

Guidelines for Use of Extra-Enforcement in Iowa Department of Transportation Construction and Maintenance Work Zones

2023 Project Numbers:

Construction: NHSN-000-T(291)--2R-00

Maintenance: NHSN-000-T(292)--2R-00



January 5, 2023

**Construction and Materials Bureau
Motor Vehicle Enforcement Bureau
Maintenance Bureau
Highway Administration**



BACKGROUND

On December 5, 2007; the FHWA issued the final rule on Temporary Traffic Control Devices. A part of this rule [630.1106(c)] requires state highway agencies to promulgate guidelines that address the use of law enforcement (extra enforcement) on Federal-aid highway projects.

GUIDELINE

These guidelines can be used to provide extra enforcement on any Iowa DOT work zone on the state highway system. They are organized into five sections:

- (1) Project Determination Criteria
- (2) Extra Enforcement Procedures
- (3) Effective Enforcement Strategies
- (4) Payment Process for Extra Enforcement Costs
- (5) Process to Develop Extra Enforcement Project List

PROJECT DETERMINATION CRITERIA

A number of conditions may indicate a need for or benefit of extra enforcement in work zones. The presence of a uniformed law enforcement officer and marked law enforcement vehicle in view of motorized traffic on a highway project can affect driver behavior which helps to maintain appropriate speeds and improve driver alertness through the work zone. In general, the need for extra enforcement is greatest on projects with high traffic speeds and volumes, and where the work zone is expected to result in substantial disruption to or changes in normal traffic flow patterns. Specific project conditions should be examined to determine the need for or potential benefit of extra enforcement, such as the following:

- a) Low speed, mobile operations on high speed roadways;
- b) Low speed, mobile operations on a roadway that is a safety concern due to sight lines, road geometrics, or topography;
- c) Projects with frequent worker presence adjacent to high speed traffic without positive protection devices, such as temporary concrete barrier rail;
- d) Projects with complex or very short-term changes in traffic patterns;
- e) Projects utilizing short-term closures to set overhead structures such as bridge beams, sign trusses, and traffic signal masts;
- f) Projects with work at night;
- g) Existing traffic conditions or crash histories which could cause congestion;
- h) Work zone operations that require brief stoppage of all traffic in one or both directions;
- i) High speed roadways where unexpected or sudden traffic queuing is anticipated especially if the queue forms a considerable distance in advance of the actual work area or also immediately adjacent to the workspace;
- j) Previous use of extra enforcement in the same geographic area;
- k) Projects with higher potential for incidents due to high traffic generators; such as concerts, football games, offsite events, and other venues;
- l) Other work site conditions where traffic may present a higher risk for workers and road users.

EXTRA ENFORCEMENT PROCEDURES

To arrange for extra enforcement on construction operations the Resident Construction Engineer (RCE) office or designee will contact the Motor Vehicle Enforcement (MVE) field Captain in their area. The map in the Appendix shows the regions/districts and Captain contact information. For maintenance operations the District Maintenance Manager (DMM) or designee can call the MVE Captain to schedule extra enforcement if a law enforcement agency will not already be supporting the work area.

If MVE is not available for extra enforcement the Captain will arrange for enforcement by other enforcement agencies such as Iowa State Patrol (ISP), Sheriff or Local Police. The Captain will inform the RCE or DMM office that they are requesting another agency to provide this extra enforcement. Costs and procedures for extra enforcement are included below in PAYMENT PROCESS FOR EXTRA ENFORCEMENT COSTS.

Early communication is key to successful extra enforcement on a project. On major, complex projects, enforcement agencies should be involved at an early stage in the planning of the work zone traffic control including participation in joint project development meetings. The appropriate enforcement agency should be invited to the pre-construction conference prior to the beginning of a project. For major projects, this should include the post commander; but for most projects the patrol officer that would likely be stationed in the work zone would be the appropriate attendee.

