

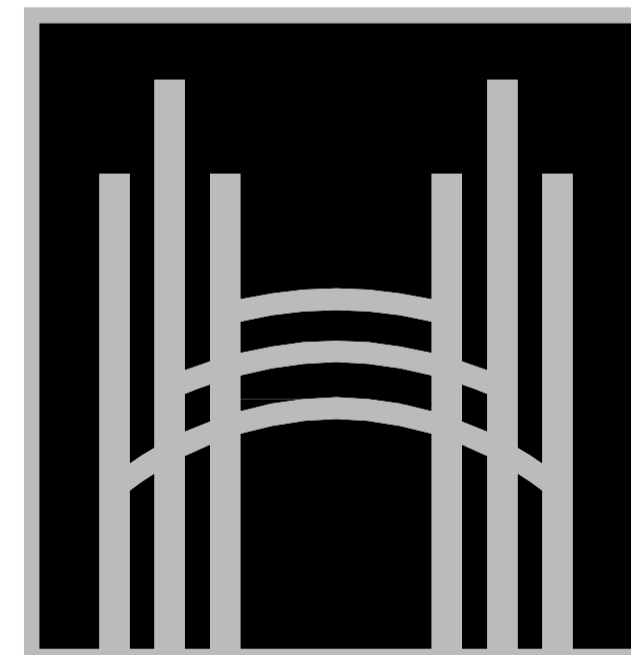
WOODWARD AVENUE WWTP

THE CITY OF HAMILTON

PROJECT CONTRACT NO. C12-22-08

BIOGAS ENHANCEMENTS AND DIGESTER UPGRADE PROJECT

CONSTRUCTION PACKAGE 3 - SUPERSTRUCTURE



Hamilton

FEBRUARY 2011

AECOM
CH2MHILL

A	AMMETER, AMPERES, AUTOMATIC	CHDPE	CORRUGATED HIGH DENSITY POLYETHYLENE PIPE	E	EAST	G	GROUND	KW	KILOWATT	ND	NAPKIN DISPOSAL
AB	ANCHOR BOLT	CHEM	CHEMICAL	EA	EXHAUST AIR (MECH.)	GA	GAUGE	KWH	KILOWATT HOURS	NGS STA	NATIONAL GEODETIC SURVEY STATION
AB SW	AIR-BREAK SWITCH	CI	CAST IRON	EA	EACH	GAL	GALLON	KWHD	KILOWATT HOURS DEMAND	NIC	NOT IN CONTRACT
ABDN	ABANDON	CIP	CAST IRON PIPE	EDH	ELECTRIC DUCT HEATER	GALV	GALVANIZED	L	ANGLE, LENGTH	NF	NEAR FACE
ABS	ACRYLONITRILE BUTADIENE STYRENE	CISP	CAST IRON SOIL PIPE	EE	EMERGENCY EYEWASH	GB	GRAB BAR	L	LIGHTING CONTACTOR, LOW SPEED, LOWER (ELEC.)	NO	NUMBER
ABV	ABOVE	CJ	CONSTRUCTION JOINT	EF	EACH FACE	GC	GROOVED COUPLING	LA	LABORATORY	NO, #	NUMBER
AC	ALTERNATING CURRENT (ELEC.)	CKT	CIRCUIT	EG	EXHAUST FAN (MECH.)	GD	GUTTER DRAIN	LAB	LABORATORY	NP	NAMEPLATE (ELEC.)
ACB	ASPHALTIC CEMENT	CL	CENTERLINE	EL	ENGINE GENERATOR (ELEC.)	GEN	GENERATOR	LAM	LAMINATE	NP	NON-PROTECTED
ACC	AIR-CIRCUIT BREAKER	CLDI	CEMENT LINED DUCTILE IRON PIPE	ELB	EXHAUST GRILLE (MECH.)	GFI	GROUND FAULT INTERRUPTER	LAT	LATITUDE	NPT	NATIONAL PIPE THREADS
ACI	AREA CONTROL CENTER	CLG	CURRENT LIMITING FUSE	EL	ELEVATION	GFR	GOUND FAULT RELAY	LAV	LAVATORY	NS	NON-SHRINK
ACP	AMERICAN CONCRETE INSTITUTE	CLJ	CEILING	ELB	ELBOW	GID	GROUTED-IN DOWEL	LB	POUND	NTS	NOT TO SCALE
ACR	CENTER AREA CONTROL PANEL	CLO	CEILING	EIFS	EXTERIOR INSULATION FINISH SYSTEM	GL	GLASS	LB/CU FT	POUNDS PER CUBIC FOOT	O	OPEN
ACSR	ALUMINUM CONDUCTOR STEEL-REINFORCED	CLR	CONTROL JOINT	ELC	ELECTRICAL LOAD CENTER	GND	GROUND	LC	LIGHTING CONTROLLER, LATCH COIL (ELEC.)	O TO O	OUT TO OUT
ACST	ACOUSTICAL	CLSTL	CLOSET	ELEC	ELECTRIC, ELECTRICAL	GPD	GALLONS PER DAY	LC	LIGHTING CONTACTOR	OA	ODOROUS AIR (MECH.)
ACCU	AIR COOLED CONDENSING UNIT	CLR	CLEAR	ELEM	ELEMENTARY	GPH	GALLONS PER HOUR	LE	LEVEL ELEMENT	OA	OVERALL
ACU	AIR CONDITIONING CONDENSING UNIT	CLSTL	CEMENT LINED STEEL	EMER	EMERGENCY	GPM	GALLONS PER MINUTE	LF	LINEAR FEET	OAI	OUTSIDE AIR INTAKE
AD	AREA DRAIN	CL2	CHLORINE	EMH	ELECTRICAL MAINTENANCE HOLE	GPR	GENERATOR PROTECTOR RELAY	LG	LONG	OBC	ONTARIO BUILDING CODE
ADD	ADDITIONAL	CLSM	CONTROLLED LOW STRENGTH MATERIAL	EMS	ENERGY MONITORING SYSTEM	GRAN	GRANULAR	LH	LEFT HAND	OBD	OPPOSED-BLADE DAMPER (MANUAL)
ADJ	ADJUSTABLE	CMF	CHEMICAL FEEDER	EMU	ENERGY MONITORING UNIT	GRS	GALVANIZED RIGID STEEL CONDUIT	LH	LEFT HAND REVERSE	OC	ON CENTER
AF	AMPERE FRAME	CMP	CORRUGATED METAL PIPE	ENCL	ENCLOSURE	GRTG	GRATING	OC	OPEN-CLOSE (ELEC.)	OCA	OPEN-CLOSE-AUTO
AFD	ADJUSTABLE FREQUENCY DRIVE	CMU	CONCRETE MASONRY UNIT	ENGR	ENGINEER	GSP	GALVANIZED STEEL PIPE	OCB	OIL CIRCUIT BREAKER	OCR	OPEN-CLOSE-REMOTE
AFV	ABOVE FINISHED FLOOR	CO	CLEANOUT	EOP	EDGE OF GUTTER	CV	GATE VALVE	OCR	OVERCURRENT RELAY (ELEC.)	OD	OUTSIDE DIAMETER
AFG	ABOVE FINISHED GRADE	COL	COLUMN	EOP	EDGE OF PAVEMENT	GVL	GRAVEL	OD	OUTSIDE DIAMETER	OF	OUTSIDE FACE
AG	ACOUSTICAL GLASS	COM	COMMUNICATIONS	EP	EDGE OF PAVING	GWB	GYP SUM WALL BOARD	OHM	OHMMETER	OIT	OPERATOR INTERFACE TERMINAL
AGGR	AGGREGATE	CONC	CONCRETE	EQ	EXPLOSION PROOF (ELEC.)	GYP	GYP SUM	OL	OVERLOAD RELAY	OO	ON-OFF
AHM	AMPERE-HOUR METER	CONN DIA	CONNECTION DIAGRAM	EQ	EQUAL	H	HIGH SPEED (ELEC.)	OOA	ON-OFF-AUTO	OOR	ON-OFF-REMOTE
AHR	ANCHOR	CONDNTN	CONDITIONED	EQ SP	EQUALLY SPACED	H	HORN OR HOWLER	OP	OPAQUE PANEL	OPER	OPERATOR
