Illinois Department of Transportation
Memorandum

To:	Regional Engineers	Attn: PI & PD Engineers
From:	D. Carl Puzey	
Subject:	Shop Drawing Procedures	
Date:	October 16, 2019	

This memorandum details instructions for state projects requiring fabrication shop drawing review by either a Consultant or the Bureau of Bridges and Structures (BBS), updated submittal and distribution flowcharts (Attachment A), and instructions for electronic submittal of fabrication shop plans. This memorandum supersedes the previous memo dated January 9, 2017.

Other structure related submittals shall be submitted to the BBS Consultant Bridge Design & Construction Unit (BBS Design Unit) or as otherwise directed. Local projects may require different submittal routings, so the local public agency should be contacted for guidance.

For each construction contract, a Fabrication Shop Drawing Submittal Information Sheet (Attachment B) shall be completed by the Resident Engineer and submitted to BBS. This list of project contacts is critical for the delivery of electronic shop drawings.

Shop drawings shall be submitted electronically to DOT.Bridge.ShopDrawings@illinois.gov as Adobe (.pdf) documents that are proportioned and prepared so that they will print at the required paper copy size without manipulation. Shop drawings with multiple pages shall be submitted as a single (.pdf) file for each structure. Files larger than 20 megabytes shall be split into multiple files and submitted via multiple emails. All submittals shall include a transmittal cover sheet identifying the submitted items and pertinent project information. Paper submittals will continue to be accepted until July 1, 2020, after which all shop drawings shall be submitted electronically.

Existing projects that have already had paper shop drawings submitted shall be completed as paper submission projects.

If shop drawings are received prior to submittal of the Fabrication Shop Drawing Submittal Information Sheet, those drawings will be processed as paper copies and will be sent back via mail following the previous Shop Drawing Procedures from the Memorandum dated January 9, 2017 (Attachment C).

The Prime Contractor (PC) is responsible for shop drawing accuracy and for the fabrication satisfying contract requirements. The PC's authority may be delegated to fabricators, detailers, or other subcontractors.

The PC shall provide field verifications and coordinate activities of subcontractors, including accepting any subcontractor-proposed modifications to the contract, before shop drawings are submitted to the Engineer for review.

All drawings shall be completely titled according to the contract plans, including structure number, state contract number, route, section, county, and shall pertain to one structure only. Fabricator contact information shall be provided on every sheet. If a fabricator has multiple fabrication shop locations, provide the address of the shop performing the fabrication on each shop drawing for inspection assignment. A blank 2" by 2" space shall be left in the same place on every sheet for this office's approval stamp.

Please provide these instructions and flowcharts to Consultants during preliminary man-hour negotiations and to Contractors at pre-construction meetings.

If there are any questions concerning these guidelines, or shop drawing processes in general, please contact the BBS Shop Drawings & Steel Fabrication Unit at (217) 782-3586.

Attachments

TLK/kktshopdrawingprocedures-20191016
cc: All Fabricators
Tim Kell
Brian Pfeifer
Bureau of Local Roads & Streets
Paul Loete

Illinois Department of Transportation
Shop Drawing Requirements

A. Reviewed and approved shop drawings <u>are required</u> for the following items and shall be processed as noted:

Plate Girders
Wide Flange Beams
Miscellaneous Structural Steel
PPC Bulb-T Beams
PPC I-Beams
PPC IL-Beams
PPC Deck Beams
Precast Concrete Box Culverts
Three Sided Precast Concrete Structures
Precast Deck Panels
Cantilever Sign Structures
Metal Deck Forms
Mechanically Stabilized Earth Walls
Precast Noise Walls
Prefabricated Pedestrian/Bicycle Trusses
High Mast Light Towers
Finger Plate Expansion Joints
Finger Plate Joint Trough
Modular Expansion Joints
Elastomeric Bearings
HLMR Bearings
Seismic Isolation Bearings
Fixed Bearings
Anchor Bolts
Pins and/or Link Plates
Overhead Sign Structures
Precast Fascia Panels
Butterfly Sign Structures
Bridge Mounted Sign Structures
Monotube Sign Structures
Traffic Signal Mast Arms

Other project-specific items not included in this list may also require approved shop drawings.

<u>Special Requirement Items</u>

If required by the contract, the seal and signature of an Illinois licensed Professional Engineer or Structural Engineer shall be affixed. The routing of supplier-prepared shop drawings (and computations if applicable) follows the attached review procedure diagrams, except as modified below. Districts should archive drawings, especially those not kept by the Bureau of Bridges and Structures (BBS).

When a consultant reviews the shop drawing for approval, the consultant's approval may be indicated by "No Exceptions Taken", "Acceptable as Submitted", etc. as stamped on each sheet.

The Prime Contractor (PC) is responsible for the design and detailing of the following ten items.

1. Mechanically Stabilized Earth (MSE) Retaining Wall

   Design computations and shop drawings shall be submitted to the BBS Consultant Bridge Design & Construction Review Unit (<u>BBS Design Unit*</u>) and reviewed by the BBS Foundations and Geotechnical Unit, even if the shop drawings have been reviewed by a consultant. Shop Drawings and computations require an IL SE Seal (Reference: IDOT Standard Spec 522.09). After all review comments have been resolved, the BBS Design Unit will request distribution drawings with their approval letter. The BBS will archive shop drawings only for MSE walls that are part of bridge structures.

