LONG ISLAND CENTER FOR SOCIO-ECONOMIC POLICY

ECONOMIC IMPACT OF INFLATION
ON CONSTRUCTION MATERIAL COSTS
IN SUPPORT OF S.8844 (REICHLIN-MELNICK) /A.10109 (ZEBROWSKI)

PREPARED FOR

LONG ISLAND CONTRACTORS' ASSOCIATION

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ABSTRACT

This analysis of the impact of inflation on construction materials is in support of New York State Senate (S.8844) by Senator Reichlin-Melnick) and New York State Assembly (A.10109) by Assembly member Zebroski, which would allow contractors who submitted bids to the State of New York or a public benefit corporation prior to April 1, 2020 to receive an adjusted contract on materials costs where the price unanticipatedly escalated in excess of five (5) percent upon invoice or purchase of said materials from the original bid. This would allow contractors to recoup these increased material costs.

The analysis illustrated that prior to March 21 inflation was in a relative stable low range of between 1.4% - 1.6%. However, subsequent to March 2021 inflation increases resulted in a 418.8% inflation increase between January 2019 and April 2022. The result was sudden, adverse, and protracted price increases for critical construction materials that Long Island contractors had to pay after a period of relative price stability.

Inflation caused an aggregate Producer Price Index increase for construction materials between January 2019 and April 2022 of 51.1%, and similar to the construction material Producer Price Index increases, the supply and demand imbalance of domestic and international oil production resulted in inflationary price increases between January 2019 and April 2022 of 71.8% for Brent crude and 76.1%. for gasoline. Oil and gasoline are critical components in construction materials, especially road paving, plant operation fuel, operation of machinery, and lighting for night construction as well as the increased cost of delivering construction materials.

The increased inflation has led to significant increases in construction material costs in excess of five percent. The illustrated financial impact these increased costs have had, and will continue to have as inflation continues well into 2023, irrefutably supports the critical need of S.8844 (Reichlin-Melnick) / A.10109 (Zebrowski) to maintain the financial viability of the construction contractors so vital to the New York State and Long Island economy.

INTRODUCTION

The following analysis of the impact of inflation on construction materials is in support of legislation introduced in the New York State Senate (S.8844) by Senator Reichlin-Melnick) and in the New York State Assembly (A.10109) by Assembly member Zebroski “in relation to amending state construction and commodity contracts to provide equitable relief to contractors who have sustained unanticipated expenses by reason of construction materials price escalation; and providing for the repeal of such provisions upon the expiration thereof.”

The purpose of the legislation, as described in the Introducer’s Memorandum, is to allow LICA contractors who submitted bids to the State of New York or a public corporation prior to April 1, 2020 to receive an adjusted contract on material costs where the price escalated in excess of five (5) percent upon invoice or purchase of materials from the original bid. The adjusted contract would allow contractors to recoup the increased material costs.

The legislation is not the first time New York State provided relief to contractors for unforeseen increases in costs. In 1974, legislation provided equitable relief to contractors for steel and petroleum price increases on state and municipal contracts due to the unforeseen energy crisis. Similarly, in 2004, legislation was enacted to aid contractors with sharp increases in steel prices which allowed for adjustments to the prices of steel products in construction contracts let for bid by New York State. This provision allowed for steel price adjustments allowing suppliers to be reasonably and fairly reimbursed for these unanticipated price escalations.

These legislative priorities previously discussed correct deficiencies in construction contracts after public bidding with New York State or its public benefit corporations prior to April 1, 2020, where these contracts do not include clauses to allow for significant price shifts in material costs due to the unforeseen impact of inflation, the COVID-19 global pandemic, and the international supply chain delays of the acquisition of construction materials.

The following discussion of the outlook for our current and future economy and the analysis in Tables 1 and 2 illustrate the impact that inflation and supply chain issues have had on the prices of LICA construction materials, all of which significantly exceed the five percent threshold in the proposed legislation.

