pennsylvania
DEPARTMENT OF TRANSPORTATION

494-21-01

DATE: January 19, 2021

SUBJECT: TIS/TIA Review and HOP Project Application Checklist Revisions

TO: District Executives

FROM: T Jay Cunningham, P.E., Acting Director
Bureau of Maintenance and Operations

T Jay Cunningham, P.E.

This Strike-off Letter (SOL), effective immediately, is time/resource neutral and replaces the current checklists found in Publication 282. The updated checklists will be added to the PennDOT's Highway Occupancy Permit (HOP) Webpage and the Electronic Permitting System (EPS).

Background

Found in Publication 282, the HOP Transportation Impact Study (TIS)/Transportation Impact Assessment (TIA) Review Checklist (Appendix A, Attachment F) and HOP Driveway Checklists (Appendix C1) have been revised to aid in streamlining the HOP application process and to clarify applicant requirements for minimum, low-, medium-, and high-volume driveway occupancy permits. The revised checklists are intended to minimize the number of reviews required by Department personnel via more complete HOP applications.

Major Revisions

The checklists were modified to intuitively guide applicants through Department requirements within Title 67 of the Pennsylvania Code, Chapter 441 and Publication 282. Each requirement within the revised checklist contains a reference to Chapter 441 or the appropriate PennDOT Publication. The intent of the Department is to encourage the applicant to complete the checklists as part of the application submission. The intention of the extra step is not to overburden the applicant but to ensure they have done their due diligence before submitting the HOP application materials. The checklists were developed to act as a final Quality Assurance/Quality Control for the applicant before submitting deliverables to the Department.

Specific revisions to each checklist include:

TIS/TIA & Driveway HOP Checklists:

- "Completed", "Not Applicable", and "See Additional Notes" checkboxes for checklist
- Regulations and/or PennDOT Publication references for each requirement
- Links to the referenced regulations and Department Publications
- Additional notes page at the end of the checklist so the applicant can provide clarification for "See Additional Notes" response

TIS/TIA Checklist:

- Revised to more closely follow the sample TIS Report in Publication 282 Appendix A, Attachment C.

Driveway HOP Checklist:

- The Driveway HOP checklist was split into 2 checklists.
- Part 1 addresses items pertaining to the required HOP application documents and the Electronic Permitting System (EPS) requirements. *The intention is for this checklist to be consulted first by the applicant before moving on to Part 2.*
- Part 2 provides comprehensive instruction as to the minimum design and plans/presentation requirements for preparation and submission of plans.

Utility HOP Checklist:

- The Utility HOP checklist is included only to update its page numbers.

Should you have any questions or require additional information, please contact Michael Dzurko, Manager, HOP Program Unit, at 717.783.6080.

4940/MJD/hmq

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MJB Read File

TIS / TIA Review Checklist

Instructions: Complete all applicable items in the checklist. **Please note that not all items listed are required for TIAs.** Mark items as Completed (C), Not Applicable (N), or See Additional Notes (S). For items marked See Additional Notes, provide necessary additional information on the Additional Notes section on the last page of this checklist. Checklist items with multiple requirements shall be completed as shown. If part of the checklist item is not completed, provide reason(s) or justification in the Additional Notes section.

Checklist regulation and publication references can be found in the following documents:

- 67 Pa. Code Chapter 441 – Access to and Occupancy of Highways by Driveways and Local Roads
- Publication 10X – Design Manual Part 1X - Appendices to Design Manuals 1, 1A, 1B, and 1C
- Publication 46 – Traffic Engineering Manual
- Publication 149 – Traffic Signal Design Handbook
- Publication 282 – Highway Occupancy Permit Operations Manual

Section 1 – General Requirements

C N S

☐☐☐ (1) Provide signature and seal of licensed PA P.E. on the front cover (**Pub. 282, App. A, Introduction**)

☐☐☐ (2) Follow TIS example format as identified in **Pub. 282, App. A, Att. C** or as agreed upon by the PennDOT District

☐☐☐ (3) Provide any additional information as required by the PennDOT District (**67 Pa. Code §441.3(k)**)

Section 2 – Executive Summary

C N S

☐☐☐ (1) Provide a high level, concise summary of the following: (**Pub. 282, App. A, Att. C**)

- Project location and scope
- Proposed development
- Anticipated development impact
- Mitigation strategies and improvements
- Financial responsibilities of improvements
- Design waivers requested (if applicable)

Section 3 – Introduction/Project Summary

C N S

☐☐☐ (1) Provide a summary of the scope of the project including description of the following: (**Pub. 282, App. A, Att. C**)

- Traffic analyses and assumptions
- Study area/roadway network
- Site layout
- Project phasing

Section 4 – Data Collection

C N S

☐☐☐ (1) Describe data collection efforts and methodology per Step 2 in the Policies and Procedures for Transportation Impact Studies Related to Highway Occupancy Permits: (**Pub. 282, App. A, Step 2**)

- Volume counts
- Land use context
- Sight distance and site access
- Study area photos
- Crash data
- Multimodal facilities

Section 5 – Existing Study Area Conditions

C N S

☐☐☐ (1) Discuss the following existing conditions: (**Pub. 282, App. A, Step 3 and Att. C**)

- Surrounding land use
- Existing traffic volumes and level of service/delay
- Crash analysis **(Provide full crash analysis as separate bound document)**
- Pedestrian/bicycle/transit activity and accommodations
- Queue analysis (if applicable)
- Gap analysis (if applicable)
- Travel time studies (if applicable)

☐☐☐ (2) Document traffic engineering software utilized to perform capacity and crash analysis (**Pub. 282, App. A, Step 3**)

Section 6 – Opening Year and Design Year Traffic Conditions without Development

C N S

☐☐☐ (1) Discuss background traffic utilized to calculate opening and design year traffic volumes using growth factor and planned and permitted developments (**Pub. 282, App. A, Step 4**)

☐☐☐ (2) Include opening year and design year without development traffic volume and capacity analysis as figures (**Pub. 282, App. A, Step 9**)

☐☐☐ (3) Include opening year and design year without development queue and turn lane analysis (if applicable) (**Pub. 282, App. A, Step 9)**

☐☐☐ (4) Describe and include committed transportation improvements (**Pub. 282, App. A, Att. C)**

Section 7 – Development Description

C N S

☐☐☐ (1) Provide brief description of proposed site access – permissible movements and distance to intersection (**Pub. 282, App. A, Step 8**)

☐☐☐ (2) Provide brief description of sight distance analysis (**Pub. 282, App. A, Step 2**)

☐☐☐ (3) Provide brief description of proposed trip information: (**Pub. 282, App. A, Step 5 and 7**)

- Total number and peak hour trips generated (include modal reductions if applicable)
- Internally captured trips
- Pass-by and diverted link trips
- Trip distribution/assignment

☐☐☐ (4) Provide brief description of post development study (if applicable) (**Pub. 282, App. A, Att. C**)

☐☐☐ (5) Indicate if planned developments are consistent with formal land use plans (**Pub. 282, App. A Step 4**)

Section 8 – Opening Year and Design Year Traffic Conditions with Development

C N S

☐☐☐ (1) Provide brief description of strategies to manage anticipated demand (**Pub. 282, App. A, Step 11**)

☐☐☐ (2) Include traffic assignment diagrams with percentages and volumes indicated as figures (**Pub. 282, App. A, Step 8**)

☐☐☐ (3) Include opening year and design year capacity analysis as tables (**Pub. 282, App. A, Step 9**)

☐☐☐ (4) Include left turn signal phasing analysis if required by Pub 149 (**Pub. 149, Ch. 3.1**)

☐☐☐ (5) Include queue analyses if required by Pub 46 (**Pub. 46, Ch. 10.2**)

☐☐☐ (6) Include turn lane warrants/length analysis if required by Pub 46 (**Pub. 46, Ch. 11.16**)

☐☐☐ (7) Include signal warrant if applicable (**Pub. 282, App. A, Step 10**)

☐☐☐ (8) Include weaving analysis if applicable (**Pub. 282, App. A, Att. C**)

Section 9 – Mitigation Identification and Recommendations

C N S

☐☐☐ (1) Provide mitigation analysis and description of proposed mitigation (**Pub. 282, App. A, Att. C**).

☐☐☐ (2) Provide concept plans of full mitigation at 1:50 scale. (**Pub. 282, App. A, Step 9**).

