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General Comment (GC)	
GC-1	<p>The information collected to define the features and characteristics of the 70-square mile planning study area was obtained from multiple secondary sources including the GIS database compiled during the preparation of the “Route 322/144/45 Corridors, 2019 Data Refresh Report” prepared for PennDOT. Other secondary sources included various plans/reports, maps, and GIS databases developed and maintained by federal and state resource agencies, various Centre County agencies, and the municipalities. In addition, “windshield” surveys were conducted to confirm the validity of select data. The digital resource information is being maintained in the State College Area Connector (SCAC) GIS database which includes the GIS layers shown on the publicly available online SCAC Planning and Environmental Linkage (PEL) Study Resources web map. PennDOT recognizes the limitations of secondary data sources and is continuously updating the planning study’s database as more current and accurate information is obtained from federal and state resource agencies, the county, and municipalities; interviews with various entities; and feedback from the public. This effort includes continuously updating the publicly available SCAC PEL Study Resources web map to reflect the current information being used for the study. As the PEL Study progresses and smaller project areas are defined for proposed transportation improvement projects, extensive field surveys will be conducted. The detailed field survey data will be used to update the planning data and ensure the accuracy of both the characteristics and the locations of the future transportation project areas’ community, cultural, and natural resources. PennDOT is committed to using the most current and accurate information for the more detailed development and evaluation of proposed transportation improvement alternatives and to further assess critical features that may affect the design and feasibility of the proposed improvements. It is anticipated that an online public web map will be maintained for these future transportation studies to continuously present the most current data collected and receive public feedback. PennDOT will also use updated photogrammetry (includes overlapping aerial photography) to create 3-D models and updated mapping to accurately reflect current landscape (land use/cover) and topographical data for the future transportation project areas.</p>
GC-2	<p>The September 2021 public meetings were not publicly broadcast. These meetings were conducted in an open house format which is not conducive to broadcast format. All of the exhibits including public comment forms were released</p>

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	<p>September 3, 2021 for virtual public review via the study website (www.penndot.gov/SCAC). Anyone that did not wish to attend the meeting in person was able to view the meeting materials on the study website and submit comments during the posted public comment period. A PennDOT representative's name and contact information was also provided on the website for questions. In addition, formal advertisements for the meetings informed anyone that needed special accommodations to contact PennDOT. No such requests were received.</p>
GC-3	<p>The Pennsylvania Department of Transportation (PennDOT), in cooperation with the Federal Highway Administration (FHWA) and in coordination with the Centre County Metropolitan Planning Organization (CCMPO), is conducting this SCAC PEL Study. This SCAC PEL Study is a collaborative and integrated study approach to transportation planning that considers the environment, community, and local and regional economic goals early in the planning phase of transportation decision making. Planning decisions and outcomes will inform the National Environmental Policy Act (NEPA) environmental review process for the independent transportation project(s) identified during the PEL Study. This PEL Study will identify transportation problems and improvement solutions within a 70-square mile geographic area for planning purposes. This PEL Study will consider a range of transportation alternatives to address the various problems throughout the study area. The final PEL report will document all the study findings including the rationale for identifying what transportation projects to be advanced for further environmental and engineering investigations. As this PEL Study is looking at a broad geographic area, the study name was established by PennDOT to convey the general location of the study area and not a specific roadway termini or destination of any future transportation improvement project that will be proposed during the PEL Study.</p>
GC-4	<p>Studies for transportation improvements within and adjacent to the study area have been undertaken at various times since the 1970s. This includes PA 144 which received weight restrictions north of PA 45 in the late 1980s; numerous safety improvements along US 322 between 2006 and 2014; and the construction of US 322 to a four lane limited access highway from Seven Mountains to Potters Mills. The largest study to date was concluded in the late 1990s and early 2000s called the South Central Centre County Transportation Study (SCCCTS). The SCCCTS was a specific project that was undertaken to evaluate transportation improvements along the US 322, PA 144, and PA 45 corridors</p>

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	<p>from the vicinity of the top of Seven Mountains in Potter Township, west to the Village of Boalsburg in Harris Township, and north to the Village of Pleasant Gap in Spring Township. The study was stopped in 2004 due to a statewide transportation funding shortfall. While there is overlap in transportation need and geography between the SCCCTS and SCAC, the SCAC PEL Study is utilized to look at a broader context relative to transportation issues and solutions within the study area. The results of the PEL Study will be used to identify multiple stand-alone transportation projects which include multiple corridors and other transportation modal needs such as bicycle and pedestrian facilities.</p>
GC-5	<p>On August 31, 2021, a public officials meeting was held for area federal, state, county, and local representatives. Local representatives from Benner, College, Harris, Potter, and Spring townships and Centre Hall Borough were specifically invited to attend. A copy of the sign-in sheet from that meeting is included in Appendix D of the Open House Public Meeting Summary Report.</p>
GC-6	<p>Thank you for identifying preferences and concerns on the various alternatives presented at the September 2021 public meetings. PennDOT, in cooperation with the Federal Highway Administration, is collecting data, developing transportation solutions, and will make appropriate recommendations that best meet the transportation purpose and need identified in this area while balancing the overall potential effects on the natural and built environments and considering input provided by the public and study stakeholders. Direct costs for the construction of the alternatives as well as future maintenance will also be a factor in the decision-making process. All analysis and evaluations will be conducted based on current rules, regulations, and guidance. Throughout the process, study results and recommendations will be presented to the public for input.</p>
GC-7	<p>As this PEL Study progresses, other transportation modes and alternatives will be considered as not only mitigation opportunities for any alternative that is advanced in the PEL Study, but could also be included as independent transportation projects which PennDOT would work with the CCMPO to plan and program separately. These potential projects could include bicycle and pedestrian improvements, road diets, roadway reclassifications (e.g., business routes), intersection improvements, safety-specific improvements, intelligent transportation systems, as well as other identified transportation improvements.</p>

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	<p>During the NEPA and preliminary engineering study, more detailed analysis will be conducted to assess specific local roadway improvements that need to be included as part of the SCAC project being advanced. Generally, these local road improvements are necessary to support the Build Alternative changing traffic patterns and address issues the Build Alternative causes on the network. These types of projects are called “connected actions”. For example, if a PA 144 Build Alternative corridor is advanced, it will be determined what types of improvements would be necessary on PA 45 as a result of the proposed interchange and changing traffic patterns. Conversely, if a US 322 Build Alternative corridor is advanced, it will be determined what types of improvements would be necessary on existing US 322 as a result of the proposed interchange and changing traffic patterns.</p>
GC-8	<p>The SCAC PEL Study started in February of 2020. Since that time, PennDOT representatives have attended various Township/Borough meetings and developed a study website to keep the public informed. Additionally, PennDOT has presented numerous times at various CCMPO meetings since early 2020, which were broadcast publicly and included representatives from various municipalities. In October/November of 2020, a virtual public meeting was held to discuss the scope, purpose, and need of the study. The virtual meeting notification process was accomplished by publishing multiple advertisements in the Centre Daily Times and the Lewistown Sentinel, posting flyers at area convenience stores, grocery stores, and other public gathering areas in the 70-square mile study area, and social media outreach (Facebook and Twitter). In addition, the local communities were asked to forward the meeting announcement to their interested citizens and place a link to the advertisement on their individual websites.</p>
GC-9	<p>The SCAC PEL Study process encompasses seven different phases. The SCAC PEL is currently in phase 4 (Screen Alternatives and Determine Impacts). The SCAC PEL schedule currently calls for completion in the summer of 2022 which may extend into the fall in order to receive the Federal Highway Administration’s approval to advance to preliminary engineering and detailed environmental investigation. At that time, the alternative options to be advanced will be made publicly known. The boards from the public meeting “State College Area Connector PEL Process” (https://www.penndot.gov/RegionalOffices/district-2/ConstructionsProjectsAndRoadwork/SCAC/Documents/9-2021_VPM/05_SCAC_PEL-Process-Timeline-Board.pdf) and “What is the Process for Advancing Transportation</p>

