

Condition 08 (Piling/Other Foundation designs)

CONDITION

Piling/other foundation designs using penetrative methods must not be carried out other than with the written consent of the local planning authority.

REASON

To ensure that the development will not exacerbate the bromate and bromide groundwater pollution beneath the site, in accordance with Policies R2 and R7 of the Welwyn Hatfield District Plan 2005, Policies SP 10 and SADM 18 of the Welwyn Hatfield Borough Council Draft Local Plan Proposed Submission August 2016, and the National Planning Policy Framework.

RESPONSE

We have responded to this condition separately with Application reference : 6/2022/1730/CONCD Proposed development at: Beadles Volkswagen Van Centre Harps field Broadway Hatfield AL10 9TF Proposal: Submission of details pursuant of condition 8 (piling) on planning permission 6/2020/3222/MAJ

To mitigate the impact of piling operations on this the following have been incorporated into the piling design for the site:

1. The piling design depths accommodate the fact that the upper chalk aquifer layer lies at - 18 metres. Our deepest pile depth will be -15.5 metres, ensuring that the piles do not penetrate the chalk aquifer and disturbance of the upper levels of the chalk bed are mitigated, and agitation of the aquifer contaminants should be avoided.
2. We are utilising a CFA (continuous flight auger) piling system that extracts material as it bores to form the pile. This method does not displace material downwards but removes them to the surface. These pile arisings are then sampled to establish if any contaminants are present before they are removed from site.
3. As the auger is extracted, the pile is backfilled with the specified concrete mix and the reinforcing cage is lowered into the pile. This operation is low impact and minimises disturbance of the surrounding and underlying ground.

Attached drawings/document under appendices demonstrate that condition are being complied with.

Drawing/Document	Title	Rev	Date
HAT-TAK-XX-FN-DR-S-0001	Pile Setting Out	C1	July 2022
HAT-TAK-XX-FN-DR-S-0002	Foundation Plan	C1	July 2022
HAT-TAK-XX-FN-SH-S-0400	Main Piles Schedule	C1	
HAT-TAK-XX-FN-SH-S-0401	Piles under stairs and lift cores Schedule	C1	
HAT-TAK-XX-FN-SH-S-0402	Crane Base Piling Schedule	C1	
Piling Method Statement CFA 04-1120297	CFA Piling Method Statement		



No: KPL/22/207

METHOD STATEMENT

For

**KPL 207, Volkswagen
HATFIELD**

Scope of Work : CFA Piling



METHOD STATEMENT

CFA Piling

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- A Safety Policy Statement, Risk Assessments and COSHH documentation.
- B Insurance details.
- C Permit To Pile and Working Platform Certificates (Banks for completion)



1 INTRODUCTION

As part of the new development at Comet way, Hatfield, AL10 9TF, Kisiel Piling Ltd are contracted to install the required bearing piles on behalf of the Principal and Main Contractor – New Ways LTD

This method statement generally describes the resource allocated to undertake CFA Piling contracts and the methods used. Additional details are given in the appendices. It must be emphasised that resource and methods other than that referred to below may be used should circumstances dictate. Notwithstanding this it is always our stated intention to undertake all work safely and to the required standard.

A check is always made immediately prior to piling to ensure that the methodology within this statement is applicable to the site circumstances at the time of piling.

The formation of CFA Piles is a repetitive process and many aspects are common to different sites. However crucial aspects specific to this contract are detailed within section 2 of this method statement.

2. CONTRACT DATA

2.1 Scope of Work

One visit to site to construct 220 No. 450mm bearing piles as detailed on the contract drawings and Pile Design.

The site will be prepared and maintained by clients including suitable working platforms. All necessary hoardings / protections / screens / access to be provided by others.

Confirmation is required as to the Integrity Testing and any Pile Load testing requirements as these are quoted for rates only.

2.2 Areas of Responsibility

Under this contract Kisiel Piling Ltd will provide suitable personnel, plant and equipment to undertake the work and materials will be provided free of charge by from accredited sources to ensure that, in so far as we are responsible for elements of the design and construction, a conforming product will be provided.

However, other parties to the contract must also perform. The satisfactory design and construction of bearing piles is heavily reliant on suitable information being provided on ground conditions. The provision of attendances and facilities under the contract is not an 'optional extra' - they define the minimum necessary to



undertake the work safely and satisfactorily.

2.3 Key Personnel

Operations Director : Lukasz Kisiel
Contracts Manager : Muneer Muhammed Majeed
Site Supervisor : will generally be advised immediately prior to commencement of the work on site.

2.4 Plant and Equipment

The principal items of plant and equipment which may be used are as follows: -
Provided by Kisiel Piling.

CFA rig – GEAX EK110
Concrete pump
Static Concrete Agitator (if necessary)
Jet wash
Fuel cans
Cherry Picker

Provided by main contractor

Adequate Water supply.
Lighting Towers (if necessary)
Site Accommodation / Welfare and First Aid Facilities to meet requirements.
Identification, marking and diversion of any / all services to allow safe construction of the works.
Traffic Management to give a safe working area (if necessary)
Protection to existing surroundings. (As necessary)

Other parties to the contract may be responsible for supplying some of the above.

2.5 Materials

Concrete will be obtained from a QA. accredited supplier. The mix will be based on C35, Blended cement to BRE SD1 DC 1, AC1 with a minimum cement content of 340kg/m³, slump of 180mm.

Reinforcement will be obtained from a CARES accredited supplier (and fabricator).

2.6 Access to Work Areas and The Provision of Safe Work Areas



The Main Contractor has the responsibility to provide adequate safe access to the work areas and to provide sufficient items of provision to make these work areas safe. This may involve Traffic Management procedures and equipment and or goal posts or other fencing to services / their safety envelope. Kisiel Piling staff will not amend or alter any procedure or equipment unless instructed to do so and supervised by an appointed person. Further more all rules and regulations imposed to provide the safe systems will be followed at all times.

Prior to works commencing the Foreman must ensure that he has correctly completed and suitably signed Permit to pile and Working Platform Certificates. Blanks are enclosed for reference in appendix C.

3. PLANT AND EQUIPMENT

The piling rigs are hydraulically powered and self-erecting. They are manufactured specifically to install this type of pile. Auxiliary equipment such as concrete pumps, excavators, dumpers, compressors, vibrators, welders etc. may also be utilised on site though not all may be operated by Kisiel Piling Ltd. Storage units may also be deployed.

The use of the necessary equipment must be on a site that is correctly prepared by the main contractor or others (prior to piling commencement) so as to minimise any environmental impact. Water run off must be controlled with the use of bunds, catchments areas and suitable filtering/disposal. We recommend that the concrete pump area be prepared as a recess lined with polythene or terram type material (dependant on the soil type) so as to catch all waste concrete and wash out. A similar recess should be provided for ready mix truck wash out / excess discharge. These may need emptying during the progress of the piling.

4. SITE PERSONNEL

Each contract is assigned to the Piling Director (office based) and the site work is generally the responsibility of the Foreman assigned to the contract and appointed thus as Site (Safety) Supervisor. The site staff is responsible for safety and quality together with technical and contractual matters on site with back up available from the office. It is a policy of Kisiel Piling Ltd to establish contingency planning for foreseeable events and this is documented in the site procedures.

The crew has experience of this method of piling. The Site Supervisor has overall technical responsibility for monitoring the piling and for producing records of the work undertaken.

5 SAFETY



It is the policy of Kisiel Piling Ltd to conduct its activities with due regard to the health and safety of all its employees and members and all other third parties. Systems of work are as safe as reasonably practicable, and all plant and equipment is maintained in a safe condition and operated in a safe manner.

Training is considered to be an important part of safety awareness and all site employees undertake periodic training. All operatives are certified, (or are under training) for the operation of items of plant (CITB schemes or similar when applicable)

It is the Site Foreman's responsibility to ensure that site operatives directly under his control are:

1. Able to carry out their work in a safe way
2. Given induction training when they first arrive at a job.
3. To ensure that the plant and equipment can be safely used.

General reference is made to the Company Safety Manual and the CITB publications 'Safe Start' and 'Safety on Piling Sites'. It should be emphasised that no other personnel should be in the close vicinity of the piling rig without the specific permission and knowledge of the piling crew. Other parties employed on the site should be informed of the dangers relating to the piling operations, it is thus suggested that they attend our site induction and Method Statement briefing.

Some aspects of site safety are generally beyond the responsibility of Kisiel Piling Ltd. In particular the safe access both to and on the site and the control of concurrent work will generally be the responsibility of the client or main contractor. Whoever is responsible shall ensure that suitable access to the site has been provided to allow safe movement of the plant and equipment without damage or injury to persons or property. The piling platform must remain safe for the passage of all plant and equipment required to complete the work at all times.

6 GROUND CONDITIONS

The method of piling is not quantitative in establishing ground conditions and is not effective in generating samples for strength testing. It is reliant on good site investigation that may be supplemented by preliminary testing and blank auger bores). It can however, be used qualitatively and the site staff are responsible for monitoring arisings and recording any gross discrepancies that may affect the design. Those responsible for the design shall be notified if any discrepancies occur.

Comet Way Piling

Incorporation of Ground Conditions



Initial site investigations and subsequent bore holes undertaken at the site have indicated the upper layer of underlying chalk aquifer beds at -18 metres. This chalk bed is noted as being part of the underlying aquifer system which has historically been contaminated by bromides and bromates, from industrial activity.

