

RECEIVED

AUG - 3 2016

Public Service
Commission

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF BATH COUNTY WATER)
DISTRICT FOR A CERTIFICATE OF PUBLIC)
CONVENIENCE AND NECESSITY TO CONSTRUCT) CASE NO. 2016-270
AND FINANCE IMPROVEMENT PROJECTS)
PURSUANT TO KRS 278.020 and 278.300)

DISTRICT RESPONSE TO FILING DEFICIENCIES – LETTER DATED JULY
29, 2016

The Bath County Water District (the “Applicant”) of Bath County, Kentucky, respectfully submits the following information in response to Filing Deficiencies listed in a letter from the Kentucky Public Service Commission in a letter date July 29, 2016:

1. 807 KAR 5:001: Section 4(10)(a)(3): The Authorization for Electronic Deposit of Borrower Payment Kentucky Infrastructure Authority (Fund F16-011) is attached with the District’s banking information redacted.
2. 807 KAR 5:001: Section 18(1)(b): Please refer to the Bath County Water District 2015 Annual Report on file with the Commission for the information on the value of the District’s assets.
3. 807 KAR 5:001: Section 18(1)(e): The contract for construction is located in the Specification document filed as part of the original application with the Commission. It is an original/executed contract. See Section 00500.
4. 807 KAR 5:001: Section 18(2)(a): Please refer to the Bath County Water District 2015 Annual Report on file with the Commission. No material changes have occurred since the end of that twelve month period.
5. 807 KAR 5:001: Section 18(2)(c): Four easements were required and have been obtained along with one KYDOT Encroachment permit. The properties where easements were required can be seen on the construction plans submitted with the original application filing, see the following sheets and property owners:

<u>Sheet No.</u>	<u>Property Owner Name</u>
Sht. No. 8	Mitchell & Cheryl Miller
Sht. No. 8-9	Pauline Cline
Sht. No. 9	Michael & Charlotte Bromagen

6. 807 KAR 5:001: Section 12(1)(b): Please refer to the Bath County Water District 2015 Annual Report on file with the Commission. No material changes have occurred since the end of that twelve month period.
7. 807 KAR 5:001: Section 12(2)(e): The information on the outstanding bonds was included in the original application filing but is provided again herein.

The District has three bond issues:

Amount Authorized/Issued	Date of Issue	Date of Maturity	Interest Rate
\$500,000	2004	2044	4.375%
\$1,039,000	2006	2045	4.125%
\$259,000	2009	2049	2.375%

There were no classes issued, these are single, non-negotiable government bonds; secured by the pledge of lien on the revenues of the District. The total interest paid on the bonds in FY 2015 was \$112,716.00.

8. 807 KAR 5:001: Section 15(2)(b): An encroachment permit from the Kentucky Department of Transportation is required and is attached to this filing.
9. KRS 322.340: The construction specifications submitted with the original application are signed, sealed, and dated by a professional engineer registered in Kentucky. Please look at the first page inside the cover of the paper copy of the specifications filed. If this is not sufficient, please advise.

We trust that this information and attachments will satisfy the deficiencies listed in the Commission's letter.

Respectfully submitted,



Earl Rogers III
 Attorney for Applicant
earlrogers@windstream.net
 Campbell Rogers & Hill, PLLC
 154 Flemingsburg Road
 Morehead, KY 40351
 Phone: 606-783-1012
 Fax: 606-784-8926

AUTHORIZATION FOR ELECTRONIC DEPOSIT
OF BORROWER PAYMENT
KENTUCKY INFRASTRUCTURE AUTHORITY
(FUND F16-011)

Borrower Information:

Name: Bath County Water District
Address: PO Box 369
City: Salt Lick State: KY Zip: 40371
Federal I.D. # 61-0712234
Contact Name: Sherri Greene Telephone: 606-683-6363
Email: sgreenebathwater@roadrunner.com

Financial Institution Information:

Bank Name: Peoples Bank
Branch: _____ Phone No: 606-683-2091
City: Salt Lick State: KY Zip: 40371
Transit / ABA _____
Account Name: _____ Construction
Account Num: _____

I, the undersigned, authorize payments directly to the account indicated above and to correct any errors which may occur from the transactions. I also authorize the Financial Institution to post these transactions to that account.

