

*City of Bel Aire, Kansas*  
STAFF REPORT



DATE: May 21, 2024  
TO: City Council  
FROM: Marty McGee, Public Works Director  
RE: Manhole Rehab

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### **Proposal Focus**

Our Mission:

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- Attractive growth and safe living- Encourage attractive neighborhoods and new developments.

Our Values:

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- Working together-Departments working together as one team. Staff working with residents, HOA's and neighborhoods. Citizens working with each other.

### **Current Situation**

There are 13 Manholes in several different locations that are failing and are in need of repair, due to corrosive gases being trapped in the manholes causing damage to the concrete walls. The lining of the manholes are flaking off and entering the sewer lift stations, which could cause pump failure and sewer backups to residents' homes. Last year the city purchased a lining material called Raven-405 to line the Rock Road manhole project. After further investigation it was determined it could not be used at this location due to the manhole's excessive damage. The Raven 405 product has a one-year shelf life and is needing to be used on other manholes in the city before it expires in January of 2025.

### **Goals**

To work with the Developer to grow the city in an attractive, safe manner that is consistent with City standards.

### **Discussion**

Staff reached out to three contractors requesting bids for manhole repair, their bids are presented below. Each contractor was asked to review the information about the proper installation for this product before bidding and will need to agree to the city's terms and conditions letter before a contract is accepted.

Contractor	Total Bid
UMC	\$34,200.00
Mayer	\$124,345.00
Dondlinger	No Bid

## **Financials**

The cost of these improvements will be paid out of the Capital Improvement Fund from funds set aside for sewer improvements.

## **Recommendations**

Staff recommends that the City Council accept the bid from UMC for \$34,200.00.

Product information guide.



Northfork manhole  
rehab.pdf



Raven-405-AP  
Guide.pdf



Mayer Manhole  
Rehabilitation Propos.



