A1 SIZE – 594mm x 841mm

A	AMMETER, AMPERES, AWNINGS
AA	AQUA AMMONIA
AADF	ANNUAL AVERAGE DAILY FLOW
AB	ANCHOR BOLT, ABOVE
ABDN	ABANDON
AC	ACOUSTICAL, ACOUSTICAL CEILING
AC	ALTERNATING CURRENT
AC	ASPHALTIC CONCRETE
ACFL	ACCESS FLOORING
ACI	AMERICAN CONCRETE INSTITUTE
ACMU	ACOUSTICAL CONCRETE MASONRY UNIT, ACOUSTICAL CMU
ACP	ACOUSTICAL PANELS, ACCESS CONTROL PANEL
ACST	ACOUSTICAL
ACT	ACOUSTICAL TILE
ACU	AIR CONDITIONER UNIT
AD	AREA DRAIN, AIR DRYER
ADDL	ADDITIONAL
ADJ	ADJACENT
ADP	AUTOMATION DEVICE PANEL
ADW	DRY WEATHER AVERAGE
AF	AERATION FAN
AFD	ADJUSTABLE FREQUENCY DRIVE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AG	ACOUSTICAL, ACOUSTICAL GLASS, AGITATOR
AGGR	AGGREGATE
AHP	AIR HIGH PRESSURE
AHR	ANCHOR
AHU	AIR HANDLING UNIT
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AJ	ADJUSTABLE
AL	ALUMINUM
ALKY	ALKALINITY
ALP	AIR LOW PRESSURE
ALTN	ALTERNATE
A/M	AUTO–MANUAL
AMRD	ACOUSTICAL METAL ROOF DECKING
ANDZ	ANODIZE
ANT	ANTENNA
APPROX	APPROXIMATE
APVD	APPROVED
ARCH	ARCHITECTURAL
AS	AIR SCOUR, AS SELECTED
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AUX	AUXILIARY
AVG	AVERAGE
AWW	WET WEATHER AVERAGE
@	AT
B	BELL, BLOWER
BAL	BALANCE
BAT	BATTERY
BC	BATTERY CHARGER
BD	BALANCE DAMPER
BETW	BETWEEN
BF	BLIND FLANGE, BOTTOM FACE
BFV	BUTTERFLY VALVE
BL	BASELINE
BFP	BACKFLOW PREVENTER
BLDG	BUILDING
BLK	BLOCK
BLR	BOILER
BM	BEAM, BENCHMARK
BO	BOTTOM OF
B.O.B.	BOTTOM OF BEAM
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
BOT	BOTTOM
BRG	BEARING
BRK	BRICK
BRKR	BREAKER
BS	BAR SCREEN
BSP	BLACK STEEL PIPE
BUS	BUSWAY
BV	BALL VALVE, BLOCK VENT
BVC	BEGINNING OF VERTICAL CURVE
BYP	BYPASS
C	CONDUIT, CASEMENT, CABLE (POWER)
°C	DEGREE CELSIUS
C TO C	CENTER TO CENTER
CA	COMPRESSED AIR, CABLE (AUTOMATION)
CAB	CABINET
CAL	CALIBRATION COLUMN
CAP	CAPACITOR
CB	CATCH BASIN, CIRCUIT BREAKER
CBUS	CABLE BUS
CC	CENTER OF CIRCLE, COOLING COIL
CCP	CENTRAL CONTROL PANEL
CCS	CENTRAL CONTROL SYSTEM
CDF	CONTROLLED DENSITY FILL
CDR	CONDENSER WATER RETURN, CONDENSER
CDS	CONDENSER WATER SUPPLY
CE	CENTRATE, CONSTRUCTION ENTRANCE, CENTRIFUGE
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
CG	CALIBRATION GAS
CHEM	CHEMICAL
CHKD	CHECKERED
CHLR	CHILLER
CHR	CHILLED WATER RETURN
CHS	CHILLED WATER SUPPLY
CI	CAST IRON
CIP	CAST IRON PIPE, CAST IN PLACE
