

SPECIFICATIONS

1 GENERAL REQUIREMENTS

1.1 SCOPE OF WORK:

1.1.1 RENOVATIONS TO SUPPORT CT AND X–RAY INSTALLATIONS.

1.1.2 DEMOLITION OF EXISTING STEEL FRAMING.

1.2 DO NOT EXCEED DESIGN LOADS OF EXISTING STRUCTURAL ELEMENTS WHEN CARRYING OUT WORK. CONTRACTOR TO PROVIDE ANY NECESSARY SHORING REQUIRED TO COMPLETE THE WORK. COORDINATE ANY CRANE OUTRIGGERS AND LOADS WITH THE STRUCTURAL CONSULTANT.

2 REFERENCE STANDARDS & PUBLICATIONS

2.1 CAN/CSA A23.1–19/A23.2–19, 'CONCRETE MATERIALS AND METHODS OF CONCRETE CONSTRUCTION' / 'METHODS OF TEST FOR CONCRETE'.

2.2 CAN/CSA A23.3–19, 'DESIGN OF CONCRETE STRUCTURES'.

2.3 CAN/CSA G40.20–13/G40.21–13 (R2018), 'GENERAL REQUIREMENTS FOR ROLLED OR WELDED STRUCTURAL QUALITY STEEL / 'STRUCTURAL QUALITY STEEL'.

2.4 CAN/CSA S16–19, 'DESIGN OF STEEL STRUCTURES'.

2.5 CAN/CSA W47.1–19, 'CERTIFICATION OF COMPANIES FOR FUSION WELDING OF STEEL'.

2.6 CAN/CSA W59–18, 'WELDED STEEL CONSTRUCTION (METAL ARC WELDING)'.

2.7 CAN/CSA W178.1–18, 'CERTIFICATION OF WELDING INSPECTION ORGANIZATIONS'.

2.8 CAN/CSA W178.2–18, 'CERTIFICATION OF WELDING INSPECTORS'.

3 SITE WORK

3.1 DEMOLITION:

3.1.1 CONTRACTOR TO PROVIDE NECESSARY SHORING FOR SAFE COMPLETION OF WORK.

3.2 CLEANING UP:

3.2.1 CLEAR AWAY FROM BUILDING SITE EXCESS AND WASTE MATERIALS AND DEBRIS RESULTING FROM WORK. LEAVE PREMISES IN CONDITION ACCEPTABLE TO OWNER.

4 STRUCTURAL STEEL

4.1 STEEL TO BE FABRICATED AND ERECTED BY A SHOP CERTIFIED BY THE CANADIAN WELDING BUREAU TO THE REQUIREMENTS OF CSA W47.1, DIVISION 1 OR 2.1 ONLY. FABRICATOR TO BE A MEMBER OF THE CANADIAN INSTITUTE OF STEEL CONSTRUCTION.

4.2 DESIGN CONNECTIONS, FABRICATE AND ERECT STEEL IN ACCORDANCE WITH CAN/CSA–S16.

4.3 SUBMIT SHOP DRAWINGS AND ERECTION DRAWINGS TO CONSULTANT OF ALL STEEL MEMBERS AND CONNECTIONS, SIGNED AND SEALED BY A PROFESSIONAL STRUCTURAL ENGINEER REGISTERED IN THE PROVINCE OF [ONTARIO], FOR CONNECTION DESIGN, FOR REVIEW PRIOR TO FABRICATION. ALLOW SUFFICIENT TIME FOR REVIEW AND RETURN OF DRAWINGS.

4.4 WELDING TO CONFORM TO CSA–W59.

4.5 VERIFY DIMENSIONS ON SITE BEFORE COMMENCING FABRICATION OF STEELWORK.

4.6 PROVIDE NECESSARY SHORING FOR SAFE COMPLETION OF WORK.

4.7 WELDING OF REINFORCING STEEL ONLY BY A SHOP CERTIFIED TO CSA W186. REINFORCEMENT TO CONFORM TO CAN/CSA G30.18, GRADE 400W.

