GENERAL NOTES:

This Standard is only applicable to the current FDOT inventory of temporary bridge components which are manufactured in accordance with Acrow Series 300, Double Wide design.

Work this Standard with Index Nos. 21610, 21620, 21630 and 21640.

STRUCTURAL STEEL:

Steel Plates and Rolled Sections shall be ASTM A709 Grade 36.
Pipe piles shall be ASTM A502 Grade 2, Fy = 35 ksi.

BOLTS, SCREWS AND THREADED BOLT STOCK:


TIMBER AND LAGGING:

Timber and Lagging shall be No. 1 Southern Yellow Pine.

BACKWALL BENT PILES:

Timber Piles:
10 Maximum Embedment into compacted backfill or into soil having a blow count greater than 6 (N>6).
Ultimate Capacity greater than 18 tons.
Splices are not allowed on any timber piles.

H-Piles:
12 Minimum Embedment into compacted backfill or into soil having a blow count greater than 6 (N>6).
Ultimate Capacity greater than 18 tons.
Shims admissible between backwall pile and cap.
Test piles are not required for backwall piles.

EXPANSION BEARINGS:

Inspect the PTFE (Teflon) layer and stainless steel plate prior to installation.
Do not use bearings that have a severely damaged or unbonded PTFE layer.
Clean PTFE of all grit and grime prior to installation.

DISTRIBUTING BEAMS:

Longitudinal stops restraining the distributing beams may be lengthened or shortened to center the distributing beam bearing on the cap beam.
The longitudinal stops are to be bear on the distributing beam end frame.

EXPANSION JOINT SETTINGS:

Install the expansion joint considering the total continuous bridge length, location of fixed bearings and ambient temperature at the time of installation, assume a 1°F expansion joint opening at 70 degrees F.

STORAGE FACILITY:

Contact:

TFDOT Statewide Aluminum Shop
2590 Camp Rd
Oviedo, FL
407-977-6520

For shipping weights and dimensions of Temporary Bridge elements.

SHIPPING WEIGHTS AND DIMENSIONS:

Decking Sizes:

<table>
<thead>
<tr>
<th>Type</th>
<th>Length</th>
<th>Width</th>
<th>Weight (lbs)</th>
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<tbody>
<tr>
<td>Curb</td>
<td>10'</td>
<td>6'-9&quot;</td>
<td>800</td>
</tr>
<tr>
<td>Curb</td>
<td>15'</td>
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<td>2800</td>
</tr>
<tr>
<td>NonCurb</td>
<td>5'</td>
<td>5'-3&quot;</td>
<td>650</td>
</tr>
<tr>
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<td>10'</td>
<td>5'-3&quot;</td>
<td>1000</td>
</tr>
<tr>
<td>NonCurb</td>
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<td>5'-3&quot;</td>
<td>1600</td>
</tr>
<tr>
<td>NonCurb</td>
<td>20'</td>
<td>5'-3&quot;</td>
<td>2100</td>
</tr>
</tbody>
</table>

Shipping weights and dimensions of other bridge components can be referenced in “Acrow Panel Bridging, Series 300, Technical Handbook”.

TRAFFIC RAILING NOTES:

See Index 400 for component details, geometric layouts and associated notes not fully detailed herein.

CONCRETE: Concrete for Transition Blocks shall be Class II (Bridge Deck).

THREE-BEAM PANEL: Steel Three-Beam Elements shall meet the requirements of AASHTO M180 Type II (Zinc coated).

BOLTS, NUTS AND WASHERS: Bolts, nuts and round washers shall be in accordance with AASHTO M180, Type II (Zinc coated).

PLATE WASHERS: Plate Washers shall be in accordance with ASTM A36 or ASTM A709 Grade 36.

EXPANSION BEARINGS:

Test piles are not required for backwall piles.

Pipe piles shall be ASTM A252 Grade 2, Fy = 35 ksi.

Steel Plates and Rolled Sections shall be ASTM A709 Grade 36.

