DEPARTMENT OF GENERAL SERVICES ENERGY AND RESOURCE MANAGEMENT OFFICE 401 NORTH STREET HARRISBURG, PENNSYLVANIA

BULLETIN NO. 5

on

Project No. GESA 2017-1 – REQUEST FOR QUOTES FOR A GUARANTEED ENERGY SAVINGS PROJECT AT: DEPT. OF GENERAL SERVICES, CAPITOL COMPLEX, HARRISBURG, PENNSYLVANIA, Department of General Services, Energy & Resource Management, 401 North Street, Room 403, Harrisburg, Pennsylvania, 17120.

PROPOSAL SUBMISSION DEADLINE, THURSDAY JUNE 29, 2017 TIME OF OPENING: 2:00 PM

QUESTIONS / CLARIFICATIONS / REQUESTS FOR INFORMATION (DGS responses in bold text)

- 1. Under RFQ Section 4.3 "Project Parameters", it states: "Quote must contain a statement from the Offeror that the total energy savings projected in the final scope of work will be at least 95% of the savings projected in the Quote, the actual ECM costs shall be within 10% of the costs listed in the CEA, and that the project will be self-funded over the financial term of the project (maximum term of 20 years.);". Considering ESCOs are permitted a total of 13 hours (maximum) of site access, achieving these levels of detail for both costs and savings is difficult and high risk with the proposed limited number of available site visits. Will DGS allow the ESCO to make more site visits during the proposal phase? This percentage is to hold unless the Funding Agency or DGS modify the proposed requirements and/or greater savings are found in the IGA study and clarification. Please clarify the penalties imposed against the ESCO for not adhering to this requirement. The project's contract may be terminated and payment for the IGA will be withheld.
- 2. Are there any existing Energy Star accounts for these facilities? If so, please provide access information to DGS's existing Energy Star accounts for each site. **No, there are not any Energy Star accounts for these facilities.**
- 3. Are these facilities currently participating in any Demand Response Programs? **Yes** If so, please explain which programs, and remaining term of contract. **It is the extended limited program. The terms of contract are set by the DGS Bureau of Procurement and should not be considered part of this project.**
- Is the utilization of Union labor / contractors required on this project? No, however;
 ESCO will need to pay their employees per the current Prevailing Wage Rates.
 Prevailing wage rates for this project are attached to the end of this bulletin.

- 5. Please confirm that the 20-year financing term starts post-acceptance of construction for all ECMs. **Confirmed.**
- 6. Please confirm that design engineering services and costs (for ECMs requiring engineering design) will be addressed by the ESCO during the construction phase of the project, after DGS acceptance of the awarded ESCO's IGA report and after GESA execution. The ESCO will be considered the professional of record therefore, the engineering of the project is within their work product.
- 7. Please confirm that ESCOs will need to propose an IGA fee as part of RFQ proposals, and that the Commonwealth will reimburse the awarded ESCO for such IGA costs in the event the project does not move forward to GESA contract. **Confirmed. The actual IGA fee will be determined once the ESCO has been selected.**
- 8. Please confirm that the ESCO's IGA fee should be presented under Volume II ECM/Cost Submission; response to 2.6 Energy Conservation Measures/Cost Submission; D Energy Conservation Measures and Costs, item "a". **Confirmed.**
- 9. Please provide a copy of the new DGS IGA Agreement that will be used for this project. **The IGA contract will be issued once the ESCO has been selected.**
- 10. On page 18, under 1.35 Investment Grade Audit (IGA) by Successful Offeror, it states: "The IGA must be submitted to the Commonwealth within 60 calendar days of the date on the Commonwealth's Notice of Selection." Delays to schedule can occur that are beyond the control of the ESCO, such as data collection efforts being performed by the client/others, or events within the client's facilities that prevent the ESCO from gaining access to the site. In addition, 60 days will not be enough time for the awarded ESCO to conduct its necessary due diligence for such a comprehensive and sensitive scope-of-work being considered by this project, especially considering the severe limitations on proposal phase site visitation. Can this please be extended to 180 calendar days? **The IGA timeline can be extended after the proposal stage and the accepted ECM(s) of the project are known.** What penalties are imposed on the ESCO if the IGA is not submitted within the required time limit? **There are no pre-determined penalties, however; if it is felt that the proposer is not acting in good faith, their contract may be terminated by the Commonwealth.**
- 11. In Part 1.35 B, Is the IGA submission deadline of 60 calendar days a true requirement or will this timeline be developed in coordination with the Commonwealth and adjusted based upon the actual time required to complete the IGA for the proposed ECM's by the successful ESCO? **The IGA timeline can be extended after the proposal stage and the accepted ECM(s) of the project are known.**
- 12. The ESCOs savings guarantee is supported by the Measurement and Verification (M&V) program, and the service term of that program. However, there are conflicting statements within the RFQ regarding the term of the M&V program for this GESA project. Under Section 1.5: Scope, B., on page 4, it states: "The GESA Contractor will be required to guarantee energy and cost savings on an annual basis. No credit for the achievement of savings above and beyond the annual guarantee will be credited to satisfy performance guarantees in future years of the contract. Annual reconciliation of the achieved savings will be required." However, under "4.3 Project Parameters" of the RFQ,

on page 42, it states "26. Include Measurement and Verification (M&V) costs for 3 years as part of your Quote. M&V methods must be in accordance with the International Performance Measurement and Verification Protocol (IPMVP) as appropriate. Indicate in your RFQ response the M&V Option being employed for each measure. At no time, may measures be simply noted as "stipulated savings".

Regarding the Volume II ECM/Cost Submission, page 32 of the RFQ, under 2.6 Energy Conservation Measures/Cost Submission; D Energy Conservation Measures and Costs," item "h., (5). Payments for monitoring and maintenance services;", please confirm ESCOs should carry M&V costs for years 1-3 (only), post construction, within their proposed annual financial projections. **The ESCO shall do M&V at the end of the project before acceptance and for the next three years as part of the contract. The cost of the M&V for the three years shall be included in the overall cost and itemized in the payment schedule.**

- 13. Please clarify the amounts of Liquidated damages that will be applied to this GESA contract. The liquidated damages will be determined and listed in the Guaranteed Energy Savings Contract between DGS and the ESCO. The typical penalty is .025% of the contract value per day. Example: \$5,000,000 * .00025 = \$1,250.
- 14. Please clarify the term of the warranty we recommend it extending for one (1) year past substantial completion of an ECM. (Article 8.2 of Attachment L - GESA Contract) All construction for 1 year after construction plus performance for length of payback period. Article 8.2 of Attachment L will remain as written.
- 15. As DGS is not using an Energy Consultant on this project, please confirm that there are no other payments ESCO must make to DGS or any potential DGS consultants and ESCO need not include any such costs in our project pricing. **Confirmed.**
- Section 4.3(A)(16) (page 41) references no escalation of project costs or maintenance costs. Please clarify this requirement as maintenance and other service costs typically increase over time. Do not include inflation of maintenance cost in your calculations.
- 17. Please clarify the payment terms associated with the project will payments be made within 30days of an approved invoice? Please identify where this is referenced in the contract documents as well as where the ongoing service payment obligation is referenced. While we cannot guarantee payment processing times, we will make every effort to expedite the payment process through the escrow account. For more information, see GESA Invitation to Qualify (ITQ), Part I, Section 17 and GESA General Conditions, Article 12, Section 12.3.
- 18. Information on any lighting controls systems that exist at the Complex. **Other than** random motion detectors throughout some of the buildings, no lighting control systems exist.
- 19. Copies of any energy or equipment assessment studies on the Complex since the last GESA project. **These are unavailable as there aren't any.**
- 20. Can the number of tertiary chilled water loops connected to the central plant be provided? Any additional information about the connected buildings (such as building loop pump sizes, heat exchanger information, building load, etc.) would also be helpful. The sketch and balancing numbers from the last report were provided in Bulletin 4.

