

September 20, 2021

Rose Quezerque, MBA Infrastructure Project Manager Regional Transit Authority 2817 Canal Street, New Orleans, LA 70119

#### RE: RTA Napoleon Building (403 Napoleon Avenue) Probable Cost Update due to the impact of COVID-19

Dear Mrs. Rose Quezerque,

Please accept Landmark and team submittal of the Probable Cost Update due to the impact of COVID-19 for the Regional Transit Authority ("RTA") for the RTA Napoleon Building per your request. This submittal includes the updated cost, supporting documentation, and a report that includes the research and data of the impacts that COVID-19 has had on the construction industry.

Below are the updated values:

#### **BASE BID**

Architecture		\$1,349,549.00
Engineering		\$1,069,069.80
Electrical	\$336,602.40	
Mechanical	\$19,600.00	
Plumbing	\$68,500.00	
Fire Protection	\$110,800.00	
Structural	\$533,567.40	
Environmental Abatement		\$176,000.00
Base Bid Total Cost	\$2,594,618.80	

#### Alternate 1 - Insulated Panels + Base Bid Cost

Base Bid Cost	\$2,594,618.80
Alternate 1 – Insulated Panel Cost	\$1,461,859.00
Contingency	\$811,295.56
Total Cost	\$4,867,773.36

#### Alternate 2 - Wood Roof Deck + Base Bid Cost

Base Bid Cost	\$2,594,618.80
Alternate 2 – Wood Roof Deck	\$1,002,431.00
Contingency	\$719,409.96
Total Cost	\$4,316,459.76



### Scaffolding Cost – Estimated \$1200 x 10 Months = \$12,000

Alternate 1 – Insulated Panels + Scaffolding cost	\$4,879,773.36
Alternate 2 – Wood Roof Deck + Scaffolding cost	\$4,328,459.76

Respectfully Submitted,

Brittny Barnes, NCIDQ, LEED AP BD+C Project Manager

#### DOUGLAS C. MAYO A.I.A.

LICENSED ARCHITECT
600 MOSS STREET.
NEW ORLEANS, LA. 70119
(504) 628-3213
EMAIL: mayoarchitects@gmail.com

Sept. 20, 2021

Brittny Barnes Landmark Consulting 525 St. Charles Ave. Ste. 330 New Orleans, LA 70130

Re: Revised Construction Estimate – Covid Impact

RTA Napoleon Ave. Facility

Dear Brittny,

I have attached the revised construction estimate documents for the architectural portion of the work for the renovations to the RTA Napoleon Ave. Facility. The estimate was prepared by my estimator, Professional Builder Services, to determine the impact of the Covid pandemic has had on the cost of construction since our original estimate was prepared prior to the Pandemic.

The estimate documentation includes the line-item cost estimate, as well as an explanation of the methods, assumptions, and research information that were utilized to prepare the estimate.

The conclusion is that the pandemic has had a significant impact on the costs of construction. Both labor and materials costs have escalated which as resulted in an increase in costs for the architectural portion of the work.

Sincerely,

Douglas C. Mayo AIA



	Account	Description		BASE BID		]
LINE	ITEM			Minimum	Maximum	MEAN
#						
1	GENERAL CONDITIONS	SEE PERCENTAGE BELOW				
2	SITEWORK	TREE PROTECTION & CLEARING		\$8,793	\$10,747	\$ 9,770
3	Remeduation	LEAD PAINT ON UNDERSIDE OF DECK	SUB-BID			
4	Mold Treatment	NIC				\$
5	Demolition	MASONRY, DOORS, and WINDOWS		\$121,436	\$148,422	\$ 134,929
6	Termite Treatment	NIC				\$
7	Tree Removal	ARBORIST TRIM		\$18,900	\$23,100	\$ 21,000
8	Site drainage/Utilities	NIC				\$
9	Paving	1500 SF		\$7,681	\$9,388	\$ 8,535
10	Fences	NIC				\$
11	Landscaping	NIC				\$
12	CONCRETE / FOUNDATION	REPAIRS, RAMPS, AND STAIRS	NIC - BY INFINITY			\$
13	MASONRY	CLEAN REPAIR		\$121,436	\$148,422	\$ 134,929
14	METALS	-				\$ -
15	Steel Structure	ROOF FRAMING REPAIR + FRAMING	NIC - BY INFINITY			\$ -
16	Partitions & Ceiling	NEW CONSTRUCTION		\$7,781	\$9,510	\$ 8,646
17	Handrail and Guardrail	1 NEW STAIRS AND 2 EXISTING		\$12,790	\$15,632	\$ 14,211
18	Steel Roofing	-				\$ -
19	WOODS & PLASTICS	-				\$ -
20	Rough Carpentry					\$ -
21	Finish Carpentry					\$ -
22	Millwork Exterior	NONE				\$ -
23	Millwork Interior	NONE				\$
24	Cabinets	NONE				\$
25	Tops	NONE				\$
26		NONE				\$
27	Paneling	NONE				\$
	I		1	1		



	Account	Description	BASE BID			]
LINE	ITEM			Minimum	Maximum	MEAN
28	Stairs	SEE ABOVE				\$
29	Siding	NONE				\$
30	MOISTURE/THERMAL					\$
31	Insulation	NONE				\$
32	Roofing	NONE				\$
33	Cricket	NONE				\$
34	Gutters & Sheetmetal	NONE				\$
35	Skylights	NONE				\$
36	Canopies	NONE				\$
37	Roof Hatches	NONE				\$
38	DOORS & WINDOWS	-				\$
39	Exterior Doors and Windows	QUOTE FROM NEW ORLEANS GLASS		\$479,188	\$585,674	\$ 532,431
40	Exterior Overhead Doors	12'X12' & 13'x12'		\$12,690	\$15,510	\$ 14,100
41	Interior	INTERIOR DOORS		\$4,455	\$5,445	\$ 4,950
42						
43						
44	Hardware			\$11,936	\$14,588	\$ 13,262
45	Weather-stripping	NONE				
46	Glass / Glazing	INCLUDED IN LINE 38	\$ 3			
47	FINISHES	-				\$
48				\$0	\$0	
49	Sheetrock	INCUDED IN PARTION COST LINE 16				
50		-				\$
51	Ceramic Tile	NONE				\$
52						
53	Ceilings	NONE		T		\$
54	Flooring	TOPPING AND EPOXY	NIC - BY INFINITY			\$
55		-				\$
56	Painting Exterior	PREP AND PAINT BRICK		\$28,350	\$34,650	\$ 31,500



