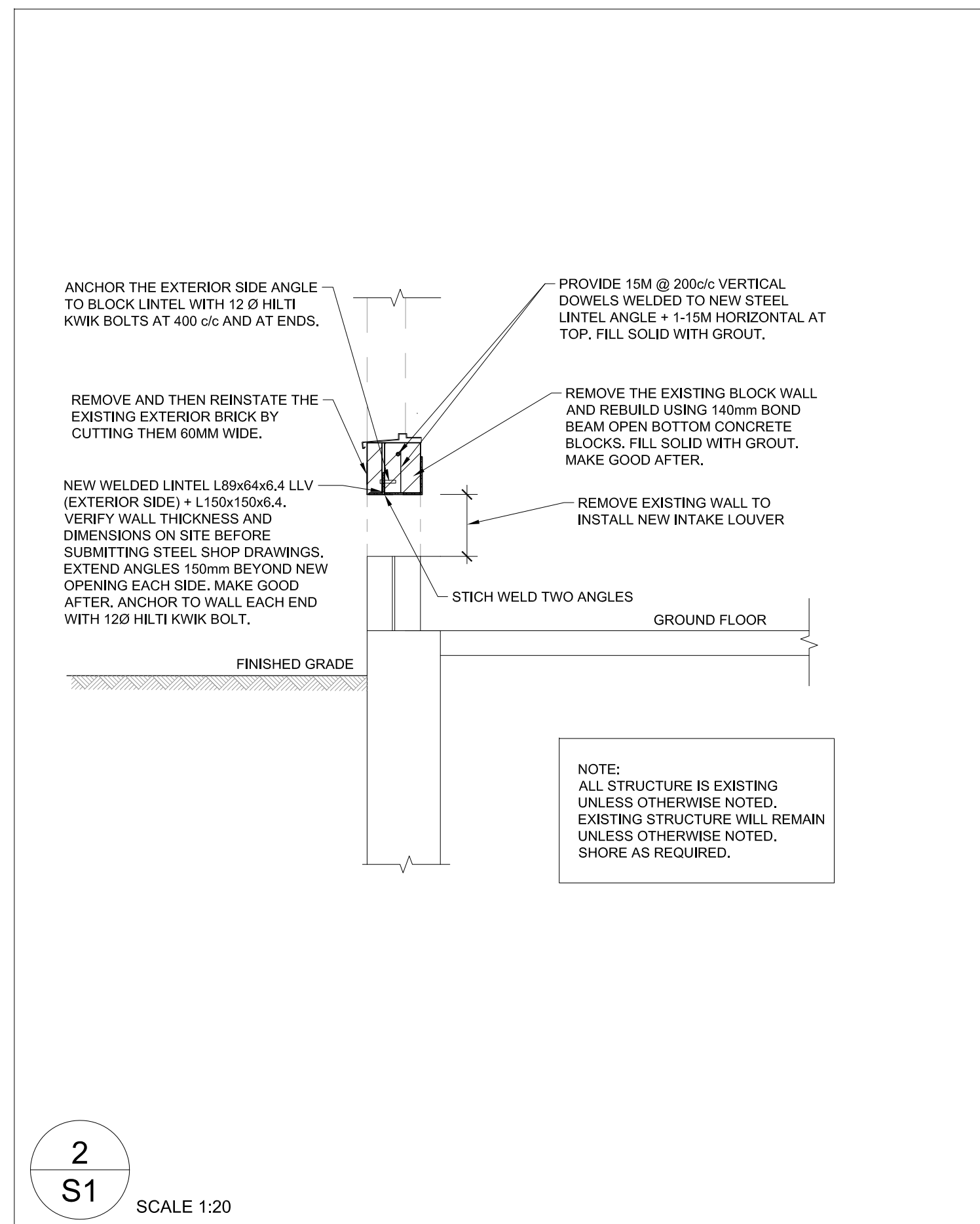
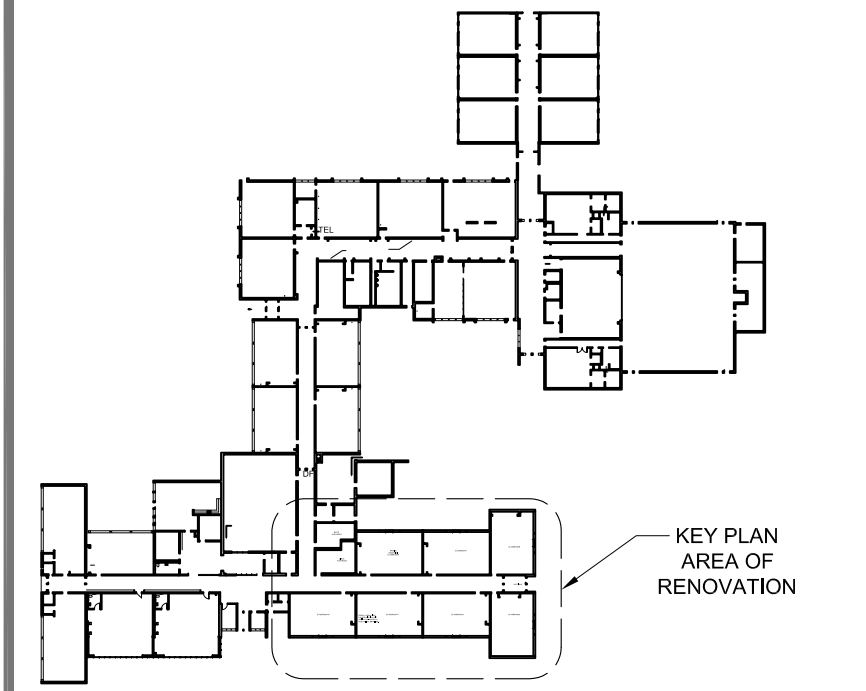


1 PART GROUND FLOOR PLAN  
S1 1:100

- PART GROUND FLOOR PLAN** SCALE 1:100
- FOR SLOPES AND ELEVATIONS SEE ARCHITECTURAL DRAWINGS.
  - STRUCTURE IS EXISTING UNLESS NOTED OTHERWISE, EXISTING FRAMING DATA ARE TAKEN FROM THE ORIGINAL DRAWINGS DESIGNED BY PAGE & STEEL ARCHITECTS ON YEAR 1953. VERIFY ON SITE AND REPORT TO CONSULTANTS DISCREPANCIES AND NECESSARY ADJUSTMENTS DUE TO ACTUAL CONDITIONS BEFORE PROCEEDING WITH WORK.
  - SEE ALSO TYPICAL DETAILS AND GENERAL NOTES ON THESE DRAWINGS.
  - UNLESS NOTED OTHERWISE PROVIDE 170 X 12 X 200 BEARING PLATES EACH END OF ALL STEEL BEAMS. ALL BEARING PLATES SHALL BE WITH 2-198 WELDED ANCHORS X 250 LG. WELD BEAM TO BEARING PLATES TYPICAL.
  - REFER TO OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS FOR ROOF MOUNTED OR SUSPENDED UNITS. SHOW THE UNITS ON THE STEEL FABRICATORS SHOP DRAWINGS AND OBTAIN ARCHITECTS, MECHANICAL AND OR ELECTRICAL ENGINEERS APPROVAL OF WEIGHTS AND LOCATIONS BEFORE FABRICATION IS STARTED.
  - UNLESS NOTED OTHERWISE FOR LINTELS OVER MECHANICAL WALL OPENINGS REFER TO 'LINTELS FOR DUCTS AND SERVICES' ON TYPICAL DETAIL SHEET. FOR ALL NEW LINTELS IN EXISTING WALLS CONFIRM WALL THICKNESS BEFORE LINTELS ARE FABRICATED. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR EXACT LOCATIONS.
  - BLOCK VOIDS WITH REINFORCING OR SHOWN AS "FILLED SOLID" SHALL BE FILLED WITH 20MPa CONCRETE WITH PEA GRAVEL OR 20MPa COARSE GROUT.
  - SHORE AS REQUIRED.

