

MISSOURI STATE HIGHWAY K-COMMERCIAL ENTRANCE

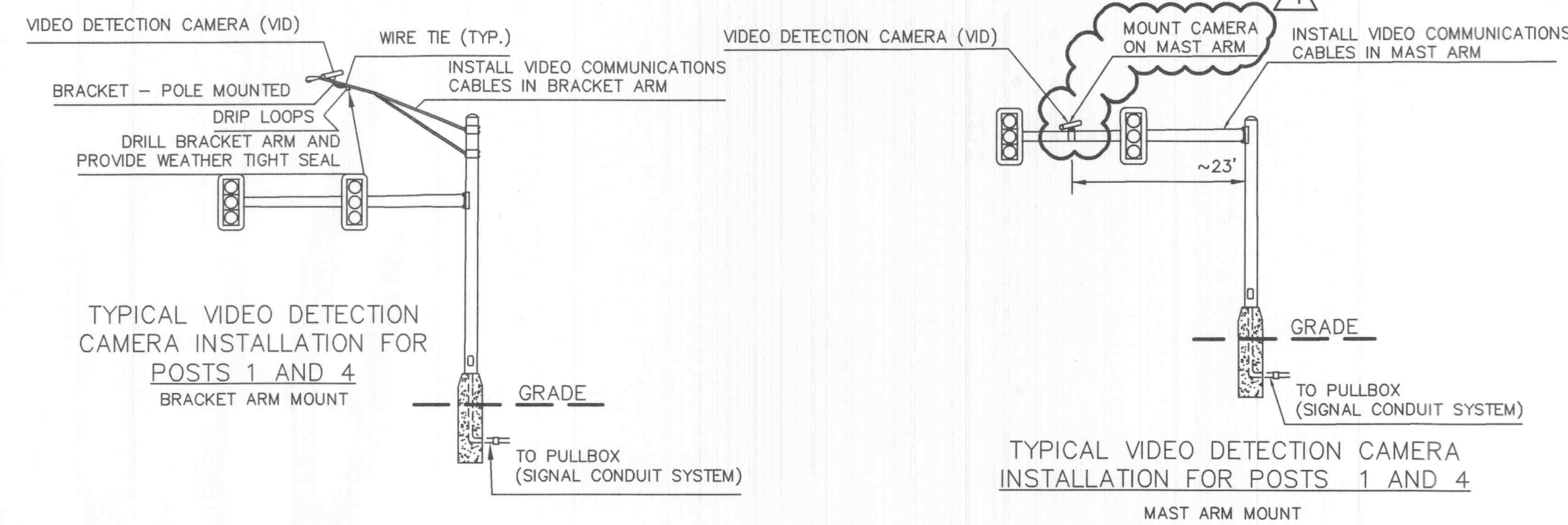
SIGNAL PLANS

LEGEND-SIGNALS

	OPTICALLY LIMITING SIGNAL HEAD WITH BACKPLATE		EXISTING PULL BOX
	OPTICALLY LIMITING & CONVENTIONAL SIGNAL HEAD WITH BACKPLATE		SERVICE POLE OR PEDESTAL AND POWER SUPPLY
	CONVENTIONAL SIGNAL HEAD WITH BACKPLATE		EXISTING SERVICE POLE
	SIGNAL HEAD - PEDESTRIAN		150-WATT HPS LUMINAIRE
	POST MOUNTED SIGNAL HEAD WITH SIGN AND BACKPLATE		SPAN WIRE WITH SIGNAL HEAD
	STOP LINE		MAST ARM WITH SIGNAL HEADS AND 150 WATT LUMINAIRE
	LANE USE		MAST ARM WITH OVERHEAD SIGN
	TYPE A BASE		INDUCTION LOOP DETECTOR
	TYPE B BASE		VIDEO DETECTION ZONE
	TYPE C BASE		PUSH BUTTON DETECTOR
	EXISTING POST BASE		CAPPED RIGID CONDUIT
	WOOD POLE WITH DOWN GUY		RIGID CONDUIT IN TRENCH
	STEEL POLE		RIGID CONDUIT PUSHED
	STEEL POLE WITH DOWN GUY		EXISTING RIGID CONDUIT
	CONTROLLER WITH PAD		RIGID CONDUIT ON BRIDGE
	EXISTING CONTROLLER		RIGID CONDUIT IN MEDIAN
	PULL BOX, TYPE I DRAIN, CONCRETE		3" SIZE OF CONDUIT
	PULL BOX, TYPE II DRAIN, CONCRETE		3-2c #12 NUMBER & AWG SIZE OF CABLE
	PULL BOX, TYPE I DRAIN, PREFORMED		SIGNAL FACE NUMBER
	PULL BOX, TYPE II DRAIN, PREFORMED		POST NUMBER
	DOUBLE PULL BOX, TYPE A, TYPE I DRAIN, CONCRETE		DETECTOR NUMBER
	DOUBLE PULL BOX, TYPE A, TYPE II DRAIN, CONCRETE		PULL BOX NUMBER
