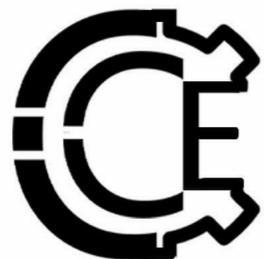

*PROPOSED RESIDENTIAL DEVELOPMENT AT
ISHERI, OGUN STATE.*

CLIENT

MR. DEJI POOPOLA

STRUCTURAL DRAWINGS

APPROVAL



CHRISCHI ENGINEERING

26 July 2022

SHEAR STUDS	FIRE PROTECTION	BLOCKWORK	
<p>1. SPACING OF SHEAR STUDS TO BE 2 NUMBER SHEAR STUDS AT 200 c/c TO SUIT DECK PROFILE ON BEAMS PERPENDICULAR TO DECKING UNO ON DRAWINGS & 200 c/c ON BEAMS PARALLEL TO DECKING UNO ON DRAWINGS, 1 NUMBER SHEAR STUD AT 200mm C/C ON EDGE BEAMS UNO ON DRAWINGS.</p> <p>2. ALL SHEAR STUDS ARE TO BE 19 DIA x 95 LONG THROUGH DECK WELDED AS PROJECT DESIGN CONSULTANTS NIGERIA SPECIFICATION, SUPPLIED BY TRW NELSON OR SIMILAR APPROVED.</p> <p>3. WELDERS TO BE CERTIFIED BY THE EQUIPMENT MANUFACTURER OR OTHER RECOGNISED AUTHORITY AS COMPETENT FOR THE WORK.</p> <p>4. TESTING OF SHEAR STUDS IS TO BE ACCORDANCE WITH PROJECT DESIGN CONSULTANTS NIGERIA SPECIFICATION.</p> <p>5. ALL STUD MATERIAL TO HAVE AN ULTIMATE TENSILE STRENGTH (FY)=450 N/mm². ALL STUDLING TO BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.</p> <p>6. WHERE THE NUMBER OF STUDS REQUIRED EXCEEDS THAT NOTED ABOVE, THE TOTAL NUMBER SHALL BE SHOWN ON THE DRAWINGS THEY SHALL THEN BE PLACED DOUBLY AT 200mm c/c, THE ADDITIONAL STUDS SHALL BE PLACED IN PAIRS STARTING FROM EACH END TOWARDS THE CENTRE OF THE BEAM UNTIL THE TOTAL NUMBER REQUIRED HAS BEEN PLACED.</p>	<p>1. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND CHOICE OF FIRE PROTECTION. THIS SHOULD BE BASED ON THE PERFORMANCE SPECIFICATION OUTLINED BELOW.</p> <p>2. ALL STEELWORK TO BE PROVIDED WITH 1.5-HOURS FIRE PROTECTION</p> <p>3. THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING ALL APPROVALS FOR THE FIRE PROTECTION SYSTEM CHOSSEN FROM THE LOCAL AUTHORITY INCLUDING ALL FIRE STOPPING DETAILS.</p> <p>4. THE FIRE PROTECTION SYSTEM SHOULD BE INSTALLED PRIOR TO 1ST FIX OF THE M & E INSTALLATIONS.</p> <p>5. THE FIRE PROTECTION SYSTEM SHOULD TAKE ACCOUNT OF THE STATE OF WATERTIGHTNESS OF THE BUILDING AT TIME OF INSTALLATION.</p> <p>6. FIRE PROTECTION TO EXTERNAL PERIMETER OF BEAMS TO BE PROVIDED BY CONCRETE CASING.</p> <p>7. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY FIRE STOPPING TO PENETRATIONS THROUGH FLOORS AND WALLS WHERE FIRE STOPPING IS PLACED IN FLOORS IT SHALL BE CAPABLE OF CARRYING ALL FLOOR LOADS APPLIED TO THAT FLOOR.</p>	<p>1. ALL BLOCKWORK IS TO BE IN ACCORDANCE THE PROJECT DESIGN CONSULTANTS SPECIFICATION.</p> <p><u>BELOW GROUND BLOCKWORK</u></p> <p>2. ALL BLOCKS TO BE DENSE CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 7N/mm² OR U.N.O ON WS DRAWINGS</p> <p><u>ABOVE GROUND BLOCKWORK</u></p> <p>3. ALL BLOCKS TO EXTERNAL WALLS TO HAVE A MINIMUM COMPRESSIVE STRENGTH AS STATED ON WS DRAWINGS.</p> <p>4. ALL BLOCKS TO INTERNAL NON LOAD BEARING PARTITION WALLS TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 7.0N/mm² AND 2.0N/mm² FOR HOLLOW BLOCKWALL</p> <p>5. MORTAR FOR NON LOADBEARING INTERNAL PARTITION WALLS TO BE 1:1:5 WITH OPC ABOVE DPC ie MORTAR DESIGNATION (iii) TO BS 5628</p> <p>6. MORTAR FOR ALL LOADBEARING BLOCKWORK WALLS TO BE 1:0 TO 1:4:4 WITH OPC ABOVE DPC ie MORTAR DESIGNATION (iii) TO BS 5628.</p> <p><u>BLOCKWORK TIE DETAILS.</u></p> <p>7. ALL MOVEMENT JOINTS TO BE FORMED USING 12mm EXPANDITE EXPANDAFOAM OR SIMILAR APPROVED COMPRESSIBLE JOINT FILLER, TO FORM A 10mm WIDE JOINT.</p> <p>8. JOINTS TO BRICKWORK AND FAIR FACED BLOCKWORK TO BE SEALED USING EXPANDITE THIOFLEX 600 OR SIMILAR APPROVED, COLOUR TO ARCHITECTS SPECIFICATION.</p> <p>9. TIES TO BE PROVIDED AS FOLLOWS.</p> <p>10.1 STAINLESS STEEL CRAMP TIES @ 225mm CRS VERTICALLY WITH PLASTIC DEBONDING SLEEVE, ANCON CLARKE PPB+DEBONDING SLEEVE OR SIMILAR APPROVED BY 150mm LONG U.N.O</p> <p>10.2 FRAME CRAMPS TO BE FIXED TO STEEL USING SELF-TAPPING SCREWS, BUILDEX 'TEKS' OR SIMILAR APPROVED, WITH NEOPRENE WASHERS.</p> <p><u>BLOCKWORK WALLS</u></p> <p>11. WHERE NON LOADBEARING BRICK OR BLOCK PARTITIONS ARE BUILT UP TO UNDERSIDE OF A STRUCTURAL FLOOR SLAB, THEY ARE TO BE STRUCTURALLY ISOLATED BY A 25mm SOFT JOINT OF 'EXPANDAFOAM' OR SIMILAR APPROVED, SEALED AS SPECIFIED BY THE ARCHITECT.</p> <p>12. INTERNAL BRICK OR BLOCK PARTITIONS WHEN PROVIDED WITH VERTICAL MOVEMENT JOINTS OF 'EXPANDAFOAM' OR SIMILAR APPROVED ARE TO BE TIED WITH GALVANISED FLAT PLATE WALL TIES @ 450 CRS VERTICALLY AND SEALED AS SPECIFIED BY THE ARCHITECT. MOVEMENT JOINTS TYPICALLY TO BE AT 6m CRS OR AS OTHERWISE RECOMMENDED BY THE BRICK/BLOCK MANUFACTURER. THE LAYOUT OF THE MOVEMENT JOINTS IN INTERNAL BRICK/BLOCK PARTITIONS MUST BE AGREED WITH BOTH THE ARCHITECT AND ENGINEER PRIOR TO CONSTRUCTION.</p> <p>13. OPENINGS IN INTERNAL PARTITION WALLS FOR DOORS AND WINDOWS etc ARE TO BE STRENGTHENED BY THE USE OF 'BRICKFORCE' OR SIMILAR, MASONRY ANTI-CRACK REINFORCEMENT IN THE TWO BED JOINTS OVER THE LINTEL AND BELOW THE CILL, EXTENDING A MINIMUM OF 900mm EACH SIDE BEYOND THE END OF THE OPENING.</p> <p>14. HEAD RESTRAINT TO BE PROVIDED FOR INTERNAL NON LOADBEARING PARTITION WALLS AS DETAILED.</p> <p>15. THE DEPTH OF CHASES IN BLOCKWORK FOR CONDUITS etc, SHALL NOT EXCEED THE FOLLOWING:-</p> <p>HORIZONTAL CHASES - 1/6 OF THE BLOCK THICKNESS VERTICAL CHASES - 1/4 OF THE BLOCK THICKNESS. HORIZONTAL CHASES ARE PROHIBITED IN LOADBEARING BLOCKWORK. WHERE CHASES ARE NECESSARY BACK TO BACK, THE TOTAL DEPTH OF THE TWO CHASES SHALL NOT MUST NOT EXCEED THE DEPTHS NOTED ABOVE</p> <p>16. ALL CHASES SHALL BE CUT WITH SAW , AND CUT OUT CLEANLY WITHOUT DAMAGE TO THE WALL, AND WITHOUT OVER CUTTING. RECIPROCATING HAMMERS OF ANY TYPE SHALL NOT BE USED. NO HOLES OR CHASES SHALL BE CUT THROUGH WALLS WITHIN A LINE OF 45° FROM THE BEARING OF A BEAM OR OTHER CONCENTRATED LOAD FOR A DEPTH OF 1.0m BELOW THE LOAD.</p>	<p>17. ALL STEELWORK BUILT INTO THE CAVITY WALL CONSTRUCTION TO BE PAINTED WITH EITHER</p> <p>A. 2 COATS OF BITUMEN PAINT, 150 MICRONS TOTAL DFT,APPLIED BY THE MAIN CONTRACTOR OR HIS NOMINATED SUB CONTRACTOR IN ADDITION TO THE 75MICRON SPECIFIED PAINT SYSTEM APPLIED BY THE STEELWORK FABRICATOR.</p> <p>B. 1 COAT OF 175 MICRON PRIMER APPLIED BY THE FABRICATOR.</p>

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Project Name: ****
LOCATION: Enter address here

NO	REVISION	DATE

Client Name: *****

GENERAL NOTE

Project number	--	G-00
Date	01 JUNE 2021	
Drawn by	Author	
Checked by	OSE	Scale As indicated

GENERAL NOTES	CONCRETE	FOUNDATIONS																	
<p>1. ALL PROJECT DESIGN CONSULTANTS DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE PROJECT DESIGN CONSULTANTS SPECIFICATIONS AND ALL RELEVANT ARCHITECTS AND SERVICE ENGINEERS DRAWINGS AND SPECIFICATIONS. THE PROJECT DESIGN CONSULTANTS SPECIFICATIONS THAT APPLY ARE:</p> <ul style="list-style-type: none"> (a) SPECIFICATION FOR FOUNDATION & BASEMENT ENCLOSURE WALL PILES. (b) SPECIFICATION FOR EARTHWORKS. (c) SPECIFICATION FOR CONCRETE (TO BS. 8110). (d) SPECIFICATION FOR STRUCTURAL STEELWORK. (e) SPECIFICATION FOR BLOCKWALLS. (f) SPECIFICATION FOR DEMOLITION WORKS (g) SPECIFICATION FOR BELOW GROUND EXTERNAL DRAINAGE. <p>2. THE CONTRACTOR IS RESPONSIBLE FOR THE DETAILED DESIGN OF THESE ELEMENTS WITHIN THE SPECIFIED DESIGN PARAMETERS: THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING PLANNING APPROVAL FOR ALL THESE ITEMS:-</p> <ul style="list-style-type: none"> (a) ALL TEMPORARY WORKS. (b) FIRE PROTECTION INCLUDING FIRESTOPPING TO BUILDERSWORK HOLES. (c) MECHANICAL & ELECTRICAL PLANT BASES. (d) NON LOAD BEARING WALLS. (e) ALL HANDRAILS INCLUDING CONNECTIONS TO BASE STRUCTURE. <p>3. THE CONTRACTOR IS TO USE THE CO-ORDINATED SERVICE PENETRATIONS SHOWN ON THE STRUCTURAL, M & E AND ARCHITECTS DRAWINGS.</p> <p>4. ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM. ALL DIMENSIONS ARE IN mm UNLESS NOTED OTHERWISE.</p> <p>5. DO NOT SCALE FROM THE DRAWINGS. ANY DISCREPANCY IS TO BE REPORTED TO THE ENGINEER IMMEDIATELY</p> <p>6. ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE BY THE CONTRACTOR PRIOR TO PREPARING ANY WORKING DRAWINGS OR COMMENCING WORK ON SITE.</p> <p>7. THE CONTRACTOR IS TOTALLY RESPONSIBLE FOR THE STABILITY OF THE BUILDING/STRUCTURE/EXCAVATION etc DURING THE CONSTRUCTION PERIOD. ie ITS TEMPORARY CONDITION, INCLUDING THE EFFECTS FROM CRANES AND HOISTS WHERE THESE ARE SUPPORTED AND/OR RESTRAINED BY THE STRUCTURE.</p> <p>8. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY CALCULATIONS FOR THE TEMPORARY STRUCTURE AND, WHERE NECESSARY, DETAILED MEMBER CHECKS. ALL ADDITIONAL WORK REQUIRED FOR THE TEMPORARY STABILITY OF THE STRUCTURE SHALL BE DEEMED TO BE INCLUDED BY THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE ON THE COMPLETION OF THE PERMANENT STRUCTURE.</p> <p>9. ALL WORK BY THE CONTRACTOR MUST BE CARRIED OUT IN SUCH A WAY THAT ALL REQUIREMENTS UNDER THE HEALTH AND SAFETY AT WORK ACT ARE SATISFIED.</p> <p>10. ALL WORK IS TO BE CARRIED OUT IN COMPLIANCE WITH THE REQUIREMENTS OF THE RELEVANT STATUTORY AUTHORITIES AND REGULATIONS</p> <p>11. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ARCHITECTS DRGS, OTHER STRUCTURAL DRGS AND SPECIALISTS DRGS. WHERE HOLES, FIXING ETC. ARE REQUIRED, BARS MAY BE DISPLACED SLIGHTLY TO ACCOMMODATE THESE BUT THEY MUST NOT BE CUT OR REMOVED</p> <p>12. REMOVE ALL TOPSOIL UNDER SLABS. PROVIDE 150mm WELL RAMMED AND CONSOLIDATED NATURALLY OCCURRING HARDCORE MATERIAL OR ROCK LATERITE UNDER ALL GROUND BEARING SLABS WELL CONSOLIDATED SELECTED FILL OR MASS CONCRETE TO BE USED TO MAKE UP LEVELS WHERE NECESSARY AS AGREED WITH THE ENGINEER. FOR FILL, LAYERS NOT TO EXCEED 225mm</p> <p>13. WHERE BAD GROUND IS ENCOUNTERED BELOW FOUNDATION LEVEL. THE DIFFERENCE IN LEVEL BETWEEN APPROVED BEARING STRATUM AND ORIGINAL LEVEL IS TO BE MADE UP USING MASS CONCRETE.</p>	<p>1. ALL CONCRETE TO BE IN ACCORDANCE WITH BS 8110, BS 8007 AND THE PROJECT DESIGN CONSULTANTS NIGERIA CONCRETE SPECIFICATION.</p> <p>2. ALL BELOW GROUND WORKS TO BE IN ACCORDANCE WITH BS8004 1986 "CODE OF PRACTICE FOR FOUNDATIONS".</p> <p>3. CONCRETE GRADES TO BE:-</p> <table border="1"> <thead> <tr> <th>LOCATION</th> <th>GRADE</th> </tr> </thead> <tbody> <tr> <td>BLINDING</td> <td>C30</td> </tr> <tr> <td>FOUNDATIONS</td> <td>C30</td> </tr> <tr> <td>PILECAPS</td> <td>C30 UNO ON PROJECT DESIGN CONSULTANTS DRAWINGS</td> </tr> <tr> <td>GROUNDBEAMS</td> <td>CLASS DC2 SULPHATE RESISTING</td> </tr> <tr> <td>RETAINING WALLS</td> <td>C30</td> </tr> <tr> <td>R.C. COLUMNS</td> <td>C30</td> </tr> <tr> <td>COMPOSITE METAL DECK</td> <td>C30</td> </tr> </tbody> </table> <p>4. ALL REINFORCEMENT BARS SHALL BE IN ACCORDANCE WITH BS 4449 HIGH YIELD GRADE 460N/mm² DEFORMED TYPE 2 DENOTED T.</p> <p>5. ALL WIRE MESH SHALL BE IN ACCORDANCE WITH BS 4482 AND BS 4483 WITH A MINIMUM YIELD STRENGTH OF 460N/mm²</p> <p>6. ALL CONCRETE SOFFITS AND SIDES THAT ARE CAST AGAINST GROUND SHALL BE PROTECTED BY 50mm BLINDING, POLYTHENE SHEETING OR SHUTTERING WHILE IN THE WET STATE. U.N.O.</p> <p>7. ALL CONCRETE IN CONTACT WITH THE SOIL (INCLUDING BLINDING) SHALL BE CLASS DC2 IN ACCORDANCE WITH SPECIAL DIGEST NO. 1.</p> <p>8. (a) R = DENOTES MILD STEEL REINFORCEMENT ACCORDING TO BS 4449 AND IN MILLIMETRE SIZE (b) T = DENOTES HIGH YIELD, HIGH BOND ROUND REINFORCEMENT TO BS 4449 AND 4466 (c) T = TOP TT = TOP TOP TB = TOP BOTTOM (d) B = BOTTOM BT = BOTTOM TOP BB = BOTTOM BOTTOM (e) AS = ALTERNATELY STAGGERED (f) AP = ALTERNATELY PLACED (g) NF = NEAR FACE (h) FF = FAR FACE (i) EF = EACH FACE</p> <p>9. ALL BLINDING AND MASS CONCRETE TO BE 1: 3: 6 (CEMENT-SAND-COARSE AGGREGATE)</p> <p>10. ALL CONSTRUCTION JOINT POSITIONS ARE TO BE APPROVED BY THE ENGINEER PRIOR TO CASTING BUT THESE SHOULD NOT BE SPACED MORE THAN 10m APART.</p> <p>11. MAXIMUM SIZE OF AGGREGATE TO BE 20mm UNLESS OTHERWISE SPECIFIED</p>	LOCATION	GRADE	BLINDING	C30	FOUNDATIONS	C30	PILECAPS	C30 UNO ON PROJECT DESIGN CONSULTANTS DRAWINGS	GROUNDBEAMS	CLASS DC2 SULPHATE RESISTING	RETAINING WALLS	C30	R.C. COLUMNS	C30	COMPOSITE METAL DECK	C30	<p>1. COVER TO R.C. FOUNDATIONS TO BE 50mm</p> <p>STEEL WORK</p> <p>1. WORK TO FIGURED DIMENSIONS ONLY</p> <p>2. ALL STEELWORK AND DECKING IS TO BE IN ACCORDANCE WITH THE LATEST REVISIONS OF PROJECT DESIGN CONSULTANTS SPECIFICATIONS. ALL TO BE ACCORDING TO EN 1000S355JR AND ALL HOLLOW SECTIONS TO BE EN 10210S355J2H.</p> <p>3. BEAMS, COLUMNS AND BRACING MEMBERS GRADE S355 JR FOR HOT ROLLED SECTIONS, S355 JOH FOR STRUCTURAL HOLLOW SECTIONS, S275 JR FOR PFC's RSA's AND FLATS UNLESS NOTED OTHERWISE ON THE DRAWINGS. EXTERNAL COLUMNS AND BEAMS TO BE GRADE S355 JO FOR ROLLED SECTIONS. S275 JR FOR PFC's EXTERNAL STEEL SHALL INCLUDE COLUMNS IDENTIFIED ** THUS ON THE COLUMN PLAN DRAWINGS AND ALL STEELWORK TO ROOF OVERHANGS.</p> <p>4. ALL NEW STEELWORK TO BE SHOT BLASTED TO SWEDISH STANDARD SA 2.5</p> <p>5. IMMEDIATELY AFTER SHOT BLASTING THE STEELWORK IS TO BE COATED WITH ONE COAT OF AN APPROVED PRE-FABRICATION PRIMER TO A DFT OF 20 MICRONS. AFTER FABRICATION ALL STEELWORK IS TO BE FINISHED IN ACCORDANCE WITH THE SPECIFICATION.</p> <p>6. THE TOP FLANGE OF ALL STEELWORK BEAMS TO RECEIVE SHEAR STUDS ARE TO BE LEFT UNPAINTED.</p> <p>7. STEELWORK NOTED AS CONCRETE ENCASED IS TO BE LEFT UNPAINTED. CONCRETE CASING TO BE 50mm MINIMUM WITH D49 WRAPPING FABRIC.</p> <p>8. AFTER ERECTION ALL DAMAGED AREAS OF STEELWORK TO BE TOUCHED UP BY THE ERECTOR/FABRICATOR WITH AN APPROVED PRIMER TO THE SATISFACTION OF THE ENGINEER.</p> <p>9. PRIMED STEELWORK IN THE CAVITIES OR ENCASED IN BLOCKWALL IS TO BE FURTHER PROTECTED WITH 2 COATS OF BITUMEN PAINT AS SPECIFICATION.</p> <p>10. ALL PERMANENTLY EXPOSED EXTERNAL STEELWORK SHALL BE GALVANISED. ALL GALVANISED STEELWORK TO BE GRIT BLASTED TO SWEDISH STANDARD SA 2.5, PICKLED AND HOT DIP GALVANISED IN ACCORDANCE WITH THE SPECIFICATION.</p> <p>11. ALL STEELWORK CONSIDERED AS VISUALLY EXPOSED ARE TO HAVE REGARDS TO THE HIGH QUALITY AND APPEARANCE OF CONNECTIONS, WELDS, MEMBERS ETC REQUIRED THROUGHOUT THE STEEL FRAME, AND MUST BE APPROVED BY THE ARCHITECT PRIOR TO THE COMMENCEMENT OF ANY FABRICATION.</p> <p>12. THE TEMPORARY STABILITY OF THE STEELWORK FRAME IS TO BE CONSIDERED BY THE STEELWORK FABRICATOR AND ERECTOR, AND COVERED IN THE SUB-CONTRACTORS ERECTION METHOD STATEMENT.</p> <p>13. FOR DETAILS OF THE PROPOSED FIRE PROTECTION REFER TO THE ARCHITECTS DRAWINGS, DETAILS AND SPECIFICATION.</p> <p>14. FRAME AND FLOOR SYSTEM TO HAVE 1.5 HOURS FIRE RESISTANCE</p> <p>15. ALL STEELWORK TO BE CENTRAL ON GRIDS AND EQUALLY SPACED BETWEEN GRIDS UNLESS DIMENSIONED OTHERWISE.</p> <p>16. NO SITE WELDING OR SITE CUTTING OF STEELWORK SHALL BE ALLOWED WITHOUT THE EXPRESS APPROVAL OF THE ENGINEERS.</p> <p>17. THE CONTRACTOR SHALL PROVIDE A FULL METHOD STATEMENT FOR ERECTION OF THE STEEL TO THE ENGINEER INDICATING FLOOR BY FLOOR SEQUENCE OF ERECTION, TEMPORARY STRUCTURE TO BE PROVIDED AND CONSTRUCTION LOADING TO BE SUPPORTED OFF THE STEEL FRAME.</p> <p>18. ALL STEELWORK DETAILING, FABRICATION AND ERECTION TO BE IN ACCORDANCE WITH THE LATEST ISSUE OF BS 5950, INCLUDING ALL THE LATEST AMENDMENTS, UNLESS MODIFIED BY PROJECT DESIGN CONSULTANTS SPECIFICATION.</p> <p>19. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT THE STEELWORK ERECTED ON SITE, BY THE STEELWORK SPECIALIST, IS FULLY IN ACCORDANCE WITH THE CONSTRUCTION DRAWINGS AND CORRECTLY LINED AND LEVELLED. THE CONTRACTOR SHALL INDEPENDENTLY CHECK EVERY SITE CONNECTION TO ENSURE ALL BOLTS ARE CORRECTLY TIGHTENED, PRIOR TO OFFERING THE STEELWORK FOR INSPECTION TO THE ENGINEER.</p> <p>20. THE TEMPORARY STABILITY OF THE STEELWORK FRAME IS TO BE CONSIDERED BY THE STEELWORK FABRICATOR AND ERECTOR, AND COVERED IN THE SUB CONTRACTORS ERECTION METHOD STATEMENT.</p> <p>21. UNLESS WHERE OTHERWISE NOTED ALL BOLTS SHALL BE BLACK BOLTS TO BS 4190 AND WASHERS TO BS 4320 SHALL BE PROVIDED FOR ALL BOLTS</p> <p>22. UNLESS NOTED OTHERWISE THE COMPOSITION OF THE PROTECTIVE SYSTEM SHALL BE:</p> <ul style="list-style-type: none"> (a) SURFACE TREATMENT - D - NONE (b) METAL COATING - NONE (c) PRE - TREATMENT - NONE (d) PRIMING PAINT - 1.5 HOURS (e) FINISHING PAINT - 2T (f) CONCRETE ENCASED - 1.5 HOURS <p>23. ALL PERIMETER BEAMS, COLUMNS AND INTERNAL COLUMNS TO BE ENCASED IN CONCRETE, ALL ROOF STEEL TRUSS MEMBERS AND INTERNAL BEAMS TO BE PAINTED WITH INTUMESCENT PAINT. ALL FLOOR BEAMS TO BE PAINTED WITH INTUMESCENT PAINT.</p> <p>24. ALL STEEL SURFACES IN CONTACT WITH ALUMINIUM SHEETING ARE TO BE GIVEN TWO COATS OF AN APPROVED BITUMASTIC PAINT BEFORE FIXING SHEETING WASHERS OR LOCK NUTS.</p> <p>25. ALL BOLTS IN TENSION SHOULD BE PROVIDED WITH EITHER DOUBLE COILED SPRING WASHERS OR LOCK NUTS.</p> <p>STEELWORK CONNECTIONS</p> <p>1. ALL CONNECTIONS UNLESS DETAILED ARE TO BE DESIGNED BY THE STEELWORK FABRICATOR IN ACCORDANCE WITH BS 5950 PART 1 2000.</p> <p>2. ALL ORDINARY BOLTS SHALL BE GRADE 8.8 TO BS 4190 1967 AND SHALL BE ZINC-PLATED (INTERNAL USE) OR SPUN GALVANISED TO BS 729 (EXTERNAL USE).</p> <p>3. BOLTS FOR ALL SHEAR CONNECTIONS TO BE GRADE 8.8 HSFG BOLTS SHOULD BE USED IN ALL BRACING CONNECTIONS AND FOR SPLICES IN BEAMS AND TRUSSES. THE USE OF GRADE 4.6 BOLTS IS STRICTLY RESTRICTED TO MINOR CONNECTIONS AS DEFINED BY THE ENGINEER, e.g. PURFLIN AND SHEETING RAIL CONNECTIONS, AND IS SUBJECT TO WRITTEN AGREEMENT. HOLDING DOWN BOLTS MAY BE GRADE 4.6 UNLESS IN DIRECT TENSION WHERE GRADE 8.8 SHALL BE USED.</p> <p>4. ALL BOLTED CONNECTIONS ARE TO HAVE A MINIMUM OF 4 NO M20 GRADE 8.8 BOLTS U.N.O AND A MINIMUM END REACTION OF 80KN</p> <p>5. ALL BRACING CONNECTIONS TO HAVE A MINIMUM OF 2 NO. M20 GRADE 8.8 BOLTS UNLESS NOTED OTHERWISE.</p> <p>6. ALL STANCHION BASES TO HAVE A MINIMUM OF 4 NO HOLDING DOWN BOLTS</p> <p>7. MINIMUM WELD TO BE 8MM UNLESS NOTED OTHERWISE TO BS 5135 1985</p> <p>8. ALL BRACING IS TO BE SET OUT ON THE CENTROIDS OF BRACING MEMBERS AND ON THE CENTRE LINE OF BEAMS AND COLUMNS U.N.O.</p> <p>9. IN ADDITION ALL CONNECTIONS TO BE DESIGNED FOR THE TIE FORCES IN ACCORDANCE WITH CLAUSE 2.4.3 OF BS 5950 PART 1 2000, 'AVOIDANCE OF DISPROPORTIONATE COLLAPSE'.</p> <p>10. DETAILED CONNECTIONS ARE TO BE FABRICATED STRICTLY IN ACCORDANCE WITH THE DRAWINGS. NO DEVIATION WILL BE ACCEPTED WITHOUT PRIOR APPROVAL.</p>	<p>11. ALL CONNECTION/FABRICATION DRAWING DETAILS ARE TO BE SUBMITTED TO THE ENGINEER FOR REVIEW/COMMENT.</p> <p>12. COLUMN SPLICES MAY BE DESIGNED AS BEARING OR BOLTED CONNECTION.</p> <p>13. COLUMN SPLICES (WHERE IN BEARING), COLUMN SHAFTS TO BASEPLATES, AND TOP SURFACES OF BASE PLATES SHALL BE MACHINED FOR BEARING, LENGTHS AND THICKNESSES SHOWN ON THE ENGINEERS DRAWINGS ARE AFTER MACHINING; ALL TOLERANCES FOR MACHINING AND CUTTING ARE TO BE ALLOWED FOR BY THE CONTRACTOR. THE AIR GAP BETWEEN BEARING SURFACES MEASURED IN ANY DIRECTION SHALL NOT EXCEED:-</p> <ul style="list-style-type: none"> a: OVER 50% OF THE LENGTH MEASURED 0.5mm b: OVER 95% OF THE LENGTH MEASURED 1.0mm <p>14. COLUMN SPLICES SHALL BE DESIGNED FOR THE COMPRESSION/TENSILE LOADS AS INDICATED ON THE DRAWING, OR IN ACCORDANCE WITH 5950 PART 1 CLAUSE 2.4.3. WHICH EVER IS THE MAXIMUM.</p> <p>15. ASSUME ALL CONNECTIONS TO BE DESIGNED FOR GREATER MINIMUM SHEAR LOAD OF 75kN OR 0.5Pv TOGETHER WITH AN AXIAL LOAD OF +/-15kN U.N.O - FOR CONNECTION REQUIREMENTS REFER TO PROJECT DESIGN CONSULTANTS DRAWINGS AND CORRESPONDING LOAD SPEADSHEETS.</p> <p>16. ALL BEAM TO COLUMN CONNECTIONS ARE TO BE CAPABLE OF RESISTING A TENSILE FORCE EQUAL TO THE CORRESPONDING END SHEAR FORCE GIVEN IN ABOVE NAMED DRAWINGS. THE SHEAR AND TENSION FORCES ARE NOT CONCURRENT</p> <p>DECKING</p> <p>1. THE DECKING MUST BE FIXED TO FLOOR BEAMS IN STRICT ACCORDANCE WITH THE SUPPLIER'S RECOMMENDATIONS. THE FABRICATOR IS TO ALLOW FOR ALL NECESSARY EDGE TRIMS AND CLOSURES AT OPEN EDGES.</p> <p>2. FLOOR DECKING IS TO BE COMFLOOR 60, 1.2 GAUGE OR SIMILAR APPROVED, ANY OTHER DECKING USED IS TO BE CONFIRMED BY THE DECKING SUPPLIER AND MUST BE CONTINUOUS OVER TWO SPANS.</p> <p>3. THE MINIMUM END BEARING OF THE DECKING ONTO THE STEELWORK IS TO BE 50mm.</p> <p>4. THE COMPOSITE FLOOR SLABS ARE TO BE 150mm THICK U.N.O NORMAL WEIGHT GRADE C30 CONCRETE ON PERMANENT DECKING</p> <p>5. SERVICES AND SUSPENDED CEILINGS TO BE SUPPORTED BY PROPRIETARY FIXINGS TO THE UNDERSIDE OF THE DECK IN ACCORDANCE WITH THE MANUFACTURERS DETAILS</p> <p>6. GENERALLY THE DECKING SHALL PROVIDE 1.5-HOURS FIRE RESISTANCE, WITH A SINGLE LAYER OF A252 MESH. ANY ADDITIONAL REINFORCEMENT REQUIRED IN EXCESS OF THIS TO SATISFY THE 1.5hrs FIRE RATING WILL BE DEEMED TO BE INCLUDED IN THE COST OF THE DECKING.</p> <p>7. DECKING TO BE SECURED TO STEELWORK PRIOR TO STUDDING BY MEANS OF SHOT FIRED PINS.</p> <p>8. THE CONTRACTOR IS TO ENSURE THAT THE DECKING IS ADEQUATELY SUPPORTED AND SEALED AT ALL OBSTRUCTIONS THROUGH THE SLAB. eg AROUND PERIMETER OF COLUMNS, AT BRACING CONNECTIONS etc.</p> <p>9. SERVICE HOLES GREATER THAN 300mm SQ OTHER THAN THOSE SHOWN ON THE DRAWINGS WILL NOT BE PERMITTED. REFER TO ARCHITECTS AND SERVICE ENGINEERS DRAWINGS FOR DETAILS OF NOMINAL OPENINGS AND CAST IN ITEMS FOR SERVICES. ALL HOLES TO BE POSITIONED TO AVOID CLASHING WITH STRUCTURAL MEMBERS.</p>
LOCATION	GRADE																		
BLINDING	C30																		
FOUNDATIONS	C30																		
PILECAPS	C30 UNO ON PROJECT DESIGN CONSULTANTS DRAWINGS																		
GROUNDBEAMS	CLASS DC2 SULPHATE RESISTING																		
RETAINING WALLS	C30																		
R.C. COLUMNS	C30																		
COMPOSITE METAL DECK	C30																		

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NO	REVISION	DATE

Client Name: *****	GENERAL NOTE	
	Project number	--
Date	01 JUNE 2021	Author
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Checked by		
OSE	Scale	As indicated

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BLOCKWALL NOTES:

- 1)Concrete masonry units shall comply with the requirements of SABS 1215 nominal strength of 12.5MPa, of width 230mm.
- 2)All blockwork is non-load bearing unless otherwise noted.
- 3)All non-load bearing blockwork to be hollow concrete blocks with density not exceeding 600kg/m³.
- 4)All blockwork to be laid in accordance with the manufacturer's recommendations, employing 10mm wide joints. jesols or similar approved.
- 5)The blockwork is coursed to minimise cutting vertically, the coursing in the structure is to be adhered to.
- 6)Vertical expansion joints to be at max. 8000 c/c.
- 7)Horizontal joints in blockwork to be at every floor slab / concrete beam.
- 8)Cement for mortar shall comply with CEM I or CEM II/A-L, S, V or W of SABS ENV 197-I or masonry cements MC 12,5; MC 12,5X or MC 22,5X, of BS 8110 PT 1.
- 9)Cement for grout and infill concrete shall comply with CEM I or CEM II KA-L, S, V or W of BS 8110 PT 1
- 10)Aggregates for grout and infill concrete shall comply with BS 8110 PT 1.
- 11)Sand for mortar shall comply with BS 8110 PT 1.
- 12)Sand which does not comply with BS 8110 PT 1 may be used only with the written consent of the Engineer.
- 13)Mortar plasticizers shall comply with BS 4887 and shall be used in the proportions and in the manner recommended by the manufacturer.
- 14)Admixtures, if approved for use by the Engineer, shall be used in the proportions and in the manner recommended by the manufacturer.
- 15)Lime for mortar shall comply with BS 8110 PT 1.
- 16)Water shall be clean and free from injurious amounts of acids, alkalis, sugar and other organic substances. Water suitable for drinking purposes shall be acceptable. If so required by the specifier, the suitability of water shall be proved by tests carried out by an approved laboratory.
- 17)Reinforcing steel including bed reinforcement, shall comply with BS 8110.
- 18)Metal wall ties for use in cavity walls shall be wire ties complying with BS 8110 PT 1.
- 19)The type of wall ties shall be Modified PWD made of 3.15mm galvanized steel unless otherwise noted.
- 20) Expanded metal building products shall comply with BS 8110 PT 1
- 21) Damp-proof course materials shall comply with the relevant requirements of the appropriate specification as specified by the Architect.
- 22) Joint infill material used in?lling of control joints shall comply with the manufacturer's standards as approved by the Engineer.
- 23) Units shall be unloaded and handled to prevent chipping and breakage. They shall be stacked on prepared level areas to ensure the stack is stable. The top of each stack shall be kept covered during rainy weather, and the whole protected from staining or marking.
- 24) Cement stored on site shall be adequately protected against moisture and other factors that may cause it to deteriorate.
- 25) Fine and coarse aggregates from different sources shall be stored separately. Contamination by foreign matter shall be avoided.
- 26) Reinforcement, metal ties, anchors and masonry accessories shall be protected from contact with the soil and before placing shall be free from loose millscale and other coatings that will adversely affect bond. Reinforcement shall not be permanently distorted.
- 27) Material that has deteriorated, or has been contaminated or does not comply with the specifications shall not be used in the construction of the works.
- 28) The specified dimensions and angles shall be measured and set out to the degree of accuracy specified (see Table 1).
- 29) The position of vertical reinforcement starter bars, and the setting out of inspection and clean out units, wall openings and service conduits, pipes and ducts shall be selected prior to laying the first course of masonry in order to fit in with the specified bond pattern.
- 30) The tolerance on surfaces off foundations, beams or slabs for supporting structural masonry shall be as specified (see Table 1)
- 31) Prior to laying the first course of masonry, the concrete surface shall be clean and free of laitance, loose aggregate or anything that will prevent the mortar from bonding properly. The surface shall be rough to provide bond between concrete and mortar, grout or in?ll concrete.
- 32) Mortar shall comply with the requirements for a prescribed mix mortar or a strength mortar, as specified.
- 33) The source of sands and type of cement shall not be altered during the construction of the works without prior approval from the Engineer. The use of mortar plasticizers and/or set retarding admixtures shall be subject to the approval of the Engineer. The methods to be used for measuring materials for mortar shall be such that the proportions of the constituent materials can be controlled.
- 34) Mortar Class 2 shall be used throughout, unless otherwise specified.
- 35) The mortar mix design shall be submitted to the Engineer for approval.

MORTAR CLASS			COMPRESSIVE STRENGTH AT 28d, MPa MIN	
		PRELIMINARY LAB TESTS	WORK TESTS	
I		14.5	10.5	
II		7	5	
III		2	1.5	

Table 2 Strength of mortar

36) Strength mortar shall conform to strength requirements of Table 2 for the appropriate Class of mortar or as specified or as shown on the drawings for each section of the works.

37) Prior to commencing construction, the Contractor shall conduct trial mixes to establish the required proportions of constituents mix for each class of mortar to be used in the works and the relationship between 7 day and 28 day compressive strengths.

38) Materials for mortar shall be mixed using a procedure for the minimum period of time that will ensure all ingredients are evenly distributed throughout the mixture.

39) Mortar shall be transported and discharged into mortar trays serving the mason in such a manner as to prevent segregation, loss of ingredients or adulteration.

40) The type and source of aggregate and cement shall not be altered during construction of the works without prior approval of the Engineer . The use of admixtures shall be subject to the approval of the Engineer. The methods used for measuring materials for infill concrete or grout shall enable the proportions of the constituent materials to be controlled and adequately maintained.

41) The Contractor shall supply on site, infill concrete or grout of the specified materials and in the specified proportions.

42) Masonry units shall be of the type and class specified, laid on a bed of mortar as specified. The mortar shall be sufficiently plastic and units shall be placed with sufficient pressure to extrude mortar from the joint and to produce a tight joint.

43) Concrete masonry units shall not be wetted prior to laying.

44) Solid units shall be laid on a full bed of mortar with perpend joints solidly filled with mortar as the work proceeds. Filling of perpend joints by means of slushing with mortar and deep furrowing of bed joints prior to laying units shall not be permitted.

45) Hollow units shall be face-shell bedded, both horizontally and vertically and laid with the thicker shell-face uppermost. The face shells of bed joints shall be fully mortared. Perpend joints shall be mortared along each face for a distance at least equal to the shell thickness of the unit.

46) Webs shall not be buttered with the exception of all courses in piers and columns and the 1st course above a supporting element such as a beam or lintel. In partially grouted constructions, webs on either side of each core to be grouted shall be fully buttered.

47) Each unit shall be laid and adjusted to its final position while the mortar is still plastic. Any unit disturbed to the extent that the bond is broken after initial positioning shall be removed and re-laid in fresh mortar.

48) Protrusions of mortar extending more than 12 mm into cores or cavities which are to be grouted shall be removed.

49) Bed joints and perpend joints shall to be nominally 10 mm thick and not exceed 13 mm.

50) Collar joints less than 20 mm wide shall be solidly filled with mortar or grout as the work proceeds.

51) In hot weather conditions when the ambient air temperatures exceeds 32 °C or when there is windy conditions which dry the mortar the length of mortar runs laid down ahead of units shall be adjusted so as to comply with specifications regarding laying and bedding of masonry units.

52) In cold weather when the ambient air temperature is less than 5°C wet or frozen masonry units shall not be laid. Any section of masonry which is wet or water in mortar which has been frozen or is damaged shall be removed before continuing construction of that section.

53) Masonry walling shall be constructed in the bond shown on the drawings or as stated in the schedules. If no bond is specified , masonry walling shall be constructed in stretcher bond. Closures and specific units shall be used to maintain true and regular bond.

54) Masonry shall be built true and plumb with perpend joints in vertical alignment. Corners shall be accurately constructed and the bonding of corners shall preserve the symmetry in the appearance of the work.

55) Cutting of units shall be kept to a minimum and wherever possible the use of standard units shall be used in preference to cutting so as to maintain bond.

56) Masonry units shall either be cut with a bolster or a masonry saw to achieve a finish to the satisfaction of the Engineer. Units that are damaged in the cutting process shall not be incorporated into the works.

57) Cut edges or faces of masonry units that are exposed shall be finished and positioned such that the exposed faces or edges have the appearance of manufactured surfaces.

58) In cavity walls, wall ties shall join the leaves and shall be embedded in masonry joints at right angles to the leaves as the work progresses. The number of wall ties per m² of walling shall be 2,5, 3 and 5 for cavity widths of 75 mm or less, 75 to 100 mm and 100 to 150 mm respectively unless otherwise stated. Additional ties shall be provided at openings, discontinuities (eg. control joints) spaced at intervals not exceeding 300mm vertically, or, where deemed necessary or as shown on the drawings such as at external angles. Modified PWD galvanised ties 3.15mm diameter shall be used unless otherwise stated. For high-lift grouted walls, ties complying with the requirements of SANS 10164 Part 2 Annex A shall be spaced at intervals not exceeding 900 mm horizontally and not exceeding 300 mm vertically, with each layer staggered by 450mm.

59) In collar jointed walls, wall ties shall join the leaves and shall be embedded in masonry joints, at right angles to the leaves as the work proceeds. The number of wall ties per m² of walling shall be 3. Crimp wire galvanised ties of 3,15 mm diameter shall be used unless otherwise stated.

60) Intersecting masonry shall be fully bonded together unless otherwise detailed or specified.

Corners require to be laid with a full masonry bond in the specified bond pattern. Unless otherwise permitted, corner units shall be provided to maintain bond at corners where the bond pattern cannot be achieved without cutting of units.

61) Intersecting walls shall be either bonded by means of a full masonry bond or shall be tied to the intersecting walls by means of galvanised hoop iron straps located at vertical centres not exceeding 400 mm built into the bed joint. Such straps shall have thickness, width and length dimensions of not less than 1,6 30 and 700 mm respectively and in the case of walls constructed of hollow masonry units, shall be bent perpendicularly for a nominal distance of 50 to 100 mm at both ends. The cores of hollow masonry units shall be solidly filled with mortar or in?ll concrete where hoop iron straps are provided so that the ends of the straps are embedded in mortar or concrete.

62) Piers shall be bonded to walls by means of header units at least every fourth course by the provision of one 3,15 mm diameter Modified PWD tie or crimp wire tie for each 200 mm width of pier at vertical centres not exceeding 300 mm. Collar joints between piers and walls shall be solidly filled with mortar. The cores of hollow units forming piers shall be solidly filled with mortar or in?ll concrete as the works proceeds.

63) New masonry, unless specifically detailed, shall not be toothed into existing work.

64) The rate of vertical construction shall be controlled as to minimize any possibility of joint deformation, slumping or instability which may reduce bond strength.

65) Corners and other advanced work shall be raked back to the general level of the remaining masonry work and shall not be raised by more than one metre during one lift above the remaining general level of work.

66) Corners shall be accurately constructed and the bonding of corners shall preserve the symmetry in the appearance of the work.

67) The depth of reveals and rebates shall conform as far as practicable to the masonry unit size, in order to maintain masonry strength and to avoid cutting units.

68) Joints shall be finished and compacted to the specified profile with a jointing tool while the mortar is still green. Where pointing is specified, joints shall be raked out to a depth not less than 13 mm or more than 20mm and shall be ?led with mortar mixed in the same proportions as the original bedding mortar and finished to the specified profile. Unless otherwise specified, horizontal and vertical face joints shall be 10mm thick and shall be tooled when thumbprint hard to form a concave or vee joint.

69) Mortar droppings which fall on wall ties in a cavity wall shall be removed as the work progresses. Temporary openings in one or more leaves shall be provided to facilitate removal of mortar droppings from the cavity. Mortar droppings which fall on face unit walls shall be removed and the residue brushed and washed off with the use of clean water as soon as possible after occurrence.

70) During construction, partially completed walls which are exposed to damage shall be protected during inclement weather. At the end of each day or when work is not in progress, weather resistant material extending to a minimum of 600 mm down each side, shall be placed over the new work and held securely in place.

71) Masonry structures shall be temporarily braced or otherwise stabilised as necessary to resist wind and other lateral forces, in such manner that the structural integrity of the masonry is not impaired.

72) Completed masonry work shall be suitably protected against surface contamination and construction damage, and shall be protected from rain or rapid drying out for a period of 2 days or until built upon or covered, whichever occurs first.

73) Completed masonry shall be free of stains, e?lorescence, mortar, infill concrete or grout droppings and debris. Cleaning down of fair face and face work shall be carried out as the work progresses and again at completion. Masonry shall be cleaned with water and a fibre brush, but if necessary chemical cleaning agents may be used strictly in accordance with the manufacturer's instructions provided that the work is not damaged.

74) Masonry bond shall be stretcher bond unless otherwise specified.

75) The leaves of cavity walls shall be tied together with wall ties to prevent bulging of walls during concreting or grouting. Where pockets are to be formed on the outside surface of the masonry, formwork shall be provided. Joints formed in masonry work shall be formed such that no leakage of cement paste occurs during concreting or grouting. The webs that form the cores of hollow units that are to be filled with infill concrete or grout shall be mortared.

76) Infill concrete or grout shall, unless otherwise specified, be grade 25 with workability adequate for placing and compacting in the cores of hollow units, and in the cavities of cavity walls, or pockets of specifically bonded walls constructed with specifically shaped masonry units. The concrete or grout shall comply with requirements of SABS 1200 G the aggregate size shall be maximum of 9,5 mm but not larger than the specified cover less 5 mm. The inside surfaces of masonry construction to be filled with concrete or grout shall be free of mortar ledges, droppings and debris. Clean out holes shall be provided in the bottom courses opposite each vertical reinforcement starter bar, having a minimum size of 100 mm x 100 mm, in high lift construction or as directed by the Engineer to ensure that voids to be filled can be adequately cleaned prior to concreting. The cores, cavities and pockets to be filled shall be dampened and clean out holes shall be blocked before concreting commences.

77) For construction of up to 1 m in heights, the infill concrete or grout shall be placed as part of the process of laying units at maximum vertical intervals of 1 m for cores and 500 mm for cavities and pockets. Each layer of infill concrete or grout shall be placed continuously to within 50 mm of the top level of the last course laid, and shall be placed to avoid splashing and staining the outside surface of the masonry. The infill concrete or grout shall be compacted immediately after pouring. Wall integrity shall not be disrupted during pouring.

78) For construction of walls exceeding a height of 1 m but less than 3 m, clean out holes shall be placed at approximately 500 mm centres for cavity walls, and below each core or pocket to be filled. After the voids to be filled have been cleaned, the clean-out holes shall be blocked off. Infill concrete or grout shall be placed and compacted in lifts not exceeding 500 mm in height. After initial settlement but before initial set in each layer occurs, infill concrete or grout shall be recompressed.

79) Bed joint reinforcement and brick force shall be laid horizontally in mortar at the spacing or in the location shown on the drawings or as described in the schedules.

80) Reinforcement in bed joints and the vertical and horizontal bar reinforcement in the cores of masonry units, in cavity walls and in pockets shall be of specified type and size and shall be fixed in the positions shown on the drawings or as specified in the project specification.

81) Vertical and horizontal bar reinforcement shall be properly positioned and secured against displacement during the process of concreting or grouting.

82) Splices shall unless otherwise indicated on the drawings be made at such points and in such a manner that the infill concrete or grout can be fully compacted and such that structural strength of the masonry is not impaired. The minimum clear distance between a vertical bar and a masonry unit shall be 10 mm or nominal aggregate size plus 5 mm whichever is the greater. Unless otherwise specified, cover to the reinforcement (vertical) measured from the inner face of the core or cavity shall be 30 mm minimum. Bed joint reinforcement cover from the face shall be 15 mm minimum. All reinforcement shall be free of mud, oil and other materials which may reduce bond with infill concrete or grout.

83) Reinforcement positions shall not be changed to accommodate service pipes, conduits and embedded items without written approval from the Engineer.

84) Unless corrosion resistant materials are used, all reinforcement shall be protected against corrosion by adequate cover and/or surface treatment of the reinforcement.

85) Masonry built as cladding or as infill panels in reinforced concrete framed structures, shall, unless otherwise specified comply with the following:

- a) have an 8 to 12 mm horizontal gap between the top of the wall and below the soffit of beams or slabs;
- b) the gap shall be filled with a compressible joint filling material and sealed where required with a sealant as specified;
- c) be fixed to the adjacent columns with metal straps vertical spacing not exceeding 400 mm; the strap vertical leg fixed to the column such that the horizontal leg fits directly into the bedding joint where the size of strap and fixing method is as specified in the project specification or complies with one of the following:
1,6 mm galvanised Tiebond? strap fixed with a single Hilti NK 27 drive pin
Or
1,2 mm x 32 mm x 800 mm long hoop iron strap bent at right angles 100 mm from one end and fixed with a single Hilti NK 27 drive pin
Or
3. 3 ,0 mm x 30 mm x 600 mm long strip bent at right angles a 100 mm front one end and fixed with a single Hilti NK 27 drive pin
Or
A dovetail slot type metal anchor 2,5 mm thick x 17 mm wide x 150 mm long fitted into a 1,25 mm (minimum) thick metal slot fixed to the column.

86) Bed joint reinforced masonry lintels constructed in stretcher bond shall have reinforcement located in the bottom and uppermost bed joints or otherwise in accordance with the project specification.

87) The lap length in respect of brick force shall not be less than 300 mm. Bedding joint reinforcement of the ladder or truss pattern shall be used in hollow masonry construction.

88) Lintels constructed by means of bond blocks or U-beam shall have reinforcement located in the bottom course in accordance with the project specifications.

89) The cores and perpend joints of bond block or U-beam units shall be filled with grade 25 concrete, unless otherwise specified. Lintels shall be adequately cambered and supported for a period of not less than 7 days after completion.

90) Reinforcement may be lapped at the quarter spans; the length of such laps shall be not less than 500 mm for Y10 bars, 660 mm for Y12 bars and 880 mm for Y16 bars.

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	Client Name: ***

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	Scale

- 91) The side cover to reinforcement shall not be less than 30 mm. Where the width of piers between openings is less than 750 mm, an additional bond beam shall be placed in the uppermost course having the same reinforcement as would have been the case had there been a single opening. In such cases, the reinforcement in the bond beam immediately above the openings shall be not less than that tabulated in the project specification. The upper bond block beam shall be continuous across the pier and extend across at least two thirds of the length of the openings on either side of the pier.
- 92) Precast concrete lintels shall comply with the relevant requirements of SABS 1504 and shall be built into walls compositely with masonry.
- 93) Lintels shall be constructed with Class II mortar and shall have a minimum end bearing of:
lintel supporting masonry only 230 mm
lintel supporting roof trusses:
span < 2,5 m 250 mm
span > 2,5 m 350 mm
- 94) Precast lintels shall be cleaned and wetted prior to being laid in mortar.
- 95) Control joints shall be constructed to the details on the drawing at the positions indicated on the drawings or as directed by the Engineer.
- 96) Control joints shall be free from debris over the full width of the joint including any applied wall finish that might restrain or inhibit movement of the joint. Joint thicknesses shall not be less than 10 mm unless otherwise directed by the Engineer. Joint filler material and joint sealants shall be the specified material and comply with the manufacturer's instructions for preparation and installation. Control joints shall extend across the full width of both the masonry and finishes.
- 97) Deviations shall be measured as set out below:
- a) Any deviation from flatness of a plane surface or any abrupt change in a continuous surface shall be measured as the maximum deviation of the surface from any straight line of length 3 m joining two points on the surface, determined by means of a straight-edge, the ends of which are supported on identical blocks of a suitable thickness placed over each of the points.
 - b) Out of square of a corner or of an element shall be measured by the longer of two adjacent sides as a base line, and determining any departure from a perpendicular taken from the base line at both ends.
- 98) Subject to masonry being constructed in such a manner that allows all components to be built into the masonry as the work proceeds, the contractor shall construct each of the various parts of the work within the limits of applicable permissible deviation set out in Table 1

Description	Permissible deviation (PD), mm		
	Degree of accuracy		
	III	II	I
a) Surface of supporting elements	-30 +75	-20 +50	-15 +35
b) Position on plan of any edge or surface measured from the nearest grid line or aligned corner-line	30	20	15
c) Level deviation from designed level with reference to the nearest measured elevation of the average top surface of an element	-30 +75	-15 +5	-15 +5
d) Linear dimensions			
1. Bond joint thickness	5	5	3
- Specified	-5 +40	-5 +25	-5 +20
- Extra joint above supporting classes			
2. Perpend joint thickness	-5 +40	-5 +20	-5 +10
3. Control joint thickness	-5 +10	-5 +10	-5 +10
4. Casing widths	20	20	15
5. Clearance of an unenclosed wall or column from:	-10 +20	-10 +20	5 +15

Table 1. Permissible deviations (General)

- 99) The degree of construction control assumed in the design of structural masonry shall determine the frequency of testing and the type of test appropriate to the project. This shall be stated in the schedules, project specification or on the drawing. Unless directed otherwise by the
- 100) The Contractor shall provide the Engineer with satisfactory evidence that each batch of masonry units delivered to site complies with masonry unit specifications.
- 101) The Contractor shall provide the Engineer with satisfactory evidence that the quality of sand for mortar delivered to site complies with the mortar specifications. If the source of supply is altered, the Contractor shall resubmit evidence that the sand complies with SABS 1090.
- 102) The Contractor shall at least 6 weeks before the commencement of masonry construction work on site, determine (in the laboratory), the strength of the mortar of each class proposed for use on the project, using materials from the sources from which the site will be supplied.
- 103) The rate of sampling and degree of testing of in fill concrete or grout shall comply with the requirements of SABS 1200 G.

104) Whereas the criteria for mortar strength in the specification are based on samples tested at 28 days only, the procedures and requirements for early-strength testing shall be as agreed between the Contractor and the Engineer. Early-strength test results shall not replace results of 28 day laboratory tests on mortar but may be used to detect the need for early remedial measures such as changing the mix design, if necessary.

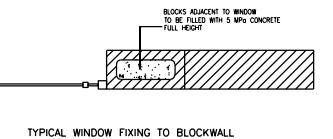
105) Should any valid work test result obtained on strength mortar of specified class show that the average strength at 28 days is lower than that specified, the mortar will be deemed not to satisfy the requirements of the specification. Should an examination satisfy the Engineer that the structural adequacy of the part of the walling in which the mortar has been used is not impaired, the mortar shall be accepted and the mix design and other factors influencing the quality will be reviewed in order to ensure that further mortar incorporated in masonry walls is of a quality acceptable to the Engineer.

EXTERNAL PANEL WALLS

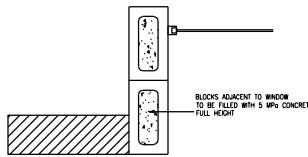
- 1) 230mm hollow blockwalls supported on both sides at max 5000c/c and to be max 4400mm high.
2) 230mm solid blockwalls supported on both sides at max 5000c/c with horizontal supports at every 4500mm height to be max 1400mm high.

INTERNAL PARTITIONS WALLS

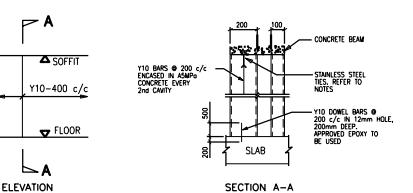
- 1) 230mm hollow blockwalls supported both sides at max 6000mm c/c to be max 4400mm high.
2) 230mm blockwalls with Y10 rebar at 200c/c with 15MPa concrete to be supported at max 5000mm c/c and to be max 8800mm high. These walls to have Y10 @ 200 dowels and to be fixed at top. For details of wall refer to elevations and sections.



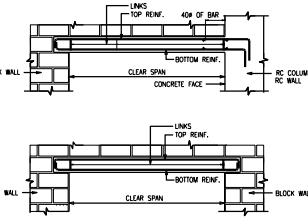
TYPICAL WINDOW FIXING TO BLOCKWALL



TYPICAL WINDOW FIXING TO BLOCKWALL (CORNER)



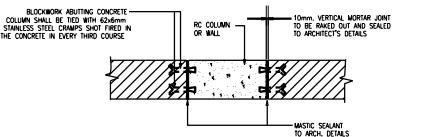
ELEVATION SECTION A-A



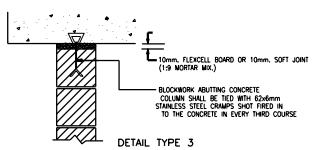
TYPICAL DETAIL OF LINTOL

RC. DETAIL OF LINTOLS		REINFORCEMENT
LINTOL CLEAR SPAN (MM)	LINTOL SIZE (MM)	
< 2500	230	230
> 2500 < 4500	230	400
> 4500	BEAM TO BE SUPPORTED FROM SLAB ABOVE	2116 2120 19700

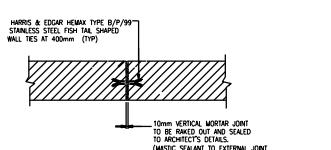
NOTES:
1. BEARING ON BLOCKWORK ON ONE SIDE OF
LINTOL. SPANNING SHOWN AS 2116 MM LONG.
2. OVERALL LINTOL DEPTH MAY BE INCREASED TO SUIT
BLOCKWORK COURSING TO SUPERVISION CONSULTANT'S
APPROVAL.



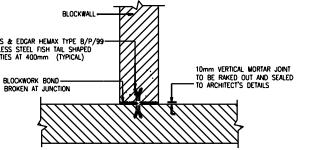
TYPICAL CONTROL JOINT DETAIL AT JUNCTION OF BLOCKWALL & COLUMN



TYPICAL DETAILS AT HEAD OF NON LOAD BEARING BLOCKWALLS



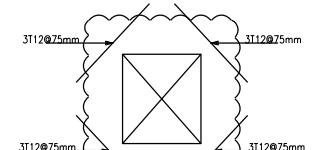
TYPICAL EXTERNAL BLOCKWALL CONTROL JOINT (CJ . DETAIL)



TYPICAL BLOCKWALL JUNCTION

ABBREVIATIONS

R.C. : REINFORCED CONCRETE
T.O.C. : TOP OF CONCRETE
F.F.L. : FINISHED FLOOR LEVEL
GRD-BM : GROUND BEAM
DP. : DEEP
TYP. : TYPICAL
COL. : COLUMN



OPENINGS DETAILS

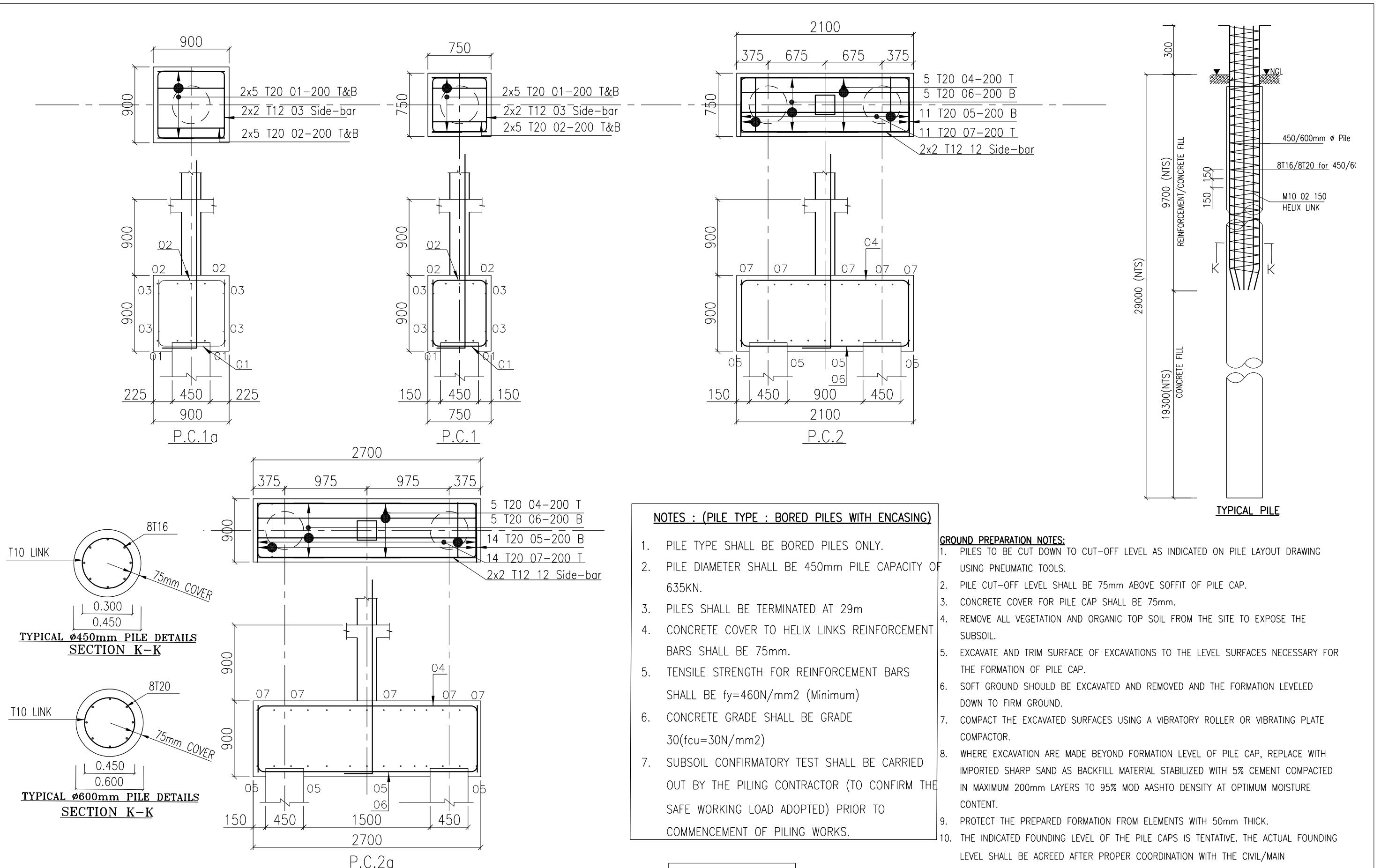
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Date	03 MARCH 2021
Drawn by	OSE
Checked by	OSE
Scale	G/00

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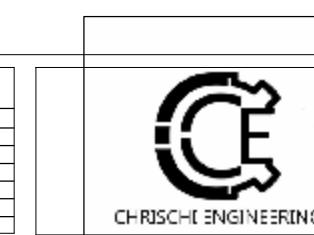
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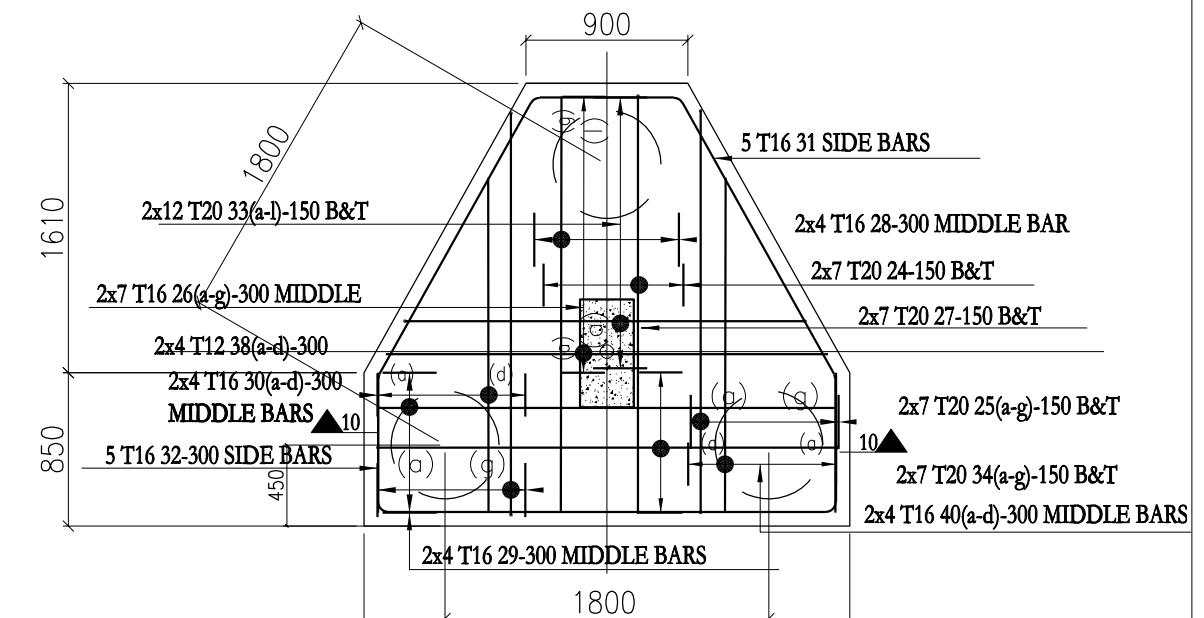
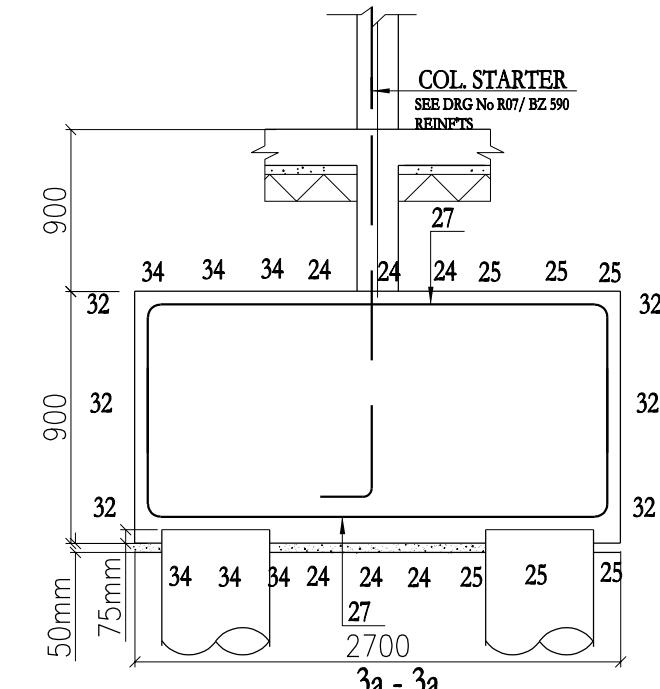
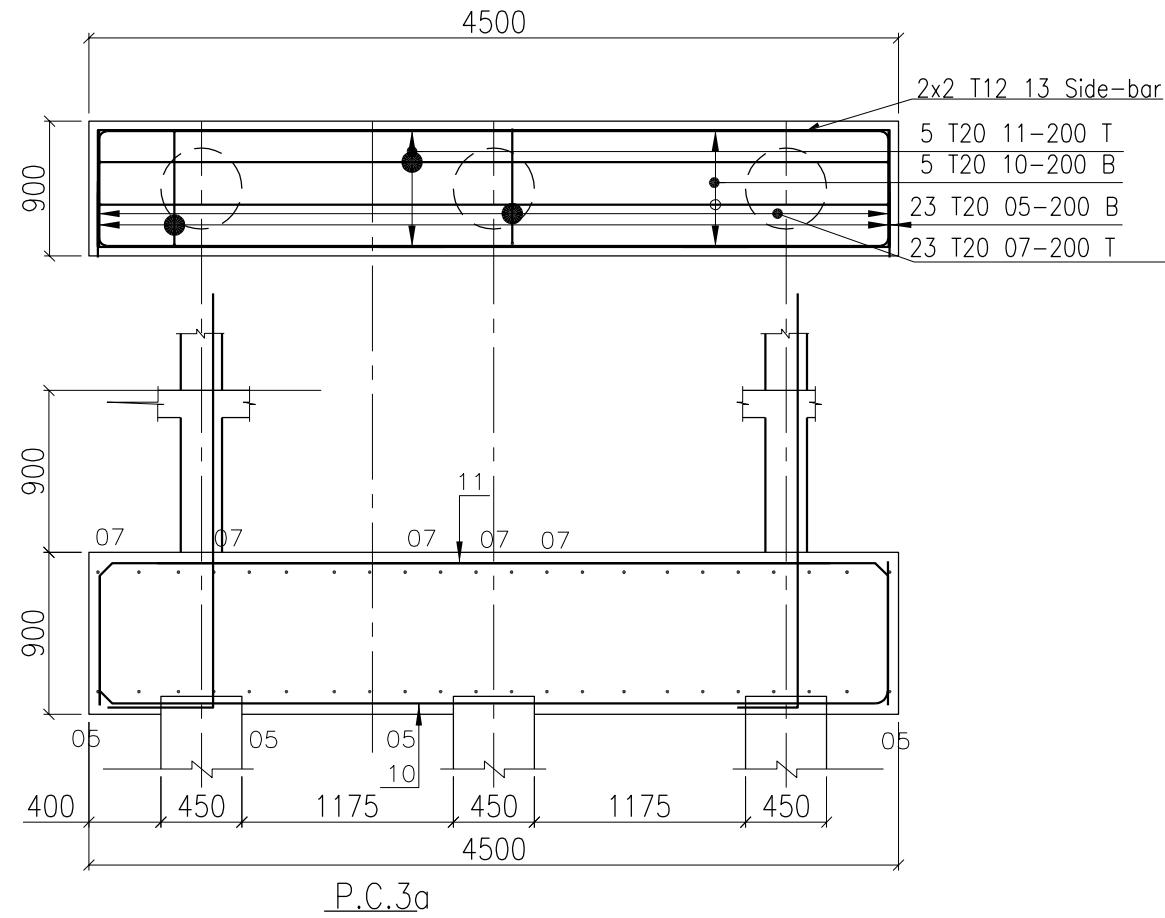
Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI	
LOCATION: Enter address here	

NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

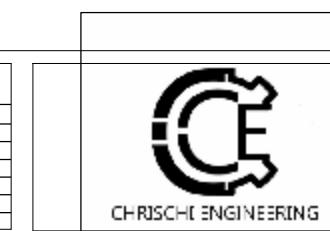
TYPICAL PILE & PILE-CAP DETAIL AND SECTIONS	
Project number	EB-0030
Date	26 July 2022
Drawn by	Author
Checked by	OSE Scale



ISSUED FOR PLANING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI	
LOCATION: Enter address here	

NO	REVISION	DATE

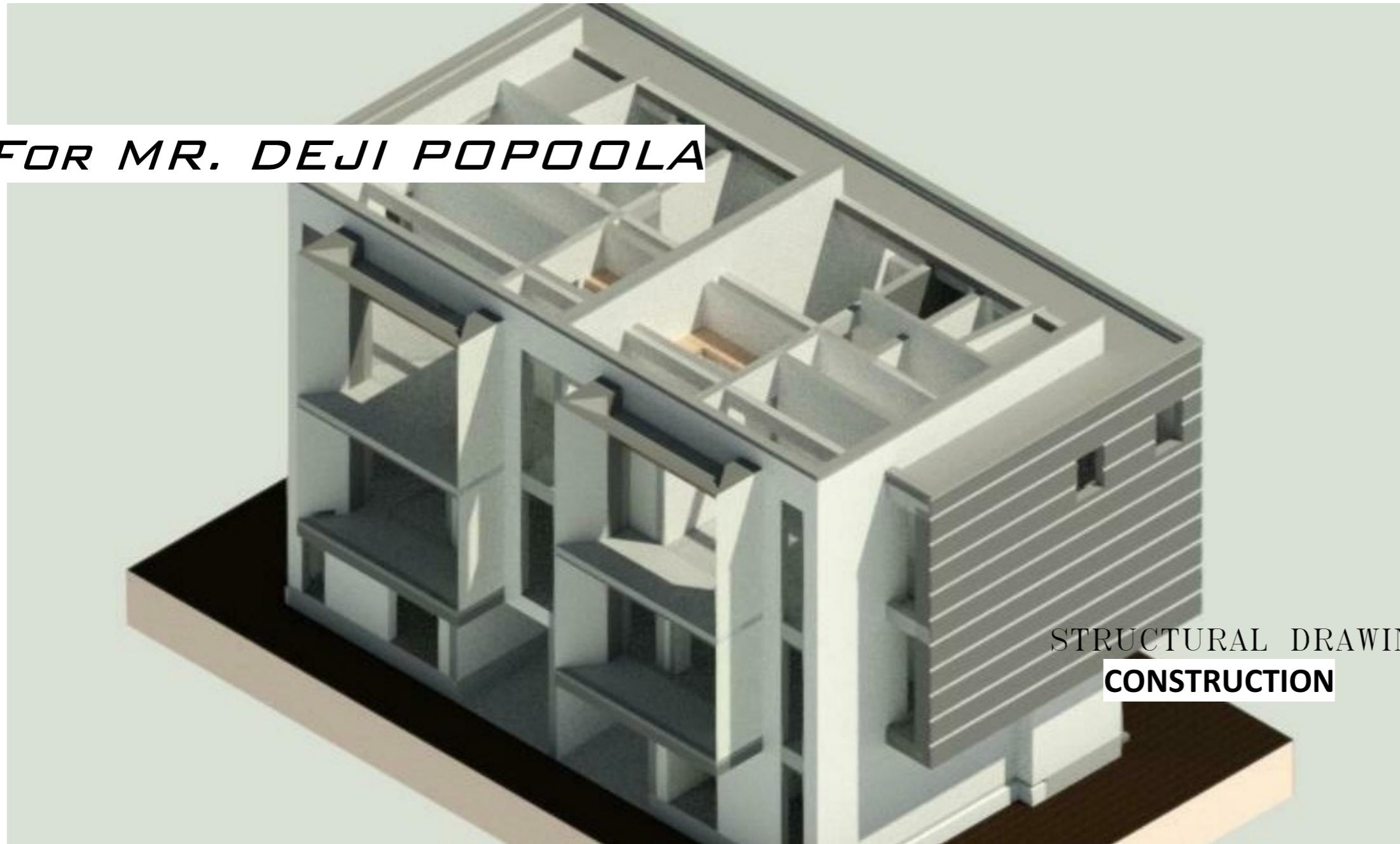


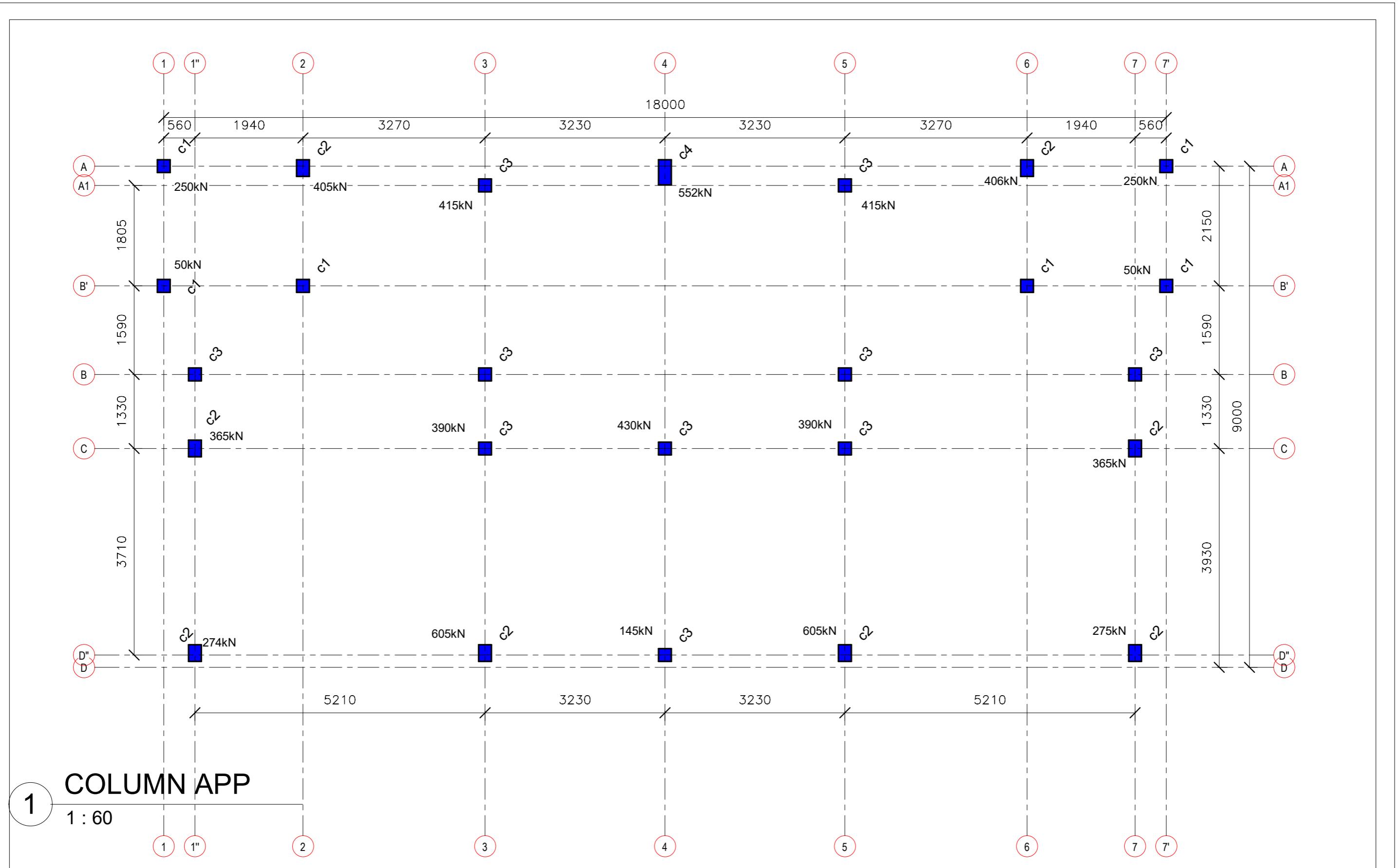
Client Name: MR. DEJI POPOOLA

TYPICAL PILE & PILE-CAP DETAIL AND SECTIONS
 Project number EB-0030
 Date 26 July 2022
 Drawn by Author
 Checked by OSE Scale

PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI (TYPE 1)

FOR MR. DEJI POPOOLA



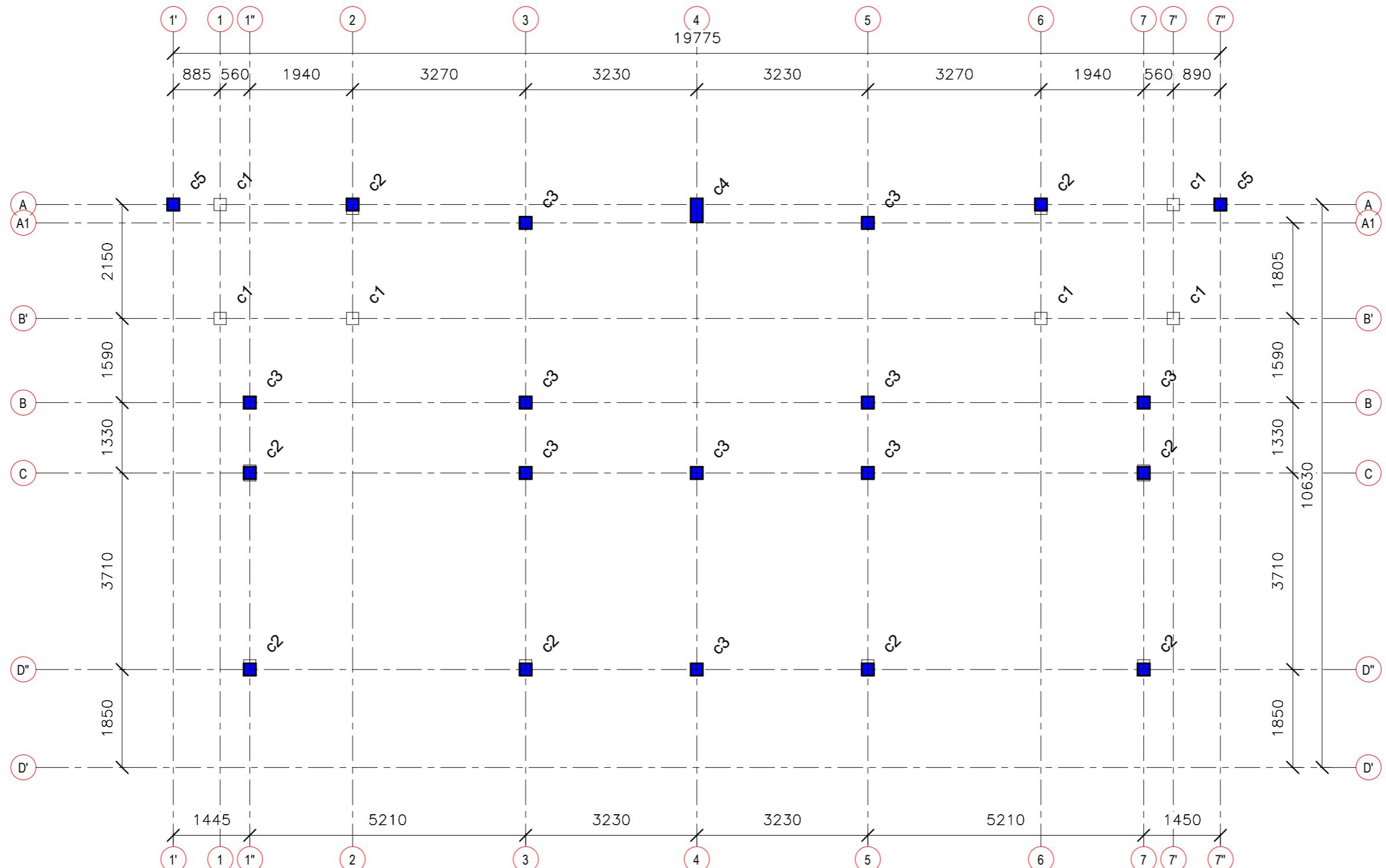


Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERWOOD
(TYPE 1) At Enter address here



Client Name: MR. DEJI POPOOL

GROUND FLOOR COLUMN LAYOUT			
Project number	EB-0030	Author	
Date	26 AUGUST 2022		
Drawn by	Author		
Checked by	ose	Scale	1 : 60



1

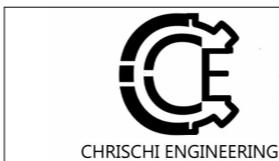
FST FLR LVL COL

1 : 75

ISSUED FOR PLANNING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI
(TYPE 1) At Enter address here

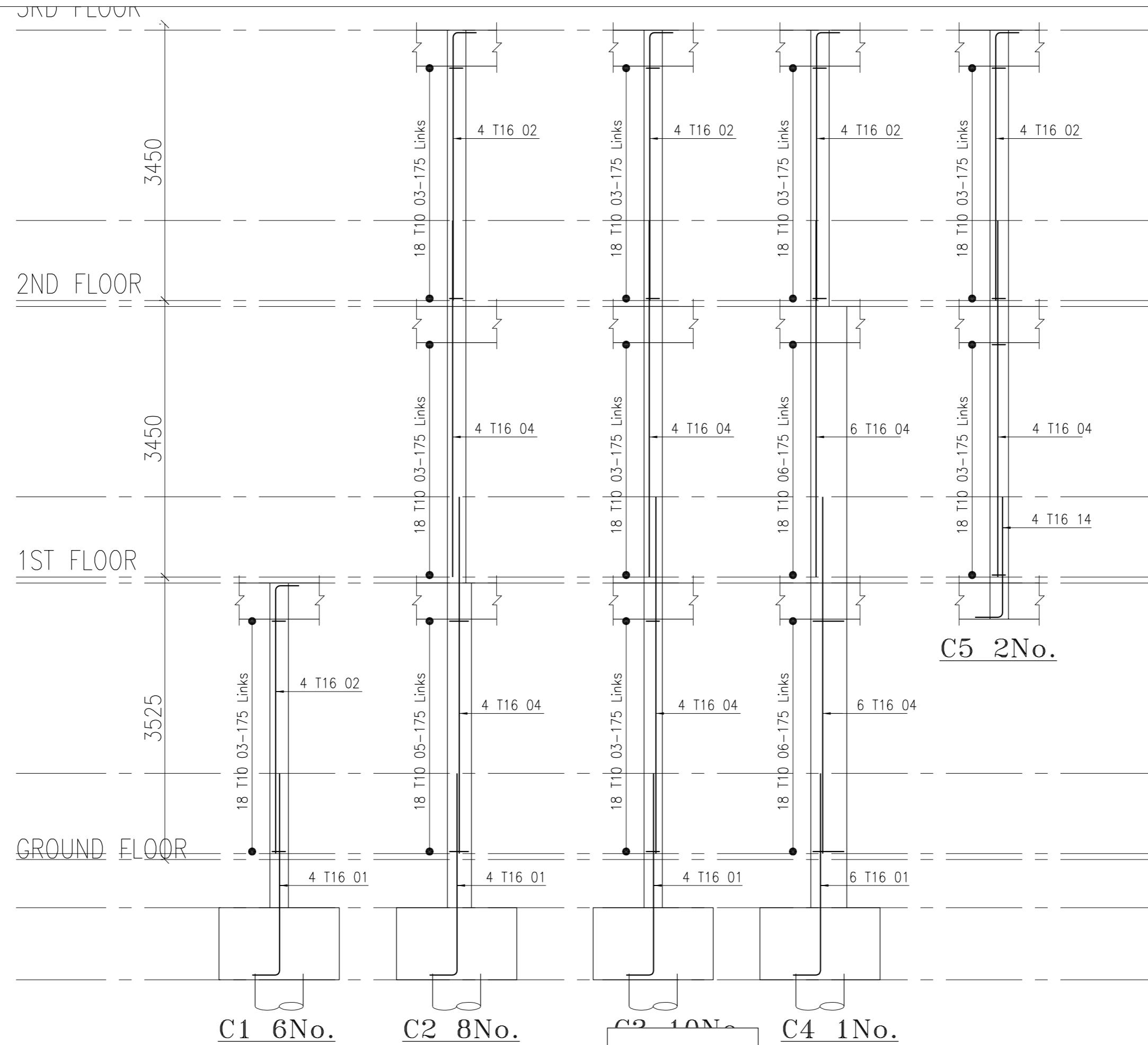
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

FIRST FLOOR COLUMN LAYOUT

Project number	EB-0030
Date	26 AUGUST 2022
Drawn by	Author
Checked by	ose

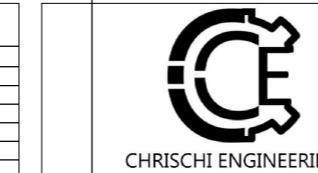


ISSUED FOR PLANING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI
(TYPE 1)

LOCATION: Enter address here

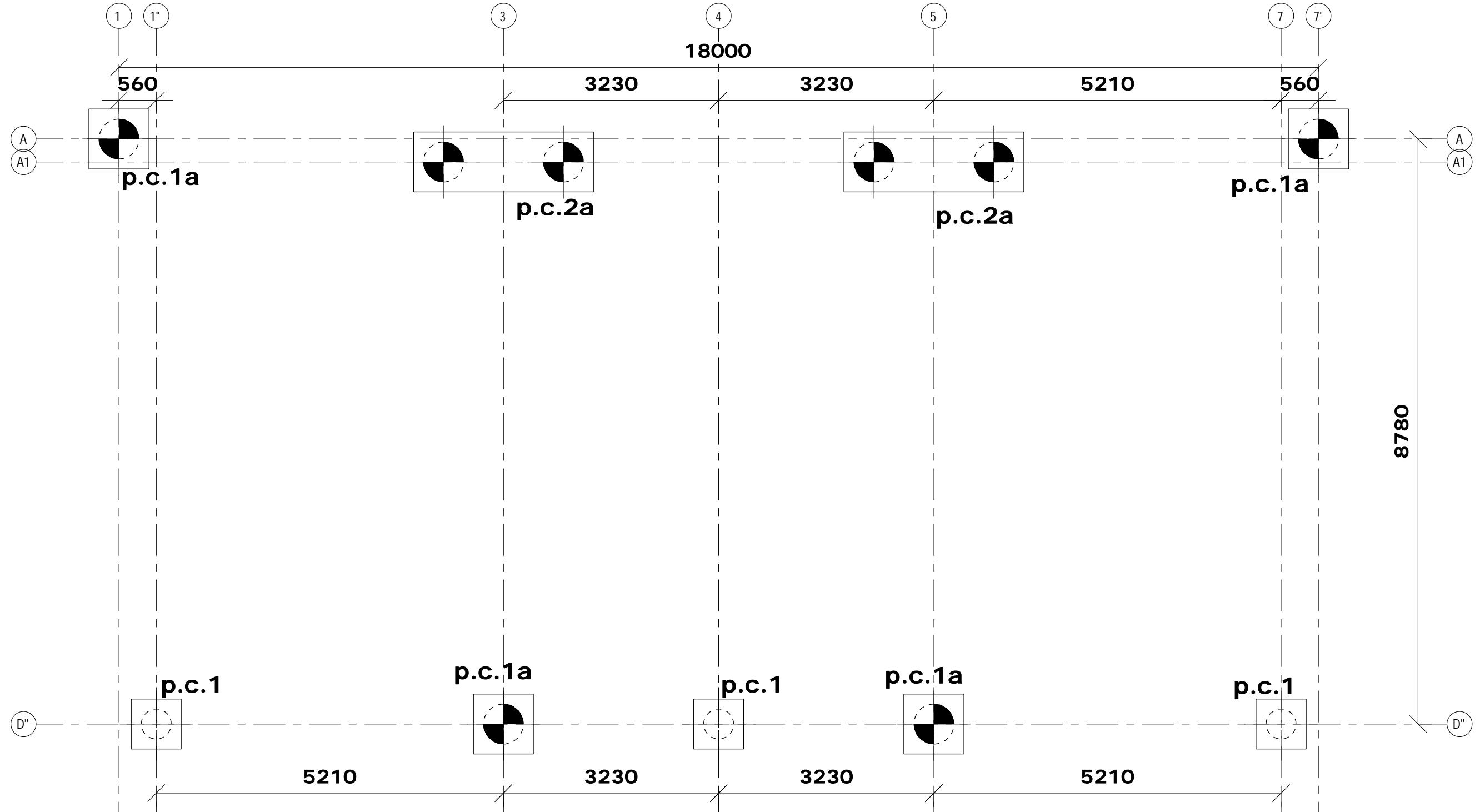
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

COLUMN BEAM DETAIL

Project number	EB-0030
Date	26 July 2022
Drawn by	Author
Checked by	OSE Scale



PILECAP LAYOUT

1 : 60

PILE SCHEDULE

S/N	PILE	SAFE WORKING LOAD	DEPTH	Count
01	450mm	637kN	29000mm	3
02	600mm	913kN		8
TOTAL NUMBER OF PILES				11

S/N	PILECAP	DIMENSION	Count
01	P.C.1	750 x 750 x 900mm	3
02	P.C.1a	900 x 900 x 900mm	4
03	P.C.2a	900 x 2700 x 900mm	2
TOTAL NUMBER OF PILECAP			9

ISSUED FOR PLANING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI (TYPE 1) At Enter address here	NO	REVISION	DATE

