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February 11, 2013

Robert J. Krandel, Esquire
Flamm Walton, P.C.
4905 West Tilghman Street
Suite 300
Allentown, PA 182104-9133

Re: Right-to-Know Law Request of Gordon H. Bayer, Inc.
Adoption of Allentown East Side Fire Station Labor Stabilization Agreement (PLSA)

Dear Attorney Krandel:

Thank you for your payment.

Enclosed are copies of the records referenced in our letter, dated January 16, 2013.

By this letter, we consider the City's obligation to honor your request under the Act to be fulfilled.

Thank you.

Very truly yours,

Frances A. Fruhwirth
Assistant City Solicitor

August 2012

**ASSESSMENT OF THE NEED FOR A PROJECT LABOR
STABILIZATION AGREEMENT COVERING ALLENTOWN
CONSTRUCTION PROJECTS**

PREPARED FOR
The City of Allentown

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A. Executive Summary

This report assesses the appropriateness of a Project Labor Stabilization Agreement (PLSA) that would cover the East Side Fire Station project. It finds that the draft PLSA (the “Allentown Labor Stabilization Agreement”) would be appropriate for the East Side Fire Station project. We also find that the benefits of a PLSA could be further enhanced through stronger local labor, workforce diversity, and apprenticeship utilization provisions. To avoid any delay on the current project, the parties to the PLSA have the option of using the proposed language on the East Side Fire Station project but then considering stronger local labor, workforce diversity, and apprenticeship utilization provisions on any future PLSA’s. Keystone Research Center could help the parties to the PLSA consider specific language to strengthen these provisions.

The Need for a PLSA

This assessment finds that the draft PLSA would help ensure the achievement of the following goals of the city of Allentown on the East Side Fire Station project:

- The PLSA would help ensure significant reliance on local labor. The agreement would require accessing most non-managerial labor from federally regulated union-sponsored hiring halls, which refer individuals from within the region when those are available. Without a PLSA, when contractors from outside the region win contracts or sub-contracts, they are under no obligation to use workers from the Lehigh Valley or other parts of Pennsylvania.
- The PLSA could ensure greater reliance on city and Lehigh Valley labor if it includes a “local hire” provision that sets specific goals for the share of craft labor work hours from individuals who live in the City of Allentown or Lehigh Valley. In a recent Cornell University analysis (by Figueroa et al., full reference below) of 185 PLSAs used across the United States, 70 included “local hire” provisions.
- The PLSA would provide access to high quality labor with skills to complete city projects on time and on budget. The PLSA would provide this access by giving all contractors, union and non-union, access to non-managerial labor from federally regulated union-sponsored hiring halls.
- The PLSA would help ensure adequate ongoing investment in high-quality apprenticeship training during the industry’s recovery from the Great Recession. The PLSA would do this by ensuring that access to most non-supervisory labor is secured from hiring halls linked with State and Federally approved and regulated apprenticeship and training programs that account for most apprenticeship training in the regional construction industry. Maintaining investment in training over the next several years is important to the City of Allentown because, without it, a more severe skills shortage is likely as the economy recovers and older workers in the current workforce retire at high rates.
- The PLSA could better maintain investment in apprenticeship training if it specifies a minimum ratio of apprentices to journey workers. Over half of 185 PLSAs examined in a recent national study include an apprentice utilization provision such as a requirement that apprentices perform 15-20% of the hours on covered projects.
- The PLSA would help cut taxpayer costs through standardization of contract terms, work rules and work practices. A recent New York study estimated savings from an “Economic Recovery PLSA” that had covered 73 private sector projects as of early 2011—over \$14 billion in construction—at between 16% and 21%.

- The PLSA would help guarantee labor/management harmony and provide insurance against costly work disruptions by establishing and imposing a formal and binding process to resolve labor/management disputes.
- Similar to other PLSAs, this PLSA would be open to both union and non-union contractors. For example, on three very large national projects that used PLSAs, 141 of 382 contractors used, or 37%, were non-union.
- The PLSA could strengthen the industry pipeline to qualified members of diverse demographic groups. This could be accomplished by adding local hire provisions that set goals for the share of craft labor and/or apprenticeship hours that come from geographical areas with high shares of minorities (e.g., Allentown City) or with specific goals for minority work hours. The PLSA could further strengthen the industry pipeline to qualified members of diverse demographic groups if it (a) includes monitoring provisions for tracking progress towards local and/or minority hiring goals and (b) requires allocation of resources for recruitment, screening, training, and retention of members of targeted communities. Allentown could implement effective monitoring and pipeline provisions that increase local/minority shares of workers on city projects by partnering with a pre-apprenticeship and recruitment program developed by the local building and construction trades' council in partnership with United Community Services (UCS), a non-profit organization headquartered in Reading, Pennsylvania.

B. Introduction

This report considers whether and how a Project Labor Stabilization Agreement would contribute to achieving the following objectives of importance to City of Allentown and its taxpayers on the East Side Fire Station project.

- Ensure a sufficient pool of skilled labor necessary to complete the project in a safe, efficient and timely manner.
- Maintain an expedited and uninterrupted construction schedule to ensure completion and occupancy by or before the completion and occupancy deadline.
- Provide for economic savings and predictability through standardization of contract terms, work rules and practices and through other provisions that enhance and assure productivity, efficiency, and quality.
- Provide that all phases of construction be open to qualified contractors regardless of whether they are party to a collectively bargained agreement.
- Ensure labor/management peace and harmony through a no-strike, no-lock-out commitment by all involved personnel/entities in order to meet construction and occupancy deadlines.
- Increase reliance on local labor from the City of Allentown and Lehigh County.
- Increase and expand opportunities for a diverse workforce.
- Ensure adequate investment in apprenticeship training to help replace the large number of skilled workers projected to retire in the next 10 years.
- Promote the long-term interests of the City, both in its role as a major construction customer (owner) and in its efforts to further public policy objectives.

