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| **BRIDGE SCOUR ASSESSMENT** |
|  |
| **STRUCTURE NO:** | ­­     ­­ | **INSPECTION DATE:** |       |

|  |
| --- |
| **SOIL TYPE** |
| **CHANNEL – BANK:** | **[ ]**  | SAND & GRAVEL |  | [ ]  | SANDY SILT |  | [ ]  | SILT |  | [ ]  | SILTY CLAY |  | [ ]  | CLAY |  | [ ]  | SHALE |  | [ ]  | ROCK |
| **CHANNEL – BED:** | [ ]  | SAND & GRAVEL |  | [ ]  | SANDY SILT |  | [ ]  | SILT |  | [ ]  | SILTY CLAY |  | [ ]  | CLAY |  | [ ]  | SHALE |  | [ ]  | ROCK |
| **ABUTMENT FOUNDATION** |
| **TYPE:** | [ ]  | CONCRETE PILE | [ ]  | STEEL PILE | [ ]  | TIMBER PILE | [ ]  | SPREAD FOOTING | [ ]  | DRILLED SHAFT | [ ]  | UNKNOWN |
| **DEPTH:** | [ ]  | KNOWN | [ ]  | UNKNOWN |  | **ADEQUACY:** | [ ]  | STABLE | [ ]  | AT RISK | [ ]  | UNSTABLE |
| **ABUTMENT BACKWALL** |
| **BACKWALL TYPE:** | [ ]  | STEEL SHEET | [ ]  | CONCRETE SHEET |  | [ ]  | CONCRETE WALL |  | [ ]  | TIMBERPLANK |  | [ ]  | STUB |
| **BACKWALL ADEQUACY:** | [ ]  | STABLE | [ ]  | AT RISK |  | [ ]  | FAILURE IMMINENT |  | [ ]  | FAILED |  |  |  |
| **BACKWALL STRUCTURAL DETERIORATION:** | [ ]  | YES | [ ]  | NO | **DECK TO BOTTOM OF BACKWALL:** | ABUT 1 |  ft. | ABUT 2 |  ft. |
| **APPROACH SLAB?** | [ ]  | YES | [ ]  | NO | **ABUTMENT SCOUR ESTIMATE/PROBED:** | ABUT 1 |  ft. | ABUT 2 |  ft. |
| **APPROACH FILL:** | [ ]  | SOLID | [ ]  | SMALL VOIDS | [ ]  | LARGE VOIDS | [ ]  | FAILED |  |
| **BERM ADEQUACY:** | [ ]  | STABLE | [ ]  | AT RISK | [ ]  | INEFFECTIVE | [ ]  | NONEXISTENT |
| **PIER/BENT** |
| **TYPE:** |  | [ ]  | OPEN | [ ]  | ENCASED | [ ]  | DRILLED SHAFT | [ ]  | NONE |
| **FOUNDATION TYPE:** |  | [ ]  | STEEL PILE | [ ]  | CONCRETE PILE | [ ]  | TIMBER PILE | [ ]  | SPREAD FOOTING |
| **FOUNDATION DEPTH:** |  | [ ]  | KNOWN | [ ]  | UNKNOWN |  |  |  |  |
| **STABILITY:** |  | [ ]  | STABLE | [ ]  | AT RISK | [ ]  | UNSTABLE |  |  |
| **DECK TO BOTTOM OF ENCASEMENT / FOOTING:** |  ft. | **SCOUR ESTIMATED / PROBED:***(U.S. SIDE)* |  ft. |
| **CALCULATED SCOUR:** | CONTRACTION |  ft. | LOCAL |  ft. |
| **CHANNEL EVOLUTION AND BEHAVIOR** |
| **STAGE:** | [ ]  | PREMODIFIED | [ ]  | CONSTRUCTED | [ ]  | DEGRADATION | [ ]  | THRESHOLD | [ ]  | AGGRADATION | [ ]  | RESTABILIZATION |
| **CHARACTERISTICS:** | [ ]  | HEAD-CUTTING | [ ]  | STEEP BANKS | [ ]  | BANK SEEPAGE | [ ]  | ALTERNATE BARS | [ ]  | MEANDERING | [ ]  | VEGETATED BANKS |