	DOUBLE PULL BOX, TYPE B, TYPE I DRAIN		WALK INTERVAL
	DOUBLE PULL BOX, TYPE B, TYPE II DRAIN		DON'T WALK INTERVAL
	PULL BOX, CLASS 5, TYPE I DRAIN, PREFORMED		FLASHING DON'T WALK INTERVAL
	PULL BOX, CLASS 5, TYPE II DRAIN, PREFORMED		

LEGEND-LIGHTING

	400 WATT HIGH PRESSURE SODIUM LUMINAIRE		EXISTING PULL BOX, TYPE I DRAIN, CONCRETE
	BOLT DOWN LIGHT STANDARD		EXISTING PULL BOX, TYPE II DRAIN, CONCRETE
	EXISTING LIGHT STANDARD AND LUMINAIRE		EXISTING PULL BOX, TYPE I DRAIN, PREFORMED
	150 WATT HIGH PRESSURE SODIUM LUMINAIRE		EXISTING PULL BOX, TYPE II DRAIN, PREFORMED
	250 WATT HIGH PRESSURE SODIUM LUMINAIRE		SERVICE POLE OR PEDESTAL AND POWER SUPPLY
	150 WATT UNDERPASS LUMINAIRE		TRANSFORMER OR SUBSTATION POLE
	HIGH MAST TOWER WITH LUMINAIRE AIM		BASE MOUNTED LIGHTING CONTROL STATION WITH PAD
	PULL BOX, TYPE I DRAIN, CONCRETE		EXISTING BASE MOUNTED CONTROL STATION
	PULL BOX, TYPE II DRAIN, CONCRETE		GROUND CONNECTION
	PULL BOX, TYPE I DRAIN, PREFORMED		RIGID CONDUIT IN TRENCH
	PULL BOX, TYPE II DRAIN, PREFORMED		CAPPED RIGID CONDUIT
			RIGID CONDUIT PUSHED
			EXISTING RIGID CONDUIT
			RIGID CONDUIT ON BRIDGE
			RIGID CONDUIT IN MEDIAN
			CABLE CONDUIT WITH CIRCUIT NUMBER
			EXISTING CABLE CONDUIT
			EXPOSED CONDUIT ON UNDER SIDE OF BRIDGES. NUMBER OF HATCHES DENOTES NUMBER OF WIRES IN CONDUIT