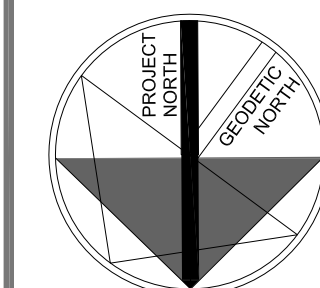


2 S1 SCALE 1:20



NOTE: THIS DRAWING IS NOT TO BE SCALED. THE CONTRACTOR IS RESPONSIBLE FOR THE VERIFICATION OF ALL SITE CONDITIONS AND SITE MEASUREMENTS THAT ARE NOT CONSISTENT WITH THE DRAWINGS.

no.	revision	date



no.	issue	date
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project  
WRDSB STEWART AVENUE PUBLIC SCHOOL HVAC RENOVATIONS

WATERLOO REGION DISTRICT SCHOOL BOARD  
145 STEWART AVE. CAMBRIDGE, ON. N1R 2V5

drawing  
PART GROUND FLOOR PLAN

drawing scale  
1:100

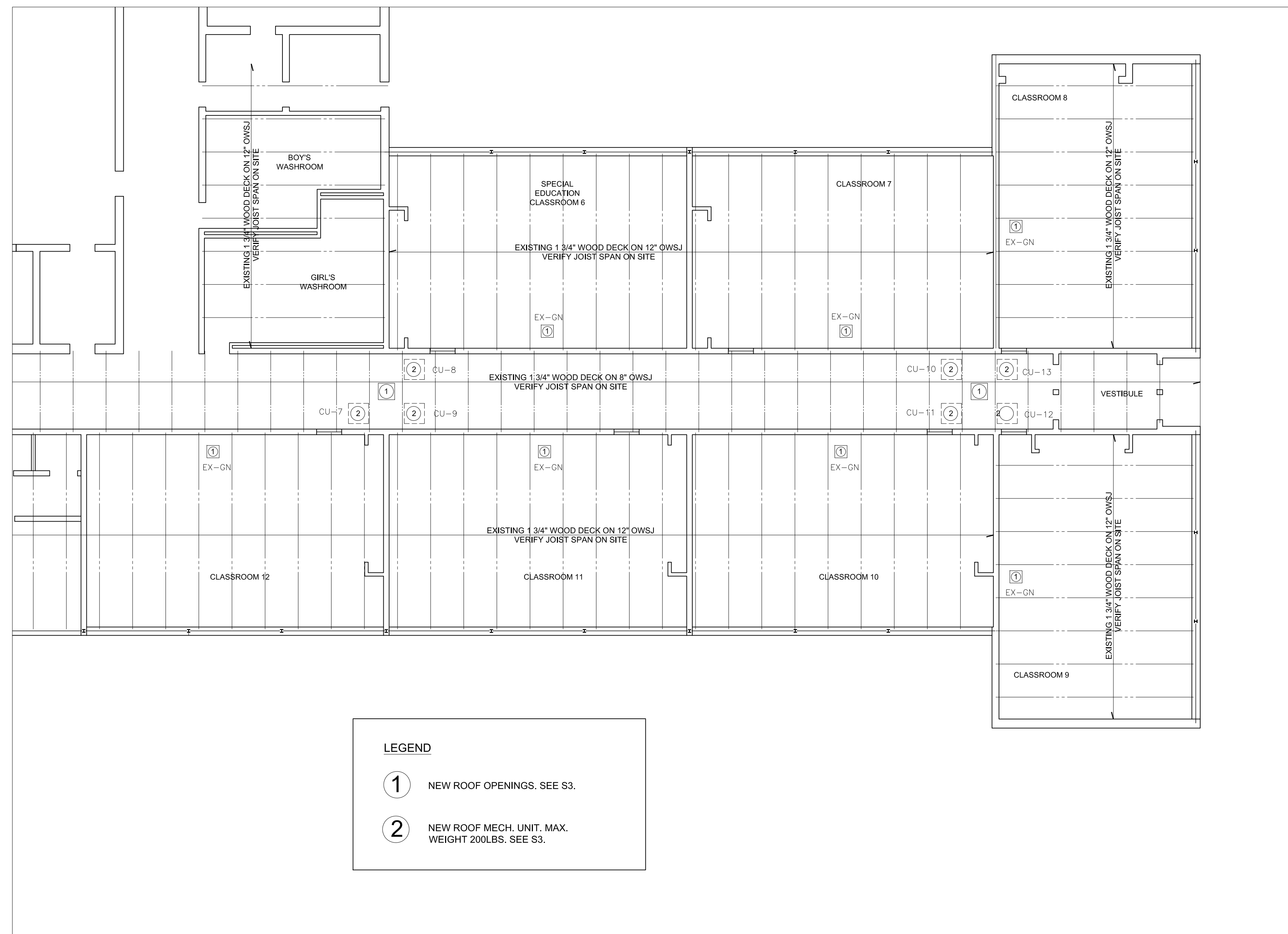
ward99 project number  
21009 - STEWART

VX Engineering project number  
2206 - STEWART PS

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ENGINEERING INC  
STRUCTURAL ENGINEERS

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drawing no.  
**S1**



### PART ROOF FRAMING PLAN

SCALE 1:100

1. FOR ROOF SLOPES AND ELEVATIONS SEE ARCHITECTURAL DRAWINGS.
2. ROOF STRUCTURE IS EXISTING UNLESS NOTED OTHERWISE. EXISTING FRAMING DATA ARE TAKEN FROM THE ORIGINAL DRAWINGS DESIGNED BY PAGE & STEEL ARCHITECTS ON YEAR 1953. REPORT TO CONSULTANTS DISCREPANCIES AND NECESSARY ADJUSTMENTS DUE TO ACTUAL CONDITIONS BEFORE PROCEEDING WITH WORK...
3. EXISTING ROOF IS DESIGNED FOR SPECIFIED DEAD LOAD PLUS SNOW LOAD OF 65 PSF (3.1 kN/m<sup>2</sup>). SPECIFIED SNOW LOAD FOR CURRENT CODE IS 1.68kN/m<sup>2</sup>. MULTIPLY SNOW LOADS BY IMPORTANCE FACTOR I<sub>s</sub>=1.15.
4. SEE ALSO TYPICAL DETAILS AND GENERAL NOTES ON THESE DRAWINGS.
5. UNLESS NOTED OTHERWISE PROVIDE 170 X 12 X 200 BEARING PLATES EACH END OF ALL STEEL BEAMS. ALL BEARING PLATES SHALL BE WITH 2-190 WELDED ANCHORS X 250 LG. WELD BEAM TO BEARING PLATES TYPICAL.
6. UNLESS NOTED OTHERWISE PROVIDE L89x89x6.4 FRAMING U/S NEW ROOF MECHANICAL UNITS AND L75 X 75 X 6.4 ANGLE REINFORCING AROUND ALL OPENINGS IN ROOF DECK THAT ARE BIGGER THAN 150mm x 150mm. PROVIDE REINFORCING AROUND NEW ROOF OPENINGS DUE TO NEW ROOF MECHANICAL DOGHOUSES.
7. REFER TO OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS FOR ROOF MOUNTED OR SUSPENDED UNITS. SHOW THE UNITS ON THE STEEL FABRICATORS SHOP DRAWINGS AND OBTAIN ARCHITECTS, MECHANICAL AND OR ELECTRICAL ENGINEERS APPROVAL OF WEIGHTS AND LOCATIONS BEFORE FABRICATION IS STARTED.
8. UNLESS NOTED OTHERWISE FOR LINTELS OVER MECHANICAL WALL OPENINGS REFER TO "LINTELS FOR DUCTS AND SERVICES" ON TYPICAL DETAIL SHEET. FOR ALL NEW LINTELS IN EXISTING WALLS CONFIRM WALL THICKNESS BEFORE LINTELS ARE FABRICATED. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR EXACT LOCATIONS.
9. BLOCK VOIDS WITH REINFORCING OR SHOWN AS "FILLED SOLID" SHALL BE FILLED WITH 20MPa CONCRETE WITH PEA GRAVEL OR 20MPa COARSE GROUT.
10. WIND LOAD PARAMETERS, AS PER OBC 2012 AND CHANGES 2020, PART 4, 1/2 WIND PRESSURE 0.38kPa, 1/10 WIND PRESSURE 0.28kPa.
11. SEISMIC LOAD PARAMETERS, AS PER OBC 2012 AND CHANGES 2020, PART 4, EQUIVALENT STATIC ANALYSIS, SHEAR WALL SYSTEM. S<sub>w</sub>(0.2)=0.141, S<sub>w</sub>(0.5)=0.084, S<sub>w</sub>(1.0)=0.047, S<sub>w</sub>(2.0)=0.024, S<sub>w</sub>(5.0)=0.0058, S<sub>w</sub>(10.0)=0.0024, F<sub>a</sub>=1.24, F<sub>v</sub>=1.55, I<sub>e</sub>=1.3, R<sub>d</sub>=1.5, R<sub>o</sub>=1.5, SOIL CLASS D (ASSUMED), I<sub>f</sub>F<sub>a</sub>S<sub>w</sub>(0.2)=0.227+0.35
12. REFER TO "IMPORTANCE FACTOR" TABLE.
13. SHORE AS REQUIRED.

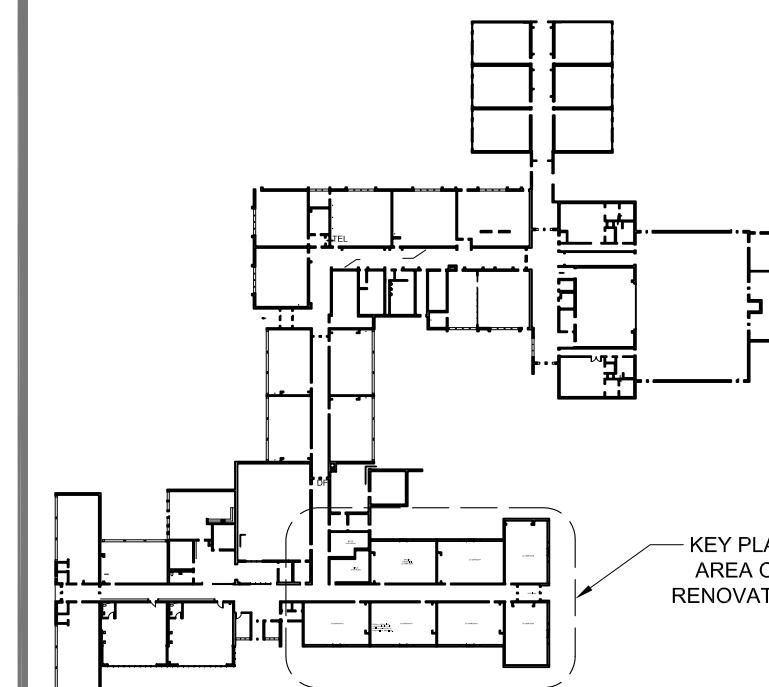
IMPORTANCE FACTOR CATEGORY 'HIGH'		
	ULS	SLS
SNOW	1.15	0.9
WIND	1.15	0.75
EARTHQUAKE	1.3	1.0

**LEGEND**

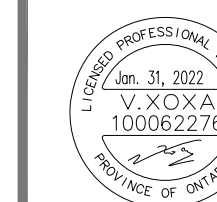
1 NEW ROOF OPENINGS. SEE S3.

