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Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Western Region
SERVICES IMMOBILIERS
Région de l'ouest

PRELIMINARY
NOT FOR CONSTRUCTION

AECOM

DRUMHELLER INSTITUTIONS 50 BED LIVING UNIT

TENDER SET

ISSUED June 17, 2020

ARCHITECTURAL

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Revision	Description	Date
C	ISSUED FOR TENDER	2020/06/17
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Client client

**Department of Public Works
& Governments Services Canada**

**ATB Place North, 5th Floor
10025 Jasper Ave, Edmonton, AB T5J 1S6**

Project title Projet

**Highway 9, Drumheller
Alberta, T0J 0Y0
CSC Drumheller 50 Bed Unit
Floor Slab Repair**

Designed by Conçu par

Drawn by Dessiné par

LKM

Approved by Approuvé par

IH

PWSSC Project Manager Administrateur de Projets TPSGC

Drawing title Titre du dessin

COVER SHEET

Project no./No. du projet Drawing no./No. du dessin Revision no.

60608478 G-001 C

OF XX

MINIMUM SECURITY INSTITUTION, FREE ACCESS, FLOOR SLAB REPAIR		
ITEM National Building Code Data Matrix		
1	Project Description:	Part 3 Remarks
2	Major Occupancy(s) Group C & D (lodging House & Offices)	3.1.2.2.
3	Basement Area (m ²) Existing 529m ² New 0m ² Total 529m ² Ground Floor (m ²) Existing 1073m ² New 0m ² Total 1073m ² Second Floor (m ²) Existing 1073m ² New 0m ² Total 1073m ²	
4	Gross Area Existing 2675m ² New 0m ² Total 2675m ²	
5	Number of Storeys above grade 2 Below grade 0	
6	Number of Streets/Fire Fighter Access 1	
7	Building Classification Group C, Up to 4 storeys, sprinklered Group D, Up to 3 storeys, sprinklered	3.2.2.45, 3.2.2.45
8	Sprinkler System Proposed <input checked="" type="checkbox"/> entire building <input type="checkbox"/> basement only <input type="checkbox"/> in lieu of roof rating <input type="checkbox"/> not required	
9	Standpipe required <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	3.2.5.8.
10	Fire Alarm required <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3.2.4.1.(2)
11	Water Service/ Supply is Adequate <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3.2.5.7.
12	High Building <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	3.2.6.1.
13	Permitted Construction <input type="checkbox"/> Combustible <input type="checkbox"/> Non-combustible <input checked="" type="checkbox"/> Both Actual Construction <input type="checkbox"/> Combustible <input type="checkbox"/> Non-combustible <input checked="" type="checkbox"/> Both	3.2.2.45.(2)
14	Mezzanine(s) area m ² N/A	
15	Occupant load base on <input type="checkbox"/> m ² /person <input checked="" type="checkbox"/> design of building Basement Occupancy C Load XX persons 1st Floor Occupancy C,B Load XX persons 2nd Floor Occupancy C,B Load XX persons 3rd Floor Occupancy N/A Load N/A persons	3.1.17.1.
16	Barrier-free Design <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Explain: _____	3.5.1.1.
17	Hazardous Substances <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
18	Required Fire Resistance Rating (FRR) Horizontal Assemblies FRR (Hours) Listed Design No. or Description (SG-2) Floors 1 Hours Roof N/A Hours Mezzanine N/A Hours FRR of Supporting Members (Hours) Listed Design No. Or Description (SG-2) Floors 1 Hours Roof 0 Hours Mezzanine N/A Hours	3.2.2.20-83 3.2.2.45-3/3, 3.4.2/2
19	Separation between Occupancies - N/A	
20	Spatial Separation - construction of exterior walls	
	WALL ARE OF EBF (m ²) L.D. (m) L/H or H/L PERMITTED % OF OPNG PROPOSED % OF OPNG FRR (HOURS) LISTED DESIGN or DESCRIPTION COMB. CONSTR. COMB. CONTR. NONC. CLADD. NON-COMB. CONSTR.	
	NORTH SOUTH EAST WEST	

Distance between exits 3.4.2.3. Travel distance to exit 3.4.2.1. Minimum Number of Exits 3.4.2.1.

GENERAL NOTES:

- ALL DIMENSIONS IN MILLIMETERS (mm) UNLESS NOTED OTHERWISE.
- DRAWINGS ARE NOT TO BE SCALED FOR SIZE OR DIMENSION.
- PATCH, REPAIR AND REFINISH ALL EXISTING SURFACES AND MATERIALS DAMAGED DURING DEMOLITION AND CONSTRUCTION.
- CONTRACTOR RESPONSIBLE TO VERIFY EXISTING DIMENSIONS AND CONDITIONS IN THE FIELD AND NOTIFY CONSULTANT IF ANY DEVIATIONS FROM DOCUMENTS ARE FOUND IN THE FIELD. INCLUDING UNFORESEEN CONDITIONS AFFECTING THE WORK WHICH MAY BE ENCOUNTERED.
- REPAIR ANY EXISTING DAMAGED CONCRETE AND CONCRETE AT LOCATIONS WHERE CURBS, PADS AND EQUIPMENT HAS BEEN REMOVED. REFER TO SPECIFICATIONS FOR CONCRETE REPAIR PRODUCT TO BE USED.
- SIZE AND LOCATION OF WALL/ROOF PENETRATIONS ARE APPROXIMATE. ALL PENETRATIONS MAY NOT BE INDICATED. COORDINATE ALL PENETRATIONS WITH ALL DISCIPLINES FOR EXACT SIZE AND LOCATION.
- ALL PENETRATIONS TO BE SEALED WEATHER TIGHT.
- PROVIDE BLOCKING, STRAPPING, NAILING STRIPS, WOOD FRAMING, ETC. AS INDICATED ON DRAWINGS OR AS REQUIRED.
- PROVIDE FIRESTOP ASSEMBLY AT FIRE RATED WALL INTERSECTION OF WALL AND ROOF/CEILING ASSEMBLY TO MATCH FIRE RATING OF WALL.
- FIRE RATED WALLS EXTEND TO THE UNDERSIDE OF THE CEILING/ROOF DECK.

ABBREVIATIONS

AL	ALUMINUM
AN	ANNODIZED
AT	ACOUSTIC TILE
B	BRICK
C	CONCRETE
CB	CONCRETE BLOCK
CC	CONCRETE CURB
CH	CONCRETE WITH HARDENER
CJ	CONTROL JOINT
CS	CONCRETE SEALER
DIA	DIAMETER
EX	EXISTING
EP-F	EPOXY FLOORING
EX-C	EXISTING CONCRETE
EX-M	EXISTING METAL CLADDING
EXPS	EXPOSED STRUCTURE
G1S	GOOD ONE (1) SIDE
GB	GYPSON BOARD
GL	GLAZING
HM	HOLLOW METAL
LG	LONG
LHR	LEFT HAND REVERSE
MAX	MAXIMUM
MD	METAL DECKING
MIN	MINIMUM
mm	MILLIMETERS
MTL	METAL
NIC	NOT IN CONTRACT

O.C.

OH	OVERHEAD
P	PAINT
PL	PLATE
PLY	PLYWOOD
PRE	PREFINISHED
PSF	PRESSED STEEL FRAME
PT	PRESSURE TREATED
REQD	REQUIRED
RHR	RIGHT HAND REVERSE
S	SEALER
SS	STAINLESS STEEL
ST	STEEL

ON CENTRE

ON CENTRE	OVERHEAD
ON CENTRE	PAINT
ON CENTRE	PLATE
ON CENTRE	PLYWOOD
ON CENTRE	PREFINISHED
ON CENTRE	PRESSED STEEL FRAME
ON CENTRE	PRESSURE TREATED
ON CENTRE	REQUIRED
ON CENTRE	RIGHT HAND REVERSE
ON CENTRE	SEALER
ON CENTRE	STAINLESS STEEL
ON CENTRE	STEEL

IMAGE	TAG	DESCRIPTION (mm)	FIRE RATING ULC DESIGN No	STC RATING	REMARKS
PARTITION TYPES					
	PTN-1	16 ABUSE RESISTANT GYPSUM WALLBOARD 38 x 89 WOOD STUDS @ 400 O.C. 89 mm SOUND ATTENUATION BATTS 16 ABUSE RESISTANT GYPSUM WALLBOARD		STC 46 (APPROX)	ALL WALLS PT-1 UNLESS NOTED OTHERWISE
	PTN-2	16 TYPE 'X' GYPSUM WALLBOARD 38 x 89 WOOD STUDS @ 400 O.C. 75 mm MINERAL WOOL BATTS 16 TYPE 'X' GYPSUM WALLBOARD	1 HOUR ULC des W301	STC 46 (APPROX)	WHEN USED AT BASEMENT LEVEL DOES NOT CONTAIN MINERAL WOOL BATT INSULATION - EXTEND PARTITION TO UNDERSIDE OF STRUCTURE ABOVE- TAPE SEAL ALL CONNECTIONS TO MAINTAIN 1 HR FIRE SEPARATION
	PTN-3	16 TYPE 'X' GYPSUM WALLBOARD 38 x 140 WOOD STUDS @ 400 O.C. 75 mm MINERAL WOOL BATTS 16 TYPE 'X' GYPSUM WALLBOARD	1 HOUR SIM ULC des W301 (USING LARGER WOOD STUDS)		STAIR WELL
	PTN-6	16 ABUSE RESISTANT GWB 38 x 140 WOOD STUDS @ 400 O.C. FILL CAVITY WITH SOUND ATTENUATION BATTS 16 ABUSE RESISTANT GWB		STC 46	USE MOISTURE RESISTANT GYPSUM RESISTANT GYPSUM BOARD @ WASHROOMS

ROOF FINISH SCHEDULE: MAIN FLOOR

(AS PER ORIGINAL CONSTRUCTION. CLIENT TO REVIEW AND CONFIRM FINISHES.)

No.	ROOM NAME	BASE	FLOOR	WALL	DOOR	CEILING	CABINETS	Counter Top	PULLS	REMARKS / DEFINITIONS									
		1 10mm RUBBER COVE	2 50mm TILE COVE BASE	3 SHEET LINOLEUM	4 CARPET TILE	5 50mm x 50mm FLOOR TILES	6 RUBBER FLOORING	7 76mm x 152mm CERAMIC TILE	8 PAINT FINISH 1	9 PAINT FINISH 2	10 INTERIOR DOOR FINISH	11 INTERIOR DOOR FRAME FINISH	12 PAINTED GYPSUM WALL BOARD	13 LAMINATE FINISH CABINETS	14 STAINLESS STEEL COUNTERTOP	15 PLASTIC LAMINATE COUNTERTOP	16 CHROME CABINET PULLS	COLOUR LOCATION FOR H-LIGHT PAINT FINISH #2	N=NORTH WALL SURFACE E=EAST WALL SURFACE S=SOUTH WALL SURFACE W=WEST WALL SURFACE
W100	LIVING RM/DINING RM																		E
W101-W108	BED																		
W110	MECH / ELEC																		
W111	LAUNDRY																		
W112	W/C																		
W113	W/C																		
W114	KITCHEN																		
W115	SHOWER																		
W116a,b,c	CORRIDOR																		

MATERIAL SPECIFICATIONS:

MAT. NO.	MATERIAL	SPECIFICATION	SUPPLIER	NOTES
1	RUBBER BASE	JOHNSONITE RUBBER (101mm) 29-MOON ROCK (WG)	KBM COMMERCIAL FLOOR COVERING Matt Cree 403-206-9772	USE WITH INSIDE AND OUTSIDE CORNER PIECES IN SAME COLOUR
2	TILE COVE BASE	DAL TILE 50mm X 50mm COVER FABRIQUE, COL: GRIS LINEN P690	DAL TILE 403-255-2566	USE WITH INSIDE AND OUTSIDE CORNER PIECES IN SAME COLOUR
3	SHEET LINOLEUM	ARMSTRONG GRANETTE LP152 ITSYS BITSY SPIDER	KBM COMMERCIAL FLOOR COVERING MATT CREE 403-206-9772	USE WITH COORDINATING WELD ROD W1168
4	CARPET TILE	BIGELOW - BENDING EARTH CALIBER (.6096m X .6096m) COLOUR: 7728 CHERT	KBM COMMERCIAL FLOOR COVERING MATT CREE 403-206-9772	1/4 TURN INSTALLATION
5	50mm x 50mm FLOOR TILES	DAL TILE 50mm X 50mm SIZE FABRIQUE, COL: GRIS LINEN P690	DAL TILE 403-255-2566	GROUT COLOUR: MAPEI, 09 GRAY
6	RUBBER FLOORING	JOHNSONITE SMOOTH (RET) 29 MOON ROCK	KBM COMMERCIAL FLOOR COVERING MATT CREE 403-206-9772	COORDINATING RUBBER TREADS & RISERS: FAST LANE (CFLTR)
7	WALL TILES	DAL TILE 76mm X 152mm SIZE ELEMENTAL TAN 0166	DAL TILE 403-255-2566	GROUT COLOUR: MAPEI, 09 GRAY
8	PAINT FINISH 1	PRATT & LAMBERT DAWN MIST 32-25	PRATT & LAMBERT 1-877-772-8898	MINIMUM - PRIMER PLUS TWO COATS EGGSHELL FINISH
9	PAINT FINISH 2	PRATT & LAMBERT RUBIDOUX 32-23	PRATT & LAMBERT 1-877-772-8898	MINIMUM - PRIMER PLUS TWO COATS EGGSHELL FINISH
10	INTERIOR DOORS FINISH	PRATT & LAMBERT RUBIDOUX 32-23	PRATT & LAMBERT 1-877-772-8898	MINIMUM - PRIMER PLUS TWO COATS EGGSHELL FINISH
11	DOOR FRAME FINISH	PRATT & LAMBERT RUBIDOUX 32-23	PRATT & LAMBERT 1-877-772-8898	MINIMUM - PRIMER PLUS TWO COATS EGGSHELL FINISH
12	PAINTED CEILING	PRATT & LAMBERT CHINA WHITE 33-8	PRATT & LAMBERT 1-877-772-8898	MINIMUM - PRIMER PLUS TWO COATS EGGSHELL FINISH
13	CABINETS	ARBORITE W-428 VL	P.J. WHITE HARDWOODS LTD. 403-243-4747	OR SIMILAR PRODUCT / FINISH
14	STAINLESS STEEL COUNTERTOPS	FOOD GRADE STAINLESS STEEL OVER PLYWOOD BASE/FRAMING 14 GAUGE	CONTRACTOR TO SOURCE	CONTINUOUS ROLLED EDGES ADD 101mm SPLASH - CONTINUOUS
15	PLASTIC LAM. COUNTERTOP	ARBORITE P-345 RM INUKSHUK TAUPE	FORMATIONS INC. 403-243-3115	CONTINUOUS ROLLED EDGE PROFILE
16	CABINET PULLS	RICHELIEU BP33206140 (CHROME) 101mm WIDE	RICHELIEU 1-800-361-6000	QUANTITIES TO BE DETERMINED BY CABINET MAKER

MAIN FLOOR FINISHES NOTES:

- ACOUSTIC CEILING TILE & T-BAR CEILING: ARMSTRONG, FINE FISSURED, SQUARE LAY-IN (1/8" OR 23.8mm) - 1811 (600x1200x19mm), COLOUR: WHITE, WITH 'PRELUDE XL' T-BAR
- SUPPLY & INSTALL 1219mm HIGH x 38mm STAINLESS STEEL CORNER GUARDS ON ALL GYPSUM CORNERS IN THE RESIDENTIAL PODS.

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C	ISSUED FOR TENDER	2020/06/17
B	ISSUED FOR 99% REVIEW	2020/05/08
A	ISSUED FOR 50% REVIEW	2020/03/06
Revision	Description	Date
Client		client

Department of Public Works & Governments Services Canada

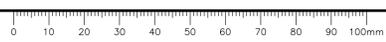
ATB Place North, 5th Floor 10025 Jasper Ave, Edmonton, AB T5J 1S6

Project title Highway 9, Drumheller Alberta, T0J 0Y0 CSC Drumheller 50 Bed Unit Floor Slab Repair

Designed by RGM	Conçu par
Drawn by LKM	Dessiné par
Approved by IH	Approuvé par
PWSSC Project Manager	Administrateur de Projets TPSGC

Drawing title ARCHITECTURAL SCHEDULES, NOTES & LEGENDS / Titre du dessin

Project no./No. du projet 60608478	Drawing no./No. du dessin A-001	Revision no. C
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CSC Drumheller 50 Bed Unit
Floor Slab Repair

Designed by: RGM / Conçu par

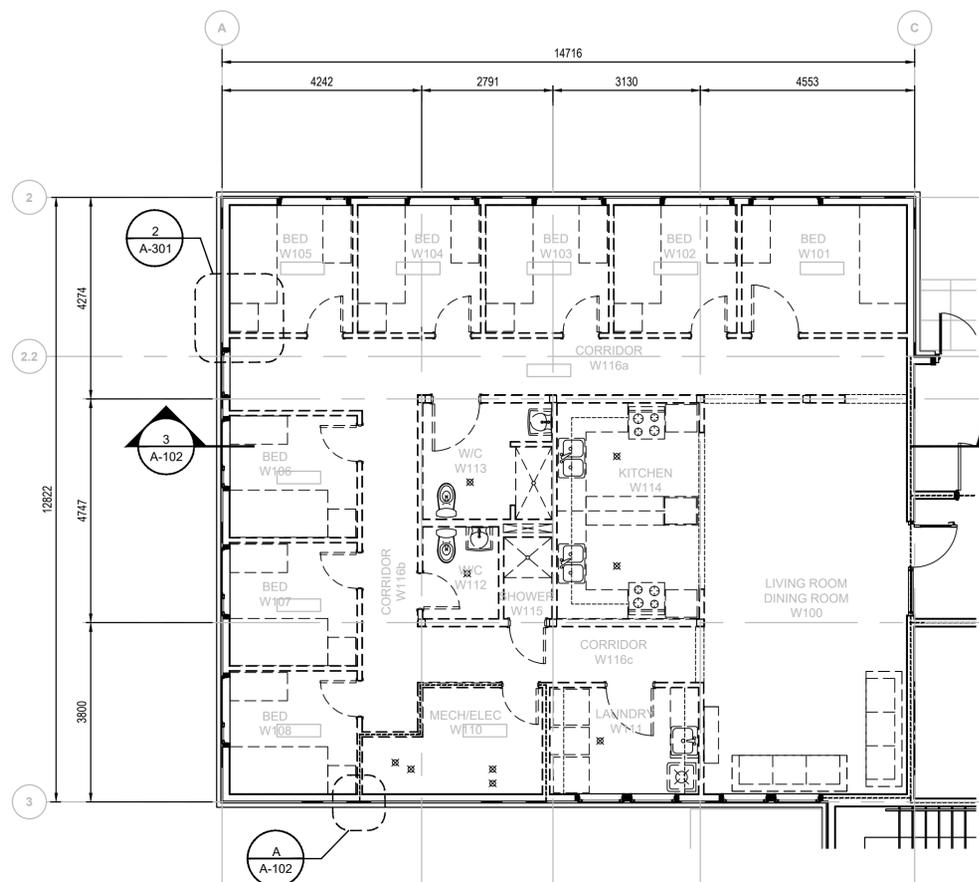
Drawn by: LKM / Dessiné par

Approved by: IH / Approuvé par

PWSSC Project Manager / Administrateur de Projets TPSGC

Drawing title: **ARCHITECTURAL DEMOLITION PLANS AND NOTES**

Project no./No. du projet: 60608478
Drawing no./No. du dessin: A-101
Revision no.: C



1 DEMOLITION MAIN FLOOR PLAN

A-101 Scale 1:100

DEMOLITION NOTES:

- REMOVE INTERIOR PARTITIONS TO UNDERSIDE OF FINISHED CEILING. PROVIDE TEMPORARY SHORING FOR FINISHED CEILING.
- REMOVE INTERIOR PARTITIONS TO INTERIOR FACE OF EXTERIOR WALLS.
- SALVAGE DOORS, FRAMES AND HARDWARE FOR REUSE.
- SALVAGE BEDROOM BUILT-IN FURNITURE AND CABINETS FOR REUSE.
- SALVAGE LAUNDRY MILLWORK, APPLIANCES, AND PLUMBING FIXTURES FOR REUSE
- SALVAGE WASHROOM ACCESSORIES AND PLUMBING FIXTURES FOR REUSE
- SALVAGE KITCHEN MILLWORK, APPLIANCES, AND PLUMBING FIXTURES FOR REUSE.
- SALVAGE LIVING/DINING ROOM FURNITURE FOR REUSE.
- STORE SALVAGED ITEMS AS DIRECTED BY THE OWNER.
- REFER TO REFERENCE DRAWING SET: "DRUMHELLER INSTITUTION 50 MAN LIVING UNIT ISSUED FOR RECORD SET" FOR INFORMATION ON EXISTING CONSTRUCTION TO BE REBUILT TO MATCH AND REINSTALLATION DETAILS OF SALVAGED ITEMS.

LEGEND:

- 2440 CEILING HEIGHT ABOVE FLOOR
- WALLS AND PARTITIONS TO BE REMOVED

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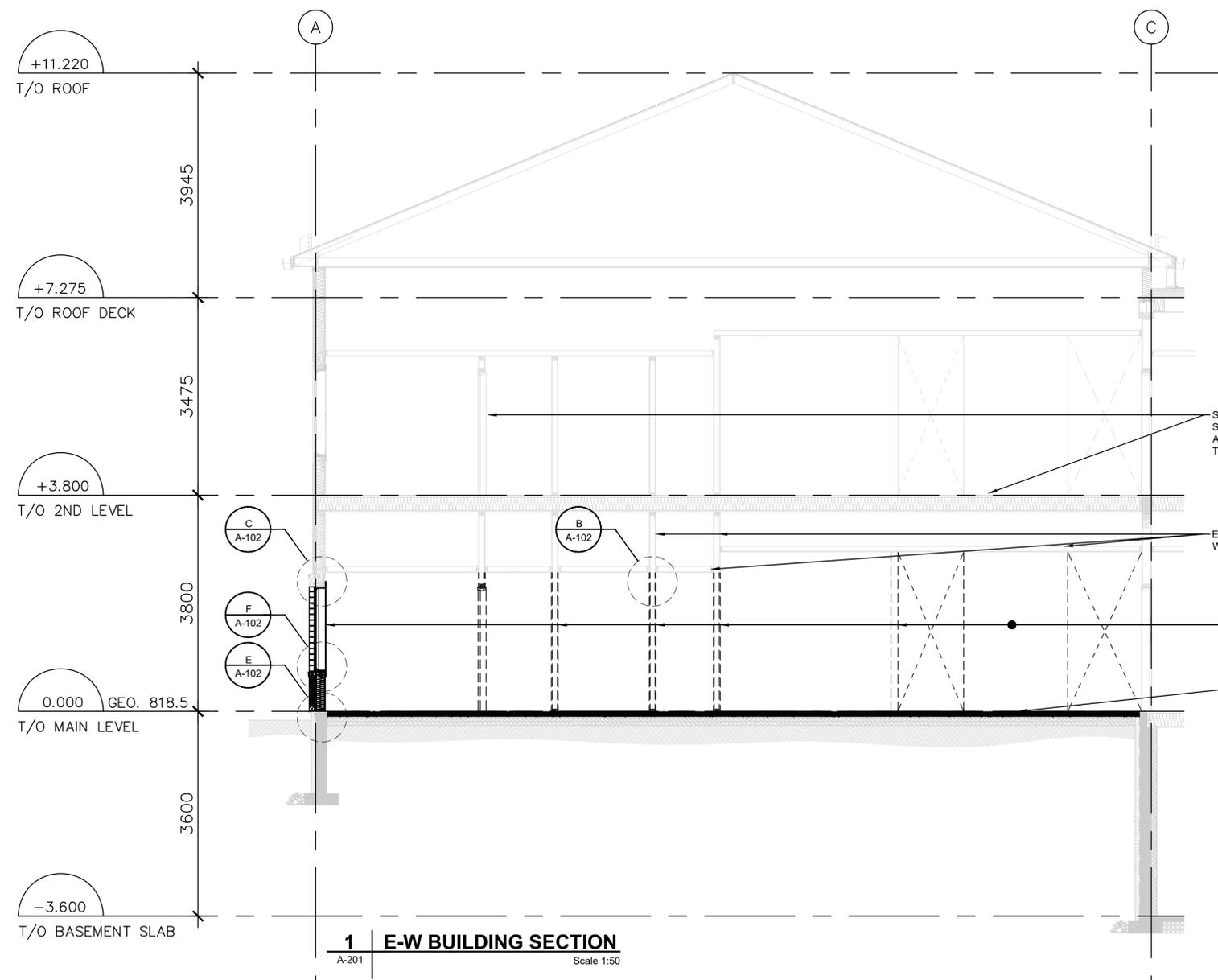
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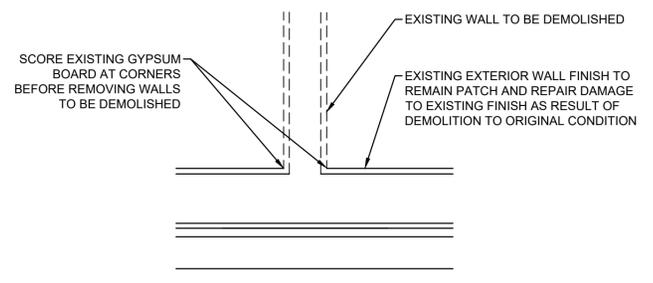
Designed by: RGM
Drawn by: LKM
Approved by: IH
PWSSC Project Manager: Administrateur de Projets TPSGC

Drawing title: ARCHITECTURAL DEMOLITION BUILDING SECTIONS & DETAILS

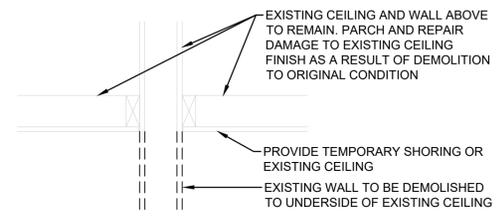
Project no./No. du projet	Drawing no./No. du dessin	Revision no.
60608478	A-102	C



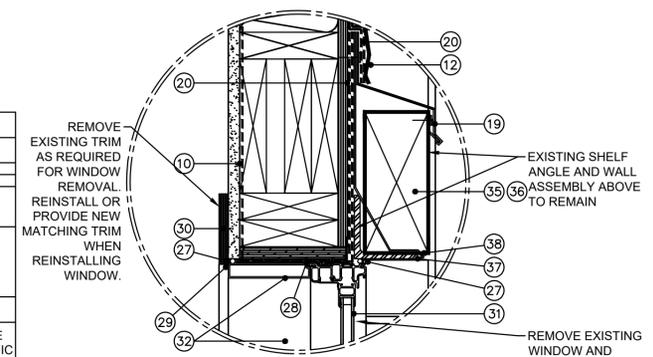
1 | E-W BUILDING SECTION
A-201 | Scale 1:50



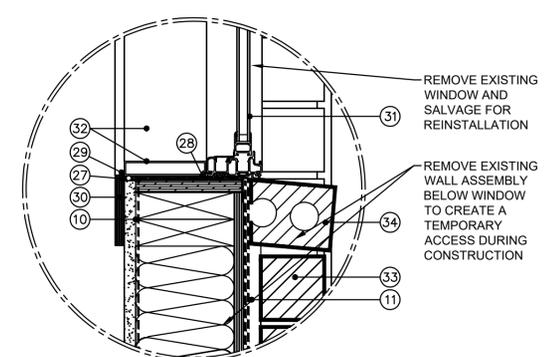
A | PLAN DETAIL
A-101 | Scale 1:10



B | DETAIL
A-102 | Scale 1:10

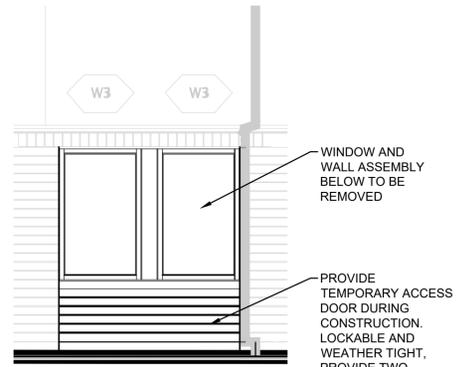


C | DETAIL
A-102 | Scale 1:5



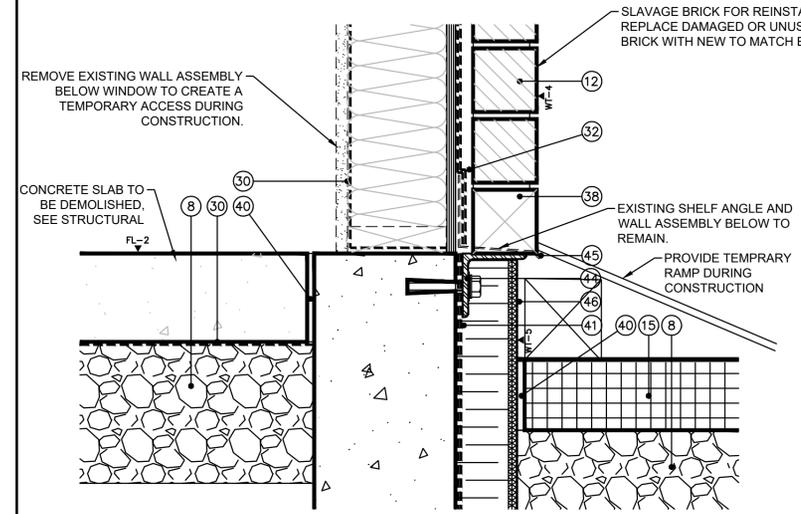
F | DETAIL
A-102 | Scale 1:5

DETAIL KEYNOTES	
8	150mm (MIN) COMPACTED GRANULAR 'A' CRUSHED STONE c/w POLY VAPOUR BARRIER @ U/S POURED CONCRETE SIDEWALK
12	BRICK VENEER FACADE @ MAIN LEVEL. SEE ELEVATIONS & SPECIFICATIONS FOR MODEL, MAKE & COLOUR
15	ASPHALT DRIVEWAY. SEE CIVIL DRAWINGS & SITE PLAN
30	LINE OF VAPOUR BARRIER
32	OVERLAP AIR / VAPOUR BARRIERS AND SEAL w/ PEEL & STICK MEMBRANE
40	13mm "COMPRESSIBLE GASKET" @ ALL CONCRETE JOINTS - TYPICAL
41	POURED CONCRETE FOUNDATION / RETAINING WALL TO RECEIVE 2 LAYERS OF SPRAYED DAMPROOFING
44	90mmx90mmx8mm STEEL ANGLE ANCHORED TO TOP OF POURED CONCRETE FOUNDATION WALL w/ 13mm EXPANSION BOLT - SEE STRUC. ENG. DWGS.
45	PRE-FINISHED METAL FLASHING
46	



