KANSAS DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION TO THE
STANDARD SPECIFICATIONS, EDITION 2007

SECTION 805

WORK ZONE TRAFFIC CONTROL AND SAFETY

TYPICAL TRAFFIC CONTROL, 2-LANE HIGHWAY WITH 1 LANE CLOSED, FLAGGER, PILOT CAR TEMPORARY TRAFFIC SIGNALS OR AUTOMATED FLAGGER ASSISTANCE DEVICE (A.F.A.D)
Provide, erect, and maintain all traffic control devices required by the Contract Documents according to the details shown on the applicable **Standard Plan Sheets TE700, TE702, TE704, TE710, TE712, TE714, TE720, TE728, TE729, TE730, TE731, TE732, TE733** and/or **TE734**.

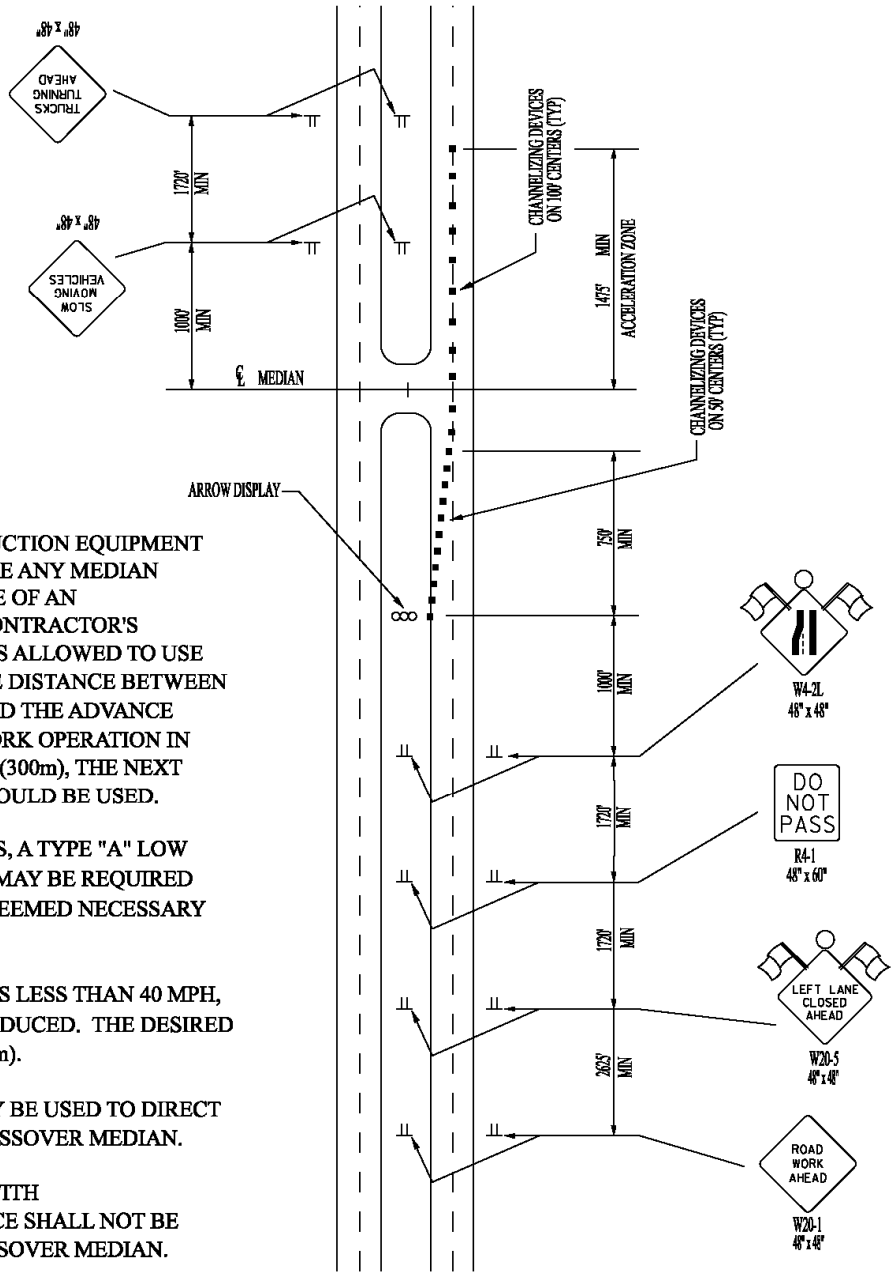
TYPICAL TRAFFIC CONTROL, 4-LANE DIVIDED HIGHWAY WITH 1 LANE CLOSED, CROSSOVER FROM THE LEFT LANE OR RIGHT LANE
Provide, erect and maintain all traffic control devices required by the Contract Documents according to the details shown on the applicable **Standard Plan Sheets TE700, TE702, TE704, TE710, TE712, TE714, TE722, TE740**, **TE742, TE743** and/or **TE744**.

TYPICAL TRAFFIC CONTROL, MULTI-LANE HIGHWAY WITH 2 LANES CLOSED AND 4-LANE UNDIVIDED HIGHWAY WITH ONE-HALF OF THE ROADWAY CLOSED
Provide, erect and maintain all traffic control devices required by the Contract Documents according to the details shown on the applicable **Standard Plan Sheets TE700, TE702, TE704, TE710, TE712, TE714, TE722, TE746** and/or **TE748**.

TYPICAL TRAFFIC CONTROL, 4-LANE HIGHWAY WITH CONSTRUCTION TRAFFIC ACROSS THE MEDIAN
With the permission of the Engineer, construction equipment may use the median crossovers. Provide, erect and maintain all traffic control devices required for the median crossovers that complies with the attached sheet and the applicable **Standard Plan Sheets TE700, TE702, TE704, TE710, TE712 and TE714** at no cost to the KDOT.

08-24-12 TST
Revised TE Standards
Oct-12 Letting

TRAFFIC CONTROL SIGNING FOR CONSTRUCTION TRAFFIC ACROSS ASPHALT OR CONCRETE MEDIAN ON FOUR LANE HIGHWAY (WITHOUT SIDE ROAD)



THE CONTRACTOR'S CONSTRUCTION EQUIPMENT WILL NOT BE ALLOWED TO USE ANY MEDIAN CROSSOVER WITHIN ONE MILE OF AN INTERCHANGE. WHEN THE CONTRACTOR'S CONSTRUCTION EQUIPMENT IS ALLOWED TO USE A MEDIAN CROSSOVER, IF THE DISTANCE BETWEEN 1475' ACCELERATION ZONE AND THE ADVANCE SIGNING FOR THE ACTUAL WORK OPERATION IN PROGRESS IS LESS THAN 1000' (300m), THE NEXT APPROPRIATE CROSSOVER SHOULD BE USED.

DUE TO EXISTING CONDITIONS, A TYPE "A" LOW INTENSITY WARNING LIGHTS MAY BE REQUIRED ON ANY SIGN OR DEVICE AS DEEMED NECESSARY BY THE ENGINEER.

IN URBAN AREAS WITH SPEEDS LESS THAN 40 MPH, THE SIGN SPACING MAY BE REDUCED. THE DESIRED MINIMUM SPACING IS 200' (60 m).

A CONTRACTOR WORKER MAY BE USED TO DIRECT ASPHALT TRUCKS AT THE CROSSOVER MEDIAN.

VEHICLES NOT ASSOCIATED WITH CONSTRUCTION/MAINTENANCE SHALL NOT BE PERMITTED TO USE THE CROSSOVER MEDIAN.

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

1. MUTCD COMPLIANCE:

ALL TEMPORARY TRAFFIC CONTROL DEVICES AND THEIR INSTALLATION AND MAINTENANCE SHALL COMPLY WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS WHICH HAS BEEN ADOPTED BY THE SECRETARY OF TRANSPORTATION. WHENEVER THE TEMPORARY TRAFFIC CONTROL STANDARDS CONFLICT WITH THE MUTCD, THE STANDARDS SHALL GOVERN.

2. 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.

3. CLEAR ZONE:

ALL CONSTRUCTION EQUIPMENT (INCLUDING VEHICLES), MATERIALS, AND DEBRIS SHALL BE STORED OUT OF THE CLEAR ZONE. WHERE THIS CANNOT BE ACHIEVED, THE CONTRACTOR SHALL PLACE APPROPRIATE SIGNS, OBJECT IDENTIFIERS, AND/OR BARRICADES AS DESIGNATED BY THE ENGINEER. TEMPORARY TRAFFIC CONTROL DEVICES NEEDED FOR THIS CONDITION SHALL BE CONSIDERED SUBSIDIARY TO OTHER BID ITEMS.

4. MINIMUM LANE WIDTHS:

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.

5. FLAGGER:

A MINIMUM OF ONE FLAGGER SHALL BE STATIONED WITHIN EACH MULTI-LANE ROADWAY ACTIVITY AREA WHERE WORK IS IN A CLOSED LANE ADJACENT TO TRAFFIC AND NOT SEPARATED BY A CONCRETE SAFETY BARRIER SYSTEM.

6. PAVEMENT MARKING:

WHEN THE WORK WILL OCCUPY A LOCATION MORE THAN THREE DAYS, ALL CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED OR MASKED AND ALL TRANSITION TAPERS, CROSSOVERS, AND EDGE LINES ALONG CHANNELIZING DEVICES SHALL BE MARKED WITH SOLID 4" WIDE PAVEMENT MARKING.

7. FIRST MODULE OF IBS:

THE FIRST MODULE OF EACH INERTIAL BARRIER SYSTEM (IBS) SHALL HAVE A MINIMUM OF 2 SQ. FT. OF FLUORESCENT ORANGE ASTM TYPE IV SHEETING FACING TRAFFIC. EITHER A VERTICAL RECTANGLE OR DIAMOND SHAPE MAY BE USED.

8. PEDESTRIAN / BICYCLE SAFETY:

WORK ZONE SIGNS SHALL NOT INHIBIT PEDESTRIAN AND BICYCLE TRAFFIC ON SIDEWALKS OR OTHER AREAS DESIGNATED FOR PEDESTRIAN OR BICYCLE USE.

CONSIDERATION SHOULD BE MADE TO SEPARATE PEDESTRIAN AND 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 AND BICYCLISTS 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 AND BICYCLISTS ARE NOT CONFRONTED WITH MIDBLOCK WORK SITES THAT WILL INDUCE THEM TO ATTEMPT SKIRTING THE WORK SITE OR MAKING A MIDBLOCK CROSSING.

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.

9. CHANGED STOP CONDITIONS:

ATTACH TWO FLUORESCENT RED-ORANGE FLAGS AND A RED TYPE "B" HIGH INTENSITY WARNING LIGHT TO ANY STOP SIGN THAT CREATES A NEW STOP CONDITION OR MOVES THE STOP CONDITION TO A NEW LOCATION. LEAVE FLAGS AND LIGHTS IN PLACE FOR AT LEAST THE FIRST 30 DAYS. INSTALL W3-1 (SYMBOLIC STOP AHEAD) SIGN IN ADVANCE OF STOP SIGN IF STOP SIGN IS NOT VISIBLE FOR A MINIMUM OF DISTANCE 'A' (SEE CHART ON TE710) OR IF STOP CONDITION IS MOVED TO LESS THAN DISTANCE 'A' FROM AN EXISTING STOP AHEAD SIGN.

10. LUMP SUM BIDDING:

WHEN TRAFFIC CONTROL IS BID LUMP SUM, ADDITIONAL DEVICES WILL BE PAID FOR AS EXTRA WORK.

NO.	DATE	REVISIONS	BY	APP'D
3	10/4/11	Modified Notes 9,12 & 14. Added Note 15	J.A.M.	K.P.
2	11/30/09	Added Note 14	J.A.M.	A.A.A.
1	4/20/09	Revised Note 7	J.A.M.	A.A.A.

KANSAS DEPARTMENT OF TRANSPORTATION

GENERAL TRAFFIC CONTROL

TE700 SHEET 1 OF 3 9/1/00

FHWA APPROVAL		10/4/11	APP'D	Kristina Pyle	
DESIGNED	B.A.H.	DETAILED	B.A.H.	QUANTITIES	TRACED
DESIGN CK.		DETAIL CK.		QUAN. CK.	TRACE CK.

Drawn By : jmadrid Plotted : 10-NOV-2011 11:33
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STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

11. NIGHTTIME LIGHTING:

WHEN NIGHTTIME WORK IS REQUIRED, FLOODLIGHTS SHOULD BE USED TO ILLUMINATE FLAGGER STATIONS, EQUIPMENT CROSSINGS, AND OTHER AREAS WHERE EXISTING LIGHTING IS NOT ADEQUATE FOR THE WORK TO BE PERFORMED SAFELY.

IN NO CASE SHALL FLOODLIGHTS BE PERMITTED TO CREATE A DISABLING GLARE FOR THE DRIVER. THE ADEQUACY OF THE FLOODLIGHT PLACEMENT AND ELIMINATION OF POTENTIAL GLARE SHOULD BE CHECKED BY DRIVING THROUGH THE PROJECT.

12. NCHRP REPORT 350 CRASHWORTHY REQUIREMENTS:

TRAFFIC CONTROL DEVICES SHALL MEET THE EVALUATION CRITERIA IN NCHRP REPORT 350 OR IN MASH REPORT 2009 AS SUPPLEMENTED BY FHWA MEMORANDUM "IDENTIFYING ACCEPTABLE HIGHWAY SAFETY FEATURES," DATED JULY 25, 1997. AVAILABLE ON THE INTERNET AT http://safety.fhwa.dot.gov/roadway_dept/policy_guide/road_hardware/policy_memo/

ANY DEVICE NOT ADDRESSED BY THE TE STANDARDS MAY BE APPROVED ON A CASE BY CASE BASIS BY THE ENGINEER. THE DEVICE SHALL BE ACCOMPANIED BY AND INSTALLED ACCORDING TO MASH REPORT 2009. ANY DEVICE ACCEPTED PRIOR TO THE ADOPTION OF MASH REPORT 2009 USING CRITERIA FROM NCHRP REPORT 350 MAY REMAIN IN PLACE AND CONTINUE TO BE USED. ANY TRAFFIC CONTROL DEVICE ACCEPTED USING NCHRP REPORT 350 CRITERIA IS NOT REQUIRED TO BE TESTED UNDER MASH REPORT 2009. HOWEVER, NEW TRAFFIC CONTROL DEVICES NOT PREVIOUSLY EVALUATED MUST UTILIZE MASH REPORT 2009 FOR TESTING AND EVALUATION.

THE CONTRACTOR SHALL:

1) PROVIDE TO THE ENGINEER A COPY OF THE MANUFACTURER'S SELF-CERTIFICATION THAT ANY CATEGORY 1 (i.e. - PLASTIC CONICAL DELINEATORS, TUBULAR MARKERS, DRUMS WITHOUT ATTACHMENTS) AND CATEGORY 2 (i.e. - PORTABLE SIGN STANDS (WITH SIGNS), TYPE II AND III BARRICADES, AND VERTICAL PANELS) DEVICES USED ON THE PROJECT ARE NCHRP REPORT 350 OR MASH REPORT 2009 COMPLIANT.

2) PROVIDE TO THE ENGINEER A COPY OF THE ENTIRE FHWA ACCEPTANCE LETTER (WZ-xxx) FOR ANY CATEGORY 2 DEVICE (i.e. - PORTABLE SIGN STANDS (WITH SIGNS), TYPE II AND III BARRICADES, AND VERTICAL PANELS) USED ON THE PROJECT. WORK ZONE FHWA ACCEPTANCE LETTERS (WZ-xxx) ARE AVAILABLE ON THE INTERNET AT: http://safety.fhwa.dot.gov/roadway_dept/policy_guide/road_hardware/wzd/

3) CERTIFY THAT THE TRUCK MOUNTED ATTENUATORS (TMA'S) (WHICH ARE DEFINED AS CATEGORY 3 DEVICES BY THE FHWA MEMORANDUM) MEET CURRENT CRASHWORTHY SPECIFICATIONS AS DEFINED ABOVE AND INCLUDE A COPY OF THE ENTIRE FHWA ACCEPTANCE LETTER. ALL CATEGORY 1 & 2 DEVICES SHALL BE NCHRP REPORT 350 OR MASH REPORT 2009 COMPLIANT.

13. TYPE "A" LOW INTENSITY WARNING LIGHTS:

A TYPE "A" LOW INTENSITY WARNING LIGHT IS AN L.E.D. BI-DIRECTIONAL FLASHING WORK ZONE WARNING LIGHT.

14. LEAD IN CONES ON CENTERLINE:

LEAD IN CENTERLINE CHANNELIZING DEVICES MAY BE ELIMINATED FROM TE728, TE729, TE730, TE731, AND TE732 WHEN THE ROADWAY IS LESS THAN OR EQUAL TO 30' (FEET) INCLUDING PAVED SHOULDERS OR THE AREA ENGINEER DETERMINES THAT EXTENUATING CIRCUMSTANCES EXIST.

15. TEMPORARY RUMBLE STRIPS:

ALTERNATIVE TEMPORARY RUMBLE STRIP OPTIONS MAY BE AVAILABLE. PLEASE CONTACT THE TEMPORARY TRAFFIC CONTROL UNIT FOR MORE INFORMATION.

NO.	DATE	REVISIONS	BY	APP'D
3	10/4/11	Modified Notes 9,12 & 14. Added Note 15	J.A.M.	K.P.
2	11/30/09	Added Note 14	J.A.M.	A.A.A.
1	4/20/09	Revised Note 7	J.A.M.	A.A.A.

KANSAS DEPARTMENT OF TRANSPORTATION

GENERAL TRAFFIC CONTROL

TE700 SHEET 2 OF 3 9/1/00

FHWA APPROVAL		10/4/11	APP'D	Kristina Pyle	
DESIGNED	B.A.H.	DETAILED	B.A.H.	QUANTITIES	TRACED
DESIGN CK.		DETAIL CK.		QUAN. CK.	TRACE CK.

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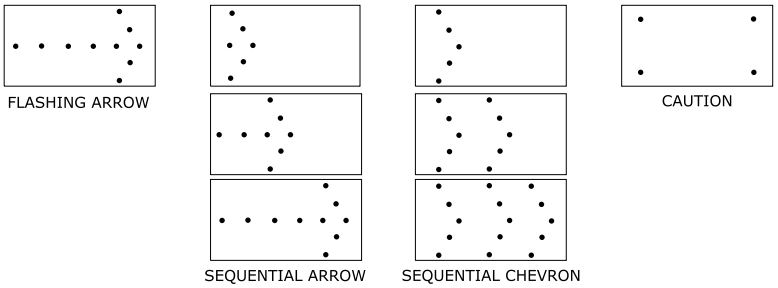
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

ARROW DISPLAYS



ARROW DISPLAY ELEMENTS SHALL BE CAPABLE OF A MINIMUM 50 PERCENT DIMMING FROM THEIR FULL-RATED LAMP VOLTAGE. FULL LAMP VOLTAGE SHOULD BE USED DURING THE DAY AND DIMMED MODE SHALL BE USED AT NIGHT. FOR SHOULDER WORK, ROADSIDE WORK NEAR THE SHOULDER, BLOCKING THE SHOULDER, OR FOR TEMPORARY CLOSING ONE LANE ON A TWO-LANE, TWO-WAY ROADWAY, AN ARROW PANEL SHALL BE USED ONLY IN THE CAUTION MODE.

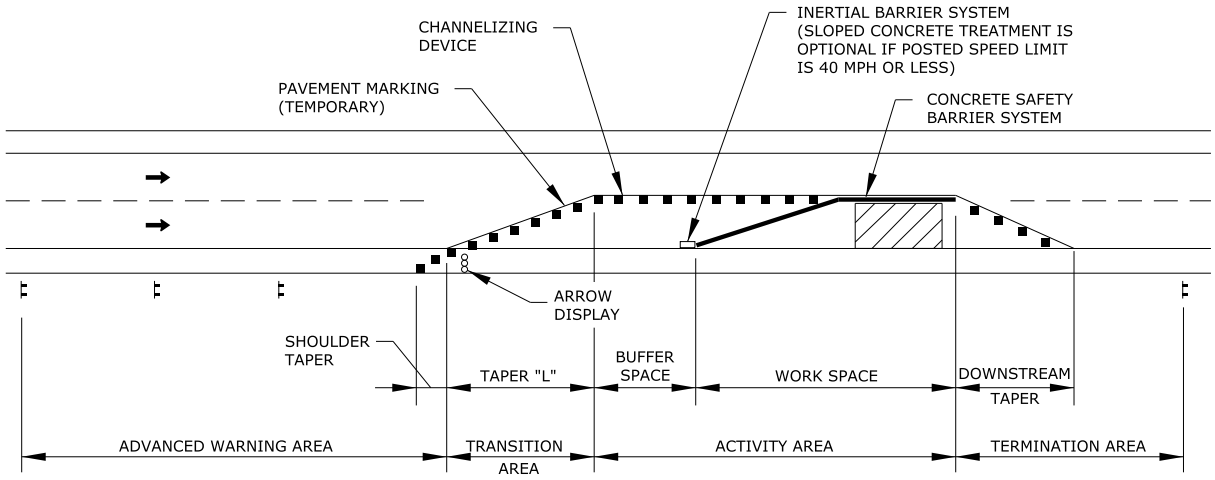
BUFFER SPACE

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.



NOTE:
REFER TO STD. TE702 FOR TAPER "L" FORMULA.

TYPICAL WORK ZONE COMPONENTS

NO.	DATE	REVISIONS	BY	APP'D
3	10/4/11	Modified Notes 9,12 & 14. Added Note 15	J.A.M.	K.P.
2	11/30/09	Added Note 14	J.A.M.	A.A.A.
1	4/20/09	Revised Note 7	J.A.M.	A.A.A.

KANSAS DEPARTMENT OF TRANSPORTATION

GENERAL TRAFFIC CONTROL

TE700 SHEET 3 OF 3 9/1/00

FHWA APPROVAL		10/4/11	APP'D	Kristina Pyle	
DESIGNED	B.A.H.	DETAILED	B.A.H.	QUANTITIES	TRACED
DESIGN CK.		DETAIL CK.		QUAN. CK.	TRACE CK.

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File : TE700_3.dgn (TE700_3)
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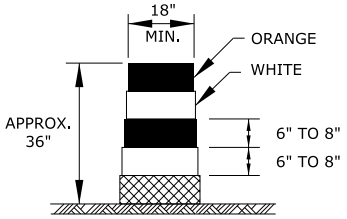
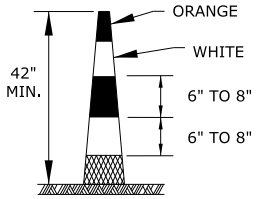
Traffic

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				



DRUM



CONICAL DELINEATOR

DRUMS AND CONICAL DELINEATORS SHALL HAVE AT LEAST TWO ORANGE AND TWO WHITE 6" TO 8" WIDE RETROREFLECTIVE STRIPES. ADDITIONAL STRIPES MAY BE NON-RETROREFLECTIVE. IF THERE ARE NON-RETROREFLECTIVE SPACES BETWEEN ADJACENT STRIPES, THEY SHALL BE NO MORE THAN 3" WIDE.

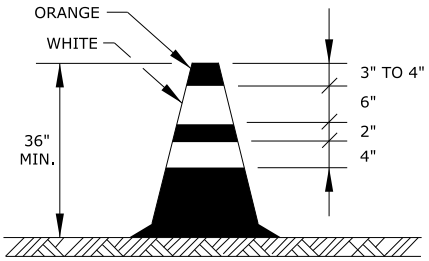
ALL RETROREFLECTIVE STRIPES ON DRUMS SHALL BE ASTM TYPE III SHEETING. THE WHITE STRIPES ON CONICAL DELINEATORS SHALL BE ASTM TYPE III SHEETING. ORANGE STRIPES ON ALL CONICAL DELINEATORS SHALL BE FLUORESCENT ORANGE ASTM TYPE IV SHEETING.

ITEM \ LOCATION		CROSS-OVERS	SHOOFLY DIVERSIONS	TANGENTS	TAPERS	RAMPS	HEAD TO HEAD	OBJECT IDENTIFIER	
PORTABLE									
	DRUMS	YES	YES	YES	YES	YES	(1)	YES	
	CONICAL DELINEATORS	YES	YES	YES	YES	YES	(1)	YES	
	VERTICAL PANELS	(2)	(2)	(2)	(2)	(2)	(1,2)	YES	
	DIRECTION INDICATOR BARRICADE	NO	NO	NO	YES	NO	NO	NO	
	TYPE II BARRICADE	(2)	(2)	(2)	(2)	NO	NO	YES	
FIXED									
	TUBULAR MARKERS	(3)	(3)	(3)	NO	(3)	YES	NO	
	VERTICAL PANELS	(3)	(3)	(3)	(3)	(3)	(3)	YES	

(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.



TRAFFIC CONE

TRAFFIC CONES MAY BE USED AS CHANNELIZING DEVICES FOR DAYTIME OPERATIONS ONLY. THEY WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE SUBSIDIARY TO OTHER TRAFFIC CONTROL BID ITEMS. THE ENGINEER MAY REQUIRE THAT TRAFFIC CONES BE SUPPLEMENTED BY OTHER TRAFFIC CONTROL DEVICES IN CERTAIN SITUATIONS.

NO.	DATE	REVISIONS	BY	APP'D
3	10/4/11	Added Dimension to Tubular Marker Detail	J.A.M.	K.P.
2	4/20/09	Channelizer Placement & Traffic Cone Detail	J.A.M.	A.A.A.
1	8/8/07	Trimline Changed to Conical Delineator	M.B.	A.A.A.

KANSAS DEPARTMENT OF TRANSPORTATION

CHANNELIZING DEVICES

TE702 SHEET 1 OF 3 9/1/00

FHWA APPROVAL			10/4/11	APP'D	Kristina Pyle		
DESIGNED	L.E.R.	DETAILED	B.A.H.	QUANTITIES		TRACED	
DESIGN CK.		DETAIL CK.		QUAN. CK.		TRACE CK.	

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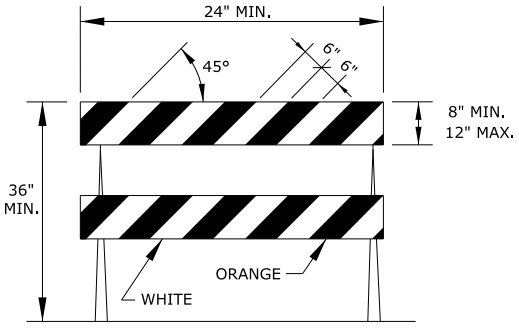
Traffic

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

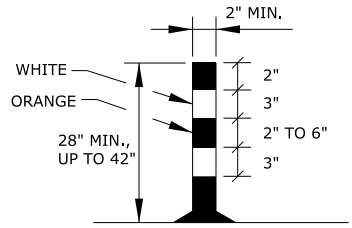


TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED.

THE ENTIRE AREA OF BARRICADE RAILS, BOTH FRONT AND BACK, SHALL BE ASTM TYPE III SHEETING.

THE STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TUBULAR MARKER

THE TWO WHITE RETROREFLECTIVE STRIPES SHALL BE ASTM TYPE III SHEETING.

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 OF OFFSET IN FEET

CHANNELIZER PLACEMENT:

(A) 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.

(B) 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.

(C) CHANNELIZING DEVICES SHALL BE PLACED FOR OPTIMUM VISABILITY, NORMALLY AT RIGHT ANGLES TO THE TRAFFIC FLOW.

(D) CHANNELIZING DEVICES PLACED ALONG SHOULDER EDGES OR IN DROPOFFS SHALL HAVE A MINIMUM OF 24" FROM THE TOP OF THE CHANNELIZING DEVICE TO THE TOP OF THE PAVEMENT.

NO.	DATE	REVISIONS	BY	APP'D
3	10/4/11	Added Dimension to Tubular Marker Detail	J.A.M.	K.P.
2	4/20/09	Channelizer Placement & Traffic Cone Detail	J.A.M.	A.A.A.
1	8/8/07	Trimline Changed to Conical Delineator	M.B.	A.A.A.

KANSAS DEPARTMENT OF TRANSPORTATION

CHANNELIZING DEVICES

TE702 SHEET 2 OF 3 9/1/00

FHWA APPROVAL			10/4/11	APP'D	Kristina Pyle		
DESIGNED	L.E.R.	DETAILED	B.A.H.	QUANTITIES		TRACED	
DESIGN CK.		DETAIL CK.		QUAN. CK.		TRACE CK.	

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File : TE702_2.dgn (TE702_2)
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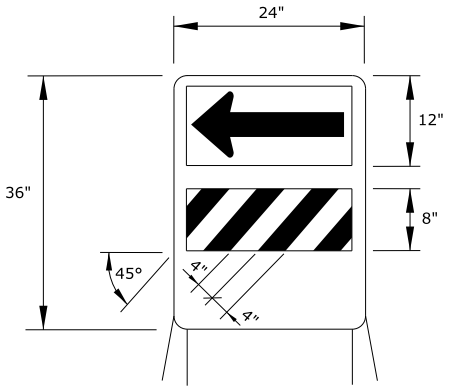
Traffic

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

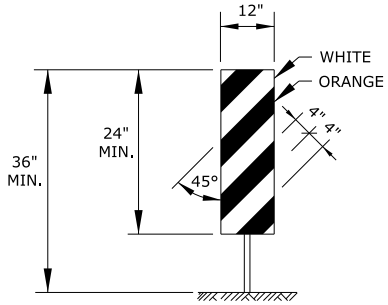


DIRECTION INDICATOR BARRICADE

THE ARROW PANEL SHALL BE BLACK ON FLUORESCENT ORANGE ASTM TYPE IV SHEETING. THE STRIPES SHALL BE ORANGE AND WHITE ASTM TYPE III SHEETING SLOPING 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.

THE ARROW PANEL SHOULD NOT BE VISIBLE TO OPPOSING TRAFFIC.



VERTICAL PANEL

THE ENTIRE AREA OF VERTICAL PANELS, BOTH FRONT AND BACK, SHALL HAVE ASTM TYPE III SHEETING. THE STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.

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3	10/4/11	Added Dimension to Tubular Marker Detail	J.A.M.	K.P.
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1	8/8/07	Trimline Changed to Conical Delineator	M.B.	A.A.A.

KANSAS DEPARTMENT OF TRANSPORTATION

CHANNELIZING DEVICES

TE702 SHEET 3 OF 3 9/1/00

FHWA APPROVAL		10/4/11	APP'D	Kristina Pyle	
DESIGNED	L.E.R.	DETAILED	B.A.H.	QUANTITIES	TRACED
DESIGN CK.		DETAIL CK.		QUAN. CK.	TRACE CK.

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File : TE702_3.dgn (TE702_3)
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NOTE: SIGNS SHOWN FOR ONE APPROACH TO WORK ZONE.

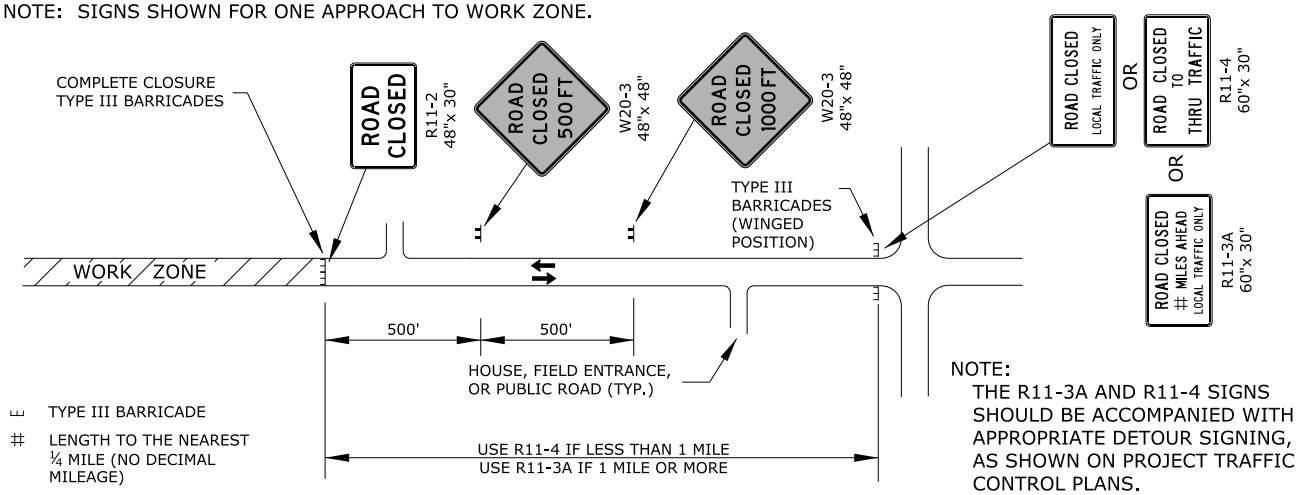

FIGURE 1: TYPICAL SIGNING FOR ROAD CLOSURE

NOTE: SIGNS SHOWN FOR ONE APPROACH TO INTERSECTION (WORK ZONE).

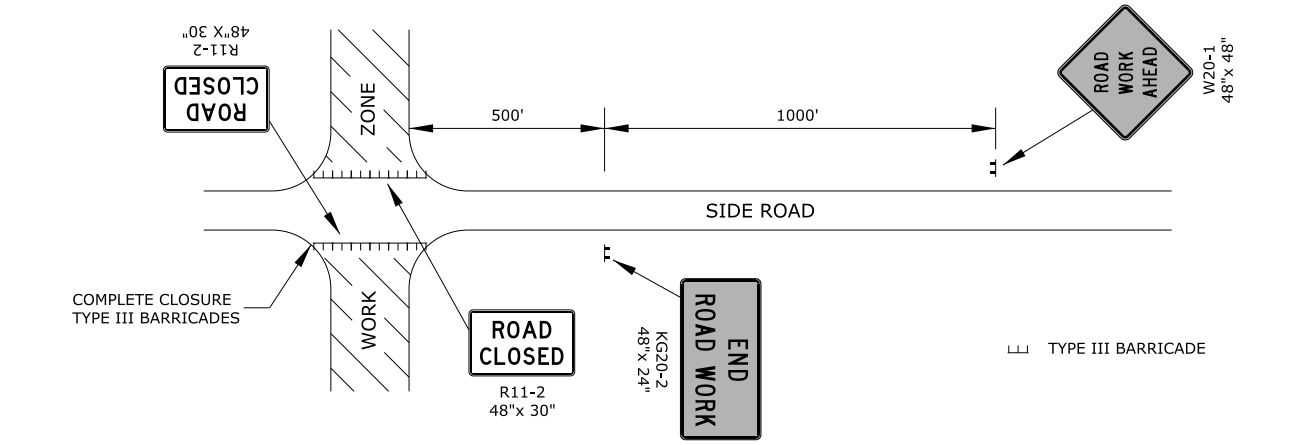

FIGURE 2: TYPICAL SIGNING FOR SIDE ROAD OPEN

NO.	DATE	REVISIONS	BY	APP'D
3	8/8/07	Added Position to Type III Barricades	M.B.	A.A.A.
2	12/29/05	Note #1 Modified	M.B.	A.A.A.
1	2/1/05	Modified Notes Type III Barricades w/Lights	B.H.	A.A.A.

