

# SPECIFICATIONS

## 1.0 GENERAL

THE RESPONSIBILITY AND SCOPE OF EACH SUB-TRADE RESTS SOLELY WITH THE CONTRACTOR. EXTRAS WILL NOT BE CONSIDERED BASED ON THE GROUNDS OF DIFFERENCE IN INTERPRETATION OF SPECIFICATIONS AND DRAWINGS AS TO WHICH TRADE INVOLVED SHALL PROVIDE CERTAIN SPECIALTIES OR MATERIALS.

CONTRACTOR TO MAKE CERTAIN THAT ALL ADDENDA TO THE SPECIFICATIONS AND ALL REVISIONS TO THE DRAWINGS ARE INCLUDED IN THEIR QUOTATION.

CONTRACTOR TO ENSURE THAT DELIVERY TIME OF ALL MECHANICAL EQUIPMENTS WILL NOT CAUSE A DELAY IN THE SCHEDULING OF THIS PROJECT.

### 1.1. EXAMINATION OF WORK

DRAWINGS ARE DIAGRAMMATIC AND APPROXIMATELY TO SCALE. THE CONTRACT DOCUMENTS ESTABLISH SCOPE, MATERIAL AND QUALITY AND ARE NOT DETAIL INSTALLATION INSTRUCTIONS.

### 1.2. INTENT

IT IS THE INTENT OF THIS SPECIFICATION AND DRAWINGS TO PROVIDE FOR A COMPLETE AND FULLY OPERATING SYSTEM IN COMPLETE ACCORD WITH ALL APPLICABLE CODES. THESE SPECIFICATIONS MAY NOT COVER EACH AND EVERY ITEM REQUIRED FOR THE COMPLETE MECHANICAL INSTALLATION. THEREFORE, THE CONTRACTOR SHALL MAKE HIS OWN PROVISIONS FOR ALL LABOUR, MATERIALS AND EQUIPMENTS DEEMED NECESSARY TO COMPLETE THE MECHANICAL SYSTEM.

THE SPECIFICATIONS ARE INTEGRAL WITH THE DRAWINGS WHICH ACCOMPANY THEM. NEITHER IS TO BE USED ALONE. ANY ITEM OR SUBJECT OMITTED FROM ON, BUT IMPLIED ON THE OTHER IS PROPERLY SPECIFIED.

WHENEVER DIFFERENCES OCCUR IN THE CONTRACT DOCUMENTS, THE MAXIMUM CONDITION WILL GOVERN AND BE INCLUDED IN THE CONTRACT PRICE.

CONFORM TO MANUFACTURER'S INSTRUCTIONS, DETAILS AND PROCEDURES FOR EQUIPMENT INSTALLATIONS.

INSTALL EQUIPMENTS IN LOCATIONS AND ROUTES SHOWN WITH MINIMUM INTERFERENCE WITH OTHER SERVICES OR TRADES. REMOVE AND REPLACE EQUIPMENTS IMPROPERLY INSTALLED.

CONFIRM ALL NEW EQUIPMENT LOADING & SUPPORT WITH STRUCTURAL ENGINEER PRIOR TO INSTALLATION.

### 1.3. INSURANCE

THE CONTRACTOR MUST HAVE COMPREHENSIVE GENERAL LIABILITY INSURANCE COVERAGE OF NOT LESS THAN \$5,000,000.00 INCLUDING NON OWNED CAR COVERAGE, CONTRACTUAL LIABILITY AND CONTAINING A CROSS LIABILITY CLAUSE. COVERAGE SHALL INCLUDE LOSS OR DAMAGE CAUSED BY THE CONTRACTOR.

CONTRACTOR'S ALL RISK INSURANCE OR FLOATER POLICY IS ALSO REQUIRED IN ADDITION TO THE GENERAL LIABILITY INSURANCE. THE INSURED AMOUNT SHALL BE \$750,000. THE OWNER WILL NE NAMED AS CO-INSURED WITH THE CONTRACTOR.

### 1.4. LIABILITY

THIS CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR LAYING OUT HIS WORK AND FOR ANY DAMAGE CAUSED TO OWNER OR OTHER CONTRACTOR BY IMPROPER LOCATION OR CARRYING OUT HIS WORK.

THIS CONTRACTOR SHALL PROTECT ALL FINISHED AND UNFINISHED WORK OF HIS OWN AND OTHER CONTRACTORS, INCLUDING EXISTING FROM DAMAGE DUE TO CARRYING OUT HIS WORK.