E | DETAIL
Scale 1:10

DETAIL KEYNOTES	
10	LINE OF VAPOUR BARRIER
11	LINE OF AIR BARRIERS
12	TRADITIONAL STUCCO PRE-FINISHED
19	THROUGH-WALL METAL FLASHING
20	THROUGH-WALL METAL FLASHING w/ PEEL & STICK MEMBRANE
27	SEALANT c/w BACKER ROD
28	FILL VOID w/ FOAM-IN-PLACE INSULATION FOR MONOLITHIC SEAL
29	PROVIDE CONTINUOUS BEAD OF SEALANT AROUND ENTIRE PERIMETER OF CLEAR ANODIZED ALUMINUM CERTAIN WALL FRAMING SYSTEM/THERMALLY BROKEN WINDOW FRAMING SYSTEM & WOOD TRIM
30	19mm THICK x 90mm WIDE WOOD INTERIOR WINDOW TRIM
31	LINE OF VAPOUR BARRIER
32	LINE OF AIR BARRIERS
33	TRADITIONAL STUCCO PRE-FINISHED
34	THROUGH-WALL METAL FLASHING
35	BRICK VENEER IN SOLDIER COURSING @ 2200mm ABOVE FINISHED FLOORING (TYPICAL AT ALL LEVELS) - SEE ELEVATIONS FOR CLARIFICATION
36	PRE-MANUFACTURED WEEP HOLE SCREENS @ BRICK VENEER SOLDIER COURSE ABOVE WINDOW FRAMING SYSTEM
37	90mmx90mmx8mm STEEL ANGLE @ U.S. BRICK VENEER - SEE STRUC. DWGS
38	PRE-FINISHED METAL FLASHING



D | DETAIL
S-102 | Scale 1:5



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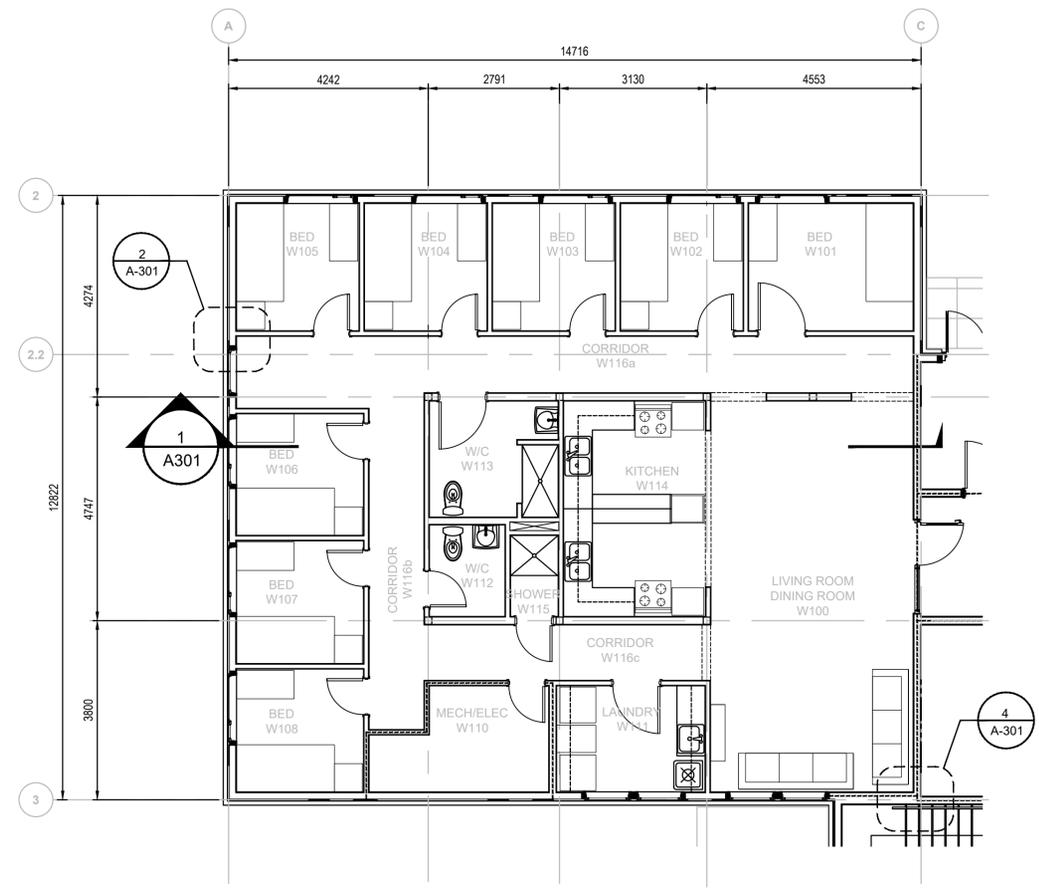
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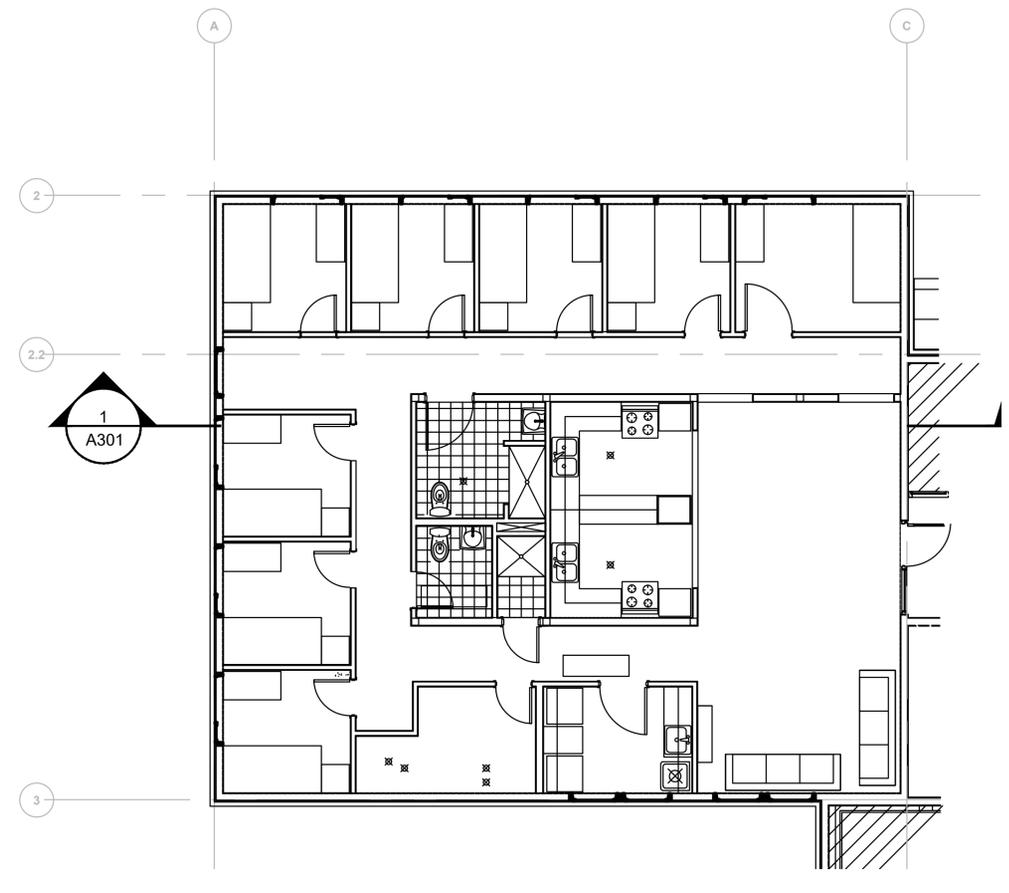
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Drawing title: **ARCHITECTURAL PLANS AND SECTIONS**

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
60608478	A-201	B



1 MAIN FLOOR PLAN
 A-201 Scale 1:75

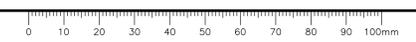
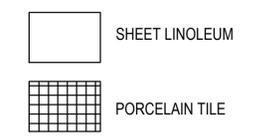


2 MAIN FLOOR -FLOOR FINISH PLAN
 A-201 Scale 1:75

NOTES:

- REBUILD INTERIOR PARTITIONS TO MATCH DEMOLISHED CONSTRUCTION.
- REINSTALL DOORS, FRAMES AND HARDWARE.
- REINSTALL BEDROOM BUILT-IN FURNITURE AND CABINETS.
- REINSTALL CANOPY MILLWORK, APPLIANCES AND PLUMBING FIXTURES.
- REINSTALL KITCHEN MILLWORK, APPLIANCES AND PLUMBING FIXTURES.
- REINSTALL LIVING / DINING ROOM FURNITURE.
- REFER TO REFERENCE DRAWING SET: "DRUMHELLER INSTITUTION 50 MAN LIVING UNIT ISSUED FOR RECORD SET" FOR INFORMATION ON EXISTING CONSTRUCTION TO BE REBUILT TO MATCH AND REINSTALLATION DETAILS OF SALVAGED ITEMS.

FLOOR FINISHES LEGEND



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NOT FOR CONSTRUCTION

AECOM



AECOM CANADA ARCHITECTS LTD.
PERMIT NO. AC 10451
ISSUED PURSUANT TO THE
ARCHITECTS ACT OF ALBERTA

Revision	Description	Date
C	ISSUED FOR TENDER	2020/06/17
B	ISSUED FOR 99% REVIEW	2020/05/08
A	ISSUED FOR 50% REVIEW	2020/03/06

Department of Public Works & Governments Services Canada

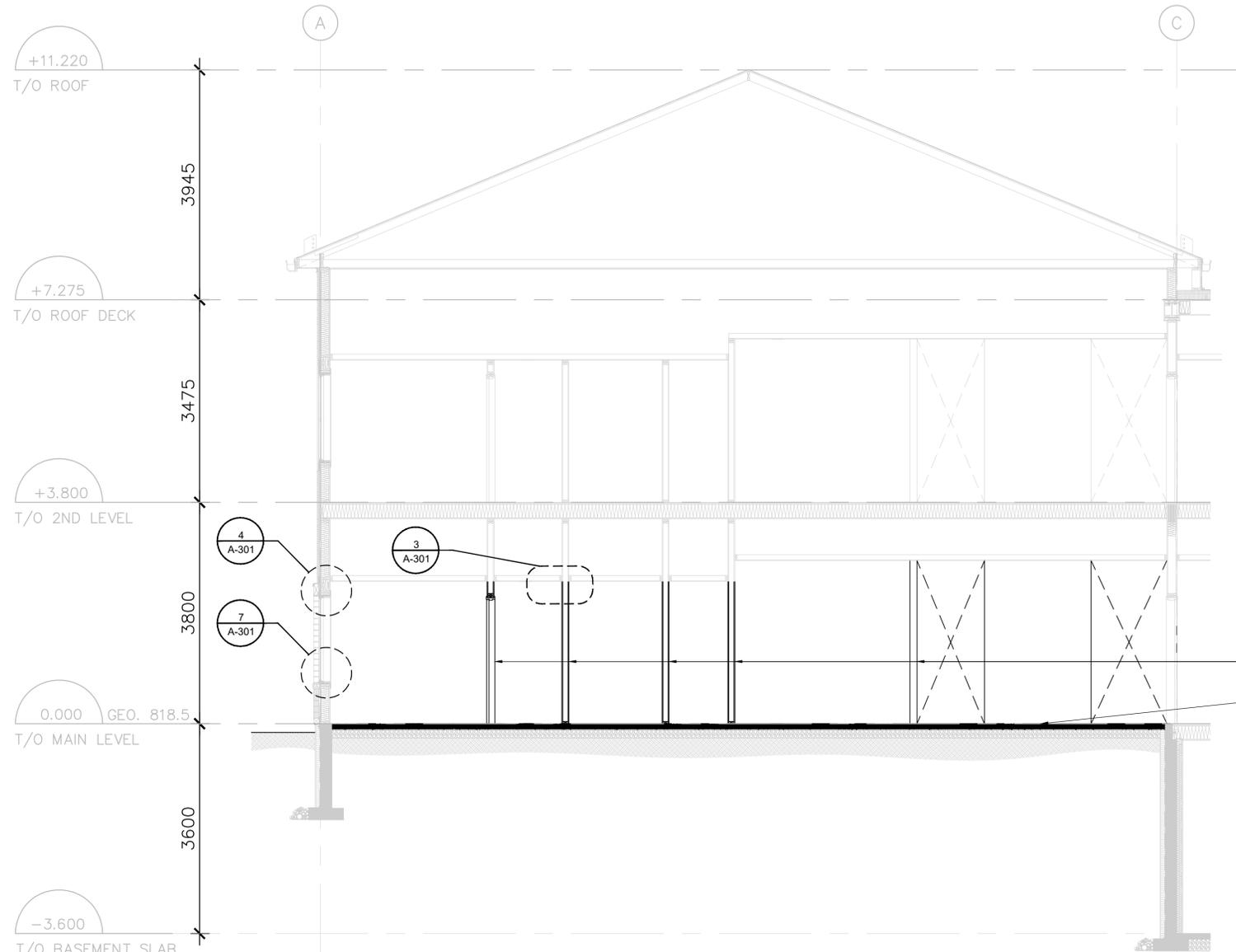
ATB Place North, 5th Floor
10025 Jasper Ave, Edmonton, AB T5J 1S6

Project title: Highway 9, Drumheller Alberta, T0J 0Y0
CSC Drumheller 50 Bed Unit
Floor Slab Repair

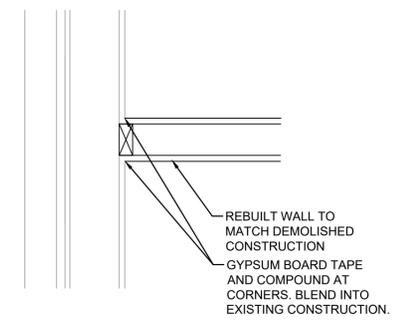
Designed by RGM	Conçu par
Drawn by LKM	Dessiné par
Approved by IH	Approuvé par
PWSSC Project Manager	Administrateur de Projets TPSGC

Drawing title: **ARCHITECTURAL
NEW CONSTRUCTION/REPLACEMENT
BUILDING SECTIONS & DETAILS**

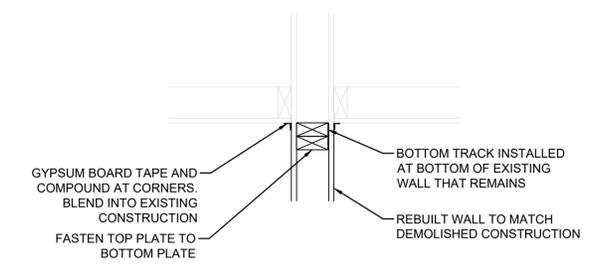
Project no./No. du projet 60608478	Drawing no./No. du dessin A-301	Revision no. C
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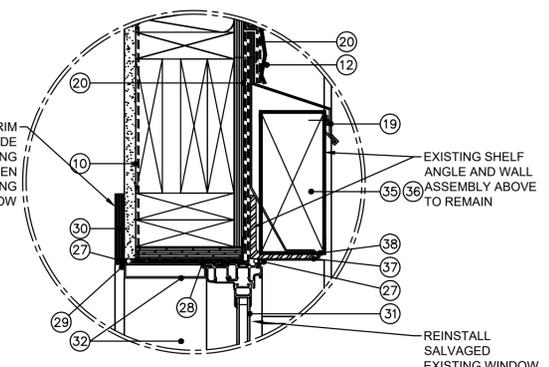
1 E-W BUILDING SECTION
A-201 Scale 1:50



2 TYPICAL WALL DETAIL AT EXTERIOR WALL
A-201 Scale 1:10

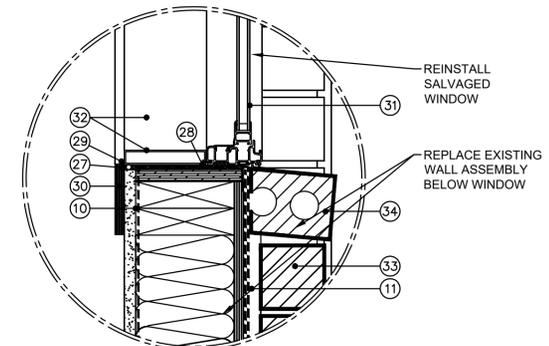


3 TYPICAL WALL DETAIL AT CEILING
A-301 Scale 1:10



SECTION DETAIL @ THERMALLY BROKEN PVC WINDOW FRAMING SYSTEM HEAD @ SOLDIER COURSE BRICK VENEER

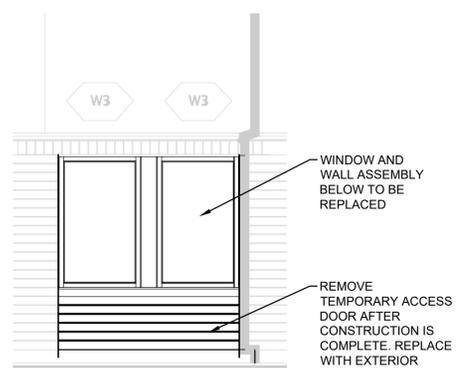
4 DETAIL
A-301 Scale 1:5



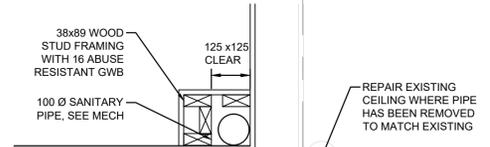
SECTION DETAIL @ THERMALLY BROKEN PVC WINDOW FRAMING SYSTEM BRICK VENEER SILL

7 DETAIL
A-301 Scale 1:5

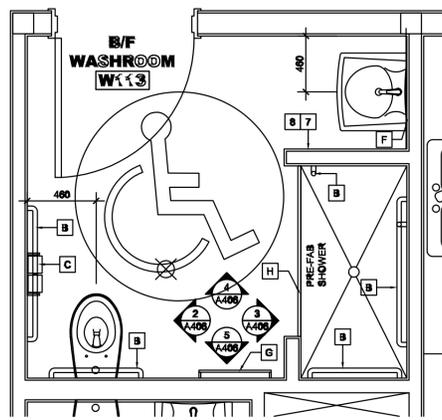
DETAIL KEYNOTES	
10	LINE OF VAPOUR BARRIER
11	LINE OF AIR BARRIERS
12	TRADITIONAL STUCCO
19	THROUGH-WALL METAL FLASHING
20	THROUGH-WALL METAL FLASHING w/ PEEL & STICK MEMBRANE
27	SEALANT c/w BACKER ROD
28	FILL VOID w/ FOAM-IN-PLACE INSULATION FOR MONOLITHIC SEAL
29	PROVIDE CONTINUOUS BEAD OF SEALANT AROUND ENTIRE PERIMETER OF CLEAR ANODIZED ALUMINUM CERTAIN WALL FRAMING SYSTEM/THERMALLY BROKEN WINDOW FRAMING SYSTEM & WOOD TRIM
30	19mm THICK x 90mm WIDE WOOD INTERIOR WINDOW TRIM
31	LINE OF VAPOUR BARRIER
32	LINE OF AIR BARRIERS
33	TRADITIONAL STUCCO
34	THROUGH-WALL METAL FLASHING
35	BRICK VENEER IN SOLDIER COURSING @ 2200mm ABOVE FINISHED FLOORING (TYPICAL AT ALL LEVELS) - SEE ELEVATIONS FOR CLARIFICATION
36	PRE-MANUFACTURED WEEP HOLE SCREENS @ BRICK VENEER SOLDIER COURSE ABOVE WINDOW FRAMING SYSTEM
37	90mmx90mmx8mm STEEL ANGLE @ U.S. BRICK VENEER - SEE STRUC. DWGS.
38	PRE-FINISHED METAL FLASHING



5 WINDOW REINSTALLATION DETAIL
A-301 Scale 1:10

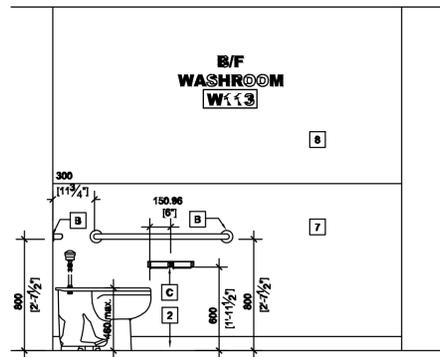


6 PIPE CHASE DETAIL
A-301 Scale 1:10



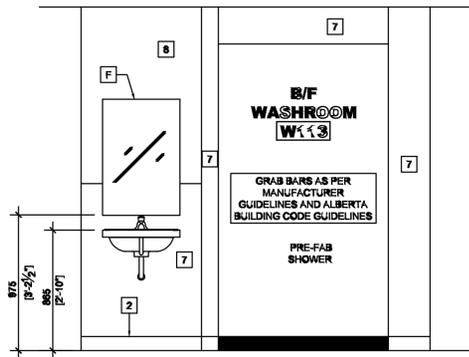
1 | WASHROOM W113: PLAN

A-304 Scale 1:25



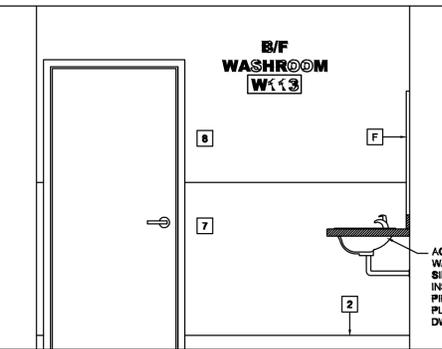
2 | WASHROOM W113: ELEVATION

A-304 Scale 1:25



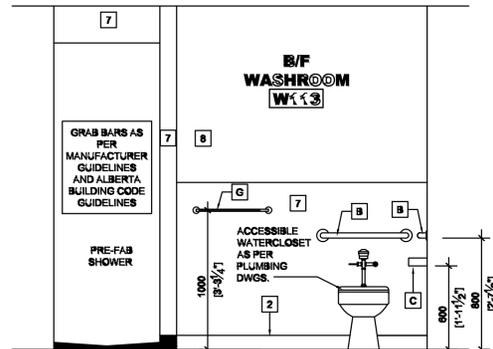
3 | WASHROOM W113: ELEVATION

A-304 Scale 1:25



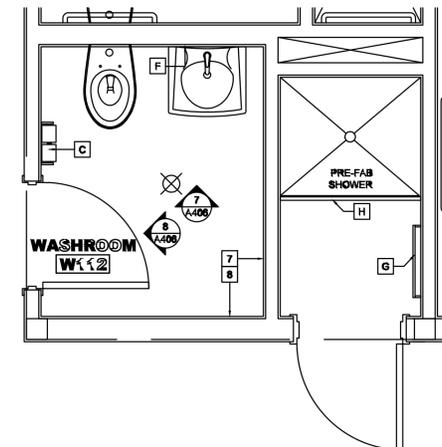
4 | WASHROOM W113: ELEVATION

A-304 Scale 1:25



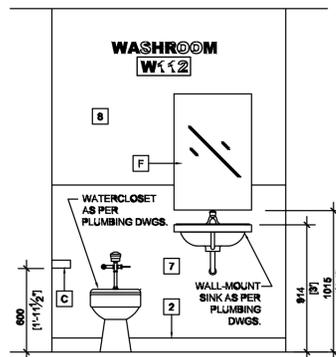
5 | WASHROOM W113: ELEVATION

A-304 Scale 1:25



6 | WASHROOM W112: PLAN

A-304 Scale 1:25



7 | WASHROOM W112: ELEVATION

A-304 Scale 1:25



8 | WASHROOM W112: ELEVATION

A-304 Scale 1:25

NOTES:
1. REFER TO A-001 FOR FINISH SCHEDULE

PRELIMINARY
NOT FOR CONSTRUCTION

AECOM



AECOM CANADA ARCHITECTS LTD.
PERMIT NO. AC 10451
ISSUED PURSUANT TO THE
ARCHITECTS ACT OF ALBERTA

Revision	Description	Date
C	ISSUED FOR TENDER	2020/06/17
B	ISSUED FOR 99% REVIEW	2020/05/08
A	ISSUED FOR 50% REVIEW	2020/03/06

Client: Department of Public Works & Governments Services Canada

Project title: ATB Place North, 5th Floor
10025 Jasper Ave, Edmonton, AB T5J 1S6

Project title: Highway 9, Drumheller
Alberta, T0J 0Y0
CSC Drumheller 50 Bed Unit
Floor Slab Repair

Designed by RGM	Conçu par
Drawn by LKM	Dessiné par
Approved by IH	Approuvé par
PWSSC Project Manager	Administrateur de Projets TPSGC

Drawing title: ARCHITECTURAL INTERIOR ELEVATIONS

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
60608478	A-304	C

GENERAL NOTES

1. READ THE STRUCTURAL DRAWINGS IN CONJUNCTION WITH THE SPECIFICATIONS AND ALL OTHER PERTINENT CONTRACT DOCUMENTS. ENSURE THAT RELEVANT STATUTORY PERMITS HAVE BEEN OBTAINED PRIOR TO COMMENCING SITE WORKS.
2. ALL DIMENSIONS ARE IN METRIC UNITS UNLESS NOTED. THE CONTRACTOR SHALL VERIFY DIMENSIONS BEFORE CONSTRUCTION AND REPORT DISCREPANCIES BEFORE PROCEEDING WITH THE WORK. DO NOT SCALE DRAWINGS.
3. THE DESIGN, CONSTRUCTION AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH 2019 NATIONAL BUILDING CODE - ALBERTA EDITION, USER'S GUIDE TO NBC2015, STRUCTURAL COMMENTARIES (PART 4) AND REFERENCED STANDARDS THEREIN. IF CONFLICTS ARISE BETWEEN DOCUMENTS, THE MORE STRINGENT SHALL APPLY UNLESS AGREED OTHERWISE.
4. REFER TO ALL OTHER RELEVANT DRAWINGS (E.G., ARCHITECTURAL, MECHANICAL AND ELECTRICAL) DRAWINGS FOR LOCATIONS AND DIMENSIONS OF EQUIPMENT BASE, PITS, DEPRESSIONS, OPENINGS, SLEEVES AND OTHER BUILDING COMPONENTS NOT SHOWN ON THE STRUCTURAL DRAWINGS. REPORT DISCREPANCIES TO THE CONSULTANT BEFORE PROCEEDING WITH THE WORK.
5. CONTRACTOR TO CONFIRM WITH EQUIPMENT SUPPLIERS DIMENSIONS AND ALL OTHER CRITICAL DETAILS PRIOR TO CONSTRUCTION. REPORT DISCREPANCIES AND OBTAIN APPROVAL PRIOR TO PROCEEDING WITH CONSTRUCTION.
6. DO NOT RELY ON ACCURACY OF ANY AS-BUILT RECORDS PROVIDED. SURVEY AND VERIFY ACTUAL DIMENSIONS AND LAYOUT.
7. NOTIFY THE STRUCTURAL ENGINEER OF RECORD 48 HOURS IN ADVANCE FOR SITE REVIEW OF STRUCTURAL WORK.
8. DRAWINGS SHOW COMPLETED STRUCTURES ONLY. PROVIDE TEMPORARY BRACING FOR CONSTRUCTION LOADING CONDITIONS AND STABILITY OF THE STRUCTURE DURING CONSTRUCTION. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN LOADS.
9. CONSTRUCTION METHODS REQUIRING TEMPORARY SHORING, OR BRACING, SHALL BE SUBMITTED TO THE CONSULTANT FOR REVIEW. THE CONTRACTOR SHALL RETAIN A PROFESSIONAL ENGINEER, REGISTERED IN THE PROVINCE OF ALBERTA, TO PERFORM AND TAKE RESPONSIBILITY FOR ANY SHORING OR OTHER DESIGNS REQUIRED TO COMPLETE THE CONSTRUCTION.
10. VERIFY LOCATION OF UNDERGROUND SERVICES AND BE RESPONSIBLE FOR DISRUPTIONS.
11. IF NO DATES GIVEN FOR CODES AND STANDARDS REFERENCED, USE LATEST EDITION.
12. SUBMIT THE FOLLOWING SHOP DRAWINGS, SEALED BY A QUALIFIED PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF ALBERTA, PRIOR TO FABRICATION:
 - A) METAL STUDS
 - B) STEEL REINFORCING FOR REINFORCED CONCRETE
 - C) STRUCTURAL STEEL FRAMING AND MISCELLANEOUS STEEL
 - D) CONCRETE MIX AND MORTAR DESIGN
IMPROPERLY PREPARED SHOP DRAWINGS ARE SUBJECT TO REJECTION AND, ON THAT BASIS, ARE TO BE WITHDRAWN AND RESUBMITTED.
 - E) SCREW PILES, SCREW PILE CONNECTION PLATE, AND UNDERPINNING PILE DESIGN
13. ALL SHOP DRAWING SUBMITTALS TO BE METRIC, INCLUDING DIMENSIONS, REINFORCING, BOLTS AND STRUCTURAL STEEL SIZES.
14. COMPLY WITH ALL RELEVANT WORK AND SAFETY PROCEDURES GIVEN IN THE CODES, REGULATIONS AND CLIENT'S COMPANY STANDARDS.
15. SUBMIT METHOD STATEMENTS TO CONSULTANTS WHEN REQUESTED FOR INFORMATION / COMMENT / AGREEMENT:
 - CONTRACTOR'S QUALITY / INSPECTION PROCEDURES
 - CONCRETE REPAIR PROCEDURES
16. REPORT TO THE CONSULTANT ALL WORKS THAT DO NOT COMPLY WITH THE PROJECT REQUIREMENTS AND SUBMIT REMEDIAL WORKS PROPOSAL FOR COMMENT / AGREEMENT. DEFECTIVE WORK AND SUBSTANDARD MATERIALS SHALL BE RECTIFIED SATISFACTORILY OR REMOVED FROM SITE.