KANSAS DEPARTMENT OF TRANSPORTATION

TYPICAL TRAFFIC CONTROL
ROAD CLOSURES

TE704 SHEET 1 OF 3 9/26/02

FHWA APPROVAL		8/8/2007	APP'D	Anthony A. Airobaire	
DESIGNED	B.A.H.	DETAILED	B.A.H.	QUANTITIES	TRACED
DESIGN CK.		DETAIL CK.		QUAN. CK.	TRACE CK.

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File : TE704_1.dgn (TE704_1)
Plotted : 10-NOV-2011 11:33
Traffic

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

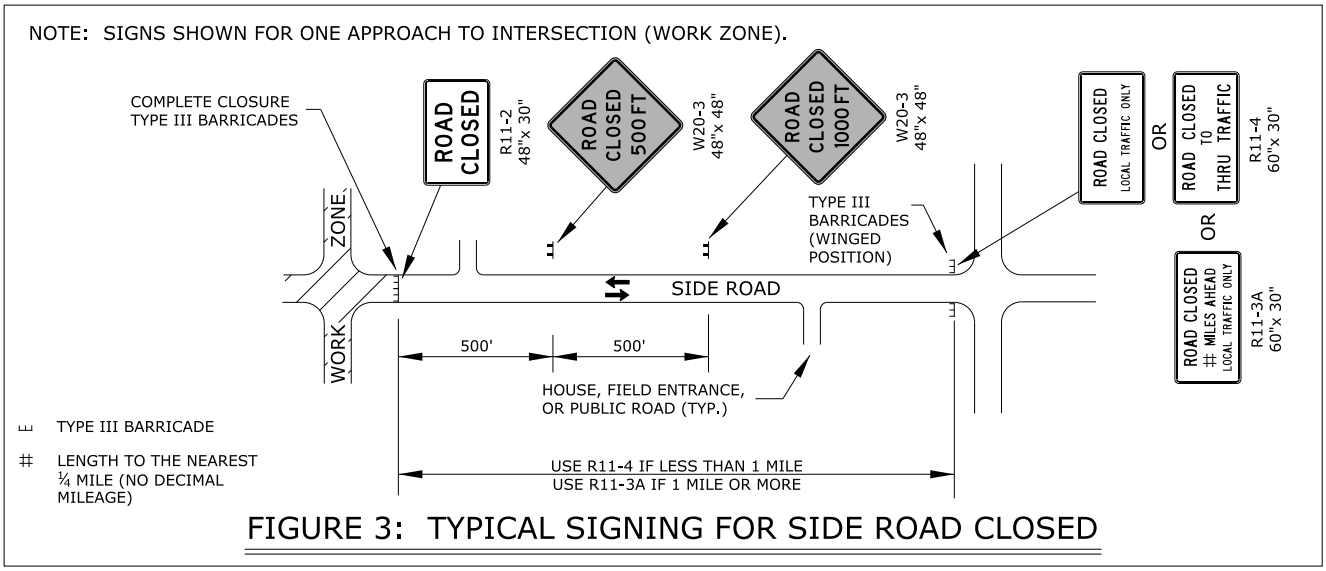

FIGURE 3: TYPICAL SIGNING FOR SIDE ROAD CLOSED

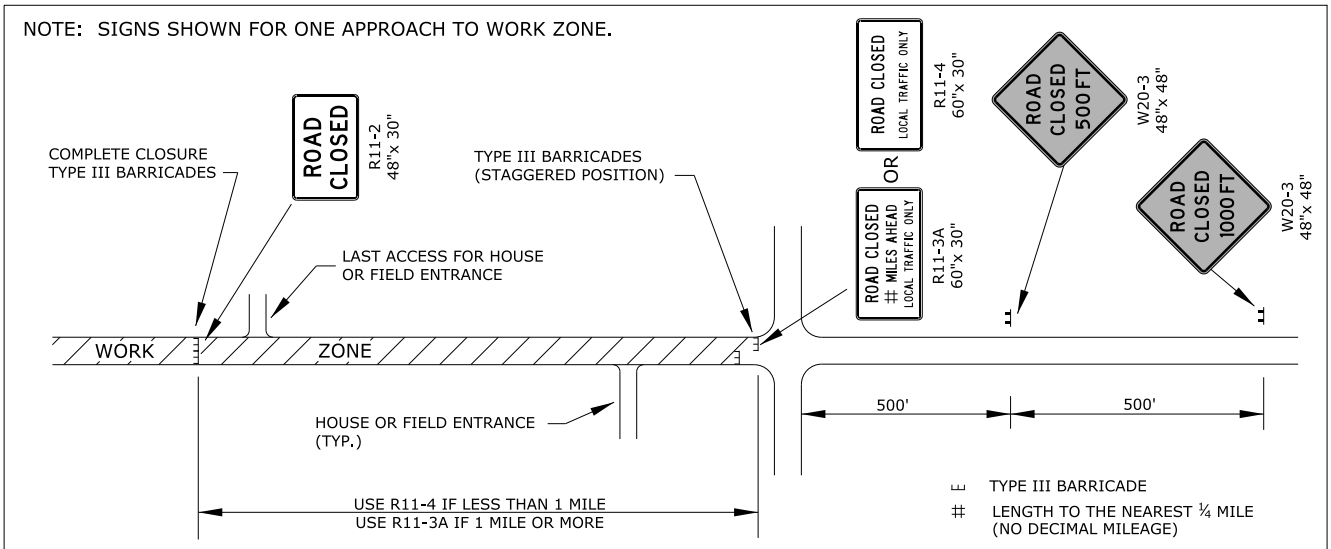

FIGURE 4: TYPICAL SIGNING FOR ROAD CLOSURE - LOCAL TRAFFIC ACCESS

NOTES:

1. SIGNS:

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.	DATE	REVISIONS	BY	APP'D
3	8/8/07	Added Position to Type III Barricades	M.B.	A.A.A.
2	12/29/05	Note #1 Modified	M.B.	A.A.A.
1	2/1/05	Modified Notes Type III Barricades w/Lights	B.H.	A.A.A.

KANSAS DEPARTMENT OF TRANSPORTATION

TYPICAL TRAFFIC CONTROL
ROAD CLOSURES

TE704 SHEET 2 OF 3 9/26/02

FHWA APPROVAL		8/8/2007	APP'D	Anthony A. Airobaire	
DESIGNED	B.A.H.	DETAILED	B.A.H.	QUANTITIES	TRACED
DESIGN CK.		DETAIL CK.		QUAN. CK.	TRACE CK.

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Traffic

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
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2. BARRICADE PLACEMENT:

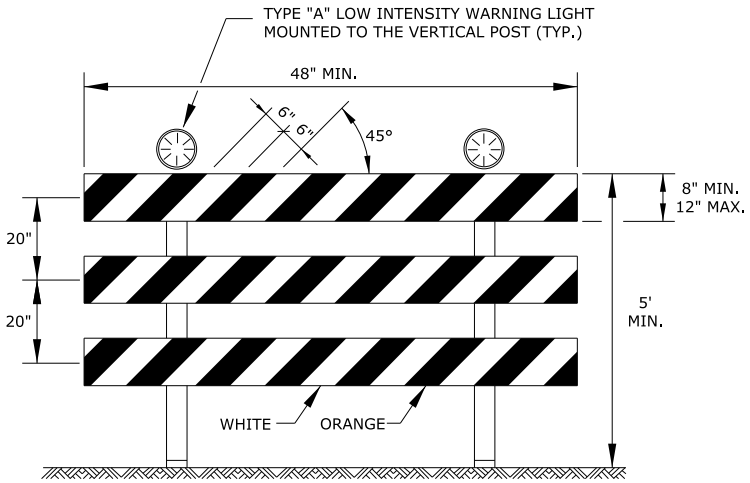
A) COMPLETE ROAD CLOSURE

WHEN A ROADWAY IS CLOSED, TYPE III BARRICADES SHALL BE PLACED END-TO-END TO COMPLETELY COVER THE ROADWAY AND SHOULDERS. WHEN ACCESS MUST BE ALLOWED FOR CONSTRUCTION OR OTHER OFFICIAL/GOVERNMENT VEHICLES, TYPE III BARRICADES SHALL BE LONGITUDINALLY STAGGERED FAR ENOUGH APART FROM ONE ANOTHER TO ALLOW SAFE PASSAGE OF VEHICLES AND MAINTAIN THE APPEARANCE OF A CLOSED ROADWAY. TYPE III BARRICADES SHALL BE REALIGNED AND PLACED END-TO-END TO DENY ANY ACCESS WHEN THE CONSTRUCTION ACTIVITY HAS CEASED FOR THE DAY.

B) ROAD CLOSED - LOCAL TRAFFIC

AS SHOWN IN FIGURE 4, WHEN LOCAL TRAFFIC MUST BE ALLOWED ACCESS INTO THE WORK ZONE, TYPE III BARRICADES SHALL BE LONGITUDINALLY STAGGERED TO MAINTAIN THE APPEARANCE OF A CLOSED ROADWAY. A SECOND LINE OF END-TO-END TYPE III BARRICADES SHALL BE PLACED JUST BEYOND THE LAST ACCESS POINT IN THE WORK ZONE, TO COMPLETELY CLOSE THE ROADWAY AS DESCRIBED IN NOTE 2-A.

AS SHOWN IN FIGURE 1 AND FIGURE 3, 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 III BARRICADES (WINGED POSITION), PLACED ON THE SHOULDERS OF ROADWAY.



TYPE III BARRICADE WITH LIGHTS

THE ENTIRE AREA OF BARRICADE RAILS, BOTH FRONT AND BACK, SHALL HAVE ASTM TYPE III SHEETING.

THE STRIPES SHALL SLOPE DOWNWARD TO THE SIDE TRAFFIC IS TO PROCEED OR TOWARD THE CENTER OF THE ROADWAY AT ROAD CLOSURES.

APPROVED SIGNS MOUNTED ON TYPE III BARRICADES SHOULD NOT COVER MORE THAN 50% OF THE TOP TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

WHEN BARRICADES ARE PLACED END-TO-END OR STAGGERED, A TYPE "A" LOW INTENSITY WARNING LIGHT SHALL BE MOUNTED TO THE VERTICAL POST NEAR EACH OUTSIDE CORNER OF THE END BARRICADES.

TYPE "A" LOW INTENSITY WARNING LIGHTS SHALL BE MAINTAINED SO AS TO BE VISIBLE ON A CLEAR NIGHT FROM A DISTANCE OF 3000'.

NO.	DATE	REVISIONS	BY	APP'D
3	8/8/07	Added Position to Type III Barricades	M.B.	A.A.A.
2	12/29/05	Note #1 Modified	M.B.	A.A.A.
1	2/1/05	Modified Notes Type III Barricades w/Lights	B.H.	A.A.A.

KANSAS DEPARTMENT OF TRANSPORTATION

TYPICAL TRAFFIC CONTROL
ROAD CLOSURES

TE704 SHEET 3 OF 3 9/26/02

FHWA APPROVAL	8/8/2007	APP'D	Anthony A. Airobaire	
DESIGNED B.A.H.	DETAILED B.A.H.	QUANTITIES		TRACED
DESIGN CK.	DETAIL CK.	QUAN. CK.		TRACE CK.

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File : TE704_3.dgn (TE704_3)
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Traffic

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

GENERAL NOTES

1. MAINTENANCE:

THE CONTRACTOR SHALL MAINTAIN ALL SIGNS AND DEVICES IN AN UPRIGHT POSITION. THE CONTRACTOR SHALL CLEAN OR REPLACE ANY DAMAGED OR ILLEGIBLE SIGN OR DEVICE AS DIRECTED BY THE ENGINEER.

2. EXISTING SIGNS:

IF EXISTING SIGNS THAT ARE TO REMAIN (WHETHER DENOTED ON THE PLANS OR NOT) INTERFERE WITH CONSTRUCTION WORK, THE CONTRACTOR SHALL REMOVE, STORE, AND RESET THE SIGNS. THIS SHALL BE SUBSIDIARY TO OTHER TRAFFIC CONTROL BID ITEMS. SIGNING DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

3. CONFLICTING SIGNS, SIGNS NOT IN USE, AND TRAFFIC SIGNALS:

SIGNS AND TRAFFIC SIGNALS THAT ARE IN CONFLICT WITH THE TRAFFIC CONTROL PLAN OR DO NOT APPLY TO THE TRAFFIC OPERATIONS SHALL BE IMMEDIATELY REMOVED, TURNED SO NOT VISIBLE TO TRAFFIC FROM ANY DIRECTION, OR COMPLETELY COVERED WITH ADEQUATE OPAQUE BREATHABLE MATERIAL. TAPE SHALL NOT BE APPLIED TO THE FACE OF THE SIGN.

4. PORTABLE AND POST MOUNTED SIGNS:

TEMPORARY TRAFFIC CONTROL SIGNS THAT ARE ANTICIPATED TO REMAIN IN PLACE FOR 3 DAYS OR LESS ARE CONSIDERED "PORTABLE." PORTABLE SIGNS SHALL BE MOUNTED ON AN APPROVED SUPPORT AT A MINIMUM HEIGHT OF 12" ABOVE THE TRAVELED WAY. TRAFFIC CONTROL SIGNS IN PLACE FOR OVER 3 DAYS ARE REQUIRED TO BE MOUNTED ON APPROVED POSTS. A MINIMUM OF 42" OF THE APPROVED POST MUST BE BELOW THE GROUND SURFACE WITH ADEQUATE BACKFILL AND COMPACTION. ALL POSTS AT MINIMUM SHALL EXTEND TO THE TOP EDGE OF THE SIGN AND NO GREATER THAN 6" ABOVE THE SIGN.

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.

"ROLL-UP" SIGNS MAY BE USED FOR PORTABLE WARNING SIGNS. THEY MUST BE FLUORESCENT ORANGE ASTM TYPE IV SIGNS OF OPAQUE MATERIAL. MESH SIGNS ARE NOT ALLOWED.

5. SHEETING:

ALL ORANGE SIGNS SHALL HAVE FLUORESCENT ORANGE ASTM TYPE IV SHEETING. ALL OTHER SIGNS SHALL HAVE ASTM TYPE III SHEETING OF STANDARD COLORS.

6. SIGNS INVOLVING SPEEDS:

THE W3-5 (SPEED REDUCTION) SHOULD BE USED ONLY IF THE ENGINEER DETERMINES THAT A REDUCED SPEED IS REQUIRED ON THE PROJECT.

THE KM4-20 (WORK ZONE) PLAQUE SHALL BE PLACED ABOVE ALL SPEED LIMIT SIGNS, (R2-1), EXISTING AND TEMPORARY. MOUNT THE WORK ZONE PLAQUES TO THE POST. DO NOT OVERLAP THE R2-1 AND KM4-20 SIGNS.

FOR SPEEDS OF 30 MPH OR LESS, THE W1-1(TURN) OR W1-3(REVERSE TURN) SHOULD BE USED. FOR SPEEDS OF 35 MPH OR MORE, THE W1-2(CURVE) OR W1-4(REVERSE CURVE) SHOULD BE USED. THE W13-1(MPH) IS TO BE ELIMINATED IF THE ADVISORY SPEED IS WITHIN 5 MPH OF THE SPEED LIMIT.

7. SIGNS CONTROLLING WORK ZONE:

THE KG20-2(END ROAD WORK) SHOULD BE PLACED 500' FROM THE END OF THE ACTUAL WORK SPACE, NOT NECESSARILY AT THE EXTREME LIMITS OF THE PROJECT. THE KG20-2 SHOULD BE MOUNTED ON TWO POSTS. THE KG20-2 MAY BE MOUNTED ON ONE POST IF IN URBAN AREAS WHERE UTILITIES ARE A PROBLEM AND WIND LOADS ARE NOT AN ISSUE.

WHERE TWO WORK ZONES ARE LESS THAN 1 MILE APART IN RURAL AREAS OR ¼ MILE APART IN URBAN AREAS, THE KG20-2(END ROAD WORK) FOR THE FIRST WORK ZONE AND THE W20-1(ROAD WORK) FOR THE SECOND WORK ZONE SHOULD BE ELIMINATED.

NO.	DATE	REVISIONS	BY	APP'D
3	10/4/11	Modified Note 3	J.A.M.	K.P.
2	2/24/10	Modified AFAD Note	J.A.M.	A.A.A.
1	10/28/09	Modified AFAD Note	J.A.M.	A.A.A.

KANSAS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SIGNS

TE710 SHEET 1 OF 3 9/1/00

FHWA APPROVAL			10/4/11	APP'D	Kristina Pyle		
DESIGNED	B.A.H.	DETAILED	B.A.H.	QUANTITIES		TRACED	
DESIGN CK.		DETAIL CK.		QUAN. CK.		TRACE CK.	

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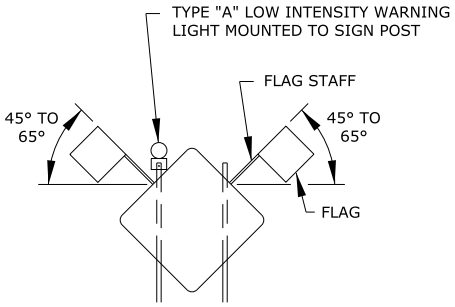
8. WARNING LIGHTS ON SIGNS:

TYPE "A" LOW INTENSITY WARNING LIGHTS SHOULD BE USED WITH ALL CONSTRUCTION ACTION WARNING SIGNS AND SHALL NOT BE USED ON SIGNS MOUNTED LESS THAN 5' HIGH ON TEMPORARY SUPPORTS. ON ALL OTHER CONSTRUCTION WARNING SIGNS, TYPE "A" LOW INTENSITY WARNING LIGHTS ARE TO BE USED AS DIRECTED BY THE ENGINEER.

TYPE "A" LOW INTENSITY WARNING LIGHTS SHALL BE MAINTAINED SO AS TO BE CAPABLE OF BEING VISIBLE ON A CLEAR NIGHT FROM A DISTANCE OF 3000 FT. IF A TYPE "A" LOW INTENSITY WARNING LIGHT HAS A SEPARATE BATTERY CASE, THE BATTERY CASE SHALL BE MOUNTED NO HIGHER THAN 12" ABOVE THE GROUND AND MOUNTED BEHIND THE SIGN POST. A TYPE "A" LOW INTENSITY WARNING LIGHT WHERE THE LENS AND BATTERY ARE ONE UNIT SHALL BE MOUNTED ON THE TEMPORARY SIGN POST NEAREST TO THE TRAVELED WAY. FLAGS SHALL NOT INTERFERE WITH THE VISABILITY OF THE TYPE "A" LOW INTENSITY WARNING LIGHT.



TWO (2) 18" x 18" FLUORESCENT RED-ORANGE FLAGS SHALL BE ATTACHED (IN THE POSITION SHOWN) ON THE W20-2(DETOUR), W1-1(TURN), W1-2(CURVE), W1-3(REVERSE TURN), W1-4(REVERSE CURVE), W3-3(SIGNAL AHEAD), W4-2(LANE REDUCTION), W20-4(ONE LANE ROAD), W20-5(LANE CLOSED), W20-7A(FLAGGER), AND W3-4 (BE PREPARED TO STOP) SIGNS AND ANY OTHER ACTION SIGNS AS SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER. THE FLAGS AND STAFFS ARE TO BE ATTACHED IN SUCH A MANNER THAT THE SIGN WILL NOT BE OBSCURED. THE FLAGS MAY BE EITHER A CLOTH OR VINYL MATERIAL. THE FLAGS SHALL BE SUBSIDIARY TO THE CONSTRUCTION SIGN BID ITEMS.

9. AUTOMATED FLAGGER ASSISTANCE DEVICE REQUIREMENTS:

STOP/SLOW AUTOMATED FLAGGER ASSISTANCE DEVICE:

THE AFAD'S STOP/SLOW SIGN SHALL HAVE AN OCTAGONAL SHAPE, SHALL BE FABRICATED OF RIGID MATERIAL, AND SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGN A MINIMUM OF 6' ABOVE THE PAVEMENT ON AN APPROPRIATE SUPPORT. THE SIZE OF THE STOP/SLOW SIGN SHALL BE AT LEAST 30"X30" WITH LETTER AT LEAST 10" HIGH. THE BACKGROUND OF THE STOP FACE SHALL BE RED WITH WHITE LETTER AND BORDERS. THE BACKGROUND OF THE SLOW FACE SHALL BE DIAMOND SHAPED AND ORANGE WITH BLACK LETTERS AND BORDER. BOTH FACES OF THE STOP/SLOW SIGN SHALL BE RETROREFLECTORIZED. THE AFAD'S STOP/SLOW SIGN SHALL HAVE A MEANS TO POSITIVELY LOCK, ENGAGE, OR OTHERWISE MAINTAIN THE SIGN ASSEMBLY IN A STABLE CONDITION WHEN SET IN THE STOP OR SLOW POSITION.

THE AFAD'S STOP/SLOW SIGN SHALL BE SUPPLEMENTED WITH ACTIVE CONSPICUITY DEVICES BY INCORPORATING

1. WHITE OR RED FLASHING LIGHTS WITHIN THE STOP FACE AND WHITE OR YELLOW FLASHING LIGHTS WITHIN THE SLOW FACE.
2. A STOP BEACON MOUNTED NO MORE THAN 24" ABOVE THE STOP FACE AND A WARNING BEACON MOUNTED NO MORE THAN 24" ABOVE, BELOW, OR TO THE SIDE OF THE SLOW FACE. THE STOP BEACON SHALL NOT BE FLASHED OR ILLUMINATED WHEN THE SLOW FACE IS DISPLAYED, AND THE WARNING BEACON SHALL NOT BE FLASHED OR ILLUMINATED WHEN THE STOP FACE IS DISPLAYED.

RED/YELLOW LENS AUTOMATED FLAGGER ASSISTANCE DEVICE:

RED/YELLOW LENS AUTOMATED FLAGGER ASSISTANCE DEVICE SHALL ALTERNATELY DISPLAY A STEADILY ILLUMINATED CIRCULAR RED LENS AND A FLASHING CIRCULAR YELLOW LENS TO CONTROL TRAFFIC WITHOUT THE NEED FOR A FLAGGER IN THE IMMEDIATE VICINITY OF THE AFAD OR ON THE ROADWAY. THE STEADILY ILLUMINATED CIRCULAR YELLOW CHANGE INTERVAL SHOULD HAVE DURATION OF AT LEAST 5 SECONDS, UNLESS A DIFFERENT DURATION, WITHIN THE RANGE OF DURATIONS IS JUSTIFIED BY AN ENGINEERING JUDGMENT. RED/YELLOW LENS AFAD'S SHALL HAVE AT LEAST ONE SET OF CIRCULAR RED AND CIRCULAR YELLOW LENSES THAT ARE 12" IN DIAMETER. CIRCULAR RED ON TOP AND CIRCULAR YELLOW BELOW, SHALL CONFORM TO AND BE OPERATED ACCORDING TO THE REQUIREMENTS OF THE LATEST VERSION OF THE MUTCD ADOPTED BY THE SECRETARY. IF THE SET OF LENSES IS POST- MOUNTED, THE BOTTOM OF THE HOUSING (INCLUDING BRACKETS) SHALL BE 7' ABOVE THE PAVEMENT. IF THE SET OF LENSES IS LOCATED OVER ANY PORTION OF THE HIGHWAY THAT CAN BE USED BY MOTOR VEHICLES, THE BOTTOM OF THE HOUSING (INCLUDING BRACKETS) SHALL BE AT LEAST 15' ABOVE THE PAVEMENT.

ALL AFAD'S SHALL INCLUDE A GATE ARM THAT DESCENDS TO A DOWN POSITION ACROSS THE APPROACH LANE OF TRAFFIC WHEN THE STOP FACE IS DISPLAYED AND THEN ASCENDS TO AN UPRIGHT POSITION WHEN THE SLOW FACE IS DISPLAYED. THE GATE ARM SHALL BE COVERED WITH ALTERNATING RED AND WHITE ASTM TYPE IV RETROREFLECTIVE STRIPES AT 6" INTERVALS MEASURED HORIZONTALLY. WHEN THE ARM IS IN THE DOWN POSITION BLOCKING THE APPROACH LANE THE MINIMUM VERTICAL ASPECT OF THE ARM AND SHEETING SHALL BE 2". THE STRIPES SHALL SLOPE DOWNWARD AT AN ANGLE OF 45 DEGREES FROM THE UPPER RIGHT TO THE LOWER LEFT ON THE SIDE OF THE ARM FACING STOPPED TRAFFIC, AND FROM THE UPPER LEFT TO THE LOWER RIGHT ON THE SIDE OF THE ARM FACING MOVING TRAFFIC IN THE ONCOMING DIRECTION. THE END OF THE ARM SHALL REACH AT LEAST TO THE CENTER OF THE LANE BEING CONTROLLED. ALL AFAD'S SHALL HAVE A PILOT LIGHT MOUNTED BEHIND EACH UNIT SO A SINGLE OPERATOR, OPERATING TWO UNITS, CAN VERIFY WHICH COLOR IS BEING DISPLAYED.

NO.	DATE	REVISIONS	BY	APP'D
3	10/4/11	Modified Note 3	J.A.M.	K.P.
2	2/24/10	Modified AFAD Note	J.A.M.	A.A.A.
1	10/28/09	Modified AFAD Note	J.A.M.	A.A.A.

KANSAS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SIGNS

TE710 SHEET 2 OF 3 9/1/00

FHWA APPROVAL			10/4/11	APP'D	Kristina Pyle		
DESIGNED	B.A.H.	DETAILED	B.A.H.	QUANTITIES		TRACED	
DESIGN CK.		DETAIL CK.		QUAN. CK.		TRACE CK.	

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SIGN LAYOUT INFORMATION

KG20-2
(BLACK ON ORANGE)

STD. SIZE
EXPWY/FREEWAY

6" C
48"x 24"

LETTER SIZES FOR BLACK ON ORANGE "DESTINATION" SIGNS

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

KM4-2O
(BLACK ON ORANGE)

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

W7-3a

COLORS:
LEGAND - BLACK (NON-REFLECTIVE)
BACKGROUND - ORANGE (REFLECTIVE)

MILEAGE TO BE DETERMINED
BY THE ENGINEER.

NOTE:
TEXT DIMENSIONS ARE IN INCHES.
BORDER IS BLACK NON-REFLECTIVE.
SEE STD. TE730 OR TE731 FOR KG20-5 SIGN LAYOUT.

W8-11

COLORS:
LEGAND - BLACK (NON-REFLECTIVE)
BACKGROUND - ORANGE (REFLECTIVE)

W8-9a

COLORS:
LEGAND - BLACK (NON-REFLECTIVE)
BACKGROUND - ORANGE (REFLECTIVE)

THIS SIGN IS TO BE INSTALLED FOR CONDITIONS OF HEIGHT DIFFERENTIAL BETWEEN ADJACENT LANES OVER ONE (1) INCH. IT IS TO BE PLACED AT EACH INTERSECTING CROSSROAD, MAJOR TRAFFIC GENERATOR, OR AT APPROXIMATELY ONE-HALF (1/2) MILE INTERVALS. THE SIGNS ARE TO BE REMOVED OR COVERED WHEN NOT APPLICABLE.

MINIMUM ADVANCE WARNING SIGN SPACING (IN FEET):

	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*

THE MINIMUM SPACING BETWEEN SIGNS SHALL BE NO LESS THAN 1OO', 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.

NO.	DATE	REVISIONS	BY	APP'D
3	10/4/11	Modified Note 3	J.A.M.	K.P.
2	2/24/10	Modified AFAD Note	J.A.M.	A.A.A.
1	10/28/09	Modified AFAD Note	J.A.M.	A.A.A.

KANSAS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SIGNS

TE710 SHEET 3 OF 3 9/1/00

FHWA APPROVAL			10/4/11	APP'D	Kristina Pyle		
DESIGNED	B.A.H.	DETAILED	B.A.H.	QUANTITIES		TRACED	
DESIGN CK.		DETAIL CK.		QUAN. CK.		TRACE CK.	

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PERFORATED SQUARE STEEL TUBE (P.S.S.T.) POST SETUP

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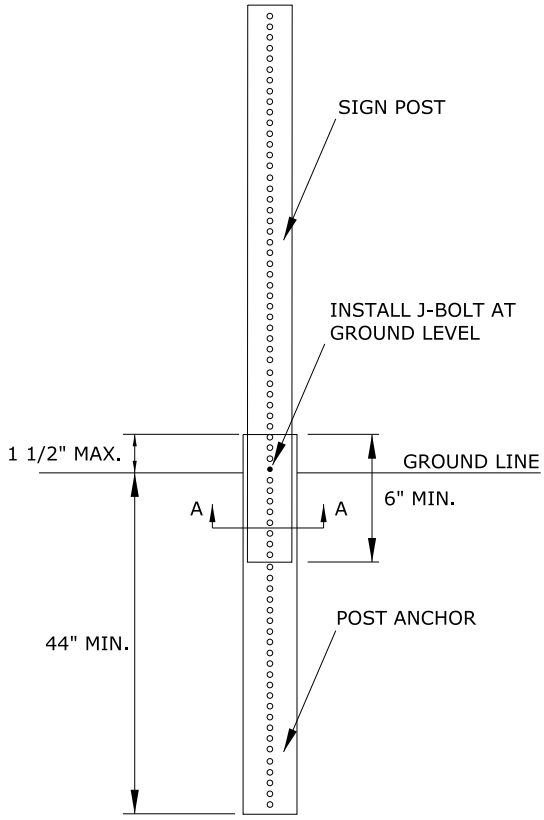
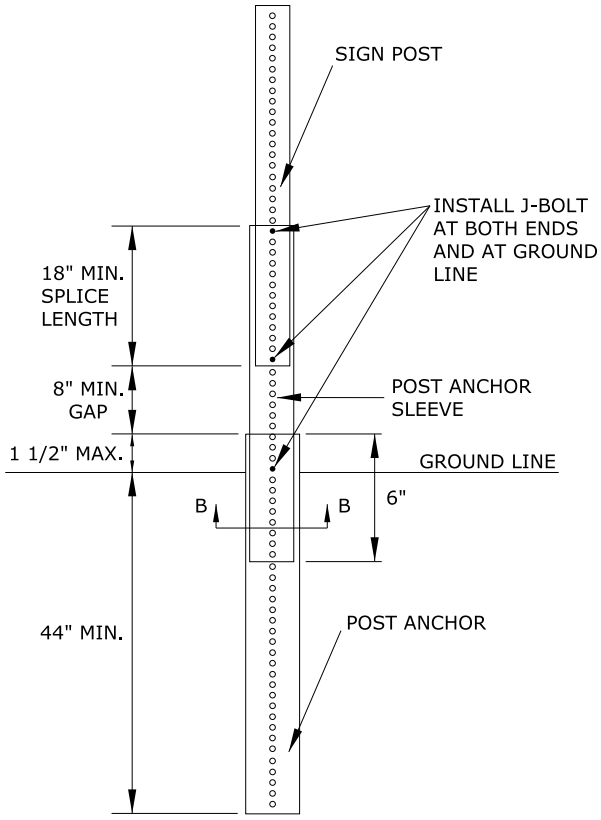
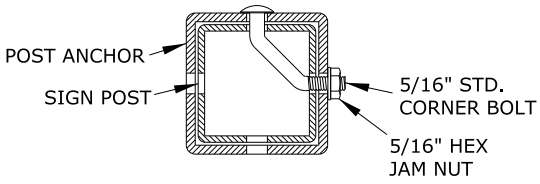
KANSAS				



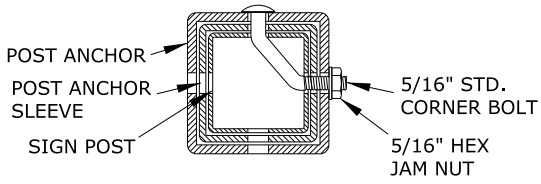
P.S.S.T. DETAIL



TELESCOPING P.S.S.T. DETAIL



SECTION A-A



SECTION B-B

DETAILS FOR 2", 2 1/4", OR 2 1/2" SIGN POST

NOTES:

SIGN POSTS, POST ANCHORS, AND POST ANCHOR SLEEVES:

THE SIGN POSTS, POST ANCHORS, AND POST ANCHOR SLEEVES SHALL CONFORM TO (1) HOT ROLLED CARBON STEEL ASTM A-570 GRADE 33 OR ASTM STRUCTURAL QUALITY C 1021 WITH A HOT-DIPPED GALVANIZING CONFORMING TO ASHTO M-120 WITH AN INLINE SYSTEM FOLLOWED BY A CHROMATE CONVERSION AND A CROSS-LINKED POLYURETHANE ACRYLIC EXTERIOR COATING OR (2) A GALVANIZED FINISH COLD ROLLED CARBON STEEL ASTM A-446 GRADE A WITH A GALVANIZING CONFORMING TO ASTM A 525, DESIGNATION G-90.

THE SIGN POST SHALL HAVE 7 /16" DIA. HOLES OR 7 /16" DIA. EMBOSSED RING (DIE-CUT KNOCKOUTS) AT 1" CENTERS ON ALL FOUR SIDES FOR THE TOTAL LENGTH OF THE POST. THE CORNER BOLTS, NUTS, AND WASHERS SHALL BE BID SUBSIDIARY.

ALL HOLES SHALL BE DRILLED OR PUNCHED AND ALL WELDS, CUTS, BURRS, AND SHARP EDGES ARE TO BE SMOOTHED OFF BEFORE APPLICATION OF FINISH.

BASIS OF ACCEPTANCE:

ACCEPTING OF THE STEEL POSTS, ANCHORS, SLEEVES, AND FASTENERS FURNISHED TO COMPLY WITH THE ABOVE REQUIREMENTS WILL BE BASED ON RECEIPT AND APPROVAL OF A TYPE D CERTIFICATION AS DESCRIBED IN SECTION 2600 OF THE STANDARD SPECIFICATIONS FOR STATE ROAD AND BRIDGE CONSTRUCTION (2007) AND VISUAL INSPECTION FOR CONDITION AND DIMENSIONAL REQUIREMENTS.

NO.	DATE	REVISIONS	BY	APP'D
3	10/4/11	Removed Washer on PSST Detail	J.A.M.	K.P.
2	6/1/10	Modified Post Anchor Sleeve Dimension	J.A.M.	A.A.A.
1	2/24/10	Added Sign Post Identification	J.A.M.	A.A.A.