2. Precast Concrete Box Culverts

   When required (Reference: Central Bureau of Materials (CBM) Policy Memorandum 19-08 to determine requirements) shop drawings shall be submitted directly to the BBS Shop Drawings & Steel Fabrication Unit (<u>BBS Fabrication Unit*</u>) for review. A Welded

Wire Reinforcement schematic detailing wire sizes, spacings and lengths shall be provided for BBS use. An additional copy shall be simultaneously submitted to the District Project Implementation Engineer. After all review comments have been resolved, BBS shall distribute shop drawings for Precast Concrete Box Culverts reviewed by this office. An electronic copy of all Precast Concrete Box Culvert shop drawings approved by the Districts, local public agencies or their consultants shall be forwarded to DOT.Bridge.ShopDrawings.PCBC@Illinois.gov for this office's records and use (Reference: CBM Policy Memo 19-08 or Bureau of Local Roads Manual).

3. Three Sided Concrete Structures

   Design computations, load rating, and shop drawings shall be submitted to the BBS Design Unit* for review. Drawings, load rating, and computations require an IL SE Seal. The contact information for the fabricator precasting the structure and the technology owner, as applicable, shall be included on the shop drawings (Reference: contract special provision or GBSP 15). After all review comments have been resolved, the BBS Design Unit will request distribution drawings with their approval letter. BBS shall distribute shop drawings for Three Sided Concrete Structures reviewed by this office.

4. Seismic Isolation Bearing

   Design details and computations shall be submitted to the BBS Design Unit* or the design consultant, prior to the review of shop drawings. Shop drawings will not be accepted for review before the proposed designs are approved (Reference: contract special provision). The BBS will archive shop drawings. After all review comments have been resolved, the BBS Design Unit will request distribution drawings with their approval letter. BBS shall distribute shop drawings for Seismic Isolation Bearings reviewed by this office.

5. Pedestrian/Bicycle Truss

   Shop drawings and design computations for structures crossing over a state or federal route, placed on IDOT right-of-way, or having spans 150 ft. or longer, shall be submitted to the BBS Design Unit* for structural review. Shop drawings and computations require an IL SE Seal. If these structures are constructed by another governmental agency (county, municipality, park district, IL Dept. of Natural Resources, etc.) that agency is responsible for archiving the approved shop drawings for future reference.(Reference: contract special provision or GBSP 33). After all review comments have been resolved, the BBS Design Unit will request distribution drawings with their approval letter. BBS shall distribute shop drawings for Pedestrian/Bicycle Trusses reviewed by this office.

6. Precast Noise Wall

   Shop drawings and design computations shall be submitted to the BBS Design Unit* for review and an additional copy simultaneously submitted to the District Project Implementation Engineer. Shop drawings and computations require an IL SE Seal (Reference: contract special provision). The BBS will archive shop drawings only for the portions of noise walls that are installed on bridges. After all review comments have been resolved, the BBS Design Unit will request distribution drawings with their approval letter. BBS shall distribute shop drawings for Precast Noise Walls reviewed by this office.

7. "Stay in Place" Metal Deck Forms

   Design calculations and shop drawings shall be submitted to the BBS Design Unit*. Shop drawings and computations require an IL SE Seal (Reference: contract special provision). The drawings will be reviewed by the BBS Fabrication Unit and BBS will archive the shop drawings. After all review comments have been resolved, the BBS Design Unit will request distribution drawings with their approval letter. BBS shall distribute shop drawings for "Stay in Place" Metal Deck Forms reviewed by this office.

8. Traffic Signal Mast Arm

   Shop drawings from various manufacturers have been pre-approved by this office for specified loading configurations shown on IDOT Highway Standards. The pre-approved shop drawings have been distributed to all District Project Implementation Engineers and may be used by construction personnel to accept shop drawings for loading conditions less than or equal to those that were pre-approved. Contact the BBS Fabrication Unit to receive a copy of the most current pre-approved drawings. For lengths or loadings that exceed pre-approved configurations, shop drawings, along with the contract signal plans, shall be submitted to the BBS Fabrication Unit* for review. Monotube Sign Structure shop drawings from manufacturers have not been pre-approved by this office and must be submitted to the BBS Fabrication Unit for review. The BBS will not archive final drawing records.

9. High Mast Light Tower

   Shop drawings are to be sent to the Central Bureau of Design and Environment for towers in Districts 2 through 9, and to the District 1 Bureau of Electrical Operations for towers in District 1. Luminaires, lowering devices and all electrical and mechanical components will be reviewed by those offices. Tower shop drawings and weld procedures are reviewed by the BBS Fabrication Unit for structural details and specification conformance. The BBS will not archive final drawing records.

10. Shop Drawing review by the Railroad Engineer

    Shop drawings for structures that will carry railroad traffic shall also be submitted for the approval of the Railroad Engineer prior to distribution by BBS. (Reference: IDOT Standard Spec 505.03). Revisions required by the Railroad Engineer shall be sent to BBS as revised sheets for review. After all review comments have been resolved, BBS shall distribute shop drawings for structures that will carry railroad traffic.

B. Shop Drawings for the following items need not be submitted for each project to the BBS or the review consultant, unless specified or special (non-standard) details are proposed for routine items:

1. Metal Railings for Bridges (Steel and Aluminum), Pedestrian/Bicycle Railing, Prefabricated Inspection Platforms, Miscellaneous Items – Scuppers, Drain Piping, Navigation Lights and Mounting Hardware, Light Poles, Traffic Signal Poles and other small fabricated pieces such as embedded items for precast and prestressed concrete

   The fabricator shall furnish installation and detail drawings to the Contractor and Resident Engineer for field verification of locations and dimensions. These drawings shall be included in the project records. Shop fabrication inspection is not required, and the Resident Engineer's final acceptance may be based on proper fit and an overall visual inspection of the finished product. IDOT Standard Spec. 1006.34(b)

requires all permanent tubular steel rail to have Charpy V-Notch (CVN) toughness values certified by testing. Test results, along with mill certification documentation, shall be submitted to the District. When noted on the plans, CVN testing may be waived/omitted for certain Bicycle/Pedestrian railings. All steel shall be domestic. Any paint used shall be accepted by (CBM)*. Current requirements of the CBM concerning aluminum rail and posts shall be satisfied.

