

PROJECT : CUY-90 PART 1

TASK : ROCKY RIVER

SUBJECT : ESTIMATED QUANTITIES

CALCULATED BY : SSW

DATE : 4/3/2023

PROJECT NO :

CHECKED BY : CDC

Michael Baker  
INTERNATIONAL

DATE : 4/4/2023

## ROCKY RIVER VALLEY ESTIMATED QUANTITIES:

| ITEM | EXTENSION | QUANTITY | UNIT | DESCRIPTION   |
|------|-----------|----------|------|---|
| 202  | 11203     | LS       |      | PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN |

|     |       |     |    |                       |
|-----|-------|-----|----|-----------------------|
| 202 | 22900 | 427 | SY | APPROACH SLAB REMOVED |
|-----|-------|-----|----|-----------------------|

|    |    |                          |
|----|----|--------------------------|
| 20 | FT | LENGTH                   |
| 48 | FT | WIDTH                    |
| 4  | EA | NUMBER OF APPROACH SLABS |

|     |       |     |    |                         |
|-----|-------|-----|----|-------------------------|
| 503 | 21100 | 174 | CY | UNCLASSIFIED EXCAVATION |
|-----|-------|-----|----|-------------------------|

|      |      |                              |
|------|------|------------------------------|
| 144  | FT   | LENGTH (ABUTMENT LENGTH)     |
| 32.5 | AREA | REMOVAL AREA MEASURED IN CAD |

|     |       |       |    |   |
|-----|-------|-------|----|---|
| 509 | 10001 | 81011 | LB | EPOXY COATED STEEL REINFORCEMENT, AS PER PLAN |
|-----|-------|-------|----|---|

|       |    |   |
|-------|----|---|
| 63521 | LB | ABUT SLAB SUBTOTAL  |
|       | LB | Backwall Repair, including 800# contingency - Added by PJL 11/11/2024 |

REAR ABUTMENT

SUBTOTAL = 31761 LB

FORWARD ABUTMENT

SUBTOTAL = 31761 LB

GENERAL

|                  |    |                              |
|------------------|----|------------------------------|
| 3022             | LB | LIGHT POLE PILASTER SUBTOTAL |
| 1302             | LB | SIGN SUPPORT SUBTOTAL        |
| 14468            | LB | EXPANSION JOINT SUBTOTAL     |
| SUBTOTAL = 18792 | LB |                              |

|     |       |     |      |   |
|-----|-------|-----|------|---|
| 510 | 10000 | 192 | EACH | DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT |
|-----|-------|-----|------|---|

|    |      |  |
|----|------|--|
| 48 | BARS | # TOP BARS IN LT. REAR APPROACH SLAB               |
| 48 | BARS | # TOP BARS IN RT. REAR APPROACH SLAB               |
| 48 | BARS | # TOP BARS IN LT. FWD APPROACH SLAB (SAME AS REAR) |
| 48 | BARS | # TOP BARS IN RT. FWD APPROACH SLAB (SAME AS REAR) |

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| ITEM | EXTENSION | QUANTITY | UNIT | DESCRIPTION                                   |
|------|-----------|----------|------|---|
| 511  | 34412     | 58.00    | CY   | CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE |

#### REAR LEFT SLAB REPAIR

|            |        |    |           |
|------------|--------|----|-----------|
|            | 3      | FT | LENGTH    |
|            | 71.917 | FT | WIDTH     |
|            | 9      | IN | THICKNESS |
| SUBTOTAL = | 5.99   | CY |           |

#### REAR RIGHT & FORWARD SLAB REPAIR

|            |        |    |           |
|------------|--------|----|-----------|
|            | 8.25   | FT | LENGTH    |
|            | 215.75 | FT | WIDTH     |
|            | 9      | IN | THICKNESS |
| SUBTOTAL = | 49.44  | CY |           |

#### Light Pilaster Deck volume

|      |    |                                       |
|------|----|---------------------------------------|
| 6    | EA | Count                                 |
| 4.85 | SF | Pilaster Plan Area (Meas in Bluebeam) |
| 0.93 | FT | Height of Deck                        |
| 1.0  | CY | Subtotal                              |

#### Sign Pilaster Deck Volume

|       |    |  |
|-------|----|--|
| 2     | EA | Count  |
| 18.88 | SF | Pilaster & New Deck Plan Area (Meas in Bluebeam) |
| 0.93  | FT | Height of Deck                                   |
| 1.3   | CY | Subtotal (Light Pilasters)                       |

