
City of Lima, Ohio
River Structure Three-Phase Power, Contract 58

ADDENDUM 2

August 27, 2024

Planholders on the City of Lima, Ohio; River Structure Three-Phase Power, Contract 56, are hereby notified of the following amendments to the Contract Documents. This Addendum is hereby made a part of the Contract Documents.

SPECIFICATIONS

Page C-520-1, Agreement, Article 4, 4.02 A, Contract Times: Dates

In the first line of Paragraph A, delete “365” and substitute with “450”.

In the last line of Paragraph A, delete “400” and substitute with “485”.

Page C-800 - Supplementary Conditions, Exhibit 1 - Wage Rates

After the flysheet for Davis-Bacon Wage Rates, insert the Wage Rates attached to this Addendum.

Page 02710-4, Fencing

Delete Paragraph 4.01, and substitute it with the following:

4.01 FENCE SYSTEM

Location	Height	Fence Fabric	Gate Type	Gate Size	Accessories
Fencing at Generator					
McDonel	8 feet	Galv	Swing	8 feet-6 inch	1, 2, 4, 5, and 6
Central	8 feet	Galv	Swing	8 feet-6 inch	1, 2, 4, 5, and 6
Lovers Lane	8 feet	Galv	Swing	8 feet-6 inch	1, 2, 4, 5, and 6
Replacement of the Existing					
McDonel	8 feet	Galv	Swing	6 feet	1, 2, 4, and 5
Central	8 feet	Galv	Swing	6 feet	1, 2, 4, and 5
Lovers Lane	8 feet	Galv	Swing	6 feet	1, 2, 4, and 5
Collett	8 feet	Galv	Swing	8 feet	1, 2, 4, and 5
Heindel	8 feet	Galv	Swing	6 feet	1, 2, 4, and 5

ABBREVIATIONS

Fence Fabric

PVC PVC Coated
Galv Galvanized
AL Aluminum Clad

Gate Type

Swing
Sliding

Accessories

1. Barb Wire
2. Top Rail
3. Top Tension Wire
4. Latch/Lock
5. Bottom Rail
6. Privacy Fencing (including gate)



City of Lima, Ohio
River Structure Three Phase Power, Contract 58
002-8158.001
August 27, 2024
Addendum 2

Section 16211 – Natural Gas Generator Systems

Delete Section 16211 - Natural Gas Generator Systems in its entirety, and replace with that attached to this Addendum.

Section 16440 – Automatic Transfer Switches

Delete Section 16440 – Automatic Transfer Switches in its entirety, and replace with that attached to this Addendum.

DRAWINGS

Sheet No. C-0.1, 12 of 48

In the Chain Link Fence Detail, delete Note 5, in its entirety and substitute with:

“Note 5. Wire shall be 6 gauge on 8-foot fabric.”

Attachments:	Supplementary Conditions, C-800 – Davis-Bacon Wage Rates Section 16221 – Natural Gas Generator Systems Section 16440 – Automatic Transfer Switches
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RECEIPT OF THIS ADDENDUM MUST BE ACKNOWLEDGED ON PAGE C-410-1 OF THE BID.

"General Decision Number: OH20240001 08/23/2024

Superseded General Decision Number: OH20230001

State: Ohio

Construction Types: Heavy and Highway

Counties: Ohio Statewide.

Heavy and Highway Construction Projects

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	Executive Order 14026 generally applies to the contract. The contractor must pay all covered workers at least \$17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.
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If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	Executive Order 13658 generally applies to the contract. The contractor must pay all covered workers at least \$12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.
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The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/05/2024
1	01/26/2024
2	03/08/2024
3	04/05/2024
4	07/05/2024
5	07/26/2024
6	08/23/2024

BROH0001-001 06/01/2023

DEFIANCE, FULTON (Excluding Fulton, Amboy & Swan Creek Townships), HENRY (Excluding Monroe, Bartlow, Liberty, Washington, Richfield, Marion, Damascus & Townships & that part of Harrison Township outside corporate limits of city of Napoleon), PAULDING, PUTNAM and WILLIAMS COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 32.40	19.30

BROH0001-004 06/01/2023

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 32.40	19.30

BROH0003-002 06/01/2023

FULTON (Townships of Amboy, Swan Creek & Fulton), HENRY (Townships of Washington, Damascus, Richfield, Bartlow, Liberty, Harrison, Monroe, & Marion), LUCAS and WOOD (Townships of Perrysburg, Ross, Lake, Troy, Freedom, Montgomery, Webster, Center, Portage, Middleton, Plain, Liberty, Henry, Washington, Weston, Milton, Jackson & Grand Rapids) COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 32.40	19.30

BROH0005-003 06/01/2020

CUYAHOGA, LORAIN & MEDINA (Hinckley, Granger, Brunswick, Liverpool, Montville, York, Homer, Harrisville, Chatham, Litchfield & Spencer Townships and the city of Medina)

	Rates	Fringes
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BRICKLAYER

BRICKLAYERS; CAULKERS;		
CLEANERS; POINTERS; &		
STONEMASONS.....	\$ 36.64	17.13
SANDBLASTERS.....	\$ 36.39	17.13
SEWER BRICKLAYERS & STACK		
BUILDERS.....	\$ 36.64	17.13
SWING SCAFFOLDS.....	\$ 37.14	17.13

BROH0006-005 06/01/2023

CARROLL, COLUMBIANA (Knox, Butler, West & Hanover Townships),
STARK & TUSCARAWAS

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 32.40	19.30

BROH0007-002 06/01/2023

LAWRENCE

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 32.40	19.30

BROH0007-005 06/01/2023

PORTAGE & SUMMIT

	Rates	Fringes
BRICKLAYER.....	\$ 32.40	19.30

BROH0007-010 06/01/2023

PORTAGE & SUMMIT

	Rates	Fringes
MASON - STONE.....	\$ 32.40	19.30

BROH0008-001 06/01/2023

COLUMBIANA (Salem, Perry, Fairfield, Center, Elk Run,
Middleton, & Unity Townships and the city of New Waterford),
MAHONING & TRUMBULL

	Rates	Fringes
BRICKLAYER.....	\$ 32.40	19.30

BROH0009-002 06/01/2023

BELMONT & MONROE COUNTIES and the Townships of Warren & Mt. Pleasant and the Village of Dillonvale in JEFFERSON COUNTY

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 32.40	19.30
Refractory.....	\$ 31.45	19.01

BROH0010-002 06/01/2023

COLUMBIANA (St. Clair, Madison, Wayne, Franklin, Washington, Yellow Creek & Liverpool Townships) & JEFFERSON (Brush Creek & Saline Townships)

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 32.40	19.30

BROH0014-002 06/01/2023

HARRISON & JEFFERSON (Except Mt. Pleasant, Warren, Brush Creek, Saline & Salineville Townships & the Village of Dillonvale)

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 32.40	19.30

BROH0016-002 06/01/2023

ASHTABULA, GEAUGA, and LAKE COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 32.40	19.30

BROH0018-002 06/01/2023

BROWN, BUTLER, CLERMONT, HAMILTON, PREBLE (Gasper, Dixon, Israel, Lanier, Somers & Gratis Townships) & WARREN COUNTIES:

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 32.40	19.30

BROH0022-004 06/01/2023

CHAMPAIGN, CLARK, CLINTON, DARKE, GREENE, HIGHLAND, LOGAN, MIAMI, MONTGOMERY, PREBLE (Jackson, Monroe, Harrison, Twin, Jefferson & Washington Townships) and SHELBY COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 32.40	19.30

BROH0032-001 06/01/2023		

GALLIA & MEIGS

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 32.40	19.30

BROH0035-002 06/01/2023		

ALLEN, AUGLAIZE, MERCER and VAN WERT COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 32.40	19.30

BROH0039-002 06/01/2023		

ADAMS & SCIOTO

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 32.40	19.30

BROH0040-003 06/01/2023		

ASHLAND, CRAWFORD, HARDIN, HOLMES, MARION, MORROW, RICHLAND, WAYNE and WYANDOT (Except Crawford, Ridge, Richland & Tymochtee Townships) COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 32.40	19.30

FOOTNOTE: Layout Man and Sawman rate: \$1.00 per hour above journeyman rate.

Free standing stack work ground level to top of stack;
 Sandblasting and laying of carbon masonry material in swing stage and/or scaffold; Ramming and spading of plastics and gunniting: \$1.50 per hour above journeyman rate.

""Hot"" work: \$2.50 above journeyman rate.

 BROH0044-002 06/01/2023

	Rates	Fringes
Bricklayer, Stonemason		

COSHOCTON, FAIRFIELD,
 GUERNSEY, HOCKING, KNOX,
 KICKING, MORGAN,
 MUSKINGUM, NOBLE (Beaver,
 Buffalo, Seneca & Wayne
 Townships) & PERRY
 COUNTIES:.....\$ 32.40 19.30

 BROH0045-002 06/01/2023

FAYETTE, JACKSON, PIKE, ROSS and VINTON COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 35.39	17.47

 BROH0046-002 06/01/2023

ERIE, HANCOCK, HURON, OTTAWA, SANDUSKY, SENECA, WOOD (Perry &
 Bloom Townships) and WYANDOT (Tymochtee, Crawford, Ridge &
 Richland Townships) COUNTIES & the Islands of Lake Erie north
 of Sandusky

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 32.40	19.30

FOOTNOTE: Layout Man and Sawman rate: \$1.00 per hour above
 journeyman rate.
 Free standing stack work ground level to top of stack;
 Sandblasting and laying of carbon masonry material in swing
 stage and/or scaffold; Ramming and spading of plastics and
 gunniting: \$1.50 per hour above journeyman rate.
 ""Hot"" work: \$2.50 above journeyman rate.

 BROH0052-001 06/01/2023

ATHENS COUNTY

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 32.40	19.30

 BROH0052-003 06/01/2023

NOBLE (Brookfield, Noble, Center, Sharon, Olive, Enoch, Stock,
 Jackson, Jefferson & Elk Townships) and WASHINGTON COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 32.40	19.30

BROH0055-003 06/01/2023

DELAWARE, FRANKLIN, MADISON, PICKAWAY and UNION COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 32.40	19.30

CARP0003-004 05/01/2017

MAHONING & TRUMBULL

	Rates	Fringes
CARPENTER.....	\$ 26.20	17.42

CARP0069-003 05/01/2017

CARROLL, STARK, TUSCARAWAS & WAYNE

	Rates	Fringes
CARPENTER.....	\$ 25.98	15.98

CARP0069-006 05/01/2017

COSHOCTON, HOLMES, KNOX & MORROW

	Rates	Fringes
CARPENTER.....	\$ 24.04	15.29

CARP0171-002 05/01/2024

BELMONT, COLUMBIANA, HARRISON, JEFFERSON & MONROE

	Rates	Fringes
CARPENTER.....	\$ 31.82	25.11

CARP0200-002 05/01/2024

ADAMS, ATHENS, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GALLIA,
GUERNSEY, HIGHLAND, HOCKING, JACKSON, LAWRENCE, LICKING,
MADISON, MARION, MEIGS, MORGAN, MUSKINGUM, NOBLE, PERRY,
PICKAWAY, PIKE, ROSS, SCIOTO, UNION, VINTON and WASHINGTON
COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 33.15	22.43
Diver.....	\$ 39.41	10.40
PILEDRIVERMAN.....	\$ 33.15	22.43

CARP0248-005 07/01/2008

LUCAS & WOOD

	Rates	Fringes
CARPENTER.....	\$ 27.27	14.58

CARP0248-008 07/01/2008

	Rates	Fringes
CARPENTER DEFIANCE, FULTON, HANCOCK, HENRY, PAULDING & WILLIAMS COUNTIES.....	\$ 23.71	13.28

CARP0254-002 05/01/2017

ASHTABULA, CUYAHOGA, GEAUGA & LAKE

	Rates	Fringes
CARPENTER.....	\$ 32.40	16.97

CARP0372-002 05/01/2024

ALLEN, AUGLAIZE, HARDIN, MERCER, PUTNAM & VAN WERT

	Rates	Fringes
CARPENTER.....	\$ 30.73	25.09

CARP0639-003 05/01/2017

MEDINA, PORTAGE & SUMMIT

	Rates	Fringes
CARPENTER.....	\$ 30.42	16.99

CARP0735-002 05/01/2024

ASHLAND, ERIE, HURON, LORAIN & RICHLAND

	Rates	Fringes
CARPENTER.....	\$ 33.43	22.31

CARP1311-001 05/01/2017

BROWN, BUTLER, CHAMPAIGN, CLARK, CLERMONT, CLINTON, DARKE,
GREENE, HAMILTON, LOGAN, MIAMI, MONTGOMERY, PREBLE, SHELBY &
WARREN

	Rates	Fringes
Carpenter & Piledrivermen.....	\$ 29.34	15.95
Diver.....	\$ 40.58	9.69

 CARP1393-002 05/01/2024

CRAWFORD, DEFIANCE, FULTON, HANCOCK, HENRY, LUCAS, OTTAWA,
 PAULDING, SANDUSKY, SENECA, WILLIAMS & WOOD

	Rates	Fringes
Piledrivermen & Diver's Tender...	\$ 36.84	27.72

DIVERS - \$250.00 per day

 CARP1393-003 05/01/2024

ALLEN, AUGLAIZE, HARDIN, MERCER, PUTNAM, VAN WERT & WYANDOT

	Rates	Fringes
Piledrivermen & Diver's Tender...	\$ 34.68	27.60

DIVERS - \$250.00 per day

 CARP1871-006 05/01/2017

BELMONT, HARRISON, & MONROE

	Rates	Fringes
Diver, Wet.....	\$ 48.11	17.33
Piledrivermen; Diver, Dry.....	\$ 32.07	17.33

 CARP1871-008 05/01/2017

ASHLAND, ASHTABULA, CUYAHOGA, ERIE, GEauga, HURON, LAKE,
 LORAIN, MEDINA, PORTAGE, RICHLAND & SUMMIT

	Rates	Fringes
Diver, Wet.....	\$ 45.80	18.84
Piledrivermen; Diver, Dry.....	\$ 30.53	18.84