The manufacturer's maintenance instructions (periodic inspection checklists, lubrication schedules, etc.) for moveable, prefabricated inspection platforms shall be furnished to the Resident Engineer.

2. Neoprene Expansion Joints

Each manufacturer should submit their standards to the BBS Fabrication Unit* for pre-approval, thereby eliminating shop drawing review by IDOT on individual projects. The Contractor retains the responsibility for proper fit, installation and geometry, and must supply a copy of a pre-approved standard to the Resident Engineer for field verification and inclusion in record drawings for the project. The BBS will not archive final drawing records.

For special, non-standard installations such as island medians, skew changes or partial replacements of dissimilar joints, shop drawings shall be submitted to the BBS Fabrication Unit.

The CBM will continue to receive material samples for lot testing.

3. Bridge Joint Sealing System (Preformed Joint Seal (PJS) or Strip Seal)

These joints' support plates are relatively simple and may be prefabricated in convenient lengths, allowing subsequent shop or field cutting to meet project requirements. Since details will be generic, no project-specific review is required, but fabricators may submit standard drawings for BBS pre-approval. An installation scheme should be provided by the fabricator to the Contractor and Resident Engineer on jobs with complex geometry or multiple changes in cross slope.

When fabricators are producing steel assemblies, the BBS Fabrication Unit shall be notified and may verify the following: domestic material of proper grade; acceptable welding with approved procedures by qualified welders; adequate blast cleaning before painting; and proper application of an approved primer. Only one coat of primer (or optional hot-dip galvanizing) is needed and studs do not require paint.

Acceptance will be waived to the Resident Engineer at the jobsite, unless an IDOT fabrication inspector is in the shop for other work and completes a BBS 59 release which includes the PJS or strip seal plates. The CBM will continue to lot test samples of the seal material.

4. Break-Away Wide Flange and Tubular Sign Posts

Standard shop drawings from various fabricators have been pre-approved by the BBS and distributed to all District Project Implementation Engineers and may be used by District Personnel to accept shop drawings. The Contractor retains the responsibility for proper fit, installation and geometry, and shall supply a copy of a pre-approved standard to the Resident Engineer for field verification and inclusion in record drawings for the project. The BBS will not archive final drawing records.

5. Fabric Reinforced Elastomeric Mats and Terminal Joint Wide Flange Beams

   The fabricator shall furnish installation and detail drawings to the Contractor and Resident Engineer for field verification of locations and dimensions. These drawings shall be included in the project records. Shop fabrication inspection is not required, and the Resident Engineer's final acceptance may be based on proper fit and an overall visual inspection of the finished product. The mat supplier is responsible for submitting samples to the CBM for lot testing.

*Reference Addresses:

Bureau of Bridges & Structures
2300 South Dirksen Parkway
Springfield, IL 62764

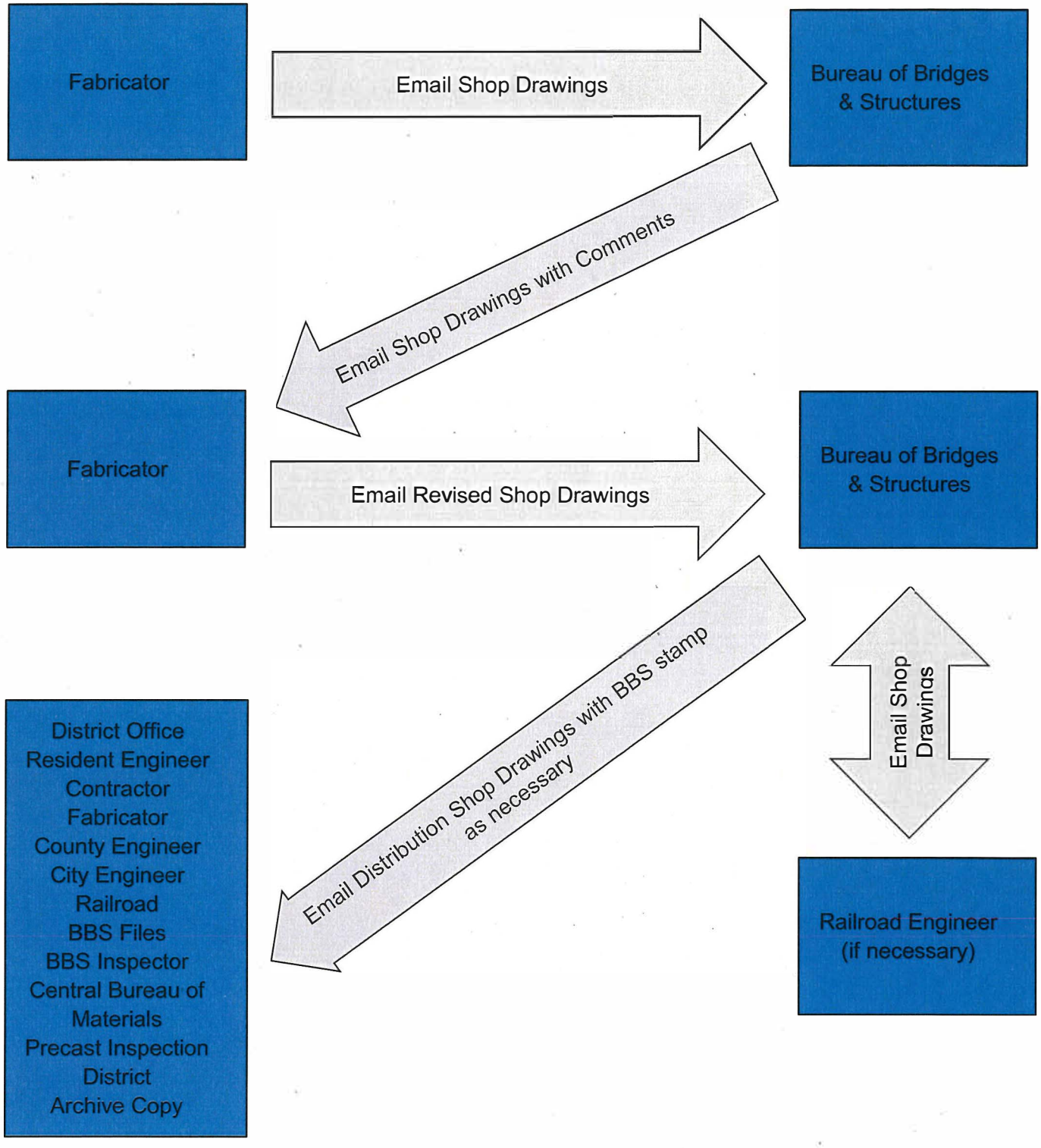
Choose the applicable attention person within BBS:
Attn: Engineer of Bridge Design / Consultant Bridge Design and Construction Review Unit
Attn: Engineer of Bridge Design / Shop Drawings & Steel Fabrication Unit
Attn: Engineer of Structural Services / Bridge Investigations and Repair Plans Unit

