2014 Construction Specification Required Shop/Working Drawing Submittals

The 2014 Construction Specification calls for the electronic submission of shop drawings for the fabrication of structural items. The Engineer of Record ("EOR", noted in the table below) typically reviews these items. The Engineer ("E") typically reviews the other items in this table that require submittal, generally classified as working drawings (Ex.: form work, false work, erection, construction loads, temporary shoring, etc.). All Districts permit electronic submission of working drawings and shop drawings for the fabrication of structural items.

Send required submittals to the entity noted in the "Typically Reviewed By:" column of the table below, or as directed by the District at or before the preconstruction meeting.
The Engineer ("**E**") is usually the Area Engineer for the project. (Find Area Engineer info at: http://www.txdot.gov/local_information/)
The Engineer of Record ("**EOR**") is typically the Design Engineer who signs and seals the contract plan set; ex: Bridge Division, District, or Consultant.
Note: The "To:" field in a submittal email designates the reviewer. Insert no more than one recipient in the "To:" field to prevent duplicate reviews. Copy ("CC") all recipients identified in the "Submittal Copy Recipients" information below the table, and as directed by the District

Format electronic submittals as documented in the "Guide to Electronic Shop Drawing Submittal" located at this web address:
ftp://ftp.dot.state.tx.us/pub/txdot-info/library/pubs/bus/bridge/e_submit_guide.pdf

TxDOT shop plan contacts and dedicated shop plan receiving addresses can be found at this web address:
ftp://ftp.dot.state.tx.us/pub/txdot-info/library/pubs/bus/bridge/shop_plan_contacts.pdf . Use the dedicated addresses for submittals, not general correspondence. Use as the primary address only as directed by the District (Ex: when the District or a Division is the reviewer). Always "CC" the District dedicated address when it is not the primary address (Ex: when the Bridge Div. or consultants are reviewing). Sealed calculations will accompany the drawings when required.

Spec Item No.'s	Product	Submittal Required	Electronic Submittal & Final Set Accepted ?	Typically Reviewed By:	Approval Required (Y/N)	Contractor/ Fabricator P.E. Seal Required	Final Set Recipients	Comments	Division Review Contact
7.16.1,2	Construction Load Analysis	Yes	Yes	E	Yes	Yes	E, C	-	5-BRG/Cst
400	Excavation & Backfill for Structures (cofferdams)	Yes	Yes	E	No	Yes	E, C	-	3-BRG/Geo
403	Temporary Special Shoring	Yes	Yes	E	No	Yes	E, C	-	3-BRG/Geo
407	Steel Piling	See Comments	N/A	N/A	N/A	N/A	N/A	2	N/A
420	Formwork/Falsework	Yes	Yes	E	No; See Comments	Yes	E	10,11	5-BRG/Cst
423	Retaining Walls, coping, any ancillary components (calcs reqd)	Yes	Yes	E, EOR	Yes	Yes	All	6, 7	3-BRG/Geo
425	Optional Design Calculations (Prstrs Bms)	Yes	Yes	EOR	Yes	Yes	EOR, F	-	1-BRG/Fab
425	Prestressed Concrete Panels	See Comments	N/A	N/A	N/A	N/A	N/A	1	N/A
425	Prestressed Concrete Piling	See Comments	N/A	N/A	N/A	N/A	N/A	1	N/A
425	Prestressed Concrete Sheet Piling	Yes	Yes	EOR	Yes	No	All	-	3-BRG/Geo
425	Prestressed Concrete Beams	Yes	Yes	EOR	Yes	No	All	6	1-BRG/Fab
425	Prestressed Concrete Bent	Yes	Yes	EOR	Yes	No	All	6	1-BRG/Fab
426	Post Tension Details	Yes	Yes	EOR	Yes	No	All	-	5-BRG/Cst

Quick Key
(Full description at end of document)

Abbreviations
E=Engineer
EOR=Engineer of Record
C=Contractor
F=Fabricator
All=
EOR
District dedicated addr
TxDOT pers as directed
Contractor
Fabricator
Detailing Ofc (if not Fab)
RR or TollRd Ofc (if applic)
Construction Div

Comments
1-reqmt drpd by plan note
2-N/A, due to min fabr
6-archive, Distr to GSD
7-route through District