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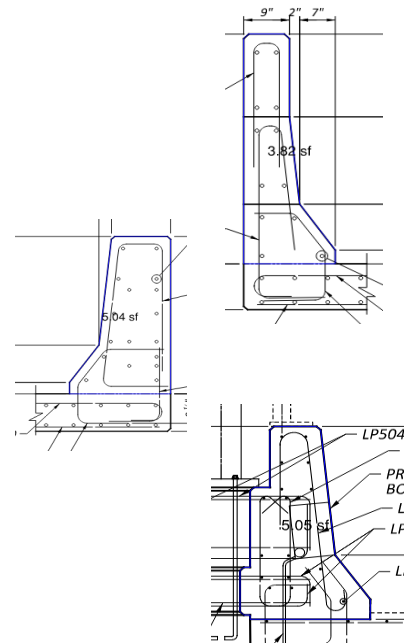
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## ROCKY RIVER VALLEY ESTIMATED QUANTITIES:

| ITEM | EXTENSION | QUANTITY | UNIT | DESCRIPTION  |
|------|-----------|----------|------|--|
| 511  | 34450     | 83.00    | CY   | CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET) |

|            |      |       |                       |
|------------|------|-------|-----------------------|
|            | 3.82 | SQ FT | BARRIER AREA (MEDIAN) |
|            | 3.00 | FT    | LENGTH                |
|            | 1    | EA    | COUNT                 |
|            | 8.25 | FT    | LENGTH                |
|            | 3    | EA    | COUNT                 |
| SUBTOTAL = | 3.93 | CY    |                       |

|            |      |       |                        |
|------------|------|-------|------------------------|
|            | 5.04 | SQ FT | BARRIER AREA (OUTSIDE) |
|            | 3.00 | FT    | LENGTH                 |
|            | 1    | EA    | COUNT                  |
|            | 8.25 | FT    | LENGTH                 |
|            | 3    | EA    | COUNT                  |
| SUBTOTAL = | 5.18 | CY    |                        |



|            |       |       |                                      |
|------------|-------|-------|--------------------------------------|
|            | 7.64  | SQ FT | ABUTMENT SLAB BARRIER AREA (MEDIAN)  |
|            | 4.78  | SQ FT | ABUTMENT SLAB BARRIER AREA (OUTSIDE) |
|            | 16.00 | FT    | LENGTH                               |
|            | 2     | EA    | # ABUTMENT SLABS                     |
| SUBTOTAL = | 20.39 | CY    |                                      |

|            |       |       |   |
|------------|-------|-------|---|
|            | 7.27  | SQ FT | BARRIER AREA (ON WINGWALL)                                |
|            | 36.25 | FT    | LENGTH (ON WINGWALL)                                      |
|            | 6.77  | SQ FT | AVERAGE BARRIER TRANSITION AREA (SECTION C AND SECTION H) |
|            | 56.00 | FT    | LENGTH  |
| SUBTOTAL = | 23.79 | CY    |   |

## Light Pilasters

|   |    |       |
|---|----|-------|
| 6 | EA | Count |
|---|----|-------|

## Railing Portion

|      |    |   |
|------|----|---|
| 5.05 | SF | Railing Cross Section Area (Meas in Bluebeam) |
| 16   | FT | Length of Railing                             |
| 4.85 | SF | Pilaster Plan Area (Meas in Bluebeam)         |
| 2.40 | FT | Height of Pilaster                            |
| 20.5 | CY | Subtotal                                      |

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| ITEM            | EXTENSION | QUANTITY        | UNIT | DESCRIPTION                                   |
|-----------------|-----------|-----------------|------|---|
|                 |           | Sign Pilasters  |      |   |
|                 |           | 2               | EA   | Count   |
|                 |           | Railing Portion |      |   |
|                 |           | 5.05            | SF   | Railing Cross Section Area (Meas in Bluebeam) |
|                 |           | 12              | FT   | Length of Railing                             |
|                 |           | 9.7             | SF   | Pilaster Plan Area (Meas in Bluebeam)         |
|                 |           | 3.54            | FT   | Height of Pilaster                            |
|                 |           | 7.0             | CY   | Subtotal                                      |
| REAR ABUTMENT = |           | 11              | CY   |   |
| FORWARD ABUT. = |           | 11              | CY   |   |
| SUPER. =        |           | 37              | CY   |   |
| GENERAL =       |           | 24              | CY   |   |

