

## ENR's 20-city average cost indexes, wages and material prices. Historical data for ENR's 20 cities can be found at [ENR.com/economics](https://enr.com/economics)

### Construction Cost Index

**+8.5%**

ANNUAL INFLATION RATE

**MAY 2022**

| 1913=100          | INDEX VALUE | MONTH | YEAR  |
|-------------------|-------------|-------|-------|
| CONSTRUCTION COST | 13004.47    | +0.8% | +8.5% |
| COMMON LABOR      | 24511.71    | 0.0%  | +1.1% |
| WAGE \$/HR.       | 47.10       | 0.0%  | +1.1% |

The Construction Cost Index's annual escalation rose 8.5%, while the monthly component rose 0.8%.

### Building Cost Index

**+15.3%**

ANNUAL INFLATION RATE

**MAY 2022**

| 1913=100      | INDEX VALUE | MONTH | YEAR   |
|---------------|-------------|-------|--------|
| BUILDING COST | 7785.64     | +1.4% | +15.3% |
| SKILLED LABOR | 11125.38    | +0.1% | +3.0%  |
| WAGE \$/HR.   | 61.48       | +0.1% | +3.0%  |

The Building Cost Index was up 15.3% on an annual basis, while the monthly component increased 1.4%.

### Materials Cost Index

**+3.0%**

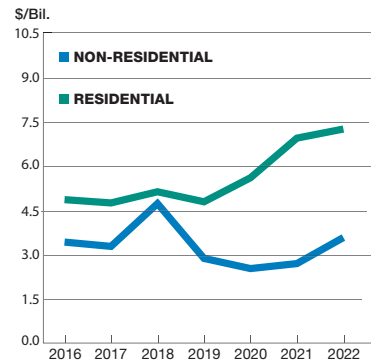
MONTHLY INFLATION RATE

**MAY 2022**

| 1913=100       | INDEX VALUE | MONTH | YEAR   |
|----------------|-------------|-------|--------|
| MATERIALS COST | 5693.87     | +3.0% | +34.3% |
| CEMENT \$/TON  | 161.79      | +1.8% | +6.7%  |
| STEEL \$/CWT   | 84.77       | +1.7% | +39.8% |
| LUMBER \$/MBF  | 1178.65     | +5.5% | +30.3% |

The MCI rose 3% since last month, while the annual escalation rate increased 34.3%.

Construction starts in the Denver metro area are expected to rise 12.5% in 2022, to \$10.8 billion, according to Dodge Data & Analytics. Dodge predicts a 33.3% increase in non-residential construction, while residential work is expected to rise 4.5%. Warehouse, retail and education construction are expected to see the largest increase, while hotel work is predicted to decline.