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	Projects?" (https://www.penndot.gov/RegionalOffices/district-2/ConstructionsProjectsAndRoadwork/SCAC/Documents/9-2021_VPM/03_Transportation-Process-Board.pdf) provide more information about the overall transportation project timelines and the PEL process as well.
GC-10	Direct notification regarding new information on the study website including notices of future public engagement opportunities will be conducted via an email notification. Throughout the SCAC PEL Study, the public has joined the notification database by visiting the study website and joining directly or by signing in at one of the public meetings and providing an email address. It is anticipated that as the alternatives are refined and engineering conducted, direct outreach in the form of letters to potentially affected property owners may be conducted.
GC-11	The next step in the SCAC PEL process will be to refine the mapping and corridors based on public comment and present the revised information at a public meeting. It is anticipated that this meeting to present the revised materials will be in the spring of 2022.
GC-12	The ability and right to make I-76 toll free for trucks is beyond the purview of PennDOT and this PEL Study. Those types of endeavor would require approval by the Pennsylvania Turnpike Commission and state legislature.
GC-13	The SCAC open house public meeting was developed and conducted in accordance with PennDOT's Publication 295 (Pub 295) (May 2021) – Project Level Public Involvement Handbook (Pub 295) which was coordinated with the Federal Highway Administration. Pub 295 outlines acceptable formats for presenting and soliciting comments on transportation projects with the public during the environmental and preliminary engineering phase of project development. As the SCAC PEL Study results will be used in future environmental studies, the guidance outline in Pub 295 was deemed appropriate for use in this study. In accordance with Pub 295, an open house public meeting, like the September 2021 SCAC public meeting, is an acceptable format. The meeting, such as the one held by PennDOT in September, was purely for informational purposes and did not meet the requirements for a "meeting" as outlined in the Sunshine Law (the Law defines a meeting as "any prearranged gathering of an agency which is attended or participated in by a quorum of the members of an agency held for the purpose of deliberating agency business or taking official action."). While the open house meeting did meet the first criteria of the Sunshine Law of being prearranged, it was not intended to have a quorum of agency members in attendance, nor was agency business deliberated on or any official action

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	taken. This meeting provided draft study specific information for which PennDOT was soliciting public comments and no agency or study decisions were made at the meeting. Future public meetings for this study may incorporate more formal approaches to information sharing and comment collection.
GC-14	In accordance with federal and state rules, regulations, and guidance, prior to advancing a single alternative for construction, the transportation development process must be followed. This process includes development and evaluation of a range of alternatives and the assessment of impacts and benefits for each alternative. This information is used by FHWA and PennDOT as a basis for making informed decisions on what transportation improvements to advance. Once an improvement is selected, final engineering design is necessary to refine the project-specific plans to identify right-of-way needs and be detailed enough to construct the project. When a project is ready for construction, PennDOT must follow and adhere to a prescriptive bid process that does not allow PennDOT to provide specific entities construction projects or portions of a construction project without going through the competitive bid process.
GC-15	The movement of freight via the roadway network was one component of the traffic analysis conducted as part of this PEL Study. Many factors influence freight movement. This study did not specifically consider rail as a reasonable alternative for the movement of goods or people as the rail infrastructure is not located within the study area and the installation of such infrastructure is cost prohibitive and would be as impactful as highway options and less beneficial at moving people in a rural area.
GC-16	Public comments received during the PEL process will be considered during the development and evaluation of alternatives. When determining what alternatives will be advance for further consideration, PennDOT and FHWA will make recommendations for alternatives that best meet the transportation purpose and need identified; consider input provided by the public and study stakeholders; best balance the overall potential effects on the natural and built environments; and provide suitable mitigation strategies to address adverse effects. Direct costs for the construction of the alternatives as well as future maintenance will also be a factor in the decision-making process. All analysis and evaluations will be conducted based on current rules, regulations, and guidance. Throughout the process, study results and recommendations will be presented to the public for input.

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	<p>Public comments received during an official public meeting public comment period will be identified and addressed in a public meeting summary report. The public meeting summary report will be provided for public review on the study website. Notifications will be sent to all Study interested parties that signed up on our website or attended public meetings and provided an email address alerting them that the Summary Report is available for review. This process has been utilized for past reports including the 2020 Virtual Public Meeting and the Purpose and Need reports. This process will continue to be followed for all future reports and memoranda prepared as part of this study. This includes the Draft and Final PEL Study Report. The Draft and Final PEL Study Report will provide a summary of the entire PEL process including the study purpose and need; environmental setting alternatives analysis including explanation of the range of alternatives and the rationale for why an alternative was considered and dismissed or advanced; identification of alternatives to be advanced as an independent transportation project for further study; and an implementation plan for the independent transportation project. FHWA and PennDOT will also be hosting future public meetings and conducting public outreach at key milestones during the PEL Study.</p>
GC-17	<p>The PEL Study and preliminary engineering phase were funded under the 2019-2022 Centre County Transportation Improvement Program (TIP). Additional preliminary engineering (PE) funding, as well as Final Design funding, is included in the 2021-2024 TIP for a transportation solution deriving from this PEL Study. Funding for subsequent phases including future right-of-way and construction will be determined after the preliminary engineering (PE)/environmental study phase is complete.</p>
GC-18	<p>Your comments on exhibits will be considered for future public meetings. At these meetings, PennDOT and its representatives are located at each exhibit station to aid in reviewing study information and addressing questions.</p>
GC-19	<p>If any of the Build Alternatives are constructed, the new roadway will be a state highway which is monitored by the state police. During detailed design phases, emergency management agencies are consulted to identify potential access and other emergency management needs along the roadway. While these services are supplied locally, the new facility would improve safety for the traveling public over current conditions and should lessen the need for emergency management.</p>

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GC-20	<p>This PEL Study will consider independent transportation projects which PennDOT would work with the CCMPO to plan and program separately. While these potential projects could include bicycle and pedestrian improvements, road diets, roadway reclassifications (e.g., business routes), intersection improvements, safety-specific improvements, intelligent transportation systems, as well as other identified transportation improvements, specific consideration will be given for a future project on PA 45 to address transportation concerns that exist today on that roadway. PA 45 has been identified as having safety concerns, high traffic volumes for the roadway type, and poor traffic levels of service. Following the traffic analysis for the PEL study, the 2050 Build Network traffic analysis will aid in determining what future improvement would best serve PA 45.</p>

