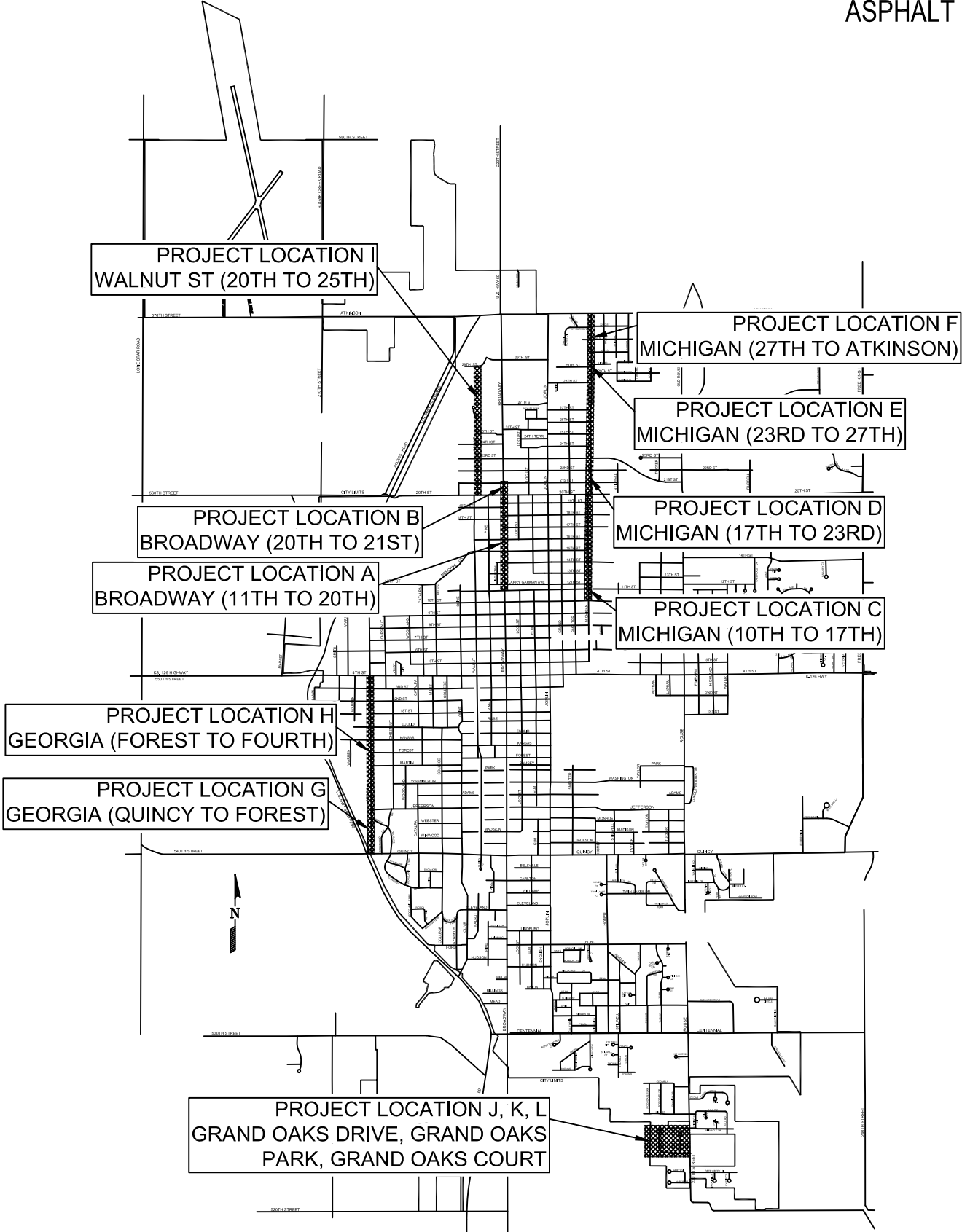


CITY OF PITTSBURG

STREET IMPROVEMENTS ASPHALT SURFACE MAINTENANCE PROJECT 2017



INDEX OF SHEETS

NO.	TITLE
1.	Title Sheet
2.	General Notes and Plan Quantities
3.	Plan View Areas A and B, Broadway (11th to 21st)
4.	Plan View Areas C and D, Michigan Street (10th Street to 23rd Street)
5.	Plan View Areas E and F, Michigan Street (23rd Street to Atkinson Street)
6.	Plan View Areas G and H, Georgia Street (Quincy Street to Fourth Street)
7.	Plan View Areas I, Walnut Street (20th Street to 25th Street)
8.	Plan View Areas J, K, L Grand Oaks Area
9.	Traffic Control General Notes
10.	Channelizing Devices
11.	Road Closures
12.	Traffic Control Access
13.	Traffic Control Signs

PUBLIC OFFICIALS

MAYOR	John Ketterman
PRESIDENT OF THE BOARD	Michael Gray
CITY COUNSEL MEMBERS	Chuck Munsell
	Patrick O'Bryan
	Jeremy Johnson
CITY MANAGER	Daron Hall
CITY CLERK	Tammy Nagel
CITY ATTORNEY	Henry Menghini
DIRECTOR OF PUBLIC WORKS	Cameron Alden



GENERAL NOTES

1. All adjacent buildings, structures, parking lots, drives, street pavements, utility lines, utility structures and appurtenances other than shown for replacement, shall be protected from damage during construction of the project. Items damaged beyond the limits shown on the drawings shall be removed and replaced by the contractor at no additional expense to the owner.
2. The contractor shall promptly, and before such conditions are disturbed, notify the engineer if conditions on the site differ from those shown on the plans.
3. The contractor will be required to provide a minimum of seventy-two (72) hours advanced notice to each of the following utility owners prior to the beginning of construction and request that any existing lines be located and flagged. Any utility damaged by the contractor or their subcontractors shall be repaired or replaced at no cost to the owner. The contractor shall coordinate work with contractors or utility companies and other agencies to minimize inconvenience to the public.Kansas One-Call: (800) 344-7233
EMERGENCY (POLICE, FIRE, AMBULANCE): 911
The contractor must notify the following in case of an emergency:
Owner: City of Pittsburg: (620) 231-4170
4. Full depth saw cuts of existing pavement shall be provided at locations where proposed construction abuts an existing pavement for which partial removal of that pavement is required. Sawed joints to facilitate removal within three (3) feet of existing joints will not be permitted and for such instances the limits of removal shall extend to the existing joint. Such saw cuts will not be paid for directly, but will be considered subsidiary.
5. All dowel bars shall be epoxy coated for use within type III concrete.
6. All disposal sites shall be approved of by The City of Pittsburg and Kansas Dept. of Health and Environment. Material either stockpiled or disposed of within a flood plain will require a Kansas State Board of Agriculture permit. Any material dumped in waters of the United States or wetlands is subject to U.S. Corps of Engineers permitting regulations.
7. The contractor shall comply with all applicable safety regulations. Insuring the safety of the public shall be the contractor's responsibility. Any workers present within street right of ways of the City of Pittsburg will be required to wear a safety vest meeting ANSI Class II requirements.
8. The contractor shall obtain all necessary permits.
9. Excavation shown to be wasted shall be wasted on sites provided by the contractor. These sites shall be approved by The City of Pittsburg and The Engineer as to suitability, appearance, and site location. Locations that, in the opinion of the engineer, will leave an unsightly appearance will not be approved.
10. Traffic control on city streets shall be per MUTCD requirements and the details of the plans.

