



Contractor to verify all dimensions & conditions on site and immediately notify the engineer of all discrepancies.

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4	IFT	2020-11-09
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2	99% FOR REVIEW	2019/12/06
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A	detail no. no. du détail	A
B	location drawing no. sur dessin no.	B
C	drawing no. dessin no.	C

project / projet  
**CONCRETE\_PIERS**  
**2100\_WALKLEY\_ROAD**  
**OTTAWA\_ONTARIO**  
 ADDRESS

drawing / dessin  
**GENERAL\_NOTES**

Designed By	Z.S.	Conçu par
Date	2019/08/16	(yyyy/mm/dd)
Drawn By	T.Q.R.S.	Dessiné par
Date	2019/08/16	(yyyy/mm/dd)
Reviewed By	Z.S.	Examiné par
Date	2019/08/16	(yyyy/mm/dd)
Approved By	Z.S.	Approuvé par
Date	2019/08/16	(yyyy/mm/dd)
Tender	TENDER	Soumission
Project Manager	-	Administrateur de projets
Project no.	-	No. du projet
	EP916_21_1492/R.065220.663	
Drawing no.	-	No. du dessin
	S0	

**GENERAL NOTES**

1. THE BUILDING STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE ONTARIO BUILDING CODE 2012.
2. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS WITH THE LATEST ISSUE OF ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS. REPORT ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.
3. READ STRUCTURAL DRAWINGS IN CONJUNCTION WITH SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS.
4. SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATION OF OPENINGS, EQUIPMENT BASES, SUMP PITS, AND TRENCHES NOT INDICATED ON STRUCTURAL DRAWINGS.
5. ALL REFERENCES TO CODES & STANDARDS ARE TO THE LATEST ISSUE.
6. NO CHANGES TO THE STRUCTURAL DRAWING WITHOUT WRITTEN APPROVAL FROM THE CONSULTANT.

**WOOD CONSTRUCTION NOTES**

1. ALL EXTERIOR WALLS TO BE 38x140 AT 400 O/C.
2. ALL WOOD FRAMING TO BE No.2 S.P.F. SURFACE DRY AT 19% MOISTURE CONTENT U.N.O.
3. PLYWOOD 1/2" THICK EXTERIOR GRADE DOUGLAS FIR PLYWOOD. PLYWOOD IS TO CONFORM TO CSA STANDARD 0121, DOUGLAS FIR PLYWOOD.

**SHOP DRAWINGS**

1. THE CONTRACTOR SHALL FURNISH SHOP DRAWINGS TO THE STRUCTURAL ENGINEER, A MINIMUM OF ONE REPRODUCIBLE AND TWO PRINTS STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO.  
 A) PRODUCTS DATA SHEETS.

**DEMOLITION NOTES**

1. ALL NOTED STRUCTURES ARE TO BE REMOVED AND DISPOSED OFF SITE.
2. COORDINATE WITH OWNER AND TRADES, AND NOTIFY ALL UTILITY COMPANIES: TELEPHONE, POWER, WATER AND GAS, TO HAVE SERVICES DISCONNECTED PRIOR TO COMMENCEMENT OF DEMOLITION, IF APPLICABLE.
3. PERFORM WORK IN ACCORDANCE WITH REQUIREMENTS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT OF ONTARIO AND AS OTHERWISE REQUIRED BY JURISDICTIONAL AUTHORITIES TO SAVE PERSONS AND PROPERTY FROM HARM.
4. OBTAIN AND PAY FOR PERMITS REQUIRED.
5. PAY CHARGES MADE BY PUBLIC BODIES FOR THE DUMPING OF WASTE IN MUNICIPAL DUMP SITES.
6. ENSURE THAT ADJACENT AREAS AND SERVICES, BOTH WITHIN AND OFF OF THE SITE, ARE PROTECTED FROM THE DEMOLITION WORK. INSTALL PROTECTION CONSISTING OF FENCES, BARRICADES, AND SIGNS TO PROVIDE PHYSICAL PROTECTION.
7. KEEP SIDEWALKS, STREETS AND HIGHWAYS FREE OF DUST AND DEBRIS FROM DEMOLITION WORK. CLEAN UP ACCUMULATIONS AS THEY OCCUR.
8. BEFORE COMMENCING WORK, ENSURE IN EXAMINATION OF THE SITE AND WORK TO BE DEMOLISHED, THAT ALL POSSIBLE FACTORS CONCERNING DEMOLITION ARE INVESTIGATED AND THAT THE FOLLOWING ARE KNOWN IN PARTICULAR:
  - A) METHODS AND MEANS AVAILABLE FOR MATERIAL HANDLING, DISPOSAL, STORAGE AND TRANSPORTATION.
  - B) CONSTRUCTION OF COMPONENTS TO BE DEMOLISHED.
9. POST WARNING SIGNS ON ELECTRICAL LINES AND EQUIPMENT WHICH MUST REMAIN ENERGIZED.
10. DISCONNECT AND CAP MECHANICAL SERVICES IN ACCORDANCE WITH REQUIREMENTS OF LOCAL AUTHORITIES. CAP OTHER EXISTING SERVICES AND REQUIREMENTS NOT REQUIRED FOR REUSE.
11. REFER TO SITE PLAN AND SITE SERVICES PLAN FOR LOCATION OF THE PROPOSED DEMOLITION AND ALL KNOWN SERVICES.