Three-days' notice should be provided to facilitate scheduling of enforcement personnel except in emergency situations. Final scheduling is needed 24 hours prior to work beginning that requires active enforcement.

Once an officer has been assigned discussion between the RCE/DMM office and the appropriate extra enforcement personnel should consist of the following:

1. Where and how should the extra enforcement be deployed
2. Hours / dates of extra enforcement patrols
3. How to communicate between field inspection staff and the extra enforcement officers in case of incidents or other emergency communication needs
4. Process of billing and reimbursement to the enforcement agency as required (including timing and paper trail needed)
5. Other agreed upon issues

EFFECTIVE ENFORCEMENT STRATEGIES

Extra Enforcement Prior to Work Activity Beginning

For longer term projects it is sometimes effective to schedule officers before a project starts with the intent to address bad driver behaviors by working the work zone and increase commuter driver awareness. It is recommended to combine this with a local media campaign as discussed below.

Extra Enforcement Techniques

There are two primary enforcement techniques used to effectively control speed in the work zone:

1. Stationary enforcement where patrol vehicles are static and positioned at various points in advance of or within the work zone.

2. Circulating patrols where the vehicles' patrol on a random pattern throughout work zone and approaches to the work zone.

Extra Enforcement Locations Within a Work Zone

Most enforcement officers use stationary enforcement techniques and position the vehicle at various points in the work zone, such as at the upstream end of the transition taper or in advance of the actual activity area.

Others use circulating patrols where Officers spend their time in an area up to 5 miles (8.05 km) upstream from the beginning of the work zone. By patrolling this area, it is believed that officers are more effective because they have more room to maneuver and apprehend violators.

Other effective locations for either static or circulating patrols are in advance of the queues that form due to high speed, high volume merges. The use of extra enforcement in these areas helps to provide additional advance warning of the developing queues and typically causes motorists to slow down and be more attentive as they approach the queue or merge point.

What Strategies Maximize the Effectiveness of Work Zone Enforcement?

A highly visible enforcement officer and patrol car has the most positive impact on speed reduction. Studies have shown that this is a positive impact regardless of where the patrol car is located. However, positioning the patrol car in the advance warning area is the preferred location to achieve the goal of reducing speed through the activity area.

Local Media Campaigns in Conjunction with Extra Enforcement

Another desirable strategy is using an aggressive local media campaign in conjunction with the extra enforcement activities. Media campaigns are generally helpful in getting motorists to understand the need to comply with work zone speed limits. Several different types of media outlets should be used, including television news, radio news, and newspaper. Topics for a local media campaign include: general warnings about the presence of work zones, public education about the increased fines in work zones law, and specifics about a particular work zone, such as which ramps are open and which are to be closed, or the planned use of extra enforcement.

In addition to the local media campaigns, if the project includes portable dynamic message signs to be supplied by the contractor or if Department owned portable dynamic message signs are available; these devices may also be used for information dissemination.

PAYMENT PROCESS FOR EXTRA ENFORCEMENT COSTS

Costs associated with the provision of uniformed law enforcement to help protect workers and road users and to maintain safe and efficient travel through highway work zones are eligible for reimbursement by the Department. These reimbursable costs are limited to actual out-of-pocket costs to the enforcement agency for direct vehicle costs and hourly costs for the officers. Costs for routine patrol outside of the project limits, officer time for bookings and warrants beyond the scope of the extra enforcement duties, and additional equipment or modification to the enforcement vehicle and other similar costs are not

eligible for reimbursement by the Department. Locally administered projects are not eligible for extra enforcement; unless prior agreements have been made to have extra enforcement, costs funded by these external funding sources.

All costs reimbursed to the enforcement agencies are considered as non-participating for federal aid and shall be paid through either an internal expenditure transfer (IET) for Iowa State Patrol enforcement activities or through a universal payment voucher for local agency (City Police or County Sheriff). Iowa Department of Transportation Motor Vehicle Enforcement activities are funded through an adjustment voucher which transfers the funds into their cost center from project funds.

