

**The Philadelphia Parking Authority  
701 Market Street, Suite 5400  
Philadelphia, PA 19106**

**Bid No. 20-17  
Critical Garage Repairs at Autopark at Jefferson Garage  
Addendum Two**

To: See Email Distribution List  
From: Mary Wheeler  
Manager of Contract Administration  
Date: October 15, 2020  
No Pages: 3

This addendum is issued on October 15, 2020 prior to the bid due date to add, delete, modify, clarify and/or to respond to questions submitted by prospective offerors regarding the work included in the above referenced solicitation.

**MATERIAL SUBSTITUTION REQUESTED**

1. We are requesting the inclusion of the MasterEmaco N 420 CI as an overhead repair product.
  - See attached data sheets.

**Response: This product is accepted as an approved equal.**

2. Is Sikaquick FNP acceptable as an "or equal" material to the ones listed in the specification section 03 93 00 2.2.A.4?
  - See attached data sheets

**Response: This product is accepted as an approved equal.**

**QUESTIONS**

1. **Question:** At our site inspection we noticed conduit that is embedded in the concrete slab. Is this conduit live? Are we to include electrical costs into our proposal or will any work associated with the conduit be paid for on a time and material basis in conjunction with work item U2?

**Response: The conduit within the concrete slab is assumed to be abandoned. Contractor to verify in field that the conductors are not live when performing adjacent repair work. Electrical work required by contractor to facilitate repairs are to be submitted to owner/engineer when encountered. Required electric work is to be performed based on the pre-determined hourly rate within the bid form.**

2. **Question:** Has it been firmly established that night time work will be possible? Without that, the schedule is going to be impossible to meet. Here is a quote from the Philadelphia noise ordinance: "Construction noise affecting residences should not be louder than five decibels above the background sound level from 8 p.m. to 7 a.m. on weekdays, and 8 p.m. to 8 a.m. on weekends, unless there is emergency or public works construction."

**Response: All permits are the responsibility of the contractor during the project. It is anticipated that nightwork can be performed to complete the project. If nightwork is unable to be performed, the contractor is required to provide an updated schedule for approval and a credit back to the Authority for unused costs associated to nightwork.**

3. **Question:** Are we required to use negative air machines with HEPA Filtration in our work zone containment areas? Please clarify.

**Response: Contractors are to adhere to all required local regulations and OSHA requirements for air pollution and dust control to facilitate repair work.**

4. **Question:** Phasing and Protection Notes, Note 4B. Have neighbors or residence in the immediate area been notified? What if a written consent may not be obtained?

**Response: Neighbors and residences in the area have not been notified at this time. Notification will be issued upon award of contract.**

5. **Question:** Is the intent to work through the entire winter, no matter what? If so, will all the weather protection and possible winter heat have to be paid for by the contractor?

**Response: The project is to commence as soon as possible as the repairs are deemed critical. The contractor is responsible for the installation of cold weather concrete per the contract documents. See specification sections related to cold weather installations for masonry and concrete.**

6. **Question:** We assume at this point that the facade work along the wall on column line 8 will occur simultaneously with work throughout the garage. Unless the masonry contractor works off a scaffolding, they will need at least the 15 parking spots along column line 8 for the setup of the swing stages. Please clarify if spots that the masonry contractor might need for his work are included, or in addition to the space count you have on your phasing plan.

**Response: The parking restriction is not to exceed 140 parking spaces at any time included during all repair work.**

7. **Question:** Please clarify the slab thickness in the garage.

**Response: The slab thickness is approximately 8 inches. Contractor is responsible to verify all dimension in field prior to commencement of work.**

8. **Question:** Is there an intended start date?

**Response: As soon as possible.**

9. **Question:** Can a permanent lay-down area for a 30 CY dumpster on the ground floor be provided?

**Response: No. Laydown area is not permitted on the ground floor of the garage.**

10. **Question:** Does the shoring need to be approved by a certified engineer?

