



BRASS™

Training Services



BRASS™

- Bridge Rating and Analysis of Structural Systems
- Suite of computer programs to assist the bridge engineer in many aspects of structure design, analysis and rating.
- Licensed by the Wyoming Department of Transportation



- Visit www.dot.state.wy.us/home/engineering_technical_programs/bridge/brass.html for BRASS™ cost and licensing information.

Training Services

BridgeTech provides specialized training in the use of BRASS™ software. A private instructor-led workshop is a great way to introduce engineers to the software or even provide a refresher for experienced users. A multi-day workshop is recommended if the focus includes BRASS-GIRDER™, BRASS-CULVERT™, or BRASS-PIER(LRFD)™.

The BRASS™ Suite



GIRDER



CULVERT



PIER(LRFD)



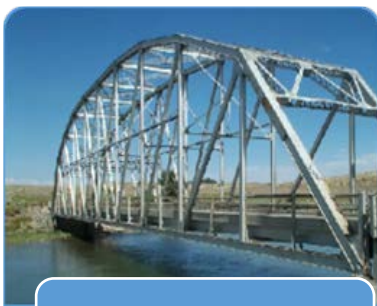
PIER



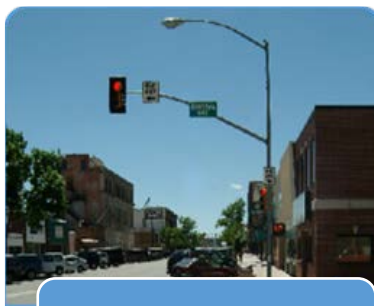
SPLICE



PAD



TRUSS



POLE



DIST



Workshop Topics and Description

- Use cases
- Analysis methods
- Capabilities
- Features
- User interface
- Running an analysis
- Analysis results and reports
- Hands-on examples
- Implementation strategies

The training begins with a presentation of capabilities and features of the BRASS™ software and moves into a live demonstration to familiarize everyone with specific BRASS™ programs. The rest of the training consists of hands-on examples where information from plans or schematics is input into BRASS™, analyses are run, and results are reviewed. Throughout the training, strategies are discussed for utilizing the BRASS™ software for your structure inventory and incorporating it into your office practice.

Control

Structure (A) | Structure (B) | Structure (C) | Analysis | Input | Distribution | Libraries

Analysis Model
 Beam
 Frame

Number of Spans: 3 | Number of Legs: 2

Span	Length (ft)	Leg	Length (ft)	Angle (alpha) (°)
1	19.0000	8-1	16.1000	90.0000
2	65.0000	9-1	16.1000	90.0000
3	19.0000			

Contents

BRASS™
Wyoming Department of Transportation

Show input associated with:
 All analysis methods
 Selected analysis method

Administration
 Bridge Notes
 Control
 Output
 Factors
 Materials
 Dead Load Groups
 Live Loads
 Component Groups
 Specification Control

Member
 Member Notes
 Member Materials
 Beam Profile
 Hinges
 Special Locations
 Splice Locations
 Supports

Control

Structure
 Structure Type: GirderLine
 Define Deck Cross Section: No

Analysis Model Type: Beam
 Number of Top Spans: 1

Spans

Span	Length
1	112 ft
2	140 ft
3	140 ft
4	112 ft

Structure Material: Steel
 Beam Type: Plate
 Composite Structure: No
 Number of Stages: 1

Analysis
 Unit System: US
 Analysis Method: LRFD
 Analysis Type: Rating
 Member of Interest: 1

```

AASHTO REFERENCE: 6.10.6.2.3 Noncomposite Sections
EQUATION NO.: N/A
Input Yield stresses (ksi):
  Top Flange = 36.000   web = 36.000
  Bot Flange = 36.000

Yield stresses may not exceed limit.
AASHTO Limit: 70.000
Result Code: PASS

AASHTO REFERENCE: 6.10.6.2.3 Noncomposite Sections
EQUATION NO.: 6.10.6.2.3-1
Input Parameters:
  Dc = 15.690 in   E = 29000.000 ksi
  tw = 0.775 in   Fyc = 36.000 ksi

Calculated Value: 2 * Dc / tw = 40.490
AASHTO Limit: 5.7 * SQRT(E / Fyc) = 161.779
Result Code: PASS

AASHTO REFERENCE: N/A
EQUATION NO.: 6.10.6.2.3 (A6.1-2)
Input Parameters:
  Iyc = 419.481 in^4
  Iyt = 419.481 in^4

Flange Proportions:
  Calculated Value: Iyc / Iyt = 1.000
  AASHTO Limit: 0.300
  Result Code: PASS

*****
** Section is NOT COMPACT **
*****

```

Beam Profile

Top Range | Web | Web Depth | Bottom Range | Top Cover Plate | Bottom Cover Plate

