	DOWNED (CONTINUED)			
LIGHTING LUMINAIRE LEGEND	POWER (CONTINUED)	FIRE ALARM SYSTEMS	CONTROL.	SCHEMATTIC SYMBOLS
FIXTURE TO AE —E' DESIGNATES EMERGENCY LIGHT	MOTOR, THREE PHASE	ALARM STROBE AND HORN/SPEAKER	① LEVEL TRANSDUCER	RI RELAY COIL (NUMBER DENOTED)
ORGIT NUMBER	DISCONNECT/SAFETY SWITCH	ALARM STROBE	FLOW METER/FLOW TUBE	
SWITCH CIRCUIT ID	[F] ^J FUSED DISCONNECT/SAFETY SWITCH	FIG ALARM HORN/SPEAKER	① TEMPERATURE TRANSDUCER	
RECESSED LUMINAIRE	∑ ¹ COMBINATION MOTOR STARTER	ALARM PULL STATION	[5] LIMIT SWITCH	H. A THREE POSITION SELECTOR SWITCH (HAND-OFF-AUTO DENOTED
EMERGENCY EGRESS/LIFE SAFETY OR W/BACKUP BATTERY LIGHT	B DISCONNECT/ENCLOSED CIRCUIT BREAKER	S SMOKE DETECTOR	P PRESSURE SWITCH	R 70 TWO POSITION SELECTOR SWITCH (RUN-OFF DENOTED)
NIGHT LIGHT	☐ UTILITY METER SOCKET	H HEAT DETECTOR	T TEMPERATURE SWITCH/THERMOSTAT	PUSH TO TEST PILOT LIGHT (COLOR DENOTED)
NIGHT LIGHT AND EMERGENCY EGRESS	IID HAND DRYER	D DUCT SMOKE DETECTOR	F FLOOD SWITCH	PILOT LIGHT (COLOR DENOTED)
PENDANT MOUNTED	FLOOR BOX - GANG AND DEVICES SHOWN ON PLANS	FA FIRE ALARM REMOTE ANNUNCIATOR	L LEVEL (FLOAT) SWITCH	PUSH BUTTON - NORMALLY CLOSED
INDICATES WALL WASH RECESSED CAN LUMINAIRE	——MOA—— MULTI-OUTLET ASSEMBLY	FACP FIRE ALARM CONTROL PANEL	D MOTORIZED DAMPER	O O PUSH BUTTON - NORMALLY OPEN
HO H◯ WALL MOUNT LUMINARE	GROUNDING BOND POINT	M MAGNETIC DOOR HOLD OPEN	S SOLENOID	TIMING RELAY
_▽ ▽ TRACK LIGHTING	PP POWER POLE	R FIRE ALARM CONTROL RELAY	EMERGENCY PUSHBUTTON STATION	CLOSED SWITCH - TIME DELAY OPEN
□=□ ●-□ > POLE MOUNTED LUMINAIRE		S FIRE ALARM FLOW SWITCH		OPEN SWITCH - TIME DELAY CLOSED
SHADED REGION INDICATES FACE EXIT LIGHT	GENERAL	TS FIRE ALARM TAMPER SWITCH	CONTROL STATION	CLOSED SWITCH - TIME DELAY CLOSED
WALL MOUNT EMERGENCY LIGHTING UNIT	CONDUIT/WIRE RUN - EXPOSED/SURFACE MOUNT	CEILING MOUNTED ALARM STROBE		OPEN SWITCH - TIME DELAY OPEN
OCCUPANCY SENSOR, CEILING MOUNTED	CONDUIT/WIRE RUN -	AND HORN/SPEAKER CEILING MOUNTED ALARM STROBE		TEMPERATURE SWITCH - CLOSE ON RISING TEMPERATURE
©S OCCUPANCY SENSOR, WALL MOUNTED	CONCEALED/UNDERGROUND JUNCTION BOX - CEILING MOUNT	CEILING MOUNTED ALARM	ONE-LINE SYMBOLS	O-TO TEMPERATURE SWITCH - OPEN ON
COMBO OCCUPANCY SENSOR/PHOTOCELL,		HORN/SPEAKER D ELECTRIC DAMPER	↓ INCOMING LINE	
LIGHT SENSOR, CEILING MOUNTED 3 Sal SWITCH		SU ELECTRIC DAMPER	CIRCUIT BREAKER	COLUMN TO LUCE
SWITCH CIRCUIT IDENTIFIER	JUNCTION BOX - FLOOR MOUNT	HEALTH CARE	TDANSCODMED	
TYPE (FOR ALL LIGHTING CONTROL DEVICES): 2=TWO POLE, SINGLE THROW 3=THREE WAY 4=FOUR WAY			1.	
D=DIMMER P=WITH PILOT LIGHT T=TIMER	COMMUNICATIONS	<u> </u>	/ SINGLE THROW SWITCH	X OVERLOAD
