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DPS PILE WALL LAYOUT AND DESIGN ACCOUNT FOR 1:100 VERTICALITY TOLERANCE (WITH CFA DRILLING TECHNIQUE, USING HEAVY DUTY AUGERS), 25mm HORIZONTAL POSITIONAL TOLERANCE (WITH A TEMPORARY GUIDE WALL IN-PLACE) AND 30mm OVER-BREAK IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE ICE SPECIFICATION FOR PILING & EMBEDDED RETAINING WALLS (ICE SPERW, 2015). BASED ON THESE, THERE ARE POTENTIALS FOR PILES IN THE SECANT WALL TO ENCRoACH INTO THE PROPOSED BASEMENT AREA BY MAGNITUDES OF UP TO 105mm. IT IS IMPERATIVE THAT THE ARCHITECT, PROJECT STRUCTURAL ENGINEER AND PRINCIPAL CONTRACTOR MAKE ALLOWANCE FOR THIS.

THE PRINCIPAL CONTRACTOR AND ASSOCIATED SUB-CONTRACTORS MUST CARRY OUT INDEPENDENT RISK ASSESSMENTS THAT ARE APPLICABLE TO THEIR WORKS AND FULLY COMPLY WITH THE ABOVE STATED REGULATION.

THE PRINCIPAL CONTRACTOR AND ASSOCIATED SUB-CONTRACTORS MUST REVIEW THE SITE-SPECIFIC AND HISTORICAL BOREHOLE LOGS OF THE SITE TO HAVE ADEQUATE KNOWLEDGE OF GROUND CONDITIONS ON THE SITE, PRIOR TO COMMENCEMENT OF WORKS.

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IN ADDITION TO THE RISK/HAZARD TYPICALLY ASSOCIATED WITH THE GROUND ENGINEERING WORKS DETAILED IN THIS DRAWING, ADDITIONAL SITE/WORK-SPECIFIC HAZARDS HAVE BEEN IDENTIFIED THROUGH DESIGN RISK ASSESSMENT. THESE ARE OUTLINED IN 7.1 - 7.4 BELOW. ALL SITE OPERATIONS MUST ACCOUNT FOR ALL USUAL AND SITE/WORK-SPECIFIC HAZARDS.

7.1. PILING PLATFORM LEVEL IS UNCONFIRMED AT THIS STAGE. HOWEVER, FOR DESIGN PURPOSE, THE PILING MAT LEVEL FOR THE PERIMETER SECANT PILE WALL AND BEARING PILES IS GENERALLY TAKEN TO BE THE EXISTING GROUND LEVEL IN THE AREA OF PROPOSED WORKS; APPROX. +45.500M OD. NONETHELESS, THE PRINCIPAL CONTRACTOR MUST CONFIRM ACTUAL PILING PLATFORM LEVEL(S) PRIOR TO THE COMMENCEMENT OF PILING WORKS ON THE SITE, SO THAT THE PILE WALL SCHEDULE & BEARING PILE SCHEDULE MAY BE AMENDED ACCORDINGLY.

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7.4. IN ADDITION, IT IS IMPERATIVE THAT THE CONCRETE MIX DESIGN FOR THE MALE PILES IN THE SECANT WALL ACCOUNTS FOR 10MM MAXIMUM AGGREGATE SIZE AND SET-RETARDING ADMIXTURES IN ORDER TO EASE THE INSTALLATION OF REINFORCEMENT CAGES INTO CONCRETED DRILLHOLES. REINFORCEMENT CAGE VIBRATORS MAY ALSO BE REQUIRED TO FORCE THE STEEL CAGES DOWN TO THE DESIGN DEPTHS.

