### Goals of the Work Zone Traffic Control Review

Each year ....... staff, along with FHWA, perform Program Quality Reviews (PQR) in various program areas. This year, the area of work zone traffic control was selected for review. The goal of the review is to identify aspects of work zone traffic control, through discussions from field personnel, that work and aspects that need improvement. In addition, the effectiveness of .......... quality assurance program will be discussed to identify areas that work well and areas that need improvement. Input from these discussions will be used to improve project plans, specifications as well as ............ quality assurance procedures.

This review is not a compliance review. Instead, ............ Staff and FHWA have the goal to utilize the experiences from field personnel to improve the work zone traffic control program to best facilitate the safest environment possible for the traveling public.

#### 1997 ...../FHWA PROGRAM QUALITY REVIEW

#### WORK ZONE TRAFFIC CONTROL

Project Number: Date:

Location: Prime Contractor:

Program Engineer: Traffic Control Contr.:

Resident Engineer: Percent Work Complete:

Project Engineer: Percent Time Elapsed:

Contract Amount:

### **MEMBERS OF THE REVIEW TEAM**

FHWA:

Staff Construction: Staff Traffic:

Program Engineer: Reg. Traffic Engr.: Resident Engineer: Project Engineer:

Other Participants:

#### SECTION I

#### **OFFICE REVIEW**

#### Method of Handling Traffic (MHT)

- 1. Are the requirements for MHT's appropriate (i.e.: time for filing record, detailed diagram, review by prime contractor and ...... personnel, detail required, accuracy in following plan, etc)?:
- 2. When and how is pedestrian access included in the MHT plans?

3.	How are personnel trained to review and approve MHT's?
	What additional training is needed?
4.	How do personnel review and approve MHT's?
5.	What aspects of the Traffic Control Plans (TCP's) work well on the project?
	How could they be improved.
6.	What difficulties where experienced in implementing detours on the project?
	How can they be improved?
7.	How is law enforcement involved in TCP/MHT discussions?
8.	How are accidents/incidents handled on the project?
noc	tion & Maintonance of Traffic Control Devices (TCD's)

- Inspection & Maintenance of Traffic Control Devices (TCD's)
  - 9. What techniques are being used to ensure that project traffic control devices:
    - A. A. are clean and in good condition?

    - B. are in the appropriate location & legend?C. C.are the correct size and are installed at the correct height

10.	How could the specifications be improved to ensure that TCD's are appropriately maintained on the project (signing, sign posts, cones, drums, etc)?
11.	What is the frequency and scope of night inspections on the project?
12.	What problems have been encountered with the traffic control features during at night operations?
	What improvements could be made to make them more effective?
Project	Traffic Control Supervisor/Traffic Control Inspection (TCS/TCI)
13.	What aspects of the project specifications concerning the TCS/TCI are working well?
	How could the specification be improved?
14.	What aspects of the new TCI specification have been beneficial?
	How could the specification be improved?
15.	What process is used to ensure that TCS/TCI inspections are accordance with project specifications (frequency, coverage, etc.)?
	How are deficiencies corrected?

# **Flaggers**

16. Are flaggers adequately trained?
What additional training is needed?
17. Are there any problems with the proctor certification program for flaggers?
ilaggoro.
18. How are "relief breaks" paid for on the project?
19. What aspect of flagger usage is inappropriate?
Variable Message Signs
20. How are variable message signs used on the project?
21. What messages are useful?
22. How many panels per cycle appears to be most effect?
23. Does or the contractor author the messages on the sign?
24. What maintenance problems have been experienced with the signs?
24. What maintenance problems have been experienced with the signs?
25. What methods are used to protect/delineate the signs along the
roadside?
Pavement Markings

26. Are existing pavement markings sufficiently removed for traffic shifts?

27. Are conflicting pavement markings a problem?

1	nera	ii Sarety Questions
	28.	Have you used the new guidelines for reduction of speed limits?
		How do they work?
	29.	How is the clear zone determined for the project?
	30.	What steps are taken to adequately protect from hazards that are in the clear zone such as the contractors equipment and materials, pavement drop-offs, etc?
		How could the specification be improved to keep the clear zone safe?
		Tiow could the specification be improved to keep the clear zone sale?
	31.	How is the contractor protecting workers in the work zone?
	32.	How is concrete barrier used on the project?
		How are the upstream ends protected from traffic (sand barrels, GREATCZ, TMA's etc)?

# In General

33. What is working well?

35. How can the Headquarters and the Region improve?
36. What new technologies are you using on your projects?
SECTION II
FIELD REVIEW
Items noted during office review
Sample Transmittal Memorandum
DATE: November 2, 1997
FROM:
TO: Quality Improvement Council
<b>SUBJECT:</b> Construction - Annual Program Quality Review (PQR) for 1997 on Work Zone Traffic Control
PQR FOCUS: The subject PQR was designed to identify aspects of work zone

traffic control that work well and aspects that could be improved through discussions with field personnel. This PQR was initiated to satisfy the

requirements of 23 CFR part 630 and as a means to find ways to improve the work zone traffic control aspect of ...........'s construction program. The review included discussions about project plans, M&S standards, specifications, as well

34. What is working poorly?

as the contractor's and	's quality	control	and quality	assurance
procedures.				

## **TEAM MEMBERS**:

Core members of the review:

Other people that assisted in conducting the review:

**DATES AND LOCATIONS:** The subject PQR consisted of visiting 11 projects thought out the state. The projects selected for the review were intended to give a good cross-section of the various types of projects encountered by ............ The following table summarizes the specific projects visited as part of this review:

# SCHEDULE 1997 ...../FWHA PROGRAM QUALITY REVIEW WORK ZONE TRAFFIC CONTROL

PRQ#	Date Time	Reg.	Project #	RE	PE
1	May 7 1:00 p.m.	2			
2	June 4 8:00 a.m.	6			
3	June 11 8:00 a.m.	6			
4	June 17 9:00 a.m.	5			
5	June 18 8:00 a.m.	3			
6	June 25 9:30 a.m.	3			
7	July 9 9:30 a.m.	2			
8	July 16 1:00 p.m.	1			
9	July 23 9:00 a.m.	4			
10	August 6 9:00 a.m.	1			
11	July 12 10:00 a.m.	4			

**RESULTS:** The work zone traffic control PQR resulted in several findings and recommendations which are detailed below.

Finding:

Recommendation:

Responsible Office: Staff Construction and Staff Traffic

**FUTURE REVIEWS**: To be determined. However, given the recommendation in item one, it is expected that the next work zone traffic control PQR will not be for another three or four years.

PERSON PREPARING THIS REPORT: ...... FHWA

**ATTACHMENTS:** None