C. Project Labor Agreements: History and Experience in Pennsylvania and Beyond

Project Labor Stabilization Agreements, also referred to as Project Labor Agreements (PLAs), are collectively bargaining agreements in which the owner of a proposed project of construction, renovation, alteration and/or demolition sets certain minimum terms and conditions of employment applicable to the skilled construction workers performing work on the project. The use of these agreements has grown over time. A PLSA, for example, was used on the \$12.5 million Union Station Intermodal Center/Pottsville Centre Station project in Schuylkill County which “went very smoothly” according to individuals familiar with the project. In both the private and public sector, PLSAs are most often used on individual large projects. The use of PLSAs to cover multiple projects has grown, however, in recent years. For example, the Philadelphia School District Partnership Agreement covered projects over a four-year period beginning in 2006. New York City in 2009 announced four Project Labor Agreements covering \$5.3 billion of new construction and renovation work through the end of 2014.¹

While there have been a handful of legal challenges to the use of PLSAs in the public sector in Pennsylvania, the courts have generally upheld their use on projects where factors such as the size and complexity of the project, the nature of the local labor market environment, the timing needs of the project, access to an adequate and adequately trained workforce, and total costs savings that could be generated by a PLSA have been judicially considered and explored in evaluation of the appropriateness of a PLSA. In Pennsylvania, the Luzerne and Berks County Convention center PLSAs were judicially determined to be valid and not in violation of the Pennsylvania competitive bid statute. Similarly, the Forest County State Prison Construction PLSA was found by the courts to be valid. The vast majority of PLSAs have not been the subject of any form of litigation.

To date there has been no systematic effort to collect data on the characteristics of public and private sector PLSAs in Pennsylvania and their impact on project outcomes like cost and on-time delivery. The available evidence on outcomes on Pennsylvania PLSA projects is anecdotal.

The Pennsylvania Department of General Services (DGS) utilized a PLSA on the Philadelphia Convention Center project, which was opened on time and achieved unprecedented workforce diversity and Minority and Women-Owned Business Enterprise (MWBE) participation. While there were a few informational pickets, there were no disruptions nor any lost time on the project due to labor/management disputes.

The Forest County PLSA was for a prison being built in a rural region. The Forest County project ran over budget and was not completed on time. One industry source suggested that these problems resulted from the PLSA. The source most familiar with the project, however, indicated that the problems on the project stemmed from other issues and the PLSA did not have a measurable negative impact upon project completion or cost. A more significant problem on the Forest County prison project was that there were 30 or more prime contractors, which created major coordination problems. There were also challenges on the project stemming from the

¹ Fred B. Kotler, *Project Labor Agreements in New York State II: In The Public Interest and of Proven Value*, Cornell University Industrial and Labor Relations School, Research Studies and Reports Paper #36, May 2011, pp. 34-49; online at <http://digitalcommons.ilr.cornell.edu/reports/36>. See also Fred B. Kotler, *Project Labor Agreements in New York State: In The Public Interest*, online at http://www.faircontracting.org/PDFs/prevaling_labor_agreements/PLAs-in-NY-State.pdf.

construction manager, the architect, the site, and some contractors related to coordination, sequencing of the work, and multiple change orders.

In the city of Allentown, some recent projects without PLSAs which used non-union contractors have encountered problems which the city Public Works Department attributes to contractor lack of skill and experience. For example, on a project to install a water line, the contractor hit a gas line to a house and filled the house with natural gas. On the rest of the project, the contractor chose to hand dig near gas lines rather than use an excavator, drastically lowering productivity. On a federally funded road project, the contractor discovered arsenic in the soil. This led the contractor to seek reimbursement for a doubling of project costs, including of some project components unrelated to the contaminated soil.

To date, the Pennsylvania court decisions on public sector PLSAs have dealt with agreements covering individual projects. These have found PLSAs to be valid where a feasibility study of the need for a PLSA was conducted and concluded that the PLSA was in the interest of the public body undertaking the project. There has been no corollary litigation related to purely private construction projects as the public bidding statutes do not apply to such undertakings.

D. Evidence on the Impact of PLSAs on Project Outcomes

Since there has been no systematic evaluation of the impact of PLSAs in Pennsylvania on project outcomes, we review here research conducted in other jurisdictions or the United States as a whole.

A 2011 Cornell University study concluded that PLSA's lead to substantial cost savings and provide broad social and economic benefits. The study cites the example of an innovative private-sector "Economic Recovery PLSA" negotiated in New York City to achieve cost savings that would help maintain construction activity during and after the Great Recession. This PLSA reduced construction costs by an estimated 16-21%, primarily as a result of work rule changes.²

James O'Neill's and Michael Griffin's recent review of experience with PLSAs concludes that:

"Probably the best argument for PLSAs in the public sector is that they have been for decades, and still are, used in the private sector by large, sophisticated, experienced developers, owners, construction managers and contractors, all of whom are driven by the profit motive. They want the best job for the lowest price in the shortest period of time. Disney World, the GM Saturn Facility, and the TransAlaska Pipeline are but a few examples of major private projects where PLSAs have been successfully employed. Currently, the Goldman Sachs Group, Inc. is proceeding with a billion-dollar multi-building project in Jersey City, New Jersey, called Project Phoenix. It will include an 840-foot tall office building (the tallest in New Jersey), a global conference and training facility, and a 250-room hotel. The project will be on a fast-track construction schedule and the multiple contractors will be required to execute a PLSA with the appropriate members of the local Building and Construction Trades Council. It is obvious that the owners, after due diligence, determined that requiring a PLSA in the bid specifications for Project Phoenix was in their best interest, i.e., it would give them the best job, at the

² Kotler, *Project Labor Agreements in New York State II*, pp. 49-55.

best price, in the shortest period of time.”³ If Project Labor Agreements continue to be utilized by the profit-oriented private sector after all these years, there must be a reason. Clearly, the reason is that they work. If they work for the private sector owners, they will work for public sector owners...”

A Power Point by Deputy City Attorney Hugo S. Rossitter and Inspector of Public Works John L. Reamer (“Paving the Way: Using Project Labor Agreements—the City of Los Angeles experience) summarizes experience with PLSAs in Los Angeles. The Power Point reports most bid prices coming in near or below engineers’ pre-bid estimates (and declining bid prices as the economy weakened).

In October of 2001, a comprehensive survey of PLSAs was produced for the California legislature.⁴ Based on a review of 82 PLSAs, 59 of them private sector agreements, the study found (p. 59) that “Owners increasingly want PLSAs in order to meet their speed-to-market demands and to ensure against delays that can be caused by worker shortages, work stoppages, or collective bargaining negotiations.” The study also concluded that, “from a contractor’s point of view, a PLSA can provide the stable, uniform labor-management foundation on which to build methodical PLSAnning and scheduling on a project.” It added that “Contractors that use PLSAs maintain that on complex, long-term projects, a PLSA fosters positive communication channels to address worker concerns, grievances or disputes and resolve them quickly, thereby creating continuity and stability of the work force at the job site.” Ken Hedman, Principal Vice President, Labor Relations, Bechtel Construction Company, maintains that, in his experience, he has “never seen anything to indicate that a PLSA was the cause of increased costs or delays.”