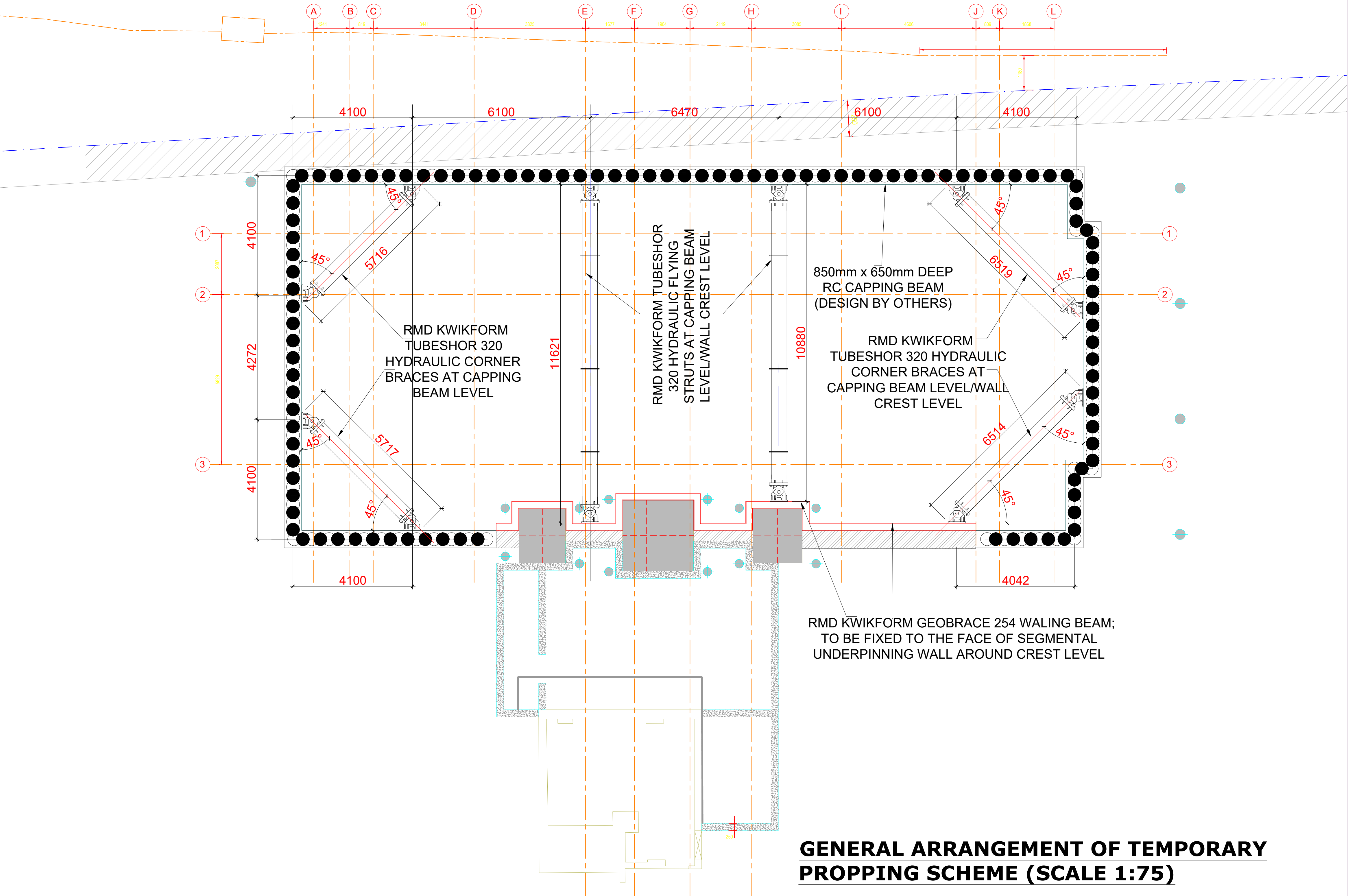
\* PROP TYPE A: 4 No's. RMD KWIKFORM TUBESHOR 320 x 7.0m  
MAXIMUM LENGTH CORNER BRACES (6.0m - 7.0m LENGTHS)