| **BANK FAILURE:** | [ ]  | ROTATION | [ ]  | POPOUT | [ ]  | SLAB MOVEMENT | [ ]  | SLOUGHING | [ ]  | EROSION | [ ]  | OTHER: |  | [ ]  | NONE |
| **BANK BUFFER ZONE** |
| **LEFT BANK:** |  ft. | (width) | [ ]  | TREE LINED | [ ]  | GRASSED | [ ]  | CULTIVATED | [ ]  | OTHER: |  |
| **RIGHT BANK:** |  ft. | (width) | [ ]  | TREE LINED | [ ]  | GRASSED | [ ]  | CULTIVATED | [ ]  | OTHER: |  |
|  |
| **300 SERIES SCOUR ITEMS** |
|  | YES | NO |  | YES | NO |
| **326** | ROADWAY EMBANKMENT EROSION (9-0) |  |  | **352** | FLOOD OVERTOPS ROAD/BRIDGE RELIEF | [ ]  | [ ]  |
| **344** | ABUTMENT WALLS UNDERMINED | [ ]  | [ ]  |  | **353** | POTENTIAL DEBRIS UPSTREAM | [ ]  | [ ]  |
| **344A** | APPROACHES SETTLED/WASHED OUT | [ ]  | [ ]  |  | **354** | BENTS/PIERS IN CHANNEL | [ ]  | [ ]  |
| **346** | STREAM BED DEGRADED | [ ]  | [ ]  |  | **354A** | STREAM FLOW ABAINST ABUTMENT | ­­[ ]  | [ ]  |
| **347** | CONTRACTED STREAM/ABUTS INSIDE HB | [ ]  | [ ]  |  | **355** | BRIDGE ALIGNMENT WITH FLOW (9-0) |  |
| **348** | SCOUR AT:A (ABUT), B (BENT/PIER), C (A & B), N (NO) |  |  | **356** | DEBRIS BLOCKING CHANNEL AT BRIDGE | [ ]  | [ ]  |
| **357** | DROP FROM UPSTREAM DECK TO GROUND: |
| **349** | BANK EROSION IN PROGRESS | [ ]  | [ ]  |  | ABUT 1 - |      | FLOWLINE - |      | ABUT 2 - |  |
| **350** | STREAM SHIFTED FROM BRIDGE CENTER | [ ]  | [ ]  |  | **358** | OPINION SCOUR PROBLEM | [ ]  | [ ]  |
| **351** | FLOODWATER REACHES LOW STRUCTURE | [ ]  | [ ]  |  | **358B** | SCOUR INCREASED IN LAST TWO YEARS | [ ]  | [ ]  |
| **351A** | LOW ROAD ELEV. ABOVE LOW STRUCTURE | [ ]  | [ ]  |  | **358C** | SCOUR PLAN OF ACTION EFFECTIVE DATE |  |
|  |
| **NBIS Item – 113 Rating** |
|  | **9:** FOUNDATION SAFELY ABOVE FLOODWATER **8:** STABLE, FOUNDATIONS RESISTS SCOUR **7:** SCOUR PROBLEM MITIGATED **5:** LOW RISK **4:** ACTION REQUIRED **3:** UNSTABLE FOUNDATION **2:** UNSTABLE – EXTENSIVE SCOUR **1:** FAILURE IMMINENT, CLOSED |
| **JUSTIFICATION:**            |
| **ACTION** |
| **POA REQUIRED:** | [ ]  | YES | [ ]  | NO |  | **ADDITIONAL STUDY REQUIRED:** | [ ]  | YES | [ ]  | NO |  | **MAINTANANCE REQUIRED:** | [ ]  | YES | [ ]  | NO |
|  |
| WRITTEN BY:       | QC BY:       | QA BY:       |
| DATE: |        | DATE: |       | DATE: |       |