

CDOT

Guidelines for the Use of Positive Protection in Work Zones



Acknowledgements

Marcee Allen (FHWA)

Dahir Egal (FHWA)

Gabriela Vidal (CDOT Safety & Traffic Engineering)

Mike McVaugh (CDOT Region 5)

Dave Wieder (CDOT Maintenance and Operations)

K.C. Matthews (CDOT Safety & Traffic Engineering)

Neil Lacey (CDOT Project Development)

Larry Brinck (CDOT (Project Development)

Tony Gross (CDOT Region 6 South Program)

Larry Haas (CDOT Region 4)

Tracie Smith (CDOT Risk Management)

Giovanni Ciddio (CDOT Region 6 Safety Officer)

San Lee (CDOT Safety & Traffic Engineering)

Capt. Ray Fisher (Colorado State Patrol)

Table of Contents

INTRODUCTION	3
DEFINITIONS.....	3
EXPOSURE CONTROL MEASURES.....	4
WARRANTS	4
TYPICAL APPLICATION	4
ENGINEERING STUDY AND ANALYSIS.....	5
1. PRIMARY FACTORS TO CONSIDER.....	5
A. Clear Zone Distances	5
B. Roadside Geometry.....	5
C. Anticipated Traffic Volumes	6
D. Work Zone Speeds.....	6
E. Roadway Geometry	7
F. Duration	7
2. SPECIAL FACTORS TO CONSIDER.....	7
A. Worker’s Safety	7
B. Pedestrian Safety.....	7
C. Separating Opposing Traffic.....	7
D. Law Enforcement.....	7
3. SECONDARY FACTORS TO CONSIDER.....	10
CONCLUSION.....	10
CDOT REFERENCES FOR COMPLIANCE WITH SUBPART K	11
Policy and Procedures for Work Zone Safety.....	11
Positive Protection Devices	11
Exposure Control Measures.....	12
Other Traffic Control Measures.....	12
Uniformed Law Enforcement	12
Work Vehicles	13
Payment for Traffic Control Features and Operations.....	13
Maintenance of Temporary Traffic Control Devices.....	13
REFERENCES/RESOURCES	14
APPENDIX A – Graphs and Charts	15
APPENDIX B – CDOT/CSP IGA and R1 Task Order Routing Approval Letter.....	19

INTRODUCTION

Positive protection is defined by Federal Highway Administration (FHWA) as “*devices that contain and/or redirect vehicles and meet the crashworthiness evaluation criteria contained in NCHRP Report 350.*” By this definition, positive protection devices should prevent intrusion into the work area.

These guidelines address the use of positive protection devices in work zones to supplement the Policy Directive *Work Zone Safety and Mobility Policy 805.0* (http://www.dot.state.co.us/Traffic_Manuals_Guidelines/Work_Zones/WZSM/PD0805-0_Work_Zone_Policy.pdf) and comply with the Federal Highway Administration Final Rule Subpart K to CFR Part 630. These guidelines are not intended to be a rigid standard or policy; rather, they are guidance to be used in conjunction with engineering judgment. These guidelines are not a stand-alone document on work zone application of positive protection and should be used in conjunction with other traffic control standards and resources.

DEFINITIONS

Clear Zone is defined as the total roadside border area, starting at the edge of the traveled way, available for safe use by errant vehicles. This area may consist of a shoulder, a recoverable slope, a non-recoverable slope, and/or a clear run-out area. The desired minimum width is dependent upon traffic volumes and speeds and on the roadside geometry. Simply stated, it is an unobstructed (obstructions less than four inches in height), relatively flat area beyond the edge of the traveled way that allows a driver to stop safely or regain control of a vehicle that leaves the traveled way.

Travel Way is the portion of the roadway for the movement of vehicles, exclusive of shoulders.

Traversable Slope is a slope from which a motorist will be unlikely to steer back to the roadway but may be able to slow and stop safely. Slopes between 1V:3H and 1V:4H generally fall into this category.

Recoverable Slope is a slope on which a motorist may, to a greater or lesser extent, retain or regain control of a vehicle by slowing or stopping. Slopes flatter than 1V:4H are generally considered recoverable.

Non-Recoverable Slope is a slope which is considered traversable but on which an errant vehicle will continue to the bottom. Embankment slopes between 1V:3H and 1V:4H may be considered traversable but non-recoverable if they are smooth and free of fixed objects.

EXPOSURE CONTROL MEASURES

Prior to including positive protection in a transportation management plan, careful consideration must be given to alternatives which provide a safe environment for workers and the traveling public, and provide a level of transportation management appropriate for the scope of work operations that minimizes delay to the traveling public. Alternatives that are often considered include detouring traffic, minimizing exposure time, or maximizing the separation between traffic and workers. A more inclusive list of potential exposure control measures includes:

- Remove the hazard from the clear zone
- Full road closure/ramp closure with traffic detoured
- Road closure with diversion (i.e. onsite detour, median crossover, temporary pavement)
- Performing work during off-peak periods when traffic volumes are lower
- Accelerated construction techniques
- Directional detours or alternate route detours
- Rolling road blocks

WARRANTS

Positive protection in work zones is warranted whenever an engineering study clearly indicates any of the following:

- Positive protection will reduce the severity of potential crashes
- Consequences of striking a fixed object or running off the road are likely to be more serious than striking the positive protection
- Consequences of striking a worker or pedestrian are likely to be more serious than striking the positive protection

TYPICAL APPLICATION

The following provides a list of areas where positive protection has been used in the past. However, this list is intended to provide guidance and should not be used in place of performing an engineering analysis.

- Objects that are within the clear zone such as:
 - Temporary shoring locations
 - Bridge piers
 - Overhead sign supports including foundations
 - Staged pipe or culvert construction
 - Stored construction material or equipment
 - Pavement edge drop offs
 - Non-transversible slope or steep/rough embankments within the clear zone
- Staged bridge construction
- Worker or pedestrian safety is at risk due to the proximity of work to travel lanes
- Separation of opposing traffic
- Use of positive protection devices to prevent intrusions;
- Exposure control measures to minimize exposure;
- Other traffic control measures to minimize crashes;
- Safe entry/exit of work vehicles and equipment onto/from the travel lanes

ENGINEERING STUDY AND ANALYSIS

An Engineering Study is a process which will integrate data, analysis, judgment, and creativity to determine the best construction strategy for a given scenario. An Engineering Study does not take the place of good engineering judgment, but should be used in conjunction with engineering judgment to guide the decision making process. It is most important to understand that one individual factor can not independently determine if positive protection is needed. Considering all the factors will provide the fundamental information for the designer to analyze if an individual operation warrants the need for positive protection.

The Engineering Study performed to determine the need for positive protection shall take into consideration clear zone distances, roadway geometry, anticipated construction year traffic volumes, work zone speeds, roadside geometry, workers safety, pedestrian safety, etc. The following describes in more detail how these areas of concern are considered.

1. PRIMARY FACTORS TO CONSIDER

A. Clear Zone Distances

The *Roadside Design Guide* (RDG) defines the principles of clear zone. Objects outside the clear zone will generally not require positive protection. A designer must determine if a fixed object or worker will be within this lateral distance from the travel way. The designer shall determine the work zone speed limit of the operation to properly determine clear zone distance requirements in the work zone. Clear zones can be determined using Figure 3.1b *Clear-zone distance curves* or Chart 3.1 *Clear-zone distance in feet from edge of through traveled way* from the RDG.