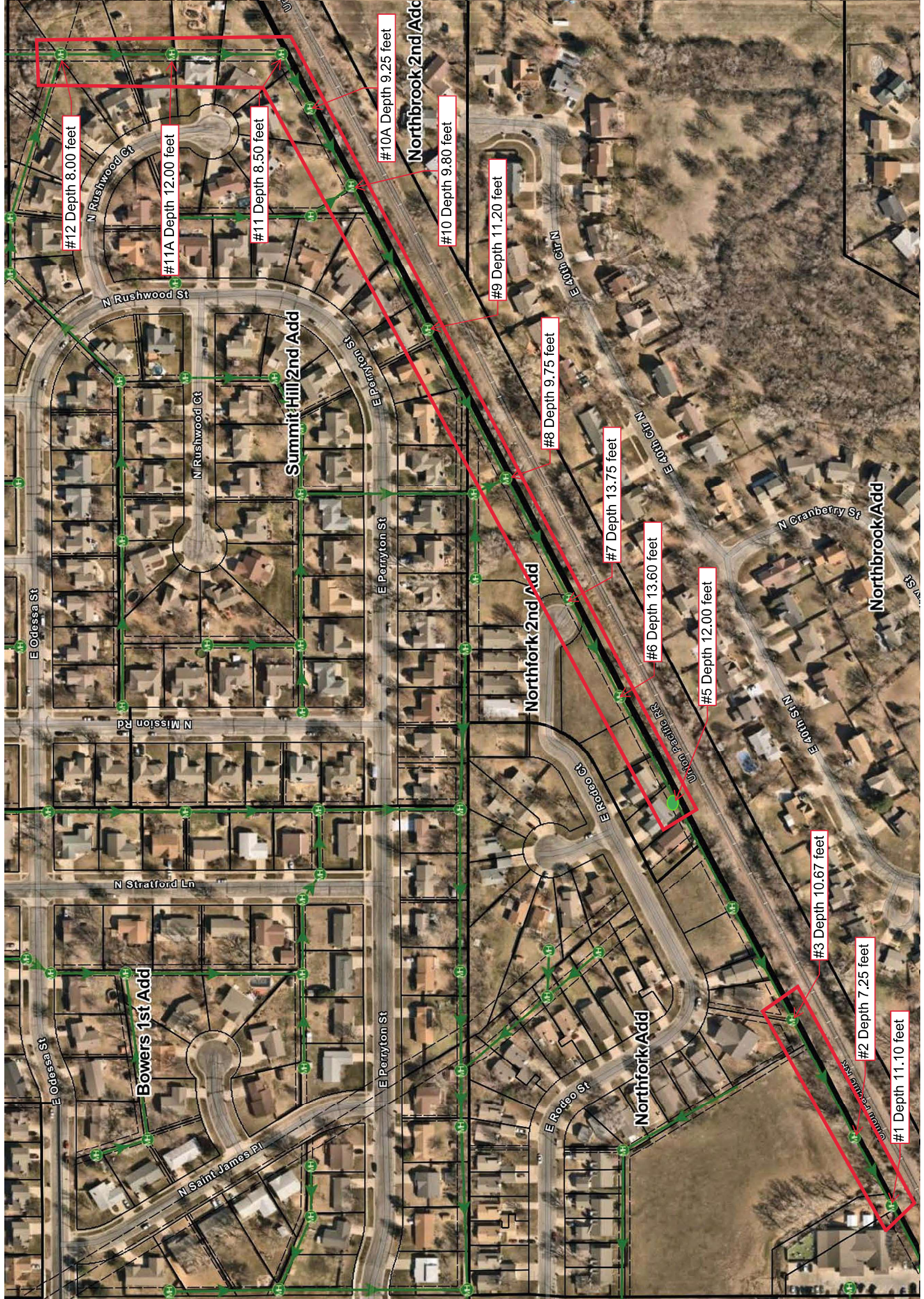
UMC Raven 405  
Manhole Rehab.pdf



UMC Cementitious  
Rehab Proposal.pdf

Contractor's Bid below.









Date: May 13, 2024

To: City of Bel Aire, KS

Attn: Marty McGee [Mmcgee@belireks.gov](mailto:Mmcgee@belireks.gov)

Ref: **Cementitious Rehabilitation/Sealing of Manholes – City of Bel Aire, KS**

Utility Maintenance Contractors, LLC (UMC) places our employee's safety as our top priority on every job, every day. Through safe work practices we can continue to ensure our employee's safety and the safety of those around them. We emphasize that production is a result of working safe. UMC will be responsible for providing its employees with all required safety equipment and conducting regular maintenance and inspection of that equipment.

UMC will meet all minimum industry standards for safety related to this work including but not limited to; PPE, confined space, first aid/CPR/AED training, material handling, ventilation and air monitoring. All onsite UMC employees will follow all OWNER established rules, policies and guidelines regarding safety and security.

1. UMC proposes to provide the labor, supervision, equipment and material to complete the rehabilitation of **(6) 4-ft. diameter specified manholes** as follows:
  - a. UMC will prep the surface of manholes to be coated. All surface prep will be done with 5,000 PSI pressure washers to remove unsound concrete and provide a clean, sound surface for coating.
  - b. UMC will remove existing manhole steps.
  - c. UMC will apply a cementitious liner (Strong-Seal MS-2A) to the interior surface of the specified manholes. Liner will be applied at a minimum of ½-in. thick in accordance with standard manufacturer specifications.
  - d. UMC's anticipated start date is September 3<sup>rd</sup> 2024

Item	Description	Qty	U.O.M.	Extended Price
<b>1</b>	<b>Manhole Rehabilitation with MS-2A</b>	1	LS	<b>\$16,600.00</b>

2. Clarifications and exclusions:
  - a. UMC's proposal does not include taxes, city to provide UMC with tax exempt certificate prior to UMC beginning work.
  - b. UMC's proposal does not include bonding.

**SAFE**

**QUALITY**

**SOLUTIONS**

- c. UMC offers a standard (1) one-year warranty on labor and materials, as long as there is no misuse or introduction of non-standard flows to the sewer system.
  - d. There will be no downtime to the sewer system
  - e. UMC's proposal does not include water for cleaning activities; City to provide water and meter at no cost to UMC.
  - f. UMC's proposal does not include special insurance, permits and fees.
  - g. UMC's proposal does not include site clearing or restoration.
  - h. UMC's proposal does not include removal of any existing coatings beyond the included high-pressure water blasting.
  - i. UMC's proposal does not include any bypass pumping or flow control
  - j. UMC's proposal does not include winter weather controls.
  - k. UMC's proposal does not include BMP's or any erosion control.
  - l. UMC's proposal does not include remediation, hauling or disposal of any hazardous materials discovered during UMC work.
  - m. UMC's proposal assumes uninterrupted access to the job site for the duration of the project once UMC arrives on site to begin work.
  - n. UMC's proposal includes standard confined space entry procedures per OSHA.
3. UMC will honor the following prices for 30 calendar days from the time submitted:
4. UMC's payment requirements:
- a. Once UMC has submitted billing payment is required within 30 calendar days
  - b. No retainage will be withheld from payments

