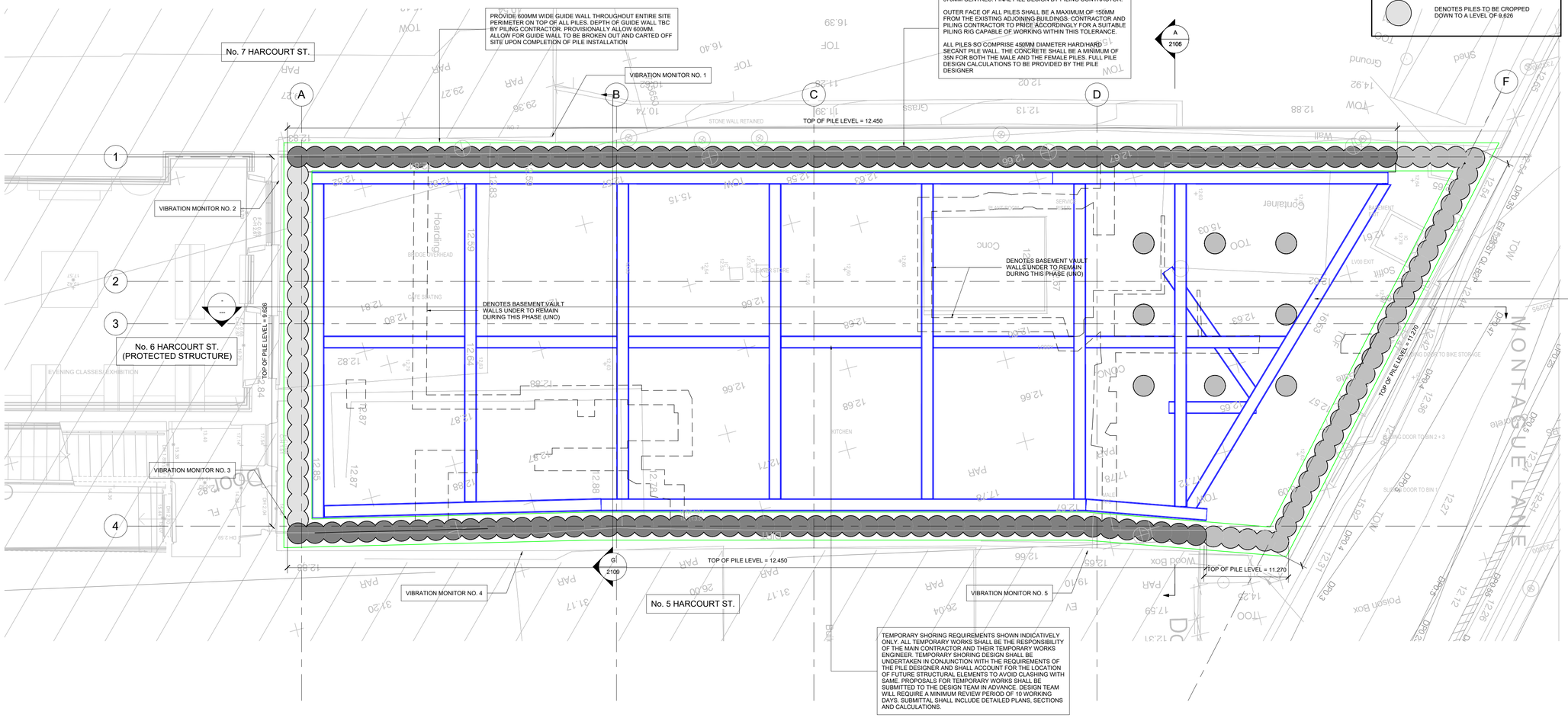


PILES LEGEND

- DENOTES PILES TO BE CROPPED DOWN TO A LEVEL OF 12.450
- DENOTES PILES TO BE CROPPED DOWN TO A LEVEL OF 11.270
- DENOTES PILES TO BE CROPPED DOWN TO A LEVEL OF 9.626

NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH RELVANT ARCHITECTS AND ENGINEERS DRAWINGS.
2. 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.
3. REFER TO DRAWING **25018/000** FOR PROJECT SPECIFICATION.

NOTE:
REFER TO DRAWINGS 2106/2107 FOR EXTENT OF DEMOLITION AND ENABLING WORKS REQUIRED TO THE SITE PRIOR TO COMMENCEMENT OF PILING WORKS.
DEMOLITION OF BOUNDARY PERIMETER WALLS BOTH ABOVE AND BELOW GROUND REQUIRED PRIOR TO COMMENCEMENT OF PILING. SIMLARLY, ALL EXISTING BASEMENT VAULTS ARE TO BE FILLED AS DESCRIBED AS THEY CANNOT SUPPORT THE IMPOSED LOAD FROM THE PILING RIG IF LEFT AS VOID SPACE.