Chapter 9 *Traffic Barriers, Traffic Control Devices, and Other Safety Features for Work Zones* of the RDG provides information specifically for work zones. Table 9.1 *Example of clear-zone widths for work zones* of the RDG provides example work zone clear zones. This table can be considered, using good engineering judgment, when evaluating the need for positive protection.

The lateral distance from the travel way to a drop off or embankment could affect the need for positive protection. The height of a fill section is related to the slope a vehicle would have to travel toward the obstacle. Figure 5.1b *Comparative risk warrants for embankments* of the RDG helps to determine if positive protection is needed for a given fill height.

B. Roadside Geometry

The depth and slope of the drop off or an embankment (roadside geometry) is an important factor to consider and will affect the decision to use positive protection.

- *Pavement Edge Drop off*
“*Traffic Control Strategies in Work Zones with Edge Drop-offs*”, shown in Appendix A of this document as Figure 16 (<http://www.intrans.iastate.edu/reports/dropoff.pdf>) provides guidance on a correlation between the depth of a drop off, the distance the drop off is from the travel lane, and the roadside slope. Temporary barrier may be justified to

shield a drop-off as it relates to the ADT and duration/exposure time of the drop off condition.

A simple and cost-effective way to promote pavement edge safety is the use of the safety wedge as outlined in FHWA's brochure "*The Safety Edge*" (http://safety.fhwa.dot.gov/roadway_dept/docs/sa07023/sa07023.pdf). The placement of a safety wedge during resurfacing operations can mitigate the hazard posed by pavement edge drop offs as soon as the paving machine lays down the asphalt mat, allowing reasonable time to restore the shoulder.

The Center for Transportation Research and Education (CTRE) in Iowa summarized the other state's drop-off criteria shown in Appendix A from "*Traffic Control Strategies in Work Zones with Edge Drop-Offs*".

- *Embankment*
Figure 5.2b of the *Roadside Design Guide*, shown in Appendix A indicates the relationship between the roadside slope, the height of an embankment and the traffic volume.

C. Anticipated Traffic Volumes

For best analysis, the construction year traffic volumes would provide a more realistic "anticipated" traffic volume than the current or the design year volumes. When analyzing the traffic volumes, the traffic mix should be considered. This includes the percent of truck traffic as well as motorists unfamiliar with area including seasonal tourists or for special events.

With higher traffic volumes, night work is often used as an exposure control measure. Night work may present unique challenges that must be taken into account such as, increased speeds, glare from portable lighting, driver's impaired visibility, and inattentive drivers. Nightly installation and removal of positive protection devices will increase time and traffic exposure and may offset any advantage associated with the use of positive protection, except in cases where it can be installed and left in place for extended periods. These items need to be considered prior to requiring night work.

Higher volumes increase the risk to road users and roadway workers. Therefore, positive protection will more likely be used in cases with higher volumes.

D. Work Zone Speeds

For best analysis, the prevailing speed provides a more realistic speed than the speed limit or design speed for the roadway. If a speed study is available, use the 85th percentile speed. The higher the speed the more likely positive protection will be needed.

In order to determine the appropriate speed limit refer to *CDOT's Procedure for Determining Work Zone Speed Limits* on page 3 of CDOT Form #568. Also, the Chief Engineer has directed traffic engineers in each Region to provide training for, and delegate authority to those LTC OPS I's assigned to supervision of highway/tunnel maintenance activities and projects for establishing speed reductions through work zones. Refer to the Chief Engineer's Memo, entitled

"Work Zone Safety Improvements"

(http://www.dot.state.co.us/Traffic_Manuals_Guidelines/Work_Zones/WZSM/WZ-Safety-Improvements_9-25-09_%20FINAL.pdf) for more information.

E. Roadway Geometry

The geometry of the roadway may affect the site distance for motorists, especially at entrance ramps. If the construction operation is on the outside curve of a road, the clear zone distance may be affected. Table 3.2 of the *RDG* provides adjustment factor for the clear zone. This data considers ADT, speed, and the roadway geometry. Restricted site distance issue and adjustments to the clear zone could both affect the decision to use positive protection.

F. Duration

Duration is the length of time the hazard potentially requiring positive protection will be present. A designer must consider the exposure time associated with completing the operation versus the risk of installing the positive protection. In addition, the percent increase in duration must be considered when the installation of the barrier is included in the operation. If the duration to install the positive protection is longer than the construction operation itself, then positive protection may not be justified.

2. SPECIAL FACTORS TO CONSIDER

A. Worker's Safety

Where worker's exposure to traffic cannot be adequately managed through the application of an exposure control measure, positive protection should be considered. Consider positive protection in situations that place workers at increased risk from motorized traffic. Consideration must be given to an increase in worker's exposure during the installation and anchorage of positive protection.

B. Pedestrian Safety

Positive protection should be considered if there is a high potential for vehicle intrusion into pedestrian paths. If the project increases the risk to pedestrians over existing conditions, positive protection should be considered.

C. Separating Opposing Traffic

Positive separation should be considered in situations where multilane divided facilities are temporarily shifted to a 2-lane-2-way traffic pattern for periods lasting longer than three days. Conditions that may influence the decision to use positive protection would be high speed facilities, narrowed lanes, and high traffic volumes.

D. Law Enforcement

Enforcement plays a unique and critical role in relation to work zones. The presence of law enforcement appropriately deployed in the vicinity of a construction project has proven effective in gaining compliance with posted speed limits to enhance work zone safety.

Beginning in 2006, to increase awareness and improve work zone safety, every summer from June through September, CDOT teamed up with the Colorado

State Patrol (CSP) and other local agencies to conduct the "Slow for the Cone Zone" campaign (<http://www.coloradodot.info/programs/cone-zone>). The campaign entails providing overtime enforcement on highly-visible construction projects across Colorado.

The primary reasons to utilize law enforcement services in work zones are:

- **Speed Control** – Vast research has shown that the presence of a marked police car is simply the most effective speed control measure in work zones.
- **Enforcement** – Police enforcement increases motorists' compliance with work zone regulations and discourages aggressive or careless driving.
- **Traffic Incident/Accident Management** – Work zone officers can immediately respond to any incident/accident, quickly restoring traffic flow and enhancing the safe operation of the work zone.
- **Traffic Control** – A police officer commands respect and authority. Thus, his presence facilitates the safe and efficient movement of traffic through the work zone (e.g., detour/diversion situations).
- **Increased Visibility** – The presence of a marked police vehicle in the work zone area is an effective measure to capture the attention of passing motorists causing greater motorist alertness.

Police presence/enforcement is a very effective measure of speed control in work zones. Studies have shown that average speeds in the work zone are reduced by six to 22 percent, and the percentage of vehicles traveling at excessive speeds through the work zone is reduced by 14 to 32 percent. The percentage of traffic merging in advance of a lane closure location is also increased. The effectiveness of police presence/enforcement is sustained over time, and this speed control measure is relatively easy to implement and remove. Police presence/enforcement with a stationary police cruiser with lights and active radar can be especially effective at night. Driver attention is higher and behavior more cautious when police are present. Increased police presence/enforcement in work zones also appears to significantly reduce the frequency of work zone crashes.

