.020401	20.815	-0.0028600	-0.25179	1.4703E-6
	123.12720	132.83460	20.86000	-0.018189	20.815	-0.0023816	-0.22570	1.3247E-6
	128.25750	132.83460	20.86000	-0.016049	20.815	-0.0019544	-0.20080	1.1848E-6
	133.38780	132.83460	20.86000	-0.014058	20.815	-0.0015862	-0.17766	1.0536E-6
	138.51810	132.83460	20.86000	-0.012262	20.815	-0.0012779	-0.15659	0.0
	143.64840	132.83460	20.86000	-0.010678	20.815	-0.0010250	-0.13772	0.0
	148.77870	132.83460	20.86000	-0.0093008	20.815	-820.71E-6	-0.12102	0.0
	153.90900	132.83460	20.86000	-0.0081165	20.815	-657.25E-6	-0.10637	0.0 !
	0.00000	137.75440	20.86000	-0.010495	20.815	-535.17E-6	-0.089586	0.0
	5.13030	137.75440	20.86000	-0.011760	20.815	-685.93E-6	-0.10264	0.0
	10.26060	137.75440	20.86000	-0.013195	20.815	-882.81E-6	-0.11781	0.0
	15.39090	137.75440	20.86000	-0.014815	20.815	-0.0011382	-0.13535	0.0
	20.52120	137.75440	20.86000	-0.016625	20.815	-0.0014648	-0.15538	0.0
	25.65150	137.75440	20.86000	-0.018613	20.815	-0.0018728	-0.17787	1.0442E-6
	30.78180	137.75440	20.86000	-0.020734	20.815	-0.0023640	-0.20247	1.1798E-6
	35.91210	137.75440	20.86000	-0.022901	20.815	-0.0029243	-0.22841	1.3213E-6
	41.04240	137.75440	20.86000	-0.024977	20.815	-0.0035165	-0.25443	1.4621E-6
	46.17270	137.75440	20.86000	-0.026789	20.815	-0.0040797	-0.27887	1.5941E-6
	51.30300	137.75440	20.86000	-0.028162	20.815	-0.0045412	-0.29992	1.7086E-6
	56.43330	137.75440	20.86000	-0.028970	20.815	-0.0048401	-0.31606	1.7985E-6
	61.56360	137.75440	20.86000	-0.029189	20.815	-0.0049507	-0.32646	1.8595E-6
	66.69390	137.75440	20.86000	-0.028898	20.815	-0.0048903	-0.33113	1.8911E-6
	71.82420	137.75440	20.86000	-0.028252	20.815	-0.0047072	-0.33076	1.8956E-6
	76.95450	137.75440	20.86000	-0.027416	20.815	-0.0044566	-0.32631	1.8771E-6
	82.08480	137.75440	20.86000	-0.026504	20.815	-0.0041810	-0.31869	1.8397E-6
	87.21510	137.75440	20.86000	-0.025552	20.815	-0.0039009	-0.30850	1.7864E-6
	92.34540	137.75440	20.86000	-0.024530	20.815	-0.0036185	-0.29607	1.7191E-6
	97.47570	137.75440	20.86000	-0.023381	20.815	-0.0033268	-0.28155	1.6392E-6
	102.60600	137.75440	20.86000	-0.022060	20.815	-0.0030197	-0.26514	1.5479E-6
	107.73630	137.75440	20.86000	-0.020560	20.815	-0.0026977	-0.24715	1.4472E-6
	112.86660	137.75440	20.86000	-0.018916	20.815	-0.0023683	-0.22806	1.3400E-6
	117.99690	137.75440	20.86000	-0.017191	20.815	-0.0020435	-0.20847	1.2294E-6
	123.12720	137.75440	20.86000	-0.015457	20.815	-0.0017357	-0.18897	1.1188E-6
	128.25750	137.75440	20.86000	-0.013780	20.815	-0.0014547	-0.17010	1.0112E-6
	133.38780	137.75440	20.86000	-0.012208	20.815	-0.0012064	-0.15228	0.0
	138.51810	137.75440	20.86000	-0.010773	20.815	-992.59E-6	-0.13578	0.0
	143.64840	137.75440	20.86000	-0.0094883	20.815	-812.41E-6	-0.12075	0.0
	148.77870	137.75440	20.86000	-0.0083541	20.815	-662.92E-6	-0.10721	0.0
	153.90900	137.75440	20.86000	-0.0073631	20.815	-540.28E-6	-0.095143	0.0 !
