

EQUIPMENT NUMBER	DESCRIPTION	AIRFLOW (CFM)	DIMENSIONS (mm)	FILTER SECTION	SUPPLY FAN			TOTAL HEATING CAPACITY
30-50-2-MUA-1	INDOOR STEAM MAKE UP AIR UNIT	2000	736.6 H x 1117.6 W x 2753.4 L	136.4 Pa PRESSURE DROP	956.0 Pa STATIC PRESSURE	208V / 60Hz / 3 PHASE	3HP MOTOR	238.59 MBh
30-50-2-MUA-2	INDOOR STEAM MAKE UP AIR UNIT	2000	736.6 H x 1117.6 W x 2753.4 L	136.4 Pa PRESSURE DROP	956.0 Pa STATIC PRESSURE	208V / 60Hz / 3 PHASE	3HP MOTOR	238.59 MBh
30-50-2-MUA-3	INDOOR STEAM MAKE UP AIR UNIT	2000	736.6 H x 1117.6 W x 2753.4 L	136.4 Pa PRESSURE DROP	956.0 Pa STATIC PRESSURE	208V / 60Hz / 3 PHASE	3HP MOTOR	238.59 MBh

EQUIPMENT NUMBER	DESCRIPTION	AIRFLOW (CFM)	POWER	ELECTRICAL			SOUND LEVEL (DB)
30-260-8-EX-1	ELECTRICALLY COMMUNICATED MOTOR, DIRECT DRIVE DOWNBLAST FAN	520	1/6 MOTOR HP	115V / 60Hz / 1 PHASE	0-10V DC CONTROL WIRE INPUTS	REMOTE DIAL TO CONTROL AIRFLOW	59
30-260-8-EX-2	ELECTRICALLY COMMUNICATED MOTOR, DIRECT DRIVE DOWNBLAST FAN	480	1/6 MOTOR HP	115V / 60Hz / 1 PHASE	0-10V DC CONTROL WIRE INPUTS	REMOTE DIAL TO CONTROL AIRFLOW	59
30-260-8-EX-3	ELECTRICALLY COMMUNICATED MOTOR, DIRECT DRIVE DOWNBLAST FAN	1000	1/6 MOTOR HP	115V / 60Hz / 1 PHASE	0-10V DC CONTROL WIRE INPUTS	REMOTE DIAL TO CONTROL AIRFLOW	59
30-260-8-EX-4	ELECTRICALLY COMMUNICATED MOTOR, DIRECT DRIVE DOWNBLAST FAN	2000	1/3 MOTOR HP	115V / 60Hz / 1 PHASE	0-10V DC CONTROL WIRE INPUTS	REMOTE DIAL TO CONTROL AIRFLOW	60
30-260-8-EX-5	ELECTRICALLY COMMUNICATED MOTOR, BELT DRIVE INLINE FAN	200	1/4 MOTOR HP	115V / 60Hz / 1 PHASE	0-10V DC CONTROL WIRE INPUTS	REMOTE DIAL TO CONTROL AIRFLOW	52

EQUIPMENT TAG	DESCRIPTION	INSIDE DIMENSIONS (mm)	CONSTRUCTION		
PH-43+480	BOXED CORNER PENTHOUSE	1270 H x 1270 W x 1270 L	EXTRUDED ALUMINUM LOUVER FRAME AND BLADES, FORMED ALUMINUM CORNER FLASHING	12.7mm MESH x 1.6mm DIA. EXPANDED ALUMINUM BIRD SCREEN	DRAINABLE STATIONARY LOUVERS
PH-43+049-33	BOXED CORNER PENTHOUSE	1270 H x 1270 W x 1270 L	EXTRUDED ALUMINUM LOUVER FRAME AND BLADES, FORMED ALUMINUM CORNER FLASHING	12.7mm MESH x 1.6mm DIA. EXPANDED ALUMINUM BIRD SCREEN	DRAINABLE STATIONARY LOUVERS
PH-43+198-45	BOXED CORNER PENTHOUSE	1970 H x 1970 W x 1270 L	EXTRUDED ALUMINUM LOUVER FRAME AND BLADES, FORMED ALUMINUM CORNER FLASHING	12.7mm MESH x 1.6mm DIA. EXPANDED ALUMINUM BIRD SCREEN	DRAINABLE STATIONARY LOUVERS
PH-43+198-54	BOXED CORNER PENTHOUSE	1970 H x 1970 W x 1270 L	EXTRUDED ALUMINUM LOUVER FRAME AND BLADES, FORMED ALUMINUM CORNER FLASHING	12.7mm MESH x 1.6mm DIA. EXPANDED ALUMINUM BIRD SCREEN	DRAINABLE STATIONARY LOUVERS
PH-43+765	BOXED CORNER PENTHOUSE	1270 H x 1270 W x 1270 L	EXTRUDED ALUMINUM LOUVER FRAME AND BLADES, FORMED ALUMINUM CORNER FLASHING	12.7mm MESH x 1.6mm DIA. EXPANDED ALUMINUM BIRD SCREEN	DRAINABLE STATIONARY LOUVERS

