



## HIGHWAY EMERGENCY RESPONSE OPERATOR (HERO)



- HERO Program began in September 2010
- Covered a total of 67 miles of segments of IH 35 and US 183
- Managed by Central Texas Mobility Authority until 2017
- Served as a Courtesy Patrol
- 2017 TxDOT had a new vision for the HERO program
- Primary Focus Incident Management with the secondary focus being on motorist assistance
- October 2017 TxDOT Managed HERO Program released
- Performance Based Contract that has service level agreements (SLA's) and tracks key performance indicators (KPI's)
- 71 miles of coverage added along with Loop 1, US 290 and SH 71 roadway segments
- Fully implemented HERO program will cover 307 miles

#### TXDOT HERO PROGRAM EXPANSION

Phase 1 – October 16

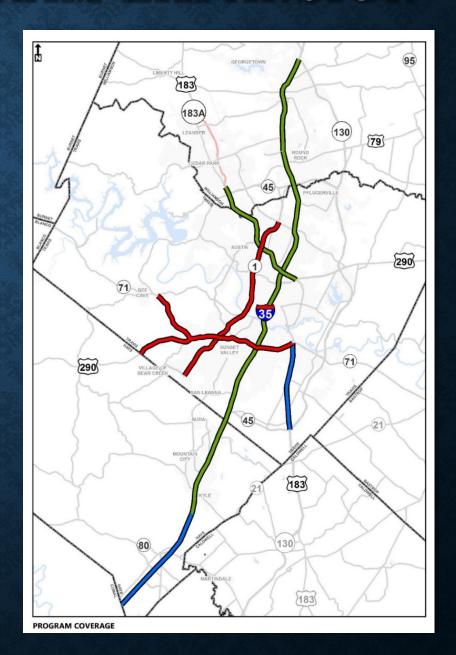
Extended coverage on IH-35 and added coverage on US 183

Phase 2 – December 4

Took over the existing CTRMA service areas on IH-35 and US 183

Phase 3 – January 1

Expand to include MoPac, SH 71 and US 290





# HIGHWAY EMERGENCY RESPONSE OPERATION (HERO) SERVICES PROGRAM

Mission is to Safely clear the roadway of all obstructions as quickly and Safely as possible while reducing the amount of secondary incidents

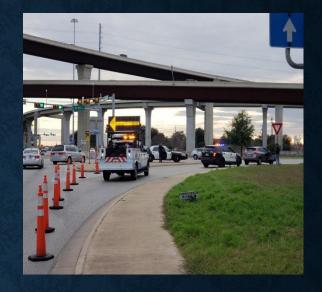
- Relocating vehicles utilizing cattle guard push bumpers
- Provide basic mechanical services
- Incidents are managed utilizing the following resources:
  - Texas Manual on Traffic Control Devices (TMUTCD)
  - > Federal Highway Administration (FHWA)
  - ➤ National Incident Management System (NIMS)
  - Strategic Highway Research Program (SHRP)



#### TXDOT HERO PROGRAM

#### Statement of Work includes:

- Providing Temporary Traffic Control
- Locating, re-locating, assisting disabled vehicles
- Clearing lane blocking traffic incidents
- Keeping evacuation routes clear







### **HERO BASICS**

#### **Fully Functional Safety & Service Patrol**

- Clearly communicate
- Minimize the probability of secondary crashes
- Effective on-scene incident management
- High quality stranded motorist services
- Uniformity















#### **HERO OPERATORS**



- TRAINING is the KEY to a successful program!!!
  - 120 hours of basic training
  - 40hrs of classroom
  - 80hrs in the field
  - Final graded test to become a certified HERO
  - Some additional required certifications are:
    - ICS 100, 200, 700, 800
    - SHRP II
    - CPR/First Aid
    - NIMS
    - Defensive Driving
    - Basic level MOT









# HERO UNIFORMS

- HI-VIS reflective uniforms
- Leather gloves
- Safety goggles
- Hard hat
- Steel-toe boots



#### **VEHICLES**

- Dodge RAM 2500
- Utility bed
- Dynamic Message Boards
- Emergency Lighting
- Air Horn/Siren consoles
- Fabricated Cattle Guard
   Push-Bumpers
- Go-Lights to illuminate scenes
- Roof mounted cameras to aid TMC
- Router and Tablet connected to Lonestar for electronic dispatching and tracking of incidents



## TOOLS/EQUIPMENT



Portable Radio



Tire change tools



Leaf blower/tow strap/lock snips



Assorted hand tools



6 gallon water jug



24 - 42" grabber cones



Fire extinguisher



3-fuel cans, 1-diesel can



Portable Jump Box





#### ASSISTING EMERGENCY VEHICLES



- HERO is required to stop for any emergency vehicle or tow truck providing emergency services
- Provides advanced warning initiatives to all motorist
- Assist law enforcement when conducting a traffic stop or other investigation

There have been zero first responders or tow trucks struck when HERO has assisted in managing the scene