- 21. As-built lighting inventory, which is usually provided at the end of the construction phase of a GESA project and would have been supplied by the ESCO who implemented the last GESA at the Complex (Excel spreadsheet preferred) **What is available has been placed on the website. Click** <u>here</u> to go to the website.
- 22. Another core ECM (ECM 3) relates to providing a water side economizer for the central plant. Development of this measure will require ESCOs to evaluate the winter cooling profile of all buildings, including those that are not part of the RFP scope, served by the central plant. Will central plant chilled water load logs be made available for review? **It is reported that one 2800-ton chiller runs 60% in winter. Chiller logs have been placed on the website.**
- 23. Please confirm the required performance and payment bonds in the amount of 100% of the awarded contract relate only to the construction work and do not extend to any energy savings guarantees or ongoing verification / maintenance services. We request language be added in Article 8.3 to clarify this. **The contract bonds are for the faithful performance of the contract and for payment of labor and material.**
- 24. Section 1.32 133 and Article 9 of the GESA
 - a. 1.32B: Can the references to occurrence be changed to per claim? Our existing policy is claims made and a separate occurrence based policy for this project could be a significant added expense. **1.32(B) remains as written.**
 - b. 1.33 A.1.b Employers Liability is not available in unlimited amounts please delete or replace with any statutory limits. Employers Liability covering statutory requirements is standard and Insurers can provide such coverage.
 1.32(A)(1)(a) and 1.32(A)(1)(b) remains as written.
 - c. 1.33 A.2.b: \$50,000 for Medical Expenses is a high coverage limit can this be changed to \$10,000 which is more in-line with typical coverages? 1.33(A)(2)(b) remains as written.
 - d. 1.33 A.2.f: Please confirm specified limits may be satisfied through a combination of primary and excess policies. The specified limits for Vehicle Liability may be satisfied through a combination of primary and excess policies.
 - e. 1.33 A.2.k: Please add "except ten days for nonpayment of premium" at the end of the paragraph. **1.33(A)(2)(k) remains as written.**
 - f. 1.33 A.2.p: The specified language appears atypical and problematic as only the first named insured has the right to negotiate and settle claims with the insurer. We request that this requirement be deleted. 1.33(A)(2)(p) remains as written.
 - g. 1.33 A.2.r: As requested above, Can the references to occurrence be changed to per claim? Our existing policy is claims made and a separate occurrence based policy for this project could be a significant added expense. 1.33(A)(2)(r) remains as written.
 - h. Article 9, 9.10: Our insurer has requested the following changes to the insurance requirements can the documents be revised accordingly? Strike "or changed".
 Add "except ten days for nonpayment of premium". Strike "prior to the

expiration" and replace with "within ten business days of the renewal" Add "with the exception of Professional Liability and Workers Compensation" to the additional insured requirement. **Article 9, Section 9.10 of the GESA General Conditions remains as written.**

- 25. Section 2-5.4(A)(1)(d)(1) (page 28). Please clarify and provide additional information on the intent of the "resource availability" / capacity question. The specified formula does not reflect previous investment in resources that would now become utilized, resources currently available, nor additional resources being brought on board to support the backlog. Also, as some companies specify "sales" differently than "revenue" please clarify that the intent is average revenue over the last 3 years. Beyond what is requested, the Offeror is welcome to discuss, in this section, its investment in resources that would become utilized, resources currently available, or additional resources to support backlog, as well as its specification of sales or revenue.
- 26. Please provide all available asbestos and hazardous materials logs/information for these sites, or let us know when we may be permitted to return and inspect such information. Please clarify the extent of hazardous materials ESCOs are responsible considering the limited amount of site access available during the proposal development phase. **Asbestos findings and observations from previous reports have been placed on the website & attached for reference. Winning proposer will have access to full reports as needed.**
- 27. In Part 1.32 A: Is it the expectation that the GESA Contractor carry the cost for hazardous material abatement in our Quote? Any costs carried at this time will be somewhat arbitrary since the GESA Contractor will not have had the chance to review any Hazardous Material Plan / Surveys, review site conditions or obtain any indicative pricing for abatement. May we suggest that all GESA Contractors carry a contingency fund as part of our quote, value assigned by DGS, to level the playing field for all GESA Contractors? Can DGS please clarify who is responsible for the testing and abatement of unforeseen hazardous materials, or suspected hazardous materials, encountered during the work which were not identified by DGS in the RFP documents? Given the short IGA timeline of 60 days, it is unlikely any testing of suspected materials could occur during the IGA. Asbestos findings and observations from previous reports have been placed on the website & attached for reference. List only costs you anticipate based on these findings.
- 28. Part 1.36 D: In this section, the RFQ states that if no GESA is executed, then the "Commonwealth shall not liable for any cost or expense incurred by the GESA Contractor." Does this mean that the GESA contractor will not recover the cost of the Investment Grade Audit? The intent is to ensure the ESCO is reimbursed for an audit that indicates a self-funded project.
- 29. Part 2-5.4, A, 3: How binding is our identification of Key subcontractor in the proposal phase? Is there a mechanism for "switching" contractors so we can give DGS the benefits of competitive bidding during the IGA Phase? **At this stage, subcontractors are not binding.**
- 30. Part 2.7 A: In the computation of SDB percent by ECM, is the percent by ECM based on a total of ALL ECMs in the project or just the CORE ECMs in the project? **The SDB** percentage is based on core ECMs only. If non-core ECMs are found in the SDB calculations, they will be removed and the SDB percentage will be re-calculated.

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Rebecca Tomlinson, RFQ Coordinator ENERGY & RESOURCE MANAGEMENT OFFICE

PLEASE ACKNOWLEDGE RECEIPT OF BULLETIN BY EMAIL RESPONSE TO BECKY TOMLINSON AT retomlinso@pa.gov

CENTRAL PLANT + TUNNEL SYSTEM

This management plan was prepared by Mr. Daniel R. Gensemer and reviewed by Mr. William C. Wilkins, both of whom are EPA and Pennsylvania accredited management planners. This management plan should be utilized as a guidance document on how to address any asbestos found in this building.

1.1 SUMMARY OF FINDINGS

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Prior to the actual building inspection, a record search was performed on-site of existing buildings records to determine, if any, asbestos containing materials were used as building materials during the construction of the Central Heating and Cooling Plant - Tunnel System. No information pertaining to any asbestos containing materials could be found. Homogeneous areas and functional space areas are referred to throughout this report. A functional space is defined as an area within a building which is spatially distinct whose occupants or equipment perform a similar function, i.e., basement, stairwell, mechanical room, etc. A homogeneous area is defined as a material with similar visual appearance, texture and hardness, date of installment and functional use, i.e., elbows, tanks, walls, etc.

- The following asbestos containing materials were found in the Central Heating and Cooling Plant Tunnel System.
- Approximately 45 linear feet of 4" mag pipe insulation was observed in the Tunnel. This material is in good condition and should be handled under your operations and maintenance program.
- Approximately 30 linear feet of 6" mag pipe insulation was observed in the Tunnel. This material is in good condition and should be handled under our operations and maintenance program.

Approximately 1,115 linear feet of 12" mag pipe insulation was observed in the Tunnel. This material is in good condition and should be handled under our operations and maintenance program.

Table 1.1 gives a summary of findings, listing of location of ACM, material type and approximate quantity.

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TABLE 1.1

CENTRAL HEATING AND COOLING PLANT - TUNNEL SYSTEM INSTALLATION I.D. 50000 BUILDING 001 HARRISBURG-CAPITOL COMPLEX/SOLDIERS GROVE, PENNSYLVANIA

ASBESTOS CONTAINING MATERIALS

LOCATION OF ACM	SUMMARY OF FINDINGS MATERIAL	TYPE	APPROXIMATE QUANTITY
Main Area		т	
Tunnel	4" Mag Pipe Insulation	Т	45 LF
Tunnel	6" Mag Pipe Insulation	T .	30 LF
Tunnel	12" Mag Pipe Insulation	Т	1,115 LF

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B. FINDINGS AND OBSERVATIONS

Laboratory analysis of bulk samples collected in the Health and Welfare Building confirmed the presence of asbestos in debris, tank insulation, mudded joint packings, pipe insulation, stored insulation, sprayed acoustical plaster, exterior duct insulation, hard wall/ceiling plaster, vinyl floor tiles and floor tile mastic, and cementitious panels.