CONTRACTOR SHALL CALL FOR UTILITY LOCATES PRIOR TO ANY EXCAVATION

AREA ID	STREET	FROM	TO	AREA (SQFT)	AREA (SQYDS)	LENGTH	AVG WIDTH*
A	Broadway Street	11th Street	20th Street	164,640	18,293.3	2,744	60
B	Broadway Street	20th Street	21st Street	13,600	1,511.1	272	50
C	Michigan Street	10th Street	17th Street	56,644	6,293.8	2,209	26
D	Michigan Street	17th Street	23rd Street	51,970	5,774.4	1,946	27
E	Michigan Street	23rd Street	27th Street	36,624	4,069.3	1,526	24
F	Michigan Street	27th Street	Atkinson Street	60,588	6,732.0	2,754	22
G	Georgia Street	Quincy Street	Forest Street	72,312	8,034.7	3,013	24
H	Georgia Street	Forest Street	Fourth Street	55,800	6,200.0	2,232	25
I	Walnut Street	20th Street	25th Street	42,182	4,686.9	1,834	23
J	Grand Oaks Drive	Rouse Street	Cul De Sac	44,610	4,956.7	1,487	30
K	Grand Oaks Court	Grand Oaks Drive	Cul De Sac	18,528	2,058.7	579	32
L	Grand Oaks Park	Grand Oaks Drive	Cul De Sac	7,084	787.1	253	28

* Width fluctuates and is given for information only

TOTAL AREA (SQYDS)		69,398
--------------------	--	--------

Water, Sewer, Communications:

City of Pittsburg Public Utilities Department

Telephone:

AT&T

303 Memorial Drive Pittsburg, KS 66762

23 W. 1st Street Fort Scott, KS 66701

Phone: (620) 240-5126

Phone: (620) 223-9942

Gas:

Kansas Gas Service

Cable Television:

Cox Communications

3008 N. Joplin Street Pittsburg, KS 66762

2802 N. Joplin Street Pittsburg, KS 66762

Phone: (620) 230-8113

Phone: (620) 231-3360

Electric Power:

Westar Energy

Other Communications:

Craw-Kan Telephone Cooperative

1909 S. Olive Street Pittsburg, KS 66762

200 N. Ozark Street Girard, KS 66743

Phone: (620) 235-2516

Phone: (620) 724-8235

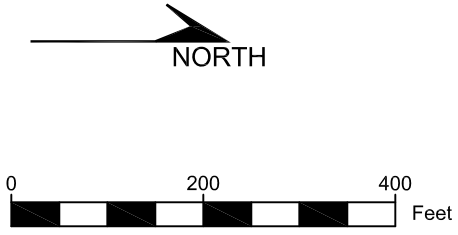
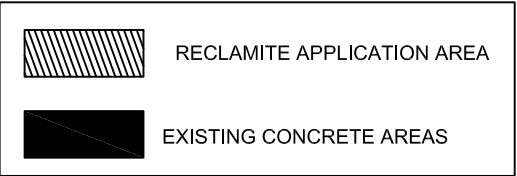
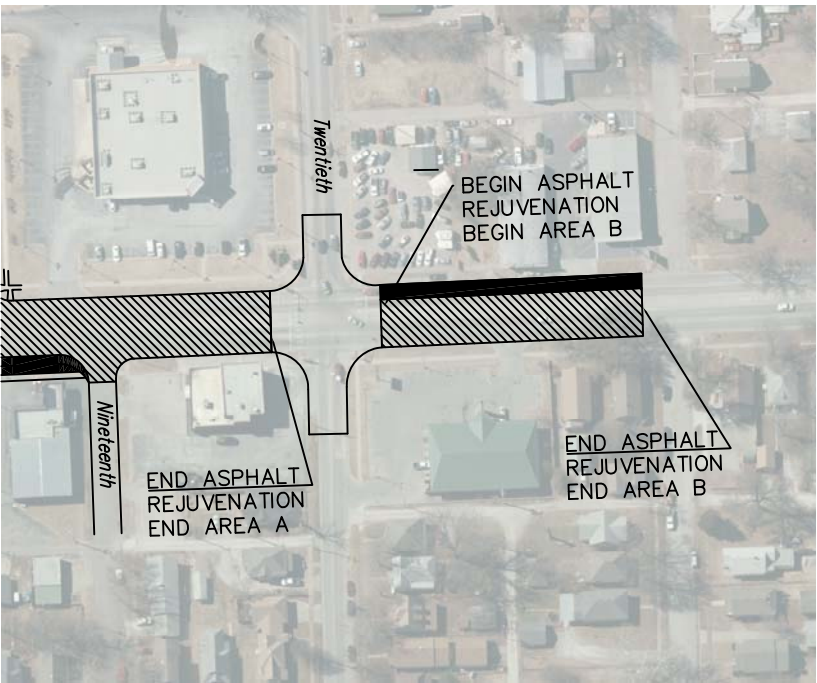
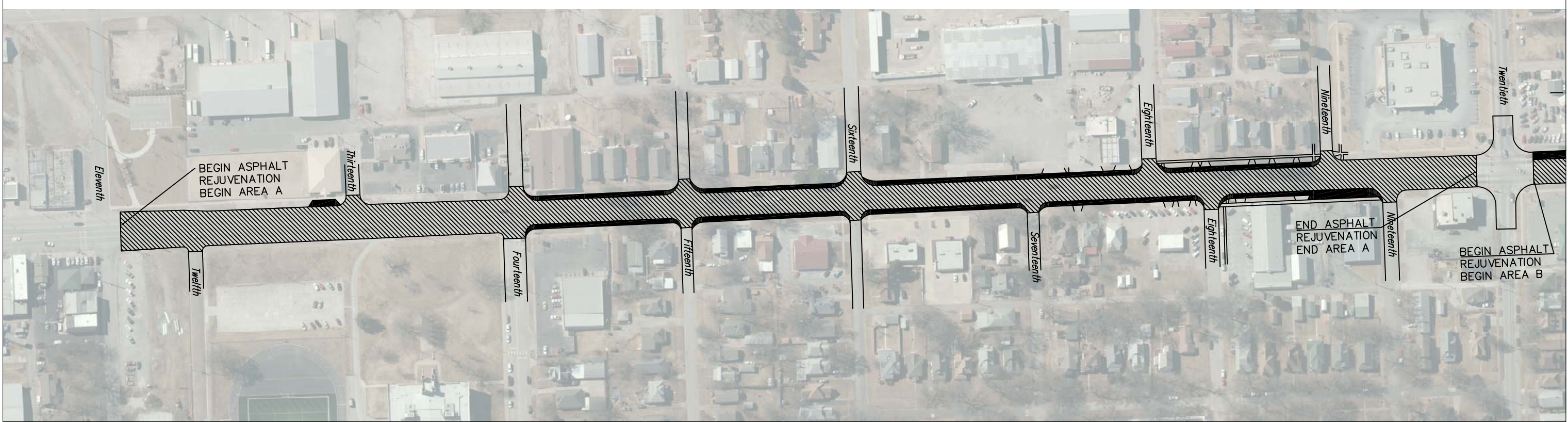
Optic Communications

224 S. Kansas Avenue Columbus, KS 66725

Phone: (620) 429-3132




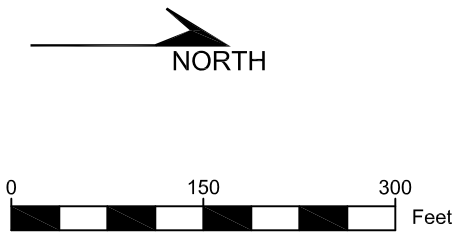
No.	Revision	By	Date
GENERAL NOTES & MATERIAL QUANTITIES			
2017 ASPHALT STREET REJUVENATION CITY OF PITTSBURG, KANSAS			
Designed by JJR		Sht. 2 of 13	
		Date	March 2017