**We appreciate the opportunity to quote this work.**

*Tim Aelmore*

**Tim Aelmore**  
**Project Manager**

**ACCEPTANCE OF UTILITY MAINTENANCE CONTRACTOR'S PROPOSAL**

*PLEASE SIGN, DATE & RETURN UPON ACCEPTANCE OF THIS PROPOSAL:*

**OWNER'S REPRESENTATIVE: (print)**

\_\_\_\_\_

**OWNER'S REPRESENTATIVE: (signature)**

\_\_\_\_\_

**DATE:**

\_\_\_\_\_



Date: May 13, 2024

To: City of Bel Aire

Attn: Marty McGee [MMcgee@belaireks.gov](mailto:MMcgee@belaireks.gov)

Ref: **City of Bel Aire, KS – 2024 Manhole Rehabilitation Project**

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UMC will meet all minimum industry standards for safety related to this work including but not limited to; PPE, confined space, first aid/CPR/AED training, material handling, ventilation and air monitoring. All onsite UMC employees will follow all OWNER established rules, policies and guidelines regarding safety and security.

1. UMC proposes to provide the labor, supervision, equipment and material to complete the rehabilitation of 7, 4' diameter specified manholes as follows:
  - a. UMC will prep the surface of manhole to be lined. All surface prep will be done with 5,000 PSI high pressure water blasting to provide a clean, sound surface for coating.
  - b. UMC will protectively coat the interior surface of the specified manholes with Raven 405 100% solids epoxy coating applied at 125 mils thick. Product specifications attached.
  - c. Epoxy to be provided by the City of Bel Aire
  - d. All products will be applied per their specific data sheets and according to manufacturer recommendations.
  - e. UMC'S approximate start date is September 3<sup>rd</sup> 2024

Item	Description	Qty	U.O.M.	Unit Price
Base	Manhole Lining with Raven 405 Epoxy	1	LS	\$17,600.00

2. Clarifications and exclusions:
  - a. UMC's proposal does not include taxes, city to provide UMC with tax exempt certificate prior to UMC beginning work.
  - b. UMC's proposal does not include bonding.
  - c. UMC offers a standard (1) one-year warranty on labor and materials, as long as there is no misuse or introduction of non-standard flows to the sewer system.
  - d. There will be no downtime to the sewer system.

**SAFE**

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*Tim Aelmore*

**Tim Aelmore**  
**Project Manager**

**ACCEPTANCE OF UTILITY MAINTENANCE CONTRACTOR'S PROPOSAL**

*PLEASE SIGN, DATE & RETURN UPON ACCEPTANCE OF THIS PROPOSAL:*

**OWNER'S REPRESENTATIVE: (print)** \_\_\_\_\_

**OWNER'S REPRESENTATIVE: (signature)** \_\_\_\_\_

**DATE:** \_\_\_\_\_



Raven Lining Systems  
686 S. Adams St.  
Kansas City, KS. 66105  
(918) 615-0020

# Application Guide

## Raven® 405 Series

### Epoxy Lining System

#### DESCRIPTION

Raven® 405 Series Epoxies are 100% solid, ultra-high build, solvent-free epoxy coatings formulated with exceptionally high physical properties and chemical resistance. 405 Series exhibits a superior bond to dry and damp concrete, masonry, steel, ductile iron, and fiberglass and was designed and formulated for corrosion protection and structural enhancement for use on and in wastewater structures, buried pipelines, tanks, and other corrosive environments.

This guide provides information regarding the recommended methods for the application of Raven Lining Systems engineered solutions for the protection and rehabilitation of water and wastewater structures.

