

## **ADDENDUM NUMBER ONE**

### **FLEET BUILDING ROOF REPLACEMENT AT AMNICOLA HIGHWAY CONTRACT NO. M-17-002-201**

#### **CITY OF CHATTANOOGA, TENNESSEE**

Attached is the Pre-Bid Agenda with notes added regarding additional questions and comments.

Also attached is the Attendance Sheet and the Bid Schedule and Summary of Work as read at the Pre Bid Meeting.

A question was received from a vendor regarding substitute materials for the project.

**Question:** The purpose of my email is to provide a quality product to the Owner that has a proven performance track record in excess of 30 years, and used extensively in the market. Sikaplan is equal to the project requirements, as depicted in the Division 7 Specifications.

**Answer:** The City of Chattanooga will accept requests for consideration of PVC or other membrane materials from contractors interested in bidding the material as a cost effective alternative to TPO. We feel that our contractors are the best judges of the actual cost of installation, and we rely on their judgement as professionals to assist us in selecting alternative materials.

To grant approval based on a manufacturer's request would open the City up to multiple requests for approval of alternatives, since evaluating PVC liners from one manufacturer could easily result in additional requests from other manufacturers. The additional time spent evaluating alternatives could easily overwhelm the engineers involved in the project, while not providing any information related to the cost effectiveness of the alternative.

#### **RESULTS FROM CORING:**

The letter from The Apex Group is attached. They took a core sample of the existing roof, and prepared a report outlining the results.

#### **The following changes shall be made to the Contract Documents, Specifications, and Drawings:**

Replace Original Section 01010 Summary of Work with the attached Section 01010-R1.

Replace Original 1-00301-2 Bid Schedule with the attached 1-00301-2 – R1 Bid Schedule

December 11, 2017

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/s/Justin C Holland, Administrator

## Pre-Bid Meeting Agenda

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<b>Subject:</b>	<u>Fleet Maintenance Building at Amnicola Hwy. – Re-Roofing Project M-17-002-201</u>
<b>Date:</b>	<u>12/05/2017</u>
<b>Time:</b>	<u>10:00 AM</u>
<b>Location:</b>	<u>Development Resource Center Room 3B</u>
<b>Organizer:</b>	<u>City of Chattanooga – Alan Ogle</u>

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### Topics Discussed

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Everyone is requested to sign in on the Attendance Sheet.

Introductions.

- Read thru 01010, Summary of Work. Review 00301-1b, Bid Schedule.
- Visits to the site are strongly encouraged to assess access requirements. A site visit is planned immediately after this meeting. Travel time to the site is about 15-20 minutes, depending on which route you take. Access to the roof is through a hatch inside the building. If you cannot make it after this meeting, feel free to visit at a time of your own choosing. If you do visit at a later time, please check in at the shop with the shop foreman before proceeding to the roof.
- All questions should be supplied in writing to the Purchasing Agent as instructed on the bid form 1-0009, "Request for bidder information".
- The Bid Date for the project is Thursday, Dec. 19, 2017 at 2:00 pm.
- Questions will not be accepted after 4:00 PM on December 12, 2017, which is the Tuesday before the Bid Date.
- The Final Addendum (if needed) will be distributed no later than 2:00 PM on December 15, 2017, which is the Friday before the Bid Date.
- The expected date of the Notice to Proceed is Jan. 31, 2018, with an expected construction start date Feb. 10, 2018.
- The project is schedule to be completed in 90 calendar days, with liquidated damages listed in the contract of \$500.00 per day.
- **Make sure that section 00201-1 is completely filled out and is placed on the outside of the bid envelope on the bid opening date. If that form is not on the outside of the bid envelope, the bid will not be opened.**

- Questions discussed included:

**Q: The TPO roof Spec, Section 07540, appears to be specific to Firestone, addresses a different project, mentions skylights and a standing seam roof, states that sheet metal should be 0.040" pre-finished aluminum, and other work. Are other manufacturer's roofing systems acceptable, and is this the right specification?**

**A.** The Section 07540 included in the Detailed Specifications was not the Section intended for this project. A revised Section 07540 will be released in the next few days.

