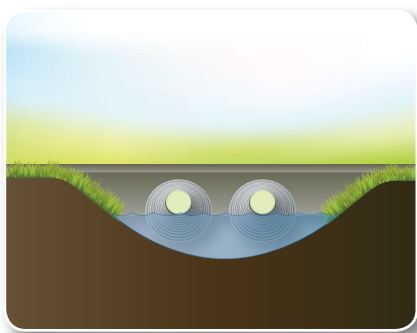
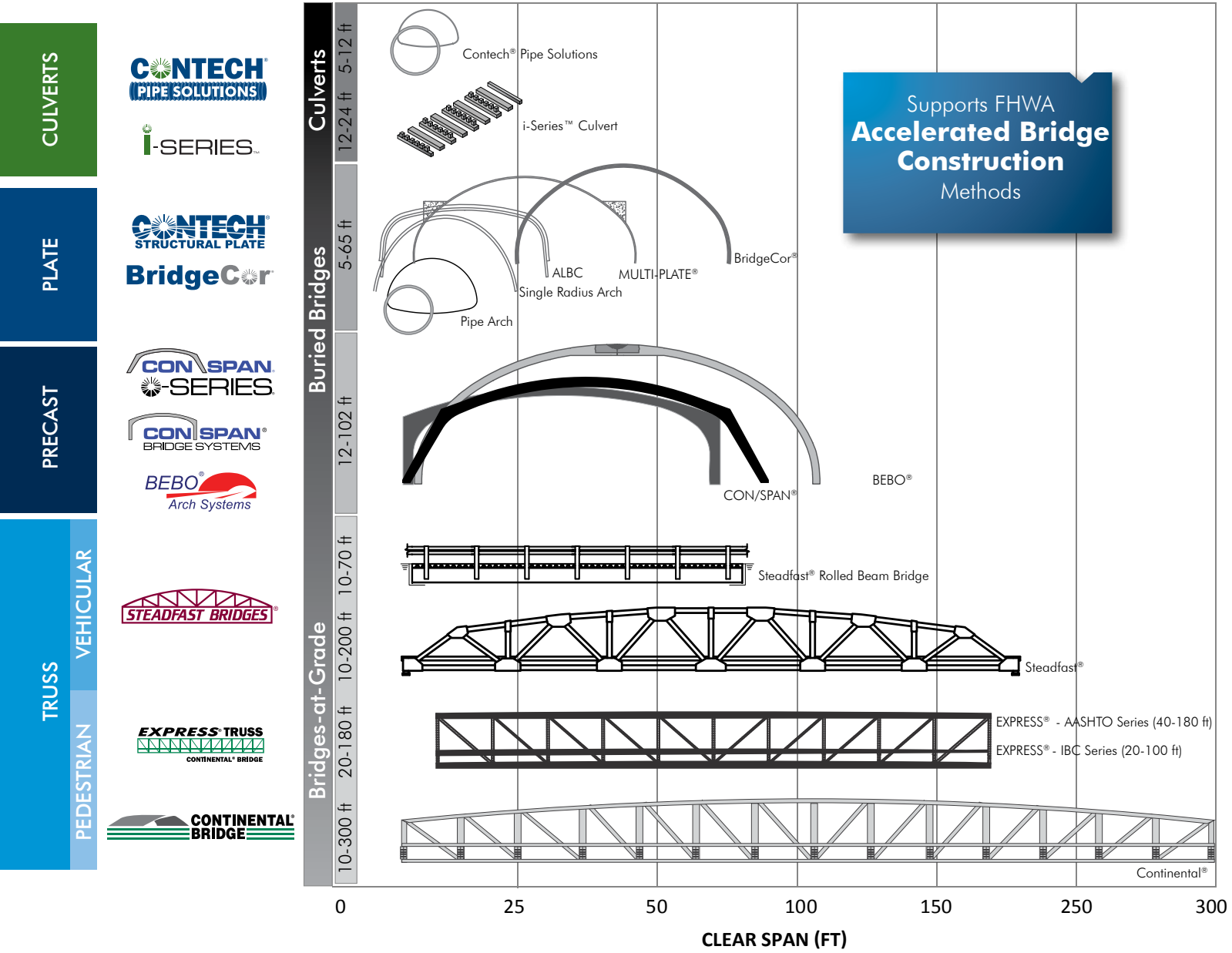


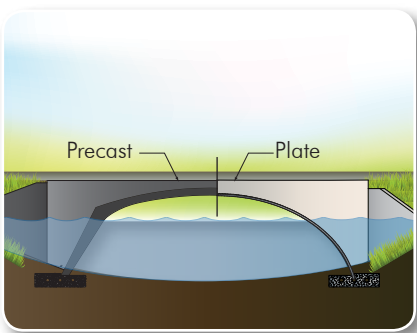
CROSSINGS. CULVERTS. BRIDGES. CONTECH.



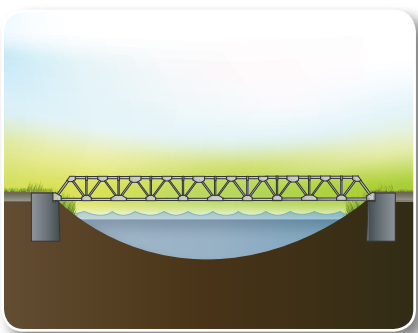
CLEAR SPAN BRIDGES



CULVERT

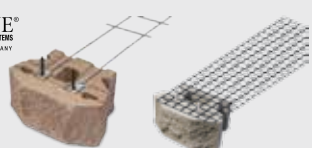
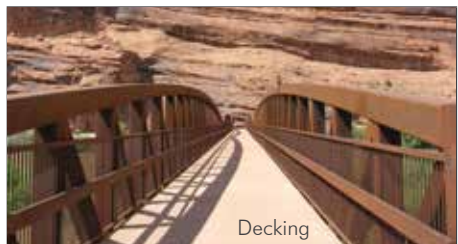


BURIED BRIDGE



BRIDGE AT-GRADE

PROCESS – DESIGN SUPPORT. PREFABRICATION. INSTALL.