 CARP1871-014 05/01/2017

CARROLL, STARK, TUSCARAWAS & WAYNE

	Rates	Fringes
Diver, Wet.....	\$ 38.34	16.95

Piledrivermen; Diver, Dry.....\$ 25.56 16.95

CARP1871-015 05/01/2017

COSHOCTON, HOLMES, KNOX & MORROW

Rates Fringes

Diver, Wet.....\$ 37.34 16.07
Piledrivermen; Diver, Dry.....\$ 24.89 16.07

CARP1871-017 05/01/2017

MAHONING & TRUMBULL

Rates Fringes

Diver, Wet.....\$ 40.65 17.62
Piledrivermen; Diver, Dry.....\$ 27.10 17.62

CARP2235-012 01/01/2014

COLUMBIANA & JEFFERSON

Rates Fringes

PILEDRIVERMAN.....\$ 31.74 16.41

CARP2239-001 07/01/2008

CRAWFORD, OTTAWA, SANDUSKY, SENECA & WYANDOT

Rates Fringes

CARPENTER.....\$ 23.71 13.28

ELEC0008-002 05/29/2023

DEFIANCE, FULTON, HANCOCK, HENRY, LUCAS, OTTAWA, PAULDING,
PUTNAM, SANDUSKY, SENECA, WILLIAMS & WOOD

Rates Fringes

CABLE SPLICER.....\$ 38.98 18.96
ELECTRICIAN.....\$ 46.38 4.5%+21.96

ELEC0032-003 06/01/2024

ALLEN, AUGLAIZE, HARDIN, LOGAN, MERCER, SHELBY, VAN WERT &
WYANDOT (Crawford, Jackson, Marseilles, Mifflin, Ridgeland,
Ridge & Salem Townships)

Rates Fringes

ELECTRICIAN.....\$ 35.17 22.92

* ELEC0038-002 04/29/2024

CUYAHOGA, GEAUGA (Bainbridge, Chester & Russell Townships) &
LORAIN (Columbia Township)

Rates Fringes

ELECTRICIAN

Excluding Sound &
Communications Work.....\$ 45.23 23.88

FOOTNOTES;

- a. 6 Paid Holidays: New Year's Day; Memorial Day; July 4th;
Labor Day; Thanksgiving Day; & Christmas Day
- b. 1 week's paid vacation for 1 year's service; 2 weeks' paid
vacation for 2 or more years' service

ELEC0038-008 04/24/2023

CUYAHOGA, GEAUGA (Bainbridge, Chester & Russell Townships) &
LORAIN (Columbia Township)

Rates Fringes

Sound & Communication
Technician

Communications Technician...\$ 29.80 13.80
Installer Technician.....\$ 28.55 13.76

FOOTNOTES;

- a. 6 Paid Holidays: New Year's Day; Memorial Day; July 4th;
Labor Day; Thanksgiving Day; & Christmas Day
- b. 1 week's paid vacation for 1 year's service; 2 weeks' paid
vacation for 2 or more years' service

ELEC0064-003 11/27/2023

COLUMBIANA (Butler, Fairfield, Perry, Salem & Unity Townships)
MAHONING (Austintown, Beaver, Berlin, Boardman, Canfield,
Ellsworth, Coitsville, Goshen, Green, Jackson, Poland,
Springfield & Youngstown Townships), & TRUMBULL (Hubbard &
Liberty Townships)

Rates Fringes

ELECTRICIAN.....\$ 37.90 20.08

* ELEC0071-001 01/01/2024

ASHLAND, CHAMPAIGN, CLARK, COSHOCTON, CRAWFORD, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GUERNSEY, HIGHLAND, HOCKING, JACKSON (Coal, Jackson, Liberty, Milton, Washington & Wellston Townships), KNOX, LICKING, MADISON, MARION, MONROE, MORGAN, MORROW, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PIKE (Beaver, Benton, Jackson, Mifflin, Pebble, Peepee, Perry & Seal Townships), RICHLAND, ROSS, TUSCARAWAS (Auburn, Bucks, Clay, Jefferson, Oxford, Perry, Salem, Rush, Washington & York Townships), UNION, VINTON (Clinton, Eagle, Elk, Harrison, Jackson, Richland & Swan Townships), and WASHINGTON COUNTIES

Rates Fringes

Line Construction

Equipment Operators.....	\$ 39.11	17.14
Groundmen.....	\$ 25.90	13.97
Linemen & Cable Splicers....	\$ 44.52	18.43

* ELEC0071-004 01/01/2024

AUGLAIZE, CLINTON, DARKE, GREENE, LOGAN, MERCER, MIAMI, MONTGOMERY, PREBLE, and SHELBY COUNTIES

Rates Fringes

Line Construction

Equipment Operator.....	\$ 39.11	17.14
Groundman.....	\$ 25.90	13.97
Lineman & Cable Splicers....	\$ 44.52	18.43

ELEC0071-005 01/01/2024

ASHTABULA, CUYAHOGA, GEAUGA, LAKE & LORAIN

Rates Fringes

LINE CONSTRUCTION: Equipment Operator

DOT/Traffic Signal & Highway Lighting Projects...	\$ 37.43	26%+7.75
Municipal Power/Transit Projects.....	\$ 47.86	27%+7.65

LINE CONSTRUCTION: Groundman

DOT/Traffic Signal & Highway Lighting Projects...	\$ 25.63	26%+7.75
Municipal Power/Transit Projects.....	\$ 31.91	27%+7.65

LINE CONSTRUCTION:

Linemen/Cable Splicer

DOT/Traffic Signal & Highway Lighting Projects...	\$ 42.20	26%+7.75
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Municipal Power/Transit
Projects.....\$ 53.18 27%+7.65

* ELEC0071-008 01/01/2024

COLUMBIANA, MAHONING, and TRUMBULL COUNTIES

Rates Fringes

Line Construction

Equipment Operator.....\$ 39.11 17.14
Groundman.....\$ 25.90 13.97
Lineman & Cable Splicers....\$ 44.52 18.43

ELEC0071-010 01/01/2024

Rates Fringes

Line Construction

Equipment Operator.....\$ 39.11 17.14
Groundman.....\$ 25.90 13.97
Lineman & Cable Splicers....\$ 44.52 18.43

* ELEC0071-013 01/01/2024

BROWN, BUTLER, CLERMONT, HAMILTON, and WARREN COUNTIES

Rates Fringes

Line Construction

Equipment Operator.....\$ 39.11 17.14
Groundman.....\$ 25.90 13.97
Lineman & Cable Splicers....\$ 44.52 18.43

* ELEC0071-014 01/01/2024

ADAMS, ATHENS, GALLIA, JACKSON (Bloomfield, Franklin, Hamilton,
Lick, Jefferson, Scioto & Madison Townships), LAWRENCE, MEIGS,
PIKE (Camp Creek, Marion, Newton, Scioto, Sunfish & Union
Townships), SCIOTO & VINTON (Brown, Knox, Madison, Vinton &
Wilkesville Townships)

Rates Fringes

Line Construction

Equipment Operator.....\$ 39.11 17.14
Groundman.....\$ 25.90 13.97
Lineman & Cable Splicers....\$ 44.52 18.43

ELEC0082-002 12/04/2023

CLINTON, DARKE, GREENE, MIAMI, MONTGOMERY, PREBLE & WARREN
(Wayne, Clear Creek & Franklin Townships)

	Rates	Fringes
ELECTRICIAN.....	\$ 36.00	21.99

* ELEC0082-006 11/28/2022

CLINTON, DARKE, GREENE, MIAMI, MONTGOMERY, PREBLE & WARREN
(Wayne, Clear Creek & Franklin Townships)

	Rates	Fringes
Sound & Communication Technician		
Cable Puller.....	\$ 13.10 **	4.76
Installer/Technician.....	\$ 26.20	13.89

ELEC0129-003 02/26/2024

LORAIN (Except Columbia Township) & MEDINA (Litchfield & Liverpool Townships)

	Rates	Fringes
ELECTRICIAN.....	\$ 41.40	18.36

ELEC0129-004 02/26/2024

ERIE & HURON (Lyme, Ridgefield, Norwalk, Townsend, Wakeman,
Sherman, Peru, Bronson, Hartland, Clarksfield, Norwich,
Greenfield, Fairfield, Fitchville & New London Townships)

	Rates	Fringes
ELECTRICIAN.....	\$ 41.40	18.36

* ELEC0141-003 06/02/2024

BELMONT COUNTY

	Rates	Fringes
CABLE SPLICER.....	\$ 42.94	27.74
ELECTRICIAN.....	\$ 39.04	27.62

ELEC0212-003 11/26/2018

BROWN, CLERMONT & HAMILTON

	Rates	Fringes
Sound & Communication		

Technician.....\$ 24.35 10.99

* ELEC0212-005 06/03/2024

BROWN, CLERMONT, and HAMILTON COUNTIES

Rates Fringes

ELECTRICIAN.....\$ 35.43 22.05

ELEC0245-001 08/29/2022

ALLEN, HARDIN, VAN WERT & WYANDOT (Crawford, Jackson, Marseilles, Mifflin, Richland, Ridge & Salem Townships)

Rates Fringes

Line Construction

Equipment Operator.....\$ 32.37 26.5%+7.25
Groundman Truck Driver.....\$ 19.35 7.00+27.25%
Lineman.....\$ 44.22 7.00+27.25%

FOOTNOTE: a. Half day's Paid Holiday: The last 4 hours of the workday prior to Christmas or New Year's Day

ELEC0245-003 01/01/2024

DEFIANCE, FULTON, HANCOCK, HENRY, HURON, LUCAS, OTTAWA, PAULDING, PUTNAM, SANDUSKY, SENECA, WILLIAMS, and WOOD COUNTIES

Rates Fringes

Line Construction

Cable Splicer.....\$ 52.53 7.75+27%
Groundman/Truck Driver.....\$ 19.99 7.75+27%
Heli-arc Welding.....\$ 45.98 7.75+27%
Lineman.....\$ 45.68 7.75+27%
Operator - Class 1.....\$ 36.54 7.75+27%
Operator - Class 2.....\$ 31.98 7.75+27%
Traffic Signal & Lighting
Technician.....\$ 41.11 7.75+27%

FOOTNOTE: a. 6 Observed Holidays: New Year's Day; Memorial Day; Independence Day; Labor Day; Thanksgiving Day; & Christmas Day. Employees who work on a holiday shall be paid at a rate of double their applicable classified straight-time rates for the work performed on such holiday.

ELEC0245-004 08/28/2023

ERIE COUNTY

Rates Fringes

Line Construction

Cable Splicer.....	\$ 49.14	26.75%+6.75
Cablesplicer.....	\$ 52.76	27%+7.50
Groundman/Truck Driver.....	\$ 20.07	27%+7.50
Lineman.....	\$ 45.88	27%+7.50
Operator - Class 1.....	\$ 36.70	27%+7.50
Operator - Class 2.....	\$ 32.12	27%+7.50

FOOTNOTE: a. 6 Observed Holidays: New Year's Day; Memorial Day; Independence Day; Labor Day; Thanksgiving Day; & Christmas Day. Employees who work on a holiday shall be paid at a rate of double their applicable classified straight-time rates for the work performed on such holiday.

ELEC0246-001 10/30/2023

Rates Fringes

ELECTRICIAN.....	\$ 42.50	55%+13.88
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FOOTNOTE: a. 1 1/2 Paid Holidays: The last scheduled workday prior to Christmas & 4 hours on Good Friday.

ELEC0306-005 05/29/2023

MEDINA (Brunswick, Chatham, Granger, Guilford, Harrisville, Hinckley, Homer, Lafayette, Medina, Montville, Sharon, Spencer, Wadsworth, Westfield & York Townships), PORTAGE (Atwater, Aurora, Brimfield, Deerfield, Franklin, Mantua, Randolph, Ravenna, Rootstown, Shalersville, Streetsboro & Suffield Townships), SUMMIT & WAYNE (Baughman, Canaan, Chester, Chippewa, Congress, Green, Milton, & Wayne Townships)

Rates Fringes

CABLE SPLICER.....	\$ 36.87	16.56
ELECTRICIAN.....	\$ 40.15	5.25%+20.85

ELEC0317-002 05/29/2023

GALLIA & LAWRENCE

Rates Fringes

CABLE SPLICER.....	\$ 32.68	18.13
ELECTRICIAN.....	\$ 37.15	28.48

ELEC0540-005 01/01/2024

CARROLL (Northern half, including Fox, Harrison, Rose & Washington Townships), COLUMBIANA (Knox Township), HOLMES, MAHONING (Smith Township), STARK, TUSCARAWAS (North of Auburn, Clay, Rush & York Townships), and WAYNE (South of Baughman, Chester, Green & Wayne Townships) COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 36.96	28.18

* ELEC0573-003 05/27/2024

ASHTABULA (Colebrook, Wayne, Williamsfield, Orwell & Windsor Townships), GEAUGA (Auburn, Middlefield, Parkman & Troy Townships), MAHONING (Milton Township), PORTAGE (Charlestown, Edinburg, Freedom, Hiram, Nelson, Palmyra, Paris & Windham Townships), and TRUMBULL (Except Liberty & Hubbard Townships)

	Rates	Fringes
ELECTRICIAN.....	\$ 40.40	22.20

ELEC0575-001 05/29/2023

ADAMS, FAYETTE, HIGHLAND, HOCKING, JACKSON (Bloomfield, Franklin, Hamilton, Jefferson, Lick, Madison, Scioto, Coal, Jackson, Liberty, Milton & Washington Townships), PICKAWAY (Deer Creek, Perry, Pickaway, Salt Creek & Wayne Townships), PIKE (Beaver, Benton, Jackson, Mifflin, Pebble, PeePee, Perry, Seal, Camp Creek, Newton, Scioto, Sunfish, Union & Marion Townships), ROSS, SCIOTO & VINTON (Clinton, Eagle, Elk, Harrison, Jackson, Richland & Swan Townships)

	Rates	Fringes
ELECTRICIAN.....	\$ 37.00	22.26

ELEC0648-001 08/29/2023

BUTLER and WARREN COUNTIES (Deerfield, Hamilton, Harlan, Massie, Salem, Turtle Creek, Union & Washington Townships)

	Rates	Fringes
CABLE SPLICER.....	\$ 30.50	18.23
ELECTRICIAN.....	\$ 34.00	21.98

* ELEC0673-004 05/27/2024

ASHTABULA (Excluding Orwell, Colebrook, Williamsfield, Wayne & Windsor Townships), GEAUGA (Burton, Chardon, Claridon, Hambden,

Huntsburg, Montville, Munson, Newbury & Thompson Townships) and
LAKE COUNTIES

	Rates	Fringes
CABLE SPLICER.....	\$ 33.81	21.47
ELECTRICIAN.....	\$ 39.64	23.86

ELEC0683-002 05/29/2023

CHAMPAIGN, CLARK, DELAWARE, FAIRFIELD, FRANKLIN, MADISON,
PICKAWAY (Circleville, Darby, Harrison, Jackson, Madison,
Monroe, Muhlenberg, Scioto, Walnut & Washington Townships), and
UNION COUNTIES

	Rates	Fringes
CABLE SPLICER.....	\$ 38.75	24.19
ELECTRICIAN.....	\$ 37.75	24.16

ELEC0688-003 05/30/2022

ASHLAND, CRAWFORD, HURON (Richmond, New Haven, Ripley &
Greenwich Townships), KNOX (Liberty, Clinton, Union, Howard,
Monroe, Middleberry, Morris, Wayne, Berlin, Pike, Brown &
Jefferson Townships), MARION, MORROW, RICHLAND and WYANDOT
(Sycamore, Crane, Eden, Pitt, Antrim & Tymochtee Townships)
COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 32.30	21.83