	0.00000	142.67420	20.86000	-0.0094510	20.815	-441.72E-6	-0.080580	0.0
	5.13030	142.67420	20.86000	-0.010500	20.815	-554.27E-6	-0.091342	0.0
	10.26060	142.67420	20.86000	-0.011669	20.815	-696.55E-6	-0.10362	0.0
	15.39090	142.67420	20.86000	-0.012961	20.815	-874.58E-6	-0.11749	0.0
	20.52120	142.67420	20.86000	-0.014373	20.815	-0.0010936	-0.13298	0.0
	25.65150	142.67420	20.86000	-0.015888	20.815	-0.0013562	-0.14995	0.0
	30.78180	142.67420	20.86000	-0.017468	20.815	-0.0016598	-0.16808	0.0
	35.91210	142.67420	20.86000	-0.019054	20.815	-0.0019933	-0.18679	1.0955E-6
	41.04240	142.67420	20.86000	-0.020561	20.815	-0.0023356	-0.20527	1.1985E-6
	46.17270	142.67420	20.86000	-0.021888	20.815	-0.0026566	-0.22252	1.2944E-6
	51.30300	142.67420	20.86000	-0.022937	20.815	-0.0029229	-0.23748	1.3782E-6
	56.43330	142.67420	20.86000	-0.023639	20.815	-0.0031072	-0.24931	1.4454E-6
	61.56360	142.67420	20.86000	-0.023967	20.815	-0.0031969	-0.25746	1.4931E-6
	66.69390	142.67420	20.86000	-0.023949	20.815	-0.0031968	-0.26185	1.5206E-6
	71.82420	142.67420	20.86000	-0.023646	20.815	-0.0031253	-0.26271	1.5287E-6
	76.95450	142.67420	20.86000	-0.023133	20.815	-0.0030054	-0.26050	1.5193E-6
	82.08480	142.67420	20.86000	-0.022468	20.815	-0.0028570	-0.25569	1.4948E-6
	87.21510	142.67420	20.86000	-0.021683	20.815	-0.0026921	-0.24867	1.4570E-6
	92.34540	142.67420	20.86000	-0.020783	20.815	-0.0025155	-0.23971	1.4074E-6
	97.47570	142.67420	20.86000	-0.019763	20.815	-0.0023274	-0.22902	1.3476E-6
	102.60600	142.67420	20.86000	-0.018618	20.815	-0.0021277	-0.21684	1.2787E-6
	107.73630	142.67420	20.86000	-0.017361	20.815	-0.0019184	-0.20343	1.2026E-6
	112.86660	142.67420	20.86000	-0.016022	20.815	-0.0017042	-0.18915	1.1212E-6
	117.99690	142.67420	20.86000	-0.014641	20.815	-0.0014916	-0.17440	1.0367E-6
	123.12720	142.67420	20.86000	-0.013263	20.815	-0.0012877	-0.15959	0.0
	128.25750	142.67420	20.86000	-0.011929	20.815	-0.0010984	-0.14510	0.0
	133.38780	142.67420	20.86000	-0.010672	20.815	-927.50E-6	-0.13122	0.0
	138.51810	142.67420	20.86000	-0.0095126	20.815	-777.09E-6	-0.11819	0.0
	143.64840	142.67420	20.86000	-0.0084614	20.815	-647.34E-6	-0.10613	0.0
	148.77870	142.67420	20.86000	-0.0075211	20.815	-537.19E-6	-0.095115	0.0
	153.90900	142.67420	20.86000	-0.0066880	20.815	-444.80E-6	-0.085151	0.0 !
