Linking Planning & NEPA (LPN) Screening Forms User's Guide

April 2013

Release 7-8

This user's guide is produced as part of the Linking Planning & NEPA (LPN) Screening Form Application System.
This guide will be updated as needed to reflect future enhancements that are made to the LPN System.

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Version Control

Date	Description
01/23/13	Release 7.0 Draft Version
03/21/13	Release 7.0 Final Version, with maps COMING SOON
04/05/13	Updated map information in each section, and in Appendix D
4/17/13	Added Appendix E
4/18/13	Updated Appendix D
4/24/13	Updated map information in each section, and in Appendix D; added screen shot to Appendix E

1. INTRODUCTION

Efforts have been underway in Pennsylvania to improve the transportation program development and project delivery process and link it to our environmental processes and procedures. This effort, called ***Linking Planning & NEPA (LPN)***, focuses on identifying our most urgent infrastructure needs in planning and providing a consistent means of collecting key information relating to purpose and need, potential project limits and characteristics, public participation, and potential environmental resource impacts that will provide a better understanding of the issues that may affect the project delivery schedule and budget.

The central objectives of the new process are:

- integrated collaboration and decision-making
- up-front problem analysis and planning
- fiscally sound project selection
- a well-defined and consistent scoping process

The LPN process is centered on a series of three levels of screening forms designed to produce enough consistent, accurate, and comparable information in the planning phases to deliver a better defined and more predictable program while reducing the overall level of effort for project delivery through more effective project programming.

The process also helps assure that the Twelve Year Program (TYP) is aligned with national, state, regional, and local land use and transportation policies and vision by identifying the relationships of the project proposal alternatives to Metropolitan Planning Organizations/Rural Planning Organizations (MPO/RPO) LRTP Goals, Pennsylvania Department of Transportation (PennDOT) policies, Governor's directives, and national policies and laws. The goal of the process is delivery of the right projects in the right places at the right times and harnessing the right resources from the right partners in the process.

Level 1 Forms are designed to provide consistent and complete information from stakeholder advocates other than PennDOT or its Planning Partners (i.e., municipalities, counties, etc.). This Form focuses on location characteristics and the identification of need, enabling PennDOT and its Planning Partners to evaluate the identified problems and consider potential alternatives. Level 2 Forms can be generated to build upon the information submitted via a Level 1 Form, or to submit proposals from PennDOT (including asset planning proposals) or the MPO/RPO.

Level 2 Forms rely heavily on readily available data and focus on the collection of conceptual engineering, and environmental and contextual information as necessary to make a decision for proposal advancement.

Level 3 Forms are only created in cases where the information collected through the Level 1 and Level 2 process proves inadequate for making a well-informed proposal advancement decision. Data collected in a Level 3 Form is designed to provide additional engineering, environmental, and/or public participation input in an effort to better define the scope, budget and schedule for a proposal. Many of the proposals entering the Level 3 Form process may be advanced for more detailed study in the MPO/RPO

Transportation Improvement Program (TIP) and are likely to be processed as Environmental Assessments or Environmental Impact Statements.

The electronic nature of the LPN screening forms will improve the consistency and completeness of information collected through the Long Range Transportation Plan (LRTP) and TIP development processes and ensures that the data collected will be available throughout the project development process. It will help provide a transparent process for eliminating effort associated with proposals that do not address local, regional, statewide, and federal priorities and needs. It will also help maintain a database of transportation needs and proposals that can be advanced well into the future without duplication of effort.

In summary, the Forms and other procedures associated with LPN will create a more consistent link between local comprehensive plans, county comprehensive plans, regional transportation plans and programs, and the TYP, as well as make the process more transparent to planning partners and to the public.

Overviews

Each section of the *User's Guide* contains a process overview, which describes how the function covered in the section fits into the business process. The overviews provide a 'big picture' of the separate tasks that form the major business functions of LPN.

User Access

- The application is ADA Compliant
- The application is best viewed in Internet Explorer 8 (IE8) or later; some other browsers do not display the views correctly
- The application is best viewed with a monitor resolution set at 1024 x 768
- For security reasons, the session will time out after 60 minutes of inactivity, forcing the user to log in again prior to continuing

User Roles

The table below outlines the five user roles and their specific responsibilities within the LPN System.

Role	Responsibilities
Stakeholder ➢ Municipalities ➢ Counties ➢ Transit Agencies ➢ Other interested parties	✓ Completes Level 1 Form ✓ Submits Level 1 Form ✓ Views Forms they submit

Role	Responsibilities
Process Lead ➢ MPO/RPO TIP Project Manager ➢ Regional Planning Directors ➢ Assistant District Executives ➢ District Planning & Programming Managers	✓ Solicits & Receives Level 1 Forms ✓ Initiates & Submits Level 2 and Level 3 Forms ✓ Manages processing of Forms ✓ Identifies Planners to complete relevant sections of Level 2 and Level 3 Forms ✓ Notifies Reviewers to review and comment on Forms ✓ Updates information provided on Level 2 and Level 3 Forms, as appropriate ✓ Implements workflow and determines next steps ✓ Selects status for all Forms ✓ Uses Asset Planning tool to initiate Level 2 Forms
Planner ➢ Relevant MPO/RPO Staff ➢ Relevant District Staff ➢ County Planners ➢ Engineers ➢ District Environmental Staff	✓ Submits Level 1 Forms ✓ Serves as subject matter expert to complete information on Level 2 or Level 3 Forms ✓ Adds Comments to assigned Forms ✓ Views all relevant Forms based on assigned MPO/RPO region
Reviewer ➢ Municipality Staff ➢ County Staff ➢ Transit Agency Staff ➢ BHSTE Staff ➢ Tech Committee ➢ Programming Advisory Committee (PAC)	✓ Views all relevant Forms based on assigned MPO/RPO region ✓ Adds comments to assigned Forms
Viewer ➢ PennDOT Officials ➢ Central Office Planning Managers ➢ Other Advisory Committees	✓ Views relevant Forms ✓ Does not provide any input

Procedures

Each section within the User's Guide contains procedural steps for completing the task, including additional information, tips and critical items, where applicable. In addition, a number of general formatting conventions are used within this manual to assist the User:

Item	Formatting
Step	1. Numbered next to each task
Button	Button Image ()
Field Names, Form Sections	**SMALL CAPS BOLDFACE**
Forms, Pages, Windows	***Italics Boldface***
Links	*Underlined Italics*

Item	Formatting
Procedures	***<u>Bold Underlined Italics</u>***
Form Statuses	**Boldface**

Messages to the User

Helpful information boxes are found throughout the manual to highlight important facts.

Critical – Important information that could adversely affect the process or may lose data

Warning – Important information that could render subsequent processing difficult or produce unexpected results

Information – Helpful system or application information

2. ACCESSING THE APPLICATION

Overview

Authorized users will receive an application URL to save as a shortcut or bookmark on their personal computers to access the application through the internet. Process Leads must register new users for their region (Stakeholders, Planners, Reviewers, and Viewers) in the system through the process outlined below.

The optimum working timeframes for the LPN Screening Form System is Monday through Friday, 6:45am – 7:45pm. Performance time is at risk at other times of the day, most significantly between 9pm Saturday through 6am Monday due to regularly scheduled overall system maintenance.

Once you have accessed the application, the system will display the application ***Start Page***, providing basic information about the LPN System.

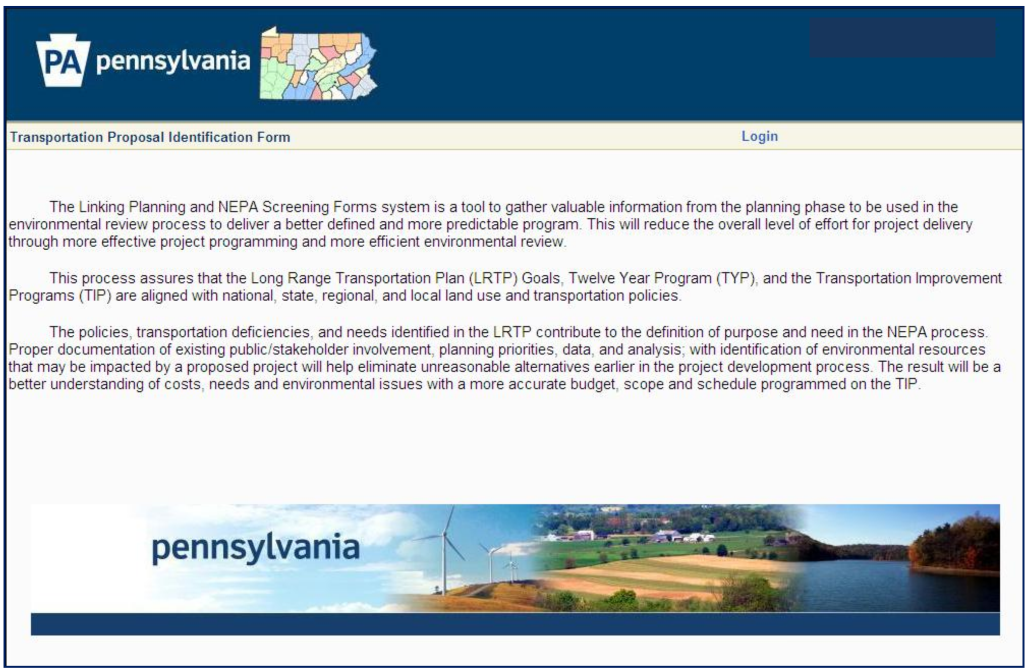


Figure 1: Start Page – General Access

Login to the Application

To access the System ***Start Page***, you must be a registered user assigned to an LPN group (MPO/RPO region) to access the various forms and processes. Requiring a login eliminates the possibility of automated junk forms and spam accessing the system.