FABRICATION	PLATE 	PRECAST 	TRUSS 
			• Strip footings • Pedestal walls • Deep foundations • Base slab EXPRESS Foundations
			
ERECTION/ ASSEMBLY			
	 Scour Protection	 End Treatments	• CON/SPAN® Anchorwall • Aluminum Headwall • Welded Wire Wall
BACKFILLING			 Decking
			
COMPLETION			

STRENGTH. VERSATILITY. ECONOMY. PLATE.

MULTI-PLATE®, SUPER-SPAN™ & BRIDGECOR®

STEEL

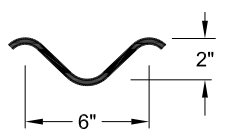
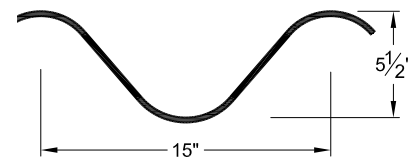
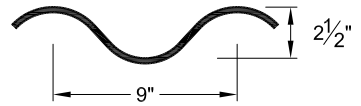


ALUMINUM STRUCTURAL PLATE & BOX CULVERT

ALUMINUM



STRENGTH

STEEL	6" X 2" CORRUGATION									
										
	Gage	12	10	8	7	5	3	1	5/16	3/8
ALUMINUM	15" X 5 1/2" CORRUGATION									
										
	Thickness	.111	.140	.170	.188	.218	.249	.280	.318	.380
ALUMINUM	9" X 2 1/2" CORRUGATION									
										
	Thickness	.125	.150	.175	.200	.225	.250			

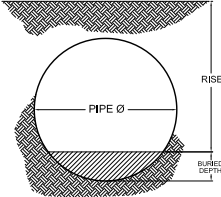
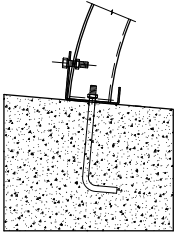
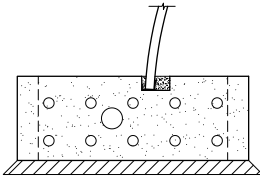
FREIGHT ECONOMY



LIGHTWEIGHT. BOLTED PLATE CONSTRUCTION PROCESS.



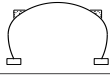
FOUNDATIONS

FOUNDATION OPTIONS			
Full Invert	Buried Invert	Strip Footing with Channel	EXPRESS® Foundations
			

END TREATMENTS



SHAPE VERSATILITY

SHAPES			STRUCTURE SIZE RANGES - INSIDE SPAN X RISE		
			MULTI-PLATE® 6" x 2" Steel	BridgeCor® 15" x 5.5" Steel	ALSP 9" x 2.5" Aluminum
Round		min.	5'-0"	19'-11"	6'-0"
		max.	26'-0"	50'-6"	21'-0"
Vertical Ellipse		min.	4'-8" x 5'-2"		4'-8" x 5'-2"
		max.	25'-0" x 27'-8"		20'-1" x 22'-3"
Underpass		min.	12'-2" x 11'-0"		12'-1" x 11'-0"
		max.	20'-4" x 17'-9"		20'-5" x 17'-9"
Single Radius Arch		min.	6'-0" x 1'-10"	19'-7" x 9'-9"	5'-0" x 1'-9"
		max.	26'-0" x 13'-1"	54'-4" x 27'-2"	23'-0" x 11'-11"
Two Radius Arch		min.		18'-5" x 8'-4"	
		max.		50'-7" x 19'-11"	
Horizontal Ellipse		min.	7'-4" x 5'-6"		9'-2" x 6'-8"
		max.	14'-11" x 11'-2"		14'-11" x 11'-2"
Pipe Arch		min.	6'-1" x 4'-7"		6'-7" x 5'-8"
		max.	20'-7" x 13'-2"		21'-11" x 14'-11"
Low-Profile Arch SUPER-SPAN™ / SUPER-PLATE®		min.	19'-5" x 6'-9"		19'-5" x 6'-9"
		max.	45'-0" x 18'-8"		38'-8" x 15'-9"
High Profile Arch SUPER-SPAN™ / SUPER-PLATE®		min.	20'-1" x 9'-1"		20'-1" x 9'-1"
		max.	35'-4" x 20'-0"		35'-5" x 20'-0"
Horizontal Ellipse SUPER-SPAN™ / SUPER-PLATE®		min.	19'-4" x 12'-9"		19'-4" x 12'-9"
		max.	37'-2" x 22'-2"		37'-3" x 22'-2"
Pear-Arch SUPER-SPAN™		min.	23'-11" x 23'-4"		
		max.	30'-4" x 25'-10"		
Pear SUPER-SPAN™		min.	23'-8" x 25'-5"		
		max.	29'-11" x 31'-3"		
Box Culvert		min.		17'-6" x 6'-10"	8'-9" x 2'-6"
		max.		35'-4" x 13'-11"	35'-3" x 13'-7"

Custom sizes and shapes are available.

Not available.

* For more details on Contech's complete structural plate offering, please consult the current edition of the Structural Plate Design Guide.