Deployment policies and procedures should always be reviewed and discussed with law enforcement prior to the deployment of law enforcement resources to ensure effective deployment and good communication to prevent or mitigate an incident. CDOT Policy Memo 29 outlines the training requirements for law enforcement personnel who provide uniformed traffic control in CDOT work zones, and CDOT Policy Memo 30

([http://www.dot.state.co.us/DesignSupport/Policy%20Memos/Policy_Memo_30-UTILIZATION_OF_LAW_ENFORCEMENT_Signed_FINAL_\(1-1-10\).pdf](http://www.dot.state.co.us/DesignSupport/Policy%20Memos/Policy_Memo_30-UTILIZATION_OF_LAW_ENFORCEMENT_Signed_FINAL_(1-1-10).pdf)) sets the policy for the use of law enforcement services in CDOT work zones.

In situations where uniformed law enforcement assistance may be needed to enforce specific traffic laws, affect driver behavior, help maintain appropriate speeds, improve driver alertness and help address other safety and mobility issues, funding and plans to support their participation should be identified and

developed early in the planning process. Factors to be considered when determining the need for active law enforcement include:

- Nighttime operations that create traffic safety risks for workers and road users;
- Operations requiring a slow down or brief stoppage of traffic in one or both directions;
- High-speed roadways where sudden traffic queuing is anticipated;
- Traffic control setups or removals that present significant potential risks to workers and road users;
- Frequent worker presence adjacent to high-speed traffic without positive protection devices;
- Other work site conditions where traffic presents a high risk for workers and road users (including but not limited to: work in signalized intersections, ramp closures and auxiliary lane closures), such that the risk may be reduced by improving road user behavior and awareness.

Current Colorado statutes support increased fines for violating regulations in work zones and as of 2009, Photo Speed Enforcement is also allowed by Colorado law (CRS 42-4-614; <http://www.michie.com/colorado/lpext.dll?f=templates&fn=main-h.htm&cp>).

Costs associated with non-routine work of uniformed law enforcement personnel to help protect workers and road users and to maintain safe and efficient travel through highway work zones are eligible for Federal-aid participation. CDOT's Contracts and Market Analysis unit maintains an interagency agreement with the Department of Public Safety, Colorado State Patrol, to provide uniform traffic control services at various construction zones throughout the state (see Appendix B for *CDOT/CSP IGA*). Payment for law enforcement services will be included in a construction contract or via direct interagency payment (see Appendix B for example: *Region 1 Task Order Routing Approval Letter*).

The following are methods are used to incorporate law enforcement on CDOT projects:

- *Residency Office Task Order*: Set up a standalone Task Order with the CSP for a residency office. Each Resident Engineer will need to calculate the projected number of hours needed for all projects.
- *Highway Corridor Task Order*: Set up a Task Order with CSP for a corridor. The residency will set up a task order with CSP for a corridor, such as for I-70 from Denver to Vail.
- *Engineering Program Task Order*: Set up a Task Order with CSP for an engineering program, such as North, South, East or West.
- *UTC Specification*: This involves including the Uniformed Traffic Control (UTC) specification in the plans. The Contractor will coordinate with local law enforcement to provide UTC on the project.

3. SECONDARY FACTORS TO CONSIDER

While the primary factors listed above are generally the driving force in the decision to use positive protection, secondary factors should not be dismissed especially in situations where a clear decision is not evident. These secondary factors could change the decisions to place positive protection devices but this decision should be discussed with the Region or a Headquarters traffic unit before a final determination is made.

The following are a list of secondary factors that may influence the decision to use positive protection:

- Crash History. Crash history of the area prior to construction and lessons learned from the crash history of previous work zone projects may be helpful in determining the need for positive protection. The Headquarters Safety and Traffic Engineering Branch is a good resource to help identify any potential areas of concern.
- Impacts on Project Cost and Duration. Positive protection will have an impact on the overall project duration and cost.
- Impacts on Available Lane Widths. Restricted lane widths due to the use of positive protection may affect mobility for road users and the contractor. Consideration must be given to wide loads and equipment requirements to complete the work.
- Roadway Classification. The roadway classification is indicative of the characteristics of the road. Characteristics that may have an affect on the decision to use positive protection may include, speed, access, rural vs. urban, etc.
- Work Area Restrictions. Access to and from the work area for the delivery of materials and the constructability issues due to equipment operations should be considered.
- Bridge Construction. Positive protection could affect the weight posting of the bridge for overweight vehicles. In addition, the ability to anchor positive protection to an existing bridge may be limited.

CONCLUSION

There are great benefits to using positive protection in appropriate situations. Positive protection techniques, when properly implemented, can help improve safety for workers and the motoring public. However, careful evaluation needs to be exercised before installing positive protection devices. The decision to use positive protection should be based on the best overall management of safety, mobility, constructability, cost, and overall project duration. These guidelines are meant to be coupled with engineering judgment in determining the use of positive protection.

CDOT REFERENCES FOR COMPLIANCE WITH SUBPART K

Processes/procedures for considering road user and worker safety that specifically address the following:

Policy and Procedures for Work Zone Safety;

1. [Policy Directive 805.0](#)
2. [Procedural Directive 805.1](#)
3. [CDOT Work Zone Safety and Mobility Rule Procedures Document](#)
4. [Chief Engineer's Work Zone Safety Improvements Memo](#)
5. [Mandatory Advanced Work Zone Management and Design Training Policy Memo 28](#)
6. [Mandatory Safe and Effective Use of Law Enforcement Personnel in Work Zones Policy Memo 29](#)
7. [Utilization of Law Enforcement in Work Zones Policy Memo 30](#)

Positive Protection Devices;

1. [CDOT Intrusion Alarm Study for FHWA Research Project](#)
2. Mobile Barriers Trailer (MBT-1);
[Mobile Barrier Poster](#)
[CDOT Crash Highlights](#)
[CDOT Night Video](#)
[CDOT Day Video](#)
3. [CDOT Barrier Selection Guide](#)
4. Flagger Paddles with Air Horns;
Currently being tested by Region 1 Maintenance
5. [Personal Alarms For Use In Work Zones](#)
6. [CDOT Standard Plans S-630-1 \(Traffic Controls for Highway Construction\) and S-630-2 \(Barricades, Drums, Concrete Barriers \(Temp\) and Vertical Panels\)](#)

Exposure Control Measures;

1. [MHT's for Night Maintenance](#)
2. [Lane Closure Strategies](#)
3. [Work Zone Safety Booklet](#)
4. [Installation and Removal of Temporary Traffic Control for Work Zones](#)
5. Nighttime Guidelines/Specifications;
Under Development by Safety & Traffic Engineering Branch
6. [Innovative Contracting Unit](#)
7. [Safe Entry/Exit of Work Vehicles \[CDOT Standards Specifications for Road and Bridge Construction, Section 630.09 \(a\)\(4\)\]](#)

Other Traffic Control Measures;

1. [CDOT Standard Plan S-630-1 \(Traffic Controls for Highway Construction\)](#)
2. Rumble Strips;
[CDOT Rumble Strip Decision Making Chart](#)
[CDOT Bicycle-Friendly Rumble Strips Study](#)
[CDOT Centerline Rumble Strips Study](#)
[CDOT Design Guide \(Chapter 20, Section 20.2.1\)](#)
[CDOT Standard Plan M-614-1](#)
3. Automated Speed Enforcement;
Presently Under Development by CSP/CDOT
4. Drone Radar;
Previously Studied by CSP/CDOT
5. [CDOT Slow for the Cone Zone Program](#)

Uniformed Law Enforcement;

