





**GENERAL CIRCUIT CONDUCTOR IDENTIFICATION SCHEDULE**

120V DISCRETE - MULTI-CONDUCTOR CABLE IN		ANALOGUE - SHIELDED PAIRS IN CABLETRAY		600V POWER -3 CONDUCTOR CABLE IN CABLE TRAY			120V POWER-2 CONDUCTOR CABLE IN CABLE TRAY			600V POWER -1 CONDUCTOR CABLE IN DUCT BANK			600V POWER -1 CONDUCTOR CABLE IN CABLE TRAY		
CODE	DESCRIPTION	CODE	DESCRIPTION	CODE	DESCRIPTION	AMPACITY (A)	CODE	DESCRIPTION	AMPACITY (A)	CODE	DESCRIPTION	AMPACITY (A)	CODE	DESCRIPTION	AMPACITY (A)
[C2]	1-2/C # 14 TECK 90	[A1]	1-1 Pair #16 SHIELDED, TECK 90	[P12]	1-3/C #12 TECK 90	20A	[B12]	1-2/C #12 TECK 90	20A	[F250]	1/C -250 kcmil TECK 90	421A	[F250]	1/C -250 kcmil TECK 90	405A
[C3]	1-3/C # 14 TECK 90	[A2]	1-2 Pair #16 SHIELDED, TECK 90	[P10]	1-3/C #10 TECK 90	30A	[B10]	1-2/C #10 TECK 90	30A	[F350]	1/C -350 kcmil TECK 90	500A	[F300]	1/C -300 kcmil TECK 90	445A
[C4]	1-4/C # 14 TECK 90	[A4]	1-4 Pair #16 SHIELDED, TECK 90	[P8]	1-3/C #8 TECK 90	45A	[B8]	1-2/C #8 TECK 90	45A	[F500]	1/C -500 kcmil TECK 90	605A	[F350]	1/C -350 kcmil TECK 90	505A
[C5]	1-5/C # 14 TECK 90	[A8]	1-8 Pair #16 SHIELDED, TECK 90	[P6]	1-3/C #6 TECK 90	65A				[F600]	1/C -600 kcmil TECK 90	659A	[F400]	1/C -400 kcmil TECK 90	545A
[C6]	1-6/C # 14 TECK 90	[A12]	1-12 Pair #16 SHIELDED, TECK 90	[P4]	1-3/C #4 TECK 90	85A				[F750]	1/C -750 kcmil TECK 90	745A	[F500]	1/C -500 kcmil TECK 90	620A
[C7]	1-7/C # 14 TECK 90	[A16]	1-16 Pair #16 SHIELDED, TECK 90	[P3]	1-3/C #3 TECK 90	105A				[F1000]	1/C -1000 kcmil TECK 90	846A	[F600]	1/C -600 kcmil TECK 90	690A
[C8]	1-8/C # 14 TECK 90	[A24]	1-24 Pair #16 SHIELDED, TECK 90	[P2]	1-3/C #2 TECK 90	115A				[F1250]	1/C -1250 kcmil TECK 90	935A	[F700]	1/C -700 kcmil TECK 90	755A
[C9]	1-9/C # 14 TECK 90	[A36]	1-36 Pair #16 SHIELDED, TECK 90	[P1]	1-3/C #1 TECK 90	130A							[F750]	1/C -750 kcmil TECK 90	785A
[C10]	1-10/C # 14 TECK 90	[T1]	1-1 Triad #16 SHIELDED, TECK 90	[P1/0]	1-3/C #1/0 TECK 90	150A							[F900]	1/C -800 kcmil TECK 90	815A
[C11]	1-11/C # 14 TECK 90	[T2]	1-2 Triad #16 SHIELDED, TECK 90	[P2/0]	1-3/C #2/0 TECK 90	175A							[F800]	1/C -900 kcmil TECK 90	870A
[C12]	1-12/C # 14 TECK 90	[T4]	1-4 Triad #16 SHIELDED, TECK 90	[P3/0]	1-3/C #3/0 TECK 90	200A							[F1000]	1/C -1000 kcmil TECK 90	935A
[C15]	1-15/C # 14 TECK 90	[T8]	1-8 Triad #16 SHIELDED, TECK 90	[P4/0]	1-3/C #4/0 TECK 90	230A									
[C20]	1-20/C # 14 TECK 90	[T12]	1-12 Triad #16 SHIELDED, TECK 90	[P250]	1-3/C -250 kcmil TECK 90	255A									
[C25]	1-25/C # 14 TECK 90	[T16]	1-16 Triad #16 SHIELDED, TECK 90	[P300]	1-3/C -300 kcmil TECK 90	285A				MSC	MANUFACTURER SUPPLIED CABLE				
[C30]	1-30/C # 14 TECK 90	[T24]	1-24 Triad #16 SHIELDED, TECK 90	[P350]	1-3/C -350 kcmil TECK 90	310A									
[C40]	1-40/C # 14 TECK 90			[P400]	1-3/C -400 kcmil TECK 90	335A									
[C50]	1-50/C # 14 TECK 90			[P500]	1-3/C -500 kcmil TECK 90	380A									
[C100]	1-100/C # 14 TECK 90			[P600]	1-3/C -600 kcmil TECK 90	420A									
				[P750]	1-3/C -750 kcmil TECK 90	475A									

