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HIGHWAY STANDARDS

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701400-04	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401-05	LANE CLOSURE, FREEWAY/EXPRESSWAY
701411-06	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS ≥ 45 MPH
701422-02	LANE CLOSURE, MULTILANE, FOR SPEEDS ≥ 45 MPH TO 55 MPH
701446-01	TWO LANE CLOSURE, FREEWAY/EXPRESSWAY
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701901-01	TRAFFIC CONTROL DEVICES

GENERAL NOTES

- REMOVAL AND REINSTALLATION OF FENCE MAY BE REQUIRED TO ACCOMODATE EQUIPMENT THAT PUSHES CONDUIT ACROSS THE EXPRESSWAY. THIS SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN GALVANIZED STEEL CONDUIT PUSHED 2" AND 4" PAY ITEMS.
- THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF CABINETS AND FIBER OPTIC CABLE PRIOR TO BIDDING THE JOB. GPS LOCATIONS HAVE BEEN ADDED TO THE PLANS TO ASSIST IN FINDING THE CABINET LOCATIONS.
- THERE EXISTS ENVIRONMENTALLY SENSITIVE AREAS ALONG THIS JOB. CARE MUST BE TAKEN NOT TO REMOVE PLANT LIFE FROM THESE AREAS.
- RAMP LOOP SIZES SHALL BE DETERMINED USING THE RAMP LOOP TABLE IN THE INDUCTION LOOP SPECIFICATION.
- THERE SHALL BE 200 FEET OF 96 SM FIBER OPTIC CABLE SLACK, PER CABLE, IN EACH COMMUNICATION VAULT. THERE SHALL BE 25 FEET OF FIBER OPTIC CABLE SLACK, PER CABLE, IN ALL JUNCTION BOXES. THERE SHALL BE 150 FEET OF 12 SM FIBER OPTIC CABLE IN EACH COMMUNICATION VAULT THAT REQUIRES A LATERAL SPLICE.
- THE CONTRACTOR SHALL COORDINATE IT'S OPERATIONS WITH THE CCTV CONTRACTOR (ADRIDGE ELECTRIC). IF THE CCTV CAMERA POLES HAVE NOT BEEN SET PRIOR TO THIS JOB, THE CONTRACTOR SHALL BRING THE CONDUIT TO A LOCATION THAT THE CCTV CONTRACTOR WILL DESIGNATE.
- A MAINLINE SPLICE SHALL NOT BE IN THE SAME COMMUNICATION VAULT AS A LATERAL SPLICE. MAINLINE SPLICES SHALL UTILIZE 2 COMMUNICATION VAULTS (ONE NEXT TO THE OTHER UNLESS OTHERWISE NOTED). 1-96 SM FIBER MAINLINE SPLICE IN ONE VAULT AND THE OTHER 96 SM FIBER MAINLINE SPLICE IN THE OTHER VAULT.
- UNLESS OTHERWISE STATED, THE SAMPLE MAINLINE LOOPS FOR A 2 LANE ROAD SHALL BE IN LANE 1 AND 2 AND THE SAMPLE LOOPS FOR A 3 LANE ROAD SHALL BE IN LANE 2.
- THE CONTRACTOR SHALL USE 2 DETECTOR RACKS WHEN THERE ARE MORE THAN 16 LOOPS ENTERING A SURVEILLANCE CABINET.
- WHEN MORE THAN ONE LOOP IS IN A LANE, THEY SHALL BE SEPERATED BY 16 FEET CENTER TO CENTER.
- THE CONTRACTOR SHALL EXERCISED CARE WITH THE INSTALLATION OF UNDERGROUND EQUIPMENT AS THERE ARE EXISTING PRIVATELY OWNED UTILITIES WITHIN THE PROJECT LIMITS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO CONTACT ANY UTILITIES IN THE WORK ZONE AND REQUEST UTILITY LOCATES. IT SHALL ALSO BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE ELECTRICAL MAINTENANCE ENGINEER (JERRY LAKOMIAK OF MEADE ELECTRIC 708.524.2145) TO LOCATE CONDUIT FROM EXISTING LIGHTING CABINETS.
- THE CONTRACTOR SHALL BE AWARE OF THE DOCUMENTATION REQUIREMENTS WHICH REQUIRE GPS DATA ACQUISITION.
- ALL RACEWAYS SHALL BE INSTALLED AT A MINIMUM DEPTH OF 30 INCHES.