**SHORING**

1. PROVIDE HOARDING, BRACING, SHORING, COVERS, ETC. AS REQUIRED.

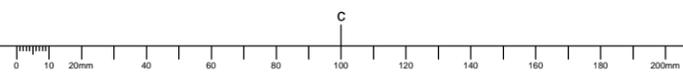
**CAST-IN-PLACE CONCRETE**

1. CONFORM TO CSA STANDARD A23.1, CONCRETE MATERIALS AND METHODS OF CONCRETE CONSTRUCTION, A23.2, METHODS OF TEST FOR CONCRETE AND A23.3, DESIGN OF CONCRETE STRUCTURES IN DETAILING BENDS, PLACEMENT, SPACING, SPLICING AND PROTECTION OF REINFORCING.
2. COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS U.N.O.  
 LOCATION STRENGTH MAXIMUM AGGREGATE SIZE (mm)  
 PRE-BAGGED CONCRETE REPAIR MIX 35 MPa 10  
 -MAXIMUM SLUMP IS TO BE 75mm  
 -CONCRETE EXPOSED TO WEATHER SHALL HAVE AN AIR-ENTRAINMENT OF 5%.
3. ALL REINFORCING STEEL SHALL BE BILLET STEEL BARS FOR CONCRETE REINFORCEMENT IN ACCORDANCE WITH CSA STANDARD G30.18, BILLET STEEL BARS FOR CONCRETE REINFORCEMENT, GRADE 400R fy=400 MPa
4. CONCRETE COVER FOR REINFORCING STEEL BARS AND PLACING TOLERANCES SHALL BE IN ACCORDANCE WITH CSA STANDARD A23.1.

**FINISHES**

1. ALL PAINTING: ONE PRIMER COAT AND TWO FINISH COATS. AND IN ACCORDANCE WITH THE MANUAL OF THE ONTARIO PAINTING CONTRACTORS ASSOCIATION.

