



REQUEST FOR PROPOSALS (RFP)

FOR

CONSTRUCTION MANAGEMENT SERVICES

FOR REDEVELOPMENT OF NINTH & PENN GARAGE

PUBLIC PARKING AUTHORITY OF PITTSBURGH

DATE ISSUED: AUGUST 20, 2018

PUBLIC PARKING AUTHORITY OF PITTSBURGH
232 Boulevard of the Allies
Pittsburgh, PA 15222

DAVID G. ONORATO, CAPP
EXECUTIVE DIRECTOR

1. INTRODUCTION

The Public Parking Authority of Pittsburgh (the “Authority”) is soliciting proposals from qualified firms to serve as Construction Manager as Agent (the “CM”) to the Authority as part of a cooperative team for the demolition of an existing parking garage (the “Existing Garage”) and construction of a new, fully-above grade cast-in-place parking facility consisting of at least 600 parking spaces (the “New Parking Facility”) in the Cultural District in downtown Pittsburgh (the “Project”). It is envisioned that the Existing Garage will be demolished and that the New Parking Facility will be erected in approximately the same footprint as the Existing Garage.

The CM will provide preconstruction services in assistance to the design development and act as owner’s agent in the administration and management of the demolition and construction work. The CM will furnish business administration, management of the construction process and other specified services to the Authority and shall perform in an expeditious and economical manner consistent with the interest of the Authority.

The Authority is also soliciting proposals for architectural services for the Project. The CM will be required to work with the Authority and the selected architect (the “Architect”) during the planning, design, demolition and construction of the Project. A general description of and the Basis for Design of the New Parking Facility is attached hereto as Exhibit “C.” The actual cost of construction will be established by competitive bids based on completed design documents. The CM shall not be permitted to bid on or perform any of the actual construction on this Project, nor shall any construction firm which controls, is controlled by, or shares common ownership or control with the CM be allowed to bid on or perform work on the Project. The actual construction work shall be awarded by competitive bidding as provided by law.

No construction management services contract will be awarded by the Authority on a negotiated basis as provided in this RFP if the proposed CM, or a firm that controls, is controlled by, or shares common ownership or control with, the CM guarantees, warrants, or otherwise assumes financial responsibility for the work of others on the Project or furnishes or guarantees a performance or payment bond for other contractors on the Project.

2. ABOUT THIS DOCUMENT

This document is a Request for Proposals for Professional Services. It differs from an invitation for bid in that the Authority is seeking a best value solution, not a quotation meeting firm specifications for the lowest price. As such, the lowest price proposal does not guarantee an award recommendation. Instead, proposals will be evaluated based upon the criteria set forth herein, including such non-price factors such as staff technical qualifications and relevant experience.

The request for proposal process allows the Authority to negotiate with select respondents prior to awarding a contract. The Authority will thoroughly review all proposals received in a timely fashion and will utilize its best judgment in determining which respondents, if any, to schedule meetings with after receipt of all proposals. Subject to the other terms and conditions of this RFP, only those respondents that are qualified and responsible, as determined by the Authority in its sole and absolute discretion, will be considered for an award of a contract hereunder.

3. EXISTING GARAGE DESCRIPTION

The Authority owns the Existing Garage, commonly referred to as the Ninth & Penn Parking Garage, which is located at 136 Ninth Street, Pittsburgh, PA 15222, in the Cultural District in downtown Pittsburgh, Pennsylvania. The Existing Garage comprises 586 parking spaces in a six (6) level structure that was built in 1958. A general description of the Existing Garage is provided in Exhibit “A,” attached hereto and made a part hereof.

4. SCOPE OF WORK / PROJECT TIMELINE

The following services, together with those set forth on Exhibit “B,” attached hereto and made a part hereof, are collectively referred to herein as the “Scope of Work.”

A. Planning, Demolition and Design Phase Services. The CM will assist the Authority during the planning, procurement, demolition, and design phase of the Project by providing services consisting of, and including, but not limited to consulting with, advising, assisting and making recommendations to the Authority and Architect on all aspects of planning for demolition and construction; reviewing all plans and specifications as they are developed and making recommendations with respect to construction feasibility, availability of material and labor, time requirements for procurement and construction, and projected costs; making, reviewing and refining budget estimates based on the Authority’s program and other available information; making recommendations to the Authority and the Architect regarding the division of work in the plans and specifications to facilitate the bidding and awarding of contracts; and assisting the Authority in taking bids on the Project; analyzing bids received and awarding contracts; and preparing and monitoring a progress schedule during the design phase of the project and preparation of a proposed construction schedule, as well as:

(i) The CM shall participate in project planning and design review meetings with the Authority and Architect.

(ii) The CM shall review all documents for completeness, clarity and constructability.

(iii) The CM shall assist the Architect and Authority in the selection of consultants for geological testing, surveying, construction testing and other special consultants, as needed. The CM will coordinate the work of these special consultants, if retained by the Authority.

(iv) The CM shall provide input into site planning and staging.

(v) The CM shall schedule all demolition, site clearing and preparation and construction related activities.

(vi) The CM and Architect will immediately advise the Authority if the construction costs estimates exceed the latest approved budget. The CM will use value-engineering principles to make recommendations for corrective measures and will update these recommendations in a timely fashion so as not to affect progress to the design.

(vii) The CM will coordinate and manage the bidding process of each portion of the Project with the Authority and Architect, where applicable; and coordinate the notice to bidders

and any advertisement the Authority will publish; coordinate all requirements for insurance, bonds, and other financial and legal document requirements.

(viii) The CM shall conduct pre-bid meetings, answer bidder questions and concerns, be familiar with bid documents, and compile lists of items and questions to be forwarded to the Authority in order to issue a written addendum, with assistance from the Architect, with respect to technical questions.

(ix) The CM shall assist the Authority and, where applicable, the Architect in evaluating bids for content, area of responsibilities, responsiveness and responsibility of bidders and recommend a bid award to the Authority.

(x) The CM shall assist with obtaining review and approvals by necessary public agencies and approval authorities for all aspects of facility design and construction.

(xi) The CM shall participate and report to the Authority project team at scheduled meetings.

(xii) The CM shall coordinate acquisition of demolition, building and special permits for the Project, and shall assist the Architect and Authority in connection with filing documents required for approvals of governmental authorities having jurisdiction over the Project.

B. Construction Phase Services. Where applicable, the CM shall provide the services described herein for the demolition of the Existing Garage, site clearing and preparation for the construction of the New Parking Facility. In addition, the CM will assist the Authority during the construction phase of the Project by providing services consisting of, and including, but not limited to maintaining competent supervisory staff to coordinate and provide general direction of the work and progress of the contractors on the Project; observing the work as it is being performed for general conformance with working drawings and specifications; establishing procedures for coordinating among the Authority, Architect, contractors and CM with respect to all aspects of the Project and implementing such procedures; maintaining job site records and making appropriate progress reports; implementing labor policy in conformance with the requirements of the Authority and state law; reviewing the safety and equal opportunity programs of each contractor for conformance with the Authority's policies and making recommendations; reviewing and processing all applications for payment by involved contractors and material supplies in accordance with the terms of the contract; making recommendations for and processing requests for changes in the work and maintaining records of change orders; scheduling and conducting job meetings to ensure orderly progress of the work; developing and monitoring a project progress schedule, coordinating and expediting the work of all contractors and providing periodic status reports to the Authority and the Architect; and establishing and maintaining a cost control system and conducting meetings to review costs; as well as:

(i) The CM will provide continuous on-site management services, including being responsible for the coordination of all construction activity, including recommending various courses of action when construction contractors are not performing work in accordance with contract documents, conducting daily onsite coordination meetings and quality control.