1. CDOT Methods to Incorporate Law Enforcement on Construction/Maintenance Projects
 - a. Task Order (at Residency Office, Highway Corridor, or Engineering Program level);
(See Appendix B for CDOT/CSP IGA and Region 1 Task Order Routing Approval Letter)
 - b. [UTC Specification; 630 Uniformed Traffic Control Worksheet](#)
2. [ATSSA Safe and Effective Use of Law Enforcement Personnel in Highway Work Zones – Pocket Guide](#)
3. [CSP Proposal for the Development of a Guide to Enhance Safety in Work Zones](#)

Work Vehicles;

1. [R4 Work Vehicles w/chevrons](#)
2. [CDOT Vehicle Lighting Packages](#)

Payment for Traffic Control Features and Operations;

1. [Payment For Individual Traffic Control Devices \(CDOT Standards Specifications for Road and Bridge Construction, Section 630.15\)](#)

Maintenance of Temporary Traffic Control Devices;

1. [Procedural Directive 1505.1](#)
2. [CDOT Employs ATSSA's Quality Standards for Work Zone Traffic Control Devices](#)
3. Other Agencies' Quality Standards for Work Zone Traffic Control
[Illinois Tollway Quality Standard for Work Zone Traffic Control Devices](#)
[MODOT Quality Standards for Temporary Traffic Control Devices](#)
[ODOT Quality Standards for Temporary Traffic Control Devices](#)

REFERENCES/RESOURCES

American Association of State Highway and Transportation Officials Roadside Design Guide.

Ivey, Don L., King K. Mak, Harold D. Cooner, and Mark A. Marek. "Safety in Construction Zones Where Pavement Edges and Drop-Offs Exist." *Transportation Research Record* 1163, 1988, pp. 43-62.

Center for Transportation Research and Education, Department of Civil and Construction Engineering, Iowa State University, "Traffic Control Strategies in Work Zones with Edge Drop-Offs", August 2002 p. 76.

Federal Highway Administration (2000). *Manual on Uniform Traffic Control Devices (MUTCD)*. U.S. Department of Transportation, Washington, D.C.

Bryden, James and Mace, Douglas (2002). *Guidelines for Design and Operation of Nighttime Traffic Control for Highway Maintenance and Construction*, National Cooperative Highway Research Program Report NCHRP-476, Transportation Research Board of the National Academies, Washington, D.C.

APPENDIX A

Graphs and Charts

Figure 16 Definition of Treatment Zones and Treatment Selection Guidelines for Various Edge Conditions

Traffic Control Strategies in Work Zones with Edge Drop-offs p. 38

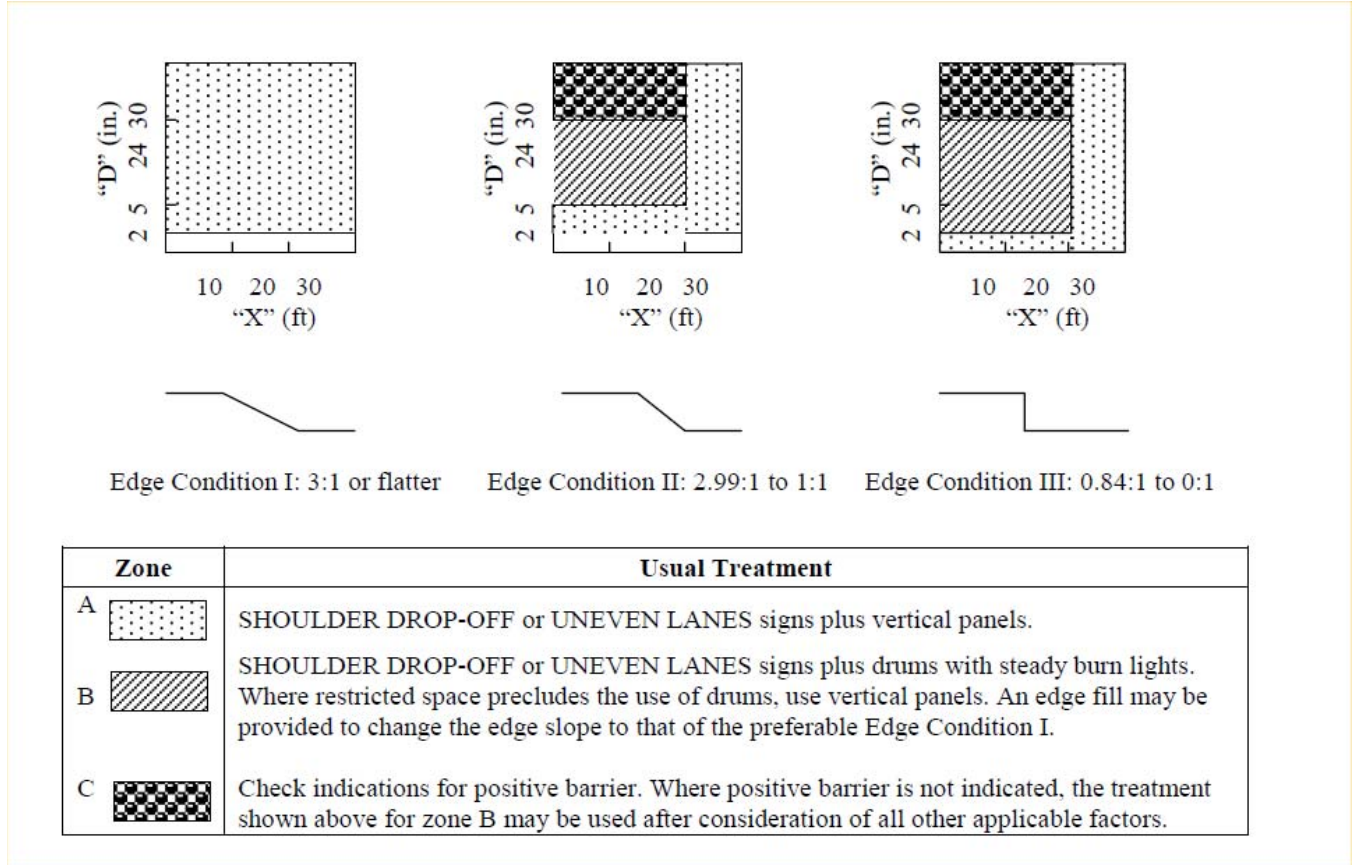
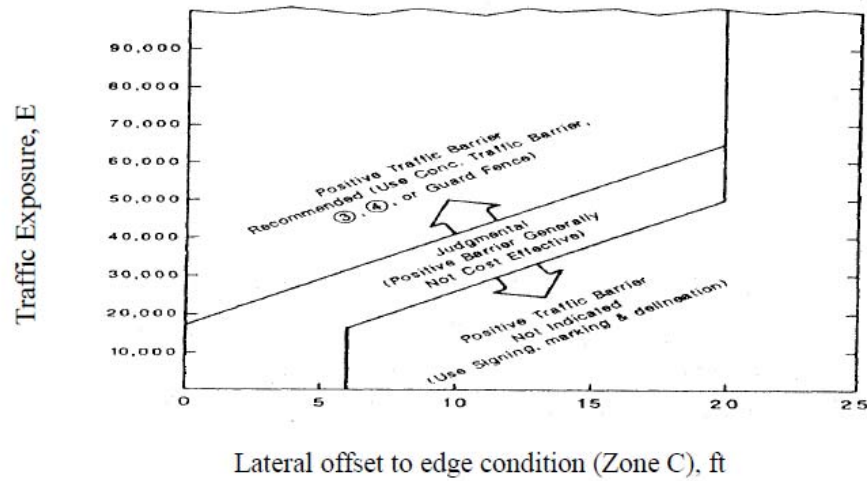


Figure 17 Conditions Indicating Use of Positive Protection
Traffic Control Strategies in Work Zones with Edge Drop-offs p. 39



Notes:

- 1) $E = ADT * T$, Where ADT is that portion of the average daily traffic volume traveling within 20 feet (generally two adjacent lanes) of the edge dropoff condition and, T is the duration time in years of the dropoff condition.
- 2) Primarily applicable to high speed conditions only.
- 3) Barrel Mounted Guard Fence may be used in lieu of CTB where speeds of 45 mph or less and impacting angles of 15 degrees or less are anticipated.
- 4) An approved end treatment should be provided for any positive barrier end located within a lateral offset of 20' from the edge of the travel lane.