IET costs should be documented by an invoice from the enforcement agency. This invoice should include the dates extra enforcement was used, the number of hours for each date, and if requested for reimbursement, the number of miles of the vehicle. Officer's names and vehicle number are not necessarily required but may also be included. Adjustment voucher costs are determined from a report run after each payroll that tabulates hours spent by Motor Vehicle Enforcement officers on extra enforcement responsibilities.

IETs and adjustment vouchers shall be filled out using cost center 601000 for extra enforcement used on Interstate routes and 611000 for extra enforcement used on Primary routes. The object code to be used shall be 890. The appropriate 400 series function code (depending on the type of construction work for the project, such as 441 for Portland cement concrete paving) should be used. The correct project number also needs to be included on the IET and adjustment voucher. The invoice from highway patrol should be sent to Accounts Payable with the proper coding on the invoice so Accounts Payable can prepare the IET for payment.

Project information and Enforcement costs from the IET and adjustment vouchers should be mailed or sent through electronic means to the work zone traffic and safety engineer in the Construction and Materials Bureau so that statewide extra enforcement costs can be tabulated on the spreadsheet stored on the LAN.

Universal payment voucher costs should be documented by an invoice from the enforcement agency. This invoice should include the dates extra enforcement was used, the number of hours for each date, and if requested for reimbursement, the number of miles of the vehicle. Officer's names and vehicle number are not necessarily required but may also be included.

Vouchers shall be filled out using cost center 601000 for extra enforcement used on Interstate routes and 611000 for extra enforcement used on Primary routes. The object code to be used shall be 890. The appropriate 400 series function code (depending on the type of construction work for the project, such as 441 for Portland cement concrete paving) should be used. The correct project number also needs to be included on the external voucher.

Copies of the universal payment voucher should be sent through electronic means to the Work Zone Operations Engineer in the Construction and Materials Bureau so that statewide extra enforcement costs can be tabulated on the spreadsheet stored on the LAN.

A sample universal payment voucher is shown in attachment 1.

PROCESS TO DEVELOP EXTRA ENFORCEMENT PROJECT LIST FOR CONSTRUCTION

Every calendar year prior to March 1, the Work Zone Operations Engineer in the Construction and Materials Bureau develops a spreadsheet of potential extra enforcement projects to be submitted to the Districts for their review. The spreadsheet is based on uncompleted construction projects copied from the Project Scheduling mainframe software system.

Projects that carry over from year to year need to be included in each calendar year that extra enforcement may be used. Projects that do not impact traffic or have minor traffic impacts are not included. Project types typically excluded include: landscaping and erosion control projects; lighting, and projects; grading, paving, and structures projects on relocation; and culvert and minor bridge repair projects. Maintenance funded projects are eligible for extra enforcement.

The spreadsheet is then sent to DOT Districts for their review of the list of potential projects for deletions / revisions / or additions. After the Districts review, estimated costs for extra enforcement are included in the spreadsheet tabulation by the Construction and Materials Bureau. Iowa has chosen to not use federal-aid reimbursement for extra enforcement.