While no data exist, interviews indicate that unionized and non-union contractors participate on projects governed by PLSAs in Pennsylvania. For a few large projects covered by PLSAs, data do exist on the number of union and non-union contractors:

- On the Boston Harbor Project, ICF Kaiser found that 55 prime contracts went to union contractors and 16 to nonunion contractors; of the 257 prime contracts and subcontracts, 155 went to union firms and 102 to nonunion firms.⁵
- On the Central Artery/Tunnel Project in Boston, 13 of the original 55 contracts let were to non-union contractors.⁶
- On the Southern Nevada Water Authority Project, Michael D’Antuono, president of Parsons Construction Company, said that six of 16 prime contracts and 26 of 70 both prime and subcontracts went to nonunion firms.⁷
- In 1991, the General Accounting Office (GAO) found that 86 of 286 contractors on the Idaho National Engineering Laboratory project covered by a PLSA were nonunion.

³ James M. O’Neill, Esq. and Michael V. Griffin, P.E., Hill, International, Inc., *The Case for Public Owner Project Labor Agreements (PLAs)*, available at <http://www.hillintl.com/PDFs/Project%20Labor%20Agreements%20%28PLSAs%29%20-%20O%27Neil.pdf>

⁴ Kimberly Johnston-Dodds, *Constructing California: A Review of Project Labor Agreements* (Sacramento: California Research Bureau, California State Library, October 2001), CRB 01-010.

⁵ Dale Belman and Matthew M. Bodah, *Building Better: A Look at Best Practices for the Design of Project Labor Agreements*, Economic Policy Institute Briefing Paper, p. 33; online at http://www.epi.org/publication/building_better_a_look_at_best_practices_for_the_design_of_project_labor/

⁶ O’Neill and Griffin, *The Case for Public Owner PLSAs*, p. 15.

⁷ This and the next bullet are from Belman and Bodah, *Building Better*, p. 33.

- Under the 2005-2009 New York School Construction Authority PLSA, an estimated 20% of successful bidders were non-union companies.⁸

One issue raised in interviews by construction industry stakeholders was the impact of a PLSA on the number of bidders. For example, an Allentown stakeholder said a PLSA might discourage non-union contractors from bidding but that some city projects may also be too small to attract the interest of large union contractors. Other sources said that a PLSA could increase the number of responsible bidders by eliminating concerns about low bids from contractors that circumvent state laws (e.g., prevailing wage and benefit laws). A third view was that, in the current economy, large numbers of contractors, union and non-union, are likely to bid on projects of any scale. Another potential benefit of PLSAs according to one Allentown stakeholder was that projects would be done more quickly because of the high skill level of the craft workers available through hiring halls.

Using a “natural experiment” with neighboring California school districts—some of which used PLSAs and some of which did not—Belman, Bodah, and Philips estimated the impact of PLSAs on the number of bidders and thus potentially on cost.⁹ Controlling also for other factors (such as the business cycle) that might influence the number of bidders, Belman, Bodah, and Philips (BBP) found no statistical relationship between the presence of a PLSA and the number of bidders in their sample of school construction projects.

As would be expected given the drop off in construction activity that has occurred over the last several years private and public projects in every part of Pennsylvania are experiencing large increases in the number of bidders as well as an increase in the number of first time bidders compared to what was common prior to the downturn. The rise in the number of bidders has also significantly reduced bid prices. Thus, a PLSA’s impact on the number of bidders has likely been swamped by the much larger impact of the economic downturn on bidding.

Belman, Bodah, and Philips (BBP) note that some research on the effects of PLSAs is plagued by a lack of adequate data and poor statistical modeling.¹⁰ A general challenge for researchers is the difficulty of identifying a sample of projects covered by a PLSA and a “comparable” control group. Several studies by the Beacon Hill Institute (BHI) at Suffolk University in Boston, for example, only control for size of project, whether the project was new construction or a renovation, the number of stories, and whether the project was an elementary or high school. Without adequate controls the authors attribute cost differences to PLSAs that are really the result of missing controls such as whether the project was in an urban area. Without controls for whether a project is urban, if PLSAs are more commonly used in urban areas and costs are usually higher in urban areas, statistical analysis will attribute what is really an urban effect to using a PLSA. BBP replicated BHI’s work with a study of 108 school construction

⁸ Kotler, *Project Labor Agreements in New York State II*, p. 31.

⁹ Dale Belman, Matthew M. Bodah, and Peter Philips, *Project Labor Agreements* (Bethesda: MD, ELECTRI International, January 2007), Chapter 1. See also Dale Belman, Kenneth A. Frank, Richard Kelso, Russell Ormiston, and William Schriver, “The Effect of Project Labor Agreements on the Cost of School Construction in Massachusetts,” *Industrial Relations*, forthcoming; and Dale Belman, Russell Ormiston, William Schriver, and Richard Kelso, “The Effect of Project Labor Agreements on the Cost of School Construction,” Sloan Industry Studies Working Papers, 2005 Number WP-2005-01; online at <http://www.industry.sloan.org/industrystudies/workingpapers/index.php>.

¹⁰ Belman, Bodah, and Philips, *Project Labor Agreements*; Belman et. al., “The Effect of Project Labor Agreements on the Cost of School Construction in Massachusetts,” and Belman, et. al., “The Effect of Project Labor Agreements on the Cost of School Construction.”

projects in New England but include 30 controls. They find no relationship between the presence of a PLSA and construction costs.¹¹

E. The Project

The project that would be covered by the PLSA is the new East Side Fire Station, which is estimated by Wallace & Watson Associates, PC to cost \$1,893,187.

In the face of environmental problems in the station, and structural problems in the walls, foundation, and engine room floor, the Fire Chief, Director of Public Works, and Facilities Manager concluded that it would be more economical to rePlace the building rather than attempt to rehabilitate the structure.

The station is the only station on the City's east side and serves the City's 14th and 15th wards. The timely replacement of the East Side Fire Station is critical to maintaining Fire Safety for properties on the city's East Side.

The new Fire Station will require three construction contracts (for HVAC, plumbing/FP, and electrical) as well as civil engineering and architectural contracts. In addition, the project requires bricklayers, masons, carpenters, electricians, elevator constructors, insulators, painters, plumbers, and other trades, and many of these trades will need to be on the project at the same time. As a result of many trades being on site at one time a high degree of cooperation will be needed among the trades. A PLSA can help ensure this cooperation.

F. Analysis of Local Construction Industry and Labor Environment

This analysis of the current area labor market is based on government labor market data and interviews within industry stakeholders and experts in the region.