	Account	Description		BASE BID		
LINE	ITEM			Minimum	Maximum	MEAN
57	Interior	PREP AND PAINT BRICK		\$28,350	\$34,650	\$ 31,500
58	Wall Coverings	NONE				\$
59	Fire Caulking	NIC				\$
60	Fire Extinguishers	NIC				\$
61	SPECIALTIES					\$
62	Fireplaces	NONE				\$
63	Identification/Signage			\$203	\$248	225
64	Mail Receptacles	NIC				\$
65	Bath Accessories & Signs	NIC		\$3,578	\$4,373	3975
66	Mirrors	INLUDED ABOVE				\$
67		-				\$
68	Equipment	NONE				\$
69	Appliances	NONE				\$
70		-				\$
71	Furnishings	NONE				\$
72		-				\$
73	Special Construction	-				\$
74	Saunas/Pools/Fountains	NONE				\$
75	Shed / Out-building	NONE				\$
76		-				\$
77	Conveying Systems	NONE				\$
78	Mechanical	-				\$
79	Plumbing	1 BATH/2 FIXT	NIC - BY INFINITY			\$
80	Fire Detection/Security	NIC	NIC - BY INFINITY			\$
81	HVAC	25T. HEAT/COOL	NIC - BY INFINITY			\$
82	FIRE SPRINKLERS	WET PIPE	NIC - BY INFINITY			\$
83						\$
84	Electrical and Electronics					\$



	Account Description BASE BID					
LINE	ITEM			Minimum	Maximum	MEAN
85	Electrical	SERVICE AND LIGHTING (TBD)	NIC - BY INFINITY			\$ .
86	Sound System	NONE				\$
87	Communication	NONE				\$ .
88						\$
89						
90	SUBTOTALS			\$867,567	\$1,060,360	\$963,963
91		CONTINGENCY		0	0	0
92						
93						
94	SUBTOTALS			\$ 867,567	\$ 1,060,360	\$ 963,963
95		GENERAL CONDITIONS	12%	\$ 104,108	\$ 127,243	\$ 115,676
96	SUBTOTALS			\$ 971,675	\$ 1,187,603	\$ 1,079,639
97		OVERHEAD	15%	\$ 145,751	\$ 178,140	\$ 161,946
98		PROFIT	10%	\$ 97,168	\$ 118,760	\$ 107,964
99	TOTALS			\$ 1,214,594	\$ 1,484,503	\$ 1,349,549



	Ι	Metairie, LA 700		E 1 OU D 20 CE	EEL 0 FOARS	COMPOSITE
	ITEM	Description	ALTERNAT	E 1 8" R-30 ST Minimum	EEL & FOAM (  Maximum	OMPOSITE MEAN
LINE #	112141	+			MAMMAM	WEAN
1	CENEDAL CONDITIONS	SEE PERCENTAGE BELOW			+	
	GENERAL CONDITIONS SITEWORK	SEE: ENGLISHED SEED W				
2			CUR DID			
3	Remeduation		SUB-BID			
4	Mold Treatment					
5	Demolition	EXISTING ROOF DECK		\$112,346	\$137,312	\$ 124,829
6	Termite Treatment					
7	Tree Removal					
8	Site drainage/Utilities					
9	Paving					
10	Fences					
11	Landscaping					
12	CONCRETE / FOUNDATION		NIC - BY INFINITY			
13	MASONRY					
14	METALS					
15	Steel Structure		NIC - BY INFINITY			
16	Partitions & Ceiling					
17	Handrail and Guardrail					
18	Steel Roofing					
19	WOODS & PLASTICS					
20	Rough Carpentry	8" Steel and Foam Composite Panel Roof		\$637,257	\$778,870	\$ 708,063
21	Finish Carpentry	Steel and Foam Composite Panel		\$67,224	\$82,162	\$ 74,693
22	Millwork Exterior					
23	Millwork Interior					
24	Cabinets					
25	Tops					
26						
27	Paneling					



		Description IVIETATILE, LA 70001		F 1 8" R-30 ST	TEEL & FOAM	COMPOSITE
LINE	ITEM		7 LILIUM I	Minimum	Maximum	MEAN
28	Stairs					
29	Siding					
30	MOISTURE/THERMAL					
31	Insulation	Included in Composite Panel				
32	Roofing					\$ 110,588
33	Cricket					\$ 5,796
34	Gutters & Sheetmetal					\$ 20,216
35	Skylights					
36	Canopies					
37	Roof Hatches					
38	DOORS & WINDOWS					
39	Exterior Doors and Windows					
40	Exterior Overhead Doors					
41	Interior	V				
42						
43						
44	Hardware					
45	Weather-stripping					
46	Glass / Glazing		\$ 3			
47	FINISHES					
48						
49	Sheetrock					
50						
51	Ceramic Tile					
52						
53	Ceilings					
54	Flooring		NIC - BY INFINITY			
55						
56	Painting Exterior			_	_	



	<b>Description</b> ALTERNATE		E 1 8" R-30 ST	M COMPOSITE		
LINE	ITEM			Minimum	Maximum	MEAN
57	Interior					
58	Wall Coverings					
59	Fire Caulking					
60	Fire Extinguishers					
61	SPECIALTIES					
62	Fireplaces					
63	Identification/Signage					
64	Mail Receptacles					
65	Bath Accessories & Signs					
66	Mirrors					
67						
68	Equipment					
69	Appliances					
70						
71	Furnishings					
72						
73	Special Construction					
74	Saunas/Pools/Fountains					
75	Shed / Out-building					
76						
77	Conveying Systems					
78	Mechanical					
79	Plumbing		NIC - BY INFINITY			
80	Fire Detection/Security		NIC - BY INFINITY			
81	HVAC		NIC - BY INFINITY			
82	FIRE SPRINKLERS		NIC - BY INFINITY			
83						
84	Electrical and Electronics					