#### Section 1: SURFACE PREPARATION

As with any coating, proper surface preparation is essential to ensure maximum and proper adhesion; the purpose is to provide a clean, sound substrate with adequate profile and surface porosity to provide a strong bond between the coating and the substrate. Generally, rust, latent concrete, and other surface contaminants can be removed by high-pressure water cleaning, abrasive blasting, shot blasting, hand-tooling, or brush hammering. For small and hard to reach places, hand grinders and wire-brushing may be required. Mechanical abrasion is preferable, however, if mechanical cleaning is not practical, or oil and grease have had an opportunity to penetrate deep into the substrate, it may be necessary to remove and replace or chemically clean the surface.

More specifically, the following describes some recommended surface preparation procedures for various substrates.

##### **Concrete and Masonry**

Standard new precast or cast-in-place concrete should be cured (generally 10-28 days based upon manufacturer's recommendations and surface tensile strength), clean, dust and contaminant free. Typically, high-pressure water cleaning (5000 psi @ 4gpm) is sufficient to remove any curing compounds and form release agents resulting in a surface profile of CSP-3 to CSP-5 per ICRI Technical Guideline No. 310.2R-2913. Abrasive blasting may be required if high-pressure water cleaning cannot create the recommended surface profile.

Existing concrete must be structurally sound and free of all contaminants, toppings, waxes, oils, grease, and any existing incompatible or poorly bonded coatings.

Clean and abrade all concrete surfaces to be coated, removing all loose and deteriorated concrete, contaminants, and laitance, revealing a sound concrete surface with an acceptable anchor profile of CSP-3 to CSP-5. SSPC-SP 13/NACE No.6 - Surface Preparation of Concrete outlines proper preparation methods for concrete, including high-pressure water cleaning using equipment capable of 5,000 psi at 4 GPM (minimum), high-pressure water jetting, abrasive blasting, shot blasting, grinding or scarifying all of which may be used to remove previous coatings, laitance and contaminated, disintegrated or chalky material. Detergent water cleaning and hot water blasting may be necessary to remove oils and grease from the concrete.





# Application Guide

## Raven® 405 Series

### Epoxy Lining System

#### Section 1: SURFACE PREPARATION

##### Steel

Steel structures coated to protect against incidental exposure or splash should be prepared following SSPCSP-10/ NACE No. 2, Near White Blast Cleaning, including the removal of all scale and remediation of all rough welds, weld splatter, and sharp edges. Use suitable blast media to create an angular 2.5 - 5.0 mil profile. Do not use recycled abrasives. Use sufficient air supply to maintain 100 psi minimum at the blast nozzle. Vacuum sweep surfaces to remove all dust and debris. Apply the coating as soon as possible to prevent blasted surfaces from rusting. Keep moisture, oil, grease, soluble salts, or other organic matter off the surface before coating. Spot re-blast and vacuum to remove any contamination.

Steel structures being coated to protect in severe-duty immersion services should be prepared in the same manner following SSPC-SP 15/ NACE No. 1 White Metal Blast Cleaning.

#### Section 2: RESURFACING, REPAIR AND PATCHING

Resurfacing, repairs, and patching necessary for final surface preparation vary from structure to structure. Refer to Raven **Technical Bulletin 1004 "Approved Repair Materials"** for the tested approved cement repair and patching materials. The following presents some of the more common processes.

##### Concrete and Masonry

1. Areas exhibiting movement or cracking due to expansion and contraction shall be grouted and patched according to the appropriate crack repair or expansion joint procedure provided by the patching material manufacturer.
2. All surfaces that show, spalling greater than 3/4 inches deep or cracks greater than 3/8 inches wide, shall be patched using a quick setting, high strength cement mortar, or a high-build, non-sagging epoxy grout. Large voids should be filled in lifts according to the manufacturer's recommendations.
3. All concrete that is not sound or has been damaged by chemical exposure must be removed to a sound concrete surface. The pH of the concrete substrates must be greater than 8 and will be measured using pH, indicating papers. Testing of pH shall be performed once every 100 square feet of concrete surface area to be coated.
4. If in areas to be patched, reinforcing steel is missing, and radial cracking from the spall site exists, the steel shall be repaired or replaced as specified by the Project Engineer or Owner's Representative.
5. In masonry structures where the loss of mortar has created gaps greater than 1/4 inch in diameter between the bricks or blocks, the voids can generally be filled using a compatible high early strength mortar.
6. Surfaces shall be free of active leaks before coating. Leaks may be stopped with the use of approved quick-setting hydraulic cement, water-reactive gels and grouts, epoxy grout, or equal.
7. Repair products shall be used to fill voids, bugholes, and other surface defects, which may affect the performance or adhesion of the coating product. Resurfacing products shall be used to repair, smooth, or rebuild surfaces with rough profiles to provide a concrete or masonry substrate suitable for the coating products to be applied. These products shall be installed to minimum thickness as recommended by manufacturers published guidelines.
8. All repaired or resurfaced surfaces must be inspected for cleanliness and suitability to receive the coating products. Additional surface preparation may be required before the coating application.
9. At penetrations and transitions, termination grooves and keyways should be installed and appropriately sized and spaced, but at a minimum should be 1/4" x 1/4" in dimension. A minimum of 1-3 inches of overlap onto the adjacent substrate is recommended but should be adjusted according to scale.