DESIGN LOADS (UNO ON PLANS)

1. DEAD LOADS: SEE PLANS FOR DEAD LOADS AND SUPERIMPOSED DEAD LOAD.
2. LIVE LOADS: SEE PLANS FOR LIVE LOAD
3. IMPORTANCE CATEGORY: NORMAL
4. GEOTECHNICAL NOTES: REPORT BY AECOM DATED 29 NOV 2019

EXCAVATION & BACKFILL

1. THE CONTRACTOR SHALL SUBMIT AND OBTAIN AN EXCAVATION PERMIT PRIOR TO ANY EXCAVATION / FOUNDATION WORKS.
2. ENSURE THAT THE INTEGRITY OF EXISTING UNDERGROUND SERVICES / STRUCTURES ARE MAINTAINED AT ALL TIMES DURING THE WORK. REPAIR / RECTIFY IMMEDIATELY ANY DAMAGE / DISRUPTION TO THE CLIENT'S SATISFACTION AND AT THE CONTRACTOR'S OWN COST.
3. EXCAVATE TO LINES AND LEVELS NECESSARY TO PROPERLY COMPLETE THE WORK. MINIMUM SIDE SLOPES OF TEMPORARY EXCAVATIONS SHALL NOT EXCEED 1 TO 1, OR AS RECOMMENDED IN THE GEOTECHNICAL REPORT. CONTROL EXCAVATION TO ENSURE BOTTOM OF EXCAVATION DOES NOT SOFTEN DUE TO EXCESS MOISTURE.
4. EXCAVATE BELOW GRADE SUPPORTED SLABS TO REMOVE TOPSOIL, FILL AND ORGANIC CLAY. REMOVE UNSUITABLE MATERIAL AS DIRECTED BY THE GEOTECHNICAL ENGINEER AND REPLACE WITH WELL GRADED APPROVED MATERIAL IN 150 mm LIFTS COMPACTED TO 98% STANDARD PROCTOR MAXIMUM DRY DENSITY.
5. BACKFILL AND COMPACT TO GRADES INDICATED IN LAYERS NOT EXCEEDING 150mm.
6. REFER TO GEOTECHNICAL REPORT FOR RECOMMENDED GRADATION OF CRUSHED GRAVEL.
7. FENCE OFF OR MAKE INACCESSIBLE ALL EXCAVATIONS IF LEFT UNATTENDED.
8. WHERE EXCAVATION IS IN AN EXISTING CONCRETE SLAB, SAWCUT NEATLY AROUND EDGES OF EXCAVATION AREA. DO NOT OVERCUT.

FOUNDATION

1. ALL FOUNDATION CONSTRUCTION TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS GIVEN IN ENGINEERING GEOTECHNICAL INVESTIGATION MEMO "DRUMHELLER 50-BED UNIT FLOOR REPAIR" DATED NOVEMBER 29, 2019 AND PREPARED BY AECOM AND THE GEOTECHNICAL INVESTIGATION - "CSC DRUMHELLER INSTITUTION - 50 BED HOUSING UNIT", DATED SEPTEMBER 2011 PREPARED BY AECOM.
2. THE SITE SHALL BE FORMED TO THE GENERAL GRADE LEVEL PRIOR TO CONSTRUCTION OF PILE FOUNDATIONS AND GRADE BEAMS.
3. REFER TO THE GEOTECHNICAL REPORT FOR SCREW PILE INFORMATION. SCREW PILE CONTRACTOR TO SUBMIT DESIGN PARAMETERS USED FOR REVIEW BY AECOM-GEOTECHNICAL.
4. UNLESS SHOWN OTHERWISE, CENTER PILES UNDER COLUMNS, GRADE BEAMS OR WALLS.
5. CONTRACTOR SHALL SUBMIT PILE INSTALLATION METHOD STATEMENT AND WORK PLAN FOR REVIEW.
6. PILING CONTRACTOR SHALL KEEP AN ACCURATE RECORD OF DEPTHS OF PILES, EXCAVATED SOILS PENETRATED, WATER SEEPAGE AND OTHER PERTINENT CONDITIONS. REPORT ANY ABNORMAL CONDITIONS TO THE ENGINEER.
7. MONITORING OF PILE INSTALLATION SHALL BE PERFORMED BY A PROFESSIONAL GEOTECHNICAL ENGINEER REGISTERED IN THE PROVINCE OF ALBERTA AS REQUIRED BY SCREW PILE DESIGNER. CONTRACTOR TO NOTIFY GEOTECHNICAL ENGINEER PRIOR TO COMMENCING PILING.
8. THE CONTRACTOR IS RESPONSIBLE FOR SELECTING PILE INSTALLATION METHOD INCLUDING REMOVAL OF OBSTRUCTION.
9. SUBMIT LAYOUT AND SHOP DRAWINGS SHOWING PROPOSED SEQUENCE OF PILE INSTALLATION, PILE CAP DETAILS AND NOTES ON PILE INSTALLATION METHOD
10. HELICAL SCREW PILES ARE A PROPRIETARY SYSTEM AND THEIR LONG-TERM PERFORMANCE IS HIGHLY DEPENDENT ON THE CONTRACTOR'S EXPERIENCE, INSTALLATION METHODOLOGY, AND WORKMANSHIP DURING CONSTRUCTION. THEREFORE, THE INSTALLATION OF THE PILES SHALL BE COMPLETED BY A CONTRACTOR WITH SCREW PILE EXPERIENCE.
11. THE SCREW PILES SHALL BE INSTALLED SUCH THAT THE FIRST HELIX IS BELOW THE DEEPEST FOOTING (I.E. 3.5 M DEPTH). THE FINAL DESIGN SCREW PILE LENGTH SHOULD BE DETERMINED BY THE SUPPLIER. THE SOILS ON THE SITE HAVE BEEN FOUND TO BE HIGHLY CORROSIVE AND THE DESIGN OF SCREW PILES MUST TAKE THIS INTO ACCOUNT. REFER TO GEOTECHNICAL MEMO.

STRUCTURAL ABBREVIATIONS

- | | |
|--------------------------------------|--|
| AB ANCHOR BOLT | MECH MECHANICAL |
| ADD'L ADDITIONAL | MPa MEGAPASCALS |
| ABV ABOVE | MEZZMEZZANINE |
| ADJ ADJUSTABLE | MISC MISCELLANEOUS |
| ARCHARCHITECTURAL | ML MIDDLE LAYER |
| ALT ALTERNATE | MIN MINIMUM |
| APPROX APPROXIMATELY | MAX MAXIMUM |
| ASFB ASPHALT SATURATED FIBER BOARD | Mx FACTORED BENDING MOMENT ABOUT X-X AXIS,KN-m |
| ASL ADDITIONAL SNOW LOAD | My FACTORED BENDING MOMENT ABOUT Y-Y AXIS,KN-m |
| AES ARCH EXPOSED STEEL | m METRE |
| | mm MILLIMETERS |
| BB BOND BEAM | N/A NOT APPLICABLE |
| BCE BOTTOM CHORD EXTENSION | NIC NOT IN CONTRACT |
| BLL BOTTOM LOWER LAYER | NTS NOT TO SCALE |
| BE BUILDING ENVELOPE | N-S NORTH-SOUTH |
| BLDG BUILDING | Nos NUMBER |
| BRG BEARING | NF NEAR FACE |
| BTWN BETWEEN | N NEWTON |
| BM BEAM | NS NEAR SIDE |
| BTM BOTTOM | |
| BUL BOTTOM UPPER LAYER | OC ON CENTER |
| B PL BASE (BEARING) PLATE | O/O OUT TO OUT |
| BOF BOTTOM OF FOOTING | OD OUTSIDE DIAMETER |
| BOW BOTTOM OF WALL | OPNG OPENING |
| BOT BOTTOM | OPENOPENING |
| BS BOTH SIDES | OF OUTSIDE FACE |
| | OPP OPPOSITE |
| CANT CANTILEVER | OH OVERHEAD |
| C/C CENTRE TO CENTRE | |
| CJP COMPLETE JOINT PENETRATION | P PEDESTAL OR PILE |
| COL COLUMN | PF PAD FOOTING |
| CONC CONCRETE | PL PLATE |
| CONN CONNECTION | PC PRECAST |
| CONTCONTINUED(OUS) | PROJ PROJECTION |
| CTJ CONTROL JOINT | |
| CTR CENTRE | R REACTION, RADIUS |
| CPLG COUPLING | Rf FACTORED VERTICAL REACTION, KN |
| CL CENTRE LINE | REF REFERENCE |
| C/W COMPLETE WITH | REINF REINFORCING |
| | REQD REQUIRED |
| DWG(S) DRAWING(S) | RC REINFORCED CONCRETE |
| DET DETAIL | RD ROOF DRAIN |
| DIAG DIAGONAL | R/W REINFORCED WITH |
| DIM DIMENSION | RW RETAINING WALL |
| DIA DIAMETER | REV REVISION |
| DL DEAD LOAD | RT RIGHT |
| DN DOWN | RTU REMOTE TERMINAL UNIT |
| DWLS DOWELS | |
| | SDF STEP DOWN FOOTING |
| EG FOR EXAMPLE | SECT SECTION |
| EE EACH END | SL SLAB |
| EF EACH FACE | SF STRIP FOOTING |
| EL ELEVATION | SFRCS STEEL FIBRE REINFORCED CONCRETE |
| EW EACH WAY | SOG SLAB-ON-GRADE |
| EW T&B EACH WAY, TOP AND BOTTOM | SIM SIMILAR |
| EWFE EACH WAY EACH FACE | SP SUPPORT POINTS |
| EX EXISTING | SPMDD STANDARD PROCTOR MAXIMUM DRY DENSITY |
| EJ EXPANSION JOINT | STD STANDARD |
| EXT EXTERIOR | STR STRUCTURAL |
| E-W EAST-WEST | STRUCT STRUCTURAL |
| EOS EDGE OF SLAB | SQ SQUARE |
| EQ EQUAL | SPG SPACING |
| EQUIP EQUIPMENT | SPL SPLICE |
| | STL STEEL |
| FAB FABRICATE(D) (ION) | SUPT SUPPORT |
| FDN FOUNDATION | |
| FF FAR FACE, FINISH FLOOR | T TOP |
| FIN FINISHED | T&B TOP AND BOTTOM |
| FLR FLOOR | TBC TO BE CONFIRMED |
| FTG FOOTING | TBD TO BE DETERMINED |
| FW FOUNDATION WALL | TC TOP OF CURB |
| FLG FLANGE(D) | THK THICK |
| | TJ TIE JOIST |
| GEN GENERAL | TOC TOP OF CONCRETE |
| GRD GROUND | TOG TOP OF GRATING |
| GRT GROUT | TOS TOP OF STEEL |
| GRTG GRATING | TOF TOP OF FOOTING |
| GB GRADE BEAM | TOW TOP OF WALL |
| GL GRID LINE | TLL TOP LOWER LAYER |
| G.L. GROUND LEVEL | TSE TO SUIT EQUIPMENT |
| GALV GALVANIZED | TPG TOPPING |
| | TUL TOP UPPER LAYER |
| HDG HOT DIPPED GALVANIZED | TYP TYPICAL |
| HL HIGHER LEVEL | TD TYPICAL DETAILS |
| HOR HORIZONTAL | Tf FACTORED TENSION FORCE, KN-m |
| HP HIGH POINT | Tf FACTORED TENSION FORCE, KN |
| HH HOOKED EACH END | TEMP TEMPERATURE |
| Hf FACTORED HORIZONTAL FORCE, KN | |
| HSC HORIZONTALLY SLOTTED CONNECTION | UNO UNLESS NOTED OTHERWISE |
| HSS HOLLOW STRUCTURAL SECTION | U/S UNDERSIDE |
| HST HOIST | UL UPPER LAYER |
| | UG UNDER GROUND |
| IF INSIDE FACE | |
| INT INTERIOR | VBR VERTICAL BRACING |
| INS INSULATE(D)(ION) | Vf FACTORED VERTICAL SHEAR, KN (KIPS) |
| | V.VERT VERTICAL |
| JT JOINT | VSC VERTICALLY SLOTTED CONNECTION |
| JST JOIST | VAR VARIES, VARIABLE |
| JG JOIST GIRDER | VIF VERIFY IN FIELD |
| JH JOIST HANGER | |
| | W WIDTH |
| KN KILONEWTON | W/ WITH |
| kNm KILONEWTON METRE | W/O WITHOUT |
| kg KILOGRAM | WD WOOD |
| kNm ² KN PER SQUARE METRE | WP WORK POINT / WIND POST |
| kN/m KN PER METRE | WS WATERSTOP |
| kPa KILOPASCAL | WF WIDE FLANGE |
| | WWF WELDED WIRE FABRIC |
| LLH LONG LEG HORIZONTAL | WWF WELDED WIDE FLANGE SECTION |
| LLV LONG LEG VERTICAL | |
| LL LIVE LOAD | @ AT |
| LP LOW POINT | ± APPROXIMATELY |
| LG LONG | Ø DIAMETER |
| LAT LATERAL | |
| LEV LEVEL | |
| LT LEFT | |

PRELIMINARY
NOT FOR CONSTRUCTION

PERMIT TO PRACTICE
AECOM CANADA LTD.
Signature: *CAA ASB...*
Date: June 17, 2020
PERMIT NUMBER: P10450
The Association of Professional Engineers and Geoscientists of Alberta



C	ISSUED FOR TENDER	2020/06/17
B	ISSUED FOR 99% REVIEW	2020/05/08
A	ISSUED FOR 50% REVIEW	2020/03/06
Revision	Description	Date

Client: client

Department of Public Works & Governments Services Canada

ATB Place North, 5th Floor
10025 Jasper Ave, Edmonton, AB T5J 1S6

Project title: Highway 9, Drumheller Alberta, T0J 0Y0
CSC Drumheller 50 Bed Unit
Floor Slab Repair

Designed by: Conçu par

Drawn by: LKM, AMH Dessiné par

Approved by: Approuvé par

PWSSC Project Manager: Administrateur de Projets TPSGC

Drawing title: Titre du dessin

GENERAL NOTES
SHEET 1 OF 2

Project no./No. du projet: 60608478	Drawing no./No. du dessin: S-001	Revision no.: C
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CONCRETE REINFORCEMENT

- DEFORMED BARS CONFORMING TO CSA-G30.18 GRADE 400
- WELDABLE REINFORCING BARS SHALL CONFORM TO CSA-G30.18 GRADE 400W. WELDING OF REINFORCING SHALL CONFORM TO CSA-W186. THE WELDER CERTIFICATION MUST BE VALID AND IN FORCE DURING THE CONSTRUCTION PERIOD. PORTION OF REBAR THAT HAS BEEN COLD BENT SHALL NOT BE WELDED. WELDING SHALL NOT BE DONE WITHOUT PRIOR APPROVAL OF THE ENGINEER.
- REINFORCING WORK SHALL BE IN ACCORDANCE WITH CSA-A23.1 AND CSA-A23.3.
- REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH THE LATEST EDITION OF THE ACI DETAILING MANUAL OR THE REINFORCING STEEL INSTITUTE OF CANADA DETAILING MANUAL.
- REINFORCING IN SLABS AND BEAMS TO BE CONTINUOUS UNLESS NOTED. LAP TOP BARS AT MIDSPAN, BOTTOM BARS AT SUPPORTS. MINIMUM LAP FOR 10M BARS TO BE 450 MM. MINIMUM LAPS FOR OTHER BARS TO BE CLASS B TENSION SPLICES. WHERE REINFORCEMENT LAPS ARE REQUIRED IN ADJACENT BARS, STAGGER LAPS MINIMUM 1200 MM UNLESS NOTED OTHERWISE.

CLASS 'B' TENSION SPLICE LENGTH TABLE

BAR SIZE	BAR LOCATION							
	VERTICAL DOWELS, BOTTOM REINFORCING				TOP REINFORCING SEE NOTE 1			
	CONCRETE STRENGTH				CONCRETE STRENGTH			
10	25 MPa	30 MPa	32 MPa	35 MPa	25 MPa	30 MPa	32 MPa	35 MPa
15	440	400	390	370	570	520	500	480
20	620	570	550	520	800	740	710	680
25	760	690	670	640	1000	900	870	830
30	1220	1120	1082	1030	1590	1460	1410	1340
30	1450	1320	1280	1220	1890	1720	1670	1590

NOTES TO TABLE:
 1. HORIZONTAL REINFORCING PLACED IN SUCH A WAY THAT MORE THAN 300mm OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE DEVELOPMENT LENGTH OR SPLICE.
 2. REFERENCE, CSA A23.3-14 CLAUSE 12.2.3 DEVELOPMENT LENGTH, L_d OF DEFORMED WIRE IN TENSION.

- CHAIR SLAB REINFORCING NOT FURTHER THAN 1000 MM IN EITHER DIRECTION. SUPPLY SUPPORT BARS, CHAIRS, AND CARRIERS AS NECESSARY.
- DOWELS AND ANCHOR BOLTS SHALL BE SECURED IN POSITION BY MEANS OF TEMPLATES BEFORE CONCRETE IS POURED. WHERE DOWELS OR ANCHOR BOLTS ARE TO BE EXPOSED FOR LONGER THAN 1 MONTH AFTER INSTALLATION, PROVIDE WRAPPING AND COVERING AS PROTECTION.
- 90° HOOKS AND 180° HOOKS WHERE SHOWN SHALL BE DETAILED AS STANDARD HOOKS UNLESS NOTED OTHERWISE.
- REPLACE BARS THAT DEVELOPED SPLITS OR CRACKS.
- MINIMUM REINFORCING AROUND OPENINGS LARGER THAN 300 MM: 1-15M EACH SIDE AND EACH FACE OF OPENING EXTENDED 600 MM PAST CORNERS.
- PROVIDE DOWELS FROM CONCRETE BEAMS OR WALLS TO MATCH REINFORCING OF MASONRY BLOCK WALL OR ADJOINING CONCRETE.
- UNLESS OTHERWISE NOTED, ALL DOWELS TO PROJECT A MINIMUM OF 40 BAR DIAMETERS INTO SLAB OR WALL FROM FACE OF SUPPORT.
- WELDED WIRE MESH WHERE ALLOWED SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF CSA A23.3 AND SHALL BE FLAT SHEETS ONLY.
- REINFORCING SHOWN ON STRUCTURAL DETAILS ARE SCHEMATIC ONLY AND MAY NOT SHOW THE ACTUAL NUMBER OF REBARS.
- WHERE STATED ON THE FOUNDATION PLANS, ANCHOR RODS AND REBARS IN FOUNDATIONS ARE TO BE ELECTRICALLY BONDED. ANCHOR RODS TO BE 'DOUBLE TIED' OR WELDED TO THE REBAR CAGE OF THE FOUNDATION.

CONCRETE ACCESSORIES

- GROUT: NON-SHRINK, NON-METALLIC GROUT WITH MINIMUM STRENGTH AT THREE DAYS OF 20 MPA AND MINIMUM STRENGTH AT 28 DAYS OF 50 MPA. EPOXY GROUT SHALL BE USED FOR VIBRATING EQUIPMENT BASE WHERE SPECIFIED. APPLY GROUT STRICTLY IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- EXPANSION ANCHORS: OF DIAMETER & PENETRATION SHOWN. CAPACITIES ARE BASED ON HILTI KWIK BOLTS. SUBMIT ANCHOR LOAD RESISTANCE DATA FROM INDEPENDENT TESTING FIRM FOR REVIEW BY ENGINEER MIN 2 WEEKS PRIOR TO INTENDED USE.
- EPOXY ANCHORS: OF DIAMETER & PENETRATION SHOWN. SHEAR AND TENSION CAPACITIES ARE BASED ON HILTI HY150 + HIT-HAS SUPER HARDWARE. SUBMIT ANCHOR LOAD RESISTANCE DATA FROM INDEPENDENT TESTING FIRM FOR REVIEW BY ENGINEER MIN 2 WEEKS PRIOR TO INTENDED USE.
- BONDING AGENTS: THREE COMPONENT, WATER BASED, EPOXY RESIN / CEMENT BONDING AGENT
- PRE-FORMED KEYED JOINTS: 24 ga. GALVANIZED STEEL WITH DOWEL KNOCK-OUTS AT 150 MM O.C. C/W 600 MM LONG SUPPORTING STAKES AT 600 MM O.C. JOINT SYSTEM TO BE COMPLETE WITH SPLICE PLATES, CAP PLATES AND RELATED COMPATIBLE HARDWARE.
- VAPOUR BARRIER: 10 MIL OR 0.25MM CLEAR OR BLACK, POLYETHYLENE FILM, UNREINFORCED, WITH SELF ADHESIVE POLYETHYLENE TAPE FOR JOINTS, SUITABLE FOR BELOW GRADE USE. LAP JOINTS & REPAIRS MIN 300mm
- VOID FORM: 150 MM THICK CARDBOARD HONEYCOMB. TOP SHEET TO BE 6MM THICK PLYWOOD. COVER AND WRAP EDGES WITH 6 MIL OR 0.15 MM POLY. OR LOW DENSITY EXPANDED POLYSTYRENE WITH SUFFICIENT STRENGTH TO SUPPORT CONCRETE WEIGHT AND CONSTRUCTION LOAD. DESIGNED TO COLLAPSE UNDER SOIL EXPANSION (FROST CUSHION OR APPROVED ALTERNATE) PROVIDE LEVELED SAND BASE UNDER VOID FORM. PROVIDE UNDER GRADE BEAMS & EXTERIOR TANK SLAB.
- STEEL BAR SUPPORT/CHAIRS: GALVANIZED/STAINLESS STEEL OR PLASTIC. DO NOT USE ROCK, BRICKS OR CONCRETE FRAGMENTS.
- INSULATION: RIGID STYROFOAM HI-40 BY DOW OR APPROVED EQUIVALENT.
- CURING COMPOUNDS SHALL NOT BE USED OVER CONCRETE SURFACE DESIGNATED TO RECEIVE PROTECTION COATING OR PAINTED FINISH.

CONCRETE

- PROVIDE CONCRETE AND PERFORM WORK IN ACCORDANCE WITH CSA-A23.1. THE CONTRACTOR SHALL HAVE A COPY OF THIS STANDARD ON SITE AT ALL TIMES.
- THE CONCRETE SUPPLIER SHALL BE A MEMBER OF THE ALBERTA READY MIXED CONCRETE ASSOCIATION.
- PROPORTION NORMAL DENSITY CONCRETE (2400 KG/M3) IN ACCORDANCE WITH CSA-A23.1 TO MEET THE FOLLOWING REQUIREMENTS:

LOCATION	EXPOSURE CLASS	MIN. COMPRESSIVE STRENGTH (MPa)	MAX AGGREGATE SIZE (MM)
STRUCTURAL SLAB	N	30 (28 DAY)	20

- FLY ASH CONTENT IN TERMS OF TOTAL CEMENTITIOUS MATERIAL SHALL NOT EXCEED THE FOLLOWING LIMITS:
FOR FLOOR SLABS, BEAMS AND TOPPING 15%

- USE OF ANY ADMIXTURES IN THE CONCRETE SHALL BE APPROVED, IN WRITING, BY THE CONSULTANT AND CONCRETE SUPPLIER PRIOR TO USE. ADMIXTURES CONTAINING CALCIUM CHLORIDE ARE NOT PERMITTED.

- TARGET SLUMP OF FRESH CONCRETE SHALL BE APPROPRIATE TO THE METHOD OF PLACING CONCRETE AND TO THE ELEMENT BEING CONCRETED.

- SUBMIT CONCRETE MIX PROPORTIONS TO THE ENGINEER FOR REVIEW IN ACCORDANCE WITH TABLE 5 IN CSA-A23.1, ALTERNATIVE 1. AT THE REQUEST OF THE ENGINEER, SUBMIT A LETTER SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF ALBERTA, STATING THAT ALL CONCRETE SUPPLIED MEETS THE PROJECT SPECIFICATIONS AND REQUIREMENTS OF CSA-A23.1.

- OBTAIN ENGINEER'S APPROVAL BEFORE PLACING CONCRETE. PROVIDE FORTY-EIGHT (48) HOURS NOTICE PRIOR TO PLACING OF CONCRETE.

- CONCRETE TO BE BATCHED AND COMPLETELY DISCHARGED IN A PERIOD NOT EXCEEDING ONE HUNDRED AND TWENTY (120) MINUTES FROM THE TIME OF INITIAL ADDITION OF WATER TO THE CEMENT AND AGGREGATE.

- CONCRETE COVER TO REINFORCING STEEL SHALL CONFORM TO TABLE BELOW, UNLESS NOTED OTHERWISE ON THE DRAWINGS.

EXPOSURE CLASS	CLEAR COVER (MM)
FORMED SURFACE NOT EXPOSED TO WEATHER AND NOT IN CONTACT WITH EARTH	25
SLAB	
RATIO OF COVER TO NOMINAL BAR DIAMETER	1.0
RATIO OF COVER TO NOMINAL BAR DIAMETER	1.0
SEE TABLE 17 CSA A23.1 FOR NOTES ON ADDITIONAL COVER	

- ENSURE REINFORCEMENT AND INSERTS ARE NOT DISTURBED DURING CONCRETE PLACEMENT. DO NOT PLACE CONCRETE AGAINST FROZEN GROUND OR IN STANDING WATER.

- ACCURATELY SET SLEEVES, ANCHOR BOLTS, OTHER EMBEDS, AND OPENINGS AS SHOWN ON THE DRAWINGS. OPENINGS GREATER THAN 200mm X 200mm NOT SHOWN ON THE STRUCTURAL DRAWINGS MUST BE APPROVED BY THE ENGINEER.

- CHECK LOCATIONS AND SIZES OF SLEEVES AND OPENINGS SHOWN ON THE STRUCTURAL DRAWINGS WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND OTHER RELEVANT DRAWINGS. SLEEVES SHALL NOT BE PLACED HORIZONTALLY ALONG OR VERTICALLY THROUGH BEAMS UNLESS AUTHORIZED BY CONSULTANT.

- CONSTRUCTION JOINTS: KEYED AND DOWELED AS DIRECTED BY ENGINEER UNLESS DETAILED ON THE DRAWINGS. ALL REINFORCING SHALL BE CONTINUOUS THROUGH CONSTRUCTION JOINTS. SUBMIT PROPOSED DETAIL AND LOCATION OF ALL CONSTRUCTION JOINTS NOT SHOWN ON THE DRAWINGS TO THE ENGINEER FOR REVIEW.

- USE 25 X 25 FORMED CHAMFERS ON EXPOSED CORNERS OF BEAMS, COLUMNS AND WALLS U.N.O.

- MAINTAIN ACCURATE RECORDS OF POURED CONCRETE ITEMS TO INDICATE DATE, LOCATION OF POUR, AIR TEMPERATURE, AND TEST SAMPLES TAKEN. SUBMIT RECORDS TO ENGINEER UPON REQUEST.

- A MINIMUM OF THREE (3) DAYS SHALL ELAPSE BETWEEN ADJACENT WALL OR SLAB POURS.

- PROTECT CONCRETE FROM PREMATURE DRYING. CURE CONCRETE IN ACCORDANCE WITH CSA-A23.1. PROVIDE ADDITIONAL CURING MEASURES OR PROTECTION DURING HOT OR COLD WEATHER IN ACCORDANCE WITH CSA-A23.1.

- DO NOT PLACE CONCRETE WHEN WEATHER IS NOT SUITABLE (E.G. DURING RAIN, SNOW) UNLESS ADEQUATE PRECAUTIONARY MEASURES ARE IN PLACE.

- CUTBACK ALL TIES EMBEDDED IN CONCRETE TO A MINIMUM OF 16 MM, OR 38 MM FOR CLASS C EXPOSURES.

- FILL TIE HOLES IN ACCORDANCE WITH CSA-A23.1.

- REPAIR HONEYCOMBED AND DEFECTIVE CONCRETE AT CONTRACTOR'S OWN COST. PROPOSED METHOD STATEMENT AND MATERIAL FOR REPAIR SHALL BE SUBMITTED TO THE CONSULTANT FOR APPROVAL.

CONCRETE TESTING

- INSPECTION AND TESTING OF CONCRETE MATERIALS WILL BE CARRIED OUT BY AN INDEPENDENT TESTING LABORATORY DESIGNATED AND PAID FOR BY THE OWNER, IN ACCORDANCE WITH CSA-A23.2.
- A STRENGTH TEST WILL CONSIST OF THREE (3) STANDARD CYLINDERS; ONE TESTED AT SEVEN (7) DAYS, AND TWO TESTED AT TWENTY-EIGHT (28) DAYS.
- FREQUENCY OF CONCRETE TESTING WILL BE ONE SET OF CYLINDERS FOR EVERY 50 CUBIC METERS OR PART THEREOF OF EACH CONCRETE MIX POURED IN A DAY. THIS FREQUENCY MAY BE INCREASED OR DECREASED AT THE ENGINEER'S DISCRETION.
- TEST SLUMP AND AIR CONTENT EACH TIME CYLINDER SAMPLES ARE TAKEN.
- THE TESTING LABORATORY WILL TAKE ADDITIONAL CYLINDERS DURING COLD WEATHER CONCRETING. CURE CYLINDERS ON JOB SITE UNDER SAME CONDITIONS AS CONCRETE WHICH THEY REPRESENT.
- CONTRACTOR SHALL PROVIDE ACCESS TO ALL WORK BEING INSPECTED/TESTED.
- NON-DESTRUCTIVE METHODS OF TESTING CONCRETE SHALL BE IN ACCORDANCE WITH CSA-A23.2.
- INSPECTION OR TESTING BY TESTING LABORATORY WILL NOT AUGMENT OR REPLACE CONTRACTOR QUALITY CONTROL NOR RELIEVE HIM OF HIS CONTRACTUAL RESPONSIBILITY.
- CONCRETE FAILING TO MEET THE SPECIFIED REQUIREMENTS SHALL BE RETESTED, STRENGTHENED, OR REJECTED IN ACCORDANCE WITH THE CSA-A23.2. ALL ADDITIONAL TESTING, STRENGTHENING, AND/OR REPLACEMENT SHALL BE AT THE CONTRACTOR'S EXPENSE.