SP=SPEED CONTROL K=KEYED M=MOTOR HORSE POWER RATED	▼ VOICE (TELEPHONE) OUTLET X → QUANTITY OF CABLES AND JACKS	NURSE CALL LIGHT - CEILING MOUNT	DISCONNECTING FUSE	→\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
MS=MANUAL MOTOR STARTER H/L = HIGH/LOW CONTROL	X → QUANTITY OF CABLES AND JACKS ✓ DATA OUTLET	N NURSE CALL PULL STATION	SWITCH AND FUSE	□ TERMINAL BLOCK
LIGHTING CONTROL STATION	▼ VOICE/DATA OUTLET	NURSE CALL STAFF LOCATION	-I□- FUSE	CONNECTION NODE
© PHOTOCELL, DAY LIGHT SENSOR	TELEVISION (TV) OUTLET	NURSE CALL STAFF EMERGENCY LOCATION	CURRENT TRANSFORMER	
REMOTE EMERGENCY LIGHTING HEAD	Ф слоск оплет	NURSE CALL MASTER STATION	25 MOTOR (HORSEPOWER DENOTED)	KEYNOTE/LEGEND SYMBOLS
	IC INTERCOM STATION	NUT NURSE CALL TERMINAL	SPD SURGE PROTECTION DEVICE	(1) KEYED NOTE (NUMBER DENOTED)
POWER	SPEAKER, WALL MOUNT	MRQ NURSE CALL MARQUEE		EQUIPMENT DESCRIPTION EQUIPMENT TAG (REFER TO SCHEDULE) EQUIPMENT NUMBER
DUPLEX RECEPTACLE	S SPEAKER, CEILING MOUNT	NURSE CALL STAFF DUTY STATION/TONE STATION - WALL MOUNTED	AUTOMATIC TRANSFER SWITCH (ATS)	EQUIPMENT NAME IDENTIFIER CONDUIT/WIRE TAG (REFER TO SCHEDULE) CONDUIT IDENTIFIER
DUPLEX RECEPTACLE, GROUND GOOD FAULT CIRCUIT INTERRUPTER	MICROPHONE OUTLET	NURSE CALL TONE STATION - CEILING MOUNTED	CAPACITOR	REVISION (NUMBER DENOTED)
GFCI FAULT CIRCUIT INTERRUPTER	AUDIO/VIDEO OUTLET		→ ⊢ CONTACTOR	
DUPLEX OR DOUBLE DUPLEX RECEPTACLE, OCCUPANCY CONTROLLED	☑ VOLUME CONTROL	SECURITY SYSTEMS	⊥ NEMA STARTER COMPLETE W/OVERLOADS T¹ (NEMA SIZE DENOTED)	
△ DUPLEX RECEPTACLE, ISOLATED GROUND	PI⊲ PROJECTOR	CARD READER	VARIABLE FREQUENCY DRIVE (VFD)	
DUPLEX RECEPTACLE, SWITCHED (SPLIT)	PROJECTOR CONTROL OUTLET	KP KEY PAD	SSRV SOLID STATE REDUCED VOLTAGE STARTER	
DUPLEX RECEPTACLE, ON EMERGENCY/STANDBY POWER CIRCUIT		DOOR CONTACT	(M) POWER MONITOR	
DOUBLE DUPLEX (FOURPLEX) RECEPTACLE	B BELL/CHIME/AUDIBLE NOTIFICATION DEVICE	REQUEST TO EXIT	M METER	
DUPLEX RECEPTACLE, CEILING MOUNTED	CABLE TRAY	MD MOTION DETECTOR	HIGH VOLTAGE CIRCUIT BREAKER	
DUPLEX RECEPTACLE, FLOOR MOUNTED	WIRE WIRELESS ACESS POINT	GB GLASS BREAK DETECTOR	DRAW OUT/BUSS STABS	PANELBOARD NAMING LEGEND HP = 480/277 VOLT PANEL
SPECIAL PURPOSE RECEPTACLE		TS FIRE ALARM TAMPER SWITCH	o LIGHTNING ARRESTOR	LP = 208/120 VOLT PANEL LP/HP-?-1 = LEVEL LOCATED ON 1-
SIMPLEX (SINGLE) RECEPTACLE		ELECTRIFIED/MAGNETIC DOOR LOCK MECHANISM	=	FIRST FLOOR, 2-SECOND FLOOR, ETC. LP/HP-1-? = # OF PANEL ON THAT
POWER, DISTRIBUTION, CONTROL PANEL		CCTV CAMERA (FIXED)		LEVEL
T1 TRANSFORMER (ID NOTED)		PIZ.I⊲ CCTV CAMERA (PAN-TILT-ZOOM)		
GENERATOR				SYMBOL LEGEND
MOTOR, SINGLE PHASE				WP = WEATHER PROOF AC = ABOVE COUNTER OC = OCCUPANCY CONTROLLED
Y PIOTOR, SINGLE PRASE				55 SSS(AND) SONTINGEED

