

15 August 2018
Our Ref: P1019J1129/ps/rs/v4

35 TEMPLEWOOD AVENUE – GROUND MOVEMENT ASSESSMENT (GMA)

1. GEOMETRY OF THE SITE

The proposed development involves the construction of a new single-storey basement, which will deepen and locally extend the footprint of the existing basement at 35 Templewood Avenue. As indicated in Figure 1.1, the site under investigation is bounded to the north and east by W Heath Road and Templewood Avenue, respectively. Also, the properties located at 9 W Heath Rd (Grade II listed - Schreiber House) and 33 Templewood Avenue are found in the west and south, respectively.

In addition, the Schreiber swimming pool – which is located within the site under consideration – is planned to be relocated approximately 10 m to the north. The general arrangement of the proposed basement, which covers the entire footprint of 35 Templewood Avenue, and the swimming pool relocation, are illustrated in Figure 1.2.

The existing lower ground floor (which is present over much of the existing building footprint) formation level is between 111 and 112 mOD and the proposed excavation slab formation level is 108 mOD. Figure 1.3 displays the north-south cross section of the proposed development.

The GMA presented herein is concerned with the impact of the proposed development on the properties immediately adjacent, namely the Schreiber House and 33 Templewood Avenue.



Figure 1.1 Development site under consideration.

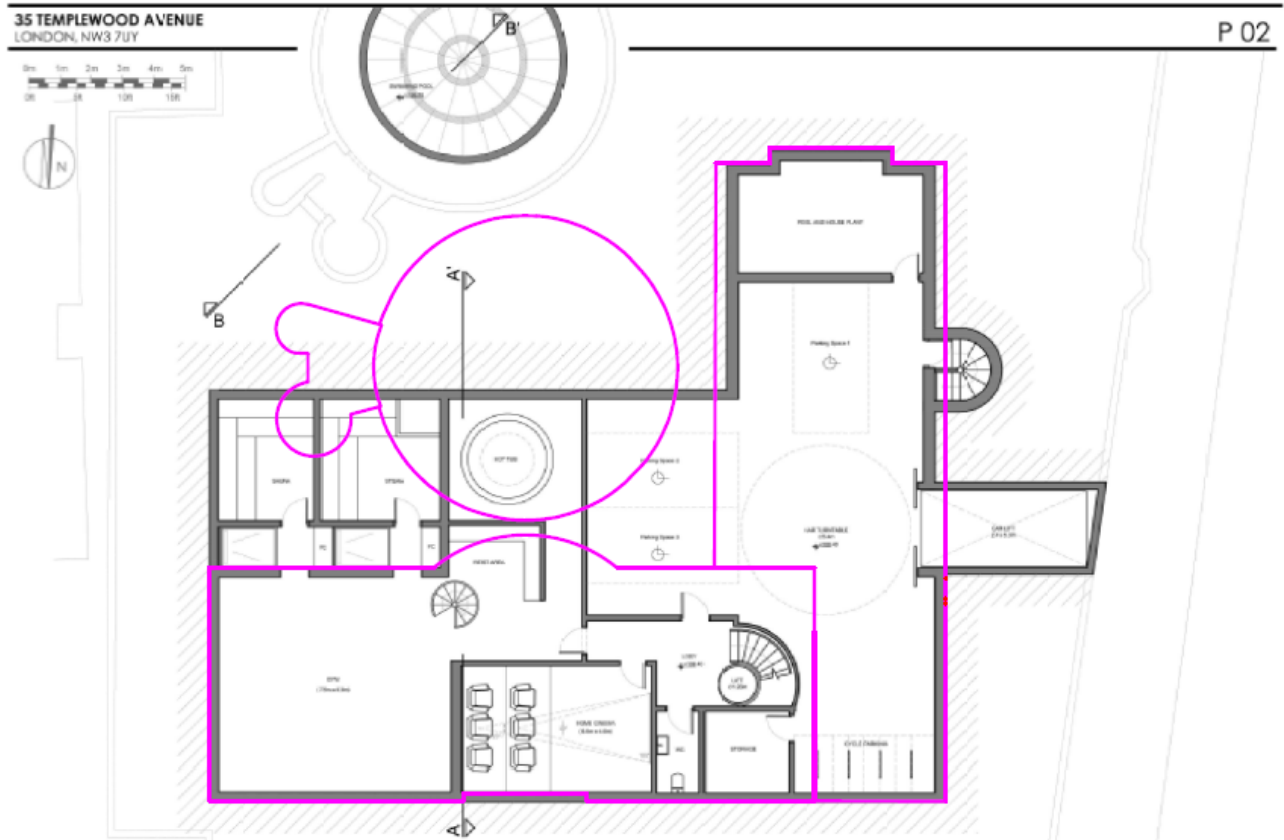


Figure 1.2: Proposed basement plan with existing layout marked in magenta.

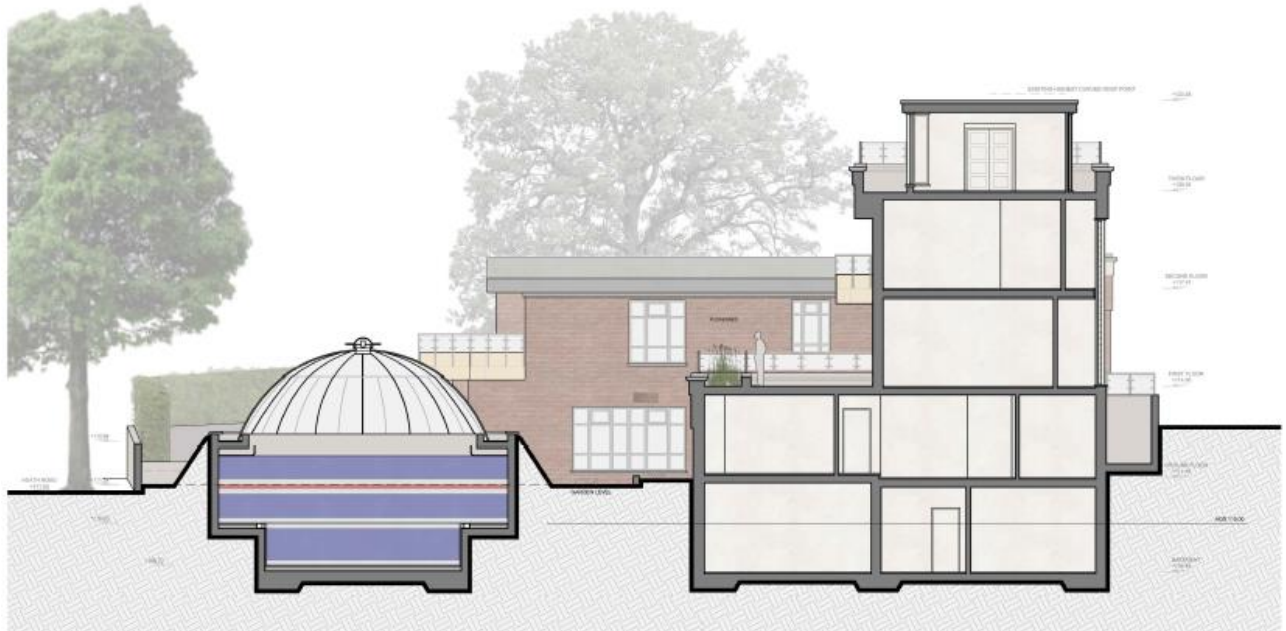


Figure 1.3: Proposed north-south section.

2. PROPOSED UNDER-PINNING AND PILING WORKS

The proposed basement is to be constructed by means of underpinning technique in the following indicative key construction stages:

1. Establish site, repair any existing cracks and install monitoring equipment.
2. Install temporary propping to existing walls just above ground floor level.
3. Demolish existing ground floor structure.
4. Underpin perimeter walls in sequence.
5. Underpin internal walls in sequence.
6. Excavate to intermediate level and install temporary propping to underpins.
7. Excavate to formation level and place blinding.
8. Install buried drainage, heave board and cast basement slab.
9. Remove temporary props when basement slab has gained sufficient strength.
10. Install new ground floor structure.

In Addition, a contiguous piled wall will be constructed at the south-east corner of the site to support the car lift excavation. The piled wall will be installed from the existing ground level and will be designed by the piling specialist.

3. GROUND MOVEMENT ASSESSMENT

Assessment Details

The assessment has been undertaken using proprietary spreadsheets and the commercially available software Oasys Pdisp and Xdisp, which consider the three-dimensional ground movement field induced by the proposed works.

Ground movements will arise as a result of various mechanisms which are mobilised as part of the implementation of the proposed scheme. In the first instance, the works will involve the removal of the existing ground floor structure having installed temporary propping to the existing walls. This initial strip phase will be followed by basement excavation operations and the underpinning of the masonry perimeter walls and application of the permanent works building loadings. Areas outside the existing building footprint will comprise reinforced concrete cantilever walls. The basement, underpinning and piled wall installation works, as well as the excavation process will induce ground movements arising from the overburden removal. The permanent condition loading will partially reinstate a portion of the removed overburden, yielding settlements across the foundation system.

These ground movements will extend over a given zone of influence surrounding the building footprint. The assessment presented herein adopts the normalised ground displacement curves reported in CIRIA C760 and general principles of elasticity. This procedure comprises the current industry standard/best practice for this type of analytical assessment.

A series of three-dimensional models of the proposed scheme have been developed in both software packages outlined previously and have been combined by means of superposition to represent the various ground displacement fields summarised above.

An indicative plot of the analytical model with clarification comments is presented below in Figure 3.1. It has been numerically verified that the presented simplifications have no negative effect on the calculations (eastern part of the building). These simplifications represent a conservative scenario for the ground movements along Templewood Avenue, where the analytical model was idealised in order to incorporate ground movements closer to the road – resulting from the proposed car lift excavation works.

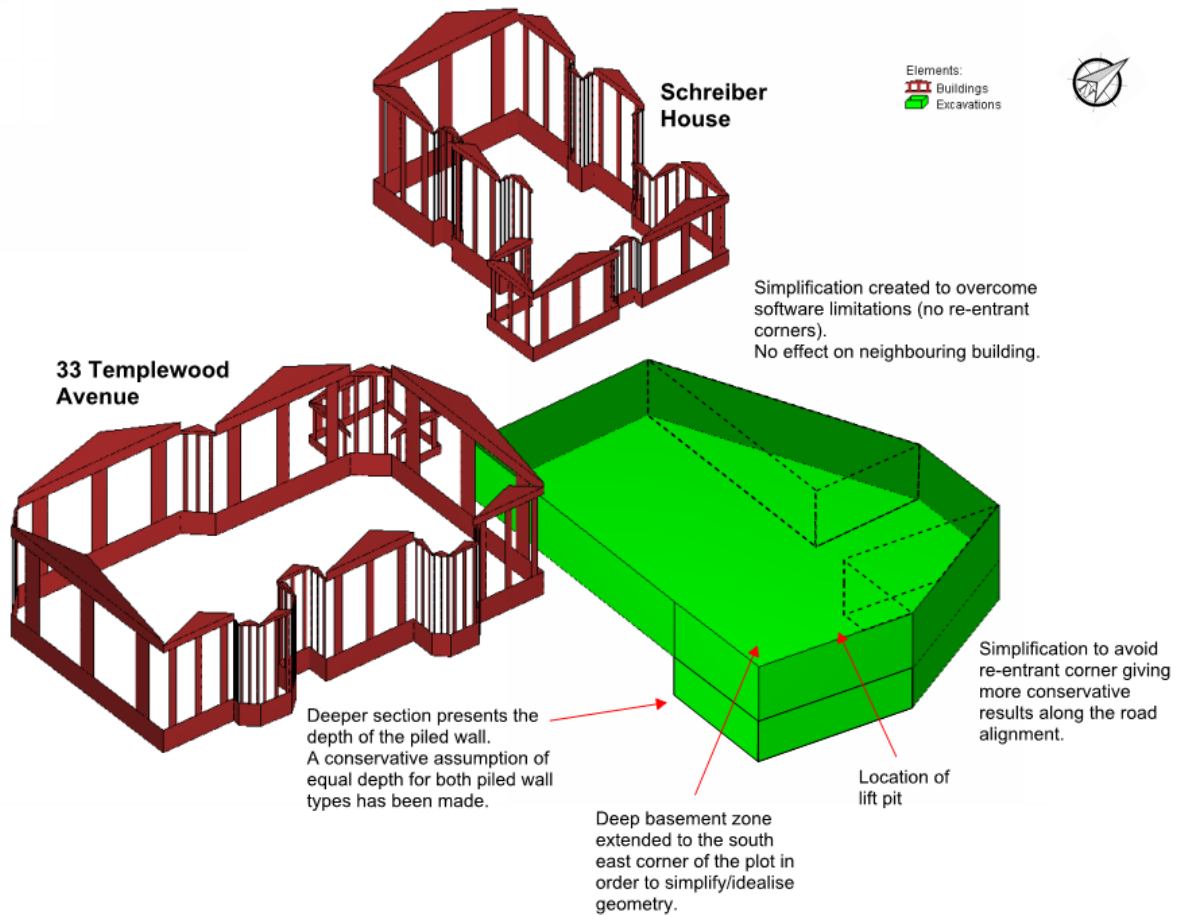


Figure 3.1: Indicative plot of the three-dimensional analytical model produced using the Oasys software suite (soil removed for clarity of presentation). Simplified excavation geometry shown in green.

Ground Model

An idealised ground model has been evaluated based on the site-specific ground investigation which comprised 2no window sample boreholes to 6.0mbgl and 1no hand excavated trial pit.

The thickness of Made Ground was observed in the boreholes to be typically less than 1m thick. It is assessed that the buildings adjacent to the proposed development site will be founded at ground surface. The thickness of the Bagshot Formation was not proven during the site investigation. Table 3.1 summarises the representative ground model adopted for ground movement assessment purposes.

Table 3.1: Summary of ground model and geotechnical parameters adopted for analysis purposes

Stratum	Top of stratum (mbgl)	Assumed Undrained Strength, S_u (kPa)	Undrained Young's Modulus, E_u (MPa)	Drained Young's Modulus, E' (MPa)
Made Ground	0.0	-	-	15.0
Bagshot Formation	1.0	$45 + 9.5z$ ^[1]	$20.3 + 4.3z$ ^[1]	$16.2 + 3.4z$ ^[1]

- Notes:
1. z is the depth in metres below top of the Bagshot Formation, which is assumed to be approx. 1.0m below existing ground level.
 2. *Rigid boundary* assumed at -30 mbgl for analytical purposes (conservative level adopted capturing extensive zone of influence based on development width of around 10-12m).
 3. The stiffness data (E_u and E') has been evaluated empirically taking into consideration the nature of the geotechnical/soil-structure interaction mechanisms and level of anticipated strain within the soil mass.

Analysis Methods

As outlined previously, two different scenarios have been considered in order to bound the potential ground movements arising from the proposed excavation works.

1. In the first option (*Method 1*), the *worst-case* heave condition was assessed by assuming that no lateral or downward ground movement takes place during the underpinning operations (effectively assuming a wished into place underpin solution).

Heave movements arising from the proposed basement excavation were assessed using Oasys Pdisp.

The proposed bulk excavation works and associated heave was modelled by applying an upward (unloading) stress at the formation level, which is equivalent to the total stress relief (approx. -80 kPa) imposed by the proposed depth of excavation beneath the existing basement and new location of the swimming pool.

For the short-term analysis, representing the condition immediately following excavation, the soil mass was modelled using undrained stiffness parameters.

In the long-term (representing the condition some time after the building works are complete and excess pore pressures have dissipated), relaxation of the soil was captured by using drained soil parameters. The effect of increased building loads, associated with the proposed renovation works, were also incorporated in this phase.

Figure 3.2 shows the geometry and intensity of the footing loads as applied in the Pdisp model. The permanent building loads were evaluated on the basis of an indicative load takedown based on the proposed floor arrangements provided.

Note that only those loads adjacent to the neighbouring properties have been modelled – the remainder are considered to be out with the zone of influence. In addition, the applied foundation loading has been taken conservatively as the allowable bearing pressure of 150 kPa upon which the foundations have been sized.

2. The second option (*Method 2*) assesses horizontal movements and ground settlements (as opposed to heave evaluated in Option 1) imposed by the proposed excavation and underpinning works.

The horizontal and vertical ground movements due to underpin installation and mass excavation to formation level were evaluated using the normalised CIRIA C760 curves for ground movement, as implemented in Oasys Xdisp. Installation was modelled by adopting the CIRIA C760 curve for *Installation of planar diaphragm wall in stiff clay*. Bulk excavation was evaluated using the CIRIA C760 curve for *Excavation in front of a high stiffness wall in stiff clay*.

This option assumes that the underpinning imposes a ground movement field (resulting from installation and lateral deflection), leading to lateral and vertical components of movement and displacements at foundation level comparable to those measured in the instance of embedded retaining walls.

Whilst it is acknowledged that the empirical data set is not strictly applicable to the construction technologies adopted, the assessment and associated ground movement mechanisms are representative of the adopted underpinning scenario. This is considered a reasonable approximation in this instance and once again, bounds the solution between maximum potential heave, settlements and lateral deformations anticipated for the type of construction presented herein, which are inherently subject to satisfactory control of workmanship.

As for Method 1, short-term and long-term phases were considered. The proposed building loads were also incorporated.

Impact Assessment

The potential impact/damage induced on primary façade/wall elements of the buildings within the zone of influence of the proposed scheme has been evaluated on the basis of the calculated ground movement field. The walls of concern are shown in Figure 3.3, including the wall nomenclature/reference system adopted. The arrangement is based on the currently available survey information and presents a reasonable array of primary structures both perpendicular and parallel to the proposed basement (covering the key deformation mechanisms).

Each wall has been assumed to behave as an equivalent beam subject to a bending and extension/compression deformation mechanism, based on the evaluated greenfield ground movement, as outlined previously. The walls under investigation were conservatively considered to be of masonry structure.

Attention was also paid to potential ground movements both parallel and perpendicular to Templewood Avenue and W Heath Road.

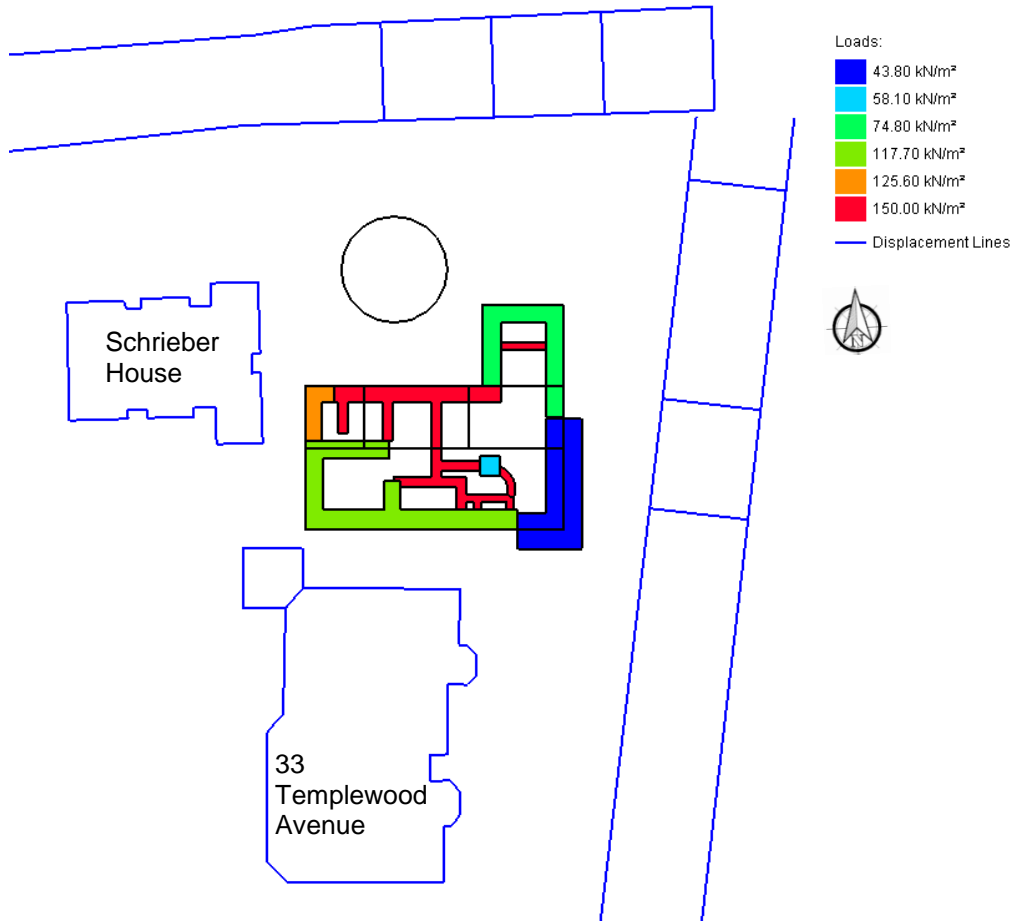


Figure 3.2: Long-term phase loading regime model with adjacent properties.

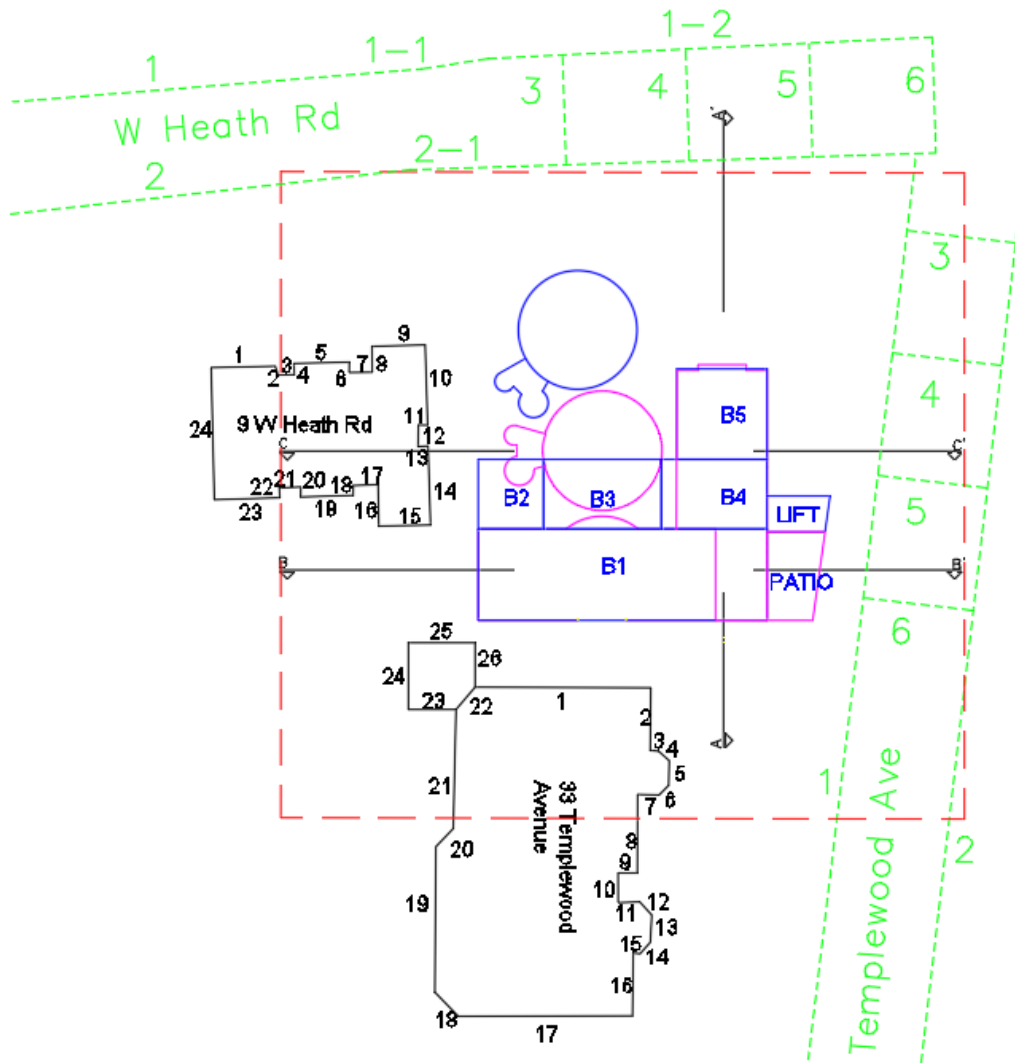


Figure 3.3: Simplified scheme and nomenclature for building façade/masonry wall elements (black), existing (magenta) and proposed (dashed blue) schemes, street movement monitoring areas (green) and excavation zone of influence (dashed red).

Tensile strains induced within the building masonry walls have been evaluated based on the deflection ratios Δ/L estimated from the analyses. The assessment considers the well-established Burland (1997) damage classification method, as presented and summarised in Figure 3.4 & Figure 3.5. This method involves a simple but robust means of assessment, which is widely adopted and is considered to comprise an industry standard/best practice basis for impact assessments of this typology.

Potential damage categories are directly related to the tensile strains induced by the assessed interim (short-term) and long-term phases of construction, arising from a combination of direct tension and bending induced tension mechanisms, as reported in Table 3.2.

Impact Assessment Outcomes

The results from the analysis are presented in Table 3.2 (denoting the evaluated damage categorisation in accordance with the Burland criteria presented herein).

The majority of the façades fall within Category 0, representative of a Negligible damage classification. Three façades have been classified as Category 1, representative of Very Slight damage classification. No façades have been classified as Category 2 (slight) or higher.

On the basis of the bounding analysis methods, it is assessed that the damage category for the properties adjacent to 35 Templewood Avenue will not exceed Category 1 – very slight.

W Heath Road and Templewood Avenue run adjacent to the site under consideration in the north and east, respectively. The impact of underpinning, excavation and piled wall installation works on these roads has also been assessed in terms of maximum vertical and horizontal deflections at a number of locations. Soil displacements were assessed along the green lines drawn on the streets (see Figure 3.3). Lines running both parallel (segments 1 & 2) and perpendicular (segments 3-6) to the streets were defined to capture the effects more accurately.

The assessment found that the majority of displacements at these locations were <1 mm and as such are considered negligible. In the area immediately adjacent to the proposed car lift, the predicted movements are up to 8mm, decreasing to 0mm on the opposite side of the road.

On the basis of these results, it can be reasonably concluded that the risk of the proposed works resulting in loss of structural integrity to the pavement buildup of W Heath Road and Templewood Avenue is low. Where movements are expected to be slightly greater, such as the area adjacent to the proposed car lift, it may be prudent for the contractor to make an allowance for minor *making good* of pavement surfacing.

Table 3.2: Evaluated damage categories for strip/excavation and long-term condition stages (refer to Figure 3.3 for wall nomenclature)

Method 1

Building	Wall/façade reference	Damage Category Envelope	
		Excavation	Long-term
Schreiber House	1	0 (Negligible)	0 (Negligible)
	2	0 (Negligible)	0 (Negligible)
	3	0 (Negligible)	0 (Negligible)
	4	0 (Negligible)	0 (Negligible)

	5	0 (Negligible)	0 (Negligible)
	6	0 (Negligible)	0 (Negligible)
	7	0 (Negligible)	0 (Negligible)
	8	0 (Negligible)	0 (Negligible)
	9	0 (Negligible)	0 (Negligible)
	10	0 (Negligible)	0 (Negligible)
	11	0 (Negligible)	0 (Negligible)
	12	0 (Negligible)	0 (Negligible)
	13	0 (Negligible)	0 (Negligible)
	14	0 (Negligible)	0 (Negligible)
	15	0 (Negligible)	0 (Negligible)
	16	0 (Negligible)	0 (Negligible)
	17	0 (Negligible)	0 (Negligible)
	18	0 (Negligible)	0 (Negligible)
	19	0 (Negligible)	0 (Negligible)
	20	0 (Negligible)	0 (Negligible)
	21	0 (Negligible)	0 (Negligible)
	22	0 (Negligible)	0 (Negligible)
	23	0 (Negligible)	0 (Negligible)
	24	0 (Negligible)	0 (Negligible)
33 Templewood Avenue	1	0 (Negligible)	0 (Negligible)
	2	0 (Negligible)	0 (Negligible)
	3	0 (Negligible)	0 (Negligible)
	4	0 (Negligible)	0 (Negligible)
	5	0 (Negligible)	0 (Negligible)

	6	0 (Negligible)	0 (Negligible)
	7	0 (Negligible)	0 (Negligible)
	8	0 (Negligible)	0 (Negligible)
	9	0 (Negligible)	0 (Negligible)
	10	0 (Negligible)	0 (Negligible)
	11	0 (Negligible)	0 (Negligible)
	12	0 (Negligible)	0 (Negligible)
	13	0 (Negligible)	0 (Negligible)
	14	0 (Negligible)	0 (Negligible)
	15	0 (Negligible)	0 (Negligible)
	16	0 (Negligible)	0 (Negligible)
	17	0 (Negligible)	0 (Negligible)
	18	0 (Negligible)	0 (Negligible)
	19	0 (Negligible)	0 (Negligible)
	20	0 (Negligible)	0 (Negligible)
	21	0 (Negligible)	0 (Negligible)
	22	0 (Negligible)	0 (Negligible)
	23	0 (Negligible)	0 (Negligible)
	24	0 (Negligible)	0 (Negligible)
	25	0 (Negligible)	0 (Negligible)
	26	0 (Negligible)	0 (Negligible)

Method 2

Building	Wall/façade reference	Damage Category Envelope	
		CIRIA Excavation & Installation	Long-term
Schreiber House	1	0 (Negligible)	0 (Negligible)
	2	0 (Negligible)	0 (Negligible)
	3	0 (Negligible)	0 (Negligible)
	4	0 (Negligible)	0 (Negligible)
	5	0 (Negligible)	0 (Negligible)
	6	0 (Negligible)	0 (Negligible)
	7	0 (Negligible)	0 (Negligible)
	8	0 (Negligible)	0 (Negligible)
	9	0 (Negligible)	0 (Negligible)
	10	0 (Negligible)	0 (Negligible)
	11	0 (Negligible)	0 (Negligible)
	12	0 (Negligible)	0 (Negligible)
	13	0 (Negligible)	0 (Negligible)
	14	0 (Negligible)	0 (Negligible)
	15	1 (Very Slight)	1 (Very Slight)
	16	0 (Negligible)	0 (Negligible)
	17	0 (Negligible)	0 (Negligible)
	18	0 (Negligible)	0 (Negligible)
	19	0 (Negligible)	0 (Negligible)
	20	0 (Negligible)	0 (Negligible)
	21	0 (Negligible)	0 (Negligible)

	22	0 (Negligible)	0 (Negligible)
	23	0 (Negligible)	0 (Negligible)
	24	0 (Negligible)	0 (Negligible)
33 Templewood Avenue	1	0 (Negligible)	0 (Negligible)
	2	1 (Very Slight)	0 (Negligible)
	3	0 (Negligible)	0 (Negligible)
	4	0 (Negligible)	0 (Negligible)
	5	0 (Negligible)	0 (Negligible)
	6	0 (Negligible)	0 (Negligible)
	7	0 (Negligible)	0 (Negligible)
	8	0 (Negligible)	0 (Negligible)
	9	0 (Negligible)	0 (Negligible)
	10	0 (Negligible)	0 (Negligible)
	11	0 (Negligible)	0 (Negligible)
	12	0 (Negligible)	0 (Negligible)
	13	0 (Negligible)	0 (Negligible)
	14	0 (Negligible)	0 (Negligible)
	15	0 (Negligible)	0 (Negligible)
	16	0 (Negligible)	0 (Negligible)
	17	0 (Negligible)	0 (Negligible)
	18	0 (Negligible)	0 (Negligible)
	19	0 (Negligible)	0 (Negligible)
	20	0 (Negligible)	0 (Negligible)
	21	0 (Negligible)	0 (Negligible)
	22	0 (Negligible)	0 (Negligible)

	23	0 (Negligible)	0 (Negligible)
	24	0 (Negligible)	0 (Negligible)
	25	0 (Negligible)	0 (Negligible)
	26	1 (Very Slight)	1 (Very Slight)

Building damage classification, after Burland et al 1977 and Boscardin and Cording 1989				
Category of damage		Description of typical damage (ease of repair is underlined)	Approximate crack width (mm)	Limiting tensile strain %
0	Negligible	Hairline cracks of less than about 0.1mm are classes as negligible.	< 0.1	0.0-0.05
1	Very Slight	<u>Fine cracks that can easily be treated during normal decoration.</u> Perhaps isolated slight fracture in building. Cracks in external brickwork visible on inspection.	< 1	0.05-0.075
2	Slight	<u>Cracks easily filled. Redecoration probably required.</u> Several slight fractures showing inside of building. Cracks are visible externally and <u>some repointing may be required externally</u> to ensure weathertightness. Doors and windows may stick slightly.	< 5	0.075-0.15
3	Moderate	<u>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.</u> Doors and windows sticking. Service pipes may fracture. Weather-tightness often impaired.	5-15 or a number of cracks >3	0.15-0.3
4	Severe	<u>Extensive repair work involving breaking-out and replacing sections of walls, especially over doors and windows.</u> Windows and frames distorted, floors sloping noticeably. Walls leaning or bulging noticeably, some loss of bearing in beams. Service pipes disrupted.	15-25 but also depends on number of cracks	>0.3
5	Very Severe	<u>This requires a major repair involving partial or complete rebuilding.</u> Beams lose bearings, walls lean badly and require shoring. Windows broken with distortion. Danger of instability.	Usually >25 but depends on number of cracks	

Figure 3.4: Damage categorisation - relationship between category of damage and limiting strain ϵ_{lim} .

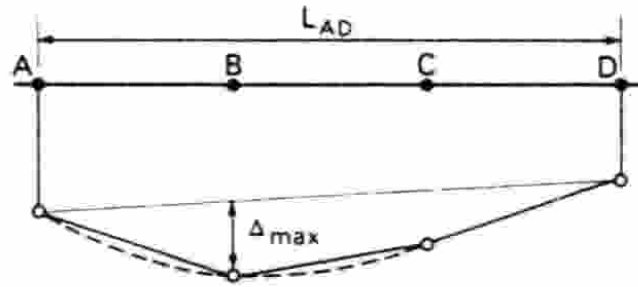


Figure 3.5: Definition of relative deflection Δ and deflection ratio Δ/L .

4. CONCLUSIONS & CLOSING REMARKS

The interaction between the proposed 35 Templewood Avenue development, the Schreiber House and 33 Templewood Avenue has been reviewed as part of the GMA study presented herein.

The proposed development construction operations comprise a series of stages, including strip of the existing ground floor structure/temporary propping of existing walls, basement deepening/excavation and construction of the proposed elements. The impact of construction works has been reviewed on the basis of two alternative methods (i.e. evaluating the effects of unloading/overburden removal using Pdisp (Method 1) and the excavation effect using empirical CIRIA ground movement curves in Xdisp (Method 2)). The two different scenarios have been considered in order to bind the potential ground movements arising from the proposed works (i.e. maximum potential heave and settlement respectively). This strategy ensures a robust evaluation of potential impact in light of the bespoke, intricate and workmanship dependent underpinning processes adopted.

The results from the analysis are presented in Table 3.2 (denoting the evaluated damage categorisation in accordance with the Burland criteria presented herein). The majority of the facades fall within Category 0, representative of a *Negligible* damage classification. Three structures / facades have been classified as Category 1, representative of *Very Slight* damage classification. No damage category higher than this has been assessed.

In addition to the above, assessments were carried out to quantify the potential impact of the proposed development on the adjacent roadways. It was found that the ground movements at both W Heath Road and Templewood Avenue are generally <1mm. In the area close to the proposed car lift, movements were up to 8mm, decreasing to 0mm on the opposite side of the road. The risk of damage to the adjacent roadways as a result of the proposed works is considered to be low. However, it may be prudent for the contractor to allow for localised *making good* of any minor surface defects – particularly in the area immediately adjacent to the proposed car lift.

It is noted that the predicted ground movements, the associated wall tensile strains and level of damage categorisation are considered to be moderately conservative in view of the relatively cautious ground model assumptions and *greenfield* nature of the assessment undertaken.

It is also noted that the GMA will be supplemented by a project specific monitoring regime and Action Plan, which will delineate lines of responsibility, monitor trigger levels and appropriate mitigation measures. The assessment presented herein is dependent and reliant on the works being undertaken by an experienced contractor, high quality workmanship and appropriate supervision of construction means and methods by experienced personnel.

Approved by
Roni Savage CGeol MSc FGS SiLC MCIWM
Technical Director



35 Templewood Avenue
Pool Transfer revision
Excavation (Heave Long Term) + Loading (Long Term)

Job No.	Sheet No.	Rev.
P1017J1129		
Drg. Ref.		
Made by JW	Date 13-Aug-2018	Checked

Utility Strain Calculation Options

Neglect beneficial contribution of axial strains : No

Specific Building Damage Results - Horizontal Displacements

Structure: WH1 | Sub-structure: WH1

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	38.72700	64.63300	112.00000	0.0	0.0
0.43260	34.15950	64.64242	112.00000	0.0	0.0
0.86521	34.59200	64.65183	112.00000	0.0	0.0
1.2978	35.02450	64.66125	112.00000	0.0	0.0
1.7304	35.45700	64.67067	112.00000	0.0	0.0
2.1630	35.88950	64.68008	112.00000	0.0	0.0
2.5956	36.32200	64.68950	112.00000	0.0	0.0
3.0282	36.75450	64.69892	112.00000	0.0	0.0
3.4608	37.18700	64.70833	112.00000	0.0	0.0
3.8934	37.61950	64.71775	112.00000	0.0	0.0
4.3260	38.05200	64.72717	112.00000	0.0	0.0
4.7586	38.48450	64.73658	112.00000	0.0	0.0
5.1912	38.91700	64.74600	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: WH2 | Sub-structure: WH2

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	38.91700	64.74600	112.00000	0.0	0.0
0.37347	39.03600	64.39200	112.00000	0.0	0.0
0.74693	39.15500	64.03800	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: WH3 | Sub-structure: WH3

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	39.15500	64.03800	112.00000	0.0	0.0
0.32830	39.48325	64.04400	112.00000	0.0	0.0
0.65661	39.81150	64.05000	112.00000	0.0	0.0
0.98491	40.13975	64.05600	112.00000	0.0	0.0
1.3132	40.46800	64.06200	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: WH4 | Sub-structure: WH4

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	40.46800	64.06200	112.00000	0.0	0.0
0.45411	40.44450	64.51550	112.00000	0.0	0.0
0.90822	40.42100	64.96900	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: WH5 | Sub-structure: WH5

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	40.42100	64.96900	112.00000	0.0	0.0
0.45043	40.87130	64.97990	112.00000	0.0	0.0
0.90086	41.32160	64.99080	112.00000	0.0	0.0
1.3513	41.77190	65.00170	112.00000	0.0	0.0
1.8017	42.22220	65.01260	112.00000	0.0	0.0
2.2522	42.67250	65.02350	112.00000	0.0	0.0
2.7026	43.12280	65.03440	112.00000	0.0	0.0
3.1530	43.57310	65.04530	112.00000	0.0	0.0
3.6035	44.02340	65.05620	112.00000	0.0	0.0
4.0539	44.47370	65.06710	112.00000	0.0	0.0
4.5043	44.92400	65.07800	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: WH6 | Sub-structure: WH6

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	44.92400	65.07800	112.00000	0.0	0.0
0.42157	44.91650	64.65650	112.00000	0.0	0.0
0.84313	44.90900	64.23500	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: WH7 | Sub-structure: WH7

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	44.90900	64.23500	112.00000	0.0	0.0
0.46904	45.37800	64.24075	112.00000	0.0	0.0
0.93807	45.84700	64.24650	112.00000	0.0	0.0
1.4071	46.31600	64.25225	112.00000	0.0	0.0
1.8761	46.78500	64.25800	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: WH8 | Sub-structure: WH8

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]



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 Pool Transfer revision
 Excavation (Heave Long Term) + Loading (Long Term)

Job No.	Sheet No.	Rev.
P1017J1129		
Drg. Ref.		
Made by JW	Date 13-Aug-2018	Checked

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	46.78500	64.25800	112.00000	0.0	0.0	0.0
0.35019	46.78067	64.60817	112.00000	0.0	0.0	0.0
0.70039	46.77633	64.95833	112.00000	0.0	0.0	0.0
1.0506	46.77200	65.30850	112.00000	0.0	0.0	0.0
1.4008	46.76767	65.65867	112.00000	0.0	0.0	0.0
1.7510	46.76333	66.00883	112.00000	0.0	0.0	0.0
2.1012	46.75900	66.35900	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: WH9 | Sub-structure: WH9

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	46.75900	66.35900	112.00000	0.0	0.0	0.0
0.43165	47.19050	66.37020	112.00000	0.0	0.0	0.0
0.86329	47.62200	66.38140	112.00000	0.0	0.0	0.0
1.2949	48.05350	66.39260	112.00000	0.0	0.0	0.0
1.7266	48.48500	66.40380	112.00000	0.0	0.0	0.0
2.1582	48.91650	66.41500	112.00000	0.0	0.0	0.0
2.5899	49.34800	66.42620	112.00000	0.0	0.0	0.0
3.0215	49.77950	66.43740	112.00000	0.0	0.0	0.0
3.4532	50.21100	66.44860	112.00000	0.0	0.0	0.0
3.8848	50.64250	66.45980	112.00000	0.0	0.0	0.0
4.3165	51.07400	66.47100	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: WH10 | Sub-structure: WH10

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	51.07400	66.47100	112.00000	0.0	0.0	0.0
0.46479	51.08821	66.06643	112.00000	0.0	0.0	0.0
0.92958	51.10243	65.54186	112.00000	0.0	0.0	0.0
1.3944	51.11664	65.07729	112.00000	0.0	0.0	0.0
1.8592	51.13086	64.61271	112.00000	0.0	0.0	0.0
2.3239	51.14507	64.14814	112.00000	0.0	0.0	0.0
2.7887	51.15929	63.68357	112.00000	0.0	0.0	0.0
3.2535	51.17350	63.21900	112.00000	0.0	0.0	0.0
3.7183	51.18771	62.75443	112.00000	0.0	0.0	0.0
4.1831	51.20193	62.28986	112.00000	0.0	0.0	0.0
4.6479	51.21614	61.82529	112.00000	0.0	0.0	0.0
5.1127	51.23036	61.36071	112.00000	0.0	0.0	0.0
5.5775	51.24457	60.89614	112.00000	0.0	0.0	0.0
6.0423	51.25879	60.43157	112.00000	0.0	0.0	0.0
6.5070	51.27300	59.96700	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: WH11 | Sub-structure: WH11

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	51.27300	59.96700	112.00000	0.0	0.0	0.0
0.37506	50.89800	59.97350	112.00000	0.0	0.0	0.0
0.75011	50.52300	59.98000	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: WH12 | Sub-structure: WH12

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	50.52300	59.98000	112.00000	0.0	0.0	0.0
0.43756	50.51550	59.54250	112.00000	0.0	0.0	0.0
0.87513	50.50800	59.10500	112.00000	0.0	0.0	0.0
1.3127	50.50050	58.66750	112.00000	0.0	0.0	0.0
1.7503	50.49300	58.23000	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: WH13 | Sub-structure: WH13

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	50.49300	58.23000	112.00000	0.0	0.0	0.0
0.40721	50.89950	58.25400	112.00000	0.0	0.0	0.0
0.81442	51.30600	58.27800	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: WH14 | Sub-structure: WH14

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	51.30600	58.27800	112.00000	0.0	0.0	0.0
0.45808	51.32036	57.82014	112.00000	0.0	0.0	0.0
0.91616	51.33471	57.36229	112.00000	0.0	0.0	0.0
1.37424	51.34907	56.90443	112.00000	0.0	0.0	0.0
1.8323	51.36343	56.44657	112.00000	0.0	0.0	0.0
2.2904	51.37779	55.98871	112.00000	0.0	0.0	0.0
2.7485	51.39214	55.53086	112.00000	0.0	0.0	0.0
3.2066	51.40650	55.07300	112.00000	0.0	0.0	0.0
3.6647	51.42086	54.61514	112.00000	0.0	0.0	0.0
4.1227	51.43521	54.15729	112.00000	0.0	0.0	0.0
4.5808	51.44957	53.69943	112.00000	0.0	0.0	0.0
5.0389	51.46393	53.24157	112.00000	0.0	0.0	0.0
5.4970	51.47829	52.78371	112.00000	0.0	0.0	0.0
5.9551	51.49264	52.32586	112.00000	0.0	0.0	0.0
6.4132	51.50700	51.86800	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: WH15 | Sub-structure: WH15

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	51.50700	51.86800	112.00000	0.0	0.0	0.0
0.41908	51.08800	51.85970	112.00000	0.0	0.0	0.0



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Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the	Horizontal displacement perpendicular
0.83816	50.66900	51.85140	112.00000	0.0	0.0
1.2572	50.25000	51.84310	112.00000	0.0	0.0
1.6763	49.83100	51.83480	112.00000	0.0	0.0
2.0954	49.41200	51.82650	112.00000	0.0	0.0
2.5145	48.99300	51.81820	112.00000	0.0	0.0
2.9336	48.57400	51.80990	112.00000	0.0	0.0
3.3527	48.15500	51.80160	112.00000	0.0	0.0
3.7717	47.73600	51.79330	112.00000	0.0	0.0
4.1908	47.31700	51.78500	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: WH16 | Sub-structure: WH16

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the	Horizontal displacement perpendicular
	[m]	[m]	[m]	Line	to Line
	[mm]	[mm]	[mm]	[mm]	[mm]
0.0	47.31700	51.78500	112.00000	0.0	0.0
0.42021	47.30875	52.20512	112.00000	0.0	0.0
0.84041	47.30050	52.62525	112.00000	0.0	0.0
1.2606	47.29225	53.04538	112.00000	0.0	0.0
1.6808	47.28400	53.46550	112.00000	0.0	0.0
2.1010	47.27575	53.88562	112.00000	0.0	0.0
2.5212	47.26750	54.30575	112.00000	0.0	0.0
2.9414	47.25925	54.72588	112.00000	0.0	0.0
3.3616	47.25100	55.14600	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: WH17 | Sub-structure: WH17

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the	Horizontal displacement perpendicular
	[m]	[m]	[m]	Line	to Line
	[mm]	[mm]	[mm]	[mm]	[mm]
0.0	47.25100	55.14600	112.00000	0.0	0.0
0.33390	46.91733	55.13350	112.00000	0.0	0.0
0.66780	46.58367	55.12100	112.00000	0.0	0.0
1.0017	46.25000	55.10850	112.00000	0.0	0.0
1.3356	45.91633	55.09600	112.00000	0.0	0.0
1.6695	45.58267	55.08350	112.00000	0.0	0.0
2.0034	45.24900	55.07100	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: WH18 | Sub-structure: WH18

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the	Horizontal displacement perpendicular
	[m]	[m]	[m]	Line	to Line
	[mm]	[mm]	[mm]	[mm]	[mm]
0.0	45.24900	55.07100	112.00000	0.0	0.0
0.39856	45.24200	54.23500	112.00000	0.0	0.0
0.79712	45.23500	54.27400	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: WH19 | Sub-structure: WH19

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the	Horizontal displacement perpendicular
	[m]	[m]	[m]	Line	to Line
	[mm]	[mm]	[mm]	[mm]	[mm]
0.0	45.23500	54.27400	112.00000	0.0	0.0
0.42549	44.80970	54.26120	112.00000	0.0	0.0
0.85099	44.38440	54.24840	112.00000	0.0	0.0
1.27645	43.95910	54.23560	112.00000	0.0	0.0
1.7020	43.53380	54.22280	112.00000	0.0	0.0
2.1275	43.10850	54.21000	112.00000	0.0	0.0
2.5530	42.68320	54.19720	112.00000	0.0	0.0
2.9784	42.25790	54.18440	112.00000	0.0	0.0
3.4039	41.83260	54.17160	112.00000	0.0	0.0
3.8294	41.40730	54.15880	112.00000	0.0	0.0
4.2549	40.98200	54.14600	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: WH20 | Sub-structure: WH20

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the	Horizontal displacement perpendicular
	[m]	[m]	[m]	Line	to Line
	[mm]	[mm]	[mm]	[mm]	[mm]
0.0	40.98200	54.14600	112.00000	0.0	0.0
0.40607	40.98950	54.55200	112.00000	0.0	0.0
0.81214	40.99700	54.95800	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: WH21 | Sub-structure: WH21

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the	Horizontal displacement perpendicular
	[m]	[m]	[m]	Line	to Line
	[mm]	[mm]	[mm]	[mm]	[mm]
0.0	40.99700	54.95800	112.00000	0.0	0.0
0.43845	40.55900	54.93825	112.00000	0.0	0.0
0.87689	40.12100	54.91850	112.00000	0.0	0.0
1.3153	39.68300	54.89875	112.00000	0.0	0.0
1.7538	39.24500	54.87900	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: WH22 | Sub-structure: WH22

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the	Horizontal displacement perpendicular
	[m]	[m]	[m]	Line	to Line
	[mm]	[mm]	[mm]	[mm]	[mm]
0.0	39.24500	54.87900	112.00000	0.0	0.0
0.39975	39.26950	54.48000	112.00000	0.0	0.0
0.79950	39.29400	54.08100	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: WH23 | Sub-structure: WH23

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the	Horizontal displacement perpendicular
	[m]	[m]	[m]	Line	to Line
	[mm]	[mm]	[mm]	[mm]	[mm]



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Dist.	Coordinates			z	Displacements	
	x	y	z		Horizontal displacement along the	Horizontal displacement perpendicular
0.0	39.29400	54.08100	112.00000	0.0	0.0	0.0
0.44319	38.85100	54.06792	112.00000	0.0	0.0	0.0
0.88639	38.40800	54.05483	112.00000	0.0	0.0	0.0
1.3296	37.96500	54.04175	112.00000	0.0	0.0	0.0
1.7728	37.52200	54.02867	112.00000	0.0	0.0	0.0
2.2160	37.07900	54.01558	112.00000	0.0	0.0	0.0
2.6592	36.63600	54.00250	112.00000	0.0	0.0	0.0
3.1024	36.19300	53.98942	112.00000	0.0	0.0	0.0
3.5455	35.75000	53.97633	112.00000	0.0	0.0	0.0
3.9887	35.30700	53.96325	112.00000	0.0	0.0	0.0
4.4319	34.86400	53.95017	112.00000	0.0	0.0	0.0
4.8751	34.42100	53.93708	112.00000	0.0	0.0	0.0
5.3183	33.97800	53.92400	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: WH24 | Sub-structure: WH24

Dist.	Coordinates			z	Displacements	
	x	y	z		Horizontal displacement along the	Horizontal displacement perpendicular
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]
0.0	33.97800	53.92400	112.00000	0.0	0.0	0.0
0.48691	33.96659	54.41077	112.00000	0.0	0.0	0.0
0.97381	33.95518	54.89755	112.00000	0.0	0.0	0.0
1.4607	33.94377	55.38432	112.00000	0.0	0.0	0.0
1.9476	33.93236	55.87109	112.00000	0.0	0.0	0.0
2.4345	33.92095	56.35786	112.00000	0.0	0.0	0.0
2.9214	33.90955	56.84464	112.00000	0.0	0.0	0.0
3.4083	33.89814	57.33141	112.00000	0.0	0.0	0.0
3.8953	33.88673	57.81818	112.00000	0.0	0.0	0.0
4.3822	33.87532	58.30495	112.00000	0.0	0.0	0.0
4.8691	33.86391	58.79173	112.00000	0.0	0.0	0.0
5.3560	33.85250	59.27850	112.00000	0.0	0.0	0.0
5.8429	33.84109	59.76527	112.00000	0.0	0.0	0.0
6.3298	33.82968	60.25205	112.00000	0.0	0.0	0.0
6.8167	33.81827	60.73882	112.00000	0.0	0.0	0.0
7.3036	33.80686	61.22559	112.00000	0.0	0.0	0.0
7.7905	33.79545	61.71236	112.00000	0.0	0.0	0.0
8.2774	33.78405	62.19914	112.00000	0.0	0.0	0.0
8.7643	33.77264	62.68591	112.00000	0.0	0.0	0.0
9.2512	33.76123	63.17268	112.00000	0.0	0.0	0.0
9.7381	33.74982	63.65945	112.00000	0.0	0.0	0.0
10.225	33.73841	64.14623	112.00000	0.0	0.0	0.0
10.712	33.72700	64.63300	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: TAL | Sub-structure: TAL

Dist.	Coordinates			z	Displacements	
	x	y	z		Horizontal displacement along the	Horizontal displacement perpendicular
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]
0.0	55.11600	38.72000	112.00000	0.0	0.0	0.0
0.47510	55.59110	38.71843	112.00000	0.0	0.0	0.0
0.95021	56.06620	38.71687	112.00000	0.0	0.0	0.0
1.4253	56.54130	38.71530	112.00000	0.0	0.0	0.0
1.9004	57.01640	38.71373	112.00000	0.0	0.0	0.0
2.3755	57.49150	38.71217	112.00000	0.0	0.0	0.0
2.8506	57.96660	38.71060	112.00000	0.0	0.0	0.0
3.3257	58.44170	38.70903	112.00000	0.0	0.0	0.0
3.8008	58.91680	38.70747	112.00000	0.0	0.0	0.0
4.2759	59.39190	38.70590	112.00000	0.0	0.0	0.0
4.7510	59.86700	38.70433	112.00000	0.0	0.0	0.0
5.2261	60.34210	38.70277	112.00000	0.0	0.0	0.0
5.7012	60.81720	38.70120	112.00000	0.0	0.0	0.0
6.1763	61.29230	38.69963	112.00000	0.0	0.0	0.0
6.6514	61.76740	38.69807	112.00000	0.0	0.0	0.0
7.1265	62.24250	38.69650	112.00000	0.0	0.0	0.0
7.6016	62.71760	38.69493	112.00000	0.0	0.0	0.0
8.0767	63.19270	38.69337	112.00000	0.0	0.0	0.0
8.5518	63.66780	38.69180	112.00000	0.0	0.0	0.0
9.0269	64.14290	38.69023	112.00000	0.0	0.0	0.0
9.5021	64.61800	38.68867	112.00000	0.0	0.0	0.0
9.9772	65.09310	38.68710	112.00000	0.0	0.0	0.0
10.4523	65.56820	38.68553	112.00000	0.0	0.0	0.0
10.9274	66.04330	38.68397	112.00000	0.0	0.0	0.0
11.4025	66.51840	38.68240	112.00000	0.0	0.0	0.0
11.8776	66.99350	38.68083	112.00000	0.0	0.0	0.0
12.3527	67.46860	38.67927	112.00000	0.0	0.0	0.0
12.8278	67.94370	38.67770	112.00000	0.0	0.0	0.0
13.3029	68.41880	38.67613	112.00000	0.0	0.0	0.0
13.7780	68.89390	38.67457	112.00000	0.0	0.0	0.0
14.2531	69.36900	38.67300	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: TA2 | Sub-structure: TA2

Dist.	Coordinates			z	Displacements	
	x	y	z		Horizontal displacement along the	Horizontal displacement perpendicular
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]
0.0	69.36900	38.67300	112.00000	0.0	0.0	0.0
0.42319	69.36442	38.24983	112.00000	0.0	0.0	0.0
0.84638	69.35983	37.82667	112.00000	0.0	0.0	0.0
1.26957	69.35525	37.40350	112.00000	0.0	0.0	0.0
1.6928	69.35067	36.98033	112.00000	0.0	0.0	0.0
2.1160	69.34608	36.55717	112.00000	0.0	0.0	0.0
2.5391	69.34150	36.13400	112.00000	0.0	0.0	0.0
2.9623	69.33692	35.71083	112.00000	0.0	0.0	0.0
3.3855	69.33233	35.28767	112.00000	0.0	0.0	0.0
3.8087	69.32775	34.86450	112.00000	0.0	0.0	0.0
4.2319	69.32317	34.44133	112.00000	0.0	0.0	0.0
4.6551	69.31858	34.01817	112.00000	0.0	0.0	0.0
5.0783	69.31400	33.59500	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: TA3 | Sub-structure: TA3

Dist.	Coordinates			z	Displacements	
	x	y	z		Horizontal displacement along the	Horizontal displacement perpendicular
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]
0.0	69.31400	33.59500	112.00000	0.0	0.0	0.0
0.34494	69.65750	33.56350	112.00000	0.0	0.0	0.0
0.68988	70.00100	33.53200	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: TA4 | Sub-structure: TA4

Dist.	Coordinates			z	Displacements	
	x	y	z		Horizontal displacement along the	Horizontal displacement perpendicular
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]
0.0	70.00100	33.53200	112.00000	0.0	0.0	0.0



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Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.28803	70.21525	33.33950	112.00000	0.0	0.0	0.0
0.57605	70.42950	33.14700	112.00000	0.0	0.0	0.0
0.86408	70.64375	32.95450	112.00000	0.0	0.0	0.0
1.1521	70.85800	32.76200	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: TA5 | Sub-structure: TA5

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	70.85800	32.76200	112.00000	0.0	0.0	0.0
0.49988	70.84650	32.26225	112.00000	0.0	0.0	0.0
0.99976	70.83500	31.76250	112.00000	0.0	0.0	0.0
1.4996	70.82350	31.26275	112.00000	0.0	0.0	0.0
1.9995	70.81200	30.76300	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: TA6 | Sub-structure: TA6

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	70.81200	30.76300	112.00000	0.0	0.0	0.0
0.27366	70.62000	30.56800	112.00000	0.0	0.0	0.0
0.54732	70.42800	30.37300	112.00000	0.0	0.0	0.0
0.82098	70.23600	30.17800	112.00000	0.0	0.0	0.0
1.0946	70.04400	29.98300	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: TA7 | Sub-structure: TA7

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	70.04400	29.98300	112.00000	0.0	0.0	0.0
0.43761	69.60650	29.99300	112.00000	0.0	0.0	0.0
0.87523	69.16900	30.00300	112.00000	0.0	0.0	0.0
1.3128	68.73150	30.01300	112.00000	0.0	0.0	0.0
1.7505	68.29400	30.02300	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: TA8 | Sub-structure: TA8

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	68.29400	30.02300	112.00000	0.0	0.0	0.0
0.45429	68.29250	29.56871	112.00000	0.0	0.0	0.0
0.90858	68.29100	29.11443	112.00000	0.0	0.0	0.0
1.3629	68.28950	28.66014	112.00000	0.0	0.0	0.0
1.8172	68.28800	28.20586	112.00000	0.0	0.0	0.0
2.2714	68.28650	27.75157	112.00000	0.0	0.0	0.0
2.7257	68.28500	27.29729	112.00000	0.0	0.0	0.0
3.1800	68.28350	26.84300	112.00000	0.0	0.0	0.0
3.6343	68.28200	26.38871	112.00000	0.0	0.0	0.0
4.0886	68.28050	25.93443	112.00000	0.0	0.0	0.0
4.5429	68.27900	25.48014	112.00000	0.0	0.0	0.0
4.9972	68.27750	25.02586	112.00000	0.0	0.0	0.0
5.4515	68.27600	24.57157	112.00000	0.0	0.0	0.0
5.9057	68.27450	24.11729	112.00000	0.0	0.0	0.0
6.3600	68.27300	23.66300	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: TA9 | Sub-structure: TA9

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	68.27300	23.66300	112.00000	0.0	0.0	0.0
0.39075	67.88225	23.66200	112.00000	0.0	0.0	0.0
0.78150	67.49150	23.66100	112.00000	0.0	0.0	0.0
1.1723	67.10075	23.66000	112.00000	0.0	0.0	0.0
1.5630	66.71000	23.65900	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: TA10 | Sub-structure: TA10

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	66.71000	23.65900	112.00000	0.0	0.0	0.0
0.40234	66.71117	23.25667	112.00000	0.0	0.0	0.0
0.80467	66.71233	22.85433	112.00000	0.0	0.0	0.0
1.2070	66.71350	22.45200	112.00000	0.0	0.0	0.0
1.6093	66.71467	22.04967	112.00000	0.0	0.0	0.0
2.0117	66.71583	21.64733	112.00000	0.0	0.0	0.0
2.4140	66.71700	21.24500	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: TA11 | Sub-structure: TA11

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	66.71700	21.24500	112.00000	0.0	0.0	0.0
0.43834	67.15500	21.26225	112.00000	0.0	0.0	0.0
0.87668	67.59300	21.27950	112.00000	0.0	0.0	0.0
1.3150	68.03100	21.29675	112.00000	0.0	0.0	0.0
1.7534	68.46900	21.31400	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: TA12 | Sub-structure: TA12

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	66.71700	21.24500	112.00000	0.0	0.0	0.0
0.43834	67.15500	21.26225	112.00000	0.0	0.0	0.0
0.87668	67.59300	21.27950	112.00000	0.0	0.0	0.0
1.3150	68.03100	21.29675	112.00000	0.0	0.0	0.0
1.7534	68.46900	21.31400	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.