# Application Guide

## Raven®405 Series

### Epoxy Lining System

#### Section 2: RESURFACING, REPAIR AND PATCHING, continued

##### Steel

1. Surfaces shall be thoroughly inspected, and when necessary, ultrasonically tested to detect thin spots in the structure which need reinforcement.
2. A structural, welded steel plate repair should be performed when the minimum design thickness of the steel has been breached. Wherever a thin spot or hole is detected, a repair patch with a minimum radius of one foot outside the edge of the thin area shall be applied per instructions of the Project Engineer or Owner's Representative.

#### Section 3: COATING APPLICATION

##### Priming/Sealing and Outgassing Prevention on Concrete and Masonry Substrates

To avoid problems associated with holidays and outgassing induced pinholes, care should be taken to remove weak, porous surface layers, fill voids and surface defects and to avoid application on structures exposed to direct sunlight during the application and cure cycle. Tenting, shading, or night application is generally an acceptable means of avoiding increasing substrate temperatures. Additionally, all concrete surfaces should be aggressively profiled and have all surface defects, voids, honeycombs, etc. filled with a high early strength polymer modified mortar. Lastly, penetrating primers such as Raven 155, Raven 171FS, or Raven 175 should be employed to reduce the vapor transmission rate at the substrate surface. Multiple applications of the primer may be required to be effective. A small test area application of the proposed coating system should be installed to ensure pinholing due to outgassing and subsurface air entrainment is minimized effectively before full-scale coating operations. All concrete structures exposed to thermal cycles, direct sunlight, above-grade construction or having less than 28 days cure should be treated in this manner.

##### Handling

Raven 405 Series is a two-component 100% solids high build protective coating system, which combines fixed ratios of resin to hardener to provide a quality, finished product. The handling characteristics and curing time of any thermosetting system is greatly affected by its temperature and the temperature of the surface to which it is being applied. The higher the temperature of the components and the substrate, the faster the curing will take place. To ensure that the product handles in the way in which it was designed and that sufficient pot life is maintained, it is recommended to store the materials at room temperatures (preferably 60-100°F) for at least 24 hours prior to application and review the Technical Data Sheet (TDS) for specific product application characteristics. Since it is not regularly possible to control the surface temperature of the substrate, common sense should be used to dictate the time of application, e.g., in hot environments, apply the product when the substrate temperature is stable or decreasing.

The amount of pot life and working life is affected by three criteria: temperature, thickness, or mass of the coating and the presence of an aggregate or heat sink. In general, the following guidelines may be used:



# Application Guide

## Raven®405 Series

### Epoxy Lining System

#### Section 3: COATING APPLICATION, continued

1. The higher the temperatures of the product components or the application surface, the faster the cure and set time of the product. To retard the chemical reaction of this two-component system, either reduce the temperatures of the components or reduce the temperature of the substrate. The reverse is also true.
2. Unlike evaporative paints where the thinner the paint, the faster it dries, the cure time with thermosetting materials is inversely proportional to the thickness. The thicker the coating is applied (greater mass), the more heat that is generated producing a shorter set time.
3. The presence of a heat sink can also slow the curing rate. A heat sink is anything that can absorb the heat of the reaction, such as a cool substrate, and therefore hinder the cure time.