DISCUSSION

Current and Future Economic Outlook

Since January 2021, the construction industry has been operating in an inflationary economy fueled by federal debt and the loose Federal Reserve monetary policy. The $30 trillion national debt has grown by 32% since 2019, twice the 16% growth rate of the gross domestic product which now exceeds by $7 trillion the gross domestic product of $23 trillion. The fiscal policy in the proposed federal budget, if adopted, continues this inflationary trend of borrowing and spending with the possibility of a recession lurking in the future if the Federal Reserve policy of higher interest rates and tightened monetary policy fails to curb inflation.

However, the recessionary economic drum beat continues and it’s getting louder. The 11.3 million unfilled employer job postings and the 2.9% quit ratio, or 4.5 million workers, are the highest ever, with the job postings now representing 7% of a national workforce with a labor participation rate of 61.9%, lowest since the 66.6% in March 2002 and even lower than the 63.4% in February 2020. Furthermore, while there may be solace in that there have been 6.5 million hires since the post pandemic induced recession, 3.6 million pre-pandemic jobs have yet to return to the workforce, with 46,400 of those jobs on Long Island.

With recessionary dark clouds looming over the economy, to address the economic crippling increases in the Producer Price Index, Consumer Price Index, and inflation rates, the Federal Reserve began what will be a series of rate increases, by increasing interest rates by 50 basis points at its May 3 meeting. The Producer Price Index, or PPI, is a collection of roughly 10,000 indices used to calculate inflation by tracking the changes in wholesale prices for producers, including the very materials that LICA contractors need for their construction projects. The Producer Price Index differs from the Consumer Price Index which measures the changes in prices at the retail level

The April 2022 Producer Price Index, which measures the average change over time in selling prices of goods and services at the wholesale level increased by 11 %, the highest level in 40 years, and an 8% increase from February 2022. Inflation, which impacts consumer prices has reached 8.3%, the fastest year over year growth in 40 years. We have all experienced the impact of inflation where goods that may have cost a dollar now costs $1.09, with home mortgage rates now exceeding 5%, almost double what they were a short year ago.

While we experienced a short temporary recession in March 2020 when government shut down the economy due to COVID-19, a recession this time will be more widespread and of longer duration due to increasing interest rates and tightened monetary supply imposed by the Federal Reserve. This will adversely impact the growth of economic activity quantified by the Gross Domestic Product, resulting in negative growth in personal income, employment and industrial production followed by higher unemployment. It will not be pleasant, as the cost of both consumer and business debt becomes more costly as the Federal Reserve seeks to curb borrowing. The reality is that the Federal Reserve has few options, but it must act cautiously since prices have also been driven up by a complicated fiscal blend of higher gas and oil prices caused by restricted domestic and international oil production, bottlenecked supply chains at both west and east coast ports, too much money chasing too few goods driven by massive federal debt which in turn drives demand for goods that are in short supply, and to a lesser extent the food and energy markets worsened by the war in Ukraine.

These challenges have not been lost on 325 manufacturing, retail and service firm executives in New York State, Long Island, and the New York City metropolitan area. When surveyed recently by the Federal Reserve Bank of New York, these executives responded that inflation will remain at the current level for the next 12 months and would not return to the 2% pre-pandemic range for “some time”. They also expect consumer prices to continue rising over the next year as well. Current Consumer Price Index is 8.3%.

Taming inflation will not be an easy fix as history reminds us. Tables 1 and 2 illustrate the financial challenges facing the construction industry by the complex economic forces driving the inflation price increases of LICA construction materials.

Inflation, Producer Price Index Increases, and Construction Material Cost Increases

Table 1 illustrates how in March 2021 inflation began increasing immediately after the enactment of the American Rescue Plan which pumped $1.9 trillion dollars funded by national debt into an economy that was already heating up. Prior to March 2021, inflation was in a relative stable range of between 1.4% - 1.6%, well below the Federal Reserve inflation benchmark rate of 2%.

Subsequent to March 2021, the inflation rate, which increased by 418.8% between January

2019 and April 2022, resulted in unanticipated, adverse, and protracted price increases that LICA contractors had to pay for critical construction materials after a period of relative price stability. The higher inflation was caused by supply chain issues, the Federal Reserve low interest rates and injections of $120 billion per month of cash liquidity into the economy, federal debt, and higher transportation costs resulting from reductions of domestic and international oil production and refining.