	Metallie, LA 70001								
		Description	ALTERNATE 1 8" R-30 STEEL & FOAM COMPOSITE						
LINE	ITEM			Minimum	Maximum	MEAN			
85	Electrical		NIC - BY INFINITY						
86	Sound System								
87	Communication								
88									
89									
90	SUBTOTALS			\$816,826	\$998,343	\$1,044,185			
91		CONTINGENCY		0	0	0			
92									
93									
94	SUBTOTALS			\$ 816,826	\$ 998,343	\$ 1,044,185			
95		GENERAL CONDITIONS	12%	\$ 98,019	\$ 119,801	\$ 125,302			
96	SUBTOTALS			\$ 914,846	\$ 1,118,145	\$ 1,169,487			
97		OVERHEAD	15%	\$ 137,227	\$ 167,722	\$ 175,423			
98		PROFIT	10%	\$ 91,485	\$ 111,814	\$ 116,949			
99	TOTALS			\$ 1,143,557	\$ 1,397,681	\$ 1,461,859			
	BASE + 0	COMPOSITE DECK		1	TOTAL	\$ 2,811,407			



	Account	Description	ALTERNATE 2	2 2X6 WOO <u>I</u>	O ROOF DEC	CK
LINE	ITEM			Minimu	Maximu	MEAN
#						
1	GENERAL CONDITIONS	SEE PERCENTAGE BELOW				
2	SITEWORK					
3	Remeduation		SUB-BID			
4	Mold Treatment					
5	Demolition	EXISTING ROOF DECK		\$112,346	\$137,312	\$ 124,829
6	Termite Treatment					
7	Tree Removal					
8	Site drainage/Utilities					
9	Paving					
10	Fences					
11	Landscaping					
12	CONCRETE / FOUNDATION		NIC - BY INFINITY			
13	MASONRY					
14	METALS					
15	Steel Structure		NIC - BY INFINITY			
16	Partitions & Ceiling					
17	Handrail and Guardrail					
18	Steel Roofing					
19	WOODS & PLASTICS					
20	Rough Carpentry	3x6 T&G Roof Deck on 4x4 Sleepers		\$352,459	\$430,783	\$ 391,621
21	Finish Carpentry	Wood and Hardie Panel Fascia		\$56,675	\$69,269	\$ 62,972
22	Millwork Exterior					
23	Millwork Interior					
24	Cabinets					
25	Tops					
26						
27	Paneling					



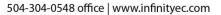
	Account	Metairie, LA  Description	ALTERNATE	2 2X6 WOOL	) ROOF DEC	ĽK
LINE	ITEM		TIETER VITE	Minimu	Maximu	MEAN
28	Stairs					
29	Siding					
30	MOISTURE/THERMAL					
31	Insulation	NONE				
32	Roofing	Asphalt Shingles Class A		\$99,529	\$121,646	\$ 110,588
33	Cricket	TPO				\$ 5,796
34	Gutters & Sheetmetal	GALVANISED STEEL 6"		\$18,194	\$22,238	\$ 20,216
35	Skylights					
36	Canopies					
37	Roof Hatches					
38	DOORS & WINDOWS					
39	Exterior Doors and Windows					
40	Exterior Overhead Doors					
41	Interior					
42						
43						
44	Hardware					
45	Weather-stripping					
46	Glass / Glazing		\$ 3			
47	FINISHES					
48						
49	Sheetrock					
50						
51	Ceramic Tile					
52						
53	Ceilings					
54	Flooring		NIC - BY INFINITY			
55						
56	Painting Exterior					



	Account	Description Description	ALTERNATE	2 2X6 WOOI	D ROOF DEC	CK
LINE	ITEM			Minimu	Maximu	MEAN
57	Interior					
58	Wall Coverings					
59	Fire Caulking					
60	Fire Extinguishers					
61	SPECIALTIES					
62	Fireplaces					
63	Identification/Signage					
64	Mail Receptacles					
65	Bath Accessories & Signs					
66	Mirrors					
67						
68	Equipment					
69	Appliances					
70						
71	Furnishings					
72						
73	Special Construction					
74	Saunas/Pools/Fountains					
75	Shed / Out-building					
76						
77	Conveying Systems					
78	Mechanical					
79	Plumbing		NIC - BY INFINITY			
80	Fire Detection/Security		NIC - BY INFINITY			
81	HVAC		NIC - BY INFINITY			
82	FIRE SPRINKLERS		NIC - BY INFINITY			
83						
84	Electrical and Electronics					



	Account	Description	ALTERNATE	2 2X6 WOO	DD ROOF DEG	CK
LINE	ITEM			Minimu	Maximu	MEAN
85	Electrical		NIC - BY INFINITY			
86	Sound System					
87	Communication					
88						
89						
90	SUBTOTALS			\$639,203	\$781,248	\$716,022
91		CONTINGENCY		0	0	0
92						
93						
94	SUBTOTALS			\$ 639,203	\$ 781,248	\$ 716,022
95		GENERAL CONDITIONS	12%	\$ 76,704	\$ 93,750	\$ 85,923
96	SUBTOTALS			\$ 715,908	\$ 874,998	\$ 801,944
97		OVERHEAD	15%	\$ 107,386	\$ 131,250	\$ 120,292
98		PROFIT	10%	\$ 71,591	\$ 87,500	\$ 80,194
99	TOTALS			\$ 894,885	\$ 1,093,748	\$ 1,002,431
	BASE + 2X	6 WOOD DECK			TOTAL	\$ 2,351,979





Civil | Structural | Mechanical | Electrical | Marine | Transportation

4001 Division St., Metairie, LA 70002-3205

9/20/2021

Brittny Barnes Project Manager, Landmark Consulting 525 St. Charles Ave, Ste 300 New Orleans, LA 70130

Re: Napoleon Building Weatherization

Project No. 20-004

Ms. Barnes,

Infinity Engineering was requested to do a re-estimate for the costs associated with the Napoleon Building Weatherization Project as it was understood that the existing estimate was antiquated due to the increase in the cost of materials and the cost of labor from the recent Covid 19 outbreak.