STRUCTURAL STEEL:

Work this Standard with Index Nos. 21610, 21620, 21630 and 21640.

This Standard is only applicable to the current FDOT inventory of temporary bridge components which are manufactured in accordance with Acrow Series 300, Double Wide design.
The diagram illustrates the typical plan view of a detour bridge with the following details:

- **Grade Beam**
- **4" x 10" Timber Lagging with Filter Fabric**
- **AB306 Transom DW (Typ.)**
- **24'-0" Clear Roadway Width**
- **5'-0" Approach Span**
- **5'-0" Ramp Span**
- **AB13 Swaybrace Standard (Typ.)**
- **AB7 & AB8 Bearings (Expansion Bearing Shown Fixed Bearing Similar) (Typ.)**
- **AB1 Truss Panels (Typ.)**
- **AB3 Bracing Frame (Typ.)**
- **Shoulder Line (see Plans for width requirements, Typ.)**
- **Retainer Angles (Typ.)**
- **AB5 or AB6 End Post (Typ.)**
- **End Bent**
- **Backwall Bent**
- **Detour Bridge**

**Temporary Detour Bridge**

**General Notes and Details**

- Specific design standards and materials are noted for various components in the bridge design.

The diagram shows the typical plan view of the detour bridge with timber piles shown, steel H piles, and steel pipe piles similar.
Temporary Detour Bridge

Elevation View

(Timber Piles Shown, Steel H Piles and Steel Pipe Piles Similar)

(Thrie-Beam Panel not shown for clarity. See Index 21640)

Design Standards

Fiscal Year 2016-17

General Notes and Details

Index 21600

Sheet 3 of 7

07/01/15

Description:

Revision:

Last Revision:

Copyright FDOT

Elevations View

(Timber Piles Shown, Steel H Piles and Steel Pipe Piles Similar)
TEMPORARY DETOUR BRIDGE

GENERAL NOTES AND DETAILS

TIME: 07/01/15

3. Timber Bent shown for illustration purposes. See Plans for actual Bent Designs, including Pile sizes and spacing, bent cap and bracing requirements.

2. Steel Grid Deck & Curb

1. Trusses & Bearings

AB2 Raker Bar

AB1 Truss Panels (Typ.)

AB7 & AB8 Bearings (Expansion Bearing shown, Fixed Bearing similar) (Typ.)

AB3 Bracing Frame (Typ.)

AB13 Swaybrace Standard (Typ.)

AB505C Distributing Beam Stop (Typ.)

AB51 Panel Pins (Top & Bottom Typ.)

AB306 Transom DW (Typ.)

AB22 Distributing Beams with AB23 Distributing Beam End Frame (Typ.)

Thrie-Beam Panel

See Index 21640.

Contractor supplied foundation components, including Fixed & Expansion Bearings, Guardrail and associated components not included.

1. DOT supplied Temporary Bridge Components including Fixed & Expansion Bearings, Detour Bridge, Trusses & Bearings, Steel Grid Deck & Curb, Thrie-Beam Panel, Offset Block, Timber Bent, AB2 Raker Bar, AB1 Truss Panels (Typ.), AB7 & AB8 Bearings (Expansion Bearing shown, Fixed Bearing similar) (Typ.), AB3 Bracing Frame (Typ.), AB13 Swaybrace Standard (Typ.), AB505C Distributing Beam Stop (Typ.), AB51 Panel Pins (Top & Bottom Typ.), AB306 Transom DW (Typ.), AB22 Distributing Beams with AB23 Distributing Beam End Frame (Typ.), Thrie-Beam Panel, See Index 21640.