\* PROP TYPE B: 2 No's. RMD KWIKFORM TUBESHOR 320 x 12m  
MAXIMUM LENGTH FLYING STRUTS (10.5m - 12.0m LENGTHS)

\* 850mm WIDE x 650mm DEEP RC CAPPING BEAM ON PERIMETER  
SECANT PILE WALL (DESIGN BY OTHERS)

RC CAPPING BEAM SHALL BE DESIGNED TO SPAN OVER A MINIMUM LENGTH OF 7.0m UNDER SERVICE HORIZONTAL LOADING OF 50 kN/m IN THE TEMPORARY CONDITION.

RC CRADLES ON UNDERPINNING MINIPILES NOT SHOWN FOR CLARITY



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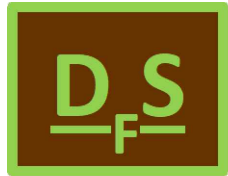
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5. 50mm COVER TO PILE REINFORCEMENT.

6. STRICT SUPERVISION OF BULK EARTH WORKS IS REQUIRED TO ENSURE THAT EXCAVATIONS DO NOT EXCEED THE DESIGN DEPTH SHOWN IN THESE DRAWINGS (4.85m).

7. SECANT PILE WALL SHALL BE INSTALLED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE ICE SPECIFICATIONS FOR PILING AND EMBEDDED RETAINING WALLS (ICESPERW, 2016).

8. THE SECANT PILE WALL IS DESIGNED FOR BOTH TEMPORARY AND PERMANENT USE.



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**BROXWOOD VIEW LIMITED**

**BROXWOOD VIEW, 29 ST.  
EDMUND'S TERRACE LONDON  
NW8 7QH**

## GENERAL ARRANGEMENT OF TEMPORARY PROPPING SCHEME

DATE	16 OCT 2022	DRAWN	AR	CHECKED	AA
DRAWING No.	DFS221011-07	REV	00	SCALE	SCALE IS AS SHOWN @ A1

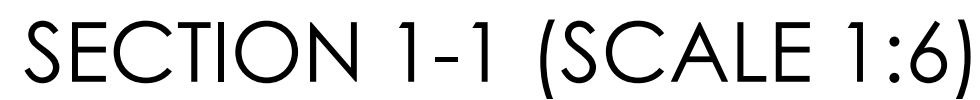


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INSTALL FEMALE PILES TO 6.0m  
DEPTH ONLY

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**TYPICAL PILE WALL SECTION (Ø450 PERIMETER SECANT PILE WALL, PROPPED)**