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[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	68.46900	21.31400	112.00000	0.0	0.0	0.0	0.0 d
0.36190	68.71275	21.04650	112.00000	0.0	0.0	0.0	0.0 d
0.72380	68.95650	20.77900	112.00000	0.0	0.0	0.0	0.0 d
1.0857	69.20025	20.51150	112.00000	0.0	0.0	0.0	0.0 d
1.4476	69.44400	20.24400	112.00000	0.0	0.0	0.0	0.0 d

Structure: TA13 | Sub-structure: TA13

Dist.	Coordinates			Displacements	
	x	y	z	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	69.44400	20.24400	112.00000	0.0	0.0
0.36732	69.42517	19.87717	112.00000	0.0	0.0
0.73463	69.40633	19.51033	112.00000	0.0	0.0
1.1019	69.38750	19.14350	112.00000	0.0	0.0
1.4693	69.36867	18.77667	112.00000	0.0	0.0
1.8366	69.34983	18.40983	112.00000	0.0	0.0
2.2039	69.33100	18.04300	112.00000	0.0	0.0

Structure: TA14 | Sub-structure: TA14

Dist.	Coordinates			Displacements	
	x	y	z	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	69.33100	18.04300	112.00000	0.0	0.0
0.31304	69.12250	17.80950	112.00000	0.0	0.0
0.62608	68.91400	17.57600	112.00000	0.0	0.0
0.93912	68.70550	17.34250	112.00000	0.0	0.0
1.2522	68.49700	17.10900	112.00000	0.0	0.0

Structure: TA15 | Sub-structure: TA15

Dist.	Coordinates			Displacements	
	x	y	z	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	68.49700	17.10900	112.00000	0.0	0.0
0.28210	68.21650	17.13900	112.00000	0.0	0.0
0.56420	67.93600	17.16900	112.00000	0.0	0.0

Structure: TA16 | Sub-structure: TA16

Dist.	Coordinates			Displacements	
	x	y	z	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	67.93600	17.16900	112.00000	0.0	0.0
0.42452	67.93142	16.74450	112.00000	0.0	0.0
0.84905	67.92683	16.32000	112.00000	0.0	0.0
1.2736	67.92225	15.89550	112.00000	0.0	0.0
1.6981	67.91767	15.47100	112.00000	0.0	0.0
2.1226	67.91308	15.04650	112.00000	0.0	0.0
2.5471	67.90850	14.62200	112.00000	0.0	0.0
2.9717	67.90392	14.19750	112.00000	0.0	0.0
3.3962	67.89933	13.77300	112.00000	0.0	0.0
3.8207	67.89475	13.34850	112.00000	0.0	0.0
4.2452	67.89017	12.92400	112.00000	0.0	0.0
4.6698	67.88558	12.49950	112.00000	0.0	0.0
5.0943	67.88100	12.07500	112.00000	0.0	0.0

Structure: TA17 | Sub-structure: TA17

Dist.	Coordinates			Displacements	
	x	y	z	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	67.88100	12.07500	112.00000	0.0	0.0
0.47100	67.41000	12.07387	112.00000	0.0	0.0
0.94200	66.93900	12.07273	112.00000	0.0	0.0
1.41300	66.46800	12.07160	112.00000	0.0	0.0
1.8840	65.99700	12.07047	112.00000	0.0	0.0
2.3550	65.52600	12.06933	112.00000	0.0	0.0
2.8260	65.05500	12.06820	112.00000	0.0	0.0
3.2970	64.58400	12.06707	112.00000	0.0	0.0
3.7680	64.11300	12.06593	112.00000	0.0	0.0
4.2390	63.64200	12.06480	112.00000	0.0	0.0
4.7100	63.17100	12.06367	112.00000	0.0	0.0
5.1810	62.70000	12.06253	112.00000	0.0	0.0
5.6520	62.22900	12.06140	112.00000	0.0	0.0
6.1230	61.75800	12.06027	112.00000	0.0	0.0
6.5940	61.28700	12.05913	112.00000	0.0	0.0
7.0650	60.81600	12.05800	112.00000	0.0	0.0
7.5360	60.34500	12.05687	112.00000	0.0	0.0
8.0070	59.87400	12.05573	112.00000	0.0	0.0
8.4780	59.40300	12.05460	112.00000	0.0	0.0
8.9490	58.93200	12.05347	112.00000	0.0	0.0
9.4200	58.46100	12.05233	112.00000	0.0	0.0
9.8910	57.99000	12.05120	112.00000	0.0	0.0
10.362	57.51900	12.05007	112.00000	0.0	0.0
10.833	57.04800	12.04893	112.00000	0.0	0.0
11.304	56.57700	12.04780	112.00000	0.0	0.0
11.775	56.10600	12.04667	112.00000	0.0	0.0
12.246	55.63500	12.04553	112.00000	0.0	0.0
12.717	55.16400	12.04440	112.00000	0.0	0.0
13.188	54.69300	12.04327	112.00000	0.0	0.0
13.659	54.22200	12.04213	112.00000	0.0	0.0
14.130	53.75100	12.04100	112.00000	0.0	0.0

Structure: TA18 | Sub-structure: TA18

Dist.	Coordinates			Displacements	
	x	y	z	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	53.75100	12.04100	112.00000	0.0	0.0
0.45295	53.43550	12.36500	112.00000	0.0	0.0
0.90590	53.12000	12.69100	112.00000	0.0	0.0
1.3589	52.80450	13.01600	112.00000	0.0	0.0
1.8118	52.48900	13.34100	112.00000	0.0	0.0
2.2648	52.17350	13.66600	112.00000	0.0	0.0
2.7177	51.85800	13.99100	112.00000	0.0	0.0



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Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the	Horizontal displacement perpendicular

Structure: TA19 | Sub-structure: TA19

Dist.	Coordinates			Displacements	
	x	y	z	x	y
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	51.85800	13.99100	112.00000	0.0	0.0
0.49160	51.86500	16.94050	112.00000	0.0	0.0
0.98319	51.86500	14.97417	112.00000	0.0	0.0
1.4748	51.86850	15.46575	112.00000	0.0	0.0
1.9664	51.87200	15.95733	112.00000	0.0	0.0
2.4580	51.87550	16.44892	112.00000	0.0	0.0
2.9496	51.87900	16.94050	112.00000	0.0	0.0
3.4412	51.88250	17.43208	112.00000	0.0	0.0
3.9328	51.88600	17.92367	112.00000	0.0	0.0
4.4244	51.88950	18.41525	112.00000	0.0	0.0
4.9160	51.89300	18.90683	112.00000	0.0	0.0
5.4076	51.89650	19.39842	112.00000	0.0	0.0
5.8991	51.90000	19.89000	112.00000	0.0	0.0
6.3907	51.90350	20.38158	112.00000	0.0	0.0
6.8823	51.90700	20.87317	112.00000	0.0	0.0
7.3739	51.91050	21.36475	112.00000	0.0	0.0
7.8655	51.91400	21.85633	112.00000	0.0	0.0
8.3571	51.91750	22.34792	112.00000	0.0	0.0
8.8487	51.92100	22.83950	112.00000	0.0	0.0
9.3403	51.92450	23.33108	112.00000	0.0	0.0
9.8319	51.92800	23.82267	112.00000	0.0	0.0
10.3234	51.93150	24.31425	112.00000	0.0	0.0
10.815	51.93500	24.80583	112.00000	0.0	0.0
11.307	51.93850	25.29742	112.00000	0.0	0.0
11.798	51.94200	25.78900	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: TA20 | Sub-structure: TA20

Dist.	Coordinates			Displacements	
	x	y	z	x	y
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	51.94200	25.78900	112.00000	0.0	0.0
0.39924	52.17700	26.03367	112.00000	0.0	0.0
0.67849	52.41200	26.27833	112.00000	0.0	0.0
1.0177	52.64700	26.52300	112.00000	0.0	0.0
1.3570	52.88200	26.76767	112.00000	0.0	0.0
1.6962	53.11700	27.01233	112.00000	0.0	0.0
2.0355	53.35200	27.25700	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: TA21 | Sub-structure: TA21

Dist.	Coordinates			Displacements	
	x	y	z	x	y
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	53.35200	27.25700	112.00000	0.0	0.0
0.48283	53.36310	27.73970	112.00000	0.0	0.0
0.96566	53.37420	28.22240	112.00000	0.0	0.0
1.4485	53.38530	28.70510	112.00000	0.0	0.0
1.9313	53.39640	29.18780	112.00000	0.0	0.0
2.4141	53.40750	29.67050	112.00000	0.0	0.0
2.8970	53.41860	30.15320	112.00000	0.0	0.0
3.3798	53.42970	30.63590	112.00000	0.0	0.0
3.8626	53.44080	31.11860	112.00000	0.0	0.0
4.3454	53.45190	31.60130	112.00000	0.0	0.0
4.8283	53.46300	32.08400	112.00000	0.0	0.0
5.3111	53.47410	32.56670	112.00000	0.0	0.0
5.7939	53.48520	33.04940	112.00000	0.0	0.0
6.2768	53.49630	33.53210	112.00000	0.0	0.0
6.7596	53.50740	34.01480	112.00000	0.0	0.0
7.2424	53.51850	34.49750	112.00000	0.0	0.0
7.7252	53.52960	34.98020	112.00000	0.0	0.0
8.2081	53.54070	35.46290	112.00000	0.0	0.0
8.6909	53.55180	35.94560	112.00000	0.0	0.0
9.1737	53.56290	36.42830	112.00000	0.0	0.0
9.6566	53.57400	36.91100	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: TA22 | Sub-structure: TA22

Dist.	Coordinates			Displacements	
	x	y	z	x	y
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	53.57400	36.91100	112.00000	0.0	0.0
0.39617	53.83100	37.21250	112.00000	0.0	0.0
0.79234	54.08800	37.51400	112.00000	0.0	0.0
1.1885	54.34500	37.81550	112.00000	0.0	0.0
1.5847	54.60200	38.11700	112.00000	0.0	0.0
1.9809	54.85900	38.41850	112.00000	0.0	0.0
2.3770	55.11600	38.72000	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: TA23 | Sub-structure: TA23

Dist.	Coordinates			Displacements	
	x	y	z	x	y
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	53.57400	36.91100	112.00000	0.0	0.0
0.48325	53.09075	36.91100	112.00000	0.0	0.0
0.96650	52.60750	36.91100	112.00000	0.0	0.0
1.4498	52.12425	36.91100	112.00000	0.0	0.0
1.9330	51.64100	36.91100	112.00000	0.0	0.0
2.4162	51.15775	36.91100	112.00000	0.0	0.0
2.8995	50.67450	36.91100	112.00000	0.0	0.0
3.3828	50.19125	36.91100	112.00000	0.0	0.0
3.8660	49.70800	36.91100	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: TA24 | Sub-structure: TA24

Dist.	Coordinates			Displacements	
	x	y	z	x	y
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	49.70800	36.91100	112.00000	0.0	0.0
0.45067	49.70800	37.36167	112.00000	0.0	0.0
0.90133	49.70800	37.81233	112.00000	0.0	0.0
1.3520	49.70800	38.26300	112.00000	0.0	0.0
1.8027	49.70800	38.71367	112.00000	0.0	0.0



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Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the	Horizontal displacement perpendicular
2.2533	49.70800	39.16433	112.00000	0.0	0.0
2.7040	49.70800	39.61500	112.00000	0.0	0.0
3.1547	49.70800	40.06567	112.00000	0.0	0.0
3.6053	49.70800	40.51633	112.00000	0.0	0.0
4.0560	49.70800	40.96700	112.00000	0.0	0.0
4.5067	49.70800	41.41767	112.00000	0.0	0.0
4.9573	49.70800	41.86833	112.00000	0.0	0.0
5.4080	49.70800	42.31900	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: TA25 | Sub-structure: TA25

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the	Horizontal displacement perpendicular
[m]	[m]	[m]	[m]	Line [mm]	to Line [mm]
0.0	49.70800	42.31900	112.00000	0.0	0.0
0.45067	50.15867	42.31900	112.00000	0.0	0.0
0.90133	50.60933	42.31900	112.00000	0.0	0.0
1.35200	51.06000	42.31900	112.00000	0.0	0.0
1.8027	51.51067	42.31900	112.00000	0.0	0.0
2.2533	51.96133	42.31900	112.00000	0.0	0.0
2.7040	52.41200	42.31900	112.00000	0.0	0.0
3.1547	52.86267	42.31900	112.00000	0.0	0.0
3.6053	53.31333	42.31900	112.00000	0.0	0.0
4.0560	53.76400	42.31900	112.00000	0.0	0.0
4.5067	54.21467	42.31900	112.00000	0.0	0.0
4.9573	54.66533	42.31900	112.00000	0.0	0.0
5.4080	55.11600	42.31900	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: TA26 | Sub-structure: TA26

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the	Horizontal displacement perpendicular
[m]	[m]	[m]	[m]	Line [mm]	to Line [mm]
0.0	55.11600	42.31900	112.00000	0.0	0.0
0.44987	55.11600	41.86913	112.00000	0.0	0.0
0.89975	55.11600	41.41925	112.00000	0.0	0.0
1.3496	55.11600	40.96937	112.00000	0.0	0.0
1.7995	55.11600	40.51950	112.00000	0.0	0.0
2.2494	55.11600	40.06963	112.00000	0.0	0.0
2.6993	55.11600	39.61975	112.00000	0.0	0.0
3.1491	55.11600	39.16987	112.00000	0.0	0.0
3.5990	55.11600	38.72000	112.00000	0.0	0.0

d - Displacements include imported displacements.

Specific Building Damage Results - Vertical Displacements

Structure: WH1 | Sub-structure: WH1

Dist.	Coordinates			Displacements
	x	y	z	
[m]	[m]	[m]	[m]	[mm]
Vertical Offset 1				
0.0	33.72700	64.63300	112.00000	-0.031883
0.43260	34.15950	64.64242	112.00000	-0.034574
0.86521	34.59200	64.65183	112.00000	-0.037451
1.2978	35.02450	64.66125	112.00000	-0.040326
1.7304	35.45700	64.67067	112.00000	-0.043201
2.1630	35.88950	64.68008	112.00000	-0.047329
2.5956	36.32200	64.68950	112.00000	-0.051089
3.0282	36.75450	64.69892	112.00000	-0.055111
3.4608	37.18700	64.70833	112.00000	-0.059415
3.8934	37.61950	64.71775	112.00000	-0.064021
4.3260	38.05200	64.72717	112.00000	-0.068953
4.7586	38.48450	64.73658	112.00000	-0.074234
5.1912	38.91700	64.74600	112.00000	-0.079892

d - Displacements include imported displacements.

Structure: WH2 | Sub-structure: WH2

Dist.	Coordinates			Displacements
	x	y	z	
[m]	[m]	[m]	[m]	[mm]
Vertical Offset 1				
0.0	38.91700	64.74600	112.00000	-0.079892
0.37347	39.03600	64.39200	112.00000	-0.081187
0.74693	39.15500	64.03800	112.00000	-0.082433

d - Displacements include imported displacements.

Structure: WH3 | Sub-structure: WH3

Dist.	Coordinates			Displacements
	x	y	z	
[m]	[m]	[m]	[m]	[mm]
Vertical Offset 1				
0.0	39.15500	64.03800	112.00000	-0.082433
0.32830	39.48325	64.04400	112.00000	-0.087110
0.65661	39.81150	64.05000	112.00000	-0.092040
0.98491	40.13975	64.05600	112.00000	-0.097235
1.3132	40.46800	64.06200	112.00000	-0.10271

d - Displacements include imported displacements.

Structure: WH4 | Sub-structure: WH4

Dist.	Coordinates			Displacements
	x	y	z	
[m]	[m]	[m]	[m]	[mm]
Vertical Offset 1				
0.0	40.46800	64.06200	112.00000	-0.10271
0.45411	40.44450	64.51550	112.00000	-0.10300
0.90822	40.42100	64.96900	112.00000	-0.10315

d - Displacements include imported displacements.

Structure: WH5 | Sub-structure: WH5

Dist.	Coordinates			Displacements
	x	y	z	
[m]	[m]	[m]	[m]	[mm]
Vertical Offset 1				
0.0	40.42100	64.96900	112.00000	-0.10315
0.45043	40.87130	64.97990	112.00000	-0.11124
0.90086	41.32160	64.99080	112.00000	-0.11996
1.3513	41.77190	65.00170	112.00000	-0.12936
1.8017	42.22220	65.01260	112.00000	-0.13949
2.2522	42.67250	65.02350	112.00000	-0.15043
2.7026	43.12280	65.03440	112.00000	-0.16223
3.1530	43.57310	65.04530	112.00000	-0.17499
3.6035	44.02340	65.05620	112.00000	-0.18879
4.0539	44.47370	65.06710	112.00000	-0.20373



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Made by	Date	Checked
JW	13-Aug-2018	

Dist.	Coordinates			Displacements
[m]	x	y	z	z
	[m]	[m]	[m]	[mm]

4.5043 44.92400 65.07800 112.00000 -0.21992 d
 d - Displacements include imported displacements.

Structure: WH6 | Sub-structure: WH6

Dist.	Coordinates			Displacements
[m]	x	y	z	z
	[m]	[m]	[m]	[mm]

Vertical Offset 1
 0.0 44.92400 65.07800 112.00000 -0.21992 d
 0.42157 44.91650 64.65650 112.00000 -0.21797 d
 0.84313 44.90900 64.23500 112.00000 -0.21574 d
 d - Displacements include imported displacements.

Structure: WH7 | Sub-structure: WH7

Dist.	Coordinates			Displacements
[m]	x	y	z	z
	[m]	[m]	[m]	[mm]

Vertical Offset 1
 0.0 44.90900 64.23500 112.00000 -0.21574 d
 0.46904 45.37800 64.24075 112.00000 -0.23349 d
 0.93807 45.84700 64.24650 112.00000 -0.25279 d
 1.4071 46.31600 64.25225 112.00000 -0.27381 d
 1.8761 46.78500 64.25800 112.00000 -0.29673 d
 d - Displacements include imported displacements.

Structure: WH8 | Sub-structure: WH8

Dist.	Coordinates			Displacements
[m]	x	y	z	z
	[m]	[m]	[m]	[mm]

Vertical Offset 1
 0.0 46.78500 64.25800 112.00000 -0.29673 d
 0.35019 46.78067 64.60817 112.00000 -0.29927 d
 0.70039 46.77633 64.95833 112.00000 -0.30148 d
 1.0506 46.77200 65.30850 112.00000 -0.30335 d
 1.4008 46.76767 65.65867 112.00000 -0.30489 d
 1.7510 46.76333 66.00883 112.00000 -0.30606 d
 2.1012 46.75900 66.35900 112.00000 -0.30688 d
 d - Displacements include imported displacements.

Structure: WH9 | Sub-structure: WH9

Dist.	Coordinates			Displacements
[m]	x	y	z	z
	[m]	[m]	[m]	[mm]

Vertical Offset 1
 0.0 46.75900 66.35900 112.00000 -0.30688 d
 0.43165 47.19050 66.37020 112.00000 -0.33128 d
 0.86329 47.62200 66.38140 112.00000 -0.35188 d
 1.2949 48.05350 66.39260 112.00000 -0.38690 d
 1.7266 48.48500 66.40380 112.00000 -0.41863 d
 2.1582 48.91650 66.41500 112.00000 -0.45340 d
 2.5899 49.34800 66.42620 112.00000 -0.49156 d
 3.0215 49.77950 66.43740 112.00000 -0.53354 d
 3.4532 50.21100 66.44860 112.00000 -0.57986 d
 3.8848 50.64250 66.45980 112.00000 -0.63109 d
 4.3165 51.07400 66.47100 112.00000 -0.68794 d
 d - Displacements include imported displacements.

Structure: WH10 | Sub-structure: WH10

Dist.	Coordinates			Displacements
[m]	x	y	z	z
	[m]	[m]	[m]	[mm]

Vertical Offset 1
 0.0 51.07400 66.47100 112.00000 -0.68794 d
 0.46479 51.08821 66.00643 112.00000 -0.68414 d
 0.92958 51.10243 65.54186 112.00000 -0.67813 d
 1.3944 51.11664 65.07729 112.00000 -0.66999 d
 1.8592 51.13086 64.61271 112.00000 -0.65981 d
 2.3239 51.14507 64.14814 112.00000 -0.64774 d
 2.7887 51.15929 63.68357 112.00000 -0.63389 d
 3.2535 51.17350 63.21900 112.00000 -0.61843 d
 3.7183 51.18771 62.75443 112.00000 -0.60153 d
 4.1831 51.20193 62.28986 112.00000 -0.58334 d
 4.6479 51.21614 61.82529 112.00000 -0.56403 d
 5.1127 51.23036 61.36071 112.00000 -0.54376 d
 5.5775 51.24457 60.89614 112.00000 -0.52269 d
 6.0423 51.25879 60.43157 112.00000 -0.50096 d
 6.5070 51.27300 59.96700 112.00000 -0.47870 d
 d - Displacements include imported displacements.

Structure: WH11 | Sub-structure: WH11

Dist.	Coordinates			Displacements
[m]	x	y	z	z
	[m]	[m]	[m]	[mm]

Vertical Offset 1
 0.0 51.27300 59.96700 112.00000 -0.47870 d
 0.37506 50.89800 59.97350 112.00000 -0.45364 d
 0.75011 50.52300 59.98000 112.00000 -0.42962 d
 d - Displacements include imported displacements.

Structure: WH12 | Sub-structure: WH12

Dist.	Coordinates			Displacements
[m]	x	y	z	z
	[m]	[m]	[m]	[mm]

Vertical Offset 1
 0.0 50.52300 59.98000 112.00000 -0.42962 d
 0.43756 50.51550 59.54250 112.00000 -0.41185 d
 0.87513 50.50800 59.10500 112.00000 -0.39430 d
 1.3127 50.50050 58.66750 112.00000 -0.37711 d
 1.7503 50.49300 58.23000 112.00000 -0.36042 d
 d - Displacements include imported displacements.

Structure: WH13 | Sub-structure: WH13

Dist.	Coordinates			Displacements
[m]	x	y	z	z
	[m]	[m]	[m]	[mm]

Vertical Offset 1
 0.0 50.49300 58.23000 112.00000 -0.36042 d
 0.40721 50.89950 58.25400 112.00000 -0.37827 d
 0.81442 51.30600 58.27800 112.00000 -0.39550 d
 d - Displacements include imported displacements.

Structure: WH14 | Sub-structure: WH14

Dist.	Coordinates			Displacements
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Pool Transfer revision

Excavation (Heave Long Term) + Loading (Long Term)

Job No.	Sheet No.	Rev.
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Made by JW	Date 13-Aug-2018	Checked

[m]	x [m]	y [m]	z [m]	z [mm]
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Vertical Offset 1

0.0	51.30600	58.27800	112.00000	-0.39550 d
0.45808	51.32036	57.82014	112.00000	-0.37399 d
0.91616	51.33471	57.36229	112.00000	-0.35339 d
1.37424	51.34907	56.90443	112.00000	-0.33408 d
1.83232	51.36343	56.44657	112.00000	-0.31640 d
2.29040	51.37779	55.98871	112.00000	-0.30055 d
2.74850	51.39214	55.53085	112.00000	-0.28660 d
3.20660	51.40650	55.07300	112.00000	-0.27444 d
3.66470	51.42086	54.61514	112.00000	-0.26381 d
4.12278	51.43521	54.15729	112.00000	-0.25438 d
4.58086	51.44957	53.69943	112.00000	-0.24578 d
5.03894	51.46393	53.24157	112.00000	-0.23765 d
5.49702	51.47829	52.78371	112.00000	-0.22972 d
5.95510	51.49264	52.32586	112.00000	-0.22179 d
6.41320	51.50700	51.86800	112.00000	-0.21371 d

d - Displacements include imported displacements.

Structure: WH15 | Sub-structure: WH15

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1

0.0	51.50700	51.86800	112.00000	-0.21371 d
0.41908	51.08800	51.85970	112.00000	-0.21549 d
0.83816	50.66900	51.85140	112.00000	-0.21243 d
1.25724	50.25000	51.84310	112.00000	-0.20651 d
1.67632	49.83100	51.83480	112.00000	-0.19902 d
2.09540	49.41200	51.82650	112.00000	-0.19074 d
2.51450	48.99300	51.81820	112.00000	-0.18216 d
2.93360	48.57400	51.80990	112.00000	-0.17356 d
3.35270	48.15500	51.80160	112.00000	-0.16511 d
3.77178	47.73600	51.79330	112.00000	-0.15688 d
4.19086	47.31700	51.78500	112.00000	-0.14893 d

d - Displacements include imported displacements.

Structure: WH16 | Sub-structure: WH16

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1

0.0	47.31700	51.78500	112.00000	-0.14893 d
0.42021	47.30875	52.20512	112.00000	-0.15359 d
0.84041	47.30050	52.62525	112.00000	-0.15830 d
1.26060	47.29225	53.04538	112.00000	-0.16308 d
1.68080	47.28400	53.46550	112.00000	-0.16794 d
2.10100	47.27575	53.88562	112.00000	-0.17291 d
2.52120	47.26750	54.30575	112.00000	-0.17800 d
2.94140	47.25925	54.72588	112.00000	-0.18322 d
3.36160	47.25100	55.14600	112.00000	-0.18858 d

d - Displacements include imported displacements.

Structure: WH17 | Sub-structure: WH17

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1

0.0	47.25100	55.14600	112.00000	-0.18858 d
0.33390	46.91733	55.13350	112.00000	-0.18049 d
0.66780	46.58367	55.12100	112.00000	-0.17266 d
1.00170	46.25000	55.10850	112.00000	-0.16509 d
1.33560	45.91633	55.09600	112.00000	-0.15779 d
1.66950	45.58267	55.08350	112.00000	-0.15075 d
2.00340	45.24900	55.07100	112.00000	-0.14396 d

d - Displacements include imported displacements.

Structure: WH18 | Sub-structure: WH18

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1

0.0	45.24900	55.07100	112.00000	-0.14396 d
0.39856	45.24200	54.67250	112.00000	-0.14006 d
0.79712	45.23500	54.27400	112.00000	-0.13622 d

d - Displacements include imported displacements.

Structure: WH19 | Sub-structure: WH19

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1

0.0	45.23500	54.27400	112.00000	-0.13622 d
0.42549	44.80970	54.26120	112.00000	-0.12850 d
0.85099	44.38440	54.24840	112.00000	-0.12115 d
1.27650	43.95910	54.23560	112.00000	-0.11415 d
1.70200	43.53380	54.22280	112.00000	-0.10750 d
2.12750	43.10850	54.21000	112.00000	-0.10118 d
2.55300	42.68320	54.19720	112.00000	-0.095177 d
2.97840	42.25790	54.18440	112.00000	-0.089483 d
3.40390	41.83260	54.17160	112.00000	-0.084083 d
3.82940	41.40730	54.15880	112.00000	-0.078964 d
4.25490	40.98200	54.14600	112.00000	-0.074115 d

d - Displacements include imported displacements.

Structure: WH20 | Sub-structure: WH20

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1

0.0	40.98200	54.14600	112.00000	-0.074115 d
0.40607	40.98950	54.55200	112.00000	-0.076034 d
0.81214	40.99700	54.95800	112.00000	-0.077962 d

d - Displacements include imported displacements.

Structure: WH21 | Sub-structure: WH21

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1

0.0	40.99700	54.95800	112.00000	-0.077962 d
0.43845	40.55900	54.93825	112.00000	-0.072930 d
0.87689	40.12100	54.91850	112.00000	-0.068182 d
1.31533	39.68300	54.89875	112.00000	-0.063702 d
1.75380	39.24500	54.87900	112.00000	-0.059477 d

d - Displacements include imported displacements.



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Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Structure: WH22 | Sub-structure: WH22

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1

0.0	39.24500	54.87900	112.00000	-0.059477 d
0.39975	39.26950	54.48000	112.00000	-0.058362 d
0.79950	39.29400	54.08100	112.00000	-0.057234 d

d - Displacements include imported displacements.

Structure: WH23 | Sub-structure: WH23

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1

0.0	39.29400	54.08100	112.00000	-0.057234 d
0.44319	38.85100	54.06792	112.00000	-0.053400 d
0.88639	38.40800	54.05483	112.00000	-0.049782 d
1.3296	37.96500	54.04175	112.00000	-0.046371 d
1.7728	37.52200	54.02867	112.00000	-0.043153 d
2.2160	37.07900	54.01558	112.00000	-0.040120 d
2.6592	36.63600	54.00250	112.00000	-0.037262 d
3.1024	36.19300	53.98942	112.00000	-0.034568 d
3.5455	35.75000	53.97633	112.00000	-0.032030 d
3.9887	35.30700	53.96325	112.00000	-0.029639 d
4.4319	34.86400	53.95017	112.00000	-0.027387 d
4.8751	34.42100	53.93708	112.00000	-0.025267 d
5.3183	33.97800	53.92400	112.00000	-0.023271 d

d - Displacements include imported displacements.

Structure: WH24 | Sub-structure: WH24

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1

0.0	33.97800	53.92400	112.00000	-0.023271 d
0.48691	33.96659	54.41077	112.00000	-0.023882 d
0.97381	33.95518	54.89755	112.00000	-0.024482 d
1.4607	33.94377	55.38432	112.00000	-0.025071 d
1.9476	33.93236	55.87109	112.00000	-0.025646 d
2.4345	33.92095	56.35786	112.00000	-0.026206 d
2.9214	33.90955	56.84464	112.00000	-0.026750 d
3.4083	33.89814	57.33141	112.00000	-0.027276 d
3.8953	33.88673	57.81818	112.00000	-0.027782 d
4.3822	33.87532	58.30495	112.00000	-0.028267 d
4.8691	33.86391	58.79173	112.00000	-0.028728 d
5.3560	33.85250	59.27850	112.00000	-0.029165 d
5.8429	33.84109	59.76527	112.00000	-0.029575 d
6.3298	33.82968	60.25205	112.00000	-0.029957 d
6.8167	33.81827	60.73882	112.00000	-0.030309 d
7.3036	33.80686	61.22559	112.00000	-0.030630 d
7.7905	33.79545	61.71236	112.00000	-0.030918 d
8.2774	33.78405	62.19914	112.00000	-0.031172 d
8.7643	33.77264	62.68591	112.00000	-0.031390 d
9.2512	33.76123	63.17268	112.00000	-0.031571 d
9.7381	33.74982	63.65945	112.00000	-0.031714 d
10.225	33.73841	64.14623	112.00000	-0.031818 d
10.712	33.72700	64.63300	112.00000	-0.031883 d

d - Displacements include imported displacements.

Structure: TA1 | Sub-structure: TA1

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1

0.0	55.11600	38.72000	112.00000	-0.068723 d
0.47510	55.59110	38.71843	112.00000	-0.071999 d
0.95021	56.06620	38.71687	112.00000	-0.075833 d
1.4253	56.54130	38.71530	112.00000	-0.080249 d
1.9004	57.01640	38.71373	112.00000	-0.085229 d
2.3755	57.49150	38.71217	112.00000	-0.090707 d
2.8506	57.96660	38.71060	112.00000	-0.096575 d
3.3257	58.44170	38.70903	112.00000	-0.10270 d
3.8008	58.91680	38.70747	112.00000	-0.10892 d
4.2759	59.39190	38.70590	112.00000	-0.11511 d
4.7510	59.86700	38.70433	112.00000	-0.12110 d
5.2261	60.34210	38.70277	112.00000	-0.12680 d
5.7012	60.81720	38.70120	112.00000	-0.13212 d
6.1763	61.29230	38.69963	112.00000	-0.13699 d
6.6514	61.76740	38.69807	112.00000	-0.14140 d
7.1265	62.24250	38.69650	112.00000	-0.14534 d
7.6016	62.71760	38.69493	112.00000	-0.14882 d
8.0767	63.19270	38.69337	112.00000	-0.15184 d
8.5518	63.66780	38.69180	112.00000	-0.15444 d
9.0269	64.14290	38.69023	112.00000	-0.15663 d
9.5021	64.61800	38.68867	112.00000	-0.15843 d
9.9772	65.09310	38.68710	112.00000	-0.15983 d
10.452	65.56820	38.68553	112.00000	-0.16087 d
10.927	66.04330	38.68397	112.00000	-0.16155 d
11.402	66.51840	38.68240	112.00000	-0.16189 d
11.878	66.99350	38.68083	112.00000	-0.16192 d
12.353	67.46860	38.67927	112.00000	-0.16168 d
12.828	67.94370	38.67770	112.00000	-0.16122 d
13.303	68.41880	38.67613	112.00000	-0.16055 d
13.778	68.89390	38.67457	112.00000	-0.15972 d
14.253	69.36900	38.67300	112.00000	-0.15873 d

d - Displacements include imported displacements.

Structure: TA2 | Sub-structure: TA2

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1

0.0	69.36900	38.67300	112.00000	-0.15873 d
0.42319	69.36442	38.24983	112.00000	-0.15340 d
0.84638	69.35983	37.82667	112.00000	-0.14701 d
1.2696	69.35525	37.40350	112.00000	-0.14009 d
1.6928	69.35067	36.98033	112.00000	-0.13298 d
2.1160	69.34608	36.55717	112.00000	-0.12588 d
2.5391	69.34150	36.13400	112.00000	-0.11893 d
2.9623	69.33692	35.71083	112.00000	-0.11219 d
3.3855	69.33233	35.28767	112.00000	-0.10572 d
3.8087	69.32775	34.86450	112.00000	-0.099518 d
4.2319	69.32317	34.44133	112.00000	-0.093609 d
4.6551	69.31858	34.01817	112.00000	-0.087992 d
5.0783	69.31400	33.59500	112.00000	-0.082662 d

d - Displacements include imported displacements.

Structure: TA3 | Sub-structure: TA3

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]



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Vertical Offset 1
 0.0 69.31400 33.59500 112.00000 -0.082662 d
 0.34494 69.65750 33.56350 112.00000 -0.081544 d
 0.68988 70.00100 33.53200 112.00000 -0.080318 d
 d - Displacements include imported displacements.

Structure: TA4 | Sub-structure: TA4

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1
 0.0 70.00100 33.53200 112.00000 -0.080318 d
 0.28803 70.21225 33.33950 112.00000 -0.077474 d
 0.57605 70.42950 33.14700 112.00000 -0.074677 d
 0.86408 70.64375 32.95450 112.00000 -0.071928 d
 1.1521 70.85800 32.76200 112.00000 -0.069231 d
 d - Displacements include imported displacements.

Structure: TA5 | Sub-structure: TA5

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1
 0.0 70.85800 32.76200 112.00000 -0.069231 d
 0.49988 70.84650 32.26225 112.00000 -0.064228 d
 0.99976 70.83500 31.76250 112.00000 -0.059552 d
 1.4996 70.82350 31.26275 112.00000 -0.055182 d
 1.9995 70.81200 30.76300 112.00000 -0.051099 d
 d - Displacements include imported displacements.

Structure: TA6 | Sub-structure: TA6

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1
 0.0 70.81200 30.76300 112.00000 -0.051099 d
 0.27366 70.62000 30.56800 112.00000 -0.049957 d
 0.54732 70.42800 30.37300 112.00000 -0.048808 d
 0.82098 70.23600 30.17800 112.00000 -0.047655 d
 1.0946 70.04400 29.98300 112.00000 -0.046501 d
 d - Displacements include imported displacements.

Structure: TA7 | Sub-structure: TA7

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1
 0.0 70.04400 29.98300 112.00000 -0.046501 d
 0.43761 69.60650 29.99300 112.00000 -0.047173 d
 0.87523 69.16900 30.00300 112.00000 -0.047753 d
 1.3128 68.73150 30.01300 112.00000 -0.048243 d
 1.7505 68.29400 30.02300 112.00000 -0.048642 d
 d - Displacements include imported displacements.

Structure: TA8 | Sub-structure: TA8

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1
 0.0 68.29400 30.02300 112.00000 -0.048642 d
 0.45429 68.29250 29.56871 112.00000 -0.045239 d
 0.90858 68.29100 29.11443 112.00000 -0.042043 d
 1.3629 68.28950 28.66014 112.00000 -0.039044 d
 1.8172 68.28800 28.20586 112.00000 -0.036228 d
 2.2714 68.28650 27.75157 112.00000 -0.033586 d
 2.7257 68.28500 27.29729 112.00000 -0.031106 d
 3.1800 68.28350 26.84300 112.00000 -0.028779 d
 3.6343 68.28200 26.38871 112.00000 -0.026595 d
 4.0886 68.28050 25.93443 112.00000 -0.024546 d
 4.5429 68.27900 25.48014 112.00000 -0.022622 d
 4.9972 68.27750 25.02586 112.00000 -0.020817 d
 5.4515 68.27600 24.57157 112.00000 -0.019122 d
 5.9057 68.27450 24.11729 112.00000 -0.017532 d
 6.3600 68.27300 23.66300 112.00000 -0.016039 d
 d - Displacements include imported displacements.

Structure: TA9 | Sub-structure: TA9

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1
 0.0 68.27300 23.66300 112.00000 -0.016039 d
 0.39075 67.88225 23.66200 112.00000 -0.016099 d
 0.78150 67.49150 23.66100 112.00000 -0.016137 d
 1.1723 67.10075 23.66000 112.00000 -0.016154 d
 1.5630 66.71000 23.65900 112.00000 -0.016150 d
 d - Displacements include imported displacements.

Structure: TA10 | Sub-structure: TA10

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1
 0.0 66.71000 23.65900 112.00000 -0.016150 d
 0.40234 66.71117 23.25667 112.00000 -0.014893 d
 0.80467 66.71233 22.85433 112.00000 -0.013706 d
 1.2070 66.71350 22.45200 112.00000 -0.012583 d
 1.6093 66.71467 22.04967 112.00000 -0.011521 d
 2.0117 66.71583 21.64733 112.00000 -0.010518 d
 2.4140 66.71700 21.24500 112.00000 -0.0095702 d
 d - Displacements include imported displacements.

Structure: TA11 | Sub-structure: TA11

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1
 0.0 66.71700 21.24500 112.00000 -0.0095702 d
 0.43834 67.15500 21.26225 112.00000 -0.0096134 d
 0.87668 67.59300 21.27950 112.00000 -0.0096398 d
 1.3150 68.03100 21.29675 112.00000 -0.0096490 d
 1.7534 68.46900 21.31400 112.00000 -0.0096408 d
 d - Displacements include imported displacements.



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[m]	x [m]	y [m]	z [m]	z [mm]

Structure: TA12 | Sub-structure: TA12

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1

0.0	68.46900	21.31400	112.00000	-0.0096408 d
0.36190	68.71275	21.04650	112.00000	-0.0090080 d
0.72380	68.95650	20.77900	112.00000	-0.0083963 d
1.0857	69.20025	20.51150	112.00000	-0.0078051 d
1.4476	69.44400	20.24400	112.00000	-0.0072341 d

d - Displacements include imported displacements.

Structure: TA13 | Sub-structure: TA13

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1

0.0	69.44400	20.24400	112.00000	-0.0072341 d
0.36732	69.42517	19.87717	112.00000	-0.0065435 d
0.73463	69.40633	19.51033	112.00000	-0.0058870 d
1.1019	69.38750	19.14350	112.00000	-0.0052631 d
1.4693	69.36867	18.77667	112.00000	-0.0046703 d
1.8366	69.34983	18.40983	112.00000	-0.0041070 d
2.2039	69.33100	18.04300	112.00000	-0.0035720 d

d - Displacements include imported displacements.

Structure: TA14 | Sub-structure: TA14

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1

0.0	69.33100	18.04300	112.00000	-0.0035720 d
0.31304	69.12250	17.80950	112.00000	-0.0032634 d
0.62608	68.91400	17.57600	112.00000	-0.0029616 d
0.93912	68.70550	17.34250	112.00000	-0.0026666 d
1.2522	68.49700	17.10900	112.00000	-0.0023784 d

d - Displacements include imported displacements.

Structure: TA15 | Sub-structure: TA15

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1

0.0	68.49700	17.10900	112.00000	-0.0023784 d
0.28210	68.21650	17.13900	112.00000	-0.0024282 d
0.56420	67.93600	17.16900	112.00000	-0.0024750 d

d - Displacements include imported displacements.

Structure: TA16 | Sub-structure: TA16

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1

0.0	67.93600	17.16900	112.00000	-0.0024750 d
0.42452	67.93142	16.74450	112.00000	-0.0019485 d
0.84905	67.92683	16.32000	112.00000	-0.0014533 d
1.2736	67.92225	15.89550	112.00000	-987.75E-6 d
1.6981	67.91767	15.47100	112.00000	-550.20E-6 d
2.1226	67.91308	15.04650	112.00000	-339.13E-6 d
2.5471	67.90850	14.62200	112.00000	246.90E-6 d
2.9717	67.90392	14.19750	112.00000	609.26E-6 d
3.3962	67.89933	13.77300	112.00000	949.22E-6 d
3.8207	67.89475	13.34850	112.00000	0.0012680 d
4.2452	67.89017	12.92400	112.00000	0.0015668 d
4.6698	67.88558	12.49950	112.00000	0.0018466 d
5.0943	67.88100	12.07500	112.00000	0.0021084 d

d - Displacements include imported displacements.

Structure: TA17 | Sub-structure: TA17

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1

0.0	67.88100	12.07500	112.00000	0.0021084 d
0.47100	67.41000	12.07387	112.00000	0.0021115 d
0.94200	66.93900	12.07273	112.00000	0.0021182 d
1.41300	66.46800	12.07160	112.00000	0.0021286 d
1.8840	65.99700	12.07047	112.00000	0.0021425 d
2.3550	65.52600	12.06933	112.00000	0.0021600 d
2.8260	65.05500	12.06820	112.00000	0.0021809 d
3.2970	64.58400	12.06707	112.00000	0.0022053 d
3.7680	64.11300	12.06593	112.00000	0.0022330 d
4.2390	63.64200	12.06480	112.00000	0.0022639 d
4.7100	63.17100	12.06367	112.00000	0.0022980 d
5.1810	62.70000	12.06253	112.00000	0.0023350 d
5.6520	62.22900	12.06140	112.00000	0.0023750 d
6.1230	61.75800	12.06027	112.00000	0.0024178 d
6.5940	61.28700	12.05913	112.00000	0.0024632 d
7.0650	60.81600	12.05800	112.00000	0.0025112 d
7.5360	60.34500	12.05687	112.00000	0.0025616 d
8.0070	59.87400	12.05573	112.00000	0.0026142 d
8.4780	59.40300	12.05460	112.00000	0.0026689 d
8.9490	58.93200	12.05347	112.00000	0.0027255 d
9.4200	58.46100	12.05233	112.00000	0.0027840 d
9.8910	57.99000	12.05120	112.00000	0.0028441 d
10.362	57.51900	12.05007	112.00000	0.0029057 d
10.833	57.04800	12.04893	112.00000	0.0029686 d
11.304	56.57700	12.04780	112.00000	0.0030327 d
11.775	56.10600	12.04667	112.00000	0.0030979 d
12.246	55.63500	12.04553	112.00000	0.0031639 d
12.717	55.16400	12.04440	112.00000	0.0032307 d
13.188	54.69300	12.04327	112.00000	0.0032984 d
13.659	54.22200	12.04213	112.00000	0.0033658 d
14.130	53.75100	12.04100	112.00000	0.0034339 d

d - Displacements include imported displacements.

Structure: TA18 | Sub-structure: TA18

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1

0.0	53.75100	12.04100	112.00000	0.0034339 d
0.45295	53.43550	12.36600	112.00000	0.0033534 d
0.90590	53.12000	12.69100	112.00000	0.0032716 d
1.3589	52.80450	13.01600	112.00000	0.0031884 d
1.8118	52.48900	13.34100	112.00000	0.0031039 d
2.2648	52.17350	13.66600	112.00000	0.0030183 d
2.7177	51.85800	13.99100	112.00000	0.0029317 d



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	x	y	z	
[m]	[m]	[m]	[m]	[mm]

d - Displacements include imported displacements.

Structure: TA19 | Sub-structure: TA19

Dist.	Coordinates			Displacements
	x	y	z	
[m]	[m]	[m]	[m]	[mm]

Vertical Offset 1

0.0	51.85800	13.99100	112.00000	0.0029317 d
0.49160	51.86150	14.48258	112.00000	0.0026959 d
0.98319	51.86500	14.97417	112.00000	0.0024419 d
1.4748	51.86850	15.46575	112.00000	0.0021689 d
1.9664	51.87200	15.95733	112.00000	0.0018757 d
2.4580	51.87550	16.44892	112.00000	0.0015611 d
2.9496	51.87900	16.94050	112.00000	0.0012241 d
3.4412	51.88250	17.43208	112.00000	863.17E-6 d
3.9328	51.88600	17.92367	112.00000	477.18E-6 d
4.4244	51.88950	18.41525	112.00000	64.684E-6 d
4.9160	51.89300	18.90683	112.00000	-375.75E-6 d
5.4076	51.89650	19.39842	112.00000	-845.62E-6 d
5.8991	51.90000	19.89000	112.00000	-0.0013465 d
6.3907	51.90350	20.38158	112.00000	-0.0018801 d
6.8823	51.90700	20.87317	112.00000	-0.0024480 d
7.3739	51.91050	21.36475	112.00000	-0.0030521 d
7.8655	51.91400	21.85633	112.00000	-0.0036941 d
8.3571	51.91750	22.34792	112.00000	-0.0043760 d
8.8487	51.92100	22.83950	112.00000	-0.0050997 d
9.3403	51.92450	23.33108	112.00000	-0.0058672 d
9.8319	51.92800	23.82267	112.00000	-0.0066806 d
10.3234	51.93150	24.31425	112.00000	-0.0075421 d
10.815	51.93500	24.80583	112.00000	-0.0084537 d
11.307	51.93850	25.29742	112.00000	-0.0094176 d
11.798	51.94200	25.78900	112.00000	-0.010436 d

d - Displacements include imported displacements.

Structure: TA20 | Sub-structure: TA20

Dist.	Coordinates			Displacements
	x	y	z	
[m]	[m]	[m]	[m]	[mm]

Vertical Offset 1

0.0	51.94200	25.78900	112.00000	-0.010436 d
0.33924	52.17700	26.03367	112.00000	-0.011254 d
0.67849	52.41200	26.27833	112.00000	-0.012110 d
1.0177	52.64700	26.52300	112.00000	-0.013004 d
1.3570	52.88200	26.76767	112.00000	-0.013938 d
1.6962	53.11700	27.01233	112.00000	-0.014914 d
2.0355	53.35200	27.25700	112.00000	-0.015933 d

d - Displacements include imported displacements.

Structure: TA21 | Sub-structure: TA21

Dist.	Coordinates			Displacements
	x	y	z	
[m]	[m]	[m]	[m]	[mm]

Vertical Offset 1

0.0	53.35200	27.25700	112.00000	-0.015933 d
0.48283	53.36310	27.73970	112.00000	-0.017331 d
0.96566	53.37420	28.22240	112.00000	-0.018802 d
1.4485	53.38530	28.70510	112.00000	-0.020350 d
1.9313	53.39640	29.18780	112.00000	-0.021976 d
2.4141	53.40750	29.67050	112.00000	-0.023681 d
2.8970	53.41860	30.15320	112.00000	-0.025468 d
3.3798	53.42970	30.63590	112.00000	-0.027336 d
3.8626	53.44080	31.11860	112.00000	-0.029285 d
4.3454	53.45190	31.60130	112.00000	-0.031314 d
4.8283	53.46300	32.08400	112.00000	-0.033421 d
5.3111	53.47410	32.56670	112.00000	-0.035602 d
5.7939	53.48520	33.04940	112.00000	-0.037852 d
6.2768	53.49630	33.53210	112.00000	-0.040162 d
6.7596	53.50740	34.01480	112.00000	-0.042522 d
7.2424	53.51850	34.49750	112.00000	-0.044918 d
7.7252	53.52960	34.98020	112.00000	-0.047331 d
8.2081	53.54070	35.46290	112.00000	-0.049734 d
8.6909	53.55180	35.94560	112.00000	-0.052096 d
9.1737	53.56290	36.42830	112.00000	-0.054437 d
9.6566	53.57400	36.91100	112.00000	-0.056500 d

d - Displacements include imported displacements.

Structure: TA22 | Sub-structure: TA22

Dist.	Coordinates			Displacements
	x	y	z	
[m]	[m]	[m]	[m]	[mm]

Vertical Offset 1

0.0	53.57400	36.91100	112.00000	-0.056500 d
0.39617	53.83100	37.21250	112.00000	-0.059010 d
0.79234	54.08800	37.51400	112.00000	-0.061450 d
1.1885	54.34500	37.81550	112.00000	-0.063754 d
1.5847	54.60200	38.11700	112.00000	-0.065932 d
1.9809	54.85900	38.41850	112.00000	-0.067952 d
2.3770	55.11600	38.72000	112.00000	-0.069723 d

d - Displacements include imported displacements.

Structure: TA23 | Sub-structure: TA23

Dist.	Coordinates			Displacements
	x	y	z	
[m]	[m]	[m]	[m]	[mm]

Vertical Offset 1

0.0	53.57400	36.91100	112.00000	-0.056500 d
0.48325	53.09075	36.91100	112.00000	-0.054137 d
0.96650	52.60750	36.91100	112.00000	-0.051916 d
1.4498	52.12425	36.91100	112.00000	-0.049814 d
1.9330	51.64100	36.91100	112.00000	-0.047811 d
2.4162	51.15775	36.91100	112.00000	-0.045890 d
2.8995	50.67450	36.91100	112.00000	-0.044035 d
3.3828	50.19125	36.91100	112.00000	-0.042235 d
3.8660	49.70800	36.91100	112.00000	-0.040479 d

d - Displacements include imported displacements.

Structure: TA24 | Sub-structure: TA24

Dist.	Coordinates			Displacements
	x	y	z	
[m]	[m]	[m]	[m]	[mm]

Vertical Offset 1

0.0	49.70800	36.91100	112.00000	-0.040479 d
0.45067	49.70800	37.36167	112.00000	-0.042296 d
0.90133	49.70800	37.81233	112.00000	-0.044138 d
1.3520	49.70800	38.26300	112.00000	-0.046003 d
1.8027	49.70800	38.71367	112.00000	-0.047895 d
2.2533	49.70800	39.16433	112.00000	-0.049816 d
2.7040	49.70800	39.61500	112.00000	-0.051776 d
3.1547	49.70800	40.06567	112.00000	-0.053785 d
3.6053	49.70800	40.51633	112.00000	-0.055861 d
4.0560	49.70800	40.96700	112.00000	-0.058028 d
4.5067	49.70800	41.41767	112.00000	-0.060318 d



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	x	y	z	x	z
[m]	[m]	[m]	[m]	[mm]	[mm]
4.9573	49.70800	41.86833	112.00000	-0.062775	d
5.4080	49.70800	42.31900	112.00000	-0.065449	d

d - Displacements include imported displacements.

Structure: TA25 | Sub-structure: TA25

Dist.	Coordinates			Displacements	
	x	y	z	x	z
[m]	[m]	[m]	[m]	[mm]	[mm]
Vertical Offset 1					
0.0	49.70800	42.31900	112.00000	-0.065449	d
0.45067	50.15867	42.31900	112.00000	-0.065366	d
0.90133	50.60933	42.31900	112.00000	-0.064230	d
1.3520	51.06000	42.31900	112.00000	-0.061602	d
1.8027	51.51067	42.31900	112.00000	-0.056879	d
2.2533	51.96133	42.31900	112.00000	-0.049248	d
2.7040	52.41200	42.31900	112.00000	-0.037674	d
3.1547	52.86267	42.31900	112.00000	-0.020952	d
3.6053	53.31333	42.31900	112.00000	0.002153	d
4.0560	53.76400	42.31900	112.00000	0.032353	d
4.5067	54.21467	42.31900	112.00000	0.069656	d
4.9573	54.66533	42.31900	112.00000	0.11240	d
5.4080	55.11600	42.31900	112.00000	0.15715	d

d - Displacements include imported displacements.

Structure: TA26 | Sub-structure: TA26

Dist.	Coordinates			Displacements	
	x	y	z	x	z
[m]	[m]	[m]	[m]	[mm]	[mm]
Vertical Offset 1					
0.0	55.11600	42.31900	112.00000	0.15715	d
0.44987	55.11600	41.86833	112.00000	0.078230	d
0.89975	55.11600	41.41925	112.00000	0.022926	d
1.3496	55.11600	40.96937	112.00000	-0.014132	d
1.7995	55.11600	40.51950	112.00000	-0.038049	d
2.2494	55.11600	40.06963	112.00000	-0.052918	d
2.6993	55.11600	39.61975	112.00000	-0.061726	d
3.1491	55.11600	39.16987	112.00000	-0.066534	d
3.5990	55.11600	38.72000	112.00000	-0.068723	d

d - Displacements include imported displacements.

Specific Building Damage Results - All Segments

Structure: WH1 | Sub-structure: WH1

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]	[m]	[%]	[%]	[%]			[m]	
0.0											

All settlements are less than the Settlement Trough Limit Sensitivity. Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH2 | Sub-structure: WH2

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]	[m]	[%]	[%]	[%]			[m]	
0.0											

All settlements are less than the Settlement Trough Limit Sensitivity. Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH3 | Sub-structure: WH3

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]	[m]	[%]	[%]	[%]			[m]	
0.0		1	1.3130	0.0	None	0.0	0.0	0.0	16.685E-6	376640.	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH4 | Sub-structure: WH4

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]	[m]	[%]	[%]	[%]			[m]	
0.0		1	0.0	0.90800	Hogging	7.2091E-6	0.0	7.1883E-6	0.0	0.0	1.5589E+6 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH5 | Sub-structure: WH5

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]	[m]	[%]	[%]	[%]			[m]	
0.0		1	0.0	4.5040	Sagging	246.38E-6	0.0	231.49E-6	0.0	35.933E-6	159040. (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH6 | Sub-structure: WH6

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]	[m]	[%]	[%]	[%]			[m]	
0.0		1	0.0	0.84300	Hogging	16.694E-6	0.0	16.701E-6	0.0	-5.2837E-6	624930. (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH7 | Sub-structure: WH7

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]	[m]	[%]	[%]	[%]			[m]	
0.0		1	0.0	1.8760	Sagging	182.84E-6	0.0	176.49E-6	0.0	48.867E-6	113020. (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.



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Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature	Damage Category
Structure: WH8 Sub-structure: WH8											
Vertical Offset from Line for Vertical Movement Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	2.1010	Hogging	73.435E-6	0.0	72.634E-6	0.0	7.2282E-6	335870.	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: WH9 Sub-structure: WH9											
Vertical Offset from Line for Vertical Movement Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	4.3160	Sagging	0.0010195	0.0	0.0011367	0.0	131.71E-6	32153.	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: WH10 Sub-structure: WH10											
Vertical Offset from Line for Vertical Movement Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	6.5070	Hogging	546.81E-6	0.0	493.78E-6	0.0	-47.882E-6	97155.	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: WH11 Sub-structure: WH11											
Vertical Offset from Line for Vertical Movement Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	0.75000	Sagging	69.075E-6	0.0	68.700E-6	0.0	-66.833E-6	134370.	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: WH12 Sub-structure: WH12											
Vertical Offset from Line for Vertical Movement Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	1.7500	Sagging	41.053E-6	0.0	39.804E-6	0.0	-40.596E-6	346310.	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: WH13 Sub-structure: WH13											
Vertical Offset from Line for Vertical Movement Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	0.81400	Hogging	37.020E-6	0.0	36.943E-6	0.0	43.819E-6	272210.	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: WH14 Sub-structure: WH14											
Vertical Offset from Line for Vertical Movement Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	5.5328	Sagging	474.18E-6	0.0	614.37E-6	0.0	-46.972E-6	113140.	0 (Negligible)
	2	5.5328	0.88019	Hogging	7.9332E-6	0.0	7.9036E-6	0.0	-17.642E-6	1.1525E+6	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: WH15 Sub-structure: WH15											
Vertical Offset from Line for Vertical Movement Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	2.6362	Hogging	361.36E-6	0.0	355.02E-6	0.0	-20.518E-6	32860.	0 (Negligible)
	2	2.6362	1.5538	Sagging	25.347E-6	0.0	24.712E-6	0.0	-20.518E-6	607190.	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: WH16 Sub-structure: WH16											
Vertical Offset from Line for Vertical Movement Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	3.3610	Sagging	24.139E-6	0.0	22.352E-6	0.0	12.758E-6	1.2129E+6	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: WH17 Sub-structure: WH17											
Vertical Offset from Line for Vertical Movement Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	2.0030	Sagging	58.530E-6	0.0	57.828E-6	0.0	-24.217E-6	424680.	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: WH18 Sub-structure: WH18											



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Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category	
[m] 0.0	1	[m] 0.0	[m] 0.79700	Sagging	[%] 4.1685E-6	[%] 0.0	[%] 4.1842E-6	0.0	-9.7976E-6	[m] 2.3661E+6	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH19 | Sub-structure: WH19

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category	
[m] 0.0	1	[m] 0.0	[m] 2.1275	Sagging	[%] 49.594E-6	[%] 0.0	[%] 48.888E-6	0.0	-18.143E-6	[m] 490440.	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH20 | Sub-structure: WH20

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m]	[m]	[%]	[%]	[%]			[m]	

All settlements are less than the Settlement Trough Limit Sensitivity.
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH21 | Sub-structure: WH21

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m]	[m]	[%]	[%]	[%]			[m]	

All settlements are less than the Settlement Trough Limit Sensitivity.
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH22 | Sub-structure: WH22

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m]	[m]	[%]	[%]	[%]			[m]	

All settlements are less than the Settlement Trough Limit Sensitivity.
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH23 | Sub-structure: WH23

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m]	[m]	[%]	[%]	[%]			[m]	

All settlements are less than the Settlement Trough Limit Sensitivity.
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH24 | Sub-structure: WH24

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m]	[m]	[%]	[%]	[%]			[m]	

All settlements are less than the Settlement Trough Limit Sensitivity.
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA1 | Sub-structure: TA1

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category	
[m] 0.0	1	[m] 3.3257	[m] 0.33578	Sagging	[%] 0.0	[%] 0.0	[%] 0.0	0.0	13.107E-6	[m] 2.1682E+6	0 (Negligible)
	2	[m] 3.6615	[m] 10.592	Hogging	[%] 221.86E-6	[%] 0.0	[%] 203.10E-6	0.0	13.107E-6	[m] 481410.	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA2 | Sub-structure: TA2

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category	
[m] 0.0	1	[m] 0.0	[m] 1.7071	Hogging	[%] 68.190E-6	[%] 0.0	[%] 67.985E-6	0.0	-16.801E-6	[m] 149570.	0 (Negligible)
	2	[m] 1.7071	[m] 1.6784	Sagging	[%] 24.462E-6	[%] 0.0	[%] 24.211E-6	0.0	-16.763E-6	[m] 646060.	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA3 | Sub-structure: TA3

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m]	[m]	[%]	[%]	[%]			[m]	

All settlements are less than the Settlement Trough Limit Sensitivity.
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA4 | Sub-structure: TA4

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m]	[m]	[%]	[%]	[%]			[m]	

All settlements are less than the Settlement Trough Limit Sensitivity.
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.