ELEC0972-002 06/01/2023

ATHENS, MEIGS, MONROE, MORGAN, NOBLE, VINTON (Brown, Knox,
Madison, Vinton & Wilkesville Townships), and WASHINGTON
COUNTIES

	Rates	Fringes
CABLE SPLICER.....	\$ 35.70	30.26
ELECTRICIAN.....	\$ 35.45	30.25

ELEC1105-001 05/29/2023

COSHOCTON, GUERNSEY, KNOX (Jackson, Clay, Morgan, Miller,
Milford, Hilliar, Butler, Harrison, Pleasant & College
Townships), LICKING, MUSKINGUM, PERRY, and TUSCARAWAS (Auburn,
York, Clay, Jefferson, Rush, Oxford, Washington, Salem, Perry &
Bucks Townships) COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 36.45	24.22

 ENGI0018-003 05/01/2024

ASHTABULA, CUYAHOGA, ERIE, GEAUGA, LAKE, LORAIN, MEDINA,
 PORTAGE, and SUMMIT COUNTIES

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 45.63	16.41
GROUP 2.....	\$ 45.53	16.41
GROUP 3.....	\$ 44.49	16.41
GROUP 4.....	\$ 43.27	16.41
GROUP 5.....	\$ 37.98	16.41
GROUP 6.....	\$ 46.63	16.41
GROUP 7.....	\$ 46.63	16.41

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - Air Compressor on Steel Erection; Barrier Moving Machine; Boiler Operator on Compressor or Generator when mounted on a Rig; Cableway; Combination Concrete Mixer & Tower; Concrete Plant (over 4 yd. Capacity); Concrete Pump; Crane (All Types, Including Boom Truck, Cherry Picker); Crane-Compact, Track or Rubber over 4,000 lbs. capacity; Cranes-Self Erecting, Stationary, Track or Truck (All Configurations); Derrick; Dragline; Dredge (Dipper, Clam or Suction); Elevating Grader or Euclid Loader; Floating Equipment (All Types); Gradall; Helicopter Crew (Operator-Hoist or Winch); Hoe (all types); Hoisting Engine on Shaft or Tunnel Work; Hydraulic Gantry (Lifting System); Industrial-Type Tractor; Jet Engine Dryer (D8 or D9) Diesel Tractor; Locomotive (Standard Gauge); Maintenance Operator Class A; Mixer, Paving (Single or Double Drum); Mucking Machine; Multiple Scraper; Piledriving Machine (All Types); Power Shovel; Prentice Loader; Quad 9 (Double Pusher); Rail Tamper (with auto lifting & aligning device); Refrigerating Machine (Freezer Operation); Rotary Drill, on Caisson work; Rough Terrain Fork Lift with Winch/Hoist; Side-Boom; Slip-Form Paver; Tower Derrick; Tree Shredder; Trench Machine (Over 24" wide); Truck Mounted Concrete Pump; Tug Boat; Tunnel Machine and/or Mining Machine; Wheel Excavator; and Asphalt Plant Engineer (Cleveland District Only).

GROUP 2 - Asphalt Paver; Automatic Subgrader Machine, Self-Propelled (CMI Type); Bobcat Type and/or Skid Steer Loader with Hoe Attachment Greater than 7,000 lbs.; Boring Machine More than 48"; Bulldozer; Endloader; Horizontal

Directional Drill (Over 50,000 ft lbs thrust); Hydro Milling Machine; Kolman-type Loader (production type-Dirt); Lead Greaseman; Lighting & Traffic Signal Installation Equipment (includes all groups or classifications); Material Transfer Equipment (Shuttle Buggy) Asphalt; Pettibone-Rail Equipment; Power Grader; Power Scraper; Push Cat; Rotomill (all), Grinders & Planers of All types; Trench Machine (24" wide & under); Vermeer type Concrete Saw; and Maintenance Operators (Portage and Summit Counties Only).

GROUP 3 - A-Frame; Air Compressor on Tunnel Work (low pressure); Asphalt Plant Engineer (Portage and Summit Counties Only); Bobcat-type and/or Skid Steer Loader with or without Attachments; Highway Drills (all types); Locomotive (narrow gauge); Material Hoist/Elevator; Mixer, Concrete (more than one bag capacity); Mixer, one bag capacity (Side Loader); Power Boiler (Over 15 lbs. Pressure) Pump Operator installing & operating Well Points; Pump (4" & over discharge); Roller, Asphalt; Rotovator (lime soil stabilizer); Switch & Tie Tampers (without lifting & aligning device); Utility Operator (Small equipment); Welding Machines; and Railroad Tie Inserter/Remover; Articulating/straight bed end dumps if assigned (minus \$4.00 per hour).

GROUP 4 - Backfiller; Ballast Re-locator; Bars, Joint & Mesh Installing Machine; Batch Plant; Boring Machine Operator (48" or less); Bull Floats; Burlap & Curing Machine; Concrete Plant (capacity 4 yd. & under); Concrete Saw (Multiple); Conveyor (Highway); Crusher; Deckhand; Farm-type Tractor with attachments (highway); Finishing Machine; Fireperson, Floating Equipment (all types); Forklift; Form Trencher; Hydro Hammer expect masonry; Hydro Seeder; Pavement Breaker; Plant Mixer; Post Driver; Post Hole Digger (Power Auger); Power Brush Burner; Power Form Handling Equipment; Road Widening Trencher; Roller (Brick, Grade & Macadam); Self-Propelled Power Spreader; Self-Propelled Power Subgrader; Steam Fireperson; Tractor (Pulling Sheepfoot, Roller or Grader); and Vibratory Compactor with Integral Power.

GROUP 5 - Compressor (Portable, Sewer, Heavy & Highway); Drum Fireperson (Asphalt Plant); Generator; Masonry Fork Lift; Inboard-Outboard Motor Boat Launch; Oil Heater (asphalt plant); Oiler/Helper; Power Driven Heater; Power Sweeper & Scrubber; Pump (under 4" discharge); Signalperson; Tire Repairperson; VAC/ALLS; Cranes - Compact, track or rubber under 4,000 pound capacity; fueling and greasing; and Chainmen.

GROUP 6 - Master Mechanic & Boom from 150 to 180.

GROUP 7 - Boom from 180 and over.

ADAMS, ALLEN, ASHLAND, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COSHOCTON, CRAWFORD, DARKE, DEFIANCE, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GREENE, GUERNSEY, HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, HURON, JACKSON, JEFFERSON, KNOX, LAWRENCE, LICKING, LOGAN, LUCAS, MADISON, MARION, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, OTTAWA, PAULDING, PERRY, PICKAWAY, PIKE, PREBLE, PUTNAM, RICHLAND, ROSS, SANDUSKY, SCIOTO, SENECA, SHELBY, STARK, TUSCARAWAS, UNION, VAN WERT, VINTON, WARREN, WASHINGTON, WAYNE, WILLIAMS, WOOD, and YANDOT COUNTIES

Rates Fringes

POWER EQUIPMENT OPERATOR

GROUP 1.....	\$ 44.14	16.41
GROUP 2.....	\$ 44.02	16.41
GROUP 3.....	\$ 42.98	16.41
GROUP 4.....	\$ 41.80	16.41
GROUP 5.....	\$ 36.34	16.41
GROUP 6.....	\$ 45.14	16.41
GROUP 7.....	\$ 45.14	16.41

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - Air Compressor on Steel Erection; Barrier Moving Machine; Boiler Operator on Compressor or Generator when mounted on a Rig; Cableway; Combination Concrete Mixer & Tower; Concrete Plant (over 4 yd. Capacity); Concrete Pump; Crane (All Types, Including Boom Truck, Cherry Picker); Crane-Compact, Track or Rubber over 4,000 lbs. capacity; Cranes-Self Erecting, Stationary, Track or Truck (All Configurations); Derrick; Dragline; Dredge (Dipper, Clam or Suction); Elevating Grader or Euclid Loader; Floating Equipment (All Types); Gradall; Helicopter Crew (Operator-Hoist or Winch); Hoe (all types); Hoisting Engine on Shaft or Tunnel Work; Hydraulic Gantry (Lifting System); Industrial-Type Tractor; Jet Engine Dryer (D8 or D9) Diesel Tractor; Locomotive (Standard Gauge); Maintenance Operator Class A; Mixer, Paving (Single or Double Drum); Mucking Machine; Multiple Scraper; Piledriving Machine (All Types); Power Shovel; Prentice Loader; Quad 9 (Double Pusher); Rail Tamper (with auto lifting & aligning device); Refrigerating Machine (Freezer Operation); Rotary Drill, on Caisson work; Rough Terrain Fork Lift with Winch/Hoist; Side-Boom; Slip-Form Paver; Tower Derrick; Tree Shredder; Trench Machine (Over 24" wide); Truck Mounted Concrete Pump; Tug Boat; Tunnel Machine and/or Mining Machine; and Wheel Excavator.

GROUP 2 - Asphalt Paver; Automatic Subgrader Machine, Self-Propelled (CMI Type); Bobcat Type and/or Skid Steer Loader with Hoe Attachment Greater than 7,000 lbs.; Boring Machine More than 48"; Bulldozer; Endloader; Hydro Milling Machine; Horizontal Directional Drill (over 50,000 ft. lbs. thrust); Kolman-type Loader (production type-Dirt); Lead Greaseman; Lighting & Traffic Signal Installation Equipment (includes all groups or classifications); Material Transfer Equipment (Shuttle Buggy) Asphalt; Pettibone-Rail Equipment; Power Grader; Power Scraper; Push Cat; Rotomill (all), Grinders & Planers of All types; Trench Machine (24" wide & under); and Vermeer type Concrete Saw.

GROUP 3 - A-Frame; Air Compressor on Tunnel Work (low pressure); Asphalt Plant Engineer; Bobcat-type and/or Skid Steer Loader with or without Attachments; Highway Drills (all types); Locomotive (narrow gauge); Material Hoist/Elevator; Mixer, Concrete (more than one bag capacity); Mixer, one bag capacity (Side Loader); Power Boiler (Over 15 lbs. Pressure) Pump Operator installing & operating Well Points; Pump (4" & over discharge); Railroad Tie Inserter/Remover; Roller, Asphalt; Rotovator (lime soil stabilizer); Switch & Tie Tampers (without lifting & aligning device); Utility Operator (Small equipment); and Welding Machines; Articulating/straight bed end dumps if assigned (minus \$4.00 per hour).

GROUP 4 - Backfiller; Ballast Re-locator; Bars, Joint & Mesh Installing Machine; Batch Plant; Boring Machine Operator (48" or less); Bull Floats; Burlap & Curing Machine; Concrete Plant (capacity 4 yd. & under); Concrete Saw (Multiple); Conveyor (Highway); Crusher; Deckhand; Farm-type Tractor with attachments (highway); Finishing Machine; Fireperson, Floating Equipment (all types); Fork Lift; Form Trencher; Hydro Hammer expect masonry; Hydro Seeder; Pavement Breaker; Plant Mixer; Post Driver; Post Hole Digger (Power Auger); Power Brush Burner; Power Form Handling Equipment; Road Widening Trencher; Roller (Brick, Grade & Macadam); Self-Propelled Power Spreader; Self-Propelled Power Subgrader; Steam Fireperson; Tractor (Pulling Sheepfoot, Roller or Grader); and Vibratory Compactor with Integral Power.

GROUP 5 - Compressor (Portable, Sewer, Heavy & Highway); Drum Fireperson (Asphalt Plant); Generator; Masonary Forklift; Inboard-Outboard Motor Boat Launch; Oil Heater (asphalt plant); Oiler/Helper; Power Driven Heater; Power Sweeper & Scrubber; Pump (under 4" discharge); Signalperson; Tire Repairperson; VAC/ALLS; Cranes - Compact, track or rubber under 4,000 pound capacity; fueling and greasing; and Chainmen.

GROUP 6 - Master Mechanic & Boom from 150 to 180.

GROUP 7 - Boom from 180 and over.

COLUMBIANA, MAHONING & TRUMBULL COUNTIES

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 1 - A & B.....	\$ 44.63	24.30
ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 2 - A & B.....	\$ 44.30	24.30
ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 3 - A & B.....	\$ 38.47	24.30
ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 4 - A & B.....	\$ 34.52	24.30
ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 5 - A & B.....	\$ 31.13	24.30
HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 1 - C & D.....	\$ 40.91	24.30
HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 2 - C & D.....	\$ 40.61	24.30
HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 3 - C & D.....	\$ 35.27	24.30
HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 4 - C & D.....	\$ 31.65	24.30
HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 5 - C & D.....	\$ 28.53	24.30
ALL OTHER WORK		
GROUP 1.....	\$ 37.19	24.30
ALL OTHER WORK		
GROUP 2.....	\$ 36.92	24.30
ALL OTHER WORK		
GROUP 3.....	\$ 32.06	24.30
ALL OTHER WORK		
GROUP 4.....	\$ 28.77	24.30
ALL OTHER WORK		
GROUP 5.....	\$ 25.94	24.30

GROUP 1 - Rig, Pile Driver or Caisson Type; & Rig, Pile Hydraulic Unit Attached

GROUP 2 - Asphalt Heater Planer; Backfiller with Drag Attachment; Backhoe; Backhoe with

Shear attached; Backhoe-Rear Pivotal Swing; Batch Plant-Central Mix Concrete; Batch Plant, Portable concrete; Berm Builder-Automatic; Boat Derrick; Boat-Tug; Boring Machine Attached to Tractor; Bullclam; Bulldozer; C.M.I. Road Builder & Similar Type; Cable Placer & Layer; Carrier-Straddle; Carryall-Scraper or Scoop; Chicago Boom; Compactor with Blade Attached; Concrete Saw (Vermeer or similar type); Concrete Spreader Finisher; Combination, Bidwell Machine; Crane; Crane-Electric Overhead; Crane-Rough Terrain; Crane-Side Boom; Crane-Truck; Crane-Tower; Derrick-Boom; Derrick-Car; Digger-Wheel (Not trencher or road widener); Double Nine; Drag Line; Dredge; Drill-Kenny or Similar Type; Easy Pour Median Barrier Machine (or similar type); Electromatic; Frankie Pile; Gradall; Grader; Gurry; Self-Propelled; Heavy Equipment Robotics Operator/Mechanic; Hoist-Monorail; Hoist-Stationary & Mobile Tractor; Hoist, 2 or 3 drum; Horizontal Directional Drill Operator; Jackall; Jumbo Machine; Kocal & Kuhlman; Land-Seagoing Vehicle; Loader, Elevating; Loader, Front End; Loader, Skid Steer; Locomotive; Mechanic/Welder; Metro Chip Harvester with Boom; Mucking Machine; Paver-Asphalt Finishing Machine; Paver-Road Concrete; Paver-Slip Form (C.M.I. or similar); Place Crete Machine with Boom; Post Driver (Carrier mounted); Power Driven Hydraulic Pump & Jack (When used in Slip Form or Lift Slab Construction); Pump Crete Machine; Regulator-Ballast; Hydraulic Power Unit not attached to Rig for Pile Drillings; Rigs-Drilling; Roto Mill or similar Full Lane (8' Wide & Over); Roto Mill or similar type (Under 8'); Shovel; Slip Form Curb Machine; Speedwing; Spikemaster; Stonecrusher; Tie Puller & Loader; Tie Tamper; Tractor-Double Boom; Tractor with Attachments; Truck-Boom; Truck-Tire; Trench Machine; Tunnel Machine (Mark 21 Java or similar); & Whirley (or similar type)