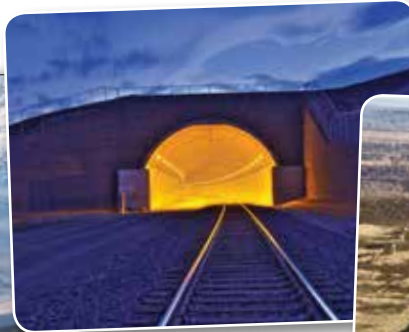


MODULAR. EFFICIENT. COMPLETE. PRECAST ARCH.

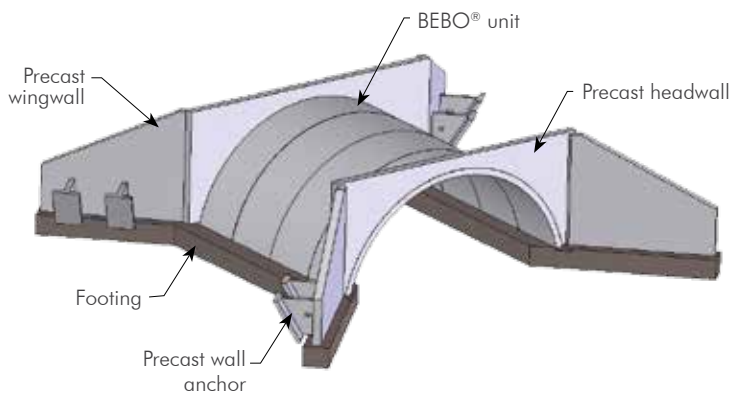
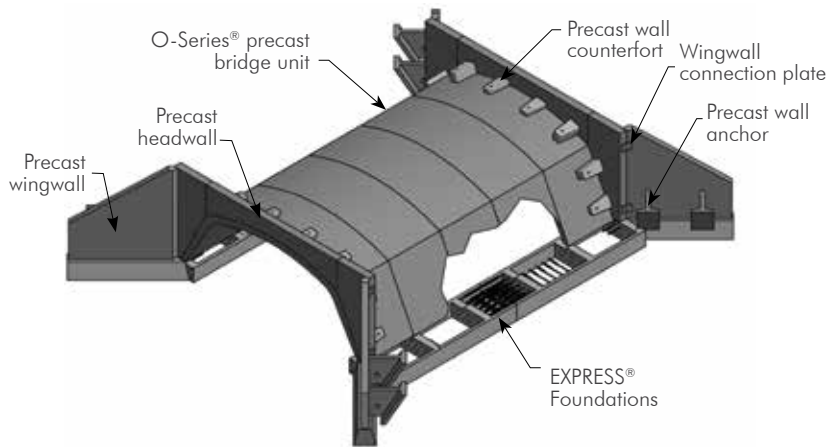
CON/SPAN® O-SERIES®



BEBO® ARCH SYSTEMS



MODULAR COMPONENTS



INSTALLATION

PRECAST FOUNDATIONS



PRECAST ARCH UNITS



PRECAST HEADWALLS



PRECAST WINGWALLS



CURVED ALIGNMENT

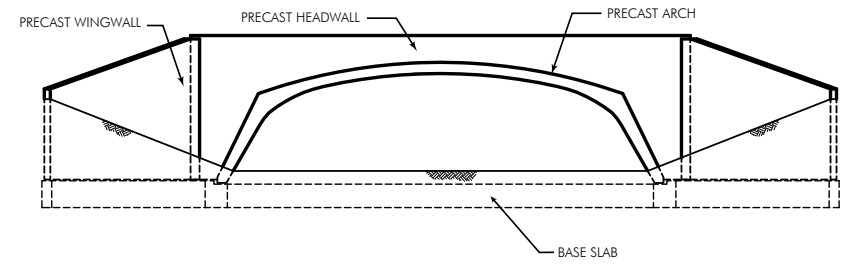
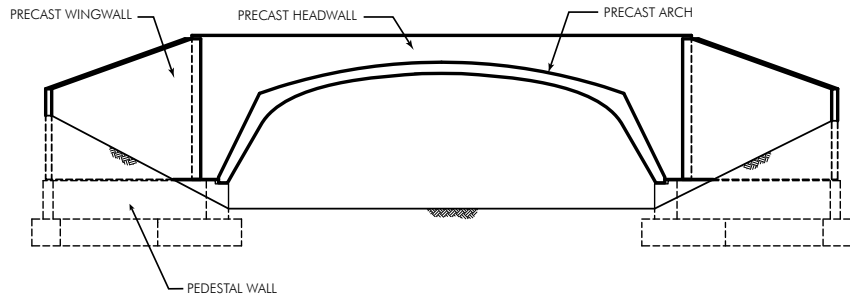
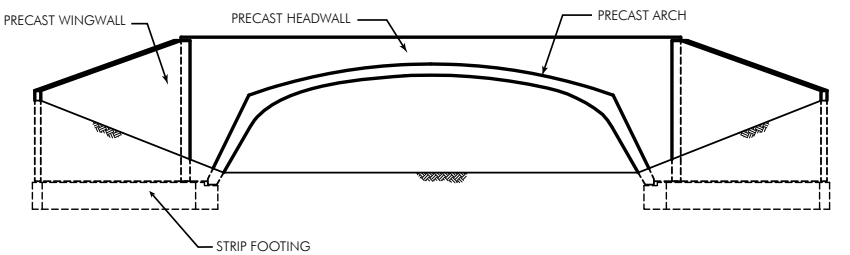


TWIN LEAF CONSTRUCTION

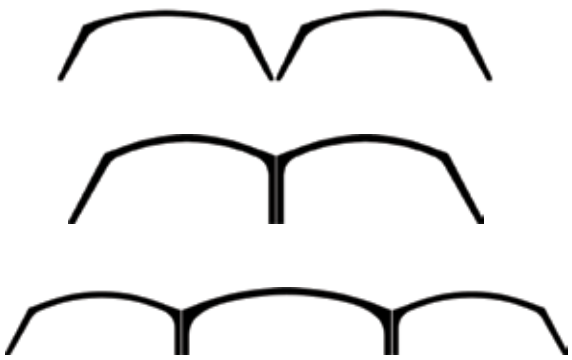


MODULAR. EFFICIENT. COMPLETE. PRECAST ARCH.