TYPICAL SECTION THRU DETOUR BRIDGE AT INTERIOR BENTS (TYPICAL SECTION AT END BENTS SIMILAR WITHOUT DISTRIBUTING BEAMS) (TIMBER PILES SHOWN, STEEL H PILES AND STEEL PIPE PILES SIMILAR)
Details for FDOT Supplied Expansion Bearings

- AB7 Bearing
- AB8 Bearing
- AB7 & AB8 Bearing

Details for FDOT Supplied Fixed Bearings

- 1/2" Bearing Plate
- Stainless Steel Plate
- Teflon (Bonded to A36)

Temporary Detour Bridge

General Notes and Details
**AB22 Distributing Beam & Bearing Block (Typ.)**

- 1'-0" AB22 Distributing Beam shown dashed

**AB23 Distributing Beam End Frame (Typ. both ends)**

- 2'-0" AB23 Distributing Beam End Frame (Typ. both ends)

**AB505C Distributing Beam Stop (Typ. both ends)**

- 1'-0" AB505C Distributing Beam Stop (Typ. both ends)

**Lateral Alignment Dowels (Typ.)**

- 1'-0" ± Distribution Beam End Frame

**Note:**

- Bearing may be shifted from Bearing Pins from Intermediate Bent may be shifted from Bearing an additional 3" to allow for pile placement tolerances.

**End View A-A**

**Elevation View of Distributing Beam**

(Fixed Bearing shown, Expansion Bearing similar)

(Timber Intermediate Bent shown, Steel Intermediate Bents similar)

**Temporary Detour Bridge**

**General Notes and Details**
Temporarily Detour Bridge Details

Fixed Bearing Details

Expansion Bearing Details

Timber Pile Foundations

Design Standards FY 2016-17

Temporary Detour Bridge Details

Index No. 21610

Sheet No. 1 of 3
Steel Grid Deck Unit (shown dashed)

Deck Hold Down Strap Assembly

12" x 12" Timber Cap
12" Ø Timber Pile

1/2" Strap (Typ.)
1/2" Ø x 6" Lag Screw (Typ.)

1/2" x 1'-2" x 12'-9" Top Cap

3/4" Ø x 2'-0" Dome Head Spike
(Drive Spike flush with top of cap)

1/2" Cap Butt Splice (Typ.)

Allow 1/2" gap for Cap Butt Splice

1/2" Ø x 6" Lag Screw (Typ.)

1/2" x 1'-2" x 14'-0" Bottom Cap

3/4" Ø x 2'-0" Dome Head Spike

 vừa butt splice plate detail
**EXPANSION BEARING DETAILS**

Panel AB7 & AB8 Bearings shown dashed

$\frac{3}{8}'' x \frac{1}{2}''$ Fixed Bearing Keeper Bar (Typ.)
(to bear on face of Bearing Plates)

$\frac{3}{8}'' x \frac{1}{2}''$ Expansion Bearing Keeper Bar (Typ.)
(to bear on face of Bearing Plates)

**TEMPORARY DETOUR BRIDGE DETAILS**

Steel H Pile Foundations

**FIXED BEARING DETAILS**

Steel Bent Cap

$\frac{3}{8}'' x \frac{1}{2}''$ Fixed Bearing Keeper Bar (Typ.)

$\frac{3}{8}'' x \frac{1}{2}''$ Expansion Bearing Keeper Bar (Typ.)
(to bear on face of Bearing Plates)

**FIXED BEARING KEEPER BAR DETAIL**

**EXPANSION BEARING KEEPER BAR DETAIL**

Steel Bent Cap

$\frac{3}{8}'' x \frac{1}{2}''$ Fixed Bearing Keeper Bar (Typ.)

$\frac{3}{8}'' x \frac{1}{2}''$ Expansion Bearing Keeper Bar (Typ.)
(to bear on face of Bearing Plates)
PLAN VIEW

SECTION A-A

(LAGGING NOT SHOWN FOR CLARITY)