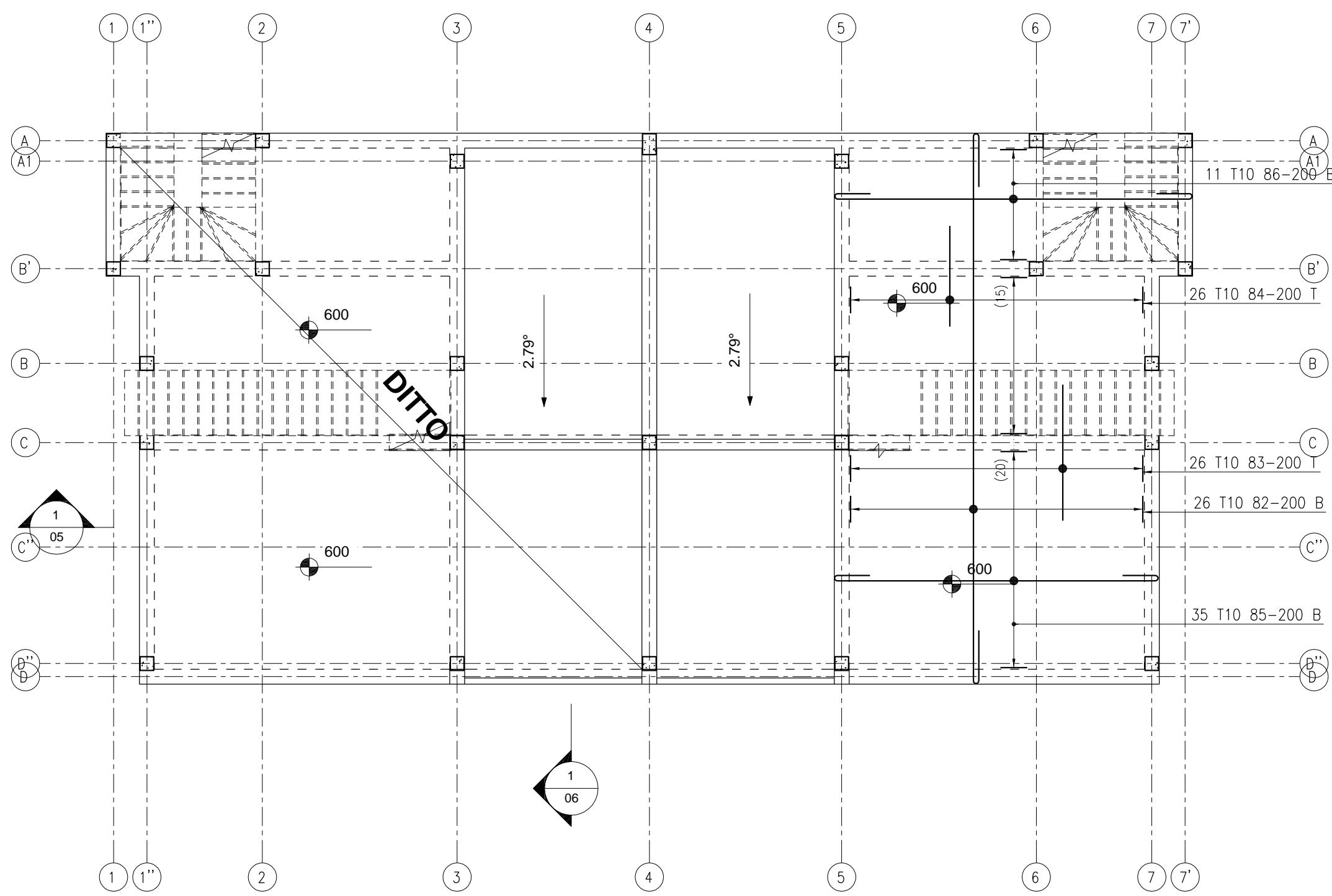


Client Name: MR. DEJI POOPOLA

PILECAP LAYOUT

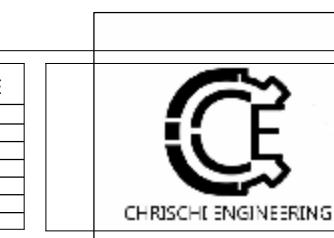
Project number	EB-0030
Date	26 AUGUST 2022
Drawn by	Author
Checked by	ose

Scale 1 : 60



Note: All top distribution bars are T10@200mm c/c

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI (TYPE 1)	
	LOCATION: Enter address here

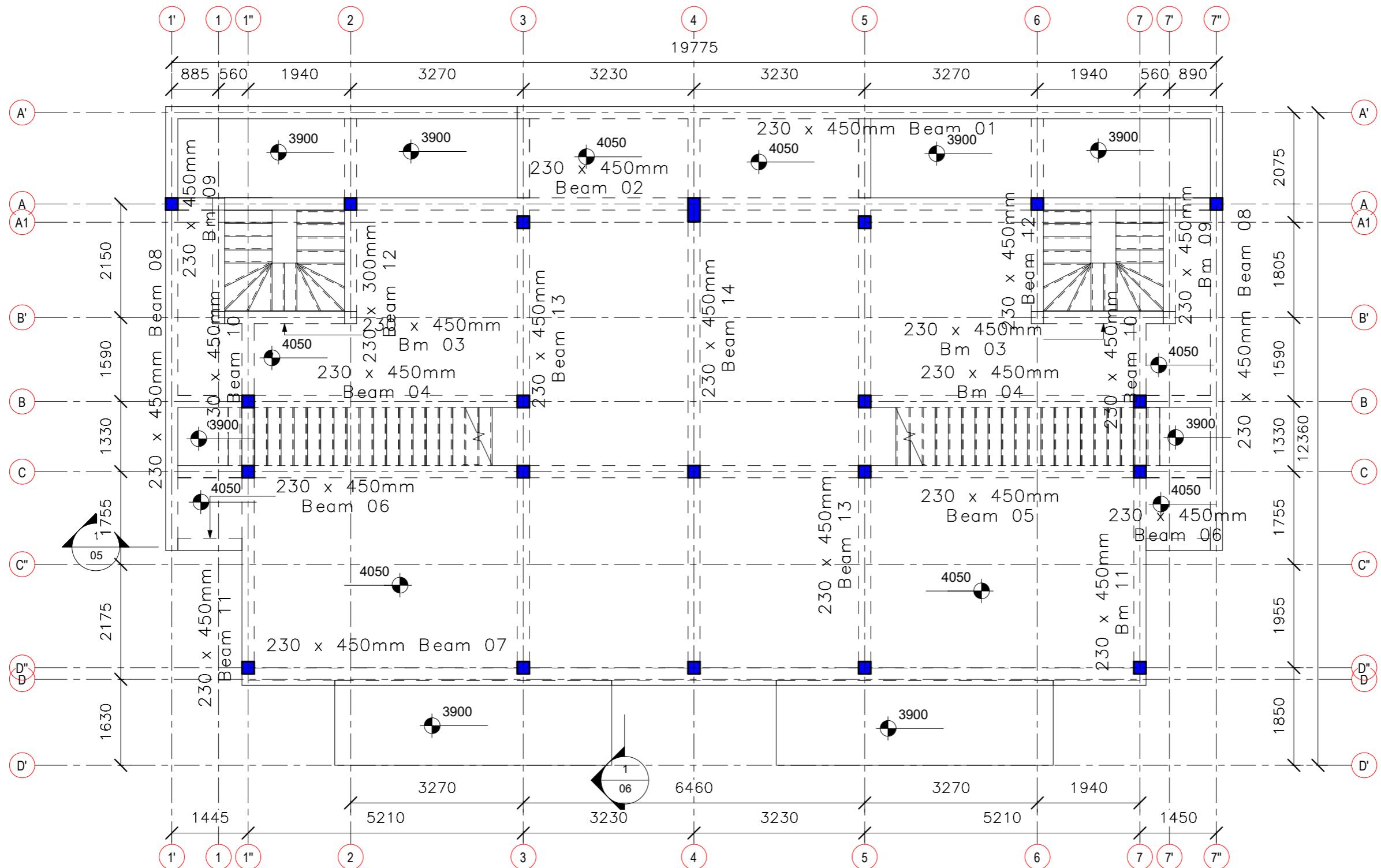


Client Name: MR. DEJI POPOOLA

GROUND FLOOR SLAB DETAIL AND SECTIONS

Project number	EB-0030	
Date	26 July 2022	
Drawn by	Author	
Checked by	OSE	Scale 1 : 75

ISSUED FOR PLANNING APPROVAL ONLY



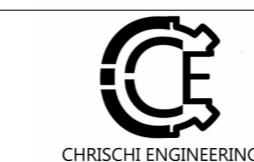
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1 : 75

ISSUED FOR PLANING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI
(TYPE 1) At Enter address here

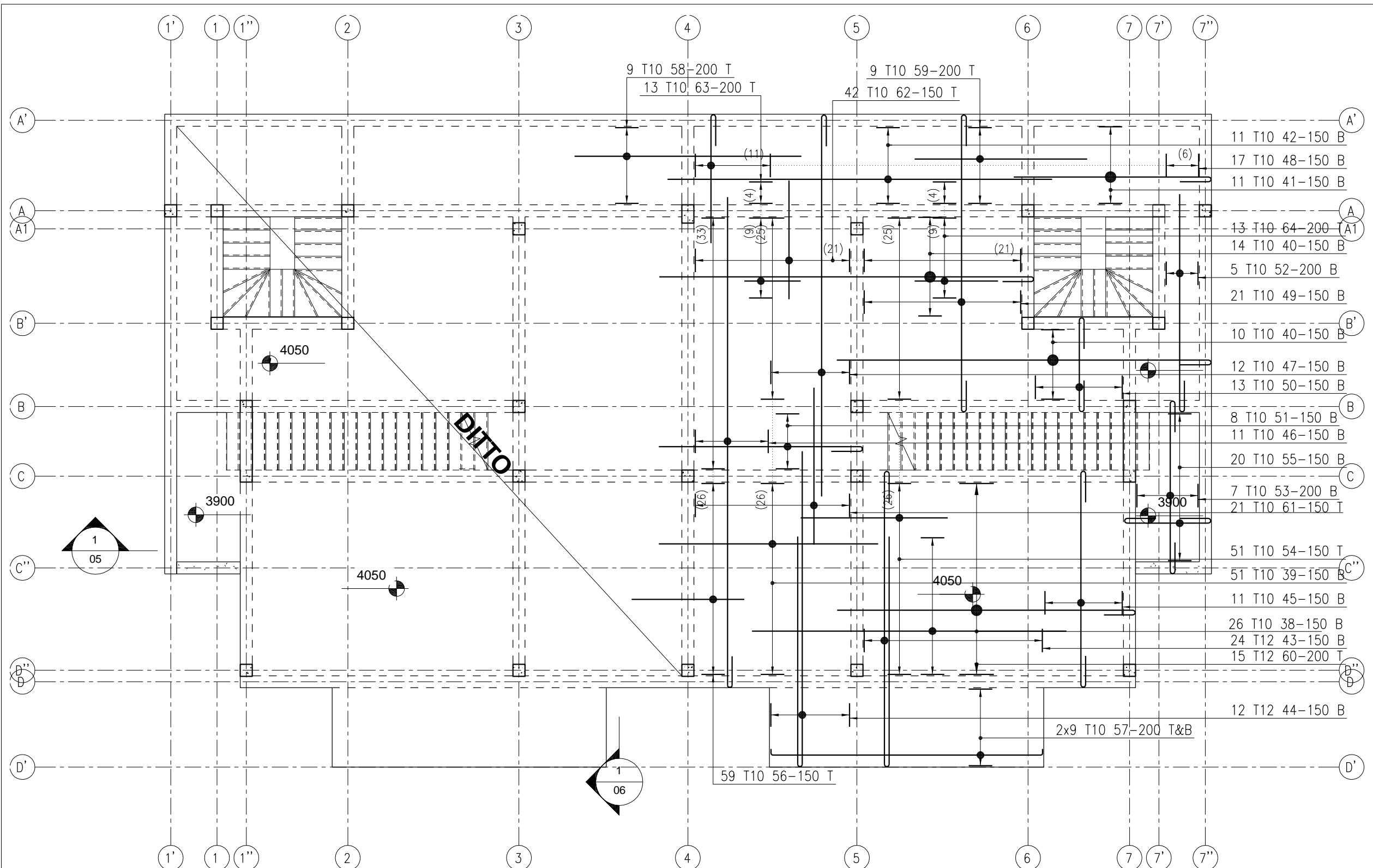
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

FIRST FLOOR LAYOUT

Project number	EB-0030
Date	26 AUGUST 2022
Drawn by	Author
Checked by	ose
Scale	1 : 75

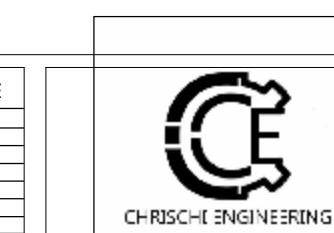


Note: All top distribution bars are T10@200mm c/c

01-FST FLR LVL
1 : 75

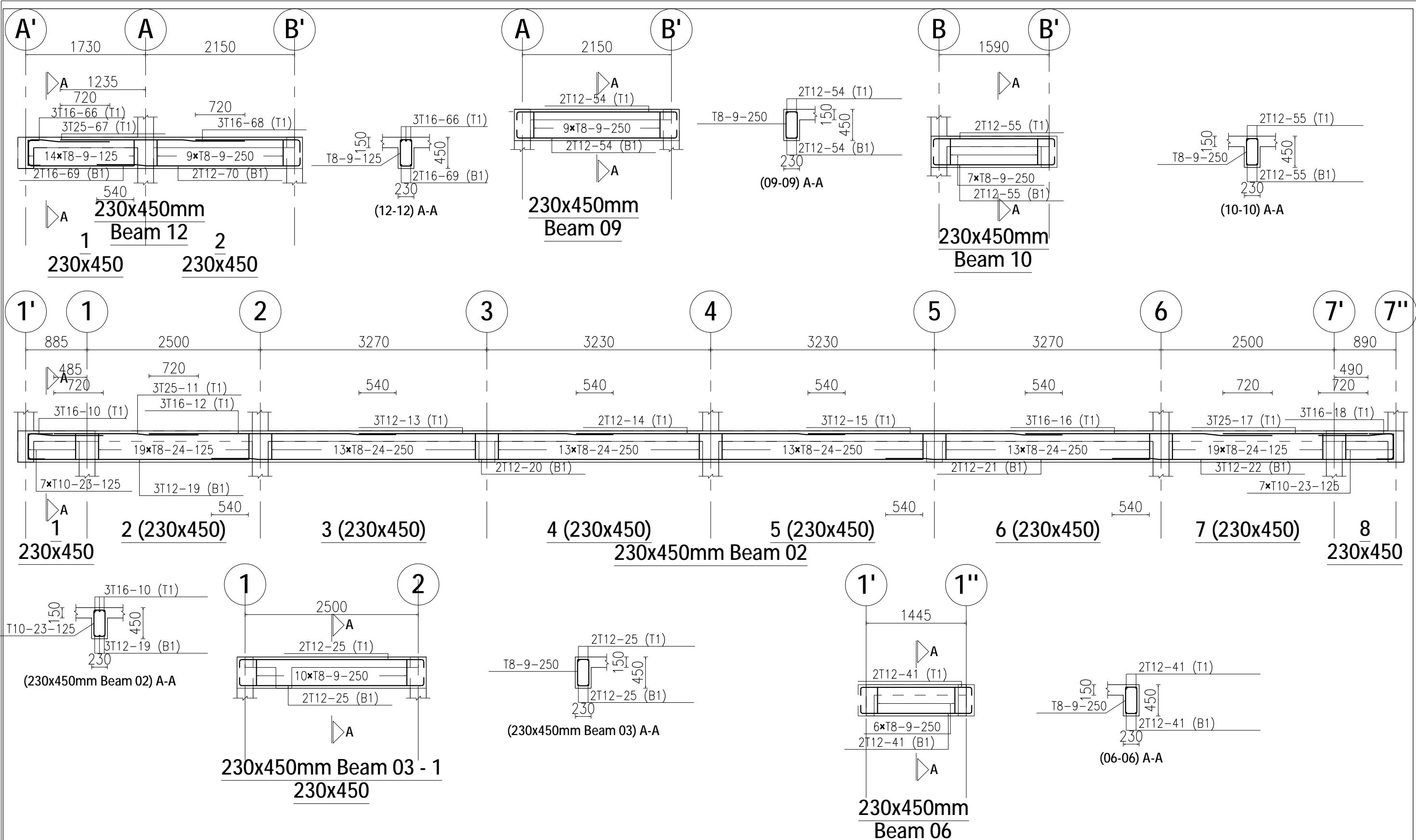
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LOCATION: Enter address here	

NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

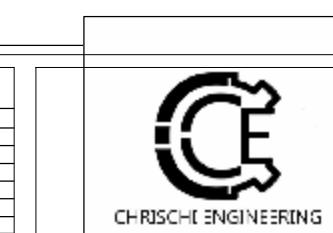
ISSUED FOR PLANING APPROVAL ONLY		
FIRST FLOOR SLAB DETAIL AND SECTIONS		
Project number	EB-0030	
Date	26 July 2022	
Drawn by	Author	
Checked by	OSE	Scale 1 : 75



ISSUED FOR PLANING APPROVAL ONLY

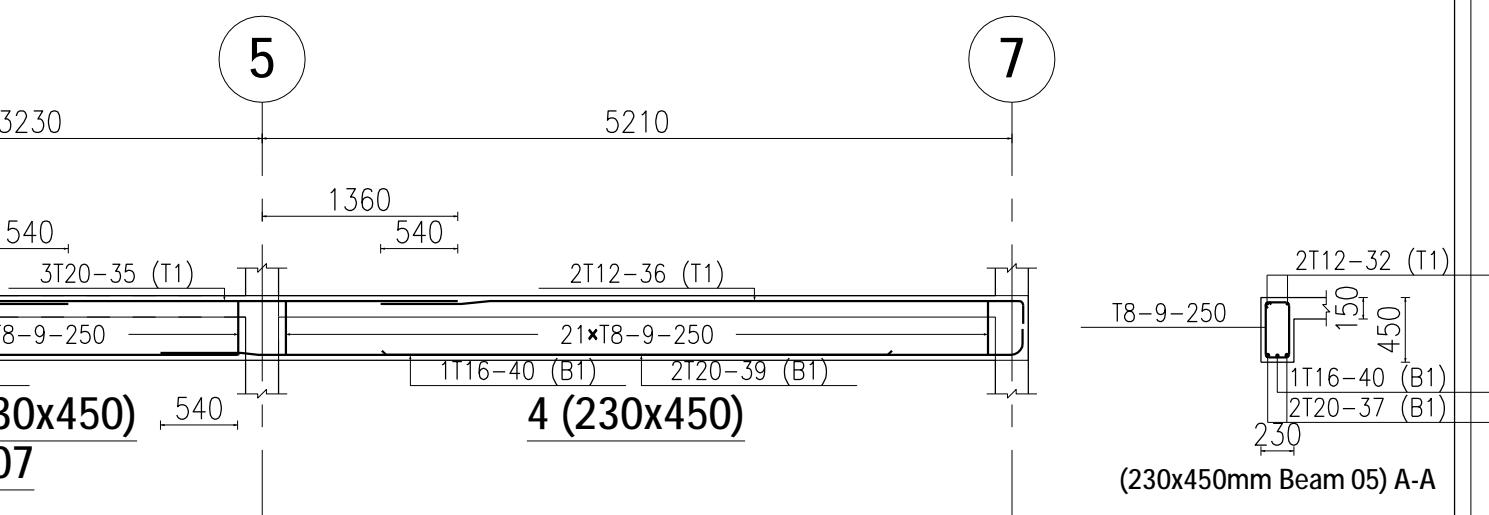
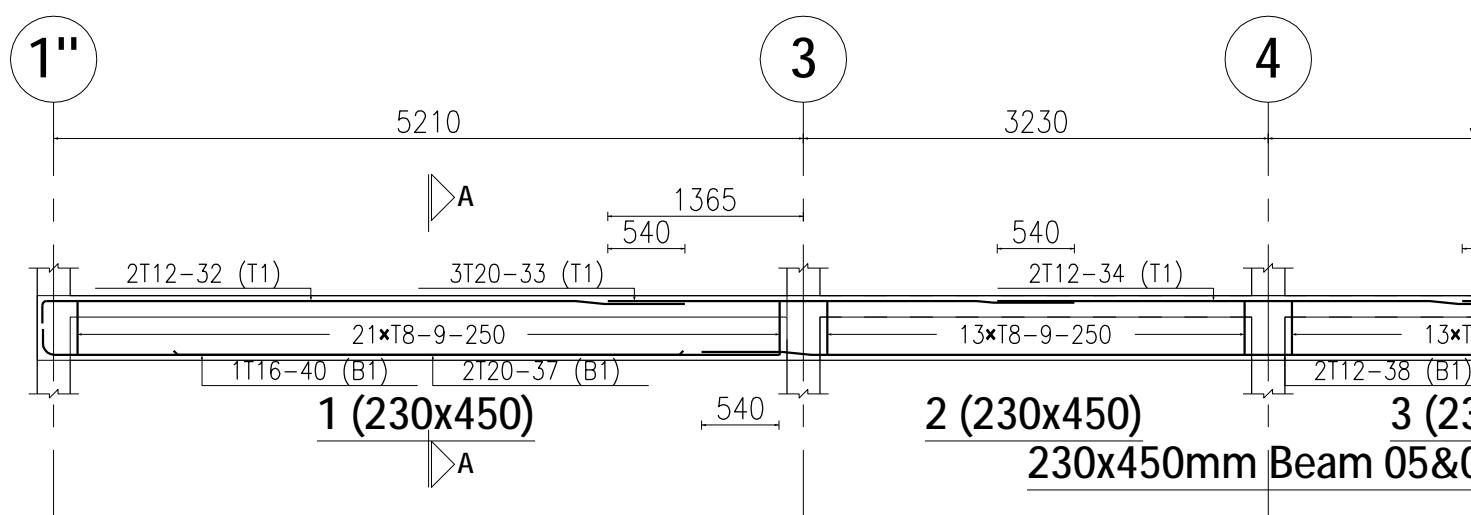
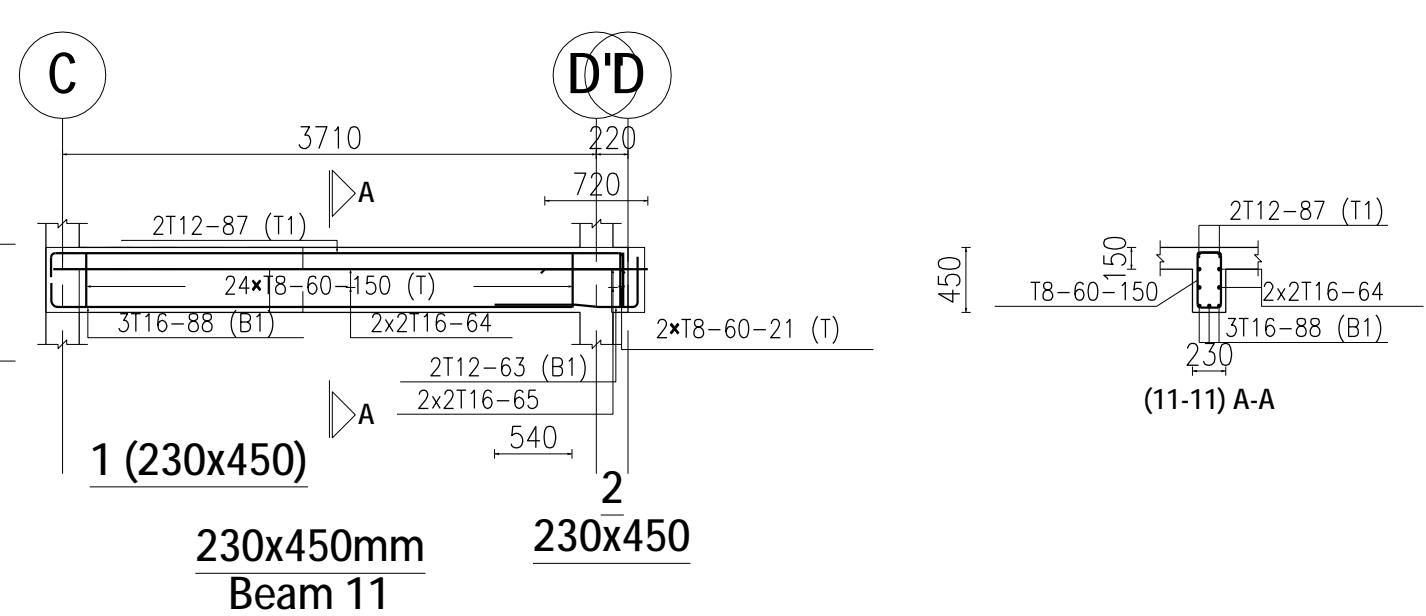
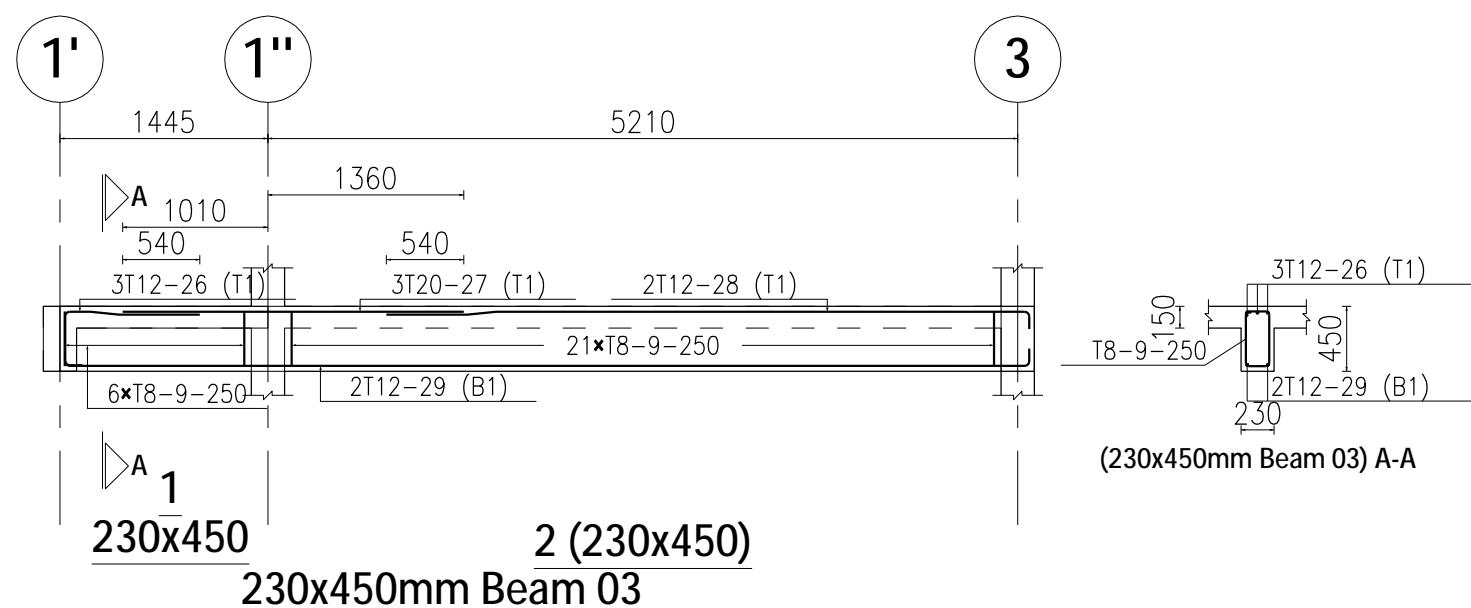
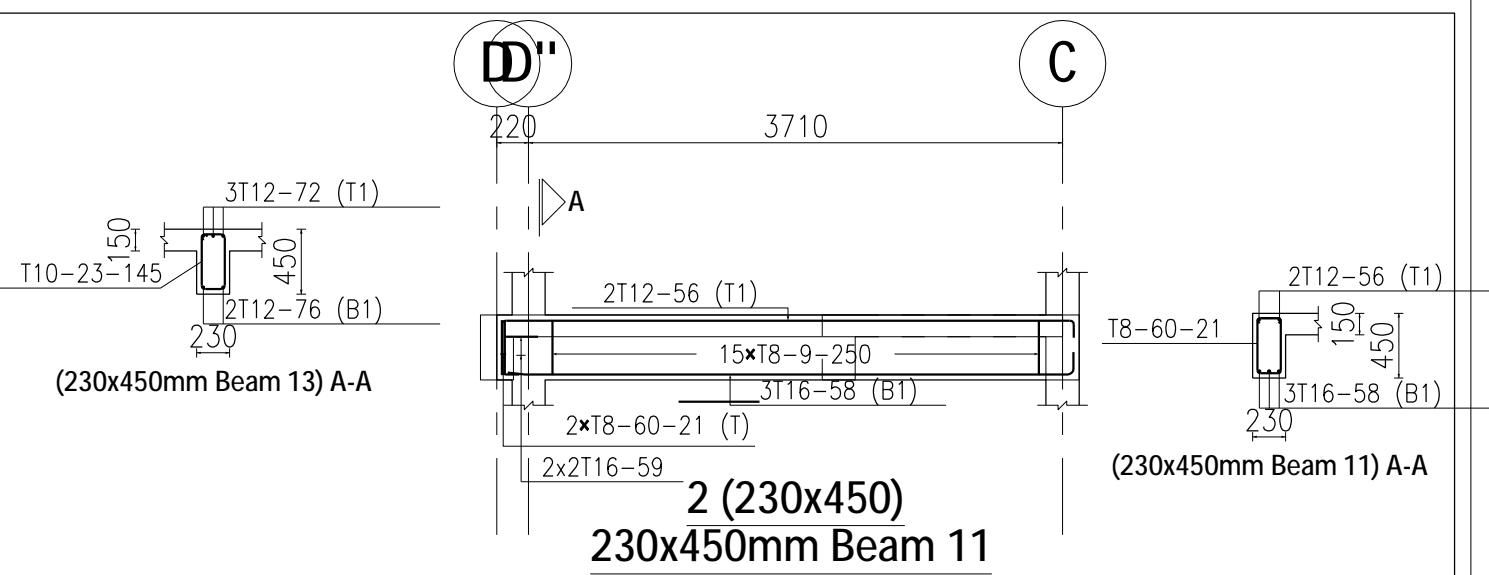
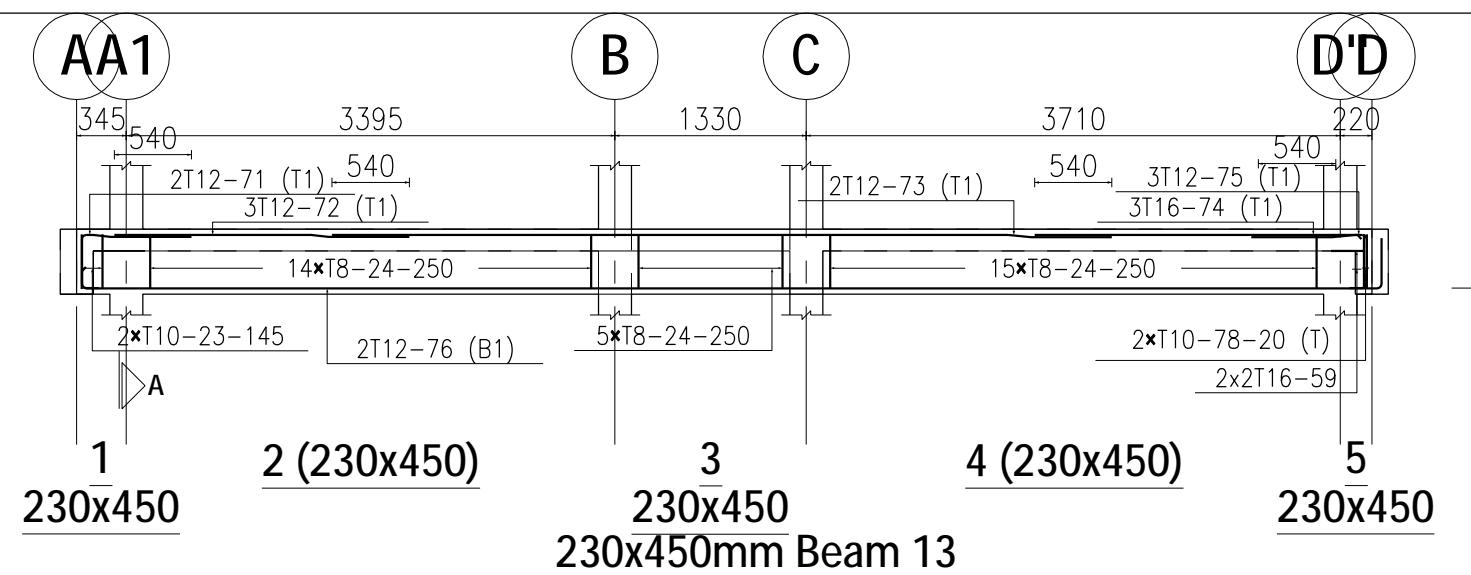
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LOCATION: Enter address here	

NO	REVISION	DATE



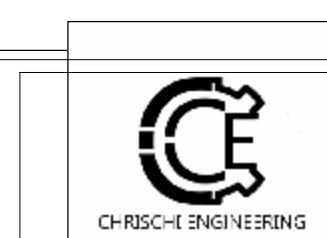
Client Name: MR. DEJI POPOOLA

FIRST FLOOR BEAM DETAIL AND SECTIONS		
Project number	EB-0030	
Date	26 July 2022	
Drawn by	Author	
Checked by	OSE	Scale

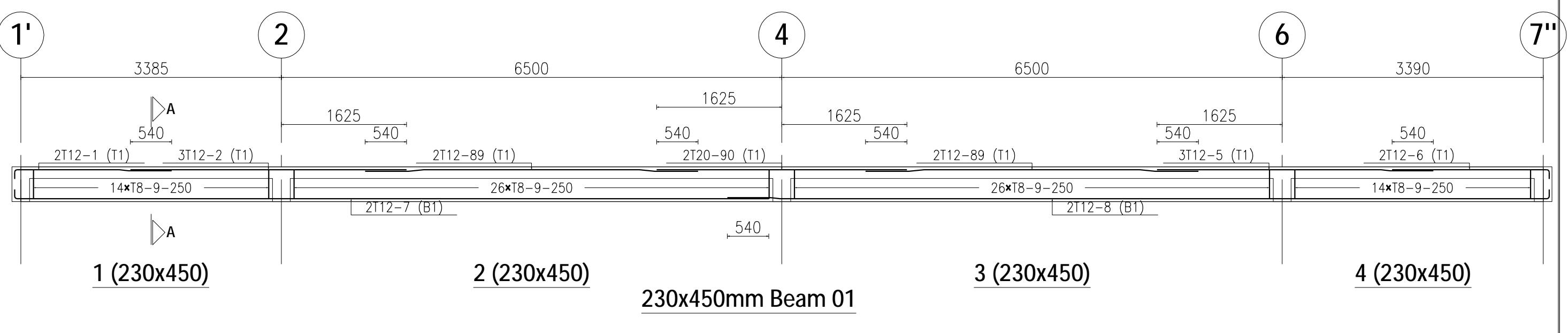
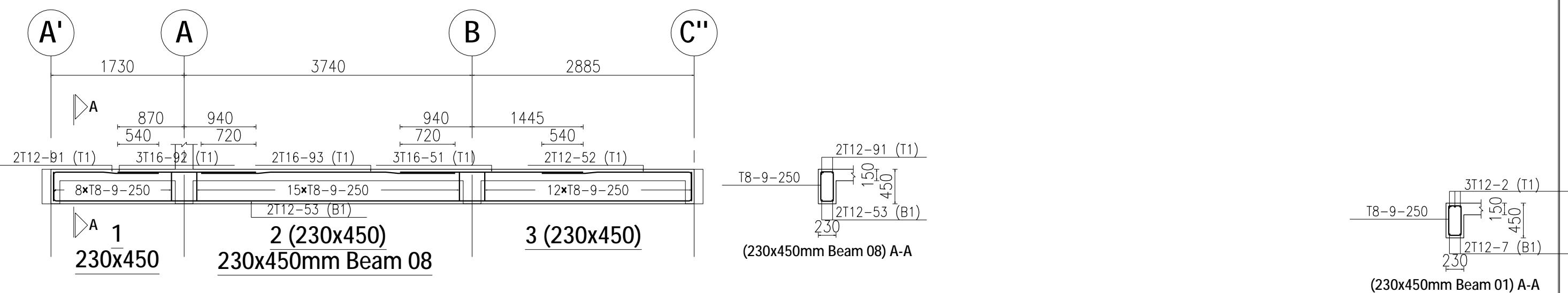
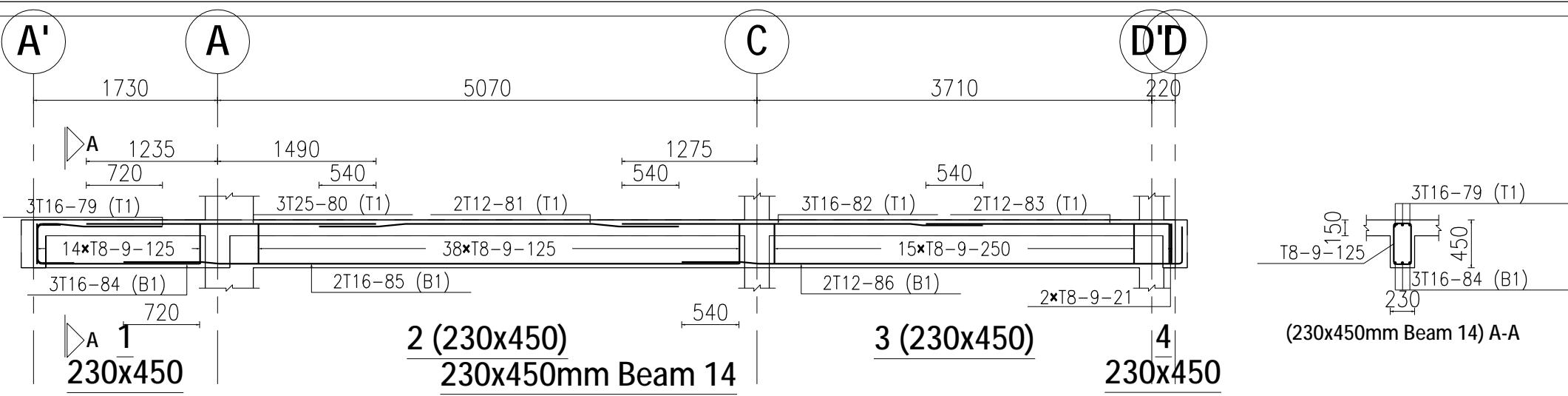


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Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI
(TYPE 1)



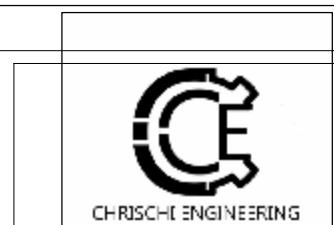
FIRST FLOOR BEAM DETAIL AND SECTIONS		
Project number	EB-0030	
Date	26 July 2022	
Drawn by	Author	
Checked by	OSE	Scale



ISSUED FOR PLANING APPROVAL ONLY

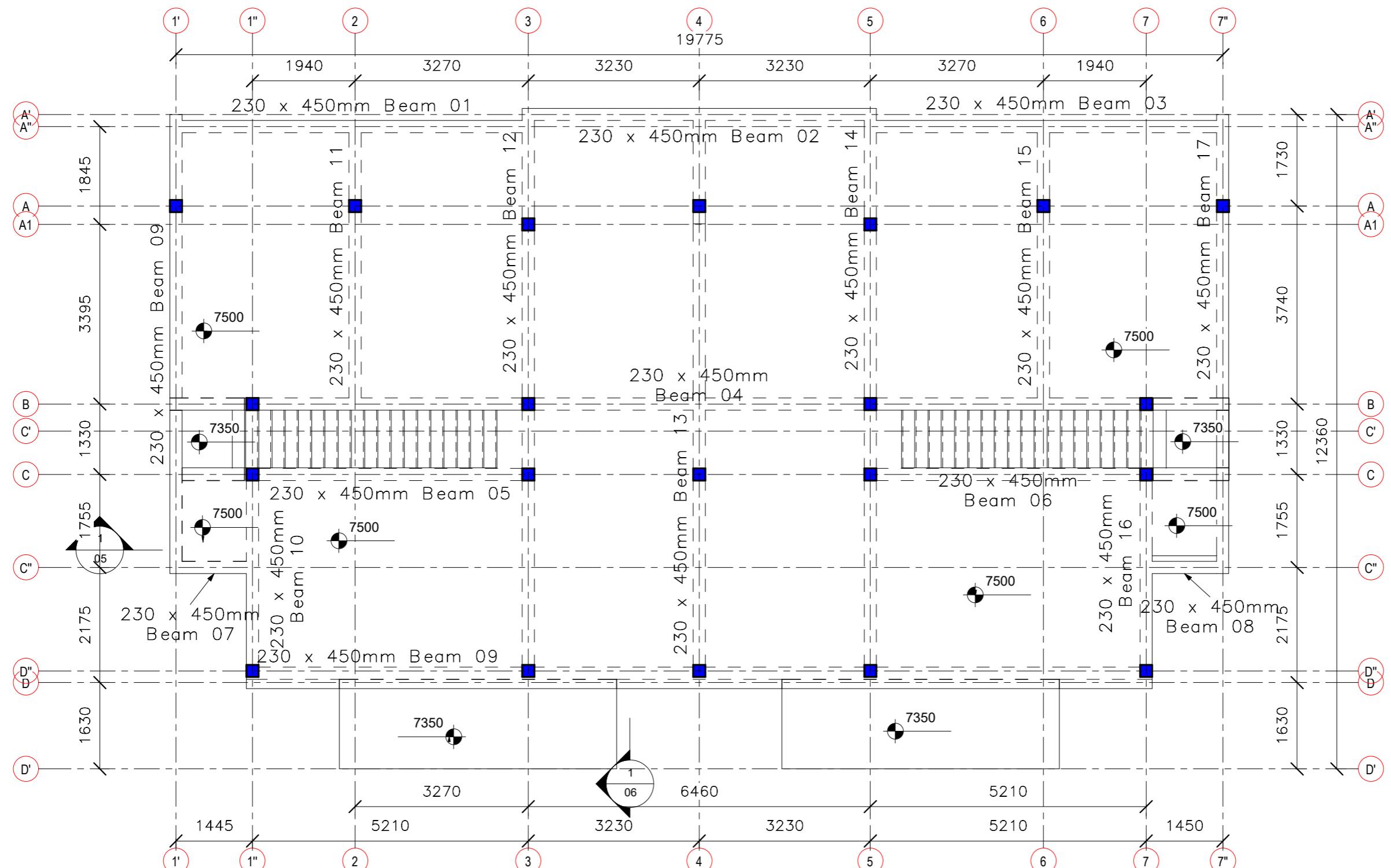
Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI (TYPE 1)	
LOCATION: Enter address here	

NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

Project number	EB-0030
Date	26 July 2022
Drawn by	Author
Checked by	OSE Scale



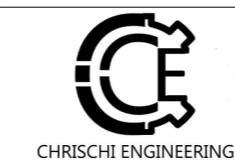
1 02-SND FLR LVL

1 : 75

ISSUED FOR PLANNING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI
(TYPE 1) At Enter address here

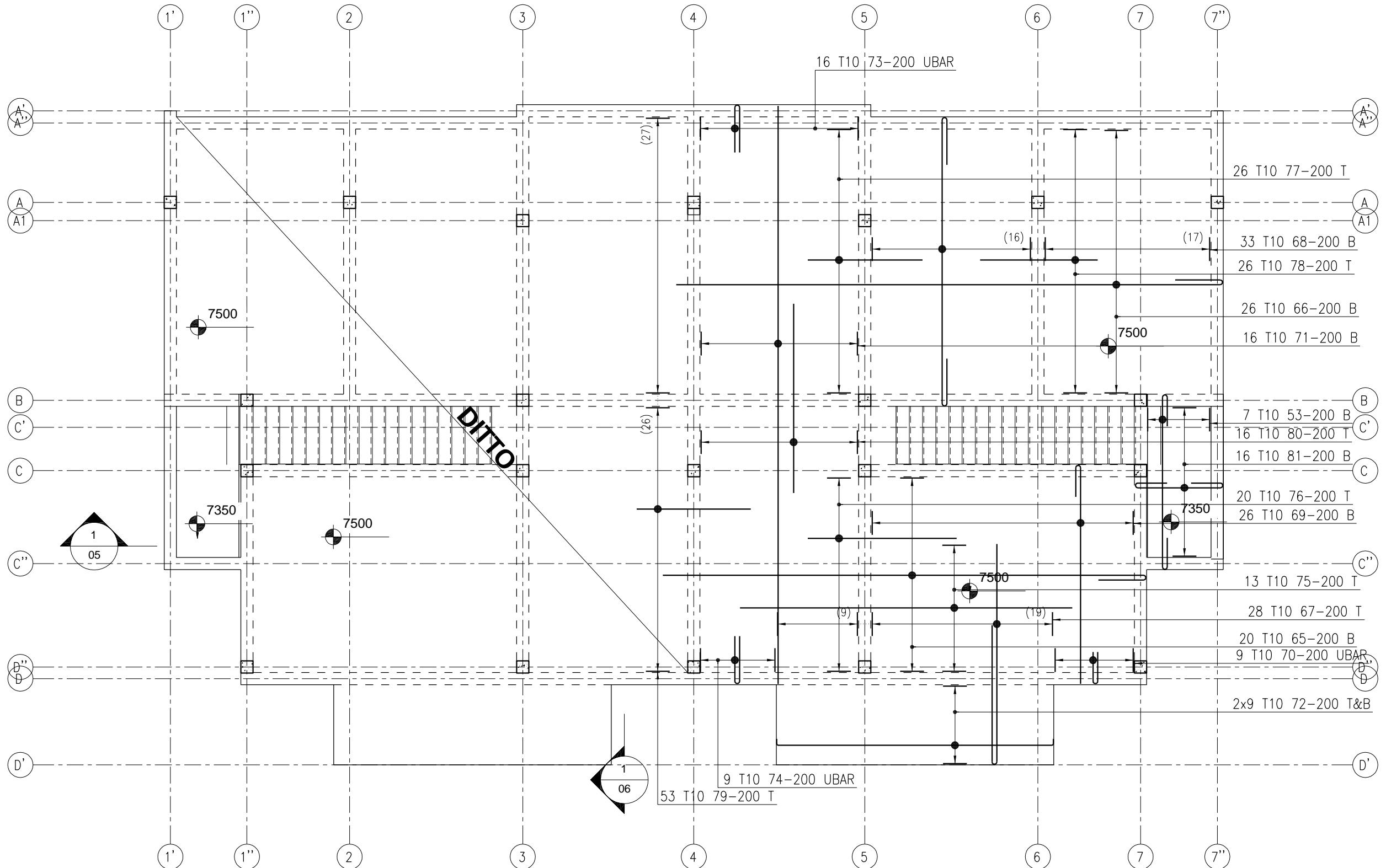
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

SECOND FLOOR LAYOUT

Project number	EB-0030
Date	26 AUGUST 2022
Drawn by	Author
Checked by	ose
Scale	1 : 75

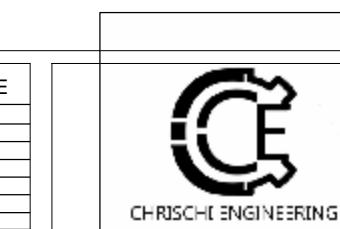


Note: All top distribution bars are T10@200mm c/c

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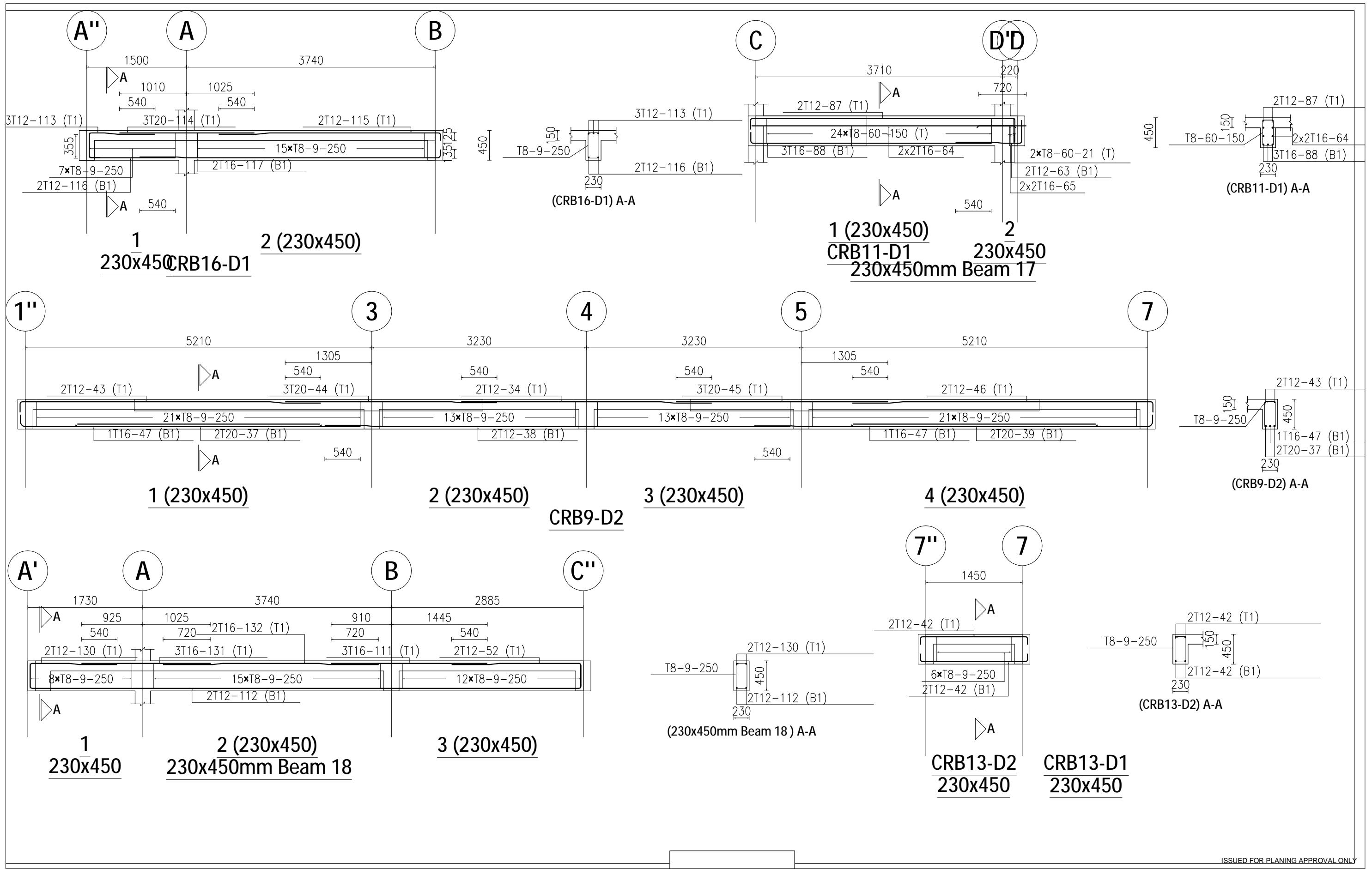
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LOCATION: Enter address here	

NO	REVISION	DATE



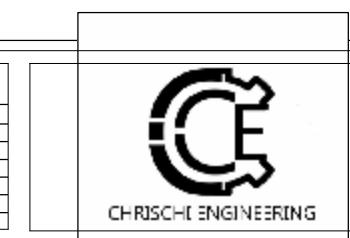
Client Name: MR. DEJI POPOOLA

SECOND FLOOR SLAB DETAIL AND SECTIONS		
Project number	EB-0030	
Date	26 July 2022	
Drawn by	Author	
Checked by	OSE	Scale 1 : 75



Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI (TYPE 1)	
LOCATION: Enter address here	

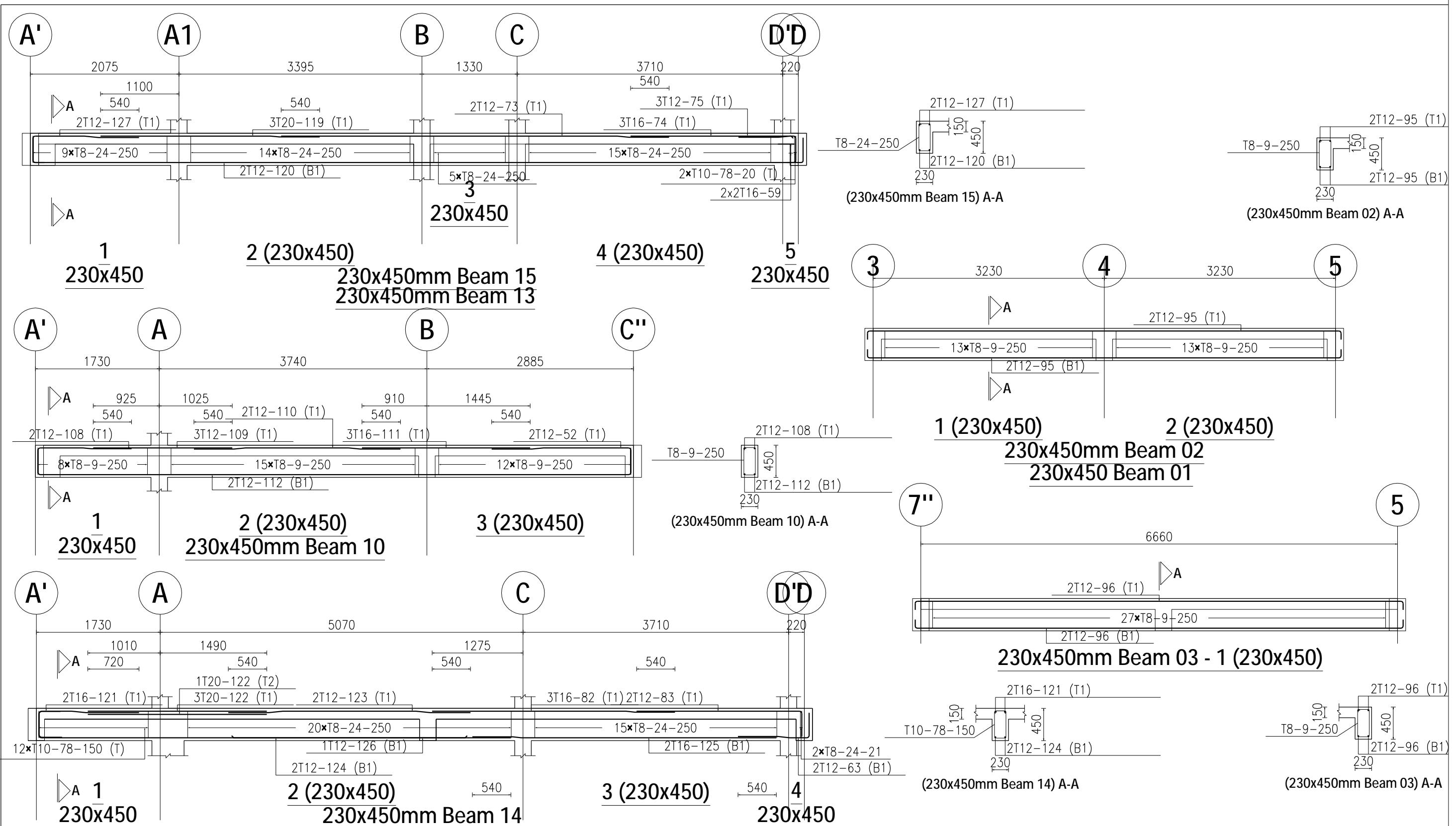
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

SECOND FLOOR BEAM DETAIL AND SECTIONS		
Project number	EB-0030	
Date	26 July 2022	
Drawn by	Author	
Checked by	OSE	Scale

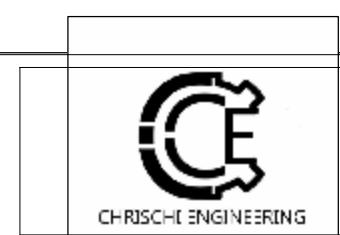
ISSUED FOR PLANING APPROVAL ONLY



ISSUED FOR PLANING APPROVAL ONLY

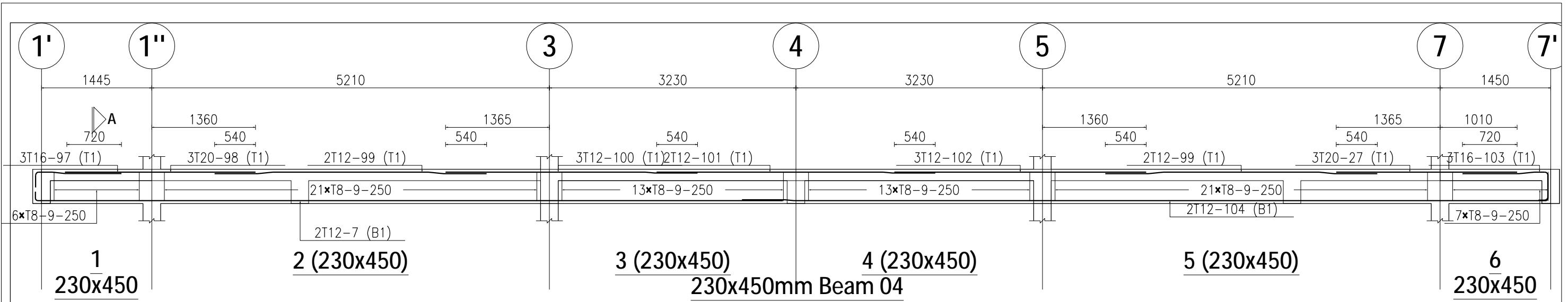
Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI (TYPE 1)	
LOCATION: Enter address here	

NO	REVISION	DATE



SECOND FLOOR BEAM DETAIL AND SECTIONS		
Project number	EB-0030	
Date	26 July 2022	
Drawn by	Author	
Checked by	OSE	Scale

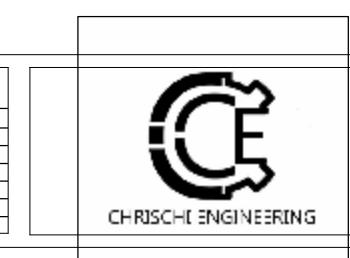
Client Name: MR. DEJI POPOOLA



230x450mm Beam 05&06 - 1
230x450

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI (TYPE 1)	
LOCATION: Enter address here	

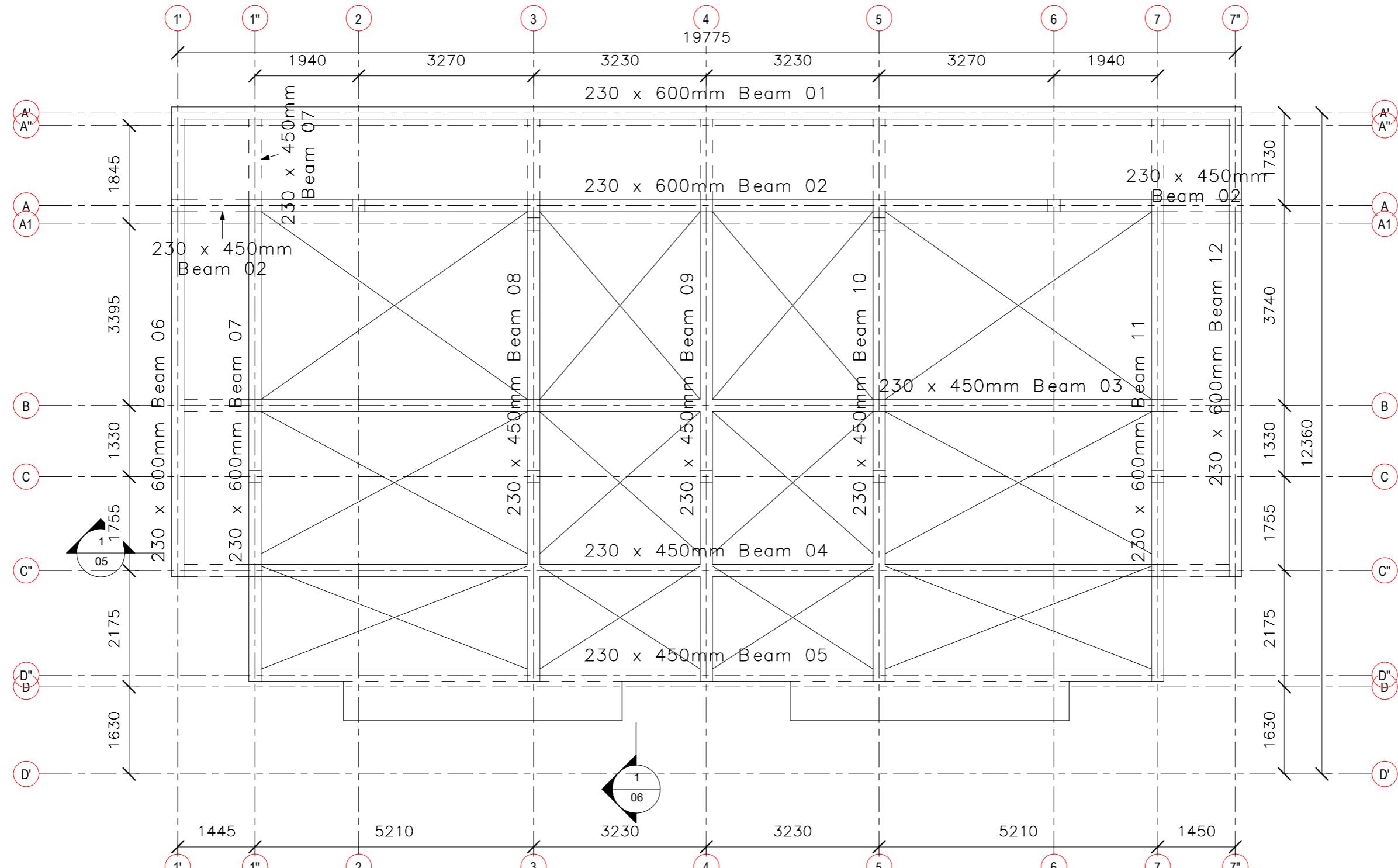
NO	REVISION	DATE



ISSUED FOR PLANING APPROVAL ONLY

SECOND FLOOR BEAM DETAIL AND SECTIONS		
Project number	EB-0030	
Date	26 July 2022	
Drawn by	Author	
Checked by	OSE	Scale

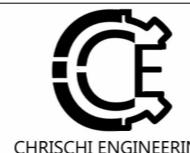
Client Name: MR. DEJI POPOOLA



US-RF LEVEL

1 : 75

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHER
(TYPE 1)At Enter address here

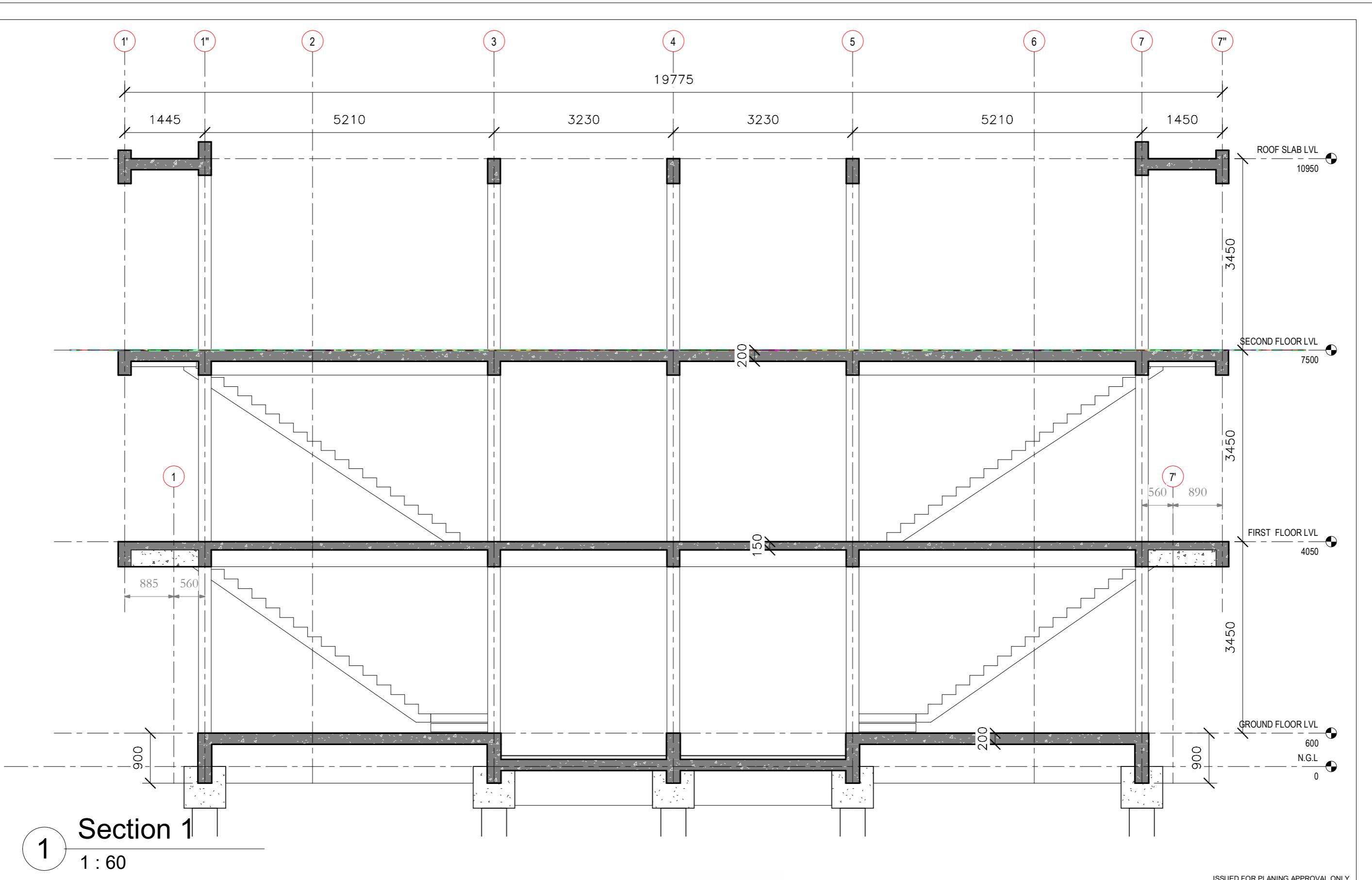


Client Name: MR. DEJI POPOOL

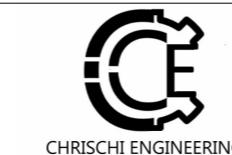
ROOF LAYOUT

Project number	EB-0030	
Date	26 AUGUST 2022	
Drawn by	Author	
Checked by	ose	Scale 1 : 75

ISSUED FOR PLANNING APPROVAL ONLY

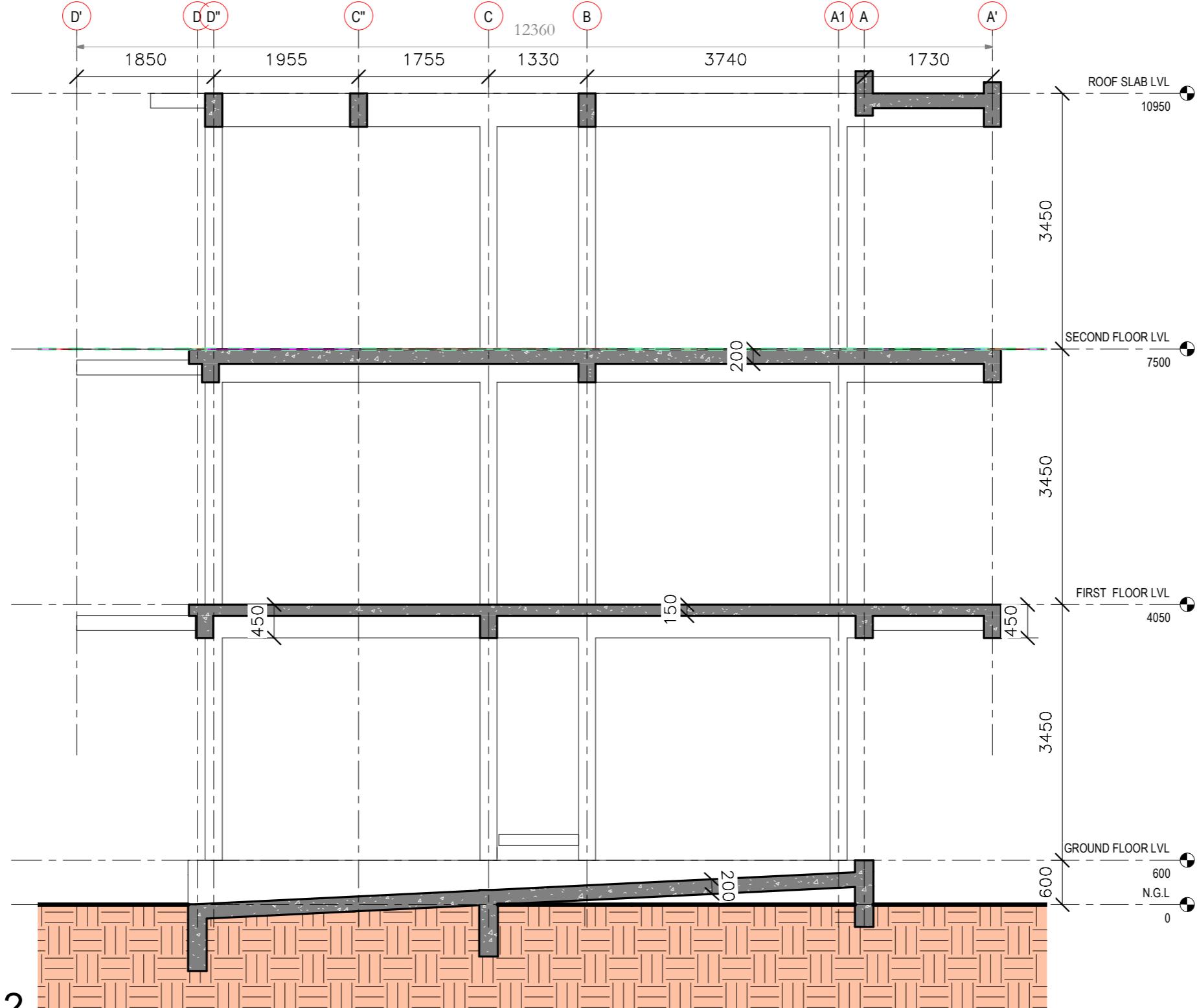


Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERWOOD
TYPE 1) At Enter address here



Client Name: MR. DEJI POPOOLA

SECTION 1		
Project number	EB-0030	
Date	26 AUGUST 2022	
Drawn by	Author	
Checked by	ose	Scale 1 : 60

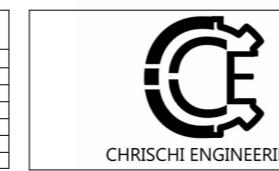


Section 2
1 : 60

ISSUED FOR PLANING APPROVAL ONLY

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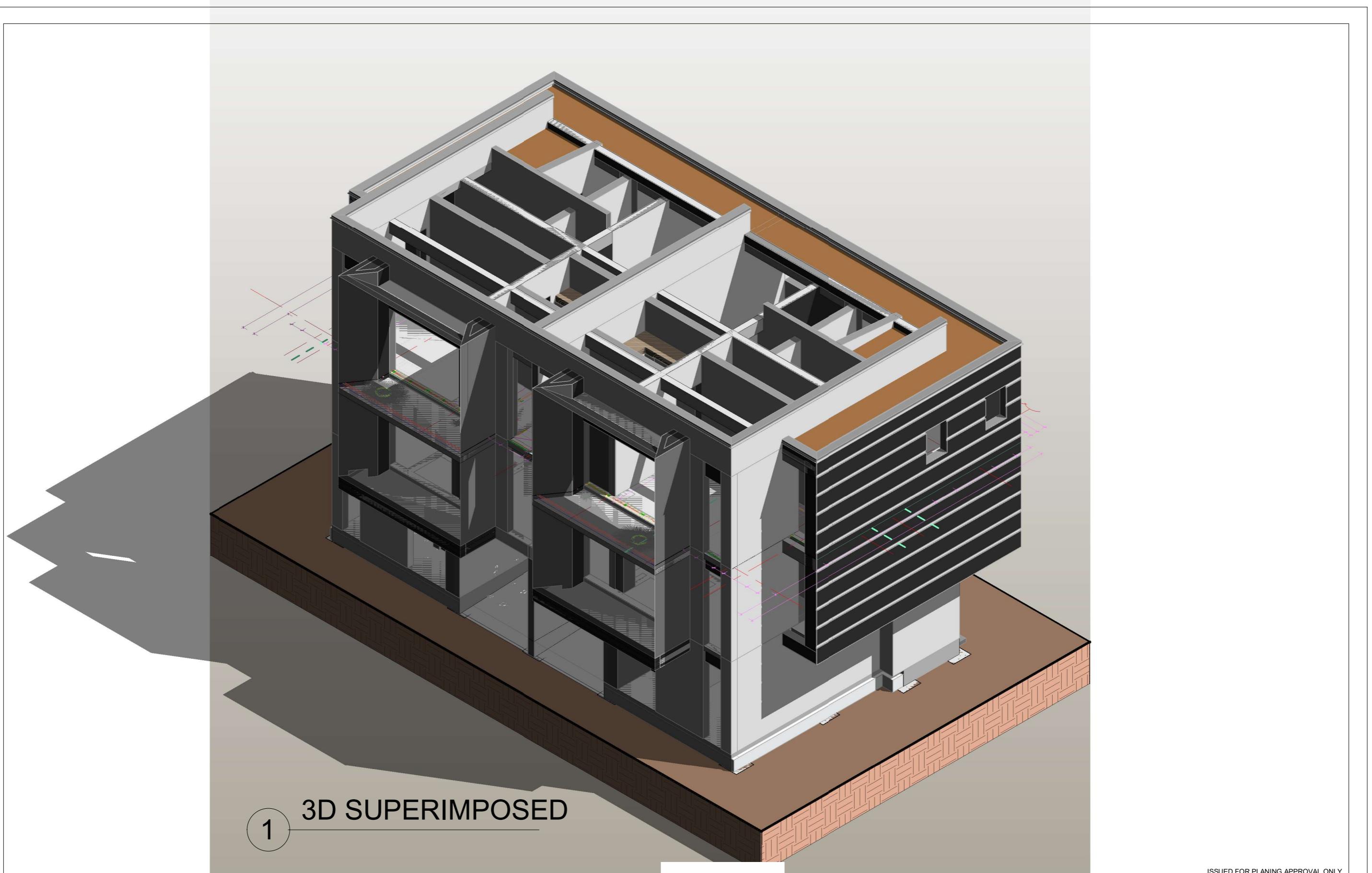
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

SECTION 2

Project number	EB-0030
Date	26 AUGUST 2022
Drawn by	Author
Checked by	ose

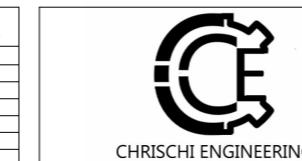


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3D SUPERIMPOSED

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI
(TYPE 1) At Enter address here

NO	REVISION	DATE

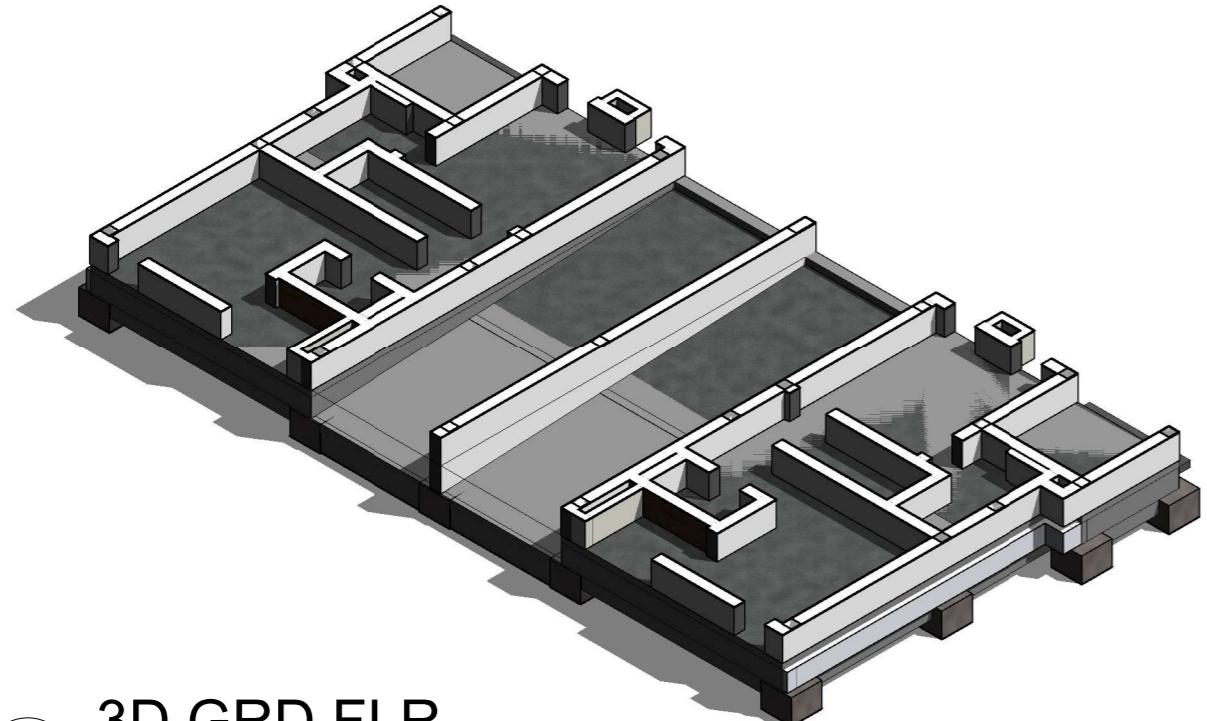


Client Name: MR. DEJI POPOOLA

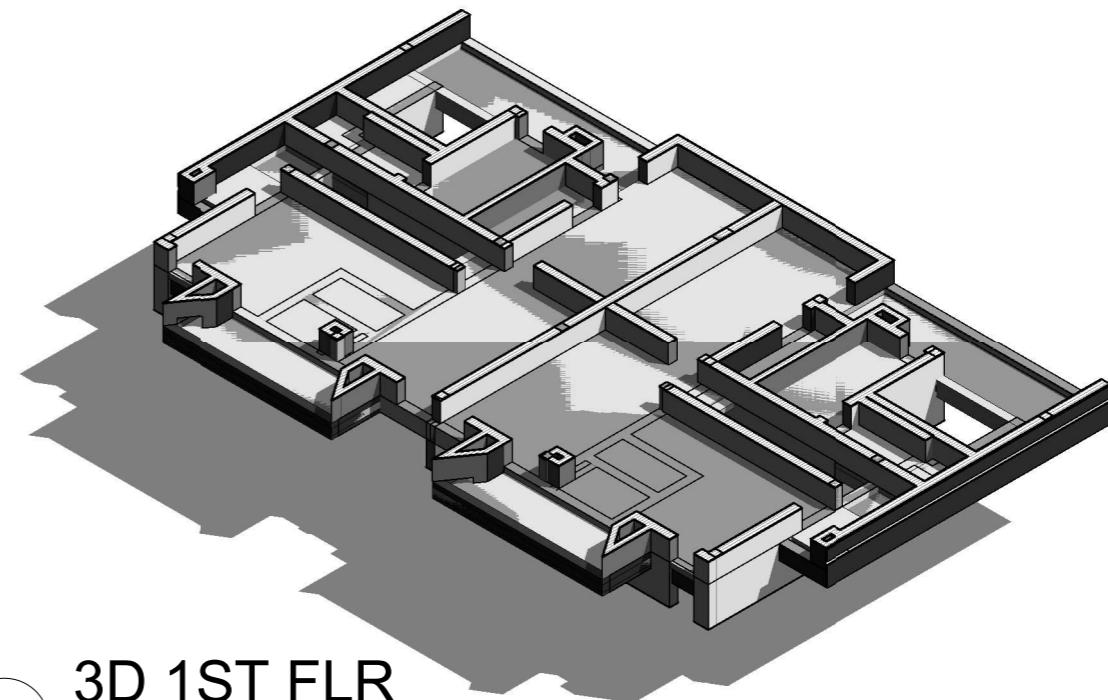
3D SUPERIMPOSED

Project number	EB-0030
Date	26 AUGUST 2022
Drawn by	OSE
Checked by	ose Scale

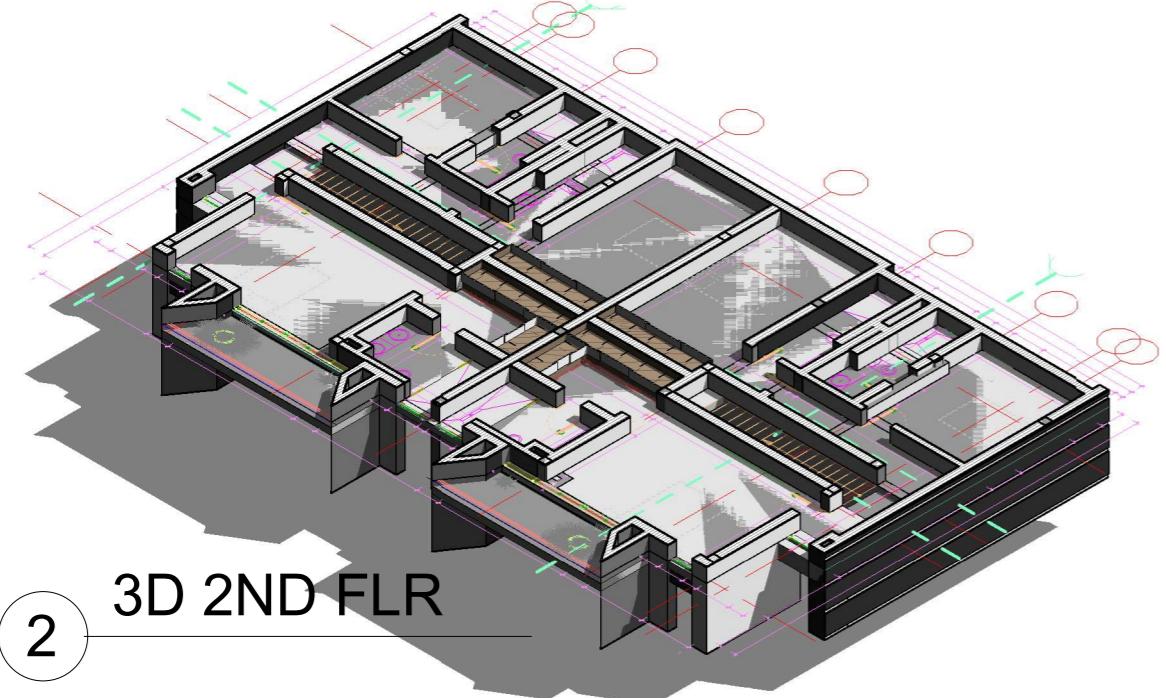
ISSUED FOR PLANNING APPROVAL ONLY



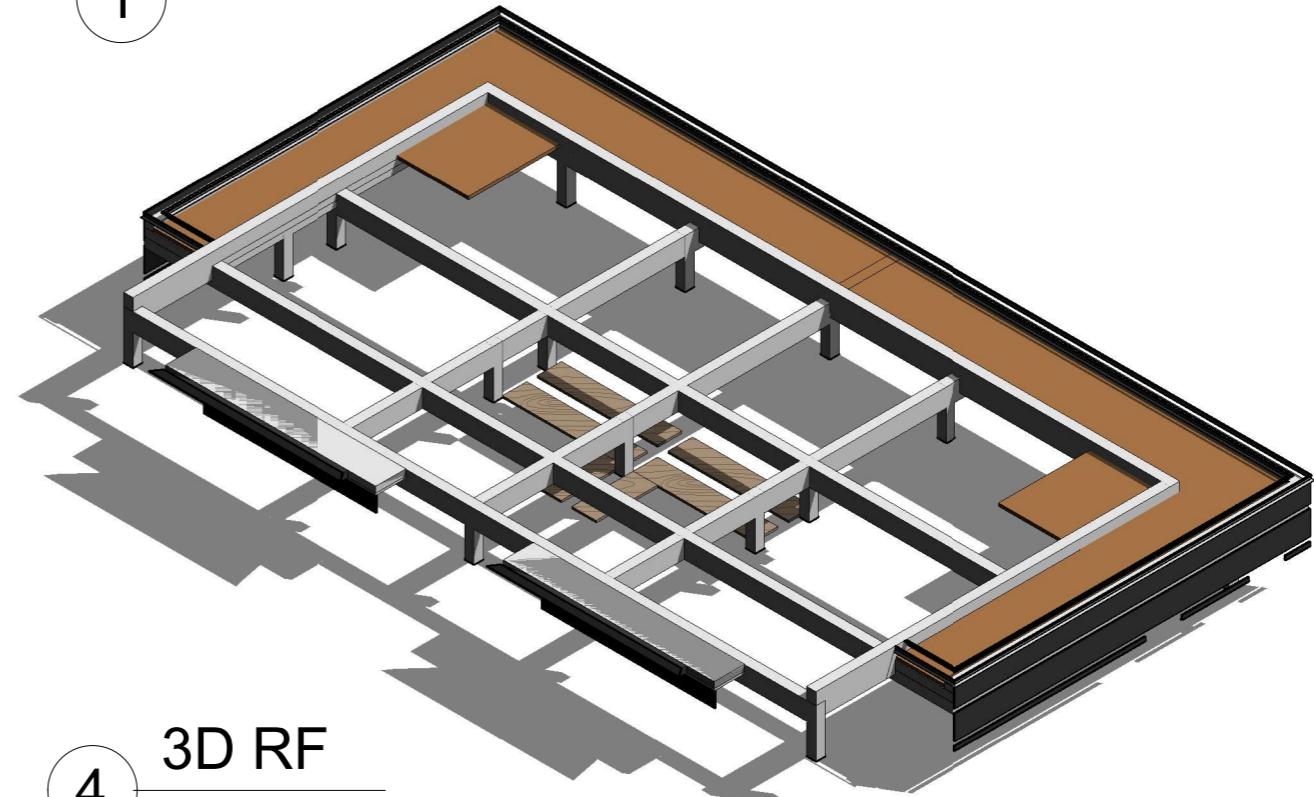
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1 3D 1ST FLR



2 3D 2ND FLR

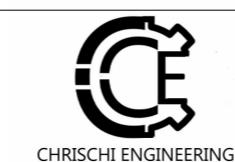


4 3D RF

ISSUED FOR PLANING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI
(TYPE 1)At Enter address here

NO	REVISION	DATE



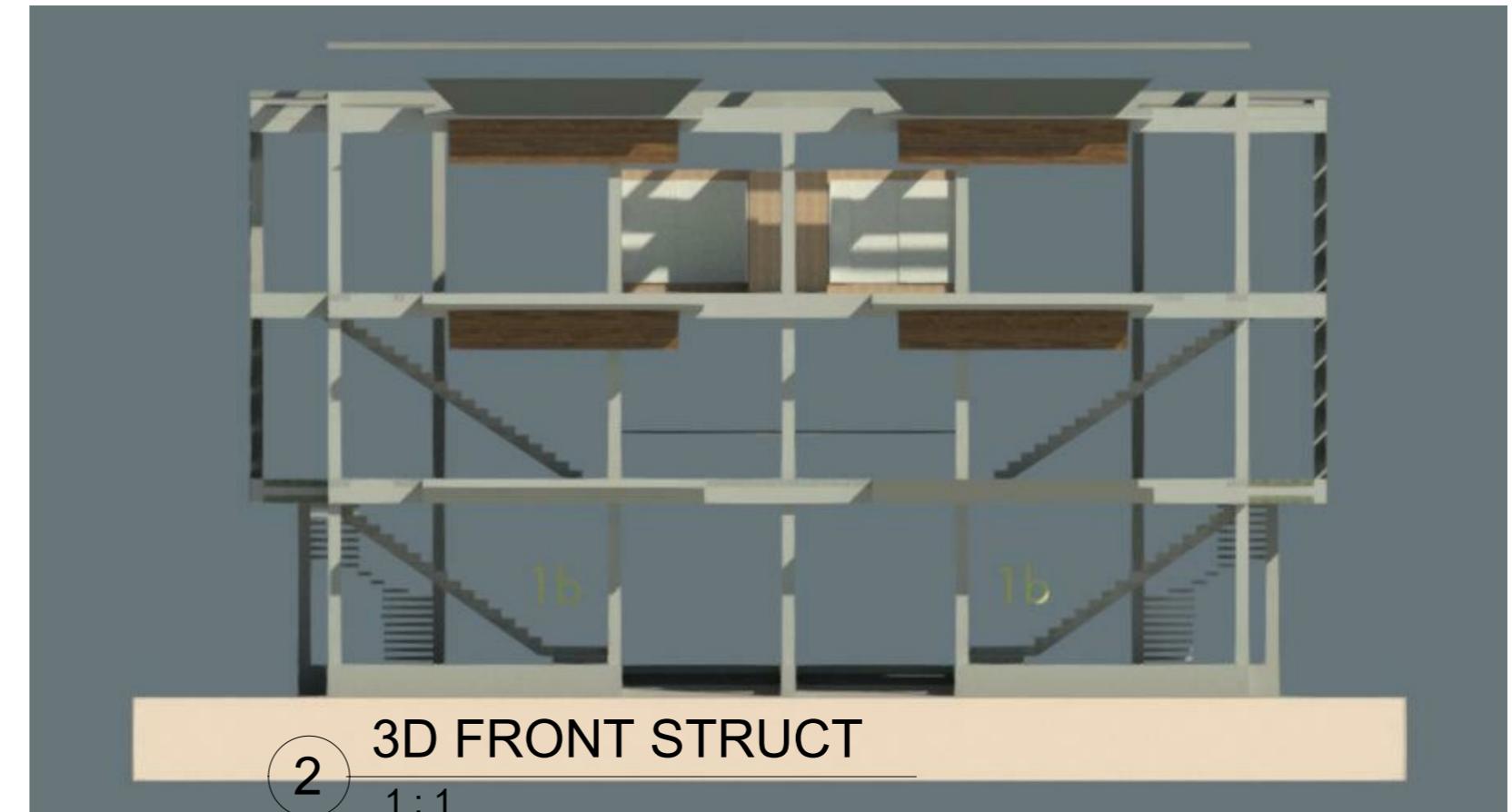
Client Name: MR. DEJI POPOOLA

3D- FLRS

Project number	EB-0030
Date	26 AUGUST 2022
Drawn by	Author
Checked by	ose Scale



1 3D FRONT
1 : 1

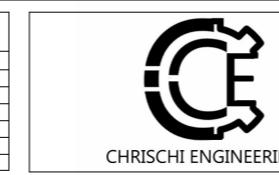


2 3D FRONT STRUCT
1 : 1

ISSUED FOR PLANING APPROVAL ONLY

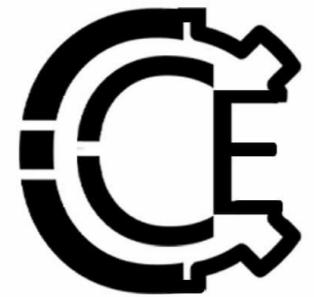
Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI (TYPE 1) At Enter address here	NO	REVISION	DATE

NO	REVISION	DATE



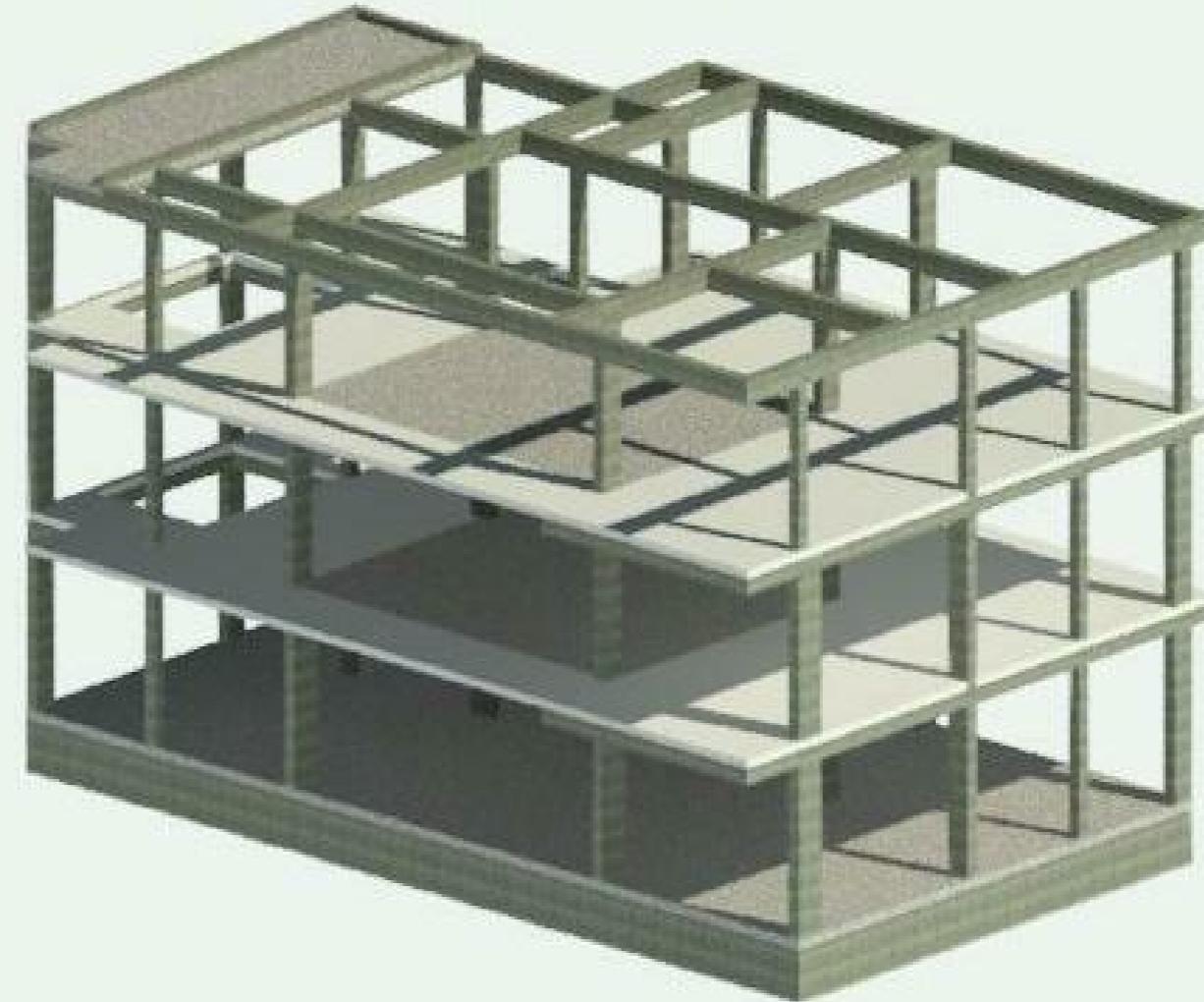
Client Name: MR. DEJI POPOOLA

3D		
Project number	EB-0030	
Date	26 AUGUST 2022	
Drawn by	Author	
Checked by	ose	Scale 1 : 1