AHU	AIR HANDLING UNIT	CONNTN	CONNECTION	EQPT	EQUIPMENT	HAS	HEADED ANCHOR STUD	OPNG	OPENING	OPN	OPPOSITE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	CONSTR	CONSTRUCT	ER	EXHAUST REGISTER	HB	HOSE BIB	OS	OCCUPANCY SENSOR	OSA	OUTSIDE AIR
ALUM	ALUMINUM	CONTR	CONTRACTOR	ES	EACH SIDE	HC	HOLLOW CORE	OSC	OPEN-STOP-CLOSE	OSD	OPEN SITE DRAIN
ALKY	ALKALINITY	COORD	COORDINATE	ES	EMERGENCY STOP / SHUTDOWN (ELEC.)	HC	HEATING COIL (MECH.)	OVSJ	OPEN-WEB STEEL JOIST	OZ	OUNCE
ALT	ALTERNATE	CP	CENTER PIVOT	ET	DIAPHRAGM EXPANSION TANK	HCP	HVAC CONTROL PANEL	P	PILASTER, PIPE	PAV	PAVER TILE
AM	AUTO-MANUAL	CP	CONTROL PANEL (ELEC.)	ETM	ELAPSED TIME METER	HD	HOOD, EXHAUST (MECH.)	PB	PULL BOX (ELEC.)	PB	PUSHBUTTON SWITCH
AMM	AMMETER	CPP	CONCRETE PRESSURE PIPE	EVC	END OF VERTICAL CURVE	HD	HUB DRAIN	PC	PHOTOCELL (ELEC.)	PC	POINT OF CURVE
AMP	AMPERE	CP-X	CONTROL PANEL NO. X	EW	EACH WAY	HDPE	HIGH DENSITY POLYETHYLENE	PCC	PRECAST CONCRETE (STRUC.)	PCC	POINT OF COMMON COUPLING (ELEC.)
AMPL	AMPLIFIER	CPLG	COUPLING	EXH	EXHAUST	HDR	HEADER	PCB	POWER CIRCUIT BREAKER	PCV	PRESSURE-CONTROL VALVE
ANDZ	ANODIZE	CPRSR	COMPRESSOR	EXP	EXPANSION	HDR	HEADER	PE	PLAIN END	PE	POLYETHYLENE (I & C)
ANN	ANNUNCIATOR	CPT	CONTROL POWER TRANSFORMER	EXP AB	EXPANSION ANCHOR BOLT	HDW	HEADWARE	PEP	PEDESTAL	PEP	POLYETHYLENE PIPE
ANT	ANTENNA	CPU	CENTRAL PROCESSING UNIT	EXP JT	EXPANSION JOINT	HESR	HYPALON ELASTIC SHEET ROOFING	PERF	PERFORATED	PF	POWER FACTOR (ELEC.)
APPROX	APPROXIMATE	CPVC	CHLORINATED PVC	EXT	EXISTING	HGL	HYDRAULIC GRADE LINE	PF	PREFILTER (MECH.)	pH	HYDROGEN ION CONCENTRATION
APVD	APPROVED	CR	CONTROL RELAY	ES	EMERGENCY STOP/SHUTDOWN	HGR	HOT GLYCOL RETURN	PH	PHASE	PHC	PREHEAT COIL
ARCH	ARCHITECTURAL	CRS	COLD ROLLED STEEL (STRUC.)	EUH	ELECTRIC UNIT HEATER	HGS	HOT GLYCOL SUPPLY	PHC	PREHEAT COIL	PI	POINT OF INTERSECTION
AR	ANALOG RELAY	CRS	PVC COATED RIGID STEEL	F	DEGREE FAHRENHEIT	HGT	HEIGHT	PJF	PREMOULDED JOINT FILLER	PL	PLATE (STEEL) (STRUC.)
ARV	AIR RELEASE VALVE	CRU	CONDENSATE RETURN UNIT	F, FU	FORWARD, FREQ	HH	HANDHOLE	PL	PROPERTY LINE	PLAS	PLASTIC
AS	AMMETER SWITCH, AMPERE SENSOR (ELEC.)	CS	CUP SINK (MECH.)	FA	FIRE ALARM	HM	HOLLOW METAL	PLC	PROGRAMMABLE LOGIC CONTROLLER	PLC-X	PROGRAMMABLE LOGIC CONTROLLER NO. X
AS	CENTRIFUGAL AIR SEPARATOR (MECH.)	CS	CONTROL STATION:C=CLOSE, T=TRIP (ELEC.)	FAP	FRESH AIR INLET	HOA	HAND-OFF-AUTO	PLYWD	PLYWOOD	PNL	PANEL
ASC	AUXILIARY SWITCH NORMALLY CLOSED	CSATC	CERAMIC SUSPENDED ACOUSTICAL TILE CEILING	FC	FLEXIBLE CONDUIT (ELEC.)	HOR	HAND-OFF-REMOTE	POP	POLYPROPYLENE	POT	POTENTIOMETER
ASO	AUXILIARY SWITCH NORMALLY OPEN	CSU	CEILING-MOUNTED AIR SUPPLY UNIT	FCA	FLANGED COUPLING ADAPTER	HORIZ	HORIZONTAL	POT	POTENTIOMETER	PP	POWER PACK (ELEC.)
ASU	AIR SUPPLY UNIT	CT	CERAMIC TILE	FAP	FIRE ALARM PANEL	HP	HORSEPOWER	PP	POWER POLE	PPL	POLYPROPYLENE LINED
AT	AMPERE TRIP	CT	CURRENT TRANSFORMER (ELEC.)	FC	FLEXIBLE CONDUIT (ELEC.)	H.P.	HIGH POINT	PRCST	PRECAST	PREFAB	PREFABRICATION
ATC	AUTOMATIC TRANSFER CONTROL	CTR	CENTER	FC	FLEXIBLE CONDUIT (ELEC.)	HPS	HIGH PRESSURE SODIUM	PRES	PRESSURE	PRI	PRIMARY
ATS	AUTOMATIC TRANSFER SWITCH	CTR'D	CENTERED	FCL2	FLANGED COUPLING ADAPTER	HR	HOSE RACK	PRM	PERMANENT REFERENCED MARKER	PROJ	PROJECTION
AUTO	AUTOMATIC	CTSK	COUNTERSUNK	FCO	FLOOR CLEANOUT	HRDN	HARDENER	PROP	PROPERTY	PS	PRESSURE SWITCH (ELEC.)
AUX	AUXILIARY	CU	CUBIC	FCU	FAN-COIL UNIT	HS	HAND SWITCH	PSF	POUNDS PER SQUARE FOOT	PSI	POUNDS PER SQUARE INCH
AVG	AVERAGE	CU	COPPER (I & C)	FCTY	FACTORY	HSS	HOLLOW STRUCTURAL STEEL	PSIG	POUNDS PER SQUARE INCH, GAUGE	PT	POINT OF TANGENCY