U.S. construction employment: The U.S. economy in spring 2012 was still recovering from the worst recession since the Great Depression, with the U.S. economy 10.5 million jobs short of full employment (in April). The epicenter of the recession was the residential housing market which has shed a million jobs (according to the Current Employment Statistics, or CES, data base) since its peak in April 2006. Non-residential construction employment continued to grow in 2006 and 2007 before peaking in January 2008. Although the decline in U.S. Construction employment in both industry segments stopped in early 2010, there has been very little job growth since then. As of April, nonresidential U.S. construction employment remains down 21% or by just over 920,000 jobs from its January peak.

Pennsylvania construction employment: Between first quarter 2007 and 2010, Pennsylvania shed 48,500 construction jobs, a decline of 20 percent (Table 1), versus 28 percent over the same period nationally. (Note: the figures in the last sentence combine residential and non-residential construction.) Another data source—the Quarterly Census of Employment and Wages (QCEW), only available through the third quarter of 2011—shows a decline in residential construction (since a 2005 peak) of 26% in Pennsylvania. Non-residential construction in Pennsylvania is

¹¹ For similar results, see Belman et al, "The Effect of Project Labor Agreements on the Cost of School Construction in Massachusetts," and Belman, et al., "The Effect of Project Labor Agreements on the Cost of School Construction."

down 10% from its 2007 peak and made a slight gain in 2011 while residential employment continued to register declines through the 3rd quarter of 2011.

Overall construction employment in Allentown metropolitan area and SE/SC Pennsylvania: Between first quarter 2006 and 2012, overall construction¹² employment in the Allentown-Bethlehem-Easton Metropolitan Area was down by 5,100 jobs or 32%, more than any other region of the state (Table 1). In the larger Southeast and South Central metropolitan areas, employment is down 20% since 2006. In the last year construction employment statewide has grown by 5.7%. Employment, however, has not yet recovered in the Allentown-Bethlehem-Easton metro area.

Area	2006	2007	2008	2009	2010	2011	2012	2012 as pct of 2006
Statewide†	239.6	239.6	237.8	214.4	191.1	196.9	208.1	87%
All SC/SE (ABE, H-C, Lancaster, Metro Phil., Reading, Scranton-WB, York)	140.9	139.3	138.5	120.8	108.3	109.0	112.7	80%
A-B-E§, PA-NJ	15.9	15.3	14.8	12.8	10.8	11.0	10.9	68%
Altoona								
Erie	3.9	4.0	3.8	3.4	3.2	3.3	3.8	97%
Harrisburg-Carlisle	12.1	12.2	11.9	10.6	10.2	9.8	9.5	78%
Johnstown								
Lancaster	16.9	16.4	16.4	15.1	13.4	13.6	13.9	82%
Philadelphia Metropolitan Division	77.9	77.1	76.8	66.2	59.4	59.6	63.0	81%
Philadelphia City	12.0	11.4	11.9	9.9	9.4	9.1	9.0	75%
Pittsburgh†	49.4	50.6	50.5	49.5	41.9	43.5	44.4	90%
Reading§	8.43	8.40	8.37	7.30	6.40	6.37	6.43	76%
Scranton--Wilkes-Barre	9.7	9.9	10.2	8.8	8.1	8.6	9.1	94%
York-Hanover, PA	11.5	11.9	11.7	10.2	9.3	9.7	9.8	85%
§ A-B-E refers to Allentown-Bethlehem-Easton, PA-NJ Metropolitan Area								
§ Reading refers to Berks County								
¥ Construction employment unless specified otherwise is defined as total employment in construction, natural resources, and mining. Construction accounts for more than 90% of this aggregate								
† Construction employment only								
Source. Keystone Research Center based on the Bureau of Labor Statistics-Current Employment Statistics, Not Seasonally Adjusted Data								

¹² Construction employment is defined as total employment in construction, natural resources, and mining – employment in just construction is not available by Metropolitan area. Construction accounts for more than 90 percent of this aggregate.

Residential and non-residential construction employment in the region: We can use QCEW data (this is available at the county level through the second quarter of 2011) to examine trends in residential and non-residential construction employment in a 16-county region¹³ that includes Berks County. Overall in the region construction employment has declined by about 36,600 jobs (23.4%) since the second quarter of 2006 with 61% of those losses concentrated in residential construction.¹⁴

Summary of information from employment analysis: Considering both QCEW and CES data, non-residential construction demand is down from its pre-recession peak in the Lehigh Valley by more than 10% and possibly as much as 20%.

Access to skilled labor. Although skilled labor shortages in non-residential construction have been alleviated temporarily by the Great Recession and slow recovery, skilled labor shortages are expected to re-appear during the next few years. In this context, a PLSA guarantees access to the most uniformly skilled labor pool in the construction industry. Labor available through the hiring hall is more uniformly high in quality because of the higher investment in apprenticeship training by the unionized part of the construction industry (for evidence on this, see below) and also because workforce age, experience, and occupational tenure are all higher among unionized blue-collar skilled trades than non-union blue-collar workers.

According to O'Neill and Griffin (writing before the Great Recession): "In urban areas nationwide and particularly in the Northeast Corridor, there is not only full employment but continuing shortages of skilled labor. PLSAs provide at least a partial answer to the problem in that union hiring halls and apprenticeship programs have been recognized sources of skilled labor for generations. Though there are also some non-union contractor-sponsored training programs, the numbers of trained workers these produce are a small fraction of the numbers of union workers."¹⁵

Skill shortages, the aging workforce, and reduced apprenticeship investment. Job losses and higher unemployment rates in the construction sector have lowered intake into Pennsylvania apprenticeship programs recently. Disinvestment in apprenticeship in the slow economies of the early 1980s and early 1990s are major reasons for the skill shortages in the industry during the 2002-2007 expansion. Interviews with apprenticeship coordinators indicate that intake into apprenticeship declined by 50% or more in 2010 and 2011 compared to pre-recession peaks.

Before the current downturn, there was general agreement among industry stakeholders about the existence of a skill shortage. For example, the Construction Users Roundtable, an association representing private building owners (many of them large manufacturers), issued a report in 2004 calling for more investment in training by contractors.¹⁶ As the report states, "Like safety, training is both essential and cost-effective long term."

Skill shortages are likely to become more severe due to the aging of the construction industry's workforce and the retirement of "baby boomers," as noted by the Philadelphia Regional Construction Industry Education Partnership, which has close ties to the Associated

¹³ These 16 counties include – Lehigh, Lebanon, Lancaster, Chester, Montgomery, Bucks, Berks, Northampton, Carbon, Schuylkill, Dauphin, York, Delaware, Philadelphia, Monroe and Luzerne.

