ADDENDUM NUMBER TWO
NEW HEADQUARTERS / FIRE STATION BUILDING
ALLEN CLAY JOINT FIRE DISTRICT
PROJECT NO. 10A06743
September 26, 2011

BID BOOK:

NO REVISIONS OR CLARIFICATIONS

PLAN SET:

SHEET 3 (CIVIL)

1. (CLARIFICATION) In the Site Utility Plan, the same ½" stone screening provided by the owner (loading and hauling by the contractor) may be used to fill utility trenches provided the proper procedures are taken to when handling the stone. The contractor must provide the amount of stone required to the owner so the quarry can make the proper arrangements.
2. The stone is being provided by the local quarry approximately 1 mile north on Genoa-Clay Center road.

SHEET F.1.0

1. (REVISION) In the Foundation Plan, the same ½" stone screening provided by the owner (loading and hauling by the contractor) may be used for compacted fill under the concrete floor slab provided the contractor can get the appropriate compaction. The contractor must provide the amount of stone required to the owner so the quarry can make the proper arrangements.
2. (REVISION) In the Foundation Plan, the same ½" stone screening provided by the owner (loading and hauling by the contractor) may be used for fill around the perimeter drain tile provided the contractor prevent any stone or debris from obstructing the piping. The contractor must provide the amount of stone required to the owner so the quarry can make the proper arrangements.

SHEET A.1.0

1. (CLARIFICATION) It is the design intent that the masonry walls that are beneath the mezzanine level (including the alternate) extend to 8'-0" above finish floor to provide structural support for the mezzanine.
2. (REVISON) In the Architectural Floor Plan, wall tags in rooms 121 and 123 denoted as M or N should be N18 denoting the proper wall type.

SHEET A.2.0

1. (CLARIFICATION) The brick in the alternate is intended to be a standard face brick (veneer) in a non-bearing application and installed in accordance with the standard practices. The brick selected will be based on the color scheme of the building. It is the intent of the design that the column enclosures and the brick veneer alternate will match one another. No allowance has been determined for the brick but it is the intent to keep cost as economical as possible

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2. (CLARIFICATION) It is the intent of the design drawings that the underside of the entry canopy to be the same material as the soffits and would be provided by the metal building manufacturer.

SHEET A.6.0

1. (CLARIFICATION) In wall section 601, a stone, limestone, or precast concrete (sample approved by the owner) with a thickness up to 4" thick is acceptable as the exterior sill in lieu of cast stone. Note: the trim on the canopy column enclosures are intended to match the sill.

SHEET A.6.1

1. (CLARIFICATION) In wall section 611, it is the design intent to insulate the wall separating the Apparatus Bays from the occupied spaces of the building because of separate heating systems and the possibility of bay doors being left open during fire calls.

SHEET A.6.2

1. (REVISION) The insulating inserts for the CMU shall be Korfil Block Insulation or approved equal meeting or exceeding ASTM C 578 Type X specification for Rigid Cellular Polystyrene Thermal Insulation. The 8" masonry with the inserts should provide an approximate R value of 7.75.

SHEET A.7.0

1. (REVISION) The overhead door assemblies are not required to have recessed hand grips.
2. (CLARIFICATION) The overhead door described as flush is intended to mean that the surface of the door is relatively flat. A ribbed surface appearance is acceptable provided the ribbing is not exaggerated.

SHEET A.8.0

1. (CLARIFICATION) In 10000 Miscellaneous Items, the toilet partition assemblies are intended to be plastic laminate floor supported type with the color to be selected from manufacturer's typical selections.
2. (CLARIFICATION) In 10000 Miscellaneous Items, the toilet accessories are intended to be a commercial grade stainless steel finish accessories as made by Bobrick or an approved equal. Dispensers should be able to work with standard paper product readily available locally (no special or custom sizes).

SHEET E.1

1. (REVISION) Sheet reissued by the electrical engineer.

SHEET E.2

1. (CLARIFICATION) Sheet reissued by the electrical engineer.

SHEET E.6

1. (CLARIFICATION) Sheet reissued by the electrical engineer.