Asbestos-containing debris was observed under the hot water tank in the southwest corner of the basement mechanical room and in the paper drum along the south wall of the east wing of the penthouse. All debris should be removed and the areas properly cleaned.

Asbestos-containing tank insulation was found in the basement mechanical room on the south and center hot water tanks and on two heat exchangers, and in the penthouse on the east and west heat exchangers and on Chillers 1 and 2. Two layers of insulation on each of the tanks were noted and sampled and are listed separately within the "Assessment Results." The insulation on the south and center hot water tanks was in poor condition, with considerable contact damage, and should be removed. The insulation on the remaining tanks should be repaired and monitored as part of an operations and maintenance program until removal is feasible.

Mudded joint packings and pipe covering were observed in the basement and on the second, ninth, and penthouse levels. The materials were in fair condition, with minor damage. They should be repaired and monitored as part of an operations and maintenance program until removal is feasible.

Stored materials that were confirmed asbestos-containing were roofing tar and gasket material in the basement mechanical room, and gasket material in the penthouse. The roofing tar and gasket material were labelled with manufacturers' names and can be referenced in the Assessment Data and Production Identification portions of the report. The stored materials should not be used and should be properly stored as evidence.

Exterior duct insulation was observed in the basement electrical closet and southwest storage room, and in the penthouse. The insulation was in fair condition, with minor damage, and should be repaired and monitored as part of an operations and maintenance program until removal is feasible.

Sprayed acoustical plaster was observed throughout the main lobby and in the center storage room on the first floor. The plaster was in good condition, with minor damage. It should be repaired as needed and closely monitored as part of an operations and maintenance program until removal is feasible.

Hard wall and ceiling plaster was observed on the basement through penthouse levels. All plaster except for the walls in the first floor men's and women's restrooms and janitor's closet was determined nonasbestos-containing. The asbestos-containing plaster in these areas should be monitored as part of an operations and maintenance program until removal is feasible.

Other asbestos-containing materials included vinyl floor tiles and mastic on the basement through tenth floors, and cementitious panels on both cooling towers on the penthouse level. These materials were in fair condition and should be monitored as part of an operations and maintenance program until removal is feasible. For specific locations of the floor tiles and mastic, please refer to the Inspection Results.

Materials sampled and determined nonasbestos-containing were various areas of vinyl floor tiles, vinyl floor tile mastic, fireproofing, mudded joint packings, pipe covering, ceiling panels, debris, hard wall/ceiling plaster, and gasket material. Please refer to the Assessment Results for distinctions between asbestos-containing and nonasbestos-containing materials.

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B. FINDINGS AND OBSERVATIONS

Laboratory analysis of bulk samples collected in the North Office Building confirmed the presence of asbestos in tank insulation, mudded joint packings, pipe covering, tar pipe covering, sprayed acoustical plaster, woven paper/tape, vibration joint cloth, vinyl floor tiles, and stored material.

The tank insulation was observed in basement Room B-09 on the small expansion tank, west and east hot water tanks, east and west expansion tanks, and Heat Exchangers 1 and 2. Two layers of insulation on each of the tanks were noted and sampled and are listed separately within the assessment results. The tank insulation was in good overall condition, with potential for damage, and should be monitored as part of an operations and maintenance program until it is removed.

Asbestos-containing mudded joint packings associated with nonsuspect pipe covering on heating hot water and chilled water lines were also observed in basement Room B-09. Black tar pipe wrap was observed on the refrigerant lines at the chiller control and refrigerant compressor in Room B-09. The mudded joint packings and tar wrap were in fair condition, with minor contact and water damage, and should be monitored as part of an operations and maintenance program until they are removed. Other material in Room B-09 included paper pipe wrap on top of the electrical switch. The pipe wrap should not be used and should be properly disposed.

Sprayed acoustical plaster was observed in the office areas on the basement through sixth floors. The plaster was encapsulated and was in fair condition, with minor contact and water damage. It should be closely monitored as part of an operations and maintenance program until it is removed.

Asbestos-containing woven paper was found behind the radiator vents in Rooms G-06, G-16, and G-33 and in the south and southeast corridors. The paper was in poor condition, with extensive damage. Due to the high asbestos content and poor condition, it should be removed.

Other materials included vibration joint cloth in the northwest corner of the penthouse and vinyl floor tiles in Elevators 1, 2, and 3. These materials were in good condition and should be monitored as part of an operations and maintenance program until they are removed.

Miscellaneous materials that were documented during the inspection are listed in Section F of Chapter III. These materials may contain asbestos, but were not sampled to avoid compromising their structural integrity.

Other suspect materials were decorative hard wall and ceiling plaster observed in the public hallways and hearing rooms on the ground floor, and in the south entrance on the first floor and the simulated leather ceiling in the PUC Conference Room on the first floor. These materials were not sampled to preserve their aesthetic value, but were assumed asbestos-containing and should be monitored as part of an operations and maintenance program. Sampling/Inspection Release Forms are included in Appendix I.

Materials sampled and determined nonasbestos-containing were mudded joint packings associated with nonsuspect pipe covering on heating hot water and chilled water lines in basement Room B-07, hard wall and ceiling plaster and drop ceiling panels throughout the building, and various areas of vinyl floor tiles and linoleum with associated mastics. Please refer to the "Assessment Results" for distinctions between asbestos-containing and nonasbestos-containing materials.

B. FINDINGS AND OBSERVATIONS

Laboratory analysis of bulk samples collected in the Labor and Industry Building confirmed the presence of asbestos in debris, stored vinyl floor tiles and gasket material, heat exchanger and tank insulation, exterior duct insulation, pipe and mudded joint insulations, vibration joint cloth, sprayed acoustical plaster, vinyl floor tiles and vinyl floor tile mastic, breeching exhaust insulation, and tar.

Asbestos-containing debris was observed in Bays 3 and 7 and above the access panel in the west end of the third floor; in telephone room on the fifteenth floor; and beneath Fan Unit 4 ducting in the penthouse. The debris had a significant potential for disturbance and should be removed.

Other materials for which removal is recommended were significantly damaged mudded joint packings on steam lines in Bays 5 and 6 and asbestos rope on the heat exchanger in Bay 5 of the third floor; pipe covering on steam lines in the fourth floor dishwasher room; and wrapped cardboard/paper pipe covering on domestic water lines on the fifth and seventh floors, including the associated mudded joint packings on this piping on the seventh floor. Other materials which should be removed are exterior duct insulation, wrapped cardboard/paper pipe covering and associated mudded joint packings on drain lines, heat exchanger insulation, pipe covering and associated mudded joint packings on low-pressure steam lines, mudded joint packings and pipe covering on dual-temperature lines, and mudded joint packings on cardboard/paper-insulated dual-temperature lines in the penthouse.

Stored vinyl floor tiles in the southwest corner of the southwest mechanical room and stored gaskets in the northwest corner of the northeast mechanical room of the basement, and stored gaskets and roofing tar in the penthouse should not be used and should be turned over to the Attorney General's office.

All other friable and nonfriable asbestos-containing materials not specifically addressed above had areas of minor damage and should be monitored as part of an operations and maintenance program until removal. (Please refer to the Inspection Report Data for specific locations of the materials.) Mudded joint packings associated with preformed pipe covering on dual-temperature lines in the men's restrooms on the tenth and twelfth floors were inaccessible at the time of the inspection and were assumed asbestos-containing. Sampling/Inspection Release Forms for these materials are included in Appendix I.

Materials sampled and determined nonasbestos-containing were specific areas of exterior duct insulation, pipe insulation, mudded joint packings, stored insulations, vinyl floor tiles, vinyl floor tile mastic, hard wall/ceiling plaster, drop ceiling panels, tar paper, batt-type insulation, radiator blanket, electrical wire covering, linoleum, and cementitious panels.