Below are out updated values associated with each discipline:

	lectrical
_	CCCICA

Fire Alarm & Heat Trace	\$59,066.40
Lighting	\$192,288.00
Distribution	\$85,248.00
Total	<u>\$336,602.40</u>

#### Mechanical/Plumbing/FP

Mechanical Equipment	\$19,600.00
Plumbing	\$68,500.00
Fire Protection	\$110,800.00
Total	<u>\$198,900.00</u>

#### **Structural**

Total \$533,567.40

The new estimate (sum of all disciplines) of all design aspects of the Infinity Engineering Scope is **\$1,069,069.80**.

Our values do <u>NOT</u> include the 20% contingency as requested by the RTA as we understood that said value would be added globally by Landmark once all values were received from other consultants.

Brittny Barnes
Project Manager
Landmark Consulting

Napoleon Building Weatherization Re-Estimate Project No. 20-004 Page 2 of 2

As always, if there is anything further that we can assist with for the completion of the bidding process of this project, please do not hesitate to reach out to us at your convenience.

Sincerely, Infinity Engineering Consultants, LLC

Gregory Pier, E.I.

Bregory Pier



## INSULATION TECHNOLOGIES, INC.

P.O. BOX 98 • HARVEY, LA 70059 • (504) 362-1550 • FAX (504) 362-1685

LA CONTRACTORS LICENSE # 18938 LA MOLD CONTRACTORS LICENSE # 250059 LA FIRE MARSHAL LICENSE # F1028

#### **BUDGET PROPOSAL**

6/17/2020

Aubrey Williams NV5 730 Camp Street, Unit 1 New Orleans, LA Phone: 504-324-9667 Cell: 985-647-0148

Email:Aubrey.Williams@nv5.com

Attn: Mrs. Aubrey Williams

Re: RTA Napoleon Facility

419 Napoleon Avenue New Orleans, LA

#### Gentlemen:

It is with pleasure that Insulation Technologies, Inc. submits this **Budget** quotation to perform the following scope of work at the above referenced according to the Lead- Based Removal Specifications provided by NV5 and discussion about removing the ACM Roof in its entirety. No Asbestos Removal specifications were provided was provided.

#### Scope of Work: LEAD

- Mobilization
- Provide temp power pole and water meter for power and water.
- Removal and disposal of all wood frame windows throughout by full component removal.
- Remove loose flaking paint from all brick walls using wet methods and pressure washing. Approx. 14,000 SF
- Once stabilization of paint has been completed apply Fiberlock LBC Encapsulant as per manufacturer's recommendations.
- Provide isolation barriers, containments as needed and waste water storage tank for sampling at the end of scope.
- Remove and properly dispose of two yellow posts in garage area by full component removal.
- Removal and proper disposal of roll up door frame back of garage. 1 EA
- Removal and proper disposal of door frames in garage area by full component removal.
- Provide spot stripping of approx. 50 locations. Areas to be marked prior to chemically striping by consultant.
- All waste will containerized and put into 55 gal drum(s) or roll off dumpster and labeled.
- Work areas will then be cleaned up using HEPA vacuuming techniques, wet wiping using TSP-PF cleaner, then re HEPA vacuuming.





## INSULATION TECHNOLOGIES, INC.

INSUL-TECH

P.O. BOX 98 • HARVEY, LA 70059 • (504) 362-1550 • FAX (504) 362-1685

LA CONTRACTORS LICENSE # 18938 LA MOLD CONTRACTORS LICENSE # 250059 LA FIRE MARSHAL LICENSE # F1028

• All waste will be properly disposed of pending TCLP results.

<u>Inclusions:</u> Supervision, Labor, Equipment, materials and disposal of non-hazardous waste utilizing a waste manifest and **owner provided EPA ID** #.

We are assuming LEAD waste will TCLP as non haz waste and will be disposed of at the Riverbirch Landfill Highway 90(Industrial Waste). If the TCLP comes back Haz Waste, additional cost will apply for disposal at the Waste Management Landfill, Port Sulfur, LA.

#### Scope of Work: Asbestos Roof Shingles

- Remove and properly dispose of non- friable asbestos roof shingles from RTA roof including dormers. Approx. 24,300 SF.
- All waste will be double bagged and hauled off to the Riverbirch landfill Hwy 90 using a non-hazardous waste manifest.

#### **Exclusions:**

➢ 3<sup>rd</sup> Party Oversite, daily air monitoring, inspections and Clearance wipe sampling. Repairs to roof.

### Addenda Acknowledged: N/A

#### **Lead Inclusions:**

- ➤ Furnish all labor, materials, insurance, supervision and equipment necessary for the removal and proper disposal of lead paint from the above referenced project.
- > Provide all enclosures, breathing apparatus, and all contractors' personal protection equipment as per job requirements.
- > Conduct OSHA air monitoring throughout the removal and cleaning operation.
- ➤ Dispose of lead contaminated materials, as per EPA rules and regulations, at an EPA approved disposal facility.
- > Provide final documentation showing proof of disposal and air sample results.

Disposal of lead waste requires an Owner provided EPA id #. Lead waste will remain on site until an EPA # is received from owner.

All removal, transportation, record keeping and disposal of lead paint will be in strict compliance with the guidelines and regulations of local government agencies and federal regulations.

### Standard Stipulations on all projects:

Water to be provided by Owner





## INSUL-TECH

## INSULATION TECHNOLOGIES, INC.

P.O. BOX 98 • HARVEY, LA 70059 • (504) 362-1550 • FAX (504) 362-1685

LA CONTRACTORS LICENSE # 18938 LA MOLD CONTRACTORS LICENSE # 250059 LA FIRE MARSHAL LICENSE # F1028

- ➤ Owner will provide staging area for truck, trailer and dumpster.
- Owner to provide clear access to work areas.
- > All movable items will be removed by others prior to any abatement activities.
- > Area to be left cleaned after completion.
- Work to be performed under single mobilization, Mon thru Fri, 7am to 5pm
- This proposal is valid for 30 days
- > If payment and performance bond is required please add 1.5% to price.
- > Any additional accounting program required to complete the project may result in additional fees.
- ➤ A sample insurance certificate is attached. If other wording or coverage is required additional charges may apply.