The result, as illustrated in Table 1, was that inflation spurred Producer Price Index increases well above five percent for construction materials including 75.7% for steel mill products, 35.2% for plastic construction products, 41.7%, for aluminum mill shapes, 68.0% for copper and brass mill shapes, 28.3% for gypsum products, 83.3% for lumber and plywood, 46.3% architectural coatings, and 28.1% for asphalt felts and coatings.

The aggregate average Producer Price Increase for all the construction materials between January 2019 and April 2022 was 51.1%, well in excess of the five percent legislation threshold that would enable application for an adjustment to any contract in order to recoup the unanticipated increased construction material costs.

Table 1: Producer Price Index of Construction Materials

Year and Month	**Jan'19**	**June'19**	**Jan'20**	**June'20**	**Sept' 20**	**Jan'21**	**Mar'21**	**Jun'21**	**Sept'21**	**Jan'22**	**Apr'22**	**% Inc (1)**
Inflation %	1.6	1.6	2.5	0.6	1.4	1.4	2.6	5.4	5.4	7.5	8.3	418.8%
Expense Category												
Steel Mill Products	220.8	206.3	187.3	181.5	177.7	208.0	266.4	343.4	418.5	449.7	387.9	75.7%
Plastic Const. Prod.	273.9	273.2	265.7	251.1	262.3	287.5	326.7	362.9	377.1	357.6	370.4	35.2%
Aluminum Mill Shape	152.7	152.6	156.9	151.3	148.6	156.8	159.3	165.6	178.5	202.2	216.3	41.7%
Copper and Brass Mill Shapes	381.5	388.5	392.8	376.0	428.7	491.9	537.5	604.2	600.6	608.2	640.9	68.0%
Gypsum Products	245.7	233.1	240.5	235.4	232.4	252.4	257.2	284.2	292.0	315.5	315.3	28.3%
Lumber and Plywood	211.9	203.9	194.7	210.7	278.3	276.5	326.7	471.3	261.2	343.6	388.4	83.3%
Architectural Coating	329.9	340.2	341.6	348.4	350.2	348.4	362.4	370.0	388.6	433.7	482.5	46.3%
Asphalt Felts/Coating	246.7	243.3	247.7	245.6	254.2	254.2	257.1	273.4	286.4	300.7	315.9	28.1%
Total	2063.1	2041.1	2027.2	2000.0	2132.4	2,275.7	2493.3	2875.0	2802.9	3011.2	3117.6	51.1%

Notes: (1)-Percent increase is based on increase between January 2019 and April 2022.
Source: U.S Bureau of Labor Statistics, Producer Price Index by Commodity. Retrieved from FRED, Federal Reserve Bank of St. Louis. 12 May 2022 https://fred.stlouisfed.org

Inflation and Gasoline and Oil Price Increases

A component of the Producer Price Index increases in the construction materials reflected in Table 1 are cargo and transportation costs necessary to get the materials from point of manufacture to the ultimate construction site destination as well as the fact that petroleum products are a significant component in road paving, plant operation fuel, operation of machinery and lighting and heating during night time construction.

These costs were upwardly impacted by in increase in oil and gasoline demand as the world emerged from the short-term pandemic economic recession and government lockdowns which reduced demand for oil and gasoline. Currently, the demand has continued to increase while the supply of oil and gas continues to lag behind the demand, caused by oil production failing to meet the demand so oil producers can recoup losses incurred during the recession and pandemic. This demand and supply imbalance has been exacerbated by the war in Ukraine and embargo of Russian oil. Russia produces ten percent of the world's 100 million barrels per day oil consumption. Table 2 quantifies how these factors, and the inflation they caused, increased oil and gasoline costs and the impact they had on the material construction costs increases illustrated in Table 1.

Similar to construction material Producer Price Index increases as presented in Table 1, the factors impacting oil production previously discussed have resulted in the inflationary price increases that gasoline per gallon and oil per barrel have experienced. The largest component in the retail price of gasoline is he price of crude oil which is established by the global oil markets.

