Subsection:	102.15 Process Agent.						
Revision:	Replace the 1st paragraph with the following:						
Kevision.	Every corporation doing business with the Department shall submit evidence of compliance with						
	KRS Sections 14A.4-010, 271B.11-010, 271B.11-070, 271B.11-080, 271B.5-010 and 271B.16-						
	220, and file with the Department the name and address of the process agent upon whom process						
	may be served.						
Subsection:	105.13 Claims Resolution Process.						
Revision:	Delete all references to TC 63-34 and TC 63-44 from the subsection as these forms are no longer						
Kevision.	available through the forms library and are forms generated within the AASHTO SiteManager						
	software.						
Subsection:	108.03 Preconstruction Conference.						
Revision:	Replace 8) Staking with the following:						
Kevision.	8) Staking (designated by a Professional Engineer or Land Surveyor licensed in the						
	Commonwealth of Kentucky.						
Subsection:	109.07.02 Fuel.						
Revision:	Revise item Crushed Aggregate Used for Embankment Stabilization to the following:						
Ke vision.	Crushed Aggregate Crushed Aggregate						
	Used for Stabilization of Unsuitable Materials						
	Used for Embankment Stabilization						
	Delete the following item from the table.						
	Crushed Sandstone Base (Cement Treated)						
Subsection:	110.02 Demobilization.						
Revision:	Replace the first part of the first sentence of the second paragraph with the following:						
120 (181011)	Perform all work and operations necessary to accomplish final clean-up as specified in the first						
	paragraph of Subsection 105.12;						
Subsection	112.03.12 Project Traffic Coordinator (PTC).						
Revision:	Replace the last paragraph of this subsection with the following:						
Tec vision.	Ensure the designated PTC has sufficient skill and experience to properly perform the task						
	assigned and has successfully completed the qualification courses.						
Subsection:	112.04.18 Diversions (By-Pass Detours).						
Revision:	Insert the following sentence after the 2nd sentence of this subsection.						
	The Department will not measure temporary drainage structures for payment when the contract						
	documents provide the required drainage opening that must be maintained with the diversion.						
	The temporary drainage structures shall be incidental to the construction of the diversion. If the						
	contract documents fail to provide the required drainage opening needed for the diversion, the						
	cost of the temporary drainage structure will be handled as extra work in accordance with section						
	109.04.						
Subsection:	201.03.01 Contractor Staking.						
Revision:	Replace the first paragraph with the following: Perform all necessary surveying under the						
	general supervision of a Professional Engineer or Land Surveyor licensed in the Commonwealth						
	of Kentucky.						
	of Kentucky.						

Subsections	201.04.01 Contractor Staking.						
Revision:	Replace the last sentence of the paragraph with the following: Complete the general layout of						
Kevision.	the project under the supervision of a Professional Engineer or Land Surveyor licensed in the						
	Commonwealth of Kentucky.						
Subsection:	206.04.01 Embankment-in-Place.						
Revision:	Replace the fourth paragraph with the following: The Department will not measure suitable						
Kevision:	excavation included in the original plans that is disposed of for payment and will consider it						
	incidental to Embankment-in-Place.						
Cubaatian	208.02.01 Cement.						
Revision:	Replace paragraph with the following:						
	Select Type I or Type II cement conforming to Section 801. Use the same type cement throughout the work						
C14:	throughout the work.						
	208.03.06 Curing and Protection.						
Revision:	Replace the fourth paragraph with the following:						
	Do not allow traffic or equipment on the finished surface until the stabilized subgrade has cured						
	for a total of 7-days with an ambient air temperature above 40 degrees Fahrenheit. A curing day						
	consists of a continuous 24-hour period in which the ambient air temperature does not fall below						
	40 degrees Fahrenheit. Curing days will not be calculated consecutively, but must total seven (7)						
	, 24-hour days with the ambient air temperature remaining at or above 40 degrees Fahrenheit						
	before traffic or equipment will be allowed to traverse the stabilized subgrade. The Department						
	may allow a shortened curing period when the Contractor requests. The Contractor shall give the						
	Department at least 3 day notice of the request for a shortened curing period. The Department						
	will require a minimum of 3 curing days after final compaction. The Contractor shall furnish cores to the treated depth of the roadbed at 500 feet intervals for each lane when a shortened						
	cores to the treated depth of the roadbed at 500 feet intervals for each lane when a shortened						
	curing time is requested. The Department will test cores using an unconfined compression test.						
	Roadbed cores must achieve a minimum strength requirement of 80 psi.						
	208.03.06 Curing and Protection.						
Revision:	Replace paragraph eight with the following:						
	At no expense to the Department, repair any damage to the subgrade caused by freezing.						
	212.03.03 Permanent Seeding and Protection.						
Part:	A) Seed Mixtures for Permanent Seeding.						
Revision:	Revise Seed Mix Type I to the mixture shown below:						
	50% Kentucky 31 Tall Fescue (Festuca arundinacea)						
	35% Hard Fescue (Festuca longifolia)						
	10% Ryegrass, Perennial (Lolium perenne)						
	5% White Dutch Clover (Trifolium repens)						
Subsection:	212.03.03 Permanent Seeding and Protection.						
Part:	A) Seed Mixtures for Permanent Seeding.						
Number:	2)						
Revision:	Replace the paragraph with the following:						
	Permanent Seeding on Slopes Greater than 3:1 in Highway Districts 4, 5, 6, and 7. Apply seed						
	mix Type II at a minimum application rate of 100 pounds per acre. If adjacent to a golf course						
	replace the crown vetch with Kentucky 31 Tall Fescue.						