Project Name:	2017-1 Capitol Complex - GESA
Awarding Agency:	DGS
Contract Award Date:	10/16/2017
Serial Number:	17-04101
Project Classification:	Building
Determination Date:	5/24/2017
Assigned Field Office:	Harrisburg
Field Office Phone Number:	(717)787-4763
Toll Free Phone Number:	(800)932-0665
Project County:	Dauphin County

BUREAU OF LABOR LAW COMPLIANCE
PREVAILING WAGES PROJECT RATES

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Project: 17-04101 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Asbestos & Insulation Workers	6/26/2017		\$33.90	\$24.61	\$58.5
Asbestos & Insulation Workers	6/27/2016	······································	\$32.00	\$25.51	\$57.5
Boilermaker (Commercial, Institutional, and Minor Repair Work)	3/1/2018		\$29.52	\$18.22	\$47.7
Boilermaker (Commercial, Institutional, and Minor Repair Work)	3/1/2017		\$28,52	\$18.22	\$46.7
Boilermaker (Commercial, Institutional, and Minor Repair Work)	3/1/2016		\$27.52	\$18.22	\$45.74
Boilermakers	1/1/2018		\$46.26	\$33.36	\$79.6
Boilermakers	1/1/2017		\$44.26	\$33.36	\$77.6
Boilermakers	1/1/2016		\$42.26	\$33.36	\$75.6
Bricklayers, Stone Masons, Pointers, Caulkers, Cleaners	5/1/2019		\$33.43	\$16.87	\$50.3
Bricklayers, Stone Masons, Pointers, Caulkers, Cleaners	5/1/2020		\$33.99	\$17.31	\$51.3
Bricklayers, Stone Masons, Pointers, Caulkers, Cleaners	5/1/2021		\$34.62	\$17.78	\$52.4
Bricklayers, Stone Masons, Pointers, Caulkers, Cleaners	5/1/2016		\$32.21	\$15.58	\$47.7
Bricklayers, Stone Masons, Pointers, Caulkers, Cleaners	5/1/2017		\$32.54	\$16.06	\$48.6
Bricklayers, Stone Masons, Pointers, Caulkers, Cleaners	5/1/2018		\$32.95	\$16.45	\$49.4
Carpenters, Drywall Hangers, Framers, Instrument Men, Lathers, Soft Floor Layers	6/1/2016		\$28.40	\$15.23	\$43.6
Carpenters, Drywall Hangers, Framers, Instrument Men, Lathers, Soft Floor Layers	6/1/2017		\$28.88	\$15.75	\$44.6
Cement Finishers	5/1/2017		\$27.20	\$22.45	\$49.6
Drywall Finisher	5/1/2016		\$23.30	\$11.89	\$35.1
Drywall Finisher	5/1/2017		\$23.30	\$12.39	\$35.6
Electric Lineman	5/30/2016		\$46.16	\$20.29	\$66.4
Electricians	6/1/2017		\$30.00	\$23.06	\$53.0
Electricians	6/1/2018		\$29.75	\$24.44	\$54.1
Electricians	6/1/2016		\$29.75	\$22.19	\$51.9
Elevator Constructor	1/1/2017	1	\$43.98	\$31.89	\$75.8
Elevator Constructor	1/1/2016		\$43.05	\$31.11	\$74.1
Glazier	5/1/2018		\$25.63	\$11.95	\$37.5
Glazier	5/1/2017		\$25.63	\$11.45	\$37.0
Glazier	5/1/2020		\$25.63	\$12.95	\$38.5
Glazier	5/1/2021		\$25.63	\$13.45	\$39.0
Glazier	5/1/2019	· · · · · · · · · · · · · · · · · · ·	\$25.63	\$12.45	\$38.0
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	7/1/2016		\$30.02	\$28.71	\$58.7
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	1/1/2017		\$30.02	\$29.42	\$59.4
Laborers (Class 01 - See notes)	5/1/2018		\$21.31	\$13.93	\$35.2
Laborers (Class 01 - See notes)	5/1/2016		\$20.21	\$12.93	\$33.1
Laborers (Class 01 - See notes)	5/1/2017		\$20.86	\$13.33	\$34.1
Laborers (Class 01 - See notes)	5/1/2020	1	\$20.00	\$15.13	\$37.3
Commonwealth of Pennsylvania	0, 112020		Ψ <u></u> <u>ζ</u> ζζζζζζζζζζζζζζζζζζζζζζζζζζζζζζζζζ	ψ10. IO	Department of

Commonwealth of Pennsylvania Report Date: 5/24/2017

Department of Labor & Industry Page 2 of 10

BUREAU OF LABOR LAW COMPLIANCE
PREVAILING WAGES PROJECT RATES

Project: 17-04101 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Laborers (Class 01 - See notes)	5/1/2019		\$21.76	\$14.53	\$36.29
Laborers (Class 02 - See notes)	5/1/2016		\$22.21	\$12.93	\$35.14
Laborers (Class 02 - See notes)	5/1/2018		\$23.31	\$13.93	\$37.24
Laborers (Class 02 - See notes)	5/1/2020		\$24.21	\$15.13	\$39.34
Laborers (Class 02 - See notes)	5/1/2019		\$23.76	\$14.53	\$38.29
Laborers (Class 02 - See notes)	5/1/2017		\$22.86	\$13.33	\$36.19
Laborers (Class 03 - See notes)	5/1/2016		\$23.66	\$13.11	\$36.77
Laborers (Class 03 - See notes)	5/1/2017		\$24.31	\$13.51	\$37.82
Laborers (Class 03 - See notes)	5/1/2019		\$25.36	\$14.71	\$40.07
Laborers (Class 03 - See notes)	5/1/2020		\$24.21	\$15.13	\$39.34
Laborers (Class 03 - See notes)	5/1/2018		\$24.81	\$14.11	\$38.92
Laborers (Class 04 - See notes)	5/1/2018		\$26.31	\$14.11	\$40,42
Laborers (Class 04 - See notes)	5/1/2020		\$24.21	\$15.13	\$39.34
Laborers (Class 04 - See notes)	5/1/2019		\$26.86	\$14.71	\$41.57
Laborers (Class 04 - See notes)	5/1/2016		\$25.16	\$13.11	\$38.27
Laborers (Class 04 - See notes)	5/1/2017		\$25.81	\$13.51	\$39.32
Laborers (Class 05 - See notes)	5/1/2016		\$25.66	\$13.11	\$38.77
Laborers (Class 05 - See notes)	5/1/2017		\$26.31	\$13.51	\$39.82
Laborers (Class 05 - See notes)	5/1/2018		\$26.81	\$14.11	\$40.92
Laborers (Class 05 - See notes)	5/1/2019		\$27.36	\$14.71	\$42.07
Laborers (Class 05 - See notes)	5/1/2020		\$24.21	\$15.13	\$39.34
Laborers (Class 06 - See notes)	5/1/2020	····· ································	\$24.21	\$15.13	\$39.34
Laborers (Class 06 - See notes)	5/1/2016		\$22.21	\$12.93	\$35.14
Laborers (Class 06 - See notes)	5/1/2019		\$23.76	\$14.53	\$38.29
Laborers (Class 06 - See notes)	5/1/2018		\$23.31	\$13.93	\$37.24
Laborers (Class 06 - See notes)	5/1/2017		\$22,86	\$13.33	\$36.19
Marble Mason	5/1/2017		\$29.27	\$15.62	\$44.89
Marble Mason	5/1/2019		\$30,46	\$16.43	\$46.89
Marble Mason	5/1/2018		\$29.88	\$16.01	\$45.89
Marble Mason	5/1/2021		\$31.55	\$17.34	\$48.89
Marble Mason	5/1/2020		\$31.02	\$16.87	\$47.89
Millwright	5/1/2016		\$33.59	\$17.51	\$51.10
Millwright	5/1/2017		\$33.79	\$18.16	\$51.95
Operators (Building, Class 01 - See Notes)	5/1/2017		\$35.24	\$24.58	\$59.82
Operators (Building, Class 01 - See Notes)	5/1/2018		\$36.78	\$25.03	\$61.81
Operators (Building, Class 01 - See Notes)	5/1/2019		\$38,32	\$25.49	\$63.81
Operators (Building, Class 01 - See Notes)	5/1/2016		\$34.46	\$23.35	\$57.81
Operators (Building, Class 01 - See Notes)	5/1/2021		\$41.41	\$26.40	\$67.81
Operators (Building, Class 01 - See Notes)	5/1/2020		\$39.87	\$25.94	\$65.81
Operators (Building, Class 01 - See Notes)	5/1/2020		\$39.67	\$25.94	\$60.72
Operators (Building, Class 01A - See Notes) Operators (Building, Class 01A - See Notes)					
	5/1/2017		\$37.49	\$25.23	\$62.72
Operators (Building, Class 01A - See Notes)	5/1/2018		\$39.03	\$25.69	\$64.72
Operators (Building, Class 01A - See Notes)	5/1/2019		\$40.57	\$26.15	\$66.72
Operators (Building, Class 01A - See Notes)	5/1/2021		\$43.66	\$27.06	\$70.72