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**ROCKY RIVER VALLEY ESTIMATED QUANTITIES:**

| ITEM | EXTENSION | QUANTITY | UNIT | DESCRIPTION   |
|------|-----------|----------|------|---|
| 511  | 44112     | 23.33    | CY   | CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING |
|      |           | 144.00   | FT   | Length of RA repair   |
|      |           | 144.00   | FT   | Length of FA repair   |
|      |           | 1.25     | FT   | Thickness   |
|      |           | 1.75     | FT   | Depth: 3 feet (total removal) - 1-3" (slab and haunch)        |
|      |           | 2        |      | Number of Abutments   |
|      |           | 23       | CY   | Total   |
|      |           | 11.7     | CY   | Rear Abutment   |
|      |           | 11.7     | CY   | Forward Abutment  |

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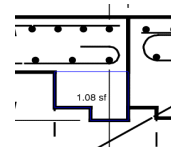
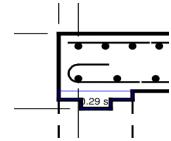
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| ITEM | EXTENSION       | QUANTITY | UNIT  | DESCRIPTION  |
|------|-----------------|----------|-------|--|
| 511  | 53012           | 218.00   | CY    | CLASS QC2 CONCRETE, MISC.: ABUTMENT SLABS WITH QA/QC |
|      |                 | 15.75    | FT    | LENGTH   |
|      |                 | 3.84     | SQ FT | BARRIER AREA (MEDIAN)                                |
|      |                 | 4.78     | SQ FT | BARRIER AREA (OUTSIDE)                               |
|      |                 | 144      | FT    | WIDTH  |
|      |                 | 2        | EA    | COUNT - REAR & FWD                                   |
|      |                 | 13       | IN    | THICKNESS  |
|      | SUBTOTAL =      | 202.11   | CY    |  |
|      |                 | 1.37     | SQ FT | BACKWALL HAUNCH AREAS                                |
|      | SUBTOTAL =      | 14.61    | CY    |  |
|      | REAR ABUTMENT = | 109      | CY    |  |
|      | FORWARD ABUT. = | 109      | CY    |  |
| 512  | 10100           | 4036.00  | SY    | SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)        |



## ABUTMENT SLABS

|        |    |                     |
|--------|----|---------------------|
| 10.35  | FT | MEDIAN PERIMETER    |
| 9.88   | FT | BARRIER PERIMETER   |
| 15.75  | FT | LENGTH              |
| 2.00   | EA | # ABUTMENT SLABS    |
| 105.36 | SY |                     |
| 143.67 | FT | Length              |
| 8.50   | FT | Average Height      |
| 2      |    | Number of Abutments |
| 271.37 | SY | Backwall Sealing    |

|                 |     |    |
|-----------------|-----|----|
| REAR ABUTMENT = | 189 | SY |
| FORWARD ABUT. = | 189 | SY |

## DECK REPAIRS

|       |    |                   |
|-------|----|-------------------|
| 10.35 | FT | MEDIAN PERIMETER  |
| 9.19  | FT | BARRIER PERIMETER |
| 27.75 | FT | LENGTH            |
| 60.25 | SY |                   |

## LIGHTPOLE PILASTERS

|        |    |   |
|--------|----|---|
| 10.96  | FT | BARRIER PERIMETER @ LIGHTPOLE             |
| 4.00   | FT | LENGTH @ LIGHTPOLE                        |
| 9.88   | FT | BARRIER PERIMETER (ADJACENT TO LIGHTPOLE) |
| 12.00  | FT | LENGTH (ADJACENT TO LIGHTPOLE)            |
| 6.00   | EA | # LIGHTPOLES                              |
| 108.22 | SY |   |

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| ITEM            | EXTENSION | QUANTITY            | UNIT | DESCRIPTION   |
|-----------------|-----------|---------------------|------|---|
|                 |           | RAILING             |      |   |
|                 |           | 10.35               | FT   | MEDIAN PERIMETER                                    |
|                 |           | 9.88                | FT   | BARRIER PERIMETER                                   |
|                 |           | 745.75              | FT   | LT LENGTH (MINUS DECK REPAIR & LIGHTPOLE PILASTERS) |
|                 |           | 740.50              | FT   | RT LENGTH (MINUS DECK REPAIR & LIGHTPOLE PILASTERS) |
|                 |           | 3340.62             | SY   |   |
| SUP. SUBTOTAL = |           | 3510.00             | SY   |   |
|                 |           | BARRIER TRANSITIONS |      |   |
|                 |           | 9.88                | FT   | BARRIER PERIMETER                                   |
|                 |           | 22.25               | FT   | LENGTH REAR   |
|                 |           | 2.00                | EA   |   |
|                 |           | 25.75               | FT   | LENGTH FORWARD LEFT                                 |
|                 |           | 1.00                | EA   |   |
|                 |           | 22.00               | FT   | LENGTH FORWARD RIGHT                                |
|                 |           | 1.00                | EA   |   |
|                 |           | 101.22              | SY   |   |
|                 |           | APPROACH SLABS      |      |   |
|                 |           | 10.35               | FT   | MEDIAN PERIMETER                                    |
|                 |           | 40.00               | FT   | LENGTH (APPROACH SLABS)                             |
|                 |           | 47.00               | SY   |   |
| GEN. SUBTOTAL = |           | 149.00              | SY   |   |