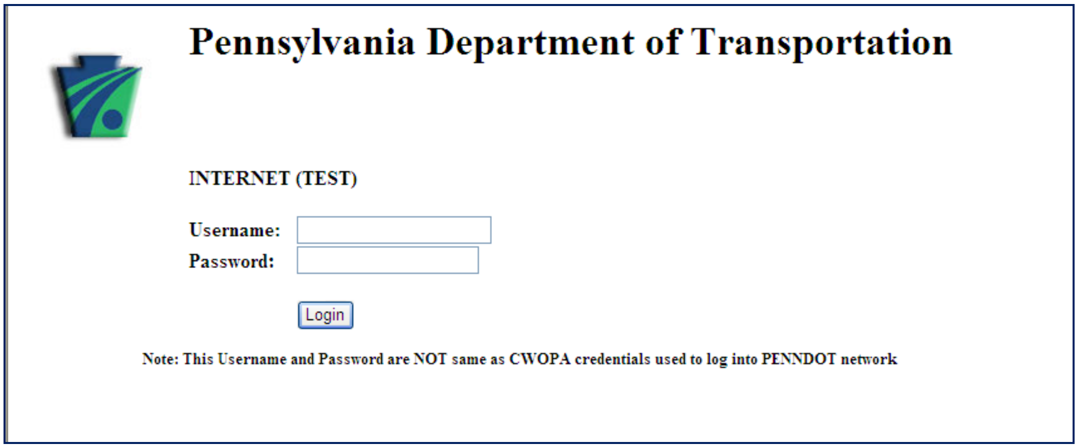


Figure 2: Login Page

User Login / Logout

User Login

> *The system will lock the account upon five unsuccessful login attempts during a single session. Contact the **LPN HELP DESK** at **717-525-5458** between the hours of 8 a.m. and 4 p.m., Monday through Friday, to reactivate the user account.*

1. Access the application
2. System displays the ***Start Page***
3. Click on the *Login* link at the upper right corner of the screen.
4. System displays ***Login Page***
5. Enter your **USERNAME** and **PASSWORD**
6. Click on Login
7. System validates the data entries
8. If any validation errors occur, the System displays an error message

> *Login cannot proceed with validation errors.*

9. Correct validation errors and retry *Login* if necessary
10. When there are no validation errors, the System displays the ***Home Page*** with the appropriate links and views based on user role permissions

> *Further information on the **Home Page** is provided in **Chapter 4** of the **User's Guide**.*

User Logout

1. Click on the *Logout* link at the upper right corner of the screen
2. System displays the ***Start Page*** with the ability to log in again

User Registration

The ***User Registration*** allows Process Leads to assign users to roles within each MPO/RPO region. Once assigned, users will have the ability to access the LPN application and perform duties commensurate with the permissions of their assigned roles. Only registered users can access the System and work with the various forms.

New Process Lead users must contact the ***LPN Forms Help Desk*** *at* ***717-525-5458*** *to be registered into the System.*

User profile information is required to access the LPN application and to successfully create, submit and review forms.

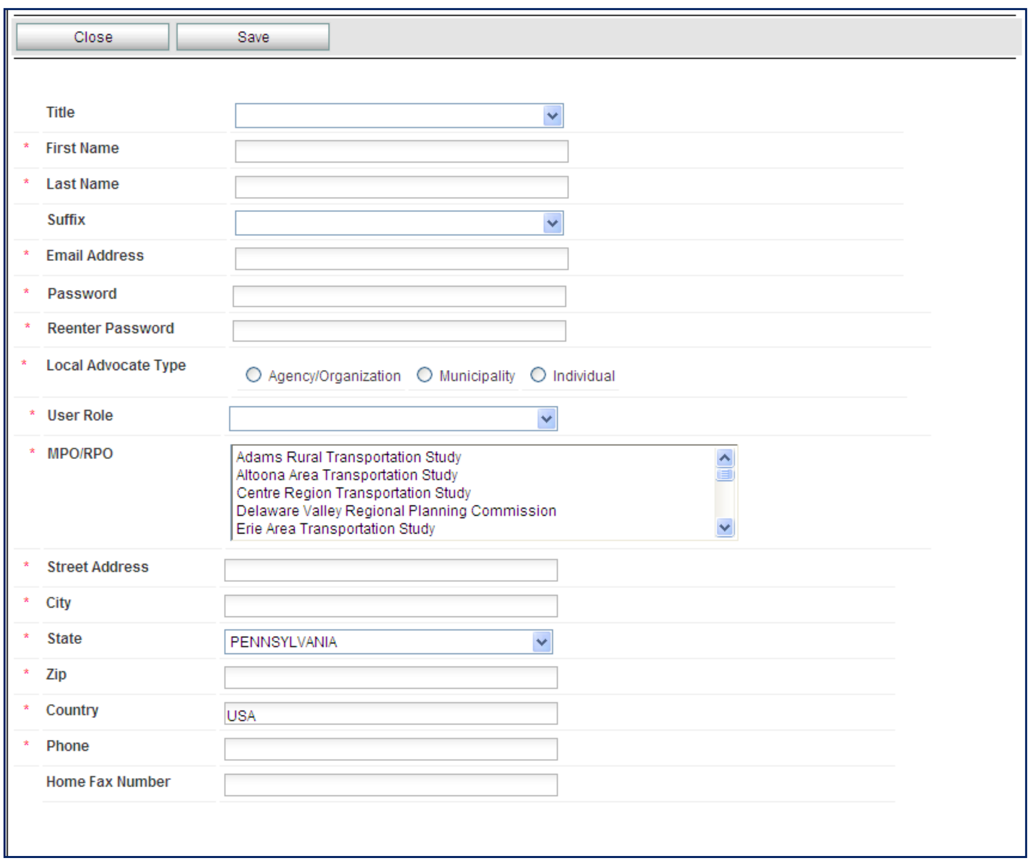


Figure 3: User Registration Window

All required data will be marked with a red asterisk (*****).

Only a Process Lead User or the LPN Forms Help Desk can register and delete users from the System.

***EMAIL ADDRESS** must be unique within the application registration. If an **EMAIL ADDRESS** is a duplicate, either enter a different email address or proceed to the **Login Page**.*

***PASSWORDS** must be a minimum of six (6) characters and can be any combination of letters, numbers and special characters, but must contain at least one (1) number, one (1) lowercase letter, and one (1) uppercase letter. **PASSWORDS** are case sensitive.*

*The following special characters are not allowed to be used in a **PASSWORD:** Period (.), Tilde (~), Less-Than (<), Arobase (@), Equals (=), Colon (:), Single Quote ('), Double Quote ("), or Pipe (|).*

New User Registration Process

1. Click on the *User Registration* link under Administration at the bottom of the ***Left Navigation Pane***
2. Click on [New Registration] at the top of the screen
3. Select the **TITLE** of the new user from the drop-down menu
4. Type the ***FIRST NAME*** of the new user
5. Type the ***LAST NAME*** of the new user
6. Select the **SUFFIX** for the user, if applicable
7. Type the ***EMAIL ADDRESS*** of the new user
8. Type the ***PASSWORD*** of the new user
9. ***REENTER PASSWORD*** of the new user
10. Select the ***LOCAL ADVOCATE TYPE*** *(Agency/Organization, Municipality or Individual)* identifying the type of stakeholder
    - If **AGENCY/ORGANIZATION** is selected, the system will display **ADVOCATE NAME** and a text box; type the name of the agency or organization the Advocate represents
    - If **MUNICIPALITY** is selected, the system will display drop-down menus for **COUNTY** and **MUNICIPALITY**; select the appropriate county and municipality from the respective drop-down menus

- If **INDIVIDUAL** is selected, the user is a stakeholder that is not representative of an agency/organization or municipality

11. Select the appropriate ***USER ROLE*** from the drop-down menu *(Planner, Reviewer, Stakeholder, Viewer)*
12. Select the appropriate ***MPO/RPO*** from the list
13. Type the ***STREET ADDRESS*** of the new user
14. Type the ***CITY*** of the new user
15. Select the ***STATE*** of the new user from the drop-down menu
16. Type the ***ZIP CODE*** of the new user
17. Type the ***COUNTRY*** of the new user
18. Type the 10-digit ***PHONE*** number of the new user
19. Type the 10-digit **HOME FAX NUMBER** of the new user, if available
20. Click on [Save] at the top of the screen to submit the registration request

The phone number provided in this section should correspond to the number at which the user (Advocate) can be reached during regular business hours. The email address provided in this section will be used to notify the user (Advocate) of all form reviews and processing statuses.

The system will auto-populate the remaining contact information with data from the User registration.

Delete User

The Process Lead can delete Users from the System through the ***User Registration*** page.

1. Click on the *User Registration* link under Administration at the bottom of the ***Left Navigation Pane***
2. Check the box next to the user(s) to be deleted from the System
3. Click on [Delete] at the top of the screen

Change Profile or Password

Users have the opportunity to change their profiles or passwords at any time.

Change Profile or Password

All required data will be marked with a red asterisk (*****).

Email Address *must be unique within the application registration. If an* ***Email Address*** *is a duplicate, either enter a different email address or proceed to the* ***Login Page****.*

1. Log in to the application
2. System displays the ***Home Page***
3. Click on the *My Account* link under Account Details at the bottom of the ***Left Navigation Pane***
4. System displays the ***My Profile*** window
5. Click on Edit
6. Update the appropriate data fields

Passwords *can be changed by typing a new password in the* **Password** *text box. Passwords must be a minimum of six (6) characters. Passwords can be any combination of letters, numbers and special characters, but must contain at least one (1) number, one (1) lowercase letter, and one (1) uppercase letter.* ***Passwords*** *are case sensitive.*

The following special characters are not allowed to be used in a ***Password:*** *Period (.), Tilde (~), Less-Than (<), Arobase (@), Equals (=), Colon (:), Single Quote ('), Double Quote ("), or Pipe (|).*

7. Click on Save; the system validates the data entries
8. If any validation errors, the system will mark each error for correction

Profile change cannot proceed with validation errors.

9. Correct validation errors and select Save, if necessary
10. When there are no validation errors, the system saves your change and displays the ***My Profile*** window

3. COMMON FUNCTIONS

Overview

This section describes some basic application functions and processes that are similar across all forms within the application.

Expand and Collapse

On many of the views in the LPN System, there are buttons at the top that allow you to expand or collapse the current view. Click on the Expand All button to see more detail; click on the Collapse All button to see less detail.

Likewise, each section of a form in View mode can be expanded or collapsed (the default is "expanded"). Select ▶ to expand a section, or select ▼ to collapse a section.

Export All

From most of the views in LPN, you can export **all** forms in that view by clicking on the Export All button at the top of the window. This sends data regarding all forms to an Excel spreadsheet (regardless of what forms are showing in your view), where you can sort and manipulate the data any way Excel allows. The forms you see are dependent on your security rights.