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Project: 17-04101 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Operators (Building, Class 01A - See Notes)	5/1/2020		\$42.12	\$26.60	\$68.72
Operators (Building, Class 02 - See Notes)	5/1/2020		\$39.59	\$25.84	\$65.43
Operators (Building, Class 02 - See Notes)	5/1/2018		\$36.50	\$24.95	\$61.45
Operators (Building, Class 02 - See Notes)	5/1/2021		\$41.13	\$26.30	\$67.43
Operators (Building, Class 02 - See Notes)	5/1/2016		\$34.18	\$23.26	\$57.44
Operators (Building, Class 02 - See Notes)	5/1/2017		\$34.96	\$24.49	\$59.45
Operators (Building, Class 02 - See Notes)	5/1/2019		\$38.05	\$25.39	\$63.44
Operators (Building, Class 02A - See Notes)	5/1/2019		\$40.30	\$26.06	\$66.36
Operators (Building, Class 02A - See Notes)	5/1/2017		\$37.21	\$25.16	\$62.37
Operators (Building, Class 02A - See Notes)	5/1/2016		\$36.43	\$23.93	\$60.36
Operators (Building, Class 02A - See Notes)	5/1/2018		\$38.75	\$25.61	\$64.36
Operators (Building, Class 02A - See Notes)	5/1/2021		\$43.38	\$26.98	\$70.36
Operators (Building, Class 03 - See Notes)	5/1/2017		\$32.23	\$23.68	\$55.91
Operators (Building, Class 03 - See Notes)	5/1/2016		\$31.46	\$22.45	\$53.91
Operators (Building, Class 03 - See Notes)	5/1/2018		\$33.78	\$24.12	\$57.90
Operators (Building, Class 03 - See Notes)	5/1/2020		\$36.86	\$25.05	\$61.91
Operators (Building, Class 03 - See Notes)	5/1/2021		\$38.41	\$25.50	\$63.91
Operators (Building, Class 03 - See Notes)	5/1/2019		\$35.32	\$24.59	\$59.91
Operators (Building, Class 04 - See Notes)	5/1/2019		\$34.17	\$24.27	\$58.44
Operators (Building, Class 04 - See Notes)	5/1/2021		\$37.26	\$25.18	\$62.44
Operators (Building, Class 04 - See Notes)	5/1/2020		\$35.73	\$24.71	\$60.44
Operators (Building, Class 04 - See Notes)	5/1/2016		\$30.33	\$22.11	\$52.44
Operators (Building, Class 04 - See Notes)	5/1/2017		\$30.33	\$22.12	\$52.45
Operators (Building, Class 04 - See Notes)	5/1/2018		\$32.63	\$23.80	\$56.43
Operators (Building, Class 05 - See Notes)	5/1/2019		\$33.73	\$24.14	\$57.87
Operators (Building, Class 05 - See Notes)	5/1/2020		\$35,28	\$24.59	\$59.87
Operators (Building, Class 05 - See Notes)	5/1/2021		\$36.82	\$25.04	\$61.86
Operators (Building, Class 05 - See Notes)	5/1/2017		\$29.87	\$21.99	\$51.86
Operators (Building, Class 05 - See Notes)	5/1/2016	· · · · · ·	\$29.87	\$28.99	\$58.86
Operators (Building, Class 05 - See Notes)	5/1/2018		\$32.18	\$23.69	\$55.87
Operators (Building, Class 06 - See Notes)	5/1/2017		\$29.00	\$21.72	\$50.72
Operators (Building, Class 06 - See Notes)	5/1/2016		\$29.00	\$21.73	\$50.73
Operators (Building, Class 06 - See Notes)	5/1/2018		\$31.31	\$23.41	\$54.72
Operators (Building, Class 06 - See Notes)	5/1/2019		\$32.86	\$23.86	\$56.72
Operators (Building, Class 06 - See Notes)	5/1/2021		\$35.95	\$24.77	\$60.72
Operators (Building, Class 06 - See Notes)	5/1/2020		\$34.40	\$24.32	\$58.72
Operators (Building, Class 07A- See Notes)	5/1/2018		\$44.29	\$28.68	\$72.97
Operators (Building, Class 07A- See Notes)	5/1/2017		\$42.44	\$28.13	\$70.57
Operators (Building, Class 07A- See Notes)	5/1/2019		\$46.15	\$29.22	\$75.37
Operators (Building, Class 07A- See Notes)	5/1/2020		\$48.00	\$29.77	\$77.77
Operators (Building, Class 07A- See Notes)	5/1/2016		\$41.36	\$26.81	\$68.17
Operators (Building, Class 07A- See Notes)	5/1/2021		\$49.86	\$30.31	\$80.17
Operators (Building, Class 07A-See Notes)	5/1/2020		\$47.65	\$29.67	\$77.32
Operators (Building, Class 07B- See Notes)	5/1/2021		\$49.51	\$30.20	\$79.71
oporators (Dalinging, Oldss 010- Odd Holds)	UI 1/2/2 1		943.UI	40V.2V	ψ[3.1]