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Vertical Offset from Line for Vertical Movement Segment Start Length Curvature Deflection Average Max Max Gradient Max Gradient Min Damage
 Ratio Horizontal Tensile of of Vertical Radius of Category
 Strain Strain Strain Horizontal Vertical Displacement Displacement Curvature

Structure: TA5 | Sub-structure: TA5

Vertical Offset from Line for Vertical Movement Segment Start Length Curvature Deflection Average Max Max Gradient Max Gradient Min Damage
 Ratio Horizontal Tensile of of Vertical Radius of Category
 Strain Strain Strain Horizontal Vertical Displacement Displacement Curvature

Calculations [m] [m] [m] [%] [%] [%] [m]

0.0 All settlements are less than the Settlement Trough Limit Sensitivity.
 Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA6 | Sub-structure: TA6

Vertical Offset from Line for Vertical Movement Segment Start Length Curvature Deflection Average Max Max Gradient Max Gradient Min Damage
 Ratio Horizontal Tensile of of Vertical Radius of Category
 Strain Strain Strain Horizontal Vertical Displacement Displacement Curvature

Calculations [m] [m] [m] [%] [%] [%] [m]

0.0 All settlements are less than the Settlement Trough Limit Sensitivity.
 Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA7 | Sub-structure: TA7

Vertical Offset from Line for Vertical Movement Segment Start Length Curvature Deflection Average Max Max Gradient Max Gradient Min Damage
 Ratio Horizontal Tensile of of Vertical Radius of Category
 Strain Strain Strain Horizontal Vertical Displacement Displacement Curvature

Calculations [m] [m] [m] [%] [%] [%] [m]

0.0 All settlements are less than the Settlement Trough Limit Sensitivity.
 Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA8 | Sub-structure: TA8

Vertical Offset from Line for Vertical Movement Segment Start Length Curvature Deflection Average Max Max Gradient Max Gradient Min Damage
 Ratio Horizontal Tensile of of Vertical Radius of Category
 Strain Strain Strain Horizontal Vertical Displacement Displacement Curvature

Calculations [m] [m] [m] [%] [%] [%] [m]

0.0 All settlements are less than the Settlement Trough Limit Sensitivity.
 Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA9 | Sub-structure: TA9

Vertical Offset from Line for Vertical Movement Segment Start Length Curvature Deflection Average Max Max Gradient Max Gradient Min Damage
 Ratio Horizontal Tensile of of Vertical Radius of Category
 Strain Strain Strain Horizontal Vertical Displacement Displacement Curvature

Calculations [m] [m] [m] [%] [%] [%] [m]

0.0 All settlements are less than the Settlement Trough Limit Sensitivity.
 Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA10 | Sub-structure: TA10

Vertical Offset from Line for Vertical Movement Segment Start Length Curvature Deflection Average Max Max Gradient Max Gradient Min Damage
 Ratio Horizontal Tensile of of Vertical Radius of Category
 Strain Strain Strain Horizontal Vertical Displacement Displacement Curvature

Calculations [m] [m] [m] [%] [%] [%] [m]

0.0 All settlements are less than the Settlement Trough Limit Sensitivity.
 Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA11 | Sub-structure: TA11

Vertical Offset from Line for Vertical Movement Segment Start Length Curvature Deflection Average Max Max Gradient Max Gradient Min Damage
 Ratio Horizontal Tensile of of Vertical Radius of Category
 Strain Strain Strain Horizontal Vertical Displacement Displacement Curvature

Calculations [m] [m] [m] [%] [%] [%] [m]

0.0 All settlements are less than the Settlement Trough Limit Sensitivity.
 Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA12 | Sub-structure: TA12

Vertical Offset from Line for Vertical Movement Segment Start Length Curvature Deflection Average Max Max Gradient Max Gradient Min Damage
 Ratio Horizontal Tensile of of Vertical Radius of Category
 Strain Strain Strain Horizontal Vertical Displacement Displacement Curvature

Calculations [m] [m] [m] [%] [%] [%] [m]

0.0 All settlements are less than the Settlement Trough Limit Sensitivity.
 Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA13 | Sub-structure: TA13

Vertical Offset from Line for Vertical Movement Segment Start Length Curvature Deflection Average Max Max Gradient Max Gradient Min Damage
 Ratio Horizontal Tensile of of Vertical Radius of Category
 Strain Strain Strain Horizontal Vertical Displacement Displacement Curvature

Calculations [m] [m] [m] [%] [%] [%] [m]

0.0 All settlements are less than the Settlement Trough Limit Sensitivity.
 Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA14 | Sub-structure: TA14

Vertical Offset from Line for Vertical Movement Segment Start Length Curvature Deflection Average Max Max Gradient Max Gradient Min Damage
 Ratio Horizontal Tensile of of Vertical Radius of Category
 Strain Strain Strain Horizontal Vertical Displacement Displacement Curvature

Calculations [m] [m] [m] [%] [%] [%] [m]

0.0 All settlements are less than the Settlement Trough Limit Sensitivity.
 Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA15 | Sub-structure: TA15

Vertical Offset from Line for Vertical Movement Segment Start Length Curvature Deflection Average Max Max Gradient Max Gradient Min Damage
 Ratio Horizontal Tensile of of Vertical Radius of Category
 Strain Strain Strain Horizontal Vertical Displacement Displacement Curvature

Calculations [m] [m] [m] [%] [%] [%] [m]

0.0 All settlements are less than the Settlement Trough Limit Sensitivity.
 Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA16 | Sub-structure: TA16

Vertical Offset from Line for Vertical Movement Segment Start Length Curvature Deflection Average Max Max Gradient Max Gradient Min Damage
 Ratio Horizontal Tensile of of Vertical Radius of Category



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Vertical Movement Calculations	Strain	Strain	Horizontal Displacement Curve	Displacement Curve	Curvature					
[m] 0.0	[m]	[m]	[%]	[%]	[%]					
All settlements are less than the Settlement Trough Limit Sensitivity. Tensile horizontal strains are +ve, compressive horizontal strains are -ve.										
Structure: TA17 Sub-structure: TA17										
Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m]	[m]	[%]	[%]	[%]			[m]	
All settlements are less than the Settlement Trough Limit Sensitivity. Tensile horizontal strains are +ve, compressive horizontal strains are -ve.										
Structure: TA18 Sub-structure: TA18										
Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m]	[m]	[%]	[%]	[%]			[m]	
All settlements are less than the Settlement Trough Limit Sensitivity. Tensile horizontal strains are +ve, compressive horizontal strains are -ve.										
Structure: TA19 Sub-structure: TA19										
Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m]	[m]	[%]	[%]	[%]			[m]	
All settlements are less than the Settlement Trough Limit Sensitivity. Tensile horizontal strains are +ve, compressive horizontal strains are -ve.										
Structure: TA20 Sub-structure: TA20										
Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m]	[m]	[%]	[%]	[%]			[m]	
All settlements are less than the Settlement Trough Limit Sensitivity. Tensile horizontal strains are +ve, compressive horizontal strains are -ve.										
Structure: TA21 Sub-structure: TA21										
Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m]	[m]	[%]	[%]	[%]			[m]	
All settlements are less than the Settlement Trough Limit Sensitivity. Tensile horizontal strains are +ve, compressive horizontal strains are -ve.										
Structure: TA22 Sub-structure: TA22										
Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m]	[m]	[%]	[%]	[%]			[m]	
All settlements are less than the Settlement Trough Limit Sensitivity. Tensile horizontal strains are +ve, compressive horizontal strains are -ve.										
Structure: TA23 Sub-structure: TA23										
Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m]	[m]	[%]	[%]	[%]			[m]	
All settlements are less than the Settlement Trough Limit Sensitivity. Tensile horizontal strains are +ve, compressive horizontal strains are -ve.										
Structure: TA24 Sub-structure: TA24										
Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m]	[m]	[%]	[%]	[%]			[m]	
All settlements are less than the Settlement Trough Limit Sensitivity. Tensile horizontal strains are +ve, compressive horizontal strains are -ve.										
Structure: TA25 Sub-structure: TA25										
Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m]	[m]	[%]	[%]	[%]			[m]	
All settlements are less than the Settlement Trough Limit Sensitivity. Tensile horizontal strains are +ve, compressive horizontal strains are -ve.										
Structure: TA26 Sub-structure: TA26										
Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m]	[m]	[%]	[%]	[%]			[m]	
All settlements are less than the Settlement Trough Limit Sensitivity. Tensile horizontal strains are +ve, compressive horizontal strains are -ve.										

Specific Building Damage Results - Critical Values for All Segments within Each Sub-Structure

Vertical	Deflection	Average	Max	Max	Max	Max Gradient	Max Gradient	Min	Min	Damage Category
Structure: WH1 Sub-structure: WH1										



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Offset from Line for Vertical Movement Calculations [m]	Ratio [%]	Horizontal Strain [%]	Slope	Settlement [mm]	Tensile Strain [%]	of Horizontal Displacement Curve	of Vertical Displacement Curve	Radius of Curvature (Hogging) [m]	Radius of Curvature (Sagging) [m]	Damage Category
Structure: WH2 Sub-structure: WH2										
Vertical Offset from Line for Vertical Movement Calculations [m]	Deflection Ratio [%]	Average Horizontal Strain [%]	Max Slope	Max Settlement [mm]	Max Tensile Strain [%]	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging) [m]	Min Radius of Curvature (Sagging) [m]	Damage Category
0.0	0.0	0.0	16.685E-6	0.10271	0.0	0.0	16.685E-6	-	0	(Negligible)
Structure: WH3 Sub-structure: WH3										
Vertical Offset from Line for Vertical Movement Calculations [m]	Deflection Ratio [%]	Average Horizontal Strain [%]	Max Slope	Max Settlement [mm]	Max Tensile Strain [%]	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging) [m]	Min Radius of Curvature (Sagging) [m]	Damage Category
0.0	0.0	0.0	16.685E-6	0.10271	0.0	0.0	16.685E-6	-	0	(Negligible)
Structure: WH4 Sub-structure: WH4										
Vertical Offset from Line for Vertical Movement Calculations [m]	Deflection Ratio [%]	Average Horizontal Strain [%]	Max Slope	Max Settlement [mm]	Max Tensile Strain [%]	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging) [m]	Min Radius of Curvature (Sagging) [m]	Damage Category
0.0	7.2091E-6	0.0	0.0	0.10315	7.1883E-6	0.0	0.0	1.5589E+6	-	0 (Negligible)
Structure: WH5 Sub-structure: WH5										
Vertical Offset from Line for Vertical Movement Calculations [m]	Deflection Ratio [%]	Average Horizontal Strain [%]	Max Slope	Max Settlement [mm]	Max Tensile Strain [%]	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging) [m]	Min Radius of Curvature (Sagging) [m]	Damage Category
0.0	246.38E-6	0.0	35.933E-6	0.21990	231.49E-6	0.0	35.933E-6	-	159040.0	(Negligible)
Structure: WH6 Sub-structure: WH6										
Vertical Offset from Line for Vertical Movement Calculations [m]	Deflection Ratio [%]	Average Horizontal Strain [%]	Max Slope	Max Settlement [mm]	Max Tensile Strain [%]	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging) [m]	Min Radius of Curvature (Sagging) [m]	Damage Category
0.0	16.694E-6	0.0	-5.2837E-6	0.21992	16.701E-6	0.0	-5.2837E-6	624930.	-	0 (Negligible)
Structure: WH7 Sub-structure: WH7										
Vertical Offset from Line for Vertical Movement Calculations [m]	Deflection Ratio [%]	Average Horizontal Strain [%]	Max Slope	Max Settlement [mm]	Max Tensile Strain [%]	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging) [m]	Min Radius of Curvature (Sagging) [m]	Damage Category
0.0	182.84E-6	0.0	48.867E-6	0.29673	176.49E-6	0.0	48.867E-6	-	113020.0	(Negligible)
Structure: WH8 Sub-structure: WH8										
Vertical Offset from Line for Vertical Movement Calculations [m]	Deflection Ratio [%]	Average Horizontal Strain [%]	Max Slope	Max Settlement [mm]	Max Tensile Strain [%]	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging) [m]	Min Radius of Curvature (Sagging) [m]	Damage Category
0.0	73.435E-6	0.0	7.2282E-6	0.30688	72.634E-6	0.0	7.2282E-6	335870.	-	0 (Negligible)
Structure: WH9 Sub-structure: WH9										
Vertical Offset from Line for Vertical Movement Calculations [m]	Deflection Ratio [%]	Average Horizontal Strain [%]	Max Slope	Max Settlement [mm]	Max Tensile Strain [%]	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging) [m]	Min Radius of Curvature (Sagging) [m]	Damage Category
0.0	0.0010195	0.0	131.71E-6	0.68788	0.001367	0.0	131.71E-6	-	32153.0	(Negligible)
Structure: WH10 Sub-structure: WH10										
Vertical Offset from Line for Vertical Movement Calculations [m]	Deflection Ratio [%]	Average Horizontal Strain [%]	Max Slope	Max Settlement [mm]	Max Tensile Strain [%]	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging) [m]	Min Radius of Curvature (Sagging) [m]	Damage Category
0.0	546.81E-6	0.0	-47.882E-6	0.68794	493.78E-6	0.0	-47.882E-6	97155.	-	0 (Negligible)
Structure: WH11 Sub-structure: WH11										
Vertical Offset from Line for Vertical Movement Calculations [m]	Deflection Ratio [%]	Average Horizontal Strain [%]	Max Slope	Max Settlement [mm]	Max Tensile Strain [%]	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging) [m]	Min Radius of Curvature (Sagging) [m]	Damage Category
0.0	69.075E-6	0.0	-66.833E-6	0.47870	68.700E-6	0.0	-66.833E-6	-	134370.0	(Negligible)
Structure: WH12 Sub-structure: WH12										
Vertical Offset from Line for Vertical Movement Calculations [m]	Deflection Ratio [%]	Average Horizontal Strain [%]	Max Slope	Max Settlement [mm]	Max Tensile Strain [%]	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging) [m]	Min Radius of Curvature (Sagging) [m]	Damage Category
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 (Negligible)



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Vertical Offset from Line for Vertical	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
0.0	41.053E-6	0.0	-40.596E-6	0.42962	39.804E-6	0.0	-40.596E-6	-	346310.0	0 (Negligible)
Structure: WH13 Sub-structure: WH13										
Calculations	[m]	[%]		[mm]	[%]			[m]	[m]	
0.0	37.020E-6	0.0	43.819E-6	0.39549	36.943E-6	0.0	43.819E-6	272210.	-	0 (Negligible)
Structure: WH14 Sub-structure: WH14										
Calculations	[m]	[%]		[mm]	[%]			[m]	[m]	
0.0	474.18E-6	0.0	-46.972E-6	0.39550	614.37E-6	0.0	-46.972E-6	1.1525E+6	113140.0	0 (Negligible)
Structure: WH15 Sub-structure: WH15										
Calculations	[m]	[%]		[mm]	[%]			[m]	[m]	
0.0	361.36E-6	0.0	-20.518E-6	0.21544	355.02E-6	0.0	-20.518E-6	32860.	607190.0	0 (Negligible)
Structure: WH16 Sub-structure: WH16										
Calculations	[m]	[%]		[mm]	[%]			[m]	[m]	
0.0	24.139E-6	0.0	12.758E-6	0.18857	22.352E-6	0.0	12.758E-6	-	1.2129E+6	0 (Negligible)
Structure: WH17 Sub-structure: WH17										
Calculations	[m]	[%]		[mm]	[%]			[m]	[m]	
0.0	58.530E-6	0.0	-24.217E-6	0.18858	57.828E-6	0.0	-24.217E-6	-	424680.0	0 (Negligible)
Structure: WH18 Sub-structure: WH18										
Calculations	[m]	[%]		[mm]	[%]			[m]	[m]	
0.0	4.1685E-6	0.0	-9.7976E-6	0.14396	4.1842E-6	0.0	-9.7976E-6	-	2.3661E+6	0 (Negligible)
Structure: WH19 Sub-structure: WH19										
Calculations	[m]	[%]		[mm]	[%]			[m]	[m]	
0.0	49.594E-6	0.0	-18.143E-6	0.13622	48.888E-6	0.0	-18.143E-6	-	490440.0	0 (Negligible)
Structure: WH20 Sub-structure: WH20										
Calculations	[m]	[%]		[mm]	[%]			[m]	[m]	
Structure: WH21 Sub-structure: WH21										
Calculations	[m]	[%]		[mm]	[%]			[m]	[m]	
Structure: WH22 Sub-structure: WH22										
Calculations	[m]	[%]		[mm]	[%]			[m]	[m]	
Structure: WH23 Sub-structure: WH23										
Calculations	[m]	[%]		[mm]	[%]			[m]	[m]	
Structure: WH24 Sub-structure: WH24										
Calculations	[m]	[%]		[mm]	[%]			[m]	[m]	



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Vertical Movement Calculations	Displacement Curve	Curve (Hogging)	(Sagging)	Damage Category						
[m]	[mm]	[m]	[m]							
Structure: TA1 Sub-structure: TA1										
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	221.86E-6	0.0	13.107E-6	0.16191	203.10E-6	0.0	13.107E-6	481410.	2.1682E+6	0 (Negligible)
Structure: TA2 Sub-structure: TA2										
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	68.190E-6	0.0	-16.801E-6	0.15873	67.985E-6	0.0	-16.801E-6	149570.	646060.	0 (Negligible)
Structure: TA3 Sub-structure: TA3										
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
Structure: TA4 Sub-structure: TA4										
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
Structure: TA5 Sub-structure: TA5										
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
Structure: TA6 Sub-structure: TA6										
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
Structure: TA7 Sub-structure: TA7										
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
Structure: TA8 Sub-structure: TA8										
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
Structure: TA9 Sub-structure: TA9										
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
Structure: TA10 Sub-structure: TA10										
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
Structure: TA11 Sub-structure: TA11										
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
Structure: TA12 Sub-structure: TA12										
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	



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Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
Structure: TA13 Sub-structure: TA13										
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
Structure: TA14 Sub-structure: TA14										
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
Structure: TA15 Sub-structure: TA15										
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
Structure: TA16 Sub-structure: TA16										
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
Structure: TA17 Sub-structure: TA17										
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
Structure: TA18 Sub-structure: TA18										
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
Structure: TA19 Sub-structure: TA19										
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
Structure: TA20 Sub-structure: TA20										
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
Structure: TA21 Sub-structure: TA21										
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
Structure: TA22 Sub-structure: TA22										
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
Structure: TA23 Sub-structure: TA23										
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
Structure: TA24 Sub-structure: TA24										
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	



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Structure: TA25 | Sub-structure: TA25

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	0.0	0.0	-99.292E-6	0.15715	0.0	0.0	-99.292E-6	-	70967.0	0 (Negligible)

Structure: TA26 | Sub-structure: TA26

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	0.0	0.0	175.43E-6	0.15715	0.0	0.0	175.43E-6	-	-	0 (Negligible)

Specific Building Damage Results - Critical Segments within Each Structure

Structure Name	Parameter	Critical Sub-Structure	Critical Segment	Start [m]	End [m]	Curvature	Max Slope	Max Settlement [mm]	Max Tensile Strain [%]	Min Radius of Curvature (Hogging) [m]	Min Radius of Curvature (Sagging) [m]	Damage Category	
WH1	All settlements are less than the Settlement Trough Limit Sensitivity.												
	All settlements are less than the Settlement Trough Limit Sensitivity.												
	All settlements are less than the Settlement Trough Limit Sensitivity.												
	All settlements are less than the Settlement Trough Limit Sensitivity.												
WH2	All settlements are less than the Settlement Trough Limit Sensitivity.												
	All settlements are less than the Settlement Trough Limit Sensitivity.												
	All settlements are less than the Settlement Trough Limit Sensitivity.												
	All settlements are less than the Settlement Trough Limit Sensitivity.												
WH3	All settlements are less than the Settlement Trough Limit Sensitivity.												
	Max Slope	WH3		1	1.3130	1.3130	Sagging	16.685E-6	0.10271	0.0	-	376640.0 (Negligible)	
	Max Settlement	WH3		1	1.3130	1.3130	Sagging	16.685E-6	0.10271	0.0	-	376640.0 (Negligible)	
	Max Tensile Strain	WH3		1	1.3130	1.3130	Sagging	16.685E-6	0.10271	0.0	-	376640.0 (Negligible)	
WH4	Min Radius of Curvature (Hogging)			-	-	-	-	-	-	-	-	-	
	Min Radius of Curvature (Sagging)			-	-	-	-	-	-	-	-	-	
	Max Slope	WH4		1	0.0	0.90800	Hogging	0.0	0.10315	7.1883E-6	1.5589E+6	-	0 (Negligible)
	Max Settlement	WH4		1	0.0	0.90800	Hogging	0.0	0.10315	7.1883E-6	1.5589E+6	-	0 (Negligible)
WH5	Max Tensile Strain	WH4		1	0.0	0.90800	Hogging	0.0	0.10315	7.1883E-6	1.5589E+6	-	0 (Negligible)
	Min Radius of Curvature (Hogging)	WH4		1	0.0	0.90800	Hogging	0.0	0.10315	7.1883E-6	1.5589E+6	-	0 (Negligible)
	Min Radius of Curvature (Sagging)			-	-	-	-	-	-	-	-	-	
	Max Slope	WH5		1	0.0	4.5040	Sagging	35.933E-6	0.21990	231.49E-6	-	159040.0 (Negligible)	
WH6	Max Settlement	WH5		1	0.0	4.5040	Sagging	35.933E-6	0.21990	231.49E-6	-	159040.0 (Negligible)	
	Max Tensile Strain	WH5		1	0.0	4.5040	Sagging	35.933E-6	0.21990	231.49E-6	-	159040.0 (Negligible)	
	Min Radius of Curvature (Hogging)	WH5		1	0.0	4.5040	Sagging	35.933E-6	0.21990	231.49E-6	-	159040.0 (Negligible)	
	Min Radius of Curvature (Sagging)			-	-	-	-	-	-	-	-	-	
WH7	Max Slope	WH6		1	0.0	0.84300	Hogging	5.2837E-6	0.21992	16.701E-6	624930.	-	0 (Negligible)
	Max Settlement	WH6		1	0.0	0.84300	Hogging	5.2837E-6	0.21992	16.701E-6	624930.	-	0 (Negligible)
	Max Tensile Strain	WH6		1	0.0	0.84300	Hogging	5.2837E-6	0.21992	16.701E-6	624930.	-	0 (Negligible)
	Min Radius of Curvature (Hogging)	WH6		1	0.0	0.84300	Hogging	5.2837E-6	0.21992	16.701E-6	624930.	-	0 (Negligible)
WH8	Min Radius of Curvature (Sagging)			-	-	-	-	-	-	-	-	-	
	Max Slope	WH7		1	0.0	1.8760	Sagging	48.867E-6	0.29673	176.49E-6	-	113020.0 (Negligible)	
	Max Settlement	WH7		1	0.0	1.8760	Sagging	48.867E-6	0.29673	176.49E-6	-	113020.0 (Negligible)	
	Max Tensile Strain	WH7		1	0.0	1.8760	Sagging	48.867E-6	0.29673	176.49E-6	-	113020.0 (Negligible)	
WH9	Min Radius of Curvature (Hogging)	WH7		1	0.0	1.8760	Sagging	48.867E-6	0.29673	176.49E-6	-	113020.0 (Negligible)	
	Min Radius of Curvature (Sagging)			-	-	-	-	-	-	-	-	-	
	Max Slope	WH8		1	0.0	2.1010	Hogging	7.2282E-6	0.30688	72.634E-6	335870.	-	0 (Negligible)
	Max Settlement	WH8		1	0.0	2.1010	Hogging	7.2282E-6	0.30688	72.634E-6	335870.	-	0 (Negligible)
WH10	Max Tensile Strain	WH8		1	0.0	2.1010	Hogging	7.2282E-6	0.30688	72.634E-6	335870.	-	0 (Negligible)
	Min Radius of Curvature (Hogging)	WH8		1	0.0	2.1010	Hogging	7.2282E-6	0.30688	72.634E-6	335870.	-	0 (Negligible)
	Min Radius of Curvature (Sagging)			-	-	-	-	-	-	-	-	-	
	Max Slope	WH9		1	0.0	4.3160	Sagging	131.71E-6	0.68788	0.0011367	-	32153.0 (Negligible)	
WH11	Max Settlement	WH9		1	0.0	4.3160	Sagging	131.71E-6	0.68788	0.0011367	-	32153.0 (Negligible)	
	Max Tensile Strain	WH9		1	0.0	4.3160	Sagging	131.71E-6	0.68788	0.0011367	-	32153.0 (Negligible)	
	Min Radius of Curvature (Hogging)	WH9		1	0.0	4.3160	Sagging	131.71E-6	0.68788	0.0011367	-	32153.0 (Negligible)	
	Min Radius of Curvature (Sagging)			-	-	-	-	-	-	-	-	-	
WH12	Max Slope	WH10		1	0.0	6.5070	Hogging	47.882E-6	0.68794	493.78E-6	97155.	-	0 (Negligible)
	Max Settlement	WH10		1	0.0	6.5070	Hogging	47.882E-6	0.68794	493.78E-6	97155.	-	0 (Negligible)
	Max Tensile Strain	WH10		1	0.0	6.5070	Hogging	47.882E-6	0.68794	493.78E-6	97155.	-	0 (Negligible)
	Min Radius of Curvature (Hogging)	WH10		1	0.0	6.5070	Hogging	47.882E-6	0.68794	493.78E-6	97155.	-	0 (Negligible)
WH13	Min Radius of Curvature (Sagging)			-	-	-	-	-	-	-	-	-	
	Max Slope	WH11		1	0.0	0.75000	Sagging	66.833E-6	0.47870	68.700E-6	-	134370.0 (Negligible)	
	Max Settlement	WH11		1	0.0	0.75000	Sagging	66.833E-6	0.47870	68.700E-6	-	134370.0 (Negligible)	
	Max Tensile Strain	WH11		1	0.0	0.75000	Sagging	66.833E-6	0.47870	68.700E-6	-	134370.0 (Negligible)	
WH14	Min Radius of Curvature (Hogging)	WH11		1	0.0	0.75000	Sagging	66.833E-6	0.47870	68.700E-6	-	134370.0 (Negligible)	
	Min Radius of Curvature (Sagging)			-	-	-	-	-	-	-	-	-	
	Max Slope	WH12		1	0.0	1.7500	Sagging	40.596E-6	0.42962	39.804E-6	-	346310.0 (Negligible)	
	Max Settlement	WH12		1	0.0	1.7500	Sagging	40.596E-6	0.42962	39.804E-6	-	346310.0 (Negligible)	
WH15	Max Tensile Strain	WH12		1	0.0	1.7500	Sagging	40.596E-6	0.42962	39.804E-6	-	346310.0 (Negligible)	
	Strain			-	-	-	-	-	-	-	-	-	



35 Templewood Avenue

Pool Transfer revision

Excavation (Heave Long Term) + Loading (Long Term)

Job No.	Sheet No.	Rev.
P1017J1129		
Drg. Ref.		
Made by JW	Date 13-Aug-2018	Checked

Structure Name	Parameter	Critical Sub-Structure	Critical Segment	Start	End	Curvature	Max Slope	Max Settlement	Max Tensile Strain	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
	Min Radius of Curvature (Hogging)											
WH13	Min Radius of Curvature (Sagging)	WH12	1	0.0	1.7500	Sagging	40.596E-6	0.42962	39.804E-6		346310.0	0 (Negligible)
	Max Slope	WH13	1	0.0	0.81400	Hogging	43.819E-6	0.39549	36.943E-6	272210.		0 (Negligible)
	Max Settlement	WH13	1	0.0	0.81400	Hogging	43.819E-6	0.39549	36.943E-6	272210.		0 (Negligible)
	Max Tensile Strain	WH13	1	0.0	0.81400	Hogging	43.819E-6	0.39549	36.943E-6	272210.		0 (Negligible)
	Min Radius of Curvature (Hogging)	WH13	1	0.0	0.81400	Hogging	43.819E-6	0.39549	36.943E-6	272210.		0 (Negligible)
	Min Radius of Curvature (Sagging)											
WH14	Max Slope	WH14	1	0.0	5.5328	Sagging	46.972E-6	0.39550	614.37E-6		113140.0	0 (Negligible)
	Max Settlement	WH14	1	0.0	5.5328	Sagging	46.972E-6	0.39550	614.37E-6		113140.0	0 (Negligible)
	Max Tensile Strain	WH14	1	0.0	5.5328	Sagging	46.972E-6	0.39550	614.37E-6		113140.0	0 (Negligible)
	Min Radius of Curvature (Hogging)	WH14	2	5.5328	6.4130	Hogging	17.642E-6	0.22910	7.9036E-6	1.1525E+6		0 (Negligible)
	Min Radius of Curvature (Sagging)	WH14	1	0.0	5.5328	Sagging	46.972E-6	0.39550	614.37E-6		113140.0	0 (Negligible)
WH15	Max Slope	WH15	1	0.0	2.6362	Hogging	20.518E-6	0.21544	355.02E-6	32860.		0 (Negligible)
	Max Settlement	WH15	1	0.0	2.6362	Hogging	20.518E-6	0.21544	355.02E-6	32860.		0 (Negligible)
	Max Tensile Strain	WH15	1	0.0	2.6362	Hogging	20.518E-6	0.21544	355.02E-6	32860.		0 (Negligible)
	Min Radius of Curvature (Hogging)	WH15	1	0.0	2.6362	Hogging	20.518E-6	0.21544	355.02E-6	32860.		0 (Negligible)
	Min Radius of Curvature (Sagging)	WH15	2	2.6362	4.1900	Sagging	20.518E-6	0.17967	24.712E-6		607190.0	0 (Negligible)
WH16	Max Slope	WH16	1	0.0	3.3610	Sagging	12.758E-6	0.18857	22.352E-6		- 1.2129E+6	0 (Negligible)
	Max Settlement	WH16	1	0.0	3.3610	Sagging	12.758E-6	0.18857	22.352E-6		- 1.2129E+6	0 (Negligible)
	Max Tensile Strain	WH16	1	0.0	3.3610	Sagging	12.758E-6	0.18857	22.352E-6		- 1.2129E+6	0 (Negligible)
	Min Radius of Curvature (Hogging)											
	Min Radius of Curvature (Sagging)	WH16	1	0.0	3.3610	Sagging	12.758E-6	0.18857	22.352E-6		- 1.2129E+6	0 (Negligible)
WH17	Max Slope	WH17	1	0.0	2.0030	Sagging	24.217E-6	0.18858	57.828E-6		- 424680.0	0 (Negligible)
	Max Settlement	WH17	1	0.0	2.0030	Sagging	24.217E-6	0.18858	57.828E-6		- 424680.0	0 (Negligible)
	Max Tensile Strain	WH17	1	0.0	2.0030	Sagging	24.217E-6	0.18858	57.828E-6		- 424680.0	0 (Negligible)
	Min Radius of Curvature (Hogging)											
	Min Radius of Curvature (Sagging)	WH17	1	0.0	2.0030	Sagging	24.217E-6	0.18858	57.828E-6		- 424680.0	0 (Negligible)
WH18	Max Slope	WH18	1	0.0	0.79700	Sagging	9.7976E-6	0.14396	4.1842E-6		- 2.3661E+6	0 (Negligible)
	Max Settlement	WH18	1	0.0	0.79700	Sagging	9.7976E-6	0.14396	4.1842E-6		- 2.3661E+6	0 (Negligible)
	Max Tensile Strain	WH18	1	0.0	0.79700	Sagging	9.7976E-6	0.14396	4.1842E-6		- 2.3661E+6	0 (Negligible)
	Min Radius of Curvature (Hogging)											
	Min Radius of Curvature (Sagging)	WH18	1	0.0	0.79700	Sagging	9.7976E-6	0.14396	4.1842E-6		- 2.3661E+6	0 (Negligible)
WH19	Max Slope	WH19	1	0.0	2.1275	Sagging	18.143E-6	0.13622	48.888E-6		- 490440.0	0 (Negligible)
	Max Settlement	WH19	1	0.0	2.1275	Sagging	18.143E-6	0.13622	48.888E-6		- 490440.0	0 (Negligible)
	Max Tensile Strain	WH19	1	0.0	2.1275	Sagging	18.143E-6	0.13622	48.888E-6		- 490440.0	0 (Negligible)
	Min Radius of Curvature (Hogging)											
	Min Radius of Curvature (Sagging)	WH19	1	0.0	2.1275	Sagging	18.143E-6	0.13622	48.888E-6		- 490440.0	0 (Negligible)
WH20	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
WH21	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
WH22	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
WH23	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
WH24	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
TA1	Max Slope	TA1	1	3.3257	3.6615	Sagging	13.107E-6	0.10710	0.0		- 2.1682E+6	0 (Negligible)
	Max Settlement	TA1	2	3.6615	14.253	Hogging	13.107E-6	0.16191	203.10E-6	481410.		0 (Negligible)
	Max Tensile Strain	TA1	2	3.6615	14.253	Hogging	13.107E-6	0.16191	203.10E-6	481410.		0 (Negligible)
	Min Radius of Curvature (Hogging)	TA1	2	3.6615	14.253	Hogging	13.107E-6	0.16191	203.10E-6	481410.		0 (Negligible)
	Min Radius of Curvature (Sagging)	TA1	1	3.3257	3.6615	Sagging	13.107E-6	0.10710	0.0		- 2.1682E+6	0 (Negligible)
TA2	Max Slope	TA2	1	0.0	1.7071	Hogging	16.801E-6	0.15873	67.985E-6	149570.		0 (Negligible)
	Max Settlement	TA2	1	0.0	1.7071	Hogging	16.801E-6	0.15873	67.985E-6	149570.		0 (Negligible)
	Max Tensile Strain	TA2	1	0.0	1.7071	Hogging	16.801E-6	0.15873	67.985E-6	149570.		0 (Negligible)
	Min Radius of Curvature (Hogging)	TA2	1	0.0	1.7071	Hogging	16.801E-6	0.15873	67.985E-6	149570.		0 (Negligible)
	Min Radius of Curvature (Sagging)	TA2	2	1.7071	3.3855	Sagging	16.763E-6	0.13274	24.211E-6		- 646060.0	0 (Negligible)
TA3	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
TA4	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
TA5	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
TA6	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											



35 Templewood Avenue
Pool Transfer revision
Excavation (Heave, Short Term)

Job No.	Sheet No.	Rev.
P1017J1129		
Drg. Ref.		
Made by JW	Date 13-Aug-2018	Checked

Utility Strain Calculation Options

Neglect beneficial contribution of axial strains : No

Specific Building Damage Results - Horizontal Displacements

Structure: WH1 | Sub-structure: WH1

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	38.72700	64.63300	112.00000	0.0	0.0
0.43260	34.15950	64.64242	112.00000	0.0	0.0
0.86521	34.59200	64.65183	112.00000	0.0	0.0
1.2978	35.02450	64.66125	112.00000	0.0	0.0
1.7304	35.45700	64.67067	112.00000	0.0	0.0
2.1630	35.88950	64.68008	112.00000	0.0	0.0
2.5956	36.32200	64.68950	112.00000	0.0	0.0
3.0282	36.75450	64.69892	112.00000	0.0	0.0
3.4608	37.18700	64.70833	112.00000	0.0	0.0
3.8934	37.61950	64.71775	112.00000	0.0	0.0
4.3260	38.05200	64.72717	112.00000	0.0	0.0
4.7586	38.48450	64.73658	112.00000	0.0	0.0
5.1912	38.91700	64.74600	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: WH2 | Sub-structure: WH2

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	38.91700	64.74600	112.00000	0.0	0.0
0.37347	39.03600	64.39200	112.00000	0.0	0.0
0.74693	39.15500	64.03800	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: WH3 | Sub-structure: WH3

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	39.15500	64.03800	112.00000	0.0	0.0
0.32830	39.48325	64.04400	112.00000	0.0	0.0
0.65661	39.81150	64.05000	112.00000	0.0	0.0
0.98491	40.13975	64.05600	112.00000	0.0	0.0
1.3132	40.46800	64.06200	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: WH4 | Sub-structure: WH4

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	40.46800	64.06200	112.00000	0.0	0.0
0.45411	40.44450	64.51550	112.00000	0.0	0.0
0.90822	40.42100	64.96900	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: WH5 | Sub-structure: WH5

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	40.42100	64.96900	112.00000	0.0	0.0
0.45043	40.87130	64.97990	112.00000	0.0	0.0
0.90086	41.32160	64.99080	112.00000	0.0	0.0
1.3513	41.77190	65.00170	112.00000	0.0	0.0
1.8017	42.22220	65.01260	112.00000	0.0	0.0
2.2522	42.67250	65.02350	112.00000	0.0	0.0
2.7026	43.12280	65.03440	112.00000	0.0	0.0
3.1530	43.57310	65.04530	112.00000	0.0	0.0
3.6035	44.02340	65.05620	112.00000	0.0	0.0
4.0539	44.47370	65.06710	112.00000	0.0	0.0
4.5043	44.92400	65.07800	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: WH6 | Sub-structure: WH6

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	44.92400	65.07800	112.00000	0.0	0.0
0.42157	44.91650	64.65650	112.00000	0.0	0.0
0.84313	44.90900	64.23500	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: WH7 | Sub-structure: WH7

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	44.90900	64.23500	112.00000	0.0	0.0
0.46904	45.37800	64.24075	112.00000	0.0	0.0
0.93807	45.84700	64.24650	112.00000	0.0	0.0
1.4071	46.31600	64.25225	112.00000	0.0	0.0
1.8761	46.78500	64.25800	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: WH8 | Sub-structure: WH8

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]



35 Templewood Avenue

Pool Transfer revision

Excavation (Heave, Short Term)

Job No. Sheet No. Rev.

P1017J1129

Drg. Ref.

Made by JW

Date 13-Aug-2018

Checked

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the	Horizontal displacement perpendicular to
				Line	Line
	[m]	[m]	[m]	[mm]	[mm]
0.0	46.78500	64.25800	112.00000	0.0	0.0
0.35019	46.78067	64.60817	112.00000	0.0	0.0
0.70039	46.77633	64.95833	112.00000	0.0	0.0
1.0506	46.77200	65.30850	112.00000	0.0	0.0
1.4008	46.76767	65.65867	112.00000	0.0	0.0
1.7510	46.76333	66.00883	112.00000	0.0	0.0
2.1012	46.75900	66.35900	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: WH9 | Sub-structure: WH9

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the	Horizontal displacement perpendicular to
				Line	Line
	[m]	[m]	[m]	[mm]	[mm]
0.0	46.75900	66.35900	112.00000	0.0	0.0
0.43165	47.19050	66.37020	112.00000	0.0	0.0
0.86329	47.62200	66.38140	112.00000	0.0	0.0
1.2949	48.05350	66.39260	112.00000	0.0	0.0
1.7266	48.48500	66.40380	112.00000	0.0	0.0
2.1582	48.91650	66.41500	112.00000	0.0	0.0
2.5899	49.34800	66.42620	112.00000	0.0	0.0
3.0215	49.77950	66.43740	112.00000	0.0	0.0
3.4532	50.21100	66.44860	112.00000	0.0	0.0
3.8848	50.64250	66.45980	112.00000	0.0	0.0
4.3165	51.07400	66.47100	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: WH10 | Sub-structure: WH10

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the	Horizontal displacement perpendicular to
				Line	Line
	[m]	[m]	[m]	[mm]	[mm]
0.0	51.07400	66.47100	112.00000	0.0	0.0
0.46479	51.08821	66.06643	112.00000	0.0	0.0
0.92958	51.10243	65.54186	112.00000	0.0	0.0
1.3944	51.11664	65.01729	112.00000	0.0	0.0
1.8592	51.13086	64.49271	112.00000	0.0	0.0
2.3239	51.14507	64.14814	112.00000	0.0	0.0
2.7887	51.15929	63.68357	112.00000	0.0	0.0
3.2535	51.17350	63.21900	112.00000	0.0	0.0
3.7183	51.18771	62.75443	112.00000	0.0	0.0
4.1831	51.20193	62.28986	112.00000	0.0	0.0
4.6479	51.21614	61.82529	112.00000	0.0	0.0
5.1127	51.23036	61.36071	112.00000	0.0	0.0
5.5775	51.24457	60.89614	112.00000	0.0	0.0
6.0423	51.25879	60.43157	112.00000	0.0	0.0
6.5070	51.27300	59.96700	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: WH11 | Sub-structure: WH11

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the	Horizontal displacement perpendicular to
				Line	Line
	[m]	[m]	[m]	[mm]	[mm]
0.0	51.27300	59.96700	112.00000	0.0	0.0
0.37506	50.89800	59.97350	112.00000	0.0	0.0
0.75011	50.52300	59.98000	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: WH12 | Sub-structure: WH12

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the	Horizontal displacement perpendicular to
				Line	Line
	[m]	[m]	[m]	[mm]	[mm]
0.0	50.52300	59.98000	112.00000	0.0	0.0
0.43756	50.51550	59.54250	112.00000	0.0	0.0
0.87513	50.50800	59.10500	112.00000	0.0	0.0
1.3127	50.50050	58.66750	112.00000	0.0	0.0
1.7503	50.49300	58.23000	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: WH13 | Sub-structure: WH13

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the	Horizontal displacement perpendicular to
				Line	Line
	[m]	[m]	[m]	[mm]	[mm]
0.0	50.49300	58.23000	112.00000	0.0	0.0
0.40721	50.89950	58.25400	112.00000	0.0	0.0
0.81442	51.30600	58.27800	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: WH14 | Sub-structure: WH14

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the	Horizontal displacement perpendicular to
				Line	Line
	[m]	[m]	[m]	[mm]	[mm]
0.0	51.30600	58.27800	112.00000	0.0	0.0
0.45808	51.32036	57.82014	112.00000	0.0	0.0
0.91616	51.33471	57.36229	112.00000	0.0	0.0
1.37424	51.34907	56.90443	112.00000	0.0	0.0
1.8323	51.36343	56.44657	112.00000	0.0	0.0
2.2904	51.37779	55.98871	112.00000	0.0	0.0
2.7485	51.39214	55.53086	112.00000	0.0	0.0
3.2066	51.40650	55.07300	112.00000	0.0	0.0
3.6647	51.42086	54.61514	112.00000	0.0	0.0
4.1227	51.43521	54.15729	112.00000	0.0	0.0
4.5808	51.44957	53.69943	112.00000	0.0	0.0
5.0389	51.46393	53.24157	112.00000	0.0	0.0
5.4970	51.47829	52.78371	112.00000	0.0	0.0
5.9551	51.49264	52.32586	112.00000	0.0	0.0
6.4132	51.50700	51.86800	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: WH15 | Sub-structure: WH15

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the	Horizontal displacement perpendicular to
				Line	Line
	[m]	[m]	[m]	[mm]	[mm]
0.0	51.50700	51.86800	112.00000	0.0	0.0
0.41908	51.08800	51.85970	112.00000	0.0	0.0



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Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.83816	50.66900	51.85140	112.00000	0.0	0.0	0.0
1.2572	50.25000	51.84310	112.00000	0.0	0.0	0.0
1.6763	49.83100	51.83480	112.00000	0.0	0.0	0.0
2.0954	49.41200	51.82650	112.00000	0.0	0.0	0.0
2.5145	48.99300	51.81820	112.00000	0.0	0.0	0.0
2.9336	48.57400	51.80990	112.00000	0.0	0.0	0.0
3.3527	48.15500	51.80160	112.00000	0.0	0.0	0.0
3.7717	47.73600	51.79330	112.00000	0.0	0.0	0.0
4.1908	47.31700	51.78500	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: WH16 | Sub-structure: WH16

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.42021	47.30875	52.20512	112.00000	0.0	0.0	0.0
0.84041	47.30050	52.62525	112.00000	0.0	0.0	0.0
1.2606	47.29225	53.04538	112.00000	0.0	0.0	0.0
1.6808	47.28400	53.46550	112.00000	0.0	0.0	0.0
2.1010	47.27575	53.88562	112.00000	0.0	0.0	0.0
2.5212	47.26750	54.30575	112.00000	0.0	0.0	0.0
2.9414	47.25925	54.72588	112.00000	0.0	0.0	0.0
3.3616	47.25100	55.14600	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: WH17 | Sub-structure: WH17

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.33390	46.91733	55.13350	112.00000	0.0	0.0	0.0
0.66790	46.59367	55.12100	112.00000	0.0	0.0	0.0
1.0017	46.25000	55.10850	112.00000	0.0	0.0	0.0
1.3356	45.91633	55.09600	112.00000	0.0	0.0	0.0
1.6695	45.58267	55.08350	112.00000	0.0	0.0	0.0
2.0034	45.24900	55.07100	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: WH18 | Sub-structure: WH18

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.39856	45.24200	54.23560	112.00000	0.0	0.0	0.0
0.79712	45.23500	54.27400	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: WH19 | Sub-structure: WH19

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.42549	44.80970	54.26120	112.00000	0.0	0.0	0.0
0.85099	44.38440	54.24840	112.00000	0.0	0.0	0.0
1.2765	43.95910	54.23560	112.00000	0.0	0.0	0.0
1.7020	43.53380	54.22280	112.00000	0.0	0.0	0.0
2.1275	43.10850	54.21000	112.00000	0.0	0.0	0.0
2.5530	42.68320	54.19720	112.00000	0.0	0.0	0.0
2.9784	42.25790	54.18440	112.00000	0.0	0.0	0.0
3.4039	41.83260	54.17160	112.00000	0.0	0.0	0.0
3.8294	41.40730	54.15880	112.00000	0.0	0.0	0.0
4.2549	40.98200	54.14600	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: WH20 | Sub-structure: WH20

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.40607	40.98950	54.55200	112.00000	0.0	0.0	0.0
0.81214	40.99700	54.95800	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: WH21 | Sub-structure: WH21

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.43845	40.55900	54.93825	112.00000	0.0	0.0	0.0
0.87689	40.12100	54.91850	112.00000	0.0	0.0	0.0
1.3153	39.68300	54.89875	112.00000	0.0	0.0	0.0
1.7538	39.24500	54.87900	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: WH22 | Sub-structure: WH22

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.39975	39.26950	54.48000	112.00000	0.0	0.0	0.0
0.79950	39.29400	54.08100	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: WH23 | Sub-structure: WH23

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	39.24500	54.87900	112.00000	0.0	0.0	0.0



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Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.28803	70.21525	33.33950	112.00000	0.0	0.0	0.0
0.57605	70.42950	33.14700	112.00000	0.0	0.0	0.0
0.86408	70.64375	32.95450	112.00000	0.0	0.0	0.0
1.1521	70.85800	32.76200	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: TA5 | Sub-structure: TA5

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	70.85800	32.76200	112.00000	0.0	0.0	0.0
0.49988	70.84650	32.26225	112.00000	0.0	0.0	0.0
0.99976	70.83500	31.76250	112.00000	0.0	0.0	0.0
1.4996	70.82350	31.26275	112.00000	0.0	0.0	0.0
1.9995	70.81200	30.76300	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: TA6 | Sub-structure: TA6

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	70.81200	30.76300	112.00000	0.0	0.0	0.0
0.27366	70.62000	30.56800	112.00000	0.0	0.0	0.0
0.54732	70.42800	30.37300	112.00000	0.0	0.0	0.0
0.82098	70.23600	30.17800	112.00000	0.0	0.0	0.0
1.0946	70.04400	29.98300	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: TA7 | Sub-structure: TA7

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	70.04400	29.98300	112.00000	0.0	0.0	0.0
0.43761	69.60650	29.99300	112.00000	0.0	0.0	0.0
0.87523	69.42800	30.00300	112.00000	0.0	0.0	0.0
1.3128	68.73150	30.01300	112.00000	0.0	0.0	0.0
1.7505	68.29400	30.02300	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: TA8 | Sub-structure: TA8

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	68.29400	30.02300	112.00000	0.0	0.0	0.0
0.45429	68.29250	29.56871	112.00000	0.0	0.0	0.0
0.90858	68.29100	29.11443	112.00000	0.0	0.0	0.0
1.3629	68.28950	28.66014	112.00000	0.0	0.0	0.0
1.8172	68.28800	28.20586	112.00000	0.0	0.0	0.0
2.2714	68.28650	27.75157	112.00000	0.0	0.0	0.0
2.7257	68.28500	27.29729	112.00000	0.0	0.0	0.0
3.1800	68.28350	26.84300	112.00000	0.0	0.0	0.0
3.6343	68.28200	26.38871	112.00000	0.0	0.0	0.0
4.0886	68.28050	25.93443	112.00000	0.0	0.0	0.0
4.5429	68.27900	25.48014	112.00000	0.0	0.0	0.0
4.9972	68.27750	25.02586	112.00000	0.0	0.0	0.0
5.4515	68.27600	24.57157	112.00000	0.0	0.0	0.0
5.9057	68.27450	24.11729	112.00000	0.0	0.0	0.0
6.3600	68.27300	23.66300	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: TA9 | Sub-structure: TA9

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	68.27300	23.66300	112.00000	0.0	0.0	0.0
0.39075	67.88225	23.66200	112.00000	0.0	0.0	0.0
0.78150	67.49150	23.66100	112.00000	0.0	0.0	0.0
1.1723	67.10075	23.66000	112.00000	0.0	0.0	0.0
1.5630	66.71000	23.65900	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: TA10 | Sub-structure: TA10

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	66.71000	23.65900	112.00000	0.0	0.0	0.0
0.40234	66.71117	23.25667	112.00000	0.0	0.0	0.0
0.80467	66.71233	22.85433	112.00000	0.0	0.0	0.0
1.2070	66.71350	22.45200	112.00000	0.0	0.0	0.0
1.6093	66.71467	22.04967	112.00000	0.0	0.0	0.0
2.0117	66.71583	21.64733	112.00000	0.0	0.0	0.0
2.4140	66.71700	21.24500	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: TA11 | Sub-structure: TA11

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	66.71700	21.24500	112.00000	0.0	0.0	0.0
0.43834	67.15500	21.26225	112.00000	0.0	0.0	0.0
0.87668	67.59300	21.27950	112.00000	0.0	0.0	0.0
1.3150	68.03100	21.29675	112.00000	0.0	0.0	0.0
1.7534	68.46900	21.31400	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: TA12 | Sub-structure: TA12

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	66.71700	21.24500	112.00000	0.0	0.0	0.0
0.43834	67.15500	21.26225	112.00000	0.0	0.0	0.0
0.87668	67.59300	21.27950	112.00000	0.0	0.0	0.0
1.3150	68.03100	21.29675	112.00000	0.0	0.0	0.0
1.7534	68.46900	21.31400	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.



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[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	68.46900	21.31400	112.00000	0.0	0.0	0.0	0.0
0.36190	68.71275	21.04650	112.00000	0.0	0.0	0.0	0.0
0.72380	68.95650	20.77900	112.00000	0.0	0.0	0.0	0.0
1.0857	69.20025	20.51150	112.00000	0.0	0.0	0.0	0.0
1.4476	69.44400	20.24400	112.00000	0.0	0.0	0.0	0.0

Structure: TA13 | Sub-structure: TA13

Dist.	Coordinates			Displacements	
	x	y	z	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	69.44400	20.24400	112.00000	0.0	0.0
0.36732	69.42517	19.87717	112.00000	0.0	0.0
0.73463	69.40633	19.51033	112.00000	0.0	0.0
1.1019	69.38750	19.14350	112.00000	0.0	0.0
1.4693	69.36867	18.77667	112.00000	0.0	0.0
1.8366	69.34983	18.40983	112.00000	0.0	0.0
2.2039	69.33100	18.04300	112.00000	0.0	0.0

Structure: TA14 | Sub-structure: TA14

Dist.	Coordinates			Displacements	
	x	y	z	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	69.33100	18.04300	112.00000	0.0	0.0
0.31304	69.12250	17.80950	112.00000	0.0	0.0
0.62608	68.91400	17.57600	112.00000	0.0	0.0
0.93912	68.70550	17.34250	112.00000	0.0	0.0
1.2522	68.49700	17.10900	112.00000	0.0	0.0

Structure: TA15 | Sub-structure: TA15

Dist.	Coordinates			Displacements	
	x	y	z	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	68.49700	17.10900	112.00000	0.0	0.0
0.28210	68.21650	17.13900	112.00000	0.0	0.0
0.56420	67.93600	17.16900	112.00000	0.0	0.0

Structure: TA16 | Sub-structure: TA16

Dist.	Coordinates			Displacements	
	x	y	z	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	67.93600	17.16900	112.00000	0.0	0.0
0.42452	67.93142	16.74450	112.00000	0.0	0.0
0.84905	67.92683	16.32000	112.00000	0.0	0.0
1.2736	67.92225	15.89550	112.00000	0.0	0.0
1.6981	67.91767	15.47100	112.00000	0.0	0.0
2.1226	67.91308	15.04650	112.00000	0.0	0.0
2.5471	67.90850	14.62200	112.00000	0.0	0.0
2.9717	67.90392	14.19750	112.00000	0.0	0.0
3.3962	67.89933	13.77300	112.00000	0.0	0.0
3.8207	67.89475	13.34850	112.00000	0.0	0.0
4.2452	67.89017	12.92400	112.00000	0.0	0.0
4.6698	67.88558	12.49950	112.00000	0.0	0.0
5.0943	67.88100	12.07500	112.00000	0.0	0.0

Structure: TA17 | Sub-structure: TA17

Dist.	Coordinates			Displacements	
	x	y	z	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	67.88100	12.07500	112.00000	0.0	0.0
0.47100	67.41000	12.07387	112.00000	0.0	0.0
0.94200	66.93900	12.07273	112.00000	0.0	0.0
1.41300	66.46800	12.07160	112.00000	0.0	0.0
1.8840	65.99700	12.07047	112.00000	0.0	0.0
2.3550	65.52600	12.06933	112.00000	0.0	0.0
2.8260	65.05500	12.06820	112.00000	0.0	0.0
3.2970	64.58400	12.06707	112.00000	0.0	0.0
3.7680	64.11300	12.06593	112.00000	0.0	0.0
4.2390	63.64200	12.06480	112.00000	0.0	0.0
4.7100	63.17100	12.06367	112.00000	0.0	0.0
5.1810	62.70000	12.06253	112.00000	0.0	0.0
5.6520	62.22900	12.06140	112.00000	0.0	0.0
6.1230	61.75800	12.06027	112.00000	0.0	0.0
6.5940	61.28700	12.05913	112.00000	0.0	0.0
7.0650	60.81600	12.05800	112.00000	0.0	0.0
7.5360	60.34500	12.05687	112.00000	0.0	0.0
8.0070	59.87400	12.05573	112.00000	0.0	0.0
8.4780	59.40300	12.05460	112.00000	0.0	0.0
8.9490	58.93200	12.05347	112.00000	0.0	0.0
9.4200	58.46100	12.05233	112.00000	0.0	0.0
9.8910	57.99000	12.05120	112.00000	0.0	0.0
10.362	57.51900	12.05007	112.00000	0.0	0.0
10.833	57.04800	12.04893	112.00000	0.0	0.0
11.304	56.57700	12.04780	112.00000	0.0	0.0
11.775	56.10600	12.04667	112.00000	0.0	0.0
12.246	55.63500	12.04553	112.00000	0.0	0.0
12.717	55.16400	12.04440	112.00000	0.0	0.0
13.188	54.69300	12.04327	112.00000	0.0	0.0
13.659	54.22200	12.04213	112.00000	0.0	0.0
14.130	53.75100	12.04100	112.00000	0.0	0.0

Structure: TA18 | Sub-structure: TA18

Dist.	Coordinates			Displacements	
	x	y	z	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	53.75100	12.04100	112.00000	0.0	0.0
0.45295	53.43550	12.36500	112.00000	0.0	0.0
0.90590	53.12000	12.69100	112.00000	0.0	0.0
1.3589	52.80450	13.01600	112.00000	0.0	0.0
1.8118	52.48900	13.34100	112.00000	0.0	0.0
2.2648	52.17350	13.66600	112.00000	0.0	0.0
2.7177	51.85800	13.99100	112.00000	0.0	0.0



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Pool Transfer revision

Excavation (Heave, Short Term)

Job No.	Sheet No.	Rev.
P1017J1129		
Drg. Ref.		
Made by JW	Date 13-Aug-2018	Checked

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the	Horizontal displacement perpendicular

Structure: TA19 | Sub-structure: TA19

Dist.	Coordinates			Displacements	
	x	y	z	x	y
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	51.85800	13.99100	112.00000	0.0	0.0
0.49160	51.86500	16.94050	112.00000	0.0	0.0
0.98319	51.86500	14.97417	112.00000	0.0	0.0
1.4748	51.86850	15.46575	112.00000	0.0	0.0
1.9664	51.87200	15.95733	112.00000	0.0	0.0
2.4580	51.87550	16.44892	112.00000	0.0	0.0
2.9496	51.87900	16.94050	112.00000	0.0	0.0
3.4412	51.88250	17.43208	112.00000	0.0	0.0
3.9328	51.88600	17.92367	112.00000	0.0	0.0
4.4244	51.88950	18.41525	112.00000	0.0	0.0
4.9160	51.89300	18.90683	112.00000	0.0	0.0
5.4076	51.89650	19.39842	112.00000	0.0	0.0
5.8991	51.90000	19.89000	112.00000	0.0	0.0
6.3907	51.90350	20.38158	112.00000	0.0	0.0
6.8823	51.90700	20.87317	112.00000	0.0	0.0
7.3739	51.91050	21.36475	112.00000	0.0	0.0
7.8655	51.91400	21.85633	112.00000	0.0	0.0
8.3571	51.91750	22.34792	112.00000	0.0	0.0
8.8487	51.92100	22.83950	112.00000	0.0	0.0
9.3403	51.92450	23.33108	112.00000	0.0	0.0
9.8319	51.92800	23.82267	112.00000	0.0	0.0
10.3234	51.93150	24.31425	112.00000	0.0	0.0
10.815	51.93500	24.80583	112.00000	0.0	0.0
11.307	51.93850	25.29742	112.00000	0.0	0.0
11.798	51.94200	25.78900	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: TA20 | Sub-structure: TA20

Dist.	Coordinates			Displacements	
	x	y	z	x	y
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	51.94200	25.78900	112.00000	0.0	0.0
0.39924	52.17700	26.03367	112.00000	0.0	0.0
0.67849	52.41200	26.27833	112.00000	0.0	0.0
1.0177	52.64700	26.52300	112.00000	0.0	0.0
1.3570	52.88200	26.76767	112.00000	0.0	0.0
1.6962	53.11700	27.01233	112.00000	0.0	0.0
2.0355	53.35200	27.25700	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: TA21 | Sub-structure: TA21

Dist.	Coordinates			Displacements	
	x	y	z	x	y
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	53.35200	27.25700	112.00000	0.0	0.0
0.48283	53.36310	27.73970	112.00000	0.0	0.0
0.96566	53.37420	28.22240	112.00000	0.0	0.0
1.4485	53.38530	28.70510	112.00000	0.0	0.0
1.9313	53.39640	29.18780	112.00000	0.0	0.0
2.4141	53.40750	29.67050	112.00000	0.0	0.0
2.8970	53.41860	30.15320	112.00000	0.0	0.0
3.3798	53.42970	30.63590	112.00000	0.0	0.0
3.8626	53.44080	31.11860	112.00000	0.0	0.0
4.3454	53.45190	31.60130	112.00000	0.0	0.0
4.8283	53.46300	32.08400	112.00000	0.0	0.0
5.3111	53.47410	32.56670	112.00000	0.0	0.0
5.7939	53.48520	33.04940	112.00000	0.0	0.0
6.2768	53.49630	33.53210	112.00000	0.0	0.0
6.7596	53.50740	34.01480	112.00000	0.0	0.0
7.2424	53.51850	34.49750	112.00000	0.0	0.0
7.7252	53.52960	34.98020	112.00000	0.0	0.0
8.2081	53.54070	35.46290	112.00000	0.0	0.0
8.6909	53.55180	35.94560	112.00000	0.0	0.0
9.1737	53.56290	36.42830	112.00000	0.0	0.0
9.6566	53.57400	36.91100	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: TA22 | Sub-structure: TA22

Dist.	Coordinates			Displacements	
	x	y	z	x	y
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	53.57400	36.91100	112.00000	0.0	0.0
0.39617	53.83100	37.21250	112.00000	0.0	0.0
0.79234	54.08800	37.51400	112.00000	0.0	0.0
1.1885	54.34500	37.81550	112.00000	0.0	0.0
1.5847	54.60200	38.11700	112.00000	0.0	0.0
1.9809	54.85900	38.41850	112.00000	0.0	0.0
2.3770	55.11600	38.72000	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: TA23 | Sub-structure: TA23

Dist.	Coordinates			Displacements	
	x	y	z	x	y
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	53.57400	36.91100	112.00000	0.0	0.0
0.48325	53.09075	36.91100	112.00000	0.0	0.0
0.96650	52.60750	36.91100	112.00000	0.0	0.0
1.4498	52.12425	36.91100	112.00000	0.0	0.0
1.9330	51.64100	36.91100	112.00000	0.0	0.0
2.4162	51.15775	36.91100	112.00000	0.0	0.0
2.8995	50.67450	36.91100	112.00000	0.0	0.0
3.3828	50.19125	36.91100	112.00000	0.0	0.0
3.8660	49.70800	36.91100	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: TA24 | Sub-structure: TA24

Dist.	Coordinates			Displacements	
	x	y	z	x	y
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	49.70800	36.91100	112.00000	0.0	0.0
0.45067	49.70800	37.36167	112.00000	0.0	0.0
0.90133	49.70800	37.81233	112.00000	0.0	0.0
1.3520	49.70800	38.26300	112.00000	0.0	0.0
1.8027	49.70800	38.71367	112.00000	0.0	0.0



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Job No.	Sheet No.	Rev.
P1017J1129		
Drg. Ref.		
Made by JW	Date 13-Aug-2018	Checked

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the	Horizontal displacement perpendicular
2.2533	49.70800	39.16433	112.00000	0.0	0.0
2.7040	49.70800	39.61500	112.00000	0.0	0.0
3.1547	49.70800	40.06567	112.00000	0.0	0.0
3.6053	49.70800	40.51633	112.00000	0.0	0.0
4.0560	49.70800	40.96700	112.00000	0.0	0.0
4.5067	49.70800	41.41767	112.00000	0.0	0.0
4.9573	49.70800	41.86833	112.00000	0.0	0.0
5.4080	49.70800	42.31900	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: TA25 | Sub-structure: TA25

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the	Horizontal displacement perpendicular
[m]	[m]	[m]	[m]	Line [mm]	to Line [mm]
0.0	49.70800	42.31900	112.00000	0.0	0.0
0.45067	50.15867	42.31900	112.00000	0.0	0.0
0.90133	50.60933	42.31900	112.00000	0.0	0.0
1.35200	51.06000	42.31900	112.00000	0.0	0.0
1.8027	51.51067	42.31900	112.00000	0.0	0.0
2.2533	51.96133	42.31900	112.00000	0.0	0.0
2.7040	52.41200	42.31900	112.00000	0.0	0.0
3.1547	52.86267	42.31900	112.00000	0.0	0.0
3.6053	53.31333	42.31900	112.00000	0.0	0.0
4.0560	53.76400	42.31900	112.00000	0.0	0.0
4.5067	54.21467	42.31900	112.00000	0.0	0.0
4.9573	54.66533	42.31900	112.00000	0.0	0.0
5.4080	55.11600	42.31900	112.00000	0.0	0.0

d - Displacements include imported displacements.

