GENERAL NOTES:

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

STRUCTURAL STEEL:
Steel Plates and Rolled Sections shall be ASTM A 709 Grade 36.
Pipe piles shall be ASTM A 252 Grade 2, Fy = 35 ksi.

BOLTS, LAG SCREWS AND THREADED BOLT STOCK:
Furnish high strength bolts in accordance with ASTM A325. Furnish Threaded Stock in accordance with ASTM A36. Furnish Lag Screws in accordance with ASTM A307. Furnish steel washers and nuts compatible with Bolts, Threaded Stock and Lag Screws.

TIMBER AND LAGGING:
Timber and Lagging shall be No. 1 Southern Yellow Pine.

BACKWALL BENT PILES:
Timber Piles:
10' Minimum 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.
Clean Stainless steel plate of all grit and grime prior to installation and finish to a smooth buffed surface.

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 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" expansion joint opening at 70 degrees F.

STORAGE FACILITY:
Contact
FDOT 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:

Type	Length	Width	Weight (lbs.)
Curb	5'	6'-9"	800
Curb	10'	6'-9"	1420
Curb	15'	6'-9"	2200
Curb	20'	6'-9"	2800
NonCurb	5'	5'-3"	650
NonCurb	10'	5'-3"	1000
NonCurb	15'	5'-3"	1600
NonCurb	20'	5'-3"	2100

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

INSTRUCTIONS TO DESIGNER:

Establish temporary bridge length to accommodate project geometric needs, environmental permits, drainage requirements, etc., using the following span length and arrangement criteria. Details presented in this Standard are for a Double Single configuration and incorporating the Double Wide Light Transom as shown in the "Acrow Panel Bridging Technical Handbook"

Variation in span lengths in increments of 10'
30' minimum span length
60' maximum span length
For continuous spans the ratio of adjacent span lengths shall not exceed 6:10 to prevent the shorter span from lifting off its bearings under live load
Limit continuous length of bridge to 360'

Specify Distributing beams for all span lengths. Details presented assume use of continuous spans.

Design the pile cap connection to pile assuming the truss reaction with a minimum of 3" eccentricity. Design of this connection detail is the responsibility of the Engineer of Record.

Select the pile type considering the driving capacity requirements of the production piles on the permanent bridge, free standing height, water levels if present and soil conditions.

Refer to "Acrow Panel Bridging Series 300 Technical Handbook" for temporary bridge dimensions and capacities.

These Standards are based on the FDOT current inventory of temporary bridge elements which are manufactured in accordance with Acrow Series 300 Double Wide design.

The Approach span and Ramp span are to be simple spans, each 5'-0" in length, to eliminate Live Load uplift at backwall bent and grade beam support.

Do not place the temporary bridge on a vertical curve. A constant grade is acceptable. Refer to "Acrow Panel Bridging Technical Handbook" for maximum grade and elevation tolerance from constant grade (Bent to Bent and Cross-Slope) for final cap elevations.

The temporary bridge is to have a zero cross-slope. Provide asphalt buildup transitions to a zero cross slope outside the limits of the temporary bridge.

Design the foundations according to current AASHTO LRFD Bridge Design Specifications.

For Substructure Design use the following:
Dead Load Factor = 1.25
Live Load Factor = 1.35

SERVICE LEVEL LOADS:
Calculate reactions using superstructure dead load unit weight = 1.26 Kip/Ft.
Include a concentrated dead load = 250 Lbs. per truss plane at abutments. This load accounts for 1 end post and 1 bearing per truss plane.

Calculate wind force on superstructure using basic wind force of 0.45 Kip/Ft. Ratio the above loading using wind pressures in Table 3.8.1.2.2-1 of AASHTO LRFD Bridge Design Specifications.

Example-
For wind skew of 30°
W Lateral = 0.45 (0.065/0.075) = 0.39 Kip/Ft.
W Longitudinal = 0.45 (0.028/0.075) = 0.17 Kip/Ft.

Plans for temporary bridge shall, as a minimum, cover the following:

1. General Note Sheet.
2. Simple span bearing details if noncontinuous spans are selected.
3. Grade change details at the extremities of the bridge.
4. Plan and elevation sheets with span lengths, stationing, alignment, grade and boring locations.
5. Foundation layout sheet including pile spacing & bent stationing.
6. Pile data table showing pile type, size, cut off elevations, capacity & estimated lengths.
7. Bent detail sheet.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
07/01/06	SDO	New Design Standard Issued			
01/01/07	SDO	Added "Storage Facility" and "Shipping Weights and Dimensions" notes to General Notes and clarified Instructions to Designer.			

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

2006 Interim Design Standard

TEMPORARY DETOUR BRIDGE GENERAL NOTES AND DETAILS

Interim Date 01/01/07

Sheet No. 1 of 7

Index No. 21600