1 GENERAL NOTES  
 S0 N.T.S.





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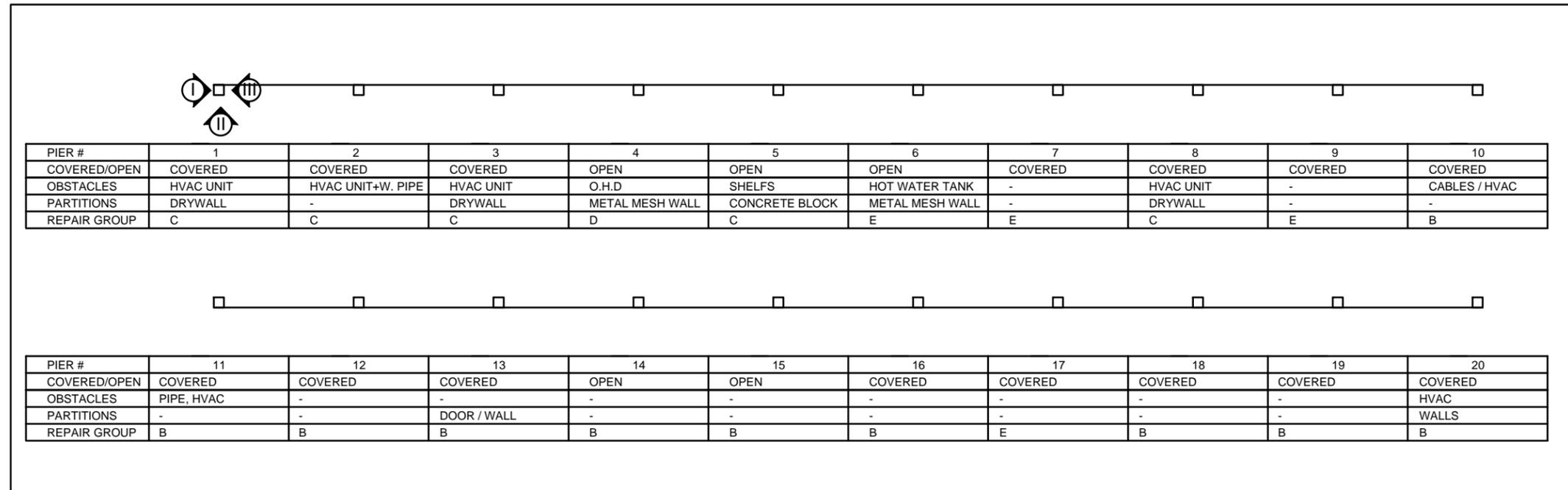
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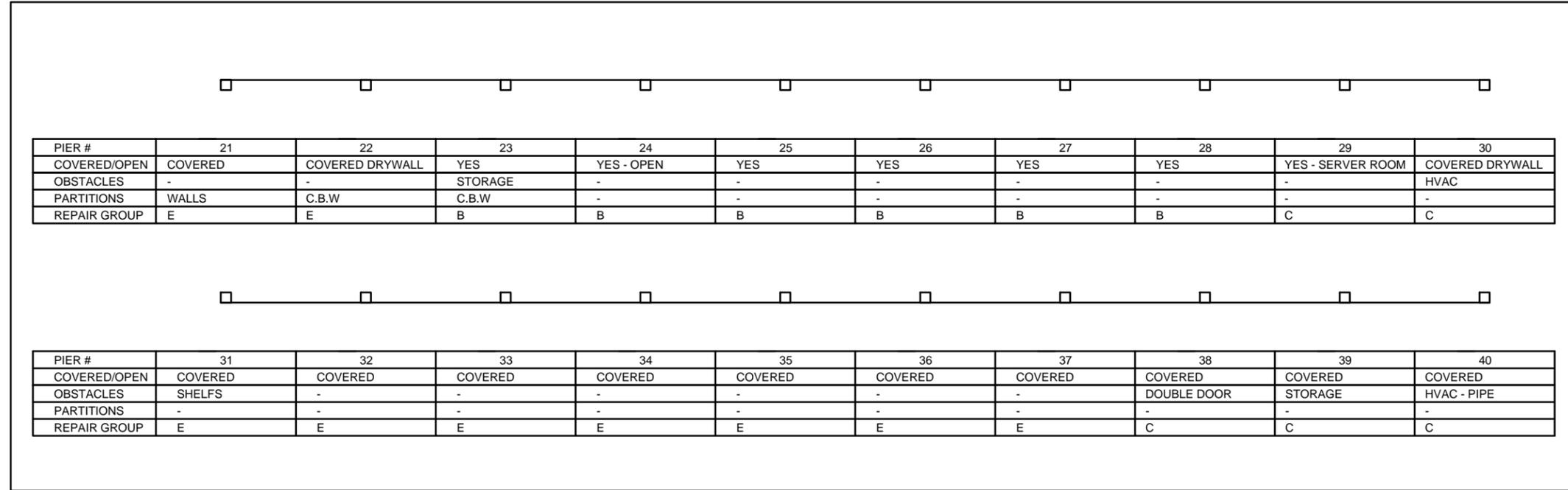
project projet  
**CONCRETE\_PIERs**  
**2100\_WALKLEY\_ROAD**  
**OTTAWA\_ONTARIO**  
 ADDRESS

drawing dessin  
**FLOOR\_PLAN**  
**PIERS\_EXISTING**  
**CONDITION**

Designed By	Z.S.	Conçu par	Z.S.
Date	2019/08/16	(yyyy/mm/dd)	
Drawn By	T.Q.R.S.	Dessiné par	T.Q.R.S.
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Tender	TENDER	Soumission	
Project Manager	-	Administrateur de projets	
Project no.	1	No. du projet	
	EP916_21_1492/R.065220.663		
Drawing no.	S1	No. du dessin	



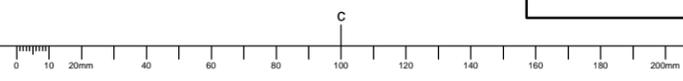
**1 NORTH BUILDING**  
 S1 N.T.S.



