# Chapter 5: Quality Assurance Checklists for Work Zones in Design-Build Projects

This chapter presents a series of sample inspection checklists to aid design-builders and owners/agencies in conducting quality assurance in work zones in various phases of design-build projects. The checklists contained in this chapter are listed below.

* *Nighttime Work Zone Inspection Checklists:* These checklists are intended to allow design-builders and owners/agencies to conduct quality assurance inspections on the effectiveness of nighttime work zone operations.
* *Public Awareness and Motorist Information Strategies Checklists:* These checklists are intended to allow design-builders and owners/agencies to conduct quality assurance inspections on the effectiveness of public awareness and motorist information strategies.
* *Work Zone Incident Management Plan Checklists*: These checklists are intended to allow design-builders and owners/agencies to conduct quality assurance inspections on the effectiveness of work zone incident management plan.
* *Work Zone Inspection Checklists for Urban Freeways with Uninterrupted Flows:* These checklists are intended to allow design-builders and owners/agencies to conduct quality assurance inspections on the effectiveness of work zones for urban freeways with uninterrupted flows.
* *Work Zone Inspection Checklists for Urban Roadways with Interrupted Flows:* These checklists are intended to allow design-builders and owners/agencies to conduct quality assurance inspections on the effectiveness of work zones for urban roadways with interrupted flows.
* *Work Zone Traffic Control Inspection Checklists:* These checklists are intended to allow design-builders and owners/agencies to conduct quality assurance inspections on the effectiveness of work zone traffic control devices and operations.
* *Worker Safety Inspection Checklists*: These checklists are intended to allow design-builders and owners/agencies to conduct quality assurance inspections on the effectiveness of worker safety at work zones.

For more information on Design-Build Projects and Work Zone Management visit the FHWA Office of Innovative Program Delivery Web site at: http://www.fhwa.dot.gov/ipd/ and the FHWA Work Zone Management Web site: http://ops.fhwa.dot.gov/wz/index.asp

## Nighttime Work Zone Inspection Checklists

Below are sample checklists intended to allow design-builders and owners/agencies to conduct quality assurance inspections on the effectiveness of nighttime work zone operations.

|  |
| --- |
| General Project Information |

|  |  |
| --- | --- |
| Project no. | Click here to enter text. |
| Type of project | Click here to enter text. |
| Location | Click here to enter text. |
| Date (mm/dd/yyyy) | Click here to enter a date. |

|  |
| --- |
| Work Zone Information |

|  |  |
| --- | --- |
| Length of work zone (mi) | Click here to enter text. |
| No. of lanes per direction (before construction) | Click here to enter text. |
| No. of lanes per direction (during construction) | Click here to enter text. |
| Lane width (ft) | Click here to enter text. |
| Shoulder width (ft) | Click here to enter text. |
| Nighttime work zone speed limit (mph) | Click here to enter text. |
| Annual average daily traffic (AADT) | Click here to enter text. |
| Truck volume | Click here to enter text. |
| Allowable working hours | Click here to enter text. |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Lighting Specifications | | | | | | | | | | | | | | | |
| Question(s) | Roadway Luminaires on Poles | | | Portable Light Plant Towers | | | Balloon Lighting | | | Factory-Installed Lights on Equipment | | Others | N/A | | Comments, if any |
| What system/type of lighting is used? |  | | |  | | |  | | |  | |  |  | |  |
| |  | | --- | | Click here to enter text. |   Comments | | | | | | | | | | | | | | | |
| Question(s) | Yes | | No | | | N/A | | Comments, if any  (if No, identify action items) | | | | | | | |
| Is uniformity of illuminance (uniformity ratio) measured? |  | |  | | |  | | Click here to enter text. | | | | | | | |
|  | | | | | | | | | | | | | | | |
| Question(s) | | Level I - Low  Accuracy Tasks | | | Level II- Moderate  Accuracy Tasks | | | | Level III - High  Accuracy Tasks | | N/A | | | Comments, if any | |
| What are the State-specified illumination levels/thresholds for the following task categories? | |  | | |  | | | |  | |  | | Click here to enter text. | | |
|  | | | | | | | | | | | | | | | |
| Question(s) | | Yes | | | No | | | | N/A | | Comments, if any  (if No, identify action items) | | | | |
| Are the work zone illumination levels/thresholds in accordance with State specifications? | |  | | |  | | | |  | | Click here to enter text. | | | | |

| Lighting Equipment | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments, if any  (if No, identify action items) |
| Is the lighting equipment installed accurately? |  |  |  | Click here to enter text. |
| Is the lighting equipment oriented and mounted accurately? |  |  |  | Click here to enter text. |
| Are portable generators used to operate any of the lighting equipment? |  |  |  | Click here to enter text. |
| Is the lighting equipment spaced correctly? |  |  |  | Click here to enter text. |

| Illumination for Construction Operations | | | | | |
| --- | --- | --- | --- | --- | --- |
| Question(s) | Level I - Low  Accuracy Tasks | Level II- Moderate  Accuracy Tasks | Level III - High  Accuracy Tasks | N/A | Comments, if any |
| What illumination levels and average minimum illuminance are maintained for the following tasks? |  |  |  |  |  |
| * Excavation—regular, lateral ditch, channel |  |  |  |  | Click here to enter text. |
| * Embankment, filling and compaction |  |  |  |  | Click here to enter text. |
| * Barrier walls, traffic separators |  |  |  |  | Click here to enter text. |
| * Milling and removal |  |  |  |  | Click here to enter text. |
| * Resurfacing |  |  |  |  | Click here to enter text. |
| * Concrete pavement construction |  |  |  |  | Click here to enter text. |
| * Subgrade stabilization and construction |  |  |  |  | Click here to enter text. |
| * Base courses—clay, cement, asphalt |  |  |  |  | Click here to enter text. |
| * Surface treatment |  |  |  |  | Click here to enter text. |
| * Waterproofing/sealing |  |  |  |  | Click here to enter text. |
| * Sidewalk construction |  |  |  |  | Click here to enter text. |
| * Riprap placement |  |  |  |  | Click here to enter text. |

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| Illumination for Construction Operations (continued) | | | | | | | | |
| Question(s) | Level I - Low  Accuracy Tasks | | Level II- Moderate  Accuracy Tasks | | Level III - High  Accuracy Tasks | | N/A | **Comments, if any** |
| * Guardrail/fencing installation |  | |  | |  | |  | Click here to enter text. |
| * Pavement markings/markers placement |  | |  | |  | |  | Click here to enter text. |
| * Landscaping/grassing/   sodding |  | |  | |  | |  | Click here to enter text. |
| * Highway signing installation during construction |  | |  | |  | |  | Click here to enter text. |
| * Traffic signal installation |  | |  | |  | |  | Click here to enter text. |
| * Highway lighting system construction |  | |  | |  | |  | Click here to enter text. |
| * Bridge deck construction |  | |  | |  | |  | Click here to enter text. |
| * Drainage structures, culverts and sewers construction |  | |  | |  | |  | Click here to enter text. |
| * Construction of other concrete structures |  | |  | |  | |  | Click here to enter text. |
| * Others, please specify below |  | |  | |  | |  | Click here to enter text. |
| * Click here to enter text. |  | |  | |  | |  | Click here to enter text. |
| * Click here to enter text. |  | |  | |  | |  | Click here to enter text. |
| * Click here to enter text. |  | |  | |  | |  | Click here to enter text. |
| * Click here to enter text. |  | |  | |  | |  | Click here to enter text. |
| Question(s) | Yes | No | | N/A | | Comments, if any  (if No, identify action items) | | |
| Is there a need for additional personnel for nighttime construction operations? |  |  | |  | | Click here to enter text. | | |
| Is there a need for additional lighting in the work area during construction operations? |  |  | |  | | Click here to enter text. | | |

| Illumination for Maintenance Operations | | | | | |
| --- | --- | --- | --- | --- | --- |
| Question(s) | Level I – Low  Accuracy Tasks | Level II – Moderate  Accuracy Tasks | Level III – High  Accuracy Tasks | N/A | Comments, if any |
| What illumination levels and average minimum illuminance are maintained for the following tasks? |  |  |  |  | Click here to enter text. |
| * Maintenance of earthwork/embankment |  |  |  |  | Click here to enter text. |
| * Reworking shoulders |  |  |  |  | Click here to enter text. |
| * Barrier wall or traffic separator installation/removal/repair |  |  |  |  | Click here to enter text. |
| * Milling and removal |  |  |  |  | Click here to enter text. |
| * Resurfacing |  |  |  |  | Click here to enter text. |
| * Repair of concrete pavement |  |  |  |  | Click here to enter text. |
| * Crack filling |  |  |  |  | Click here to enter text. |
| * Pot filling |  |  |  |  | Click here to enter text. |
| * Surface treatment |  |  |  |  | Click here to enter text. |
| * Waterproofing/sealing |  |  |  |  | Click here to enter text. |
| * Sidewalk repair and maintenance |  |  |  |  | Click here to enter text. |
| * Riprap maintenance |  |  |  |  | Click here to enter text. |
| * Resetting guardrail/fencing |  |  |  |  | Click here to enter text. |
| * Pavement markings/markers placement and removal |  |  |  |  | Click here to enter text. |
| * Landscaping/grassing/sodding |  |  |  |  | Click here to enter text. |
| * Highway signing installation for maintenance operations |  |  |  |  | Click here to enter text. |
| * Traffic signals maintenance |  |  |  |  | Click here to enter text. |
| * Highway lighting system—repair and maintenance |  |  |  |  | Click here to enter text. |
| * Bridge deck rehabilitation and maintenance |  |  |  |  | Click here to enter text. |

| Illumination for Maintenance Operations (continued) | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Question(s) | Level I – Low  Accuracy Tasks | Level II – Moderate  Accuracy Tasks | Level III – High  Accuracy Tasks | | N/A | | Comments, if any |
| * Drainage structures maintenance and rehabilitation |  |  | |  | |  | Click here to enter text. |
| * Sweeping and cleanup |  |  | |  | |  | Click here to enter text. |
| * Others, please specify below |  |  | |  | |  | Click here to enter text. |
| * Click here to enter text. |  |  | |  | |  | Click here to enter text. |
| * Click here to enter text. |  |  | |  | |  | Click here to enter text. |
| * Click here to enter text. |  |  | |  | |  | Click here to enter text. |
| * Click here to enter text. |  |  | |  | |  | Click here to enter text. |
| Is there a need for additional personnel for nighttime maintenance operations? |  |  | |  | | Click here to enter text. | |
| Is there a need for additional lighting in the work area during maintenance operations? |  |  | |  | | Click here to enter text. | |