EQUIPMENT NUMBER	DESCRIPTION	CAPACITY (kw)	ELECTRICAL
20-520-1-UH-1	HORIZONTAL STEAM UNIT HEATER WITH THERMOSTAT	10.6	115V / 60Hz / 1 PHASE
20-520-1-UH-2	HORIZONTAL STEAM UNIT HEATER WITH THERMOSTAT	10.6	115V / 60Hz / 1 PHASE
20-520-1-UH-3	HORIZONTAL STEAM UNIT HEATER WITH THERMOSTAT	10.6	115V / 60Hz / 1 PHASE

EQUIPMENT NUMBER	DESCRIPTION	INLET PRESSURE (psi)	DISCHARGE PRESSURE (psi)	CAPACITY (lb/hr)
20-526-0-PRV-1	19mm CAST STEEL REDUCED PORT EXTERNAL PILOT OPERATED PRESSURE REDUCING VALVE	125	15	500
20-526-0-PRV-2	19mm CAST STEEL REDUCED PORT EXTERNAL PILOT OPERATED PRESSURE REDUCING VALVE	125	15	500

EQUIPMENT NUMBER	DESCRIPTION	CAPACITY (lb/hr)	FLASH (lb/hr)	PRESSURE RATING
20-335-1-FT-1	VERTICAL FLASH TANK	2000	500	300
20-335-1-FT-2	VERTICAL FLASH TANK	2000	500	300

EQUIPMENT TAG	DESCRIPTION	FLOWRATE	VOLUME	COMPLETE WITH
REC-43+000	CONDENSATE RECEIVER	34 l/m @ 345 kPa	87L RECEIVER	SIGHT GLASS
REC-43+520	CONDENSATE RECEIVER	34 l/m @ 345 kPa	87L RECEIVER	SIGHT GLASS

EQUIPMENT NUMBER	DESCRIPTION	FLOWRATE	ELECTRICAL	LOCATION
55-223-0-SP-1	SUBMERSIBLE SUMP PUMP	0.3 l/s @ 137 kPa HEAD	1/2 HP / 120V / 1 PHASE	TBU43+000
55-223-0-SP-2	SUBMERSIBLE SUMP PUMP	0.3 l/s @ 137 kPa HEAD	1/2 HP / 120V / 1 PHASE	TBU43+004
55-223-0-SP-3	SUBMERSIBLE SUMP PUMP	0.3 l/s @ 137 kPa HEAD	1/2 HP / 120V / 1 PHASE	TBU43+049
55-223-0-SP-4	SUBMERSIBLE SUMP PUMP	0.3 l/s @ 137 kPa HEAD	1/2 HP / 120V / 1 PHASE	TBU43+198
55-223-0-SP-5	SUBMERSIBLE SUMP PUMP	0.3 l/s @ 137 kPa HEAD	1/2 HP / 120V / 1 PHASE	TBU43+198-46
55-223-0-SP-6	SUBMERSIBLE SUMP PUMP	0.3 l/s @ 137 kPa HEAD	1/2 HP / 120V / 1 PHASE	TBU43+520