To mitigate the impact of piling operations on this the following have been incorporated into the piling design for the site:

7.1 The piling design depths accommodate the fact that the upper chalk aquifer layer lies at -18 metres. Our deepest pile depth will be -15.5 metres, ensuring that the piles do not penetrate the chalk aquifer and disturbance of the upper levels of the chalk bed are mitigated, and agitation of the aquifer contaminants should be avoided.

7.2. We are utilising a CFA (continuous flight auger) piling system that extracts material as it bores to form the pile. This method does not displace material downwards but removes them to the surface. These pile arisings are then sampled to establish if any contaminants are present before they are removed from site.

7.3 As the auger is extracted, the pile is backfilled with the specified concrete mix and the reinforcing cage is lowered into the pile. This operation is low impact and minimises disturbance of the surrounding and underlying ground.



8. PILING METHODS/CONTROLS

Prior to starting to pile the piling platform level is checked to confirm that it is the same as that used in the pile design. Note that all setting out, including level provision and checking is the responsibility of others. If there is a significant difference the pile designer shall be informed and adjustments made to the pile design before work starts. A suitable setting out pin must be provided and its position checked immediately prior to starting to bore.

Prior to commencing drilling a check must be made to ensure all environmental measures are in place (whilst the provision of such items may be the responsibility of others under the contract all operatives have a duty to ensure items are there and used effectively). This may include but not be limited to protection of the existing carriageway surface and screening to deflect any air born spoil.

A bung or flap to prevent the ingress of material during augering seals the hollow stem of the auger. At this stage the status of the materials used to form the pile (e.g. the cage and grout/concrete, etc.) will be assessed to ensure the pile may be formed immediately on completion of the bore.

Offset pins are installed and used as a check on the auger/drill position after penetrating a short distance. This ensures that the pile is installed at a position that is within the specified tolerances. Any divergence of the auger/drill outside this tolerance shall be dealt with at this time. If it is not possible to form the pile within tolerance then appropriate action shall be taken (eg removal of an obstruction, relocation of the pile position after notification to the designer). The rig operator makes a record of these checks. Whilst augering/drilling to depth the operator notes any unusual augering/drilling characteristics and on completion of the bore the depth is checked to ensure that it is in accordance with the pile design. Augering to depth is achieved by adding auger sections as necessary; these will be handled by a combination of the rig's second line and the attendant excavator.

Once the design depth is reached the grout/concrete is pumped through the auger stem initially raising the auger sufficiently to allow the auger end closure to be cleared. Continual visual checks are made of the grout/concrete to assess its quality. Extraction of the auger is then controlled to ensure a positive pressure is maintained within the grout/concrete lines. Sections of auger are removed in reverse of the augering process. Operation of the [concrete pump](#) shall be in accordance with the recommendations of the FPS. The site foreman is responsible for monitoring the construction of the pile to ensure that the quality of the pile is maintained. On each removal of an auger section a positive visual check is made by the presence of concrete within the auger stem.

The piling platform must be provided at such a level as to ensure sound grout/concrete at cut off level. Several factors dictate how much the piling platform level shall be above the Pile cut off level. The most important factors are the pile depth, the ground conditions and the nature of the piling platform. The grout/concrete in Sectional Augered/ CFA Piles is



brought to the level from which the boring commenced.

The spoil is cleared from the pile position to expose clean grout/concrete in the pile head. Where injection techniques are employed, the cage is placed in the grout/concrete either manually or with mechanical assistance. The cage may be lifted either by the rig or the excavator. The level of the cage shall be above that dictated by the design of the piles (at minimum the piling platform level) to be trimmed by others when the piles are incorporated into the main works.

A 360° excavator shall be in full time attendance to the piling rig to assist with spoil removal, lifting and placing reinforcing cages, moving equipment and any other activity required by the site foreman to progress the piling.

It may be necessary to highlight the position of the pile using paint or tape. In all cases care must be taken to prevent mechanical damage to recently formed piles. Considerable care needs to be taken when trimming the piles to avoid mechanical damage. Even minor cracking can lead to difficulties when integrity assessments are undertaken.

9 PILE TESTING

Integrity testing using sonic or transient dynamic response methods is often used as an independent method of assessing pile construction. It is not used to evaluate the pile load bearing capacity, nor can it be taken as the sole measure of pile serviceability. Unless it can be shown that Kisiel Piling Ltd are fully responsible for an anomalous signal that proves that the foundation is unserviceable, the cost of any investigatory or remedial work shall be borne by others.

Kisiel Piling Ltd.'s current policy is to employ an independent specialist (Test consult, PMC, CET or Fugro) to undertake testing. Where required, a realistic number of visits to the site is allowed for, reflecting where possible the client's testing regime and construction programme. Additional visits required shall be re-measured on completion of the works.

Preparation of the pile head must be carried out correctly and access made available so that the testing may be carried out. The pile head must be trimmed to sound grout/concrete to leave an approximately flat surface, perpendicular to the pile axis. It is not necessary to trim to cut off level - it may be advantageous to test at a higher level to allow more piles to be tested per visit to site. All loose debris/surface water is to be cleaned off the pile head. The test cannot be carried out after the reinforcement has been placed. A minimum of five working days notice is required for integrity testing.

The majority of contracts employ static load testing to evaluate pile performance. When carried out as preliminary tests the information is invaluable in the assessment of the pile design. On smaller contracts it is usual to test only working piles that can resolve queries arising during the piling process or from integrity testing. Where required, a pile cap will



be formed to allow the test load to be applied and a suitable reaction system provided.

In most cases the testing procedures detailed in the 'I.C.E. Specification for Piling' or the 'DOT Specification for Highway Works' are used.

Anchor piles are used to provide the reaction for the testing jack, these are constructed during the piling works. An independent testing house visits the site after the piles have cured and at date to suit the program / access etc. to erect the testing frame and undertake the test. Hiab wagon access is thus required to the area. Our normal testing house is PMC Ltd, their Method Statements will be issued separately.



SUITE 1 10 KENNINGTON PARK PLACE LONDON SE11 4AS

TEL: 020 4530 8000

WEB: www.takstructures.co.uk

Client:
NEW WAYS Ltd.

PILE SCHEDULE:
Sheet No: HAT-TAK-XX-FN-SH-S-0400
Pile Dwg No: HAT-TAK-XX-FN-DR-S-0001

TAK Project No:

20558

Project Title:

Comet Way, Hatfield AL10 9TF

Rev: C1
Northings

PILE No:	Pile Dia. (mm)	Vertical Load (KN)	Horizontal Load (KN)	Pile Cut Off Level (m)	Eastings	Northings
P1	450	500	15	75.155	521609918	208764107
P2	450	575	15	75.155	521611070	208767987
P3	450	575	15	75.155	521612282	208767392
P4	450	575	15	75.155	521614615	208775214
P5	450	575	15	75.155	521615827	208774620
P6	450	500	15	75.155	521617001	208778546
P7	450	250	15	75.155	521628436	208793429
P8	450	250	15	75.155	521629648	208792835
P9	450	425	50	75.155	521627563	208790230
P10	450	425	50	75.155	521626968	208789018
P11	450	550	15	75.155	521624018	208783002
P12	450	550	15	75.155	521623423	208781790
P13	450	600	15	75.155	521621213	208777233
P14	450	600	15	75.155	521620619	208776021
P15	450	550	15	75.155	521618437	208773339
P16	450	550	15	75.155	521619785	208773430
P17	450	550	15	75.155	521619190	208772218
P18	450	150	15	75.155	521616866	208768662
P19	450	750	15	75.155	521615898	208766392
P20	450	750	15	75.155	521615304	208765180
P21	450	650	15	75.155	521613835	208762186
P22	450	375	15	75.155	521618969	208758916
P23	450	375	15	75.155	521619563	208760128
P24	450	500	50	75.155	521620254	208763070
P25	450	500	50	75.155	521621466	208762475
P26	450	500	50	75.155	521621376	208763823
P27	450	500	50	75.155	521623802	208770303
P28	450	500	50	75.155	521625014	208769708
P29	450	500	50	75.155	521624923	208771056
P30	450	625	15	75.155	521626051	208773356
P31	450	625	15	75.155	521626646	208774568
P32	450	775	15	75.155	521628159	208779467
P33	450	775	15	75.155	521628753	208780679
P34	450	750	50	75.155	521631704	208786695
P35	450	750	50	75.155	521632299	208787907



SUITE 1 10 KENNINGTON PARK PLACE LONDON SE11 4AS

TEL: 020 4530 8000

WEB: www.takstructures.co.uk

Client: NEW WAYS Ltd.	PILE SCHEDULE:
	Sheet No: HAT-TAK-XX-FN-SH-S-0400
	Pile Dwg No: HAT-TAK-XX-FN-DR-S-0001

TAK Project No:

Project Title:

20558

Comet Way, Hatfield AL10 9TF

Rev: **C1**

PILE No:	Pile Dia. (mm)	Vertical Load (KN)	Horizontal Load (KN)	Pile Cut Off Level (m)	Eastings	Northings
P36	450	500	15	75.155	521635591	208790455
P37	450	275	15	75.155	521636698	208792712
P38	450	650	50	75.155	521637192	208785506
P39	450	650	50	75.155	521636597	208784294
P40	450	725	15	75.155	521633647	208778279
P41	450	725	15	75.155	521633052	208777067
P42	450	550	50	75.155	521625248	208760598
P43	450	550	50	75.155	521626369	208761351
P44	450	550	50	75.155	521626460	208760004
P45	450	450	15	75.155	521624565	208757674
P46	450	450	15	75.155	521623971	208756462
P47	450	575	50	75.155	521637805	208774736
P48	450	575	50	75.155	521638399	208775948
P49	450	425	50	75.155	521641350	208781963
P50	450	425	50	75.155	521641944	208783175
P51	450	275	15	75.155	521643334	208786122
P52	450	425	15	75.155	521638468	208768755
P53	450	425	15	75.155	521637873	208767543
P54	450	700	50	75.155	521636731	208765235
P55	450	700	50	75.155	521635609	208764482
P56	450	700	50	75.155	521636821	208763887
P57	450	700	50	75.155	521633282	208757960
P58	450	700	50	75.155	521633373	208756613
P59	450	700	50	75.155	521632161	208757207
P60	450	475	15	75.155	521631478	208754283
P61	450	475	15	75.155	521630884	208753071
P62	450	500	15	75.155	521637618	208749769
P63	450	500	15	75.155	521638212	208750981
P64	450	700	50	75.155	521638894	208753904
P65	450	700	50	75.155	521640016	208754658
P66	450	700	50	75.155	521640106	208753310
P67	450	750	50	75.155	521642448	208761150
P68	450	750	50	75.155	521643569	208761903
P69	450	750	50	75.155	521643660	208760555
P70	450	575	15	75.155	521644650	208764219



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Client: NEW WAYS Ltd.	PILE SCHEDULE:
	Sheet No: HAT-TAK-XX-FN-SH-S-0400
	Pile Dwg No: HAT-TAK-XX-FN-DR-S-0001

TAK Project No:

Project Title:

20558

Comet Way, Hatfield AL10 9TF

Rev: **C1**

PILE No:	Pile Dia. (mm)	Vertical Load (KN)	Horizontal Load (KN)	Pile Cut Off Level (m)	Easting	Northings
P71	450	575	15	75.155	521645244	208765431
P72	450	425	15	75.155	521652068	208762084
P73	450	425	15	75.155	521651473	208760872
P74	450	625	50	75.155	521650303	208758600
P75	450	625	50	75.155	521649182	208757847
P76	450	625	50	75.155	521650394	208757253
P77	450	725	50	75.155	521646749	208751355
P78	450	725	50	75.155	521645628	208750602
P79	450	725	50	75.155	521646840	208750007
P80	450	475	15	75.155	521644946	208747678
P81	450	475	15	75.155	521644351	208746466
P82	450	725	50	75.155	521653940	208755173
P83	450	725	50	75.155	521654535	208756385
P84	450	500	15	75.155	521655990	208759353
P85	450	400	15	75.155	521651502	208742958
P86	450	400	15	75.155	521652097	208744170
P87	450	575	50	75.155	521652779	208747094
P88	450	575	50	75.155	521653991	208746499
P89	450	575	50	75.155	521653900	208747847
P90	450	525	15	75.155	521661364	208764508
P91	450	525	15	75.155	521662576	208763913
P92					NOT	USED
P93					NOT	USED
P94	450	425	15	75.155	521664775	208771461
P95	450	425	15	75.155	521665987	208770867
P96	450	450	15	75.155	521667924	208777881
P97	450	450	15	75.155	521669136	208777286
P98	450	450	15	75.155	521670074	208783910
P99	450	250	15	75.155	521671335	208784948
P100	450	450	15	75.155	521671286	208783315
P101	450	650	15	75.155	521674391	208781792
P102	450	650	15	75.155	521675739	208781883
P103	450	650	15	75.155	521675144	208780671
P104	450	300	15	75.155	521677241	208781968
P105	450	450	15	75.155	521678373	208780591



SUITE 1 10 KENNINGTON PARK PLACE LONDON SE11 4AS

TEL: 020 4530 8000

WEB: www.takstructures.co.uk

Client: NEW WAYS Ltd.	PILE SCHEDULE:
	Sheet No: HAT-TAK-XX-FN-SH-S-0400
	Pile Dwg No: HAT-TAK-XX-FN-DR-S-0001

TAK Project No:

Project Title:

20558

Comet Way, Hatfield AL10 9TF

Rev: **C1**

PILE No:	Pile Dia. (mm)	Vertical Load (KN)	Horizontal Load (KN)	Pile Cut Off Level (m)	Eastings	Northings
P106	450	450	15	75.155	521677778	208779378
P107	450	250	15	75.155	521680006	208780612
<i>P108</i>	<i>450</i>	<i>650</i>	<i>50</i>	<i>75.155</i>	<i>521672406</i>	<i>208776551</i>
<i>P109</i>	<i>450</i>	<i>650</i>	<i>50</i>	<i>75.155</i>	<i>521671284</i>	<i>208775798</i>
<i>P110</i>	<i>450</i>	<i>650</i>	<i>50</i>	<i>75.155</i>	<i>521672496</i>	<i>208775203</i>
P111	450	650	50	75.155	521669275	208770168
P112	450	650	50	75.155	521668154	208769415
P113	450	650	50	75.155	521669366	208768820
P114	450	625	50	75.155	521665846	208763178
P115	450	625	50	75.155	521664725	208762425
P116	450	625	50	75.155	521665937	208761830
P117	450	525	50	75.155	521658659	208745513
P118	450	525	50	75.155	521657537	208744760
P119	450	525	50	75.155	521658750	208744165
P120	450	425	15	75.155	521656855	208741836
P121	450	425	15	75.155	521656261	208740624
P122	450	500	15	75.155	521662595	208738269
P123	450	700	15	75.155	521663250	208741139
P124	450	700	15	75.155	521664462	208740544
P125	450	600	50	75.155	521666697	208746633
P126	450	600	50	75.155	521666606	208747980
P127	450	600	50	75.155	521667818	208747386
P128	450	775	50	75.155	521668733	208752317
P129	450	775	50	75.155	521669945	208751722
P130	450	625	50	75.155	521671952	208758880
P131	450	625	50	75.155	521673164	208758285
P132	450	625	50	75.155	521673074	208759633
P133	450	675	50	75.155	521675381	208765870
P134	450	675	50	75.155	521676593	208765275
P135	450	675	50	75.155	521676502	208766623
P136	450	600	50	75.155	521678820	208772882
P137	450	600	50	75.155	521680032	208772288
P138	450	600	50	75.155	521679942	208773635
P139	450	600	15	75.155	521680724	208778685
P140	450	600	15	75.155	521682072	208778776



SUITE 1 10 KENNINGTON PARK PLACE LONDON SE11 4AS

TEL: 020 4530 8000

WEB: www.takstructures.co.uk

Client: NEW WAYS Ltd.	PILE SCHEDULE:
	Sheet No: HAT-TAK-XX-FN-SH-S-0400
	Pile Dwg No: HAT-TAK-XX-FN-DR-S-0001

TAK Project No:

Project Title:

20558

Comet Way, Hatfield AL10 9TF

Rev: **C1**

PILE No:	Pile Dia. (mm)	Vertical Load (KN)	Horizontal Load (KN)	Pile Cut Off Level (m)	Eastings	Northings
P141	450	600	15	75.155	521681477	208777564
P142	450	450	15	75.155	521684869	208777405
P143	450	450	15	75.155	521684274	208776193
P144	450	450	15	75.155	521685622	208776283
P145	450	425	15	75.155	521682524	208771500
P146	450	425	15	75.155	521683736	208770906
P147	450	450	15	75.155	521679084	208764488
P148	450	450	15	75.155	521680297	208763893
P149	450	500	15	75.155	521675656	208757498
P150	450	500	15	75.155	521676868	208756903
P151	450	400	15	75.155	521672265	208750585
P152	450	400	15	75.155	521673477	208749990
P153	450	400	15	75.155	521670695	208744319
P154	450	400	15	75.155	521669483	208744913
P155	450	350	15	75.155	521666782	208739406
P156	450	350	15	75.155	521667994	208738812
P157	450	150	15	75.155	521664755	208737905
P158	450	150	15	75.155	521664161	208736693
P159	450	200	15	75.155	521666226	208736244
P160	450	400	15	75.155	521673651	208794269
P161	450	350	15	75.155	521675230	208799021
P162	450	350	15	75.155	521676442	208798426
P163	450	500	50	75.155	521678101	208803343
P164	450	575	15	75.155	521680605	208802170
P165	450	475	15	75.155	521677687	208797760
P166	450	475	15	75.155	521678899	208797166
P167	450	525	15	75.155	521676107	208793008
P168	450	500	15	75.155	521684304	208789043
P169	450	400	15	75.155	521685182	208792365
P170	450	400	15	75.155	521686394	208791771
P171	450	425	15	75.155	521686665	208795390
P172	450	425	15	75.155	521687877	208794795
P173	450	575	15	75.155	521688755	208798117
P174	450	350	15	75.155	521686655	208788483
P175	450	350	15	75.155	521686060	208787271



SUITE 1 10 KENNINGTON PARK PLACE LONDON SE11 4AS

TEL: 020 4530 8000 WEB: www.takstructures.co.uk

Client: NEW WAYS Ltd.	PILE SCHEDULE:
	Sheet No: HAT-TAK-XX-FN-SH-S-0400
	Pile Dwg No: HAT-TAK-XX-FN-DR-S-0001

TAK Project No:

20558

Project Title:

Comet Way, Hatfield AL10 9TF

Rev: **C1**

PILE No:	Pile Dia. (mm)	Vertical Load (KN)	Horizontal Load (KN)	Pile Cut Off Level (m)	Eastings	Northings
P176	450	500	15	75.155	521690411	208786048
P177	450	275	15	75.155	521691289	208789369
P178	450	275	15	75.155	521692501	208788775
P179	450	325	15	75.155	521692772	208792394
P180	450	325	15	75.155	521693984	208791800
P181	450	550	50	75.155	521694862	208795121



SUITE 1 10 KENNINGTON PARK PLACE LONDON SE11 4AS

TEL: 020 4530 8000 WEB: www.takstructures.co.uk

Client: NEW WAYS Ltd.	PILE SCHEDULE:
	Sheet No: HAT-TAK-XX-FN-SH-S-0401
	Pile Dwg No: HAT-TAK-XX-FN-DR-S-0001

TAK Project No:

Project Title:

20558

Comet Way, Hatfield AL10 9TF

Rev: **C1**

PILE No:	Pile Dia. (mm)	Vertical Load (KN)	Horizontal Load (KN)	Pile Cut Off Level (m)	Eastings	Northings
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CORE 1

C1P1	450	725	75	74.015	521679375	208791379
C1P2	450	750	75	74.015	521680190	208793040
C1P3	450	725	75	74.015	521681528	208794065
C1P4	450	750	75	74.015	521682233	208795502
C1P5	450	775	75	74.015	521683337	208797754
C1P6	450	800	75	74.015	521684442	208800006
C1P7	450	475	75	74.015	521682149	208790018
C1P8	450	500	75	74.015	521682964	208791679
C1P9	450	525	75	74.015	521683629	208793035
C1P10	450	525	75	74.015	521684702	208794291
C1P11	450	550	75	74.015	521685806	208796543
C1P12	450	600	75	74.015	521686911	208798795

CORE 2

C2P1	450	625	75	74.015	521657509	208755266
C2P2	450	575	75	74.015	521658142	208756557
C2P3	450	550	75	74.015	521658775	208757847
C2P4	450	650	75	74.015	521658721	208754672
C2P5	450	600	75	74.015	521659354	208755962
C2P6	450	575	75	74.015	521659987	208757253
C2P7	450	675	75	74.015	521659933	208754077
C2P8	450	625	75	74.015	521660566	208755368
C2P9	450	575	75	74.015	521661199	208756658
C2P10	450	675	75	74.015	521661145	208753483
C2P11	450	625	75	74.015	521661778	208754773
C2P12	450	600	75	74.015	521662411	208756064
C2P13	450	700	75	74.015	521662357	208752888
C2P14	450	650	75	74.015	521662990	208754179
C2P15	450	600	75	74.015	521663623	208755469
C2P16	450	725	75	74.015	521658939	208752393
C2P17	450	750	75	74.015	521660219	208751765
C2P18	450	775	75	74.015	521661498	208751137

CORE 3

C3P1	450	600	75	74.015	521627109	208768117
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SUITE 1 10 KENNINGTON PARK PLACE LONDON SE11 4AS

TEL: 020 4530 8000 WEB: www.takstructures.co.uk

Client: NEW WAYS Ltd.	PILE SCHEDULE:
	Sheet No: HAT-TAK-XX-FN-SH-S-0401
	Pile Dwg No: HAT-TAK-XX-FN-DR-S-0001

TAK Project No:

20558

Project Title:

Comet Way, Hatfield AL10 9TF

Rev: **C1**

PILE No:	Pile Dia. (mm)	Vertical Load (KN)	Horizontal Load (KN)	Pile Cut Off Level (m)	Eastings	Northings
C3P2	450	650	75	74.015	521627839	208769606
C3P3	450	725	75	74.015	521628569	208771095
C3P4	450	775	75	74.015	521629300	208772583
C3P5	450	550	75	74.015	521628399	208767484
C3P6	450	625	75	74.015	521629130	208768973
C3P7	450	700	75	74.015	521629860	208770461
C3P8	450	750	75	74.015	521630590	208771950
C3P9	450	525	75	74.015	521629690	208766851
C3P10	450	600	75	74.015	521630420	208768340
C3P11	450	675	75	74.015	521631151	208769828
C3P12	450	725	75	74.015	521631881	208771317
C3P13	450	625	75	74.015	521632142	208768784
C3P14	450	700	75	74.015	521633093	208770723
C3P15	450	600	75	74.015	521633354	208768189
C3P16	450	675	75	74.015	521634305	208770128
C3P17	450	575	75	74.015	521634566	208767595
C3P18	450	650	75	74.015	521635517	208769534
C3P19	450	500	75	74.015	521630902	208766256
C3P20	450	500	75	74.015	521632114	208765662
CORE 4						
C4P1	450	775	75	75.055	521641813	208787282
C4P2	450	700	75	75.055	521640316	208788017
C4P3	450	650	75	75.055	521638803	208788759
C4P4	450	600	75	75.055	521637305	208789493
C4P5	450	400	75	75.055	521638509	208791947
C4P6	450	450	75	75.055	521640006	208791213
C4P7	450	500	75	75.055	521641520	208790470
C4P8	450	550	75	75.055	521643017	208789736
C4P9	450	675	75	75.055	521642415	208788509



SUITE 1 10 KENNINGTON PARK PLACE LONDON SE11 4AS

TEL: 020 4530 8000 WEB: www.takstructures.co.uk

Client: NEW WAYS Ltd.	PILE SCHEDULE:
	Sheet No: HAT-TAK-XX-FN-SH-S-0402
	Pile Dwg No: HAT-TAK-XX-FN-DR-S-0001

TAK Project No:

20558

Project Title:

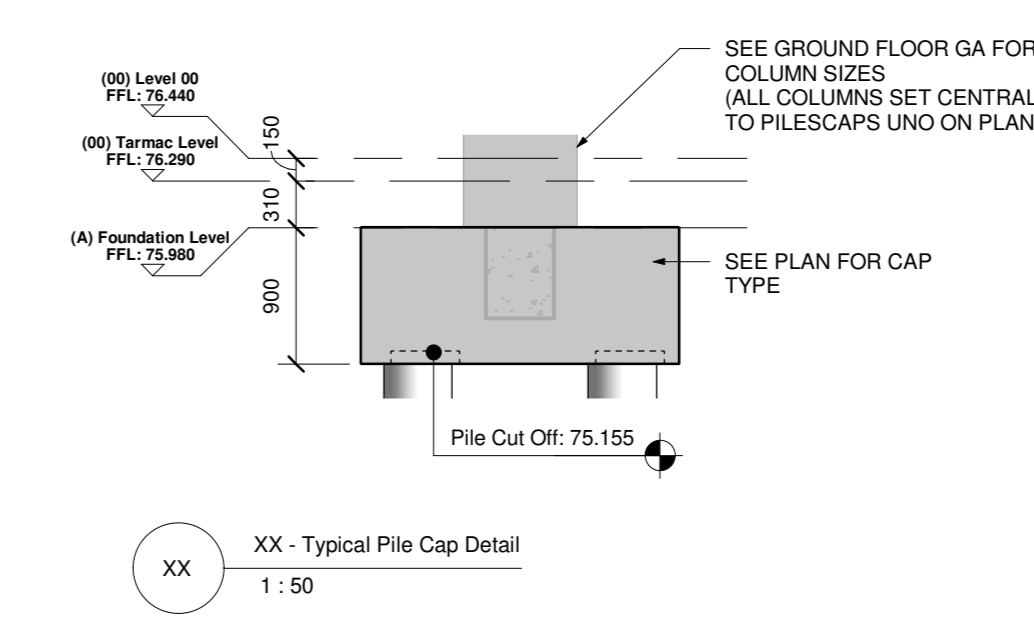
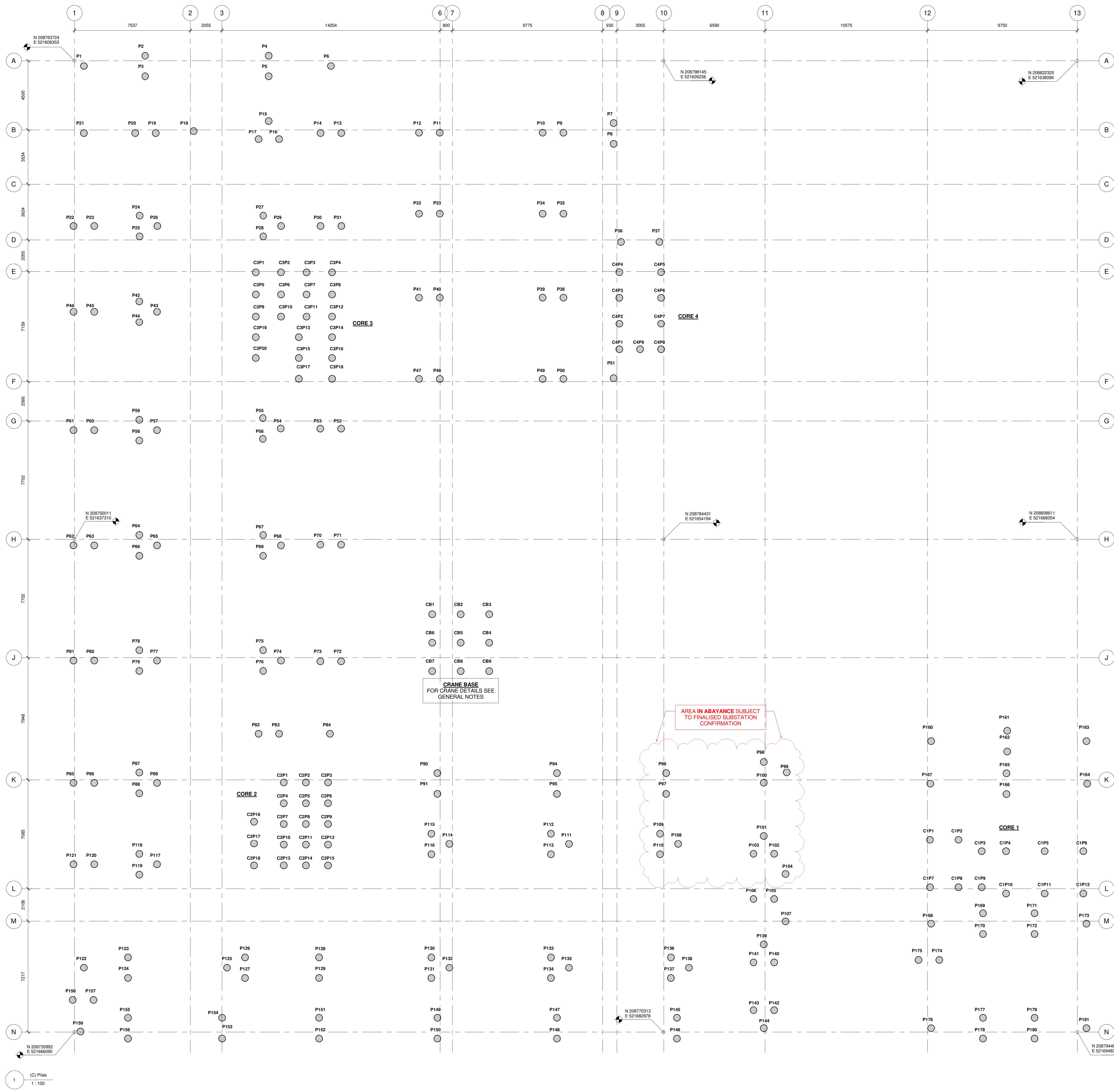
Comet Way, Hatfield AL10 9TF