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Alternative Routing/Engineering (AR/E)	
AR/E-1	<p>The previously collected traffic and engineering data was re-evaluated and supplemented with updated information where needed and documented in the data refresh prior to the SCAC PEL Study. Residential and commercial development has also been updated on the base mapping to reflect current conditions (See GC-1 for more information). The purpose of the SCAC PEL Study is to develop and evaluate a range of alternatives to improve mobility, reduce congestion, and address safety. Any proposed alternative design will be developed in accordance with PennDOT design standards and specifications as outlined in various manuals approved by FHWA for the design speed, safety features, and other requirements for a transportation facility. PennDOT is committed to ensuring the safety to protect their employees, the traveling public, and their assets (e.g., roadways and bridges).</p>
AR/E-2	<p>As a condition of the SCAC PEL Study, all alternatives considered will be developed in accordance with PennDOT and FHWA standards for the appropriate classification of roadway. These standards will establish requirements for design speed, severity of horizontal curvature, maximum and minimum vertical grades, number and width of travel lanes, and other design parameters. In addition, the alternatives will be designed to accommodate design year (future) traffic, including truck traffic, through the study area. Traffic performance and safety will be components of the engineering studies. Each of the alternatives will be evaluated against the established purpose and needs of the Study.</p> <p>Determining the Build Alternative corridor locations began by identifying the logical termini and routing corridors to connect the termini locations by best avoiding and/or minimizing potential involvement with critical, regulated environmental features while minimizing potential impacts on all natural and built environments. Logical termini are defined as the rational end points for a transportation improvement project. The Build Alternatives have only been conceptually engineered to the extent that corridor widths were determined to establish parameters for identifying potential resources that could be affected and connectivity of the local road network. As such, some structure crossing considerations (e.g., bridges and interchanges) of important local roads have been included in areas where severing these roadways would create excessive impacts to reconnect the local roadway network. The future National Environmental Policy Act (NEPA) phase of any project(s) that develop from the PEL Study would identify connected</p>

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	local roadway improvements that are needed as a direct result of the proposed project (e.g., intersection/local roadway improvement at interchanges).
AR/E-3	The Build Alternative corridors presented were developed, in part, from previous transportation studies conducted in the area. The Build Alternative corridors were evaluated for compliance with current design standards along with potential impacts to existing natural, cultural, and built environment. Some location modifications were necessary to avoid parks and minimize potential impacts on residential and business properties that were not present or as fully developed when the corridors were previously proposed. Adjustments to vertical grades, horizontal curvature and other parameters were also considered to reduce potential impacts, lessen depth of excavation or embankment, and better balance earthwork. In addition to reviewing previously developed alternatives, new corridor routes were investigated to determine if other alternatives could be designed and located with less disturbance or lessen the potential impact to critical features. Any Build Alternative corridor advanced must satisfy the project Purpose and Needs and comply with appropriate design speeds and other design specifications/requirements.
AR/E-4	There are eight total Build Alternatives under consideration for the SCAC PEL Study along with the US 322 Upgrade Alternative. Five of the Build Alternatives generally follow existing US 322 and three of the Build Alternatives generally follow existing PA 144. At this time, all of the proposed Build Alternatives are being considered equally. These alternatives represent a general corridor width (ranging between 350' and 800') where future alignment options could be further developed. These corridors were developed with conceptual engineering criteria and limited design application of those criteria. If a Build Alternative or the US 322 Upgrade Alternative corridor is advanced for further study, preliminary design will be conducted to further refine the alternative's location, develop specific project limits, balance earthwork, identify sideroad treatments, create detailed construction cost, confirm other associated engineering elements, as well as determine environmental impacts and mitigation (e.g., wildlife crossings, visual screening, wetland replacement). Interchange locations, needs, and overall connectivity will be further considered. Appropriate coordination with the local municipalities will be conducted regarding access, refinement of alternatives, and context sensitive solutions.

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AR/E-5	Each of the proposed Build Alternative corridors would impact the gas line that traverses the study area from the interchange at US 26 south to US 322. The PA 144 Build Alternatives would have a greater potential impact due to the proposed corridor paralleling the gas line and creating a long, longitudinal impact as opposed to the US 322 Build Alternatives which generally cross the gas line on a more perpendicular alignment.
AR/E-6	While specific design criteria have been developed for the SCAC PEL Study, the Build Alternatives have not been fully designed. Essentially, the Build Alternatives have been conceptually engineered to the extent that corridor widths, for the mainline only, were developed to establish parameters for identifying potential resources that could be affected and to provide continued connectivity of the local road network. As such, some structure crossing considerations of important local roads have been included in areas where severing these roadways would create excessive impacts to reconnect the local roadway network. This PEL Study will also identify other independent transportation improvements within the study area for future planning purposes. These potential independent transportation projects could include new connections, road diets, roadway reclassifications, safety specific improvements, as well as other improvements. Future NEPA phase of any project(s) that develop from the PEL Study would identify connected local roadway improvements that are needed as a direct result of the proposed project (e.g., intersection/local roadway improvement at interchanges).
AR/E-7	Impacts to communities, including potential displacements of homes, fragmentation of community cohesion, and impacts to community facilities (including, but not limited to, public parks, trails, and facilities that service the communities) are being considered during the assessment of all proposed corridors. This assessment also includes potential impacts to low-income and minority populations (in compliance with Executive Order 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Population and other federal regulations). While the US 322 corridor includes many residential developments and plans for future developments, PennDOT also recognizes the rural nature of both the US 322 and the PA 144 corridors which include more dispersed rural communities relying on an agriculture economy and the viability of farm operations. Community impacts, including impacts to both residential development communities and rural farm communities, will be considered along with impacts to cultural (includes historic properties and known archaeological sites) and natural resources (includes

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	wetlands, streams, forestlands, and threatened and endangered species) in an effort to avoid and minimize impacts to all valuable and protected resources to the extent possible.
AR/E-8	<p>There are eight total Build Alternatives under consideration for the SCAC PEL Study along with the US 322 Upgrade Alternative. Five of the Build Alternatives generally follow existing US 322 (two generally south of existing US 322 and three that extend north and south of existing US 322) and three of the Build Alternatives generally follow existing PA 144. Each of these alternatives were initiated by identifying logical termini for which to provide a consistent connection to the existing roadway network. Logical termini are defined as the rational end points for a transportation improvement. The logical termini for the alternatives were determined to be:</p> <ul style="list-style-type: none"> • US 322 – The four-lane limited access portion of US 322 near Potters Mills • US 322 – The four-lane limited access portion of US 322 (Mt. Nittany Expressway) at or near Boalsburg. • I-99 – Limited access I-99 facility north of Pleasant Gap. <p>Any alternative developed for this project had to connect to these endpoints. From those termini locations, alternative corridors were developed that can best avoid and minimize impacts to the natural and built environments, while still meeting the purpose and needs of the PEL Study.</p>
AR/E-9	The Build Alternative corridors and PEL Study resources are available for review on the study webmap. The webmap can be found on the study website at www.PennDOT.gov/SCAC (State College Area Connector – PEL Study Resources (arcgis.com))
AR/E-10	PennDOT is in the process of developing planning level construction cost estimates for each of the potential Build Alternative corridors. This estimated construction cost will be determined by quantifying major construction items such as pavement, structures, earthwork, and drainage items and applying a unit cost per linear foot of alignment. This unit cost is then multiplied by the length of each corridor to determine an estimated construction cost. Additional costs associated with right-of-way acquisition, utility relocation, environmental mitigation will be applied to determine a planning-level cost estimate for each Build Alternative corridor. The long term future maintenance costs will also be a factor when evaluating total alternative costs.