## SIGN-IN SHEET

PROJECT: M-17-002

Fleet Maintenance Building off Amnicola Highway - Re-Roofing

NAME	COMPANY	PHONE	EMAIL
1 JEN ESKOLA	ESKOLA ROOFING	423-318-2196	BESKOLA@ESKOLAROFING.COM
2 BONNIE MUMFORD DODSON	CO	423 643 6031	BONNIE@CHATTANOOGA.COM
3 Zack Odor	Two Rivers Roofing	931-802-4305	Zack@tworiversroofing.net
4 Beth Eubanks	JDA	423-305-5252	beth.eubanks@jdhcompany.com
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**BID SCHEDULE**

REPLACEMENT ROOFING SYSTEM FOR FLEET MAINTENANCE BUILDING AT AMNICOLA HWY

Project No. M-17-002

City of Chattanooga, Tennessee

<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Est. No. of Units</b>	<b>Unit Price</b>	<b>Total</b>
1	Replacement TPO roofing system, roofing and labor including: removal and disposal of old roofing, insulation, flashings, coping and metal trim down to metal decking, wood blocking, membrane, tapered insulation, cover board, walk pads, metal trim and coping to complete roof system per specs, plans, and manufacturer's requirement, and furnish 20 year warranty	LS	1		
2	Surface clean, install one coat of primer, and one coat of elastomeric coating to all galvanized sheet metal and steel piping on the roof in order to protect and preservice these details.	LS	1		
<b>Total Base Bid</b>					
<b>Conditional Repairs</b>					
1	Remove and replace deteriorated steel roofing deck as needed	1	Square foot		
<b>Alternative Bid Item #1</b>					
1	Same description as #1 above, only re-roof using EPDM membrane instead of TPO. All other requirements to remain the same.	LS	1		

## Summary of work for Fleet Maintenance Building re-roof at Amnicola

1. Tear off the existing roof down to the existing metal roof deck, and inspect the metal roof for any repairs that may need to be installed.
2. Tear off all sheet metal roof flashings and dispose of properly.
3. Inspect the existing roof curbs to insure that they are at a proper height for the membrane manufactures specifications. Remove all obsolete equipment or piping from the roof and repair the roof decking in these areas.
4. Install a 1/8" pf Tapered Polyisocyanurate roof insulation system with insulation adhesive in order to drain the roof system properly. Minimum of 1.5" at the roof drains. Install roof sumps at all roof drains, along with new insert roof drains.
5. Install 1/2" HD Cover Board above tapered insulation.
6. Install a 20 year water tight warranted white Fully Adhered .060" TPO membrane system along with the associated roof flashing details in order to make the roof system water tight. The TPO membrane must be protected from dirt and staining during installation or surface must be cleaned after installation is complete. TPO surface must retain 90% of its published new reflectivity on 90% of the TPO membrane surface upon project completion.
7. Install walk pads at the roof hatch and at all units that will have a mechanical access door.
8. Install a new expansion joint at the building expansion joint in the middle of the building.
9. Install a 24 gauge Kynar prefinished steel coping along the perimeter of the roof system. This coping cap will require new wood blocking on top of the existing concrete parapet wall.
10. Install one coat of primer and one coat of elastomeric coating to all galvanized sheet metal and steel piping on the roof in order to protect and preserve these details.
11. Replace cap on roof penetration to A/C unit, then wrap in TPO.
12. Extend pipes and curbs as needed to meet minimum height above finished roof elevation as required by manufacturer.
13. All work must be done during operating hours of the Maintenance Building, unless otherwise requested.
14. Owner will schedule and conduct a pre-construction meeting before work will be allowed to start. Owner will establish at this meeting where construction dumpsters and material laydown areas will be located.
15. Contractor to provide a 20-year NDL manufacturer's warranty upon completion of the work before the City will accept the work as complete.



October 25, 2017

Alan Ogle, P.E.  
Senior Engineer  
City of Chattanooga  
1250 Market Street Suite 21000  
Chattanooga, TN 37402

Re: Amnicola Fleet Maintenance Building

Mr. Ogle,

Thank you for your time and your consideration in allowing us to evaluate the roofing system on the Fleet Maintenance Building. We did core cut the existing roofing system and found that the roof assembly had a metal roof deck with a tapered Perlite insulation system and a gravel surfaced Built-Up roof as the original roof. Sometime in 2004 there was a second roof installed over the Built-Up roof and it consisted of a layer of ½" Wood Fiber insulation board and a Carlisle .045" Reinforced EPDM Mechanically Fastened membrane roofing system. The Wood Fiber insulation board is wet in several areas of the roof. The Tapered Perlite insulation board at the core cut was dry, but we could not tell if the rest of the system was wet. The existing Carlisle roof system is out of warranty. With the Wood Fiber board insulation being wet, it will need to be torn off along with the EPDM roof system. There is no way of telling if the Tapered Perlite Insulation system is wet until you tear off the top roof system. With the complexity of tearing the top roof off and opening up the roof to the elements, and not being able to keep the first roof water tight, it would probably be less problematic to go ahead and tear both roofs off down to the metal deck and install a new tapered roof system and a membrane roof. The existing metal deck has electrical lines and electrical boxes attached to the bottom of the metal deck, which will not allow a mechanically fastened membrane roof system to be installed. With this information, we would recommend a new Tapered Polyisocyanurate insulation system installed in insulation adhesive to the existing metal deck and 20 year water tight warranted Fully Adhered .060" TPO

membrane system. Below is a scope of work for your use on this project.