Structure: TA26 | Sub-structure: TA26

Dist.	Coordinates			Displacements	
	x	y	z	x	y
				Horizontal displacement along the	Horizontal displacement perpendicular
[m]	[m]	[m]	[m]	Line [mm]	to Line [mm]
0.0	55.11600	42.31900	112.00000	0.0	0.0
0.44987	55.11600	41.86913	112.00000	0.0	0.0
0.89975	55.11600	41.41925	112.00000	0.0	0.0
1.3496	55.11600	40.96937	112.00000	0.0	0.0
1.7995	55.11600	40.51950	112.00000	0.0	0.0
2.2494	55.11600	40.06963	112.00000	0.0	0.0
2.6993	55.11600	39.61975	112.00000	0.0	0.0
3.1491	55.11600	39.16987	112.00000	0.0	0.0
3.5990	55.11600	38.72000	112.00000	0.0	0.0

d - Displacements include imported displacements.

Specific Building Damage Results - Vertical Displacements

Structure: WH1 | Sub-structure: WH1

Dist.	Coordinates			Displacements
	x	y	z	
[m]	[m]	[m]	[m]	[mm]
Vertical Offset 1				
0.0	33.72700	64.63300	112.00000	0.13171 d
0.43260	34.15950	64.64242	112.00000	0.13090 d
0.86521	34.59200	64.65183	112.00000	0.12986 d
1.2978	35.02450	64.66125	112.00000	0.12857 d
1.7304	35.45700	64.67067	112.00000	0.12701 d
2.1630	35.88950	64.68008	112.00000	0.12517 d
2.5956	36.32200	64.68950	112.00000	0.12301 d
3.0282	36.75450	64.69892	112.00000	0.12051 d
3.4608	37.18700	64.70833	112.00000	0.11765 d
3.8934	37.61950	64.71775	112.00000	0.11439 d
4.3260	38.05200	64.72717	112.00000	0.11071 d
4.7586	38.48450	64.73658	112.00000	0.10658 d
5.1912	38.91700	64.74600	112.00000	0.10194 d

d - Displacements include imported displacements.

Structure: WH2 | Sub-structure: WH2

Dist.	Coordinates			Displacements
	x	y	z	
[m]	[m]	[m]	[m]	[mm]
Vertical Offset 1				
0.0	38.91700	64.74600	112.00000	0.10194 d
0.37347	39.03600	64.39200	112.00000	0.099333 d
0.74693	39.15500	64.03800	112.00000	0.096572 d

d - Displacements include imported displacements.

Structure: WH3 | Sub-structure: WH3

Dist.	Coordinates			Displacements
	x	y	z	
[m]	[m]	[m]	[m]	[mm]
Vertical Offset 1				
0.0	39.15500	64.03800	112.00000	0.096572 d
0.32830	39.48325	64.04400	112.00000	0.092219 d
0.65661	39.81150	64.05000	112.00000	0.087511 d
0.98491	40.13975	64.05600	112.00000	0.082428 d
1.3132	40.46800	64.06200	112.00000	0.076948 d

d - Displacements include imported displacements.

Structure: WH4 | Sub-structure: WH4

Dist.	Coordinates			Displacements
	x	y	z	
[m]	[m]	[m]	[m]	[mm]
Vertical Offset 1				
0.0	40.46800	64.06200	112.00000	0.076948 d
0.45411	40.44450	64.51550	112.00000	0.079710 d
0.90822	40.42100	64.96900	112.00000	0.082396 d

d - Displacements include imported displacements.

Structure: WH5 | Sub-structure: WH5

Dist.	Coordinates			Displacements
	x	y	z	
[m]	[m]	[m]	[m]	[mm]
Vertical Offset 1				
0.0	40.42100	64.96900	112.00000	0.082396 d
0.45043	40.87130	64.97990	112.00000	0.074858 d
0.90086	41.32160	64.99080	112.00000	0.066532 d
1.3513	41.77190	65.00170	112.00000	0.057356 d
1.8017	42.22220	65.01260	112.00000	0.047263 d
2.2522	42.67250	65.02350	112.00000	0.036182 d
2.7026	43.12280	65.03440	112.00000	0.024035 d
3.1530	43.57310	65.04530	112.00000	0.010740 d
3.6035	44.02340	65.05620	112.00000	-0.0037930 d
4.0539	44.47370	65.06710	112.00000	-0.019662 d



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Job No.	Sheet No.	Rev.
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Dist.	Coordinates			Displacements
[m]	x	y	z	z
	[m]	[m]	[m]	[mm]

4.5043 44.92400 65.07800 112.00000 -0.036972 d
d - Displacements include imported displacements.

Structure: WH6 | Sub-structure: WH6

Dist.	Coordinates			Displacements
[m]	x	y	z	z
	[m]	[m]	[m]	[mm]

Vertical Offset 1

0.0 44.92400 65.07800 112.00000 -0.036972 d
0.42157 44.91650 64.65650 112.00000 -0.042730 d
0.84313 44.90900 64.23500 112.00000 -0.048608 d
d - Displacements include imported displacements.

Structure: WH7 | Sub-structure: WH7

Dist.	Coordinates			Displacements
[m]	x	y	z	z
	[m]	[m]	[m]	[mm]

Vertical Offset 1

0.0 44.90900 64.23500 112.00000 -0.048608 d
0.46904 45.37800 64.24075 112.00000 -0.069595 d
0.93807 45.84700 64.24650 112.00000 -0.092528 d
1.4071 46.31600 64.25225 112.00000 -0.11757 d
1.8761 46.78500 64.25800 112.00000 -0.14489 d
d - Displacements include imported displacements.

Structure: WH8 | Sub-structure: WH8

Dist.	Coordinates			Displacements
[m]	x	y	z	z
	[m]	[m]	[m]	[mm]

Vertical Offset 1

0.0 46.78500 64.25800 112.00000 -0.14489 d
0.35019 46.78067 64.60817 112.00000 -0.13705 d
0.70039 46.77633 64.95833 112.00000 -0.12939 d
1.0506 46.77200 65.30850 112.00000 -0.12191 d
1.4008 46.76767 65.65867 112.00000 -0.11459 d
1.7510 46.76333 66.00883 112.00000 -0.10744 d
2.1012 46.75900 66.35900 112.00000 -0.10043 d
d - Displacements include imported displacements.

Structure: WH9 | Sub-structure: WH9

Dist.	Coordinates			Displacements
[m]	x	y	z	z
	[m]	[m]	[m]	[mm]

Vertical Offset 1

0.0 46.75900 66.35900 112.00000 -0.10043 d
0.43165 47.19050 66.37020 112.00000 -0.12380 d
0.86329 47.62200 66.38140 112.00000 -0.14918 d
1.2949 48.05350 66.39260 112.00000 -0.17675 d
1.7266 48.48500 66.40380 112.00000 -0.20671 d
2.1582 48.91650 66.41500 112.00000 -0.23930 d
2.5899 49.34800 66.42620 112.00000 -0.27478 d
3.0215 49.77950 66.43740 112.00000 -0.31347 d
3.4532 50.21100 66.44860 112.00000 -0.35572 d
3.8848 50.64250 66.45980 112.00000 -0.40198 d
4.3165 51.07400 66.47100 112.00000 -0.45275 d
d - Displacements include imported displacements.

Structure: WH10 | Sub-structure: WH10

Dist.	Coordinates			Displacements
[m]	x	y	z	z
	[m]	[m]	[m]	[mm]

Vertical Offset 1

0.0 51.07400 66.47100 112.00000 -0.45275 d
0.46479 51.08821 66.00643 112.00000 -0.47276 d
0.92958 51.10243 65.54186 112.00000 -0.49326 d
1.3944 51.11664 65.07729 112.00000 -0.51447 d
1.8592 51.13086 64.61271 112.00000 -0.53661 d
2.3239 51.14507 64.14814 112.00000 -0.55993 d
2.7887 51.15929 63.68357 112.00000 -0.58472 d
3.2535 51.17350 63.21900 112.00000 -0.61127 d
3.7183 51.18771 62.75443 112.00000 -0.63990 d
4.1831 51.20193 62.28986 112.00000 -0.67094 d
4.6479 51.21614 61.82529 112.00000 -0.70470 d
5.1127 51.23036 61.36071 112.00000 -0.74150 d
5.5775 51.24457 60.89614 112.00000 -0.78163 d
6.0423 51.25879 60.43157 112.00000 -0.82534 d
6.5070 51.27300 59.96700 112.00000 -0.87278 d
d - Displacements include imported displacements.

Structure: WH11 | Sub-structure: WH11

Dist.	Coordinates			Displacements
[m]	x	y	z	z
	[m]	[m]	[m]	[mm]

Vertical Offset 1

0.0 51.27300 59.96700 112.00000 -0.87278 d
0.37506 50.89800 59.97350 112.00000 -0.79653 d
0.75011 50.52300 59.98000 112.00000 -0.72598 d
d - Displacements include imported displacements.

Structure: WH12 | Sub-structure: WH12

Dist.	Coordinates			Displacements
[m]	x	y	z	z
	[m]	[m]	[m]	[mm]

Vertical Offset 1

0.0 50.52300 59.98000 112.00000 -0.72598 d
0.43756 50.51550 59.54250 112.00000 -0.75977 d
0.87513 50.50800 59.10500 112.00000 -0.79499 d
1.3127 50.50050 58.66750 112.00000 -0.83134 d
1.7503 50.49300 58.23000 112.00000 -0.86845 d
d - Displacements include imported displacements.

Structure: WH13 | Sub-structure: WH13

Dist.	Coordinates			Displacements
[m]	x	y	z	z
	[m]	[m]	[m]	[mm]

Vertical Offset 1

0.0 50.49300 58.23000 112.00000 -0.86845 d
0.40721 50.89950 58.25400 112.00000 -0.96424 d
0.81442 51.30600 58.27800 112.00000 -1.0704 d
d - Displacements include imported displacements.

Structure: WH14 | Sub-structure: WH14

Dist.	Coordinates			Displacements
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[m]	x [m]	y [m]	z [m]	z [mm]
Vertical Offset 1				
0.0	51.30600	58.27800	112.00000	-1.0704 d
0.45808	51.32036	57.82014	112.00000	-1.1315 d
0.91616	51.33471	57.36229	112.00000	-1.1940 d
1.3742	51.34907	56.90443	112.00000	-1.2566 d
1.8323	51.36343	56.44657	112.00000	-1.3182 d
2.2904	51.37779	55.98871	112.00000	-1.3777 d
2.7485	51.39214	55.53086	112.00000	-1.4339 d
3.2066	51.40650	55.07300	112.00000	-1.4860 d
3.6647	51.42086	54.61514	112.00000	-1.5331 d
4.1227	51.43521	54.15729	112.00000	-1.5749 d
4.5808	51.44957	53.69943	112.00000	-1.6109 d
5.0389	51.46393	53.24157	112.00000	-1.6411 d
5.4970	51.47829	52.78371	112.00000	-1.6652 d
5.9551	51.49264	52.32586	112.00000	-1.6834 d
6.4132	51.50700	51.86800	112.00000	-1.6958 d

d - Displacements include imported displacements.

Structure: WH15 | Sub-structure: WH15

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]
Vertical Offset 1				
0.0	51.50700	51.86800	112.00000	-1.6958 d
0.41908	51.08800	51.85970	112.00000	-1.4880 d
0.83816	50.66900	51.85140	112.00000	-1.3099 d
1.2572	50.25000	51.84310	112.00000	-1.1558 d
1.6763	49.83100	51.83480	112.00000	-1.0216 d
2.0954	49.41200	51.82650	112.00000	-0.90382 d
2.5145	48.99300	51.81820	112.00000	-0.79973 d
2.9336	48.57400	51.80990	112.00000	-0.70726 d
3.3527	48.15500	51.80160	112.00000	-0.62473 d
3.7717	47.73600	51.79330	112.00000	-0.55079 d
4.1908	47.31700	51.78500	112.00000	-0.48435 d

d - Displacements include imported displacements.

Structure: WH16 | Sub-structure: WH16

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]
Vertical Offset 1				
0.0	47.31700	51.78500	112.00000	-0.48435 d
0.42021	47.30875	52.20512	112.00000	-0.48242 d
0.84041	47.30050	52.62525	112.00000	-0.47920 d
1.2606	47.29225	53.04538	112.00000	-0.47473 d
1.6808	47.28400	53.46550	112.00000	-0.46905 d
2.1010	47.27575	53.88562	112.00000	-0.46221 d
2.5212	47.26750	54.30575	112.00000	-0.45427 d
2.9414	47.25925	54.72588	112.00000	-0.44531 d
3.3616	47.25100	55.14600	112.00000	-0.43541 d

d - Displacements include imported displacements.

Structure: WH17 | Sub-structure: WH17

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]
Vertical Offset 1				
0.0	47.25100	55.14600	112.00000	-0.43541 d
0.33390	46.91733	55.13350	112.00000	-0.39229 d
0.66780	46.58367	55.12100	112.00000	-0.35239 d
1.0017	46.25000	55.10850	112.00000	-0.31542 d
1.3356	45.91633	55.09600	112.00000	-0.28115 d
1.6695	45.58267	55.08350	112.00000	-0.24936 d
2.0034	45.24900	55.07100	112.00000	-0.21985 d

d - Displacements include imported displacements.

Structure: WH18 | Sub-structure: WH18

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]
Vertical Offset 1				
0.0	45.24900	55.07100	112.00000	-0.21985 d
0.39856	45.24200	54.67250	112.00000	-0.22369 d
0.79712	45.23500	54.27400	112.00000	-0.22700 d

d - Displacements include imported displacements.

Structure: WH19 | Sub-structure: WH19

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]
Vertical Offset 1				
0.0	45.23500	54.27400	112.00000	-0.22700 d
0.42549	44.80970	54.26120	112.00000	-0.19148 d
0.85099	44.38440	54.24840	112.00000	-0.15920 d
1.2765	43.95910	54.23560	112.00000	-0.12984 d
1.7020	43.53380	54.22280	112.00000	-0.10314 d
2.1275	43.10850	54.21000	112.00000	-0.07851 d
2.5530	42.68320	54.19720	112.00000	-0.056760 d
2.9784	42.25790	54.18440	112.00000	-0.036673 d
3.4039	41.83260	54.17160	112.00000	-0.018415 d
3.8294	41.40730	54.15880	112.00000	-0.0018279 d
4.2549	40.98200	54.14600	112.00000	0.013230 d

d - Displacements include imported displacements.

Structure: WH20 | Sub-structure: WH20

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]
Vertical Offset 1				
0.0	40.98200	54.14600	112.00000	0.013230 d
0.40607	40.98950	54.55200	112.00000	0.014099 d
0.81214	40.99700	54.95800	112.00000	0.015147 d

d - Displacements include imported displacements.

Structure: WH21 | Sub-structure: WH21

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]
Vertical Offset 1				
0.0	40.99700	54.95800	112.00000	0.015147 d
0.43845	40.55900	54.93825	112.00000	0.028934 d
0.87689	40.12100	54.91850	112.00000	0.041401 d
1.3153	39.68300	54.89875	112.00000	0.052658 d
1.7538	39.24500	54.87900	112.00000	0.062806 d

d - Displacements include imported displacements.



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Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Structure: WH22 | Sub-structure: WH22

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1

0.0	39.24500	54.87900	112.00000	0.062806	d
0.39975	39.26950	54.48000	112.00000	0.061490	d
0.79950	39.29400	54.08100	112.00000	0.060266	d

d - Displacements include imported displacements.

Structure: WH23 | Sub-structure: WH23

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1

0.0	39.29400	54.08100	112.00000	0.060266	d
0.44319	38.85100	54.06792	112.00000	0.067993	d
0.88639	38.40800	54.05483	112.00000	0.078336	d
1.3296	37.96500	54.04175	112.00000	0.085977	d
1.7728	37.52200	54.02867	112.00000	0.092795	d
2.2160	37.07900	54.01558	112.00000	0.098858	d
2.6592	36.63600	54.00250	112.00000	0.10423	d
3.1024	36.19300	53.98942	112.00000	0.10897	d
3.5455	35.75000	53.97633	112.00000	0.11313	d
3.9887	35.30700	53.96325	112.00000	0.11676	d
4.4319	34.86400	53.95017	112.00000	0.11991	d
4.8751	34.42100	53.93708	112.00000	0.12262	d
5.3183	33.97800	53.92400	112.00000	0.12491	d

d - Displacements include imported displacements.

Structure: WH24 | Sub-structure: WH24

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1

0.0	33.97800	53.92400	112.00000	0.12491	d
0.48691	33.96659	54.41077	112.00000	0.12516	d
0.97381	33.95518	54.89755	112.00000	0.12543	d
1.4607	33.94377	55.38432	112.00000	0.12573	d
1.9476	33.93236	55.87109	112.00000	0.12604	d
2.4345	33.92095	56.35786	112.00000	0.12637	d
2.9214	33.90955	56.84464	112.00000	0.12671	d
3.4083	33.89814	57.33141	112.00000	0.12706	d
3.8953	33.88673	57.81818	112.00000	0.12742	d
4.3822	33.87532	58.30495	112.00000	0.12779	d
4.8691	33.86391	58.79173	112.00000	0.12815	d
5.3560	33.85250	59.27850	112.00000	0.12852	d
5.8429	33.84109	59.76527	112.00000	0.12888	d
6.3298	33.82968	60.25205	112.00000	0.12923	d
6.8167	33.81827	60.73882	112.00000	0.12958	d
7.3036	33.80686	61.22559	112.00000	0.12991	d
7.7905	33.79545	61.71236	112.00000	0.13023	d
8.2774	33.78405	62.19914	112.00000	0.13053	d
8.7643	33.77264	62.68591	112.00000	0.13081	d
9.2512	33.76123	63.17268	112.00000	0.13108	d
9.7381	33.74982	63.65945	112.00000	0.13131	d
10.225	33.73841	64.14623	112.00000	0.13153	d
10.712	33.72700	64.63300	112.00000	0.13171	d

d - Displacements include imported displacements.

Structure: TA1 | Sub-structure: TA1

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1

0.0	55.11600	38.72000	112.00000	-0.65468	d
0.47510	55.59110	38.71843	112.00000	-0.70185	d
0.95021	56.06620	38.71687	112.00000	-0.74871	d
1.4253	56.54130	38.71530	112.00000	-0.79485	d
1.9004	57.01640	38.71373	112.00000	-0.83988	d
2.3755	57.49150	38.71217	112.00000	-0.88347	d
2.8506	57.96660	38.71060	112.00000	-0.92536	d
3.3257	58.44170	38.70903	112.00000	-0.96532	d
3.8008	58.91680	38.70747	112.00000	-1.0032	d
4.2759	59.39190	38.70590	112.00000	-1.0389	d
4.7510	59.86700	38.70433	112.00000	-1.0724	d
5.2261	60.34210	38.70277	112.00000	-1.1036	d
5.7012	60.81720	38.70120	112.00000	-1.1326	d
6.1763	61.29230	38.69963	112.00000	-1.1594	d
6.6514	61.76740	38.69807	112.00000	-1.1840	d
7.1265	62.24250	38.69650	112.00000	-1.2064	d
7.6016	62.71760	38.69493	112.00000	-1.2268	d
8.0767	63.19270	38.69337	112.00000	-1.2451	d
8.5518	63.66780	38.69180	112.00000	-1.2615	d
9.0269	64.14290	38.69023	112.00000	-1.2760	d
9.5021	64.61800	38.68867	112.00000	-1.2885	d
9.9772	65.09310	38.68710	112.00000	-1.2993	d
10.4523	65.56820	38.68553	112.00000	-1.3083	d
10.9274	66.04330	38.68397	112.00000	-1.3155	d
11.4025	66.51840	38.68240	112.00000	-1.3210	d
11.8776	66.99350	38.68083	112.00000	-1.3249	d
12.3527	67.46860	38.67927	112.00000	-1.3270	d
12.8278	67.94370	38.67770	112.00000	-1.3275	d
13.3029	68.41880	38.67613	112.00000	-1.3263	d
13.7780	68.89390	38.67457	112.00000	-1.3235	d
14.2531	69.36900	38.67300	112.00000	-1.3191	d

d - Displacements include imported displacements.

Structure: TA2 | Sub-structure: TA2

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1

0.0	69.36900	38.67300	112.00000	-1.3191	d
0.42319	69.36442	38.24983	112.00000	-1.1814	d
0.84638	69.35983	37.82667	112.00000	-1.0585	d
1.2696	69.35525	37.40350	112.00000	-0.94809	d
1.6928	69.35067	36.98033	112.00000	-0.84859	d
2.1160	69.34608	36.55717	112.00000	-0.75861	d
2.5391	69.34150	36.13400	112.00000	-0.67703	d
2.9623	69.33692	35.71083	112.00000	-0.60291	d
3.3855	69.33233	35.28767	112.00000	-0.53545	d
3.8087	69.32775	34.86450	112.00000	-0.47399	d
4.2319	69.32317	34.44133	112.00000	-0.41791	d
4.6551	69.31858	34.01817	112.00000	-0.36672	d
5.0783	69.31400	33.59500	112.00000	-0.31995	d

d - Displacements include imported displacements.

Structure: TA3 | Sub-structure: TA3

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]



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Vertical Offset 1
0.0 69.31400 33.59500 112.00000 -0.31995 d
0.34494 69.65750 33.56350 112.00000 -0.31531 d
0.68988 70.00100 33.53200 112.00000 -0.31041 d
d - Displacements include imported displacements.

Structure: TA4 | Sub-structure: TA4

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1
0.0 70.00100 33.53200 112.00000 -0.31041 d
0.28803 70.21225 33.33950 112.00000 -0.28974 d
0.57605 70.42950 33.14700 112.00000 -0.26984 d
0.86408 70.64375 32.95450 112.00000 -0.25068 d
1.1521 70.85800 32.76200 112.00000 -0.23224 d
d - Displacements include imported displacements.

Structure: TA5 | Sub-structure: TA5

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1
0.0 70.85800 32.76200 112.00000 -0.23224 d
0.49988 70.84650 32.26225 112.00000 -0.19105 d
0.99976 70.83500 31.76250 112.00000 -0.15398 d
1.4996 70.82350 31.26275 112.00000 -0.12063 d
1.9995 70.81200 30.76300 112.00000 -0.090637 d
d - Displacements include imported displacements.

Structure: TA6 | Sub-structure: TA6

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1
0.0 70.81200 30.76300 112.00000 -0.090637 d
0.27366 70.62000 30.56800 112.00000 -0.080448 d
0.54732 70.42800 30.37300 112.00000 -0.070595 d
0.82098 70.23600 30.17800 112.00000 -0.061068 d
1.0946 70.04400 29.98300 112.00000 -0.051861 d
d - Displacements include imported displacements.

Structure: TA7 | Sub-structure: TA7

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1
0.0 70.04400 29.98300 112.00000 -0.051861 d
0.43761 69.60650 29.99300 112.00000 -0.053269 d
0.87523 69.16900 30.00300 112.00000 -0.054452 d
1.3128 68.73150 30.01300 112.00000 -0.055405 d
1.7505 68.29400 30.02300 112.00000 -0.056125 d
d - Displacements include imported displacements.

Structure: TA8 | Sub-structure: TA8

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1
0.0 68.29400 30.02300 112.00000 -0.056125 d
0.45429 68.29250 29.56871 112.00000 -0.034613 d
0.90858 68.29100 29.11443 112.00000 -0.015119 d
1.3629 68.28950 28.66014 112.00000 0.0025320 d
1.8172 68.28800 28.20586 112.00000 0.018497 d
2.2714 68.28650 27.75157 112.00000 0.032919 d
2.7257 68.28500 27.29729 112.00000 0.045929 d
3.1800 68.28350 26.84300 112.00000 0.057646 d
3.6343 68.28200 26.38871 112.00000 0.068180 d
4.0886 68.28050 25.93443 112.00000 0.077629 d
4.5429 68.27900 25.48014 112.00000 0.086086 d
4.9972 68.27750 25.02586 112.00000 0.093633 d
5.4515 68.27600 24.57157 112.00000 0.10035 d
5.9057 68.27450 24.11729 112.00000 0.106630 d
6.3600 68.27300 23.66300 112.00000 0.11155 d
d - Displacements include imported displacements.

Structure: TA9 | Sub-structure: TA9

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1
0.0 68.27300 23.66300 112.00000 0.11155 d
0.39075 67.88225 23.66200 112.00000 0.11156 d
0.78150 67.49150 23.66100 112.00000 0.11161 d
1.1723 67.10075 23.66000 112.00000 0.11169 d
1.5630 66.71000 23.65900 112.00000 0.11180 d
d - Displacements include imported displacements.

Structure: TA10 | Sub-structure: TA10

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1
0.0 66.71000 23.65900 112.00000 0.11180 d
0.40234 66.71117 23.25667 112.00000 0.11588 d
0.80467 66.71233 22.85433 112.00000 0.11950 d
1.2070 66.71350 22.45200 112.00000 0.12269 d
1.6093 66.71467 22.04967 112.00000 0.12549 d
2.0117 66.71583 21.64733 112.00000 0.12792 d
2.4140 66.71700 21.24500 112.00000 0.13002 d
d - Displacements include imported displacements.

Structure: TA11 | Sub-structure: TA11

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1
0.0 66.71700 21.24500 112.00000 0.13002 d
0.43834 67.15500 21.26225 112.00000 0.12990 d
0.87668 67.59300 21.27950 112.00000 0.12980 d
1.3150 68.03100 21.29675 112.00000 0.12970 d
1.7534 68.46900 21.31400 112.00000 0.12963 d
d - Displacements include imported displacements.



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Dist.	Coordinates			Displacements
[m]	x	y	z	z
	[m]	[m]	[m]	[mm]

Structure: TA12 | Sub-structure: TA12

Dist.	Coordinates			Displacements
[m]	x	y	z	z
	[m]	[m]	[m]	[mm]

Vertical Offset 1
 0.0 68.46900 21.31400 112.00000 0.12963 d
 0.36190 68.71275 21.04650 112.00000 0.13090 d
 0.72380 68.95650 20.77900 112.00000 0.13205 d
 1.0857 69.20025 20.51150 112.00000 0.13307 d
 1.4476 69.44400 20.24400 112.00000 0.13397 d
 d - Displacements include imported displacements.

Structure: TA13 | Sub-structure: TA13

Dist.	Coordinates			Displacements
[m]	x	y	z	z
	[m]	[m]	[m]	[mm]

Vertical Offset 1
 0.0 69.44400 20.24400 112.00000 0.13397 d
 0.36732 69.42517 19.87717 112.00000 0.13500 d
 0.73463 69.40633 19.51033 112.00000 0.13583 d
 1.1019 69.38750 19.14350 112.00000 0.13648 d
 1.4693 69.36867 18.77667 112.00000 0.13697 d
 1.8366 69.34983 18.40983 112.00000 0.13730 d
 2.2039 69.33100 18.04300 112.00000 0.13748 d
 d - Displacements include imported displacements.

Structure: TA14 | Sub-structure: TA14

Dist.	Coordinates			Displacements
[m]	x	y	z	z
	[m]	[m]	[m]	[mm]

Vertical Offset 1
 0.0 69.33100 18.04300 112.00000 0.13748 d
 0.31304 69.12250 17.80950 112.00000 0.13753 d
 0.62608 69.91400 17.57600 112.00000 0.13753 d
 0.93912 68.70550 17.34250 112.00000 0.13748 d
 1.2522 68.49700 17.10900 112.00000 0.13738 d
 d - Displacements include imported displacements.

Structure: TA15 | Sub-structure: TA15

Dist.	Coordinates			Displacements
[m]	x	y	z	z
	[m]	[m]	[m]	[mm]

Vertical Offset 1
 0.0 68.49700 17.10900 112.00000 0.13738 d
 0.28210 68.21650 17.13900 112.00000 0.13740 d
 0.56420 67.93600 17.16900 112.00000 0.13741 d
 d - Displacements include imported displacements.

Structure: TA16 | Sub-structure: TA16

Dist.	Coordinates			Displacements
[m]	x	y	z	z
	[m]	[m]	[m]	[mm]

Vertical Offset 1
 0.0 67.93600 17.16900 112.00000 0.13741 d
 0.42452 67.93142 16.74450 112.00000 0.13714 d
 0.84905 67.92683 16.32000 112.00000 0.13673 d
 1.2736 67.92225 15.89550 112.00000 0.13620 d
 1.6981 67.91767 15.47100 112.00000 0.13556 d
 2.1226 67.91308 15.04650 112.00000 0.13482 d
 2.5471 67.90850 14.62200 112.00000 0.13398 d
 2.9717 67.90392 14.19750 112.00000 0.13307 d
 3.3962 67.89933 13.77300 112.00000 0.13208 d
 3.8207 67.89475 13.34850 112.00000 0.13102 d
 4.2452 67.89017 12.92400 112.00000 0.12991 d
 4.6698 67.88558 12.49950 112.00000 0.12874 d
 5.0943 67.88100 12.07500 112.00000 0.12752 d
 d - Displacements include imported displacements.

Structure: TA17 | Sub-structure: TA17

Dist.	Coordinates			Displacements
[m]	x	y	z	z
	[m]	[m]	[m]	[mm]

Vertical Offset 1
 0.0 67.88100 12.07500 112.00000 0.12752 d
 0.47100 67.41000 12.07387 112.00000 0.12750 d
 0.94200 66.93900 12.07273 112.00000 0.12745 d
 1.41300 66.46800 12.07160 112.00000 0.12739 d
 1.8840 65.99700 12.07047 112.00000 0.12731 d
 2.3550 65.52600 12.06933 112.00000 0.12722 d
 2.8260 65.05500 12.06820 112.00000 0.12711 d
 3.2970 64.58400 12.06707 112.00000 0.12698 d
 3.7680 64.11300 12.06593 112.00000 0.12684 d
 4.2390 63.64200 12.06480 112.00000 0.12668 d
 4.7100 63.17100 12.06367 112.00000 0.12650 d
 5.1810 62.70000 12.06253 112.00000 0.12631 d
 5.6520 62.22900 12.06140 112.00000 0.12610 d
 6.1230 61.75800 12.06027 112.00000 0.12587 d
 6.5940 61.28700 12.05913 112.00000 0.12563 d
 7.0650 60.81600 12.05800 112.00000 0.12537 d
 7.5360 60.34500 12.05687 112.00000 0.12509 d
 8.0070 59.87400 12.05573 112.00000 0.12480 d
 8.4780 59.40300 12.05460 112.00000 0.12449 d
 8.9490 58.93200 12.05347 112.00000 0.12416 d
 9.4200 58.46100 12.05233 112.00000 0.12382 d
 9.8910 57.99000 12.05120 112.00000 0.12346 d
 10.362 57.51900 12.05007 112.00000 0.12309 d
 10.833 57.04800 12.04893 112.00000 0.12269 d
 11.304 56.57700 12.04780 112.00000 0.12229 d
 11.775 56.10600 12.04667 112.00000 0.12186 d
 12.246 55.63500 12.04553 112.00000 0.12142 d
 12.717 55.16400 12.04440 112.00000 0.12097 d
 13.188 54.69300 12.04327 112.00000 0.12050 d
 13.659 54.22200 12.04213 112.00000 0.12001 d
 14.130 53.75100 12.04100 112.00000 0.11950 d
 d - Displacements include imported displacements.

Structure: TA18 | Sub-structure: TA18

Dist.	Coordinates			Displacements
[m]	x	y	z	z
	[m]	[m]	[m]	[mm]

Vertical Offset 1
 0.0 53.75100 12.04100 112.00000 0.11950 d
 0.45295 53.43550 12.36600 112.00000 0.12014 d
 0.90590 53.12000 12.69100 112.00000 0.12075 d
 1.3589 52.80450 13.01600 112.00000 0.12135 d
 1.8118 52.48900 13.34100 112.00000 0.12192 d
 2.2648 52.17350 13.66600 112.00000 0.12247 d
 2.7177 51.85800 13.99100 112.00000 0.12300 d



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Dist.	Coordinates			Displacements
	x [m]	y [m]	z [m]	z [mm]
4.9573	49.70800	41.86833	112.00000	-0.41975 d
5.4080	49.70800	42.31900	112.00000	-0.45644 d

d - Displacements include imported displacements.

Structure: TA25 | Sub-structure: TA25

Dist.	Coordinates			Displacements
	x [m]	y [m]	z [m]	z [mm]
Vertical Offset 1				
0.0	49.70800	42.31900	112.00000	-0.45644 d
0.45067	50.15867	42.31900	112.00000	-0.51739 d
0.90133	50.60933	42.31900	112.00000	-0.58487 d
1.3520	51.06000	42.31900	112.00000	-0.65982 d
1.8027	51.51067	42.31900	112.00000	-0.74335 d
2.2533	51.96133	42.31900	112.00000	-0.83669 d
2.7040	52.41200	42.31900	112.00000	-0.94122 d
3.1547	52.86267	42.31900	112.00000	-1.05883 d
3.6053	53.31333	42.31900	112.00000	-1.1899 d
4.0560	53.76400	42.31900	112.00000	-1.3336 d
4.5067	54.21467	42.31900	112.00000	-1.4916 d
4.9573	54.66533	42.31900	112.00000	-1.6611 d
5.4080	55.11600	42.31900	112.00000	-1.8384 d

d - Displacements include imported displacements.

Structure: TA26 | Sub-structure: TA26

Dist.	Coordinates			Displacements
	x [m]	y [m]	z [m]	z [mm]
Vertical Offset 1				
0.0	55.11600	42.31900	112.00000	-1.8384 d
0.44987	55.11600	41.86913	112.00000	-1.6015 d
0.89975	55.11600	41.41925	112.00000	-1.3984 d
1.3496	55.11600	40.96937	112.00000	-1.2249 d
1.7995	55.11600	40.51950	112.00000	-1.0764 d
2.2494	55.11600	40.06963	112.00000	-0.94855 d
2.6993	55.11600	39.61975	112.00000	-0.83757 d
3.1491	55.11600	39.16987	112.00000	-0.74042 d
3.5990	55.11600	38.72000	112.00000	-0.65468 d

d - Displacements include imported displacements.

Specific Building Damage Results - All Segments

Structure: WH1 | Sub-structure: WH1

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	5.1910	Sagging	119.03E-6	0.0	109.68E-6	0.0	10.705E-6	372800.	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH2 | Sub-structure: WH2

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	0.0	None	0.0	0.0	0.0	0.0	6.9939E-6	938920.	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH3 | Sub-structure: WH3

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	All settlements are less than the Settlement Trough Limit Sensitivity.										

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH4 | Sub-structure: WH4

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	All settlements are less than the Settlement Trough Limit Sensitivity.										

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH5 | Sub-structure: WH5

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	All settlements are less than the Settlement Trough Limit Sensitivity.										

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH6 | Sub-structure: WH6

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	All settlements are less than the Settlement Trough Limit Sensitivity.										

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH7 | Sub-structure: WH7

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	1.4071	0.46889	Hogging	0.0	0.0	0.0	0.0	58.256E-6	94504.	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH8 | Sub-structure: WH8



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Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
Vertical Offset from Line for Vertical Movement Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	2.1010	Sagging	35.684E-6	0.0	34.153E-6	0.0	-22.400E-6	650220.	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: WH9 Sub-structure: WH9											
Vertical Offset from Line for Vertical Movement Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	4.3160	Sagging	863.63E-6	0.0	962.91E-6	0.0	117.62E-6	40105.	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: WH10 Sub-structure: WH10											
Vertical Offset from Line for Vertical Movement Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	6.5070	Sagging	811.47E-6	0.0	0.0011328	0.0	102.08E-6	57130.	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: WH11 Sub-structure: WH11											
Vertical Offset from Line for Vertical Movement Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	0.75000	Sagging	375.69E-6	0.0	373.54E-6	0.0	-203.30E-6	24706.	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: WH12 Sub-structure: WH12											
Vertical Offset from Line for Vertical Movement Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	1.7500	Sagging	126.41E-6	0.0	122.56E-6	0.0	84.798E-6	128040.	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: WH13 Sub-structure: WH13											
Vertical Offset from Line for Vertical Movement Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	0.81400	Sagging	631.60E-6	0.0	627.32E-6	0.0	260.75E-6	15955.	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: WH14 Sub-structure: WH14											
Vertical Offset from Line for Vertical Movement Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	0.98674	Sagging	71.530E-6	0.0	70.846E-6	0.0	136.69E-6	134200.	0 (Negligible)
	2	0.98674	5.4263	Hogging	0.0016000	0.0	0.0014877	0.0	136.69E-6	35295.	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: WH15 Sub-structure: WH15											
Vertical Offset from Line for Vertical Movement Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	4.1900	Sagging	0.0045210	0.0	0.0049392	0.0	-495.90E-6	5657.8	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: WH16 Sub-structure: WH16											
Vertical Offset from Line for Vertical Movement Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	3.3610	Hogging	272.10E-6	0.0	264.47E-6	0.0	-23.563E-6	136400.	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: WH17 Sub-structure: WH17											
Vertical Offset from Line for Vertical Movement Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	2.0030	Sagging	607.92E-6	0.0	600.28E-6	0.0	-129.14E-6	33942.	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: WH18 Sub-structure: WH18											



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Calculations
[m] [m] [m] [%] [%] [%] Curve [m] 0
0.0 1 0.0 0.79700 Hogging 32.581E-6 0.0 32.580E-6 0.0 9.6188E-6 302740. (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH19 | Sub-structure: WH19

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0	1	[m] 0.0	[m] 1.7020	Sagging	[%] 343.29E-6	[%] 0.0	[%] 340.14E-6	0.0	-83.468E-6	[m] 54733.	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH20 | Sub-structure: WH20

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0	1	[m] 0.0	[m] 1.7020	Sagging	[%] 343.29E-6	[%] 0.0	[%] 340.14E-6	0.0	-83.468E-6	[m] 54733.	0 (Negligible)

All settlements are less than the Settlement Trough Limit Sensitivity.
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH21 | Sub-structure: WH21

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0	1	[m] 0.0	[m] 1.7020	Sagging	[%] 343.29E-6	[%] 0.0	[%] 340.14E-6	0.0	-83.468E-6	[m] 54733.	0 (Negligible)

All settlements are less than the Settlement Trough Limit Sensitivity.
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH22 | Sub-structure: WH22

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0	1	[m] 0.0	[m] 1.7020	Sagging	[%] 343.29E-6	[%] 0.0	[%] 340.14E-6	0.0	-83.468E-6	[m] 54733.	0 (Negligible)

All settlements are less than the Settlement Trough Limit Sensitivity.
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH23 | Sub-structure: WH23

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0	1	[m] 2.6592	[m] 2.6588	Sagging	[%] 82.217E-6	[%] 0.0	[%] 80.431E-6	0.0	-12.122E-6	[m] 310100.	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH24 | Sub-structure: WH24

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0	1	[m] 0.0	[m] 4.6766	Hogging	[%] 3.4895E-6	[%] 0.0	[%] 3.3975E-6	0.0	0.0	[m] 9.7411E+6	0 (Negligible)
	2	[m] 4.6766	[m] 6.0344	Sagging	[%] 5.1896E-6	[%] 0.0	[%] 4.8280E-6	0.0	0.0	[m] 8.8841E+6	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA1 | Sub-structure: TA1

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0	1	[m] 0.0	[m] 14.253	Hogging	[%] 0.0015401	[%] 0.0	[%] 0.0017538	0.0	99.283E-6	[m] 100610.	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA2 | Sub-structure: TA2

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0	1	[m] 0.0	[m] 5.0780	Sagging	[%] 0.0028356	[%] 0.0	[%] 0.0025700	0.0	-325.20E-6	[m] 11792.	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA3 | Sub-structure: TA3

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0	1	[m] 0.0	[m] 0.68900	Hogging	[%] 19.703E-6	[%] 0.0	[%] 19.705E-6	0.0	-14.228E-6	[m] 433250.	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA4 | Sub-structure: TA4

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0	1	[m] 0.0	[m] 1.1520	Sagging	[%] 127.84E-6	[%] 0.0	[%] 127.14E-6	0.0	-71.745E-6	[m] 107870.	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA5 | Sub-structure: TA5



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Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	1.4996	Sagging	265.95E-6		0.0	263.61E-6	0.0	-82.397E-6	59107.0
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: TA6 Sub-structure: TA6											
Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	All settlements are less than the Settlement Trough Limit Sensitivity.										
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: TA7 Sub-structure: TA7											
Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	5.4515	0.90854	Sagging	38.073E-6		0.0	37.944E-6	0.0	-14.778E-6	269920.0
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: TA8 Sub-structure: TA8											
Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	1.5630	Hogging	4.1495E-6		0.0	4.1127E-6	0.0	0.0	4.6649E+6
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: TA9 Sub-structure: TA9											
Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	2.4140	Sagging	73.551E-6		0.0	71.847E-6	0.0	-10.142E-6	344460.0
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: TA10 Sub-structure: TA10											
Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	1.7530	Hogging	1.5260E-6		0.0	1.5378E-6	0.0	0.0	13.678E+6
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: TA11 Sub-structure: TA11											
Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	1.4470	Sagging	17.351E-6		0.0	17.202E-6	0.0	-3.5297E-6	985670.0
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: TA12 Sub-structure: TA12											
Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	2.2030	Sagging	34.360E-6		0.0	33.724E-6	0.0	-2.8033E-6	677850.0
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: TA13 Sub-structure: TA13											
Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	1.2520	Sagging	7.8347E-6		0.0	7.7605E-6	0.0	0.0	1.8980E+6
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: TA14 Sub-structure: TA14											
Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	0.56400	Sagging	0.0		0.0	0.0	0.0	0.0	21.303E+6
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: TA15 Sub-structure: TA15											



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Vertical Offset from Line for Vertical Movement	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.										
Structure: TA16 Sub-structure: TA16										
Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0	1	[m] [m] 0.0 5.0940	Sagging	[%] 29.983E-6	[%] 0.0	[%] 27.144E-6	0.0	2.8610E-6	[m] 1.3004E+6	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.										
Structure: TA17 Sub-structure: TA17										
Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0	1	[m] [m] 0.0 14.130	Sagging	[%] 13.096E-6	[%] 0.0	[%] 19.777E-6	0.0	1.0679E-6	[m] 13.357E+6	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.										
Structure: TA18 Sub-structure: TA18										
Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0	1	[m] [m] 0.0 2.7170	Sagging	[%] 3.2411E-6	[%] 0.0	[%] 3.1829E-6	0.0	-1.3935E-6	[m] 10.040E+6	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.										
Structure: TA19 Sub-structure: TA19										
Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0	1	[m] [m] 0.0 11.798	Sagging	[%] 115.30E-6	[%] 0.0	[%] 167.98E-6	0.0	6.4519E-6	[m] 527260.	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.										
Structure: TA20 Sub-structure: TA20										
Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0	1	[m] [m] 0.0 1.6962	Sagging	[%] 52.401E-6	[%] 0.0	[%] 51.820E-6	0.0	11.779E-6	[m] 342330.	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.										
Structure: TA21 Sub-structure: TA21										
Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0	1	[m] [m] 7.2424 2.4136	Sagging	[%] 435.07E-6	[%] 0.0	[%] 425.11E-6	0.0	89.599E-6	[m] 56664.	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.										
Structure: TA22 Sub-structure: TA22										
Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0	1	[m] [m] 0.0 2.3770	Sagging	[%] 0.0011406	[%] 0.0	[%] 0.0011153	0.0	190.56E-6	[m] 19557.	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.										
Structure: TA23 Sub-structure: TA23										
Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0	1	[m] [m] 0.0 3.8650	Sagging	[%] 206.99E-6	[%] 0.0	[%] 287.78E-6	0.0	-57.527E-6	[m] 203270.	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.										
Structure: TA24 Sub-structure: TA24										
Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0	1	[m] [m] 0.0 5.4080	Sagging	[%] 477.32E-6	[%] 0.0	[%] 722.09E-6	0.0	81.423E-6	[m] 134800.	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.										
Structure: TA25 Sub-structure: TA25										
Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0	1	[m] [m] 0.0 5.4080	Sagging	[%] 0.0038108	[%] 0.0	[%] 0.0057650	0.0	393.36E-6	[m] 14748.	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.										
Structure: TA26 Sub-structure: TA26										
Vertical Offset from Line for Vertical Movement	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature	Damage Category



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Vertical Movement Calculations	Strain	Strain	Horizontal Displacement	Displacement Curve	Curvature
[m] 0.0	[%] 1	[m] 0.0	[m] 3.5990	Sagging	[%] 0.0047272
					[%] 0.0
					[%] 0.0063729
					0.0
					-526.61E-6
					[m] 5818.1
					0

(Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Specific Building Damage Results - Critical Values for All Segments within Each Sub-Structure

Structure: WH1 | Sub-structure: WH1

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m] 0.0	[%] 119.03E-6	[%] 0.0	[m] 10.705E-6	[mm] 0.13171	[%] 109.68E-6	0.0	10.705E-6	[m]	-	[m] 372800.0

(Negligible)

Structure: WH2 | Sub-structure: WH2

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m] 0.0	[%] 0.0	[%] 0.0	[m] 6.9939E-6	[mm] 0.10194	[%] 0.0	0.0	6.9939E-6	[m]	-	[m] -0

(Negligible)

Structure: WH3 | Sub-structure: WH3

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]	[m]	[mm]	[%]			[m]	[m]	

Structure: WH4 | Sub-structure: WH4

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]	[m]	[mm]	[%]			[m]	[m]	

Structure: WH5 | Sub-structure: WH5

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]	[m]	[mm]	[%]			[m]	[m]	

Structure: WH6 | Sub-structure: WH6

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]	[m]	[mm]	[%]			[m]	[m]	

Structure: WH7 | Sub-structure: WH7

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m] 0.0	[%] 0.0	[%] 0.0	[m] 58.256E-6	[mm] 0.14488	[%] 0.0	0.0	58.256E-6	[m] 94504.	[m]	-0

(Negligible)

Structure: WH8 | Sub-structure: WH8

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m] 0.0	[%] 35.684E-6	[%] 0.0	[m] -22.400E-6	[mm] 0.14489	[%] 34.153E-6	0.0	-22.400E-6	[m]	-	[m] 650220.0

(Negligible)

Structure: WH9 | Sub-structure: WH9

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m] 0.0	[%] 863.63E-6	[%] 0.0	[m] 117.62E-6	[mm] 0.45270	[%] 962.91E-6	0.0	117.62E-6	[m]	-	[m] 40105.0

(Negligible)

Structure: WH10 | Sub-structure: WH10

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m] 0.0	[%] 811.47E-6	[%] 0.0	[m] 102.08E-6	[mm] 0.87278	[%] 0.001328	0.0	102.08E-6	[m]	-	[m] 57130.0

(Negligible)

Structure: WH11 | Sub-structure: WH11

Vertical Offset from Line for Vertical Movement	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]	[m]	[mm]	[%]			[m]	[m]	



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Calculations
[m] [%] [%] [mm] [%] [m] [m]
0.0 375.69E-6 0.0 -203.30E-6 0.87278 373.54E-6 0.0 -203.30E-6 - 24706.0 (Negligible)

Structure: WH12 | Sub-structure: WH12

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	126.41E-6	0.0	84.798E-6	0.86843	122.56E-6	0.0	84.798E-6	-	128040.0	(Negligible)

Structure: WH13 | Sub-structure: WH13

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	631.60E-6	0.0	260.75E-6	1.0703	627.32E-6	0.0	260.75E-6	-	15955.0	(Negligible)

Structure: WH14 | Sub-structure: WH14

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	0.0016000	0.0	136.69E-6	1.6958	0.0014877	0.0	136.69E-6	35295.	134200.0	(Negligible)

Structure: WH15 | Sub-structure: WH15

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	0.0045210	0.0	-495.90E-6	1.6958	0.0049392	0.0	-495.90E-6	-	5657.8	0 (Negligible)

Structure: WH16 | Sub-structure: WH16

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	272.10E-6	0.0	-23.563E-6	0.48435	264.47E-6	0.0	-23.563E-6	136400.	-	0 (Negligible)

Structure: WH17 | Sub-structure: WH17

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	607.92E-6	0.0	-129.14E-6	0.43541	600.28E-6	0.0	-129.14E-6	-	33942.0	0 (Negligible)

Structure: WH18 | Sub-structure: WH18

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	32.581E-6	0.0	9.6188E-6	0.22700	32.580E-6	0.0	9.6188E-6	302740.	-	0 (Negligible)

Structure: WH19 | Sub-structure: WH19

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	343.29E-6	0.0	-83.468E-6	0.22700	340.14E-6	0.0	-83.468E-6	-	54733.0	0 (Negligible)

Structure: WH20 | Sub-structure: WH20

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	

Structure: WH21 | Sub-structure: WH21

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	

Structure: WH22 | Sub-structure: WH22

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	

Structure: WH23 | Sub-structure: WH23



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Calculations	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	82.217E-6		0.0 -12.122E-6	0.12491	80.491E-6	0.0	-12.122E-6		- 310100.0	0 (Negligible)
Structure: WH24 Sub-structure: WH24										
Calculations	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	5.1896E-6		0.0 0.0	0.13171	4.8280E-6	0.0	0.0 9.7411E+6	8.8841E+6	0	0 (Negligible)
Structure: TA1 Sub-structure: TA1										
Calculations	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	0.0015401		0.0 99.283E-6	1.3275	0.0017538	0.0	99.283E-6	100610.		- 0 (Negligible)
Structure: TA2 Sub-structure: TA2										
Calculations	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	0.0028356		0.0 -325.20E-6	1.3191	0.0025700	0.0	-325.20E-6		- 11792.0	0 (Negligible)
Structure: TA3 Sub-structure: TA3										
Calculations	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	19.703E-6		0.0 -14.228E-6	0.31995	19.705E-6	0.0	-14.228E-6	433250.		- 0 (Negligible)
Structure: TA4 Sub-structure: TA4										
Calculations	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	127.84E-6		0.0 -71.745E-6	0.31041	127.14E-6	0.0	-71.745E-6		- 107870.0	0 (Negligible)
Structure: TA5 Sub-structure: TA5										
Calculations	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	265.95E-6		0.0 -82.397E-6	0.23224	263.61E-6	0.0	-82.397E-6		- 59107.0	0 (Negligible)
Structure: TA6 Sub-structure: TA6										
Calculations	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	38.073E-6		0.0 -14.778E-6	0.11155	37.944E-6	0.0	-14.778E-6		- 269920.0	0 (Negligible)
Structure: TA7 Sub-structure: TA7										
Calculations	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	4.1495E-6		0.0 0.0	0.11180	4.1127E-6	0.0	0.0 4.6649E+6		- 0	0 (Negligible)
Structure: TA8 Sub-structure: TA8										
Calculations	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	38.073E-6		0.0 -14.778E-6	0.11155	37.944E-6	0.0	-14.778E-6		- 269920.0	0 (Negligible)
Structure: TA9 Sub-structure: TA9										
Calculations	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	4.1495E-6		0.0 0.0	0.11180	4.1127E-6	0.0	0.0 4.6649E+6		- 0	0 (Negligible)
Structure: TA10 Sub-structure: TA10										



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Calculations
[m] [%] [%] [mm] [%] [m] [m]
0.0 73.551E-6 0.0 -10.142E-6 0.13002 71.847E-6 0.0 -10.142E-6 - 344460.0 (Negligible)

Structure: TA11 | Sub-structure: TA11

Vertical Offset from Line for Vertical Movement	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
Calculations	[m]	[%]	[%]	[mm]	[%]	[m]	[m]	[m]	[m]	
0.0	1.5260E-6	0.0	0.0	0.13002	1.5378E-6	0.0	0.0	13.678E+6	- 0	(Negligible)

Structure: TA12 | Sub-structure: TA12

Vertical Offset from Line for Vertical Movement	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
Calculations	[m]	[%]	[%]	[mm]	[%]	[m]	[m]	[m]	[m]	
0.0	17.351E-6	0.0	-3.5297E-6	0.13397	17.202E-6	0.0	-3.5297E-6	-	985670.0	(Negligible)

Structure: TA13 | Sub-structure: TA13

Vertical Offset from Line for Vertical Movement	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
Calculations	[m]	[%]	[%]	[mm]	[%]	[m]	[m]	[m]	[m]	
0.0	34.360E-6	0.0	-2.8033E-6	0.13748	33.724E-6	0.0	-2.8033E-6	-	677850.0	(Negligible)

Structure: TA14 | Sub-structure: TA14

Vertical Offset from Line for Vertical Movement	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
Calculations	[m]	[%]	[%]	[mm]	[%]	[m]	[m]	[m]	[m]	
0.0	7.8347E-6	0.0	0.0	0.13753	7.7605E-6	0.0	0.0	- 1.8980E+6	0	(Negligible)

Structure: TA15 | Sub-structure: TA15

Vertical Offset from Line for Vertical Movement	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
Calculations	[m]	[%]	[%]	[mm]	[%]	[m]	[m]	[m]	[m]	
0.0	0.0	0.0	0.0	0.13741	0.0	0.0	0.0	- 21.303E+6	0	(Negligible)

Structure: TA16 | Sub-structure: TA16

Vertical Offset from Line for Vertical Movement	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
Calculations	[m]	[%]	[%]	[mm]	[%]	[m]	[m]	[m]	[m]	
0.0	29.983E-6	0.0	2.8610E-6	0.13741	27.144E-6	0.0	2.8610E-6	-	1.3004E+6	0 (Negligible)

Structure: TA17 | Sub-structure: TA17

Vertical Offset from Line for Vertical Movement	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
Calculations	[m]	[%]	[%]	[mm]	[%]	[m]	[m]	[m]	[m]	
0.0	13.096E-6	0.0	1.0679E-6	0.12752	19.777E-6	0.0	1.0679E-6	-	13.357E+6	0 (Negligible)

Structure: TA18 | Sub-structure: TA18

Vertical Offset from Line for Vertical Movement	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
Calculations	[m]	[%]	[%]	[mm]	[%]	[m]	[m]	[m]	[m]	
0.0	3.2411E-6	0.0	-1.3935E-6	0.12300	3.1829E-6	0.0	-1.3935E-6	-	10.040E+6	0 (Negligible)

Structure: TA19 | Sub-structure: TA19

Vertical Offset from Line for Vertical Movement	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
Calculations	[m]	[%]	[%]	[mm]	[%]	[m]	[m]	[m]	[m]	
0.0	115.30E-6	0.0	6.4519E-6	0.13417	167.98E-6	0.0	6.4519E-6	-	527260.0	(Negligible)

Structure: TA20 | Sub-structure: TA20

Vertical Offset from Line for Vertical Movement	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
Calculations	[m]	[%]	[%]	[mm]	[%]	[m]	[m]	[m]	[m]	
0.0	52.401E-6	0.0	11.779E-6	0.11875	51.820E-6	0.0	11.779E-6	-	342330.0	(Negligible)

Structure: TA21 | Sub-structure: TA21

Vertical Offset from Line for Vertical Movement	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
Calculations	[m]	[%]	[%]	[mm]	[%]	[m]	[m]	[m]	[m]	
0.0	435.07E-6	0.0	89.599E-6	0.30067	425.11E-6	0.0	89.599E-6	-	56664.0	(Negligible)



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Vertical Offset from Line for Vertical	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
Structure: TA22 Sub-structure: TA22										
0.0	0.0011406	0.0	190.56E-6	0.65467	0.0011153	0.0	190.56E-6	[m]	19557.0	0 (Negligible)
Structure: TA23 Sub-structure: TA23										
0.0	206.99E-6	0.0	-57.527E-6	0.30072	287.78E-6	0.0	-57.527E-6	[m]	203270.0	0 (Negligible)
Structure: TA24 Sub-structure: TA24										
0.0	477.32E-6	0.0	81.423E-6	0.45644	722.09E-6	0.0	81.423E-6	[m]	134800.0	0 (Negligible)
Structure: TA25 Sub-structure: TA25										
0.0	0.0038108	0.0	393.36E-6	1.8384	0.0057650	0.0	393.36E-6	[m]	14748.0	0 (Negligible)
Structure: TA26 Sub-structure: TA26										
0.0	0.0047272	0.0	-526.61E-6	1.8384	0.0063729	0.0	-526.61E-6	[m]	5818.10	0 (Negligible)

Specific Building Damage Results - Critical Segments within Each Structure

Structure Name	Parameter	Critical Sub-Structure	Critical Segment	Start	End	Curvature	Max Slope	Max Settlement	Max Tensile Strain	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
WH1	Max Slope	WH1	1	0.0	5.1910	Sagging	10.705E-6	0.13171	109.68E-6	-	372800.0	0 (Negligible)
	Max Settlement	WH1	1	0.0	5.1910	Sagging	10.705E-6	0.13171	109.68E-6	-	372800.0	0 (Negligible)
	Max Tensile Strain	WH1	1	0.0	5.1910	Sagging	10.705E-6	0.13171	109.68E-6	-	372800.0	0 (Negligible)
	Min Radius of Curvature (Hogging)											
	Min Radius of Curvature (Sagging)	WH1	1	0.0	5.1910	Sagging	10.705E-6	0.13171	109.68E-6	-	372800.0	0 (Negligible)
WH2	Max Slope	WH2	1	0.0	0.0	Sagging	6.9939E-6	0.10194	0.0	-	938920.0	0 (Negligible)
	Max Settlement	WH2	1	0.0	0.0	Sagging	6.9939E-6	0.10194	0.0	-	938920.0	0 (Negligible)
	Max Tensile Strain	WH2	1	0.0	0.0	Sagging	6.9939E-6	0.10194	0.0	-	938920.0	0 (Negligible)
	Min Radius of Curvature (Hogging)											
	Min Radius of Curvature (Sagging)											
WH3	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
WH4	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
WH5	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
WH6	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
WH7	Max Slope	WH7	1	1.4071	1.8760	Hogging	58.256E-6	0.14488	0.0	94504.	-	0 (Negligible)
	Max Settlement	WH7	1	1.4071	1.8760	Hogging	58.256E-6	0.14488	0.0	94504.	-	0 (Negligible)
	Max Tensile Strain	WH7	1	1.4071	1.8760	Hogging	58.256E-6	0.14488	0.0	94504.	-	0 (Negligible)
	Min Radius of Curvature (Hogging)	WH7	1	1.4071	1.8760	Hogging	58.256E-6	0.14488	0.0	94504.	-	0 (Negligible)
	Min Radius of Curvature (Sagging)											
WH8	Max Slope	WH8	1	0.0	2.1010	Sagging	22.400E-6	0.14489	34.153E-6	-	650220.0	0 (Negligible)
	Max Settlement	WH8	1	0.0	2.1010	Sagging	22.400E-6	0.14489	34.153E-6	-	650220.0	0 (Negligible)
	Max Tensile Strain	WH8	1	0.0	2.1010	Sagging	22.400E-6	0.14489	34.153E-6	-	650220.0	0 (Negligible)
	Min Radius of Curvature (Hogging)											
	Min Radius of Curvature (Sagging)	WH8	1	0.0	2.1010	Sagging	22.400E-6	0.14489	34.153E-6	-	650220.0	0 (Negligible)
WH9	Max Slope	WH9	1	0.0	4.3160	Sagging	117.62E-6	0.45270	962.91E-6	-	40105.0	0 (Negligible)
	Max Settlement	WH9	1	0.0	4.3160	Sagging	117.62E-6	0.45270	962.91E-6	-	40105.0	0 (Negligible)
	Max Tensile Strain	WH9	1	0.0	4.3160	Sagging	117.62E-6	0.45270	962.91E-6	-	40105.0	0 (Negligible)
	Min Radius of Curvature (Hogging)											
	Min Radius of Curvature (Sagging)	WH9	1	0.0	4.3160	Sagging	117.62E-6	0.45270	962.91E-6	-	40105.0	0 (Negligible)



