

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87 N-0684-01	2019	6	109

RECAPITULATION OF QUANTITIES

BASE BID		
ITEM	UNIT	QUANTITY
MOBILIZATION	L.S.	1
INTELLIGENT TRANSPORTATION SYSTEM FIBER ROUTE A	L.S.	1
TRAFFIC SIGNALIZATION UPGRADES ROUTE A	L.S.	1
TRAFFIC CONTROL	L.S.	1
CONCRETE SIDEWALK REMOVED & REPLACED	S.F.	3,000
CONCRETE PAVEMENT REMOVED & REPLACED	S.F.	3,500
CONCRETE C & G REMOVED & REPLACED	L.F.	200
AC PAVEMENT REMOVED & REPLACED	S.F.	500
BRICK PAVERS REMOVED & RESET	S.F.	400

ADD. ALT. BID #1		
ITEM	UNIT	QUANTITY
MOBILIZATION	L.S.	1
INTELLIGENT TRANSPORTATION SYSTEM FIBER ROUTE C	L.S.	1
TRAFFIC SIGNALIZATION UPGRADES ROUTE C	L.S.	1
TRAFFIC CONTROL	L.S.	1
CONCRETE SIDEWALK REMOVED & REPLACED	S.F.	500
CONCRETE PAVEMENT REMOVED & REPLACED	S.F.	100
CONCRETE C & G REMOVED & REPLACED	L.F.	25
AC PAVEMENT REMOVED & REPLACED	S.F.	250

ADD. ALT. BID #2		
ITEM	UNIT	QUANTITY
MOBILIZATION	L.S.	1
INTELLIGENT TRANSPORTATION SYSTEM FIBER ROUTE B	L.S.	1
TRAFFIC SIGNALIZATION UPGRADES ROUTE B	L.S.	1
TRAFFIC CONTROL	L.S.	1
CONCRETE SIDEWALK REMOVED & REPLACED	S.F.	500
CONCRETE PAVEMENT REMOVED & REPLACED	S.F.	500
CONCRETE C & G REMOVED & REPLACED	L.F.	100
AC PAVEMENT REMOVED & REPLACED	S.F.	100
BRICK PAVERS REMOVED & RESET	S.F.	500

ADD. ALT. BID #3		
ITEM	UNIT	QUANTITY
MOBILIZATION	L.S.	1
INTELLIGENT TRANSPORTATION SYSTEM FIBER ROUTE D	L.S.	1
TRAFFIC SIGNALIZATION UPGRADES ROUTE D	L.S.	1
TRAFFIC CONTROL	L.S.	1
CONCRETE SIDEWALK REMOVED & REPLACED	S.F.	500
CONCRETE PAVEMENT REMOVED & REPLACED	S.F.	500
CONCRETE C & G REMOVED & REPLACED	L.F.	100
AC PAVEMENT REMOVED & REPLACED	S.F.	250
BRICK PAVERS REMOVED & RESET	S.F.	100

ADD. ALT. BID #4		
ITEM	UNIT	QUANTITY
MOBILIZATION	L.S.	1
INTELLIGENT TRANSPORTATION SYSTEM FIBER ROUTE E	L.S.	1
TRAFFIC SIGNALIZATION UPGRADES ROUTE E	L.S.	1
TRAFFIC CONTROL	L.S.	1
CONCRETE SIDEWALK REMOVED & REPLACED	S.F.	500
CONCRETE PAVEMENT REMOVED & REPLACED	S.F.	500
CONCRETE C & G REMOVED & REPLACED	L.F.	25

KANSAS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
SHEET 2 OF 2

TRAFFIC SIGNAL EQUIPMENT REQUIREMENTS

These specifications are intended to describe specific equipment requirements for the traffic signal equipment to be installed. Additional construction and material requirements are located in the traffic signal specifications.

1. CONTROLLER

1.1. Traffic Signal Controller Hardware Requirements

The Contractor shall supply fully assembled TRAFFICWARE Model 2070C/LX ATC controllers that are in full compliance with ATC5201 v6.24 and TEES 2009 by CalTrans. The Contractor shall provide evidence that controller units, with a make and model identical to those being provided, have been tested and approved in accordance with TEES, by Caltrans, or an approved agent of City of Wichita. A Quality Control Plan shall be submitted within fifteen (15) days from the Notice to Proceed as required by the TEES.