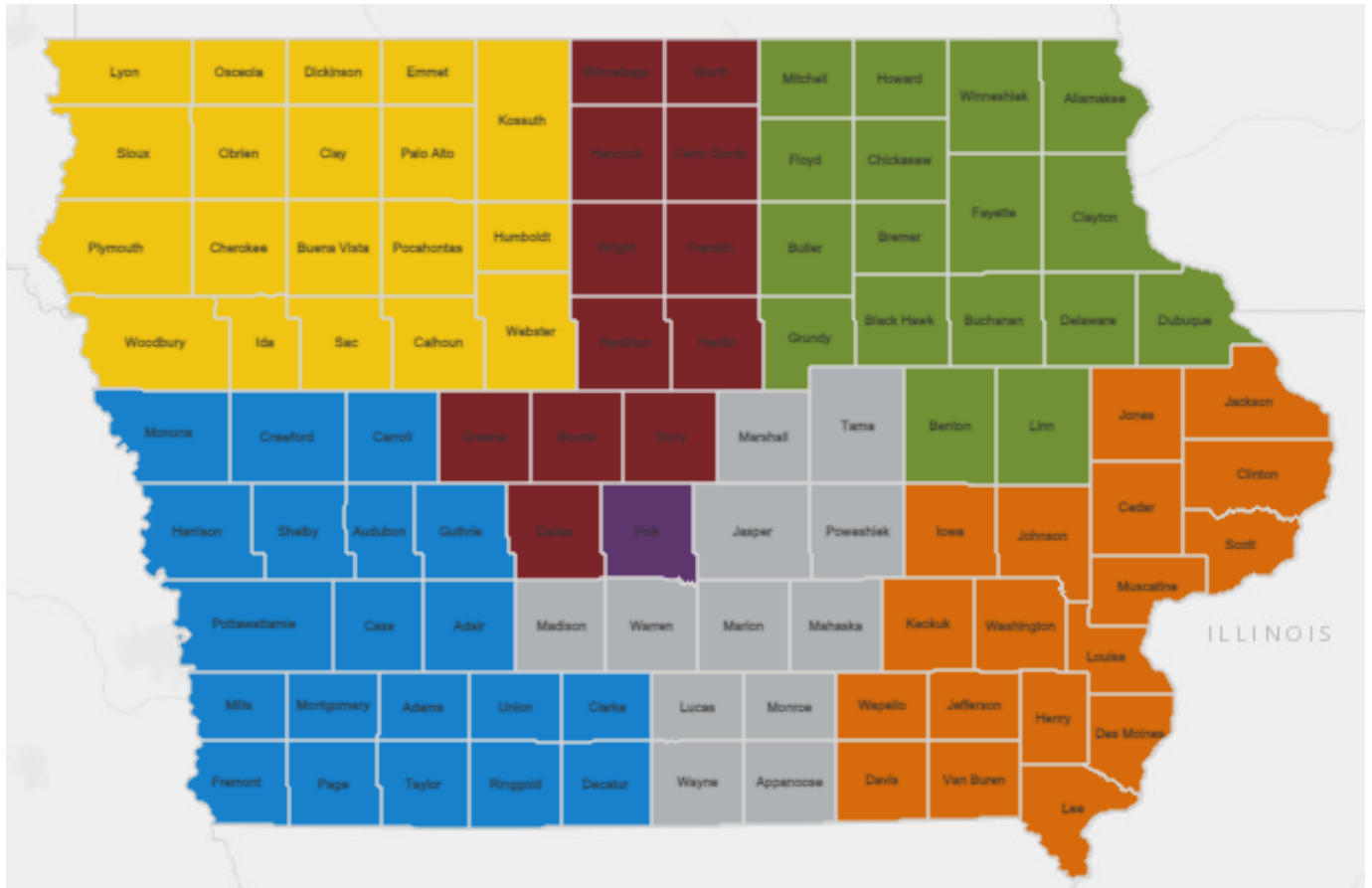
If during the course of a construction season it is determined that a project which is not on the spreadsheet list of projects requires Extra Enforcement, the RCE will email the traffic safety engineer in the Construction and Materials Bureau with project specific information on the added project. This will ensure the spreadsheet is kept current on all projects where Extra Enforcement was used.

Starting in calendar year 2017, the Department has established a single project number for each calendar year to be used for Extra Enforcement activities Statewide. For calendar year 2020 this project number was: NHSN-000-T(132)—2R-00. Every year a new project number will be established by the Project Management Office. This project number will be used to document extra enforcement expenses for each calendar year/construction season. An email will be forwarded to the DCEs, RCEs, MVE staff, and accounting so that all involved are aware of the correct project number for these expenses to be charged.