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Structure Name	Parameter	Critical Sub-Structure	Critical Segment	Start	End	Curvature	Max Slope	Max Settlement	Max Tensile Strain	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
(Sagging)												
WH10	Max Slope	WH10	1	0.0	6.5070	Sagging	102.08E-6	0.87278	0.0011328	-	57130.0	(Negligible)
	Max Settlement	WH10	1	0.0	6.5070	Sagging	102.08E-6	0.87278	0.0011328	-	57130.0	(Negligible)
	Max Tensile Strain	WH10	1	0.0	6.5070	Sagging	102.08E-6	0.87278	0.0011328	-	57130.0	(Negligible)
	Min Radius of Curvature (Hogging)		-	-	-	-	-	-	-	-	-	-
	Min Radius of Curvature (Sagging)	WH10	1	0.0	6.5070	Sagging	102.08E-6	0.87278	0.0011328	-	57130.0	(Negligible)
(Sagging)												
WH11	Max Slope	WH11	1	0.0	0.75000	Sagging	203.30E-6	0.87278	373.54E-6	-	24706.0	(Negligible)
	Max Settlement	WH11	1	0.0	0.75000	Sagging	203.30E-6	0.87278	373.54E-6	-	24706.0	(Negligible)
	Max Tensile Strain	WH11	1	0.0	0.75000	Sagging	203.30E-6	0.87278	373.54E-6	-	24706.0	(Negligible)
	Min Radius of Curvature (Hogging)		-	-	-	-	-	-	-	-	-	-
	Min Radius of Curvature (Sagging)	WH11	1	0.0	0.75000	Sagging	203.30E-6	0.87278	373.54E-6	-	24706.0	(Negligible)
(Sagging)												
WH12	Max Slope	WH12	1	0.0	1.7500	Sagging	84.798E-6	0.86843	122.56E-6	-	128040.0	(Negligible)
	Max Settlement	WH12	1	0.0	1.7500	Sagging	84.798E-6	0.86843	122.56E-6	-	128040.0	(Negligible)
	Max Tensile Strain	WH12	1	0.0	1.7500	Sagging	84.798E-6	0.86843	122.56E-6	-	128040.0	(Negligible)
	Min Radius of Curvature (Hogging)		-	-	-	-	-	-	-	-	-	-
	Min Radius of Curvature (Sagging)	WH12	1	0.0	1.7500	Sagging	84.798E-6	0.86843	122.56E-6	-	128040.0	(Negligible)
(Sagging)												
WH13	Max Slope	WH13	1	0.0	0.81400	Sagging	260.75E-6	1.0703	627.32E-6	-	15955.0	(Negligible)
	Max Settlement	WH13	1	0.0	0.81400	Sagging	260.75E-6	1.0703	627.32E-6	-	15955.0	(Negligible)
	Max Tensile Strain	WH13	1	0.0	0.81400	Sagging	260.75E-6	1.0703	627.32E-6	-	15955.0	(Negligible)
	Min Radius of Curvature (Hogging)		-	-	-	-	-	-	-	-	-	-
	Min Radius of Curvature (Sagging)	WH13	1	0.0	0.81400	Sagging	260.75E-6	1.0703	627.32E-6	-	15955.0	(Negligible)
(Sagging)												
WH14	Max Slope	WH14	1	0.0	0.98674	Sagging	136.69E-6	1.2036	70.846E-6	-	134200.0	(Negligible)
	Max Settlement	WH14	2	0.98674	6.4130	Hogging	136.69E-6	1.6958	0.0014877	35295.	-	0 (Negligible)
	Max Tensile Strain	WH14	2	0.98674	6.4130	Hogging	136.69E-6	1.6958	0.0014877	35295.	-	0 (Negligible)
	Min Radius of Curvature (Hogging)	WH14	2	0.98674	6.4130	Hogging	136.69E-6	1.6958	0.0014877	35295.	-	0 (Negligible)
	Min Radius of Curvature (Sagging)	WH14	1	0.0	0.98674	Sagging	136.69E-6	1.2036	70.846E-6	-	134200.0	(Negligible)
(Sagging)												
WH15	Max Slope	WH15	1	0.0	4.1900	Sagging	495.90E-6	1.6958	0.0049392	-	5657.8	(Negligible)
	Max Settlement	WH15	1	0.0	4.1900	Sagging	495.90E-6	1.6958	0.0049392	-	5657.8	(Negligible)
	Max Tensile Strain	WH15	1	0.0	4.1900	Sagging	495.90E-6	1.6958	0.0049392	-	5657.8	(Negligible)
	Min Radius of Curvature (Hogging)		-	-	-	-	-	-	-	-	-	-
	Min Radius of Curvature (Sagging)	WH15	1	0.0	4.1900	Sagging	495.90E-6	1.6958	0.0049392	-	5657.8	(Negligible)
(Sagging)												
WH16	Max Slope	WH16	1	0.0	3.3610	Hogging	23.563E-6	0.48435	264.47E-6	136400.	-	0 (Negligible)
	Max Settlement	WH16	1	0.0	3.3610	Hogging	23.563E-6	0.48435	264.47E-6	136400.	-	0 (Negligible)
	Max Tensile Strain	WH16	1	0.0	3.3610	Hogging	23.563E-6	0.48435	264.47E-6	136400.	-	0 (Negligible)
	Min Radius of Curvature (Hogging)	WH16	1	0.0	3.3610	Hogging	23.563E-6	0.48435	264.47E-6	136400.	-	0 (Negligible)
	Min Radius of Curvature (Sagging)		-	-	-	-	-	-	-	-	-	-
(Sagging)												
WH17	Max Slope	WH17	1	0.0	2.0030	Sagging	129.14E-6	0.43541	600.28E-6	-	33942.0	(Negligible)
	Max Settlement	WH17	1	0.0	2.0030	Sagging	129.14E-6	0.43541	600.28E-6	-	33942.0	(Negligible)
	Max Tensile Strain	WH17	1	0.0	2.0030	Sagging	129.14E-6	0.43541	600.28E-6	-	33942.0	(Negligible)
	Min Radius of Curvature (Hogging)		-	-	-	-	-	-	-	-	-	-
	Min Radius of Curvature (Sagging)	WH17	1	0.0	2.0030	Sagging	129.14E-6	0.43541	600.28E-6	-	33942.0	(Negligible)
(Sagging)												
WH18	Max Slope	WH18	1	0.0	0.79700	Hogging	9.6188E-6	0.22700	32.580E-6	302740.	-	0 (Negligible)
	Max Settlement	WH18	1	0.0	0.79700	Hogging	9.6188E-6	0.22700	32.580E-6	302740.	-	0 (Negligible)
	Max Tensile Strain	WH18	1	0.0	0.79700	Hogging	9.6188E-6	0.22700	32.580E-6	302740.	-	0 (Negligible)
	Min Radius of Curvature (Hogging)	WH18	1	0.0	0.79700	Hogging	9.6188E-6	0.22700	32.580E-6	302740.	-	0 (Negligible)
	Min Radius of Curvature (Sagging)		-	-	-	-	-	-	-	-	-	-
(Sagging)												
WH19	Max Slope	WH19	1	0.0	1.7020	Sagging	83.468E-6	0.22700	340.14E-6	-	54733.0	(Negligible)
	Max Settlement	WH19	1	0.0	1.7020	Sagging	83.468E-6	0.22700	340.14E-6	-	54733.0	(Negligible)
	Max Tensile Strain	WH19	1	0.0	1.7020	Sagging	83.468E-6	0.22700	340.14E-6	-	54733.0	(Negligible)
	Min Radius of Curvature (Hogging)		-	-	-	-	-	-	-	-	-	-
	Min Radius of Curvature (Sagging)	WH19	1	0.0	1.7020	Sagging	83.468E-6	0.22700	340.14E-6	-	54733.0	(Negligible)
(Sagging)												
WH20	All settlements are less than the Settlement Trough Limit Sensitivity.											
(Sagging)												
WH21	All settlements are less than the Settlement Trough Limit Sensitivity.											
(Sagging)												
WH22	All settlements are less than the Settlement Trough Limit Sensitivity.											
(Sagging)												
WH23	Max Slope	WH23	1	2.6592	5.3180	Sagging	12.122E-6	0.12491	80.431E-6	-	310100.0	(Negligible)
	Max Settlement	WH23	1	2.6592	5.3180	Sagging	12.122E-6	0.12491	80.431E-6	-	310100.0	(Negligible)
	Max Tensile Strain	WH23	1	2.6592	5.3180	Sagging	12.122E-6	0.12491	80.431E-6	-	310100.0	(Negligible)
	Min Radius of Curvature (Hogging)		-	-	-	-	-	-	-	-	-	-
	Min Radius of Curvature (Sagging)	WH23	1	2.6592	5.3180	Sagging	12.122E-6	0.12491	80.431E-6	-	310100.0	(Negligible)
(Sagging)												
WH24	Max Slope	WH24	1	0.0	4.6766	Hogging	0.0	0.12801	3.3975E-6	9.7411E+6	-	0 (Negligible)
	Max Settlement	WH24	2	4.6766	10.711	Sagging	0.0	0.13171	4.8280E-6	-	8.8841E+6	0 (Negligible)
	Max Tensile Strain	WH24	2	4.6766	10.711	Sagging	0.0	0.13171	4.8280E-6	-	8.8841E+6	0 (Negligible)
	Min Radius of Curvature (Hogging)	WH24	1	0.0	4.6766	Hogging	0.0	0.12801	3.3975E-6	9.7411E+6	-	0 (Negligible)
	Min Radius of Curvature (Sagging)	WH24	2	4.6766	10.711	Sagging	0.0	0.13171	4.8280E-6	-	8.8841E+6	0 (Negligible)
(Sagging)												
TA1	Max Slope	TA1	1	0.0	14.253	Hogging	99.283E-6	1.3275	0.0017538	100610.	-	0 (Negligible)



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Table with columns: Structure Name, Parameter, Critical Sub-Structure, Critical Segment, Start, End, Curvature, Max Slope, Max Settlement, Max Tensile Strain, Min Radius of Curvature (Hogging), Min Radius of Curvature (Sagging), Damage Category. Rows include structures TA2 through TA15 with various parameters like Max Settlement, Max Tensile Strain, and Min Radius of Curvature.



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Excavation (Heave, Short Term)

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Structure Name	Parameter	Critical Sub-Structure	Critical Segment	Start	End	Curvature	Max Slope	Max Settlement	Max Tensile Strain	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
TA16	Curvature (Sagging)											
	Max Slope	TA16	1	0.0	5.0940	Sagging	2.8610E-6	0.13741	27.144E-6	- 1.3004E+6	0 (Negligible)	
	Max Settlement	TA16	1	0.0	5.0940	Sagging	2.8610E-6	0.13741	27.144E-6	- 1.3004E+6	0 (Negligible)	
	Max Tensile Strain	TA16	1	0.0	5.0940	Sagging	2.8610E-6	0.13741	27.144E-6	- 1.3004E+6	0 (Negligible)	
	Min Radius of Curvature (Hogging)											
	Min Radius of Curvature (Sagging)	TA16	1	0.0	5.0940	Sagging	2.8610E-6	0.13741	27.144E-6	- 1.3004E+6	0 (Negligible)	
TA17	Max Slope	TA17	1	0.0	14.130	Sagging	1.0679E-6	0.12752	19.777E-6	- 13.357E+6	0 (Negligible)	
	Max Settlement	TA17	1	0.0	14.130	Sagging	1.0679E-6	0.12752	19.777E-6	- 13.357E+6	0 (Negligible)	
	Max Tensile Strain	TA17	1	0.0	14.130	Sagging	1.0679E-6	0.12752	19.777E-6	- 13.357E+6	0 (Negligible)	
	Min Radius of Curvature (Hogging)											
	Min Radius of Curvature (Sagging)	TA17	1	0.0	14.130	Sagging	1.0679E-6	0.12752	19.777E-6	- 13.357E+6	0 (Negligible)	
TA18	Max Slope	TA18	1	0.0	2.7170	Sagging	1.3935E-6	0.12300	3.1829E-6	- 10.040E+6	0 (Negligible)	
	Max Settlement	TA18	1	0.0	2.7170	Sagging	1.3935E-6	0.12300	3.1829E-6	- 10.040E+6	0 (Negligible)	
	Max Tensile Strain	TA18	1	0.0	2.7170	Sagging	1.3935E-6	0.12300	3.1829E-6	- 10.040E+6	0 (Negligible)	
	Min Radius of Curvature (Hogging)											
	Min Radius of Curvature (Sagging)	TA18	1	0.0	2.7170	Sagging	1.3935E-6	0.12300	3.1829E-6	- 10.040E+6	0 (Negligible)	
TA19	Max Slope	TA19	1	0.0	11.798	Sagging	6.4519E-6	0.13417	167.98E-6	- 527260.0	0 (Negligible)	
	Max Settlement	TA19	1	0.0	11.798	Sagging	6.4519E-6	0.13417	167.98E-6	- 527260.0	0 (Negligible)	
	Max Tensile Strain	TA19	1	0.0	11.798	Sagging	6.4519E-6	0.13417	167.98E-6	- 527260.0	0 (Negligible)	
	Min Radius of Curvature (Hogging)											
	Min Radius of Curvature (Sagging)	TA19	1	0.0	11.798	Sagging	6.4519E-6	0.13417	167.98E-6	- 527260.0	0 (Negligible)	
TA20	Max Slope	TA20	1	0.0	1.6962	Sagging	11.779E-6	0.11875	51.820E-6	- 342330.0	0 (Negligible)	
	Max Settlement	TA20	1	0.0	1.6962	Sagging	11.779E-6	0.11875	51.820E-6	- 342330.0	0 (Negligible)	
	Max Tensile Strain	TA20	1	0.0	1.6962	Sagging	11.779E-6	0.11875	51.820E-6	- 342330.0	0 (Negligible)	
	Min Radius of Curvature (Hogging)											
	Min Radius of Curvature (Sagging)	TA20	1	0.0	1.6962	Sagging	11.779E-6	0.11875	51.820E-6	- 342330.0	0 (Negligible)	
TA21	Max Slope	TA21	1	7.2424	9.6560	Sagging	89.599E-6	0.30067	425.11E-6	- 56664.0	0 (Negligible)	
	Max Settlement	TA21	1	7.2424	9.6560	Sagging	89.599E-6	0.30067	425.11E-6	- 56664.0	0 (Negligible)	
	Max Tensile Strain	TA21	1	7.2424	9.6560	Sagging	89.599E-6	0.30067	425.11E-6	- 56664.0	0 (Negligible)	
	Min Radius of Curvature (Hogging)											
	Min Radius of Curvature (Sagging)	TA21	1	7.2424	9.6560	Sagging	89.599E-6	0.30067	425.11E-6	- 56664.0	0 (Negligible)	
TA22	Max Slope	TA22	1	0.0	2.3770	Sagging	190.56E-6	0.65467	0.0011153	- 19557.0	0 (Negligible)	
	Max Settlement	TA22	1	0.0	2.3770	Sagging	190.56E-6	0.65467	0.0011153	- 19557.0	0 (Negligible)	
	Max Tensile Strain	TA22	1	0.0	2.3770	Sagging	190.56E-6	0.65467	0.0011153	- 19557.0	0 (Negligible)	
	Min Radius of Curvature (Hogging)											
	Min Radius of Curvature (Sagging)	TA22	1	0.0	2.3770	Sagging	190.56E-6	0.65467	0.0011153	- 19557.0	0 (Negligible)	
TA23	Max Slope	TA23	1	0.0	3.8650	Sagging	57.527E-6	0.30072	287.78E-6	- 203270.0	0 (Negligible)	
	Max Settlement	TA23	1	0.0	3.8650	Sagging	57.527E-6	0.30072	287.78E-6	- 203270.0	0 (Negligible)	
	Max Tensile Strain	TA23	1	0.0	3.8650	Sagging	57.527E-6	0.30072	287.78E-6	- 203270.0	0 (Negligible)	
	Min Radius of Curvature (Hogging)											
	Min Radius of Curvature (Sagging)	TA23	1	0.0	3.8650	Sagging	57.527E-6	0.30072	287.78E-6	- 203270.0	0 (Negligible)	
TA24	Max Slope	TA24	1	0.0	5.4080	Sagging	81.423E-6	0.45644	722.09E-6	- 134800.0	0 (Negligible)	
	Max Settlement	TA24	1	0.0	5.4080	Sagging	81.423E-6	0.45644	722.09E-6	- 134800.0	0 (Negligible)	
	Max Tensile Strain	TA24	1	0.0	5.4080	Sagging	81.423E-6	0.45644	722.09E-6	- 134800.0	0 (Negligible)	
	Min Radius of Curvature (Hogging)											
	Min Radius of Curvature (Sagging)	TA24	1	0.0	5.4080	Sagging	81.423E-6	0.45644	722.09E-6	- 134800.0	0 (Negligible)	
TA25	Max Slope	TA25	1	0.0	5.4080	Sagging	393.36E-6	1.8384	0.0057650	- 14748.0	0 (Negligible)	
	Max Settlement	TA25	1	0.0	5.4080	Sagging	393.36E-6	1.8384	0.0057650	- 14748.0	0 (Negligible)	
	Max Tensile Strain	TA25	1	0.0	5.4080	Sagging	393.36E-6	1.8384	0.0057650	- 14748.0	0 (Negligible)	
	Min Radius of Curvature (Hogging)											
	Min Radius of Curvature (Sagging)	TA25	1	0.0	5.4080	Sagging	393.36E-6	1.8384	0.0057650	- 14748.0	0 (Negligible)	
TA26	Max Slope	TA26	1	0.0	3.5990	Sagging	526.61E-6	1.8384	0.0063729	- 5818.1	0 (Negligible)	
	Max Settlement	TA26	1	0.0	3.5990	Sagging	526.61E-6	1.8384	0.0063729	- 5818.1	0 (Negligible)	
	Max Tensile Strain	TA26	1	0.0	3.5990	Sagging	526.61E-6	1.8384	0.0063729	- 5818.1	0 (Negligible)	
	Min Radius of Curvature (Hogging)											
	Min Radius of Curvature (Sagging)	TA26	1	0.0	3.5990	Sagging	526.61E-6	1.8384	0.0063729	- 5818.1	0 (Negligible)	



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Utility Strain Calculation Options

Neglect beneficial contribution of axial strains : No

Specific Building Damage Results - Horizontal Displacements

Structure: WH1 | Sub-structure: WH1

Dist.	Coordinates			Displacements		Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	x	y	z	x	y		
	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	33.72700	64.63300	112.00000	0.0	0.0	0.0	0.0
0.43260	34.15950	64.64242	112.00000	0.0	0.0	0.0	0.0
0.86521	34.59200	64.65183	112.00000	0.0	0.0	0.0	0.0
1.2978	35.02450	64.66125	112.00000	0.0	0.0	0.0	0.0
1.7304	35.45700	64.67067	112.00000	0.0	0.0	0.0	0.0
2.1630	35.88950	64.68008	112.00000	0.0	0.0	0.0	0.0
2.5956	36.32200	64.68950	112.00000	0.0	0.0	0.0	0.0
3.0282	36.75450	64.69892	112.00000	0.0	0.0	0.0	0.0
3.4608	37.18700	64.70833	112.00000	0.0	0.0	0.0	0.0
3.8934	37.61950	64.71775	112.00000	0.0	0.0	0.0	0.0
4.3260	38.05200	64.72717	112.00000	0.0	0.0	0.0	0.0
4.7586	38.48450	64.73658	112.00000	0.0	0.0	0.0	0.0
5.1912	38.91700	64.74600	112.00000	0.0	0.0	0.0	0.0

Structure: WH2 | Sub-structure: WH2

Dist.	Coordinates			Displacements		Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	x	y	z	x	y		
	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	38.91700	64.74600	112.00000	0.0	0.0	0.0	0.0
0.37347	39.03600	64.39200	112.00000	0.0	0.0	0.0	0.0
0.74693	39.15500	64.03800	112.00000	0.0	0.0	0.0	0.0

Structure: WH3 | Sub-structure: WH3

Dist.	Coordinates			Displacements		Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	x	y	z	x	y		
	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	39.15500	64.03800	112.00000	0.0	0.0	0.0	0.0
0.32830	39.48325	64.04400	112.00000	0.0	0.0	0.0	0.0
0.65661	39.81150	64.05000	112.00000	0.0	0.0	0.0	0.0
0.98491	40.13975	64.05600	112.00000	0.0	0.0	0.0	0.0
1.3132	40.46800	64.06200	112.00000	0.0	0.0	0.0	0.0

Structure: WH4 | Sub-structure: WH4

Dist.	Coordinates			Displacements		Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	x	y	z	x	y		
	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	40.46800	64.06200	112.00000	0.0	0.0	0.0	0.0
0.45411	40.44450	64.51550	112.00000	0.0	0.0	0.0	0.0
0.90822	40.42100	64.96900	112.00000	0.0	0.0	0.0	0.0

Structure: WH5 | Sub-structure: WH5

Dist.	Coordinates			Displacements		Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	x	y	z	x	y		
	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	40.42100	64.96900	112.00000	0.0	0.0	0.0	0.0
0.45043	40.87130	64.97990	112.00000	0.0	0.0	0.0	0.0
0.90086	41.32160	64.99080	112.00000	0.0	0.0	0.0	0.0
1.3513	41.77190	65.00170	112.00000	0.043384	0.0	0.043372	-0.0010499
1.8017	42.22220	65.01260	112.00000	0.091597	0.0	0.091570	-0.0022165
2.2522	42.67250	65.02350	112.00000	0.13570	0.0	0.13566	-0.0032838
2.7026	43.12280	65.03440	112.00000	0.17543	0.0	0.17538	-0.0042453
3.1530	43.57310	65.04530	112.00000	0.21278	0.0	0.21272	-0.0051491
3.6035	44.02340	65.05620	112.00000	0.24672	0.0	0.24664	-0.0059703
4.0539	44.47370	65.06710	112.00000	0.27669	0.0	0.27661	-0.0066957
4.5043	44.92400	65.07800	112.00000	0.30246	0.0	0.30237	-0.0073193

Structure: WH6 | Sub-structure: WH6

Dist.	Coordinates			Displacements		Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	x	y	z	x	y		
	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	44.92400	65.07800	112.00000	0.30246	0.0	-0.0053810	0.30241
0.42157	44.91650	64.65650	112.00000	0.34520	0.0	-0.0061413	0.34514
0.84313	44.90900	64.23500	112.00000	0.39026	0.0	-0.0069430	0.39020

Structure: WH7 | Sub-structure: WH7

Dist.	Coordinates			Displacements		Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	x	y	z	x	y		
	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	44.90900	64.23500	112.00000	0.39026	0.0	0.39023	-0.0047843
0.46904	45.37800	64.24075	112.00000	0.43711	0.0	0.41708	-0.0051135
0.93807	45.84700	64.24650	112.00000	0.48362	0.0	0.43858	-0.0053771
1.4071	46.31600	64.25225	112.00000	0.45436	0.0	0.45433	-0.0055701
1.8761	46.78500	64.25800	112.00000	0.46392	0.0	0.46389	-0.0056873

Structure: WH8 | Sub-structure: WH8

Dist.	Coordinates			Displacements		Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	x	y	z	x	y		
	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	46.78500	64.25800	112.00000	0.46392	0.0	-0.0057406	-0.46389
0.35019	46.78067	64.60817	112.00000	0.41327	0.0	-0.0051881	-0.41324
0.70039	46.77633	64.95833	112.00000	0.37723	0.0	-0.0046678	-0.37720
1.0506	46.77200	65.30850	112.00000	0.33774	0.0	-0.0041792	-0.33771
1.4008	46.76767	65.65867	112.00000	0.30074	0.0	-0.0037214	-0.30072
1.7510	46.76333	66.00883	112.00000	0.26617	0.0	-0.0032937	-0.26615
2.1012	46.75900	66.35900	112.00000	0.23395	0.0	-0.0028950	-0.23394



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Dist.	Coordinates			Displacements		
	x	y	z	x	y	Horizontal displacement along the Line

Structure: WH9 | Sub-structure: WH9

Dist.	Coordinates			Displacements		
	x	y	z	x	y	Horizontal displacement along the Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]
0.0	46.75900	66.35900	112.00000	0.23395	0.0	0.23388
0.43165	47.19050	66.37020	112.00000	0.23298	0.0	0.23291
0.86329	47.62200	66.38140	112.00000	0.22740	0.0	0.22733
1.2949	48.05350	66.39260	112.00000	0.21708	0.0	0.21701
1.7266	48.48500	66.40380	112.00000	0.20192	0.0	0.20185
2.1582	48.91650	66.41500	112.00000	0.18184	0.0	0.18178
2.5899	49.34800	66.42620	112.00000	0.15681	0.0	0.15675
3.0215	49.77950	66.43740	112.00000	0.12682	0.0	0.12678
3.4532	50.21100	66.44860	112.00000	0.091934	0.0	0.091903
3.8848	50.64250	66.45980	112.00000	0.052266	0.0	0.052249
4.3165	51.07400	66.47100	112.00000	0.0079972	0.0	0.0079945

Structure: WH10 | Sub-structure: WH10

Dist.	Coordinates			Displacements		
	x	y	z	x	y	Horizontal displacement along the Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]
0.0	51.07400	66.47100	112.00000	0.0079972	0.0	244.57E-6
0.46479	51.08820	66.00643	112.00000	0.032665	0.0	998.98E-6
0.92958	51.10243	65.54186	112.00000	0.062912	0.0	0.0019246
1.3944	51.11664	65.07729	112.00000	0.099510	0.0	0.0030432
1.8592	51.13086	64.61271	112.00000	0.14323	0.0	0.0043802
2.3239	51.14507	64.14814	112.00000	0.19503	0.0	0.0059646
2.7887	51.15929	63.68357	112.00000	0.25604	0.0	0.0078302
3.2535	51.17350	63.21900	112.00000	0.32761	0.0	0.010016
3.7183	51.18771	62.75443	112.00000	0.41091	0.0	0.012567
4.1831	51.20193	62.28986	112.00000	0.50789	0.0	0.015533
4.6479	51.21614	61.82529	112.00000	0.62032	0.0	0.018971
5.1127	51.23036	61.36071	112.00000	0.76374	0.0	0.023357
5.5775	51.24457	60.89614	112.00000	0.92515	0.0	0.029211
6.0423	51.25879	60.43157	112.00000	1.1781	0.0	0.036028
6.5070	51.27300	59.96700	112.00000	1.4346	0.0	0.043874

Structure: WH11 | Sub-structure: WH11

Dist.	Coordinates			Displacements		
	x	y	z	x	y	Horizontal displacement along the Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]
0.0	51.27300	59.96700	112.00000	1.4346	0.0	-1.4344
0.37506	50.89800	59.97350	112.00000	1.4568	0.0	-1.4566
0.75011	50.52300	59.98000	112.00000	1.4688	0.0	-1.4686

Structure: WH12 | Sub-structure: WH12

Dist.	Coordinates			Displacements		
	x	y	z	x	y	Horizontal displacement along the Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]
0.0	50.52300	59.98000	112.00000	1.4688	0.0	-0.025176
0.43796	50.51550	59.94250	112.00000	1.7825	0.0	-0.030210
0.87513	50.50800	59.10500	112.00000	2.0777	0.0	-0.035612
1.3127	50.50050	58.66750	112.00000	2.4091	0.0	-0.041293
1.7503	50.49300	58.23000	112.00000	2.7496	0.0	-0.047129

Structure: WH13 | Sub-structure: WH13

Dist.	Coordinates			Displacements		
	x	y	z	x	y	Horizontal displacement along the Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]
0.0	50.49300	58.23000	112.00000	2.7496	0.0	2.7448
0.40721	50.89950	58.25400	112.00000	2.8569	0.0	2.8519
0.81442	51.30600	58.27800	112.00000	2.9349	0.0	2.9298

Structure: WH14 | Sub-structure: WH14

Dist.	Coordinates			Displacements		
	x	y	z	x	y	Horizontal displacement along the Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]
0.0	51.30600	58.27800	112.00000	2.9349	0.0	0.091985
0.45808	51.32036	57.82014	112.00000	3.4152	0.0	0.10704
0.91616	51.33471	57.36229	112.00000	3.8978	0.0	0.12216
1.3742	51.34907	56.90443	112.00000	5.1540	0.0	0.16153
1.8323	51.36343	56.44657	112.00000	5.1641	0.0	0.16185
2.2904	51.37779	55.98871	112.00000	5.1743	0.0	0.16217
2.7485	51.39214	55.53086	112.00000	5.1845	0.0	0.16249
3.2066	51.40650	55.07300	112.00000	5.1946	0.0	0.16281
3.6647	51.42086	54.61514	112.00000	5.2048	0.0	0.16313
4.1227	51.43521	54.15729	112.00000	5.2150	0.0	0.16345
4.5808	51.44957	53.69943	112.00000	5.2252	0.0	0.16377
5.0389	51.46393	53.24157	112.00000	5.2353	0.0	0.16408
5.4970	51.47829	52.78371	112.00000	5.2455	0.0	0.16440
5.9551	51.49264	52.32586	112.00000	5.2557	0.0	0.16472
6.4132	51.50700	51.86800	112.00000	5.2658	0.0	0.16504

Structure: WH15 | Sub-structure: WH15

Dist.	Coordinates			Displacements		
	x	y	z	x	y	Horizontal displacement along the Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]
0.0	51.50700	51.86800	112.00000	5.2658	0.0	-5.2648
0.41908	51.08800	51.85970	112.00000	4.9690	0.0	-4.9681
0.83816	50.66900	51.11440	112.00000	4.6723	0.0	-4.6713
1.2572	50.25000	51.84310	112.00000	4.3755	0.0	-4.3746
1.6763	49.83100	51.83480	112.00000	4.0787	0.0	-4.0779
2.0954	49.41200	51.82650	112.00000	3.7819	0.0	-3.7811
2.5145	48.99300	51.81820	112.00000	3.6098	0.0	-3.6090
2.9336	48.57400	51.80990	112.00000	3.4526	0.0	-3.4519
3.3527	48.15500	51.80160	112.00000	3.2955	0.0	-3.2949
3.7717	47.73600	51.79330	112.00000	3.1384	0.0	-3.1378
4.1908	47.31700	51.78500	112.00000	2.9813	0.0	-2.9807

Structure: WH16 | Sub-structure: WH16

Dist.	Coordinates			Displacements		
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35 Templewood Avenue
Pool Transfer revision
CIRIA (Excavation and Installation)

Job No. Sheet No. Rev.

P1017J1129

Drg. Ref.

Made by
 JW

Date
 13-Aug-2018

Checked

	x	y	z	x	y	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	47.31700	51.78500	112.00000	2.9813	0.0	-0.058532	-2.9807
0.42021	47.30875	52.20512	112.00000	2.9782	0.0	-0.058471	-2.9776
0.84041	47.30050	52.62525	112.00000	2.9751	0.0	-0.058410	-2.9745
1.2606	47.29225	53.04538	112.00000	2.9720	0.0	-0.058349	-2.9714
1.6808	47.28400	53.46550	112.00000	2.9689	0.0	-0.058289	-2.9683
2.1010	47.27575	53.88562	112.00000	2.9658	0.0	-0.058228	-2.9652
2.5212	47.26750	54.30575	112.00000	2.9627	0.0	-0.058167	-2.9621
2.9414	47.25925	54.72588	112.00000	2.9596	0.0	-0.058106	-2.9590
3.3616	47.25100	55.14600	112.00000	2.9565	0.0	-0.058046	-2.9559

Structure: WH17 | Sub-structure: WH17

Dist.	Coordinates			Displacements		Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	x	y	z	x	y		
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	47.25100	55.14600	112.00000	2.9565	0.0	-2.9544	0.11068
0.33390	46.91733	55.13350	112.00000	2.8314	0.0	-2.8294	0.10600
0.66780	46.58367	55.12100	112.00000	2.7063	0.0	-2.7044	0.10131
1.0017	46.25000	55.10850	112.00000	2.5811	0.0	-2.5793	0.096628
1.3356	45.91633	55.09600	112.00000	2.4560	0.0	-2.4543	0.091943
1.6695	45.58267	55.08350	112.00000	2.3309	0.0	-2.3292	0.087259
2.0034	45.24900	55.07100	112.00000	2.2058	0.0	-2.2042	0.082575

Structure: WH18 | Sub-structure: WH18

Dist.	Coordinates			Displacements		Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	x	y	z	x	y		
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	45.24900	55.07100	112.00000	2.2058	0.0	-0.038740	2.2054
0.39856	45.24200	54.67250	112.00000	2.2031	0.0	-0.038694	2.2028
0.79712	45.23500	54.27400	112.00000	2.2005	0.0	-0.038648	2.2002

Structure: WH19 | Sub-structure: WH19

Dist.	Coordinates			Displacements		Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	x	y	z	x	y		
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	45.23500	54.27400	112.00000	2.2005	0.0	-2.1995	0.066197
0.42549	44.80970	54.26120	112.00000	2.0410	0.0	-2.0401	0.061399
0.85099	44.38440	54.24840	112.00000	1.8815	0.0	-1.8807	0.056602
1.2765	43.95910	54.23560	112.00000	1.7220	0.0	-1.7213	0.051804
1.7020	43.53380	54.22280	112.00000	1.5626	0.0	-1.5618	0.047006
2.1275	43.10850	54.21000	112.00000	1.4031	0.0	-1.4024	0.042208
2.5530	42.68320	54.19720	112.00000	1.2436	0.0	-1.2430	0.037410
2.9784	42.25790	54.18440	112.00000	1.0841	0.0	-1.0836	0.032612
3.4039	41.83260	54.17160	112.00000	0.92460	0.0	-0.92418	0.027815
3.8294	41.40730	54.15880	112.00000	0.76511	0.0	-0.76477	0.023017
4.2549	40.98200	54.14600	112.00000	0.60563	0.0	-0.60535	0.018219

Structure: WH20 | Sub-structure: WH20

Dist.	Coordinates			Displacements		Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	x	y	z	x	y		
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	40.98200	54.14600	112.00000	0.60563	0.0	0.011186	-0.60552
0.40607	40.98950	54.15200	112.00000	0.60844	0.0	0.011238	-0.60833
0.81214	40.99700	54.15800	112.00000	0.61125	0.0	0.011290	-0.61115

Structure: WH21 | Sub-structure: WH21

Dist.	Coordinates			Displacements		Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	x	y	z	x	y		
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	40.99700	54.15800	112.00000	0.61125	0.0	-0.61063	0.027534
0.43845	40.55900	54.93825	112.00000	0.44700	0.0	-0.44655	0.020135
0.87689	40.12100	54.91850	112.00000	0.28275	0.0	-0.28246	0.012737
1.3153	39.68300	54.89875	112.00000	0.11850	0.0	-0.11838	0.0053379
1.7538	39.24500	54.87900	112.00000	0.0	0.0	0.0	0.0

Structure: WH22 | Sub-structure: WH22

Dist.	Coordinates			Displacements		Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	x	y	z	x	y		
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	39.24500	54.87900	112.00000	0.0	0.0	0.0	0.0
0.39975	39.26950	54.8867	112.00000	0.0	0.0	0.0	0.0
0.79950	39.29400	54.88100	112.00000	0.0	0.0	0.0	0.0

Structure: WH23 | Sub-structure: WH23

Dist.	Coordinates			Displacements		Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	x	y	z	x	y		
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	39.29400	54.08100	112.00000	0.0	0.0	0.0	0.0
0.44319	38.85100	54.06792	112.00000	0.0	0.0	0.0	0.0
0.88639	38.40800	54.05483	112.00000	0.0	0.0	0.0	0.0
1.3296	37.96500	54.04175	112.00000	0.0	0.0	0.0	0.0
1.7728	37.52200	54.02867	112.00000	0.0	0.0	0.0	0.0
2.2160	37.07900	54.01558	112.00000	0.0	0.0	0.0	0.0
2.6592	36.63600	54.00250	112.00000	0.0	0.0	0.0	0.0
3.1024	36.19300	53.98942	112.00000	0.0	0.0	0.0	0.0
3.5455	35.75000	53.97633	112.00000	0.0	0.0	0.0	0.0
3.9887	35.30700	53.96325	112.00000	0.0	0.0	0.0	0.0
4.4319	34.86400	53.95017	112.00000	0.0	0.0	0.0	0.0
4.8751	34.42100	53.93708	112.00000	0.0	0.0	0.0	0.0
5.3183	33.97800	53.92400	112.00000	0.0	0.0	0.0	0.0

Structure: WH24 | Sub-structure: WH24

Dist.	Coordinates			Displacements		Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	x	y	z	x	y		
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]



35 Templewood Avenue

Pool Transfer revision

CIRIA (Excavation and Installation)

Job No.	Sheet No.	Rev.
P1017J1129		
Drg. Ref.		
Made by JW	Date 13-Aug-2018	Checked

[m]	[m]	[m]	[m]	[mm]	[mm]	Line	to Line
						[mm]	[mm]
0.0	70.81200	30.76300	112.00000	0.011686	0.96937	-0.69894	-0.67179
0.27366	70.62000	30.56800	112.00000	0.010795	0.89539	-0.64560	-0.62052
0.54732	70.42800	30.37300	112.00000	0.0099026	0.82141	-0.59225	-0.56925
0.82098	70.23600	30.17800	112.00000	0.0090107	0.74742	-0.53891	-0.51797
1.0946	70.04400	29.98300	112.00000	0.0081188	0.67344	-0.48557	-0.46670

Structure: TA7 | Sub-structure: TA7

Dist.	Coordinates			Displacements			
	x	y	z	x	y	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	70.04400	29.98300	112.00000	0.0081188	0.67344	0.0072722	-0.67345
0.43761	69.60650	29.99300	112.00000	0.0081402	0.67521	0.0072914	-0.67522
0.87523	69.16900	30.00300	112.00000	0.0081615	0.67698	0.0073105	-0.67699
1.3128	68.73150	30.01300	112.00000	0.0081829	0.67876	0.0073296	-0.67877
1.7505	68.29400	30.02300	112.00000	0.0082043	0.68053	0.0073488	-0.68054

Structure: TA8 | Sub-structure: TA8

Dist.	Coordinates			Displacements			
	x	y	z	x	y	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	68.29400	30.02300	112.00000	0.0082043	0.68053	-0.68055	0.0059572
0.45429	68.29250	29.96870	112.00000	0.0061507	0.51019	-0.51021	0.0044661
0.90858	68.29100	29.11443	112.00000	0.0040971	0.33985	-0.33986	0.0029750
1.3629	68.28950	28.66014	112.00000	0.0020436	0.16951	-0.16952	0.0014839
1.8172	68.28800	28.20586	112.00000	0.0	0.0	0.0	0.0
2.2714	68.28650	27.75157	112.00000	0.0	0.0	0.0	0.0
2.7257	68.28500	27.29729	112.00000	0.0	0.0	0.0	0.0
3.1800	68.28350	26.84300	112.00000	0.0	0.0	0.0	0.0
3.6343	68.28200	26.38871	112.00000	0.0	0.0	0.0	0.0
4.0886	68.28050	25.93443	112.00000	0.0	0.0	0.0	0.0
4.5429	68.27900	25.48014	112.00000	0.0	0.0	0.0	0.0
4.9972	68.27750	25.02586	112.00000	0.0	0.0	0.0	0.0
5.4515	68.27600	24.57157	112.00000	0.0	0.0	0.0	0.0
5.9057	68.27450	24.11729	112.00000	0.0	0.0	0.0	0.0
6.3600	68.27300	23.66300	112.00000	0.0	0.0	0.0	0.0

Structure: TA9 | Sub-structure: TA9

Dist.	Coordinates			Displacements			
	x	y	z	x	y	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	68.27300	23.66300	112.00000	0.0	0.0	0.0	0.0
0.39075	67.88225	23.66200	112.00000	0.0	0.0	0.0	0.0
0.78150	67.49150	23.66100	112.00000	0.0	0.0	0.0	0.0
1.1723	67.10075	23.66000	112.00000	0.0	0.0	0.0	0.0
1.5630	66.71000	23.65900	112.00000	0.0	0.0	0.0	0.0

Structure: TA10 | Sub-structure: TA10

Dist.	Coordinates			Displacements			
	x	y	z	x	y	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	66.71000	23.65900	112.00000	0.0	0.0	0.0	0.0
0.40234	66.71117	23.25667	112.00000	0.0	0.0	0.0	0.0
0.80467	66.71233	22.85433	112.00000	0.0	0.0	0.0	0.0
1.20700	66.71350	22.45200	112.00000	0.0	0.0	0.0	0.0
1.6093	66.71467	22.04967	112.00000	0.0	0.0	0.0	0.0
2.0117	66.71583	21.64733	112.00000	0.0	0.0	0.0	0.0
2.4140	66.71700	21.24500	112.00000	0.0	0.0	0.0	0.0

Structure: TA11 | Sub-structure: TA11

Dist.	Coordinates			Displacements			
	x	y	z	x	y	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	66.71700	21.24500	112.00000	0.0	0.0	0.0	0.0
0.43834	67.15500	21.26225	112.00000	0.0	0.0	0.0	0.0
0.87668	67.59300	21.27950	112.00000	0.0	0.0	0.0	0.0
1.3150	68.03100	21.29675	112.00000	0.0	0.0	0.0	0.0
1.7534	68.46900	21.31400	112.00000	0.0	0.0	0.0	0.0

Structure: TA12 | Sub-structure: TA12

Dist.	Coordinates			Displacements			
	x	y	z	x	y	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	68.46900	21.31400	112.00000	0.0	0.0	0.0	0.0
0.36190	68.71275	21.04650	112.00000	0.0	0.0	0.0	0.0
0.72380	68.95650	20.77900	112.00000	0.0	0.0	0.0	0.0
1.0857	69.20025	20.51150	112.00000	0.0	0.0	0.0	0.0
1.4476	69.44400	20.24400	112.00000	0.0	0.0	0.0	0.0

Structure: TA13 | Sub-structure: TA13

Dist.	Coordinates			Displacements			
	x	y	z	x	y	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	69.44400	20.24400	112.00000	0.0	0.0	0.0	0.0
0.36732	69.42517	19.87717	112.00000	0.0	0.0	0.0	0.0
0.73463	69.40633	19.51033	112.00000	0.0	0.0	0.0	0.0
1.1019	69.38750	19.14350	112.00000	0.0	0.0	0.0	0.0
1.4693	69.36867	18.77667	112.00000	0.0	0.0	0.0	0.0
1.8366	69.34983	18.40983	112.00000	0.0	0.0	0.0	0.0
2.2039	69.33100	18.04300	112.00000	0.0	0.0	0.0	0.0

Structure: TA14 | Sub-structure: TA14

Dist.	Coordinates			Displacements			
	x	y	z	x	y	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	69.33100	18.04300	112.00000	0.0	0.0	0.0	0.0
0.31304	69.12250	17.80950	112.00000	0.0	0.0	0.0	0.0



35 Templewood Avenue

Pool Transfer revision

CIRIA (Excavation and Installation)

Job No.	Sheet No.	Rev.
P1017J1129		
Drg. Ref.		
Made by JW	Date 13-Aug-2018	Checked

Dist.	Coordinates			Displacements	
	x	y	z	x	y
0.62608	68.91400	17.57600	112.00000	0.0	0.0
0.93912	68.70550	17.34250	112.00000	0.0	0.0
1.2522	68.49700	17.10900	112.00000	0.0	0.0

Structure: TA15 | Sub-structure: TA15

Dist.	Coordinates			Displacements	
	x	y	z	x	y
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	68.49700	17.10900	112.00000	0.0	0.0
0.28210	68.21650	17.13900	112.00000	0.0	0.0
0.56420	67.93600	17.16900	112.00000	0.0	0.0

Structure: TA16 | Sub-structure: TA16

Dist.	Coordinates			Displacements	
	x	y	z	x	y
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	67.93600	17.16900	112.00000	0.0	0.0
0.42452	67.93142	16.74450	112.00000	0.0	0.0
0.84905	67.92683	16.32000	112.00000	0.0	0.0
1.2736	67.92225	15.89550	112.00000	0.0	0.0
1.6981	67.91767	15.47100	112.00000	0.0	0.0
2.1226	67.91308	15.04650	112.00000	0.0	0.0
2.5471	67.90850	14.62200	112.00000	0.0	0.0
2.9717	67.90392	14.19750	112.00000	0.0	0.0
3.3962	67.89933	13.77300	112.00000	0.0	0.0
3.8207	67.89475	13.34850	112.00000	0.0	0.0
4.2452	67.89017	12.92400	112.00000	0.0	0.0
4.6698	67.88558	12.49950	112.00000	0.0	0.0
5.0943	67.88100	12.07500	112.00000	0.0	0.0

Structure: TA17 | Sub-structure: TA17

Dist.	Coordinates			Displacements	
	x	y	z	x	y
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	67.88100	12.07500	112.00000	0.0	0.0
0.47100	67.41000	12.07387	112.00000	0.0	0.0
0.94200	66.93900	12.07273	112.00000	0.0	0.0
1.4130	66.46800	12.07160	112.00000	0.0	0.0
1.8840	65.99700	12.07047	112.00000	0.0	0.0
2.3550	65.52600	12.06933	112.00000	0.0	0.0
2.8260	65.05500	12.06820	112.00000	0.0	0.0
3.2970	64.58400	12.06707	112.00000	0.0	0.0
3.7680	64.11300	12.06593	112.00000	0.0	0.0
4.2390	63.64200	12.06480	112.00000	0.0	0.0
4.7100	63.17100	12.06367	112.00000	0.0	0.0
5.1810	62.70000	12.06253	112.00000	0.0	0.0
5.6520	62.22900	12.06140	112.00000	0.0	0.0
6.1230	61.75800	12.06027	112.00000	0.0	0.0
6.5940	61.28700	12.05913	112.00000	0.0	0.0
7.0650	60.81600	12.05800	112.00000	0.0	0.0
7.5360	60.34500	12.05687	112.00000	0.0	0.0
8.0070	59.87400	12.05573	112.00000	0.0	0.0
8.4780	59.40300	12.05460	112.00000	0.0	0.0
8.9490	58.93200	12.05347	112.00000	0.0	0.0
9.4200	58.46100	12.05233	112.00000	0.0	0.0
9.8910	57.99000	12.05120	112.00000	0.0	0.0
10.362	57.51900	12.05007	112.00000	0.0	0.0
10.833	57.04800	12.04893	112.00000	0.0	0.0
11.304	56.57700	12.04780	112.00000	0.0	0.0
11.775	56.10600	12.04667	112.00000	0.0	0.0
12.246	55.63500	12.04553	112.00000	0.0	0.0
12.717	55.16400	12.04440	112.00000	0.0	0.0
13.188	54.69300	12.04327	112.00000	0.0	0.0
13.659	54.22200	12.04213	112.00000	0.0	0.0
14.130	53.75100	12.04100	112.00000	0.0	0.0

Structure: TA18 | Sub-structure: TA18

Dist.	Coordinates			Displacements	
	x	y	z	x	y
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	53.75100	12.04100	112.00000	0.0	0.0
0.45295	53.43550	12.36600	112.00000	0.0	0.0
0.90590	53.12000	12.69100	112.00000	0.0	0.0
1.3589	52.80450	13.01600	112.00000	0.0	0.0
1.8118	52.48900	13.34100	112.00000	0.0	0.0
2.2648	52.17350	13.66600	112.00000	0.0	0.0
2.7177	51.85800	13.99100	112.00000	0.0	0.0

Structure: TA19 | Sub-structure: TA19

Dist.	Coordinates			Displacements	
	x	y	z	x	y
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	51.85800	13.99100	112.00000	0.0	0.0
0.49160	51.86150	14.48258	112.00000	0.0	0.0
0.98319	51.86500	14.97417	112.00000	0.0	0.0
1.4748	51.86850	15.46575	112.00000	0.0	0.0
1.9664	51.87200	15.95733	112.00000	0.0	0.0
2.4580	51.87550	16.44892	112.00000	0.0	0.0
2.9496	51.87900	16.94050	112.00000	0.0	0.0
3.4412	51.88250	17.43208	112.00000	0.0	0.0
3.9328	51.88600	17.92367	112.00000	0.0	0.0
4.4244	51.88950	18.41525	112.00000	0.0	0.0
4.9160	51.89300	18.90683	112.00000	0.0	0.0
5.4076	51.89650	19.39842	112.00000	0.0	0.0
5.8991	51.90000	19.89000	112.00000	0.0	0.0
6.3907	51.90350	20.38158	112.00000	0.0	0.0
6.8823	51.90700	20.87317	112.00000	0.0	0.0
7.3739	51.91050	21.36475	112.00000	0.0	0.0
7.8655	51.91400	21.85633	112.00000	0.0	0.0
8.3571	51.91750	22.34792	112.00000	0.0	0.0
8.8487	51.92100	22.83950	112.00000	0.0	0.0
9.3403	51.92450	23.33108	112.00000	0.0	0.0
9.8319	51.92800	23.82267	112.00000	0.0	0.0
10.3234	51.93150	24.31425	112.00000	0.0	0.0
10.815	51.93500	24.80583	112.00000	0.0	0.0
11.307	51.93850	25.29742	112.00000	0.0	0.0
11.798	51.94200	25.78900	112.00000	0.0	0.0

Structure: TA20 | Sub-structure: TA20

Dist.	Coordinates			Displacements	
	x	y	z	x	y
[m]	[m]	[m]	[m]	[mm]	[mm]



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Dist.	Coordinates			Displacements			
	x	y	z	x	y	z	
						Horizontal displacement along the perpendicular	Horizontal displacement perpendicular
2.2494	55.11600	40.06963	112.00000	0.12333	3.3891	-3.3891	0.12333
2.6993	55.11600	39.61975	112.00000	0.10446	3.1488	-3.1488	0.10446
3.1491	55.11600	39.16987	112.00000	0.088612	2.9042	-2.9042	0.088612
3.5990	55.11600	38.72000	112.00000	0.075061	2.6562	-2.6562	0.075061

Specific Building Damage Results - Vertical Displacements

Structure: WH1 | Sub-structure: WH1

Dist.	Coordinates			Displacements	
	x	y	z	z	z
[m]	[m]	[m]	[m]	[mm]	

Vertical Offset 1

0.0	33.72190	64.63300	112.00000	0.0
0.43260	34.15950	64.64242	112.00000	0.0
0.86521	34.59200	64.65183	112.00000	0.0
1.2978	35.02450	64.66125	112.00000	0.0
1.7304	35.45700	64.67067	112.00000	0.0
2.1630	35.88950	64.68008	112.00000	0.0
2.5956	36.32200	64.68950	112.00000	0.0
3.0282	36.75450	64.69892	112.00000	0.0
3.4608	37.18700	64.70833	112.00000	0.0
3.8934	37.61950	64.71775	112.00000	0.0
4.3260	38.05200	64.72717	112.00000	0.0
4.7586	38.48450	64.73658	112.00000	0.0
5.1912	38.91700	64.74600	112.00000	0.0

Structure: WH2 | Sub-structure: WH2

Dist.	Coordinates			Displacements	
	x	y	z	z	z
[m]	[m]	[m]	[m]	[mm]	

Vertical Offset 1

0.0	38.91700	64.74600	112.00000	0.0
0.37347	39.03600	64.39200	112.00000	0.0
0.74693	39.15500	64.03800	112.00000	0.0

Structure: WH3 | Sub-structure: WH3

Dist.	Coordinates			Displacements	
	x	y	z	z	z
[m]	[m]	[m]	[m]	[mm]	

Vertical Offset 1

0.0	39.15500	64.03800	112.00000	0.0
0.32830	39.48325	64.04400	112.00000	0.0
0.65661	39.81150	64.05000	112.00000	0.0
0.98491	40.13975	64.05600	112.00000	0.0
1.3132	40.46800	64.06200	112.00000	0.0

Structure: WH4 | Sub-structure: WH4

Dist.	Coordinates			Displacements	
	x	y	z	z	z
[m]	[m]	[m]	[m]	[mm]	

Vertical Offset 1

0.0	40.46800	64.06200	112.00000	0.0
0.45411	40.44450	64.51550	112.00000	0.0
0.90822	40.42100	64.96900	112.00000	0.0

Structure: WH5 | Sub-structure: WH5

Dist.	Coordinates			Displacements	
	x	y	z	z	z
[m]	[m]	[m]	[m]	[mm]	

Vertical Offset 1

0.0	40.42100	64.96900	112.00000	0.0
0.45043	40.87130	64.97990	112.00000	0.0
0.90086	41.32160	64.99080	112.00000	0.0
1.3513	41.77190	65.00170	112.00000	0.0092359
1.8017	42.22220	65.01260	112.00000	0.015964
2.2522	42.67250	65.02350	112.00000	0.020725
2.7026	43.12280	65.03440	112.00000	0.024423
3.1530	43.57310	65.04530	112.00000	0.028042
3.6035	44.02340	65.05620	112.00000	0.031942
4.0539	44.47370	65.06710	112.00000	0.036403
4.5043	44.92400	65.07800	112.00000	0.041586

Structure: WH6 | Sub-structure: WH6

Dist.	Coordinates			Displacements	
	x	y	z	z	z
[m]	[m]	[m]	[m]	[mm]	

Vertical Offset 1

0.0	44.92400	65.07800	112.00000	0.041586
0.42157	44.91650	64.65650	112.00000	0.049563
0.84313	44.90900	64.23500	112.00000	0.058879

Structure: WH7 | Sub-structure: WH7

Dist.	Coordinates			Displacements	
	x	y	z	z	z
[m]	[m]	[m]	[m]	[mm]	

Vertical Offset 1

0.0	44.90900	64.23500	112.00000	0.058879
0.46904	45.37800	64.24075	112.00000	0.069081
0.93807	45.84700	64.24650	112.00000	0.080355
1.4071	46.31600	64.25225	112.00000	0.092271
1.8761	46.78500	64.25800	112.00000	0.10426

Structure: WH8 | Sub-structure: WH8

Dist.	Coordinates			Displacements	
	x	y	z	z	z
[m]	[m]	[m]	[m]	[mm]	

Vertical Offset 1

0.0	46.78500	64.25800	112.00000	0.10426
0.35019	46.78067	64.60817	112.00000	0.088391
0.70039	46.77633	64.95833	112.00000	0.074459
1.0506	46.77200	65.30850	112.00000	0.062348
1.4008	46.76767	65.65867	112.00000	0.051926
1.7510	46.76333	66.00883	112.00000	0.043051
2.1012	46.75900	66.35900	112.00000	0.035574

Structure: WH9 | Sub-structure: WH9

Dist.	Coordinates			Displacements	
	x	y	z	z	z
[m]	[m]	[m]	[m]	[mm]	

Vertical Offset 1

0.0	46.75900	66.35900	112.00000	0.035574
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Dist.	Coordinates			Displacements
	x [m]	y [m]	z [m]	z [mm]
0.43165	47.19050	66.37020	112.00000	0.037943
0.86329	47.62200	66.38140	112.00000	0.039795
1.2949	48.05350	66.39260	112.00000	0.040845
1.7266	48.48500	66.40380	112.00000	0.040791
2.1582	48.91650	66.41500	112.00000	0.039931
2.5899	49.34800	66.42620	112.00000	0.036179
3.0215	49.77950	66.43740	112.00000	0.031077
3.4532	50.21100	66.44860	112.00000	0.023816
3.8848	50.64250	66.45980	112.00000	0.014244
4.3165	51.07400	66.47100	112.00000	0.0022816

Structure: WH10 | Sub-structure: WH10

Dist.	Coordinates			Displacements
	x [m]	y [m]	z [m]	z [mm]
Vertical Offset 1				
0.0	51.07400	66.47100	112.00000	0.0022816
0.46479	51.08821	66.00643	112.00000	0.010345
0.92958	51.10243	65.54186	112.00000	0.021946
1.3944	51.11664	65.07729	112.00000	0.037898
1.8592	51.13086	64.61271	112.00000	0.059085
2.3239	51.14507	64.14814	112.00000	0.086449
2.7887	51.15929	63.68357	112.00000	0.12099
3.2535	51.17350	63.21900	112.00000	0.16373
3.7183	51.18771	62.75443	112.00000	0.21575
4.1831	51.20193	62.28986	112.00000	0.27810
4.6479	51.21614	61.82529	112.00000	0.35183
5.1127	51.23036	61.36071	112.00000	0.44036
5.5775	51.24457	60.89614	112.00000	0.54583
6.0423	51.25879	60.43157	112.00000	0.66651
6.5070	51.27300	59.96700	112.00000	0.80432

Structure: WH11 | Sub-structure: WH11

Dist.	Coordinates			Displacements
	x [m]	y [m]	z [m]	z [mm]
Vertical Offset 1				
0.0	51.27300	59.96700	112.00000	0.80432
0.37506	50.89800	59.97350	112.00000	0.82564
0.75011	50.52300	59.98000	112.00000	0.84157

Structure: WH12 | Sub-structure: WH12

Dist.	Coordinates			Displacements
	x [m]	y [m]	z [m]	z [mm]
Vertical Offset 1				
0.0	50.52300	59.98000	112.00000	0.84157
0.43756	50.51550	59.54250	112.00000	1.0059
0.87513	50.50800	59.10500	112.00000	1.1824
1.3127	50.50050	58.66750	112.00000	1.3685
1.7503	50.49300	58.23000	112.00000	1.5605

Structure: WH13 | Sub-structure: WH13

Dist.	Coordinates			Displacements
	x [m]	y [m]	z [m]	z [mm]
Vertical Offset 1				
0.0	50.49300	58.23000	112.00000	1.5605
0.40721	50.89950	58.25400	112.00000	1.6068
0.81442	51.30600	58.27800	112.00000	1.6385

Structure: WH14 | Sub-structure: WH14

Dist.	Coordinates			Displacements
	x [m]	y [m]	z [m]	z [mm]
Vertical Offset 1				
0.0	51.30600	58.27800	112.00000	1.6385
0.45808	51.32036	57.82014	112.00000	1.9082
0.91616	51.33471	57.36229	112.00000	2.1803
1.3742	51.34907	56.90443	112.00000	2.4520
1.8323	51.36343	56.44657	112.00000	2.9573
2.2904	51.37779	55.98871	112.00000	2.9626
2.7485	51.39214	55.53086	112.00000	2.9678
3.2066	51.40650	55.07300	112.00000	2.9731
3.6647	51.42086	54.61514	112.00000	2.9784
4.1227	51.43521	54.15729	112.00000	2.9836
4.5808	51.44957	53.69943	112.00000	2.9889
5.0389	51.46393	53.24157	112.00000	2.9942
5.4970	51.47829	52.78371	112.00000	2.9994
5.9551	51.49264	52.32586	112.00000	3.0047
6.4132	51.50700	51.86800	112.00000	3.0099

Structure: WH15 | Sub-structure: WH15

Dist.	Coordinates			Displacements
	x [m]	y [m]	z [m]	z [mm]
Vertical Offset 1				
0.0	51.50700	51.86800	112.00000	3.0099
0.41908	51.08800	51.85970	112.00000	2.8553
0.83816	50.66900	51.85140	112.00000	2.6977
1.2572	50.25000	51.84310	112.00000	2.5360
1.6763	49.83100	51.83480	112.00000	2.3675
2.0954	49.41200	51.82650	112.00000	2.1874
2.5145	48.99300	51.81820	112.00000	2.0177
2.9336	48.57400	51.80990	112.00000	1.8470
3.3527	48.15500	51.80160	112.00000	1.6754
3.7717	47.73600	51.79330	112.00000	1.5055
4.1908	47.31700	51.78500	112.00000	1.3398

Structure: WH16 | Sub-structure: WH16

Dist.	Coordinates			Displacements
	x [m]	y [m]	z [m]	z [mm]
Vertical Offset 1				
0.0	47.31700	51.78500	112.00000	1.3398
0.42021	47.30875	52.20512	112.00000	1.3365
0.84041	47.30050	52.62525	112.00000	1.3333
1.2606	47.29225	53.04538	112.00000	1.3301
1.6808	47.28400	53.46550	112.00000	1.3269
2.1010	47.27575	53.88562	112.00000	1.3237
2.5212	47.26750	54.30575	112.00000	1.3206
2.9414	47.25925	54.72588	112.00000	1.3174
3.3616	47.25100	55.14600	112.00000	1.3142