	0.00000	147.59400	20.86000	-0.0085095	20.815	-364.48E-6	-0.072457	0.0 !
	5.13030	147.59400	20.86000	-0.0093798	20.815	-448.64E-6	-0.081341	0.0 !
	10.26060	147.59400	20.86000	-0.010334	20.815	-552.00E-6	-0.091297	0.0 !
	15.39090	147.59400	20.86000	-0.011370	20.815	-677.37E-6	-0.10234	0.0 !
	20.52120	147.59400	20.86000	-0.012482	20.815	-826.63E-6	-0.11443	0.0 !
	25.65150	147.59400	20.86000	-0.013651	20.815	-999.73E-6	-0.12742	0.0 !
	30.78180	147.59400	20.86000	-0.014851	20.815	-0.0011935	-0.14104	0.0 !
	35.91210	147.59400	20.86000	-0.016039	20.815	-0.0014005	-0.15487	0.0 !
	41.04240	147.59400	20.86000	-0.017160	20.815	-0.0016086	-0.16837	0.0 !
	46.17270	147.59400	20.86000	-0.018154	20.815	-0.0018023	-0.18092	1.0659E-6 !
	51.30300	147.59400	20.86000	-0.018963	20.815	-0.0019650	-0.19188	1.1284E-6 !
	56.43330	147.59400	20.86000	-0.019541	20.815	-0.0020835	-0.20071	1.1794E-6 !
	61.56360	147.59400	20.86000	-0.019869	20.815	-0.0021509	-0.20709	1.2168E-6 !
	66.69390	147.59400	20.86000	-0.019949	20.815	-0.0021682	-0.21087	1.2398E-6 !
	71.82420	147.59400	20.86000	-0.019806	20.815	-0.0021423	-0.21214	1.2488E-6 !
	76.95450	147.59400	20.86000	-0.019473	20.815	-0.0020834	-0.21110	1.2444E-6 !
	82.08480	147.59400	20.86000	-0.018982	20.815	-0.0020007	-0.20799	1.2281E-6 !
	87.21510	147.59400	20.86000	-0.018356	20.815	-0.0019014	-0.20307	1.2010E-6 !
	92.34540	147.59400	20.86000	-0.017610	20.815	-0.0017892	-0.19655	1.1643E-6 !
	97.47570	147.59400	20.86000	-0.016755	20.815	-0.0016663	-0.18862	1.1192E-6 !
	102.60600	147.59400	20.86000	-0.015803	20.815	-0.0015341	-0.17947	1.0669E-6 !
	107.73630	147.59400	20.86000	-0.014772	20.815	-0.0013949	-0.16935	1.0087E-6 !
	112.86660	147.59400	20.86000	-0.013686	20.815	-0.0012519	-0.15851	0.0 !
	117.99690	147.59400	20.86000	-0.012576	20.815	-0.0011091	-0.14725	0.0 !
	123.12720	147.59400	20.86000	-0.011471	20.815	-970.72E-6	-0.13584	0.0 !
	128.25750	147.59400	20.86000	-0.010399	20.815	-840.31E-6	-0.12457	0.0 !
	133.38780	147.59400	20.86000	-0.0093830	20.815	-720.63E-6	-0.11365	0.0 !
	138.51810	147.59400	20.86000	-0.0084372	20.815	-613.28E-6	-0.10327	0.0 !
	143.64840	147.59400	20.86000	-0.0075706	20.815	-518.82E-6	-0.093540	0.0 !
	148.77870	147.59400	20.86000	-0.0067863	20.815	-437.02E-6	-0.084536	0.0 !
	153.90900	147.59400	20.86000	-0.0060830	20.815	-367.06E-6	-0.076286	0.0 !

! Point lies outside soil zones. Results calculated for this point assume a soil zone with properties of the first soil profile.