C14*	212 02 02 D						
	212.03.03 Permanent Seeding and Protection. A) Seed Mixtures for Permanent Seeding.						
Part:	A) Seed Mixtures for Permanent Seeding. 3)						
Number:	'						
Revision:	Replace the paragraph with the following:						
	Permanent Seeding on Slopes Greater than 3:1 in Highway Districts 1, 2, 3, 8, 9, 10, 11, and 12.						
	Apply seed mix Type III at a minimum application rate of 100 pounds per acre. If adjacent to						
	crop land or golf course, replace the Sericea Lespedeza with Kentucky 31 Fescue.						
Subsection:	212.03.03 Permanent Seeding and Protection.						
Part:	B) Procedures for Permanent Seeding.						
	Delete the first sentence of the section.						
Subsection:	212.03.03 Permanent Seeding and Protection.						
Part:	B) Procedures for Permanent Seeding.						
Revision:	Replace the second and third sentence of the section with the following:						
	Prepare a seedbed and apply an initial fertilizer that contains a minimum of 100 pounds of						
	nitrogen, 100 pounds of phosphate, and 100 pounds of potash per acre. Apply agricultural						
	limestone to the seedbed when the Engineer determines it is needed. When required, place						
	agricultural limestone at a rate of 3 tons per acre.						
Subsection:	212.03.03 Permanent Seeding and Protection.						
Part:	D) Top Dressing.						
Revision:	Change the title of part to D) Fertilizer.						
Subsection:	212.03.03 Permanent Seeding and Protection.						
Part:	D) Fertilizer.						
Revision:	Replace the first paragraph with the following:						
	Apply fertilizer at the beginning of the seeding operation and after vegetation is established. Use						
	fertilizer delivered to the project in bags or bulk. Apply initial fertilizer to all areas prior to the						
	seeding or sodding operation at the application rate specified in 212.03.03 B). Apply 20-10-10						
	fertilizer to the areas after vegetation has been established at a rate of 11.5 pounds per 1,000						
	square feet. Obtain approval from the Engineer prior to the 2nd fertilizer application. Reapply						
	fertilizer to any area that has a streaked appearance. The reapplication shall be at no additional						
	cost to the Department. Re-establish any vegetation severely damaged or destroyed because of						
	an excessive application of fertilizer at no cost to the Department.						
Subsection:	212.03.03 Permanent Seeding and Protection.						
Part:	D) Fertilizer.						
Revision:	Delete the second paragraph.						
	212.04.04 Agricultural Limestone.						
Revision:	Replace the entire section with the following:						
	The Department will measure the quantity of agricultural limestone in tons.						
Subsection:	212.04.05 Fertilizer.						
Revision:	Replace the entire section with the following:						
	The Department will measure fertilizer used in the seeding or sodding operations for payment.						
	The Department will measure the quantity by tons.						

Subsection:	212.05 PAYMENT.					
Revision:	Delete the following item code:					
ite vision.	Code Pay Item Pay Unit					
	05966 Topdressing Fertilizer Ton					
Subsection:	212.05 PAYMENT.					
Revision:	Add the following pay items:					
	Code Pay Item Pay Unit					
	05963 Initial Fertilizer Ton					
	05964 20-10-10 Fertilizer Ton					
	05992 Agricultural Limestone Ton					
Subsection:	213.03.02 Progress Requirements.					
Revision:	Replace the last sentence of the third paragraph with the following:					
	Additionally, the Department will apply a penalty equal to the liquidated damages when all					
	aspects of the work are not coordinated in an acceptable manner within 7 calendar days after					
	written notification.					
Subsection:	213.03.05 Temporary Control Measures.					
Part:	E) Temporary Seeding and Protection.					
Revision:	Delete the second sentence of the first paragraph.					
Subsection:	304.02.01 Physical Properties.					
Table:	Required Geogrid Properties					
Revision:	Replace all references to Test Method "GRI-GG2-87" with ASTM D 7737.					
Subsection:	402.03.02 Contractor Quality Control and Department Acceptance.					
Part:	B) Sampling.					
Revision:	Replace the second sentence with the following:					
	The Department will determine when to obtain the quality control samples using the random-					
	number feature of the mix design submittal and approval spreadsheet. The Department will					
	randomly determine when to obtain the verification samples required in Subsections 402.03.03					
	and 402.03.04 using the Asphalt Mixture Sample Random Tonnage Generator.					
	402.03.02 Contractor Quality Control and Department Acceptance.					
Part: Number:	D) Testing Responsibilities.					
Revision:	3) VMA.					
Revision:	Add the following paragraph below Number 3) VMA:					
	Retain the AV/VMA specimens and one additional corresponding G _{mm} sample for 5 working					
	days for mixture verification testing by the Department. For Specialty Mixtures, retain a mixture					
	sample for 5 working days for mixture verification testing by the Department. When the					
	Department's test results do not verify that the Contractor's quality control test results are within the acceptable tolerances according to Subsection 402.03.03, retain the samples and specimens					
	, 1					
Subsection:	from the affected sublot(s) for the duration of the project. 402.03.02 Contractor Quality Control and Department Acceptance.					
Part:	D) Testing Responsibilities.					
Number:	4) Density.					
Revision:	Replace the second sentence of the Option A paragraph with the following:					
ACTION.	Perform coring by the end of the following work day.					
L	1 or					

Subsection:	402.03.02 Contractor Quality Control and Department Acceptance.						
Part:	D) Testing Responsibilities.						
Number:	5) Gradation.						
Revision:	Delete the second paragraph.						
Subsection:	402.03.02 Contractor Quality Control and Department Acceptance.						
Part:	H) Unsatisfactory Work.						
Number:	1) Based on Lab Data.						
Revision:	Replace the second paragraph with the following:						
	When the Engineer determines that safety concerns or other considerations prohibit an immediate						
	shutdown, continue work and the Department will make an evaluation of acceptability according						
	to Subsection 402.03.05.						
Subsection:	402.03.03 Verification.						
Revision:	Replace the first paragraph with the following:						
	402.03.03 Mixture Verification. For volumetric properties, the Department will perform a						
	minimum of one verification test for AC, AV, and VMA according to the corresponding						
	procedures as given in Subsection 402.03.02. The Department will randomly determine when to						
	obtain the verification sample using the Asphalt Mixture Sample Random Tonnage Generator.						
	For specialty mixtures, the Department will perform one AC and one gradation determination per						
	lot according to the corresponding procedures as given in Subsection 402.03.02. However,						
	Department personnel will not perform AC determinations according to KM 64-405. The						
	Contractor will obtain a quality control sample at the same time the Department obtains the						
	mixture verification sample and perform testing according to the procedures given in Subsection						
	402.03.02. If the Contractor's quality control sample is verified by the Department's test results						
	within the tolerances provided below, the Contractor's sample will serve as the quality control						
	sample for the affected sublot. The Department may perform the mixture verification test on the						
	Contractor's equipment or on the Department's equipment.						
Subsection:	402.03.03 Verification.						
Part:	A) Evaluation of Sublot(s) Verified by Department.						
Revision:	Replace the third sentence of the second paragraph with the following:						
	When the paired t -test indicates that the Contractor's data and Department's data are possibly not						
	from the same population, the Department will investigate the cause for the difference according						
	to Subsection 402.03.05 and implement corrective measures as the Engineer deems appropriate.						
Subsection:	402.03.03 Verification.						
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Subsection: Part: Revision:							