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Project: 17-04101 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Operators (Building, Class 07B- See Notes)	5/1/2019		\$45.80	\$29.12	\$74.92
Operators (Building, Class 07B- See Notes)	5/1/2016		\$41.02	\$26.70	\$67.72
Operators (Building, Class 07B- See Notes)	5/1/2017		\$42.09	\$28.03	\$70.12
Operators (Building, Class 07B- See Notes)	5/1/2018		\$43.95	\$28.58	\$72.53
Operators (Heavy, Class 01 - See Notes)	5/1/2016		\$33.06	\$22.92	\$55.98
Operators (Heavy, Class 01A - See Notes)	5/1/2016	· · · · · · · · · · · · · · · · · · ·	\$35.31	\$23.56	\$58.87
Operators (Heavy, Class 02 - See Notes)	5/1/2016		\$32.77	\$22.84	\$55.61
Operators (Heavy, Class 02A - See Notes)	5/1/2016		\$35.02	\$23.50	\$58.52
Operators (Heavy, Class 03 - See Notes)	5/1/2016		\$29.84	\$21.97	\$51.81
Operators (Heavy, Class 04 - See Notes)	5/1/2016		\$28.70	\$21.64	\$50.34
Operators (Heavy, Class 05 - See Notes)	5/1/2016		\$28.25	\$21.51	\$49.76
Operators (Heavy, Class 06 - See Notes)	5/1/2016		\$27.37	\$21.25	\$48.62
Operators (Heavy, Class 07A - See Notes)	5/1/2016		\$39.68	\$26.28	\$65.96
Operators (Heavy, Class 07B - See Notes)	5/1/2016	· · · · · · · · · · · · · · · · · · ·	\$39.32	\$26.19	\$65.51
Painters Class 1 (see notes)	5/1/2017		\$23.47	\$13.32	\$36.79
Painters Class 1 (see notes)	5/1/2016		\$23.47	\$12,82	\$36.29
Painters Class 2 (see notes)	5/1/2016		\$25.60	\$12.82	\$38.42
Painters Class 2 (see notes)	5/1/2017		\$25.60	\$13.32	\$38.92
Painters Class 3 (see notes)	5/1/2016		\$31.35	\$12.82	\$44.17
Painters Class 3 (see notes)	5/1/2017		\$31.35	\$13.32	\$44.67
Pile Driver Divers (Building, Heavy, Highway)	1/1/2016	·	\$48.10	\$17.37	\$65.47
Pile Driver Divers (Building, Heavy, Highway)	1/1/2017	n na tan	\$49.13	\$17.95	\$67.08
Piledrivers	1/1/2018		\$33.55	\$18.55	\$52.10
Piledrivers	1/1/2019		\$34.30	\$19.30	\$53.60
Piledrivers	1/1/2017		\$32.75	\$17.95	\$50.70
Plasterers	5/1/2017		\$25.03	\$20.58	\$45.61
Plumber/Pipefitter	5/1/2017		\$35.82	\$24.51	\$60.33
Plumber/Pipefitter	5/1/2016		\$35.22	\$23.61	\$58.83
Roofers (Composition)	5/1/2017		\$36.15	\$30.22	\$66.37
Roofers (Shingle)	5/1/2016		\$25.70	\$19.17	\$44.87
Roofers (Slate & Tile)	5/1/2016		\$28.70	\$19.17	\$47.87
Roofers (Slate & Tile)	5/1/2016		\$28.70	\$19.17	\$47.87
Sheet Metal Workers	6/1/2016		\$33.60	\$33.43	\$67.03
Sprinklerfitters	4/1/2017		\$37.40	\$21.74	\$59.14
Sprinklerfitters	4/1/2016		\$36.05	\$21.02	\$57.07
Sprinklerfitters	4/1/2018		\$38.80	\$22.74	\$61.54
Terrazzo Finisher	5/1/2017		\$31.64	\$15.62	\$47.26
Terrazzo Einisher	5/1/2016		\$30.17	\$16.09	\$46.26
Terrazzo Finisher	5/1/2018		\$32.35	\$15.91	\$48.26
Terrazzo Finisher	5/1/2019	· · · · · · · · · · · · · · · · · · ·	\$33.04	\$16.22	\$49.26
Terrazzo Setter	5/1/2019		\$31.81	\$19.67	\$51.48
Terrazzo Setter	5/1/2017		\$30.63	\$18.85	\$49.48
Terrazzo Setter	5/1/2016		\$30.00	\$18.48	\$48.48
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Project: 17-04101 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Tile & Marble Finisher	5/1/2020		\$28.96	\$14.79	\$43.75
Tile & Marble Finisher	5/1/2018	to entre i	\$27.60	\$14.15	\$41.75
Tile & Marble Finisher	5/1/2017		\$26.89	\$13.86	\$40.75
Tile & Marble Finisher	5/1/2019		\$28.29	\$14.46	\$42.75
Tile & Marble Finisher	5/1/2021		\$29.61	\$15.14	\$44.75
Tile Setter	5/1/2019	· · · · · · ·	\$30.46	\$16.43	\$46.89
Tile Setter	5/1/2021		\$31.55	\$17.34	\$48.89
Tile Setter	5/1/2020		\$31.02	\$16.87	\$47.89
Tile Setter	5/1/2017		· \$29.27	\$15.62	\$44.89
Tile Setter	5/1/2018		\$29.88	\$16.01	\$45.89
Truckdriver class 1(see notes)	5/1/2019		\$36.12	\$0.00	\$36.12
Truckdriver class 1(see notes)	5/1/2016		\$33.57	\$0.00	\$33.57
Truckdriver class 1(see notes)	5/1/2017		\$34.47	\$0.00	\$34.47
Truckdriver class 1(see notes)	5/1/2018		\$35.32	\$0.00	\$35.32
Truckdriver class 2 (see notes)	5/1/2017		\$34.54	\$0.00	\$34.54
Truckdriver class 2 (see notes)	5/1/2018		\$35.39	\$0.00	\$35.39
Truckdriver class 2 (see notes)	5/1/2019		\$36.19	\$0.00	\$36.19
Truckdriver class 2 (see notes)	5/1/2016		\$33.64	\$0 . 00	\$33.64
Truckdriver class 3 (see notes)	5/1/2017		\$35.03	\$0.00	\$35.03
Truckdriver class 3 (see notes)	5/1/2018		\$35.88	\$0.00	\$35.88
Truckdriver class 3 (see notes)	5/1/2016		· \$34.13	\$0.00	\$34.13
Truckdriver class 3 (see notes)	5/1/2019		\$36.68	\$0.00	\$36.68

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Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
5/1/2016		\$29.67	\$14.54	\$44.21
5/1/2017	in a start start start	\$30.12	\$15.34	\$45.46
5/1/2016		\$26.40	\$22,35	\$48.75
1/1/2017		\$30.02	\$29.42	\$59.44
5/1/2018		\$20.96	\$16.79	\$37.75
5/1/2017		\$20.36	\$16.29	\$36.65
5/1/2019		\$21.61	\$17.29	\$38.90
5/1/2016		\$19.81	\$15.79	\$35.60
5/1/2018		\$27.58	\$16.79	\$44.37
5/1/2017		\$26.98	\$16.29	\$43.27
5/1/2019		\$28.23	\$17.29	\$45.52
5/1/2016		\$26,43	\$15.79	\$42.22
5/1/2018		\$24.57	\$16.79	\$41.36
5/1/2019		\$25.22	\$17.29	\$42.51
5/1/2016		\$23.42	\$15.79	\$39.21
5/1/2017		\$23.97	\$16.29	\$40.26
5/1/2018		\$24.92	\$16.79	\$41.71
5/1/2017		\$24.32	\$16.29	\$40.61
5/1/2019				\$42.86
		-		\$39.56
				\$40.23
				\$43.53
<u></u>		· · ·		\$42.38
				\$41.28
	· · · · · · · · · · · · · · · · · · ·		an tan 10 a tan	\$40.70
		-		\$41,80
	· · ·			\$39.65
				\$42.95
	. * .			\$39,94
				\$43.24
				\$40.99
				\$42.09
				\$40.42
<u> </u>				\$41.47
				\$42.57
1				\$43.72
			· · · · ·	\$54.80
				\$57.96
		· · · · · · · · · · · · · · · · · · ·		\$63.96
	·····	-		\$61.96
				\$65.95
				\$59.95
5/1/2018	· · · · · · · · · · · · · · · · · · ·	\$35.35	\$24.01	\$62.87
		307.001	323.271	302.071
	Date 5/1/2016 5/1/2017 5/1/2016 1/1/2017 5/1/2018 5/1/2017 5/1/2018 5/1/2019 5/1/2018 5/1/2019 5/1/2018 5/1/2018 5/1/2019 5/1/2018 5/1/2019 5/1/2018 5/1/2017 5/1/2018 5/1/2018 5/1/2018 5/1/2018 5/1/2017 5/1/2018 5/1/2018 5/1/2017 5/1/2018 5/1/2017 5/1/2018 5/1/2017 5/1/2018 5/1/2017 5/1/2018 5/1/2017 5/1/2018 5/1/2017 5/1/2018 5/1/2017 5/1/2018 5/1/2017 5/1/2018 5/1/2017 5/1/2018 5/1/2017 5/1/2018 5/	Date Date 5/1/2016 5/1/2017 5/1/2016 1/1/2017 5/1/2017 5/1/2018 5/1/2017 5/1/2017 5/1/2018 5/1/2017 5/1/2018 5/1/2018 5/1/2017 5/1/2018 5/1/2018 5/1/2019 5/1/2019 5/1/2018 5/1/2018 5/1/2018 5/1/2017 5/1/2018 5/1/2018 5/1/2017 5/1/2018 5/1/2018 5/1/2019 5/1/2016 5/1/2018 5/1/2018 5/1/2017 5/1/2018 5/1/2018 5/1/2017 5/1/2017 5/1/2018 5/1/2018 5/1/2017 5/1/2017 5/1/2018 5/1/2018 5/1/2017 5/1/2019 5/1/2018 5/1/2017 5/1/2018 5/1/2018 5/1/2017 5/1/2017 5/1/2018 5/1/2018 5/1/2018 5/1/2019 5/1/2018 5/1/2019 5/1/2019	Date Date 5/1/2016 \$29.67 5/1/2017 \$30.12 5/1/2016 \$26.40 1/1/2017 \$30.02 5/1/2018 \$20.96 5/1/2017 \$20.36 5/1/2018 \$20.96 5/1/2017 \$20.36 5/1/2019 \$21.61 5/1/2018 \$27.58 5/1/2017 \$26.98 5/1/2018 \$22.52 5/1/2019 \$28.23 5/1/2016 \$22.43 5/1/2018 \$24.57 5/1/2018 \$24.57 5/1/2017 \$23.97 5/1/2018 \$24.92 5/1/2017 \$23.97 5/1/2017 \$23.97 5/1/2018 \$24.92 5/1/2017 \$24.32 5/1/2018 \$24.92 5/1/2019 \$26.24 5/1/2017 \$24.32 5/1/2018 \$25.59 5/1/2017 \$24.41 5/1/2018 \$25.01 5/1/2019 \$2	Date Date Benefits 5/1/2016 \$29.67 \$14.54 5/1/2017 \$30.12 \$15.34 5/1/2016 \$26.40 \$22.35 1/1/2017 \$30.02 \$29.42 5/1/2018 \$20.96 \$16.79 5/1/2017 \$20.36 \$16.29 5/1/2019 \$21.61 \$17.29 5/1/2016 \$19.81 \$15.79 5/1/2018 \$27.58 \$16.79 5/1/2017 \$26.98 \$16.29 5/1/2018 \$27.58 \$16.79 5/1/2019 \$28.23 \$17.29 5/1/2018 \$24.57 \$16.79 5/1/2019 \$25.22 \$17.29 5/1/2018 \$24.57 \$16.29 5/1/2017 \$23.97 \$16.29 5/1/2018 \$24.92 \$16.79 5/1/2017 \$23.97 \$16.29 5/1/2018 \$24.92 \$16.79 5/1/2019 \$25.57 \$17.29 5/1/2016 \$23.42 \$16.79