Signature: Marvin R Crouch Date: 9/04/10
Name Printed: Marvin R Crouch Job Title: Chairman

Please return completed form to: Kentucky Infrastructure Authority
1024 Capital Center Drive, Suite 340
Frankfort, KY 40601
phone: 502-573-0260
fax: 502-573-0157



Matthew G. Bevin
Governor

**COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET**

Department of Highways, District 9 Office
822 Elizaville Road
Flemingsburg, KY 41041
(606) 845-2551
July 21, 2016

Greg Thomas
Secretary

Bath Co. Water District
POBOX 369
Salt Lick, KY 40371

Subject: Bath County
Permit Number: 09-2016-00070

Dear Mr. Barber:

Your application for an encroachment permit has been approved by the Department of Highways. It is your responsibility to provide all approved plans and documents to the applicant and other parties for successful completion of this project.

Please see that the work is done in strict conformity with the permit and any other applicable conditions (See Form TC99-21 and any other attached documents, conditions or specifications). The work should be completed no later than the date on the permit. When the permitted work and any necessary restoration have been completed, please notify this office by using the attached form which will serve as notification for final inspection.

If there are any questions regarding this permit, please do not hesitate to contact Daniel W. Suit, TET III at 606-845-2551 or fax number 606-849-2286.

Sincerely,

A handwritten signature in cursive script that reads "Bart B. Bryant".

Bart B. Bryant, P.E.
Chief District Engineer
District 9 – Flemingsburg
P.O. Box 347
Flemingsburg, KY 41041



An Equal Opportunity Employer M/F/D



Kentucky Transportation Cabinet
 Department of Highways
 Division of Maintenance
 Permits Branch

TC 99-1 (B)
 03/2016
 Page 1 of 1

ENCROACHMENT PERMIT

KEPT No.: 09-2016-00070
Permittee: Bath County Water District
Permit Type / Subtype: Utilities / Water
Work Completion Date: 3/29/2017

INDEMNITIES		
Type	Amount Required	Tracking Number
Performance Bond	\$0.00	
Cash / Check	\$0.00	
Self-Insured	\$0.00	
Payment Bond	\$20,000.00	32S508054
Liability Insurance	\$0.00	

This permit has been: **APPROVED** **DENIED**

Bart Bryant D9 - Chief District Engineer 7/22/2016
SIGNATURE TITLE DATE

The TC 99-1(B), including the application TC-99 1(A) and all related and accompanying documents and drawings make up the permit. It is not a permit unless both the TC 99-1(A) and TC 99-1(B) are both present.

LOCATION(S)			
Description	County - Route	Latitude	Longitude
	Bath - KY 36	38.111077	-83.739420
	Bath - KY 36	38.037762	-83.648331
	Bath - KY 965	38.100934	-83.746848
	Bath - KY 965	38.110940	-83.739502

NOTICE OF COMPLETION OF ENCROACHMENT PERMIT WORK

PERMITEE

Name: Bath County Water District
Contact Person:
Address: 21 Church Street PO BOX 369
City: Salt Lick
State: Kentucky
Zip: 40371
Telephone: (606) 683-6363

PROJECT IDENTIFICATION

Permit Number: 09-2016-00070

I wish to notify the Department of Highways that the above mentioned permit work and any necessary right-of-way restoration have been completed and are ready for final inspection.

Applicant

Please return this form to the address below when work is completed and ready for final inspection.

Please Return to: Permit Engineer
Department of Highways, District 9 Office
822 Elizaville Avenue
Flemingsburg, Kentucky 41041
(606) 845-2551
www.transportation.ky.gov/

LOCATION(S)			
Description	County - Route	Latitude	Longitude
	Bath - KY 36	38.111077	-83.739420
	Bath - KY 36	38.037762	-83.648331
	Bath - KY 965	38.100934	-83.746848
	Bath - KY 965	38.110940	-83.739502