Table 17 Typical Criteria for Consideration of Temporary Traffic Barriers
Traffic Control Strategies in Work Zones with Edge Drop-offs p. 76

State	Criteria
Iowa	Drop-off depth > 10 inches, located within 10 feet of travel way (informal)
California	Drop-off depth > 6 inches, located within 8 feet of travel way; special engineering consideration for all drop-offs > 2.5 feet
Florida	Drop-off depth > 3 inches, located within 12 feet, project duration > 1 day
Minnesota	Optional for drop-off depth > 4 inches, if no wedge, located adjacent to travel way, speed > 30 mph, project duration > 3 days, length < 50 feet; if 12 inches, recommended
Missouri	Alternative for use with lane closures when drop-off depth > 2 inches
Montana	Drop-off located within 30 feet of travel way, if no wedge provided, exposures exceeding 48 hours, spacing factor < 20 feet by formula)
North Dakota	Drop-off depth > 5 inches located between travel lanes, drop-offs depth > 12 inches, located adjacent to travel way, speed limit > 30 mph, project duration > 7 days, project length > 50 feet.
Ohio	Drop-off depth > 5 inches located between travel lanes, drop-off depth > 2 feet located within 30 feet of travel way, overnight exposure
West Virginia	Drop-off depth > 3 inches, project duration > 48 hours, speed limit > 45 mph, located within 30 feet of travel way on multilane highways, located within 20 feet of travel way on undivided highways

APPENDIX B

CDOT/CSP IGA

Region 1 Task Order Routing Approval Letter

(IAG)
PROJECT: NPS Uniform Traffic Control
REGION: HQ/(MMC)
Department of Public Safety

Rev 10/03
09 HAA 00053
SAP O/L#: 331000177

INTERAGENCY AGREEMENT

THIS CONTRACT made this 26th day of November 2008, by and between the State of Colorado for the use and benefit of the Colorado Department of Transportation hereinafter referred to as the CDOT and THE COLORADO DEPARTMENT OF PUBLIC SAFETY, DIVISION OF THE COLORADO STATE PATROL, hereinafter referred to as the "CSP", 700 Kipling Street, Denver, Colorado 80215, CDOT Vendor Number 2000100.

RECITALS

1. Authority exists in the law and funds have been budgeted, appropriated and otherwise made available and a sufficient uncommitted balance thereof remains available for payment of project and CSP costs in Fund Number 400, Function <<>>, GL Acct. <<>>, WBS Element or Cost Center <<>>, (Contract Encumbrance Amount: \$00.00).
2. Required approval, clearance and coordination have been accomplished from and with appropriate agencies.
3. CDOT desires that CSP provide uniform traffic control services at various construction zones throughout the state, hereinafter referred to as the work.
4. CDOT has estimated the total cost of the Work and is prepared to provide the funding required for the work.
5. This contract is executed under the authority of Sections 29-1-203, 43-1-105, 43-1-116, and 43-2-101 (4) (c), C.R.S., as amended.
6. The parties hereto desire to agree upon the division of responsibilities with regard to the project.

THE PARTIES NOW AGREE THAT:

Section 1. Statement of Work and Responsibilities

- A. The Project or the Work under this contract shall consist of "As Needed" uniform traffic control services at various construction zones throughout the state, as more specifically described in Exhibit A, the Scope of Work, which is attached hereto and incorporated herein by this reference.
- B. CSP shall be responsible to perform the Work, and CSP shall comply with all applicable terms and conditions of this contract in performing the Work, except only to the extent expressly and specifically provided otherwise herein.

- C. The CDOT Resident Engineer will act as CDOT's representative and will contact the appropriate CSP Captain to initiate a task order. The actual performance of the work will be coordinated with the CSP by the CDOT construction contractor.
- D. The potential work herein may be performed at various locations throughout the State.
- E. The CSP shall perform the work in accordance with directives and authorizations by the State's representative and pursuant to the terms and conditions of this contract. The CSP shall begin performance of the work if, and only to the extent that, the State specifically authorizes the work by executing a Task Order(s), in the form of Exhibit C attached hereto and made a part hereof, and the State's representative(s) issues and the CSP receives a written Notice to Proceed setting forth the work to be performed. Any Task Order issued pursuant to this contract shall incorporate the terms of this contract by reference and shall contain a detailed description of the work to be performed there under, an estimate of man hours required to perform the work as agreed to by the parties, a maximum cost approved for the work for that project, the completion date, and any other relevant information.
- F. Task Orders. Tasks will be defined, negotiated, and ordered from time to time by agreement of the parties, based on the applicable rates. As used herein, the term "the applicable rates" shall mean the actual direct labor rates described in Exhibit B and certified by the CSP. The applicable rates shall include any increase in the Exhibit B rates certified by the CSP and approved by CDOT as described below.
Task Orders shall be used as follows:

1. If CDOT has need of services to perform a particular task, and if the CSP agrees to provide those services, CDOT will then provide a definition of the task requirements to the CSP.
2. The CSP will then submit a written proposal consistent with the task requirements to the State to perform that task (the "Task Proposal"), using the applicable rates. The Task Proposal shall include the estimated number of hours to perform that task, at the applicable rates, and a resulting price/cost ceiling for that task. The Task Proposal shall also include any material costs, the amount of any other elements of cost at the same rates as stated in the Contract Proposal, except for any approved changes, and the proposed time for performance for that task, all in a form acceptable to CDOT.

The Task Proposal shall reference this original Contract between the parties. A representative of the CSP who is authorized to contractually bind the CSP shall sign and execute the Task Proposal. The Task Proposal shall expressly provide that the CSP's execution of the Task Proposal constitutes its formal agreement (without further signature) to a Task Order that is issued by CDOT pursuant to the terms of that Proposal and that does not make any substantive change(s) in that Proposal. (If the Task Order makes such change(s) in the Task Proposal, then the Task Order must contain the signature block of both parties and both parties need to sign the Task Order.)

3. Upon negotiation and agreement by the parties about the scope of the task, the price/cost ceiling, and the time for performance, the Task Order Letter attached as Exhibit C-1 shall be prepared and signed by CDOT.
4. Performance of the work, and payment for that work, shall be governed by the standards

and procedures set forth in this Contract. Upon such negotiation and agreement by the parties, and upon execution of the Task Order Letter by CDOT, the CSP shall successfully complete the work within the time and [price] [cost ceiling] identified in the Task Order. CDOT's financial commitment memorialized by the Task Order Letter shall not be effective until signed by the Controller or such assistant as he may designate.