1.1.1. Front Panel Harness Interface

The front panel harness cable shall have a minimum length of 254 mm (10 inches) to allow for interchangeability among equipment manufacturers.

1.2. Required Components for the Model 2070C/LX

The Contractor shall supply Model 2070C/LX controllers with the following configuration:

Unit Chassis	
Model 2070 1C	CPU Module
Model 2070 2E	Field I/O Module w/C1, C11, C12 (Installed in H3 Slot)
Model 2070 3B	Front Panel Assembly (8 x 40 Display)
Model 2070 4A	Power Supply Module (Minimum 4.0 AMP)
Model 2070 5B	MCB Mounting Assembly
Model 2070-7T or 7G	GPS Module
Model 2070 7B	Serial Comm Module

1.3. Watchdog

Startup time for an active watchdog signal shall be no longer than 9 seconds.

1.4. GPS Timeclocks

1.4.1. General. The GPS timeclocks must be compatible with the above specified 2070C/LX controllers as well as the City's existing Siemens Eagle 2070L hardware and software.

1.4.2. Requirements. The GPS shall be configured such that the controller's time is updated automatically on a user-programmable schedule.

1.4.3. Mounting. The preferred GPS timeclock will be able to be plugged into any standard 170 detection rack or Internal 2070 module.

2.0 SMALL FORM PLUGGABLE (SFP) MODULES

The SFP module shall be compatible with the intended switch in which the device is being used. The switch may include a Cisco IE-3000, Kyland SICOM 3170, or other DYMEC-3170TX. For the Cisco equipment all SFP's shall be Cisco equipment; specifically GLC-LX-SM SFP's shall be provided.

3.0 FABRIC INNERDUCT

The innerduct shall be made of a flexible outdoor rated polyester/nylon textile fabric with a maximum coefficient of friction of 0.08. The fabric innerduct shall contain a 1250lb (min.) polyester flat woven pull tape. The fabric innerduct shall be contain multiple cells and be sized appropriately for the intended conduit in which it will be used. Innerduct shall be installed per manufacture's recommendations. A manufacture representative is required to assist with the first installation or until installation method has been approved.

4.0 DOUBLE CABINET ASSEMBLY

The double cabinet assembly shall be a 342LX cabinet and meet the applicable standards and specifications set forth by the National Electric Code (NEC) and TEES, by Caltrans. The cabinet shall include all necessary incidental items necessary for a complete and fully functioning cabinet installation including, but not limited to, DIN rails, wiring, and all equipment mounting hardware.

Provide all HUB cabinet main cabinet doors with a BEST 3L Series Deadbolt Cabinet Lock with construction core that will allow KDOT/City of Wichita to install their own lock core. The construction core will be replaced by the Owner upon cabinet acceptance.

Provide all signal cabinet main cabinet doors with a Corbin # 2 Cabinet Lock.

The cabinet shall meet all applicable specifications as outlined in ITS Equipment Specification 14.0 and Traffic Signal Specifications.

TRAFFIC CONTROL

These specifications supplement KDOT and City of Wichita traffic control specifications. All traffic control shall be in accordance with the Manual on Uniform Traffic Control Devices (MUTCD), latest edition. All traffic control plans and lane closures shall be pre-approved by the Engineer.

1.0 MAINTENANCE AND PROTECTION OF TRAFFIC

Maintenance and Protection of Traffic (MPT) plans must follow the criteria outlined below:

Lane closures may not occur during the morning and afternoon rush hours. For purposes of this policy, rush hours are defined as the hours of 7:00AM - 9:00AM and 3:00PM - 6:00PM. Additional work hour restrictions may be required dependent upon the specific street, surrounding area, or previously scheduled public events.

The Contractor must coordinate with adjacent activities and with City permitted special events, including sporting events. As needed, the Contractor may be required to shift or suspend work activities or temporarily restore public right-of-way for public use.

1.0 MAINTENANCE AND PROTECTION OF TRAFFIC (CONT'D.)

In the event of a lane closure, the Contractor must notify adjacent property owners, business owners, and residents at least 48 hours in advance. In the event of a street closure, a minimum 2 week notice is required. For emergency work, the Contractor should provide notification as soon as possible to impacted property owners, business, owners, and residents.