**2 SOUTH BUILDING**  
 S1 N.T.S.

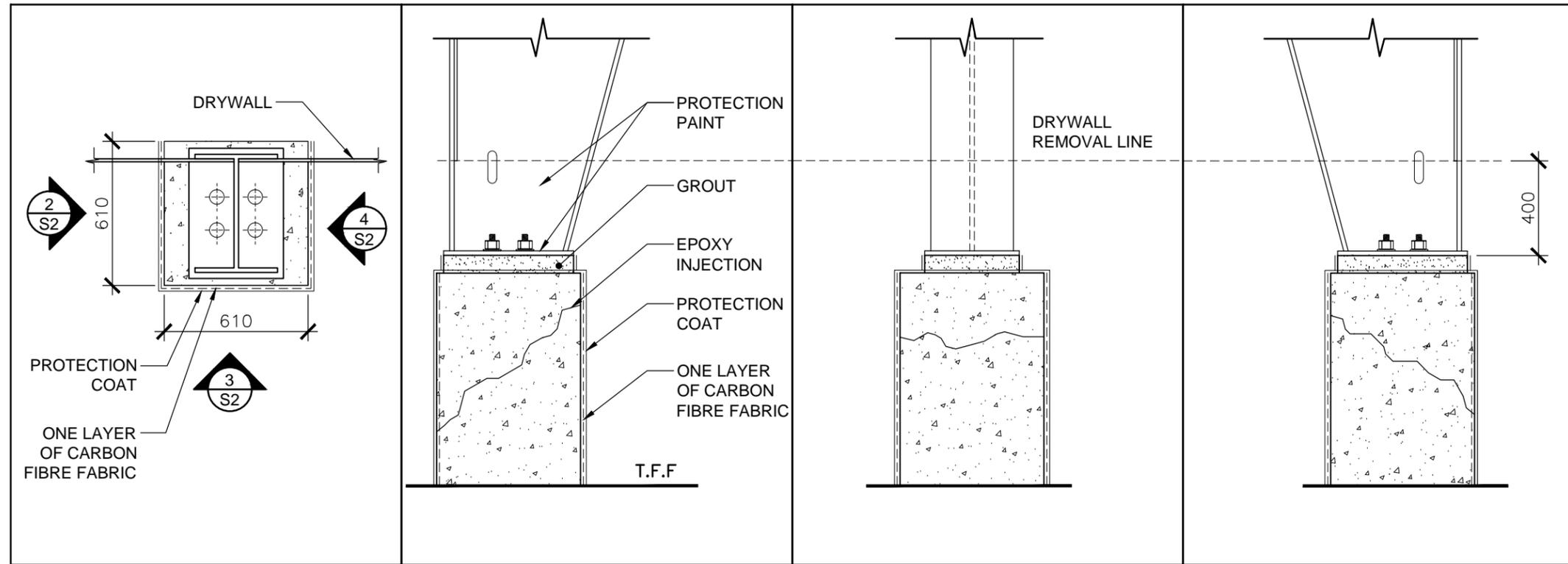
**LEGENDE:**  
 C.B.W = CONCRETE BLOCK WALL

REPAIR GROUPS	QUANTITIES
A	0
B	16
C	10
D	1
E	13





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**1** PLAN **S2** N.T.S.      **2** ELEVATION **S2** N.T.S.      **3** ELEVATION **S2** N.T.S.      **4** ELEVATION **S2** N.T.S.

**Group C:** Piers are cracked and/or grout is cracked, and/or plate is rusted.

**Repair procedure:**

1. Remove all dry wall, concrete block walls, HVAC units and accessories or and any partition wall around the piers to expose most of the three interior sides of the piers and up to 400 mm from the top of the base.
2. Brush clean / sand blast exposed concrete piers surfaces, steel plates, bolts and 400 mm of the bottom of the steel column. Follow products surface preparation for each material.
3. Repair pier cracks with epoxy injection.
4. Wrap pier surface with carbon fibre fabric for structural strengthening of the concrete piers on tension and shear.
5. Remove damaged and cracked grout from underneath the base plate and reinstall new grout. Do not remove steel shims.
6. apply protection coat to the surface carbon fibre.
7. Repaint the steel plate and bottom of the steel column with epoxy paint, 2- coats.
8. Reconnect / reinstall all HVAC units and accessories.
9. Reinstate the insulation, vapour barrier, and drywall finishes to the walls to match existing.
10. Supply and install dust proof membrane around the work area to protect tools and equipments in the space.

**5** GROUP "C" REPAIR PROCEDURES **S2** N.T.S.

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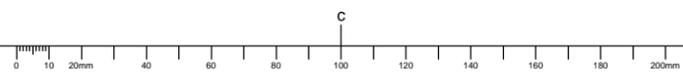
project / projet  
**CONCRETE\_PIERs**  
**2100\_WALKLEY\_ROAD**  
**OTTAWA\_ONTARIO**  
 ADDRESS

drawing / dessin  
**REPAIR\_PROCEDURE**  
**"C"**

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Date	2019/08/16	(yyyy/mm/dd)	
Drawn By	DSP	Dessiné par	DSP
Date	2019/08/16	(yyyy/mm/dd)	
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	TENDER		