Spec Item No.'s	Product	Submittal Required	Electronic Submittal & Final Set Accepted ?	Typically Reviewed By:	Approval Required (Y/N)	Contractor/ Fabricator P.E. Seal Required	Final Set Recipients	Comments	Division Review Contact
434	Elastomeric Bearing Pads (All)	Yes	Yes	EOR	Yes	No	All	-	1-BRG/Fab
441	Misc Steel (various steel assemblies)	Yes	Yes	EOR	Yes	No	All	-	1-BRG/Fab
441	Steel Pedestals (bridge raising)	Yes	Yes	EOR	Yes	No	All	-	1-BRG/Fab
441	Steel Bearings	Yes	Yes	EOR	Yes	No	All	-	1-BRG/Fab
441	Steel Bent	Yes	Yes	EOR	Yes	No	All	6	1-BRG/Fab
441	Steel Diaphragms	Yes	Yes	EOR	Yes	No	All	-	1-BRG/Fab
441	Steel Finger Joint	Yes	Yes	EOR	Yes	No	All	-	1-BRG/Fab
441	Steel Plate Girder	Yes	Yes	EOR	Yes	No	All	6	1-BRG/Fab
441	Steel Tub and Box-Girders	Yes	Yes	EOR	Yes	No	All	6	1-BRG/Fab
441	Erection Plans, including Falsework	Yes	Yes	E	N	Yes	E	-	5-BRG/Cst
449	Sign Bridge Anchor Bolts	Yes	Yes	EOR	Yes	No	All	-	1-BRG/Fab
450	Railing (Curved rails mostly, per plan note radius criteria)	Per Plan Note	Yes	EOR	Yes	No	All	-	1-BRG/Fab
454	Armor Joints, Sealed Expansion Joints	See Comments	N/A	N/A	N/A	N/A	N/A	1	N/A
462	Concrete Box Culvert (Alternate Designs Only, calcs reqd)	Yes	Yes	E	Yes	Yes	All	5, 6	2-BRG/Dsn
464	Reinforced Concrete Pipe (Jack and Bore only; ONLY when requested)	See Comments	Yes	E	Yes	Yes	All	5	5-BRG/Cst
465	Pre-cast Junction Boxes, Inlets & Grates - Alternate Designs Only (calcs reqd for all)	Yes	Yes	E	Yes	Yes	All	5	2-BRG/Dsn
610	Roadway Illumin Supports (Non-std only)	Yes	Yes	EOR	Yes	Yes	All	-	4-BRG/Sup
613	High Mast Illumination Poles (Non-standard only, calcs reqd)	Yes	Yes	EOR	Yes	Yes	All	-	4-BRG/Sup
614	High Mast Illumination Rings (Non-prequalified or alternate designs only)	Yes	Yes	EOR	Yes	Yes	All	-	4-BRG/Sup
627	Treated Timber Poles	Yes	Yes	E	No	No	E	3	7-TRF/Std
634	Plywood Signs, non-standard	See Comments	N/A	N/A	N/A	N/A	N/A	4	7-TRF/Std
636	Aluminum Signs, non-standard	See Comments	N/A	N/A	N/A	N/A	N/A	4	7-TRF/Std
644	Bridge Mounted Clr. Sign (non-std only)	Yes	Yes	EOR	Yes	No	All	-	1-BRG/Fab
644	Small Roadside Sign Assemblies, non-standard	Yes	Yes	EOR	Yes	Yes	All	-	4-BRG/Sup
647	Large Roadside Sign Supports and Assemblies, non-standard	Yes	Yes	EOR	Yes	Yes	All	-	4-BRG/Sup
650	Cantilever Sign Bridge Supports - Alternate Design Calcs	Yes	Yes	EOR	Yes	Yes	All	-	1-BRG/Fab
650	Sign Bridge	Yes	Yes	EOR	Yes	No	All	-	1-BRG/Fab
654	Sign Walkways	Yes	Yes	EOR	Yes	No	All	-	1-BRG/Fab
685	Roadside Flashing Beacon Assemblies	Yes	Yes	E	No	No	E	8	7-TRF/Std

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Contractor
Fabricator
Detailing Ofc (if not Fab)
RR or TollRd Ofc (if applic)
Construction Div

Comments
1-reqmt drpd by plan note
2-N/A, due to min fabr
3-submit treatment certif
4-reqmt drpd by 2004 spec
5-to E (E's optn- to BRG)
6-archive, Distr to GSD
7-route through District
8-erect per manuf reqmt

Spec Item No.'s	Product	Submittal Required	Electronic Submittal & Final Set Accepted ?	Typically Reviewed By:	Approval Required (Y/N)	Contractor/ Fabricator P.E. Seal Required	Final Set Recipients	Comments	Division Review Contact
686	Traffic Signal Pole Assemblies (Steel), non-standard	Yes	Yes	EOR	Yes	Yes	All	-	4-BRG/Sup
784	Repairing Steel Bridge Members	Yes	Yes	E	Yes	No	E, C	-	5-BRG/Cst
SS 4306	Prestressed Concrete Crown Span	Yes	Yes	EOR	Yes	No	All	6	1-BRG/Fab
SS 4036	Sound Barrier Walls	Yes	Yes	EOR	Yes	No	All	-	2-BRG/Dsn
SS 6071	Camera Poles (Also SS 6611, 6941, etc)	Yes	Yes	EOR	Yes	Yes	All	-	1-BRG/Sup
SS 4007	Pedestrian Bridges (Calcs reqd)	Yes	Yes	EOR	Yes	Yes	All	6	2-BRG/Dsn
SS (cmnt)	Segmental Bridges, Items ~ CPA,SEG	Yes	Yes	EOR	Yes	See cmnt.	All	6,9	2-BRG/Dsn
SS (cmnt)	Segmental Bridges ~ FED,GEOM,MAT,SCH	Yes	Yes	E	No	See cmnt.	E	9	2-BRG/Dsn