Subsection:	402.03.03 Verification.					
Part:	B) Evaluation of Sublots Not Verified by Department.					
Revision:	Replace the third sentence of the second paragraph with the following:					
	When the F -test or t -test indicates that the Contractor's data and Department's data are possibly					
	not from the same population, the Department will investigate the cause for the difference					
	according to Subsection 402.03.05 and implement corrective measures as the Engineer deems					
	appropriate.					
Subsection:	402.03.03 Verification.					
Part:	C) Test Data Patterns.					
Revision:	Replace the second sentence with the following:					
	When patterns indicate substantial differences between the verified and non-verified sublots, the					
	Department will perform further comparative testing according to subsection 402.03.05.					
Subsection:	402.03 CONSTRUCTION.					
Revision:	Add the following subsection: 402.03.04 Testing Equipment and Technician Verification.					
	For mixtures with a minimum quantity of 20,000 tons and for every 20,000 tons thereafter, the					
	Department will obtain an additional verification sample at random using the Asphalt Mixture					
	Sample Random Tonnage Generator in order to verify the integrity of the Contractor's and					
	Department's laboratory testing equipment and technicians. The Department will obtain a					
	mixture sample of at least 150 lb at the asphalt mixing plant according to KM 64-425 and split it					
	according to AASHTO R 47. The Department will retain one split portion of the sample and					
	provide the other portion to the Contractor. At a later time convenient to both parties, the					
	Department and Contractor will simultaneously reheat the sample to the specified compaction					
	temperature and test the mixture for AV and VMA using separate laboratory equipment					
	according to the corresponding procedures given in Subsection 402.03.02. The Department will					
	evaluate the differences in test results between the two laboratories. When the difference					
	between the results for AV or VMA is not within ± 2.0 percent, the Department will investigate					
	and resolve the discrepancy according to Subsection 402.03.05.					
Subsection:	402.03.04 Dispute Resolution.					
Revision:	Change the subsection number to 402.03.05.					
Subsection:	402.05 PAYMENT.					
Part:	Lot Pay Adjustment Schedule Compaction Option A Base and Binder Mixtures					
Table:	AC					
Revision:	Replace the Deviation from JMF(%) that corresponds to a Pay Value of 0.95 to ±0.6.					
	403.02.10 Material Transfer Vehicle (MTV).					
Revision:	Replace the first sentence with the following:					
	In addition to the equipment specified above, provide a MTV with the following minimum					
	characteristics:					
	412.02.09 Material Transfer Vehicle (MTV).					
Revision:	Replace the paragraph with the following:					
	Provide and utilize a MTV with the minimum characteristics outlined in section 403.02.10.					

Cubacations	412.03.07 Placement and Compaction.					
	<u> </u>					
Revision:	Replace the first paragraph with the following:					
	Use a MTV when placing SMA mixture in the driving lanes. The MTV is not required on ramps					
	and/or shoulders unless specified in the contract. When the Engineer determines the use of the					
	MTV is not practical for a portion of the project, the Engineer may waive its requirement for that					
~ · · ·	portion of pavement by a letter documenting the waiver.					
	412.04 MEASUREMENT.					
Revision:	Add the following subsection:					
	412.04.03. Material Transfer Vehicle (MTV). The Department will not measure the MTV for					
	payment and will consider its use incidental to the asphalt mixture.					
	501.03.19 Surface Tolerances and Testing Surface.					
Part:	B) Ride Quality.					
Revision:	Add the following to the end of the first paragraph:					
	The Department will specify if the ride quality requirements are Category A or Category B when					
	ride quality is specified in the Contract. Category B ride quality requirements shall apply when					
	the Department fails to classify which ride quality requirement will apply to the Contract.					
Subsections	603.03.06 Cofferdams.					
Revision:	Replace the seventh sentence of paragraph one with the following:					
KCVISIOII.	Submit drawings that are stamped by a Professional Engineer licensed in the Commonwealth of					
	Kentucky.					
Subsection:	605.03.04 Tack Welding.					
Revision:	Insert the subsection and the following:					
KCVISIOII.	605.03.04 Tack Welding. The Department does not allow tack welding.					
Subsection	606.03.17 Special Requirements for Latex Concrete Overlays.					
Part:	A) Existing Bridges and New Structures.					
Number:	1) Prewetting and Grout-Bond Coat.					
Revision:	Add the following sentence to the last paragraph: Do not apply a grout-bond coat on bridge					
100110110	decks prepared by hydrodemolition.					
Subsection:	609.03 Construction.					
Revision:	Replace Subsection 609.03.01 with the following:					
	609.03.01 A) Swinging the Spans. Before placing concrete slabs on steel spans or precast					
	concrete release the temporary erection supports under the bridge and swing the span free on its					
	supports.					
	609.03.01 B) Lift Loops. Cut all lift loops flush with the top of the precast beam once the beam					
	is placed in the final location and prior to placing steel reinforcement. At locations where lift					
	loops are cut, paint the top of the beam with galvanized or epoxy paint.					
Subsection:	611.03.02 Precast Unit Construction.					
Revision:	Replace the first sentence of the subsection with the following:					
	Construct units according to ASTM C1577, replacing Table 1 (Design Requirements for					
	Precast Concrete Box Sections Under Earth, Dead and HL-93 Live Load Conditions) with					
	KY Table 1 (Precast Culvert KYHL-93 Design Table), and Section 605 with the following					
	exceptions and additions:					
L	l k					