Rev: **C1**

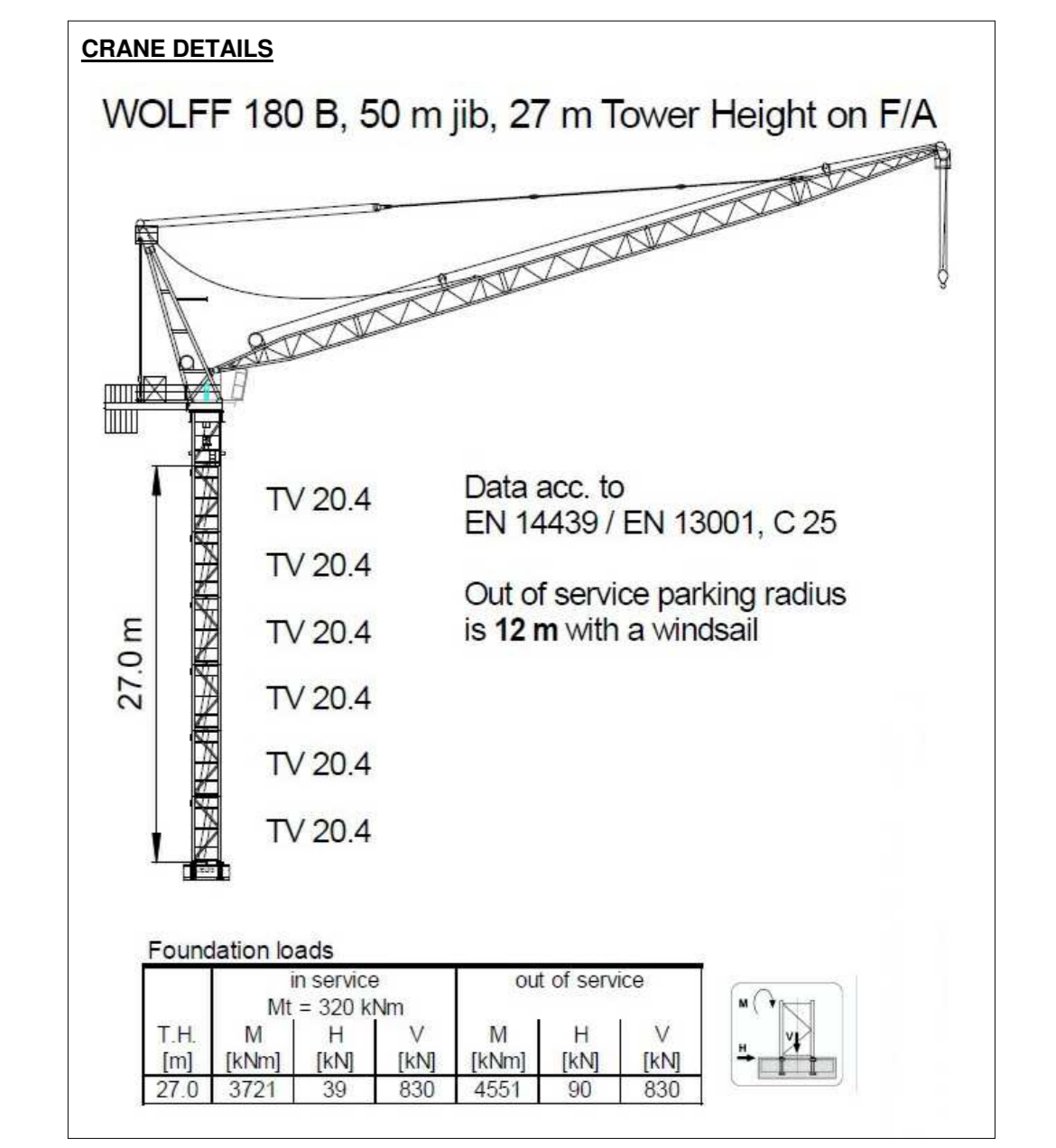
PILE No:	Pile Dia. (mm)	Vertical Load (KN)	Horizontal Load (KN)	Pile Cut Off Level (m)	Eastings	Northings
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CRANE BASE						
CBP1	450	-400/750	50	74.665	521651934	208768761
CBP2	450	-400/750	50	74.665	521652748	208770422
CBP3	450	-400/750	50	74.665	521653563	208772083
CBP4	450	-400/750	50	74.665	521655224	208771268
CBP5	450	500	50	74.665	521654409	208769607
CBP6	450	-400/750	50	74.665	521653595	208767946
CBP7	450	-400/750	50	74.665	521655256	208767132
CBP8	450	-400/750	50	74.665	521656070	208768793
CBP9	450	-400/750	50	74.665	521656885	208770454

CRANE BASE 1100mm DEEP



- PILE NOTES**
- ALL BEARING PILES SHOWN ARE TO BE AS NOTED ON PLAN.
 - ALLOW MIN. 40 BAR DIAMETERS ANCHORAGE LENGTH FROM PILE REINFORCEMENT INTO GROUND BEAMS.
 - PILE DIAMETERS TO BE ASSUMED 450mm DIA.
 - FINAL PILE DESIGN TO BE RESPONSIBILITY OF THE NOMINATED PILING CONTRACTOR BASED ON LOADS PROVIDED BY TAK STRUCTURES LTD.
 - POSITION OF ALL UNDERGROUND SERVICES IS TO BE RECORDED AND ANY DIVERSIONS UNDERTAKEN, PRIOR TO ANY WORKS COMMENCING.
 - CONTRACTOR TO ENSURE THAT THE DRAINAGE IS INCORPORATED, & THAT SLEEVES ARE PUT IN PLACE IN GROUND BEAMS OR PILECAPS WHERE INSTRUCTED BY THE STRUCTURAL ENGINEER, PRIOR TO CASTING THE FOUNDATIONS.
 - ALL CONCRETE USED IS TO BE: GRADE RC-32/40 TO DS-4 & AC-4
 - ALL LOADS GIVEN WITHIN PILING SCHEDULE ARE WORKING LOADS & THE FACTOR OF SAFETY FOR DESIGN IS TO BE 3.0.
 - ALL PILING TO BE INSTALLED IN ACCORDANCE WITH THE INSTITUTION OF CIVIL ENGINEERS' SPECIFICATION FOR PILING AND EMBEDDED RETAINING WALLS, WITH THE FOLLOWING TOLERANCES:
75mm OUT OF POSITION - VERTICAL ALIGNMENT = 1:50
 - SETTING OUT BEARING PILES IS TO BE THE RESPONSIBILITY OF THE NOMINATED PILING CONTRACTOR.
- PILE SCHEDULE**
- FOR PILE SCHEDULE & CO-ORDINATES SEE SCHEDULE NUMBER
HAT-TAK-XX-FN-SH-S-040
- PILE-CAPS & CORE BASES**
- FOR PILE-CAP & CORE BASE DETAILS & SETTING OUT SEE DRAWING NUMBER
HAT-TAK-XX-FN-DR-S-0002
- CONCRETE**
- REINFORCED CONCRETE FOR GROUND BEAMS TO BE A MINIMUM OF RC32/40 OR AS NOTED ON DRAWING.
 - MINIMUM COVER TO REINFORCEMENT IN BURIED CONCRETE TO BE 50mm UNLESS OTHERWISE NOTED ON DRAWINGS.