FIXTURE SCHEDULE

SYMBOL	LAMPS AND/OR BALLASTS	DESCRIPTION	VOLTAGE	APPROVED FIXTURES	REMARKS
EXIT	LONG LIFE LED	THERMOPLASTIC EXIT SIGN WITH 90 MINUTE NI-CAD BATTERY and SELF DIAGNOSTICS; UNIVERSAL MOUNT; WHITE, STENCIL FACE HOUSING; RED LETTERS	120V	LITHONIA - 'ECR' SERIES OR ARCHITECT / ENGINEER APPROVED SUBSTITUTE	MODEL -ECR-HO-M6
	--	INDICATES LIGHT FIXTURE ON EMERGENCY POWER, NON-SWITCHED. TYPICAL OF ALL FIXTURES AS INDICATED. CIRCUIT AS INDICATED	--		
A	FLUORESCENT DOWN LIGHT WITH 120 VOLT ELECTRONIC DRIVER	6' DOWN LIGHT; WITH OPEN WHITE REFLECTOR	120V	LITHONIA - 'DOM' SERIES OR ARCHITECT / ENGINEER APPROVED SUBSTITUTE	MODEL - LF6N-1/26DTT-PSCI-MVOLT-ADEZ
B	2-13W-DTT; (2) 2-LAMP 13W; ELECTRONIC BALLAST	6" FLOURESCENT DOWNLIGHT; IC RATED HOUSING; DROP OPAL LENS WITH WHITE SPLAY; WET LOCATION RATED	120V	LITHONIA - "LI6F" SERIES OR ARCHITECT/OWNER APRROVED EQUAL	MODEL - LIF6-2/13DTT-MVOLT-BDP-F6LD3
C	2 - 32W T8; 2-LAMP, ELECTRONIC BALLAST	2'x4' DIRECT/INDIRECT RECESSED FLUORESCENT FIXTURE WITH ACRYLIC DIFFUSER AND 2 LAMPS	120V	LITHONIAL - "AVANTE" SERIES OR ARCHITECT/OWNER APPROVED EQUAL	MODEL - 2AV-G-2-32-ADP-MVOLT
E	54 WATT 2 LAMP WITH 120 VOLT ELECTRONIC DRIVER	54' LED SURFACE MOUNTED FIXTURE WITH 4100K LAMPS	120V	LITHONIA - 'VAP' SERIES OR ARCHITECT / ENGINEER APPROVED SUBSTITUTE	MODEL - VAP-232L-ST5L
F	54 WATT 2 LAMP WITH 120 VOLT ELECTRONIC DRIVER	54' LED CHANG HUNG FIXTURE WITH 5700K LAMPS	120V	LITHONIA - 'VAP' SERIES OR ARCHITECT / ENGINEER APPROVED SUBSTITUTE	MODEL - VAP-114-5700K-SYM-ST5L-CMB
G	2 - GF40 40W; (2) LAMP, 40W 120 VOLT ELECTRONIC BALLAST	2'x2' DIRECT/INDIRECT REECESSED FLUORESCENT FIXTURE WITH ACRYLIC DIFFUSER AND 2 LAMPS	120V	LITHONIAL - "AVANTE" SERIES OR ARCHITECT/OWNER APPROVED EQUAL	MODEL - 2AV-G-2-CFAO-ADP-MVOLT
H	1400 LUMEN LED OUTPUT WITH 120 VOLT ELECTRONIC DRIVER	OUTDOOR LED WALL PACK WITH INTERNAL PHOTO EYE AND BRONZE FINISH	120V	LITHONIA - 'OLW' SERIES OR ARCHITECT / ENGINEER APPROVED SUBSTITUTE	MODEL -OWL14
J	2 - CFT 13W/GX23; 2-LAMP 120 VOLT ELECTRONIC BALLAST	WALL MOUNTED FLUORESCENT FIXTURE WITH OPAL ACRYLIC DIFFUSER AND BRUSHED STAINLESS FINISH	120V	WINONA - "RANDALL" SERIES OR ARCHITECT/OWNER APPROVED EQUAL	MODEL - 4602-F-120-OA-BSS-STD
K	16.5' (2) 26 WATTS WITH 120 VOLT ELECTRONIC DRIVER	PRISTINE, DECORATIVE BRUSHED NICKEL PAN, WHITE ETCHED GLASS DROP DIFFUSER 12.5' DIA X 3.75' DEEP, PAN PAINT	120V	VSA - 'CPA172' SERIES OR ARCHITECT / ENGINEER APPROVED SUBSTITUTE	MODEL -11736 BN

LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
$ $3 $4	SINGLE POLE, 3 AND 4-WAY WALL SWITCHES; 20A-120VAC, FLUSH MOUNTED IN FINISH SPACE, M.H.=48"	J	JUNCTION BOX
MS	MOTION WALL SWITCHES; 20A-120VAC, FLUSH MOUNTED IN FINISH SPACE, M.H.=48"	DP	DOOR OPERATOR PUSH BUTTON STATION
DS	SINGLE POLE WALL DIMER SWITCHE; 0-10VAC, FLUSH MOUNTED IN FINISH SPACE, M.H.=48', LITHONIA, CAT# ISD-BC-120/277-WH.	CP	CONTROL PANEL FOR PACKAGED MECHANICAL UNIT
MS	SINGLE POLE MOMENTARY CONTACT, CENTER OFF SWITCH	T	TRANSFORMER FOR LED LIGHT FIXTURES
FSC	FAN SPEED CONTROLLER	911	PHONE BOX TO DISPATCH
RS	3-WAY SINGLE POLE, DIMMER SWITCH, 01-10 V AC, FLUSH MOUNTED IN FINISH SPACE, M.H.=48' LITHONIA CAT#	C	CONTACTOR, SIZE AND POLES AS NOTED
RS	4-WAY SINGLE POLE, DIMMER SWITCH, 01-10 V AC, FLUSH MOUNTED IN FINISH SPACE, M.H.=48' LITHONIA CAT#		DUPLEX RECEPTACLE; NEMA 5-20R, 20A/120VAC, SPECIFICATION GRADE, FLUSH MOUNTED IN FINISHED SPACE, M.H.=18' UNLESS NOTED OTHERWISE
VD	VOICE/DATA OUTLET, 2 1/2 DEEP 2-GANG BOX WITH 1-GANG VERTICAL PLASTER RING, ST.B 1"C OUT ABOVE CEILING, FLUSH MOUNTED BLANK COVER, M.H.=18' UNLESS NOTED OTHERWISE, BOND TO NEAREST BUILDING GROUNDING SYSTEM POINT	GFI	GFI DUPLEX RECEPTACLE; NEMA 5-20R, 20A/120VAC, SPECIFICATION GRADE, FLUSH MOUNTED IN FINISHED SPACE, M.H.=18' UNLESS NOTED OTHERWISE
		20A	RECEPTACLE, NEMA 6-20R, 20A-208VAC, SPECIFICATION GRADE, FLUSH MOUNTED IN FINISHED SPACE, M.H.=18' UNLESS NOTED OTHERWISE