☐☐☐ (3) Provide cost estimate (**Pub. 282, App. A, Att. C**)

☐☐☐ (4) Provide Alternative Transportation Plan (ATP) as separate document (if applicable) (**Pub. 282, App. A, Step 11**)

☐☐☐ (5) Provide Design (LOS) Waiver as a separate document (if applicable) (**Pub. 282, Ch. 2.6**)

Section 10 – Conclusions

C N S

☐☐☐ (1) Summarize study findings and recommendations (**Pub. 282, App. A, Att. C**)

Section 11 – Appendices

C N S

☐☐☐ (1) Include Intersection Control Evaluation (**Design Manual Part 1X, Appendix AI**)

☐☐☐ (2) Include scoping meeting application and any correspondence with the Department (**Pub. 282, App. A, Att. C**)

☐☐☐ (3) Include Proposed Site Plan (**Pub. 282, App. A, Att. C**)

☐☐☐ (4) Include Cost Estimate (**Pub. 282, App. A, Att. C**)

☐☐☐ (5) Include Turning Movement and 24-Hour Volume Counts (**Pub. 282, App. A, Att. C**)

☐☐☐ (6) Include existing signal plan(s) and permit plan(s) if applicable (**Pub. 282, App. A, Step 3**)

☐☐☐ (7) Include roadway data in form of field sketches if applicable (**Pub. 282, App. A, Att. C**)

☐☐☐ (8) Include background traffic growth (**Pub. 282, App. A, Step 4**)

☐☐☐ (9) Include trip distribution figures, supporting assumptions and calculations, and engineering justification (**Pub. 282, App. A, Step 7**)

☐☐☐ (10) Include volume spreadsheet indicating baseline traffic growth volumes and generated traffic (**Pub. 282, App. A, Att. C**)

☐☐☐ (11) Include capacity and queue analysis worksheets or analysis reports for all analysis scenarios (**Pub. 282, App. A, Att. C**)

☐☐☐ (12) Include pedestrian/bicycle checklist located in Design Manual Part 1X, Appendix S (**Pub. 282, App. A, Step 2**)

☐☐☐ (13) Include crash analysis as a separately bound document (**Pub. 282, App. A, Att. C**)

☐☐☐ (14) Include gap study (**Pub. 282, App. A, Att. C**)

☐☐☐ (15) Include traffic signal warrant analysis (**Pub. 282, App. A, Att. C**)

☐☐☐ (16) Include left turn signal phasing analysis (**Pub 282, App. A, Att. C**)

☐☐☐ (17) Include turn lane analysis (**Pub. 282, App. A, Att. C**)

☐☐☐ (18) Include approved Alternative Transportation Plan (ATP) if applicable (**Pub. 282, App. A, Att. C**)

☐☐☐ (19) Include Design (LOS) Waiver Request/Approval if applicable (**Pub. 282, App. A, Att. C**)

☐☐☐ (20) Include any additional supporting analysis data as required as part of the approved TIS Scoping Meeting Checklist. List the additional analyses below. (**Pub. 282, App. A, Step 10**)

Additional Notes

For any items marked See Additional notes (i.e., S), provide necessary additional information. For ease of reference, please refer to the applicable comment by its numerical number (For example, 1.2, 3.5, etc.).

Applicant Checklist for Low, Medium, & High Volume Driveways and Local Roads HOP Part 1: EPS and Application Requirements

Instructions: Complete all applicable items in the checklist. Mark items as Completed (C), Not Applicable (N), or See Additional Notes (S). For items marked See Additional Notes, provide necessary additional information on the Additional Notes section on the last page of this checklist. Checklist items with multiple requirements shall be completed as shown. If part of the checklist item is not completed, provide reason(s) or justification in the Additional Notes section.

Checklist regulation and publication references can be found in the following documents:

- Act 167 - Stormwater Management Act of 1978
- 25 Pa. Code Chapter 102 – Erosion and Sediment Control
- 25 Pa. Code Chapter 105 – Dam Safety and Waterway Management
- 67 Pa. Code Chapter 441 – Access to and Occupancy of Highways by Driveways and Local Roads
- Publication 213 – Temporary Traffic Control Guidelines
- Public83ation 282 – Highway Occupancy Permit Operations Manual
- Publication 584 – PennDOT Drainage Manual
- Publication 574 – Access Management Model Ordinances for PA Municipalities Handbook
- Publication 783 – Environmental Permitting Handbook

Section 1 – EPS Prerequisite Requirements

C N S

☐☐☐ (1) Submit Scoping Meeting Application to applicable District office prior to creating a new HOP application (**Pub 282, Ch. 2.2)**

☐☐☐ (2) Obtain an EPS Business Partner ID (**Pub 282, Ch. 5.2**)

Section 2 – EPS Requirements

C N S

☐☐☐ (1) Create new HOP Application as (*eck only one*):

☐ (a) Agent for Applicant if submitting application on behalf of a HOP Applicant. If selecting this option, attach a completed Form M-950AA (**Pub. 282, Ch. 2.2**)

☐ (b) Applicant if you are the "owner" as defined in **67 Pa. Code §441.1**

☐☐☐ (2) Fill in required Application Information and Application Details (**Pub. 282, Ch. 2.2**)

☐☐☐ (3) Complete Applicant Team and add all applicable team members (**Pub. 282, Ch. 9.2**)

☐☐☐ (4) Complete Application Identification and include the following:

- Scheduled work start (**Pub. 282, Ch. 9.2**)
- Approximate completion date (**Pub. 282, Ch. 9.2**)
- Anticipated Average Daily Traffic (**67 Pa. Code §441.4(i)(7)**)

☐☐☐ (5) Complete Work Summary and Locations and include the following: (**Pub. 282, Ch. 9.2)**

- Detailed description of work to be performed
- Location of the work (County, State Road (SR), Location Details)

Section 2 – EPS Requirements (Continued)

C N S

☐☐☐ (6) Provide the following as attachments:

- Proof of ownership **(67 Pa. Code §441.3(e)(6))**
- Local government acknowledgment letter **(67 Pa. Code §441.3(j)(3))**
- Construction Plan **(67 Pa. Code §441.3(i); See Driveway HOP Checklist, Part 2)**
- Land Use Questionnaire **(Form M-950MPC)**
- Construction cost estimate **(Pub. 282,Ch. 2.6, Access Security)**

☐☐☐ (7) Complete the Fee Information section and include the following:

- Permit issuance and general inspection fee according to the appropriate regulation reference numbers (**67 Pa. Code §441.4**)
- Estimated construction costs (**Pub. 282, Ch. 2.6, Access Security**)

Section 3 – Additional Driveway Application Requirements

C N S

☐☐☐ (1) Submit a TIS/TIA if warranted (See TIS/TIA Checklist on HOP webpage and in EPS). Follow the *Policies and Procedures for Transportation Impact Studies* found in **Pub. 282, Appendix A**. A TIS/TIA approval should be received prior to submitting detailed construction plans. (**Pub 282, Ch. 2.6**).

☐☐☐ (2) Submit a Traffic Signal Permit through the Traffic Signal Portal (TSP) in EPS if traffic signal warrants in **Pub 46, Ch. 4.3** are met at the proposed driveway(s).

☐☐☐ (3) Submit a Signal Warrant Traffic Analysis and a municipal awareness letter if signal warrants are met. (**Pub 46, Ch. 4.3 & 67 Pa. Code §212.5(b)**).