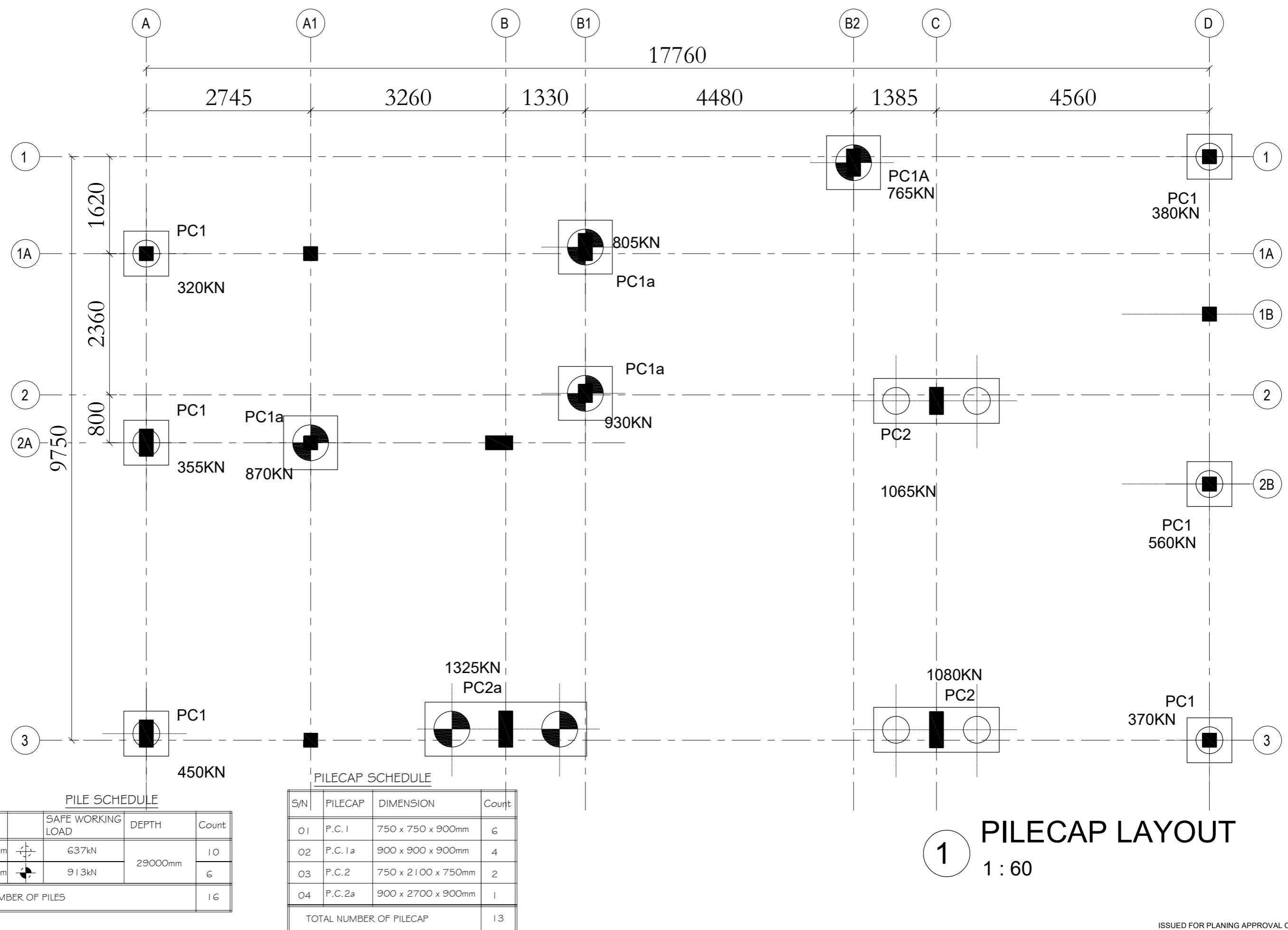


CHRISCHI ENGINEERING

TYPE 2

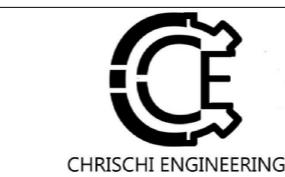


PROPOSED RESIDENTIAL DEVELOPMENT



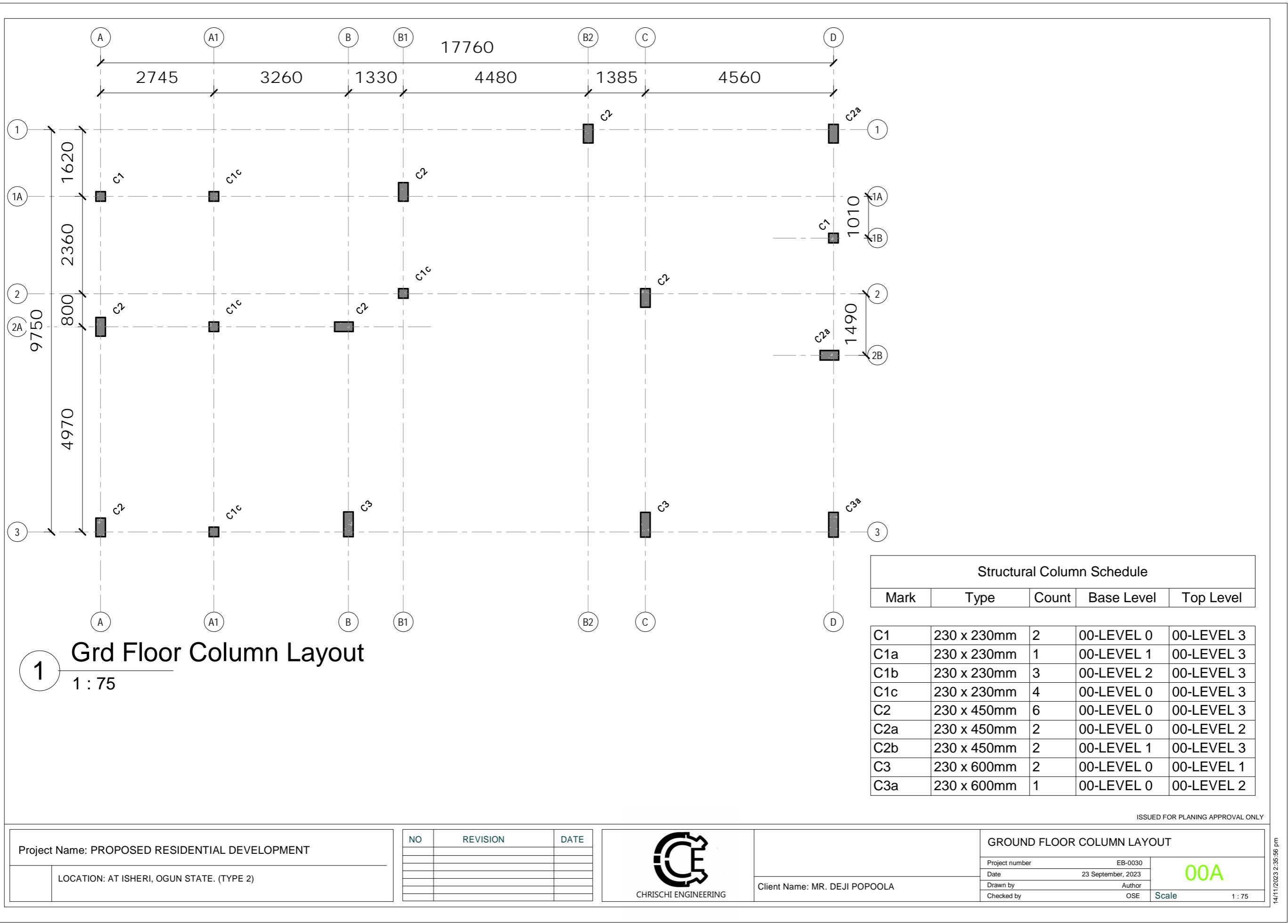
Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI
(TYPE 2) At Enter address here

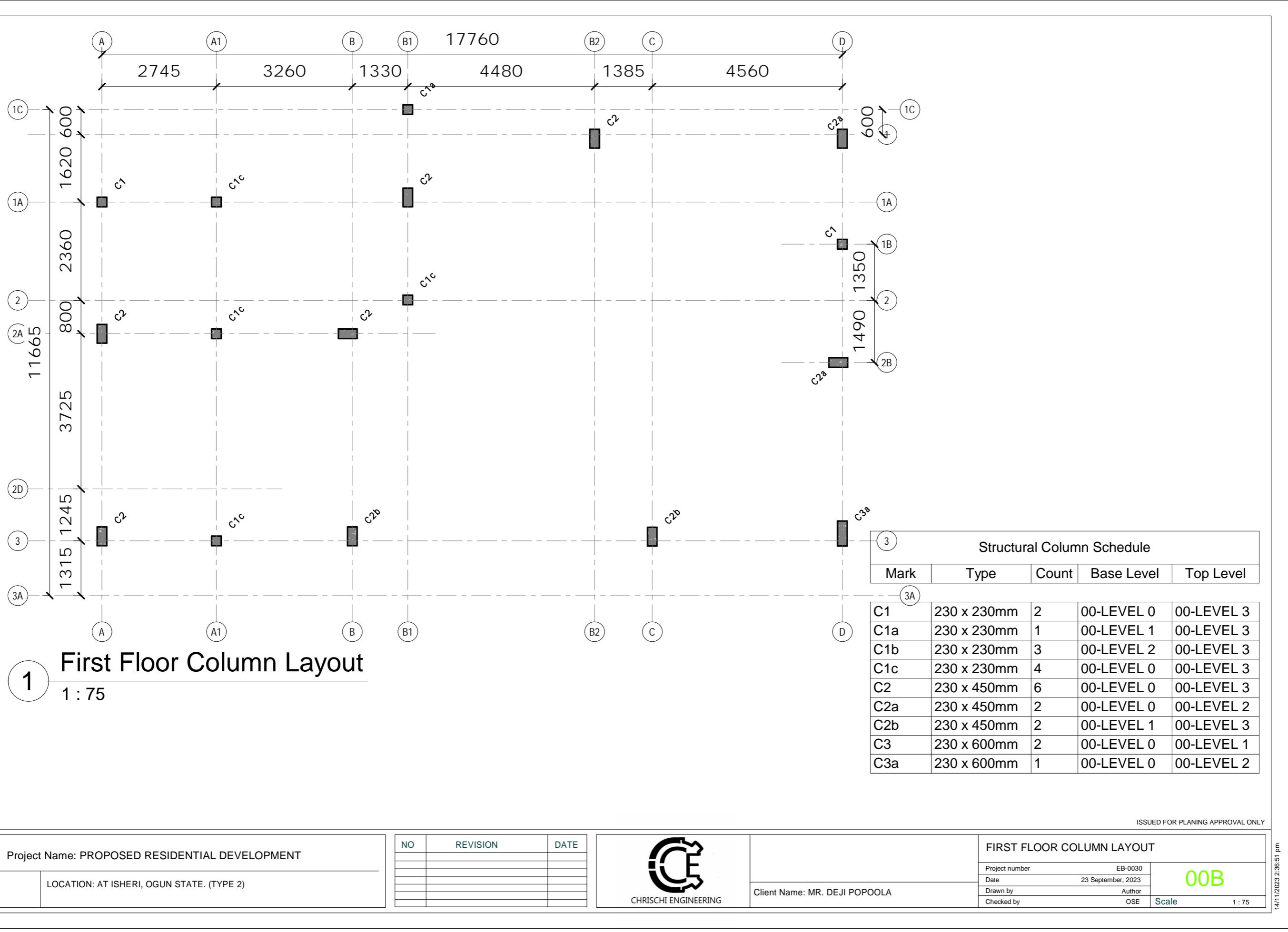
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

PILECAP LAYOUT	
Project number	EB-0030
Date	26 AUGUST 2022
Drawn by	Author
Checked by	ose
Scale	1 : 60

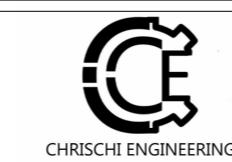




ISSUED FOR PLANNING APPROVAL ONLY

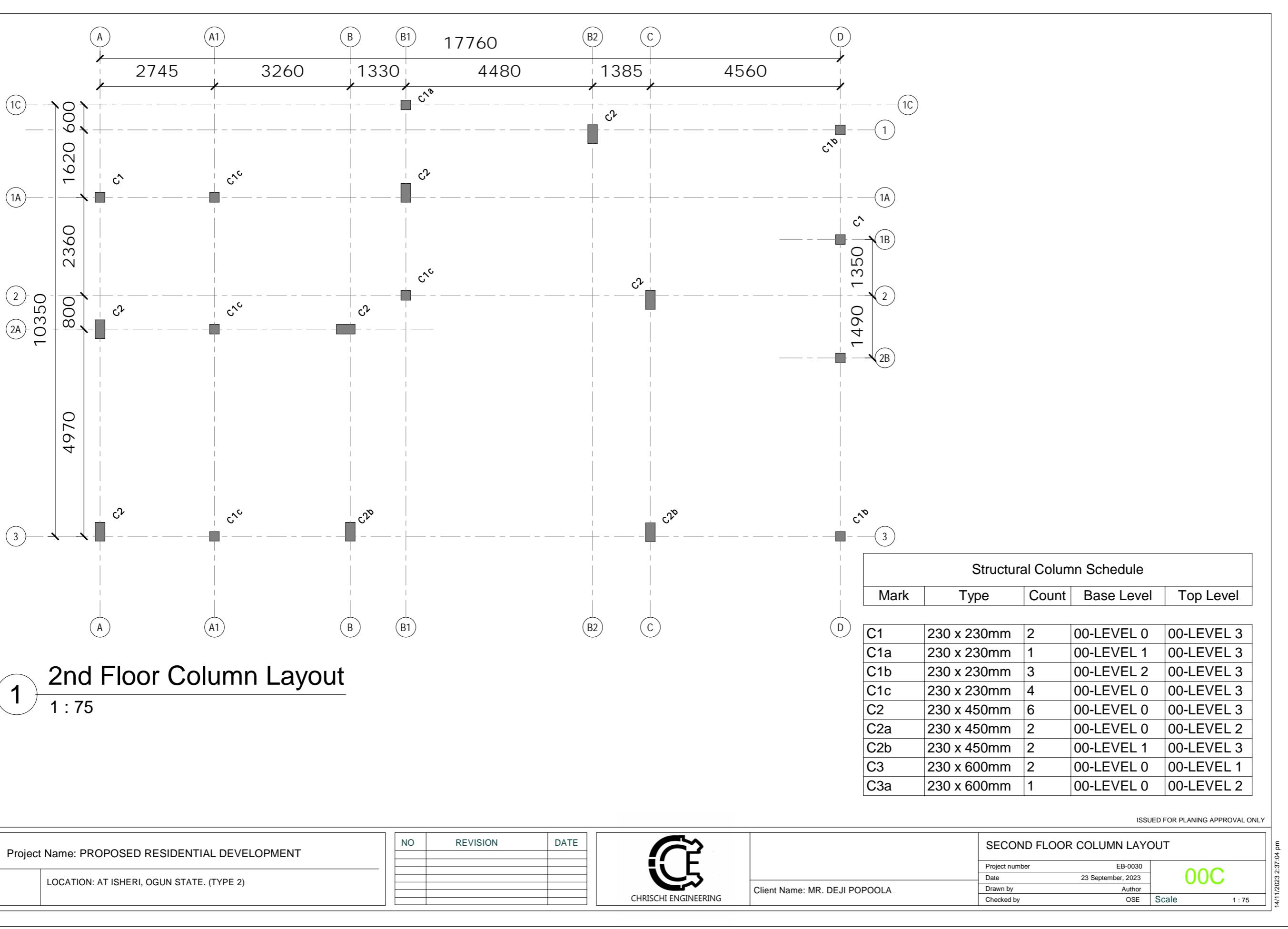
Project Name: PROPOSED RESIDENTIAL DEVELOPMENT

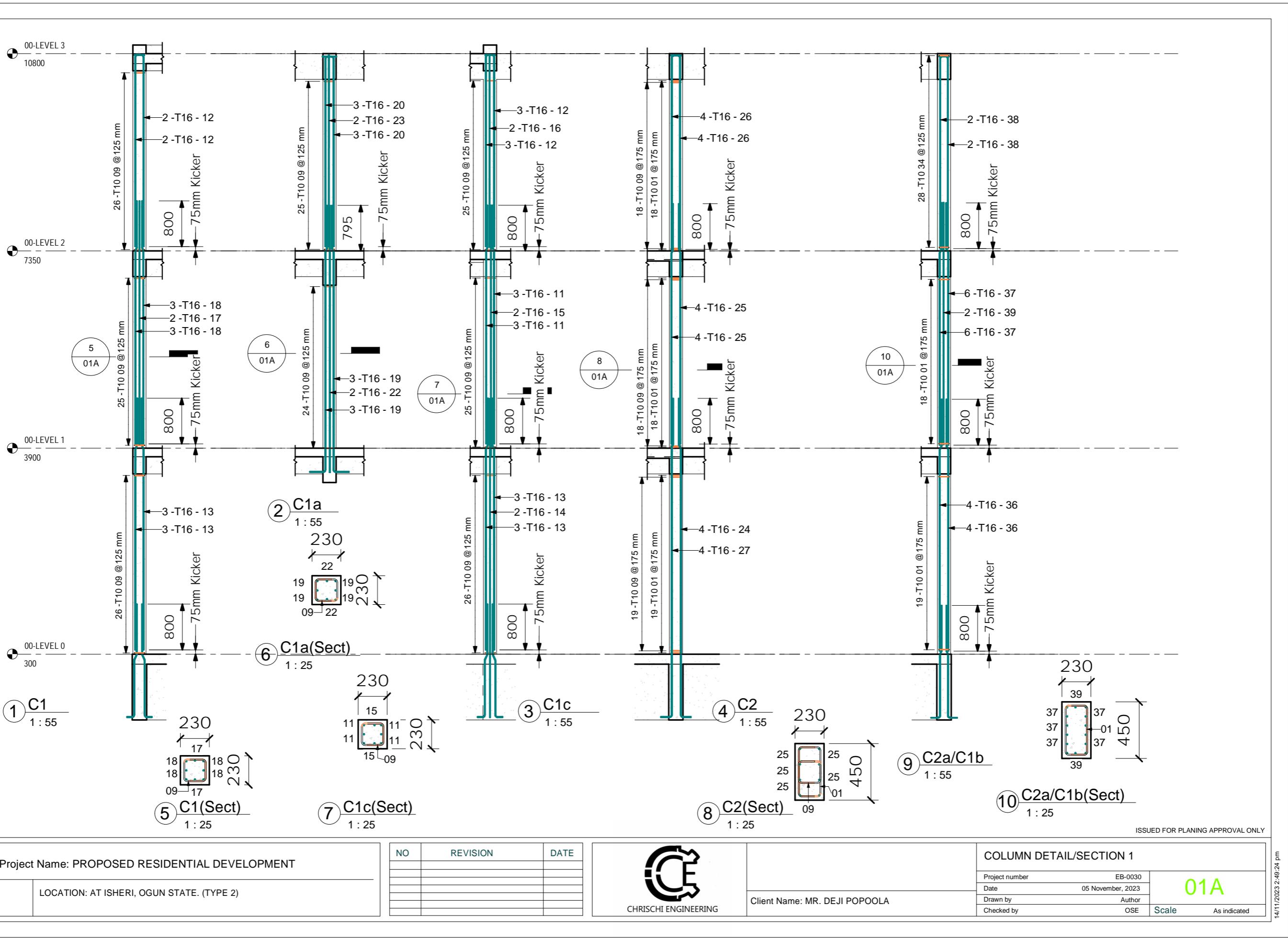
LOCATION: AT ISHERI, OGUN STATE. (TYPE 2)



Client Name: MR. DEJI POPOOL

 CHRISCHI ENGINEERING		FIRST FLOOR COLUMN LAYOUT				
		Project number	EB-0030		00B	
		Date	23 September, 2023			
		Drawn by	Author			
		Checked by	OSE	Scale	1 : 75	





ISSUED FOR PLANNING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT

LOCATION: AT ISHERI, OGUN STATE. (TYPE 2)



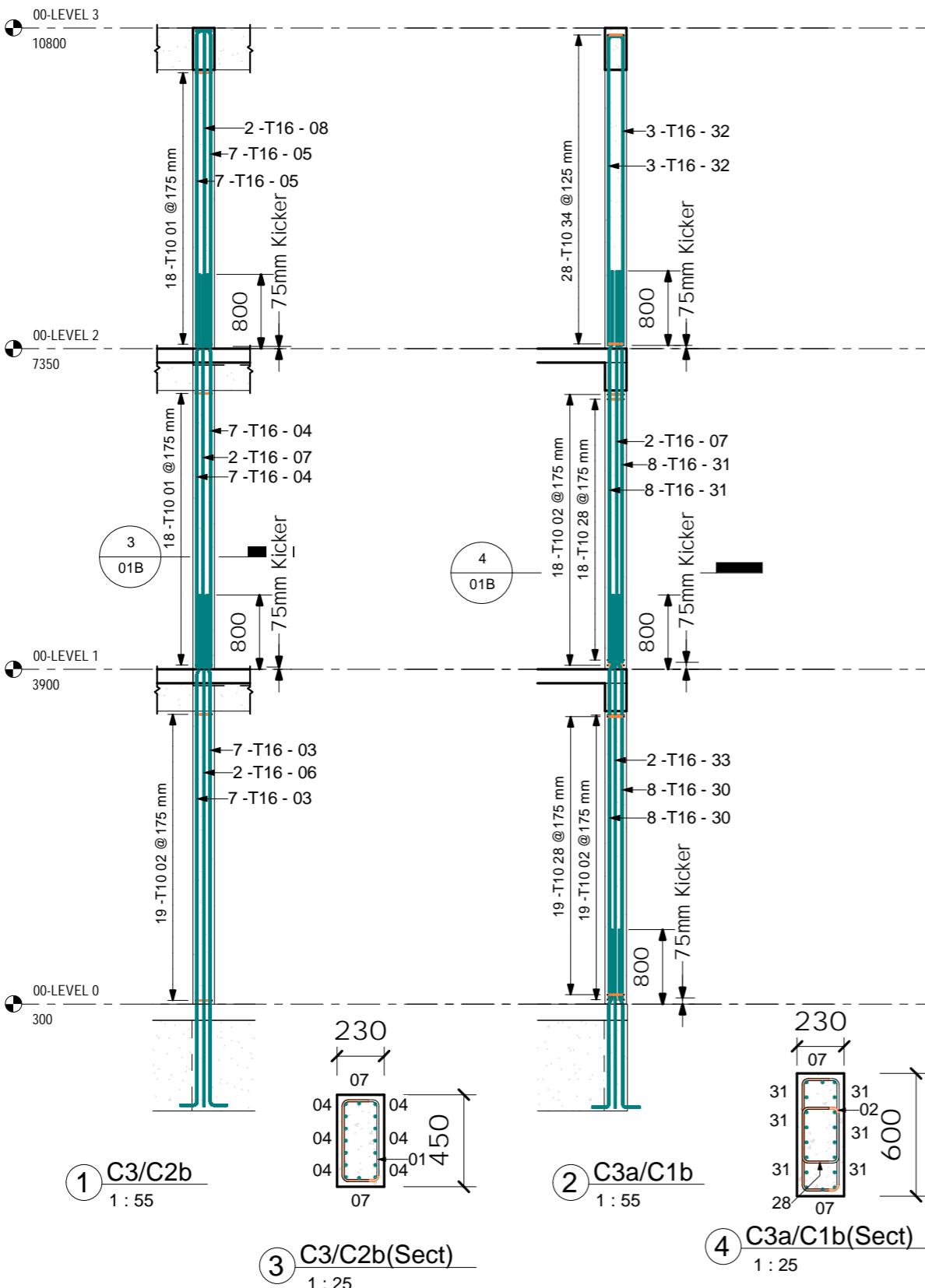
CHRISCHI ENGINEERING

Client Name: MR. DEJI POPOOL

COLUMN DETAIL/SECTION 1

Project number	EB-0030	01A
Date	05 November, 2023	
Drawn by	Author	
Checked by	OSE	Scale As indicated

01A



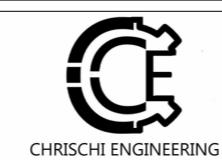
ISSUED FOR PLANNING APPROVAL ONLY

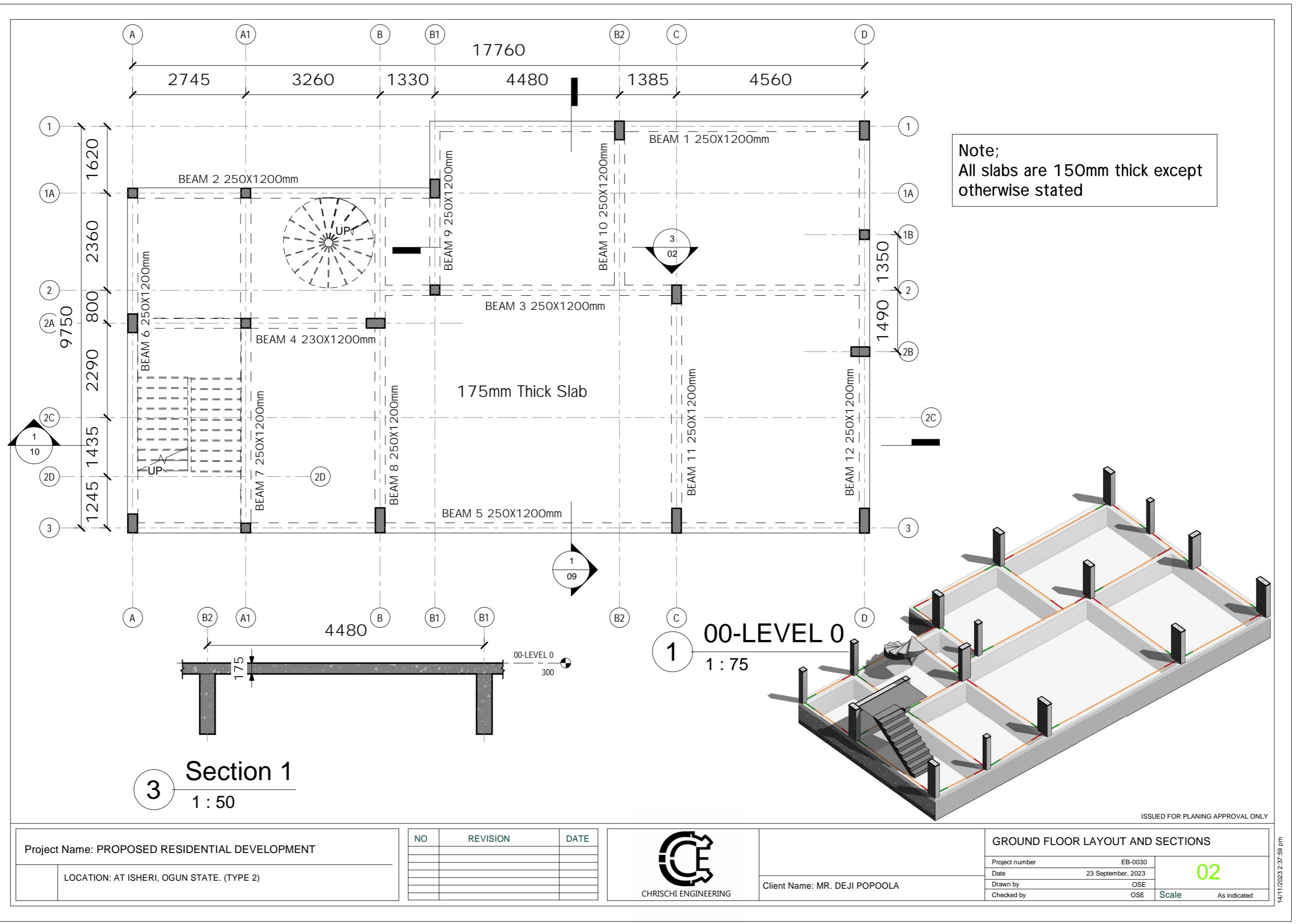
Project Name: PROPOSED RESIDENTIAL DEVELOPMENT	
LOCATION: AT ISHERI, OGUN STATE. (TYPE 2)	

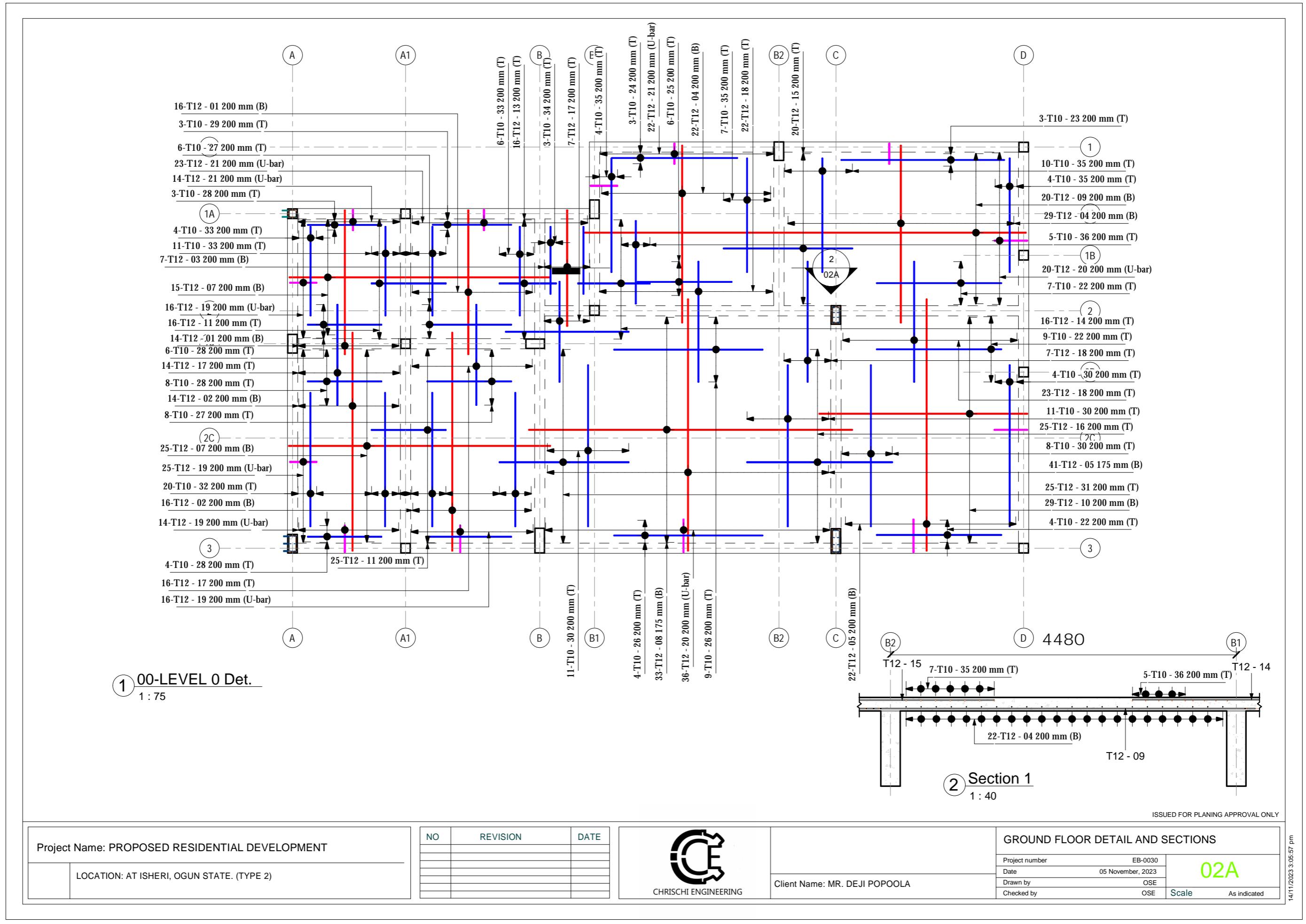
NO	REVISION	DATE

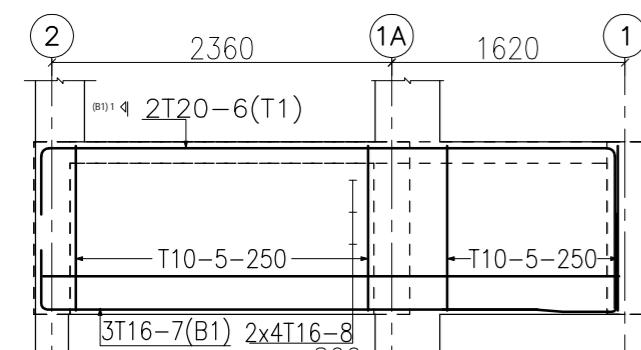
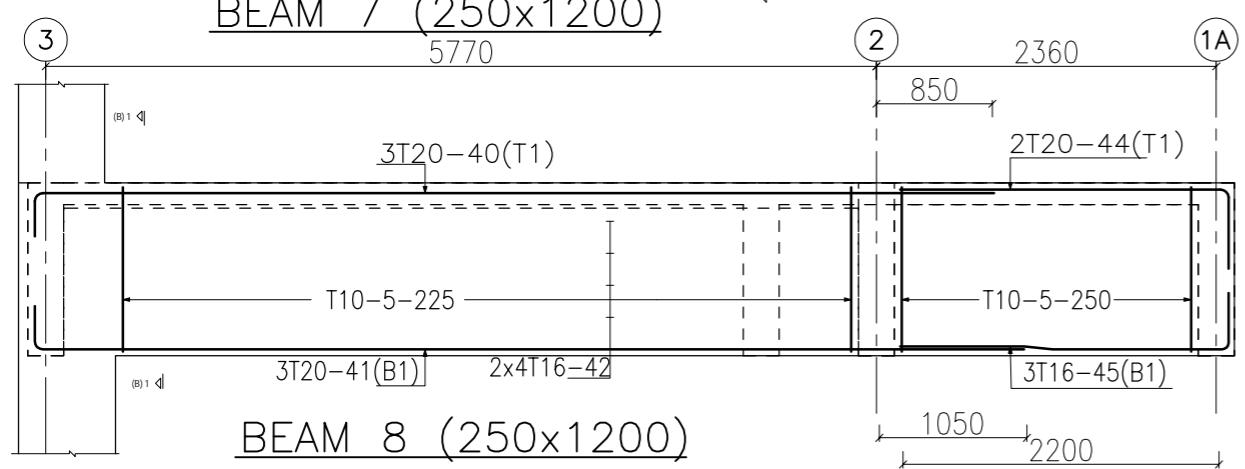
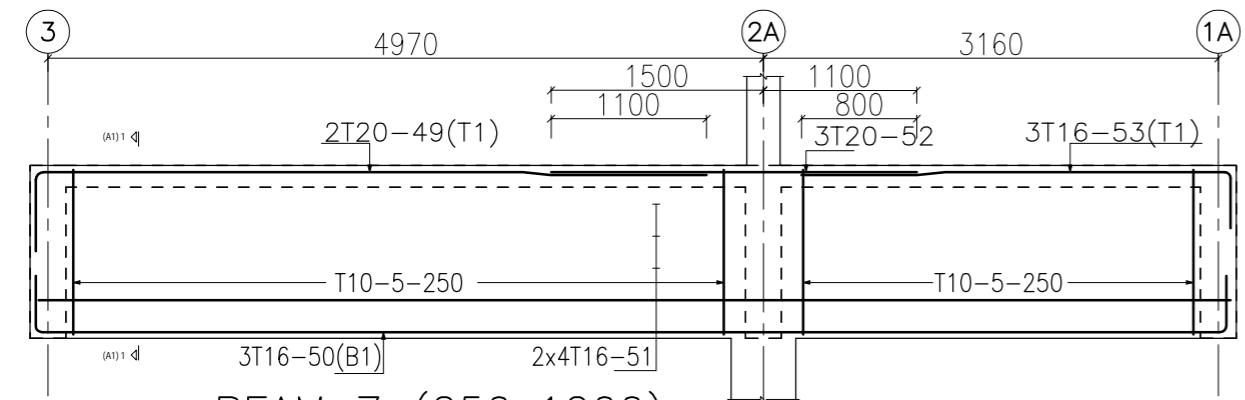
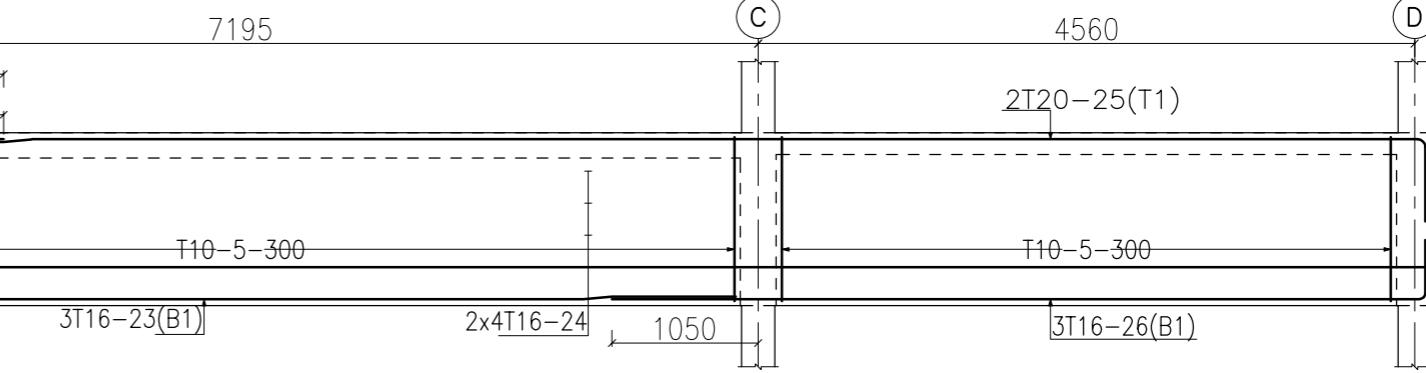
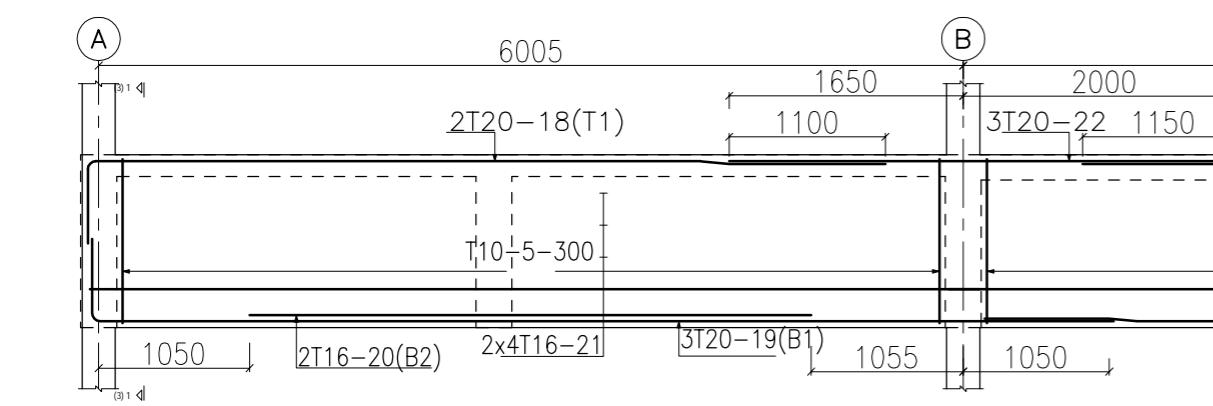
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Project number	EB-0030
Date	05 November, 2023
Drawn by	Author
Checked by	OSE Scale As indicated

01B



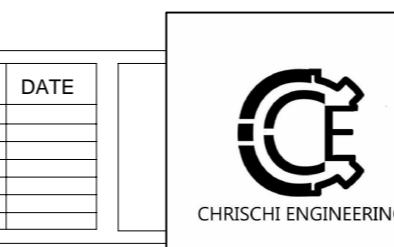
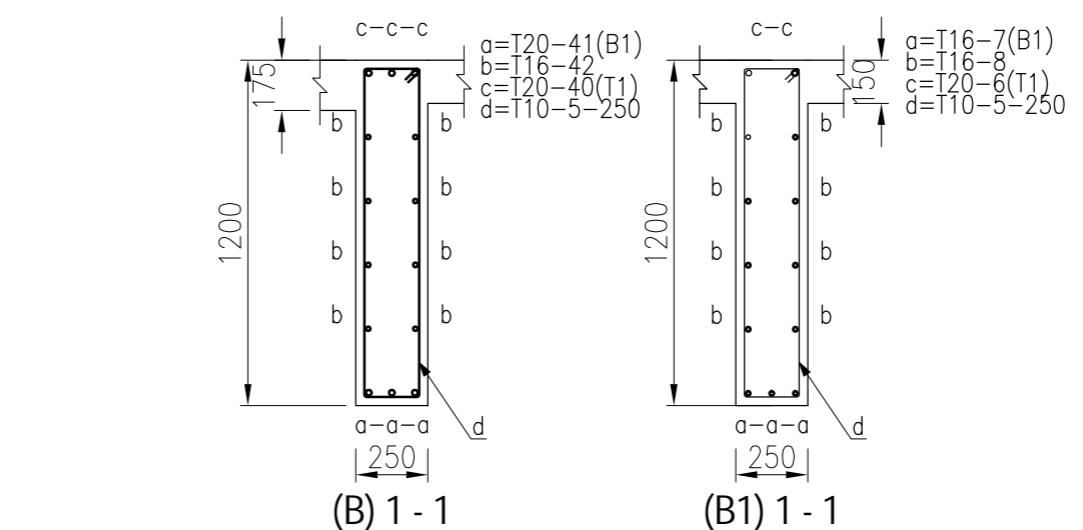
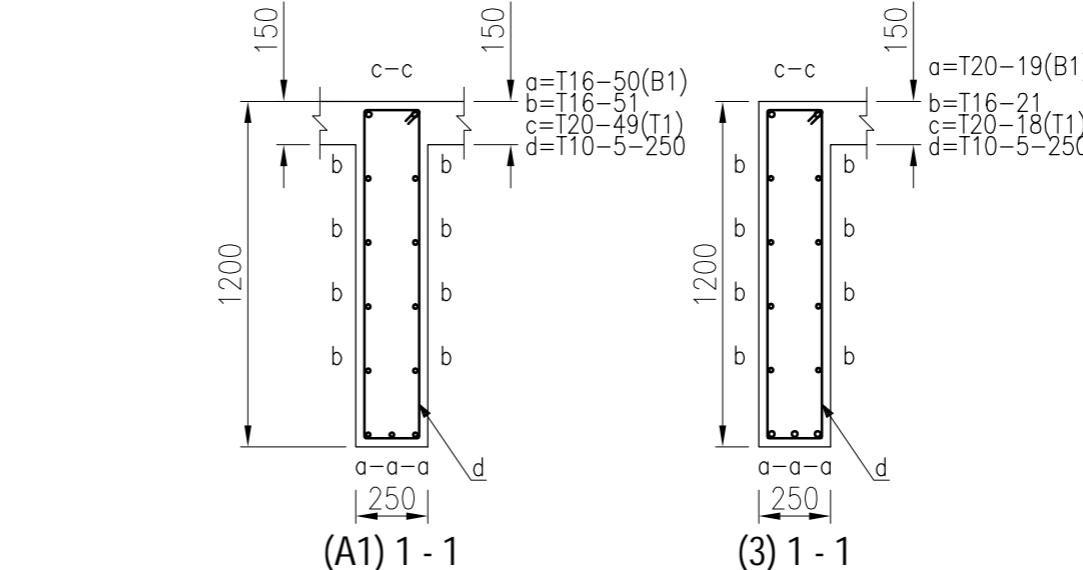






BEAM 9 (250x1200)

BEAM 5 (250x1200)



ISSUED FOR PLANING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI,
OGUN STATE

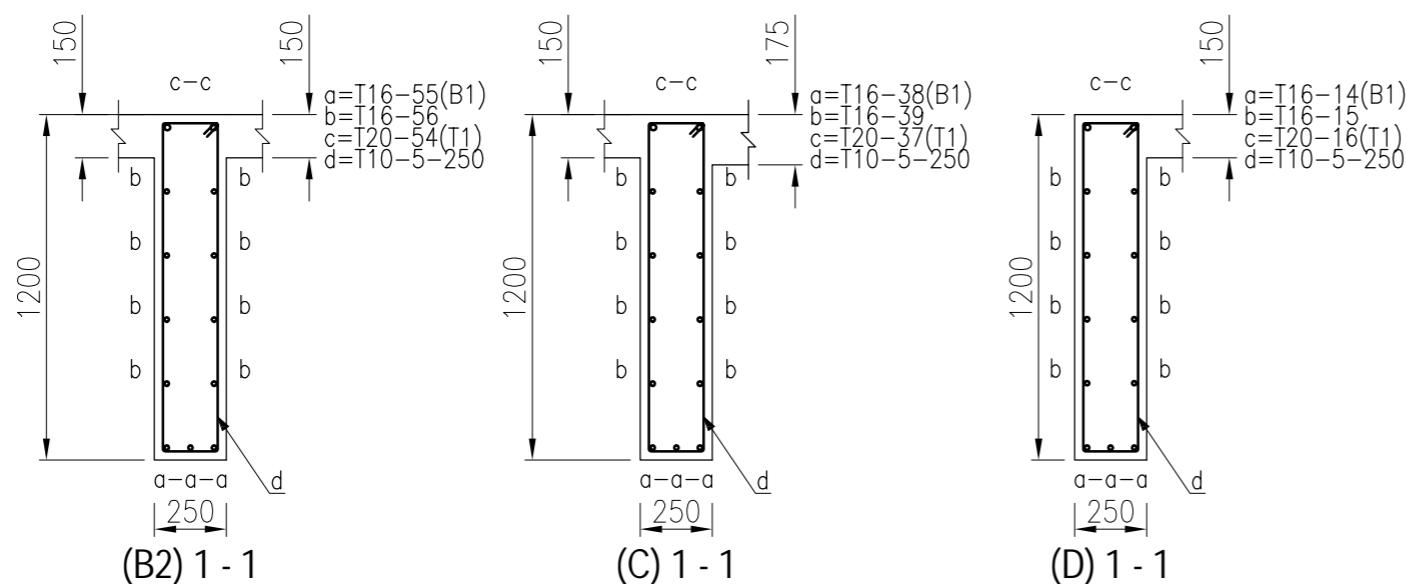
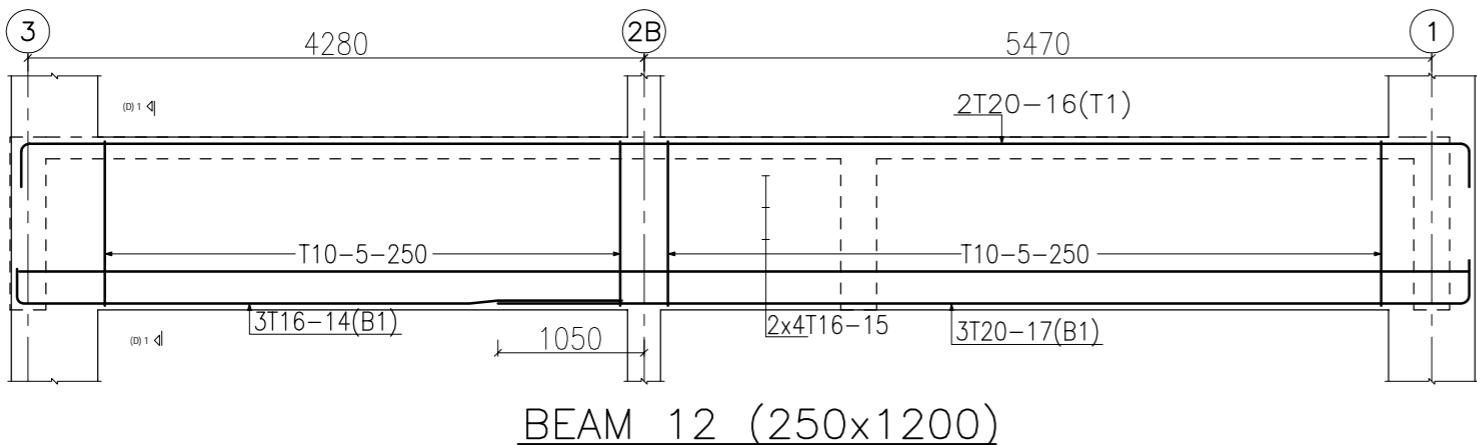
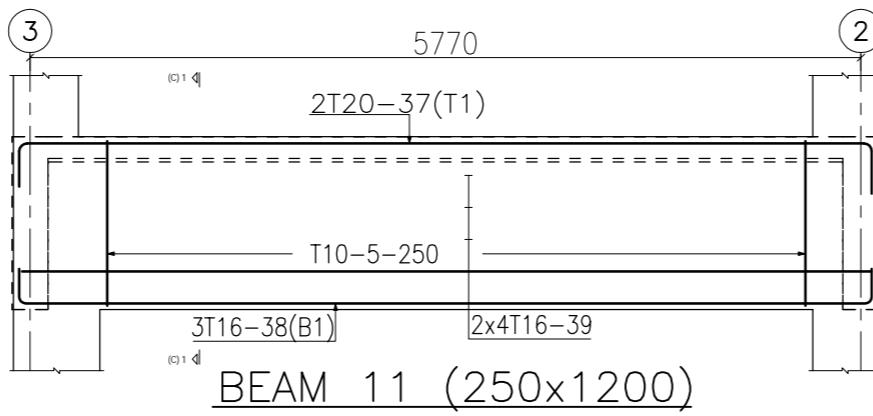
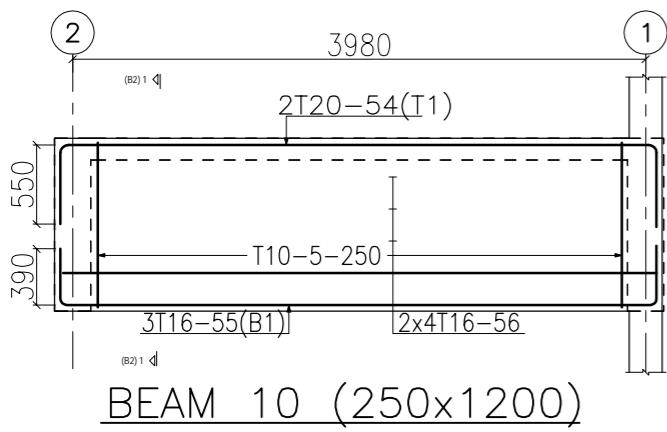
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NO	REVISION	DATE

GROUND FLOOR BEAM DETAIL AND SECTIONS

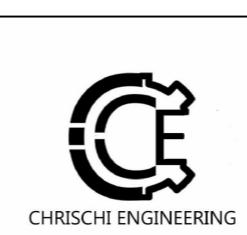
Project number	EB-0042	
Date	03-Nov-2023	
Drawn by	Author	
Checked by	OSE	Scale

Client Name: MR. DEJI POPOOLA

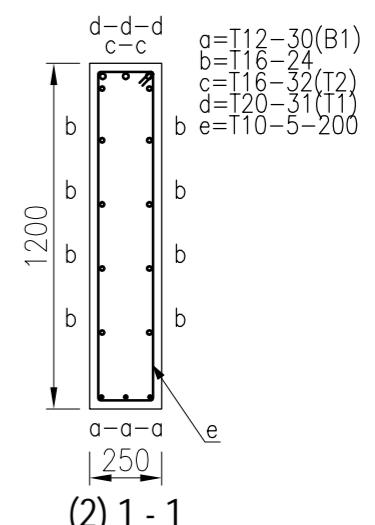
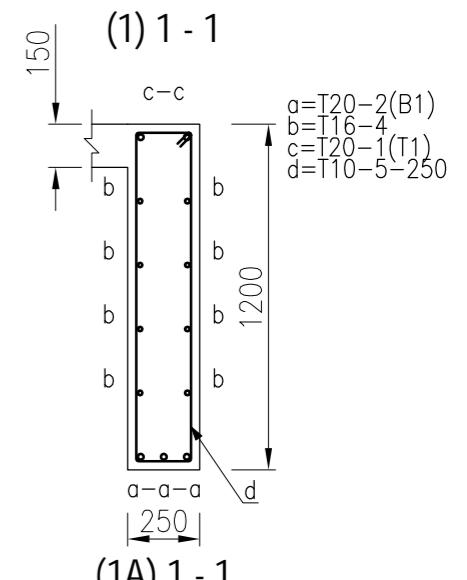
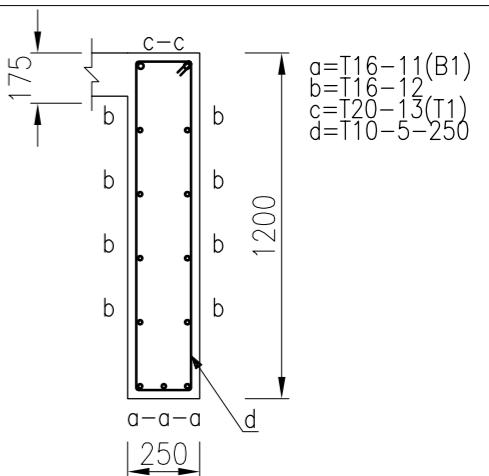
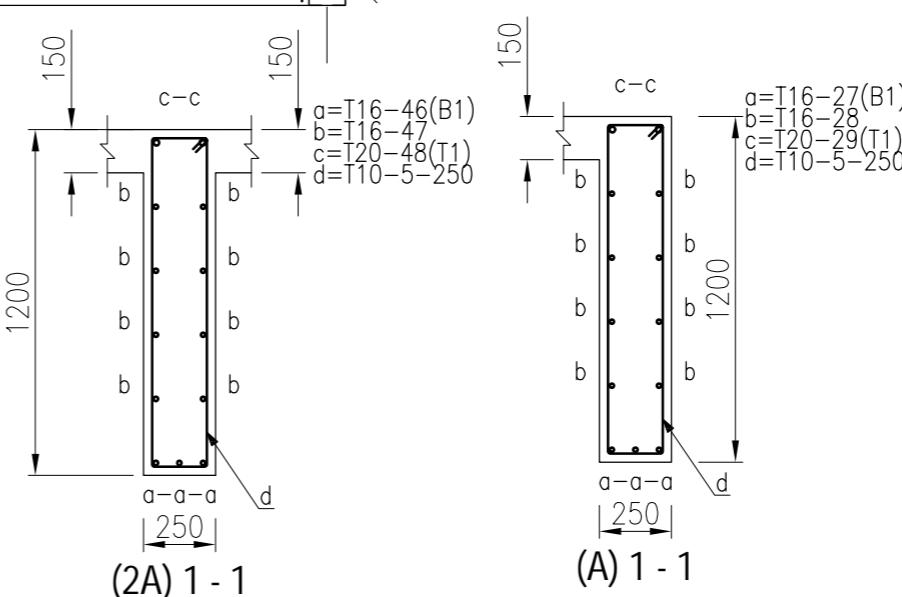
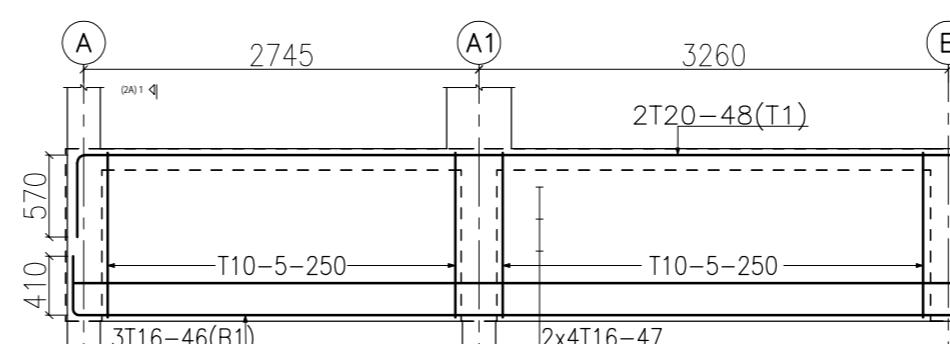
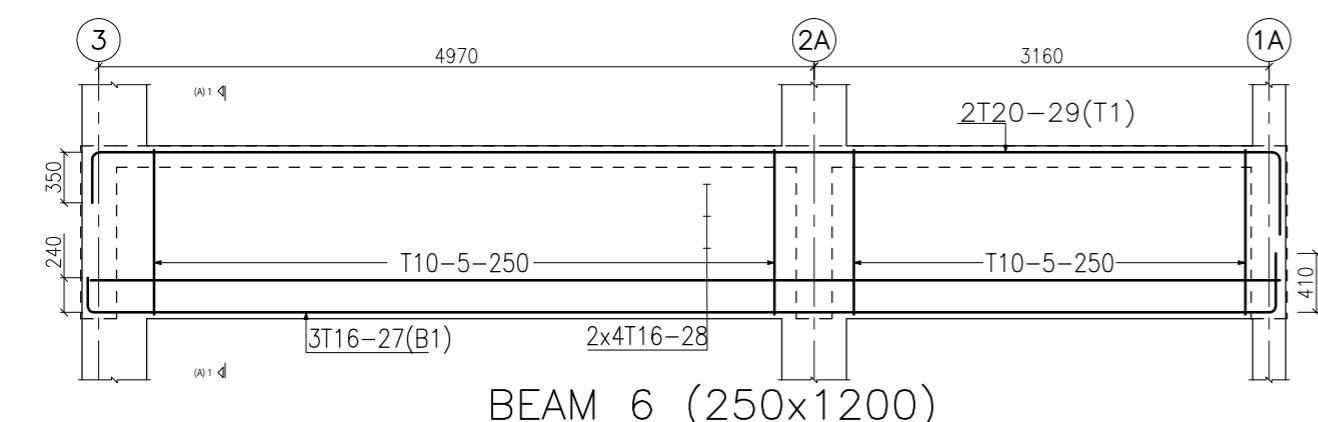
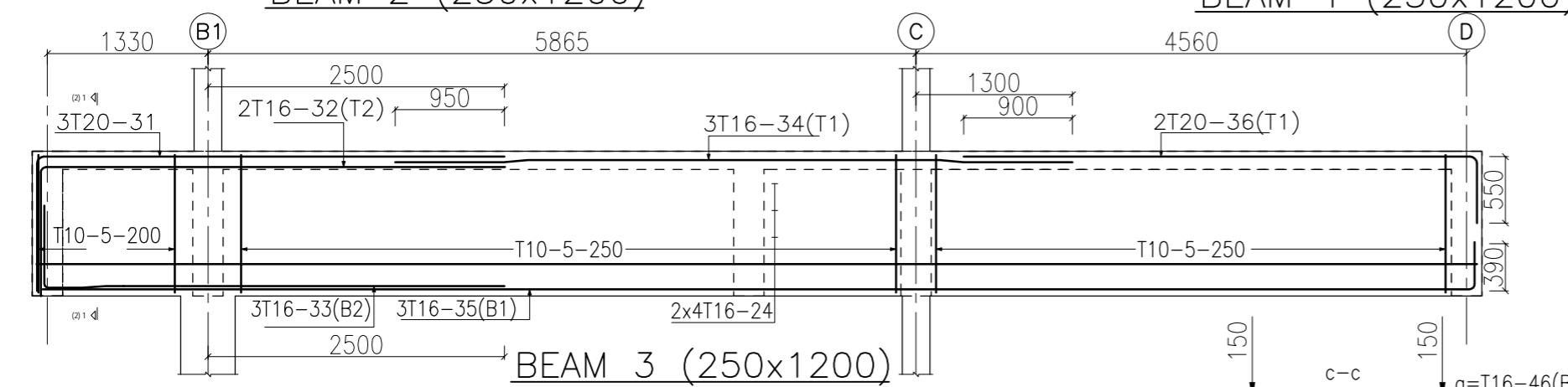
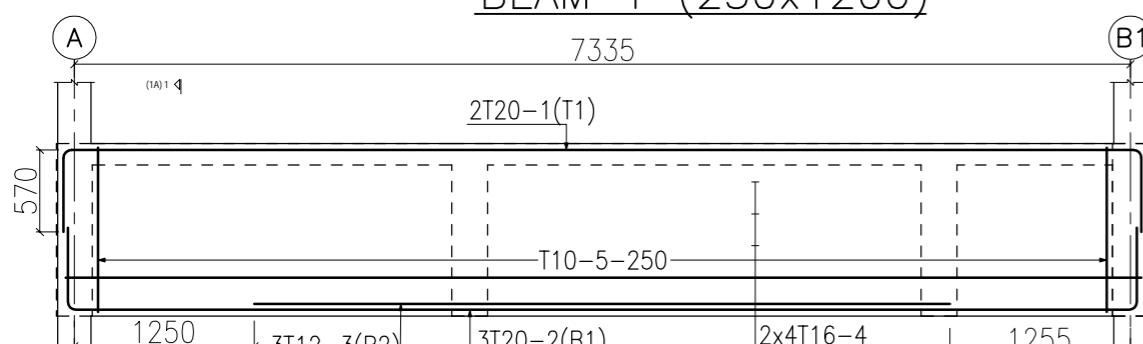
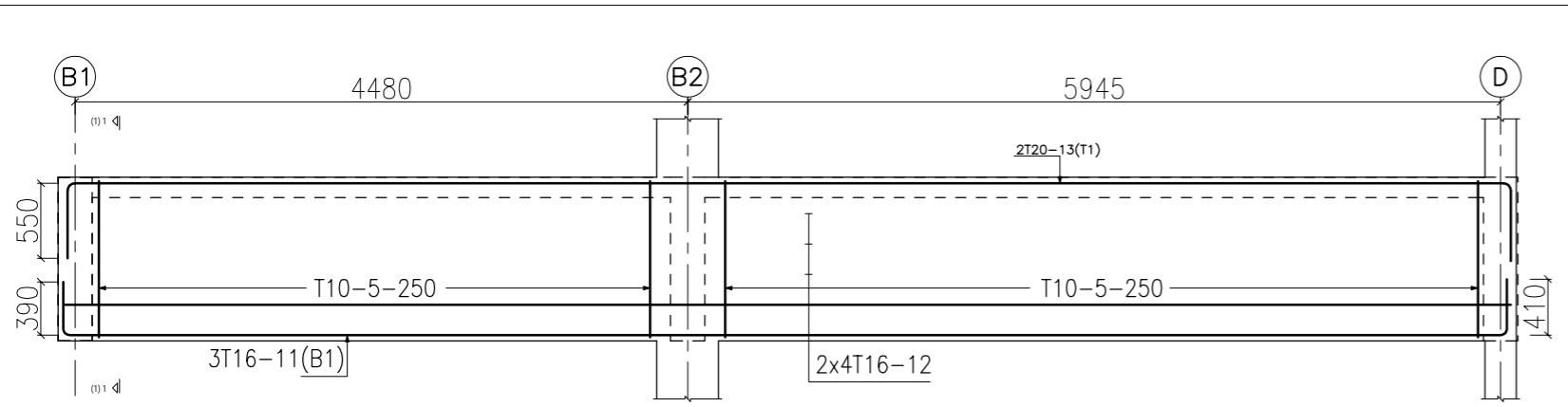


Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI, OGUN STATE	
LOCATION: Enter address here	

NO	REVISION	DATE



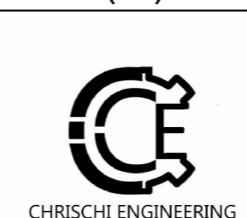
ISSUED FOR PLANING APPROVAL ONLY		
GROUND FLOOR BEAM DETAIL AND SECTIONS		
Project number	EB-0042	
Date	03-Nov-2023	
Drawn by	Author	
Checked by	OSE	
Client Name: MR. DEJI POPOOLA		



Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI,
OGUN STATE(TYPE 2)

LOCATION: Enter address here

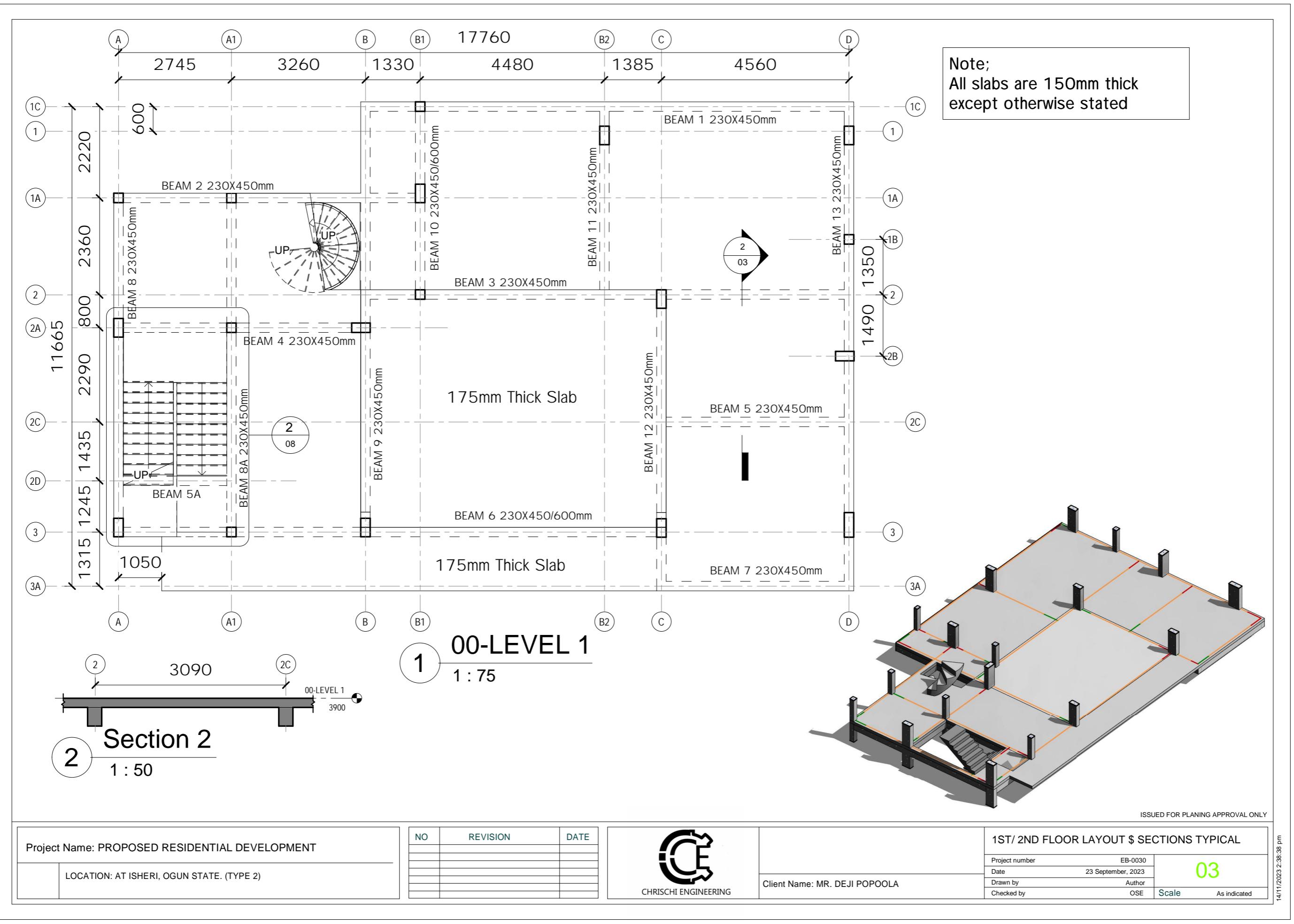
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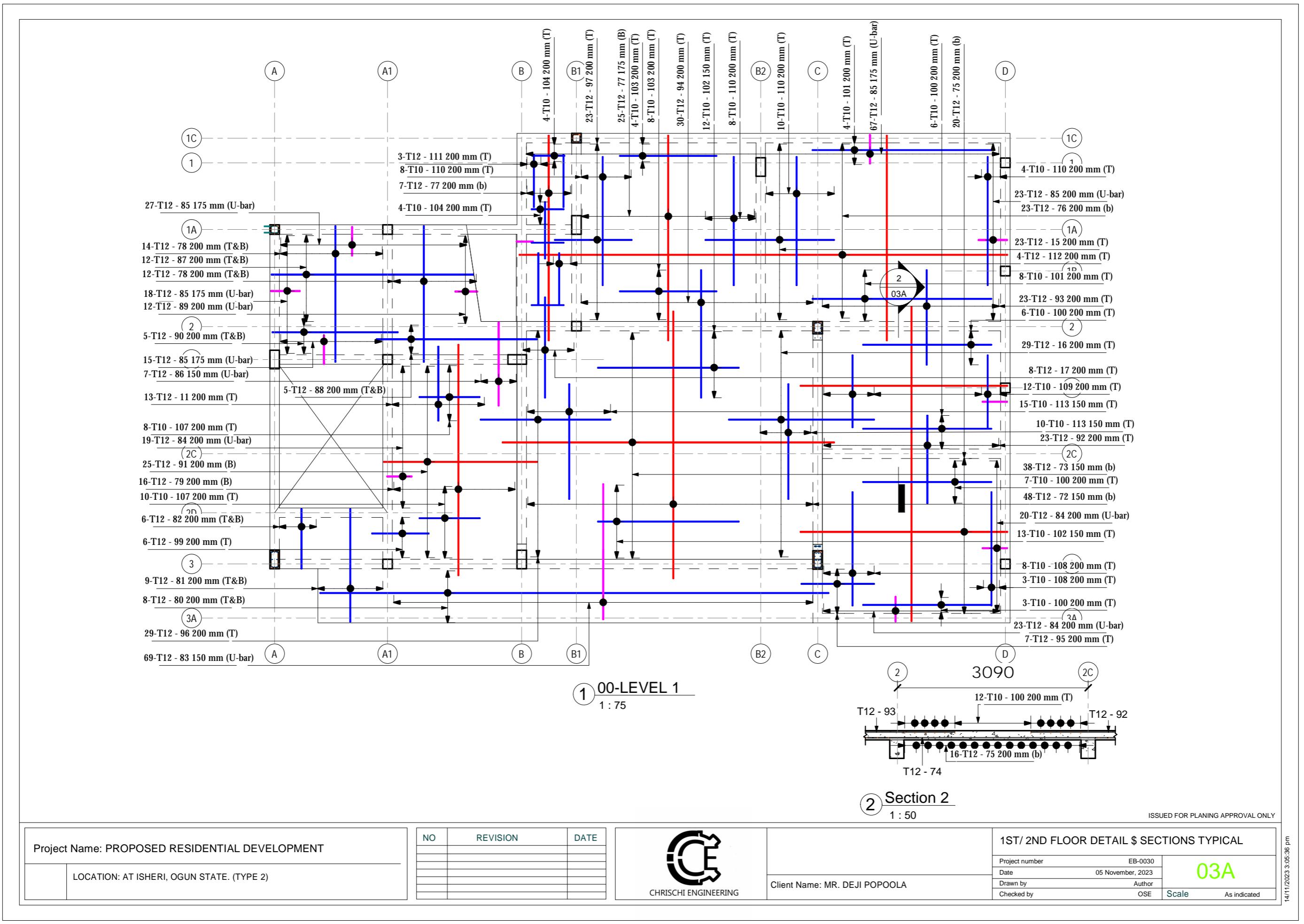


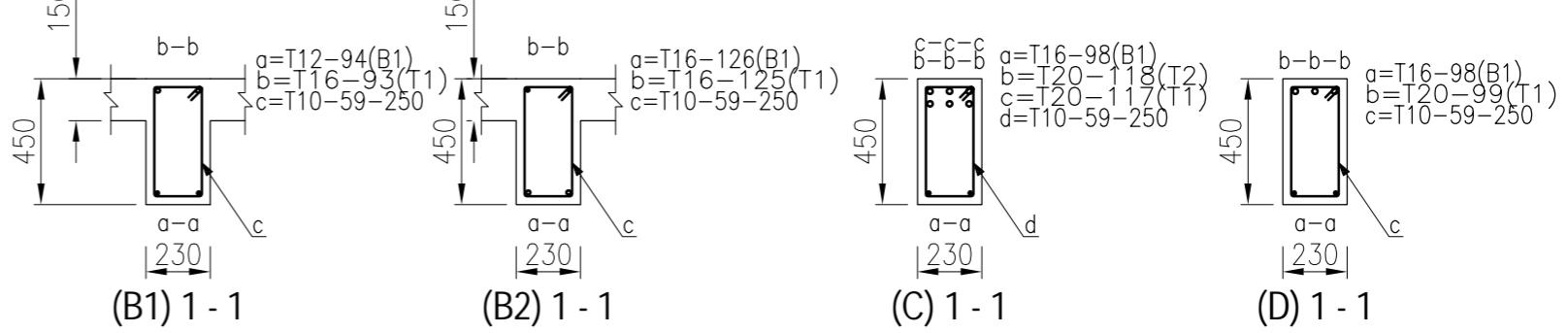
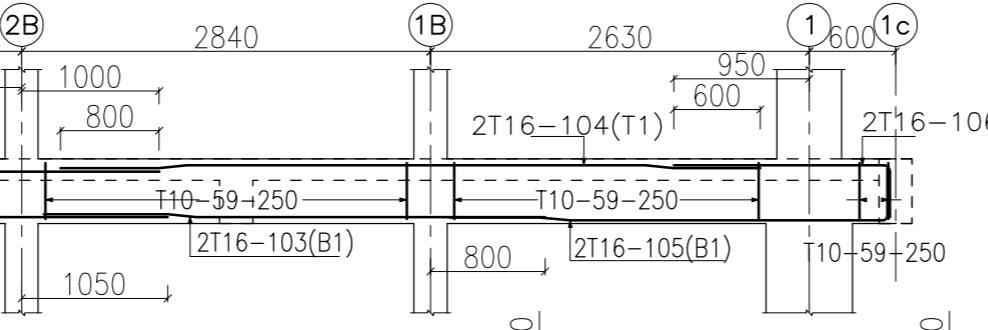
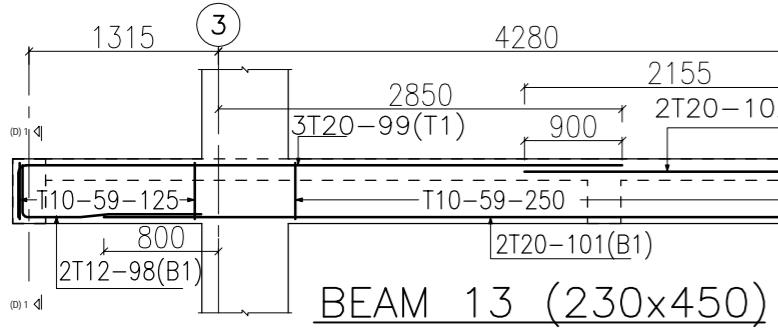
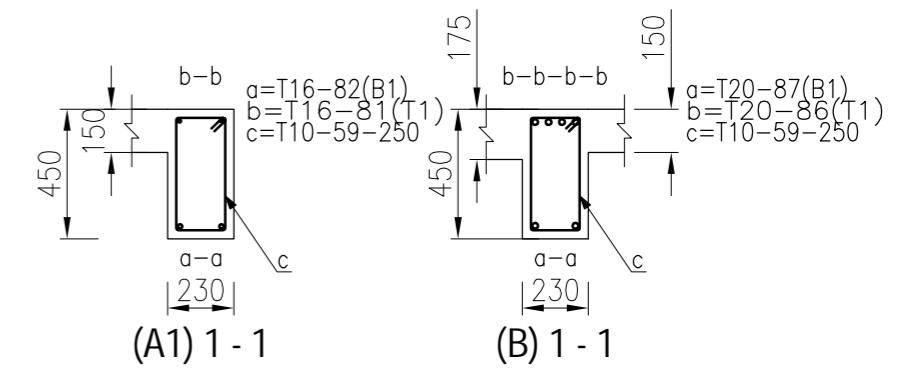
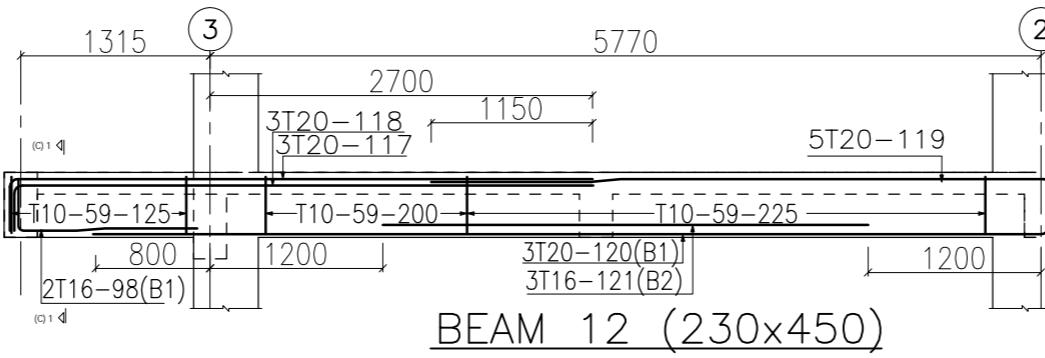
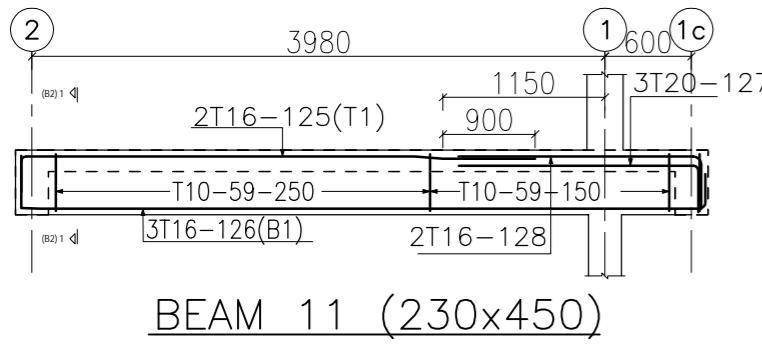
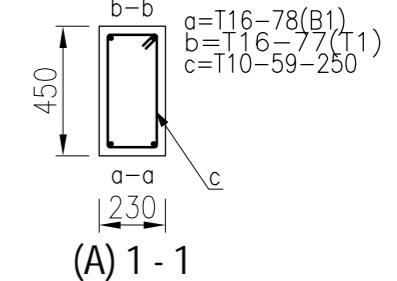
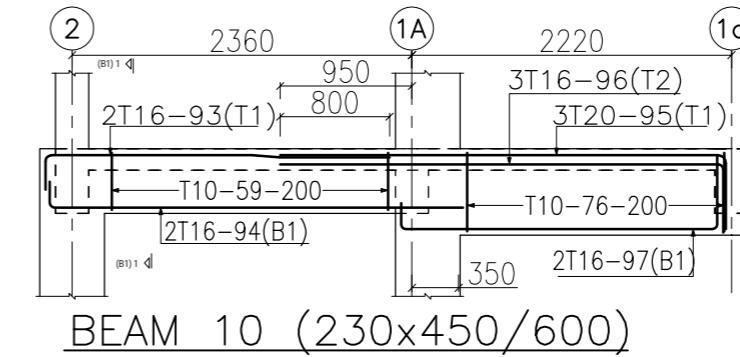
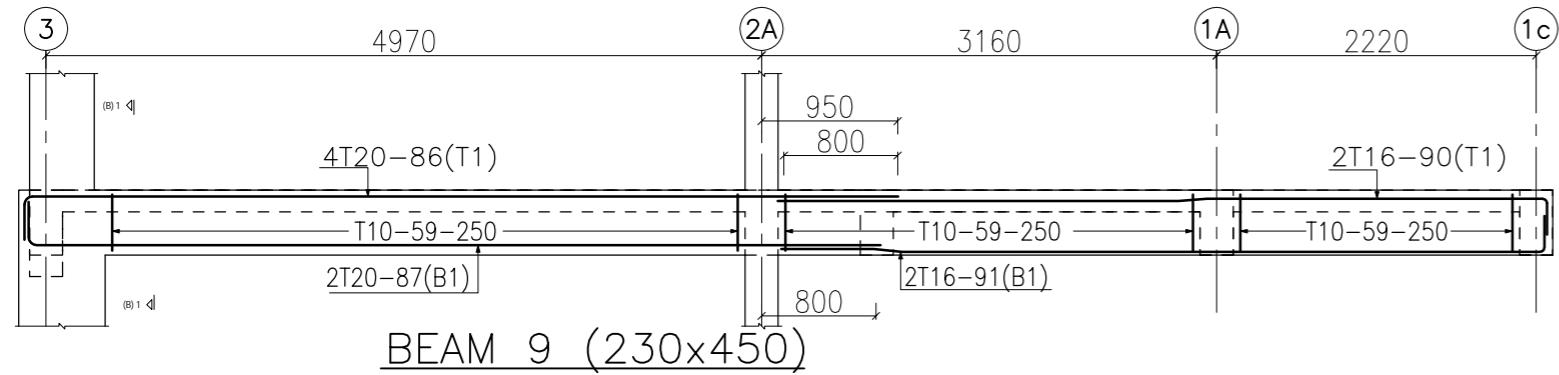
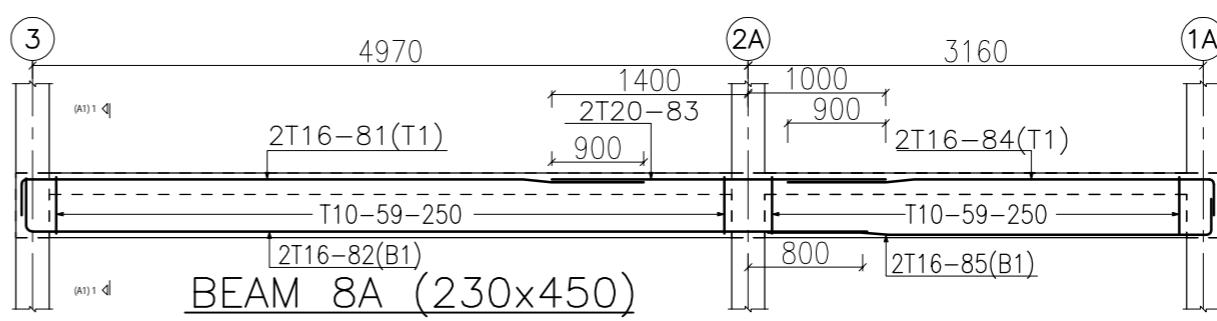
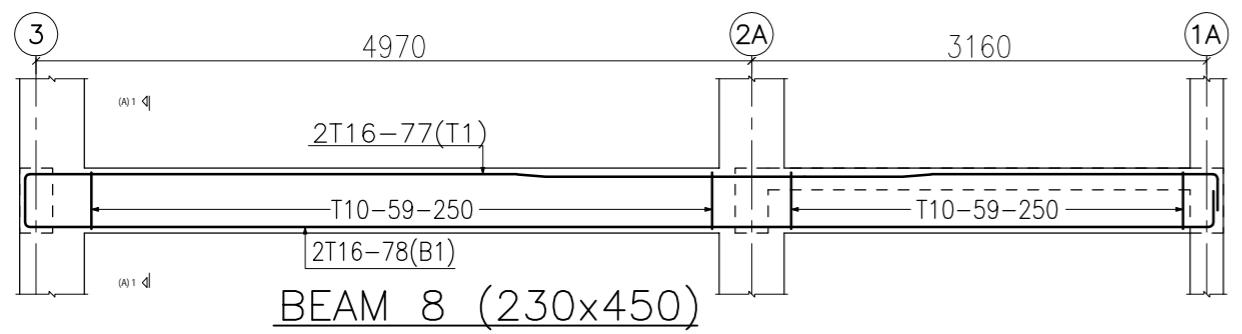
GROUND FLOOR BEAM DETAIL AND SECTIONS			
Project number	EB-0042		
Date	03-Nov-2023		
Drawn by	Author		
Checked by	OSE	Scale	

Client Name: MR. DEJI POPOOLA

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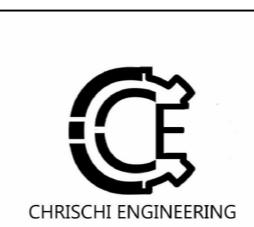




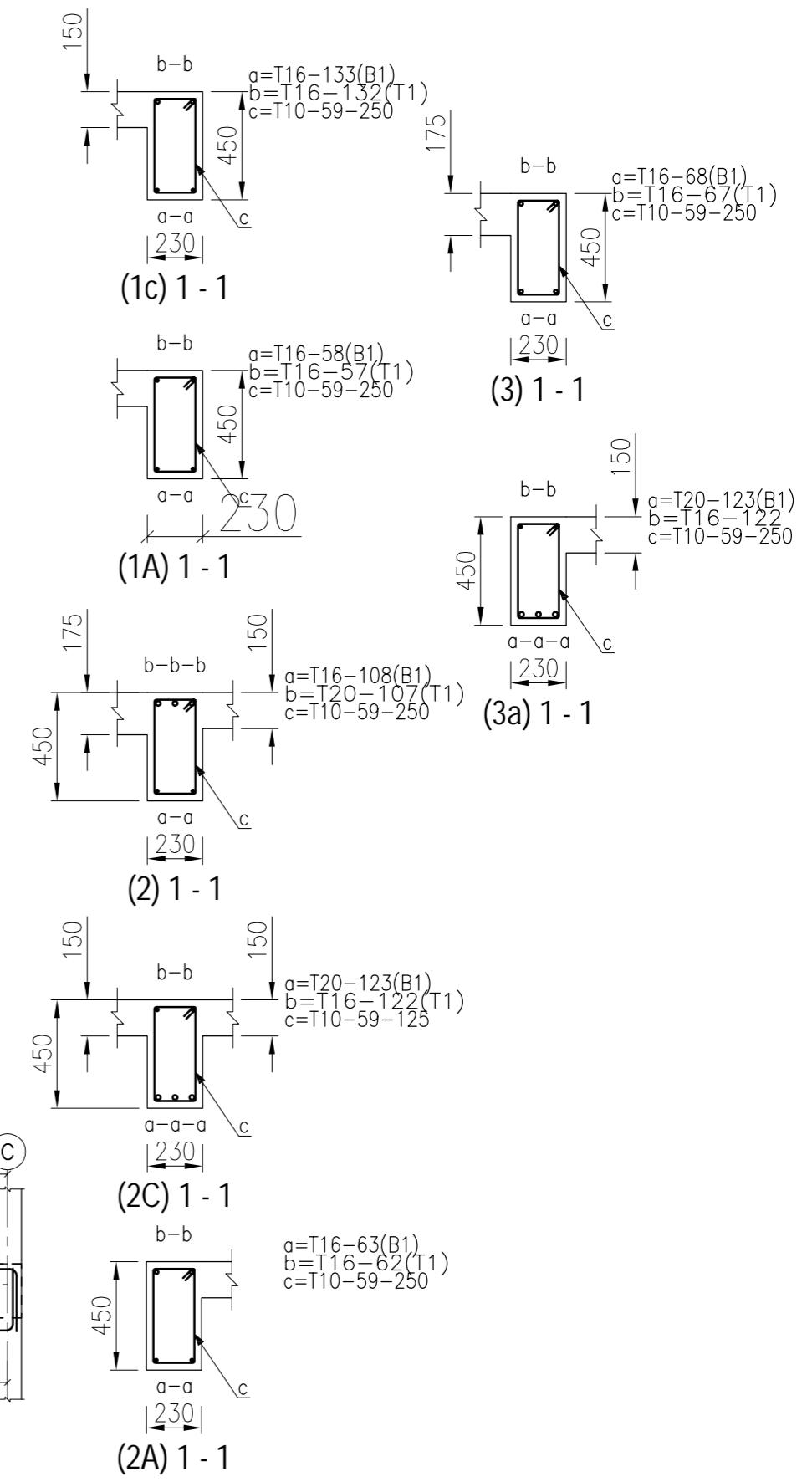
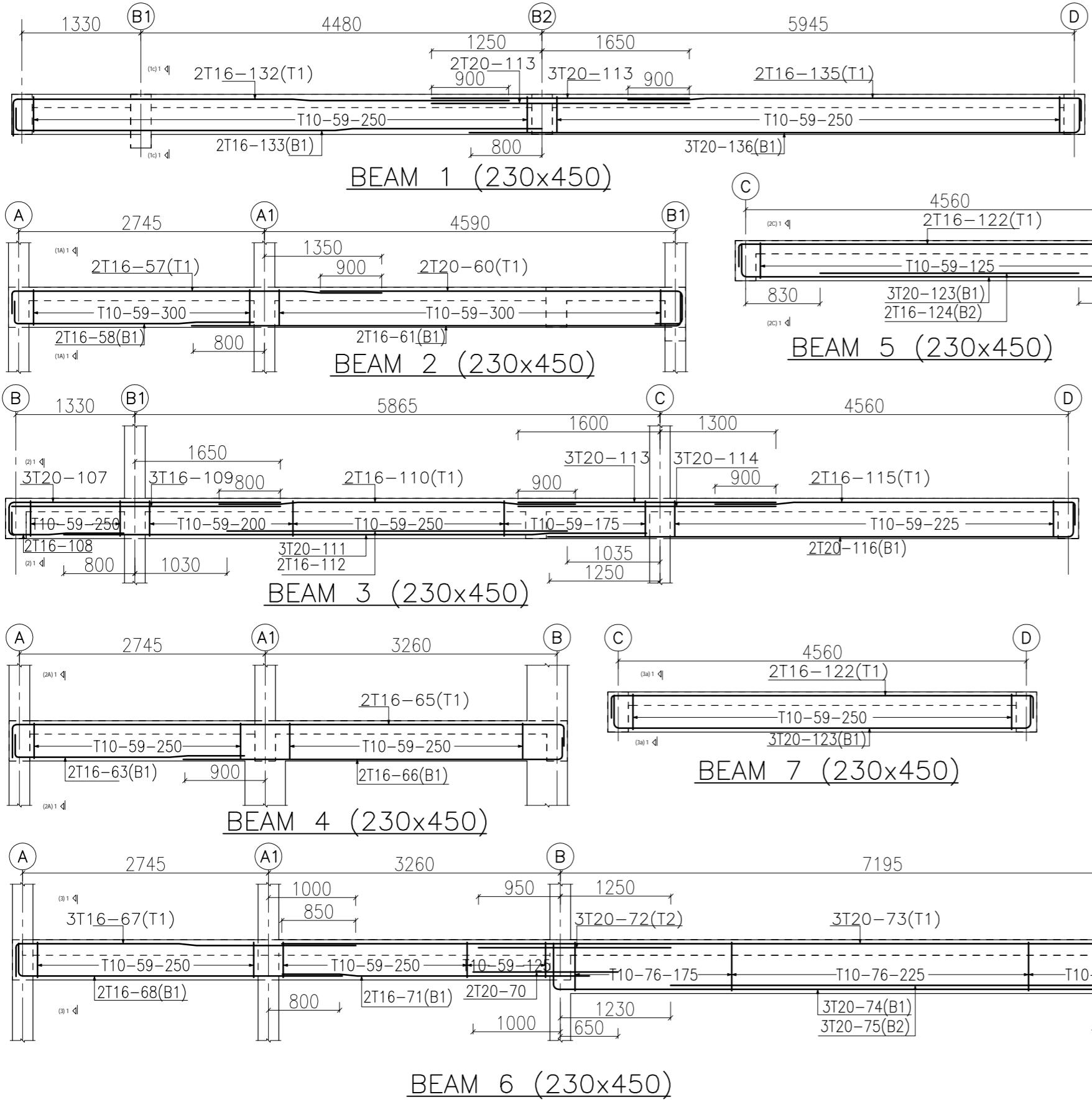
ISSUED FOR PLANING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI, OGUN STATE		
LOCATION: Enter address here		
	NO	REVISION