ELECTRICAL ABBREVIATIONS LIST									
1P	1 POLE (2P, 3P, 4P, ETC.)	DCP	DOMESTIC WATER	нт	HEIGHT	NEMA	NATIONAL ELECTRICAL	SWBD	SWITCHBOARD
			CIRCULATING PUMP	HTG	HEATING		MANUFACTURER'S	SYM	SYMMETRICAL
Α	AMPERE	DEPT	DEPARTMENT	HTR	HEATER		ASSOCIATION	SYS	SYSTEM
AC	ABOVE COUNTER OR AIR	DET	DETAIL	HV	HIGH VOLTAGE	NFDS	NON-FUSED SAFETY	TEL	TELEPHONE
	CONDITIONER	DIA	DIAMETER	HVAC	HEATING, VENTILATING AND		DISCONNECT SWITCH	TEL/DATA	
ACLG	ABOVE CEILING	DISC	DISCONNECT	111710	AIR CONDITIONING	NIC	NOT IN CONTRACT		TERMINAL
ADO	AUTOMATIC DOOR OPENER	DIST	DISTRIBUTION	HWP	HYDRONIC WATER PUMP	NL	NIGHT LIGHT		TWIST LOCK
AF	AMP FRAME	DN	DOWN	HWP	HTDRONIC WATER POMP	N.O.	NORMALLY OPEN		TAMPER RESISTANT
AFF	ABOVE FINISHED FLOOR	DPR	DAMPER	IC	INTERRUPTING CAPACITY	NPF	NORMAL POWER FACTOR		THERMOSTAT
AFG	ABOVE FINISHED GRADE	DS	SAFETY DISCONNECT SWITCH	IG	ISOLATED GROUND	NTS	NOT TO SCALE		TELEPHONE TERMINAL
٩FI	ARC FAULT CIRCUIT	DT	DOUBLE THROW	IMC	INTERMEDIATE METAL CONDUIT				CABINET
	INTERRUPTER	DWG	DRAWING	INCAND	INCANDESCENT	OH	OVERHEAD	TV	TELEVISION
AHU	AIR HANDLING UNIT			IR	INFRARED	OL	OVERLOADS	TVTC	TELEVISION TERMINAL
AL	ALUMINUM	EC	ELECTRICAL CONTRACTOR	I/W	INTERLOCK WITH				CABINET
ALT	ALTERNATE	ELEC	ELECTRIC. ELECTRICAL	-, . ,		PA	PUBLIC ADDRESS		TYPICAL
AMP	AMPERE	ELEV	ELEVATOR	J-BOX	JUNCTION BOX	PB	PULL BOX OR PUSHBUTTON		TIT AGENC
AMPL	AMPLIFIER	EM	EMERGENCY	J-DOX	JUNCTION DOX	PE	PNEUMATIC ELECTRIC	UC	UNDER COUNTER
		EMS		ΚV	IGI OVOLT	PED			
ANNUN	ANNUNCIATOR		ENERGY MANAGEMENT SYSTEM		KILOVOLT		PEDESTAL		UNDERGROUND ELECTRICAL
APPROX	APPROXIMATELY	EMT	ELECTRICAL METALLIC TUBING	KVA	KILOVOLT-AMPERE	PF	POWER FACTOR		UNDERGROUND
AQ-STAT	AQUASTAT	EP	ELECTRIC PNEUMATIC	KVAR	KILOVOLT-AMPERE REACTIVE	PH	PHASE		UNIT HEATER
ARCH	ARCHITECT, ARCHITECTURAL	EQUIP	EQUIPMENT	KW	KILOWATT	PIV	POST INDICATING VALVE		UNLESS NOTED OTHERWISE