Face-to-face notification is preferred, but at a minimum impacted parties must be notified using a door hang-tag that outlines important information related to the closure, including the area impacted, the expected start and end dates for the closure, and a contact number for the responsible contractor.

Any posted detours and emergency closures within business districts require a press release. The Contractor is responsible to issue their press release.

The Contractor must, at all times, keep the site accessible for emergency vehicles.

The MPT plan must conform to Manual on Uniform Traffic Control (MUTCD) requirements. In high volume areas, for long term closures, or in areas of complicated traffic patterns, as determined by the City of Wichita Traffic Engineer, a standard MUTCD Typical Application will not be accepted and a site specific MPT plan must be prepared by a Registered Engineer and submitted for approval prior to receiving a permit. The site specific MPT plan must be to scale, properly dimensioned, show site specific detail, and provide accommodations for vehicles, pedestrians, and bicyclists.

Additional requirements for MPT plans that impact pedestrian and bicycle infrastructure are detailed in Sections 2 and 3, respectively.

The City contact for site specific MPT plans is:

City of Wichita
Traffic Engineering
455 N. Main, 7th Floor
Wichita, KS 67202
Attn: Brian Coon
316-268-4501

All work associated with this work shall be subsidiary to the bid item "Traffic Control".

2.0 PEDESTRIAN WORK ZONES AND TRAFFIC CONTROL

The public passage on the existing sidewalk or pedestrian pathway should be safe, protected, and ADA accessible. An unobstructed pathway with a minimum horizontal clearance of 5 FT must be maintained through the construction site. The pathway should be separated from construction activities by using construction fencing or barrier depending on the construction activity.

Scaffolding may be required to maintain safe sidewalk passage, specifically if overhead hazards are anticipated. Scaffolding must have a minimum horizontal clearance of 5 FT. Lighting must be provided.

If public passage on the existing sidewalk or pedestrian pathway is not possible, a pedestrian reroute into an adjacent cart way around the work area is required. This pedestrian reroute must be a clearly delineated and ADA accessible.

When rerouting pedestrians into the cart way, traffic barriers must be used to separate the pedestrian pathway from the travel lanes. Barriers should be concrete or water-filled plastic jersey barrier. Fencing or barriers should be used to separate pedestrians from the work zone.

Pedestrian pathways rerouted due to obstructions and construction activities, will require pedestrian traffic controls to clearly direct pedestrians through and around the work zone. Pedestrian traffic controls include items such as signs, channelization devices, barrier, fencing, flagmen, etc.

The City may authorize closure of the existing sidewalk or pedestrian pathway with a detour across the street from the work zone if other options are not viable.

Pedestrian detour signage will be required that is mounted in a manner that is clearly visible to the pedestrians being affected. Pedestrians should be detoured with advance signing that encourages them to cross to the opposite side of the roadway at intersections. Signs should be placed at intersections so that pedestrians are not confronted with mid-block crossings and detours.

When existing pedestrian pathways are rerouted or detoured, the reroute or detour should include ADA accessibility features consistent with the existing pedestrian facility such as detectable warning surfaces. In addition, temporary ramps should be the full width of the passage way, made of suitable non-slip material, and firmly anchored into the ground. Railings are required when the rise is greater than 6 IN and the length of the temporary ramp is greater than 72 IN. Details of the temporary ramps should be included with the MPT plan for review and approval by the City.

A pedestrian passage should not be severed and/or moved for non-construction activities such as parking.

Pedestrian passages must be maintained to/from all adjacent buildings and coordinated with the adjacent property owners.

Contractor shall inspect barriers and other protective devices every 24 hours.

All work associated with this work shall be subsidiary to the bid item "Traffic Control".

3.0 CYCLIST WORK ZONES AND TRAFFIC CONTROL

When cycling infrastructure is impacted by construction activities, it must be rerouted, detoured, or accommodated in a manner consistent with the facility being impacted.

For construction activities that are long term or mobile operations, protected bike lanes may require a rerouting or detour that is not mixed with traffic. For short term or mobile operations, advance signage and flaggers can be used to maintain the protected bike lane traffic through the project site.

During construction, temporary protected bike lanes may be delineated by cones but at no time shall the clear width of a bike lane be less than 4 FT. Any protected bike lane that is effectively narrowed below 4 FT is considered a bike lane closure and requires a reroute, detour, or other accommodation.