APPENDIX

MVE Contact Information

Current Iowa DOT MVE Captain area information can be accessed at the following site and selecting a location on the map: <https://iowadot.gov/mve/contact-us>



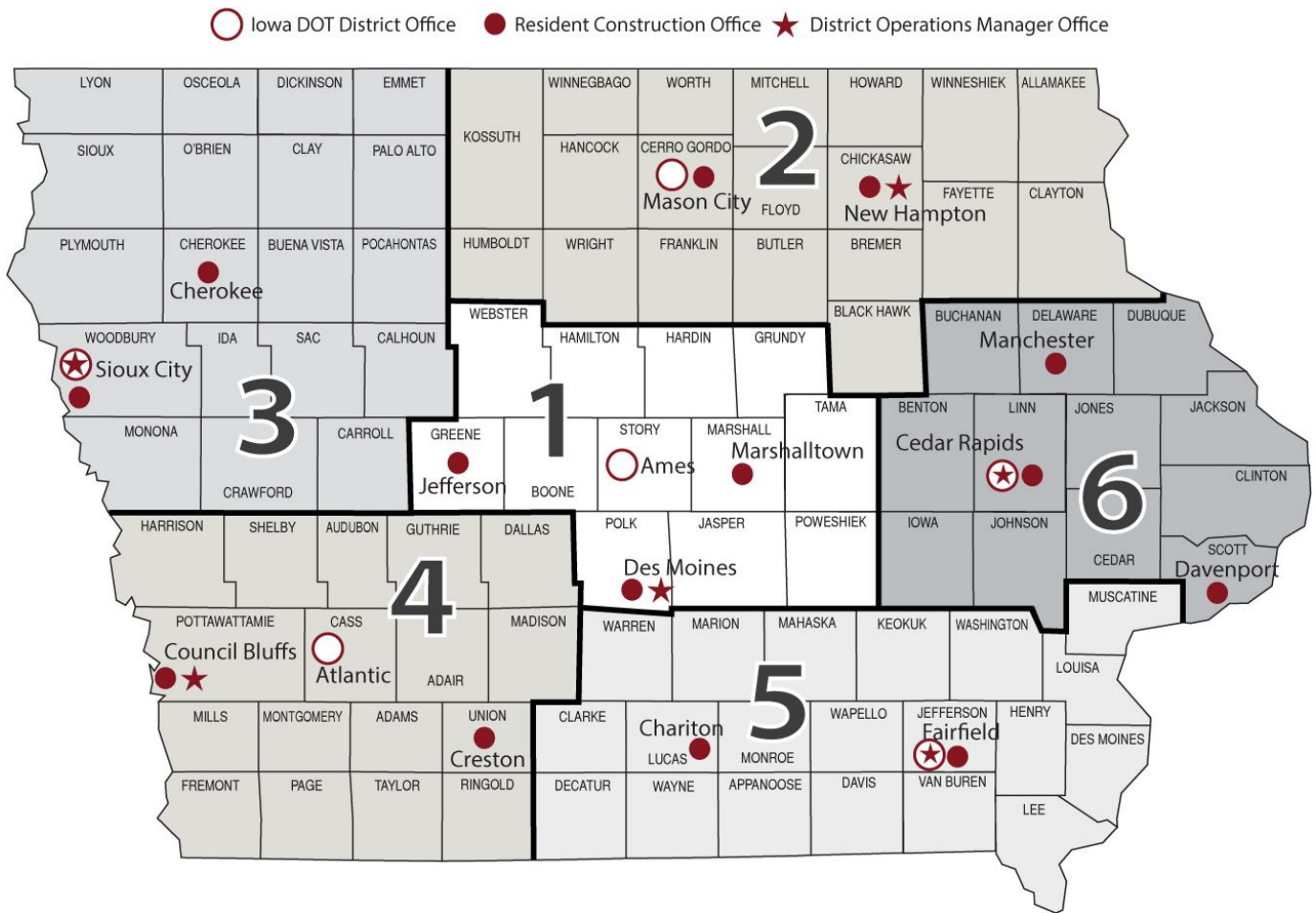
APPENDIX

Resident Construction Engineers (RCE) Contact Information

Current Iowa DOT RCE contact information can be accessed at the following site and selecting the appropriate district: <https://iowadot.gov/districts/District-contacts>