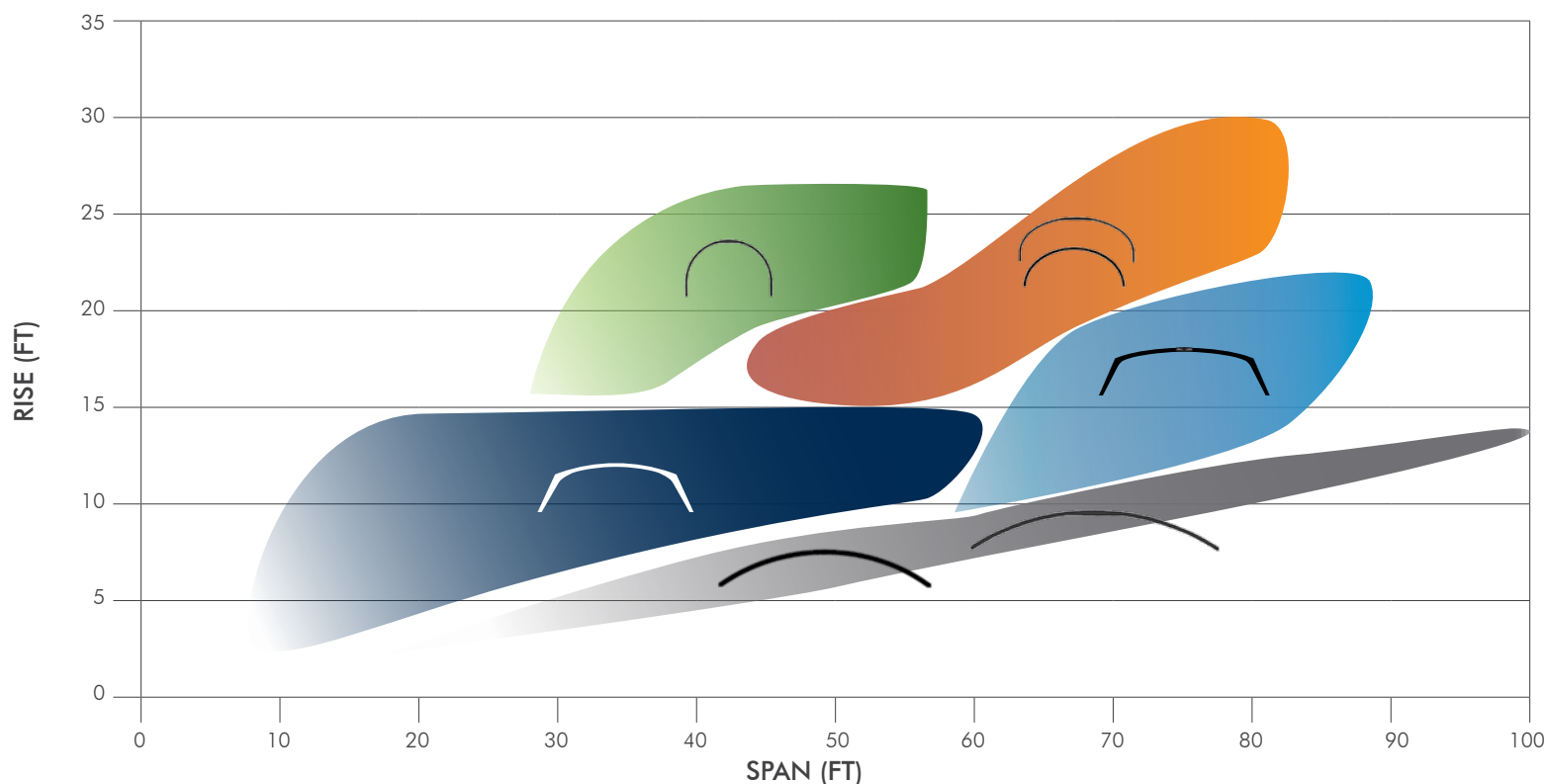
FOUNDATIONS



MULTIPLE CELL CONFIGURATIONS



SHAPE VERSATILITY



STRUCTURE				APPLICATIONS	SPAN RANGE (FT)	RISE RANGE (FT)	WATERWAY RANGE (SF)
CON/SPAN®		O-Series®		Hydraulics, clear spans, grade separations	13 - 65	3.23 - 13.77	33 - 685
		O-Series® Twin Leaf		Longer span hydraulics, clear spans, grade separations	66 - 87	10.50 - 20.95	550 - 1442
BEBO®		C-Series Twin Leaf		Grade separation, high rise, high covers	29.33 - 54	11.33 - 26.33	260 - 1140
		E-Series		Arch shape, clearance box, aesthetics	11.17 - 47.75	3.5 - 13.5	28 - 479
		E-Series Twin Leaf		High rise, large span, grade separation	53.58 - 84	14 - 29.83	588 - 2076
		T-Series		Low clearance crossings	22 - 62	2.60 - 9	39 - 377
		T-Series Twin Leaf		Large spans with good soil conditions	64 - 102	7.42 - 13.67	340 - 982
				Available for limited applications.			

* For additional shape information, please consult the Precast Waterway Charts Overview.