SOURCE: DODGE DATA & ANALYTICS

## ENR's Cost Indexes by City

1913=100  
1967=100  
R=REVISED

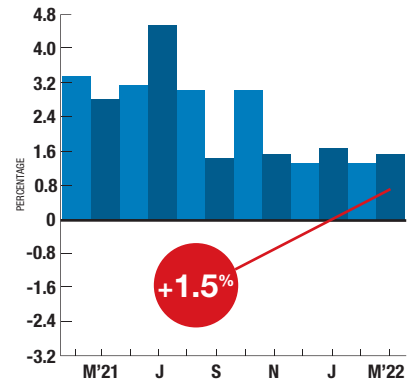
|               | CONSTRUCTION COST |             | BUILDING COST |             | COMMON LABOR  |             | SKILLED LABOR |             | MATERIALS     |             |
|---------------|-------------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|
|               | MAY '22: 1913     | % CHG. YEAR | MAY '22: 1913 | % CHG. YEAR | MAY '22: 1967 | % CHG. YEAR | MAY '22: 1967 | % CHG. YEAR | MAY '22: 1967 | % CHG. YEAR |
| ATLANTA       | 8183.89           | +14.1       | 6103.99       | +19.8       | 825.83        | 0.0         | 728.97        | 0.0         | 1367.82       | +37.4       |
| BALTIMORE     | 10782.73          | +9.5        | 7332.94       | +18.8       | 1214.52       | 0.0         | 950.91        | +7.3        | 1383.96       | +30.3       |
| BIRMINGHAM    | 8639.39           | +11.7       | 5979.70       | +20.6       | 978.68        | 0.0         | 860.63        | +4.4        | 1146.56       | +37.7       |
| BOSTON        | 17506.66          | +9.6        | 9677.46       | +14.5       | 1756.25       | +3.4        | 1535.51       | +2.6        | 1242.03       | +40.5       |
| CHICAGO       | 18154.70          | +5.5        | 9438.01       | +12.8       | 1690.57       | 0.0         | 1473.33       | +2.2        | 1028.47       | +37.9       |
| CINCINNATI    | 11797.82          | +7.0        | 6727.45       | +14.6       | 1077.82       | 0.0         | 931.74        | +2.7        | 1157.28       | +29.2       |
| CLEVELAND     | 13723.13          | +6.7        | 7376.77       | +13.4       | 1095.01       | +0.8        | 972.70        | +2.4        | 1127.96       | +29.5       |
| DALLAS        | 7559.15           | +18.3       | 6168.40       | +23.4       | 742.23        | 0.0         | 738.08        | 0.0         | 1255.50       | +43.9       |
| DENVER        | 8589.63           | +10.4       | 6269.45       | +16.5       | 818.18        | 0.0         | 876.78        | +2.6        | 1075.72       | +34.2       |
| DETROIT       | 13394.65          | +6.2        | 7731.75       | +11.8       | 1068.28       | 0.0         | 1028.13       | +0.7        | 1063.04       | +29.4       |
| KANSAS CITY   | 13108.10          | +7.9        | 7742.04       | +12.7       | 1324.93       | +1.3        | 1256.71       | +0.8        | 1131.15       | +31.0       |
| LOS ANGELES   | 13670.79          | +5.2        | 7968.04       | +9.3        | 1111.66       | 0.0         | 1053.90       | 0.0         | 1268.47       | +21.9       |
| MINNEAPOLIS   | 14295.82          | +5.8        | 8079.25       | +15.3       | 1339.26       | 0.0         | 1320.99       | +6.7        | 1105.60       | +29.4       |
| NEW ORLEANS   | 7790.64           | +15.1       | 6286.04       | +32.4       | 749.82        | 0.0         | 813.80        | +24.5       | 1289.53       | +38.8       |
| NEW YORK CITY | 21481.10          | +4.0        | 10787.65      | +8.5        | 1642.50       | +1.0        | 1494.69       | +2.6        | 1096.30       | +26.7       |
| PHILADELPHIA  | 15135.74          | +8.2        | 8539.49       | +9.1        | 1605.07       | +4.3        | 1372.82       | +1.2        | 1121.88       | +26.4       |
| PITTSBURGH    | 12602.97          | +6.5%       | 7628.29       | +12.3       | 1178.28       | 0.0         | 1043.25       | +1.5        | 1052.53       | +29.0       |
| ST. LOUIS     | 13721.87          | +6.6        | 7725.44       | +12.9       | 1099.35       | +0.3        | 1046.28       | +1.6        | 1255.95       | +29.7       |
| SAN FRANCISCO | 15326.99          | +14.2       | 10033.57      | +23.4       | 1046.50       | 0.0         | 1091.49       | 0.0         | 1738.08       | +58.5       |
| SEATTLE       | 14623.69          | +12.5       | 8116.99       | +17.3       | 1285.63       | +6.2        | 1256.02       | +5.0        | 1328.25       | +39.4       |

**Prices for PVC pipe products rose 1.5% in March** after increasing 1.2% in February, according to the Bureau of Labor Statistics' producer price index for plastic construction products, which consists largely of PVC pipe. The annual escalation sits at 35.2% for the month. ENR's 20-city average price for both types of copper water tubing experienced yearly increases in May, as did all types of corrugated steel pipe. Monthly prices for 6-in. ductile-iron pipe experienced a rise of 0.9%, while yearly prices increased 18.9% since May 2021.