> *The P/L icons mean "Parent" or "Lead." These indicate linked forms. In the views, these are represented by a* P *or an* L *. In the Excel spreadsheets, these are represented by P (Contiguous) or L (Non-contiguous).*

Selection Windows

Selection windows are pop-up windows that appear to allow the user to select data or other options relevant to the associated procedure. Each window will provide choice selections, and:

Save or OK to save selected choices

Cancel or Close to return to the previous step without saving any data

Notification Emails

The system automatically generates notification emails to the Process Leads each time modifications are saved to a form, and when a form status changes. Various other users also receive notification emails that request feedback or edits, and review of screening forms.

At a minimum, the notification emails will contain the following:

- the level of the form
- the LPN tracking number

- the last action taken (i.e., created, reviewed, modified, updated, submitted)
- a *link* to directly access the form

> *Users may choose to add* [*LPN@pa.gov*](mailto:LPN@pa.gov) *to their email contacts in order to prevent system-generated email notifications from being delivered to junk email folders.*

Form Audit Trail

After the initial creation and submission of a Level 1 or a Level 2 Form, all subsequent form reviews will contain a tab at the top of the form to provide authorized users (Process Leads, Planners and Reviewers) access to the form's audit trail. The Audit Trail tab contains history records that identify the user and timestamps for modifications, notifications and status changes related to the form.

Figure 4: Audit Trail

View Audit History

1. Click on the appropriate *View Link* to access the form of interest in the ***Left Navigation Pane*** of the ***Home Page***; the system displays the ***Forms List*** page listing all forms relevant to the selected *View Link*

> *Further details on the* ***Forms List*** *are described in* ***4.3 View Forms List*** *in the* ***User's Guide****.*

2. Click on the *Created Date* or *Tracking Number* link of the form to be viewed; the system displays the form in the ***View*** mode
3. Click on the **AUDIT TRAIL TAB** at the top of the form; the system displays the audit history for that particular form

Edit Forms

A form can be edited by the Advocate if it has been saved but not yet submitted. The Process Lead can edit a form at any time by clicking on the Edit button of a form.

1. Click on the *My Drafts* link under My Screening Forms in the ***Left Navigation Pane*** and select the form to be edited (or click on the link in the notification email regarding the desired form); the system displays the form in the ***View*** mode

> *When you open a form by clicking on the link in a notification email, the form opens in **Edit** mode.*

2. Click on [Edit] ; the system displays the form in the ***Edit*** mode
3. Edit the form by following the applicable steps in ***Data Entry*** associated with the appropriate form level *(see Chapters **5**, **6**, and **7** of the User's Guide)*
4. Click on [Save] to save the form for further editing at a later time, or click on [Submit] to submit the form for review and processing

The system will:

- Update the **AUDIT TRAIL** with the appropriate action taken
- Send a notification email to the Advocate and the Process Lead indicating the form is ready for review and processing

Print Forms

Users have the ability to print completed forms for history files.

Print Forms to Printer

1. Open a ***Forms List*** page as outlined in **Chapter 4 of the *User's Guide***
2. Click on the *Created Date* or*Tracking Number* link of the form to view; the system displays the form in ***View*** mode
3. Select [Print] at top of form; the system displays the MS Word ***Print*** window
4. Select a printer
5. Select [Print] ; the system prints the form

> *Print forms in landscape orientation for optimal viewing.*

Print Forms to PDF

> *An alternative to printing to a printer is to print to an Adobe PDF Converter set up as a printer, if available. This action will create a PDF document to save on a local drive or network for subsequent viewing and printing. Open PDF documents with Acrobat or Adobe Reader 6.0 and later.*

1. Open the ***Forms List*** page as outlined in **Chapter 4 of the *User's Guide***
2. Select the *Created Date* or *Tracking Number* link of the form to view; the system displays the form in the ***View*** mode
3. Select Print at top of the open form; the system displays the MS Word ***Print*** window
4. Select the Adobe PDF Converter, normally set up as **ADOBE PDF** printer; the system displays the MS Windows ***Save PDF File As*** window
5. Rename the form, if necessary
6. Select a path to save the form locally
7. Select Save to save the form locally; the system displays the form as a PDF file for viewing or printing

Search

A user can initiate a "Simple Search" from any view if they are looking for forms that contain a text value by using the Search text box in the upper left corner of any screen. An "Advanced Search" allows the user to specify more criteria by which to narrow their search. Either method of searching looks at all form levels (unless otherwise specified in the Advanced Search). Search results are dependent on the user's security rights, meaning they should only see the forms that are in their district or region.

Due to server processing, newly created or edited forms will not be available to be searched for approximately 10 minutes.

Each form level has its own "searchable" fields. These are listed below. If the specified value exists in a field other than those listed here, a search result will not be returned for that value.

Level 1 fields that are searched:

Created By	**Proposal Advocate**	**First Name**	**Last Name**	**Email**	**County(ies)**	**Municipalitiy(ies)**
MPO/RPO(s)	**PennDOT District(s)**	**Location**	**Transit issue with following provider(s)**	**Transit issue description**	**Proposal title**	**Problem Description**
1.4.a Land Use/Economic Development	**1.4.b Environmental Concerns**	**1.5 Funding Sources**	**Reviewer**	**Status**	**Numeric Tracking Number (with no leading 0's: "789")**	**LPN String Tracking Number ("LPN000789")**

Level 2 fields that are searched:

Created By	**Status**	**Numeric Tracking Number (with no leading 0's: "789")**	**LPN String Tracking Number ("LPN000789")**	**Proposal Advocate**	**MPMS Project Number**	**First Name**
Last Name	**Email**	**County(ies)**	**Municipality(ies)**	**MPO/RPO(s)**	**PennDOT District(s)**	**Proposal title**
Purpose	**Need(s)**	**Location**	**Transit issue with following provider(s)**	**Transit issue description**	**Screening Type**	**State Route Number**
Street Name	**Bridge ID**	**Bridge Key**	**Bridge Location**	**Feature Intersected (in Release 7)**	**2.7.c If Yes, name of Rail Operators**	**Proposal Summary**

Level 3 fields that are searched:

Created By	**Status**	**Numeric Tracking Number (with no leading 0's: "789")**	**LPN String Tracking Number ("LPN000789")**	**Proposal Advocate**	**MPMS Project Number**	**First Name**
Last Name	**Email**	**County(ies)**	**Municipality(ies)**	**MPO/RPO(s)**	**PennDOT District(s)**	**Location**
Transit issue with following provider(s)	**Transit issue description**	**If Yes, describe source and conclusion***	**Proposal title**	**Purpose**	**Need(s)**	**3.6 Potential Solutions Review**
3.7 Conceptual Engineering Review	**Identify all known earmarked or targeted sources**					

* This is in answer to the question, "Separate needs documentation exists?" at the end of Section 3.1.

Simple Search

Use this option when you are looking for words or numbers that exist within a form's searchable fields.

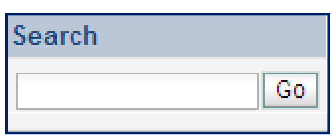


Figure 5: Simple Search Text Box and Go Button

1. From anywhere in the system, click in the Search text box
2. Type the word or number you are looking for

> *Certain numbers must be entered exactly as they exist in the system in order to get results. For example, if you are looking for a State Route number, you must enter leading 0's when necessary. Conversely, a tracking number can be entered as "LPN" followed by six digits (LPN000123), or as just the identifying digits (123). However, a partial entry (such as 123) will return forms that contain that number in any searchable field, not just in the Tracking Number field.*

3. Click on the Go button

The system will:

- Display your search criteria above the search results list
- Return a list of forms that meet the specified criteria
- Filter the search results to match your security rights
- Reset the Search text box to default

SEARCH

Search results for query *'underpass'*

Search Result Previous 1 Next

Date	Level	LPN No	Status	Proposal Title	P/L	Location	Districts	Counties	Municipalities	MPO/RPO
10/5/11	1	LPN000166	Awaiting Review			Greenfield Road	08	Lancaster	East Lampeter 2Twp	Lancaster
8/12/11	1	LPN000054	Awaiting Review			Milroy Rd (SR 2019)	08	Dauphin	Swatara 1Twp	Harrisburg
12/1/11	2	LPN000419	Draft			US 6N Springfield Twp RR Underpass	01	Erie	Springfield 2Twp	Erie
10/21/11	2	LPN000278	Recommended to LRTP/TIP			US30, Turnpike Underpass Recon - PA31 to SR4022 (MPMS #90236)	09	Bedford	Napier 2Twp	S. Alleghenies

Figure 6: Simple Search Results List

Special Characters

In addition to entering the word or number you are looking for, you can use special characters to narrow or broaden your search as needed. Here are the special characters and an example of how to use each one:

Special Character	Enter:	Get:
AND	crosswalk AND intersection	All forms that contain **both** words in its searchable fields
OR	crosswalk OR intersection	All forms that contain **either** word in its searchable fields
NOT	crosswalk NOT intersection	All forms that contain the first value but **not the second value** in its searchable fields
*	mi*	All forms that contain any words that start with "mi" (Mike, Michael, mile, etc.)

?	??st	All forms that contain any three- or four-letter word that ends with the letters that follow the ?s (East, West, best, etc.)
" "	"ride sharing is not possible"	All forms that contain that **exact phrase**

Sorting Search Results

Once the system has returned search results for your query, you can click on any of the field labels to sort the results by that label. The first time you click on a field label, the system will sort the results in ascending order; the second time you click on a field label, the system sorts in descending order. If you click on the same field label a third time, the original sort is restored.

Advanced Search

Use this option when you are using more specific search criteria to narrow your search.