No.	Revision	By	Date
11TH TO 21ST STREETS BROADWAY AVENUE AREAS A AND B			
2017 ASPHALT SURFACE MAINTENANCE PROJECT CITY OF PITTSBURG, KANSAS			
Designed by: JJR		Date: March 2017	Sht. 3 of 13



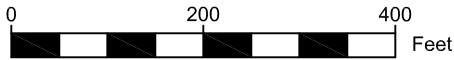
 RECLAMITE APPLICATION AREA



No.		Revision	By	Date
10TH TO 23RD STREETS MICHIGAN STREET AREAS C AND D				
2017 ASPHALT SURFACE MAINTENANCE PROJECT CITY OF PITTSBURG, KANSAS				
Designed by: JJR		Date: March 2017		Sht. 04 of 13



 RECLAMITE APPLICATION AREA

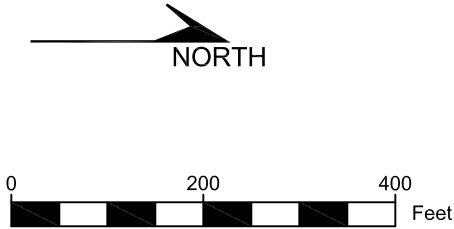


No.	Revision	By	Date
23RD to ATKINSON STREETS MICHIGAN STREET AREAS E AND F			
2017 ASPHALT SURFACE MAINTENANCE PROJECT CITY OF PITTSBURG, KANSAS			
Designed by: JJR		Date: March 2017	
			Sht. 05 of 13





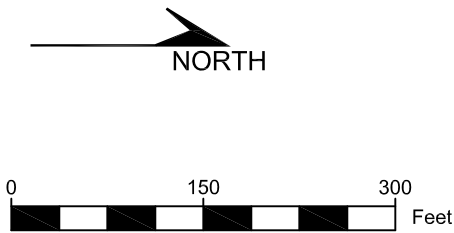
RECLAMITE APPLICATION AREA



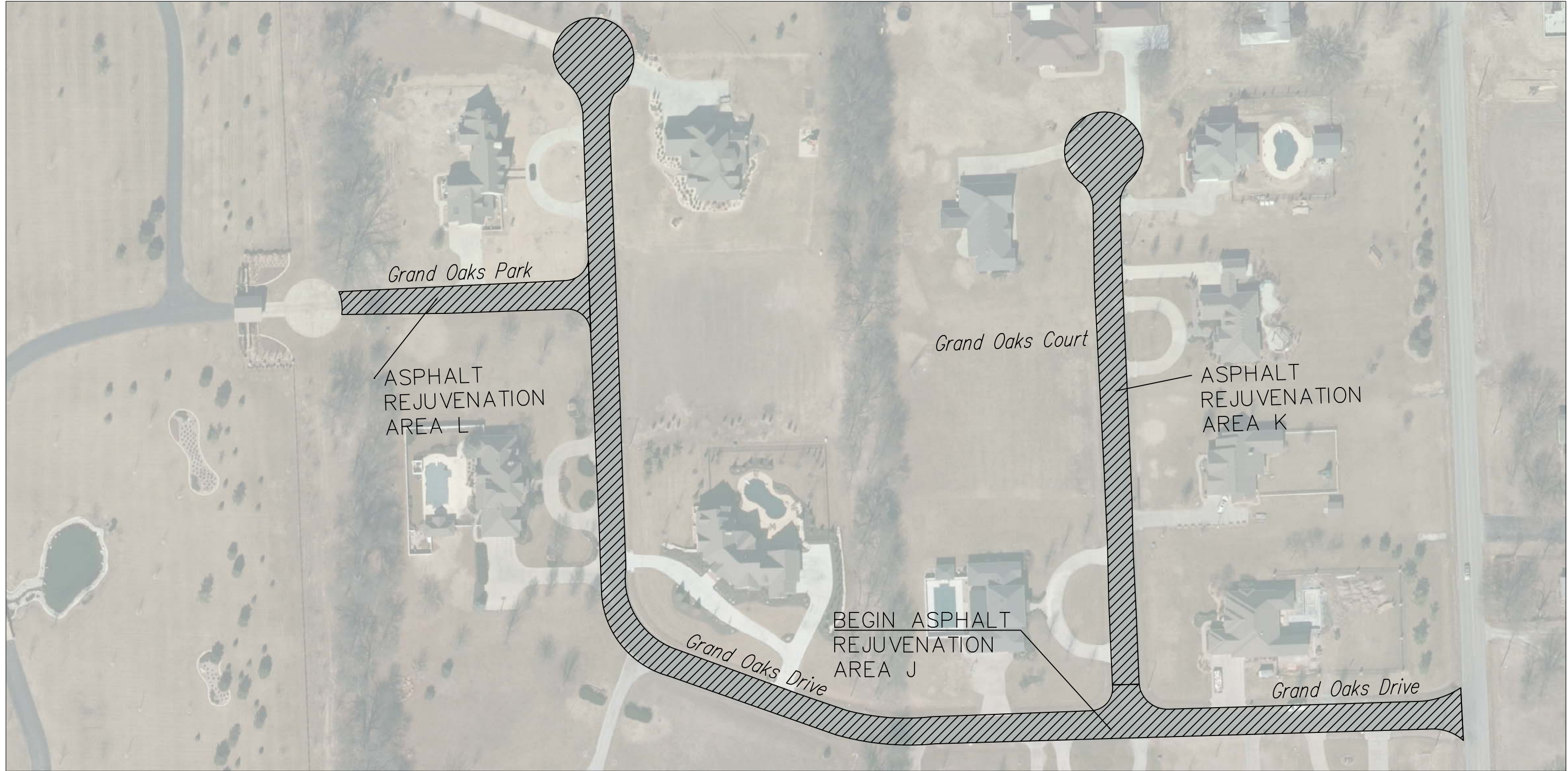
No.	Revision	By	Date
Quincy Street to Fourth Street GEORGIA STREET AREAS G AND H			
2017 ASPHALT SURFACE MAINTENANCE PROJECT CITY OF PITTSBURG, KANSAS			
Designed by: JJR		Date: March 2017	Sht. 06 of 13




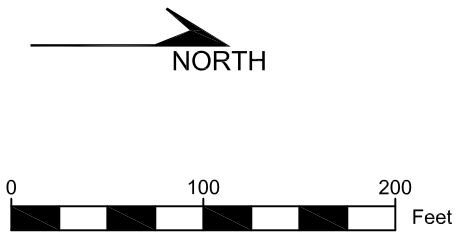
 RECLAMITE APPLICATION AREA



No.	Revision	By	Date
20TH Street to 25TH Street WALNUT STREET AREA I			
2017 ASPHALT SURFACE MAINTENANCE PROJECT CITY OF PITTSBURG, KANSAS			
Designed by: JJR		Date: March 2017	Sht. 07 of 13



 RECLAMITE APPLICATION AREA



No.	Revision	By	Date
GRAND OAKS ESTATES			
AREAS J, K, L			
2017 ASPHALT SURFACE MAINTENANCE PROJECT CITY OF PITTSBURG, KANSAS			
Designed by: JJR		Date: March 2017	Sht. 08 of 13