2 NEW ROOF MECH. UNIT. MAX. WEIGHT 200LBS. SEE S3.

1 PART ROOF FRAMING PLAN  
S2 1:100

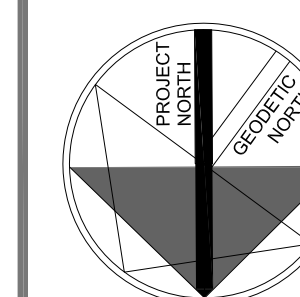


KEY PLAN AREA OF RENOVATION



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drawing  
PART ROOF FRAMING PLAN

drawing scale  
1:100

ward99 project number  
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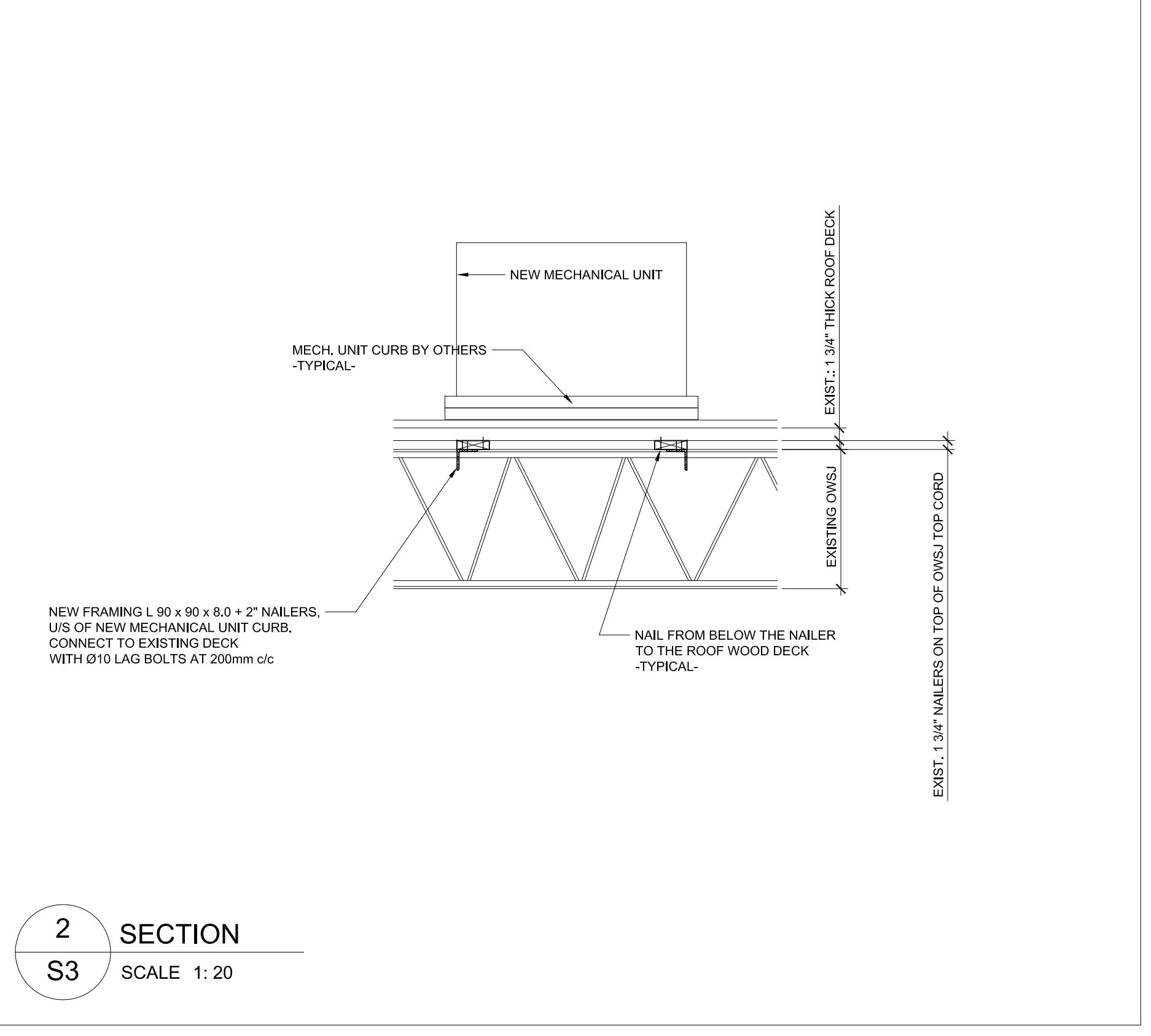
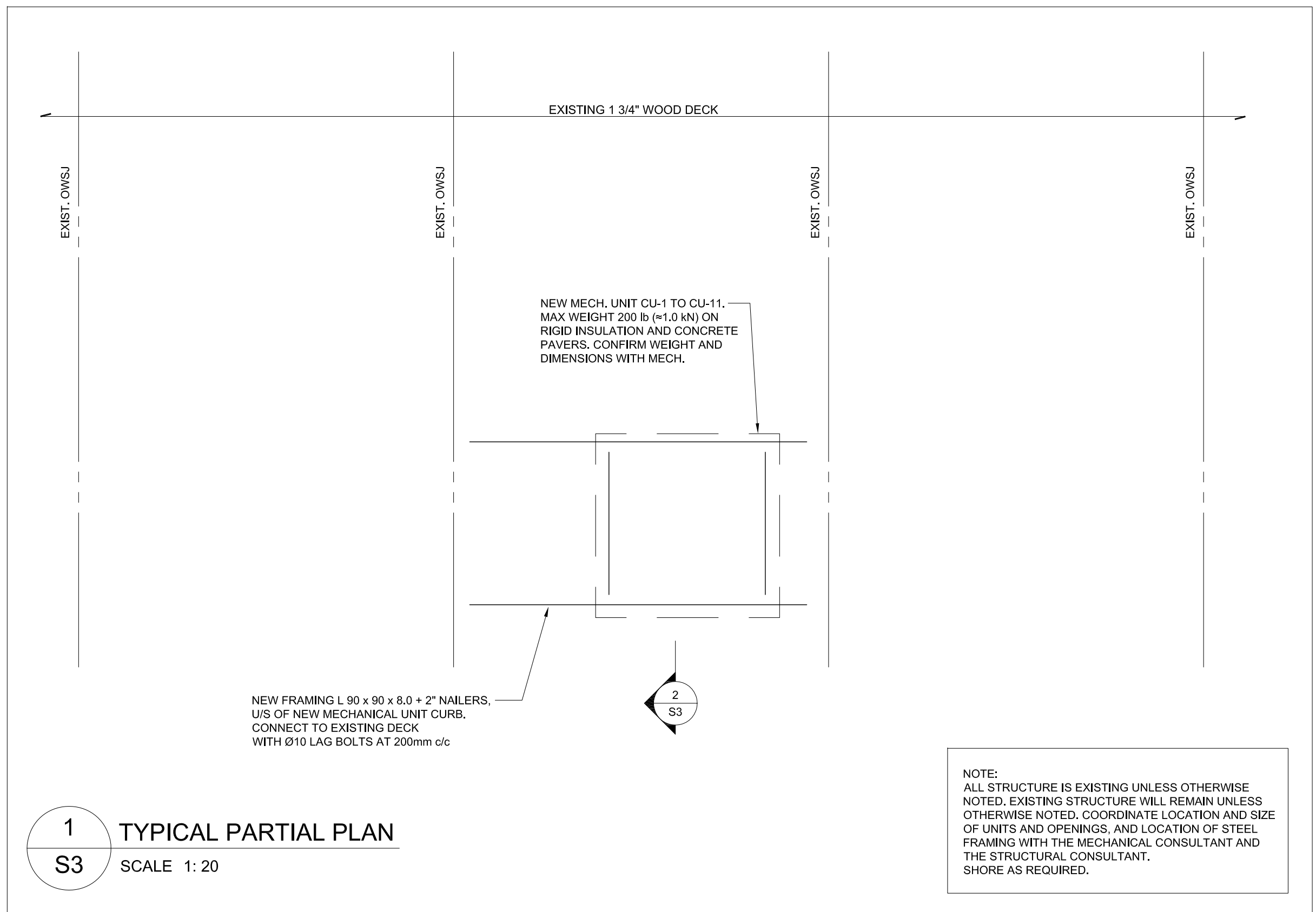
VX Engineering project number  
2206 - STEWART PS

drawing no.