1. From anywhere in the system, click on the *Advanced Search* link at the top of the ***Left Navigation Pane***; this accesses the Advanced Search screen

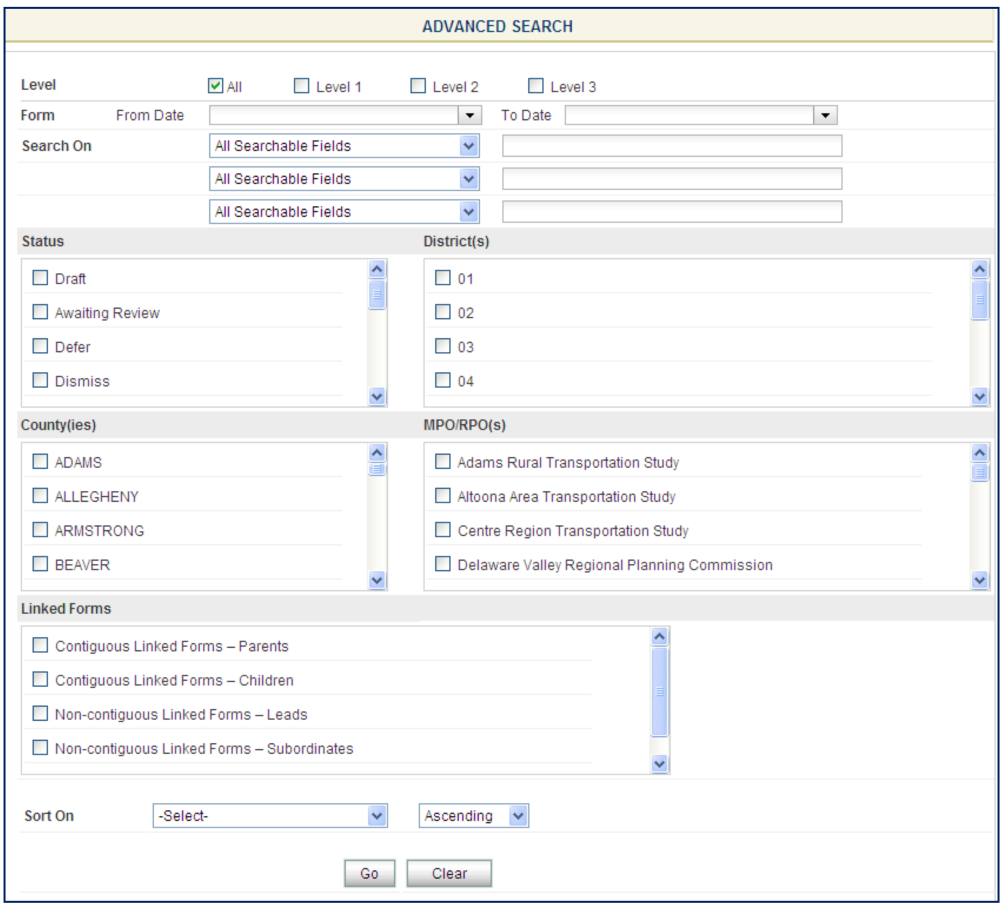


Figure 7: Advanced Search Screen, Administrative View

2. Make the desired selections and entries by which to search

> *If you make **no** selections in a particular field, the system will search for all values in that field. For example, if you do not specify a status, the system will search for forms in all statuses.*

- Level – Select the form level(s) you wish to search in by clicking in the appropriate Level checkbox(es), or leave the default of "All"
- From Date – Choose a start date from the drop-down calendar; this is the date on which forms were created
- To Date – Choose an end date from the drop-down calendar; this is the date on which forms were created

> *Once you have chosen a From Date, the system will not allow you to choose a To Date that is earlier than the From Date.*
>
> *A blank To Date field assumes the current date, so you can leave the To Date field blank if you want the system to search forms that were created up to and including today.*

- Search On – Select a field from a drop-down list if you do not want the system to search ALL searchable fields, and enter the value you wish to search for in the corresponding text box; you can specify up to three fields or values

> *If you choose to search on more than one Search On field, the system will look for each particular value in its corresponding field. The forms that appear in your search results list will contain one of the values in its corresponding Search On field. For example, if you are looking for Last Name = Smith and Last Name = Jones, you will get forms that contain Smith OR Jones in the Last Name field.*
>
> *Likewise, if you are looking for the word "crosswalk" in the Purpose field and "intersection" in the Needs field, you will get forms that contain "crosswalk" in the Purpose field OR "intersection" in the Needs field.*

- Status – Select the status(es) you wish to search for
- District(s) – Select the district(s) you wish to search for
- County(ies) – Select the county(ies) you wish to search for
- MPO/RPO(s) – Select the MPO/RPO(s) you wish to search for
- Linked Forms – Select the type of linked form you wish to search for; types are Parents, Children, Leads, Subordinates and No Linked Forms

- Sort On – Select a field by which to sort results on and select "Ascending" or "Descending" from the corresponding drop-down (if you do not choose a Sort On value, the search results will be sorted by Created Date in descending order)

3. Click on the Go button

The system will:

- Display your search criteria above the search results list
- Return a list of forms that meet the specified criteria, sorted by Created Date unless otherwise specified
- Filter the search results to match your security rights

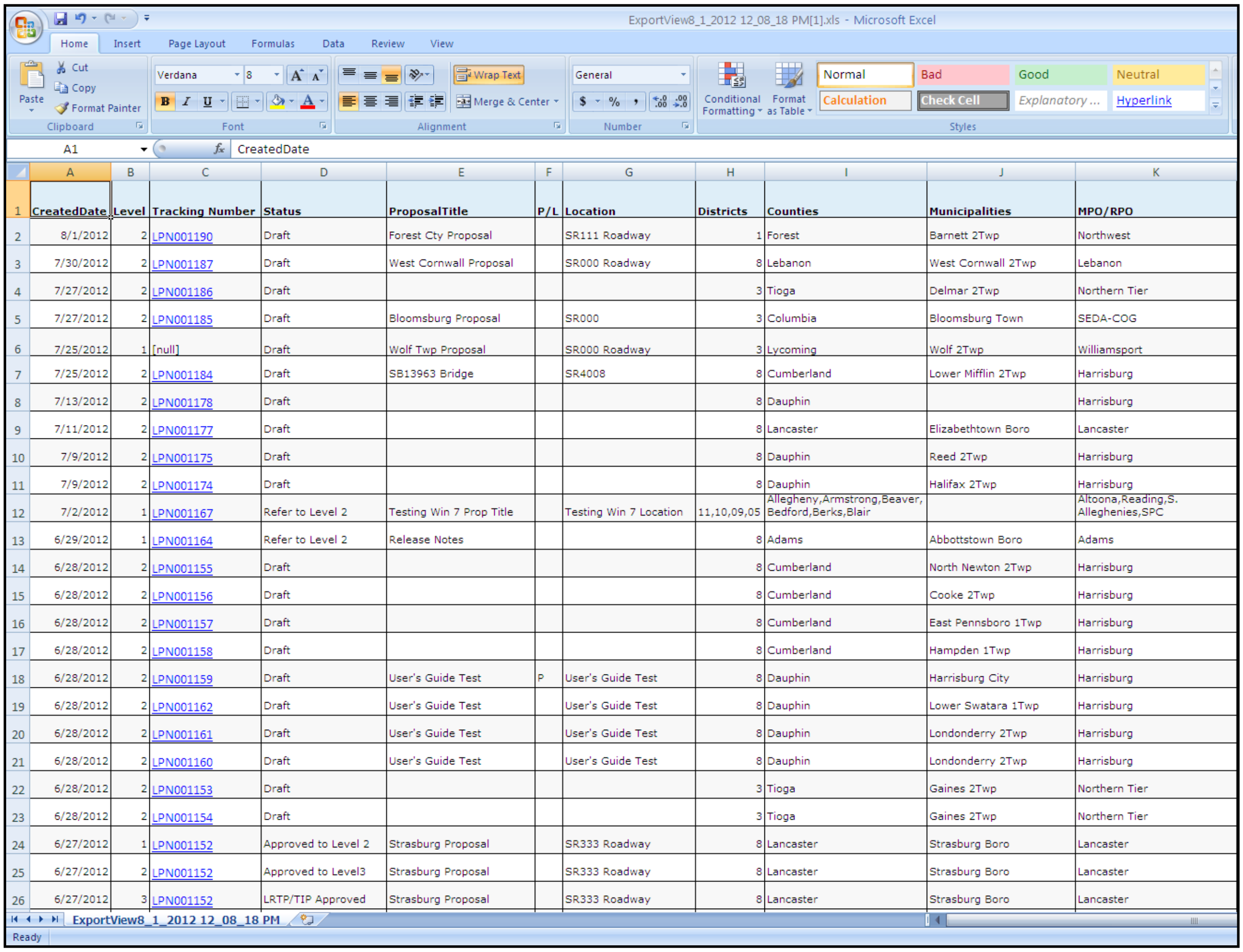
> *You cannot begin a new search by clicking on the Back button of your Internet browser from the Search Results page. You must click on the Back button at the top of the Search Results page to conduct a new search using your previously entered criteria.*
>
> *The system retains your advanced search results until you click on the Clear button on the Search Results page. So, if you navigate to another view or function on the toolbar, then click on the Advanced link to conduct another search, you will see your previous results list. Click on the Clear button to start a new search on a blank Advanced Search screen.*

Export Advanced Search Results

You can export your advanced search results list to Excel for further examination. The Excel spreadsheet will include the same fields in the same order as the default Search Results list. Sorting your search results (by clicking on a field label) before you click on the Export button does not change the field order on the spreadsheet. In Excel, however, you can sort and manipulate the data any way Excel allows.

Clicking on a tracking number link will open that form in a new tab. You can edit, save and close the forms as normal, but you need to close the new tab (by clicking on its X) to return to your original LPN view.