VERIFY ALL EXISTING ELEVATIONS, DIMENSIONS, CLEARANCES & BUILDING FEATURES PRIOR TO COMMENCING INSTALLATION.

### 1.5. COORDINATION & CO-OPERATION

COORDINATE WORK WITH ALL OTHER SUBCONTRACTORS AND TRADES INVOLVED.

CONFIRM IN WRITING TO GENERAL CONTRACTOR/ENGINEER ANY EXISTING SERVICES OR WORKS DEEMED TO BE UNACCEPTABLE/DEFECTIVE PRIOR TO COMMENCING WORK.

THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL, STRUCTURAL, ELECTRICAL & LANDSCAPING DRAWINGS. REPORT ANY DISCREPANCIES TO ENGINEER.

### 1.6. CERTIFICATES, FEES, ETC.

GIVE ALL NOTICES, OBTAIN ALL PERMITS AND PAY ALL FEES SO THAT THE WORK SPECIFIED MAY BE CARRIED OUT. FURNISH ANY CERTIFICATES AT THE OWNER'S REQUEST AS EVIDENCE THAT WORK INSTALLED CONFORMS WITH THE LAWS AND REGULATIONS OF ALL AUTHORITIES HAVING JURISDICTIONS CERTIFICATES/PERMITS ARE TO BE PROVIDED FOR QUALITY OF WORKMANSHIP & WORKMAN QUALIFICATIONS.

INSPECTIONS SHALL BE MADE PROMPTLY. IF ANY WORK IS COVERED UP WITHOUT CONSENT IT SHALL BE, IF REQUIRED, UNCOVERED FOR EXAMINATION AND MADE GOOD AT NO EXTRA COST TO OWNER.

### 1.7. IDENTIFICATION

PROVIDE FOR IDENTIFICATION OF PIPING & DUCTWORK WITH MARKERS SHOWING SERVICE & DIRECTION OF FLOW. APPLY LABELS AT MAXIMUM 50' INTERVALS, BEFORE AND AFTER PASSING THROUGH WALLS, AT ACCESS DOOR OPENINGS, AT EACH SHUT OFF VALVE AND ADJACENT TO EACH PIECE OF EQUIPMENT. LABELS SHALL BE WATERPROOF AND HEAT RESISTANT WITH YELLOW BACKGROUND, MINIMUM 1" LETTERING AND DRY ADHESIVE BACKING. PROVIDE 3M #76 ADHESIVE IN ADDITION TO DRY ADHESIVE BACKING.

PROVIDE 2" WIDE COLOUR BAND OF PLASTIC PRESSURE SENSITIVE TAPE FOR PIPING SYSTEMS. SPACING SHALL BE SAME AS LABELS.

TAG AUTOMATIC CONTROLS, ELECTRIC SWITCHES, INSTRUMENTS AND RELAYS WITH LAMICOID LABELS WITH 1/2" LETTERS AND KEY WITH CONTROL SCHEMATICS.

PROVIDE LAMICOID LABELS WITH 1/2" LETTERS ON EQUIPMENT AND MOTOR STARTERS.

### 1.8. CUTTING AND PATCHING

UNLESS BUILDER'S WORK IS EXCLUDED FROM HIS SCOPE OF WORK, THE MECHANICAL CONTRACTOR SHALL INCLUDE AND BE RESPONSIBLE FOR CUTTING, PATCHING AND MAKE GOOD ALL OPENINGS REQUIRED FOR THE MECHANICAL SERVICES.

LOCATE HOLES AND PROVIDE SLEEVES, CUTTING & FITTING REQUIRED FOR MECHANICAL WORK. RELOCATE IMPROPERLY LOCATED HOLES AND REPAIR WORK ACCORDINGLY. PROVIDE EXPANSION BOLTS, HANGER RODS, BRACKETS AND SUPPORTS.

DO NOT ALTER STRUCTURAL MEMBERS OF BUILDING WITHOUT OBTAINING APPROVAL FROM ARCHITECT.

PERFORM PATCHING OF FINISHED WORK IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF SPECIFICATIONS.

### 1.9. FLASHING

DO ALL FLASHING AND COUNTER FLASHING WHERE DUCTS AND OTHER MECHANICAL PARTS ARE PASSING THROUGH WEATHER AND/OR WATER PROOF WALLS, FLOORS AND ROOFS, ALL TO THE SATISFACTION OF THE OWNER.