LEGEND:

- 42"X36"X12" JUNCTION BOX
- COMMUNICATION VAULT
- HEAVY DUTY HAND HOLE
- HEAVY DUTY HAND HOLE SPECIAL (COMMUNICATIONS)
- TYPE 334 CABINET
- TYPE 334 CABINET WITH SPREAD SPECTRUM RECEIVER
- (2) 1 1/4 IN. FIBER OPTIC INNER DUCT - EACH HAS 96 SM FIBERS
- 2 IN. P-DUCT TRENCHED (T)
- CONDUIT ATTACHED TO STRUCTURE, 4" DIA., PVC COATED GALVANIZED STEEL
- GALVANIZED RIGID STEEL CONDUIT TRENCHED (T), TYPE AND SIZE AS NOTED
- GALVANIZED RIGID STEEL CONDUIT PUSHED (P), TYPE AND SIZE AS NOTED
- ELECTRIC SERVICE DISCONNECT
- 6 FT. DIAMETER INDUCTION LOOP CENTERED IN LANE
- 6 FT. X 14 FT. (NOMINAL) RAMP INDUCTION LOOP (SEE RAMP LOOP TABLE IN INDUCTION LOOP SPEC FOR ACTUAL SIZE)
- 6 FT. DIAMETER (NOMINAL) MAINLINE, COUNT, CLASSIFICATION, SPEED INDUCTION LOOPS
- 6 FT. X 14 FT. (NOMINAL) COUNT, CLASSIFICATION, SPEED INDUCTION LOOPS (SEE RAMP LOOP TABLE IN INDUCTION LOOP SPEC FOR ACTUAL SIZE)
- 2 LANE SOLAR POWERED SPREAD SPECTRUM RADAR VEHICLE DETECTOR
- 1 LANE SOLAR POWERED SPREAD SPECTRUM RADAR VEHICLE DETECTOR
- CCTV CAMERA
- TYPE 3 CCTV CABINET ON TYPE D FOUNDATION
- MODEL 334 PATCH PANEL CABINET
- LIGHTING CABINET
- (E) EXISTING

ABBREVIATIONS

PREFIX	COMPONENT
ADF	ADD/DROP, FIBER OPTIC (CWDM OR OTHER)
CAX	COAX CABLE
CSC	CABLE SPLICE, COPPER
CSF	CABLE SPLICE, FIBER OPTIC
CTD	CCTV CAMERA, DOME
CTF	CCTV CAMERA, FIXED POSITION
CBT	CHANNEL BANK, T1
CCC	CONTROL CABLE, COPPER
CVB	CONTROLLER, VIDEO, BACKUP
CVP	CONTROLLER, VIDEO, PRIMARY
DAV	DISTRIBUTION AMPLIFIER, VIDEO
DCC	DISTRIBUTION CABLE, COPPER
DCF	DISTRIBUTION CABLE, FIBER OPTIC
DEC	DECODER (CODEC MPEG2)
DMS	DYNAMIC MESSAGE SIGN
VRD	VIDEO RECORDER, DIGITAL
ENC	ENCODER (CODEC MPEG2)
ETH	ETHERNET CABLE
HHL	HANDHOLE
JBC	JUNCTION BOX, CONTROL (COPPER)
JBF	JUNCTION BOX, FIBER OPTIC CABLE
JBP	JUNCTION BOX, POWER
KBD	KEYBOARD
LDI	LOOP DETECTOR, INDUCTION
LDM	LOOP DETECTOR, MICROLOOP
MDF	MUX/DEMUX, FIBER (CWDM)
MON	MONITOR, COMPUTER
MVD	MONITOR, VIDEO
MVR	MONITOR, VIDEO, FLAT PANEL RACK (LCD RACK)
MXS	MULTIPLEXER, SONET
PCE	PATCH CABLE, ETHERNET
PCF	PATCH CABLE, FIBER

PREFIX	COMPONENT
PLP	PULLING PEDESTAL
PPC	PATCH PANEL, COPPER
PPE	PATCH PANEL, ETHERNET
PPF	PATCH PANEL, FIBER
PPV	PATCH PANEL, VIDEO
RMC	RADIO, MICROWAVE, CONTROL (UNLICENSED)
RMV	RADIO, MICROWAVE, VIDEO (UNLICENSED)
RXF	RECEIVER, FIBER OPTIC
RXT	RECEIVER, FSK TONE
SCF	SPLITTER/COMBINER, FIBER OPTIC (CWDM)
SPV	SIGNAL SPLITTER, VIDEO
SSV	SELECTOR SWITCH, VIDEO (MANUAL)
SWE	SWITCH, ETHERNET
SWV	SWITCH, VIDEO
TCC	TRUNK CABLE, COPPER
TCF	TRUNK CABLE, FIBER OPTIC
TLC	TLC WATCH EQUIPMENT
TXF	TRANSMITTER, FIBER OPTIC
TXT	TRANSMITTER, FSK TONE
VCD	VIDEO CAPTURE DEVICE
VCL	VIDEO CONTROL LOCATION
VCP	VIDEO COLLECTION POINT
WST	USER WORK STATION