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AR/E-11	The proposed Build Alternatives are essentially corridors that future alignments could be developed within if the alternative is advanced for further study. The information in the environmental comparison matrices are not actual impact tallies but simply identify resources that are found within the various corridors. Should the alternative be advanced for further study, preliminary engineering activities would occur to define a limit of disturbance associated with the proposed project as well as any additional local road improvements and mitigation measures that would need to occur as a result of the proposed project.
AR/E-12	A tunnel alternative was dismissed from previous studies due to initial construction and long term maintenance costs. Other current factors that would deem tunneling as infeasible include excessive impacts to the existing underground mining operations and quarries, and the probability of encountering pyritic material during blasting and excavation operations. The cost of handling and disposal or treatment of the pyritic material would be factored into the costs of this alternative. Additionally, trucks carrying hazardous materials would not be allowed to traverse the tunnel, therefore would remain on the local roadway network.
AR/E-13	As the Build Alternative corridors are further refined, specific topographic sensitivities (e.g., sinkholes) will be evaluated and avoided, where feasible. There are known sinkholes and general karst topography throughout the study area. Treatment of potential sinkholes will be built into cost estimates.
AR/E-14	Interchange locations providing local access to the Build Alternative are currently indicated conceptually to aid with completion of the traffic model. Future NEPA phase of any project(s) that develops from the PEL Study would refine interchange locations and update the design to reflect ramp geometry and lane configuration accordingly. Additionally, constructability and local roadway access will be considered during the refinement of the alternatives. Costs and impacts associated with temporary roadways or interim improvements would be considered in detail during the NEPA phase for any alternative advanced. In this PEL Study, maintenance of traffic during construction will not be designed and would only be included as a cost estimate for planning purposes.

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AR/E-15	For the purposes of this PEL Study, the Build Alternatives are being designed as a limited access freeway and will meet applicable design criteria. Narrower grassed medians along with paved medians with barriers are being considered to reduce the overall footprint and potential resource impacts.

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Traffic (T)	
T-1	Based upon current available traffic data from PennDOT's TIRe website, heavy vehicles (e.g., tractor trailers) account for approximately 20% to 25% of the traffic on the existing US 322 corridor. This is a "higher than typical" amount of truck traffic on similar type facilities, with the statewide average being on the order of 5% to 7%. Current trip origin and destination (O-D) data of study area traffic indicates that approximately 9 out of 10 heavy trucks (e.g., tractor trailers) on the US 322 corridor in the vicinity of Potter's Mills Gap travel through the study area (thru trip). It is also estimated that approximately 3 out of every 5 heavy trucks on the US 322 corridor are coming from or headed to the I-80 corridor. This data also shows that a larger percentage of medium trucks have local destinations in State College area. It should be noted that for the purposes of this SCAC Study, the O-D data presented to date has treated "State College" as a local origin or destination.
T-2	Addressing congestion, safety, and system continuity of the study area roadway network have been identified as needs of the study. Relative to traffic, the purpose of this project is to identify improvement alternative(s) and to evaluate and compare the effectiveness of each in addressing these needs. However, traffic is only one consideration which must be assessed when evaluating the impact and benefit of new transportation improvement. Alternatives that meet the purpose and need of the study while balancing the potential impacts to the natural, cultural, and built environmental and is cost effective will be advanced for further consideration for preliminary engineering and detailed environmental investigations (e.g., National Environmental Policy Act (NEPA) phase analysis).
T-3	Future year traffic volume forecasts for the study reflect what the CCMPO and municipalities in the region anticipate for future growth in population and employment demographics relative to current zoning and approved or anticipated development. (Growth and development are handled at the local level not controlled by PennDOT.)
T-4	The Highway Safety Manual (HSM) safety analysis conducted on the No-Build Alternative, US 322 Build Alternatives, PA 144 Build Alternative, and the US 322 Upgrade Existing Alternative considers several factors that influence safety of a roadway, such as roadway geometry, traffic volumes, and traffic composition. These various factors influence the proposed safety score an alternative received which is then compared to the HSM analysis of the No Build Alternative.

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	<p>In general, the analysis showed that safety would not improve over the No Build Alternative for the US 322 Upgrade Existing Alternative which would in fact have more safety concerns. Both the US 322 Build Alternatives and PA 144 Build Alternatives would substantially improve roadway safety for all crashes and fatal and injury related crashes. PA 144 Alternatives would have a slightly higher safety score due to the overall lower traffic volumes predicted to use that roadway when compared to the US 322 Alternatives. For the SCAC PEL study, the US 322 Build Alternatives and PA 144 Build Alternatives are all considered viable alternatives as they meet the purpose and need for the Study by improving safety on the study area network.</p>
T-5	<p>It is agreed that regardless of the alternative ultimately selected and advanced for further development and evaluation, ITS considerations will be included in the future, more detailed engineering design. However, at this stage in the planning study, ITS considerations will not be deciding factors in the evaluation of which Build Alternative to advance.</p>
T-6	<p>US 322 is a primary roadway in the Centre County region, classified as a principal arterial highway. The purpose of this type of highway facility is for the safe movement of goods and people. A principal arterial typically is a type of roadway facility that provides improved mobility through a reduced number of access points (e.g., intersections, driveways). Roadways with reduced number of access points (conflict points) are typically safer facilities (e.g., have reduced number of crashes).</p> <p>A new facility along US 322 or PA 144 will not be designed to attract new traffic to the region. The role of any of the proposed Build Alternative corridors is to convey the anticipated 2050 traffic volumes (No Build Alternative) which are based on current travel patterns. A new four lane facility would reduce the amount of traffic (passenger vehicles and trucks) on the local roadway network by shifting traffic onto the proposed facility which would be designed to current FHWA and PennDOT design and safety standards.</p>
T-7	<p>Comparing the traffic analysis results of the SCAC PEL Study PA 144 Build Alternative and US 322 Build Alternative to the No Build Alternative shows that both alternatives would provide traffic operations and safety benefits, as follows:</p> <ul style="list-style-type: none"> Both Build Alternatives would reduce traffic volumes on local roadways within the study area.

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	<ul style="list-style-type: none"> Both Build Alternatives would improve safety within the study area by reducing traffic volumes on the existing local roadway network, particularly on its existing parallel roadway (e.g., PA 144, US 322). With reduced traffic volumes on the study area roadway network, both Build Alternatives would also improve/reduce congestion when compared to the No Build Alternative.
T-8	<p>Automobiles comprise approximately 80% of the traffic on the US 322, PA 45, and PA 144 corridors in the study area. More information regarding the breakdown of total traffic and truck traffic for the years 2017 and 2050 for the No-Build Alternative can be found in the Final Purpose and Need for the State College Area Connector Planning and Environmental Linkage Study report on the study website (www.PennDOT.gov/SCAC or at https://www.penndot.gov/RegionalOffices/district-2/ConstructionsProjectsAndRoadwork/SCAC/Documents/SCAC-Purpose-And-Need.pdf). This information is specifically in section 2.4.1 Traffic Volumes. A summary of the Origin and Destination study information is also located in this report in Section 2.4.2 Origin-Destination. The public meeting display boards presented a summary of traffic for the years 2017 and 2050 for the No-Build, Build Alternatives, and the Upgrade Existing Alternative. A summary for the O&D information was also provided. These display boards can be found on the study website or at the following link https://www.penndot.gov/RegionalOffices/district-2/ConstructionsProjectsAndRoadwork/SCAC/Pages/Virtual-Public-Meeting-September-21.aspx.</p>
T-9	<p>PennDOT, in cooperation with the Federal Highway Administration is collecting data (e.g., traffic and environmental), developing transportation solutions, and will make appropriate recommendations that best meet the transportation purpose and needs identified in this area while balancing the overall potential effects on the natural and built environments. Direct costs for the construction of the alternatives as well as future maintenance will also be a factor in the decision-making process. All analysis and evaluations will be conducted based on current rules, regulations, and guidance.</p>
T-10	<p>Planning level traffic analyses/studies are usually based on traffic for an average day throughout the year, not on special event traffic conditions. Traffic data collected for the project was obtained while schools (local primary schools as well as secondary schools) are open. Traffic data obtained and analyzed for this study is based on daily and peak</p>