DUCTWORK & PIPING PENETRATING WALLS, FLOORS AND ROOFS SHALL CONFORM TO THE REQUIREMENTS OF BUILDING ENVELOP CONSULTANT AND/OR ARCHITECT.

### 1.10. FIRE STOPPING

PROVIDE FIRE STOPPING & SMOKE SEALS AROUND MECHANICAL SERVICE PIPING AND DUCT PENETRATIONS THROUGH FIRE RATED FLOORS AND ASSEMBLIES. WORK SHALL BE INSTALLED TO MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES. INSTALLATIONS SHALL MEET CSA STANDARD CAN4-S115-M85 & AUTHORITIES HAVING JURISDICTION.

ALL FLOOR PENETRATIONS SHALL BE COMPLETE WITH HILTI FIRE RATED PIPE SLEEVES.

ACCEPTABLE FIRESTOPPING SYSTEMS FOR VERTICAL PENETRATIONS ARE 3M FIRE BARRIER PENETRATIONS SEALING SYSTEM, BIO-FIRE PROTECTION LTD., FIRE STOPPING & SMOKE SEALS, DOW CORNING FIRE STOP SEALANT, FOR HORIZONTAL PENETRATIONS, APPROVED MANUFACTURER IS FYRE FLANGE BY FIRE SLEEVE INDUSTRIES INC.

CONFIRM EXTENT & LOCATION OF FIRE SEPARATIONS WITH ARCHITECTURAL DRAWINGS.

### 1.11. PIPE HANGERS, SUPPORTS AND SLEEVES

HANGERS AND SUPPORTS SHALL SECURE PIPES IN PLACE, PREVENT VIBRATION, MAINTAIN GRADE BY ADJUSTMENT, PROVIDE FOR EXPANSION AND CONTRACTION. ALL SUPPORTS SHALL BE DIRECTLY FROM THE STRUCTURE, AND NOT FROM OTHER EQUIPMENTS, PIPING OR DUCTWORK.

PROVIDE SUPPORTS & CLEVIS TYPE HANGERS ON OUTSIDE OF INSULATION. INSTALLATION SHALL MEET THE REQUIREMENTS OF APPLICABLE CODES.

### 1.12. TESTING

TEST ALL EQUIPMENTS AND MATERIALS WHERE REQUIRED BY SPECIFICATIONS OR AUTHORITIES HAVING JURISDICTION, TO DEMONSTRATE ITS PROPER OPERATION TO THE OWNER'S REPRESENTATIVE. TEST PROCEDURES SHALL BE IN ACCORDANCE WITH APPLICABLE PORTIONS OF THE ASME, ASHRAE, SMACNA, NFPA, CSA AND OTHER RECOGNIZED TEST CODES AS FAR AS FIELD CONDITIONS PERMIT.

DOMESTIC WATER PIPING: TEST TO 1 1/2 TIMES MAXIMUM WORKING PRESSURE OR 150 PSI WART PRESSURE MEASURED AT SYSTEM LOW POINT.

DRAINAGE SYSTEM: TEST BY FILLING WITH WATER TO PRODUCE WATER PRESSURE OF 5' OF WATER COLUMN MINIMUM AND 25' WATER COLUMN MAXIMUM. CHECK FOR PROPER GRADE AND OBSTRUCTION BY BALL TEST.

ALL GAS PIPING SHALL BE TESTED AS REQUIRED BY AUTHORITIES HAVING JURISDICTION.

ALL LOW VELOCITY DUCT SYSTEMS, INCLUDING SUPPLY, RETURN AND EXHAUST SHALL BE CHECKED FOR TIGHTNESS. ALL LEAKS SHALL BE REPAIRED BEFORE DUCTS ARE FURRED INTO ENSURE TOTAL OUTLET CAPACITY IS WITHIN 5% OF THE QUANTITY BEING SUPPLIED BY THE AIR SYSTEMS.

### 1.13. ELECTRIC MOTORS AND WIRING

SUPPLY ALL MECHANICAL EQUIPMENTS WITH ELECTRIC MOTORS AS REQUIRED.

THE ELECTRICAL SUBCONTRACTOR SHALL BE RESPONSIBLE TO SUPPLY ALL MOTOR STARTERS AND DISCONNECT SWITCHES FOR ALL MOTORS FOR THE PROJECT, ALL LINE VOLTAGE WIRING TO STARTERS AND STARTERS TO MOTORS EXCEPT ON PREWIRED PACKAGED EQUIPMENT.