#### Application & Equipment Guidelines

##### **Mixing**

The following procedures are to be followed when mixing the resin and hardener before application:

##### **Hand Mixing/Filled Systems**

Mix each component separately before pouring the Part B into the Part A container. Use a electric or air drill with a Jiffy mixer and mix for two 2-3 minutes. The system is now ready for application. If desired, up to three parts by volume of dry silica sand (or other approved dry aggregate) to one part epoxy may be added to extend the product and create a textured surface or trowel applied mortar.

##### **Spray Application**

Optimal proportioning and mixing is achieved with the use of a Raven Lining Systems approved plural-component airless spray system. Raven recommends the use of a fixed ratio (3:1), such as Graco XP 50/70, Plural-Component Pump System. Viscon, or approved equal, Fluid Heaters and heated hoses are required by Raven Lining Systems. Carefully monitor material heating devices such as drum blankets or bands to avoid scorching of the material or melting drum liners. Pre-heating containers must not exceed temperatures higher than 150°F.

##### **Recommended Equipment Settings:**

Part "A" Material Temperature	110-145°F
Part "B" Material Temperature	90-125°F
Heated Hose Temp	125-145°F
Typical Spray Pressure	1,800-3,000 psi
Recommended Tip Sizes	.031-.035
Pot life at whip/gun	1-2 minutes
Supply pump pressure	100 psi





# Application Guide

## Raven® 405 Series

### Epoxy Lining System

#### Section 3: COATING APPLICATION, continued

##### Application

Once the two components are mixed, a chemical reaction is initiated and heat begins to be generated. Raven 405 Series Epoxies are reactive and fast setting, and it is important that application is begun immediately. Removing the product from the mixing container (when hand mixing vs. spray application) will lengthen working time (i.e., dispersing the product mass). When manually applying, it is common to immediately transfer the mixed epoxy on to the surface to be coated and trowel, brush or roll into place. If a spray system is being used, begin spray application immediately. For quality assurance, it is recommended that the material is applied in multiple passes to achieve the recommended film thickness.

**Typical minimum and nominal thickness recommendations for Raven 405 Series, depending on the service environment and profile of the prepared substrate:**

Concrete, New/Smooth	80-250 mils DFT.
Concrete, Rough	100-300+ mils DFT.
Concrete, Resurfaced	80-250+ mils DFT.
Masonry/Brick:	125-250+ mils DFT.
Masonry/Brick, Resurfaced:	80-250+ mils DFT.
Steel:	16-80 mils DFT.

*(Thicknesses shown above are for general purposes only, each project should be evaluated independently and thickness of system determined upon product, service environment, protection and restoration requirements.)*

Refer to typical specifications for steel, concrete, masonry, or underground structures for more detailed procedures or call Raven Lining Systems for recommendations.

##### Return to Service

The coated structure may be returned to full operational service as soon as the final inspection has taken place, and all coating materials have been adequately cured according to Raven Lining Systems' recommendations. Raven 405/405FS is cured for wastewater service in 2-5 hours based on temperature. See page 7 for cure rate detail.

#### Section 4: INSPECTION AND TESTING

**Touch-Up:** After the coating has set hard to touch, it should be visually inspected. Touch-up can be made by abrading the surface with grit paper, cleaning the surface to remove debris, dust or other contaminants, and brushing over the area with a mixture of the same material used for the coating per manufacturer's instructions.

**Final Inspection:** The inspector shall visually check the applied coating for evidence of pinholes, blisters, and confirm even coloring, proper mix ratio, coverage, and cure. Deficiencies in the finished coat shall be marked and repaired in strict accordance with the manufacturer's recommendations.

**Thickness:** During application, a wet film thickness gauge should be used to ensure a monolithic coating and uniform thickness during application. After the coating has set hard to touch (time will be dependent on conditions), it can be tested with an ultrasonic thickness gauge or destructive testing to confirm specified thicknesses.



# Application Guide

## Raven® 405 Series

### Epoxy Lining System

#### Section 4: INSPECTION AND TESTING, continued

**Adhesion:** It is recommended that the coating be allowed to cure for a minimum of 48 hours, at 70+ degrees F, prior to testing, per ASTM D-7234. This minimum cure time will allow the coating to reach sufficient physical strength so as not to affect the results of adhesion testing. Test dollies may be glued to the coating as soon as a “dry through” cure stage has been achieved. It is not recommended to place test dollies directly into the uncured coating as this may affect the alignment and adhesion of the dolly. Coatings which are subjected to less than 70 degree F temperatures will cure at a slower rate. Allow for additional cure time for such instances.