AS	AMP SWITCH	EWC	ELECTRIC WATER COOLER	KWH	KILOWATT HOUR	PNL	PANEL	UT	UNDERGROUND TELEPHONE
AT	AMP TRIP	EXIST	EXISTING			PP	POWER POLE		UTILITY
ATS	AUTOMATIC TRANSFER SWITCH	EXH	EXHAUST	LOC	LOCATE OR LOCATION	PR	PAIR		UNIT VENTILATOR OR
AUTO	AUTOMATIC TRANSFER SWITCH	EXP	EXPLOSION PROOF	LT	LIGHT	PRI	PRIMARY		ULTRAVIOLET
AUX	AUXILIARY	EAF	LAF LOSION PROOF	LTG	LIGHTING	PROJ	PROJECTION		OLINAVIOLEI
			EXDE ALADA						VOLT
AV	AUDIO VISUAL	FA	FIRE ALARM	LTNG	LIGHTNING	PRV	POWER ROOF VENTILATOR		VOLT
AWG	AMERICAN WIRE GAUGE	FABP	FIRE ALARM BOOSTER POWER	LV	LOW VOLTAGE	PT	POTENTIAL TRANSFORMER	VA	VOLT-AMPERES
			SUPPLY PANEL			PVC	POLYVINYL CHLORIDE		VIDEO DISPLAY TERMINAL
BATT	BATTERY	FACP	FIRE ALARM CONTROL PANEL	MAX	MAXIMUM		(CONDUIT)	VERT	VERTICAL
BD	BOARD	FCU	FAN COIL UNIT	MAG.S	MAGNETIC STARTER	PWR	POWER	VFD	VARIABLE FREQUENCY DRIVE
BLDG	BUILDING	FIXT	FIXTURE	M/C	MOMENTARY CONTACT				VOLUME
BMS	BUILDING MANAGEMENT	FLR	FLOOR	MC	MECHANICAL CONTRACTOR	OUAN	OUANTITY		
	SYSTEM		FLUORESCENT	MCB	MAIN CIRCUIT BREAKER	QUAIT	Quantiti	W	WATT
	31316/1	FU		MCC		RCPT	DECEDTACLE		WATT
_	COMPUTE		FUSE		MOTOR CONTROL CENTER		RECEPTACLE		
C	CONDUIT	FUDS	FUSED SAFETY DISCONNECT	MDC	MAIN DISTRIBUTION CENTER	REQD	REQUIRED		WIRE GUARD
CAB	CABINET		SWITCH	MDP	MAIN DISTRIBUTION PANEL	RM	ROOM		WATER HEATER
CAT	CATALOG			MFR	MANUFACTURER	RSC	RIGID STEEL CONDUIT		WITHOUT
CATV	CABLE TELEVISION	GA	GAUGE	MFS	MAIN FUSED DISCONNECT	RTU	ROOF TOP UNIT	WP	WEATHERPROOF
СВ	CIRCUIT BREAKER	GAL	GALLON		SWITCH				
CCTV	CLOSED CIRCUIT TELEVISION	GALV	GALVANIZED	MH	MANHOLE	SC	SURFACE CONDUIT	XFMR	TRANSFORMER
CKT	CIRCUIT	GC	GENERAL CONTRACTOR	MIC	MICROPHONE	SEC	SECONDARY	XFR	TRANSFER
CLG	CEILING	GEN	GENERATOR GENERATOR	MIN	MINIMUM	SHT	SHEET	AFK	INCHOFER
COMB	COMBINATION	GEN		MISC	MISCELLANEOUS	SIM	SIMILAR		