CONTROLS (FAN SWITCHES) CONNECTED TO MECHANICAL EQUIPMENTS SHALL BE SUPPLIED BY THE MECHANICAL TRADE AND SHALL BE INSTALLED, WIRED IN AND CONNECTED BY THE CONTROL TRADE.

CONFIRM ELECTRICAL SERVICE VOLTAGE & PHASE WITH ELECTRICAL ENGINEER, AND/OR CONTRACTOR PRIOR TO ORDERING OF MECHANICAL EQUIPMENTS.

## 1.14. RECORD "AS-BUILT" DRAWINGS

KEEP IN THE JOB OFFICE AN EXTRA SET OF WHITE PRINTS AND SPECIFICATIONS ON WHICH ALL CHANGES AND DEVIATIONS SHALL BE RECORDED DAILY. AT COMPLETION OF THE PROJECT, TURN OVER TO THE ENGINEER THREE SETS OF NEAT AS-BUILT DRAWINGS AND SPECIFICATIONS. THESE EXTRA SETS OF WHITE PRINT AND SPECIFICATIONS SHALL BE PROVIDED BY THE ARCHITECT.

SUBMIT AS BUILT DRAWINGS TO ENGINEER MINIMUM 10 DAYS PRIOR TO THE OWNER'S REQUEST FOR OCCUPANCY PERMIT INSPECTION.

## 1.15. SHOP DRAWINGS

BEFORE FABRICATION OF ANY MATERIALS OR EQUIPMENTS, SUBMIT A MINIMUM OF 10 COMPLETE SETS OF DRAWINGS AND DATA SHEETS COVERING ALL ITEMS OF EQUIPMENTS FURNISHED AND INTENDED FOR INSTALLATION.

THE ENGINEER'S REVIEW SHALL NOT RELIEVE THIS CONTRACTOR FROM RESPONSIBILITY TO PROVIDE MATERIALS AND EQUIPMENTS IN ACCORDANCE WITH THE DESIGN INTENT AND CONTRACT DOCUMENTS. ALL DIMENSIONS AND SUITABILITY FOR SITE CONDITIONS ARE THE RESPONSIBILITY OF THE CONTRACTOR. ALL ELECTRICAL CHARACTERISTICS MUST BE COORDINATED WITH THE ELECTRICAL SUB-CONTRACTOR.

DO NOT PURCHASE ANY EQUIPMENT PRIOR TO APPROVAL OF SHOP DRAWINGS.

## 1.16. STANDARD OF WORKMANSHIP & MATERIALS

MAKE & QUALITY OF MATERIALS USED ARE SUBJECT TO APPROVAL BY THE ENGINEER. REMOVE CONDEMNED MATERIALS AND INSTALL SUITABLE MATERIALS IN THEIR PLACE.

MATERIAL SHALL BE NEW & UNIFORM PATTERN THROUGHOUT.

EMPLOY ONLY TRADESMAN WITH PROPER LICENSE FOR WORK.

## 1.17. INSPECTIONS (SUBSTANTIAL COMPLETION)

NOTIFY CONSULTANT 2 DAYS PRIOR TO FINAL INSPECTION. ALL SYSTEMS SHALL BE FULLY OPERATIONAL AND ANY DEFICIENCIES SHALL BE IDENTIFIED TO ENGINEER.

ALL DEFICIENCIES SHALL BE COMPLETED WITHIN 2 WEEKS AFTER SUBSTANTIAL COMPLETION. FAILURE TO COMPLETE WORK WITHIN THE TIME FRAME WILL RESULT IN WORK BEING DONE BY THE OWNER AND THE COST BORNE BY THE CONTRACTOR.

## 1.18. KITCHEN HOOD FIRE SUPPRESSION SYSTEM

ENGAGE SERVICES OF THE REGISTERED SPRINKLER & FIRE PROTECTION ENGINEERS TO DESIGN THE ENTIRE KITCHEN HOOD FIRE SUPPRESSION SYSTEM. THEY SHALL MAKE PROVISIONS FOR DESIGN, FIELD REVIEW, ASSURANCE LETTERS & CERTIFICATIONS OF THE ENTIRE SPRINKLER & FIRE SUPPRESSION SYSTEM AT PROJECT COMPLETION.

KITCHEN HOOD FIRE SUPPRESSION SYSTEM SHALL BE SUPPLIED & INSTALLED THROUGH THE GENERAL CONTRACTOR, IN ACCORDANCE WITH NFPA #96 & 17A, AND ALL LOCAL CODES.