- 1) Tear off the existing roof down to the existing metal roof deck, and inspect the metal roof for any repairs that may need to be installed.
- 2) Tear off all sheet metal roof flashings and dispose of properly.
- 3) Inspect the existing roof curbs to insure that they are at a proper height for the membrane manufactures specifications. Remove all obsolete equipment or piping from the roof and repair the roof decking in these areas.
- 4) Install a 1/8" pf Tapered Polyisocyanurate roof insulation system with insulation adhesive in order to drain the roof system properly. Minimum of 1.5" at the roof drains. Install roof sumps at all roof drains, along with new insert roof drains.
- 5) Install a 20 year water tight warranted white Fully Adhered .060" TPO membrane system along with the associated roof flashing details in order to make the roof system water tight. The TPO membrane must be protected from dirt and staining during installation or surface must be cleaned after installation is complete. TPO surface must retain 90% of its published new reflectivity on 90% of the TPO membrane surface upon project completion.
- 6) Install walk pads at the roof hatch and at all units that will have a mechanical access door.
- 7) Install a new expansion joint at the building expansion joint in the middle of the building.
- 8) Install a 24 gauge Kynar prefinished steel coping along the perimeter of the roof system. This coping cap will require new wood blocking on top of the existing concrete parapet wall.
- 9) Install one coat of primer and one coat of elastomeric coating to all galvanized sheet metal and steel piping on the roof in order to protect and preserve these details.

Alan, I hope this information is helpful. I will be forwarding you some of the details that we discussed in another e-mail. Please let me know if there is anything else that I can do.

Sincerely,

Brian K. Helton





## **SECTION 01010 SUMMARY OF WORK**

### **PART 1 – GENERAL**

#### **1.1 Section Includes**

- A. Description of Work**
  - B. Items regulating the execution of the Work**
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#### **1.2 Description of the Work**

- A. The work covered by this Contract consists of :**
  - 1. Tear off the existing roof down to the existing metal roof deck, and inspect the metal roof for any repairs that may need to be installed.
  - 2. Tear off all sheet metal roof flashings and dispose of properly.
  - 3. Inspect the existing roof curbs to insure that they are at a proper height for the membrane manufactures specifications. Remove all obsolete equipment or piping from the roof and repair the roof decking in these areas.
  - 4. Install a 1/8" pf Tapered Polyisocyanurate roof insulation system with insulation adhesive in order to drain the roof system properly. Minimum of 1.5" at the roof drains. Install roof sumps at all roof drains, along with new insert roof drains.
  - 5. Install 1/2" HD Cover Board above tapered insulation.
  - 6. Install a 20 year water tight warranted white Fully Adhered .060" TPO membrane system along with the associated roof flashing details in order to make the roof system water tight. The TPO membrane must be protected from dirt and staining during installation or surface must be cleaned after installation is complete. TPO surface must retain 90% of its published new reflectivity on 90% of the TPO membrane surface upon project completion.
  - 7. Install walk pads at the roof hatch and at all units that will have a mechanical access door.
  - 8. Install a new expansion joint at the building expansion joint in the middle of the building.
  - 9. Install a 24 gauge Kynar prefinished steel coping along the perimeter of the roof system. This coping cap will require new wood blocking on top of the existing concrete parapet wall.
  - 10. Install one coat of primer and one coat of elastomeric coating to all galvanized sheet metal and steel piping on the roof in order to protect and preserve these details.
  - 11. Replace cap on roof penetration to A/C unit, then wrap in TPO.

12. Extend pipes and curbs as needed to meet minimum height above finished roof elevation as required by manufacturer.
13. All work must be done during operating hours of the Maintenance Building, unless otherwise requested.
14. Owner will schedule and conduct a pre-construction meeting before work will be allowed to start. Owner will establish at this meeting where construction dumpsters and material laydown areas will be located.
15. Contractor to provide a 20-year NDL manufacturer's warranty upon completion of the work before the City will accept the work as complete.

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- B. The City Engineer reserves the right to substitute, add, delete, increase, decrease in any form or fashion as necessary the scope of work under the provisions of this Contract, including the projects noted above.
- C. This project shall be assigned a unique project number by the Engineer. The Contractor shall execute this project in complete compliance with the requirements of this contract. All records of the Contractor shall conspicuously identify them to be associated with the unique project number assigned by the Engineer.
- D. The work covered under this project shall consist of furnishing all materials, equipment and labor for the full depth reclamation of designated streets including but not limited to mobilization, parking sign placement, public notification, placement of traffic control devices per MUTCD, cleaning and conditioning of the roadways, repair of base failures as needed, the adjustment of sanitary manholes and other publicly owned structures as required, milling as directed, cement and water addition, grading, compaction, saw cutting and installation of traffic signal loop wires where required and placement of temporary and permanent pavement markings as required.
- E. The Engineer shall provide a set of standard City details, as needed, which shall be applicable to this project. The Contractor shall be called in for a Pre-Construction meeting at which time the Engineer shall issue notice to proceed. The Contractor shall have ten (10) days or an agreed to start date to start construction.