DEMOLITION SPECIFICATIONS:

- DEMOLITION TO CONFORM TO THE NATIONAL BUILDING CODE 2019 - ALBERTA EDITION AND THE LATEST ALBERTA OCCUPATIONAL HEALTH AND SAFETY ACT, REGULATION AND CODE.

- PRIOR TO DEMOLITION:
 - LOCATE AND PROTECT UTILITIES. PRESERVE ACTIVE UTILITIES TRAVERSING THE WORK AREA IN OPERATIONAL CONDITION.
 - NOTIFY AND OBTAIN APPROVAL FROM UTILITY COMPANIES BEFORE STARTING DEMOLITION.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A DEMOLITION PERMIT, AS REQUIRED.

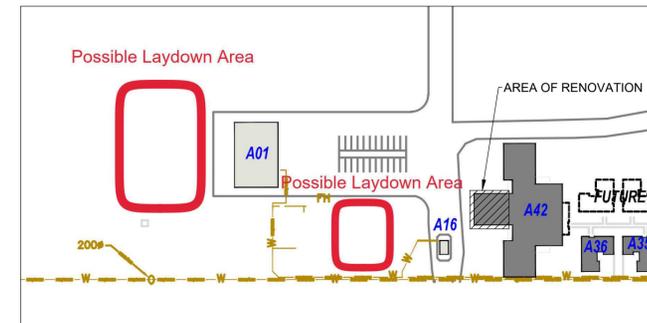
- DURING DEMOLITION:
 - PROTECT FROM DAMAGE ALL MATERIALS AND COMPONENTS THAT ARE TO REMAIN. CONTRACTOR IS RESPONSIBLE FOR RESTORING TO PRE-DEMOLITION CONDITION ALL REMAINING COMPONENTS AND SURROUNDING STRUCTURES DAMAGED DURING DEMOLITION. ENSURE PARTIALLY DEMOLISHED WALLS ARE SUPPORTED DURING EXTENT OF SLAB REPAIRS. ENSURE EXISTING INTERIOR COLUMNS ARE WELL SUPPORTED THROUGHOUT DURING OF CONSTRUCTION WITH NO ADDITIONAL IMPOSED LOADING DURING CONSTRUCTION.
 - IMMEDIATELY NOTIFY THE ENGINEER, PWGSC, AND UTILITY COMPANY CONCERNED IN CASE OF DAMAGE TO ANY UTILITY OR SERVICE, DESIGNATED TO REMAIN IN PLACE. IMMEDIATELY NOTIFY THE ENGINEER AND PWGSC SHOULD UNCHARTED UTILITY OR SERVICE BE ENCOUNTERED, AND AWAIT INSTRUCTION REGARDING REMEDIAL ACTION.
 - KEEP NOISE, DUST, AND INCONVENIENCE TO OCCUPANTS TO A MINIMUM.
 - PROTECT BUILDING SYSTEMS, SERVICES AND EQUIPMENT.
 - PROVIDE TEMPORARY DUST SCREENS, COVERS, RAILINGS, SUPPORTS AND OTHER PROTECTION AS REQUIRED.
 - DO WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE HEALTH AND SAFETY ACT, REGULATION AND CODES.

- CONTRACTOR SHALL SURVEY AND CHECK ACTUAL CONDITIONS AND DIMENSIONS ON SITE. DETAILS AND DIMENSIONS ON DRAWINGS ARE BASED ON OWNER SUPPLIED DRAWINGS. ALL DIMENSIONS TO BE IDENTIFIED AND CONFIRMED BY THE CONTRACTOR. CONTRACTOR TO INFORM THE ENGINEER AND PWGSC OF ANY DISCREPANCIES.

- CONTRACTOR IS RESPONSIBLE FOR REMOVAL FROM SITE AND DISPOSAL OF ALL DEMOLISHED MATERIAL. CONTRACTOR SHALL PLAN WORK SO THAT STOCK PILING IS MINIMIZED.

- CLEANING:
 - PROGRESS CLEANING: LEAVE WORK AREA CLEAN AT END OF EACH DAY.
 - FINAL CLEANING: UPON COMPLETION REMOVE SURPLUS MATERIALS, RUBBISH, TOOLS AND EQUIPMENT. CONFIRM WITH PWGSC IF EXTRA MATERIAL FOR MAINTENANCE IS TO BE PROVIDED OR LEFT WITH PWGSC FOR FUTURE PATCH OR TOUCH-UPS
 - REFER TO DEMOLITION DRAWINGS AND NOTES FOR ITEMS TO BE SALVAGED FOR REUSE.
 - REMOVE RECYCLING CONTAINERS AND BINS FROM SITE AND DISPOSE OF MATERIALS AT APPROPRIATE FACILITY.

- PATCH & REPAIR:
 - ALL WORK AFFECTED BY DEMOLITION THAT HAS NOT BEEN IDENTIFIED DIRECTLY IN NEW WORK IS TO BE PATCHED, REPAIRED, PAINTED OR FINISHED TO MATCH CONDITIONS OF EXISTING OR NEW CONSTRUCTION AND FINISHED TO MAKE GOOD.



PARTIAL SITE PLAN SHOWING POSSIBLE LAYDOWN AREAS WHILE CONSTRUCTION ON A42 IS IN PROGRESS

TEMPORARY CONSTRUCTION FENCE NOTES

- TYPE 1: MINIMUM INSTITUTION CONSTRUCTION FENCE IS USED PRIMARILY AS A PHYSICAL BARRIER TO PREVENT UNAUTHORIZED PERSONS ACCESS TO THE SITE FOR REASONS OF SAFETY AND TO PROTECT THE CONTRACTOR'S ASSETS. THIS FENCE IS NO DIFFERENT FROM THAT USED IN THE COMMUNITY.
- THIS FENCE TYPE SHALL BE SELF SUPPORTING WELDED MESH SECTIONAL FENCE TYPICALLY AVAILABLE BY RENTAL. THE HEIGHT OF THE FENCE SHALL BE NO LESS THAN 1800mm HIGH BUT MAY BE HIGHER DEPENDING ON LOCAL AVAILABILITY. THE FENCE MUST BE STABLE AND SELF SUPPORTING. WELDED WIRE MESH IS CONSIDERED TO BE NON-CLIMBABLE DUE TO ITS MESH SIZE WHICH INHIBITS THE INSERTION OF FOOT TO AID CLIMBING. THE TOP OF THE FENCE ALSO HAS ITS VERTICAL WIRE PROJECTING OVER THE TOP RAIL TO DISCOURAGE BREACH. MATCHING VEHICLE GATES ARE PADLOCKED AFTER WORK HOURS. THE TEMPORARY CONSTRUCTION FENCE SHALL BE REMOVED FROM THE INSTITUTION BY THE CONTRACTOR AFTER CONSTRUCTION IS COMPLETED.
- SPECIFICATIONS: RENTAL CONSTRUCTION PROTECTION FENCE COMES WITH WELDED WIRE MESH AND COMPONENTS CONFORMING TO ASTM F2919 WELDED MESH FENCE SPECIFICATION. MESH IS GALVANIZED STEEL, NO LARGER THAN 50X150mm (VERTICALLY LONG RECTANGLE) WITH VERTICAL WIRE PROJECTING AND EXPOSED AT TOP. FENCE MUST BE AT LEAST 1800mm HIGH AND SECURED WITH PINS INSERTED IN THE GROUND THROUGH THE 'T' BASE SUPPORT. SECTIONS OF FENCE MUST BE SECURELY CLAMPED TOGETHER TO ENSURE THAT THE EACH FENCE RUN ACTS AS A CONTINUOUS BARRIER WHICH WILL RESIST LATERAL FORCES AND SEPARATION. SLOPED RUNS MUST BE PROTECTED BY MESH PANELS TO ENSURE CONTINUITY OF BARRIER FROM GROUND UP.

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Signature: *CAA*
Date: June 17, 2020
PERMIT NUMBER: P10450
The Association of Professional Engineers and Geoscientists of Alberta



Revision	Description	Date
C	ISSUED FOR TENDER	2020/06/17
B	ISSUED FOR 99% REVIEW	2020/05/08
A	ISSUED FOR 50% REVIEW	2020/03/06

Department of Public Works & Governments Services Canada

ATB Place North, 5th Floor
10025 Jasper Ave, Edmonton, AB T5J 1S6

Project title: Highway 9, Drumheller Alberta, T0J 0Y0
CSC Drumheller 50 Bed Unit
Floor Slab Repair

Designed by: JDV / Conçu par

Drawn by: LKM, AMH / Dessiné par

Approved by: AA / Approuvé par

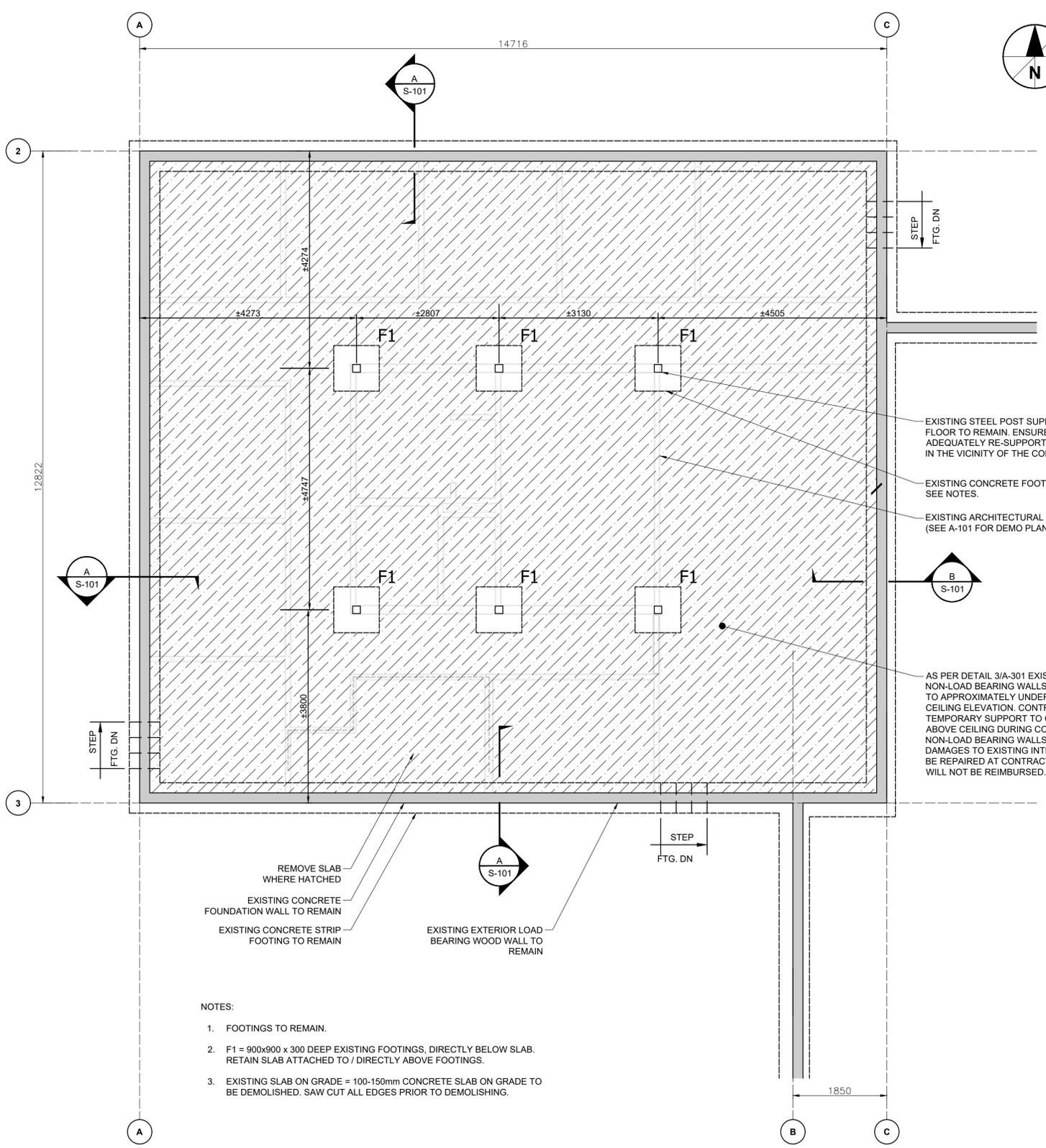
PWGSC Project Manager / Administrateur de Projets TPSGC

Drawing title: GENERAL NOTES SHEET 2 OF 2 / Titre du dessin

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
60608478	S-002	C
	OF 05	

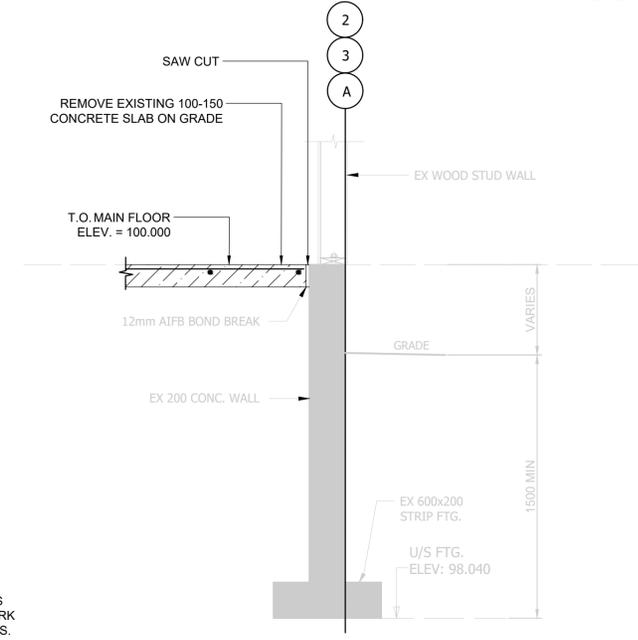
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LEGEND:
 EXTENTS OF DEMOLITION

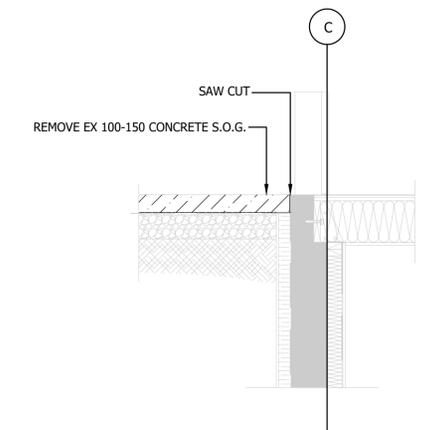


- NOTES:
- FOOTINGS TO REMAIN.
 - F1 = 900x900 x 300 DEEP EXISTING FOOTINGS, DIRECTLY BELOW SLAB. RETAIN SLAB ATTACHED TO / DIRECTLY ABOVE FOOTINGS.
 - EXISTING SLAB ON GRADE = 100-150mm CONCRETE SLAB ON GRADE TO BE DEMOLISHED. SAW CUT ALL EDGES PRIOR TO DEMOLISHING.

1 FOUNDATION DEMOLITION PLAN
 S-101 Scale 1:50



A SECTION
 S-101 Scale 1:20



B SECTION
 S-101 Scale 1:20

EXISTING STEEL POST SUPPORTING SECOND FLOOR TO REMAIN. ENSURE SECOND FLOOR IS ADEQUATELY RE-SUPPORT PRIOR TO ANY WORK IN THE VICINITY OF THE COLUMN FOUNDATIONS.
 EXISTING CONCRETE FOOTING TO REMAIN. SEE NOTES.
 EXISTING ARCHITECTURAL WALLS (SEE A-101 FOR DEMO PLAN)

AS PER DETAIL 3/A-301 EXISTING INTERIOR NON-LOAD BEARING WALLS TO BE DEMOLISHED TO APPROXIMATELY UNDERSIDE OF LOW CEILING ELEVATION. CONTRACTOR TO PROVIDE TEMPORARY SUPPORT TO CEILING AND WALL ABOVE CEILING DURING CONSTRUCTION UNTIL NON-LOAD BEARING WALLS ARE REPLACED. DAMAGES TO EXISTING INTERIOR SPACE WILL BE REPAIRED AT CONTRACTOR'S COST AND WILL NOT BE REIMBURSED, (TYP)

REMOVE SLAB WHERE HATCHED
 EXISTING CONCRETE FOUNDATION WALL TO REMAIN
 EXISTING CONCRETE STRIP FOOTING TO REMAIN
 EXISTING EXTERIOR LOAD BEARING WOOD WALL TO REMAIN

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A	ISSUED FOR 50% REVIEW	2020/03/06

Department of Public Works & Governments Services Canada

ATB Place North, 5th Floor
 10025 Jasper Ave, Edmonton, AB T5J 1S6

Project title: Highway 9, Drumheller Alberta, T0J 0Y0
 CSC Drumheller 50 Bed Unit
Floor Slab Repair

Designed by: Conçu par
 Drawn by: LKM, AMH Dessiné par
 Approved by: Approuvé par
 PWGSC Project Manager: Administrateur de Projets TPSGC

Drawing title: **DEMOLITION PLANS AND DETAILS**
 Titre du dessin

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
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Client: Department of Public Works & Governments Services Canada

ATB Place North, 5th Floor
10025 Jasper Ave, Edmonton, AB T5J 1S6

Project title: Highway 9, Drumheller
Alberta, T0J 0Y0
CSC Drumheller 50 Bed Unit
Floor Slab Repair

Designed by: Conçu par

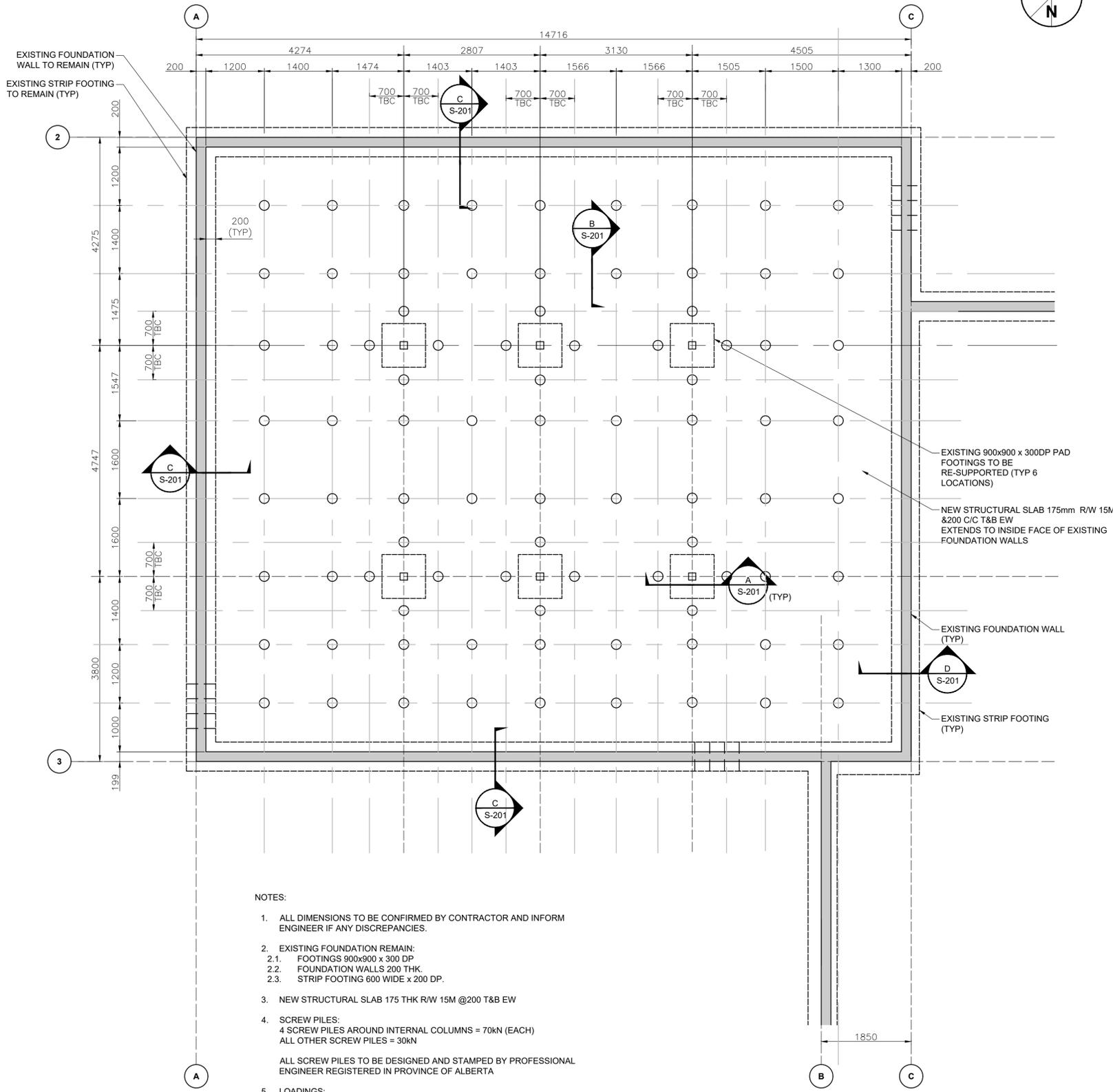
Drawn by: LKM, AMH Dessiné par

Approved by: Approuvé par

PWSSC Project Manager: Administrateur de Projets TPSGC

Drawing title: PROPOSED FOUNDATION PLAN

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
60608478	S-102	C

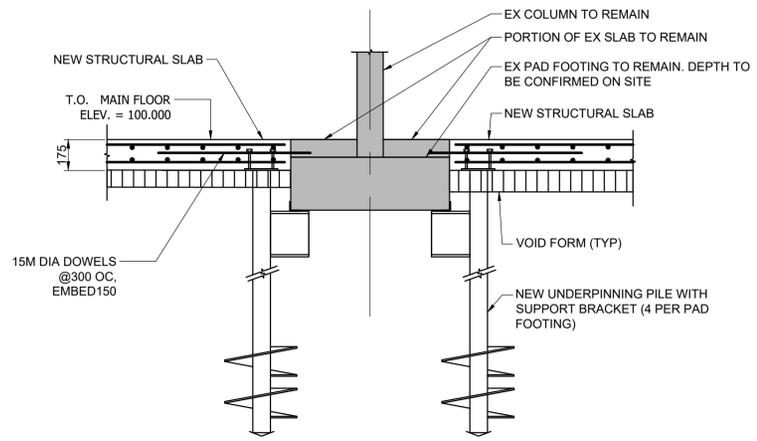


- NOTES:
- ALL DIMENSIONS TO BE CONFIRMED BY CONTRACTOR AND INFORM ENGINEER IF ANY DISCREPANCIES.
 - EXISTING FOUNDATION REMAIN:
 - FOOTINGS 900x900 x 300 DP
 - FOUNDATION WALLS 200 THK.
 - STRIP FOOTING 600 WIDE x 200 DP.
 - NEW STRUCTURAL SLAB 175 THK R/W 15M @200 T&B EW
 - SCREW PILES:
 - 4 SCREW PILES AROUND INTERNAL COLUMNS = 70kN (EACH)
 - ALL OTHER SCREW PILES = 30kN

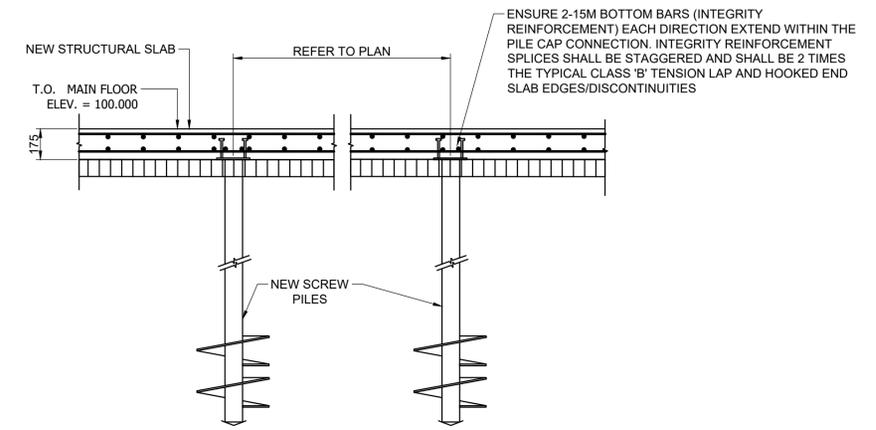
ALL SCREW PILES TO BE DESIGNED AND STAMPED BY PROFESSIONAL ENGINEER REGISTERED IN PROVINCE OF ALBERTA
 - LOADINGS:
 - DL=SW+WALLS+PARTITIONS
 - LL=2.4kN/M2

1 | PROPOSED FOUNDATION PLAN
S-102 | Scale 1:50

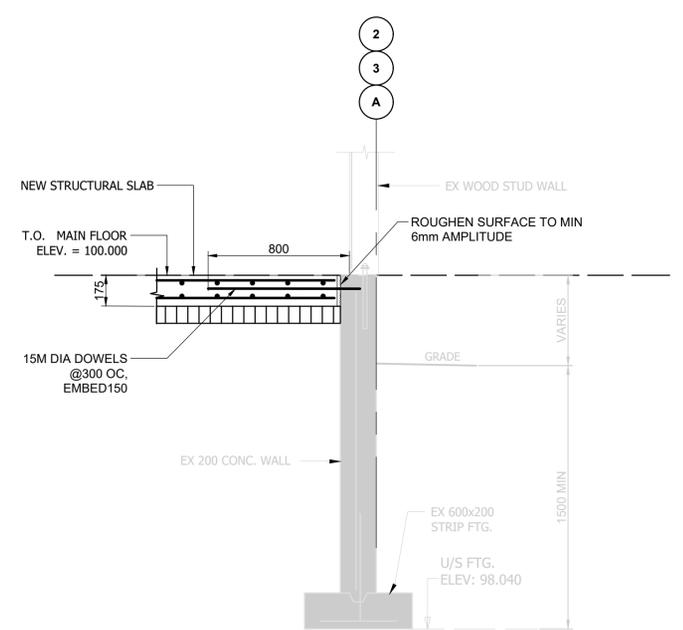
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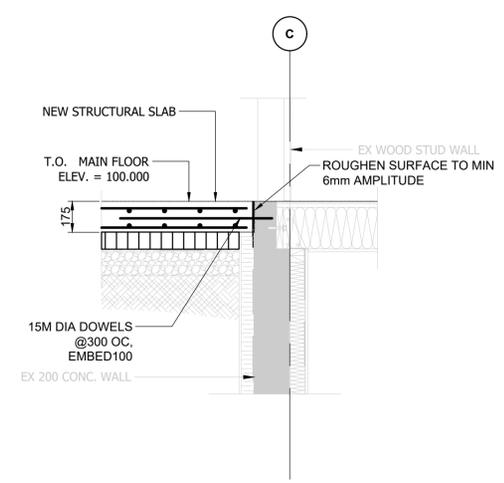
A | PAD FOOTING SUPPORT SECTION
S-102 | Scale 1:20



B | TYPICAL SLAB SUPPORT SECTION
S-102 | Scale 1:20



C | EXTERNAL FOUNDATION WALL
S-102 | Scale 1:20



D | INTERNAL FOUNDATION WALL
S-102 | Scale 1:20

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Client: Department of Public Works & Government Services Canada

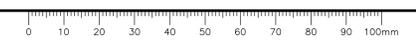
10025 Jasper Ave, Edmonton, AB T5J 1S6

Project title: Highway 9, Drumheller Alberta, T0J 0Y0
CSC Drumheller 50 Bed Unit
Floor Slab Repair

Designed by: LKM, AMH
Drawn by: LKM, AMH
Approved by: [Signature]
PWSC Project Manager: [Signature]

Drawing title: NEW SLAB SECTIONS

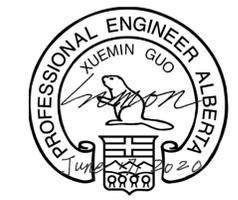
Project no./No. du projet	Drawing no./No. du dessin	Revision no.
60608478	S-201	C



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DRAWING LIST	
DWG #	DRAWING TITLE
E-001	SYMBOL LEGEND AND DRAWING LIST
E-101	DEMOLITION PLAN
E-102	POWER AND SYSTEMS PLAN
E-103	LIGHTING PLAN
E-104	LOW VOLTAGE PLAN
E-401	PANEL SCHEDULE AND DETAILS

SYMBOL LEGEND					
SYMBOL	DESCRIPTION LIGHTING	SYMBOL	DESCRIPTION POWER	SYMBOL	DESCRIPTION COMMUNICATION
	FLUORESCENT/LED LUMINAIRE - SURFACE OR SUSPENDED		PANELBOARD		MANUAL BREAKGLASS STATION
	CEILING POT OR HID LUMINAIRE		20A DUPLEX RECEPTACLE (5-20R)		BELL C/W VISUAL ALARM LIGHT
	WALL POT OR HID LUMINAIRE		20A CEILING MOUNTED RECEPTACLE		HORN
	SINGLE POLE SWITCH		20A GROUND FAULT RECEPTACLE		SMOKE DETECTOR
	THREE WAY SWITCH		SPECIAL 120V RECEPTACLE		RATE OF RISE THERMAL DETECTOR
	CEILING EXIT LIGHT - DIRECTION ARROWS AS INDICATED		SPECIAL 208V 1PH RECEPTACLE		FIRE SPEAKER - CEILING MOUNTED
	WALL EXIT LIGHT - DIRECTION ARROWS AS INDICATED		SPECIAL 208V 3PH RECEPTACLE		FIRE SPEAKER - WALL MOUNTED
	BATTERY PACK C/W HEADS AS INDICATED		20A DUPLEX RECEPTACLE - MOUNTED ABOVE COUNTER		FIRE SPEAKER WITH VISUAL SIGNAL - CEILING MOUNTED
	WALL MOUNTED EMERGENCY REMOTE HEADS		20A SPLIT-FEED RECEPTACLE - MOUNTED ABOVE COUNTER		FIRE SPEAKER WITH VISUAL SIGNAL - WALL MOUNTED
			MOTOR		VISUAL SIGNAL - CEILING MOUNTED
			DISCONNECT SWITCH		VISUAL ALARM LIGHT - WALL MOUNTED
			PANELBOARD		SPRINKLER FLOW SWITCH
			4" OCTAGON OR SQUARE CEILING MOUNTED JUNCTION BOX		SPRINKLER VALVE MONITOR
					CO ₂ DETECTOR
					WALL MOUNTED INTERCOM
					PAGER SPEAKER
					WALL MOUNTED VOICE AND DATA
					WALL MOUNTED TELEPHONE OUTLET
					EXISTING TO REMAIN
					REMOVE
					RELOCATE
					ABOVE FINISHED FLOOR
	ELECTRIC DOOR STRIKE				