PEDESTRIAN. VEHICULAR. CUSTOM. EXPEDITED.



CUSTOM. AESTHETIC. PEDESTRIAN.



EXPRESS® TRUSS



CONTINENTAL® BRIDGE

EXPEDITED. STANDARD. PEDESTRIAN.



TIMELESS DESIGN. DEPENDABLE. VEHICULAR.



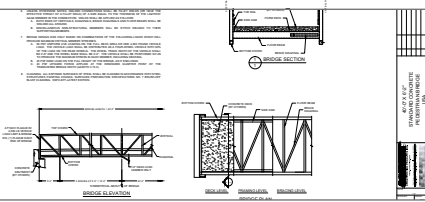
SIMPLE SPAN. ROLLED BEAM BRIDGE. VEHICULAR.



CONTINENTAL® » CUSTOM.



EXPRESS® » EXPEDITED. STANDARDIZED. PRE-ENGINEERED.

1. SELECT	- Connector® Style Pedestrian Truss - Weathering Steel Finish - Horizontal Safety Rail System
	DESIGNED IN ACCORDANCE WITH AASHTO LRFD* Clear Width: ☐ 6' ☐ 8' ☐ 10' ☐ 12' Length: ☐ 40' ☐ 50' ☐ 60' ☐ 70' ☐ 80' ☐ 90' ☐ 100' ☐ 110' ☐ 120' ☐ 130' ☐ 140' ☐ 150' ☐ 160' ☐ 170' ☐ 180' ** 6' width only available with 40' – 80' lengths Deck: ☐ Pressure Treated Wood  ☐ Cast-in-Place Concrete (by Others) 
2. SPECIFY	- Bid Drawings - Specification 10-Year Limited Warranty - Estimate  SPECIAL SPECIFICATIONS FOR PREFABRICATED BRIDGE CONTECH ENGINEERED SOLUTIONS Steadfast Express Pedestrian Bridges This Specification is to be used as a guide in developing appropriate final specifications suited to the purchaser's particular needs. The two primary objectives of these Special Specifications are: To provide assurance that the submitted and structures provided in response to the Request for Performance Specification, prefabricated, steel bridges will completely conform to the design and inspection of the Steadfast Express Pedestrian Bridges. To limit the liability of Specifiers and Owners through following a comprehensive specification process utilizing well-documented national standards based on well-established, historical, specification-complementary documentation in full design examples. Public safety is hereby assured. The most critical guarantee for both objectives above are the comprehensive, non-proprietary format of the specification and the specification structure. When the entire specification is published, progress reviewed and comprehensive entered at the time of award and complete approval. Specifiers and Owners will get what they expect and reduce their liability for the bridge and other structures. 
3. SATISFY	- Stamped Drawings in One Week - Bridge Delivery in 6-8 Weeks of Approved Drawings - Bridge Installation Support - Cost-Effective Solution 

*IBC & AISC designed EXPRESS Structures also available in 20' - 100' lengths.

PEDESTRIAN. VEHICULAR. CUSTOM. EXPEDITED.

FREIGHT ECONOMY



SIMPLE INSTALLATION



OPTIONS

DECK



Wood



Steel Grate



Concrete



Asphalt

FINISH



Weathering Steel



Painted Steel



Galvanized Steel*



RAIL



Cable



Mesh Panels



Safety Rail/Wood Rub Rail

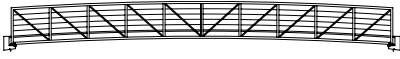


Vertical Picket/Pipe Handrail

*Exclusive 35-year galvanized rust free warranty for vehicular truss.

CONTINENTAL® PEDESTRIAN TRUSS STYLES

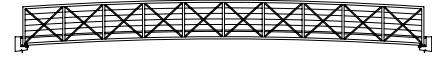
Connector®



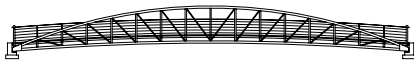
Capstone®



Link®



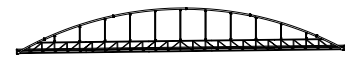
Keystone®



Gateway®

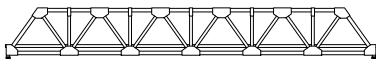


Tied Arch®

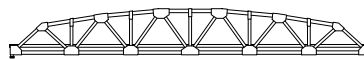


STEADFAST BRIDGES® VEHICULAR TRUSS STYLES

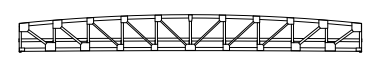
Colonial Flat



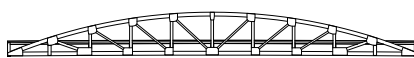
Colonial



Capstone®



Keystone®



Horizon



Archway®



SPEED OF PRECAST. ECONOMY OF CAST-IN-PLACE.

