# STRUCTURES INSPECTION FIELD REPORT

## SPECIAL MEMBER INSPECTION

| 2-DIST | B.I.N. | BR. DEPT. NO. |
|---|---|---|
| 01 | 5CV | A-13-029 |

| CITY/TOWN | 8.-STRUCTURE NO. | 11-Kilo. POINT | 90-ROUTINE INSP. DATE | 93*-SPEC. MEMB. INSP. DATE |
|---|---|---|---|---|
| ASHFIELD | A13029-5CV-MUN-BRI | 000.000 | Jul 18, 2023 | Jul 23, 2024 |

| 07-FACILITY CARRIED | MEMORIAL NAME/LOCAL NAME | 27-YR BUILT | 106-YR REBUILT | *YR REHAB'D (NON 106) |
|---|---|---|---|---|
| HWY SMITH BR RD | | 1939 | 1964 | 0000 |

| 06-FEATURES INTERSECTED | 26-FUNCTIONAL CLASS | DIST. BRIDGE INSPECTION ENGINEER M. P.E. McCabe |
|---|---|---|
| WATER SMITH BROOK | Rural Local | Michael P E McCabe |

| 43-STRUCTURE TYPE | 22-OWNER | 21-MAINTAINER | TEAM LEADER R. Mancari |
|---|---|---|---|
| 302 : Steel Stringer/Girder | Town Agency | Town Agency | Reed Mancari |

| 107-DECK TYPE | WEATHER | TEMP. (air) | TEAM MEMBERS |
|---|---|---|---|
| 1 : Concrete Cast-in-Place | Sunny | 18°C | M. RANZONI Matthew Ranzoni |

**WEIGHT POSTING** — *Not Applicable* X

| | H | 3 | 3S2 | Single |
|---|---|---|---|---|
| Actual Posting | N | N | N | N |
| Recommended Posting | N | N | N | N |

Waived Date: 00/00/0000 EJDMT Date: 00/00/0000

Signs In Place (Y=Yes,N=No, NR=Not Required) / Legibility/ Visibility

| At bridge N | At bridge S | Advance N | Advance S |
|---|---|---|---|
| | | | |

PLANS (Y/N): Y

(V.C.R.) (Y/N): N

TAPE#:

**RATING**

Rating Report (Y/N): N Date: ----

Recommend for Rating or Rerating (Y/N): N

If YES please give priority: HIGH ( ) MEDIUM ( ) LOW ( )

*REASON:* Rating requested after 7/18/23 inspection.

Inspection data at time of existing rating

I 58: - I 59: - I 60: - I 62: - Date : 00/00/0000

***SPECIAL MEMBER(S):***

| | MEMBER | CRACK (Y/N): | WELD'S CONDITION (0-9) | LOCATION OF CORROSION, SECTION LOSS (%), CRACKS, COLLISION DAMAGE, STRESS CONCENTRATION, ETC. | CONDITION PREVIOUS (0-9) | CONDITION PRESENT (0-9) | INV. RATING OF MEMBER FROM RATING ANALYSIS H-20 | 3 | 3S2 | Deficiencies |
|---|---|---|---|---|---|---|---|---|---|---|
| A | Item 59.4 - Girders or Beams | N | | See remarks in comments section. | 4 | 3 | Not Rated | | | S-A |
| B | | | | | | | | | | |
| C | | | | | | | | | | |
| D | | | | | | | | | | |
| E | | | | | | | | | | |

***List of field tests performed:***

| | I-58 | I-59 | I-60 | I-62 |
|---|---|---|---|---|
| *(Overall Previous Condition)* | 6 | 4 | 7 | - |
| *(Overall Current Condition)* | 6 | 3 | 7 | - |

***DEFICIENCY:*** A defect in a structure that requires corrective action.

***CATEGORIES OF DEFICIENCIES:***

**M= Minor Deficiency -** Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

**S= Severe/Major Deficiency -** Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

**C-S= Critical Structural Deficiency -** A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

**C-H= Critical Hazard Deficiency -** A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

***URGENCY OF REPAIR:***

**I = Immediate-** [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

**A = ASAP-** [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

**P = Prioritize-** [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

**X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED**

| CITY/TOWN | B.I.N. | BR. DEPT. NO. | 8.-STRUCTURE NO. | INSPECTION DATE |
|---|---|---|---|---|
| **ASHFIELD** | **5CV** | **A-13-029** | **A13029-5CV-MUN-BRI** | **JUL 23, 2024** |

# REMARKS

**BRIDGE ORIENTATION**

Smith Branch Road travels north and south. Smith Brook flows west to east. This single span structure consists of five steel beams supporting a reinforced concrete deck with a gravel wearing surface. The beams and bays are numbered west to east, upstream to downstream, in accordance with the 2015 Bridge Inspection Handbook. See sketch 1 and photos 1 & 2.