AVRV	AIR VACUUM RELEASE VALVE	CU	CONDENSING UNIT (MECH.)	FD	FLOOR DRAIN	HTP	HEAT TRANSFER PACKAGE	PT	POTENTIAL TRANSFORMER (ELEC.)	PTAC	PACKAGED TERMINAL AIR CONDITIONING
AVG	AMERICAN WIRE GAGE	CU M	CUBIC METRE	FDN	FOUNDATION	HV	HIGH VOLTAGE (ELEC.)	PTD	PAPER TOWEL DISPENSER	PTS	PITOT-TUBE TESTING STATION
B	BELL	CUH	CABINET UNIT HEATER (MECH.)	FDR	FIRE DAMPER (MECH.)	HVAC	HEATING, VENTILATING AND AIR CONDITIONING				
(B)	BRONZE TINT	CUH	COPPER TUBING, HARD DRAWN	FDR	FEEDER (ELEC.)	HVU	HEATING AND VENTILATING UNIT				
BAL	BALANCE	CV	CHECK VALVE	FEXT	FIRE EXTINGUISHER	HW	HEADWALL				
BAT	BATTERY	CW	CAPILLARY WATERPROOFING	FF	FINISHED FLOOR	HWL	HIGH WATER LEVEL				
BC	BARE COPPER	CWR	CABINET DOOR MOUNTED WASTE RECEPTACLE	FF	FINAL FILTER (MECH.)	HWP	HEATING WATER PUMP				
BD	BALANCING DAMPER	D	DRAIN	FFD	FAR FACE (STRUC.)	HX	HEAT EXCHANGER				
BDD	BACKDRAFT DAMPER	DAS	DATA ACQUISITION SYSTEM	FG	FUNNEL FLOOR DRAIN	HZ	HERTZ				
BF	BLIND FLANGE	DBA	DEFORMED BAR ANCHOR	FHY	FINISH GRADE	IC	INTERRUPTING CAPACITY				
BFV	BUTTERFLY VALVE	DBL	DOUBLE	FI	FIRE HYDRANT	I & C	INSTRUMENTATION AND CONTROL				
BL	BASELINE	DC	DIRECT CURRENT	FIG	FLOW INDICATOR	ID	INSIDE DIAMETER				
BFP	BACKFLOW PREVENTER	DCS	DISTRIBUTED CONTROL SYSTEM	FINSH	FINISH	IE	INVERT ELEVATION				
BKR	BREAKER	DEG	DEGREE	FL	FLOOR (STRUC.)	IF	INSIDE FACE				
BLDG	BUILDING	DET	DETAIL	FLG	FLANGE	IG	INSULATING GLASS				
BLK	BLOCK	DF	DOUGLAS FIR	FLEX	FLEXIBLE	IN	INCH				
BM	BEAM (STRUC.)	DF	DRINKING FOUNTAIN (MECH.)	FLH	FLAT HEAD	INCAND	INCANDESCENT				
BM	BENCHMARK	DF	DRINKING FOUNTAIN (MECH.)	FLTR	FILTER	INJS	INJECTIONS				
BO	BOILER	DHEC	DEPT OF HEALTH AND ENVIRONMENTAL CONTROL	FLUOR	FLUORESCENT	INST	INSTANTANEOUS				
BOT	BOTTOM	DDI	DROP INLET	FNSH	FINISH	INSTM	INSTRUMENT, INSTRUMENTATION				
B PL	BASE OR BEARING PLATE	DIA	DIAMETER	FO	FAIL OPEN (MECH.)	INSUL	INSULATION				
BRG	BEARING	DIAG	DIAGONAL	FO	FIBER OPTIC (ELEC.)	INT	INTERRUPTING				
BSP	BLACK STEEL PIPE	DIM	DIMENSION	FP	FIELD PANEL	INVT	INVERT				
BUL	BOTTOM UPPER LAYER	DIP	DUCTILE IRON PIPE	FPS	FEET PER SECOND	IRH	INFRARED HEATERS				
BV	BALL VALVE	DIR	DIRECTION	FP-W-X	FIELD PANEL NO. WX	IRRIG	IRRIGATION				
BVC	BEGINNING OF VERTICAL CIRCUIT	DISCH	DISCHARGE	FR	FORWARD REVERSE	ISR	INTRINSICALLY SAFE RELAY				
C	CONDUIT, CONTRACTOR, CONDUCTOR, CLOSE	DIV	DIVISION	FREQ	FREQUENCY	ITG	INSULATED TEMPERED GLASS				
°C	DEGREE CELSIUS	DL	DEAD LOAD	FRP	FIBERGLASS REINFORCED PLASTIC	IU	INTAKE UNIT				
C-C	CENTER TO CENTER	DN	DOWN	FS	FLOAT SWITCH	IW	IRRIGATION WELL				
CAB	CABINET	DITTO	DITTO	FSD	FIRE SMOKE DAMPER	J, JB	JUNCTION BOX				
CAR	CARPET	DOL	DIRECT-ON-LINE	FSH	FOLDING SHOWER SEAT	JAN	JANITOR				
CB	CATCH BASIN (MECH.)	DP	DISTRIBUTION PANEL	FT	FOOT OR FEET	JCT	JUNCTION				
CB	CIRCUIT BREAKER (ELEC.)	DPST	DOUBLE-POLE DOUBLE-THROW	FT	FINNED-TUBE BASEBOARD HEATER (MECH.)	JT	JOINT				
CC	CONTROL CABLE (ELEC.)	DPST	DOUBLE-POLE SINGLE-THROW	FT	FLOW TRANSMITTER (ELEC.)	K	KEY INTERLOCK				
CC	COOLING COIL (MECH.)	DS	DISCONNECT SWITCH (ELEC.)	FTG	FOOTING	KA	KILOAMPERES				
CCP	CENTRAL CONTROL PANEL	DS	DOWNSPOUT (MECH.)	FU	FIXTURE UNIT	KCM	THOUSAND CIRCULAR MILS				
CCS	CENTRAL CONTROL SYSTEM	DWG	DRAWING	FVNR	FUSE (ELEC.)	KIP	THOUSAND POUNDS				
CCU	CABINET CONVECTOR UNIT	DWN	DOWEL(S)	FVR	FULL VOLTAGE NON-REVERSING	KIT	KITCHEN				
CD	CEILING DIFFUSER	DWN	DOWEL(S)	FWD	FULL VOLTAGE REVERSING	KSK	KITCHEN SINK				
CF	CEILING FAN	Δ	DELTA	FZ	FREEZE STAT	KV	KILOVOLTS				
CFM	CUBIC FEET PER MINUTE					KVA	KILOVOLT AMPERES				
CHAN, C	CHANNEL (BEAM)					KVAR	KILOVOLT AMPERES REACTIVE				
CHKD PL	CHECKERED PLATE										