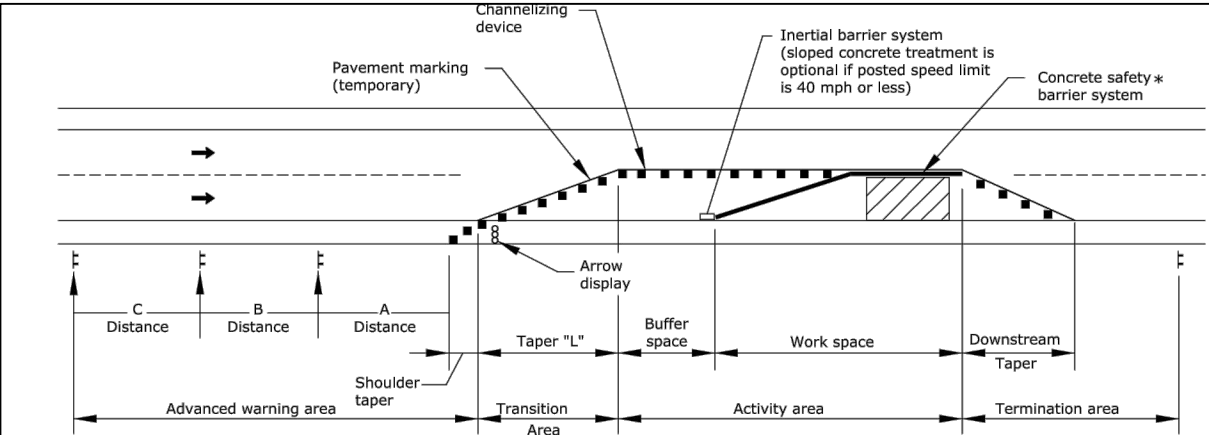
1) Design Speed: Those items delegated to temporary traffic control should be designed and installed using the posted/legal speed of the roadway prior to work starting.

2) Minimum lane width: Lane widths shall be a minimum of 11' (measured between centerlines of pavement markings) or as shown on the plans, or as directed by the engineer. A lane width less than 11' may require restricted roadway width signing.

3) Consideration should be made to separate pedestrian and, if needed, bicycle movements from both work site activity and vehicular traffic. Unless a reasonable safe route that does not involve crossing the roadway can be provided, pedestrians should be appropriately directed with advance signing that encourages them to cross to the opposite side of the roadway. In urban and suburban areas with high vehicular traffic volumes, these signs should be placed at intersections (rather than midblock locations) so that pedestrians are not confronted with midblock work sites that will induce them to attempt skirting the work site or making a midblock crossing.

4) When existing pedestrian facilities are disrupted, closed, or relocated, the temporary facilities shall be detectable and include accessibility features consistent with the features present in the existing pedestrian facility.

5) When the driving surface open to traffic is milled, is a temporary surface made of loose material, or when directed by the engineer use the W8-15 (Grooved Pavement) or W8-7(Loose Gravel) a "C" distance after the W20-1 (Road Work Ahead) on mainline approaches. Signs may be used with the W8-15p motorcycle plaque as directed by the engineer. Display signs in advance of the condition as long as the condition is present.



TYPICAL WORK ZONE COMPONENTS

* When concrete barrier system is used, portable channelizing devices are not needed along the tangent barrier section.

Minimum advance warning sign spacing (in feet):

SPEED (MPH) *	A	B	C
URBAN (40 MPH OR LOWER)	100	100	100
URBAN (45 MPH OR HIGHER)	350	350	350
RURAL (55 MPH OR LOWER)	500	500	500
RURAL (60 MPH OR HIGHER)	750	750	750
EXPRESSWAY/FREEWAY	1000	1500	2640

* Posted speed prior to work starting

The minimum spacing between signs shall be no less than 100', unless directed by the engineer. The spacing between any signs may be increased beyond the minimum values in the table above as approved by the engineer in order to maximize visibility.

Taper Formulas:

$L = WS$ for speeds of 45 MPH or more

$L = WS^2/60$ for speeds of 40 MPH or less

Where: L = Minimum length of taper in feet
 S = Numerical value of posted speed prior to work starting in MPH
 W = Width in offset feet

Shifting taper = $1/2 L$
Shoulder taper = $1/3 L$

Channelizer placement:

- (1) The spacing between devices in transition area (taper) should not exceed a distance in feet equal to $1/2$ the posted speed limit in mph prior to work starting.
- (2) The spacing between devices in the advanced warning area and the activity area should not exceed a distance in feet equal to two times the posted speed limit in mph prior to work starting.
- (3) Channelizing devices shall be placed for optimum visibility, normally at right angles to the traffic flow.
- (4) Place directional indicator barricades in series to direct traffic onto the new path. The arrow sign should not be visible to opposing traffic.
- (5) Alternating diagonal orange and white striping must slope downward in the direction traffic is expected to pass.

Buffer Space

SPEED (MPH) *	20	25	30	35	40	45	50	55	60	65	70	75
LENGTH (ft)	115	155	200	250	305	360	425	495	570	645	730	820

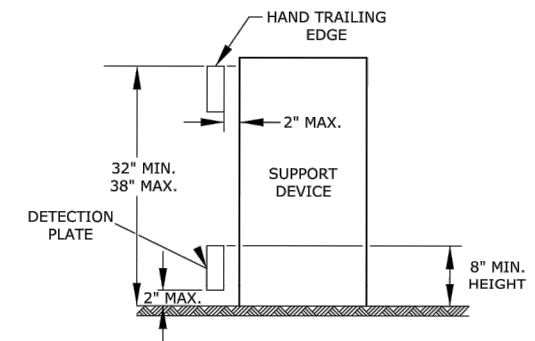
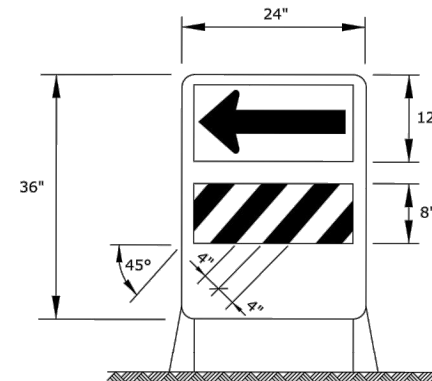
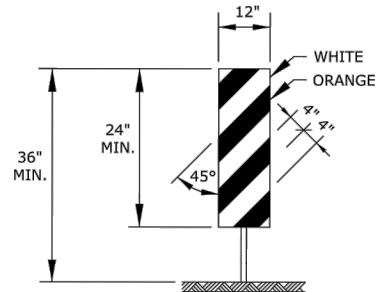
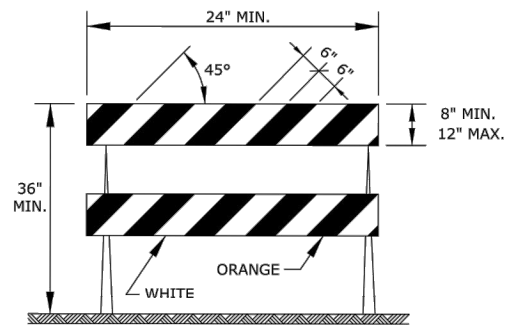
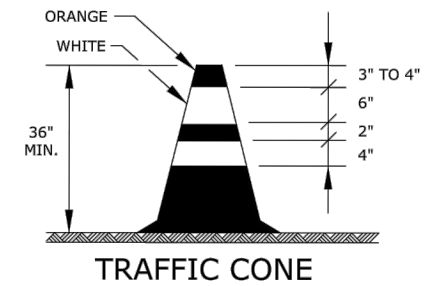
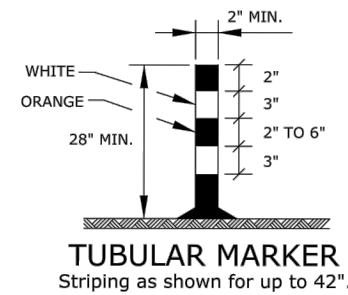
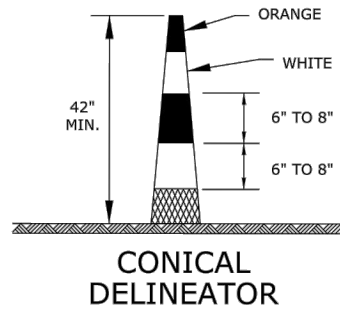
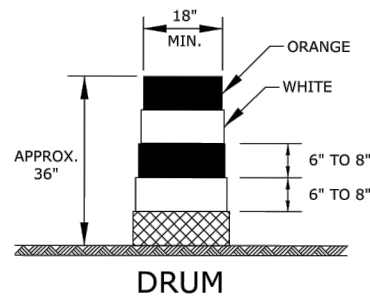
* Posted speed prior to work starting