CIP	CULVERT INLET PROTECTION
CISP	CAST IRON SOIL PIPE
CJ	CONSTRUCTION JOINT
CKT	CIRCUIT
CL	CENTERLINE
CLDI	CEMENT LINED DUCTILE IRON
CLSF	CONTROLLED LOW STRENGTH FILL
CLG	CEILING
CLR	CLEAR, CLEARANCE
CLSM	CONTROLLED LOW STRENGTH MATERIAL
CM	CLARIFIER MECHANISM
CMP	CORRUGATED METAL PIPE, COMPRESSOR
CMU	CONCRETE MASONRY UNIT
CN	NETWORK CABLE
CNTR	COUNTER
CNV	CONVEYOR
CO	CLEANOUT, CARBON MONOXIDE
CO2	CARBON DIOXIDE
COL	COLUMN, COLOR
CON	CONDENSATE, CONTRACTOR
CONC	CONCRETE
CONDTN	CONDITIONED
CONN	CONNECTION
CONSTR	CONSTRUCTION
CONT	CONTINUED, CONTINUOUS, CONTINUATION
CONTR	CONTRACTOR
COORD	COORDINATE
COP	COPPER
CP	CENTER PIVOT, CONTROL PANEL
CPR	CATHODIC PROTECTION RECTIFIER
CP–X	CONTROL PANEL NO. X
CPLG	COUPLING
CPRSR	COMPRESSOR
CPT	CONTROL POWER TRANFORMER, CARPET
CPVC	CHLORINATED PVC
CRN	CONTROL RELAY, CRANE
CRS	COLD ROLLED STEEL
CRS	CONSTRUCTION ROAD STABILIZATION
CS	COMBINED SEWER, COMPUTER SERVER
CSTE	CUSTOMER SERVICE TERMINATION EQUIPMENT
CT	CERAMIC TILE, COOLING TOWER
CT	CURRENT TRANSFORMER
CTC	COMPUTER TERMINAL CABINET
CTR	CENTER
CTRD	CENTERED
CTSK	COUNTERSUNK
CU	CUBIC, CONDENSER(ING) UNIT, COPPER
CUH	COPPER TUBING, HARD DRAWN
CV	CHECK VALVE
C/W	COMPLETE WITH
CW	COMPUTER WORKSTATION
CWR	COOLING WATER RETURN, CABINET DOOR MOUNTED WASTE RECEPTACLE
CWS	COOLING WATER SUPPLY
CY, CU YD	CUBIC YARD
D	DEEP, DRAIN
d	PENNY NAIL SIZE
DA	DUAL ACTION
DBA	DEFORMED BAR ANCHOR
DBL	DOUBLE
DC	DIRECT CURRENT
DCS	DISTRIBUTED CONTROL SYSTEM
DCW	DOMESTIC COLD WATER
DEG	DEGREE
DET	DETAIL
DF	DOUGLAS FIR, DRINKING FOUNTAIN
DDI	DROP INLET
DG	DIGESTER GAS
DGH	DIGESTER GAS HIGH PRESSURE
DH	DOUBLE HUNG
DI	DUCTILE IRON
DIA	DIAMETER
DIAG	DIAGONAL
DIP	DUCTILE IRON PIPE
DIR	DIRECTION
DISCH	DISCHARGE
DHR	DOMESTIC HOT WATER RETURN
DHW	DOMESTIC HOT WATER
DL	DECANT LIQUOR
DN	DOWN
DO	DISSOLVED OXYGEN
DOL	DIRECT–ON–LINE
DP	DRY POLYMER, DISTRIBUTION PANEL
DR	DOOR
DS	DIGESTER SLUDGE, DOWNSPOUT, DISCONNECT SWITCH
DWG	DRAWING
DWL	DOWEL
△	DELTA
E	EAST, EMPTY
EA	EACH, EXHAUST AIR
EB, EBCT	EMPTY BED CONTACT TIME
ECC	ECCENTRIC
EE	EMERGENCY EYEWASH
EDU	EDUCTOR
EF	EACH FACE, EXHAUST FAN
EFF	EFFICIENCY, EFFICIENT
EFL	EFFLUENT
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM
EL	ELEVATION
ELB	ELBOW, EMERGENCY LIGHTING BATTERY PACK
ELEC	ELECTRIC, ELECTRICAL
ENGR	ENGINEER