1. From the Advanced Search Results list, click on Export to Excel; this returns the ***File Download*** window
2. Click on Open; this launches Excel and returns a verification window asking you if you want to open the file
3. Click on Yes; the system displays your search results list in an Excel spreadsheet *(see example on next page)*



CreatedDate	Level	Tracking Number	Status	ProposalTitle	P/L	Location	Districts	Counties	Municipalities	MPO/RPO
8/1/2012	2	LPN001190	Draft	Forest Cty Proposal		SR111 Roadway	1	Forest	Barnett 2Twp	Northwest
7/30/2012	2	LPN001187	Draft	West Cornwall Proposal		SR000 Roadway	8	Lebanon	West Cornwall 2Twp	Lebanon
7/27/2012	2	LPN001186	Draft				3	Tioga	Delmar 2Twp	Northern Tier
7/27/2012	2	LPN001185	Draft	Bloomsburg Proposal		SR000	3	Columbia	Bloomsburg Town	SEDA-COG
7/25/2012	1	[null]	Draft	Wolf Twp Proposal		SR000 Roadway	3	Lycoming	Wolf 2Twp	Williamsport
7/25/2012	2	LPN001184	Draft	SB13963 Bridge		SR4008	8	Cumberland	Lower Mifflin 2Twp	Harrisburg
7/13/2012	2	LPN001178	Draft				8	Dauphin		Harrisburg
7/11/2012	2	LPN001177	Draft				8	Lancaster	Elizabethtown Boro	Lancaster
7/9/2012	2	LPN001175	Draft				8	Dauphin	Reed 2Twp	Harrisburg
7/9/2012	2	LPN001174	Draft				8	Dauphin	Halifax 2Twp	Harrisburg
7/2/2012	1	LPN001167	Refer to Level 2	Testing Win 7 Prop Title		Testing Win 7 Location	11,10,09,05	Allegheny,Armstrong,Beaver, Bedford,Berks,Blair		Altoona,Reading,S. Alleghenies,SPC
6/29/2012	1	LPN001164	Refer to Level 2	Release Notes			8	Adams	Abbottstown Boro	Adams
6/28/2012	2	LPN001155	Draft				8	Cumberland	North Newton 2Twp	Harrisburg
6/28/2012	2	LPN001156	Draft				8	Cumberland	Cooke 2Twp	Harrisburg
6/28/2012	2	LPN001157	Draft				8	Cumberland	East Pennsboro 1Twp	Harrisburg
6/28/2012	2	LPN001158	Draft				8	Cumberland	Hampden 1Twp	Harrisburg
6/28/2012	2	LPN001159	Draft	User's Guide Test	P	User's Guide Test	8	Dauphin	Harrisburg City	Harrisburg
6/28/2012	2	LPN001162	Draft	User's Guide Test		User's Guide Test	8	Dauphin	Lower Swatara 1Twp	Harrisburg
6/28/2012	2	LPN001161	Draft	User's Guide Test		User's Guide Test	8	Dauphin	Londonderry 2Twp	Harrisburg
6/28/2012	2	LPN001160	Draft	User's Guide Test		User's Guide Test	8	Dauphin	Londonderry 2Twp	Harrisburg
6/28/2012	2	LPN001153	Draft				3	Tioga	Gaines 2Twp	Northern Tier
6/28/2012	2	LPN001154	Draft				3	Tioga	Gaines 2Twp	Northern Tier
6/27/2012	1	LPN001152	Approved to Level 2	Strasburg Proposal		SR333 Roadway	8	Lancaster	Strasburg Boro	Lancaster
6/27/2012	2	LPN001152	Approved to Level3	Strasburg Proposal		SR333 Roadway	8	Lancaster	Strasburg Boro	Lancaster
6/27/2012	3	LPN001152	LRTP/TIP Approved	Strasburg Proposal		SR333 Roadway	8	Lancaster	Strasburg Boro	Lancaster

Figure 8: Exported Search Results

4. HOME PAGE

Overview

The ***Home Page*** is the landing page for users accessing the application after successfully logging in to the application. It provides a starting point for creating and viewing LPN forms, and displays basic information for getting started.

The ***Left Navigation Pane*** provides quick access to categorized content in a horizontally compact display space, organized by My Screening Forms, Activity, Reports, Forms, Account Details and Administration. Users have access to the links in the ***Left Navigation Pane*** based on user type permissions.

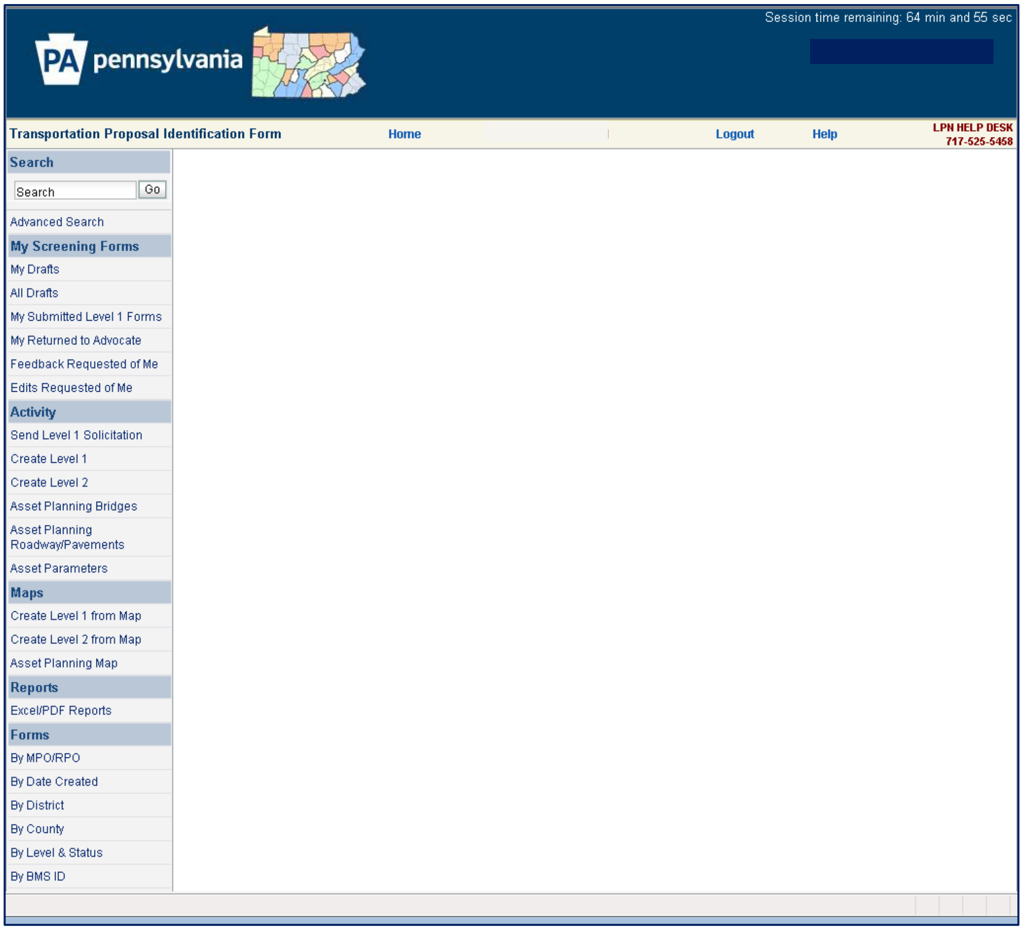


Figure 9: Process Lead Home Page

Relevant Links and Navigation

Top Navigation Bar Links

The top navigation bar provides quick access to application processes.

Top Navigation Bar Link	Purpose
✓ Home	Navigate back to the ***Home Page*** from any page or form
✓ Logout	Log out of the application and return to the ***Start Page***
✓ Help	Access *User's Guide* instructions on how to use the application

Left Navigation Pane – My Screening Forms, Activity and Reports

The ***Left Navigation Pane*** provides the organizational structure to initiate, create, manage and access forms. Several links are provided for the user to efficiently navigate through the system; the links a user has access to depends on their user role (Process Lead, Planner, Reviewer, Stakeholder or Viewer).

The ***Left Navigation Pane*** provides links to create and view drafts, view user-based feedback and edit requests, and view reports. The ***Left Navigation Pane*** also provides Process Leads and Planners with access to the Asset Planning tools. The following tables identify which ***Left Navigation Pane*** links are available to each user role:

Left Navigation Pane Link	User Role				
	Process Lead	Planner	Reviewer	Stakeholder	Viewer
My Screening Forms					
My Drafts	✓	✓	✓	✓	
All Drafts	✓	✓			
My Submitted Level 1 Forms	✓	✓	✓	✓	
My Returned to Advocate	✓	✓	✓	✓	
Feedback Requested of Me	✓	✓	✓		
Edits Requested of Me	✓	✓			
Activity					
Send Level 1 Form Solicitation	✓				
Create Level 1	✓	✓	✓	✓	
Create Level 2	✓				
Asset Planning Bridges	✓	✓			

Left Navigation Pane Link	User Role				
	Process Lead	Planner	Reviewer	Stakeholder	Viewer
Asset Planning Roadway/Pavements	✓	✓			
Maps					
Create Level 1 from Map	✓	✓	✓	✓	
Create Level 2 from Map	✓				
Asset Planning Map	✓	✓			
Reports					
Crystal Reports	✓				

Left Navigation Pane – Forms

The ***Left Navigation Pane*** provides links to view all levels of saved forms by category. The forms in each category are sorted by the category name, and include links to each tracking number listed in that view.

Left Navigation Pane Link	User View				
	Process Lead	Planner	Reviewer	Stakeholder	Viewer
Forms					
By MPO/RPO	✓	✓	✓		✓
By Date Created	✓	✓	✓		✓
By District	✓	✓	✓		✓
By County	✓	✓	✓		✓
By Level & Status	✓	✓	✓		✓
By BMS ID *	✓	✓	✓		✓
By SR **	✓	✓	✓		✓
All Feedback Requested	✓				
All Feedback Submitted	✓				
All Edits Requested	✓				
All Edits Submitted	✓				

Left Navigation Pane Link	User View				
	Process Lead	Planner	Reviewer	Stakeholder	Viewer
Reviews by Level & Status	✓	✓	✓		✓
By Link Status	✓	✓	✓		✓

** Bridge ID Number*
*** State Route Number*

Left Navigation Pane – Account Details and Administration

The ***Left Navigation Pane*** includes account management and user registration links. User registration access is restricted to Process Leads.

Left Navigation Pane Link	User View				
	Process Lead	Planner	Reviewer	Stakeholder	Viewer
Account Details					
My Account	✓	✓	✓	✓	✓
Administration					
User Registration	✓				

The *My Account* link contains the profile information of the user. The user can update their profile information through this link. The *User Registration* link provides the user with a list of user names and the associated email address, user role, advocate type, and advocate name for all users within their MPO/RPO region. The Advocate (Stakeholder, Planner or Reviewer) is responsible for completing and submitting the Level 1 Form, and remains the principal contact throughout the Problem Identification and Proposal Initiation steps of the Project Delivery Process. The user list can be sorted by user role by clicking on the column header. Process Leads can register new users (Stakeholders, Planners, Reviewers, and Viewers), and delete existing users within their assigned region.