## PRODUCER PRICE INDEX

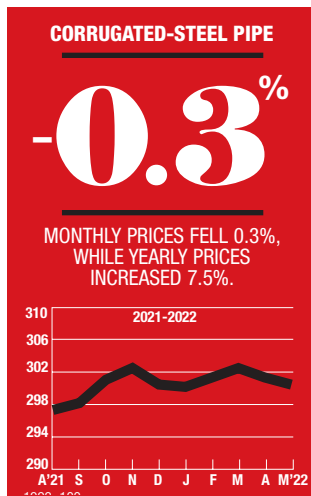
### PVC PIPE

Monthly percent change

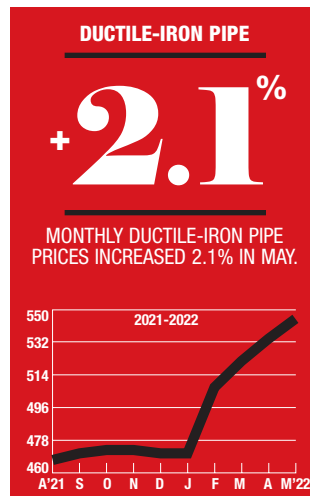


SOURCE: BUREAU OF LABOR STATISTICS

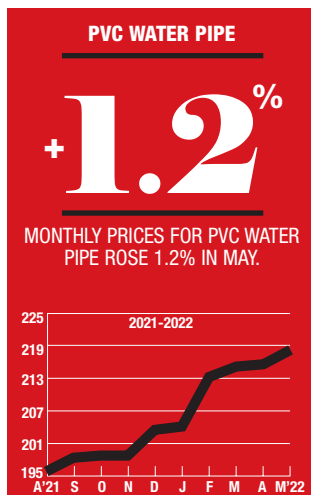
## ENR's Materials Prices For May 2022



1992=100



1992=100



1992=100



1992=100

## 20-CITY AVERAGE

| ITEM                                  | UNIT | \$PRICE | %MONTH      | %YEAR |
|---------------------------------------|------|---------|-------------|-------|
| <b>REINFORCED-CONCRETE PIPE (RCP)</b> |      |         |             |       |
| 12"                                   | FT   | 22.79   | -0.4        | +22.0 |
| 24"                                   | FT   | 45.85   | <b>+2.0</b> | +25.4 |
| 36"                                   | FT   | 94.88   | +3.0        | +27.0 |
| 48"                                   | FT   | 158.42  | +3.2        | +26.9 |

## CORRUGATED-STEEL PIPE (CSP)

|     |    |       |             |      |
|-----|----|-------|-------------|------|
| 12" | FT | 12.12 | -0.4        | +5.9 |
| 36" | FT | 39.68 | <b>-0.3</b> | +7.5 |
| 60" | FT | 86.51 | -0.2        | +8.8 |

## POLYETHYLENE PIPE (PE): UNDERDRAIN

|    |    |      |      |       |
|----|----|------|------|-------|
| 4" | FT | 0.83 | +3.6 | +12.1 |
|----|----|------|------|-------|

## POLYVINYL-CHLORIDE PIPE (PVC)

|           |    |       |             |       |
|-----------|----|-------|-------------|-------|
| Sewer, 46 | FT | 2.61  | +2.9        | +61.2 |
| 8"        | FT | 7.90  | +1.2        | +43.4 |
| Water, 6" | FT | 9.14  | +2.2        | +52.5 |
| 8"        | FT | 11.06 | <b>+1.2</b> | +11.5 |
| 12"       | FT | 20.35 | +0.9        | +12.4 |

## DUCTILE-IRON PIPE (DIP)

|     |    |       |             |       |
|-----|----|-------|-------------|-------|
| 6"  | FT | 22.35 | +0.9        | +18.9 |
| 8"  | FT | 32.89 | <b>+2.1</b> | +16.5 |
| 12" | FT | 50.36 | +1.6        | +14.2 |

## COPPER WATER TUBING: TYPE L

|        |    |      |      |       |
|--------|----|------|------|-------|
| 1/2"   | FT | 2.26 | +1.8 | +25.0 |
| 1 1/2" | FT | 9.19 | +4.3 | +25.5 |

SOURCE: ENR

## Sewer, Water and Drain Pipe For May 2022

City prices reflect quotes from single sources and can be volatile. They are not meant to be the prevailing price for a city. Data are a mix of list and transaction prices and may include ENR estimates. Do not compare prices between locations. Use city information to analyze national trends.