NO	REVISION	DATE

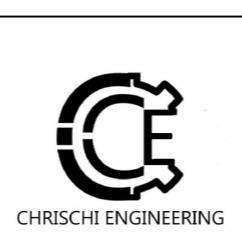


FIRST/SECOND FLOOR BEAM DETAIL AND SECTIONS		
Project number	EB-0042	
Date	03-Nov-2023	
Drawn by	Author	
Checked by	OSE	Scale
Client Name: MR. DEJI POPOOLA		



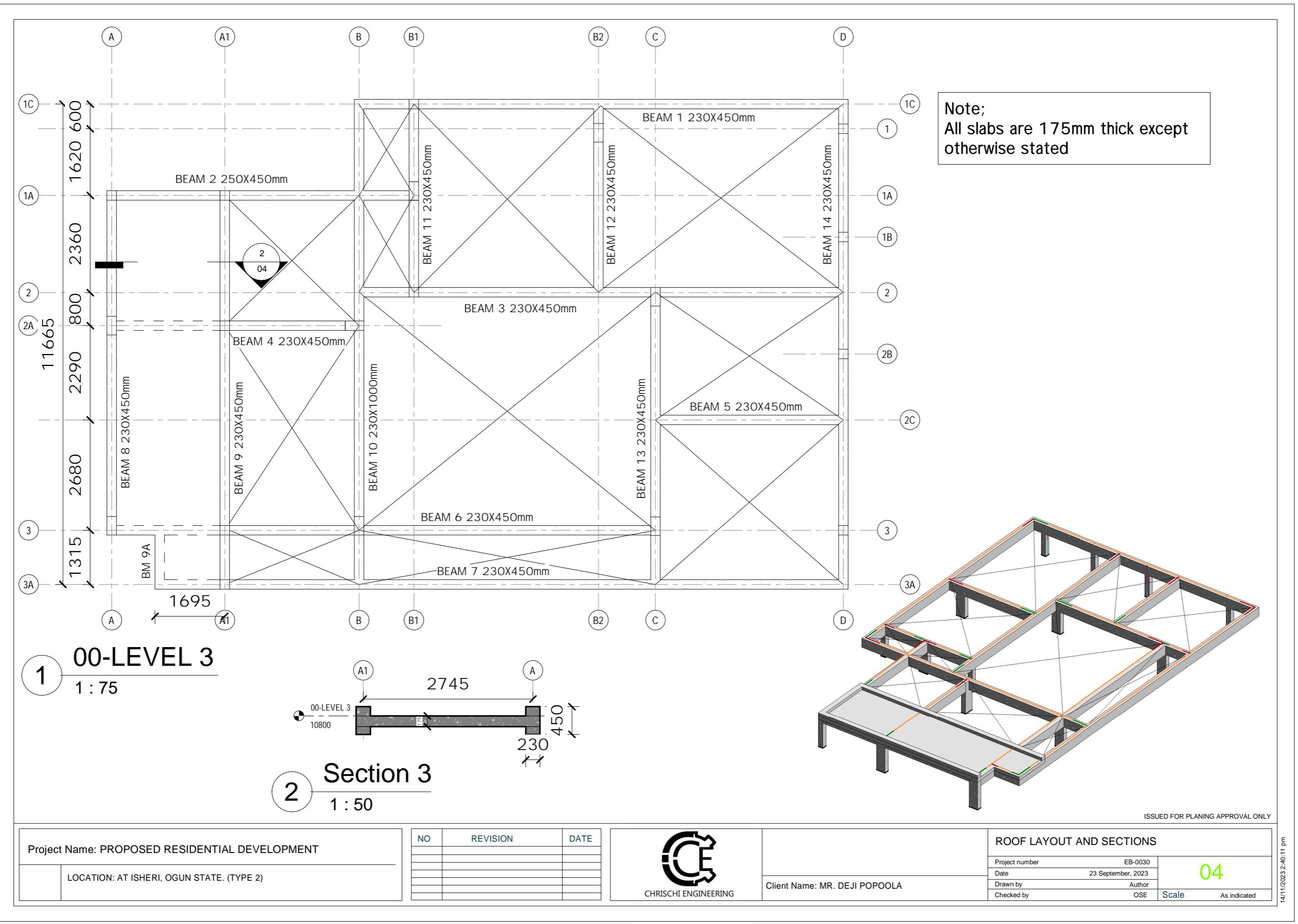
Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI, OGUN STATE(TYPE 2)		
LOCATION: Enter address here		
	NO	REVISION

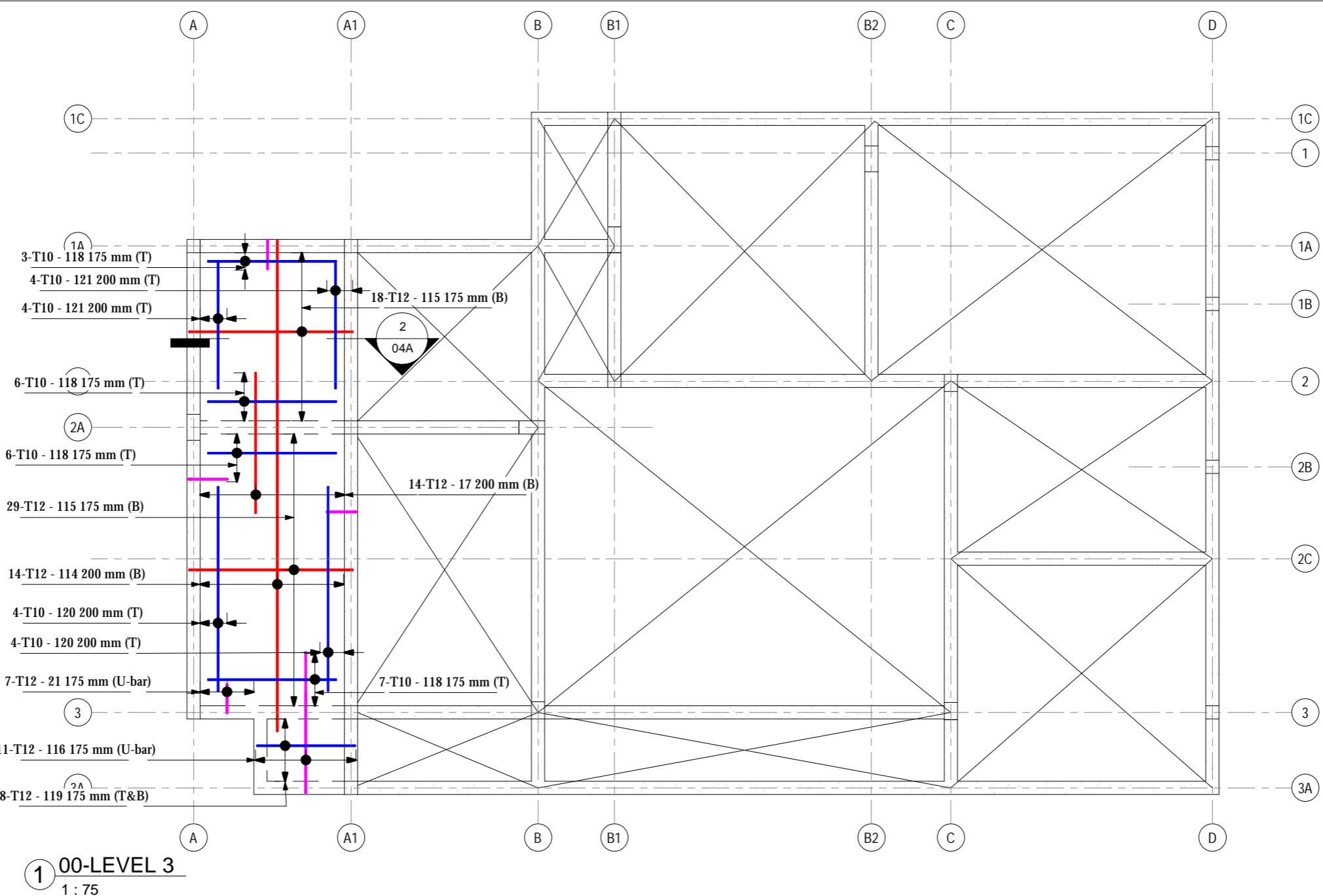
NO	REVISION	DATE



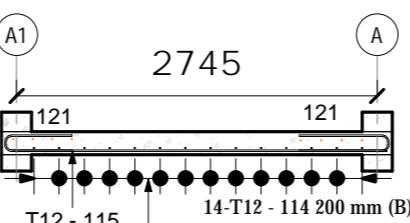
FIRST/SECOND FLOOR BEAM DETAIL AND SECTIONS		
Project number	EB-0042	
Date	03-Nov-2023	
Drawn by	Author	
Checked by	OSE	Scale

ISSUED FOR PLANING APPROVAL ONLY





① 00-LEVEL 3
1 : 75

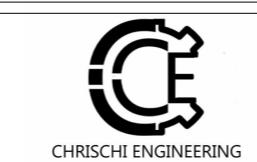


② Section 3
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ISSUED FOR PLANNING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT	
LOCATION: AT ISHERI, OGUN STATE. (TYPE 2)	

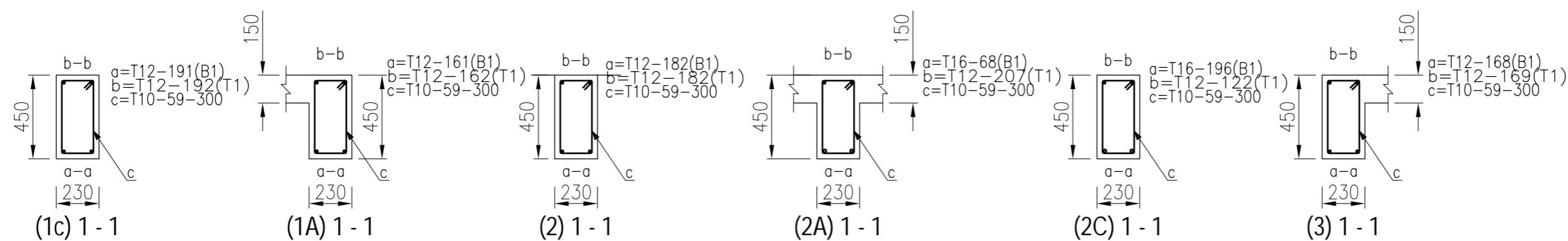
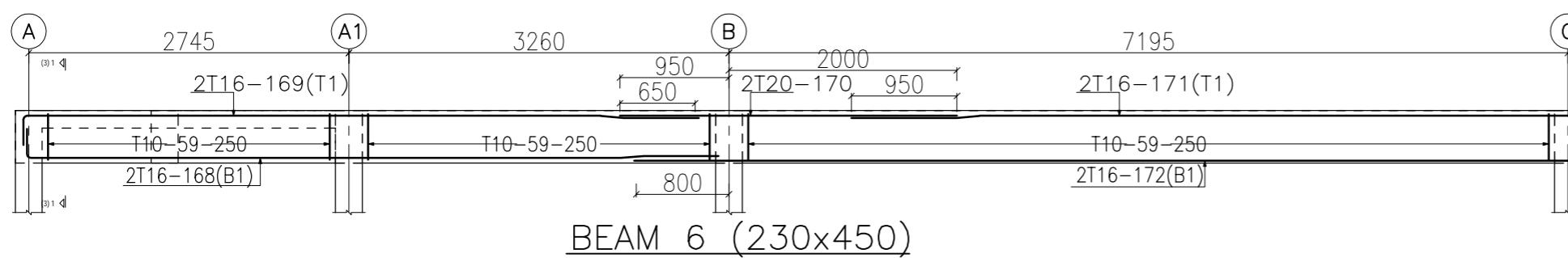
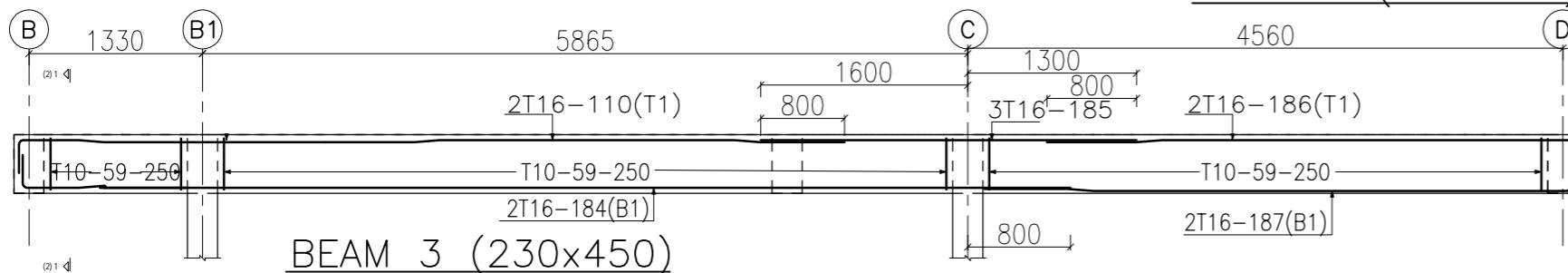
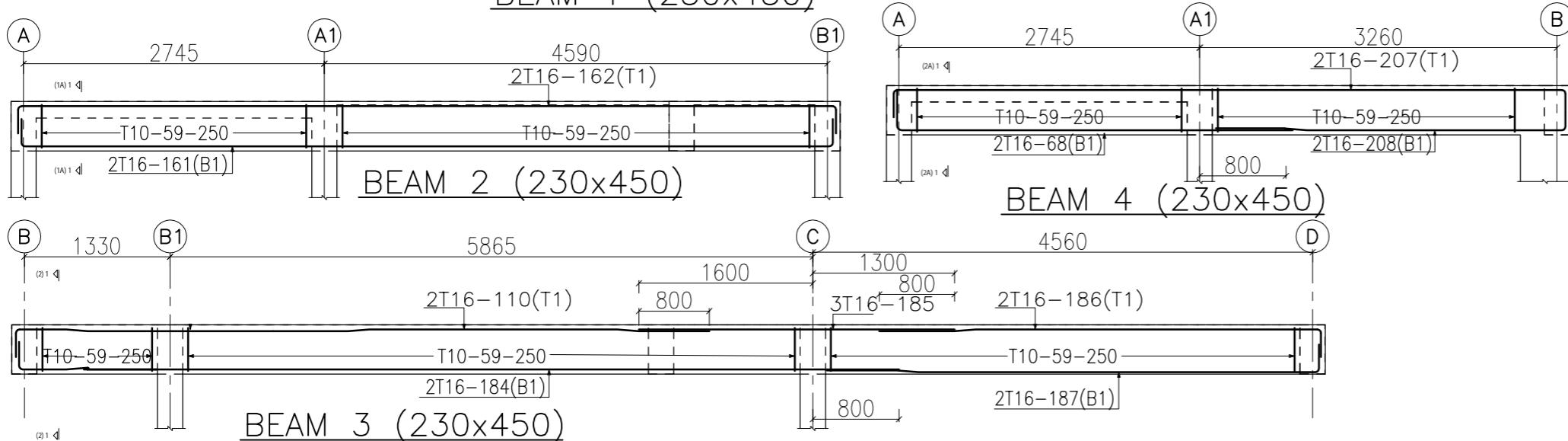
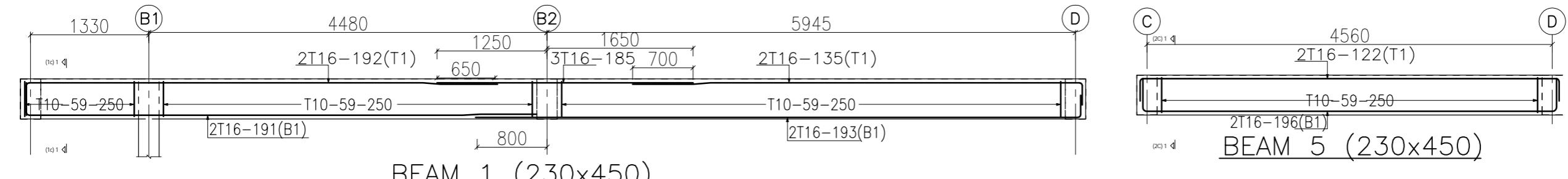
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Client Name: MR. DEJI POPOOLA

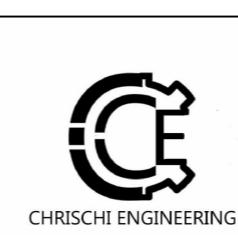
ROOF DETAIL AND SECTIONS

Project number	EB-0030	04A
Date	05 November, 2023	
Drawn by	Author	
Checked by	OSE Scale As indicated	



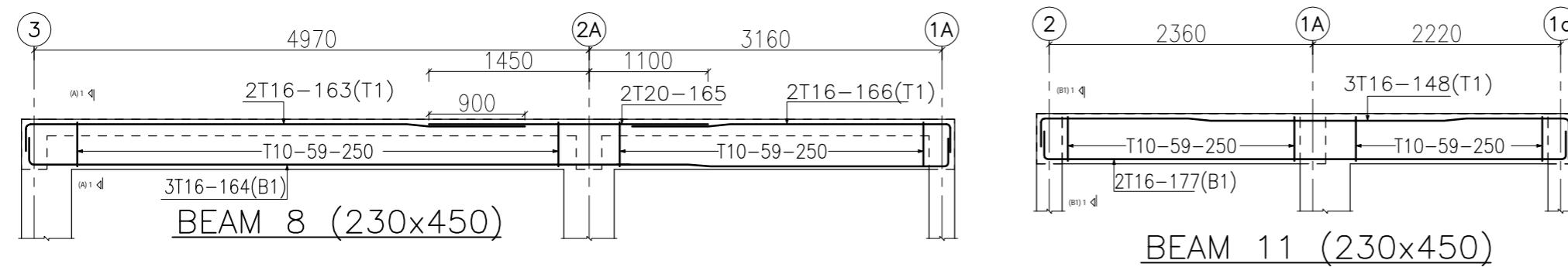
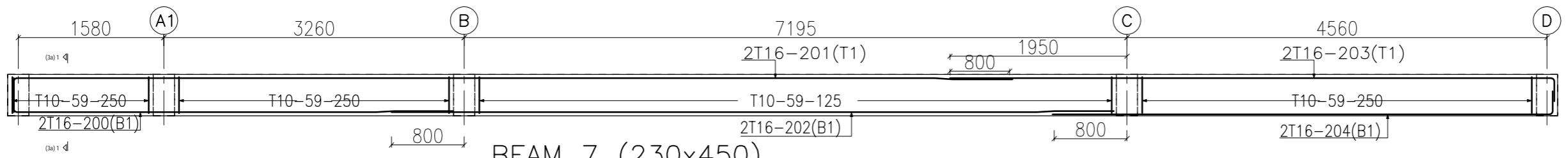
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LOCATION: Enter address here	

NO	REVISION	DATE

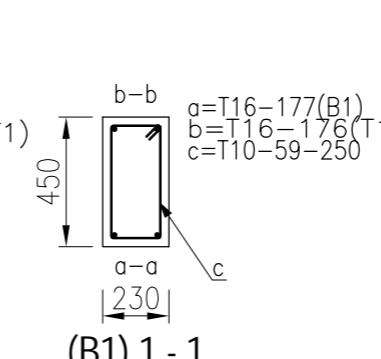
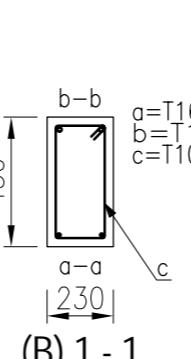
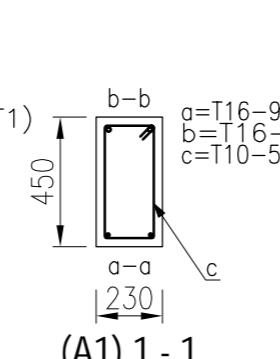
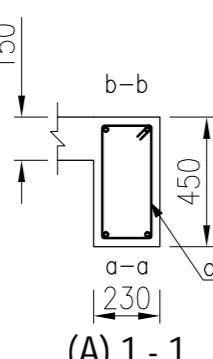
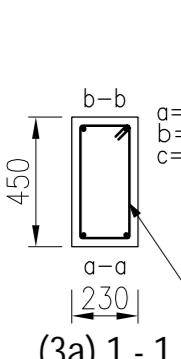
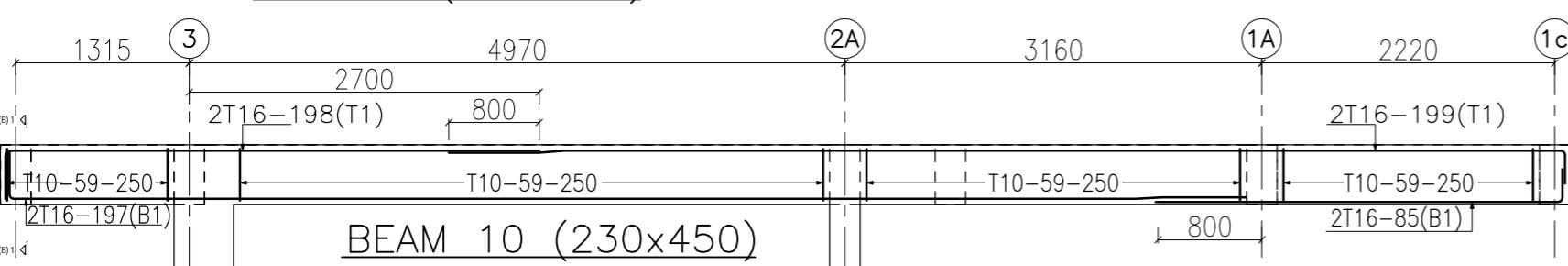
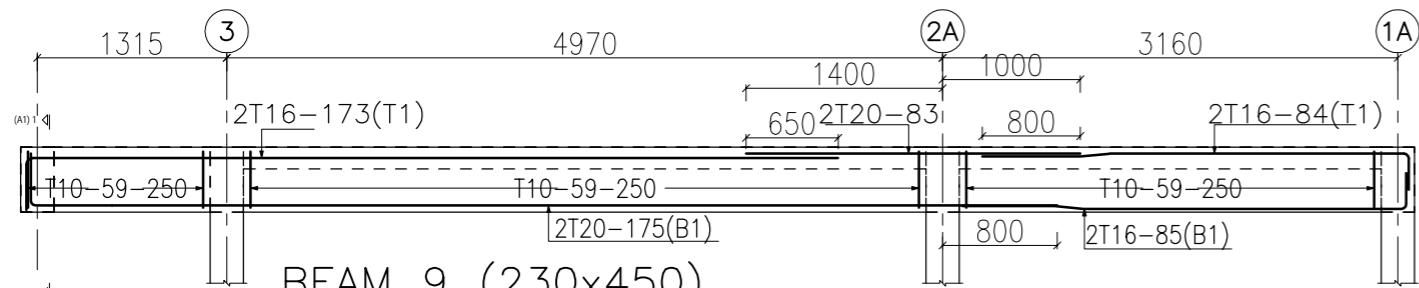


ROOF BEAM DETAIL AND SECTIONS		
Project number	EB-0042	
Date	03-Nov-2023	
Drawn by	Author	
Checked by	OSE	Scale
Client Name: MR. DEJI POPOOLA		

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14/08/2022 1:12:39 am



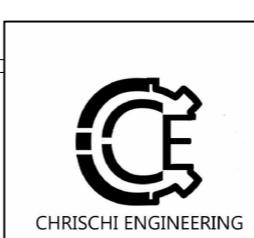
BEAM 11 (230x450)



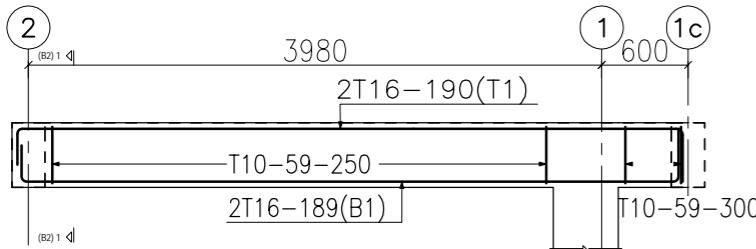
ISSUED FOR PLANING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI, OGUN STATE	
LOCATION: Enter address here	

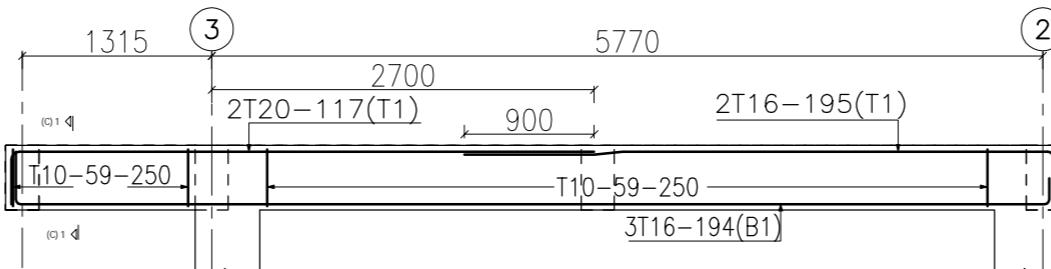
NO	REVISION	DATE



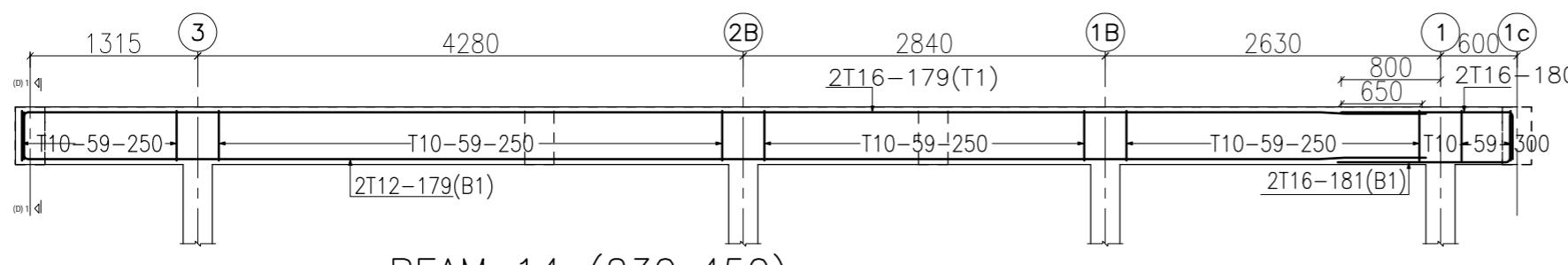
ROOF BEAM DETAIL AND SECTIONS	
Project number	EB-0042
Date	03-Nov-2023
Drawn by	Author
Checked by	OSE Scale
Client Name: MR. DEJI POOPOLA	



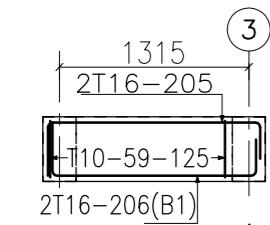
BEAM 12 (230x450)



BEAM 13 (230x450)

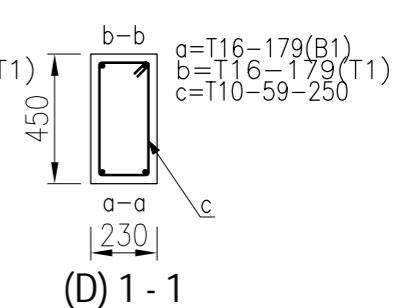
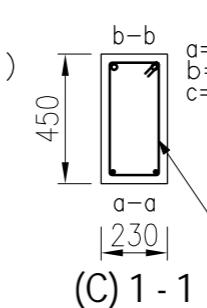
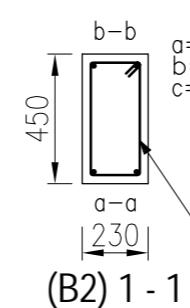


BEAM 14 (230x450)



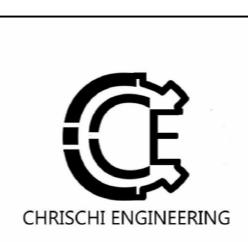
BEAM 9A (230x450)

BEAM 5A/STAIR LANDING (230x450)



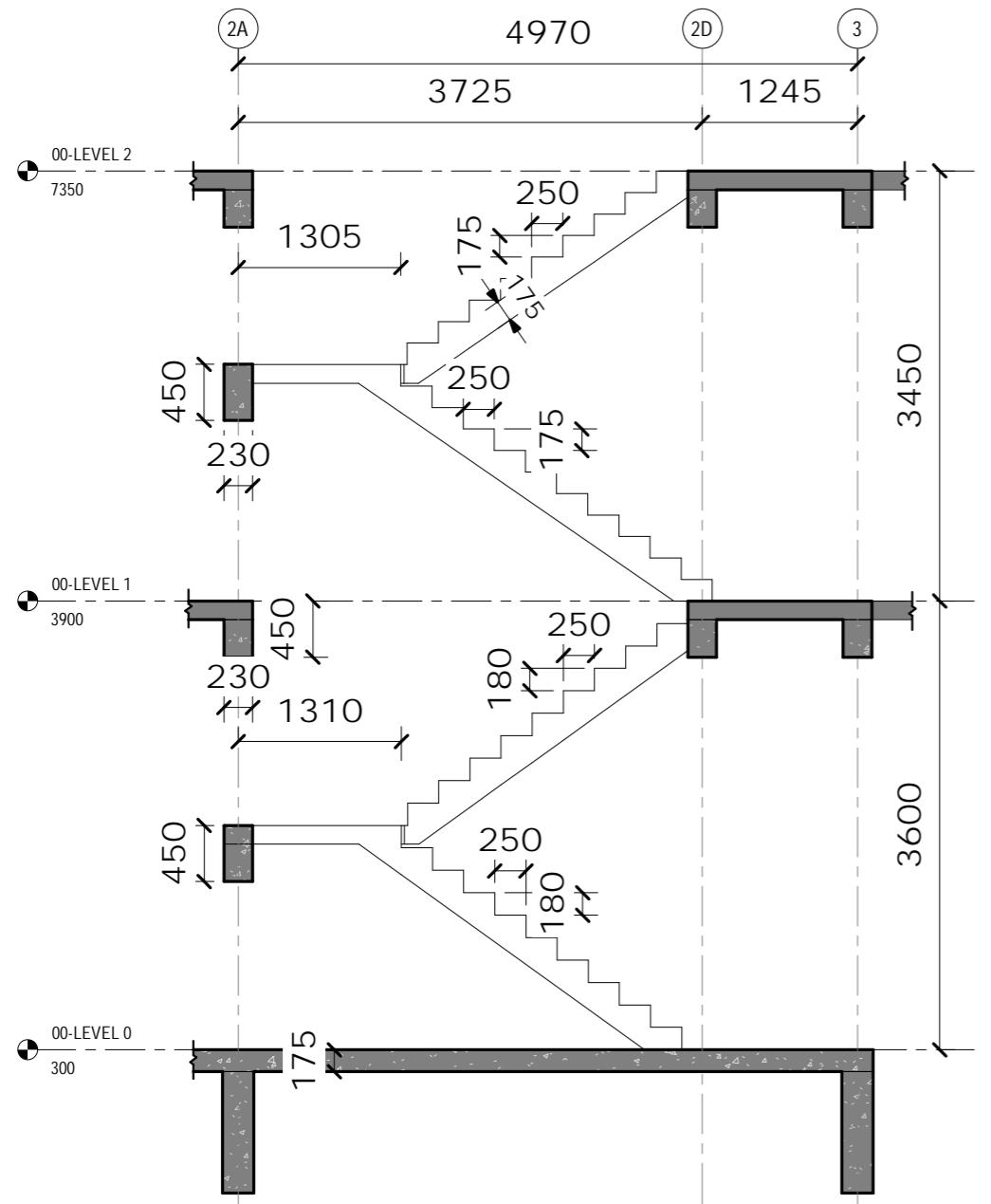
Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI, OGUN STATE		
LOCATION: Enter address here		

NO	REVISION	DATE

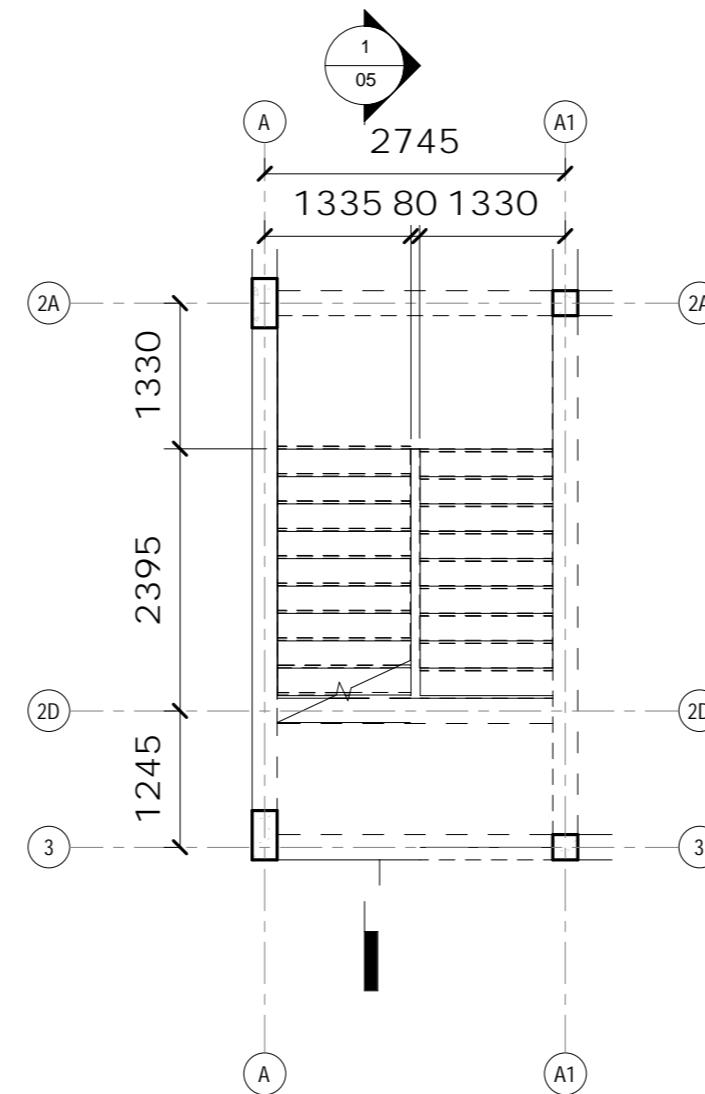


ROOF BEAM DETAIL AND SECTIONS		
Project number	EB-0042	
Date	03-Nov-2023	
Drawn by	Author	
Checked by	OSE	Scale
Client Name: MR. DEJI POPOOLA		

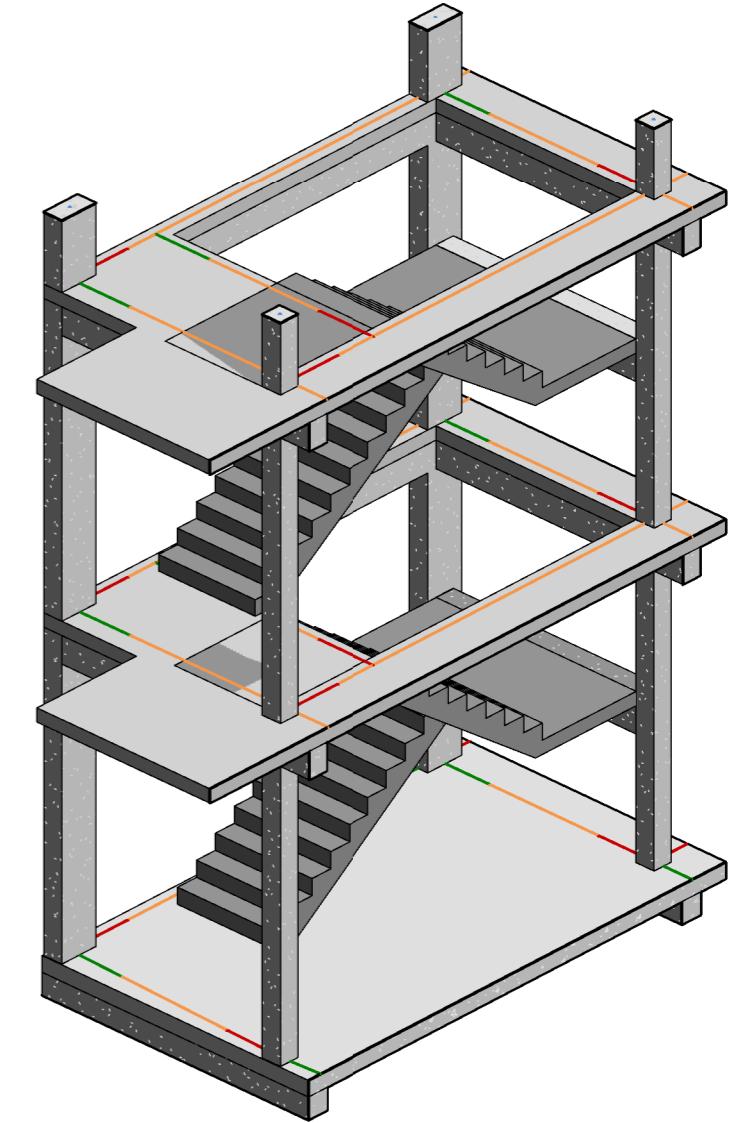
ISSUED FOR PLANING APPROVAL ONLY



1 Section 13
1 : 50



2 00-LEVEL 1 - Callout 1
1 : 60

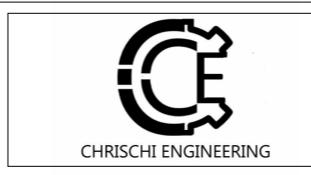


3 STAIRCASE 3D

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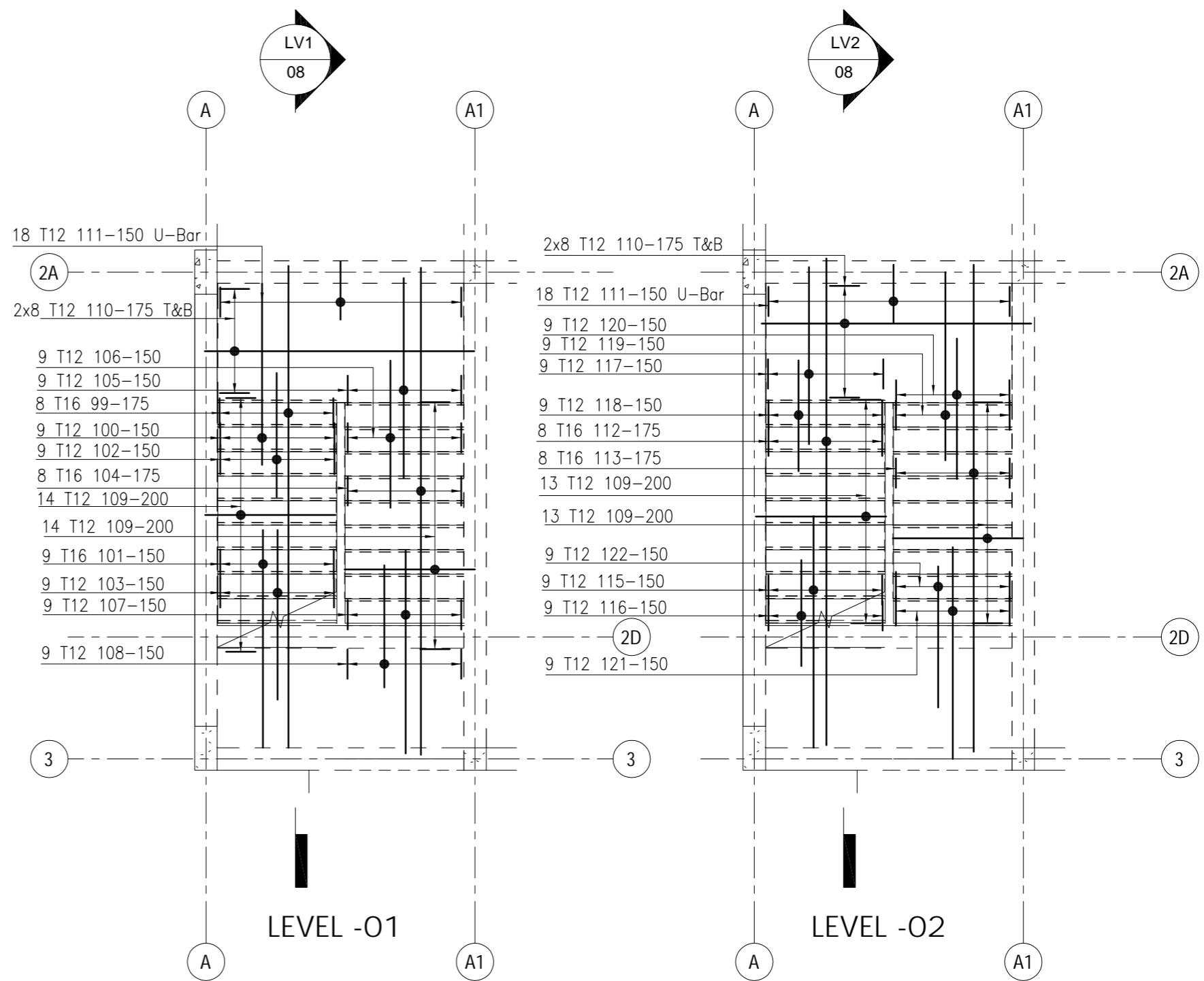
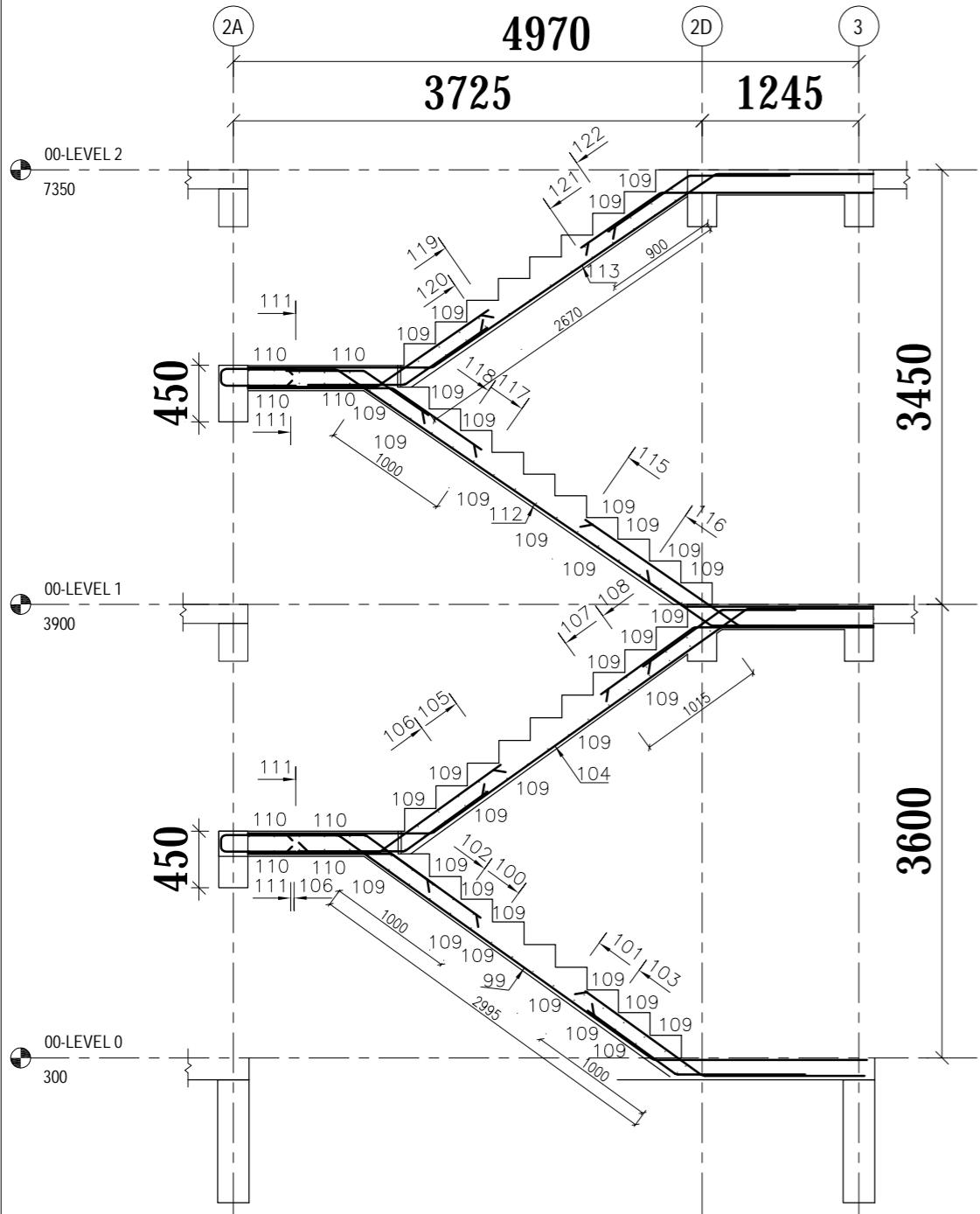
Project Name: PROPOSED RESIDENTIAL DEVELOPMENT		
LOCATION: AT ISHERI, OGUN STATE. (TYPE 2)		
	NO	REVISION

NO	REVISION	DATE



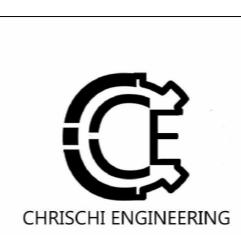
Client Name: MR. DEJI POPOOLA

STAIRCASE LAYOUT/3D		
Project number	EB-0030	
Date	23 September, 2023	05
Drawn by	Author	
Checked by	OSE	Scale As indicated



Project Name: PROPOSED RESIDENTIAL DEVELOPMERNT FOR	
LOCATION: AT ISHERI, OGUN STATE. (TYPE 2)	

NO	REVISION	DATE

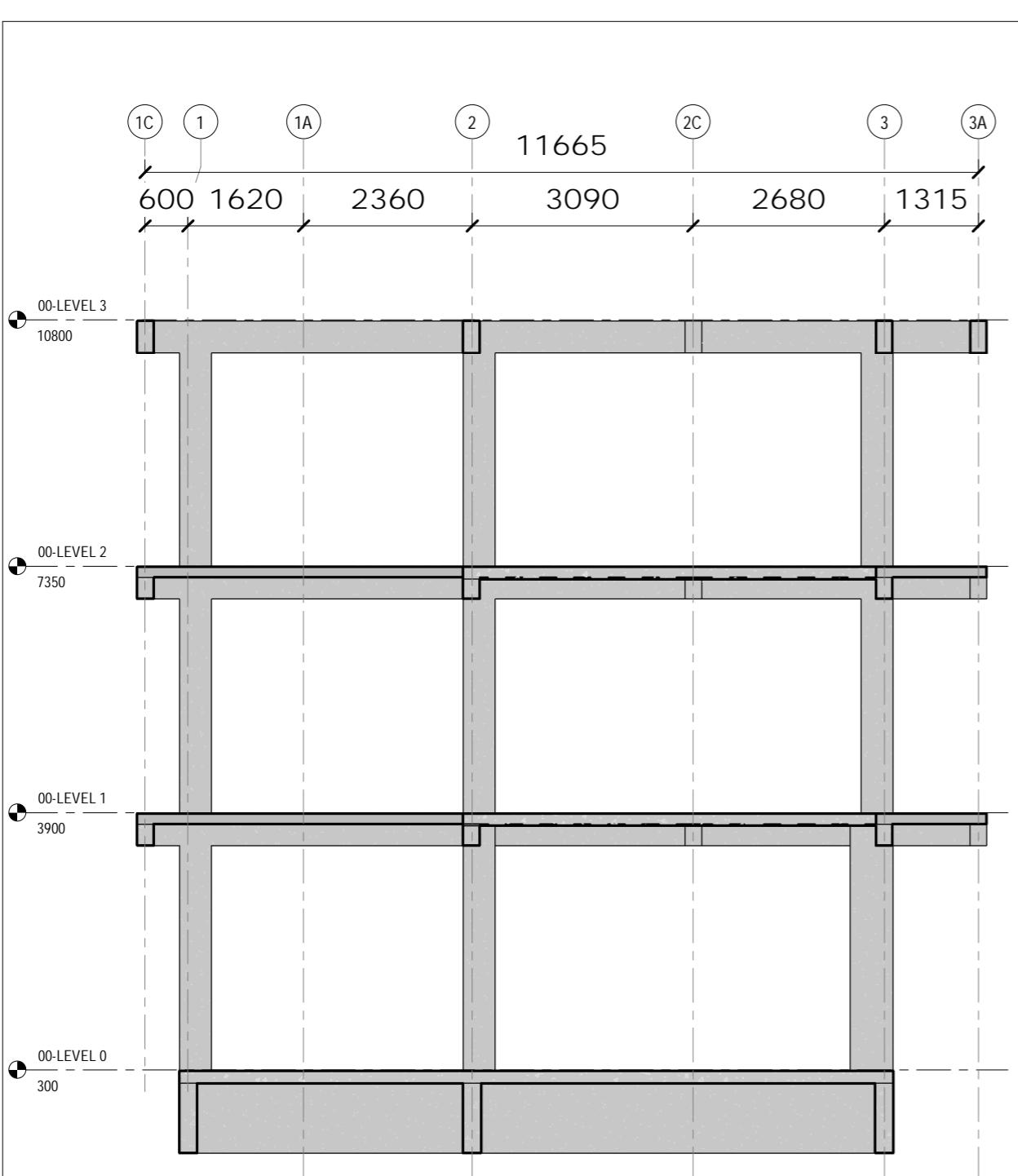


STAIRCASE LAYOUT/3D	
Project number	EB-0030
Date	05 November, 2023
Drawn by	Author
Checked by	OSE
Scale	As indicated

Client Name: MR. DEJI POPOOLA

05A

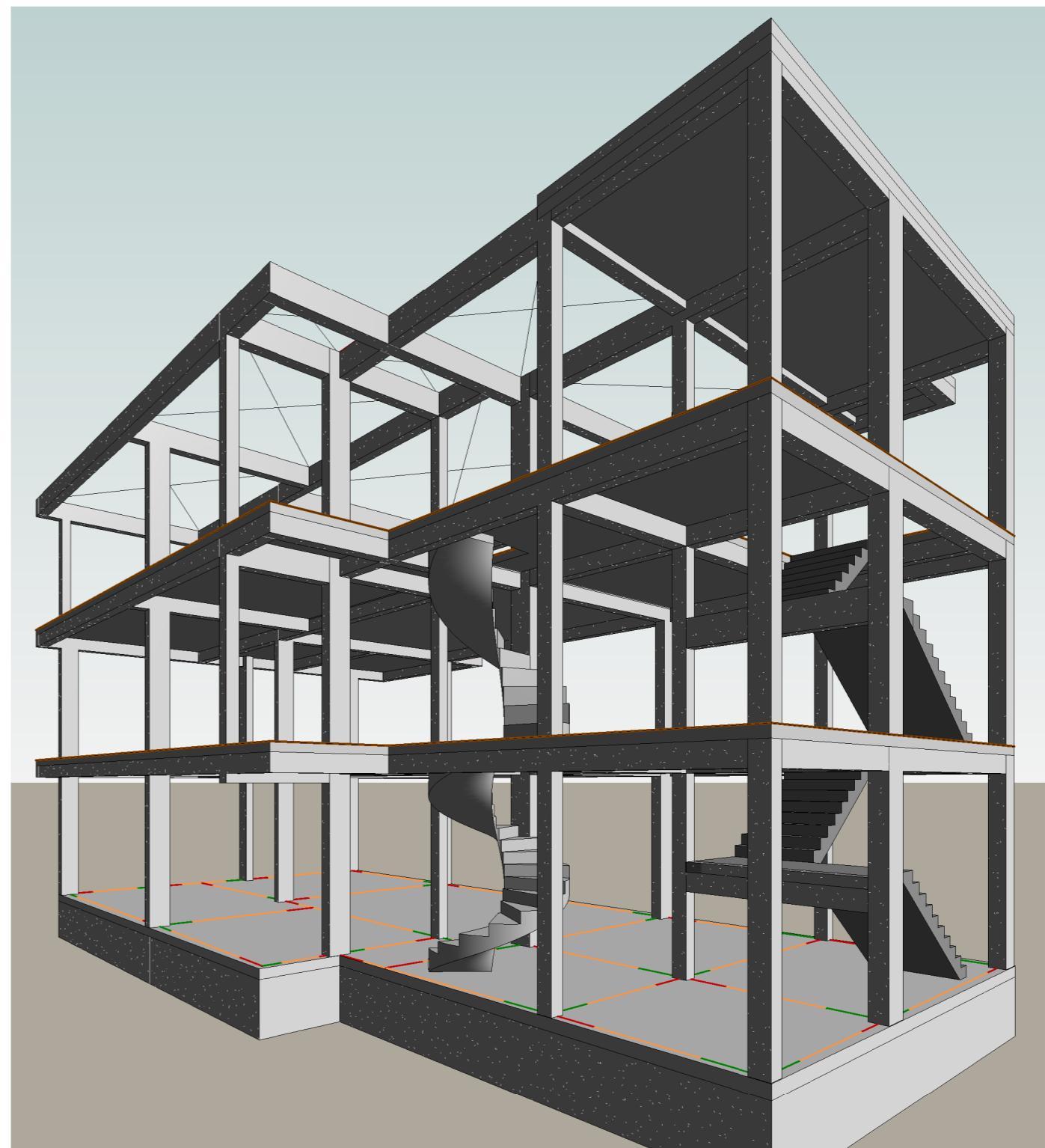
ISSUED FOR PLANING APPROVAL ONLY



Section Y-Y

1

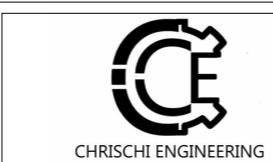
1 : 75



ISSUED FOR PLANNING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT	
LOCATION: AT ISHERI, OGUN STATE. (TYPE 2)	

NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

SECTION Y-Y		
Project number	EB-0030	
Date	23 September, 2023	
Drawn by	Author	
Checked by	OSE	Scale 1 : 75

09

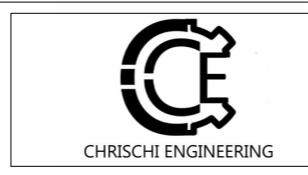


Section X-X
1 1 : 75

ISSUED FOR PLANNING APPROVAL ONLY

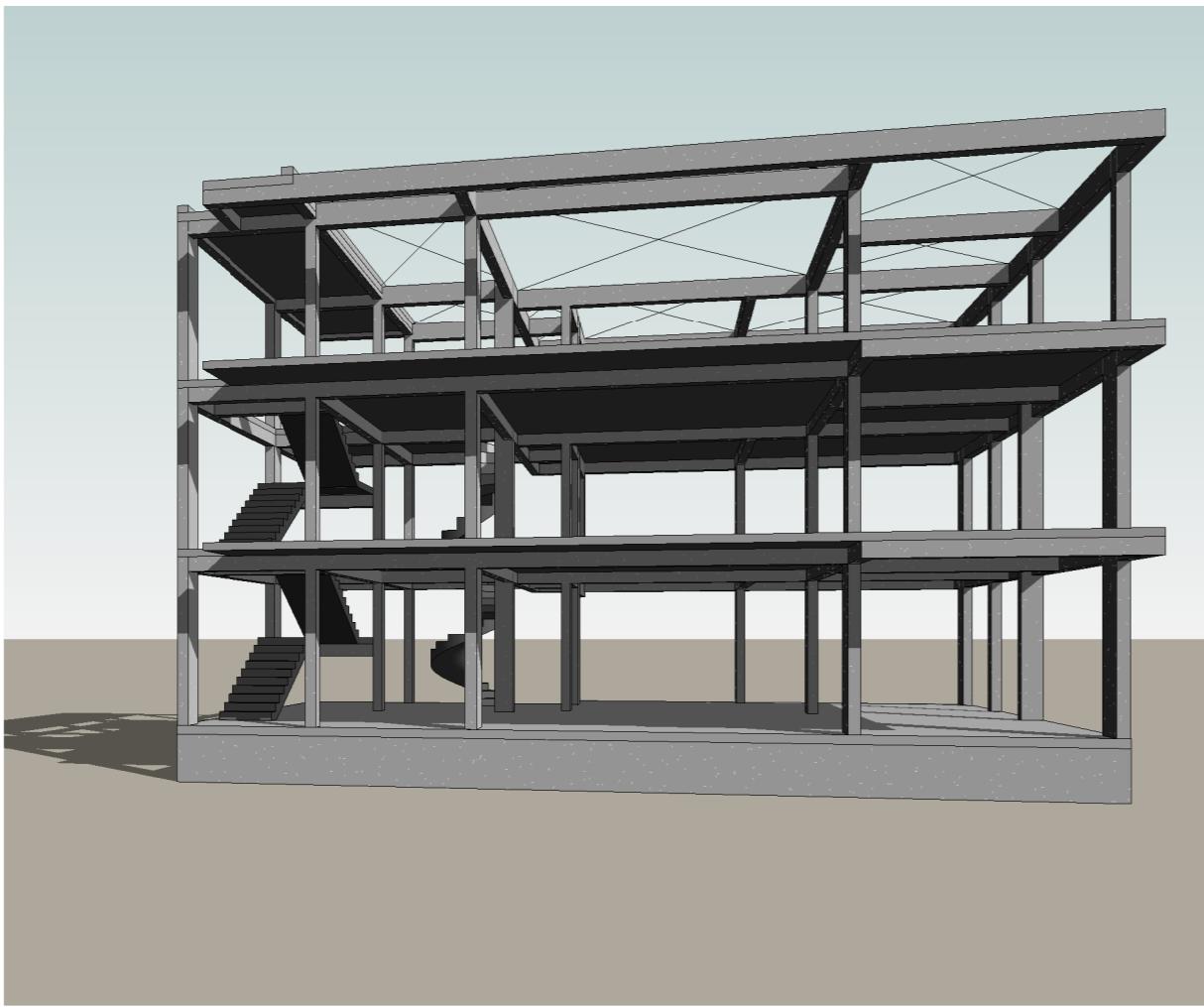
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LOCATION: AT ISHERI, OGUN STATE. (TYPE 2)	

NO	REVISION	DATE

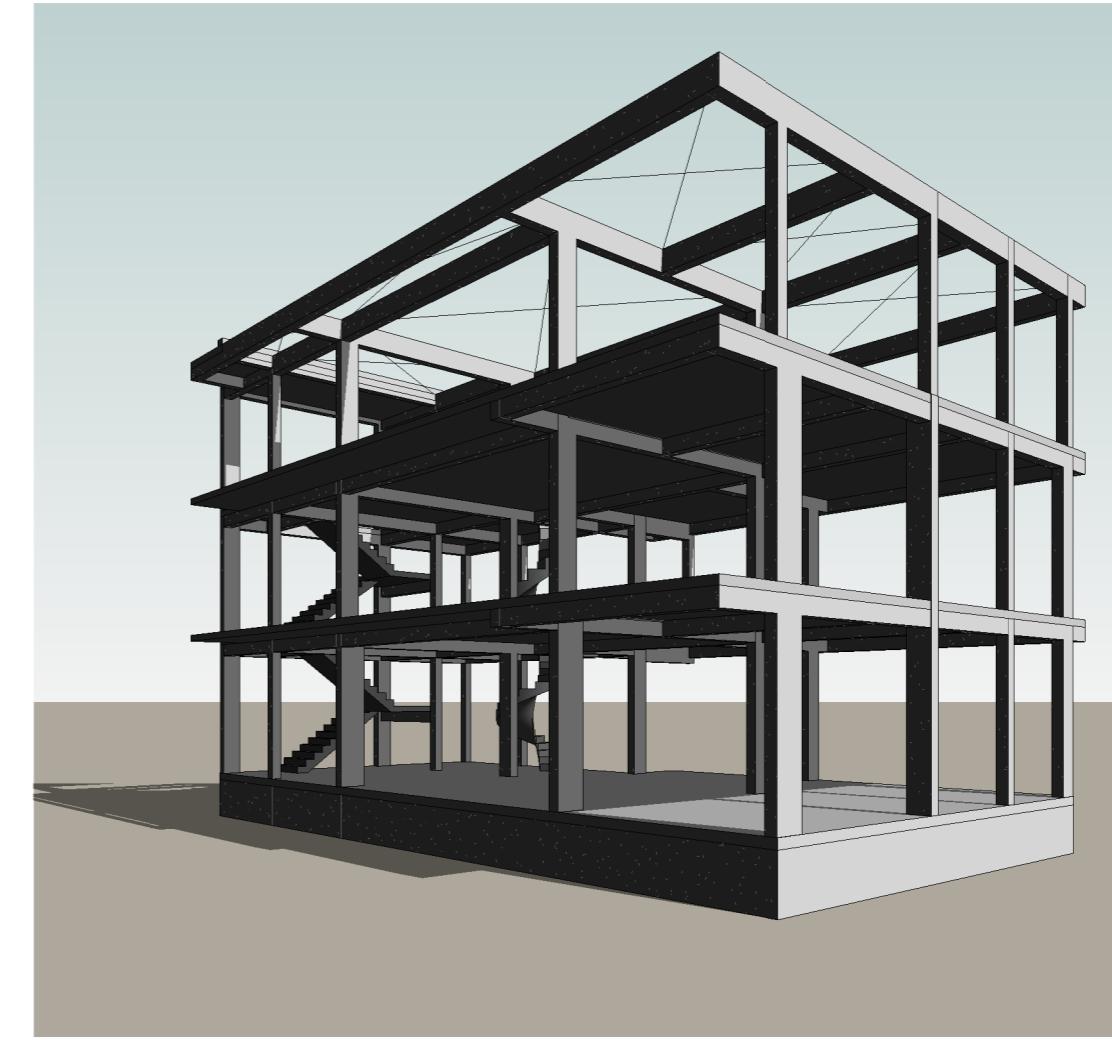


SECTION X-X		
Project number	EB-0030	
Date	23 September, 2023	
Drawn by	Author	
Checked by	OSE	Scale 1 : 75

10



1 3D View 1

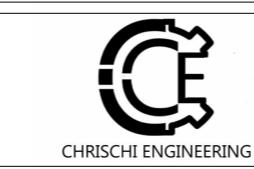


2 3D View 2

ISSUED FOR PLANNING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT		
LOCATION: AT ISHERI, OGUN STATE. (TYPE 2)		

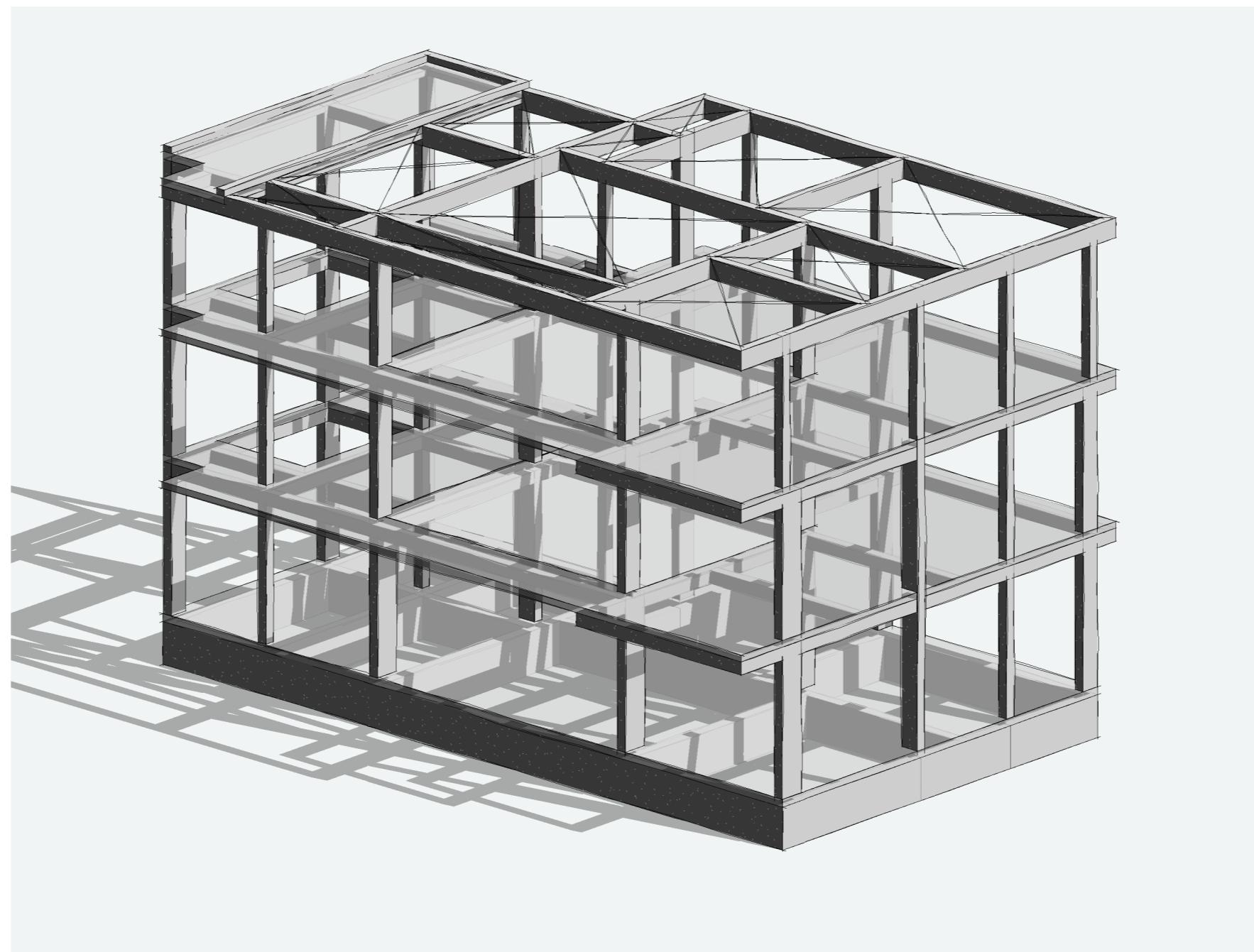
NO	REVISION	DATE

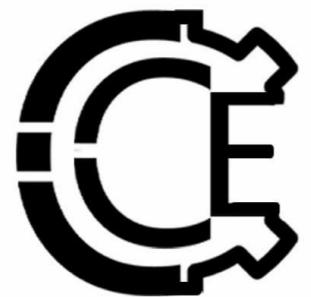


Client Name: MR. DEJI POPOOLA

3D	
Project number	EB-0030
Date	23 September, 2023
Drawn by	Author
Checked by	OSE Scale

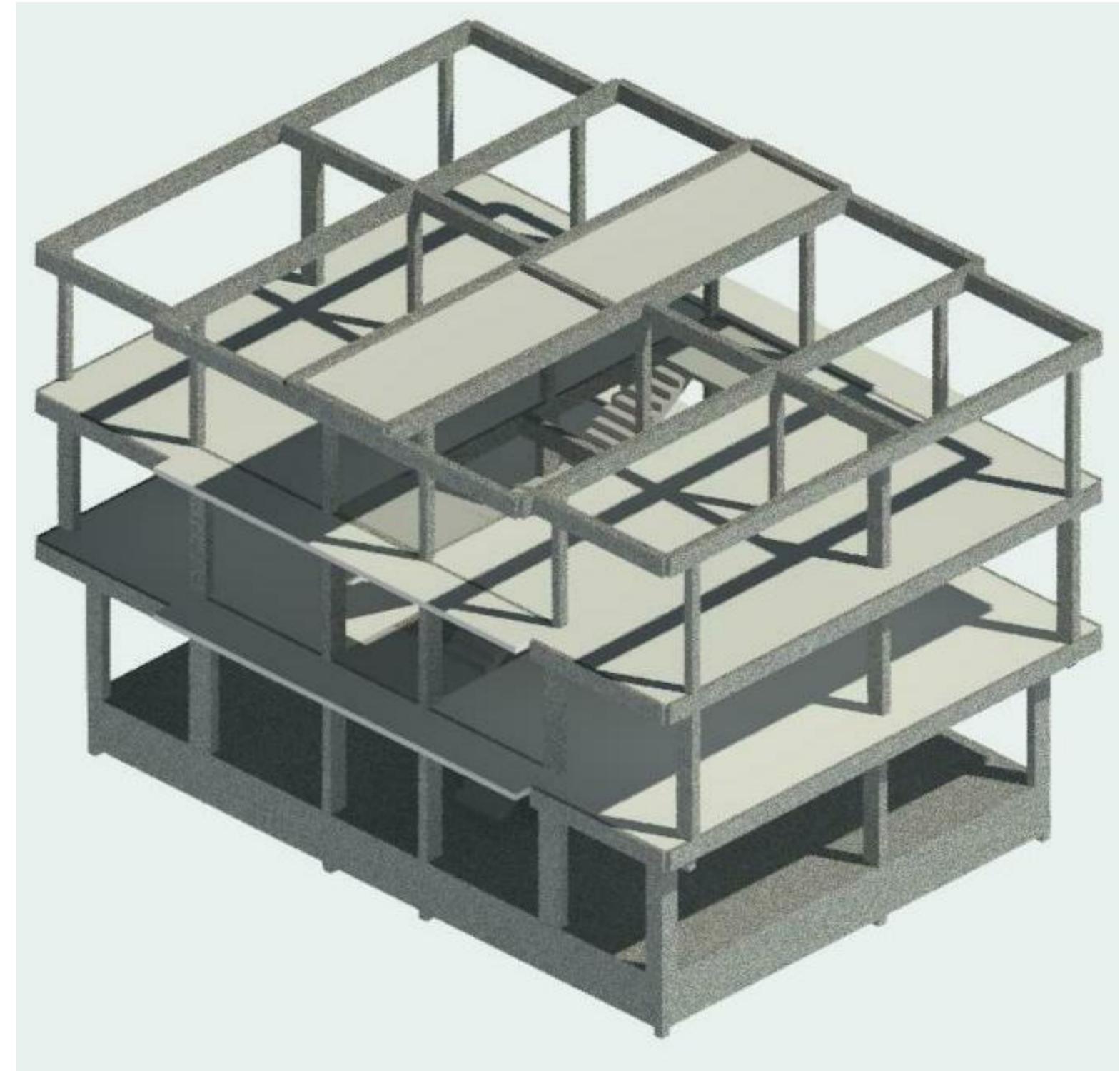
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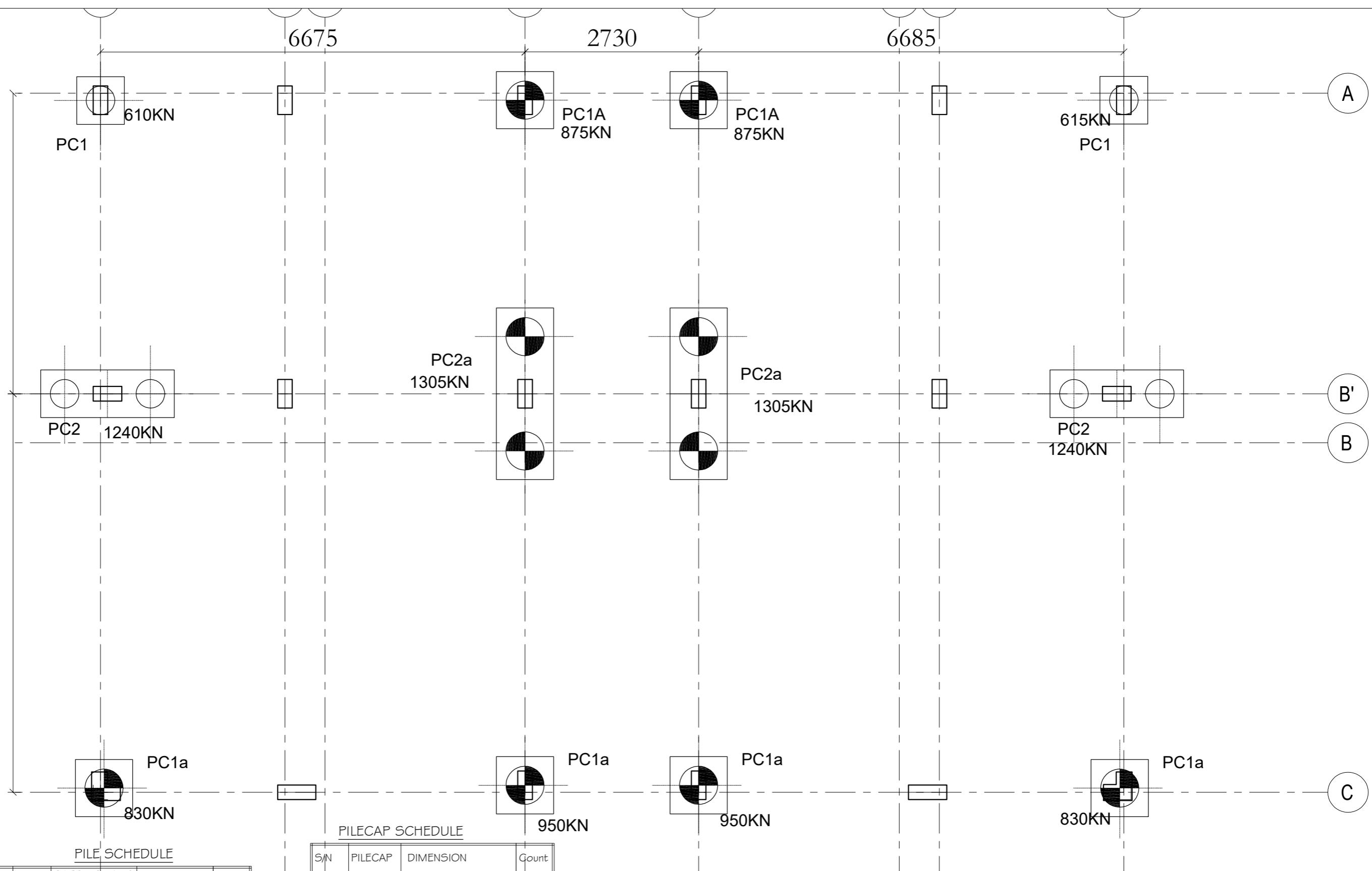


CHRISCHI ENGINEERING

TYPE 3



PROPOSED RESIDENTIAL DEVELOPMENT



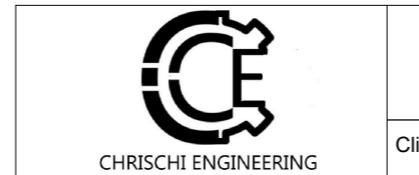
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PILECAP LAYOUT
1 : 60

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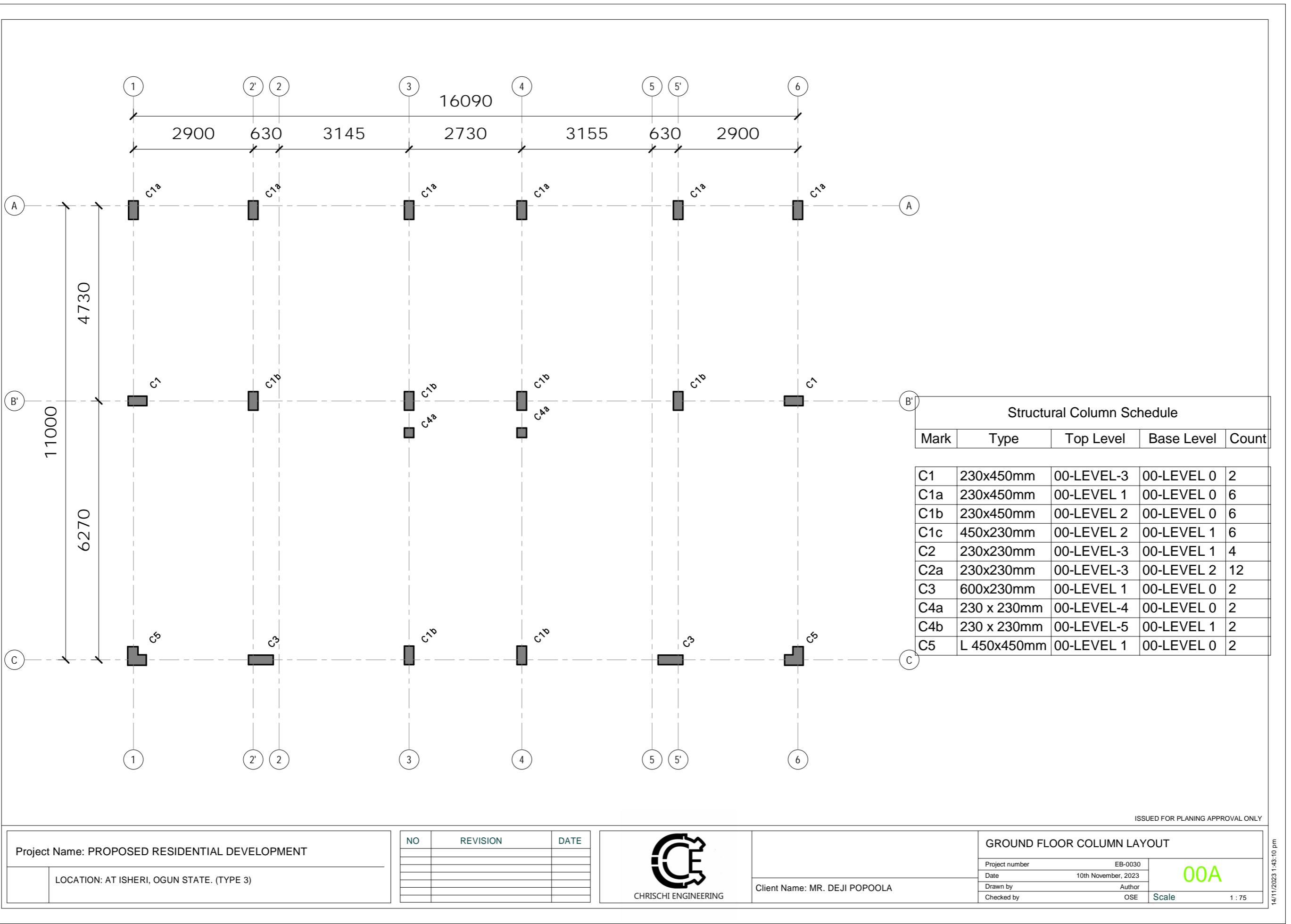
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(TYPE 3) At Enter address here

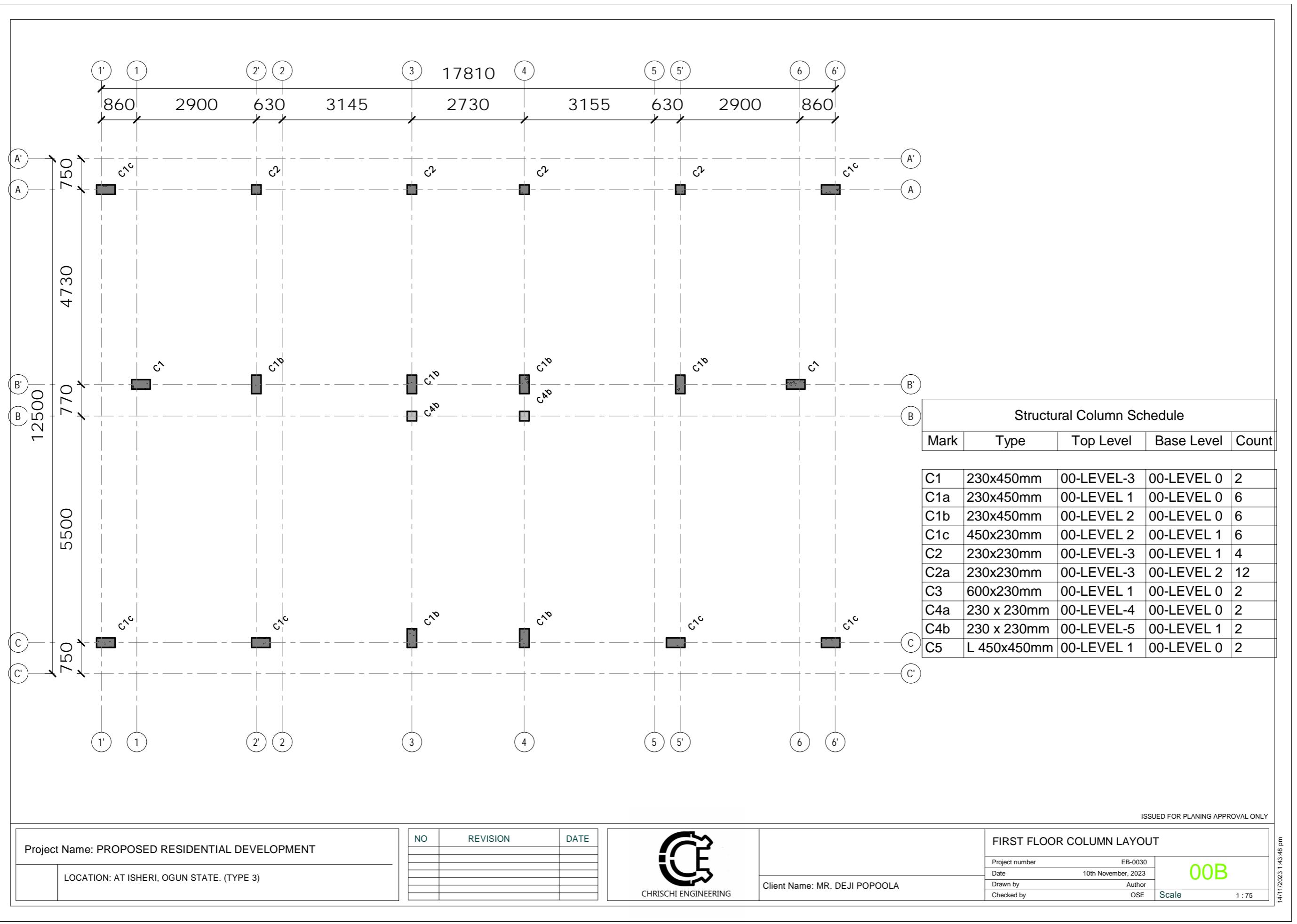
NO	REVISION	DATE

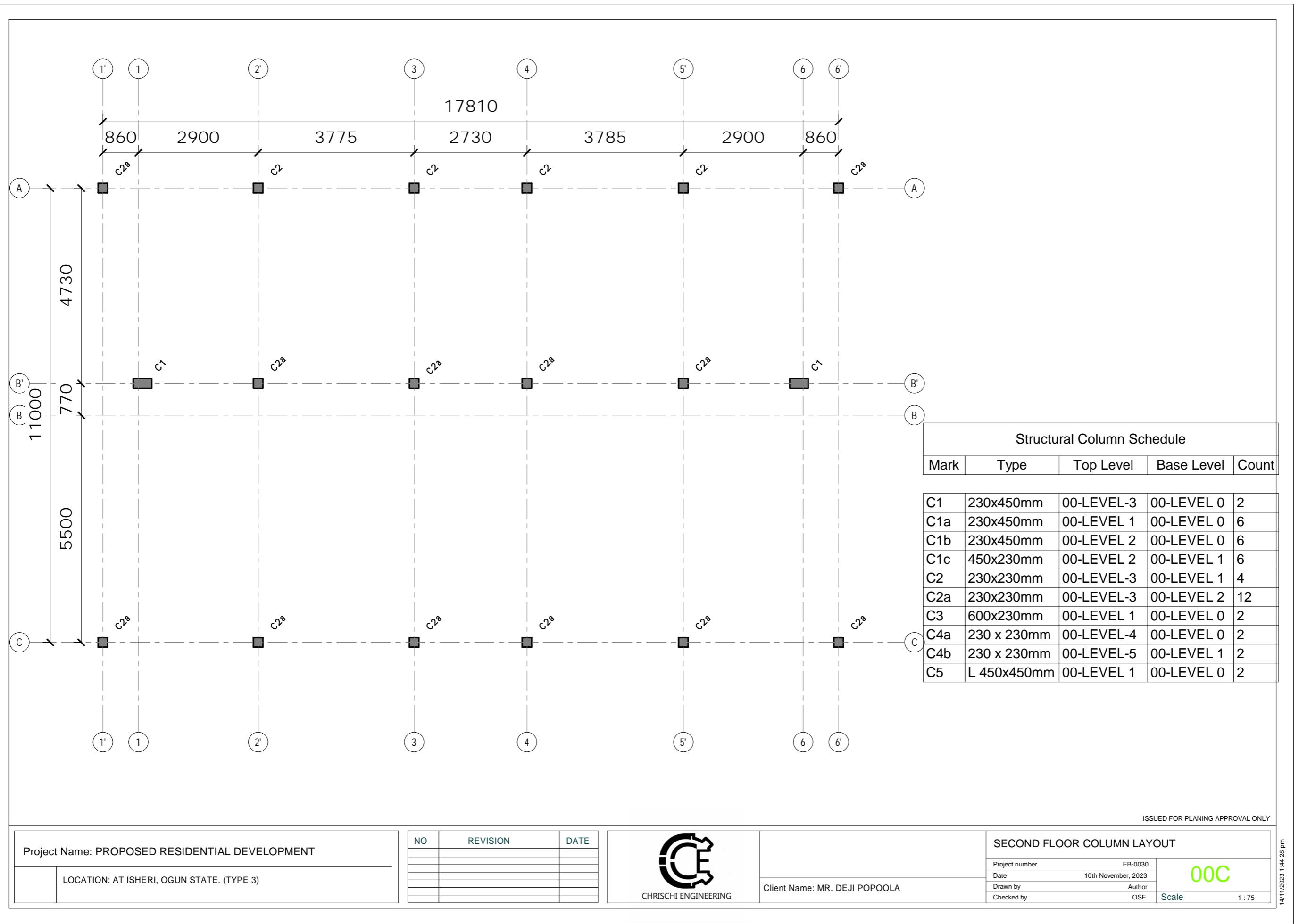


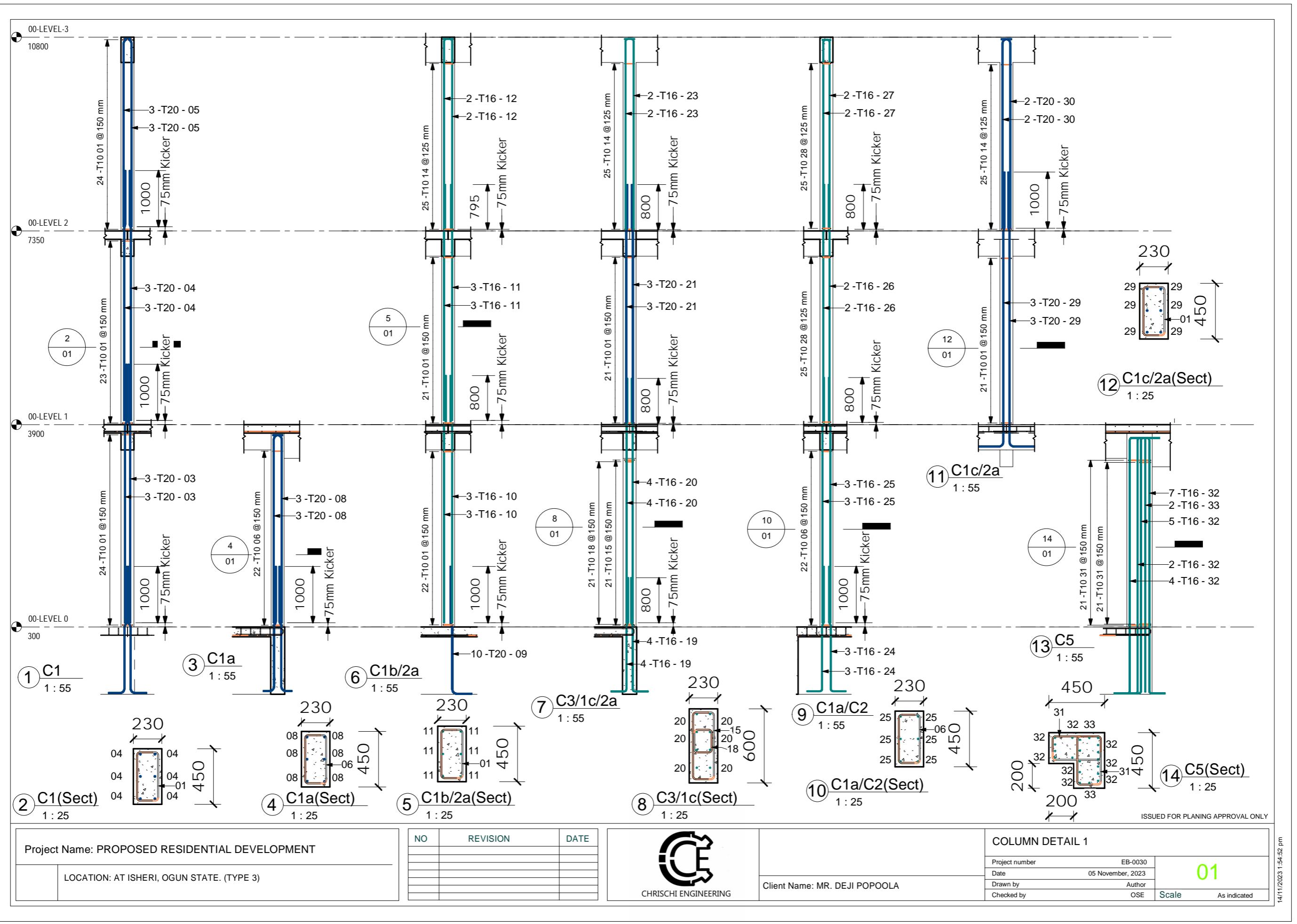
Client Name: MR. DEJI POPOOLA

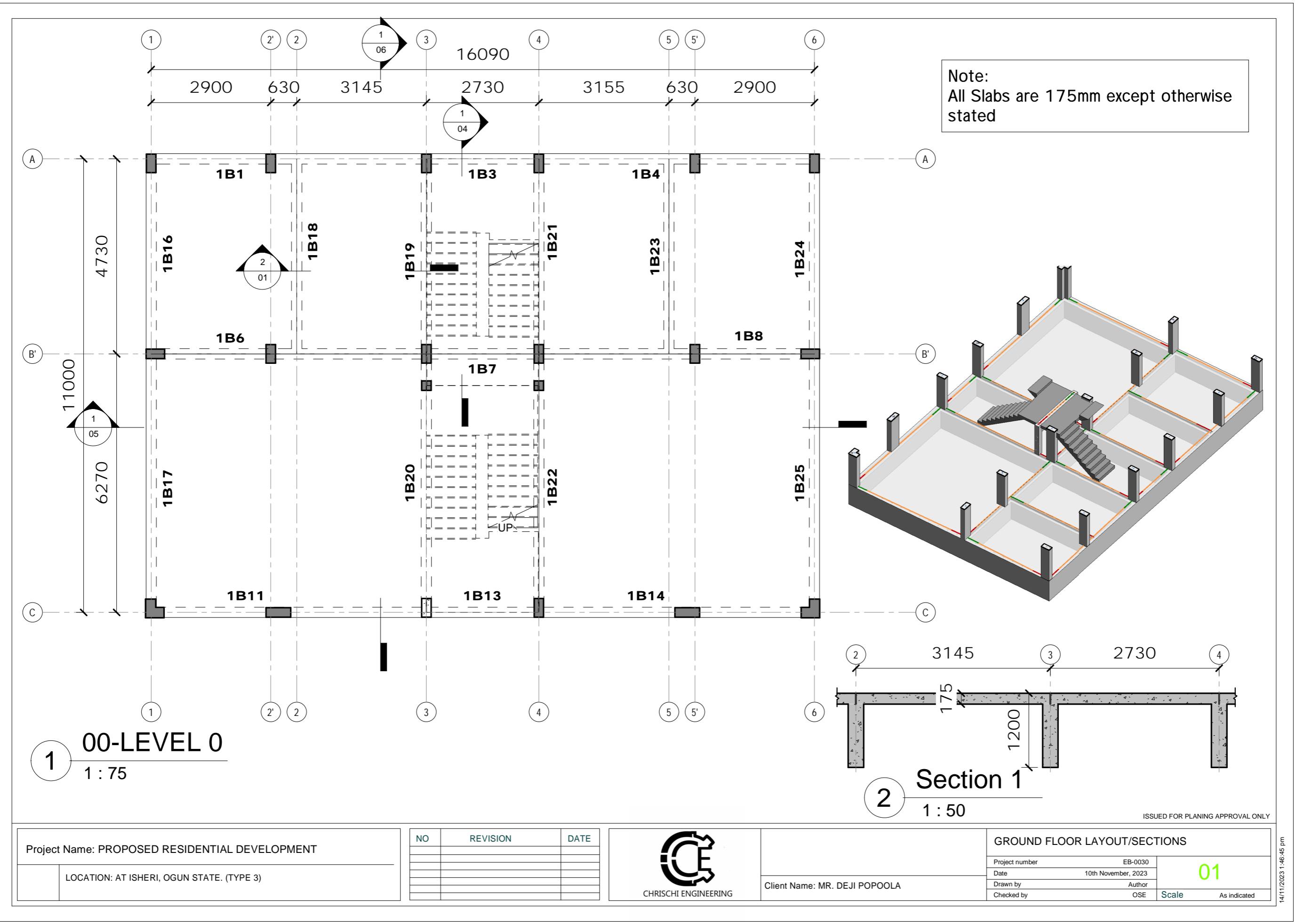
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Project number	EB-0030
Date	26 AUGUST 2022
Drawn by	Author
Checked by	ose
Scale	1 : 60