Budget Price to complete the above scope of work: \$176,000.00

Insulation Technologies, Inc. wishes to express its appreciation for allowing us to submit this proposal. We hope our qualifications and price are acceptable. If this proposal is more than \$5,000 this document will become Attachment A of said contract. If this proposal is \$5,000 or less this document will become the legal contract when signed by both authorized parties. If accepted I understand the total will be paid in full at the time of completion. Please provide complete name and address below of party to be invoiced.

Sincerely,	
Insulation Technologies, Inc	
Jeffrey C. Robinson Jeffrey C. Robinson Project Manager	
Printed Name: Title:	 Date
Company Full Name:	
Billing Address:	
Phone/Fax:	





# **REPORT**

#### **Executive Summary**

This report presents the result of a re-estimate for the Napoleon Avenue Building Facility Building Renovation & Upgrade located at 403 Napoleon Avenue New Orleans, LA. The review included a thorough review of the original estimate for any discrepancies, errors, or changed conditions since the estimate was formulated at the end of September 2021. We also reviewed publications written around the time the bids were being formulated and submitted. These explored the impacts that the Covid19 pandemic was having on construction costs, labor impacts, supply chain interruptions, and uncertainty and risk perceptions among contractors.

In addition, we attempted to interview local construction firms and material suppliers currently active and bidding on work of a similar scope and magnitude to identify consensus factors that are affecting bidding considerations and pricing adjustments in the Covid19 construction environment. This effort was interrupted shortly after it began due to the approach and subsequent arrival of hurricane IDA. We were able to interview one contractor and had to rely on our own experiences with material suppliers to arrive at the impacts.

After completing this review and evaluating the results we developed factors to apply to the labor productivity and costs, material prices, general conditions increases, overhead, and profit margins consistent with the increased risk faced by contractors bidding in this environment. We believe these adjustments are completely supported by the information presented in this report. The results we arrived at are the following.

Labor cost increases were the result of several considerations the first was an adjustment for the base labor rates that resulted from the use of standard local contractor rates in the original estimate for direct and subcontract labor as opposed to the prevailing wage rates which were included in the final bid package issued by the RTA. Labor prices were also adjusted based on productivity decreases, estimated at 10%, that increased the cost of labor for various units of work undertaken. This was reflected in an increase of the labor burden rate from 121% to 135%.

Material price increases during the pandemic and especially at the time that the project bid have been dramatic. The big movers were wood products and steel with increases of about 80% and 60% respectively. Almost every category of materials was affected, and these increases were applied to each line item in the estimate based on the category and the consensus tabulation of the increases reported in individual publications. The following table illustrates the range of increases reported and the final consensus percentage rate adopted and applied to applicable material line items.

Material Price Increases and Source information	Material Price Increase Information Source						
	Federal Reserve	Federal Reserve Associated General Enineering News Average of					
Material Category	Minneapolis	Contractors	Record	Reported Increases			
Masonry	11%			11%			
Lumber	83%		70%	77%			
Plywood Sheathing	83%	57%	40%	60%			
Other Wood Products	80%			80%			
Plastic Construction Products	35%	27%		31%			
Copper Wire	50%	28%		39%			
Steel	49%	109%	31%	63%			
Gypsum Products	30%	22%		26%			
Insulation	30%	12%		21%			
Asphalt Tar and Roofing	12%	11%		11%			

Table 1

General Conditions price increases resulted from the additional direct costs which Covid19 imposed on projects due to things like, tool and hygiene cleaning cost that decrease worker production, crew size decrease due to social distancing, Covid19 testing and increased personal protection equipment, and extension of the time frame that temporary facilities and support services may be in place due to material delays and supply disruptions. These impacts led us to project an increase of 6% to the general conditions cost for a project and to include additional labor manhours and material costs as a line item under general conditions for 160 days.

Overhead cost is expected to increase for several reasons due to Covid19. These include increased costs for management personnel and home office staff as these positions have been much harder to fill since the pandemic effects became prolonged. Shortages for these positions have increased the cost contractors must pay to fill vacant positions. The absence of workers and management due to illness, quarantine, and family commitments for illnesses in the family will impact the how well a contractor is able to manage resources and efficiently execute the plan for the project. We estimated that these impacts would increase overhead costs by 6%.

Profit margin impacts are expected to result from the uncertainty contractors feel about all of the impacts described so far. We have no doubt that contractors will increase profit margins in an attempt to further mitigate the perceived and real risk that they face. We have applied a 2% increase to account for this impact.

The total impact of these increases has resulted in an increase to our estimated cost for the project of from 63% to 86% depending on the cost differences for alternates and the base bid. We would like to emphasize that there are many considerations that come into play when projects are considered to be high risk or are bid in time of uncertainty which increases risk. The fact that only one bid was received on this project leads us to the conclusion that both considerations may have impacted the bid for this project.

#### Methodology

#### 1. Review of Recent Publications

A number of recent publications were reviewed which dealt with the cost effects of the Covid19 pandemic on material costs, labor impacts, supply chain interruptions, and the general sentiment of contractors at the end of the second quarter of 2021.

#### 2. Survey of Contractors and Material Suppliers

In addition, interviews were initiated with local construction firms and material suppliers currently active and bidding on work of a similar scope and magnitude to identify consensus factors that are affecting bidding considerations and pricing adjustments in the Covid19 construction environment.

Unfortunately, we had just completed our first contractor interview when hurricane was identified as a rapidly advancing storm with a trajectory likely to cause major impacts to this area. These conditions

prompted many to evacuate the city and contractors to move into damage prevention actions for clients and begin preparation for the potential aftermath that would require all of the contractor resources available. The storm did impact the New Orleans area in a major way and the continuation of the contractor survey became untenable.