KANSAS DEPARTMENT OF TRANSPORTATION

APPROVED TEMPORARY POST SETUPS

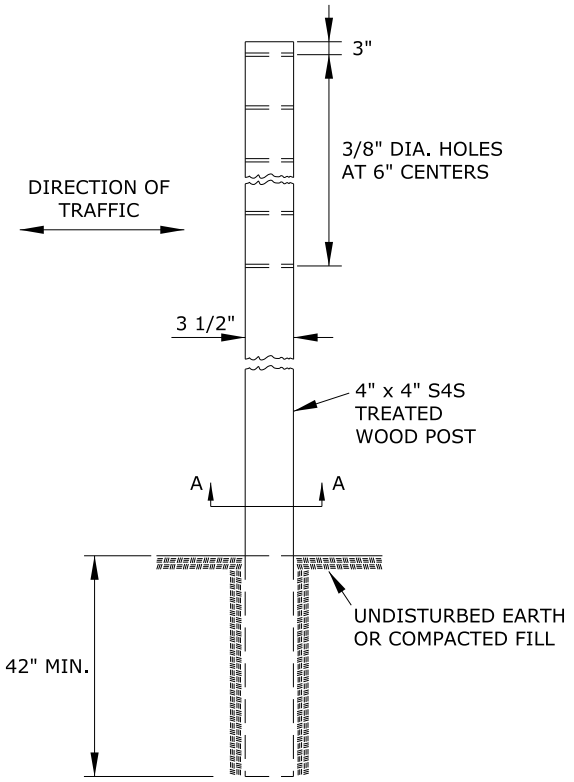
TE712 SHEET 1 OF 3 7/3/07

FHWA APPROVAL		10/4/11	APP'D	Kristina Pyle	
DESIGNED	B.A.H.	DETAILED	B.A.H.	QUANTITIES	TRACED
DESIGN CK.		DETAIL CK.		QUAN. CK.	TRACE CK.

Drawn By : jmadrid
File : TE712_1.dgn (TE712_1)
Plotted : 10-NOV-2011 11:33
Traffic

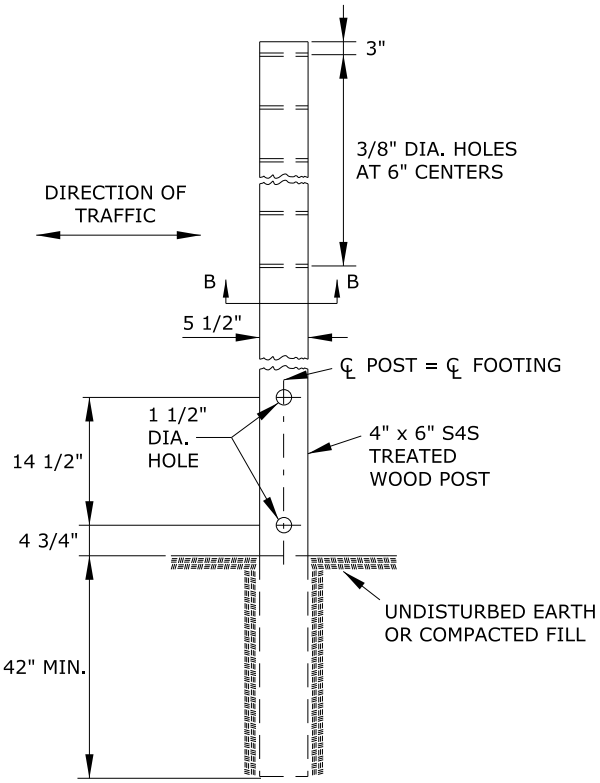
WOOD POST SETUP

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				



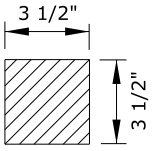
SIDE ELEVATION

4" X 4" WOOD POST IN SOIL

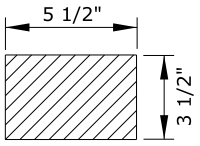


SIDE ELEVATION

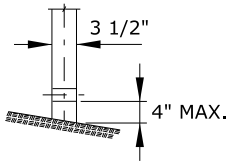
4" X 6" WOOD POST IN SOIL



SECTION A-A



SECTION B-B



FRONT ELEVATION

NOTES:

ALL SIGN MOUNTING HOLES IN THE WOOD POSTS SHALL BE DRILLED PRIOR TO TREATING.

BREAKAWAY HOLES AND FIELD CUTS SHALL BE TREATED IN ACCORDANCE WITH THE PRESERVATIVE TREATMENT SPECIFICATIONS.

NO.	DATE	REVISIONS	BY	APP'D
3	10/4/11	Removed Washer on PSST Detail	J.A.M.	K.P.
2	6/1/10	Modified Post Anchor Sleeve Dimension	J.A.M.	A.A.A.
1	2/24/10	Added Sign Post Identification	J.A.M.	A.A.A.

KANSAS DEPARTMENT OF TRANSPORTATION

APPROVED TEMPORARY POST SETUPS

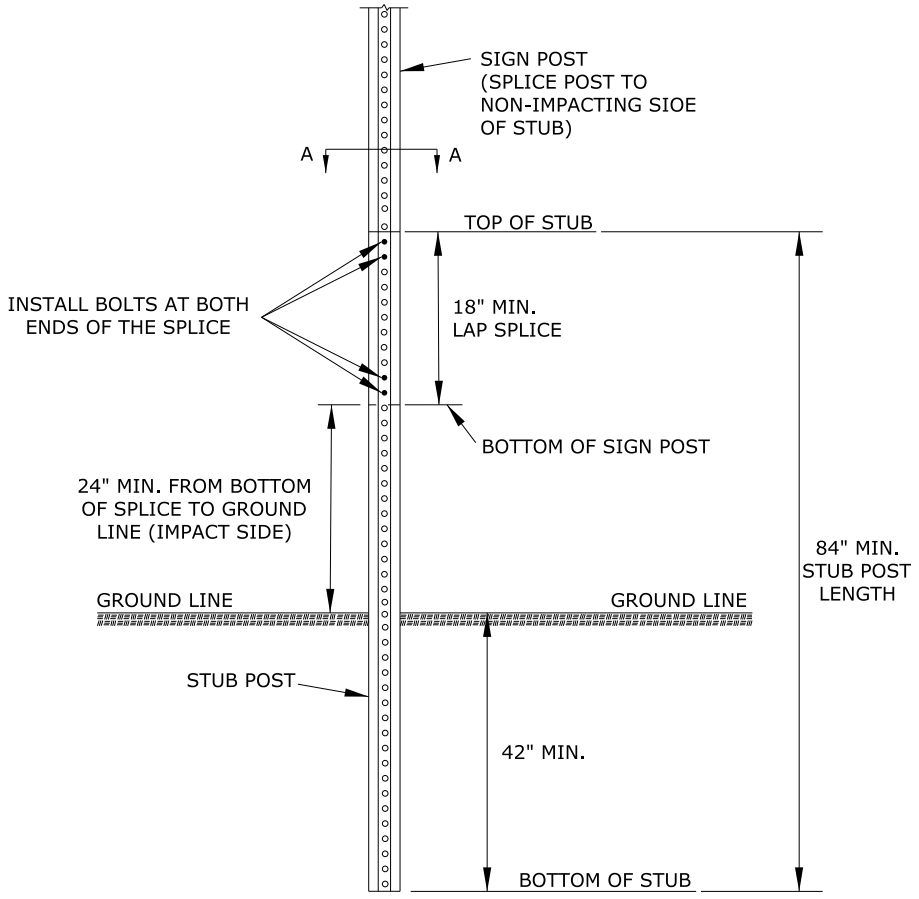
TE712 SHEET 2 OF 3 7/3/07

FHWA APPROVAL		10/4/11	APP'D	Kristina Pyle	
DESIGNED	B.A.H.	DETAILED	B.A.H.	QUANTITIES	TRACED
DESIGN CK.		DETAIL CK.		QUAN. CK.	TRACE CK.

Drawn By : jmadrid
File : TE712_2.dgn (TE712_2)
Plotted : 10-NOV-2011 11:33
Traffic

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

3 LB/F U-CHANNEL SETUP



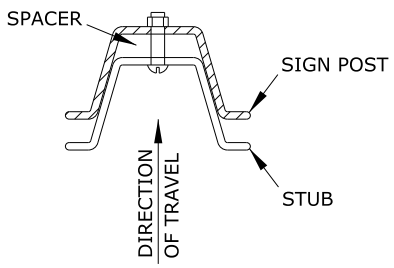
NOTES:

THE LAP SPLICE IS 18" MIN. AND IS FASTENED BY FOUR 5 /16" DIA. GALVANZIED A449 BOLTS (SAE J429 GRADE 5) OR GALVANIZED A325 BOLTS.

TWO BOLTS AT BOTH ENDS OF THE SPLICE THROUGH THE HOLES NEAREST THE ENDS OF THE SPLICE.

SPACERS WILL BE USED OVER THE BOLTS BETWEEN THE SPLICED PIECES OF U-CHANNEL. THREADED OR UNTHREADED SPACERS MAY BE USED. DO NOT SUBSTITUTE PIPE OR OTHER "THINGS" FOR THE SPACERS.

SECTION A-A



NO.	DATE	REVISIONS	BY	APP'D
3	10/4/11	Removed Washer on PSST Detail	J.A.M.	A.A.A.
2	6/1/10	Modified Post Anchor Sleeve Dimension	J.A.M.	A.A.A.
1	2/24/10	Added Sign Post Identification	J.A.M.	A.A.A.

KANSAS DEPARTMENT OF TRANSPORTATION

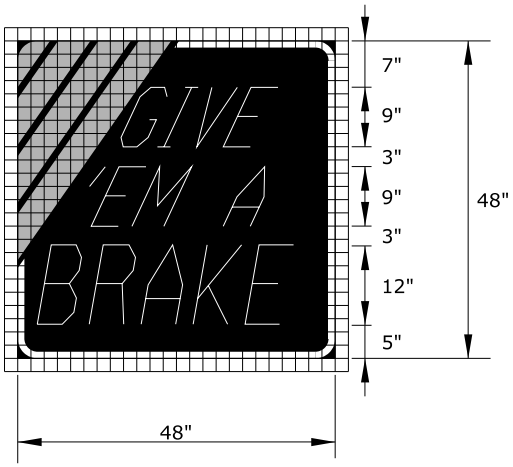
APPROVED TEMPORARY POST SETUPS

TE712 SHEET 3 OF 3 7/3/07

FHWA APPROVAL		10/4/11	APP'D	Kristina Pyle	
DESIGNED	B.A.H.	DETAILED	B.A.H.	QUANTITIES	TRACED
DESIGN CK.		DETAIL CK.		QUAN. CK.	TRACE CK.

Drawn By : jmadrid
File : TE712_3.dgn (TE712_3)
Plotted : 10-NOV-2011 11:33
Traffic

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

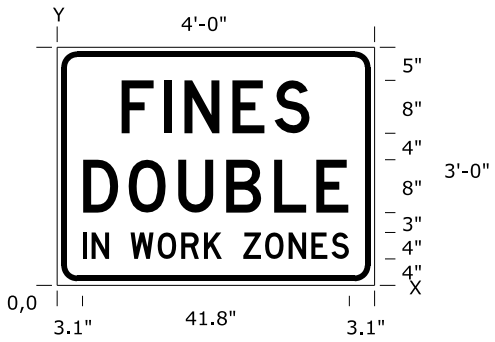


KI-104a

COLORS:
BACKGROUND - BLACK
BORDER - WHITE
LEGEND - WHITE
STRIPES - ORANGE

BORDER WIDTH - 1"
CORNER RADIUS - 4"
STRIPE WIDTH - 3"

LEGEND:
" GIVE " - DUTCH 801 ROMAN SWC - 25 DEGREE SLANT
" 'EM A " - DUTCH 801 ROMAN SWC - 25 DEGREE SLANT
" BRAKE " - DUTCH 801 ROMAN SWC - 10 DEGREE SLANT



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

LETTER SPACINGS

Y FONT																							HT LEN
23.0 D		F	I	N	E	S																	8.0
	9.7	6.4	3.2	7.3	6.4	5.4	9.7																28.6
11.0 D		D	O	U	B	L	E																8.0
	3.9	6.9	7.5	7.3	7.3	6.4	4.9	3.9															40.3
4.0 D		I	N		W	O	R	K		Z	O	N	E	S									4.0
	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

NO.	DATE	REVISIONS	BY	APP'D
3	10/4/11	Modified Note on Skid Mounted Detail	J.A.M.	K.P.
2	6/1/10	Changed Type A Warning Light Note	J.A.M.	A.A.A.
1	4/20/09	Added Detail for Skid Mounted Signs	J.A.M.	A.A.A.

KANSAS DEPARTMENT OF TRANSPORTATION

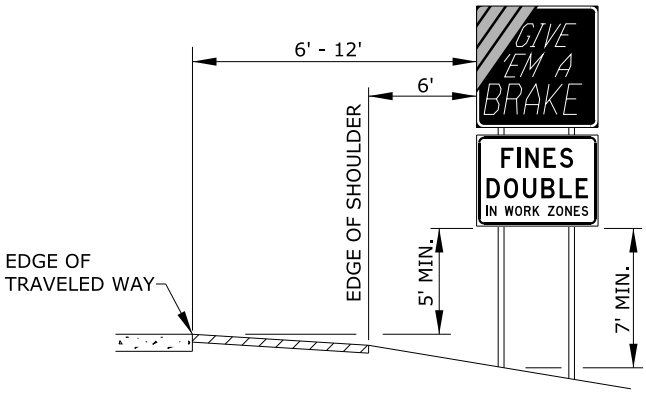
GROUND AND SKID MOUNTED DETAIL DETAILS FOR "GIVE 'EM A BRAKE" AND "FINES DOUBLE" SIGNS

TE714 SHEET 1 OF 3 9/1/00

FHWA APPROVAL		10/4/11	APP'D	Kristina Pyle	
DESIGNED	B.A.H.	DETAILED	B.A.H.	QUANTITIES	TRACED
DESIGN CK.		DETAIL CK.		QUAN. CK.	TRACE CK.

Drawn By : jmadrid
File : TE714_1.dgn (TE714_1)
Plotted : 10-NOV-2011 11:33
Traffic

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				



HEIGHT AND LATERAL PLACEMENT

NOTE:
IF THERE IS NO SHOULDER, THE SIGN SHALL BE PLACED 6'- 12' FROM THE EDGE OF TRAVELED WAY AND NOT LESS THAN 6' FROM THE EDGE OF PAVED SHOULDER. SIGNS SHALL NOT OVERLAP EACH OTHER.

NOTES:

THE SIGN BLANK MATERIAL SHALL BE ALUMINUM, WOOD, OR FIBERGLASS REINFORCED PLASTIC.

THE ORANGE PORTION OF THE KI-104a SIGN SHALL BE ASTM TYPE IV SHEETING. THE WHITE PORTION SHALL BE ASTM TYPE III SHEETING.

THE KI-105a SIGN FACE SHALL BE COVERED WITH ASTM TYPE III SHEETING.

THE SIGNS ARE TO BE MOUNTED ON CRASHWORTHY SUPPORTS, BRACING, GUY WIRES AND TIE-DOWNS ARE NOT ALLOWED.

TYPICALLY, THERE ARE TWO SETS OF INFORMATIONAL SIGNS INSTALLED PER PROJECT: ONE FOR EACH DIRECTION OF TRAFFIC.

INSTALL SIGNS A MINIMUM OF 250' 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.	DATE	REVISIONS	BY	APP'D
3	10/4/11	Modified Note on Skid Mounted Detail	J.A.M.	K.P.
2	6/1/10	Changed Type A Warning Light Note	J.A.M.	A.A.A.
1	4/20/09	Added Detail for Skid Mounted Signs	J.A.M.	A.A.A.

KANSAS DEPARTMENT OF TRANSPORTATION

GROUND AND SKID MOUNTED DETAIL
DETAILS FOR "GIVE 'EM A BRAKE" AND "FINES DOUBLE" SIGNS

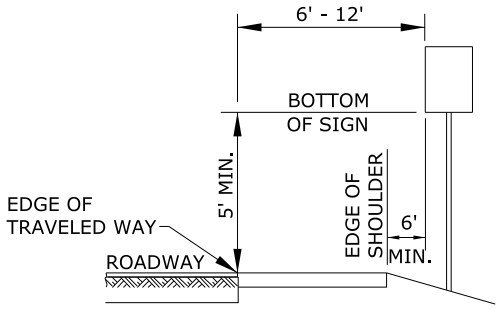
TE714 SHEET 2 OF 3 9/1/00

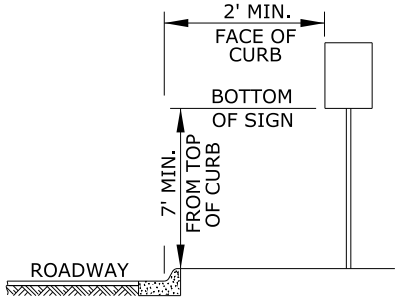
FHWA APPROVAL		10/4/11	APP'D	Kristina Pyle	
DESIGNED	B.A.H.	DETAILED	B.A.H.	QUANTITIES	TRACED
DESIGN CK.		DETAIL CK.		QUAN. CK.	TRACE CK.

Drawn By : jmadrid
File : TE714_2.dgn (TE714_2)
Plotted : 10-NOV-2011 11:33
Traffic

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

HEIGHT AND LATERAL DIMENSIONS FOR GROUND MOUNTED SIGNS (SIGNS LEFT IN PLACE OVER 3 DAYS)





RURAL DISTRICT

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 FROM THE BOTTOM 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.

4) SIGN SUPPORTS SHALL BE CRASHWORTHY.

URBAN DISTRICT

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.

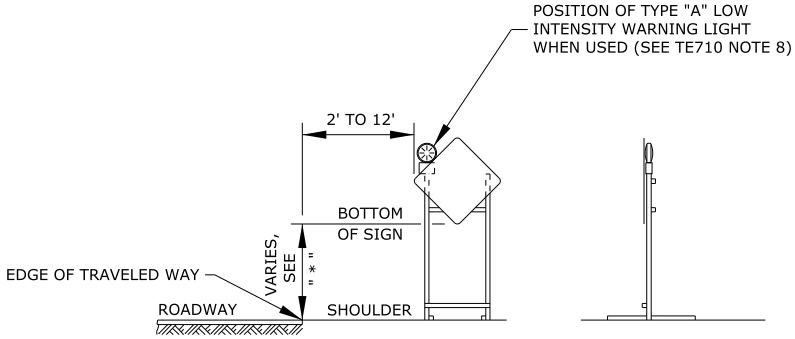
2) NEITHER PORTABLE NOR PERMANENT SIGN SUPPORTS SHOULD BE LOCATED ON SIDEWALKS OR AREAS DESIGNATED FOR PEDESTSRIAN OR BICYCLE TRAFFIC.

3) SIGNS MOUNTED LOWER THAN 7' SHOULD NOT PROJECT MORE THAN 4" INTO PEDESTRIAN FACILITIES.

* 4) THE HEIGHT FROM BOTTOM 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) SIGN SUPPORTS SHALL BE CRASHWORTHY.



(SEE NOTE 4 FOR "ROLL-UP" SIGNS OPTION)

HEIGHT AND LATERAL DIMENSIONS FOR SIGNS MOUNTED ON SKIDS OR OTHER SUPPORTS ON PAVEMENT

NO.	DATE	REVISIONS	BY	APP'D
3	10/4/11	Modified Note on Skid Mounted Detail	J.A.M.	K.P.
2	6/1/10	Changed Type A Warning Light Note	J.A.M.	A.A.A.
1	4/20/09	Added Detail for Skid Mounted Signs	J.A.M.	A.A.A.

KANSAS DEPARTMENT OF TRANSPORTATION

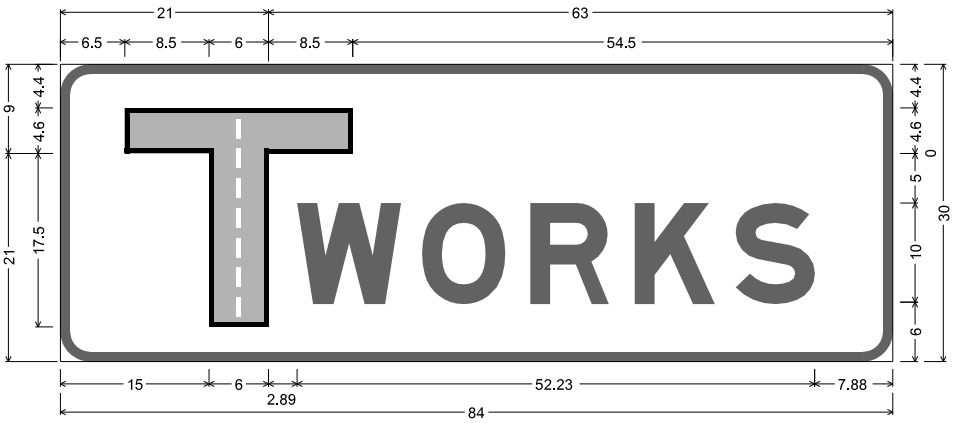
GROUND AND SKID MOUNTED DETAIL
DETAILS FOR "GIVE 'EM A BRAKE" AND "FINES DOUBLE" SIGNS

TE714 SHEET 3 OF 3 9/1/00

FHWA APPROVAL			10/4/11	APP'D	Kristina Pyle		
DESIGNED	B.A.H.	DETAILED	B.A.H.	QUANTITIES		TRACED	
DESIGN CK.		DETAIL CK.		QUAN. CK.		TRACE CK.	

Drawn By : jmadrid
File : TE714_3.dgn (TE714_3)
Plotted : 10-NOV-2011 11:33
Traffic

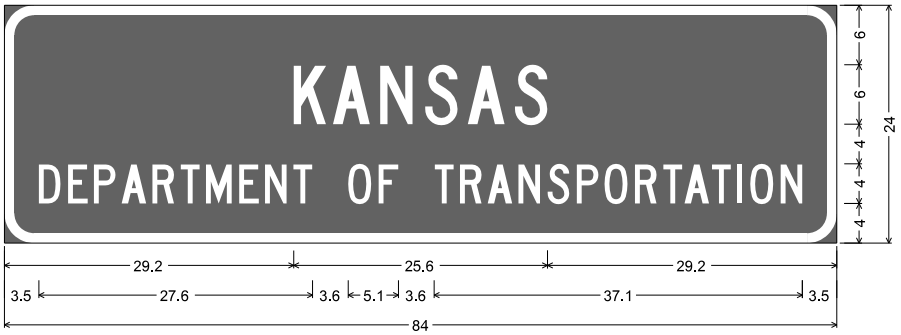
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				



TWORKS SIGN 2
3.00" RADIUS, 1.00" BORDER, BLUE ON WHITE;
[T] ORANGE; .5" BLACK BORDER
LANE LINES: .5"X2.0" WHITE; 1.00" SPACING FROM BOTTOM
[WORKS] E MOD
TABLE OF DISTANCES BETWEEN LETTER AND OBJECT LEFTS.

	T	
6.50	21.00	54.50

	W	O	R	K	S	
23.89	12.61	10.93	10.53	10.19	7.96	7.89



TWORKS SIGN 1
3.0" RADIUS, 1.0" BORDER, WHITE ON BLUE;
[KANSAS] C; [DEPARTMENT OF TRANSPORTATION] C 90% SPACING;
TABLE OF DISTANCES BETWEEN LETTER AND OBJECT LEFTS.

	K	A	N	S	A	S	
29.2	4.0	4.7	4.6	4.3	4.7	3.3	29.2

	D	E	P	A	R	T	M	E	N	T	O	F	
3.5	2.9	2.6	2.8	3.1	2.8	2.6	3.4	2.6	2.8	5.6	3.1	5.6	

T	R	A	N	S	P	O	R	T	A	T	I	O	N	
2.6	2.8	3.1	2.9	3.0	2.8	3.0	2.8	2.2	2.7	2.6	1.4	3.0	2.2	3.5

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1	9/1/10	Modified Bid Item	J.A.M.	K.P.

KANSAS DEPARTMENT OF TRANSPORTATION

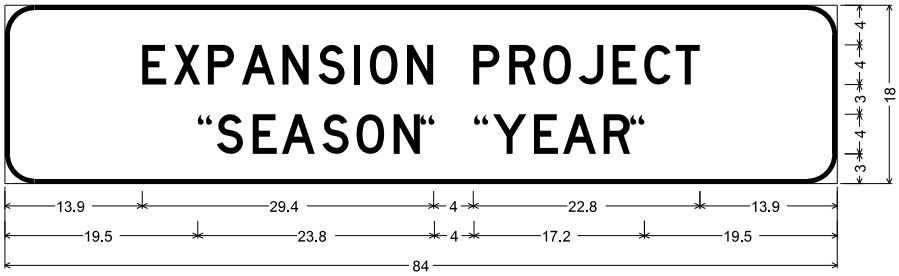
DETAILS FOR THE TRANSPORTATION WORKS FOR KANSAS (TWORKS) SIGNS HIGHWAY LARGE

TE715A SHEET 1 OF 3 8-15-10

FHWA APPROVAL			9/10/10	APP'D	Kristina Pyle	
DESIGNED	D.G.	DETAILED	D.G.	QUANTITIES		TRACED
DESIGN CK.	J.A.M.	DETAIL CK.	J.A.M.	QUAN. CK.		TRACE CK.

Drawn By : jmadrid
File : TE715A_1.dgn (TE715A_1)
Plotted : 06-AUG-2012 09:54
Traffic

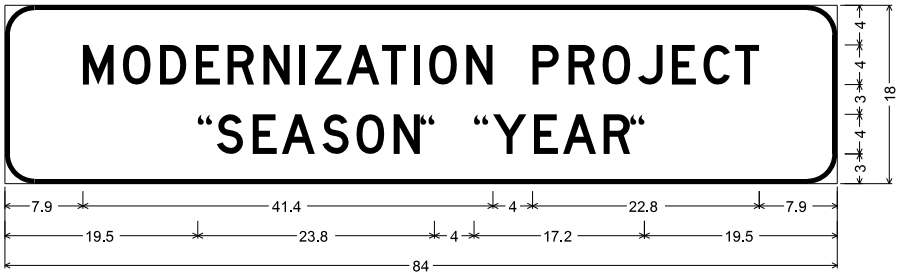
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				



TWORKS SIGN 3 E
3.0" RADIUS, 0.5" BORDER, BLACK ON WHITE;
[EXPANSION PROJECT] D; ["SEASON" "YEAR"] D;
TABLE OF DISTANCES BETWEEN LETTER AND OBJECT LEFTS.

	E	X	P	A	N	S	I	O	N	P	R	O	J	E	C	T	
13.9	3.1	3.5	3.4	4.1	3.6	3.7	1.5	3.8	6.7	3.6	3.4	3.6	3.4	3.2	3.2	2.4	13.9

	"	S	E	A	S	O	N	"	"	Y	E	A	R	"	
19.5	1.9	3.6	3.0	4.0	3.5	3.7	2.7	5.4	2.0	4.1	2.9	4.1	2.7	1.4	19.5



TWORKS SIGN 3 M
3.0" RADIUS, 0.5" BORDER, BLACK ON WHITE;
[MODERNIZATION PROJECT] D; ["SEASON" "YEAR"] D;
TABLE OF DISTANCES BETWEEN LETTER AND OBJECT LEFTS.

	M	O	D	E	R	N	I	Z	A	T	I	O	N	P	R	O	J	E	C	T	
7.9	4.0	3.8	3.6	3.2	3.6	3.6	1.6	3.2	3.6	3.2	1.5	3.8	6.7	3.6	3.4	3.6	3.4	3.2	3.2	2.4	7.9

	"	S	E	A	S	O	N	"	"	Y	E	A	R	"	
19.5	1.9	3.6	3.0	4.0	3.5	3.7	2.7	5.4	2.0	4.1	2.9	4.1	2.7	1.4	19.5

TWORKS SIGN 3 P
3.0" RADIUS, 0.5" BORDER, BLACK ON WHITE;
[PRESERVATION PROJECT] D; ["SEASON" "YEAR"] D;
TABLE OF DISTANCES BETWEEN LETTER AND OBJECT LEFTS.

	P	R	E	S	E	R	V	A	T	I	O	N	P	R	O	J	E	C	T	
9.2	3.6	3.7	3.1	3.7	3.2	3.4	3.2	3.6	3.2	1.6	3.7	6.7	3.6	3.5	3.5	3.5	3.2	3.2	2.4	9.2

	"	S	E	A	S	O	N	"	"	Y	E	A	R	"	
19.5	1.9	3.6	3.0	4.0	3.5	3.7	2.7	5.4	2.0	4.1	2.9	4.1	2.7	1.4	19.5

LEGEND DETAILS:
"SEASON": SPRING, SUMMER, FALL, OR WINTER
"YEAR": THE YEAR THAT THE PROJECT IS TO BE COMPLETED

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1	9/1/10	Modified Bid Item	J.A.M.	K.P.

KANSAS DEPARTMENT OF TRANSPORTATION
DETAILS FOR THE
TRANSPORTATION WORKS
FOR KANSAS (TWORKS) SIGNS
HIGHWAY LARGE
TE715A SHEET 2 OF 3 8-15-10

FHWA APPROVAL			9/10/10	APP'D	Kristina Pyle	
DESIGNED	D.G.	DETAILED	D.G.	QUANTITIES		TRACED
DESIGN CK.	J.A.M.	DETAIL CK.	J.A.M.	QUAN. CK.		TRACE CK.

Drawn By : jmadrid
File : TE715A_2.dgn (TE715A_2)
Plotted : 06-AUG-2012 09:54
Traffic

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

GENERAL NOTES

THE "TWORKS" SIGN BLANK MATERIAL SHALL BE ALUMINUM, WOOD, OR FIBERGLASS REINFORCED PLASTIC.

THE "TWORKS" SIGN FACES SHALL BE COVERED WITH TYPE IV HIGH INTENSITY RETROREFLECTIVE SHEETING.

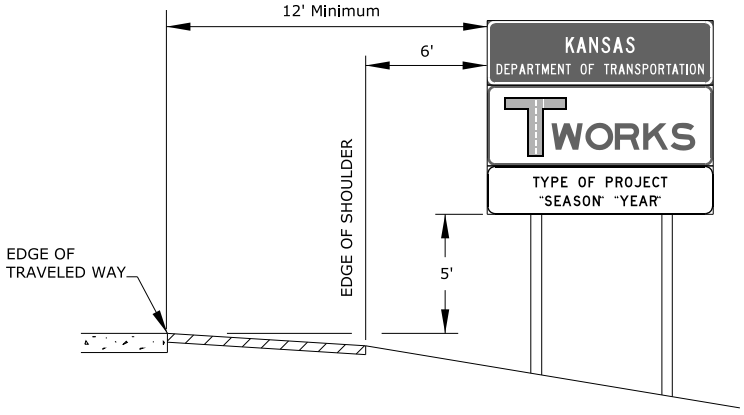
THE "TWORKS" SIGNS ARE TO BE MOUNTED ON TWO (2) 4"X6" WOOD POSTS, AS SHOWN ON TE712, WITHOUT THE USE OF BRACING, GUY WIRES, OR TIE-DOWNS.

THE "TWORKS" SIGNS ARE TO BE INSTALLED IN ADVANCE OF THE FIRST TRAFFIC CONTROL SIGN A DISTANCE OF 500' FOR A TWO-WAY ROADWAY OR 1000' FOR A MULTI-LANE DIVIDED ROADWAY IN A RURAL LOCATION AND 100' TO 350' IN AN URBAN AREA DEPENDING UPON THE SPEED. THE FIRST TRAFFIC CONTROL SIGN IS EITHER THE "ROAD WORK AHEAD" OR THE "GIVE 'EM A BRAKE" SIGN. THE ENGINEER MAY DESIGNATE A MORE APPROPRIATE LOCATION IF CONDITIONS DICTATE.

THE "TWORKS" SIGNS ARE NOT TO INTERFERE WITH THE TRAFFIC CONTROL SIGNS FOR THE PROJECT OR WITH ANY OTHER REGULATORY, WARNING, OR GUIDE SIGN THAT IS TO REMAIN IN PLACE DURING CONSTRUCTION.

THE TWORKS SIGN ASSEMBLY CONSISTS OF A TWORKS SIGN 1, TWORKS SIGN 3, AND TWORKS SIGN 2 SHOWING THE TYPE OF PROJECT AND COMPLETION DATE. THE BID ITEM FOR THIS ASSEMBLY IS "TWORKS SIGN ASSEMBLY" WITH A BID UNIT OF "EACH".

THE TWORKS SIGN ASSEMBLY IS TO REMAIN IN PLACE FOR SIX (6) MONTHS FOLLOWING THE COMPLETION OF THE PROJECT AND BECOME THE PROPERTY OF KDOT.



HEIGHT AND LATERAL PLACEMENT OF TWORKS SIGN ASSEMBLY

NOTE:
IF THERE IS NO SHOULDER, THE SIGNS SHALL BE PLACED 6 FT - 12 FT FROM THE EDGE OF THE TRAVELED WAY. IF THE SIGNS ARE LOCATED IN AN URBAN AREA, THE MINIMUM MOUNTING HEIGHT IS 7' MEASURED FROM THE BOTTOM OF THE SIGN TO THE NEAR EDGE OF PAVEMENT OR TOP OF CURB. IF THE SIGNS ARE LOCATED IN A BUSINESS, COMMERCIAL, OR RESIDENTIAL AREA WHERE LATERAL OFFSETS ARE LIMITED, A MINIMUM LATERAL CLEARANCE OF 2 FT FROM THE SURFACE EDGE OR CURB WITH A MINIMUM MOUNTING HEIGHT IS 7' MEASURED FROM THE BOTTOM OF THE SIGN TO THE NEAR EDGE OF PAVEMENT OR TOP OF CURB MAY BE USED.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1	9/1/10	Modified Bid Item	J.A.M.	K.P.

KANSAS DEPARTMENT OF TRANSPORTATION

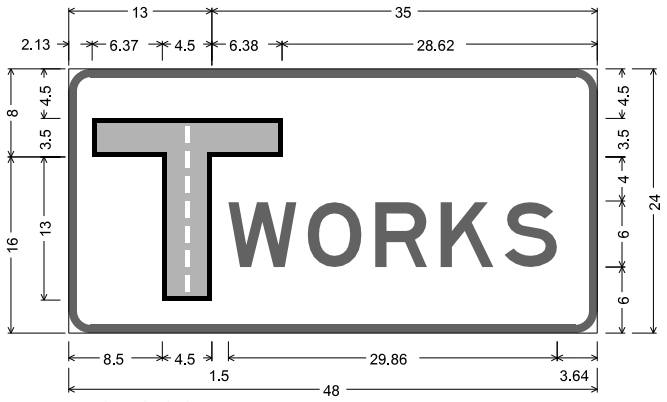
DETAILS FOR THE
TRANSPORTATION WORKS
FOR KANSAS (TWORKS) SIGNS
HIGHWAY LARGE

TE715A SHEET 3 OF 3 8-15-10

FHWA APPROVAL			9/10/10	APP'D	Kristina Pyle	
DESIGNED	D.G.	DETAILED	D.G.	QUANTITIES		TRACED
DESIGN CK.	J.A.M.	DETAIL CK.	J.A.M.	QUAN. CK.		TRACE CK.