Kentucky Transportation Cabinet
Department of Highways
Permits Branch

TC 99-1 (A)
8/2012
Page 1 of 4

APPLICATION FOR ENCROACHMENT PERMIT

Permittee Information				KYTC No. <u>09-2016-00070</u>			
Name	Bath County Water District			Permit Information			
Address	P.O. Box 369			Address	KY 36		
	21 Church Street			City	Olympia		
City	Salt Lick, KY			State	KY	Zip	40358
State	KY	Zip	40371	County	Bath		
Phone#	606-683-6363			Route No.	KY 36 KY 965	Mile-Point	14.90 to 22.69 7.135 to 7.98
Contact	Kenny Barber			Longitude (X)	varies	83.7394204 83.6483316	83.7468484 83.7395025
Phone	606-683-6363	Cell	606-782-2828	Latitude (Y)	varies	38.1110775 38.0377621	38.1009346 38.1109408
Email				<i>Information below to be filled out by KYTC</i>			
Contact	Kenny Barber, Manager			<input type="checkbox"/> Air Right	<input type="checkbox"/> Entrance		
Phone	606-683-2323	Cell	N/A	<input checked="" type="checkbox"/> Utilities	<input type="checkbox"/> Other: _____		
Email	N/A						
				<input type="checkbox"/> Left	<input checked="" type="checkbox"/> Right	<input checked="" type="checkbox"/> X-ing	
				Access:	<input type="checkbox"/> Full	<input type="checkbox"/> Partial	<input checked="" type="checkbox"/> by Permit

General Description of Work:

A new 6" water main is planned for installation along KY 36 parallel to an existing 6" water main that will be abandoned after the new one is in place. The new water main is proposed to be constructed both on private property and within and crossing KY 36 in various locations. See attached plan sheets and spreadsheet for exact locations.

THE UNDERSIGNED PERMITTEE(s) (being duly authorized representative(s) or owner(s)) DO AGREE TO ALL TERMS AND CONDITIONS ON THE TC 99-1(A).

Kenny Barber

3/17/2014

Signature

Date

This is not a permit unless and until the permittee(s) receives an approved TC 99-1(B) from KYTC. This application will become void if not approved by the cancellation date. The cancellation date will be one year from the date the permittee submits their application.



APPLICATION FOR ENCROACHMENT PERMIT

TERMS AND CONDITIONS

1. The permit, including this application and all related and accompanying documents and drawings making up the permit, remains in effect and is binding upon the Applicant/Permittee, its successors and assigns, as long as the encroachment(s) exists and also until the permittee is finally relieved by the Department of Highways from all its obligations.
2. Applicant shall meet all requirements of the Clean Water Act if the project will disturb one acre or more, the applicant shall obtain a KPDES KYR10 Permit from the Kentucky Division of Water. All disturbed areas shall meet the requirements of the Department of Highway's Standard Specifications, Sections 212 and 213, as amended.
3. **INDEMNITY:**
 - A. **PERFORMANCE BOND:** The permittee shall provide to the Department a performance bond according to the Permits Manual, Section PE-203 as a guarantee of conformance with the Department's Encroachment Permit requirements.
 - B. **PAYMENT BOND:** At the discretion of the department, a payment bond will be required of the permittee to ensure payment of liquidated damages assessed to the permittee.
 - C. **LIABILITY INSURANCE:** Liability insurance will be required of the permittee (in an amount approved by the department) to cover all liabilities associated with the encroachment.
 - D. It shall be the responsibility of the permittee, its successors and assigns, to maintain all indemnities in full force and effect until the permittee is authorized to release the indemnity by the Department.
4. A copy of this application and all related documents making up the approved permit will be given to the applicant and shall be made readily available for review at the work site at all times.
5. Perpetual maintenance of the encroachment is the responsibility of the permittee, its successors and assigns, with the approval of the Department as required, unless otherwise stated.
6. Permittee, its successors and assigns, shall comply with and agrees to be bound by the requirements and terms of (a) this application and all related documents making up the approved permit, (b) by the Department's Permits Manual, and (c) by the Manual on Uniform Traffic Control Devices, both manuals as revised to and in effect on the date of issuance of the permit, all of which documents are made a part thereof by this reference. Compliance by the permittee, its successors and assigns, with subsequent revisions to applicable provisions of either manual or other policy of the Department may be made a condition of allowing the encroachment to persist under the permit.
7. Permittee agrees that this and any encroachment may be ordered removed by the Department at any time, and for any reason, upon thirty days written notice to the last known address of the applicant or to the address at the location of the encroachment. The permittee agrees that the cost of removing and of restoring the associated right-of-way is the responsibility of the permittee, its successors and assigns.
8. Permittee, its successors and assigns, agree that if the Department determines that motor vehicular safety deficiencies develop as a result of the installation or use of the encroachment, the permittee, its successors and assigns, shall provide and bear the expenses to adjust, relocate, or reconstruct the facilities, and/or add signs, auxiliary lanes, or other corrective measures reasonably deemed necessary by the Department within a reasonable time after receipt of a written notice of such deficiency. The period within which such adjustments, relocations, additions, modifications, and/or other corrective measures must be completed will be specified in the notice.