- A. STRIP THE EXISTING GROUND TO A MAXIMUM DEPTH OF 300mm AND SUBSEQUENTLY PLACE AND COMPACT CAREFULLY SELECTED CLASS 6/2 GRANULAR FILL TO FORM SUITABLE WORKING PLATFORM FOR PILING RIG AND OTHER CONSTRUCTION MACHINERY.
- B. INSTALL TEMPORARY GUIDE WALL PRIOR TO THE COMMENCEMENT OF SECANT PILE WALL CONSTRUCTION.
- C. CONCURRENTLY INSTALL Ø450 INTERLOCKING MALE AND FEMALE PILES BY CFA DRILLING TECHNIQUE, WITH MALE PILES SPACED @ 600MM C/C, FROM PILING PLATFORM LEVEL (+45.500) TO DEPTHS SPECIFIED BY DFS, TO FORM SECANT PILE WALL, AS WELL AS THE Ø350 BEARING PILES REQUIRED FOR THE PROPOSED UNDERPINNING WORKS UNDERNEATH THE EXISTING NORTHERN WALL OF BARRIE HOUSE: SEE DFS' PILE WALL CONSTRUCTION SCHEDULE AND BEARING PILE CONSTRUCTION SCHEDULE FOR MORE DETAILED INFORMATION.
- D. BREAK DOWN PILES TO 75MM ABOVE PROPOSED SOFFIT LEVEL OF RC CAPPING BEAM.
- E. CONSTRUCT RC CAPPING BEAMS ON PILES.
- F. CARRY OUT SEGMENTAL UNDERPINNING OF THE EXISTING PAD AND STRIP FOOTINGS UNDERNEATH THE NORTHERN WALL OF THE EXISTING BARRIE HOUSE BUILDING, AS DETAILED BY THE PROJECT STRUCTURAL ENGINEER (SEE RICHARD TANT ASSOCIATES' DRAWINGS NO'S 5295-P02, 5295-P04, 5295-P13, 5295-P15, 5295-P17, 5295-P18, 5295-P19, 5295-PSM01 & 5295-PSM02 FOR MORE DETAILS).
- G. INSTALL TEMPORARY STRUCTURAL STEEL WALING BEAM ALONG THE FACE OF SEGMENTAL UNDERPINNING RETAINING WALL AROUND CREST LEVEL.
- H. INSTALL TEMPORARY PROPS AT CAPPING BEAM LEVEL/WALING BEAM LEVEL OF PILE WALL AND UNDERPINNING WALL.
- I. CARRY OUT BULK EXCAVATION DOWN TO BASEMENT FORMATION LEVEL; 4.85M MAXIMUM DIG.
- J. PLACE BLINDING OF 50MM MINIMUM THICKNESS AT FORMATION LEVEL.
- K. INSTALL/FIX WATER-PROOF MEMBRANE ON PLACED BLINDING, AS WELL AS FACE OF PILE RETAINING WALL/SEGMENTAL UNDERPINNING WALL AND WRAP AROUND CAPPING BEAM.
- L. CONSTRUCT 600MM THICK REINFORCED CONCRETE RAFT/LOWER GROUND FLOOR SLAB WITH WATER-PROOF CONCRETE AND DOWEL INTO PILE RETAINING WALL/SEGMENTAL UNDERPINNING WALL, WHILST MAKING ALLOWANCE FOR CAVITY DRAIN IN FRONT OF RETAINING WALLS.
- M. CONSTRUCT RC LINER WALL OF 250MM MINIMUM THICKNESS WITH WATER-PROOF CONCRETE, IN FRONT OF PILE RETAINING WALL, FROM BASEMENT LEVEL, UP TO CAPPING BEAM SOFFIT LEVEL AND CONNECT SAME TO CAPPING BEAM.
- N. CONSTRUCT GROUND FLOOR SLAB AND CONNECT SAME TO CAPPING BEAM.
- O. REMOVE TEMPORARY PROPS AND STRUCTURAL STEEL WALING BEAM.
- P. CONSTRUCT SUPERSTRUCTURE.