5. The cumulative "not to exceed" amount for all additive tasks under this Contract shall be **\$3,000,000.00**. CDOT's financial obligation is limited by this amount, and the CSP shall accept no Task Orders which result in a cumulative contract value which exceeds the "not to exceed" value.
6. Once the Task Order is issued, the CSP shall successfully complete the work described therein within the time and price/cost identified in the Task Order(s) and in strict compliance with all other terms and conditions of the Task Order(s) and of the Contract.
7. Except as set forth in this Section 1F, amendments to the terms and conditions, the ceiling amounts specified herein for Task Orders, or other provisions of the contract other than as specified in herein, shall be by formal amendment only (and not by Task Orders) and must be processed and executed in compliance with the Fiscal Rules and signed by the State Controller or his designee.

G. As-Needed Contract. The term "as needed" shall mean:

1. That CDOT has, in advance, arranged with the CSP to be available to perform some or all of the work, in order to save the time that process would otherwise take when the work is actually required to be performed, but that neither CDOT nor the CSP has any obligation under the contract until and unless a Task Order is issued pursuant thereto; and
2. That CDOT will issue a Task Order to perform some or all of the work if, and when, and to the extent, CDOT determines, in its sole discretion, that the work is needed and that the CSP should perform that work; and
3. That, CDOT does not guarantee a certain quantity of the work to the CSP, and that CDOT shall have no obligation to provide any work to the CSP, and that the CSP has no justified expectancy that it will be given any of the work unless and until CDOT issues a Task Order therefore; and
4. That CDOT may elect to perform some or all of the work or to let out some or all of the work by separate contract/Task Order to meet CDOT requirements or project schedules, or to not perform the work, with no liability to the CSP; and
5. That either CDOT or the CSP may terminate the contract for convenience, by providing 30 days prior written notice thereof, without liability or obligation, at any time: a) before CDOT issues a Task Order and the CSP starts performance of the work under that order; or b) after one Task Order has been completed and before CDOT issues a second Task Order and the CSP starts performance of the work under that second Task Order.

H. Applicable Rates. As used in this Contract, the term "the applicable rates" shall mean the actual direct labor rates of pay described in Exhibit B that had been initially negotiated by the parties and certified by the CSP to § 24-30-1404(1), C.R.S. and the applicable rates shall include any increase in the Exhibit B rates certified by the CSP and approved by the State as described below.

1. During the term of this contract the CSP may propose an increase in the Exhibit B rates (and/or other direct cost rates), provided that: the increase is based on an actual increase in the rates that the CSP pays its employees; the increase is based on objective criteria; and the increase is in accord with the pay standards for such employees/work in the industry. To propose any such increase, the CSP must submit a written statement showing the amount of and the basis and reason(s) for that increase, together with a new § 24-30-1404(1), C.R.S. certificate re-certifying that the proposed increased rates are accurate, complete and current, CDOT for review and approval.
2. The proposed increase must be approved by CDOT before the increased rates will be considered effective as the applicable rates. If CDOT's review determines that such increased rates are fair and reasonable, CDOT will issue an "Amended Task Order and Basic Contract Rate Adjustment", (Exhibit C-2) and all work performed after the date the CDOT Controller approves that Amended Task Order will be paid at the increased rates, and such rates will be used as the applicable rates for work performed under that Amended Task Order and all subsequent Task Orders issued under that Basic Contract.
3. Any increased rate(s) that do not comply with this procedure shall not be considered effective as the applicable rates.
4. Subject to CDOT's prior approval thereof, the CSP may substitute and/or add, either at the initiation of a Task Order or during the term of a Task Order, new or different employees for the specific CSP employees initially approved by CDOT to perform the work, whose services are required but whose applicable rates therefore were not previously established.
5. Additional time needed to complete work under an existing Task Order may be added in conjunction with an Amended Task Order affecting contract rates or addressing the changes described in subparagraph D.4.or, if only time is being changed, in a zero dollar Amended Task Order (Exhibit C-3).

I. The terms and conditions of this contract may be changed only by written amendment hereto.

Section 2. Payment/Billing Procedure

- A. If CDOT issues a Task Order to the CSP, CDOT agrees to pay and the CSP agrees to accept payment for satisfactory performance of the work under a Task Order on the basis of the applicable rates for the specific CSP employees approved by CDOT to perform the work, multiplied by the appropriate factor as shown on Exhibit B, which is attached hereto and made a part hereof. The term "the applicable rates" is defined in Section 1(H), above.
- B. The applicable rates, multiplied by the number of hours actually worked, plus the other direct costs, shall be all the compensation due the CSP for the full performance of the work under

this contract.

- C. All billings shall use the applicable rates certified by the CSP for the employees who work on the specific project, as approved by CDOT's representative as stated in the specific Task Order.
- D. CDOT will also pay the CSP other direct costs for work performed under a Task Order. The other direct costs are those types of costs allowed in the CSP's final cost proposal and directly incurred in fulfilling the terms of this contract. Rates of reimbursement for currently anticipated other direct costs shall be as shown on Exhibit B. Rates of reimbursements for any additional other direct costs which may be required during the term of this contract shall be only as approved by CDOT's representative as stated in the specific Task Order. If such rates are not stated in the task Order or not approved by the State's representative, they shall not be eligible to be reimbursed.
- E. All Task Orders issued under this contract shall be payable from the State Highway Supplementary Fund (400). The total cost to CDOT for all work performed pursuant to Task Orders issued under this contract, including CSP salary and expenses, shall not exceed **\$3,000,000.00**. CDOT is responsible for payment only for work authorized by Task Orders issued by CDOT.
- F. Upon issuance of a Task Order and written notice to proceed, for the work performed there under CDOT will make payment to the CSP on a monthly basis upon CDOT's receipt and approval of a proper invoice. Each invoice shall specifically state the number and type(s) of analyses performed and other expenses related to the work as authorized by Exhibit A and B, and the total compensation requested in that invoice. Invoices will be submitted directly to the CDOT resident engineer, who will be specifically identified in each Task Order.
- G. The CSP shall prepare and submit to CDOT monthly charges for costs incurred relative to this contract. The CSP shall prepare contract charges in accordance with the State's standard policies, procedures, and standardized billing format attached hereto and made a part hereof as Exhibit D.
- H. The CSP shall not perform any work that is not expressly described in the Scope of Work and in a Task Order executed by CDOT. Any work performed by the CSP which is not covered by the Scope of Work and a Task Order, or which exceeds the work described in the Task Order, shall be performed at the CSP's sole expense; CDOT will not compensate the CSP for such work.

Section 3. Term/Termination

- A. This contract shall be effective upon approval of the State Controller or designee, or on the date made, whichever is later, and the term of this contract shall extend for a total of three (3) years from such date.
- B. Either of the parties shall have the right to terminate this agreement by giving the other party ten days notice. If notice is given, the agreement will terminate at the end of ten days, and the liabilities of the parties hereunder for further performance of the terms of the agreement shall

thereupon cease, but the parties shall not be released from duty to perform up-to-date of termination.

Section 4. Availability of Funds

The parties hereto agree that this contract is contingent upon all funds designated for the project herein being made available from CDOT and CSP sources, as applicable. Should these sources, fail to provide necessary funds as agreed upon herein, the contract may be terminated by either party, provided that any party terminating its interest and obligations herein shall not be relieved of any obligations which existed prior to the effective date of such termination or which may occur as a result of such termination.

Section 5. Record Keeping

The CSP shall maintain a complete file of all records, documents, communications, and other written materials which pertain to the costs incurred under this contract. The CSP shall maintain such records for a period of three (3) years after the date of termination of this contract or final payment hereunder, whichever is later. The CSP shall make such materials available for inspection at all reasonable times and shall permit duly authorized agents and employees of the State and FHWA to inspect the project and to inspect, review and audit the project records.