PERMIT TO PRACTICE
AECOM CANADA LTD.
Signature: *Xuemin Guo*
Date: June 17, 2020
PERMIT NUMBER: P 10450
The Association of Professional Engineers and Geoscientists of Alberta

Revision	Description	Date
C	ISSUED FOR TENDER	2020/06/17
B	ISSUED FOR 90% REVIEW	2020/05/08
A	ISSUED FOR 50% REVIEW	2020/03/06

Department of Public Works & Governments Services Canada

ATB Place North, 5th Floor
10025 Jasper Ave, Edmonton, AB T5J 1S6

Project title: Highway 9, Drumheller Alberta, T0J 0Y0
CSC Drumheller 50 Bed Unit
Floor Slab Repair

Designed by / Conçu par

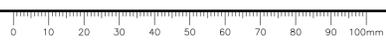
Drawn by / Dessiné par

Approved by / Approuvé par

PWGSC Project Manager / Administrateur de Projets TPSGC

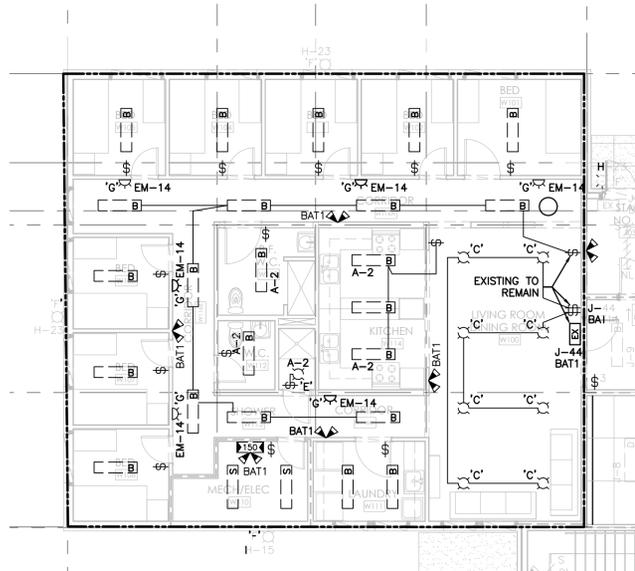
Drawing title / Titre du dessin
SYMBOL LEGEND AND DRAWING LIST

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
60608478	E-001 OF	C





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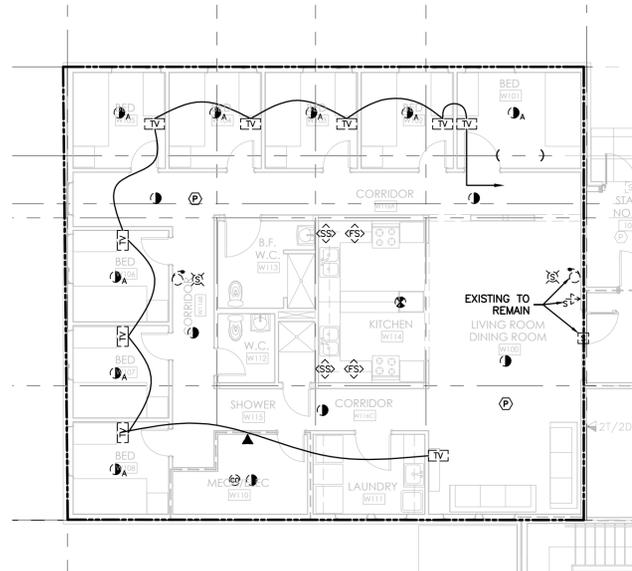


1 DEMOLITION LIGHTING FLOOR PLAN

1:100

NOTES:

- DISCONNECT LIGHTING CIRCUITS. SALVAGE ALL LIGHT FIXTURES AS SHOWN IN THE DRAWING. SALVAGE OF BALLASTS AND FIXTURE. MAKE NOTE OF EXISTING LUMINAIRE MODEL NUMBERS AND SHEET TYPE FOR THE SELECTION OF NEW LED FIXTURES.
- EXTERIOR TYPE "F" FIXTURES TO REMAIN.
- REMOVE ALL CONDUITS WITHIN INTERNAL WALLS. ALL CONDUIT IN THE CEILING SHALL REMAIN AND RE-USE.
- SALVAGE ALL EXISTING ELECTRICAL DEVICES IN DEMOLITION AREAS TO ACCOMMODATE NEW INSTALLATION.
- ENSURE ALL CIRCUITS THAT ARE BEING DISCONNECTED ARE REMOVED BACK TO SOURCE. DO NOT FEED OTHER AREAS OUTSIDE OF CONTRACT.
- CONTRACTOR TO EVALUATE THE CONDITION OF ALL SALVAGED EQUIPMENT, DEVICES, CONDUIT AND WIRING PRIOR TO REINSTALLATION. ALL EQUIPMENT THAT DOES NOT MEET CEC OR DRUMHELLER INSTITUTION REQUIREMENTS IS TO BE REPLACED WITH NEW EQUIVALENT. REVIEW PRIOR TO SUBMITTING TENDER.
- NO EXTRA WILL BE ALLOWED.
- FOR ADDITIONAL INFORMATION PLEASE REQUEST A SITE WALK THROUGH.

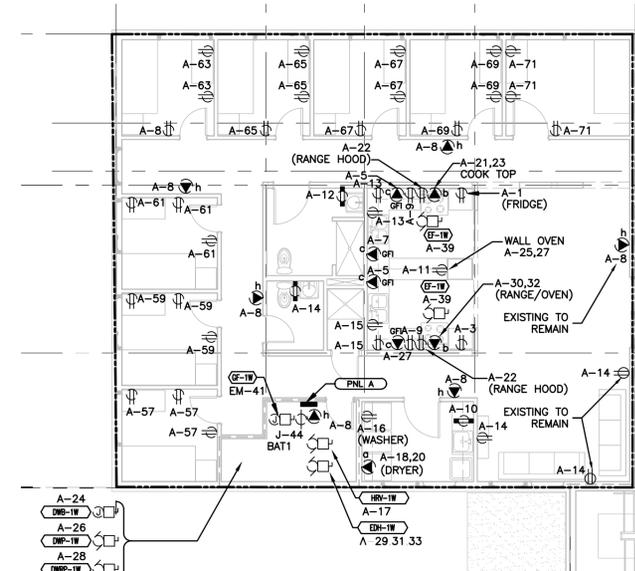


2 DEMOLITION LOW TENSION FLOOR PLAN

1:100

NOTES:

- FIRE ALARM DEVICES MUST REMAIN DURING DEMOLITION & CONSTRUCTION PHASE.
- SALVAGE ALL DEVICES. COIL UP AND TIE WRAP FIRE ALARM DEVICES TO EXISTING CONDUITS UNDER SLAB.
- SALVAGE ALL TV RECEPTACLES AND COIL UP THE CABLE FOR RE-USE.
- CONTRACTOR TO EVALUATE THE CONDITION OF ALL SALVAGED EQUIPMENT, DEVICES, CONDUIT AND WIRING PRIOR TO REINSTALLATION. ALL EQUIPMENT THAT DOES NOT MEET CEC OR DRUMHELLER INSTITUTION REQUIREMENTS IS TO BE REPLACED WITH NEW EQUIVALENT. REVIEW PRIOR TO SUBMITTING TENDER.



3 DEMOLITION POWER FLOOR PLAN

1:100

NOTES:

- SALVAGE EXISTING ELECTRICAL SHOWN IN THE DEMOLITION AREA IDENTIFIED ON THIS DRAWING TO ACCOMMODATE NEW INSTALLATION.
- CO-ORDINATE WITH MECHANICAL CONTRACTOR BEFORE DISCONNECTING A/C UNITS. ELECTRICAL CONTRACTOR TO DISCONNECT AND RECONNECT EQUIPMENT. COORDINATE WITH MECHANICAL.
- DISCONNECT ALL NETWORK CABLES. REMOVE CABLES BACK TO THE CEILING FOR RE-CONNECTION.
- DISCONNECT ELECTRICAL FROM WALLS THAT ARE BEING REMOVED. REFER TO ARCHITECTURAL.
- ENSURE TO RE-INSTATE POWER TO ALL CIRCUITS AFFECTED BY THE DEMOLITION THAT HAVE LOADS OUTSIDE OF THE WORK ARE UNDER THIS SCOPE.
- SALVAGE ALL EXISTING OUTLETS IN NOTED WALLS.
- CONTRACTOR TO EVALUATE THE CONDITION OF ALL SALVAGED EQUIPMENT, DEVICES, CONDUIT AND WIRING PRIOR TO REINSTALLATION. ALL EQUIPMENT THAT DOES NOT MEET CEC OR DRUMHELLER INSTITUTION REQUIREMENTS IS TO BE REPLACED WITH NEW EQUIVALENT. REVIEW PRIOR TO SUBMITTING TENDER.



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Signature: *Xuemin Guo*
Date: June 17, 2020
PERMIT NUMBER: P 10450
The Association of Professional Engineers and Geoscientists of Alberta

Revision	Description	Date
C	ISSUED FOR TENDER	2020/06/17
B	ISSUED FOR 90% REVIEW	2020/05/08
A	ISSUED FOR 50% REVIEW	2020/03/06

Client: Department of Public Works & Governments Services Canada

ATB Place North, 5th Floor
10025 Jasper Ave, Edmonton, AB T5J 1S6

Project title: Highway 9, Drumheller Alberta, T0J 0Y0
CSC Drumheller 50 Bed Unit
Floor Slab Repair

Designed by: _____ Conçu par: _____

Drawn by: _____ Dessiné par: _____

Approved by: _____ Approuvé par: _____

PWGSC Project Manager: _____ Administrateur de Projets TPSGC

Drawing title: DEMOLITION PLAN Titre du dessin: DEMOLITION PLAN

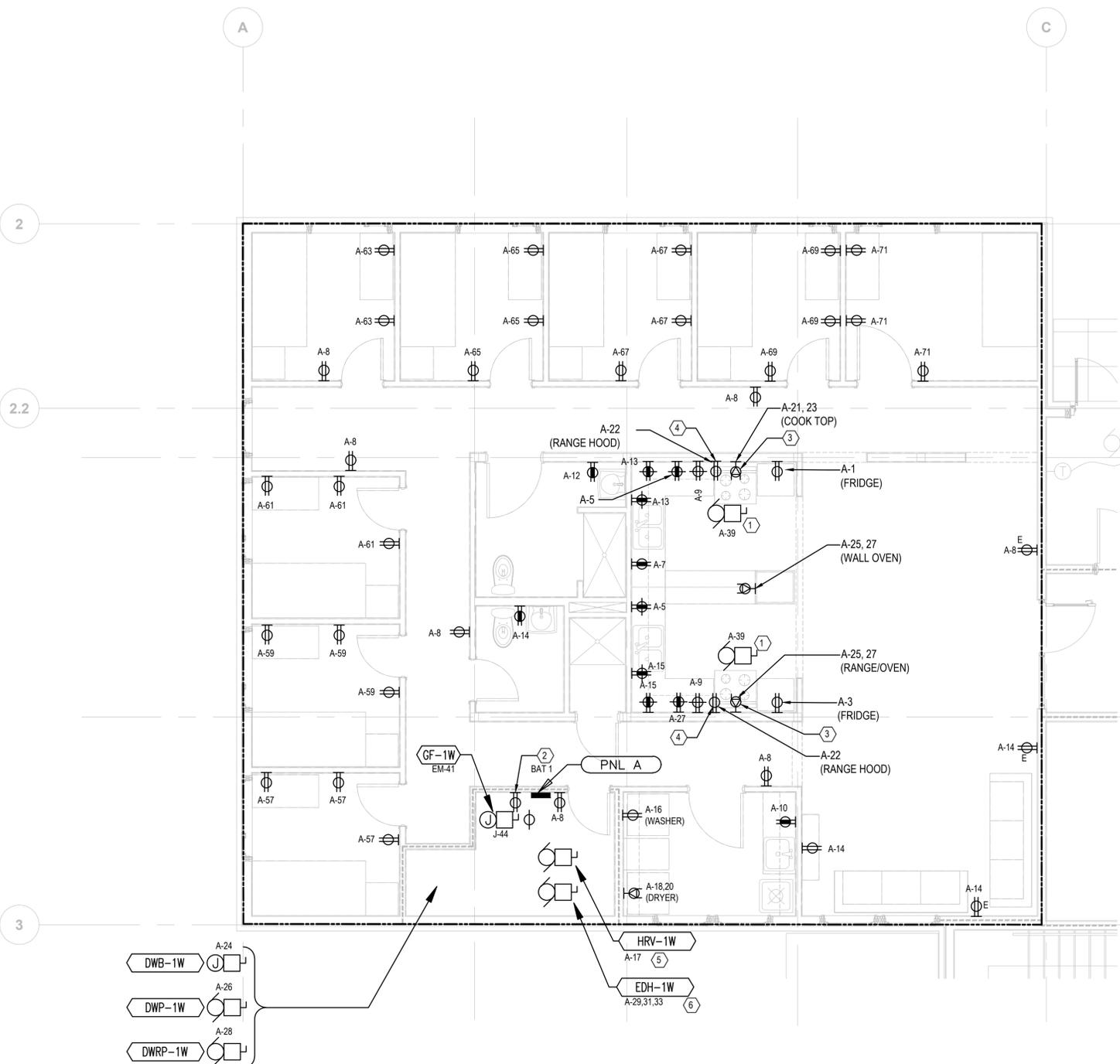
Project no./No. du projet	Drawing no./No. du dessin	Revision no.
60608478	E-101	C



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AECOM CANADA LTD.
Signature: *Yuemin Guo*
Date: June 17, 2020
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The Association of Professional Engineers and Geoscientists of Alberta



KEYNOTES:

- ① RANGE HOOD CONNECTION. REFER TO ARCHITECTURAL ELEVATIONS AND COORDINATE WITH MECHANICAL CONTRACTOR.
- ② EMERGENCY LIGHTING BATTERY PACK RECEPTACLE TO BE INSTALLED 2286mm ABOVE FINISHED FLOOR. CONNECTED TO CIRCUIT A-37.
- ③ 14-50R RECEPTACLE FOR RANGE OVEN. PROVIDE SHUNT TRIP BREAKER CONNECTION WITH FIRE SUPPRESSION SYSTEM TO ALLOW POWER SHUTOFF UPON FIRE SUPPRESSION SYSTEM ACTIVATION
- ④ 120V RECEPTACLE TO BE INSTALLED ABOVE RANGE HOOD FOR FIRE SUPPRESSION SYSTEM
- ⑤ COORDINATE THE REINSTALLATION OF THE TIME CLOCK FOR THE HEAT RECOVERY VENTILATOR WITH MECHANICAL CONTRACTOR.
- ⑥ COORDINATE RECONNECTION OF ELECTRIC DUCT HEATER THERMOSTAT WITH MECHANICAL CONTRACTOR.

NOTES:

1. PROVIDE NEW CONDUIT AND WIRING FOR ALL NEW INSTALLATIONS, UNLESS ADDRESSED IN KEY NOTES.
2. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATIONS AND REQUIREMENTS FOR NEW OR REVISED MECHANICAL EQUIPMENT PRIOR TO INSTALLATION. MECHANICAL DEVICES TO BE FED FROM DEDICATED CIRCUITS. CONFIRM POWER REQUIREMENTS AND PROVIDE APPROPRIATE BREAKER AND WIRING.
3. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT DEVICE LOCATIONS AND MOUNTING HEIGHTS.
4. ALL DATA OUTLETS TO CONNECT TO EXISTING WALL MOUNTED DATA RACK. CONTRACTOR TO CONFIRM IF A NEW PATCH PANEL IS REQUIRED.
5. ALL ELECTRICAL EQUIPMENT AND INSTALLATIONS TO COMPLY WITH CEC, LOCAL BUILDING CODES AND DRUMHELLER INSTITUTE REQUIREMENTS.
6. CONTRACTOR TO EVALUATE THE CONDITION OF ALL SALVAGED EQUIPMENT, DEVICES, CONDUIT AND WIRING PRIOR TO REINSTALLATION. ALL EQUIPMENT THAT DOES NOT MEET CEC OR DRUMHELLER INSTITUTION REQUIREMENTS IS TO BE REPLACED WITH NEW EQUIVALENT. REVIEW PRIOR TO SUBMITTING TENDER.

Revision	Description	Date
C	ISSUED FOR TENDER	2020/06/17
B	ISSUED FOR 90% REVIEW	2020/05/08
A	ISSUED FOR 50% REVIEW	2020/03/06

Client: Department of Public Works & Governments Services Canada

Project title: Highway 9, Drumheller Alberta, T0J 0Y0 CSC Drumheller 50 Bed Unit Floor Slab Repair

Designed by: [Blank] / Conçu par: [Blank]
 Drawn by: [Blank] / Dessiné par: [Blank]
 Approved by: [Blank] / Approuvé par: [Blank]

PWSC Project Manager: [Blank] / Administrateur de Projets TPSGC

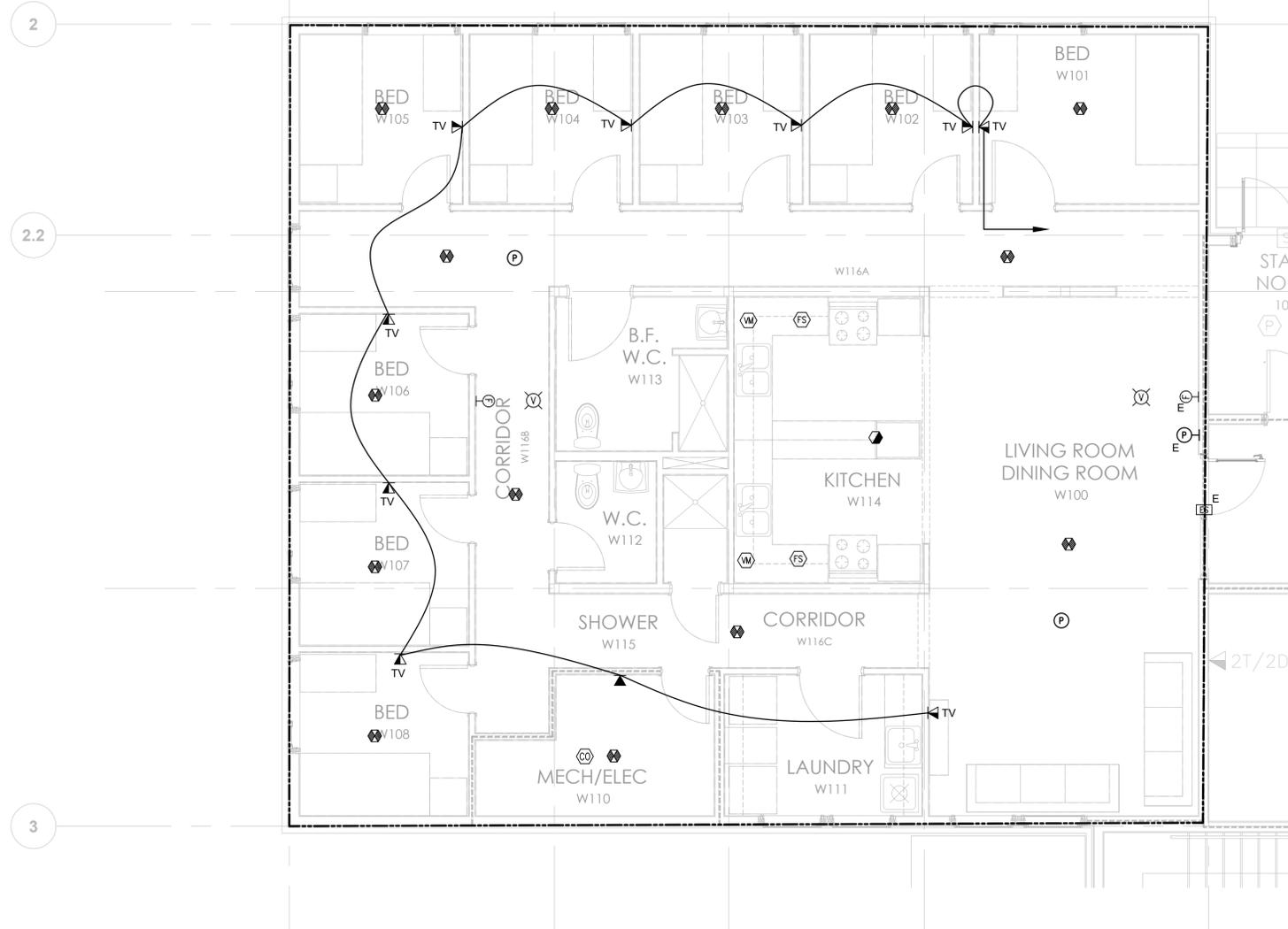
Drawing title: POWER AND SYSTEMS PLAN

Project no./No. du projet: E-102 OF / Drawing no./No. du dessin: C / Revision no.: [Blank]

1 POWER AND SYSTEMS FLOOR PLAN
1:50



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AECOM CANADA LTD.
Signature: *Xuemin Guo*
Date: June 17, 2020
PERMIT NUMBER: P 10450
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Revision	Description	Date
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Client: Department of Public Works & Governments Services Canada
Project title: Highway 9, Drumheller Alberta, T0J 0Y0
CSO Drumheller 50 Bed Unit
Floor Slab Repair

Designed by: _____ Conçu par: _____
Drawn by: _____ Dessiné par: _____
Approved by: _____ Approuvé par: _____

PWGSC Project Manager: _____ Administrateur de Projets TPSGC

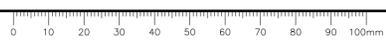
Drawing title: **LOW VOLTAGE PLAN**
Titre du dessin: **LOW VOLTAGE PLAN**

Project no./No. du projet: 60608478
Drawing no./No. du dessin: E-104
Revision no.: C

1 LOW VOLTAGE FLOOR PLAN
1:50

NOTES:

- ALL FIRE ALARM DEVICES ARE EXISTING TO REMAIN. ALL DATA/COMMUNICATION DEVICES AND EQUIPMENT INDICATED SHALL BE NEW UNLESS NOTED OTHERWISE.
- REFER TO ARCHITECTURAL DRAWINGS FOR DEVICE EXACT LOCATIONS AND MOUNTING HEIGHTS.
- REUSE EXISTING CABLE COILED IN THE CEILING SPACE.
- CONTRACTOR TO PROVIDE CODE COMPLIANT, FULLY FUNCTIONAL FIRE ALARM SYSTEM INTEGRATE WITH THE EXISTING SYSTEM.
- ALL ELECTRICAL EQUIPMENT AND INSTALLATIONS TO COMPLY WITH CEC, LOCAL BUILDING CODES AND DRUMHELLER INSTITUTE REQUIREMENTS.
- CONTRACTOR TO EVALUATE THE CONDITION OF ALL SALVAGED EQUIPMENT, DEVICES, CONDUIT AND WIRING PRIOR TO REINSTALLATION. ALL EQUIPMENT THAT DOES NOT MEET CEC OR DRUMHELLER INSTITUTION REQUIREMENTS IS TO BE REPLACED WITH NEW EQUIVALENT. REVIEW PRIOR TO SUBMITTING TENDER.



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PANEL A								
Load (kW)	Description	Brkr	CCT No.	Ph	CCT No.	Brkr	Description	Load (kW)
0.8	Refrigerator W114	15	1	A	2	15	Lights W112, 113, 114, 115	0.8
0.8	Refrigerator W114	15	3	B	4	15	Lights W110, W111	0.8
0.8	Kitchen Counter W114	20	5	C	6	15	Lights W100, W116	0.8
0.8	Kitchen Counter W114	20	7	A	8	20	House Keeping Receptacles	0.8
0.8	Kitchen Counter W114	20	9	B	10	15	Receptacles W111	0.8
0.8	Penninsula W114	20	11	C	12	15	Receptacles W112, W113	0.8
0.8	Microw ave W114	20	13	A	14	15	Receptacles W110	0.8
0.8	Microw ave W114	20	15	B	16	15	Washer W111	0.8
0.8	Heat Recovery Unit W110	15	17	C	18	30	Dryer W111	0.8
0.8	Shunt Trip	-	19	A	20	2P		0.8
0.8	Cook Top W114	40	21	B	22	15	Range Hood W114	0.8
0.8		2P	23	C	24	15	Boiler W110	0.8
0.8	Wall Oven W114	/	25	A	26	15	Demestic Water Pump W110	0.8
0.8		3P	27	B	28	15	Demestic Water Recirc W110	0.8
0.8	Duct Heater W110	30	29	C	30	40	Stove W114	0.8
0.8		/	31	A	32	2P		0.8
0.8		3P	33	B	34	-	Shunt Trip	0.8
0.8	Shunt Trip Pow er	15	35	C	36	15	Spare	0.0
0.4	Battery Pack "BAT-1"	15	37	A	38	-	Space	0.0
0.0	Space	-	39	B	40	-	Space	0.0
0.0	Space	-	41	C	42	-	Space	0.0
0.0	Space	-	43	A	44	-	Space	0.0
0.0	Space	-	45	B	46	-	Space	0.0
0.0	Space	-	47	C	48	-	Space	0.0
0.0	Space	-	49	A	50	-	Space	0.0
0.0	Space	-	51	B	52	-	Space	0.0
0.0	Space	-	53	C	54	-	Space	0.0
0.0	Space	-	55	A	56	-	Space	0.0
0.0	Lights/Receptacles W108	15	57	B	58	-	Space	0.0
0.0	Lights/Receptacles W107	15	59	C	60	-	Space	0.0
0.0	Lights/Receptacles W106	15	61	A	62	-	Space	0.0
0.0	Lights/Receptacles W105	15	63	B	64	-	Space	0.0
0.0	Lights/Receptacles W104	15	65	C	66	-	Space	0.0
0.0	Lights/Receptacles W103	15	67	A	68	-	Space	0.0
0.0	Lights/Receptacles W102	15	69	B	70	-	Space	0.0
0.0	Lights/Receptacles W101	15	71	C	72	-	Space	0.0

Mains: 225A	Mounting: Flush		
Volts: 208/120	Location: Mech. W110	10.0	kW (A)
Ph: 3	Fed from:	9.6	kW (B)
Wire: 4	Feeder:	8.8	kW (C)
10 KAIC	Estimated connected load	28.4	kW

- Notes:
- THIS IS EXISTING PANEL "A".
 - REUSE EXISTING BREAKERS WHERE POSSIBLE.
 - SUPPLY AND INSTALL NEW BREAKERS AS REQUIRED.



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AECOM CANADA LTD.
Signature: *Simon*
Date: June 17, 2020
PERMIT NUMBER: P 10450
The Association of Professional Engineers and Geoscientists of Alberta

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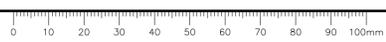
Client: Department of Public Works & Governments Services Canada
ATB Place North, 5th Floor
10025 Jasper Ave, Edmonton, AB T5J 1S6

Project title: Highway 9, Drumheller Alberta, T0J 0Y0
CSC Drumheller 50 Bed Unit
Floor Slab Repair

Designed by: _____ Conçu par
Drawn by: _____ Dessiné par
Approved by: _____ Approuvé par
PWGSC Project Manager: _____ Administrateur de Projets TPSGC

Drawing title: PANEL SCHEDULE AND DETAILS
Titre du dessin

Project no./No. du projet: 60608478
Drawing no./No. du dessin: E-401
Revision no.: C



CODES & STANDARDS COMPLIANCE:

1. NATIONAL BUILDING CODE 2019 ALBERTA EDITION.
2. NATIONAL PLUMBING CODE OF CANADA 2015.
3. NATURAL GAS AND PROPANE INSTALLATION CODE CSA B149.1-2015.
4. NATIONAL FIRE CODE 2019 ALBERTA EDITION.
5. NFPA 13 STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS.
6. NFPA 10 STANDARD FOR PORTABLE FIRE EXTINGUISHERS.
7. ASHRAE 62.1-2019 VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY.
8. SMACNA HVAC DUCT CONSTRUCTION STANDARDS.

