

Attachment 16

US-74 Conceptual Plans for ITS

US 74 Managed Lanes
U-5526 – I-277 to Wallace Lane
Signing, ITS & Tolling Conceptual Plans

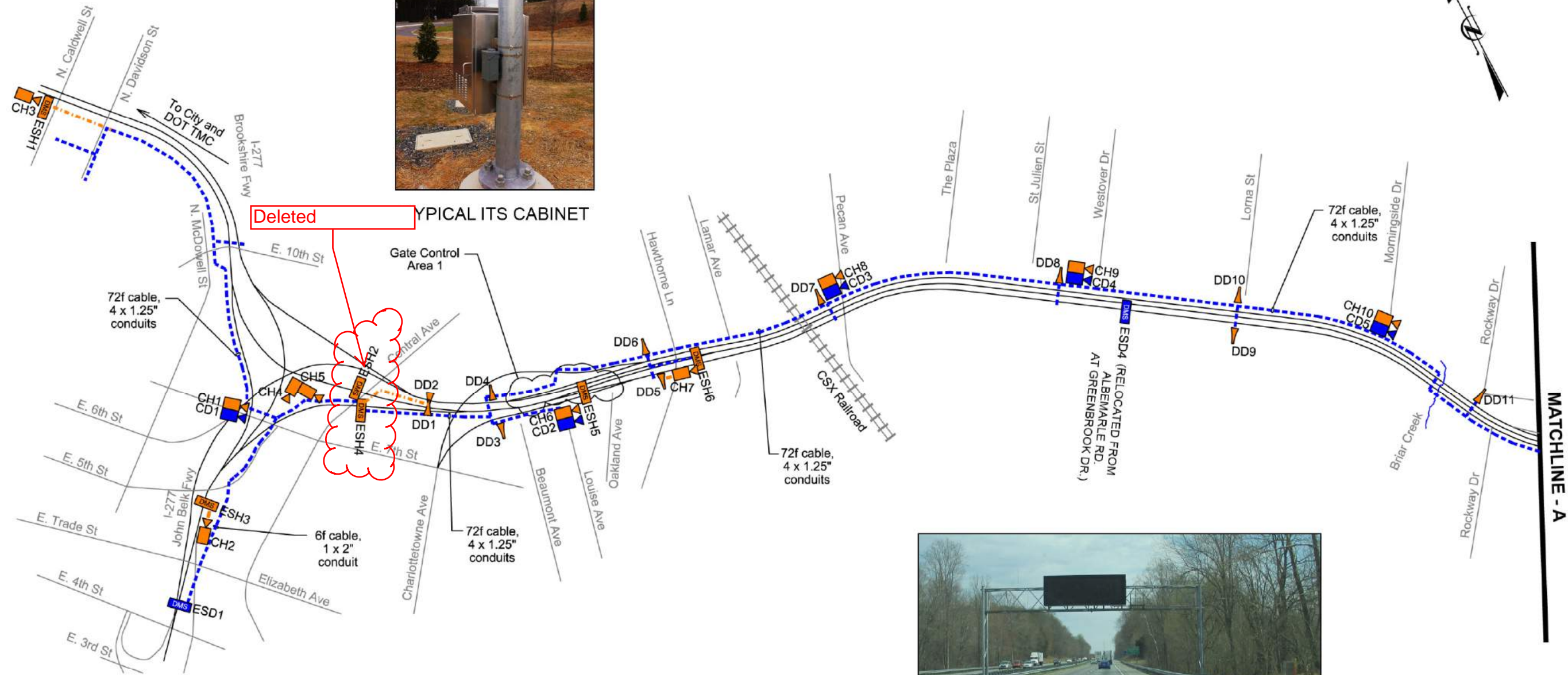
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Abbreviations

AET - All-Electronic Tolling
CCTV - Closed-Circuit Television
DMS - Dynamic Message Sign
DOT - Department of Transportation
EOT - Edge of Travel
f - Fibers
TMC - Transportation Management Center
TYP - Typical

