GENERAL NOTES - PLUMBING/ HEATING

- MECHANICAL CONTRACTOR SHALL VERIFY EXACT LOCATIONS, SIZES, INVERTS, ETC. PRIOR TO COMMENCEMENT OF WORK. VERIFY ALL CONNECTION POINTS ON SITE.
- REFER TO ARCHITECTURAL, ELECTRICAL & STRUCTURAL DRAWINGS FOR COORDINATION PURPOSES.
- ALL CUTTING & PATCHING OF FLOOR SLABS, WALLS ETC. TO BE PERFORMED BY GENERAL CONTRACTOR.
- ALL VENT PIPING TO BE INSTALLED AS PER CODE.
- PROVIDE ISOLATION VALVES ON ALL FIXTURES OR FIXTURE
- PROVIDE SURESEAL TRAP SEAL TO ALL FLOOR/HUB DRAINS.
- PROVIDE AUTOMATIC AIR VENTS AT ALL HIGH POINTS OF SYSTEM.

NATIONAL ENERGY CODE OF CANADA REQUIREMENTS.

- ALL DOMESTIC WATER AND HEATING PIPING TO BE INSULATED TO MANITOBA HYDRO POWER SMART REQUIREMENTS AND
- ALL WORK SHALL COMPLY IN EVERY RESPECT WITH ALL NATIONAL, PROVINCIAL AND LOCAL CODES AND BY-LAWS. WHICH SHALL BE CONSIDERED PART OF THE SPECIFICATION. IN THE CASE OF CONFLICTING REQUIREMENTS, BE GOVERNED BY THE MOST STRINGENT REGULATIONS.
- THE MECHANICAL CONTRACTOR SHALL INSTALL PLUMBING SYSTEMS IN COMPLETE ACCORDANCE WITH THE RECOMMENDATIONS OF THE NATIONAL/PROVINCIAL BUILDING CODE, LOCAL PLUMBING CODES, AND MANITOBA OFFICE OF THE FIRE COMMISSIONER REQUIREMENTS.
- ALL INSULATING MATERIALS, METHODS, SIZES AND TYPES OF INSULATION FOR ALL PIPING SHALL BE INSTALLED TO THE REQUIREMENTS OF THE ASHRAE STANDARDS 90.1-2010 "ENERGY STANDARD FOR BUILDING EXCEPT LOW-RISE RESIDENTIAL BUILDING", STANDARD 90.2 "ENERGY EFFICIENT DESIGN OF LOW-RISE RESIDENTIAL BUILDINGS", THERMAL INSULATION ASSOCIATION OF CANADA (TIAC) STANDARDS AND NATIONAL MANITOBA ENERGY CODE OF CANADA REQUIREMENTS.
- ALL PIPE INSULATION AND COVERINGS SHALL MEET THE REQUIREMENTS OF CAN/ULC-S110 'TEST FOR AIR DUCTS' AND HAVE A FLAME SPREAD RATING NOT EXCEEDING 25 AND A SMOKE DEVELOPED CLASSIFICATION NOT MORE THAN 50. THIS SHALL INCLUDE ALL TAPES, SEALANTS, AND MISCELLANEOUS PRODUCTS ASSOCIATED WITH THIS INSTALLATION.
- . GAS PIPING SHALL BE BLACK STEEL PIPE. EQUAL TO ASTM A-53 SCH. 40 WITH 150 LBS. STANDARD BLACK MALLEABLE IRON SCREWED FITTINGS. ALL WORK SHALL COMPLY WITH C.G.A. B149.1-10 "NATURAL GAS AND PROPANE INSTALLATION CODE", COMPLETE WITH DEPARTMENT OF LABOUR GAS NOTICES, AND SHALL BE PERFORMED BY FULLY QUALIFIED GAS FITTERS AND/OR WELDERS LICENSED TO PRACTICE IN THE PROVINCE OF
- PROVIDE DI-ELECTRIC COUPLINGS ON ALL PIPING CONNECTIONS TO HOT WATER TANKS.
- 5. PROVIDE APPROPRIATE FIRE-STOPPING MEASURES ON ALL PIPING PENETRATING FIRE SEPARATIONS SUBMIT SHOP DRAWINGS FOR REVIEW. ACCEPTABLE PRODUCT: HILTI, OR
- INSULATE VENT PIPING BACK 10'-0" (3.0 M) FROM ROOF PENETRATIONS IN ALL DIRECTIONS.
- COORDINATE MOUNTING HEIGHT OF ALL FIXTURES ARCHITECTURAL ELEVATIONS.
- ALL SANITARY WASTE & VENT PIPING AND DOMESTIC WATER PIPING SHALL BE CAPABLE OF MEETING OR EXCEEDING THE FLAME SPREAD RATING OF 25 AND DEVELOPED SMOKE RATING OF 50, AND BE SUITABLE FOR INSTALLATION IN AIR PLENUMS.
- ALL CONTROL / ELECTRICAL WIRING TO MEET FLAME SPREAD RATING OF 25, DEVELOPED SMOKE RATING OF 50 AND BE RATED FOR USE IN