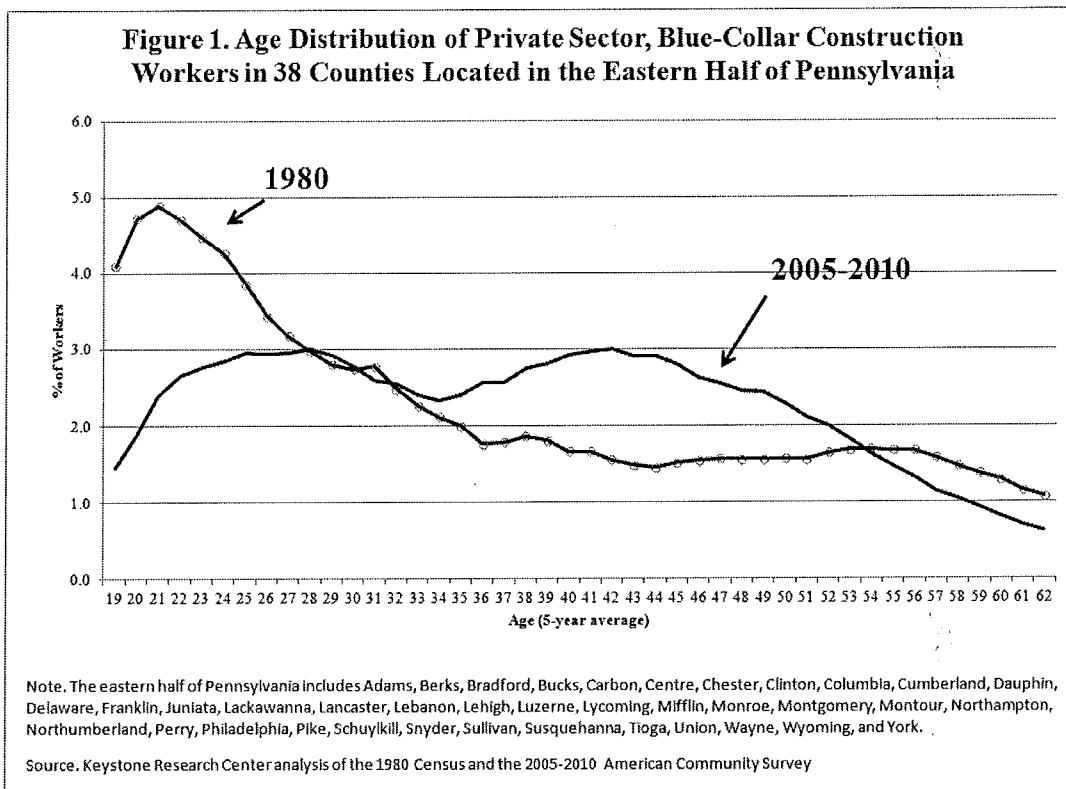
¹⁴ Due to the non-disclosure of data by the Bureau of Labor Statistics we are not able to identify the residential/non-residential status of 6 percent of construction employment in this 16-county region.

¹⁵ O'Neill and Griffin, *The Case for Public Owner PLSAs*, p. 17.

¹⁶ Construction Users Roundtable, *Confronting the Skilled Construction Workforce Shortage*, June 2004.

Builders and Contractors. This Industry Partnership—and other industry sources—also note that, with society's emphasis on "college" after high school rather than trades, the number of youth who are exploring construction-related training is declining. (For a power point on the industry put together by this Industry Partnership, see <http://www.paconstruction-ed.org/>).

Government statistics document the aging of the industry workforce. In 1980, 36 percent of blue-collar construction workers in the 38 counties in the Eastern half of Pennsylvania were 40-64 years old. By 2005-2010, that share had grown to 46 percent (see Figure 1 on the next page).¹⁷ These data likely underestimate the age of the non-residential construction industry because many young workers joined the residential construction industry during the housing boom—thus the non-residential industry is older than the overall industry. Moreover, the workforce aged further from 2006 to the present, in part because job loss hit younger workers hardest (Table 2): 57 percent of the union workforce is now over 40 years of age (versus 42 percent of the non-union workforce). The bottom line: the non-residential construction industry does face a severe challenge because of its aging workforce, and that challenge will get substantially worse if the industry invests in little or no apprenticeship training in the next several years.



¹⁷ Author's analysis of the public use micro-data from the 1980 Census and the 2005-2010 American Community Survey (ACS) provided by Steven Ruggles, J. Trent Alexander, Katie Genadek, Ronald Goeken, Matthew B. Schroeder, and Matthew Sobek. Integrated Public Use Microdata Series: Version 5.0 [Machine-readable database]. Minneapolis: University of Minnesota, 2010. The Eastern half of Pennsylvania is defined here to include observations drawn from the following counties Adams, Berks, Bradford, Bucks, Carbon, Centre, Chester, Clinton, Columbia, Cumberland, Dauphin, Delaware, Franklin, Juniata, Lackawanna, Lancaster, Lebanon, Lehigh, Luzerne, Lycoming, Mifflin, Monroe, Montgomery, Montour, Northampton, Northumberland, Perry, Philadelphia, Pike, Schuylkill, Snyder, Sullivan, Susquehanna, Tioga, Union, Wayne, Wyoming, and York.

Age	Union		Non-union	
	Count	%	Count	%
16 to 30	4,329	18%	33,271	39%
31 to 40	5,367	22%	16,831	20%
41 to 50	8,748	36%	16,994	20%
51 to 54	3,243	13%	5,218	6%
55 and older	2,926	12%	12,085	14%
Note. Sample is limited to private sector blue-collar workers employed in the construction industry living in the Reading, Allentown-Bethlehem-Easton, Scranton--Wilkes-Barre, Lancaster, Harrisburg-Carlisle, York-Hanover or Philadelphia Metropolitan Division.				
Source. Keystone Research Center analysis of the Current Population Survey				

Most apprenticeship training takes place through labor-management programs. Official U.S. Department of Labor statistics show that most construction industry apprenticeship training in Pennsylvania takes place through joint labor-management programs.¹⁸ Joint programs had 10,163 active apprentices in 2002, compared to 1,731 in employer-only programs. Since more training takes place via joint labor-management programs, this reinforces the likelihood that skilled workers will be more accessible via hiring halls and a PLSA. When the industry faced shortages in the second half of the 1990s, joint labor-management apprenticeship programs also responded more to the industry need for labor than employer-only apprenticeship programs did.