| Illumination for Traffic Operations | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments, if any  (if No, identify action items) |
| Is there a pre-approved lighting plan in place? |  |  |  | Click here to enter text. |
| Will visibility for users be affected by lane drops/lane shifts/onsite obstructions? |  |  |  | Click here to enter text. |
| Is there any existing street lighting available? |  |  |  | Click here to enter text. |
| Is there a light trespass to the adjoining properties? |  |  |  | Click here to enter text. |
| Is there a need for additional temporary traffic control? |  |  |  | Click here to enter text. |
| Do the covered walkways need to be lighted for nighttime use? |  |  |  | Click here to enter text. |
| Do the temporary traffic control zone and approaches need to be lighted? |  |  |  | Click here to enter text. |
| Are retroreflective hand-signaling devices (STOP/SLOW paddles, flags) needed? |  |  |  | Click here to enter text. |
| Is there a need for the flagger/spotter stations to be illuminated? |  |  |  | Click here to enter text. |
| Are messages on changeable message signs (CMS) readable and comprehensible to the users? |  |  |  | Click here to enter text. |
| Are flashing arrow panels used? |  |  |  | Click here to enter text. |
| Are the arrow panel elements operated on a dimmed mode? |  |  |  | Click here to enter text. |
| Are floodlights needed to illuminate the work area, equipment crossings, and other areas during nighttime work? |  |  |  | Click here to enter text. |
| Are warning lights visible under foggy conditions? |  |  |  | Click here to enter text. |
| Does the lighting design take into account geometric constraints such as limited or no shoulders, bridges, working adjacent to open lanes of traffic, horizontal and vertical curvature of the roadway, and intersections? |  |  |  | Click here to enter text. |

| Glare Control | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Question(s) | Hoods | | Louvers | | Shields | | Others | Comments, if any |
| What glare control devices are used during nighttime operations in the work area? |  | |  | |  | |  | Click here to enter text. |
| Question(s) | Yes | No | | N/A | | Comments, if any  (if No, identify action items) | | |
| Are there any glare control measures used? |  |  | |  | | Click here to enter text. | | |
| Is there a light trespass from the lighting equipment to the adjoining properties? |  |  | |  | | Click here to enter text. | | |
| Does floodlighting produce a disabling glare condition for approaching road users, flaggers, or workers? |  |  | |  | | Click here to enter text. | | |
| Are luminaires aimed either parallel or perpendicular to the roadway? |  |  | |  | | Click here to enter text. | | |
| Are barrier walls and glare avoidance screens used? |  |  | |  | | Click here to enter text. | | |

| Safety of Workers, Flaggers, and Users | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments, if any  (if No, identify action items) |
| Are traffic drums and cones placed closely to prevent intrusions? |  |  |  | Click here to enter text. |
| Do construction crew personnel use high-visibility apparel (Type 3) in the work area? |  |  |  | Click here to enter text. |
| Is nighttime safety training conducted for all workers in the work area? |  |  |  | Click here to enter text. |

| Contingency Plan | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments, if any  (if No, identify action items) |
| Is there a contingency plan in the event of power outage (e.g., use of portable generators and/or other electrical devices)? |  |  |  | Click here to enter text. |
| Is the hazardous materials response in compliance with Environmental Protection Agency (EPA) regulations? |  |  |  | Click here to enter text. |
| Are there additional lighting equipment/traffic control devices available for emergency situations? |  |  |  | Click here to enter text. |

## Public Awareness and Motorist Information Strategies Checklists

Below are sample checklists intended to allow design-builders and owners/agencies to conduct quality assurance inspections on the effectiveness of public awareness and motorist information strategies.

|  |
| --- |
| General Project Information |

|  |  |
| --- | --- |
| Project no. | Click here to enter text. |
| Type of project | Click here to enter text. |
| Location | Click here to enter text. |
| Date (mm/dd/yyyy) | Click here to enter a date. |

|  |
| --- |
| Work Zone Information |

|  |  |
| --- | --- |
| Length of work zone (mi) | Click here to enter text. |
| No. of lanes per direction (before construction) | Click here to enter text. |
| No. of lanes per direction (during construction) | Click here to enter text. |
| Lane width (ft) | Click here to enter text. |
| Shoulder width (ft) | Click here to enter text. |
| Work zone speed limit (mph) | Click here to enter text. |
| Annual average daily traffic (AADT) | Click here to enter text. |
| Truck volume | Click here to enter text. |
| Allowable working hours | Click here to enter text. |

| Public Information and Outreach Strategies | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Has the size and nature of a public information and outreach effort for the project been determined? |  |  |  | Click here to enter text. |
| Are there different public information and outreach strategies for projects with smaller and shorter duration work zones, as compared to those with bigger and longer duration work zones? |  |  |  | Click here to enter text. |
| Has a cost-benefit analysis been conducted for the public information and outreach campaign? |  |  |  | Click here to enter text. |
| Have internal resources (e.g., agency personnel, agency owned facilities, equipment) been identified for developing and implementing the public information and outreach campaign? |  |  |  | Click here to enter text. |
| Have external resources (e.g., public relations agency) been identified for developing and implementing the public information and outreach campaign? |  |  |  | Click here to enter text. |
| Have public information and outreach campaign partners/stakeholders (e.g., State and local agencies, planned special event coordinators) been identified? |  |  |  | Click here to enter text. |
| Are there any procedures or protocols related to coordinating with the outreach campaign partners/stakeholders? |  |  |  | Click here to enter text. |
| Has a community task force been established that includes stakeholders likely to be impacted by the work zone (e.g., businesses, residents)? |  |  |  | Click here to enter text. |
| Have target audiences for the public information and outreach campaign been identified? |  |  |  | Click here to enter text. |
| Are there different outreach campaign strategies in place to address residents near the work zone who do not speak English? |  |  |  | Click here to enter text. |

| Public Information and Outreach Strategies (continued) | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Are there different outreach campaign strategies in place for special demographics (e.g., elderly, children, disabled)? |  |  |  | Click here to enter text. |
| Are the communication strategies tailored to the project context, the message being conveyed, and the funding constraints? |  |  |  | Click here to enter text. |
| Has the communication timing for the outreach campaign been determined? |  |  |  | Click here to enter text. |
| Does the outreach campaign include activities before and after project completion? |  |  |  | Click here to enter text. |
| Are there strategies to update or remove the project Web site after the project is completed? |  |  |  | Click here to enter text. |
| Are there strategies to evaluate and improve the effectiveness of public information and outreach campaigns? |  |  |  | Click here to enter text. |

| Public Awareness Strategies | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Are brochures and mailers containing project-related information (e.g., project start date, project schedule, route description, detour description) distributed to motorists, pedestrians, local residents/communities, businesses, and other local public entities? |  |  |  | Click here to enter text. |
| Are press releases/media alerts provided to news media, impacted businesses, and others? |  |  |  | Click here to enter text. |

| Public Awareness Strategies (continued) | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Are newsletters containing project-specific information sent to the media, businesses, local residents, and others? |  |  |  | Click here to enter text. |
| Are mass media resources used to provide progress updates or information regarding major changes to the work zone configuration and management approach? |  |  |  | Click here to enter text. |
| Are press kits and business survival kits used (containing tips and tactics for success during work zone construction, business survival videos, and general project information)? |  |  |  | Click here to enter text. |
| Are public service announcements (PSAs) used to support the main messages of a project's communication plan? |  |  |  | Click here to enter text. |
| Is there a public information center at or near the project site that contains materials such as scale model displays, maps, brochures, and videos about the project? |  |  |  | Click here to enter text. |
| Is there a traveler information system and an associated toll-free telephone number /hotline established to provide traffic or travel information for the work zone? |  |  |  | Click here to enter text. |
| Is there a public Web site set up to provide information on traffic, planned closures, and alternate travel routes? |  |  |  | Click here to enter text. |
| Are public meetings/hearings, workshops, and communication events organized? |  |  |  | Click here to enter text. |
| Is there a strategy established for coordinating with community, business, and media groups that are likely to be impacted by the work zone activities? |  |  |  | Click here to enter text. |
| Are there any strategies established to market existing/new rideshare programs? |  |  |  | Click here to enter text. |
| Are videos, slides, presentations, or other Web-based mechanisms used to supplement public meetings, public information center displays, or press releases? |  |  |  | Click here to enter text. |

| Motorist Awareness Strategies | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Is information about the work zone disseminated via the regularly scheduled traffic reports on commercial radio stations? |  |  |  | Click here to enter text. |
| Are changeable message signs (CMS) used to notify the road users of work zone related activities (e.g., lane and road closures, incidents, potential work zone hazards)? |  |  |  | Click here to enter text. |
| Are variable speed limit signs used to ensure work zone safety by reducing speeding and speed variations? |  |  |  | Click here to enter text. |
| Is a highway advisory radio (HAR) system used to inform motorists of the radio frequency where information is available? |  |  |  | Click here to enter text. |
| Is there a highway information network/Web site established to help stakeholder groups obtain information about specific work zones? |  |  |  | Click here to enter text. |
| Are 511 traveler information systems in place to provide static or real-time work zone related information? |  |  |  | Click here to enter text. |
| Is there a strategy for coordinating with the freight community (e.g., trucking companies) to identify and disseminate work zone information to these stakeholders? |  |  |  | Click here to enter text. |
| Are there transportation management centers (TMCs) established for coordinating and managing road user information dissemination activities? |  |  |  | Click here to enter text. |

## Work Zone Incident Management Plan Checklists

Below are sample checklists intended to allow design-builders and owners/agencies to conduct quality assurance inspections on the effectiveness of work zone incident management plan.

|  |
| --- |
| General Project Information |

|  |  |
| --- | --- |
| Project no. | Click here to enter text. |
| Type of project | Click here to enter text. |
| Location | Click here to enter text. |
| Date (mm/dd/yyyy) | Click here to enter a date. |

|  |
| --- |
| Work Zone Information |

|  |  |
| --- | --- |
| Length of work zone (mi) | Click here to enter text. |
| No. of lanes per direction (before construction) | Click here to enter text. |
| No. of lanes per direction (during construction) | Click here to enter text. |
| Lane width (ft) | Click here to enter text. |
| Shoulder width (ft) | Click here to enter text. |
| Work zone speed limit (mph) | Click here to enter text. |
| Annual average daily traffic (AADT) | Click here to enter text. |
| Truck volume | Click here to enter text. |
| Allowable working hours | Click here to enter text. |

