

ASHRAE 62.1-2013 COMPLIANCE SCHEDULE (ERV-1A)

| UNIT DESIGNATION | OCCUPANCY CATEGORY | PEOPLE OUTSIDE AIR RATE [L/s PER OCCUPANT] | NUMBER OF OCCUPANTS | ZONE AIR DISTRIBUTION EFFECTIVENESS FACTOR | OCCUPANT OUTSIDE AIR VOLUME [L/s] | OCCUPANT OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s] | AREA OF SPACE [m²] | AREA OUTSIDE AIR RATE [L/s PER m²] | OCCUPIED MINIMUM AREA OUTSIDE AIR VOLUME [L/s] | *OCCUPIED MINIMUM AREA OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s] | **COMBINED OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s] |
|------------------------|--|---|---------------------|--|-----------------------------------|--|--------------------|------------------------------------|--|--|--|
| VESTIBULE 241 | CORRIDOR | 0 | 0 | 0.8 | 0 | 0 | 3.1 | 0.3 | 0.9 | 1.1 | 1.2 |
| EXISTING EXAM AREA 231 | WAREHOUSES | 5.0 | 2 | 0.8 | 10.0 | 12.5 | 244.3 | 0.3 | 73.3 | 91.6 | 104.1 |
| NEW LOCKER ROOM 236 | OCCUPIABLE STORAGE ROOMS FOR LIQUIDS OR GELS | 2.5 | 0 | 0.8 | 0 | 0 | 37.0 | 0.3 | 22.2 | 27.8 | 27.8 |
| WAREHOUSE 240 | WAREHOUSES | 5.0 | 2 | 0.8 | 10.0 | 12.5 | 608.0 | 0.3 | 182.4 | 228.0 | 240.5 |
| DRIVER WAITING 238 | OFFICE SPACE | 2.5 | 2 | 0.8 | 5.0 | 6.3 | 22.5 | 0.3 | 6.8 | 8.5 | 14.8 |
| OFFICE 239 | OFFICE SPACE | 2.5 | 2 | 0.8 | 5.0 | 6.3 | 20.5 | 0.3 | 6.3 | 7.8 | 14.1 |
| INTERVIEW 237 | CONFERENCE/MEETING ROOM | 2.5 | 2 | 0.8 | 5.0 | 6.3 | 9 | 0.3 | 2.7 | 3.4 | 9.7 |
| TOTALS | | | | | | | | | | | 412.2 |

NOTES: CALCULATIONS BASED ON ASHRAE STANDARD 62.1-2013, VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY.
*THIS COLUMN INDICATED MINIMUM VENTILATION AIR VOLUME IF OUTSIDE AIR DAMPER IS CONTROLLED BY A CO² SENSOR.
**INFORMATION PROVIDED FOR REFERENCE ONLY.

ASHRAE 62.1-2013 COMPLIANCE SCHEDULE (RTU-1A)

| UNIT DESIGNATION | OCCUPANCY CATEGORY | PEOPLE OUTSIDE AIR RATE [L/s PER OCCUPANT] | NUMBER OF OCCUPANTS | ZONE AIR DISTRIBUTION EFFECTIVENESS FACTOR | OCCUPANT OUTSIDE AIR VOLUME [L/s] | OCCUPANT OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s] | AREA OF SPACE [m²] | AREA OUTSIDE AIR RATE [L/s PER m²] | OCCUPIED MINIMUM AREA OUTSIDE AIR VOLUME [L/s] | *OCCUPIED MINIMUM AREA OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s] | **COMBINED OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s] |
|------------------|--------------------|---|---------------------|--|-----------------------------------|--|--------------------|------------------------------------|--|--|--|
| PIL BOOTH 405 | OFFICE SPACE | 2.5 | 1 | 0.8 | 2.5 | 3.1 | 11.0 | 0.3 | 3.4 | 4.1 | 7.2 |
| TOTALS | | | | | | | | | | | 7.2 |

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ASHRAE 62.1-2013 COMPLIANCE SCHEDULE (RTU-2A)

| UNIT DESIGNATION | OCCUPANCY CATEGORY | PEOPLE OUTSIDE AIR RATE [L/s PER OCCUPANT] | NUMBER OF OCCUPANTS | ZONE AIR DISTRIBUTION EFFECTIVENESS FACTOR | OCCUPANT OUTSIDE AIR VOLUME [L/s] | OCCUPANT OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s] | AREA OF SPACE [m²] | AREA OUTSIDE AIR RATE [L/s PER m²] | OCCUPIED MINIMUM AREA OUTSIDE AIR VOLUME [L/s] | *OCCUPIED MINIMUM AREA OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s] | **COMBINED OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s] |
|------------------|--------------------|---|---------------------|--|-----------------------------------|--|--------------------|------------------------------------|--|--|--|
| PIL BOOTH 406 | OFFICE SPACE | 2.5 | 1 | 0.8 | 2.5 | 3.1 | 11.0 | 0.3 | 3.4 | 4.1 | 7.2 |
| TOTALS | | | | | | | | | | | 7.2 |