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MECHANICAL LEGEND & SYMBOLS

PLUMBING

DIRECTION OF FLOW	
SANITARY	
STORM	
VENT	
DOMESTIC COLD WATER	
DOMESTIC HOT WATER	
DOMESTIC HOT WATER RECIRC	
FILTERED WATER	
SOFT WATER	
NATURAL GAS	
NATURAL GAS VENT	
FRESH AIR	
NON-FREEZE HOSE BIBB	
FREEZE PROOF WALL HYDRANT	
P-TRAP	
FLOOR DRAIN	
FUNNEL FLOOR DRAIN	
HUB DRAIN	
ROOF DRAIN	
FLOOR CLEANOUT	
CLEAN OUT	
GAS METER	
GAS REGULATOR	
WATER METER	
FIRE EXTINGUISHER	

PIPE FITTINGS

PUMP	
FLOW METER	
PIPE RISE	
PIPE DROP	
PIPE TOP TAKE-OFF	
PIPE BOTTOM TAKE-OFF	
SIMPLE CONNECTION	
PIPE CAP	
PIPE CONTINUATION	
GATE VALVE	
ISOLATION VALVE	
ISOLATION VALVE NORMALLY CLOSED	
BALANCING VALVE	
CHECK VALVE	
CONTROL VALVE	
BALL VALVE	
REDUCED PRESSURE BACK FLOW PREVENTER	
BACKWATER VALVE	
PLUG VALVE	
FLEXIBLE CONNECTION	
PRESSURE RELIEF VALVE	
PRESSURE REGULATING VALVE	
MANUAL AIR VENT	
PRESSURE GAUGE	
THERMOMETER	
UNION	
STRAINER	
WATER PRESSURE GAUGE	
AIR SEPERATOR	

VENTILATION

SUPPLY AIR DIFFUSER	
RETURN AIR GRILLE	
EXHAUST AIR GRILLE	
SUPPLY GRILLE	
EXHAUST FAN	
RETURN GRILLE	
TRANSFER GRILLE	
FIRE DAMPER VERTICAL	
FIRE DAMPER HORIZONTAL	
OPEN END DUCT	
MOTORIZED DAMPER	
COAXIAL VENT	

ELECTRICAL

SWITCH	
--------	--

AIR DISTRIBUTION

SUPPLY AIR (S/A)	DUCT DOWN		DUCT UP
RETURN AIR (R/A)	DUCT DOWN		DUCT UP
EXHAUST AIR (E/A)	DUCT DOWN		DUCT UP
BALANCING DAMPER			
TURNING VANES			
ACOUSTIC LINED DUCTWORK			
FLEXIBLE CONNECTION			
RADIANT PANEL			
THERMOSTAT			
HUMIDITY SENSOR			
DIFFERENTIAL PRESSURE SENSOR			
CARBON MONOXIDE SENSOR			
NITROGEN DIOXIDE SENSOR			
GAS SENSOR			

FIRE

FIRE WATER LINE	
FIRE SPRINKLER LINE	
DRY FIRE SPRINKLER LINE	
SUPERVISED ISOLATION VALVE	
FLOW SWITCH (FIRE ALARM)	
CHECK VALVE W/ AUTOMATIC DRIP	
FIRE DEPARTMENT SIAMESE CONNECTION	
FIRE EXTINGUISHER	
INSPECTORS SITE GLASS	
PENDANT SPRINKLER HEAD	
PENDANT SPRINKLER HEAD (DRY)	
UPRIGHT SPINKLER HEAD	
UPRIGHT SPINKLER HEAD (DRY)	
DRY SPRINKLER VALVE	
FIRE EXTINGUISHER CABINET	

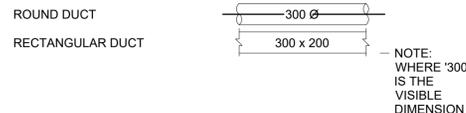
MATERIALS & EQUIPMENT TAG



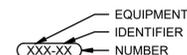
AIR OUTLET TAG

SUPPLY	S		TYPE
RETURN	R		SIZE
EXHAUST	E		FLOW (L/s)
TRANSFER	T		
LOUVER	L		

DUCT DIMENSIONING



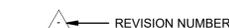
MECHANICAL TAG



PLUMBING TAG



REVISION TAG



KEYNOTE TAG



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AECOM CANADA LTD.
Signature: *John Dawson*
Date: 2020-06-17
PERMIT NUMBER: P10450
The Association of Professional Engineers and Geoscientists of Alberta



Revision	Description	Date
C	ISSUED FOR TENDER	2020/06/17
B	ISSUED FOR 90% REVIEW	2020/05/08
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Client: Department of Public Works & Governments Services Canada

ATB Place North, 5th Floor
10025 Jasper Ave, Edmonton, AB T5J 1S6

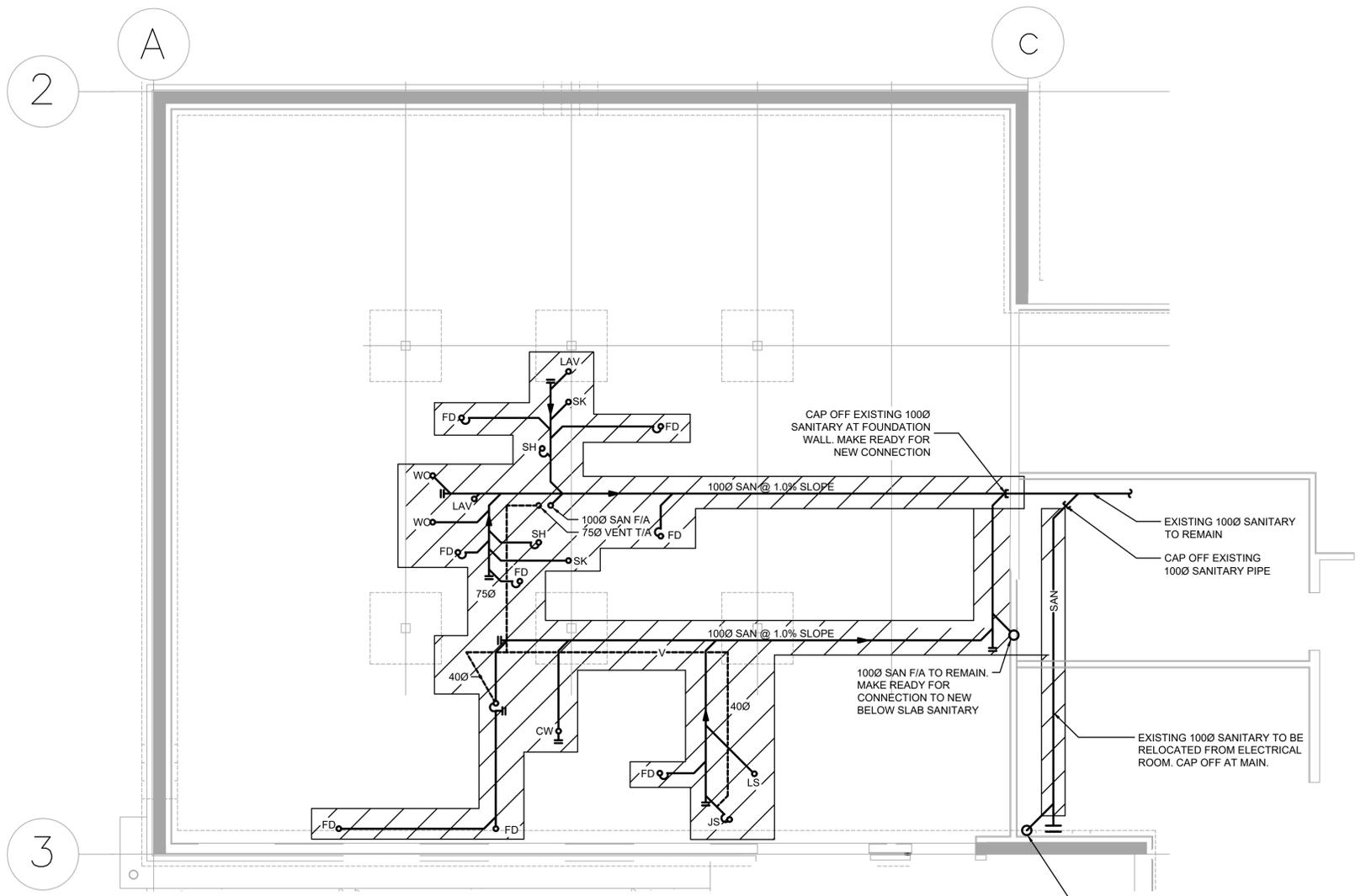
Project title: Highway 9, Drumheller Alberta, T0J 0Y0
CSC Drumheller 50 Bed Unit
Floor Slab Repair MECHANICAL

Designed by MT	Conçu par
Drawn by JD	Dessiné par
Approved by JZ	Approuvé par
PWSCC Project Manager	Administrateur de Projets TPSOC

Drawing title: **WEST RESIDENCE POD MECHANICAL LEGEND & SYMBOLS**

Project no./No. du projet 60608478	Drawing no./No. du dessin M-001	Revision no. C
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NOT FOR CONSTRUCTION



1 | WEST RESIDENCE POD - BELOW SLAB PLUMBING PLAN - DEMOLITION

1:50

NOTES:

1. REMOVE AND DISPOSE OF ALL EXISTING UNDERSLAB PIPING INCLUDING ALL SANITARY WASTE LINES AND VENTS

PERMIT TO PRACTICE
AECOM CANADA LTD.

Signature: *John Stevan*
Date: 2020-06-17
PERMIT NUMBER: P10450
The Association of Professional Engineers and Geoscientists of Alberta



2020-06-17

Revision	Description	Date
C	ISSUED FOR TENDER	2020/06/17
B	ISSUED FOR 99% REVIEW	2020/05/08
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Client: Department of Public Works & Governments Services Canada

ATB Place North, 5th Floor
10025 Jasper Ave, Edmonton, AB T5J 1S6

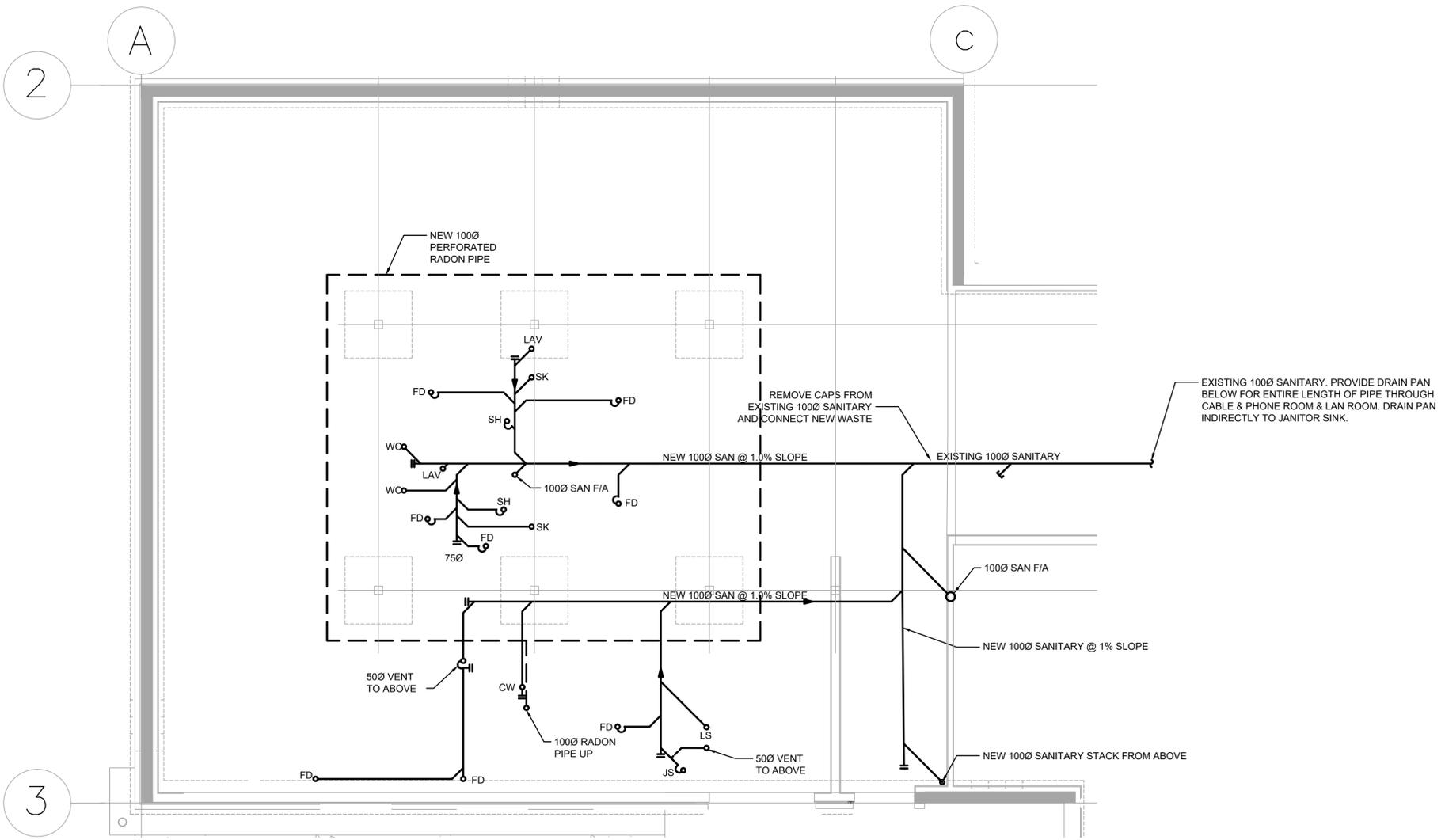
Project title: Highway 9, Drumheller Alberta, T0J 0Y0
CSC Drumheller 50 Bed Unit
Floor Slab Repair MECHANICAL

Designed by MT	Conçu par
Drawn by JD	Dessiné par
Approved by JZ	Approuvé par
PWGSC Project Manager	Administrateur de Projets TPSGC

Drawing title: **WEST RESIDENCE POD
BELOW SLAB PLUMBING PLAN
DEMOLITION**

Project no./No. du projet 60608478	Drawing no./No. du dessin M-101	Revision no. C
--	---	--------------------------

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1 | WEST RESIDENCE POD - BELOW SLAB PLUMBING PLAN - NEW CONSTRUCTION

1:50

NOTES:

1. PROVIDE ALL NEW SANITARY PIPING AND VENTS BELOW SLAB, DO NOT REUSE EXISTING PIPE SALVAGED FROM DEMOLITION.

FIXTURE CONNECTION SCHEDULE					
TAG	FIXTURE	COLD WATER	HOT WATER	WASTE	VENT
DF-W	DRINKING FOUNTAIN	150	-	300	300
LAV-W	LAVATORY	150	150	400	400
SH-W	SHOWER	150	150	500	400
SK-W	SINK	150	150	400	400
JS-W	JANITOR SINK	150	150	750	400
LS-W	LAUNDRY SINK	150	150	400	400
LM-W	LAUNDRY MATE	150	150	500	400
BT-W	BATH TUB	150	150	500	400
WC-W	FLUSH TANK WATER CLOSET	150	-	1000	400
WC-W	FLUSH VALVE WATER CLOSET	200	-	1000	400
UR-W	URINAL	200	-	500	400
FD-W	FLOOR DRAIN	-	-	1000	500

PERMIT TO PRACTICE
AECOM CANADA LTD.
Signature: *John Dawson*
Date: 2020-06-17
PERMIT NUMBER: P10450
The Association of Professional Engineers and Geoscientists of Alberta



Revision	Description	Date
C	ISSUED FOR TENDER	2020/06/17
B	ISSUED FOR 90% REVIEW	2020/05/08
A	ISSUED FOR 50% REVIEW	2020/03/05

Client: Department of Public Works & Governments Services Canada

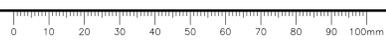
ATB Place North, 5th Floor
10025 Jasper Ave, Edmonton, AB T5J 1S6

Project title: Highway 9, Drumheller Alberta, T0J 0Y0
CSC Drumheller 50 Bed Unit
Floor Slab Repair MECHANICAL

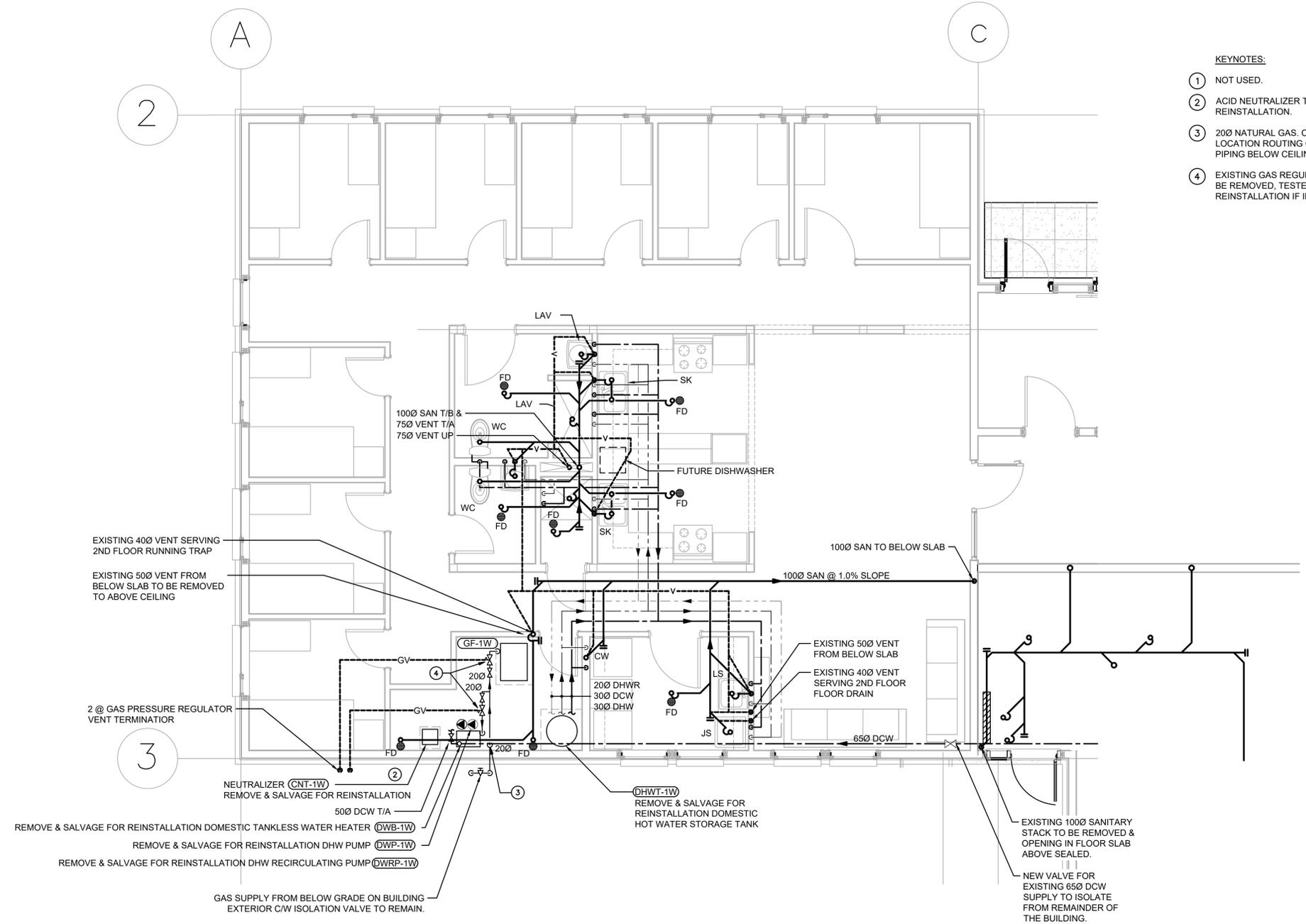
Designed by: MT
Drawn by: JD
Approved by: JZ
PWSC Project Manager: Administrateur de Projets TPSOC

Drawing title: **WEST RESIDENCE POD BELOW SLAB PLUMBING PLAN NEW CONSTRUCTION**

Project no./No. du projet: 60608478
Drawing no./No. du dessin: M-102
Revision no.: C



PRELIMINARY
NOT FOR CONSTRUCTION



KEYNOTES:

- ① NOT USED.
- ② ACID NEUTRALIZER TO BE REMOVED & SALVAGED FOR REINSTALLATION.
- ③ 200 NATURAL GAS. CONTRACTOR SHALL CONFIRM LOCATION ROUTING OF PIPE. CAP OFF & REMOVE ALL PIPING BELOW CEILING.
- ④ EXISTING GAS REGULATORS & ISOLATION VALVES TO BE REMOVED, TESTED & SALVAGED FOR REINSTALLATION IF IN GOOD CONDITION.

EXISTING 400 VENT SERVING 2ND FLOOR RUNNING TRAP
EXISTING 500 VENT FROM BELOW SLAB TO BE REMOVED TO ABOVE CEILING

2 @ GAS PRESSURE REGULATOR VENT TERMINATOR

NEUTRALIZER (CNT-1W)
REMOVE & SALVAGE FOR REINSTALLATION
500 DCW T/A
REMOVE & SALVAGE FOR REINSTALLATION DOMESTIC TANKLESS WATER HEATER (DWB-1W)
REMOVE & SALVAGE FOR REINSTALLATION DHW PUMP (DWP-1W)
REMOVE & SALVAGE FOR REINSTALLATION DHW RECIRCULATING PUMP (DWRP-1W)

GAS SUPPLY FROM BELOW GRADE ON BUILDING EXTERIOR CW ISOLATION VALVE TO REMAIN.

DHW-1W
REMOVE & SALVAGE FOR REINSTALLATION DOMESTIC HOT WATER STORAGE TANK

EXISTING 1000 SANITARY STACK TO BE REMOVED & OPENING IN FLOOR SLAB ABOVE SEALED.
NEW VALVE FOR EXISTING 650 DCW SUPPLY TO ISOLATE FROM REMAINDER OF THE BUILDING.

1 | WEST RESIDENCE POD - MAIN FLOOR PLUMBING PLAN - DEMOLITION

1:50

NOTES:

1. REMOVE AND SALVAGE ALL PLUMBING FIXTURES, EQUIPMENT AND APPLIANCES (SHADED ON DRAWINGS FOR EASE OF LOCATING). CONTRACTOR SHALL IDENTIFY ANY DAMAGED FIXTURES PRIOR TO DEMOLITION. ALL FIXTURES DAMAGED DURING DEMOLITION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
2. ISOLATE ALL PLUMBING SYSTEMS FROM THE REMAINDER OF THE BUILDING AS AREAS OUTSIDE OF SCOPE ARE TO REMAIN OCCUPIED. PROVIDE NEW ISOLATION VALVES IF REQUIRED.
3. ALL EXISTING PIPING ABOVE CEILING TO REMAIN. REMOVED ALL PIPING BELOW THE CEILING AS FOLLOWS.
 - 3.a. DISCONNECT ALL PLUMBING MAIN FLOOR FIXTURE WATER SUPPLIES, REMOVE DROPS FROM FIXTURES UP TO ABOVE CEILING AND MAKE READY FOR NEW CONNECTIONS.
 - 3.b. DISCONNECT SANITARY WASTE PIPING FROM ALL MAIN FLOOR PLUMBING FIXTURES. REMOVED PIPING TO BELOW SLAB.
 - 3.c. DISCONNECT SANITARY VENT PIPING SERVING MAIN FLOOR PLUMBING AND FLOOR DRAIN TRAPS UP TO ABOVE CEILING AND MAKE READY FOR NEW CONNECTIONS.
 - 3.d. DISCONNECT SANITARY WASTE STACKS SERVING ALL THE SECOND FLOOR PLUMBING FIXTURES FROM JUST ABOVE THE CEILING DOWN TO BELOW SLAB. MAKE READY FOR NEW CONNECTIONS.

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AECOM CANADA LTD.
Signature: *John Dawson*
Date: 2020-06-17
PERMIT NUMBER: P10450
The Association of Professional Engineers and Geoscientists of Alberta



Revision	Description	Date
C	ISSUED FOR TENDER	2020/06/17
B	ISSUED FOR 99% REVIEW	2020/05/08
A	ISSUED FOR 50% REVIEW	2020/03/05

Client: Department of Public Works & Governments Services Canada

ATB Place North, 5th Floor
10025 Jasper Ave, Edmonton, AB T5J 1S6

Project title: Highway 9, Drumheller Alberta, T0J 0Y0
CSC Drumheller 50 Bed Unit
Floor Slab Repair MECHANICAL

Designed by MT	Conçu par
Drawn by JD	Dessiné par
Approved by JZ	Approuvé par
PWSSC Project Manager	Administrateur de Projets TPSSC

Drawing title: **WEST RESIDENCE POD MAIN FLOOR PLUMBING PLAN DEMOLITION**

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
60608478	M-103	C

PRELIMINARY
NOT FOR CONSTRUCTION

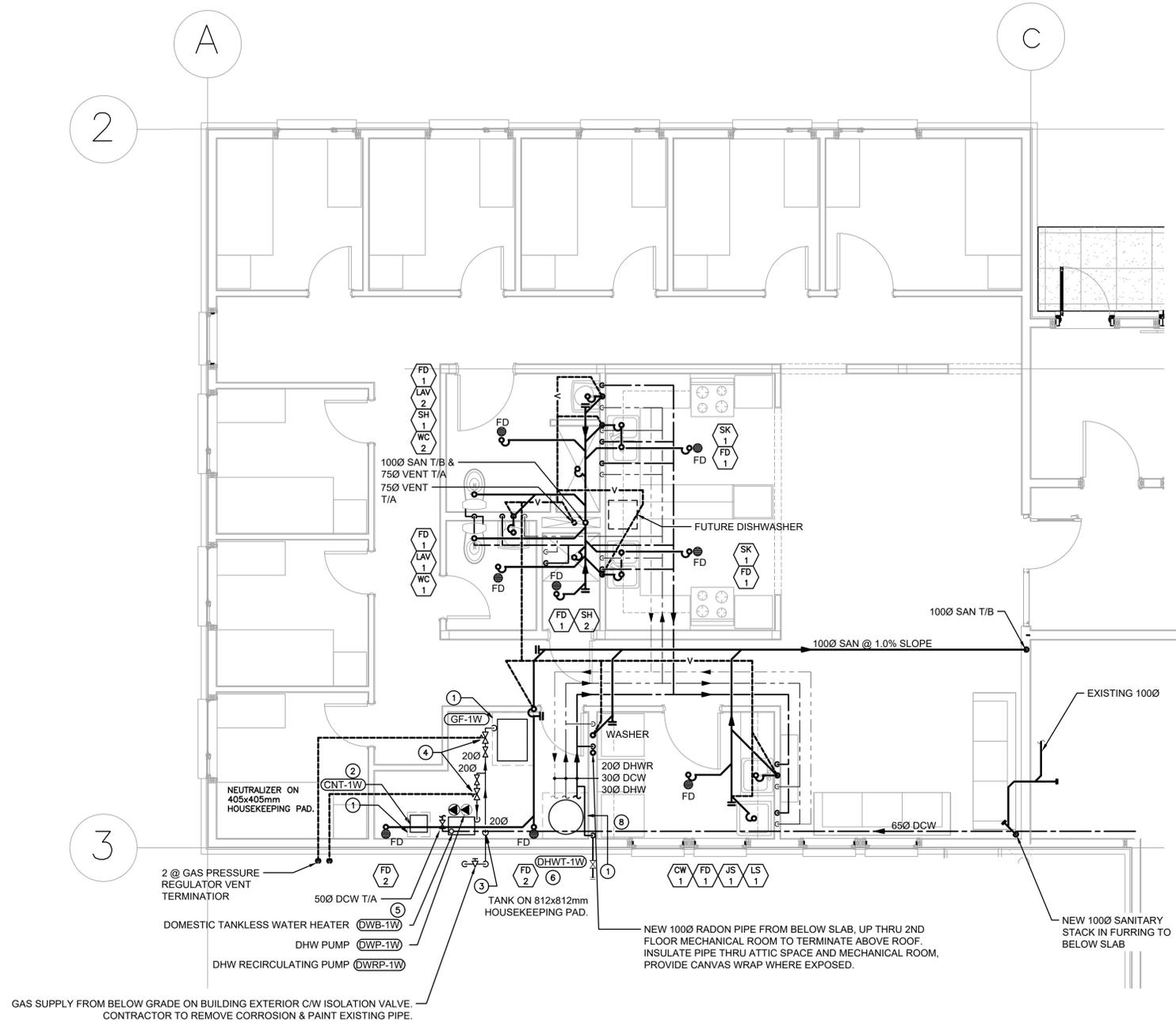


NOTES:

1. PIPING IN CEILING SPACE IS TO REMAIN & IS SHOWN FOR INFORMATION ONLY. ACTUAL SIZE, LOCATION & ROUTING MAY DIFFER & IS TO BE CONFIRMED ON SITE BY THE CONTRACTOR AS NEEDED.
2. ALL EQUIPMENT, APPLIANCES & FIXTURES, ARE TO BE REINSTALLED IN THEIR ORIGINAL LOCATIONS, AS SHOWN, COMPLETE WITH ALL PIPING CONNECTIONS & TIE-INS BELOW SLAB & ABOVE CEILING.

KEYNOTES:

- 1 100mm HOUSEKEEPING PLATFORM. SEE ARCH DWGS FOR DETAIL.
- 2 ACID NEUTRALIZER (CONDENSATE NEUTRALIZATION TANK), 20 LITER C/W INITIAL CHARGE. PIPE CONDENSATE DRAIN FROM WATER HEATER. SEE PLAN FOR LOCATION.
- 3 20Ø GAS FROM BELOW. 84kW @ 34.5kPa TO EACH POD 168kW @ 34.5kPa TOTAL.
- 4 TWO (2) GAS PRESSURE REGULATORS. CONNECTION LOAD IS 25.8 kW (88 MBH) (GF-1(")) & 58.3 kW (199 MBH) (DWB-1 (")), 34.5 kPa to 1.75 kPa OUTLET PRESSURE. PIPE RELIEF TO ATMOSPHERE C/W REVERSE ELBOW AND BUGSCREEN. GATHER VENTS FROM ALL REGULATORS AND EXIT INDIVIDUALLY THROUGH ROOF OR WALL AT THE SAME LOCATION.
- 5 CONDENSING, TANKLESS, TEMPERATURE CONTROLLED, CONTINUOUS FLOW, GAS HOT WATER HEATER. FOR PIPING ARRANGEMENT WITH BACKUP STORAGE REFER TO SCHEMATIC.
- 6 HOT WATER STORAGE TANK, 1034 kPa (150 PSI) WORKING PRESSURE, 50mm FOAM INSULATION, 600mm DIA 1600mm HEIGHT, REINFORCE WALL AT THE BACK AND PROVIDE ADEQUATE BACKING FOR STRIP AROUND STORAGE TANK.
- 7 50 DCW T/A.
- 8 15Ø DCW DOWN TO CONNECT TO EXISTING EXTERIOR, NON-FREEZE HOSE BIBB.