In light of the importance of labor-management apprenticeship programs to the industry's long-term skill base, it is also important that these programs restore their intake levels quickly to pre-recession levels. A PLSA on Reading City construction can help maintain a steady level of investment in joint apprenticeship in the region. While this occurs with all projects covered by standard PLSAs, because these ensure access most non-supervisory labor from hiring halls linked with apprenticeship programs, PLSAs can have a stronger impact on apprenticeship investment if they have explicit apprenticeship utilization provisions. Such provisions can also be a source of cost savings because apprentices' productivity is thought to exceed their wages and benefits from their second to fourth year (in five-year apprenticeship programs).

Apprenticeship utilization provisions are increasingly common in PLSAs. According to industry sources, the last six or seven PLSA agreements in the Philadelphia region have included

¹⁸ David Bradley and Stephen Herzenberg, *Construction Apprenticeship and Training in Pennsylvania*, (Harrisburg: Keystone Research Center, 2002). A new report indicates that joint apprenticeship programs accounted for an even larger share of apprenticeship training in the 2002-2006 period. This report reports apprentice enrollment in Pennsylvania joint apprenticeship and training programs to be about 12 times higher than in Pennsylvania Associated Builders and Contractors programs. See Thomas J. Kriger, *Analysis of Associated Builders and Contractors*, National Labor College Working Paper, May 31, 2012, pp. 105-112, online at http://www.knowyourabc.com/ULWSiteResources/abc/Resources/file/TJK_Reports/ABCResearchReport-FINAL5-31-12.pdf.

specific language to incorporate apprentices. A recent national analysis of 185 PLSAs found that more than half of them had apprentice utilization provisions (see Table 3). The use of similar language for the a PLSA covering construction in the City of Allentown could be a source of cost savings and also address the need for expanded apprenticeship opportunities for the residents of City of Allentown.

<i>Apprentice Utilization Requirement</i>	<i>Number of PLSAs With Provision</i>
15 to 20% of total hours	8
20 to 40% of workforce	18
20 to 33.3% of workforce by craft	16
Ratios set by state, federal laws, and CBAs	55
Other	3
Total PLSAs (out of 185) with Apprentice Utilization Provisions	100
<i>Source.</i> Maria Figueroa, Jeff Grabelsky, and Ryan Lamare, <i>Community Workforce Provisions in Project Labor Agreements: A Tool for Building Middle-Class Careers</i> , October 2011, on line at http://www.ilr.cornell.edu/news/upload/PLSA-REPORT-10-6-2011_FINAL.pdf	

Dispute resolution. A PLSA would provide an additional guarantee of labor harmony and more insurance against disruptions by facilitating coordination across the building trades and prime contractors. One of the most effective provisions often incorporated into a PLSA is the establishment of a Labor Management Committee. These committees are typically composed of representatives of the local unions, the construction manager, and other contractors. These committees meet regularly to discuss project issues such as safety and productivity. Critically these committees facilitate coordination and, as a result, reduce the risk to the City of Allentown that a dispute will delay the completion of the project. PLSAs also typically include provisions that establish grievance and arbitration procedures which provide an effective mechanism for resolving disputes. Finally PLSAs typically include “no strike-no lockout” clauses. A PLSA that facilitates project coordination, and which also provides a mechanism for resolving disputes and preventing a strike or lockout, would provide substantial benefits to the City of Allentown by mitigating the risk of a costly delay.

Reliance on local labor. A PLSA, through reliance on union hiring halls, will also guarantee first opportunities for employment to labor within the region. Hiring halls only reach out beyond the region if workers with the requisite skills are not available locally and rarely need to rely on out-of-state labor. A growing number of PLSAs across the country include explicit provisions encouraging hiring locally. Some of these provisions include specific targets for local hiring (see Table 4). In some Los Angeles PLSAs, for example, hiring targets specific zip codes where diverse, low-income families concentrate.

<i>Local Hire Provisions</i>	<i>Number of PLSAs</i>	<i>Share Out of the 70 That Have Local Hire Provisions</i>
Provisions without specified ratios	42	60%
Ratios of 50 to 80% of workforce	15	21%
Ratios of 25 to 40% of workforce	9	13%
Ratios of 20 to 50% of work hours	4	6%
Total PLSAs with Local Hire	70	100%

Provisions		
<i>Source.</i> Figueroa et. al. <i>Community Workforce Provisions in Project Labor Agreements</i>		

G. Diversity: Access for Women and Minorities to Jobs and Contracting Opportunities

Another benefit from the use of a PLSA could be the provision of increased opportunities to family sustaining construction careers for women and minorities (see Table 4). In seven metropolitan areas in the Eastern half of the state African-Americans account for 9 percent of the union workforce compared to 3 percent of the non-union workforce.¹⁹ The Hispanic workforce share is 10 percent among non-union trades and 4 percent among union. National data on construction industry wages and benefits by race and ethnicity (not shown here), however, indicate that many Hispanic workers in non-union jobs earn low wages and few or no benefits. Thus, while the higher share of African-Americans in unionized jobs gain access to family supporting jobs, the higher share of Hispanics in non-union jobs may not.

Data on apprenticeship also show that the overwhelming majority of women and minorities in Pennsylvania who participate in apprenticeship programs do so through joint programs. In 2001, joint labor-management programs in Pennsylvania registered 319 additional male minorities and 76 female apprentices.²⁰ This compared with 33 male minorities and five women in non-union apprenticeship programs.

Race & Ethnicity	Demographics of Union Blue-Collar Construction Workers	Demographics of Non-Union Blue-Collar Construction Workers
Overall	100%	100%
White	85%	86%
Black	9%	3%
Hispanic	4%	10%
Other	2%	1%

Note. Sample is limited to private sector blue-collar workers employed in the construction industry living in the Reading, Allentown-Bethlehem-Easton, Scranton--Wilkes-Barre, Lancaster, Harrisburg-Carlisle, York-Hanover or Philadelphia Metropolitan Division.

Source. Keystone Research Center analysis of the Current Population Survey

Whatever the current demographics of workers and apprentices, PLSAs can increase the diversity of the workforce on public projects. More than 100 of 185 PLSAs implemented during the last 14 years have minority and/or female hiring provisions (Table 5). PLSAs in the Mid-Atlantic region are the most likely to have goals for hiring minorities and the economically disadvantaged and implementation provisions to monitor progress towards these goals. Local hire

¹⁹ These metropolitan areas include Reading, Allentown-Bethlehem-Easton, Scranton--Wilkes-Barre, Lancaster, Harrisburg-Carlisle, York-Hanover and the Philadelphia Metropolitan Division.