**ITEM 59 - SUPERSTRUCTURE**

**Item 59.4 - Girders or Beams**

All beams have widespread rusting with random bird nests on the bottom flanges. See photo 2.

Beams 1, 2, 4 and 5, at the north ends, have moderate to severe rusting, with up to 100% section loss. See sketches 2 - 5 and photos 3 - 6.

Beams 2 and 5, at the north ends, have minor out of plane bending. See photos 4 & 6.

**Sketch / Photo Log**

Sketch 1 : Framing plan.
Sketch 2 : Beam 1 section loss.
Sketch 3 : Beam 2 section loss.
Sketch 4 : Beam 4 section loss.
Sketch 5 : Beam 5 section loss.
Photo 1 : General topside, looking south.
Photo 2 : General underside, looking south.
Photo 3 : Beam 1 north end section loss.
Photo 4 : Beam 2 north end section loss.
Photo 5 : Beam 4 north end section loss.
Photo 6 : Beam 5 north end section loss.

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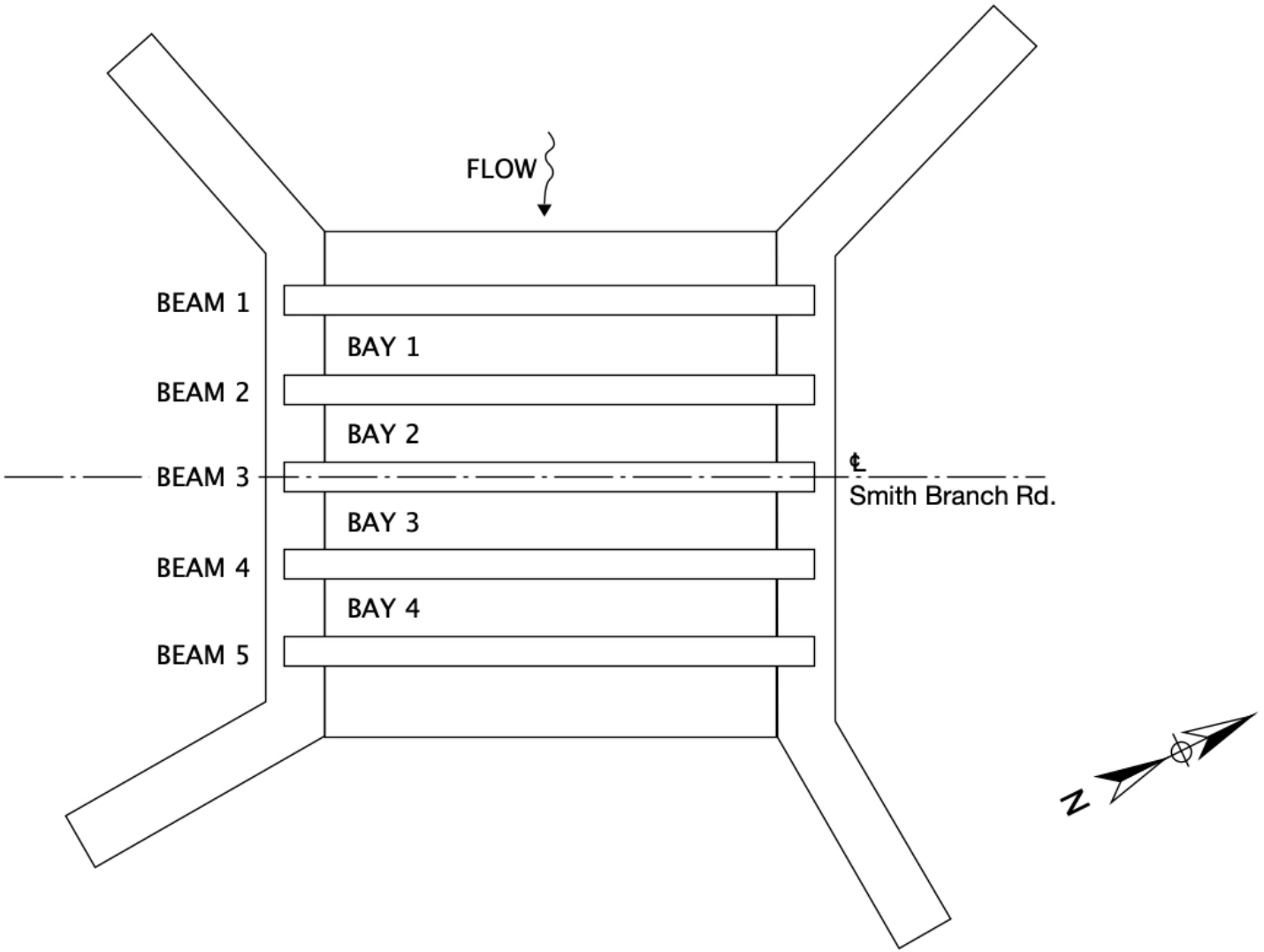
## SKETCHES