(ii) The CM shall be responsible for controlling site access.

(iii) The CM shall provide administration of the contracts for construction in cooperation with the Architect.

(iv) The CM shall conduct a general pre-construction meeting prior to the start of construction and in-depth pre-construction meetings with all major trade contractors prior to the start of their work activities.

(v) The CM shall track construction costs and maintain detailed construction cost records.

(vi) The CM shall review and monitor a comprehensive safety program for the Project set forth by the general contractor.

(vii) The CM shall establish and maintain quality control and quality assurance standards.

(viii) The CM shall prepare and update the construction schedule so that it incorporates all parties' responsibilities, which will be used for monitoring and enforcing the progress of the Project, which will be updated monthly for review by the Authority and Architect

(ix) The CM shall schedule and conduct weekly construction team meetings to be attended by the Authority's representatives, Architect, all contractors who are working on-site or starting in the near future to review construction progress, scheduling, problems, etc. The CM shall prepare and distribute minutes to all parties involved.

(x) The CM shall review each contractor's application for payment based on observation and evaluation of performance and coordinate with each contractor as needed for modifications prior to submitting to the Authority for approval and certification.

(xi) The CM shall determine in general that the work of each contractor is being performed in accordance with the requirements of the contract documents, endeavoring to guard the Authority against defects and deficiencies in the work. The CM, in consultation with the Architect, may reject work that does not conform to the requirements of the contract documents.

(xii) The CM shall review proposal request changes, assist in negotiating contractors' proposals, submit recommendations to the Architect and Authority, and if the requests are accepted, prepare change orders.

(xiii) The CM shall review the contractor's payroll to ensure the contractor is paying prevailing wage, as required by applicable law.

(xiv) In collaboration with the Architect, the CM shall establish and implement the procedures for the expediting, the processing and approval of requests for information, shop drawings, product data, samples and other submittals with the information in the specifications and contract drawings.

(xv) The CM shall maintain one set of construction documents at the Project site for the Authority. This will include all contract drawings, specifications, addenda, change orders and

other modifications, in good order and clearly marked for all changes to submit to the Architect to create a set of “as built drawings” for the Authority.

(xvi) The CM shall coordinate and schedule the contractor’s final testing and start up utilities, operational systems and equipment and coordinate training of Authority personnel.

(xvii) The CM shall assist the Architect team in determining when each contractor’s work or a designated portion of that work is substantially complete. The CM shall prepare a list of items that are not complete or do not meet the design standards and a schedule for their completion for the architect. The CM shall assist the Architect team in conducting inspections to determine whether the work is complete and/or has been corrected, as well as conducting the final punch list and specifications.

(xviii) The CM shall monitor, coordinate and resolve all warranty complaints to the satisfaction of the Authority during the general warranty period or any longer special warranty period, as well as conduct a post-occupancy walkthrough with the Authority no later than three (3) months after the date of substantial completion.

C. Project Timeline: The Scope of Work will begin immediately upon award with conceptual, schematic and design development during the Authority’s 2018 fiscal year, moving on to completion of construction documents, bid packages and contract award, and construction administration through completion of the Project, through the Authority’s 2021 fiscal year. The Authority desires to demolish the Existing Garage as soon as reasonably possible and move to construction immediately thereafter.

5. SCHEDULE AND DEADLINES FOR RFP

EVENT	TIME AND/OR DATE
RFP Issued	Monday, August 20, 2018
Mandatory Pre-Proposal Meeting	Wednesday, August 29, 2018 at 2:00pm EST
Deadline For Respondents to Submit Questions and Requests for Clarification/Interpretation/ Modification (“Request for Clarification Due Date”)	Friday, September 7, 2018 at 4:00pm EST
Deadline for Submission of Proposals (“Proposal Due Date”)	Friday, October 5, 2018 at 3:00pm EST
Anticipated Board Action	November

6. ADMINISTRATIVE REQUIREMENTS AND RELATED INFORMATION

A. To be considered responsive, consultants must submit (a) one (1) electronic copy (on flash drive) of their proposal and (b) five (5) hard copies of their proposal in a clearly marked envelope by 3:00 p.m. EST on Friday, October 5, 2018 to the following address:

Christopher Holt
Director of Project Management
Pittsburgh Parking Authority
232 Boulevard of the Allies
Pittsburgh, PA 15222-1616

B. Any proposals received after 3:00 p.m. EST on Friday, October 5, 2018 will be rejected.

C. The Authority reserves the right to extend or postpone the date and time for accepting proposals through an addendum to this RFP.

D. All proposals shall be signed by an individual authorized to bind the respondent and execute contracts on its behalf. Complete the contact information sheet attached herein as Exhibit "D."

E. All proposals, responses, inquiries, or correspondence relating to or in reference to this RFP, and all electronic media, reports, charts and other documentation submitted by a respondent shall become the property of the Authority when received. Nothing submitted shall be considered confidential or proprietary.

F. The Authority reserves the right to request additional information which, in the Authority's opinion, is necessary to assure that the respondent's competence, business organization, and/or financial resources are adequate to perform in accordance with this RFP and any resultant contract.

G. The Authority may make such investigation as it sees fit to determine the ability of the respondent to perform the professional services specified herein, and the respondent shall furnish the Authority all such information and data for this purpose as requested by the Authority. The Authority reserves the right to reject any proposal if the proposal submitted by, or investigation of, such respondent fails to satisfy the Authority that such respondent is properly qualified to carry out the obligations of a subsequent contract with the Authority and to satisfactorily perform the professional services specified herein.

H. The Authority reserves the right to reject any or all proposals, waive any irregularities or defects in any proposal, and modify or postpone or terminate the project detailed herein in its entirety or with respect to any respondent, at any time, for any reason or no reason.

I. All costs and expenses incurred by a respondent in the preparation and delivery of a proposal will be the sole responsibility of the respondent. The Authority will not be liable for any amounts to any respondent in any manner, under any circumstances, including without limitation, as a result of the termination of the RFP process.

J. The receipt of proposals or other documents by respondents during any stage of the process will in no way obligate the Authority to enter into any contract with any respondent or make the Authority liable for any respondent costs. This RFP is a solicitation only and is not intended to be nor should it be construed to be an offer to enter into any contract or other agreement.

K. No respondent, team member, employee, servant, agent, advisor, consultant or representative of that respondent may communicate with any other respondent, team member, employee, servant, agent, advisor, consultant or representative of any other respondent about the preparation of proposals. Each proposal shall be prepared without any connection, knowledge, comparison of information, or arrangement with any respondent, team member, employee, servant, agent, advisor, consultant, or representative of any other respondent. Each respondent is responsible to ensure that its participation in this RFP process is conducted fairly and without collusion or fraud.

7. CLARIFICATION OF REQUIREMENTS, ADDENDA & MODIFICATIONS

Any respondent in doubt as to the meaning of any part of this RFP may request a clarification, interpretation and/or modification thereof from the Contact Person (as hereinafter defined). At the request of the respondent, or in the event the Authority deems the response to the request to be substantive, the clarification, interpretation and/or modification shall be made by an addendum. Requests for clarification, interpretation and/or modification must be submitted in writing to the Contact Person by 4:00 p.m. EST on Friday, September 7, 2018; any request received after this deadline will not be considered.

A. Inquiries regarding the RFP and all requests for clarification, interpretation or modification of the RFP must be directed in writing via e-mail, to Christopher Holt at cholt@pittsburghparking.com (the "Contact Person").