GROUP 3 - Asphalt Plant; Bending Machine (Pipeline or similar type); Boring machine, Motor Driven; Chip Harvester without Boom; Cleaning Machine, Pipeline Type; Coating Machine, Pipeline Type; Compactor; Concrete Belt Placer; Concrete Finisher; Concrete Planer or Asphalt; Concrete Spreader; Elevator; Fork Lift (Home building only); Fork lift & Lulls; Fork Lift Walk Behind (Hoisting over 1 buck high); Form Line Machine; Grease Truck operator; Grout Pump; Gunnite Machine; Horizontal Directional Drill Locator; Single Drum Hoist with or without Tower; Huck Bolting Machine; Hydraulic Scaffold (Hoisting building materials); Paving Breaker (Self-propelled or Ridden); Pipe Dream; Pot Fireperson (Power Agitated); Refrigeration Plant; Road Widener; Roller; Sasgen Derrick; Seeding Machine; Soil Stabilizer (Pump type); Spray Cure Machine, Self-Propelled; Straw Blower Machine; Sub-Grader; Tube Finisher or Broom C.M.I. or similar type; & Tugger Hoist

GROUP 4 - Air Curtain Destructor & Similar Type; Batch Plant-Job Related; Boiler Operator; Compressor; Conveyor;

Curb Builder, self-propelled; Drill Wagon; Generator Set; Generator-Steam; Heater-Portable Power; Hydraulic Manipulator Crane; Jack-Hydraulic Power driven; Jack-Hydraulic (Railroad); Ladavator; Minor Machine Operator; Mixer-Concrete; Mulching Machine; Pin Puller; Power Broom; Pulverizer; Pump; Road Finishing Machine (Pull Type); Saw-Concrete-Self-Propelled (Highway Work); Signal Person; Spray Cure Machine-Motor Powered; Stump Cutter; Tractor; Trencher Form; Water Blaster; Steam Jenny; Syphon; Vibrator-Gasoline; & Welding Machine

GROUP 5 - Brakeperson; Fireperson; & Oiler

IRON0017-002 05/01/2024

ASHTABULA (North of Route 6, starting at the Geauga County Line, proceeding east to State Route 45), CUYAHOGA, ERIE (Eastern 2/3), GEAUGA, HURON (East of a line drawn from the north border through Monroeville & Willard), LAKE, LORAIN, MEDINA (North of Old Rte. #224), PORTAGE (West of a line from Middlefield to Shalersville to Deerfield), and SUMMIT (North of Old Rte. #224, including city limits of Barberton) COUNTIES

Rates Fringes

IRONWORKER

Ornamental, Reinforcing, & Structural.....	\$ 36.83	29.01
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IRON0017-010 05/01/2024

ASHTABULA (Eastern part from Lake Erie on the north to route #322 on the south to include Conneaut, Kingsville, Sheffield, Denmark, Dorset, Cherry Valley, Wayne, Monroe, Pierpont, Richmond, Andover & Williamsfield Townships)

Rates Fringes

IRONWORKER

Structural, including metal building erection & Reinforcing.....	\$ 36.83	29.01
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IRON0044-001 06/01/2022

ADAMS (Western Part), BROWN, BUTLER (Southern Part), CLERMONT, CLINTON (South of a line drawn from Blanchester to Lynchburg), HAMILTON, HIGHLAND (Excluding eastern one-fifth & portion of county inside lines drawn from Marshall to Lynchburg from the northern county line through E. Monroe to Marshall) and WARREN (South of a line drawn from Blanchester through Morrow to the west county line) COUNTIES

	Rates	Fringes
IRONWORKER, REINFORCING.....	\$ 32.37	22.30
Beyond 30-mile radius of Hamilton County Courthouse..	\$ 28.67	21.20
Up to & including 30-mile radius of Hamilton County Courthouse.....	\$ 27.60	20.70

IRON0044-002 06/01/2024

CLINTON (South of a line drawn from Blanchester to Lynchburg),
HAMILTON, HIGHLAND (Excluding eastern one-fifth & portion of
county inside lines drawn from Marshall to Lynchburg from the
northern county line through E. Monroe to Marshall) & WARREN
(South of a line drawn from Blanchester through Morrow to the
west county line)

	Rates	Fringes
IRONWORKER		
Fence Erector.....	\$ 33.60	23.00
Ornamental; Structural.....	\$ 35.37	23.00

IRON0055-003 07/01/2024

CRAWFORD (Area Between lines drawn from where Hwy #598 & #30
meet through N. Liberty to the northern border & from said Hwy
junction point due west to the border), DEFIANCE (S. of a line
drawn from where Rte. #66 meets the northern line through
Independence to the eastern county border), ERIE (Western 1/3),
FULTON, HANCOCK, HARDIN (North of a line drawn from Maysville
to a point 4 miles south of the northern line on the eastern
line), HENRY, HURON (West of a line drawn from the northern
border through Monroeville & Willard), LUCAS, OTTAWA, PUTNAM
(East of a line drawn from the northern border down through
Miller City to where #696 meets the southern border), SANDUSKY,
SENECA, WILLIAMS (East of a line drawn from Pioneer through
Stryker to the southern border), WOOD & WYANDOT (North of Rte.
#30)

	Rates	Fringes
IRONWORKER		
Fence Erector.....	\$ 26.40	24.62
Flat Road Mesh.....	\$ 29.77	21.30
Tunnels & Caissons Under Pressure.....	\$ 29.77	21.30
All Other Work.....	\$ 35.50	29.20

IRON0147-002 06/01/2024

ALLEN (Northern half), DEFIANCE (Northern part, excluding south of a line drawn from where Rte. #66 meets the northern line through Independence to the eastern county border), MERCER (Northern half), PAULDING, PUTNAM (Western part, excluding east of a line drawn from the northern border down through Miller City to where #696 meets the southern border), VAN WERT, and WILLIAMS (Western part, excluding east of a line drawn from Pioneer through Stryker to the southern border) COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 34.20	26.39

IRON0172-002 06/01/2024

CHAMPAIGN (Eastern one-third), CLARK (Eastern one-fourth), COSHOCTON (West of a line beginning at the northwestern county line going through Walhonding & Tunnel Hill to the southern county line), CRAWFORD (South of Rte. #30), DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, HARDIN (Excluding a line drawn from Roundhead to Maysville), HIGHLAND (Eastern one-fifth), HOCKING, JACKSON (Northern half), KNOX, LICKING, LOGAN (Eastern one-third), MADISON, MARION, MORROW, MUSKINGUM (West of a line starting at Adams Mill going to Adamsville & going from Adamsville through Blue Rock to the southern border), PERRY, PICKAWAY, PIKE (Northern half), ROSS, UNION, VINTON and WYANDOT (South of Rte. #30) COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 36.77	22.85

IRON0207-004 06/01/2024

ASHTABULA (Southern part starting at the Geauga County line), COLUMBIANA (E. of a line from Damascus to Highlandtown), MAHONING (N. of Old Route #224), PORTAGE (E. of a line from Middlefield to Shalersville to Deerfield) & TRUMBULL

	Rates	Fringes
IRONWORKER		
Layout; Sheeter.....	\$ 35.83	27.41
Ornamental; Reinforcing; Structural.....	\$ 34.83	27.41
Ornamental; Reinforcing.....	\$ 28.92	25.61

IRON0290-002 06/01/2024

ALLEN (Southern half), AUGLAIZE, BUTLER (North of a line drawn from east to the west county line going through Oxford,

Darrtown & Woodsdale), CHAMPAIGN (Excluding east of a line drawn from Catawla to the point where #68 intersects the northern county line), CLARK (Western two-thirds), CLINTON (Excluding south of a line drawn from Blanchester to Lynchburg), DARKE, GREENE, HIGHLAND (Inside lines drawn from Marshall to Lynchburg & from the northern county line through East Monroe to Marshall), LOGAN (West of a line drawn from West Liberty to where the northern county line meets the western county line of Hardin), MERCER (Southern half), MIAMI, MONTGOMERY, PREBLE, SHELBY & WARREN (Excluding south of a line drawn from Blanchester through Morrow to the western county line) COUNTIES

Rates Fringes

IRONWORKER.....\$ 35.39 24.35

IRON0549-003 12/01/2022

BELMONT, GUERNSEY, HARRISON, JEFFERSON, MONROE & MUSKINGUM (Excluding portion west of a line starting at Adams Mill going to Adamsville and going from Adamsville through Blue Rock to the south border)

Rates Fringes

IRONWORKER.....\$ 35.19 25.66

IRON0550-004 05/01/2024

ASHLAND, CARROLL, COLUMBIANA (W. of a line from Damascus to Highlandtown), COSHOCTON (E. of a line beginning at NW Co. line going through Walhonding & Tunnel Hill to the South Co. line), HOLMES, HURON (S. of Old Rte. #224), MAHONING (S. of Old Rte. #224), MEDINA (S. of Old Rte. #224), PORTAGE (S. of Old Rte. #224), RICHLAND, STARK, SUMMIT (S. of Old Rte. #224, Excluding city limits of Barberton), TUSCARAWAS, & WAYNE

Rates Fringes

Ironworkers:Structural,
Ornamental and Reinforcing.....\$ 34.70 22.88

IRON0769-004 06/01/2024

ADAMS (Eastern Half), GALLIA, JACKSON (Southern Half), LAWRENCE & SCIOTO

Rates Fringes

IRONWORKER.....\$ 37.66 29.24

IRON0787-003 06/01/2024

ATHENS, MEIGS, MORGAN, NOBLE, and WASHINGTON COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 33.00	24.25

LABO0265-008 05/01/2024

	Rates	Fringes
LABORER		
ASHTABULA, ERIE, HURON, LORAIN, LUCAS, MAHONING, MEDINA, OTTAWA, PORTAGE, SANDUSKY, STARK, SUMMIT, TRUMBULL & WOOD COUNTIES		
GROUP 1.....	\$ 35.05	13.70
GROUP 2.....	\$ 35.22	13.70
GROUP 3.....	\$ 35.55	13.70
GROUP 4.....	\$ 36.00	13.70
CUYAHOGA AND GEAUGA COUNTIES ONLY: SEWAGE PLANTS, WASTE PLANTS, WATER TREATMENT FACILITIES, PUMPING STATIONS, & ETHANOL PLANTS		
CONSTRUCTION.....	\$ 37.66	13.70
CUYAHOGA, GEAUGA & LAKE COUNTIES		
GROUP 1.....	\$ 36.28	13.70
GROUP 2.....	\$ 36.45	13.70
GROUP 3.....	\$ 36.78	13.70
GROUP 4.....	\$ 37.23	13.70
REMAINING COUNTIES OF OHIO		
GROUP 1.....	\$ 35.52	14.45
GROUP 2.....	\$ 35.69	14.45
GROUP 3.....	\$ 36.02	14.45
GROUP 4.....	\$ 36.47	14.45

LABORER CLASSIFICATIONS

GROUP 1 - Asphalt Laborer; Carpenter Tender; Concrete Curing
Applicator; Dump Man (Batch Truck); Guardrail and Fence
Installer; Joint Setter; Laborer (Construction); Landscape
Laborer; Mesh Handlers & Placer; Right-of-way Laborer;
Riprap Laborer & Grouter; Scaffold Erector; Seal Coating;
Surface Treatment or Road Mix Laborer; Sign Installer;
Slurry Seal; Utility Man; Bridge Man; Handyman;
Waterproofing Laborer; Flagperson; Hazardous Waste (level
D); Diver Tender; Zone Person & Traffic Control

GROUP 2 - Asphalt Raker; Concrete Puddler; Kettle Man

Pipeline); Machine Driven Tools (Gas, Electric, Air); Mason Tender; Brick Paver; Mortar Mixer; Power Buggy or Power Wheelbarrow; Paint Striper; Sheeting & Shoring Man; Surface Grinder Man; Plastic Fusing Machine Operator; Pug Mill Operator; & Vacuum Devices (wet or dry); Rodding Machine Operator; Diver; Screwman or Paver; Screed Person; Water Blast, Hand Held Wand; Pumps 4" & Under (Gas, Air or Electric) & Hazardous Waste (level C); Air Track and Wagon Drill; Bottom Person; Cofferdam (below 25 ft. deep); Concrete Saw Person; Cutting with Burning Torch; Form Setter; Hand Spiker (Railroad); Pipelayer; Tunnel Laborer (without air) & Caisson; Underground Person (working in Sewer and Waterline, Cleaning, Repairing & Reconditioning); Sandblaster Nozzle Person; & Hazardous Waste (level B)

GROUP 3 - Blaster; Mucker; Powder Person; Top Lander; Wrencher (Mechanical Joints & Utility Pipeline); Yarner; Hazardous Waste (level A); Concrete Specialist; Concrete Crew in Tunnels (With Air-pressurized - \$1.00 premium); Curb Setter & Cutter; Grade Checker; Utility Pipeline Tapper; Waterline; and Caulker

GROUP 4 - Miner (With Air-pressurized - \$1.00 premium); & Gunitite Nozzle Person

TUNNEL LABORER WITH AIR-PRESSURIZED ADD \$1.00 TO BASE RATE

SIGNAL PERSON WILL RECEIVE THE RATE EQUAL TO THE RATE PAID THE LABORER CLASSIFICATION FOR WHICH HE OR SHE IS SIGNALING.