Central Bureau of Materials
126 East Ash Street
Springfield, IL 62704-4766
Attn: Materials Testing Section

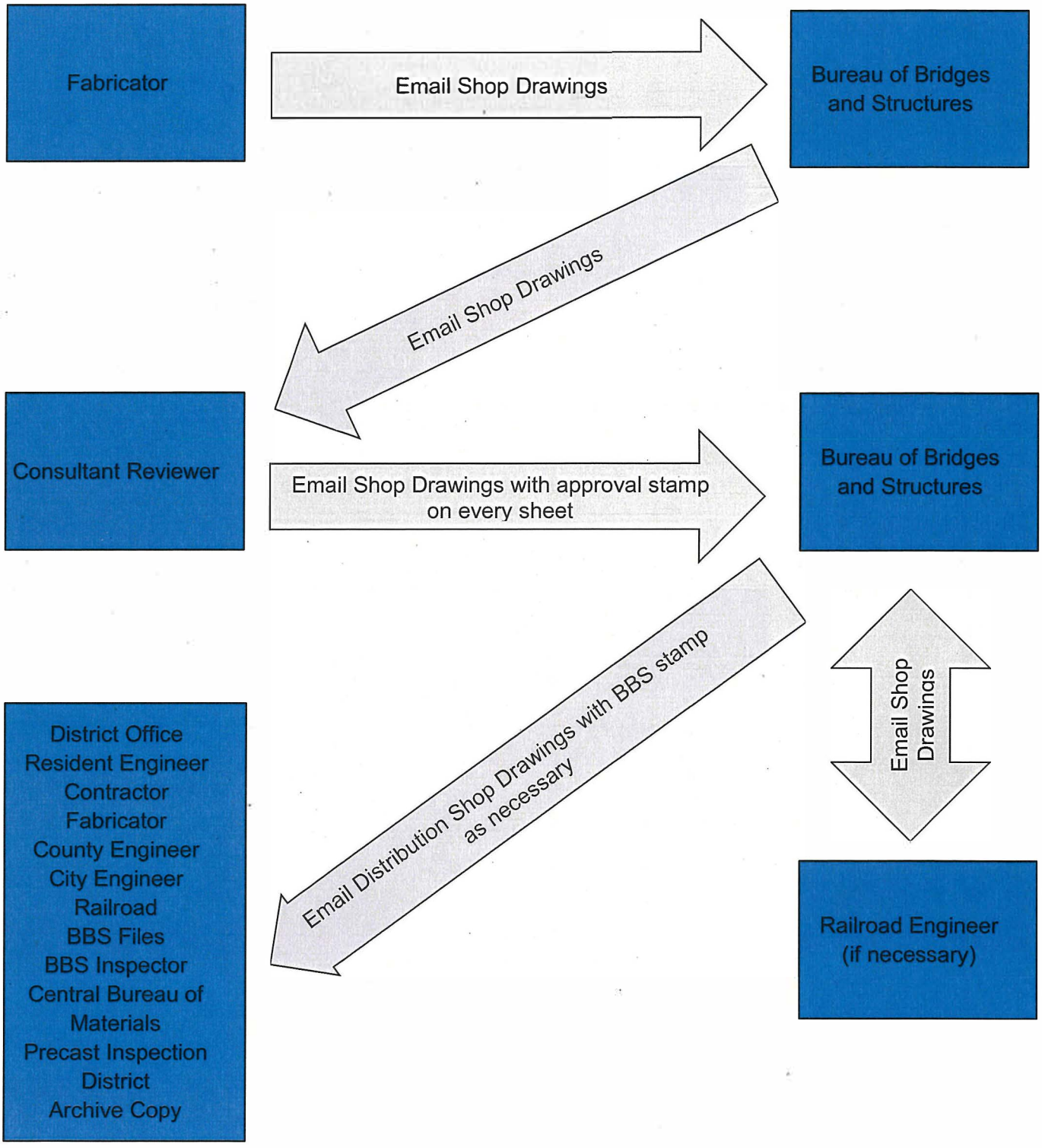
DOT.Bridge.ShopDrawings@Illinois.gov

DOT.Bridge.ShopDrawings.PCBC@Illinois.gov

Shop Drawing Review Procedure for Bur. Of Bridges and Structures as Primary Reviewer



Shop Drawing Review Procedure for Design Consultant as Primary Reviewer



Fabrication Shop Drawing Submittal Information Sheet

Resident Engineer: please provide the appropriate information requested for **each contract and structure combination**. (Not every project will require every item.)