B. If any alleged errors are noted in the RFP, a respondent should immediately notify the Contact Person and, if confirmed, an addendum shall be issued.

C. The Authority will not accept telephone calls or any other forms of communication pertaining to this RFP, except as set forth in this Section 7.

D. This RFP may be updated, supplemented or amended at any time by the Authority. Any changes, additions, deletions, or clarifications to the RFP will be made by addenda issued by the Authority.

E. Any addendum issued by the Authority shall be considered part of the RFP.

F. Addenda will be sent via e-mail and regular, first class U.S. mail to the last known business address of each person/entity listed with the Authority as having received a copy of the RFP for proposal purposes. The Authority will make reasonable efforts to notify respondents in a timely manner of modifications to the RFP. Notwithstanding the foregoing, each respondent shall be responsible for ensuring that its proposal reflects any and all addenda issued by the Authority prior to the proposal due date.

8. CONSTRUCTION MANAGER AGREEMENT

The agreement governing the contractual relationship will be the AIA A132 Agreement between Owner and Construction Manager as Agent, as revised.

9. PRE-PROPOSAL MEETING

A mandatory pre-proposal meeting will be held on Wednesday, August 29, 2018 at 2:00pm EST at the main offices of the Authority, which are located at 232 Boulevard of the Allies, Pittsburgh, PA 15222-1616.

10. PROPOSAL REQUIREMENTS AND EVALUATION CRITERIA.

Each proposal should be in the format set forth below and not exceed forty-five (45) pages and will be rated on a 100-point scale. Rating will be according to the degree to which a respondent demonstrates its capacity to satisfy the requirements set forth herein. Each proposal should include the following parts, which will be assigned the indicated point values:

A. **Cover Letter:** The cover letter shall briefly identify and describe the respondent firm and/or team. A principal or officer authorized to execute contracts or other similar documents must sign the letter. Name, mailing address, phone, fax, email and website address should be included.

B. **Statement of Qualifications and Experience.** Provide a brief narrative description of the respondent's history and capabilities relevant to the Project. The Statement of Qualifications and Experience shall address each of the following: **(Total Possible Score: 30 points)**

(i) A general description of the Company's management plan that defines the proposed management approach to the Project, along with an organizational chart that identifies the individuals, and sub-consultants, who will be performing the Scope of Work and key team members that will be committed to this engagement.

(ii) A description of the qualifications, relevant experience and resume for each individual identified as key team members. Briefly outline the roles and responsibilities of each such individual. Provide resumes of the Company's key professional staff, including pre-construction and construction phase personnel, and descriptions of the roles and responsibilities those individuals would be responsible for on the Project.

(iii) Discuss respondents' availability to expedite documentation in order to meet the Authority's deadlines related to the Scope of Work.

(iv) Provide references from three (3) organizations for which you have completed comparable projects (including name, title, address, telephone number and e-mail address) who can attest to the relevant qualifications and capabilities of your organization.

(v) Describe your organization's Pennsylvania presence. State the number of full-time employees from your organization who are based in Pittsburgh and the location of your offices in Pennsylvania.

(vi) Indicate your firm's understanding of local laws, ordinances, regulations, policies, requirements, permits, etc. as relevant to the Scope of Work.

(vii) In addition to the references in subparagraph (iv), provide a list of similar projects, which contain requirements that demonstrate your firm's capabilities. Projects within the Pittsburgh area are of particular interest.

C. **Technical Proposal:** Please organize your proposal so that it addresses each of the following items. **(Total Possible Score: 25 points)**

(i) Project Understanding. Explain your understanding of the Project and the Authority's expectations for a successful project outcome. Identify any potential challenges to success.

(ii) Project Approach. Provide a concise summary of how your team will approach and efficiently complete the Scope of Work. Include anticipated deliverables and timelines.

(iii) Construction Services and Systems.

1) Describe the company's cost estimating capabilities, techniques and reporting methods during the pre-construction phase.

2) Describe the company's cost control capabilities, techniques and reporting methods during the construction phase.

3) Describe the company's scheduling capabilities techniques and reporting methods throughout the Project.

4) Describe the company's approach to value engineering analysis.

5) Describe the company's capabilities for reviewing documents for completeness, clarity and constructability.

6) Describe the company's approach for resolving issues with the Architect team.

7) Submit a plan description for Quality Assurance and Control for the Project during the pre-construction and construction phases.

8) Describe the company's bidding procedures and techniques for maximizing trade contractor's response to bid opportunities for the Project.

9) Describe the company's procedures for processing change orders, including review and auditing of trade contractor pricing.

10) Describe the company's approach to resolving issues with trade contractors.

11) Describe the company's safety program and procedures for the Project.

12) Describe the company's close-out procedures.

D. Cost Proposal: (Total Possible Score: 35 points)

Provide (a) a percentage of the total cost of the Project for all professional services necessary to complete the Scope of Work and (b) the applicable unit costs for the professional services (e.g. hourly rates for personnel, material costs, reimbursable expenses, etc.). Break down the fee percentage for Pre-Construction and Construction Phase services.

Pre-Construction Services should include:

Planning and Scheduling	Estimating	Value Management
Quality Review	Preparing Contracts for Demo and Construction	Life-Cycle Costing
Front end specifications	Bid Procurement	Project Director
Tracking costs against the budget	Design Meetings	Clerical Costs

Construction Services should include:

Senior Project Manager	Senior Project Manager	Project Manager
Assistant Project Manager	Safety Officer	Project Superintendent
General Superintendent	Miscellaneous Staff Expenses	Review Shop Drawings
Prepare Change Orders	Project Completions Reports	Superintendent Vehicle
Clerical Costs		

E. MBE/WBE Participation: The Authority is committed to providing equal employment opportunities to minorities and women and equal opportunities for business growth and development to minority and women entrepreneurs. To that end, the Authority requires that all service providers, contractors and subcontractors performing work for the Authority demonstrate a good faith effort to obtain the participation of minority and women business enterprises in the work to be performed for the Authority and to employ minorities and women during performance of the work. It is the Authority's objective to obtain minority and women's participation in its contracts with the goal being 25% of the contract amount expended for minority participation and 10% of the contract amount expended for women's participation. The Authority promotes the full utilization of subcontracting activities to ensure a successful Minority and Women's Participation Plan. Provide tangible evidence that your organization has made a good faith effort to satisfy these goals. Respondents can contact the Pennsylvania Unified Certification

Program (PAUCP) at their website www.paucp.com for listings of certified professional services. Please refer to and complete Exhibit “E” of the RFP. **(Total Possible Score: 10 points)**

11. EVALUATION AND SELECTION PROCESS.

A. The Authority will form a selection committee to review and recommend proposals. The Board of Directors of the Authority has the final authority, in its sole and absolute discretion, for authorizing a contract with the Authority.

B. A shortlist of respondents may be scheduled for a structured oral presentation or interview and for discussions regarding best and final offers. Any such presentations shall be at no cost to the Authority. The Authority also reserves the right to visit the respondent's facilities. The oral interview may be recorded or videotaped by the Authority. At the end of the oral presentation/interview process, if any, any shortlisted respondents may be required to submit revised proposals to be reviewed again in accordance with Section 10 and this Section 11. Subject to the other terms and conditions of this RFP, the successful respondent will be recommended for contract negotiation.

C. Upon selection of a company, the Authority and selected company shall attempt to negotiate the Agreement. If an agreement cannot be reached, the Authority will end negotiations with the selected company and may enter into negotiations with the next most qualified company.