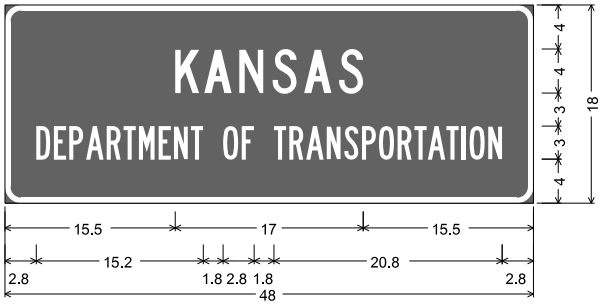
Drawn By : jmadrid Plotted : 06-AUG-2012 09:54
File : TE715A_3.dgn (TE715A_3) Traffic

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				



TWORKS SIGN 5
2.00" RADIUS, 0.75" BORDER, BLUE ON WHITE;
[T] ORANGE; .375" BLACK BORDER
LANE LINES: .375"X1.5" WHITE; 0.75" SPACING FROM BOTTOM
[WORKS] E 75% SPACING;
TABLE OF DISTANCES BETWEEN LETTER AND OBJECT LEFTS.

2.13	T 17.25	28.62					
14.50	W 7.21	O 6.13	R 5.94	K 5.80	S 4.78	3.64	



TWORKS SIGN 4
1.5" RADIUS, 0.5" BORDER, WHITE ON BLUE;
[KANSAS] C;
[DEPARTMENT OF TRANSPORTATION] B 60% SPACING;
TABLE OF DISTANCES BETWEEN LETTER AND OBJECT LEFTS.

15.5	K 2.6	A 3.2	N 3.0	S 2.9	A 3.1	S 2.2	15.5

2.8	D 1.6	E 1.4	P 1.6	A 1.8	R 1.6	T 1.4	M 1.8	E 1.4	N 1.5	T 2.9	O 1.7	F 2.9

T 1.4	R 1.6	A 1.8	N 1.6	S 1.6	P 1.6	O 1.7	R 1.5	T 1.2	A 1.7	T 1.4	I 0.7	O 1.7	N 1.3	2.8

NO.	DATE	REVISIONS	BY	APP'D
3				
2	10/4/11	Added Height and Lateral Placement Detail	J.A.M.	K.P.
1	9/1/10	Modified Bid Item	J.A.M.	K.P.

KANSAS DEPARTMENT OF TRANSPORTATION

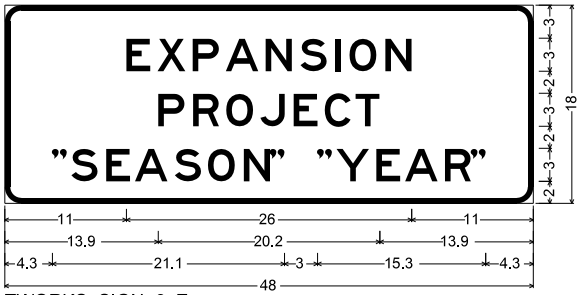
DETAILS FOR THE TRANSPORTATION WORKS FOR THE KANSAS (TWORKS) SIGNS HIGHWAY SMALL

TE715B SHEET 1 OF 3 8-15-10

FHWA APPROVAL			10/4/11	APP'D	Kristina Pyle		
DESIGNED	D.G.	DETAILED	D.G.	QUANTITIES		TRACED	
DESIGN CK.	J.A.M.	DETAIL CK.	J.A.M.	QUAN. CK.		TRACE CK.	

Drawn By : jmadrid Plotted : 06-AUG-2012 09:54
File : TE715B_1.dgn (TE715B_1) Traffic

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

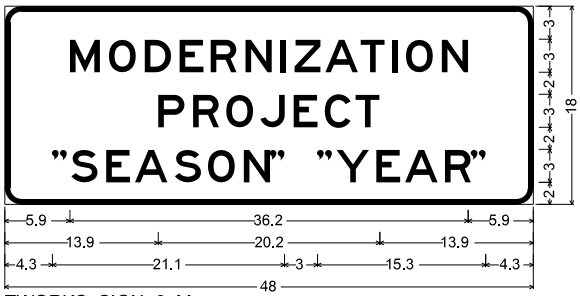


TWORKS SIGN 6 E
1.5" RADIUS, 0.5" BORDER, BLACK ON WHITE;
[EXPANSION] E; [PROJECT] E; ["SEASON" "YEAR"] E;
TABLE OF DISTANCES BETWEEN LETTER AND OBJECT LEFTS.

	E	X	P	A	N	S	I	O	N	
11.0	2.9	3.2	3.0	3.6	3.2	3.1	1.3	3.3	2.4	11.0

	P	R	O	J	E	C	T	
13.9	3.2	3.0	3.1	3.0	2.9	2.8	2.2	13.9

	"	S	E	A	S	O	N	"	"	Y	E	A	R	"	
4.3	1.7	3.2	2.6	3.6	3.0	3.3	2.4	4.3	1.7	3.6	2.7	3.6	2.4	1.3	4.3

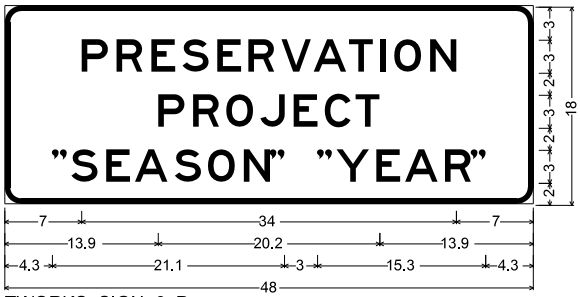


TWORKS SIGN 6 M
1.5" RADIUS, 0.5" BORDER, BLACK ON WHITE;
[MODERNIZATION] E; [PROJECT] E; ["SEASON" "YEAR"] E;
TABLE OF DISTANCES BETWEEN LETTER AND OBJECT LEFTS.

	M	O	D	E	R	N	I	Z	A	T	I	O	N	
5.9	3.6	3.2	3.2	2.8	3.2	3.1	1.3	2.8	3.2	2.8	1.3	3.3	2.4	5.9

	P	R	O	J	E	C	T	
13.9	3.2	3.0	3.1	3.0	2.9	2.8	2.2	13.9

	"	S	E	A	S	O	N	"	"	Y	E	A	R	"	
4.3	1.7	3.2	2.6	3.6	3.0	3.3	2.4	4.3	1.7	3.6	2.7	3.6	2.4	1.3	4.3



TWORKS SIGN 6 P
1.5" RADIUS, 0.5" BORDER, BLACK ON WHITE;
[PRESERVATION] E; [PROJECT] E; ["SEASON" "YEAR"] E;
TABLE OF DISTANCES BETWEEN LETTER AND OBJECT LEFTS.

	P	R	E	S	E	R	V	A	T	I	O	N	
7.0	3.1	3.2	2.8	3.2	2.8	3.0	3.0	3.2	2.8	1.3	3.2	2.4	7.0

	P	R	O	J	E	C	T	
13.9	3.2	3.0	3.1	3.0	2.9	2.8	2.2	13.9

	"	S	E	A	S	O	N	"	"	Y	E	A	R	"	
4.3	1.7	3.2	2.6	3.6	3.0	3.3	2.4	4.3	1.7	3.6	2.7	3.6	2.4	1.3	4.3

LEGEND DETAILS:
"SEASON": SPRING, SUMMER, FALL, OR WINTER
"YEAR": THE YEAR THAT THE PROJECT IS TO BE COMPLETED

NO.	DATE	REVISIONS	BY	APP'D
3				
2	10/4/11	Added Height and Lateral Placement Detail	J.A.M.	K.P.
1	9/1/10	Modified Bid Item	J.A.M.	K.P.

KANSAS DEPARTMENT OF TRANSPORTATION
DETAILS FOR THE
TRANSPORTATION WORKS
FOR THE KANSAS (TWORKS) SIGNS
HIGHWAY SMALL

TE715B SHEET 2 OF 3 8-15-10

FHWA APPROVAL			10/4/11	APP'D	Kristina Pyle	
DESIGNED	D.G.	DETAILED	D.G.	QUANTITIES		TRACED
DESIGN CK.	J.A.M.	DETAIL CK.	J.A.M.	QUAN. CK.		TRACE CK.

Drawn By : jmadrid Plotted : 06-AUG-2012 09:54
File : TE715B_2.dgn (TE715B_2) Traffic

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

GENERAL NOTES

THE "TWORKS" SIGN BLANK MATERIAL SHALL BE ALUMINUM, WOOD, OR FIBERGLASS REINFORCED PLASTIC.

THE "TWORKS" SIGN FACES SHALL BE COVERED WITH TYPE IV HIGH INTENSITY RETROREFLECTIVE SHEETING.

THE "TWORKS" SIGNS ARE TO BE MOUNTED ON APPROVED POSTS, AS SHOWN ON TE712 WITHOUT THE USE OF BRACING, GUY WIRES, OR TIE-DOWNS. THE "TWORKS" SIGNS MAY ALSO BE MOUNTED ON SKIDS.

THE "TWORKS" SIGNS ARE TO BE INSTALLED IN ADVANCE OF THE FIRST TRAFFIC CONTROL SIGN A DISTANCE OF 500' FOR A TWO-WAY ROADWAY IN A RURAL LOCATION AND 100' TO 350' IN AN URBAN AREA DEPENDING UPON THE SPEED. THE FIRST TRAFFIC CONTROL SIGN IS EITHER THE "ROAD WORK AHEAD" OR THE "GIVE 'EM A BRAKE" SIGN. THE ENGINEER MAY DESIGNATE A MORE APPROPRIATE LOCATION IF CONDITIONS DICTATE.

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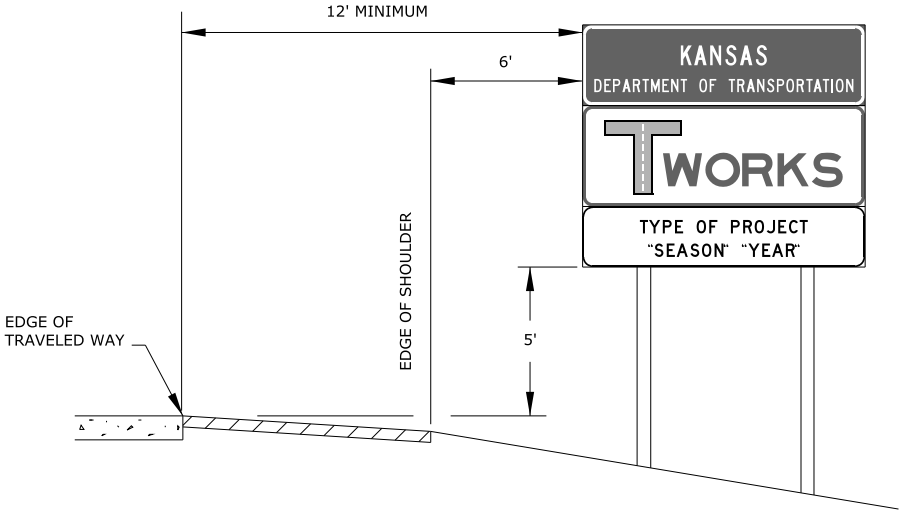
THE TWORKS SIGN ASSEMBLY CONSISTS OF A TWORKS SIGN 4, TWORKS SIGN 5 SHOWING THE TYPE OF PROJECT AND COMPLETION DATE, AND TWORKS SIGN 6. THE BID ITEM FOR THIS ASSEMBLY IS "TWORKS SIGN ASSEMBLY" WITH A BID UNIT OF "EACH".

THE TWORKS SIGN ASSEMBLY IS TO REMAIN IN PLACE FOR SIX (6) MONTHS FOLLOWING THE COMPLETION OF THE PROJECT AND BECOME THE PROPERTY OF KDOT.



HEIGHT AND LATERAL PLACEMENT OF TWORKS SIGN ASSEMBLY

NOTE:
IF THERE IS NO SHOULDER, THE SIGNS SHALL BE PLACED 6 FT - 12 FT FROM THE EDGE OF THE TRAVELED WAY. IF THE SIGNS ARE LOCATED IN AN URBAN AREA, THE MINIMUM MOUNTING HEIGHT IS 7' MEASURED FROM THE BOTTOM OF THE SIGN TO THE NEAR EDGE OF PAVEMENT OR TOP OF CURB. IF THE SIGNS ARE LOCATED IN A BUSINESS, COMMERCIAL, OR RESIDENTIAL AREA WHERE LATERAL OFFSETS ARE LIMITED, A MINIMUM LATERAL CLEARANCE OF 2 FT FROM THE SURFACE EDGE OR CURB WITH A MINIMUM MOUNTING HEIGHT IS 7' MEASURED FROM THE BOTTOM OF THE SIGN TO THE NEAR EDGE OF PAVEMENT OR TOP OF CURB MAY BE USED.

NO.	DATE	REVISIONS	BY	APP'D
3				
2	10/4/11	Added Height and Lateral Placement Detail	J.A.M.	K.P.
1	9/1/10	Modified Bid Item	J.A.M.	K.P.

KANSAS DEPARTMENT OF TRANSPORTATION

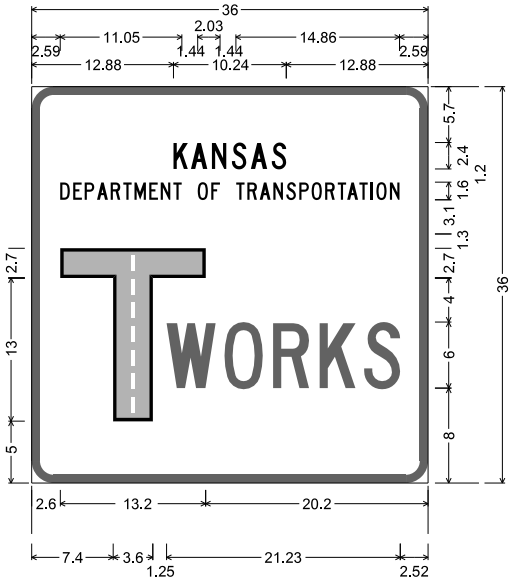
DETAILS FOR THE TRANSPORTATION WORKS FOR THE KANSAS (TWORKS) SIGNS HIGHWAY SMALL

TE715B SHEET 3 OF 3 8-15-10

FHWA APPROVAL			10/4/11	APP'D	Kristina Pyle	
DESIGNED	D.G.	DETAILED	D.G.	QUANTITIES		TRACED
DESIGN CK.	J.A.M.	DETAIL CK.	J.A.M.	QUAN. CK.		TRACE CK.

Drawn By : jmadrid Plotted : 06-AUG-2012 09:54
File : TE715B_3.dgn (TE715B_3) Traffic

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				



TWORKS SIGN 8;
2.00" RADIUS, 0.75" BORDER, BLUE ON WHITE;
[KANSAS] BLACK C;
[DEPARTMENT OF TRANSPORTATION] BLACK C 90% SPACING;
[T] ORANGE; 0.3" BLACK BORDER
LANE LINES: .3"X1.4" WHITE; 0.75" SPACING FROM BOTTOM
[WORKS] C 75% SPACING;
TABLE OF DISTANCES BETWEEN LETTER AND OBJECT LEFTS.

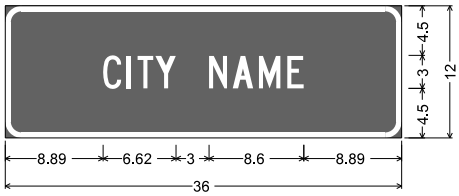
	K	A	N	S	A	S	
12.88	1.58	1.91	1.82	1.71	1.91	1.31	12.88

	D	E	P	A	R	T	M	E	N	T	O	F
2.59	1.18	1.04	1.12	1.24	1.12	1.05	1.34	1.04	1.12	2.24	1.23	2.24

T	R	A	N	S	P	O	R	T	A	T	I	O	N	
1.04	1.12	1.24	1.18	1.18	1.11	1.23	1.12	0.88	1.08	1.05	0.53	1.22	0.88	2.59

	T	
2.6	13.2	20.2

	W	O	R	K	S	
12.25	5.26	4.42	4.22	4.05	3.28	2.52



TWORKS SIGN 7;
1.50" RADIUS, 0.50" BORDER, WHITE ON BLUE;
[CITY NAME] C;
TABLE OF DISTANCES BETWEEN LETTER AND OBJECT LEFTS.

	C	I	T	Y	N	A	M	E	
8.89	2.14	0.93	1.67	4.88	2.14	2.39	2.57	1.50	8.89

NO.	DATE	REVISIONS	BY	APP'D
3				
2	10/4/11	Removed Swoosh From TWork Sign	J.A.M.	K.P.
1	9/1/10	Modified Bid Item	J.A.M.	K.P.

KANSAS DEPARTMENT OF TRANSPORTATION

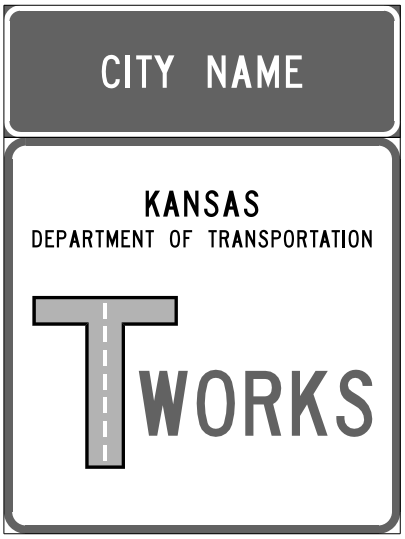
DETAILS FOR THE TRANSPORTATION WORKS FOR THE KANSAS (TWORKS) SIGNS LOCAL PROJECTS

TE715C SHEET 1 OF 2 8-15-10

FHWA APPROVAL			10/4/11	APP'D	Kristina Pyle	
DESIGNED	D.G.	DETAILED	D.G.	QUANTITIES		TRACED
DESIGN CK.	J.A.M.	DETAIL CK.	J.A.M.	QUAN. CK.		TRACE CK.

Drawn By : jmadrid Plotted : 06-AUG-2012 09:55
File : TE715C_1.dgn (TE715C_1) Traffic

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				



TYPICAL SIGN ASSEMBLY

GENERAL NOTES

THE "TWORKS" SIGN BLANK MATERIAL SHALL BE ALUMINUM, WOOD, OR FIBERGLASS REINFORCED PLASTIC.

THE "TWORKS" SIGN FACES SHALL BE COVERED WITH TYPE IV HIGH INTENSITY RETROREFLECTIVE SHEETING.

THE "TWORKS" SIGNS ARE TO BE MOUNTED ON APPROVED POSTS, AS SHOWN ON TE712 WITHOUT THE USE OF BRACING, GUY WIRES, OR TIE-DOWNS. THE "TWORKS" SIGNS MAY ALSO BE MOUNTED ON SKIDS. THE MOUNTING HEIGHTS AND LATERAL OFFSETS ARE TO BE AS SHOWN ON TE714.

THE "TWORKS" SIGNS ARE TO BE INSTALLED IN ADVANCE OF THE FIRST TRAFFIC CONTROL SIGN A DISTANCE OF 500' FOR A TWO-WAY ROADWAY IN A RURAL LOCATION AND 100' TO 350' IN AN URBAN AREA DEPENDING UPON THE SPEED. THE FIRST TRAFFIC CONTROL SIGN IS EITHER THE "ROAD WORK AHEAD" OR THE "GIVE 'EM A BRAKE" SIGN. THE ENGINEER MAY DESIGNATE A MORE APPROPRIATE LOCATION IF CONDITIONS DICTATE.

THE "TWORKS" SIGNS ARE NOT TO INTERFERE WITH THE TRAFFIC CONTROL SIGNS FOR THE PROJECT OR WITH ANY OTHER REGULATORY, WARNING, OR GUIDE SIGN THAT IS TO REMAIN IN PLACE DURING CONSTRUCTION.

THE TWORKS SIGN ASSEMBLY CONSISTS OF A TWORKS SIGN 7 AND AND TWORKS SIGN 8. THE BID ITEM FOR THIS ASSEMBLY IS "TWORKS SIGN ASSEMBLY" WITH A BID UNIT OF "EACH".

THE TWORKS SIGN ASSEMBLY IS TO REMAIN IN PLACE FOR SIX (6) MONTHS FOLLOWING THE COMPLETION OF THE PROJECT AND BECOME THE PROPERTY OF KDOT OR THE LOCAL JURISDICTION.

NO.	DATE	REVISIONS	BY	APP'D
3				
2	10/4/11	Removed Swoosh From TWork Sign	J.A.M.	K.P.
1	9/1/10	Modified Bid Item	J.A.M.	K.P.

KANSAS DEPARTMENT OF TRANSPORTATION

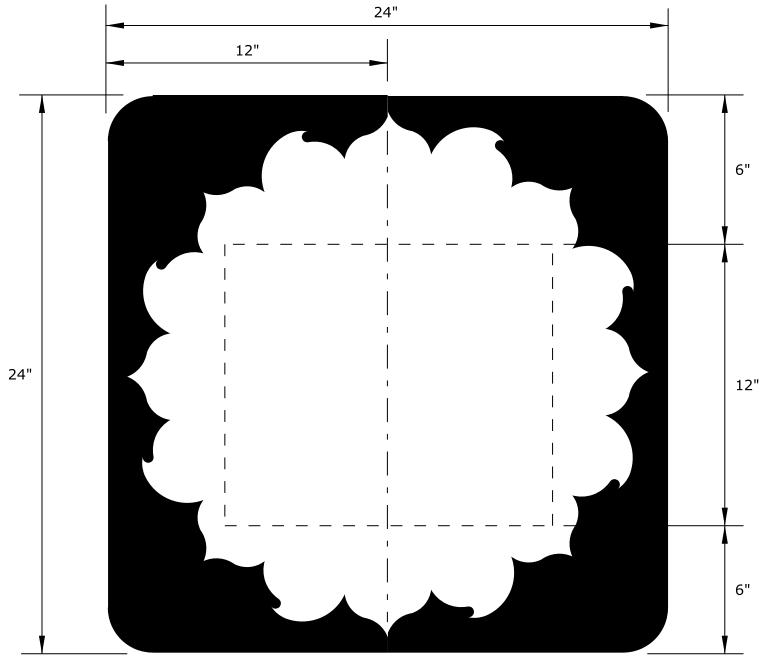
DETIALS FOR THE TRANSPORTATION WOKS FOR THE KANSAS (TWORKS) SIGNS LOCAL PROJECTS

TE715C SHEET 2 OF 2 8-15-10

FHWA APPROVAL			10/4/11	APP'D	Kristina Pyle	
DESIGNED	D.G.	DETAILED	D.G.	QUANTITIES		TRACED
DESIGN CK.	J.A.M.	DETAIL CK.	J.A.M.	QUAN. CK.		TRACE CK.

Drawn By : jmadrid Plotted : 06-AUG-2012 09:55
File : TE715C_2.dgn (TE715C_2) Traffic

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				



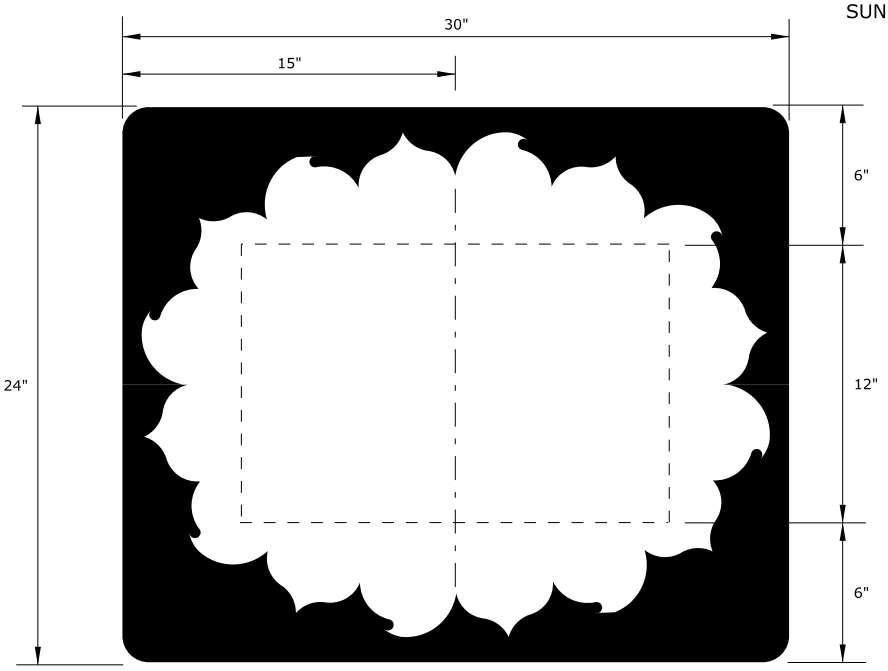
1 or 2 Digit
KM1-5
24"x 24"

NOTES:

SEE PLAN SHEETS FOR NUMERAL TO BE USED. THE NUMERALS SHALL BE SERIES "D" LEGEND. OPTIMALLY SPACE NUMERALS ABOUT VERTICAL CENTERLINE.

TO OBTAIN THE SUNFLOWER PETAL DETAILS ON THE KANSAS ROUTE MARKER, INCREASE ALL DIMENSIONS AND FEATURES OF THE SHIELD PROPORTIONALLY.

KANSAS ROUTE MARKER SHALL CONSIST OF BLACK NUMERALS ON ASTM TYPE III YELLOW SUNFLOWER SURROUNDED BY A BLACK BACKGROUND.



3 Digit
KM1-5
30"x 24"

NO.	DATE	REVISIONS	BY	APP'D
3				
2	8/8/07	MI-5 Changed To KMI-5	M.B.	A.A.A.
1	11/19/03	Changed Border	B.H.	S.A.B.

KANSAS DEPARTMENT OF TRANSPORTATION

DETAILS FOR KANSAS ROUTE MARKERS

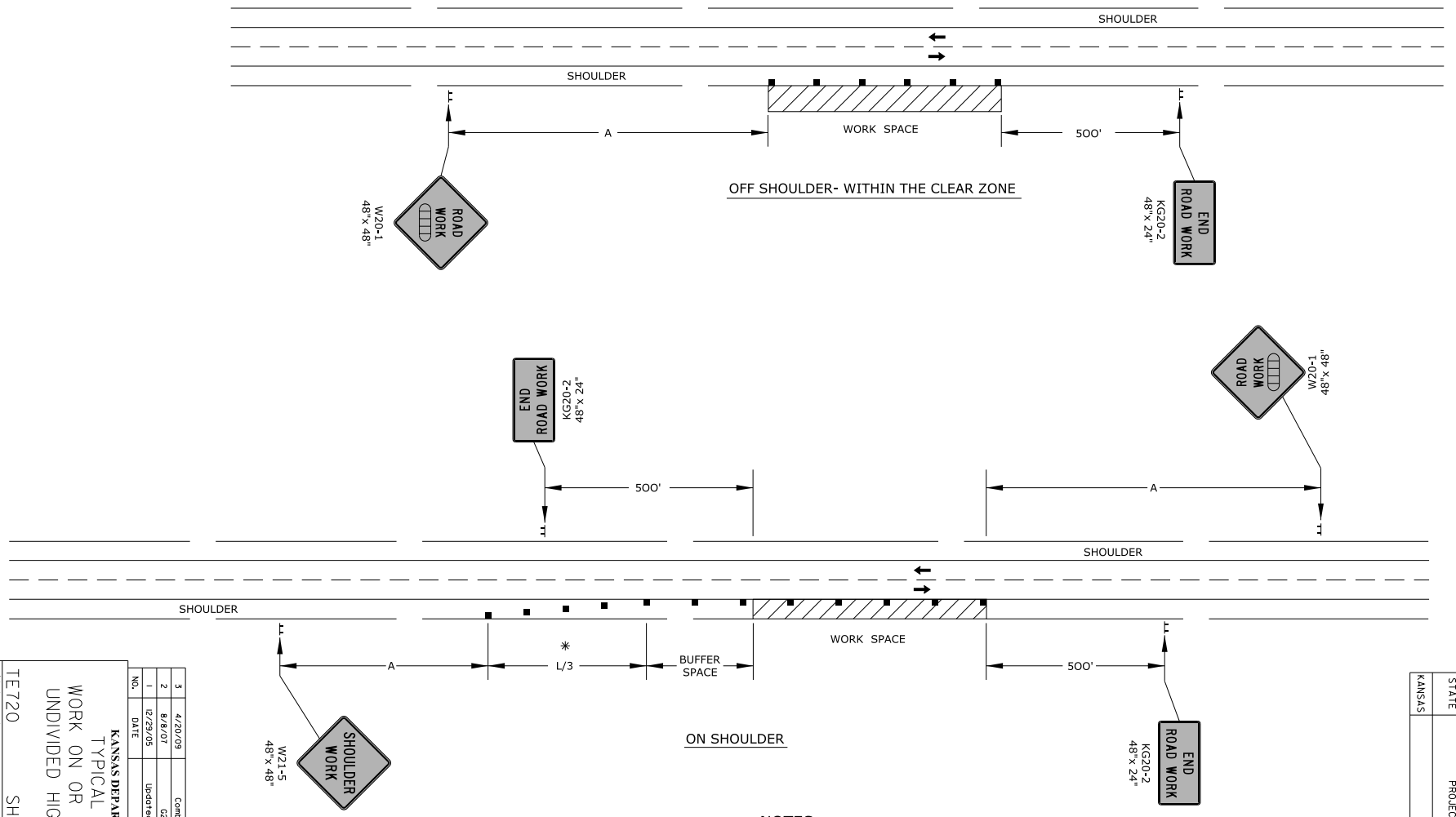
INDEPENDENT USE

TE716 SHEET 1 OF 1 9/1/00

FHWA APPROVAL		8/8/2007	APP'D	Anthony A. Airobaire	
DESIGNED	L.E.R.	DETAILED	B.A.H.	QUANTITIES	TRACED
DESIGN CK.		DETAIL CK.		QUAN. CK.	TRACE CK.

Drawn By : jmadrid
File : TE716_1.dgn (TE716_1)
Plotted : 10-NOV-2011 11:34
Traffic

REFER TO STD. TE710 FOR ADDITIONAL INFORMATION ON TEMPORARY TRAFFIC CONTROL SIGNS AND SIGN SPACING.
REFER TO STD. TE702 FOR INFORMATION ON TAPERS AND CHANNELIZING DEVICES.
REFER TO STD. TE700 FOR LENGTH OF BUFFER SPACE.



■ CHANNELIZING DEVICE
AHEAD, 1500 FT, OR 1 MILE

* OMIT TAPER IF PAVED SHOULDER IS LESS THAN 8' WIDE.

NOTES:

NO TRAFFIC CONTROL IS REQUIRED IF THE WORK SPACE IS LOCATED OUTSIDE OF THE CLEAR ZONE.

FOR OPERATIONS OF 60 MINUTES OR LESS, ALL SIGNS AND CHANNELIZING DEVICES MAY BE ELIMINATED IF A VEHICLE WITH HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS IS USED.

WHEN CONCRETE BARRIER SYSTEM IS USED, PORTABLE CHANNELIZING DEVICES ARE NOT NEEDED ALONG THE TANGENT BARRIER SECTION. DELINEATION ON THE BARRIER SYSTEM IS STILL REQUIRED. SEE RD622.

NO.	DATE	REVISIONS	BY	APP'D
3	4/20/09	Combined and Moved General Notes	J.A.M.	A.A.A.
2	8/8/07	G20-2 Changed to KG20-2	M.B.	A.A.A.
1	12/29/05	Updated End Road Work Sign Designation	M.B.	A.A.A.

KANSAS DEPARTMENT OF TRANSPORTATION

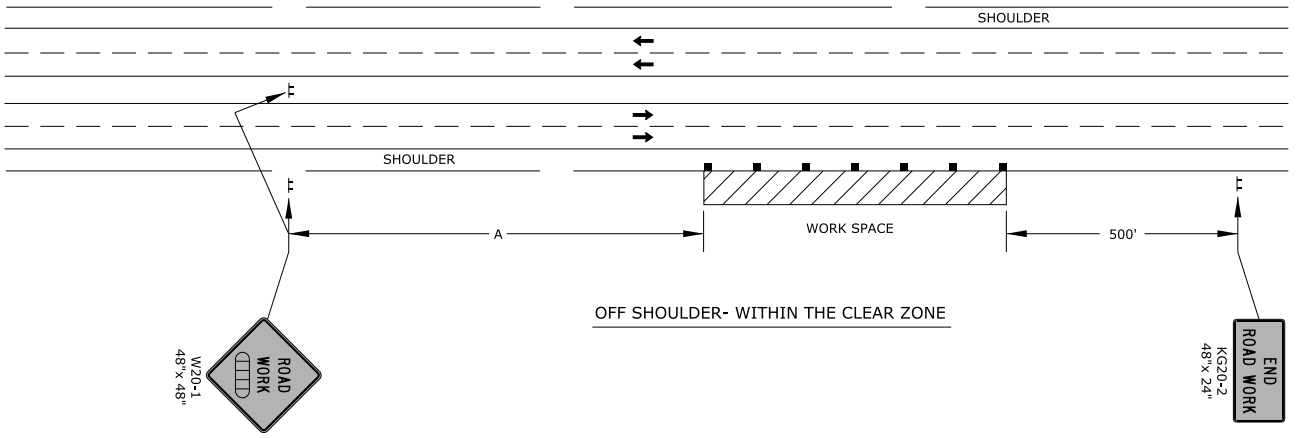
TYPICAL TRAFFIC CONTROL
WORK ON OR NEAR THE SHOULDER
UNDIVIDED HIGHWAY (2 OR 4 LANE)

TE720 SHEET 1 OF 1 9/1/00

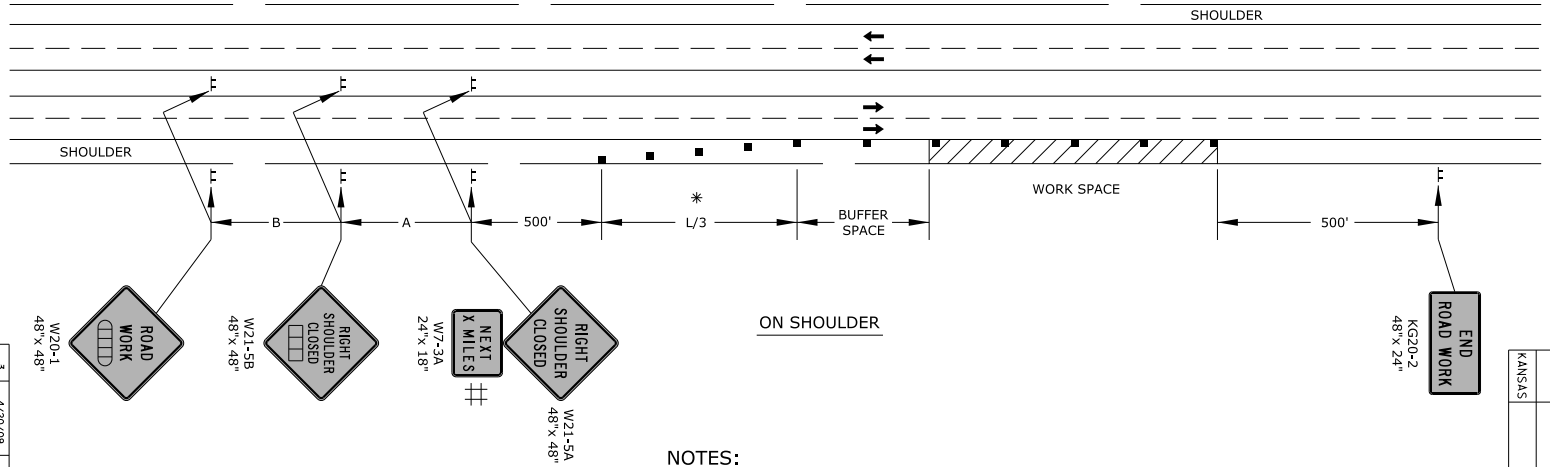
FHWA APPROVAL		APP'D	Anthony A. Arrobaire
DESIGNED	L.E.R.	DETAILED	4/20/2009
DESIGN CK.		DETAIL CK.	
		QUANTITIES	B.A.H.
		QUAN. CK.	
		TRACED	
		TRACE CK.	