**Sketch 1:** **Framing plan.**

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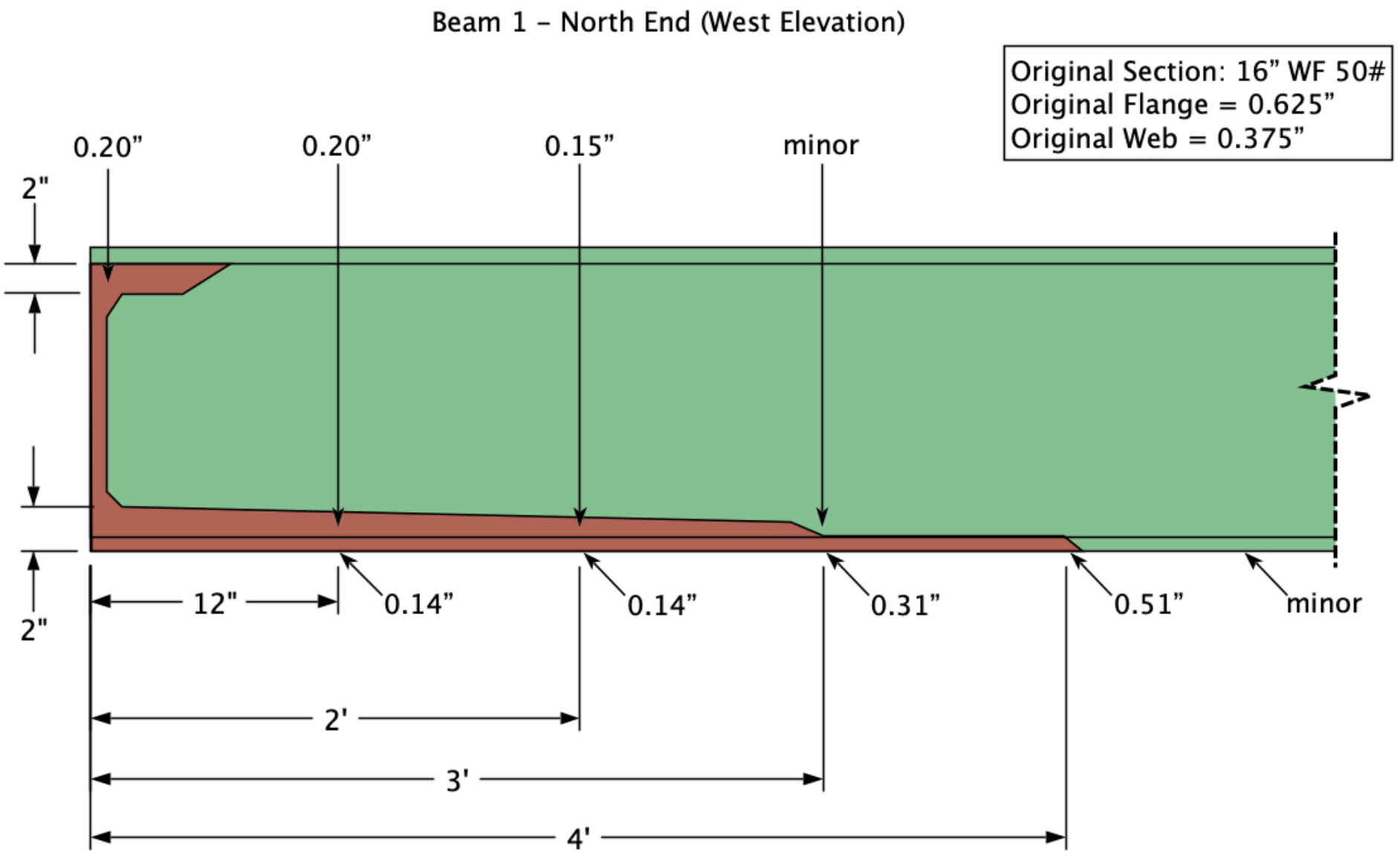