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**JOB TITLE**

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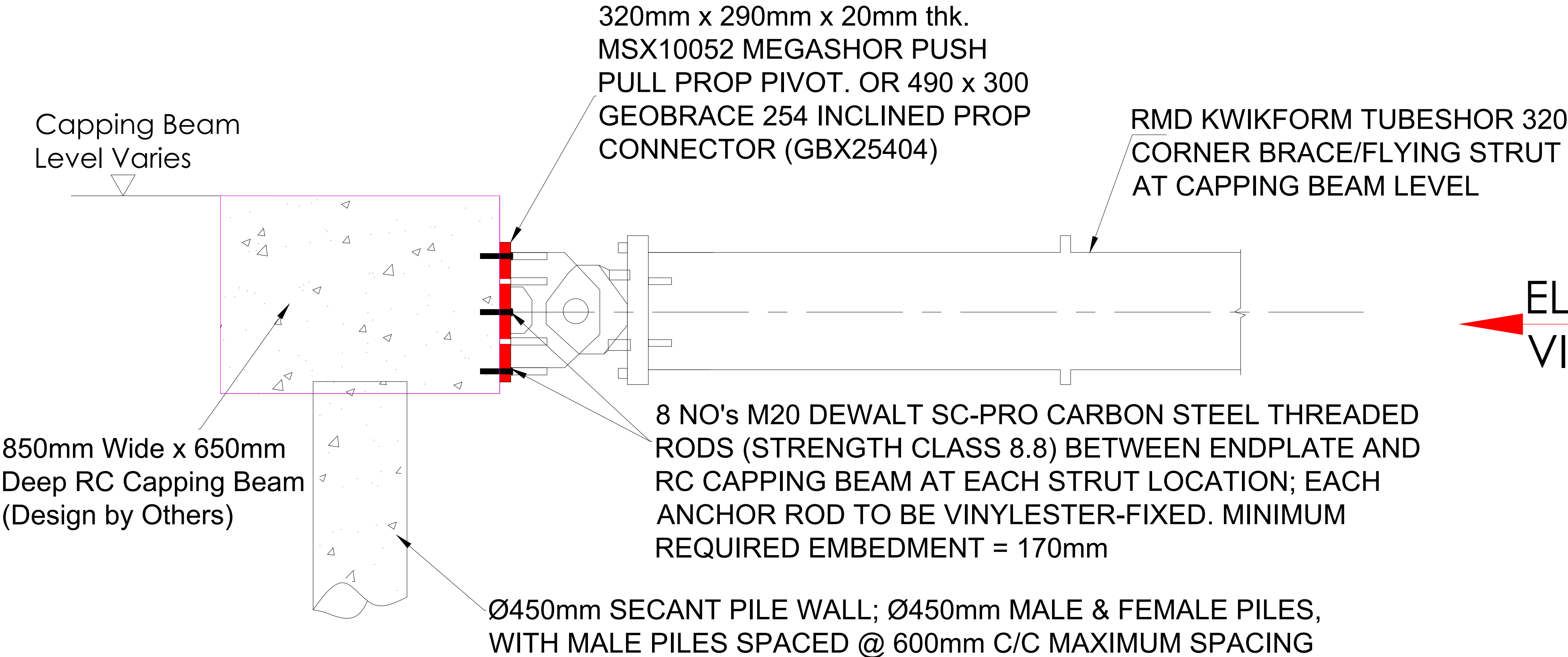
### TYPICAL SECANT PILE WALL SECTION