District Maintenance Managers (DMM) Contact Information

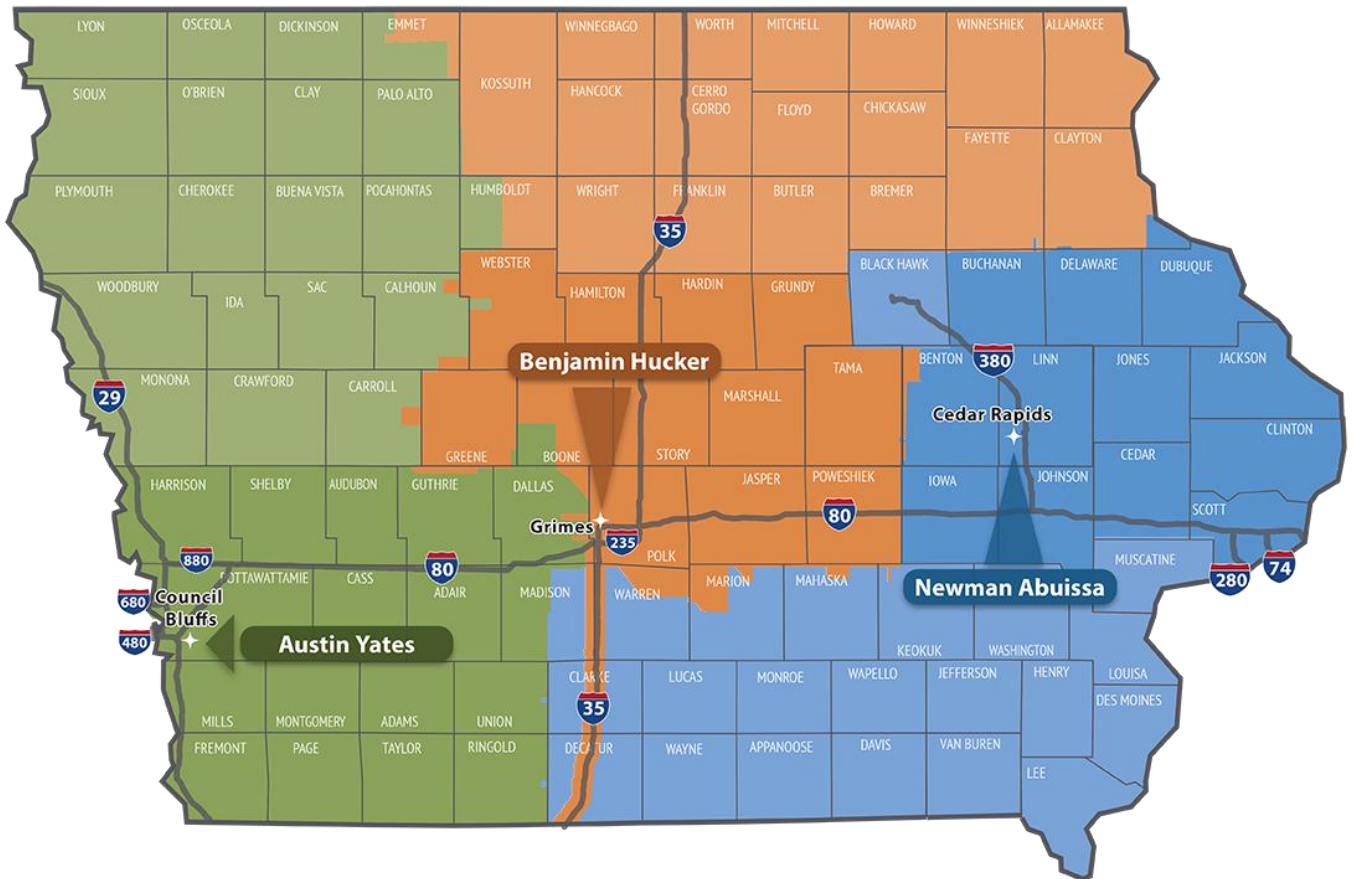
Current Iowa DOT DMM contact information can be accessed at the following site and selecting the appropriate district: <https://iowadot.gov/districts/District-contacts>