GAS SUPPLY FROM BELOW GRADE ON BUILDING EXTERIOR C/W ISOLATION VALVE. CONTRACTOR TO REMOVE CORROSION & PAINT EXISTING PIPE.

1 | WEST RESIDENCE POD - MAIN FLOOR PLUMBING PLAN - NEW CONSTRUCTION

1:50

FIXTURE CONNECTION SCHEDULE					
TAG	FIXTURE	COLD WATER	HOT WATER	WASTE	VENT
DF-W	DRINKING FOUNTAIN	15Ø	-	30Ø	30Ø
LAV-W	LAVATORY	15Ø	15Ø	40Ø	40Ø
SH-W	SHOWER	15Ø	15Ø	50Ø	40Ø
SK-W	SINK	15Ø	15Ø	40Ø	40Ø
JS-W	JANITOR SINK	15Ø	15Ø	75Ø	40Ø
LS-W	LAUNDRY SINK	15Ø	15Ø	40Ø	40Ø
LM-W	LAUNDRY MATE	15Ø	15Ø	50Ø	40Ø
BT-W	BATH TUB	15Ø	15Ø	50Ø	40Ø
WC-W	FLUSH TANK WATER CLOSET	15Ø	-	100Ø	40Ø
WC-W	FLUSH VALVE WATER CLOSET	20Ø	-	100Ø	40Ø
UR-W	URINAL	20Ø	-	50Ø	40Ø
FD-W	FLOOR DRAIN	-	-	100Ø	50Ø

PERMIT TO PRACTICE
AECOM CANADA LTD.
Signature: *John Dawson*
Date: 2020-06-17
PERMIT NUMBER: P10450
The Association of Professional Engineers and Geoscientists of Alberta



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Client: Department of Public Works & Governments Services Canada

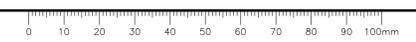
ATB Place North, 5th Floor
10025 Jasper Ave, Edmonton, AB T5J 1S6

Project title: Highway 9, Drumheller Alberta, T0J 0Y0
CSC Drumheller 50 Bed Unit
Floor Slab Repair MECHANICAL

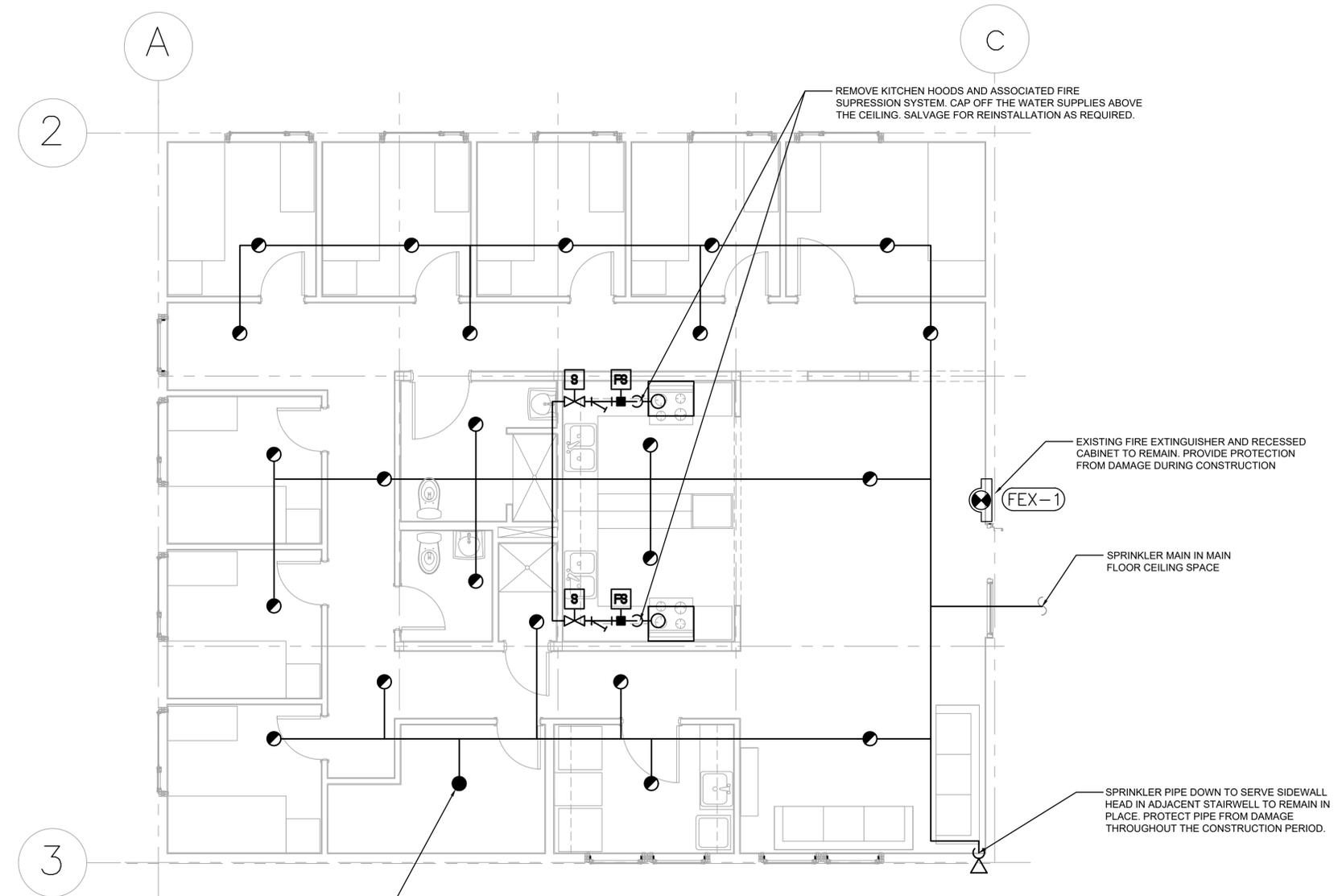
Designed by: MT
Drawn by: JD
Approved by: JZ

PWSSC Project Manager: Administrateur de Projets TPSGC
Drawing title: **WEST RESIDENCE POD MAIN FLOOR PLUMBING PLAN NEW CONSTRUCTION**

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
60608478	M-104	C



PRELIMINARY
NOT FOR CONSTRUCTION



REMOVE KITCHEN HOODS AND ASSOCIATED FIRE SUPPRESSION SYSTEM. CAP OFF THE WATER SUPPLIES ABOVE THE CEILING. SALVAGE FOR REINSTALLATION AS REQUIRED.

EXISTING FIRE EXTINGUISHER AND RECESSED CABINET TO REMAIN. PROVIDE PROTECTION FROM DAMAGE DURING CONSTRUCTION

FEX-1

SPRINKLER MAIN IN MAIN FLOOR CEILING SPACE

SPRINKLER PIPE DOWN TO SERVE SIDEWALL HEAD IN ADJACENT STAIRWELL TO REMAIN IN PLACE. PROTECT PIPE FROM DAMAGE THROUGHOUT THE CONSTRUCTION PERIOD.

THE CONTRACTOR TO CONFIRM ON SITE THAT THIS SPRINKLER HEAD IS ABOVE 2400mm. IF BELOW, REMOVE HEAD & ALL ASSOCIATED PIPING & MAKE READY FOR REINSTALLATION.

1 | WEST RESIDENCE POD - FIRE PROTECTION PLAN - DEMOLITION

1:50

NOTES:

- EXISTING FIRE SPRINKLER HEADS IN CEILING 2400mm & HIGHER, AND DISTRIBUTION PIPING IN CEILING SPACE SHALL REMAIN. WITH REMOVAL OF PARTITIONS THE CONTRACTOR TO TAKE PRECAUTIONS TO PREVENT DAMAGE TO THE EXISTING SYSTEM AND SHALL REPAIR DAMAGES AT OWN COST.
- SPRINKLER SYSTEM SHALL REMAIN ACTIVE THROUGHOUT THE REMAINDER OF THE BUILDING. ISOLATE AND DEACTIVATE OF EXISTING SYSTEM WITHIN THIS RESIDENCE POD ONLY. NOTE THAT THE MAIN FLOOR OF THE POD IS PART OF THE ZONE SERVING THE ENTIRE MAIN FLOOR.
- CONTRACTOR SHALL MAKE ALL NECESSARY PROVISIONS TO ENSURE THE SAFETY OF THE ENTIRE STRUCTURE & ALL OCCUPANTS THROUGHOUT THE CONSTRUCTION PERIOD ESPECIALLY WHILE SPRINKLER SYSTEMS ARE SHUTDOWN. CONFIRM MEASURES WITH AUTHORITY HAVING JURISDICTION.

PERMIT TO PRACTICE
AECOM CANADA LTD.
Signature: *John Dawson*
Date: 2020-06-17
PERMIT NUMBER: P10450
The Association of Professional Engineers and Geoscientists of Alberta



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A	ISSUED FOR 50% REVIEW	2020/03/05

Client: Department of Public Works & Governments Services Canada

ATB Place North, 5th Floor
10025 Jasper Ave, Edmonton, AB T5J 1S6

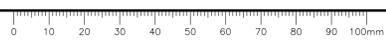
Project title: Highway 9, Drumheller Alberta, T0J 0Y0
CSC Drumheller 50 Bed Unit
Floor Slab Repair MECHANICAL

Designed by: MT
Drawn by: JD
Approved by: JZ
PWSCC Project Manager / Administrateur de Projets TPSGC

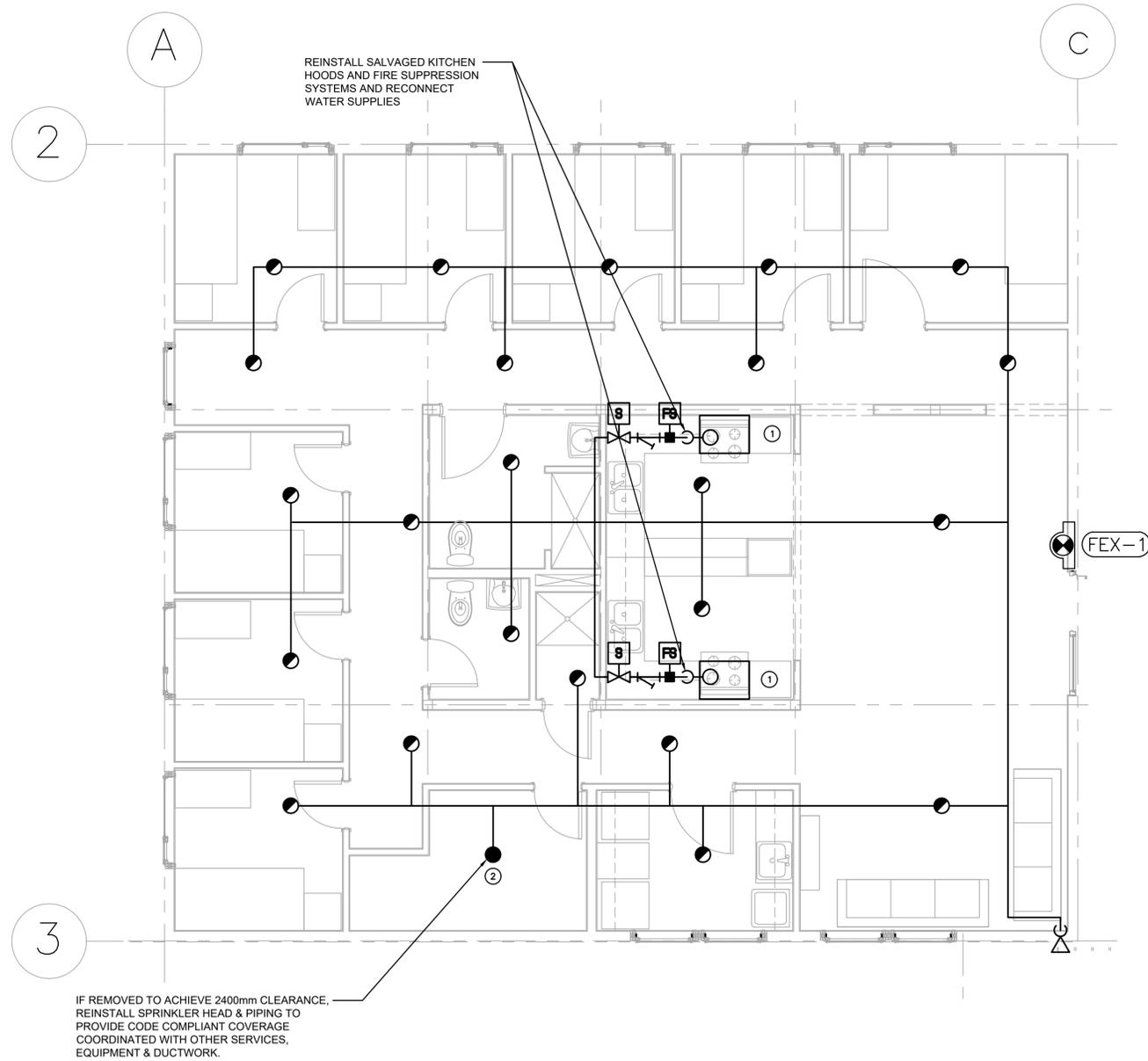
Drawing title: WEST RESIDENCE POD
FIRE PROTECTION PLAN
DEMOLITION

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
60608478	M-105	C

OF 12



PRELIMINARY
NOT FOR CONSTRUCTION



FIRE PROTECTION GENERAL NOTES:

1. IN GENERAL, PLANS AND DIAGRAM ARE SCHEMATIC ONLY AND SHOULD NOT BE SCALED.
2. INTENT OF THESE NOTES AND MECHANICAL NOTES ON DRAWINGS IS TO CLARIFY THE SCOPE OF WORK AND ALERT CONTRACTOR OF EXISTING CONDITIONS. CONTRACTOR TO VISIT SITE AND VERIFY ALL CLEARANCES TO MEET FIELD CONDITIONS AND COORDINATE WITH OTHER TRADES BEFORE PROCEEDING WITH ANY CONSTRUCTION WORK.
3. CONTRACTOR IS TO NOTIFY THE OWNER, ARCHITECT OR HIS AUTHORIZED REPRESENTATIVE OF ANY DAMAGE TO THE INSTALLATION BEFORE PROCEEDING WITH THE WORK.
4. ALTERATIONS TO THE EXISTING FIRE SPRINKLER SYSTEM IS TO BE DESIGNED BY A LICENSED SPRINKLER SYSTEM ENGINEER AND SHALL BE DESIGNED AND INSTALLED AS PER THE NATIONAL BUILDING CODE - ALBERTA EDITION 2019 AND NFPA 13 REQUIREMENTS.
5. SUPPLY AND INSTALL NEW SPRINKLER HEADS TO REPLACE ANY DAMAGED DURING CONSTRUCTION TO MATCH EXISTING AND TO MEET THE NFPA 13 REQUIREMENTS.
6. SUPPLY AND INSTALL NEW FIRE EXTINGUISHERS TO REPLACE ANY DAMAGED DURING CONSTRUCTION TO MATCH EXISTING AND TO MEET THE NFPA 10 REQUIREMENTS.
7. CONTRACTOR TO PERFORM PIPING PRESSURE TESTING AS PER NFPA 13 AND SUBMIT THE TESTING REPORT.
8. CONTRACTOR TO RECORD AS-BUILTS AND SUBMIT THE REDLINES FOR ENGINEER'S REVIEW.
9. ALL SPRINKLER HEAD INSTALLED IN 2400mm HIGH CEILING & HIGHER & PIPING IN CEILING SPACE REMAIN ARE SHOWN HERE FOR REFERENCE ONLY. ACTUAL INSTALLATION MAY VARY FROM LAYOUT SHOWN CONTRACTOR TO CONFIRM ON SITE.

KEYNOTES:

- ① PROTECTOSPRAY NOZZLE (7.5mm ORIFICE, 163 DEG. C TEMP. RATING, 160 DEG. ANGLE DISCHARGE) FOR PROTECTION OF RANGE HOOD. ACTIVATION OF SPRINKLER TO SHUT OFF POWER SUPPLY TO RANGE.
- ② PROVIDE APPROVED ELECTRICAL EQUIPMENT SHIELD (TYP.)

PERMIT TO PRACTICE
AECOM CANADA LTD.
Signature: *Thea Stevan*
Date: 2020-06-17
PERMIT NUMBER: P10450
The Association of Professional Engineers and Geoscientists of Alberta



Revision	Description	Date
C	ISSUED FOR TENDER	2020/06/17
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A	ISSUED FOR 50% REVIEW	2020/03/05

Client: Department of Public Works & Government Services Canada

Department of Public Works & Government Services Canada

ATB Place North, 5th Floor
10025 Jasper Ave, Edmonton, AB T5J 1S6

Project title: **Highway 9, Drumheller Alberta, T0J 0Y0**
CSC Drumheller 50 Bed Unit
Floor Slab Repair MECHANICAL

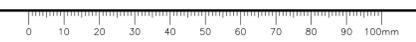
Designed by: **MT** / Conçu par
Drawn by: **JD** / Dessiné par
Approved by: **JZ** / Approuvé par
PWGSC Project Manager / Administrateur de Projets TPSCG

Drawing title: **WEST RESIDENCE POD**
FIRE PROTECTION PLAN
NEW CONSTRUCTION

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
60608478	M-106	C

1 | WEST RESIDENCE POD - FIRE PROTECTION PLAN - NEW CONSTRUCTION

1:50

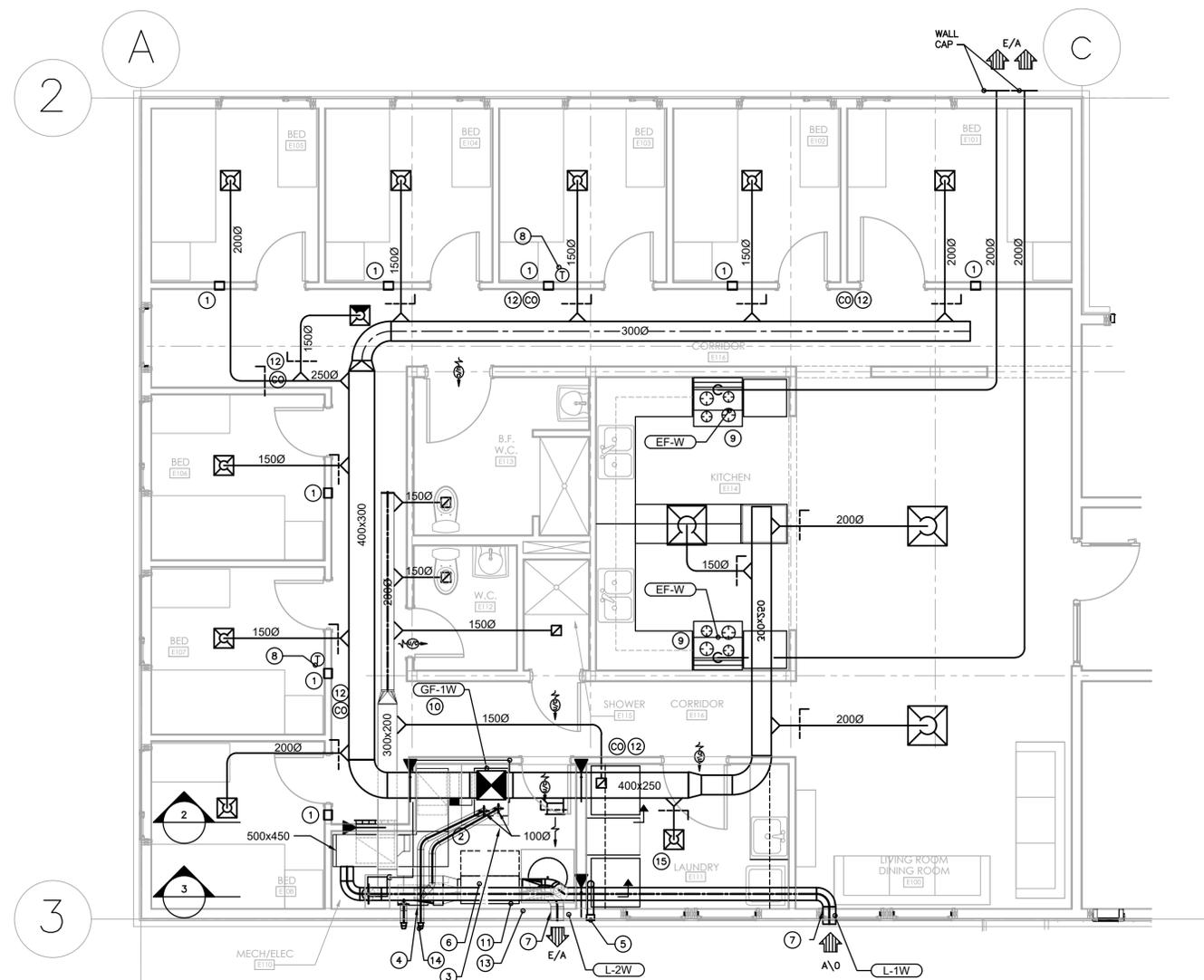


PRELIMINARY
NOT FOR CONSTRUCTION



KEYNOTES:

- ① TRANSFER GRILLES AT LOW LEVEL SERVING BEDROOMS SHALL BE SALVAGED & REINSTALLED AFTER PARTITION WALLS ARE REPLACED.
- ② EXISTING AIR FILTER HOUSING TO BE SALVAGED & REINSTALLED AFTER FLOOR IS REPLACED.
- ③ ACID NEUTRALIZER TO BE SALVAGED & REINSTALLED AFTER FLOOR IS REPLACED. REMOVE ALL ASSOCIATED PIPING.
- ④ SIDEWALL CONCENTRIC VENT TO REMAIN. DISCONNECT & REMOVE ALL ASSOCIATED VENT PIPING BELOW 2400mm. MAKE READY FOR NEW PIPE CONNECTION.
- ⑤ DRYER VENT WALL CAP & BACKDRAFT DAMPER TO REMAIN. DISCONNECT ALL ASSOCIATED DRYER VENT PIPING. REMOVE ALL DUCT BELOW 2400mm.
- ⑥ SALVAGE HRV (HEAT RECOVERY VENTILATOR) & REINSTALL AFTER FLOOR IS REPLACED. REMOVE ALL ASSOCIATED DUCTWORK BELOW 2400mm.
- ⑦ OUTSIDE AIR INTAKE LOUVRE & EXHAUST AIR LOUVRE TO REMAIN C/W ALL DUCTWORK ABOVE 2400mm.
- ⑧ TEMPERATURE SENSOR WITH BLANK COVER TO BE SALVAGED & REINSTALLED AFTER PARTITION IS REPLACED. CABLE TO BE COILED UP & SECURED TO CEILING WITHOUT BREAKING CONNECTION.
- ⑨ RANGE HOOD TO BE SALVAGED & REINSTALLED AFTER PARTITION WALL IS REPLACED. REMOVE DUCTWORK TO 2400mm ABOVE FLOOR.
- ⑩ FURNACE TO BE SALVAGED & REINSTALLED. REMOVE ALL ASSOCIATED DUCTWORK & CONDENSATE & GAS PIPING BELOW 2400mm.
- ⑪ DOMESTIC HOT WATER BOILER TO BE SALVAGED & REINSTALLED AFTER FLOOR IS REPLACED. REFER TO PLUMBING PLAN - DEMOLITION.
- ⑫ CARBON MONOXIDE SENSORS TO BE SALVAGED & REINSTALLED AFTER PARTITION WALLS ARE REPLACED. REFER TO PLUMBING PLAN - DEMOLITION.
- ⑬ PVC CONCENTRIC VENT KIT SERVING DOMESTIC HOT WATER BOILER SHALL BE REMOVED AS NECESSARY TO PROVIDE 2400mm CLEARANCE. SALVAGED & REINSTALLED. PORTION THROUGH EXTERIOR WALL SHALL REMAIN.
- ⑭ PVC CONCENTRIC VENT KIT SERVING FURNACE SHALL BE REMOVED AS NECESSARY TO PROVIDE 2400mm CLEARANCE. SALVAGED & REINSTALLED. PORTION THROUGH EXTERIOR WALL SHALL REMAIN.
- ⑮ LAUNDRY WASHER & DRYER TO BE SALVAGED & REINSTALLED AFTER PARTITION WALLS ARE REPLACED. REFER TO PLUMBING PLAN - DEMOLITION.



1 | WEST RESIDENCE POD - MAIN FLOOR - HVAC PLAN - DEMOLITION

1:50

EQUIPMENT TAGS (EXISTING, REMOVE & REINSTALL)

RESIDENCE POD	FLOOR	GAS FURNACE	HEAT RECOVERY UNIT	EXHAUST FAN	ELECTRIC DUCT HEATER	O/A INTAKE LOUVRE	EXH. AIR LOUVRE	DOMESTIC HOT WATER TANK	DOMESTIC HOT WATER BOILER
TYPICAL	TYPICAL	GF-(**)	HRV-(**)	EF-(**)	EDH-(**)	L-1.(**)	L-2.(**)	DHWT-(**)	DHWT-(**)
W	GROUND	GF-1W	HRV-1W	EF-1W	EDH-1W	L-1.1W	L-2.1W	DHWT-1W	DHWT-1W

PERMIT TO PRACTICE
AECOM CANADA LTD.

Signature: *The Person*
Date: 2020-06-17
PERMIT NUMBER: P10450
The Association of Professional Engineers and Geoscientists of Alberta



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C	ISSUED FOR TENDER	2020/06/17
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Department of Public Works & Governments Services Canada

ATB Place North, 5th Floor
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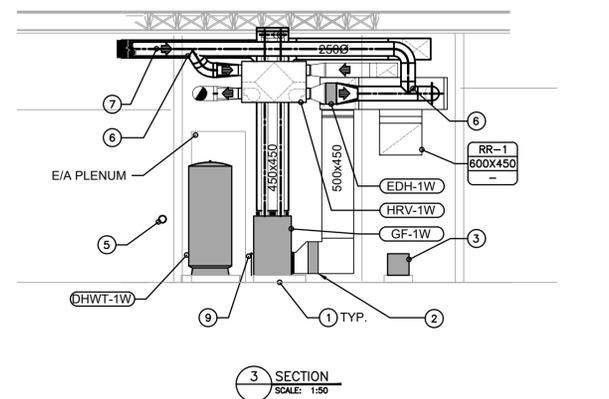
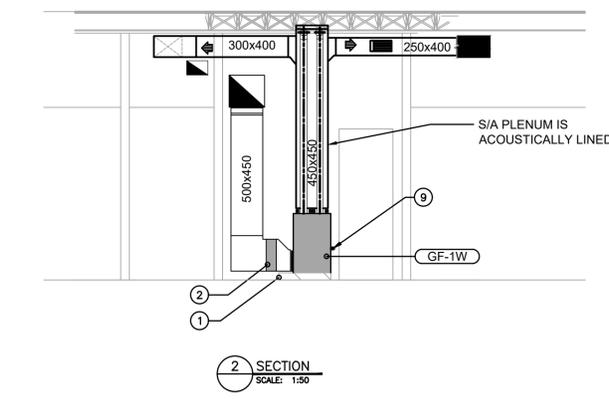
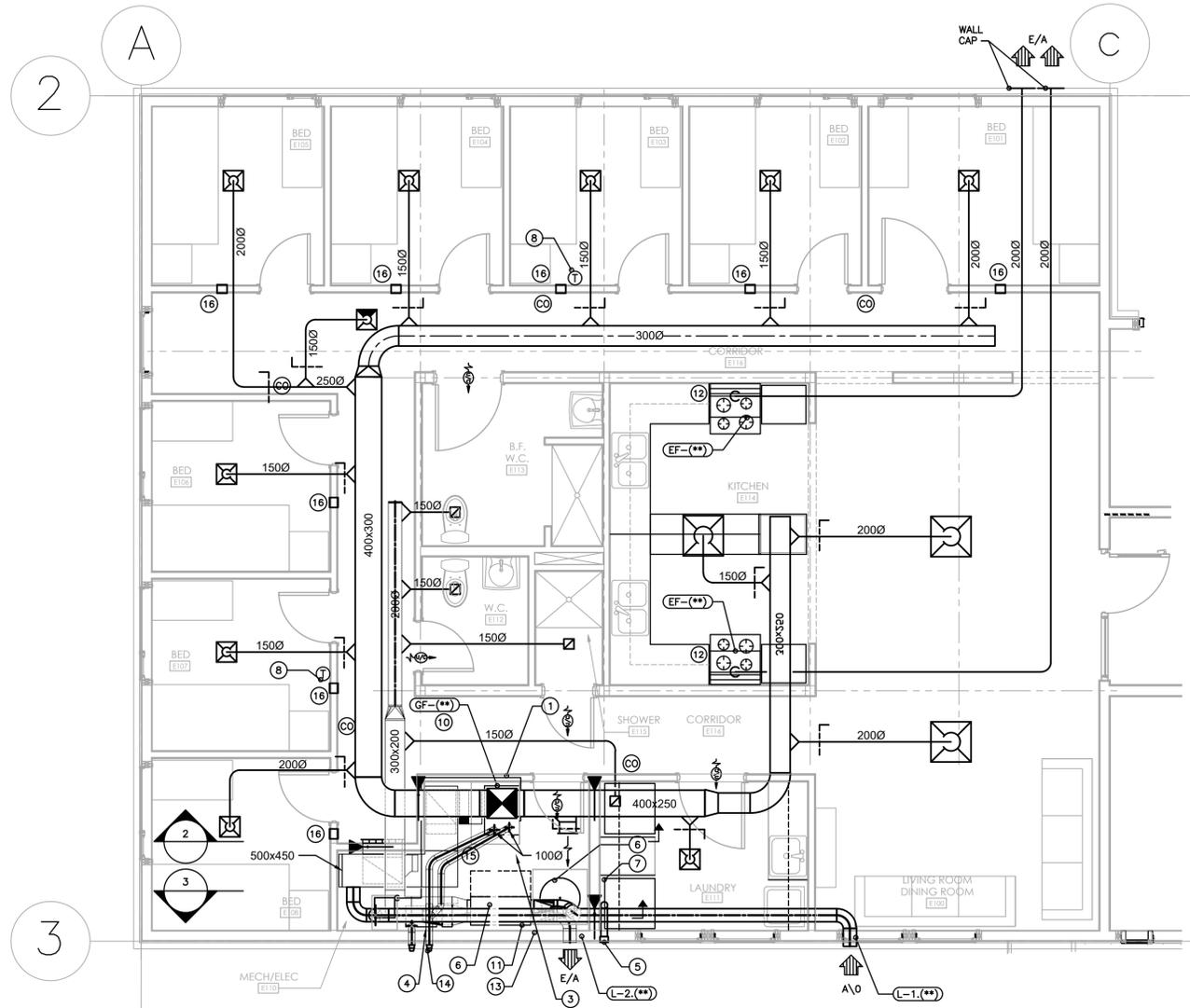
Project title: Highway 9, Drumheller Alberta, T0J 0Y0
CSC Drumheller 50 Bed Unit
Floor Slab Repair MECHANICAL

Designed by: MT
Drawn by: JD
Approved by: JZ
PWSC Project Manager: Administrateur de Projets TPSOC

Drawing title: **WEST RESIDENCE POD MAIN FLOOR HVAC PLAN DEMOLITION**

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
60608478	M-107 OF 12	C

PRELIMINARY
NOT FOR CONSTRUCTION



- KEYNOTES:**
- 100mm HOUSEKEEPING PLATFORM. SEE ARCH DWG FOR DETAIL.
 - REINSTALL AIR FILTER HOUSING MOUNTED IN R/A DUCT, C/W 600x600x50 MERV FILTER.
 - REINSTALL ACID NEUTRALIZER. PIPE TO FLOOR DRAIN.
 - SIDEWALL CONCENTRIC VENTING THIMBLE. VENT OUTLET RECONNECT VENT PIPES.
 - DRYER VENT WALL CAP C/W BACKDRAFT DAMPER. RECONNECT 100Ø VENT FROM DRYER. REFER TO DETAIL.
 - 250Ø O/A BYPASS DUCT THROUGH HRV. CONNECT INLET TO BOTTOM OF HORIZONTAL O/A INTAKE DUCT. CONNECT TO VERTICAL DROP OF O/A INTAKE DUCT. SEE SECTION AND SCHEMATIC FOR DETAILS.
 - 250Ø O/A INTAKE. SEE SCHEMATIC FOR DETAILS.
 - TEMPERATURE SENSOR C/W BLANK COVER PLATE. PROVIDE 2@ SENSORS FOR AVERAGING PER FURNACE.
 - 20Ø CONDENSATE DRAIN TO ACID NEUTRALIZATION TANK. ROUTE PIPE BEHIND FURNACE TO MINIMIZE TRIPPING HAZARD. SIZE AND SLOPE PIPE PER MANUFACTURER'S REQUIREMENTS.
 - INSTALL CONDENSATE TRAP AND PROVIDE 20 CONDENSATE DRAIN (PVC) TO ACID NEUTRALIZER. RUN DRAIN PIPE ALONG WALL AND AVOID TRIPPING HAZARD. INSTALL PER MANUFACTURER'S RECOMMENDATION.
 - DOMESTIC HOT WATER BOILER. REFER TO DRAWINGS P-301.
 - RANGE HOOD.
 - DHWT 200MBH PVC CONCENTRIC VENT KIT.
 - FURNACE CONCENTRIC VENT TO THE OUTSIDE. SIZE PER MANUFACTURER'S INSTRUCTIONS.
 - 1000mm CLEARANCE FOR HRV FILTER ACCESS.
 - INSTALL TRANSFER AIR DUCTS THROUGH BEDROOM WALL 300mm ABOVE FINISHED FLOOR & REINSTALL GRILLE SALVAGED DURING DEMOLITION.