☐☐☐ (4) Submit a Temporary Traffic Control Plan if (*check all that apply*): (**67 Pa. Code §441.3(f). See Driveway HOP Checklist: Part 2.**)

- ☐ (a) Work requires closing a portion of a lane to vehicular traffic
- ☐ (b) Work is anticipated to be a potential hazard or interference to road users

☐☐☐ (5) Submit a notarized and recorded Access Covenant (Form M-946) if property may be subdivided in the future resulting in an unacceptable number of driveways consistent with **67 Pa. Code §441.6(16)**

☐☐☐ (6) Submit a Drainage Control Plan/Drainage Impact Report if (*check all that apply*): (**67 Pa. Code §441.3(g)**)

- ☐ (a) There is an increase in the flow of water onto the highway right-of way or into highway drainage facilities
- ☐ (b) There is an increase in flow rate or flow velocity of water onto another owner's property
- ☐ (c) There is an area of known drainage or flooding problems

Section 3 – Additional Driveway Application Requirements (Continued)

C N S

☐☐☐ (7) *Preparation of a Drainage Impact Report* found in **Pub. 282, Appendix B1** and include the following information as applicable (*check all that apply*)**:**

- ☐ (a) Obtain a NPDES permit if the disturbed area exceeds 1 acre (**25 Pa. Code §102.5 & Pub. 584, Ch. 12.1.B**)
- ☐ (b) Obtain GP-4 approval from the local conservation district if the development creates a new point source discharge. Coordinate with the local municipality to determine if this is required (**25 Pa. Code §105 & Pub. 783, Ch. 4**)
- ☐ (c) Submit a notarized and recorded Drainage Release (Form M-947) if it can reasonably be anticipated that there will be an increase in the flow of water onto the property of some other person as a result of action, authorized by the permit. (**67 Pa. Code §441.3(h)**)

☐☐☐ (8) Provide Access Security in the form of an Irrevocable Letter of Credit (Form M-950L) unless compelling reasons are provided to accept another form of security, such as an individual or "blanket" bond, or escrow agreement (**Pub. 282, Ch. 2.6**)

☐☐☐ (9) Submit proof of Insurance if requested by the Department (**67 Pa. Code §441.6(14)**)

☐☐☐ (10) Submit a right-of-way plan, deed, and documentation of title if a proposed highway facility, drainage structure, or any other highway related structure falls outside of the existing legal right-of-way. Follow Right-of-Way Procedures outlined in **Pub. 282, Subchapter 2.6**

☐☐☐ (11) Request a **Waiver of Design Requirement** if a design requirement for the proposed driveway/local road or related state highway improvements cannot be met, per **67 PA Code §441.5** and consistent with the policy and procedure found in Pub. 282, Ch. 2.6.

☐☐☐ (12) Submit a completed Form M-950R1 and follow the Access Approval Procedures – Impacts to Access of Neighboring Owners if an auxiliary lane must be located in front of property of another person (**Pub. 282, Ch. 2.6**)

Section 3 – Additional Driveway Application Requirements (Continued)

C N S

☐☐☐ (13) Complete appropriate indemnification form and Form M-950IC if (*check all that apply*):

- ☐ (a) Applicant is not the fee title holder (Form M-950IFO) (**67 Pa. Code §441.3(e)(7)**)
- ☐ (b) Applicant is unable to obtain a drainage release, and PennDOT determines that there is no reasonable and prudent alternative available to the applicant Form (M-950ID) (**67 Pa. Code §441.3(h)**)
- ☐ (c) PennDOT has agreed to waive a design requirement (Form M-950IDW) (**67 Pa. Code §441.5(e)(1)(v)**)
- ☐ (d) Applicant is unable to secure the approval of the property owner where an auxiliary lane is being installed, and PennDOT determines that reasonable mitigation and/or offers of compensation have been unreasonably rejected by the affected property owner (unless interference with access is unreasonable) (Form M-950IA) (**67 Pa. Code §441.8(j)(5)**)

☐☐☐ (14) Submit proof of submission to the Pennsylvania Historical and Museum Commission (PHMC) if permitted work includes construction of an auxiliary lane or other widening of the improved area or whether additional right-of-way will be required. (**Pub 282, Ch. 2.6**)

☐☐☐ (15) If applicable, provide the Municipality Approval letter from the Post Construction Stormwater Management (PCSM) Plan that was completed to meet the Local Stormwater Management (SWM) Ordinance (**Act 167 Stormwater Management Plan & Pub. 584, Ch. 4, App. C**)

☐☐☐ (16) If applicable, provide proof of Public Utility Commission (PUC) coordination regarding any construction, relocation, suspension, and abolition of railroad crossings. (**66 Pa. Code §2702**)

Additional Notes

For any items marked See Additional Notes (i.e., S), provide necessary additional information. For ease of reference, please refer to the applicable comment by its numerical number (For example, 1.2, 3.5, etc.).

Applicant Checklist for Low, Medium, & High Volume Driveways and Local Roads HOP Part 2: Design and Plans Presentation Requirements

Instructions: Complete all applicable items in the checklist. Mark items as Completed (C), Not Applicable (N), or See Additional Notes (S). For items marked See Additional Notes, provide necessary additional information on the Additional Notes section on the last page of this checklist.

Not every item in this checklist may be required – refer to the Driveway Checklist, Part 1: Application Procedures for required design information and plan sets.

Checklist requirement references can be found in the following regulations and publications:

- 49 Pa. Code Chapter 37 – State Registration Board for Professional Engineers and Land Surveyors
- 67 Pa. Code Chapter 441 – Access to and Occupancy of Highways by Driveways and Local Roads
- MUTCD – Manual on Uniform Traffic Control Devices
- Publication 13M (DM-2) – Design Manual, Part 2 Highway Design
- Publication 14M – Design Manual Part 3 Plans Presentation
- Publication 72M – Standards for Roadway Construction
- Publication 111 – Traffic Control - Pavement Markings and Signing Standards
- Publication 149 – Traffic Signal Design Handbook
- Publication 213 – Temporary Traffic Control Guidelines
- Publication 236 – Handbook of Approved Signs
- Publication 242 – Pavement Policy Manual
- Publication 282 – Highway Occupancy Permit Operations Manual
- Publication 574 – Access Management Model Ordinances for PA Municipalities Handbook
- Publication 584 – PennDOT Drainage Manual
- AASHTO Green Book
- DEP Document Number 363-0300-002 "Pennsylvania Stormwater Best Management Practices Manual"

Section 1 – General Notes

C	N	S	
☐	☐	☐	(1) Provide (*check all*):
			☐ (a) Genera permit notes **(Pub. 282, App. C2)**
			☐ (b) Typical section notes **(Pub. 14M, Ch. 2.3)**
			☐ (c) Signing and pavement marking notes **(Pub. 14M, Ch. 8/Pub. 111)**
			☐ (d) Maintenance and protection of traffic notes **(Pub. 282, Ch. 2.4 & App. C2)**
			☐ (e) Right-of-way reference notes **(Pub. 14M, Section 2.3.A.1)**
			☐ (f) ADA Compliance notes for pedestrian facilities beyond right-of-way (**Pub. 13M, Ch. 6.2.B.1.b**)
			☐ (g) Applicable drainage notes **(Pub. 14M)**
			☐ (h) Applicable utility notes (**Pub. 14M**)

Section 2 – Plan Presentation

C N S

☐☐☐ (1) Provide on the plans (*check all*):

- ☐ (a) North arrow **(Pub. 14M)**
- ☐ (b) Scale bar, plan view: 1" = 25' (1" = 50' at District discretion); details: 1" = 20' or less **(Pub. 282, Ch. 2.4)**
- ☐ (c) Appropriate title and signature blocks on the title sheet of each plan set provided (**Pub. 14M, Ch. 2.1.K & Ch. 15.2, Plate B-I**))
- ☐ (d) Identification block in upper right hand corner of each sheet (**Pub. 14M, Ch. 2.1.B**)
- ☐ (e) Location map **(Pub. 14M, Ch. 2.3.C)**
- ☐ (f) Limits of work **(Pub. 14M, Ch. 2.6)**
- ☐ (g) Existing State Routes and Segment/Offsets **(Pub. 14M, Ch. 2)**
- ☐ (h) Centerlines and stationing for State Routes and driveways **(Pub. 14M, Ch. 2)**
- ☐ (i) Percentage of grade for each approach **(Pub. 14M)**
- ☐ (j) PA One-Call serial number **(67 Pa. Code §441.6(2)(i)(B)/Act 50 of 2017, Section 4)**
- ☐ (k) HOP application number (**Department issued number**)

☐☐☐ (2) Show and dimension existing and proposed driveways, curbs, tapers (lane, shoulder, driveway, etc.), acceleration and deceleration lanes (*check all*):

- ☐ (a) Driveway width **(Pub. 14M, Ch. 2.6.J & 67 Pa. Code §441.3(i))**
- ☐ (b) Driveway radii and other points of curvature **(Pub. 14M, Ch. 2.6.J & 67 Pa. Code §441.3(i))**
- ☐ (c) Driveway grades or profile view of driveway **(Pub. 14M, Ch. 2.6.J & 67 Pa. Code §441.3(i))**
- ☐ (d) Driveway angle relative to the highway **(Pub. 14M, Ch. 2.6.J & 67 Pa. Code §441.3(i))**
- ☐ (e) Dimensions of traffic islands adjacent to the highway and within the development that separate traffic flow from or onto the highway **(Pub. 14M, Ch. 2.6.J & 67 Pa. Code §441.3(i))**
- ☐ (f) Driveway surface material and traffic island materials **(67 Pa. Code §441.3(i)**
- ☐ (g) Location and type of all required traffic control devices **(67 Pa. Code §441.3(i)**
- ☐ (h) Limits of approved paving and pavement thickness/design **(67 Pa. Code §441.3(i)(4))**
- ☐ (i) Contour/grading limits **(67 Pa. Code §441.3(i) & Pub. 14M, Ch. 3.5.T)**