APPENDIX

Transportation Systems Management Operations (TSMO) Engineers Contact Information

Current Iowa DOT TSMO contact information can be accessed at the following site:
<https://iowadot.gov/tsmo/Contact-us>



Work Zone Operations Engineer Contact Information

The Current Iowa Work Zone Operations Engineer contact information can be accessed at the following site: https://iowadot.gov/construction_materials/Contacts

APPENDIX

HISTORY OF EXTRA ENFORCEMENT IN IOWA

The Iowa Department of Transportation until 1993 historically had not used the services of the enforcement community to patrol its work zones other than through their routine patrols.

From 1993 to 1995, using 402 funds and Helmet Set-Aside monies, the Bi-State Council of Governments in the Quad Cities area funded a very successful extra enforcement campaign that utilized the Iowa State Patrol; Scott County Sheriff; and Davenport, Bettendorf, and Le Claire Police Departments to patrol various State, County, and City work zones. The campaign was so successful the local media picked up on the campaign and many news broadcasts were developed around the use of extra enforcement in work zones. In order to continue the use of extra enforcement activities in the Scott County area and to expand its use statewide, \$50,000 was approved by Staff Action S-96-1025 to be used to fund extra enforcement activities for the 1996 construction season.

Each year since the 1996 construction season, extra enforcement funds have been used statewide on numerous construction projects. These funds have been used to reimburse Iowa State Patrol, various County Sheriff's Offices, and numerous City Police Offices. Reimbursed funds cover the actual labor and vehicle costs. Extra enforcement funds are not available to be used for physical upgrades or additions to the vehicle or additional physical items for the enforcement personnel.

Extra enforcement has been used in over half of Iowa counties and has been provided by the Iowa Department of Transportation Motor Vehicle Enforcement, Iowa State Patrol, local County Sheriff's Department's, and local City Police Departments.

Attachment 1

Sample Universal Payment Voucher

PAGE 001

IOWA DEPARTMENT OF TRANSPORTATION
UNIVERSAL PAYMENT VOUCHER
CONST-MISC

DATE 08-13-08
VOUCHER 74VU71
CONTRAST
P.O.

VENDOR NO : 00000 VENDOR NAME : CORALVJ ELE POL I C E DE PT

CORALVILLE POLICE DEPT
PO BX 5911
CORALVILLE, IA 52241

DATE	VENDOR INVOICE NUMBER	*** COST CENTER	OBJ	FNC	JOB/EQ	PARCEL	PROJECT	R P, NP U S	AMOUNT
08-07-08	NONE	601000	890	441			13520806275	U N	\$5,665.00
	MONTH OF JULY								
							TOTAL		\$5,665.00

EXTRA LAW ENFORCEMENT PROJECT IM-80-6(275)240--13-52

APPROVAL AUTHORITY

DATE

CLAIMANT'S CERTIFICATION

Carey Lewis 8-14-08
Brenda Kuff 8-18-08

I THE WITHIN CLAIMANT DO CERTIFY THAT THE
ITEMS FOR WHICH PAYMENT IS CLAIMED WERE
FURNISHED FOR STATE BUSINESS UNDER
AUTHORITY OF THE LAW AND TH[CHARGES ARE
REASONABLE, PROPER, AND CORRECT AND NO
PART OF THIS CLAIM HAS BEEN PAID

SIGN IN INK _____

DATE _____
NOT RBQUIRFD IF ORIGINAL INVO]CB IS
BEING PRESENTED FOR PAYMENT