600V COMPOSITE POWER AND CONTROL CABLE IN CABLE TRAY		
CODE	DESCRIPTION	AMPACITY (A)
[M12]	1[3 #12, 3#14] TECK 90	20A
[M10]	1[3 #10, 3#14] TECK 90	30A
[M8]	1[3#8, 3#14] TECK 90	45A
[M6]	1[3#6, 3#14] TECK 90	65A
[M4]	1[3#4, 3#14] TECK 90	85A
[M3]	1[3#3, 3#14] TECK 90	105A
[M2]	1[3#2, 3#14] TECK 90	115A
[M1]	1[3 #1, 3#14] TECK 90	130A
[M1/0]	1[3 #1/0, 3#14] TECK 90	150A
[M2/0]	1[3 #2/0, 3#14] TECK 90	175A
[M3/0]	1[3 #3/0, 3#14] TECK 90	200A
[M4/0]	1[3 #4/0, 3#14] TECK 90	230A

**GENERAL NOTES:**

- FOR LOCATION OF PROCESS MECHANICAL, PLUMBING AND HVAC EQUIPMENT, REQUIRING ELECTRICAL CONNECTIONS SEE RELATED PROCESS MECHANICAL, PLUMBING AND HVAC DRAWINGS. COORDINATE INTERCONNECTION REQUIREMENTS WITH EQUIPMENT SHOP DRAWINGS.
- FOOTPRINT FOR MAJOR ELECTRICAL EQUIPMENT IS BASED ON THE FIRST NAMED MANUFACTURER. CONTRACTOR SHALL MAKE ALL NECESSARY ADJUSTMENTS IN THE PLANS AT NO COST TO THE CITY IF A CHANGE IN MANUFACTURER RESULTS IN LARGER EQUIPMENT.
- CONTRACTOR SHALL REFER TO CABLE BLOCK DIAGRAMS (CBDs) FOR MINIMUM CIRCUIT REQUIREMENTS. PROVIDE ADDITIONAL JUNCTION BOXES AND PULLBOXES TO SUIT CIRCUIT ROUTING.
- LUMINAIRE AND RECEPTACLE CIRCUITS, PLUMBING, CONVECTORS, ETC:- PROVIDE NO. 12 CONDUCTORS WITH NO. 12 GROUND FOR CIRCUIT LENGTHS LESS THAN 25 METERS AND NO. 10 CONDUCTORS WITH NO. 10 GROUND FOR LENGTHS GREATER THAN 25 METERS.
- REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR LOCATION OF RECESSED LUMINAIRES.
- REFER TO ARCHITECTURAL SECTIONS AND ELEVATIONS FOR LOCATION OF EXTERIOR MOUNTED LUMINAIRES.
- CONNECT EMERGENCY, EXIT AND 24 HR LUMINAIRES ON THE LINE SIDE OF THE LIGHTING CONTROLLERS (SWITCH) WHERE THE SAME CIRCUIT IS USED FOR BOTH EMERGENCY LIGHTING AND GENERAL LIGHTING.
- WHERE LUMINAIRES ARE TO BE SUSPENDED FROM CEILING, INSTALL FRAMING CHANNEL BETWEEN STRUCTURAL BEAMS AND SUSPEND LUMINAIRES FROM CHANNELS.