Subsection	613.03.01 Design.						
Number:	2)						
Revision:	Replace "AASHTO Standard Specifications for Highway Bridges" with "AASHTO LRFD						
Kevisiuii.	Bridge Design Specifications"						
Cubaatian	615.06.02						
	Add the following sentence to the end of the subsection.						
Revision:	- I						
	The ends of units shall be normal to walls and centerline except exposed edges shall be beveled						
C1	34 inch. 615.06.03 Placement of Reinforcement in Precast 3-Sided Units.						
Revision:	Replace the reference of 6.6 in the section to 615.06.06.						
	615.06.04 Placement of Reinforcement for Precast Endwalls.						
Revision:	Replace the reference of 6.7 in the section to 615.06.07.						
	615.06.06 Laps, Welds, and Spacing for Precast 3-Sided Units.						
Revision:	Replace the subsection with the following:						
	Tension splices in the circumferential reinforcement shall be made by lapping. Laps may not be						
	tack welded together for assembly purposes. For smooth welded wire fabric, the overlap shall						
	meet the requirements of AASHTO 2012 Bridge Design Guide Section 5.11.2.5.2 and AASHTO						
	2012 Bridge Design Guide Section 5.11.6.3. For deformed welded wire fabric, the overlap shall						
	meet the requirements of AASHTO 2012 Bridge Design Guide Section 5.11.2.5.1 and AASHTO						
	2012 Bridge Design Guide Section 5.11.6.2. The overlap of welded wire fabric shall be measured						
	between the outer most longitudinal wires of each fabric sheet. For deformed billet-steel bars,						
	the overlap shall meet the requirements of AASHTO 2012 Bridge Design Guide Section						
	5.11.2.1. For splices other than tension splices, the overlap shall be a minimum of 12" for welded						
	wire fabric or deformed billet-steel bars. The spacing center to center of the circumferential wires						
	in a wire fabric sheet shall be no less than 2 inches and no more than 4 inches. The spacing						
	center to center of the longitudinal wires shall not be more than 8 inches. The spacing center to						
	center of the longitudinal distribution steel for either line of reinforcing in the top slab shall be						
	not more than 16 inches.						
Subsection:	615.06.07 Laps, Welds, and Spacing for Precast Endwalls.						
Revision:	Replace the subsection with the following:						
	Splices in the reinforcement shall be made by lapping. Laps may not be tack welded together for						
	assembly purposes. For smooth welded wire fabric, the overlap shall meet the requirements of						
	AASHTO 2012 Bridge Design Guide Section 5.11.2.5.2 and AASHTO 2012 Bridge Design						
	Guide Section 5.11.6.3. For deformed welded wire fabric, the overlap shall meet the						
	requirements of AASHTO 2012 Bridge Design Guide Section 5.11.2.5.1 and AASHTO 2012						
	Bridge Design Guide Section 5.11.6.2. For deformed billet-steel bars, the overlap shall meet the						
	requirements of AASHTO 2012 Bridge Design Guide Section 5.11.2.1. The spacing center-to-						
	center of the wire fabric sheet shall not be less than 2 inches or more than 8 inches.						

Subsection:	615.08.01 Type of Test Specimen.				
Revision:	Replace the subsection with the following:				
	Start-up slump, air content, unit weight, and temperature tests will be performed each day on the				
	first batch of concrete. Acceptable start-up results are required for production of the first unit.				
	After the first unit has been established, random acceptance testing is performed daily for each				
	50 yd ³ (or fraction thereof). In addition to the slump, air content, unit weight, and temperature				
	tests, a minimum of one set of cylinders shall be required each time plastic property testing is				
	performed.				
Subsection:	615.08.02 Compression Testing.				
Revision:	Delete the second sentence.				
Subsection:	615.08.04 Acceptability of Core Tests.				
Revision:	Delete the entire subsection.				
Subsection:	615.12 Inspection.				
Revision:	Add the following sentences to the end of the subsection: Units will arrive at jobsite with the				
	"Kentucky Oval" stamped on the unit which is an indication of acceptable inspection at the				
	production facility. Units shall be inspected upon arrival for any evidence of damage resulting				
	from transport to the jobsite.				
Subsection:	716.02.02 Paint.				
Revision:	Replace sentence with the following: Conform to Section 821.				
	716.03 CONSTRUCTION.				
Revision:	Replace bullet 5) with the following: 5) AASHTO Standard Specifications for Structural				
	Supports for Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current				
	interims,A1				
	716.03.02 Lighting Standard Installation.				
Revision:	Replace the second sentence with the following:				
	Regardless of the station and offset noted, locate all poles/bases behind the guardrail a minimum				
	of four feet from the front face of the guardrail to the front face of the pole base.				
	716.03.02 Lighting Standard Installation.				
Part:	A) Conventional Installation.				
Revision:	Replace the third sentence with the following: Orient the transformer base so the door is				
- ·	positioned on the side away from on-coming traffic.				
Subsection:	716.03.02 Lighting Standard Installation.				
Part:	A) Conventional Installation.				
Number:	1) Breakaway Installation and Requirements.				
Revision:	Replace the first sentence with the following: For breakaway supports, conform to Section 12 of				
	the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires,				
Carla	and Traffic Signals, 2013-6th Edition with current interims.				
	716.03.02 Lighting Standard Installation.				
Part:	B) High Mast Installation Penlage the first centence with the following: Install each high most pole as noted on plans				
Revision: Subsection:	Replace the first sentence with the following: Install each high mast pole as noted on plans.				
	716.03.02 Lighting Standard Installation. B) High Most Installation				
Part:	B) High Mast Installation				
Number:	2) Concrete Base Installation Modification of Chart and succeeding paragraphs within this section:				
Revision:	Modification of Chart and succeeding paragraphs within this section:				

Drilled Shaft Depth Data								
			3:1 Ground		2:1 Ground		1.5:1 Ground	
Level Ground		SI	lope	Sl	ope	Slo	pe ⁽²⁾	
Soil	Rock	Soil	Rock	Soil	Rock	Soil	Rock	
17 ft	17 ft 7 ft 19		7 ft	20 ft	7 f t	(1)	7 f t	
Steel R	Steel Requirements							
77			T	C1				

Vertical Bars Spacing or Size Total Size Pitch 16 #4 #10 12 inch

- (1): Shaft length is 22' for cohesive soil only. For cohesionless soil, contact geotechnical branch for design.
- (2): Do not construct high mast drilled shafts on ground slopes steeper than 1.5:1 without the approval of the Division of Traffic.