EQUIPMENT TAG	DESCRIPTION	COMPLETE WITH
30-51-3-S-1	LOUVERED FACE SUPPLY GRILLE	20mm BLADE SPACING, OUTSIDE BLADES HORIZONTAL, ALUMINUM CONSTRUCTION, ADJUSTABLE BLADES, INTEGRAL OB DAMPER WHERE BUTTERFLY IS NOT ACCESSIBLE, WHITE POWDER COAT FINISH
30-51-3-R-1	LOUVERED FACE RETURN GRILLE	20mm FIXED BLADE SPACING @45°, BORDER TO SUIT DRYWALL, WHITE POWDER COAT FINISH
30-51-3-E-1	EGG CRATE RETURN GRILLE	20mm SPACING, BORDER TO SUIT CEILING, DUCT COLLAR FOR DUCTED GRILLES, WHITE POWDER COAT FINISH
30-51-3-L-1	LOUVRE	20mm GALVANIZED BIRDSCREEN, WELDED ALUMINUM CONSTRUCTION WITH DRAINABLE BLADES, CUSTOM COLOR BARN RED (LF13) FOR EACH LOUVER

EQUIPMENT NUMBER	DESCRIPTION	COMPLETE WITH	LOCATION
60-310-0-FEX-1	ABC-10 WALL HUNG FIRE EXTINGUISHER	10LB ABC FIRE EXTINGUISHER, METAL WALL BRACKET, WALL LOCATOR SIGN PERPENDICULAR TO WALL, EACH EXTINGUISHER TO HAVE ID TAG WITH UNIQUE NUMBER	TBU43+000
60-310-0-FEX-2	ABC-10 WALL HUNG FIRE EXTINGUISHER	10LB ABC FIRE EXTINGUISHER, METAL WALL BRACKET, WALL LOCATOR SIGN PERPENDICULAR TO WALL, EACH EXTINGUISHER TO HAVE ID TAG WITH UNIQUE NUMBER	TBU43+000
60-310-0-FEX-3	ABC-10 WALL HUNG FIRE EXTINGUISHER	10LB ABC FIRE EXTINGUISHER, METAL WALL BRACKET, WALL LOCATOR SIGN PERPENDICULAR TO WALL, EACH EXTINGUISHER TO HAVE ID TAG WITH UNIQUE NUMBER	TBU43+520

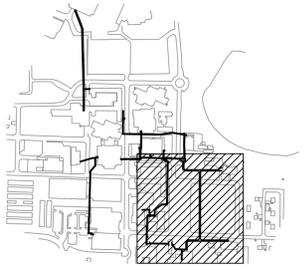
CONTROLS SEQUENCE AT OPERATION

- ALL DOWN BLAST EXHAUST FAN AND MAKE-UP AIR UNIT TO BE REMOTELY CONTROLLED BY DCS IN BOILER HOUSE CONTROL ROOM.
- MAKE-UP AIR UNIT AND FANS SHALL BE INDIVIDUALLY CONTROLLED VIA DCS STOP/START.
- ALL MAKE-UP AIR UNIT AND FANS SHALL BE INSTALLED WITH A LOCAL SHUT OFF AT THE EQUIPMENT AND WILL INDICATE ON THE DCS. A NO RUN INDICATION.
- SUPPLY AIR TEMPERATURE FROM EACH MAKE-UP AIR UNIT SHALL BE USER CONTROLLED FROM DCS. DISPLAY SUPPLY TEMPERATURE.

TENDER
NOT FOR CONSTRUCTION



Key Plan



Revision	Description	Date
E	Issued For Tender	19/09/30
D	Issued For 99% Review	19/06/21
C	Issued For 85% Review	19/03/15
B	Issued For 50% Review	18/11/13
A	Issued For Review	18/09/07

Client

Public Works and Government Services Canada

Project title

Tunnel Revitalization

Designed by

J. Kells

Drawn by

M. Diego

Approved by

B. Wolfater

PWSSC Project Manager

J. Dayman

Drawing title

Package 1 - TBU43 - Above Ground
Mechanical
Equipment List

Project no.	Drawing no.	Revision no.
1004259	M1.41	E