The contact information that is provided will be the person contacted by the Bureau of Bridges and Structures with respect to structural Fabrication Shop Drawings for the contract and structure described.

This process is for structural fabrication shop drawings only. For other structure related submittals to BBS, please contact the BBS Design Unit.

If the Engineer of Record and the Shop Drawing Reviewer are the same person, only one name is necessary. Verify with the District's Project Engineer that the consultant agreement includes manhours for shop drawing review. If hours are not included for this, then note "BBS review of fabrication shop drawings."

Miscellaneous structural steel covers permanent bracing, side retainers, repair steel & bearing extensions.

Email the completed sheet to DOT.Bridge.ShopDrawings@illinois.gov

Fabrication Shop Drawing Submittal Information Sheet

Project Information

IDOT Contract No.		Structure No.	
Route		Section	
County		Job No.	

	Contact Name	Company Name	Email	Telephone
Resident Engineer				
Engineer of Record				
Shop Drawing Reviewer				
General Contractor				
Central Materials (Precast Inspector)				
District Materials (Precast Inspector)				
County Engineer				
City Engineer				
Railroad				
Railroad Engineer				
Day Labor				

Fabrication Shop Drawing Submittal Information Sheet

Project Information

IDOT Contract No.		Structure No.	
Route		Section	
County		Job No.	

Pay Item	Contact Name	Company Name & City (City needed if multiple plants)	Email	Telephone
F&E Structural Steel Fabricator				
PPC Beam Fabricator				
Elastomeric Bearing Fabricator				
Misc. Structural Steel Fabricator				
HLMR Bearing Fabricator				
Finger Plate Joint Fabricator				
Modular Exp. Joint Fabricator				
Sign Structure Fabricator				
Pedestrian Truss Fabricator				
MSE Wall Fabricator				
Precast Conc. Box Culvert Fabricator				

Illinois Department of Transportation

Memorandum

To:	Regional Engineers	Attn: Project Implementation and Program Development Engineers
From:	D. Carl Puzey	
Subject:	Shop Drawing Procedures	
Date:	January 9, 2017	

Attached are instructions and updated submittal and distribution flowcharts for state projects requiring fabrication shop drawing review by either a Consultant or the Bureau of Bridges and Structures (BBS). Local projects may require different submittal routings, so the local public agency should be contacted for guidance.

The Prime Contractor (PC) is responsible for shop drawing accuracy and the fabrication satisfying contract requirements. Authority may be delegated to fabricators, detailers and other subcontractors. To avoid construction delays, the fabricator's detailer should send the drawings directly to the shop drawing reviewer, unless otherwise stipulated herein. To determine if the "designated reviewer" is the BBS or a Consultant, contact the BBS Shop Drawings and Fabrication Unit at 217-558-0285.

Routing unapproved shop drawings through the PC, other subcontractors, or the Resident Engineer, delays the review process and may result in the use of incorrect drawings for construction. However, the PC shall provide field verifications and coordinate activities of subcontractors, including accepting any subcontractor-proposed modifications to the contract, before shop drawings are submitted to the Engineer.

All drawings shall be completely titled according to the contract plans, including structure number, state contract number, route, section, county and shall pertain to only one structure.

Please provide these instructions and flowcharts to Consultants during preliminary man-hour negotiations and to Contractors at pre-construction meetings. If there are any questions concerning these guidelines, or shop drawing processes in general, please contact the Bureau of Bridges and Structures Fabrication Unit at (217) 782-3586.

Attachment

TLK/kktAREshopdrawingprocedures-20170109
cc: Priscilla Tobias
Paul Loete
Maureen Addis
Tim Kell
Brian Pfeifer
All Fabricators

Illinois Department of Transportation
Shop Drawing Requirements

A. Reviewed and approved shop drawings <u>are required</u> for the following items and shall be processed as noted:

- Plate Girders
- Wide Flange Beams
- Miscellaneous Structural Steel
- PPC Bulb-T Beams
- PPC I-Beams
- PPC IL-Beams
- PPC Deck Beams
- Precast Concrete Box Culverts
- Three Sided Precast Concrete Structures
- Overhead Sign Structures
- Cantilever Sign Structures
- Butterfly (Twin Cantilever) Sign Structures
- Bridge Mounted Sign Structures
- Monotube Sign Structures
- Traffic Signal Mast Arms
- High Mast Light Towers
- Finger Plate Expansion Joints
- Finger Plate Joint Trough
- Modular Expansion Joints
- Elastomeric Bearings
- HLMR Bearings
- Seismic Isolation Bearings
- Fixed Bearings
- Anchor Bolts
- Pins and/or Link Plates
- Precast Deck Planks
- Precast Fascia Panels
- Metal Deck Forms
- Mechanically Stabilized Earth Walls
- Precast Noise Walls
- Prefabricated Pedestrian/Bicycle Trusses (see Item 4 below)

Other project-specific items not included in this list may also require approved shop drawings.