If rock is encountered during drilling operations and confirmed by the engineer to be of sound quality, the shaft is only required to be further advanced into the rock by the length of rock socket shown in the table. The total length of the shaft need not be longer than that of soil alone. Both longitudinal rebar length and number of ties or spiral length shall be adjusted accordingly.

If a shorter depth is desired for the drilled shaft, the contractor shall provide, for the state's review and approval, a detailed column design with individual site specific soil and rock analysis performed and approved by a Professional Engineer licensed in the Commonwealth of Kentucky.

Spiral reinforcement may be substituted for ties. If spiral reinforcement is used, one and onehalf closed coils shall be provided at the ends of each spiral unit. Subsurface conditions consisting of very soft clay or very loose saturated sand could result in soil parameters weaker than those assumed. Engineer shall consult with the geotechnical branch if such conditions are encountered.

The bottom of the drilled hole shall be firm and thoroughly cleaned so no loose or compressible materials are present at the time of the concrete placement. If the drilled hole contains standing water, the concrete shall be placed using a tremie to displace water. Continuous concrete flow will be required to insure full displacement of any water.

The reinforcement and anchor bolts shall be adequately supported in the proper positions so no movement occurs during concrete placement. Welding of anchor bolts to the reinforcing cage is unacceptable, templates shall be used. Exposed portions of the foundation shall be formed to create a smooth finished surface. All forming shall be removed upon completion of foundation construction.

Subsection: 716.03.03 Trenching.

Part:

A) Trenching of Conduit for Highmast Ducted Cables.

Revision:

Add the following after the first sentence: If depths greater than 24 inches are necessary, obtain the Engineer's approval and maintain the required conduit depths coming into the junction boxes. No payment for additional junction boxes for greater depths will be allowed.

Subsection:	716.03.03 Trenching.						
Part:	B) Trenching of Conduit for Non-Highmast Cables.						
Revision:	Add the following after the second sentence: If depths greater than 24 inches are necessary for						
	either situation listed previously, obtain the Engineer's approval and maintain the required						
	conduit depths coming into the junction boxes. No payment for additional junction boxes for						
	greater depths will be allowed.						
Subsection:	716.03.10 Junction Boxes.						
Revision:	Replace subsection title with the following: Electrical Junction Box.						
Subsection:	716.04.07 Pole with Secondary Control Equipment.						
Revision:	Replace the paragraph with the following:						
	The Department will measure the quantity as each individual unit furnished and installed. The						
	Department will not measure mounting the cabinet to the pole, backfilling, restoration, any						
	necessary hardware to anchor pole, or electrical inspection fees, and will consider them						
	incidental to this item of work. The Department will also not measure furnishing and installing						
	electrical service conductors, specified conduits, meter base, transformer, service panel, fused						
	cutout, fuses, lighting arrestors, photoelectrical control, circuit breaker, contactor, manual switch,						
	ground rods, and ground wires and will consider them incidental to this item of work.						
	716.04.08 Lighting Control Equipment.						
Revision:	Replace the paragraph with the following:						
	The Department will measure the quantity as each individual unit furnished and installed. The						
	Department will not measure constructing the concrete base, excavation, backfilling, restoration,						
	any necessary anchors, or electrical inspection fees, and will consider them incidental to this item						
	of work. The Department will also not measure furnishing and installing electrical service						
	conductors, specified conduits, meter base, transformer, service panel, fused cutout, fuses,						
	lighting arrestors, photoelectrical control, circuit breakers, contactor, manual switch, ground						
	rods, and ground wires and will consider them incidental to this item of work.						
	716.04.09 Luminaire.						
Revision:	Replace the first sentence with the following:						
G 1 4	The Department will measure the quantity as each individual unit furnished and installed.						
	716.04.10 Fused Connector Kits.						
Revision:	Replace the first sentence with the following:						
C1	The Department will measure the quantity as each individual unit furnished and installed.						
	716.04.13 Junction Box.						
Revision: Subsection:	Replace the subsection title with the following: Electrical Junction Box Type Various. 716.04.13 Junction Box.						
Part:	A) Junction Electrical.						
Revision:	Rename A) Junction Electrical to the following: A) Electrical Junction Box.						
	716.04.14 Trenching and Backfilling.						
Revision:	Replace the second sentence with the following:						
ACVISIUII.	The Department will not measure excavation, backfilling, underground utility warning tape (if						
	required), the restoration of disturbed areas to original condition, and will consider them						
	incidental to this item of work.						
	incidental to this item of work.						

Subsection	716.04.18 Remov	e Lighting				
Revision:	Replace the paragraph with the following:					
Kevision.	The Department will measure the quantity as a lump sum for the removal of lighting equipment.					
	The Department will not measure the disposal of all equipment and materials off the project by					
	the contractor. The Department also will not measure the transportation of the materials and will consider them incidental to this item of work.					
Subsection:	716.04.20 Bore an					
Revision:		raph with the following: The Department will measure the quantity in linear				
ite vision.		all include all work necessary for boring and installing conduit under an				
		Construction methods shall be in accordance with Sections 706.03.02,				
	paragraphs 1, 2, as					
Subsection:	716.05 PAYMEN					
Revision:		310-04811, 20391NS835 and, 20392NS835 under <u>Code</u> , <u>Pay Item</u> , and <u>Pay</u>				
	Unit with the follo					
	Code	Pay Item Pay Unit				
		Electrical Junction Box Each				
	04811	Electrical Junction Box Type B Each				
		Electrical Junction Box Type A Each				
	20392NS835	Electrical Junction Box Type C Each				
Subsection:	723.02.02 Paint.					
Revision:		with the following: Conform to Section 821.				
Subsection:	723.03 CONSTRU	UCTION.				
Revision:	Replace bullet 5)	with the following: 5) AASHTO Standard Specifications for Structural				
	Supports for Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current					
	interims,					
		nd Bases Installation.				
Revision:	-	entence with the following:				
	Regardless of the station and offset noted, locate all poles/bases behind the guardrail a minimum					
	of four feet from the front face of the guardrail to the front face of the pole base.					
Subsection:		nd Bases Installation.				
Part:	, and the second	d Mastarm Poles Installation				
Revision:	Replace the second paragraph with the following: For concrete base installation, see Section					
		716.03.02, B), 2), Paragraphs 2-7. Drilled shaft depth shall be based on the soil conditions				
C14*		g drilling and slope condition at the site. Refer to the design chart below:				
		nd Bases Installation.				
Part:		destal Post Installation.				
Revision:		n sentence of the paragraph with the following: For breakaway supports,				
		n 12 of the AASHTO Standard Specifications for Structural Supports for				
	Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current interims.					