| Incident Coordination | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments, if any |
| Are there any procedures or protocols related to coordinating with the following agencies? Please check the boxes as applicable. |  |  |  |  |
| * Federal agencies |  |  |  | Click here to enter text. |
| * State agencies |  |  |  | Click here to enter text. |
| * Local transportation agencies |  |  |  | Click here to enter text. |
| * State and local law enforcement personnel |  |  |  | Click here to enter text. |
| * Public and volunteer fire and rescue agencies |  |  |  | Click here to enter text. |
| * Regional, county, or local 911 dispatch |  |  |  | Click here to enter text. |
| * Towing and recovery providers |  |  |  | Click here to enter text. |
| * Emergency medical service providers |  |  |  | Click here to enter text. |
| * State and local hazardous material recovery personnel |  |  |  | Click here to enter text. |
| * Media agencies |  |  |  | Click here to enter text. |
| * State and local offices of emergency management |  |  |  | Click here to enter text. |
| * Public relations/public information specialists |  |  |  | Click here to enter text. |
| * Utility agencies |  |  |  | Click here to enter text. |
| * Other agencies (please list below) |  |  |  | Click here to enter text. |
| * + Click here to enter text. |  |  |  |  |
| * + Click here to enter text. |  |  |  |  |
| * + Click here to enter text. |  |  |  |  |
| * + Click here to enter text. |  |  |  |  |
| * + Click here to enter text. |  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Incident Coordination (continued) | | | | | | | | | |
| Question(s) | Construction and maintenance | Sporting events/  Concerts /Conventions etc. | | | Weather-related/  Catastrophic events | | N/A | | Comments, if any  (if No, identify action items) |
| Are there incident coordination strategies specific to any of the following events? Check boxes as applicable. |  |  | | |  | |  | | Click here to enter text. |
|  | | | | | | | | | |
| Question(s) | | | Yes | No | | N/A | | Comments, if any (if No, identify action items) | |
| Is a pre-qualified list of available and contracted towing and recovery operators maintained? | | |  |  | |  | | Click here to enter text. | |
| Is a pre-identified (approved) contact list of resources (including special equipment) for traffic clearance and hazardous materials response maintained? | | |  |  | |  | | Click here to enter text. | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Pre-Incident Checks | | | | |
| Question(s) | Yes | No | N/A | Comments, if any  (if No, identify action items) | |
| Has all the incident response onsite equipment been pre-staged? |  |  |  | Click here to enter text. | |
| Is the offsite equipment used for incident response maintained in working condition? |  |  |  | Click here to enter text. | |

| Incident Response Plan | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments, if any  (if No, identify action items) |
| Are there criteria used to identify major/minor traffic incidents (e.g., traffic incident levels or codes)? |  |  |  | Click here to enter text. |
| Are there designated agency or contracting personnel available around the clock to respond to a fatal crash or a major hazardous materials incident? |  |  |  | Click here to enter text. |
| Are the traffic control procedures during incidents in compliance with all applicable regulations? |  |  |  | Click here to enter text. |
| Are there equipment staging and emergency procedures onsite? |  |  |  | Click here to enter text. |
| Are there specific procedures in place for quick clearance of the work site? |  |  |  | Click here to enter text. |
| Are there any alternate equipment staging strategies for incident clearance? |  |  |  | Click here to enter text. |
| Is there an adequate lateral and longitudinal buffer zone between the work area and moving traffic? |  |  |  | Click here to enter text. |
| Is there a need for a two-way interagency voice communications system for direct, onsite communications between incident responders? |  |  |  | Click here to enter text. |
| Is there a need for data and video information transfer between agencies and applications? |  |  |  | Click here to enter text. |
| Is there a need to establish traffic management centers (TMCs) to coordinate incident notification and response? |  |  |  | Click here to enter text. |
| Is there a need to develop technical infrastructure for surveillance and rapid detection of traffic incidents? |  |  |  | Click here to enter text. |
| Is there a review plan in place for performance targets related to incident response? |  |  |  | Click here to enter text. |

| Incident Monitoring | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments, if any  (if No, identify action items) | |
| Are checks on equipment safety carried out? |  |  |  | Click here to enter text. | |
| Is a historical record of incidents, incident types, and incident impacts in the work area maintained? |  |  |  | Click here to enter text. | |
| Is there a need for work zone safety audits? |  |  |  | Click here to enter text. | |

| Traffic Operations Management | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments, if any  (if No, identify action items) | |
| Are intrusion alarms used in the work area? |  |  |  | Click here to enter text. | |
| Are portable changeable message signs (PCMS) used? |  |  |  | Click here to enter text. | |
| Are variable speed limit (VSL) signs used? |  |  |  | Click here to enter text. | |
| Are flagging operations used? |  |  |  | Click here to enter text. | |
| Are temporary lighting devices used? |  |  |  | Click here to enter text. | |
| Are temporary traffic signals used? |  |  |  | Click here to enter text. | |
| Are temporary rumble strips used? |  |  |  | Click here to enter text. | |
| Are there any access restrictions for pedestrians and bicycles? |  |  |  | Click here to enter text. | |
| Are intelligent transportation systems (ITS) used for traffic monitoring/management? |  |  |  | Click here to enter text. | |
| Are surveillance systems such as closed-circuit television (CCTV), loop detectors, lasers, or probe vehicles employed? |  |  |  | Click here to enter text. | |
| Is there a need for alternate/detour routes? |  |  |  | Click here to enter text. | |

| Emergency Measures | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments, if any  (if No, identify action items) | |
| Is there a strategy to deploy additional personnel and logistics to the incident site? |  |  |  | Click here to enter text. | |
| Is there an emergency detour plan available to accommodate overheight/overweight/oversize vehicles? |  |  |  | Click here to enter text. | |
| Are there emergency traffic control plans available? |  |  |  | Click here to enter text. | |
| Has including incentive/disincentive clauses for incident response been considered? |  |  |  | Click here to enter text. | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Training | | | | |
| Question(s) | Yes | No | N/A | Comments, if any | |
| Are the project personnel trained and qualified? |  |  |  | Click here to enter text. | |
| Are there incident response field/simulation training options available to the construction crew? |  |  |  | Click here to enter text. | |
| Is project safety training conducted onsite? |  |  |  | Click here to enter text. | |

| Traffic Demand Management | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments, if any  (if No, identify action items) |
| Are reversible lanes used if there are capacity restrictions or if there are no alternate routes? |  |  |  | Click here to enter text. |
| Is there a dynamic lane closure system in place to reduce vehicle conflicts? |  |  |  | Click here to enter text. |
| Are there any work hour restrictions for peak travel? |  |  |  | Click here to enter text. |
| Are there any rideshare promotion strategies available during incidents? |  |  |  | Click here to enter text. |
| Are there any shuttle services available during incident events? |  |  |  | Click here to enter text. |
| Are there transit service improvement strategies to reduce work zone traffic demand during incidents? |  |  |  | Click here to enter text. |
| Are high occupancy vehicle (HOV) lanes used? |  |  |  | Click here to enter text. |
| Are queue warning systems used? |  |  |  | Click here to enter text. |

| Traffic Bottlenecks | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments, if any  (if No, identify action items) |
| Is there a real-time communication system in place to alert users about roadside incidents? |  |  |  | Click here to enter text. |
| Is there a need to increase lateral clearance in the incident area? |  |  |  | Click here to enter text. |
| Are there detour strategies for motorists affected by traffic bottlenecks? |  |  |  | Click here to enter text. |
| Have you considered any measures to cover the incident with mesh screens? |  |  |  | Click here to enter text. |
| Have you considered any other measures to block the view of a traffic incident? |  |  |  | Click here to enter text. |
| Is the lane merge and diverge in accordance with State specifications? |  |  |  | Click here to enter text. |

| Inclement Weather Conditions | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments, if any  (if No, identify action items) |
| Are there provisions to send out real-time weather-related alerts to the traveling public? |  |  |  | Click here to enter text. |
| Are there weather alert traffic signs available? |  |  |  | Click here to enter text. |
| Are there procedures related to snow and ice clearance? |  |  |  | Click here to enter text. |
| Is there a treatment strategy to improve pavement and bridge deck conditions that can cause potential safety hazards? |  |  |  | Click here to enter text. |
| Are there variable speed limit (VSL) signs or changeable message signs (CMS) being used for weather-related activities? |  |  |  | Click here to enter text. |
| Are there provisions to modify traffic signal timing during inclement weather conditions? |  |  |  | Click here to enter text. |
| Are there strategies available to track traffic performance in inclement weather conditions (e.g., fog, snow)? |  |  |  | Click here to enter text. |
| Is there an evacuation strategy for lane submersion scenarios? |  |  |  | Click here to enter text. |

| Communications | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments, if any  (if No, identify action items) |
| Is there a provision to merge/integrate and interpret information from multiple sources? |  |  |  | Click here to enter text. |
| Are advanced response vehicles used that include a mobile communications platform, global positioning system (GPS) and other features? |  |  |  | Click here to enter text. |
| Are traffic radios, highway advisory radios, or 511 traveler information systems used? |  |  |  | Click here to enter text. |
| Are press releases/media alerts used? |  |  |  | Click here to enter text. |
| Are there telephone hotlines available? |  |  |  | Click here to enter text. |
| Are social media platforms used for providing incident-related information to the users? |  |  |  | Click here to enter text. |
| Is a project Web site set up to provide updated incident information? |  |  |  | Click here to enter text. |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Performance Measures | | | | |
| Question(s) | Yes | No | N/A | Comments, if any  (if No, identify action items) | |
| Is there a method in place to collect and analyze traffic incident-related performance measures? |  |  |  | Click here to enter text. | |
|  | | | | | |
| Question(s) | Performance Measures | | N/A | Comments, if any | |
| List the performance measures that are used to monitor incident-related responses. | 1. | |  |  | |
| 2. | |  | |
| 3. | |  | |
| 4. | |  | |

## Work Zone Inspection Checklists for Urban Freeways with Uninterrupted Flows

Below are sample checklists intended to allow design-builders and owners/agencies to conduct quality assurance inspections on the effectiveness of work zones for urban freeways with uninterrupted flows.

|  |
| --- |
| General Project Information |

|  |  |
| --- | --- |
| Project no. | Click here to enter text. |
| Type of project | Click here to enter text. |
| Location | Click here to enter text. |
| Date (mm/dd/yyyy) | Click here to enter a date. |

|  |
| --- |
| Work Zone Information |

|  |  |
| --- | --- |
| Length of work zone (mi) | Click here to enter text. |
| No. of lanes per direction (before construction) | Click here to enter text. |
| No. of lanes per direction (during construction) | Click here to enter text. |
| Lane width (ft) | Click here to enter text. |
| Shoulder width (ft) | Click here to enter text. |
| Work zone speed limit (mph) | Click here to enter text. |
| Annual average daily traffic (AADT) | Click here to enter text. |
| Truck volume | Click here to enter text. |
| Allowable working hours | Click here to enter text. |

| Temporary Traffic Control Strategies | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Are all traffic control elements in compliance with applicable requirements? |  |  |  | Click here to enter text. |
| Are there any traffic control strategies available for full roadway closures? |  |  |  | Click here to enter text. |
| Are there offsite detours/alternate routes available in case of full roadway closures? |  |  |  | Click here to enter text. |
| Are there traffic control strategies available for any lane shifts or closures? |  |  |  | Click here to enter text. |
| Are there traffic control strategies available for any single- or dual-lane work zone crossovers? |  |  |  | Click here to enter text. |
| Are there traffic control strategies available for the use of reversible lanes or reversible express lanes during construction? |  |  |  | Click here to enter text. |
| Are there alternative ramps/routes available in case of any full/partial ramp closures? |  |  |  | Click here to enter text. |
| Are there alternative routes available in case of any freeway-to-freeway interchange closures? |  |  |  | Click here to enter text. |
| Are there traffic control strategies available for nighttime work zone operations? |  |  |  | Click here to enter text. |
| Is additional lighting plan/lighting equipment available to improve visibility during nighttime/inclement weather conditions? |  |  |  | Click here to enter text. |
| Are there emergency traffic control plans available? |  |  |  | Click here to enter text. |
| Are there any work hour restrictions for peak hour work zone operations? |  |  |  | Click here to enter text. |
| Is the traffic control plan in compliance with Americans with Disabilities Act (ADA) regulations? |  |  |  | Click here to enter text. |
| Are there advance signs (warning and regulatory) available to notify motorists about freeway work zone conditions/restrictions? |  |  |  | Click here to enter text. |
| Are advance warning signs used at approaching interchanges? |  |  |  | Click here to enter text. |
| Are changeable message signs (CMS) used? |  |  |  | Click here to enter text. |
| Are arrow panels used? |  |  |  | Click here to enter text. |
| Are channelizing devices used? |  |  |  | Click here to enter text. |
| Are speed advisory and control strategies used? |  |  |  | Click here to enter text. |
| Are impact attenuators used? |  |  |  | Click here to enter text. |