#### 3. Re-estimation Based on the Survey Results

We proceeded with the re-estimation based on the information contained in the publications we reviewed, the contractor interview we were able to conduct, and our own experiences with material suppliers. We then developed cost adjustment factors which were applied to the individual estimate components. These adjustments produced a revised estimate, presented as an attachment to this report. The following discussion of these effects provides highlights from the review of the publications and significant findings and conclusions encountered during the review of each publication. Based on the findings and conclusions we estimated the impact to the cost elements of the estimate

#### **Publication Reviews**

#### **Publication**

Engineering News Record, <u>The Silver Lining of Construction Productivity and COVID-19</u>, April 14, 2021. The publication is available at <a href="https://www.enr.com/articles/51585-the-silver-lining-of-construction-productivity-and-covid-19">https://www.enr.com/articles/51585-the-silver-lining-of-construction-productivity-and-covid-19</a>

#### **Publication Purpose**

Engineering News-Record provides the engineering and construction news, analysis, commentary and data that construction industry professionals need to do their jobs more effectively. The audience includes contractors, project owners, engineers, architects, government regulators and industry suppliers—many of whom work globally. ENR connects diverse sectors of the industry with overage that everyone needs about issues such as business management, design, construction methods, technology, safety, law, legislation, environment and labor.

In particular ENR publishes both a Construction Cost Index and Building Cost index that are widely used in the construction industry as well as the material price and skilled and common labor indexes that report on detailed material and labor costs on a quarterly basis.

#### **Summary of Conclusions**

The publication provides an examination of the new normal COVID-19 productivity factor with new sets of rules, guidelines and tactics to implement in order to succeed in the operating environment thrust upon everyone as a result of COVID-19. While the pandemic's earliest impacts on engineering and construction (E&C) remained unknown, many construction leaders shifted their focus to known variables such as social distancing, technology, clients' demands, and cleaning.

Personal hygiene protocols may not be limited to hand washing. It takes time to clean tools and work areas, both at the beginning and end of work shifts. Contractors may have to allocate time for preventive maintenance, as the new rules may dictate a less than optimal use of a 40-hour work week. The materials that arrive on jobsites may also need to be cleaned prior to use. Obviously, a greenfield project may have a final cleaning phase that will provide a certain level of closure for customers.

However, an electrical contractor working on a renovation of an active medical clinic may need extra time to clean switchgears and light fixtures. Contractors may factor this into the bid development process.

Other impacts will include additional personal protective equipment, potential testing of workers for Covide19 and the potential extension of the time frame that temporary facilities and support services may be in place. The article identified the following additional items with the potential to impact the work environment.

Crew size decrease

Crew size loss of production decrease

Tool and hygiene cleaning cost production decrease

Clean incoming material cost impact

The publication did cite enhancements that may offset some of these potential impacts but they are viewed as longer term benefits rather than immediate impacts.

#### **Estimate Impacts**

We viewed the general conditions impacts as especially onerous at the time the project bid since they were still being implemented and discovered. We applied a 6% increase to the 6% original general conditions contained in the estimate to accommodate these impacts. We also included a nominal amount of direct labor and material dollars to the general conditions line item in the estimate.

#### **Publication**

<u>U.S. Chamber of Commerce, Commercial Construction Index – Q2 2021</u>. The publication is available online at <a href="https://www.uschamber.com/report/us-chamber-of-commerce-commercial-construction-index-q2-2021">https://www.uschamber.com/report/us-chamber-of-commerce-commercial-construction-index-q2-2021</a>

#### **Publication Purpose**

This publication is a quarterly economic index started in 2017 which is designed to gauge the outlook for, and resulting confidence in, the commercial construction industry. Each quarter, contractors across the country are surveyed in order to better understand their levels of confidence in the industry and top-of-mind concerns related to confidence in new business, revenue expectations, and ability of the market to provide new business.

#### **Summary of Conclusions**

Before the pandemic started gaining traction the index stood at an overall score of 74 in Q1 2020 after reaching its all-time high of 77, 6 months earlier. The score saw rapid deterioration in Q2 2021 and dropped to a score of 56, the lowest since the index was established. As the pandemic continued, the score reversed course and gradually began to rise. Contractors began to adapt to the new work environment and realized opportunities to increase costs related to the pandemics effects. Revenue expectations rose steadily as did the realization that new business would continue to become available and that owners would pay to move things forward. The work backlogs of contractors also appear to have increased as fewer contractors bid work and those that did bid saw increases in their backlog.

The latest Q2 2021 report on the index identifies key market trends that are expected to continue; however, this report preceded the emergence of the effects now being experienced from the Covid19 Delta variance and low vaccination rates that have multiplied its impacts. These trends were optimistic about new business and revenue increases. Recent legislation related to infrastructure spending and additional legislation on the horizon may offset concerns over the impacts of the Delta variant considering initial reaction to the pandemic in Q2 2020 and the recovery of market sentiment. The pandemic may have eliminated some of the weaker businesses in the construction field and will provide increased revenue, backlog, and new business for those that remain.

#### **Estimate Impacts**

The increase in optimism for new business, increased revenues, and work backlog are usually associated with higher profit margins and pricing that is more risk averse and not as tightly priced, leading to increased material and labor pricing. The exact quantification of these increases is difficult specify but it would not be unreasonable to expect a 2% increase in profit margins and a 6% increase in overhead costs.

#### **Publication**

The Associated General Contractors Of America, Inc., August 12, 2021, Steep Rise In Producer Prices For Construction Materials And Services Continues In July As Contractors Struggle With Supply Challenges, Available Online at <a href="https://www.agc.org/news/2021/08/12/steep-rise-producer-prices-construction-materials-and-services-continues-july">https://www.agc.org/news/2021/08/12/steep-rise-producer-prices-construction-materials-and-services-continues-july</a>

#### **Publication Purpose**

This report is intended to provide Associated General Contactors of America (AGC) members with better understanding of the current situation, the impact on construction firms and projects, its likely course in the next several months, and possible steps to mitigate the damage.

#### **Summary of Conclusions**

In this very recent news item the The Associated General Contractors Of America (AGC) sounded an alarm stating, "July was the sixth-straight month of double-digit price increases for construction inputs," said Ken Simonson, the association's chief economist. "In addition, lead times to produce or deliver many items keep lengthening. Many reports since the government collected this price data in mid-July show the trend will continue, at a minimum into the autumn and likely beyond,"

Extreme price increases were seen in steel mill products which more than doubled from July 2020 to last month increasing 108.6 percent. Plywood has increased 56.8 percent, plastic construction products rose 26.7 percent, gypsum products rose 21.6 percent, insulation materials increased 11.8 percent, and asphalt and tar roofing and siding products rose 10.9 percent.