Subsection:	723.03.03 Trenching.			
Part:	A) Under Roadway.			
Revision:	Add the following after the second sentence: If depths greater than 24 inches are necessary,			
	obtain the Engineer's approval and maintain ether required conduit depths coming into the			
	junction boxes. No payment for additional junction boxes for greater depths will be allowed.			
Cl4:				
	723.03.11 Wiring Installation.			
Revision:	Add the following sentence between the fifth and sixth sentences: Provide an extra two feet of			
Cubaatian	loop wire and lead-in past the installed conduit in poles, pedestals, and junction boxes.			
	723.03.12 Loop Installation.			
Revision:	Replace the fourth sentence of the 2nd paragraph with the following: Provide an extra two feet of			
Cubaadian	loop wire and lead-in past the installed conduit in poles, pedestals, and junction boxes.			
	723.04.02 Junction Box.			
Revision:	Replace subsection title with the following: Electrical Junction Box Type Various.			
	723.04.03 Trenching and Backfilling.			
Revision:	Replace the second sentence with the following: The Department will not measure excavation,			
	backfilling, underground utility warning tape (if required), the restoration of disturbed areas to			
G. L	original condition, and will consider them incidental to this item of work.			
Revision:	Replace the second sentence with the following: The Department will not measure excavation,			
	concrete, reinforcing steel, specified conduits, fittings, ground rod, ground wire, backfilling,			
	restoring disturbed areas, or other necessary hardware and will consider them incidental to this			
G. L	item of work.			
	723.04.15 Loop Saw Slot and Fill.			
Revision:	Replace the second sentence with the following: The Department will not measure sawing,			
	cleaning and filling induction loop saw slot, loop sealant, backer rod, and grout and will consider			
G. L	them incidental to this item of work.			
	723.04.16 Pedestrian Detector.			
Revision:	Replace the paragraph with the following: The Department will measure the quantity as each			
	individual unit furnished, installed and connected to pole/pedestal. The Department will not			
	measure installing R10-3e (with arrow) sign, furnishing and installing mounting hardware for			
Cubaatian	sign and will consider them incidental to this item of work.			
Subsection: Revision:	723.04.18 Signal Controller- Type 170.			
Revision:	Replace the second sentence with the following: The Department will not measure constructing			
	the concrete base or mounting the cabinet to the pole, connecting the signal and detectors,			
	excavation, backfilling, restoration, any necessary pole mounting hardware, electric service, or			
	electrical inspection fees and will consider them incidental to this item of work. The Department will also not massive formishing and connecting the industrian of loop applificate modestrian			
	will also not measure furnishing and connecting the induction of loop amplifiers, pedestrian			
	isolators, load switches, model 400 modem card; furnishing and installing electrical service			
	conductors, specified conduits, anchors, meter base, fused cutout, fuses, ground rods, ground			
	wires and will consider them incidental to this item of work.			

Subsection:	723.04.20 Install Signal Controller - Type 170.				
Revision:	Replace the paragraph with the following: The Department will measure the quantity as each				
	individual unit installed. The Department will not measure constructing the concrete base or				
	mounting the cabinet to the pole, connecting the signal and detectors, and excavation,				
	backfilling, restoration, any necessary pole mounting hardware, electric service, or electrical				
	inspection fees and will consider them incidental to this item of work. The Department will also				
	not measure connecting the induction loop amplifiers, pedestrian, isolators, load switches, model				
	400 modem card; furnishing and installing electrical service conductors, specified conduits,				
	anchors, meter base, fused cutout, fuses, ground rods, ground wires and will consider them				
	incidental to this item of work.				
Subsection:	723.04.22 Remove Signal Equipment.				
Revision:	Replace the paragraph with the following: The Department will measure the quantity as a lump				
	sum removal of signal equipment. The Department will not measure the return of control				
	equipment and signal heads to the Department of Highways as directed by the District Traffic				
	Engineer. The Department also will not measure the transportation of materials of the disposal				
	of all other equipment and materials off the project by the contractor and will consider them				
	incidental to this item of work.				
Subsection:	723.04.28 Install Pedestrian Detector Audible.				
Revision:	Replace the second sentence with the following: The Department will not measure installing sign				
	R10-3e (with arrow) and will consider it incidental to this item of work.				
	723.04.29 Audible Pedestrian Detector.				
Revision:	Replace the second sentence with the following: The Department will not measure furnishing				
	and installing the sign R10-3e (with arrow) and will consider it incidental to this item of work.				
	723.04.30 Bore and Jack Conduit.				
Revision:	Replace the paragraph with the following: The Department will measure the quantity in linear				
	feet. This item shall include all work necessary for boring and installing conduit under an				
	existing roadway. Construction methods shall be in accordance with Sections 706.03.02,				
	paragraphs 1, 2, and 4.				
	723.04.31 Install Pedestrian Detector.				
Revision:	Replace the paragraph with the following: The Department will measure the quantity as each				
	individual unit installed and connected to pole/pedestal. The Department will not measure				
	installing sign R 10-3e (with arrow) and will consider it incidental to this item of work.				
Revision:	Replace the second sentence with the following: The Department will not measure arms, signal				
	mounting brackets, anchor bolts, or any other necessary hardware and will consider them				
	incidental to this item of work.				
Subsection:	723.04.33 Pedestal Post.				
Revision:	Replace the second sentence with the following: The Department will not measure excavation,				
	concrete, reinforcing steel, anchor bolts, conduit, fittings, ground rod, ground wire, backfilling,				
	restoration, or any other necessary hardware and will consider them incidental to this item of				
	work.				