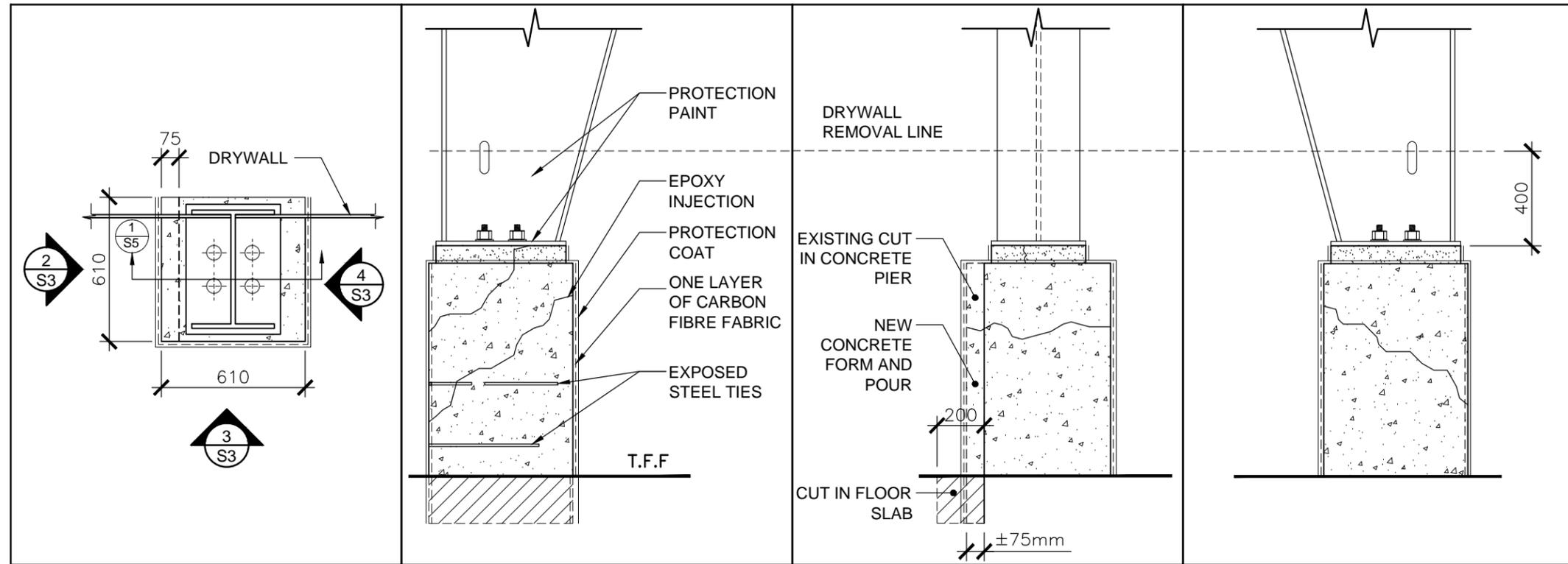
Project Manager / Administrateur de projets  
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 Drawing no. / No. du dessin

**S2**





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1 PLAN  
S3 N.T.S.

2 ELEVATION  
S3 N.T.S.

3 ELEVATION  
S3 N.T.S.

4 ELEVATION  
S3 N.T.S.

**Group D:** All deficiency of **Group C** in addition to pier sections being cut and/ or removed.

**Repair procedure:**

1. 1. Remove overhead door and reinstate after the repair is finish. Build temporary plywood frame to close the O.H.D opening.
1. 2. Remove O.H.Door stopper, sensor frame and reinstate after the repair is finish.
1. 3. Remove O.H.D metal flashing next to the pier and reinstall new. 12" vertical section.
1. 4. Cut and remove O.H.D wood frame next to the pier.
2. Remove all dry wall, concrete block walls, HVAC units and accessories, and any partition wall around the piers to expose most of the three interior sides of the piers and up to 400 mm from the top of the base. Remove the electrical box attached to the surface.
3. Brush clean / sand blast exposed concrete piers surfaces, steel plates, bolts and 400 mm of the bottom of the steel column.
4. Repair pier cracks with epoxy injection.

5. Rebuild the cut section of the pier. Form and pour. Repour the cut part of the slab. Install 6mm thick asphalt impregnated fibre board between the slab and the pier. See detail 1/S5.
6. Wrap pier surface with carbon fibre fabric for structural strengthening of the concrete piers on tension and shear.
7. Apply protection coat to the surface carbon fibre.
8. Remove damaged and cracked grout from underneath the base plate and reinstall new grout. Do not remove steel shims.
9. Repaint the steel plate and bottom of the steel column with epoxy paint. 1- coat primer and 2- coat paint.
10. Reconnect / reinstall all HVAC units and accessories.
11. Reinstall the insulation, vapour barrier, and drywall finishes to the walls to match existing.
12. Install 2- 150mmØ steel bollard with bottom plate bolted to the floor slab.
13. Remove the electrical outlet attached to the concrete pier, reinstall at the exterior wall.