MECHANICAL EQUIPMENT SCHEDULE

DWG. TAG NO.	DESCRIPTION	NAMEPLATE RATINGS HP	W	VOLTAGE	AMPACITY M.O.P.	M.C.A.	F.L.A.	FED FROM	FEEDER SIZE	FUSIBLE SAFETY DISC. PKG'D UNIT	F.B.E.C.	MOTOR STARTER/CONTACTOR PKG'D UNIT	F.B.E.C.	OTHER	REMARKS
HVAC-1	PACKAGED HEATING / COOLING UNIT	7.5	--	208V-3Ø	60	--	44.2	RP-A	3#6 & 1#10 (GND) - 3/4"	X	X	X	--	--	--
FURN-1	FURNACE	1	--	120V-1Ø	30	--	16	RP-A	2#12 & 1#12 (GND) - 1/2" C		X	X			
FURN-2	FURNACE	1	--	120V-1Ø	30	--	16	RP-A	2#12 & 1#12 (GND) - 1/2" C		X	X			
ERH-1	ELECTRICAL RADIANT HEATER	--	450	120V-1Ø	--	--	3.75	RP-A	2#12 & 1#12 (GND) - 1/2" C	X	--	X	--	--	--
ERH-2	ELECTRICAL RADIANT HEATER	--	750	120V-1Ø	--	--	6.25	RP-A	2#12 & 1#12 (GND) - 1/2" C	X	--	X	--	--	--
FC-2.1	DUCTLESS SPLIT A/C UNIT	--	600	120V-1Ø	--	--	--	RP-A	2#12 & 1#12 (GND) - 1/2" C	X	--	X	--	--	--
FC-2.2	DUCTLESS SPLIT A/C UNIT	--	600	120V-1Ø	--	--	--	RP-A	2#12 & 1#12 (GND) - 1/2" C	X	--	X	--	--	--
EF-1	EXHUST FAN	--	178	120V-1Ø	--	--	--	RP-A	2#12 & 1#12 (GND) - 1/2" C	X	--	X	--	--	--
EF-2	EXHUST FAN	--	178	120V-1Ø	--	--	--	RP-A	2#12 & 1#12 (GND) - 1/2" C	X	--	X	--	--	--
EF-3	EXHUST FAN	--	93	120V-1Ø	--	--	--	RP-A	2#12 & 1#12 (GND) - 1/2" C	X	--	X	--	--	--
EF-4	EXHUST FAN	--	85	120V-1Ø	--	--	--	RP-A	2#12 & 1#12 (GND) - 1/2" C	--	X	X	--	--	--
EF-5	EXHUST FAN	7.5	--	208V-3Ø	--	--	--	RP-A	3#10 & 1#12 (GND) - 1/2" C	--	X	--	X	--	--
HP-1	HEAT PUMP	--	--	208V-3Ø	33.3	19	--	MDP	3#8 & 1#8 (GND) - 3/4" C	X	X	X	--	--	
HP-2	HEAT PUMP	--	--	208V-3Ø	33.3	19	--	MDP	3#8 & 1#8 (GND) - 3/4" C	X	X	X	--	--	
RTH-1	RADIANT HEATER	--	120	120V-1Ø	15	--	1	RP-A	2#12 & 1#12 (GND) -1/2" C	--	X	X	--	--	--
ACCU-1	A/C UNIT	--	--	208V-1Ø	15	10	--	MDP	2#14 & 1#14 (GND) - 1/2" C	X	X	X			
ACCU-2	A/C UNIT	--	--	208V-1Ø	20	13	--	MDP	3#12 & 1#12 (GND) - 1/2" C	X	X	X			

ELECTRICAL SPECIFICATIONS:

1. ELECTRICAL WORK SHALL COMPLY WITH REQUIREMENTS OF NATIONAL ELECTRICAL CODE, NATIONAL ELECTRICAL SAFETY CODE OF BUREAU OF STANDARDS, STATE BUILDING RULES AND REGULATIONS AND LOCAL ORDINANCES, AND SUCH OTHER STATUTORY PROVISIONS THAT PERTAIN TO THIS CLASS OF WORK.
2. CONTRACTOR SHALL GUARANTEE THIS INSTALLATION AGAINST DEFECTS IN EQUIPMENT AND/OR WORKMANSHIP FOR A PERIOD OF TWELVE (12) MONTHS FROM DATE OF FINAL ACCEPTANCE.
3. CONTRACTOR SHALL VISIT THE SITE AND EXAMINE THE PREMISES AND SHALL FULLY INFORM HIMSELF AS TO THE CONDITIONS UNDER WHICH WORK IS TO BE DONE. FAILURE TO DO SO SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR THE FULL PERFORMANCE OF THE CONTRACT, NOR WILL EXTRA COMPENSATION BE ALLOWED FOR CONDITIONS DISCLOSED AFTER BID OPENING.
4. CONTRACTOR SHALL PROVIDE ALL MATERIALS NECESSARY FOR PROPER EXECUTION OF THE WORK. ALL MATERIALS SHALL BE NEW AND BEST OF THEIR RESPECTIVE KINDS FOR USE INTENDED. MATERIAL SHALL BE APPROVED BY U.L. INC. OF NATIONAL BOARD OF UNDERWRITERS.
5. CONDUCTORS FOR POWER SHALL BE 600 VOLT STRANDED COPPER THHN/THW NO. 12 AWG MIN. CONDUIT SHALL BE 1/2" EMT MIN. NMN WIRE IS ACCEPTABLE WHERE ALLOWED BY NEC.
6. CONTRACTOR SHALL OBTAIN ALL NECESSARY ELECTRICAL PERMITS AND CERTIFICATES OF INSPECTION FOR CONSTRUCTION.
7. WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE BEST PRACTICES OF THE TRADE. ELECTRICAL WORK SHALL BE INSTALLED BY JOURNEYMAN ELECTRICIANS, UNDER THE DIRECT SUPERVISION OF A "COMPETENT" FOREMAN. AT NO TIME SHALL ELECTRICAL WORK BE INSTALLED BY APPRENTICE ELECTRICIANS OF LABORERS WITHOUT THE IMMEDIATE, ON THE JOB SUPERVISION OF A JOURNEYMAN ELECTRICIAN.
8. CONTRACTOR SHALL COORDINATE HIS WORK WITH BUILDING OWNER AND OTHER TRADES. CONTRACTOR SHALL DO ALL CUTTING, FITTING AND PATCHING THAT MAY BE REQUIRED.
9. ELECTRICAL WORK SHALL BE CONCEALED FROM VIEW. EXPOSED RACEWAYS WHERE NOTED IN FINISHED AREAS SHALL BE RUN AS INCONSPICUOUSLY AS POSSIBLE, IE. TIGHT TO CORNERS, ETC.
10. ELECTRICAL CONTRACTOR SHALL COORDINATE ALL POWER WIRING, SAFETY DISCONNECT MEANS, MOTOR CONTROL AND CONTROL WIRING FOR MECHANICAL EQUIPMENT WITH THE MECHANICAL CONTRACTOR. LOCATE SWITCHES N ACCORDANCE WITH THE N.E.C.
11. ALL CIRCUIT BREAKERS USED TO FEED MECHANICAL EQUIPMENT SHALL BE 'HACR' TYPE.
12. ELECTRICAL CONTRACTOR SHALL PROVIDE GROUNDING PER NEC ARTICLE 250.
13. ALL PENETRATIONS, ECT. THRU FIRE/SMOKE RELATED PARTITIONS OR ASSEMBLIES SHALL COMPLY WITH OSC CHAPTER 7.
14. NYRSE CALL AND FRE ALARM SYSTEM SHALL BE MODIFICATIONS TO EXISTING SYSTEMS.

GENERAL ELECTRICAL NOTES:

1. IT IS STRONGLY RECOMMENDED THAT ALL BIDDERS VISIT AND EXAMINE THE SITE. NO ADDITIONAL COMPENSATION WILL BE AWARDED FOR ANY DEVIATIONS OR DISCREPANCIES TO THESE PLANS. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH ALL CONDITIONS UNDER WHICH WORK MUST BE PERFORMED AND CHECK ALL PRESENT ELEVATIONS. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER. FAILURE TO DO SO SHALL BE DEEMED AS ACCEPTANCE OF EXISTING CONDITIONS.
2. PRIOR TO BIDDING, ALL ELECTRICAL CONTRACTORS, SUBCONTRACTORS, VENDORS AND SUPPLIERS ARE DIRECTED PROVIDE SHOP DRAWINGS OF ELECTRICAL EQUIPMENT FOR APPROVAL PRIOR TO PLACING ORDERS FOR EQUIPMENT.
3. ITEMS SPECIFIED ON ELECTRICAL EQUIPMENT SCHEDULES AND PLANS ARE THE BASIS OF DESIGN. EQUALITY OF OTHER EQUIPMENT SHALL BE DETERMINED BY THE OWNER AND ENGINEER. ANY MODIFICATION TO THESE DOCUMENTED METHODS THAT IS NECESSARY BY ALTERNATE EQUIPMENT IS THE RESPONSIBILITY OF THE SUPPLIER OF THE ALTERNATE EQUIPMENT.
4. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION OF ALL NEW EQUIPMENT WITH EXISTING CONDITIONS AND COORDINATE WITH THE GENERAL AND OTHER CONTRACTORS PRIOR TO ROUGH-IN AND/OR INSTALLING ANY OF THIS WORK.
5. ELECTRICAL CONTRACTOR SHALL FIELD VERIFY ALL CLEARANCES AND CONDITIONS PRIOR TO THE START OF ANY CONDUIT, CABLE TRAY, RACEWAY, BUSWAY SYSTEMS ETC., VERIFY LOCATIONS OF ALL OUTLET BOXES, SURFACE MOUNTED DEVICES, PANELBOARD ENCLOSURES, FIXTURE LOCATIONS, ETC., WITH ARCHITECTURAL, STRUCTURAL AND MECHANICAL DRAWINGS PRIOR TO ROUGH-IN. VERIFY EXACT LOCATIONS AND INVERTS OF DUCTBANKS, SITE LIGHTING POLES, FIXTURES, BOLLARDS, ETC. WITH CIVIL AND SITE DEVELOPMENT DRAWINGS PRIOR TO TRENCHING. REPORT ANY DISCREPANCIES WITH THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
6. THIS CONTRACTOR SHALL DISPOSE OF ALL MATERIALS GENERATED FROM REMOVAL, AND INSTALLATION OF THIS WORK. MATERIALS SHALL BE REMOVED FROM THE PROJECT SITE WEEKLY MINIMUM. THIS CONTRACTOR SHALL PROVIDE TO THE OWNER ANY SALVAGEABLE MATERIAL AS DIRECTED BY THE OWNER OR ENGINEER.
7. THIS CONTRACTOR SHALL INCLUDE ALL NECESSARY OVER TIME AND PREMIUM TIME (SATURDAY, SUNDAY, HOLIDAYS) REQUIRED FOR THE COMPLETION OF THE INTENDED WORK.
8. ELECTRICAL CONTRACTOR SHALL COORDINATE ALL POWER WIRING, SAFETY DISCONNECT MEANS, MOTOR CONTROL AND CONTROL WIRING FOR MECHANICAL EQUIPMENT WITH THE MECHANICAL CONTRACTOR.
9. THE MECHANICAL CONTRACTOR, MECHANICAL EQUIPMENT SUPPLIER, OR TEMPERATURE CONTROL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL LOW VOLTAGE TEMPERATURE CONTROL WIRING REQUIRED FOR THE PROJECT. THIS ELECTRICAL CONTRACTOR SHALL INSTALL, TERMINATE AND LABEL ALL 120VAC INTERLOCK WIRING DETAILED ON THESE PLANS.
10. ALL MOUNTING HEIGHTS INDICATED FOR FIXTURES AND DEVICES ARE ABOVE FINISH FLOOR (A.F.F.) WHICH SHALL BE THE MAIN FLOOR, NOT PITS, DEPRESSIONS, ELEVATIONS, ETC., UNLESS OTHERWISE INDICATED.
11. LOCATE AND INSTALL ALL DEVICES AND FIXTURES IN ACCORDANCE WITH AMERICAN DISABILITY ACT GUIDELINES.

MECHANICAL
ELECTRICAL
TECHNOLOGY
CONSULTING
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REVISION	DATE
ADDENDUM #2	9-27-11
ISSUED FOR CONSTRUCTION DOC.	8-25-2011

TITLE: ELECTRICAL SPECIFICATIONS, LEGAND AND SCHEDULES

PROJECT: NEW HEADQUARTERS/FIRE STATION
3155 N Genoa-Clay Center Road, Genoa, Ohio