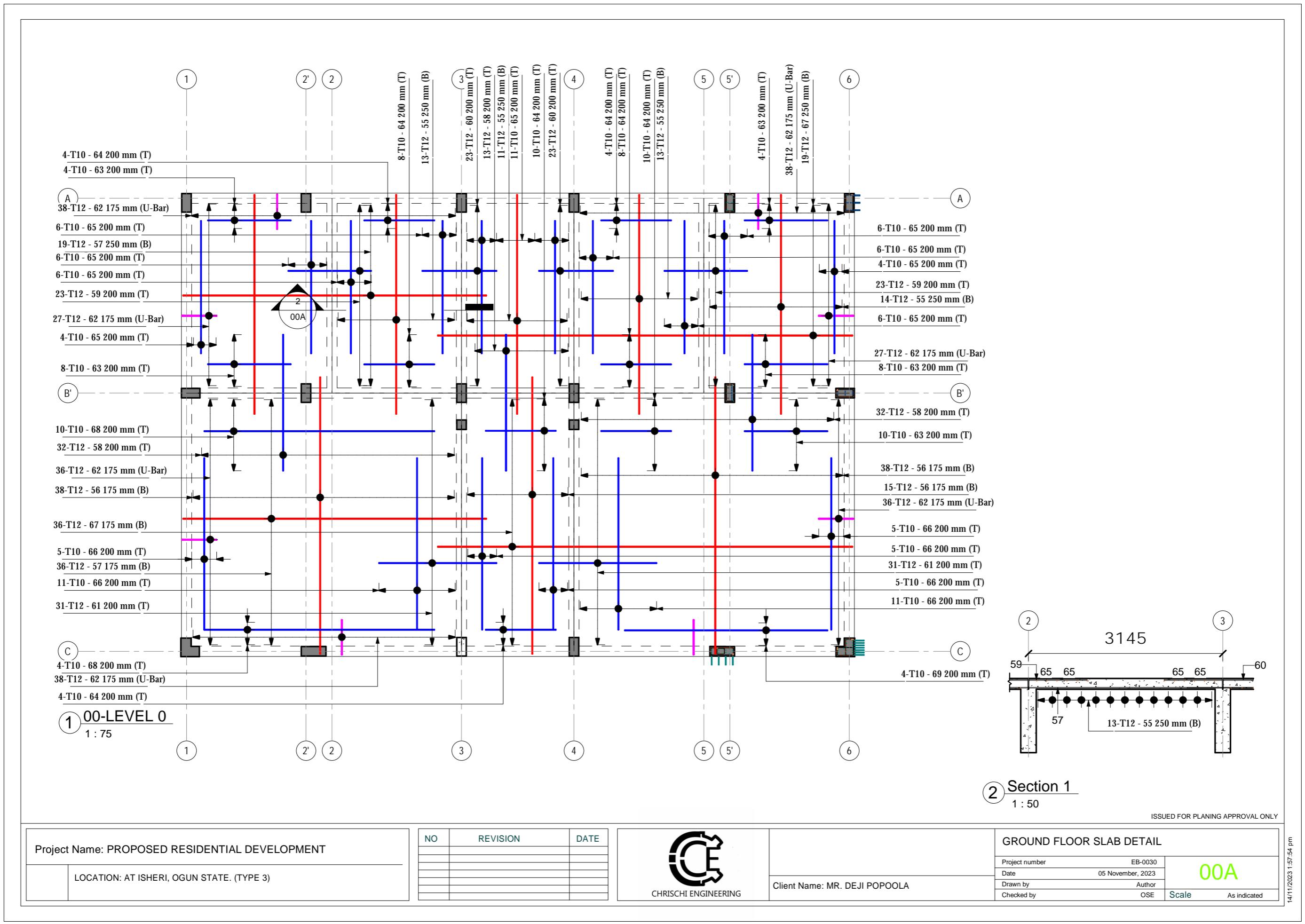


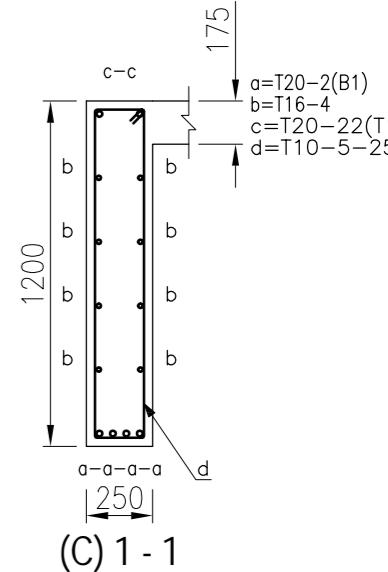
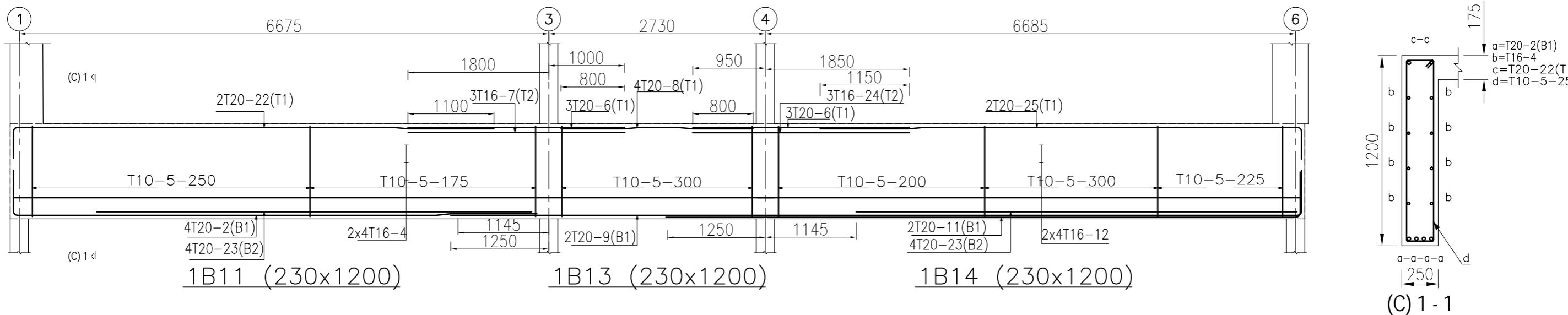
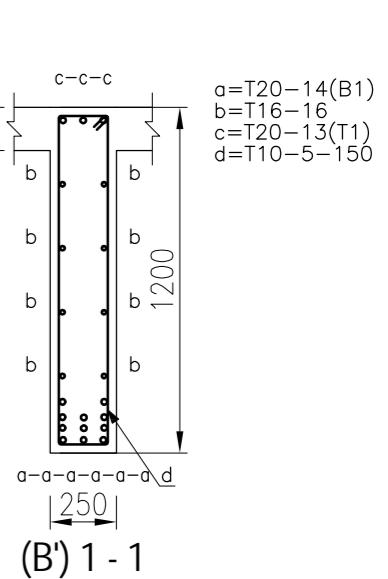
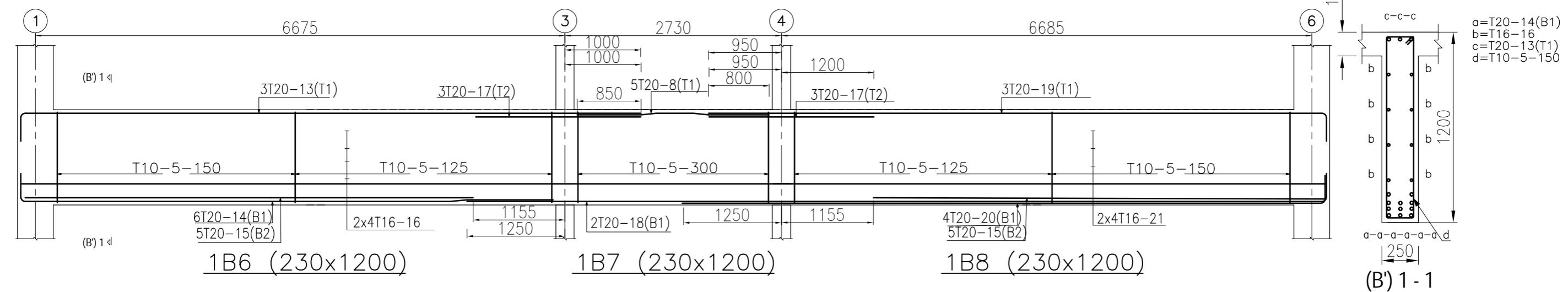
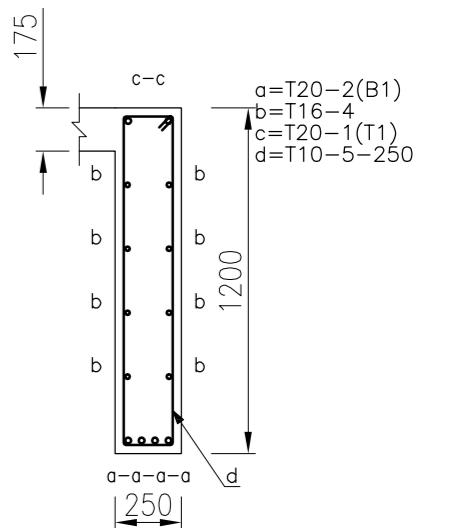
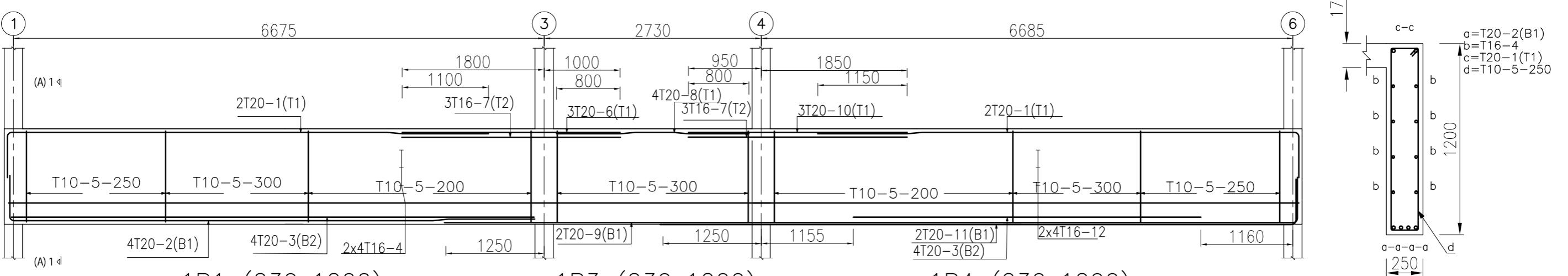






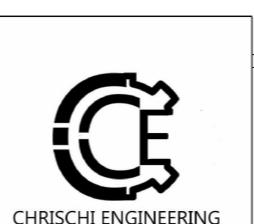






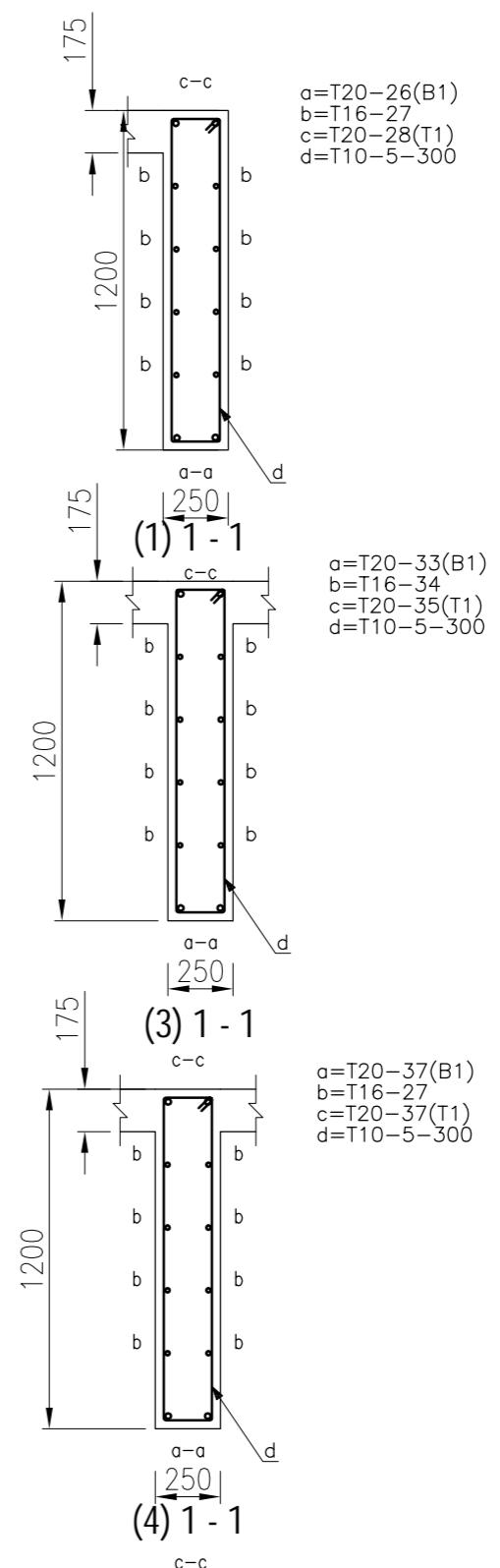
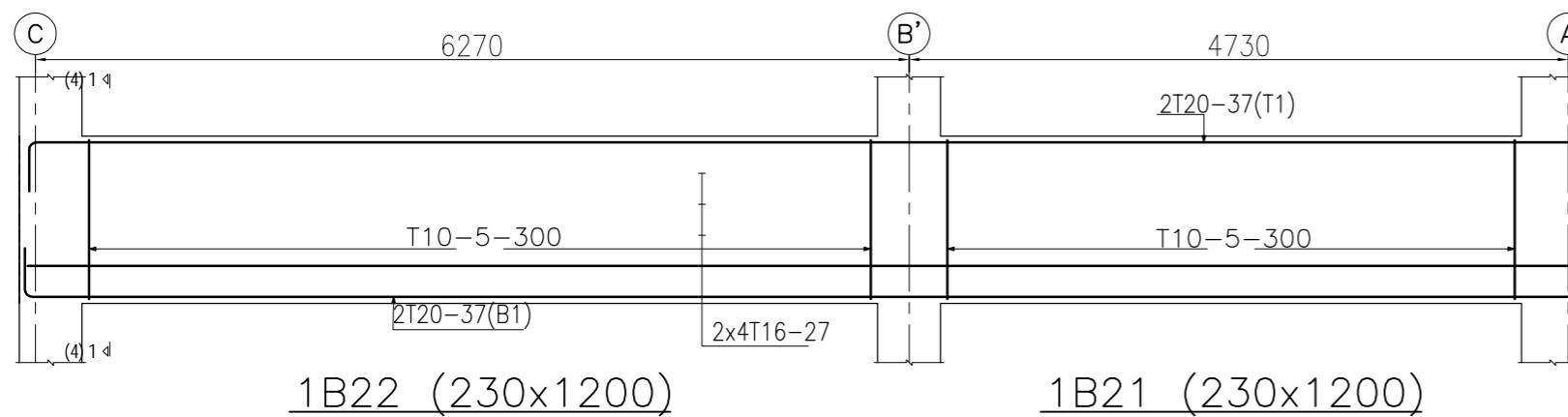
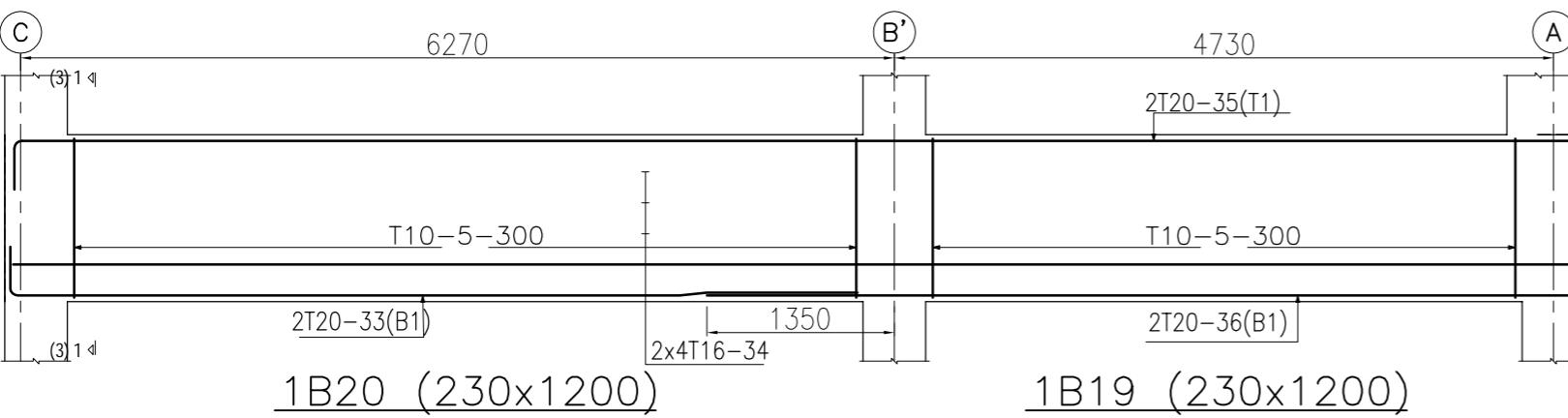
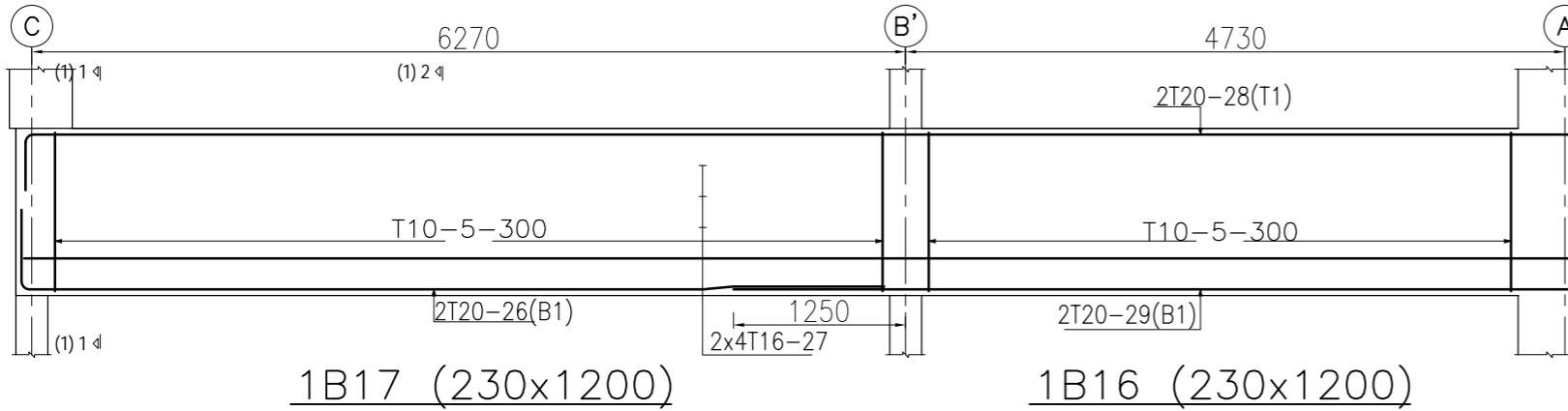
Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI, OGUN STATE	
LOCATION: AT ISHERI, OGUN STATE(TYPE 3)	
NO	REVISION

NO	REVISION	DATE



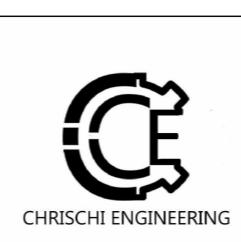
GROUND FLOOR BEAM DETAIL AND SECTIONS 1	
Project number	EB-0030
Date	10th November, 2023
Drawn by	Author
Checked by	OSE Scale
Client Name: MR. DEJI POPOOLA	

ISSUED FOR PLANING APPROVAL ONLY



Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI, OGUN STATE	
LOCATION: AT ISHERI, OGUN STATE(TYPE 3)	
NO	REVISION

NO	REVISION	DATE



GROUND FLOOR BEAM DETAIL AND SECTIONS 2		
Project number	EB-0042	
Date	10-Nov-2023	
Drawn by	Author	
Checked by	OSE	Scale

ISSUED FOR PLANING APPROVAL ONLY

Project number EB-0042

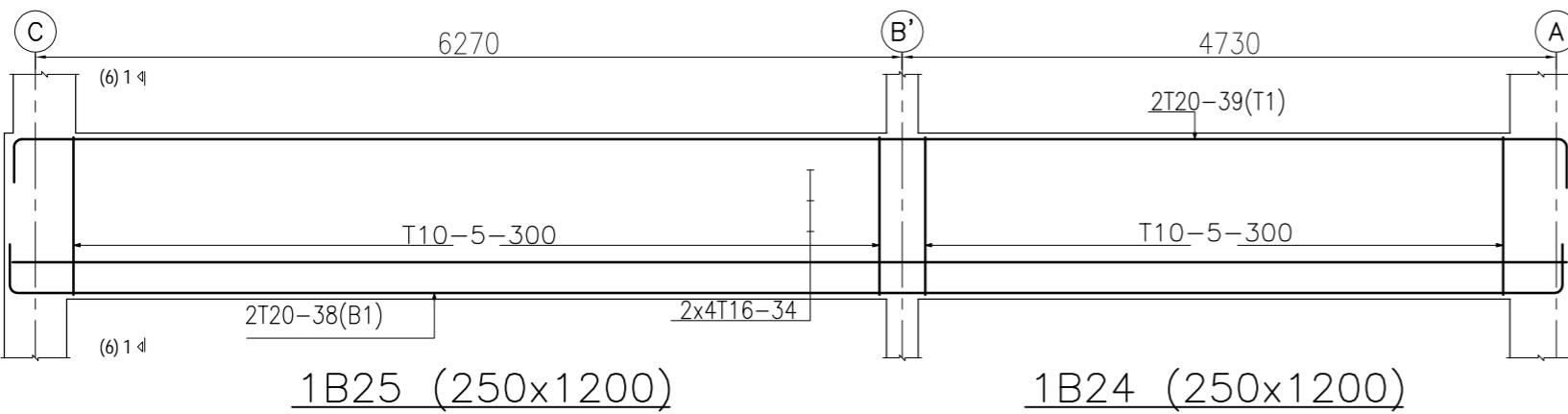
Date 10-Nov-2023

Drawn by Author

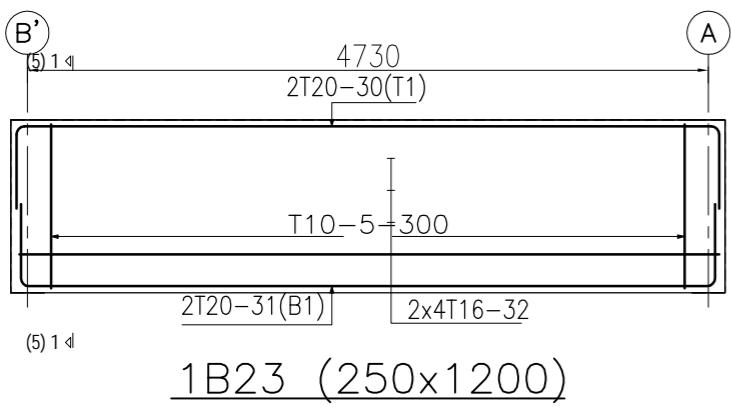
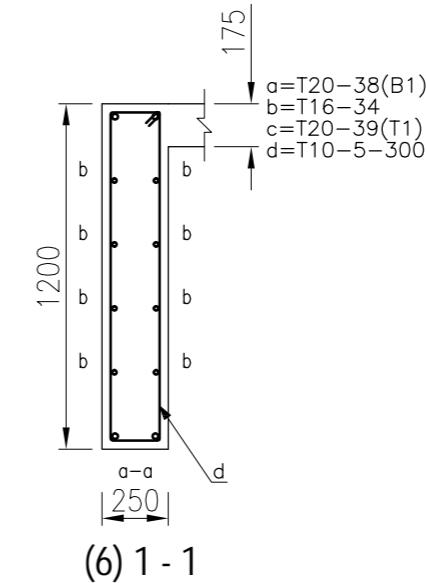
Checked by OSE Scale

Client Name: MR. DEJI POPOOLA

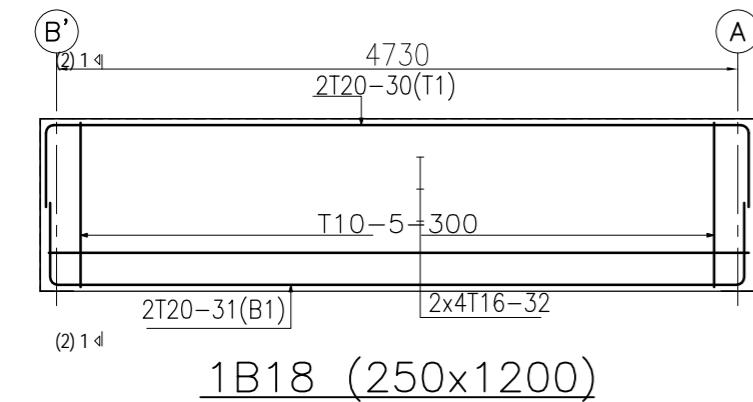
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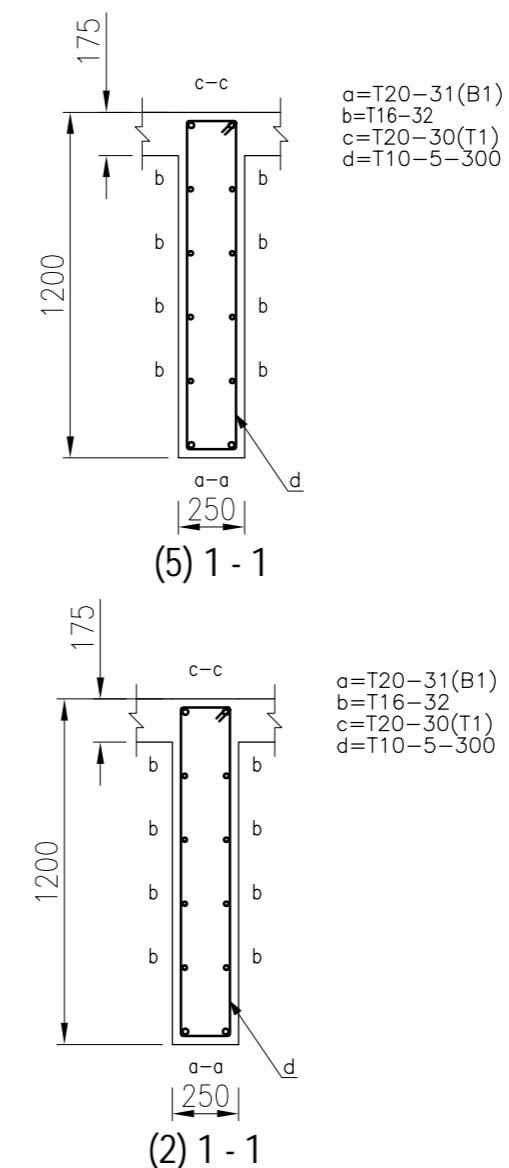
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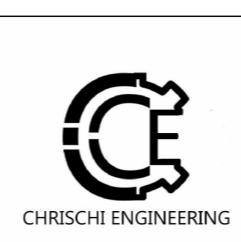


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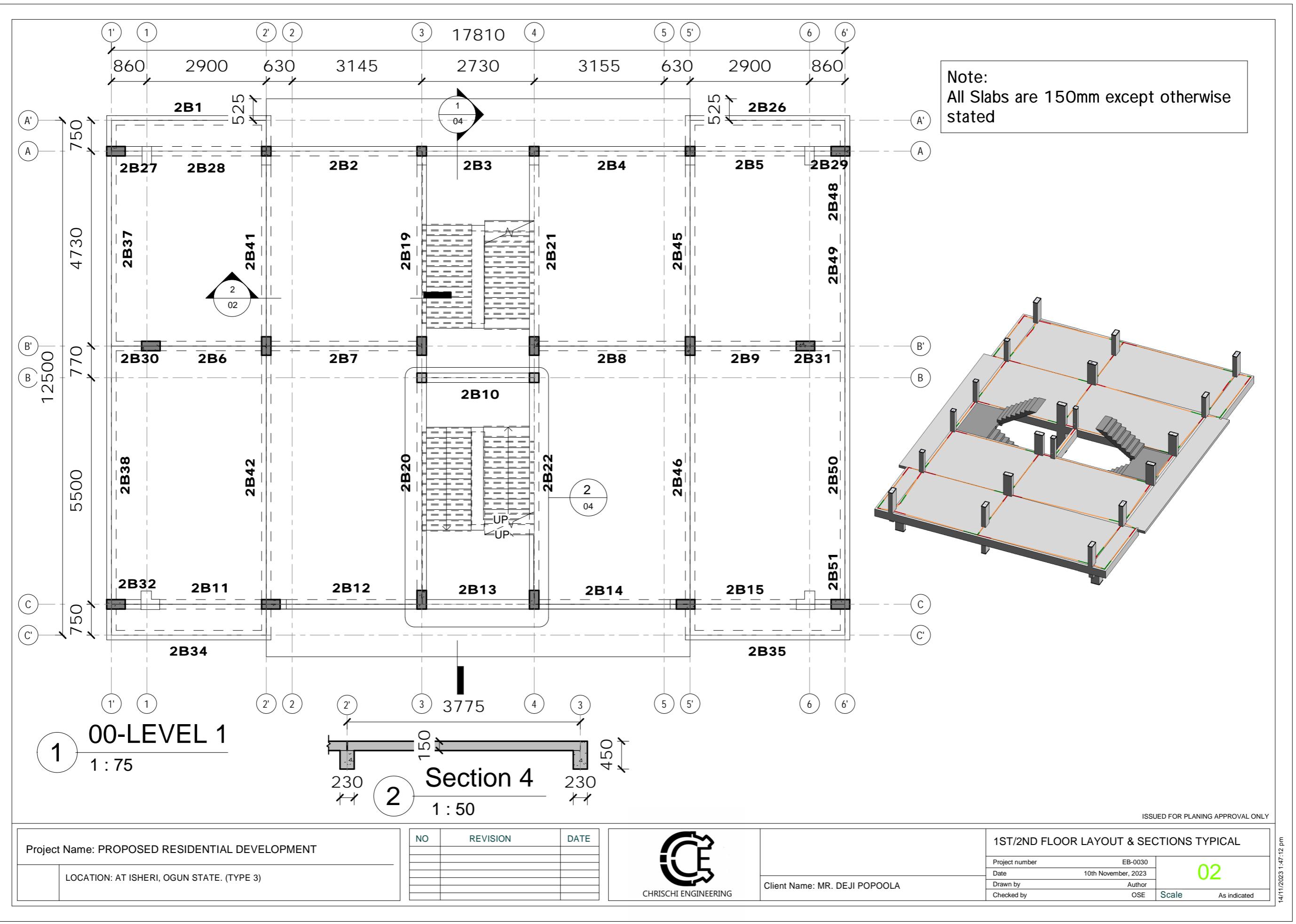
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LOCATION: AT ISHERI, OGUN STATE (TYPE 3)		
		NO REVISION DATE

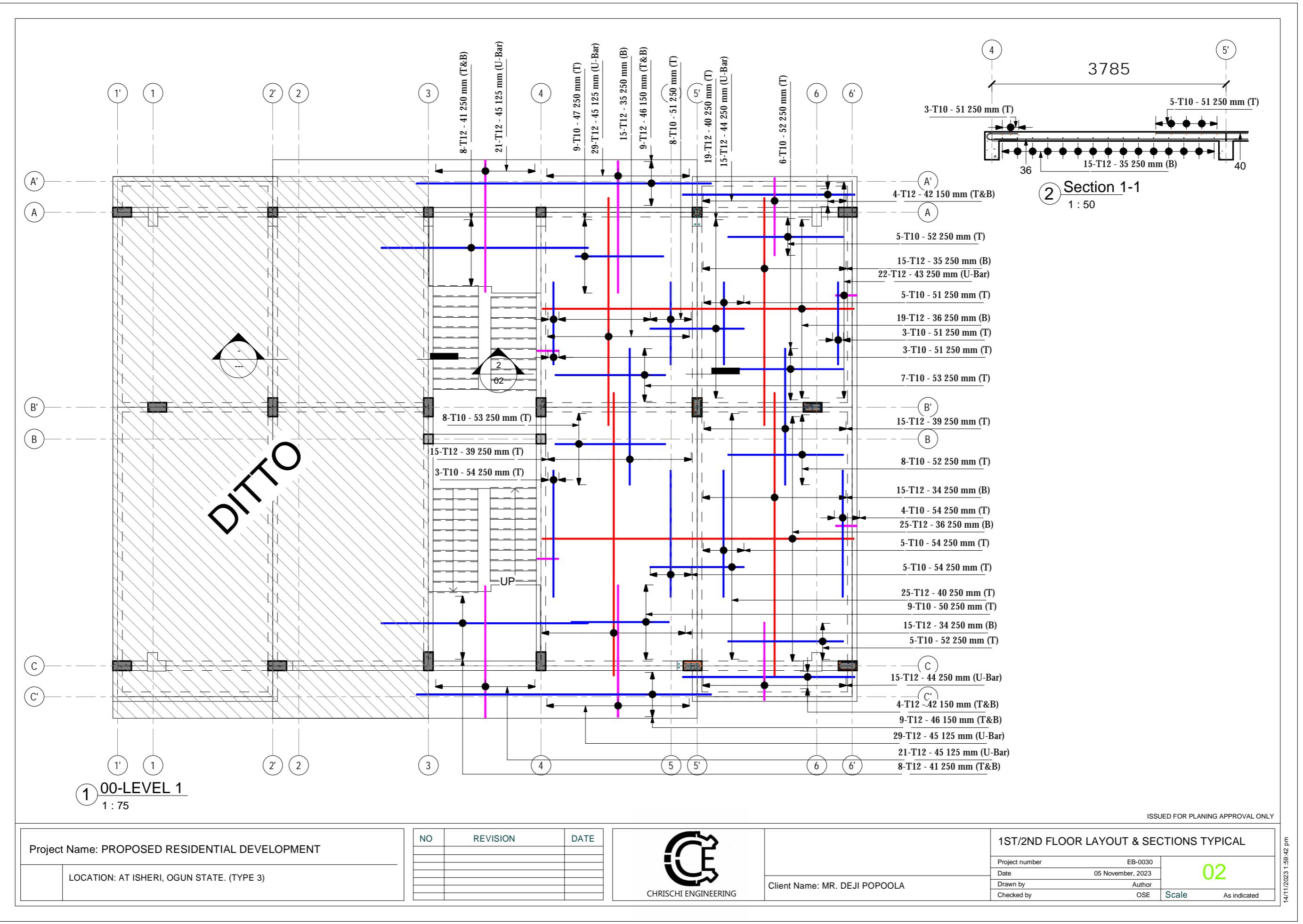
NO	REVISION	DATE

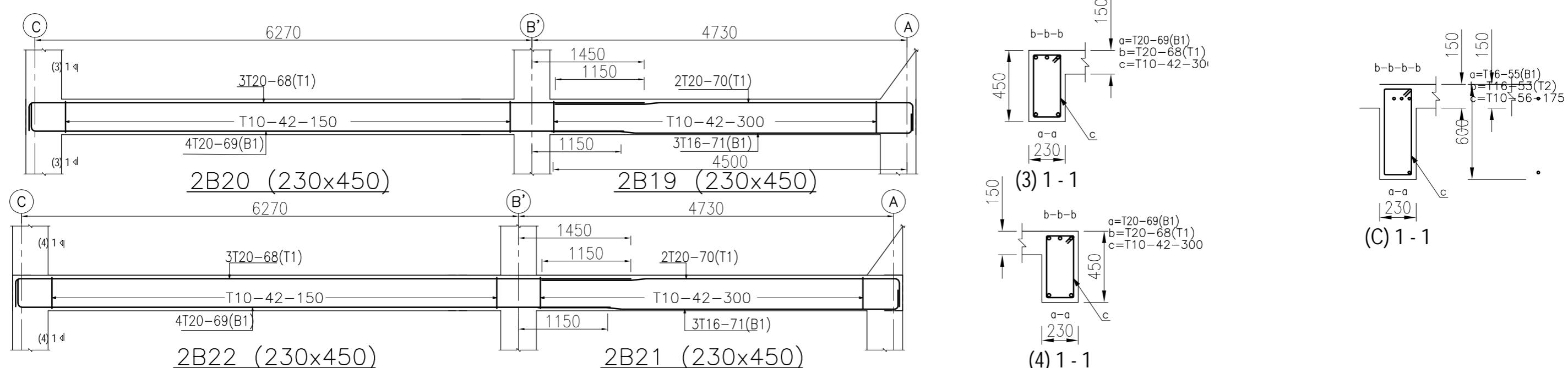
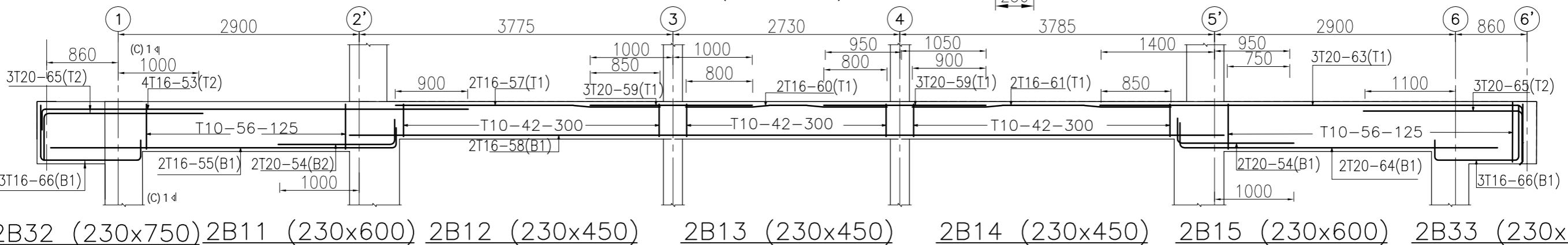
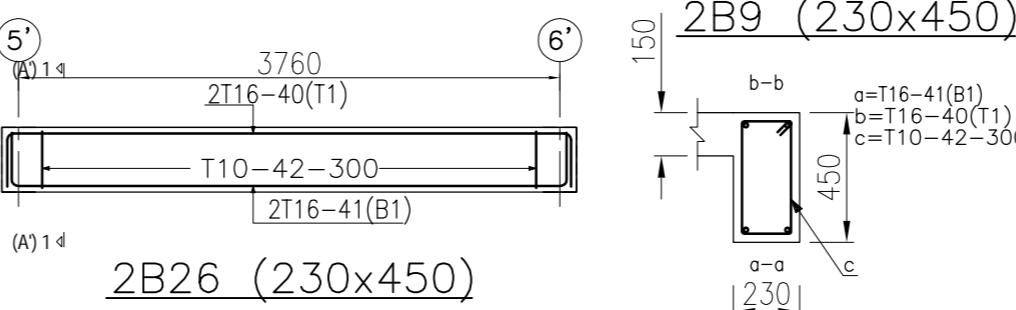
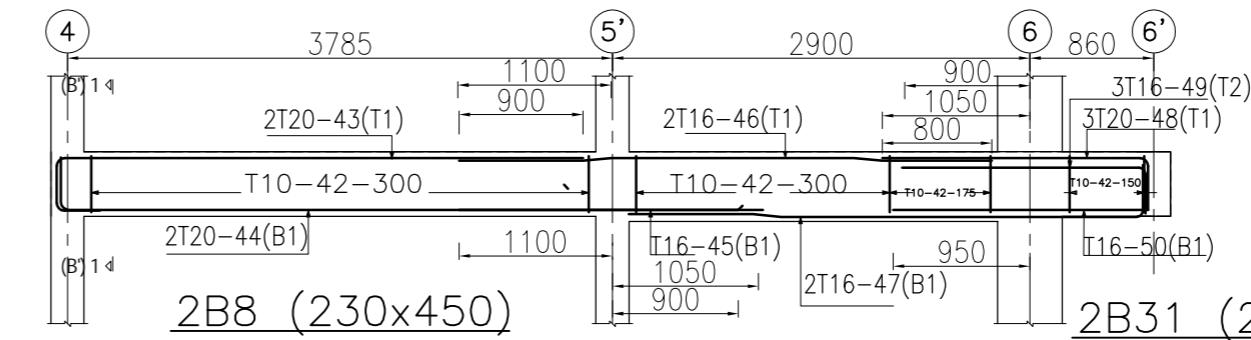
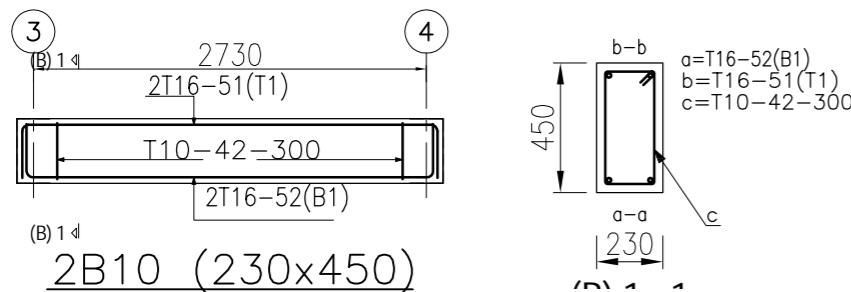
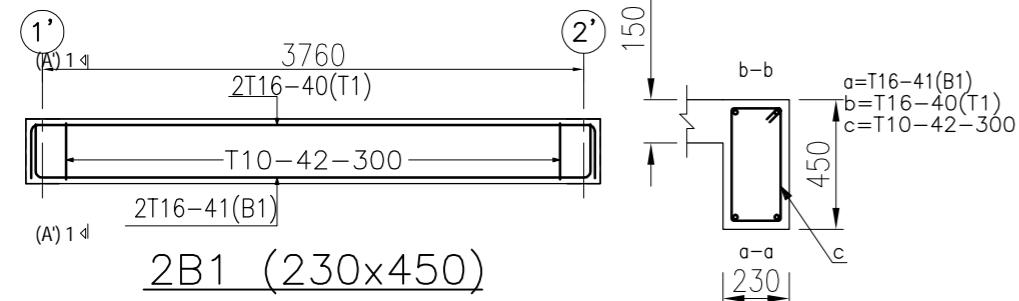


GROUND FLOOR BEAM DETAIL AND SECTIONS 3		
Project number	EB-0030	
Date	10-Nov-2023	
Drawn by	Author	
Checked by	OSE	Scale

ISSUED FOR PLANING APPROVAL ONLY

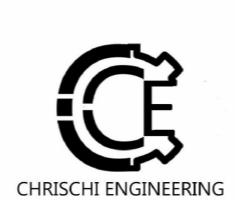






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LOCATION: Enter address here		

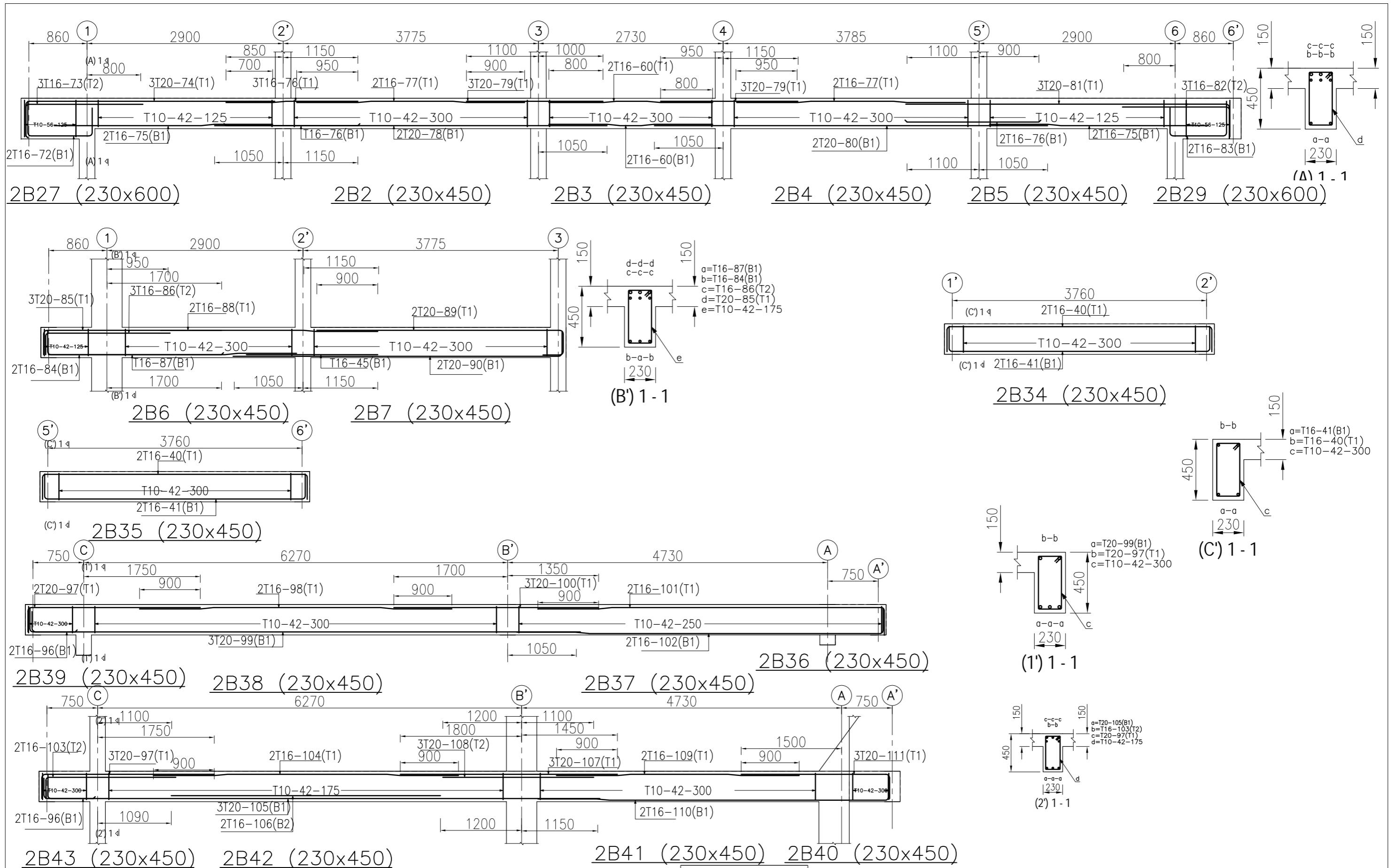
NO	REVISION	DATE

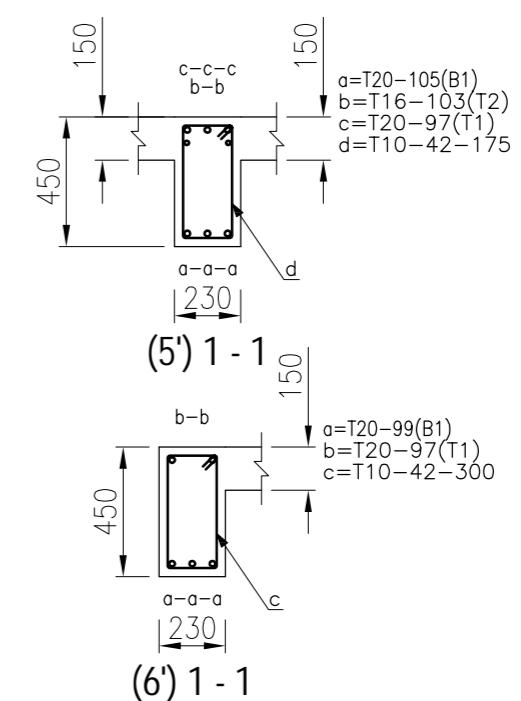
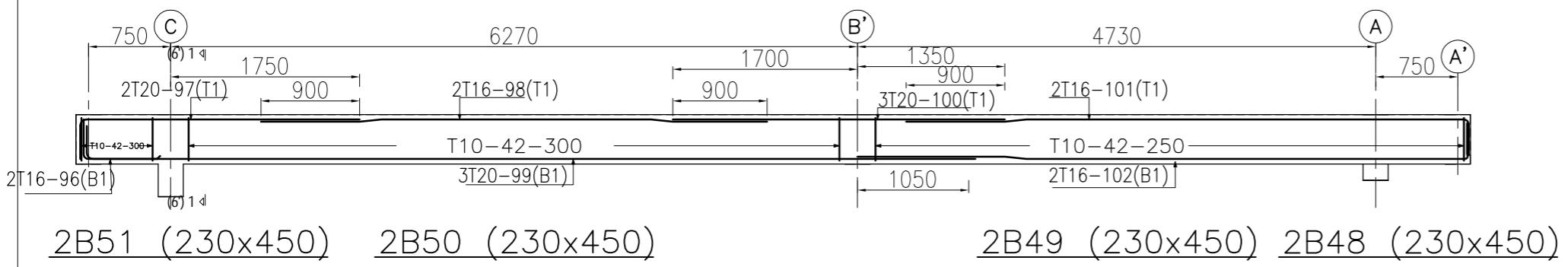
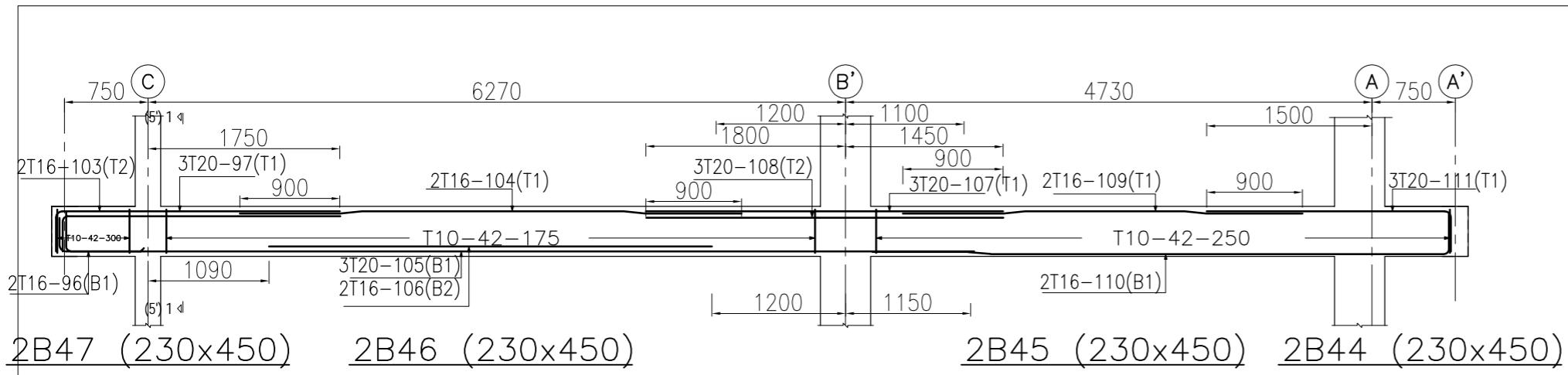


FIRST FLOOR BEAM DETAIL AND SECTIONS 1		
Project number	EB-0030	
Date	13-Nov-2023	
Drawn by	Author	
Checked by	OSE	Scale

Client Name: MR. DEJI POPOOLA

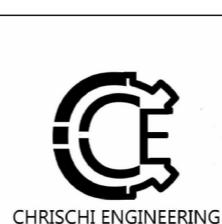
ISSUED FOR PLANING APPROVAL ONLY





Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI, OGUN STATE	
LOCATION: AT ISHERI, OGUN STATE(TYPE 3)	

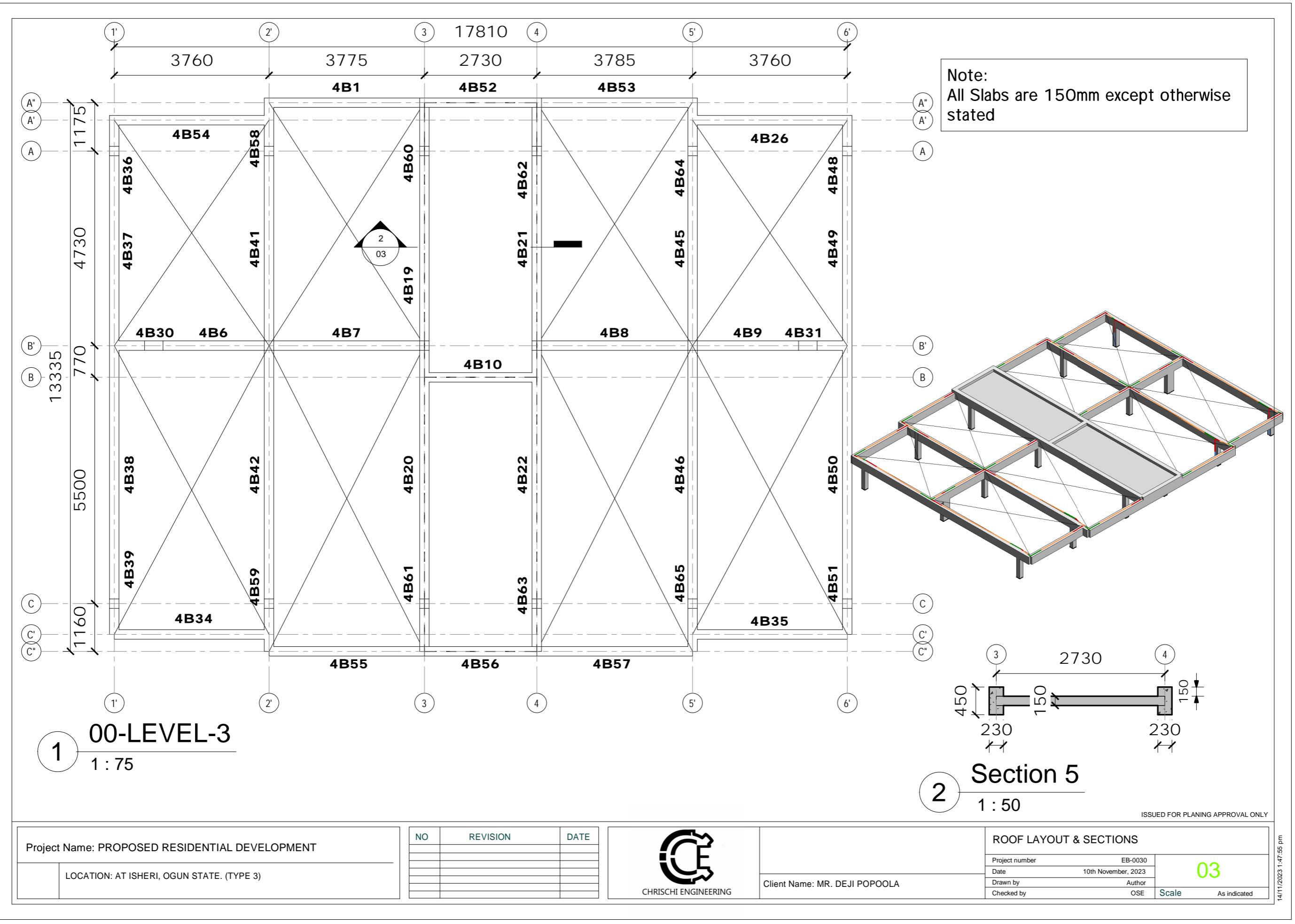
NO	REVISION	DATE



ISSUED FOR PLANING APPROVAL ONLY

FIRST FLOOR BEAM DETAIL AND SECTIONS 3		
Project number	EB-0030	
Date	10-Nov-2023	
Drawn by	Author	
Checked by	OSE	Scale

Client Name: MR. DEJI POPOOLA



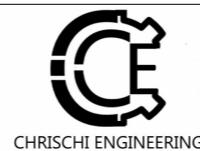
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Project Name: PROPOSED RESIDENTIAL DEVELOPMENT

LOCATION: AT ISHERI, OGUN STATE. (TYPE 3)

NO	REVISION	DATE

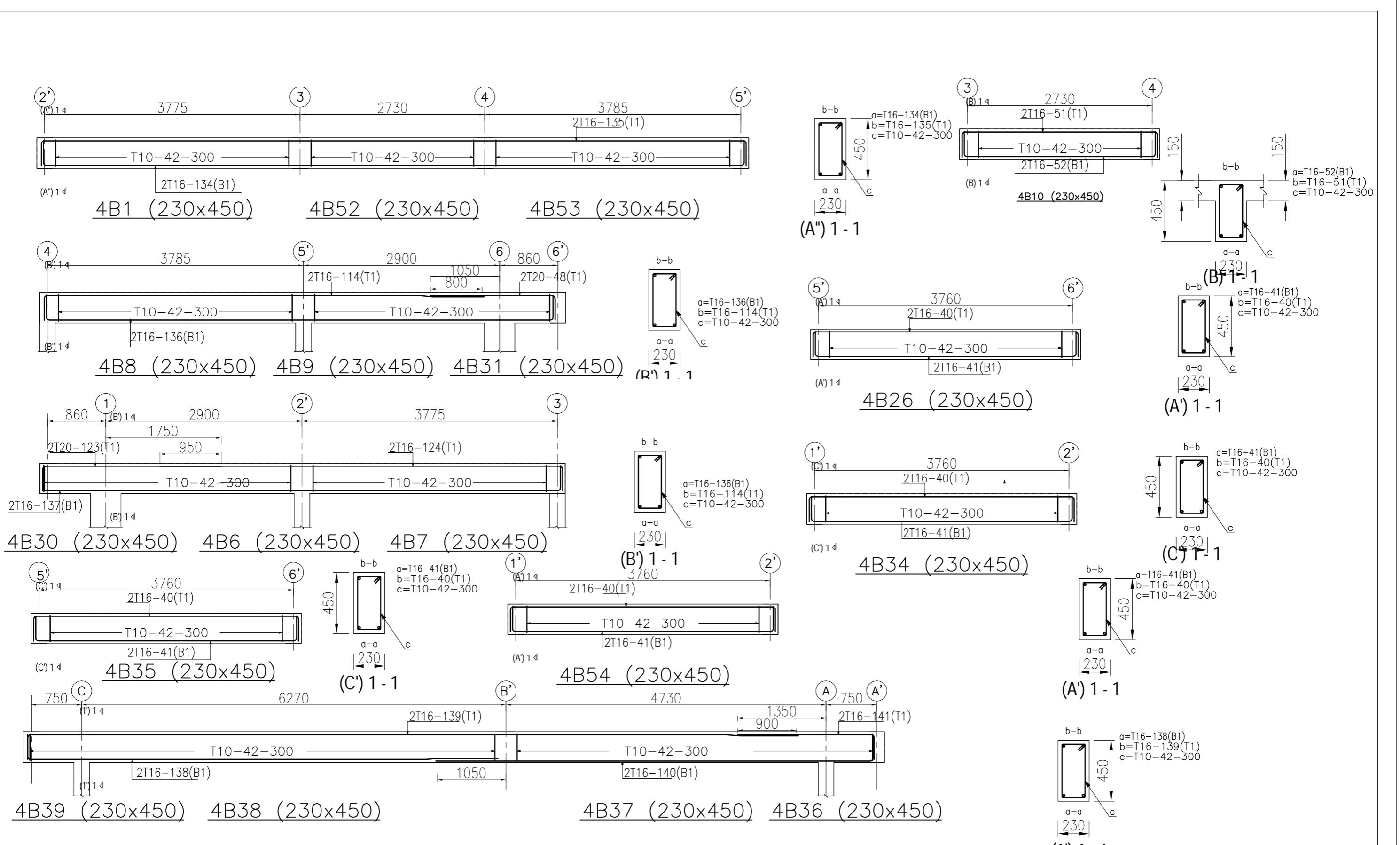


Client Name: MR. DEJI POPOOLA

ROOF SLAB DETAIL & SECTIONS

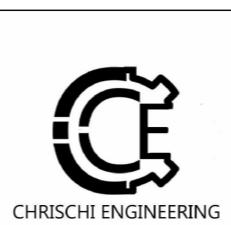
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Date	05 November, 2023	
Drawn by	Author	
Checked by	OSE Scale As indicated	

ISSUED FOR PLANNING APPROVAL ONLY



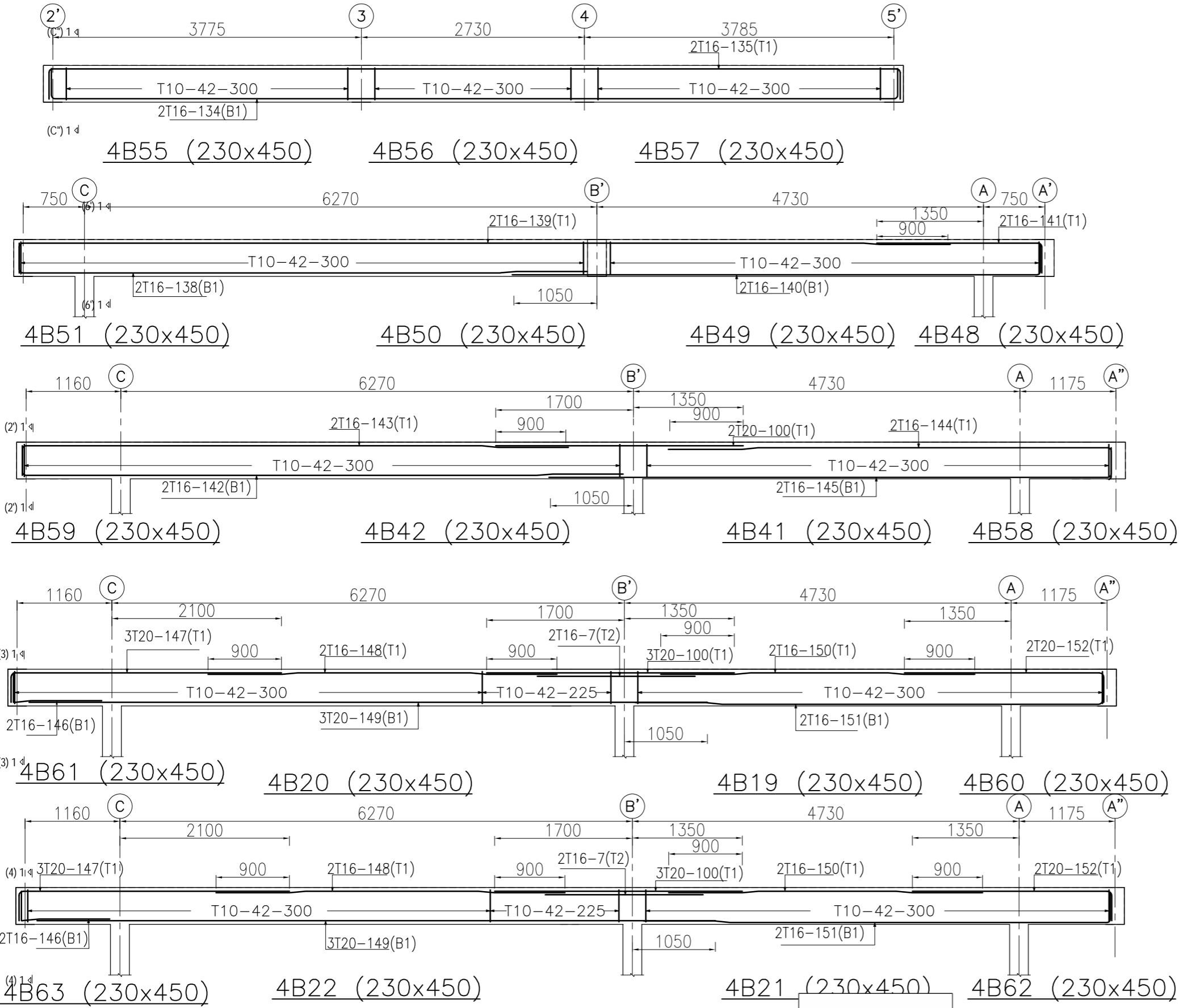
Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI, OGUN STATE		
LOCATION: AT ISHERI, OGUN STATE (TYPE 3)		
	NO	REVISION

NO	REVISION	DATE



ROOF BEAM DETAIL AND SECTIONS 1		
Project number	EB-0030	
Date	10-Nov-2023	
Drawn by	Author	
Checked by	OSE	Scale
Client Name: MR. DEJI POPOOLA		

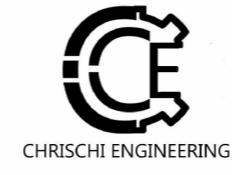
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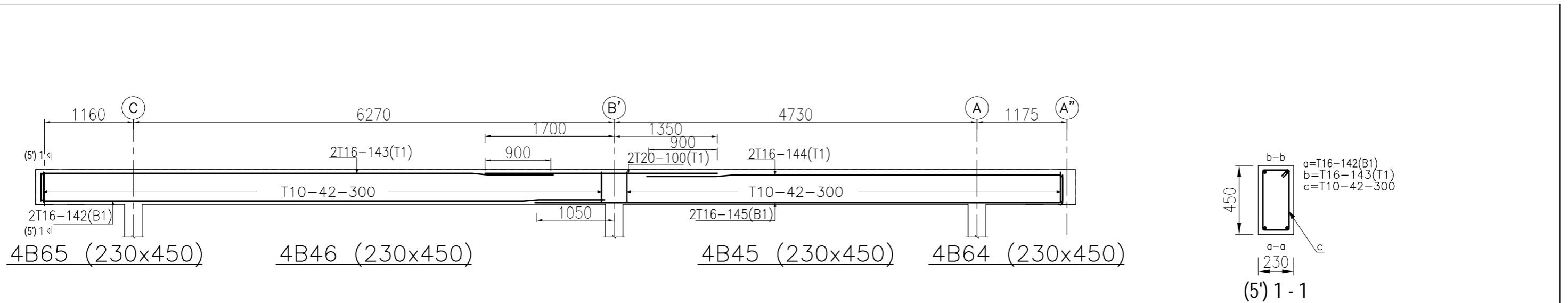
ISSUED FOR PLANING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI, OGUN STATE	
LOCATION: AT ISHERI, OGUN STATE(TYPE 3)	
NO	REVISION

NO	REVISION	DATE

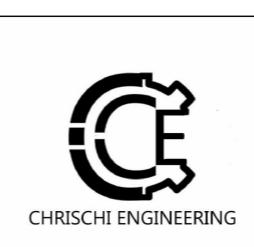


ROOF BEAM DETAIL AND SECTIONS 2		
Project number	EB-0030	
Date	10-Nov-2023	
Drawn by	Author	
Checked by	OSE	Scale
Client Name: MR. DEJI POPOOLA		



Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI, OGUN STATE	
LOCATION: AT ISHERI, OGUN STATE(TYPE 3)	

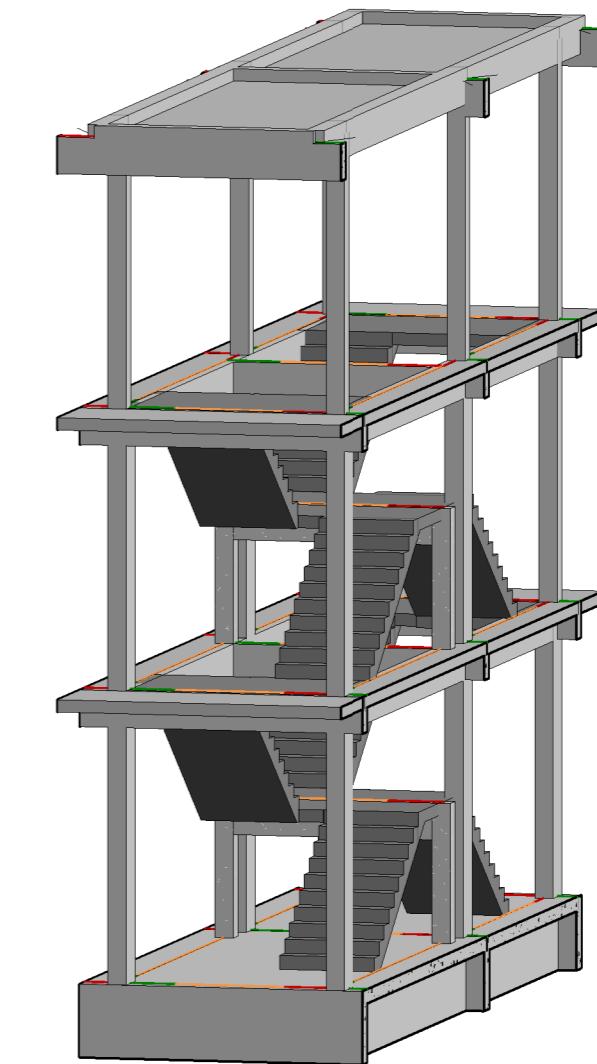
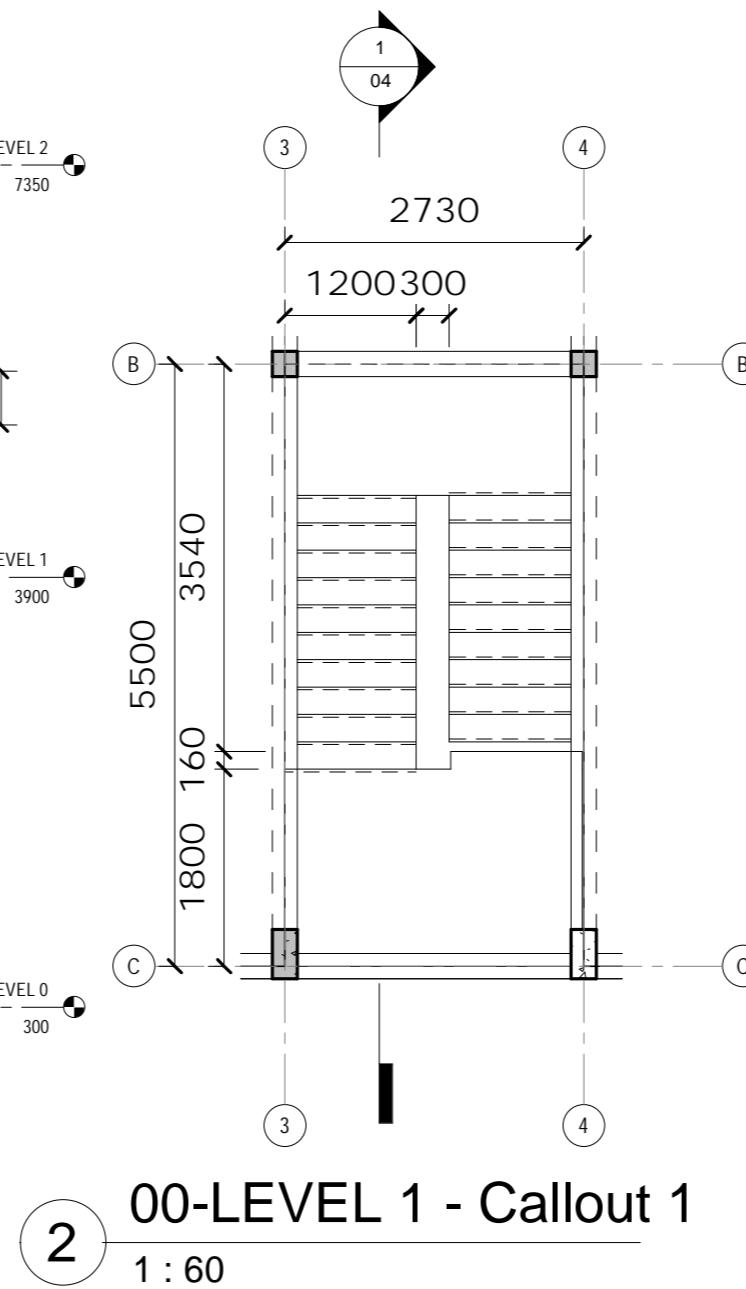
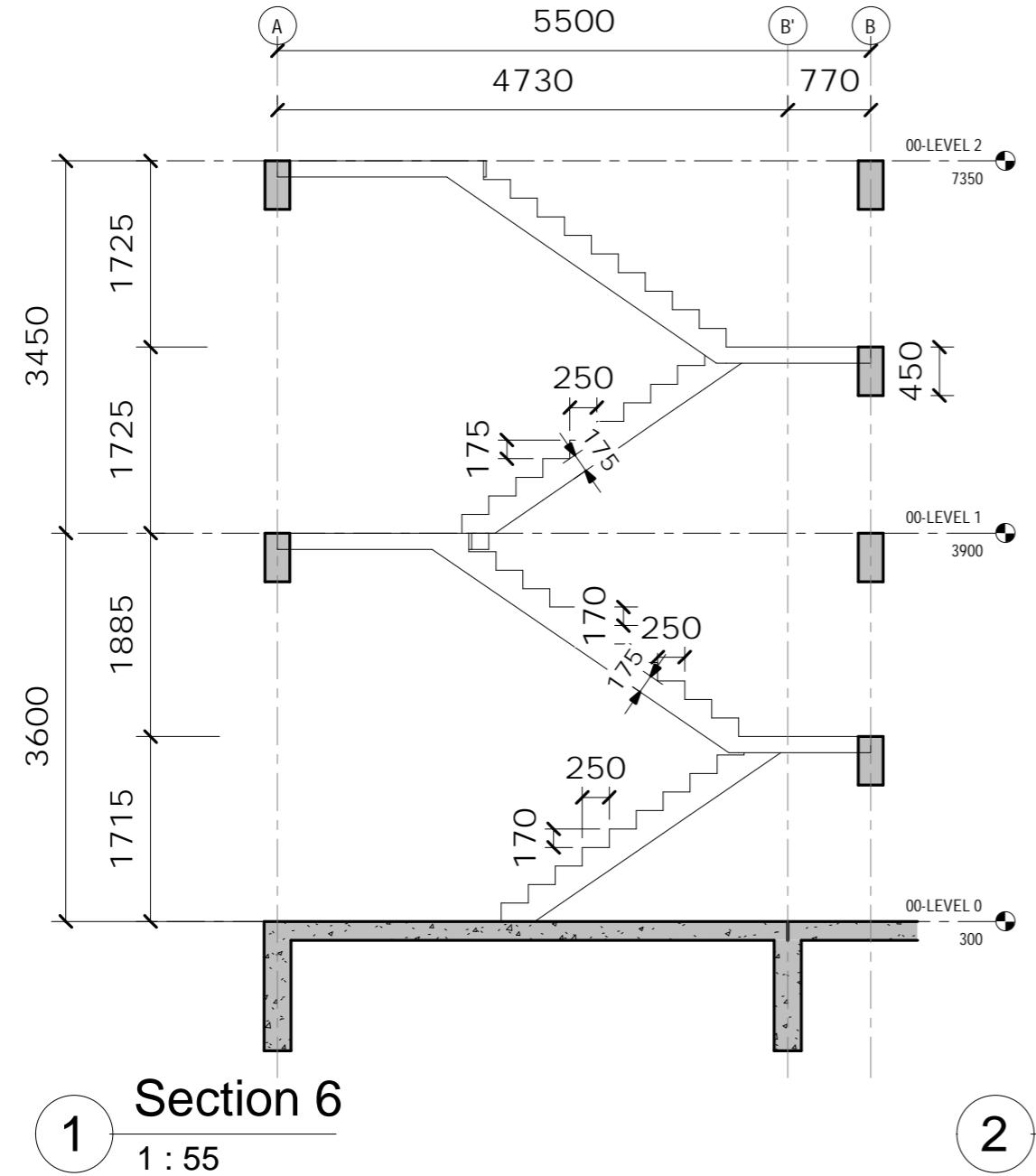
NO	REVISION	DATE



ROOF BEAM DETAIL AND SECTIONS 3		
Project number	EB-0030	
Date	10-Nov-2023	
Drawn by	Author	
Checked by	OSE	Scale

Client Name: MR. DEJI POPOOLA

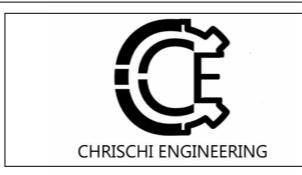
ISSUED FOR PLANING APPROVAL ONLY



ISSUED FOR PLANNING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT		
LOCATION: AT ISHERI, OGUN STATE. (TYPE 3)		
	NO	REVISION

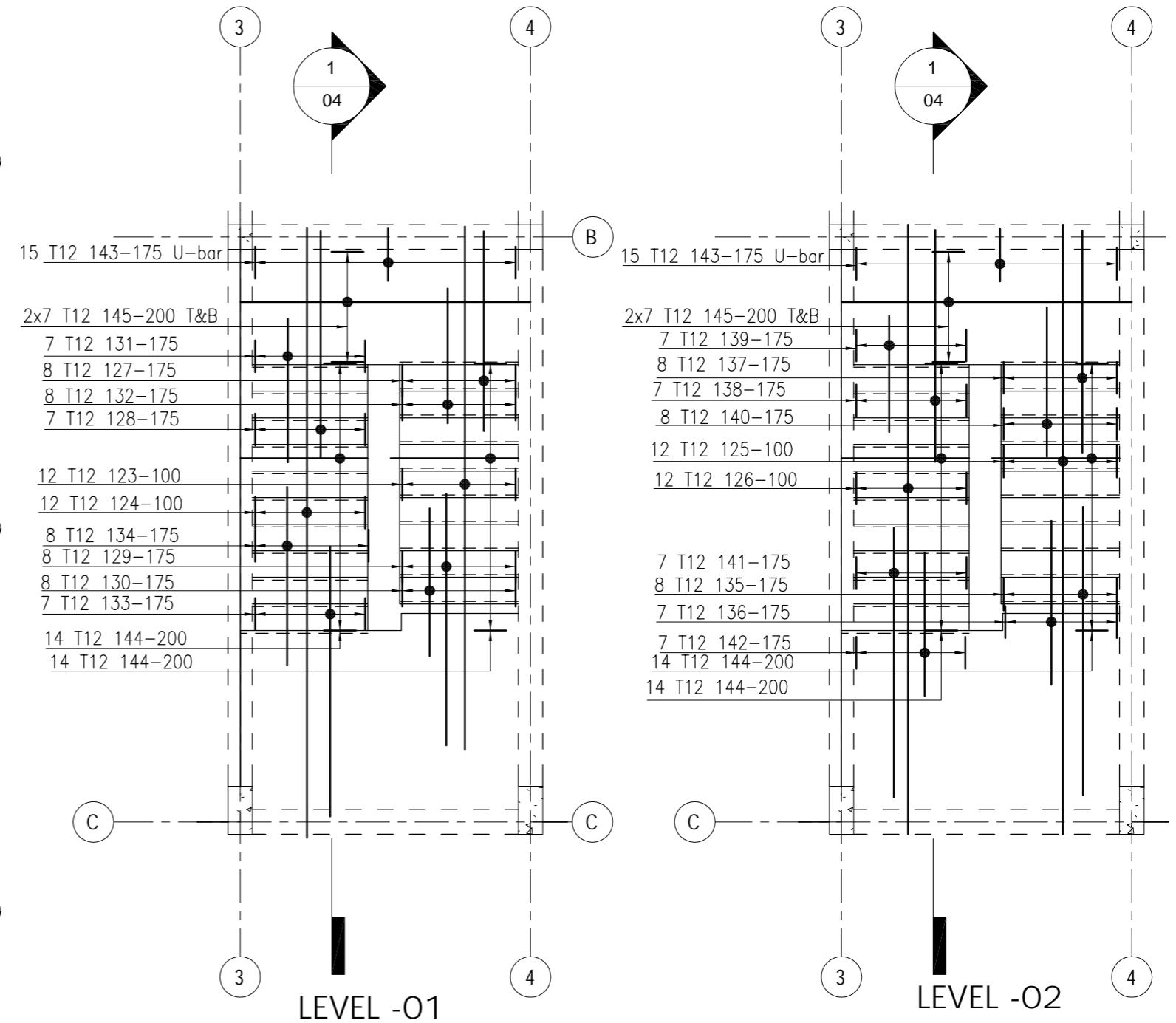
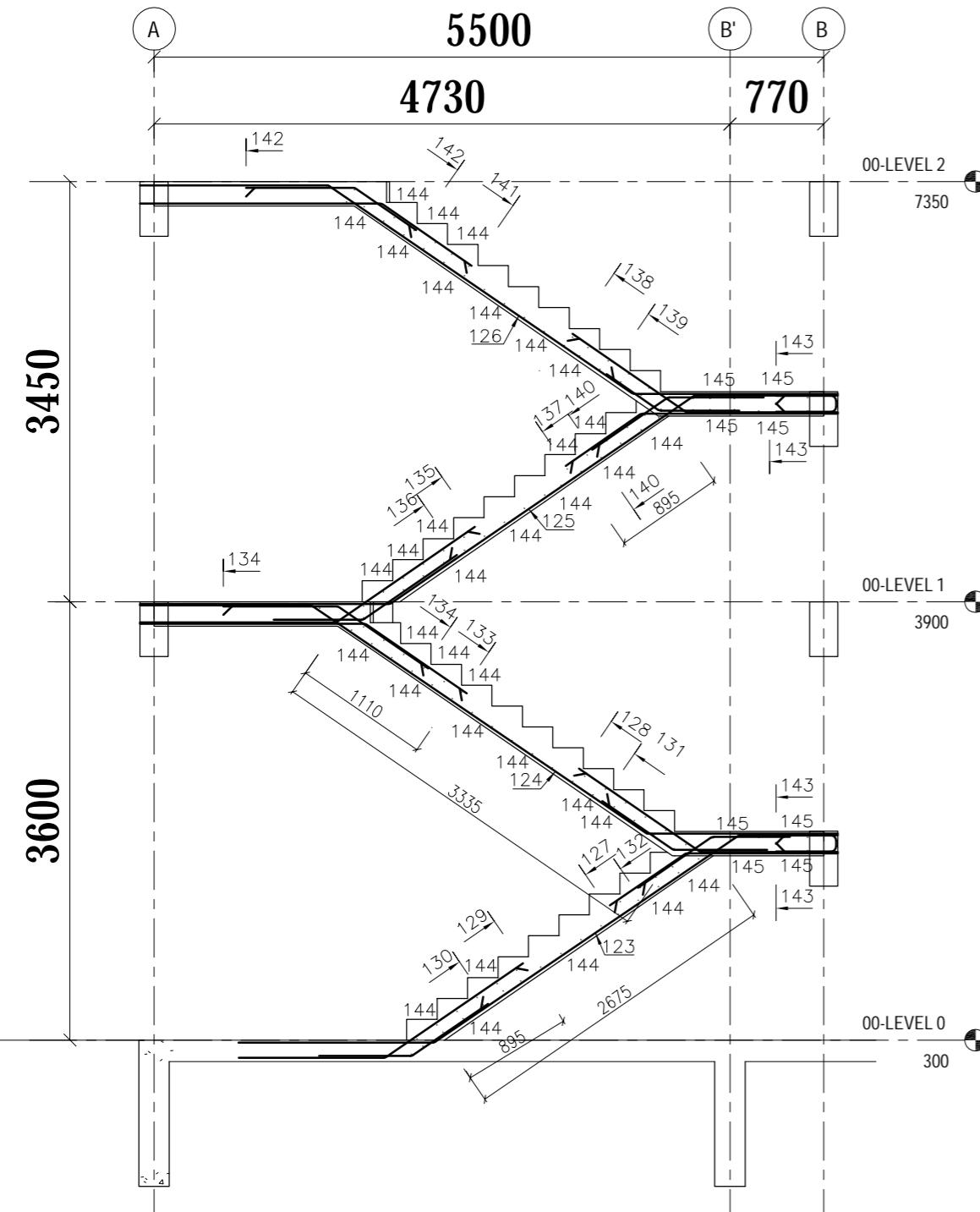
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

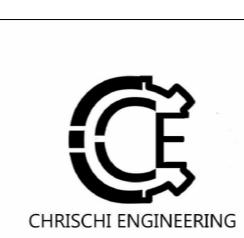
STAIRCASE LAYOUT & SECTIONS					
Project number	EB-0030				
Date	10th November, 2023				
Drawn by		Author			
Checked by		OSE	Scale	As indicated	

04



Project Name: PROPOSED RESIDENTIAL DEVELOPMENTNT		
LOCATION: AT ISHERI, OGUN STATE. (TYPE 3)		
	NO	REVISION

NO	REVISION	DATE

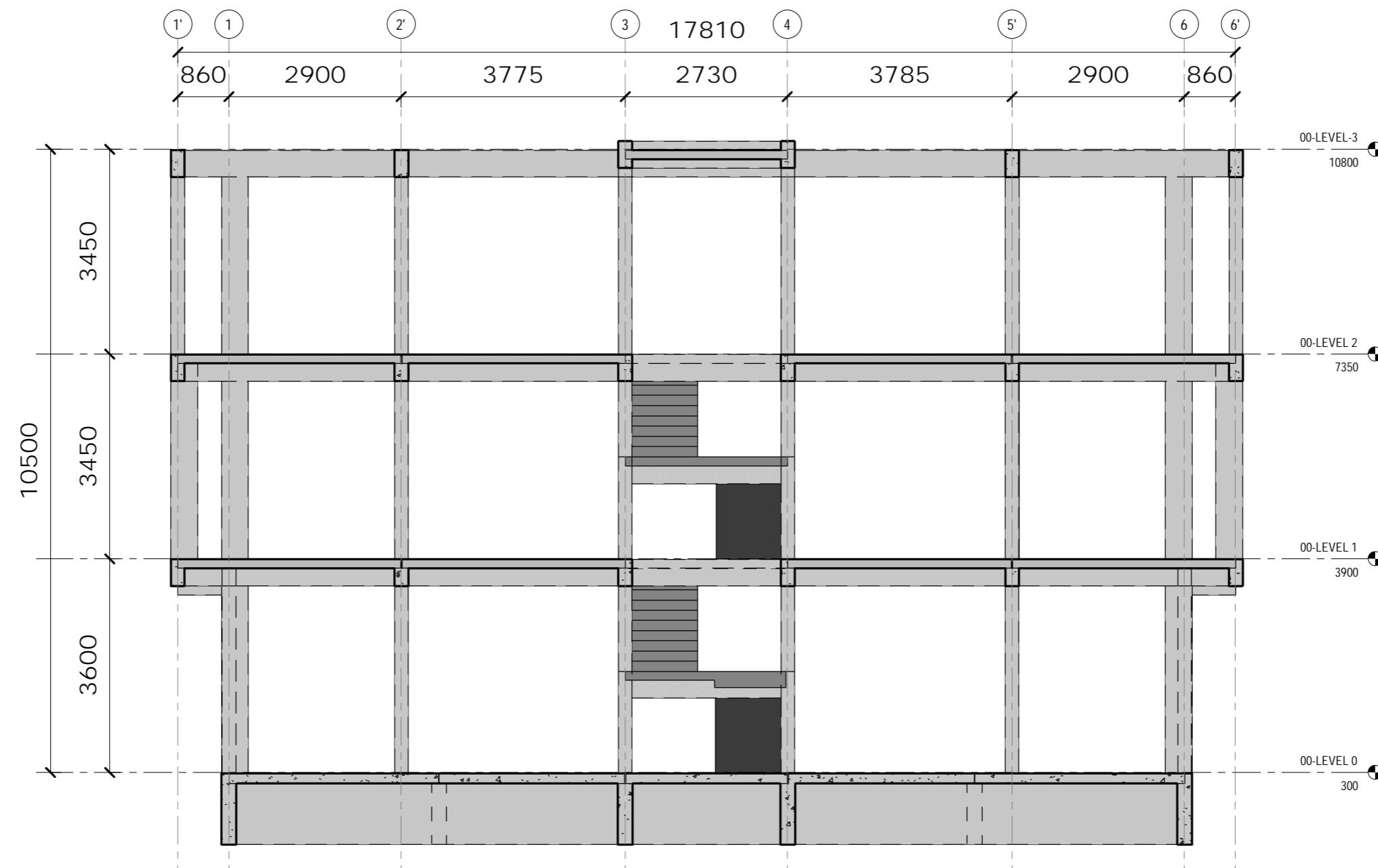


STAIRCASE DETAIL/3D		
Project number	RX1-20230501	
Date	09 Nov, 2023	
Drawn by		Author
Checked by	OSE	Scale As indicated

Client Name: MR. DEJI POPOOLA

04A

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 31/10/2023 22:11 pm

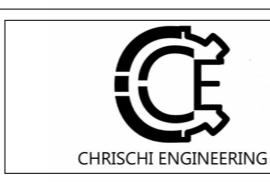


Section X-X
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ISSUED FOR PLANNING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT	
LOCATION: AT ISHERI, OGUN STATE. (TYPE 3)	

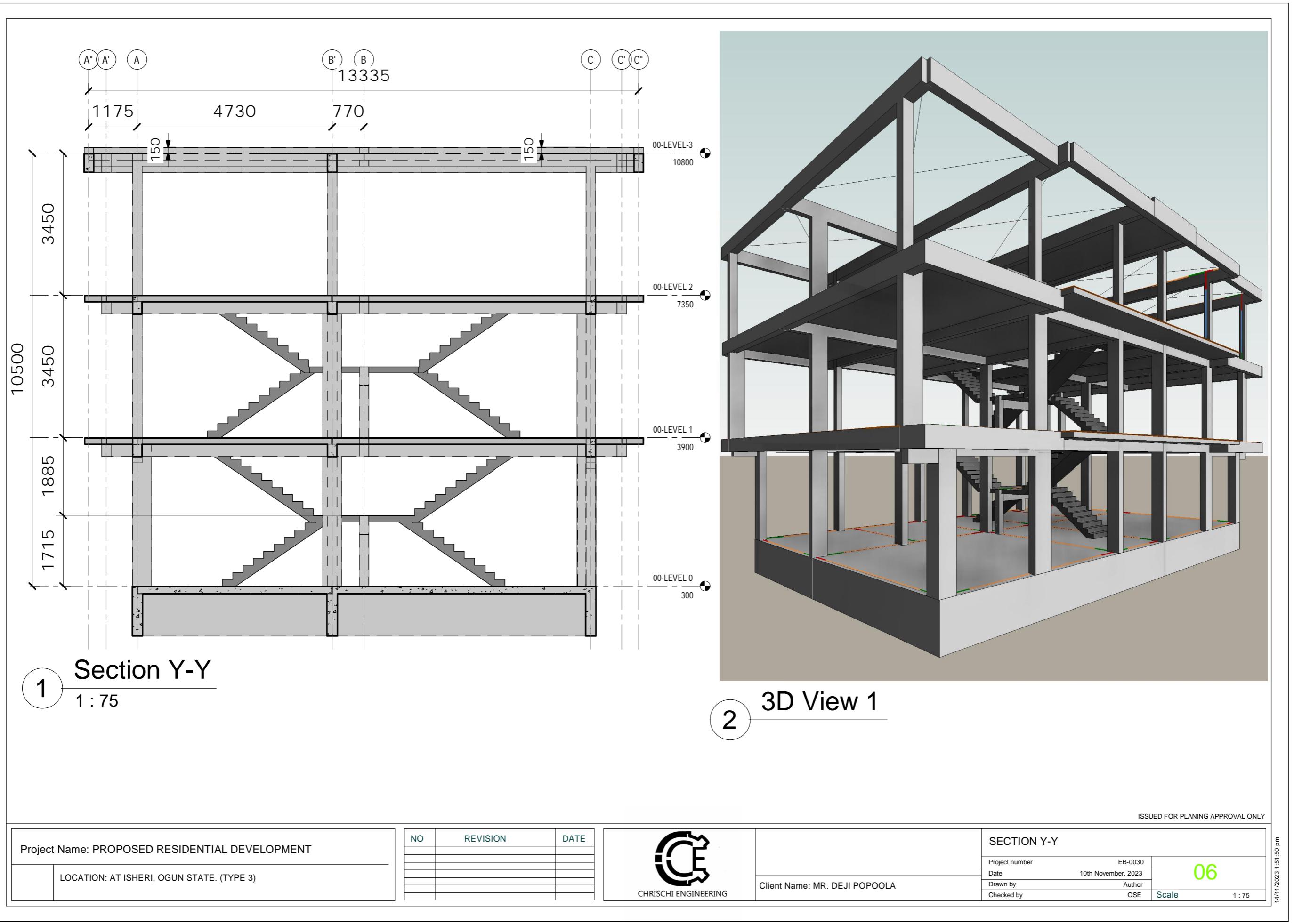
NO	REVISION	DATE

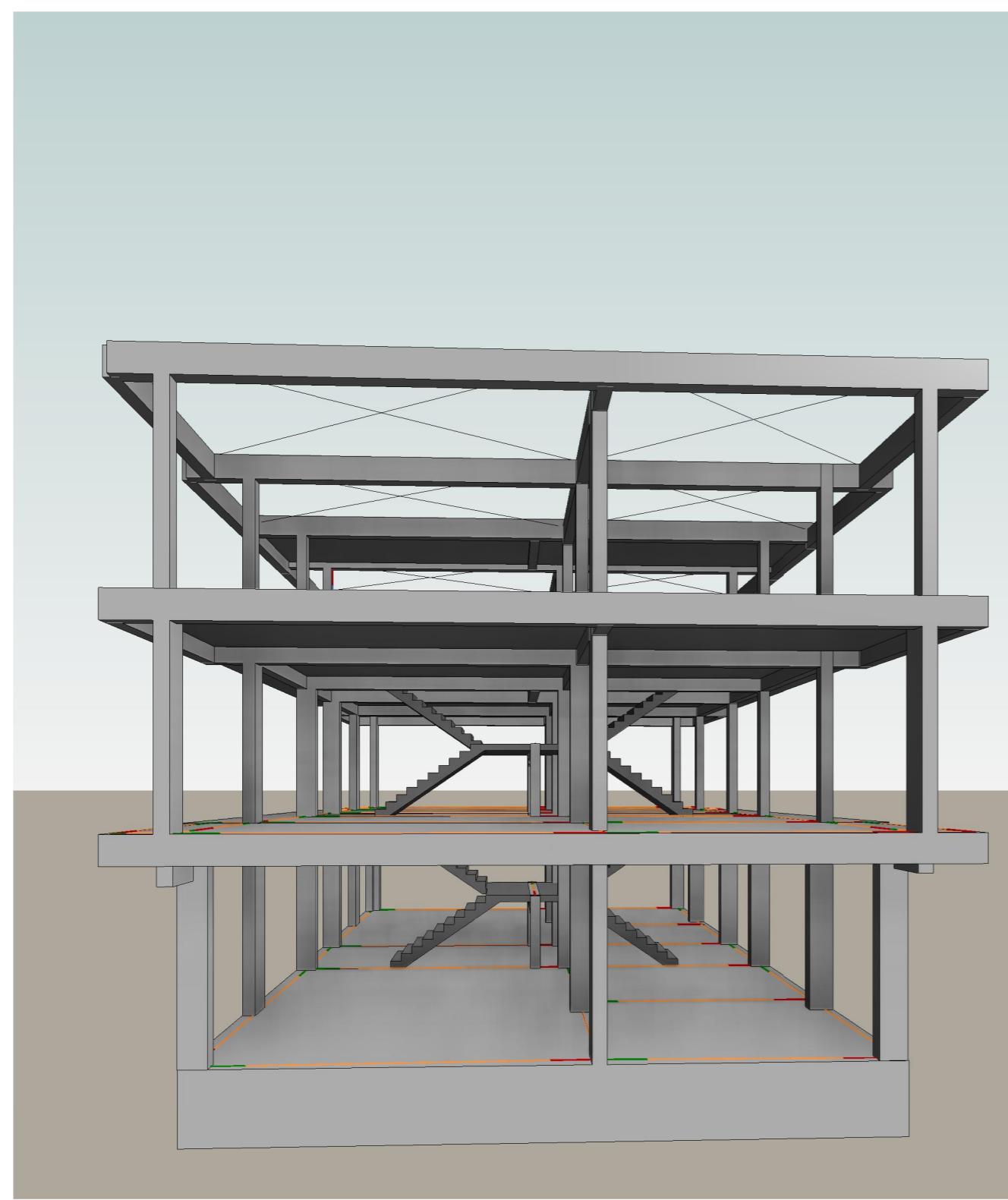


Client Name: MR. DEJI POPOOLA

SECTION X-X

Project number	EB-0030	05
Date	10th November, 2023	
Drawn by	Author	
Checked by	OSE	