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| ITEM | EXTENSION | QUANTITY | UNIT | DESCRIPTION                               |
|------|-----------|----------|------|---|
| 512  | 10400     | 1088.00  | SY   | TREATING OF CONCRETE BRIDGE DECK WITH SRS |

Approach slabs and abutment slabs - areas measured in CADD from toe to toe of curb. Include exposed sleeper slab

|                 |      |    |
|-----------------|------|----|
| Rear Left =     | 2446 | SF |
| Rear Right =    | 2446 | SF |
| Forward Left =  | 2446 | SF |
| Forward Right = | 2447 | SF |

|                          |     |    |
|--------------------------|-----|----|
| Rear approach subtotal = | 544 | SY |
| Left approach subtotal = | 544 | SY |

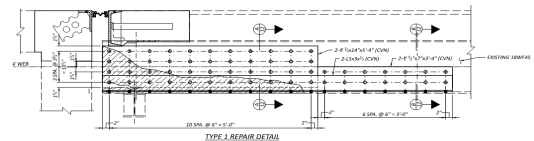
Total = 1088 SY

|     |       |         |    |   |
|-----|-------|---------|----|---|
| 512 | 73500 | 1088.00 | SY | TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN |
|-----|-------|---------|----|---|

|     |       |       |    |                                    |
|-----|-------|-------|----|------------------------------------|
| 513 | 10200 | 10701 | LB | STRUCTURAL STEEL MEMBERS, LEVEL UF |
|-----|-------|-------|----|------------------------------------|

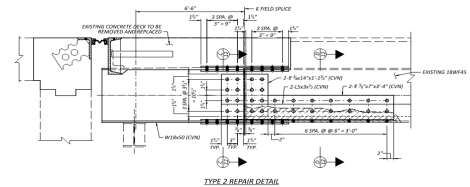
## TYPE 1 REPAIR

|            |         |                         |
|------------|---------|-------------------------|
| 6          | EA      | TOTAL COUNT             |
| 2352       | SQ IN   | 1/2" PLATE AREA         |
| 0.5        | IN      | THICKNESS               |
| 0          | SQ IN   | 3/8" PLATE AREA         |
| 0.375      | IN      | THICKNESS               |
| 490        | LB/FT3  | PLATE UNIT WEIGHT       |
| 208        | IN      | ANGLE LENGTH            |
| 12.8       | LB/FT   | UNIT WEIGHT             |
| 94         |         | # BOLTS                 |
| 1          | LB      | WT/BOLT (EST 3" LENGTH) |
| SUBTOTAL = | 3896.03 | LB                      |



### ROCKY RIVER VALLEY ESTIMATED QUANTITIES:

| ITEM | EXTENSION  | QUANTITY      | UNIT   | DESCRIPTION                         |
|------|------------|---------------|--------|-------------------------------------|
|      |            | TYPE 2 REPAIR |        |                                     |
|      |            | 6             | EA     | TOTAL COUNT                         |
|      |            | 1382.25       | SQ IN  | 1/2" PLATE AREA                     |
|      |            | 0.5           | IN     | THICKNESS                           |
|      |            | 386.25        | SQ IN  | 3/8" PLATE AREA                     |
|      |            | 0.375         | IN     | THICKNESS                           |
|      |            | 490           | LB/FT3 | PLATE UNIT WEIGHT                   |
|      |            | 107.5         | IN     | ANGLE LENGTH                        |
|      |            | 12.8          | LB/FT  | UNIT WEIGHT                         |
|      |            | 7.33          | FT     | NEW SECTION LENGTH                  |
|      |            | 50            | LB/FT  | NEW SECTION WT (OLD SECTION 18WF34) |
|      |            | 74            |        | # BOLTS                             |
|      |            | 1             | LB     | WT/BOLT (EST 3" LENGTH)             |
|      | SUBTOTAL = | 4754.31       | LB     |                                     |
|      |            | 586.98        | LB     | Rear Abutment                       |
|      |            | 490.125       | LB     | Forward Abutment                    |
|      |            | 1077.105      | LB     | Total                               |