Table 2: Cost of Gasoline and Oil

Year and Month	**Jan'19**	**June'19**	**Jan'20**	**June'20**	**Sept'20**	**Jan'21**	**Mar'21**	**June'21**	**Sept'21**	**Jan'22**	**Apr'22**	**%Inc (1)**
Expenditure Category												
Gasoline Per Gallon (2)	$2.45	$2.86	$2.65	$2.14	$2.19	$2.38	$2.81	$3.13	$3.28	$3.47	$4.21	71.8%
Brent Crude per bbl	$59.41	$64.22	$63.65	$40.27	$40.91	$54.77	$65.41	$73.16	$74.49	$86.51	$104.58	76.1%

Notes: (1)-Percent increase is based on increase between January 2019 and April 2022.
(2)-Average price unleaded gasoline for New York (including Long Island)-Newark-Jersey City

Source: U.S Bureau of Labor Statistics, Average Price: Gasoline Unleaded Regular, Retrieved from FRED, Federal Reserve Bank of St. Louis. 14 May 2022 https://fred.stlouisfed.org.
:U.S. Energy Information Administration, Crude Oil Prices: Brent-Europe, retrieved from FRED Federal Reserve Bank of St. Louis, 14 May 2022 https://fred.stlouisfed.org

Table 2 indicates that between January 2019 and April 2022 gasoline costs have increased by 71.8% and Brent crude has increased by 76.1%. These impact the increased cost of construction materials. The average price of gasoline on Long Island in early May 2022 was $4.55 per gallon.

CONCLUSION

Since January 2021 the construction industry has been operating in an inflationary economy fueled by federal debt and loose Federal Reserve monetary policy. The $30 trillion national debt has grown by 32% since 2019, twice the 16% growth rate of the gross domestic product and now exceeds by $7 trillion the gross domestic product of $23 trillion. The fiscal policy in the proposed federal budget continues this inflationary trend of borrowing and spending with the possibility of a recession lurking in the future if the Federal Reserve policy of higher interest rates and tightened monetary supply fails to curb inflation.

This analysis of the impact of inflation on construction materials is in support of legislation introduced in the New York State Senate (S.8844) by Senator Reichlin-Melnick and in the New York State Assembly (A.10109) by Assembly member Zebroski which would allow contractors, who submitted bids to the State of New York or a public benefit corporation prior to April 1, 2020, to receive an adjusted contract on material costs where the unanticipated price escalated in excess of five (5) percent upon invoice or purchase of said materials from the original bid. This would allow contractors to recoup these unanticipated inflationary driven increased material costs.

The analysis illustrates that prior to March 2021, inflation was in a relative stable range of between 1.4% - 1.6%, and well below the Federal Reserve inflation benchmark rate of 2%. However, subsequent to March 2021 the inflation rate, which increased by 418.8% between January 2019 and April 2022, resulted in unanticipated, adverse, and protracted price increases that Long Island contractors had to pay for critical construction materials after a period of relative price stability.

Inflation spurred an aggregate Producer Price Index increase for construction materials between January 2019 and April 2022 of 51.1%, and was comprised of 75.7% for steel mill products, 35.2% for plastic construction products, 41.7%, for aluminum mill shapes, 68.0% for copper and brass mill shapes, 28.3% for gypsum products, 83.3% for lumber and plywood, 46.3% architectural coatings, and 28.1% for asphalt felts and coatings. These all are well in excess of the five percent legislation threshold that would enable an application for an adjustment to any contract in order to recoup the increased material costs.

Similar to construction material Producer Price Index increases, the factors impacting oil production resulted in the price increases between January 2019 and April 2022 of 71.8% for Brent crude and 76.1%. for gasoline. Oil and gasoline are critical cost components in construction materials, the operation of plant and equipment, and in delivering construction materials.

This analysis removes any doubt about how increased inflation has led to significant increases in construction material costs in excess of five percent. Also exhibited is the financial impact these increased costs have had, and will continue to have as inflation continues into 2023, on construction contractors, and how the data irrefutably supports the critical need of enactment of S.8844 (Reichlin-Melnick) / A.10109 (Zebrowski) to maintain the financial viability of the contractors vital to the New York State and Long Island economy.

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