GENERAL NOTES: FIRE

PROTECTION

- SPRINKLER SYSTEM DESIGN AND HYDRAULIC CALCULATIONS AS PER N.F.P.A 13-LATEST EDITION AND PER AUTHORITY HAVING JURISDICTION. RESPONSIBILITY OF DESIGN. INSTALLATION, COMMISSIONING SHALL BE BORNE BY THE FIRE PROTECTION CONTRACTOR AND THE SPRINKLER ENGINEER OF
- LAYOUT OF HEADS SHALL NOT CONFLICT WITH LIGHTING, GRILLE & DUCTWORK, INCLUDING RIDGES & VALLEYS.
- SPRINKLER CONTRACTOR SHALL OBTAIN ELECTRICAL PLANS & SHALL SUPPLY & INSTALL ALL VALVES FLOW SWITCHES ETC. TO MATCH FIRE ALARM ZONING.
- 4. LAYOUT SHALL BE UNIFORM, SYMMETRICAL, ETC.
- 5. ALL MATERIAL AND DEVICES ARE U.L.C. LABELED AND CONFORM TO LATEST EDITION OF N.F.P.A.
- FIRE DEPARTMENT CONNECTION LOCATION AND TYPE SHALL BE FULLY COORDINATED WITH THE LOCAL AUTHORITY HAVING JURISDICTION.
- SPRINKLER SYSTEM TESTS TO BE DONE AS PER N.F.P.A. REQUIREMENTS AND LOCAL AUTHORITY HAVING JURISDICTION. TEST REPORTS TO BE PROVIDED TO OWNER REPRESENTATIVE.
- SPRINKLER DESIGN SHALL INCORPORATE SPRINKLER COVERAGE AT ENTRANCE CANOPIES, REFER TO ARCHITECTURAL FOR AREA OF CANOPY.
- EXPOSED UPRIGHT SPRINKLER HEADS IN MECH ROOMS, MPR, ACTIVITY AND STORAGE AREAS TO BE EQUIPPED WITH
- 10. CONCEALED TYPE SPRINKLER HEADS WITH COVER PLATE, SHALL BE USED IN ALL AREAS WITH FINISHED CEILINGS (TBAR, GWB, WOOD, ETC.).