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

0	FEB 11	PKG 3 - ISSUED FOR CONSTRUCTION		
B	JAN 11	PKG 3 - ISSUED FOR 90% DESIGN		
A	DEC 10	PKG 3 - ISSUED FOR 60% DESIGN		
NO.	DATE	REVISION	BY	APVD

DSGN	G GERMAN
DR	G GERMAN
CHK	J CHENG
APVD	R HOOK

NTS
VERIFY SCALE
BAR IS 25 MM ON ORIGINAL DRAWING.
0 25MM



WOODWARD AVENUE WWTP EXPANSION PROJECT

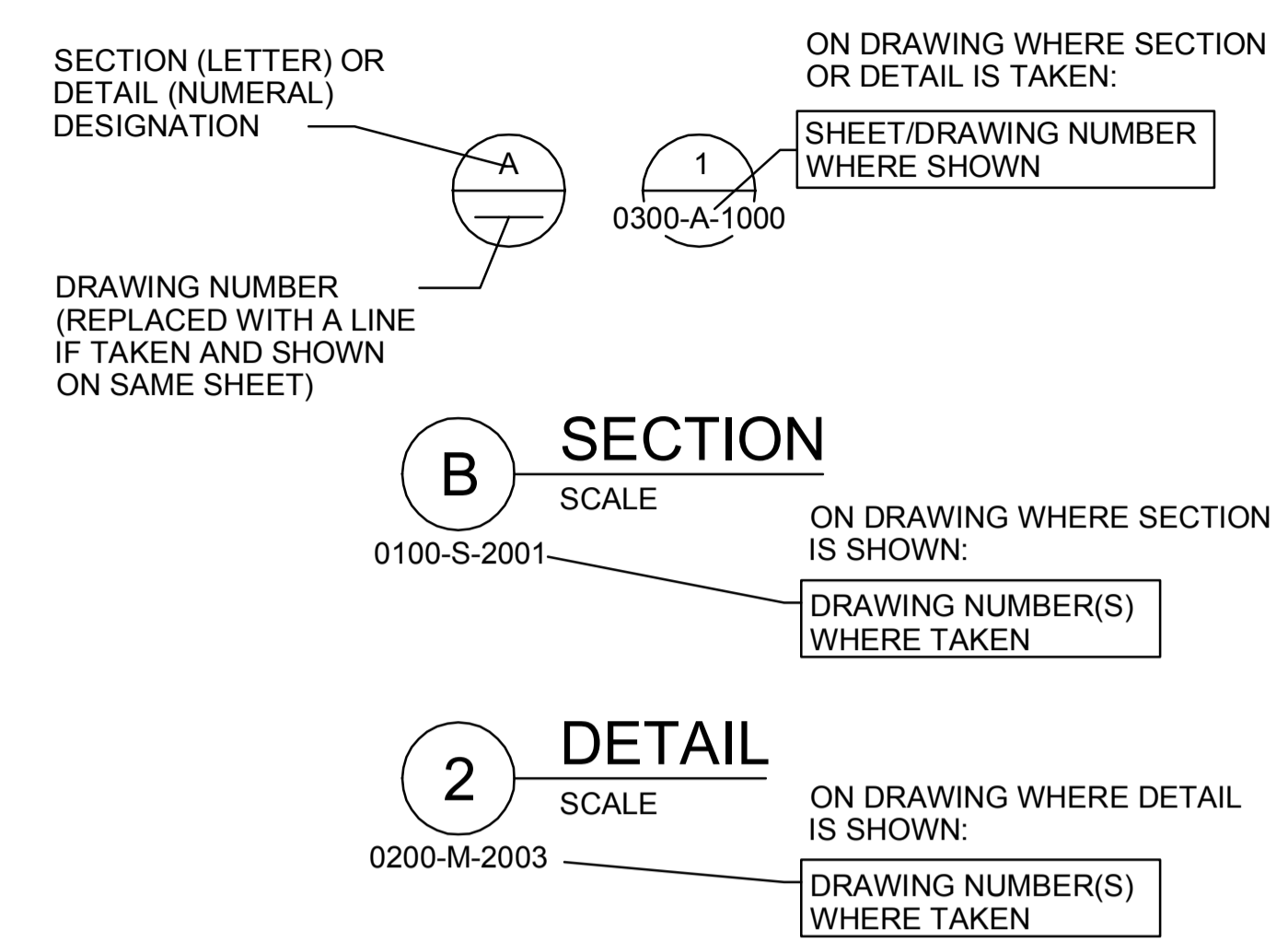
GENERAL
THICKENED SLUDGE BUILDING STANDARD ABBREVIATIONS (1) SUPERSTRUCTURE PACKAGE