**Holiday Detection:** After the coating has set hard to touch, it can be inspected with high-voltage holiday detection equipment, according to NACE SP0188. An induced holiday should be made onto the coated concrete surface and serve to determine the minimum/maximum voltage to be used to test the coating for holidays in that particular area. The spark tester shall be initially set at 100 volts per 1 mil (25 microns) of the minimum specified (not average) film thickness applied but may be increased if it is insufficient to detect the induced holiday. All detected holidays should be marked and repaired per the manufacturer's recommendations.

#### **Holiday, Bughole, and Void Repair Procedure:**

1. All discontinuities must be marked using a method that will not contaminate the coating surface (do not use wax or oil type marking devices).
2. The area surrounding and including the discontinuities must be cleaned of all contaminants.
3. The area should be abraded using 60-80 grit sandpaper, grinding disk, or other suitable methods.
4. The abraded area must be solvent cleaned to create a sound, non-contaminated, and dry surface before top coating.
5. Raven 405 Series Epoxy shall then be applied, by spray, brush, or trowel, to all repairs areas following Raven Lining Systems' recommended application procedures.
6. The repaired areas should be retested per NACE SP0188 or ASTM D4787.
  - Sufficient drying or curing time shall be allowed before retesting.
  - Only those areas that have been repaired shall be retested unless otherwise specified.

#### Section 5: APPLICATOR AND WARRANTY

The Certified Applicator shall provide current documentation from Raven Lining Systems, certifying Applicator's training and equipment complies with Raven Lining Systems Certified Applicator Program requirements.

The Certified Applicator shall warrant all work against defects in materials and workmanship for one (1) year, unless otherwise noted, from the date of final acceptance of the project. The Certified Applicator shall, within a reasonable time after receipt of written notice thereof, repair defects in materials or workmanship which may develop during said one (1) year period, and any damage to other work caused by such defects or the repairing of same, at his own expense and without cost to the Owner.

Raven Lining Systems warrants all coating materials for one (1) year from the date of final acceptance, unless otherwise noted, to be free of manufacturing defects and products will meet current published physical properties when applied and tested following the manufacturer's standards. If, within said one (1) year period, any product does not meet the physical properties or is defective in manufacture the manufacturer will either replace the defective product or refund the purchase price.