THE KITCHEN HOOD FIRE SUPPRESSION CONTRACTOR IS TO SUPPLY MECHANICAL SOLENOID GAS SHUT OFF VALVES WITH RESET RELAYS, TO BE INSTALLED BY THE PLUMBING CONTRACTOR. THESE VALVES WILL CLOSE UPON ACTIVATION OF THE FIRE SUPPRESSION SYSTEM.

ALL ELECTRICAL POWER SUPPLY UNDER THE HOOD WILL ALSO BE CUT OFF IN EMERGENCY.

AN EMERGENCY MANUAL SHUT OFF VALVE SHALL BE SUPPLIED & INSTALLED BY THE MECHANICAL CONTRACTOR, FOR ALL KITCHEN EQUIPMENTS.

PERFORM FUNCTIONAL TESTING OF THE FIRE SUPPRESSION SYSTEMS AND DEVICES & ACCEPTANCE TESTING FOR CONTRACTOR'S MATERIAL AND TEST CERTIFICATE AS PER NFPA STANDARDS. SUBMIT COPY OF ALL CERTIFICATES TO THIS ENGINEER.

WELDER TO SUBMIT TRADE CERTIFICATION & LETTER TO THIS ENGINEER CERTIFYING QUALITY OF ALL WELDS AND MATERIAL ARE IN CONFORMANCE OF ALL APPLICABLE CODES.

GENERAL CONTRACTOR TO SUPPLY ALL REQUIRED PORTABLE FIRE EXTINGUISHERS.

SUPPLY & INSTALL 5 LB, TYPE "K" FIRE EXTINGUISHER IN COOKING AREAS.

## 1.19. EQUIPMENT CLEANUP

DUCTS AND EQUIPMENTS SHALL BE THOROUGHLY CLEANED OF DIRT, CUTTINGS AND OTHER FOREIGN SUBSTANCES. DISCONNECT, CLEAN AND RECONNECT WHENEVER NECESSARY FOR THE PURPOSE OF LOCATING AND REMOVING OBSTRUCTIONS. REPAIR WORK DAMAGED IN THE CAUSE OF REMOVING OBSTRUCTIONS. DUCTS SHALL BE PROFESSIONALLY VACUUM CLEANED PRIOR TO TURNING OVER TO OWNER.

REPAIR ANY TEMPORARY EQUIPMENT USED FOR TEMPORARY HEAT, TO THE FULL SATISFACTION OF THE OWNER.

## 1.20. GUARANTEE

THE MECHANICAL SUBCONTRACTOR, AS A CONDITION PRECEDENT TO FINAL PAYMENT AFTER COMPLETION OF HIS WORK, SHALL GIVE OWNER A WRITTEN GUARANTEE WARRANTING ALL APPARATUS FURNISHED UNDER THE CONTRACT FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE OF HIS WORK BY THE ARCHITECT AND ENGINEER.

BIND ALL GUARANTEE & WARRANTY CERTIFICATES IN MAINTENANCE MANUALS.

No.	Description	Date
1	ISSUED TO PROJECT ARCHITECT	15.10.30

### REVISIONS

- THIS DRAWING IS THE PROPERTY OF A&W FOOD SERVICES OF CANADA INC., & MAY NOT BE USED IN WHOLE OR IN PART FOR ANY PROJECT OTHER THAN THAT DESIGNATED HEREON.
- DO NOT SCALE DRAWINGS - WRITTEN DIMENSIONS TAKE PRECEDENCE.
- CONTRACTOR TO VERIFY JOB SITE DIMENSIONS & CONDITIONS, REPORT ANY & ALL DISCREPANCIES TO THE OWNER & A&W IMMEDIATELY BEFORE PROCEEDING WITH WORK.
- ALL WORK TO CONFORM TO THE LATEST LOCAL BUILDING CODES, BY-LAWS, & NFPA REQUIREMENTS, IN ADDITION TO OTHER REGULATIONS HAVING JURISDICTION.

Consultant



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Project:  
**A&W RESTAURANT**  
**"2015 GFMGF CONCEPT DESIGN"**  
11401 RAILWAY AVE,  
NORTH BATTLEFORD, SK

Title:  
**SPECIFICATIONS**

Date Created <b>FEBRUARY 2016</b>	Prototype Version <b>2178L (2015 V1.1)</b>
Project Number <b>14064</b>	Page Number <b>M0.2</b>
Drawn By <b>RMS</b>	Scale <b>AS NOTED</b>