**Sketch 2:** **Beam 1 section loss.**

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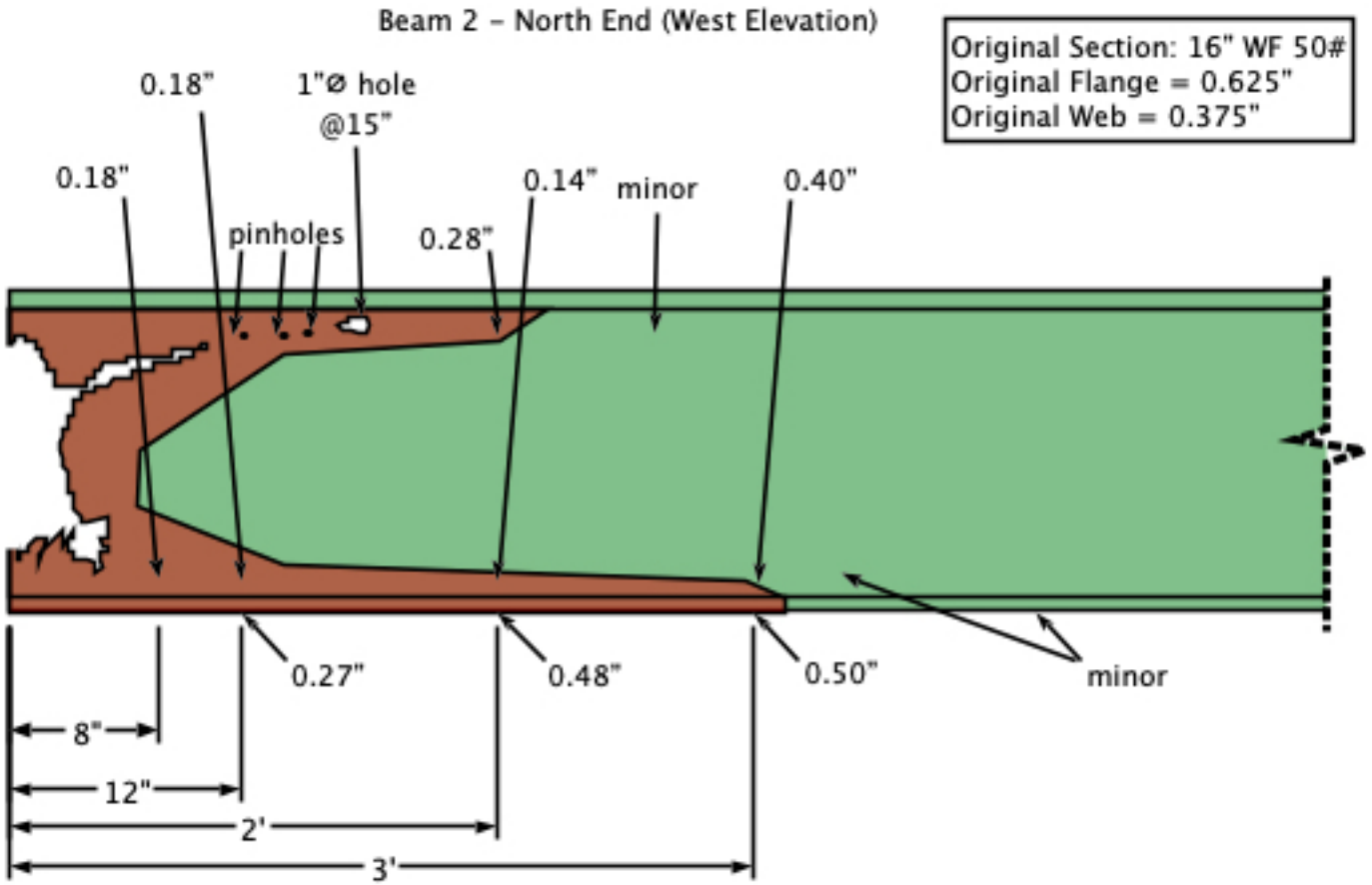