ITS CONCEPT PLAN



TYPICAL DMS INSTALLATION ON TRUSS STRUCTURE

LEGEND

- PROPOSED DMS FOR TOLL RATES
- PROPOSED MANAGED LANES CAMERA
- PROPOSED DETECTOR
- PROPOSED COMMUNICATIONS CABLE AND CONDUIT
- PROPOSED COMMUNICATIONS CABLE IN EXISTING CONDUIT
- EXISTING DMS FOR DOT/TRAFFIC MANAGEMENT
- EXISTING DOT CAMERA
- EXISTING COMMUNICATIONS CABLE AND CONDUIT
- PROPOSED DOT CAMERA

- NOTES:
- PROPOSED MANAGED LANES CCTV CAMERAS TO BE CO-LOCATED ON SAME POLE AS EXISTING DOT CAMERAS WHERE POSSIBLE.
 - ALL EXISTING VEHICLE DETECTORS TO BE REPLACED WITH NEW DETECTORS ON EXISTING POLE WHERE POSSIBLE.
 - CONDUIT CONNECTING DEVICES EAST OF ALBEMARLE ROAD CONSTRUCTED AS A PART OF PROJECT U-209B.

GRAPHIC SCALE



ATKINS

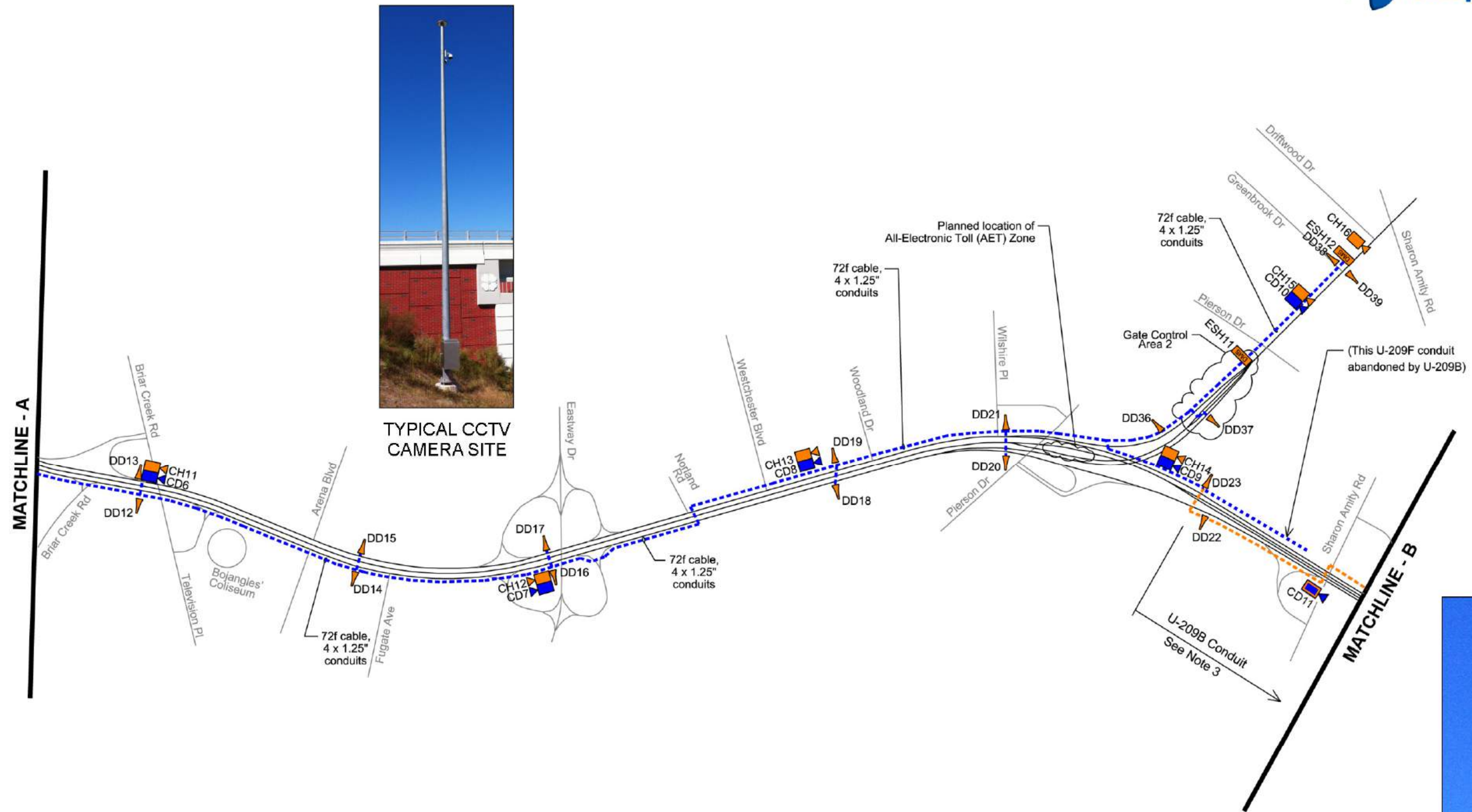
US 74 Managed Lanes
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DATE: 10/27/2014