DATE	DECEMBER 8, 2010
PROJ	60162013
DWG	1000-G-0001
SHEET	

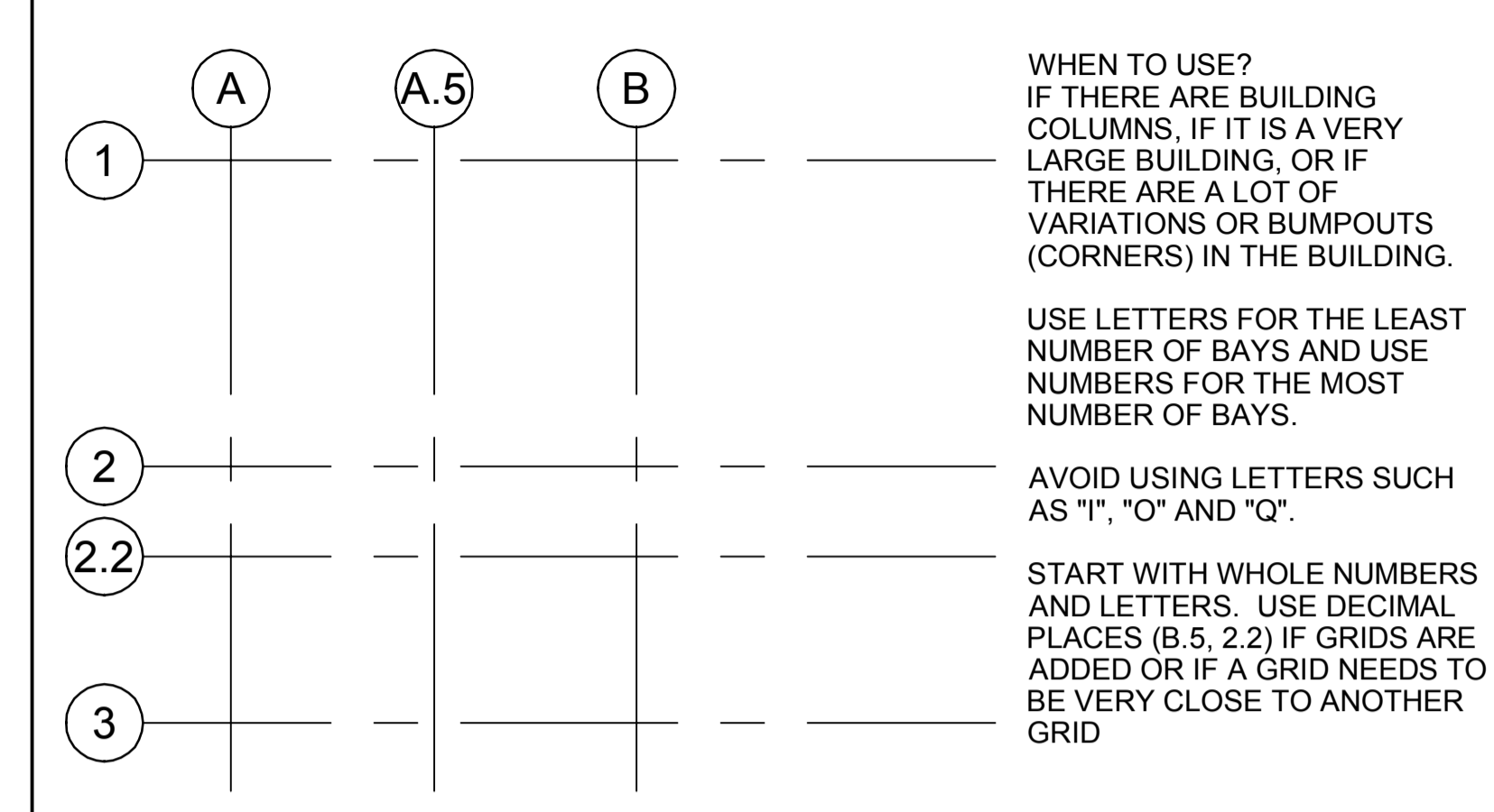
REUSE OF DOCUMENTS, THIS DOCUMENT, AND IDEAS AND DESIGNS INCORPORATED HEREIN, INCORPORATE WORKS BELONGING TO OR LICENSED TO THE CITY OF HAMILTON AND ARE AN INSTRUMENT OF PROFESSIONAL SERVICE DEVELOPED IN WHOLE OR IN PART