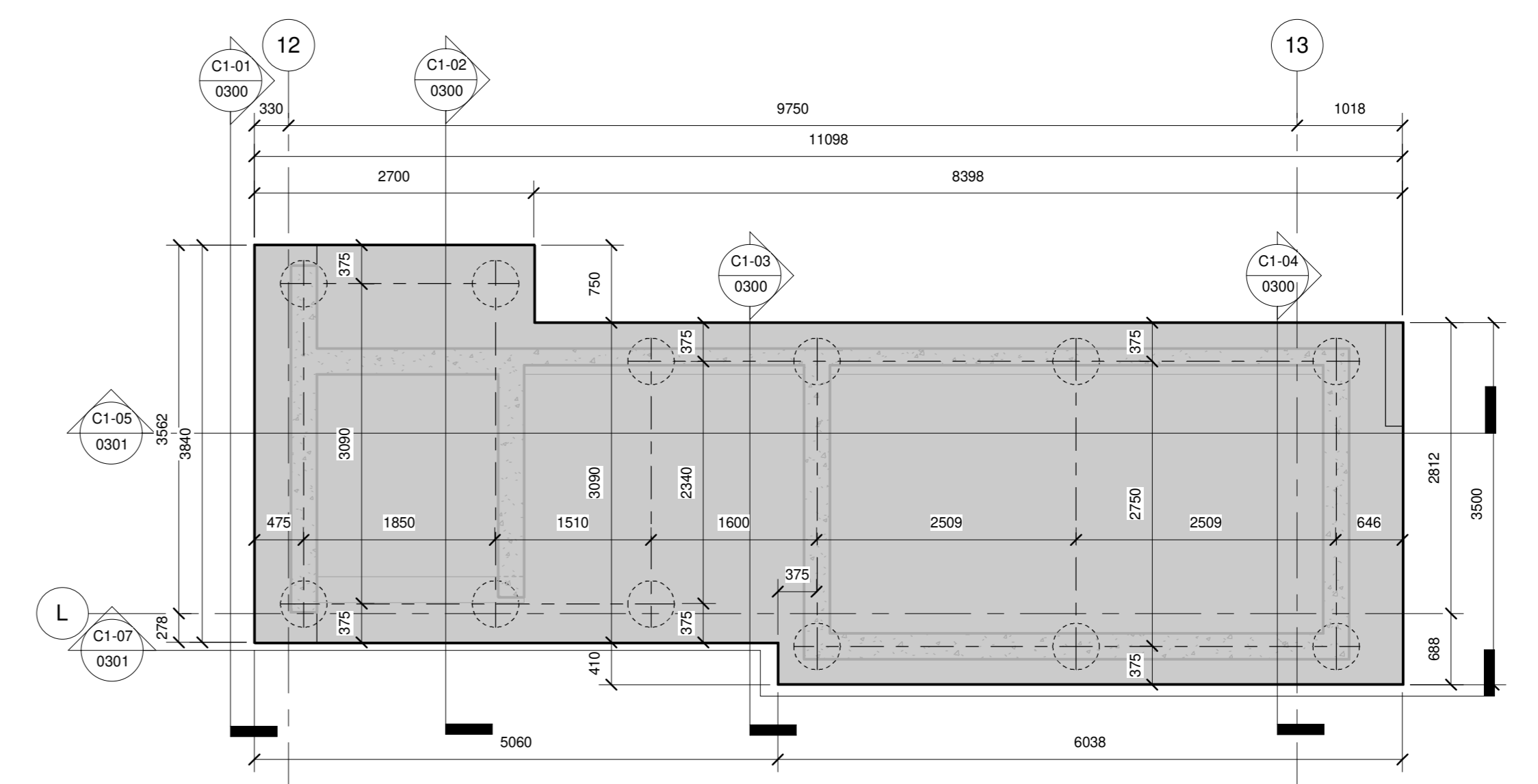
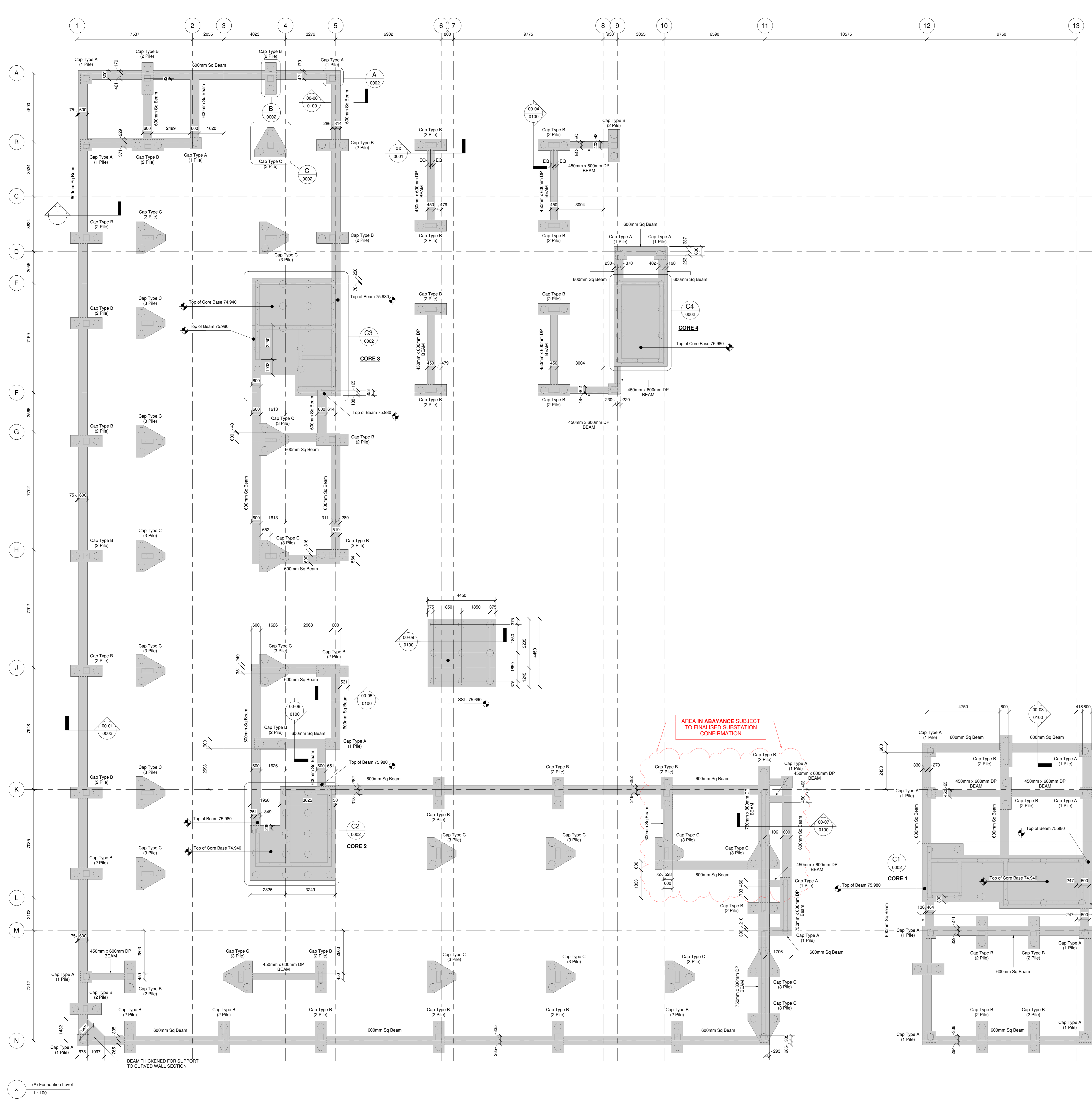
- DIMENSIONS ARE NOT TO BE SCALED FROM THIS DRAWING
- ALL DIMENSIONS ARE TO BE CHECKED ON SITE PRIOR TO COMMENCEMENT OF ANY WORKS
- ANY DISCREPANCIES REPORTED IMMEDIATELY TO THE ENGINEER
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL DESIGN TEAM DETAILS & SPECIFICATIONS
- PILE PROTECTION SPECIFICATION TO BE REFERRED TO UNLESS OTHERWISE SPECIFIED
- ALL STRUCTURAL WORKS TO BE COMPLETED TO THE APPROVAL OF BUILDING CONTROL
- ALL TEMPORARY WORKS AND STABILITY OF THE BUILDING AND NEIGHBOURING BUILDINGS
- TO BE THE RESPONSIBILITY OF THE CONTRACTOR FOR THE DURATION OF THE CONSTRUCTION PERIOD
- METHOD STATEMENTS AND SEQUENCE OF WORKS MAY BE REQUIRED BEFORE WORK COMMENCES