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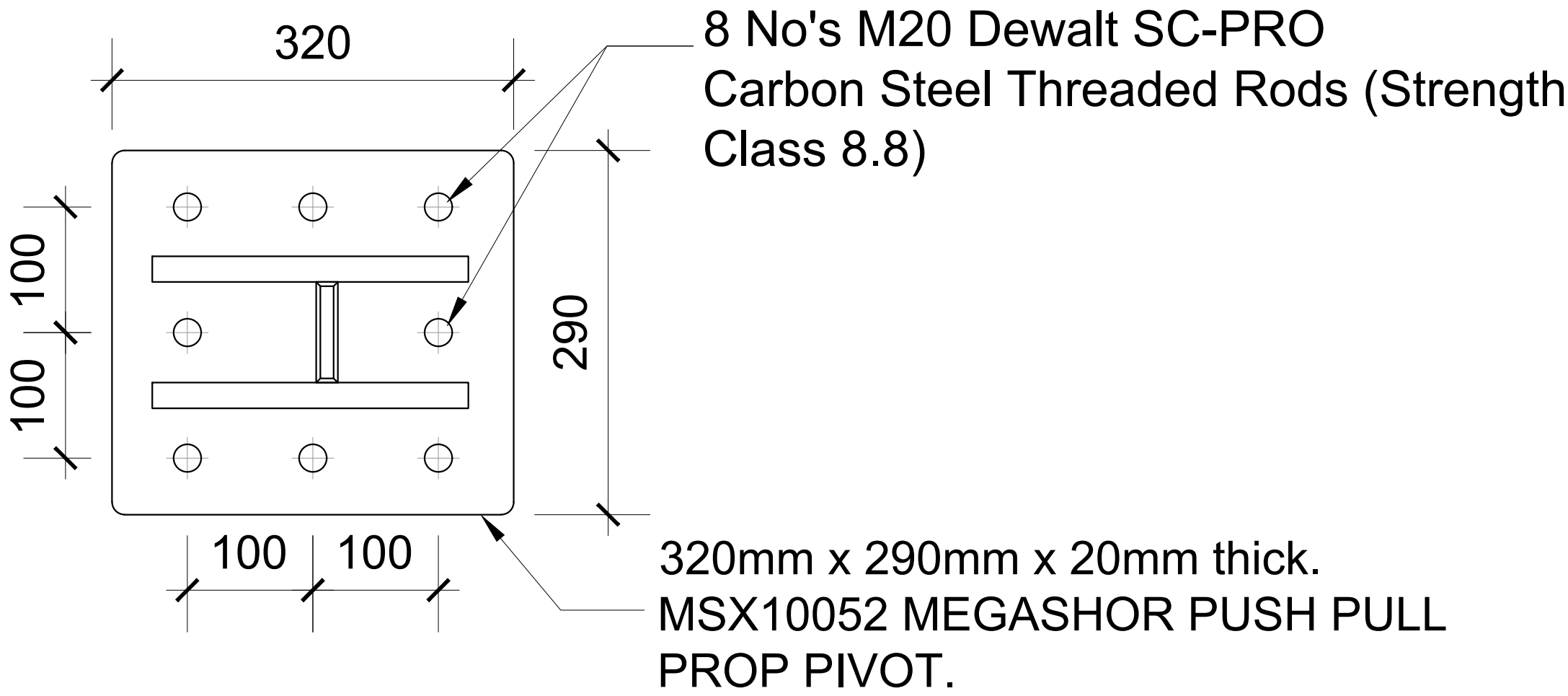