D. The Authority reserves the right to reject any and all proposals, to waive any informality and to reject the lowest cost proposal or for any other reason, including the inability to negotiate a contract for the type of services required for the project at a price determined by the Authority to be fair and reasonable.

E. The Authority reserves the right to negotiate any and all elements of this RFP.

F. The Authority may re-evaluate the necessary construction management services, including the scope and reasonable fee requirements.

G. The Authority anticipates executing an Agreement with the successful respondent within fifteen (15) days following award of the contract.

[EXHIBITS FOLLOW]

EXHIBIT A



GENERAL INFORMATION REGARDING THE NINTH & PENN GARAGE

136 NINTH STREET, PITTSBURGH, PA 15222

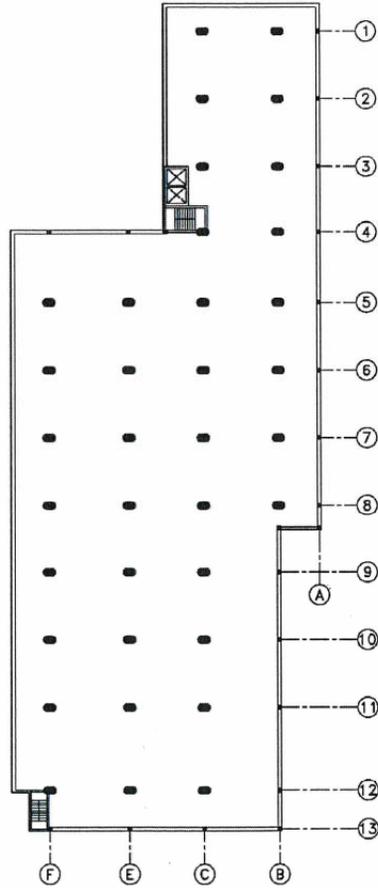
The Ninth & Penn Avenue Garage is a six-level structure opened in 1958.

The Ninth & Penn Avenue Garage has 586 parking spaces and functions as a single threaded helix with two-way traffic.

The structural system consists of cast-in-place, conventionally reinforced two-way waffle slabs supported by cast-in-place, conventionally reinforced columns.

The Ninth & Penn Avenue Garage is accessible from Penn Avenue and Ninth Street both to enter and exit the garage.

Total Area of garage:	195,984 sf.
Typical Floor area:	33,204 sf.
Maximum Dimensions:	330' x 125'
Typical Bay Dimensions:	59'-6" x 59'-8"
Architectural Shape:	Irregular
Year Opened:	1958
Number of Levels:	5 structurally supported + 1 below grade level
Total Number of Spaces in garage:	586
Parking on Grade:	Yes
Retail Space within garage:	Yes
Below Grade parking:	Yes
Construction Type:	Cast-in-place, conventionally reinforced two-way waffle slabs and columns
Garage Functionality:	Two-way single helix
Maximum Clearance Height:	6'7"



NINTH AND PENN PARKING GARAGE
TYPICAL FLOOR PLAN



EXHIBIT "B"

SCOPE OF WORK

A. Pre-Construction Services.

1) Site Planning and Assessment:

- a) Assist with site planning and assessment of its relationship to the surrounding neighborhood. Issues that must be addressed include, but are not limited to, pedestrian and vehicular traffic patterns, utility relocation and service, service accessibility, parking demand, public space and public realm enhancements, public art opportunities, site drainage and the protection of adjacent areas.
- b) Review and advise Authority with respect to Architect's conceptual drawings and approach to the design of garage structure.
- c) Review and advise Authority with respect to site plans to integrate the new parking facility with the surrounding context, including any requirements of stakeholders, the City of Pittsburgh Planning Commission and other governmental authorities.
- d) Review and advise Authority with respect to all necessary design, engineering and related professional services for the demolition of the existing parking facility and construction of a new parking facility, consistent with the Basis of Design.
- e) Review the identification, coordination and/or design of all onsite and offsite utility relocations and new services, including separate metering of the utilities to spaces, if needed.
- f) Review and advise Authority with respect to the design and coordination of the garage access and egress points with the adjacent road system and existing parking lot.
- g) In coordination with the Architect, develop construction cost estimates during the design process.
- h) Review and advise Authority with respect to design deliverables, including schematic design documents, design development and construction documents.

2) Schedule:

- a) Develop an overall project timeline to bid, procure and complete demolition and construction within the required project schedule.
- b) In cooperation with Architect, develop detailed design and construction schedules.

3) Permits and Approvals:

- a) Assist with submission of applications and obtaining of any and all applicable government approvals, planning approvals and/or all zoning variances necessary from the relevant agency(s).
- b) Review final design for compliance with applicable local and governmental codes.
- c) Assist with permitting including all local, state and federal permits required for demolition and construction. Coordinate and obtain building permits during the

construction phase. The Architect will be responsible for obtaining all approvals and permits leading up to the building permit.

4) Construction Documents:

- a) Review demolition and construction documents for completeness and constructability, and to ensure a complete, approved and permitted set of construction documents, within budget and ready for bidding.
- b) The construction bid packages are anticipated to be broken into multiple prime trade contracts in accordance with the Separations Act, 71 P.S. Section 1618 et seq., with separate prime contracts for demolition and construction. The Architect will be required to prepare the specifications and bid solicitations in the manner necessary to support this bidding and contracting approach.

5) Demolition Phase Services:

- a) Provide services including but not limited to assisting in obtaining bids, participation in pre-bid conferences, responding to questions from bidders, attending bid openings, analyzing bid proposals and making recommendations for award, preparing construction contracts, and preparation and distribution of addenda documents, regular site visits, attendance at regular construction progress meetings.
- b) Work cooperatively with the Architect and prime contractors to review and approve submittals, invoices, change orders, RFIs, among other things, and to ensure that all questions are answered on a timely basis, change orders are processed efficiently and at a fair and reasonable price, and that the quality of the work is maintained at the highest standards.
- c) The construction and bid documents are anticipated to be developed so as to support the procurement and commencement of demolition prior to completion of design of the New Parking Facility.

6) Construction Phase Services:

- a) Provide services including but not limited to assisting in obtaining bids, participation in pre-bid conferences, responding to questions from bidders, attending bid openings, analyzing bid proposals and making recommendations for award, preparing construction contracts, and preparation and distribution of addenda documents, regular site visits, attendance at regular construction progress meetings.
- b) Work cooperatively with the Architect and prime contractors to review and approve submittals, invoices, change orders, RFIs, among other things, and to ensure that all questions are answered on a timely basis, shop drawings are reviewed promptly, change orders are processed efficiently and at a fair and reasonable price, and that the quality of the work is maintained at the highest standards.

7) Warranty Period and Post-Occupancy Evaluation:

- a) Assist Architect and Authority in the resolution of problems discovered during the warranty period and coordinate contractor correction. Follow up visits to observe completed warranty work will be included.

8) Meetings and Presentations:

- a) Schedule and hold regular meetings with Authority, and distribute, in a timely manner presentations, meeting minutes and progress reports (for all phases of design and related services).
- b) Coordinate with related entities (the Authority's other consultants, City of Pittsburgh, community groups, other related groups) to gather necessary information.
- c) Present at Authority Board meetings, City of Pittsburgh Planning Commission and Zoning Board of Adjustment meetings, community meeting(s), and other related meetings if needed.

EXHIBIT “C”

BASIS OF DESIGN

This document summarizes the “Basis of Design” for the New Parking Facility. The structure should be designed to accommodate efficient and smooth traffic flow and meet all applicable codes.