4.8 STRUCTURAL STEEL TO CONFORM TO CSA G40.20/G40.21, GRADE 350W CLASS C, FOR HOLLOW STRUCTURAL SECTIONS, GRADE 350W FOR PLATES, W AND WWF SHAPES AND GRADE 300W FOR CHANNELS AND ANGLES.

4.9 BOLTS TO CONFORM TO ASTM F3125, GRADE A325M, INCLUDING SUITABLE NUTS AND HARDENED WASHERS. BOLTS, NUTS AND WASHERS LOCATED OUTSIDE OF BUILDING VAPOUR BARRIER TO BE GALVANIZED. ANCHOR RODS: TO ASTM A307, UNLESS INDICATED OTHERWISE ON DRAWINGS.

4.10 SHEAR STUD CONNECTORS (WELDED STUDS) TO CONFORM TO ASTM A108 APPLIED BY ELECTRICAL RESISTANCE WELDING ONLY.

4.11 BEAM REACTIONS ARE FACTORED FOR LIMIT STATES DESIGN AND ARE INDICATED THUS: VF = 100 KN

4.12 PROVIDE 10MM (3/8") PLATE STIFFENER ONE SIDE OF BEAM AT ALL BEARING CONNECTIONS.

4.13 ALL BOLTED CONNECTIONS TO USE SNUG–TIGHTENED HIGH–STRENGTH BOLTS UNLESS NOTED TO USE PRETENSIONED HIGH–STRENGTH BOLTS.

4.14 DO NOT SPLICE MATERIAL WITHOUT THE WRITTEN APPROVAL OF THE STRUCTURAL CONSULTANT. WHERE GRANTED, A COMPLETE NON–DESTRUCTIVE EXAMINATION WILL BE MANDATORY AND PAID FOR BY THE CONTRACTOR.

4.15 REMOVE PAINT FROM EXISTING STEEL SURFACES WHICH ARE TO BE FIELD WELDED.

4.16 CLEAN AND PAINT INTERIOR STEEL SURFACES NOT SPECIFIED TO RECEIVE A TOP COAT OR ZINC PRIMER OR ZINC RICH PAINT, WITH ONE COAT OF PAINT, TO CISC/CPMA 1–73A.

4.17 PAINT STEEL AFTER FABRICATION.

4.18 DO NOT PAINT STEEL WHICH IS TO BE ENCASED IN OR IN CONTACT WITH CONCRETE, OR WHICH IS TO BE SPRAY FIREPROOFED.

4.19 CLEAN FIELD WELDS AFTER ERECTION.

4.20 TOUCH–UP FIELD WELDS, CONNECTIONS AND ABRASIONS TO MATCH THE SHOP PRIMER.

4.21 SHOP GALVANIZING TO CONFORM TO CAN/CSA–G164.

SPECIFICATIONS

5 CONCRETE AND REINFORCING STEEL

5.1 CONCRETE MATERIALS, QUALITY, MIXING, PLACING, FORMWORK, TESTING AND OTHER CONSTRUCTION PRACTICES TO CONFORM TO CAN/CSA –A23.1/A23.2. SUPPLY CONCRETE IN ACCORDANCE WITH CAN/CSA –A23.1, CLAUSE 4, TABLE 5 , ALTERNATIVE 1. ANY ADDITIONAL REQUIREMENTS OF THIS SPECIFICATION ARE ALSO TO APPLY.

5.2 SUPPLY CONCRETE IN ACCORDANCE WITH NOTES ON SECTION 5/S300.

5.3 CONCRETE ANCHORS, INSERTS, BOLTS, ETC.

5.3.1 ANCHORS FOR FASTENING NEW STEEL ASSEMBLIES TO EXISTING CONCRETE: HIT–Z, BY HILTI (CANADA) LTD.

5 INSPECTION AND TESTING

6.1 PERFORM FIELD TESTS AND INSPECTIONS DESCRIBED BELOW BY AN INSPECTION AND TESTING COMPANY APPOINTED BY AND PAID FOR BY THE CONTRACTOR.