Section 6. Representatives and Notice

The State will provide liaison with the CSP through the CDOT Headquarters Branch Manager, 4201 East Arkansas Avenue, Denver, CO 80222. Said CDOT Headquarters Branch Manager will also be responsible for coordinating the State's activities under this contract and will also issue a "Notice to Proceed" to the CSP for commencement of the Work. All communications relating to the day-to-day activities for the work shall be exchanged between representatives of the various State transportation regions and the CSP. All communication, notices, and correspondence shall be addressed to the individuals identified below. Either party may from time to time designate in writing new or substitute representatives.

If to State:

Tim Aschenbrenner
CDOT Project Development Branch Manager
4201 East Arkansas Avenue, Fourth Floor, Center
Denver, CO 80222
(303) 757-9040

If to the CSP:

Steve Gagnon
Colorado State Patrol
700 Kipling Street
Denver, Colorado 80215
(303) 239-4436

Section 7. Successors and Third Party Beneficiaries

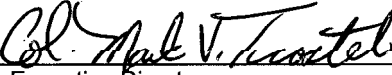
Except as herein otherwise provided, this agreement shall inure to the benefit of and be binding upon the parties hereto and their respective successors and assigns. No third party beneficiary rights or benefits of any kind are expressly or impliedly provided herein.

Section 8. Subcontractors

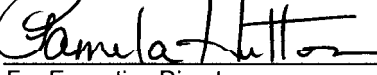
Except as otherwise provided, the duties and obligations of CSP shall not be assigned, delegated or subcontracted except with the express prior written consent of CDOT. All subcontractors will be subject to the requirements of this agreement.

THE PARTIES HERETO HAVE EXECUTED THIS CONTRACT

STATE OF COLORADO:
BILL RITTER, JR., GOVERNOR

By 
For Executive Director
Department of Public Safety,
Division of the Colorado State Patrol

STATE OF COLORADO:
BILL RITTER, JR., GOVERNOR

By 
For Executive Director
Department of Transportation

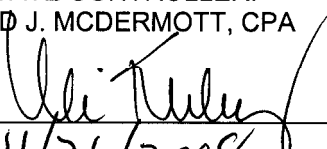
2000100

CDOT Vendor Number

ALL CONTRACTS MUST BE APPROVED BY THE STATE CONTROLLER

CRS 24-30-202 requires that the State Controller approve all state contracts. This contract is not valid until the State Controller, or such assistant as he may delegate, has signed it. The contractor is not authorized to begin performance until the contract is signed and dated below. If performance begins prior to the date below, the State of Colorado may not be obligated to pay for the goods and/or services provided.

STATE CONTROLLER:
DAVID J. MCDERMOTT, CPA

By 
Date 11/26/2008

**SCOPE OF WORK
UNIFORM TRAFFIC CONTROL**

CDOT Project Number: FY 2008 – FY 2010 UNIFORM TRAFFIC CONTROL

Location: Statewide

Date: October 1, 2008

**SCOPE OF DUTIES WHEN COLORADO STATE PATROL TROOPERS ARE
CONTRACTED FOR UNIFORMED TRAFFIC CONTROL:**

1. **Patrolling in construction zones for purposes of enforcing State of Colorado motor vehicle laws.**
2. **Providing quick response to motor vehicle accidents and motorist assists in construction zones that present dangerous hazards and delays to motorists.**
3. **Providing a deterrent to the disobedience of flag persons and traffic control devices at strategic locations as requested by the construction company or traffic control company and project engineers when necessary for establishing lane closure.**
4. **Troopers will be used for traffic direction in place of, or in addition to flagmen at the request of construction company or project engineers, for locations where motorists are ignoring or not complying with established traffic control.**
5. **Troopers will be used for traffic direction in place of, or in addition to flagmen at the request of construction company or project engineers, at intersection(s) during changeover of traffic signals or to clear traffic volumes caused by construction.**

**COLORADO STATE PATROL
FY 2008 - FY20010 NPS UNIFORM TRAFFIC CONTROL**

Location: Statewide

Total Hours		Specific Rate of Pay	Total Cost
0.0	X	\$58.10 per hour	\$0.00

I am a representative of the Colorado State Patrol, duly authorized to contractually bind the firm. My signature below constitutes formal agreement (without further signature) to a Task Order, which is issued by the State pursuant to the terms of this Task Order Proposal, without substantive change. I also declare that to the best of my knowledge the wage rates and other factual unit rates supporting the compensation to be paid by the Department for the professional services on this document are accurate, complete, and current at the time of contracting, and include no unallowable or duplicate costs.


Signature

10-20-08
Date

Exhibit C-1

TASK ORDER NO. ____

PROJECT NO:
CODE:
ORGN:
COFRS ENC #:
CMS ID #:

DATE:

State Fiscal Year 200_-200_

Task Order Letter No. ____

TO: CONSULTANT
 ADDRESS
 CITY, STATE ZIP

FROM: _____, Project Manager, CDOT

In accordance with Section ____, Paragraph ____, of contract routing number __ HA__ ____, between the State of Colorado for the use and benefit of its Department of Transportation and

CONSULTANT

covering the period of _____ through _____ the undersigned agree that the supplies/services affected by this Task Order Letter are modified as follows:

Task Order Description

The Contractor shall perform the _____ task in accordance with the attached scope of work, dated _____, and the attached Consultant's Task Proposal dated _____, both of which are hereby incorporated by reference.

Price/Cost

The maximum amount payable by the State for _____ services described above is \$ _____ for a new contract total of \$ _____.

Performance Period

The Contractor will complete the performance in this Task Order by _____.

This Task Order is executed pursuant to Section ____, paragraph ____, of the original Contract. The parties agree that all work shall be performed according to the standards and terms set forth in the original Contract. In the event of any conflict or inconsistency between this amendment and the original Contract, such conflict or inconsistency shall be resolved by reference to these documents in the following order: Special Provisions, original Contract, attachments/exhibits to the original Contract, this Task Order Letter, attachments/exhibits to this Task Order Letter, then Task Order Proposal.

The Contractor understands that its execution of the Task Proposal constitutes its formal agreement (without further signature) to this Task Order, as provided in the Task Proposal and in the contract.

This Task Order is effective as of _____. **In no event shall it be deemed valid until it shall have been approved by the State Controller or such assistant as he may designate.**

APPROVALS:

STATE OF COLORADO:

Bill Ritter, Jr., Governor

By: _____

For the Executive Director
Colorado Department of Transportation

ALL CONTRACTS MUST BE APPROVED BY THE STATE CONTROLLER

CRS 24-30-202 requires that the State Controller approve all state contracts. This contract is not valid until the State Controller, or such assistant as he may delegate, has signed it. The contractor is not authorized to begin performance until the contract is signed and dated below. If performance begins prior to the date below, the State of Colorado may not be obligated to pay for goods and/or services provided.

**State Controller
David J. McDermott, CPA**

By: _____

Date: _____

Exhibit C-2

**AMENDED TASK ORDER AND
BASIC CONTRACT RATE ADJUSTMENT**

PROJECT NO:
CODE:
ORGN:
COFRS ENC #:
CMS ID #:

DATE:

State Fiscal Year 200_ -200_

TO: CSP
ADDRESS
CITY, STATE ZIP

FROM: _____, Project Manager, CDOT

In accordance with Section ____, Paragraph ____, of contract routing number 0_HA_ _____, between the State of Colorado for the use and benefit of its Department of Transportation and

CSP

covering the period of _____ through _____ the undersigned agree that the supplies/services affected by this Task Order Letter are modified as follows:

Task Order Description

The purpose of the amended task order is to allow for an annual salary adjustment for the CSP's employees.