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	hour traffic volumes and conditions for an average day of the week (e.g., Tuesday, Wednesday, Thursday) during a non-holiday/non-special event. If PennDOT would design to accommodate special events, the transportation projects would be excessively large to accommodate additional traffic. Any proposed transportation project would improve event traffic but would not fully address all of the event traffic needs.
T-11	PennDOT does not have the authority to require or prohibit trucks or any motor vehicle to follow a specific route on the State Highway System. Nor can PennDOT prohibit trucks or any motor vehicle to use any roadway on the State Highway System without just cause such as low bridge clearance, posted loads, or extreme grades and curvature which poses a safety threat for certain types of vehicles. PennDOT design manuals provide for safe, multi-modal use of its facilities.
T-12	The identified purpose and need of this study is not necessarily to provide a direct connection to I-80. The purpose and need of this study is to address congestion, safety, and system continuity of the study area roadways. The traffic evaluation and analysis performed for the study Build and Upgrade Existing Alternatives considers the influence/impacts of trucks on traffic operations and safety. The traffic, including truck traffic and the movement of freight, is only one factor that influences the overall evaluation of the Build Alternative corridors.
T-13	<p>Expanding the existing US 322 to three lanes with a center lane that allows for reversible traffic flow is engineeringly possible. While this type of reversible facility would provide additional roadway capacity for acceptable levels of service in the peak direction, without additional capacity in the off-peak direction, the off-peak direction would experience unacceptable levels of service during typical weekday peak period(s). Although existing horizontal/vertical geometric safety deficiencies could be addressed, this type of facility would continue to have numerous intersections (e.g., potential conflict points). Thus, it would not provide improved safety benefits when compared to other types of transportation facilities.</p> <p>This type of reversible facility could reduce its width and footprint; however, additional capital construction costs would be required for increased infrastructure associated with managed lanes facilities (e.g., sign structures, overhead</p>

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	<p>electronic signing, signals), as well as increased future operations and maintenance costs inherent to ongoing 24/7/365 operations and maintenance efforts of this type of facility.</p>
T-14	<p>Traffic volume forecasts were developed utilizing the Centre County Regional Travel Demand Model (TDM). This TDM is a trip-based model comprised of links (roadways), nodes (intersections), and zones (development) within the region. The TDM being used for the SCAC has been updated with recent Streetlight origin/destination travel patterns. Streetlight is a company that provides traffic information that is based upon tracking of location data from cell phones that travel through a selected study area.)</p> <p>Various model parameters are associated with the links (roadways), such as the number of lanes and traffic volume flow capacity. Similarly, the nodes (intersections) also have various parameters such as the type of intersection traffic control (stop signs or traffic signals). Examples of types of development for the zones include residential neighborhoods, retail/commercial development, institutions, etc.</p> <p>Planners and engineers work with the local municipalities to estimate the type and size of existing development (base year) and anticipated future development (horizon year) for each model zone. Once locations and levels of development are identified for the base year and horizon year, traffic volumes for each zone are estimated. (For the SCAC a model base year of 2017 and a horizon year of 2050 were used.)</p> <p>The model loads the development traffic volumes onto its roadway network by routing a vehicle trip from its zone of origin to its destination zone (e.g. where its trip starts and ends) using the path of least resistance (shortest travel time). As part of the model calibration/validation process (which verifies the model is replicating actual conditions), a check/comparison of actual traffic volume data versus model output is made and model parameters are adjusted accordingly until model output is within industry accepted tolerances.</p> <p>Using the base year calibrated model parameters, horizon year traffic models are then developed for future year scenarios. For the SCAC, these scenarios include a No Build scenario, as well as Build scenarios for each alternative being evaluated.</p> <p>A technical memorandum detailing the traffic volume development and traffic analysis for this Study will be available to the public on the project website..</p>

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Natural Resources (NR)	
NR-1	<p>The assessment of proposed transportation improvements' effects on greenhouse gas (GHG) emissions, including potential increases and reductions to the contributing gases (such as CO₂), is complex and must be viewed on a regional level. Transportation has been identified as a source of CO₂ emissions that contributes to air quality concerns because of the combustion of fossil fuels such as gasoline and diesel used by motorized vehicles using the nation's roadways. There are multiple factors that affect the influence of transportation on air quality (many which are unknown or not measurable at this time), including types of vehicles (and their respective fuel economy rates), roadway designs (including roadway grades, speed limits, and access features that affect traffic flow, and in turn, fuel economy), and vehicle miles traveled. In addition, when comparing proposed roadway options and their effects on GHG levels, those with greater forest impacts would reduce carbon sequestration potential vital to offsetting regional GHG emissions. Given that this type of assessment is complex and requires a regional view, it is beyond the scope of a planning study and additional consideration will be further considered as part of the next phase of this project. PennDOT also plans to follow the standard qualitative regional air quality analysis that is used for similar transportation studies and capacity-adding projects.</p>
NR-2	<p>Traffic noise analyses were not conducted as part of the SCAC PEL Study because the proposed transportation improvement corridor options are generalized locations at this time. During the next phase of the study (Preliminary Engineering and Environmental Review), designs will be developed for alternatives under consideration and detailed noise analyses will be completed in compliance with FHWA Highway Traffic Noise regulations at 23 CFR 772 and PennDOT's guidance document, Publication #24, Project Level Highway Traffic Noise Handbook. This effort will include identifying sensitive noise receptors (such as residences, schools, churches, parks, etc.), monitoring existing noise levels in the field, and modeling to assess potential noise increases associated with each proposed alternative for existing and future design year traffic conditions. Areas that approach or exceed FHWA noise abatement criteria or would have a substantial increase in predicted noise levels will be identified and noise abatement (such as noise walls)</p>

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	will be evaluated. A summary of the Information from these noise studies will be presented to the public for review and comment in future NEPA documents and at future public meetings.
NR-3	The information used to define the location and extent of wetlands and streams in the 70-square mile study area is based on the best available secondary sources including topographic, hydric soil, National Wetland Inventory (NWI), and statewide floodplain mapping. Additionally, several GIS datasets, including Centre County Open Data, PASDA – Modeled Primary Wetlands, and Soil Survey Geographic Database, were used to predict the location of potential aquatic resources. By combining these current and spatially accurate data sets, areas could be cross-referenced to identify intersections of hydric soils, potential sources of hydrology, and low-lying landscape positions that would typically be occupied by wetland and watercourse features. During the next phase of the study (Preliminary Engineering and Environmental Review), detailed field surveys will be conducted to verify and update the database as part of formal field investigations detailed in the <i>USACE Wetland Delineation Manual</i> . PennDOT agrees that the entire study area contains high quality water features, including wild trout streams and exceptional value wetlands that will be carefully considered during the design of transportation improvement alternatives to be considered. The study area is also uniquely located at the headwaters of two main Drainage Basins, the Bald Eagle Creek and Penns Creek. Three primary watersheds (Sinking Creek, Spring Creek, and Little Fishing Creek) are the receiving waters of most small, unnamed tributaries within the study area.
NR-4	During the planning study, two of the geologic formations identified within the 70-square mile study area, the Bald Eagle and Juniata Formations, are known for containing in-situ pyrite as well as vein pyrite. These areas include large parts of Nittany Mountain that would be crossed by the PA 144 Build Alternative options. If the pyrite rock were to be exposed during excavation for the construction of transportation improvements, the excavated material would require treatment and/or encapsulation and cut slopes would be required to be treated to prevent Acid Drainage. In general, cut slopes associated with construction can generally be steepened to minimize the volume of excavated material, but for those areas where cut slopes would be parallel to the bedrock orientation, stability evaluations and potentially flatter slopes would need to be evaluated. It is anticipated that preliminary geotechnical investigations will be conducted as part of any future detailed environmental reviews for future transportation projects that would encroach the formations