APPLICATION FOR ENCROACHMENT PERMIT

9. Where traffic signals are required as a condition of granting the requested permit or are thereafter required to correct motor vehicular safety deficiencies, as determined by the Department, the costs for signal equipment and installation(s) shall be borne by the permittee, its successors and assigns, and/or the Department in its reasonable discretion and only in accordance with the Department's current policy set forth in the Traffic Operations Manual and Permits Manual. Any modifications to the permittee's entrance necessary to accommodate signalization (including necessary easement(s) on private property) shall be the responsibility of the permittee, its successors and assigns, at no expense to the Department.

10. The requested encroachment shall not infringe on the frontage rights of an abutting owner without their written consent as hereinafter described. Each abutting owner shall express their consent, which shall be binding on their successors and assigns, by the submission of a notarized statement as follows, "I (we), _____, hereby consent to the granting of the permit requested by the applicant along Route _____, which permit does affect frontage rights along my (our) adjacent real property." By signature(s) _____ subscribed and sworn by _____, on this date _____.

11. The permit, if approved, is subject to the agreement that it shall not interfere with any similar rights or permit(s) previously granted to any other party, except as otherwise provided by law.

12. Permittee shall include documentation which describes the facilities to be constructed. Permittee, its successors and assigns, agrees as a condition of the granting of the permit to construct and maintain any and all permitted facilities or other encroachments in strict accordance with the submitted and approved permit documentation and the policies and procedures of the Department. Permittee, its successors and assigns, shall not use facilities authorized herein in any manner contrary to that prescribed by the approved permit. Only normal usage as contemplated by the parties and by this application and routine maintenance are authorized by the permit.

13. Permittee, its successors and assigns, at all times from the date permitted work is commenced until such time as all permitted facilities or other encroachments are removed from the right-of-way and the right-of-way restored, shall defend, protect, indemnify and save harmless the Department from any and all liability claims and demands arising out of the work, encroachment, maintenance, or other undertaking by the permittee, its successors and assigns, related or undertaken pursuant to the granted permit, due to any claimed act or omission by the permittee, its servants, agents, employees, or contractors. This provision shall not inure to the benefit of any third party nor operate to enlarge any liability of the Department beyond that existing at common law or otherwise if this right to indemnity did not exist.

14. Upon a violation of any provision of the permit, or otherwise in its reasonable discretion, the Department may require additional action by the permittee, its successors and assigns, up to and including the removal of the encroachment and restoration of the right-of-way. In the event additional actions required by the Department under the permit are not undertaken as ordered and within a reasonable time, the Department may in its discretion cause those or other additional corrective actions to be undertaken and the Department may and shall recover the reasonable costs of those corrective actions from the permittee, its successors and assigns.

15. Permittee, its successors and assigns, shall use the encroachment premises in compliance with all requirements of federal law and regulation, including those imposed pursuant to Title VI of the Civil Right Act of 1964 (42 U.S.C. § 2000d et seq.) and the related regulations of the U.S. Department of Transportation in Title 49 C.F.R. Part 21, all as amended.



APPLICATION FOR ENCROACHMENT PERMIT

16. Permittee, its successors and assigns, agree that if the Department determines it is necessary for the facilities or other encroachment authorized by the permit to be removed, relocated or reconstructed in connection with the reconstruction, relocation or improvement of a highway, the Department may revoke permission for the encroachment to remain under the permit and may order its removal, relocation or reconstruction by the permittee, its successors and assigns, at the expense of the permittee, except where the Department is required by law to pay any or all of those costs.