Section 1 - Code Requirements and Design Loads

A. The design of the Ninth and Penn parking structure shall comply with Federal, State, City, Industry codes, standards and regulations, hereinafter referred to as “Code Requirements” in the design and construction of the parking structures. When codes conflict, the most stringent code governs. This Section identifies the latest applicable version of each primary code to be followed and any conflicts among codes are to be promptly brought to the attention of the appropriate City departments.

1. Minimum Design Live Loads

- b. Parking areas; 40 psf or 2,000 lb. concentrated load acting on 20 sq. in. area.
- c. Stair and elevator lobby-100 psf.
- d. Storage areas 125 psf.
- e. Mechanical rooms 125 psf:
- f. Ground snow load 30 psf.
- g. Roof level full live load plus snow load, plus snow drift.
- h. Wind load per ASCE-7.80 mph exposure C or D.

B. Codes, Standards, and Regulations Applicable to the Parking Structure

- 1. The following identifies the anticipated primary codes, standards, regulations and their applicability to the design of the parking structure. Additional codes, standards, and regulations may apply.

CLASSIFICATION	CODE, HANDBOOK OR MANUAL TITLE
Building	The most current adopted International Building Code American Concrete Institute Standards Specifications for Structural Concrete in Buildings ACI 301 Building Code Requirements for Rein. Concrete ACI 318 Recommended Practice for Concrete Formwork ACI 347

American Institute of Steel Construction

Code of Standard Practice for Steel Buildings and
Bridges

Specifications for the Design, Fabrication and
Erection of Structural Steel for Buildings

Specifications for Structural Joints Using ASTM A
325 or A 490 Bolts

Post-Tensioning Institute

American Society for Testing Material Standards.

American Welding Society

Structural Welding Code D1.80.

Structural Steel Painting Council Standards

Good Painting Practice Steel Structures Painting
Manual Vol. 1

Systems and Specifications Structures Painting
Manual Vol. 2

Electrical

National Electrical Code

National Fire Protection Association

Illuminating Engineering Society (IES)

Fire Safety

National Fire Codes and Standards, National Fire
Protection Association

#728 Aux. Protective Signaling Systems

#72C Remote Station Protective Signaling Systems

#72D Proprietary Protective Signaling Systems

Mechanical

The Uniform Mechanical Code

Plumbing

The Uniform Plumbing Code

Signage

Manual on Uniform Traffic Control Devices
U.S. Department of Transportation

Zoning

City of Pittsburgh Zoning Code

Section 2 – Architectural

- A. The parking structure shall be a ramp access open air parking structure, to the extent the same can be code compliant as an open air structure. The parking structure's foot print, height, and facade treatment shall be designed to be efficient, meet code requirements for openness (to the extent feasible) and should include a facade that is complimentary to its surroundings.
- B. The design is to be efficient. Building interior corners and other space which cannot be used for parking shall be used for required stairwells and storage space, etc., to the extent possible.
- C. The design and material selection shall consider the need for ease of maintenance, economy, and durability. The approved structural system is anticipated to be cast-in-place post-tensioned concrete.
- D. The parking structure shall be open to the exterior to the fullest extent possible, without compromising safety and security. The Authority desires that all levels of the parking structure meet the Code requirements for an open structure, if feasible.
- E. The parking structure shall be designed in such a manner that there shall be no discharge of storm water off the exterior and interior edges of the elevated floors. Every effort shall be made to slope each floor toward the interiors of the structures, and to provide positive drainage under normally expected rainfall conditions. Water shall drain away from elevators and stairwells.
 - 1. Minimum slope to drain for all floors: 1.5% (2.0% recommended). 2.0% maximum slope allowed at any accessible parking spaces.
- F. Stairs shall meet all safety standards including guardrails, handrails, and non-slip safety nosings. Minimum stair width shall be 48 inches clear between handrails. All guardrails and handrails are to be painted, unless stainless steel is used.
- G. UL-Labeled metal fire doors with metal door frames shall be used throughout the building. Use rust-resistant material shop primed and field painted.
 - 1. Hardware shall be of a heavy-duty type (high-usage). Provide three hinges on all doors minimum.
 - 2. Doors to any storage rooms, and equipment rooms, accessible to the public, shall be lockable and master-keyed to the Owner's locking system.
 - 3. Doors in stairwells shall have vision panels.

H. Interior finishes:

1. Parking Decks: Cast-in-place concrete with medium broom finish texture, sealed with 100% silane penetrating sealer.
2. Floors at Lobbies and Stair Landings: Cast-in-place concrete with light broom trowel finish, sealed with 100% silane penetrating sealer.

I. Exterior finish/materials:

1. Columns: Minimum smooth cast concrete with rustication joints and light sandblasting on three sides typical (corner columns all four sides). Smooth cast concrete on fourth side (facing interior).
2. Upturned beams and crash wall (if provided): Minimum smooth cast concrete over edge of slab, with rustication joints and light sandblasting.
3. Glazing: Provide a storefront and curtainwall systems at all stair towers. System shall be capable of withstanding wind, live and dead loads, thermal and structural movement, and water penetration. The aluminum shall be coated with a three-coat Kynar type color finish or anodized per the proposed design. The glass shall have tinting and shall be insulated if space behind is conditioned.
4. Roofing membrane shall be 60 mil, TPO (Thermoplastic Polyolefin) sheet elastomer complying with ASTM D6878, internally fabric or scrim reinforced. Exposed face color shall be white. All flashing to be aluminum and match the color of storefront/curtainwall system.
5. Waterproofing
 - a. All below grade foundation/retaining walls shall receive bentonite waterproofing minimum.
 - b. A heavy-duty elastomeric traffic bearing membrane system shall be applied to the garage slabs above the ground floor retail areas and all other occupied space, storage space or utility room. The membrane shall consist of a primer coat, base coat, and two or more topcoats broadcast with aggregate. The membrane is to be supplied with a 5-year waterproofing warranty.

Section 3 – Parking Structure Layouts

- A. Long-span construction shall be used wherever design allows. Interior columns in the typical parking bay are not desirable. If interior columns are provided they shall not encroach on the parking stall width and shall be at least 3 feet from the drive aisle edge.
- B. Parking stalls 8 feet 6 inches wide minimum will be used. Accessible spaces shall be provided per ADA requirements. Parking spaces shall be accessible for self-

parking; i.e., no spaces shall be “stacked” or situated in such a manner to make it necessary to move another vehicle to utilize a parking space.

- C. Drive bay overall with shall meet City of Pittsburgh, Authority and National Parking Association minimum requirements.
- D. Provide typical floor-to-floor heights of 11 feet 4 inches which shall allow 8 feet 2 inches minimum clearance, 8 foot 4 inches with construction tolerance, for specially equipped vans per governing accessibility requirements throughout the facility. Signs and hanging bars shall indicate the minimum clearance.
- E. Parking bay floor slope gradients shall in no case exceed 6.67 percent for floors used for parking per IBC although the maximum desired slope should be no more than 5.5 percent to 6.0 percent.
- F. Speed ramps (if applicable) shall not exceed 14 percent and shall contain transition areas at both the top and bottom of the ramp so that maximum break-over slope does not exceed maximum of 7 percent up or down.
- G. Pedestrian access to the parking structure shall be provided at points along the perimeter, which are convenient to pedestrian circulation and designed to promote passive security and minimize hiding places. Pedestrian and vehicle conflicts at ingress/egress points shall be minimized. The exit area shall have minimal visual obstructions, and sight distance should be maximized as the driver exits the facility.
- H. Design all exits, stairs, and elevator lobbies to be easily viewed from parking areas and protect from vehicular movement with concrete-filled steel pipe bollards (minimum 42 inches high).
- I. Provide fire extinguishers at locations as required by code and at every lobby area. All fire extinguishers shall be located within cabinets that are handicapped accessible per governing requirements.
- J. Parking structure entrances shall provide vehicle reservoir space for cars entering/exiting the parking structures.
- K. A sufficient number of entry and exit lanes shall be provided at each location to accommodate the expected traffic flows, with an average waiting time during the peak hour and mass event exits of approximately 20 seconds or less upon exit and entry. Queuing areas shall be designed to accommodate average peak hour expected queues on the site, not spilling out into the street. Reversible lanes will be considered where practical. Wherever practical, place entries and exits adjacent to each other to provide observation of the entry lanes by the cashiers on duty.
- L. At entrances and exits, aprons to exterior streets, or surface parking, shall be flush with pedestrian right-of-way.