These increases have been hard on construction contractors with work that was bid at much lower prices in 2020. Contractors are now pricing in these increases as well as adding contingencies for further increases due to the high degree of uncertainty in the current market conditions.

Based on an increase in producer price index for new nonresidential construction rise 4.4 percent over the past 12 months and a 25.6 percent increase in the prices that producers and service providers such

as distributors and transportation firms charged for construction inputs, price increases of 30 percent or more should be expected.

#### **Estimate Impacts**

Contractors are pricing these increases into projects that were bid in the same time frame as the RTA Napoleon Avenue Building Facility Building Renovation & Upgrade. The increases identified in this article have been considered along with other price increases mentioned in other articles to arrive at a composite price increase for specific material categories in order to be applied to specific line item material and labor pricing.

#### **Publication**

<u>The Associated General Contractors Of America, Inc., August 12, 2021, Q1 2021 Construction Inflation</u>

Alert. Article available online at https://www.agc.org/news/2021/03/29/agc-construction-inflation-alert

#### **Publication Purpose**

This report is intended to provide all parties with better understanding of the current situation resulting from the Covid19 pandemic, the impact on construction firms and projects, its likely course in the next several months, and possible steps to mitigate the damage.

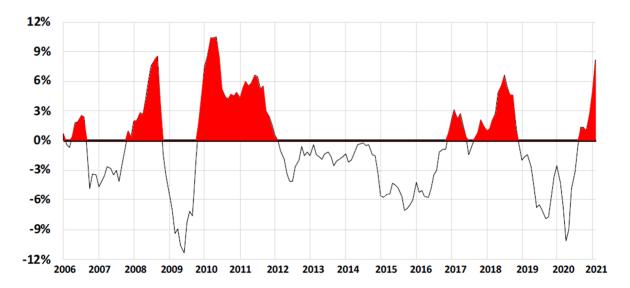
#### **Summary of Conclusions**

In addition to the 30 percent increases cited in the previous AGC publication, the AGC warned that contractors are incurring costs not captured by material, producer, and service providers. These cost increases are the result of delayed deliveries, higher expenditures for personal protective equipment, other sanitation measures, and shortages of employees or subcontractors' workers on jobsites.

Project completions are being delayed, meaning contractors receive needed payments later and may incur penalties for missed deadlines. Finally, many projects or subcontractors' packages are heavily weighted toward materials that have risen much more in price than the overall PPI for inputs.

The AGC alert also made the point that these are not a short-term problem. They presented a graph which compared prior periods of price escalation to the current one which is shown in figure 1 below.

Change in material costs vs. change inwarehouse bid prices, Jan. 2006 -Feb. 2021 Difference between year-over-year change in costs vs. bid prices



Source: Bureau of Labor Statistics, producer price indexes fogoods inputs to nonresidential construction (naterial costs) and new warehouse construction (bid prices)

Figure 1

It is apparent that the current trend shown on the right for 2021 is as steep as the preceding trends and does not take into account the emergence of the Covid19 Delta variant that is now exceeding prior infection and hospitalization peaks. Even work that was recently bid with known increases and required contingencies may not be sufficient to cover the future cost impacts.

The AGC urges owners to be aware of the current market environment for contractors and says they should consider to "authorize appropriate adjustments to design, completion date, and payments to accommodate or work around these impediments. The alternative of having a contractor stuck with impossible costs or timing is likely to be worse for many owners."

#### **Estimate Impacts**

We believe that contractors were aware of the trends discussed above an that contingencies were built into the bids that were being submitted at the time that the Napoleon Avenue Building Facility Building Renovation & Upgrade project was being bid. Based on our sense of the market environment at the time of bid and what we see now we have adjusted the general conditions, overhead, and profit margins by 6%, 6%, and 2% respectively to provide the contingencies necessary to protect the contractor against future known and unknown conditions.

#### **Publication**

<u>Tu-Uyen Tran, Senior Writer, Federal Reserve Bank of Minneapolis, June 24, 2021, Rising Cost Of Materials Means Fewer Contracts, Smaller Profits For Builders, Survey Says</u>. The publication is available online at <a href="https://www.minneapolisfed.org/article/2021/rising-cost-of-materials-means-fewer-contracts-smaller-profits-for-builders-survey-says">https://www.minneapolisfed.org/article/2021/rising-cost-of-materials-means-fewer-contracts-smaller-profits-for-builders-survey-says</a>

#### **Publication Purpose**

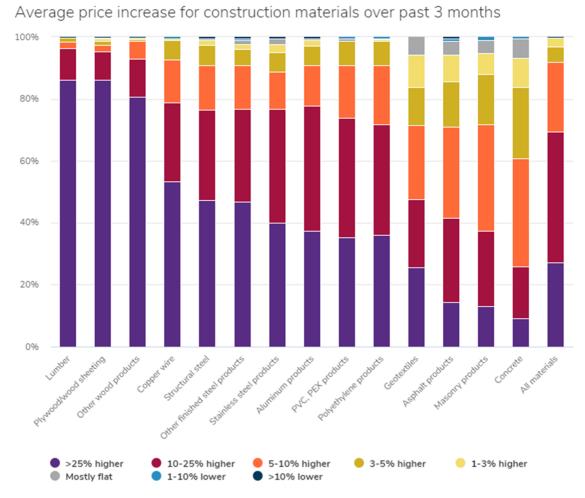
The Federal Reserve Bank of Minneapolis sought to determine if the rising cost of building materials is hurting demand for projects and profits for the construction industry. They conducted a survey in late May of 2021 and presented the results in late June of 2021. More than 400 respondents from the Ninth District states of Minnesota, Montana, North and South Dakota, northwestern Wisconsin, and Michigan's Upper Peninsula took part in the survey, which was not a random sample and may not be representative of the industry.

#### **Summary of Conclusions**

The author of the survey says that builders are experiencing material price increases of over 25 percent in the last 3 months. Of the top five items 4 are significant components for the Napoleon Avenue Building Facility Building Renovation & Upgrade and include lumber, plywood sheeting, other wood products, up over 80%, and structural steel up over 50%.