END VIEW

ELEVATION VIEW

VIEW B-B

TEMPORARY DETOUR BRIDGE DETAILS

STEEL H PILE FOUNDATIONS

FY 2016-17

DESIGN STANDARDS
**FIXED BEARING DETAILS**

**PARTIAL PLAN VIEW**

- 3'-6" x 3'-6" Fixed Bearing Keeper Bar (Typ.)
- 3'-6" x 3'-6" Fixed Bearing Keeper Bar (Typ.)
- & Pipe Pile Cap Plate
- Steel Pipe Pile Cap Plate
- 2'-2" Ø x 1'-6" x 5'-0" Steel Pile Cap
- 24" Ø Steel Pipe Pile
- Stiffener Plates

**PARTIAL ELEVATION VIEW**

- 3'-6" x 3'-6" Fixed Bearing Keeper Bar (Typ.)
- 3'-6" x 3'-6" Fixed Bearing Keeper Bar (Typ.)
- & Pipe Pile Cap Plate
- Steel Pipe Pile Cap Plate
- 2'-2" Ø x 1'-6" x 5'-0" Steel Pile Cap
- 24" Ø Steel Pipe Pile
- Stiffener Plates

Note: Use Shim Plates as required to provide equal bearing seat elevations across the bent. Vary thickness of Shim Plate across the pile cap plate to provide a level bearing area in the transverse direction.
ABUTMENT AND INTERMEDIATE EXPANSION BEARING DETAILS

Note: Use Shim Plates as required to provide equal bearing seat elevations across the bent. Vary thickness of Shim Plate across the pile cap plate to provide a level bearing area in the transverse direction.
TEMPORARY DETOUR BRIDGE
THREE-BEAM GUARDRAIL

PARTIAL PLAN - TRAILING END

Limit of Payment for Temporary Guardrail
Approach Span
2'-0"
3'-0"

Limit of Payment for Thrie-Beam Panels on Bridge
Approach Span
2'-6"
3'-6"

W-Beam Guardrail See Index 400
6-3' Class A
Traffic Railing - Class B (10 Gauge)

PARTIAL ELEVATION - TRAILING END

THREE-BEAM GUARDRAIL TRAILING END TRANSITION

TWO-WAY TRAFFIC

ONE-WAY TRAFFIC

END TRANSITION APPLICATION DETAILS
REVISION
SHEET INDEX
DESCRIPTION:

Grade Beam
Roadway Approach
15° Max.

2'-6"
Approach Span
5'-0"
End Span

Approach Transition using Staked Type K Barrier Units

End Bent
Backwall Bent

Bent
End
Backwall

Bearing

Limits of Payment for Temporary Barrier Wall
Three-Beam Panels on Bridge
End Span
2'-6"

Traffic Railing - Class B
Two 12'-6" - Class A (12 Gauge)

(10 Gauge) Three-Beam Guardrail Panels (Nested)

2'-6"± 71/2'
2 Sp.

(See Index 414 for details)

KEY:
Staked
Not Staked

PARTIAL PLAN - APPROACH TRANSITION SHOWN (TRAILING END SIMILAR)

PARTIAL ELEVATION - APPROACH TRANSITION SHOWN (TRAILING END SIMILAR)

TEMPORARY DETOUR BRIDGE
THRIE-BEAM GUARDRAIL

FY 2016-17
DESIGN STANDARDS

INDEX NO. 21640
SHEET NO. 3 of 6
PLAN VIEW OF TRANSITION BLOCK
(GUARDRAIL NOT SHOWN FOR CLARITY)

ELEVATION OF TRANSITION BLOCK
(GUARDRAIL AND POSTS NOT SHOWN FOR CLARITY)

ESTIMATED QUANTITIES

<table>
<thead>
<tr>
<th>ITEM</th>
<th>UNIT</th>
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<tbody>
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<td>34</td>
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<tr>
<td>Reinforcing Steel</td>
<td>LB</td>
<td>61</td>
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<tr>
<td>Guardrail (Reset)</td>
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NOTES:

REINFORCING STEEL: Reinforcing steel shall be ASTM A615, Grade 60.

ANCHOR RODS: Steel Anchor Rods shall be ASTM A36, ASTM A709 Grade 36 or ASTM A615
Grade 60 hot-dip galvanized in accordance with Specification Section 962.