Neither work activity nor storage of equipment, vehicles, or material should occur in the buffer space. When a protection vehicle is placed in advance of the work space, only the space upstream of the vehicle constitutes the buffer space.

If temporary concrete safety barrier system is used to separate approaching traffic from the work space, the barrier system shall be considered part of the activity area. A full lane width should be available throughout the length of the buffer space. See typical work zone components above.



No.	Revision	By	Date
TRAFFIC CONTROL GENERAL NOTES			
2017 ASPHALT SURFACE MAINTENANCE PROJECT CITY OF PITTSBURG, KANSAS			
Designed by JJR		Sht. 9 of 13	
Date March 2017			



TYPE 2 BARRICADE

For rails less than 36" long, 4" wide stripes may be used. All stripes shall slope downward to the traffic side for channelization.

VERTICAL PANEL

The stripes shall slope downward to the traffic side for channelization.

DIRECTION INDICATOR BARRICADE

The stripes shall slope downward in the direction traffic is to pass. The direction indicator barricade shall be used in series to direct the motorist into the intended lane of travel.

PEDESTRIAN CHANNELIZER

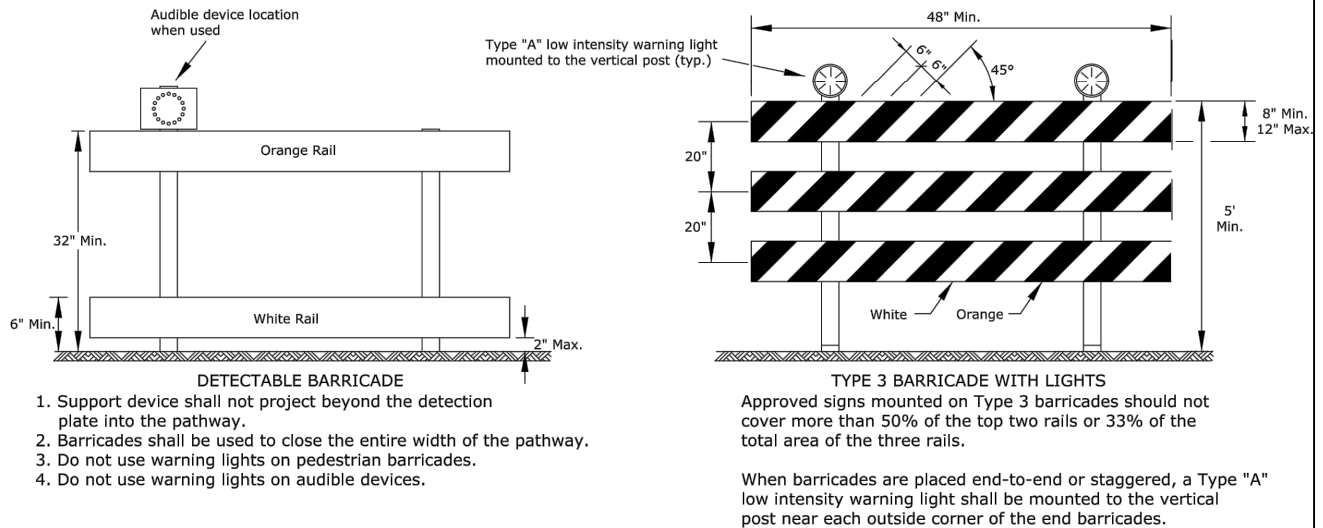
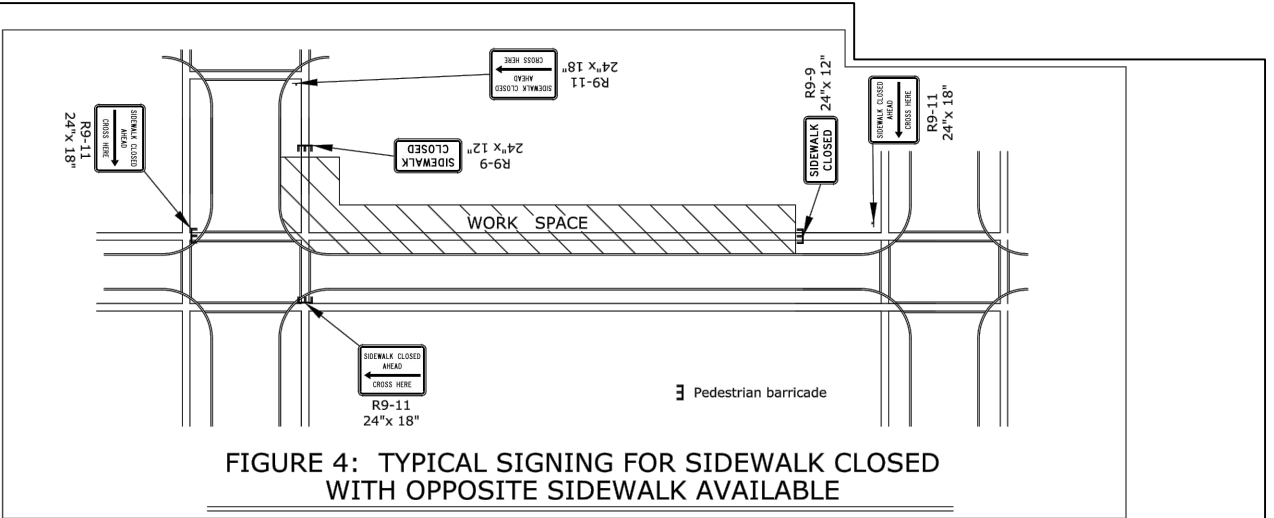
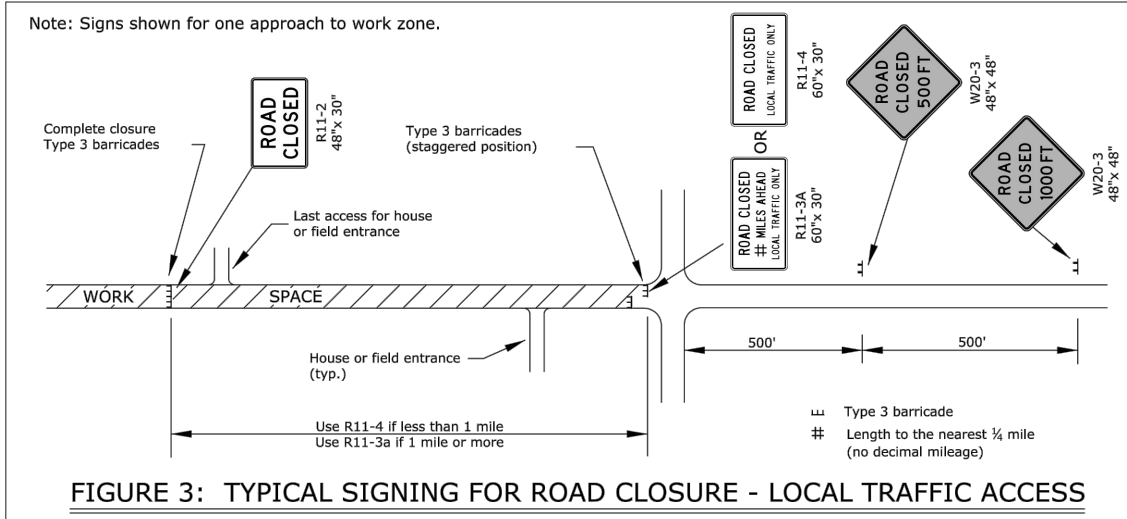
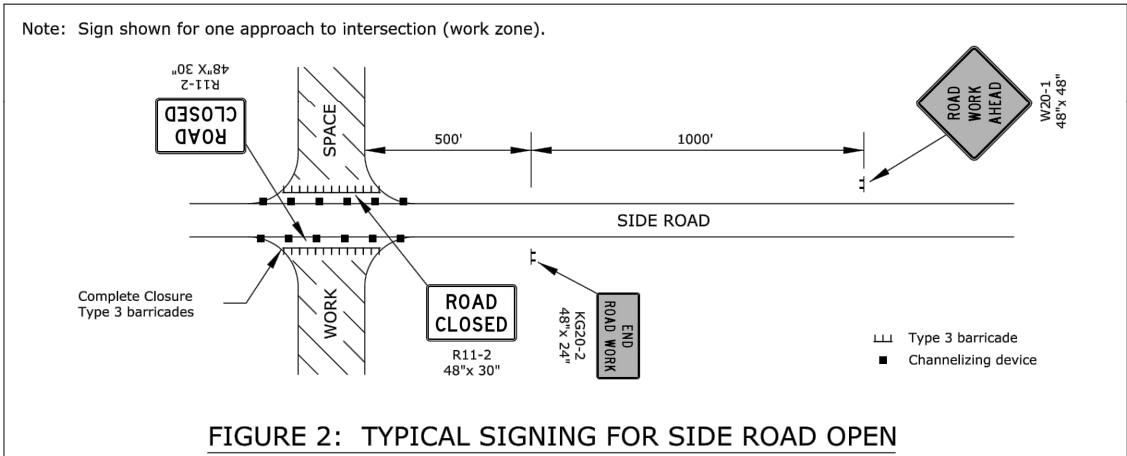
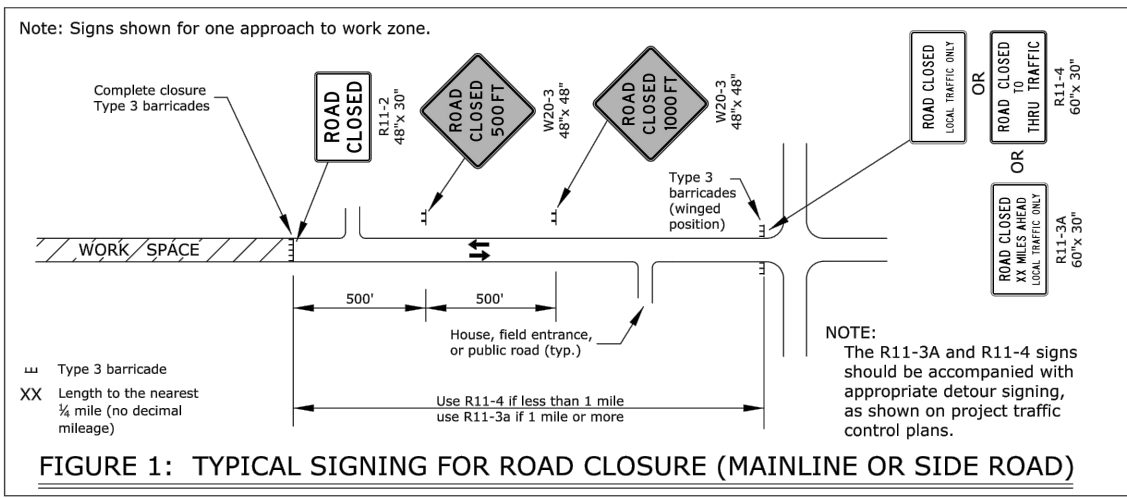
1. Support device shall not project beyond the detection plate into the pathway.
2. Hand trailing edges and detection plates are optional for continuous walls.
3. Interconnect pedestrian channelizers to prevent displacement and to provide continuous guidance through or around work.
4. Alternate pathways shall be firm, stable, and slip resistant.
5. Treat height differentials > 1/2" in the surfaces of alternate paths with a firm, stable, and slip resistant temporary ramp having a slope of 12:1 or flatter and having a width equal to the alternate path.