GENERAL NOTES - HVAC

- 1. MECHANICAL CONTRACTOR SHALL VERIFY EXACT LOCATIONS, SIZES, ETC. PRIOR TO COMMENCEMENT OF WORK. VERIFY ALL CONNECTION POINTS ON SITE.
- 2. REFER TO ARCHITECTURAL, ELECTRICAL & STRUCTURAL DRAWINGS FOR COORDINATION PURPOSES.
- 3. ALL CUTTING & PATCHING OF FLOOR SLABS, WALLS ETC. TO BE PERFORMED BY GENERAL CONTRACTOR.
- 4. COORDINATE THE EXACT LOCATION OF THE GRILLES AND DIFFUSERS ON SITE WITH THE ELECTRICAL CONTRACTOR, GENERAL CONTRACTOR, ARCHITECTURAL CEILING PLAN, LIGHTING LAYOUT, ETC. TO ENSURE THAT THERE ARE NOT ANY CONFLICTS DURING INSTALLATION.
- 5. PROVIDE BALANCE DAMPER FOR EACH SUPPLY/EXHAUST AIR GRILLE OR DIFFUSER TO ALLOW FOR THE PROPER BALANCING OF THE SYSTEM. PROVIDE OPPOSED BLADE DAMPERS WITH THE DIFFUSER AND ADJUSTABLE FROM THE DIFFUSER FACE WHEN A DUCT MOUNTED BALANCE DAMPER WOULD NOT BE ACCESSIBLE.
- 6. ALL DUCT DIMENSIONS DENOTE INTERNAL "OPEN" AREA OF THE
- 7. ALL DUCTWORK PENETRATING THE BUILDING THERMAL ENVELOPE SHALL BE INSULATED A MINIMUM 10'-0" BACK FROM THE BUILDING PENETRATION.
- 8. REFER TO ARCHITECTURAL DRAWINGS AND PROVIDE FIRE DAMPERS IN ALL WALLS DENOTED AS FIRE SEPARATIONS. PROVIDE ACCESS DOORS AT ALL FIRE DAMPERS TO ALLOW FOR INSPECTION/TESTING.
- 9. COORDINATE THE EXACT LOCATIONS OF EQUIPMENT, DUCT OPENINGS, AND DUCT LOCATIONS WITH THE EXISTING STRUCTURE AND THE STRUCTURAL CONSULTANT.
- 10. ALL WORK SHALL COMPLY IN EVERY RESPECT WITH ALL NATIONAL, PROVINCIAL AND LOCAL CODES AND BY-LAWS, WHICH SHALL BE CONSIDERED PART OF THE SPECIFICATION. IN THE CASE OF CONFLICTING REQUIREMENTS, BE GOVERNED BY THE MOST STRINGENT REGULATIONS.
- 11. THE MECHANICAL CONTRACTOR SHALL INSTALL HEATING. VENTILATION, AND AIR CONDITIONING SYSTEMS IN COMPLETE ACCORDANCE WITH THE RECOMMENDATIONS OF THE NATIONAL/PROVINCIAL BUILDING CODE, ASHRAE, SMACNA LATEST EDITION DUCT STANDARDS, AND MANITOBA OFFICE OF THE FIRE COMMISSIONER.
- 12. ALL INSULATING MATERIALS, METHODS, SIZES AND TYPES OF INSULATION FOR ALL DUCT WORK SHALL BE INSTALLED TO THE REQUIREMENTS OF THE ASHRAE STANDARDS 90.1-2010 "ENERGY STANDARD FOR BUILDING EXCEPT LOW-RISE RESIDENTIAL BUILDING", STANDARD 90.2 "ENERGY EFFICIENT DESIGN OF LOW-RISE RESIDENTIAL BUILDINGS". THERMAL INSLULATION ASSOCIATION OF CANADA (TIAC) STANDARDS AND NATIONAL MANITOBA ENERGY CODE OF CANADA REQUIREMENTS.
- 13. ALL DUCT INSULATION AND COVERINGS SHALL MEET THE REQUIREMENTS OF CAN/ULC-S110 'TEST FOR AIR DUCTS' AND HAVE A FLAME SPREAD RATING NOT EXCEEDING 25 AND A SMOKE DEVELOPED CLASSIFICATION NOT MORE THAN 50. THIS SHALL INCLUDE ALL TAPES. SEALANTS, AND MISCELLANEOUS PRODUCTS ASSOCIATED WITH THIS INSTALLATION.
- 14. VENTILATION CONTRACTOR SHALL ENSURE THAT ALL DUCTWORK THAT MAY CONVEY OUTSIDE AIR BE LOCATED A MINIMUM OF 6" (150 MM) AWAY FROM ANY SPRINKLER PIPING. DUCTWORK IN SUCH LOCATIONS SHALL BE PROTECTED WITH A MINIMUM OF 2" (50MM) RIGID DUCT INSULATION WITH VAPOR RETARDING FOIL FINISH. ALTER LOCATION OF DUCTWORK TO SUIT.
- 15. FOR STRUCTURES REQUIRING FIRE PROTECTION/SPRINKLER SYSTEMS, SPRINKLER CONTRACTOR IS TO PROVIDE FREEZE PROTECTION IN ALL MECHANICAL AND SERVICE ROOMS UTILIZING DRY SYSTEMS.
- 16. ALL CONTROL / ELECTRICAL WIRING TO MEET OR EXCEED FLAME SPREAD RATING OF 25 AND DEVELOPED SMOKE RATING OF 50 AND BE SUITABLE FOR INSTALLATION IN AIR PLENUMS.