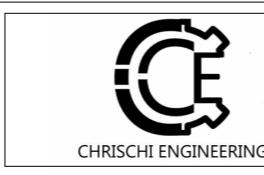




ISSUED FOR PLANING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT		
LOCATION: AT ISHERI, OGUN STATE. (TYPE 3)		

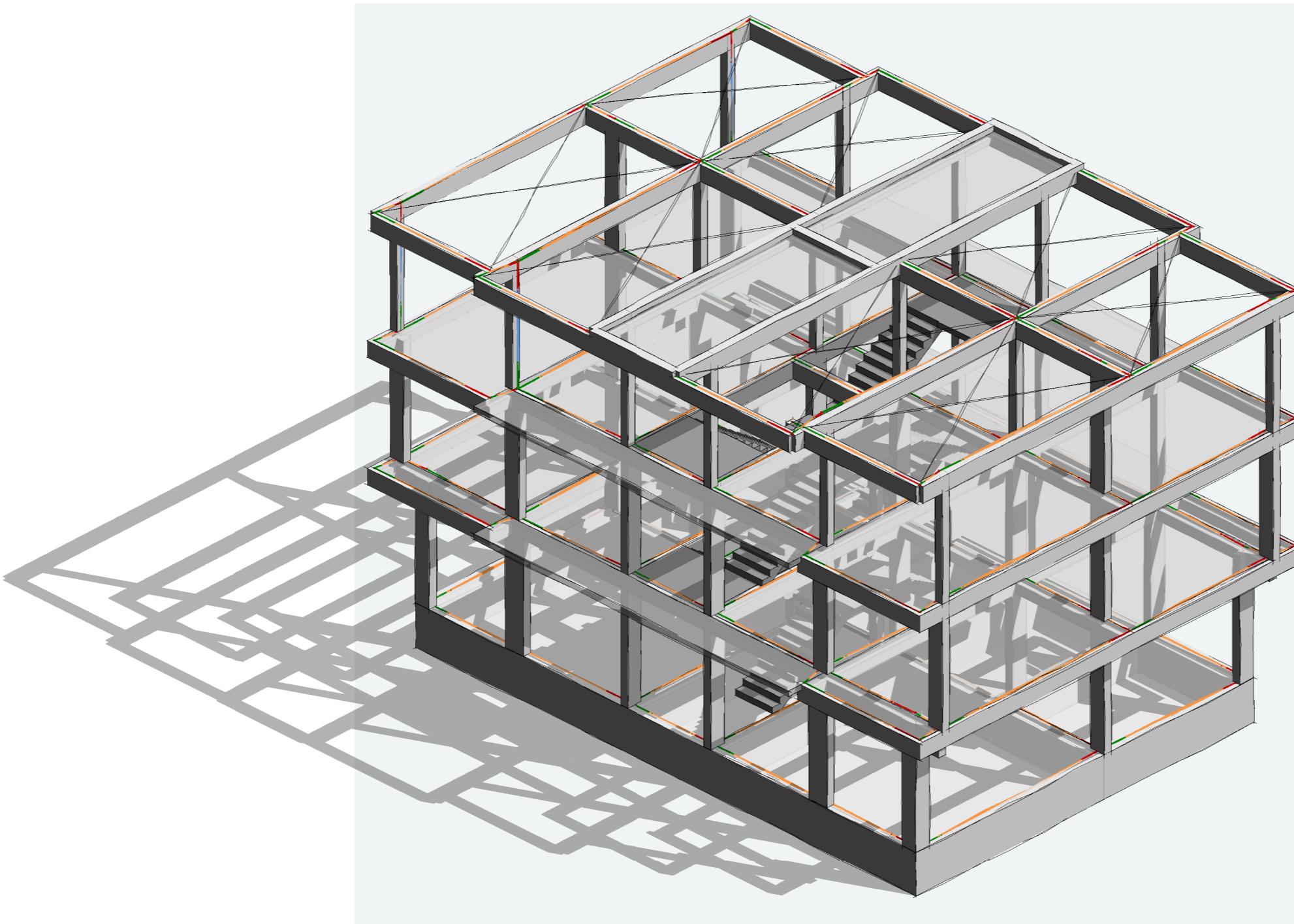
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

3D VIEWS		
Project number	EB-0030	
Date	10th November, 2023	
Drawn by	Author	
Checked by	OSE	Scale

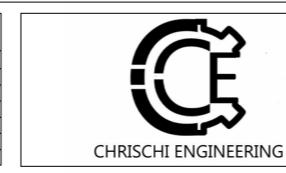
07



ISSUED FOR PLANNING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT		
LOCATION: AT ISHERI, OGUN STATE. (TYPE 3)		

NO	REVISION	DATE



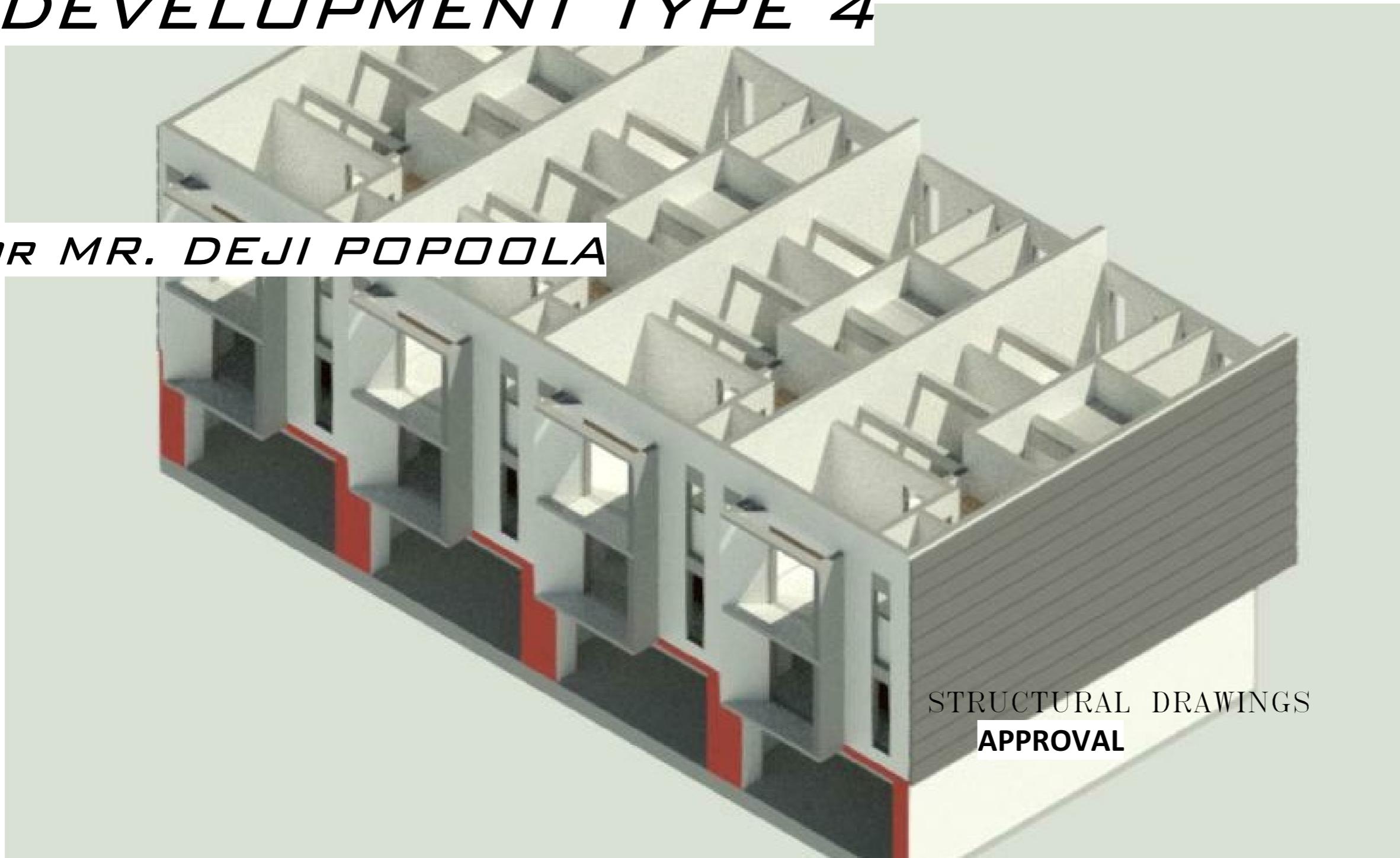
Client Name: MR. DEJI POPOOLA

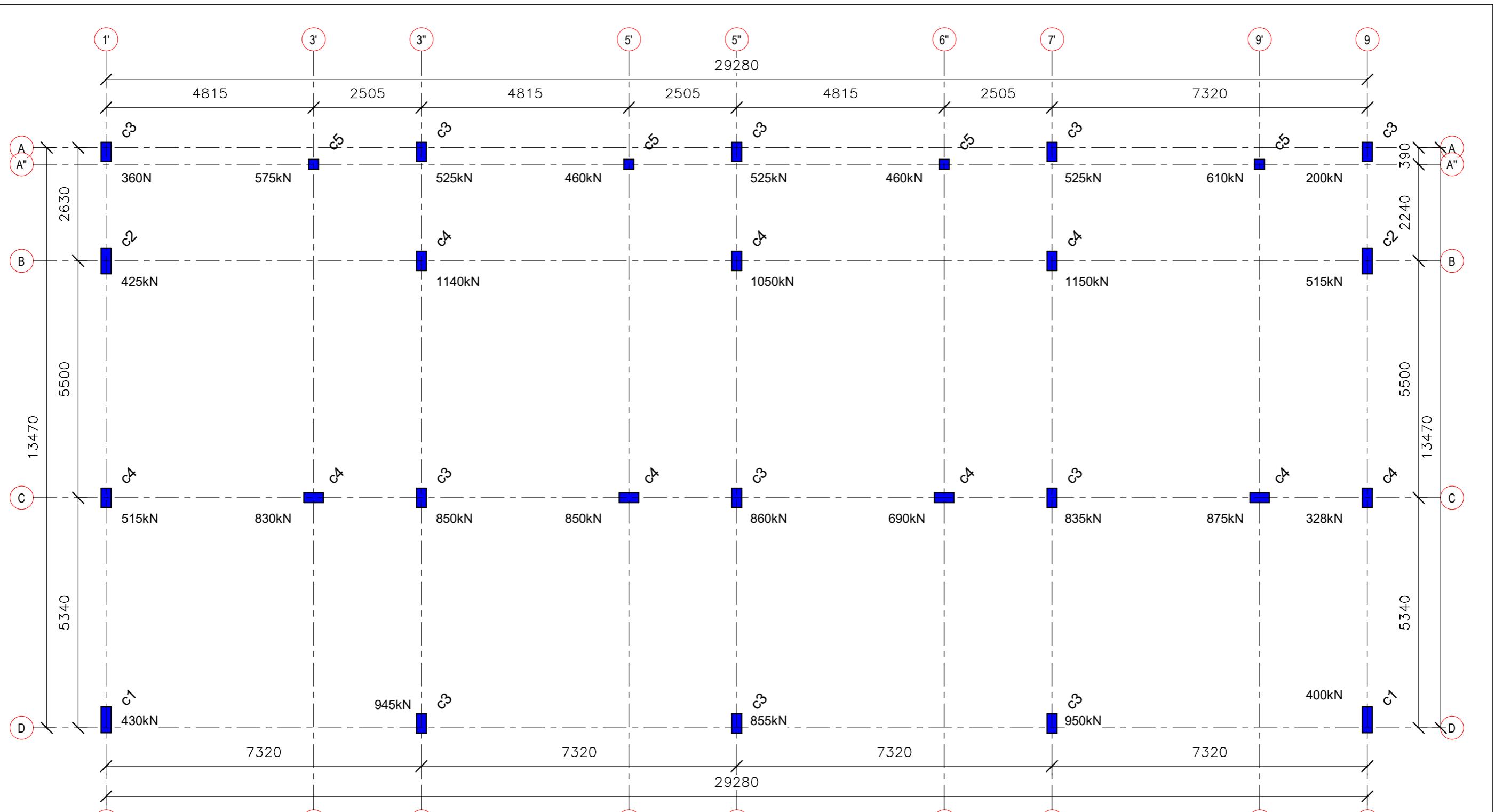
3D	
Project number	EB-0030
Date	10th November, 2023
Drawn by	Author
Checked by	OSE Scale

08

PROPOSED RESIDENTIAL DEVELOPMENT TYPE 4

FOR MR. DEJI POPOOLA





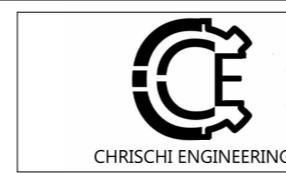
Ground floor Col

1
1 : 85

ISSUED FOR PLANNING APPROVAL ONLY

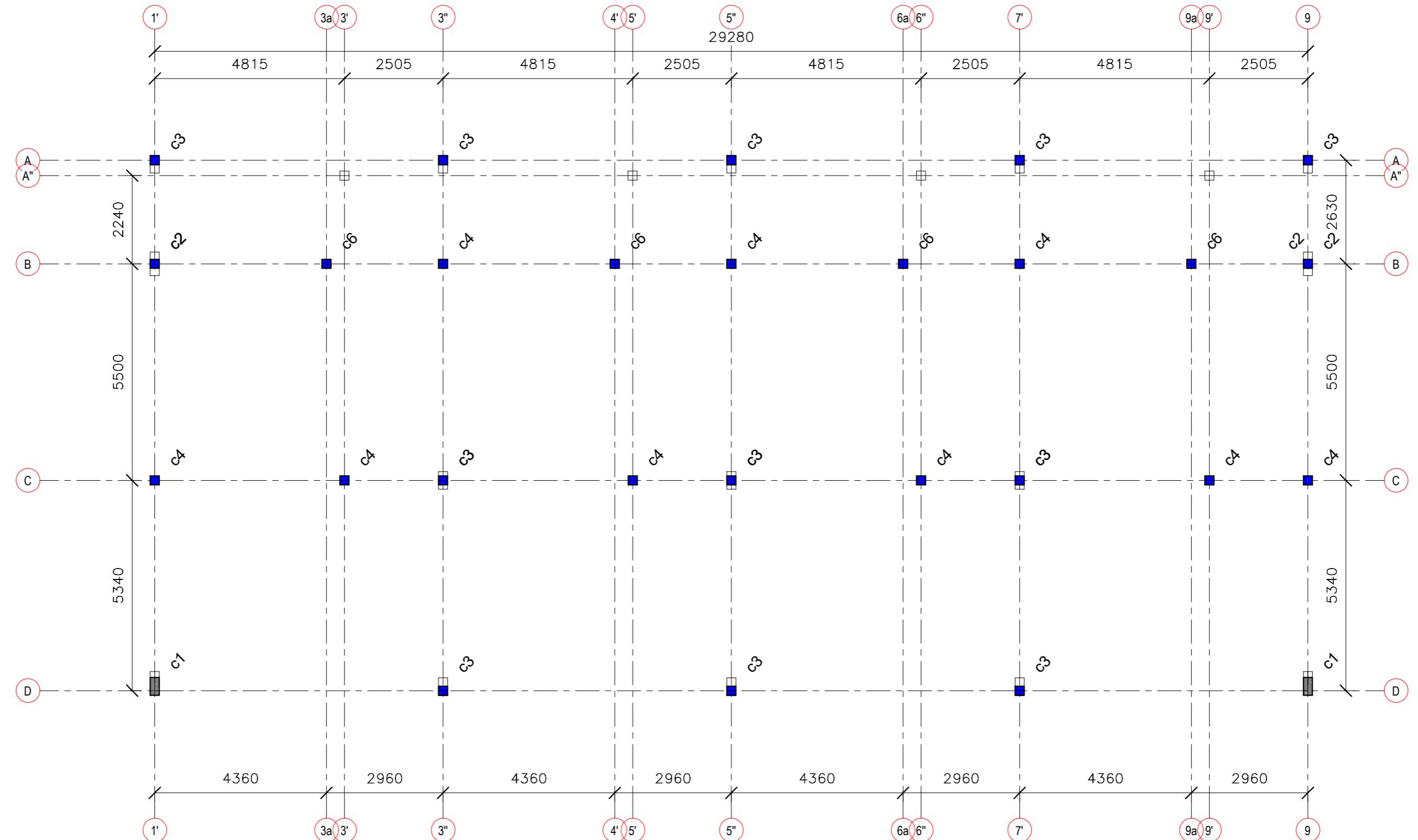
Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI, OGUN STATE. (TYPE 4)

NO	REVISION	DATE



GROUND FLOOR COLUMN APPLICATION
Project number EB-0030
Date 26 July 2022
Drawn by Author
Checked by ose Scale 1 : 85

Client Name: MR. DEJI POPOOLA



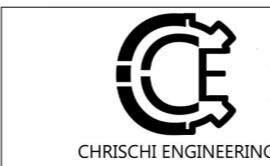
Second floor Col

1 : 95

ISSUED FOR PLANING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI, OGUN STATE. (TYPE 4)

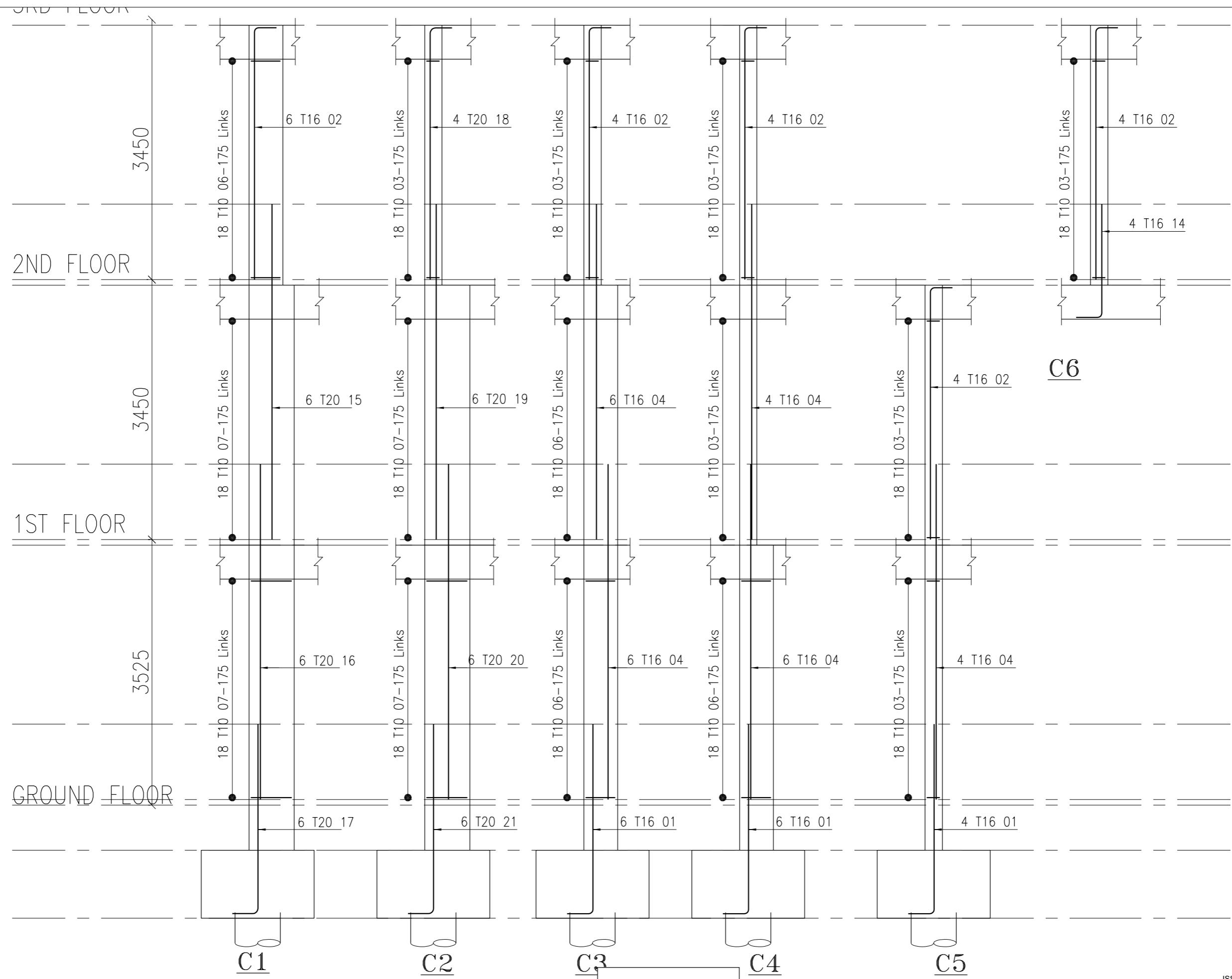
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

SECOND FLOOR COLUMN LAYOUT

Project number	EB-0030
Date	26 July 2022
Drawn by	Author
Checked by	ose

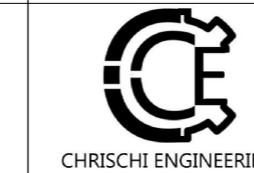


ISSUED FOR PLANING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI
(TYPE 4)

LOCATION: Enter address here

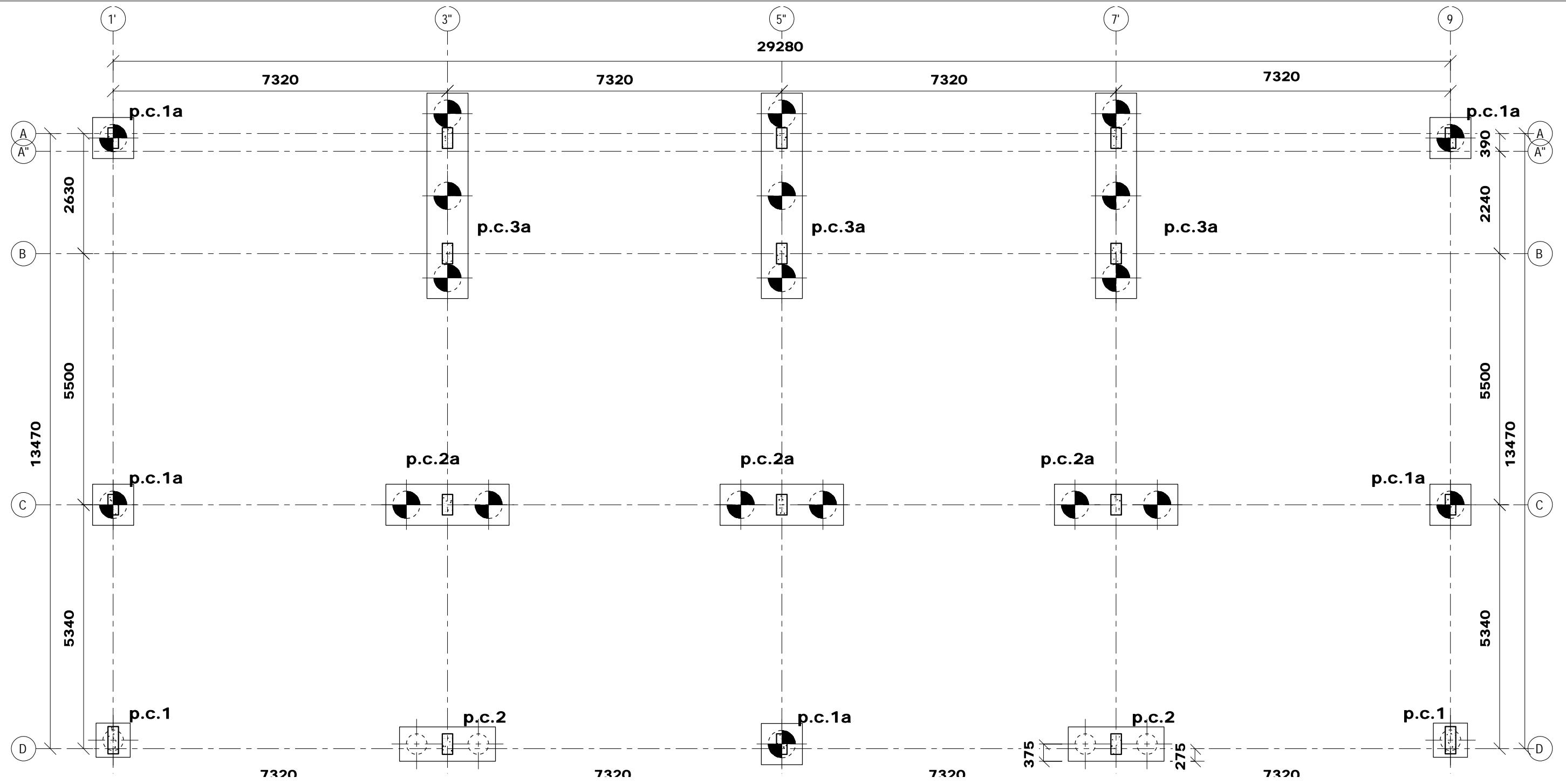
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

COLUMN BEAM DETAIL

Project number	EB-0030
Date	26 July 2022
Drawn by	Author
Checked by	OSE Scale



PILECAP LAYOUT

1 : 85

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI, OGUN STATE. At AT ISHERI, OGUN STATE. (TYPE 4)

NO	REVISION	DATE



Client Name: MR. DEJI POOPOLA

PILE SCHEDULE

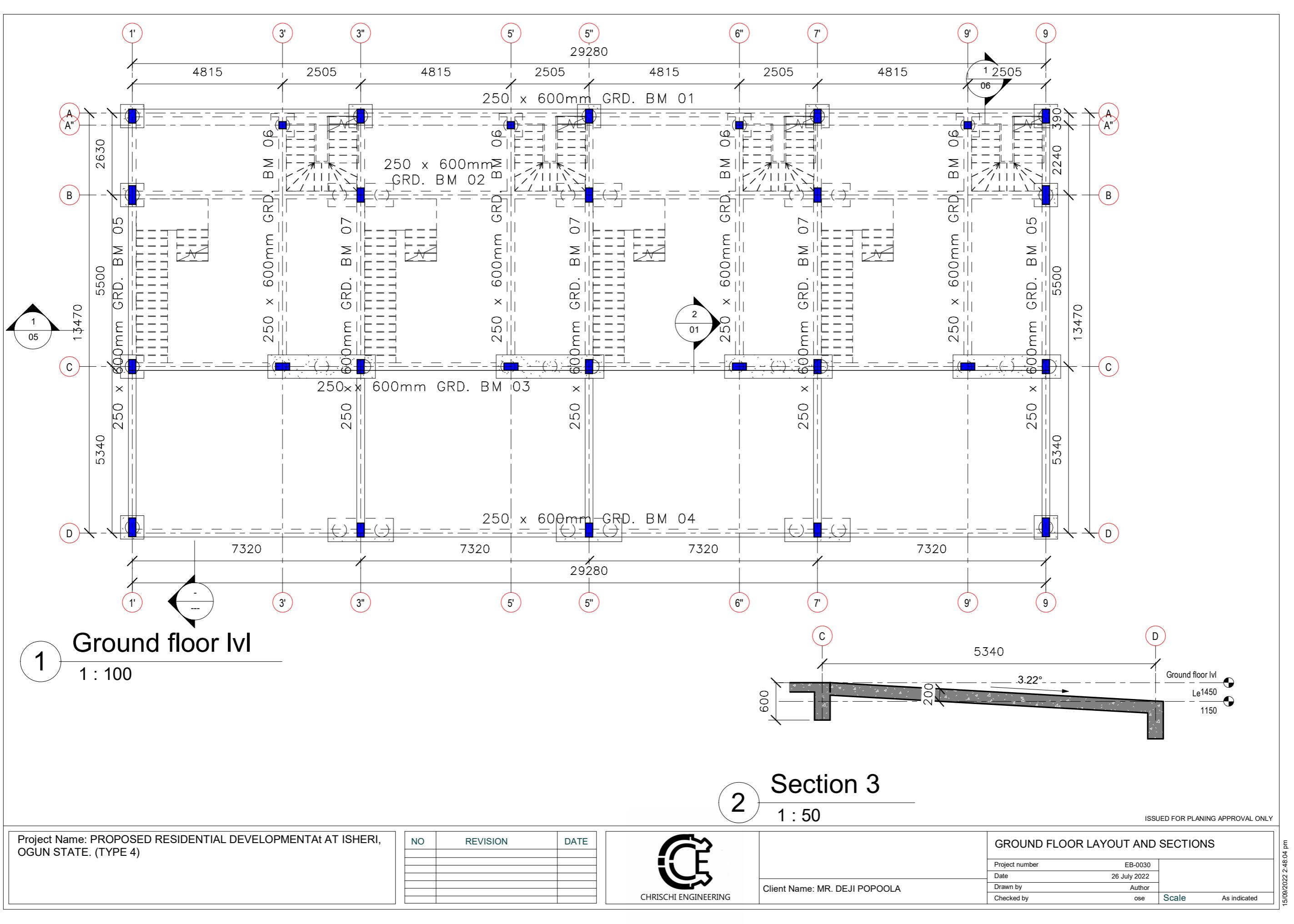
S/N	PILE	SAFE WORKING LOAD	DEPTH	Count
01	450mm	637kN	29000mm	6
02	600mm	913kN		20
TOTAL NUMBER OF PILES				26

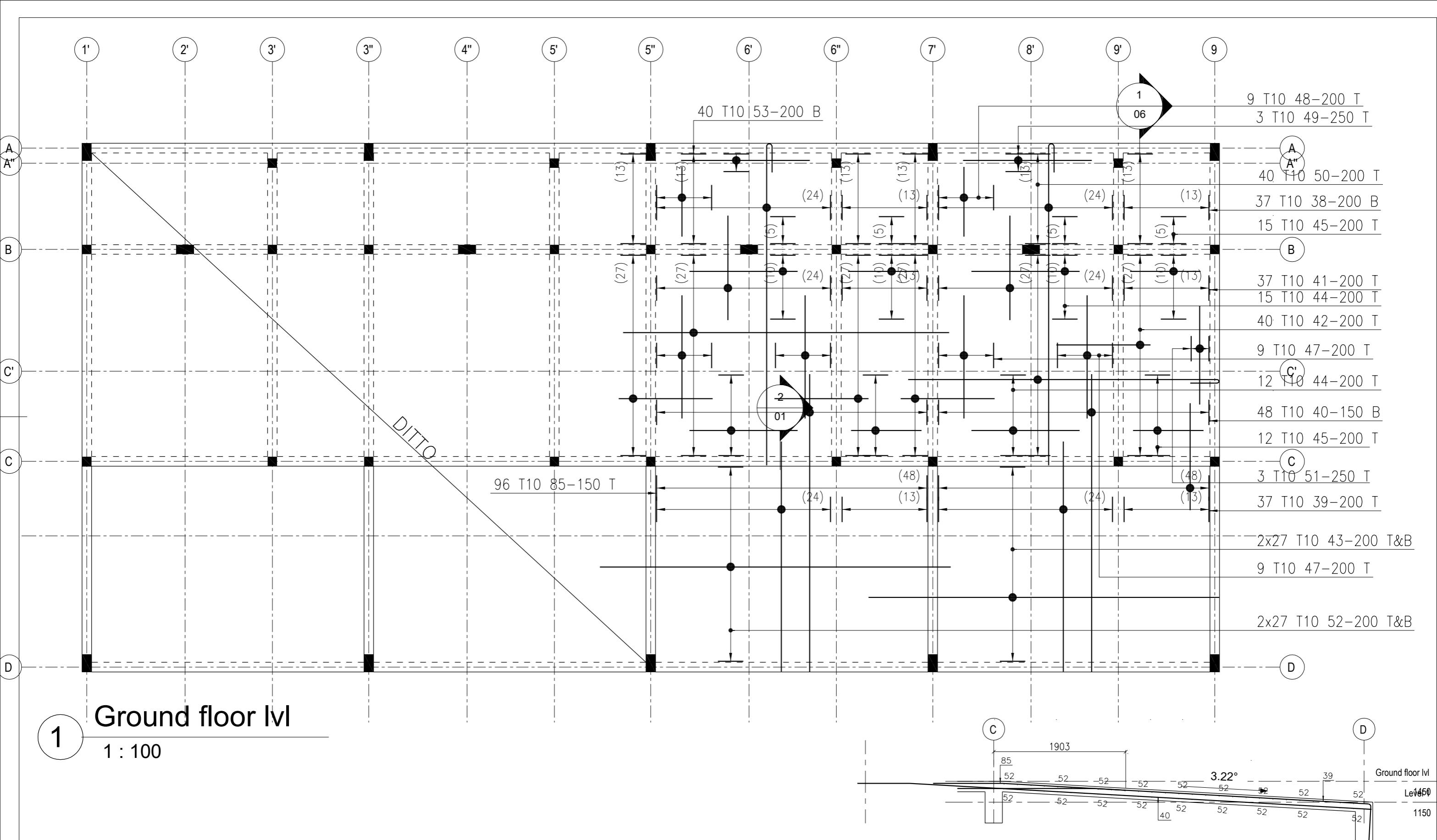
S/N	PILECAP	DIMENSION	Count
01	P.C.1	750 x 750 x 900mm	2
02	P.C.1a	900 x 900 x 900mm	5
03	P.C.2	750 x 2100 x 900mm	2
04	P.C.2a	900 x 2700 x 900mm	3
05	P.C.3a	900 x 4500 x 900mm	3
TOTAL NUMBER OF PILECAP			15

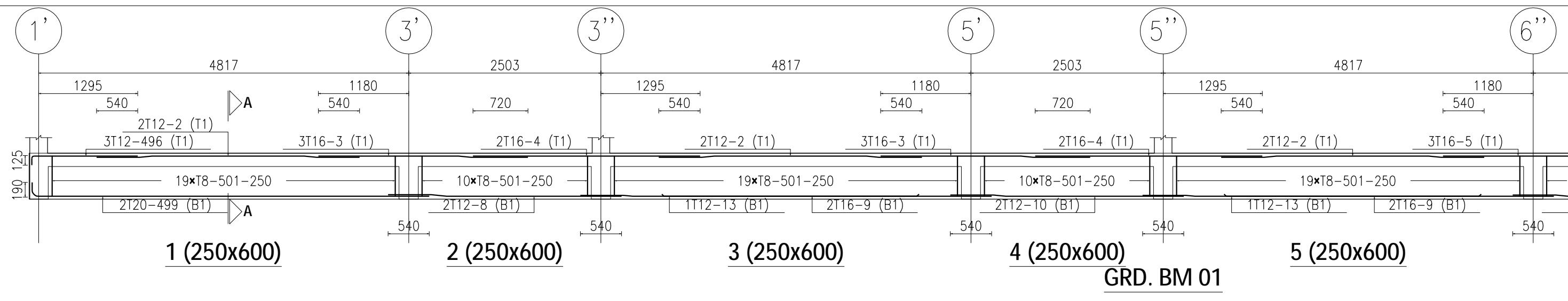
ISSUED FOR PLANING APPROVAL ONLY

PILECAP LAYOUT

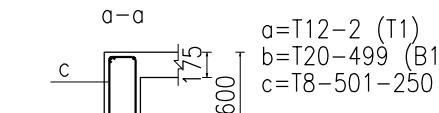
Project number	EB-0030
Date	26 July 2022
Drawn by	Author
Checked by	ose



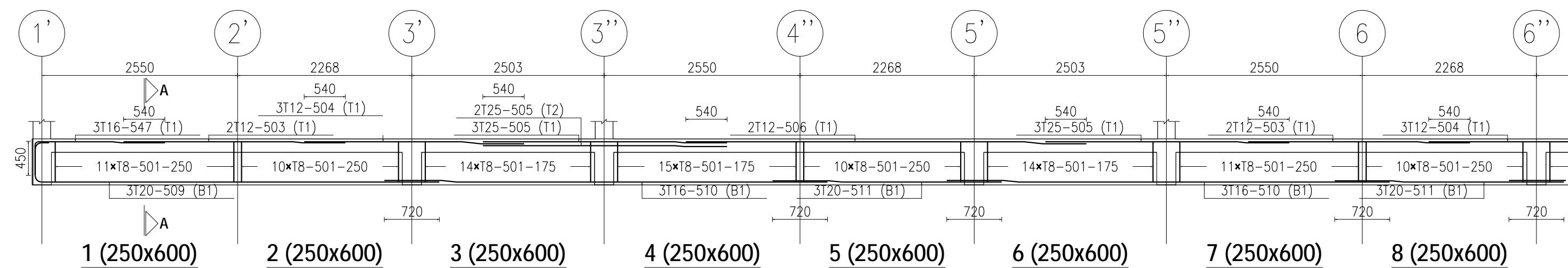




GRD. BM 01



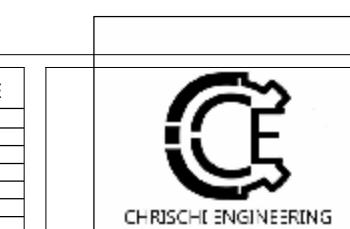
(GRD. BM 01) A-A



GRD. BM 02

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI (TYPE 4)	
LOCATION: Enter address here	

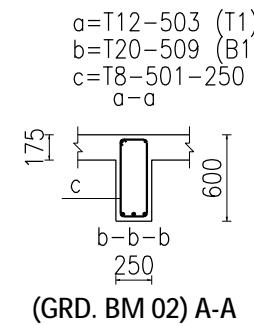
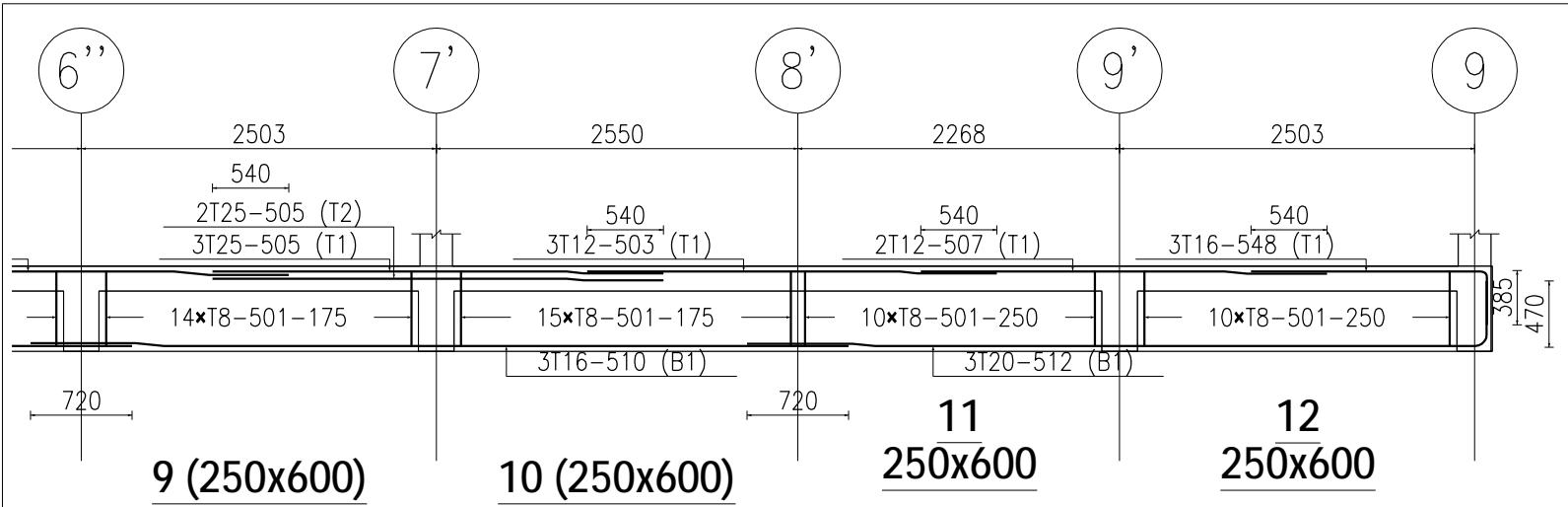
NO	REVISION	DATE



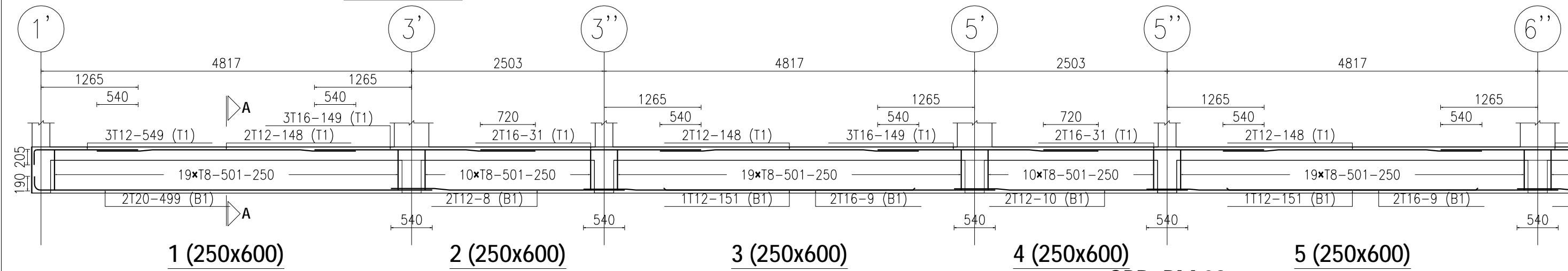
ISSUED FOR PLANING APPROVAL ONLY

GROUND FLOOR BEAM DETAIL AND SECTIONS		
Project number	EB-0030	
Date	26 July 2022	
Drawn by	Author	
Checked by	OSE	Scale

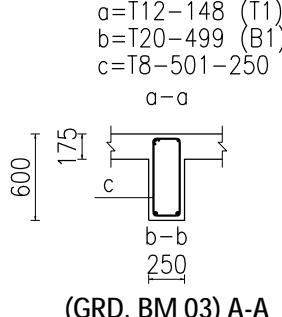
Client Name: MR. DEJI POPOOLA



GRD. BM 02



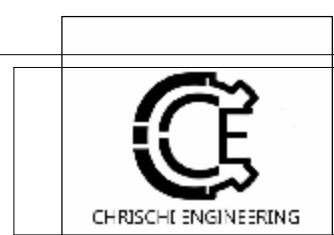
GRD. BM 03



GRD. BM 03

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI (TYPE 4)	
LOCATION: Enter address here	

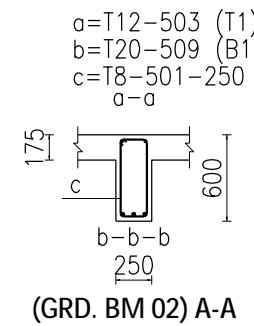
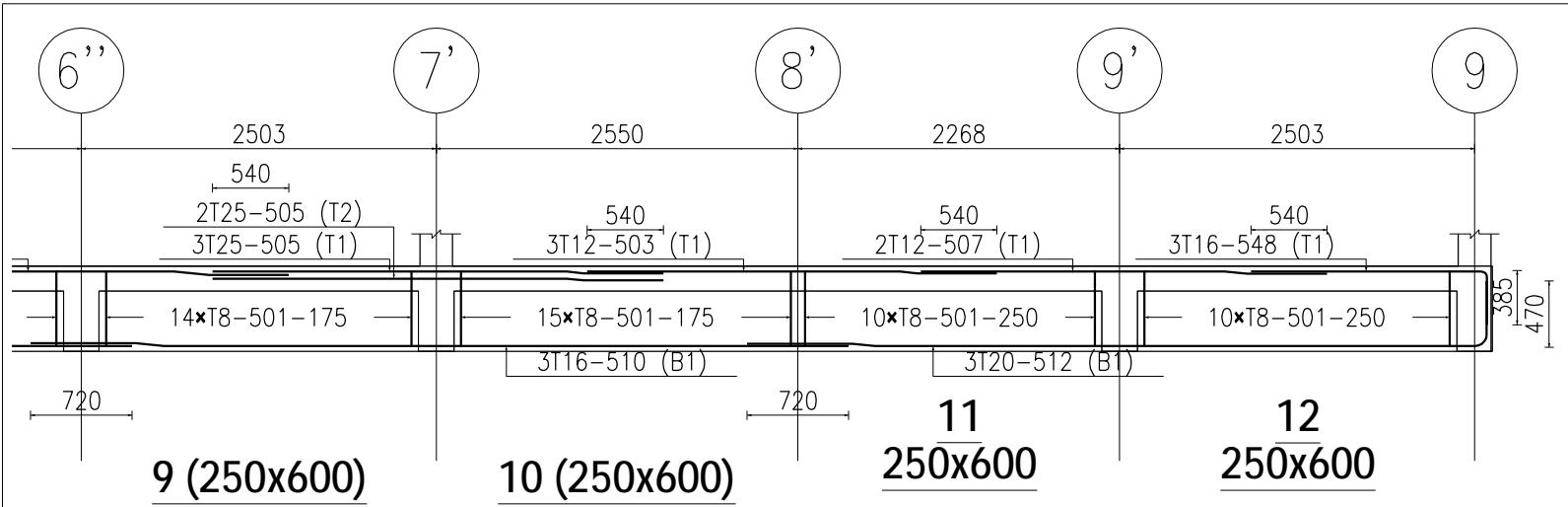
NO	REVISION	DATE



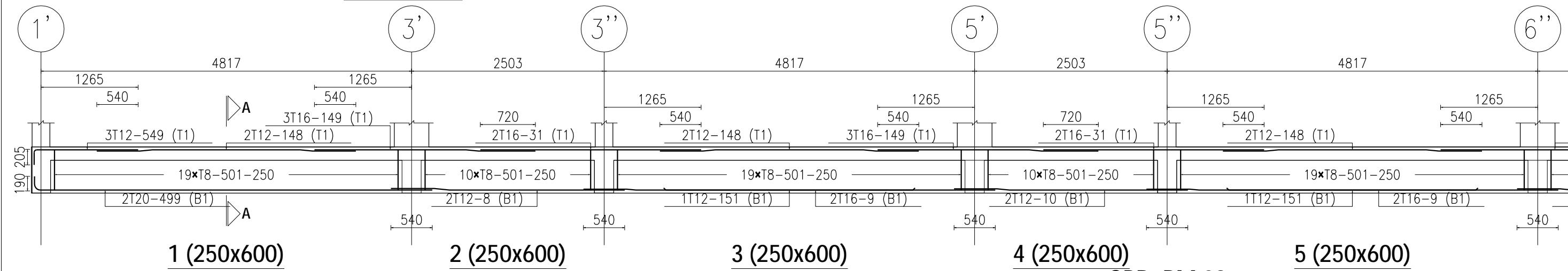
ISSUED FOR PLANING APPROVAL ONLY

GROUND FLOOR BEAM DETAIL AND SECTIONS		
Project number	EB-0030	
Date	26 July 2022	
Drawn by	Author	
Checked by	OSE	Scale

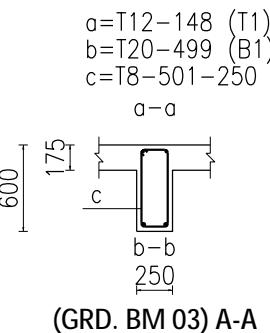
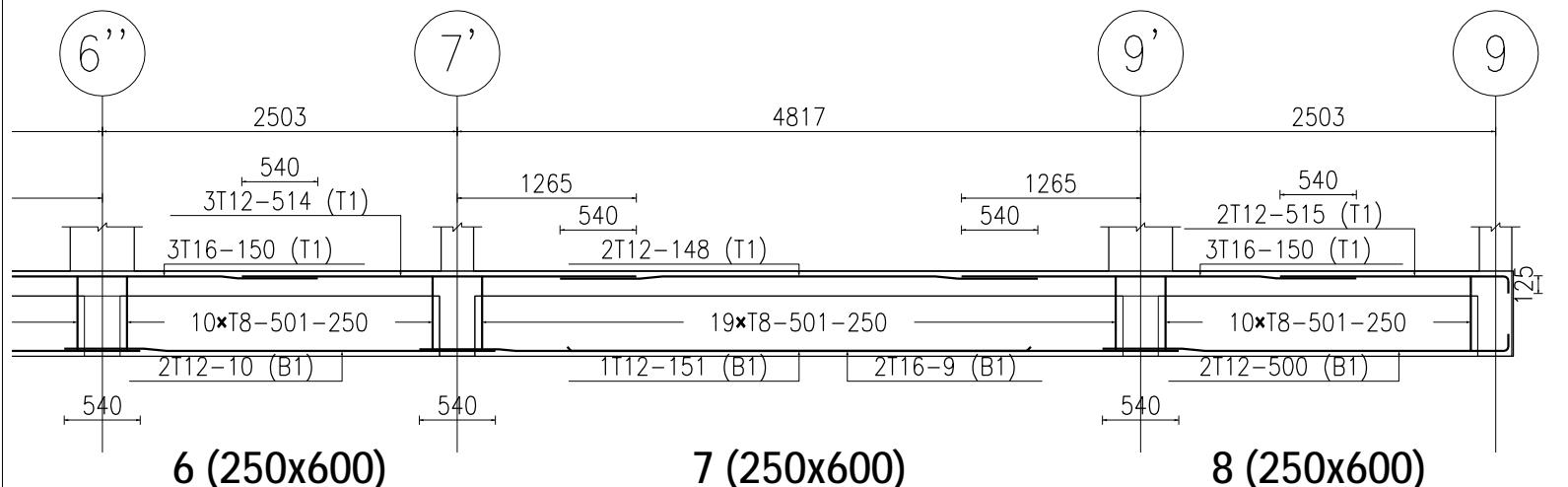
Client Name: MR. DEJI POPOOLA



GRD. BM 02



GRD. BM 03

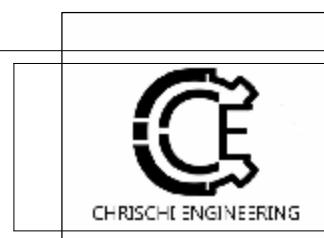


GRD. BM 03

ISSUED FOR PLANING APPROVAL ONLY

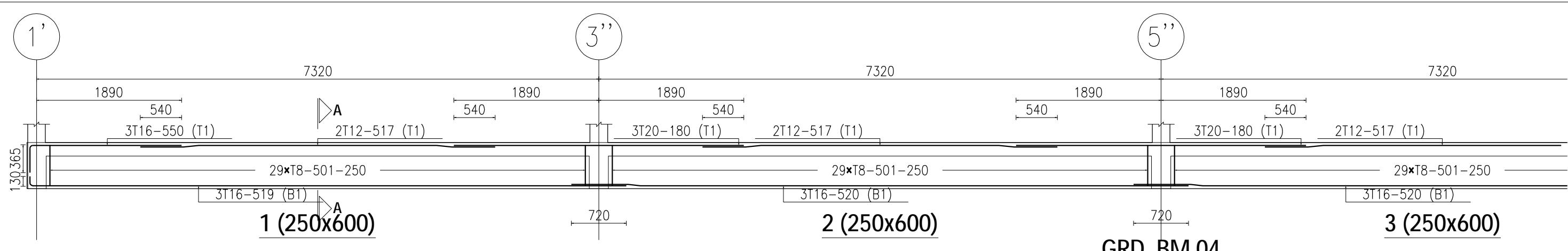
Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI (TYPE 4)	
LOCATION: Enter address here	

NO	REVISION	DATE

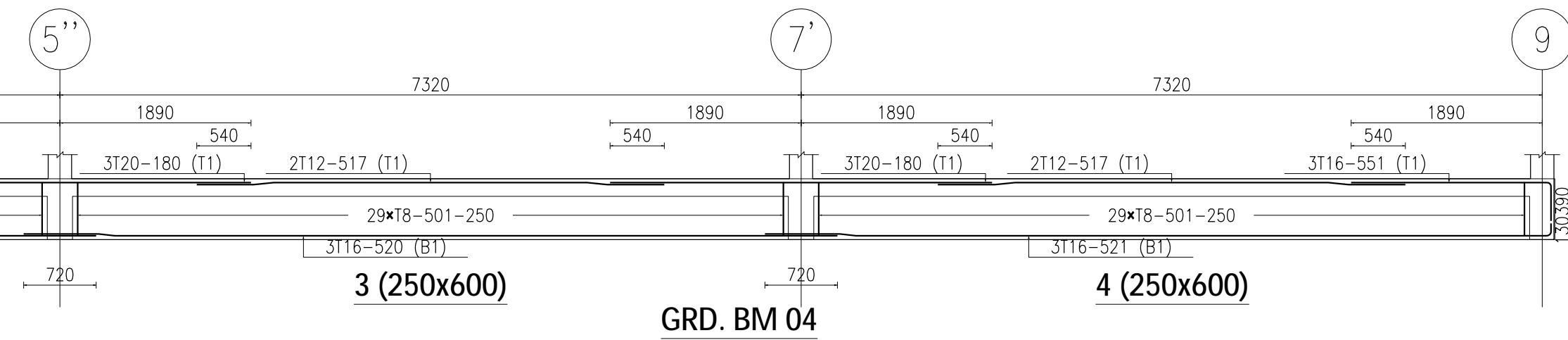


GROUND FLOOR BEAM DETAIL AND SECTIONS		
Project number	EB-0030	
Date	26 July 2022	
Drawn by	Author	
Checked by	OSE	Scale

Client Name: MR. DEJI POPOOLA

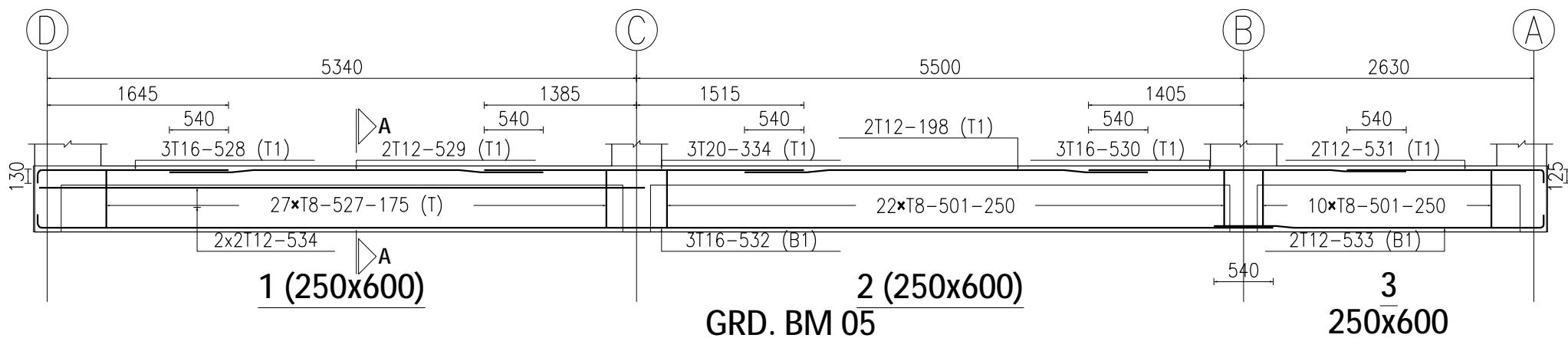


GRD. BM 04



GRD. BM 04

a=T12-517 (T1)
b=T16-519 (B1)
c=T8-501-250
a-a
175
c 600
b-b-b
250
(GRD. BM 04) A-A

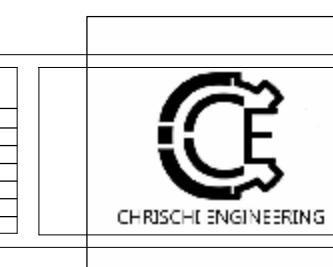


GRD. BM 05

a=T12-529 (T1)
b=T16-532 (B1)
c=T12-534
d=T8-527-175
a-a
600
d c c 175
c
b-b-b
250
(GRD. BM 05) A-A

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI (TYPE 4)	
LOCATION: Enter address here	

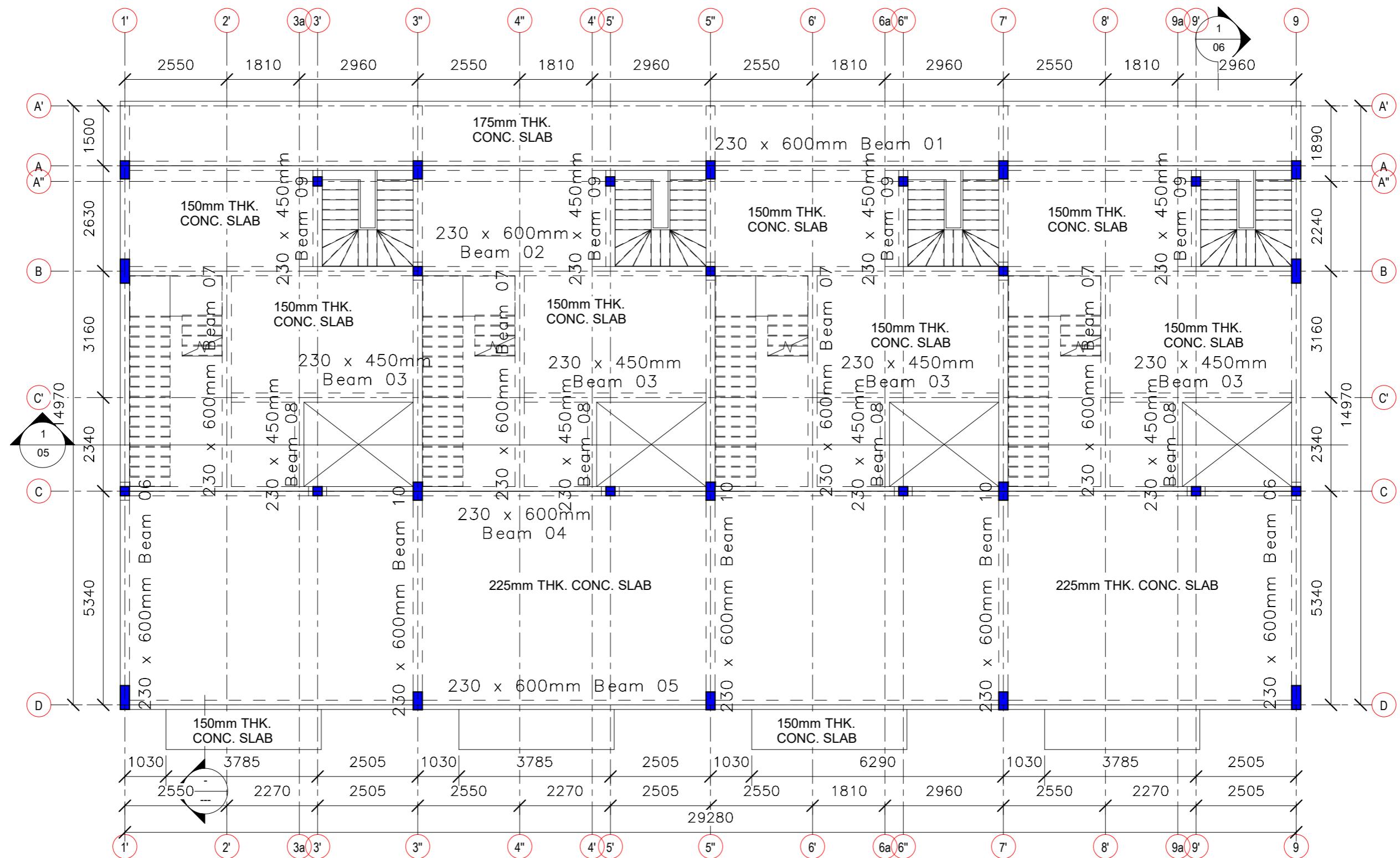
NO	REVISION	DATE



ISSUED FOR PLANING APPROVAL ONLY

GROUND FLOOR BEAM DETAIL AND SECTIONS		
Project number	EB-0030	
Date	26 July 2022	
Drawn by	Author	
Checked by	OSE	Scale

Client Name: MR. DEJI POPOOLA



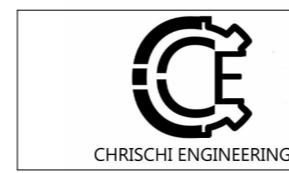
first floor lvl

1 : 95

ISSUED FOR PLANING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI, OGUN STATE. (TYPE 4)	NO	REVISION	DATE

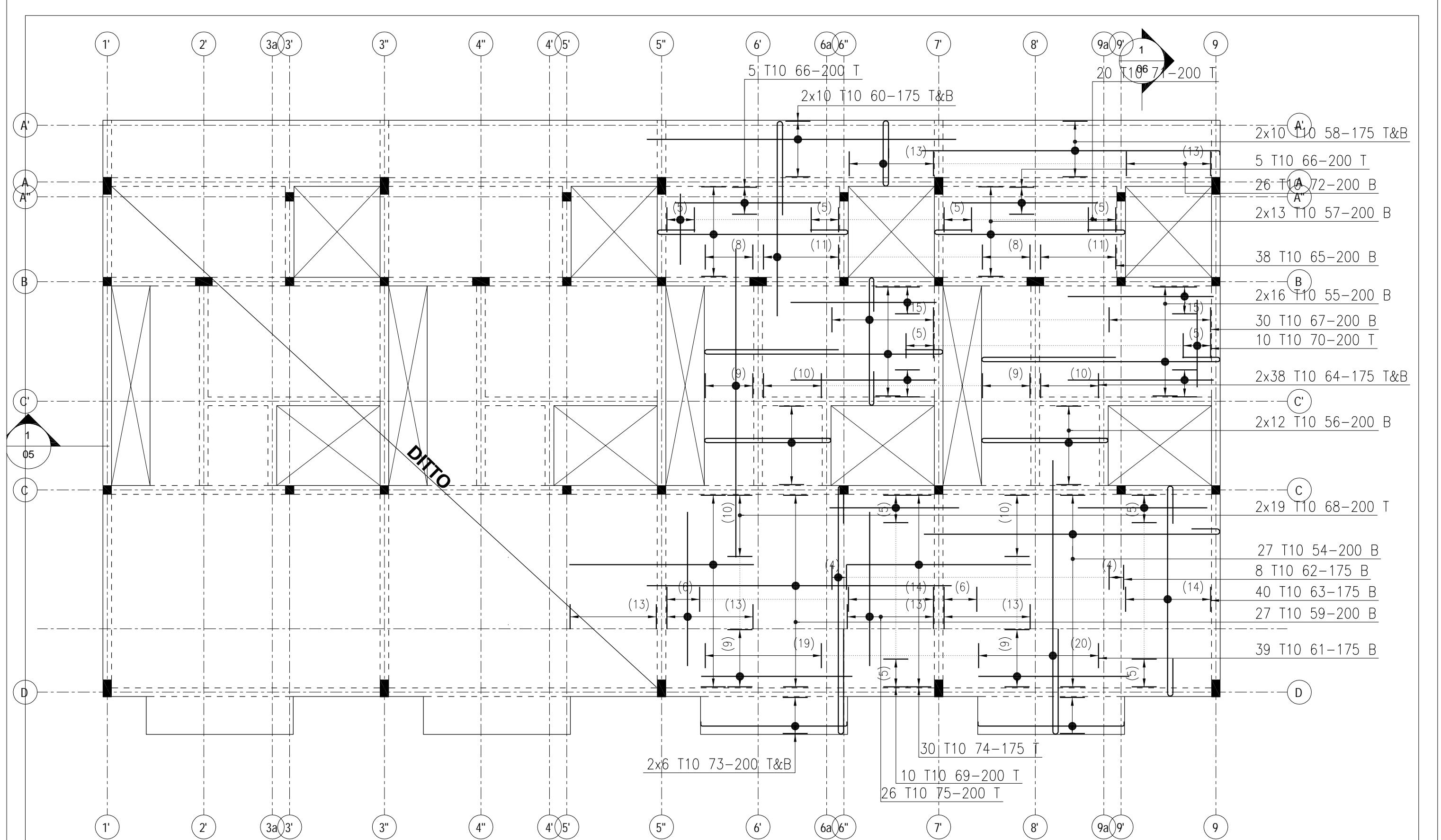
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

FIRST FLOOR LAYOUT

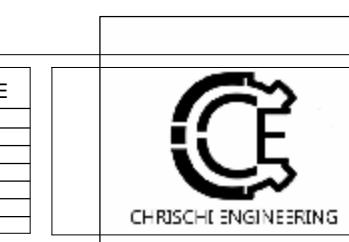
Project number	EB-0030
Date	26 July 2022
Drawn by	Author
Checked by	ose



ISSUED FOR PLANING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI,
OGUN STATE. (TYPE 4)

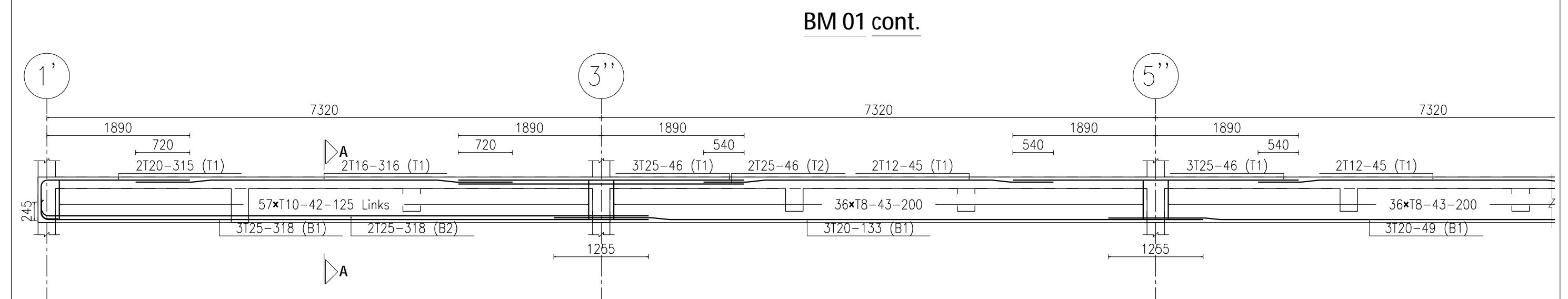
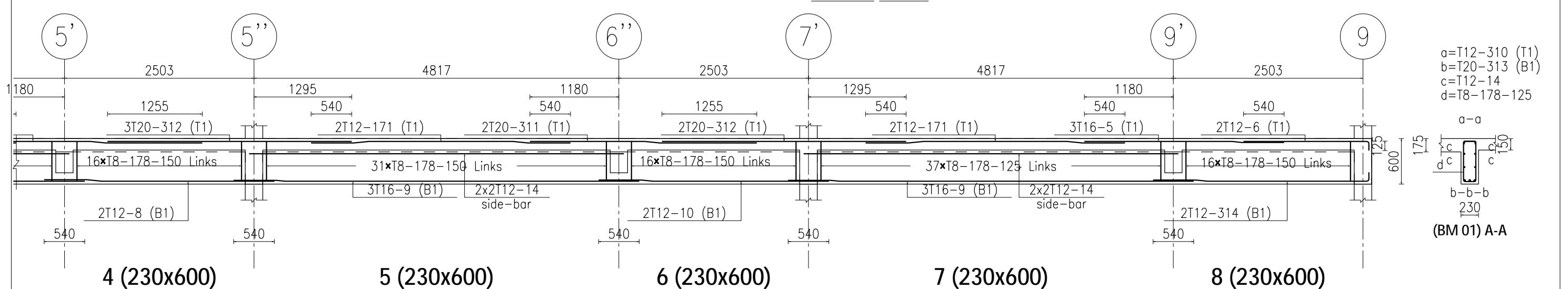
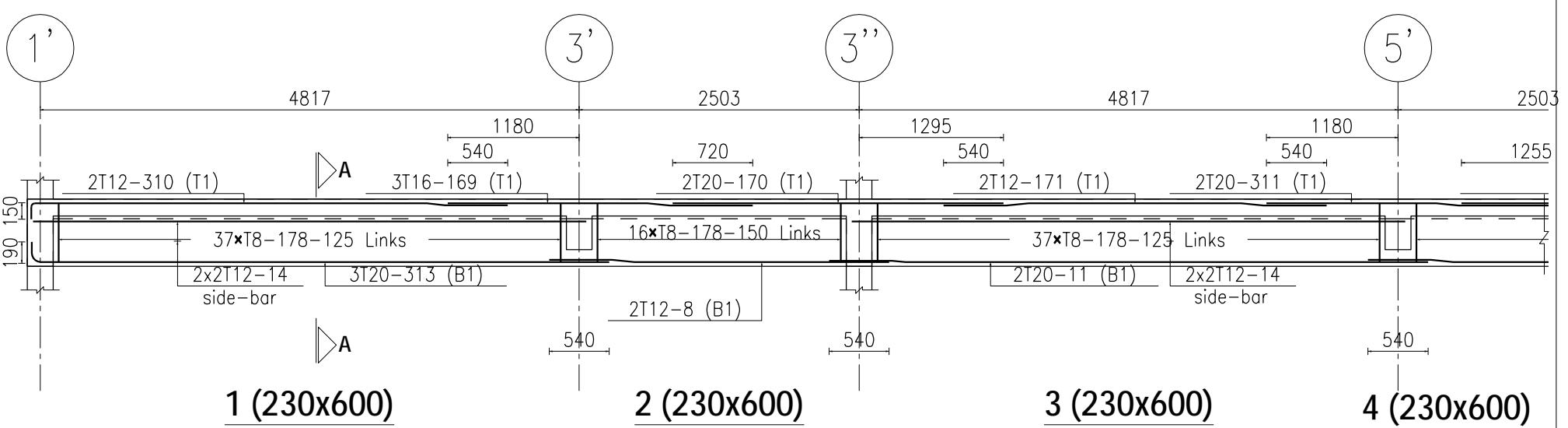
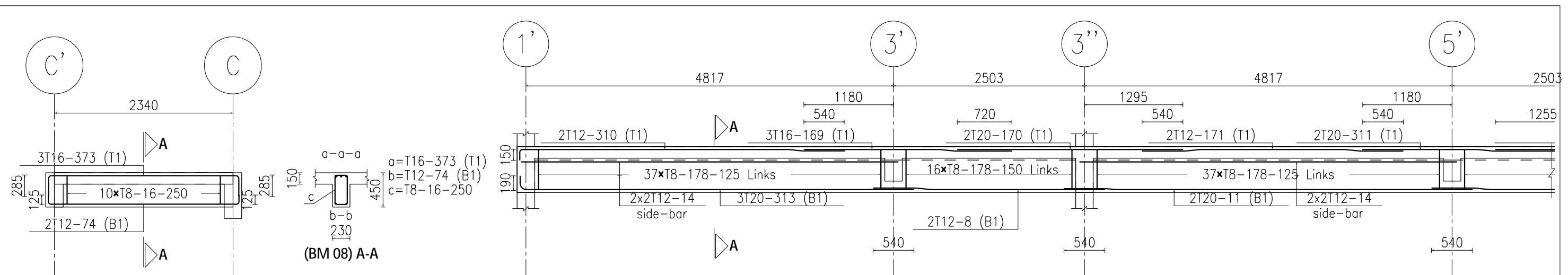
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

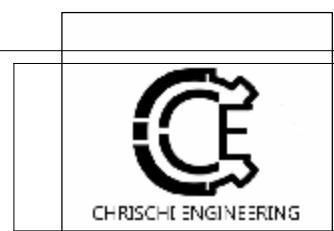
FIRST FLOOR DETAIL AND SECTIONS

Project number	EB-0030
Date	26 July 2022
Drawn by	Author
Checked by	ose Scale As indicated



Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI (TYPE 4)		
LOCATION: Enter address here		

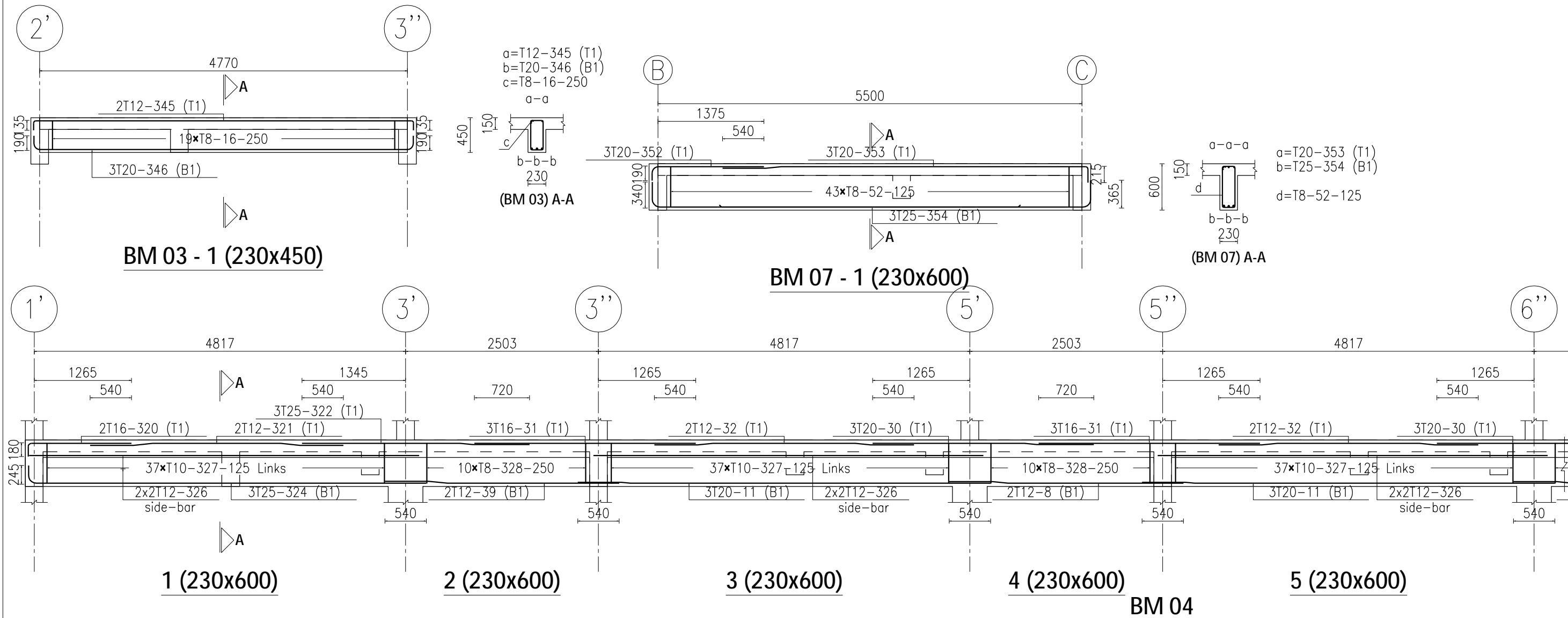
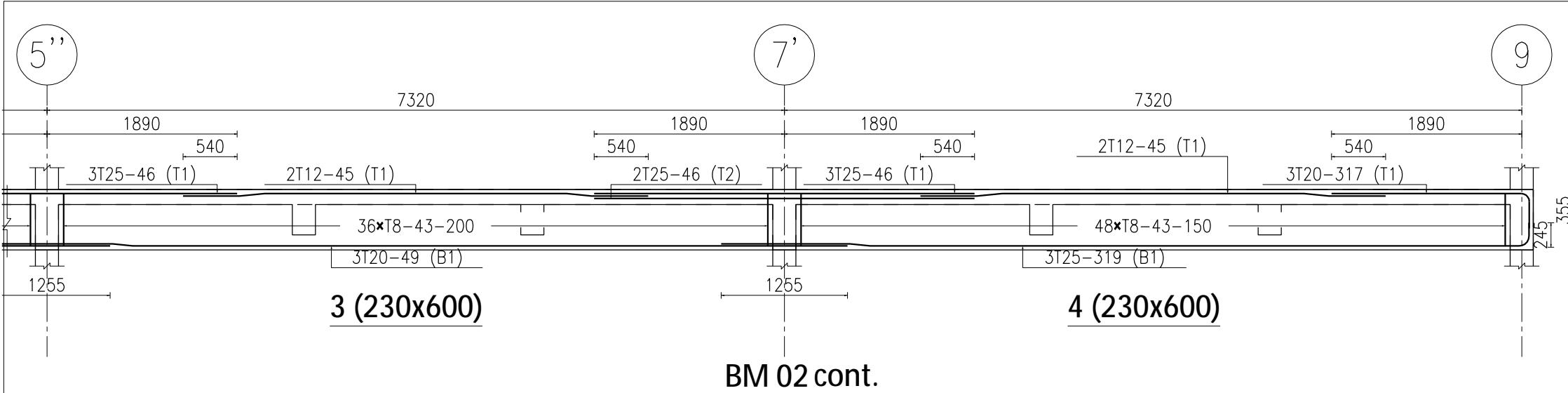
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

FIRST FLOOR BEAM DETAIL AND SECTIONS		
Project number	EB-0030	
Date	26 July 2022	
Drawn by	Author	
Checked by	OSE	Scale

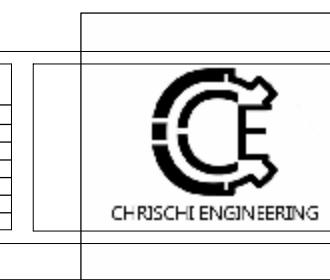
ISSUED FOR PLANING APPROVAL ONLY



ISSUED FOR PLANING APPROVAL ONLY

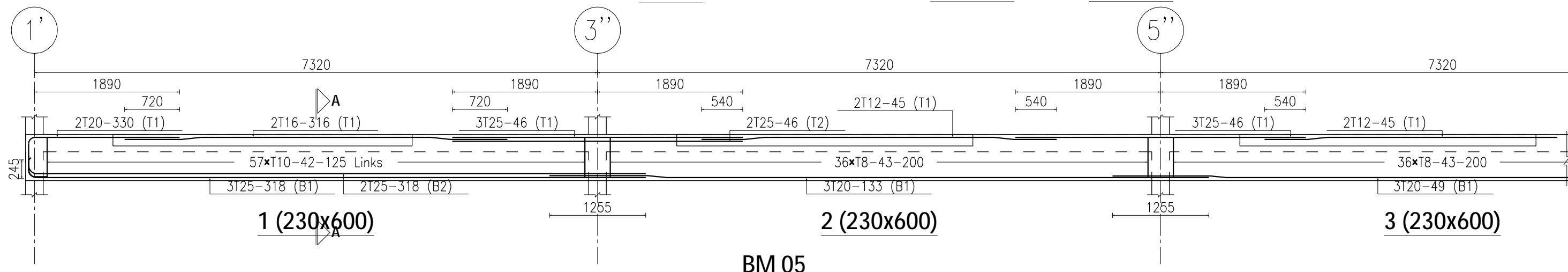
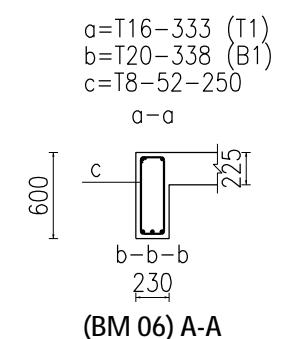
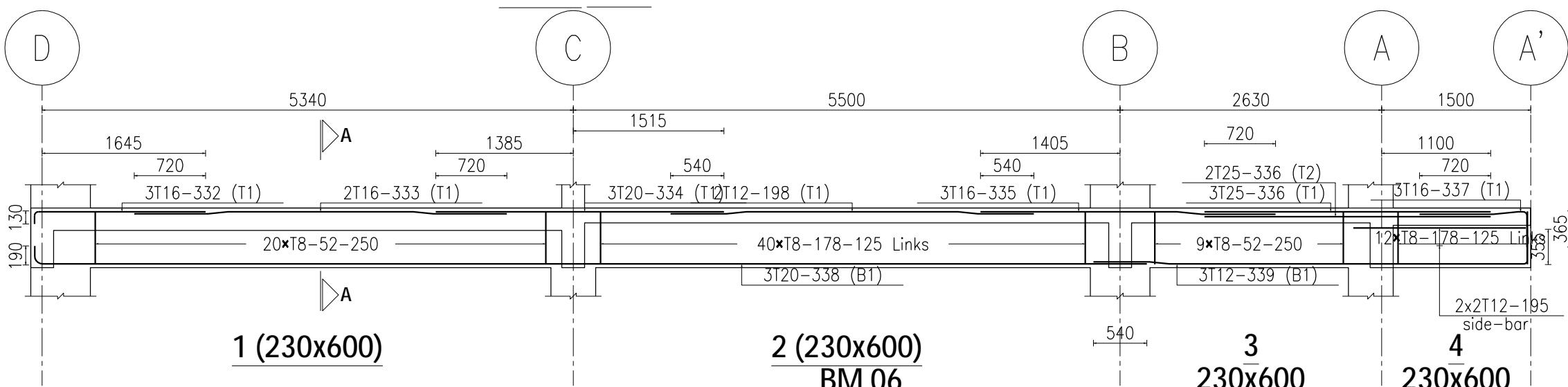
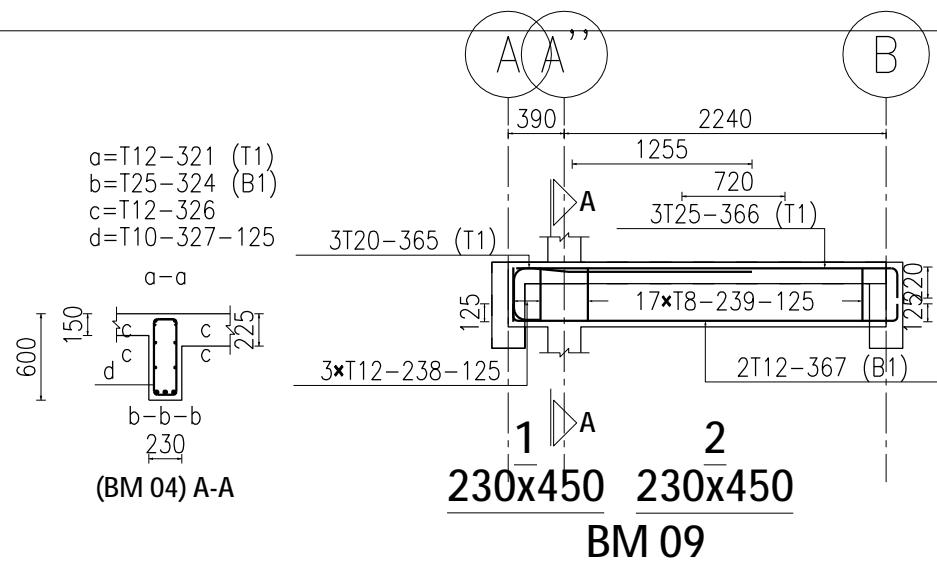
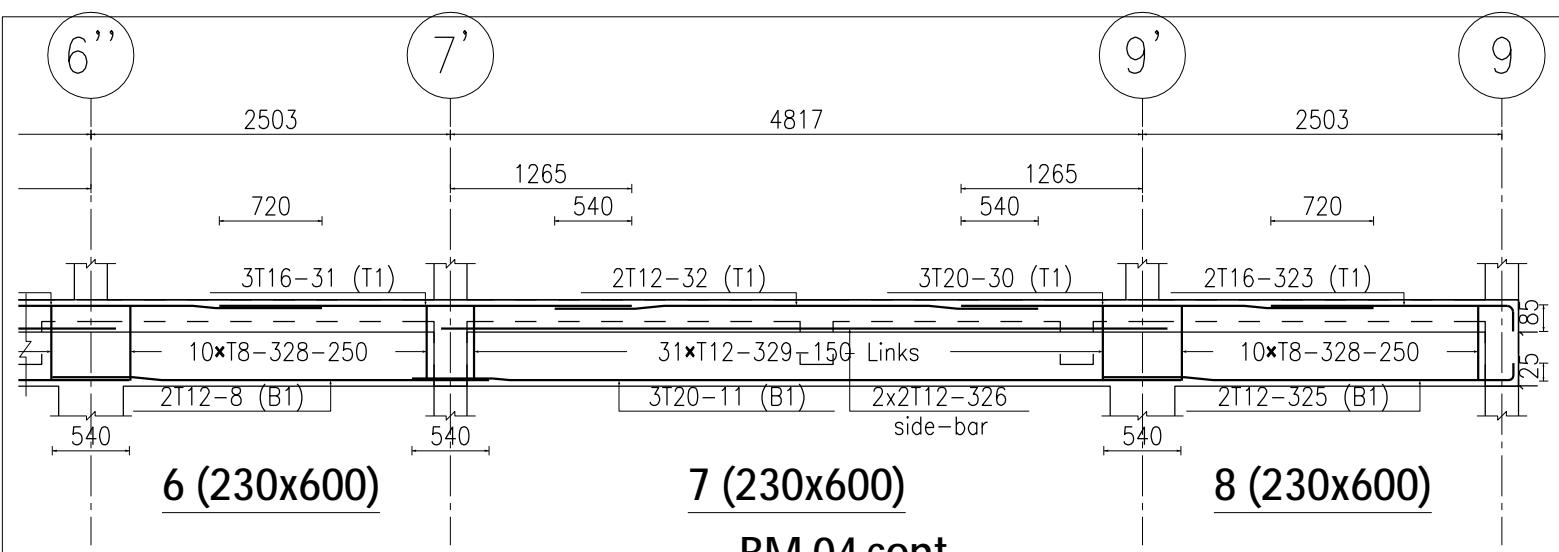
Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI (TYPE 4)	
LOCATION: Enter address here	

NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

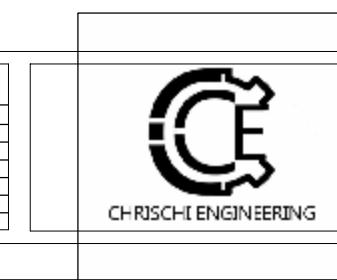
FIRST FLOOR BEAM DETAIL AND SECTIONS		
Project number	EB-0030	
Date	26 July 2022	
Drawn by	Author	
Checked by	OSE	Scale



ISSUED FOR PLANING APPROVAL ONLY

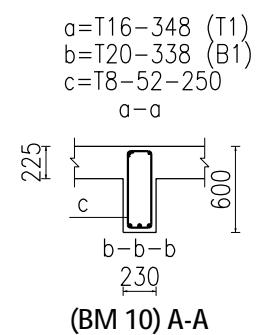
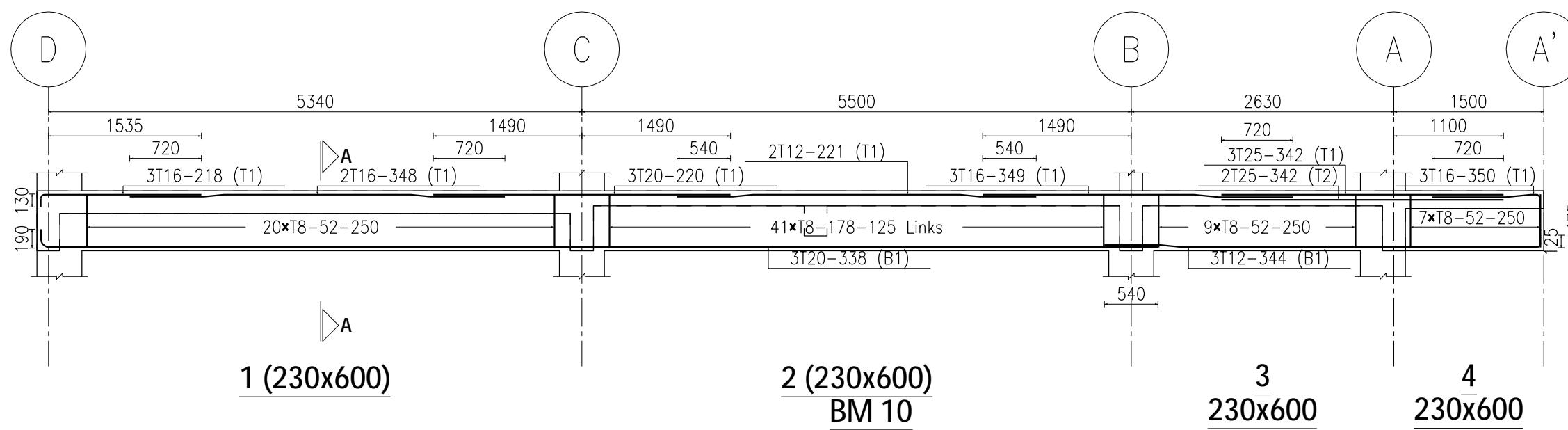
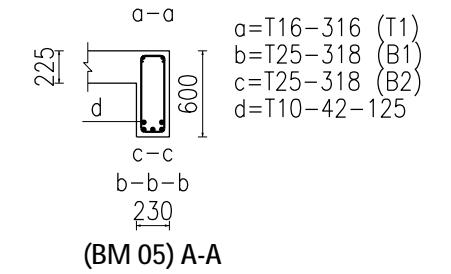
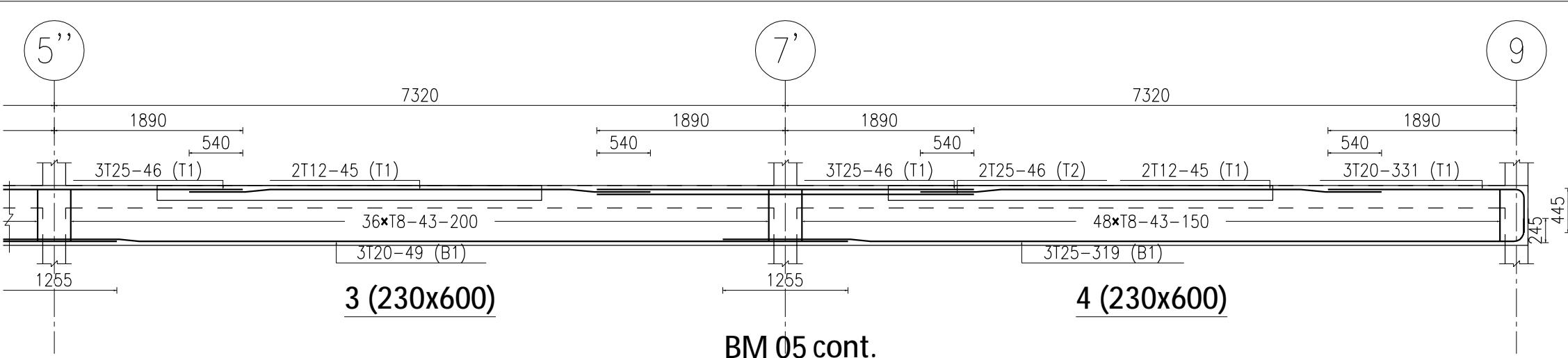
Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI (TYPE 4)	
LOCATION: Enter address here	