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	<p>of concern and design modifications would be made as needed, to avoid/minimize these encroachments. Detailed geotechnical investigations would be conducted during the final design phase of any proposed transportation improvement project and the potential for encountering pyritic rock that would raise concerns for Acid Drainage would be defined in the project's Geotechnical Engineering Report. Special provisions would be developed as part of the construction plans to provide direction on the management, treatment, and disposal of excavated material and rock cut areas.</p>
NR-5	<p>The bat habitat identified for the 70-square mile study area includes the potential extent of the bat summer roost/maternity habitat and fall swarming habitat for the protected Indiana and northern long-eared bats, and known winter bat colony habitats (i.e., bat caves, which include a minimum of three sites present within or adjacent to the study area). The summer roost/maternity habitat describes the area in which bats may spend the months feeding and giving birth to pups. Fall swarming habitat describes the habitat close to their winter hibernacula prior to entering the hibernacula for the winter months. Potential summer roost and fall swarming habitat is present in the study area and the mapping depicts the "buffers" surrounding the three known bat hibernacula based on parameters provided by the US Fish and Wildlife Services and the PA Game Commission. These buffers encompass the majority of the study area; however, given the location of the three known bat caves, the Tussey Mountain region did not fall within these buffers for these protected bat hibernacula. It is recognized that bats of various species would use the wooded areas of Tussey Mountain as summer roost habitat, including possibly protected bat species. The planning study also identified various wildlife habitat features, including bat habitat, such as active/inactive quarries, natural karst features (potential bat hibernacula), and forest land (potential roosting habitat) throughout the study area. The information compiled for the planning study is intended to be used to identify areas of sensitive natural resources within the study area, including the extent of potential habitat for protected bat species. It is anticipated that additional agency coordination and field surveys will be required for any future transportation project studies, that may include surveys for threatened and endangered wildlife and plant species such as protected bat species.</p>
NR-6	<p>The 70-square mile SCAC study area includes a wide variety of important natural, cultural, agricultural and community resources throughout. PennDOT is committed to identifying the resources to the extent possible during the planning</p>

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	<p>phase’s environmental review. The location, extent, and characteristics of these resources will be further defined as part of future detailed studies for the proposed transportation projects identified to be carried forward into the NEPA process. The NEPA process will document the identification and evaluation of alternative ways of meeting the purpose and need of the proposed action, in this case, a proposed transportation improvement for the SCAC Study Area to meet the three defined study area needs and the study purpose. PennDOT and FHWA will objectively evaluate all reasonable alternatives. In addition, the NEPA Environmental Review process will consider the requirements of various statutes and regulations that have specific requirements for the evaluation and selection of alternatives, including, but not limited to the following:</p> <ul style="list-style-type: none"> • Section 4(f) of the U.S. DOT Act of 1966: Properties subject to Section 4(f) include publicly owned parks, recreational areas, and wildlife or waterfowl refuges, in addition to significant historic sites. • Section 404 of the Clean Water Act (CWA) and Chapter 105: If the proposed project cannot avoid impacts to wetlands and waters, a Section 404 Permit will be required from the USCOE (and the corresponding Section 401 Water Quality Certification (WQC) from the PA DEP). As part of the permit application, a 404(b)(1) Alternatives Analysis is completed along with the identification of avoidance, minimization, and compensatory mitigation measures. • Agricultural Land Condemnation Approval Board (ALCAB): If farmland cannot be avoided, it is anticipated that a Farmland Assessment Report will be required, and an Agricultural Lands Condemnation Approval Board (ALCAB) Hearing will be held for approval to use farmland property for the selected alternative that is defined as the most reasonable and prudent alternative. • Section 7 of the Endangered Species Act (ESA): Consultation with the USFWS is required to seek ways to avoid jeopardizing the continued existence of Federally threatened and endangered species and their habitats. • Section 106 of the National Historic Preservation Act: Consideration is to be given to the effects on historic and archaeological properties. Requirements includes consultation with the State Historic Preservation Officer

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	<p>(SHPO) during the National Register of Historic Places (NRHP) eligibility determinations in addition to the effects determinations for historic properties, districts, and structures listed in or eligible for the NRHP. Requirements for archaeological studies and reports also include consultation with Federally recognized tribes as part of the investigations of prehistoric/pre-contact sites. Historic and archeological resources listed or determined eligible for listing on the NRHP are considered Section 4(f) properties.</p> <p>During the NEPA process, field surveys will be conducted as needed and the design engineers will work with the environmental scientists, resources agencies, and the general public (including a pro-active public outreach process) to avoid and minimize impacts to important resources to the extent possible. Large transportation improvement projects cannot avoid impacts to resources, though efforts will be taken to reduce and minimize impacts to the extent possible during the design of proposed improvements. Impacts that cannot be avoided will be mitigated to offset and compensate for the resource impacts to the extent possible. The extent and type of mitigation will be coordinated with the resource and permitting agencies and the general public and individual landowners, where applicable, through the project development process.</p>
NR-7	<p>PennDOT's environmental review process includes consideration of wildlife and their habitats. Field surveys to complete wildlife habitat assessments will be completed as part of the detailed NEPA studies. These efforts may also include species presence/absence surveys. Impacts to wildlife habitat will not only consider habitat loss but also potential fragmentation. It is recognized that habitat fragmentation results in smaller unconnected areas that can reduce the quality of the remaining habitat and wildlife movement. In particular, a new highway on new alignment may create a barrier that not only removes and fragments habitat within the roadway's limits of disturbance but may also cut off natural wildlife corridors. This in turn can present an obstacle that leads to vehicle/wildlife collisions. Fragmentation can also encourage the expansion of non-native species and predation. Some wildlife species, including neotropical migrant bird species, are highly dependent on what is referred to as interior forests to thrive. The SCAC PEL Study initiated coordination with federal and state resource agencies and that coordination will continue during the next phase of detailed studies. Of special note is the response from the U.S. Fish and Wildlife Service (dated February 17, 2021) that identified potential concerns with migratory bird species protected by the Migratory Bird Treaty Act. Efforts will be</p>