NOTES: CALCULATIONS BASED ON ASHRAE STANDARD 62.1-2013, VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY.
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ASHRAE 62.1-2013 COMPLIANCE SCHEDULE (RTU-3A)

| UNIT DESIGNATION | OCCUPANCY CATEGORY | PEOPLE OUTSIDE AIR RATE [L/s PER OCCUPANT] | NUMBER OF OCCUPANTS | ZONE AIR DISTRIBUTION EFFECTIVENESS FACTOR | OCCUPANT OUTSIDE AIR VOLUME [L/s] | OCCUPANT OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s] | AREA OF SPACE [m²] | AREA OUTSIDE AIR RATE [L/s PER m²] | OCCUPIED MINIMUM AREA OUTSIDE AIR VOLUME [L/s] | *OCCUPIED MINIMUM AREA OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s] | **COMBINED OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s] |
|------------------|--------------------|---|---------------------|--|-----------------------------------|--|--------------------|------------------------------------|--|--|--|
| PIL BOOTH 407 | OFFICE SPACE | 2.5 | 1 | 0.8 | 2.5 | 3.1 | 11.0 | 0.3 | 3.4 | 4.1 | 7.2 |
| TOTALS | | | | | | | | | | | 7.2 |

NOTES: CALCULATIONS BASED ON ASHRAE STANDARD 62.1-2013, VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY.
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ASHRAE 62.1-2013 COMPLIANCE SCHEDULE (RTU-4A)

| UNIT DESIGNATION | OCCUPANCY CATEGORY | PEOPLE OUTSIDE AIR RATE [L/s PER OCCUPANT] | NUMBER OF OCCUPANTS | ZONE AIR DISTRIBUTION EFFECTIVENESS FACTOR | OCCUPANT OUTSIDE AIR VOLUME [L/s] | OCCUPANT OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s] | AREA OF SPACE [m²] | AREA OUTSIDE AIR RATE [L/s PER m²] | OCCUPIED MINIMUM AREA OUTSIDE AIR VOLUME [L/s] | *OCCUPIED MINIMUM AREA OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s] | **COMBINED OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s] |
|------------------|--------------------|---|---------------------|--|-----------------------------------|--|--------------------|------------------------------------|--|--|--|
| PIL BOOTH 408 | OFFICE SPACE | 2.5 | 1 | 0.8 | 2.5 | 3.1 | 11.0 | 0.3 | 3.4 | 4.1 | 7.2 |
| TOTALS | | | | | | | | | | | 7.2 |

NOTES: CALCULATIONS BASED ON ASHRAE STANDARD 62.1-2013, VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY.
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ASHRAE 62.1-2013 COMPLIANCE SCHEDULE (TERTIARY EXAM)

| UNIT DESIGNATION | OCCUPANCY CATEGORY | PEOPLE OUTSIDE AIR RATE [L/s PER OCCUPANT] | NUMBER OF OCCUPANTS | ZONE AIR DISTRIBUTION EFFECTIVENESS FACTOR | OCCUPANT OUTSIDE AIR VOLUME [L/s] | OCCUPANT OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s] | AREA OF SPACE [m²] | AREA OUTSIDE AIR RATE [L/s PER m²] | OCCUPIED MINIMUM AREA OUTSIDE AIR VOLUME [L/s] | *OCCUPIED MINIMUM AREA OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s] | **COMBINED OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s] |
|---------------------------------------|--------------------|---|---------------------|--|-----------------------------------|--|--------------------|------------------------------------|--|--|--|
| EXISTING TERTIARY EXAM 400 | WAREHOUSES | 5 | 0 | 0.8 | 0 | 0 | 123 | 0.03 | 37.5 | 47 | 47 |
| NEW TERTIARY EXAM GARAGE ADDITION 401 | WAREHOUSES | 5 | 0 | 0.8 | 0 | 0 | 168 | 0.03 | 51.2 | 64 | 64 |
| TOTALS | | | | | | | | | | | 111 |

NOTES: CALCULATIONS BASED ON ASHRAE STANDARD 62.1-2013, VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY.
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ASHRAE 62.1-2013 COMPLIANCE SCHEDULE (HRV-1B)

| UNIT DESIGNATION | OCCUPANCY CATEGORY | PEOPLE OUTSIDE AIR RATE [L/s PER OCCUPANT] | NUMBER OF OCCUPANTS | ZONE AIR DISTRIBUTION EFFECTIVENESS FACTOR | OCCUPANT OUTSIDE AIR VOLUME [L/s] | OCCUPANT OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s] | AREA OF SPACE [m²] | AREA OUTSIDE AIR RATE [L/s PER m²] | OCCUPIED MINIMUM AREA OUTSIDE AIR VOLUME [L/s] | *OCCUPIED MINIMUM AREA OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s] | **COMBINED OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s] |
|----------------------|--------------------|---|---------------------|--|-----------------------------------|--|--------------------|------------------------------------|--|--|--|
| NEW WAITING AREA 402 | MAIN ENTRY LOBBY | 2.36 | 5 | 0.8 | 11.80 | 14.75 | 60 | 0.03 | 18.29 | 22.86 | 37.61 |
| OFFICE AREA 403 | OFFICE SPACE | 2.5 | 2 | 0.8 | 5 | 6.25 | 176 | 0.3 | 52.8 | 66 | 118.8 |
| TOTALS | | | | | | | | | | | 156.41 |