The survey indicated that respondents said they passed on the material cost increases to customers. For example, among respondents who said their price increases were 10 percent to 25 percent, 66 percent said they increased costs for customers in the same range. But many passed on less, and some passed on more. The author stated that "Those who increased prices to customers beyond their actual material costs didn't comment on the matter in the survey. But given complaints about the inability to use escalation clauses, it may be that some are asking customers to pay more in anticipation of even higher material costs in the future."

In order to capture the magnitude and the range of the extreme price increases, they prepared a chart of the average price increase over the last 3 months for a broad range of construction product classifications. Wood products, especially lumber and plywood, saw the most extreme price increases affecting the most respondents, with more than 80 percent reporting prices increasing by more than 25 percent from March to May. The results are shown in Figure 2 below that is taken directly from the publication.



Note: Chart includes only respondents who stated the specified material is applicable to their firm. Source: Federal Reserve Bank of Minneapolis

#### **Estimate Impacts**

As we noted earlier in the estimate impacts for the AGC construction inflation alert the increases identified in that publication this publication have been considered along with other price increases mentioned in other articles to arrive at a composite price increase for specific material categories in order to be applied to specific line item material and labor pricing. The table representing the composite price increases for various materials is presented in table 1 the summary of this report.

#### **Publication**

Engineering News Record, <u>Analysis: COVID-19 Causes 35% Productivity Loss at UK Projects</u>, June 29, 2020, by Debra K. Rubin. Available online at <a href="https://www.enr.com/articles/49619-analysis-covid-19-causes-35-productivity-loss-at-uk-projects">https://www.enr.com/articles/49619-analysis-covid-19-causes-35-productivity-loss-at-uk-projects</a>

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suppliers—many of whom work globally. ENR connects diverse sectors of the industry with overage that everyone needs about issues such as business management, design, construction methods, technology, safety, law, legislation, environment and labor.

In particular ENR publishes both a Construction Cost Index and Building Cost index that are widely used in the construction industry as well as the material price and skilled and common labor indexes that report on detailed material and labor costs on a quarterly basis.

#### **Summary of Conclusions**

"The impacts of COVID-19 now are generating productivity losses of about 35% on U.K. construction projects, according to a new study by research consultant Turner & Townsend, based on data from 70 medium-sized commercial jobs.

In a late June report, the Leeds, England-based cost and capital investment consultant said based on projects studied, it modeled that one valued at about \$24.6 million with an average 20% productivity loss now faces up to a 35% loss that could generate a construction delay of up to 32 weeks and \$738,200 in preliminary cost increase.

T&T also said in an analysis of 45 projects delivered during the pandemic, labor shortages and social distancing impacts accounted for about 7% of productivity losses, with an added 1% lost through "poor transfer of design information while remote working" and 7% more due to late or unavailable materials."

Although the report deals with impacts across and ocean from the United States, it should be apparent that these same impacts would occur in our construction industry as well albeit to an unknown degree since no similar articles were found in our search for publications for this report. What was observed in the articles we reviewed was the underlying uncertainty and apprehension about what effects the pandemic may have on productivity now and into the future.

#### **Estimate Impacts**

In order to account for these productivity impacts we had to make an educated guess at what they might be and based upon the information available we settled on a figure of 10%. We applied the increase through the Labor Burden percentage.

#### **Publication**

Engineering News Record, <u>2021 2Q Cost Report: Residential Sector Continues to Lead Economic Recovery, July 1, 2021, Alisa Zevin</u>. Available online at <a href="https://www.enr.com/articles/52030-2021-2q-cost-report-residential-sector-continues-to-lead-economic-recovery">https://www.enr.com/articles/52030-2021-2q-cost-report-residential-sector-continues-to-lead-economic-recovery</a>

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#### **Summary of Conclusions**

After months of soaring prices, the lumber bubble has begun to pop, says Deni Koenhemsi, economics manager at IHS Markit. "The urgency around demand is dissipating as many divert their spending to outside of home—vacations, eating out [and other] activities they were unable to do during the pandemic," she says. "Buyers are resisting prices that are still significantly higher than the norm."

"Hope abounds that construction starts will soon see a more robust rebound."

—Richard Branch, Chief Economist, Dodge Data & Analytics

The firm's second quarter forecast predicts a 70.2% overall hike in softwood lumber prices in 2021, up significantly from the 19.2% increase forecast in the first quarter. A 34.8% drop is expected in 2022, as the pandemic recedes. Plywood prices will rise 39.8% this year, says IHS Markit, a boost from the first quarter forecast of 9.6%. That increase will largely dissipate in 2022, however, with a 28.4% drop expected.

Steel prices have been on the rise as well, with the company forecasting a 30.9% hike for reinforcing bars in 2021. Prices for structural shapes will see similar increases, at 31%. "In the U.S., we see price increases due to supply-chain issues and increases in the prices of scrap," says Christos Rigoutsos, IHS Markit senior economist. "Most mills have low availability and are sold out one to two months ahead. Domestic sellers' favorable position has yet to deter buyers, and demand is firm. Longer lead times have made imports unattractive as customers are reluctant to lock in orders at such high prices." Similar to lumber, IHS Markit's second quarter forecast says 2021's soaring prices will fall in 2022. Rebar is set to drop 14.4%, with prices for structural shapes down 17.4%.

With regard to labor cost increases, while no estimate of the increase was provided, the publication offered the following quote and analysis. "Labor believes it is emerging from the health crisis with a more powerful voice in setting working conditions and levels of compensation," says Alex Carrick, Construct Connect chief economist. "In nearly every sector, with construction near the forefront, much of the talk centers on record high numbers of job openings but extreme difficulty in filling positions with qualified personnel." We believe this trend was in full swing at the time the project was bid and that increased labor costs were being anticipated by the bidder.

#### **Estimate Impacts**

As we noted earlier in the estimate impacts for the AGC construction inflation alert, the increases identified in that publication and this publication have been considered along with other price increases mentioned in other articles to arrive at a composite price increase for specific material categories in order to be applied to specific line item material and labor pricing. The table representing the composite price increases for various materials is presented in Table 1 the summary of this report.