6.1.1 FIELD INSPECTION AND TESTING OF:

– STRUCTURAL STEEL:

ALIGNMENT, FIT–UP, WELDING, BOLTING.

– VERIFICATION OF FOUNDATION BEARING MATERIAL: BACKFILL MATERIAL, GRADING AND COMPACTION.

–CONCRETE: REVIEW MIX DESIGNS, 7 AND 28 DAYS STRENGTHS, AIR CONTENT, SLUMP.

GENERAL NOTES

1 GENERAL

1.1 CHECK DIMENSIONS ON STRUCTURAL DRAWINGS AGAINST ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS AND EXISTING SITE CONDITIONS. REPORT ANY INCONSISTENCIES TO CONSULTANT BEFORE PROCEEDING WITH THE WORK.

1.2 EXISTING DIMENSIONS AND CONDITIONS TO BE VERIFIED ON SITE BY THE CONTRACTOR PRIOR TO IMPLEMENTING AFFECTED WORK.

1.3 READ STRUCTURAL DRAWINGS IN CONJUNCTION WITH OTHER CONTRACT DOCUMENTS AND SPECIFICATIONS ON THE DRAWING.

1.4 DO NOT EXCEED, DURING CONSTRUCTION, DESIGN LIVE LOADS SHOWN ON PLANS, REDUCED AS NECESSARY UNTIL MATERIALS REACH THEIR DESIGN STRENGTH.

1.5 GENERAL NOTES ARE FOR REFERENCE ONLY AND DO NOT REPLACE THE CONTRACT SPECIFICATIONS.

1.6 DO NOT SCALE DRAWINGS.

2 MATERIALS

2.2 STRUCTURAL STEEL: TO CAN/CSA–G40.20/G40.21 GRADE 350W FOR PLATES, W AND WWF SHAPES, GRADE 300W FOR CHANNELS AND ANGLES. HOLLOW STRUCTURAL SECTIONS TO GRADE 350W, CLASS C, UNLESS NOTED OTHERWISE.

2.3 CONCRETE: TO CAN/CSA–A23.1 (LATEST EDITION).

2.4 REINFORCING BARS: TO CAN/CSA G30.18 (LATEST EDITION). GRADE 400 R.

2.5 REINFORCING BARS AREAS ARE 100, 200, 300, 500, 700, 1000, 1500 AND 2500 SQAURE MM FOR BAR DESIGNATIONS OF 10M, 15M, 20M, 25M, 30M, 35M, 40M, 45M AND 55M, RESPECTIVELY.