| Freeway Management and Operations | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Is there a need for lane restrictions? |  |  |  | Click here to enter text. |
| Is there a need for time-of-day restrictions? |  |  |  | Click here to enter text. |
| Is there a need for speed restrictions? |  |  |  | Click here to enter text. |
| Is there a need for detour route restrictions? |  |  |  | Click here to enter text. |
| Are separate truck lanes used? |  |  |  | Click here to enter text. |
| Are auxiliary/speed-change lanes used? |  |  |  | Click here to enter text. |
| Are climbing lanes used? |  |  |  | Click here to enter text. |
| Are shoulders and/or narrow lanes used? |  |  |  | Click here to enter text. |
| Are contraflow lanes used? |  |  |  | Click here to enter text. |
| Are concurrent flow lanes used? |  |  |  | Click here to enter text. |
| Are managed lane facilities used? |  |  |  | Click here to enter text. |
| Are there strategies for freeway lane restriping? |  |  |  | Click here to enter text. |
| Are smart corridors used? |  |  |  | Click here to enter text. |
| Are there strategies (e.g., increasing length of weaving area) to increase the capacity and safety of the weaving sections and the ramps that are part of the interchange? |  |  |  | Click here to enter text. |
| Are there strategies for roadside removal or relocation of roadside obstacles on the freeway? |  |  |  | Click here to enter text. |
| Are there strategies for improving skid resistance on freeways? |  |  |  | Click here to enter text. |

| Freeway Management and Operations (continued) | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Are environmental sensor stations and road weather information systems used? |  |  |  | Click here to enter text. |
| Are traffic flow sensors used? |  |  |  | Click here to enter text. |
| Are dynamic lane closure systems used? |  |  |  | Click here to enter text. |
| Are there strategies for speed limit reduction/variable speed control? |  |  |  | Click here to enter text. |
| Are temporary traffic barriers used? |  |  |  | Click here to enter text. |
| Are movable traffic barrier systems used? |  |  |  | Click here to enter text. |
| Are crash cushions used? |  |  |  | Click here to enter text. |
| Are temporary rumble strips used? |  |  |  | Click here to enter text. |
| Are intrusion alarms used? |  |  |  | Click here to enter text. |
| Are warning lights used? |  |  |  | Click here to enter text. |
| Are overhead lane control signals used? |  |  |  | Click here to enter text. |
| Are freeway mainline meters used? |  |  |  | Click here to enter text. |
| Are interchange connector meters used? |  |  |  | Click here to enter text. |
| Are automated flagger assistance devices (AFADs) used? |  |  |  | Click here to enter text. |
| Is there a project task force/committee established? |  |  |  | Click here to enter text. |
| Are there inter- and intra-agency coordination strategies established for effective freeway operations? |  |  |  | Click here to enter text. |

| Ramp Management and Operations | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Are ramp meters used? |  |  |  | Click here to enter text. |
| Are there any strategies for ramp closures? |  |  |  | Click here to enter text. |
| Are there strategies for ramp terminal treatments? |  |  |  | Click here to enter text. |
| Are special use treatments used, including high occupancy vehicle (HOV) bypass lanes, exclusive HOV ramps, and ramps dedicated for the sole use of construction, delivery, or emergency vehicles? |  |  |  | Click here to enter text. |
| Are emergency escape ramps provided? |  |  |  | Click here to enter text. |
| Are there strategies for ramp widening (e.g., channelization)? |  |  |  | Click here to enter text. |
| Is there a provision for temporary suspension of ramp metering? |  |  |  | Click here to enter text. |
| Are there training manuals for ramp management available to the construction personnel? |  |  |  | Click here to enter text. |
| Are inspections conducted on systems, software, and other devices that support ramp management? |  |  |  | Click here to enter text. |
| Are ramp conditions monitored using sensors located at the ramp and along the freeway? |  |  |  | Click here to enter text. |
| Are there outreach strategies to inform motorists about the ramp management program and associated activities? |  |  |  | Click here to enter text. |
| Are there inter- and intra-agency coordination strategies established for effective ramp operations? |  |  |  | Click here to enter text. |

| Demand Management | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Are the interstate closure and restriction times pre-approved by the State highway agency? |  |  |  | Click here to enter text. |
| Are rideshare incentive strategies used? |  |  |  | Click here to enter text. |
| Are high occupancy vehicle (HOV) lanes used? |  |  |  | Click here to enter text. |
| Are high occupancy toll (HOT) lanes and/or express toll lanes used? |  |  |  | Click here to enter text. |
| Are bus-only facilities used? |  |  |  | Click here to enter text. |
| Are park-and-ride facilities used? |  |  |  | Click here to enter text. |
| Are transit centers used? |  |  |  | Click here to enter text. |
| Are there any established HOV/HOT lane enforcement programs/strategies? |  |  |  | Click here to enter text. |
| Are variable work hours employed by employers near the work area? |  |  |  | Click here to enter text. |
| Are congestion/peak-period pricing strategies used? |  |  |  | Click here to enter text. |

| Freeway Lighting Operations | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Is freeway and interchange lighting provided in areas with higher traffic volumes or geometry constraints? |  |  |  | Click here to enter text. |
| Are long underpasses and tunnels along the freeways illuminated during daylight hours? |  |  |  | Click here to enter text. |
| Are rest areas lighted, including the entrance and exit, the interior roadways, parking areas, and activity areas? |  |  |  | Click here to enter text. |
| Is lighting provided at truck weighing stations, inspection and enforcement areas, park-and-ride lots, toll plazas, and escape ramps? |  |  |  | Click here to enter text. |

| Work Zone Safety Management | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Is there a contact list available for construction safety supervisors/inspectors? |  |  |  | Click here to enter text. |
| Are there procedures in place for conducting work zone safety audits? |  |  |  | Click here to enter text. |
| Are there procedures in place for conducting windshield surveys of work zone condition? |  |  |  | Click here to enter text. |
| Is there an established transportation management plan (TMP) monitoring/inspection team? |  |  |  | Click here to enter text. |
| Is there a strategy for conducting regular team meetings for work zone related activities? |  |  |  | Click here to enter text. |
| Is there a strategy for onsite safety training for work zone personnel? |  |  |  | Click here to enter text. |
| Is personal protective equipment (PPE) used by construction crew personnel at the work site? |  |  |  | Click here to enter text. |
| Are there standard operating procedures to address worker safety and minimize work to be performed near vehicles and equipment? |  |  |  | Click here to enter text. |
| Are there safe work practices for night work and backing equipment? |  |  |  | Click here to enter text. |
| Are positive separation measures such as barriers, road closures, shadow vehicles, and buffer space used? |  |  |  | Click here to enter text. |

| Equipment Maintenance and Operations | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Is there a scheduled maintenance program for all work zone construction vehicles and equipment? |  |  |  | Click here to enter text. |
| Are there any safety features installed in the work area (e.g., reverse alarm, video cameras)? |  |  |  | Click here to enter text. |
| Are inspections conducted on all vehicles, equipment, and safety devices prior to each work shift? |  |  |  | Click here to enter text. |
| Are electrical devices inspected regularly? |  |  |  | Click here to enter text. |
| Are hazardous materials labeled and kept in specifically identified cabinets? |  |  |  | Click here to enter text. |
| Are collision avoidance/proximity warning systems and/or other monitoring technologies installed on construction vehicles and equipment? |  |  |  | Click here to enter text. |
| Is all equipment operated or repaired only by people who have been trained and authorized to work with that piece of equipment? |  |  |  | Click here to enter text. |

| Freeway Incident Management | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Are intelligent transportation systems (ITS) technologies used for traffic monitoring/management? |  |  |  | Click here to enter text. |
| Are closed-circuit television (CCTV), loop detectors, lasers, or probe vehicles used for work zone surveillance? |  |  |  | Click here to enter text. |
| Are traffic screens used? |  |  |  | Click here to enter text. |
| Are reference location signs used? |  |  |  | Click here to enter text. |
| Are there any procedures or protocols related to coordinating with the following agencies? Please check the boxes as applicable. |  |  |  | Click here to enter text. |
| * Freeway service patrol/law enforcement agencies |  |  |  | Click here to enter text. |
| * Fire and rescue agencies |  |  |  | Click here to enter text. |
| * Emergency medical services (EMS) |  |  |  | Click here to enter text. |
| * Transportation agencies |  |  |  | Click here to enter text. |
| * Hazardous materials responders |  |  |  | Click here to enter text. |
| * Towing and recovery providers |  |  |  | Click here to enter text. |
| * Media/information service providers |  |  |  | Click here to enter text. |
| * Others (please specify below) |  |  |  | Click here to enter text. |
| * + Click here to enter text. |  |  |  | Click here to enter text. |
| * + Click here to enter text. |  |  |  | Click here to enter text. |
| * + Click here to enter text. |  |  |  | Click here to enter text. |
| * + Click here to enter text. |  |  |  | Click here to enter text. |
| Is there an incident command system established? |  |  |  | Click here to enter text. |
| Is there an evacuation liaison team (ELT) established? |  |  |  | Click here to enter text. |

| Freeway Emergency Management | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Are there evacuation and reentry management strategies for vehicles during emergency situations such as hurricanes, floods, earthquakes, winter storms, wildland fires, and homeland security concerns? |  |  |  | Click here to enter text. |
| Are there strategies to deploy additional personnel during emergency situations? |  |  |  | Click here to enter text. |
| Are advance emergency warnings provided to the travelers? |  |  |  | Click here to enter text. |
| Are there strategies to disseminate disaster-related traveler information, including evacuations and reentry information, to the general public? |  |  |  | Click here to enter text. |
| Are there strategies to coordinate with stakeholders on emergency operations? |  |  |  | Click here to enter text. |
| Are there military deployment strategies established? |  |  |  | Click here to enter text. |