NO	REVISION	DATE



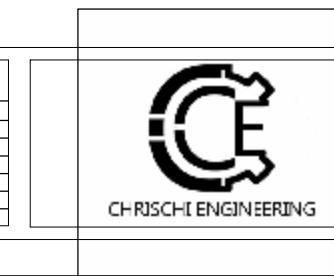
Client Name: MR. DEJI POPOOLA

Project number	EB-0030
Date	26 July 2022
Drawn by	Author
Checked by	OSE Scale



Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI (TYPE 4)	
LOCATION: Enter address here	

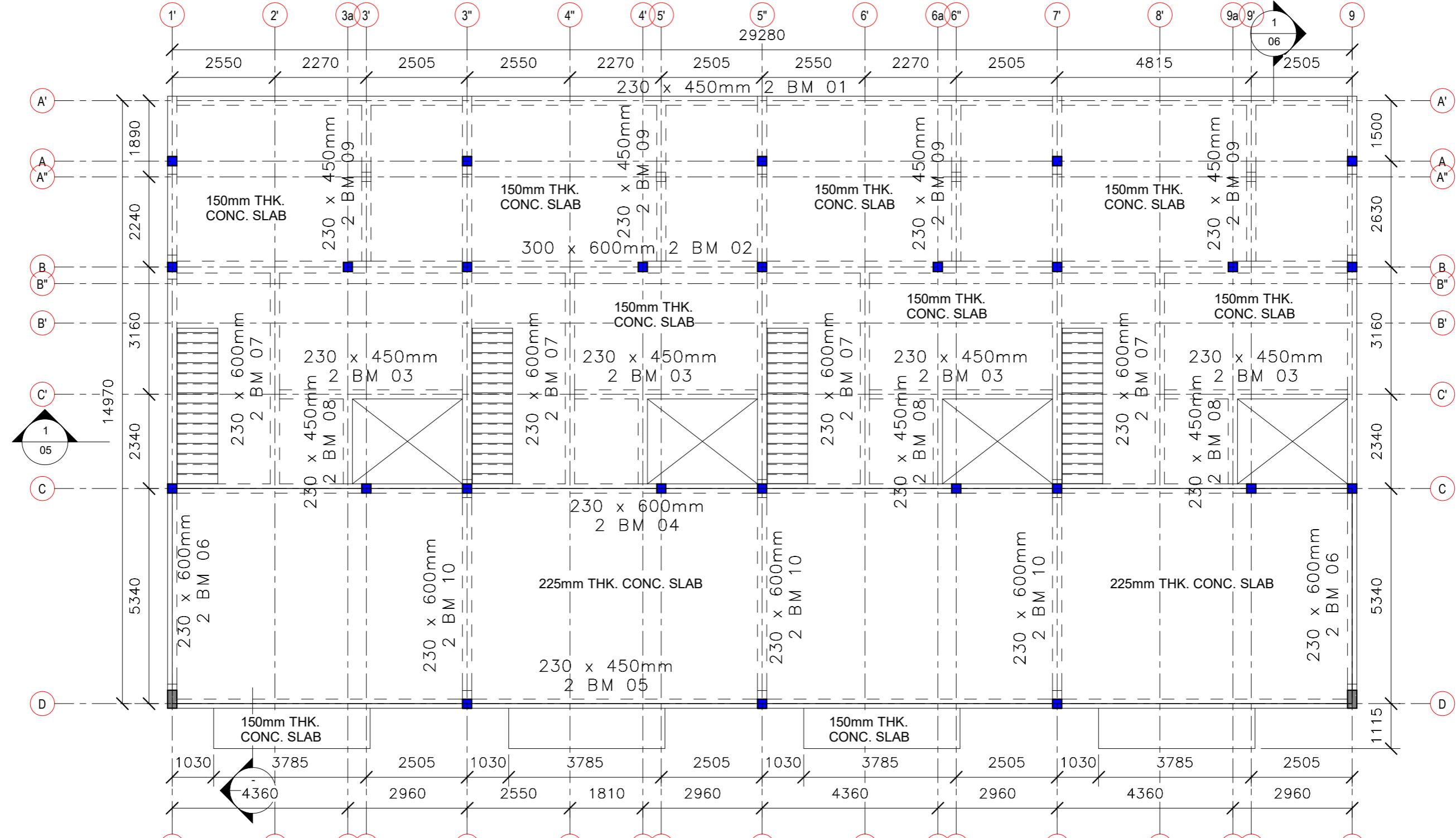
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

FIRST FLOOR BEAM DETAIL AND SECTIONS		
Project number	EB-0030	
Date	26 July 2022	
Drawn by	Author	
Checked by	OSE	Scale

ISSUED FOR PLANING APPROVAL ONLY



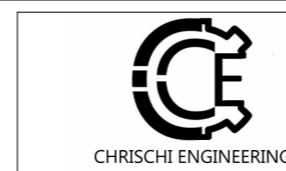
Second floor lvl

1 : 95

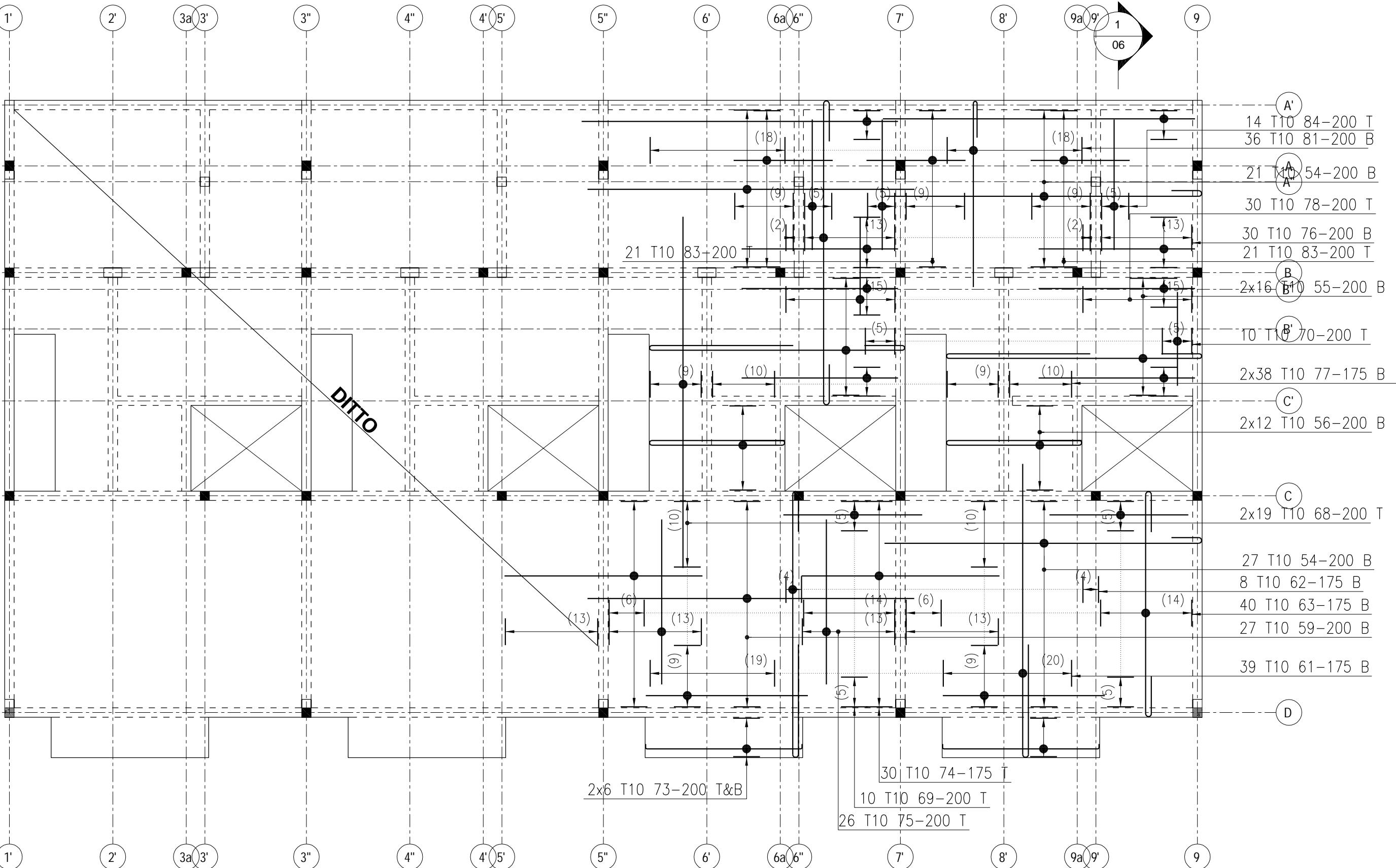
ISSUED FOR PLANING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI, OGUN STATE. (TYPE 4)

NO	REVISION	DATE



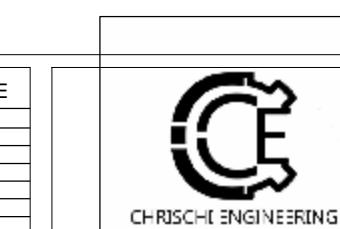
SECOND FLOOR LAYOUT		
Project number	EB-0030	
Date	26 July 2022	
Drawn by	Author	
Checked by	ose	Scale 1 : 95



ISSUED FOR PLANING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI,
OGUN STATE. (TYPE 4)

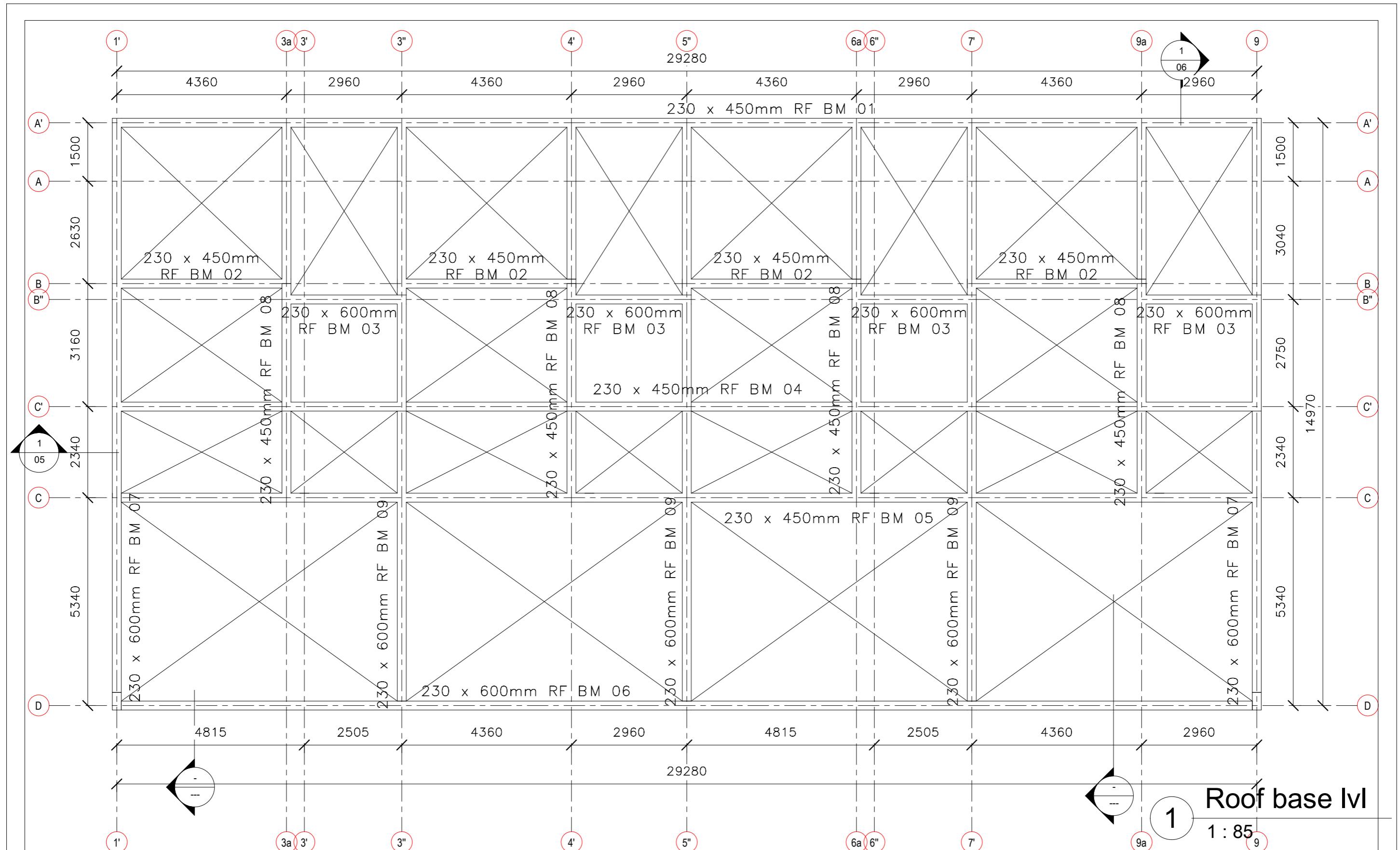
NO	REVISION	DATE

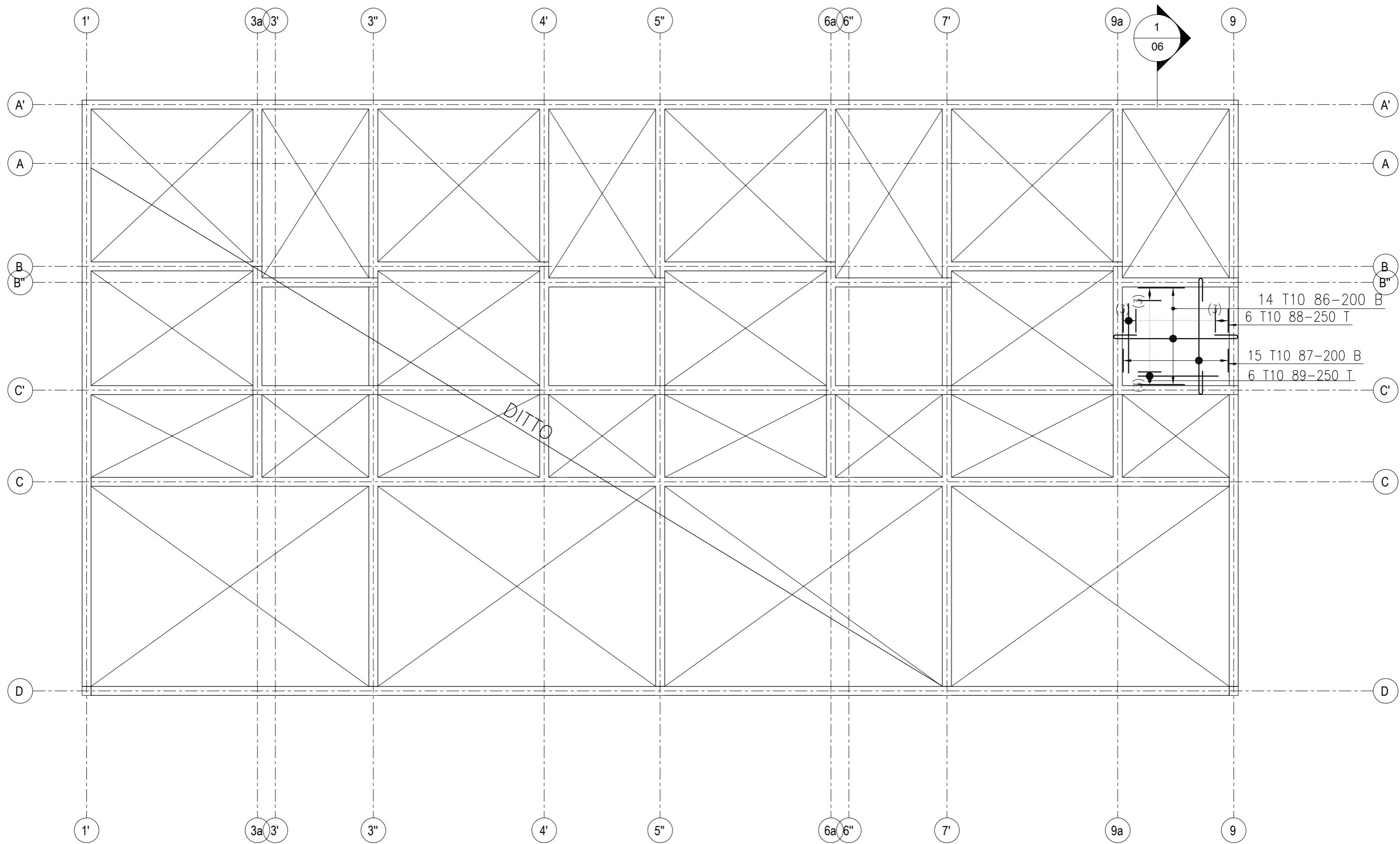


Client Name: MR. DEJI POPOOLA

SECOND FLOOR DETAIL AND SECTIONS

Project number	EB-0030	
Date	26 July 2022	
Drawn by	Author	
Checked by	ose	Scale As indicated

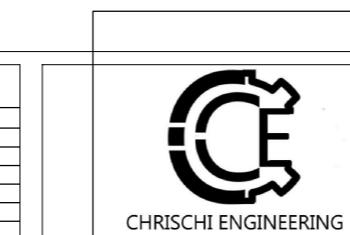




ISSUED FOR PLANING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI,
OGUN STATE. (TYPE 4)

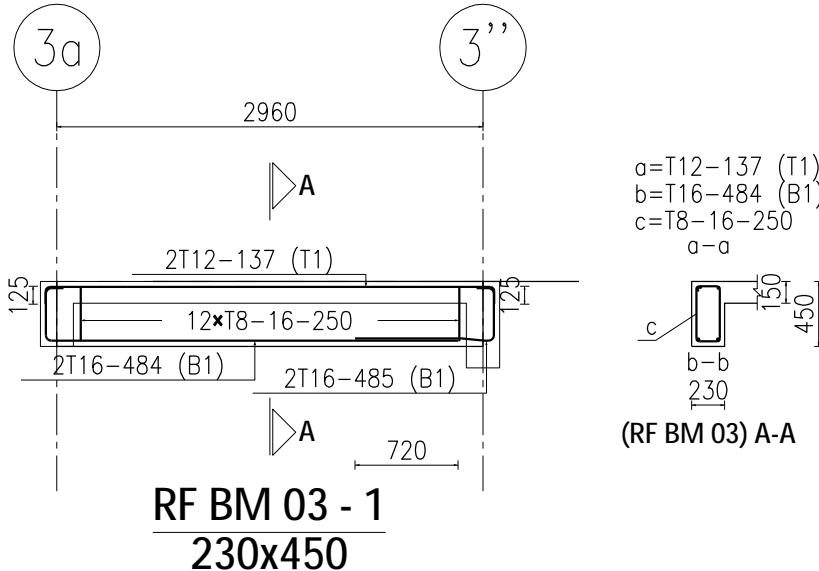
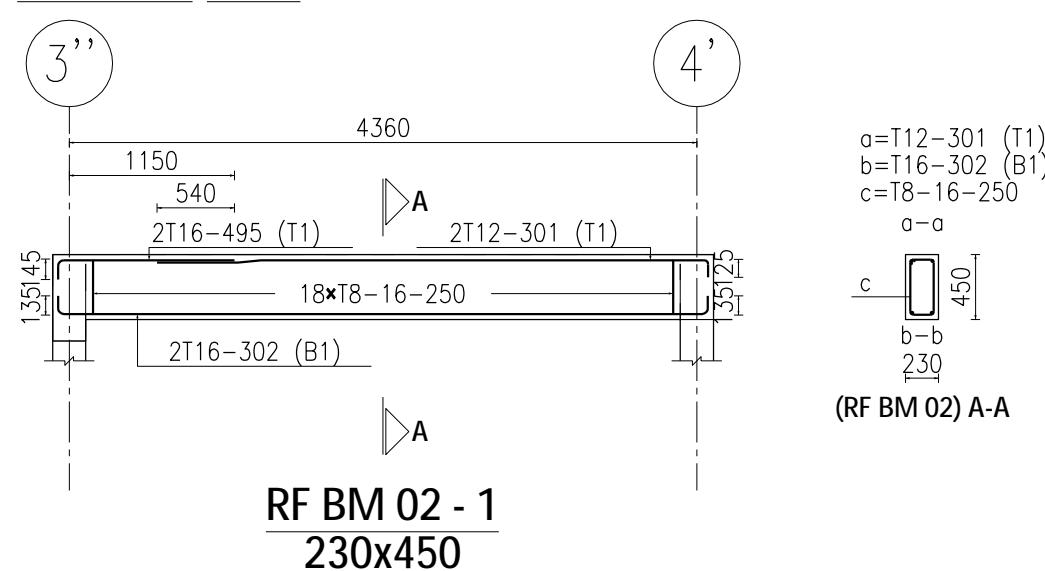
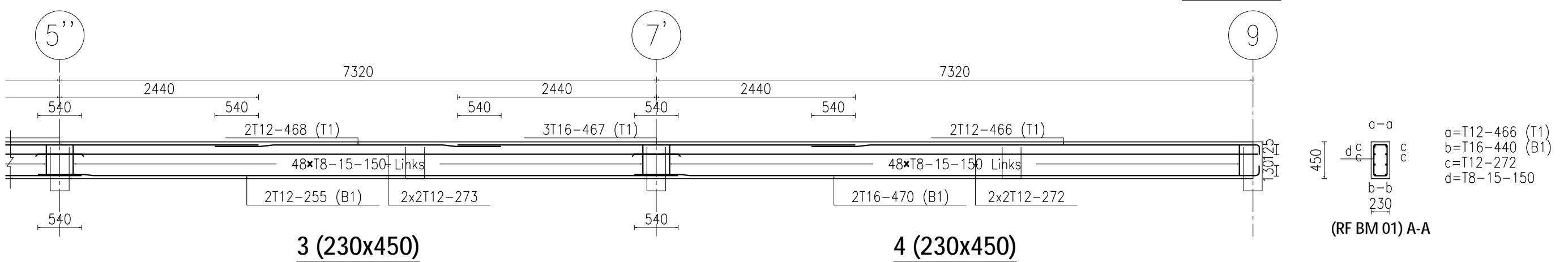
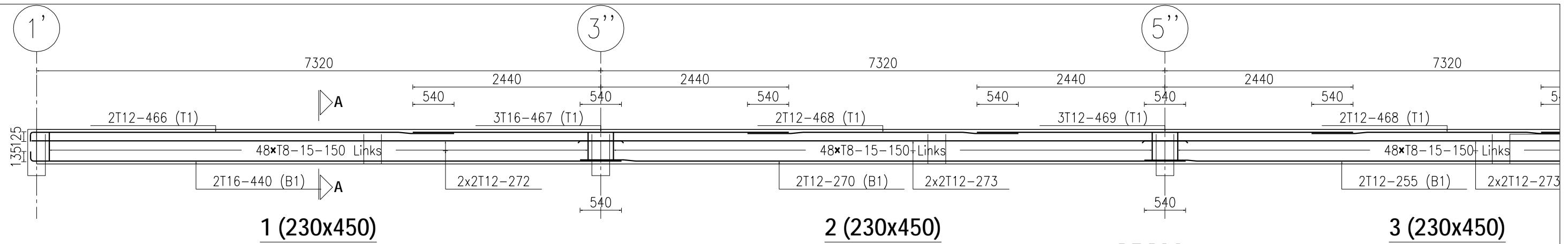
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

ROOF SLAB DETAIL AND SECTIONS

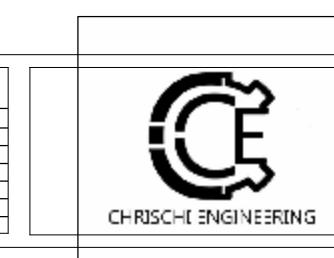
Project number	EB-0030	Author ose
Date	26 July 2022	
Drawn by		
Checked by		



ISSUED FOR PLANING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI (TYPE 4)	
LOCATION: Enter address here	

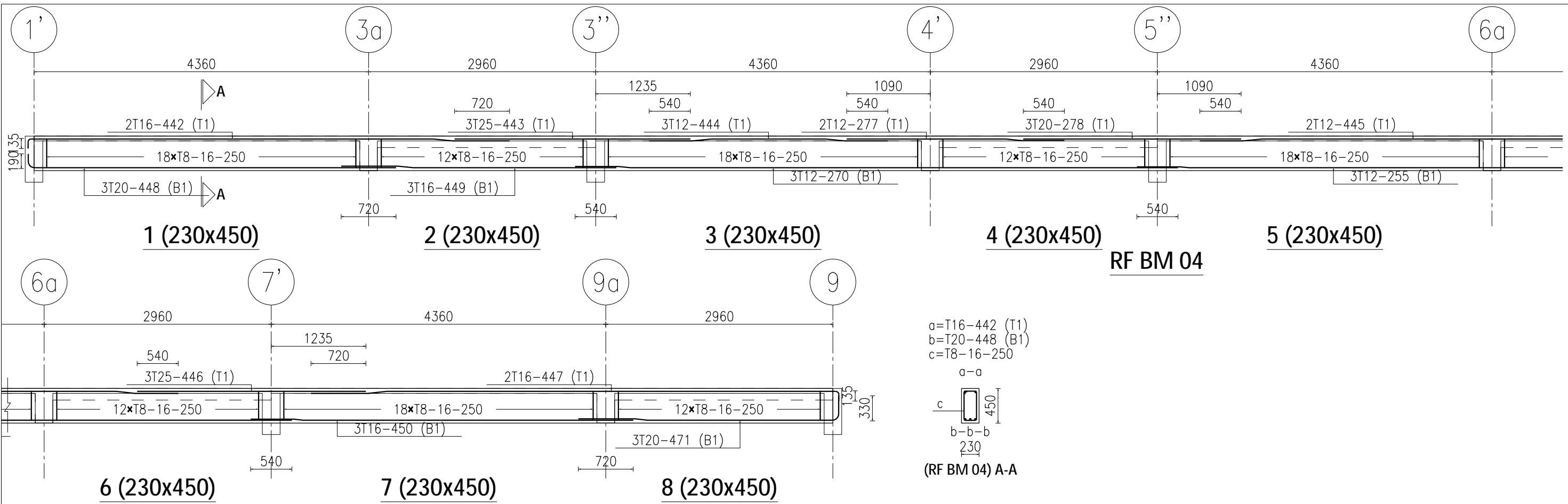
NO	REVISION	DATE



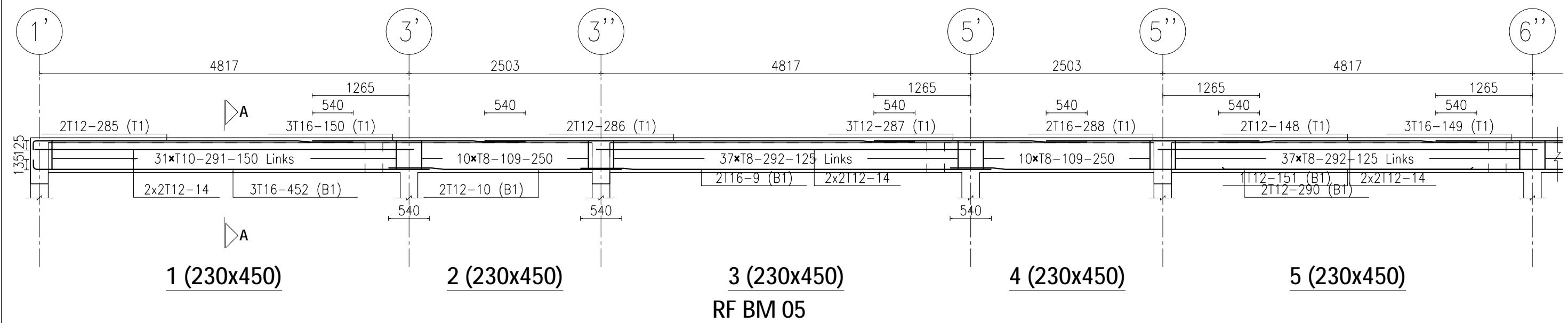
Client Name: MR. DEJI POPOOLA

ROOF BEAM DETAIL AND SECTIONS

Project number	EB-0030
Date	26 July 2022
Drawn by	Author
Checked by	OSE Scale



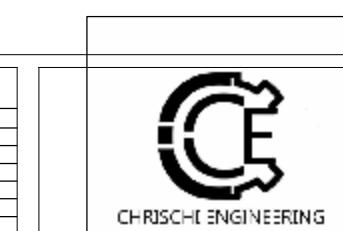
RF BM 04 cont.



ISSUED FOR PLANING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI (TYPE 4)	
LOCATION: Enter address here	

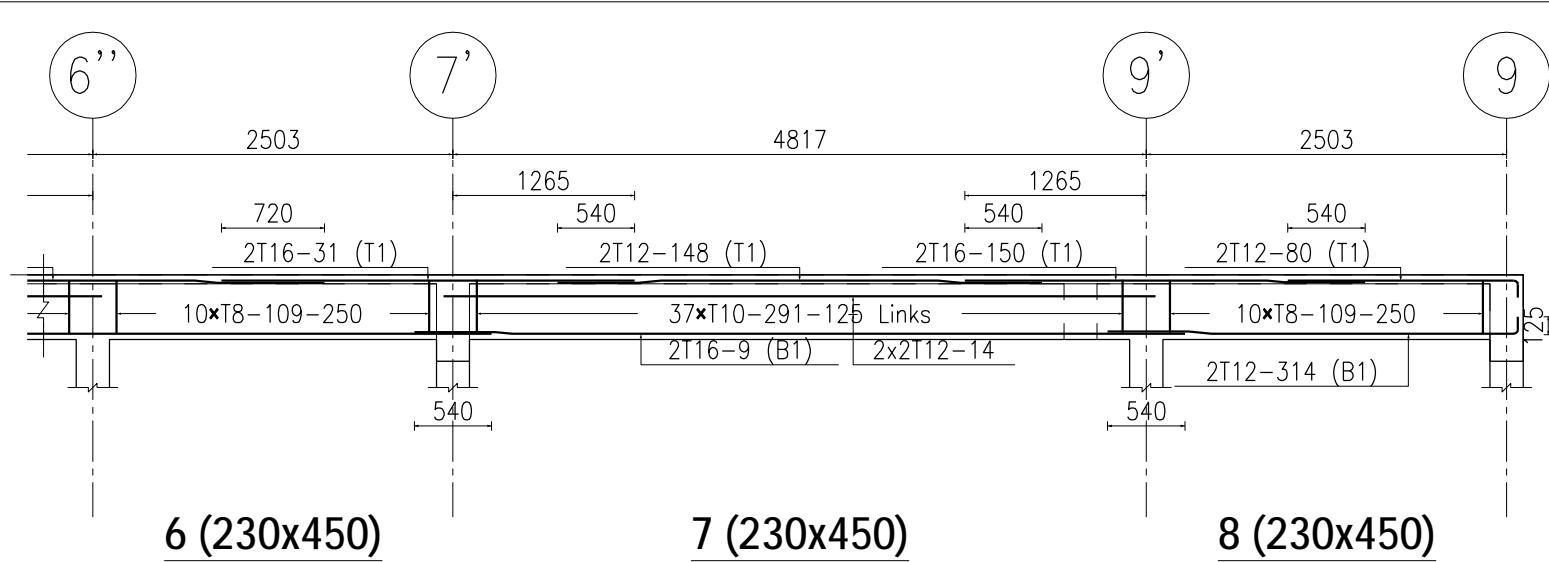
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

ROOF BEAM DETAIL AND SECTIONS

Project number	EB-0030
Date	26 July 2022
Drawn by	Author
Checked by	OSE Scale



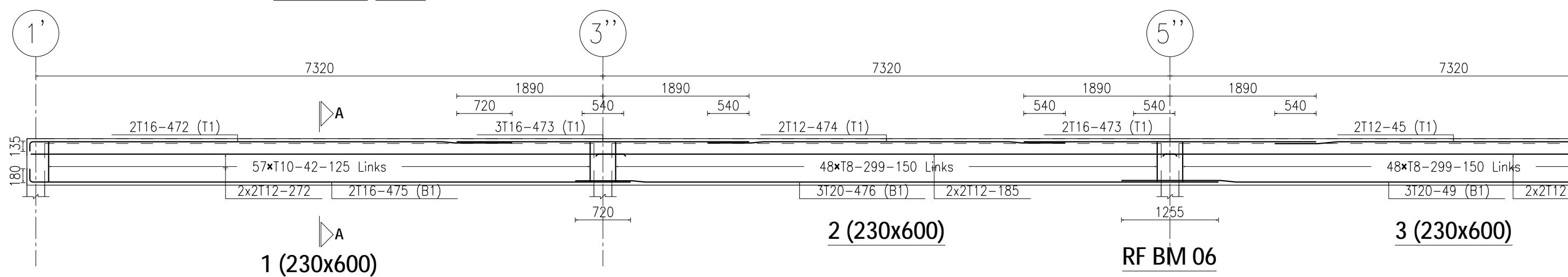
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 b=T16-452 (B1)
 c=T12-14
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 a-a
 b-b-b
 230
 (RF BM 05) A-A

6 (230x450)

7 (230x450)

8 (230x450)

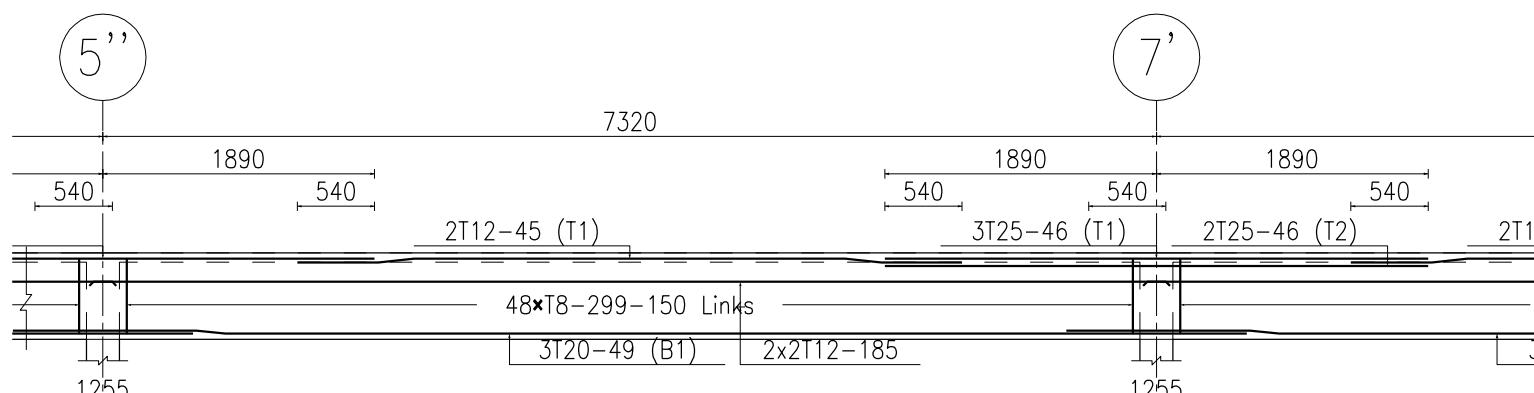
RF BM 05 cont.



1 (230x600)

2 (230x600)

3 (230x600)



RF BM 06

RF BM 06 cont.

a=T16-472 (T1)
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 d=T10-42-125
 a-a
 b-b
 230
 (RF BM 06) A-A

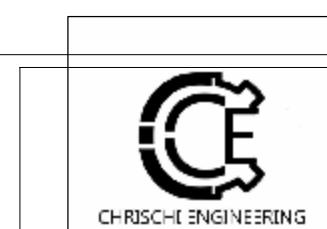
3 (230x600)

4 (230x600)

ISSUED FOR PLANING APPROVAL ONLY

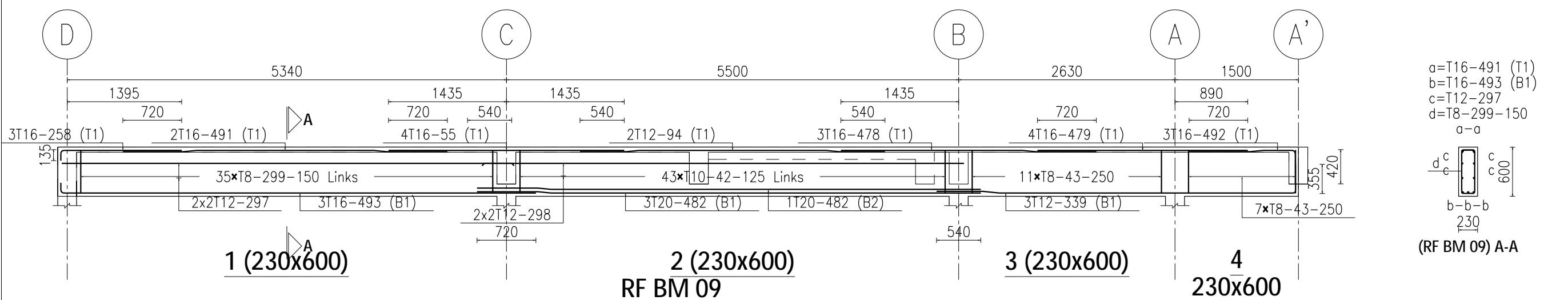
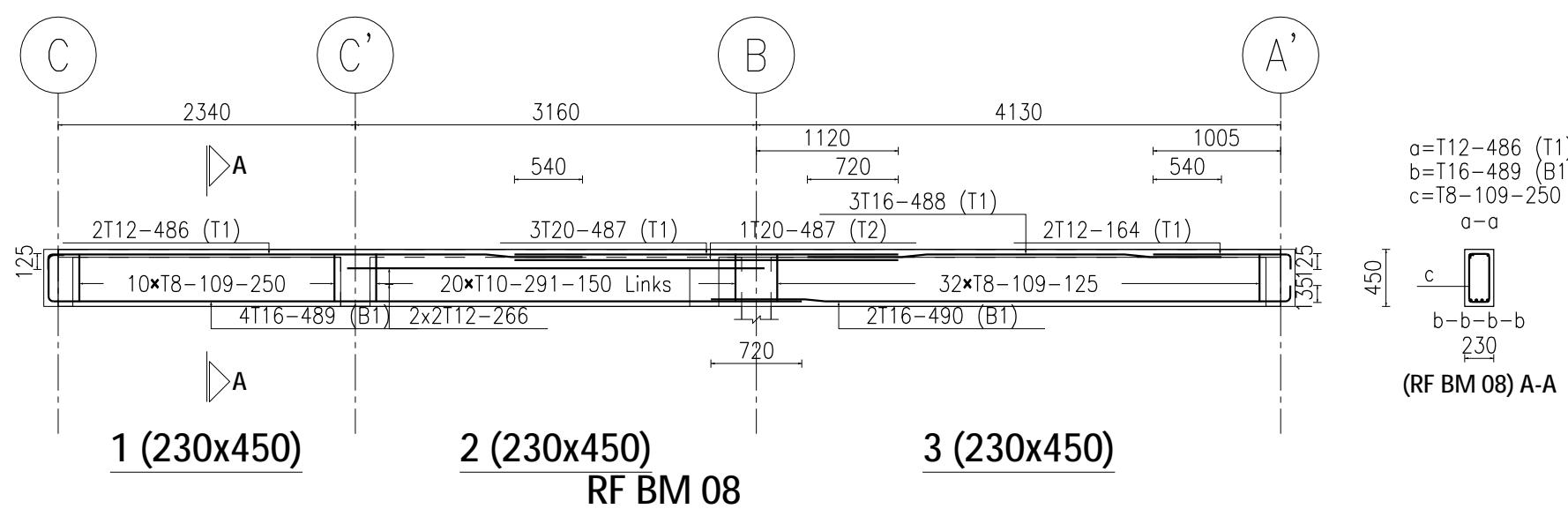
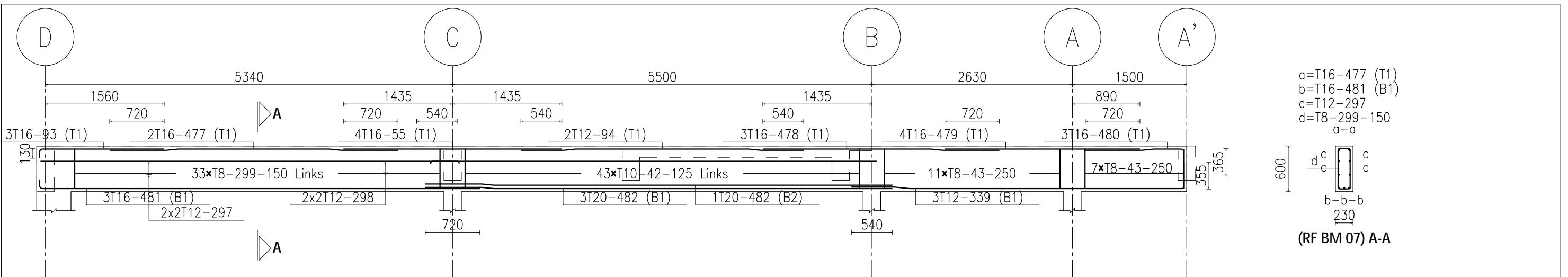
Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI (TYPE 4)		
LOCATION: Enter address here		

NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

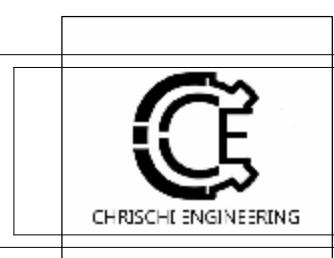
ROOF BEAM DETAIL AND SECTIONS		
Project number	EB-0030	
Date	26 July 2022	
Drawn by	Author	
Checked by	OSE	Scale



ISSUED FOR PLANING APPROVAL ONLY

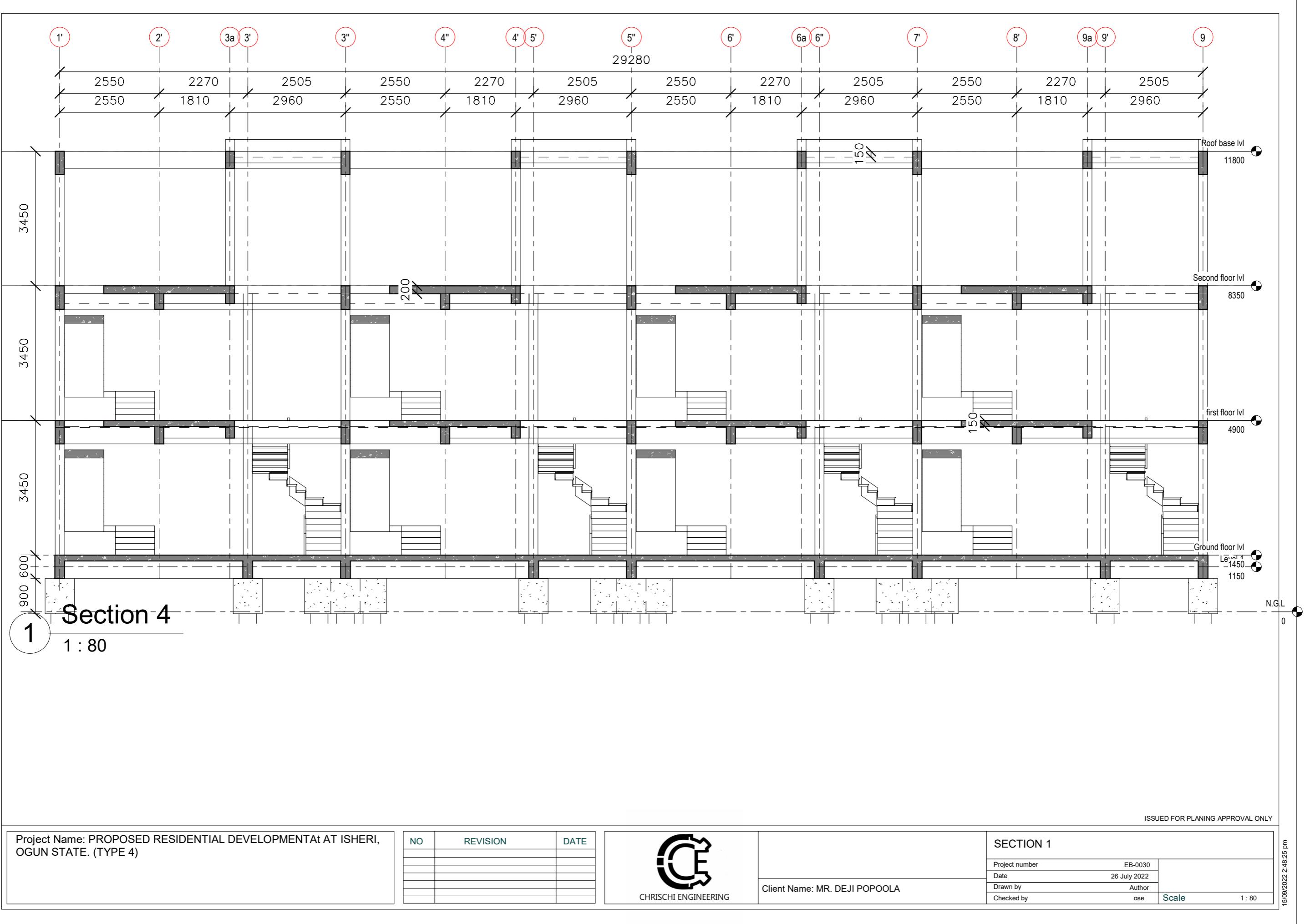
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LOCATION: Enter address here		

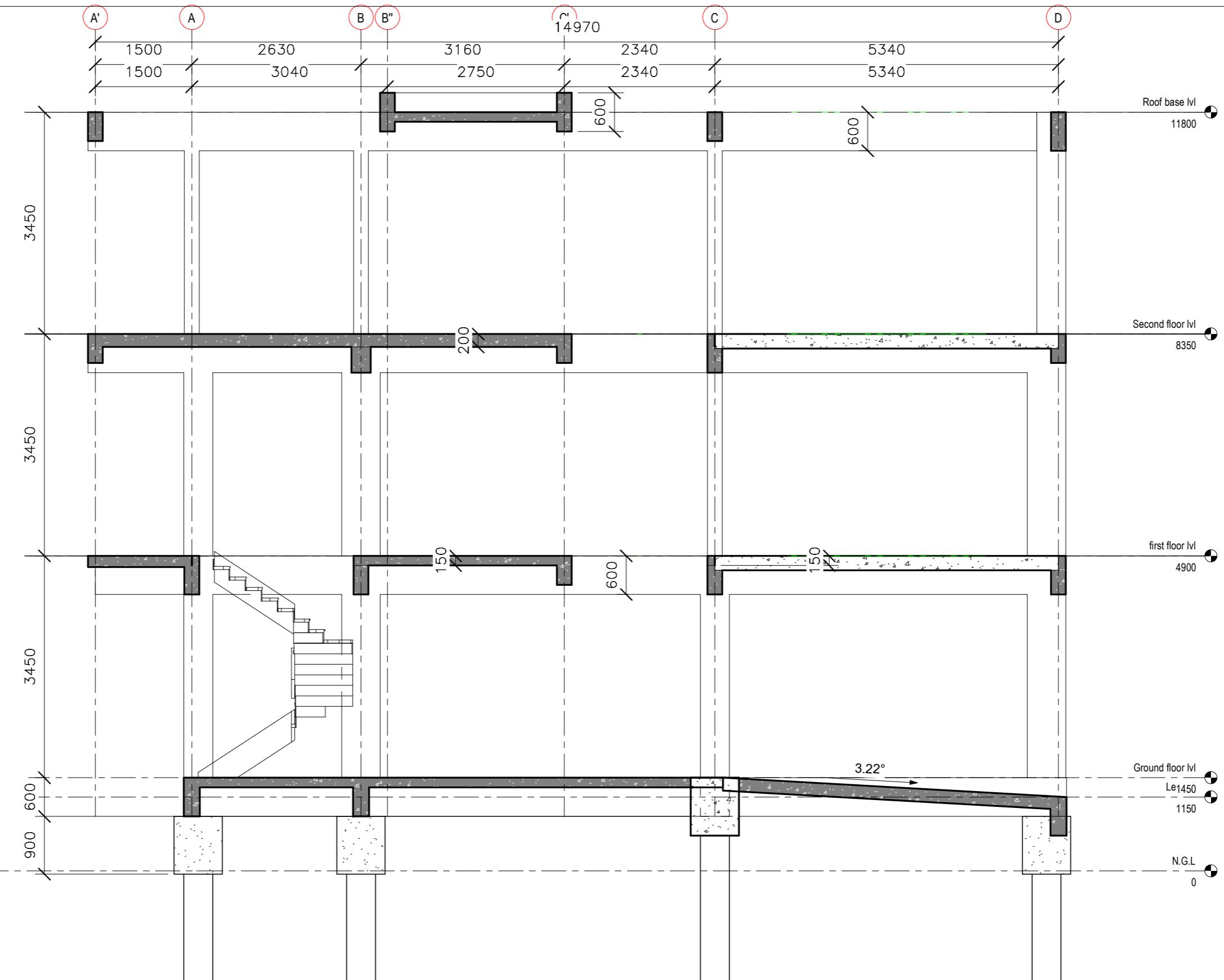
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

Project number	EB-0030
Date	26 July 2022
Drawn by	Author
Checked by	OSE Scale





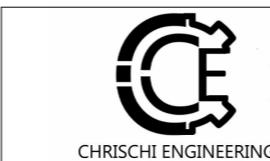
Section 2

1 : 60

ISSUED FOR PLANING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI,
OGUN STATE. (TYPE 4)

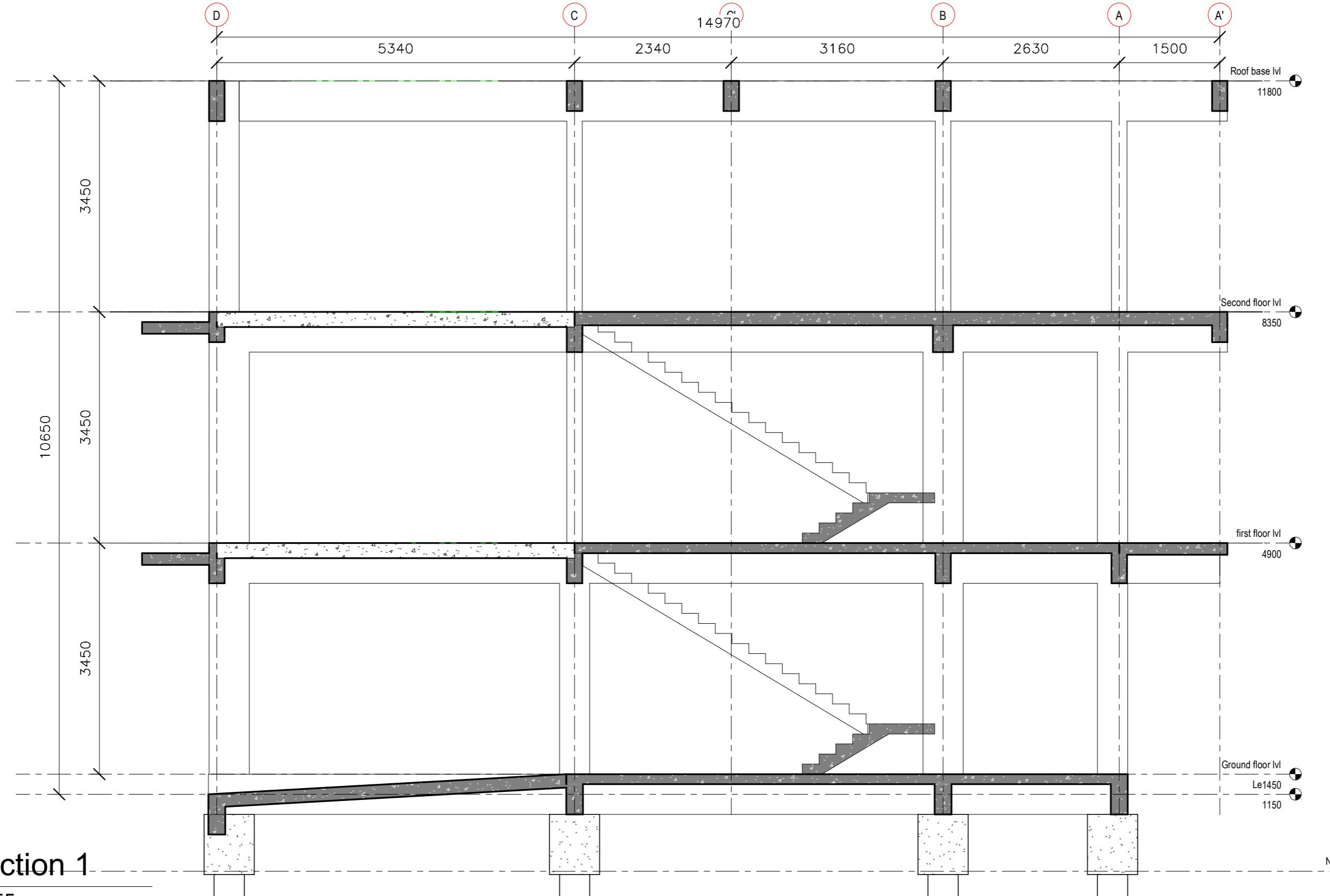
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

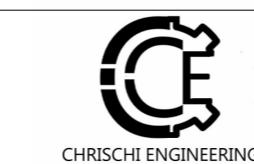
SECTION 2

Project number	EB-0030
Date	26 July 2022
Drawn by	Author
Checked by	ose
	Scale 1 : 60



Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI,
OGUN STATE. (TYPE 4)

NO	REVISION	DATE

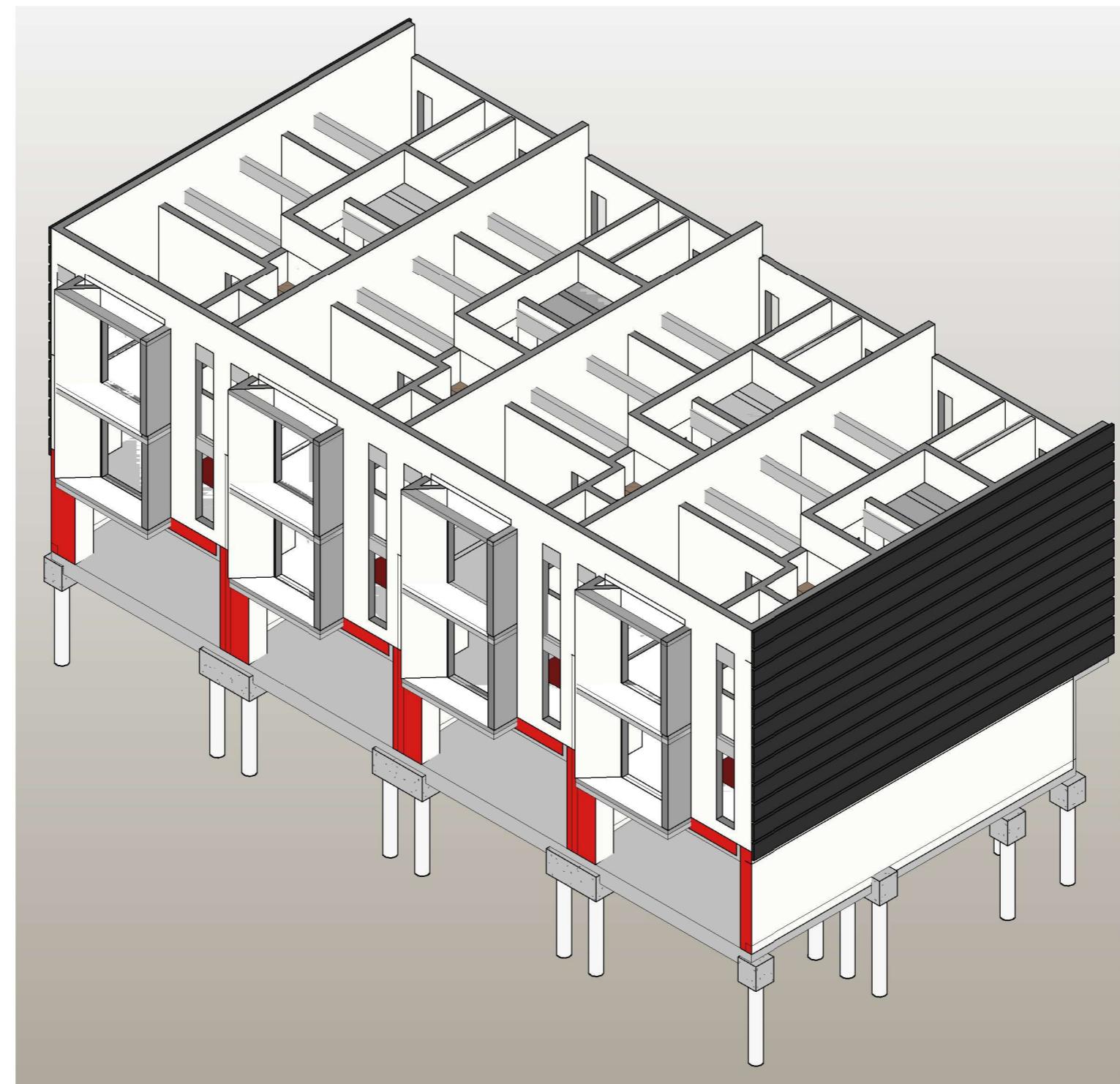


Client Name: MR. DEJI POPOOLA

SECTION 3

Project number	EB-0030
Date	26 July 2022
Drawn by	Author
Checked by	ose
	Scale 1 : 55

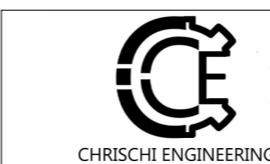
ISSUED FOR PLANNING APPROVAL ONLY



ISSUED FOR PLANNING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI,
OGUN STATE. (TYPE 4)

NO	REVISION	DATE

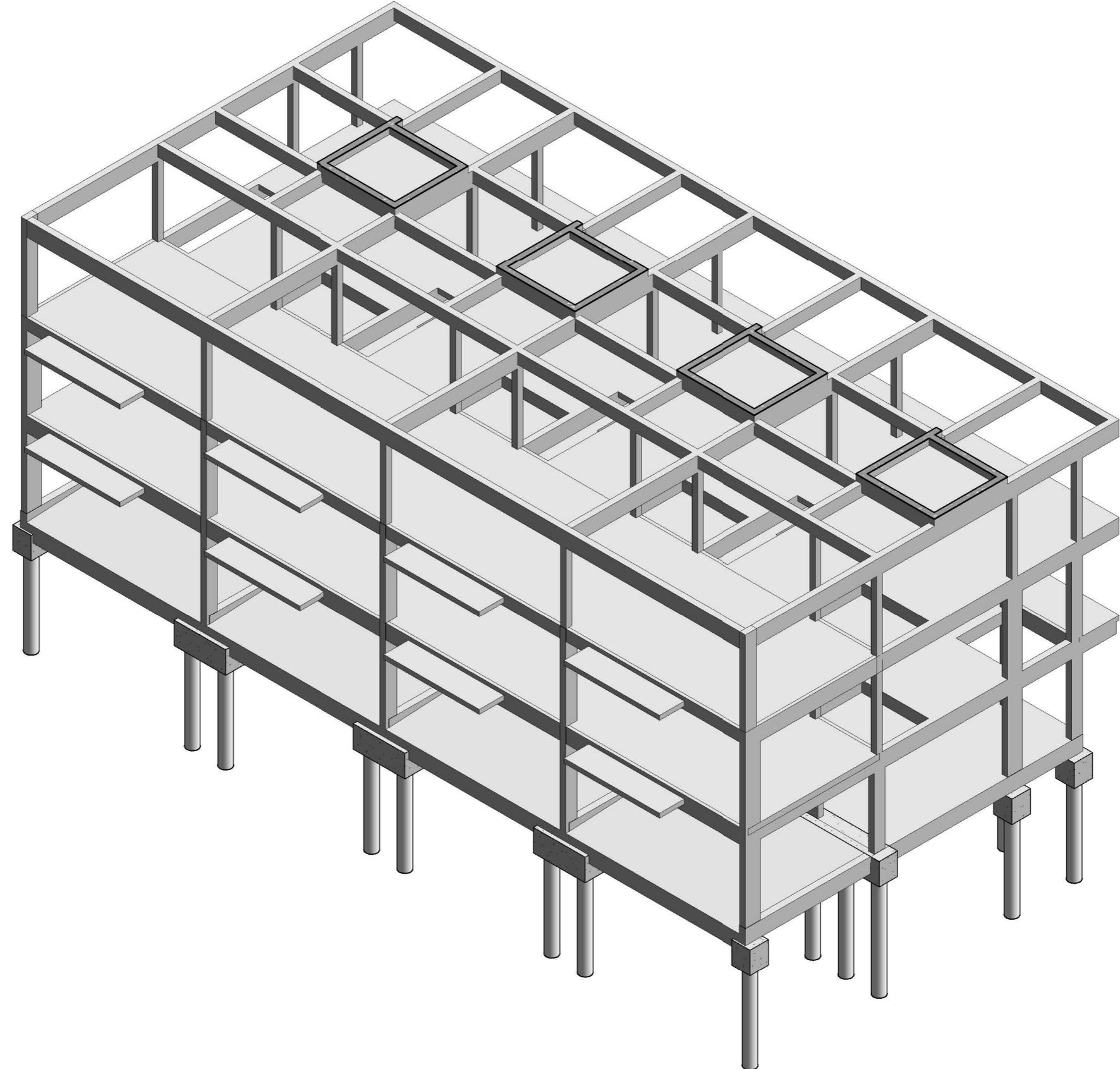


CHRISCHI ENGINEERING

Client Name: MR. DEJI POPOOLA

3D

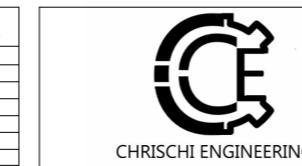
Project number	EB-0030
Date	26 July 2022
Drawn by	OSE
Checked by	ose



ISSUED FOR PLANING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI,
OGUN STATE. (TYPE 4)

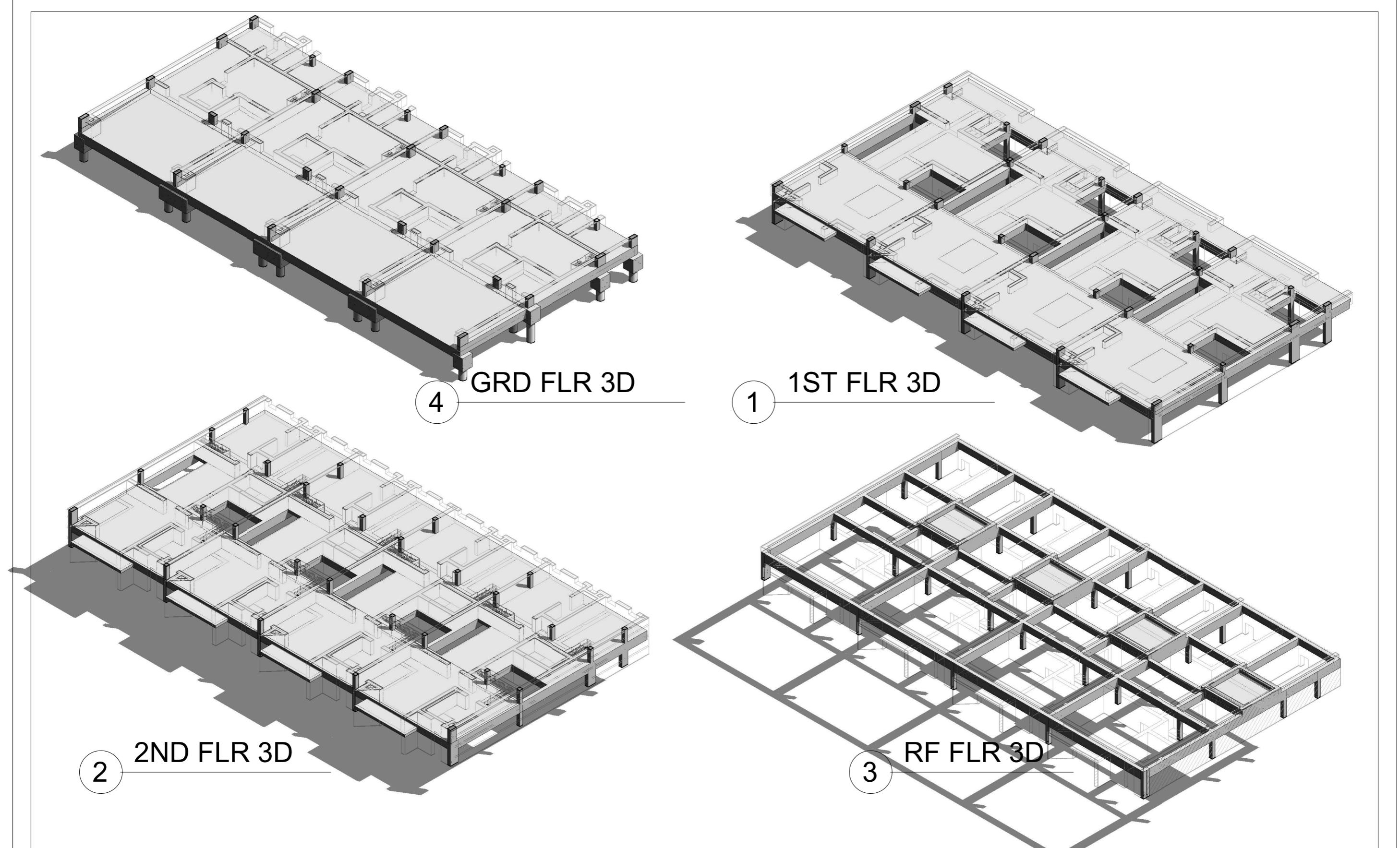
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

STRUCTURAL FRAME

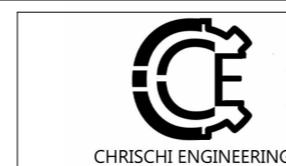
Project number	EB-0030
Date	26 July 2022
Drawn by	Author
Checked by	ose Scale



ISSUED FOR PLANING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI,
OGUN STATE. (TYPE 4)

NO	REVISION	DATE



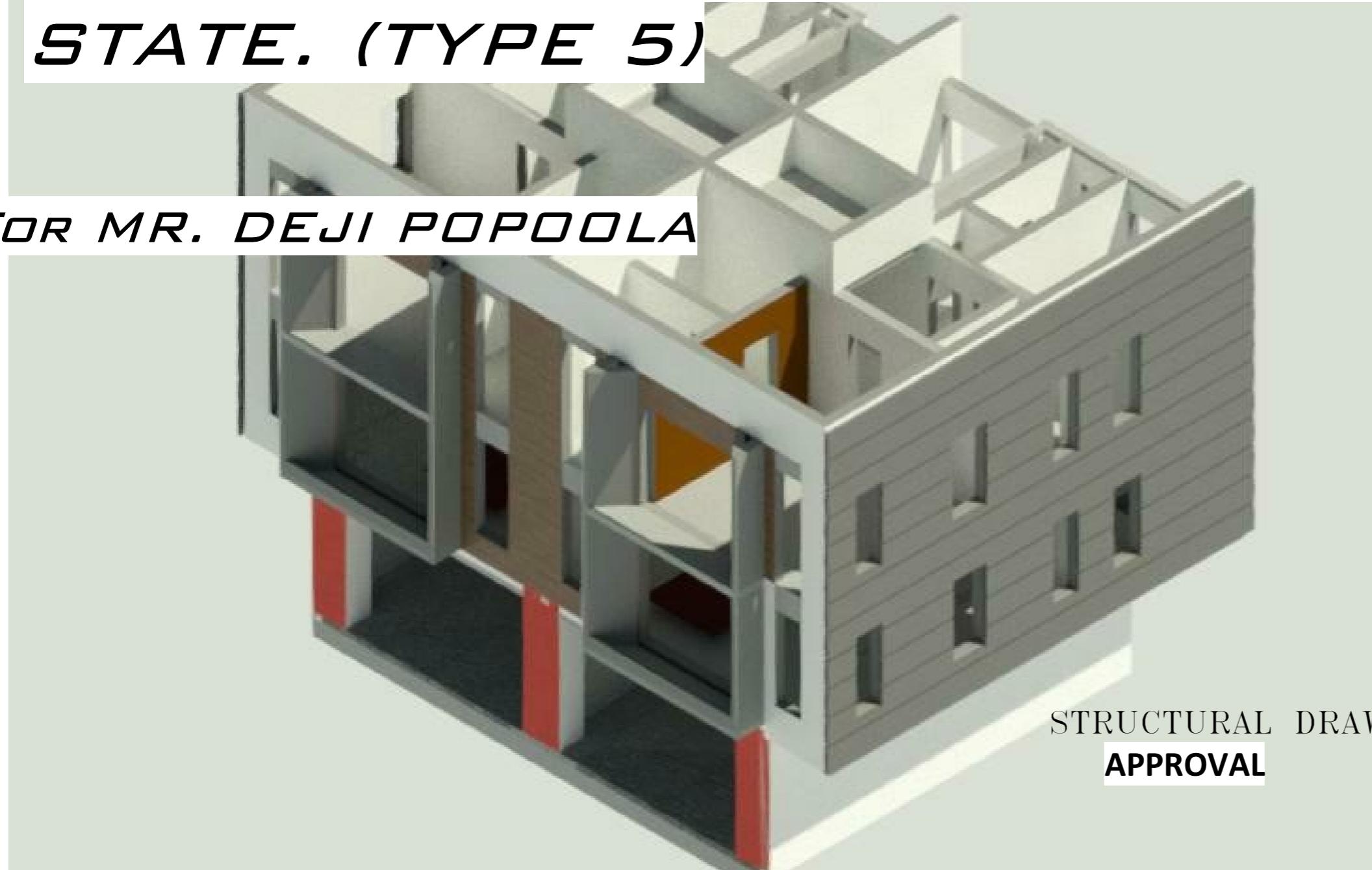
Client Name: MR. DEJI POPOOLA

FLOOR 3D

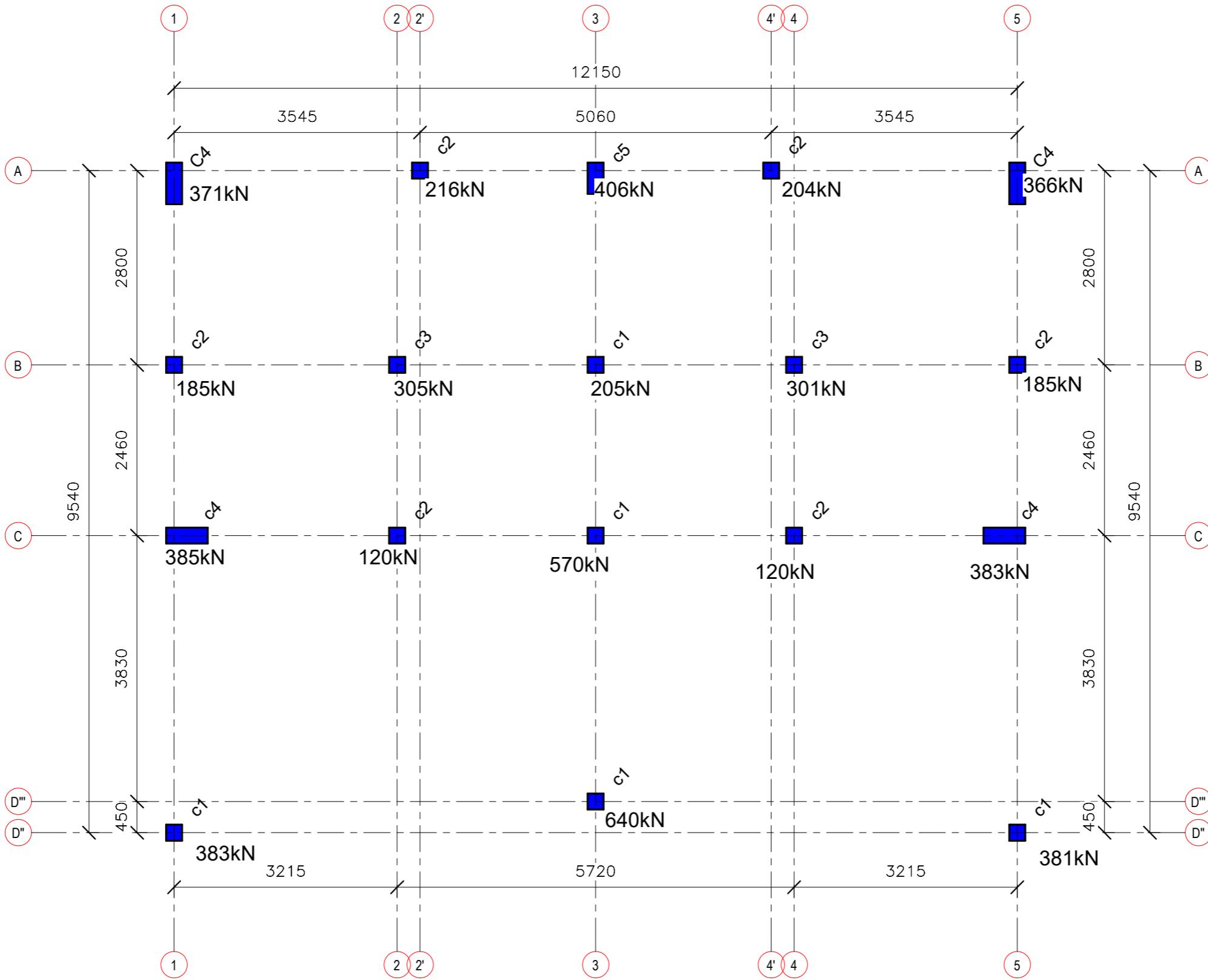
Project number	EB-0030
Date	26 July 2022
Drawn by	Author
Checked by	ose Scale

*PROPOSED RESIDENTIAL
DEVELOPMENT AT ISHERI, OGUN
STATE. (TYPE 5)*

FOR MR. DEJI POPOOLA



STRUCTURAL DRAWINGS
APPROVAL



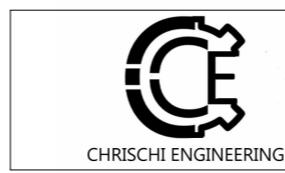
Ground floor Column

1 : 60

ISSUED FOR PLANNING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI, OGUN STATE. (TYPE 5)

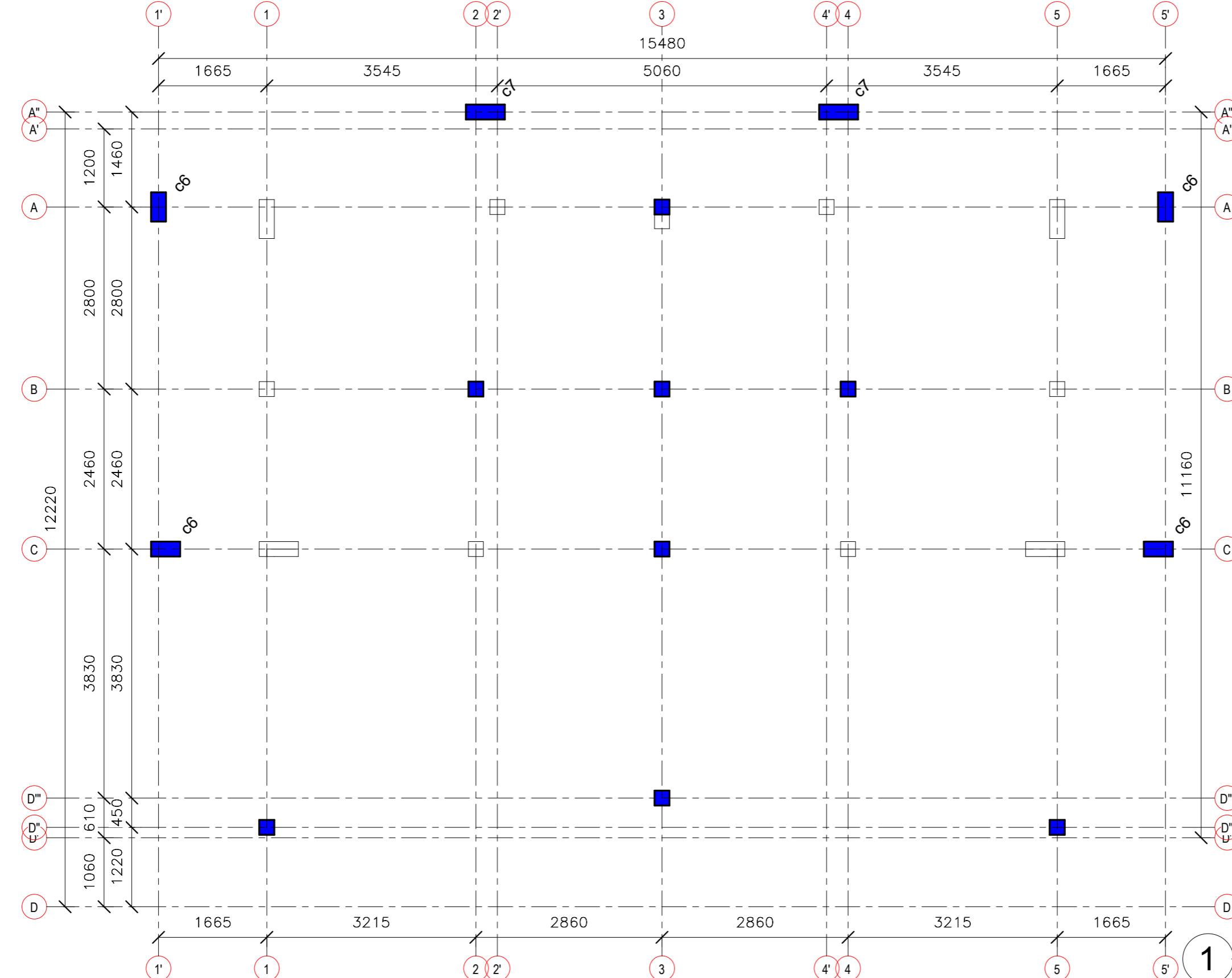
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

GROUND FLOOR COLUMN LAYOUT

Project number	EB-0030
Date	26 July 2022
Drawn by	Author
Checked by	ose

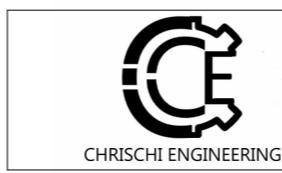


First floor Column
1 : 60

ISSUED FOR PLANNING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI, OGUN STATE. (TYPE 5)

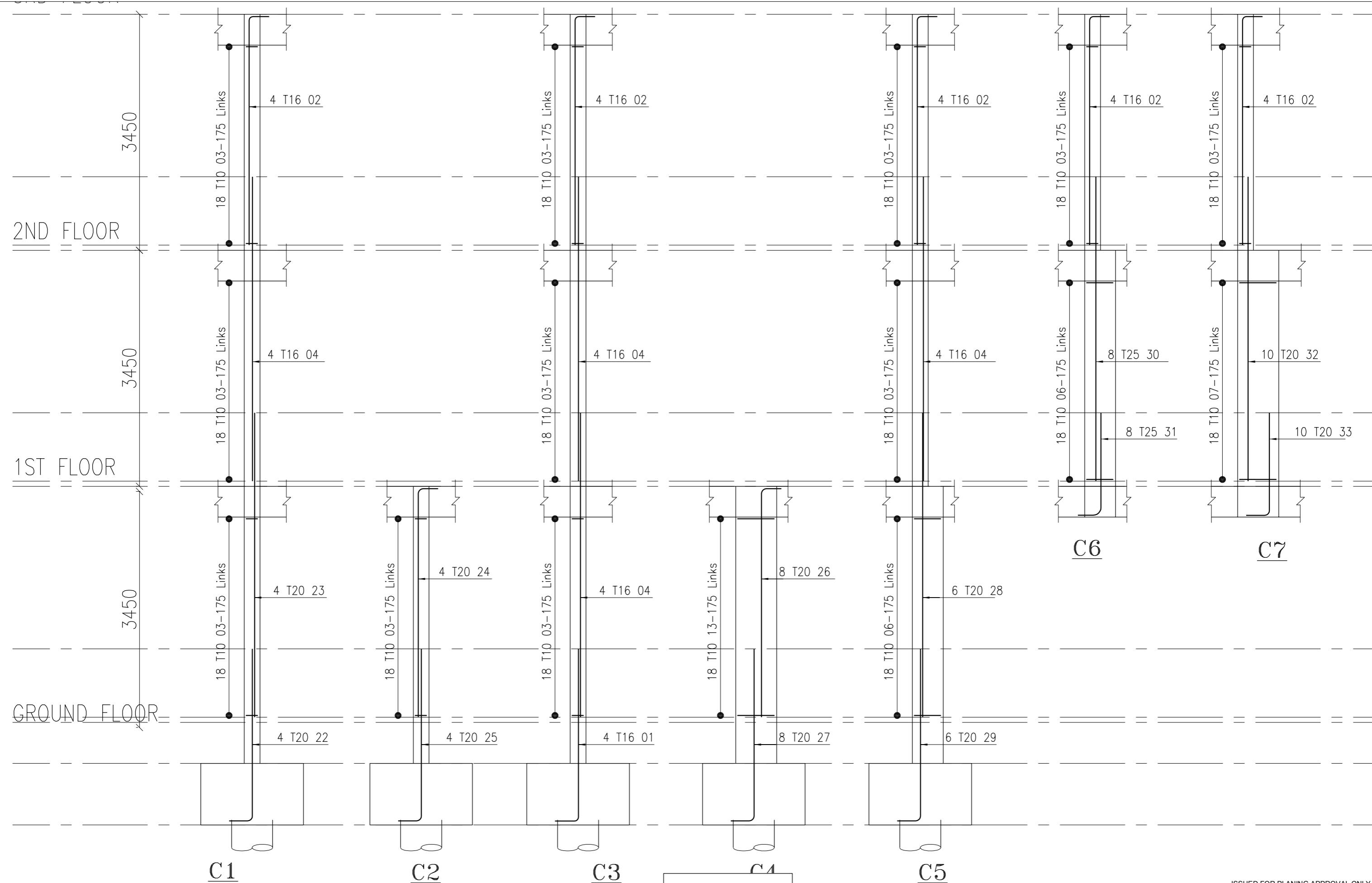
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

FIRST FLOOR COLUMN

Project number	EB-0030
Date	26 July 2022
Drawn by	Author
Checked by	ose

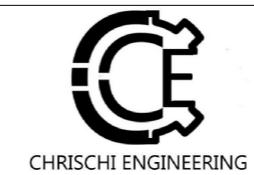


ISSUED FOR PLANING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI
(TYPE 5)

LOCATION: Enter address here

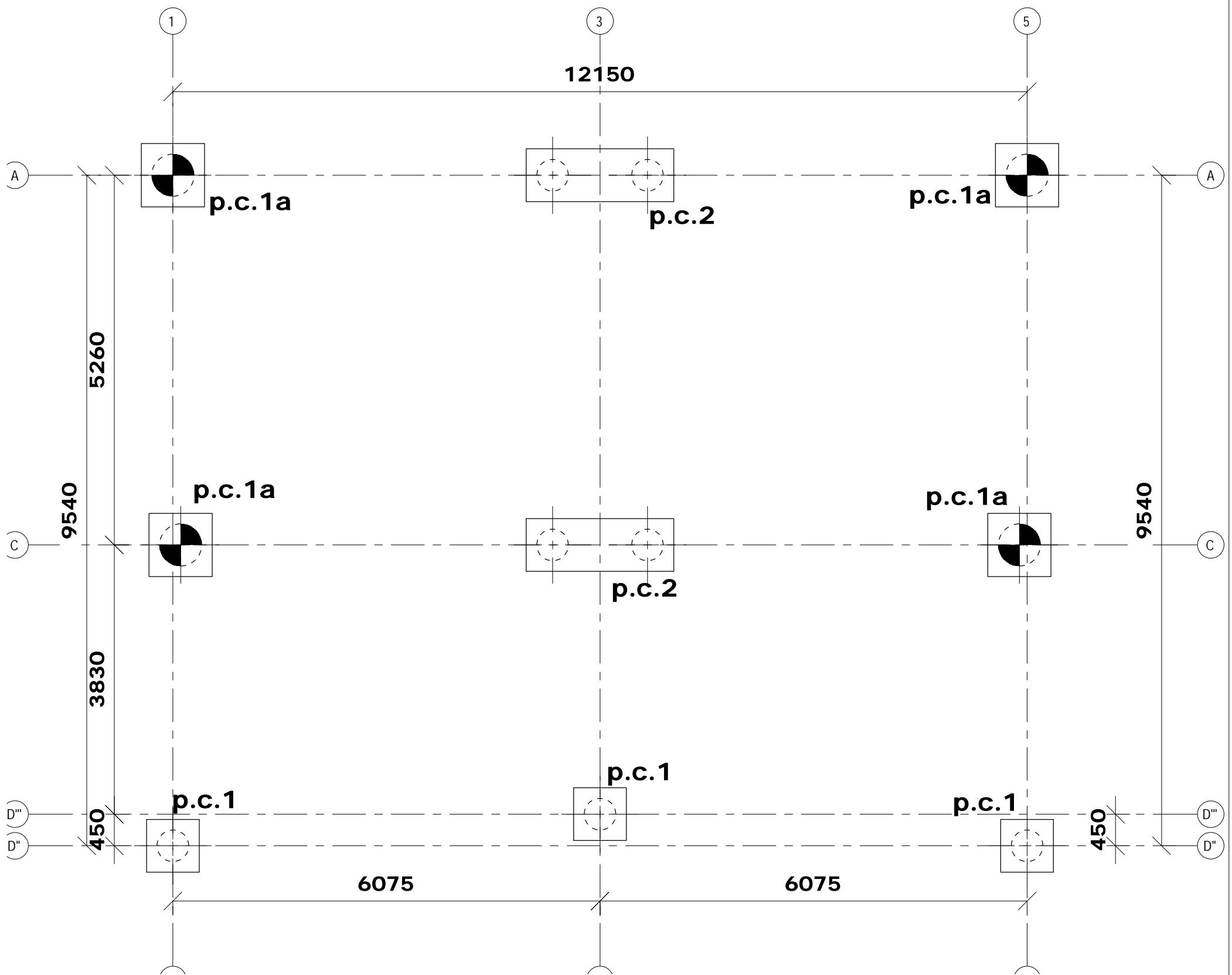
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

COLUMN BEAM DETAIL

Project number	EB-0030	Author OSE
Date	26 July 2022	
Drawn by		
Checked by		



PILECAP SCHEDULE

S/N	PILECAP	DIMENSION	Count
01	P.C.1	750 x 750 x 900mm	3
02	P.C.1a	900 x 900 x 900mm	4
03	P.C.2	750 x 2100 x 900mm	2
TOTAL NUMBER OF PILECAP			9

PILE SCHEDULE

S/N	PILE	SAFE WORKING LOAD	DEPTH	Count
01	450mm	637kN	29000mm	7
02	600mm	913kN		4
TOTAL NUMBER OF PILES				11

1 PILECAP LAYOUT 1 : 60

ISSUED FOR PLANING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI,
OGUN STATE. (TYPE 5)

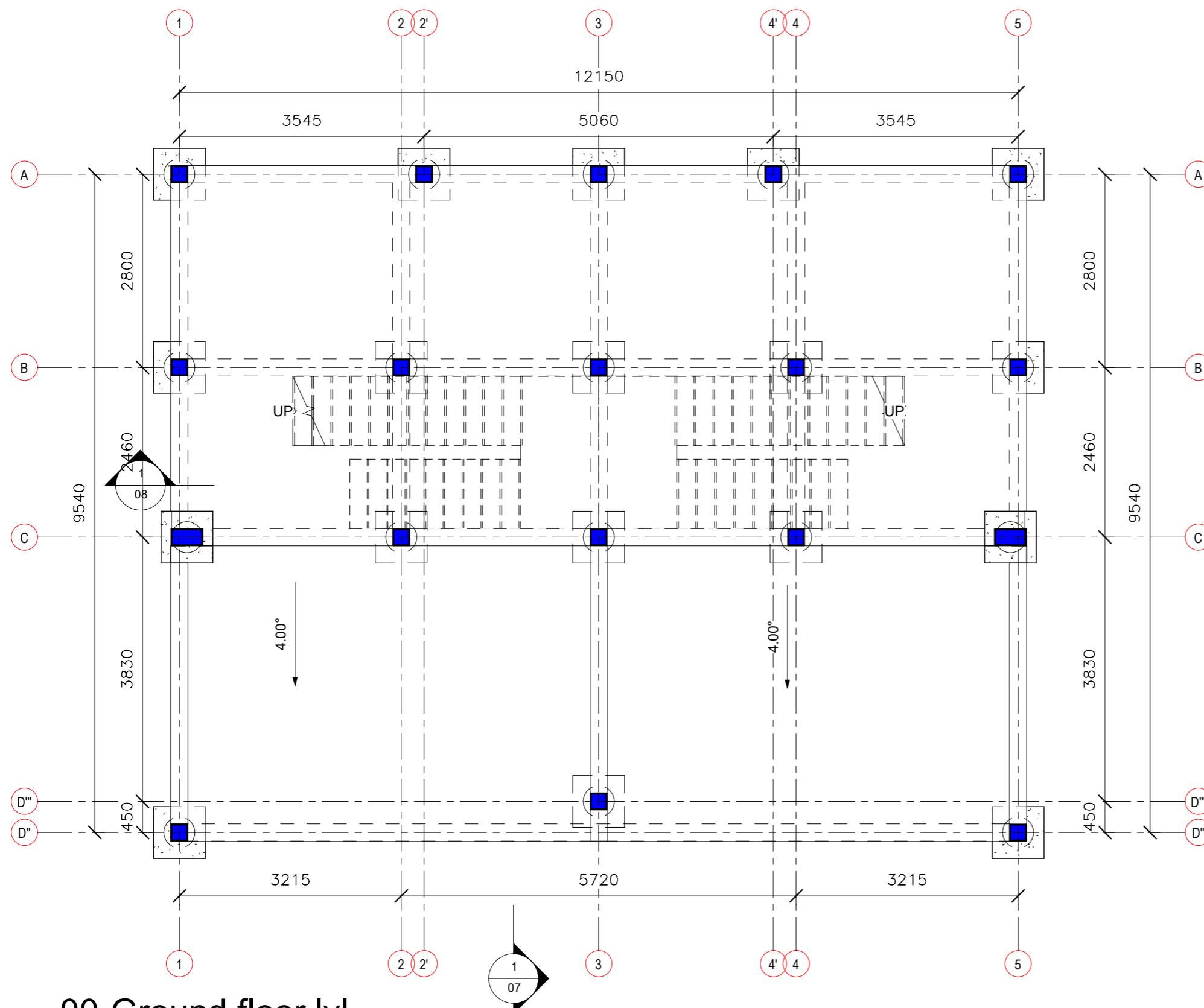
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

PILECAP LAYOUT

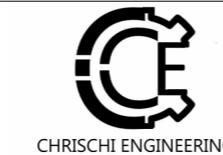
Project number	EB-0030
Date	26 July 2022
Drawn by	Author
Checked by	ose
Scale	1 : 60



1 00-Ground floor lvl
1 : 60

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI,
OGUN STATE. (TYPE 5)