☐☐☐ (3) Show and dimension (*check all*):

- ☐ (a) Horizontal curvature info if construction/driveway is along a state highway curve **(Pub. 14M, Ch. 2.6)**
- ☐ (b) Property site plan showing all existing and proposed building, including a description of present and proposed use of building, internal traffic circulation, parking, and traffic control **(67 Pa. Code §441.3(i)(2) & (3))**
- ☐ (c) Right-of-Way lines & type (Legal, Limited Access, etc.) **(Pub. 14M Ch. 2.6.V)**
- ☐ (d) Existing and proposed highway pavement, travel lanes, shoulders, ditches, highway appurtenances, medians (type and width) **(Pub. 14M, Ch. 2.6.I & 67 Pa. Code §441.3(i))**
- ☐ (e) Location & type of existing/proposed highway features (traffic control devices, guide rail, curb, drainage, etc.) **(Pub. 14M, Ch. 2.6.I & 67 Pa. Code §441.3(i))**
- ☐ (f) Affected utilities (all existing & proposed, aboveground & subsurface) **(Pub. 14M, Ch. 2.6.I & 67 Pa. Code §441.3(i))**
- ☐ (g) Adequate topo along State Route and frontage (road edges, buildings, trees, curb, sidewalks, parking, etc.) **(Pub. 14M, Ch. 2.6.I & 67 Pa. Code §441.3(i))**

Section 2 – Plan Presentation (Continued)

C N S

☐☐☐ (4) Show the distance from each existing and proposed driveway to (*check all*):
- ☐ (a) The nearest intersecting street, road, and highway **(67 Pa. Code §441.3(i)(5))**
- ☐ (b) The nearest driveway on adjacent properties **(67 Pa. Code §441.3(i)(5))**
- ☐ (c) The street, road, highway, or driveways opposite the site **(67 Pa. Code §441.3(i)(5))**
- ☐ (d) The relevant property lines and property lines extended to the roadway **(67 Pa. Code §441.3(i)(5))**
- ☐ (e) The building and business appurtenances on the site **(67 Pa. Code §441.3(i)(5))**

☐☐☐ (5) Show the posted speed limit for the state highway **(Pub. 14M)**

☐☐☐ (6) Show required and available sight distances in each direction from each proposed driveway using the Point of View of the driver sitting in the driveway **(67 Pa. Code §441.3(i)(6), Pub. 13M, Ch. 2.17 & AASHTO Green Book, Ch. 3 & Ch. 9)**

☐☐☐ (7) Show the number of vehicles per day which are expected to utilize each proposed driveway. **(67 Pa. Code §441.3(i)(7))**

☐☐☐ (8) Ensure plans/reports are signed and sealed by PE/PLS/RLA **(49 Pa. Code, §37.59)**

☐☐☐ (9) Return red-lined plans with corresponding comment-response form **(Pub. 282, Ch. 3)**

Section 3 – Driveway/Access Configuration

C N S

☐☐☐ (1) Ensure the number of driveways are acceptable **(67 Pa. Code §441.7(e))**

☐☐☐ (2) Provide justification if additional driveways are required **(67 Pa. Code §441.7(e))**

☐☐☐ (3) Ensure the driveway angle to SR centerline is as close to 90 degrees as possible **(67 Pa. Code §441.8(b)(1))**

☐☐☐ (4) Ensure access driveway aligns with driveways/roads/lanes across the highway if offset access driveway will present a safety hazard **(67 Pa. Code §441.7(c)(4))**

☐☐☐ (5) Ensure driveways will not encroach on adjacent property frontage **(67 Pa. Code §441.8(d))**

☐☐☐ (6) Ensure access is classified correctly as local road or driveway according to **67 Pa. Code §441.7(d)**

☐☐☐ (7) Ensure permanent curbing when distance between multiple driveways are less than 50' **(67 Pa. Code §441.8(e))**

☐☐☐ (8) Ensure min. (*check all that apply*):
- ☐ (a) 20' between driveways serving the same property **(67 Pa. Code §441.8(e))**
- ☐ (b) 50' distance between driveways and ramp or it's speed change lane **(67 Pa. Code §441.8(l))**
- ☐ (c) 10' tangent distance between intersection radius and first driveway radius **(67 Pa. Code §441.8(c)(1))**
- ☐ (d) 20' tangent distance in curbed area between driveway radius & edge of pavement of intersecting highway **(67 Pa. Code §441.8(c)(2))**
- ☐ (e) 30' tangent distance in uncurbed area between driveway radius & edge of pavement of intersecting highway **(67 Pa. Code §441.8(c)(2))**

☐☐☐ (9) Ensure driveway width and radius returns in accordance with **67 Pa. Code §441.9 Fig. 7 thru 12**

Section 3 – Driveway/Access Configuration (Continued)

C N S

☐☐☐ (10) Ensure local road width and radius returns in accordance with **Pub. 13M**

☐☐☐ (11) Ensure returns offset meet (at minimum) 3R criteria **(Pub. 13M, Ch. 1.2)**

☐☐☐ (12) Ensure radius returns extend full quadrant **(Pub. 282, Ch. 2.4)**

☐☐☐ (13) Ensure driveway is designed to discourage wrong way movements **(67 Pa. Code §441.8(a)(2))**

☐☐☐ (14) Ensure radius return design is sufficient for trucks/large vehicles/anticipated traffic (minimum of 5') **(67 Pa. Code §441.9 & Pub. 282, Ch. 2)**

☐☐☐ (15) Ensure 14' min. lane width if channelization island (**Pub. 282, Ch. 2**)

☐☐☐ (16) Ensure driveway throat length min. (*check all that apply*):

- ☐ (a) 50' for low volume driveways **(Pub. 574 IB.1)**
- ☐ (b) 120' for medium volume driveways **(Pub. 574 IB.1)**
- ☐ (c) 150' for high volume driveways **(Pub. 574 IB.1)**

☐☐☐ (17) Identify and dimension PC/PT/PCC break points **(Pub. 14M, Ch. 2)**

☐☐☐ (18) Provide spot elevations along radii at 10' intervals **(Pub. 13M, Ch. 7)**

Section 4 – Driveway/Access Profile

C N S

☐☐☐ (1) Maintain State Route travel lane and shoulder cross slope when designing/constructing the driveway **(67 Pa. Code §441.8(i)(4) & Fig. 1)**

☐☐☐ (2) Ensure difference between cross slope of roadway shoulder and grade of driveway does not exceed 8% **(67 Pa. Code §441.8(i)(5))**

☐☐☐ (3) Ensure maximum grade of driveway within the right of way does not exceed ± (5% to 8%) for low, medium, or high volume driveways **(67 Pa. Code §441.8 Fig. 1)**

☐☐☐ (4) Show vertical curvature – AASHTO criteria (PVI Station, Elevation, VC, MO, SSD/HLSD, PVC, PVT) **(Pub. 14M, Ch. 2.6)**

Section 5 – Sight Distance for Driveway

C N S

☐☐☐ (1) Ensure safe sight distance (SSD) minimums from **Tables 1-6 in 67 Pa. Code §441.8(h)(1-2)** using the posted speeds unless operating speeds vary more than 10 mph from the posted speed

☐☐☐ (2) Provide justification for sight distance values that are less than the SSD values in **Tables 1-6 of 67 Pa. Code §441.8(h)(2)(iv)**

☐☐☐ (3) Ensure driveway location meets min. safe stopping sight distance (SSSD) value computed from the formula **(67 Pa. Code §441.8(h)(2)(iv))**

Section 6 – Pavement Section of Driveway

C N S

☐☐☐ (1) Ensure minimum pavement thickness of 4 inches within right-of-way for low, medium, and high volume driveways **(67 Pa. Code §441.8(k))**

☐☐☐ (2) Ensure minimum 2' pavement width at tie-in point (**Industry Standard/District Best Practices**)

Section 7 – Median/Islands

C N S

☐☐☐ (1) Provide driveway median when driveway (*check all that apply*):