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Consultants

Keyplan

North Arrow

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Permit-Seal

Client/Project

SCARBOROUGH HEALTH NETWORK  
SCARBOROUGH GENERAL HOSPITAL  
SATELLITE IMAGING RENOVATION

3050 Lawrence Ave East, Scarborough, Ontario

Title

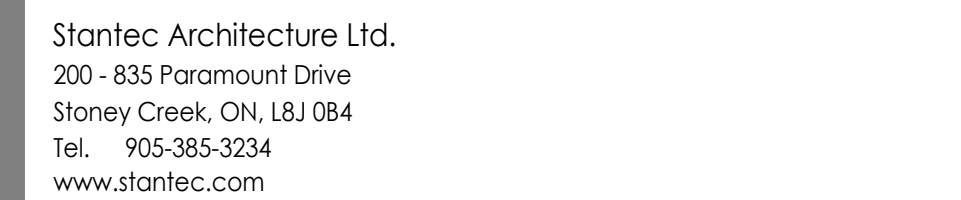
SPECIFICATIONS  
AND GENERAL NOTES

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Keyplan

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Client/Project

SCARBOROUGH HEALTH NETWORK  
SCARBOROUGH GENERAL HOSPITAL  
SATELLITE IMAGING RENOVATION

3050 Lawrence Ave East, Scarborough, Ontario

Title  
PART EXISTING GROUND  
FLOOR FRAMING PLAN

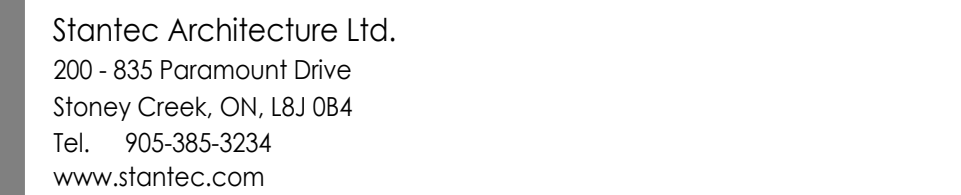
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NOTES:

1. DESIGN LIVE LOAD IS 50 psf.
2. ALL FRAMING EXISTING UNLESS NOTED AS NEW.
3. TOP OF NEW STEEL TO BE 1" BELOW UNDERSIDE OF EXISTING CONCRETE DECK AND GAP TO BE INFILLED, WITH NON-SHRINK GROUT.
4. CONTRACTOR MAY SPLICE BEAMS AS NEEDED. SPLICES TO BE DESIGNED FOR FULL MOMENT AND SHEAR CAPACITY.



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### Keyplan

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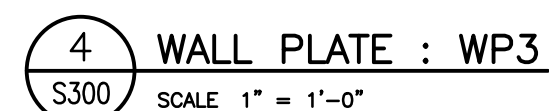
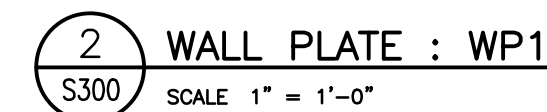
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SCARBOROUGH HEALTH NETWORK  
SCARBOROUGH GENERAL HOSPITAL  
SATELLITE IMAGING RENOVATION

Title

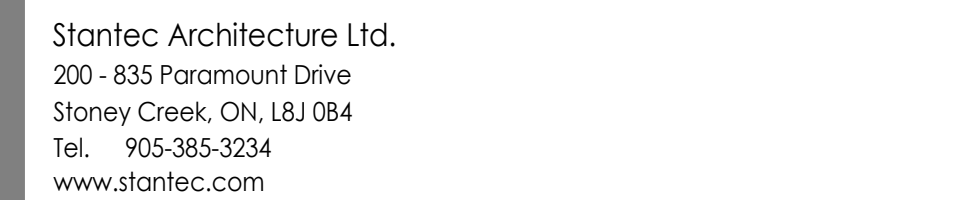
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1. CONCRETE : MINIMUM STRENGTH = 35 MPa  
MAXIMUM W/C RATIO = 0.40  
EXPOSURE CLASS = C1  
AGGREGATE SIZE = 20 mm  
% AIR CONTENT = 5 TO 8
2. GEOTECHNICAL ENGINEER TO VERIFY THAT SUBBASE, SOIL BEARING CAPACITY AND COMPACTION, IS CAPABLE OF SUPPORTING 25 kPa PRIOR TO CONSTRUCTION.
3. CONCRETE SHALL HAVE BROOM FINISH.