Section 4 - Passive Safety and Security

- A. Openings between parking structure levels in stairwells, elevator waiting areas, parking areas, etc. shall be designed to promote passive security and minimize hiding places.
- B. The ground floors shall be designed to limit access to designated points on the parking structure's periphery.
- C. Paths of pedestrian and vehicle circulation shall be lighted to meet or exceed the International Parking Institute's (IPI) and National Parking Association's (NPA) recommendations, or as otherwise noted herein.
- D. To the highest extent possible, all elevators shall be located where the door and open car are visible to the public using the facility.

Section 5 - Structural

- A. Formwork for concrete deck and columns exposed to view shall be a minimum Smooth Form Finish: PS1 plywood intended for concrete formwork, edge sealed, no mill oil. Type B-B Plyform or HDO overlain plywood.
- B. Structural system is anticipated to be cast-in-place, post-tensioned concrete system.
- C. Stiff elements such as stair/elevator towers, walls, etc., should be structurally separated from the remainder of the parking structure.
- D. Structural elements that will be continually conditioned shall be structurally separated from elements that will be continually exposed to weather and volumetric changes due to temperature deltas.
- E. Construction sequencing shall be such that the elevator towers can be built independently and ahead of the rest of the structure.
- F. Barrier walls, guardrails, and railings in parking areas shall be designed in accordance with ASCE 7-10 requirements to withstand a concentrated horizontal force (impact load) of 6,000 lbs. applied over one square foot and evaluated from 18 inches through 27 inches above finished floor, for the determination of greatest stress. All barrier walls to be typically 3 feet 6 inches above finished floor inclusive of all curbs and washes. Barrier cables are not acceptable.
- G. Curb and wash heights shall not exceed 6 inches.
- H. Stair and landing areas shall be of concrete construction with aluminum oxide coating system. Metal pan stairs will not be allowed.

- I. Exposed concrete surfaces in stairs and elevators to be plumb and level with adjacent architectural floor finish.
- J. The structure shall be designed and constructed to be durable and minimize further maintenance problems.
 - 1. The concrete mix for columns, supported slabs and beams shall be normal weight 5,000 psi 28- day strength proportioned to meet ACI requirements for areas exposed to freeze/thaw, and salt or water including limitations on water soluble chloride in the concrete and maximum water/cement ratios.
 - 2. A superplasticizer may be used.
 - 3. Aggregate conforming to ASTM Standard C-33 shall be used.
 - 4. A water/cement ratio of 0.35 or less shall be used except for foundations which may have up to a 0.45 water/cement ratio.
 - 5. Freeze-thaw resistance shall be improved by the use of entrained air (minimum 6% + 1%) per ACI recommendations.
 - 6. Shrinkage cracks shall be minimized by recommended practices for placing, finishing, and curing concrete.
 - 7. Supported concrete floors, slab-on grade with reinforcement heavier than mesh (rebar), stairs and elevator lobbies not otherwise waterproofed shall be treated with a 100% solids silane penetrating sealer, at a rate of 125 sq.ft. per gallon.
 - 8. Embedded metallic items shall be hot dipped galvanized, or stainless steel.
- K. Reinforcing steel and tie wires support bars and chairs used in top 3 inches of slabs shall be epoxy coated. All column ties shall be epoxy coated. Provide a minimum cover of 1-1/2 inches (ties and slab top steel) and 2 inches (beam and column main steel) except only 1 inches of cover shall be required on the undersides of slabs. Minimum cover of 3 inches shall be provided for concrete in contact with the earth.
- L. Pre-stressing steel shall be stranded, stress relieved 7-wire cables conforming to ASTM 416 with a minimum ultimate strength of 270,000 psi.
- M. Entire post tensioning system shall be encapsulated.
- N. Slabs poured on grade shall be a minimum of 8 inches thick, placed over 8 inches of washed gravel, and reinforced with Structural Fiber as follows: Monofilament polypropylene/polyethylene fibers, 1.5 to 2 inches in length with a minimum tensile strength of 70 ksi and the minimum Modulus of Elasticity of 600 ksi. Minimum dosage shall not be less than 4.0 lbs/cu. yd.

- O. No materials containing intentionally added chloride ions shall be used in concrete.
- P. Control joints in slabs on grade shall be arranged so that the long-side panel dimension does not exceed the short-side panel dimension by more the 75% (A,\$. 1.75B). Panel area shall not exceed 225 with a maximum of 15 feet between control joints.
- Q. Control joints must be saw cut if completed while concrete is green and when slab can just support cutting equipment without indentations. Control joints in SOG with structural fiber reinforcement requires polyurethane sealant.
- R. Construction joints shall be sealed with a high quality, flexible polyurethane sealant (IT-S-227E. Class A.Type 1 or 2 two component). A five-year warranty shall be provided.
- S. Expansion joints shall be adequate in number, properly placed, watertight and easily maintained. The expansion joint seal system shall be a complete system of compatible materials designed by the manufacturer to produce a waterproof, traffic-bearing expansion joint seals as detailed on the drawings. The elastomeric joint shall be performed to a continuous length.

Section 6 – Mechanical/Plumbing (including Fire Protection)

- A. Utility connections, adequate to meet the parking structure requirements, shall be connected via underground service entrances.
- B. To the extent permitted by Code, parking levels will receive sufficient natural ventilation so mechanical ventilation will not be required.
- C. Thermostatically-controlled HVAC systems required at elevator machine rooms, utility rooms, and parking office (if required).
- D. Mechanical Engineer to notify the Architect as to the necessary room locations and sizes required to accommodate required project mechanical, plumbing and fire protection systems.
- E. Piping shall be located and installed so that it does not reduce vertical minimum clearances. Sleeving through beams, when provided, shall be protected from rusting. PVC sleeves shall be used typically. Ferrous sleeves, at fire rated separations and where otherwise required, shall be hot-dipped galvanized. Sheet metal sleeves are not permitted.
- F. Domestic water entrance assembly as per code.
 - 1. Domestic water piping shall be copper or as allowed by Code having jurisdiction.

