A1 SIZE – 594mm x 841mm

NATIONAL BUILDING CODE MATRIX (2010)

HIGH RATE CLARIFICATION BUILDING (HRC) (NEW BUILDING)

NBC REFERENCE (REFERENCES ARE TO DIVISION B UNLESS NOTED [A] FOR DIVISION A OR [C] FOR DIVISON C

ITEM			
1.	PROJECT DESCRIPTION:	☒ NEW ☐ ADDITION ☐ ALTERATION ☐ CHANGE OF USE	☒ PART 3, 1.3.3.1–.3 [A]
2.	MAJOR OCCUPANCY(S):	F–2 MEDIUM HAZARD INDUSTRIAL	3.1.2.1.(1)
3.	BUILDING AREA:	EXISTING: –– ; NEW: 1165 ; TOTAL: 1165 SQ.M.	1.4.1.2 [A]
4.	GROSS AREA:		1.4.1.2 [A]

	EXISTING	NEW	TOTAL	
BASEMENT	––	1345	1345	SQ.M.
GROUND	––	1165	1165	SQ.M.
BUILDING–TOTAL			2510	SQ.M.
WATER CONTAINING CONDUITS		70	70	SQ.M.

5.	NUMBER OF STOREYS:	ABOVE GRADE – 1 BELOW GRADE – 1	1.4.1.2 [A] & 3.2.1.1
6.	NUMBER OF STREETS/FIRE FIGHTER ACCESS:	1	3.2.2.10 & 3.2.5
7.	BUILDING CLASSIFICATION:	GROUP F , DIVISION 2	3.2.2.74
8.	SPRINKLER SYSTEM PROPOSED:	☐ ENTIRE BUILDING ☐ SELECTED COMPARTMENTS ☐ SELECTED FLOOR AREAS ☐ BASEMENT ☒ NOT REQUIRED	3.2.2.74 3.2.1.5
9.	STANDPIPE REQUIRED:	☐ YES ☒ NO	3.2.5.8–.12
10.	FIRE ALARM REQUIRED:	☒ YES ☐ NO	3.2.4
11.	WATER SERVICE/ SUPPLY IS ADEQUATE:	☒ YES ☐ NO	3.2.5.7
12.	HIGH BUILDING	☐ YES ☒ NO	3.2.6
13.	CONSTRUCTION RESTRICTIONS: ACTUAL CONSTRUCTION:	☐ COMBUSTIBLE ☐ NON–COMBUSTIBLE ☒ BOTH ☐ COMBUSTIBLE ☒ NON–COMBUSTIBLE ☐ BOTH	3.2.2.74
14.	MEZZANINE(S) AREA:	N/A SQ.M.	3.2.1.1(3)–(8)
15.	OCCUPANT LOAD BASED ON:	☐ SQ. M. PER PERSON ☒ BUILDING DESIGN (4 PERSONS MAXIMUM , NORMALLY UNOCCUPIED)	3.1.17
16.	BARRIER–FREE DESIGN:	☐ YES ☒ NO (NORMALLY UNOCCUPIED)	3.8
17.	HAZARDOUS SUBSTANCES:	☐ YES ☒ NO	3.3.1.2 & 3.3.1.20

18. REQUIRED FIRE RESISTANCE RATINGS (FRR): 3.2.2.74 & 3.2.1.4

		FRR (HRS)	LISTED DESIGN NO./ DESCRIP.
HORIZONTAL ASSEMBLIES	FLOORS	3/4	AS DESIGNED
	ROOF	N/A	N/A
	MEZZANINE	N/A	N/A
SUPPORTING ASSEMBLIES	FLOORS	3/4	AS DESIGNED
	ROOF	N/A	N/A
	MEZZANINE	N/A	N/A

19. SPATIAL SEPARATION – CONSTRUCTION OF EXTERIOR WALLS: 3.2.3
SEE ARCHITECTURAL SITE PLAN

20. FIRE RATED SEPARATIONS:

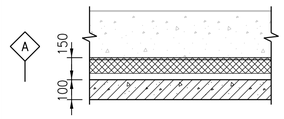
	FIRE SEPARATION REQUIRED (HRS)		FIRE SEPARATION REQUIRED (HRS)
ELECTRICAL ROOM	1 HR	CLARIFIER ROOM	1 HR
MECHANICAL ROOM	1 HR	LOADING AREA	1 HR
STAIRS	1 HR	PIPE GALLERY	1 HR
BALLAST ROOM AND PIT	1 HR	SUMP ACCESS ROOM	1 HR
		––	––

201 FIRE FIRE WALL SEPARATION: 3.1.10.1 & 3.1.10.2

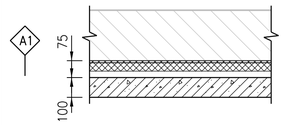
FOUR HOURS FIRE RESISTANT RATING WALL CONSISTS OF;
TWO CONCRETE/MASONRY WALLS OF TWO HOURS FRR FOR EACH,
BETWEEN HRC AND EXISTING PRIMARY CLARIFIER BUILDING.