NOTES: CALCULATIONS BASED ON ASHRAE STANDARD 62.1-2013, VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY.
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GRILLE, DIFFUSER & LOUVER SCHEDULE

| MARK | SERVICE | TYPE | BORDER | COLOUR | CORE | BLADE | FRAME | FASTEN | FINISH | REMARKS |
|-----------|--------------|-------------------------------|-----------|----------|--------------------|--|-------|--|-------------------|--|
| A | SUPPLY AIR | ALUMINUM SQUARE CONE DIFFUSER | --- | WHITE | 3 CONCENTRIC CONES | --- | TBAR | --- | WHITE POWDER COAT | REFER TO MECHANICAL DRAWINGS FOR SIZES AND LOCATIONS. FINISHES BY ARCHITECTURAL. |
| B | RETURN AIR | ALUMINUM EGG CRATE GRILLE | FLAT | WHITE | --- | --- | TBAR | --- | WHITE POWDER COAT | REFER TO MECHANICAL DRAWINGS FOR SIZES AND LOCATIONS. FINISHES BY ARCHITECTURAL. |
| C | EXHAUST AIR | ALUMINUM EGG CRATE GRILLE | DUCT | WHITE | --- | --- | --- | COUNTER SINK SCREW HOLES C/W OVER HEAD SCREW | WHITE POWDER COAT | REFER TO MECHANICAL DRAWINGS FOR SIZES AND LOCATIONS. FINISHES BY ARCHITECTURAL. |
| D | SUPPLY AIR | STEEL GRILLE | FLAT | WHITE | DOUBLE BLADE | FRONT BLADES PARALLEL TO LONG DIMENSION | --- | COUNTER SINK SCREW HOLES C/W OVER HEAD SCREW | WHITE POWDER COAT | REFER TO MECHANICAL DRAWINGS FOR SIZES AND LOCATIONS. FINISHES BY ARCHITECTURAL. |
| E | SUPPLY AIR | SIDEWALL STEEL GRILLE | DUCT | WHITE | DOUBLE BLADE | FRONT BLADES PARALLEL TO LONG DIMENSION | --- | COUNTER SINK SCREW HOLES C/W OVER HEAD SCREW | WHITE POWDER COAT | REFER TO MECHANICAL DRAWINGS FOR SIZES AND LOCATIONS. FINISHES BY ARCHITECTURAL. |
| F | TRANSFER AIR | SIDEWALL STEEL GRILLE | FLAT | WHITE | SINGLE BLADE | ADJUSTABLE BLADES PARALLEL TO LONG DIMENSION | --- | COUNTER SINK SCREW HOLES C/W OVER HEAD SCREW | WHITE POWDER COAT | REFER TO MECHANICAL DRAWINGS FOR SIZES AND LOCATIONS. FINISHES BY ARCHITECTURAL. |
| PENTHOUSE | OUTSIDE AIR | LOUVER EXTRUDED | PENTHOUSE | ALUMINUM | --- | EXTRUDED ALUMINUM | --- | --- | ALUMINUM | REFER TO MECHANICAL DRAWINGS FOR SIZES AND LOCATIONS. RAIN RESISTANT BLADE SLOPED SILL, DRAINAGE BLADES. |



DO NOT SCALE DRAWINGS

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| 0 | ISSUED FOR CONSTRUCTION | 2016/11/02 |
| Revision/Revision | Description/Description | Date/Date |

Client/client

PUBLIC WORKS
AND GOVERNMENT
SERVICES AGENCY

Project title/Titre du projet
EMERSON, MANITOBA
HIGHWAY 75, UNITED STATES BORDER

EXPANSION AND
REDEVELOPMENT OF THE
EMERSON PORT OF ENTRY

Approved by/Approuvé par
AL
Designed by/Concept par
CD/AL

Drawn by/Dessiné par
KL
PWSC Project Manager/Administrateur de Projets TPSCG
JAMES HUTCHINGS

PWSCC, Architectural and Engineering Resources Manager/
Ressources Architectural et de Directeur d'ingénierie, TPSCG

Client/client

Drawing title/Titre du dessin
VENTILATION CHARTS

| | | |
|---|-----------------------------------|---------------------------------------|
| Project No./No. du projet R.068431.001 | Sheet/ Feuille M6.2 8 OF 11 | Revision no./ La Révision no. 0 |
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