GENERAL NOTES: ALL DISCIPLINES

ROUTING OF BUILDING SERVICES AND INSTALLATIONS OF EQUIPMENT WITHIN LIMITED CEILING/JOIST SPACES SHALL REQUIRE THE MUTUAL COORDINATION BETWEEN ALL TRADES (ELECTRICAL, PLUMBING, MECHANICAL (HVAC), FIRE PROTECTION) PRIOR TO CONSTRUCTION TO AVOID CONFLICT WITH RESPECTIVE EQUIPMENT INSTALLATIONS AND STRUCTURE.

LEGEND-PLUMBING SANITARY LINE BELOW FLOOR/GRADE SANITARY LINE ABOVE GRADE STORM SEWER ABOVE FLOOR/GRADE ____ ST ____ STORM SEWER BELOW FLOOR/GRADE DOMESTIC COLD WATER DOMESTIC HOT WATER DOMESTIC HOT WATER RECIRC. NON-POTABLE COLD WATER GAS LINE **□** WALL HYDRANT CLEANOUT F.D. FLOOR DRAIN R.D. ROOF DRAIN SHUT-OFF VALVE UTILITY DOMESTIC WATER METER, STRAINER, WM BACKFLOW PREVENTION ASSEMBLY DOMESTIC WATER SUBMETER

LEGEND - HVAC	
	SUPPLY AIR DIFFUSER
	RETURN AIR GRILLE
	EXHAUST AIR GRILLE
+	DOOR GRILLE
T	THERMOSTAT/TEMPERATURE SENSOR
\Box	THERMOSTAT/TEMPERATURE SENSOR W/CLEAR VANDAL RESISTANT GUARD
Θ	HUMIDISTAT
©	CARBON DIOXIDE DETECTOR
(\$)	SWITCH
\$	ON / OFF SWITCH (DIV. 16)
	BALANCING DAMPER
FSD	COMBINATION FIRE/SMOKE DAMPER
§ BDD	BACK DRAFT DAMPER
S 3	MOTORIZED DAMPER/ACTUATOR
	FLEXIBLE DUCT CONNECTION
8/////8	THERMAL INSULATION
	ACOUSTIC INSULATION
TYPE SIZE CFM_NECKØ	GRILLE / DIFFUSER TAG
EQ NO	EQUIPMENT TAG
TYPE SIZE OUTPUT	ALTERNATE EQUIPMENT TAG
0	DRAWING NOTE TAG

FIXTURE TYPE	WEIGHT IN F.U.	NO. OF FIXTURES	COUNT
1. WATER CLOSET a) FLUSH VALVE	10	13	130
b) FLUSH TANK	6	0	0
2. LAVATORY SINK	1	9	9
3. BATH TUB	3	0	0
4. SHOWER	2	0	0
5. URINAL a) LARGE VALVE	8	0	0
b) SMALL VALVE	6	0	0
c) TANK	6	0	0
6. KITCHEN SINK OR POT SINK	3	4	12
7. BAR SINK	2	0	0
8. DISH WASHER (DOMESTIC)	3	0 - 2	0
9. DISH WASHER (COMMERCIAL)	4	0	0
10. GLASS WASHER	3	0	0
11. LAUNDRY & MOP SINKS OR JANITOR SINKS	3	4	12
12. HOSE BIBB OR LAWN SERVICE CONNECTION	3	3	9
13. LABORATORY SINKS	2	0	0
14. SOFT DRINK MACHINES	2	0	0
15. COFFEE MAKER	1	0	0
16. ICE MACHINE	1	0	0
17. DRINKING FOUNTAIN	1	1	1
18. BRADELY WASH STALL (LARGE PUBLIC WASH BASIN)	4	0	0
19. AUTOMATIC CLOTHES WASHER (DOMESTIC)	3	2	6
AUTOMATIC CLOTHES WASHER (COMMERCIAL SEE GUIDELINES)			-
20. SMALL WATER COOLED COMPRESSORS	3	0	0
21. EYE WASH	8	1	8
		TOTAL	187
		CORRECTION FACTOR	0.65
	ADJUS	TED FIXTURE COUNT	122
	TOTAL D	EMAND (GPM - US)	48.39
** PLUMBING FIXTURE DEMAND CALCULATED ABOVE AT 48.4GPM. WASHER ESTIMATED AT 5 GPM IS INCLUDED IN THE PROJECT. RESUS) AS SHOWN.			53.30
	WA	TER METER SIZE (")	1.5"
		CONNECTION SIZE (")	3"