Structure: WH17 | Sub-structure: WH17

Dist.	Coordinates			Displacements
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[m]	x [m]	y [m]	z [m]	z [mm]
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Vertical Offset 1
 0.0 47.25100 55.14600 112.00000 1.3142
 0.33390 46.91733 55.13350 112.00000 1.1876
 0.66780 46.58367 55.12100 112.00000 1.0661
 1.0017 46.25000 55.10850 112.00000 0.95053
 1.3356 45.91633 55.09600 112.00000 0.84158
 1.6695 45.58267 55.08350 112.00000 0.73978
 2.0034 45.24900 55.07100 112.00000 0.64555

Structure: WH18 | Sub-structure: WH18

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1
 0.0 45.24900 55.07100 112.00000 0.64555
 0.39856 45.24200 54.67250 112.00000 0.64365
 0.79712 45.23500 54.27400 112.00000 0.64176

Structure: WH19 | Sub-structure: WH19

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1
 0.0 45.23500 54.27400 112.00000 0.64176
 0.42549 44.80970 54.26120 112.00000 0.53353
 0.85099 44.38440 54.24840 112.00000 0.43842
 1.2765 43.95910 54.23560 112.00000 0.35644
 1.7020 43.53380 54.22280 112.00000 0.28726
 2.1275 43.10850 54.21000 112.00000 0.23024
 2.5530 42.68320 54.19720 112.00000 0.18440
 2.9784 42.25790 54.18440 112.00000 0.14845
 3.4039 41.83260 54.17160 112.00000 0.12076
 3.8294 41.40730 54.15880 112.00000 0.099389
 4.2549 40.98200 54.14600 112.00000 0.082062

Structure: WH20 | Sub-structure: WH20

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1
 0.0 40.98200 54.14600 112.00000 0.082062
 0.40607 40.98850 54.55200 112.00000 0.082347
 0.81214 40.99700 54.95800 112.00000 0.082633

Structure: WH21 | Sub-structure: WH21

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1
 0.0 40.99700 54.95800 112.00000 0.082633
 0.43845 40.55900 54.93825 112.00000 0.066273
 0.87689 40.12100 54.91850 112.00000 0.048370
 1.3153 39.68300 54.89875 112.00000 0.025375
 1.7538 39.24500 54.87900 112.00000 0.0

Structure: WH22 | Sub-structure: WH22

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1
 0.0 39.24500 54.87900 112.00000 0.0
 0.39975 39.26950 54.48000 112.00000 0.0
 0.79950 39.29400 54.08100 112.00000 0.0

Structure: WH23 | Sub-structure: WH23

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1
 0.0 39.29400 54.08100 112.00000 0.0
 0.44319 38.85100 54.06792 112.00000 0.0
 0.88639 38.40800 54.05483 112.00000 0.0
 1.3296 37.96500 54.04175 112.00000 0.0
 1.7728 37.52200 54.02867 112.00000 0.0
 2.2160 37.07900 54.01558 112.00000 0.0
 2.6592 36.63600 54.00250 112.00000 0.0
 3.1024 36.19300 53.98942 112.00000 0.0
 3.5455 35.75000 53.97633 112.00000 0.0
 3.9887 35.30700 53.96325 112.00000 0.0
 4.4319 34.86400 53.95017 112.00000 0.0
 4.8751 34.42100 53.93708 112.00000 0.0
 5.3183 33.97800 53.92400 112.00000 0.0

Structure: WH24 | Sub-structure: WH24

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1
 0.0 33.97800 53.92400 112.00000 0.0
 0.48691 33.96659 54.41077 112.00000 0.0
 0.97381 33.95518 54.89755 112.00000 0.0
 1.4607 33.94377 55.38432 112.00000 0.0
 1.9476 33.93236 55.87109 112.00000 0.0
 2.4345 33.92095 56.35786 112.00000 0.0
 2.9214 33.90955 56.84464 112.00000 0.0
 3.4083 33.89814 57.33141 112.00000 0.0
 3.8953 33.88673 57.81818 112.00000 0.0
 4.3822 33.87532 58.30495 112.00000 0.0
 4.8691 33.86391 58.79173 112.00000 0.0
 5.3560 33.85250 59.27850 112.00000 0.0
 5.8429 33.84109 59.76527 112.00000 0.0
 6.3298 33.82968 60.25205 112.00000 0.0
 6.8167 33.81827 60.73882 112.00000 0.0
 7.3036 33.80686 61.22559 112.00000 0.0
 7.7905 33.79545 61.71236 112.00000 0.0
 8.2774 33.78405 62.19914 112.00000 0.0
 8.7643 33.77264 62.68591 112.00000 0.0
 9.2512 33.76123 63.17268 112.00000 0.0
 9.7381 33.74982 63.65945 112.00000 0.0
 10.225 33.73841 64.1623 112.00000 0.0
 10.712 33.72700 64.63300 112.00000 0.0

Structure: TA1 | Sub-structure: TA1



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Dist. Coordinates Displacements
[m] [m] [m] [m] [mm]

Vertical Offset 1

0.0	55.11600	38.72000	112.00000	1.5500
0.47510	55.59110	38.71843	112.00000	2.3226
0.95021	56.06620	38.71687	112.00000	2.3243
1.4253	56.54130	38.71530	112.00000	2.3261
1.9004	57.01640	38.71373	112.00000	2.3278
2.3755	57.49150	38.71217	112.00000	2.3296
2.8506	57.96660	38.71060	112.00000	2.3313
3.3257	58.44170	38.70903	112.00000	2.3331
3.8008	58.91680	38.70747	112.00000	2.3348
4.2759	59.39190	38.70590	112.00000	2.3366
4.7510	59.86700	38.70433	112.00000	2.3383
5.2261	60.34210	38.70277	112.00000	2.3401
5.7012	60.81720	38.70120	112.00000	2.3418
6.1763	61.29230	38.69963	112.00000	2.3435
6.6514	61.76740	38.69807	112.00000	2.3453
7.1265	62.24250	38.69650	112.00000	2.3470
7.6016	62.71760	38.69493	112.00000	2.3487
8.0767	63.19270	38.69337	112.00000	2.3505
8.5518	63.66780	38.69180	112.00000	2.3522
9.0269	64.14290	38.69023	112.00000	2.3539
9.5021	64.61800	38.68867	112.00000	2.3557
9.9772	65.09310	38.68710	112.00000	2.3574
10.4523	65.56820	38.68553	112.00000	2.3591
10.9274	66.04330	38.68397	112.00000	2.3609
11.4025	66.51840	38.68240	112.00000	2.3626
11.8776	66.99350	38.68083	112.00000	2.3643
12.3527	67.46860	38.67927	112.00000	2.3660
12.8278	67.94370	38.67770	112.00000	2.3678
13.3029	68.41880	38.67613	112.00000	2.3695
13.7780	68.89390	38.67457	112.00000	2.3712
14.2531	69.36900	38.67300	112.00000	2.3729

Structure: TA2 | Sub-structure: TA2

Dist. Coordinates Displacements
[m] [m] [m] [m] [mm]

Vertical Offset 1

0.0	69.36900	38.67300	112.00000	2.3729
0.42319	69.36442	38.24983	112.00000	2.1914
0.84638	69.35983	37.82667	112.00000	2.0196
1.2696	69.35525	37.40350	112.00000	1.8473
1.6928	69.35067	36.98033	112.00000	1.6739
2.1160	69.34608	36.55717	112.00000	1.5024
2.5391	69.34150	36.13400	112.00000	1.3351
2.9623	69.33692	35.71083	112.00000	1.1744
3.3855	69.33233	35.28767	112.00000	1.0221
3.8087	69.32775	34.86450	112.00000	0.87969
4.2319	69.32317	34.44133	112.00000	0.74852
4.6551	69.31858	34.01817	112.00000	0.62946
5.0783	69.31400	33.59500	112.00000	0.52313

Structure: TA3 | Sub-structure: TA3

Dist. Coordinates Displacements
[m] [m] [m] [m] [mm]

Vertical Offset 1

0.0	69.31400	33.59500	112.00000	0.52313
0.34494	69.65750	33.56350	112.00000	0.51670
0.68988	70.00100	33.53200	112.00000	0.51033

Structure: TA4 | Sub-structure: TA4

Dist. Coordinates Displacements
[m] [m] [m] [m] [mm]

Vertical Offset 1

0.0	70.00100	33.53200	112.00000	0.51033
0.28803	70.21525	33.33950	112.00000	0.46760
0.57605	70.42950	33.14700	112.00000	0.42749
0.86408	70.64375	32.95450	112.00000	0.39000
1.1521	70.85800	32.76200	112.00000	0.35511

Structure: TA5 | Sub-structure: TA5

Dist. Coordinates Displacements
[m] [m] [m] [m] [mm]

Vertical Offset 1

0.0	70.85800	32.76200	112.00000	0.35511
0.49988	70.84650	32.26225	112.00000	0.27534
0.99976	70.83500	31.76250	112.00000	0.21212
1.4996	70.82350	31.26275	112.00000	0.16373
1.9995	70.81200	30.76300	112.00000	0.12782

Structure: TA6 | Sub-structure: TA6

Dist. Coordinates Displacements
[m] [m] [m] [m] [mm]

Vertical Offset 1

0.0	70.81200	30.76300	112.00000	0.12782
0.27366	70.62000	30.56800	112.00000	0.11645
0.54732	70.42800	30.37300	112.00000	0.110635
0.82098	70.23600	30.17800	112.00000	0.097319
1.0946	70.04400	29.98300	112.00000	0.089100

Structure: TA7 | Sub-structure: TA7

Dist. Coordinates Displacements
[m] [m] [m] [m] [mm]

Vertical Offset 1

0.0	70.04400	29.98300	112.00000	0.089100
0.43761	69.60650	29.99300	112.00000	0.089289
0.87523	69.16900	30.00300	112.00000	0.089479
1.3128	68.73150	30.01300	112.00000	0.089669
1.7505	68.29400	30.02300	112.00000	0.089859

Structure: TA8 | Sub-structure: TA8

Dist. Coordinates Displacements
[m] [m] [m] [m] [mm]

Vertical Offset 1

0.0	68.29400	30.02300	112.00000	0.089859
0.45429	68.29250	29.56871	112.00000	0.072571
0.90858	68.29100	29.11443	112.00000	0.054985
1.3629	68.28950	28.66014	112.00000	0.033292



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Dist.	Coordinates			Displacements	
	x	y	z	z	z
[m]	[m]	[m]	[m]	[mm]	[mm]
1.8172	68.28800	28.20586	112.00000	0.0	0.0
2.2714	68.28650	27.75157	112.00000	0.0	0.0
2.7257	68.28500	27.29729	112.00000	0.0	0.0
3.1800	68.28350	26.84300	112.00000	0.0	0.0
3.6343	68.28200	26.38871	112.00000	0.0	0.0
4.0886	68.28050	25.93443	112.00000	0.0	0.0
4.5429	68.27900	25.48014	112.00000	0.0	0.0
4.9972	68.27750	25.02586	112.00000	0.0	0.0
5.4515	68.27600	24.57157	112.00000	0.0	0.0
5.9057	68.27450	24.11729	112.00000	0.0	0.0
6.3600	68.27300	23.66300	112.00000	0.0	0.0

Structure: TA9 | Sub-structure: TA9

Dist.	Coordinates			Displacements	
	x	y	z	z	z
[m]	[m]	[m]	[m]	[mm]	[mm]
Vertical Offset 1					
0.0	68.27300	23.66300	112.00000	0.0	0.0
0.39075	67.88225	23.66200	112.00000	0.0	0.0
0.78150	67.49150	23.66100	112.00000	0.0	0.0
1.1723	67.10075	23.66000	112.00000	0.0	0.0
1.5630	66.71000	23.65900	112.00000	0.0	0.0

Structure: TA10 | Sub-structure: TA10

Dist.	Coordinates			Displacements	
	x	y	z	z	z
[m]	[m]	[m]	[m]	[mm]	[mm]
Vertical Offset 1					
0.0	66.71000	23.65900	112.00000	0.0	0.0
0.40234	66.71117	23.25667	112.00000	0.0	0.0
0.80467	66.71233	22.85433	112.00000	0.0	0.0
1.2070	66.71350	22.45200	112.00000	0.0	0.0
1.6093	66.71467	22.04967	112.00000	0.0	0.0
2.0117	66.71583	21.64733	112.00000	0.0	0.0
2.4140	66.71700	21.24500	112.00000	0.0	0.0

Structure: TA11 | Sub-structure: TA11

Dist.	Coordinates			Displacements	
	x	y	z	z	z
[m]	[m]	[m]	[m]	[mm]	[mm]
Vertical Offset 1					
0.0	66.71700	21.24500	112.00000	0.0	0.0
0.43834	67.15500	21.26225	112.00000	0.0	0.0
0.87668	67.59300	21.27950	112.00000	0.0	0.0
1.3150	68.03100	21.29675	112.00000	0.0	0.0
1.7534	68.46900	21.31400	112.00000	0.0	0.0

Structure: TA12 | Sub-structure: TA12

Dist.	Coordinates			Displacements	
	x	y	z	z	z
[m]	[m]	[m]	[m]	[mm]	[mm]
Vertical Offset 1					
0.0	68.46900	21.31400	112.00000	0.0	0.0
0.36190	68.71275	21.04650	112.00000	0.0	0.0
0.72380	68.95650	20.77900	112.00000	0.0	0.0
1.0857	69.20025	20.51150	112.00000	0.0	0.0
1.4476	69.44400	20.24400	112.00000	0.0	0.0

Structure: TA13 | Sub-structure: TA13

Dist.	Coordinates			Displacements	
	x	y	z	z	z
[m]	[m]	[m]	[m]	[mm]	[mm]
Vertical Offset 1					
0.0	69.44400	20.24400	112.00000	0.0	0.0
0.36732	69.42517	19.87717	112.00000	0.0	0.0
0.73463	69.40633	19.51033	112.00000	0.0	0.0
1.1019	69.38750	19.14350	112.00000	0.0	0.0
1.4693	69.36867	18.77667	112.00000	0.0	0.0
1.8366	69.34983	18.40983	112.00000	0.0	0.0
2.2039	69.33100	18.04300	112.00000	0.0	0.0

Structure: TA14 | Sub-structure: TA14

Dist.	Coordinates			Displacements	
	x	y	z	z	z
[m]	[m]	[m]	[m]	[mm]	[mm]
Vertical Offset 1					
0.0	69.33100	18.04300	112.00000	0.0	0.0
0.31304	69.12250	17.80950	112.00000	0.0	0.0
0.62608	68.91400	17.57600	112.00000	0.0	0.0
0.93912	68.70550	17.34250	112.00000	0.0	0.0
1.2522	68.49700	17.10900	112.00000	0.0	0.0

Structure: TA15 | Sub-structure: TA15

Dist.	Coordinates			Displacements	
	x	y	z	z	z
[m]	[m]	[m]	[m]	[mm]	[mm]
Vertical Offset 1					
0.0	68.49700	17.10900	112.00000	0.0	0.0
0.28210	68.21650	17.13900	112.00000	0.0	0.0
0.56420	67.93600	17.16900	112.00000	0.0	0.0

Structure: TA16 | Sub-structure: TA16

Dist.	Coordinates			Displacements	
	x	y	z	z	z
[m]	[m]	[m]	[m]	[mm]	[mm]
Vertical Offset 1					
0.0	67.93600	17.16900	112.00000	0.0	0.0
0.42452	67.93142	15.74450	112.00000	0.0	0.0
0.84905	67.92683	16.32000	112.00000	0.0	0.0
1.2736	67.92225	15.89550	112.00000	0.0	0.0
1.6981	67.91767	15.47100	112.00000	0.0	0.0
2.1226	67.91308	15.04650	112.00000	0.0	0.0
2.5471	67.90850	14.62200	112.00000	0.0	0.0
2.9717	67.90392	14.19750	112.00000	0.0	0.0
3.3962	67.89933	13.77300	112.00000	0.0	0.0
3.8207	67.89475	13.34850	112.00000	0.0	0.0
4.2452	67.89017	12.92400	112.00000	0.0	0.0
4.6698	67.88558	12.49950	112.00000	0.0	0.0
5.0943	67.88100	12.07500	112.00000	0.0	0.0

Structure: TA17 | Sub-structure: TA17

Dist.	Coordinates			Displacements	
	x	y	z	z	z



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[m] [m] [m] [m] [mm]

Vertical Offset 1

0.0	67.88100	12.07500	112.00000	0.0
0.47100	67.41000	12.07387	112.00000	0.0
0.94200	66.93900	12.07273	112.00000	0.0
1.41300	66.46800	12.07160	112.00000	0.0
1.88400	65.99700	12.07047	112.00000	0.0
2.35500	65.52600	12.06933	112.00000	0.0
2.82600	65.05500	12.06820	112.00000	0.0
3.29700	64.58400	12.06707	112.00000	0.0
3.76800	64.11300	12.06593	112.00000	0.0
4.23900	63.64200	12.06480	112.00000	0.0
4.71000	63.17100	12.06367	112.00000	0.0
5.18100	62.70000	12.06253	112.00000	0.0
5.65200	62.22900	12.06140	112.00000	0.0
6.12300	61.75800	12.06027	112.00000	0.0
6.59400	61.28700	12.05913	112.00000	0.0
7.06500	60.81600	12.05800	112.00000	0.0
7.53600	60.34500	12.05687	112.00000	0.0
8.00700	59.87400	12.05573	112.00000	0.0
8.47800	59.40300	12.05460	112.00000	0.0
8.94900	58.93200	12.05347	112.00000	0.0
9.42000	58.46100	12.05233	112.00000	0.0
9.89100	57.99000	12.05120	112.00000	0.0
10.36200	57.51900	12.05007	112.00000	0.0
10.83300	57.04800	12.04893	112.00000	0.0
11.30400	56.57700	12.04780	112.00000	0.0
11.77500	56.10600	12.04667	112.00000	0.0
12.24600	55.63500	12.04553	112.00000	0.0
12.71700	55.16400	12.04440	112.00000	0.0
13.18800	54.69300	12.04327	112.00000	0.0
13.65900	54.22200	12.04213	112.00000	0.0
14.13000	53.75100	12.04100	112.00000	0.0

Structure: TA18 | Sub-structure: TA18

Dist.	Coordinates			Displacements	
[m]	x [m]	y [m]	z [m]	z [mm]	
Vertical Offset 1	0.0	53.75100	12.04100	112.00000	0.0
0.45295	53.43550	12.36600	112.00000	0.0	0.0
0.90590	53.12000	12.69100	112.00000	0.0	0.0
1.35889	52.80450	13.01600	112.00000	0.0	0.0
1.8118	52.48900	13.34100	112.00000	0.0	0.0
2.2648	52.17350	13.66600	112.00000	0.0	0.0
2.7177	51.85800	13.99100	112.00000	0.0	0.0

Structure: TA19 | Sub-structure: TA19

Dist.	Coordinates			Displacements	
[m]	x [m]	y [m]	z [m]	z [mm]	
Vertical Offset 1	0.0	51.85800	13.99100	112.00000	0.0
0.49160	51.86150	14.48258	112.00000	0.0	0.0
0.98319	51.86500	14.97417	112.00000	0.0	0.0
1.47478	51.86850	15.46575	112.00000	0.0	0.0
1.9664	51.87200	15.95733	112.00000	0.0	0.0
2.4580	51.87550	16.44892	112.00000	0.0	0.0
2.9496	51.87900	16.94050	112.00000	0.0	0.0
3.4412	51.88250	17.43208	112.00000	0.0	0.0
3.9328	51.88600	17.92367	112.00000	0.0	0.0
4.4244	51.88950	18.41525	112.00000	0.0	0.0
4.9160	51.89300	18.90683	112.00000	0.0	0.0
5.4076	51.89650	19.39842	112.00000	0.0	0.0
5.8991	51.90000	19.89000	112.00000	0.0	0.0
6.3907	51.90350	20.38158	112.00000	0.0	0.0
6.8823	51.90700	20.87317	112.00000	0.0	0.0
7.3739	51.91050	21.36475	112.00000	0.0	0.0
7.8655	51.91400	21.85633	112.00000	0.0	0.0
8.3571	51.91750	22.34792	112.00000	0.0	0.0
8.8487	51.92100	22.83950	112.00000	0.0	0.0
9.3403	51.92450	23.33108	112.00000	0.0	0.0
9.8319	51.92800	23.82267	112.00000	0.0	0.0
10.3234	51.93150	24.31425	112.00000	0.0	0.0
10.8150	51.93500	24.80583	112.00000	0.0	0.0
11.3066	51.93850	25.29742	112.00000	0.0	0.0
11.7982	51.94200	25.78900	112.00000	0.0	0.0

Structure: TA20 | Sub-structure: TA20

Dist.	Coordinates			Displacements	
[m]	x [m]	y [m]	z [m]	z [mm]	
Vertical Offset 1	0.0	51.94200	25.78900	112.00000	0.0
0.33924	52.17700	26.03367	112.00000	0.0	0.0
0.67849	52.41200	26.27833	112.00000	0.0	0.0
1.01774	52.64700	26.52300	112.00000	0.0	0.0
1.35700	52.88200	26.76767	112.00000	0.0	0.0
1.69625	53.11700	27.01233	112.00000	0.0	0.0
2.03550	53.35200	27.25700	112.00000	0.0	0.0

Structure: TA21 | Sub-structure: TA21

Dist.	Coordinates			Displacements	
[m]	x [m]	y [m]	z [m]	z [mm]	
Vertical Offset 1	0.0	53.35200	27.25700	112.00000	0.0
0.48283	53.36310	27.73970	112.00000	0.0	0.0
0.96566	53.37420	28.22240	112.00000	0.0	0.0
1.4485	53.38530	28.70510	112.00000	0.012284	0.0
1.9313	53.39640	29.18780	112.00000	0.024568	0.0
2.4141	53.40750	29.67050	112.00000	0.042436	0.0
2.8970	53.41860	30.15320	112.00000	0.053975	0.0
3.3798	53.42970	30.63590	112.00000	0.066871	0.0
3.8626	53.44080	31.11860	112.00000	0.083459	0.0
4.3454	53.45190	31.60130	112.00000	0.10572	0.0
4.8283	53.46300	32.08400	112.00000	0.13526	0.0
5.3111	53.47410	32.56670	112.00000	0.17334	0.0
5.7939	53.48520	33.04940	112.00000	0.22086	0.0
6.2768	53.49630	33.53210	112.00000	0.27836	0.0
6.7596	53.50740	34.01480	112.00000	0.34602	0.0
7.2424	53.51850	34.49750	112.00000	0.42366	0.0
7.7252	53.52960	34.98020	112.00000	0.51075	0.0
8.2081	53.54070	35.46290	112.00000	0.60640	0.0
8.6909	53.55180	35.94560	112.00000	0.70937	0.0
9.1737	53.56290	36.42830	112.00000	0.81807	0.0
9.6566	53.57400	36.91100	112.00000	0.93057	0.0

Structure: TA22 | Sub-structure: TA22

Dist.	Coordinates			Displacements	
[m]	x [m]	y [m]	z [m]	z [mm]	
Vertical Offset 1	0.0	53.57400	36.91100	112.00000	0.93057



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Dist.	Coordinates			Displacements	
	x	y	z	x	z
[m]	[m]	[m]	[m]	[mm]	[mm]
0.39617	53.83100	37.21250	112.00000	1.0278	
0.79234	54.08800	37.51400	112.00000	1.1273	
1.1885	54.34500	37.81550	112.00000	1.2282	
1.5847	54.60200	38.11700	112.00000	1.3297	
1.9809	54.85900	38.41850	112.00000	1.4334	
2.3770	55.11600	38.72000	112.00000	1.5500	

Structure: TA23 | Sub-structure: TA23

Dist.	Coordinates			Displacements	
	x	y	z	x	z
[m]	[m]	[m]	[m]	[mm]	[mm]
Vertical Offset 1					
0.0	53.57400	36.91100	112.00000	0.93057	
0.48325	53.09075	36.91100	112.00000	0.88010	
0.96650	52.60750	36.91100	112.00000	0.82545	
1.4498	52.12425	36.91100	112.00000	0.76763	
1.9330	51.64100	36.91100	112.00000	0.70767	
2.4162	51.15775	36.91100	112.00000	0.64856	
2.8995	50.67450	36.91100	112.00000	0.58525	
3.3828	50.19125	36.91100	112.00000	0.52464	
3.8660	49.70800	36.91100	112.00000	0.46557	

Structure: TA24 | Sub-structure: TA24

Dist.	Coordinates			Displacements	
	x	y	z	x	z
[m]	[m]	[m]	[m]	[mm]	[mm]
Vertical Offset 1					
0.0	49.70800	36.91100	112.00000	0.46557	
0.45067	49.70800	37.36167	112.00000	0.52221	
0.90133	49.70800	37.81233	112.00000	0.57880	
1.3520	49.70800	38.26300	112.00000	0.63411	
1.8027	49.70800	38.71367	112.00000	0.68688	
2.2533	49.70800	39.16433	112.00000	0.75906	
2.7040	49.70800	39.61500	112.00000	0.83605	
3.1547	49.70800	40.06567	112.00000	0.91400	
3.6053	49.70800	40.51633	112.00000	0.99212	
4.0560	49.70800	40.96700	112.00000	1.0696	
4.5067	49.70800	41.41767	112.00000	1.1458	
4.9573	49.70800	41.86833	112.00000	1.2196	
5.4080	49.70800	42.31900	112.00000	1.2904	

Structure: TA25 | Sub-structure: TA25

Dist.	Coordinates			Displacements	
	x	y	z	x	z
[m]	[m]	[m]	[m]	[mm]	[mm]
Vertical Offset 1					
0.0	49.70800	42.31900	112.00000	1.2904	
0.45067	50.15867	42.31900	112.00000	1.3944	
0.90133	50.60933	42.31900	112.00000	1.4955	
1.3520	51.06000	42.31900	112.00000	1.5685	
1.8027	51.51067	42.31900	112.00000	1.6466	
2.2533	51.96133	42.31900	112.00000	1.7209	
2.7040	52.41200	42.31900	112.00000	1.7900	
3.1547	52.86267	42.31900	112.00000	1.8507	
3.6053	53.31333	42.31900	112.00000	1.9025	
4.0560	53.76400	42.31900	112.00000	2.0815	
4.5067	54.21467	42.31900	112.00000	2.2631	
4.9573	54.66533	42.31900	112.00000	2.4394	
5.4080	55.11600	42.31900	112.00000	2.6007	

Structure: TA26 | Sub-structure: TA26

Dist.	Coordinates			Displacements	
	x	y	z	x	z
[m]	[m]	[m]	[m]	[mm]	[mm]
Vertical Offset 1					
0.0	55.11600	42.31900	112.00000	2.6007	
0.44987	55.11600	41.86913	112.00000	2.4665	
0.89975	55.11600	41.41925	112.00000	2.3267	
1.3496	55.11600	40.96937	112.00000	2.1878	
1.7995	55.11600	40.51950	112.00000	2.0532	
2.2494	55.11600	40.06963	112.00000	1.9243	
2.6993	55.11600	39.61975	112.00000	1.8000	
3.1491	55.11600	39.16987	112.00000	1.6770	
3.5990	55.11600	38.72000	112.00000	1.5500	

Specific Building Damage Results - All Segments

Structure: WH1 | Sub-structure: WH1

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection	Average Ratio	Max Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]	[m]	[m]	[%]	[%]	[%]	[mm]	[mm]	[m]	
0.0	All settlements are less than the Settlement Trough Limit Sensitivity.											
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.												

Structure: WH2 | Sub-structure: WH2

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection	Average Ratio	Max Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]	[m]	[m]	[%]	[%]	[%]	[mm]	[mm]	[m]	
0.0	All settlements are less than the Settlement Trough Limit Sensitivity.											
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.												

Structure: WH3 | Sub-structure: WH3

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection	Average Ratio	Max Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]	[m]	[m]	[%]	[%]	[%]	[mm]	[mm]	[m]	
0.0	All settlements are less than the Settlement Trough Limit Sensitivity.											
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.												

Structure: WH4 | Sub-structure: WH4

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection	Average Ratio	Max Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]	[m]	[m]	[%]	[%]	[%]	[mm]	[mm]	[m]	
0.0	All settlements are less than the Settlement Trough Limit Sensitivity.											
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.												



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Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature	Damage Category
Structure: WH5 Sub-structure: WH5											
Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature	Damage Category
Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	All settlements are less than the Settlement Trough Limit Sensitivity.										
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: WH6 Sub-structure: WH6											
Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature	Damage Category
Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	All settlements are less than the Settlement Trough Limit Sensitivity.										
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: WH7 Sub-structure: WH7											
Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature	Damage Category
Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	All settlements are less than the Settlement Trough Limit Sensitivity.	1	1.8760	0.0	None	0.0	0.0	-20.379E-6	-25.556E-6	3.0371E+6	0
(Negligible)											
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: WH8 Sub-structure: WH8											
Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature	Damage Category
Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	All settlements are less than the Settlement Trough Limit Sensitivity.	1	0.0	0.0	None	0.0	0.0	-1.5778E-6	45.311E-6	62411.	0
(Negligible)											
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: WH9 Sub-structure: WH9											
Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature	Damage Category
Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	All settlements are less than the Settlement Trough Limit Sensitivity.										
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: WH10 Sub-structure: WH10											
Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature	Damage Category
Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	All settlements are less than the Settlement Trough Limit Sensitivity.	1	2.7887	3.7183	Hogging	0.0029770	969.36E-6	0.0033210	-16.882E-6	-296.50E-6	12262.
(Negligible)											
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: WH11 Sub-structure: WH11											
Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature	Damage Category
Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	All settlements are less than the Settlement Trough Limit Sensitivity.	1	0.0	0.75000	Sagging	356.66E-6	-0.0045546	933.80E-6	59.086E-6	-56.865E-6	26022.
(Negligible)											
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: WH12 Sub-structure: WH12											
Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature	Damage Category
Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	All settlements are less than the Settlement Trough Limit Sensitivity.	1	0.0	1.7500	Hogging	0.0010590	-0.0012543	790.68E-6	13.338E-6	-438.68E-6	14988.
(Negligible)											
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: WH13 Sub-structure: WH13											
Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature	Damage Category
Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	All settlements are less than the Settlement Trough Limit Sensitivity.	1	0.0	0.81400	Sagging	891.42E-6	0.022714	0.022936	-262.91E-6	-113.81E-6	11308.
(Negligible)											
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: WH14 Sub-structure: WH14											
Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature	Damage Category
Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	All settlements are less than the Settlement Trough Limit Sensitivity.	1	0.0	0.22473	None	0.0	0.0032864	0.0032864	-32.863E-6	-588.77E-6	1720.4
(Negligible)											
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: WH14 Sub-structure: WH14											
Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature	Damage Category
Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	All settlements are less than the Settlement Trough Limit Sensitivity.	2	0.22473	0.77638	Hogging	0.010625	0.0038762	0.012411	-85.940E-6	-0.0016845	1660.6
(Negligible)											
Structure: WH14 Sub-structure: WH14											
Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature	Damage Category
Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	All settlements are less than the Settlement Trough Limit Sensitivity.	3	1.0011	5.4119	Sagging	0.010720	657.37E-6	0.014385	-85.940E-6	-0.0016845	816.82
(Negligible)											
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: WH15 Sub-structure: WH15											
Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature	Damage Category
Calculations		[m]	[m]		[%]	[%]	[%]			[m]	



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Movement Calculations	Displacement Curve	Curve
[m] 0.0	[m] [m] 1 0.0 1.9716 Sagging	[%] 846.69E-6
		[%] 0.070806
		[%] 0.071300
		-707.55E-6
		429.40E-6
		[m] 23976.1 (Very Slight)
		0
		(Negligible)
		0
		(Negligible)
		0
		(Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH16 | Sub-structure: WH16

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m] [m] 1 0.0 3.3610 Hogging		[%] 0.0	[%] 14.455E-6	[%] 14.770E-6	0.0	7.6289E-6	[m] 68.531E+6	0
										(Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH17 | Sub-structure: WH17

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m] [m] 1 0.0 2.0030 Hogging		[%] 0.0014596	[%] 0.037447	[%] 0.037697	-374.33E-6	379.06E-6	[m] 14518.	0
										(Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH18 | Sub-structure: WH18

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m] [m] 1 0.0 0.79700 Hogging		[%] 0.0	[%] 11.567E-6	[%] 11.551E-6	0.0	4.7504E-6	[m] 45.734E+6	0
										(Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH19 | Sub-structure: WH19

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m] [m] 1 0.0 3.4039 Hogging		[%] 0.0027556	[%] 0.037466	[%] 0.038260	-374.52E-6	254.28E-6	[m] 13802.	0
										(Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH20 | Sub-structure: WH20

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m] [m]		[%]	[%]	[%]			[m]	

All settlements are less than the Settlement Trough Limit Sensitivity.

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH21 | Sub-structure: WH21

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m] [m]		[%]	[%]	[%]			[m]	

All settlements are less than the Settlement Trough Limit Sensitivity.

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH22 | Sub-structure: WH22

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m] [m]		[%]	[%]	[%]			[m]	

All settlements are less than the Settlement Trough Limit Sensitivity.

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH23 | Sub-structure: WH23

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m] [m]		[%]	[%]	[%]			[m]	

All settlements are less than the Settlement Trough Limit Sensitivity.

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA1 | Sub-structure: TA1

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m] [m] 1 0.0 14.253 Sagging		[%] 0.0051899	[%] -214.00E-6	[%] 0.0076284	65.779E-6	-0.0016263	[m] 234.24	0
										(Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.



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Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
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Structure: TA2 | Sub-structure: TA2

Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
Calculations											
[m]			[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	1.2287	Hogging	499.69E-6	0.050446	0.050505	-707.83E-6	428.59E-6	14672.1	1 (Very Slight)
	2	1.2287	0.084920	Sagging	60.028E-6	0.037500	0.037501	-374.86E-6	409.51E-6	899110.0	0 (Negligible)
	3	1.3136	3.7644	Hogging	0.0023403	0.037500	0.038335	-374.86E-6	409.51E-6	13913.0	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA3 | Sub-structure: TA3

Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
Calculations											
[m]			[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	0.68900	Hogging	3.9163E-6	235.87E-6	236.14E-6	-2.3587E-6	18.633E-6	2.1797E+6	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA4 | Sub-structure: TA4

Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
Calculations											
[m]			[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	1.1520	Hogging	451.37E-6	0.016302	0.016352	-162.99E-6	148.34E-6	31536.0	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA5 | Sub-structure: TA5

Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
Calculations											
[m]			[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	1.9990	Hogging	0.0014600	0.037496	0.037775	-374.81E-6	159.52E-6	14724.0	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA6 | Sub-structure: TA6

Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
Calculations											
[m]			[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	0.54732	Hogging	115.72E-6	0.019493	0.019499	-194.89E-6	41.547E-6	56079.0	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA7 | Sub-structure: TA7

Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
Calculations											
[m]			[m]		[%]	[%]	[%]			[m]	
0.0	All settlements are less than the Settlement Trough Limit Sensitivity.										

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA8 | Sub-structure: TA8

Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
Calculations											
[m]			[m]		[%]	[%]	[%]			[m]	
0.0	All settlements are less than the Settlement Trough Limit Sensitivity.										

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA9 | Sub-structure: TA9

Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
Calculations											
[m]			[m]		[%]	[%]	[%]			[m]	
0.0	All settlements are less than the Settlement Trough Limit Sensitivity.										

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA10 | Sub-structure: TA10

Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
Calculations											
[m]			[m]		[%]	[%]	[%]			[m]	
0.0	All settlements are less than the Settlement Trough Limit Sensitivity.										

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA11 | Sub-structure: TA11

Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
Calculations											
[m]			[m]		[%]	[%]	[%]			[m]	
0.0	All settlements are less than the Settlement Trough Limit Sensitivity.										

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA12 | Sub-structure: TA12

Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
Calculations											
[m]			[m]		[%]	[%]	[%]			[m]	
0.0	All settlements are less than the Settlement Trough Limit Sensitivity.										

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.



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Calculations [m] [m] [m] [%] [%] [%] Curve [m]
0.0 All settlements are less than the Settlement Trough Limit Sensitivity.
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA13 | Sub-structure: TA13

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m] [m]		[%]	[%]	[%]			[m]	
All settlements are less than the Settlement Trough Limit Sensitivity. Tensile horizontal strains are +ve, compressive horizontal strains are -ve.										

Structure: TA14 | Sub-structure: TA14

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m] [m]		[%]	[%]	[%]			[m]	
All settlements are less than the Settlement Trough Limit Sensitivity. Tensile horizontal strains are +ve, compressive horizontal strains are -ve.										

Structure: TA15 | Sub-structure: TA15

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m] [m]		[%]	[%]	[%]			[m]	
All settlements are less than the Settlement Trough Limit Sensitivity. Tensile horizontal strains are +ve, compressive horizontal strains are -ve.										

Structure: TA16 | Sub-structure: TA16

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m] [m]		[%]	[%]	[%]			[m]	
All settlements are less than the Settlement Trough Limit Sensitivity. Tensile horizontal strains are +ve, compressive horizontal strains are -ve.										

Structure: TA17 | Sub-structure: TA17

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m] [m]		[%]	[%]	[%]			[m]	
All settlements are less than the Settlement Trough Limit Sensitivity. Tensile horizontal strains are +ve, compressive horizontal strains are -ve.										

Structure: TA18 | Sub-structure: TA18

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m] [m]		[%]	[%]	[%]			[m]	
All settlements are less than the Settlement Trough Limit Sensitivity. Tensile horizontal strains are +ve, compressive horizontal strains are -ve.										

Structure: TA19 | Sub-structure: TA19

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m] [m]		[%]	[%]	[%]			[m]	
All settlements are less than the Settlement Trough Limit Sensitivity. Tensile horizontal strains are +ve, compressive horizontal strains are -ve.										

Structure: TA20 | Sub-structure: TA20

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m] [m]		[%]	[%]	[%]			[m]	
All settlements are less than the Settlement Trough Limit Sensitivity. Tensile horizontal strains are +ve, compressive horizontal strains are -ve.										

Structure: TA21 | Sub-structure: TA21

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m] [m]		[%]	[%]	[%]			[m]	0
1 4.3454 5.3106 Hogging 0.0025343 0.019457 0.020716 -218.21E-6 -232.95E-6 23161. (Negligible)										
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.										

Structure: TA22 | Sub-structure: TA22

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m] [m]		[%]	[%]	[%]			[m]	0
1 0.0 2.3770 Hogging 578.97E-6 0.025158 0.025290 -437.57E-6 -294.30E-6 9986.9 (Negligible)										
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.										

Structure: TA23 | Sub-structure: TA23

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m] 0.0		[m] [m]		[%]	[%]	[%]			[m]	0
1 0.0 2.5305 Sagging 350.88E-6 -0.0088968 0.0017876 113.87E-6 126.88E-6 52531.										



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Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature	Damage Category
	2	2.5305	1.3345	Hogging	87.930E-6	-0.0037981	761.28E-6	52.364E-6	126.88E-6	133250.	(Negligible) 0

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA24 | Sub-structure: TA24

Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature	Damage Category
Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	0.18416	Hogging	0.0	191.50E-6	191.51E-6	-1.9150E-6	-125.69E-6	813630.	(Negligible) 0
	2	0.18416	0.84465	Sagging	36.891E-6	-0.0014999	300.73E-6	39.730E-6	-125.69E-6	157860.	(Negligible) 0
	3	1.0288	2.2283	Hogging	0.0011036	-0.0051247	0.0012045	83.196E-6	-173.37E-6	19930.	(Negligible) 0
	4	3.2571	2.1509	Sagging	262.33E-6	-0.012647	0.0025329	165.38E-6	-173.37E-6	60795.	(Negligible) 0

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA25 | Sub-structure: TA25

Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature	Damage Category
Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	2.8097	Sagging	0.0010947	0.0093009	0.010589	286.47E-6	-230.72E-6	14410.	(Negligible) 0
	2	2.8097	1.6281	Hogging	0.0068556	-0.047996	0.010375	681.86E-6	-403.27E-6	3296.0	(Negligible) 0
	3	4.4378	0.97015	Sagging	865.21E-6	-0.099962	0.019998	0.0011258	-403.27E-6	11654.	(Negligible) 0

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA26 | Sub-structure: TA26

Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature	Damage Category
Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	0.88594	Sagging	299.63E-6	0.040083	0.040216	-434.90E-6	310.43E-6	29052.	(Negligible) 0
	2	0.88594	1.9178	Hogging	584.71E-6	0.050984	0.051264	-543.56E-6	310.43E-6	40013.	1 (Very Slight)
	3	2.8038	0.79523	Sagging	222.71E-6	0.054806	0.054895	-550.97E-6	282.20E-6	37213.	1 (Very Slight)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Specific Building Damage Results - Critical Values for All Segments within Each Sub-Structure

Structure: WH1 | Sub-structure: WH1

Vertical Offset from Line for Vertical Movement	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
Calculations	[%]	[%]		[mm]	[%]			[m]	[m]	

Structure: WH2 | Sub-structure: WH2

Vertical Offset from Line for Vertical Movement	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
Calculations	[%]	[%]		[mm]	[%]			[m]	[m]	

Structure: WH3 | Sub-structure: WH3

Vertical Offset from Line for Vertical Movement	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
Calculations	[%]	[%]		[mm]	[%]			[m]	[m]	

Structure: WH4 | Sub-structure: WH4

Vertical Offset from Line for Vertical Movement	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
Calculations	[%]	[%]		[mm]	[%]			[m]	[m]	

Structure: WH5 | Sub-structure: WH5

Vertical Offset from Line for Vertical Movement	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
Calculations	[%]	[%]		[mm]	[%]			[m]	[m]	

Structure: WH6 | Sub-structure: WH6

Vertical Offset from Line for Vertical Movement	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
Calculations	[%]	[%]		[mm]	[%]			[m]	[m]	

Structure: WH7 | Sub-structure: WH7

Vertical Offset from Line for Vertical Movement	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
Calculations	[%]	[%]		[mm]	[%]			[m]	[m]	



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Calculations
[m] [m] [m] [mm] [%] [%] [%] [%] [m] [m] [m]
0.0 0.0 0.0 -25.556E-6 0.10425 0.0 -20.379E-6 -25.556E-6 - 0 (Negligible)

Structure: WH8 | Sub-structure: WH8

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[m]	[m]		[mm]	[m]	[m]	[m]	[m]	[m]	
0.0	0.0	0.0	45.311E-6	0.10426	0.0	-1.5778E-6	45.311E-6	-	-	- 0 (Negligible)

Structure: WH9 | Sub-structure: WH9

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[m]	[m]		[mm]	[m]	[m]	[m]	[m]	[m]	
0.0	0.0	0.0	45.311E-6	0.10426	0.0	-1.5778E-6	45.311E-6	-	-	- 0 (Negligible)

Structure: WH10 | Sub-structure: WH10

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[m]	[m]		[mm]	[m]	[m]	[m]	[m]	[m]	
0.0	0.0029770	969.36E-6	-296.50E-6	0.80431	0.0033210	-16.882E-6	-296.50E-6	12262.	-	- 0 (Negligible)

Structure: WH11 | Sub-structure: WH11

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[m]	[m]		[mm]	[m]	[m]	[m]	[m]	[m]	
0.0	356.66E-6	-0.0045546	-56.865E-6	0.84156	933.80E-6	59.086E-6	-56.865E-6	-	26022.	0 (Negligible)

Structure: WH12 | Sub-structure: WH12

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[m]	[m]		[mm]	[m]	[m]	[m]	[m]	[m]	
0.0	0.0029770	-0.0012543	-438.68E-6	1.5603	790.68E-6	13.338E-6	-438.68E-6	14988.	-	- 0 (Negligible)

Structure: WH13 | Sub-structure: WH13

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[m]	[m]		[mm]	[m]	[m]	[m]	[m]	[m]	
0.0	891.42E-6	0.022714	-113.81E-6	1.6385	0.022936	-262.91E-6	-113.81E-6	-	11308.	0 (Negligible)

Structure: WH14 | Sub-structure: WH14

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[m]	[m]		[mm]	[m]	[m]	[m]	[m]	[m]	
0.0	0.010720	0.0038762	-0.0016845	3.0099	0.014385	-85.940E-6	-0.0016845	1660.6	816.82	0 (Negligible)

Structure: WH15 | Sub-structure: WH15

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[m]	[m]		[mm]	[m]	[m]	[m]	[m]	[m]	
0.0	846.69E-6	0.070806	429.40E-6	3.0099	0.071300	-707.55E-6	429.40E-6	36541.	23976.	1 (Very Slight)

Structure: WH16 | Sub-structure: WH16

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[m]	[m]		[mm]	[m]	[m]	[m]	[m]	[m]	
0.0	0.0	14.455E-6	7.6289E-6	1.3398	14.770E-6	0.0	7.6289E-6	68.531E+6	-	- 0 (Negligible)

Structure: WH17 | Sub-structure: WH17

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[m]	[m]		[mm]	[m]	[m]	[m]	[m]	[m]	
0.0	0.0014596	0.037447	379.06E-6	1.3142	0.037697	-374.33E-6	379.06E-6	14518.	-	- 0 (Negligible)

Structure: WH18 | Sub-structure: WH18

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[m]	[m]		[mm]	[m]	[m]	[m]	[m]	[m]	
0.0	0.0	11.567E-6	4.7504E-6	0.64555	11.551E-6	0.0	4.7504E-6	45.734E+6	-	- 0 (Negligible)



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Structure: WH19 Sub-structure: WH19										
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	0.0027556	0.037466	254.28E-6	0.64176	0.038260	-374.52E-6	254.28E-6	13802.		- 0 (Negligible)
Structure: WH20 Sub-structure: WH20										
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
Structure: WH21 Sub-structure: WH21										
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
Structure: WH22 Sub-structure: WH22										
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
Structure: WH23 Sub-structure: WH23										
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
Structure: WH24 Sub-structure: WH24										
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
Structure: TA1 Sub-structure: TA1										
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	0.0051899	-214.00E-6	-0.0016263	2.3729	0.0076284	65.779E-6	-0.0016263			234.24 0 (Negligible)
Structure: TA2 Sub-structure: TA2										
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	0.0023403	0.050446	428.59E-6	2.3729	0.050505	-707.83E-6	428.59E-6	13913.	899110.1	1 (Very Slight)
Structure: TA3 Sub-structure: TA3										
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	3.9163E-6	235.87E-6	18.633E-6	0.52313	236.14E-6	-2.3587E-6	18.633E-6	2.1797E+6		- 0 (Negligible)
Structure: TA4 Sub-structure: TA4										
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	451.37E-6	0.016302	148.34E-6	0.51033	0.016352	-162.99E-6	148.34E-6	31536.		- 0 (Negligible)
Structure: TA5 Sub-structure: TA5										
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	0.0014600	0.037496	159.52E-6	0.35511	0.037775	-374.81E-6	159.52E-6	14724.		- 0 (Negligible)
Structure: TA6 Sub-structure: TA6										
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	0.0014600	0.037496	159.52E-6	0.35511	0.037775	-374.81E-6	159.52E-6	14724.		- 0 (Negligible)



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[m] [°] [°] [mm] [°] [m] [m]
0.0 115.72E-6 0.019493 41.547E-6 0.12782 0.019499 -194.89E-6 41.547E-6 56079. - 0 (Negligible)

Structure: TA7 | Sub-structure: TA7

Vertical Offset from Line for Vertical Movement Calculations [m]	Deflection Ratio [%]	Average Horizontal Strain [%]	Max Slope	Max Settlement [mm]	Max Tensile Strain [%]	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging) [m]	Min Radius of Curvature (Sagging) [m]	Damage Category

Structure: TA8 | Sub-structure: TA8

Vertical Offset from Line for Vertical Movement Calculations [m]	Deflection Ratio [%]	Average Horizontal Strain [%]	Max Slope	Max Settlement [mm]	Max Tensile Strain [%]	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging) [m]	Min Radius of Curvature (Sagging) [m]	Damage Category

Structure: TA9 | Sub-structure: TA9

Vertical Offset from Line for Vertical Movement Calculations [m]	Deflection Ratio [%]	Average Horizontal Strain [%]	Max Slope	Max Settlement [mm]	Max Tensile Strain [%]	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging) [m]	Min Radius of Curvature (Sagging) [m]	Damage Category

Structure: TA10 | Sub-structure: TA10

Vertical Offset from Line for Vertical Movement Calculations [m]	Deflection Ratio [%]	Average Horizontal Strain [%]	Max Slope	Max Settlement [mm]	Max Tensile Strain [%]	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging) [m]	Min Radius of Curvature (Sagging) [m]	Damage Category

Structure: TA11 | Sub-structure: TA11

Vertical Offset from Line for Vertical Movement Calculations [m]	Deflection Ratio [%]	Average Horizontal Strain [%]	Max Slope	Max Settlement [mm]	Max Tensile Strain [%]	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging) [m]	Min Radius of Curvature (Sagging) [m]	Damage Category

Structure: TA12 | Sub-structure: TA12

Vertical Offset from Line for Vertical Movement Calculations [m]	Deflection Ratio [%]	Average Horizontal Strain [%]	Max Slope	Max Settlement [mm]	Max Tensile Strain [%]	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging) [m]	Min Radius of Curvature (Sagging) [m]	Damage Category

Structure: TA13 | Sub-structure: TA13

Vertical Offset from Line for Vertical Movement Calculations [m]	Deflection Ratio [%]	Average Horizontal Strain [%]	Max Slope	Max Settlement [mm]	Max Tensile Strain [%]	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging) [m]	Min Radius of Curvature (Sagging) [m]	Damage Category

Structure: TA14 | Sub-structure: TA14

Vertical Offset from Line for Vertical Movement Calculations [m]	Deflection Ratio [%]	Average Horizontal Strain [%]	Max Slope	Max Settlement [mm]	Max Tensile Strain [%]	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging) [m]	Min Radius of Curvature (Sagging) [m]	Damage Category

Structure: TA15 | Sub-structure: TA15

Vertical Offset from Line for Vertical Movement Calculations [m]	Deflection Ratio [%]	Average Horizontal Strain [%]	Max Slope	Max Settlement [mm]	Max Tensile Strain [%]	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging) [m]	Min Radius of Curvature (Sagging) [m]	Damage Category

Structure: TA16 | Sub-structure: TA16

Vertical Offset from Line for Vertical Movement Calculations [m]	Deflection Ratio [%]	Average Horizontal Strain [%]	Max Slope	Max Settlement [mm]	Max Tensile Strain [%]	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging) [m]	Min Radius of Curvature (Sagging) [m]	Damage Category

Structure: TA17 | Sub-structure: TA17

Vertical Offset from Line for Vertical Movement Calculations [m]	Deflection Ratio [%]	Average Horizontal Strain [%]	Max Slope	Max Settlement [mm]	Max Tensile Strain [%]	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging) [m]	Min Radius of Curvature (Sagging) [m]	Damage Category

Structure: TA18 | Sub-structure: TA18

Vertical Offset from Line for Vertical Movement Calculations [m]	Deflection Ratio [%]	Average Horizontal Strain [%]	Max Slope	Max Settlement [mm]	Max Tensile Strain [%]	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging) [m]	Min Radius of Curvature (Sagging) [m]	Damage Category



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P1017J1129		
Drg. Ref.		
Made by JW	Date 13-Aug-2018	Checked

Structure: TA19 | Sub-structure: TA19

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	

Structure: TA20 | Sub-structure: TA20

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	

Structure: TA21 | Sub-structure: TA21

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	0.0025343	0.019457	-232.95E-6	0.93044	0.020716	-218.21E-6	-232.95E-6	23161.		- 0 (Negligible)

Structure: TA22 | Sub-structure: TA22

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	578.97E-6	0.025158	-294.30E-6	1.5500	0.025290	-437.57E-6	-294.30E-6	9986.9		- 0 (Negligible)

Structure: TA23 | Sub-structure: TA23

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	350.88E-6	-0.0088968	126.88E-6	0.93057	0.0017876	113.87E-6	126.88E-6	133250.	52531.0	0 (Negligible)

Structure: TA24 | Sub-structure: TA24

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	0.0011036	-0.012647	-173.37E-6	1.2904	0.0025329	165.38E-6	-173.37E-6	19930.	60795.0	0 (Negligible)

Structure: TA25 | Sub-structure: TA25

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	0.0068556	-0.099962	-403.27E-6	2.6007	0.019998	0.0011258	-403.27E-6	3296.0	11654.0	0 (Negligible)

Structure: TA26 | Sub-structure: TA26

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	584.71E-6	0.054806	310.43E-6	2.6007	0.054895	-550.97E-6	310.43E-6	40013.	29052.1	1 (Very Slight)

Specific Building Damage Results - Critical Segments within Each Structure

Structure Name	Parameter	Critical Sub-Structure	Critical Segment	Start	End	Curvature	Max Slope	Max Settlement	Max Tensile Strain	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
WH1	All settlements are less than the Settlement Trough Limit Sensitivity.			[m]	[m]			[mm]	[%]			
WH2	All settlements are less than the Settlement Trough Limit Sensitivity.											
WH3	All settlements are less than the Settlement Trough Limit Sensitivity.											
WH4	All settlements are less than the Settlement Trough Limit Sensitivity.											
WH5	All settlements are less than the Settlement Trough Limit Sensitivity.											
WH6	All settlements are less than the Settlement Trough Limit Sensitivity.											
WH7	Max Slope	WH7		1	1.8760	1.8760 Sagging	25.556E-6	0.10425	0.0	- 3.0371E+6	0	0 (Negligible)
	Max Settlement	WH7		1	1.8760	1.8760 Sagging	25.556E-6	0.10425	0.0	- 3.0371E+6	0	0 (Negligible)
	Max Tensile Strain	WH7		1	1.8760	1.8760 Sagging	25.556E-6	0.10425	0.0	- 3.0371E+6	0	0 (Negligible)
	Min Radius of			-	-	-	-	-	-	-	-	-



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Pool Transfer revision

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Date 13-Aug-2018

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Structure Name	Parameter	Critical Sub-Structure	Critical Segment	Start	End	Curvature	Max Slope	Max Settlement	Max Tensile Strain	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
WH8	Curvature (Hogging)											
	Min Radius of Curvature (Sagging)											
	Max Slope	WH8	1	0.0	0.0	Sagging	45.311E-6	0.10426	0.0	-	62411.0	0 (Negligible)
	Max Settlement	WH8	1	0.0	0.0	Sagging	45.311E-6	0.10426	0.0	-	62411.0	0 (Negligible)
WH9	Max Tensile Strain	WH8	1	0.0	0.0	Sagging	45.311E-6	0.10426	0.0	-	62411.0	0 (Negligible)
	Min Radius of Curvature (Hogging)											
	Min Radius of Curvature (Sagging)											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
WH10	All settlements are less than the Settlement Trough Limit Sensitivity.											
	Max Slope	WH10	1	2.7887	6.5070	Hogging	296.50E-6	0.80431	0.0033210	12262.	-	0 (Negligible)
	Max Settlement	WH10	1	2.7887	6.5070	Hogging	296.50E-6	0.80431	0.0033210	12262.	-	0 (Negligible)
	Max Tensile Strain	WH10	1	2.7887	6.5070	Hogging	296.50E-6	0.80431	0.0033210	12262.	-	0 (Negligible)
WH11	Min Radius of Curvature (Hogging)	WH10	1	2.7887	6.5070	Hogging	296.50E-6	0.80431	0.0033210	12262.	-	0 (Negligible)
	Min Radius of Curvature (Sagging)											
	Max Slope	WH11	1	0.0	0.75000	Sagging	56.865E-6	0.84156	933.80E-6	-	26022.0	0 (Negligible)
	Max Settlement	WH11	1	0.0	0.75000	Sagging	56.865E-6	0.84156	933.80E-6	-	26022.0	0 (Negligible)
WH12	Max Tensile Strain	WH11	1	0.0	0.75000	Sagging	56.865E-6	0.84156	933.80E-6	-	26022.0	0 (Negligible)
	Min Radius of Curvature (Hogging)	WH11	1	0.0	0.75000	Sagging	56.865E-6	0.84156	933.80E-6	-	26022.0	0 (Negligible)
	Min Radius of Curvature (Sagging)											
	Max Slope	WH12	1	0.0	1.7500	Hogging	438.68E-6	1.5603	790.68E-6	14988.	-	0 (Negligible)
WH13	Max Settlement	WH12	1	0.0	1.7500	Hogging	438.68E-6	1.5603	790.68E-6	14988.	-	0 (Negligible)
	Max Tensile Strain	WH12	1	0.0	1.7500	Hogging	438.68E-6	1.5603	790.68E-6	14988.	-	0 (Negligible)
	Min Radius of Curvature (Hogging)	WH12	1	0.0	1.7500	Hogging	438.68E-6	1.5603	790.68E-6	14988.	-	0 (Negligible)
	Min Radius of Curvature (Sagging)											
WH14	Max Slope	WH13	1	0.0	0.81400	Sagging	113.81E-6	1.6385	0.022936	-	11308.0	0 (Negligible)
	Max Settlement	WH13	1	0.0	0.81400	Sagging	113.81E-6	1.6385	0.022936	-	11308.0	0 (Negligible)
	Max Tensile Strain	WH13	1	0.0	0.81400	Sagging	113.81E-6	1.6385	0.022936	-	11308.0	0 (Negligible)
	Min Radius of Curvature (Hogging)	WH13	1	0.0	0.81400	Sagging	113.81E-6	1.6385	0.022936	-	11308.0	0 (Negligible)
WH15	Min Radius of Curvature (Sagging)											
	Max Slope	WH14	2	0.22473	1.0011	Hogging	0.0016845	2.3234	0.012411	1660.6	-	0 (Negligible)
	Max Settlement	WH14	3	1.0011	6.4130	Sagging	0.0016845	3.0099	0.014385	-	816.82	0 (Negligible)
	Max Tensile Strain	WH14	3	1.0011	6.4130	Sagging	0.0016845	3.0099	0.014385	-	816.82	0 (Negligible)
WH16	Min Radius of Curvature (Hogging)	WH14	2	0.22473	1.0011	Hogging	0.0016845	2.3234	0.012411	1660.6	-	0 (Negligible)
	Min Radius of Curvature (Sagging)											
	Max Slope	WH15	1	0.0	1.9716	Sagging	429.40E-6	3.0099	0.071300	-	23976.1	1 (Very Slight)
	Max Settlement	WH15	1	0.0	1.9716	Sagging	429.40E-6	3.0099	0.071300	-	23976.1	1 (Very Slight)
WH17	Max Tensile Strain	WH15	1	0.0	1.9716	Sagging	429.40E-6	3.0099	0.071300	-	23976.1	1 (Very Slight)
	Min Radius of Curvature (Hogging)	WH15	4	2.9977	4.1900	Hogging	409.44E-6	1.8208	0.037535	36541.	-	0 (Negligible)
	Min Radius of Curvature (Sagging)	WH15	1	0.0	1.9716	Sagging	429.40E-6	3.0099	0.071300	-	23976.1	1 (Very Slight)
	Max Slope	WH16	1	0.0	3.3610	Hogging	7.6289E-6	1.3398	14.770E-6	68.531E+6	-	0 (Negligible)
WH18	Max Settlement	WH16	1	0.0	3.3610	Hogging	7.6289E-6	1.3398	14.770E-6	68.531E+6	-	0 (Negligible)
	Max Tensile Strain	WH16	1	0.0	3.3610	Hogging	7.6289E-6	1.3398	14.770E-6	68.531E+6	-	0 (Negligible)
	Min Radius of Curvature (Hogging)	WH16	1	0.0	3.3610	Hogging	7.6289E-6	1.3398	14.770E-6	68.531E+6	-	0 (Negligible)
	Min Radius of Curvature (Sagging)											
WH19	Max Slope	WH17	1	0.0	2.0030	Hogging	379.06E-6	1.3142	0.037697	14518.	-	0 (Negligible)
	Max Settlement	WH17	1	0.0	2.0030	Hogging	379.06E-6	1.3142	0.037697	14518.	-	0 (Negligible)
	Max Tensile Strain	WH17	1	0.0	2.0030	Hogging	379.06E-6	1.3142	0.037697	14518.	-	0 (Negligible)
	Min Radius of Curvature (Hogging)	WH17	1	0.0	2.0030	Hogging	379.06E-6	1.3142	0.037697	14518.	-	0 (Negligible)
WH20	Min Radius of Curvature (Sagging)											
	Max Slope	WH18	1	0.0	0.79700	Hogging	4.7504E-6	0.64555	11.551E-6	45.734E+6	-	0 (Negligible)
	Max Settlement	WH18	1	0.0	0.79700	Hogging	4.7504E-6	0.64555	11.551E-6	45.734E+6	-	0 (Negligible)
	Max Tensile Strain	WH18	1	0.0	0.79700	Hogging	4.7504E-6	0.64555	11.551E-6	45.734E+6	-	0 (Negligible)
WH21	Min Radius of Curvature (Hogging)	WH18	1	0.0	0.79700	Hogging	4.7504E-6	0.64555	11.551E-6	45.734E+6	-	0 (Negligible)
	Min Radius of Curvature (Sagging)											
	Max Slope	WH19	1	0.0	3.4039	Hogging	254.28E-6	0.64176	0.038260	13802.	-	0 (Negligible)
	Max Settlement	WH19	1	0.0	3.4039	Hogging	254.28E-6	0.64176	0.038260	13802.	-	0 (Negligible)
WH22	Max Tensile Strain	WH19	1	0.0	3.4039	Hogging	254.28E-6	0.64176	0.038260	13802.	-	0 (Negligible)
	Min Radius of Curvature (Hogging)	WH19	1	0.0	3.4039	Hogging	254.28E-6	0.64176	0.038260	13802.	-	0 (Negligible)
	Min Radius of Curvature (Sagging)											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
WH23	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											
	All settlements are less than the Settlement Trough Limit Sensitivity.											