EXPRESS®
Foundations



STRIP FOOTING



PLATE



PEDESTAL WALL



PRECAST



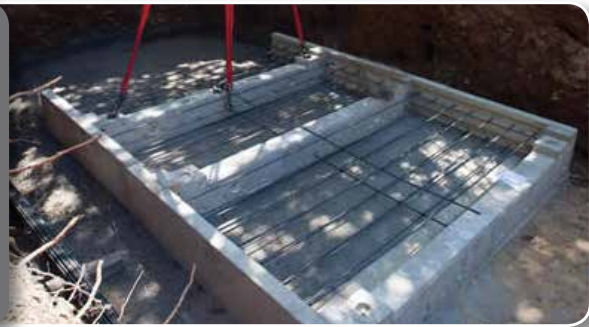
PILE CAP



TRUSS

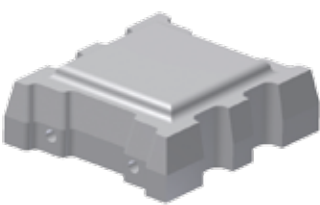


BASE SLAB



ARMORFLEX®

ARTICULATING CONCRETE BLOCKS



Closed-Cell Block



Open-Cell Block

A-JACKS®

CONCRETE ARMOR UNITS



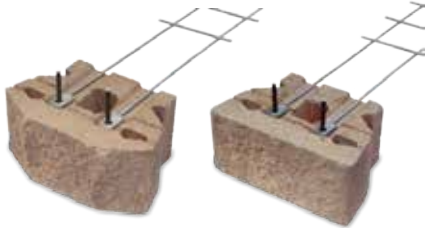
A-Jacks Unit

REVEGETATION



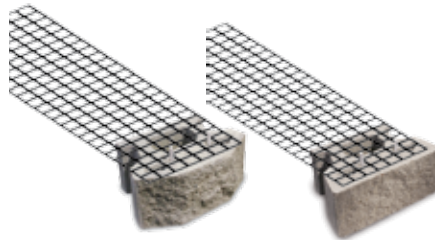
KEYSTEEL®

WITH WELDED WIRE REINFORCEMENT.
INEXTENSIBLE.



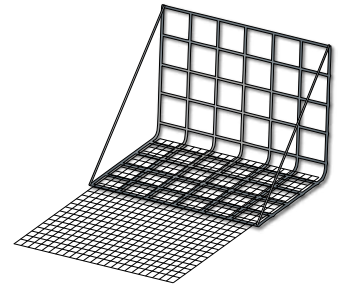
KEYSTONE®

WITH GEOGRID REINFORCEMENT.
EXTENSIBLE.



WELDED WIRE WALL

WITH GEOGRID REINFORCEMENT.
EXTENSIBLE.



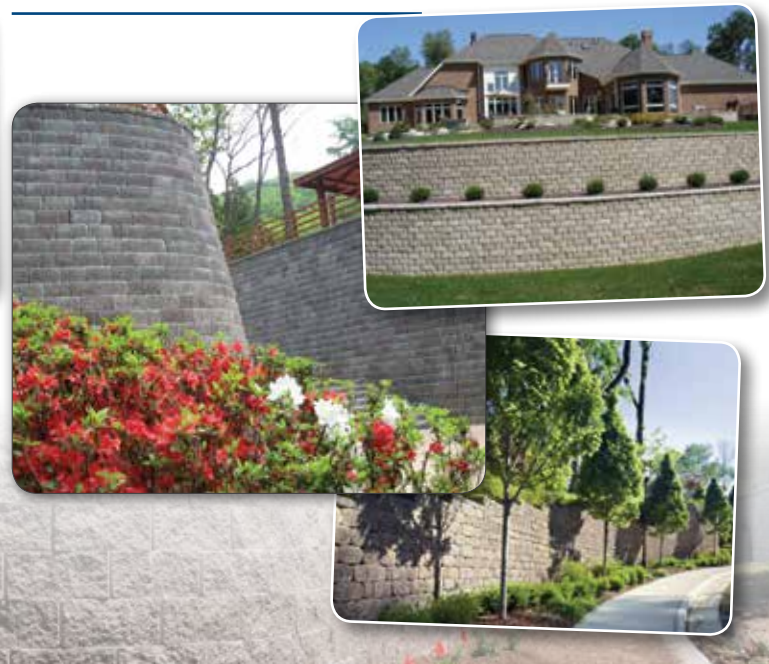
END TREATMENTS



ABUTMENTS



RETAINING WALLS



RELINING.

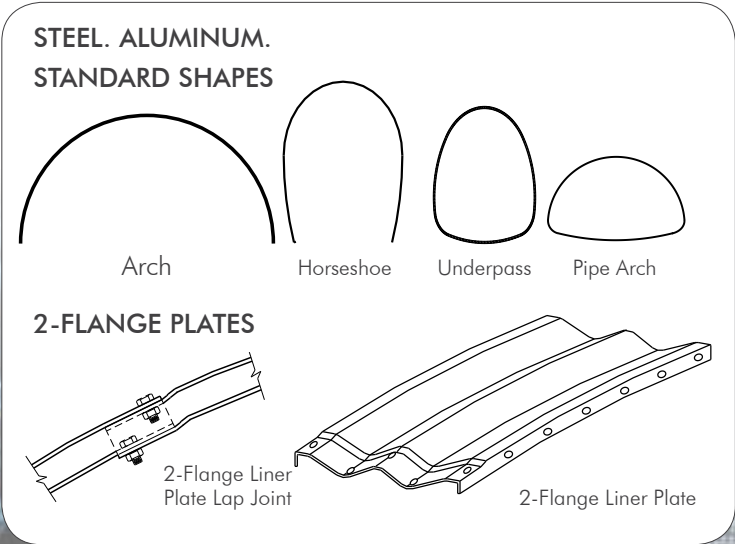
RELINE WITH PLATE



RELINE WITH PRECAST



CONTECH TUNNEL LINER PLATE



DESIGN CONSIDERATIONS.