ALL 12 INCH WITH TUNNEL VISOR

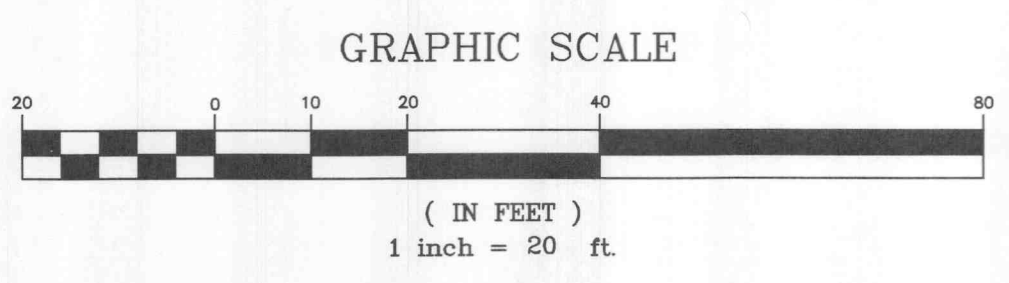
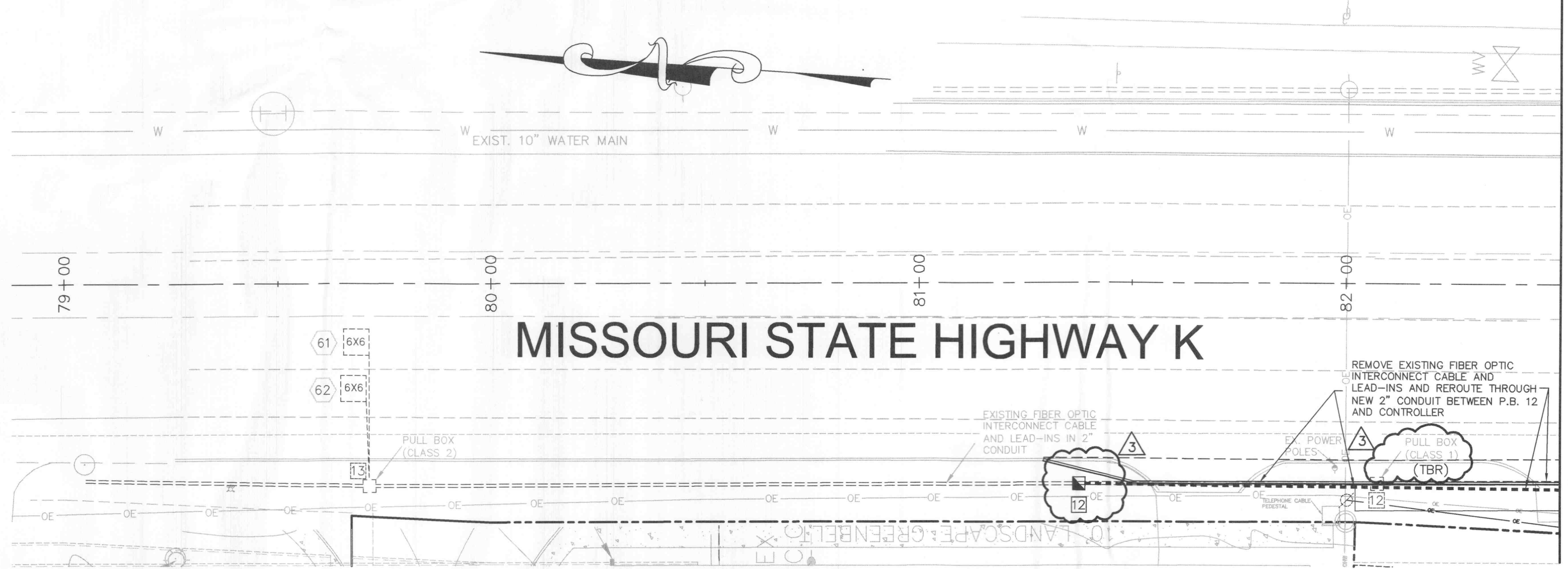


INDEX

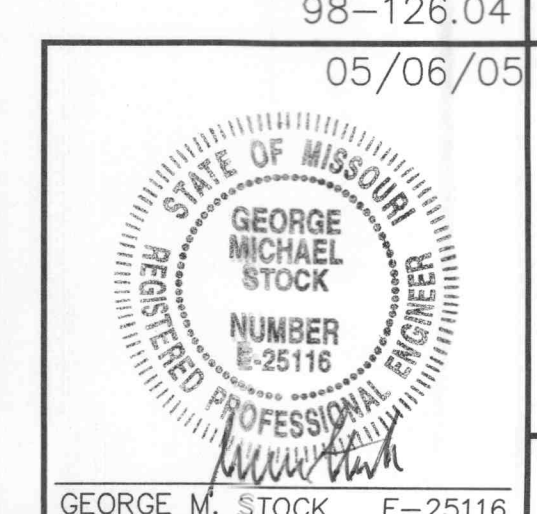
C15	SIGNALS-SYMBOLS AND DETAILS
C16	SIGNAL AND LIGHTING PLAN
C17	SIGNAL PLAN (INTERCONNECT)
C18	SUMMARY OF QUANTITIES-SIGNALS
C19	SUMMARY OF QUANTITIES-SIGNALS
C20	SUMMARY OF QUANTITIES-SIGNALS
C21	WIRING DIAGRAMS
C22	SIGNAL PHASING DIAGRAM
C23	SUMMARY OF QUANTITIES-LIGHTING