| Public Information Strategies | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Is there a freeway management system (FMS) in place? |  |  |  | Click here to enter text. |
| Have freeway management centers (FMCs) been established? |  |  |  | Click here to enter text. |
| Are brochures and mailers used? |  |  |  | Click here to enter text. |
| Are press releases/media alerts used? |  |  |  | Click here to enter text. |
| Are newsletters used? |  |  |  | Click here to enter text. |
| Are mass media resources, including earned and paid media used? |  |  |  | Click here to enter text. |
| Have public information centers been established? |  |  |  | Click here to enter text. |
| Are telephone hotlines used? |  |  |  | Click here to enter text. |
| Are project Web sites used? |  |  |  | Click here to enter text. |
| Has a community task force been set up? |  |  |  | Click here to enter text. |
| Are public meetings/hearings, workshops, and communication events organized? |  |  |  | Click here to enter text. |
| Is there a strategy for coordinating with media/schools/businesses/emergency services/neighboring States? |  |  |  | Click here to enter text. |
| Are there any strategies for organizing work zone education and safety campaigns? |  |  |  | Click here to enter text. |
| Are work zone safety highway signs used? |  |  |  | Click here to enter text. |
| Are rideshare promotions available? |  |  |  | Click here to enter text. |
| Are videos, slides, presentations, and/or other Web-based mechanisms available? |  |  |  | Click here to enter text. |
| Are traffic radios used? |  |  |  | Click here to enter text. |
| Are temporary motorist information signs used? |  |  |  | Click here to enter text. |
| Are variable speed limit (VSL) signs used? |  |  |  | Click here to enter text. |
| Are highway advisory radio (HAR) systems used? |  |  |  | Click here to enter text. |
| Are changeable message signs used? |  |  |  | Click here to enter text. |
| Is there a highway information network/Web site? |  |  |  | Click here to enter text. |
| Are 511 traveler information systems used? |  |  |  | Click here to enter text. |
| Is there a strategy for coordinating with the freight community (e.g., trucking companies)? |  |  |  | Click here to enter text. |

| Performance Measures | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Are performance measures established to evaluate the effectiveness of freeway management strategies? |  |  |  | Click here to enter text. |
| Is there stakeholder involvement in the identification of performance measures and their applications? |  |  |  | Click here to enter text. |
| Are there strategies for safety and mobility performance evaluations on ramps and freeways? |  |  |  | Click here to enter text. |
| Is there a data repository for freeway performance monitoring and evaluation? |  |  |  | Click here to enter text. |

| Worker Training | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Is there a training plan established on the operator’s visual limits of the specific equipment being used in the work zone? |  |  |  | Click here to enter text. |
| Are there frequent pre-work safety meetings to discuss the work to be performed, safety hazards, and safe work procedures? |  |  |  | Click here to enter text. |
| Is nighttime safety training conducted for all workers in the work area? |  |  |  | Click here to enter text. |
| Are all construction personnel trained on Occupational Safety and Health Administration (OSHA) standards for work zone safety? |  |  |  | Click here to enter text. |
| Are the workers trained on the implementation of internal traffic control plans on each project? |  |  |  | Click here to enter text. |
| Is operator training conducted for personnel involved with heavy equipment, including forklifts, cranes, and hoists? |  |  |  | Click here to enter text. |
| Are workers trained for hazardous conditions on the work site? |  |  |  | Click here to enter text. |
| Are there incident response field/simulation training options available to the construction crew? |  |  |  | Click here to enter text. |
| Is there a qualified and designated work zone traffic control supervisor on the work site? |  |  |  | Click here to enter text. |
| Is there a qualified and designated work zone traffic control technician on the work site? |  |  |  | Click here to enter text. |

## Work Zone Inspection Checklists for Urban Roadways with Interrupted Flows

Below are sample checklists intended to allow design-builders and owners/agencies to conduct quality assurance inspections on the effectiveness of work zones for urban roadways with interrupted flows.

|  |
| --- |
| General Project Information |

|  |  |
| --- | --- |
| Project no. | Click here to enter text. |
| Type of project | Click here to enter text. |
| Location | Click here to enter text. |
| Date (mm/dd/yyyy) | Click here to enter a date. |

|  |
| --- |
| Work Zone Information |

|  |  |
| --- | --- |
| Length of work zone (mi) | Click here to enter text. |
| No. of lanes per direction (before construction) | Click here to enter text. |
| No. of lanes per direction (during construction) | Click here to enter text. |
| Lane width (ft) | Click here to enter text. |
| Shoulder width (ft) | Click here to enter text. |
| Work zone speed limit (mph) | Click here to enter text. |
| Annual average daily traffic (AADT) | Click here to enter text. |
| Truck volume | Click here to enter text. |
| Allowable working hours | Click here to enter text. |

| Temporary Traffic Control Strategies | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Are there any traffic control strategies available for full roadway closures? |  |  |  | Click here to enter text. |
| Are there offsite detours/alternate routes available in case of full roadway closures? |  |  |  | Click here to enter text. |
| Are there traffic control strategies available for any lane shifts or closures? |  |  |  | Click here to enter text. |
| Are there traffic control strategies available for any single- or dual-lane work zone crossovers? |  |  |  | Click here to enter text. |
| Are there traffic control strategies available for any reversible lanes or reversible express lanes? |  |  |  | Click here to enter text. |
| Are there traffic control devices and strategies available for nighttime work zone operations? |  |  |  | Click here to enter text. |
| Is additional lighting available to improve visibility during nighttime/inclement weather conditions? |  |  |  | Click here to enter text. |
| Are there emergency traffic control plans available? |  |  |  | Click here to enter text. |
| Are there any work hour restrictions for peak hour work zone operations? |  |  |  | Click here to enter text. |
| Is the traffic control plan in compliance with Americans with Disabilities Act (ADA) regulations? |  |  |  | Click here to enter text. |
| Are there temporary signs (warning and regulatory) available to notify motorists about work zone conditions/restrictions? |  |  |  | Click here to enter text. |
| Are changeable message signs (CMS) used? |  |  |  | Click here to enter text. |
| Are arrow panels used? |  |  |  | Click here to enter text. |
| Are channelizing devices used? |  |  |  | Click here to enter text. |
| Are pavement markings, traffic signs, barriers, delineators, and channelizing devices retroreflective? |  |  |  | Click here to enter text. |
| Are the traffic sign(s) clean? |  |  |  | Click here to enter text. |
| Are the traffic sign(s) legible? |  |  |  | Click here to enter text. |
| Are flaggers, spotters, and uniformed traffic control officers used? |  |  |  | Click here to enter text. |
| Are temporary traffic signals used? |  |  |  | Click here to enter text. |
| Are unwarranted signals removed/covered? |  |  |  | Click here to enter text. |
| Are speed advisory and control strategies used? |  |  |  | Click here to enter text. |
| Are impact attenuators used? |  |  |  | Click here to enter text. |

| Traffic Operations | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Are the traffic control, worker safety, vehicle regulations, equipment, etc. compliant with applicable regulations? |  |  |  | Click here to enter text. |
| Are there any truck/heavy vehicle restrictions? |  |  |  | Click here to enter text. |
| Are separate truck lanes used? |  |  |  | Click here to enter text. |
| Are dynamic lane closure systems used? |  |  |  | Click here to enter text. |
| Are there railroad crossing controls? |  |  |  | Click here to enter text. |
| Are there strategies for coordination with adjacent construction sites? |  |  |  | Click here to enter text. |
| Are there strategies for speed limit reduction/variable speed limits on work zones? |  |  |  | Click here to enter text. |
| Are temporary traffic barriers used? |  |  |  | Click here to enter text. |
| Are movable traffic barrier systems used? |  |  |  | Click here to enter text. |
| Are crash cushions used? |  |  |  | Click here to enter text. |
| Are temporary rumble strips used? |  |  |  | Click here to enter text. |
| Are intrusion alarms used? |  |  |  | Click here to enter text. |
| Are warning lights used? |  |  |  | Click here to enter text. |
| Are automated flagger assistance devices (AFADs) used? |  |  |  | Click here to enter text. |
| Is there a project task force/committee? |  |  |  | Click here to enter text. |
| Are flagger stations placed in advance of the traffic signal? |  |  |  | Click here to enter text. |
| Are flaggers clearly visible to the approaching traffic? |  |  |  | Click here to enter text. |
| Are flagger/spotter station(s) preceded by advance warning sign(s)? |  |  |  | Click here to enter text. |
| Are flagger/spotter station(s) illuminated during nighttime construction activities? |  |  |  | Click here to enter text. |

| Demand Management | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Are there strategies for transit service improvements? |  |  |  | Click here to enter text. |
| Are there strategies for the use of shuttle services in the work zone area? |  |  |  | Click here to enter text. |
| Are there strategies to manage supply of onsite and offsite parking lots? |  |  |  | Click here to enter text. |
| Are variable work hours employed by impacted employers? |  |  |  | Click here to enter text. |
| Are there improvement strategies for signal timing/coordination? |  |  |  | Click here to enter text. |
| Are there improvement strategies for streets/intersections? |  |  |  | Click here to enter text. |
| Are there strategies for bus turnouts in and around work area? |  |  |  | Click here to enter text. |
| Are there any vehicle turn restrictions or prohibitions? |  |  |  | Click here to enter text. |
| Are there strategies to reduce the occurrence of intersection conflicts? |  |  |  | Click here to enter text. |
| Are there parking restrictions to improve work zone access? |  |  |  | Click here to enter text. |

| Pedestrian and Bicycle Safety | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Are there traffic control strategies for pedestrian/bicycle access improvements? |  |  |  | Click here to enter text. |
| Are pedestrian routes compliant with the Americans with Disabilities Act (ADA) and available to pedestrians throughout the duration of the work zone? |  |  |  | Click here to enter text. |
| Are advance information, transition information, work zone information, and ingress and egress directions available for pedestrians? |  |  |  | Click here to enter text. |
| Are audible and detectible devices available for pedestrians with disabilities? |  |  |  | Click here to enter text. |
| Is there temporary nighttime lighting for pedestrian walkways throughout the work area? |  |  |  | Click here to enter text. |
| Are detour routes available for pedestrians whenever sidewalks are closed or blocked? |  |  |  | Click here to enter text. |
| Is physical separation from the work space and vehicular traffic, overhead protection, etc. provided to the pedestrians? |  |  |  | Click here to enter text. |
| Are marked intersection crosswalks used? |  |  |  | Click here to enter text. |
| Is there continuous pedestrian access to businesses, residences, transit stops, etc.? |  |  |  | Click here to enter text. |
| Are pedestrian signals deactivated and covered for closed crosswalks? |  |  |  | Click here to enter text. |
| Are there strategies to improve pedestrian signal displays? |  |  |  | Click here to enter text. |
| Are separate bicycle lanes used? |  |  |  | Click here to enter text. |
| Are curb extensions used? |  |  |  | Click here to enter text. |