- INSTALL CHANNEL BETWEEN STRUCTURAL SUPPORT BEAMS OF PLATFORMS TO SUPPORT LUMINAIRES, JUNCTION BOXES, ELECTRICAL DEVICES, AND/OR DETECTORS.
- INSTALL CONDUITS EXPOSED ON ALL INTERIOR WALLS, EXCEPT IN FINISHED AREAS SUCH AS VESTIBULES, CONTROL ROOMS, BREAK ROOM AND LABORATORY WASHROOMS, JANITORS ROOMS ETC RUN CONDUITS CONCEALED.
- CONDUITS SHALL NOT BE INSTALLED EXPOSED ON EXTERIOR WALLS. FLUSH MOUNT OUTLET BOXES FOR ALL EXTERIOR MOUNTED ELECTRICAL SERVICES.
- DO NOT ROUTE CONDUITS THROUGH OR UNDER EQUIPMENT ACCESS AND OTHER OPENING IN FLOORS AND CEILINGS.
- DO NOT INSTALL CONDUITS ACROSS SKYLIGHTS, WINDOW OR GLASS BLOCK WALLS.
- WHERE PLATFORMS HAVE REMOVABLE GRATINGS SUPPORT CONDUITS FROM UNDERSIDE OF STRUCTURAL BEAMS. DO NOT INSTALL CONDUITS UNDER REMOVABLE GRATINGS.
- DO NOT PENETRATE CHEMICAL RESISTANT COATING IN SPILL CONTAINMENT AREAS WITH ANY ELECTRICAL INSTALLATION. INSTALL SUPPORTS FOR CONDUITS, OUTLET BOXES, ETC. PRIOR TO INSTALLATION OF CHEMICAL COATINGS. REFER TO ARCHITECTURAL DRAWINGS FOR CHEMICAL COATING DETAILS AND LOCATIONS.
- CONDUIT AND WIRING FOR THE 24V HVAC CONTROLS ARE NOT SHOWN ON ELECTRICAL DRAWINGS. SEE DIVISION 15 SPECIFICATION FOR HVAC POWER AND CONTROL WIRING AND CONDUIT REQUIREMENTS.

 <b>Certificate of Authorization</b> CH2M HILL Canada Ltd. No. 1441 Expiry: April 30, 2006	B.M. ELEV.	 Frederickson Cooper ARCHITECTS		ENGINEER'S SEAL  ORIGINAL SIGNED BY L.D. LLEWELLYN  2006/03/29	 <b>THE CITY OF WINNIPEG</b> WATER AND WASTE DEPARTMENT ENGINEERING DIVISION
	00 ISSUED FOR TENDER 06/03/29 LL NO. REVISIONS DATE BY	DESIGNED BY JT CHECKED BY ND DRAWN BY KJ APPROVED BY AHL SCALE: NTS RELEASED FOR CONSTRUCTION BY: R. SOROKOWSKI	CONSULTANT DRAWING NO. WB-E0502	WATER TREATMENT PLANT MAIN BUILDING MECHANICAL AND ELECTRICAL  ELECTRICAL GENERAL CIRCUIT CONDUCTOR IDENTIFICATION SCHEDULE	CITY FILE NUMBER SHEET OF CITY DRAWING NUMBER 1-0601B-D-E0502-001-000