PAIN0006-002 05/01/2023

ASHTABULA, CUYAHOGA, GEAUGA, LAKE, LORAIN, PORTAGE (N. of the East-West Turnpike) & SUMMIT (N. of the East-West Turnpike)

Rates Fringes

PAINTER

COMMERCIAL NEW WORK;
REMODELING; & RENOVATIONS

GROUP 1.....	\$ 30.75	18.95
GROUP 2.....	\$ 31.15	18.95
GROUP 3.....	\$ 31.45	18.95
GROUP 4.....	\$ 37.01	18.95
COMMERCIAL REPAINT		
GROUP 1.....	\$ 29.25	18.95
GROUP 2.....	\$ 29.65	18.95
GROUP 3.....	\$ 29.95	18.95

PAINTER CLASSIFICATIONS - COMMERCIAL NEW WORK; REMODELING; & RENOVATIONS

GROUP 1 - Brush; & Roller

GROUP 2 - Sandblasting & Buffing

GROUP 3 - Spray Painting; Closed Steel Above 55 feet; Bridges & Open Structural Steel; Tanks - Water Towers; Bridge Painters; Bridge Riggers; Containment Builders

GROUP 4 - Bridge Blaster

PAINTER CLASSIFICATIONS - COMMERCIAL REPAINT

GROUP 1 - Brush; & Roller

GROUP 2 - Sandblasting & Buffing

GROUP 3 - Spray Painting

PAIN0007-002 07/01/2024

FULTON, HENRY, LUCAS, OTTAWA (Excluding Allen, Bay, Bono, Catawba Island, Clay Center, Curtice, Danbury, Eagle Beach, Elliston, Elmore, Erie, Fishback, Gem Beach & Genova) & WOOD

Rates Fringes

PAINTER

NEW COMMERCIAL WORK

GROUP 1.....	\$ 31.84	20.79
GROUP 2.....	\$ 32.84	20.79
GROUP 3.....	\$ 32.84	20.79
GROUP 4.....	\$ 32.84	20.79
GROUP 5.....	\$ 32.84	20.79
GROUP 6.....	\$ 32.84	20.79
GROUP 7.....	\$ 32.84	20.79
GROUP 8.....	\$ 32.84	20.79
GROUP 9.....	\$ 32.84	20.79

REPAINT IS 90% OF JR

PAINTER CLASSIFICATIONS

GROUP 1 - Brush; Spray & Sandblasting Pot Tender

GROUP 2 - Refineries & Refinery Tanks; Surfaces 30 ft. or over where material is applied to or labor performed on above ground level (exterior), floor level (interior)

GROUP 3 - Swing Stage & Chair

GROUP 4 - Lead Abatement

GROUP 5 - All Methods of Spray

GROUP 6 - Solvent-Based Catalized Epoxy Materials of 2 or More Component Materials, to include Solvent-Based Conversion Varnish (excluding water based)

GROUP 7 - Spray Solvent Based Material; Sand & Abrasive Blasting

GROUP 8 - Towers; Tanks; Bridges; Stacks Over 30 Feet

GROUP 9 - Epoxy Spray (excluding water based)

PAIN0012-008 05/01/2019

BUTLER COUNTY

	Rates	Fringes
PAINTER		
GROUP 1.....	\$ 21.95	10.20
GROUP 2.....	\$ 25.30	10.20
GROUP 3.....	\$ 25.80	10.20
GROUP 4.....	\$ 26.05	10.20
GROUP 5.....	\$ 26.30	10.20

PAINTER CLASSIFICATIONS

GROUP 1: Bridge Equipment Tender; Bridge/Containment Builder

GROUP 2: Brush & Roller

GROUP 3: Spray

GROUP 4: Sandblasting; & Waterblasting

GROUP 5: Elevated Tanks; Steeplejack Work; Bridge; & Lead Abatement

PAIN0012-010 05/01/2019

BROWN, CLERMONT, CLINTON, HAMILTON & WARREN

	Rates	Fringes
PAINTER		
HEAVY & HIGHWAY BRIDGES- GUARDRAILS-LIGHTPOLES- STRIPING		
Bridge Equipment Tender and Containment Builder....	\$ 21.95	10.20
Bridges when highest point of clearance is 60 feet or more; & Lead		

Abatement Projects.....	\$ 26.30	10.20
Brush & Roller.....	\$ 25.30	10.20
Sandblasting & Hopper Tender; Water Blasting.....	\$ 26.05	10.20
Spray.....	\$ 25.80	10.20

PAIN0093-001 12/01/2023

ATHENS, GUERNSEY, HOCKING, MONROE, MORGAN, NOBLE and
WASHINGTON COUNTIES

Rates Fringes

PAINTER

Bridges; Locks; Dams; Tension Towers; & Energized Substations.....	\$ 35.45	23.69
Power Generating Facilities.	\$ 32.30	23.69

PAIN0249-002 05/01/2024

CLARK, DARKE, GREENE, MIAMI, MONTGOMERY & PREBLE

Rates Fringes

PAINTER

GROUP 1 - Brush & Roller....	\$ 27.15	13.64
GROUP 2 - Swing, Scaffold Bridges; Structural Steel; Open Acid Tank; High Tension Electrical Equipment; & Hot Pipes.....	\$ 27.15	13.64
GROUP 3 - Spray; Sandblast; Steamclean; Lead Abatement.....	\$ 27.90	13.64
GROUP 4 - Steeplejack Work..	\$ 28.10	13.64
GROUP 5 - Coal Tar.....	\$ 28.65	13.64
GROUP 6 - Bridge Equipment Tender & or Containment Builder.....	\$ 35.86	13.64
GROUP 7 - Tanks, Stacks & Towers.....	\$ 31.09	13.64
GROUP 8 - Bridge Blaster, Rigger.....	\$ 38.86	13.64

PAIN0356-002 09/01/2009

KNOX, LICKING, MUSKINGUM, and PERRY

Rates Fringes

PAINTER

Bridge Equipment Tenders and Containment Builders....	\$ 27.93	7.25
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Bridges; Blasters; and Riggers.....	\$ 34.60	7.25
Brush and Roller.....	\$ 20.93	7.25
Sandblasting; Steam Cleaning; Waterblasting; and Hazardous Work.....	\$ 25.82	7.25
Spray.....	\$ 21.40	7.25
Structural Steel and Swing Stage.....	\$ 25.42	7.25
Tanks; Stacks; and Towers...	\$ 28.63	7.25

PAIN0438-002 12/01/2023

BELMONT, HARRISON and JEFFERSON COUNTIES

Rates Fringes

PAINTER

Bridges, Locks, Dams, Tension Towers & Energized Substations.....	\$ 36.09	19.49
Power Generating Facilities.	\$ 32.94	19.49

PAIN0476-001 06/01/2024

COLUMBIANA, MAHONING, and TRUMBULL COUNTIES

Rates Fringes

PAINTER

GROUP 1.....	\$ 28.39	17.14
GROUP 2.....	\$ 35.02	17.14
GROUP 3.....	\$ 28.60	17.14
GROUP 4.....	\$ 28.89	17.14
GROUP 5.....	\$ 29.04	17.14
GROUP 6.....	\$ 29.29	17.14
GROUP 7.....	\$ 30.39	17.14

PAINTER CLASSIFICATIONS:

GROUP 1: Painters, Brush & Roller

GROUP 2: Bridges

GROUP 3: Structural Steel

GROUP 4: Spray, Except Bar Joist/Deck

GROUP 5: Epoxy/Mastic; Spray- Bar Joist/Deck; Working Above
50 Feet; and Swingstages

GROUP 6: Tanks; Sandblasting

GROUP 7: Towers; Stacks

PAIN0555-002 11/01/2023

ADAMS, HIGHLAND, JACKSON, PIKE & SCIOTO

Rates Fringes

PAINTER

GROUP 1.....	\$ 32.18	20.29
GROUP 2.....	\$ 33.81	20.29
GROUP 3.....	\$ 35.44	20.29
GROUP 4.....	\$ 38.63	20.29

PAINTER CLASSIFICATIONS

GROUP 1 - Containment Builder

GROUP 2 - Brush; Roller; Power Tools, Under 40 feet

GROUP 3 - Sand Blasting; Spray; Steam Cleaning; Pressure Washing; Epoxy & Two Component Materials; Lead Abatement; Hazardous Waste; Toxic Materials; Bulk & Storage Tanks of 25,000 Gallon Capacity or More; Elevated Tanks

GROUP 4 - Stacks; Bridges

PAIN0639-001 05/01/2011

Rates Fringes

Sign Painter & Erector.....\$ 20.61 3.50+a+b+c

FOOTNOTES: a. 7 Paid Holidays: New Year's Day; Memorial Day; July 4th; Labor Day; Thanksgiving Day; Christmas Day & 1 Floating Day
b. Vacation Pay: After 1 year's service - 5 days' paid vacation; After 2, but less than 10 years' service - 10 days' paid vacation; After 10, but less than 20 years' service - 15 days' paid vacation; After 20 years' service - 20 days' paid vacation
c. Funeral leave up to 3 days maximum paid leave for death of mother, father, brother, sister, spouse, child, mother-in-law, father-in-law, grandparent and inlaw provided employee attends funeral

PAIN0788-002 06/01/2024

ASHLAND, CRAWFORD, ERIE, HANCOCK, HURON, MARION, MORROW, OTTAWA (Allen, Bay, Bono, Catawba Island, Clay Center, Curtice, Danbury, Eagle Beach, Elliston, Elmore, Erie, Fishback, Gem Beach & Genoa), RICHLAND, SANDUSKY, SENECA & WYANDOT

Rates Fringes

PAINTER

Brush & Roller.....	\$ 29.13	17.52
Structural Steel.....	\$ 30.73	17.52

WINTER REPAINT: Between December 1 to March 31 - 90%JR

\$.50 PER HOUR SHALL BE ADDED TO THE RATE OF PAY FOR THE CLASSIFICATION OF WORK:

While working swingstage, boatswain chair, needle beam and horizontal cable. While operating sprayguns, sandblasting, cobblasting and high pressure waterblasting (4000psi).

\$1.00 PER HOUR SHALL BE ADDED TO THE RATE OF PAY FOR THE CLASSIFICATION OF WORK:

For the application of catalized epoxy, including latex epoxy that is deemed hazardous, lead abatement, or for work or material where special precautions beyond normal work duties must be taken. For working on stacks, tanks, and towers over 40 feet in height.

PAIN0813-005 12/01/2008

GALLIA, LAWRENCE, MEIGS & VINTON

Rates Fringes

PAINTER

Base Rate.....	\$ 24.83	10.00
Bridges, Locks, Dams & Tension Towers.....	\$ 27.83	10.00

PAIN0841-001 06/01/2023

MEDINA, PORTAGE (South of and including Ohio Turnpike), and SUMMIT (South of and including Ohio Turnpike) COUNTIES

Rates Fringes

Painters:

GROUP 1.....	\$ 30.18	15.50
GROUP 2.....	\$ 30.83	15.50
GROUP 3.....	\$ 30.93	15.50
GROUP 4.....	\$ 31.03	15.50
GROUP 5.....	\$ 31.43	15.50
GROUP 6.....	\$ 39.20	11.75
GROUP 7.....	\$ 31.68	15.50

PAINTER CLASSIFICATIONS:

GROUP 1 - Brush, Roller & Paperhanger

GROUP 2 - Epoxy Application

GROUP 3 - Swing Scaffold, Bosum Chair, & Window Jack

GROUP 4 - Spray Gun Operator of Any & All Coatings

GROUP 5 - Sandblast, Painting of Standpipes, etc. from Scaffolds, Bridge Work and/or Open Structural Steel, Standpipes and/or Water Towers

GROUP 6 - Public & Commerce Transportation, Steel or Galvanized, Bridges, Tunnels & Related Support Items (concrete)

GROUP 7 - Synthetic Exterior, Drywall Finisher and/or Taper, Drywall Finisher and Follow-up Man Using Automatic Tools

PAIN0841-002 06/01/2023

CARROLL, COSHOCTON, HOLMES, STARK, TUSCARAWAS & WAYNE

Rates Fringes

PAINTER

Bridges; Towers, Poles & Stacks; Sandblasting Steel; Structural Steel & Metalizing.....	\$ 31.43	15.50
Brush & Roller.....	\$ 30.18	15.50
Spray; Tank Interior & Exterior.....	\$ 31.03	15.50

PAIN1020-002 04/01/2024

ALLEN, AUGLAIZE, CHAMPAIGN, DEFIANCE, HARDIN, LOGAN, MERCER, PAULDING, PUTNAM, SHELBY, VAN WERT, and WILLIAMS COUNTIES

Rates Fringes

PAINTER

Brush & Roller.....	\$ 26.84	17.01
Drywall Finishing & Taping..	\$ 27.59	17.01
Lead Abatement.....	\$ 28.59	17.01
Spray, Sandblasting Pressure Cleaning, & Refinery.....	\$ 27.59	17.01
Swing Stage, Chair, Spiders, & Cherry Pickers...	\$ 27.09	17.01
Wallcoverings.....	\$ 27.59	17.01

All surfaces 40 ft. or over where material is applied to or

labor performed on, above ground level (exterior), floor
level (interior) - \$.50 premium

Applying Coal Tar Products - \$1.00 premium

PAIN1275-002 05/01/2024

DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, MADISON, PICKAWAY, ROSS
& UNION

Rates Fringes

PAINTER

Bridges.....	\$ 36.26	14.91
Brush; Roller.....	\$ 30.65	14.91
Sandblasting; Steamcleaning; Waterblasting (3500 PSI or Over)& Hazardous Work.....	\$ 31.35	14.91
Spray.....	\$ 31.15	14.91
Stacks; Tanks; & Towers.....	\$ 33.46	14.91
Structural Steel & Swing Stage.....	\$ 29.50	14.91

PLAS0109-001 06/01/2024

MEDINA, PORTAGE, STARK, and SUMMIT COUNTIES

Rates Fringes

PLASTERER.....	\$ 31.70	23.63
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PLAS0109-003 06/01/2024

CARROLL, HOLMES, TUSCARAWAS, and WAYNE COUNTIES

Rates Fringes

PLASTERER.....	\$ 31.70	23.63
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PLAS0132-002 07/01/2023

BROWN, BUTLER, CLERMONT, HAMILTON, HIGHLAND, WARREN COUNTIES

Rates Fringes

PLASTERER.....	\$ 28.40	16.24
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PLAS0404-002 05/01/2018

ASHTABULA, CUYAHOGA, GEAUGA, AND LAKE COUNTIES

Rates Fringes

PLASTERER.....\$ 29.63 17.11

PLAS0404-003 05/01/2018

LORAIN COUNTY

Rates Fringes

PLASTERER.....\$ 28.86 17.11

PLAS0526-022 05/01/2018

COLUMBIANA, MAHONING, and TRUMBULL COUNTIES

Rates Fringes

PLASTERER.....\$ 28.86 17.11

PLAS0526-023 05/01/2018

BELMONT, HARRISON, and JEFFERSON COUNTIES

Rates Fringes

PLASTERER.....\$ 28.21 17.11

PLAS0886-001 07/01/2024

FULTON, HANCOCK, HENRY, LUCAS, PUTNAM, and WOOD COUNTIES

Rates Fringes

PLASTERER.....\$ 33.73 23.25

PLAS0886-003 07/01/2024

Rates Fringes

PLASTERER.....\$ 33.73 23.25

PLAS0886-004 07/01/2024

Rates Fringes

PLASTERER.....\$ 33.73 23.25

PLUM0042-002 07/01/2024

ASHLAND, CRAWFORD, ERIE, HURON, KNOX, LORAIN, MORROW, RICHLAND
& WYANDOT

Rates Fringes

Plumber, Pipefitter,
Steamfitter.....\$ 40.62 25.67

PLUM0050-002 07/01/2024

DEFIANCE, FULTON, HANCOCK, HENRY, LUCAS, OTTAWA, PAULDING,
PUTNAM, SANDUSKY, SENECA, WILLIAMS & WOOD

Rates Fringes

Plumber, Pipefitter,
Steamfitter.....\$ 49.70 30.76

PLUM0055-003 05/01/2024

ASHTABULA, CUYAHOGA, GEAUGA, LAKE, MEDINA (N. of Rte. #18 &
Smith Road) & SUMMIT (N. of Rte. #303, including the corporate
limits of the city of Hudson)