| Signalized Intersections | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Are there strategies employed to reduce the frequency and severity of intersection conflicts (e.g., multiphase signal operation, signal coordination, emergency vehicle preemption, and channelization)? |  |  |  | Click here to enter text. |
| Are sight triangles kept clear for improved driver visibility? |  |  |  | Click here to enter text. |
| Is access to properties restricted using driveway closures or turn restrictions? |  |  |  | Click here to enter text. |
| Are cross-median accesses near intersections restricted? |  |  |  | Click here to enter text. |
| Are there strategies to provide skid resistance in intersections and on approaches? |  |  |  | Click here to enter text. |
| Are there strategies to restrict or eliminate parking on intersection approaches? |  |  |  | Click here to enter text. |
| Are highway safety programs used to increase driver awareness? |  |  |  | Click here to enter text. |
| Are channelization/signing and prohibited right turns on red used to restrict or eliminate left- or right-turning vehicle maneuvers? |  |  |  | Click here to enter text. |
| Are there coordination strategies with law enforcement agencies in place to address drivers who run red lights at intersections? |  |  |  | Click here to enter text. |
| Are there strategies to improve the visibility of traffic signals at intersections? |  |  |  | Click here to enter text. |
| Are adaptive control signals used? |  |  |  | Click here to enter text. |
| Is positive guidance provided to drivers approaching signalized intersections? |  |  |  | Click here to enter text. |
| Are curb ramps used? |  |  |  | Click here to enter text. |
| Are pedestal or post-mounted signals used? |  |  |  | Click here to enter text. |
| Are span wire signals used? |  |  |  | Click here to enter text. |
| Are mast arm signals used? |  |  |  | Click here to enter text. |
| Are there strategies to change signal timing or phasing at intersections? |  |  |  | Click here to enter text. |

| Unsignalized Intersections | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Are there strategies to improve access management near unsignalized intersection? |  |  |  | Click here to enter text. |
| Are there strategies to close or relocate intersections if necessary? |  |  |  | Click here to enter text. |
| Are there conflicting driveway accesses near unsignalized intersections? |  |  |  | Click here to enter text. |
| Are shoulder bypass lanes used at  T-Intersections? |  |  |  | Click here to enter text. |
| Are turn acceleration lanes used at divided highway intersections? |  |  |  | Click here to enter text. |
| Are longer turn lanes used? |  |  |  | Click here to enter text. |
| Are offset turn lanes used? |  |  |  | Click here to enter text. |
| Are there full-width paved shoulders used as through lanes? |  |  |  | Click here to enter text. |
| Are signs and/or channelization used to restrict or eliminate turning movements at intersections? |  |  |  | Click here to enter text. |
| Are there strategies to reduce or eliminate intersection skews? |  |  |  | Click here to enter text. |
| Are the approaches stop- or yield-controlled? |  |  |  | Click here to enter text. |
| Are there strategies to eliminate parking spots that restrict sight distances? |  |  |  | Click here to enter text. |
| Are pavement loop detectors used? |  |  |  | Click here to enter text. |
| Are flashing lights used to warn drivers? |  |  |  | Click here to enter text. |
| Are advanced warning and guide signs used to warn drivers of the intersections? |  |  |  | Click here to enter text. |
| Are breaks used in centerlines, edge-lines, and lane lines to show the presence of intersection? |  |  |  | Click here to enter text. |
| Is there a collision countermeasure system established? |  |  |  | Click here to enter text. |
| Are pavement markers and/or pavement markings used at intersections? |  |  |  | Click here to enter text. |

| Unsignalized Intersections (continued) | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Are there strategies to improve lighting at intersections? |  |  |  | Click here to enter text. |
| Are splitter islands used, primarily at skewed intersections? |  |  |  | Click here to enter text. |
| Are stop bars used to increase driver awareness? |  |  |  | Click here to enter text. |
| Are temporary rumble strips used on the intersection approaches? |  |  |  | Click here to enter text. |
| Are flashing beacons used at stop-controlled intersections? |  |  |  | Click here to enter text. |
| Are there strategies to convert from two-way to all-way stop control? |  |  |  | Click here to enter text. |
| Are speed limit signs posted on intersection approaches? |  |  |  | Click here to enter text. |
| Is striping provided in the median areas of the intersections? |  |  |  | Click here to enter text. |
| Are lane assignment signings/markings used? |  |  |  | Click here to enter text. |
| Are rotaries, neighborhood traffic circles, mini/single-lane/multi-lane roundabouts used? |  |  |  | Click here to enter text. |

| Work Zone Safety Management | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Is there a contact list available for construction safety supervisors/inspectors? |  |  |  | Click here to enter text. |
| Are there procedures in place for conducting work zone safety audits? |  |  |  | Click here to enter text. |
| Are there procedures in place for conducting windshield surveys of work zone condition? |  |  |  | Click here to enter text. |
| Is there a transportation management plan (TMP) monitoring/inspection team established? |  |  |  | Click here to enter text. |
| Is there a strategy for conducting regular team meetings for work zone related activities? |  |  |  | Click here to enter text. |
| Is there a strategy for onsite safety training for work zone personnel? |  |  |  | Click here to enter text. |
| Is high visibility apparel used by all construction personnel? |  |  |  | Click here to enter text. |
| Are there standard operating procedures to address worker safety and minimize work to be performed near vehicles and equipment? |  |  |  | Click here to enter text. |
| Are there safe work practices for night work and backing equipment? |  |  |  | Click here to enter text. |
| Are positive separation measures used, such as barriers, road closures, shadow vehicles, and buffer space? |  |  |  | Click here to enter text. |

| Equipment Maintenance and Operations | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Is there a scheduled maintenance program for all work zone construction vehicles and equipment? |  |  |  | Click here to enter text. |
| Are there any safety features (e.g., reverse alarm, video cameras) installed in the work area? |  |  |  | Click here to enter text. |
| Are inspections conducted on all vehicles, equipment, and safety devices prior to each work shift? |  |  |  | Click here to enter text. |
| Are electrical devices inspected regularly? |  |  |  | Click here to enter text. |
| Are hazardous materials labeled and kept in specifically identified cabinets? |  |  |  | Click here to enter text. |
| Are collision avoidance/proximity warning systems and/or other monitoring technologies installed on construction vehicles/equipment? |  |  |  | Click here to enter text. |
| Is all equipment operated or repaired only by people who have been trained and authorized to work with that piece of equipment? |  |  |  | Click here to enter text. |

| Lighting Operations | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Is there a pre-approved lighting plan in place? |  |  |  | Click here to enter text. |
| Is there any existing street lighting available? |  |  |  | Click here to enter text. |
| Is overhead lighting installed at crosswalks and intersections? |  |  |  | Click here to enter text. |
| Are glare control devices such as hoods, louvers, shields etc. used? |  |  |  | Click here to enter text. |
| Are barrier walls and glare avoidance screens used to discourage gawking and to reduce headlight glare from oncoming motor vehicle traffic? |  |  |  | Click here to enter text. |
| Is there additional lighting equipment available for poor visibility situations? |  |  |  | Click here to enter text. |
| Are there strategies to increase/decrease luminance levels of existing lighting systems when needed? |  |  |  | Click here to enter text. |

| Traffic Incident Management | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Are intelligent transportation systems (ITS) technologies used for traffic monitoring/management? |  |  |  | Click here to enter text. |
| Are transportation management centers (TMCs) used? |  |  |  | Click here to enter text. |
| Are closed-circuit television (CCTV), loop detectors, lasers, or probe vehicles used for work zone surveillance? |  |  |  | Click here to enter text. |
| Are traffic screens used? |  |  |  | Click here to enter text. |
| Is there a strategy for coordinating with towing and recovery providers? |  |  |  | Click here to enter text. |
| Are there any procedures or protocols related to coordinating with the following agencies? Please check the boxes as applicable. |  |  |  | Click here to enter text. |
| * Law enforcement agencies |  |  |  | Click here to enter text. |
| * Fire and rescue agencies |  |  |  | Click here to enter text. |
| * Emergency medical services (EMS) |  |  |  | Click here to enter text. |
| * Transportation agencies |  |  |  | Click here to enter text. |
| * Hazardous materials responders |  |  |  | Click here to enter text. |
| * Towing and recovery providers |  |  |  | Click here to enter text. |
| * Media/information service providers |  |  |  | Click here to enter text. |
| * Others (please specify below) |  |  |  | Click here to enter text. |
| * + Click here to enter text. |  |  |  | Click here to enter text. |
| * + Click here to enter text. |  |  |  | Click here to enter text. |
| * + Click here to enter text. |  |  |  | Click here to enter text. |
| * + Click here to enter text. |  |  |  | Click here to enter text. |
| Is there an established incident command system? |  |  |  | Click here to enter text. |
| Are there designated and qualified agency or contracting personnel available around the clock to respond to incidents? |  |  |  | Click here to enter text. |

| Public Information Strategies | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Are brochures and mailers used? |  |  |  | Click here to enter text. |
| Are press releases/media alerts used? |  |  |  | Click here to enter text. |
| Are newsletters used? |  |  |  | Click here to enter text. |
| Are mass media resources used? |  |  |  | Click here to enter text. |
| Have public information centers been established? |  |  |  | Click here to enter text. |
| Are telephone hotlines used? |  |  |  | Click here to enter text. |
| Are project Web sites used? |  |  |  | Click here to enter text. |
| Is a community task force set up? |  |  |  | Click here to enter text. |
| Are public meetings/hearings, workshops, and communication events organized? |  |  |  | Click here to enter text. |
| Is there a strategy for coordinating with media/schools/businesses/emergency services/neighboring States? |  |  |  | Click here to enter text. |
| Are there strategies for coordinating with utility agencies? |  |  |  | Click here to enter text. |
| Are there any strategies for organizing work zone education and safety campaigns? |  |  |  | Click here to enter text. |
| Are rideshare promotions available? |  |  |  | Click here to enter text. |
| Are videos, slides, presentations, and/or other Web-based mechanisms available? |  |  |  | Click here to enter text. |
| Are traffic radios used? |  |  |  | Click here to enter text. |
| Are temporary motorist information signs used? |  |  |  | Click here to enter text. |
| Are variable speed limit signs used? |  |  |  | Click here to enter text. |
| Are highway advisory radio (HAR) systems used? |  |  |  | Click here to enter text. |
| Is there a highway information network/Web site established? |  |  |  | Click here to enter text. |
| Are 511 traveler information systems used? |  |  |  | Click here to enter text. |
| Is there a strategy for coordinating with the freight community (e.g., trucking companies)? |  |  |  | Click here to enter text. |
| Are transportation management centers (TMCs) established? |  |  |  | Click here to enter text. |

| Performance Measures | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Are performance measures established to evaluate the effectiveness of transportation management strategies? |  |  |  | Click here to enter text. |
| Is there stakeholder involvement in identifying performance measures and their applications? |  |  |  | Click here to enter text. |
| Are there strategies for safety and mobility performance evaluations on intersections? |  |  |  | Click here to enter text. |
| Is there a repository for intersection performance monitoring and evaluation data? |  |  |  | Click here to enter text. |

| Worker Training | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Is there a training plan to address the operator’s visual limits (e.g., blind spots) when using a particular piece of equipment in the work zone? |  |  |  | Click here to enter text. |
| Are there frequent pre-work safety meetings to discuss the work to be performed, safety hazards, and safe work procedures? |  |  |  | Click here to enter text. |
| Is nighttime safety training conducted for all workers in the work area? |  |  |  | Click here to enter text. |
| Are all construction personnel trained on Occupational Safety and Health Administration (OSHA) standards for work zone safety? |  |  |  | Click here to enter text. |
| Are workers trained on the implementation of internal traffic control plans on each project? |  |  |  | Click here to enter text. |
| Is operator training conducted for personnel involved with heavy equipment, including forklifts, cranes, and hoists? |  |  |  | Click here to enter text. |
| Are workers trained for hazardous conditions at the work site? |  |  |  | Click here to enter text. |
| Are there incident response field/simulation training options available to the construction crew? |  |  |  | Click here to enter text. |
| Is there a qualified and designated work zone traffic control supervisor on the work site? |  |  |  | Click here to enter text. |
| Is there a qualified and designated work zone traffic control technician on the work site? |  |  |  | Click here to enter text. |