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

REFER TO STD. TE710 FOR ADDITIONAL INFORMATION ON TEMPORARY TRAFFIC CONTROL SIGNS AND SIGN SPACING.
REFER TO STD. TE702 FOR INFORMATION ON TAPERS AND CHANNELIZING DEVICES.
REFER TO STD. TE700 FOR LENGTH OF BUFFER SPACE.



OFF SHOULDER- WITHIN THE CLEAR ZONE



ON SHOULDER

X LENGTH TO THE NEAREST WHOLE MILE
■ CHANNELIZING DEVICE
AHEAD, 1500 FT, OR 1 MILE
AHEAD, 1000 FT, 1500 FT OR ½ MILE

ELIMINATE W7-3A IF SHOULDER IS CLOSED FOR LESS THAN 2 MILES.

* OMIT TAPER IF PAVED SHOULDER IS LESS THAN 8' WIDE.

NOTES:

FOR WORK IN THE MEDIAN, INSTALL SIGNS AND CHANNELIZING DEVICES FOR EACH DIRECTION OF TRAFFIC ACCORDING TO THE APPLICABLE TYPICAL DRAWING.

NO TRAFFIC CONTROL IS REQUIRED IF THE WORK SPACE IS LOCATED OUTSIDE OF THE CLEAR ZONE.

FOR OPERATIONS OF 60 MINUTES OR LESS, ALL SIGNS AND CHANNELIZING DEVICES MAY BE ELIMINATED IF A VEHICLE WITH A HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHT IS USED.

WHEN CONCRETE BARRIER SYSTEM IS USED, PORTABLE CHANNELIZING DEVICES ARE NOT NEEDED ALONG THE TANGENT BARRIER SECTION. DELINEATION ON THE BARRIER SYSTEM IS STILL REQUIRED. SEE RD622.

NO.	DATE	REVISIONS	BY	APP'D
3	4/20/09	Combined and Moved General Notes	J.A.M.	A.A.A.
2	8/8/07	G20-2 Changed to KG20-2	M.B.	A.A.A.
1	12/29/05	Updated End Road Work Sign Designation	M.B.	A.A.A

KANSAS DEPARTMENT OF TRANSPORTATION

TYPICAL TRAFFIC CONTROL
WORK ON OR NEAR THE SHOULDER
DIVIDED HIGHWAY

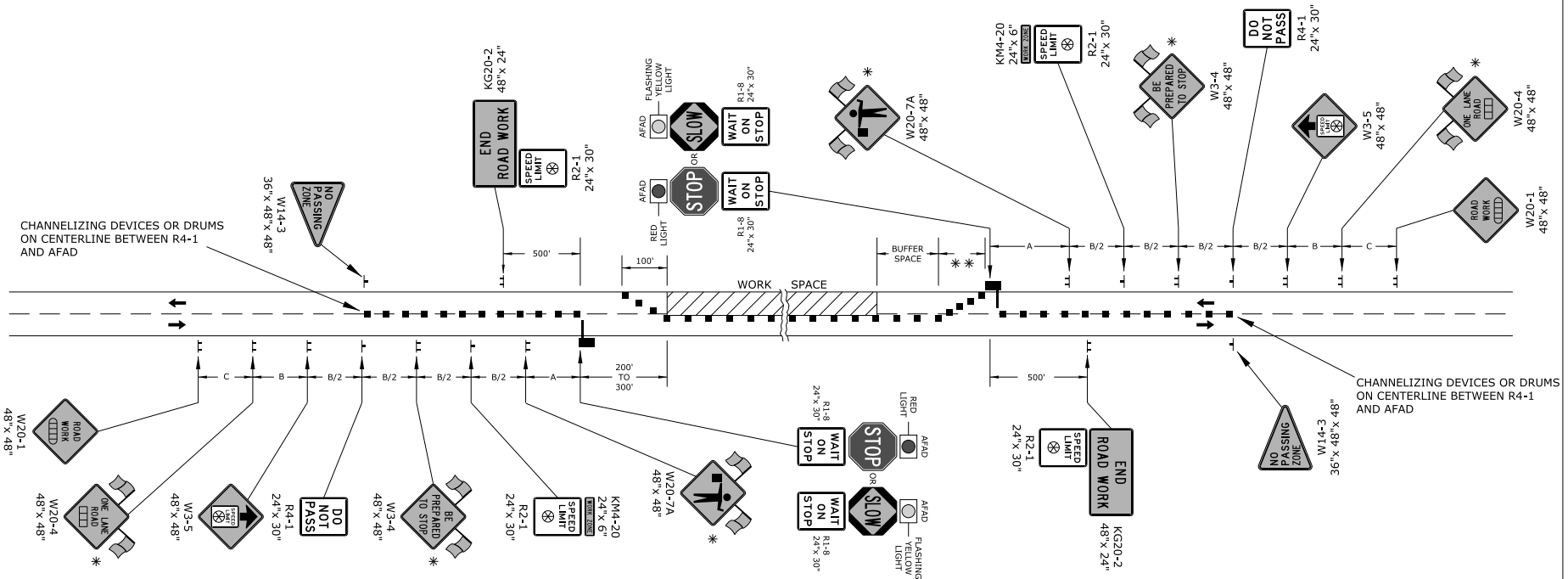
TE722 SHEET 1 OF 1 9/1/00

FHWA APPROVAL		APP'D	Anthony A. Arboleda
DESIGNED	L.E.R.	DETAILED	4/20/2009
DESIGN CK.		DETAIL CK.	
		QUANTITIES	B.A.H.
		QUAN. CK.	
		TRACED	
		TRACE CK.	

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

REFER TO STD. TE710 FOR ADDITIONAL INFORMATION ON TEMPORARY TRAFFIC CONTROL SIGNS, SIGN SPACING, CONFLICTING SIGNS AND AFAD'S.
REFER TO STD. TE702 FOR INFORMATION ON TAPERS AND CHANNELIZING DEVICES.
REFER TO STD. TE700 FOR LENGTH OF BUFFER SPACE.

STOP/SLOW PADDLE AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD)



- ■ CHANNELIZING DEVICE
- AHEAD, 1500 FT, OR 1 MILE
- AHEAD, 1000 FT, 1500 FT, OR ½ MILE
- SPEED TO BE DETERMINED BY THE ENGINEER
- TYPE "A" LOW INTENSITY WARNING LIGHT
- AFAD

* WHEN APPLICABLE, USE TYPE "A" LOW INTENSITY WARNING LIGHTS AS DIRECTED BY ENGINEER.

* * THERE SHOULD BE A MINIMUM OF SIX (6) CHANNELIZERS SPACED AT 20' INTERVALS.

NO.	DATE	REVISIONS	BY	APP'D
3	10/4/11	Removed Conflicting Signs Note	J.A.M.	K.P.
2	10/28/09	Added R1-8 Identification	J.A.M.	A.A.A.
1	4/20/09	Changed Location of Centerline Delineation	J.A.M.	A.A.A.

KANSAS DEPARTMENT OF TRANSPORTATION

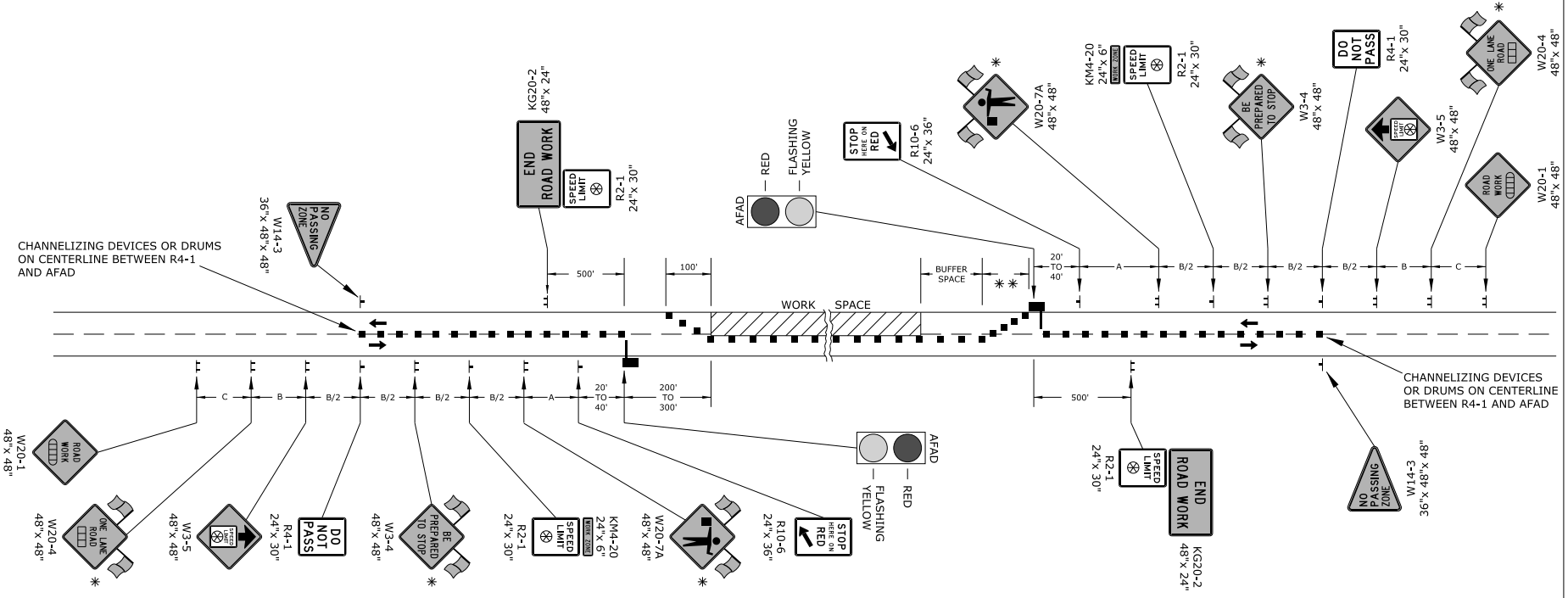
TYPICAL TRAFFIC CONTROL A.F.A.D.
TWO-LANE HIGHWAY ONE LANE CLOSED
EXCLUDING CONCRETE SHOULDERS
EQUAL TO OR GREATER THAN 8 FT
TE728 SHEET 1 OF 2 7/3/07

FHWA APPROVAL		10/4/11	APP'D
DESIGNED	J.S.H.	DETAILED	J.S.H.
DESIGN CK.		DETAIL CK.	
		Kristina Pyle	TRACED
		QUANTITIES	J.S.H.
		QUAN. CK.	TRACE CK.

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

REFER TO STD. TE710 FOR ADDITIONAL INFORMATION ON TEMPORARY TRAFFIC CONTROL SIGNS, SIGN SPACING, CONFLICTING SIGNS AND AFAD'S.
REFER TO STD. TE702 FOR INFORMATION ON TAPERS AND CHANNELIZING DEVICES.
REFER TO STD. TE700 FOR LENGTH OF BUFFER SPACE.

RED/YELLOW LENS
AUTOMATED FLAGGER ASSISTANCE DEVICE
(AFAD)



- ■ CHANNELIZING DEVICE
- AHEAD, 1500 FT, OR 1 MILE
- AHEAD, 1000 FT, 1500 FT, OR ½ MILE
- ⊗ SPEED TO BE DETERMINED BY THE ENGINEER
- ○ TYPE "A" LOW INTENSITY WARNING LIGHT
- ■— AFAD

* WHEN APPLICABLE, USE TYPE "A" LOW INTENSITY WARNING LIGHTS AS DIRECTED BY ENGINEER.

* * THERE SHOULD BE A MINIMUM OF SIX (6) CHANNELIZERS SPACED AT 20' INTERVALS.

NO.	DATE	REVISIONS	BY	APP'D
3	10/4/11	Removed Conflicting Signs Note	J.A.M.	K.P.
2	10/28/09	Added R1-8 Identification	J.A.M.	A.A.A.
1	4/20/09	Changed Location of Centerline Delineation	J.A.M.	A.A.A.

KANSAS DEPARTMENT OF TRANSPORTATION

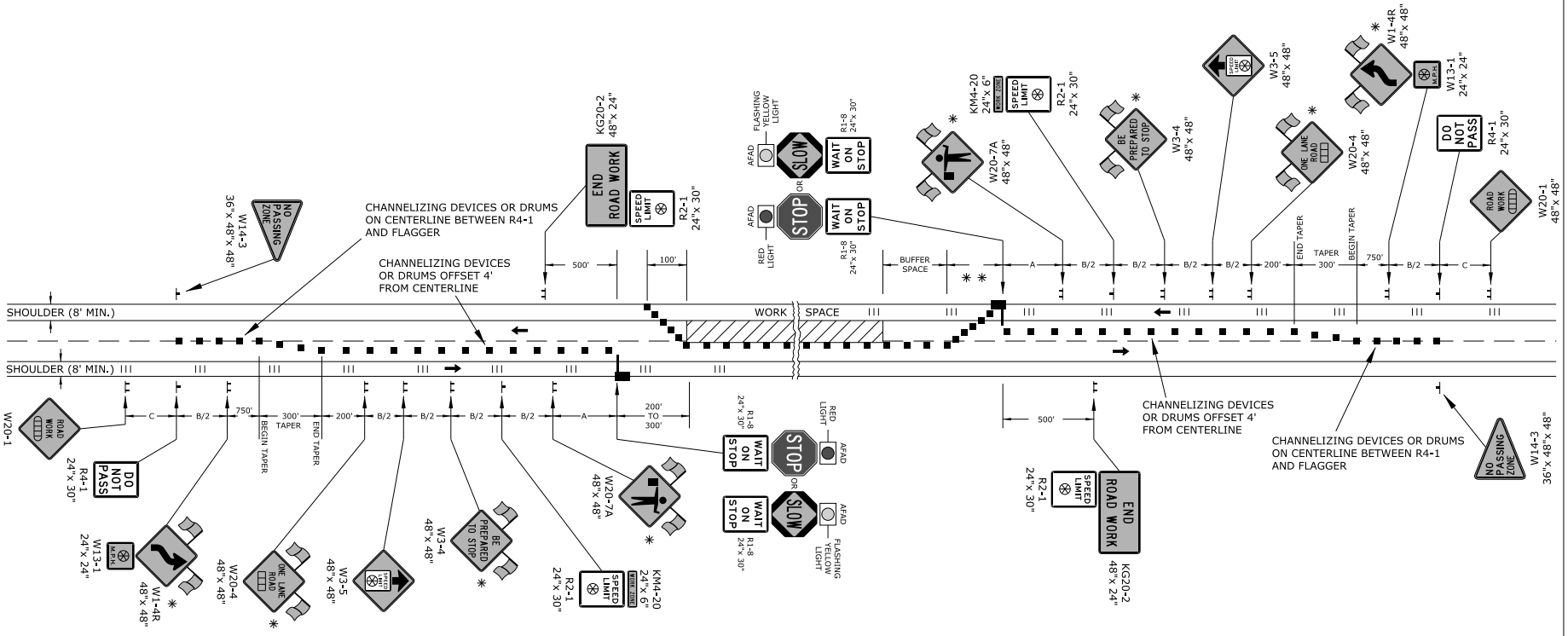
TYPICAL TRAFFIC CONTROL A.F.A.D.
TWO-LANE HIGHWAY ONE LANE CLOSED
EXCLUDING CONCRETE SHOULDERS
EQUAL TO OR GREATER THAN 8 FT
TE728 SHEET 2 OF 2 7/3/07

F.H.W.A. APPROVAL		APP'D	Kristina Pyle
DESIGNED	J.S.H.	DETAILED	10/4/11
DESIGN CK.		DETAIL CK.	J.S.H.
		QUANTITIES	TRACED
		QUAN. CK.	TRACE CK.

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

REFER TO STD. TE710 FOR ADDITIONAL INFORMATION ON TEMPORARY TRAFFIC CONTROL SIGNS, SIGN SPACING, CONFLICTING SIGNS AND AFAD'S.
REFER TO STD. TE702 FOR INFORMATION ON TAPERS AND CHANNELIZING DEVICES.
REFER TO STD. TE700 FOR LENGTH OF BUFFER SPACE.

STOP/SLOW PADDLE AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD)



- ■ CHANNELIZING DEVICE
- AHEAD, 1500 FT, OR 1 MILE
- AHEAD, 1000 FT, 1500 FT, OR ½ MILE
- SPEED TO BE DETERMINED BY THE ENGINEER
- TYPE "A" LOW INTENSITY WARNING LIGHT
- EXISTING SHOULDER RUMBLE STRIPS
- AFAD

✳ WHEN APPLICABLE, USE TYPE "A" LOW INTENSITY WARNING LIGHTS AS DIRECTED BY ENGINEER.

✳ ✳THERE SHOULD BE A MINIMUM OF SIX (6) CHANNELIZERS SPACED AT 20' INTERVALS.

KANSAS DEPARTMENT OF TRANSPORTATION

TYPICAL TRAFFIC CONTROL A.F.A.D.
TWO-LANE HIGHWAY ONE LANE CLOSED
CONCRETE SHOULDER EQUAL TO OR GREATER THAN 8 FT WITH OR WITHOUT RUMBLE STRIPS
TE729 SHEET 1 OF 2 7/3/07

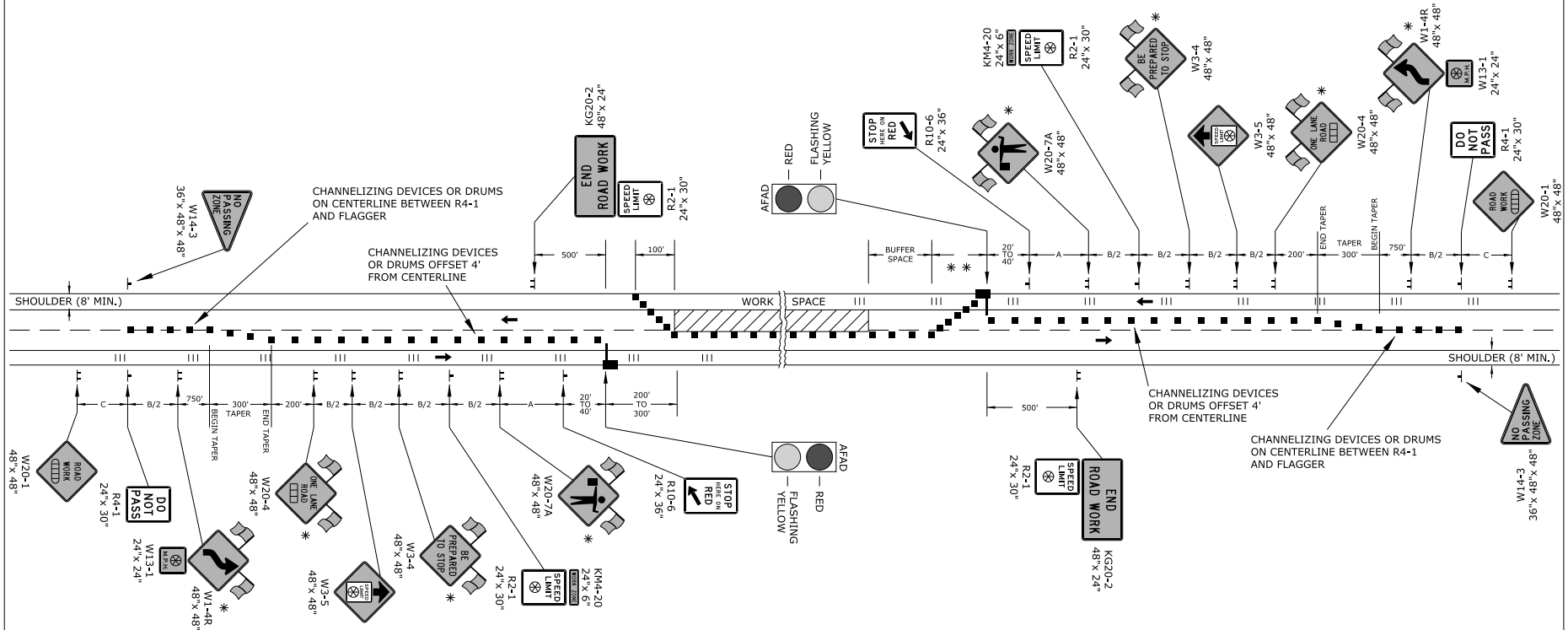
NO.	DATE	REVISIONS	BY	APP'D
3	10/4/11	Removed Conflicting Signs Note	J.A.M.	K.P.
2	10/28/09	Added R1-8 Identification	J.A.M.	A.A.A.
1	4/20/09	Removed R4-1& W3-4 Form Sign Queue	J.A.M.	A.A.A.

F.H.W.A. APPROVAL		Kristina Pyle	
DESIGNED	J.S.H.	DETAILED	10/4/11
DESIGN CK.		DETAIL CK.	J.S.H.
APP'D		QUANTITIES	J.S.H.
QUAN. CK.		TRACED	
TRACE CK.			

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

REFER TO STD. TE710 FOR ADDITIONAL INFORMATION ON TEMPORARY TRAFFIC CONTROL SIGNS, SIGN SPACING, CONFLICTING SIGNS AND AFAD'S.
REFER TO STD. TE702 FOR INFORMATION ON TAPERS AND CHANNELIZING DEVICES.
REFER TO STD. TE700 FOR LENGTH OF BUFFER SPACE.

RED/YELLOW LENS AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD)



- ■ CHANNELIZING DEVICE
- AHEAD, 1500 FT, OR 1 MILE
- AHEAD, 1000 FT, 1500 FT, OR ½ MILE
- ⊗ SPEED TO BE DETERMINED BY THE ENGINEER
- ○ TYPE "A" LOW INTENSITY WARNING LIGHT
- = EXISTING SHOULDER RUMBLE STRIPS
- —■ AFAD

✳ WHEN APPLICABLE, USE TYPE "A" LOW INTENSITY WARNING LIGHTS AS DIRECTED BY ENGINEER.

✳✳ THERE SHOULD BE A MINIMUM OF SIX (6) CHANNELIZERS SPACED AT 20' INTERVALS.

NO.	DATE	REVISIONS	BY	APP'D
3	10/4/11	Removed Conflicting Signs Note	J.A.M.	K.P.
2	10/28/09	Added R1-8 Identification	J.A.M.	A.A.A.
1	4/20/09	Removed R4-1& W3-4 Form Sign Queue	J.A.M.	A.A.A.

KANSAS DEPARTMENT OF TRANSPORTATION

TYPICAL TRAFFIC CONTROL A.F.A.D.
TWO-LANE HIGHWAY ONE LANE CLOSED
CONCRETE SHOULDER EQUAL TO OR GREATER THAN 8 FT WITH OR WITHOUT RUMBLE STRIPS
TE729 SHEET 2 OF 2 7/3/07

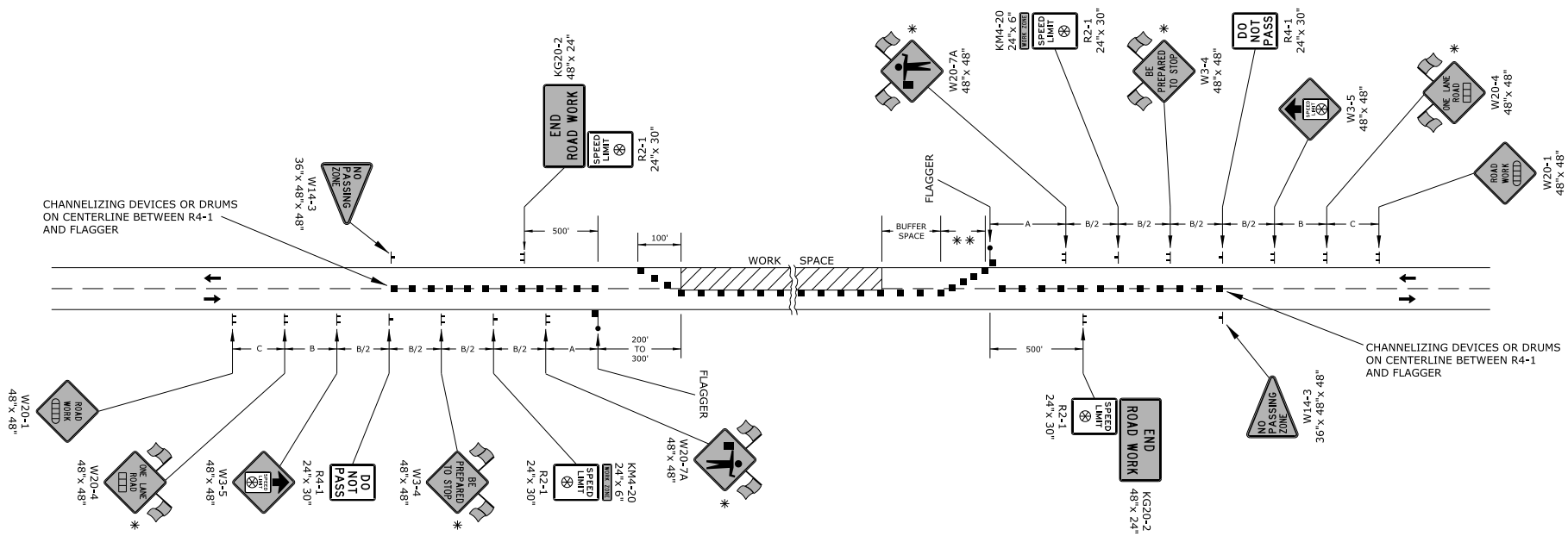
FHWA APPROVAL		APP'D	10/4/11
DESIGNED	J.S.H.	DETAILED	J.S.H.
DESIGN CK.		DETAIL CK.	
		QUANTITIES	Kristina Pyle
		TRACED	J.S.H.
		TRACE CK.	
		QUAN. CK.	

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

REFER TO STD. TE710 FOR ADDITIONAL INFORMATION ON TEMPORARY TRAFFIC CONTROL SIGNS, SIGN SPACING AND CONFLICTING SIGNS.
REFER TO STD. TE702 FOR INFORMATION ON TAPERS AND CHANNELIZING DEVICES.
REFER TO STD. TE700 FOR LENGTH OF BUFFER SPACE.

NOTE:
TRUCKS HAULING MATERIAL TO THE PROJECT ARE REQUIRED TO STOP AT FLAGGER. AFTER STOPPING, UPON APPROVAL OF ENGINEER, TRUCKS MAY BE ALLOWED TO MOVE AROUND FLAGGER.

FLAGGER



- ■ CHANNELIZING DEVICE
- AHEAD, 1500 FT, OR 1 MILE
- AHEAD, 1000 FT, 1500 FT, OR ½ MILE
- SPEED TO BE DETERMINED BY THE ENGINEER
- ○ TYPE "A" LOW INTENSITY WARNING LIGHT

✳ WHEN APPLICABLE, USE TYPE "A" LOW INTENSITY WARNING LIGHTS FOR NIGHTTIME OPERATIONS ONLY OR AS DIRECTED BY ENGINEER.

✳ ✳ THERE SHOULD BE A MINIMUM OF SIX (6) CHANNELIZERS SPACED AT 20' INTERVALS.

NO.	DATE	REVISIONS	BY	APP'D
3	10/4/11	Removed Conflicting Signs Note	J.A.M.	K.P.
2	4/20/09	Changed Location of Centerline Delineation	J.A.M.	A.A.A.
1	8/8/07	Sign Spacing Change, Trucks Hauling Note	M.B.	A.A.A.

KANSAS DEPARTMENT OF TRANSPORTATION

TYPICAL TRAFFIC CONTROL FLAGGER OR PILOT CAR
TWO-LANE ONE LANE CLOSED
EXCLUDING CONCRETE SHOULDERS
EQUAL TO OR GREATER THAN 8 FT

TE730 SHEET 1 OF 2 9/1/00

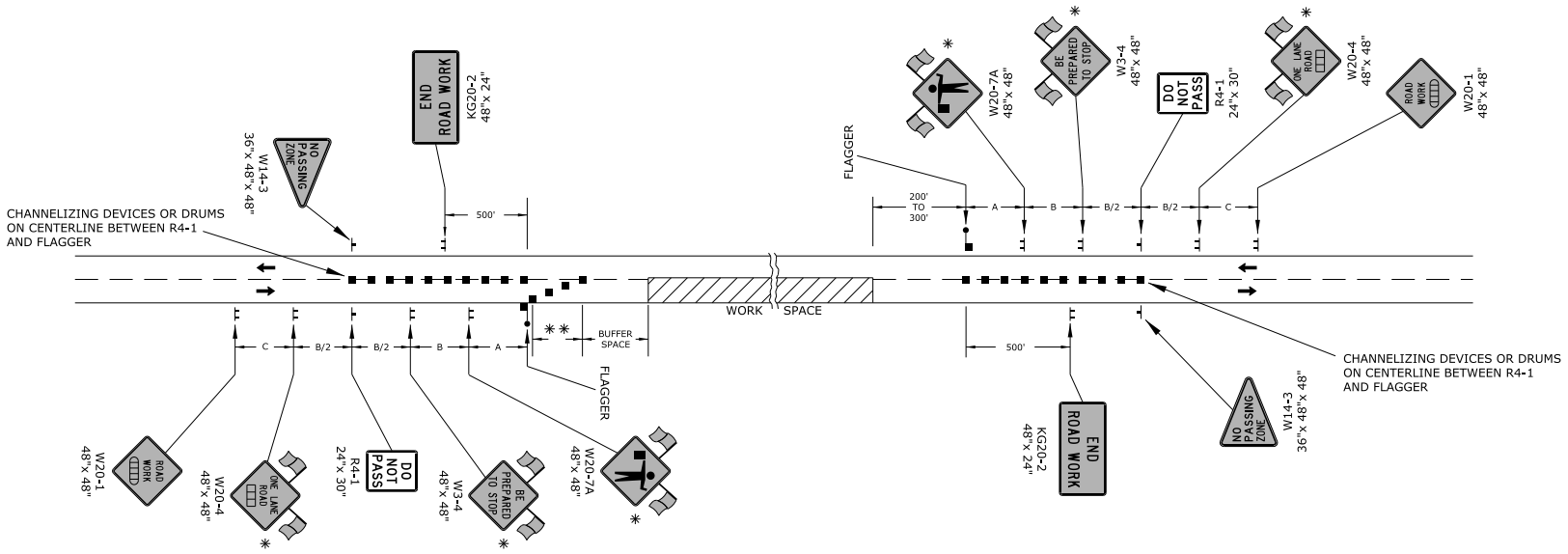
FHWA APPROVAL		APP'D	Kristina Pyle
DESIGNED	B.A.H.	DETAILED	10/4/11
DESIGN CK.		DETAIL CK.	
		QUANTITIES	B.A.H.
		QUAN. CK.	
		TRACED	
		TRACE CK.	

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

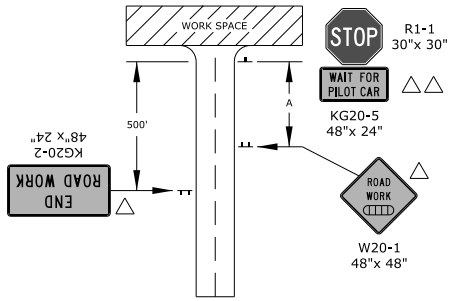
REFER TO STD. TE710 FOR ADDITIONAL INFORMATION ON TEMPORARY TRAFFIC CONTROL SIGNS, SIGN SPACING AND CONFLICTING SIGNS.
REFER TO STD. TE702 FOR INFORMATION ON TAPERS AND CHANNELIZING DEVICES.
REFER TO STD. TE700 FOR LENGTH OF BUFFER SPACE.

NOTE:
TRUCKS HAULING MATERIAL TO THE PROJECT ARE REQUIRED TO STOP AT FLAGGER. AFTER STOPPING, UPON APPROVAL OF ENGINEER, TRUCKS MAY BE ALLOWED TO MOVE AROUND FLAGGER.

FLAGGER AND PILOT CAR



TYPICAL SIGNING FOR A MINOR SIDE ROAD APPROACH TO WORK SPACE

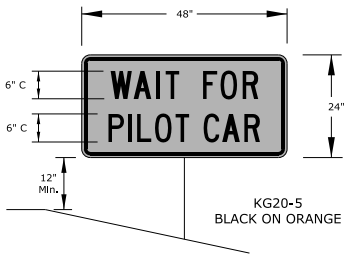


△ NOT REQUIRED ON SUBSTANTIAL MAINTENANCE PROJECTS (1R)

△△ THE KG20-5 (WAIT FOR PILOT CAR) SIGN SHALL BE MOUNTED ON AN APPROVED PORTABLE SUPPORT AND NOT ATTACHED TO THE EXISTING STOP SIGN POST.

THE KG20-5 SIGN SHALL BE PLACED IMMEDIATELY IN FRONT OF THE EXISTING STOP SIGN, A MINIMUM OF 6" BELOW THE BOTTOM OF THE STOP SIGN. THE SIGN SHOULD BE REMOVED OR COVERED WHEN THERE IS NO PILOT CAR.