**Response: Localized shoring does not need to be certified by an engineer.**

11. **Question:** As per General Notes, Note 13. "The contractor shall make all necessary temporary connections to maintain existing services to all areas of the parking garage..." Will there be an allowance for any relocation of electrical and/or plumbing?

**Response: No allowance will be granted for relocations of utilities. Contractor to notify owner/engineer of required utility work prior to commencement and provide a proposal for the work based on the established bid rates.**

**12. Question:** As far as protection goes, do you expect to have the perimeter completely closed off with visqueen, and the area to adjacent non-working areas floor to ceiling?

**Response:** Contractors are to adhere to all required local regulations and OSHA requirements for air pollution and dust control to facilitate repair work.

**13. Question:** Please clarify if we are to carry an estimated permit cost OR if that all necessary permits will be paid separate once the contract is awarded. In the pre-bid meeting it was mentioned that, "the cost of the permit will be paid as a change order."

**Response:** Contractor is responsible to obtain all permits for the project. The direct cost of the permit will be submitted as a change order to the project. All associates cost in obtaining the permit are to be included within the contractor's general conditions. See specification section "Bid Form – 00 41 00, page 4, 2.2.2, A" for a full breakdown of general conditions.

**END OF ADDENDUM TWO**

**Product Data Sheet**

Edition 4.23.2018  
SikaQuick® FNP

## SikaQuick® FNP

Fast-setting, one-component, polymer-modified, self consolidating, structural repair mortar with fiber and integral corrosion inhibitor for form and pour/pumpable applications

<b>Description</b>	SikaQuick FNP is a self consolidating mortar for form and pour/pumping in concrete repair applications. It provides high pumpability for structural repair of columns and beams.
<b>Where to Use</b>	<ul style="list-style-type: none"> <li>■ Horizontal, vertical and overhead repairs</li> <li>■ Parking garages, bridges, beams, columns, tunnels, building facades, retaining walls and other structural applications</li> <li>■ Pre-placed aggregate applications</li> <li>■ Marine structures such as piers, dams, sea walls, etc.</li> </ul>
<b>Advantages</b>	<ul style="list-style-type: none"> <li>■ High fluidity for ease of pumping and pouring in congested repairs</li> <li>■ Fiber reinforced</li> <li>■ Integral corrosion inhibitor</li> <li>■ One-component for easy mixing</li> <li>■ Up to 8" (203mm) in thickness with aggregate - 3" (76mm) neat</li> <li>■ Freeze/Thaw resistant</li> <li>■ Extremely low shrinkage</li> <li>■ Excellent bond strength</li> </ul>
<b>Coverage</b>	~0.5 cu.ft. per 55 lb bag.
<b>Packaging</b>	55 lb bag; 48 bags per pallet

**Typical Data (Material and curing conditions @ 73°F (23°C) and 50% R.H.)**

RESULTS MAY DIFFER BASED UPON STATISTICAL VARIATIONS DEPENDING UPON MIXING METHODS AND EQUIPMENT, TEMPERATURE, APPLICATION METHODS, TEST METHODS, ACTUAL SITE CONDITIONS AND CURING CONDITIONS.

<b>Shelf Life:</b>	1 year in original, unopened packaging.
<b>Storage Conditions:</b>	Store dry at 40°-95°F (4°-35°C).
<b>Condition material:</b>	Condition material to 65°- 75°F before using.
<b>Pot Life</b>	60 minutes
<b>Initial Set (ASTM C 266)</b>	70-100 min
<b>Final Set (ASTM C 266)</b>	2-3 hours
<b>VOC (Method EPA 24)</b>	0 g/L