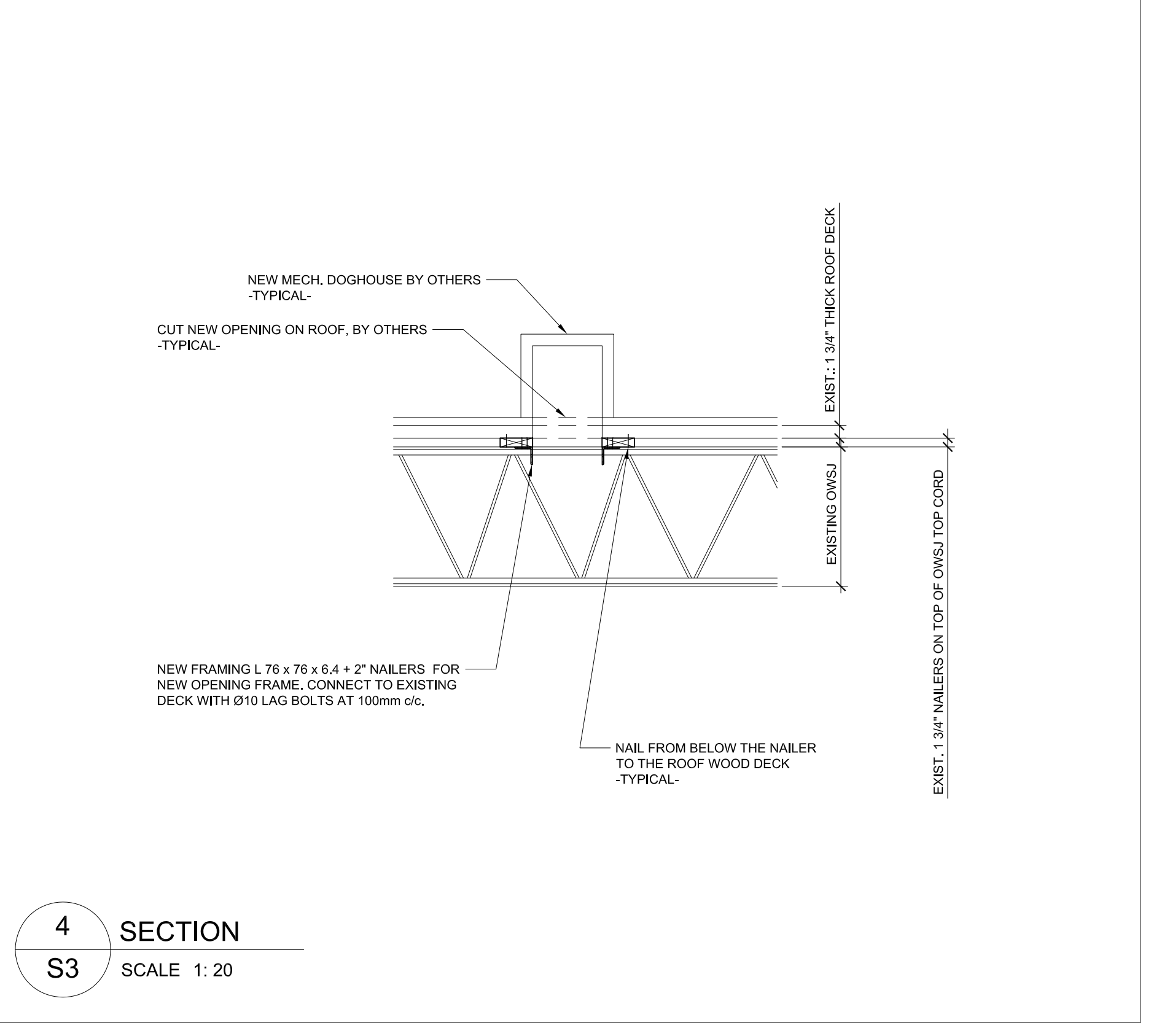
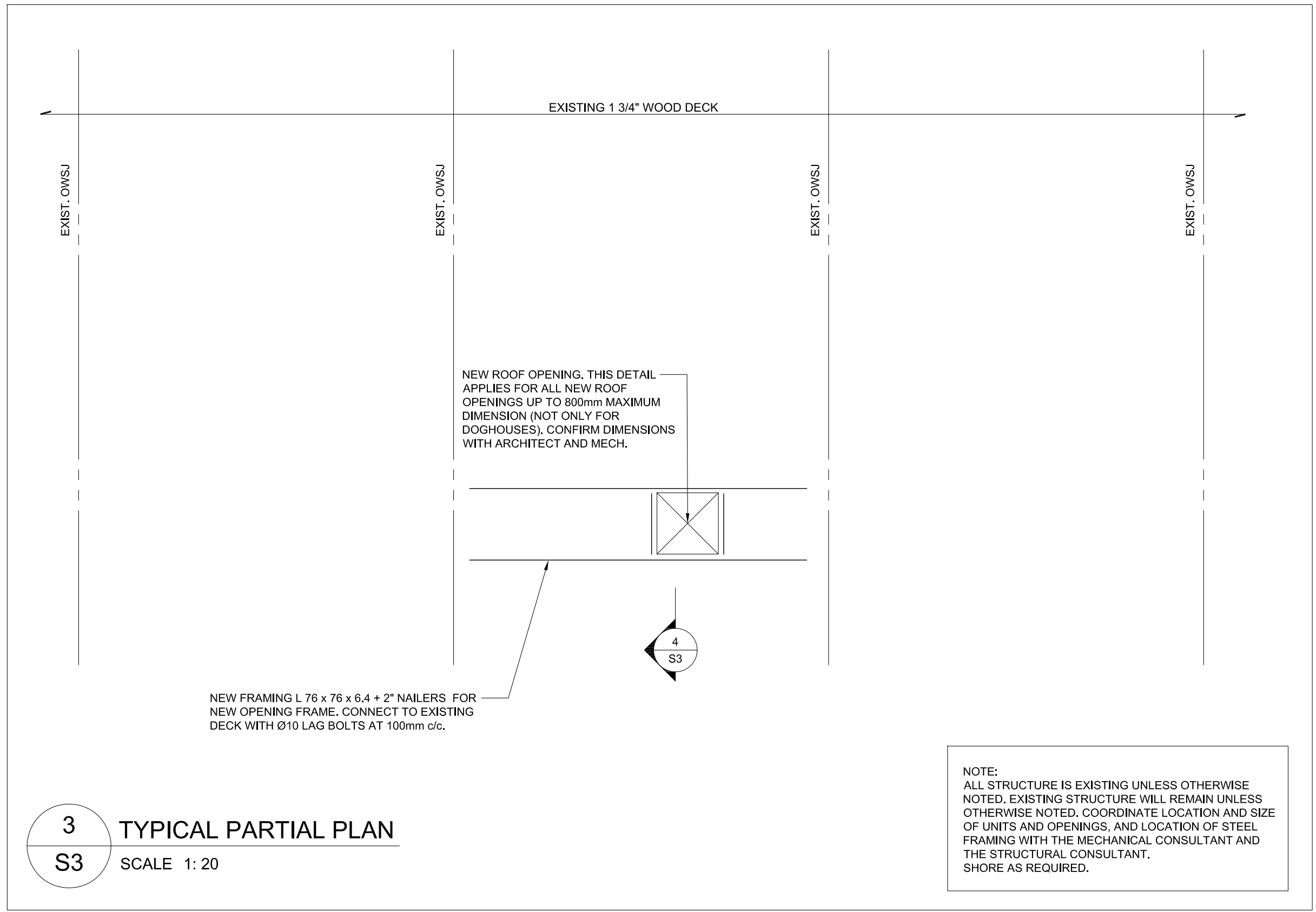
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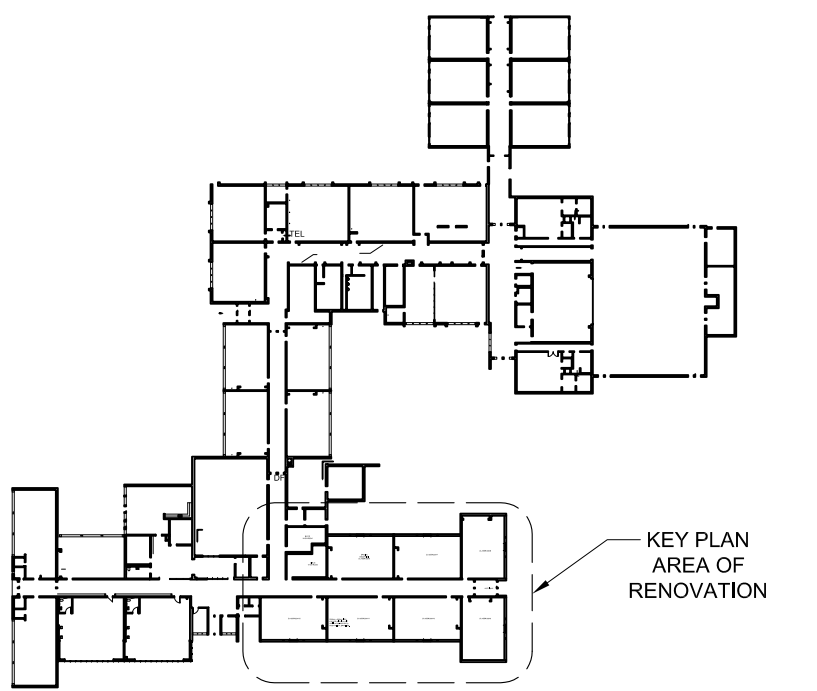
**S2**



TYPICAL FRAMING FOR NEW ROOF MECHANICAL UNIT ON EXISTING WOOD DECK ROOF.