WATER METER SIZING DATA				
FIXTURE TYPE	WEIGHT IN F.U.	NO. OF FIXTURES	COUNT	
WATER CLOSET a) FLUSH VALVE	10	13	130	Building Name: OL Location / Address: 80
b) FLUSH TANK	6	0	0	Weights of Fixtures in Fixtu
. LAVATORY SINK	1	9	9	Fixture Type
. BATH TUB	3	0	0	1 Water closet a) F
. SHOWER	2	0	0	2 Lavatory Sink (domestic s 3 Bath Tub
. URINAL a) LARGE VALVE	8	0	0	4 Shower a) (
b) SMALL VALVE	6	0	0	c) ² 5 Urinal a) F
c) TANK	6	0	0	b) 5 c) V
. KITCHEN SINK OR POT SINK	3	4	12	6 Sink a) I
. BAR SINK	2	0	0	b) (c) (
. DISH WASHER (DOMESTIC)	3	0	0	d) (
. DISH WASHER (COMMERCIAL)	4	0	0	8 Dish Washer (Domestic) - 9 Dish Washer (Commercial
D. GLASS WASHER	3	0	0	10 Glass Washer 11 Laundry Tray a) S
I. LAUNDRY & MOP SINKS OR JANITOR SINKS	3	4	12	b) 3
2. HOSE BIBB OR LAWN SERVICE CONNECTION	3	3	9	13 Beer Cabinet
3. LABORATORY SINKS	2	0	0	15 Clothes Washer 16 Dental Unit
4. SOFT DRINK MACHINES	2	0	0	17 Drinking Fountain
5. COFFEE MAKER	. 1	0	0	19 b) 3
5. ICE MACHINE	1	0	0	21 Garbage Grinder
7. DRINKING FOUNTAIN	1	1	1	22 Icebox 23 Macerating Toilet System
B. BRADELY WASH STALL (LARGE PUBLIC WASH BASIN)	4	0	0	24 Potato Peeler
9. AUTOMATIC CLOTHES WASHER (DOMESTIC)	3	2	6	I Peak Dry Flow:
AUTOMATIC CLOTHES WASHER (COMMERCIAL SEE GUIDELINES)				II.i Control Flow:
D. SMALL WATER COOLED COMPRESSORS	3	0	0	Sum of roof drains: Peak Wet Flow:
1. EYE WASH	8	1	8	i car viet i low.
		TOTAL	187	II.ii Non-Control Flow Total Roof Area
		CORRECTION FACTOR	0.65	Intensity Total Flow
	ADJUS	TED FIXTURE COUNT	122	Peak Wet Flow:
	TOTAL D	DEMAND (GPM - US)	48.39	
PLUMBING FIXTURE DEMAND CALCULATED ABOVE AT 48.4GPM. ASHER ESTIMATED AT 5 GPM IS INCLUDED IN THE PROJECT. RE S) AS SHOWN.			<u>53.30</u>	
	WA	TER METER SIZE (")	1.5"	
	WATER (CONNECTION SIZE (")	3"	

ESTIMATED PEAK WET AND DRY WEATHER WASTEWATER FLOWS OLD EX ARENA REDEVELOPMENT Prepared By: Nova 3 Engineering Ltd. n / Address: **80 SINCLAIR STREET** Date: 10/9/2024 of Fixtures in Fixture Units tory Sink (domestic single or double b) 2 or 3 heads c) 4 to 6 heads a) Pedestal, siphon-jet or blowout type Washer (Domestic) - no load when connected to grinder or domestic sink Washer (Commercial) a) Single/double units or 2 single with common trap 159.8 Fixture Units One Owner-provided pressur ewasher to be added to the above □ N/A trol Flow: Sum of roof drains: 61.5 USgpm Peak Wet Flow: 61.5 Refer to to Civil engineered Drawngs for detailed site water/WWS/LDS requirements. n-Control Flow Total Roof Area Note: Addition - 132 fixture units, square meters

North Area - 27.75 fixture units

NOTES:

Ventilation Sizing Summary

Totals (incl. Space Multipliers)