35 Templewood Avenue
Pool Transfer revision
CIRIA (Excavation and Installation)

Job No.	Sheet No.	Rev.
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Structure Name	Parameter	Critical Sub-Structure	Critical Segment	Start	End	Curvature	Max Slope	Max Settlement	Max Tensile Strain	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
WH24	All settlements are less than the Settlement Trough Limit Sensitivity.											
TA1	Max Slope	TA1	1	0.0	14.253	Sagging	0.0016263	2.3729	0.0076284	-	234.24	0 (Negligible)
TA1	Max Settlement	TA1	1	0.0	14.253	Sagging	0.0016263	2.3729	0.0076284	-	234.24	0 (Negligible)
TA1	Max Tensile Strain	TA1	1	0.0	14.253	Sagging	0.0016263	2.3729	0.0076284	-	234.24	0 (Negligible)
	Min Radius of Curvature (Hogging)									-	-	-
	Min Radius of Curvature (Sagging)	TA1	1	0.0	14.253	Sagging	0.0016263	2.3729	0.0076284	-	234.24	0 (Negligible)
TA2	Max Slope	TA2	1	0.0	1.2287	Hogging	428.59E-6	2.3729	0.050505	14672.	-	1 (Very Slight)
TA2	Max Settlement	TA2	1	0.0	1.2287	Hogging	428.59E-6	2.3729	0.050505	14672.	-	1 (Very Slight)
TA2	Max Tensile Strain	TA2	1	0.0	1.2287	Hogging	428.59E-6	2.3729	0.050505	14672.	-	1 (Very Slight)
	Min Radius of Curvature (Hogging)	TA2	3	1.3136	5.0780	Hogging	409.51E-6	1.8292	0.038335	13913.	-	0 (Negligible)
	Min Radius of Curvature (Sagging)	TA2	2	1.2287	1.3136	Sagging	409.51E-6	1.8639	0.037501	-	899110.	0 (Negligible)
TA3	Max Slope	TA3	1	0.0	0.68900	Hogging	18.633E-6	0.52313	236.14E-6	2.1797E+6	-	0 (Negligible)
TA3	Max Settlement	TA3	1	0.0	0.68900	Hogging	18.633E-6	0.52313	236.14E-6	2.1797E+6	-	0 (Negligible)
TA3	Max Tensile Strain	TA3	1	0.0	0.68900	Hogging	18.633E-6	0.52313	236.14E-6	2.1797E+6	-	0 (Negligible)
	Min Radius of Curvature (Hogging)	TA3	1	0.0	0.68900	Hogging	18.633E-6	0.52313	236.14E-6	2.1797E+6	-	0 (Negligible)
TA4	Max Slope	TA4	1	0.0	1.1520	Hogging	148.34E-6	0.51033	0.016352	31536.	-	0 (Negligible)
TA4	Max Settlement	TA4	1	0.0	1.1520	Hogging	148.34E-6	0.51033	0.016352	31536.	-	0 (Negligible)
TA4	Max Tensile Strain	TA4	1	0.0	1.1520	Hogging	148.34E-6	0.51033	0.016352	31536.	-	0 (Negligible)
	Min Radius of Curvature (Hogging)	TA4	1	0.0	1.1520	Hogging	148.34E-6	0.51033	0.016352	31536.	-	0 (Negligible)
TA5	Max Slope	TA5	1	0.0	1.9990	Hogging	159.52E-6	0.35511	0.037775	14724.	-	0 (Negligible)
TA5	Max Settlement	TA5	1	0.0	1.9990	Hogging	159.52E-6	0.35511	0.037775	14724.	-	0 (Negligible)
TA5	Max Tensile Strain	TA5	1	0.0	1.9990	Hogging	159.52E-6	0.35511	0.037775	14724.	-	0 (Negligible)
	Min Radius of Curvature (Hogging)	TA5	1	0.0	1.9990	Hogging	159.52E-6	0.35511	0.037775	14724.	-	0 (Negligible)
TA6	Max Slope	TA6	1	0.0	0.54732	Hogging	41.547E-6	0.12782	0.019499	56079.	-	0 (Negligible)
TA6	Max Settlement	TA6	1	0.0	0.54732	Hogging	41.547E-6	0.12782	0.019499	56079.	-	0 (Negligible)
TA6	Max Tensile Strain	TA6	1	0.0	0.54732	Hogging	41.547E-6	0.12782	0.019499	56079.	-	0 (Negligible)
	Min Radius of Curvature (Hogging)	TA6	1	0.0	0.54732	Hogging	41.547E-6	0.12782	0.019499	56079.	-	0 (Negligible)
TA7	All settlements are less than the Settlement Trough Limit Sensitivity.											
TA8	All settlements are less than the Settlement Trough Limit Sensitivity.											
TA9	All settlements are less than the Settlement Trough Limit Sensitivity.											
TA10	All settlements are less than the Settlement Trough Limit Sensitivity.											
TA11	All settlements are less than the Settlement Trough Limit Sensitivity.											
TA12	All settlements are less than the Settlement Trough Limit Sensitivity.											
TA13	All settlements are less than the Settlement Trough Limit Sensitivity.											
TA14	All settlements are less than the Settlement Trough Limit Sensitivity.											
TA15	All settlements are less than the Settlement Trough Limit Sensitivity.											
TA16	All settlements are less than the Settlement Trough Limit Sensitivity.											
TA17	All settlements are less than the Settlement Trough Limit Sensitivity.											
TA18	All settlements are less than the Settlement Trough Limit Sensitivity.											
TA19	All settlements are less than the Settlement Trough Limit Sensitivity.											
TA20	All settlements are less than the Settlement Trough Limit Sensitivity.											
TA21	Max Slope	TA21	1	4.3454	9.6560	Hogging	232.95E-6	0.93044	0.020716	23161.	-	0 (Negligible)
TA21	Max Settlement	TA21	1	4.3454	9.6560	Hogging	232.95E-6	0.93044	0.020716	23161.	-	0 (Negligible)



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Structure Name	Parameter	Critical Sub-Structure	Critical Segment	Start	End	Curvature	Max Slope	Max Settlement	Max Tensile Strain	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
	Max Tensile Strain	TA21	1	4.3454	9.6560	Hogging	232.95E-6	0.93044	0.020716	23161.	- 0	(Negligible)
	Min Radius of Curvature (Hogging)	TA21	1	4.3454	9.6560	Hogging	232.95E-6	0.93044	0.020716	23161.	- 0	(Negligible)
	Min Radius of Curvature (Sagging)		-	-	-	-	-	-	-	-	-	-
TA22	Max Slope	TA22	1	0.0	2.3770	Hogging	294.30E-6	1.5500	0.025290	9986.9	- 0	(Negligible)
	Max Settlement	TA22	1	0.0	2.3770	Hogging	294.30E-6	1.5500	0.025290	9986.9	- 0	(Negligible)
	Max Tensile Strain	TA22	1	0.0	2.3770	Hogging	294.30E-6	1.5500	0.025290	9986.9	- 0	(Negligible)
	Min Radius of Curvature (Hogging)	TA22	1	0.0	2.3770	Hogging	294.30E-6	1.5500	0.025290	9986.9	- 0	(Negligible)
	Min Radius of Curvature (Sagging)		-	-	-	-	-	-	-	-	-	-
TA23	Max Slope	TA23	1	0.0	2.5305	Sagging	126.88E-6	0.93057	0.0017876	-	52531.0	(Negligible)
	Max Settlement	TA23	1	0.0	2.5305	Sagging	126.88E-6	0.93057	0.0017876	-	52531.0	(Negligible)
	Max Tensile Strain	TA23	1	0.0	2.5305	Sagging	126.88E-6	0.93057	0.0017876	-	52531.0	(Negligible)
	Min Radius of Curvature (Hogging)	TA23	2	2.5305	3.8650	Hogging	126.88E-6	0.63207	761.28E-6	133250.	- 0	(Negligible)
	Min Radius of Curvature (Sagging)	TA23	1	0.0	2.5305	Sagging	126.88E-6	0.93057	0.0017876	-	52531.0	(Negligible)
TA24	Max Slope	TA24	3	1.0288	3.2571	Hogging	173.37E-6	0.93175	0.0012045	19930.	- 0	(Negligible)
	Max Settlement	TA24	4	3.2571	5.4080	Sagging	173.37E-6	1.2904	0.0025329	-	60795.0	(Negligible)
	Max Tensile Strain	TA24	4	3.2571	5.4080	Sagging	173.37E-6	1.2904	0.0025329	-	60795.0	(Negligible)
	Min Radius of Curvature (Hogging)	TA24	3	1.0288	3.2571	Hogging	173.37E-6	0.93175	0.0012045	19930.	- 0	(Negligible)
	Min Radius of Curvature (Sagging)	TA24	4	3.2571	5.4080	Sagging	173.37E-6	1.2904	0.0025329	-	60795.0	(Negligible)
TA25	Max Slope	TA25	2	2.8097	4.4378	Hogging	403.27E-6	2.2354	0.010375	3296.0	- 0	(Negligible)
	Max Settlement	TA25	3	4.4378	5.4080	Sagging	403.27E-6	2.6007	0.019998	-	11654.0	(Negligible)
	Max Tensile Strain	TA25	3	4.4378	5.4080	Sagging	403.27E-6	2.6007	0.019998	-	11654.0	(Negligible)
	Min Radius of Curvature (Hogging)	TA25	2	2.8097	4.4378	Hogging	403.27E-6	2.2354	0.010375	3296.0	- 0	(Negligible)
	Min Radius of Curvature (Sagging)	TA25	3	4.4378	5.4080	Sagging	403.27E-6	2.6007	0.019998	-	11654.0	(Negligible)
TA26	Max Slope	TA26	1	0.0	0.88594	Sagging	310.43E-6	2.6007	0.040216	-	29052.0	(Negligible)
	Max Settlement	TA26	1	0.0	0.88594	Sagging	310.43E-6	2.6007	0.040216	-	29052.0	(Negligible)
	Max Tensile Strain	TA26	3	2.8038	3.5990	Sagging	282.20E-6	1.7714	0.054895	-	37213.1	(Very Slight)
	Min Radius of Curvature (Hogging)	TA26	2	0.88594	2.8038	Hogging	310.43E-6	2.3310	0.051264	40013.	- 1	(Very Slight)
	Min Radius of Curvature (Sagging)	TA26	1	0.0	0.88594	Sagging	310.43E-6	2.6007	0.040216	-	29052.0	(Negligible)



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Utility Strain Calculation Options

Neglect beneficial contribution of axial strains : No

Specific Building Damage Results - Horizontal Displacements

Structure: WH1 | Sub-structure: WH1

Dist.	Coordinates			Displacements		Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	x	y	z	x	y		
	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	38.72700	64.63300	112.00000	0.0	0.0	0.0	0.0 d
0.43260	34.15950	64.64242	112.00000	0.0	0.0	0.0	0.0 d
0.86521	34.59200	64.65183	112.00000	0.0	0.0	0.0	0.0 d
1.2978	35.02450	64.66125	112.00000	0.0	0.0	0.0	0.0 d
1.7304	35.45700	64.67067	112.00000	0.0	0.0	0.0	0.0 d
2.1630	35.88950	64.68008	112.00000	0.0	0.0	0.0	0.0 d
2.5956	36.32200	64.68950	112.00000	0.0	0.0	0.0	0.0 d
3.0282	36.75450	64.69892	112.00000	0.0	0.0	0.0	0.0 d
3.4608	37.18700	64.70833	112.00000	0.0	0.0	0.0	0.0 d
3.8934	37.61950	64.71775	112.00000	0.0	0.0	0.0	0.0 d
4.3260	38.05200	64.72717	112.00000	0.0	0.0	0.0	0.0 d
4.7586	38.48450	64.73658	112.00000	0.0	0.0	0.0	0.0 d
5.1912	38.91700	64.74600	112.00000	0.0	0.0	0.0	0.0 d

d - Displacements include imported displacements.

Structure: WH2 | Sub-structure: WH2

Dist.	Coordinates			Displacements		Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	x	y	z	x	y		
	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	38.91700	64.74600	112.00000	0.0	0.0	0.0	0.0 d
0.37347	39.03600	64.39200	112.00000	0.0	0.0	0.0	0.0 d
0.74693	39.15500	64.03800	112.00000	0.0	0.0	0.0	0.0 d

d - Displacements include imported displacements.

Structure: WH3 | Sub-structure: WH3

Dist.	Coordinates			Displacements		Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	x	y	z	x	y		
	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	39.15500	64.03800	112.00000	0.0	0.0	0.0	0.0 d
0.32830	39.48325	64.04400	112.00000	0.0	0.0	0.0	0.0 d
0.65661	39.81150	64.05000	112.00000	0.0	0.0	0.0	0.0 d
0.98491	40.13975	64.05600	112.00000	0.0	0.0	0.0	0.0 d
1.3132	40.46800	64.06200	112.00000	0.0	0.0	0.0	0.0 d

d - Displacements include imported displacements.

Structure: WH4 | Sub-structure: WH4

Dist.	Coordinates			Displacements		Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	x	y	z	x	y		
	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	40.46800	64.06200	112.00000	0.0	0.0	0.0	0.0 d
0.45411	40.44450	64.51550	112.00000	0.0	0.0	0.0	0.0 d
0.90822	40.42100	64.96900	112.00000	0.0	0.0	0.0	0.0 d

d - Displacements include imported displacements.

Structure: WH5 | Sub-structure: WH5

Dist.	Coordinates			Displacements		Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	x	y	z	x	y		
	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	40.42100	64.96900	112.00000	0.0	0.0	0.0	0.0 d
0.45043	40.87130	64.97990	112.00000	0.0	0.0	0.0	0.0 d
0.90086	41.32160	64.99080	112.00000	0.0	0.0	0.0	0.0 d
1.3513	41.77190	65.00170	112.00000	0.043384	0.0	0.043372	-0.0010499 d
1.8017	42.22220	65.01260	112.00000	0.091597	0.0	0.091570	-0.0022165 d
2.2522	42.67250	65.02350	112.00000	0.135700	0.0	0.135666	-0.0032838 d
2.7026	43.12280	65.03440	112.00000	0.175430	0.0	0.175388	-0.0042453 d
3.1530	43.57310	65.04530	112.00000	0.212778	0.0	0.212722	-0.0051491 d
3.6035	44.02340	65.05620	112.00000	0.246720	0.0	0.246664	-0.0059703 d
4.0539	44.47370	65.06710	112.00000	0.276661	0.0	0.276611	-0.0066957 d
4.5043	44.92400	65.07800	112.00000	0.302460	0.0	0.302377	-0.0073193 d

d - Displacements include imported displacements.

Structure: WH6 | Sub-structure: WH6

Dist.	Coordinates			Displacements		Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	x	y	z	x	y		
	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	44.92400	65.07800	112.00000	0.302460	0.0	-0.0053810	0.30241 d
0.42157	44.91650	64.65650	112.00000	0.345200	0.0	-0.0061413	0.34514 d
0.84313	44.90900	64.23500	112.00000	0.390260	0.0	-0.0069430	0.39020 d

d - Displacements include imported displacements.

Structure: WH7 | Sub-structure: WH7

Dist.	Coordinates			Displacements		Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	x	y	z	x	y		
	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	44.90900	64.23500	112.00000	0.390260	0.0	0.39023	-0.0047843 d
0.46904	45.37800	64.24075	112.00000	0.437110	0.0	0.43708	-0.0051135 d
0.93807	45.84700	64.24650	112.00000	0.483860	0.0	0.483858	-0.0053771 d
1.4071	46.31600	64.25225	112.00000	0.530610	0.0	0.530599	-0.0056507 d
1.8761	46.78500	64.25800	112.00000	0.577360	0.0	0.577349	-0.0059243 d

d - Displacements include imported displacements.

Structure: WH8 | Sub-structure: WH8

Dist.	Coordinates			Displacements		Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	x	y	z	x	y		
	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]



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Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.83816	50.66900	51.85140	112.00000	4.6723	0.0	0.0
1.2572	50.25000	51.84310	112.00000	4.3755	0.0	0.0
1.6763	49.83100	51.83480	112.00000	4.0787	0.0	0.0
2.0954	49.41200	51.82650	112.00000	3.7819	0.0	0.0
2.5145	48.99300	51.81820	112.00000	3.6098	0.0	0.0
2.9336	48.57400	51.80990	112.00000	3.4526	0.0	0.0
3.3527	48.15500	51.80160	112.00000	3.2955	0.0	0.0
3.7717	47.73600	51.79330	112.00000	3.1384	0.0	0.0
4.1908	47.31700	51.78500	112.00000	2.9813	0.0	0.0

d - Displacements include imported displacements.

Structure: WH16 | Sub-structure: WH16

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	47.31700	51.78500	112.00000	2.9813	0.0	0.0
0.42021	47.30875	52.20512	112.00000	2.9782	0.0	0.0
0.84041	47.30050	52.62525	112.00000	2.9751	0.0	0.0
1.2606	47.29225	53.04538	112.00000	2.9720	0.0	0.0
1.6808	47.28400	53.46550	112.00000	2.9689	0.0	0.0
2.1010	47.27575	53.88562	112.00000	2.9658	0.0	0.0
2.5212	47.26750	54.30575	112.00000	2.9627	0.0	0.0
2.9414	47.25925	54.72588	112.00000	2.9596	0.0	0.0
3.3616	47.25100	55.14600	112.00000	2.9565	0.0	0.0

d - Displacements include imported displacements.

Structure: WH17 | Sub-structure: WH17

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	47.25100	55.14600	112.00000	2.9565	0.0	0.0
0.33390	46.91733	55.13350	112.00000	2.8314	0.0	0.0
0.66780	46.59367	55.12100	112.00000	2.7063	0.0	0.0
1.0017	46.25000	55.10850	112.00000	2.5811	0.0	0.0
1.3356	45.91633	55.09600	112.00000	2.4560	0.0	0.0
1.6695	45.58267	55.08350	112.00000	2.3309	0.0	0.0
2.0034	45.24900	55.07100	112.00000	2.2058	0.0	0.0

d - Displacements include imported displacements.

Structure: WH18 | Sub-structure: WH18

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	45.24900	55.07100	112.00000	2.2058	0.0	0.0
0.39856	45.24200	54.23560	112.00000	2.2031	0.0	0.0
0.79712	45.23500	54.27400	112.00000	2.2005	0.0	0.0

d - Displacements include imported displacements.

Structure: WH19 | Sub-structure: WH19

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	45.23500	54.27400	112.00000	2.2005	0.0	0.0
0.42549	44.80970	54.26120	112.00000	2.0410	0.0	0.0
0.85099	44.38440	54.24840	112.00000	1.8815	0.0	0.0
1.2765	43.95910	54.23560	112.00000	1.7220	0.0	0.0
1.7020	43.53380	54.22280	112.00000	1.5626	0.0	0.0
2.1275	43.10850	54.21000	112.00000	1.4031	0.0	0.0
2.5530	42.68320	54.19720	112.00000	1.2436	0.0	0.0
2.9784	42.25790	54.18440	112.00000	1.0841	0.0	0.0
3.4039	41.83260	54.17160	112.00000	0.9246	0.0	0.0
3.8294	41.40730	54.15880	112.00000	0.7651	0.0	0.0
4.2549	40.98200	54.14600	112.00000	0.6056	0.0	0.0

d - Displacements include imported displacements.

Structure: WH20 | Sub-structure: WH20

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	40.98200	54.14600	112.00000	0.6056	0.0	0.0
0.40607	40.98950	54.55200	112.00000	0.6084	0.0	0.0
0.81214	40.99700	54.95800	112.00000	0.6112	0.0	0.0

d - Displacements include imported displacements.

Structure: WH21 | Sub-structure: WH21

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	40.99700	54.95800	112.00000	0.6112	0.0	0.0
0.43845	40.55900	54.93825	112.00000	0.44700	0.0	0.0
0.87689	40.12100	54.91850	112.00000	0.28275	0.0	0.0
1.3153	39.68300	54.89875	112.00000	0.11850	0.0	0.0
1.7538	39.24500	54.87900	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: WH22 | Sub-structure: WH22

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	39.24500	54.87900	112.00000	0.0	0.0	0.0
0.39975	39.26950	54.48000	112.00000	0.0	0.0	0.0
0.79950	39.29400	54.08100	112.00000	0.0	0.0	0.0

d - Displacements include imported displacements.

Structure: WH23 | Sub-structure: WH23

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
0.0	39.24500	54.87900	112.00000	0.0	0.0	0.0
0.39975	39.26950	54.48000	112.00000	0.0	0.0	0.0
0.79950	39.29400	54.08100	112.00000	0.0	0.0	0.0



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Dist.	Coordinates			Displacements			
	x	y	z	x	y	z	
0.28803	70.21525	33.33950	112.00000	0.023300	1.9327	-1.2744	-1.4532 d
0.57605	70.42950	33.14700	112.00000	0.022442	1.8615	-1.2274	-1.3997 d
0.86408	70.64375	32.95450	112.00000	0.021583	1.7903	-1.1805	-1.3462 d
1.1521	70.85800	32.76200	112.00000	0.020725	1.7191	-1.1335	-1.2926 d

d - Displacements include imported displacements.

Structure: TA5 | Sub-structure: TA5

Dist.	Coordinates			Displacements			
	x	y	z	x	y	z	
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	
0.0	70.85800	32.76200	112.00000	0.020725	1.7191	-1.7191	-0.018829 d
0.49988	70.84650	32.26225	112.00000	0.018465	1.5317	-1.5317	-0.016776 d
0.99976	70.83500	31.76250	112.00000	0.016206	1.3442	-1.3442	-0.014723 d
1.4996	70.82350	31.26275	112.00000	0.013946	1.1568	-1.1568	-0.012670 d
1.9995	70.81200	30.76300	112.00000	0.011686	0.96937	-0.96938	-0.010617 d

d - Displacements include imported displacements.

Structure: TA6 | Sub-structure: TA6

Dist.	Coordinates			Displacements			
	x	y	z	x	y	z	
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	
0.0	70.81200	30.76300	112.00000	0.011686	0.96937	-0.69894	-0.67179 d
0.27366	70.62000	30.56800	112.00000	0.010795	0.89539	-0.64560	-0.62052 d
0.54732	70.42800	30.37300	112.00000	0.0099026	0.82141	-0.59225	-0.56925 d
0.82098	70.23600	30.17800	112.00000	0.0090107	0.74742	-0.53891	-0.51797 d
1.0946	70.04400	29.98300	112.00000	0.0081188	0.67344	-0.48557	-0.46670 d

d - Displacements include imported displacements.

Structure: TA7 | Sub-structure: TA7

Dist.	Coordinates			Displacements			
	x	y	z	x	y	z	
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	
0.0	70.04400	29.98300	112.00000	0.0081188	0.67344	0.0072722	-0.67345 d
0.43761	69.60650	29.99300	112.00000	0.0081402	0.67521	0.0072914	-0.67522 d
0.87523	69.16900	29.99300	112.00000	0.0081615	0.67698	0.0073105	-0.67699 d
1.3128	68.73150	30.01300	112.00000	0.0081829	0.67876	0.0073296	-0.67877 d
1.7505	68.29400	30.02300	112.00000	0.0082043	0.68053	0.0073488	-0.68054 d

d - Displacements include imported displacements.

Structure: TA8 | Sub-structure: TA8

Dist.	Coordinates			Displacements			
	x	y	z	x	y	z	
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	
0.0	68.29400	30.02300	112.00000	0.0082043	0.68053	-0.68055	0.0059572 d
0.45429	68.29250	29.56871	112.00000	0.0061507	0.51019	-0.51021	0.0044661 d
0.90858	68.29100	29.11443	112.00000	0.0049711	0.33985	-0.33986	0.0029750 d
1.3629	68.28950	28.66014	112.00000	0.0020436	0.16951	-0.16952	0.0014839 d
1.8172	68.28800	28.20586	112.00000	0.0	0.0	0.0	0.0 d
2.2714	68.28650	27.75157	112.00000	0.0	0.0	0.0	0.0 d
2.7257	68.28500	27.29729	112.00000	0.0	0.0	0.0	0.0 d
3.1800	68.28350	26.84300	112.00000	0.0	0.0	0.0	0.0 d
3.6343	68.28200	26.38871	112.00000	0.0	0.0	0.0	0.0 d
4.0886	68.28050	25.93443	112.00000	0.0	0.0	0.0	0.0 d
4.5429	68.27900	25.48014	112.00000	0.0	0.0	0.0	0.0 d
4.9972	68.27750	25.02586	112.00000	0.0	0.0	0.0	0.0 d
5.4515	68.27600	24.57157	112.00000	0.0	0.0	0.0	0.0 d
5.9057	68.27450	24.11729	112.00000	0.0	0.0	0.0	0.0 d
6.3600	68.27300	23.66300	112.00000	0.0	0.0	0.0	0.0 d

d - Displacements include imported displacements.

Structure: TA9 | Sub-structure: TA9

Dist.	Coordinates			Displacements			
	x	y	z	x	y	z	
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	
0.0	68.27300	23.66300	112.00000	0.0	0.0	0.0	0.0 d
0.39075	67.88225	23.66200	112.00000	0.0	0.0	0.0	0.0 d
0.78150	67.49150	23.66100	112.00000	0.0	0.0	0.0	0.0 d
1.1723	67.10075	23.66000	112.00000	0.0	0.0	0.0	0.0 d
1.5630	66.71000	23.65900	112.00000	0.0	0.0	0.0	0.0 d

d - Displacements include imported displacements.

Structure: TA10 | Sub-structure: TA10

Dist.	Coordinates			Displacements			
	x	y	z	x	y	z	
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	
0.0	66.71000	23.65900	112.00000	0.0	0.0	0.0	0.0 d
0.40234	66.71117	23.25667	112.00000	0.0	0.0	0.0	0.0 d
0.80467	66.71233	22.85433	112.00000	0.0	0.0	0.0	0.0 d
1.2070	66.71350	22.45200	112.00000	0.0	0.0	0.0	0.0 d
1.6093	66.71467	22.04967	112.00000	0.0	0.0	0.0	0.0 d
2.0117	66.71583	21.64733	112.00000	0.0	0.0	0.0	0.0 d
2.4140	66.71700	21.24500	112.00000	0.0	0.0	0.0	0.0 d

d - Displacements include imported displacements.

Structure: TA11 | Sub-structure: TA11

Dist.	Coordinates			Displacements			
	x	y	z	x	y	z	
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	
0.0	66.71700	21.24500	112.00000	0.0	0.0	0.0	0.0 d
0.43834	67.15500	21.26225	112.00000	0.0	0.0	0.0	0.0 d
0.87668	67.59300	21.27950	112.00000	0.0	0.0	0.0	0.0 d
1.3150	68.03100	21.29675	112.00000	0.0	0.0	0.0	0.0 d
1.7534	68.46900	21.31400	112.00000	0.0	0.0	0.0	0.0 d

d - Displacements include imported displacements.

Structure: TA12 | Sub-structure: TA12

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]



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[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	68.46900	21.31400	112.00000	0.0	0.0	0.0	0.0 d
0.36190	68.71275	21.04650	112.00000	0.0	0.0	0.0	0.0 d
0.72380	68.95650	20.77900	112.00000	0.0	0.0	0.0	0.0 d
1.0857	69.20025	20.51150	112.00000	0.0	0.0	0.0	0.0 d
1.4476	69.44400	20.24400	112.00000	0.0	0.0	0.0	0.0 d

Structure: TA13 | Sub-structure: TA13

Dist.	Coordinates			Displacements	
	x	y	z	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	69.44400	20.24400	112.00000	0.0	0.0
0.36732	69.42517	19.87717	112.00000	0.0	0.0
0.73463	69.40633	19.51033	112.00000	0.0	0.0
1.1019	69.38750	19.14350	112.00000	0.0	0.0
1.4693	69.36867	18.77667	112.00000	0.0	0.0
1.8366	69.34983	18.40983	112.00000	0.0	0.0
2.2039	69.33100	18.04300	112.00000	0.0	0.0

Structure: TA14 | Sub-structure: TA14

Dist.	Coordinates			Displacements	
	x	y	z	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	69.33100	18.04300	112.00000	0.0	0.0
0.31304	69.12250	17.80950	112.00000	0.0	0.0
0.62608	68.91400	17.57600	112.00000	0.0	0.0
0.93912	68.70550	17.34250	112.00000	0.0	0.0
1.2522	68.49700	17.10900	112.00000	0.0	0.0

Structure: TA15 | Sub-structure: TA15

Dist.	Coordinates			Displacements	
	x	y	z	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	68.49700	17.10900	112.00000	0.0	0.0
0.28210	68.21650	17.13900	112.00000	0.0	0.0
0.56420	67.93600	17.16900	112.00000	0.0	0.0

Structure: TA16 | Sub-structure: TA16

Dist.	Coordinates			Displacements	
	x	y	z	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	67.93600	17.16900	112.00000	0.0	0.0
0.42452	67.93142	16.74450	112.00000	0.0	0.0
0.84905	67.92683	16.32000	112.00000	0.0	0.0
1.2736	67.92225	15.89550	112.00000	0.0	0.0
1.6981	67.91767	15.47100	112.00000	0.0	0.0
2.1226	67.91308	15.04650	112.00000	0.0	0.0
2.5471	67.90850	14.62200	112.00000	0.0	0.0
2.9717	67.90392	14.19750	112.00000	0.0	0.0
3.3962	67.89933	13.77300	112.00000	0.0	0.0
3.8207	67.89475	13.34850	112.00000	0.0	0.0
4.2452	67.89017	12.92400	112.00000	0.0	0.0
4.6698	67.88558	12.49950	112.00000	0.0	0.0
5.0943	67.88100	12.07500	112.00000	0.0	0.0

Structure: TA17 | Sub-structure: TA17

Dist.	Coordinates			Displacements	
	x	y	z	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	67.88100	12.07500	112.00000	0.0	0.0
0.47100	67.41000	12.07387	112.00000	0.0	0.0
0.94200	66.93900	12.07273	112.00000	0.0	0.0
1.4130	66.46800	12.07160	112.00000	0.0	0.0
1.8840	65.99700	12.07047	112.00000	0.0	0.0
2.3550	65.52600	12.06933	112.00000	0.0	0.0
2.8260	65.05500	12.06820	112.00000	0.0	0.0
3.2970	64.58400	12.06707	112.00000	0.0	0.0
3.7680	64.11300	12.06593	112.00000	0.0	0.0
4.2390	63.64200	12.06480	112.00000	0.0	0.0
4.7100	63.17100	12.06367	112.00000	0.0	0.0
5.1810	62.70000	12.06253	112.00000	0.0	0.0
5.6520	62.22900	12.06140	112.00000	0.0	0.0
6.1230	61.75800	12.06027	112.00000	0.0	0.0
6.5940	61.28700	12.05913	112.00000	0.0	0.0
7.0650	60.81600	12.05800	112.00000	0.0	0.0
7.5360	60.34500	12.05687	112.00000	0.0	0.0
8.0070	59.87400	12.05573	112.00000	0.0	0.0
8.4780	59.40300	12.05460	112.00000	0.0	0.0
8.9490	58.93200	12.05347	112.00000	0.0	0.0
9.4200	58.46100	12.05233	112.00000	0.0	0.0
9.8910	57.99000	12.05120	112.00000	0.0	0.0
10.362	57.51900	12.05007	112.00000	0.0	0.0
10.833	57.04800	12.04893	112.00000	0.0	0.0
11.304	56.57700	12.04780	112.00000	0.0	0.0
11.775	56.10600	12.04667	112.00000	0.0	0.0
12.246	55.63500	12.04553	112.00000	0.0	0.0
12.717	55.16400	12.04440	112.00000	0.0	0.0
13.188	54.69300	12.04327	112.00000	0.0	0.0
13.659	54.22200	12.04213	112.00000	0.0	0.0
14.130	53.75100	12.04100	112.00000	0.0	0.0

Structure: TA18 | Sub-structure: TA18

Dist.	Coordinates			Displacements	
	x	y	z	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]
0.0	53.75100	12.04100	112.00000	0.0	0.0
0.45295	53.43550	12.36500	112.00000	0.0	0.0
0.90590	53.12000	12.69100	112.00000	0.0	0.0
1.3589	52.80450	13.01600	112.00000	0.0	0.0
1.8118	52.48900	13.34100	112.00000	0.0	0.0
2.2648	52.17350	13.66600	112.00000	0.0	0.0
2.7177	51.85800	13.99100	112.00000	0.0	0.0



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Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
2.2533	49.70800	39.16433	112.00000	0.85530	0.74895	0.74895
2.7040	49.70800	39.61500	112.00000	0.96364	0.72886	0.72886
3.1547	49.70800	40.06567	112.00000	1.0819	0.70030	0.70030
3.6053	49.70800	40.51633	112.00000	1.2105	0.66281	0.66281
4.0560	49.70800	40.96700	112.00000	1.3493	0.61604	0.61604
4.5067	49.70800	41.41767	112.00000	1.4880	0.56983	0.56983
4.9573	49.70800	41.86833	112.00000	1.6268	0.52362	0.52362
5.4080	49.70800	42.31900	112.00000	1.7656	0.47741	0.47741

Structure: TA25 | Sub-structure: TA25

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]
0.0	49.70800	42.31900	112.00000	1.8218	0.41975	0.41975
0.45067	50.15867	42.31900	112.00000	1.9442	0.50437	0.50437
0.90133	50.60933	42.31900	112.00000	2.0666	0.58894	0.58894
1.35200	51.06000	42.31900	112.00000	2.1890	0.67351	0.67351
1.8027	51.51067	42.31900	112.00000	2.3114	0.75808	0.75808
2.2533	51.96133	42.31900	112.00000	2.4338	0.84265	0.84265
2.7040	52.41200	42.31900	112.00000	2.5562	0.92722	0.92722
3.1547	52.86267	42.31900	112.00000	2.6786	1.01179	1.01179
3.6053	53.31333	42.31900	112.00000	2.8010	1.09636	1.09636
4.0560	53.76400	42.31900	112.00000	2.9234	1.18093	1.18093
4.5067	54.21467	42.31900	112.00000	3.0458	1.26550	1.26550
4.9573	54.66533	42.31900	112.00000	3.1682	1.35007	1.35007
5.4080	55.11600	42.31900	112.00000	3.2906	1.43464	1.43464

Structure: TA26 | Sub-structure: TA26

Dist.	Coordinates			Displacements		
	x	y	z	x	y	z
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]
0.0	55.11600	42.31900	112.00000	0.33188	4.4249	4.4249
0.44987	55.11600	41.86913	112.00000	0.26138	4.2595	4.2595
0.89975	55.11600	41.41925	112.00000	0.21180	4.0938	4.0938
1.3496	55.11600	40.96937	112.00000	0.17491	3.9281	3.9281
1.7995	55.11600	40.51950	112.00000	0.14628	3.7623	3.7623
2.2494	55.11600	40.06963	112.00000	0.12333	3.5965	3.5965
2.6993	55.11600	39.61975	112.00000	0.10446	3.4307	3.4307
3.1491	55.11600	39.16987	112.00000	0.08861	3.2649	3.2649
3.5990	55.11600	38.72000	112.00000	0.07506	3.1001	3.1001

Specific Building Damage Results - Vertical Displacements

Structure: WH1 | Sub-structure: WH1

Dist.	Coordinates			Displacements
	x	y	z	
[m]	[m]	[m]	[mm]	
0.0	33.72700	64.63300	112.00000	0.052914
0.43260	34.15950	64.64242	112.00000	0.057631
0.86521	34.59200	64.65183	112.00000	0.062348
1.2978	35.02450	64.66125	112.00000	0.067065
1.7304	35.45700	64.67067	112.00000	0.071782
2.1630	35.88950	64.68008	112.00000	0.076499
2.5956	36.32200	64.68950	112.00000	0.081216
3.0282	36.75450	64.69892	112.00000	0.085933
3.4608	37.18700	64.70833	112.00000	0.090650
3.8934	37.61950	64.71775	112.00000	0.095367
4.3260	38.05200	64.72717	112.00000	0.100084
4.7586	38.48450	64.73658	112.00000	0.104801
5.1912	38.91700	64.74600	112.00000	0.109518

Structure: WH2 | Sub-structure: WH2

Dist.	Coordinates			Displacements
	x	y	z	
[m]	[m]	[m]	[mm]	
0.0	38.91700	64.74600	112.00000	0.13351
0.37347	39.03600	64.39200	112.00000	0.14062
0.74693	39.15500	64.03800	112.00000	0.14773

Structure: WH3 | Sub-structure: WH3

Dist.	Coordinates			Displacements
	x	y	z	
[m]	[m]	[m]	[mm]	
0.0	39.15500	64.03800	112.00000	0.14799
0.32830	39.48325	64.04400	112.00000	0.15610
0.65661	39.81150	64.05000	112.00000	0.16421
0.98491	40.13975	64.05600	112.00000	0.17232
1.3132	40.46800	64.06200	112.00000	0.18043

Structure: WH4 | Sub-structure: WH4

Dist.	Coordinates			Displacements
	x	y	z	
[m]	[m]	[m]	[mm]	
0.0	40.46800	64.06200	112.00000	0.18271
0.45411	40.44450	64.51550	112.00000	0.17459
0.90822	40.42100	64.96900	112.00000	0.16644

Structure: WH5 | Sub-structure: WH5

Dist.	Coordinates			Displacements
	x	y	z	
[m]	[m]	[m]	[mm]	
0.0	40.42100	64.96900	112.00000	0.16664
0.45043	40.87130	64.97990	112.00000	0.17868
0.90086	41.32160	64.99080	112.00000	0.19145
1.35129	41.77190	65.00170	112.00000	0.20422
1.8017	42.22220	65.01260	112.00000	0.21699
2.2522	42.67250	65.02350	112.00000	0.22976
2.7026	43.12280	65.03440	112.00000	0.24253
3.1530	43.57310	65.04530	112.00000	0.25530
3.6035	44.02340	65.05620	112.00000	0.26807
4.0539	44.47370	65.06710	112.00000	0.28084



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Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]

4.5043 44.92400 65.07800 112.00000 0.36589 d
d - Displacements include imported displacements.

Structure: WH6 | Sub-structure: WH6

Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]

Vertical Offset 1
0.0 44.92400 65.07800 112.00000 0.36589 d
0.42157 44.91650 64.65650 112.00000 0.38869 d
0.84313 44.90900 64.23500 112.00000 0.41320 d
d - Displacements include imported displacements.

Structure: WH7 | Sub-structure: WH7

Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]

Vertical Offset 1
0.0 44.90900 64.23500 112.00000 0.41320 d
0.46904 45.37800 64.24075 112.00000 0.44826 d
0.93807 45.84700 64.24650 112.00000 0.48589 d
1.4071 46.31600 64.25225 112.00000 0.52571 d
1.8761 46.78500 64.25800 112.00000 0.56723 d
d - Displacements include imported displacements.

Structure: WH8 | Sub-structure: WH8

Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]

Vertical Offset 1
0.0 46.78500 64.25800 112.00000 0.56723 d
0.35019 46.78067 64.60817 112.00000 0.53281 d
0.70039 46.77633 64.95833 112.00000 0.50086 d
1.0506 46.77200 65.30850 112.00000 0.47126 d
1.4008 46.76767 65.65867 112.00000 0.44389 d
1.7510 46.76333 66.00883 112.00000 0.41861 d
2.1012 46.75900 66.35900 112.00000 0.39525 d
d - Displacements include imported displacements.

Structure: WH9 | Sub-structure: WH9

Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]

Vertical Offset 1
0.0 46.75900 66.35900 112.00000 0.39525 d
0.43165 47.19050 66.37020 112.00000 0.41795 d
0.86329 47.62200 66.38140 112.00000 0.44097 d
1.2949 48.05350 66.39260 112.00000 0.46403 d
1.7266 48.48500 66.40380 112.00000 0.48682 d
2.1582 48.91650 66.41500 112.00000 0.50904 d
2.5899 49.34800 66.42620 112.00000 0.53038 d
3.0215 49.77950 66.43740 112.00000 0.55056 d
3.4532 50.21100 66.44860 112.00000 0.56935 d
3.8848 50.64250 66.45980 112.00000 0.58656 d
4.3165 51.07400 66.47100 112.00000 0.60206 d
d - Displacements include imported displacements.

Structure: WH10 | Sub-structure: WH10

Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]

Vertical Offset 1
0.0 51.07400 66.47100 112.00000 0.60206 d
0.46479 51.08821 66.00643 112.00000 0.65229 d
0.92958 51.10243 65.54186 112.00000 0.70898 d
1.3944 51.11664 65.07729 112.00000 0.77313 d
1.8592 51.13086 64.61271 112.00000 0.84586 d
2.3239 51.14507 64.14814 112.00000 0.92833 d
2.7887 51.15929 63.68357 112.00000 1.02118 d
3.2535 51.17350 63.21900 112.00000 1.12275 d
3.7183 51.18771 62.75443 112.00000 1.2468 d
4.1831 51.20193 62.28986 112.00000 1.3809 d
4.6479 51.21614 61.82529 112.00000 1.5313 d
5.1127 51.23036 61.36071 112.00000 1.7016 d
5.5775 51.24457 60.89614 112.00000 1.8940 d
6.0423 51.25879 60.43157 112.00000 2.1070 d
6.5070 51.27300 59.96700 112.00000 2.3425 d
d - Displacements include imported displacements.

Structure: WH11 | Sub-structure: WH11

Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]

Vertical Offset 1
0.0 51.27300 59.96700 112.00000 2.3425 d
0.37506 50.89800 59.97350 112.00000 2.2657 d
0.75011 50.52300 59.98000 112.00000 2.1904 d
d - Displacements include imported displacements.

Structure: WH12 | Sub-structure: WH12

Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]

Vertical Offset 1
0.0 50.52300 59.98000 112.00000 2.1904 d
0.43756 50.51550 59.54250 112.00000 2.4267 d
0.87513 50.50800 59.10500 112.00000 2.6767 d
1.3127 50.50050 58.66750 112.00000 2.9371 d
1.7503 50.49300 58.23000 112.00000 3.2035 d
d - Displacements include imported displacements.

Structure: WH13 | Sub-structure: WH13

Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]

Vertical Offset 1
0.0 50.49300 58.23000 112.00000 3.2035 d
0.40721 50.89950 58.25400 112.00000 3.3938 d
0.81442 51.30600 58.27800 112.00000 3.5641 d
d - Displacements include imported displacements.

Structure: WH14 | Sub-structure: WH14

Dist.	Coordinates			Displacements
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[m] x [m] y [m] z [m] z [mm]

Vertical Offset 1

Table with columns: Dist., x, y, z, z. Contains 15 rows of coordinate data for structure WH15.

Structure: WH15 | Sub-structure: WH15

Dist. Coordinates Displacements [m] [m] [m] [m] [mm]

Vertical Offset 1

Table with columns: Dist., x, y, z, z. Contains 15 rows of coordinate data for structure WH16.

Structure: WH16 | Sub-structure: WH16

Dist. Coordinates Displacements [m] [m] [m] [m] [mm]

Vertical Offset 1

Table with columns: Dist., x, y, z, z. Contains 15 rows of coordinate data for structure WH17.

Structure: WH17 | Sub-structure: WH17

Dist. Coordinates Displacements [m] [m] [m] [m] [mm]

Vertical Offset 1

Table with columns: Dist., x, y, z, z. Contains 15 rows of coordinate data for structure WH18.

Structure: WH18 | Sub-structure: WH18

Dist. Coordinates Displacements [m] [m] [m] [m] [mm]

Vertical Offset 1

Table with columns: Dist., x, y, z, z. Contains 15 rows of coordinate data for structure WH19.

Structure: WH19 | Sub-structure: WH19

Dist. Coordinates Displacements [m] [m] [m] [m] [mm]

Vertical Offset 1

Table with columns: Dist., x, y, z, z. Contains 15 rows of coordinate data for structure WH20.

Structure: WH20 | Sub-structure: WH20

Dist. Coordinates Displacements [m] [m] [m] [m] [mm]

Vertical Offset 1

Table with columns: Dist., x, y, z, z. Contains 15 rows of coordinate data for structure WH21.

Structure: WH21 | Sub-structure: WH21

Dist. Coordinates Displacements [m] [m] [m] [m] [mm]

Vertical Offset 1

Table with columns: Dist., x, y, z, z. Contains 15 rows of coordinate data for structure WH22.



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Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Structure: WH22 | Sub-structure: WH22

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1

0.0	39.24500	54.87900	112.00000	0.25813 d
0.39975	39.26950	54.48000	112.00000	0.26202 d
0.79950	39.29400	54.08100	112.00000	0.26566 d

d - Displacements include imported displacements.

Structure: WH23 | Sub-structure: WH23

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1

0.0	39.29400	54.08100	112.00000	0.26566 d
0.44319	38.85100	54.06792	112.00000	0.24544 d
0.88639	38.40800	54.05483	112.00000	0.22670 d
1.3296	37.96500	54.04175	112.00000	0.20934 d
1.7728	37.52200	54.02867	112.00000	0.19324 d
2.2160	37.07900	54.01558	112.00000	0.17831 d
2.6592	36.63600	54.00250	112.00000	0.16446 d
3.1024	36.19300	53.98942	112.00000	0.15160 d
3.5455	35.75000	53.97633	112.00000	0.13966 d
3.9887	35.30700	53.96325	112.00000	0.12857 d
4.4319	34.86400	53.95017	112.00000	0.11827 d
4.8751	34.42100	53.93708	112.00000	0.10870 d
5.3183	33.97800	53.92400	112.00000	0.099809 d

d - Displacements include imported displacements.

Structure: WH24 | Sub-structure: WH24

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1

0.0	33.97800	53.92400	112.00000	0.099809 d
0.48691	33.96659	54.41077	112.00000	0.098597 d
0.97381	33.95518	54.89755	112.00000	0.097249 d
1.4607	33.94377	55.38432	112.00000	0.095771 d
1.9476	33.93236	55.87109	112.00000	0.094168 d
2.4345	33.92095	56.35786	112.00000	0.092447 d
2.9214	33.90955	56.84464	112.00000	0.090617 d
3.4083	33.89814	57.33141	112.00000	0.088685 d
3.8953	33.88673	57.81818	112.00000	0.086657 d
4.3822	33.87532	58.30495	112.00000	0.084544 d
4.8691	33.86391	58.79173	112.00000	0.082352 d
5.3560	33.85250	59.27850	112.00000	0.080091 d
5.8429	33.84109	59.76527	112.00000	0.077768 d
6.3298	33.82968	60.25205	112.00000	0.075392 d
6.8167	33.81827	60.73882	112.00000	0.072971 d
7.3036	33.80686	61.22559	112.00000	0.070513 d
7.7905	33.79545	61.71236	112.00000	0.068027 d
8.2774	33.78405	62.19914	112.00000	0.065519 d
8.7643	33.77264	62.68591	112.00000	0.062998 d
9.2512	33.76123	63.17268	112.00000	0.060470 d
9.7381	33.74982	63.65945	112.00000	0.057942 d
10.225	33.73841	64.14623	112.00000	0.055422 d
10.712	33.72700	64.63300	112.00000	0.052914 d

d - Displacements include imported displacements.

Structure: TA1 | Sub-structure: TA1

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1

0.0	55.11600	38.72000	112.00000	3.1018 d
0.47510	55.59110	38.71843	112.00000	3.9496 d
0.95021	56.06620	38.71687	112.00000	4.0253 d
1.4253	56.54130	38.71530	112.00000	4.0991 d
1.9004	57.01640	38.71373	112.00000	4.1705 d
2.3755	57.49150	38.71217	112.00000	4.2390 d
2.8506	57.96660	38.71060	112.00000	4.3043 d
3.3257	58.44170	38.70903	112.00000	4.3663 d
3.8008	58.91680	38.70747	112.00000	4.4247 d
4.2759	59.39190	38.70590	112.00000	4.4796 d
4.7510	59.86700	38.70433	112.00000	4.5310 d
5.2261	60.34210	38.70277	112.00000	4.5790 d
5.7012	60.81720	38.70120	112.00000	4.6235 d
6.1763	61.29230	38.69963	112.00000	4.6647 d
6.6514	61.76740	38.69807	112.00000	4.7025 d
7.1265	62.24250	38.69650	112.00000	4.7371 d
7.6016	62.71760	38.69493	112.00000	4.7685 d
8.0767	63.19270	38.69337	112.00000	4.7966 d
8.5518	63.66780	38.69180	112.00000	4.8216 d
9.0269	64.14290	38.69023	112.00000	4.8435 d
9.5021	64.61800	38.68867	112.00000	4.8622 d
9.9772	65.09310	38.68710	112.00000	4.8779 d
10.4523	65.56820	38.68553	112.00000	4.8906 d
10.9274	66.04330	38.68397	112.00000	4.9002 d
11.4025	66.51840	38.68240	112.00000	4.9068 d
11.8776	66.99350	38.68083	112.00000	4.9103 d
12.3527	67.46860	38.67927	112.00000	4.9107 d
12.8278	67.94370	38.67770	112.00000	4.9080 d
13.3029	68.41880	38.67613	112.00000	4.9020 d
13.7780	68.89390	38.67457	112.00000	4.8928 d
14.2531	69.36900	38.67300	112.00000	4.8803 d

d - Displacements include imported displacements.

Structure: TA2 | Sub-structure: TA2

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]

Vertical Offset 1

0.0	69.36900	38.67300	112.00000	4.8803 d
0.42319	69.36442	38.24983	112.00000	4.4917 d
0.84638	69.35983	37.82667	112.00000	4.1343 d
1.2696	69.35525	37.40350	112.00000	3.7947 d
1.6928	69.35067	36.98033	112.00000	3.4700 d
2.1160	69.34608	36.55717	112.00000	3.1607 d
2.5391	69.34150	36.13400	112.00000	2.8680 d
2.9623	69.33692	35.71083	112.00000	2.5925 d
3.3855	69.33233	35.28767	112.00000	2.3350 d
3.8087	69.32775	34.86450	112.00000	2.0960 d
4.2319	69.32317	34.44133	112.00000	1.8761 d
4.6551	69.31858	34.01817	112.00000	1.6752 d
5.0783	69.31400	33.59500	112.00000	1.4935 d

d - Displacements include imported displacements.

Structure: TA3 | Sub-structure: TA3

Dist.	Coordinates			Displacements
[m]	x [m]	y [m]	z [m]	z [mm]



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Vertical Offset 1
 0.0 69.31400 33.59500 112.00000 1.4935 d
 0.34494 69.65750 33.56350 112.00000 1.4772 d
 0.68988 70.00100 33.53200 112.00000 1.4605 d
 d - Displacements include imported displacements.

Structure: TA4 | Sub-structure: TA4

Dist.	Coordinates			Displacements	
[m]	x [m]	y [m]	z [m]	z [mm]	

Vertical Offset 1
 0.0 70.00100 33.53200 112.00000 1.4605 d
 0.28803 70.21225 33.33950 112.00000 1.3827 d
 0.57605 70.42950 33.14700 112.00000 1.3087 d
 0.86408 70.64375 32.95450 112.00000 1.2385 d
 1.1521 70.85800 32.76200 112.00000 1.1719 d
 d - Displacements include imported displacements.

Structure: TA5 | Sub-structure: TA5

Dist.	Coordinates			Displacements	
[m]	x [m]	y [m]	z [m]	z [mm]	

Vertical Offset 1
 0.0 70.85800 32.76200 112.00000 1.1719 d
 0.49988 70.84650 32.26225 112.00000 1.0243 d
 0.99976 70.83500 31.76250 112.00000 0.89907 d
 1.4996 70.82350 31.26275 112.00000 0.79400 d
 1.9995 70.81200 30.76300 112.00000 0.70623 d
 d - Displacements include imported displacements.

Structure: TA6 | Sub-structure: TA6

Dist.	Coordinates			Displacements	
[m]	x [m]	y [m]	z [m]	z [mm]	

Vertical Offset 1
 0.0 70.81200 30.76300 112.00000 0.70623 d
 0.27366 70.62000 30.56800 112.00000 0.67791 d
 0.54732 70.42800 30.37300 112.00000 0.65126 d
 0.82098 70.23600 30.17800 112.00000 0.62605 d
 1.0946 70.04400 29.98300 112.00000 0.60204 d
 d - Displacements include imported displacements.

Structure: TA7 | Sub-structure: TA7

Dist.	Coordinates			Displacements	
[m]	x [m]	y [m]	z [m]	z [mm]	

Vertical Offset 1
 0.0 70.04400 29.98300 112.00000 0.60204 d
 0.43761 69.60650 29.99300 112.00000 0.60647 d
 0.87523 69.16900 30.00300 112.00000 0.61041 d
 1.3128 68.73150 30.01300 112.00000 0.61384 d
 1.7505 68.29400 30.02300 112.00000 0.61677 d
 d - Displacements include imported displacements.

Structure: TA8 | Sub-structure: TA8

Dist.	Coordinates			Displacements	
[m]	x [m]	y [m]	z [m]	z [mm]	

Vertical Offset 1
 0.0 68.29400 30.02300 112.00000 0.61677 d
 0.45429 68.29250 29.56871 112.00000 0.55989 d
 0.90858 68.29100 29.11443 112.00000 0.50570 d
 1.3629 68.28950 28.66014 112.00000 0.45016 d
 1.8172 68.28800 28.20586 112.00000 0.38584 d
 2.2714 68.28650 27.75157 112.00000 0.35654 d
 2.7257 68.28500 27.29729 112.00000 0.32968 d
 3.1800 68.28350 26.84300 112.00000 0.30480 d
 3.6343 68.28200 26.38871 112.00000 0.28174 d
 4.0886 68.28050 25.93443 112.00000 0.26035 d
 4.5429 68.27900 25.48014 112.00000 0.24052 d
 4.9972 68.27750 25.02586 112.00000 0.22211 d
 5.4515 68.27600 24.57157 112.00000 0.20504 d
 5.9057 68.27450 24.11729 112.00000 0.18928 d
 6.3600 68.27300 23.66300 112.00000 0.17447 d
 d - Displacements include imported displacements.

Structure: TA9 | Sub-structure: TA9

Dist.	Coordinates			Displacements	
[m]	x [m]	y [m]	z [m]	z [mm]	

Vertical Offset 1
 0.0 68.27300 23.66300 112.00000 0.17447 d
 0.39075 67.88225 23.66200 112.00000 0.17481 d
 0.78150 67.49150 23.66100 112.00000 0.17503 d
 1.1723 67.10075 23.66000 112.00000 0.17511 d
 1.5630 66.71000 23.65900 112.00000 0.17507 d
 d - Displacements include imported displacements.

Structure: TA10 | Sub-structure: TA10

Dist.	Coordinates			Displacements	
[m]	x [m]	y [m]	z [m]	z [mm]	

Vertical Offset 1
 0.0 66.71000 23.65900 112.00000 0.17507 d
 0.40234 66.71117 23.25667 112.00000 0.16287 d
 0.80467 66.71233 22.85433 112.00000 0.15145 d
 1.2070 66.71350 22.45200 112.00000 0.14074 d
 1.6093 66.71467 22.04967 112.00000 0.13071 d
 2.0117 66.71583 21.64733 112.00000 0.12132 d
 2.4140 66.71700 21.24500 112.00000 0.11251 d
 d - Displacements include imported displacements.

Structure: TA11 | Sub-structure: TA11

Dist.	Coordinates			Displacements	
[m]	x [m]	y [m]	z [m]	z [mm]	

Vertical Offset 1
 0.0 66.71700 21.24500 112.00000 0.11251 d
 0.43834 67.15500 21.26225 112.00000 0.11287 d
 0.87668 67.59300 21.27950 112.00000 0.11313 d
 1.3150 68.03100 21.29675 112.00000 0.11329 d
 1.7534 68.46900 21.31400 112.00000 0.11333 d
 d - Displacements include imported displacements.



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Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]

Structure: TA12 | Sub-structure: TA12

Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]

Vertical Offset 1

0.0	68.46900	21.31400	112.00000	0.11333	d
0.36190	68.71275	21.04650	112.00000	0.10754	d
0.72380	68.95650	20.77900	112.00000	0.10197	d
1.0857	69.20025	20.51150	112.00000	0.096616	d
1.4476	69.44400	20.24400	112.00000	0.091476	d

d - Displacements include imported displacements.

Structure: TA13 | Sub-structure: TA13

Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]

Vertical Offset 1

0.0	69.44400	20.24400	112.00000	0.091476	d
0.36732	69.42517	19.87717	112.00000	0.085161	d
0.73463	69.40633	19.51033	112.00000	0.079204	d
1.1019	69.38750	19.14350	112.00000	0.073586	d
1.4693	69.36867	18.77667	112.00000	0.068287	d
1.8366	69.34983	18.40983	112.00000	0.063289	d
2.2039	69.33100	18.04300	112.00000	0.058575	d

d - Displacements include imported displacements.

Structure: TA14 | Sub-structure: TA14

Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]

Vertical Offset 1

0.0	69.33100	18.04300	112.00000	0.058575	d
0.31304	69.12250	17.80950	112.00000	0.055849	d
0.62608	68.91400	17.57600	112.00000	0.053203	d
0.93912	68.70550	17.34250	112.00000	0.050638	d
1.2522	68.49700	17.10900	112.00000	0.048151	d

d - Displacements include imported displacements.

Structure: TA15 | Sub-structure: TA15

Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]

Vertical Offset 1

0.0	68.49700	17.10900	112.00000	0.048151	d
0.28210	68.21650	17.13900	112.00000	0.048585	d
0.56420	67.93600	17.16900	112.00000	0.049000	d

d - Displacements include imported displacements.

Structure: TA16 | Sub-structure: TA16

Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]

Vertical Offset 1

0.0	67.93600	17.16900	112.00000	0.049000	d
0.42452	67.93142	16.74450	112.00000	0.044489	d
0.84905	67.92683	16.32000	112.00000	0.040276	d
1.2736	67.92225	15.89550	112.00000	0.036340	d
1.6981	67.91767	15.47100	112.00000	0.032664	d
2.1226	67.91308	15.04650	112.00000	0.029231	d
2.5471	67.90850	14.62200	112.00000	0.026026	d
2.9717	67.90392	14.19750	112.00000	0.023032	d
3.3962	67.89933	13.77300	112.00000	0.020238	d
3.8207	67.89475	13.34850	112.00000	0.017630	d
4.2452	67.89017	12.92400	112.00000	0.015197	d
4.6698	67.88558	12.49950	112.00000	0.012927	d
5.0943	67.88100	12.07500	112.00000	0.010809	d

d - Displacements include imported displacements.

Structure: TA17 | Sub-structure: TA17

Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]

Vertical Offset 1

0.0	67.88100	12.07500	112.00000	0.010809	d
0.47100	67.41000	12.07387	112.00000	0.010842	d
0.94200	66.93900	12.07273	112.00000	0.010852	d
1.41300	66.46800	12.07160	112.00000	0.010839	d
1.8840	65.99700	12.07047	112.00000	0.010804	d
2.3550	65.52600	12.06933	112.00000	0.010745	d
2.8260	65.05500	12.06820	112.00000	0.010664	d
3.2970	64.58400	12.06707	112.00000	0.010560	d
3.7680	64.11300	12.06593	112.00000	0.010434	d
4.2390	63.64200	12.06480	112.00000	0.010286	d
4.7100	63.17100	12.06367	112.00000	0.010117	d
5.1810	62.70000	12.06253	112.00000	0.0099263	d
5.6520	62.22900	12.06140	112.00000	0.0097152	d
6.1230	61.75800	12.06027	112.00000	0.0094841	d
6.5940	61.28700	12.05913	112.00000	0.0092334	d
7.0650	60.81600	12.05800	112.00000	0.0089638	d
7.5360	60.34500	12.05687	112.00000	0.0086759	d
8.0070	59.87400	12.05573	112.00000	0.0083705	d
8.4780	59.40300	12.05460	112.00000	0.0080482	d
8.9490	58.93200	12.05347	112.00000	0.0077099	d
9.4200	58.46100	12.05233	112.00000	0.0073562	d
9.8910	57.99000	12.05120	112.00000	0.0069882	d
10.362	57.51900	12.05007	112.00000	0.0066065	d
10.833	57.04800	12.04893	112.00000	0.0062121	d
11.304	56.57700	12.04780	112.00000	0.0058059	d
11.775	56.10600	12.04667	112.00000	0.0053887	d
12.246	55.63500	12.04553	112.00000	0.0049616	d
12.717	55.16400	12.04440	112.00000	0.0045253	d
13.188	54.69300	12.04327	112.00000	0.0040810	d
13.659	54.22200	12.04213	112.00000	0.0036294	d
14.130	53.75100	12.04100	112.00000	0.0031716	d

d - Displacements include imported displacements.

