

- NOTES**
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS.
 - FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING. ALL DIMENSIONS TO BE CHECKED ON SITE. ENGINEER TO BE INFORMED IMMEDIATELY OF ANY DISCREPANCIES BEFORE ANY WORK PROCEEDS.
 - REFER TO DRAWING **25018-DOW-Z2-ZZ-DR-S** FOR PROJECT SPECIFICATION.

BLINDING LEGEND

	FINISHED BLINDING LEVEL=4.548 (TBC. BY CRANE BASE DESIGNER)
	FINISHED BLINDING LEVEL=5.000
	FINISHED BLINDING LEVEL=6.386
	FINISHED BLINDING LEVEL=6.186
	FINISHED BLINDING LEVEL=5.100

PILING CONTRACTOR MAY REQUIRE ADDITIONAL TEMPORARY WORKS AT THIS LEVEL GIVEN THE EXTRA DEPTH REQUIRED TO CRANE BASE. DESIGN AND SPECIFICATION OF ALL TEMPORARY WORKS SHALL BE THE RESPONSIBILITY OF THE MAIN CONTRACTOR AND THEIR ENGINEER. TEMPORARY WORKS SHOWN INDICATIVELY ONLY. CONTRACTOR TO ALLOW FOR SAME AT TENDER STAGE. IN CONJUNCTION WITH THEIR PILING SUBCONTRACTOR AND TEMPORARY WORKS ENGINEER.

NOTE: ALL TEMPORARY WORKS SHALL REMAIN IN PLACE UNTIL THE BASEMENT PERMANENT STRUCTURE HAS BEEN COMPLETED. THIS WILL BE CARRIED OUT BY A SEPARATE CONTRACTOR AS PART OF A FUTURE CONTRACT. AS SUCH TEMPORARY WORKS WILL BE HANDED OVER FROM ONE CONTRACTOR TO ANOTHER.

TEMPORARY SHORING REQUIREMENTS SHOWN INDICATIVELY ONLY. ALL TEMPORARY WORKS SHALL BE THE RESPONSIBILITY OF THE MAIN CONTRACTOR AND THEIR TEMPORARY WORKS ENGINEER. TEMPORARY SHORING DESIGN SHALL BE UNDERTAKEN IN CONJUNCTION WITH THE REQUIREMENTS OF THE PILE DESIGNER AND SHALL ACCOUNT FOR THE LOCATION OF FUTURE STRUCTURAL ELEMENTS TO AVOID CLASHING WITH SAME. PROPOSALS FOR TEMPORARY WORKS SHALL BE SUBMITTED TO THE DESIGN TEAM IN ADVANCE. DESIGN TEAM WILL REQUIRE A MINIMUM REVIEW PERIOD OF 10 WORKING DAYS. SUBMITTAL SHALL INCLUDE DETAILED PLANS, SECTIONS AND CALCULATIONS.

SECANT PILE HYDRAULIC CUT OFF WALL SHALL COMPRISE PILES MAX 450MM DIAMETER CONCRETE PILES AT APPROX 370MM CENTRES. FINAL PILE DESIGN BY PILING CONTRACTOR.

OUTER FACE OF ALL PILES SHALL BE A MAXIMUM OF 150MM FROM THE EXISTING ADJOINING BUILDINGS. CONTRACTOR AND PILING CONTRACTOR TO PRICE ACCORDINGLY FOR A SUITABLE PILING RIG CAPABLE OF WORKING WITHIN THIS TOLERANCE.

NOTE: PRIOR TO INSTALLATION OF BLINDING, THE CONTRACTOR SHALL ARRANGE A GPR UTILITY SURVEY AT EXCAVATED BASEMENT LEVEL TO ENSURE THAT THERE ARE NO EXISTING SERVICES BELOW

UPON COMPLETION OF ALL SHOTCRETING AND BLINDING WORKS, THE CONTRACTOR SHALL ARRANGE A FULL AS BUILT TOPOGRAPHICAL SURVEY UNDERTAKEN BY A SPECIALIST SURVEYING COMPANY.

NOTE: UPON COMPLETION OF BASEMENT EXCAVATION AND SHOTCRETING, CONTRACTOR SHALL ARRANGE A DETAILED TOPOGRAPHICAL AS BUILT SURVEY OF THE ENTIRE BASEMENT. PILES IN SHOTCRETE AND TEMPORARY WORKS SURVEY SHALL BE CARRIED OUT BY A SPECIALIST TOPOGRAPHICAL SURVEYOR.