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	<p>made to design proposed transportation improvements to minimize habitat loss and fragmentation. In addition, mitigation measures will be considered during design to reduce adverse effects. These could include incorporating wildlife crossing/corridors in the roadway design to allow wildlife to travel between existing viable habitats. Wildlife crossings that may be considered are vegetated bridges or tunnels or oversized stream culverts that include a dry pathway parallel to the stream channel. These measures would not only promote safe passage for wildlife but would also reduce the potential for vehicle/wildlife collisions that makes the roadway safer for the travelling public. It is anticipated that impacts to wildlife habitats will require compensatory mitigation. This mitigation can be in the form of land acquisition for habitat preservation and/or restoration of disturbed lands to a natural state.</p>
NR-8	<p>The scope of this SCAC PEL Study does not include a reinvestigation of highway traffic noise and/or mitigation strategies associated with the Mt Nittany Expressway. PennDOT policy does not provide for highway traffic noise analyses associated with an existing roadway for which no improvement work is taking place. However, several residential communities and noise-sensitive land uses have been identified adjacent to the eastern portion of the Mt Nittany Expressway where some of the proposed improvement corridors would tie into the expressway and these areas would be evaluated as part of future noise analyses if the proposed transportation improvement alternatives carried forward into the NEPA process would include improvements in the vicinity of the communities. In areas where traffic noise impacts are identified, noise mitigation (i.e., noise walls) will be evaluated for feasibility and reasonableness.</p>
NR-9	<p>Truck traffic noise caused by the use of compression release brakes or 'Jake Brakes' is not effectively reduced through the use of concrete noise barriers and it has been found that compression release brake noise is best addressed by local legislation and strict enforcement of that legislation. However, major transportation improvements that accommodate truck traffic patterns, reduce traffic congestion, minimize steep grades, and better manage traffic exiting and entering the roadway may reduce the need for truckers to use compression release brakes to slow down and therefore reduce the noise caused by their use.</p>

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Cultural Resources (CR)	
CR-1	<p>The SCAC PEL Study:</p> <ul style="list-style-type: none"> Identified and verified known historic resources in the 70-square mile study area (those previously determined NRHP eligible and those listed in the NRHP). Updated and verified the contributing and non-contributing historic resources of the Penns Valley/Brush Valley Rural Historic District (RHD) along the US 322, PA 144 and PA 45 corridors in the study area. Identified potentially eligible historic resources along the US 322, PA 144 and PA 45 corridors in the study area (those not previously evaluated for the NRHP). <p>Based on the extent of resources within the area, the development of a Build Alternative or Upgrade Existing Alternative that fully avoids impacting or using of a NRHP eligible or listed resource or historic district is not possible. During the preliminary engineering and detailed environmental (NEPA) process, field surveys will be conducted to confirm the historic eligibility of any undetermined resources for listing in the NRHP. The design engineers will work with study historians to avoid and minimize impacts to important resources to the extent possible. As mentioned, large transportation improvement projects cannot avoid impacts to resources, though efforts will be taken to reduce and minimize impacts to the extent possible during the design of proposed improvements. Impacts that cannot be avoided will be mitigated to offset and compensate for the resource impacts to the extent possible. The extent and type of mitigation will be coordinated with the resource agencies with jurisdiction and identified consulting parties as part of the environmental process.</p>
CR-2	<p>The SCAC PEL Study included the use of secondary sources to identify archaeological resources within the 70-square mile study area. The information compiled included mapping generated by a state-wide Pre-Contact Probability Model of pre-contact period site locations and an historic-period predictive model of site locations. In addition, mapping has also been generated of known pre-contact and historic-period archaeological site locations presented in the PA State Historic Preservation Office’s Cultural Resources GIS. The archaeological predictive models and site location data compiled for the study area will allow the project team to visually assess the potential effects to archaeologically sensitive areas for proposed transportation improvements. This information will serve as the basis for defining and</p>

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	recommending future detailed archaeological investigations that will be conducted as part of the future NEPA phase of any project(s) that develop from the PEL Study. These initial efforts also included initiation of coordination with the Native American Tribes. Two of the Tribes, the Delaware Tribe of Indians and the Seneca Nation of Indians, accepted the invitation to be a Participating Agency for the SCAC PEL Study.

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Socioeconomic Resources (SER)	
SER-1	During the development of the SCAC PEL Study's Purpose and Need Statement, it was noted that the employment and educational opportunities of the Pennsylvania State University, along with the relatively high quality of living standard, make Centre County (including the study area) attractive for development. Population within the study area is currently expected to have only nominal growth. Population and households had annual linear growth rates of 0.6% and 0.7%, respectively. Employment is expected to grow at a higher rate (2.0% per year), generating over 10,000 additional employment trips by 2050. The 2050 traffic volumes developed for this study reflect 2050 population and employment projections provided by the Centre County MPO. Recent development, including residential subdivisions and commercial and industrial sites, in the study area (i.e., Harris Township, located in the western portion of the study area) have been identified through secondary sources and select field reconnaissance, to update the study area mapping.
SER-2	The Tussey Pond Park master plan was obtained and reviewed. The park is included on the revised project mapping (https://terracon.maps.arcgis.com/apps/webappviewer/index.html?id=e41bc8fe87ba4903bbc4c10a17283269). This resource will be provided the same status which is afforded to all publicly owned parkland by Section 4(f) of the U.S. Department of Transportation Act of 1966, as amended.
SER-3	Rothrock State Forest and Colyer Lake are located south of the currently proposed Build Alternative corridors. Therefore, no potential direct impacts to the associated trails are anticipated. Maintaining access to the Tussey Mountain amenities, Rothrock State Forest trails, and other recreational areas beyond the proposed Build Alternative corridors will be investigated and assessed during future detailed studies for any Build Alternative corridors that are advanced into the NEPA process.
SER-4	The 70-square mile study area includes a wide variety of important natural, cultural, agricultural, and community resources. These resources are considered in the alternative development process. Potential impacts to communities, including potential displacements of homes/businesses, fragmentation of community cohesion, and impacts to community facilities (including, but not limited to, public parks, trails, and facilities that service the communities) are being considered during the assessment of all proposed corridors. This assessment also includes any potential

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	<p>impacts to low-income and minority populations (in compliance with Executive Order 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Population and other federal regulations). Potential community impacts to both residential development communities and rural farm communities, will be considered along with potential impacts to cultural (includes historic properties and archaeological sites) and natural resources (includes wetlands, streams, forestlands, agricultural, and threatened and endangered species) in an effort to avoid and minimize impacts to these valuable and protected resources to the extent possible.</p>
SER-5	<p>While privately owned, the Calvary Harvest Fields Church property, including the Disc Golf Course and Harvest Fields Community Trails, have been included on study mapping as a community facility given its availability to the general public. Portions of the church's parking lot and the Harvest Fields Community Trails lie within the 322-4 Study Corridor. As the study progresses, should an alternative that has the potential to impact these trails be advanced, additional investigations will be conducted (including direct coordination with the church to further define the type, location, and extent of property resources). This information would then be used to update the project mapping, refine proposed transportation improvements to avoid/minimize adverse impacts, and identify potential solutions to mitigate impacts that could not be avoided.</p>
SER-6	<p>Public water and sewer service areas in the SCAC Study Area have been defined and mapped using secondary sources. In addition, information related to the public water supply sources have been compiled, including the location of water supply wells within the study area and current Source Water Protective Plans (includes plans put in place by the public water provider and municipality to identify potential threats to public drinking water and to set goals and implement strategies to protect the sources). This information includes information for the State College Borough Water Authority (portion of service area extends into the SCAC Study Area), the College Township Water Authority (includes a new public water supply well and potential influence zones within the SCAC Study Area), the Centre Hall Borough Water Department (in addition to multiple smaller community water supply wells in Potter Township and the Township's Regional Source Protection Plan), and the Spring Township Water Authority (portion of service area extends into the SCAC Study Area). This information will be used during the more detailed studies to be conducted in future NEPA studies for transportation improvement projects carried forward in the project development process. PennDOT</p>