NORTH CAROLINA
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ITS CONCEPT PLAN












TYPICAL CCTV CAMERA SITE



2-CAMERA SITE

LEGEND

-  PROPOSED DMS FOR TOLL RATES
-  PROPOSED MANAGED LANES CAMERA
-  PROPOSED DETECTOR
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-  PROPOSED COMMUNICATIONS CABLE IN EXISTING CONDUIT
-  EXISTING DMS FOR DOT/TRAFFIC MANAGEMENT
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GRAPHIC SCALE



US 74 Managed Lanes U-5526 – I-277 to Wallace Lane Signing, ITS and Tolling Conceptual Plans		
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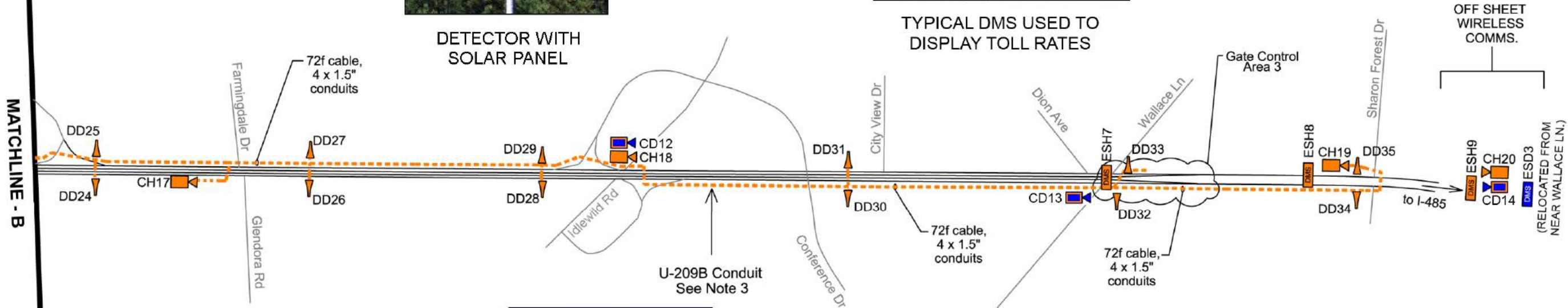
ITS CONCEPT PLAN



DETECTOR WITH
SOLAR PANEL












TYPICAL DMS USED TO
DISPLAY TOLL RATES



TYPICAL DETECTOR SITE

LEGEND

-  PROPOSED DMS FOR TOLL RATES
-  PROPOSED MANAGED LANES CAMERA
-  PROPOSED DETECTOR
-  PROPOSED COMMUNICATIONS CABLE AND CONDUIT
-  PROPOSED COMMUNICATIONS CABLE IN EXISTING CONDUIT
-  EXISTING DMS FOR DOT/TRAFFIC MANAGEMENT
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