## Work Zone Traffic Control Inspection Checklists

Below are sample checklists intended to allow design-builders and owners/agencies to conduct quality assurance inspections on the effectiveness of work zone traffic control devices and operations.

|  |
| --- |
| General Project Information |

|  |  |
| --- | --- |
| Project no. | Click here to enter text. |
| Type of project | Click here to enter text. |
| Location | Click here to enter text. |
| Date (mm/dd/yyyy) | Click here to enter a date. |

|  |
| --- |
| Work Zone Information |

|  |  |
| --- | --- |
| Length of work zone (mi) | Click here to enter text. |
| No. of lanes per direction (before construction) | Click here to enter text. |
| No. of lanes per direction (during construction) | Click here to enter text. |
| Lane width (ft) | Click here to enter text. |
| Shoulder width (ft) | Click here to enter text. |
| Work zone speed limit (mph) | Click here to enter text. |
| Annual average daily traffic (AADT) | Click here to enter text. |
| Truck volume | Click here to enter text. |
| Allowable working hours | Click here to enter text. |

| Traffic Control Operations | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments, if any  (if No, identify action items) |
| Is there a lane/shoulder/ramp closure? |  |  |  | Click here to enter text. |
| Is contact information for the general contractor and subcontractors available? |  |  |  | Click here to enter text. |
| Are all site personnel trained on the specific internal traffic control plan? |  |  |  | Click here to enter text. |
| Are there designated onsite worker and visitor parking areas? |  |  |  | Click here to enter text. |
| Are there designated work area locations for storing materials and servicing equipment? |  |  |  | Click here to enter text. |
| Are traffic control devices installed per approved plans? |  |  |  | Click here to enter text. |
| Are traffic control devices kept clean and in proper position per regulatory requirements (such as the Manual on Uniform Traffic Control Devices, or MUTCD)? |  |  |  | Click here to enter text. |
| Are temporary traffic control devices removed when the work is not in progress? |  |  |  | Click here to enter text. |
| Are missing or knocked down traffic control devices replaced or reset? |  |  |  | Click here to enter text. |
| Are records maintained for traffic control operations, including starting and ending times, location, names of personnel, traffic controls used, etc.? |  |  |  | Click here to enter text. |
| Is the regulatory speed limit within the work zone posted? |  |  |  | Click here to enter text. |
| Is there a designated pathways for pedestrian travel? |  |  |  | Click here to enter text. |
| Is there a designated pathways for bike traffic? |  |  |  | Click here to enter text. |
| Are warnings provided to travelers on hazardous areas, such as trenching, sideslopes, ditches? |  |  |  | Click here to enter text. |
| Are temporary traffic signals needed? |  |  |  | Click here to enter text. |
| Are temporary traffic control zone problems and modifications to the layouts documented? |  |  |  | Click here to enter text. |
| Is there a lateral and longitudinal buffer zone between the work area and moving traffic? |  |  |  | Click here to enter text. |

| Traffic Control Layout | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Question(s) | Two-Lane, Two-Way Roads | | Multi-Lane Undivided Roads | | Multi-Lane Divided Roads | | Comments, if any |
| Are the necessary traffic control plan layouts included in the project construction plans? Check boxes as applicable. |  | |  | |  | | Click here to enter text. |
|  | | | | | | | |
| Question(s) | | Yes | | No | | N/A | Comments, if any  (if No, identify action items) |
| Are any changes in the traffic control layout (e.g., existing traffic signs are removed or relocated or any regulatory sign is installed for construction or maintenance work) approved by the appropriate government authorities? | |  | |  | |  | Click here to enter text. |
| Are the traffic control layouts in compliance with applicable regulations? | |  | |  | |  | Click here to enter text. |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Communication Procedures | | | | |
| Question(s) | Yes | No | N/A | Comments, if any  (if No, identify action items) |
| Are surveillance closed-circuit television (CCTV), loop detectors, lasers, or probe vehicles needed? |  |  |  | Click here to enter text. |
| Are intelligent transportation systems (ITS) considered for traffic monitoring/management? |  |  |  | Click here to enter text. |
| Is there a public outreach plan for any changes in the traffic control plans? |  |  |  | Click here to enter text. |
| Is there a designated communication channel between equipment operators and other personnel? |  |  |  | Click here to enter text. |

| Nighttime/Inclement Weather Conditions | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments, if any  (if No, identify action items) |
| Is there temporary lighting for nighttime operations? |  |  |  | Click here to enter text. |
| Is additional lighting plan/lighting equipment available to improve visibility? |  |  |  | Click here to enter text. |
| Are there weather alert traffic signs available? |  |  |  | Click here to enter text. |
| Are there variable speed limit (VSL) signs or changeable message signs (CMS) being used for weather related activities? |  |  |  | Click here to enter text. |

| Americans with Disabilities Act (ADA) Considerations | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments, if any (if No, identify action items) |
| Is the traffic control plan in compliance with Americans with Disabilities Act (ADA) regulations? |  |  |  | Click here to enter text. |
| Are continuous cane-detectable edges needed along the pedestrian pathways? |  |  |  | Click here to enter text. |
| Is there a need for continuous detectable edging throughout the length of the facility, except for gaps where pedestrians or vehicles will be turning or crossing? |  |  |  | Click here to enter text. |
| Is there a need to keep pedestrian pathways clear of debris and drained to prevent accumulation of trash or mud that can cause a tripping or slipping hazard? |  |  |  | Click here to enter text. |
| Are temporary curb ramps available for pedestrians diverted to temporary routes along the work zone? |  |  |  | Click here to enter text. |
| Is there a need for temporary curb ramps to have marked edges that are noticeable by pedestrians with visual impairments? |  |  |  | Click here to enter text. |
| Is there a need for temporary curb ramps to have level landings at top to provide additional safety to the pedestrians? |  |  |  | Click here to enter text. |

| Americans with Disabilities Act (ADA) Considerations (continued) | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments, if any (if No, identify action items) |
| Are warning signs about upcoming temporary traffic control zones placed well ahead of the work zone? |  |  |  | Click here to enter text. |
| Do traffic signs have special instructions that may be informative to disabled road users (e.g., on availability of alternative access routes)? |  |  |  | Click here to enter text. |

| Advanced Warning Signs | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments, if any  (if No, identify action items) |
| Is the appropriate number of signs used? |  |  |  | Click here to enter text. |
| Are there any missing sign(s)? |  |  |  | Click here to enter text. |
| Are the sign(s) clean? |  |  |  | Click here to enter text. |
| Are the sign(s) legible? |  |  |  | Click here to enter text. |
| Are the sign(s) retroreflective? |  |  |  | Click here to enter text. |
| Are appropriate legends used? |  |  |  | Click here to enter text. |
| Are there any unneeded sign(s) in the work area? |  |  |  | Click here to enter text. |
| Are there sign(s) posted when no work is carried out? |  |  |  | Click here to enter text. |
| Are the sign(s) of placed at appropriate height? |  |  |  | Click here to enter text. |
| Are the sign(s) visible? |  |  |  | Click here to enter text. |
| Are the sign(s) spaced properly? |  |  |  | Click here to enter text. |
| Have the sign colors faded? |  |  |  | Click here to enter text. |
| Are the arrow panels (A, B, C, or D) placed properly? |  |  |  | Click here to enter text. |
| Are the arrow panels delineated/ shielded? |  |  |  | Click here to enter text. |
| Are the arrow panels removed when not in use? |  |  |  | Click here to enter text. |
| Are stationary sign supports used? |  |  |  | Click here to enter text. |
| Are stationary sign supports installed per Department of Transportation (DOT) specifications? |  |  |  | Click here to enter text. |
| Are portable changeable message signs (PCMS) used? |  |  |  | Click here to enter text. |
| Are portable sign stands used? |  |  |  | Click here to enter text. |
| Are signs removed or covered when not in use? |  |  |  | Click here to enter text. |

| Channelizing Devices | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Is spacing provided for channelizing devices? |  |  |  | Click here to enter text. |
| Is the number of channelizing devices adequate for required taper length? |  |  |  | Click here to enter text. |
| Is appropriate number of channelizing devices used? |  |  |  | Click here to enter text. |
| Are the channelizing devices ballasted? |  |  |  | Click here to enter text. |
| Are appropriate battery mounts used for all devices? |  |  |  | Click here to enter text. |

| Pavement Markings | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments, if any  (if No, identify action items) |
| Are temporary pavement markings used in the work area? |  |  |  | Click here to enter text. |
| Are the pavement markings in accordance with MUTCD specifications? |  |  |  | Click here to enter text. |
| Are conflicting pavement markings removed? |  |  |  | Click here to enter text. |
| Are the pavement markings retroreflective? |  |  |  | Click here to enter text. |

| Flagging | | | | | |
| --- | --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments, if any  (if No, identify action items) | |
| Are flaggers/spotters used in the work area? |  |  |  | Click here to enter text. | |
| Are flaggers clearly visible to the approaching traffic? |  |  |  | Click here to enter text. | |
| Are flagger/spotter station(s) preceded by advanced warning sign(s)? |  |  |  | Click here to enter text. | |
| Is there adequate stopping distance for the approaching traffic? |  |  |  | Click here to enter text. | |
| Are flagger/spotter station(s) illuminated during night time construction activities? |  |  |  | Click here to enter text. | |
| Are automated flagger assistance devices (AFADs) used? |  |  |  | Click here to enter text. |
| Is the flagging technique in compliance with State specifications? |  |  |  | Click here to enter text. | |
|  | | | | | |
| Question(s) | Slow/Stop Paddles | Flags | N/A | Comments, if any | |
| Which signaling device is used? |  |  |  | Click here to enter text. | |
|  | | | | | |
| Question(s) | Visual | Two-Way Radio | N/A | Comments, if any | |
| What type of communication is used between flaggers? |  |  |  | Click here to enter text. | |

| Roadside Safety | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Question(s) | Concrete Barrier | | Guardrail | | Other | | N/A | Comments, if any |
| Which type of temporary barrier is used? |  | |  | |  | |  | Click here to enter text. |
|  | | | | | | | | |
| Question(s) | Yes | No | | N/A | | Comments, if any  (if No, identify action items) | | |
| Is there drop-off delineation in the work area? |  |  | |  | | Click here to enter text. | | |
| Is there a minimum 1-inch buffer to barrier? |  |  | |  | | Click here to enter text. | | |
| Are portable barriers used? |  |  | |  | | Click here to enter text. | | |
| Are the barriers connected? |  |  | |  | | Click here to enter text. | | |
| Are impact attenuators used? |  |  | |  | | Click here to enter text. | | |
| Are the vertical panels oriented properly? |  |  | |  | | Click here to enter text. | | |
| Are the lights used for delineation functioning properly? |  |  | |  | | Click here to enter text. | | |