Rates Fringes

PLUMBER.....\$ 42.36 29.90

PLUM0083-001 07/01/2023

BELMONT & MONROE (North of Rte. #78)

Rates Fringes

Plumber and Steamfitter.....\$ 35.94 37.35

PLUM0094-002 05/01/2023

CARROLL (Northen Half), STARK, and WAYNE COUNTIES

Rates Fringes

PLUMBER/PIPEFITTER.....\$ 38.03 23.09

PLUM0120-002 04/29/2024

ASHTABULA, CUYAHOGA, GEAUGA, LAKE, LORAIN (the C.E.I. Power
House in Avon Lake), MEDINA (N. of Rte. #18) & SUMMIT (N. of
#303)

Rates Fringes

PIPEFITTER.....\$ 47.07 28.15

PLUM0162-002 06/01/2024

CHAMPAIGN, CLARK, CLINTON, DARKE, FAYETTE, GREENE, MIAMI,

MONTGOMERY & PREBLE

	Rates	Fringes
Plumber, Pipefitter, Steamfitter.....	\$ 43.05	27.18

* PLUM0168-002 06/01/2024

MEIGS, MONROE (South of Rte. #78), MORGAN (South of Rte. #78)
& WASHINGTON

	Rates	Fringes
PLUMBER/PIPEFITTER.....	\$ 39.43	37.29

PLUM0189-002 06/01/2024

DELAWARE, FAIRFIELD, FRANKLIN, HOCKING, LICKING, MADISON,
MARION, PERRY, PICKAWAY, ROSS & UNION

	Rates	Fringes
Plumber, Pipefitter, Steamfitter.....	\$ 43.25	26.94

PLUM0219-002 06/01/2024

MEDINA (Rte. #18 from eastern edge of Medina Co., west to
eastern corporate limits of the city of Medina, & on the county
road from the west corporate limits of Medina running due west
to and through community of Risley to the western edge of
Medina County - All territory south of this line), PORTAGE, and
SUMMIT (S. of Rte. #303) COUNTIES

	Rates	Fringes
Plumber and Steamfitter.....	\$ 45.37	27.64

PLUM0392-002 06/01/2024

BROWN, BUTLER, CLERMONT, HAMILTON & WARREN

	Rates	Fringes
PLUMBER/PIPEFITTER.....	\$ 40.65	26.75

PLUM0396-001 06/01/2024

COLUMBIANA (Excluding Washington & Yellow Creek Townships &
Liverpool Twp. - Secs. 35 & 36 - West of County Road #427),

MAHONING and TRUMBULL COUNTIES

	Rates	Fringes
PLUMBER/PIPEFITTER.....	\$ 38.45	28.96

 PLUM0495-002 06/01/2024

CARROLL (Rose, Monroe, Union, Lee, Orange, Perry & Loudon Townships), COLUMBIANA (Washington & Yellow Creek Townships & Liverpool Township, Secs. 35 & 36, West of County Rd. #427), COSHOCTON, GUERNSEY, HARRISON, HOLMES, JEFFERSON, MORGAN (South to State Rte. #78 & from McConnelsville west on State Rte. #37 to the Perry County line), MUSKINGUM, NOBLE, and TUSCARAWAS COUNTIES

	Rates	Fringes
Plumber, Pipefitter, Steamfitter.....	\$ 37.82	36.70

 PLUM0577-002 06/01/2024

ADAMS, ATHENS, GALLIA, HIGHLAND, JACKSON, LAWRENCE, PIKE, SCIOTO & VINTON

	Rates	Fringes
Plumber, Pipefitter, Steamfitter.....	\$ 41.65	27.48

 * PLUM0776-002 07/01/2024

ALLEN, AUGLAIZE, HARDIN, LOGAN, MERCER, SHELBY and VAN WERT COUNTIES

	Rates	Fringes
Plumber, Pipefitter, Steamfitter.....	\$ 42.07	29.35

 TEAM0377-003 05/01/2024

STATEWIDE, EXCEPT CUYAHOGA, GEAUGA & LAKE

	Rates	Fringes
TRUCK DRIVER		
GROUP 1.....	\$ 32.54	16.80
GROUP 2.....	\$ 32.96	16.80

TRUCK DRIVER CLASSIFICATIONS

GROUP 1 - Asphalt Distributor; Batch; 4- Wheel Service; 4-Wheel Dump; Oil Distributor & Tandem

GROUP 2 - Tractor-Trailer Combination: Fuel; Pole Trailer; Ready Mix; Semi-Tractor; & Asphalt Oil Spraybar Man When Operated From Cab; 5 Axles & Over; Belly Dump; End Dump; Articulated Dump; Heavy Duty Equipment; Low Boy; & Truck Mechanic

TEAM0436-002 05/01/2024

CUYAHOGA, GEAUGA & LAKE

Rates Fringes

TRUCK DRIVER

GROUP 1.....	\$ 32.54	16.85
GROUP 2.....	\$ 32.96	16.85

GROUP 1: Straight & Dump, Straight Fuel

GROUP 2: Semi Fuel, Semi Tractor, Euclids, Darts, Tank, Asphalt Spreaders, Low Boys, Carry-All, Tourna-Rockers, Hi-Lifts, Extra Long Trailers, Semi-Pole Trailers, Double Hook-Up Tractor Trailers including Team Track & Railroad Siding, Semi-Tractor & Tri-Axle Trailer, Tandem Tractor & Tandem Trailer, Tag Along Trailer, Expandable Trailer or Towing Requiring Road Permits, Ready-Mix (Agitator or Non-Agitator), Bulk Concrete Driver, Dry Batch Truck, Articulated End Dump

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$17.20) or 13658 (\$12.90). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide

employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that

no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

State Adopted Rate Identifiers

Classifications listed under the ""SA"" identifier indicate that the prevailing wage rate set by a state (or local) government was adopted under 29 C.F.R §1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 01/03/2024 reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION"

**SECTION 16221
NATURAL GAS GENERATOR SYSTEMS**

PART 1 GENERAL

1.01 SCOPE

- A. This Section includes furnishing and installing a stationary, engine powered, standby power rated, natural gas fueled, generating system(s), complete and in place, ready for service.
- B. System shall include, but not be limited to, the engine-generator set, battery system, exhaust system, fuel system, enclosure, ducting, and all other appurtenances needed to make a complete operating system.
- C. Engine-generator system shall be delivered to the Site completely equipped, tested, and ready for installation.
- D. Engine-generator system(s) shall be comprised of all new materials. The design kW rating is based on the loads and load steps and the model listed in Part 4 of this Section.
- E. Power and control wiring to the generator(s), transfer switch(s), and accessories, except wiring described herein, shall be furnished and installed under other sections of Division 16.

1.02 SUBMITTALS

- A. Submittals shall be in accordance with the requirements of Section 01300 and shall include:
 - 1. Shop Drawings for Review:
 - a. Submit a list of materials giving manufacturer's name, and catalog numbers.
 - b. Submit manufacturer's technical product sheets on each component to be furnished.
 - c. Submit drawings which show dimensional layouts of the engine-generator system(s) and its spatial relationship to associated equipment along with associated weights of equipment. Also, list natural gas pipe size for connection along with pressure and flow required for full load.
 - d. Submit wiring diagrams for the engine-generator system(s) and transfer switch(es) showing connections to feeders, load, and accessory equipment. Clearly differentiate between portions of the wiring that are manufacturer installed and the portions to be field wired.
 - e. Provide warranty for review; executed copies shall be submitted when completed with copies included in the operation and maintenance manuals.
 - f. Manufacturer's qualifications, including a list of similar installations.
 - 2. Information for the Record:

- a. Manufacturer’s recommended method of installation for the products to be furnished.
- b. Certified copies of the factory and field test procedures and results.
- c. Operation and maintenance manuals.

1.03 QUALITY ASSURANCE

- A. Engine-generator system(s) and accessories described herein shall be furnished by a single supplier who shall be responsible for the performance of the equipment in its entirety. The responsibility shall not be split among suppliers of individual components.
- B. The supplier of the engine-generator shall maintain a rental fleet of portable engine generators within 100 highway miles of the project location, maintain 24-hour parts and service capability, and provide qualified, factory trained, service personnel that can respond to an emergency call within 4 hours of notification.

1.04 ELECTRICAL AND CONTROL COORDINATION

- A. All electrical, instrumentation, control equipment, and panels furnished under this Contract shall conform to appropriate Sections of Division 16 of these Specifications. Equipment and panels shall be NEMA rated as shown on the Drawings or specified in Part 4.
- B. Certain equipment items shall be connected to the plant control system as shown on the Control (P&ID) Drawings. Those connections and any remote-control connections shall be wired to clearly labeled terminal strips within the equipment control panel.

1.05 GUARANTEE

- A. The manufacturer’s standard warranty shall be for a period of five years ~~or 3,000 hours of operation~~ from the date of substantial completion ~~and shall not be limited by hours of operation~~. The warranty shall include repair parts, labor, reasonable travel expense necessary for repairs at the job site, and expendables including, but not limited to lubricating oil, filters, antifreeze, and other service items used during the course of repair. **(Addendum 2, Issued August 27, 2024)**
- B. Optional warranties, supplier/manufacturer maintenance packages, and associated costs shall be available for the Owner’s consideration.
- C. Engine starting batteries shall have a twelve-month, full replacement warranty. The warranty shall be prorated from twelve to sixty months.

PART 2 PRODUCTS

2.01 EQUIPMENT

- A. Engine:
 1. Provide a liquid cooled, four cycle, full compression, natural gas engine for each engine-generator system.

2. Each engine shall have the number of cylinders and displacement needed to develop the brake horsepower and torque necessary to drive the alternator at 1,800 revolutions per minute to meet the specified performance requirements listed in Part 4.
 3. Provide a fully enclosed electronic speed sensing isochronous governor, capable of providing accurate speed control. Frequency regulation shall be plus 0.5% of rated frequency during steady state conditions.
 4. Engine shall be provided with an electric starting motor with starter pinion and solenoid to turn the engine at firing speed under the temperature range of 110 degrees F maximum and 0 degrees F minimum. Each starting motor shall be rated to operate on the voltage as determined by the engine manufacturer.
 5. An engine mounted, replaceable element, dry type air cleaner of sufficient capacity and filtration rating to protect working parts of the engine from dust and grit.
- B. Cooling System:
1. Each engine shall be furnished with a radiator, mounted on vibration isolators, and fan with fan guard.
 2. Radiator shall keep the engine within normal operating temperature when running at full load.
 3. Radiator for an engine-generator system installed indoors shall be provided with a duct adapter flange to allow the attachment of an air discharge duct to direct air discharge through the wall.
 4. Each engine coolant system shall be filled with the engine manufacturer's recommended antifreeze/antiboil solution. The contractor shall provide the engine manufacturer's recommended antifreeze/antiboil solution.
 5. Engine shall be furnished with a coolant heating system. The heating element(s) shall be single-phase and rated for operation at 60 Hz and the AC voltage listed in Part 4 of this Section.
 6. Engine coolant heater system shall maintain the manufacturer's specified coolant temperature. A thermostat shall control the temperature of the coolant to the manufacturer's recommended temperature for startup.
 7. WARNING: Do not energize heater until engine block is filled with coolant and the generator set is run to remove trapped air. Otherwise, block heater failure will result.
- C. Alternator:
1. Alternator shall be 4-pole, engine driven, drip proof, self-aligning, continuous duty, synchronous unit with full amortisseur windings. The insulation shall be NEMA Class H.

2. Alternator shall be rated for the voltage listed in Part 4 of this Section and for 60 Hz operation at rated 1800 revolutions per minute.
 3. The alternator neutral wire shall not be connected to ground at the alternator. Each alternator shall be directly connected to the engine through a flexible coupling.
 4. Operating temperature of the rotor and stator shall not exceed 105 degrees C at rated load.
 5. Alternator shall have a brushless, rotating, solid-state, full wave, rectifier or a permanent magnet exciter. Surge suppressors shall be included on the brushless, solid-state exciter to protect the diodes from voltage spikes.
 6. Alternator shall have a voltage regulator to provide no load to full load regulation of plus or minus 0.5% at rated voltage during steady state conditions. Regulator shall be a totally solid state design, and shall include electronic voltage buildup, volts per Hz regulation, three phase sensing, over-excitation protection, loss of sensing protection, temperature compensation, and shall limit voltage overshoot on startup, and be environmentally sealed.
- D. Engine Fuel System:
1. The engine shall have flexible fuel lines with size and fuel pressure rated per manufacturer's recommendations.
 2. The unit shall have a manual shutoff valve for maintenance. Located outside of the enclosure.
 3. The unit shall have NRTL listed, normally closed safety shutoff valves in accordance with NFPA 110 and UL 2200. **(Addendum 2, Issued August 27, 2024)**
- E. Lubrication System:
1. Lubricating oil shall be supplied by a lube oil system.
 2. Full flow, replaceable element, oil filters, with a liquid cooled oil cooler, dip stick oil level indicator, and oil pan drain valve shall also be provided.
 3. The filter system shall be equipped with a bypass valve to prevent stoppage of lubricating oil in the event the filters become clogged.
 4. The contractor shall provide the engine manufacturer's recommended lubricant and fill the crankcase to the proper level.
- F. Strip Heater:
1. Engine-generator system(s) located outdoors or in an unheated area shall have a UL listed, 120 VAC, 60 Hz, single-phase strip heater(s) mounted in the alternator housing to prevent condensation, and shall be provided with an automatic control to turn off the heater(s) when the alternator is running.
- G. Batteries/Charger/Tray:
1. Provide sealed storage batteries.