<u>Special Requirement Items:</u>

The Prime Contractor (PC) is responsible for the design and detailing of the following eight items. The seal and signature of an Illinois licensed Professional Engineer or Structural Engineer shall be affixed if required by the contract. The initial number and routing of supplier-prepared shop drawings (and computations if applicable) follows the attached review procedure diagrams, except as modified below. Districts should archive drawings, especially those not kept by the Bureau of Bridges & Structures (BBS).

1. <u>Mechanically Stabilized Earth Wall</u> (MSE) shop drawings and wall design computations require submittal to the BBS Bridge Design Section* and review by the BBS Geotechnical Unit, even if the shop drawings have been reviewed by a consultant. The BBS will archive shop drawings only for MSE walls that are part of bridge structures.

2. Precast Concrete Box Culverts, when required (reference BMPR Policy Memorandum 19-08), and Three Sided Precast Concrete Structures shop drawings shall be submitted directly to the BBS Fabrication Unit* for review, and two additional copies simultaneously submitted to the District Project Implementation Engineer. The District/owner shall archive shop drawings. BBS shall request distribution copies for Precast Concrete Box Culverts reviewed by this office. An electronic copy of all precast concrete box culvert shop drawings approved by the Districts, local public agencies or their consultants shall be forwarded to the BBS for this office's record and use as described in BMPR Policy Memorandum 19-08.

3. Seismic Isolation Bearing design details and computations shall be submitted to the BBS Bridge Design Section* or the design consultant, prior to the review of shop drawings. Shop drawings will not be accepted for review before the proposed designs are approved. The BBS will archive shop drawings.

4. Pedestrian/Bicycle Truss shop drawings and design computations for structures crossing over a state or federal route, or placed on an IDOT right-of-way, or having spans 150 ft. or longer, shall be submitted to the BBS Bridge Design Section* for structural review. If these structures are constructed by another governmental agency (county, municipality, park district, IL Dept. of Natural Resources, etc.), that agency is responsible for archiving the approved shop drawings for future reference.

5. Precast Noise Wall shop drawings shall be submitted directly to the BBS Bridge Design Section* for review and two additional copies simultaneously submitted to the District Project Implementation Engineer. The BBS will archive shop drawings only for the portions of noise walls that are installed on bridges.

6. "Stay-In-Place" Metal Deck Forms design calculations and shop drawings shall be submitted directly to the BBS Bridge Design Section*. The drawings will be reviewed by the BBS Fabrication Unit and BBS will archive the shop drawings.

7. Traffic Signal Mast Arm shop drawings from various manufacturers have been pre-approved by this office for specified loading configurations. The pre-approved shop drawings have been distributed to all District Project Implementation Engineers and may be used by construction personnel to accept shop drawings for loading conditions less than or equal to those that were pre-approved. For lengths or loadings that exceed pre-approved configurations, shop drawings, along with the contract signal plans, shall be submitted to the BBS Fabrication Unit* for review. Monotube Sign Structure shop drawings from manufacturers have not been pre-approved by this office, and must be submitted to the BBS Fabrication Unit* for review. The BBS will not archive final drawing records.

8. High Mast Light Tower shop drawings are to be sent to the central Bureau of Design and Environment for towers in Districts 2 through 9, and to the District 1 Bureau of Electrical Operations for towers in District 1. Luminaires, lowering devices and all electrical and mechanical components will be reviewed by those offices. Tower shop drawings and weld procedures are reviewed by the BBS Fabrication Unit* for structural details and specification conformance. The BBS will not archive final drawing records.

B. Shop Drawings for the following items <u>need not be submitted</u> for each project to the BBS or the review consultant, unless specified or special (non-standard) details are proposed for routine items:

Metal Railings for Bridges (Steel and Aluminum), Pedestrian/Bicycle Railing, Pre-Fabricated Inspection Platforms, Miscellaneous Items – Scuppers, Drain Piping, Navigation Lights and Mounting Hardware, Light Poles, Traffic Signal Poles and other small fabricated pieces such as embedded items for precast and pre-stressed concrete:

The fabricator shall furnish installation and detail drawings to the Contractor and Resident Engineer for field verification of locations and dimensions. These drawings shall be included in the project records. Shop fabrication inspection is not required, and the Resident Engineer's final acceptance may be based on proper fit and an overall visual inspection of the finished product.

The Standard Specification Article 1006.34(b) requires all permanent tubular steel rail to have Charpy-V Notch (CVN) toughness values certified by testing. Test results, along with mill certification documentation, shall be submitted to the district. When noted on the plans, CVN testing may be waived/omitted for certain Bicycle/Pedestrian railings. All steel shall be domestic. Any paint used shall be accepted by the Central Bureau of Materials (CBM)**. Current requirements of the CBM concerning aluminum rail and posts shall be satisfied.

The manufacturer's maintenance instructions (periodic inspection checklists, lubrication schedules, etc.) for moveable, pre-fabricated inspection platforms shall be furnished to the Resident Engineer.

Neoprene Expansion Joints:

Each manufacturer should submit their standards to the BBS Fabrication Unit* for preapproval, thereby eliminating shop drawing review by IDOT on individual projects. The Contractor retains the responsibility for proper fit, installation and geometry, and must supply a copy of a preapproved standard to the Resident Engineer for field verification and inclusion in record drawings for the project. The BBS will not archive final drawing records.

For special, non-standard installations such as island medians, skew changes or partial replacements of dissimilar joints, shop drawings should be submitted to the BBS Fabrication Unit*.

The CBM** will continue to receive material samples for lot testing.

Bridge Joint Sealing System (Preformed Joint Seal (PJS) or Strip Seal):

These joints' support plates are relatively simple and may be prefabricated in convenient lengths, allowing subsequent shop or field cutting to meet project requirements. Since details will be generic, no project-specific review is required, but fabricators may submit standard drawings for BBS preapproval. An installation scheme should be provided by the fabricator to the Contractor and Resident Engineer on jobs with complex geometry or multiple changes in cross slope.