TYPICAL FRAMING FOR NEW ROOF OPENINGS ON EXISTING WOOD DECK ROOF.



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drawing  
**UNITS & OPENING FRAMING DETAILS IN EXISTING WOOD DECK ROOF**

drawing scale  
1:20

ward99 project number  
21009 - STEWART

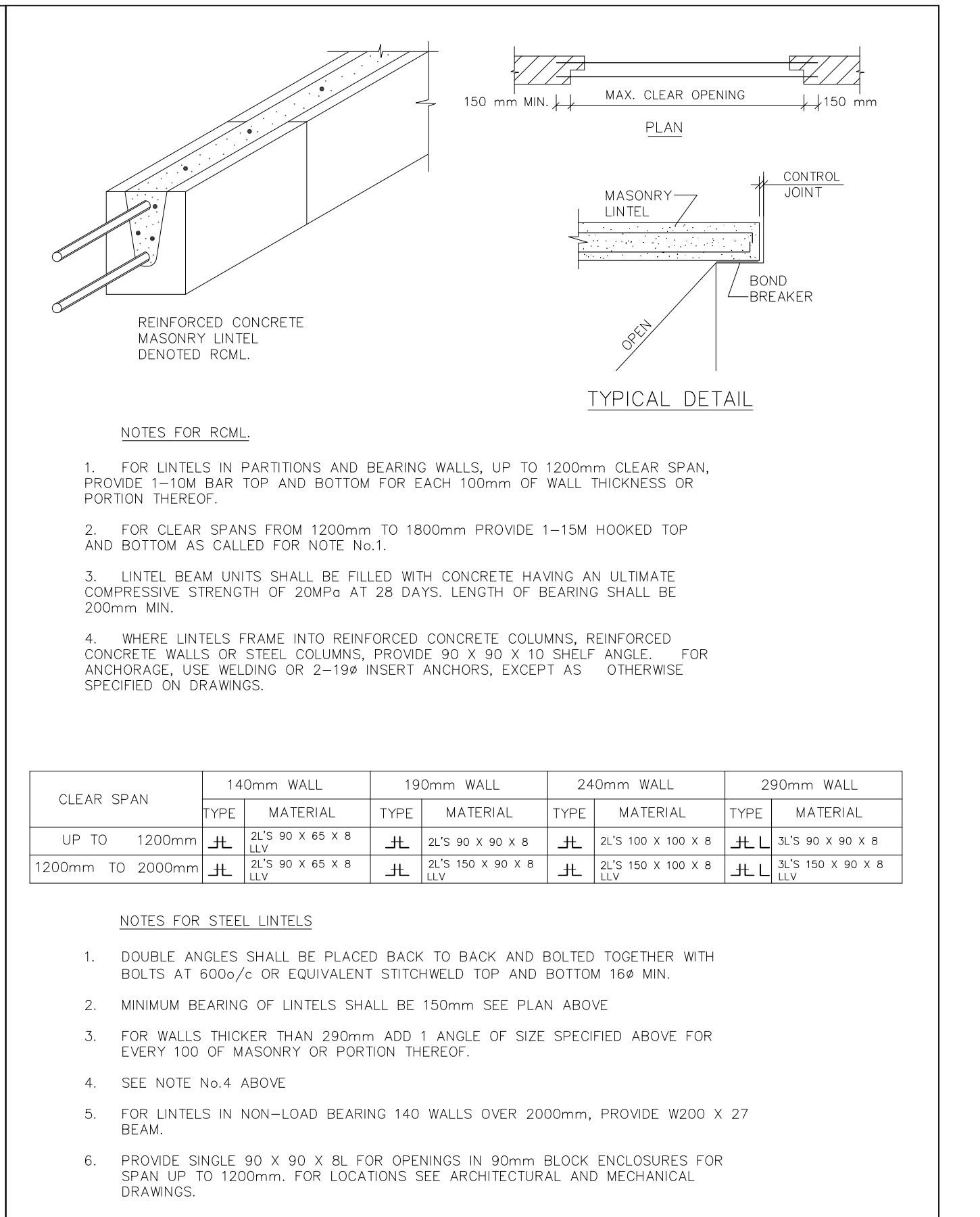
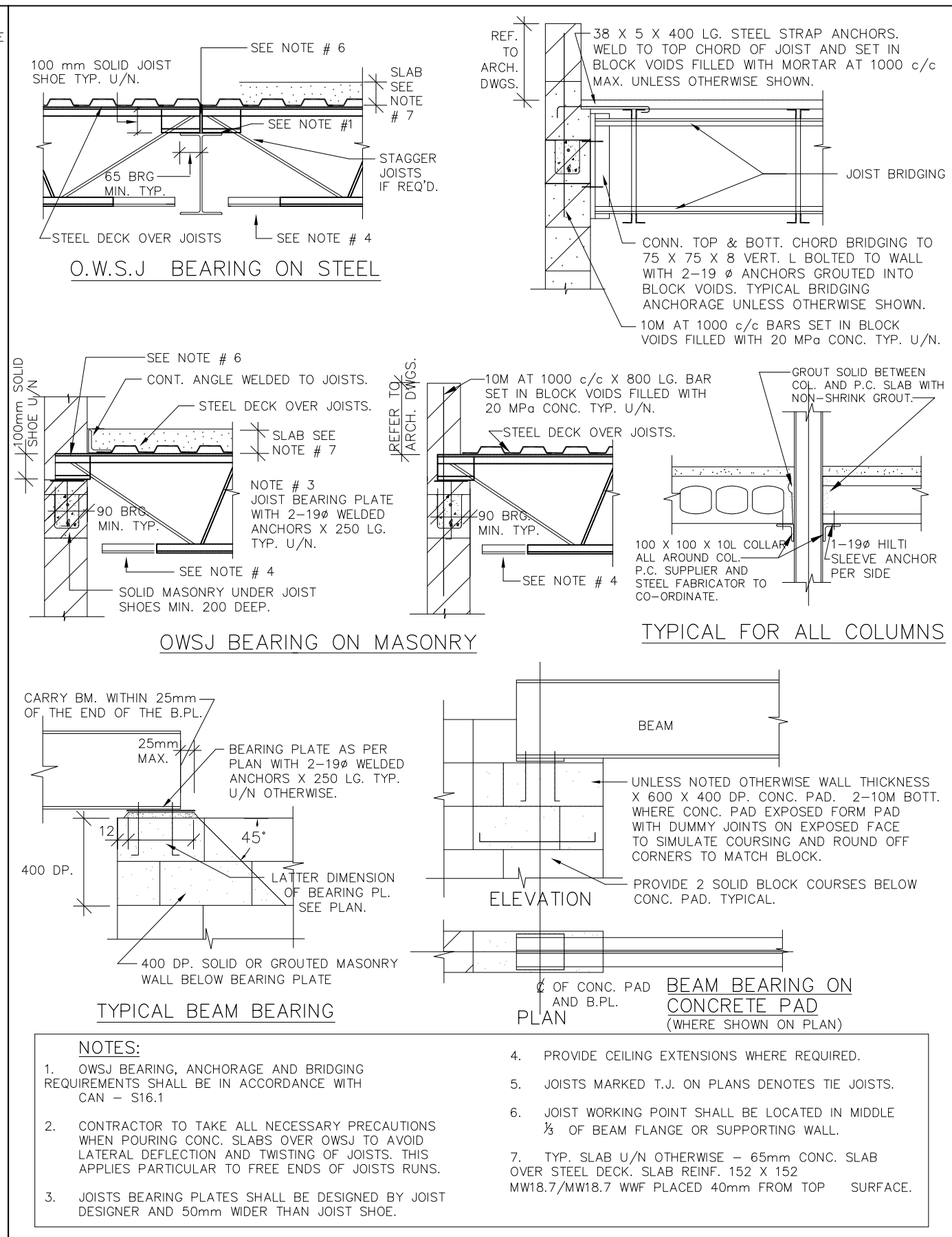
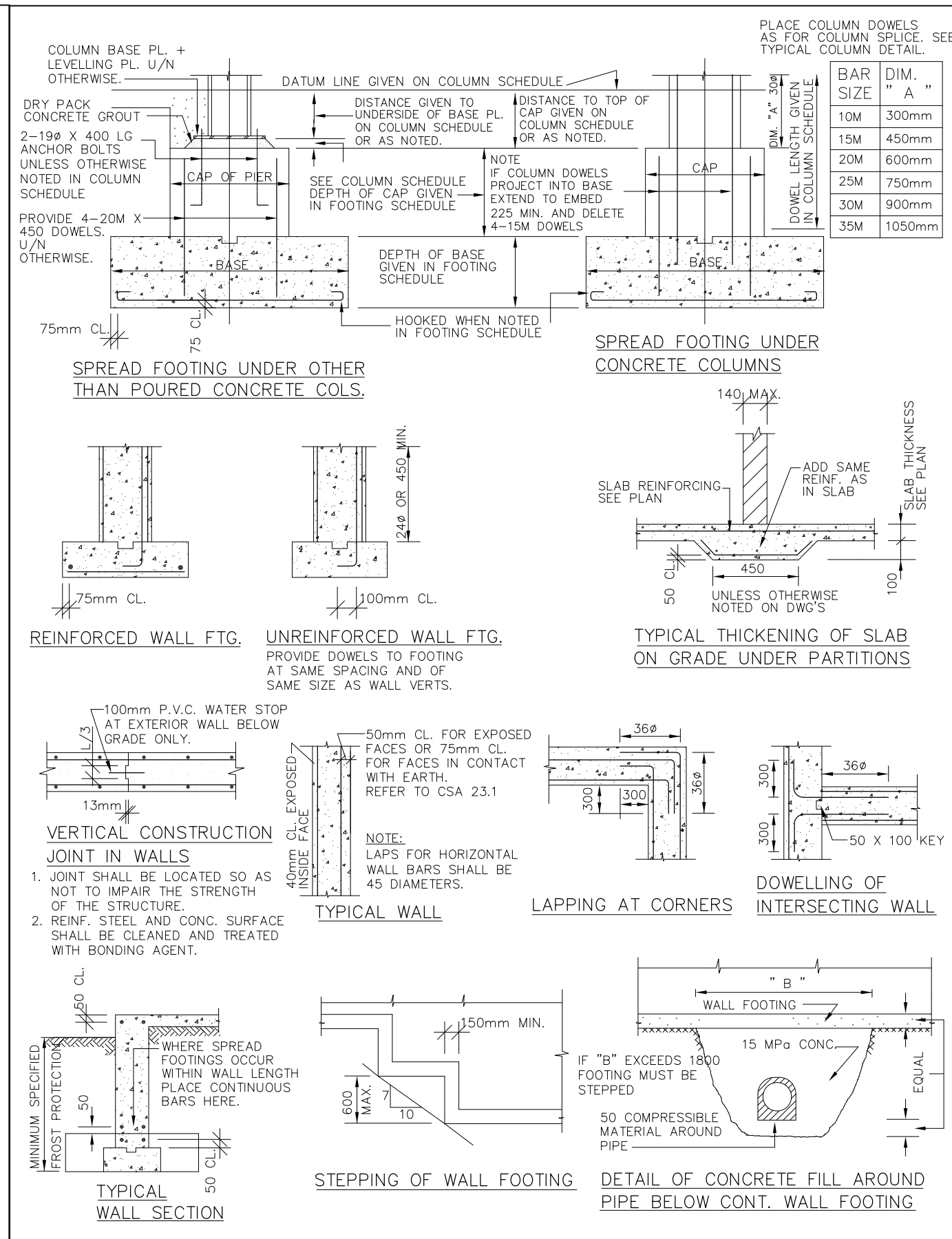
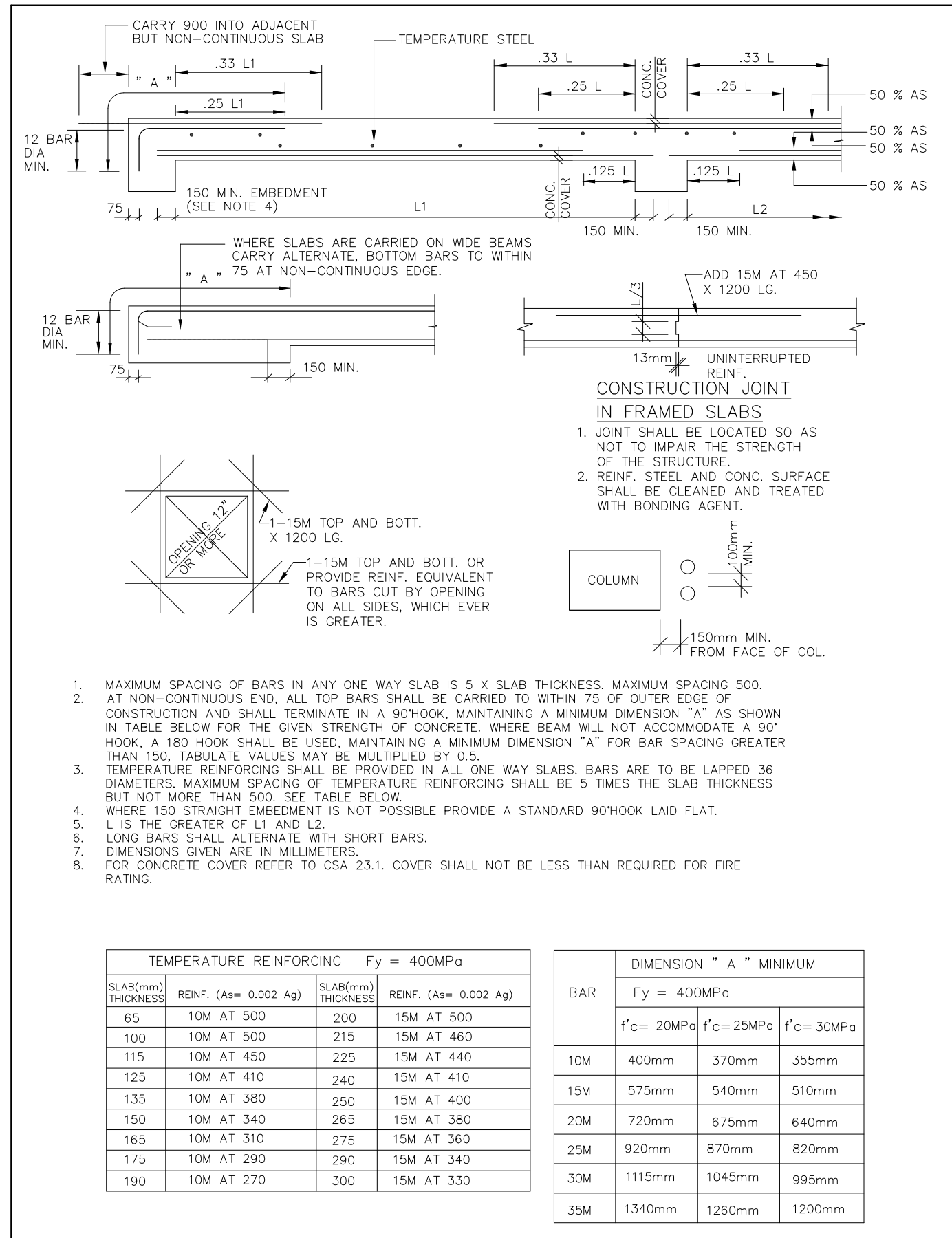
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**S3**