- NOTES:**
- All proposed traffic signal equipment, materials, and construction methods shall conform to the requirements and specifications described in the latest version of the Missouri Standard Plans for Highway Construction (Section 901 and 902).
 - Signal timings to be provided by DESIGN ENGINEER.
 - Existing underground (U/G), overhead (OHP) utilities and drainage structures have been plotted from available information and therefore, their locations must be considered approximate only. It is the responsibility of the individual contractors to exactly locate each utility before actual construction.
 - 2" Rigid Conduit shall be furnished and installed by Contractor to the base of the Secondary Service Point. Power Cable shall be applied and left at base of Secondary Service point for hook-up by Ameren UE.
 - All mast arms and signal poles shall be painted black. Carbolite Rustbond Penetrating Sealer SG shall be used as a base coat, with Carbolite 133HB as the final coat. The City Engineer must approve all other products. Materials and labor for this work shall be considered SUBSIDIARY to other bid items.
 - All signal indicators shall be illuminated with light emitting diode (LED) modules. LED modules shall conform to ITE specifications and standards, and requirements set forth in the Missouri Standard Specifications for Highway Construction (Section 902.4.1).
 - Traffic control shall be the responsibility of the Contractor and shall conform to the Manual on Uniform Traffic Control Devices for streets and highways, and MoDOT standards.
 - Battery backup shall be installed in the controller cabinet. There will be no direct pay item for the battery backup equipment, materials, cables, or any other items required for the complete and satisfactory operation of the battery backup system.

- VIDEO DETECTION NOTES:**
- All video camera units to be mounted on luminaire bracket arms as per manufacturer's specifications.
 - Video detection zones shall be 6' x 30', unless otherwise noted on plans. All video detection zones are to be considered approximate only, and may be adjusted with approval of the Design Engineer.
 - All video detection equipment, materials, mounting hardware, software, cables, or any other items required for the complete and satisfactory operation of the video detection system shall be considered SUBSIDIARY to the bid item "Video Detection System".



UTILITY NOTE:
UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS, RECORDS AND INFORMATION, AND THEREFORE DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, NON-EXISTENCE, SIZE, TYPE, NUMBER, OR LOCATION OF THESE FACILITIES, STRUCTURES AND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS. THE UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR TO ANY GRADING, EXCAVATION OR CONSTRUCTION OF IMPROVEMENTS. THESE PROVISIONS SHALL IN NO WAY ABSOLVE ANY PARTY FROM COMPLYING WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, CHAPTER 319 RSMo.



- 4 05/05/05 REVISED FOR MoDOT COMMENTS
- 3 04/26/05 REVISED FOR MoDOT COMMENTS
- 2 REVISED FOR MoDOT COMMENTS 03/17/05
- 1 REVISED FOR MoDOT COMMENTS AND VALUE ENGINEERING 03/10/05

SIGNAL PLAN - SYMBOLS AND DETAILS
TERRA RETAIL DEVELOPMENT/ASHLEY FURNITURE

Stock & Associates
Consulting Engineers, Inc.

257 Chesterfield Business Parkway
St. Louis, MO 63005
PH. (636) 530-9100
FAX (636) 530-9130
e-mail: general@stockassoc.com
Web: www.stockassoc.com

DRAWN BY: S.J.K.	DATE: 11/23/04	CHECKED BY: C.M.S.	DATE: 11/23/04
JOB NUMBER: 204-3381		SHEET: C15 of 23	

MATCH LINE @ STA 82+50 (SEE SHEET 16)