<b>Compressive Strength (ASTM C 109)</b>	<b>psi (MPa)</b>
Day 1	3,500 (24.1)
Day 7	6,000 (41.4)
Day 28	7,500 (51.7)
<b>Flexural Strength (ASTM C 293)</b>	<b>psi (MPa)</b>
Day 1	700 (4.8)
Day 7	1,300 (9)
Day 28	1,500 (10.3)
<b>Modulus of Elasticity (ASTM C 469)</b>	<b>psi</b>
Day 28	5x10 <sup>6</sup> psi
<b>Chloride Perm. (ASTM C 1202/ AASHTO T277)</b>	< 750 coulombs
<b>Freeze Thaw Resistance (ASTM C 666)</b>	98%
<b>Scaling Resistance (ASTM C 672)</b>	0 (No Scaling)
<b>Shrinkage (ASTM C 157 modified per ASTM C 928)</b>	< 0.06%
<b>Direct Bond Strength (ASTM C 1583)</b>	500-600 psi (3.4 - 4.1 MPa)



PRIOR TO EACH USE OF ANY SIKA PRODUCT, THE USER MUST ALWAYS READ AND FOLLOW THE WARNINGS AND INSTRUCTIONS ON THE PRODUCT'S MOST CURRENT PRODUCT DATA SHEET, PRODUCT LABEL AND SAFETY DATA SHEET WHICH ARE AVAILABLE ONLINE AT [HTTP://USA.SIKA.COM/](http://USA.SIKA.COM/) OR BY CALLING SIKA'S TECHNICAL SERVICE DEPARTMENT AT 800.933.7452 NOTHING CONTAINED IN ANY SIKA MATERIALS RELIEVES THE USER OF THE OBLIGATION TO READ AND FOLLOW THE WARNINGS AND INSTRUCTIONS FOR EACH SIKA PRODUCT AS SET FORTH IN THE CURRENT PRODUCT DATA SHEET, PRODUCT LABEL AND SAFETY DATA SHEET PRIOR TO PRODUCT USE.

## How to Use

### Surface Preparation

Remove all deteriorated concrete, dirt, oil, grease, and all bond-inhibiting materials from surface. Be sure repair area is not less than 1/4 in. in depth. Preparation work should be done by high pressure water blast, scabbler, or other appropriate mechanical means to obtain an exposed aggregate surface with a minimum surface profile of  $\pm 1/8$  in. (CSP-7-8). Saturate surface with clean water. Substrate should be Saturated Surface Dry (SSD) with no standing water during application.

**Reinforcing Steel:** Steel reinforcement should be thoroughly prepared by mechanical cleaning to remove all traces of rust. Where corrosion has occurred, the steel should be high-pressure washed with clean water after mechanical cleaning. For priming and protection of reinforcing steel use Sika® Armatec® 110 EpoCem (consult Product Data Sheet).

### Mixing

Start with 7/8 gal of water and add up to 1 gal per 55lbs bag in a mixing container. Add SikaQuick® FNP while continuing to mix. Mix to a uniform consistency, maximum 3 minutes. Mechanically mix with a low-speed drill (400-600 rpm) a mud paddle.

### Application

- Pre-wet surface to SSD.
- Ensure good intimate contact with the substrate. To accomplish this, material should be scrubbed into the substrate or other suitable means should be employed such as vibration of the material or pumping under pressure.
- Vibrate form while pouring or pumping.
- Pump with a variable pressure pump. Continue pumping until a 3 to 5 psi increase in normal line pressure is evident, then STOP pumping.
- Form should not deflect. Vent to be capped when steady flow is evident and forms stripped when appropriate.
- For applications greater than 3" in depth, add 3/8" coarse aggregate. The addition rate is 25 lbs. of aggregate per bag of SikaQuick® FNP. (25 lbs. of 3/8" aggregate is approximately 2.0 gallons by loose volume of aggregate). The aggregate must be non-reactive (reference ASTM C-1260, C-227 and C-289), clean, well graded, saturated surface dry, have low absorption and high density, and comply with ASTM C-33 size number 8 per Table 2. Variances in aggregate may result in different strengths. No additional mix water is required.

