



**Client:** E470 Authority

**Application:** AT700 Tolling – Retrofit to Manual Lanes

**Background:** E470 in Denver, Colorado is 47 miles long and runs from I25 South of Denver to the new international airport and beyond linking to I25 in the North.



**Project Detail:** Prior to the introduction of Idris®, E470 were using conventional technology to perform automatic vehicle classification (AVC) in their manual lanes consisting of a treadle, 4 foot light curtain and loop. There were numerous problems with the system such as :-

- Gooseneck (5<sup>th</sup> wheel) Violations
- System mis-classifications due to vehicle separator
- Issues with snowploughs
- Weather related issues due to snow/ice, deicer and dirt

**Actual Gooseneck Misclassifications for 1 Year**



**Annual Adjustments**

Plaza	Goosenecks	Toll Rate	Necessary Adjusted \$
A	69,000	\$ 1.50	\$ 103,500.00
B	52,000	\$ 1.75	\$ 91,000.00
C	37,000	\$ 1.75	\$ 64,750.00
D	40,000	\$ 1.75	\$ 70,000.00
E	-	\$ 1.75	\$ -
<b>Total</b>			<b>\$ 329,250.00</b>

When Plaza E was built, the decision was made to use Idris as the AVC system with the following benefits:-

- Auditing made easy – fewer exceptions to deal with.
- Ease of data review – easy to check back to see which was correct, the operator or the system.
- Elimination of light curtain maintenance costs
- Elimination of treadle maintenance costs
- Labour saving on cleaning of light curtain

**Outcome**

The results from Plaza E were so conclusive that making the case to bring forward the midlife upgrade for Plazas A-D by approximately two years was straightforward.

**Conclusion**

The argument for retro-fitting Idris to replace conventional technology can be made purely on financial grounds. Idris is the technology of choice for AVC in ALL types of toll lanes.

**For further information please visit DCS @ [www.idris-technology.com](http://www.idris-technology.com)**

Idris® is a registered trade mark of Diamond Consulting Services Ltd.  
 The Idris Technology is protected by one or more of the following patents: EP0879457, USA 6345228, 6337640 and 6483443.  
 Patent Applications Pending in other Countries