When fabricators are producing the steel assemblies, the BBS Fabrication Unit * is to be notified and may verify the following: domestic material of proper grade; acceptable welding with approved procedures by qualified welders; adequate blast cleaning before painting; and proper application of an approved primer. Only one coat of primer (or optional hot-dip galvanizing) is needed and studs do not require paint.

Acceptance will be waived to the Resident Engineer at the jobsite, unless one of our fabrication inspectors is in the shop for other work and completes a BBS 59 release which includes the PJS or strip seal plates. The CBM** will continue to lot test samples of the seal material.

Break-Away Wide Flange and Tubular Sign Posts:

Standard shop drawings from various fabricators have been pre-approved by the BBS and distributed to all District Project Implementation Engineers, and may be used by District personnel to accept shop drawings. The Contractor retains the responsibility for proper fit, installation and geometry, and must supply a copy of a preapproved standard to the Resident Engineer for field verification and inclusion in record drawings for the project. The BBS will not archive final drawing records.

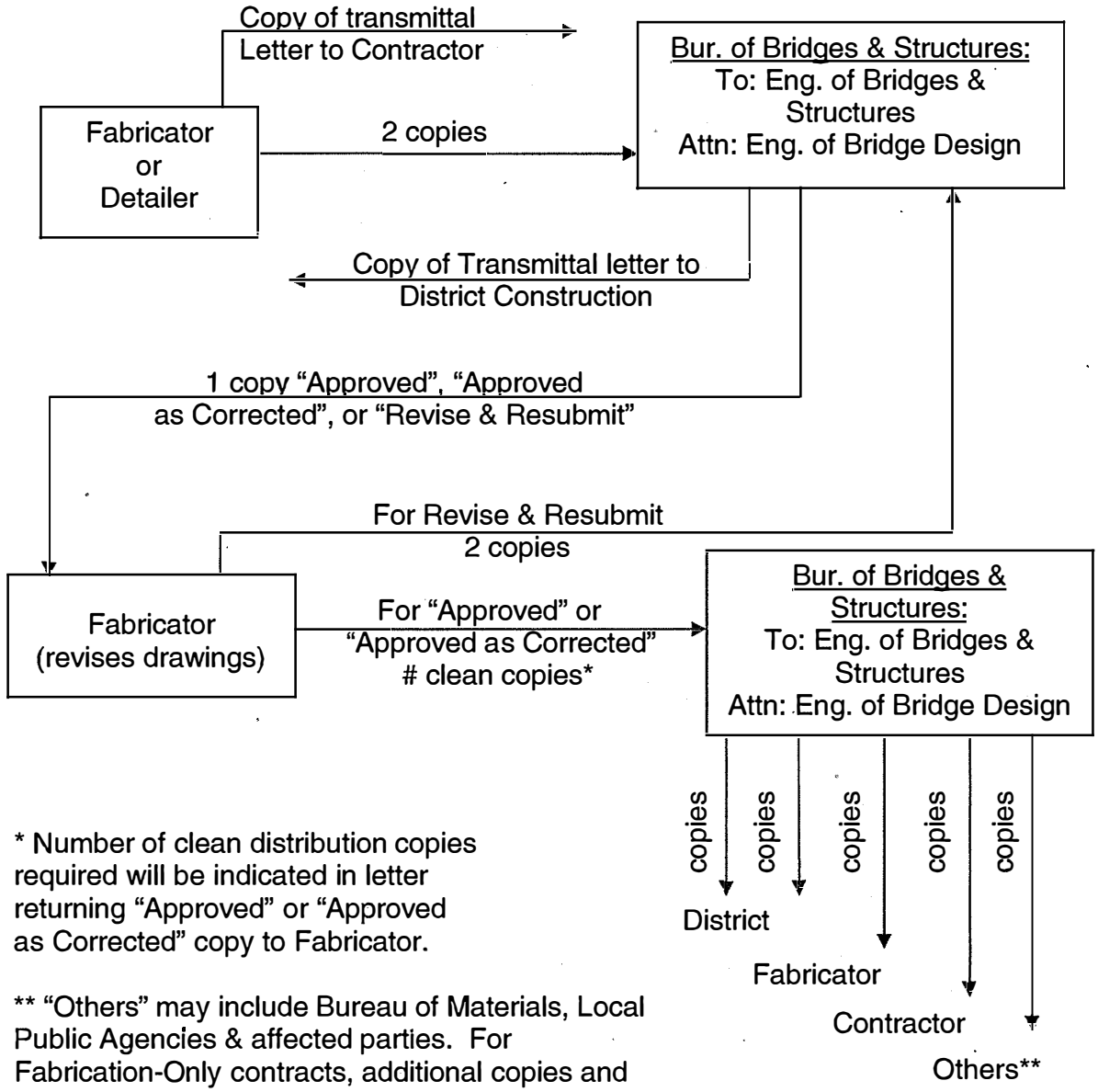
Fabric Reinforced Elastomeric Mats and Terminal Joint Wide Flange Beams:

The fabricator shall furnish installation and detail drawings to the Contractor and Resident Engineer for field verification of locations and dimensions. These drawings shall be included in the project records. Shop fabrication inspection is not required, and the Resident Engineer's final acceptance may be based on proper fit and an overall visual inspection of the finished product. The mat supplier is responsible for submitting samples to the CBM** for lot testing.