View Forms Lists

The **FORMS LIST** displays all relevant forms matching the filter of the selected view. The forms list can be sorted by clicking on the column header (click once to sort in ascending order, again to sort in descending order, and a third time to return to your original view).

Select the My Drafts link for forms that you have saved but not yet submitted. Level 1 drafts do not have tracking numbers.

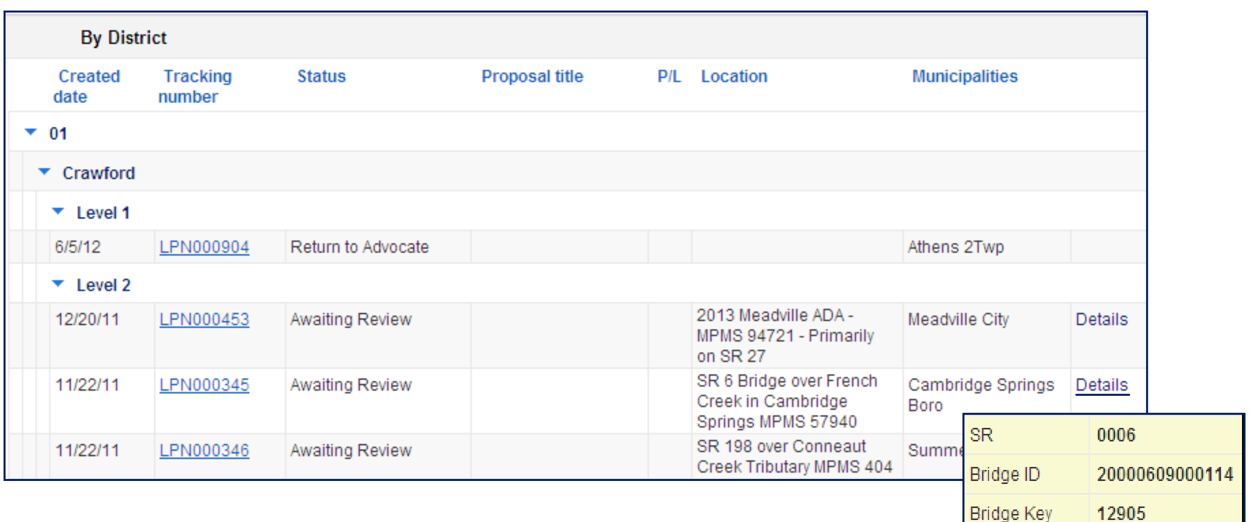
View a Forms List

1. Click on a View link in the ***My Screening Forms*** or ***Forms*** sections of the left menu bar; depending on which view you choose, you will see either an expanded list of forms or a collapsed list of categories that correspond to the view name
2. If you are on a collapsed view, click on one of the categories; the system displays a list of forms and sorts them based on the selected view
3. Scroll through the list to see all relevant forms

On the views in the Forms section of the left menu bar, line items for Level 2 forms feature a "Details" link. When you hover your mouse over the word "Details," a mouse-hover box will be displayed (see Figure 10 below). For roadway forms, this box shows the State Route (SR) number (Bridge ID and Bridge Key will be blank). For bridge forms, this box shows SR, Bridge ID and Bridge Key.

The values in the hover box are pulled directly from the Screening Type section of the form. If a hover box field is unexpectedly blank, check the form for roadway and/or bridge details.

Move your mouse away from the word "Details" to hide the hover box.



By District

Created date	Tracking number	Status	Proposal title	P/L	Location	Municipalities	
01							
Crawford							
Level 1							
6/5/12	LPN000904	Return to Advocate				Athens 2Twp	
Level 2							
12/20/11	LPN000453	Awaiting Review			2013 Meadville ADA - MPMS 94721 - Primarily on SR 27	Meadville City	Details
11/22/11	LPN000345	Awaiting Review			SR 6 Bridge over French Creek in Cambridge Springs MPMS 57940	Cambridge Springs Boro	Details
11/22/11	LPN000346	Awaiting Review			SR 198 over Conneaut Creek Tributary MPMS 404	Summe	

SR	0006
Bridge ID	20000609000114
Bridge Key	12905

Figure 10: "Details" Hover Box, in By District view

View an Individual Form

1. Open a list of forms as described above
2. Use the expansion triangles (▶) as needed to see the desired level of detail
3. Click on the *Tracking Number* link of a form to open it

When you click on a Tracking Number link, the system opens the form in the same window. When you close the form, in most views, you are returned to a collapsed forms list. To maintain the expanded view you are on when you open a form, RIGHT-CLICK on the Tracking Number link and select "Open in New Window" (available in Internet Explorer 7 and later) or "Open in New Tab" (available in Internet Explorer 8 and later). To return to the expanded view you started from, close the window or tab.

5. LEVEL 1 FORM

Overview

The Level 1 Screening Form is used by an Advocate to describe a transportation problem and its related issues. Process Leads (outside of their designated MPO/RPO region), Planners, Reviewers and Stakeholders can assume the Advocate user role to submit a Level 1 Form upon solicitation from a Process Lead. The Level 1 Form is the first step in identifying transportation problems for inclusion in a MPO/RPO region's Long Range Transportation Plan (LRTP) and Transportation Improvement Program (TIP), and, therefore, the initial step in the Project Delivery Process. The Level 1 Form facilitates the identification of a known transportation problem and location, land use/economic context, and potential environmental concerns. This information provides the basis for collecting additional supporting data through the Level 2 Form (and Level 3 Form, if needed) to help evaluate the problem, develop preliminary purpose and needs statements, and identify potential solutions, including preliminary project scope, budget and schedule.

User Roles

Roles and Permissions

The PennDOT Central Office Program Managers and LPN Forms Help Desk have access to all forms. All other users have access only to certain functions of the Level 1 Form relevant to their roles.

Level 1 Form	Create	Move/ Manage	Edit/Update	Review/ Comment	View
Process Lead	✓	✓	✓	✓	✓
Planner	✓		✓	✓	✓
Reviewer	✓		✓	✓	✓
Stakeholder	✓		✓		✓
Viewer					✓

Available Statuses for Level 1 Forms

- Draft (saved by Advocate, but not submitted)
- Awaiting Review
- Defer
- Dismiss
- Refer to Maintenance
- Return to Advocate
- Refer to Level 2
- Approved to Level 2

Create a New Level 1 Form

You can initiate the form-creation process by opening a blank Level 1 Form and choosing Location information manually (Create Level 1), or by opening a GIS map and choosing assets that determine the proposal location (Create Level 1 from Map). For more information about map functionality, see Appendix D.

The Level 1 Form contains several sections to identify the location, and to describe the transportation problem. Relevant documentation can also be attached to the Level 1 Form. Not all sections/sub-sections or issues may be relevant, or need to be completed. Sub-sections with checkboxes allow multiple selections.

> *When the identified transportation problem relates to the maintenance of existing state-owned infrastructure, the Advocate is strongly encouraged to contact and work with their respective PennDOT District Office prior to completing a Level 1 Form.*

Send a Level 1 Form Solicitation

Process Leads can use the Level 1 Form Solicitation once they have determined that a Level 1 Form is necessary. This process generates an email that notifies the recipient(s) that creation of a Level 1 Form is being requested.

1. Select the *Send Level 1 Solicitation* link in the Activity section of the ***Left Navigation Pane*** of the Home Page (Process Leads only)
2. Click on To... in the Send Level 1 Form Solicitation screen
3. Select user(s) to receive the notification email by selecting the box next to the individuals from which you wish to solicit a Level 1 Form
4. Click on OK
5. Type a descriptive subject in the **SUBJECT** text box
6. Type detailed instructions in the text box below the **SUBJECT** text box to provide detailed instructions to the recipient(s) of the solicitation email
7. Click on Send; a dialogue window will appear, stating "You are about to send an email message to the selected recipients. Would you like to continue?"
8. Click on OK; the system generates a notification email to the identified user(s)

> *Stakeholders should only access the Level 1 Form after a Process Lead sends out a solicitation for a Level 1 Form submission. Stakeholders can obtain access to the system through a link provided in the email inviting them for participation.*

Create Level 1

(To create a Level 1 Form using the Location Level 1 Map, go here.)

1. To begin, click on the *Create Level 1* link in the ***Left Navigation Pane*** of the ***Home Page***; the system displays a blank ***Level 1 Screening Form***

> *All required data will be marked with a red asterisk (*) on the form, and will be highlighted in *red*, with asterisks, within the User's Guide.*

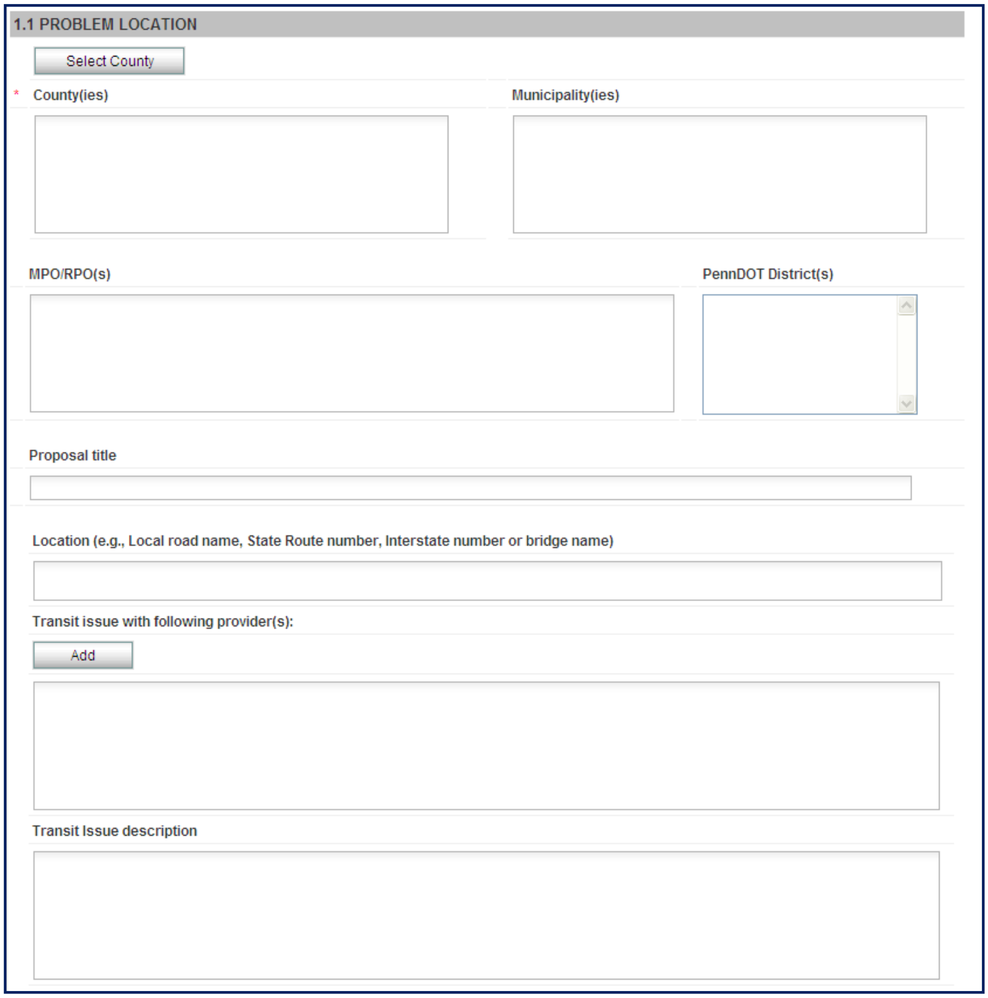


Figure 11: Section 1.1 Problem Location, in part

2. Click on Select County to select one or more counties and municipalities; the system will open the ***Select Counties and Municipalities*** window with an alphabetical listing of counties