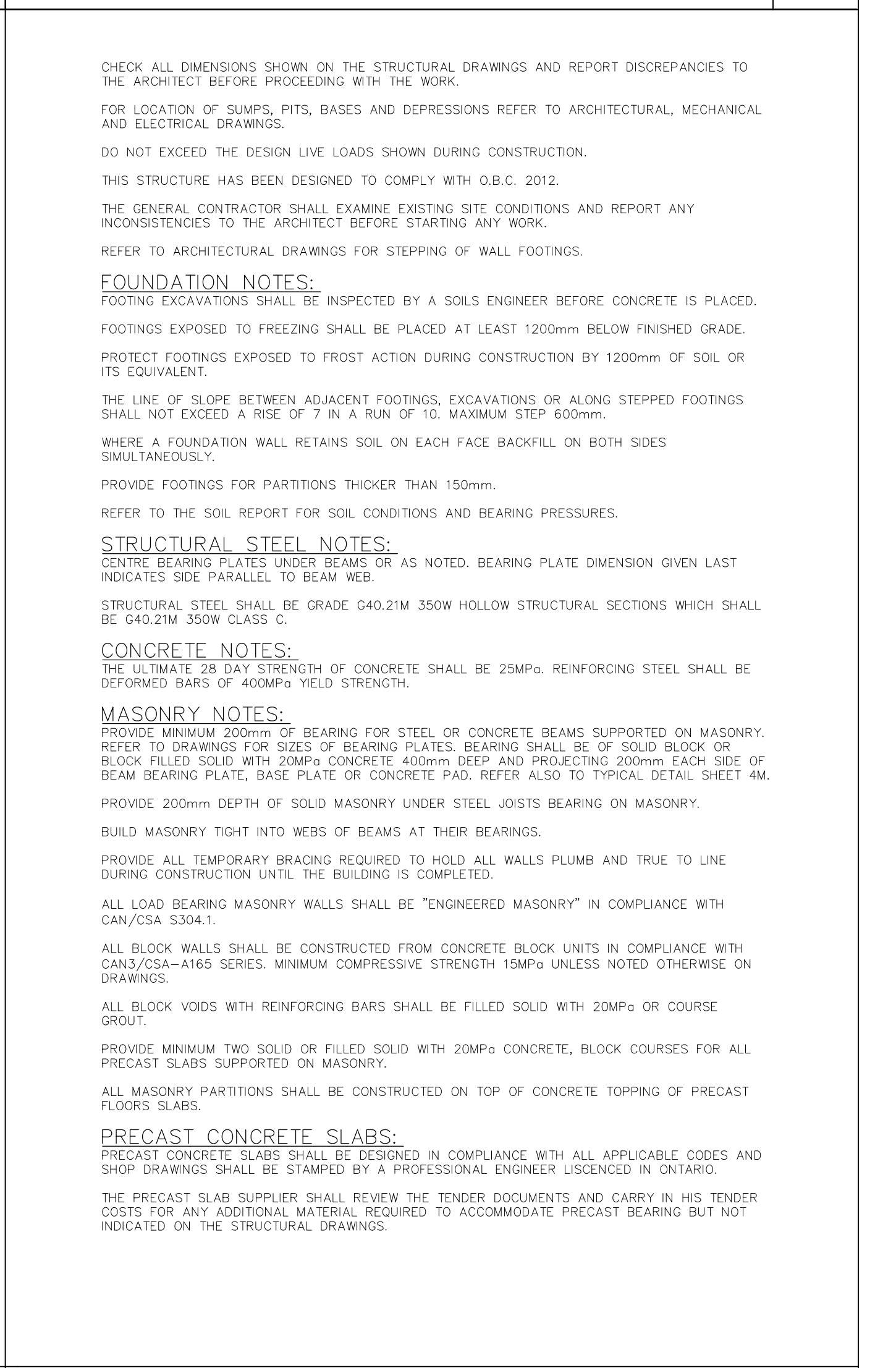
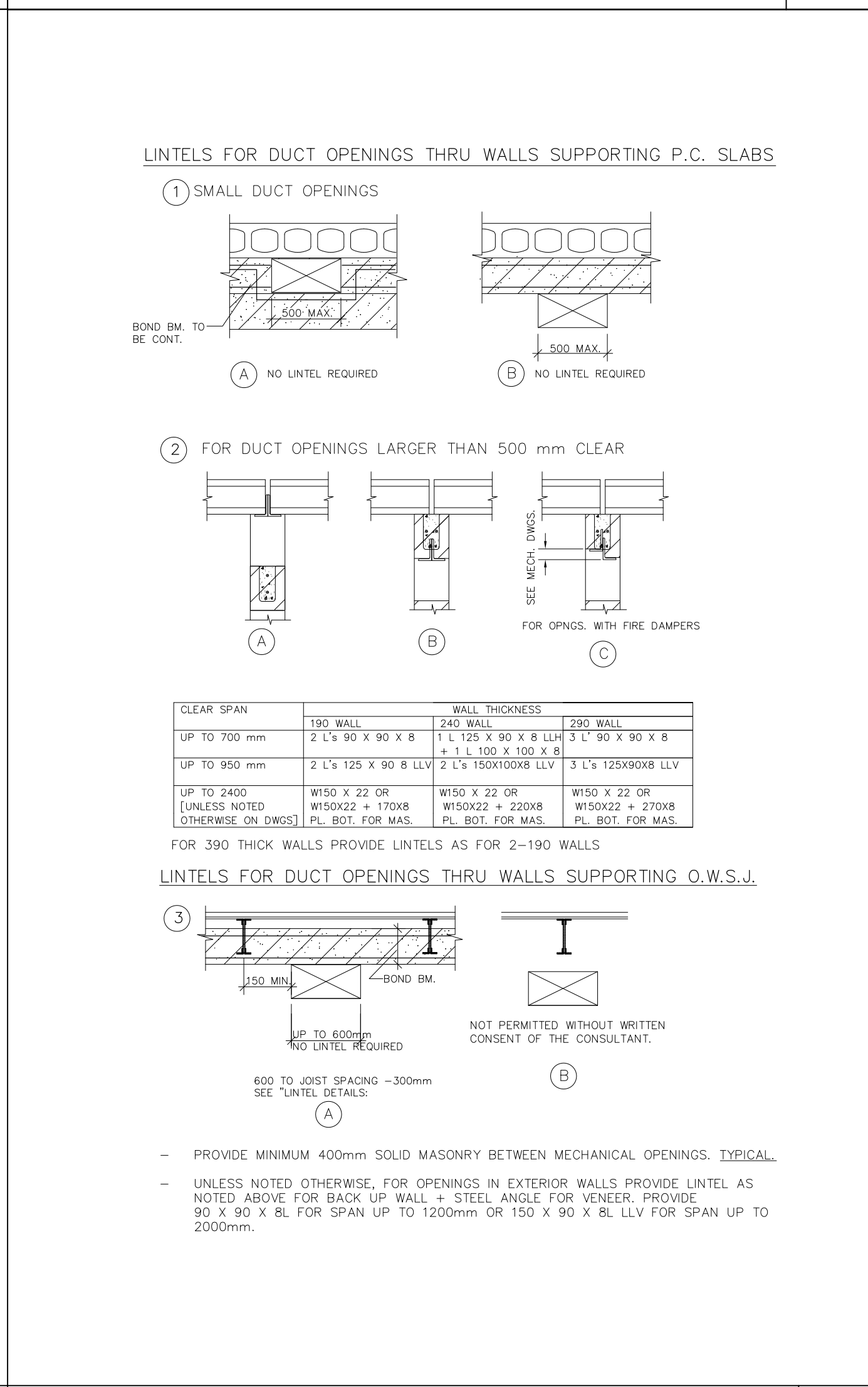
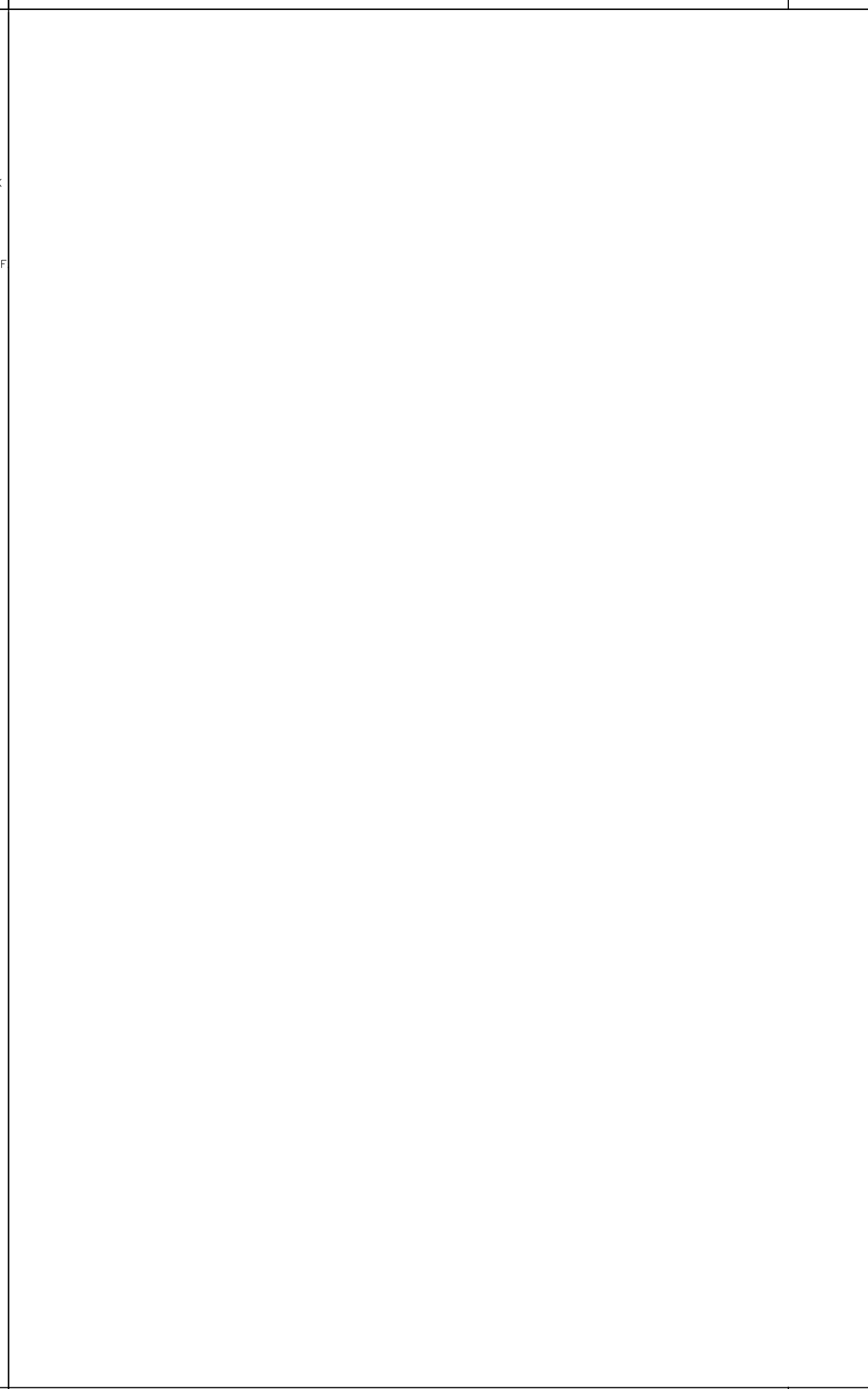
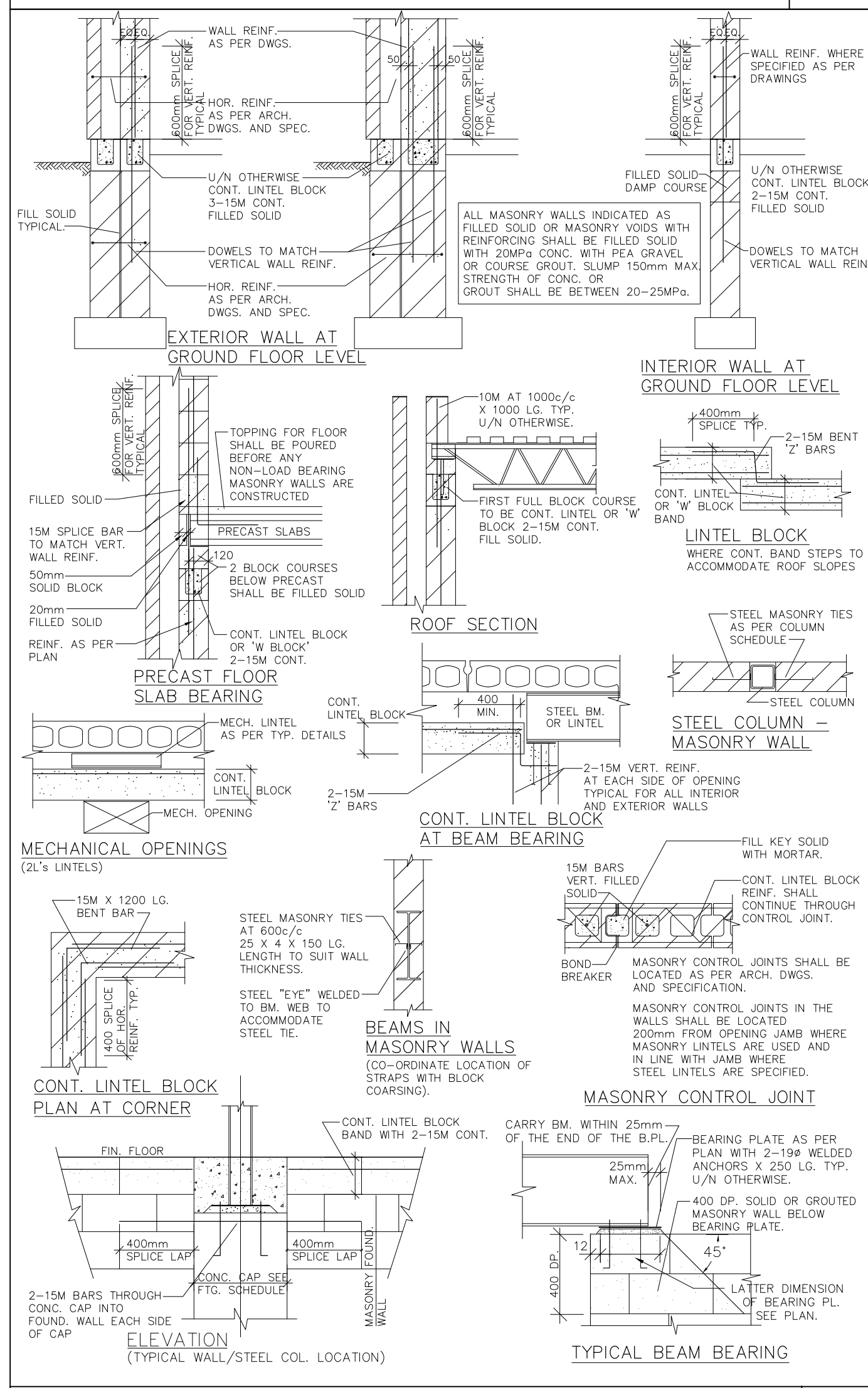