STATE OF OHIO
JOHNNY D. WHITEHEAD
Registration No. E-68439
REGISTERED PROFESSIONAL ENGINEER
HTB #2011-019

SIGNED

DATE

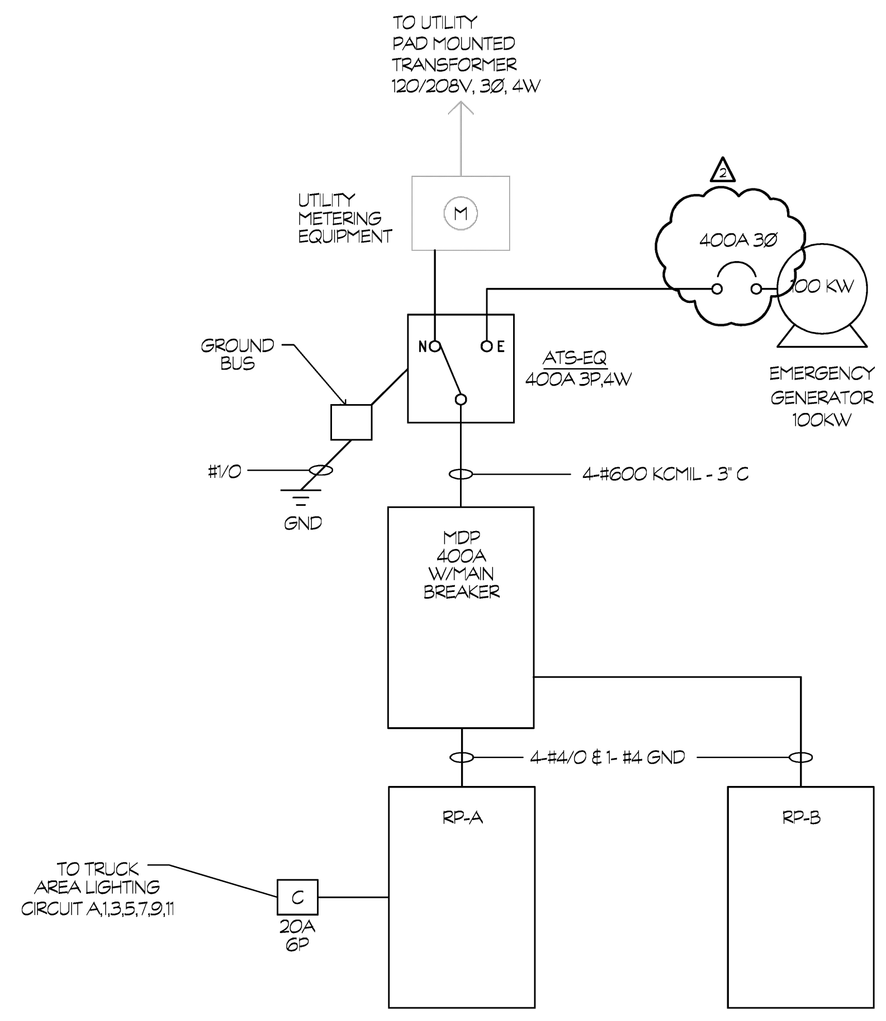
DATE: PROJECT:

SHEET E.1 OF 6

PANELBOARD DESIGNATION / TAG:		RP-A			LOCATION:						Options:			Options:					
ELECTRICAL CHARACTERISTICS:		120/208v - 3ph - 4w			FEEDER SIZE:		#4/0					SUB-FEED LUGS			MULTIPLE SECTIONS				
PANELBOARD CONSTRUCTION:		CIRCUIT BREAKER			FED FROM:		MDP					SUB-FEED BREAKER		NONE	TVSS				
225	AMP MAIN LUGS	22k	A.I.C. (FULLY RATED)			SURFACE	MOUNTING					FEED-THRU LUGS		PLUG-IN	BREAKERS				
	AMP MAIN BREAKER/SWITCH	100	% NEUTRAL (SOLID)			NEMA 1	ENCLOSURE					SERVICE ENTRANCE RATED			MAIN TERMINAL LUGS				
42	AVAILABLE CIRCUIT SPACES		INCOMING FEED				MISC.					100% RATING							
'L'	After the circuit no. indicates handle locking device.																		
		VOLT AMPS			CIRCUIT		WIRE SIZE		CIRCUIT		VOLT AMPS								
	LOAD DESCRIPTION	A	B	C	POLE	AMP			AMP	POLE	A	B	C	LOAD DESCRIPTION					
1	TRUCK BAY LIGHTS	1032			1	20	12	12	20	1	720			TRUCK BAY NORTH WALL RECEPT.	2				
3	TRUCK BAY LIGHTS		1026		1	20	12	12	20	1		720		TRUCK BAY EAST WALL RECEPT.	4				
5	TRUCK BAY LIGHTS			1026	1	20	12	12	20	1			1080	TRUCK BAY WEST WALL RECEPT.	6				
7	TRUCK BAY LIGHTS	1026			1	20	12	12	20	1	720			TRUCK BAY SOUTH WALL RECEPT.	8				
9	TRUCK BAY LIGHTS		1026		1	20	12	12	20	1		1176		TRUCK BAY N/W DOOR OPERATOR	10				
11	TRUCK BAY LIGHTS			1026	1	20	12	12	20	1			1176	TRUCK BAYS/W DOOR OPERATOR	12				
13	OUTDOOR LIGHTING	341			1	20	12	12	20	1	1176			TRUCK BAY N/E DOOR OPERATOR	14				
15	SLEEPING AREA LIGHTING		1281		1	20	12	12	20	1		1176		TRUCK BAY S/E DOOR OPERATOR	16				
17	DRYER			2496	2	30	10	12	20	1			1176	TRUCK BAY CENTER DOOR OPERATOR	18				
19		2496						10	30	1	1920			FURN-1	20				
21	WASHER		1176		1	20	12	10	30	1		1920		FURN-2	22				
23	APPARATUS ROOM RADIANT HEATERS RTH-1			360	1	20	12	12	20	1			360	PLATFORM RECEPT.	24				
25	WATER HEATER	500			1	20	12	12	20	1	425			CEILING FANS	26				
27	HVAC-1		5308		3	40	8	12	20	1		2250			28				
29				5308				12	20	1			2250		30				
31		5308						12	20	1	1260			SLEEPING ROOM RECEPT.	32				
33	REFRIGERATOR		750		1	20	12	12	20	1		1260		SLEEPING ROOM RECEPT.	34				
35	KITCHEN RECEPT.			720	1	20	12	12	20	1			360	BACKBOARD RECEPT.	36				
37	EF-5	3266			1	20	12	12	20	1	900			COMMON AREA RECEPT.	38				
39			2906		1	20	12					360		KITCHEN RECEPT.	40				
41				2906									900	ERH-1.2 & 1.3	42				
	SUB TOTAL VA	13,969	13,473	13,842							7,121	8,862	7,302	SUB TOTAL VA					
	PHASE TOTALS	A	B	C	Circuit wire size(s) indicated are														
	TOTAL PHASE VA	21,090	22,335	21,144	minimum allowable. Refer to wire							179.4		CONNECTED AMPS (Balanced)					
	TOTAL PHASE AMPS	175.8	186.1	176.2	sizing Table(s) and one-line diagram(s)							154.1		PHASE DEMAND AMPS (Balanced)					
	TOTAL CONNECTED KVA		64.569		on plan(s) additional information							55.48		TOTAL DEMAND KVA					