A GPR SURVEY SHALL ALSO BE UNDERTAKEN AT LOWER BASEMENT LEVEL ONCE EXCAVATED

PROVIDE 8 NO. TENSION/COMPRESSION PILES TO SUIT CRANE BASE. CONTRACTOR TO SELECT A CRANE LOCATION AND CRANE TYPE CAPABLE OF SERVICING THE CONSTRUCTION OF THE MAIN BUILDING WORKS (SEPARATE CONTRACT). CONTRACTOR TO ENGAGE A SUITABLY QUALIFIED TEMPORARY WORKS ENGINEER TO DESIGN CRANE BASE. THIS SHALL BE USED AS THE BASIS OF CALCULATING THE PILE LOADS AND CUT OFF LEVELS. CRANE BASE DOES NOT NEED TO BE POURED AS PART OF THE ENABLING WORKS. HOWEVER PILES MUST BE INSTALLED TO SUIT

PROVIDE 100MM C12/15 LEAN MIX MUD MAT BLINDING TO FLAT FINISHED LEVELS SHOWN IN COLOUR LEGEND

CONTRACTOR TO PROVIDE TEMPORARY SUBMERSIBLE PUMP TO BE LEFT IN THIS PIT FOR A PERIOD OF 12 MONTHS. PUMP SHALL BE MANUALLY OPERATED ON A WEEKLY BASIS WITH WATER PUMPED UP TO THE EXISTING COMBINED MANHOLE ON MONTAGUE LANE. CONTRACTOR TO PROVIDE FOR ATTENDANCE ON A WEEKLY BASIS FOR A PERIOD OF 12 MONTHS.

INSIDE FACE OF ALL PILES TO BE FINISHED WITH 100MM SHOTCRETE CONTAINING 1 LAYER A393 MESH

PROVIDE 100MM C12/15 LEAN MIX MUD MAT BLINDING TO FLAT FINISHED LEVELS SHOWN IN COLOUR LEGEND

SECANT PILE WALL SPECIFICATION

THE WORKS INCLUDE THE INSTALLATION OF A PERMANENT SECANT PILE WALL TO THE FULL PERIMETER OF THE PROPOSED BASEMENT. AS SHOWN ON THE DRAWINGS. THE SECANT PILE WALL SHALL BE DESIGNED FULLY BY THE NOMINATED SPECIALIST PILING CONTRACTOR.

GEOTECHNICAL SITE INVESTIGATION INFORMATION IS AVAILABLE - REFER TO GROUND INVESTIGATIONS IRELAND'S REPORT

PILES ARE TO BE DESIGNED, INSTALLED AND TESTED IN ACCORDANCE WITH 'SPECIFICATION FOR PILING AND EMBEDDED RETAINING WALLS', THE INSTITUTION OF CIVIL ENGINEERS, 2001, ALONG WITH THE FOLLOWING PARTICULAR REQUIREMENTS:

- THE PILING CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGNING AND CONSTRUCTING REINFORCED CONCRETE (OR OTHER SUITABLE MATERIAL) GUIDE WALLS, WITH A MINIMUM DEPTH OF 0.5m.
- THE PILING CONTRACTOR SHALL INSTALL ALL NECESSARY VIBRATION, LEVEL AND INCLINATION MONITORING EQUIPMENT FOR THE DURATION OF THE WORKS. THE INCLINATION MONITORING SHALL INCLUDE, BUT NOT LIMITED TO, INSTALLATION OF A MINIMUM 2 NO. INCLINOMETERS ON THE SECANT PILE WALL AND 2 NO. INCLINOMETERS ON ADJACENT STRUCTURES (No. 6 HARDCOURT ST. AND No. 7 HARDCOURT ST.). DETAILS OF THE PROPOSED INSTRUMENTATION AND ACCEPTABLE MOVEMENT LIMITS SHALL BE SUBMITTED TO THE ENGINEER FOR AGREEMENT PRIOR TO COMMENCEMENT OF THE WORKS. PROVIDE 5NO. VIBRATION MONITORS. REFER TO PILING SPEC FOR LIMITS.
- ALL PILES ARE TO BE INTEGRITY TESTED BY AN APPROVED NON-DESTRUCTIVE METHOD.
- 10% OF WORKING PILES ARE TO BE LOAD TESTED BY THE SIMBAT OR SIMILAR APPROVED DYNAMIC TEST METHOD.
- THE SECANT PILE WALL IS TO BE DESIGNED FOR ALL APPLIED LATERAL LOADS TO ALLOW SAFE EXCAVATION/CONSTRUCTION OF THE BASEMENT TO THE SPECIFIED FORMATION LEVELS. THE SECANT PILE WALL SHALL BE DESIGNED TO INCLUDE NECESSARY SHORING AND TO ENSURE ANY MOVEMENT IS WITHIN ACCEPTABLE LIMITS, GIVEN THE PROXIMITY OF EXISTING ADJACENT STRUCTURES.
- THE SECANT PILE WALL IS TO BE DESIGNED FOR A MAXIMUM APPLIED VERTICAL WORKING LOAD OF 100kN PER METRE (APPLIED TO THE TOP OF THE CAPPING BEAM).
- THE SECANT PILE WALL IS TO PROVIDE FOR FULL HYDRAULIC CUT-OFF/WATER RETENTION AS SET OUT IN THE ICE SPECIFICATION, TO AVOID EXCESSIVE PUMPING THAT MAY CAUSE POTENTIAL GROUND WATER DRAW DOWN.

NOTES FOR PILE DESIGNER:

ALTHOUGH BASEMENT EXCAVATION WILL NOT BE UNDERTAKEN AS PART OF THIS PHASE, THE PILES SHALL BE DESIGNED FOR THE PROPOSED TWO STOREY BASEMENT DEPTHS SHOWN ON THE ATTACHED SECTIONS ON DRAWINGS 2100 AND 2101.

IT IS ENVISAGED THAT AT LEAST 2 NO. LEVELS OF TEMPORARY PROPPING WILL BE REQUIRED TO THE PILES. ALTHOUGH THESE WILL NOT BE INSTALLED AT THIS STAGE, THIS SHALL BE CONSIDERED IN THE PILE DESIGN CALCULATIONS.

MAXIMUM ALLOWABLE SECANT PILE DIAMETER IS 450MM.

NOTE:

CONTRACTOR/PILING CONTRACTOR TO PREPARE DETAILED AS BUILT OF PILING LAYOUT. DRAWING SHALL INCLUDE A REFERENCE NUMBER ON ALL PILES WHICH REFERENCES PILE DEPTHS AND PILE TEST LOCATIONS

VIBRATION LIMITS:

STRUCTURE TYPE:	VIBRATION LIMIT - PEAK PARTICLE VELOCITY FOR TRANSIENT VIBRATIONS FOR FREQUENCIES <15 Hz	VIBRATION LIMIT - PEAK PARTICLE VELOCITY FOR CONTINUOUS VIBRATIONS FOR FREQUENCIES <15 Hz
PROTECTED AND/OR VULNERABLE STRUCTURE (ORIGINAL BUILDINGS AT No. 6&7 HARDCOURT ST.)	6mm/s	3mm/s
GENERAL STRUCTURES	12.5mm/s	6.25mm/s

KEY SECTION LEGEND 3B

1 : 75

Rev	Date	Amendments	by	chkd
P03	12.03.26	GENERAL REVISIONS		
P02	27.02.26	GENERAL REVISIONS		
P01	26.02.13	ISSUED FOR INFORMATION		

PROJECT
6 HARDCOURT ST. DUBLIN

CLIENT
OFFICE OF PUBLIC WORKS

DRAWING TITLE
**PROPOSED PLAN AT LEVEL 7.414
STAGE 3A**

drawn by: PDU date: 01.06.25 scale: As indicated @ A1 chk: IC

25018-DOW-Z2-ZZ-DR-S

Project	Originator	Volume	Level	Type	Role
25018	1207			P03	
DOW Project No.	drg. no.		rev.		

S2 - FOR INFORMATION
Suitability Status: Code - Description

Cashel Business Centre,
Cashel Road, Kimmage, Dublin 12
T 01 4901611
E admin@downesassociates.ie
www.downesassociates.ie

**Downes
associates**
Consulting Structural & Civil Engineers