Specific signage for merging of the bike lane to shared road condition is required.

Contractor shall inspect barriers and other protective devices every 24 hours.

Trail closures will require an off-street reroute or detour. Legal agreements (easements) may also be required for trail closures. Trail closures will only be granted when no other options exist. All trail closures require a press release.

All work associated with this work shall be subsidiary to the bid item "Traffic Control".

BIDDING INFORMATION

Contractor shall submit bids on base bid and all additive bids. It is the City's intention to review the bids and choose additive bids based on available funding.

☛ Mobilization and Traffic Control for Add. Alt. Bid #6 shall not be paid for directly but shall be SUBSIDIARY to other items of the contract.

AGENCY / UTILITY CONTACTS

AGENCY / UTILITY	CONTACT	PHONE	EMAIL
City of Wichita	Lee Carmichael	316-268-4501	lcarmichael@wichita.gov
Traffic Signals	Kevin Shore	316-268-4033	kshore@wichita.gov
City Hall Conn.	John Hawkinson	316-303-8133	jhawkinson@wichita.gov
	Kevin Norman	316-268-4590	knorman@wichita.gov
TMC & Courthouse	Jason Kelley	316-990-3027	jason.kelley@sedgwick.gov
KDOT	Shari Hilliard	785-296-6356	shari.hilliard@ks.gov
	Tom Hein	316-660-4990	tom.hein@ks.gov
	Don Snyder	316-744-1271	donald.snyder@ks.gov
TranSystems	Slade Engstrom	316-303-3014	sengstrom@transystems.com
	Chad Banka	913-636-5701	ccbanka@transystems.com
AT&T	Jason Edwards	316-268-2008	je1682@att.com
Blackhills	Suzette Wilson	316-941-1631	Suzette.Wilson@blackhillscorp.com
CenturyLink	Xan Rypkema	720-888-1089	xan.rypkema@centurylink.com
	Justin Spore	316-210-2547	justin.spore@centurylink.com
Cox	James Walburn	316-260-7491	James.Walburn@cox.com
KGS	Adam Knolla	316-832-3123	Adam.Knolla@onegas.com
KsFiberNet	Steve Linder	316-712-6016	Slinder@ksfiber.net
Westar	Shane Price	316-261-6315	shane.price@westarenergy.com
Wichita Water	Greg Lolley	316-268-4334	glolley@wichita.gov
Zayo	Jeff Capps	316-833-9032	jeff.capps@zayo.com

**WESTAR SHALL BE NOTIFIED AT LEAST TWO (2) WEEKS AND AGAIN AT 72 HOURS PRIOR TO PERFORMING ANY WORK IN OR AROUND THE EXISTING WESTAR DUCT BANK ALONG MAIN STREET BETWEEN CITY HALL AND DOUGLAS. A WESTAR REPRESENTATIVE MUST BE PRESENT FOR ALL WORK WITHIN THIS SPECIFIC EXISTING WESTAR DUCT BANK. ANY ASSOCIATED COSTS SHALL BE PAID FOR BY THE CONTRACTOR AND SUBSIDIARY TO OTHER ITEMS OF THE CONTRACT.

ADD. ALT. BID #5		
ITEM	UNIT	QUANTITY
MOBILIZATION	L.S.	1
INTELLIGENT TRANSPORTATION SYSTEM FIBER ROUTE F	L.S.	1
TRAFFIC SIGNALIZATION UPGRADES ROUTE F	L.S.	1
TRAFFIC CONTROL	L.S.	1
CONCRETE SIDEWALK REMOVED & REPLACED	S.F.	500
CONCRETE PAVEMENT REMOVED & REPLACED	S.F.	500
CONCRETE C & G REMOVED & REPLACED	L.F.	25
AC PAVEMENT REMOVED & REPLACED	S.F.	100

☛ADD. ALT. BID #6		
ITEM	UNIT	QUANTITY
INTELLIGENT TRANSPORTATION SYSTEM FIBER ROUTE A (48 SMFO & COND.)	L.S.	1

DATE	
BY	
REFERENCES NOTED	
REFERENCES CHECKED	

Drawn By : Road
File : c:\transystems\pw_local\transyscorp-pw\ccbanak\d0643930\C-QTY-M01-102.dgn
Plotted : 7/23/2019