EOP	EDGE OF PAVEMENT
ESC	EROSION AND SEDIMENT CONTROL
EP	EXPLOSION PROOF, EDGE OF PAVING
EQL	EQUAL
EQL SP	EQUALLY SPACED
EQPT	EQUIPMENT
ES	ELECTRIC SUPPLY
ESC	EROSION AND SEDIMENT CONTROL
ETM	ELAPSED TIME METER
EVC	END OF VERTICAL CURVE
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EXH	EXHAUST
EXP	EXPANSION, EXPOSED
EXP AB	EXPANSION ANCHOR BOLT
EXP JT	EXPANSION JOINT
EXST, EXIST	EXISTING
EXT	EXTERIOR
F	DEGREE FAHRENHEIT, FAN – GENERAL
FA	FLAME ARRESTOR
FAAP	FIRE ALARM ANNUNCIATION PANEL
FACP	FIRE ALARM CONTROL PANEL
FAS	FIRE ALARM SYSTEM
FB	FLAT BAR
FU	FUSE
F, FX	FIXED
FC	FERRIC CHLORIDE, FLEXIBLE CONDUIT, FAN COIL
FCA	FLANGED COUPLING ADAPTER
FCL2	FREE CHLORINE RESIDUAL
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN, FIRE DAMPER
FDP	FIELD DEVICE PANEL
FDN	FOUNDATION
FDR	FEEDER
FDS	FUSIBLE DISCONNECT SWITCH
FE	FINAL EFFLUENT
FEX	FIRE EXTINGUISHER
FF	FINISHED FLOOR
FG	FINISH GRADE, FLOAT GLASS, FLAP GATE
FH	FLAT HEAD
FHY	FIRE HYDRANT
FIG	FIGURE
FIL	FILTER
FL	FLOW LINE
FLG	FLANGE
FL	FLOOR
FLEX	FLEXIBLE
FLH	FLAT HEAD
FLTR	FILTER
FLUOR	FLUORESCENT
FNSH	FINISH
FOA	FOUL AIR
FOB	FLAT ON BOTTOM
FOT	FLAT ON TOP
FP	FIELD PANEL
FPM	FEET PER MINUTE
FR	FORWARD REVERSE
FRP	FIBERGLASS REINFORCED PLASTIC
FSHS	FOLDING SHOWER SEAT
FSL	FERMENTER SLUDGE
FSU	FERMENTER SUPERNATANT
FSW	FLUSHING WATER
FT	FOOT OR FEET
FTG	FOOTING
FU	FIXTURE UNIT, FUSE
FVNR	FULL VOLTAGE NON–REVERSING
FVR	FULL VOLTAGE REVERSING
FWD	FORWARD
G, GND	GROUND
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GB	GYPSUM BOARD
GC	GROOVED COUPLING
GCMU	GLAZED CONCRETE MASONRY UNITS
GDC	GAS DETECTION CONTROLLER
GE	GRIT EFFLUENT
GEN	GENERATOR
GFA	GROOVED FLANGE ADAPTER
GFI	GROUND FAULT INTERRUPTER
GFR	GROUND FAULT RELAY
GH	GREENHOUSE
GL	GLASS
GPS	GLOBAL POSITION SYSTEM
GR	GLYCOL RETURN, GRILLE (GENERAL)
GRD	GRILLE (DIFFUSER)
GRTG	GRATING
GRS	GRIT SLURRY
GRT	GRIT
GS	GLYCOL SUPPLY
GSB	GYPSUM SOFFIT BOARD
GSP	GALVANIZED STEEL PIPE
GD	GUTTER DRAIN
GV	GATE VALVE
GVL	GRAVEL
GWB	GYPSUM WALLBOARD
GYP	GYPSUM
H	HIGH, HORN OR HOWLER
H2	HYDROGEN
H2S	HYDROGEN SULFIDE
H.A.S.	HEADED ANCHOR STUD
HC	HOLLOW CORE WOOD, HEATING COIL
HCC	HEATING COIL CONTROLLER
HCE	HEATING COIL (ELECTRIC)
HCL	HYDROCHLORIC ACID
HCO	HYDRAULIC OIL
HDNR	HARDENER
HDNS	HARDNESS
HDR	HEADER
HDW	HARDWARE
HE	HEAT EXCHANGER