|     |       |       |    |  |
|-----|-------|-------|----|--|
| 513 | 21501 | 15611 | LB | REPLACEMENT OF DETERIORATED END CROSSFRAMES, AS PER PLAN |
|-----|-------|-------|----|--|

| END K-FRAMES |          |                             |
|--------------|----------|-----------------------------|
| 9            | EA       | TOTAL COUNT                 |
| 144          | SQ IN    | 1/2" PLATE AREA             |
| 0.5          | IN       | THICKNESS                   |
| 490          | LB/FT3   | PLATE UNIT WEIGHT           |
| 16.25        | FT       | NEW SECTION LENGTH (W8X28)  |
| 28           | LB/FT    | UNIT WEIGHT                 |
| 18           | FT       | NEW SECTION LENGTH (WT6X25) |
| 25           | LB/FT    | UNIT WEIGHT                 |
| 16.25        | FT       | NEW SECTION LENGTH (W8X28)  |
| 28           | LB/FT    | UNIT WEIGHT                 |
| SUBTOTAL =   | 12423.75 | LB                          |

| WT6X25 JOINT SUPPORTS |         |       |         |
|-----------------------|---------|-------|---------|
|                       |         | FT    | LENGTH  |
|                       |         | LB/FT | UNIT WT |
|                       |         |       | COUNT   |
|                       | 1.42    |       |         |
|                       | 25.00   |       |         |
|                       | 32.00   |       |         |
| SUBTOTAL =            | 1133.36 | LB    |         |

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|------|------------|----------------|------|-----------------------|
|      |            | SUPPORT ANGLES |      |                       |
|      |            | 32.00          |      | COUNT                 |
|      |            | 19.83          | LB   | WT                    |
|      | SUBTOTAL = | 634.46         | LB   |                       |
|      |            | 10%            |      | APPLY FOR INCIDENTALS |

|     |       |    |  |   |
|-----|-------|----|--|---|
| 513 | 95020 | LS |  | STRUCTURAL STEEL, MISC.: GIRDER SPLICE REPAIR |
|-----|-------|----|--|---|

|     |       |     |    |  |
|-----|-------|-----|----|--|
| 514 | 00050 | 566 | SF | SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL |
|-----|-------|-----|----|--|

|                |    |   |
|----------------|----|---|
| 4.875          | FT | PERIMETER                               |
| TYPE 1 REPAIR  |    |   |
| 9              | FT | LENGTH OF REPAIR (TYPE 1, CONSERVATIVE) |
| 6              | EA | LOCATIONS (TYPE 1)                      |
| TYPE 2 REPAIR  |    |   |
| 6              | FT | LENGTH OF REPAIR (TYPE 2, CONSERVATIVE) |
| 6              | EA | LOCATIONS (TYPE 2)                      |
| GIRDER REPAIRS |    |   |
| 52.75          | SF |   |
| 15%            |    | APPLY FOR INCIDENTALS                   |

|     |       |      |    |   |
|-----|-------|------|----|---|
| 514 | 00056 | 566  | SF | FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT |
| 514 | 00060 | 3481 | SF | FIELD PAINTING OF STRUCTURAL STEEL, INTERMEDIATE COAT   |

|                  |         |                    |  |
|------------------|---------|--------------------|--|
| ADD NEW K-FRAMES |         |                    |  |
| 3.52             | FT      | PERIMETER W8X28    |  |
| 32.50            | FT      | LENGTH             |  |
| 2.36             | FT      | PERIMETER (WT6X25) |  |
| 18.00            | FT      | LENGTH             |  |
| 9                | EA      | COUNT              |  |
| SUBTOTAL =       | 1413.44 | SF                 |  |

|                       |        |           |  |
|-----------------------|--------|-----------|--|
| WT6X25 JOINT SUPPORTS |        |           |  |
| 1.42                  | FT     | LENGTH    |  |
| 2.36                  | FT     | PERIMETER |  |
| 32.00                 |        | COUNT     |  |
| SUBTOTAL =            | 106.99 | SF        |  |