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Project: 17-04101 - Heavy/Highway	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Operators (Building/Heavy, Class 01a - See Notes)	5/1/2020		\$40.69	\$26.19	\$66.88
Operators (Building/Heavy, Class 01a - See Notes)	5/1/2019		\$39.14	\$25.73	\$64.87
Operators (Building/Heavy, Class 01a - See Notes)	5/1/2021		\$42.24	\$26.64	\$68.88
Operators (Building/Heavy, Class 02 - See Notes)	5/1/2017		\$33.52	\$24.07	\$57.59
Operators (Building/Heavy, Class 02 - See Notes)	5/1/2018		\$35.07	\$24.52	\$59.59
Operators (Building/Heavy, Class 02 - See Notes)	5/1/2020		\$38.16	\$25.44	\$63.60
Operators (Building/Heavy, Class 02 - See Notes)	5/1/2019		\$36.61	\$24.98	\$61.59
Operators (Building/Heavy, Class 02 - See Notes)	5/1/2021		\$39.70	\$25.89	\$65.59
Operators (Building/Heavy, Class 02a - See Notes)	5/1/2020		\$40.41	\$26.10	\$66.51
Operators (Building/Heavy, Class 02a - See Notes)	5/1/2021		\$41.95	\$26.56	\$68.51
Operators (Building/Heavy, Class 02a - See Notes)	5/1/2019		\$38.87	\$25.64	\$64.51
Operators (Building/Heavy, Class 02a - See Notes)	5/1/2017		\$35.78	\$24.72	\$60.50
Operators (Building/Heavy, Class 02a - See Notes)	5/1/2018		\$37.32	\$25.19	\$62.51
Operators (Building/Heavy, Class 03 - See Notes)	5/1/2021	the firme	\$36.78	\$25.03	\$61.81
Operators (Building/Heavy, Class 03 - See Notes)	5/1/2020		\$35.23	\$24.57	\$59.80
Operators (Building/Heavy, Class 03 - See Notes)	5/1/2018		\$32.15	\$23.66	\$55.81
Operators (Building/Heavy, Class 03 - See Notes)	5/1/2019		\$33.69	\$24.11	\$57.80
Operators (Building/Heavy, Class 03 - See Notes)	5/1/2017	the states and	\$30.60	\$23.21	\$53.81
Operators (Building/Heavy, Class 04 - See Notes)	5/1/2020		\$33.65	\$24.11	\$57.76
Operators (Building/Heavy, Class 04 - See Notes)	5/1/2017	· · · · · · · · · · · · · · · · · · ·	\$29.47	\$22.88	\$52.35
Operators (Building/Heavy, Class 04 - See Notes)	5/1/2019		\$32.55	\$23.78	\$56.33
Operators (Building/Heavy, Class 04 - See Notes)	5/1/2018	·····	\$31.01	\$23.32	\$54.33
Operators (Building/Heavy, Class 04 - See Notes)	5/1/2021		\$35.64	\$24.69	\$60.33
Operators (Building/Heavy, Class 05 - See Notes)	5/1/2021	The second second	\$35.20	\$24.56	\$59.76
Operators (Building/Heavy, Class 05 - See Notes)	5/1/2019		\$32.11	\$23.65	\$55.76
Operators (Building/Heavy, Class 05 - See Notes)	5/1/2020		\$33.65	\$24.11	\$57.76
Operators (Building/Heavy, Class 05 - See Notes)	5/1/2017		\$29.02	\$22.74	\$51.76
Operators (Building/Heavy, Class 05 - See Notes)	5/1/2018		\$30.56	\$23.20	\$53.76
Operators (Building/Heavy, Class 06 - See Notes)	5/1/2021		\$34.31	\$24.31	\$58.62
Operators (Building/Heavy, Class 06 - See Notes)	5/1/2018		\$29.68	\$22.93	\$52.61
Operators (Building/Heavy, Class 06 - See Notes)	5/1/2017		\$28.14	\$22.49	\$50.63
Operators (Building/Heavy, Class 06 - See Notes)	5/1/2020		\$32.78	\$23.84	\$56.62
Operators (Building/Heavy, Class 06 - See Notes)	5/1/2019		\$31.22	\$23.40	\$54.62
Operators (Heavy, Class 07A - See Notes)	5/1/2019		\$44.43	\$28.73	\$73.16
Operators (Heavy, Class 07A - See Notes)	5/1/2021		\$48.14	\$29.83	\$77.97
Operators (Heavy, Class 07A - See Notes)	5/1/2018		\$42.58	\$28.18	\$70.76
Operators (Heavy, Class 07A - See Notes)	5/1/2020		\$46.28	\$29.27	\$75.55
Operators (Heavy, Class 07A - See Notes)	5/1/2017	· · · · · · · · · · · · · · · · · · ·	\$40.73	\$27.63	\$68.36
Operators (Heavy, Class 07B - See Notes)	5/1/2019	atata a san	\$44.09	\$28.63	\$72.72
Operators (Heavy, Class 07B - See Notes)	5/1/2020		\$45.94	\$29.17	\$75.11
Operators (Heavy, Class 07B - See Notes)	5/1/2021	·····	\$47.79	\$29.71	\$77.50
Operators (Heavy, Class 07B - See Notes)	5/1/2017		\$40.38	\$27.53	\$67.91
Operators (Heavy, Class 07B - See Notes)	5/1/2018		\$40.33	\$28.09	\$70.32
Operators (Highway, Class 01 - See Notes)	5/1/2019		\$36.02	\$28.09	\$70.32