PV	PLUG VALVE	SQ M	SQUARE METRE	VPS	VENEER PLASTER SYSTEM
PVC	POLYVINYL CHLORIDE	SR	SHORT RADIUS	VPT	POINT OF VERTICAL TANGENT
PVI	POINT OF VERTICAL INTERSECTION	SR	SUPPLY REGISTER (MECH.)	VR	VOLTAGE REGULATOR
PVMT	PAVEMENT	S-S	START-STOP	VS	VOLTMETER SWITCH
PVT	POINT OF VERTICAL TANGENCY	SS	SUSPENDED SOLIDS	VT	VINYL TILE
PWR	POWER	SST	STAINLESS STEEL	VTR	VENT THRU ROOF
QT	QUARRY TILE	SSH	SAFETY SHOWER	W	WATTS (ELEC.)
R	RADIUS	SSK	SERVICE SINK	W	WEST
R	RELAY, REVERSE, RUN, RAISE (ELEC.)	ST	SHUNT TRIP	W	WIDE FLANGE (BEAM)(STRUC.)
R	RISERS (STRUC.)	STD	STANDARD	W/	WITH
RA	RETURN AIR	STIF	STIFFENER	WACU	WALL-MOUNTED AIR CONDITIONING UNIT
RC	REINFORCED CONCRETE	STIRR	STIRRUP	WC	WATER CLOSET
RCP	REINFORCED CONCRETE PIPE	STGR	STAGGERED	WD	WOOD
RCPT	RECEPTACLE	STL	STEEL	WG	WIRE GLASS
RD	ROAD (CIVIL)	ST	STRAIGHT	WH	WATER HEATER
RD	ROOF DRAIN	STRL	STRUCTURAL	WH	WATTHOUR METER (ELEC.)
RDCR	REDUCER	STRUCT	STRUCTURE	WHD	WATTHOUR DEMAND METER
RDW	REDWOOD	SUB	SUBSTATION	WM	WATTMETER
REF	REFER OR REFERENCE	SUSP	SUSPENDED	WP	WATERPROOF
REFR	REFRIGERATE, REFRIGERANT	SV	SOLENOID VALVE	WP	WEATHERPROOF (ELEC.)
REINF	REINFORCED, REINFORCING, REINFORCE	SW	SWITCH	WR	WASTE RECEPTACLE
REM	REMOTE	SWBD	SWITCHBOARD	WS	WATER SURFACE (MECH.)
REQD	REQUIRED	SWGR	SWITCHGEAR	WS	WELDED STEEL (STRUC.)
RF	RETURN FAN	SYMM	SYMMETRICAL	WTP	WATER TREATMENT PLANT
RG	REFLECTIVE	T	THERMOSTAT, TRANSFORMER (ELEC.)	WTR	WATER
RG	RETURN GRILLE (MECH.)	T	TREADS (STRUC.)	WU	WALL URN
RGS	RIGID GALVANIZED STEEL CONDUIT	T&B	TOP AND BOTTOM	WWF	WELDED WIRE FABRIC
RGH	RADIANT GAS-FIRED HEATING SYSTEM	T&G	TONGUE AND GROOVE	WWTP	WASTEWATER TREATMENT PLANT
RH	RIGHT HAND	T/	TOP OF	XD	TRANSDUCER
RHR	RIGHT HAND REVERSE	TAN	TANGENT	XFMR	TRANSFORMER
RL	RAIN LEADER	TB	TERMINAL BOARD, TEST BLOCK (ELEC.)	XPDR	TRANSPONDER
RL	REFRIGERANT LIQUID PIPE (MECH.)	TB	TOWEL BAR	ZS	POSITION SWITCH
RLS	RUBBER LINED STEEL	TBG	TUBING		
RM	ROOM	TC	TIME TO CLOSE		
RMS	ROOT MEAN SQUARE	TC	TIME TO CLOSE		
ROL	RAISE-OFF-LOWER	TCAE	TIME CLOSE AFTER ENERGIZATION		
RPM	REVOLUTIONS PER MINUTE	TCL2	TOTAL CHLORINE RESIDUAL		
RR	RETURN REGISTER	TD	TEMPERATURE DETECTOR, TIME DELAY		
RRUB	RADIAL RUBBER	TDC	TIME-DELAY CLOSING		
RS	REFRIGERANT SUCTION PIPE (MECH.)	TDH	TOTAL DYNAMIC HEAD		
RS	RIGID STEEL	TDO	TIME-DELAY OPENING		
RST	REINFORCING STEEL	TDR	TIME DELAY RELAY		
RTD	RESISTANCE TEMPERATURE DETECTOR	TECH	TECHNICAL		
RTN	RETURN	TEL	TELEPHONE		
RTU	REMOTE TELEMETRY UNIT	TEMP	TEMPERATURE (ELEC.)		
RVNR	REDUCED VOLTAGE NON-REVERSING	TEMP	TEMPORARY		
RVR	REDUCED VOLTAGE REVERSING	TF	TOP FACE		
R/W	RIGHT OF WAY	TFG	TEMPERED FLOAT GLASS		
S	I-BEAM (STRUC.)	THD	THREAD		
S	SOUTH	THK	THICKNESS		
S	SWITCH (ELEC.)	THRU	THROUGH		
SA	SOUND ATTENUATOR, SUPPLY AIR (MECH.)	TJ	TIE JOIST		
SA	SURGE ARRESTER (ELEC.)	TJB	TERMINAL JUNCTION BOX		
SATC	SUSPENDED ACOUSTICAL TILE CEILING	TL	TEFLON LINE PIPE		
SC	SHOWER CURTAIN	TLL	TOP LOWER LAYER		
SC	SPEED CONTROL (ELEC.)	TO	TIME TO OPEN		
SCBA	SELF CONTAINED BREATHING APPARATUS	TOAD	TIME OPEN AFTER DE-ENERGIZATION		
SCC	SOLID CORE	TOAE	TIME OPEN AFTER ENERGIZATION		
SCFM	STANDARD CUBIC FEED PER MINUTE	TOC	TOP OF CONCRETE		
SCH	SCHEDULE	TOS	TOP OF STEEL		
SCR	SHOWER CURTAIN ROD	TP	TURNING POINT		
SCU	SPEED CONTROL UNIT	TRANS	TRANSFORMER		
SD	SOAP DISPENSER	TRANSV	TRANSVERSE		
SDMH	STORM DRAIN MANHOLE	TDR	TREAD		
SDWK	SIDEWALK	TS	TUBE STEEL		
SEC	SECONDARY	TSP	TWISTED SHIELDED PAIR		
SECT	SECTION	TST	TWISTED SHIELDED TRIAD		
SED	SEDIMENTATION	TTD	TOILET TISSURE DISPENSER		
SEP JT	SEPARATION JOINT	TU	TERMINAL UNIT		
SEW	SEWAGE	TU-X	TREATMENT UNIT NO. X		
SF	SLOWER-FASTER (ELECT.)	TURB	TURBIDITY		
SF	SQUARE FEET	TUL	TOP UPPER LAYER		
SF	SUPPLY FAN (MECH.)	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR		
SG	LAMINATED SAFETY GLASS (ARCH.)	TYP	TYPICAL		
SG	SUPPLY GRILLE (MECH.)	UON	UNLESS OTHERWISE NOTED		
SGWB	SUSPENDED GYPSUM WALL BOARD	UBC	UNIFORM BUILDING CODE		
SH	SPACE HEATER (MECH.)	UC	UNLATCH COIL		
SH	SHOWER	UH	UNIT HEATER		
SHT	SHEET	UPS	UNINTERRUPTIBLE POWER SUPPLY		
SHA	SURFACE HARDENING AGENT	UR	URINAL		
SHS	SOLIDS HANDLING SYSTEM	U/S	UNDERSIDE		
SIM	SIMILAR	UVR	UNDER VOLTAGE RELAY		
SMH	STORMWATER MANHOLE	V	VALVE (MECH.)		
S/N	SOLID NEUTRAL	V	VENT		
SOL	SOLENOID	V	VOLT(S), VOLTAGE, VOLTMETER (ELEC.)		
SOLN	SOLUTION	VB	VAPOR BARRIER		
SP	SPACE OR SPACES	VC	VERTICAL CURVE, VALVE CHAMBER		
SP	STATIC PRESSURE (MECH.)	VCB	VACUUM CIRCUIT BREAKER		
SPA	SPACING	VCD	VARIABLE AIR VOLUME CEILING DIFFUSER		
SPD	SPEED	VCP	VITRIFIED CLAY PIPE		
SPECS	SPECIFICATIONS	VDR	VERTICLE DRYING RACK		
SPEC'D.	SPECIFIED	VERT	VERTICAL		
SPLY	SUPPLY	VFD	VARIABLE FREQUENCY DRIVE		
SPMDD	SPMDD STANDARD PROCTOR MAX. DRY DENSITY	VFMB	VEE-FILTER MIXING BOX		
SQ	SQUARE	VIB	VIBRATION		
		VM	VOLTMETER		
		VP	VENEER PLASTER		
		VPC	POINT OF VERTICAL CURVATURE		
		VPI	POINT OF VERTICAL INTERSECTION		