NOTE:
CONTRACTOR TO PROVIDE AS BUILT SURVEY OF PILES IN CAD FORMAT UPON COMPLETION OF WORKS. SURVEY SHALL BE POSITIONED TO ITM COORDINATES.

NOTE:
REFER TO DRAWING 2106/2107 FOR EXTENT OF DEMOLITION, UPFILLING AND ENABLING WORKS REQUIRED PRIOR TO PILING RIG ENTERING SITE

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). 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. INITIALLY ENVISAGED THAT THE CRANE SHALL BE ERECTED WITHIN THE PROPOSED STAIRCORE IN THIS LOCATION. EXACT SET OUT OF THE STAIRCORE CAN BE PROVIDED IN ADVANCE OF COMMENCEMENT ON SITE. CRANE BASE POSITION WILL NEED TO BE COORDINATED BETWEEN CONTRACTOR/TEMPORARY WORKS ENGINEER AND DESIGN TEAM. UPON COMPLETION OF BASEMENT EXCAVATION AND SHOTCRETING, CONTRACTOR SHALL ARRANGE A DETAILED TOPOGRAPHICAL AS BUILT SURVEY OF THE ENTIRE BASEMENT, PILES,M 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

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.

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:

1.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.
2.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.5 HARCOURT 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.
3.ALL PILES ARE TO BE INTEGRITY TESTED BY AN APPROVED NON-DESTRUCTIVE METHOD.
4.10% OF WORKING PILES ARE TO BE LOAD TESTED BY THE SIMBAT OR SIMILAR APPROVED DYNAMIC TEST METHOD.
5.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.
6.THE SECANT PILE WALL IS TO BE DESIGNED FOR A MAXIMUM APPLIED VERTICAL WORKING LOAD OF 800kN PER METRE (APPLIED TO THE TOP OF THE CAPPING BEAM).
7.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.

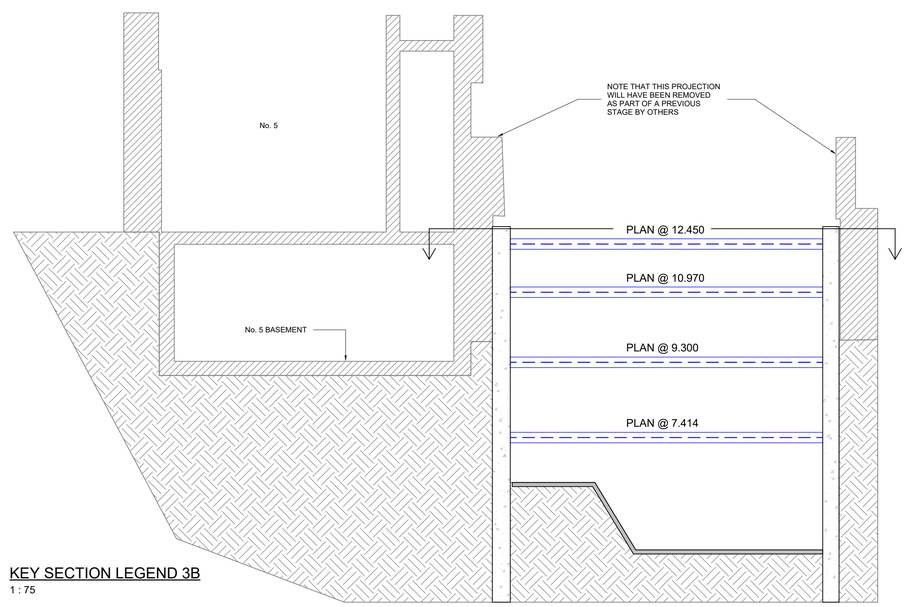
MAXIMUM ALLOWABLE SECANT PILE DIAMETER IS 450MM.

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	PDu	IC
P02	27.02.26	GENERAL REVISIONS	PDu	IC
P01	26.02.13	ISSUED FOR INFORMATION	PDu	IC

PROJECT
6 HARCOURT ST. DUBLIN

CLIENT
OFFICE OF PUBLIC WORKS

DRAWING TITLE
PROPOSED PLAN AT LEVEL 12.450
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	1204			P03	
DOW Project No.	drg. no.			rev.	

S2 - FOR INFORMATION
Suitability Status: Code - Description

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