2.2 Zone: HRV-2

2.5 Zone: AH-3

_ ASHRAE Std 62.1-2016 2. Space Ventilation Analysis 2.1 Zone: HRV-1 Air Rate Occupancy Rate Distribution (CFM/ft²) (Occupants) (CFM/person) Effectiveness Rate Distribution Outdoor Air Zone Name / Space Name 101 LOBBY NORTH 101 LOBBY SOUTH 103 CANTEEN 116 WELCOME OFFICE

			Time	People	, ,	
		Area Outdoor	Averaged	Outdoor Air		Space
	Area		Occupancy	Rate		Outdoor Ai
	(ft²)	(CFM/ft²)		(CFM/person)		(CFM
Zone Name / Space Name	(Az)	(Ra)	(Pz)	(Rp)	(Ez)	(Voz
Zone 1						
125 WASAC ACTIVITY	405.0	0.06	25.0	5.00	0.8	187
131 WADING POOL OFFICE	116.0	0.06	1.0	5.00	0.8	15
129 WADING OPEN OFFICE	360.0	0.06	10.0	5.00	0.8	90
128 BYLAW OFFICE	135.0	0.06	1.0	5.00	0.8	10
130 WADINGSTORAGE	136.0	0.06	0.0	5.00	0.8	10
126 STAFF INT	390.0	0.12	8.0	5.00	0.8	109
117 CORRIDOR	285.0	0.06	0.0	0.00	0.8	2
127 BYLAW OPEN OFFICE	550.0	0.06	12.0	5.00	0.8	110
122 WASAC OFFICE INT	644.0	0.06	6.0	5.00	0.8	8
122 OFFICE EXT S.EAST	255.0	0.06	1.0	5.00	0.8	2
122 OFFICE EXT SOUTH	346.0	0.06	4.0	5.00	0.8	5′
124 WASAC LAUN/STORAGE	248.0	0.12	0.0	5.00	0.8	37
Totals (incl. Space Multipliers)				-		763

NOTE: HRV-1 ventilation design requirements to match local exhaust of 311 L/s (660cfm)

	Space Floor Area (ft²)	Area Outdoor Air Rate (CFM/ft²)	Time Averaged Occupancy (Occupants)		Air Distribution	Space Outdoor Air (CFM)
Zone Name / Space Name	(Az)	(Ra)	(Pz)	(Rp)	(Ez)	(Voz)
Zone 1						
140/141 STORES	7580.0	0.06	10.0	5.00	0.8	631
151 SECURE STORAGE	555.0	0.06	0.0	5.00	0.8	42
153 MECH ROOM	555.0	0.06	0.0	5.00	0.8	42
Totals (incl. Space Multipliers)						715

Air Rate

Averaged

Occupancy

Rate

Zone Name / Space Name	(Az)	(Ra)	(Pz)	
Zone 1				
133 MPR (SEATED)	2030.0	0.06	50.0	- ,
134 MPR CENTER (SEATED)	6080.0	0.06	250.0	
139 CSM STOR (ARENA)	700.0	0.06	0.0	
Totals (incl. Space Multipliers)			-	
NOTE: HRV-5 provides 967 L/s (2050)	rfm)	-	······································	

pace Floor | Area Outdoor

	Space Floor Area (ft²)	Area Outdoor Air Rate (CFM/ft²)	Time Averaged Occupancy (Occupants)	People Outdoor Air Rate (CFM/person)	Air Distribution	Sp Outdoor (C
Zone Name / Space Name	(Az)	(Ra)	(Pz)	(Rp)	(Ez)	(\
Zone 1						
146 EQUIP LOANS	135.0	0.06	1.0	5.00	0.8	
147 OFFICE	120.0	0.06	1.0	5.00	0.8	:
148 OFFICE	120.0	0.06	1.0	5.00	0.8	
149 OFFICE	120.0	0.06	1.0	5.00	0.8	
150 OFFICE	120.0	0.06	1.0	5.00	0.8	
143 LUNCH MEETING	560.0	0.06	8.0	5.00	0.8	
Totals (incl. Space Multipliers)						