- ☐ (a) Has two or more entrance and/or exit lanes **(Pub. 282, Ch. 2.4)**
- ☐ (b) Operates as right-in/right-out only **(Pub. 282, Ch. 2.4)**
- ☐ (c) Serves a high volume of traffic **(Pub. 282, Ch. 2.4)**
- ☐ (d) Will be signalized **(Pub. 282, Ch. 2.4)**

☐☐☐ (2) Design island size per **Publication 13M and AASHTO Green Book**

☐☐☐ (3) Offset medians/islands 2' behind edge/curb line **(67 Pa. Code §441Pub. 13M, Ch. 1)**

☐☐☐ (4) Provide dimensions of islands (lengths, radii, offsets, etc.) **(67 Pa. Code §441.3(i)(4))**

☐☐☐ (5) Provide proposed material and type of curbing **(67 Pa. Code §441.3(i)(4))**

☐☐☐ (6) Provide flexible delineators/hazard markers per **Pub. 111, TC-8604**

Section 8 – Signing

C N S

☐☐☐ (1) Show location and size/designation (**Pub. 236**) of all relocated and proposed signs **(67 Pa. Code §441.3(i))**

☐☐☐ (2) Show all existing signs; label signs that are to be relocated or removed **(67 Pa. Code §441.3(i))**

☐☐☐ (3) Show stations or seg/offset for relocated and proposed signs **(Pub. 14M, Ch. 8.5)**

☐☐☐ (4) Use standard signs and sizes in **Pub. 236** and sheeting material in **Pub. 46, Ch. 2.1**

☐☐☐ (5) Provide details for non-standard signs **(67 Pa. Code §212.201)**

☐☐☐ (6) Use R3-7 or R3-8 lane use control signs for auxiliary lanes **(Pub. 236 & MUTCD 2B.20 & 2B.22)**

☐☐☐ (7) Use R4-7 and OM1-3 signs for medians **(Pub. 236 & MUTCD 2B.32 & 2C.63)**

☐☐☐ (8) Use Do Not Enter (R5-1) & One Way (R6-1L and R6-1R) signs on signpost on each side of access (6 signs total) if applicable **(Pub. 236 & MUTCD 2B.37 & 2B.40)**

☐☐☐ (9) Use No Left Turn (R3-2) signs placed at the near right-hand corner and far left-hand corner, entering and exiting if applicable **(Pub. 236 & MUTCD 2B.18)**

Section 8 – Signing (Continued)

C N S

☐☐☐ (10) If Do Not Enter (R5-1) sign is mounted back-to-back with Stop (R1-1) sign, the sign should stay within the edges of the Stop sign **(Pub. 236 & MUTCD 2B.10)**

☐☐☐ (11) Use Right Clearance Markers (OM-3R) to delineate obstructions if applicable **(Pub. 236 & MUTCD 2C.63)**

Section 9 – Pavement Markings

C N S

☐☐☐ (1) Indicate proposed and existing type, size, color and orientation in accordance with Pub. 111, TC-8600 **(67 Pa. Code §441.3(i)(1))**

☐☐☐ (2) Show stations or seg/offset for proposed pavement markings (stop bars, lane separation lines, etc.) (**Pub. 14M, Ch. 2.5 & Ch. 8.5)**

☐☐☐ (3) Label proposed “match existing” at limits of work (**Industry Standard**)

☐☐☐ (4) Ensure 24” stop bar at intersections according to turning templates when traffic signal is required **(MUTCD 3B.16)**

☐☐☐ (5) Ensure crosswalk width is 6’ minimum **(Pub. 111, TC-8600 & Pub. 46 Ch. 3)**

☐☐☐ (6) Ensure crosswalk lines are in accordance with Pub. 111, TC-8600, Sht. 6 **(Pub. 46 Ch. 3)**

☐☐☐ (7) Ensure min. 2 direction arrow legends per auxiliary lane **(MUTCD, Ch. 3, Section 3B.20.21)**

☐☐☐ (8) Ensure first direction arrow legend 20’ from stop bar **(Pub. 111, TC-8600)**

☐☐☐ (9) Ensure 6” lane dividing lines; 4” edge lines and double yellow lines **(Pub. 111, TC-8600)**

☐☐☐ (10) Ensure min. of 2 direction arrows with overhead signs provided for lane drops **(Pub. 111, TC-8600)**

☐☐☐ (11) Ensure no “ONLY” legends for auxiliary lanes unless lane drop **(Pub. 111, TC-8600/MUTCD, Ch. 3, 3B.20.32-33)**

Section 10 – Maintenance and Protection (MPT) of Traffic

C N S

☐☐☐ (1) Include temporary traffic control plan per **67 Pa. Code §441.3(f)** and **67 Pa. Code §212.403** via (*check all that apply*):

- ☐ (a) Pub. 213 PATA drawing without modifications **(67 Pa. Code §212.403(1))**
- ☐ (b) MUTCD Typical Application without modifications **(67 Pa. Code §212.403(1))**
- ☐ (c) Pub. 213 PATA drawing with approved modifications **(67 Pa. Code §212.403(2))**
- ☐ (d) MUTCD Typical Application with approved modifications **(67 Pa. Code §212.403(2))**
- ☐ (e) Detailed Traffic Control Plans for actual site conditions and TTC requirements **(67 Pa. Code §212.403(3))**

☐☐☐ (2) Reference PATA drawings over MUTCD typical applications if similar conditions **(Pub. 213)**

☐☐☐ (3) Include general MPT notes **(Pub. 282, Ch. 2.4 and App. C2)**

☐☐☐ (4) Note work restrictions as applicable (day, time, peak, etc.) **(Pub. 282, Ch. 5.1)**

☐☐☐ (5) Provide traffic control sequence/narrative for each phase of construction **(Pub. 14M, Ch. 4)**

☐☐☐ (6) Reference PATA 107 with PATA 102 to support TTC setup/removal **(Pub. 213)**

☐☐☐ (7) Verify that existing driveways remain accessible at all times **(Pub. 282, App. C2)**

☐☐☐ (8) Verify that temporary signs/devices do not obstruct sight lines **(Pub. 282, App. C2)**

☐☐☐ (9) Provide appropriate drop-off/safety slope protection note or detail **(Pub. 408, Section 901.3(j))**

☐☐☐ (10) Ensure pedestrian access during construction **(Pub. 13M, Ch. 6.9.D.11)**

☐☐☐ (11) Ensure temporary alternate circulation paths of pedestrians **(Pub. 13M, Ch. 6.14)**

☐☐☐ (12) Depict temporary traffic control devices necessary for each phase **(Pub. 14M, Ch.4)**

☐☐☐ (13) If temporary barrier is required (*check all that apply*):

- ☐ (a) Verify temporary barrier type based on drop-off conditions and deflection distances **(Pub. 13M, Ch. 12.10.E)**
- ☐ (b) Identify required test-level for temporary barriers **(Pub. 13M, Ch. 12.4.A)**
- ☐ (c) Identify required flare rate for temporary barriers **(Pub. 13M, Ch. 12.5.C and Ch. 12.10)**
- ☐ (d) Identify temporary barrier delineation and markings **(Pub. 408, Section 627)**
- ☐ (e) Verify that temporary barrier does not obstruct sight lines **(Pub. 282, App. C2)**
- ☐ (f) Protect blunt ends of temporary barriers **(Pub. 408, Section 901.3(q))**
- ☐ (g) Identify type of temporary impact attenuators **(Pub. 13M, Ch. 12.9.E)**
- ☐ (h) Identify required test-level for temporary impact attenuators **(Pub. 13M, Ch. 12.4.A)**

Section 10 – Maintenance and Protection (MPT) of Traffic (Continued)

C N S

☐☐☐ (14) If detailed Temporary Traffic Control Plans are required (*check all that apply*):

- ☐ (a) Include signature block for District Traffic Engineer **(Pub. 14M, Ch. 4)**
- ☐ (b) Include list/tabulation of TTC materials and quantities **(Pub. 14M, Ch. 4)**
- ☐ (c) Identify existing signs/devices to be covered, removed, or altered **(Pub. 14M, Ch. 4)**
- ☐ (d) Identify lateral lane widths or restrictions **(Pub. 408, Section 901.3(m))**
- ☐ (e) Identify taper lengths for lane shifts or closures **(Pub. 213)**
- ☐ (f) Label temporary sign numbers/designations and sizes **(Pub. 14M, Ch.4, Pub. 213, Pub. 236)**
- ☐ (g) Label work area pavement markings, types, colors, and widths **(Pub. 408, Section 901.3(k))**
- ☐ (h) Note removal/restoration of conflicting lines and markings **(Pub. 408, Section 901.3(r))**
- ☐ (i) Note temporary lighting, power sources, and protections **(Pub. 408, Section 901.3(n))**
- ☐ (j) Note PCMS locations, messages, and times of operation **(Pub. 408, Section 901.3(w))**
- ☐ (k) Note speed display sign locations and times of operation **(Pub. 408, Section 901.3(aa))**