### Curing

As per ACI recommendations for portland cement concrete, curing is required. Moist cure with wet burlap and polyethylene, a fine mist of water or a water based\* compatible curing compound. Curing compounds adversely affect the adhesion of following layers of mortar, leveling mortar or protective coatings. Moist curing should commence immediately after finishing. Protect newly applied material from direct sunlight, wind, rain and frost. \*Pretesting of curing compound is recommended.

### Limitations

- Application thickness recommended:

	Min	Max
Neat	1/4"	3"
Extended	1"	8"

- Minimum ambient and surface temperatures 40°F (4°C) and rising at time of application. Refer to the American Concrete Institute (ACI) for cold-weather or hot-weather application guidelines.
- Do not add any additives (plasticizers, accelerators, retarders, etc.) or cement to SikaQuick® FNP
- As with all cement based materials, avoid contact with aluminum to prevent adverse chemical reaction and possible product failure. Insulate potential areas of contact by coating aluminum bars, rails, posts, with an appropriate epoxy such as Sikadur® 32 Hi-Mod.
- Egg beater paddle type is not recommended for SikaQuick® FNP as it will introduce a lot of air into the mix

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**LIMITED WARRANTY:** Sika warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within shelf life. User determines suitability of product for intended use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of labor. **NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.**

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# MasterEmaco® N 420 CI

Non-sag concrete repair mortar with integral corrosion inhibitor for vertical and overhead applications

#### PACKAGING

50 lb (22.6 kg) polyethylene-lined bags

#### YIELD

0.40 ft<sup>3</sup> per 50 lb bag (0.011 m<sup>3</sup> per 22.6 kg bag)

#### SHELF LIFE

1 year when properly stored

#### STORAGE

Store in unopened containers in cool, clean, dry conditions.

#### VOC CONTENT

0 g/L less water and exempt solvents

#### DESCRIPTION

MasterEmaco® N 420 CI is a trowel-grade, integrally polymer modified repair mortar with an integral corrosion inhibitor.

#### PRODUCT HIGHLIGHTS

- Non-sag consistency able to be placed in 2" (51 mm) thick lifts
- Readily sculpted, shaved, and finished to match existing substrate
- Only requires the addition of potable water
- Low shrinkage produces stable, durable bond
- Polymer modification improves adhesion and provides increased freeze/thaw stability

#### APPLICATIONS

- Interior and exterior
- Vertical and overhead
- Above and below grade
- Spalls or holes in concrete
- Deteriorated edges

#### SUBSTRATE

- Concrete
- Masonry
- Structural Concrete
- Precast & Tilt Wall

#### HOW TO APPLY

##### SURFACE PREPARATION CONCRETE

1. Concrete must be structurally sound and fully cured (28 days).
2. Saw cut the perimeter of the area being repaired into a square with a minimum depth of 0.25" (6 mm).
3. The surface to be repaired must be clean, free of laitance and saturated surface-dry (SSD) following current ICRI Guideline no. 310.2R for surface prep requirements to permit proper bond.

##### REINFORCING STEEL

1. Remove all oxidation and scale from the exposed reinforcing steel in accordance with ICRI Technical Guideline No. 310.1R.
2. For additional protection from future corrosion, coat the prepared reinforcing steel with MasterProtect 8100 AP.

**Technical Data Composition**

MasterEmaco® N 420 CI is a blend of cement, graded aggregate and set-control additives.

**TEST DATA**

The following results were obtained with 3.5 qts (3.3 L) water / 50 lb (22.3 kg) bag.