PANELBOARD DESIGNATION / TAG:		MDP			LOCATION:		ELECTRICAL PANEL				Options:			Options:					
ELECTRICAL CHARACTERISTICS:		120/208v - 3ph - 4w			FEEDER SIZE:		600 KCMIL					SUB-FEED LUGS			MULTIPLE SECTIONS				
PANELBOARD CONSTRUCTION:		CIRCUIT BREAKER			FED FROM:		UTILITY					SUB-FEED BREAKER		NONE	TVSS				
400	AMP MAIN LUGS	22k	A.I.C. (FULLY RATED)			SURFACE	MOUNTING					FEED-THRU LUGS		PLUG-IN	BREAKERS				
	AMP MAIN BREAKER/SWITCH	100	% NEUTRAL (SOLID)			NEMA 1	ENCLOSURE					SERVICE ENTRANCE RATED			MAIN TERMINAL LUGS				
42	AVAILABLE CIRCUIT SPACES		INCOMING FEED				MISC.					100% RATING							
'L'	After the circuit no. indicates handle locking device.																		
		VOLT AMPS			CIRCUIT		WIRE SIZE		CIRCUIT		VOLT AMPS								
	LOAD DESCRIPTION	A	B	C	POLE	AMP			AMP	POLE	A	B	C	LOAD DESCRIPTION					
1	RP-A	21090			3	225	4/0	4/0	225	3	6900			RP-B	2				
3			22335									6032			4				
5				21144									7030		6				
7	ACCU-1	1040			2	15	14	12	20	3	2080			ACCU-2	8				
9			1040									2080			10				
11	HP-1				3								2282	HP-2	12				
13											2282				14				
15												2282			16				
17															18				
19															20				
21															22				
23															24				
25															26				
27															28				
29															30				
31															32				
33															34				
35															36				
37															38				
39															40				
41															42				
	SUB TOTAL VA	22,130	23,375	21,144							11,262	10,394	9,312	SUB TOTAL VA					
	PHASE TOTALS	A	B	C	Circuit wire size(s) indicated are														
	TOTAL PHASE VA	33,392	33,769	30,456	minimum allowable. Refer to wire							271.2		CONNECTED AMPS (Balanced)					
	TOTAL PHASE AMPS	278.3	281.4	253.8	sizing Table(s) and one-line diagram(s)							269.3		PHASE DEMAND AMPS (Balanced)					
	TOTAL CONNECTED KVA		97.617		on plan(s) additional information							96.96		TOTAL DEMAND KVA					