6. Use alternating orange/white on interconnected devices.

ITEM		LOCATION									
		Cross-overs	Shoofly Divisions	Tangents	Tapers	Ramps	Head to Head	Object Identifier	Lead-in Devices	Gores	
PORTABLE	Drums	Yes	Yes	Yes	Yes	Yes	(1)	Yes	Yes	Yes	
	Conical Delineators	Yes	Yes	Yes	Yes	Yes	(1)	Yes	Yes	Yes	
	Vertical Panels	(2)	(2)	(2)	(2)	(2)	(1,2)	YES	(2)	(2)	
	Direction Indicator Barricade	NO	NO	NO	Yes	NO	NO	NO	NO	NO	
	Type 2 Barricade	(2)	(2)	(2)	(2)	NO	NO	Yes	NO	NO	
	Traffic Cones	NO	NO	(4)	(4)	(4)	NO	(4)	(4)	(4)	
FIXED	Tubular Markers	(3)	(3)	(3)	NO	(3)	Yes	NO	Yes	Yes	
	Vertical Panels	(3)	(3)	(3)	(3)	(3)	(3)	Yes	(2,3)	(2)	

- (1) Not allowed on centerline delineation along freeways or expressways.
- (2) The stripes shall slope downward to the traffic side for channelization.
- (3) May be used upon the approval of the engineer.
- (4) Daytime operations only.



Revision		By	Date
TRAFFIC CONTROL			
CHANNELIZING DEVICES			
2017 ASPHALT SURFACE MAINTENANCE PROJECT CITY OF PITTSBURG, KANSAS			
Designed by JUR		Sht. 10 of 13	
Date March 2017			



ROAD CLOSED GENERAL NOTES

As shown in Figure 1, at the point where thru traffic must detour and local traffic can proceed to the location where the roadway is completely closed, the R11-3a (ROAD CLOSED # MILES AHEAD LOCAL TRAFFIC ONLY) or R11-4 (ROAD CLOSED LOCAL TRAFFIC ONLY or ROAD CLOSED TO THRU TRAFFIC) sign shall be used with Type 3 barricades (winged position), placed on the shoulders of roadway.

As shown in Figure 3, when local traffic must be allowed access into the work zone, Type 3 barricades shall be longitudinally staggered to maintain the appearance of a closed roadway. A second line of end-to-end Type 3 barricades shall be placed just beyond the last access point in the work zone, to completely close the roadway.