2. Batteries shall be sized to crank and start the engine in minimum ambient temperatures of 0 degrees F for outdoor installations and 40 degrees F for indoor installations.
 3. Battery system shall have the capacity to start the engine a minimum of three times between charges.
 4. Provide battery cables sized to prevent voltage drop problems during cranking cycle.
 5. Provide a UL listed, fully automatic, solid-state, battery charger with both float and equalize charge rates, automatic AC line voltage compensation, DC voltage regulation, and automatic equalizing timer.
 6. The input voltage to the charger shall be 120 VAC, single phase, 60 Hz.
 7. Charger shall be capable of fully recharging batteries within 24 hours.
 8. Charger shall have the following protective features: fused AC input, fused DC output, automatic surge suppression, and current limit overload protection.
 9. Charger shall have a DC ammeter, DC voltmeter, AC pilot light, and an equalize charge light.
 10. Provide the following alarm contacts for connection to the alternator local annunciator: low DC voltage, high DC voltage, current/charger failure, and AC power failure. Provide high DC voltage shutdown. Charger shall be mounted for easy visual and maintenance access.
 11. Provide a battery tray or rack for each battery set.
 12. Battery tray or rack shall conform to NEC Section 480.8. It shall be treated to be resistant to deterioration by battery electrolyte.
 13. Battery tray or rack shall contain any spillage or boil-over of electrolyte.
- H. Exhaust System:
1. Engine-generator system located indoors shall have an engine exhaust system installed to discharge combustion gases quickly and silently with minimum restriction. System back pressure shall not exceed manufacturer's recommendations.
 2. Piping shall be as recommended by the manufacturer - insulated (6 inches thick) and shielded, supported and braced to prevent weight or thermal growth being transferred to the engine.
 3. Exhaust shall have flexible expansion fittings to accommodate thermal growth. Support dampers and springs shall be included where necessary to isolate vibration.

4. Long runs of exhaust pipe shall be pitched away from the engine and water traps installed at the lowest point. Exhaust stacks shall be extended to avoid nuisance fumes and odors, and outlets cut at 45 degrees to minimize noise.
5. Exhaust pipes shall have stainless steel screening at the outlet to prevent entry of small animals.
6. The exhaust system inside a building, including piping and silencer, shall be insulated with fiber glass. Insulation shall be temperature rated to 1,000 degrees F. Conductivity shall be 0.50 Btu-inch/hour-SF-degrees F at 300 degrees F. Insulation shall conform to ASTM C795, Standard Specification for Thermal Insulation in Contact with Austenitic Stainless Steel. Insulation shall be Johns-Manville type HTB 26, or equal.
7. Accessory materials installed as part of insulation work shall include but not be limited to:
 - a. Field-applied jacketing materials - Sheet metal, plastic, canvas, fiber glass cloth, insulating cement, PVC fitting covers.
 - b. Closure Materials - Butt strips, bands, wires, staples, mastics, adhesives, pressure-sensitive tapes.
 - c. Support Materials - Hanger straps, hanger rods, saddles, support rings.

2.02 ENGINE-GENERATOR CONTROL PANEL

- A. Engine-generator control panel shall be mounted on the alternator end of the assembly.
- B. Control panel shall be housed in a rigid metal, NEMA 4X rated enclosure, and shall include a section for cable terminations. Enclosure doors shall be lockable.
- C. Control panel shall be furnished with the necessary fuses, transformers, and other accessories required to perform the following functions:
 1. Alternator output power thermal magnetic circuit breaker, as listed in Part 4 of this Section. Breaker shall be sized and rated to carry 100% of the output current of the alternator, be UL listed, and have an adjustable shunt trip unit.
 2. Automatic start/stop operation.
 3. Adjustable cycle cranking.
 4. Output voltage adjustment potentiometer.
 5. Digital AC metering with manual phase selection and 0.5% true RMS accuracy.
 6. Digital engine monitoring.
 7. Shutdown sensors and alarms with horn and reset.
 8. Adjustable cool-down timer, and a maintained-action, red mushroom head, emergency stop push-button.
 9. Self-diagnostics and fault logging.

10. Contact to operate a spring-action to open, motorized to close, louver on indoor installations. The contact shall be rated at 10 amps, 120 VAC, and open when the engine(s) begins to crank and close when the engine(s) shuts down.
- D. Control panel components shall be environmentally sealed to protect against moisture and dirt. Engraved nameplates (black letters on white background) shall be provided to identify each device or function located on each control panel.
- E. Control panel located in unheated locations shall be provided with a strip heater, with thermostat, to eliminate condensation. Voltage shall be as specified in Part 4 of this Section.
- F. Provide visual display of the following variables, either with gauges or digital displays:
 1. Engine oil pressure.
 2. Engine oil temperature.
 3. Coolant temperature.
 4. Engine RPM.
 5. System DC volts.
 6. Engine accumulated running hours.
 7. Alternator AC volts, selectable line-to-line and line-to-neutral.
 8. Alternator AC amps, selectable each phase.
 9. Alternator frequency.
 10. Alternator output kW.
 11. Alternator output kWhr.
 12. Alternator output kVA.
 13. Alternator output kVAR.
 14. Percentage of rated power.
 15. Alternator power factor.
- G. Control panel shall include a local annunciator with the following alarms:
 1. Low engine oil pressure alarm light.
 2. Low engine oil pressure shutdown light.
 3. High coolant temperature alarm light.
 4. High coolant temperature shutdown light.
 5. Low coolant temperature alarm light.
 6. Overcrank lockout light.
 7. Audible alarm and reset button.

8. System not in Auto indicator light.
9. Overspeed shutdown alarm light.
10. Diagnostic shutdown light.
11. Low coolant level.
12. Low battery/DC voltage.
13. Battery charger AC failure.
14. High battery voltage.
15. Emergency stop depressed.
16. Spare.

Note: All alarm lights to be flashing LED type.

H. Remote Alarms:

1. Provide a remote annunciator to meet the requirements of NFPA 110, Level 1. The annunciator shall provide remote annunciation of the following alarms:
 - a. Low engine oil pressure alarm light.
 - b. Low engine oil pressure shutdown light.
 - c. High coolant temperature alarm light.
 - d. High coolant temperature shutdown light.
 - e. Low coolant temperature alarm light.
 - f. Overcrank lockout light.
 - g. Audible alarm and reset button.
 - h. System not in Auto indicator light.
 - i. Overspeed shutdown alarm light.
 - j. Diagnostic shutdown light.
 - k. Low coolant level.
 - l. Low battery/DC voltage.
 - m. Battery charger AC failure.
 - n. High battery voltage.
 - o. Emergency stop depressed.
 - p. Spare.
2. Remote annunciator shall incorporate ring-back capability so that after silencing the initial alarm, any subsequent alarms will sound the horn.

3. Provide alarm indication for “generator ground fault” on solidly grounded wye systems of more than 150 volts to ground and circuit breakers rated 1000 amp or more, to meet NEC.

2.03 PERFORMANCE REQUIREMENTS

- A. The engine-generator system shall be capable of producing the amount of electrical power listed in Part 4 of this Section at 0.8 power factor for continuous operation.
- B. The engine-generator system shall be ready to have loads applied within 10 seconds after startup.
- C. The engine-generator system shall have a minimum motor starting capability of the kVA listed in Part 4 of this Section. The engine-generator system shall meet NFPA 110 single step load pickup. These ratings shall be met after all applicable demand factors for operation at 1,000 feet above sea level and in an ambient temperature of 110 degrees F maximum and 0 degrees F minimum.

2.04 ACCESSORIES

- A. Silencer:
 1. Engine-generator system shall provide a critical grade silencer to reduce noise emission.
 2. Silencer installed on an engine-generator system indoors shall have a side inlet and end outlet.
- B. Enclosure:
 1. Provide a weather-protected, sound attenuated, enclosure for each engine-generator system located outdoors. Maximum sound level shall be 70 decibels at 50 feet, while the engine-generator system is operating at full load.
 2. Enclosure shall be constructed from galvanized steel and shall be designed and constructed so that the engine-generator system and accessories are totally enclosed.
 3. Enclosure shall be zinc phosphate treated prior to paint, then painted with the manufacturer’s standard color polyester powder baked paint.
 4. Enclosure door(s) shall be hinged and key lockable with stainless steel locks and hinges. Other enclosure hardware shall be stainless steel. A control panel viewing window with safety glass and lockable access door to the control panel and circuit breaker shall be provided. Each enclosure shall be provided with an externally mounted, shielded emergency stop button; drain lines to the outside for lube oil, coolant, and crankcase fumes disposal.
- C. Fire Safety Gas Shutoff Valve Protection: **(Addendum 2, Issued August 27, 2024)**
 1. ~~Furnish and install a quick closing, spring loaded fire safety gas shutoff valve with fusible element which melts at 165 degrees F allowing the valve to close~~

~~tightly. The fire safety gas shutoff valve shall be Preferred Utilities Manufacturing Corporation of Danbury, Connecticut Model 110-G or equal. Provide fire protection / smoke detection in enclosure in accordance with NFPA 110 and NFPA 72.~~
(Addendum 2, Issued August 27, 2024)

- D. Piping:
1. Gas pipe shall be as specified in Section 15211.
- E. Emergency Stop Pushbutton:
1. All generators shall have a remote manual stop station similar to a “Break-Glass” station located outside the room housing the prime mover. If the generator is located outdoors the stop station shall be located elsewhere on the premises.
 2. The pushbutton station shall have a red pushbutton labeled “Stop” covered by a thin glass disc. A small hammer shall be attached to the enclosure with a chain. The switch shall have one Normally Closed set of contacts for each generator. The enclosure shall be rated for the area in which it is installed.
 3. A permanent nameplate shall be provided to indicate that the purpose of the switch is to stop the generator in an emergency. The nameplate shall be mounted on or in close proximity to the pushbutton station.
 4. The Contractor shall provide at least five spare glass discs to the Owner.
 5. The pushbutton station shall be Allen-Bradley Catalog Number 800T-NX114 with Glass Disc Kit 800T-N28, or equal.

2.05 FABRICATION

- A. Base:
1. Engine-generator system shall be mounted on a structural steel base capable of maintaining proper alignment between components during shipment, installation, and operation.
 2. The engine-generator system shall be free from torsional stress when running at 10% of rated speed.
 3. Provide spring type vibration isolators with rubber backing between the structural steel base and its foundation.

2.06 FACTORY TESTS AND FIELD TESTS

- A. Prior to shipment, the unit shall be factory performance tested under load with all accessories. The tests shall be performed in accordance with the manufacturer’s standards.
- B. Full block load test shall demonstrate no more than a 15% RMS voltage dip and 15% frequency deviation measured during the fourth complete cycle following application of the load.

- C. Both voltage and frequency shall return to 3% of rated voltage and frequency in less than 5 seconds following the application of the block load. The following block load tests shall be performed:
 - 1. Stepped load test at 1/2, 3/4, and full load for 5 minutes each step.
 - 2. Three-quarter block load.
 - 3. Full single step block load.
- D. The Contractor shall furnish a qualified representative of the manufacturer to perform inspection, start-up, testing, and training services. The manufacturer's representative shall be experienced in the installation, start-up, operation, and maintenance of the equipment.
- E. The representative shall check the installation and supervise final adjustments and initial start-up of the equipment. The representative shall certify that each installation is correct and that the equipment is operating satisfactorily. This service shall be for a minimum period of one trip and three days.
- F. The complete installation including each automatic transfer switch, if applicable, shall be field-tested for compliance with the plans and specifications following completion of all site work. Testing shall be conducted by representatives of the transfer switch supplier, if applicable, and the engine-generator supplier, and the switchgear supplier, if applicable. The Contractor shall supply the load bank and other equipment required for each test. The Owner and inspector shall be notified in advance and shall have the option to witness the tests. The tests shall be repeated until each system performs as specified. The tests to be conducted on site shall be as follows:
 - 1. Perform a cold start test on each engine-generator using the generator's actual load as a test load. A power failure shall be simulated by opening the normal power source disconnect and the following information shall be recorded for each engine-generator set.
 - a. Time delay on start.
 - b. Cranking on time.
 - c. Time required coming up to speed.
 - d. Voltage and frequency overshoot.
 - e. Time to achieve steady state.
 - f. Voltage, frequency, and amps at steady state.
 - g. Oil pressure, water temperature, and battery charge rate at 5 minute intervals for the first 15 minutes and at 15 minute intervals thereafter for 2 hours.
 - h. Time delay on retransfer after return of normal power.
 - i. Cool down time delay.

2. Immediately after cooling time from cold start test, perform a one-step, four-hour, full load test using a load bank. Record the same data as in the cold start test except for time delays on transfer and retransfer.
 3. Disable each engine-generator from starting by a method approved by the manufacturer and test the crank cycle by switching the engine-generator controls to RUN.
 4. Test each engine-generator safety shutdown mechanism.
- G. After the field-testing, has been successfully completed, the manufacturer's representative shall train the Owner's personnel for one eight-hour day in the proper operation and maintenance of the equipment. The Owner may make a video record of the training.

PART 3 EXECUTION

3.01 COORDINATION

- A. Examine area for compliance to written installation requirements.

3.02 INSTALLATION

- A. Engine-Generator:
1. Provide a concrete housekeeping pad in accordance with Section 03300.
 2. Each engine-generator set shall be installed with galvanized steel anchor bolts as recommended by the manufacturer. Bolts shall be embedded in the concrete pad. Expansion-type anchors are not acceptable.
 3. Each engine-generator shall be installed with vibration isolators provided with the set.
 4. Provide equipment grounding connection(s) for each engine-generator unit as indicated by the manufacturer. Tighten each connection to comply with the tightening torques specified in UL standards to assure permanent and effective grounding. Grounding shall also comply with Section 16020.
 5. All connections to the engine, generator and mounting base such as conduits, gas lines, exhaust piping, etc., must have flexible sections to prevent breakage and isolate vibration to the generator set.
- B. Gas Piping System:
1. The piping system shall be installed per the manufacturer's instructions and all federal, state, and local codes and regulations. In addition, the gas piping system shall comply with Section 15211.
 2. The installed gas system shall be pressure tested and tested for leaks before use.
- C. Exhaust System:

1. Install the exhaust silencer and all exhaust piping furnished with the engine-generator as recommended by the manufacturer.
2. For indoor installations, support the exhaust system as indicated on the Drawings.
3. Install wall flashing and stainless steel animal screen where the system passes through the wall.
4. Pitch the exhaust system to a petcock location that is convenience for draining.
5. All surfaces to be insulated shall be clean and dry.
6. Wet, dirty, or damaged insulation shall not be used.
7. Insulation shall be a minimum of 6 inches thick. Install in multiple layers if necessary to achieve desired thickness. Joints of multiple layers shall be staggered and overlapped.
8. Insulation shall be covered to protect it from dust, water, oil, antifreeze, etc.
9. Insulation materials and accessories shall be installed in a neat and workmanlike manner by skilled and experienced workers who are regularly engaged in industrial insulation work.
10. Aluminum lagging shall be 0.016-inch thick with banding straps on minimum 18-inch centers and at each joint.

PART 4 SPECIAL PROVISIONS

4.01 ENGINE GENERATOR LOADING SCHEDULE

Step Number	Load Type (1)	Load Rating (2)	Full Load Amps	Motor Controller (3)	Equipment ID Tag
1	Misc	KVA	26	-	GEN SET

- (1) Load Type: Mtr = Motor
 Trf = Transformer
 Res = Resistance Heating
 HVAC = Heating, Ventilating, Air Conditioning
 Misc = Miscellaneous
- (2) Load Rating: hp = Horsepower
 kW = kilowatts
 kVA = kilovolt-amp
- (3) Motor Controller: FV = Full-Voltage, across-the-line
 RVSS = Reduced-Voltage Solid-state
 VFD = Variable Frequency Drive
 2S = Two-Step, single or double winding

RVA = Reduced Voltage Auto-transformer
 2Spd = Two Speed

4.02 POWER GENERATING SYSTEM SCHEDULE

- A. The following schedule is intended to aid the Contractor in identifying generator location and size. It is intended to supplement the Drawings and Specifications and is not guaranteed to be complete. All generator shown on the drawings shall be furnished and installed by the Contractor whether or not listed in the schedule.