17. Permittee agrees that the authorized permit is personal to the permittee and shall remain in effect until such time as (a) the permittee's rights to the adjoining real property to have benefitted from the requested encroachment have been relinquished, (b) until all permit obligations have been assumed by appropriate successors and assigns, and (c) unless and until a written release from permit obligations has been granted by the Department. The permit and its requirements shall also bind the real property to have benefitted from the requested encroachment to the extent permitted by law. The permit and the related encroachment become the responsibility of the successors and assigns of the permittee and the successors and assigns of each property owner benefitting from the encroachment, or the encroachment may not otherwise permissibly continue to be maintained on the right-of-way. (Does not apply to utility encroachments serving the general public.)

18. If work authorized by the permit is within a highway construction project in the construction phase, it shall be the responsibility of the permittee to make personal contact with the Department's Engineer on the project in order to coordinate all permitted work with the Department's prime contractor on the project.

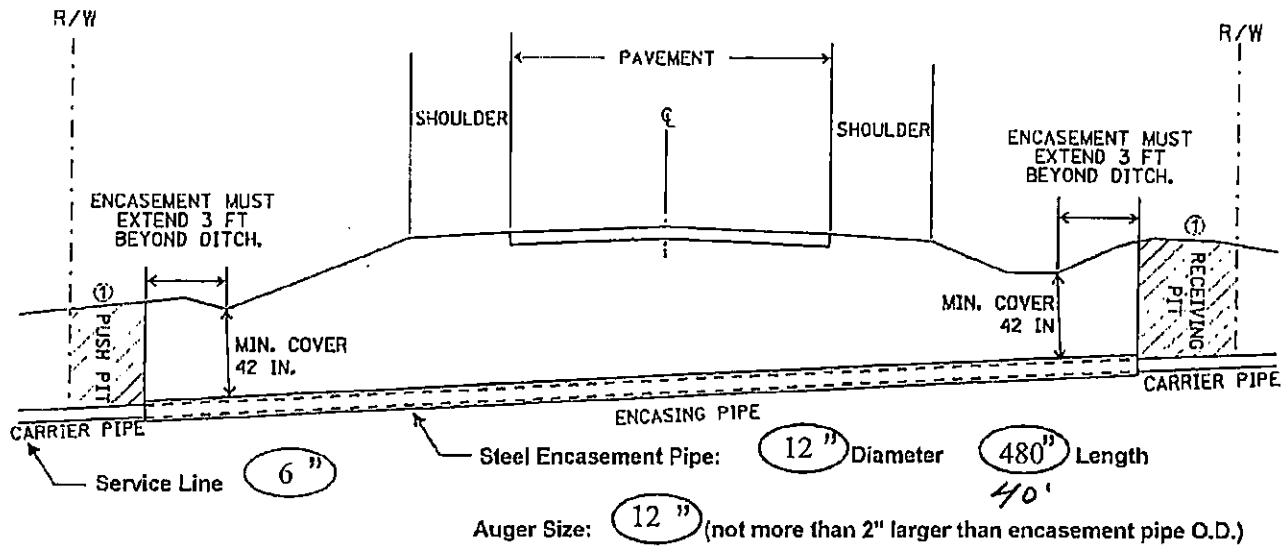
19. This permit is not intended to, nor shall it, affect, alter or alleviate any requirement imposed upon the permittee, its successors and assigns, by any other agency.

20. Permittee, its successors and assigns, agrees to contain and maintain all dirt, mud, and other debris emanating from the encroachment away from the surrounding right-of-way and the travel way of the highway hereafter and at all times that its obligations under the permit remain in effect.

Route Number: KY 36
 Pavement Width: 24'

Bore # 1
 Mile Point – 14.90

Failure to place bore at 42" depth will result in re-boring at applicant's expense, and may result in forfeiture of bond or other indemnity.