5 GROUP "D" REPAIR PROCEDURES  
S3 N.T.S.

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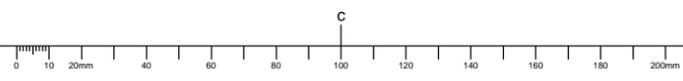
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project / projet  
**CONCRETE\_PIER**  
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drawing / dessin  
**REPAIR\_PROCEDURE**  
**"D"**

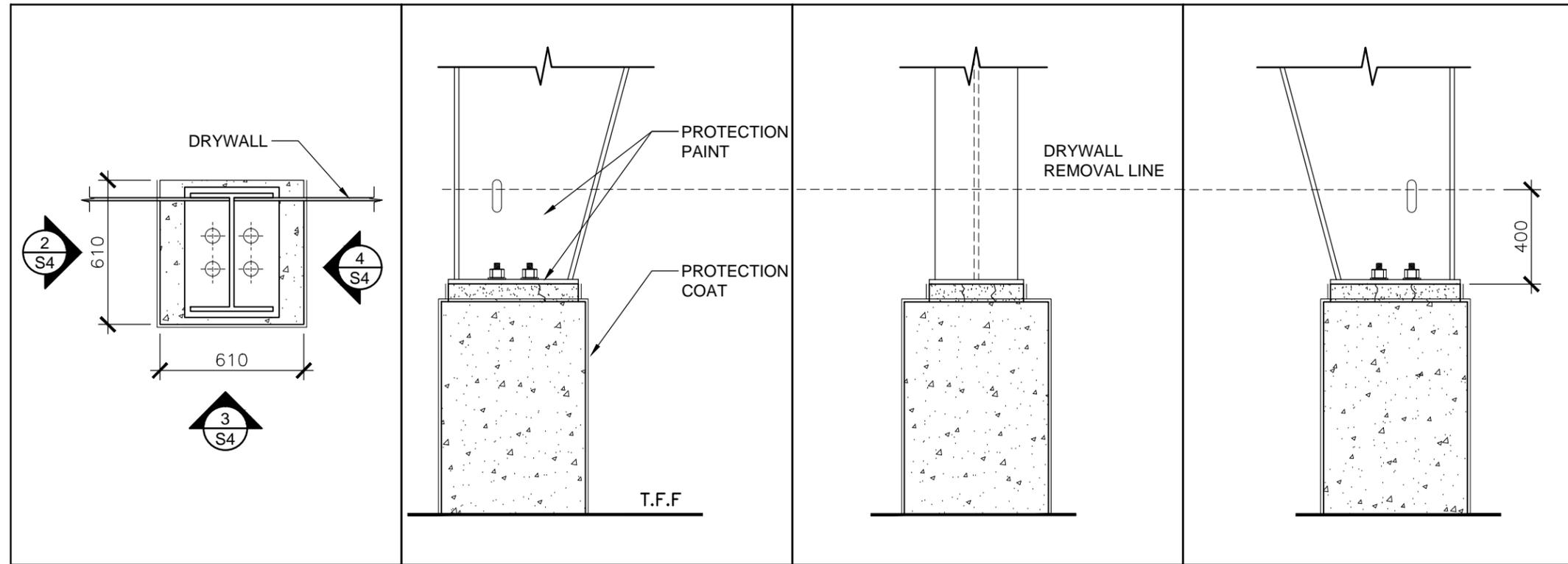
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**S3**





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1 PLAN S4 N.T.S.      2 DETAIL S4 N.T.S.      3 DETAIL S4 N.T.S.      4 DETAIL S4 N.T.S.

**Group E:** piers are not cracked, grout is cracked, and concrete has efflorescence.

**Repair procedure:**

1. Remove all dry wall, concrete block walls, HVAC units and accessories, and any partition wall around the piers to expose most of the three interior sides of the piers and up to 400 mm from the top of the base.
2. Brush clean / sand blast exposed concrete piers surfaces, steel plates, bolts and 400 mm of the bottom of the steel column.
3. Remove damaged and cracked grout from underneath the base plate and reinstall new grout.
4. Repaint the steel plate and bottom of the steel column with epoxy paint.
5. Paint the exposed surfaces of the pier with concrete protection paint.
6. Reconnect / reinstall all HVAC units and accessories.
7. Reinstate the insulation, vapour barrier, and drywall finishes to the walls to match existing.