Location	ID Tag	Size kW/kVA	Model Number	Alternator Voltage(s)	Engine Coolant Heater Voltage	Control Panel Strip Heater Voltage	Minimum Starting Capability (kVA)	Circuit Breaker Rating (amps)
Outdoors	GEN SET	30	30CCL	120 480VAC	120VAC	120VAC		100 60

(Addendum 2, Issued August 27, 2024)

4.03 SPARE PARTS

- A. Provide spare parts for generator as recommended by generator manufacturer’s spare parts list.

END OF SECTION

SECTION 16440
AUTOMATIC TRANSFER SWITCHES

PART 1 GENERAL

1.01 SCOPE

- A. This Section includes all labor, tools, equipment, and materials to install a complete and functional automatic electrical load transfer system.
- B. System shall connect partial or the entire facility electrical load to either the normal electrical utility source or to a standby electrical power source, which may be an alternate feed from the electric utility company or an engine-generator set.
- C. Transfer switch shall be delivered to the Site completely equipped, tested, and ready for installation.
- D. Transfer switch and components shall be comprised of all new materials. The design rating shall be based on the loads listed in Part 4 of this Section.
- E. Power and control wiring to the generator(s), transfer switch(es), and accessories, except wiring described herein, shall be furnished and installed under other sections of Division 16.

1.02 SUBMITTALS

- A. Submittals shall be in accordance with the requirements of Section 01300 and shall include:
 - 1. Shop Drawings for Review:
 - a. Submit a list of materials giving quantities, manufacturer's name, and catalog numbers.
 - b. Submit manufacturer's technical product sheets on each component to be furnished.
 - c. Submit drawings which show dimensional layouts of the transfer switch from various elevations and its spatial relationship to associated power and control conduits and other associated equipment.
 - d. Submit wiring diagrams showing connections to feeders, load, and accessory equipment. Clearly differentiate between portions of the wiring that are manufacturer installed and the portions to be field wired.
 - 2. Information for the Record:
 - a. Manufacturer's recommended method of installation for the products to be furnished.
 - b. Certified copies of factory and field test procedures and results.

- c. Operation and maintenance manuals.
- d. Provide warranty for review; executed copies shall be submitted when completed with copies included in the operation and maintenance manuals.
- e. Manufacturer’s qualifications, including a list of similar installations.

1.03 QUALITY ASSURANCE

- A. All Work and materials shall be in compliance with applicable requirements of governing agencies having jurisdiction and the NEC.
- B. Automatic transfer switch(es) and all components shall be designed, manufactured, and tested in accordance with the latest applicable standards of UL, NEMA, and NFPA as follows:
 - 1. UL 50 - Cabinets and Boxes.
 - 2. UL 489 - Molded Case Circuit Breakers, Molded Case Switches.
 - 3. UL 508 - Industrial Control Systems.
 - 4. UL 1008 - Transfer Switches.
 - 5. NEMA ICS - Industrial Control and Systems.
 - 6. NFPA 101 - Life Safety Code.
 - 7. NFPA 110 - Emergency and Standby Power Systems.
- C. Transfer switch(es) and accessories described herein shall be furnished by a single supplier who shall be responsible for the performance of the equipment in its entirety. The responsibility shall not be split among suppliers of individual components.

1.04 ELECTRICAL AND CONTROL COORDINATION

- A. Size of automatic transfer switch shall be coordinated with the normal feed source, standby feed source and the voltage and current of the load being transferred.

1.05 GUARANTEE

- A. The manufacturer’s standard warranty shall be for a minimum period of one year and shall include repair parts, labor, and reasonable travel expense necessary for repairs at the job site.
- B. Optional warranties and associated cost shall be available for the Owner’s consideration.

PART 2 PRODUCTS

2.01 EQUIPMENT

- A. Automatic transfer switches shall be installed within a NEMA 4X rated enclosure, unless otherwise noted in Part 4.
- B. Switches rated 1000 amps and less shall include quick-break, quick-make contact mechanism for manual transfer under load.

- C. Switch shall be sized and rated for continuous duty operation at the current and voltage listed in Part 4 of this Section.
- D. Main contacts shall be rated for 600 VAC minimum.
- E. Transfer switch shall be designed to carry 100% of rated current continuously in the enclosure and have 4 poles for 3 phases and a neutral, unless otherwise noted.
- F. Transfer switch shall be double-throw, with a center neutral (OFF) position, electronically and mechanically interlocked, and mechanically held in both normal and standby positions.
- G. Each transfer switch shall be equipped with quick-break, quick-make, over-center contact, operating mechanisms suitable for safe manual operation under load with door(s) closed.
- H. One set of Form “C” contacts rated at 10 amps, 250 VAC shall be provided for remote monitoring of each of the following parameters:
 - 1. Switch in Normal, Standby, and Neutral positions.
 - 2. Remote monitoring of each transfer switch fault condition.
 - 3. Failure to transfer.
 - 4. Failure to re-transfer.
 - 5. Microprocessor fault.
 - 6. Loss of utility power.
- I. Switches located outdoors or in non-climate-controlled environments shall contain thermostatically controlled space heaters.
- J. Automatic transfer switch shall be similar to ASCO Series 7000 300, Russ Electric RMTD, Lake Shore Electric, or equal. **(Addendum, Issued August 27, 2024)**

2.02 PERFORMANCE REQUIREMENTS

- A. The automatic transfer switch shall comply with Standard UL-1008 with 1-1/2 or 3-cycle short-circuit closing and withstand as follows: **(Addendum, Issued August 27, 2024)**

RMS symmetrical amps at 480 VAC:

Switch Rating Amps	Closing and Withstand
100 – 400 230	353,000 10,000
260 600 – 800 600	65,000 42,000
800 1,000 - 1,200	85,000 50,000
1,600 1,000 - 4,000	100,000

(Addendum, Issued August 27, 2024)

- B. When coordinated with current limiting fuses, each automatic transfer switch shall have closing and withstand ratings of 200,000 amps, RMS symmetrical.
- C. Operation - Engine-Generator System:

1. Sequence for operation of the transfer switch from the normal source to the standby source shall be as follows:
 - a. The standby engine-generator shall start after a time delay of at least 2 minutes but not to exceed 5 minutes to allow for the normal source momentary voltage or frequency transients.
 - b. Conditions requiring operation of the engine-generator:
 - 1) Voltage of any phase drops below 80% or rises to 120% of nominal.
 - 2) Frequency drops below 80% or increases to 120% of 60 Hz.
 - 3) A voltage differential between any two phases of 20% or greater is detected.
 - c. The time delay shall be keyboard programmable.
 2. The transfer switch shall transfer load to the standby power source when that source has reached and maintained specified voltage and frequency on all phases ~~for 3 minutes.~~ **(Addendum 2, Issued August 27, 2024)**
 3. Sequence for operation of the transfer switch from the standby source to the normal source shall be as follows:
 - a. The automatic transfer switch shall retransfer the load to the normal source, ~~after 3 minutes delay,~~ when all of the following conditions are met: **(Addendum 2, Issued August 27, 2024)**
 - 1) The normal source phase voltages have been restored to a preset value of at least 90% to no more than 110% of nominal.
 - 2) Frequency of the normal source has been restored to no less than 95% and no more than 105% of 60 Hz nominal.
 - 3) The voltage differential between all phases of the normal source is below 20%.
 - b. The time delay shall be keypad programmable.
 4. After retransfer of the load to the normal power source, the engine-generator set shall operate at no load for 8 minutes to allow the set to cool down, and to prevent restarting the engine-generator if the restoration of normal power is temporary.
 - a. The preset time period shall be keypad programmable.
- D. ~~Operation – Two Utility Sources:~~
1. ~~Sequence for operation of the transfer switch from the normal source to the standby source shall be as follows:~~
~~(Required unless otherwise specified: 1 minute minimum, 5 minutes maximum.)~~ **(Addendum 2, Issued August 27, 2024)**

- a. ~~Voltage of any phase drops below 80% or rises to 120% of nominal.~~
 - b. ~~Frequency drops below 80% or increases to 120% of 60 Hz.~~
 - c. ~~A voltage differential between any two phases of 20% or greater is detected.~~
 - d. ~~The time delay shall be keyboard programmable.~~
2. ~~The transfer switch shall transfer load to the standby power source if that source has maintained specified voltage and frequency on all phases. (Required unless otherwise specified: 1 minute minimum, 5 minutes maximum.)~~
 3. ~~Sequence for operation of the transfer switch from the standby source to the normal source shall be as follows:~~
 - a. ~~The automatic transfer switch shall retransfer the load to the normal source, after a time delay, when all of the following conditions are met: (Required unless otherwise specified: 1 minute minimum, 5 minutes maximum.)~~
 - 1) ~~The normal source phase voltages have been restored to a preset value of at least 90% to no more than 110% of nominal.~~
 - 2) ~~Frequency of the normal source has been restored to no less than 95% and no more than 105% of 60 Hz nominal.~~
 - 3) ~~The voltage differential between all phases of the normal source is below 20%.~~
 4. ~~The time delay shall be keypad programmable.~~

(Addendum 2, Issued August 27, 2024)

2.03 FABRICATION

- A. Main switch contacts shall be made of high-pressure silver alloy. Contact assembly shall have arc chutes for positive arc extinguishing. Arc chutes shall have insulating covers to prevent inter-phase flashover.
- B. Normal power source connection lugs shall be at top. Standby power source lugs shall be at bottom. Load connection lugs shall be at [top] [bottom].

2.04 COMPONENTS AND ACCESSORIES

- A. Control system shall be microprocessor based, solid-state, and shall be field programmable for transfer, re-transfer, and “pause-in-neutral position” time delays.
 1. Override momentary normal source power failure to delay engine starting.
 2. Transfer of load to standby power source.
 3. Retransfer of load to normal power source.
 4. Contact transition time on transfer to either power source.

5. Allow engine-generator set to run unloaded after retransfer to the normal power source.
- B. Control system shall be field programmable for automatic or manual exercising of the switch and the engine-generator set, with or without load.
 1. Any operator initiated functions including, but not limited to selecting load or no-load exercising, shall be provided on the enclosure door and shall not require the enclosure to be opened to access this feature thus minimizing exposure to arc flash conditions.
- C. A contact closure shall be provided to start and stop the engine-generator set.
- D. Non-volatile memory capable of storing historical data including date and time of transfer and re-transfer for a minimum of 16 operating cycles shall be provided.
- E. Control system shall have three-phase under and over voltage, under and over frequency, and phase voltage differential sensing of both the normal and standby power sources.
- F. Control system shall provide each operational function of the automatic transfer switch. Controller shall have two asynchronous serial communications ports, a real-time clock, and a battery control power backup.
- G. Microprocessor shall have on-board self-diagnostics to perform periodic tests of the memory, I/O, and communications circuits, and have watchdog/power fail circuit.
- H. Controller shall have a back-lighted Liquid Crystal Display (LCD) with a keypad for access to view operational parameters and to make programming changes. The display shall show a minimum of 4 lines of 20 characters, and the keypad shall have at least 6 tactile buttons.
- I. Transfer switch shall be equipped with electronic controls designed for surge voltage isolation, voltage sensors on all phases of power sources, linear operator, permanently attached manual handles, positive mechanical and electrical interlocking, and mechanically held contacts.
- J. Transfer switches located outdoors shall have a thermostatically controlled, 480-volt electric heater to prevent internal condensation.

2.05 SOURCE QUALITY CONTROL

- A. Automatic transfer switch shall be subjected to the following factory tests:
 1. Units shall be tested to ensure proper operation of the individual components and correct overall sequence of operation and to ensure that the operating transfer time, voltage, frequency, and time delay settings are in compliance with the specification requirements.
 2. Switch shall be subjected to a dielectric strength test per NEMA Standard ICS 1.
 3. Manufacturer shall provide Owner with factory test reports.
 4. Manufacturer shall certify compliance with all specifications including compliance with codes, standards, and withstand current ratings.

PART 3 EXECUTION

3.01 COORDINATION

- A. Coordinate with other electrical work, including normal feeds, standby feeds and locations, as necessary to interface installation of transfer switch with other Work.

3.02 INSTALLATION

- A. Automatic transfer switch and associated control devices shall be installed in accordance with the manufacturer's written instructions.
- B. Provide and install housekeeping pads for all floor mounted transfer switches.
- C. Power wiring shall be anchored to withstand short circuit current conditions.
- D. Provide equipment grounding connection(s) as indicated by the manufacturer.
- E. Tighten electrical connectors and terminals in accordance with manufacturer's published torque tightening values. Where such values are not published, comply with tightening values specified in UL Standards.

3.03 INSPECTION, STARTUP, AND TRAINING

- A. The Contractor shall furnish a qualified representative of the manufacturer to perform inspection, testing, and training services. The manufacturer's representative shall be experienced in the installation, operation, and maintenance of the equipment.
- B. The representative shall check the installation and supervise final adjustments of the equipment. The representative shall certify that each installation is correct and that the equipment has been tested and is operating satisfactorily.
- C. If the automatic transfer switch is used with an engine-generator system, testing shall be conducted by representatives of the engine-generator supplier and the automatic transfer switch.
- D. The Owner and Engineer shall be notified in advance and shall have the option to witness the tests.
- E. After the field testing, has been completed, the manufacturer's representative shall train the Owner's personnel for one eight-hour day in the proper operation and maintenance of the equipment. The Owner may make a video record of the training.

PART 4 SPECIAL PROVISIONS

4.01 AUTOMATIC TRANSFER SWITCH SCHEDULE

- A. The following schedule is intended to aid the Contractor in identifying automatic transfer switch location and size. It is intended to supplement the Drawings and Specifications and is not guaranteed to be complete. All automatic transfer switches shown on the Drawings shall be furnished and installed by the Contractor whether or not listed in the schedule.

Location	Switch ID Tag	Phase	Voltage L-L	Continuous Amps	Number of Poles	Switch Rating (1)	Enclosure Heater Control Voltage	Short-Circuit Closing and Withstand Amps RMS Symmetrical	NEMA Type Enclosure
Mc.Donel St. Control Structure		3ph	480V	100A	3	SE	120V	68 10KAIC	NEMA 12
Central Avenue Control Structure		3ph	480V	100A	3	SE	120V	68 10KAIC	NEMA 12
Lovers Lane Control Structure		3ph	480V	100A	3	SE	120V	68 10KAIC	NEMA 12

(Addendum 2, Issued August 27, 2024)

(1) Switch Rating: SE = Entrance

END OF SECTION