| ITEM                                      | UNIT | ATLANTA | BALTIMORE | BIRMINGHAM | BOSTON  | CHICAGO | CINCINNATI | CLEVELAND | DALLAS | DENVER | DETROIT |
|-------------------------------------------|------|---------|-----------|------------|---------|---------|------------|-----------|--------|--------|---------|
| <b>REINFORCED-CONCRETE PIPE (RCP)</b>     |      |         |           |            |         |         |            |           |        |        |         |
| 12"                                       | FT   | 20.38   | 23.10     | 17.75      | +20.53  | 21.20   | 23.95      | 23.95     | 23.92  | 22.65  | +23.95  |
| 24"                                       | FT   | 41.40   | +52.50    | 34.89      | +46.26  | 42.18   | 55.55      | 55.55     | 50.00  | 45.21  | +55.55  |
| 36"                                       | FT   | 80.52   | +114.60   | 73.57      | +99.66  | 82.75   | 124.20     | 124.20    | 102.46 | 86.52  | 124.20  |
| 48"                                       | FT   | 134.84  | +184.00   | 128.33     | +167.72 | 134.41  | 197.50     | 197.50    | 168.28 | 148.60 | 197.50  |
| <b>CORRUGATED-STEEL PIPE (CSP)</b>        |      |         |           |            |         |         |            |           |        |        |         |
| 12"                                       | FT   | 12.10   | 11.00     | 11.48      | 12.23   | 11.07   | 10.99      | 10.67     | -13.14 | 12.05  | 9.99    |
| 36"                                       | FT   | 39.72   | 34.00     | 33.30      | 39.65   | 37.34   | 31.00      | 35.60     | -37.03 | 42.76  | 37.99   |
| 60"                                       | FT   | 89.62   | 74.00     | 78.05      | 85.31   | 84.26   | 62.00      | 66.98     | -80.89 | 84.34  | 85.55   |
| <b>POLYETHYLENE PIPE (PE): UNDERDRAIN</b> |      |         |           |            |         |         |            |           |        |        |         |
| 4"                                        | FT   | +0.78   | 0.98      | +0.69      | 0.75    | +0.82   | +0.60      | +0.68     | 0.73   | 0.87   | +0.71   |
| <b>POLYVINYL-CHLORIDE PIPE (PVC)</b>      |      |         |           |            |         |         |            |           |        |        |         |
| SEWER, 4"                                 | FT   | 1.93    | 2.51      | +2.00      | 2.16    | +2.25   | +2.68      | +2.64     | 2.12   | 2.00   | +2.37   |
| 8"                                        | FT   | 6.11    | 7.70      | +6.02      | 7.10    | +7.36   | +7.61      | 7.48      | 6.75   | 6.59   | +7.40   |
| WATER, 6"                                 | FT   | 6.95    | 10.10     | +7.57      | 7.46    | +8.61   | 10.30      | 10.45     | 7.02   | 6.95   | +10.20  |
| 8"                                        | FT   | 11.00   | 9.20      | +10.46     | 10.72   | +10.95  | 10.00      | 6.21      | 11.13  | 10.68  | 11.00   |
| 12"                                       | FT   | 20.56   | 18.00     | +19.25     | 19.37   | +21.74  | 17.00      | 9.35      | 22.00  | 19.42  | 22.66   |
| <b>DUCTILE-IRON PIPE (DIP)</b>            |      |         |           |            |         |         |            |           |        |        |         |
| 6"                                        | FT   | +19.03  | +23.50    | 18.32      | 24.00   | 22.12   | 24.00      | 21.20     | 23.44  | -20.81 | +23.80  |
| 8"                                        | FT   | +31.41  | +33.20    | 29.74      | 36.00   | 34.98   | 35.00      | 33.40     | 33.62  | -28.30 | +34.20  |
| 12"                                       | FT   | +52.99  | +51.50    | 44.26      | 55.00   | 50.35   | 50.00      | 51.10     | 49.78  | -45.95 | +50.80  |
| <b>COPPER WATER TUBING: TYPE L</b>        |      |         |           |            |         |         |            |           |        |        |         |
| ½"                                        | FT   | +2.02   | +2.45     | 1.80       | 2.25    | 2.11    | +2.28      | 2.24      | 2.20   | 2.15   | +2.30   |
| 1½"                                       | FT   | +8.57   | +10.16    | 7.03       | 9.19    | 8.00    | +10.04     | +9.84     | +8.15  | +8.42  | +9.70   |