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|------------|-----------|----------------|------|---|
|            |           | SUPPORT ANGLES |      |   |
|            |           | 32.00          |      | COUNT                                   |
|            |           | 0.75           | FT   | LENGTH                                  |
|            |           | 1.67           | FT   | PERIMETER                               |
| SUBTOTAL = |           | 40.00          | SF   |   |
|            |           | GIRDER PLATES  |      |   |
|            |           | 28.75          | SF   | Rear Abutment                           |
|            |           | 24.00          | SF   | Forward Abutment                        |
| SUBTOTAL = |           | 52.75          | SF   |   |
|            |           | TYPE 1 REPAIR  |      |   |
|            |           | 4.875          | FT   | PERIMETER                               |
|            |           | 9.00           | FT   | LENGTH OF REPAIR (TYPE 1, CONSERVATIVE) |
|            |           | 6.00           | EA   | LOCATIONS (TYPE 1)                      |
| SUBTOTAL = |           | 263.25         | SF   |   |
|            |           | TYPE 2 REPAIR  |      |   |
|            |           | 4.875          | FT   | PERIMETER                               |
|            |           | 11.00          | FT   | LENGTH OF REPAIR (TYPE 1, CONSERVATIVE) |
|            |           | 6.00           | EA   | LOCATIONS (TYPE 1)                      |
| SUBTOTAL = |           | 321.75         | SF   |   |
|            |           | BEARINGS       |      |   |
|            |           | 11.00          | SF   | FROM CDC AND SSW CONCURRENCE 4/23/2024  |
|            |           | 4.00           | EA   | REPLACEMENT LOCATIONS                   |
| SUBTOTAL = |           | 44.00          | SF   |   |
|            |           | 30%            |      | APPLY FOR INCIDENTALS                   |

|     |       |      |    |   |
|-----|-------|------|----|---|
| 514 | 00066 | 3481 | SF | FIELD PAINTING OF STRUCTURAL STEEL, FINISH COAT |
|-----|-------|------|----|---|

|     |       |    |  |  |
|-----|-------|----|--|--|
| 514 | 27800 | LS |  | FIELD PAINTING, MISC.: COATING SYSTEM REPAIR |
|-----|-------|----|--|--|

|     |       |     |    |   |
|-----|-------|-----|----|---|
| 516 | 11210 | 288 | FT | STRUCTURAL STEEL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL |
|-----|-------|-----|----|---|

|     |    |                    |
|-----|----|--------------------|
| 144 | FT | LENGTH             |
| 2   | EA | COUNT - REAR & FWD |

PROJECT : CUY-90 PART 1

TASK : ROCKY RIVER

SUBJECT : ESTIMATED QUANTITIES

CALCULATED BY : SSW

DATE : 4/3/2023

PROJECT NO :

CHECKED BY : CDC

**Michael Baker**  
INTERNATIONAL

DATE : 4/4/2023

**ROCKY RIVER VALLEY ESTIMATED QUANTITIES:**

| ITEM | EXTENSION | QUANTITY | UNIT | DESCRIPTION                                     |
|------|-----------|----------|------|---|
| 516  | 13600     | 87       | SF   | 1" PREFORMED EXPANSION JOINT FILLER             |
|      |           | 21.67    | SF   | AREA OF APP SLAB TO BARRIER INTERFACE           |
|      |           | 4.00     |      | NUMBER OF INTERFACES                            |
| 516  | 13900     | 388      | SF   | 2" PREFORMED EXPANSION JOINT FILLER             |
|      |           | 193.65   | SF   | AREA OF MEDIAN BARRIER INTERFACE                |
|      |           | 2.00     |      | NUMBER OF INTERFACES                            |
| 516  | 46201     | 4        | EA   | BEARING DEVICE, ROCKER, AS PER PLAN             |
|      |           | 2        | EA   | Rear  |
|      |           | 2        | EA   | Forward   |
|      |           | 4        | EA   | Total   |
| 516  | 47000     | LS       |      | JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE |

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**ROCKY RIVER VALLEY ESTIMATED QUANTITIES:**

| ITEM | EXTENSION | QUANTITY | UNIT | DESCRIPTION                                   |
|------|-----------|----------|------|---|
| 518  | 12500     | 8        | EACH | SCUPPER, MISC: PLUG AND FILL EXISTING SCUPPER |

|   |          |                    |
|---|----------|--------------------|
| 8 | SCUPPERS | AT ABUTMENT MEDIAN |
|---|----------|--------------------|

|     |       |    |    |  |
|-----|-------|----|----|--|
| 518 | 21200 | 39 | CY | POROUS BACKFILL WITH GEOTEXTILE FABRIC |
|-----|-------|----|----|--|

|      |      |                               |
|------|------|-------------------------------|
| 144  | FT   | LENGTH (ABUTMENT LENGTH)      |
| 7.25 | AREA | BACKFILL AREA MEASURED IN CAD |

|     |       |     |    |                                       |
|-----|-------|-----|----|---------------------------------------|
| 518 | 40000 | 144 | FT | 6" PERFORATED CORRUGATED PLASTIC PIPE |
|-----|-------|-----|----|---------------------------------------|

|       |    |                |
|-------|----|----------------|
| 34.75 | FT | PHASE 3 LENGTH |
| 36.75 | FT | PHASE 2 LENGTH |
| 40.5  | FT | PHASE 4 LENGTH |
| 31.25 | FT | PHASE 5 LENGTH |

|     |       |    |    |   |
|-----|-------|----|----|---|
| 518 | 40010 | 92 | FT | 6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS |
|-----|-------|----|----|---|

|    |    |                |
|----|----|----------------|
| 23 | FT | PHASE 3 LENGTH |
| 23 | FT | PHASE 2 LENGTH |
| 23 | FT | PHASE 4 LENGTH |
| 23 | FT | PHASE 5 LENGTH |

PROJECT : CUY-90 PART 1

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## ROCKY RIVER VALLEY ESTIMATED QUANTITIES:

| ITEM | EXTENSION | QUANTITY | UNIT | DESCRIPTION   |
|------|-----------|----------|------|---|
| 526  | 15010     | 623      | SY   | REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=13") |

|     |    |                    |
|-----|----|--------------------|
| 140 | FT | WIDTH              |
| 20  | FT | LENGTH             |
| 2   | EA | COUNT - REAR & FWD |

|     |       |     |    |                     |
|-----|-------|-----|----|---------------------|
| 526 | 90010 | 280 | FT | TYPE A INSTALLATION |
|-----|-------|-----|----|---------------------|

|     |    |       |
|-----|----|-------|
| 140 | FT | WIDTH |
| 2   | EA | COUNT |

|     |       |    |    |                                    |
|-----|-------|----|----|------------------------------------|
| 601 | 20010 | 61 | CY | CRUSHED AGGREGATE SLOPE PROTECTION |
|-----|-------|----|----|------------------------------------|

|     |    |                    |
|-----|----|--------------------|
| 45  | FT | LENGTH ALONG SLOPE |
| 1.5 | FT | DEPTH              |
| 6   | FT | WIDTH              |

61 SEE CDC INDEPENDENT CALC

|         |          |    |    |   |
|---------|----------|----|----|---|
| SPECIAL | 60740300 | 96 | FT | VANDAL PROTECTION FENCE REMOVED AND REBUILT |
|---------|----------|----|----|---|

|    |    |        |
|----|----|--------|
| 16 | FT | LENGTH |
| 6  | EA | COUNT  |

|     |       |    |    |                                      |
|-----|-------|----|----|--------------------------------------|
| 611 | 96600 | 92 | FT | CONDUIT, BORED OR JACKED, 6", 707.45 |
|-----|-------|----|----|--------------------------------------|

|    |    |                |
|----|----|----------------|
| 23 | FT | PHASE 3 LENGTH |
| 23 | FT | PHASE 2 LENGTH |
| 23 | FT | PHASE 4 LENGTH |
| 23 | FT | PHASE 5 LENGTH |

|     |       |   |      |                                    |
|-----|-------|---|------|------------------------------------|
| 611 | 99710 | 4 | EACH | PRECAST REINFORCED CONCRETE OUTLET |
|-----|-------|---|------|------------------------------------|

|   |      |         |
|---|------|---------|
| 1 | EACH | PHASE 3 |
| 1 | EACH | PHASE 2 |
| 1 | EACH | PHASE 4 |
| 1 | EACH | PHASE 5 |

PROJECT : CUY-90 PART 1

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## ROCKY RIVER VALLEY ESTIMATED QUANTITIES:

| ITEM | EXTENSION | QUANTITY | UNIT | DESCRIPTION                  |
|------|-----------|----------|------|------------------------------|
| 613  | 41200     | 60       | CY   | LOW STRENGTH MORTAR BACKFILL |

|      |      |                               |
|------|------|-------------------------------|
| 144  | FT   | LENGTH (ABUTMENT LENGTH)      |
| 7.25 | AREA | BACKFILL AREA MEASURED IN CAD |