1 | WEST RESIDENCE POD - MAIN FLOOR - HVAC PLAN - NEW CONSTRUCTION
1:50

EQUIPMENT TAGS (EXISTING, REMOVE & REINSTALL)

RESIDENCE POD	FLOOR	GAS FURNACE	HEAT RECOVERY UNIT	EXHAUST FAN	ELECTRIC DUCT HEATER	O/A INTAKE LOUVRE	EXH. AIR LOUVRE	DOMESTIC HOT WATER TANK	DOMESTIC HOT WATER BOILER
TYPICAL	TYPICAL	GF-(**)	HRV-(**)	EF-(**)	EDH-(**)	L-1.(**)	L-2.(**)	DHWT-(**)	DHWT-(**)
W	GROUND	GF-1W	HRV-1W	EF-1W	EDH-1W	L-1.1W	L-2.1W	DHWT-1W	DHBT-1W

GRILLE & DIFFUSER SCHEDULE (EXISTING, TO REMAIN)

NUMBER	ROOM	SUPPLY/EXHAUST				RETURN/RELIEF		
		TYPE	SIZE	AIRFLOW (L/S)	QTY	TYPE	SIZE	QTY
(W)100	LIVING RM / DINING RM	SD-1	203Ø	71	2			
(W)101	BED	SD-1	203Ø	80	1			
(W)102	BED	SD-1	203Ø	52	1			
(W)103	BED	SD-1	203Ø	52	1			
(W)104	BED	SD-1	203Ø	52	1			
(W)105	BED	SD-1	203Ø	76	1			
(W)106	BED	SD-1	203Ø	52	1			
(W)107	BED	SD-1	203Ø	52	1			
(W)108	BED	SD-1	203Ø	76	1			
(W)110	MECH / ELECT	SG-1	152x152	44	1			
(W)110	MECH / ELECT	ER-1	152x152	-44	1			
(W)111	LAUNDRY	SD-1	203Ø	44	1			
(W)111	LAUNDRY	ER-1	152x152	-44	1			
(W)112	W/C	ER-1	203x203	-24	1			
(W)113	B.F. W/C	ER-1	203x203	-47	1			
(W)114	KITCHEN	SD-2	203Ø	71	1			
(W)115	SHOWER	ER-1	203x203	-24	1			
(W)116	CORRIDOR	SD-1	152Ø	34	1			

- NOTES:**
- THE CONTRACTOR SHALL REINSTALL ALL HVAC EQUIPMENT IN ORIGINAL LOCATIONS AND ON HOUSEKEEPING PADS AS INDICATED. PROVIDE ALL NEW MATERIALS AS REQUIRED TO RECONNECT TO THE EXISTING SYSTEM. ALL SYSTEMS SHALL BE FULLY TESTED, BALANCED & OPERATIONAL.
 - THE REINSTALLATION, TESTING, AND BALANCING OF ALL MECHANICAL EQUIPMENT, ACCESSORIES & SPECIALTY DEVICES SHALL BE AS PER THE MANUFACTURER'S INSTRUCTION / RECOMMENDATIONS. THIS INFORMATION WILL BE PROVIDED BY THE OWNER WHERE POSSIBLE. IF NOT AVAILABLE THE CONTRACTOR SHALL ACQUIRE AS NEEDED.

PERMIT TO PRACTICE
AECOM CANADA LTD.
Signature: *The Person*
Date: 2020-06-17
PERMIT NUMBER: P10450
The Association of Professional Engineers and Geoscientists of Alberta



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B	ISSUED FOR 99% REVIEW	2020/05/08
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Department of Public Works & Governments Services Canada

ATB Place North, 5th Floor
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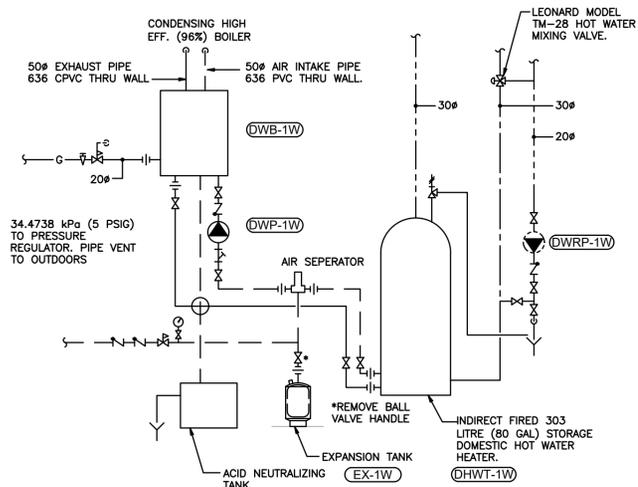
Project title: Highway 9, Drumheller Alberta, T0J 0Y0
CSC Drumheller 50 Bed Unit
Floor Slab Repair MECHANICAL

Designed by: MT
Drawn by: JD
Approved by: JZ
PWSC Project Manager: Administrateur de Projets TPSOC

Drawing title: **WEST RESIDENCE POD MAIN FLOOR HVAC PLAN NEW CONSTRUCTION**

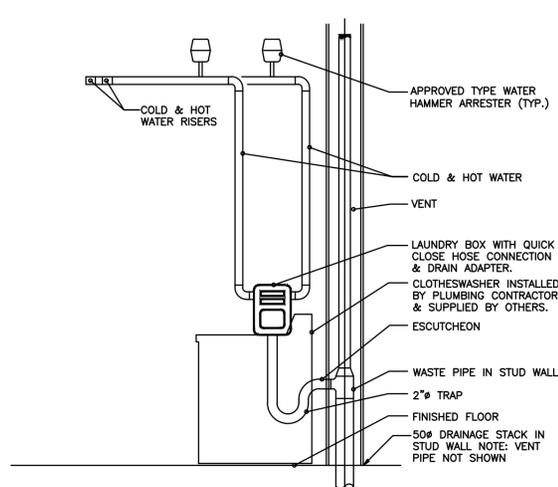
Project no./No. du projet	Drawing no./No. du dessin	Revision no.
60608478	M-108	C

PRELIMINARY
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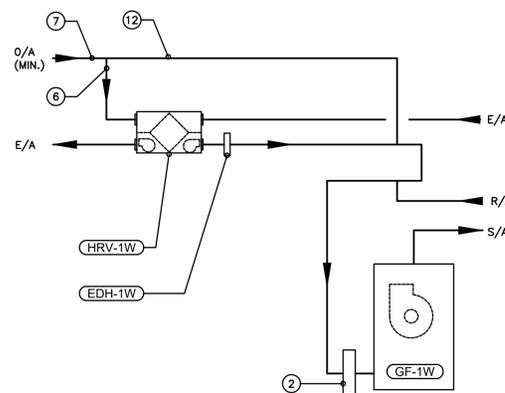
NOTE: REMOVE ALL EQUIPMENT BELOW 2.4m (8 FT) THEN REINSTALL THEM.

1 DOMESTIC HOT WATER SYSTEM SCHEMATIC
N.T.S



NOTE: REMOVE ALL EQUIPMENT BELOW 2.4m (8 FT) THEN REINSTALL THEM.

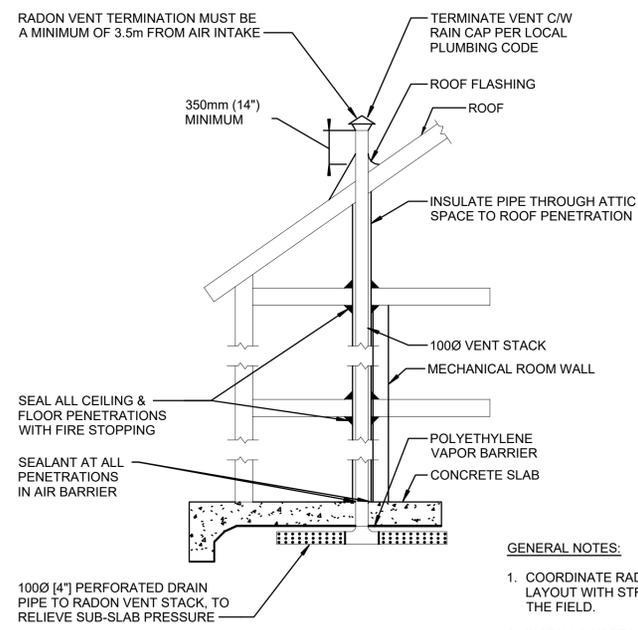
2 CLOTHES WASHER HOOK UP DETAIL
N.T.S



NOTE: REMOVE ALL EQUIPMENT BELOW 2.4m (8 FT) THEN REINSTALL THEM.

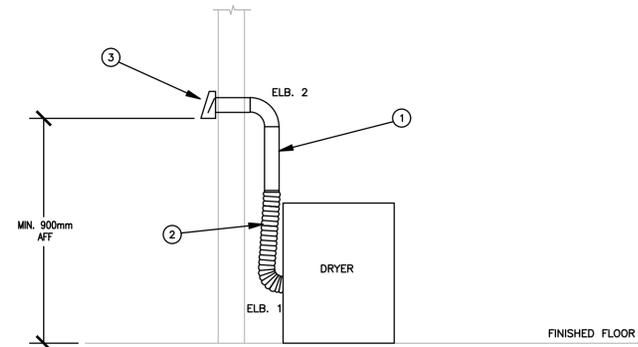
3 RESIDENCE POD AIRSIDE SCHEMATIC
N.T.S

- KEYNOTES:**
- ② REINSTALL AIR FILTER HOUSING MOUNTED IN R/A DUCT, C/W 600x600x50 MERV FILTER.
 - ⑥ 250Ø O/A BYPASS DUCT THROUGH HRV. CONNECT INLET TO BOTTOM OF HORIZONTAL O/A INTAKE DUCT. CONNECT TO VERTICAL DROP OF O/A INTAKE DUCT. SEE SECTION AND SCHEMATIC FOR DETAILS.
 - ⑦ 250Ø O/A INTAKE. SEE SCHEMATIC FOR DETAILS.
 - ⑫ FULL SIZE BYPASS.



- GENERAL NOTES:**
1. COORDINATE RADON PIPING LAYOUT WITH STRUCTURAL IN THE FIELD.
 2. INSTALL UNDERSLAB PORTION OF RADON SYSTEM PIPING AS HIGH AS POSSIBLE. COORDINATE WITH STRUCTURAL TO PROVIDE SLEEVES WHERE GRADE BEAMS ARE USED.

4 RADON PIPE DETAIL
N.T.S



1. 100Ø RIGID DUCT OF ALUMINUM CONSTRUCTION, MINIMUM 24 GAUGE THICKNESS, HAVING SMOOTH INTERIOR SURFACES WITH JOINTS RUNNING IN DIRECTION OF FLOW. DO NOT USE SHEET METAL SCREWS OR FASTENERS. MAXIMUM LENGTH SHALL NOT EXCEED 4.2 METRES, BASED ON TOTAL OF TWO (2) 90° ELBOWS IN THE SYSTEM.
2. 100Ø ALUMINUM FLEXIBLE DUCT, NOT EXCEEDING 1.0 METRE.
3. DRYER VENT OUTLET C/W BACKDRAFT DAMPER. SEAL WALL PENETRATION WATERTIGHT.

NOTE: REMOVE ALL EQUIPMENT BELOW 2.4m (8 FT) THEN REINSTALL THEM.

5 DRYER VENT DETAIL
N.T.S

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Signature: *The Reason*
Date: 2020-06-17
PERMIT NUMBER: P10450
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Department of Public Works & Governments Services Canada

ATB Place North, 5th Floor
10025 Jasper Ave, Edmonton, AB T5J 1S6

Project title: Highway 9, Drumheller Alberta, T0J 0Y0
CSC Drumheller 50 Bed Unit
Floor Slab Repair MECHANICAL

Designed by: MT
Drawn by: JD
Approved by: JZ
PWSC Project Manager: Administrateur de Projets TPSGC

Drawing title: **MECHANICAL DETAILS**

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
60608478	M-401	C

PRELIMINARY
NOT FOR CONSTRUCTION

- NOTES:
1. INFORMATION PROVIDED IN THE EQUIPMENT SCHEDULES IS FOR REFERENCE ONLY. ACTUAL INSTALLED EQUIPMENT MAY DIFFER & SHALL BE DETERMINED ON SITE BY CONTRACTOR.
 2. CONTRACTOR TO NOTE ALL DAMAGES TO EQUIPMENT & MAKE KNOWN TO OWNER & ENGINEER PRIOR TO DEMOLITION. ANY EQUIPMENT DAMAGED OR DESTROYED DURING DEMOLITION OR STORAGE SHALL BE REPAIRED/ REPLACED BY THE CONTRACTOR AT OWN EXPENSE.

DOMESTIC HOT WATER TANK SCHEDULE (EXISTING. REMOVE & REINSTALL)										
TAG	SERVICE & LOCATION	TYPE	MAKE	MODEL	VOLUME (L)	RECOVERY (L/Hr.)	BOILER OUTPUT (Kw)	BOILER FLOW (L/s)	COIL PD (kPa)	NOTES
DHWT-1W	RESIDENTIAL POD DOMESTIC HOT WATER	INDIRECT WATER HEATER & STORAGE TANK	NY THERMAL	S-80	302	1347	54.5	0.656	4.5	1,2,3
NOTES:										
1	51.7°C STORAGE TEMPERATURE.									
2	TEMPERATURE & PRESSURE RELIEF PIPED TO DRAIN.									

BOILER SCHEDULE (EXISTING. REMOVE & REINSTALL)														
TAG	SERVICE & LOCATION	TYPE	MAKE	MODEL	INPUT (KW)	OUTPUT (KW)	FLOW (L/s)	WPD (KPa)	EWT (°C)	LWT (°C)	ELECTRICAL AMPS	ELECTRICAL VOLTS/PH/Hz	WEIGHT (KG)	NOTES
TYPICAL RESIDENTIAL PODS														
DWB-1W	HEATING WATER LOOP MECHANICAL ROOM	WALL MOUNTED 96% EFFICIENT CONDENSING BOILER	LOCHINVAR	WHN199	58.3	54.5	0.656	1.14	44.9	65	2	120/1/60		1,2,3,4,5,6,7
REFER TO SPECIFICATION FOR ACCESSORIES NOT SCHEDULED.														
NOTES:														
1	1,000m ALTITUDE OPERATION.													
2	FLOW SWITCH.													
3	LOW WATER CUTOFF.													
4	ASME PRESSURE RELIEF.													
5	INTEGRAL CONTROLLER FOR BOILER & PUMP SEQUENCING & DOMESTIC HOT WATER PRIORITY CONTROL.													
6	BMS INTEGRATION INCLUDING 0-10VDC INPUT FOR SETPOINT, 0-10VDC OUTPUT FOR MODULATION RATE & 0-10VDC FOR ENABLE/DISABLE.													
7	(*) DESIGNATES RESIDENCE PODS "E", "N" AND "W". E.G. EDH-1E IS LOCATED AT RESIDENCE POD "E", MECHANICAL ROOM E110. TYPICAL FOR EACH OF THE THREE (3) RESIDENCE PODS.													

ELECTRIC REHEAT COIL SCHEDULE (EXISTING. REMOVE & REINSTALL)												
TAG	SERVICE & LOCATION	COLLAR SIZE (WxH mm)	AIR FLOW (L/S)	AIR FLOW (CFM)	FACE VELOCITY (M/s)	FACE VELOCITY (FPM)	TEMPERATURE RISE (°C)	OUTPUT (KW)	ELECTRICAL VOLTS/PH/Hz	CONTROLLER TYPE	COIL TYPE	NOTES
EDH-1W	HRV-1W / 110	250x250	179	380	64.5	697	27.7	6.0	208/3/60	SCR	RFC	
COIL TYPES:												
1	SC DENOTES SLIP-IN OPEN COIL TYPE.											
2	ST DENOTES SLIP-IN TUBULAR TYPE.											
3	FC DENOTES FLANGED OPEN COIL TYPE.											
4	FT DENOTES FLANGED TUBULAR TYPE.											
5	RFC DENOTES ROUND COLLAR OPEN COIL TYPE.											
6	RFT DENOTES ROUND COLLAR TUBULAR TYPE.											
NOTES:												
1	FURNISHED WITH DISCONNECT SWITCH AND AIRFLOW SWITCH. INSTALL AIRFLOW SWITCH IN SUPPLY AIR DUCTWORK.											
2	FURNISHED WITH SCR CONTROL WITH DUCT TYPE THERMOSTAT.											

FAN SCHEDULE (EXISTING. REMOVE & REINSTALL)												
TAG	SERVICE & LOCATION	TYPE	MAKE	MODEL	FLOW (L/s)	ESP (Pa)	RPM	MOTOR (HP)	DRIVE	ELECTRICAL VOLTS/PH/Hz	SOUND SONES	NOTES
TYPICAL RESIDENTIAL PODS												
EF-1(W)	KITCHEN OVER RANGE HOOD											1
REFER TO SPECIFICATION FOR ACCESSORIES NOT SCHEDULED.												
NOTES:												
1	SUPPLIED BY GENERAL CONTRACTOR INSTALLED AND DUCTED BY MECHANICAL.											

PLUMBING FIXTURE SCHEDULE											
TAG	SERVICE	FIXTURE			BRASS		PLUMBING SERVICE				DESCRIPTION
		DESCRIPTION	MANUFACTURER	MODEL #	MANUFACTURER	MODEL #	CW	HW	WASTE	VENT*	
							mm (in)	mm (in)	mm (in)	mm (in)	
SH-1	WASHROOM	SHOWER	MAAX PROFESSIONAL	OUTLOOK BFS-6036F-20033-20041-L	DELTA	SHOWER HEAD: T13H152-05 MIXING VALVE: R10000-UNWS	15 (1/2)	15 (1/2)	50 (2)	40 (1-1/2)	NEW SHOWER TO MATCH EXISTING CONFIRM ALL DETAILS ON SITE PRIOR TO ORDERING EQUIPMENT. 1-PIECE FIBERGLASS SHOWER ENCLOSURE 1600 x 1015 x 2005mm, COLOUR WHITE. ADA & CSA B651-04 COMPLIANT c/w SOLID BRASS DRAIN WITH STAINLESS STEEL GRID, LEFT MOUNTED RECTANGULAR FOLD UP SEAT, 760mm HORIZONTAL TEXTURED GRAB BAR, CURTAIN ROD, HAND HELD SHOWER c/w VERTICAL SLIDE/GRAB BAR., AND PRESSURE BALANCING MIXING VALVE.
SH-2	WASHROOM	SHOWER	MAAX PROFESSIONAL	SS36	DELTA	SHOWER HEAD: T13290 MIXING VALVE: R10000-UNWS	15 (1/2)	15 (1/2)	50 (2)	40 (1-1/2)	NEW SHOWER TO MATCH EXISTING CONFIRM ALL DETAILS ON SITE PRIOR TO ORDERING EQUIPMENT. 1-PIECE FIBERGLASS SHOWER ENCLOSURE 915 x 902 x 2013mm, COLOUR WHITE. CSA COMPLIANT, SHOWER ROD AND PRESSURE BALANCING MIXING VALVE.

NOTES:
* ALL PIPING BELOW SLAB SHALL BE A MINIMUM OF 50mm INCLUDING TRAP VENTS (IE. SERVING SHOWER DRAINS, MOP SINKS, FLOOR DRAINS, ETC.).

PERMIT TO PRACTICE
AECOM CANADA LTD.
Signature: *John Pearson*
Date: 2020-06-17
PERMIT NUMBER: P10450
The Association of Professional Engineers and Geoscientists of Alberta



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Department of Public Works & Governments Services Canada

ATB Place North, 5th Floor
10025 Jasper Ave, Edmonton, AB T5J 1S6

Project title: Highway 9, Drumheller Alberta, T0J 0Y0
CSC Drumheller 50 Bed Unit
Floor Slab Repair MECHANICAL

Designed by: MT
Drawn by: JD
Approved by: JZ
PWSC Project Manager: Administrateur de Projets TPSOC

Drawing title: MECHANICAL EQUIPMENT SCHEDULES

Project no./No. du projet: 60608478
Drawing no./No. du dessin: M-404
Revision no.: C

PRELIMINARY
NOT FOR CONSTRUCTION

NOTES:

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PUMP SCHEDULE (EXISTING, REMOVE & REINSTALL)													
TAG	SERVICE & LOCATION	TYPE	MAKE	MODEL	SIZE	MEDIA	TEMPERATURE (°C)	FLOW (L/s)	HEAD (KPa)	RPM	MOTOR (HP)	ELECTRICAL VOLTS/PH/Hz	NOTES
TYPICAL RESIDENTIAL PODS													
DHWP-1W	DOMESTIC HOT WATER RECIRC PUMP	WET ROTOR CIRCULATOR, WITH STAINLESS STEEL IMPELLER AND INTERNAL CHECK VALVE	GRUNDFOS	UP	10-16BU ATLC	POTABLE WATER	50	0.12	7.5	-	FRAC	120/1/60	3,4,5,6
DWP-1W	DOMESTIC HOT WATER HEATING	WET ROTOR CIRCULATOR, WITH STAINLESS STEEL IMPELLER AND INTERNAL CHECK VALVE	GRUNDFOS	UPS	15-58	WATER	60	0.44	13.8		1/6	120/1/60	2,3,4
NOTES:													
1	PARALLEL OPERATION												
2	PROVIDE MULTI SPEED OR VARIABLE SPEED PUMP WITH INTEGRAL SPEED CONTROLLER AND FLANGED CONNECTIONS												
3	PROVIDE NON OVERLOADING PUMPS												
4	C/W DIELECTRIC ISOLATION VALVES												
5	BRONZE FITTED PUMP SUITABLE FOR POTABLE WATER USE												
6	C/W INTEGRAL TIME CLOCK												

SPECIALTY TANK SCHEDULE (EXISTING, REMOVE & REINSTALL)							
TAG	SERVICE & LOCATION	TYPE	MAKE	MODEL	VOLUME (L)	ELECTRICAL VOLTS/PH/Hz	NOTES
CNT-1W	BOILER FLUE CONDENSATE / 013 MECHANICAL ROOM	CONDENSATE NEUTRALIZATION TANK	AXIOM IND.	NT-20	20	N/A	

GAS FURNACE SCHEDULE (EXISTING, REMOVE & REINSTALL)	
TAG	GF-1W
SERVICE	RESIDENCE POD (*) 1/F
LOCATION	MECH RM (*) 110
MAKE	LENNOX
MODEL	SLP98VUH090V60C
SUPPLY FAN AIR FLOW - L/s (CFM)	850 (1,800)
SUPPLY FAN EXTERNAL S.P. - PA (IN W.G.)	156.25 (0.625)
SUPPLY FAN SIZE/TYPE	11x11
SUPPLY FAN HORSEPOWER	1
HEATING INPUT KW (MBH)	25.8 (88.0)
HEATING OUTPUT KW (MBH)	24.9 (85.0)
TURNDOWN RATIO	2.8: 1
ENTERING AIR TEMPERATURE - °C (°F)	12.8 (55.0)
LEAVING AIR TEMPERATURE - °C (°F)	37.1 (98.7)
AIR TEMPERATURE RISE - °C (°F)	24.3 (43.7)
MINIMUM OUTDOOR AIR FLOW - L/s (CFM)	179 (380)
POWER	115/1/60
MCA MOCP	12.8 (20)
WEIGHT - KG (LBS.)	111 (200)
NOTES	1,2,3
REFER TO DRAWINGS FOR INSTALLATION DETAILS.	
INTERLOCK OPERATION WITH HRV'S AS NOTED ON THE HRV SCHEDULE.	
STATIC PRESSURES NOTED ARE EXTERNAL TO THE UNIT. FAN TOTAL PRESSURE TO INCLUDE ALL CABINET EFFECTS AS WELL AS AN ALLOWANCE OF 75 PA (0.3" W.G) FOR DIRTY FILTERS. MOTORS TO BE SIZED SO NORMAL OPERATING LOAD IS NOT MORE THAN 90% OF RATED MOTOR CAPACITY.	
NOTES:	
1. FURNACE TYPE: UPFLOW, VARIABLE CAPACITY, VARIABLE SPEED BLOWER.	
2. TEMPERATURE SENSORS BY CONTROLS CONTRACTOR.	
3. FURNISHED WITH CONCENTRIC VENT TERMINATION KIT.	

HEAT RECOVERY VENTILATOR SCHEDULE (EXISTING, REMOVE & REINSTALL)		
HEAT RECOVERY UNITS		
MARK	HRV-1W	
SERVICE	RESIDENCE POD (*) 1/F	
LOCATION	MECH ROOM (*) 110	
MAKE	NU - AIR	
MODEL	NU500	
TOTAL SUPPLY AIR FLOW - L/s (CFM)	179 (380)	
SUPPLY FAN E.S.P. - PA (IN W.G.)	100 (0.4)	
SUPPLY FAN RPM	1,275 (2 SPEED)	
POWER SUPPLY	115/1/60	
SUPPLY FAN MOTOR - FLA	SEE NOTE 1	
EXHAUST AIR FLOW - L/s (CFM)	179 (380)	
EXHAUST FAN E.S.P. - PA (IN W.G.)	125 (0.5)	
EXHAUST FAN RPM	1,275 (2 SPEED)	
POWER SUPPLY	115/1/60	
EXHAUST FAN MOTOR - FLA	SEE NOTE 1	
TYPE	CROSS FLOW CORE	
SENSIBLE EFFECTIVENESS	0.5	
AIR P.D. - PA (IN W.G.)	235 (0.94)	
WINTER OUTDOOR AIR TEMP °C (°F)	-34.4 (-30.0)	
WINTER OA DENSITY - KG/m3 (lb/ft3)	1.29 (0.0808)	
EXH. AIR ENTERING AIR DB °C (°F)	18.3 (65)	
EXH. AIR DENSITY - KG/m3 (lb/ft3)	1.06 (0.066)	
POWER	115/1/60	
AMPERAGE	4.5 FLA	
WEIGHT - KG (lbs)	27 (60)	
NOTES:		
1	THE SCHEDULE FLA INCLUDES BOTH SUPPLY AND EXHAUST FANS.	

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Signature: *John Dawson*
Date: 2020-06-17
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CSC Drumheller 50 Bed Unit
Floor Slab Repair MECHANICAL

Designed by: MT
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PWSC Project Manager: Administrateur de Projets TPSGC

Drawing title: **MECHANICAL EQUIPMENT SCHEDULES**

Project no./No. du projet: 60608478
Drawing no./No. du dessin: M-405
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