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	723.04.36 Traffic Signal Pole Base.			
Revision:	Replace the second sentence with the following: The Department will not measure excavation,			
	reinforcing steel, anchor bolts, specified conduits, ground rods, ground wires, backfilling, or			
	restoration and will consider them incidental to this item of work.			
	723.04.37 Install Signal Pedestal.	.•		
Revision:	Replace the second sentence with the following: The Department will not measure			
	concrete, reinforcing steel, anchor bolts, specified conduits, fittings, ground rod, ground wire,			
	backfilling, restoration, or any other necessary hardware and will consider them incidental to this			
	item of work.			
Revision:	Replace the second sentence with the following: The Department will not measure excavation,			
	concrete, reinforcing steel, anchor bolts, specified conduits, fittings, ground rod, ground wire,			
	backfilling, restoration, or any other necessary hardware and will consider them incidental to this			
	item of work.			
		1.5		
Revision:	Replace items 04810-04811, 20391NS835 and, 20392NS835 under <u>Code</u> , <u>Pay Item</u>	, and <u>Pay</u>		
	<u>Unit</u> with the following:			
	Code Pay Item Pay Unit			
	04810 Electrical Junction Box Each			
	04811 Electrical Junction Box Type B Each			
	20391NS835 Electrical Junction Box Type A Each			
G 1 4	20392NS835 Electrical Junction Box Type C Each			
Revision:	Delete last sentence of the section.			
Revision:	Add subsection and following sentence.			
	Provide blast furnace slag sand where permitted. The Department will allow steel sl	lag sand only		
G 1 4	in asphalt surface applications.			
	804.04 Asphalt Mixtures.			
Revision:	Replace the subsection with the following:	C C'11		
	Provide natural, crushed, conglomerate, or blast furnace slag sand, with the addition of filler as			
	necessary, to meet gradation requirements. The Department will allow any combination of			
	natural, crushed, conglomerate or blast furnace slag sand when the combination is achieved using			
G. L	cold feeds at the plant. The Engineer may allow other fine aggregates.			
	813.04 Gray Iron Castings.			
Revision:	Replace the reference to "AASHTO M105" with "ASTM A48".			
	813.09.02 High Strength Steel Bolts, Nuts, and Washers.			
Number:	A) Bolts.			
Revision:	Delete first paragraph and "Hardness Number" Table. Replace with the following:			
	A) Bolts. Conform to ASTM A325 (AASHTO M164) or ASTM A490 (AASHTO 253) as			
	applicable.			

Subsection:	814.04.02 Timber Guardrail Posts.			
Revision:	Third paragraph, replace the reference to "AWPA C14" with "AWPA U1, Section B, Paragraph			
	4.1".			
Subsection:	814.04.02 Timber Guardrail Posts.			
Revision:	Replace the first sentence of the fourth paragraph with the following:			
	Use any of the species of wood for round or square posts covered under AWPA U1.			
Subsection:	814.04.02 Timber Guardrail Posts.			
Revision:	Fourth paragraph, replace the reference to "AWPA C2" with "AWPA U1, Section B, Paragraph			
	4.1".			
Subsection:	814.04.02 Timber Guardrail Posts.			
Revision:	Delete the second sentence of the fourth paragraph.			
Subsection:	814.05.02 Composite Plastic.			
Revision:	1) Add the following to the beginning of the first paragraph: Select composite offset blocks			
	conforming to this section and assure blocks are from a manufacturer included on the			
	Department's List of Approved Materials.			
	2) Delete the last paragraph of the subsection.			
Subsection:	816.07.02 Wood Posts and Braces.			
Revision:	First paragraph, replace the reference to "AWPA C5" with "AWPA U1, Section B, Paragraph			
	4.1".			
Subsection:	816.07.02 Wood Posts and Braces.			
Revision:	Delete the second sentence of the first paragraph.			
Subsection:				
Revision:	First paragraph, replace all references to "AWPA C14" with "AWPA U1, Section A".			
Subsection:				
Revision:	Replace the first sentence with the following: Lighting pole design shall be in accordance with			
	loading and allowable stress requirements of the AASHTO Standard Specifications for Structural			
	Supports for Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current			
	interims, with the exception of the following: The Cabinet will waive the requirement stated in			
	the first sentence of Section 5.14.6.2 – Reinforced Holes and Cutouts for high mast poles (only).			
	The minimum diameter at the base of the pole shall be 22 inches for high mast poles (only).			
Subsection	834.14.03 High Mast Poles.			
Revision:	Remove the second and fourth sentence from the first paragraph.			
Subsection	834.14.03 High Mast Poles.			
Revision:	Replace the third paragraph with the following: Provide calculations and drawings that are			
	stamped by a Professional Engineer licensed in the Commonwealth of Kentucky.			

Effective with the June 27, 2014 Letting			
Subsection:	834.14.03 High Mast Poles.		
Revision:			
Subsection:	834.16 ANCHOR BOLTS.		
Revision:	Insert the following sentence at the beginning of the paragraph: The anchor bolt design shall follow the NCHRP Report 494 Section 2.4 and NCHRP 469 Appendix A Specifications.		
Subsection:	834.17.01 Conventional.		
Revision:	Add the following sentence after the second sentence: Provide a waterproof sticker mounted on the bottom of the housing that is legible from the ground and indicates the wattage of the fixture by providing the first two numbers of the wattage.		
Subsection:	834.21.01 Waterproof Enclosures.		
Revision:	Replace the last five sentences in the second paragraph with the following sentences: Provide a cabinet door with a louvered air vent, filter-retaining brackets and an easy to clean metal filter. Provide a cabinet door that is keyed with a factory installed standard no. 2 corbin traffic control key. Provide a light fixture with switch and bulb. Use a 120-volt fixture and utilize a L.E.D. bulb (equivalent to 60 watts minimum). Fixture shall be situated at or near the top of the cabinet and illuminate the contents of the cabinet. Provide a 120 VAC GFI duplex receptacle in the enclosure with a separate 20 amp breaker.		