60 SEE CDC INDEPENDENT CHECK

|     |       |     |    |         |
|-----|-------|-----|----|---------|
| 838 | 20700 | 104 | CY | GABIONS |
|-----|-------|-----|----|---------|

|     |      |                      |
|-----|------|----------------------|
| 24  | FT   | GABION REPAIR LENGTH |
| 117 | AREA | AREA OF GABIONS      |

|     |       |     |    |   |
|-----|-------|-----|----|---|
| 844 | 10001 | 832 | SF | CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN |
|-----|-------|-----|----|---|

|        |    |                           |
|--------|----|---------------------------|
| 2      |    | Factor of safety          |
| 234.00 | SF | Rear Abutment actual      |
| 182    | SF | Forward Abutment actual   |
| 468.00 | SF | Rear Abutment factored    |
| 364    | SF | Forward Abutment factored |
| 832.00 | SF | Total                     |

|     |       |       |    |  |
|-----|-------|-------|----|--|
| 848 | 10201 | 12239 | SY | SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION 1 1/2" INCH THICK, AS PER PLAN |
|-----|-------|-------|----|--|

|     |       |       |    |   |
|-----|-------|-------|----|---|
| 848 | 20000 | 12239 | SY | SURFACE PREPARATION USING HYDRODEMOLITION |
|-----|-------|-------|----|---|

|     |       |     |    |   |
|-----|-------|-----|----|---|
| 848 | 30200 | 123 | CY | SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY |
|-----|-------|-----|----|---|

|         |       |                    |
|---------|-------|--------------------|
| 9893    | SY    | TRAIN OVERLAY AREA |
| 108     | CY    | TRAIN VAR THICK    |
| 0.01091 | CY/SY |                    |

|      |    |   |
|------|----|---|
| 0.01 |    | APPLY CY/SY FROM TRAIN TO ROCKY RIVER, SINCE SOUNDINGS WEREN'T PERFORMED AND DECK CONDITION IS CLOSE TO TRAIN |
| 122  | CY |   |

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## ROCKY RIVER VALLEY ESTIMATED QUANTITIES:

| ITEM | EXTENSION | QUANTITY | UNIT  | DESCRIPTION  |
|------|-----------|----------|-------|--|
| 848  | 50000     | 241      | SY    | HAND CHIPPING  |
|      |           | 9893     | SY    | TRAIN OVERLAY AREA   |
|      |           | 194      | SY    | TRAIN VAR THICK  |
|      |           | 0.01963  | SY/SY | APPLY TO ROCKY RIVER   |
|      |           | 240.30   | SY    |  |
| 848  | 50100     | LS       |       | TEST SLAB  |
| 848  | 50320     | 12239    | SY    | EXISTING CONCRETE OVERLAY REMOVED, 1 1/4" NOMINAL THICKNESS                      |
| 848  | 50340     | 100      | SY    | REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY |
| 512  | 10300     | 927.00   | SY    | SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN                                    |

|            |        |    |               |
|------------|--------|----|---------------|
| SUPER.     |        |    |               |
|            | 805.00 | FT | DECK LENGTH   |
|            | 5.00   | FT | WIDTH         |
|            | 2.00   | EA | # DECK JOINTS |
| SUBTOTAL = | 895    | SY |               |

|            |       |    |                        |
|------------|-------|----|------------------------|
| GENERAL    |       |    |                        |
|            | 20.00 | FT | APPROACH SLAB LENGTH   |
|            | 2.00  | FT | WIDTH                  |
|            | 4.00  | EA | # APPROACH SLAB JOINTS |
| SUBTOTAL = | 18    | SY |                        |

|               |       |    |                        |
|---------------|-------|----|------------------------|
| REAR ABUTMENT |       |    |                        |
|               | 15.75 | FT | ABUTMENT SLAB LENGTH   |
|               | 2.00  | FT | WIDTH                  |
|               | 2.00  | EA | # APPROACH SLAB JOINTS |
| SUBTOTAL =    | 7     | SY |                        |

|                  |       |    |                        |
|------------------|-------|----|------------------------|
| FORWARD ABUTMENT |       |    |                        |
|                  | 15.75 | FT | ABUTMENT SLAB LENGTH   |
|                  | 2.00  | FT | WIDTH                  |
|                  | 2.00  | EA | # APPROACH SLAB JOINTS |
| SUBTOTAL =       | 7     | SY |                        |