22. POST–DISASTER DESIGN 1.4.1.2
THE BUILDING IS DESIGNED AS POST DISASTER BUILDING

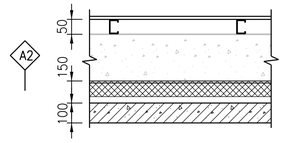
WALL TYPES LEGEND



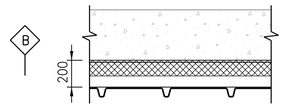
–CONCRETE WALL/200mm THICK CMU WALL (NOTE 1 4)
–AIR BARRIER
–125mm THICK CAVITY WALL INSULATION
–AIR SPACE
–100mm STONE VENEER TYPE–1 (NOTE 2)



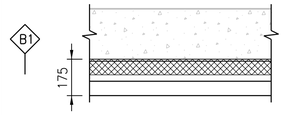
–EXISTING WALL
–AIR BARRIER
–75mm THICK CAVITY WALL INSULATION
–AIR SPACE
–100mm STONE VENEER



–15.9 MM GYPSUM BOARD
–50/90mm METAL STUDS @ 400 MM O.C. (NOTE 3)
–CONCRETE WALL/ 200mm THICK CMU WALL (NOTE 1 & 4)
–AIR BARRIER
–125mm THICK CAVITY WALL INSULATION
–AIR SPACE
–100mm STONE VENEER



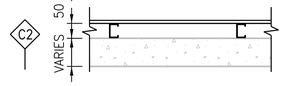
–CONCRETE WALL/CMU WALL (NOTE 1 & 4)
–AIR BARRIER
–125mm THICK CAVITY WALL INSULATION
–AIR SPACE
–PREFORMED METAL PANEL TYPE 1



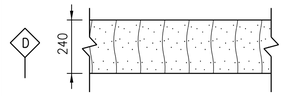
–CONCRETE WALL/CMU WALL (NOTE 1 & 4)
–AIR BARRIER
–125mm THICK CAVITY WALL INSULATION
–AIR SPACE
–PREFORMED METAL PANEL TYPE 2

–CONCRETE WALL.
FOR THICKNESS SEE STRUCTURAL DRAWINGS

–175mm THICK ALUM LAMINATED FACED MINERAL WOOL INSULATION
–CONCRETE WALL (NOTE 1 & 4)



–15.9 MM GYPSUM BOARD
–50mm METAL STUDS @ 400 MM O.C.
–CONCRETE WALL (NOTE 1 & 4)



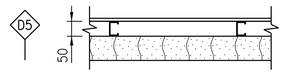
–250mm THICK CONC MASONRY UNIT (CMU) (NORMAL WEIGHT)

D1 –200mm THICK CONC MASONRY UNIT (CMU) (NORMAL WEIGHT)

D2 –150mm THICK CONC MASONRY UNIT (CMU) (NORMAL WEIGHT)

D3 –150mm THICK CONC MASONRY UNIT (CMU) (LIGHT WEIGHT)

D4 –100mm THICK CONC MASONRY UNIT (CMU) (NORMAL WEIGHT)



–15.9 MM GYPSUM BOARD
–50mmTHICK METAL STUDS @ 400 MM O.C.
–150mm THICK CONC MASONRY UNIT (CMU) (NORMAL WEIGHT)

NOTES:

1. SEE STRUCT DRAWINGS FOR THICKNESS OF CONCRETE
2. USE STONE VENEER TYPE–2 UNDER WINDOWS, LOUVERS AND WHERE INDICATED ON ELEVATIONS
3. AS INDICATED ON DRAWINGS
4. PROVIDE FIRE RESISTANT RATING AS INDICATED ON DRAWINGS. REFER TO STRUCTURAL DRAWINGS FOR THE REQUIREMENT OF CONCRETE COVER OVER REINFORCEMENT.

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CH2M HILL Canada Ltd.
No. 1441

NO.	REVISIONS	DATE	DESIGN	CHECK
02	ISSUED FOR CONSTRUCTION – 976–2016	2017/04/05	R.B.	J.C.
01	ISSUED FOR CONSTRUCTION	10/2015	N.B.	J.C.
00	ISSUED FOR TENDER	08/2015	N.B.	J.C.

CH2MHILL CANADA Architects Inc.
SNC·LAVALIN KGS GROUP

DESIGNED BY: R. ZAKKO	CHECKED BY: B. KOLIS–HUPA
DRAWN BY: R. BATHAN	APPROVED BY: H.T. FRIEHAMMER
SCALE: NTS	ISSUED FOR CONSTRUCTION BY: J. SHUMKA
DATE: 2017/04/05	DATE: 2017/04/05
CONSULTANT NO.: 474248	

ENGINEER'S SEAL
PROVINCE OF MANITOBA REID ZAKKO 24-05-2017 REGISTERED ARCHITECT

Winnipeg
THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

SOUTH END WATER POLLUTION CONTROL CENTRE
SEWPCC UPGRADING/EXPANSION PROJECT
BUILDING
HIGH RATE CLARIFICATION BUILDING
BUILDING CODE MATRIX AND WALL TYPES LEGEND

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1–0102–BAAA–K001		02	A1

PLOT DATE: 2017\03\30
FILE NAME: 1–0102–BAAA–K001.dgn