REV	DATE	BY	CHKD	NOTES
C1	21.07.22	NPM	HN	ISSUED FOR CONSTRUCTION
T1	01.07.22	NPM	HN	ISSUED FOR TENDER

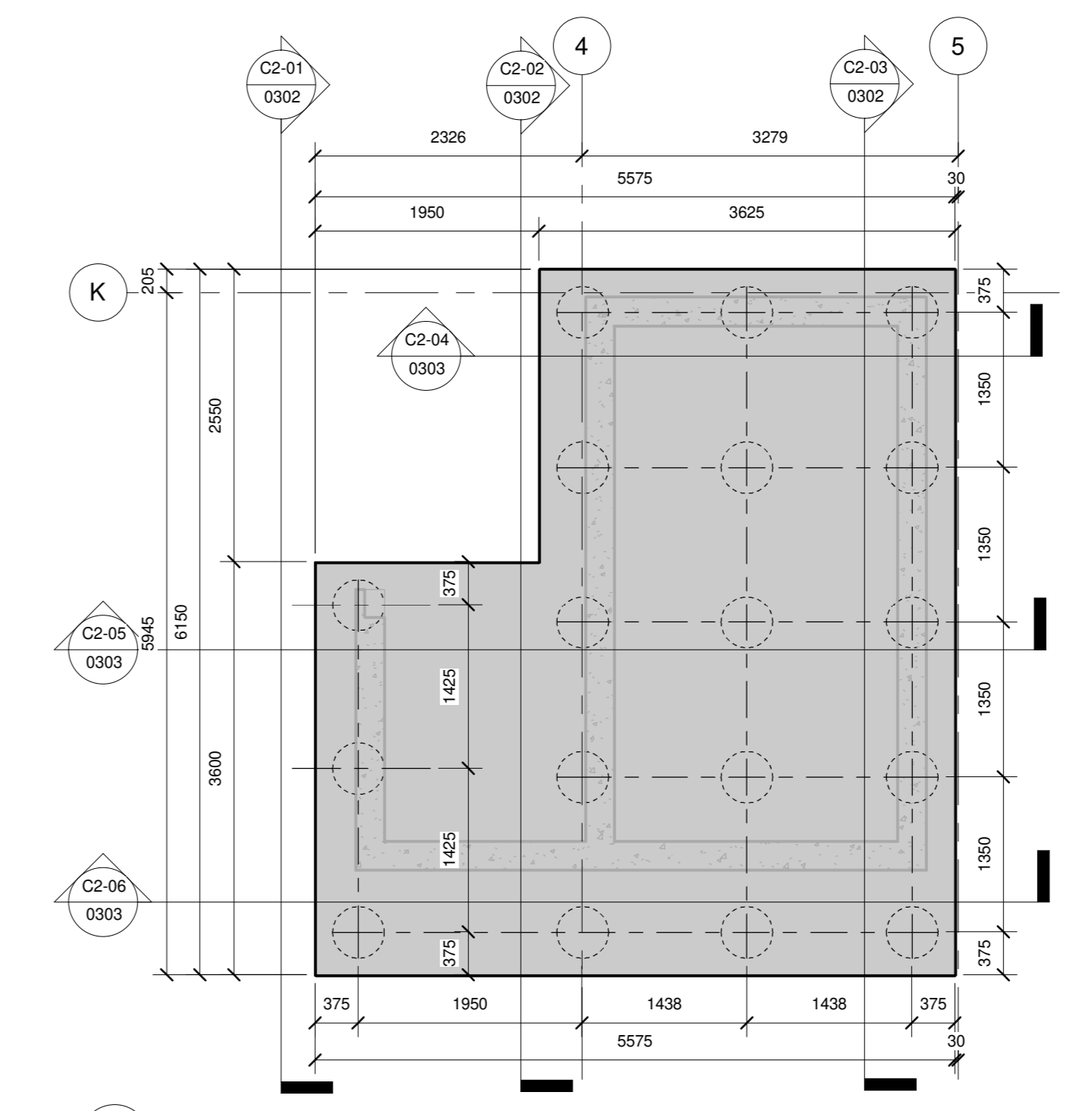
BY: Author	DRAWING TITLE: PILE SETTING OUT GA
CHKD: Checker	
SCALE @ A0: As indicated	DRAWING NO: HAT-TAK-XX-FN-DR-S-0001
DATE: Jul22	DRAWING STATUS: CONSTRUCTION
	Rev: C1