■ CHANNELIZING DEVICE
AHEAD, 1500 FT, OR 1 MILE
AHEAD, 1000 FT, 1500 FT, OR ½ MILE
SPEED TO BE DETERMINED BY THE ENGINEER
○ TYPE "A" LOW INTENSITY WARNING LIGHT



NOTE:
PLACE A FLAGGER AT ALL HIGHWAY AND MAJOR COLLECTOR INTERSECTIONS IN THE WORK SPACE. THE NEED FOR A FLAGGER AT A MINOR SIDE ROAD INTERSECTION SHALL BE DETERMINED BY THE ENGINEER. A SINGLE FLAGGER AT EACH INTERSECTION IS SUBSIDIARY TO OTHER ITEMS. IF REQUESTED BY THE ENGINEER, EACH ADDITIONAL FLAGGER WILL BE MEASURED AND PAID FOR EACH HOUR THEY ARE REQUIRED. PLACE A W20-7A (FLAGGER SYMBOL) SIGN ON EACH SIDE ROAD APPROACH THAT IS CONTROLLED BY A FLAGGER.

NOTE:
EXISTING SIGNS SHALL NOT BE COVERED OR REMOVED BETWEEN FLAGGER STATIONS.

✳ WHEN APPLICABLE, USE TYPE "A" LOW INTENSITY WARNING LIGHTS FOR NIGHTTIME OPERATIONS ONLY OR AS DIRECTED BY ENGINEER.

✳ ✳ THERE SHOULD BE A MINIMUM OF SIX (6) CHANNELIZERS SPACED AT 20' INTERVALS.

KANSAS DEPARTMENT OF TRANSPORTATION
TYPICAL TRAFFIC CONTROL FLAGGER OR PILOT CAR
TWO-LANE ONE LANE CLOSED
EXCLUDING CONCRETE SHOULDERS
EQUAL TO OR GREATER THAN 8 FT

TE730 SHEET 2 OF 2 9/1/00

NO.	DATE	REVISIONS	BY	APP'D
3	10/4/11	Removed Conflicting Signs Note	J.A.M.	K.P.
2	4/20/09	Changed Location of Centerline Delineation	J.A.M.	A.A.A.
1	8/8/07	Sign Spacing Change, Trucks Hauling Note	M.B.	A.A.A.

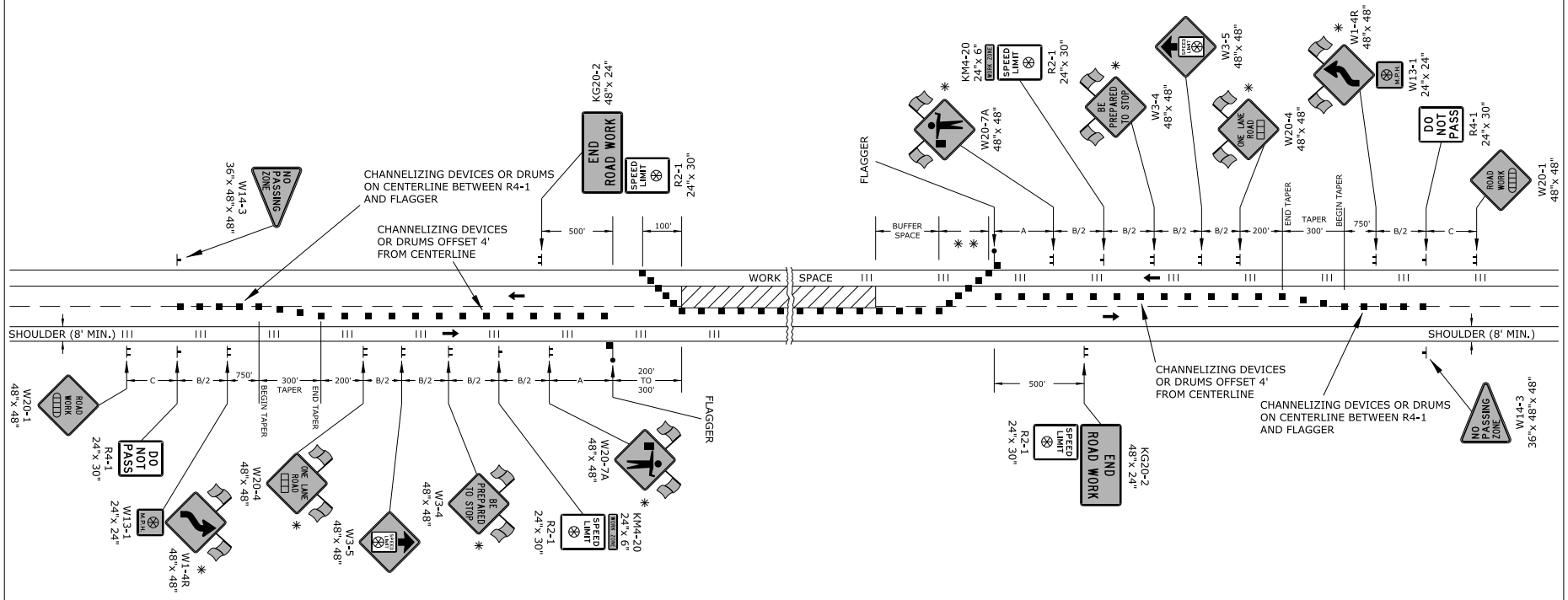
F.H.W.A. APPROVAL — DESIGNED B.A.H. — DETAILED — DETAIL CK. — DESIGN CK. — QUANTITIES B.A.H. — QUAN. CK. — TRACED — TRACE CK. — APP'D 10/4/11 — Kristina Pyle

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

REFER TO STD. TE710 FOR ADDITIONAL INFORMATION ON TEMPORARY TRAFFIC CONTROL SIGNS, SIGN SPACING AND CONFLICTING SIGNS.
REFER TO STD. TE702 FOR INFORMATION ON TAPERS AND CHANNELIZING DEVICES.
REFER TO STD. TE700 FOR LENGTH OF BUFFER SPACE.

NOTE:
TRUCKS HAULING MATERIAL TO THE PROJECT ARE REQUIRED TO STOP AT FLAGGER. AFTER STOPPING, UPON APPROVAL OF ENGINEER, TRUCKS MAY BE ALLOWED TO MOVE AROUND FLAGGER.

FLAGGER



- ■ CHANNELIZING DEVICE
- AHEAD, 1500 FT, OR 1 MILE
- AHEAD, 1000 FT, 1500 FT, OR ½ MILE
- SPEED TO BE DETERMINED BY THE ENGINEER
- TYPE "A" LOW INTENSITY WARNING LIGHT
- EXISTING SHOULDER RUMBLE STRIPS

✳ WHEN APPLICABLE, USE TYPE "A" LOW INTENSITY WARNING LIGHTS FOR NIGHTTIME OPERATIONS ONLY OR AS DIRECTED BY ENGINEER.

✳✳ THERE SHOULD BE A MINIMUM OF SIX (6) CHANNELIZERS SPACED AT 20' INTERVALS.

KANSAS DEPARTMENT OF TRANSPORTATION

TYPICAL TRAFFIC CONTROL FLAGGER OR PILOT CAR TWO-LANE ONE LANE CLOSED CONCRETE SHOULDERS EQUAL TO OR GREATER THAN 8 FT WITH OR WITHOUT RUMBLE STRIPS

TE731 SHEET 1 OF 2 2/1/05

NO.	DATE	REVISIONS	BY	APP'D
3	10/4/11	Removed Conflicting Signs Note	J.A.M.	K.P.
2	4/20/09	Removed R4-1 & W3-4 From Sign Queue	J.A.M.	A.A.A.
1	8/8/07	Sign Spacing Change, Trucks Hauling Note	M.B.	A.A.A.

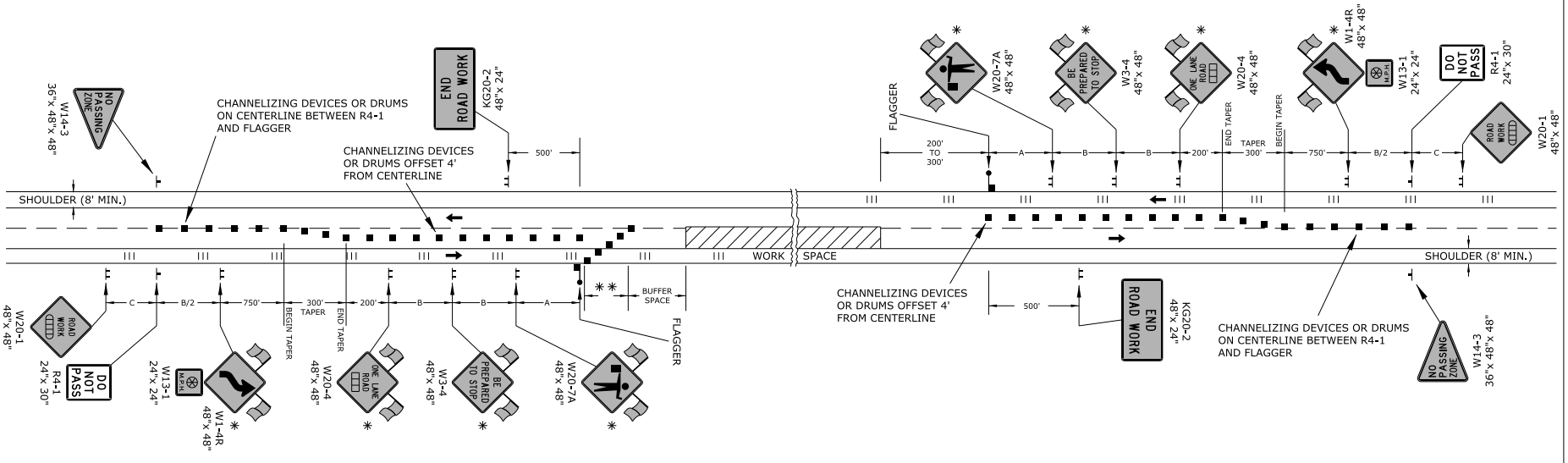
FHWA APPROVAL		APP'D	Kristina Pyle
DESIGNED	B.A.H.	DETAILED	B.A.H.
DESIGN CK.		DETAIL CK.	
10/4/11		QUANTITIES	
		QUAN. CK.	
		TRACED	
		TRACE CK.	

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

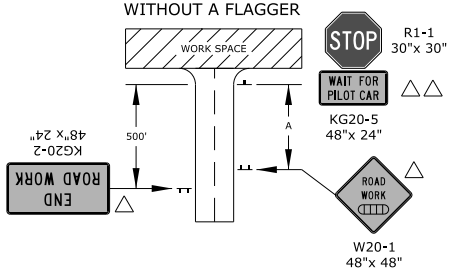
REFER TO STD. TE710 FOR ADDITIONAL INFORMATION ON TEMPORARY TRAFFIC CONTROL SIGNS, SIGN SPACING AND CONFLICTING SIGNS.
REFER TO STD. TE702 FOR INFORMATION ON TAPERS AND CHANNELIZING DEVICES.
REFER TO STD. TE700 FOR LENGTH OF BUFFER SPACE.

NOTE:
TRUCKS HAULING MATERIAL TO THE PROJECT ARE REQUIRED TO STOP AT FLAGGER. AFTER STOPPING, UPON APPROVAL OF ENGINEER, TRUCKS MAY BE ALLOWED TO MOVE AROUND FLAGGER.

FLAGGER AND PILOT CAR



TYPICAL SIGNING FOR A MINOR SIDE ROAD APPROACH TO WORK SPACE WITHOUT A FLAGGER

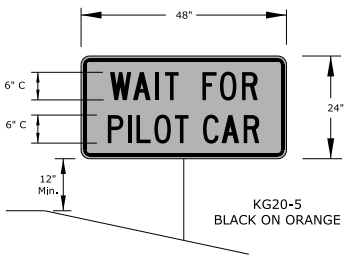


△ NOT REQUIRED ON SUBSTANTIAL MAINTENANCE PROJECTS (1R)

△△ THE KG20-5 (WAIT FOR PILOT CAR) SIGN SHALL BE MOUNTED ON AN APPROVED PORTABLE SUPPORT AND NOT ATTACHED TO THE EXISTING STOP SIGN POST.

THE KG20-5 SIGN SHALL BE PLACED IMMEDIATELY IN FRONT OF THE EXISTING STOP SIGN, A MINIMUM OF 6" BELOW THE BOTTOM OF THE STOP SIGN. THE SIGN SHOULD BE REMOVED OR COVERED WHEN THERE IS NO PILOT CAR.

■ CHANNELIZING DEVICE
AHEAD, 1500 FT, OR 1 MILE
AHEAD, 1000 FT, 1500 FT, OR ½ MILE
SPEED TO BE DETERMINED BY THE ENGINEER
TYPE "A" LOW INTENSITY WARNING LIGHT
EXISTING SHOULDER RUMBLE STRIPS



NOTE:
PLACE A FLAGGER AT ALL HIGHWAY AND MAJOR COLLECTOR INTERSECTIONS IN THE WORK SPACE. THE NEED FOR A FLAGGER AT A MINOR SIDE ROAD INTERSECTION SHALL BE DETERMINED BY THE ENGINEER. A SINGLE FLAGGER AT EACH INTERSECTION IS SUBSIDIARY TO OTHER ITEMS. IF REQUESTED BY THE ENGINEER, EACH ADDITIONAL FLAGGER WILL BE MEASURED AND PAID FOR EACH HOUR THEY ARE REQUIRED. PLACE A W20-7A (FLAGGER SYMBOL) SIGN ON EACH SIDE ROAD APPROACH THAT IS CONTROLLED BY A FLAGGER.

NOTE:
EXISTING SIGNS SHALL NOT BE COVERED OR REMOVED BETWEEN FLAGGER STATIONS.

* WHEN APPLICABLE, USE TYPE "A" LOW INTENSITY WARNING LIGHTS FOR NIGHTTIME OPERATIONS ONLY OR AS DIRECTED BY ENGINEER.

** THERE SHOULD BE A MINIMUM OF SIX (6) CHANNELIZERS SPACED AT 20' INTERVALS.

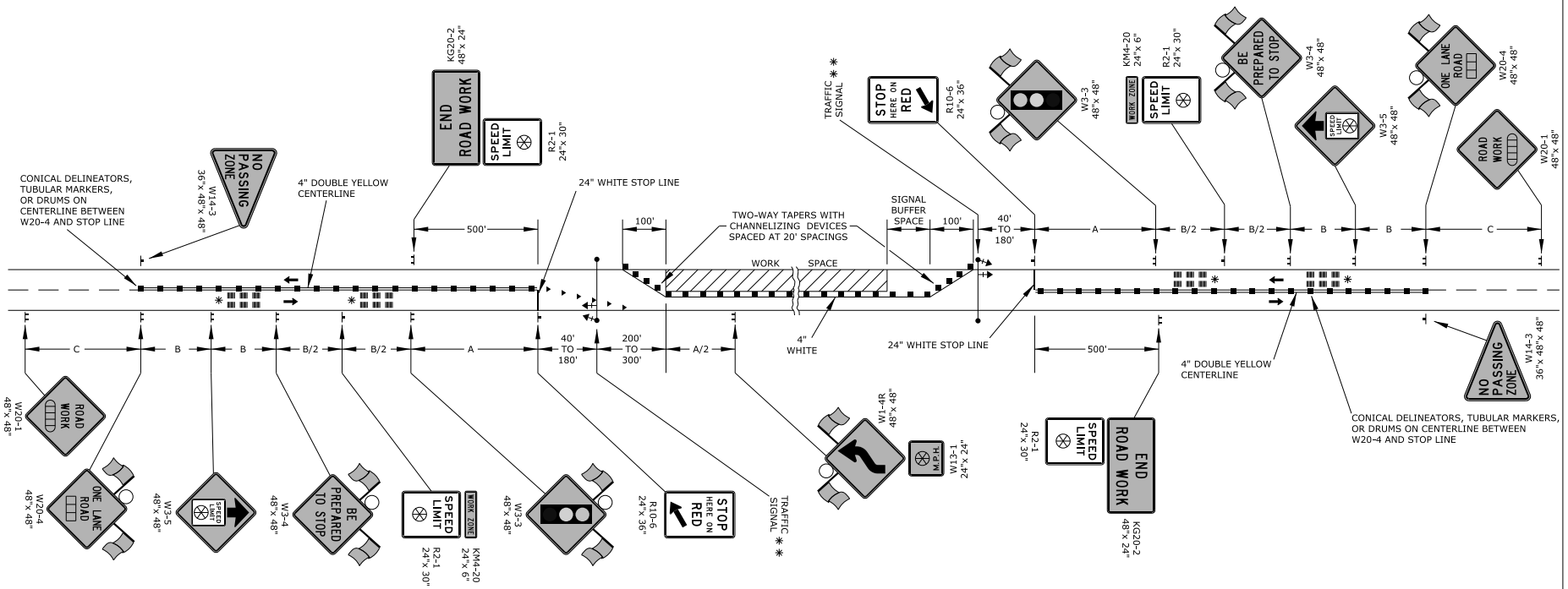
KANSAS DEPARTMENT OF TRANSPORTATION
TYPICAL TRAFFIC CONTROL FLAGGER OR PILOT CAR
TWO-LANE ONE LANE CLOSED
CONCRETE SHOULDERS EQUAL TO OR GREATER THAN 8 FT WITH OR WITHOUT RUMBLE STRIPS
TE731 SHEET 2 OF 2 2/1/05

NO.	DATE	REVISIONS	BY	APP'D
3	10/4/11	Removed Conflicting Signs Note	J.A.M.	K.P.
2	4/20/09	Removed R4-1& W3-4 From Sign Queue	J.A.M.	A.A.A.
1	8/8/07	Sign Spacing Change, Trucks Hauling Note	M.B.	A.A.A.

F.H.W.A. APPROVAL
DESIGNED B.A.H. DETAILED 10/4/11 APP'D
DESIGN CK. DETAIL CK. QUANTITIES B.A.H. Kristina Pyle
QUAN. CK. TRACED TRACE CK.

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

REFER TO STD. TE710 FOR ADDITIONAL INFORMATION ON TEMPORARY TRAFFIC CONTROL SIGNS AND SIGN SPACING. REFER TO STD. TE702 FOR INFORMATION ON TAPERS AND CHANNELIZING DEVICES.



SIGNAL BUFFER SPACE

SPEED (MPH) ▲	20	25	30	35	40	45	50	55	60	65	70
LENGTH (FT)	35	50	65	85	100	115	130	150	165	165	165

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.

▲ POSTED SPEED PRIOR TO WORK STARTING

✳ TWO SETS OF RUMBLE STRIPS SHALL BE PLACED: ONE SET BETWEEN SIGNS W3-3 AND R2-1, AND ONE SET BETWEEN SIGNS W3-4 AND W3-5. MATERIALS, TEMPLATE, HAULING, INSTALLATION AND REMOVAL OF THE RUMBLE STRIPS ARE TO BE BY THE CONTRACTOR. PAYMENT SHALL BE SUBSIDIARY TO THE TEMPORARY TRAFFIC SIGNALS. SEE TE700, NOTE 15 FOR OTHER TEMPORARY RUMBLE STRIP OPTIONS.

✳✳ REFER TO TE733 AND TE734 FOR ADDITIONAL TEMPORARY TRAFFIC SIGNAL DETAILS.

- ▸ UNI-DIRECTIONAL YELLOW TEMPORARY RAISED PAVEMENT MARKER (TYPE 1) (FACING RIGHT)
- ■ CHANNELIZING DEVICE
- AHEAD, 1500 FT, OR 1 MILE
- AHEAD, 1000 FT, 1500 FT, OR ½ MILE
- SPEED TO BE DETERMINED BY THE ENGINEER
- SPAN WIRE AND SIGNAL HEAD WITH BACK PLATE
- ● TEMPORARY SIGNAL POLE
- ○ TYPE "A" LOW INTENSITY WARNING LIGHT

KANSAS DEPARTMENT OF TRANSPORTATION

TWO-LANE HIGHWAY ONE LANE CLOSED TEMPORARY TRAFFIC SIGNALS

TYPICAL TRAFFIC CONTROL

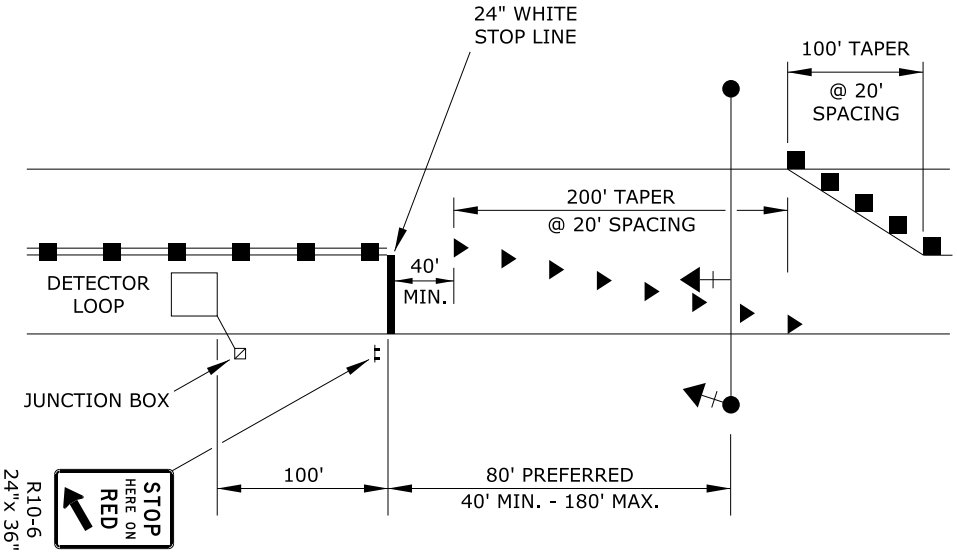
TE732 SHEET 1 OF 2 9/1/00

NO.	DATE	REVISIONS	BY	APP'D
3	10/4/11	Modified Signal to Stopline Distance	J.A.M.	K.P.
2	8/8/07	Temporary Raised Pavement Marker Note	M.B.	A.A.A.
1	12/29/05	M4-20 Changed To KM4-20	M.B.	A.A.A.

F.H.W.A. APPROVAL		APP'D	Kristina Pyle
DESIGNED	B.A.H.	DETAILED	10/4/11
DESIGN CK.		DETAIL CK.	B.A.H.
QUANTITIES		TRACED	
QUAN. CK.		TRACE CK.	

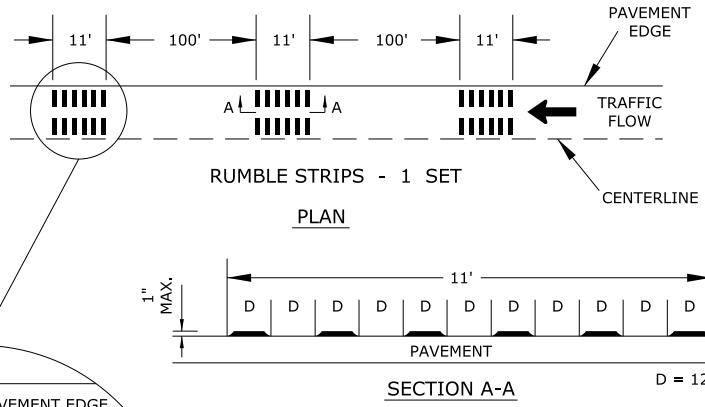
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

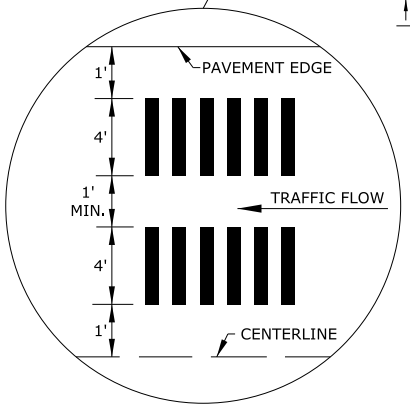
REFER TO STD. TE710 FOR ADDITIONAL INFORMATION ON TEMPORARY TRAFFIC CONTROL SIGNS AND SIGN SPACING. REFER TO STD. TE702 FOR INFORMATION ON TAPERS AND CHANNELIZING DEVICES.



NOTE:
UNI-DIRECTIONAL YELLOW TEMPORARY RAISED PAVEMENT MARKERS (TYPE I) SHALL BE SUBSIDIARY TO OTHER TRAFFIC CONTROL BID ITEMS.

TYPICAL RUMBLE STRIP DETAILS





- UNI-DIRECTIONAL YELLOW TEMPORARY RAISED PAVEMENT MARKER (TYPE 1) (FACING RIGHT)
- CHANNELIZING DEVICE
- AHEAD, 1500 FT, OR 1 MILE
- AHEAD, 1000 FT, 1500 FT, OR ½ MILE
- SPEED TO BE DETERMINED BY THE ENGINEER
- SPAN WIRE AND SIGNAL HEAD WITH BACK PLATE
- TEMPORARY SIGNAL POLE
- TYPE "A" LOW INTENSITY WARNING LIGHT

NO.	DATE	REVISIONS	BY	APP'D
3	10/4/11	Modified Signal to Stopline Distance	J.A.M.	K.P.
2	8/8/07	Temporary Raised Pavement Marker Note	M.B.	A.A.A.
1	12/29/05	M4-20 Changed To KM4-20	M.B.	A.A.A.

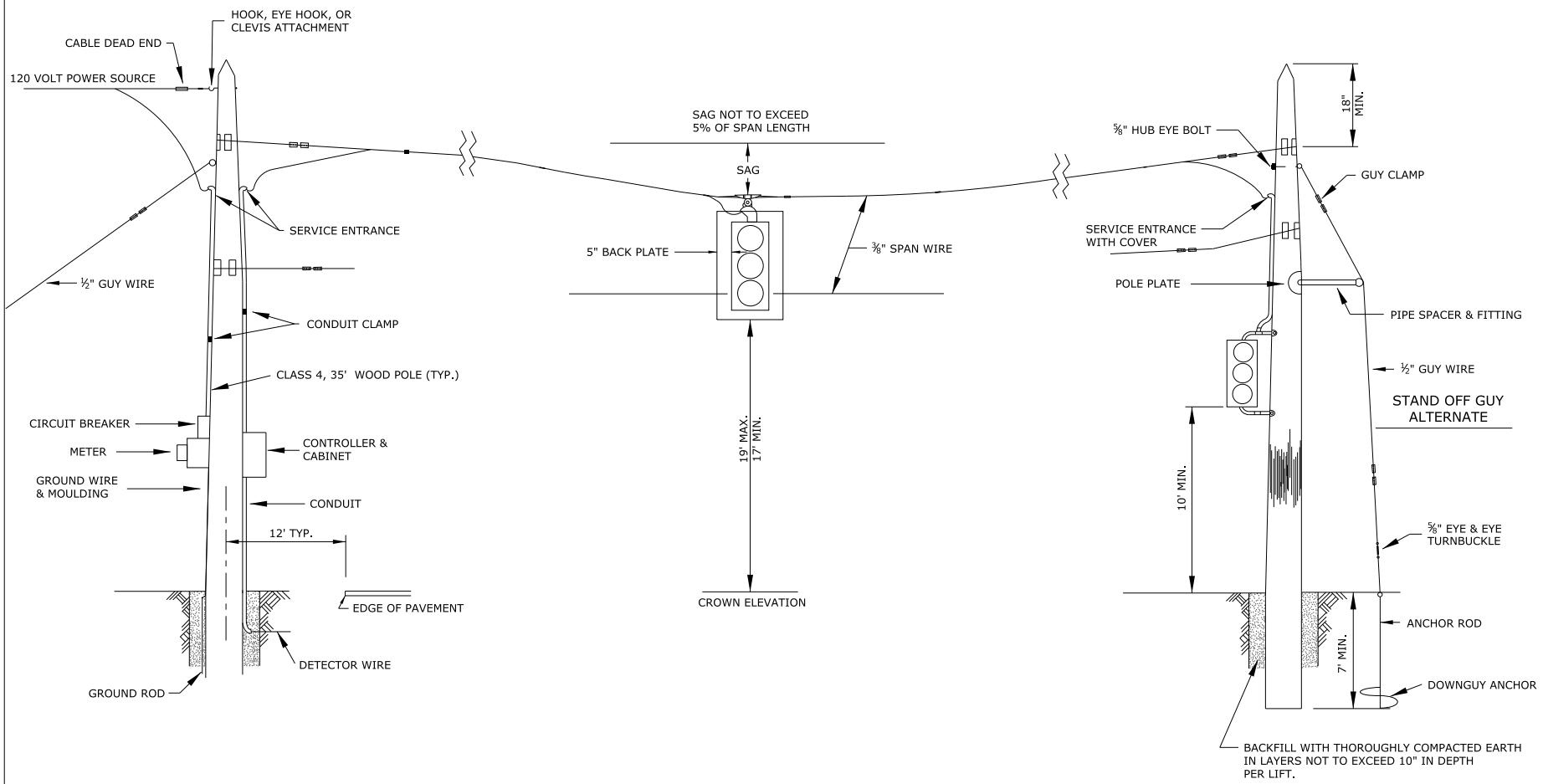
KANSAS DEPARTMENT OF TRANSPORTATION

TYPICAL TRAFFIC CONTROL
TWO-LANE HIGHWAY ONE LANE CLOSED
TEMPORARY TRAFFIC SIGNALS

TE732 SHEET 2 OF 2 9/1/00

F.H.W.A. APPROVAL		APP'D	10/4/11
DESIGNED	B.A.H.	DETAILED	10/4/11
DESIGN CK.		DETAIL CK.	B.A.H.
		QUANTITIES	Kristina Pyle
		TRACED	
		TRACE CK.	
		QUAN. CK.	

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				



GENERAL NOTES

THE ENGINEER IN CHARGE OF CONSTRUCTION WILL NEED TO APPROVE ALL LOCATIONS FOR TRAFFIC SIGNAL POLES TO BE INSTALLED. FINAL POSITIONS & AIMING OF SIGNAL FACES TO BE DETERMINED IN THE FIELD.

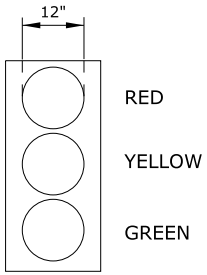
TRAILER MOUNTED PORTABLE TRAFFIC SIGNALS MAY BE SUBSTITUTED FOR SPAN WIRE SIGNALS WITH THE APPROVAL OF THE ENGINEER.

THE TRAFFIC SIGNAL SYSTEM SHALL CONFORM TO AND BE OPERATED ACCORDING TO THE REQUIREMENTS OF THE LATEST M.U.T.C.D. ADOPTED BY THE SECRETARY.

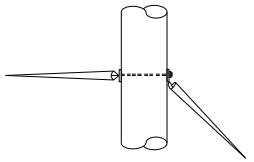
CONTACT LOCAL UTILITY COMPANIES TO ADVISE THEM OF INSTALLATION AND COORDINATE POWER HOOK-UP.

ALL WIRING INSTALLED SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE AND LOCAL ORDINANCES & REQUIREMENTS.

THE POWER SUPPLY AND THE OPERATION & MAINTENANCE OF THE SIGNAL SYSTEM SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.



SIGNAL INDICATIONS



ALTERNATE METHOD OF MOUNTING FOR SPANWIRE & DOWNGUY TRAFFIC SIGNAL SUPPORT POLE.

NOTE:
SEE TE734 FOR ADDITIONAL INFORMATION.

KANSAS DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNALS ONE-LANE OPERATION (TYPICAL INSTALLATION)

TE733 SHEET 1 OF 1 9/1/00

NO.	DATE	REVISIONS	BY	APP'D
3				
2	8/8/07	Added Note	M.B.	A.A.A.
1	11/19/03	Changed Border	B.J.H.	S.A.B.

FHWA APPROVAL
DESIGNED L.E.R. DETAILED B.A.H. QUANTITIES TRACED
DESIGN CK. DETAIL CK. QUAN. CK. TRACE CK.
APP'D 8/8/07 Anthony A. Arboaire

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

THE CONTROL EQUIPMENT SHALL BE DESIGNED IN SUCH A MANNER THAT THE NORMAL DWELL CONDITION SHALL BE AN "ALL RED" SIGNAL DISPLAY. UPON RECEIPT OF A DETECTOR ACTUATION FROM ONE APPROACH, THE SIGNALS FACING THAT APPROACH SHALL CYCLE TO A GREEN INDICATION FOR A MINIMUM PERIOD (MINIMUM GREEN). SUBSEQUENT DETECTOR ACTUATIONS FROM THE SAME DIRECTION SHALL RESULT IN ADDITIONAL GREEN TIME BEING ALLOCATED TO THAT MOVEMENT (UNIT EXTENSION). IN THE EVENT THAT AN ACTUATION EXISTS FOR THE DIRECTION OF TRAVEL NOT HAVING THE RIGHT OF WAY, A MAXIMUM GREEN TIME SETTING SHALL PROVIDE A PRESET TIME LIMIT FOR THE DIRECTION HAVING THE RIGHT OF WAY.

THE CONTROL EQUIPMENT SHALL PROVIDE FOR TWO DIFFERENT CLEARANCE SEQUENCES DEPENDING UPON BOTH THE IMMEDIATELY PRECEDING OPERATION OF THE SYSTEM AND THE REQUIRED SUBSEQUENT ACTION.

IF THE GREEN INDICATION HAS BEEN DISPLAYED TO ONE APPROACH TO THE ZONE, NO VEHICLE ACTUATION EXISTS ON THE OPPOSITE APPROACH AND ANOTHER ACTUATION OCCURS DURING THE YELLOW DISPLAY TO THE APPROACH JUST SERVICED, THE DISPLAY SHALL PROCEED TO AN ALL RED DISPLAY FOR A PERIOD OF TIME (RED REVERT) TO PREVENT THE DISPLAY OF GREEN - YELLOW - GREEN INDICATIONS TO THE MOTORIST.

IF THE RIGHT OF WAY IS TO BE TRANSFERRED TO THE OPPOSITE APPROACH, AN ALL RED INDICATION SHALL BE PROVIDED SO THAT OPPOSING TRAFFIC DOES NOT MEET WITHIN THE ONE WAY ZONE.

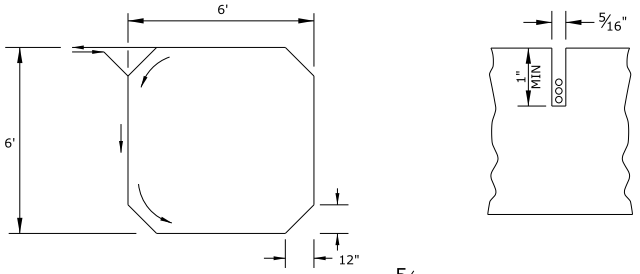
RESPONSE TO A VEHICLE ACTUATION FROM EITHER END OF THE ZONE SHALL BE IMMEDIATE IF ALL TIMINGS HAVE EXPIRED. IN THE EVENT THAT ALL TIME SETTINGS HAVE NOT EXPIRED AT THE POINT AT WHICH A VEHICLE ACTUATION OCCURS, THE SYSTEM SHALL CONTINUE TO PROVIDE THE APPROPRIATE CLEARANCE INTERVAL TIMINGS BEFORE ACTING UPON AN ACTUATION INPUT.