- 9/2018 HERO in partnership with Austin Police Department(APD)
- HERO notifies the TMC and a request is sent to APD
- Abandoned vehicle times were cut in half
- Cleared up shoulders for emergency vehicles to travel
- Austin Police Department resources were freed up for more serous needs



## LONG-TERM MOT













# HERO DEBRIS REMOVAL









#### HERO COST BENEFIT ANALYSIS

- Saved 167,884 hours which is \$4,645,363 in annual delay cost
- Saved 288,761 gallons of gas in fuel savings
- Saved an annual \$14,748,576 (\$40,407 per day) in road user cost
- Cost Benefit was determined to range from 11.5:1 to 32:1

Scenario	Vehicle Delay Cost (Daily)	Vehicle Operating Cost (Daily)	Total Road User Cost (Daily)		
HERO	\$667,683.60	\$1,499,218.37	\$2,166,901.97		
Non-HERO	\$707,640.36	\$1,499,668.68	\$2,207,309.04		
Savings	\$39,956.76	\$450.31	\$40,407.07		

FSP Beat Evaluation & Pred	liction Ro	utines (u	ersion 1	6.0)					
Summary Evaluation Resu			or stoll 1	,					
Location Data District Analyst Date Beat #, Name Beat Description Beat Length (miles)	1 Jeff Kaufman October 28, 2019 HR4-Modeling Counts Slaughter to 51st 14.00				FSP Operational Parameters Delay Cost (\$/veh-hr) Fuel Cost (\$/gal) Mean Response time w/o FSP (min)	\$ 27.67 \$ 2.36 25.8			
Truck Operation Parameters Hours of Operation/#FSP trucks AM Peak Midday PM Peak Total FSP Assists (Incidents/ly) Number of Service Days/Yr Cost of FSP Service (\$/truck-hr)		End Time 21:00	#FSP Group A 1 3618	Group B		FSP Response Time Reduction (mir AM Peak Midday PM Peak Incident Charateristics Traffic Profile	User Def		FIELDDATA)
Time Period (Total) Savings-Performance Meas Delag (veh-hrs) Fuel Consumption (gal) Emissions RO(3 (kg/dag) CO (kg/dag) NDk (kg/dag) PMI0 (kg/dag) PMI0 (kg/dag) CO2 (kg/dag) N20 (kg/dag) CH5 (kg/dag) CO2c (kg/dag) CO5t Effectiveness Delag Benefits (\$/dag) Fuel Benefits (\$/dag) Total Benefits (\$/dag) Cost of the FSP Service	AM Peak	Midday 4600 791.1 0.02 0.41 0.06 0.00 7,048.94 0.10 0.28 7,048.94 \$ 12,727 \$ 1,867 \$ 14,594 \$1,260.76	PM Peak			Daily/Annual (Total) Savings-Performance Measur Delay (veh-hrs) Fuel Consumption (gal) Emissions FDG (kydday, kylyr) CO (kydday, kylyr) NOx (kydday, kylyr) PMf0 (kydday) CO2 (kydday) NOO (kydday) CO2 (kydday) CO2 (kydday, kylyr) CO5 Effectiveness Delay Benefits (\$/day, \$/yr) Fuel Benefits (\$/day, \$/yr) Fuel Benefits (\$/day, \$/yr) Cost of the FSP Service	Dai 459.7 791. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 7,048. 0.0 0.3 7,048. \$ 12,70 \$ 1,80 \$ 14,50 \$ 1.2	96 13 12 41 10 10 10 18 14 10 18 14 17 18 14 14 14 14 14 14 14 14 14 14 14 14 14	681,477 5,326,839
B/C Ratio(s)		11.58			-	B/C Ratio	11.58		



# SERVICES PROVIDED YEAR-TO-DATE



- Incidents Managed 80,448
  - Disabled Vehicles 44,356 vehicles
  - Abandoned Vehicles 9,492 abandons
  - Crashes Worked –9,328 crashes
  - Debris Removed 3,903 items removed
     / 4,693 cu yds removed
  - Vehicle Fire 162 fires
- Services Provided 142,750
  - Assisted Law Enforcement 10,577 incidents
  - Tire Changes 7,624 tires
  - Fuel 5,593 gallons dispensed
  - Jump Start 1,987 jumps provided
  - Vehicle Push 1,787 pushes administered
- Patrol Miles Driven 3,157,927

#### Long-Term MOT Trailer



#### **HERO Vehicle**







#### TXDOT HERO PROGRAM RECAP

- 10 routes covering 16hrs (5am-9pm) M-F
- 5 weekend routes (7am-7pm) Sat-Sun
- Debris cleanup (7am-7pm) 7 days a week
- Long-Term MOT Trailer 24x7 (incidents lasting over 2hrs)
- Covering 142 miles (IH-35, US 183, US 290, TX 71, LOOP 1/MoPac)







# **QUESTIONS?**