CLIENT: New Ways Ltd
PROJECT: Comet Way, Hatfield AL10 9TF

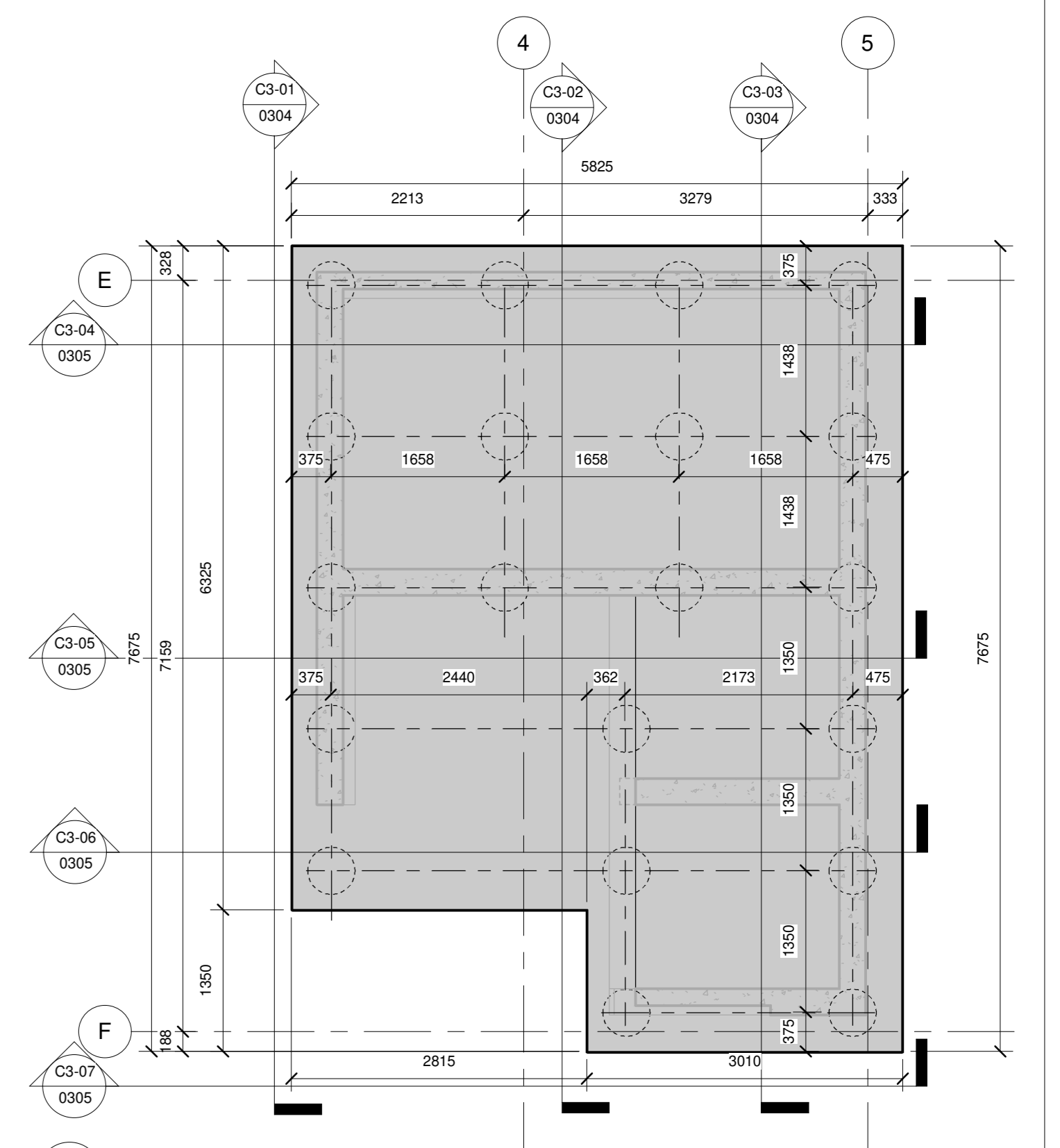




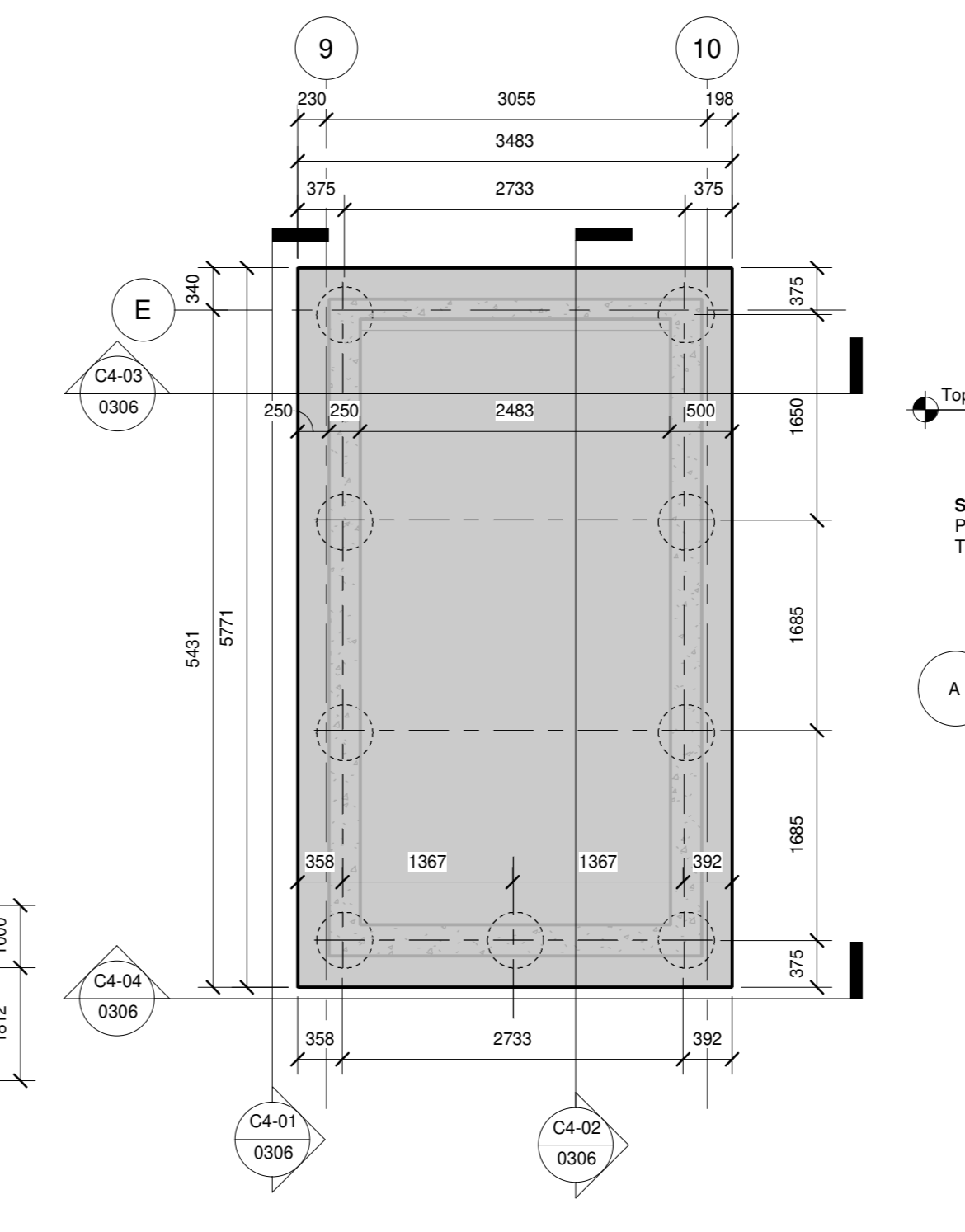
C1 (C1) CORE BASE (1000mm DP)
1:50



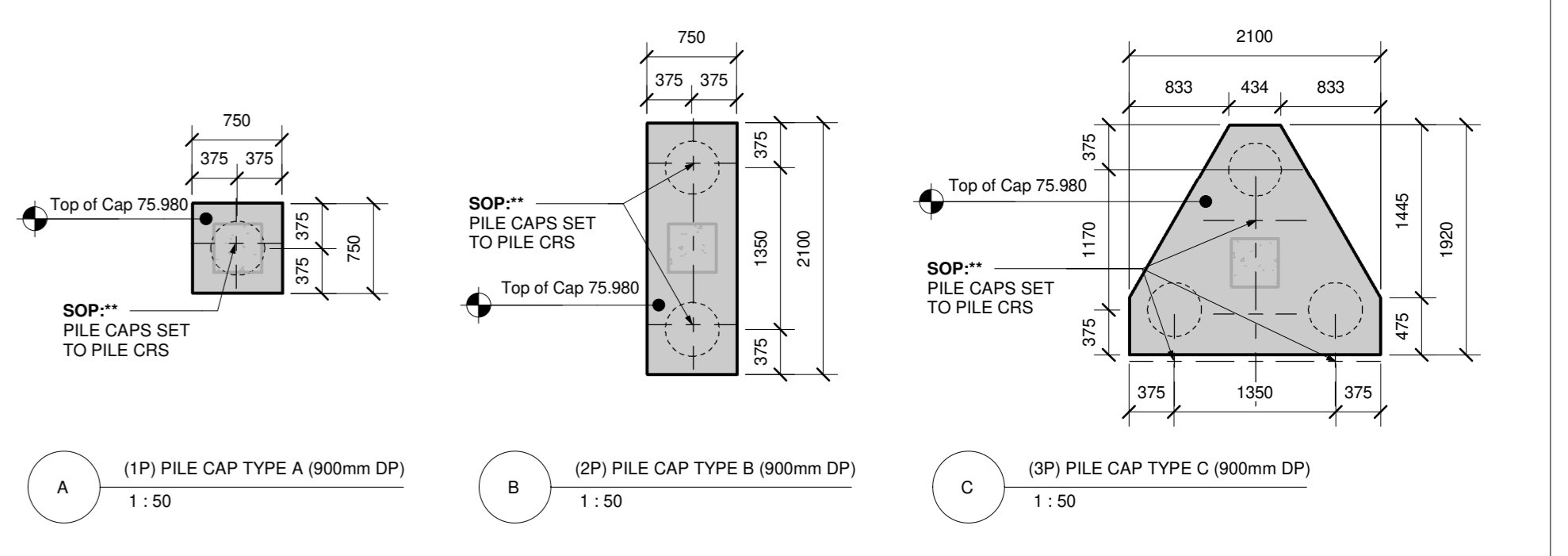
C2 (C2) CORE BASE (1000mm DP)
1:50



C3 (C3) CORE BASE (1000mm DP)
1:50



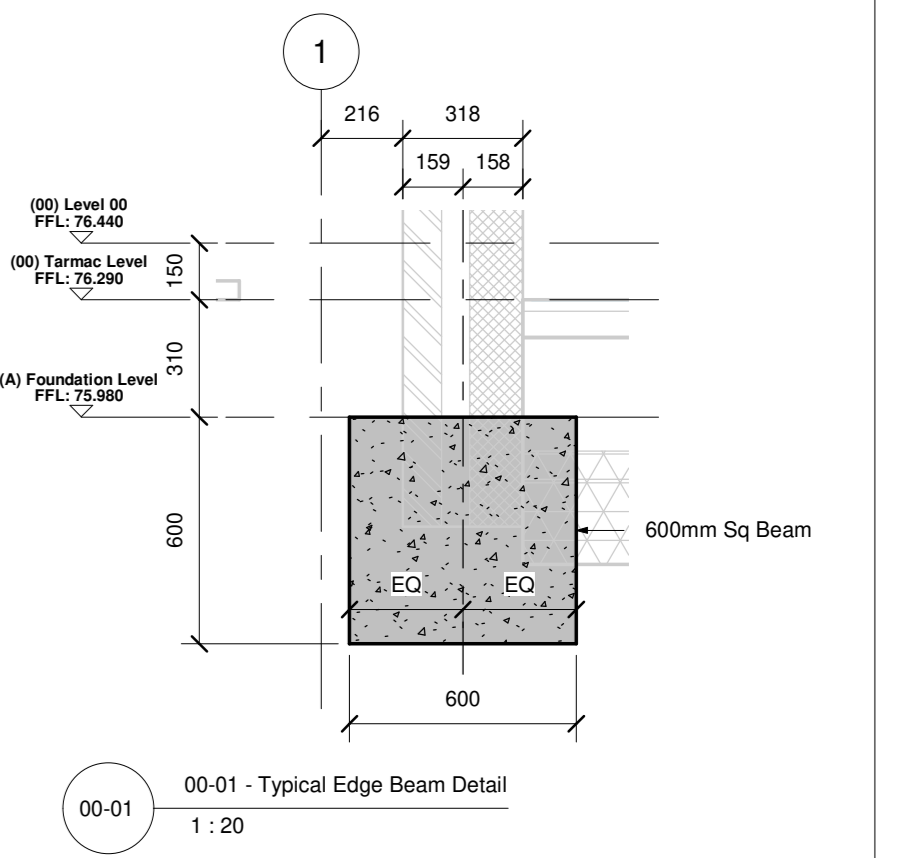
C4 (C4) CORE BASE (1000mm DP)
1:50



A (1P) PILE CAP TYPE A (900mm DP)
1:50

B (2P) PILE CAP TYPE B (900mm DP)
1:50

C (3P) PILE CAP TYPE C (900mm DP)
1:50



00-01 Typical Edge Beam Detail
1:20

- DIMENSIONS ARE NOT TO BE SCALED FROM THIS DRAWING
- ALL DIMENSIONS ARE TO BE CHECKED ON SITE PRIOR TO COMMENCEMENT OF ANY WORKS
- ANY DISCREPANCIES REPORTED IMMEDIATELY TO THE ENGINEER
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL DESIGN TEAM DETAILS & SPECIFICATIONS
- PIPE PROTECTION SPECIFICATION TO BE CONSULTED FOR ANY UNEXPECTED OBSTACLES
- ALL STRUCTURAL WORKS TO BE COMPLETED TO THE APPROVAL OF BUILDING CONTROL
- ALL TEMPORARY WORKS AND STABILITY OF THE BUILDING AND NEIGHBORING BUILDINGS
- TO BE THE RESPONSIBILITY OF THE CONTRACTOR FOR THE DURATION OF THE CONSTRUCTION PERIOD
- METHOD STATEMENTS AND SEQUENCE OF WORKS MAY BE REQUIRED BEFORE WORK COMMENCES

REV	DATE	BY	CHKD	NOTES
C1	21.07.22	NPM	HN	ISSUED FOR CONSTRUCTION
T1	01.07.22	NPM	HN	ISSUED FOR TENDER

BY:	Author	DRAWING TITLE:	FOUNDATION PLAN (BEAMS & CORE BASES)
CHKD:	Checker	DRAWING NO.:	HAT-TAK-XX-FN-DR-S-0002
SCALE:	As Indicated	DRAWING STATUS:	CONSTRUCTION
DATE:	Jul22	Rev:	C1

CLIENT:	New Ways Ltd
PROJECT:	Comet Way, Hatfield AL10 9TF

TAK STRUCTURES

SLATE 1, 10 KENNINGTON PARK PLACE LONDON SE11 4AS
www.takstructures.co.uk
T: 020 4530 8000