PROPERTY	RESULTS	TEST METHOD
<b>Set time</b> , min at 72 °F (22 °C)		ASTM C 266
Initial	<35	
Final	<45	
<b>Working time</b> , min	20-30	
<b>Length change</b> , % (µstrain)		ASTM C 157 <sup>1</sup>
Drying shrinkage	-0.148	
Wetting expansion	+0.013	
<b>Freeze/thaw resistance</b> , % RDM at 300 cycles	96.6	ASTM A 666 (Procedure A)
<b>Scaling resistance</b> , lb/ft <sup>2</sup> (kg/m <sup>2</sup> )		ASTM C 672
25 cycles	0.18 (0.87) Very light scaling	
50 cycles	0.24 (1.17) Slight scaling	
<b>Slant shear bond strength</b> , psi (MPa)		ASTM C 882, modified <sup>2</sup>
7 day	1,750 (12)	
28 day	2,070 (14)	
<b>Splitting tensile strength</b> , psi (MPa)		ASTM C 496
7 day	340 (2.3)	
28 day	380 (2.6)	
<b>Flexural strength</b> , psi (MPa)		ASTM C 348
7 day	890 (6.1)	
28 day	1,000 (6.8)	
<b>Compressive strength</b> , psi (MPa), 2" cubes		ASTM C 109
7 day	6,000 (41)	
28 day	6,700 (46)	

**TYPICAL PROPERTIES**

PROPERTY	VALUE
<b>Working time</b> , min, at 70 °F (21 °C)	20-30
<b>Application temperature range</b> , °F (°C)	45-95 (7.2-35)

<sup>1</sup>ICRI Modification (3" (7.62 cm) bars).

<sup>2</sup>No bonding agent used; mortar scrubbed into substrate.

All application and performance values are typical for the material, but may vary with test methods, conditions, and configurations.

### MIXING

1. Precondition to 70° F ± 5° (21° ± 3°) before mixing.
2. Add 3 quarts (2.8 L) of potable water into a clean mixing container. Gradually sift in powder  $\frac{1}{3}$  at a time while mixing continuously at slow speed (high speeds may entrain air). Mix for a minimum of 3 minutes to ensure a uniform, lump-free consistency. Do not exceed a total of 3.5 quarts (3.3 L) of mixing water per 50 lb (19.8 kg) bag.

### APPLICATION

1. Dampen the surface with potable water; it must be saturated surface-dry (SSD) with no standing water.
2. With a gloved hand, scrub a small quantity of mixed material into the SSD substrate. Thoroughly key in the and work the material throughout the cavity to promote proper bond. Do not apply more of the bond coat than can be covered with mortar before the bond coat dries.
3. Apply the material in lifts of  $\frac{1}{4}$ -2" (6-51 mm). Avoid feather edging. For optimum mechanical bond on successive lifts, thoroughly score each lift and allow to reach initial set before the next layer is applied. Placement time is 15-20 minutes at 70° F (21° C) and 50% relative humidity.
4. Trowel, shave or shape material to the desired finish after initial set.
5. The recommended application range of MasterEmaco N 420 CI is from 45 to 95° (7.2 to 35° C). Follow ACI 305 and 306 for hot or cold weather guidelines.

### CURING

Cure with an approved curing compound compliant with ASTM C 309 or preferably ASTM C 1315. If the repair area is to receive a coating, wet curing is recommended.

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### CLEAN UP

- Clean tools and equipment with clean water immediately after use. Cured material can be removed by mechanical means only.

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### FOR BEST PERFORMANCE

- Do not bridge moving cracks or joints.
- Do not overwork material.
- Do not add plasticizers, accelerators, retarders, or other additives.
- Do not extend with aggregate.
- Bonding agents are recommended for large areas as well as permanently damp areas.
- Protect from freezing for 24 hours after application.
- For professional use only; not for sale to or use by the general public.
- Make certain the most current versions of product data sheet and MSDS are being used; call Customer Service (1-800-433-9517) to verify the most current version.
- Proper application is the responsibility of the user. Field visits by BASF personnel are for the purpose of making technical recommendations only and are not for supervising or providing quality control on the jobsite.



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#### HEALTH, SAFETY AND ENVIRONMENTAL

Read, understand and follow all Material Safety Data Sheets and product label information for this product prior to use. The MSDS can be obtained by visiting [buildingsystems.basf.com](http://buildingsystems.basf.com), e-mailing your request to [basfbscst@basf.com](mailto:basfbscst@basf.com) or calling 1(800)433-9517. Use only as directed.

**For medical emergencies only, call ChemTrec® 1(800)424-9300.**

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