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	recognizes the need to protect public drinking water sources and the particular sensitivities associated with aquifers within karst landscapes that include sinkholes, caves, springs, and sinking stream. These areas can be particularly vulnerable to groundwater contamination and PennDOT will evaluate various design options for proposed transportation improvement projects carried forward to ensure these improvements do not adversely affect drinking water supplies.
SER-7	The locations of proposed interchanges are based on traffic patterns and anticipated future traffic needs with the intent to maximize the use of the proposed transportation improvements. While interchange locations can influence land use, particularly if they are located in an area that has no current access to the regional transportation network, development and growth in these areas is controlled by the local municipality by zoning, utilities, and land development plans. It is anticipated that future NEPA studies for proposed transportation improvements projects carried forward will include the assessment of “Indirect and Cumulative Effects”. Indirect effects are defined as those that are “caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable;” and cumulative effects are defined as those that result from “the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions.” This assessment would address, among other issues, the potential of proposed new interchanges to encourage land development where it would not previously be undertaken.
SER-8	Visual impacts will be evaluated during the more detailed studies to be conducted in future NEPA studies for transportation improvement projects carried forward in the project development process. During these detailed studies, design considerations for proposed transportation improvements will be assessed to reduce visual impacts associated with the proposed improvements. This assessment will not only address efforts to avoid or minimize adverse visual impacts but also potential mitigation measures such as roadside landscaping and context sensitive designs (includes coordination with the local community and consideration of using material, forms, and finishes of highway structures to mimic, complement, or contrast with the existing cultural environment visible from the project corridor, as desired by the community).
SER-9	Code no longer applicable.

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SER-10	<p>If a proposed transportation improvement that would impact the Harris Township industrial zoned area is advanced into the NEPA process, further investigations will be conducted and potential solutions to avoid, minimize and/or mitigate impacts would be identified. These efforts would include direct coordination with the Harris Township municipal officials to identify compensatory mitigation measures, as applicable.</p>
SER-11	<p>The SCAC PEL Study’s Purpose and Need included the review of the existing transportation network and services, safety issues, and a traffic and operational analysis. This information facilitated the identification of the study area needs and the study purpose. In addition, an overview of the study area’s environmental setting was compiled using readily available secondary source information and a review was conducted of regional and local planning documents (County, Planning Regions, Municipalities) to identify the goals, visions, and future plans for the study area communities. The Study’s Purpose and Need Report also addressed the requirement to identify “logical termini” for any future transportation improvement project that advances into the NEPA phase of study. Logical termini are defined as the rational end points for a proposed transportation improvement project. Logical termini and independent utility (defined as the ability to be useable and be a reasonable expenditure even if no additional transportation improvements in the area) are being defined as part of the identification and development of the range of alternatives being considered in the PEL Study. It is anticipated that the logical termini and independent utility will be identified for all short-term and long-term project alternatives that may evolve from this PEL Study and be advanced in future environmental studies when project funding becomes available.</p> <p>The 70-square mile study area encompasses the southwestern portion of Penns Valley that extends between Nittany Mountain to the north and the Seven Mountains area of the Tussey Mountain range to the south. Proposed improvements along either the US 322 corridor or the PA 144 corridor have the potential to have major impacts to the valley and the two mountain ranges. The study area includes a wide variety of important natural, cultural, agricultural, and community resources throughout. The design engineers will work with the environmental scientists, resources agencies, and the general public to avoid and minimize important resources to the extent possible. Large transportation</p>

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	improvement projects cannot avoid impacts to resources, though efforts will be taken to reduce and minimize impacts to the extent possible during the design of proposed improvements. Impacts that cannot be avoided will be mitigated to offset and compensate for the resource impacts to the extent possible. The extent and type of mitigation will be coordinated with the resource and permitting agencies and the general public and individual landowners, where applicable, through the project development process.

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ROW (ROW)	
ROW-1	Acquisition costs and anticipated impacts to properties are only a few of the many factors that are considered in future studies when identifying a preferred alternative.
ROW-2	Typically projects with numerous acquisitions required are completed in different phases spread out over the course of time. This will hopefully help to spread out the relocations to reduce the impact to the available housing market.
ROW-3	Impacts due to the taking of land and mineable materials would be considered in the Appraisal process.
ROW-4	<p>When appraising properties under the Eminent Domain Code in Pennsylvania, any market value increases or decreases due to general knowledge of a future transportation project are not considered in the Before Value (e.g., fair market value) of the property being acquired. In other words, the Before Value is the property's fair market value if the project was not being implemented. Any increase or decrease in market value due to property acquisition is considered in the After Value (e.g., property value following implementation of the transportation project) of the property and compensation and/or damages paid following negotiations, accordingly.</p> <p>Additionally, perceived project damages or benefits attributed to the whole community are not considered in the After Value nor to other properties without acquisitions in the community. Essentially, PennDOT is not allowed to reimburse for an assumed decrease in property value (e.g., damages) for any property that is not directly acquired by the project. Community impacts related to viewshed and noise concerns are assessed and mitigated through means other than financial compensation.</p>
ROW-5	Depreciation will be considered by the appraiser for each property. All owners being relocated will be assigned a relocation specialist who will help throughout the process. This includes a pre-acquisition survey being completed to consider their needs and wishes for a replacement dwelling. During this pre-acquisition meeting the relocation specialist also reviews with each relocate all the Benefits for which they would qualify.
ROW-6	Depending on the status of the design process some relocations could start early to help speed up the process and give the owners time to find replacement housing. We typically estimate 18 months for a residential relocation and 24 months for a business relocation.

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ROW-7	The County has the authority to waive the penalties due takings for highway project and to allow the property to remain in clean and green. These impacts and County policies would be considered during the appraisal process for individual properties.

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Agriculture (A)	
A-1	<p>PennDOT recognizes the importance of farmland in the study area and that the extent of the productive agricultural land, and the viability of the farm operations/businesses are major contributors to the local economy. In addition, the farms, in particular, the multi-generational family farms, contribute to the cohesion of the rural community and the historic heritage of the study area. PennDOT recognizes the dedication of landowners and municipalities to preserve their farmland and farm operations through the use of both agricultural security area and/or conservation easements mechanisms. Given the extent of farmland in the study area, it will not be possible for a major transportation improvement project to avoid all potential impacts. However, PennDOT anticipates that a Farmland Assessment Report will be prepared during the detailed studies conducted in the next phase (Preliminary Engineering and Environmental Review) of the project. The preparation of the report will require extensive interviews with all potentially impacted farm operators to identify and document the nature, features, and extent of their operations, including all farm-related structures, pathways, and other resources of the farm operation. Interviews with farm operators and landowners will also identify any leased properties required for the successful operation of potentially affected farm operations. The report will also document the potential avoidance and minimization measures considered and the assessment of potential impacts to the viability of individual operations. It is anticipated that the proposed Build Alternative options will require a hearing with the Agricultural Lands Condemnation Approval Board (ALCAB) for approval to condemn any farmland needed for the project in anticipation that amicable settlements may not be reached for acquisition of the productive agricultural land. ALCAB approval requires that the selected alternative is the most reasonable and prudent alternative before PennDOT can proceed with condemnation proceedings.</p>