The CSP shall perform "as needed" tasks in accordance with the scope of work, attached to the basic contract, and the attached CSP's revised Cost Exhibit (Exhibit ____) dated _____, which is hereby incorporated by reference.

Price/Cost

The maximum amount payable by the State for "as needed" services described above remains at \$ _____.

Performance Period

The CSP will complete the performance of the work within the term of the basic contract.

This Amended Task Order is executed pursuant to Section ____, paragraph ____, of the original Contract. The parties agree that all work shall be performed according to the standards and terms set forth in the original Contract. In the event of any conflict or inconsistency between this amendment and the original Contract, such conflict or inconsistency shall be resolved by reference to these documents in the following order: Special Provisions, original Contract, attachments/exhibits to the original Contract, this Task Order Letter, attachments/exhibits to this Task Order Letter, then Task Order Proposal.

The CSP understands that its signature on the revised Cost Exhibit ____ constitutes its formal agreement (without further signature) to this Amended Task Order, as provided in the revised Cost Exhibit ____ and in the contract.

This Amended Task Order is effective as of _____. **In no event shall it be deemed valid until it shall have been approved by the State Controller or such assistant as he may designate.**

STATE OF COLORADO:
Bill Ritter, Jr., Governor

By: _____
For the Executive Director
Colorado Department of Transportation

ALL CONTRACTS MUST BE APPROVED BY THE STATE CONTROLLER

CRS 24-30-202 requires that the State Controller approve all state contracts. This contract is not valid until the State Controller, or such assistant as he may delegate, has signed it. The contractor is not authorized to begin performance until the contract is signed and dated below. If performance begins prior to the date below, the State of Colorado may not be obligated to pay for goods and/or services provided.

State Controller

David J. McDermott, CPA

By: _____

Date: _____

Exhibit C-3

**AMENDED TASK ORDER FOR
TIME EXTENSION**

PROJECT NO:
CODE:
ORGN:
COFRS ENC #:
CMS ID #:

DATE:

State Fiscal Year 200_-200_
Task Order Letter No. ___ (Time Extension)

TO: CSP
ADDRESS
CITY, STATE ZIP

FROM: _____, Project Manager, CDOT

In accordance with Section ___, Paragraph ___, of contract routing number 0_HA_____,
between the State of Colorado for the use and benefit of its Department of Transportation and

CSP

covering the period of _____ through _____ the undersigned agree that
the supplies/services affected by this Task Order Letter are modified as follows:

Task Order Description

The purpose of this Amended Task Order is to extend time under Task Order # _____, dated _____.

The CSP shall perform the _____ task in accordance with the attached scope of work,
dated _____, and the attached CSP's Task Proposal dated _____, both of
which are hereby incorporated by reference.

Price/Cost

The maximum amount payable by the State for _____ services described above is \$0.00 and
the contract total remains unchanged.

Performance Period

The CSP will complete the performance in this Task Order by _____.

This Task Order is executed pursuant to Section ____, paragraph ____, of the original Contract. The parties agree that all work shall be performed according to the standards and terms set forth in the original Contract. In the event of any conflict or inconsistency between this amendment and the original Contract, such conflict or inconsistency shall be resolved by reference to these documents in the following order: Special Provisions, original Contract, attachments/exhibits to the original Contract, this Task Order Letter, attachments/exhibits to this Task Order Letter, then Task Order Proposal.

The CSP understands that its signature on the Time Extension documentation memo attached hereto constitutes its formal agreement (without further signature) to this Amended Task Order, as provided in the contract.

This Amended Task Order is effective as of _____. **In no event shall it be deemed valid until it shall have been approved by the State Controller or such assistant as he may designate.**

**STATE OF COLORADO:
Bill Ritter, Jr., Governor**

By: _____

For the Executive Director
Colorado Department of Transportation

ALL CONTRACTS MUST BE APPROVED BY THE STATE CONTROLLER

CRS 24-30-202 requires that the State Controller approve all state contracts. This contract is not valid until the State Controller, or such assistant as he may delegate, has signed it. The contractor is not authorized to begin performance until the contract is signed and dated below. If performance begins prior to the date below, the State of Colorado may not be obligated to pay for goods and/or services provided.

**State Controller
David J. McDermott, CPA**

By: _____

Date: _____



REGION 1 TASK ORDER ROUTING APPROVAL LETTER

DATE: _____

Project #: _____

TO: **REGION 1 BUSINESS OFFICE**
via Program Engineer's Office

Project Code: _____

Phase: C N/P: P

Function: _____

Location: _____

FROM: _____

Project Desc: _____

SUBJECT: Contract Routing #: _____

Task Order #: _____

Dated: _____

Description: _____

Estimated Cost of TO: \$ _____ .00

Consultant: _____

FEIN #: _____

NPS Project Manager: _____ OK?

CDOT Project Mgr responsible for funds: _____ OK?

Brief description of work to be performed:

1. Completion Date: _____
(Delivery – Work shall be completed before this date)

2. Basis of Payment: _____
(Specific, Time & Materials, Lump Sum, etc)

3. Project Funding as of Date: _____ (Date when COFRS screens are run.)

Balance of Project Funds: \$ _____ .00
(COFRS' AGPR Screen)

Balance of Contract Funds: \$ _____ .00
(COFRS' PASM Screen)

Task Order # _____ Amount: \$ _____ .00

New Contract Amount: \$ _____ .00

Retainage to be withheld? _____

Project Work hours:

CDOT Workhours: _____

Consultant Workhours: _____

Final Agreed to Workhours: _____

Prime: _____

Subs: _____

Note: For one time Reimbursement for ESB Utilization, no hours are involved.

Approved:

OK? Date: _____

Name/ Title

OK? Date: _____

Name/ Title

OK? Date: _____

Region Transportation Director

For Business Office use

ATTACHMENT CHECKLIST:

(3) TASK ORDER PACKAGES

- Task Order Letter
- Scope of Work
- Cost Proposal
- COFRS AGPR /Screen Print
- COFRS PASM /Screen Print
- COFRS PG Doc/ Screen Print



Task Orders

Instructions

1. Complete the **Region 1 Task Order Routing Approval Letter**.
2. Make sure you note that you have the approval of the **NPS Project Manager** (if applicable) along with his/her name.
3. Make sure you note that you have the approval of the **CDOT Project Manager** (Project or Contract) **responsible for the project funds**. (*This is extremely critical for TO's that are managed by an RE!*)
4. Get appropriate approvals **via e-mail**.
5. **E-mail** to the Business Office with attached Scope of Work and Cost Proposal.
6. The Business Office will forward the completed TO Approval Letter *along with requisite attachments* to:
Agreements (Attn: Nora Oehrle)

Copies/Routing

Forward a copy of the completed TO Approval Letter to:

- The appropriate RE
- The appropriate Program Engineer, Traffic Engineer or Environmental/Planning Manager.
- The NPS Project Manager (if different than your Program/Traffic engineer).
- The RTD
- Region 1 Business Office

Process

When the approved TO is received back from HQ in the Business Office, the Business Office will:

- Send the original to the consultant
- Send a copy to the Project Manager
- Retain a copy in the Business Office