²⁰ Bradley and Herzenberg, *Construction Apprenticeship and Training in Pennsylvania*, op. cit. The 2002-2006 data reported by Kriger indicate that non-union apprenticeship programs enrolled 20 women statewide versus 552 in joint apprenticeship programs. There were 15 times as many minority apprentices in joint apprenticeship programs as in the ABC programs Kriger reporters. See Kriger, *Analysis of Associated Builders and Contractors*, pp. 105-112.

provisions are most predominant in the West and Northeast. A small but growing share of PLSA include diversity provisions specific to apprentices (Table 6).

<i>Economic Opportunity/Diversity Provision</i>	<i>Number of PLSAs Out of 185 with the Provision</i>
Helmets-to-Hardhats (H2H)/Veterans Hiring	139
Minority/Women Hiring	103
Apprentice Utilization	100
Local Hire	70
Implementation & Monitoring Process	65
Union Pre-Apprenticeship Program Utilization	55
Econ. Disadvantaged as % of Local Hires	45
Women/Minority-Owned & Small Business Util.	36
Local Residents as % of Employed Apprentices	25
Community Involvement and Resources	12
Other Pre-Apprenticeship Program Utilization	6

Source. Figueroa et. al. Community Workforce Provisions in Project Labor Agreements

Local/Diverse Apprentice Provisions	Number of PLSAs with Provision
Percent of Employed Apprentices that should be Minority, Women, or Economically Disadvantaged	14
Percent of Employed Apprentices that should be Local Residents	11

Source. Figueroa et. al. Community Workforce Provisions in Project Labor Agreements

Some of the strongest economic opportunity and workforce diversity provisions exist on PLSAs negotiated in Philadelphia. For example, the Economic Opportunity PLSA of a recent “Partnership Agreement” governing the construction of the Philadelphia Youth Center included three main components:

- provisions for construction contractors bidding for project work to make “best and good faith efforts” to use minority workers and minority- and women-owned businesses on the project;
- numerical targets for use of minority workers and minority- and women-owned businesses on the project (the goal for minority workers was 40% of all project hours for both journeyworkers and apprentices); and
- evaluation provisions that monitor implementation of the best and good faith efforts and the success at achieving numerical targets.

One completed Pennsylvania project—Pennsylvania Convention Center Expansion Project in Philadelphia—met similarly ambitious goals for diversity hiring.

One important asset in efforts to achieve ambitious diversity targets on projects covered by PLSAs is an effective recruitment, screening, and pre-apprenticeship training programs that can help find qualified minority workers and apprentices. The Lehigh Valley has recent experience with such a construction pipeline program, a replication of a pre-apprenticeship program for high-school seniors first implemented in Reading. In both Reading and the Valley the implementing partner working closely with the Building and Construction Trades Council and apprenticeship programs was United Community Services (UCS), a non-profit organization. In Reading, the

UCS pre-apprenticeship and construction pipeline program now serves out-of-school youth and adults as well as high-school students. In the Lehigh Valley, re-establishment of the high-school pre-apprenticeship and establishment of pipeline components for out-of-school youth and adults could help meet strong local hire, apprenticeship utilization, and workforce diversity requirements of a PLSA. Such a program is particularly needed because Hispanics now make up more than 40% of the city of Allentown and that this community is so under-represented in the current construction workforce.

Summing up, the PLSA on the East Side Fire Station project could be strengthened as a vehicle for expanding access for qualified local residents and minority workers to city construction projects through the following provisions:

- Numerical targets for use of local (e.g., city) workers, minority workers, and apprentices. Targets for city workers or specific low-income city neighborhoods could directly address the problem of concentrated poverty;
- Provisions for construction contractors bidding for project work to make “best and good faith efforts” to use minority workers and minority- and women-owned businesses on the project;
- Evaluation provisions that monitor implementation of the best and good faith efforts and the success at achieving numerical targets. Specifically, funds could be provided to form a “Qualified Workforce Committee” including contractor, union, and community representatives and to house a Job Coordinator (possibly at UCS) who would staff the Committee and work with public projects covered by the PLSA, helping to ensure referral of qualified journeyworkers and apprentices. An example of the job coordinator function is outlined in the Long Beach Port PLSA, which states: “Jobs Coordinator” means an independent third-party individual or entity with whom the Contractor or the Department enters into a contract to facilitate implementation of the Local Hiring Requirements established pursuant to this Policy.”²¹
- Funds sufficient to sustain and expand the UCS construction recruitment, screening, training, Placement, and retention services for local and diverse workers of all ages. The funds allocated should be based on a realistic assessment by UCS of the funds needed to perform these functions and recognizing that state and federal funds for these pipeline services have been cut significantly in the past two years.

Given that City construction alone is not sufficient to ensure adequate investment in apprenticeship or opportunities for local and diverse workers/apprentices, the city could also seek to make its PLSA a “model” for private construction projects. Some ways to do this include:

:

- Establishing a Region Workforce Committee that includes major private owners as well as contractors, unions, and community representatives (the city and its stakeholders are best Placed to determine whether the “region” is best defined for this

²¹ The recommendation in the text is based on Philadelphia experience and discussion in Figueroa et al., p. 17, who note that: “Some PLSAs involved ‘Job Coordinator’ functions often performed by third-party entities; others involved a Labor Management Committee, or an Ad-Hoc Committee involving representatives from the owner, unions, and contractors. And a few involved a Social Justice Committee, which included representatives from the owner, unions, contractors, and community-based organizations.” See Maria Figueroa, Jeff Grabelsky, and Ryan Lamare, *Community Workforce Provisions in Project Labor Agreements: A Tool for Building Middle-Class Careers*, October 2011, on line at http://www.ilr.cornell.edu/news/upload/PLSA-REPORT-10-6-2011_FINAL.pdf

committee as the city, county, or Valley as a whole). The Regional Workforce Committee could be used by the city as the primary vehicle for spreading its PLSA workforce diversity, local hire, and apprenticeship utilization provisions.

- Establish a Regional Construction Workforce Fund in which would be invested a fixed portion of the construction costs on all major regional construction projects for the purpose of financing local hire and workforce diversity pipeline activities. One possible allocation would be 0.5% of total project costs. This is the U.S. Department of Training allowance for training activities on federally funded construction projects.
- The city could also make contractors' allocation of funds to apprenticeship training and workforce diversity efforts on non-public projects a criterion for awarding city construction projects.