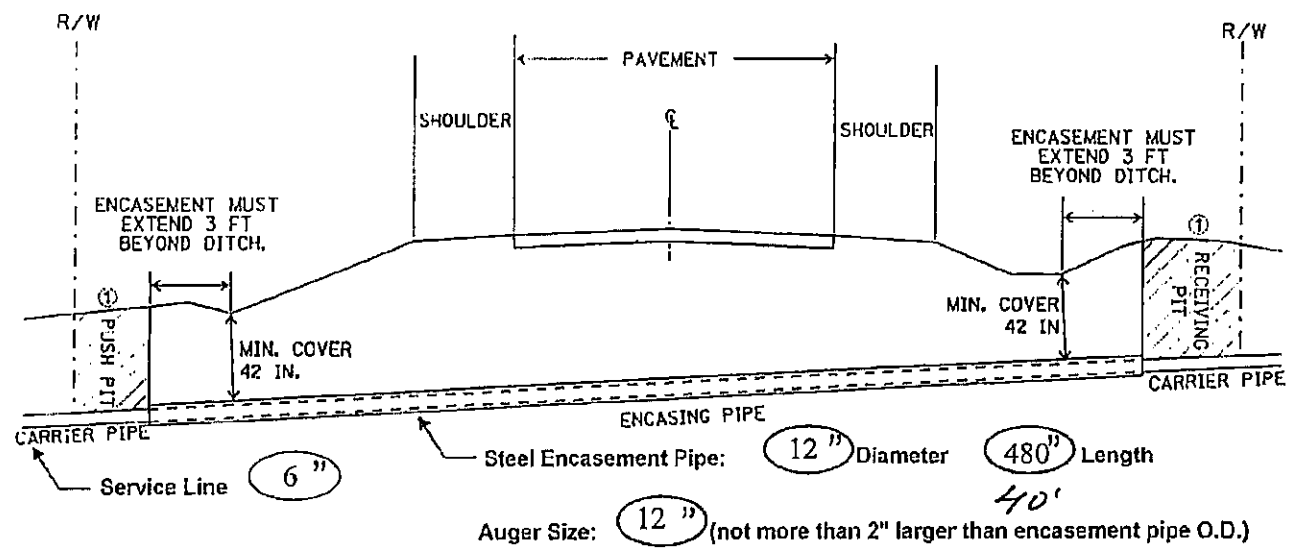
- ① Push pit and receiving pit shall be backfilled and thoroughly compacted.
2. All ditch lines shall be restored to original condition.
3. Shape, seed, and straw all disturbed areas.
4. Services over 2" shall be steel encased unless exempt under Chapter Two of the KYTC Permits Guidance Manual.

KENTUCKY DEPARTMENT OF HIGHWAYS
TYPICAL HIGHWAY BORING CROSSING DETAIL
TC99-10 Rev. 04/06 Dist. 4

Route Number: KY 36
 Pavement Width: 24'

Bore # 2
 Mile Point - 22.26

Failure to place bore at 42" depth will result in re-boring at applicant's expense, and may result in forfeiture of bond or other indemnity.



1. Push pit and receiving pit shall be backfilled and thoroughly compacted.
2. All ditch lines shall be restored to original condition.
3. Shape, seed, and straw all disturbed areas.
4. Services over 2" shall be steel encased unless exempt under Chapter Two of the KYTC Permits Guidance Manual.

KENTUCKY DEPARTMENT OF HIGHWAYS
TYPICAL HIGHWAY BORING CROSSING DETAIL
TC99-10 Rev. 04/08 Dist. 4

Advance Warning Area

The distance from the first sign to the start of the transition area should be long enough to give motorists adequate time to respond to the conditions. Guidelines are presented in the summary of layout dimensions as referenced in the following typical application diagrams (A, B, C).

Summary of Layout Dimensions

Sign Spacing

Road Type	Distance Between Signs (feet)		
	A	B	C
Urban (< 40 mph)	100	100	100
Urban (40 or >45 mph)	350	350	250
Rural	500	500	500
Expressway/Freeway	1,000	1,500	2,640

Channelizing Device Spacing

	Taper	Buffer Work Space Downstream	
Two-lane	20'	2 x Speed Limit	20'
Multi-lane	Speed Limit	2 x Speed Limit	20'