5 GROUP "E" REPAIR PROCEDURES S4 N.T.S.

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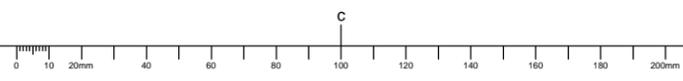
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project / projet  
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drawing / dessin  
**REPAIR\_PROCEDURE**  
**"E"**

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**S4**





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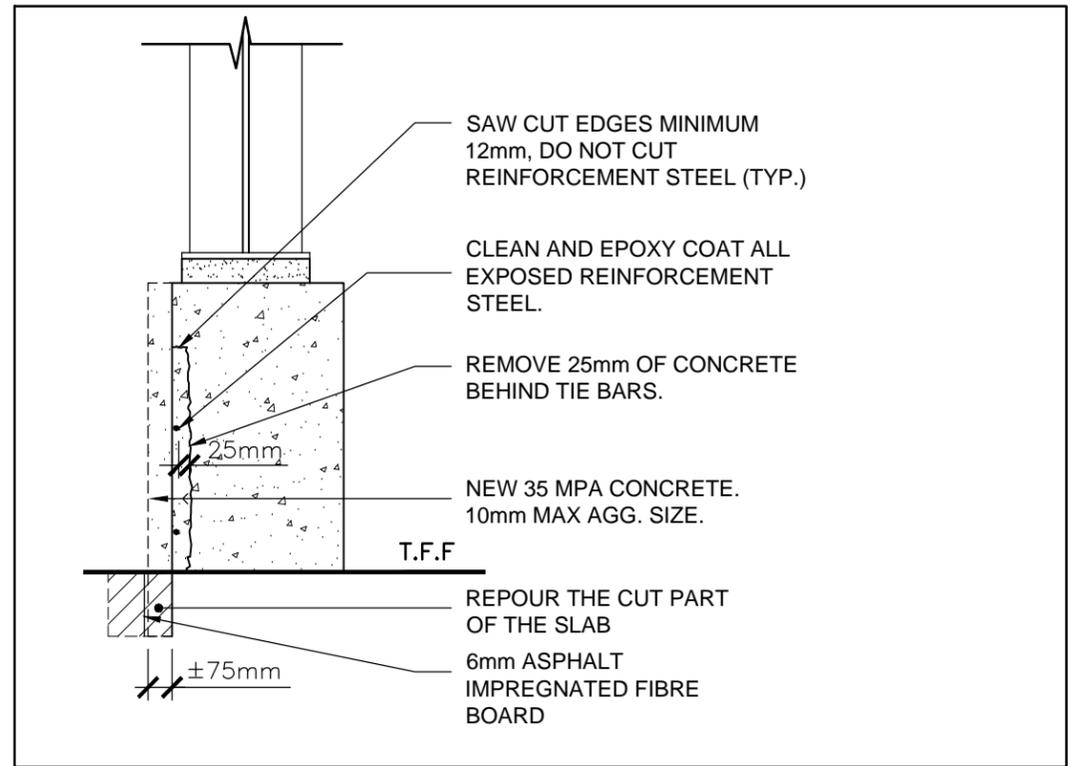
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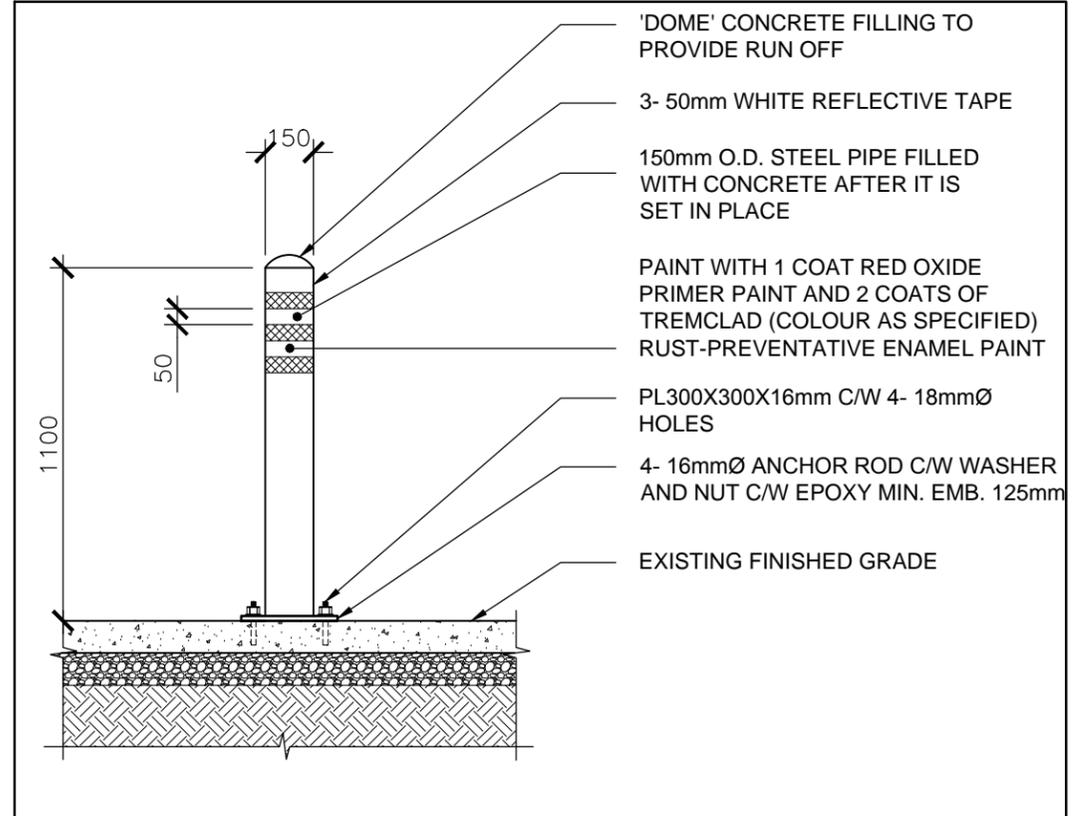
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drawing / dessin  
**DETAILS**