☐☐☐ (15) If temporary traffic signal work is required (*check all that apply*):

- ☐ (a) Include timing/phasing adjustments to existing signals **(Pub. 408, Section 901.3(bb))**
- ☐ (b) Include temporary signal plan by PATA reference **(Pub. 213, App. D)**
- ☐ (c) Include site-specific temporary signal plan (**see Traffic Signal section & Pub. 213, App. D)**

☐☐☐ (16) Include detour plans and roadway owner approval documentation **(Pub. 282, App. C7)**

☐☐☐ (17) Include, as directed, Road Users Liquidated Damages **(Pub. 408, Section 108.07(b))**

☐☐☐ (18) Include, as directed, TMP if deemed a significant project **(Pub. 282, Section 2.3)**

Section 11 – Pavement Restoration (Typical Section) of State Route

Will the State Route pavement section be affected with this HOP application?

☐ YES (continue with section) ☐ NO (skip to next section)

C N S

☐☐☐ (1) Ensure cross slopes match existing slope of the existing roadway that the driveway is tying into (min. 2% slope for tangent roads) **(Pub. 13M, Ch. 1.2)**

☐☐☐ (2) Provide pavement design / meet min. depth requirements **(Pub. 242)**

☐☐☐ (3) Ensure pavement design approved by PennDOT **(Pub. 242)**

☐☐☐ (4) Ensure bottom of proposed subbase at or below existing subbase for State Route widening **(Pub. 242, Ch. 2.3A)**

☐☐☐ (5) Ensure super-elevation transition designs meet standards in **Pub. 13M, Ch. 2.13**

☐☐☐ (6) Ensure concrete pavement is at least 2' wide & dowel rods are used to connect to existing **(Pub. 72M, RC-20M Sht. 9)**

☐☐☐ (7) Include typical roadway widening detail if applicable **(Pub. 13M, Ch. 1.5)**

☐☐☐ (8) Include fill slope benching details if applicable **(Pub. 13M, Ch. 1.5)**

☐☐☐ (9) Ensure proposed depths to match existing pavement section (**Pub. 14M, Ch. 2.2.B**).

☐☐☐ (10) Utilize SuperPave/PennDOT descriptions **(Pub. 242, Ch. 5)**

☐☐☐ (11) Show leveling / cross-slope correction if applicable **(Pub. 13M, Ch. 1.5)**

☐☐☐ (12) Note sawcut full depth pavement **(Pub. 72M, RC-20M, RC-26M & RC-28M)**

☐☐☐ (13) Include trench restoration detail with pavement design **(Pub. 72M, RC-30M & Pub. 282, Ch. 5.1)**

☐☐☐ (14) Label super-elevation transitions, and provide notes **(Pub. 13M, Ch. 2.13)**

☐☐☐ (15) Label pavement joints to be sealed **(Pub. 72M, RC-20M, RC-26M, RC-28M & RC-30M)**

☐☐☐ (16) Indicate asphalt tack coat indicated between each layer **(Pub. 242, Ch. 5.1 & Ch. 5.12)**

☐☐☐ (17) Show pavement base drain or combination storm/underdrain **(Pub. 13M, Ch. 1.5)**

☐☐☐ (18) Provide undercutting note if CBR values indicate subgrade is unsuitable **(Pub. 242, Ch. 6.2)**

Section 12 – Cross Section of State Route

Will the State Route horizontal and/or vertical alignment modified with this HOP application?

☐ YES (continue with section) ☐ NO (skip to next section)

C	N	S	
☐	☐	☐	(1) Prepare sections at 50' intervals or 25' intervals in non-uniform areas (**Pub.14M, Ch. 2.7**)
☐	☐	☐	(2) Scale at 1" = 5' desirable, 1" = 10' max. **(Pub. 14M, Ch. 2.7)**
☐	☐	☐	(3) Provide centerline and breakpoint elevations **(Pub. 13M, Ch. 1.5)**
☐	☐	☐	(4) Label existing and proposed cross slopes **(Pub. 13M, Ch. 1.5)**
☐	☐	☐	(5) Include and label acceptable cut/fill slopes if applicable **(Pub. 13M, Ch. 1.5)**

Section 13 – Shoulders of State Route

Will the State Route shoulders be affected with this HOP application?

☐ YES (continue with section) ☐ NO (skip to next section)

C	N	S	
☐	☐	☐	(1) Ensure 4% cross slope if curbed or > 8' in width; 6% ≤ 8' **(Pub. 13M, Ch. 1.5)**
☐	☐	☐	(2) Ensure low side of superelevated section will be sloped at the same rate as the travel lane when travel lane slope > required shoulder slopes **(Pub. 13M, Ch. 1.5)**
☐	☐	☐	(3) Ensure shoulder slopes away from high side of superelevation at 2% when the superelevation is ≥ 2%. Apply rounding if needed. **(Pub. 13M, Ch. 1.5)**
☐	☐	☐	(4) Ensure min. 100' of full-depth shoulder upgrade on either side of driveway if existing shoulder is not adequate **(67 Pa. Code §441.8(n))**
☐	☐	☐	(5) Ensure min. applicable shoulder width is provided **(Pub. 13M, Ch. 1)**

Section 14 – Curbs along the State Route

Will curbs along the State Route be affected with this HOP application?

☐ YES (continue with section) ☐ NO (skip to next section)

C	N	S	
☐	☐	☐	(1) Include a 3' curb end taper with a 0" reveal at finish grade **(Pub. 72M, RC-50M)**
☐	☐	☐	(2) Include a 4' flat area behind curb sloped at 2% in same direction as surrounding terrain (**AASHTO Green Book, Ch. 4**)
☐	☐	☐	(3) Dimension at POT, POC, PT, PC, PCC **(Pub. 14M, Ch. 2)**
☐	☐	☐	(4) Label and dimension depressed curb, if depressed curb is utilized **(Pub. 13M, Ch. 7)**

Section 15 – Auxiliary Lanes (Left Turn Stand-By Lanes / Acceleration/Deceleration Lanes)
Will the State Route auxiliary lanes be affected with this HOP application?

☐ YES (continue with section) ☐ NO (skip to next section)

C	N	S	
☐	☐	☐	(1) Ensure turn lane lengths/bay taper lengths = required lengths in TIS/analysis **(Pub. 46, Ch. 11.16)**
☐	☐	☐	(2) Ensure min. 75' storage length for all turn lanes (**Pub. 46, Ch. 11.16)**
☐	☐	☐	(3) Provide left turn shifting and bay tapers per **Pub. 111, TC-8600**
☐	☐	☐	(4) Provide left turn offset (opposing) lanes **(Pub. 111, TC-8600, Offset Table)**
☐	☐	☐	(5) Provide right turn 100' bay tapers (75' in low speed, high traffic area) **(AASHTO Greenbook, Ch. 9.7)**
☐	☐	☐	(6) Ensure right turn matches adjacent through lane width (10' minimum) and shoulder width with appropriate curb offset (where present) (**AASHTO Green Book, Ch. 9.7**)
☐	☐	☐	(7) Ensure left turn – 10-12' lane (12' desirable); 11' min. if truck volume > 5% **(AASHTO Green Book, Ch. 9.7)**
☐	☐	☐	(8) Dimension turn lane lengths, shifting taper lengths, bay taper lengths & lane widths **(Pub. 111, TC-8600)**
☐	☐	☐	(9) Label required transverse gore markings **(Pub. 111, TC-8600)**
☐	☐	☐	(10) Provide SR profile and cross sections every 50' or contours and spot elevations every 20' **(Pub. 14M, Ch. 2)**
☐	☐	☐	(11) Provide full width overlay within widening limits **(Pub. 282, Ch. 2.4)**
☐	☐	☐	(12) Provide two-way center left-turn lane if creating an hourglass effect **(Pub. 111, TC-8600)**

Section 16 – Guiderail
Will guiderail be affected with this HOP application?