Subsection:	835.07 Traffic Poles.			
Revision:	Replace the first sentence of the first paragraph with the following: Pole diameter and wall			
Revision.	thickness shall be calculated in accordance with the AASHTO Standard Specifications for			
	Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with			
	current interims.			
Subsection:	835.07 Traffic Poles.			
Revision:	*Replace the first sentence of the fourth paragraph with the following: Ensure transverse plates			
Kevision.	have a thickness ≥ 2 inches.			
	*Add the following sentence to the end of the fourth paragraph: The bottom pole diameter shall			
	not be less than 16.25 inches.			
Subsection:				
Revision:				
Revision:	Replace the third sentence of the fifth paragraph with the following: For anchor bolt design, pole			
	forces shall be positioned in such a manner to maximize the force on any individual anchor bolt			
C14:	regardless of the actual anchor bolt orientation with the pole.			
	835.07 Traffic Poles.			
Revision:	Replace the first and second sentence of the sixth paragraph with the following:			
	The pole handhole shall be 25 inches by 6.5 inches. The handhole cover shall be removable			
	from the handhole frame. On the frame side opposite the hinge, provide a mechanism on the			
	handhole cover/frame to place the Department's standard padlock as specified in Section 834.25.			
	The handhole frame shall have two stainless studs installed opposite the hinge to secure the			
	handhole cover to the frame which includes providing stainless steel wing nuts and washers. The			
	handhole cover shall be manufactured from 0.25 inch thick galvanized steel (ASTM 153) and			
	have a neoprene rubber gasket that is permanently secured to the handhole frame to insure			
	weather-tight protection. The hinge shall be manufactured from 7 gauge stainless steel to			
	provide adjustability to insure a weather-tight fit for the cover. The minimum clear distance			
	between the transverse plate and the bottom opening of the handhole shall not be less than the			
	diameter of the bottom tube but needs to be at least 12 inches.			
	835.07 Traffic Poles.			
Revision:	*Replace the first sentence of the last paragraph with the following: Provide calculations and			
	drawings that are stamped by a Professional Engineer licensed in the Commonwealth of			
	Kentucky.			
	*Replace the third sentence of the last paragraph with the following: All tables referenced in			
	835.07 are found in the AASHTO Standard Specifications for Structural Supports for Highway			
	Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current interims.			
Subsection:				
Revision:	Replace the second sentence of the second paragraph with the following:			
	The detailed analysis shall be certified by a Professional Engineer licensed in the Commonwealt			
	of Kentucky.			
Subsection:	835.07.01 Steel Strain Poles.			
Revision:	Replace number 7. after the second paragraph with the following: 7. Fatigue calculations should			
	be shown for all fatigue related connections. Provide the corresponding detail, stress category			
	and example from table 11.9.3.1-1.			

Subsections	935 07 02 Mast Arm Do	Mas		
Revision:	835.07.02 Mast Arm Poles. Replace the second contains of the fourth paragraph with the following: The detailed analysis			
Revision:	Replace the second sentence of the fourth paragraph with the following: The detailed analysis shall be certified by a Professional Engineer licensed in the Commonwealth of Kentucky.			
Subsection:	835.07.02 Mast Arm Poles.			
Revision:	Replace number 7) after the fourth paragraph with the following: 7) Fatigue calculations should			
Kevisiuii.	be shown for all fatigue related connections. Provide the corresponding detail, stress category			
	and example from table 11.9.3.1-1.			
Subsection:	835.07.03 Anchor Bolts			
Revision:	Add the following to the end of the paragraph: There shall be two steel templates (one can be			
KCVISIOII.	used for the headed part of the anchor bolt when designed in this manner) provided per pole.			
	Templates shall be contained within a 26.5 inch diameter. All templates shall be fully galvanized			
	(ASTM A 153).			
Subsection:	835.16.05 Optical Units.			
Revision:	Replace the 3rd paragraph with the following:			
110 (151011)	The list of certified products can be found on the following website: http://www.intertek.com.			
Subsection:	835.19.01 Pedestrian Detector Body.			
Revision:	Replace the first sentence with the following: Provide a four holed pole mounted aluminum			
	rectangular housing that is compatible with the pedestrian detector.			
Subsection:				
Table:	TYPE I FABRIC GEOT	TEXTILES FOR SLOPE PROT	ECTION AND CHANNEL LINING	
Revision:	Add the following to the chart:			
	Property	Minimum Value ⁽¹⁾	Test Method	
	CBR Puncture (lbs)	494	ASTM D6241	
	Permittivity (1/s)	0.7	ASTM D4491	
Subsection:	843.01.01 Geotextile Fa	ıbric.		
Table:		TEXTILES FOR UNDERDRA	INS	
Revision:	Add the following to the	e chart:		
	<u>Property</u>	Minimum Value ⁽¹⁾	<u>Test Method</u>	
	CBR Puncture (lbs)	210	ASTM D6241	
	Permittivity (1/s)	0.5	ASTM D4491	
Subsection:	843.01.01 Geotextile Fa	abric.		
Table:	TYPE III FABRIC GEO	OTEXTILES FOR SUBGRADE	E OR EMBANKMENT	
	STABILIZATION			
Revision:	Add the following to the	e chart:		
	<u>Property</u>	Minimum Value ⁽¹⁾	Test Method	
	CBR Puncture (lbs)	370	ASTM D6241	
	Permittivity (1/s) 0.05 ASTM D4491			

Subsection:	843.01.01 Geotextile Fabric.			
Table:	TYPE IV FABRIC GEOTEXTILES FOR EMBANKMENT DRAINAGE BLANKETS AND			
	PAVEMENT EDGE DRAINS			
Revision:	Add the following to the chart:			
	Property	Minimum Value ⁽¹⁾	Test Method	
	CBR Puncture (lbs)	309	ASTM D6241	
	Permittivity (1/s)	0.5	ASTM D4491	
Subsection:	843.01.01 Geotextile Fabric.			
Table:	TYPE V HIGH STRENGTH GEOTEXTILE FABRIC			
Revision:	Make the following changes to the chart:			
	<u>Property</u>	Minimum Value ⁽¹⁾	Test Method	
	CBR Puncture (lbs)	618	ASTM D6241	
	Grab Strength (lbs)	700	ASTM D4632	
	Apparent Opening Size	U.S. #40 ⁽³⁾	ASTM D4751	
	(3) Maximum average roll value.			