### 1.3 Items regulating the Execution of the Work.

A. Attention to Work

For this project, the Contractor shall give his personal attention to and shall supervise the work to the end that it shall be prosecuted faithfully; and, when he is not personally present on the work, he shall at all times be represented by a competent superintendent or foreman who shall be present at the work and who shall receive and obey all instruction or orders given under this Contract, and who shall have full authority to execute the same, and to supply materials, tools and labor without delay, and who shall be the legal representative of the Contractor.

The Contractor shall be liable for the faithful observance of any instructions delivered to him or to his authorized representatives.

B. Access to Work

The Contractor shall at all times provide proper facilities for access and inspection of the work by representatives of the Owner and of such official Governmental agencies as may be designated by the Owner as having jurisdictional rights to inspect the work.

C. No Parking Signs

The Contractor shall place "NO PARKING" signs 48 hours prior to beginning work at a project location. The Contractor shall notify the City's designated Inspector/ Project Manager when the signs have been placed and if vehicles have not been moved at such time as work is scheduled to begin. No additional cost shall be paid to the Contractor while the Owner is making arrangements to get the vehicle moved or towed.

D. Work on Private Property

Where the work on this project encroaches upon private property, the Owner shall provide easements and/or right-of-entry in or onto said property. Work performed in such easements is subject to the provisions of the easement agreement on file with the City of Chattanooga Engineering Department.

The Contractor shall be responsible for obtaining any additional agreements which may be deemed necessary for the storage of equipment or materials outside of public easements or rights of ways for this project. The Contractor shall obtain a written agreement between the Contractor and Land Owner and forward it to the Engineer prior to use of said property.

The Contractor shall be responsible for the preservation of and shall use every precaution to prevent damage to all trees, shrubbery, fences, culverts, mailboxes, bridges, pavements, driveways, sidewalks, houses or building and all water, sewer, gas, telephone and electric lines thereto and all other private and public property along or adjacent to the work.

Any damage that occurs will be restored to a like condition as existed prior to construction, in the Contract Documents, unless otherwise indicated or specified.

Forty-eight (48) hours prior to construction on any easement or streets the Contractor shall notify in writing the affected property owners in the area. This notification shall include the Contractor's name and the name and phone number of the contact person.

E. Monthly Job Site Meetings

Once a month, on a date mutually agreed upon by the Contractor and the Engineer, a job site meeting shall be held for review of the Project, including, but not limited to: The construction schedule, traffic control, pending submittals, and

any other issues that may arise. This meeting shall be used to review the contractor's monthly applications for payment.

F. Contract Working Hours

All work shall be performed during regular working hours unless mutually agreed upon and approved in writing by the City Engineer. The Contractor will not permit overtime work or the performance of work on Sunday or any legal holiday without the Owner's written consent given after prior 24 hour written notice to the Engineer. Saturday work shall also require prior 24 hour written notice. Regular working hours are Monday through Saturday from 7:00 A.M. to 8:00 P.M. The actual costs of the Owner's and Engineer's inspection of the work performed outside of regular working hours will be billed to the Contractor and deducted from the Contractor's application for payment as they occur.

END OF DOCUMENT

**BID SCHEDULE**

REPLACEMENT ROOFING SYSTEM FOR FLEET MAINTENANCE BUILDING AT AMNICOLA HWY

Project No. M-17-002

City of Chattanooga, Tennessee

Item No.	Description	Unit	Est. No. of Units	Unit Price	Total
1	Replacement TPO roofing system, roofing and labor including: removal and disposal of old roofing, insulation, flashings, coping and metal trim down to metal decking, wood blocking, membrane, tapered insulation, cover board, walk pads, metal trim and coping to complete roof system per specs, plans, and manufacturer's requirement, and furnish 20 year warranty	LS	1		
2	Surface clean, install one coat of primer, and one coat of elastomeric coating to all galvanized sheet metal and steel piping on the roof in order to protect and preserve these details.	LS	1		
Total Base Bid					
Conditional Repairs					
1	Remove and replace deteriorated steel roofing deck as needed	1	Square foot		
Alternative Bid Item #1					
1	Same description as #1 above, only re-roof using EPDM membrane instead of TPO. All other requirements to remain the same.	LS	1		