Apply to entire structure

Width | Thickness | End Distance | Start Distance | Length

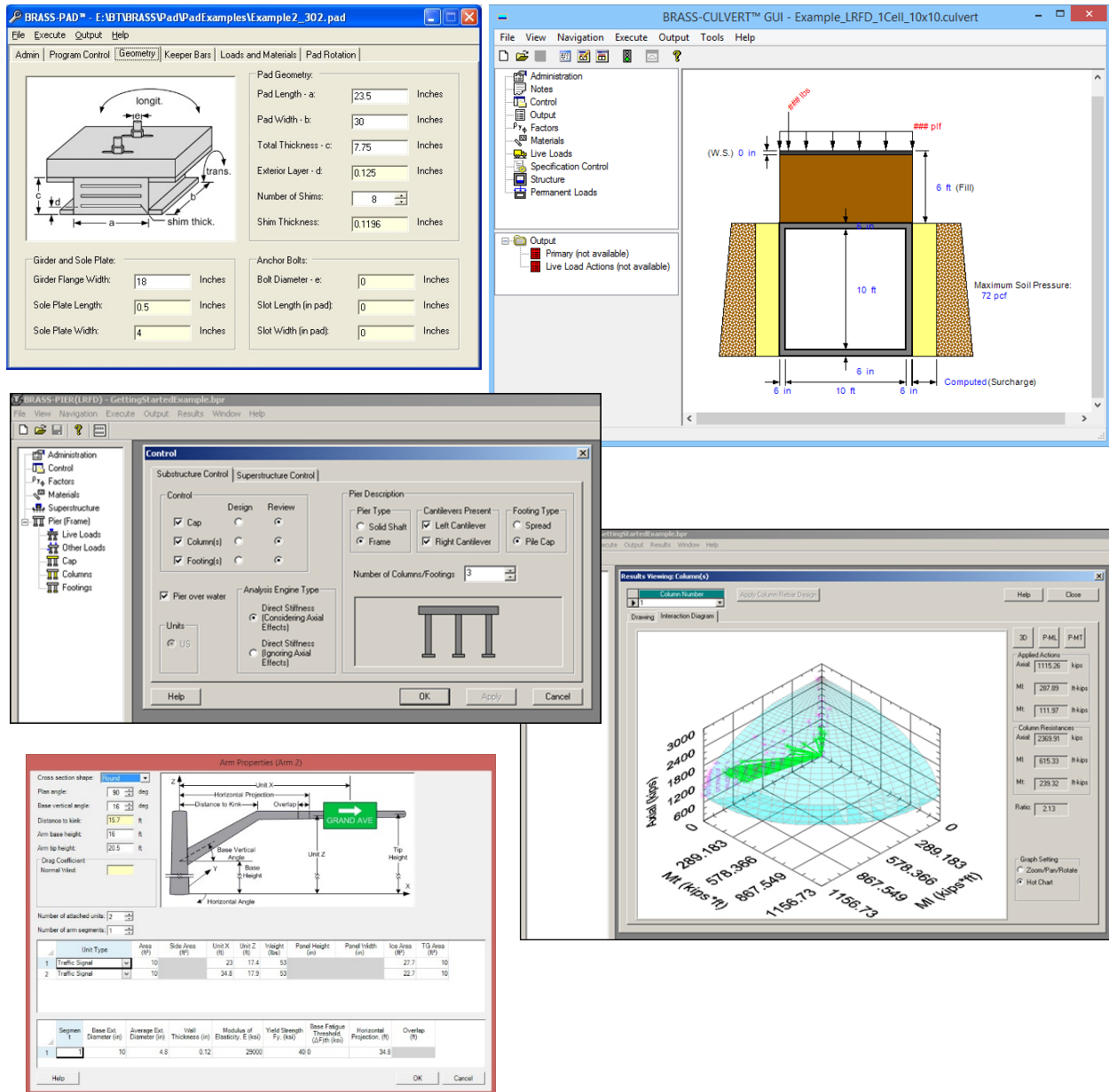
Start of Range		End of Range		Material	Support	Start Distance (ft)	Length (ft)	End Distance (ft)
Width (m)	Thickness (m)	Width (m)	Thickness (m)					
16.0000	0.7500			Grade 32	1	0.0000	20.5000	20.5000
16.0000	1.1250			Grade 32	1	20.5000	52.5000	73.0000
16.0000	0.7500			Grade 32	1	73.0000	22.0000	95.0000
16.0000	1.3750			Grade 32	1	95.0000	10.0000	105.0000
16.0000	2.1250			Grade 32	1	105.0000	7.0000	112.0000

Help | OK | Apply | Cancel

BridgeTech, Inc. has maintained and enhanced BRASS™ programs for the Wyoming Department of Transportation for over **30 years**. Our professional engineers have provided BRASS™ training to over **500** engineers, raters, and consultants throughout the national bridge community.



Please contact BridgeTech for a custom quote for BRASSTM training services.



BridgeTech, Inc. is a team of civil engineering professionals who specialize in highway bridge engineering software applications, special studies, and consulting services. Our team helps plan, develop, maintain, and enhance several structural engineering software systems that are used daily within the United States. Members of our engineering team are Professional Engineers licensed in the State of Wyoming.

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