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Client/Project

SCARBOROUGH HEALTH NETWORK  
SCARBOROUGH GENERAL HOSPITAL  
SATELLITE IMAGING RENOVATION

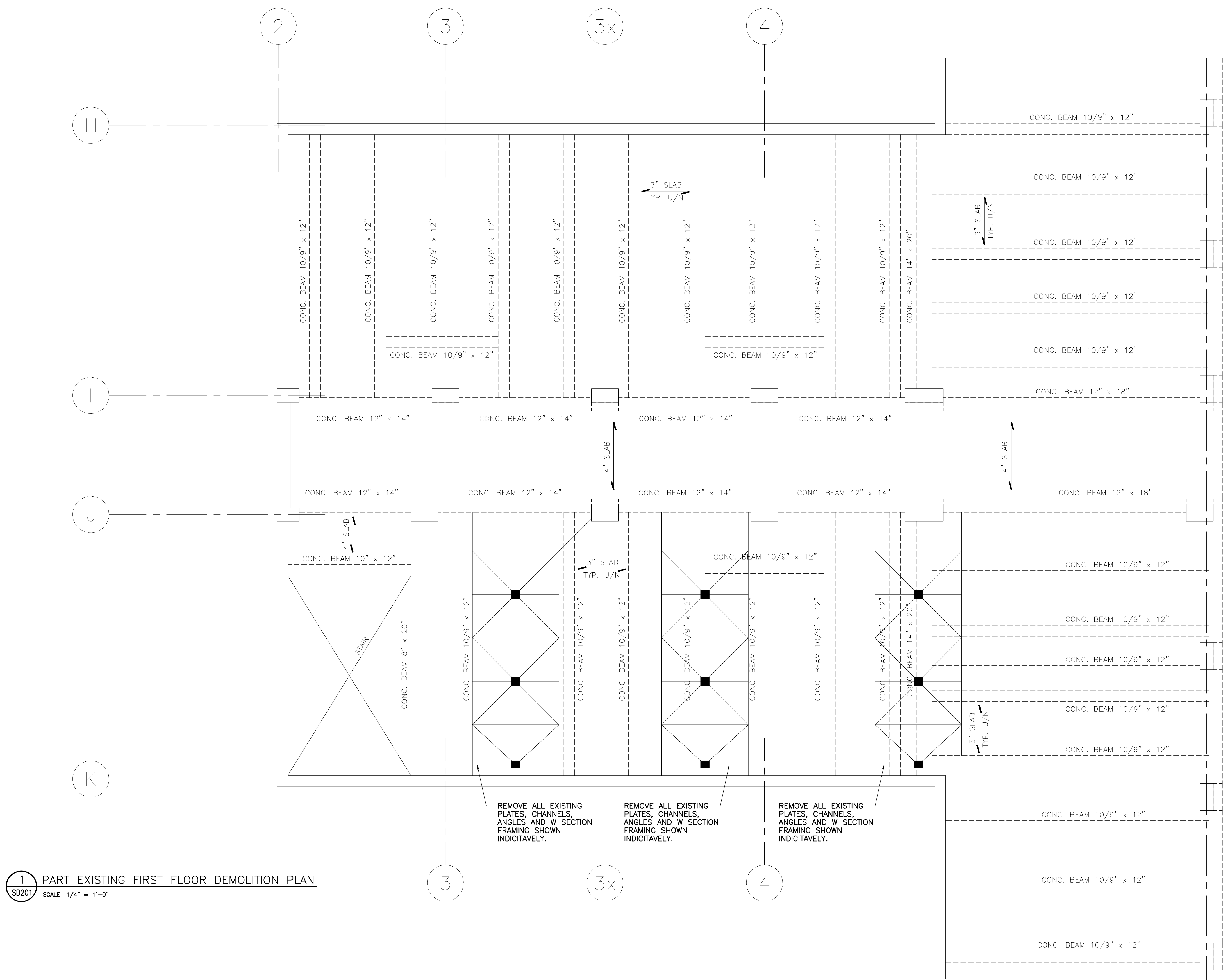
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Title

PART EXISTING FIRST  
FLOOR DEMOLITION PLAN

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| Drawing No. | Sheet      | Revision |

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1 PART EXISTING FIRST FLOOR DEMOLITION PLAN  
SD201 SCALE 1/4" = 1'-0"