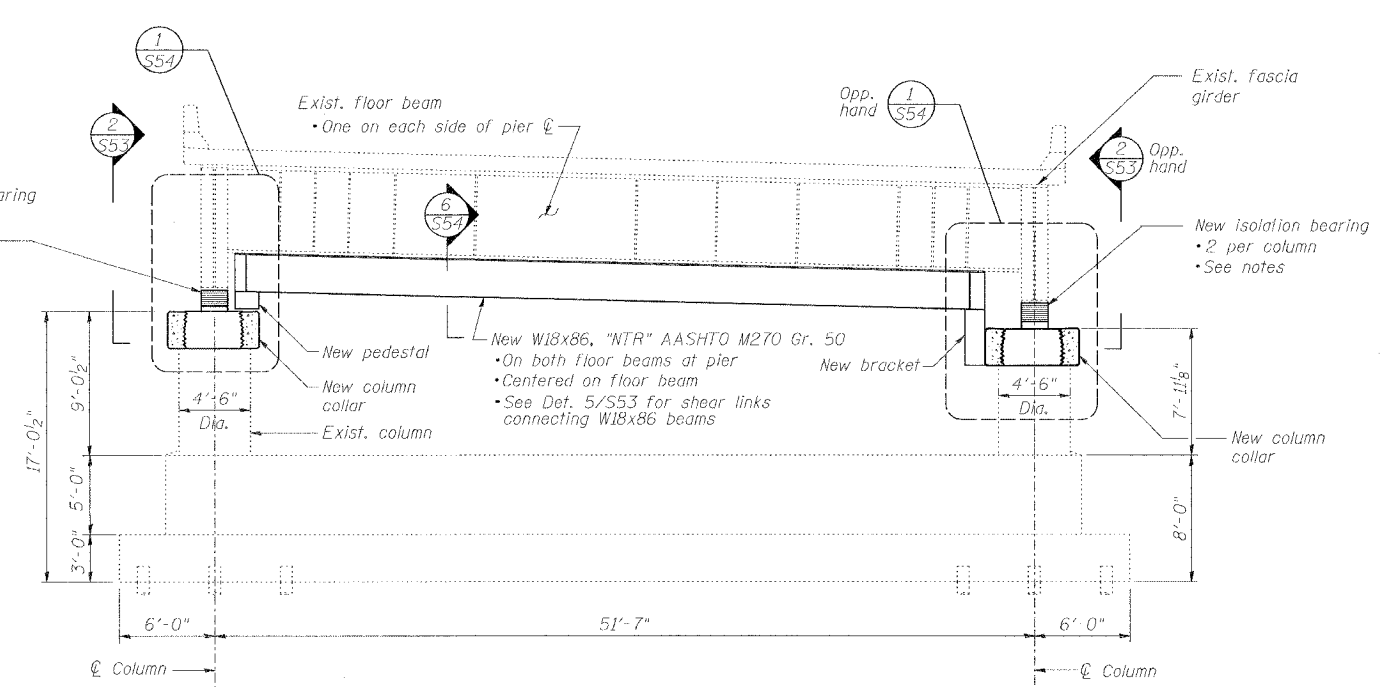


WEST ELEVATION PIER A44



WEST ELEVATION PIER A45

BEARING REACTION TABLE - PIER A44

| Load* | Span A43 | | Span A44 | |
|--------------------|----------|-----|----------|-----|
| | A1 | A2 | A1 | A2 |
| R _⊥ (k) | 132 | 160 | 161 | 161 |
| R _∥ (k) | 72 | 72 | 72 | 72 |
| Impact (k) | 18 | 18 | 17 | 17 |
| Total (k) | 222 | 250 | 250 | 250 |

*Gravity service loads
Minimum Jack Size: 200 Tons

ISOLATION BEARING NOTES - PIERS A44 AND A45

- Each bearing shall be capable of sustaining a service gravity load of 250 kips min.
- Each bearing shall have elastic lateral load capacity of at least 20 kips, but not greater than 25 kips.
- Each bearing shall have post yield stiffness of 10 kips/in ± 2 kips./in.
- Each bearing shall be centered on existing bearing stiffener.
- Each bearing shall be capable of sustaining a minimum of 3 inch lateral deformation between top and bottom plates.
- Contractor is responsible for designing, furnishing and installing bearings and all related connections, shims, pedestals and any other elements necessary to achieve performance specifications outlined above. All such elements shall be capable of sustaining the demands associated with specified bearing deformation.

BEARING REACTION TABLE - PIER A45

| Load* | Span A44 | | Span A45 | |
|--------------------|----------|-----|----------|-----|
| | A1 | A2 | A1 | A2 |
| R _⊥ (k) | 161 | 161 | 104 | 104 |
| R _∥ (k) | 72 | 72 | 43 | 43 |
| Impact (k) | 17 | 17 | 12 | 12 |
| Total (k) | 250 | 250 | 159 | 159 |

*Gravity service loads
Minimum Jack Size: 200 Tons

BILL OF MATERIAL - PIER A45

| SUBSTRUCTURE | | | | | |
|--|-----|------|--------|---------|----------|
| BAR | NO. | SIZE | LENGTH | SHAPE | |
| s ₁ (E) | 38 | #6 | 5'-2" | □ | |
| s ₂ (E) | 36 | #10 | 9'-5" | ⌢ | |
| ITEM | | | | UNIT | QUANTITY |
| Reinforcing bars, epoxy coated | | | | Pound | 1,760 |
| Concrete structures | | | | Cu. Yd. | 5 |
| Seismic isolation bearing assembly, Type A | | | | Ea. | 4 |
| Jack and remove existing bearings | | | | Ea. | 4 |
| Mechanical Splice | | | | Ea. | 36 |

PIER ELEVATIONS

| REVISIONS | |
|-----------|------|
| NAME | DATE |
| | |
| | |
| | |
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

STRUCTURE NO. 082-0141 (ROADWAY A)
SCALE: N.T.S.
DATE: 02/01/2007

DATE: 1/24/2007 FILENAME: P:\2001\1201-1300\20011210\Drafting\Roadway\Rehab\AT\RampA\ISOL\A_PB4445.dgn

| | |
|----------|---------|
| DESIGNED | VARIOUS |
| CHECKED | HH/JEL |
| DRAWN | CLK |
| CHECKED | JEL |