	Space Floor Area (ft²)	Area Outdoor Air Rate (CFM/ft²)	Time Averaged Occupancy (Occupants)	Rate	Air Distribution	Space Outdoor Air (CFM)
Zone Name / Space Name	(Az)	(Ra)	(Pz)	(Rp)	(Ez)	(Voz)
Zone 1						
135 CAMP OFFICE (ARENA)	135.0	0.06	2.0	5.00	0.8	23
137 MPR STORAGE (ARENA)	160.0	0.06	0.0	5.00	0.8	12
136 MPR (ARENA)	580.0	0.06	20.0	5.00	0.8	169
Totals (incl. Space Multipliers)						204
2.7 Zone: FC-2				-		
	Space Floor		Time Averaged	People Outdoor Air	Air	Space

mm/15min

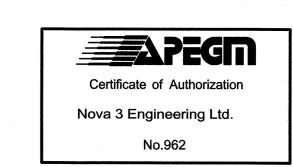
L/min

	Space Floor Area (ft²)	Area Outdoor Air Rate (CFM/ft²)	Time Averaged Occupancy (Occupants)	People Outdoor Air Rate (CFM/person)	Air Distribution	Spac Outdoor Ai (CFM
Zone Name / Space Name	(Az)	(Ra)	(Pz)	(Rp)	(Ez)	(Voz
Zone 1						
138 WASAC STOR (MPR USE)	700.0	0.06	40.0	5.00	0.8	303
Totals (incl. Space Multipliers)						

EXHAUST SUMMARY (BASED ON ASHRAE 62.1 2016) EXHAUST RATE EXHAUST AREA AREA (SQ.FT.) (CFM/SQ.FT.) EF-1/MUA-1 WASH BAY 920 0.77 708 815 NOTE:(1) TABLE IS FOR EXHAUST DRIVEN SPACES ONLY. REFER TO ATTACHED VENTILATION

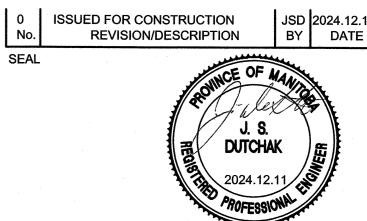
SUMMARIES FOR REMAINING SPACE REQUIREMENTS. (2) EXHAUST AIRFLOW IN WASHBAY

AREAS EXCEED REQUIRED RATES.



REQ'D (CFM) | PROVIDED (CFM)

WWW.NOVA3.CA



CT/JSD DRAWN CHECKED DESIGNED APPROVED DA7£04.20 USER APPROVAL

THE CITY OF WINNIPEG ASSETS and PROJECT MANAGEMENT Winnipeg DEPARTMENT MUNICIPAL ACCOMMODATIONS DIVISION PROJECT 3-65 GARRY STREET, R3C 4K4 REDEVELOPMENT OF THE **OLD EXHIBITION ARENA**

ISSUED FOR CONSTRUCTION NOVA 3 ENGINEERING LTD.
PROFESSIONAL ENGINEERS **80 SINCLAIR STREET** SHEET TITLE

201-120 FORT STREET TEL.: (204) 943-6142 WINNIPEG, MANITOBA R3C 1C7 FAX.: (204) 942-1276 MECHANICAL SCHEDULES, LEGEND, JN.: 41-193 THIS DRAWING IS THE EXCLUSIVE PROPERTY OF NOVA 3 ENGINEERING LTD. AND MAY ONLY BE REPRODUCED WITH THE WRITTEN PERMISSION OF NOVA 3 ENGINEERING LTD. VENTILATION SUMMARY THE CONCEPT AND DESIGN INCORPORATED INTO THIS DRAWING ARE BASED ON INFORMATION PROVIDED BY THE CLIENT AND OTHER RELATED SOURCES. PROFESSIONAL ENGINEER ACCEPTS NO RESPONSIBILITY FOR DRAWING AND DESIGN UNLESS DRAWING IS ACCOMPANIED BY ORIGINAL SCALED LETTER OF INTENT OR EQUIVALENT ACCEPTABLE FACSIMILE. PROFESSIONAL ENGINEER ACCEPTS NO RESPONSIBILITY FOR FINAL INSTALLATION CONFORMANCE WITHOUT ORIGINAL SEALED CERTIFICATE OF INSPECTION OR EQUIVALENT ACCEPTABLE FACSIMILE.

PROJECT No: SHEET No: 2020-136 AS SHOWN

DRAWING SHEET SIZE: A1 (841mm x 594mm) PLOT 1:1