		GH	GROUND FAULT CIRCUIT						
CMPR	COMPRESSOR		INTERRUPTER	MLO	MAIN LUGS ONLY	S/N	SOLID NEUTRAL		
CONN	CONNECTION	GFP	GROUND FAULT PROTECTOR	MMS	MANUAL MOTOR STARTER	SPEC	SPECIFICATION		
CONST	CONSTRUCTION	GND	GROUND	MOA	MULTIOUTLET ASSEMBLY	SPKR	SPEAKER		
CONT	CONTINUATION OR	GRS	GALVANIZED RIGID STEEL	MSP	MOTOR STARTER PANELBOARD	SP	SPARE		
	CONTINUOUS		(CONDUIT)	MSBD	MAIN SWITCHBOARD	SR	SURFACE RACEWAY	_	ANGLE
CONTR	CONTRACTOR	GVP RD	GYPSUM BOARD	MT	MOUNT	SS	STAINLESS STEEL		AT
CONV	CONVECTOR	air ob	GTI SOLII BUNKD	MT.C	EMPTY CONDUIT	SSW	SELECTOR SWITCH		DELTA
		1104	HANDS OFF AUTOMATIC					Δ	
CP	CIRCULATING PUMP	HOA	HANDS-OFF-AUTOMATIC	MTS	MANUAL TRANSFER SWITCH	S/S	STOP/START PUSHBUTTONS		FEET
CRT	CATHODE-RAY TUBE		SWITCH	MTR	MOTOR, MOTORIZED	STA	STATION		INCHES
CT	CURRENT TRANSFORMER		HORIZONTAL			STD	STANDARD	#	NUMBER
CTR	CENTER	HP	HORSEPOWER	N.C.	NORMALLY CLOSED	SURF	SURFACE MOUNTED	Ø	PHASE
		1.000	HIGH POWER FACTOR	NEC	NATIONAL ELECTRICAL CODE	SW	SWITCH	С	CENTER LINE
CU	COPPER	HPF		NEC		244			CENTER LINE

CONTRACTOR: Minger Construction
RECORD PLAN
2GN 12-22-2020

DESIGN TREE
engineering + land surveying
St. Cloud | Alexandria | Rogers
220-217-5567

I HERBEY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORD DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROPI THE STATE OF MININGSOTA,

TYPED OR PRINTED NAME:

DATE

02/01/19

UC. NO.



7533 SUNWOOD DR NW, SUITE 206 RAMSEY, MINNESOTA 55303 Phone: (763) 433-2561 Email: Ramsey@bolton-menk.com www.bolton-menk.com

DESIGNED	NO.	REVISION	DATE	ELV DIVED LANDELL INC	SHEET
ARM				ELK RIVER LANDFILL INC.	SHEET
DRAWN					38
CAB	\Box			WASTE WATER FORCEMAIN	- 00
CHECKED					OF
ARM	\vdash			CITY LIFE CTATION. ELECTRICAL CYMPOLC 9 APPREVIATIONS	4.0
LIENT PROJ. NO.	\Box			CITY LIFT STATION - ELECTRICAL SYMBOLS & ABBREVIATIONS	46
R16.115896					