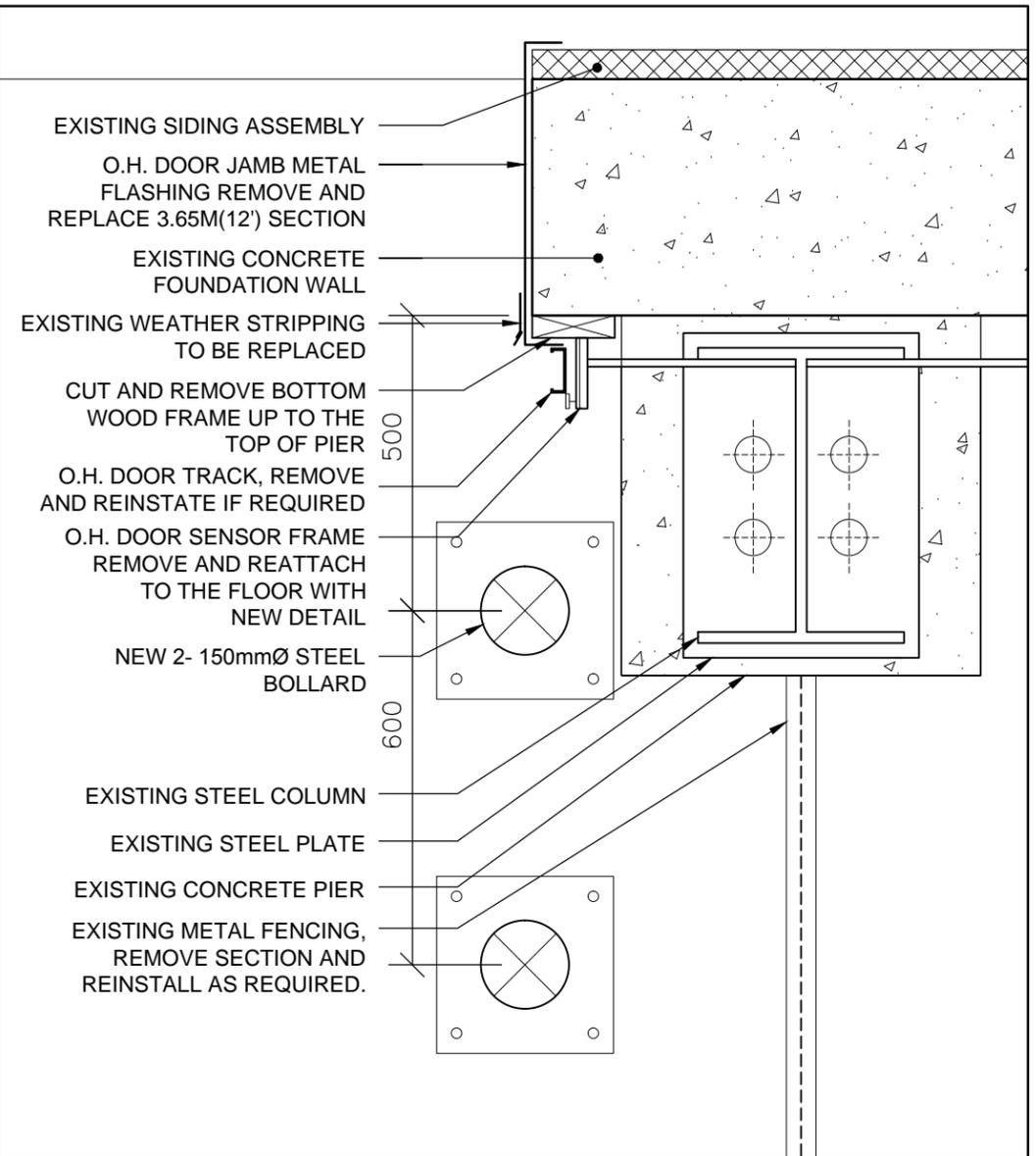
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**1 SECTION**  
**S5 N.T.S.**



**3 BOLLARD DETAIL**  
**S5 N.T.S.**



**2 PLAN VIEW AT PIER #4**  
**S5 N.T.S.**