ONE WAY SLAB DETAILS 1

FOUNDATION & WALL DETAILS 2

STRUCTURAL STEEL AND OPEN WEB STEEL JOIST DETAILS 3

LINTEL DETAILS 4

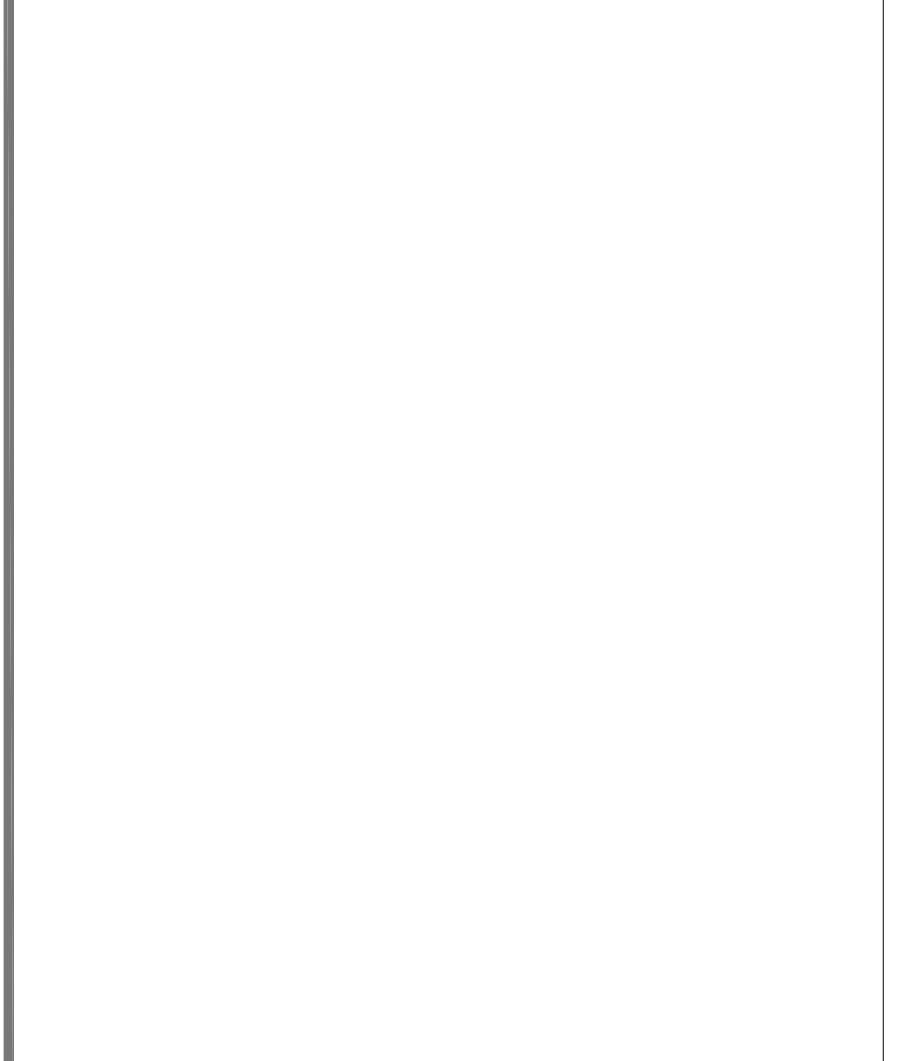
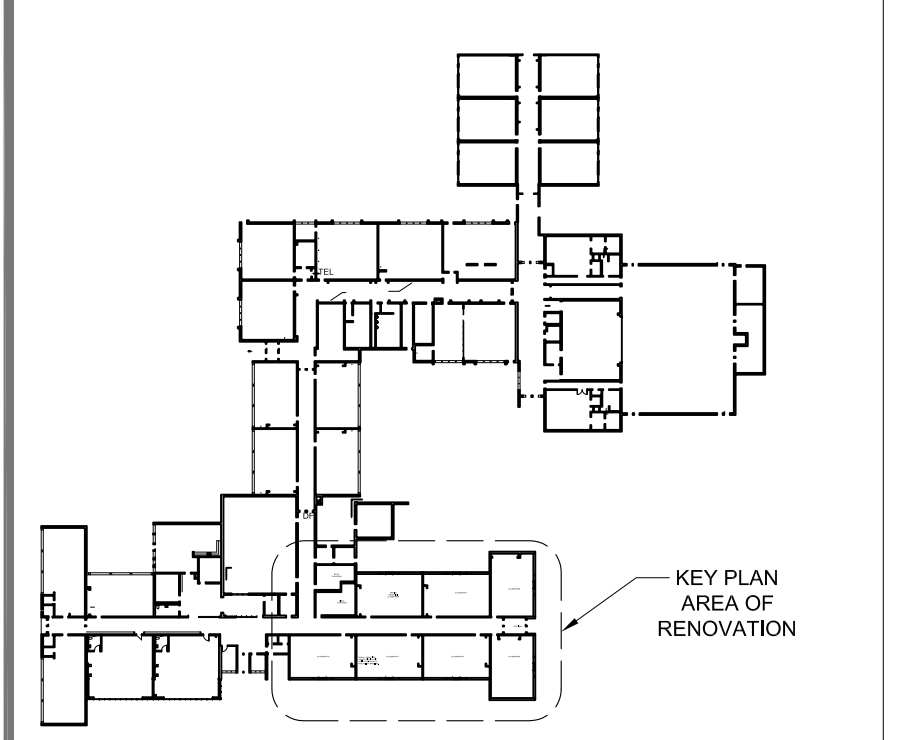


MASONRY DETAILS 5

UNDERPINNING 6

LINTELS FOR DUCTS AND SERVICES 7

GENERAL NOTES



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