The R11-4 (ROAD CLOSED TO THRU TRAFFIC or ROAD CLOSED LOCAL TRAFFIC ONLY) sign shall be used when the distance to the point of complete closure of the roadway is less than 1 mile.

The R11-3a (ROAD CLOSED # MILES AHEAD LOCAL TRAFFIC ONLY) sign shall be used when the distance to the point of complete closure of the roadway is 1 mile or greater.

The words "BRIDGE OUT" (or BRIDGE CLOSED) may be substituted for the words "ROAD CLOSED" on the R11-3a or R11-4 sign where applicable.



No.	Revision	By	Date
TRAFFIC CONTROL			
ROAD CLOSURES			
2017 ASPHALT SURFACE MAINTENANCE PROJECT CITY OF PITTSBURG, KANSAS			
Designed by	JJR	Date	March 2017
			Sht.11 of 13

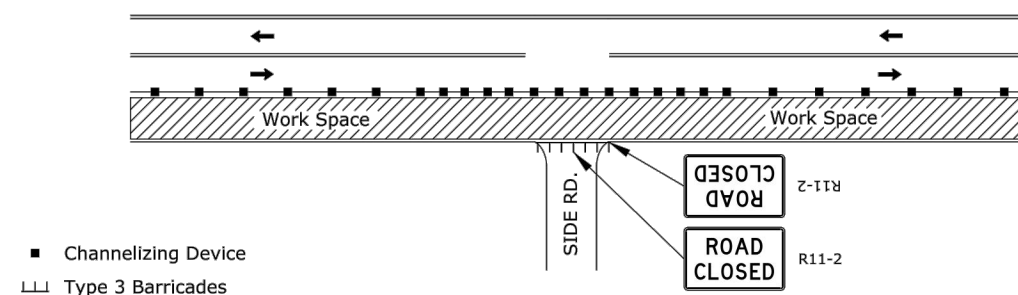


FIGURE 1: SIDE ROAD OR ENTRANCE CLOSED THROUGH WORK AREA

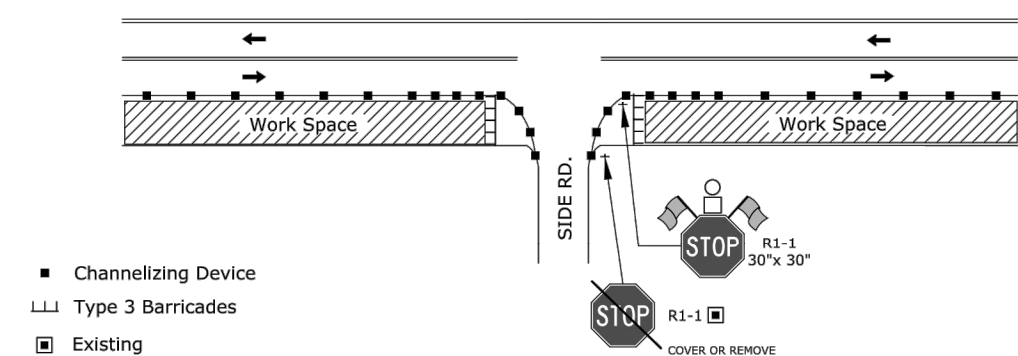


FIGURE 2: SIDE ROAD OR ENTRANCE OPEN THROUGH WORK AREA

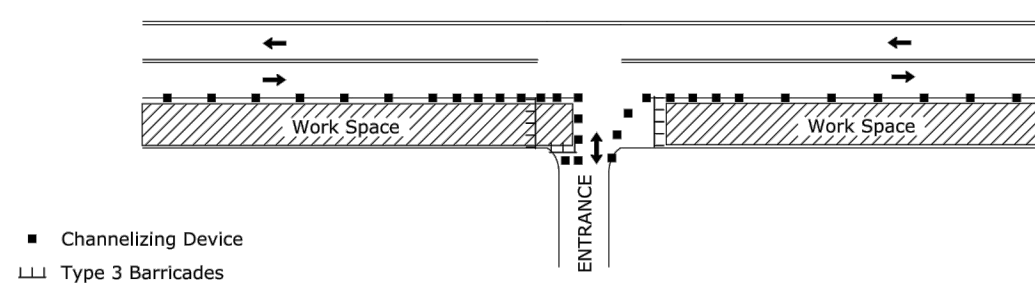


FIGURE 3: LOW VOLUME ENTRANCE CONSTRUCTED HALF AT A TIME

Note: Consider large vehicles making right turns into and out of entrance and use figure 4 as needed

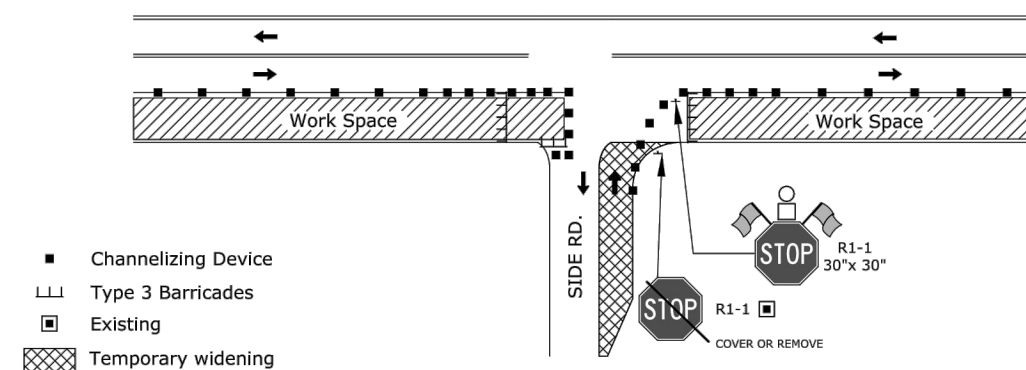


FIGURE 4: SIDE ROAD OR ENTRANCE CONSTRUCTED HALF AT A TIME: TWO WAY TRAFFIC REQUIRED

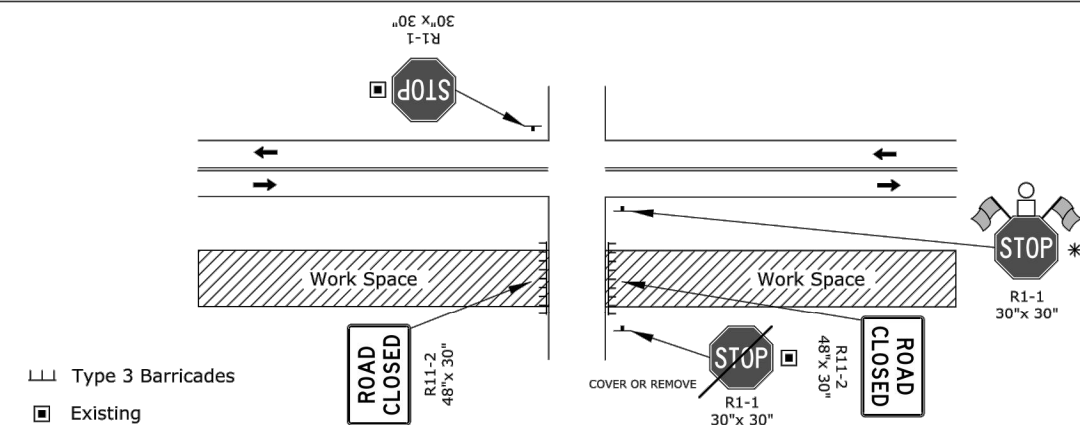


FIGURE 5: SIDE ROAD OPEN THROUGH WORK AREA ON DIVIDED ROADWAY



No.	Revision	By	Date
TRAFFIC CONTROL ACCESS THROUGH THE WORK AREA			
2017 ASPHALT SURFACE MAINTENANCE PROJECT CITY OF PITTSBURG, KANSAS			
Designed by	JJR	Date	March 2017
			Sh1.12 of 13

SIGN LAYOUT INFORMATION



STD. SIZE
EXPWY/FREEWAY
6" C
48"x 24"



STD. SIZE
EXPWY/FREEWAY
6" C
48"x 24"



STD. SIZE
EXPWY/FREEWAY
3" C 6" C
24"x 6" 48"x 12"



Mileage to be determined
by the engineer.