* ILDOT Bureau of Bridges & Structures, Rm. 240,
2300 S. Dirksen Pkwy, Springfield, IL 62764:
Bridge Design Section, Fabrication Unit, or
Bridge Investigations and Repair Plans Unit, as applicable.

** ILDOT Bureau of Materials
126 East Ash, Springfield, IL 62704
Materials Testing Section

Shop Drawing Review Procedure
for Bur. of Bridges & Structures as Primary Reviewer
("Special Requirements" not included)

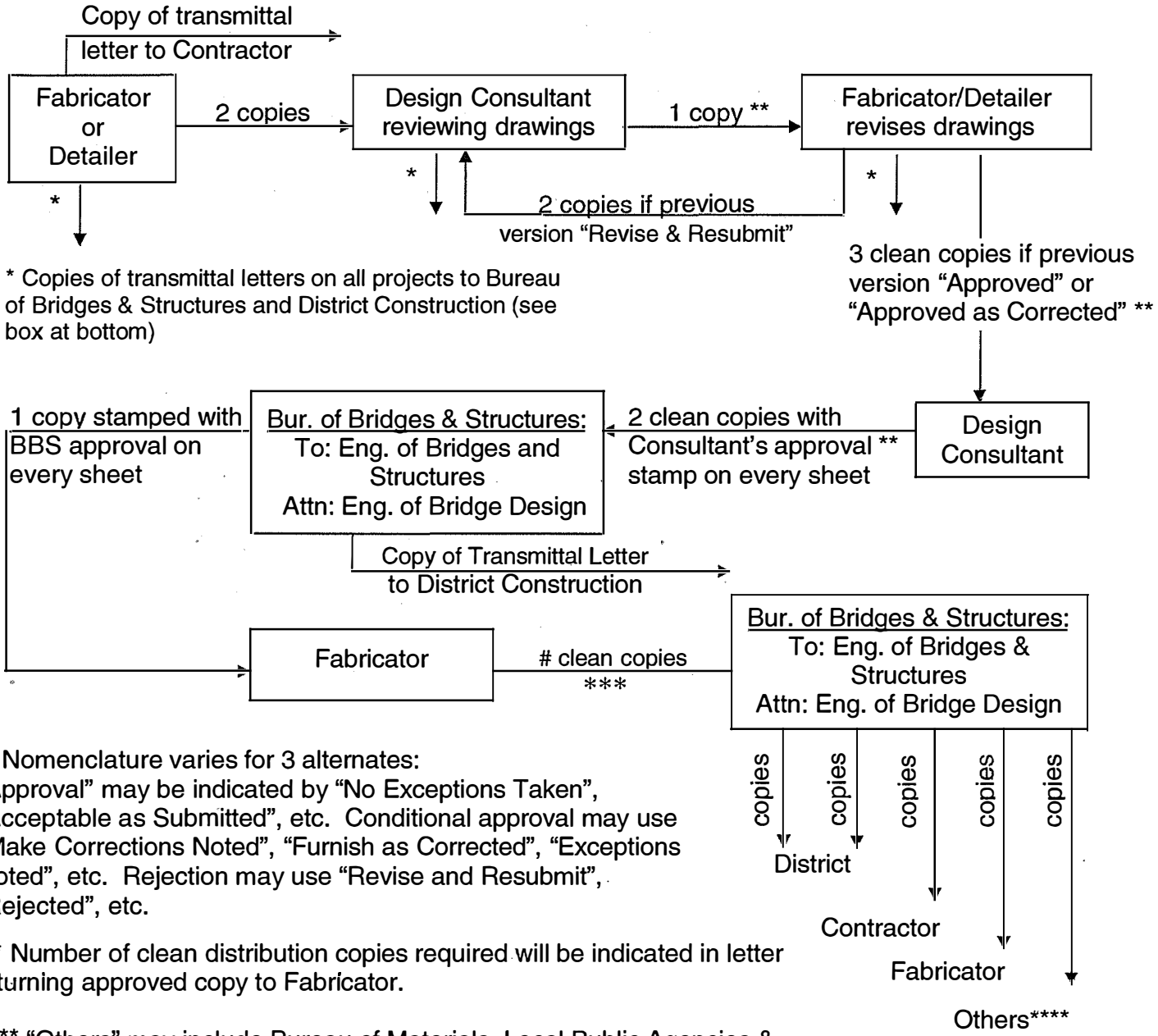


* Number of clean distribution copies required will be indicated in letter returning "Approved" or "Approved as Corrected" copy to Fabricator.

** "Others" may include Bureau of Materials, Local Public Agencies & affected parties. For Fabrication-Only contracts, additional copies and reproducibles will be required for the subsequent erection contract. Structures carrying railroads may also require reproducibles for the railroad.

Shop Drawing Review Procedure for Design Consultant as Primary Reviewer

("Special Requirements" not included)



* Copies of transmittal letters on all projects to Bureau of Bridges & Structures and District Construction (see box at bottom)

** Nomenclature varies for 3 alternates: "Approval" may be indicated by "No Exceptions Taken", "Acceptable as Submitted", etc. Conditional approval may use "Make Corrections Noted", "Furnish as Corrected", "Exceptions Noted", etc. Rejection may use "Revise and Resubmit", "Rejected", etc.

*** Number of clean distribution copies required will be indicated in letter returning approved copy to Fabricator.

**** "Others" may include Bureau of Materials, Local Public Agencies & affected parties. For Fabrication-Only contracts, additional copies and reproducibles will be required for the subsequent erection contract. Structures carrying railroads may also require reproducibles for the railroad.

Bureau of Bridges & Structures:
To: Engineer of Bridges & Structures
Attn: Engineer of Bridge Design

District Construction:
To: Regional Engineer / Attn: District Project Implementation Engineer