



Arizona Department of Transportation

INTERMODAL TRANSPORTATION DIVISION
Construction Group

CONSTRUCTION BULLETIN 08-02

To:

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District Engineers
Construction Orgs
Consultant Contract Administrator

Date: October 8, 2008

From: Julio Alvarado, Assistant State
Engineer, Construction

Subject: Field Red-Line Drawings

Submittal of Red-Lines in an Accurate, Complete, Consistent and Timely Manner

Purpose

- To ensure complete, consistent and timely submission of field red-line drawings;
- To ensure that *all* field red-line drawings performed as part of the contract are received;
- To define the responsibilities and forms required for the red-line submittal process.

Background

There have been instances where past field red-line submittals have been incomplete and incorrect. In addition, upon completion of the construction project, there have been instances where the red-lines have not been compiled and submitted in a timely manner.

Process

As construction progresses, the RE shall record any physical modifications. It is recommended that the field office identify a single drawing set to be used for red-lines prior to the start of construction. Modifications should be recorded promptly to ensure a thorough and accurate set of as-builts can be compiled. (Red-lines can be prepared electronically.)

Within 45 days after project final acceptance, the RE shall assemble the final red-line drawings and transmit them to the designer of record (including Consultant, internal ADOT and Local Government administered projects), accompanied by the revised Field Red-Line Information form and the newly-developed As-Built Preparation Estimate form (both attached). The As-Built Preparation form denotes the number of plan sheets with modifications. A copy of the As-Built Preparation Estimate will also be sent to the ADOT Project Manager for their use.

After all modifications (addendums, change orders, field adjustments, RFIs) are incorporated into the final as-built plans set, the set is returned to the RE (along with the RE's red-line drawings) for a final review. It is the RE's responsibility to confirm that all modifications have been integrated into the final as-built plans. Ensure that any other contract requirements (such as CAP, electrical, etc.) have also been submitted. Upon concurrence, the set is transmitted to the Statewide Project Management Specialist (copy Project Manager the Field Red-Line Information and As-Built Preparation forms only). Concurrence and transmittal must be done within five working days.

A Quantlist has been developed to assist inspectors, project supervisors and office personnel in the task of ensuring that as-builts are complete and accurate for submittal. Upon project completion, the RE shall complete the "Field Red-Line" Quantlist (attached). The Field Red-Line Quantlist is available on the ADOT Quantlist Application.

Attachments

Construction Inspection Quantlist

General Provisions Division 1 Field Red-Lines

Tracs Number:		Version:	10082008
Reviewer:		SubContractor:	
Author:	Joe Rodriguez	Begin Date:	
Completion Date:		Bid \$ Amount:	
Final \$ Amount:			

Conforming?	Attributes
Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/>	1. All Field Red-Lined changes are recorded onto a hardcopy (Half or Full size.) of the Original As-Bid plans.
	Comment:
Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/>	2. Field Red-Line submittal includes all As-Bid plan sheets and addendums (any sheets replaced or not used are "Xed" out and retained in the Red-Line submittal).
	Comment:
Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/>	3. Field Red-Line information is complete-includes location, (stationing, elevations, offsets etc.), dimensions, and item name.
	Comment:
Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/>	4. Field Red-Lines include all plan's modifications whether by field adjustments, supplemental agreements or RFIs.
	Comment:
Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/>	5. Field Red lines include all utility work (gas, water, CAP, electric, communications, irrigation, railroad, etc.) moved, added or abandoned as part of the construction project.
	Comment:
Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/>	6. Field Red-Lines include only information relevant to the modifications. (Insure inspector's field notes are not included.)
	Comment:
Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/>	7. Field Red-Lines are legible; drawings and text are done neatly and print size is adequate.
	Comment:
Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/>	8. Field Red-Lines have been checked for accuracy prior to submittal to the designer of record.
	Comment:

Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/>	9. Field Red-Lines ready for submittal is a complete set and are in a correct sequential order.
	Comment:
Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/>	10. The Resident Engineer has completed, signed and dated the Field Red-Lines Information form.
	Comment:
Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/>	11. The Resident Engineer has completed the yellowed portion of the As-Built Preparation Estimate form.
	Comment:
Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/>	12. RE submits Field Red-Lines (and Information and Preparation Estimate submittals) to designer of record (including Consultant, internal ADOT & Local Government administered projects) within 45 days of project final acceptance. (copy only submittals to PM)
	Comments:

Attribute Parity	0
Number of non-conforming attributes	0
Percent Conformance=(Sum yes's/Sum yes's+Sum no's)*100 Calculate <input type="checkbox"/>	



ARIZONA DEPARTMENT OF TRANSPORTATION
“FIELD REDLINES”
CONSTRUCTION ORG. INFORMATION

PROJECT #: _____ TRACS #: _____

CONTRACTOR: _____

BEGIN DATE: _____ COMPLETION DATE: _____

BID AMOUNT: \$ _____ FINAL AMOUNT: \$ _____

ANY ADDITIONAL ADDENDUM PLAN SHEETS? Yes No

SHEET NUMBERS: _____

ANY ADDITIONAL CHANGE ORDER PLAN SHEETS? Yes No

SHEET NUMBERS: _____

OFFICE MANAGER		
NAME: _____		
PHONE: _____	MAILDROP: _____	ORG: _____

RESIDENT ENGINEER	
PRINT NAME: _____	
SIGNATURE: _____	DATE: _____

ORG COMMENTS: _____

PERSON WHO OVERSAW THE PREPARATION OF THE AS BUILT PLANS :	
PRINT NAME: _____	
SIGNATURE: _____	DATE: _____

NOTE: The prepared As built plans represent the District’s approved changes performed in the field following the direction of the Resident Engineer’s best Engineering Practices and/or technical advice by the designer. To the best Engineering knowledge the changes included will not affect the overall design of the changed elements.

INTEROFFICE MAIL

MAIL DROP 614-E
 STATEWIDE PROJECT MANAGEMENT
 C/O: STATEWIDE PROJECT MANAGEMENT
 SPECIALIST, JOE RODRIGUEZ

MAIL ADDRESS:

205 S. 17TH AVENUE MAIL DROP: 614-E
 PHOENIX, AZ. 85007
 C/O: STATEWIDE PROJECT MANAGEMENT
 SPECIALIST



Arizona Department of Transportation

As Built Preparation Estimate

Project Number: _____

TRACS Number: _____

Resident Engineer's Name: _____

Date: _____

**Enter your data in all yellow fields
DO NOT CHANGE THESE FIELDS**

			Number or Sets	Estimated Minutes/ Sheet	Total Estimated Minutes	Total Estimated Hours
Number of sheets in plan set		sheets				
Number of sheets with no revisions (no redlines) but include checking of seal and signature (1 min/sheet)		sheets				
(* Number of sheets with limited revisions (minor edit redline changes) (15 min/sheet).		sheets				
(* Number of sheets with extensive revisions (some drawings need to be either created or edited) (40 min/sheet)		sheets				
Number of extra sheets to confirm that all pages are signed (1 min/sheet)		sheets				
print half-size sets (1 check, 1 final) (10 sec/sheet)		sheets				
print set (1 full size) (30 sec/sheet)		sheets				
scan and copy set for CD (2 min/sheet .pdf)		sheets				
Administration (contract estimate, QC etc)						
Total Project Hours =						
Equivalent to (min/sheet) =						

(* Note: Some major changes may need more time to re-draw some details.

If that is the situation in your project then add 5 to 10% total hours or consult with the As Built Statewide Project Management Specialist