H. Analysis of Project Labor Agreement Benefits Based on Survey of Collective Bargaining Agreements

As many as 13 local building trades are likely to be involved in City of Allentown construction projects during a year. The collective bargaining agreement of each of the local trade unions or councils was reviewed. The most pertinent terms and conditions of those agreements were compared against each other and with the standard provisions of a PLSA, and analyzing with regard to whether they would achieve the goals listed in Section B above.

Of the 13 collective bargaining agreements we have received and reviewed, five expire in 2012, four in 2013, two in 2015 and two in 2015.

Building Trade	Local Union
Heavy and Highway Laborers	158
Insulators	23
Carpenters	429
Painters	District Council # 21
Sheet Metal Workers	19
Elevator Workers	59
Bricklayers & Allied Craftworkers	5
Plumbers and Steamfitters	690
Cement Masons and PLSAsterers	592
Glaziers and Glassworkers	252
Boilermakers, Iron Ship Builders, Blacksmiths	13

A more detailed discussion of PLSAs in relation to the goals of Reading Construction projects follows.

Article V. Labor/Management Cooperation Joint Administrative Committee

The Labor/Management Cooperation Joint Administrative Committee established by Article V of the draft PLSA provides for an ongoing vehicle for communication and problem-solving

among the City, contractors, and trades about city construction projects. This Committee also provides a vehicle for establishing other committees, such as the Community Workforce Committee, that promote collaboration in service of the goals of the City on its construction projects.

Article VI. Access to Skilled Labor for City Projects and Openness to Union and Non-Union Contractors

Article VI of the draft PLSA provides access to union referral systems that will help recruit sufficient numbers of skilled craft workers to fulfill the manpower requirements of city projects.

Article VI also ensure that both union and non-union contractors shall have access to union referral systems. Section 9 of Article VI further allows non-union contractors to use their own "core employees" (e.g., supervisors) for up to 10 percent of all employees utilized by a contractor on the project.

Article VII. Disputes and Grievances

Of the contracts reviewed, 11 of the 13 identify procedures for handling grievances and these procedures vary between the different trades. No standardized, binding forum exists with authority overall all respective parties.

The PLSA sets forth in Article VII a standardized procedure for resolution of grievances or disputes arising from a claimed violation of the agreement or from disputes between or among signatories to the PLSA.

Article VIII. Jurisdictional Disputes

Procedures for dealing with jurisdictional work assignments and consequential disputes are not uniform and consistent in the collective bargaining agreements. Most importantly, there is no existing method, means, or procedure to ensure that there will be no strike, lockout, work stoppage or other work disruption pending resolution of such a dispute.

The PLSA sets forth the procedures dealing with construction work assignments on the project and consequential jurisdictional disputes that might arise. This provision establishes that there will be no strike, work stoppage or other disruptive activity pending resolution of the dispute.

Article IX. Management Rights

Several of the existing collective bargaining agreements do not contain a Management's Rights clause. Those that exist are either ambiguous or inadequate to provide the contractor with the authority and/or flexibility required for necessary control and management of the project work.

The PLSA, Article IX, contains a comprehensive Management Rights clause applicable to all contractors and all unions. Section 1 enumerates the powers and exclusive authority of the contractors for management and control of project operations including; direction and control of

the workforce (numbers and qualifications); determine crew make-up, crew size, and staffing levels; selection of foremen; assignment and schedule of work (regular hours and overtime); the promulgation of work rules; and the requirement, scheduling, and staffing of overtime work.

Section 2 of the same article gives contractors control over choice of materials, design, equipment, methods and technology utilized on the project, subject to the constraint that installation or application of materials be performed by the craft having jurisdiction.

Article X. Work Stoppages

Article X of the draft PLSA states there shall be no strikes or disruptive activity that interferes with or interrupts in any way work on the project.

Article XII extends the prohibition on strikes or disruptive activity to unions covered by collective bargaining agreements that expire during the course of a project. The expiration of these agreements during construction of the project would, absent a PSA, have the potential for resulting in a lawful strike that could delay the project.

Article XIII Hours of Work, Overtime, Shifts and Holidays

There is diversity among local agreements in terms of hours of work, start and quit times, premium payments, shifts, and holidays.

It is quite common in the normal course of construction that any given trade will require the support and/or assistance of one or more other trades in the performance of routine work. It is imperative, therefore, that for efficient scheduling and cost control purposes, the contractor can depend upon the entire workforce being on the job on the same days, with predictable start and quit times and clear rules regarding premium pay for work scheduled outside the normal shift.

Article XIII, Sections 1-7 harmonize these provisions across all crafts.

The diversity in the local agreements is illustrated as follows.

- Seven of the 13 contracts establish an eight- to 12-hour window of time in which the shift can be worked, where the start time can occur anytime within that window. Two contracts establish a start and quit time beginning at 7 AM and two establish a start and quit time beginning at 8 AM.
- Each of the 13 contracts provides rules for governing overtime and premium pay. All of the contracts state that overtime is paid for any hours worked after the standard 40 hour work week. 9 of the contracts pay overtime at a rate of time and a half Mon-Sat, while two pay double the wage, and two do not specify the overtime rate.
- Eleven of the 13 contracts observe a range of 1 to 8 holidays. The premium for holiday pay is double the wage rate in 10 contracts, time and a half in 1 of the contracts, and two do not allow work to be performed on the observed holidays

Article XIV. Apprentices

In an effort to meet the need to maintain continuing support of programs designed to develop adequate numbers of competent workers in the building construction trades, the PLSA (Article XIV) requires contractors to utilize apprentices to perform work on Projects that are within their capabilities.

The Article refers to ratios of apprentices to journey workers, but does not specify a minimum ratio, which could help guarantee higher investment in apprenticeship training during the course of this project.

J. Conclusion

Based on the analysis above, we find that, with technical corrections, the draft PLSA would facilitate successful completion of the East Side Fire Station project.

The City could strengthen the effectiveness of the PLSA at encouraging the use of local labor, promoting workforce diversity, and increasing investment in apprenticeship—helping to train the next generation of skilled construction workers—through stronger provisions on local labor, workforce diversity, and apprenticeship utilization. The City and its signatories to the PLSA also have the option of initiating the East Side Fire Station with the current PLSA but then negotiating stronger local labor, workforce diversity, and apprenticeship investment provisions in the PLSA before considering its appropriateness for some future projects.

As noted, we also recommend that the city explore an initiative to make stronger community workforce (i.e., local labor, workforce diversity, and apprenticeship utilization provisions) of a PLSA on city construction a model for other major construction projects in the region. This could have a more powerful impact on economic opportunity and the tax base in the city as well as alleviate a potentially severe construction industry skill shortage over the next five to 10 years.