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TYPICAL SECTION

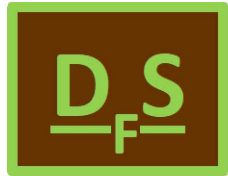


ELEVATIONAL VIEW - Y

DETAIL A: CAPPING BEAM - TEMPORARY PROP CONNECTION DETAILS

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CLIENT			
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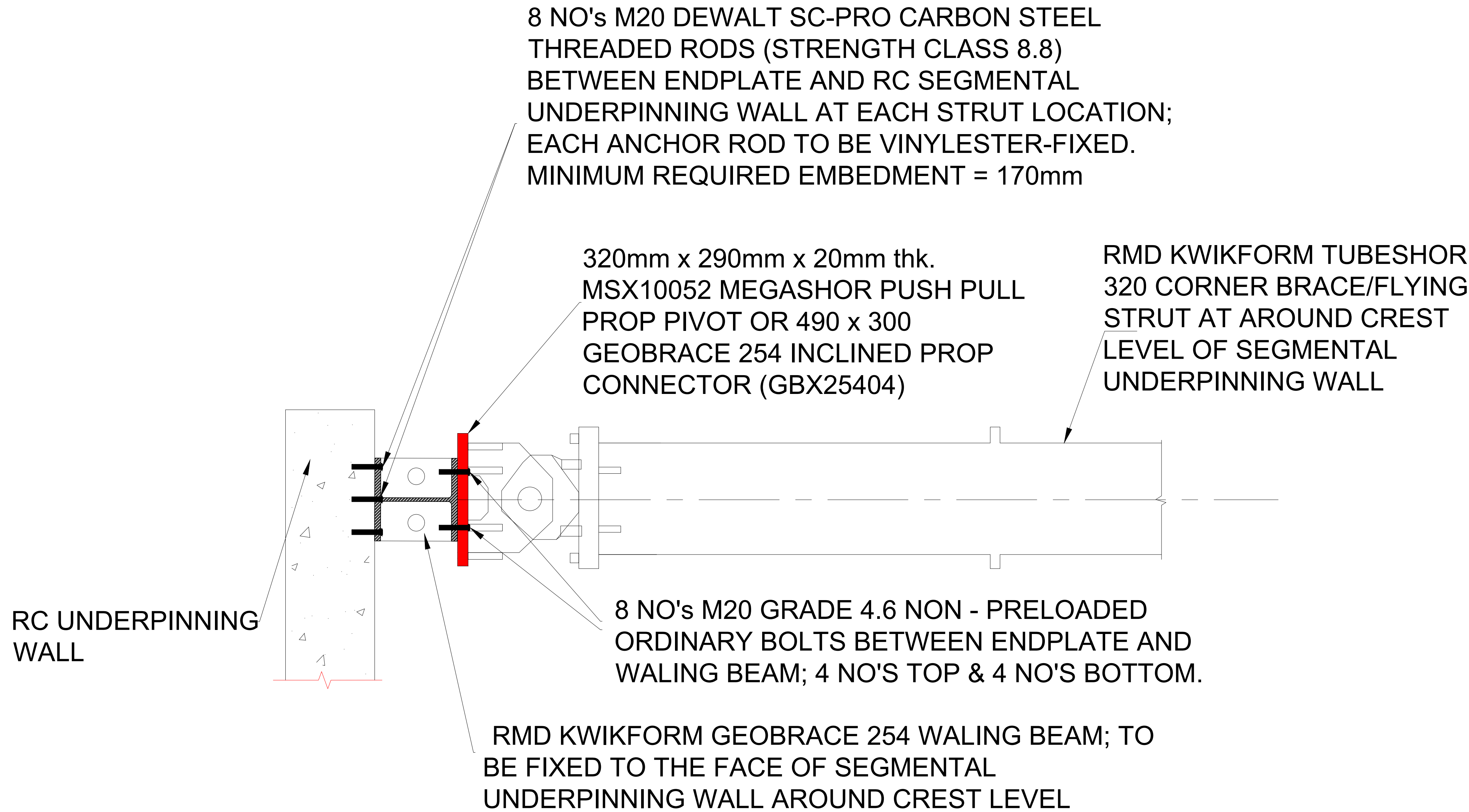
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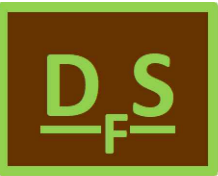
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## DETAIL B: RC SEGMENTAL UNDERPINNING WALL - WALING BEAM - ENDPLATE - TEMPORARY PROP CONNECTION DETAILS

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  - STRICT SUPERVISION OF BULK EARTH WORKS IS REQUIRED TO ENSURE THAT EXCAVATIONS DO NOT EXCEED THE DESIGN DEPTH SHOWN IN THESE DRAWINGS (4.85m).
  - SECANT PILE WALL SHALL BE INSTALLED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE ICE SPECIFICATIONS FOR PILING AND EMBEDDED RETAINING WALLS (ICESPERW, 2016).
  - THE SECANT PILE WALL IS DESIGNED FOR BOTH TEMPORARY AND PERMANENT USE.



DEEP FOUNDATIONS SPECIALISTS LIMITED  
2ND FLOOR, THE PORTER BUILDING 1 BRUNEL WAY  
SLOUGH SL1 1FD.  
TELEPHONE: 01753 396498

CLIENT			
BROXWOOD VIEW LIMITED			
PROJECT			
BROXWOOD VIEW, 29 ST. EDMUND'S TERRACE LONDON NW8 7QH			
DRAWING TITLE			
DETAIL B: RC UNDERPINNING - WALING BEAM - ENDPLATE - TEMPORARY PROP CONNECTION DETAILS			
DATE			
16 OCT 2022	DESIGN	AR	CHECKED AA
DRAWING No.			
DFS221011-10	REV	00	SCALE IS AS SHOWN @ A1