☐ YES (continue with section) ☐ NO (skip to next section)

C	N	S	
☐	☐	☐	(1) Ensure guiderail is only to be used where leaving the roadway is more severe than striking the guiderail **(Pub. 13M, Ch. 12.4)**
☐	☐	☐	(2) Ensure guiderail is only used where regrading is infeasible **(Pub. 13M, Ch. 12.4)**
☐	☐	☐	(3) Note the type of guiderail used and do not use weathering steel guiderail **(Pub. 13M, Ch. 12.4 & Pub. 72M)**
☐	☐	☐	(4) Placement should follow **Pub. 13M, Ch. 12.5** requirements
☐	☐	☐	(5) Provide and show impact attenuators **(Pub. 13M, Ch. 12.9)**

Section 17 – Traffic Signals

Will Traffic Signals be included with this HOP application?

☐ YES (continue with section) ☐ NO (skip to next section)

C N S

☐☐☐ (1) Develop traffic signal permit package per applicable standards as required (**Pub 14M Ch. 10, Pub 148, Pub 149, Pub 191, Traffic Signal Portal, current EPS policy**)

☐☐☐ (2) Submit a Traffic Signal Permit (TSP) application using the Traffic Signal Portal in PennDOT's Electronic Permitting System (EPS)

☐☐☐ (3) Ensure plans/reports are signed and sealed by PE/PLS/RLA **(49 Pa. Code, §37.59)**

Section 18 – ADA Plans

Will ADA facilities be included with this HOP application?

☐ YES (continue with section) ☐ NO (skip to next section)

C N S

☐☐☐ (1) Verify that a pedestrian study is required/approved **(Pub. 13M, Ch. 6)**

☐☐☐ (2) Complete the general information on the CS-4401 Inspection Form for curb ramp(s) designed **(Pub. 13M, Ch. 6.2.B)**

☐☐☐ (3) Submit Technically Infeasible Form if it is infeasible to construct facilities fully to current PennDOT standards **(Pub. 13M, Ch. 6.2.B.4)**

☐☐☐ (4) Ensure min. sidewalk width is 5' or 4' with 5'x5' passing areas every 200' **(Pub. 72M, RC-67M/Pub. 13M, Ch. 6.7)**

☐☐☐ (5) Ensure proposed sidewalk > 100' meets current standards **(Pub. 13M, Ch. 6.3.B)**

☐☐☐ (6) Upgrade curb ramp if curb ramp is within. (*check all that apply*):

☐ (a) 15' of proposed sidewalk **(Pub. 13M, Ch. 6.3.B)**

☐ (b) 5% of total disturbed length of proposed sidewalk (Projects > 300') **(Pub. 13M, Ch. 6.3.B)**

☐☐☐ (7) Ensure cross-slopes do not exceed 2%/1V:50H except within the driveway as indicated in **67 Pa. Code §441.8(i) Figures 3-5 (Pub. 13M, Ch. 6.5.A.5, & Ch. 7.3)**

☐☐☐ (8) Locate curb ramps away from low points of the curb return, and locate drainage inlets upstream of all curb ramps **(Pub. 13M, Ch. 6.10.D)**

☐☐☐ (9) Ensure accessible push-button **(Pub. 13M, Ch. 6)**

☐☐☐ (10) Upgrade ADA if pedestrian path is changed **(Pub. 13M, Ch. 6)**

☐☐☐ (11) Provide pedestrian access during construction **(Pub. 13M, Ch. 6.9.D.11)**

☐☐☐ (12) Ensure reserved property compliance **(75 Pa Code, §3354)**

☐☐☐ (13) Reference RC-64M and current approval date for curb details **(Pub. 72M, RC-64M)**

Section 18 – ADA Plans (Continued)

☐☐☐ (14) Reference RC-67M and type for curb ramps **(Pub. 72M, RC-67M)**

☐☐☐ (15) Provide ADA grading details as per approved design. **(Pub. 13M, Ch. 6.9.D.11)**

Section 19 – Drainage – Hydrology

Will Drainage be included with this HOP application?

☐ YES (continue with section) ☐ NO (skip to next section)

C N S

☐☐☐ (1) Use correct (*check all*):

- ☐ (a) Time of concentration (5 minutes if resulting pipe size is ≤ 30") **(Pub. 13M, Ch. 10.2/Pub. 584, Ch. 7.4)**
- ☐ (b) Storm frequency **(Pub. 13M, Ch. 10.2.C & Ch. 10.6.E)**
- ☐ (c) 'C' coefficients **(Pub. 13M, Table 10.2.1)**
- ☐ (d) Rainfall intensity rate **(Pub. 584, Ch. 7, App. A & Figures 7A.7 – 7A.16)**
- ☐ (e) Rational formula for drainage areas up to 200 acres **(Pub. 13M, Ch. 10.2.C)**

☐☐☐ (2) Show time of concentration paths on drainage area plans **(67 Pa. Code §441.3(g))**

☐☐☐ (3) Show location and type of existing/proposed drainage features (e.g., pipes, ditches, inlets, manholes, etc.) **(Pub. 282, App. B/Pub. 584, Ch. 4.1.D/67 Pa. Code §441.3(i))**

☐☐☐ (4) Label all drainage features (existing and proposed) and show with flow arrows **(67 Pa. Code §441.3(i))**

Section 20 – Drainage – Inlets

Will inlets be included with this HOP application?

☐ YES (continue with section) ☐ NO (skip to next section)

C N S

☐☐☐ (1) Meet inlet capacities set in **Pub. 13M, Ch. 10.3.A.7**

☐☐☐ (2) Match inlet spacing and location criteria set in **Pub. 13M, Ch. 10.3.A.7**

☐☐☐ (3) Provide flanking inlets on low points **(Pub. 13M, Ch. 10.3.A.7)**

☐☐☐ (4) Ensure gutter capacity/spread **(Pub. 13M, Ch. 10.3.A)**

☐☐☐ (5) Indicate inlet type and size **(Pub. 13M, Ch. 2 & Pub. 584, Ch. 4.1.D)**

☐☐☐ (6) Ensure inlets and manholes are not located in travel lane **(Pub. 584, Ch. 13.1/Ch. 13.10.A)**

☐☐☐ (7) Locate additional drainage inlets upstream of all curb ramps **(Pub. 13M, Ch. 6.10.D)**

☐☐☐ (8) Label top of grate (T/G) and pipe inverts and other pertinent information of the structures (existing and proposed) **(Pub. 282, App. B, Pub. 13M, Ch. 2, Pub 584, Ch. 9 & 67 Pa. Code §441.3(i))**

☐☐☐ (9) Provide inlet drainage area plans for any inlets being placed within legal right-of-way **(Pub. 282, App. B)**

Section 21 – Drainage – Pipes

Will drainage pipes be included with this HOP application?

☐ YES (continue with section) ☐ NO (skip to next section)

C	N	S	
☐	☐	☐	(1) Ensure 6' min. cover **(Pub. 13M, Ch. 10.3.B.2 & Pub. 72M, RC-30M)**
☐	☐	☐	(2) Ensure min. 18" pipe within right-of-way **(Pub. 13M. Ch. 10.3.B.2 & Pub. 584, Ch. 13.11.E)**
☐	☐	☐	(3) Ensure min. 15" pipe under driveways **(67 Pa. Code §441.8(i)(2))**
☐	☐	☐	(4) Ensure min. 0.35% slope **(Pub. 584, Ch. 13.11.F/Pub. 13M, Ch. 10.3.B.2)**
☐	☐	☐	(5) Ensure min. 2" drop across inlets **(Pub. 13M, Ch. 10.3.B.2 & Pub. 584, Ch. 13.11.H)**
☐	☐	☐	(6) Provide pipe capacity analysis of proposed pipes being installed within PennDOT right-of-way **(Pub. 13M, Ch. 10.3 & Pub. 584 Ch. 13.11)**
☐	☐	☐	(7) Provide required downstream pipe analysis if flow increases at Point of Interest **(Pub. 584, Ch. 13.2)**
☐	☐	☐	(8) Use storm frequency for the appropriate road type **(Pub. 13M, Ch. 10.2.C & Ch. 10.6.E)**
☐	☐	☐	(9) Provide note that when trench backfill in pavement, sidewalk or shoulder that an inspection is required **(Pub. 408, Sec. 601.3(q))**
☐	☐	☐	(10) Provide pipe profiles (type, corrugations, length, slope, inverts, ground profile, min./max. fill heights) **(Pub. 584, Ch. 9, Pub. 13M, Ch. 10 & Pub. 14M, Ch. 2)**
☐	☐	☐	(11) Provide pipe information on plan (size, slope, length, type) **(Pub. 13M, Ch. 10 & Pub. 14M, Ch. 2)**
☐	☐	☐	(12) Design and construct combination storm sewer and underdrain in accordance to Pub. 72, RC-30M **(Pub. 13M, Ch. 10.3.B.5)**

Section 22 – Drainage – Channels and Swales

Will drainage channels/swales be included with this HOP application?