AESTHETICS

COST

CLEAR SPAN

DEBRIS BLOCKAGE

DISTURBANCE

FREEBOARD

HYDRAULICS

LIFE CYCLE

MAINTENANCE

ORDINARY HIGH WATER

PERMITTING

SCOUR

SOIL CONDITIONS

TEMPORARY IMPACT

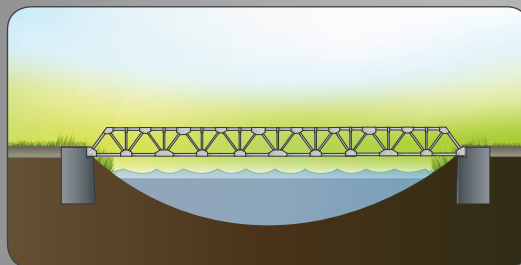
WETLANDS

FISH PASSAGE (AOP)

STREAM BIOLOGY

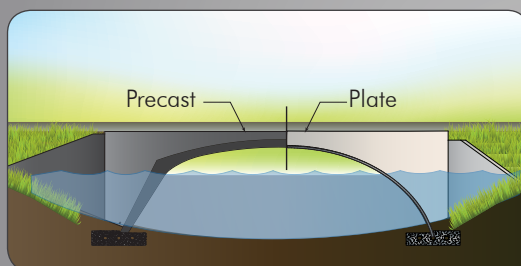
STREAM ECOLOGY

BRIDGE AT-GRADE



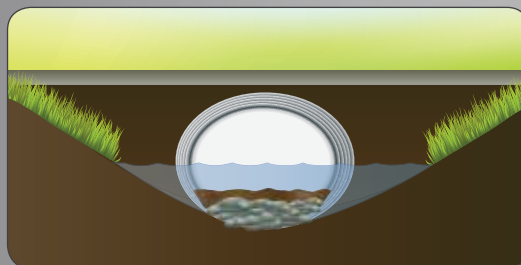
- Long clear span required
- No stream impact allowed
- High span to rise ratio required
- Minimal freeboard clearance available
- Desire to reduce permitting requirements

BURIED BRIDGE



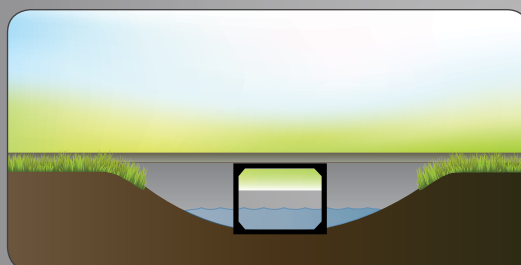
- Clear span required
- Minimal or no stream impact allowed
- Desire to reduce permitting requirements
- Life cycle/maintenance costs a primary concern
- Design considerations balanced between stream impact, cost and permitting

CULVERT w/Engineered Natural Invert



- Hydraulics are primary design consideration
- Temporary stream disturbance allowed
- Minimal debris or maintenance concerns
- Stream ecology/fish passage are key design consideration

CULVERT

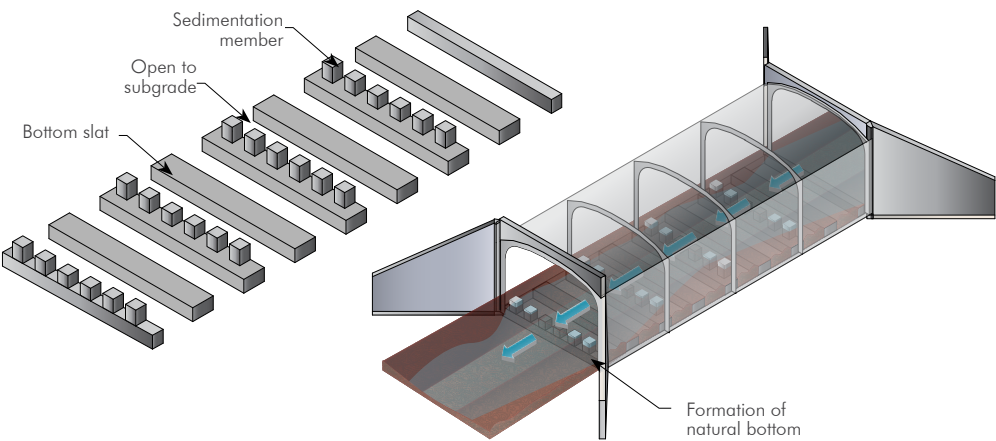


- Hydraulic design considerations only
- Clear span not required
- Stream disturbance allowed
- Minimal debris or maintenance concerns
- Cost more critical than stream considerations

Traditional culverts are typically designed to pass flood discharge without consideration for stream ecology impacts.

i-SERIES™
INVERT TECHNOLOGY

Integration of i-Series™ invert technology promotes sedimentation of natural streambed material. This creates a natural bottom – open to hyporheic zone below. The engineered bottom enhances the stream biology and ecology as well as provides areas of low velocity to allow for fish passage through the culvert.

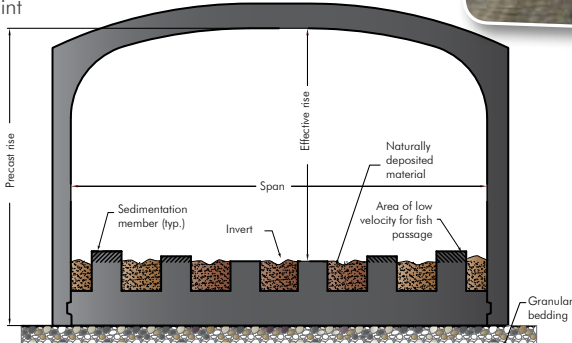
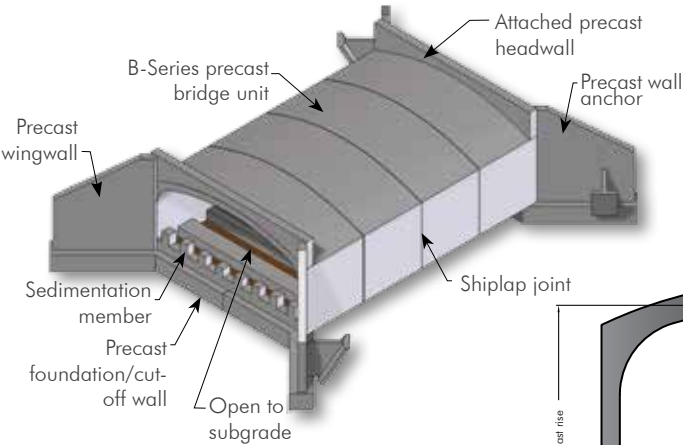