HF	HARMONIC FILTER
HFW	HOT FLUSHING WATER
HGL	HYDRAULIC GRADE LINE
HK	HOOK
HGT	HEIGHT
HH	HANDHOLE
HID	HIGH INTENSITY DISCHARGE
HK	HOOK
HM	HOLLOW METAL
HMI	STANDALONE HUMAN MACHINE INTERFACE
HO	HOIST
HOA	HAND–OFF–AUTO
HOP	HOPPER
HOR	HAND–OFF–REMOTE
HORIZ	HORIZONTAL
HP	HORSEPOWER, HEAT PUMP
HPT	HIGH POINT
HPU	HYDRAULIC POWER UNIT
HR	HOSE RACK, HANDRAIL
HRC	HIGH RATE CLARIFICATION, HEAT RECOVERY COIL
HRS	HIGH RATE SLUDGE
HTR	HEATER
HUM	HUMIDIFIER
HV	HOSE VALVE, HAND/MANUAL VALVE
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
HWL	HIGH WATER LEVEL
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
IAS	INSTRUMENT AIR SUPPLY
IC	INTERRUPTING CAPACITY
ID	INDUCED DRAFT, INSIDE DIAMETER
IE	INVERT ELEVATION
I.F.	INSIDE FACE
IG	INSULATING, INSULATING GLASS
INCAND	INCANDESCENT
INFL	INFLUENT
INJ/INJS	INJECTOR, INJECTIONS
INST	INSTANTANEOUS
INSTM	INSTRUMENT, INSTRUMENTATION
INSUL	INSULATION
INVT	INVERT
IP	INLET PROTECTION, INSTRUMENTATION PANEL
IRRIG	IRRIGATION
ITG	INSULATED TEMPERED GLASS
IU	INTAKE UNIT
IW	IRRIGATION WELL
J	JALOUSIE
JA	JAL–AWNING
JB	JUNCTION BOX
JBA	JUNCTION BOX (AUTOMATION)
JBN	JUNCTION BOX (NETWORK)
JAN	JANITOR
JCT	JUNCTION
JT	JOINT
K	KEY GROUP, INTERLOCKING KEY
KIT	KITCHEN
K–PL	KICKPLATE
KSK	KITCHEN SINK
KV	KILOVOLTS
KVA	KILOVOLT AMPERES
KVAR	KILOVOLT AMPERES REACTIVE
KW	KILOWATT
L	ANGLE, LENGTH
LA	LIGHTNING ARRESTER
LAB	LABORATORY
LAM	LAMINATE
LAT	LATITUDE
LB	POUND
LCP	LOCAL CONTROL POINT
LC	LIGHTING CONTACTOR
LD	COMBINATION LOUVER/DAMPER
LDB	LOAD BANK
LDG	LOADING DOCK
LDS	LAND DRAINAGE SEWER
LEL	LOWER EXPLOSIVE LIMIT
LF	LINEAR FEET
LG	LONG
LGO	LUBRICATING OIL
LH	LEFT HAND
LHR	LEFT HAND REVERSE
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LNTL	LINTEL
LONG	LONGITUDINAL
LOS	LOCK–OUT STOP PUSHBUTTON
LOX	LIQUID OXYGEN
LP	LIGHT POLE, LIGHTING PANEL, LOCAL PANEL
LPT	LOW POINT
LPS	LOW PRESSURE STEAM
LR	LATCHING RELAY, LOCALE–REMOTE, LONG RADIUS
LS	LABORATORY SINK
LT	LEFT
LTG, LTS	LIGHTS OR LIGHTING
LWL	LOW WATER LEVEL
MA	MIXED AIR, MANUAL–AUTO
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MC	MASONRY CLEARANCE
MC	MODULATE–CLOSE
MCC	MOTOR CONTROL CENTER
MCJ	MASONRY CONTROL JOINT
MCP	MOTOR CONTROL PROTECTOR
MCS	MOULDED CASE SWITCH
MDO	MEDIUM DENSITY OVERLAY
MECH	MECHANICAL
MET	METHANOL
MFD	MANUFACTURED