## Worker Safety Inspection Checklists

Below are sample checklists intended to allow design-builders and owners/agencies to conduct quality assurance inspections on the effectiveness of worker safety at work zones.

|  |
| --- |
| General Project Information |

|  |  |
| --- | --- |
| Project no. | Click here to enter text. |
| Type of project | Click here to enter text. |
| Location | Click here to enter text. |
| Date (mm/dd/yyyy) | Click here to enter a date. |

|  |
| --- |
| Work Zone Information |

|  |  |
| --- | --- |
| Length of work zone (mi) | Click here to enter text. |
| No. of lanes per direction (before construction) | Click here to enter text. |
| No. of lanes per direction (during construction) | Click here to enter text. |
| Lane width (ft) | Click here to enter text. |
| Shoulder width (ft) | Click here to enter text. |
| Work zone speed limit (mph) | Click here to enter text. |
| Annual average daily traffic (AADT) | Click here to enter text. |
| Truck volume | Click here to enter text. |
| Allowable working hours | Click here to enter text. |

| Safety Operational Procedures | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Are there standard operating procedures to address worker safety and minimize work to be performed near vehicles and equipment? |  |  |  | Click here to enter text. |
| Are there processes established for reviewing and approving any changes in the work zone setup needed due to safety concerns? |  |  |  | Click here to enter text. |
| Are construction equipment checked to minimize blind spots? |  |  |  | Click here to enter text. |
| Are advance warning signs placed at the proper distances to adequately warn drivers per MUTCD requirements? |  |  |  | Click here to enter text. |
| Are there safe work practices for night work and backing equipment? |  |  |  | Click here to enter text. |
| Are worksites designed to minimize backing vehicles and equipment? |  |  |  | Click here to enter text. |
| Are there competent personnel to provide adequate oversight and supervision for all work zone related activities? |  |  |  | Click here to enter text. |
| Are there procedures established to ensure that construction vehicle drivers only back under the direction of a spotter? |  |  |  | Click here to enter text. |
| Are there procedures established to ensure daily communication between the prime and subcontractors to discuss any changes or revisions in construction traffic flow? |  |  |  | Click here to enter text. |
| Are the channel construction vehicles and equipment away from workers using visual safety devices (retroreflective barrels, delineators, portable barricades, cones)? |  |  |  | Click here to enter text. |
| Are there signs installed to guide workers on foot with respect to traffic areas, vehicle flow, and worker-free zones? |  |  |  | Click here to enter text. |
| Are positive separation measures such as barriers, road closures, shadow vehicles, and buffer space used? |  |  |  | Click here to enter text. |

| Safety Operational Procedures (continued) | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Are utility ditches flagged or barricaded? |  |  |  | Click here to enter text. |
| Are transition area tapers provided? |  |  |  | Click here to enter text. |
| Are there escape routes available for workers faced with unsafe situations? |  |  |  | Click here to enter text. |
| Are there procedures in place to notify law enforcement agencies about unsafe/abusive motorists? |  |  |  | Click here to enter text. |
| Are records of worker injuries maintained? |  |  |  | Click here to enter text. |
| Are there established procedures for reporting worker injuries? |  |  |  | Click here to enter text. |
| Are the worker safety, traffic control, vehicle regulations, equipment, etc. compliant with the State/MUTCD regulations? |  |  |  | Click here to enter text. |
| Is a hazard assessment of the work area conducted prior to the commencement of the work? |  |  |  | Click here to enter text. |
| Is a contact list of hazardous materials response personnel available? |  |  |  | Click here to enter text. |
| Is a contact list of emergency medical responders available? |  |  |  | Click here to enter text. |
| Is a contact list of fire and rescue agencies available? |  |  |  | Click here to enter text. |

| Speed Management | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Are reduced speed limits enforced as applicable? |  |  |  | Click here to enter text. |
| Are speed advisories established? |  |  |  | Click here to enter text. |
| Are there stricter fines/penalties for speeding motorists? |  |  |  | Click here to enter text. |
| Is photo enforcement established in the work zones as deemed necessary? |  |  |  | Click here to enter text. |
| Are changeable message signs (CMS) used? |  |  |  | Click here to enter text. |
| Are portable speed trailers used in the work area? |  |  |  | Click here to enter text. |
| Are truck mounted attenuators or law enforcement used in case of high speed traffic? |  |  |  | Click here to enter text. |

| Traffic Control | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Are traffic signs and signals clear and visible? |  |  |  | Click here to enter text. |
| Are traffic signs and signals in conflict with other traffic control devices? |  |  |  | Click here to enter text. |
| Are traffic signs removed or covered during no work conditions? |  |  |  | Click here to enter text. |
| Are traffic lanes used when working in aerial lifts over a traffic lane or a shoulder? |  |  |  | Click here to enter text. |
| Are traffic drums and cones placed closely to prevent intrusions? |  |  |  | Click here to enter text. |
| Are spotters used during limited visibility situations? |  |  |  | Click here to enter text. |
| Are internal traffic control plans used to minimize the backing of construction vehicles and equipment in the work area? |  |  |  | Click here to enter text. |
| Are accessible areas within the swing radius of the rear of the rotating superstructure of the crane barricaded? |  |  |  | Click here to enter text. |
| Are sensors, handheld radios, and intrusion alarms used to prevent worker injuries? |  |  |  | Click here to enter text. |
| Are alternatives to flaggers used when traffic control is required under hazardous conditions that limit visibility (e.g., high traffic speeds, inclement weather, and night work)? |  |  |  | Click here to enter text. |

| Worker Safety | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Is personal protective equipment (PPE) used by construction crew personnel at the work site? |  |  |  | Click here to enter text. |
| Are the workers equipped with appropriate protective clothing for adverse weather conditions? |  |  |  | Click here to enter text. |
| Is eye and face protection used, such as safety glasses with side shield, and face shields? |  |  |  | Click here to enter text. |
| Are safety-toed footwear and hard hats used? |  |  |  | Click here to enter text. |
| Do all construction personnel have access to hearing protection, such as ear plugs/muffs, while in the work zone? |  |  |  | Click here to enter text. |
| Are fall protection measures such as harnesses and lanyards used? |  |  |  | Click here to enter text. |
| Are work gloves chosen according to job-site hazards expected (e.g., chemical resistant gloves to avoid potential chemical contact or heavy-duty work gloves to handle debris)? |  |  |  | Click here to enter text. |
| Is respiratory protection such as filtering facepieces used? |  |  |  | Click here to enter text. |
| Are high-visibility safety apparel, headwear, eyewear, and footwear compliant with American National Standards Institute (ANSI) standards? |  |  |  | Click here to enter text. |
| Are glare-free light balloons and glare screens used to control glare that could blind workers? |  |  |  | Click here to enter text. |
| Are there procedures to ensure worker safety against electrical hazards such as buried utilities, overhead power lines, etc.? |  |  |  | Click here to enter text. |
| Are there procedures to ensure worker safety against environmental hazards such as heat stress, cold stress, sunburn, etc.? |  |  |  | Click here to enter text. |
| Are there procedures to ensure worker safety against drowning and hypothermia hazards? |  |  |  | Click here to enter text. |
| Are first aid kits available and adequately stocked? |  |  |  | Click here to enter text. |

| Equipment Maintenance and Operations | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Is there a scheduled maintenance program for all work zone construction vehicles and equipment? |  |  |  | Click here to enter text. |
| Are there any safety features (e.g., reverse alarm, video cameras) installed in the work area? |  |  |  | Click here to enter text. |
| Are inspections conducted on all vehicles, equipment, and safety devices prior to each work shift? |  |  |  | Click here to enter text. |
| Are electrical devices inspected regularly? |  |  |  | Click here to enter text. |
| Are hazardous materials kept in specifically identified cabinets? |  |  |  | Click here to enter text. |
| Are Material Safety Data Sheets (MSDS) available for all hazardous materials? |  |  |  | Click here to enter text. |
| Are defective vehicles, equipment, and safety devices reported and removed from service until repairs are conducted? |  |  |  | Click here to enter text. |
| Are collision avoidance/proximity warning  systems and/or other monitoring technologies installed on construction vehicles and equipment? |  |  |  | Click here to enter text. |
| Are all equipment operated or repaired only by people who have been trained and authorized to work with that piece of equipment? |  |  |  | Click here to enter text. |
| Are operator manuals available for equipment used in the work area? |  |  |  | Click here to enter text. |
| Are rollover protective structures (ROPS) used on equipment? |  |  |  | Click here to enter text. |
| Are edge guards used on trailers to prevent rollovers? |  |  |  | Click here to enter text. |
| Are full-width loading ramps installed on transport trailers? |  |  |  | Click here to enter text. |

| Communications | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Are there any established communication procedures for spotters, machine operators, truck drivers, and workers on foot? |  |  |  | Click here to enter text. |
| Is there any procedure in place to restrict the usage of personal cellular phones, headphones, and other devices that could cause distractions? |  |  |  | Click here to enter text. |
| Are two-way radios provided to construction personnel for coordination of vehicular and equipment activity? |  |  |  | Click here to enter text. |
| Are whistles, air-horns, or other devices used to warn workers when they are in danger? |  |  |  | Click here to enter text. |
| Are advance media campaigns used to advise the users of upcoming work zone activities? |  |  |  | Click here to enter text. |

| Worker Training | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Is there a training plan established to address the operator’s visual limits (e.g., blind spots) when operating equipment in the work zone? |  |  |  | Click here to enter text. |
| Are there frequent pre-work safety meetings to discuss the work to be performed, safety hazards, and safe work procedures? |  |  |  | Click here to enter text. |
| Is nighttime safety training conducted for all workers in the work area? |  |  |  | Click here to enter text. |
| Are construction personnel trained to work next to motor vehicle traffic in a way that minimizes their vulnerability? |  |  |  | Click here to enter text. |
| Are the workers trained on the implementation of internal traffic control plans on each project? |  |  |  | Click here to enter text. |
| Are workers trained for hazardous conditions on work site? |  |  |  | Click here to enter text. |

| Worker Training (continued) | | | | |
| --- | --- | --- | --- | --- |
| Question(s) | Yes | No | N/A | Comments  (if No, identify action items) |
| Is operator training conducted for personnel involved with heavy equipment, including forklifts, cranes, and hoists? |  |  |  | Click here to enter text. |
| Are all construction personnel trained on Occupational Safety and Health Administration (OSHA) standards for work zone safety? |  |  |  | Click here to enter text. |

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