SECTION / DETAIL DESIGNATIONS

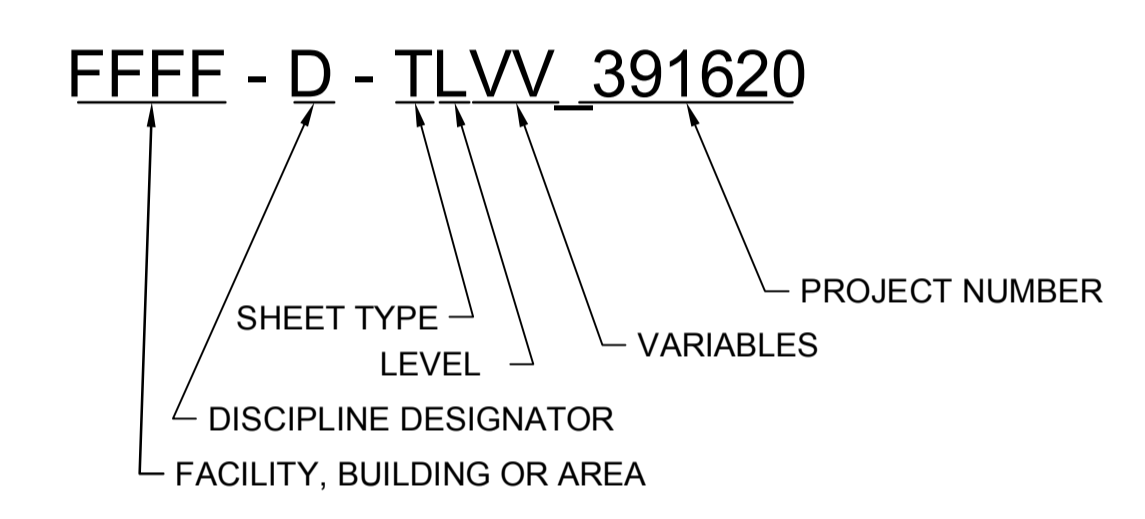


COLUMN GRID SYSTEM

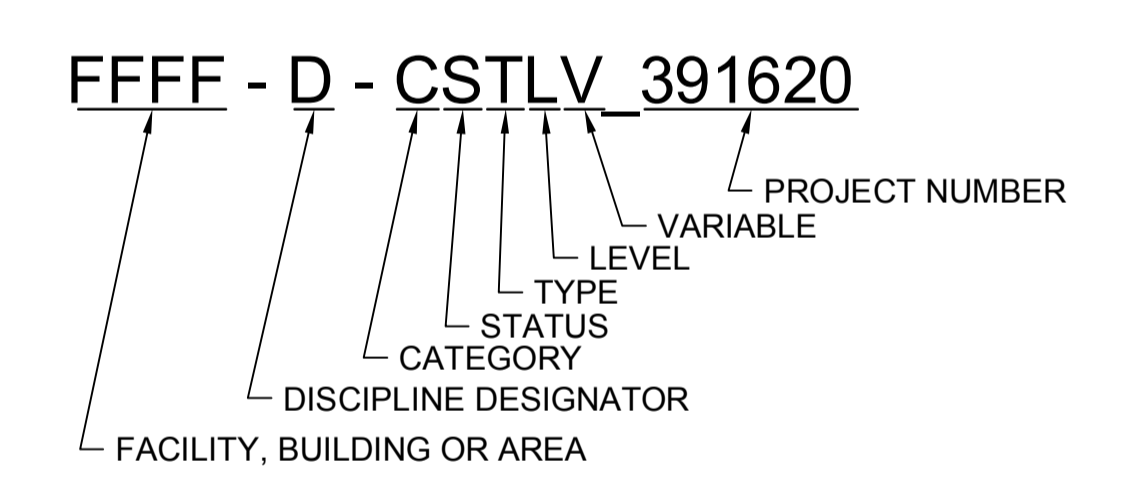


FILE NAMING CONVENTION

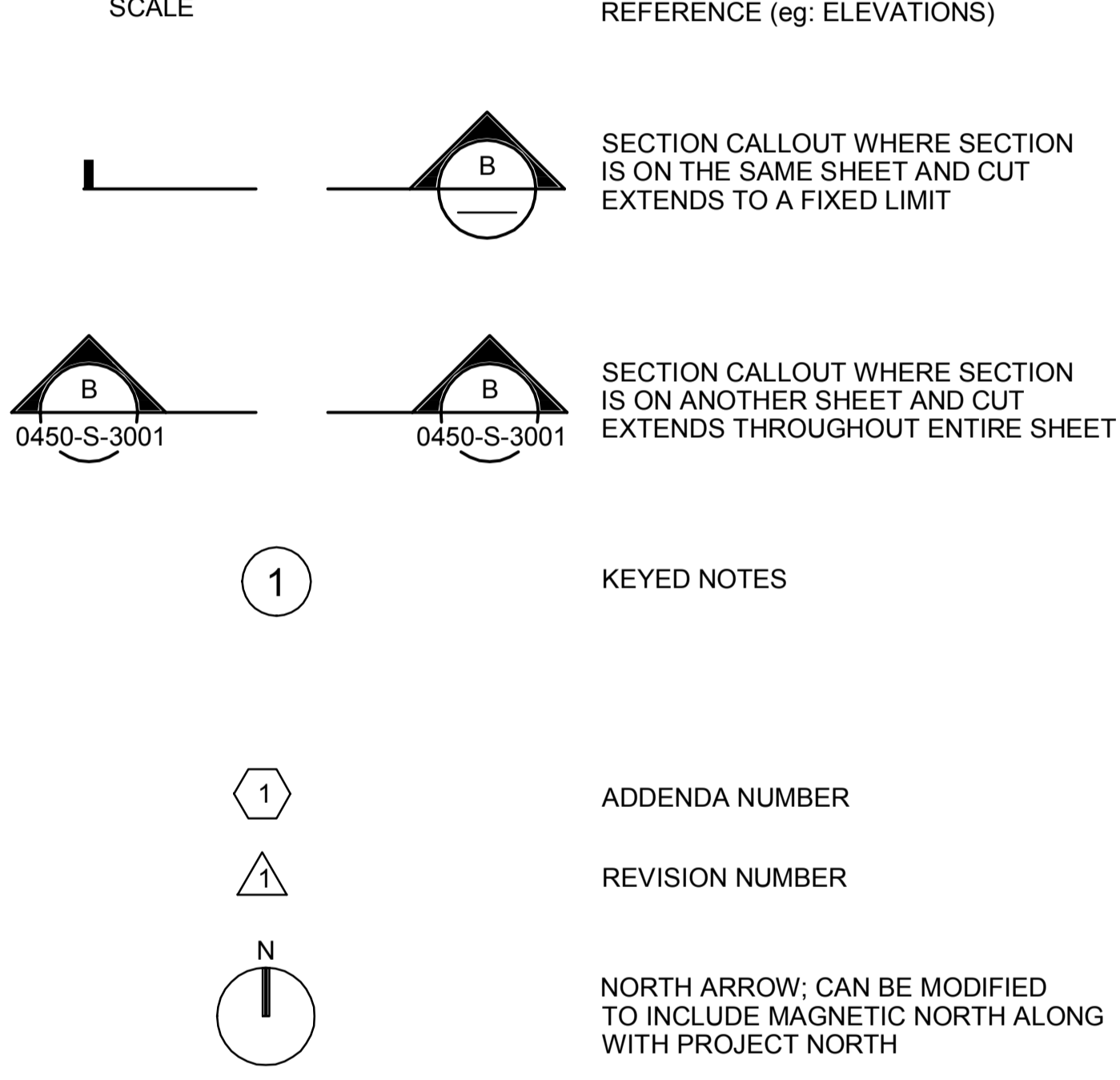
SHEET FILE NAME / DRAWING NUMBER:



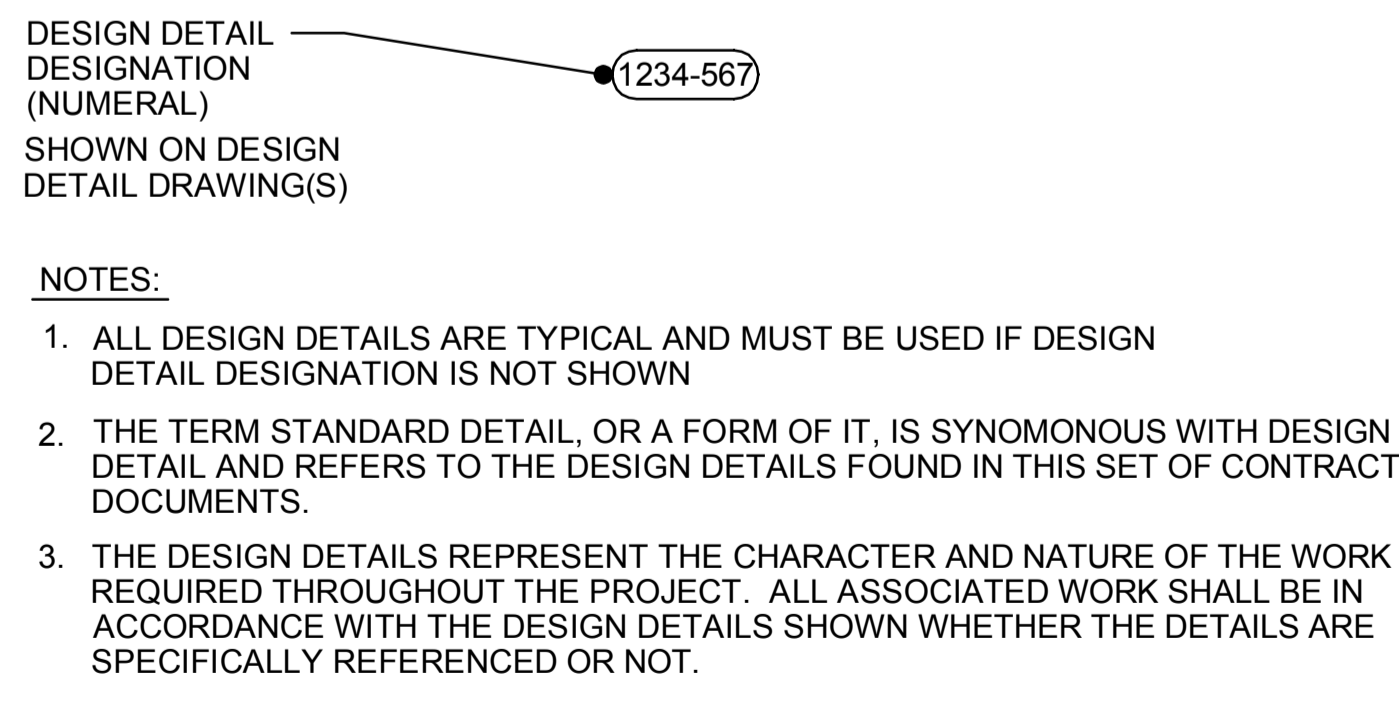
MODEL FILE NAME:



DRAWING TITLE



DESIGN DETAIL DESIGNATION



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

		DSGN	G GERMAN	NTS	VERIFY SCALE			WOODWARD AVENUE WWTP EXPANSION PROJECT		DATE	DECEMBER 8, 2010
		DR	G GERMAN	BAR IS 25 MM ON ORIGINAL DRAWING.				GENERAL		PROJ	60162013
0	FEB 11	PKG 3 - ISSUED FOR CONSTRUCTION		0		THICKENED SLUDGE BUILDING ABBREVIATIONS (2)		DWG	1000-G-0002		
B	JAN 11	PKG 3 - ISSUED FOR 90% DESIGN				SUPERSTRUCTURE PACKAGE		SHEET			
A	DEC 10	PKG 3 - ISSUED FOR 60% DESIGN									
NO.	DATE	REVISION	BY	APVD	R HOOK						