2. Parking ramp hose bibs shall be furnished for garage wash down purposes.
 - a. Water shall be supplied at convenient locations on each floor, with adequate pressure for cleaning the facility using 100 feet of 3/4 inch hose. The water system shall be designed to allow for draining to prevent freezing without interrupting water to other portions of the parking structure. Piping is to be exposed, neatly and securely fastened to the surface of the structure, and located so it is not damaged by vehicles or subject to vandalism. Hose connections and valves shall not protrude in such a way as to present a safety hazard to pedestrians.
 3. 3/4 inch freezeless wall hydrants will be provided as required by Code at grade around the perimeter.
- G. Any exposed piping shall be neatly and securely fastened to the surface of the structure, and located so it is not damaged by vehicles or subject to vandalism.
- H. Sprinkler and fire alarm systems shall only be provided as required by Code.
- I. Dry Standpipes located in stairways and floor areas as required by Code to meet maximum distances allowed. Hose connections and valves shall not protrude in such a way as to present a safety hazard to pedestrians or vehicles. MEP/Fire Protection Engineer to coordinate Fire Department connections with the agency having jurisdiction.
- J. Verify that the maximum fire department capacity for the jurisdiction (gallons per minute) meets or exceeds system demand for any fire protection systems provided.
- K. Floor drains shall be of adequate size and located frequently enough to effectively capture runoff, floor drains in driving aisles should be avoided.
 1. Heavy-duty cast-iron, vandal-resistant drains shall be used. Set drains below the finished floor elevations and finish slab down to the drains to insure the low points do not occur immediately adjacent to the drains.
 2. For parking area drains in areas covered by levels above, use drain equal to the 12 inches Zurn 2505 drain with sediment bucket or the 9 inches Zurn 2508 with sediment bucket as determined by tributary area of drain.
 3. For parking area drains at levels open to rain and at the bottom of ramp(s) down from levels open to rain, use drain equal to 16 inches Zurn 2662 without a sediment bucket.
 4. To facilitate stair wash-downs, a floor drain shall be located at the base of each stairway if no direct flowline to a parking area drain exists.

5. Trench drains may be specified at slab-on-grade vehicle entrances only if necessitated due to site topography.
- L. Stair and elevator roof(s) will be drained to the plaza level by means of scupper and downspout systems.
- M. Provide storm drain and/or sanitary drain piping systems as required by Code.
1. All drain piping, including leaders from the roof of elevator banks and stairwells, shall be protected from damage by vehicles. Piping shall be PVC, CPVC or cast iron as required by Code.
 2. Storm water piping exiting the building shall be below ground and connected to a city utility approved location. The final sanitary connection shall be made as directed by the local utility. Provide grease/sediment interceptors as required by the agency having jurisdiction.
 3. All cleanouts, pipe hangers and supports shall be provided as per Code.
 4. Elevator sump pits shall have sump pumps that discharge to a parking area drain per Code.
- N. Provide an underslab drainage system to mitigate ground water infiltration into parking areas if necessitated by ground water levels.
- O. Storm water detention shall be provided if necessary per authority having jurisdiction (AHJ) requirements.
- P. Tempered heat and HVAC required at all elevator machine rooms and/or shafts.
- Q. Electric or gas unit heaters shall be provided for the utility rooms, electrical rooms, storage rooms and private garage enclosure. Ventilation for these spaces shall be as per code.
- R. Natural gas shall be provided to the site as necessary if used for unit heaters in project. All submetering shall be as directed by the Owner, installed as per the local utility and meet all code requirements.
- S. Exhaust shall be provided as per code for the janitor closet (if provided).
- T. Provide thermostat control on all HVAC systems. Provide locking covers for thermostats exposed to public areas.
- U. Provide an area where dumpsters can be concealed.

Section 7 - Electrical

- A. Electrical service, adequate to meet the parking structure requirements, shall be connected to the appropriate electric power company source by an underground service entrance.
- B. Emergency Power Distribution:
 - 1. An engine-generator set shall be provided to provide emergency power. Fuel requirements as determined by MEP consultant and AHJ.
 - 2. Provide 120 volt emergency power to the generator battery charger.
 - 3. Provide normal power to generator jacket water heater.
 - 4. Emergency power distribution equipment (i.e. switchboards, panel boards, transformers, transfer switches, etc.) shall be sized to serve the parking structure emergency loads as required by Code. In addition, Emergency power shall be provided as follows:
 - 5. Provide emergency backup power and control to miscellaneous loads described elsewhere as requiring emergency operation (i.e. elevator equipment, parking access and revenue controls, lights, security, etc.).
- C. Every effort should be made to utilize exposed conduit wherever possible. Provide code-compliant use of PVC/IMC/GRC/RMC conduit where not subject to damage. Where exposed conduit is subject to damage from vehicle impact, use Rigid Metal Conduit (RMC). For rigid conduit, utilize threaded connectors only. Where exposed conduits encounter obstructions, the obstructions shall be sleeved to accept the conduit. Sleeves shall be PVC typically. Ferrous sleeves, where required, shall be hot-dipped galvanized. Sheet metal sleeves are not permitted. Where specifically required by the Architectural Drawings, provide concealed conduits, flush junction boxes and flush device mounts.
- D. Central lighting control panels, secure from unauthorized use or tampering, shall be provided. Circuit outside lights separate from interior lights. No more than two floors may be controlled by a single control point.
- E. Any switches, controls, or thermostats not in the central panel shall not be easily accessible to the public, or be protected from unauthorized use.
- F. Aluminum conductors shall be used for switchboards and panel feeders 100Amps and larger or as required by AHJ. Copper conductors will be used for all other applications including but not limited to branch circuits, motors and equipment.

- G. Electrical outlets (20 amp -120 volt) shall be provided at each stairwell and on each level inside each elevator lobby.
- H. The lighting system design shall address the following:
 - 1. Lighting intensity shall consider the intensity of natural light as it relates to various parts of the parking structures.
 - 2. Visibility shall be optimized with respect to the vertical and horizontal planes and uniformity of illumination.
 - 3. Lighting appearance, color, and intensity shall be shielded by baffles to protect glare from adjacent buildings.
 - 4. The lighting system shall be economical, energy efficient to meet Parksmart requirements and provide for minimum maintenance.
 - a. Fixtures shall be rated for a damp location.
 - b. Fixtures shall use tamperproof fasteners, be vandal resistant and be weather resistant wherever such fixtures are readily available.
 - c. Fixture locations shall be easily accessible for maintenance.
 - d. Fixtures shall be rated for a damp location.
- I. Fixture Types:
 - 1. Covered Parking Areas - LED, wattage of fixtures shall depend on a photometric lighting analysis, plastic, aluminum or stainless steel housings, tamperproof fasteners, vandal resistant ceiling mounted luminaries with motion sensors and dimming technology.
 - 2. Stairwells and Lobby/Landing Areas - LED, vandal resistant wall or ceiling packs with motion sensors and dimming technology as determined by Owner and MEP consultant.
 - 3. Stair/Exit Signs - Self luminous, LED vandal resistant exit signs with emergency backup are to be used.
- J. Minimum illumination levels measured at the floor level and 30 inches above the floor level, shall be determined through photometric analysis and established based upon structural system method or operation and user groups to be served.
- K. Minimum average initial illumination levels and uniformity shall meet International Parking Institute's (IPI) and National Parking Association's (NPA) recommendations for lighting of parking structures as well as the following:

<i>Area</i>	<i>Sustained Intensity (Jc)</i>
Vehicle Entrance and Exit	50*
Interior Parking Equipment Areas	20
Driving Aisles	10
Parking Areas	5
Roof	2
Lobby/Landing Areas of Stairs and Elevators	20-40

**50 Jc value is based on the assumption there is no daylighting. Selected fixtures shall be programmed to only be on during the day, and turn off at night (timer). At night, sufficient fixtures shall remain on to provide 10 Jc.*

Note: The above average sustained illumination intensities shall be produced by a lighting system with an average/minimum uniformity ratio not exceeding 3/1. Point by point photometric data will be performed and provided to show that the above foot-candle requirements are met. Proposed location of lighting shall be coordinated with structural system and mechanical equipment.