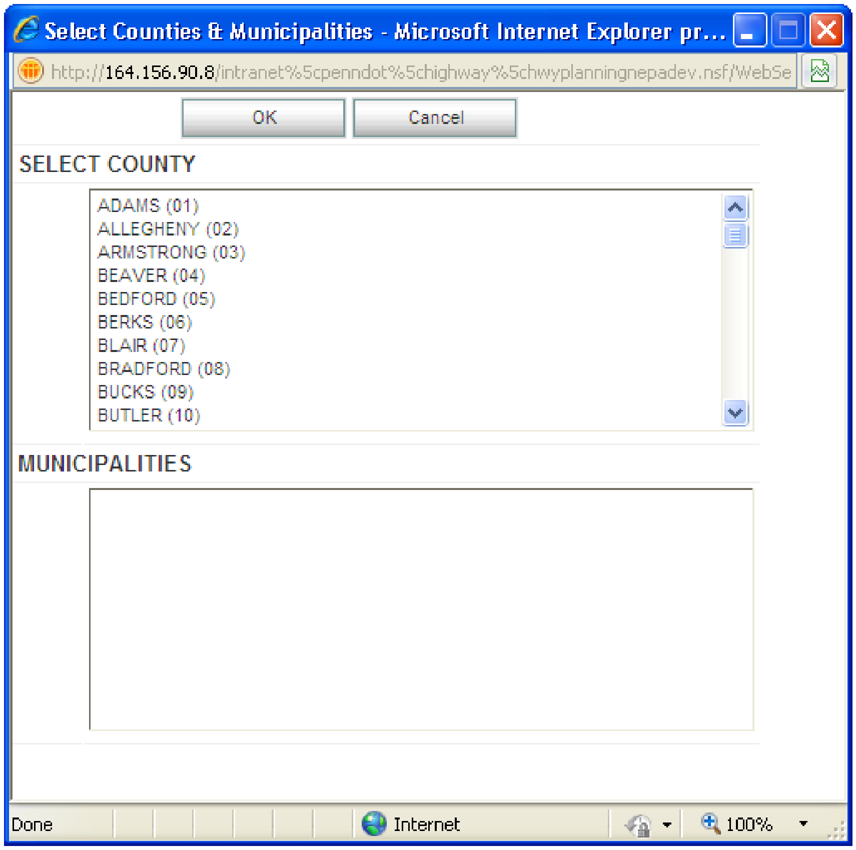


Figure 12: Section 1.1 Select Counties & Municipalities Window

3. Select one or more counties from the **SELECT COUNTY** selection box; the system will auto-populate the **MUNICIPALITIES** selection box with all the municipalities located in the selected county
4. Select all relevant municipalities from the **MUNICIPALITIES** selection box, if known

> *Select multiple **COUNTIES** or **MUNICIPALITIES** by holding down the keyboard* Ctrl *key while clicking on the desired values.*

5. Click OK to save the selections and close the selection window; the system will auto-populate the **MPO/RPO(S)** and **PENNDOT DISTRICT(S)** fields based on the selected counties and municipalities

Read Appendix D

Create Level 1 from Map

(To create a Level 1 form WITHOUT using the Location Level 1 Map, go here.)

1. To begin, select the *Create Level 1 from Map* link in the ***Left Navigation Pane*** of the ***Home Page***; the system opens a secondary window that displays a Location Level 1 Map for statewide users, or a Region field for regional users

> *Regional users will have to select an MPO/RPO from the Region drop-down list and click OK to access the appropriate map.*

2. If necessary, select an MPO/RPO from the drop-down list and click OK
3. Use the Zoom tools on the toolbar to zoom into an area on the map
4. Turn on the State Bridge and Local Bridge layers by clicking in each checkbox in the Map Legend and then on the Refresh button, if necessary
5. Click on the Spatial Search drop-down below the map and choose a tool (Polygon, Point or Begin/End)
6. Click on the Go button
7. Choose assets by:
    - Drawing a **polygon** around them (click at each point, double-click at the last point); the system creates an Asset Inventory of selected bridges and roadways below the map
    - Clicking on a **point** on the map; the system creates an Asset Inventory of that one point (its Latitude-Longitude coordinates)
    - Clicking on the **Start Segment** button and clicking on a segment on the map, and clicking on the **End Segment** button and clicking on a segment on the map, and clicking Go; the system creates an Asset Inventory of selected segments and bridges on those segments
9. Click in the checkbox(es) of the desired asset(s); *choose one bridge or one roadway*
10. Click on the Create Form(s) button; the system will indicate that form(s) have been created
11. Click on the red X of the secondary Location Level 1 Map window to close it
12. Use the views to navigate to your new Level 1 form

Whether you selected your location manually or by using the map, the remainder of the process is the same. Continue here:

Section 1.0 Proposal Contact Information

The **PROPOSAL CONTACT INFORMATION** will auto-populate with the user (Advocate) contact information previously submitted by a Process Lead on the ***User Registration*** page (see **User Registration** above). This is true of traditional forms, and of map-created forms. This information should be verified for accuracy by the Advocate. Advocates can edit and update their information on the ***User Registration*** page if the Proposal Contact Information section does not show accurate information.

Section 1.1 Problem Location

SECTION 1.1 PROBLEM LOCATION allows the Advocate to identify the general physical geographic location (County, Municipality, MPO/RPO and District) of the transportation problem or issue. It is important to be as accurate as possible in the completion of this section since this data will be used by the LPN System to auto-populate data fields in subsequent levels of screening forms.

The Advocate should enter a proposal title, which will be used to show a relationship to MPMS projects and to other LPN forms in the linking forms process. The entry of the local road name, state route number, interstate number or bridge name should provide as concise of a location description as possible. The transit provider should be identified, if applicable, followed by a description of the transit issue. This section also requires the Advocate to indicate whether the route or bridge of the problem location is included in the Federal Aid System and whether any known pre-work studies or preliminary design has begun.

1. Enter a **PROPOSAL TITLE**
2. Enter the **LOCATION** (name or route number) of the affected roadway or bridge
3. If the problem relates to a transit issue, click on [Add] located below the **TRANSIT ISSUE WITH FOLLOWING PROVIDER(S)** label
4. Select the appropriate transit provider(s) and click on [OK] to save the selection(s)

> *The system will auto-populate the **TRANSIT PROVIDER** list with all transit providers in the entire state. Advocates may want to contact their respective county planning agency to identify the appropriate transit provider, if unknown.*

5. Enter details regarding the transit issue in the **TRANSIT ISSUE DESCRIPTION** text box
6. Select the appropriate radio button *(Yes, No, Don't Know)* located beneath the question ***IS THIS ISSUE ON THE FEDERAL AID SYSTEM?*** to indicate whether the identified transportation problem is on Federal Aid System

> *Advocates may contact the Highway Performance Monitoring System (HPMS) Coordinator in their respective PennDOT District to determine if the roadway of the identified transportation problem is on the Federal Aid System.*

7. Select the appropriate radio button *(Yes, No, Don't Know)* located beneath the question ***HAS PRE-WORK SUCH AS STUDY OR PRELIMINARY DESIGN BEGUN?*** to indicate whether

the municipality has begun pre-work such as a study or preliminary design relevant to the identified transportation problem

> *Advocates may contact the MPO/RPO, PennDOT District, count(ies), or municipality(ies) identified in Section 1.1 for assistance in the identification of existing pre-work studies and/or preliminary design.*

Section 1.2 Problem Description/Justification

SECTION 1.2 PROBLEM DESCRIPTION/JUSTIFICATION of the Level 1 Form collects information to describe the transportation problem. This information is used to help develop the initial purpose and need for a solution, and helps inform the potential alternatives, or solutions, for the identified transportation problem. Select the appropriate checkboxes to identify the issues about the transportation problem under the sub-sections that apply to the problem you are describing on the form. Not all sections/sub-sections or issues may be relevant. Sub-sections with checkboxes allow multiple selections.

1. Select all relevant issues to help describe the transportation problem by clicking in the appropriate checkboxes
2. Deselect an issue, if necessary, by clicking in its checkbox a second time

> *If **OTHER** checkbox is selected within any sub-section, the system will display a text box to allow the user to type a description.*
>
> *The system will notify the PennDOT Bureau of Public Transportation upon submission of the Level 1 Form if any selections are made in **1.2.F TRANSIT, PEDESTRIAN & ALTERNATE TRAVEL MODES**.*

Section 1.3 Problem Description

The Advocate should provide a descriptive assessment of the problem or issue, expanding on the above selections or providing additional information.

1. Type a ***PROBLEM DESCRIPTION*** of the transportation problem, including specific details relative to the issues selected in **SECTION 1.2 PROBLEM DESCRIPTION/JUSTIFICATION**
2. Follow instructions under **Attachments** to attach related documents

Section 1.4.a Land Use/Economic Development

The Advocate should identify any relevant information relating to land use, economic development or community issues, including any known public discourse that may impact the identified transportation problem.