☐ YES (continue with section) ☐ NO (skip to next section)

C	N	S	
☐	☐	☐	(1) Provide typical section of swale **(Pub. 13M, Ch. 1)**
☐	☐	☐	(2) Provide channel and swales capacity analysis **(Pub. 13M, Ch. 10 & Pub, 584, Ch. 7 & 8)**
☐	☐	☐	(3) Ensure water shall not encroach upon the shoulder during a 10-year storm of 5-minute duration when swales are provided in cut area **(Pub. 13M, Ch. 10.3.A.1)**
☐	☐	☐	(4) Use swales for flow across driveways; cross driveway pipe authorized if swales are not feasible **(Pub. 282, Ch. 2.2)**
☐	☐	☐	(5) Provide acceptable swale slopes as per PADEP requirements **(Pub. 13M, Ch. 13.7.J.4/2012 PADEP E&S Manual, Ch. 6)**
☐	☐	☐	(6) Provide grading details for the channel/swale on the grading plans **(Pub. 14M, Ch. 2.6.G)**
☐	☐	☐	(7) Provide swale location along with flow areas for channels/swales **(Pub. 14M, Ch. 2.6.S)**

Section 23 – Drainage – Storm Water Management Basins

Will Post Construction Stormwater Management (PCSM) Basins be included with this HOP application?

☐ YES (continue with section) ☐ NO (skip to next section)

C	N	S	
☐	☐	☐	(1) Provide detention basin analysis **(Pub. 282, App. B, Pub. 584, Ch. 7, Ch. 11 & Ch. 14)**
☐	☐	☐	(2) Ensure basin does not point discharge toward State Highway **(State Highway Law, Section 421 & Pub. 282, CH. 2.2)**
☐	☐	☐	(3) Ensure a permanent access area stabilized for vehicles at least 9 ft wide with a maximum slope of 15% is provided to the forebay, outlet, and embankment areas **(DEP 363-0300-002, Ch. 6)**
☐	☐	☐	(4) Label the PCSM Basin and the outlet features on the HOP Plans that are relevant to the HOP Permit (**Pub. 584/Pub. 13M, Ch. 13)**

Additional Notes

For any items marked See Additional notes (i.e., S), provide necessary additional information. For ease of reference, please refer to the applicable comment by its numerical number (For example, 1.2, 3.5, etc.).

Applicant Checklist for Utility Highway Occupancy Permit

The following checklist has been prepared to aid in the preparation and submission of plans for a Highway Occupancy Permit Application. These guidelines are not all encompassing nor are they applicable to every application. (References: 67 Pa. Code, Chapter 459; PennDOT Publication 282; and as noted below).

Application

- ☐ Application Submitted/Signed & Dated by the Facility Owner/Operator (Ch. 459.3(d)(2))
- ☐ Application Submitted in the Name of Property Owner/Operator (Ch. 459.3(b))
- ☐ Correct Fee is Attached (Ch. 459.3(d)(4) and 459.4)
- ☐ Application complete and all work proposed within ROW indicated on appl. (Ch. 459.3(a))
- ☐ Business Partner ID completed on application

Plan Presentation

- ☐ North Arrow
- ☐ Show highway Right-of-Way Lines (Ch. 459.3(d)(3))
- ☐ Color coded or grey-scale plans are not acceptable (Ch. 459.3(d)(3))
- ☐ Freehand drawings are not acceptable (Ch. 459.3(d)(3))
- ☐ Scale Bar, scale of 1"= to no more than 50'(Ch. 459.3(e)(1))
- ☐ Dimensions from edge of pavement to facility (Ch. 459.3(d)(3); (Ch. 459.3(e)(1)))
- ☐ Existing utility facilities that may be affected shown (Ch. 459.3(d)(3))
- ☐ Existing structures that may be affected shown (Ch. 459.3(d)(3))
- ☐ Cross Sections (Ch. 459.3(e)(2))
- ☐ Located outside of pavement or shoulder (Ch. 459.3(e)(3))
- ☐ Traffic Control provided (Ch. 459.3(f))
- ☐ Location Map provided (Ch. 459.3(d)(3))
- ☐ Plans of acceptable quality (Ch. 459.3(d)(3))
- ☐ Details showing location and size of opening both horizontal and vertical (Ch. 459.3(d)(3))
- ☐ Proposed facility size and type labeled (Ch. 459.3(d)(3))
- ☐ Highway appurtenances shown (Ch. 459.3(d)(3))
- ☐ Highway segment and offset provided (Ch. 459.3(d)(3))
- ☐ Topography shown (Ch. 459.3(d)(3))
- ☐ Centerline provided (Ch. 459.3(d)(3))
- ☐ Pavement and shoulders shown (Ch. 459.3(d)(3))
- ☐ Curb shown (Ch. 459.3(d)(3))
- ☐ Guiderail and type shown (Ch. 459.3(d)(3))
- ☐ Drainage facilities shown (Ch. 459.3(d)(3))

Restoration and Location

- ☐ 3' below surface (Ch. 459.8(a)(1); Ch. 459.8(b)(1); Ch. 459.8(c)(2) Ch. 459.8(e)(5))
- ☐ Grout used to fill void for > 30" pipes (Ch. 459.8(a)(1)(i))
- ☐ Proper boring methods (Ch. 459.8(a))
- ☐ 3' away from shoulder if boring (Ch. 459.8(a))
- ☐ Only trenching because drilling, boring not feasible (Ch. 459.8(b)(2))
- ☐ No trenching in pavement < 10 yrs old and ADT >500 (Ch. 459.8(b)(2)(ii)(B))
- ☐ Placed outside shoulder (Ch. 459.8(c)(1))
- ☐ 12' away from centerline (Ch. 459.8(c)(3))
- ☐ < 200' openings at one time (Ch. 459.8(c)(4))
- ☐ Backfill details provided (Ch. 459.7(3)(ii); Ch. 459.8(g))
- ☐ Backfill compaction testing documentation required (Pub. 282, Subchapter 5.1)
- ☐ Inspector required during trench backfill in pavement, sidewalk, shoulder (Pub. 282, Subchapter 5.2)
- ☐ Bituminous trench restoration detail provided (Ch. 459.8(h)

- ☐ Concrete trench restoration detail provided (Ch. 459.8(i))
- ☐ High early strength concrete indicated (Ch. 459.8(i)(2))
- ☐ Reinforcement provided for concrete restoration (Ch. 459.8(i)(3))
- ☐ > 100’ opening in wearing course < 5 yrs old = overlay full lane (Ch. 459.8(n)(2); Ch. 459.8(n)(3)(i))
- ☐ Two transverse opening < 100’ apart in wearing course < 5 yrs old = overlay full width for entire length (Ch. 459.8(n)(2)(ii))
- ☐ 4 or more openings within 100’ in wearing course <5 yrs old = overlay full lane (Ch. 459.8(n)(2)(iii) ; Ch. 459.8(n)(3)(ii))
- ☐ Milling required for lane overlays (Ch. 459.8(n)(2)(iv))
- ☐ If travel lanes overlaid, overlay shoulder to match elevations (Ch. 459.8(n)(2)(v))
- ☐ Pavement restoration shown to edge of lane/shoulder (Ch. 459.8)
- ☐ Poles located outside clear zone as near right-of-way line as practicable (Ch. 459.9(b))
- ☐ Acceptable vertical clearance, 18’ min. (Ch. 459.9(c))

ADA Compliance

- ☐ Upgrade ADA if pedestrian path is changed (Pub. 14M, Ch. 6)
- ☐ Proposed sidewalk > 100’ must meet current standards (Pub. 14M, Ch. 6)
- ☐ Maintain 4’ sidewalk width (Pub. 14M, Ch. 6)
- ☐ Upgrade curb ramp w/in 15’ of proposed sidewalk (Pub. 14M, Ch. 6)
- ☐ Upgrade curb ramps w/in 5% of proposed sidewalk (>300’) (Pub. 14M, Ch. 6)