Successful Culvert Design Outcomes*	FLOOD CONVEYANCE	FISH PASSAGE	PROFILE CONTINUITY	HYDRAULIC DIVERSITY	SEDIMENT TRANSPORT CONTINUITY	LOW FLOW CONTINUITY	MARGIN HABITAT	BED GRADATION CONTINUITY	DEBRIS TRANSPORT	CONNECTIVITY TO SUBGRADE (hyporheic zone)
i-Series™ Culvert	●	●	●	●	●	●	●	●	●	●
Traditional Culvert w/ Invert (may include buried invert)	●								●	

* Per the Washington Department of Fish & Wildlife

- This performance summary is based on extensive testing from Colorado State University.
- Comprehensive testing report available upon request.
- Bed gradation continuity can be achieved by manual filling of the culvert with natural bed sediments during installation.

i-SERIES™
CON/SPAN® CULVERT



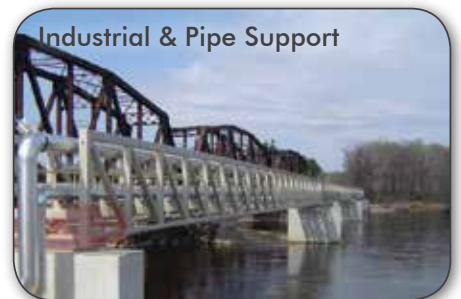
SPANNING AMERICA SINCE 1931

OVER 80,000 INSTALLATIONS WORLDWIDE!

Contech Engineered Solutions provides a comprehensive array of plate, precast, and truss structures, with the best-known brands available worldwide. Contech bridges - vehicular and pedestrian - fit a wide variety of applications, spanning distances from five to 300 feet and more. These bridge brands include Contech Structural Plate, CON/SPAN®, BEBO®, Continental®, Steadfast® and EXPRESS® Bridges.

Experience, innovative thinking and exceptional service have put more than 80,000 Contech bridge installations on the map worldwide.

MARKETS



PROJECT PARTNER. CONTECH.

OPTIONS & SUPPORT SPECIFIC TO YOUR PROJECT NEEDS

CONSIDERATIONS FOR ENGINEER OF RECORD

Site Design

Soil Borings

Soil Bearing
Recommendations

Hydraulic Analysis

Scour Analysis

Scour
Countermeasures

Permitting

Inspections



Contech Support
Available



Engineer of Record
May Provide

SOLUTION DEVELOPMENT & DESIGN SUPPORT

Structure Selection  

Structure Siting and
Layout  

Engineer's Estimate 

Photo Simulation  

DYOB Concept  

Proposal Drawings  

Contract Drawings  

Specifications  

Foundation
Reactions 

Foundation Design  

Hydraulic
Coordinates 

Scour References  

Approval Assistance  

Fabrication
Drawings 

INSTALLATION SUPPORT

Preconstruction Meeting 

Logistics Coordination 

Structure Onsite
Installation Assistance 



PHOTO SIMULATION



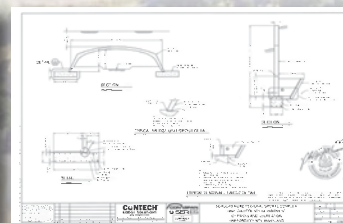
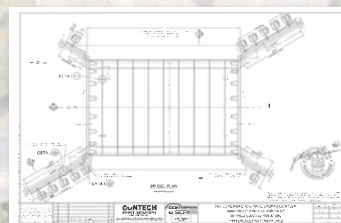
DYOB® Design Your Own Bridge

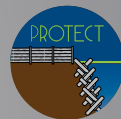
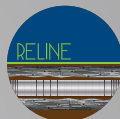
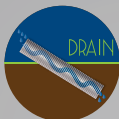
To get started, choose a structure type:

 Aluminum Box Culvert DYO ALBC	 MULTI-PLATE SUPER-SPAN DYO Plate	 CON/SPAN BEBO DYO Precast	 Steadfast Continental DYO Truss
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www.ContechES.com/dyob

DRAWINGS & TECHNICAL SUPPORT





STORMWATER SOLUTIONS

Helping to satisfy stormwater management requirements on land development projects

- Stormwater Treatment
- Detention/Infiltration
- Rainwater Harvesting
- Biofiltration/Bioretenation

PIPE SOLUTIONS

Meeting project needs for durability, hydraulics, corrosion resistance, and stiffness

- Corrugated Metal Pipe (CMP)
- Steel Reinforced Polyethylene (SRPE)
- High Density Polyethylene (HDPE)
- Polyvinyl Chloride (PVC)

STRUCTURES SOLUTIONS

Providing innovative options and support for crossings, culverts, and bridges

- Plate, Precast & Truss bridges
- Hard Armor
- Retaining Walls
- Tunnel Liner Plate

ADDITIONAL SPECIALTY PRODUCTS



BRIDGE PLANK



BIN WALL



LIGHT GAGE METRIC SHEETING

For more information, call one of Contech's Regional Offices located in the following cities:

Corporate Office - Ohio (Cincinnati)	513-645-7000
California (Roseville)	800-548-4667
Colorado (Denver)	720-587-2700
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Oregon (Portland)	503-258-3180
Texas (Dallas)	972-590-2000

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