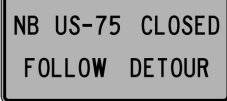


STD. SIZE
EXPWY/FREEWAY
48"x 48"

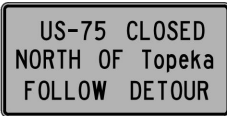


W8-17P
(OPTIONAL)

STD. SIZE
EXPWY/FREEWAY
30"x 24"



SP-01
(SPECIAL SIGN)



SP-02
(SPECIAL SIGN)

STD. SIZE
EXPWY/FREEWAY
6" C 10" D

STD. SIZE
EXPWY/FREEWAY
UPPERCASE: 6" C 10" D
LOWERCASE: 4.5" C 8" D

ALL CITY NAMES AND STREET NAMES ON SPECIAL SIGNS AND DESTINATION SIGNS
MUST HAVE UPPER AND LOWER CASE LETTERS.



STD. SIZE
EXPWY/FREEWAY
8" D
48"x 48"



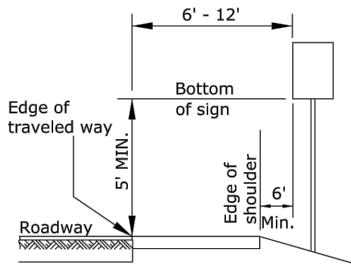
STD. SIZE
EXPWY/FREEWAY
8" D
48"x 48"



STD. SIZE
EXPWY/FREEWAY
30"x 24"



STD. SIZE
EXPWY/FREEWAY
8" D
48"x 48"

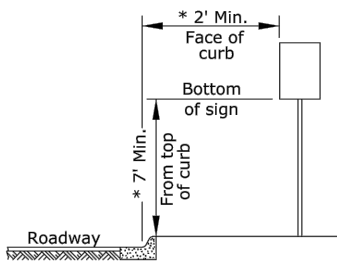


Rural

1) Ground-mounted signs shall be mounted at a minimum height of 5' measured from the bottom of sign to the near edge of the pavement.

2) Large signs having an area exceeding 50 square feet installed on multiple breakaway posts shall be mounted a minimum of 7' above the ground.

3) The height of the secondary sign mounted below another sign may be 4' measured from the bottom of the sign to the near edge of the pavement. Signs shall not overlap each other.



Urban

1) Signs shall be mounted at a minimum height of 7' measured from the bottom of sign to the near edge of the pavement.

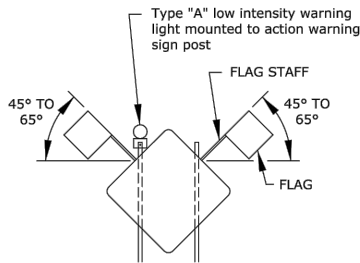
2) Neither portable nor permanent sign supports should be located on sidewalks or areas designated for pedestrian or bicycle traffic.

3) Signs mounted lower than 7' should not project more than 4" into pedestrian facilities.

4) The height from of the secondary sign mounted below another sign may be 6' measured from the bottom of sign to the near edge of the pavement. Signs shall not overlap each other.

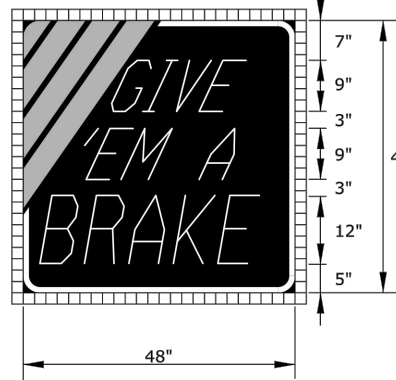
5) Large signs having an area exceeding 50 square feet installed on multiple breakaway posts shall be mounted a minimum of 7' above the ground.

* 6) Pedestrian detour signing shall be a minimum of 2' measured from the top of the pedestrian pathway to the bottom of the sign and shall not protrude into the walkway nor shall it project beyond the back of curb.



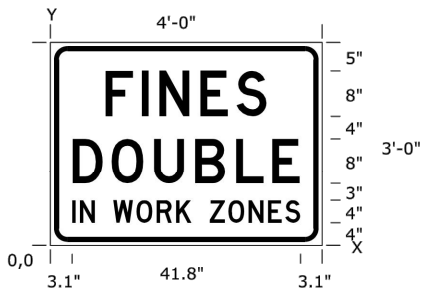
When the sign width is equal to or greater than 9', three or more wood posts may be used with a minimum of 4' between the centerline of each post. All signs less than 9' in width shall use a maximum of two wood posts.

In the case of hitting rock when driving posts
1. Shift the sign location. Do not violate minimum sign spacing.
2. With the engineer's approval, use acceptable alternative sign stands.



KI-104a

SIGN NUMBER	GIVE EM A BRAKE
WIDTH x HEIGHT	4'-0" x 4'-0"
BORDER WIDTH	1.0"
CORNER RADIUS	4.0"
STRIPE WIDTH	3.0"
MOUNTING	GROUND
BACKGROUND	TYPE: NON-REFLECTIVE COLOR: BLACK
LEGEND/BORDER	TYPE: REFLECTIVE COLOR: WHITE
LEGEND FONT	DUTCH 801 ROMAN SWC 25 DEGREE SLANT
STRIPES	TYPE: REFLECTIVE COLOR: ORANGE



KI-105a

SIGN NUMBER	FINES DOUBLE
WIDTH x HEIGHT	4'-0" x 3'-0"
BORDER WIDTH	0.9"
CORNER RADIUS	3.0"
MOUNTING	GROUND
BACKGROUND	TYPE: REFLECTIVE COLOR: WHITE
LEGEND/BORDER	TYPE: NON-REFLECTIVE COLOR: BLACK

DIMENSIONS IN INCHES

SPACINGS ARE TO START OF NEXT LETTER

Y FONT	LETTER SPACINGS																HT LEN
23.0 D	9.7	6.4	3.2	7.3	6.4	5.4	9.7										8.0
11.0 D	3.9	6.9	7.5	7.3	7.3	6.4	4.9	3.9									8.0
4.0 D	3.1	1.6	2.7	3.2	4.3	3.8	3.6	2.8	3.2	3.4	3.8	3.6	3.2	2.7	3.1		41.8

Notes:

Typically, there are two sets of informational signs installed per project: one for each direction of traffic.

Install signs a minimum of 500' in advance of the road work ahead sign. The engineer may designate a more appropriate location if conditions dictate.

The informational signs are not to interfere with the traffic control signs for the project.



No.	Revision	By	Date
TRAFFIC CONTROL			
SIGN INFORMATION			
2017 ASPHALT SURFACE MAINTENANCE PROJECT CITY OF PITTSBURG, KANSAS			
Designed by	JJR	Date	March 2017
		Sht.13 of 13	