Quick Key
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Abbreviations
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EOR=Engineer of Record
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All= EOR, District dedicated addr, TxDOT persn as directed, Contractor, Fabricator, Detailing Ofc (if not Fab), RR or TollRd Ofc (if applic), Construction Div

Key to Comments

1. Requirement dropped per standard plan note, cir. June, 2004. Check applicable plan set standard notes.
2. No drawings required due to minimal fabrication.
3. Submit pole treatment certificate.
4. Requirement droppped per 2004 Spec Book.
5. Usually submitted to and reviewed by the Engineer; Bridge will review the submittal at the Engineer's request.
6. NOTE: District Offices are responsible for submitting "As-built" plan sets (approved shop drawings) for these items to the General Services Division for archiving at the completion of the construction project. (Do not include casting drawings and design calculations with retaining wall "As-builts").
7. Send **r**etaining wall shop drawings to the District. The District will route them through the offices necessary to perform all facets of the review. (i.e.~ for geometry, structural, ancilliary component reviews)
8. Sign supports must be manufactured and placed in accordance with manufacturer's application and installation requirements.
9. Special specification number varies from project to project. Click "Guide" link (top of page), and see "Segmental Bridges", for descriptions of these abbreviated submittal items. See project Special Specification for sealing requirements.
10. The Engineer may require that the Contractor have a P.E. certify it is constructed according to sealed drawings.
11. Approval is required for items spanning over live traffic or where the safety of the traveling public is affected, as per the opinion of the Engineer.

Submittal Copy Recipients

When the Engineer ("E") is the primary recipient, also copy:
- District dedicated shop plan address (when not the primary recipient, such as when the Area Engineer is the primary, or "To:", recipient) **Note:** submittals may be rejected if this address is not included.
- TxDOT personnel as directed by the District
- Contractor (when different from the submitter)

When the Engineer of Record ("EOR") is the primary recipient, also copy:
- District dedicated shop plan address (when not the primary recipient, such as when the District is the reviewing office) **Note**: submittals will be rejected if this address is not included.
- TxDOT personnel as directed by the District
- Contractor
- Fabricator, when submitted by a Detailing Office separate from the Fabricator

Key to Division Review Contacts (For TxDOT District reference.)

1. Bridge Div./Field Ops.-Fabrication/Jeff Cotham
2. Bridge Div./Design Section/Jamie Farris
3. Bridge Div./Field Ops.-Geotech/John Delphia
4. Bridge Div./Design -Support/Tim Bradberry
5. Bridge Div./Field Ops.-Construction/Graham Bettis
6. Traffic Operations/TE-Illumination/Greg Jones
7. Traffic Operations/TE-Policy & Standards/Michael Chacon

Bridge Division dedicated shop plan address:
Brg_ShopPlanReview (Add suffix "@txdot.gov")
Fabricators: Send drawings to this address for review by any of the above Bridge Division contacts, only when directed to do so by the District. Do not send drawings to Bridge Division employee email addresses.

Traffic Operations email addresses:
Greg Jones: Greg.Jones (Add suffix "@txdot.gov")
Michael Chacon: Michael.Chacon (Add suffix "@txdot.gov")

Caution: Do not "CC" submittals to more recipients than is required by this submittal list, unless directed to do so by the District. Excessive copying unnecessarily uses TxDOT server space and can cause duplicate reviews by those unfamiliar with the process. (See statement near the top of this document concerning reviewer designation as associated with the "To:" field.)

For "**ALL**" description, see "Final Set Recipients" on next page.

Final (Approved Shop Plan) Set Recipients

After completing reviews, the reviewer ("E" or "EOR") distributes the shop plan or working drawing set to the recipients shown in the table per the specific item. The recipient list indicated by **"All"** is as follows:

- The EOR keeps a copy for their records
- **District dedicated shop plan address
- TxDOT personnel as directed by the District
- Contractor
- Fabricator
- Detailing office, if different than the Fabricator
- Railroad or Tollroad authority if associated with a project
- **Construction Division dedicated shop plan address See the above shop plan contacts link for this address.

** It is extremely important that these two recipients be copied at the end of these types of reviews.

Revisions

4/5/2010 - change BRG/GEOT contact to John Delphia
4/11/2011 - add segmental bridge submittall items; change BRG/DSN contact to Gregg Freeby.
6/28/2011 - final set recipients for segmental working drawings changed to "E" only
2/13/2013 - archive requirements for segmental shop drawings
4/9/2014 - 465 Jnctn Bxs, Inlts, Grts - req'd on optnl dsns only
10/30/2015 - Updated multiple items to agree with 2014 Constr. Spec.; added comments to 420 Formwork/Falsework.
2/16/2016 - removed reference to 2004 special provision.