Structure: TA18 | Sub-structure: TA18

Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]

Vertical Offset 1

0.0	53.75100	12.04100	112.00000	0.0031716	d
0.45295	53.43550	12.36600	112.00000	0.0039777	d
0.90590	53.12000	12.69100	112.00000	0.0048017	d
1.35889	52.80450	13.01600	112.00000	0.0056481	d
1.8118	52.48900	13.34100	112.00000	0.0065011	d
2.2648	52.17350	13.66600	112.00000	0.0073750	d
2.7177	51.85800	13.99100	112.00000	0.0082640	d



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Dist.	Coordinates			Displacements	
[m]	x [m]	y [m]	z [m]	z [mm]	

d - Displacements include imported displacements.

Structure: TA19 | Sub-structure: TA19

Dist.	Coordinates			Displacements	
[m]	x [m]	y [m]	z [m]	z [mm]	

Vertical Offset 1

0.0	51.85800	13.99100	112.00000	0.0082640	d
0.49160	51.86150	14.48258	112.00000	0.010386	d
0.98319	51.86500	14.97417	112.00000	0.012675	d
1.4748	51.86850	15.46575	112.00000	0.015143	d
1.9664	51.87200	15.95733	112.00000	0.017804	d
2.4580	51.87550	16.44892	112.00000	0.020671	d
2.9496	51.87900	16.94050	112.00000	0.023759	d
3.4412	51.88250	17.43208	112.00000	0.027085	d
3.9328	51.88600	17.92367	112.00000	0.030665	d
4.4244	51.88950	18.41525	112.00000	0.034517	d
4.9160	51.89300	18.90683	112.00000	0.038663	d
5.4076	51.89650	19.39842	112.00000	0.043121	d
5.8991	51.90000	19.89000	112.00000	0.047916	d
6.3907	51.90350	20.38158	112.00000	0.053072	d
6.8823	51.90700	20.87317	112.00000	0.058615	d
7.3739	51.91050	21.36475	112.00000	0.064573	d
7.8655	51.91400	21.85633	112.00000	0.070976	d
8.3571	51.91750	22.34792	112.00000	0.077858	d
8.8487	51.92100	22.83950	112.00000	0.085252	d
9.3403	51.92450	23.33108	112.00000	0.093196	d
9.8319	51.92800	23.82267	112.00000	0.10173	d
10.3234	51.93150	24.31425	112.00000	0.11090	d
10.815	51.93500	24.80583	112.00000	0.12075	d
11.307	51.93850	25.29742	112.00000	0.13133	d
11.798	51.94200	25.78900	112.00000	0.14269	d

d - Displacements include imported displacements.

Structure: TA20 | Sub-structure: TA20

Dist.	Coordinates			Displacements	
[m]	x [m]	y [m]	z [m]	z [mm]	

Vertical Offset 1

0.0	51.94200	25.78900	112.00000	0.14269	d
0.33924	52.17700	26.03367	112.00000	0.15142	d
0.67849	52.41200	26.27833	112.00000	0.16061	d
1.0177	52.64700	26.52300	112.00000	0.17029	d
1.3570	52.88200	26.76767	112.00000	0.18048	d
1.6962	53.11700	27.01233	112.00000	0.19122	d
2.0355	53.35200	27.25700	112.00000	0.20253	d

d - Displacements include imported displacements.

Structure: TA21 | Sub-structure: TA21

Dist.	Coordinates			Displacements	
[m]	x [m]	y [m]	z [m]	z [mm]	

Vertical Offset 1

0.0	53.35200	27.25700	112.00000	0.20253	d
0.48283	53.36310	27.73970	112.00000	0.21936	d
0.96566	53.37420	28.22240	112.00000	0.23748	d
1.4485	53.38530	28.70510	112.00000	0.26927	d
1.9313	53.39640	29.18780	112.00000	0.30755	d
2.4141	53.40750	29.67050	112.00000	0.34305	d
2.8970	53.41860	30.15320	112.00000	0.37897	d
3.3798	53.42970	30.63590	112.00000	0.41813	d
3.8626	53.44080	31.11860	112.00000	0.46305	d
4.3454	53.45190	31.60130	112.00000	0.51587	d
4.8283	53.46300	32.08400	112.00000	0.57819	d
5.3111	53.47410	32.56670	112.00000	0.65208	d
5.7939	53.48520	33.04940	112.00000	0.73809	d
6.2768	53.49630	33.53210	112.00000	0.83719	d
6.7596	53.50740	34.01480	112.00000	0.94987	d
7.2424	53.51850	34.49750	112.00000	1.0763	d
7.7252	53.52960	34.98020	112.00000	1.2162	d
8.2081	53.54070	35.46290	112.00000	1.3692	d
8.6909	53.55180	35.94560	112.00000	1.5345	d
9.1737	53.56290	36.42830	112.00000	1.7111	d
9.6566	53.57400	36.91100	112.00000	1.8975	d

d - Displacements include imported displacements.

Structure: TA22 | Sub-structure: TA22

Dist.	Coordinates			Displacements	
[m]	x [m]	y [m]	z [m]	z [mm]	

Vertical Offset 1

0.0	53.57400	36.91100	112.00000	1.8975	d
0.39617	53.83100	37.21250	112.00000	2.0712	d
0.79234	54.08800	37.51400	112.00000	2.2542	d
1.1885	54.34500	37.81550	112.00000	2.4466	d
1.5847	54.60200	38.11700	112.00000	2.6486	d
1.9809	54.85900	38.41850	112.00000	2.8628	d
2.3770	55.11600	38.72000	112.00000	3.1018	d

d - Displacements include imported displacements.

Structure: TA23 | Sub-structure: TA23

Dist.	Coordinates			Displacements	
[m]	x [m]	y [m]	z [m]	z [mm]	

Vertical Offset 1

0.0	53.57400	36.91100	112.00000	1.8975	d
0.48325	53.09075	36.91100	112.00000	1.7992	d
0.96650	52.60750	36.91100	112.00000	1.6975	d
1.4498	52.12425	36.91100	112.00000	1.5937	d
1.9330	51.64100	36.91100	112.00000	1.4890	d
2.4162	51.15775	36.91100	112.00000	1.3845	d
2.8995	50.67450	36.91100	112.00000	1.2813	d
3.3828	50.19125	36.91100	112.00000	1.1803	d
3.8660	49.70800	36.91100	112.00000	1.0826	d

d - Displacements include imported displacements.

Structure: TA24 | Sub-structure: TA24

Dist.	Coordinates			Displacements	
[m]	x [m]	y [m]	z [m]	z [mm]	

Vertical Offset 1

0.0	49.70800	36.91100	112.00000	1.0826	d
0.45067	49.70800	37.36167	112.00000	1.1780	d
0.90133	49.70800	37.81233	112.00000	1.2754	d
1.3520	49.70800	38.26300	112.00000	1.3737	d
1.8027	49.70800	38.71367	112.00000	1.4716	d
2.2533	49.70800	39.16433	112.00000	1.5710	d
2.7040	49.70800	39.61500	112.00000	1.6713	d
3.1547	49.70800	40.06567	112.00000	1.8467	d
3.6053	49.70800	40.51633	112.00000	1.9783	d
4.0560	49.70800	40.96700	112.00000	2.1111	d
4.5067	49.70800	41.41767	112.00000	2.2442	d



35 Templewood Avenue
Pool Transfer revision
CIRIA (Excavation and Installation) + Loading (Long Term)

Job No.	Sheet No.	Rev.
P1017J1129		
Drg. Ref.		
Made by JW	Date 13-Aug-2018	Checked

Dist.	Coordinates			Displacements
	x	y	z	
[m]	[m]	[m]	[mm]	
4.9573	49.70800	41.86833	112.00000	2.3765 d
5.4080	49.70800	42.31900	112.00000	2.5067 d

d - Displacements include imported displacements.

Structure: TA25 | Sub-structure: TA25

Dist.	Coordinates			Displacements
	x	y	z	
[m]	[m]	[m]	[mm]	
Vertical Offset 1				
0.0	49.70800	42.31900	112.00000	2.5067 d
0.45067	50.15867	42.31900	112.00000	2.7122 d
0.90133	50.60933	42.31900	112.00000	2.9150 d
1.3520	51.06000	42.31900	112.00000	3.1215 d
1.8027	51.51067	42.31900	112.00000	3.3368 d
2.2533	51.96133	42.31900	112.00000	3.5641 d
2.7040	52.41200	42.31900	112.00000	3.8048 d
3.1547	52.86267	42.31900	112.00000	4.0580 d
3.6053	53.31333	42.31900	112.00000	4.3256 d
4.0560	53.76400	42.31900	112.00000	4.7447 d
4.5067	54.21467	42.31900	112.00000	5.1896 d
4.9573	54.66533	42.31900	112.00000	5.6481 d
5.4080	55.11600	42.31900	112.00000	6.1026 d

d - Displacements include imported displacements.

Structure: TA26 | Sub-structure: TA26

Dist.	Coordinates			Displacements
	x	y	z	
[m]	[m]	[m]	[mm]	
Vertical Offset 1				
0.0	55.11600	42.31900	112.00000	6.1026 d
0.44987	55.11600	41.86913	112.00000	5.5657 d
0.89975	55.11600	41.41925	112.00000	5.0866 d
1.3496	55.11600	40.96937	112.00000	4.6222 d
1.7995	55.11600	40.51950	112.00000	4.2860 d
2.2494	55.11600	40.06963	112.00000	3.9504 d
2.6993	55.11600	39.61975	112.00000	3.6471 d
3.1491	55.11600	39.16987	112.00000	3.3675 d
3.5990	55.11600	38.72000	112.00000	3.1018 d

d - Displacements include imported displacements.

Specific Building Damage Results - All Segments

Structure: WH1 | Sub-structure: WH1

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	3.4608	1.7302	Hogging	56.632E-6	0.0	56.469E-6	0.0	-21.086E-6	355650.	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH2 | Sub-structure: WH2

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	0.74600	Hogging	18.328E-6	0.0	18.346E-6	0.0	-19.755E-6	504280.	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH3 | Sub-structure: WH3

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	1.3130	Hogging	59.230E-6	0.0	59.116E-6	0.0	-28.250E-6	261930.	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH4 | Sub-structure: WH4

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	0.90800	Hogging	9.3782E-6	0.0	9.4056E-6	0.0	17.884E-6	1.1983E+6	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH5 | Sub-structure: WH5

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	0.15479	Sagging	0.0	0.0	0.0	0.0	-26.728E-6	127370.	0 (Negligible)
	2	0.15479	1.4524	Hogging	534.12E-6	0.0048717	0.0049379	-106.99E-6	-50.529E-6	42843.	0 (Negligible)
	3	1.6072	0.73134	Sagging	49.735E-6	0.0099166	0.0099228	-106.99E-6	-46.738E-6	197660.	0 (Negligible)
	4	2.3386	2.1654	Hogging	187.62E-6	0.0073460	0.0073806	-88.179E-6	-55.844E-6	111730.	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH6 | Sub-structure: WH6

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	0.84300	Hogging	100.13E-6	-185.26E-6	75.495E-6	1.9017E-6	-58.133E-6	104190.	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH7 | Sub-structure: WH7

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	0.84300	Hogging	100.13E-6	-185.26E-6	75.495E-6	1.9017E-6	-58.133E-6	104190.	0 (Negligible)



35 Templewood Avenue

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CIRIA (Excavation and Installation) + Loading (Long Term)

Job No. Sheet No. Rev.

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Date 13-Aug-2018

Checked

Vertical Movement Calculations	Strain	Strain	Horizontal Displacement Curve	Displacement Curve	Curvature
[m] 0.0	[m] 1	[m] 0.0	[%] 1.8760	[%] Hogging	[%] 229.78E-6
			[%] 0.0039262	[%] 0.0039919	[%] -57.247E-6
					[%] -88.513E-6
					[m] 82842.0

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH8 | Sub-structure: WH8

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category	
[m] 0.0	1	[m] 0.0	[m] 2.1010	[%] Hogging	[%] 473.32E-6	[%] 135.43E-6	[%] 529.18E-6	[%] -1.5778E-6	[%] 98.286E-6	[m] 49141.0

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH9 | Sub-structure: WH9

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category	
[m] 0.0	1	[m] 0.0	[m] 0.90905	[%] Hogging	[%] 18.675E-6	[%] -840.89E-6	[%] 168.55E-6	[%] 23.901E-6	[%] -53.423E-6	[m] 477210.0
	2	[m] 0.90905	[m] 3.4070	[%] Sagging	[%] 257.77E-6	[%] -0.0064043	[%] 0.0012878	[%] 102.53E-6	[%] -53.423E-6	[m] 107260.0

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH10 | Sub-structure: WH10

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category	
[m] 0.0	1	[m] 0.0	[m] 6.5070	[%] Hogging	[%] 0.0053696	[%] 670.49E-6	[%] 0.0055194	[%] -16.882E-6	[%] -506.69E-6	[m] 9393.1

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH11 | Sub-structure: WH11

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category	
[m] 0.0	1	[m] 0.0	[m] 0.75000	[%] Hogging	[%] 100.88E-6	[%] -0.0045546	[%] 912.77E-6	[%] 59.086E-6	[%] 204.76E-6	[m] 91999.0

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH12 | Sub-structure: WH12

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category	
[m] 0.0	1	[m] 0.0	[m] 1.7500	[%] Hogging	[%] 0.0011547	[%] -0.0012543	[%] 869.07E-6	[%] 13.338E-6	[%] -608.85E-6	[m] 13320.0

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH13 | Sub-structure: WH13

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category	
[m] 0.0	1	[m] 0.0	[m] 0.81400	[%] Sagging	[%] 4.1209E-6	[%] 0.022714	[%] 0.022715	[%] -262.91E-6	[%] -442.85E-6	[m] 2.4453E+6

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH14 | Sub-structure: WH14

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category	
[m] 0.0	1	[m] 0.0	[m] 0.22416	[%] Sagging	[%] 0.0	[%] 0.0032864	[%] 0.0032864	[%] -32.863E-6	[%] -836.35E-6	[m] 1731.2
	2	[m] 0.22416	[m] 0.77419	[%] Hogging	[%] 0.010280	[%] 0.0038590	[%] 0.012066	[%] -85.940E-6	[%] -0.0019294	[m] 1660.4
	3	[m] 0.99835	[m] 5.4146	[%] Sagging	[%] 0.011407	[%] 661.41E-6	[%] 0.015273	[%] -85.940E-6	[%] -0.0019294	[m] 804.78

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH15 | Sub-structure: WH15

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category	
[m] 0.0	1	[m] 0.0	[m] 4.1900	[%] Hogging	[%] 0.0060373	[%] 0.054507	[%] 0.058231	[%] -707.55E-6	[%] 0.0011010	[m] 4126.6

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH16 | Sub-structure: WH16

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category	
[m] 0.0	1	[m] 0.0	[m] 3.3610	[%] Sagging	[%] 493.71E-6	[%] 14.455E-6	[%] 472.03E-6	[%] 0.0	[%] 58.195E-6	[m] 78209.0

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH17 | Sub-structure: WH17

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category	
[m] 0.0	1	[m] 0.0	[m] 4.1900	[%] Hogging	[%] 0.0060373	[%] 0.054507	[%] 0.058231	[%] -707.55E-6	[%] 0.0011010	[m] 4126.6



35 Templewood Avenue

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Job No. Sheet No. Rev.

P1017J1129

Org. Ref.

Made by JW

Date 13-Aug-2018

Checked

Movement Calculations							Displacement Curve		Curve	
[m]	[m]	[m]	[m]	[%]	[%]	[%]			[m]	
0.0	1	0.0	2.0030	Hogging	0.0023233	0.037447	0.037844	-374.33E-6	578.29E-6	10264.0

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH18 | Sub-structure: WH18

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]	[%]	[%]	[%]			[m]	
0.0	1	0.0	0.79700	Sagging	65.200E-6	11.567E-6	70.059E-6	0.0	-20.517E-6	151280.0

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH19 | Sub-structure: WH19

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]	[%]	[%]	[%]			[m]	
0.0	1	0.0	4.2540	Hogging	0.0040457	0.037466	0.038916	-374.52E-6	390.15E-6	10128.0

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH20 | Sub-structure: WH20

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]	[%]	[%]	[%]			[m]	
0.0	1	0.0	0.81200	Sagging	25.541E-6	12.792E-6	31.722E-6	0.0	8.3151E-6	393460.0

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH21 | Sub-structure: WH21

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]	[%]	[%]	[%]			[m]	
0.0	1	0.0	0.30975	Sagging	0.0	0.037424	0.037424	-374.10E-6	96.910E-6	147150.0
	2	0.30975	1.4433	Sagging	196.06E-6	0.034263	0.034311	-374.10E-6	105.33E-6	109830.0

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH22 | Sub-structure: WH22

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]	[%]	[%]	[%]			[m]	
0.0	1	0.0	0.79900	Sagging	15.064E-6	0.0	15.056E-6	0.0	-9.7192E-6	656730.0

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH23 | Sub-structure: WH23

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]	[%]	[%]	[%]			[m]	
0.0	1	0.0	4.8751	Hogging	328.27E-6	0.0	322.19E-6	0.0	45.627E-6	129440.0

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: WH24 | Sub-structure: WH24

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]	[%]	[%]	[%]			[m]	
0.0	All settlements are less than the Settlement Trough Limit Sensitivity.									

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA1 | Sub-structure: TA1

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]	[%]	[%]	[%]			[m]	
0.0	1	0.0	14.253	Sagging	0.0059595	-214.00E-6	0.0087913	65.779E-6	-0.0017845	233.980

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA2 | Sub-structure: TA2

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]	[%]	[%]	[%]			[m]	
0.0	1	0.0	5.0780	Hogging	0.0062680	0.040632	0.043616	-707.83E-6	917.63E-6	5196.60

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA3 | Sub-structure: TA3

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
[m]		[m]	[m]	[%]	[%]	[%]			[m]	
0.0	1	0.0	0.68900	Sagging	33.822E-6	235.87E-6	240.36E-6	-2.3587E-6	48.610E-6	252390.0

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.



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Pool Transfer revision

CIRIA (Excavation and Installation) + Loading (Long Term)

Job No. Sheet No. Rev.

P1017J1129

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JW

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13-Aug-2018

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Vertical Offset from Line for Vertical Movement	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
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Structure: TA4 | Sub-structure: TA4

Vertical Offset from Line for Vertical Movement	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
Calculations [m] 0.0		[m] [m]		[%]	[%]	[%]			[m]	
	1	0.0 1.1520	Hogging	642.96E-6	0.016302	0.016373	-162.99E-6	269.86E-6	21940.	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA5 | Sub-structure: TA5

Vertical Offset from Line for Vertical Movement	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
Calculations [m] 0.0		[m] [m]		[%]	[%]	[%]			[m]	
	1	0.0 1.9990	Hogging	0.0019912	0.037496	0.037877	-374.81E-6	295.27E-6	10862.	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA6 | Sub-structure: TA6

Vertical Offset from Line for Vertical Movement	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
Calculations [m] 0.0		[m] [m]		[%]	[%]	[%]			[m]	
	1	0.0 1.0940	Hogging	261.28E-6	0.019493	0.019520	-194.89E-6	103.47E-6	43364.	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA7 | Sub-structure: TA7

Vertical Offset from Line for Vertical Movement	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
Calculations [m] 0.0		[m] [m]		[%]	[%]	[%]			[m]	
	1	0.0 1.7500	Sagging	57.002E-6	4.3722E-6	58.115E-6	0.0	-10.122E-6	374180.	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA8 | Sub-structure: TA8

Vertical Offset from Line for Vertical Movement	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
Calculations [m] 0.0		[m] [m]		[%]	[%]	[%]			[m]	
	1	0.0 0.64756	Hogging	123.41E-6	0.037497	0.037505	-374.83E-6	125.17E-6	55677.	0 (Negligible)
	2	0.64756 0.42487	Sagging	70.421E-6	0.037497	0.037503	-374.83E-6	122.22E-6	91312.	0 (Negligible)
	3	1.0724 5.2876	Hogging	0.0011093	0.0052656	0.0058142	-374.83E-6	142.18E-6	12876.	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA9 | Sub-structure: TA9

Vertical Offset from Line for Vertical Movement	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
Calculations [m] 0.0		[m] [m]		[%]	[%]	[%]			[m]	
	1	0.0 1.5630	Sagging	16.599E-6	0.0	16.415E-6	0.0	0.0	1.1689E+6	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA10 | Sub-structure: TA10

Vertical Offset from Line for Vertical Movement	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
Calculations [m] 0.0		[m] [m]		[%]	[%]	[%]			[m]	
	1	0.0 2.4140	Hogging	125.86E-6	0.0	125.13E-6	0.0	30.317E-6	206260.	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA11 | Sub-structure: TA11

Vertical Offset from Line for Vertical Movement	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
Calculations [m] 0.0		[m] [m]		[%]	[%]	[%]			[m]	
	1	0.0 1.7530	Sagging	12.025E-6	0.0	11.909E-6	0.0	0.0	1.8007E+6	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA12 | Sub-structure: TA12

Vertical Offset from Line for Vertical Movement	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
Calculations [m] 0.0		[m] [m]		[%]	[%]	[%]			[m]	
	1	0.0 0.72380	Hogging	15.418E-6	0.0	15.414E-6	0.0	16.013E-6	576330.	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA13 | Sub-structure: TA13

Vertical Offset from Line for Vertical Movement	Segment	Start Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
Calculations [m] 0.0		[m] [m]		[%]	[%]	[%]			[m]	
	All settlements are less than the Settlement Trough Limit Sensitivity.									
	Tensile horizontal strains are +ve, compressive horizontal strains are -ve.									

Structure: TA14 | Sub-structure: TA14



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Vertical Offset from Line for Vertical Movement Calculations
 [m] 0.0
 All settlements are less than the Settlement Trough Limit Sensitivity.
 Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA15 | Sub-structure: TA15

Vertical Offset from Line for Vertical Movement Calculations
 [m] 0.0
 All settlements are less than the Settlement Trough Limit Sensitivity.
 Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA16 | Sub-structure: TA16

Vertical Offset from Line for Vertical Movement Calculations
 [m] 0.0
 All settlements are less than the Settlement Trough Limit Sensitivity.
 Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA17 | Sub-structure: TA17

Vertical Offset from Line for Vertical Movement Calculations
 [m] 0.0
 All settlements are less than the Settlement Trough Limit Sensitivity.
 Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA18 | Sub-structure: TA18

Vertical Offset from Line for Vertical Movement Calculations
 [m] 0.0
 All settlements are less than the Settlement Trough Limit Sensitivity.
 Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA19 | Sub-structure: TA19

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category	
[m] 0.0		1	9.8319	1.9661	Hogging	74.070E-6	0.0	73.779E-6	0.0	-23.118E-6	[m] 302650.	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA20 | Sub-structure: TA20

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category	
[m] 0.0		1	0.0	2.0350	Hogging	113.91E-6	0.0	113.48E-6	0.0	-33.340E-6	[m] 198460.	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA21 | Sub-structure: TA21

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category	
[m] 0.0		1	0.0	0.14125	Sagging	0.0	0.0	0.0	0.0	-34.866E-6	[m] 128720.	0 (Negligible)
		2	0.14125	9.5148	Hogging	0.0049760	0.018171	0.022345	-227.23E-6	-386.11E-6	[m] 17104.	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA22 | Sub-structure: TA22

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category	
[m] 0.0		1	0.0	2.3770	Hogging	0.0022286	0.025158	0.025664	-437.57E-6	-603.00E-6	[m] 5652.2	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA23 | Sub-structure: TA23

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category	
[m] 0.0		1	0.0	1.8451	Sagging	216.80E-6	-0.0097793	0.0019592	113.87E-6	216.73E-6	[m] 63557.	0 (Negligible)
		2	1.8451	2.0199	Hogging	236.53E-6	-0.0047221	953.76E-6	78.940E-6	216.73E-6	[m] 68499.	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA24 | Sub-structure: TA24

Vertical Offset from Line for Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category	
[m] 0.0		1	0.0	4.1548	Hogging	0.0016831	-0.0051643	0.0013763	124.73E-6	-295.36E-6	[m] 16375.	0 (Negligible)



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Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature	Damage Category
	2	4.1548	1.2532	Sagging	121.87E-6	-0.014680	0.0029367	165.38E-6	-295.36E-6	87168.	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA25 | Sub-structure: TA25

Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature	Damage Category
Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	0.55913	Sagging	91.610E-6	0.026428	0.026454	-271.71E-6	-455.82E-6	47694.	0 (Negligible)
	2	0.55913	4.4254	Hogging	0.0099799	-0.026244	0.0075206	0.0011258	-0.0010183	2380.0	0 (Negligible)
	3	4.9845	0.42350	None	0.0	-0.11246	0.022491	0.0011258	-0.0010097	24559.	0 (Negligible)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Structure: TA26 | Sub-structure: TA26

Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature	Damage Category
Calculations		[m]	[m]		[%]	[%]	[%]			[m]	
0.0	1	0.0	3.5990	Hogging	0.0087828	0.049145	0.056565	-550.97E-6	0.0011930	3447.5	1 (Very Slight)

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Specific Building Damage Results - Critical Values for All Segments within Each Sub-Structure

Structure: WH1 | Sub-structure: WH1

Vertical Offset from Line for Vertical Movement	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
Calculations	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	56.632E-6	0.0	-21.086E-6	0.13351	56.469E-6	0.0	-21.086E-6	355650.	-	0 (Negligible)

Structure: WH2 | Sub-structure: WH2

Vertical Offset from Line for Vertical Movement	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
Calculations	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	18.328E-6	0.0	-19.755E-6	0.14798	18.346E-6	0.0	-19.755E-6	504280.	-	0 (Negligible)

Structure: WH3 | Sub-structure: WH3

Vertical Offset from Line for Vertical Movement	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
Calculations	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	59.230E-6	0.0	-28.250E-6	0.18271	59.116E-6	0.0	-28.250E-6	261930.	-	0 (Negligible)

Structure: WH4 | Sub-structure: WH4

Vertical Offset from Line for Vertical Movement	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
Calculations	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	9.3782E-6	0.0	17.884E-6	0.18271	9.4056E-6	0.0	17.884E-6	1.1983E+6	-	0 (Negligible)

Structure: WH5 | Sub-structure: WH5

Vertical Offset from Line for Vertical Movement	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
Calculations	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	534.12E-6	0.0099166	-55.844E-6	0.36587	0.0099228	-106.99E-6	-55.844E-6	42843.	127370.	0 (Negligible)

Structure: WH6 | Sub-structure: WH6

Vertical Offset from Line for Vertical Movement	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
Calculations	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	100.13E-6	-185.26E-6	-58.133E-6	0.41319	75.495E-6	1.9017E-6	-58.133E-6	104190.	-	0 (Negligible)

Structure: WH7 | Sub-structure: WH7

Vertical Offset from Line for Vertical Movement	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
Calculations	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	229.78E-6	0.0039262	-88.513E-6	0.56722	0.0039919	-57.247E-6	-88.513E-6	82842.	-	0 (Negligible)

Structure: WH8 | Sub-structure: WH8

Vertical Offset from Line for Vertical Movement	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
Calculations	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	473.32E-6	135.43E-6	98.286E-6	0.56723	529.18E-6	-1.5778E-6	98.286E-6	49141.	-	0 (Negligible)

Structure: WH9 | Sub-structure: WH9



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Vertical Offset from Line for Vertical	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
Calculations	[m]	[%]		[mm]	[%]			[m]	[m]	
0.0	257.77E-6	-0.0064043	-53.423E-6	0.60204	0.0012878	102.53E-6	-53.423E-6	477210.	107260.	0 (Negligible)
Structure: WH10 Sub-structure: WH10										
Calculations	[m]	[%]		[mm]	[%]			[m]	[m]	
0.0	0.0053696	670.49E-6	-506.69E-6	2.3425	0.0055194	-16.882E-6	-506.69E-6	9393.1		- 0 (Negligible)
Structure: WH11 Sub-structure: WH11										
Calculations	[m]	[%]		[mm]	[%]			[m]	[m]	
0.0	100.88E-6	-0.0045546	204.76E-6	2.3425	912.77E-6	59.086E-6	204.76E-6	91999.		- 0 (Negligible)
Structure: WH12 Sub-structure: WH12										
Calculations	[m]	[%]		[mm]	[%]			[m]	[m]	
0.0	0.0011547	-0.0012543	-608.85E-6	3.2033	869.07E-6	13.338E-6	-608.85E-6	13320.		- 0 (Negligible)
Structure: WH13 Sub-structure: WH13										
Calculations	[m]	[%]		[mm]	[%]			[m]	[m]	
0.0	4.1209E-6	0.022714	-442.85E-6	3.5640	0.022715	-262.91E-6	-442.85E-6		- 2.4453E+6	0 (Negligible)
Structure: WH14 Sub-structure: WH14										
Calculations	[m]	[%]		[mm]	[%]			[m]	[m]	
0.0	0.011407	0.0038590	-0.0019294	6.0381	0.015273	-85.940E-6	-0.0019294	1660.4	804.78	0 (Negligible)
Structure: WH15 Sub-structure: WH15										
Calculations	[m]	[%]		[mm]	[%]			[m]	[m]	
0.0	0.0060373	0.054507	0.0011010	6.0381	0.058231	-707.55E-6	0.0011010	4126.6		- 1 (Very Slight)
Structure: WH16 Sub-structure: WH16										
Calculations	[m]	[%]		[mm]	[%]			[m]	[m]	
0.0	493.71E-6	14.455E-6	58.195E-6	2.5436	472.03E-6	0.0	58.195E-6		- 78209.	0 (Negligible)
Structure: WH17 Sub-structure: WH17										
Calculations	[m]	[%]		[mm]	[%]			[m]	[m]	
0.0	0.0023233	0.037447	578.29E-6	2.4038	0.037844	-374.33E-6	578.29E-6	10264.		- 0 (Negligible)
Structure: WH18 Sub-structure: WH18										
Calculations	[m]	[%]		[mm]	[%]			[m]	[m]	
0.0	65.200E-6	11.567E-6	-20.517E-6	1.4126	70.059E-6	0.0	-20.517E-6		- 151280.	0 (Negligible)
Structure: WH19 Sub-structure: WH19										
Calculations	[m]	[%]		[mm]	[%]			[m]	[m]	
0.0	0.0040457	0.037466	390.15E-6	1.4126	0.038916	-374.52E-6	390.15E-6	10128.		- 0 (Negligible)
Structure: WH20 Sub-structure: WH20										



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Vertical Movement Calculations	Displacement Curve	Curve (Hogging)	(Sagging)									
[m] 0.0	[%] 25.541E-6	[%] 12.792E-6	8.3151E-6	[mm] 0.44073	[%] 31.722E-6	0.0	8.3151E-6	[m] -	[m] 393460.0	(Negligible)		
Structure: WH21 Sub-structure: WH21												
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category		
[m] 0.0	[%] 196.06E-6	[%] 0.037424	105.33E-6	[mm] 0.43440	[%] 0.037424	-374.10E-6	105.33E-6	[m] -	[m] 109830.0	(Negligible)		
Structure: WH22 Sub-structure: WH22												
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category		
[m] 0.0	[%] 15.064E-6	[%] 0.0	-9.7192E-6	[mm] 0.26566	[%] 15.056E-6	0.0	-9.7192E-6	[m] -	[m] 656730.0	(Negligible)		
Structure: WH23 Sub-structure: WH23												
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category		
[m] 0.0	[%] 328.27E-6	[%] 0.0	45.627E-6	[mm] 0.26566	[%] 322.19E-6	0.0	45.627E-6	[m] 129440.	[m] -	0 (Negligible)		
Structure: WH24 Sub-structure: WH24												
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category		
[m] 0.0	[%] 0.0059595	[%] -214.00E-6	-0.0017845	[mm] 4.9106	[%] 0.0087913	65.779E-6	-0.0017845	[m] -	[m] 233.98	0 (Negligible)		
Structure: TA1 Sub-structure: TA1												
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category		
[m] 0.0	[%] 0.0062680	[%] 0.040632	917.63E-6	[mm] 4.8803	[%] 0.043616	-707.83E-6	917.63E-6	[m] 5196.6	[m] -	0 (Negligible)		
Structure: TA2 Sub-structure: TA2												
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category		
[m] 0.0	[%] 33.822E-6	[%] 235.87E-6	48.610E-6	[mm] 1.4935	[%] 240.36E-6	-2.3587E-6	48.610E-6	[m] -	[m] 252390.0	(Negligible)		
Structure: TA3 Sub-structure: TA3												
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category		
[m] 0.0	[%] 642.96E-6	[%] 0.016302	269.86E-6	[mm] 1.4605	[%] 0.016373	-162.99E-6	269.86E-6	[m] 21940.	[m] -	0 (Negligible)		
Structure: TA4 Sub-structure: TA4												
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category		
[m] 0.0	[%] 0.0019912	[%] 0.037496	295.27E-6	[mm] 1.1719	[%] 0.037877	-374.81E-6	295.27E-6	[m] 10862.	[m] -	0 (Negligible)		
Structure: TA5 Sub-structure: TA5												
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category		
[m] 0.0	[%] 261.28E-6	[%] 0.019493	103.47E-6	[mm] 0.70623	[%] 0.019520	-194.89E-6	103.47E-6	[m] 43364.	[m] -	0 (Negligible)		
Structure: TA6 Sub-structure: TA6												
Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category		
[m] 0.0	[%] 57.002E-6	[%] 4.3722E-6	-10.122E-6	[mm] 0.61677	[%] 58.115E-6	0.0	-10.122E-6	[m] -	[m] 374180.0	(Negligible)		
Structure: TA7 Sub-structure: TA7												



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Date 13-Aug-2018

Checked

Vertical Offset from Line for Vertical	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
Structure: TA8 Sub-structure: TA8										
Calculations	[m]	[%]	[%]	[mm]	[%]			[m]	[m]	
0.0	0.0011093	0.037497	142.18E-6	0.61677	0.037505	-374.83E-6	142.18E-6	12876.	91312.0	0 (Negligible)
Structure: TA9 Sub-structure: TA9										
Calculations	[m]	[%]	[%]	[mm]	[%]			[m]	[m]	
0.0	16.599E-6	0.0	0.0	0.17511	16.415E-6	0.0	0.0	-1.1689E+6	0	0 (Negligible)
Structure: TA10 Sub-structure: TA10										
Calculations	[m]	[%]	[%]	[mm]	[%]			[m]	[m]	
0.0	125.86E-6	0.0	30.317E-6	0.17507	125.13E-6	0.0	30.317E-6	206260.	0	0 (Negligible)
Structure: TA11 Sub-structure: TA11										
Calculations	[m]	[%]	[%]	[mm]	[%]			[m]	[m]	
0.0	12.025E-6	0.0	0.0	0.11333	11.909E-6	0.0	0.0	-1.8007E+6	0	0 (Negligible)
Structure: TA12 Sub-structure: TA12										
Calculations	[m]	[%]	[%]	[mm]	[%]			[m]	[m]	
0.0	15.418E-6	0.0	16.013E-6	0.11333	15.414E-6	0.0	16.013E-6	576330.	0	0 (Negligible)
Structure: TA13 Sub-structure: TA13										
Calculations	[m]	[%]	[%]	[mm]	[%]			[m]	[m]	
Structure: TA14 Sub-structure: TA14										
Calculations	[m]	[%]	[%]	[mm]	[%]			[m]	[m]	
Structure: TA15 Sub-structure: TA15										
Calculations	[m]	[%]	[%]	[mm]	[%]			[m]	[m]	
Structure: TA16 Sub-structure: TA16										
Calculations	[m]	[%]	[%]	[mm]	[%]			[m]	[m]	
Structure: TA17 Sub-structure: TA17										
Calculations	[m]	[%]	[%]	[mm]	[%]			[m]	[m]	
Structure: TA18 Sub-structure: TA18										
Calculations	[m]	[%]	[%]	[mm]	[%]			[m]	[m]	
Structure: TA19 Sub-structure: TA19										
Calculations	[m]	[%]	[%]	[mm]	[%]			[m]	[m]	



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Calculations
 [m] [%] [%] [mm] [%] [m] [m]
 0.0 74.070E-6 0.0 -23.118E-6 0.14269 73.779E-6 0.0 -23.118E-6 302650. - 0 (Negligible)

Structure: TA20 | Sub-structure: TA20

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	113.91E-6	0.0	-33.340E-6	0.20251	113.48E-6	0.0	-33.340E-6	198460.		- 0 (Negligible)

Structure: TA21 | Sub-structure: TA21

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	0.0049760	0.018171	-386.11E-6	1.8973	0.022345	-227.23E-6	-386.11E-6	17104.	128720.	0 (Negligible)

Structure: TA22 | Sub-structure: TA22

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	0.0022286	0.025158	-603.00E-6	3.1018	0.025664	-437.57E-6	-603.00E-6	5652.2		- 0 (Negligible)

Structure: TA23 | Sub-structure: TA23

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	236.53E-6	-0.0097793	216.73E-6	1.8975	0.0019592	113.87E-6	216.73E-6	68499.	63557.	0 (Negligible)

Structure: TA24 | Sub-structure: TA24

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	0.0016831	-0.014680	-295.36E-6	2.5067	0.0029367	165.38E-6	-295.36E-6	16375.	87168.	0 (Negligible)

Structure: TA25 | Sub-structure: TA25

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	0.0099799	-0.11246	-0.0010183	6.1026	0.026454	0.0011258	-0.0010183	2380.0	47694.	0 (Negligible)

Structure: TA26 | Sub-structure: TA26

Vertical Offset from Line for Vertical Movement Calculations	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
[m]	[%]	[%]		[mm]	[%]			[m]	[m]	
0.0	0.0087828	0.049145	0.0011930	6.1026	0.056565	-550.97E-6	0.0011930	3447.5		- 1 (Very Slight)

Specific Building Damage Results - Critical Segments within Each Structure

Structure Name	Parameter	Critical Sub-Structure	Critical Segment	Start	End	Curvature	Max Slope	Max Settlement	Max Tensile Strain	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
WH1	Max Slope	WH1	1	3.4608	5.1910	Hogging	21.086E-6	0.13351	56.469E-6	355650.		- 0 (Negligible)
	Max Settlement	WH1	1	3.4608	5.1910	Hogging	21.086E-6	0.13351	56.469E-6	355650.		- 0 (Negligible)
	Max Tensile Strain	WH1	1	3.4608	5.1910	Hogging	21.086E-6	0.13351	56.469E-6	355650.		- 0 (Negligible)
	Min Radius of Curvature (Hogging)	WH1	1	3.4608	5.1910	Hogging	21.086E-6	0.13351	56.469E-6	355650.		- 0 (Negligible)
	Min Radius of Curvature (Sagging)											
WH2	Max Slope	WH2	1	0.0	0.74600	Hogging	19.755E-6	0.14798	18.346E-6	504280.		- 0 (Negligible)
	Max Settlement	WH2	1	0.0	0.74600	Hogging	19.755E-6	0.14798	18.346E-6	504280.		- 0 (Negligible)
	Max Tensile Strain	WH2	1	0.0	0.74600	Hogging	19.755E-6	0.14798	18.346E-6	504280.		- 0 (Negligible)
	Min Radius of Curvature (Hogging)	WH2	1	0.0	0.74600	Hogging	19.755E-6	0.14798	18.346E-6	504280.		- 0 (Negligible)
	Min Radius of Curvature (Sagging)											
WH3	Max Slope	WH3	1	0.0	1.3130	Hogging	28.250E-6	0.18271	59.116E-6	261930.		- 0 (Negligible)
	Max Settlement	WH3	1	0.0	1.3130	Hogging	28.250E-6	0.18271	59.116E-6	261930.		- 0 (Negligible)
	Max Tensile Strain	WH3	1	0.0	1.3130	Hogging	28.250E-6	0.18271	59.116E-6	261930.		- 0 (Negligible)
	Min Radius of Curvature (Hogging)	WH3	1	0.0	1.3130	Hogging	28.250E-6	0.18271	59.116E-6	261930.		- 0 (Negligible)
	Min Radius of Curvature (Sagging)											
WH4	Max Slope	WH4	1	0.0	0.90800	Hogging	17.884E-6	0.18271	9.4056E-6	1.1983E+6		- 0 (Negligible)
	Max Settlement	WH4	1	0.0	0.90800	Hogging	17.884E-6	0.18271	9.4056E-6	1.1983E+6		- 0 (Negligible)
	Max Tensile Strain	WH4	1	0.0	0.90800	Hogging	17.884E-6	0.18271	9.4056E-6	1.1983E+6		- 0 (Negligible)
	Min Radius of Curvature (Hogging)	WH4	1	0.0	0.90800	Hogging	17.884E-6	0.18271	9.4056E-6	1.1983E+6		- 0 (Negligible)
	Min Radius of Curvature (Sagging)											



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Structure Name	Parameter	Critical Sub-Structure	Critical Segment	Start	End	Curvature	Max Slope	Max Settlement	Max Tensile Strain	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
WH5	Max Slope	WH5	4	2.3386	4.5040	Hogging	55.844E-6	0.36587	0.0073806	111730.	-	0 (Negligible)
	Max Settlement	WH5	4	2.3386	4.5040	Hogging	55.844E-6	0.36587	0.0073806	111730.	-	0 (Negligible)
	Max Tensile Strain	WH5	3	1.6072	2.3386	Sagging	46.738E-6	0.25898	0.0092228	-	197660.	0 (Negligible)
	Min Radius of Curvature (Hogging)	WH5	2	0.15479	1.6072	Hogging	50.529E-6	0.22617	0.0049379	42843.	-	0 (Negligible)
WH6	Max Slope	WH6	1	0.0	0.84300	Hogging	58.133E-6	0.41319	75.495E-6	104190.	-	0 (Negligible)
	Max Settlement	WH6	1	0.0	0.84300	Hogging	58.133E-6	0.41319	75.495E-6	104190.	-	0 (Negligible)
	Max Tensile Strain	WH6	1	0.0	0.84300	Hogging	58.133E-6	0.41319	75.495E-6	104190.	-	0 (Negligible)
	Min Radius of Curvature (Hogging)	WH6	1	0.0	0.84300	Hogging	58.133E-6	0.41319	75.495E-6	104190.	-	0 (Negligible)
WH7	Max Slope	WH7	1	0.0	1.8760	Hogging	88.513E-6	0.56722	0.0039919	82842.	-	0 (Negligible)
	Max Settlement	WH7	1	0.0	1.8760	Hogging	88.513E-6	0.56722	0.0039919	82842.	-	0 (Negligible)
	Max Tensile Strain	WH7	1	0.0	1.8760	Hogging	88.513E-6	0.56722	0.0039919	82842.	-	0 (Negligible)
	Min Radius of Curvature (Hogging)	WH7	1	0.0	1.8760	Hogging	88.513E-6	0.56722	0.0039919	82842.	-	0 (Negligible)
WH8	Max Slope	WH8	1	0.0	2.1010	Hogging	98.286E-6	0.56723	529.18E-6	49141.	-	0 (Negligible)
	Max Settlement	WH8	1	0.0	2.1010	Hogging	98.286E-6	0.56723	529.18E-6	49141.	-	0 (Negligible)
	Max Tensile Strain	WH8	1	0.0	2.1010	Hogging	98.286E-6	0.56723	529.18E-6	49141.	-	0 (Negligible)
	Min Radius of Curvature (Hogging)	WH8	1	0.0	2.1010	Hogging	98.286E-6	0.56723	529.18E-6	49141.	-	0 (Negligible)
WH9	Max Slope	WH9	1	0.0	0.90905	Hogging	53.423E-6	0.44342	168.55E-6	477210.	-	0 (Negligible)
	Max Settlement	WH9	2	0.90905	4.3160	Sagging	53.423E-6	0.60204	0.0012878	-	107260.	0 (Negligible)
	Max Tensile Strain	WH9	2	0.90905	4.3160	Sagging	53.423E-6	0.60204	0.0012878	-	107260.	0 (Negligible)
	Min Radius of Curvature (Hogging)	WH9	1	0.0	0.90905	Hogging	53.423E-6	0.44342	168.55E-6	477210.	-	0 (Negligible)
WH10	Max Slope	WH10	1	0.0	6.5070	Hogging	506.69E-6	2.3425	0.0055194	9393.1	-	0 (Negligible)
	Max Settlement	WH10	1	0.0	6.5070	Hogging	506.69E-6	2.3425	0.0055194	9393.1	-	0 (Negligible)
	Max Tensile Strain	WH10	1	0.0	6.5070	Hogging	506.69E-6	2.3425	0.0055194	9393.1	-	0 (Negligible)
	Min Radius of Curvature (Hogging)	WH10	1	0.0	6.5070	Hogging	506.69E-6	2.3425	0.0055194	9393.1	-	0 (Negligible)
WH11	Max Slope	WH11	1	0.0	0.75000	Hogging	204.76E-6	2.3425	912.77E-6	91999.	-	0 (Negligible)
	Max Settlement	WH11	1	0.0	0.75000	Hogging	204.76E-6	2.3425	912.77E-6	91999.	-	0 (Negligible)
	Max Tensile Strain	WH11	1	0.0	0.75000	Hogging	204.76E-6	2.3425	912.77E-6	91999.	-	0 (Negligible)
	Min Radius of Curvature (Hogging)	WH11	1	0.0	0.75000	Hogging	204.76E-6	2.3425	912.77E-6	91999.	-	0 (Negligible)
WH12	Max Slope	WH12	1	0.0	1.7500	Hogging	608.85E-6	3.2033	869.07E-6	13320.	-	0 (Negligible)
	Max Settlement	WH12	1	0.0	1.7500	Hogging	608.85E-6	3.2033	869.07E-6	13320.	-	0 (Negligible)
	Max Tensile Strain	WH12	1	0.0	1.7500	Hogging	608.85E-6	3.2033	869.07E-6	13320.	-	0 (Negligible)
	Min Radius of Curvature (Hogging)	WH12	1	0.0	1.7500	Hogging	608.85E-6	3.2033	869.07E-6	13320.	-	0 (Negligible)
WH13	Max Slope	WH13	1	0.0	0.81400	Sagging	442.85E-6	3.5640	0.022715	-	2.4453E+6	0 (Negligible)
	Max Settlement	WH13	1	0.0	0.81400	Sagging	442.85E-6	3.5640	0.022715	-	2.4453E+6	0 (Negligible)
	Max Tensile Strain	WH13	1	0.0	0.81400	Sagging	442.85E-6	3.5640	0.022715	-	2.4453E+6	0 (Negligible)
	Min Radius of Curvature (Hogging)	WH13	1	0.0	0.81400	Sagging	442.85E-6	3.5640	0.022715	-	2.4453E+6	0 (Negligible)
WH14	Max Slope	WH14	2	0.22416	0.99835	Hogging	0.0019294	4.4916	0.012066	1660.4	-	0 (Negligible)
	Max Settlement	WH14	3	0.99835	6.4130	Sagging	0.0019294	6.0381	0.015273	-	804.78	0 (Negligible)
	Max Tensile Strain	WH14	3	0.99835	6.4130	Sagging	0.0019294	6.0381	0.015273	-	804.78	0 (Negligible)
	Min Radius of Curvature (Hogging)	WH14	2	0.22416	0.99835	Hogging	0.0019294	4.4916	0.012066	1660.4	-	0 (Negligible)
WH15	Max Slope	WH15	1	0.0	4.1900	Hogging	0.0011010	6.0381	0.058231	4126.6	-	1 (Very Slight)
	Max Settlement	WH15	1	0.0	4.1900	Hogging	0.0011010	6.0381	0.058231	4126.6	-	1 (Very Slight)
	Max Tensile Strain	WH15	1	0.0	4.1900	Hogging	0.0011010	6.0381	0.058231	4126.6	-	1 (Very Slight)
	Min Radius of Curvature (Hogging)	WH15	1	0.0	4.1900	Hogging	0.0011010	6.0381	0.058231	4126.6	-	1 (Very Slight)
WH16	Max Slope	WH16	1	0.0	3.3610	Sagging	58.195E-6	2.5436	472.03E-6	-	78209.	0 (Negligible)
	Max Settlement	WH16	1	0.0	3.3610	Sagging	58.195E-6	2.5436	472.03E-6	-	78209.	0 (Negligible)
	Max Tensile Strain	WH16	1	0.0	3.3610	Sagging	58.195E-6	2.5436	472.03E-6	-	78209.	0 (Negligible)
	Min Radius of Curvature (Hogging)	WH16	1	0.0	3.3610	Sagging	58.195E-6	2.5436	472.03E-6	-	78209.	0 (Negligible)
WH17	Max Slope	WH17	1	0.0	2.0030	Hogging	578.29E-6	2.4038	0.037844	10264.	-	0 (Negligible)
	Max Settlement	WH17	1	0.0	2.0030	Hogging	578.29E-6	2.4038	0.037844	10264.	-	0 (Negligible)
	Max Tensile Strain	WH17	1	0.0	2.0030	Hogging	578.29E-6	2.4038	0.037844	10264.	-	0 (Negligible)
	Min Radius of Curvature (Hogging)	WH17	1	0.0	2.0030	Hogging	578.29E-6	2.4038	0.037844	10264.	-	0 (Negligible)
WH18	Max Slope	WH18	1	0.0	0.79700	Sagging	20.517E-6	1.4126	70.059E-6	-	151280.	0 (Negligible)
	Max Settlement	WH18	1	0.0	0.79700	Sagging	20.517E-6	1.4126	70.059E-6	-	151280.	0 (Negligible)
	Max Tensile Strain	WH18	1	0.0	0.79700	Sagging	20.517E-6	1.4126	70.059E-6	-	151280.	0 (Negligible)
	Min Radius of Curvature (Hogging)	WH18	1	0.0	0.79700	Sagging	20.517E-6	1.4126	70.059E-6	-	151280.	0 (Negligible)



35 Templewood Avenue

Pool Transfer revision

CIRIA (Excavation and Installation) + Loading (Long Term)

Job No. Sheet No. Rev.

P1017J1129

Dr. Ref.

Made by JW

Date 13-Aug-2018

Checked

Table with columns: Structure Name, Parameter, Critical Sub-Structure, Critical Segment, Start, End, Curvature, Max Slope, Max Settlement, Max Tensile Strain, Min Radius of Curvature (Hogging), Min Radius of Curvature (Sagging), Damage Category. Rows include WH19, WH20, WH21, WH22, WH23, WH24, TA1, TA2, TA3, TA4, TA5, TA6, TA7, TA8.



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Structure Name	Parameter	Critical Sub-Structure	Critical Segment	Start	End	Curvature	Max Slope	Max Settlement	Max Tensile Strain	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
	(Sagging)											
TA9	Max Slope	TA9	1	0.0	1.5630	Sagging	0.0	0.17511	16.415E-6	-	-1.1689E+6	0 (Negligible)
	Max Settlement	TA9	1	0.0	1.5630	Sagging	0.0	0.17511	16.415E-6	-	-1.1689E+6	0 (Negligible)
	Max Tensile Strain	TA9	1	0.0	1.5630	Sagging	0.0	0.17511	16.415E-6	-	-1.1689E+6	0 (Negligible)
	Min Radius of Curvature (Hogging)											
	Min Radius of Curvature (Sagging)	TA9	1	0.0	1.5630	Sagging	0.0	0.17511	16.415E-6	-	-1.1689E+6	0 (Negligible)
TA10	Max Slope	TA10	1	0.0	2.4140	Hogging	30.317E-6	0.17507	125.13E-6	206260.	-	0 (Negligible)
	Max Settlement	TA10	1	0.0	2.4140	Hogging	30.317E-6	0.17507	125.13E-6	206260.	-	0 (Negligible)
	Max Tensile Strain	TA10	1	0.0	2.4140	Hogging	30.317E-6	0.17507	125.13E-6	206260.	-	0 (Negligible)
	Min Radius of Curvature (Hogging)	TA10	1	0.0	2.4140	Hogging	30.317E-6	0.17507	125.13E-6	206260.	-	0 (Negligible)
	Min Radius of Curvature (Sagging)											
TA11	Max Slope	TA11	1	0.0	1.7530	Sagging	0.0	0.11333	11.909E-6	-	-1.8007E+6	0 (Negligible)
	Max Settlement	TA11	1	0.0	1.7530	Sagging	0.0	0.11333	11.909E-6	-	-1.8007E+6	0 (Negligible)
	Max Tensile Strain	TA11	1	0.0	1.7530	Sagging	0.0	0.11333	11.909E-6	-	-1.8007E+6	0 (Negligible)
	Min Radius of Curvature (Hogging)											
	Min Radius of Curvature (Sagging)	TA11	1	0.0	1.7530	Sagging	0.0	0.11333	11.909E-6	-	-1.8007E+6	0 (Negligible)
TA12	Max Slope	TA12	1	0.0	0.72380	Hogging	16.013E-6	0.11333	15.414E-6	576330.	-	0 (Negligible)
	Max Settlement	TA12	1	0.0	0.72380	Hogging	16.013E-6	0.11333	15.414E-6	576330.	-	0 (Negligible)
	Max Tensile Strain	TA12	1	0.0	0.72380	Hogging	16.013E-6	0.11333	15.414E-6	576330.	-	0 (Negligible)
	Min Radius of Curvature (Hogging)	TA12	1	0.0	0.72380	Hogging	16.013E-6	0.11333	15.414E-6	576330.	-	0 (Negligible)
	Min Radius of Curvature (Sagging)											
TA13	All settlements are less than the Settlement Trough Limit Sensitivity.											
TA14	All settlements are less than the Settlement Trough Limit Sensitivity.											
TA15	All settlements are less than the Settlement Trough Limit Sensitivity.											
TA16	All settlements are less than the Settlement Trough Limit Sensitivity.											
TA17	All settlements are less than the Settlement Trough Limit Sensitivity.											
TA18	All settlements are less than the Settlement Trough Limit Sensitivity.											
TA19	Max Slope	TA19	1	9.8319	11.798	Hogging	23.118E-6	0.14269	73.779E-6	302650.	-	0 (Negligible)
	Max Settlement	TA19	1	9.8319	11.798	Hogging	23.118E-6	0.14269	73.779E-6	302650.	-	0 (Negligible)
	Max Tensile Strain	TA19	1	9.8319	11.798	Hogging	23.118E-6	0.14269	73.779E-6	302650.	-	0 (Negligible)
	Min Radius of Curvature (Hogging)	TA19	1	9.8319	11.798	Hogging	23.118E-6	0.14269	73.779E-6	302650.	-	0 (Negligible)
	Min Radius of Curvature (Sagging)											
TA20	Max Slope	TA20	1	0.0	2.0350	Hogging	33.340E-6	0.20251	113.48E-6	198460.	-	0 (Negligible)
	Max Settlement	TA20	1	0.0	2.0350	Hogging	33.340E-6	0.20251	113.48E-6	198460.	-	0 (Negligible)
	Max Tensile Strain	TA20	1	0.0	2.0350	Hogging	33.340E-6	0.20251	113.48E-6	198460.	-	0 (Negligible)
	Min Radius of Curvature (Hogging)	TA20	1	0.0	2.0350	Hogging	33.340E-6	0.20251	113.48E-6	198460.	-	0 (Negligible)
	Min Radius of Curvature (Sagging)											
TA21	Max Slope	TA21	2	0.14125	9.6560	Hogging	386.11E-6	1.8973	0.022345	17104.	-	0 (Negligible)
	Max Settlement	TA21	2	0.14125	9.6560	Hogging	386.11E-6	1.8973	0.022345	17104.	-	0 (Negligible)
	Max Tensile Strain	TA21	2	0.14125	9.6560	Hogging	386.11E-6	1.8973	0.022345	17104.	-	0 (Negligible)
	Min Radius of Curvature (Hogging)	TA21	2	0.14125	9.6560	Hogging	386.11E-6	1.8973	0.022345	17104.	-	0 (Negligible)
	Min Radius of Curvature (Sagging)	TA21	1	0.0	0.14125	Sagging	34.866E-6	0.20745	0.0	-	128720.	0 (Negligible)
TA22	Max Slope	TA22	1	0.0	2.3770	Hogging	603.00E-6	3.1018	0.025664	5652.2	-	0 (Negligible)
	Max Settlement	TA22	1	0.0	2.3770	Hogging	603.00E-6	3.1018	0.025664	5652.2	-	0 (Negligible)
	Max Tensile Strain	TA22	1	0.0	2.3770	Hogging	603.00E-6	3.1018	0.025664	5652.2	-	0 (Negligible)
	Min Radius of Curvature (Hogging)	TA22	1	0.0	2.3770	Hogging	603.00E-6	3.1018	0.025664	5652.2	-	0 (Negligible)
	Min Radius of Curvature (Sagging)											
TA23	Max Slope	TA23	1	0.0	1.8451	Sagging	216.73E-6	1.8975	0.0019592	-	63557.	0 (Negligible)
	Max Settlement	TA23	1	0.0	1.8451	Sagging	216.73E-6	1.8975	0.0019592	-	63557.	0 (Negligible)
	Max Tensile Strain	TA23	1	0.0	1.8451	Sagging	216.73E-6	1.8975	0.0019592	-	63557.	0 (Negligible)
	Min Radius of Curvature (Hogging)	TA23	2	1.8451	3.8650	Hogging	216.73E-6	1.5080	953.76E-6	68499.	-	0 (Negligible)
	Min Radius of Curvature (Sagging)	TA23	1	0.0	1.8451	Sagging	216.73E-6	1.8975	0.0019592	-	63557.	0 (Negligible)
TA24	Max Slope	TA24	1	0.0	4.1548	Hogging	295.36E-6	2.1403	0.0013763	16375.	-	0 (Negligible)
	Max Settlement	TA24	2	4.1548	5.4080	Sagging	295.36E-6	2.5067	0.0029367	-	87168.	0 (Negligible)
	Max Tensile Strain	TA24	2	4.1548	5.4080	Sagging	295.36E-6	2.5067	0.0029367	-	87168.	0 (Negligible)
	Min Radius of Curvature (Hogging)	TA24	1	0.0	4.1548	Hogging	295.36E-6	2.1403	0.0013763	16375.	-	0 (Negligible)
	Min Radius of Curvature (Sagging)	TA24	2	4.1548	5.4080	Sagging	295.36E-6	2.5067	0.0029367	-	87168.	0 (Negligible)
TA25	Max Slope	TA25	2	0.55913	4.9845	Hogging	0.0010183	5.6755	0.0075206	2380.0	-	0 (Negligible)
	Max Settlement	TA25	3	4.9845	5.4080	Sagging	0.0010097	6.1026	0.022491	-	24559.	0 (Negligible)
	Max Tensile Strain	TA25	1	0.0	0.55913	Sagging	455.82E-6	2.7610	0.026454	-	47694.	0 (Negligible)
	Min Radius of Curvature (Hogging)	TA25	2	0.55913	4.9845	Hogging	0.0010183	5.6755	0.0075206	2380.0	-	0 (Negligible)



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Structure Name	Parameter	Critical Sub-Structure	Critical Segment	Start	End	Curvature	Max Slope	Max Settlement	Max Tensile Strain	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
	(Hogging)											
	Min Radius of Curvature (Sagging)	TA25	1	0.0	0.55913	Sagging	455.82E-6	2.7610	0.026454	-	47694.0	0 (Negligible)
TA26	Max Slope	TA26	1	0.0	3.5990	Hogging	0.0011930	6.1026	0.056565	3447.5	-	1 (Very Slight)
	Max Settlement	TA26	1	0.0	3.5990	Hogging	0.0011930	6.1026	0.056565	3447.5	-	1 (Very Slight)
	Max Tensile Strain	TA26	1	0.0	3.5990	Hogging	0.0011930	6.1026	0.056565	3447.5	-	1 (Very Slight)
	Min Radius of Curvature (Hogging)	TA26	1	0.0	3.5990	Hogging	0.0011930	6.1026	0.056565	3447.5	-	1 (Very Slight)
	Min Radius of Curvature (Sagging)											