PANELBOARD DESIGNATION / TAG:		RP-B			LOCATION:						Options:			Options:					
ELECTRICAL CHARACTERISTICS:		120/208v - 3ph - 4w			FEEDER SIZE:							SUB-FEED LUGS			MULTIPLE SECTIONS				
PANELBOARD CONSTRUCTION:		CIRCUIT BREAKER			FED FROM:		MDP					SUB-FEED BREAKER		NONE	TVSS				
225	AMP MAIN LUGS	10k	A.I.C. (FULLY RATED)			SURFACE	MOUNTING					FEED-THRU LUGS		PLUG-IN	BREAKERS				
	AMP MAIN BREAKER/SWITCH	100	% NEUTRAL (SOLID)			NEMA 1	ENCLOSURE					SERVICE ENTRANCE RATED			MAIN TERMINAL LUGS				
42	AVAILABLE CIRCUIT SPACES		INCOMING FEED				MISC.					100% RATING							
'L'	After the circuit no. indicates handle locking device.																		
		VOLT AMPS			CIRCUIT		WIRE SIZE		CIRCUIT		VOLT AMPS								
	LOAD DESCRIPTION	A	B	C	POLE	AMP			AMP	POLE	A	B	C	LOAD DESCRIPTION					
1	OFFICE & CORRIDOR LIGHTING	1740			1	20	12	12	20	1	750			REFRIGERATOR	2				
3	OFFICE & CORRIDOR LIGHTING		1712		1	20	12	12	20	1		180		SNACK AREA RECEPT.	4				
5	MEETING ROOM LIGHTS			1750	1	20	12	12	20	1			900	OFFICE RECEPT.	6				
7	DATA BACKBOARD	360			1	20	12	12	20	1	900			OFFICE RECEPT.	8				
9	OFFICE RECEPT.		1080		1	20	12	12	20	1		900		OFFICE RECEPT.	10				
11	OFFICE RECEPT.			900	1	20	12	12	20	1			900	OFFICE RECEPT.	12				
13	TOILET ROOM RECEPT.	900			1	20	12	12	20	1	540			CONFERENCE ROOM RECEPT.	14				
15	MEETING ROOM RECEPT.		900		1	20	12	12	20	1		900		CONFERENCE ROOM RECEPT.	16				
17	MEETING ROOM RECEPT.			1080	1	20	12	12	20	1			1500	ERH-2.1 & 2.2	18				
19	MEETING ROOM RECEPT.	900			1	20	12	12	20	1	450			ERH-1.1	20				
21	MEETING ROOM CEILING RECEPT.		180		1	20	12	12	20	1		180		TOILT ROOM RECEPT.	22				
23								12	20	1			180	CATERING ROOM	24				
25								12	20	1	180			CATERING ROOM	26				
27								12	20	1		180		CATERING ROOM	28				
29															30				
31															32				
33															34				
35															36				
37															38				
39															40				
41															42				
	SUB TOTAL VA	3,900	3,872	3,730							2,820	2,340	3,480	SUB TOTAL VA					
	PHASE TOTALS	A	B	C	Circuit wire size(s) indicated are														
	TOTAL PHASE VA	6,720	6,212	7,210	minimum allowable. Refer to wire							56.0		CONNECTED AMPS (Balanced)					
	TOTAL PHASE AMPS	56.0	51.8	60.1	sizing Table(s) and one-line diagram(s)							51.7		PHASE DEMAND AMPS (Balanced)					
	TOTAL CONNECTED KVA		20.142		on plan(s) additional information							18.62		TOTAL DEMAND KVA					



120/208V, 3Ø, 4W, ELECTRICAL RISER DIAGRAM

SCALE: N.T.S.

MECHANICAL
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Engineers · Surveyors · Architects · Planners

DATE	REVISION
9-27-11	ADDENDUM#2
8-25-11	BIDDING DOC.
8-23-2011	CONST. DOC.

TITLE: ELECTRICAL ONE-LIEN AND PANEL SCHEDULES

PROJECT: NEW HEADQUARTERS/FIRE STATION
3155 N GENOA-CLAY CENTER ROAD, GENOA, OHIO

STATE OF OHIO
JOHNNY D. WHITEHEAD
Registration No. E-48439
REGISTERED PROFESSIONAL ENGINEER

HTB #2011-019

SIGNED

DATE

DATE: PROJECT:

SHEET E.2 OF 6

ALTERNATE No. E - 4

ELECTRICAL TRENCH FOR OUT LETS WITH 1" CONDUIT GOING BACK TO PANEL 'B' (TYPICAL OF THREE)

TRANSFER SWITCH SUPPLIER TO COORDINATE WITH OWNER FOR COMPATIBLE UNIT WITH GENERATOR

PROPOSED LOCATION FOR NEW PAD MOUNTED TRANSFER

WALL MOUNTED AT CEILING

TO APPARATUS ROOM LIGHTING

ELECTRICAL TRENCH FOR OUTLETS

1" CONDUIT TO PANEL 'B'

CEILING MOUNTED

PROVIDE 1 CONDUIT FROM VIDEO / DATA OUTLETS TO ABOVE CEILING TYPICAL FOR ALL OFFICE AREAS.

DATA BACKBOARD

EMERGENCY GENERATOR

100 kW

GENERATOR SUPPLIER TO PROVIDE WRITEN EVIDENCE OF GENERATOR SETS CAPABILITY TO SUPPLY TOTAL BUILDING ELECTRICAL LOAD, SEE MDP PANEL SCHEDULE.

PULL CAT6 WIRE TO ALL VOICE / DATA OUTLETS

PARTIAL FLOOR PLAN - POWER - BASE BID

SCALE: 1/1" = 1'-0"

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DATE	REVISION
9-27-11	ADDENDUM #2
10-7-11	CONSTR. DOC.
8-23-2011	

TITLE: LIGHTING HLAN

PROJECT: NEW HEADQUARTERS/FIRE STATION
3155 N GENOA-CLAY CENTER ROAD, GENOA, OHIO

STATE OF OHIO
JOHNNY D. WHITEHEAD
Registration No. E-48439
REGISTERED PROFESSIONAL ENGINEER
HTB #2011-015

SIGNED

DATE

DATE: PROJECT:

SHEET E.6 OF 6