Summary of Layout Dimensions

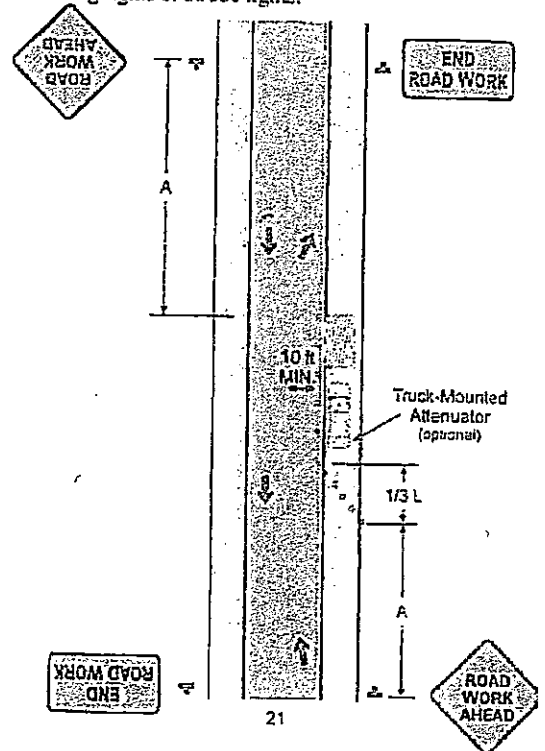
Tapers and Flagger Station

Speed Limit	Two-Lane		Multi Lane		Flagger Station
	Merging Taper (12' Lane)	Shifting Taper (12' Lane)	Shoulder Taper (10' Shoulder)		
20	100	80	40	25	35
25	100	125	70	35	55
30	100	180	90	50	95
35	100	250	130	70	120
40	100	320	160	90	170
45	100	540	280	150	220
50	100	600	300	170	280
55	100	660	330	190	335
60	100	720	360	200	415
65	100	780	390	220	485

Note: (Downstream Taper = 100 ft)

Shoulder Work with Minor Encroachment (TA-6)

All lanes should be a minimum of 10 feet in width as measured to the near face of the channelizing devices. The treatment shown should be used on a minor road having low speeds. For higher-speed traffic conditions, a lane closure should be used. Although vehicle hazard warning signals can be used to supplement the rotating lights or strobe lights, they shall not be used instead of rotating lights or strobe lights.





ENCROACHMENT PERMIT GENERAL NOTES & SPECIFICATIONS

Permit No. 09-2016-00070

I. SAFETY

A. General Provisions

- All signs and control of traffic shall be in accordance with the Manual on Uniform Traffic Control Devices for Streets and Highways, latest edition, Part VI, and safety requirements shall comply with the Permits Manual.
- All work necessary in shoulder or ditch line areas of a state highway shall be scheduled to be promptly completed so that hazards adjacent to the traveled way are kept to an absolute minimum.
- No more than one (1) traveled-lane shall be blocked or obstructed during normal working hours. All signs and flaggers during lane closure shall conform to the Manual on Uniform Traffic Control Devices.
- When necessary to block one (1) traveled-lane of a state highway, the normal working hours shall be as directed by the Department. No lanes shall be blocked or obstructed during adverse weather conditions (rain, snow, fog, etc.) without specific permission from the Department. Working hours shall be between _____ and _____.
- The traveled-way and shoulders shall be kept clear of mud and other construction debris at all times during construction of the permitted facility.
- No nonconstruction equipment or vehicles or office trailers shall be allowed on the right of way during working hours.
- The right of way shall be left free and clear of equipment, material, and vehicles during non-working hours.

B. Explosives

- No explosive devices or explosive material shall be used within state right of way without proper license and approval of the Kentucky Department of Mines and Minerals, Explosive Division.

C. Other Safety Requirements

- Standard accepted engineering and erosion control practices must be used during construction. All necessary safety precautions must be taken at all times: signs, flaggers, etc. Specifications are listed in the Traffic Control for Work Zones Handbook.

II. UTILITIES * Applies to Fully Controlled Access Highways ONLY

- *All work necessary within the right of way shall be performed behind a temporary fence erected prior to a boring operation.
- *The temporary woven wire fence shall be removed immediately upon completion of work on the right of way, and the control of access immediately restored to original condition, in accordance with applicable Kentucky Department of Highways Standard Drawings.
- *All vents, valves, manholes, etc., shall be located outside of the right-of-way.
- *Encasement pipe shall extend from right-of-way line to right-of-way line and shall be one continuous run of pipe. The encasement pipe shall be welded at all joints.
- The boring pit and tail ditch shall extend past the existing toe of slope or bottom of ditch line and shall be a minimum of 42 inches deep.