MFR	MANUFACTURER
MGD	MILLION GALLONS PER DAY
MH	MANHOLE, MOUNTING HEIGHT
MIN	MINIMUM
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
ML	MIXED LIQUOR
MLO	MAIN LUGS ONLY
MMDW	DRY WEATHER MAXIMUM MONTH
MMP	MECHANICAL MOUNTING PANEL
MMS	MANUAL MOTOR STARTER
MMWW	WET WEATHER MAXIMUM MONTH
MO	MANUAL OPERABLE, MASONRY OPENING
MP	MIXED POLYMER, METAL PANEL
MPU	MULTIPURPOSE UNIT
MS	MANUFACTURER'S STANDARD, MOTOR STARTER
MSC	MANUFACTURER SUPPLIED CABLE
MSP	MOTOR STARTER PANEL
MSR	GROUPED MOTOR CONTROL
MT	MOUNT
MTD	MOUNTED
MTG	MOUNTING
MTR	MOTOR
MTS	MILL TYPE STEEL PIPE, MANUAL TRANSFER SWITCH
MU	MULCHING
MV	MERCURY VAPOR
MWS	MAXIMUM WATER SURFACE
MXR	MIXER
N	NORTH, NEUTRAL
N2	NITROGEN
NA	NOT APPLICABLE, NON–AUTOMATIC
NAP	NETWORK ACCESS POINT
NC	NORMALLY CLOSED
NEUT	NEUTRAL
NFW	NETWORK FIREWALL
NG	NATURAL GAS
NGR	NEUTRAL GROUNDING RESISTOR
NGVD	NATIONAL GEODETIC VERTICAL DATUM
NGW	NETWORK GATEWAY
NJ	NETWORK JACK
NJT	NETWORK JACK (TELEPHONE)
NMC	NETWORK MEDIA CONVERTER
NIC	NOT IN CONTRACT
N.O.	NORMALLY OPEN
NO., #	NUMBER
NOM	NOMINAL
NP	NETWORK PANEL, NON–PROTECTED
NPT	NATIONAL PIPE THREADS
NRA	NETWORK RADIO
NRT	NETWORK ROUTER
NS	NON–SHRINK
NSW	NETWORK SWITCH (ETHERNET)
NTS	NOT TO SCALE
O2	OXYGEN
O TO O	OUT TO OUT
OA	OUTDOOR AIR, OVERALL, ODOROUS AIR
OC	ON CENTER
OC	OPEN–CLOSE (O)
OCA	OPEN–CLOSE–AUTO
OCR	OPEN–CLOSE–REMOTE
OD	OUTSIDE DIAMETER, OVERFLOW DRAIN, OVERHEAD DOOR
O.F.	OUTSIDE FACE
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED, OWNER INSTALLED
OL	OVERLOAD RELAY
OO	ON–OFF
OOA	ON–OFF–AUTO
OOR	ON–OFF–REMOTE
OP	OPAQUE PANEL, OUTLET PROTECTION
OPER	OPERATOR
OPNG	OPENING
OPP	OPPOSITE
OSA	OUTSIDE AIR
OSC	OPEN–STOP–CLOSE
OSD	OPEN SITE DRAIN
OWSJ	OPEN WEB STEEL JOIST
OZ	OUNCE
P	PUMP, PROJECTED
PB	PULL BOX, PILASTER, PIPE
PAVT	PAVER TILE
PC	PUSHBUTTON SWITCH
PC	POINT OF CURVE, PHOTOCELL
PCCP	PRECAST CONCRETE PANEL PRECAST CONCRETE CYLINDER PIPE
PCV	PRESSURE CONTROL VALVE
PD	PROCESS DRAIN
PE	PRIMARY EFFLUENT, PLAIN END
PED	PEDESTAL, PEDESTRIAN
PEP	POLYETHYLENE PIPE
PEN.	PENETRATION
PFC	POWER FACTOR CORRECTION UNIT
PLC	PROGRAMMABLE LOGIC CONTROLLER
PH	PENTHOUSE
pH	HYDROGEN ION CONCENTRATION
PH	PHASE
PI	POINT OF INTERSECTION
PIT	PILOT TUBE TEST STATION
PJF	PREMOULDED JOINT FILLER
PL	PLATE (STEEL)
PL	PROPERTY LINE
PLAM	PLASTIC LAMINATE