| ITEM                                      | UNIT | KANSAS CITY | LOS ANGELES | MINNEAPOLIS | NEW ORLEANS | NEW YORK | PHILADELPHIA | PITTSBURGH | ST. LOUIS | SAN FRANCISCO | SEATTLE |
|-------------------------------------------|------|-------------|-------------|-------------|-------------|----------|--------------|------------|-----------|---------------|---------|
| <b>REINFORCED-CONCRETE PIPE (RCP)</b>     |      |             |             |             |             |          |              |            |           |               |         |
| 12"                                       | FT   | 21.10       | 35.00       | 20.30       | 18.99       | 23.74    | 24.09        | 20.90      | 20.50     | 34.00         | +20.82  |
| 24"                                       | FT   | +51.00      | 38.25       | 50.00       | 37.08       | 41.83    | 41.25        | 55.60      | +47.40    | 37.30         | +42.67  |
| 36"                                       | FT   | +109.00     | 73.50       | +101.00     | 77.20       | 85.15    | 79.80        | 95.00      | +92.10    | 87.02         | +87.96  |
| 48"                                       | FT   | +180.00     | 110.25      | +176.00     | 130.34      | 140.61   | 129.53       | 168.50     | +162.50   | 148.84        | +158.29 |
| <b>CORRUGATED-STEEL PIPE (CSP)</b>        |      |             |             |             |             |          |              |            |           |               |         |
| 12"                                       | FT   | 11.99       | 15.76       | 10.36       | 12.98       | -12.40   | 12.26        | 10.15      | 8.89      | 19.00         | 12.59   |
| 36"                                       | FT   | 39.99       | 56.04       | 35.10       | 40.81       | -39.33   | 39.67        | 32.00      | 35.99     | 63.53         | 38.40   |
| 60"                                       | FT   | 72.72       | 138.36      | 92.18       | 89.63       | -85.17   | 82.88        | 71.00      | 58.08     | 163.17        | 85.95   |
| <b>POLYETHYLENE PIPE (PE): UNDERDRAIN</b> |      |             |             |             |             |          |              |            |           |               |         |
| 4"                                        | FT   | +0.62       | 1.56        | +0.65       | 0.84        | 0.90     | +0.75        | +0.98      | +0.68     | 1.20          | 0.81    |
| <b>POLYVINYL-CHLORIDE PIPE (PVC)</b>      |      |             |             |             |             |          |              |            |           |               |         |
| SEWER, 4"                                 | FT   | +2.70       | 5.11        | +2.56       | +2.05       | 2.08     | 1.94         | +2.50      | +2.46     | +5.99         | +2.17   |
| 8"                                        | FT   | +7.30       | 10.71       | 7.45        | +6.28       | 6.50     | 6.05         | 7.85       | 7.90      | +20.87        | +7.02   |
| WATER, 6"                                 | FT   | +10.38      | 10.00       | 10.40       | +8.00       | 7.11     | 7.03         | 10.32      | 10.60     | +14.31        | +8.94   |
| 8"                                        | FT   | 10.72       | 13.60       | 12.32       | +11.00      | 11.32    | 11.10        | 8.75       | 8.60      | +2087         | +12.04  |
| 12"                                       | FT   | 12.10       | 26.00       | 19.25       | +21.91      | 21.05    | 19.39        | 17.50      | 14.05     | +37.25        | +29.17  |
| <b>DUCTILE-IRON PIPE (DIP)</b>            |      |             |             |             |             |          |              |            |           |               |         |
| 6"                                        | FT   | 21.40       | 26.88       | +22.30      | 20.36       | 19.90    | 22.05        | +22.00     | +21.90    | 28.27         | 21.69   |
| 8"                                        | FT   | +30.40      | 35.39       | +31.50      | 30.95       | 34.73    | 32.86        | 34.10      | +29.60    | 37.24         | 31.15   |
| 12"                                       | FT   | +48.40      | 54.25       | +52.20      | 48.10       | 52.64    | 49.37        | +48.90     | +49.30    | 57.07         | 45.23   |
| <b>COPPER WATER TUBING: TYPE L</b>        |      |             |             |             |             |          |              |            |           |               |         |
| ½"                                        | FT   | +2.34       | 2.29        | +2.38       | 2.09        | 2.16     | +2.12        | +2.40      | +2.28     | +3.30         | 2.08    |
| 1½"                                       | FT   | +9.62       | 9.24        | +9.67       | 8.03        | 7.68     | +8.60        | +9.60      | +9.40     | +14.72        | 8.11    |

+ OR - DENOTES PRICE HAS RISEN OR FALLEN SINCE PREVIOUS REPORT; QUOTES ARE DELIVERED PRICES. SOME PRICES MAY INCLUDE TAXES OR DISCOUNTS. PRODUCT SPECIFICATION MAY VARY, DEPENDING ON WHAT IS MOST COMMONLY USED OR MOST ACCESSIBLE IN A CITY. QUANTITIES ARE GENERALLY TRUCKLOADS. RCP PIPE IS ASTM C76; 12 IN. AND 24 IN. ARE RUBBER-GASKET JOINTED, OTHERS ARE NON-CORRUGATED. CORRUGATED STEEL PIPE IS PLAIN GALVANIZED; 12 IN. IS 16 GAUGE, 36 IN. IS 14 GAUGE, 60 IN. IS 12 GAUGE. PE PIPE IS M252, PERFORATED AND CORRUGATED. PVC SEWER PIPE IS ASTM D-3034, SDR-35. PVC WATER PIPE IS C900, CL 150. DIP PIPE IS CL 150 WITH A PUSH-ON JOINT. COPPER WATER TUBING PIPE IS HARD AND INTERIOR DIAMETER, TYPE L.