**Sketch 3:** **Beam 2 section loss.**

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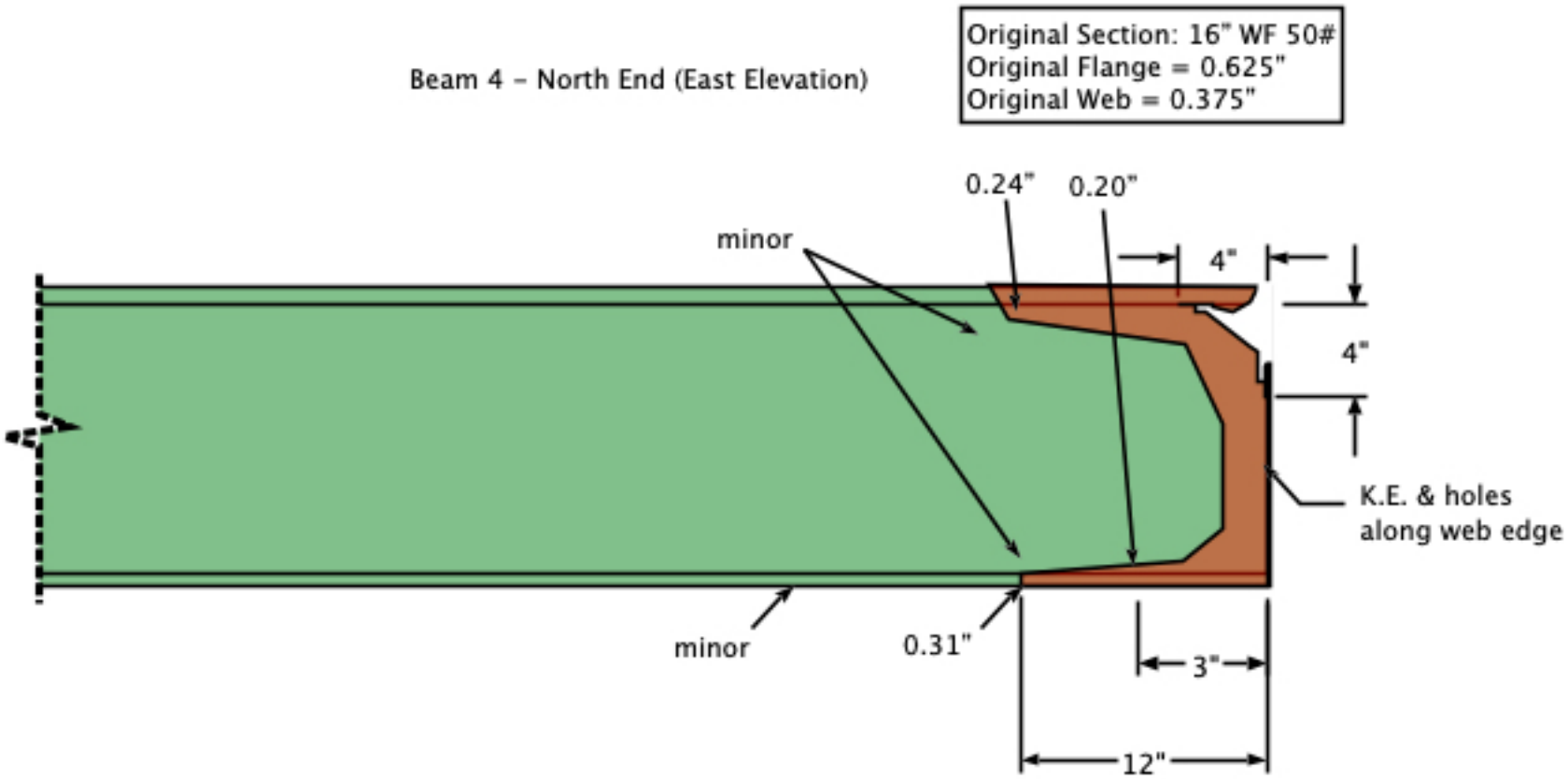