IV. RIGHT OF WAY RESTORATION

- All disturbed portions of the right of way shall be restored to grass as per Kentucky Department of Highways Standard Specifications for Road and Bridge Construction (latest edition). A satisfactory turf, as determined by the Department, shall be established by the permittee prior to release of indemnity. Sodding or seeding shall be as follows:

Lawn or High Maintenance Situation	70% Lawn Fescue (e.g., variety - Falcon) 30% Bluegrass or
------------------------------------	--

	70% Lawn Rye (e.g., variety - Derby) 30% Bluegrass
--	---

Right of Way Lawn Maintenance Situation	70% KY 31 Fescue 30% Perennial Rye Grass or
---	--

	100% KY Fescue
--	----------------

- Two tons of clean straw mulch per acre of seeding.
- Prior to seeding, the ground shall be prepared in accordance with Kentucky Department of Highways Standard Specifications for Road and Bridge Construction (latest edition).
- Substitutes for sod such as artificial turf, rocked mulch, or paved areas may be acceptable if they are aesthetically pleasing.
- All ditch-flow lines and all ditch-side slopes shall be sodded.
- Existing concrete right of way markers shall not be disturbed, but if damaged in any way, they shall be entirely replaced by the permittee, with new concrete markers to match the original markers, in accordance with Kentucky Department of Highways Standard Drawings. Markers that are entirely removed shall be re-established in the proper locations by the permittee and to the satisfaction of the Department.
- Other right of way restoration requirements are as follows:

V. DRAINAGE

- All pipe shall be laid in a straight alignment, to proper grades, and with all materials and methods of installation including bedding and joint seating in accordance with Department Standard Specifications for Road and Bridge Construction (latest edition). Pipe shall not be covered until inspected by the Department and express permission obtained to make backfill.
- All gutter lines at the base of new curbs shall be on continuous grades, and pockets of water along with curbs or in entrance areas or other paved areas within the right of way shall not be acceptable.
- All drainage structures and appurtenances (manholes, catch basins, curbing, inlet basins, etc.) shall conform to Department specifications and shall be constructed in accordance with the Department Standard Drawings. Type required:

Permit No. 09-2016-00090

VIII. DENSE GRADED SHOULDERS

- Any existing dense-graded aggregate shoulders in the entire frontage within the construction area, which have been disturbed or damaged or on which dirt has been placed or mud has been deposited or tracked, shall be restored to original condition by removal of all contaminated material and replaced to proper grade with new dense-graded aggregate.
- All new aggregate shoulders as specified in the plan shall consist of 5 inches of compacted dense-graded aggregate, 2^{1/2} pounds per square yard of calcium chloride.
- All dense-graded aggregate shoulders shall slope away from the new edge of pavement at the rate of 3/4 inch per foot.

IX. CURBING

A. Bituminous Curbs

- Bituminous concrete curbs shall be given a paint coat of asphalt emulsion.
- The surface under the bituminous concrete curb shall be tacked with asphalt emulsion.
- All bituminous concrete curbs shall be constructed of a Class I bituminous concrete mixture as specified by official Department of Highways specifications.
- All bituminous curbs shall be rolled curb, with a minimum base width of 8 inches and a minimum height of _____ inches. The top of the curb shall be constructed in such a manner as to guarantee a uniform rolled effect throughout the entire run.

B. Concrete Curbs

- All curbs or curb and gutter shall be constructed of Class A concrete (3,500 p.s.i. test) and shall be uniform in height, width, and alignment, true to grade, and satisfactory in finish and appearance as determined by the Department. All materials and methods of construction, including curing, shall be in accordance with Department of Highways Standard Specifications for Road and Bridge Construction (latest edition).
- All concrete curbs shall be 6 inches in width, extend _____ inches above finished grade and 12 inches below finished grade, with all visible edge rounded to 1/2 inch radii.
- All concrete curbs shall have expansion joints constructed at intervals of not more than 30 feet, and 1/2 inch premolded expansion joint material (cut to conform to the curb or to the curb and gutter section) shall be used in each expansion joint.
- The last _____ feet of all concrete curbs are to be tapered down to finished grade.