- L. Lighting shall be controlled per Owner requirements as determined. Fixtures located to the interior of the structure on the parked levels, where no daylighting exists and in all stair and elevator lobbies shall be on 24 hours a day 7 days a week. Fixtures should have automatic dimming feature from 30-50% and motion sensors to automatically bring levels to 100% when triggered by occupants. Fixtures located to the exterior of the structure on the parked levels where adequate daylight exists shall be controlled either by photocells and/or motion sensors as determined by Owner and MEP consultant.
 - M. An emergency lighting system shall be provided in accordance with all federal, state and local codes. Connect selected fixtures and exit signs into emergency power distribution system with generator back-up. Do not use batteries.
 - N. Circuits to serve elevator motors shall be sized in accordance with the needs of the specific elevator equipment.
 - O. Communication conduit between elevator control panel(s) and the security office will be necessary.
 - P. Conduits will be required for Parking Access & Revenue Control System (PARCS) and for all security devices required by the Owner.
1. The Contractor will provided all the necessary electrical, data cabling and communication wiring from the home source to the PARCS equipment installation locations specified by the Owner's PARCS vendor/installer.

Q. Emergency Communications.

1. Emergency communications intercoms and signage are to be provided in any Areas of Refuge.
2. Code Blue Emergency Assistance (blue light) stations and signage are to be provided near all elevator and stairwells (in view from parking areas) and within parking floor areas as necessary to provide safety and security as well as meeting requirements of AHJ.
3. Access to telephone lines shall be provided for emergency communication emergency assistance stations.

R. Fire Alarm and CCTV Systems.

1. Provide a building fire alarm system as required for the garage by code or AHJ. Specific elevator- related and fire protection-related fire alarm provisions shall be provided as required by code and the AHJ.
2. CCTV security system will be provided by Owner at entry/exit lanes, garage managers' office and at any pay station locations as determined by Owner. Contractor shall provide power for all cameras and empty conduits for all CCTV data lines as necessary. Locations to be determined by Owner.

- S. Owner shall be advised in regards to NFPA 780 (Lightning Protection Code) recommendations for lightning protection systems as calculated specifically for this project.

Section 8 – Parking Access & Revenue Control System (PARCS)

- A. The Owner will require conduits runs (in addition to the home run to the central office) between parking office, server location and power sources to all access lanes where Parking Access and Revenue Control System (PARCS) equipment is to be installed and to each standalone locations where pay-on-foot equipment will be installed.
- B. Wherever practicable, the Contractor will provide raised concrete curb islands at entry/exit lane locations where PARCS equipment is to be installed. The Contractor will install 6 inch pipe bollards as required and specified to sufficiently protect the PARCS equipment in-lane and at standalone locations from vehicular collisions.

Section 9 – Elevators

- A. As a general design, one elevator should be provided for each 250 vehicle parking spaces and can be located at a central location or at two separate locations (two elevators minimum).
- B. There is a 3,500 lb. minimum capacity for each elevator at the facility. Minimum speed to be 200 fpm. Elevators smaller than 3,500 will not meet the IBC stretcher requirement for buildings 4 or more stories. 3,500 lb. elevators shall have side opening doors to meet the IBC stretcher requirement.
- C. Each elevator cab shall have rigidized stainless steel finish.
- D. Provide stainless steel frames and doors at all lobbies.
- E. Provide call boxes, vandal resistant call buttons and hall lanterns.
- F. Sump pits and painted steel pit ladders shall be provided for each elevator.
- G. All elevator pits shall have bentonite waterproofing all around.

Section 10 – Paints and Coatings

- A. Painting of any elements of the structure shall be compatible with the substrate.
- B. Do not paint stainless steel, galvanized and non-ferrous metal surfaces.
- C. Colors of painted surfaces to be selected shall enhance light intensity, uniformity and the overall ambiance of the areas being painted.
- D. Paint ceilings, beams, columns and walls of all stairwells.
- E. Paint ceilings, beams, columns and walls of structured general parking levels, areas and vehicular entrances and exits.
- F. Paint ceilings, beams, columns and walls of elevator lobbies.
- G. Single line (heavy traffic paint) floor stripes shall be provided in color as determined by Owner standard.
- H. Exterior and Exposed interior surfaces shall receive high performance paint coatings that are applicable to the areas being painted.

Section 11 – Signage

- A. Signage for parking structures shall consist of a system of signs and graphics with a coordinated appearance which shall provide garage users with essential

directional and instructional information relating to safety/security, proper traffic flow, use of parking spaces, payment of parking fees, etc.

- B. Traffic control signs at driving lanes, if required, to and from the parking structures, and any associated exterior surface parking, shall conform to the Manual on Uniform Traffic Control Devices for Streets and Highways, U.S. Department of Transportation, FHWA.
- C. The background color of similar sign types in the parking structures shall be uniform and not vary by level (except tier designations). Different sign types such as driver and pedestrian oriented signs may have different background colors.
- D. Vehicular signs shall have reflective number, letters and symbols. Pedestrian signs may be painted. Backs of sign shall be painted.
- E. Parking level indicators are required.
- F. Signage package should meet ParkSmart requirements.
- G. Signs shall be aluminum alloy, minimum sheet thickness .0125 inches, complying with strength and durability properties specified in ASTM B-209 for 5005-H

EXHIBIT “D”

CONTACT INFORMATION FORM



CONTACT INFORMATION FORM

PROJECT TITLE:

DUE DATE: _____ **ISSUE DATE:**

DESCRIPTION: Proposal to provide _____ to the Public
Parking Authority of Pittsburgh.

The undersigned hereby offers to finish and deliver the articles or services as specified in strict accordance with the RFP and scope of proposal, all of which are made a part of this request. All correspondence will be addressed to the listed Authorized Signer.

FULL LEGAL COMPANY NAME:

STREET ADDRESS:

CITY, STATE AND ZIP CODE:

AUTHORIZED SIGNATURE:

PRINT NAME:

TITLE OF AUTHORIZED SIGNER:

TELEPHONE #:

FAX #:

E-MAIL ADDRESS:

(OF CONTACT REPRESENTATIVE)

NOTE: THIS PAGE MUST BE SUBMITTED WITH YOUR PROPOSAL. ALL PAGES REQUIRE A LIVE SIGNATURE SIGNED IN BLUE INK.

EXHIBIT "E" TO RFP

MWDBE PARTICIPATION COMMITMENT FORMS

MBE/WBE SOLICITATION STATEMENT

RESPONDENT: _____

ADDRESS: _____

TELEPHONE: _____

CONTACT PERSON: _____

PROPOSAL FOR: _____

List Certified MBE/WBE that you have solicited and those you have commitments to in reference to your Proposal.

Prepared by: _____

Company Name & Certification	Address	Telephone	M B E	W B E	Contact Person	Date Contacted		Type of Transaction	
						Mail	Phone	Joint Venture	Sub-Contractor

MINORITY AND WOMEN BUSINESS COMMITMENT STATEMENT

PROJECT: _____

RESPONDENT WILL UTILIZE THE SERVICES OF SUBCONTRACTOR(S) AND/OR SUPPLIER(S) FOR THE FOLLOWING CATEGORIES:

Subcontractor/ Supplier Name	Certification Type		Certification # and Certifying Agency	Scope of Work	Estimated Dollar Amount
	MBE	WBE			

I, the undersigned do hereby certify that this form contains no misrepresentations or falsifications, omissions or concealment of material fact, and that the information given by me is true and complete to the best of my knowledge and belief. I am aware that all information on this form is subject to investigation.

Respondent's Name _____

By (Signed) _____

Title _____

Date _____