VEHICLE ACTUATIONS RECEIVED FROM THE DETECTOR AT THE OPPOSITE END OF THE ZONE FROM THAT WHICH LAST RECEIVED A GREEN INDICATION SHALL HAVE PREFERENCE OVER ADDITIONAL ACTUATIONS RECEIVED FROM THE END WHICH LAST HAD THE RIGHT OF WAY IN THE EVENT THAT ANY CLEARANCE INTERVAL TIMINGS HAVE NOT EXPIRED WHEN THE ACTUATION(S) OCCURS. IF ALL TIMINGS HAVE EXPIRED, RESPONSE SHALL BE ON A FIRST COME, FIRST SERVED BASIS.

ALL TIME SETTINGS SHALL BE USER ADJUSTABLE AND SHALL BE ACCOMPLISHED FROM THE EQUIPMENT FRONT PANEL BY WAY OF A KEYBOARD AND MENU SCREEN FORMAT. ALL APPLICABLE PORTIONS OF THE KDOT STANDARD SPECIFICATIONS FOR VEHICLE ACTUATED EQUIPMENT SHALL APPLY EXCEPT THAT A STANDARD NEMA CONFLICT MONITOR SHALL BE ACCEPTABLE.

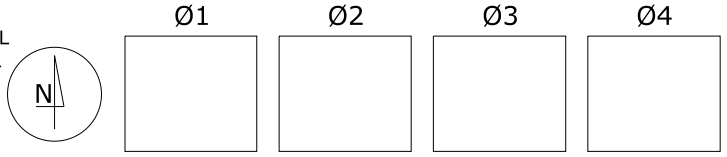
DETECTOR LOOPS, OR EQUIVALENT APPROVED BY THE ENGINEER, SHALL BE USED FOR ACTUATION OF THE SIGNALS. ON ASPHALT ROADWAYS, THE LOOPS MAY BE SAWED INTO THE ROAD. LOOPS OF THIS TYPE SHALL BE 6' BY 6' AND SHALL HAVE THREE TURNS OF WIRE (SEE DETAIL). COMMERCIALLY MADE LOOP MATS MAY ALSO BE USED. ON CONCRETE PAVEMENT, ONLY THE LOOP MATS MAY BE USED UNLESS THE PAVEMENT IS TO BE REMOVED AFTER THE LOOPS ARE NO LONGER IN USE. OTHER TYPES OF DETECTION MAY BE USED IF APPROVED PRIOR TO INSTALLATION BY THE ENGINEER. THE LOOPS SHALL BE CENTERED IN THE LANE OF TRAFFIC AND LOCATED 100' BEHIND THE STOP LINE. SEE TE732.

LOOP DETECTOR DETAIL



SLOTS IN PAVEMENT FOR LOOPS TO BE CUT $\frac{5}{16}$" WIDE WITH 1" MINIMUM DEPTH. FILL SLOTS WITH TYPE SS-1H EMULSIFIED ASPHALT (ASPHALT PAVEMENT) OR AN APPROVED ELASTIC EPOXY SEALANT (CONCRETE PAVEMENT) TO WITHIN $\frac{1}{8}$" OF PAVEMENT SURFACE. OTHER THAN A "WESTERN UNION" TYPE SPLICE OR APPROVED CONNECTOR AT THEIR JUNCTION, FEEDER CABLE AND LOOP WIRE SHALL BE OF CONTINUOUS RUN WITH NO SPLICES. THE LOOP AND THE FEEDER CABLE CONNECTION SHALL BE TWISTED 2 TURNS PER FOOT.

SIGNAL PHASING AND TIMING



PHASE	MINIMUM GREEN	MAXIMUM GREEN	YELLOW	ALL RED

PHASE		STATIONING
	STOPLINE	
	SIGNAL	
	SIGNAL	
	STOPLINE	

ALL TIMES IN SECONDS.
NORMAL DWELL SHALL BE "ALL RED".
UNIT EXTENSION SHALL BE 3.0 SECONDS.
RED REVERT SHALL BE 5.0 SECONDS.

DETECTOR SHALL BE SET TO OPERATE IN THE LOCKING MODE.
MICROWAVE DETECTION SYSTEMS FOR TEMPORARY TRAFFIC SIGNALS SHALL NOT BE USED IN URBAN AREAS.

NOTE: SEE TE733 FOR ADDITIONAL INFORMATION.

NO.	DATE	REVISIONS	BY	APP'D
3	10/4/11	Added Signal / Stopline Location Stationing	J.A.M.	K.P.
2	8/8/07	Added Note	M.B.	A.A.A.
1	11/19/03	Changed Border	B.H.	S.A.B.

KANSAS DEPARTMENT OF TRANSPORTATION

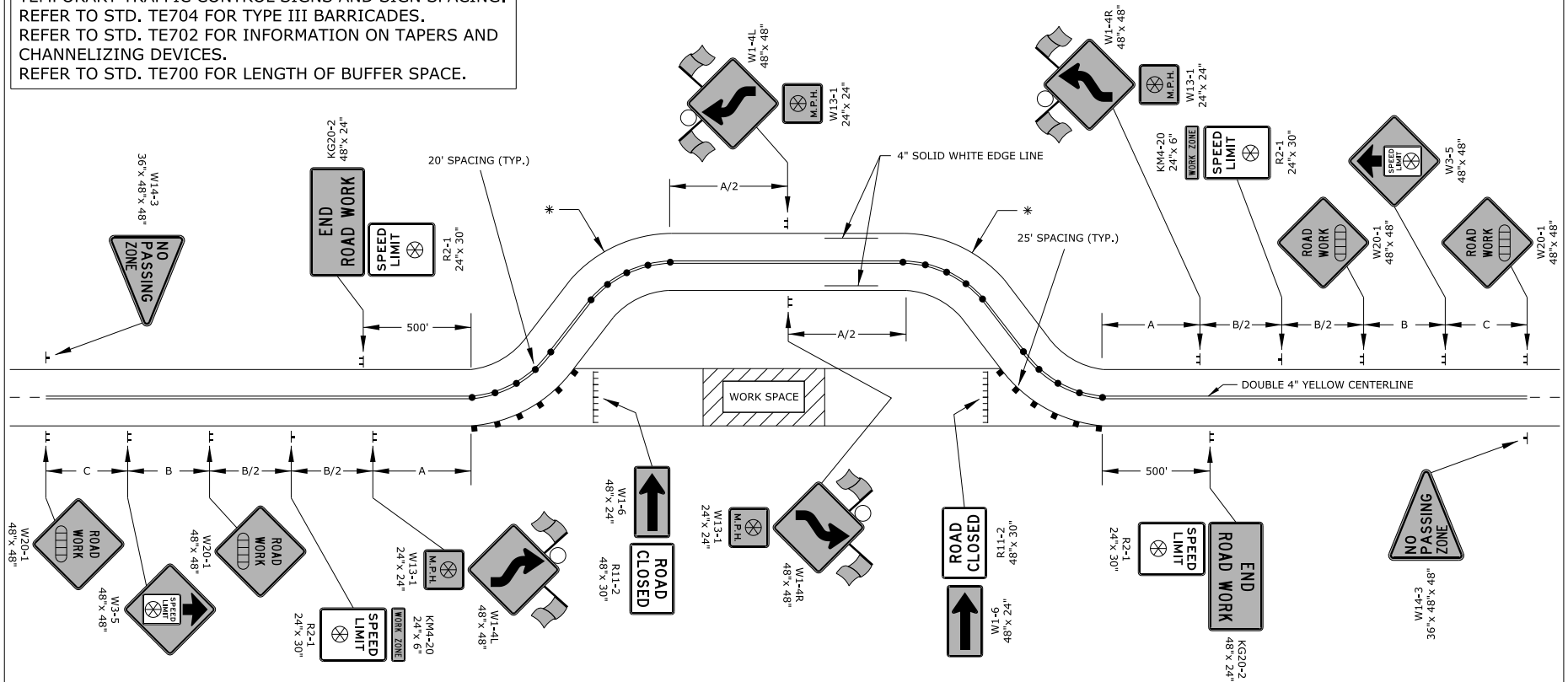
TEMPORARY TRAFFIC SIGNALS
ONE-LANE OPERATION
(TYPICAL INSTALLATION)

TE734 SHEET 1 OF 1 9/1/00

FHWA APPROVAL		10/4/11	APP'D	Kristina Pyle	
DESIGNED	L.E.R.	DETAILED	B.A.H.	QUANTITIES	TRACED
DESIGN CK.		DETAIL CK.		QUAN. CK.	TRACE CK.

Drawn By : jmadrid
File : TE734_1.dgn (TE734_1)
Plotted : 10-NOV-2011 11:34
Traffic

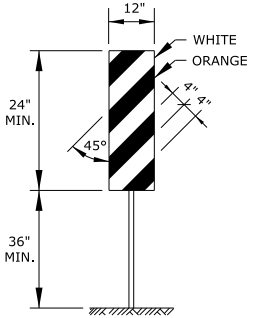
REFER TO STD. TE710 FOR ADDITIONAL INFORMATION ON TEMPORARY TRAFFIC CONTROL SIGNS AND SIGN SPACING.
REFER TO STD. TE704 FOR TYPE III BARRICADES.
REFER TO STD. TE702 FOR INFORMATION ON TAPERS AND CHANNELIZING DEVICES.
REFER TO STD. TE700 FOR LENGTH OF BUFFER SPACE.



* BLACK ON ORANGE 24" X 30" CHEVRON SIGNS (W1-8) SHALL BE MOUNTED BACK TO BACK ON THE OUTSIDE EDGE OF SHOOFLY CURVES WITH A RADIUS OF 1000' OR LESS AT THE SPACING SHOWN BELOW. A MINIMUM OF 3 CHEVRONS SHOULD BE INSTALLED PER CURVE.

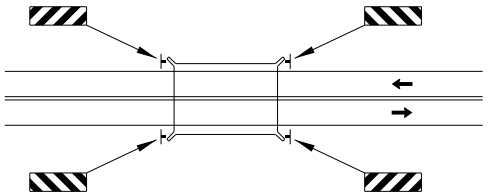
SUGGESTED CHEVRON SPACING	
CURVE RADIUS	MAX. SPACING
1000' - 800'	100'
800' - 450'	80'
LESS THAN 450'	60'

- ■ CHANNELIZING DEVICE
- ⊢⊣ TYPE III BARRICADES
- ● BI-DIRECTIONAL TEMP. RAISED PAVEMENT MARKER (TYPE I)
- ⊟ AHEAD, 1500 FT, OR 1 MILE
- ⊗ SPEED TO BE DETERMINED BY THE ENGINEER
- ○ TYPE "A" LOW INTENSITY WARNING LIGHT



VERTICAL PANEL

TYPICAL TEMPORARY STRUCTURE END TREATMENT ON SHOOFLY



THE ENTIRE AREA OF VERTICAL PANELS SHALL HAVE ASTM TYPE III SHEETING. THE STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZING.

KANSAS DEPARTMENT OF TRANSPORTATION

TYPICAL TRAFFIC CONTROL
SHOOFLY DIVERSION

TE736 SHEET 1 OF 1 9/1/00

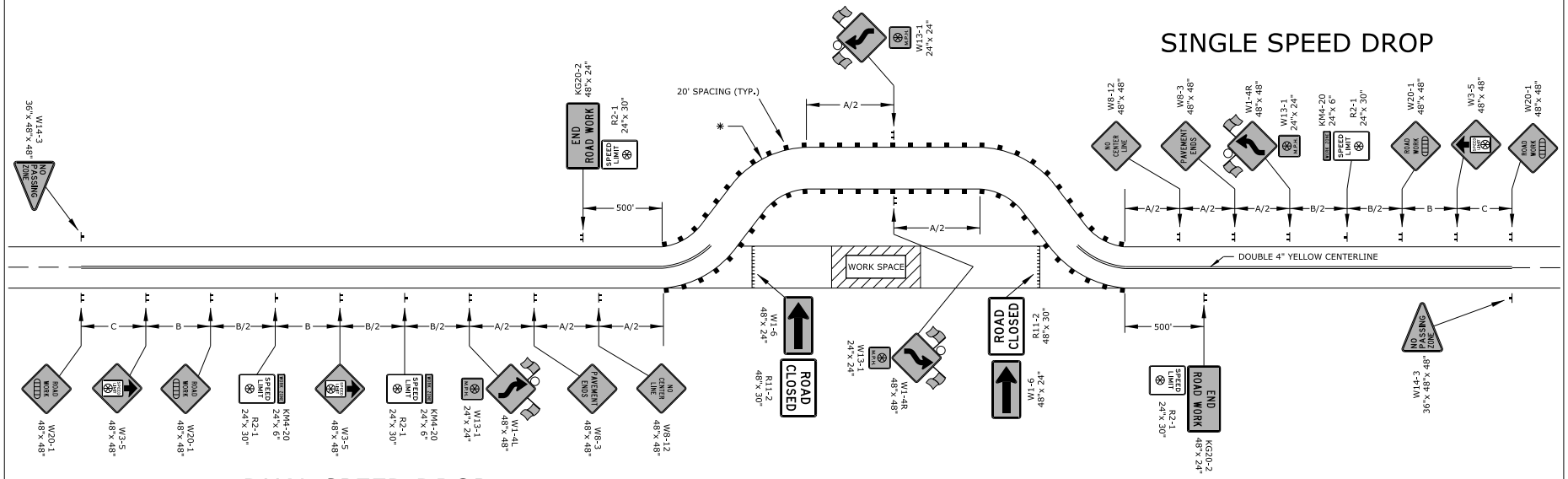
NO.	DATE	REVISIONS	BY	APP'D
3	10/4/11	Modified R11-2 and W1-6 Sign Placement	J.A.M.	K.P.
2	8/8/07	Sign Spacing Change	M.B.	A.A.A.
1	12/29/05	M4-20 Changed to KM4-20	M.B.	A.A.A.

FHWA APPROVAL			
DESIGNED	B.A.H.	DETAILED	10/4/11
DESIGN CK.		DETAIL CK.	
APP'D		Kristina Pyle	
QUANTITIES	B.A.H.	TRACED	
QUAN. CK.		TRACE CK.	

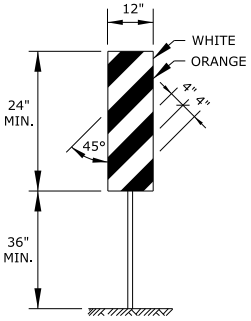
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

REFER TO STD. TE710 FOR ADDITIONAL INFORMATION ON TEMPORARY TRAFFIC CONTROL SIGNS AND SIGN SPACING.
REFER TO STD. TE704 FOR TYPE III BARRICADES.
REFER TO STD. TE702 FOR INFORMATION ON TAPERS AND CHANNELIZING DEVICES.
REFER TO STD. TE700 FOR LENGTH OF BUFFER SPACE.

SINGLE SPEED DROP

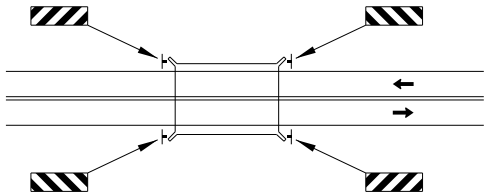


DUAL SPEED DROP



VERTICAL PANEL

TYPICAL TEMPORARY STRUCTURE END TREATMENT ON SHOOFLY



THE ENTIRE AREA OF VERTICAL PANELS SHALL HAVE ASTM TYPE III SHEETING. THE STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZING.

- ■ CHANNELIZING DEVICE
- TYPE III BARRICADES AHEAD, 1500 FT, OR 1 MILE
- SPEED TO BE DETERMINED BY THE ENGINEER
- ○ TYPE "A" LOW INTENSITY WARNING LIGHT

✳ BLACK ON ORANGE 24" X 30" CHEVRON SIGNS (W1-8) SHALL BE MOUNTED BACK TO BACK ON THE OUTSIDE EDGE OF SHOOFLY CURVES WITH A RADIUS OF 1000' OR LESS AT THE SPACING SHOWN BELOW. A MINIMUM OF 3 CHEVRONS SHOULD BE INSTALLED PER CURVE.

SUGGESTED CHEVRON SPACING	
CURVE RADIUS	MAX. SPACING
1000' - 800'	100'
800' - 450'	80'
LESS THAN 450'	60'

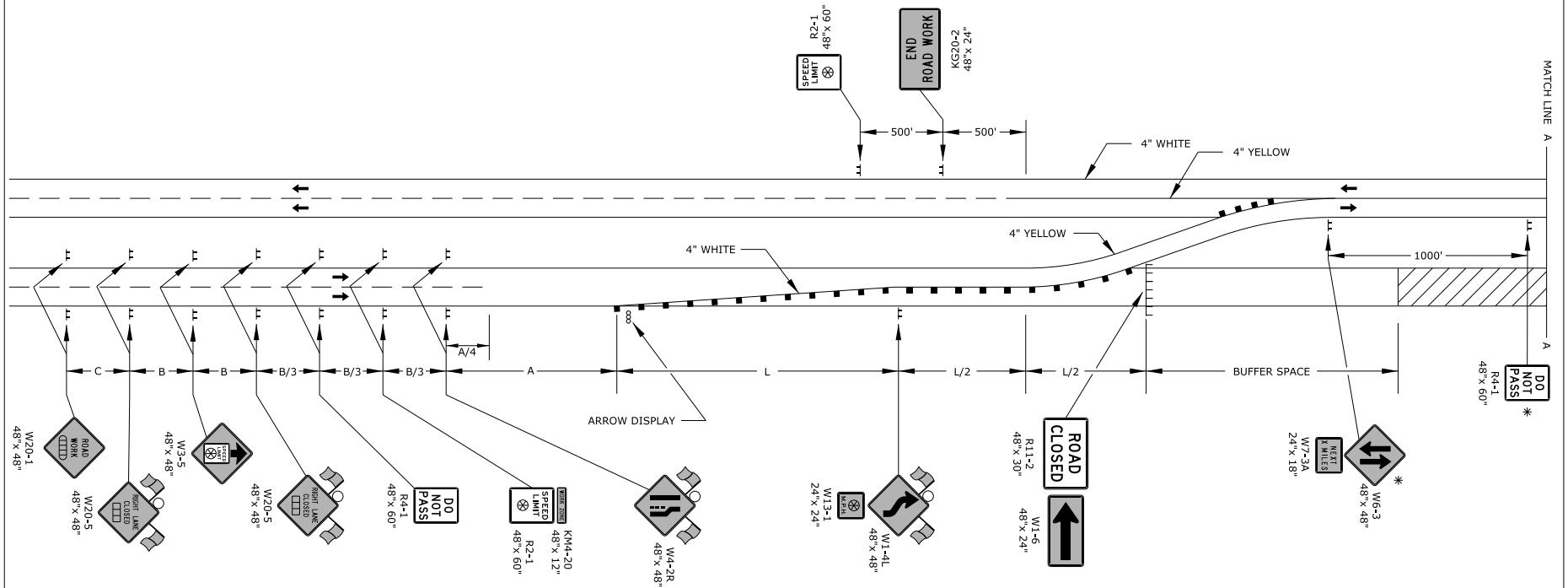
KANSAS DEPARTMENT OF TRANSPORTATION
TYPICAL TRAFFIC CONTROL
GRAVEL
SHOOFLY DIVERSION
TE737 SHEET 1 OF 1 9/29/09

NO.	DATE	REVISIONS	BY	APP'D
3				
2	10/4/11	Modified Rt-2, W1-6, W8-3 and W8-12 Signs	J.A.M.	K.P.
1	11/30/09	Added KW8-3 Sign Identification	J.A.M.	A.A.A.

		APP'D	
FHWA APPROVAL			
DESIGNED	J.M.DETAILED	10/4/11	Kristina Pyle
DESIGN CK.	J.M.DETAIL CK.	J.M. QUANTITIES	TRACED
		J.M. QUAN. CK.	TRACE CK.

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

REFER TO STD. TE710 FOR ADDITIONAL INFORMATION ON TEMPORARY TRAFFIC CONTROL SIGNS AND SIGN SPACING.
REFER TO STD. TE704 FOR TYPE III BARRICADES.
REFER TO STD. TE702 FOR INFORMATION ON TAPERS AND CHANNELIZING DEVICES.
REFER TO STD. TE700 FOR LENGTH OF BUFFER SPACE.



TYPE III BARRICADES
X LENGTH TO THE NEAREST WHOLE MILE
■ CHANNELIZING DEVICE
AHEAD, 1500 FT, OR 1 MILE
AHEAD, 1000 FT, 1500 FT, OR ½ MILE
SPEED TO BE DETERMINED BY THE ENGINEER
TYPE "A" LOW INTENSITY WARNING LIGHT

THE W6-3 & R4-1 SIGN COMBINATION MAY BE REQUIRED AT ADDITIONAL LOCATIONS ALONG THE PROJECT. THE SPACING BETWEEN THESE LOCATIONS SHALL BE A MAXIMUM OF 1 MILE. THE W7-3A SIGN SHOULD BE MOUNTED WITH THE W6-3 SIGN AT 2 MILE INCREMENTS ON A PROJECT OF 4 MILES OR LONGER.

✳ SIGN TO BE ELIMINATED IF CONCRETE SAFETY BARRIER SYSTEM IS USED.

✳✳ BARRICADE TO BE ELIMINATED AND SIGN W1-6 TO BE MOUNTED ON SKIDS IF CONCRETE SAFETY BARRIER SYSTEM IS USED.

NO.	DATE	BY	REVISIONS
3	10/4/11	J.A.M.	Modified R11-2 and W1-6 Sign Placement
2	8/8/07	M.B.	Sign Spacing Change
1	12/29/05	A.A.A.	M4-20 Changed to KM4-20
		A.A.A.	K.P.

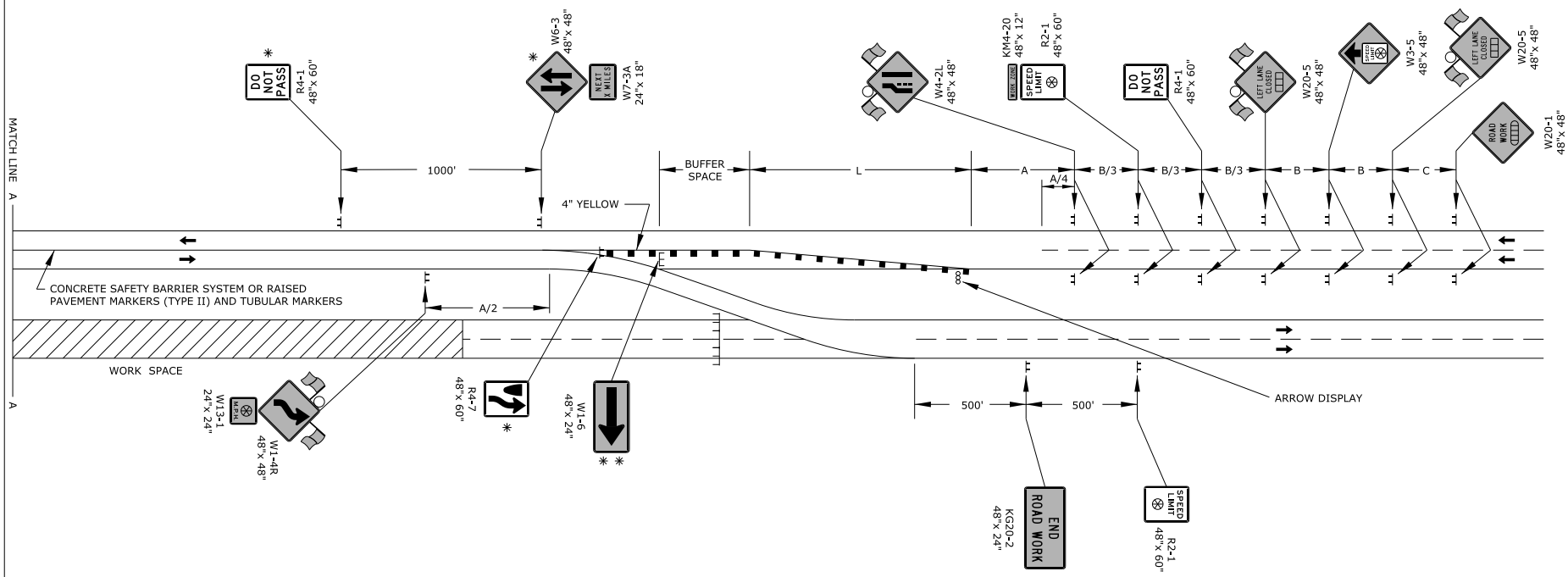
KANSAS DEPARTMENT OF TRANSPORTATION

TYPICAL TRAFFIC CONTROL
FOUR-LANE DIVIDED HIGHWAY
ONE ROADWAY CLOSED
CROSSOVER FROM LEFT LANE
TE740 SHEET 1 OF 2 9/1/00

FHWA APPROVAL		APP'D	10/4/11
DESIGNED	B.A.H.	DETAILED	B.A.H.
DESIGN CK.		DETAIL CK.	
QUANTITIES		Kristina Pyle	
QUAN. CK.		TRACED	
		TRACE CK.	

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

REFER TO STD. TE710 FOR ADDITIONAL INFORMATION ON TEMPORARY TRAFFIC CONTROL SIGNS AND SIGN SPACING.
REFER TO STD. TE704 FOR TYPE III BARRICADES.
REFER TO STD. TE702 FOR INFORMATION ON TAPERS AND CHANNELIZING DEVICES.
REFER TO STD. TE700 FOR LENGTH OF BUFFER SPACE.



TYPE III BARRICADES
X LENGTH TO THE NEAREST WHOLE MILE
■ CHANNELIZING DEVICE
AHEAD, 1500 FT, OR 1 MILE
AHEAD, 1000 FT, 1500 FT, OR ½ MILE
SPEED TO BE DETERMINED BY THE ENGINEER
TYPE "A" LOW INTENSITY WARNING LIGHT

THE W6-3 & R4-1 SIGN COMBINATION MAY BE REQUIRED AT ADDITIONAL LOCATIONS ALONG THE PROJECT. THE SPACING BETWEEN THESE LOCATIONS SHALL BE A MAXIMUM OF 1 MILE. THE W7-3A SIGN SHOULD BE MOUNTED WITH THE W6-3 SIGN AT 2 MILE INCREMENTS ON A PROJECT OF 4 MILES OR LONGER.

✳ SIGN TO BE ELIMINATED IF CONCRETE SAFETY BARRIER SYSTEM IS USED.

✳✳ BARRICADE TO BE ELIMINATED AND SIGN W1-6 TO BE MOUNTED ON SKIDS IF CONCRETE SAFETY BARRIER SYSTEM IS USED.

NO.	DATE	REVISIONS	BY	APP'D
3	10/4/11	Modified R11-2 and W1-6 Sign Placement	J.A.M.	K.P.
2	8/8/07	Sign Spacing Change	M.B.	A.A.A.
1	12/29/05	M4-20 Changed to KM4-20	M.B.	A.A.A.

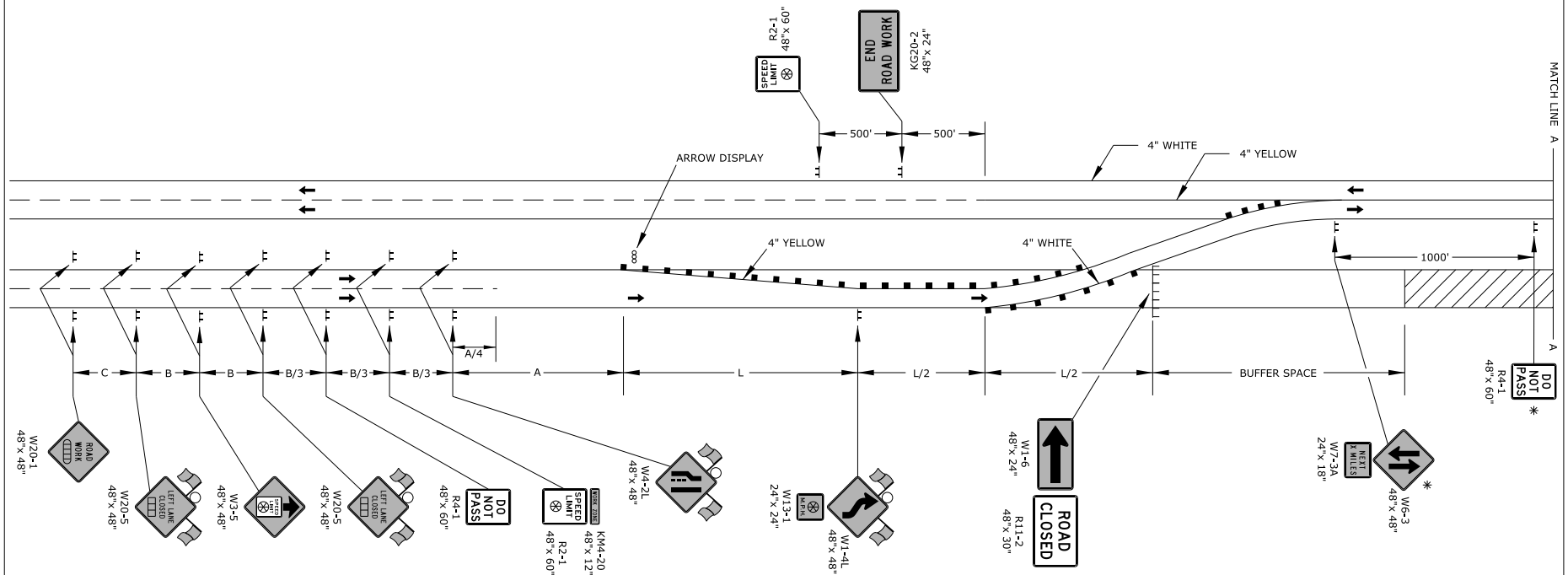
KANSAS DEPARTMENT OF TRANSPORTATION

TYPICAL TRAFFIC CONTROL
FOUR-LANE DIVIDED HIGHWAY
ONE ROADWAY CLOSED
CROSSOVER FROM LEFT LANE
TE740 SHEET 2 OF 2 9/1/00

F.H.W.A. APPROVAL		Kristina Pyle	10/4/11
DESIGNED	B.A.H.	DETAILED	B.A.H.
DESIGN CK.		DETAIL CK.	
QUANTITIES	B.A.H.	TRACED	
QUAN. CK.		TRACE CK.	

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

REFER TO STD. TE710 FOR ADDITIONAL INFORMATION ON TEMPORARY TRAFFIC CONTROL SIGNS AND SIGN SPACING.
REFER TO STD. TE704 FOR TYPE III BARRICADES.
REFER TO STD. TE702 FOR INFORMATION ON TAPERS AND CHANNELIZING DEVICES.
REFER TO STD. TE700 FOR LENGTH OF BUFFER SPACE.



- TYPE III BARRICADES
- X LENGTH TO THE NEAREST WHOLE MILE
- ■ CHANNELIZING DEVICE
- AHEAD, 1500 FT, OR 1 MILE
- AHEAD, 1000 FT, 1500 FT, OR ½ MILE
- SPEED TO BE DETERMINED BY THE ENGINEER
- ○ TYPE "A" LOW INTENSITY WARNING LIGHT

THE W6-3 & R4-1 SIGN COMBINATION MAY BE REQUIRED AT ADDITIONAL LOCATIONS ALONG THE PROJECT. THE SPACING BETWEEN THESE LOCATIONS SHALL BE A MAXIMUM OF 1 MILE. THE W7-3A SIGN SHOULD BE MOUNTED WITH THE W6-3 SIGN AT 2 MILE INCREMENTS ON A PROJECT OF 4 MILES OR LONGER.

✳ SIGN TO BE ELIMINATED IF CONCRETE SAFETY BARRIER SYSTEM IS USED.

✳✳ BARRICADE TO BE ELIMINATED AND SIGN W1-6 TO BE MOUNTED ON SKIDS IF CONCRETE SAFETY BARRIER SYSTEM IS USED.

NO.	DATE	REVISIONS	BY	APP'D
3	8/8/07	Sign Spacing Change	M.B.	A.A.A.
2	12/29/05	W4-20 Changed to KM4-20	M.B.	A.A.A.
1	2/1/05	Clarified Notes, Updated Warning Signs	B.J.H.	A.A.A.

KANSAS DEPARTMENT OF TRANSPORTATION

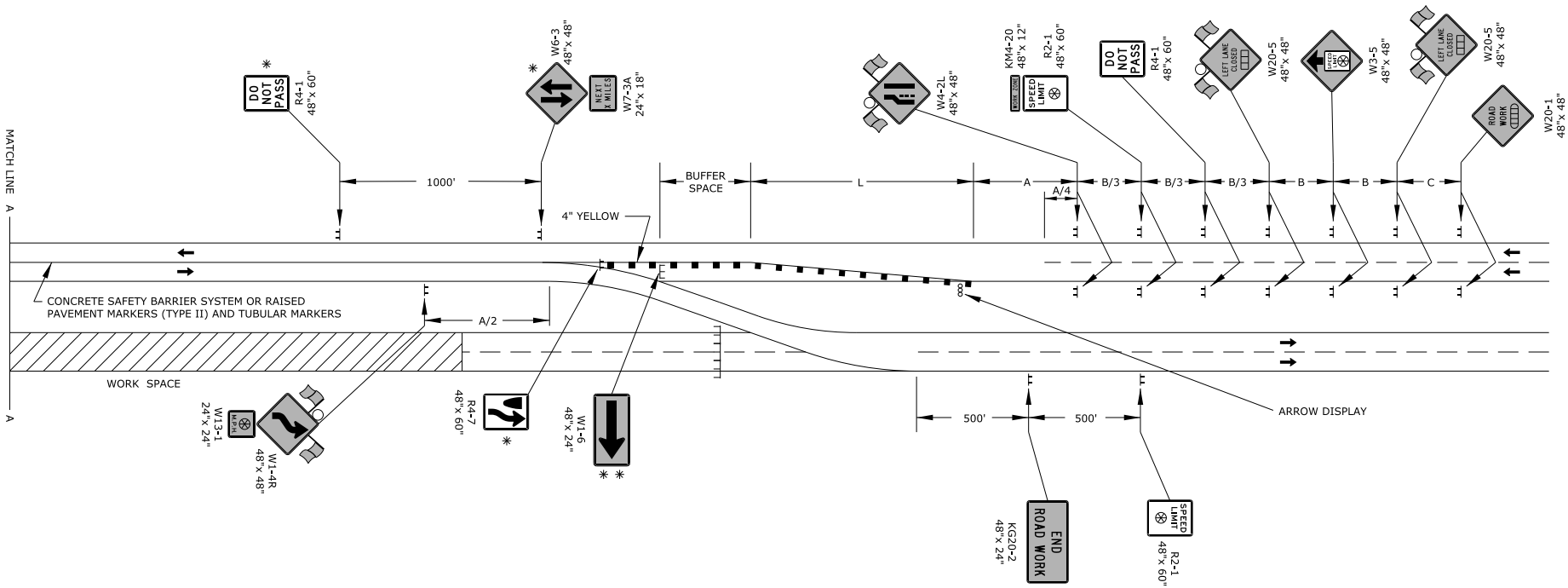
TYPICAL TRAFFIC CONTROL FOUR-LANE DIVIDED HIGHWAY ONE ROADWAY CLOSED CROSSOVER FROM RIGHT LANE

TE742 SHEET 1 OF 2 9/1/00

FHWA APPROVAL		APP'D	Anthony A. Airoldi
DESIGNED	B.A.H.	DETAILED	8/8/2007
DESIGN CK.		DETAIL CK.	
QUANTITIES	B.A.H.	TRACED	
QUAN. CK.		TRACE CK.	