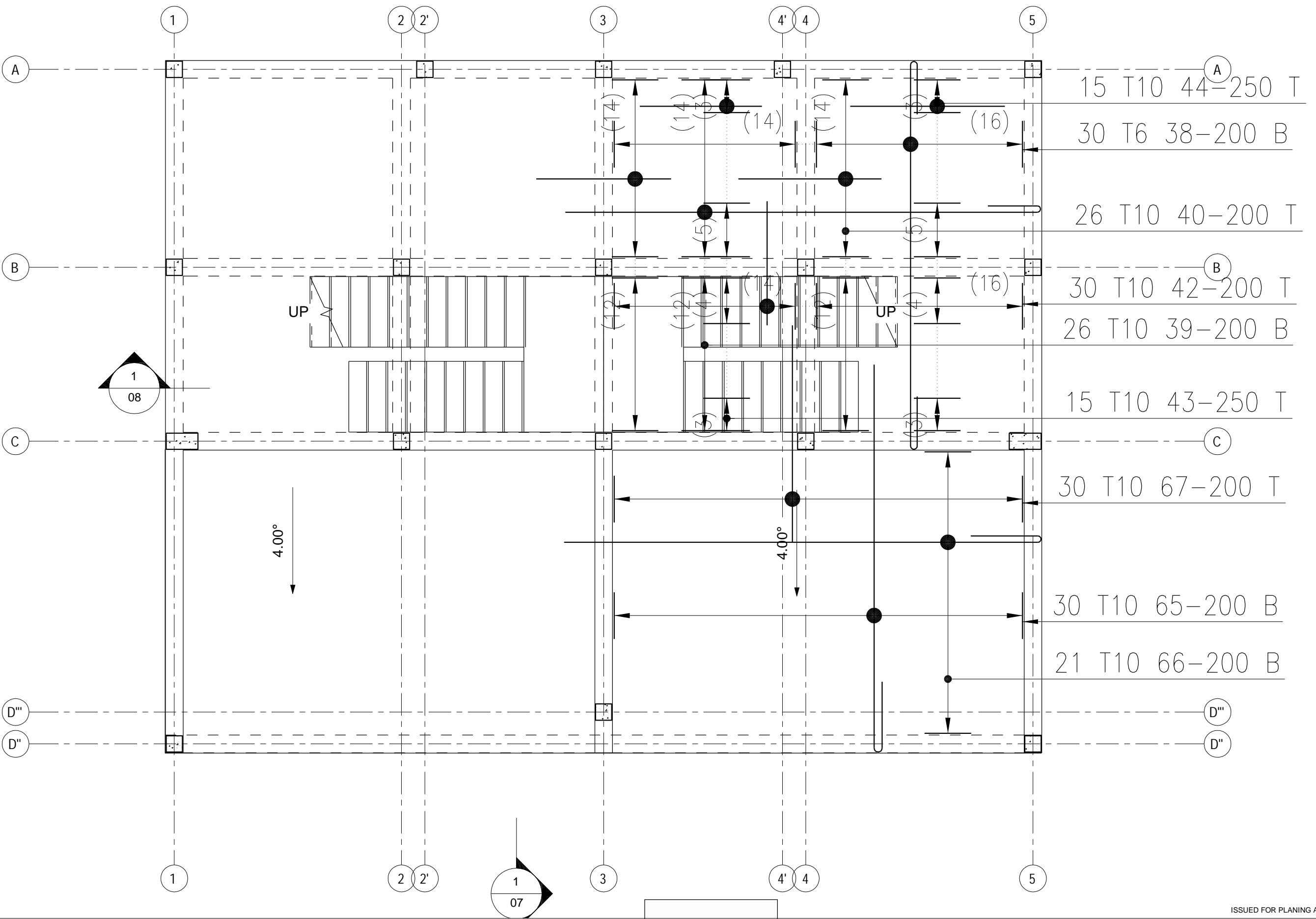
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

GROUND FLOOR LAYOUT

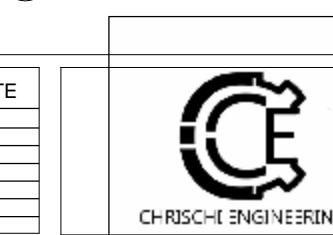
Project number	EB-0030
Date	26 July 2022
Drawn by	Author
Checked by	ose



ISSUED FOR PLANING APPROVAL ONLY

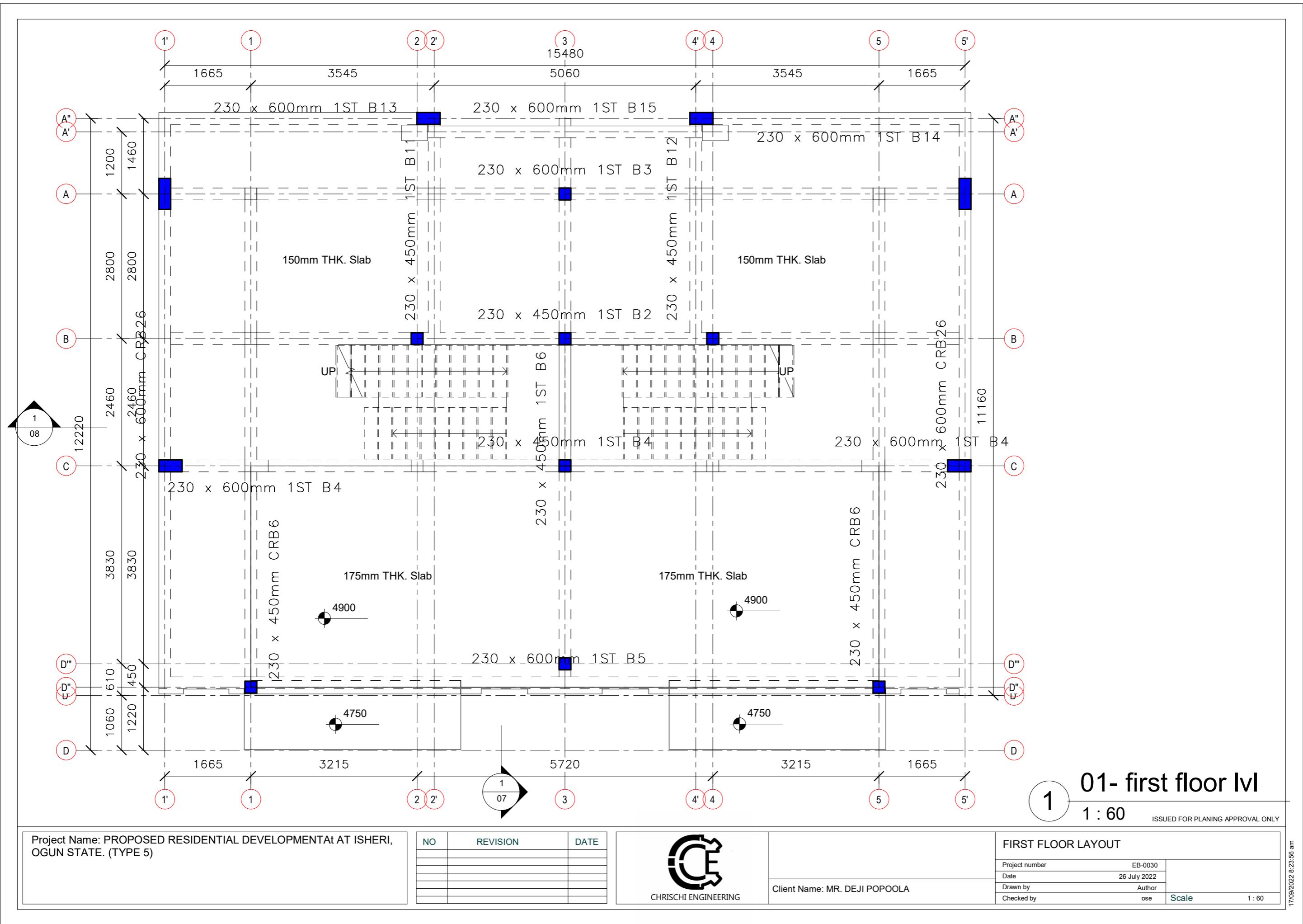
Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI (TYPE 5)	
	LOCATION: Enter address here

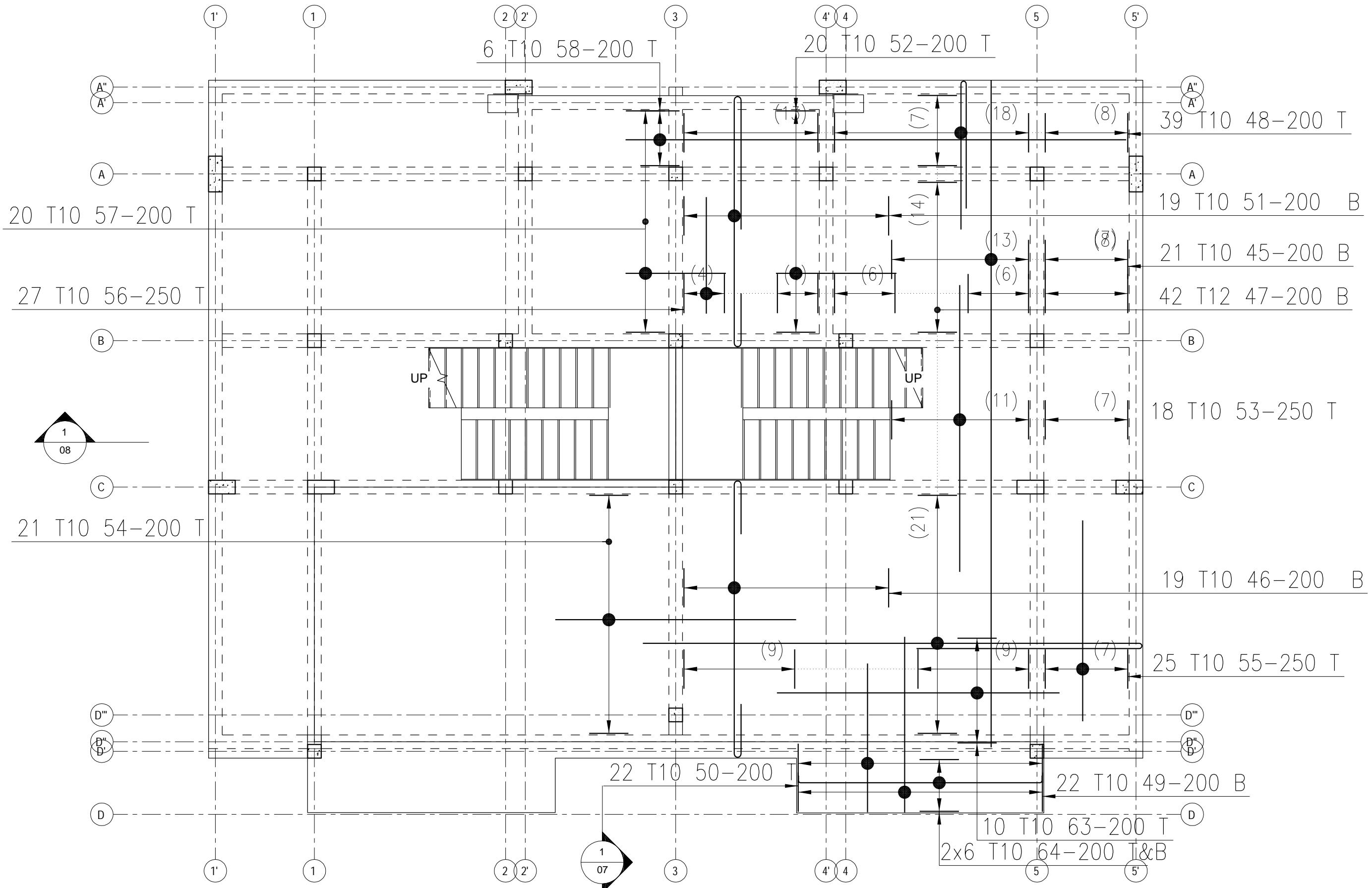
NO	REVISION	DATE



Client Name: MR. DEJI POOPOLA

GROUND FLOOR BEAM DETAIL	
Project number	EB-0030
Date	26 July 2022
Drawn by	Author
Checked by	OSE Scale

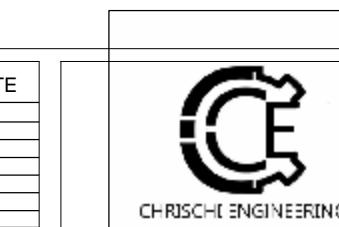




ISSUED FOR PLANING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI (TYPE 5)	
LOCATION: Enter address here	

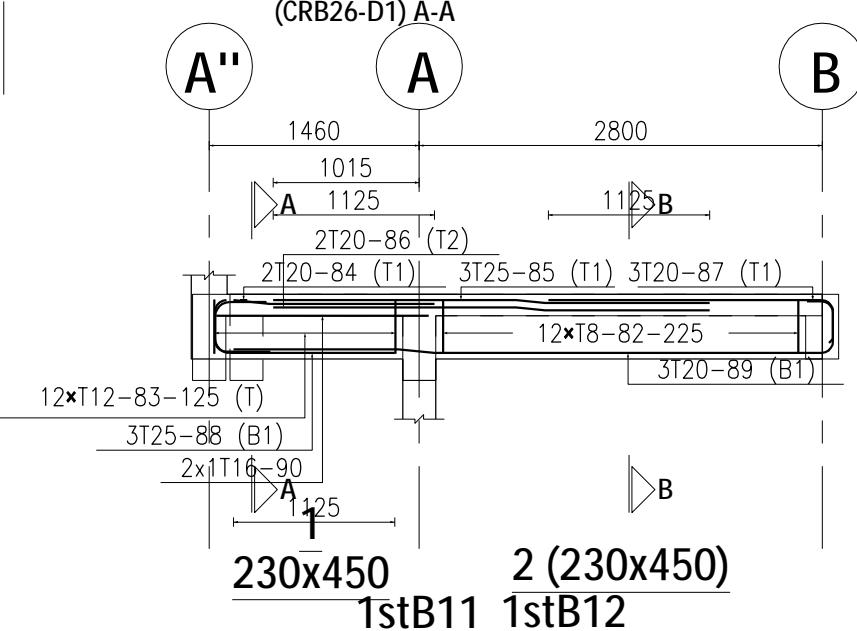
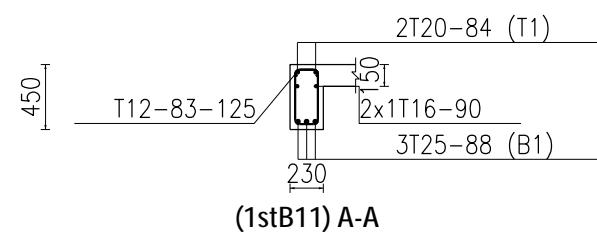
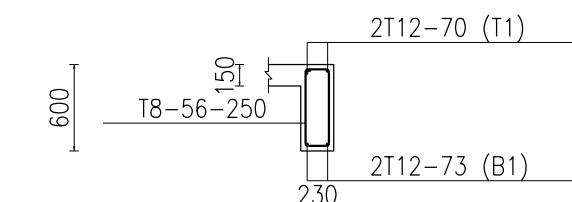
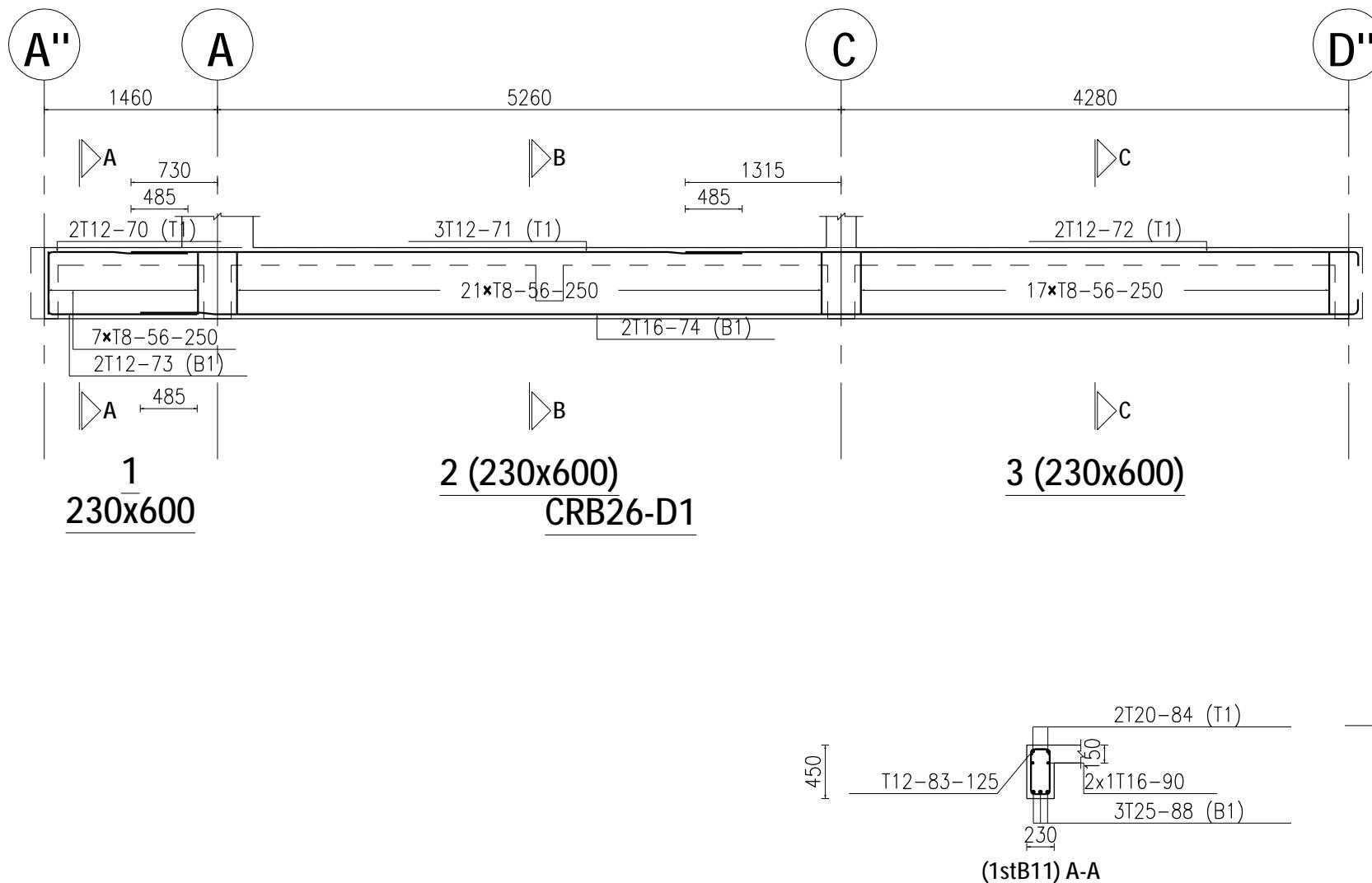
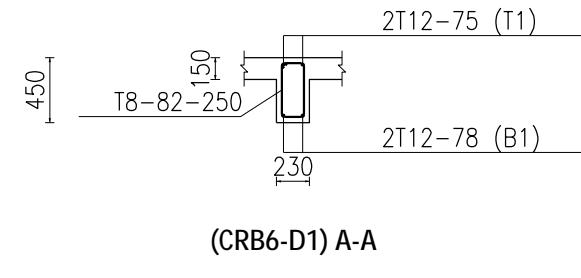
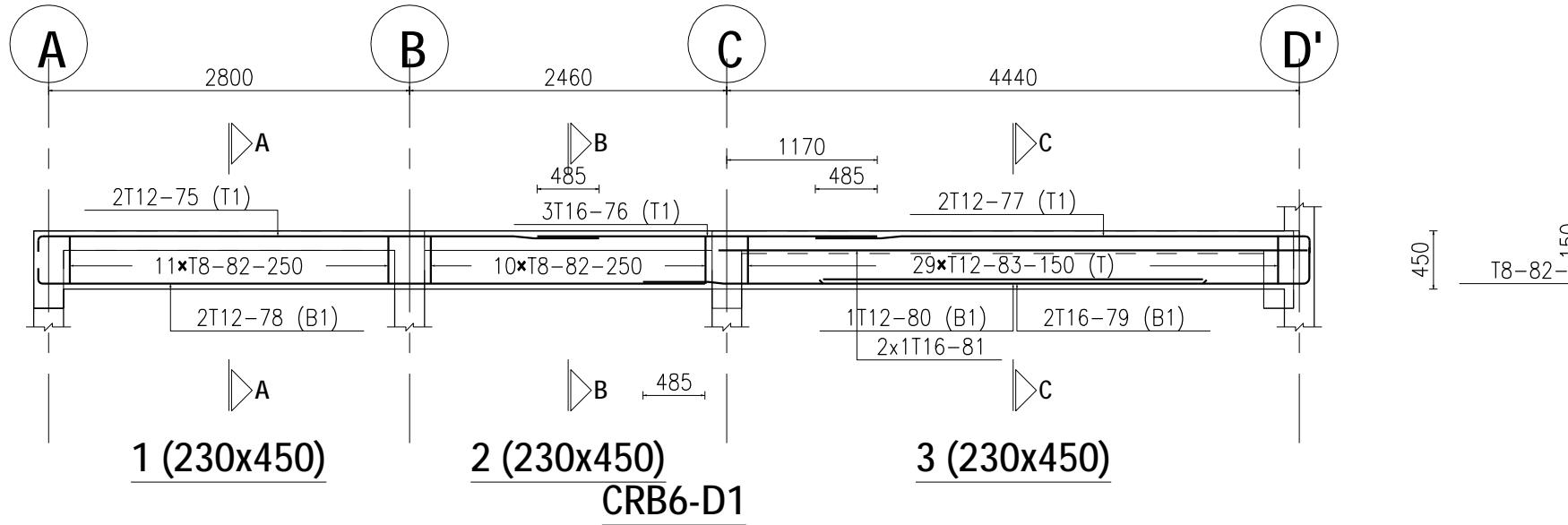
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

FIRST FLOOR BEAM DETAIL

Project number	EB-0030	
Date	26 July 2022	
Drawn by	Author	
Checked by	OSE	Scale

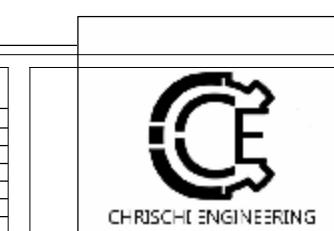


230x450 2 (230x450)
1stB11 1stB12

ISSUED FOR PLANING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI (TYPE 5)		
LOCATION: Enter address here		

NO	REVISION	DATE

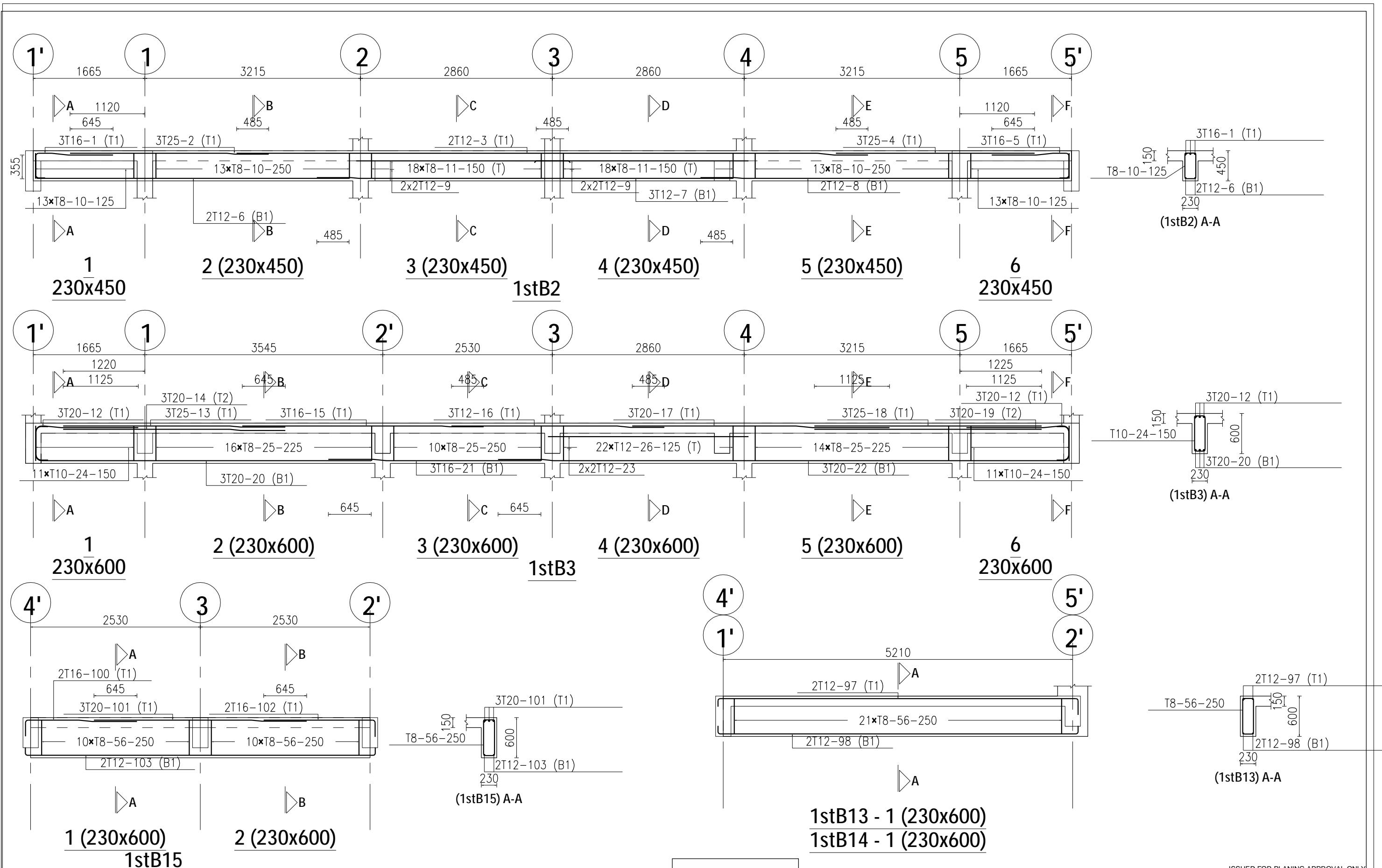


Client Name: MR. DEJI POPOOLA

FIRST FLOOR BEAM DETAIL AND SECTIONS

Project number	EB-0030
Date	26 July 2022
Drawn by	Author
Checked by	OSE
Scale	

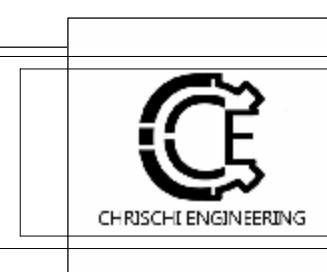
12



ISSUED FOR PLANING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI (TYPE 5)	
LOCATION: Enter address here	

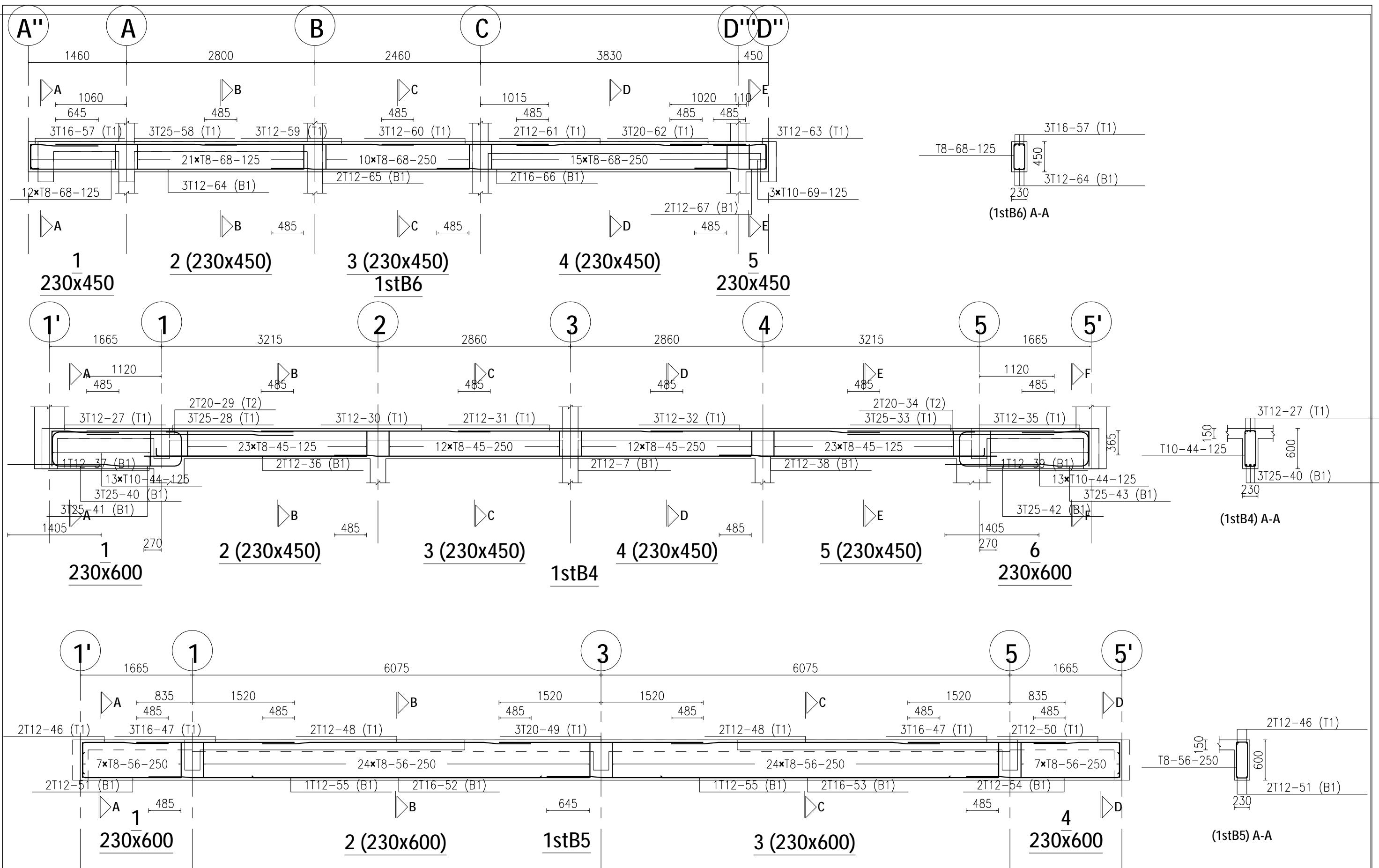
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

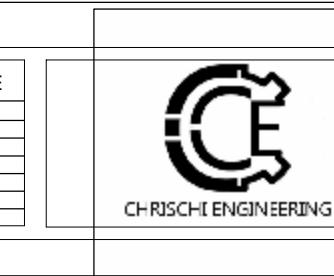
FIRST FLOOR BEAM DETAIL AND SECTIONS			
Project number	EB-0030		
Date	26 July 2022		
Drawn by		Author	
Checked by		OSE	Scale

14



Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI (TYPE 5)		
LOCATION: Enter address here		
NO	REVISION	DATE

NO	REVISION	DATE

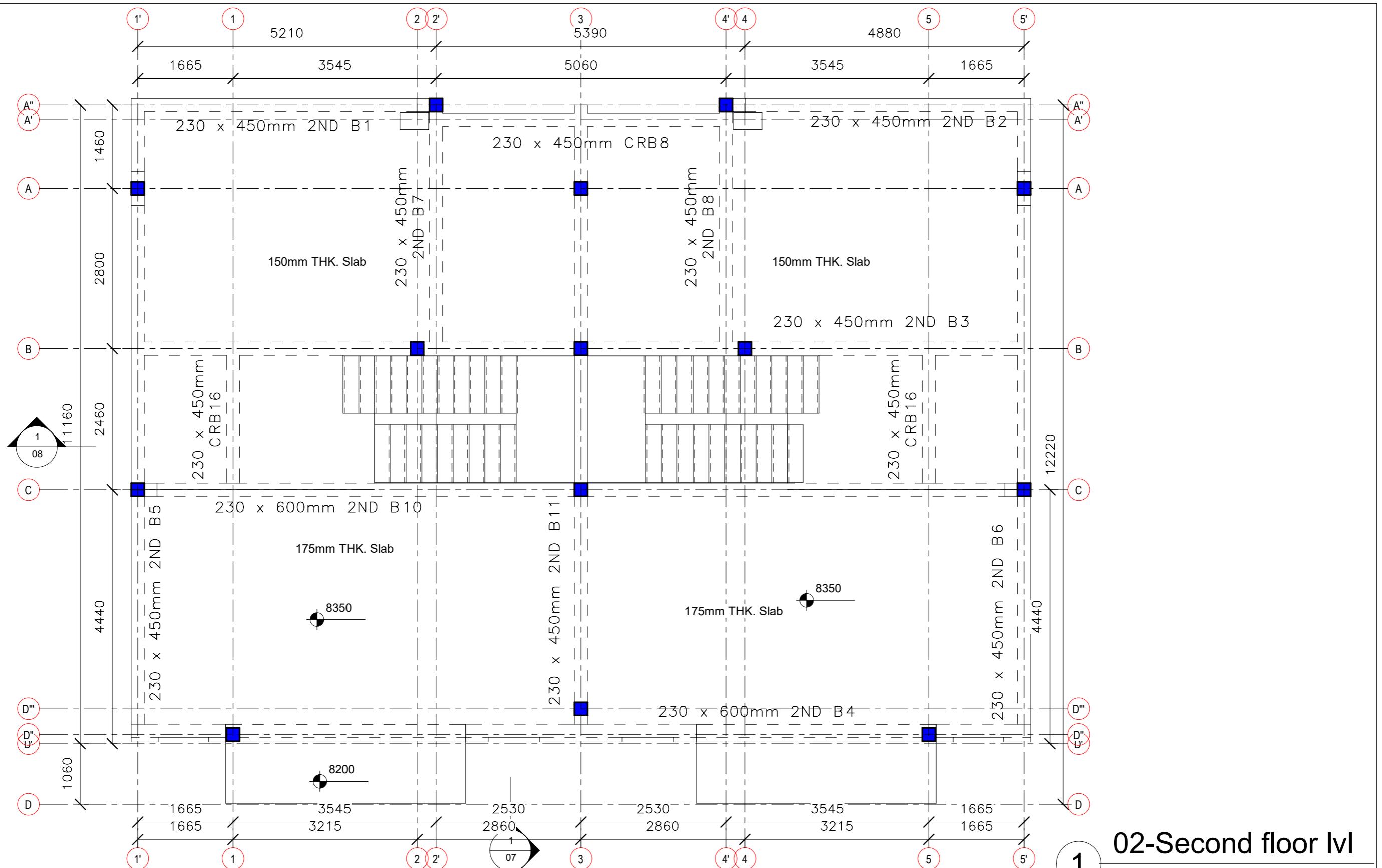


Client Name: MR. DEJI POPOOLA

FIRST FLOOR BEAM DETAIL AND SECTIONS			
Project number	EB-0030		
Date	26 July 2022		
Drawn by		Author	
Checked by		OSE	Scale

14

ISSUED FOR PLANING APPROVAL ONLY

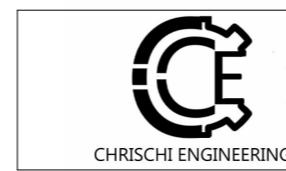


02-Second floor lvi
1 : 60

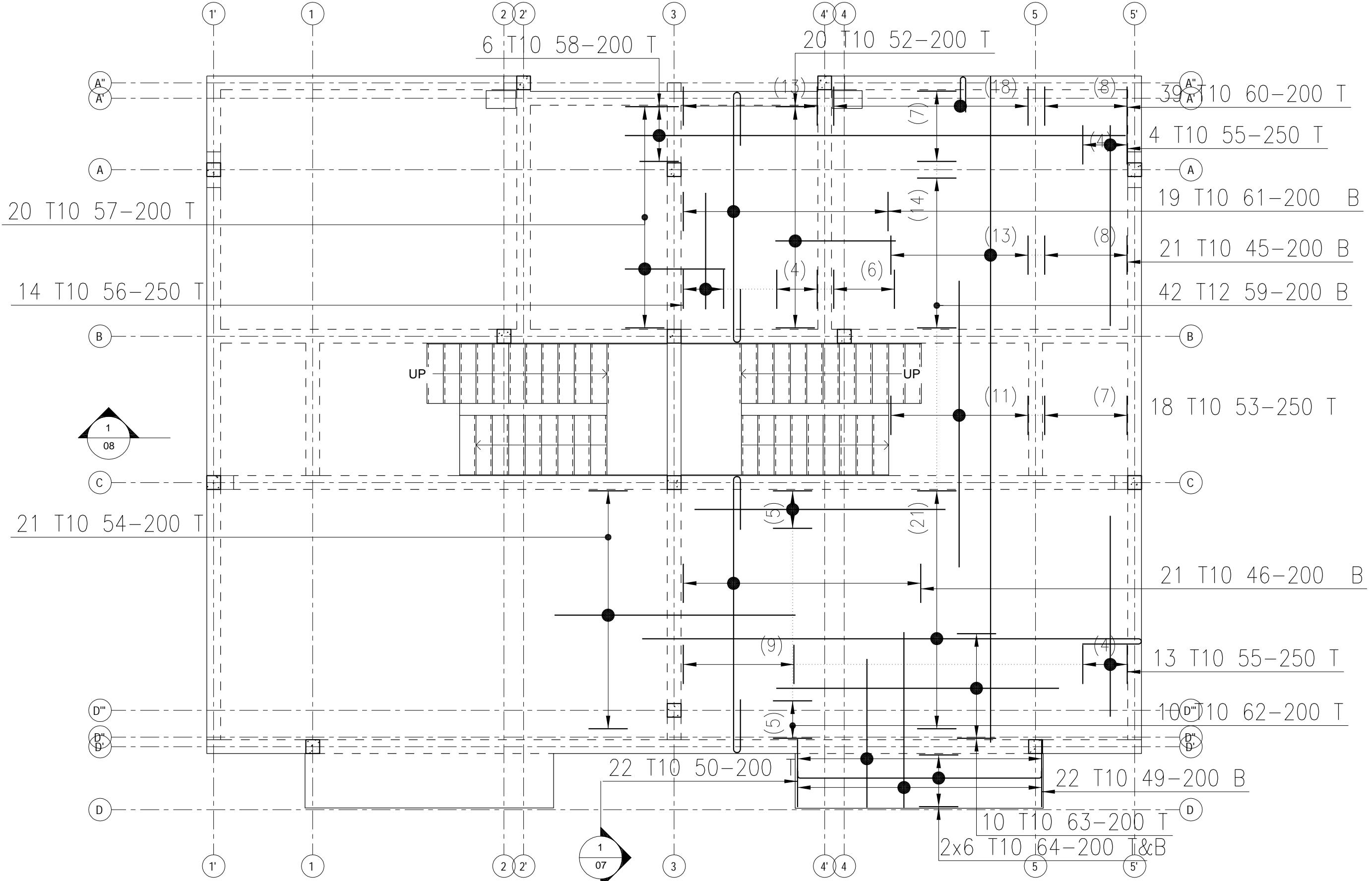
ISSUED FOR PLANING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI, OGUN STATE. (TYPE 5)

NO	REVISION	DATE



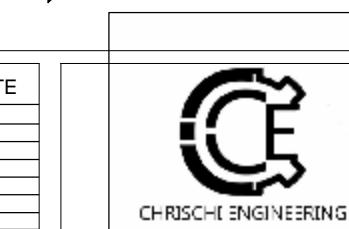
SECOND FLOOR LAYOUT
Project number EB-0030
Date 26 July 2022
Drawn by Author
Checked by ose Scale 1 : 60
Client Name: MR. DEJI POPOOLA



ISSUED FOR PLANING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI (TYPE 5)	
LOCATION: Enter address here	

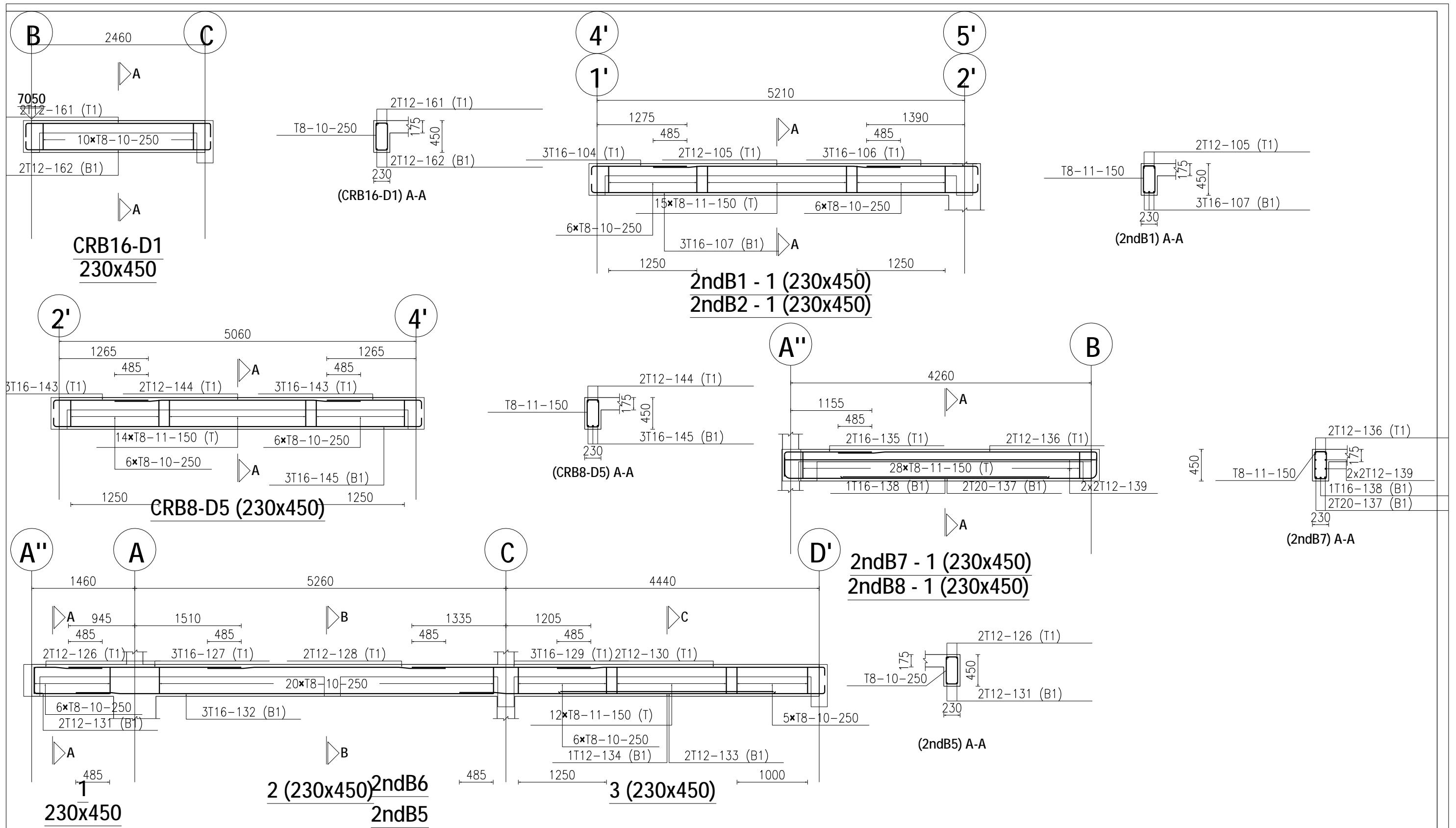
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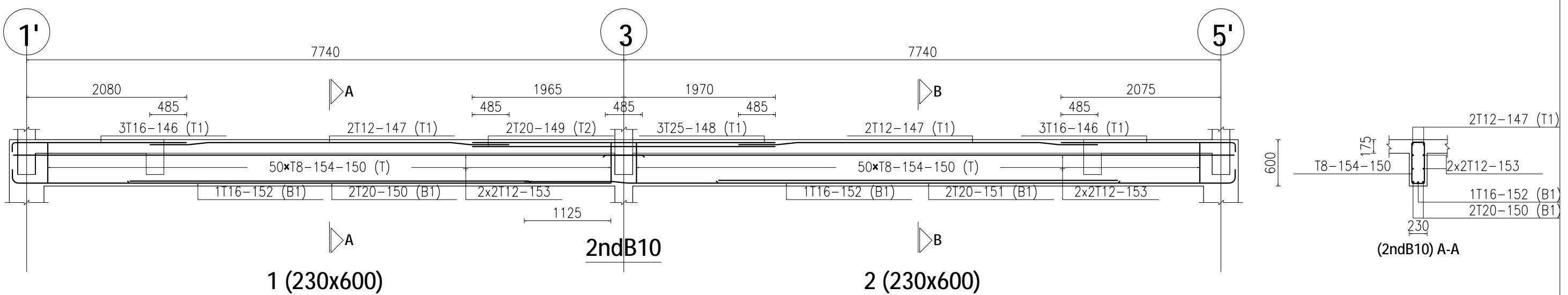
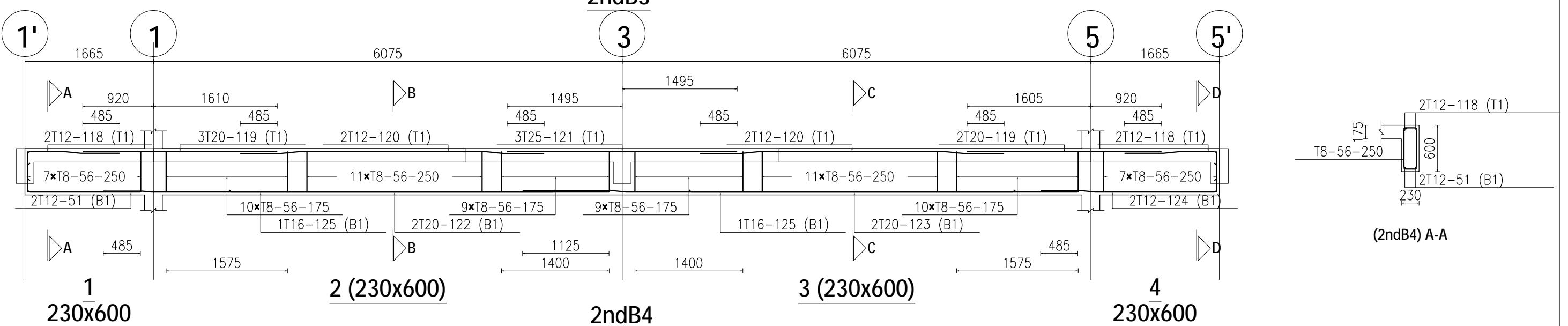
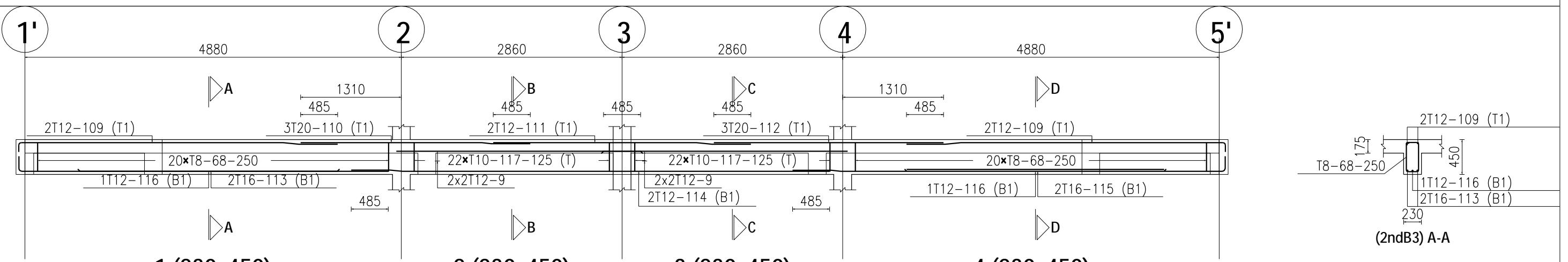
Client Name: MR. DEJI POPOOLA

SECOND FLOOR BEAM DETAIL

Project number	EB-0030
Date	26 July 2022
Drawn by	Author
Checked by	OSE Scale



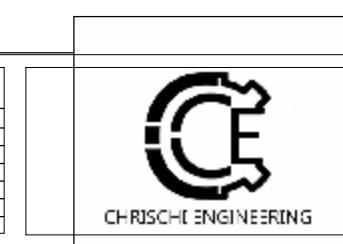
ISSUED FOR PLANING APPROVAL ONLY



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Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI (TYPE 5)	
LOCATION: Enter address here	

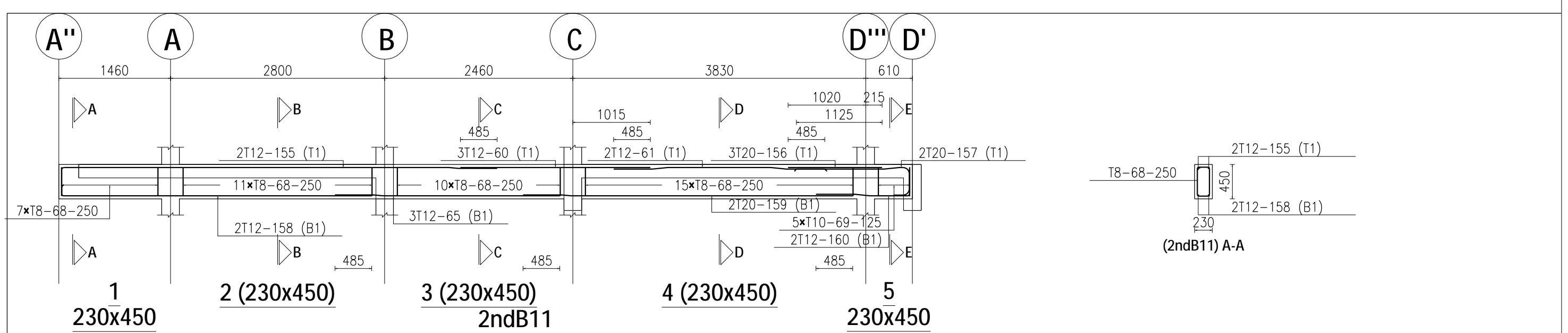
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

SECOND FLOOR BEAM DETAIL AND SECTIONS			
Project number	EB-0030		
Date	26 July 2022		
Drawn by	Author		
Checked by	OSE	Scale	

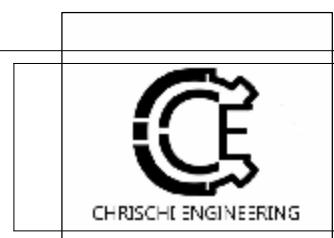
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Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI
(TYPE 5)

LOCATION: Enter address here

NO	REVISION	DATE

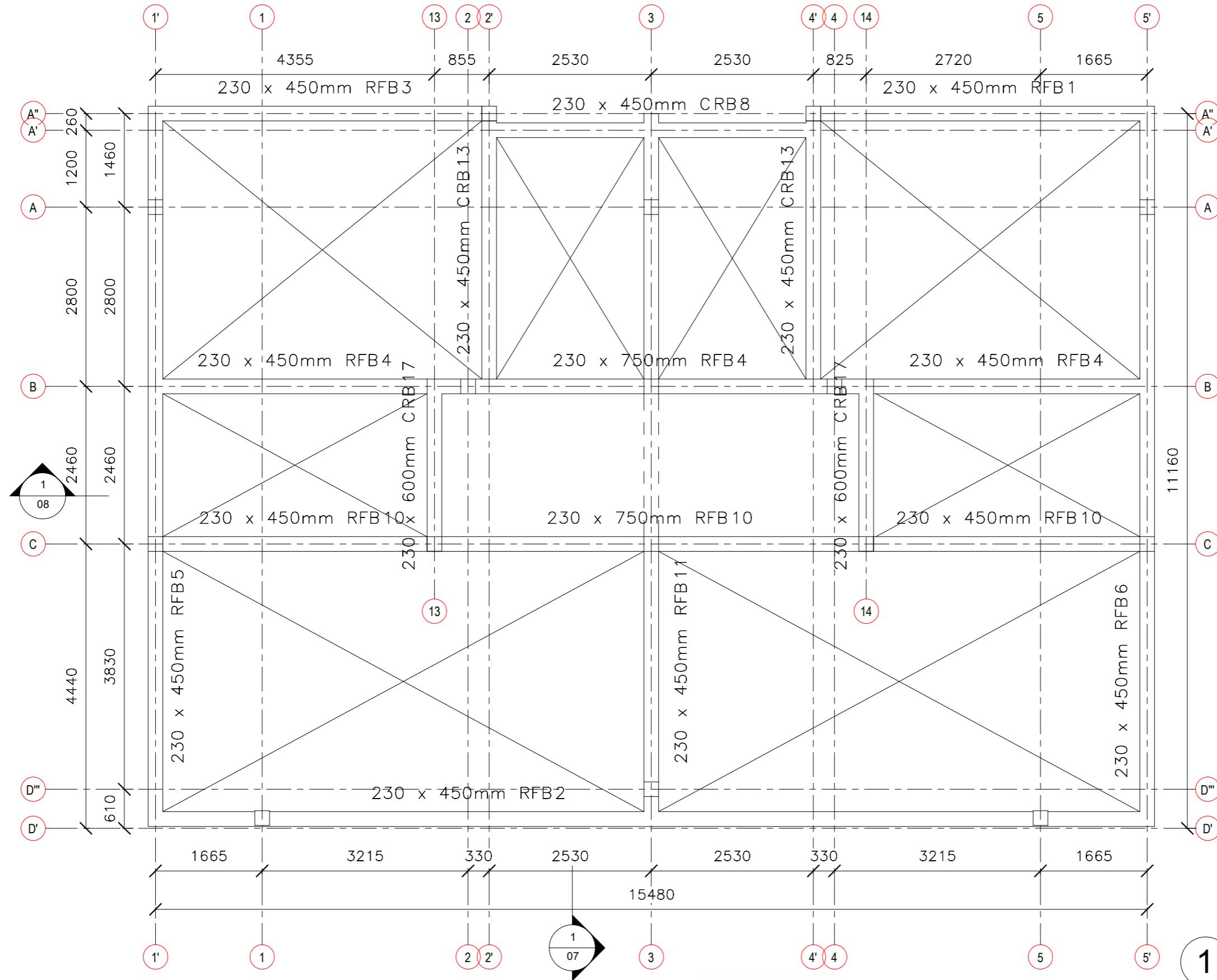


Client Name: MR. DEJI POPOOLA

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SECOND FLOOR BEAM DETAIL AND SECTIONS		
Project number	EB-0030	
Date	26 July 2022	
Drawn by	Author	
Checked by	OSE	Scale

14

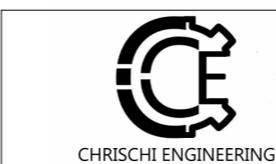


03-Roof base lvl
1 : 60

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Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI,
OGUN STATE. (TYPE 5)

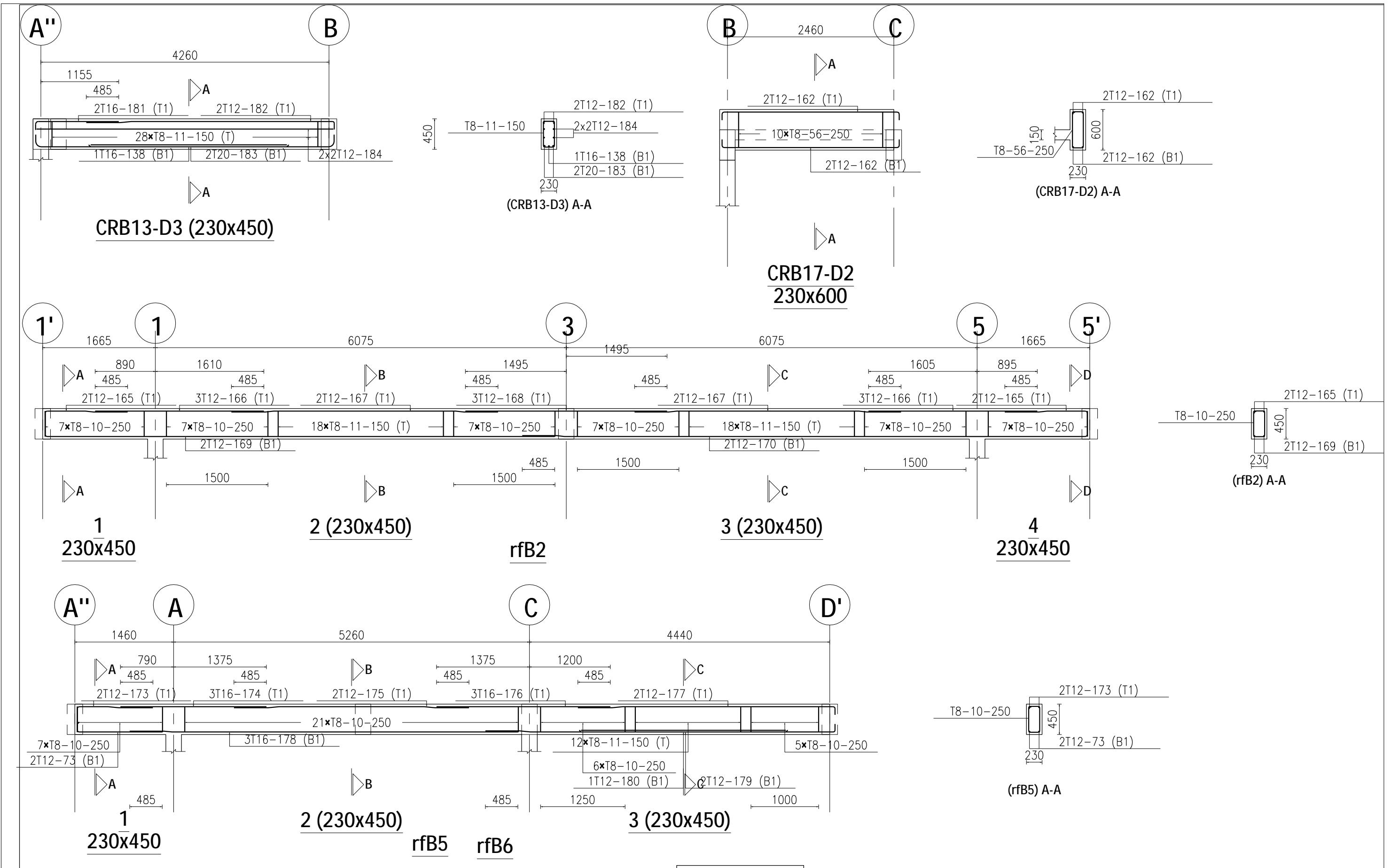
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

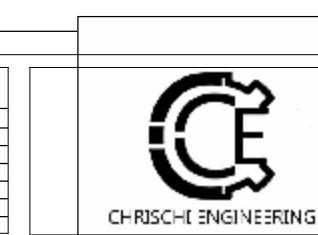
ROOF LAYOUT

Project number	EB-0030
Date	26 July 2022
Drawn by	Author
Checked by	ose
Scale	1 : 60



Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI (TYPE 5)	
LOCATION: Enter address here	

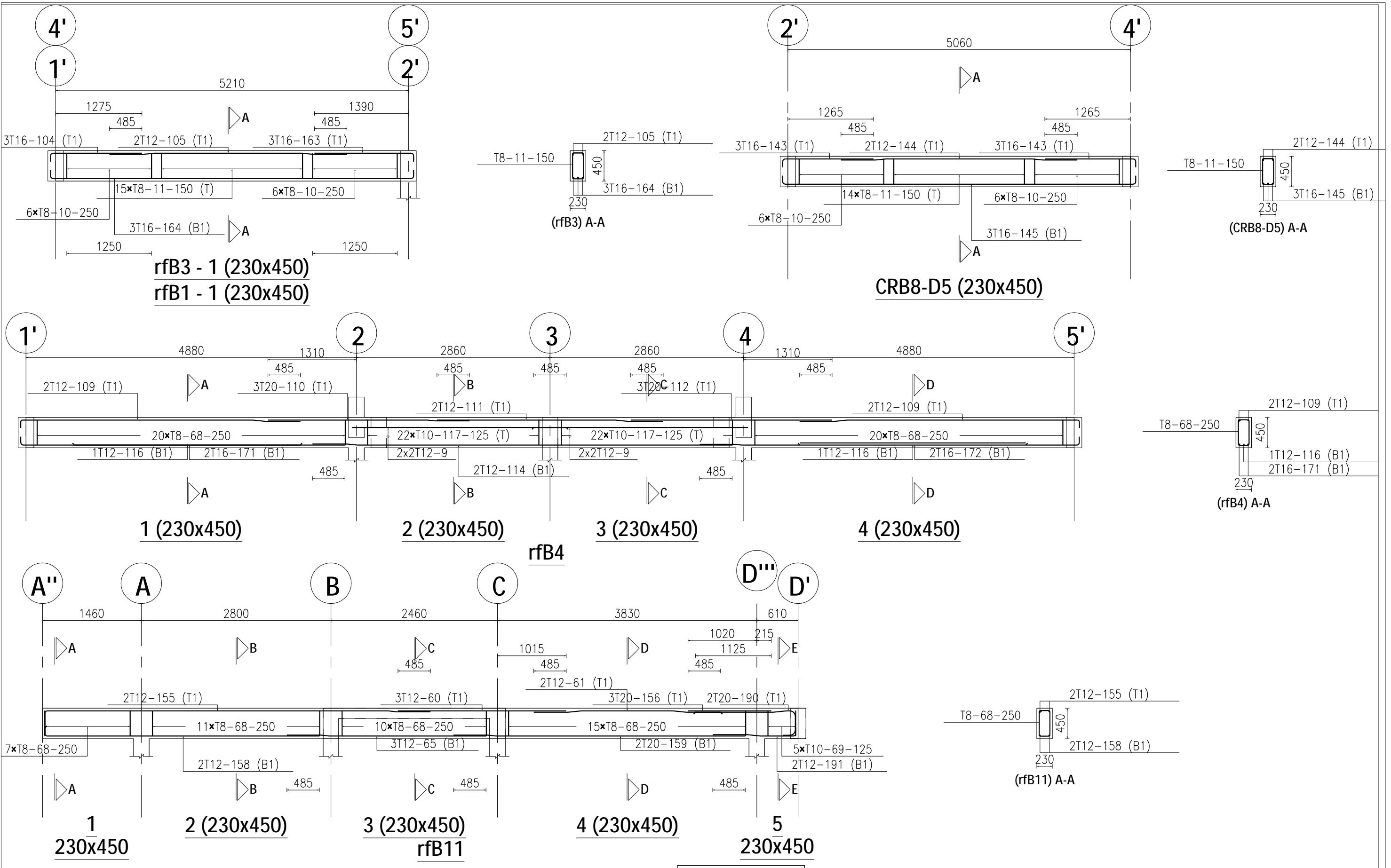
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

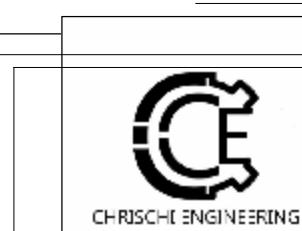
Project number	EB-0030
Date	26 July 2022
Drawn by	Author
Checked by	OSE
Scale	

16



Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI (TYPE 5)	
LOCATION: Enter address here	

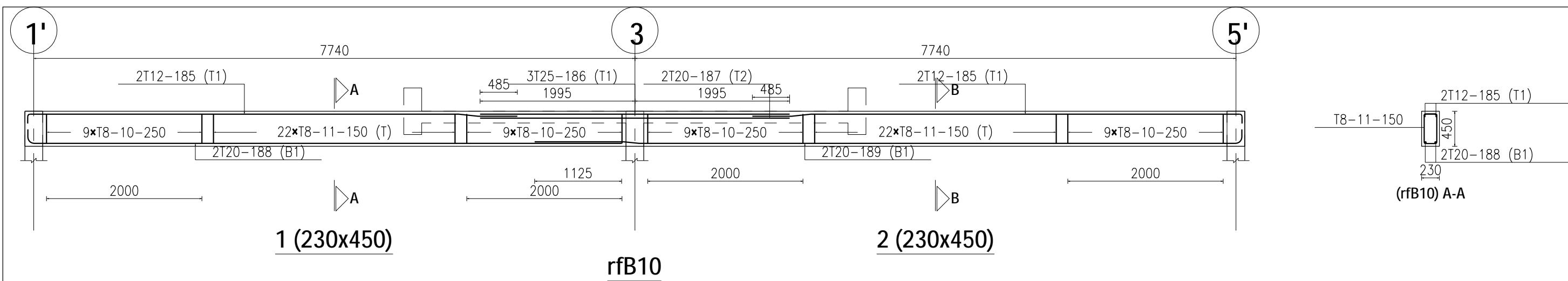
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

ROOF BEAM DETAIL AND SECTIONS

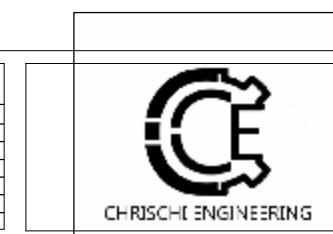
Project number	EB-0030	16
Date	26 July 2022	
Drawn by	Author	
Checked by	OSE	



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Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI (TYPE 5)	
LOCATION: Enter address here	

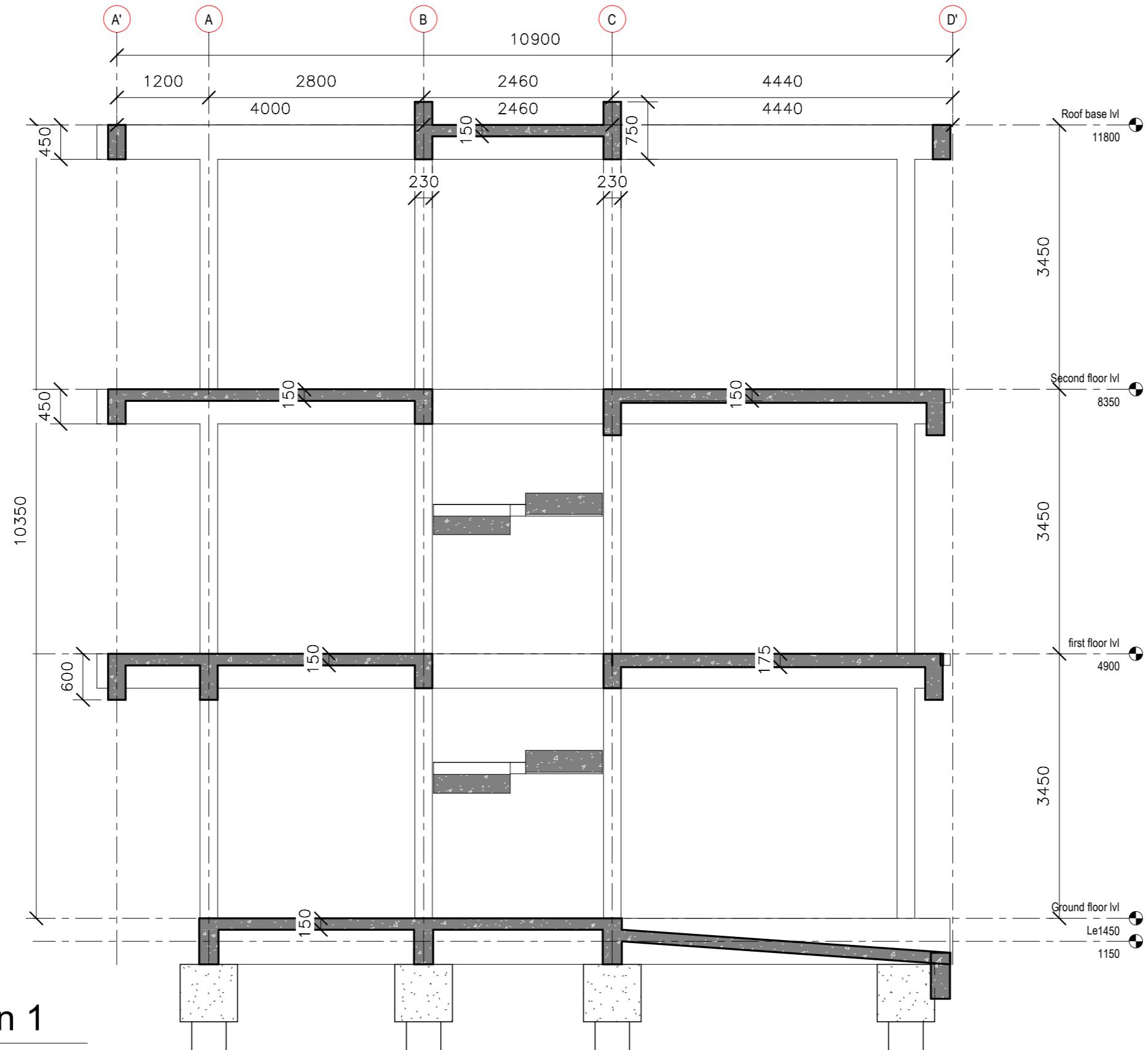
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

ROOF BEAM DETAIL AND SECTIONS

Project number	EB-0030	16
Date	26 July 2022	
Drawn by	Author	
Checked by	OSE	



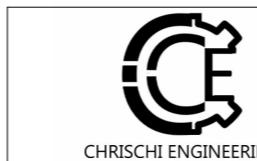
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Section 1
1 : 55

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Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI,
OGUN STATE. (TYPE 5)

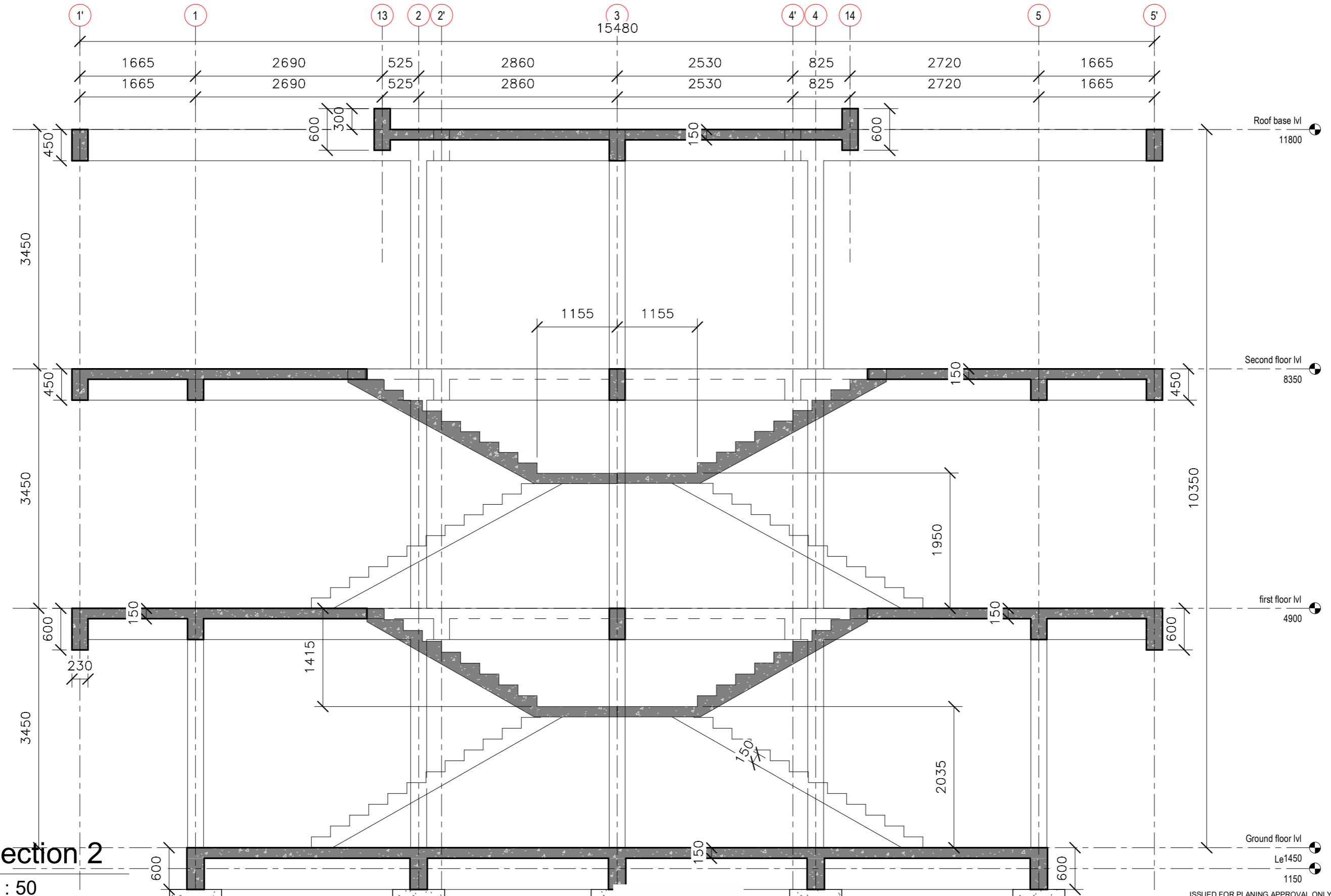
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Client Name: MR. DEJI POPOOLA

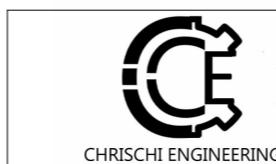
SECTION 1

Project number	EB-0030
Date	26 July 2022
Drawn by	Author
Checked by	ose
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Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI,
OGUN STATE. (TYPE 5)

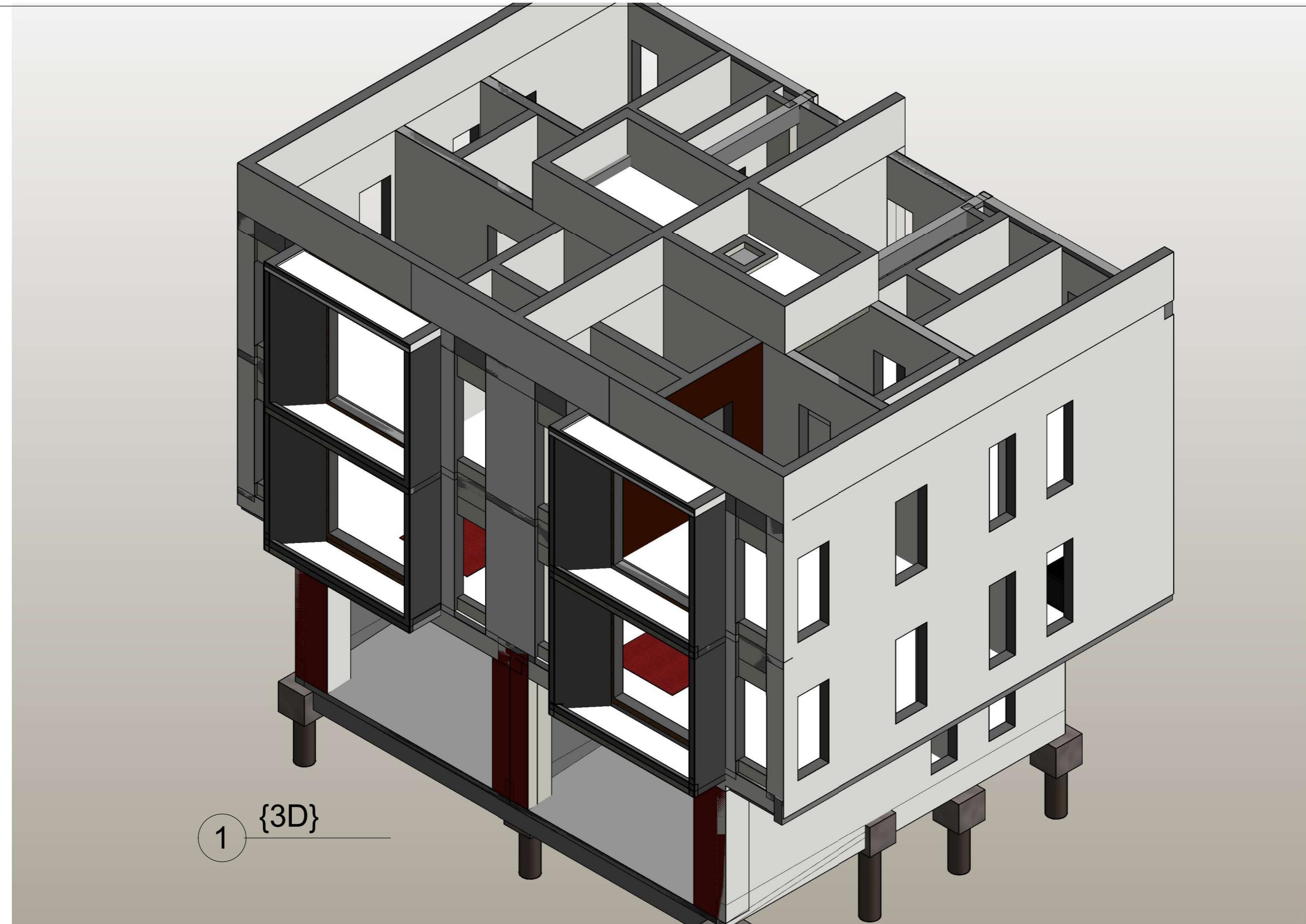
NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

SECTION 2

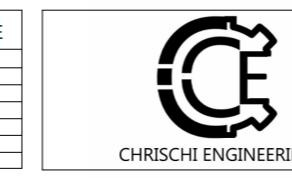
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Date	26 July 2022
Drawn by	Author
Checked by	ose
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Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI, OGUN STATE. (TYPE 5)

NO	REVISION	DATE



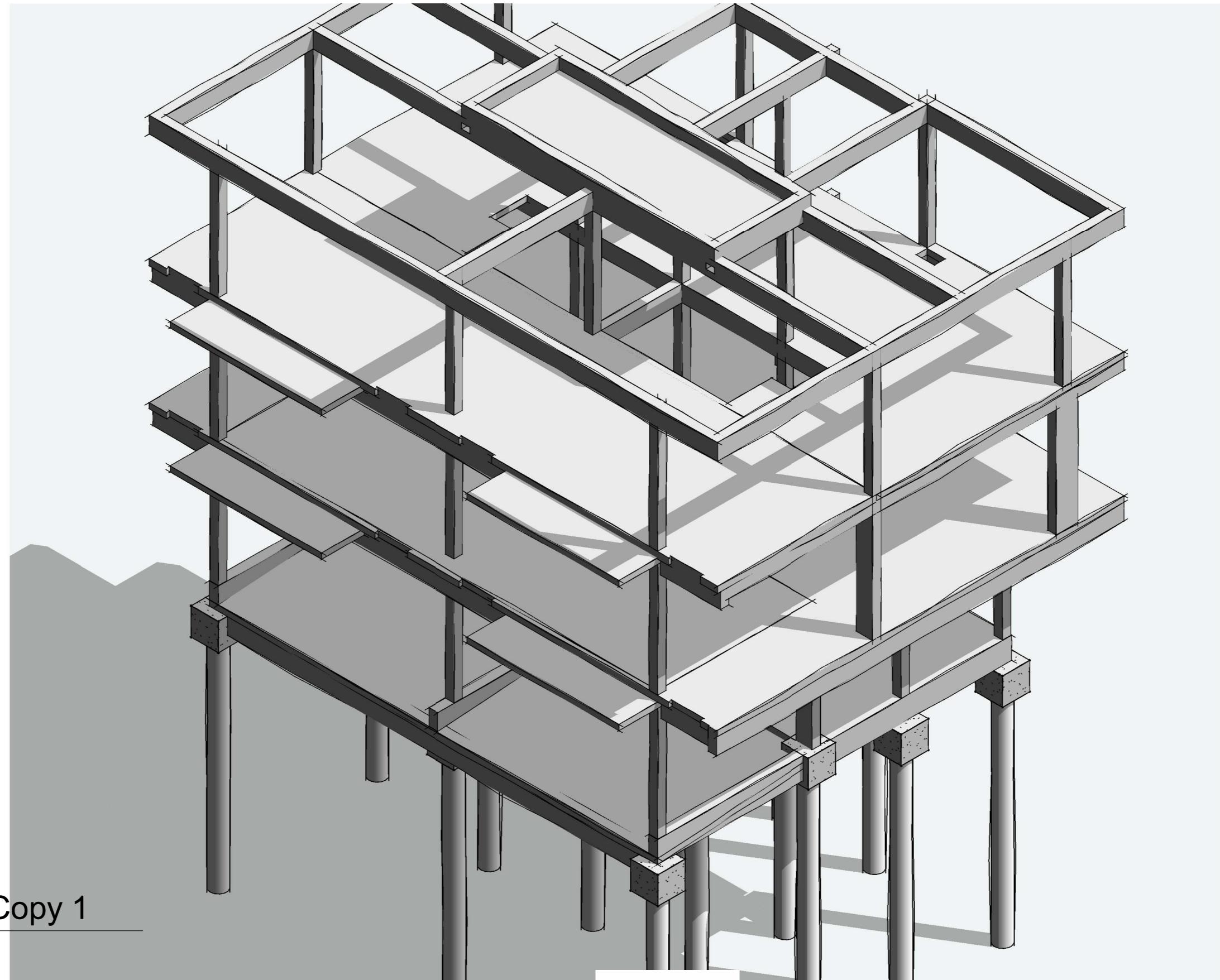
Client Name: MR. DEJI POPOOLA

3D SUPER-IMPOSED

Project number	EB-0030
Date	26 July 2022
Drawn by	OSE
Checked by	ose

1

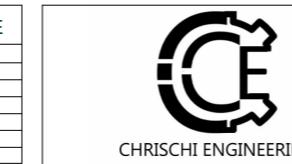
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ISSUED FOR PLANNING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI, OGUN STATE. (TYPE 5)

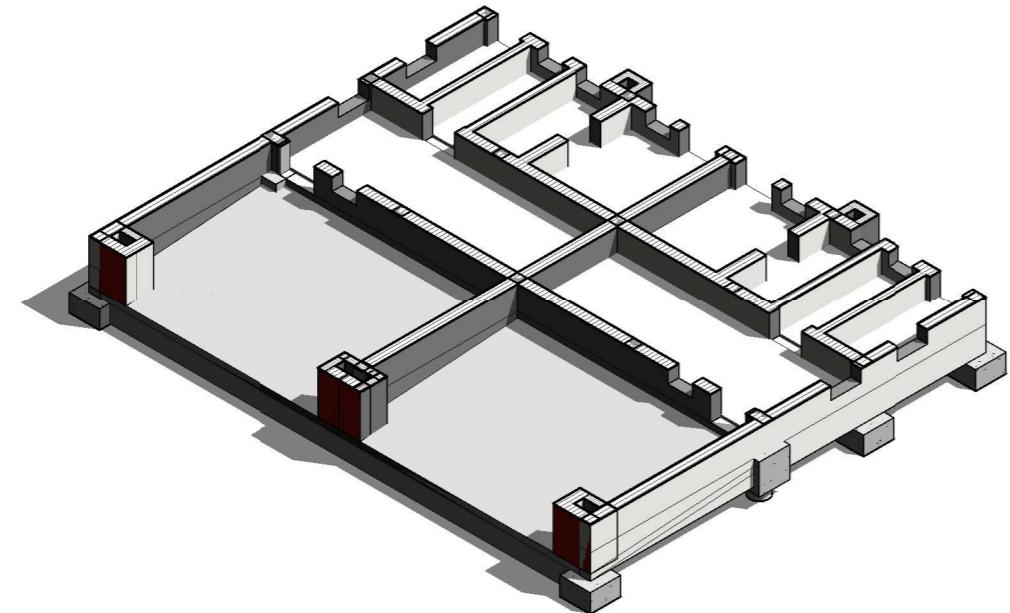
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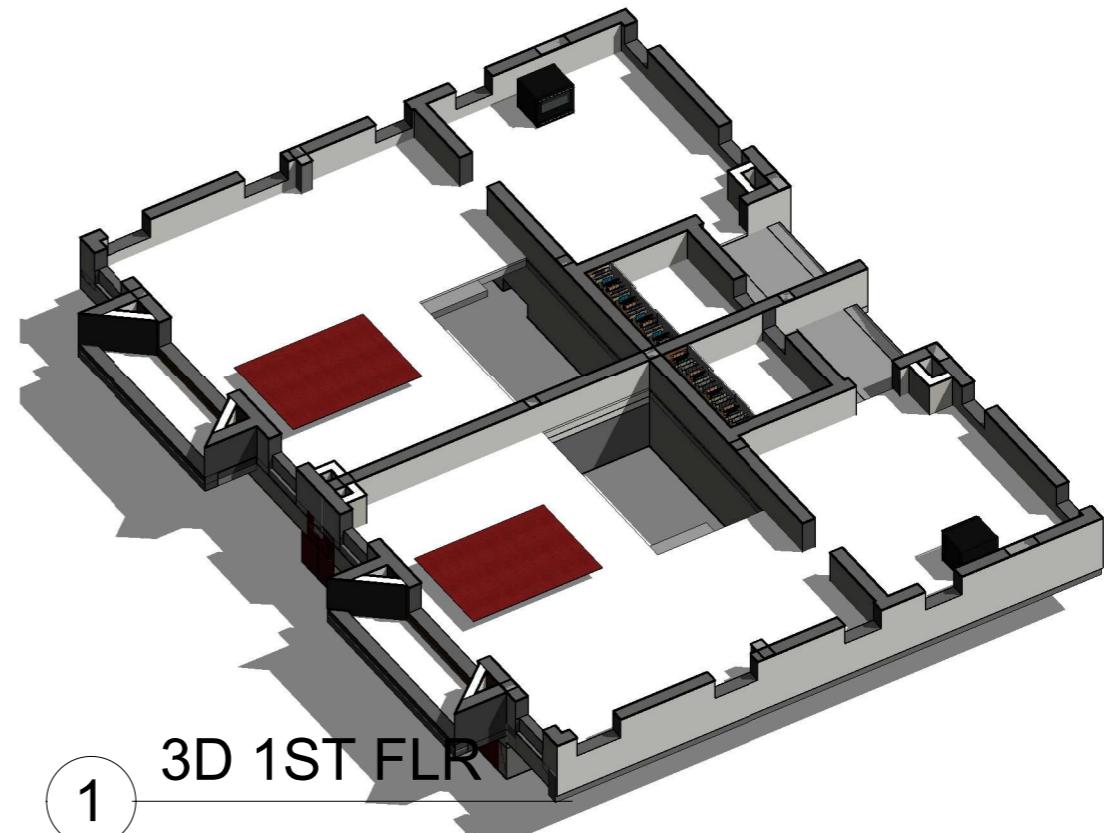
Client Name: MR. DEJI POPOOLA

3D STRUCTURAL

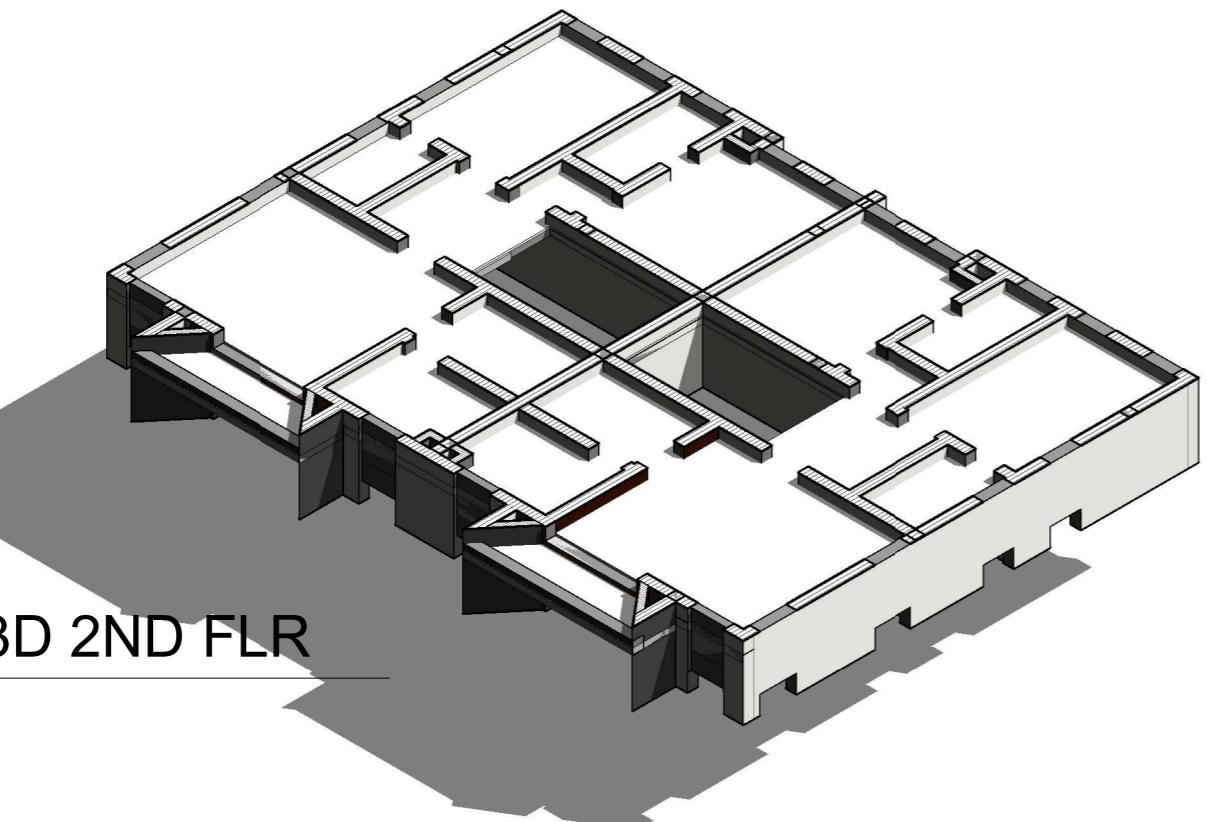
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Date	26 July 2022
Drawn by	Author
Checked by	Scale



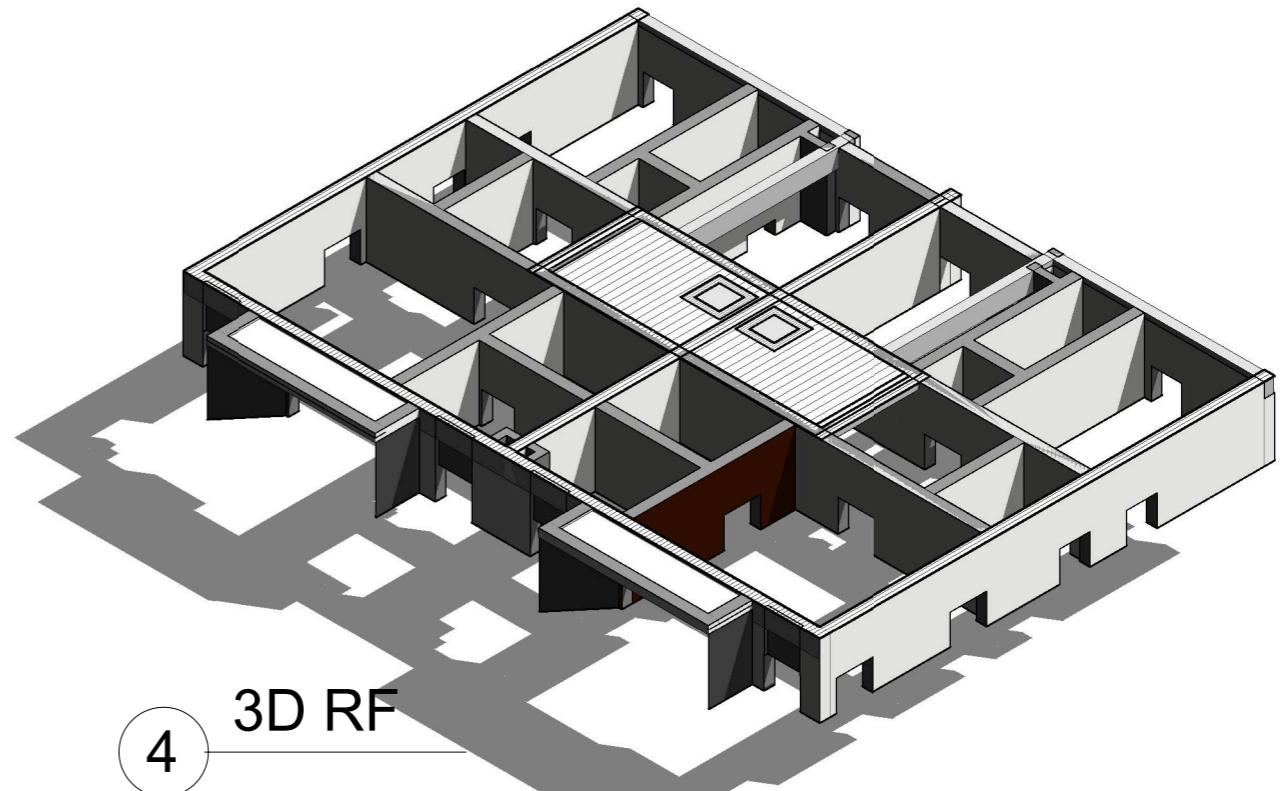
2 3D GRD FLR



1 3D 1ST FLR



3 3D 2ND FLR

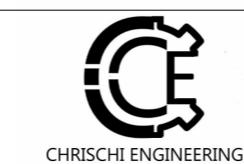


4 3D RF

ISSUED FOR PLANING APPROVAL ONLY

Project Name: PROPOSED RESIDENTIAL DEVELOPMENT AT ISHERI,
OGUN STATE. (TYPE 5)

NO	REVISION	DATE



Client Name: MR. DEJI POPOOLA

3D FLOORS

Project number	EB-0030
Date	26 July 2022
Drawn by	Author
Checked by	ose Scale