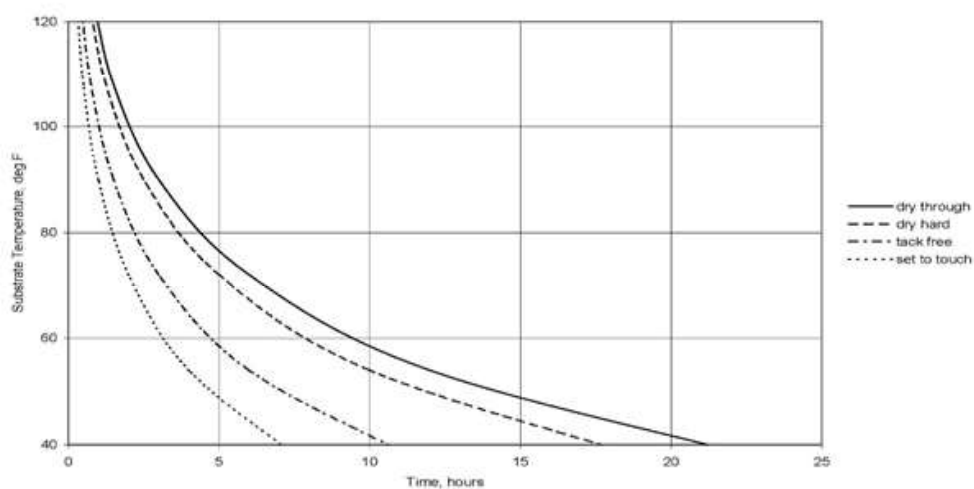
# Application Guide

## Raven® 405 Series

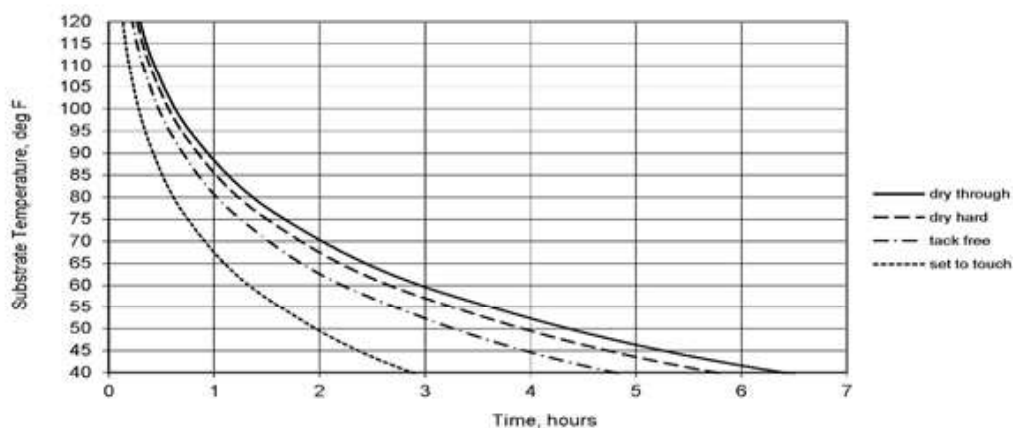
### Epoxy Lining System

#### Cure Rate of Raven 405 and 405FS to Dry Through State

Thin Film Cure Rates of Raven 405 per ASTM D 1640



Thin Film Cure Rates Raven 405FS per ASTM D 1640





PROPOSAL DATE *May 13, 2024*  
PROPOSAL EXPIRES 30 days from bid date

FROM Austin Torrente

PROJECT **2024 Manhole Rehabilitation - Bel Aire,KS**  
BID DATE **5/13/2024**

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	EXTENDED
1	Provide labor, equipment, and material (Cementitious) to properly clean and prepare manholes to then spray apply City provided Raven 405 epoxy liner to prevent further corrosion.	13	EA	\$9,565.00	\$124,345.00
*** All manholes on this project must be completed at the same time for this pricing to be valid. If reduced quantity of manholes new proposal will be required.***					
TOTAL					\$124,345.00

#### Customer Responsibilities

- Provide notification to any potential customers that may be affected.
- Provide clean water for equipment and cleanup.
- Provide a dumpsite, within reasonable distance, for deposit of debris removed.
- Provide access for our equipment to all locations as needed; locate, uncover & exercise manhole lids prior to our arrival.
- Defend, indemnify, and hold harmless Mayer Specialty Services, LLC from (1) all claims, damages, and expenses that arise or are incurred because of pre-existing conditions or anything introduced into the system which is not normal sewage, and (2) except to the extent caused by the negligence or willful misconduct of Mayer Specialty Services, LLC, all other claims, damages, and expenses that arise or are incurred during the term of this agreement.

#### General Terms and Conditions

##### INCLUSIONS:

- Provide all labor, materials, tools, equipment and supervision necessary to perform work as shown on drawings, defined in specifications and as described herein.
- Footage above based on information provided/if actual footage lined exceeds what is listed above additional charges will apply.
- 6 VF minimum charge applies to each manhole. If manhole is greater than 6 VF then manhole depth will be charged off of actual measured depth.

##### EXCLUSIONS:

- Any disputes regarding this agreement will be decided by arbitration (Construction Industry Rules of the American Arbitration Association.)
- Sales Taxes
- Permits or connection fees of any kind
- Bypass Pumping
- Prevailing Wages/Davis-Bacon Wages
- Traffic Control
- Any pre-jobsite clearance including but not limited to:
  - Safety Training (on-site or online)
  - Badging
  - Drug Testing
  - Background Checks

## ACCEPTANCE OF PROPOSAL AND NOTICE TO PROCEED

Authorized Signature \_\_\_\_\_

Date Signed \_\_\_\_\_

**Mayer Specialty Services, LLC**

831 Industrial Rd / PO Box 469

Goddard, KS 67052

316-794-1165

316-794-2717

No retainage may be withheld out of contracts less than \$1,000.00

**Thank you for the opportunity to provide pricing**