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

REFER TO STD. TE710 FOR ADDITIONAL INFORMATION ON TEMPORARY TRAFFIC CONTROL SIGNS AND SIGN SPACING.
REFER TO STD. TE704 FOR TYPE III BARRICADES.
REFER TO STD. TE702 FOR INFORMATION ON TAPERS AND CHANNELIZING DEVICES.
REFER TO STD. TE700 FOR LENGTH OF BUFFER SPACE.



TYPE III BARRICADES
X LENGTH TO THE NEAREST WHOLE MILE
CHANNELIZING DEVICE
AHEAD, 1500 FT, OR 1 MILE
AHEAD, 1000 FT, 1500 FT, OR ½ MILE
SPEED TO BE DETERMINED BY THE ENGINEER
TYPE "A" LOW INTENSITY WARNING LIGHT

THE W6-3 & R4-1 SIGN COMBINATION MAY BE REQUIRED AT ADDITIONAL LOCATIONS ALONG THE PROJECT. THE SPACING BETWEEN THESE LOCATIONS SHALL BE A MAXIMUM OF 1 MILE. THE W7-3A SIGN SHOULD BE MOUNTED WITH THE W6-3 SIGN AT 2 MILE INCREMENTS ON A PROJECT OF 4 MILES OR LONGER.

✳ SIGN TO BE ELIMINATED IF CONCRETE SAFETY BARRIER SYSTEM IS USED.

✳✳ BARRICADE TO BE ELIMINATED AND SIGN W1-6 TO BE MOUNTED ON SKIDS IF CONCRETE SAFETY BARRIER SYSTEM IS USED.

NO.	DATE	REVISIONS	BY	APP'D
3	8/8/07	Sign Spacing Change	M.B.	A.A.A.
2	12/29/05	W4-20 Changed to KM4-20	M.B.	A.A.A.
1	2/1/05	Clarified Notes, Updated Warning Signs	B.J.H.	A.A.A.

KANSAS DEPARTMENT OF TRANSPORTATION

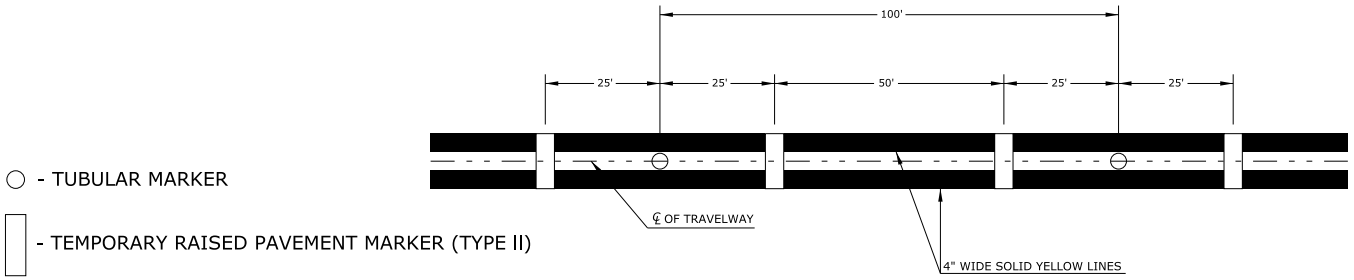
TYPICAL TRAFFIC CONTROL
FOUR-LANE DIVIDED HIGHWAY
ONE ROADWAY CLOSED
CROSSOVER FROM RIGHT LANE
TE742 SHEET 2 OF 2 9/1/00

FHWA APPROVAL		APP'D	Anthony A. Airoboire
DESIGNED	B.A.H.	DETAILED	8/8/2007
DESIGN CK.		DETAIL CK.	
QUANTITIES	B.A.H.	TRACED	
QUAN. CK.		TRACE CK.	

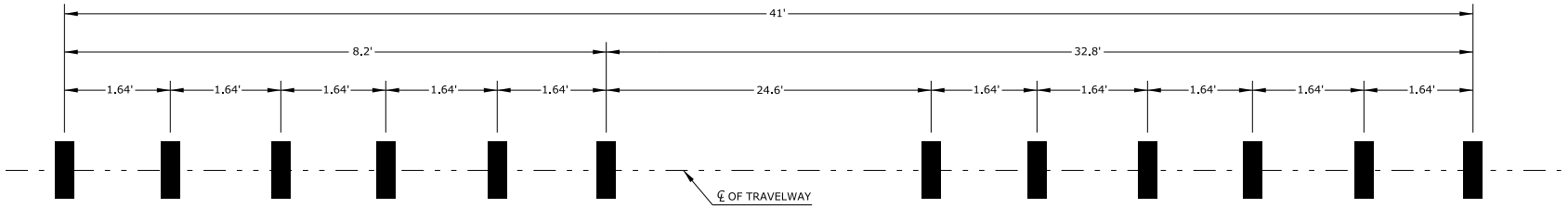
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

REFER TO STD. TE702 FOR INFORMATION ON CHANNELIZING DEVICES.

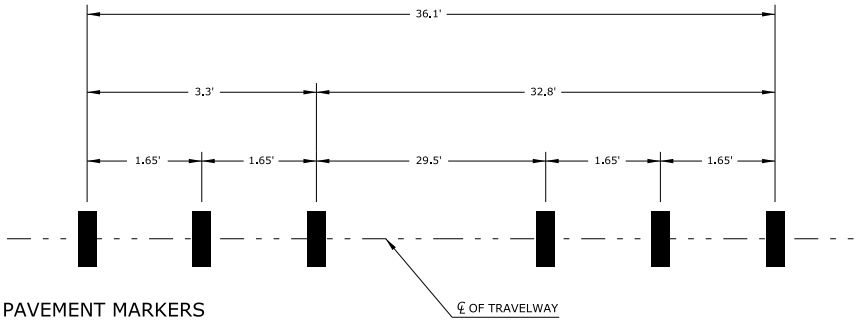
TUBULAR MARKER - TEMPORARY RAISED PAVEMENT MARKERS (TYPE II)
TWO-LANE, TWO WAY TRAFFIC ON
INTERSTATE ROADS & OTHER FREEWAYS



FLEXIBLE RAISED PAVEMENT MARKERS
(INTERSTATE)



FLEXIBLE RAISED PAVEMENT MARKERS
(NON-INTERSTATE)



KANSAS DEPARTMENT OF TRANSPORTATION

TYPICAL TRAFFIC CONTROL
TEMPORARY RAISED
PAVEMENT MARKERS (TYPE II)
& FLEXIBLE RAISED PAVEMENT
MARKERS SPACING

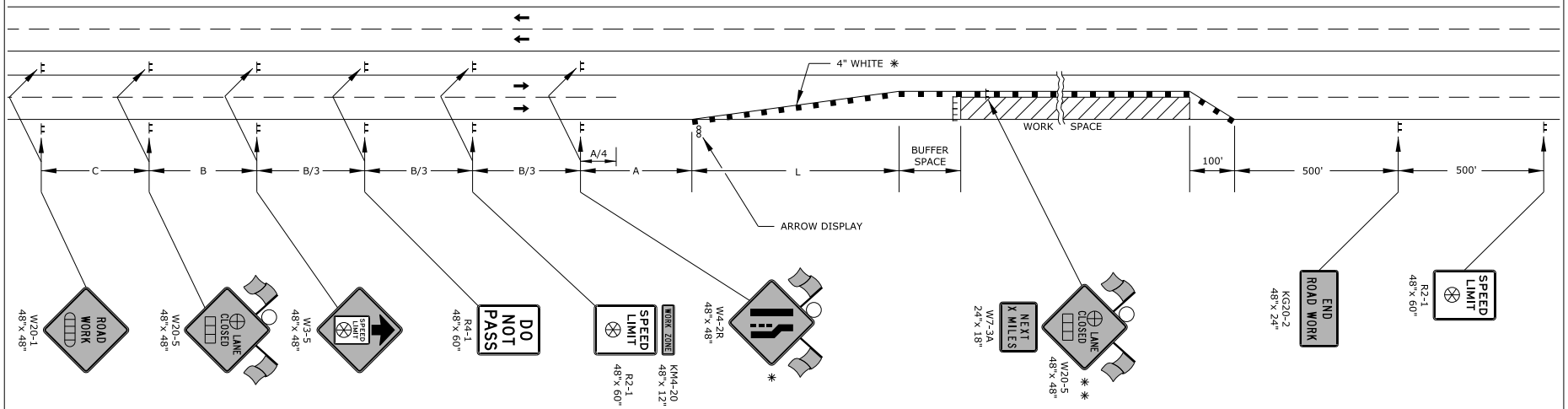
TE743 SHEET 1 OF 1 5/5/09

NO.	DATE	REVISIONS	BY	APP'D
1	10/4/11	Added RPM Detail for Interstate	J.A.M.	K.P.
2				
3				

F.H.W.A. APPROVAL		APP'D	Kristina Pyle
DESIGNED	J.A.M.	DETAILED	
DESIGN CK.	A.A.A.	DETAIL CK.	
	10/4/11	QUANTITIES	J.A.M.
	A.A.A.	QUAN. CK.	
		TRACED	
		TRACE CK.	

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

REFER TO STD. TE710 FOR ADDITIONAL INFORMATION ON TEMPORARY TRAFFIC CONTROL SIGNS AND SIGN SPACING.
REFER TO STD. TE704 FOR TYPE III BARRICADES.
REFER TO STD. TE702 FOR INFORMATION ON TAPERS AND CHANNELIZING DEVICES.
REFER TO STD. TE700 FOR LENGTH OF BUFFER SPACE.



LEFT-SIDE SIGNS SHALL BE OMITTED FOR A FOUR-LANE UNDIVIDED HIGHWAY.

✳ FOR LEFT LANE CLOSURES USE W4-2L AND YELLOW EDGE LINE ALONG CHANNELIZING DEVICES.

✳ ✳ THE W20-5 (⊕ LANE CLOSED) AND W7-3A (NEXT X MILES) SIGNS SHOULD BE PLACED AT 2 MILE INCREMENTS ON A PROJECT OF 4 MILES OR LONGER.

- TYPE III BARRICADES
- X LENGTH TO THE NEAREST WHOLE MILE
- ■ CHANNELIZING DEVICE
- AHEAD, 1500 FT, OR 1 MILE
- AHEAD, 1000 FT, 1500 FT, OR ½ MILE
- ⊕ RIGHT OR LEFT
- ⊗ SPEED TO BE DETERMINED BY THE ENGINEER
- ○ TYPE "A" LOW INTENSITY WARNING LIGHT

NO.	DATE	REVISIONS	BY	APP'D
3	8/8/07	Sign Spacing Change	M.B.	A.A.A.
2	12/29/05	W4-20 Changed to KM4-20	M.B.	A.A.A.
1	2/1/05	Clarified Notes, Updated Warning Signs	B.J.H.	A.A.A.

KANSAS DEPARTMENT OF TRANSPORTATION

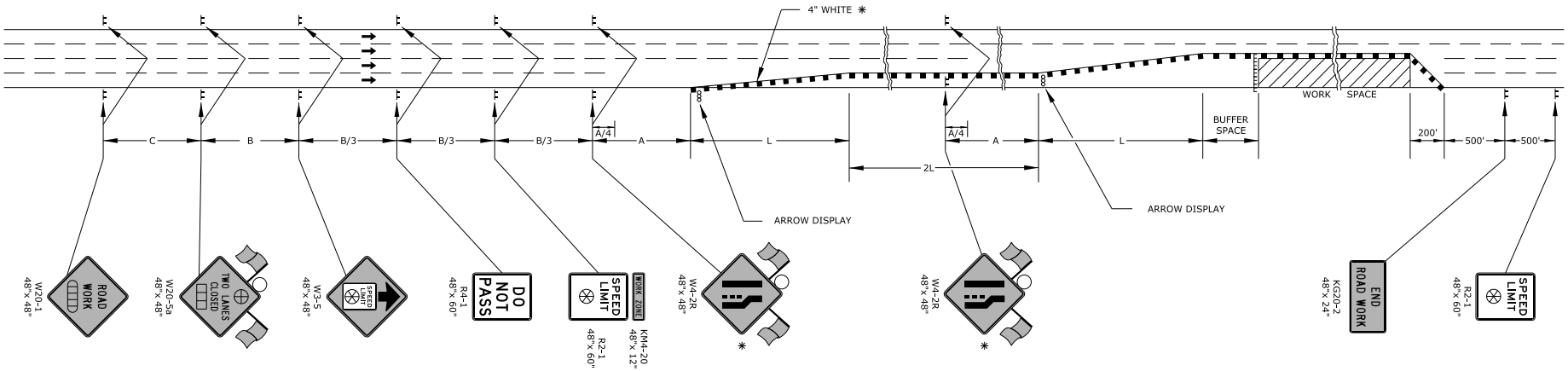
TYPICAL TRAFFIC CONTROL
FOUR-LANE HIGHWAY
ONE LANE CLOSED

TE744 SHEET 1 OF 1 9/1/00

FHWA APPROVAL		APP'D	Anthony A. Arrobaire
DESIGNED	B.A.H.	DETAILED	8/8/2007
DESIGN CK.		DETAIL CK.	
		QUANTITIES	B.A.H.
		QUAN. CK.	
		TRACED	
		TRACE CK.	

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

REFER TO STD. TE710 FOR ADDITIONAL INFORMATION ON TEMPORARY TRAFFIC CONTROL SIGNS AND SIGN SPACING.
REFER TO STD. TE704 FOR TYPE III BARRICADES.
REFER TO STD. TE702 FOR INFORMATION ON TAPERS AND CHANNELIZING DEVICES.
REFER TO STD. TE700 FOR LENGTH OF BUFFER SPACE.



TYPE III BARRICADES
CHANNELIZING DEVICE
AHEAD, 1500 FT, OR 1 MILE
AHEAD, 1000 FT, 1500 FT, OR ½ MILE
RIGHT OR LEFT
SPEED TO BE DETERMINED BY THE ENGINEER
TYPE "A" LOW INTENSITY WARNING LIGHT

✳ FOR LEFT LANE CLOSURES USE W4-2L AND YELLOW EDGE LINE ALONG CHANNELIZING DEVICES.

NO.	DATE	REVISIONS	BY	APP'D
3	10/4/11	Modified Pavement Marking Dimension	J.A.M.	K.P.
2	8/8/07	Sign Spacing Change	M.B.	A.A.A.
1	12/29/05	M4-20 Changed to KM4-20	M.B.	A.A.A.

KANSAS DEPARTMENT OF TRANSPORTATION

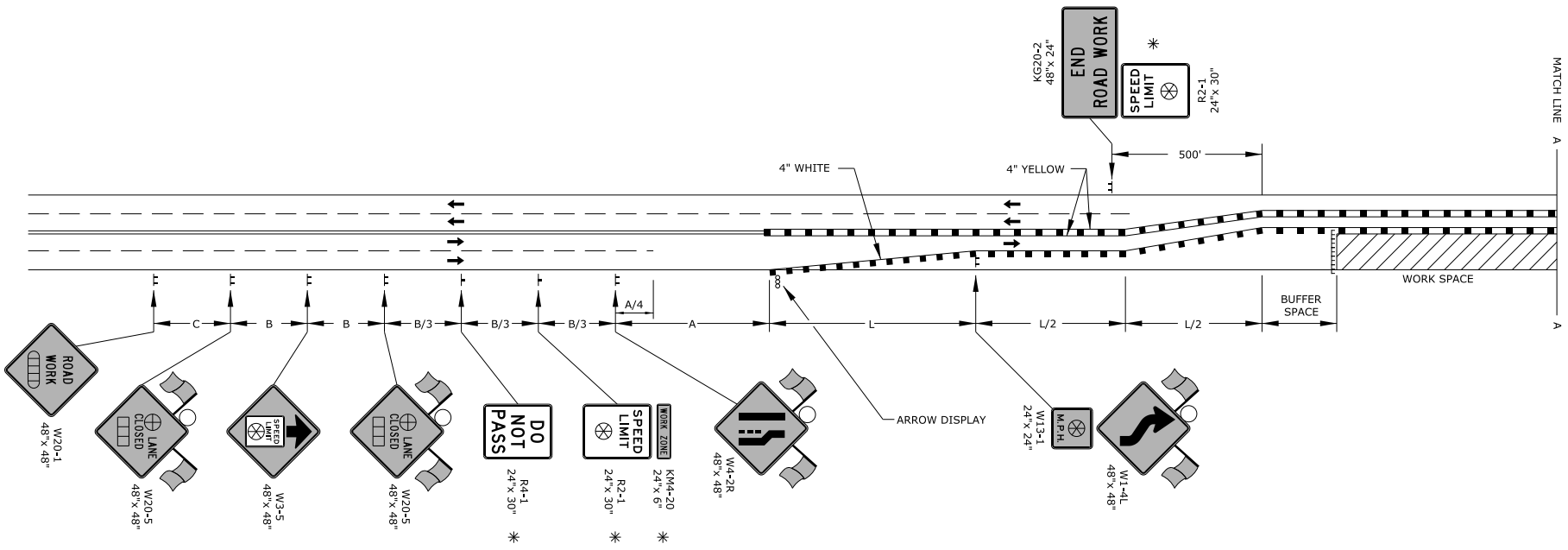
TYPICAL TRAFFIC CONTROL
MULTI-LANE HIGHWAY
TWO LANES CLOSED

TE746 SHEET 1 OF 1 9/1/00

FHWA APPROVAL		APP'D	Kristina Pyle
DESIGNED	B.A.H.	DETAILED	10/4/11
DESIGN CK.		DETAIL CK.	
APP'D	10/4/11	QUANTITIES	B.A.H.
QUAN. CK.		TRACED	
TRACE CK.			

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

REFER TO STD. TE710 FOR ADDITIONAL INFORMATION ON TEMPORARY TRAFFIC CONTROL SIGNS AND SIGN SPACING.
REFER TO STD. TE704 FOR TYPE III BARRICADES.
REFER TO STD. TE702 FOR INFORMATION ON TAPERS AND CHANNELIZING DEVICES.
REFER TO STD. TE700 FOR LENGTH OF BUFFER SPACE.



TYPE III BARRICADES
CHANNELIZING DEVICE
AHEAD, 1500 FT, OR 1 MILE
AHEAD, 1000 FT, 1500 FT, OR ½ MILE
RIGHT OR LEFT
SPEED TO BE DETERMINED BY THE ENGINEER
TYPE "A" LOW INTENSITY WARNING LIGHT

✳ FOR SPEEDS GREATER THAN 45 MPH USE FREEWAY / EXPRESSWAY SIZE SIGNS.

NO.	DATE	REVISIONS	BY	APP'D
3	10/4/11	Adjusted R2-1and KM4-20 Signs	J.A.M.	K.P.
2	8/8/07	Sign Spacing Change	M.B.	A.A.A.
1	12/23/05	M4-20 Changed to KM4-20	M.B.	A.A.A.

KANSAS DEPARTMENT OF TRANSPORTATION

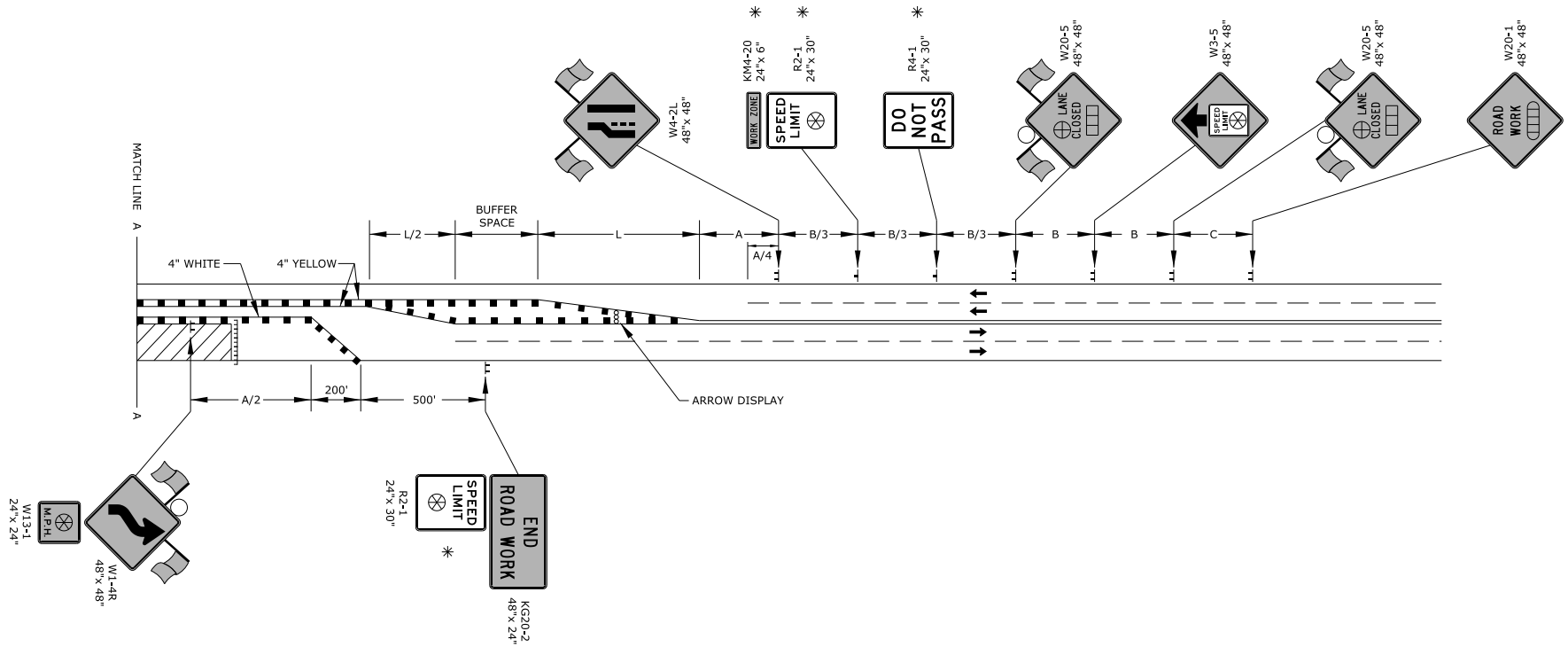
TYPICAL TRAFFIC CONTROL
FOUR-LANE UNDIVIDED HIGHWAY
ONE-HALF ROADWAY CLOSED

TE748 SHEET 1 OF 2 9/1/00

FHWA APPROVAL		10/4/11	Kristina Pyle
DESIGNED	B.A.H.	DETAILED	TRACED
DESIGN CK.		DETAIL CK.	TRACE CK.
APP'D		QUANTITIES	
	B.A.H.	QUAN. CK.	

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

REFER TO STD. TE710 FOR ADDITIONAL INFORMATION ON TEMPORARY TRAFFIC CONTROL SIGNS AND SIGN SPACING.
REFER TO STD. TE704 FOR TYPE III BARRICADES.
REFER TO STD. TE702 FOR INFORMATION ON TAPERS AND CHANNELIZING DEVICES.
REFER TO STD. TE700 FOR LENGTH OF BUFFER SPACE.



TYPE III BARRICADES
CHANNELIZING DEVICE
AHEAD, 1500 FT, OR 1 MILE
AHEAD, 1000 FT, 1500 FT, OR ½ MILE
RIGHT OR LEFT
SPEED TO BE DETERMINED BY THE ENGINEER
TYPE "A" LOW INTENSITY WARNING LIGHT

✳ FOR SPEEDS GREATER THAN 45 MPH USE FREEWAY / EXPRESSWAY SIZE SIGNS.

KANSAS DEPARTMENT OF TRANSPORTATION

TYPICAL TRAFFIC CONTROL FOUR-LANE UNDIVIDED HIGHWAY ONE-HALF ROADWAY CLOSED

TE748 SHEET 2 OF 2 9/1/00

NO.	DATE	REVISIONS	BY	APP'D
3	10/4/11	Adjusted R2-1and KM4-20 Sign Sizes	J.A.M.	K.P.
2	8/8/07	Sign Spacing Change	M.B.	A.A.A.
1	12/29/05	M4-20 Changed to KM4-20	M.B.	A.A.A.

FHWA APPROVAL		10/4/11	Kristina Pyle
DESIGNED	B.A.H.	DETAILED	QUANTITIES
DESIGN CK.		DETAIL CK.	QUAN. CK.
		APP'D	TRACED
			TRACE CK.

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

SUMMARY OF TRAFFIC CONTROL DEVICES TO BE MAINTAINED BETWEEN PROJECTS

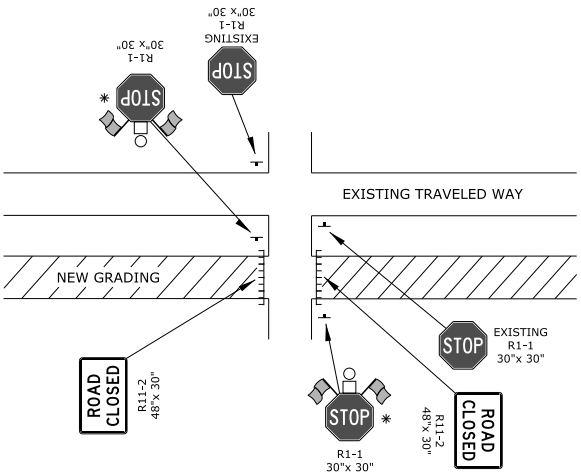
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

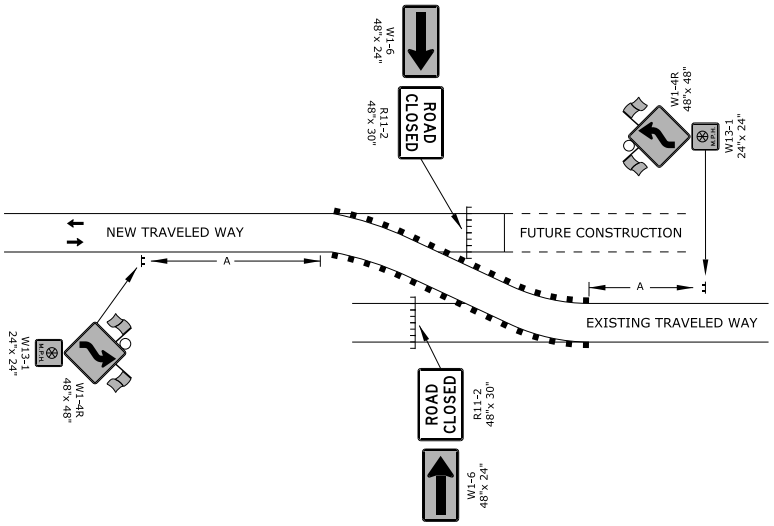
QTY. BARRICADES	QTY. CHANNELIZING DEVICES	QTY./SIGN NO.	STATION	LOCATION-DESCRIPTION

NOTE:
TRAFFIC CONTROL DEVICES AND SIGNS SUMMARIZED ON THIS SHEET ARE TO BE MAINTAINED BY THE CONTRACTOR AT THE LOCATIONS INDICATED BETWEEN PROJECTS FOR AN INTERIM AS DIRECTED BY THE ENGINEER. THE QUANTITIES FOR THESE ITEMS ARE INCLUDED IN THE "SUMMARY OF DEVICES AND RECAPITULATION OF QUANTITIES" TRAFFIC CONTROL STANDARD SHEET, TE795. TYPICAL APPLICATIONS OF DEVICES AND SIGNS THAT ARE MAINTAINED BETWEEN PROJECTS ARE DEPICTED ON THIS SHEET.

TYPICAL APPLICATIONS

TRAFFIC CONTROL MAINTAINED BETWEEN GRADING PROJECT AND SURFACING PROJECT ON OFFSET ALIGNMENT





✳ NEW STOP CONDITION FLAGS AND RED TYPE "B" HIGH INTENSITY WARNING LIGHT SHALL REMAIN UNTIL 30 DAYS AFTER THE NEW ALIGNMENT IS OPEN.

TYPE III BARRICADES
CHANNELIZING DEVICE
TYPE "A" LOW INTENSITY WARNING LIGHT
RED TYPE "B" HIGH INTENSITY WARNING LIGHT

NO.	DATE	REVISIONS	BY	APP'D
3	10/4/11	Modified R11-2 and W1-6 Sign Placement	J.A.M.	K.P.
2	8/8/07	Revised Typical Application	M.B.	A.A.A.
1	2/1/05	Clarified Notes, Updated Warning Signs	B.H.	A.A.A.

KANSAS DEPARTMENT OF TRANSPORTATION

TYPICAL TRAFFIC CONTROL MAINTAIN BY CONTRACTOR BETWEEN PROJECTS

TE790 SHEET 1 OF 1 9/1/00

FHWA APPROVAL			10/4/11	APP'D	Kristina Pyle		
DESIGNED	B.A.H.	DETAILED	B.A.H.	QUANTITIES		TRACED	
DESIGN CK.		DETAIL CK.		QUAN. CK.		TRACE CK.	

Drawn By : jmadrid
File : TE790_1.dgn (TE790_1)
Plotted : 10-NOV-2011 11:35
Traffic

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

SUMMARY OF TRAFFIC CONTROL DEVICES (EACH)

WORK ZONE SIGN (SPECIAL)		
SIGN NO.	16.25 SQ.FT. & LESS	16.26 SQ.FT. & OVER

SUMMARY OF TRAFFIC CONTROL DEVICES (EACH PER DAY)

✳ QUANTITY MOST USED ON THE PROJECT AT ANY ONE TIME

WORK ZONE SIGNS ✳			
SIGN NO.	SIZE - SQ.FT.		
	0-9.25	9.26-16.25	16.26 & OVER
W20-7a			

BARRICADES ✳	CHANNELIZING DEVICES ✳	
TYPE III (4' TO 12')	FIXED	PORTABLE

LIGHTED DEVICES ✳	
WORK ZONE WARNING LIGHT (TYPE "A" LOW INTENSITY)	
WORK ZONE WARNING LIGHT (RED TYPE "B" HIGH INTENSITY)	
ARROW DISPLAY	
PORTABLE CHANGEABLE MESSAGE SIGN	

RECAPITULATION OF QUANTITIES		
ITEM	QUANTITY	UNIT
WORK ZONE SIGNS (O TO 9.25 SQ.FT.)		EACH PER DAY
WORK ZONE SIGNS (9.26 TO 16.25 SQ.FT.)		EACH PER DAY
WORK ZONE SIGNS (16.26 SQ.FT. & OVER)		EACH PER DAY
WORK ZONE BARRICADES (TYPE III - 4' TO 12')		EACH PER DAY
CHANNELIZER (FIXED)		EACH PER DAY
CHANNELIZER (PORTABLE)		EACH PER DAY
WORK ZONE WARNING LIGHT (TYPE "A" LOW INTENSITY)		EACH PER DAY
WORK ZONE WARNING LIGHT (RED TYPE "B" HIGH INTENSITY)		EACH PER DAY
ARROW DISPLAY		EACH PER DAY
PORTABLE CHANGEABLE MESSAGE SIGN		EACH PER DAY
PAVEMENT MARKING (TEMPORARY)		
4" SOLID (TYPE I TAPE)		STA./LINE
4" SOLID (TYPE II TAPE)		STA./LINE
4" BROKEN (8.2') (TYPE I TAPE)		STA./LINE
4" BROKEN (8.2') (TYPE II TAPE)		STA./LINE
4" BROKEN (3.3') (TYPE I TAPE)		STA./LINE
4" BROKEN (3.3') (TYPE II OR IIA TAPE)		STA./LINE
4" BROKEN(3.3')(FLEXIBLE RAISED PAVEMENT MARKER)		STA./LINE
4" DOTTED EXTENSION (TYPE I TAPE)		STA./LINE
4" DOTTED EXTENSION (TYPE II TAPE)		STA./LINE
SOLID (LINE MASKING TAPE)		STA./LINE
BROKEN (LINE MASKING TAPE)		STA./LINE
PAVEMENT MARKING REMOVAL		LIN. FT.
GLARE SCREEN		LIN. FT.
CONCRETE SAFETY BARRIER (TYPE F3)(TEMPORARY)		LIN. FT.
CONCRETE SAFETY BARRIER (TYPE F3)(TEMP.-INSTALL ONLY)		LIN. FT.
CONCRETE SAFETY BARRIER (TYPE F3)(TEMP.-RELOCATE)		LIN. FT.
INERTIAL BARRIER SYSTEM		EACH
REPLACEMENT MODULES		EACH
WORK ZONE SIGN (SPECIAL) (16.25 SQ. FT. & LESS)		EACH
WORK ZONE SIGN (SPECIAL) (16.26 SQ. FT. & MORE)		EACH
TEMPORARY RAISED PAVEMENT MARKER (TYPE I)		EACH
TEMPORARY RAISED PAVEMENT MARKER (TYPE II)		EACH
TRAFFIC SIGNAL INSTALLATION (TEMPORARY)		LUMP SUM
TRAFFIC CONTROL (INITIAL SET UP)	LUMP SUM	LUMP SUM
TRAFFIC CONTROL		LUMP SUM
FLAGGER (SET PRICE)	1	HOUR
TWORKS SIGN ASSEMBLY		EACH

IBS REPLACEMENT MODULES	
REPLACEMENT MODULE SIZES	QUANTITY
REPLACEMENT MODULES (F2OO)	
REPLACEMENT MODULES (F4OO)	
REPLACEMENT MODULES (F7OO)	
REPLACEMENT MODULES (F14OO)	
REPLACEMENT MODULES (F21O0)	

NO.	DATE	REVISIONS	BY	APP'D
3	10/4/11	Added IBS Quantities, Added TWorks Quanity	J.A.M.	K.P.
2	8/8/07	2007 Spec Revision	M.B.	A.A.A.
1	12/29/05	Added Type A & Red Type B Lights	B.H.	A.A.A.

KANSAS DEPARTMENT OF TRANSPORTATION

SUMMARY OF DEVICES AND RECAPITULATION OF QUANTITIES

TE795 SHEET 1 OF 1 9/1/00

FHWA APPROVAL		10/4/11	APP'D	Kristina Pyle	
DESIGNED	B.A.H.	DETAILED	B.A.H.	QUANTITIES	TRACED
DESIGN CK.		DETAIL CK.		QUAN. CK.	TRACE CK.

Plotted : 10-NOV-2011 11:35 Traffic

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