**Sketch 4:** **Beam 4 section loss.**

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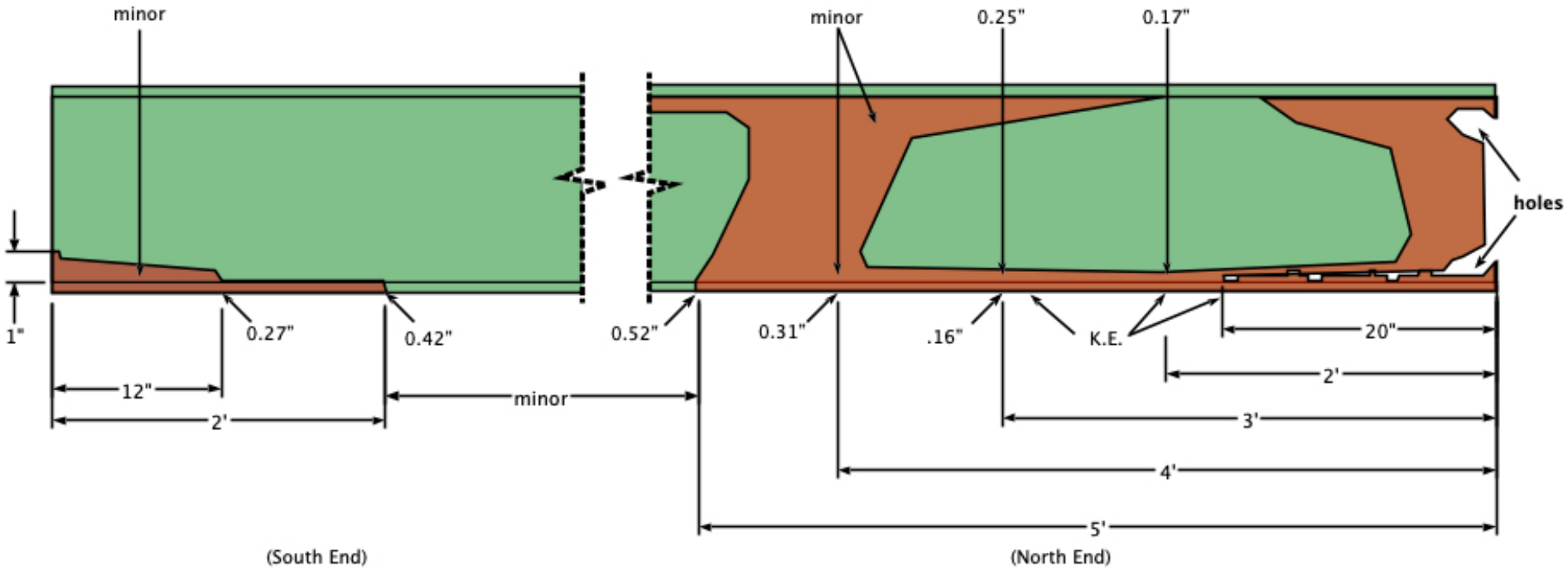


Beam 5 – East Elevation

Original Section: 16" WF 50#
Original Flange = 0.625"
Original Web = 0.375"

**Sketch 5:** **Beam 5 section loss.**

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# PHOTOS

**Photo 1:** General topside, looking south.

**Photo 2:** General underside, looking south.

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## PHOTOS

**Photo 3: Beam 1 north end section loss.**

**Photo 4: Beam 2 north end section loss.**

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## PHOTOS


**Photo 5: Beam 4 north end section loss.**


**Photo 6: Beam 5 north end section loss.**