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Project: 17-04101 - Heavy/Highway	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Operators (Highway, Class 01 - See Notes)	5/1/2020		\$37.56	\$25.24	\$62.80
Operators (Highway, Class 01 - See Notes)	5/1/2021		\$39.10	\$25.70	\$64.80
Operators (Highway, Class 01 - See Notes)	5/1/2018	· · · ·	\$34.47	\$24.33	\$58.80
Operators (Highway, Class 01 - See Notes)	5/1/2016		\$32.16	\$22.64	\$54.80
Operators (Highway, Class 01 - See Notes)	5/1/2017		\$32.93	\$23.87	\$56.80
Operators (Highway, Class 01a - See Notes)	5/1/2020		\$36.38	\$24.90	\$61.28
Operators (Highway, Class 01a - See Notes)	5/1/2021		\$41.35	\$26.38	\$67.73
Operators (Highway, Class 01a - See Notes)	5/1/2021		\$37.93	\$25,35	\$63.28
Operators (Highway, Class 01a - See Notes)	5/1/2019		\$34.84	\$24.43	\$59.27
Operators (Highway, Class 01a - See Notes)	5/1/2020		\$39.81	\$25.92	\$65.73
Operators (Highway, Class 01a - See Notes)	5/1/2019		\$38.27	\$25.46	\$63.73
Operators (Highway, Class 01a - See Notes)	5/1/2018		\$36.72	\$25.01	\$61.73
Operators (Highway, Class 01a - See Notes)	5/1/2017		\$35.18	\$24.56	\$59.74
Operators (Highway, Class 01a - See Notes)	5/1/2016		\$34.41	\$23.32	\$57.73
Operators (Highway, Class 01a - See Notes)	5/1/2017		\$31.75	\$23.54	\$55.29
Operators (Highway, Class 01a - See Notes)	5/1/2018		\$33.30	\$23.97	\$57.27
Operators (Highway, Class 02 - See Notes)	5/1/2016		\$30.98	\$22.31	\$53.29
Operators (Highway, Class 03 - See Notes)	5/1/2021		\$37.23	\$25.16	\$62.39
Operators (Highway, Class 03 - See Notes)	5/1/2019		\$34.14	\$24.25	\$58.39
Operators (Highway, Class 03 - See Notes)	5/1/2016		\$30.28	\$22.10	\$52.38
Operators (Highway, Class 03 - See Notes)	5/1/2017		\$31.06	\$23.32	\$54.38
Operators (Highway, Class 03 - See Notes)	5/1/2018	· · · · · · · · · · · · · · · · · · ·	\$32.59	\$23.80	\$56.39
Operators (Highway, Class 03 - See Notes)	5/1/2020		\$35.69	\$24.69	\$60.38
Operators (Highway, Class 04 - See Notes)	5/1/2019		\$33.68	\$24.12	\$57.80
Operators (Highway, Class 04 - See Notes)	5/1/2021		\$36.77	\$25.03	\$61.80
Operators (Highway, Class 04 - See Notes)	5/1/2017	i in an	\$30.60	\$23.20	\$53.80
Operators (Highway, Class 04 - See Notes)	5/1/2016		\$29.82	\$21.98	\$51.80
Operators (Highway, Class 04 - See Notes)	5/1/2020		\$35.23	\$24.57	\$59.80
Operators (Highway, Class 04 - See Notes)	5/1/2018		\$32.14	\$23.66	\$55.80
Operators (Highway, Class 05 - See Notes)	5/1/2019		\$33.18	\$23.97	\$57.15
Operators (Highway, Class 05 - See Notes)	5/1/2020		\$34.72	\$24.42	\$59.14
Operators (Highway, Class 05 - See Notes)	5/1/2021		\$36.26	\$24.87	\$61,13
Operators (Highway, Class 05 - See Notes)	5/1/2016		\$29.31	\$21.83	\$51.14
Operators (Highway, Class 05 - See Notes)	5/1/2017		\$30.08	\$23.06	\$53.14
Operators (Highway, Class 05 - See Notes)	5/1/2018		\$31.63	\$23.51	\$55.14
Operators (Highway, Class 06 - See Notes)	5/1/2020		\$37.79	\$25.30	\$63.09
Operators (Highway, Class 06 - See Notes)	5/1/2021		\$39.33	\$25.78	\$65.11
Operators (Highway, Class 06 - See Notes)	5/1/2018		\$34.71	\$24.39	\$59.10
Operators (Highway, Class 06 - See Notes)	5/1/2019		\$36.25	\$24.85	\$61.10
Operators (Highway, Class 06 - See Notes)	5/1/2017		\$33.17	\$23.94	\$57.11
Operators (Highway, Class 06 - See Notes)	5/1/2016		\$32.40	\$22.70	\$55.10
Operators (Highway, Class 06/A - See Notes)	5/1/2016		\$34.65	\$23.36	\$58.01
Operators (Highway, Class 06/A - See Notes)	5/1/2020	·	\$40.04	\$25.97	\$66.01
Operators (Highway, Class 06/A - See Notes)	5/1/2017	· · ···· · ···· · · · · · · · · · · ·	\$35.42	\$24.59	\$60.01

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Project: 17-04101 - Heavy/Highway	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Operators (Highway, Class 06/A - See Notes)	5/1/2021		\$41.58	\$26.43	\$68.01
Operators (Highway, Class 06/A - See Notes)	5/1/2019		\$38.50	\$25.52	\$64.02
Operators (Highway, Class 06/A - See Notes)	5/1/2018		\$36.96	\$25.05	\$62.01
Operators (Highway, Class 07/A - See Notes)	5/1/2019		\$43.37	\$28.41	\$71.78
Operators (Highway, Class 07/A - See Notes)	5/1/2020		\$45.23	\$28.94	\$74.17
Operators (Highway, Class 07/A - See Notes)	5/1/2021		\$47.08	\$29.49	\$76.57
Operators (Highway, Class 07/A - See Notes)	5/1/2016		\$38.56	\$25.99	\$64.55
Operators (Highway, Class 07/A - See Notes)	5/1/2017	1. N	\$39.66	\$27.31	\$66.97
Operators (Highway, Class 07/A - See Notes)	5/1/2018		\$41.52	\$27.84	\$69.36
Operators (Highway, Class 07/B - See Notes)	5/1/2016		\$37.17	\$25,57	\$62.74
Operators (Highway, Class 07/B - See Notes)	5/1/2017		\$38.25	\$26.89	\$65.14
Operators (Highway, Class 07/B - See Notes)	5/1/2019	· · · · · · · · · ·	\$43.37	\$28.41	\$71.78
Operators (Highway, Class 07/B - See Notes)	5/1/2020		\$43.81	\$28.53	\$72.34
Operators (Highway, Class 07/B - See Notes)	5/1/2018		\$40.10	\$27.44	\$67.54
Operators (Highway, Class 07/B - See Notes)	5/1/2021		\$45.66	\$29.08	\$74.74
Pile Driver Divers (Building, Heavy, Highway)	1/1/2017		\$49.13	\$17.95	\$67.08
Piledrivers	1/1/2017		\$32.75	\$17.95	\$50.70
Piledrivers and address the second se	1/1/2019		\$34.30	\$19.30	\$53.60
Piledrivers	1/1/2018		\$33.55	\$18.55	\$52.10
Steamfitters (Heavy and Highway - Gas Distribution)	5/1/2017		\$40.98	\$32.53	\$73.51
Truckdriver class 1(see notes)	5/1/2018		\$35.32	\$0.00	\$35.32
Truckdriver class 1(see notes)	5/1/2017	1.1	\$34.47	\$0.00	\$34.47
Truckdriver class 1(see notes)	5/1/2019		\$36.12	\$0.00	\$36.12
Truckdriver class 1(see notes)	5/1/2016		\$33.57	\$0.00	\$33.57
Truckdriver class 2 (see notes)	5/1/2015		\$32.64	\$0.00	\$32.64
Truckdriver class 2 (see notes)	5/1/2016		\$33.64	\$0.00	\$33.64
Truckdriver class 2 (see notes)	5/1/2019		\$36.19	\$0.00	\$36.19
Truckdriver class 2 (see notes)	5/1/2017		\$34.54	\$0.00	\$34.54
Truckdriver class 2 (see notes)	5/1/2018		\$35.39	\$0.00	\$35.39
Truckdriver class 3 (see notes)	5/1/2019	En l'Andrea	\$36.68	\$0.00	\$36,68
Truckdriver class 3 (see notes)	5/1/2016		\$34.13	\$0.00	\$34.13
Truckdriver class 3 (see notes)	5/1/2017		\$35.03	\$0.00	\$35.03
Truckdriver class 3 (see notes)	5/1/2018		\$35.88	\$0.00	\$35.88