NOTE:

1. CONTACT ENGINEER FOR ABBREVIATIONS USED BUT NOT SHOWN ON THIS DRAWING.

GENERAL NOTE:

1. THIS IS A STANDARD LEGEND SHEET. THEREFORE, NOT ALL OF THE INFORMATION SHOWN MAY BE USED ON THIS PROJECT.

APEGM
Certificate of Authorization
CH2M HILL Canada Ltd.
No. 1441

NO.	REVISIONS	DATE	DESIGN	CHECK
06	ISSUED FOR CONSTRUCTION – 976–2016	2017/04/05	G.G.	J.C.
05	ISSUED FOR CONSTR – B.O. 899–2015	04/2016	G.G.	J.C.
04	ISSUED FOR TENDER – B.O. 899–2015	01/2015	G.G.	J.C.
03	ISSUED FOR 90% PRELIMINARY REVIEW	11/2015	G.G.	J.C.
02	ISSUED FOR CONSTRUCTION	10/2015	G.G.	J.C.
01	ISSUED FOR 60% PRELIMINARY REVIEW	09/2015	G.G.	J.C.
00	ISSUED FOR TENDER	08/2015	G.G.	J.C.

CH2MHILL. SNC·LAVALIN KGS GROUP

DESIGNED BY: G. GERMAN
CHECKED BY: S.B. WILLIAMSON
DRAWN BY: G. GERMAN
APPROVED BY: H.T. FREIHAMMER
SCALE: NTS
ISSUED FOR CONSTRUCTION BY: J. SHUMKA
DATE: 2017/04/05
DATE: 2017/04/05
CONSULTANT NO.: 474248

ENGINEER'S SEAL
PROVINCE OF MANITOBA
WILLIAMSON
Member
2226A
REGISTERED PROFESSIONAL ENGINEER

Winnipeg
THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

SOUTH END WATER POLLUTION CONTROL CENTRE
SEWPCC UPGRADING/EXPANSION PROJECT
GENERAL
ABBREVIATIONS (1) △03

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1–0102–DAAA–A007	001	06	A1

PLOT DATE: 2017\04\19
FILE NAME: 1–0102–DAAA–A007–001.dgn

©CH2M HILL 2017. ALL RIGHTS RESERVED.