1. Type a description of any relevant land use, development, community issues, and/or known public discourse about the problem
2. Identify any municipalities contacted concerning the transportation problem or related issue
3. Follow instructions under **Attachments** to attach related documents

Section 1.4.b Environmental Concerns

The Advocate should identify any known environmental issues or concerns that are relevant to the identified transportation problem.

1. Type a description of the environmental concerns, including specific details relative to the issues selected in **SECTION 1.2 PROBLEM DESCRIPTION/JUSTIFICATION**
2. Follow instructions under **Attachments** to attach related documents

Attachments

The Advocate can attach supporting documentation to the Level 1 Form. Relevant photographs, renderings, plans, studies, meeting minutes and letters should be added to the form. At minimum, a map identifying the appropriate limits of the problem area should be added.

> *Accepted attachment formats include MS Word, MS Excel, PDF, and any standard Image file type. Maximum size of each attachment is 9MB.*

Add Attachments

1. Click on Add to upload any attachments that may assist in the review and processing the Level 1 Form; the system will open an ***Attachment*** window to browse for attachments

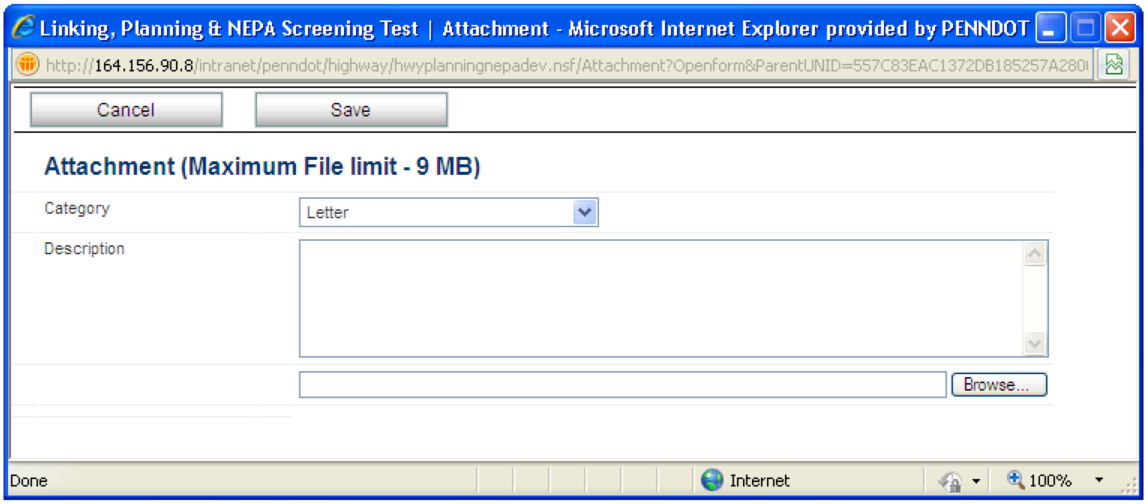


Figure 13: Attachment Window

2. Select a **CATEGORY** from the drop-down list that best describes the type of attachment to be uploaded
    - Letter
    - Map
    - Minutes
    - Photo
    - Study
    - Others
3. Type a **DESCRIPTION** of the attachment
4. Click on Browse... to open the Windows ***Choose File to Upload*** window and locate the attachment on the local hard drive or network
5. Select the attachment and click on Open to save the attachment path and return to the ***Attachment*** window
6. Click on Save to save the selected attachment; the system will add the specified attachment to the **ATTACHMENTS** section of the open form
7. Verify the attachment is listed in the attachment table of the Level 1 Form (you might need to click on Refresh to show the most current attachment listing)
8. Repeat as necessary for as many attachments as you want to add to the form

<u>Delete Attachments</u>

1. Select an attachment to delete from the Form by clicking in its corresponding checkbox
2. Click on Delete to delete the selected attachment; the system will display a ***Delete Attachment*** confirmation window
3. Click on OK to delete the selected attachment

4. Verify the specified attachment was removed from the list (you might need to click on Refresh to show the most current attachment listing)

> *Select multiple attachments by holding down the keyboard Ctrl key while clicking in the desired checkboxes.*
>
> *Select the checkbox located to the left of the* **LINK** *heading to select* *all* *attachments for deletion in one step.*

Section 1.5 Funding Sources

The Advocate should select one or more appropriate funding sources relative to the transportation problem, if known.

1. Select one or more agencies as **FUNDING SOURCES** *(Federal, State, County, Municipal, Private/Other)*
2. Type the description of all known funding sources including the funding agency, monies available, and associated years of money availability for the identified problem in the **IDENTIFY ALL KNOWN EARMARKED OR TARGETED SOURCES** text box

> *Users should contact the MPO/RPO for assistance in identifying potential funding sources.*

Submit Level 1 Form for Review and Processing

The Advocate must select the checkbox in the ***SUBMITTER'S AGREEMENT*** section to electronically sign the form and submit it for review. By selecting this checkbox, the Advocate is agreeing that the information presented is true and accurate to the best of his/her knowledge.

Submitter's Agreement

> *Submission of the form cannot proceed without the* ***SUBMITTER'S AGREEMENT*** *checkbox selected.*

1. Read the ***SUBMITTER'S AGREEMENT*** statement carefully
2. Select the checkbox signifying agreement with the statement

Submit the Level 1 Form

1. Click on Submit to submit the form; the system validates the form for required entries

> *A submitted form cannot be edited. Click on* Save *to save the form with data to return to editing later. A link to access the draft form will appear, indicating that you have successfully saved the form. The form status will be set to* ***DRAFT***. *The draft form will be available through the My Drafts link on the* ***Left Navigation Pane***.
>
> *Click on* Close *to return to the* ***Home Page*** *without saving or submitting any entered data*
>
> *Advocates who do not have Internet access and want to submit a form can request paper copies of blank forms from their respective MPO/RPO or County.*

2. If any validation errors, the system will highlight each error for correction and return a message indicating that required fields must be populated to continue
3. Correct validation errors and resubmit, if necessary

> *Submission of the form cannot proceed with validation errors.*

4. If no validation errors, the system displays a ***Forms Submission*** confirmation window
5. Click on OK to acknowledge the confirmation; the system displays the ***Forms List***

The system will:

- Update the form status to **Awaiting Review**
- Display the submitted form in the ***Submitted Level 1 Forms/Awaiting Review*** list
- Update the **AUDIT TRAIL TAB** to indicate that the Level 1 form was submitted
- Generate a confirmation of receipt email to the submitter (Advocate)
- Generate a notification email to the appropriate Process Lead

Section 1.6 Form Review

The review and recommendation process starts when the Process Lead receives the notification email that a Level 1 Form was submitted and is ready for review. Based on each individual region's review process, the Process Lead will determine if the form must be reviewed by other users or by a review committee, or if the recommendation decision can be made solely by the Process Lead.

Form Review

The Process Lead can review the form, forward the form to other users for additional review and comment, and provide recommendations.

Process Lead Form Review

1. Select the form from the link in the **NOTIFICATION** email (or from the ***Forms List***); the system displays the form in the ***View*** mode
2. Review the information provided on the submitted form

Process Lead Comments

1. In ***View*** or ***Edit*** mode, click on [Process Lead Comments] at the top of the open form; the system displays the ***Process Lead Comments*** window

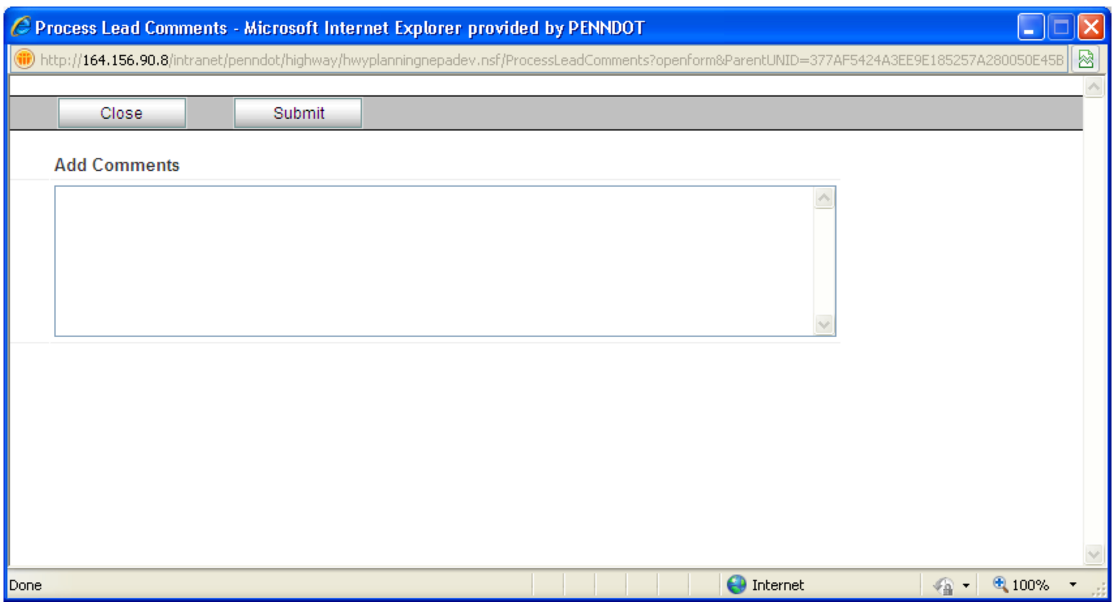


Figure 14: Process Lead Comments Window

2. Type comments in the **ADD COMMENTS** text box
3. Click on [Submit]; a message window will appear asking, *"You will not be able to change the submitted comments, do you wish to continue?"*
4. Click on [OK]

The system will:

- Add the comment (and related details) to the **ADDITIONAL COMMENTS TAB** of the form
- Update the **AUDIT TRAIL TAB** to indicate that comments were added to the form

Request Feedback

The Process Lead can request additional review and comments from other users (other Process Leads, Planners and Reviewers) while the form is in a status of "Awaiting Review." This step in the process ensures review of the Level 1 Form by all appropriate users, in addition to the Process Lead.

1. In ***View*** or ***Edit*** mode, click on [Request Feedback] at the top of the open form; the system displays the ***Request Feedback*** window

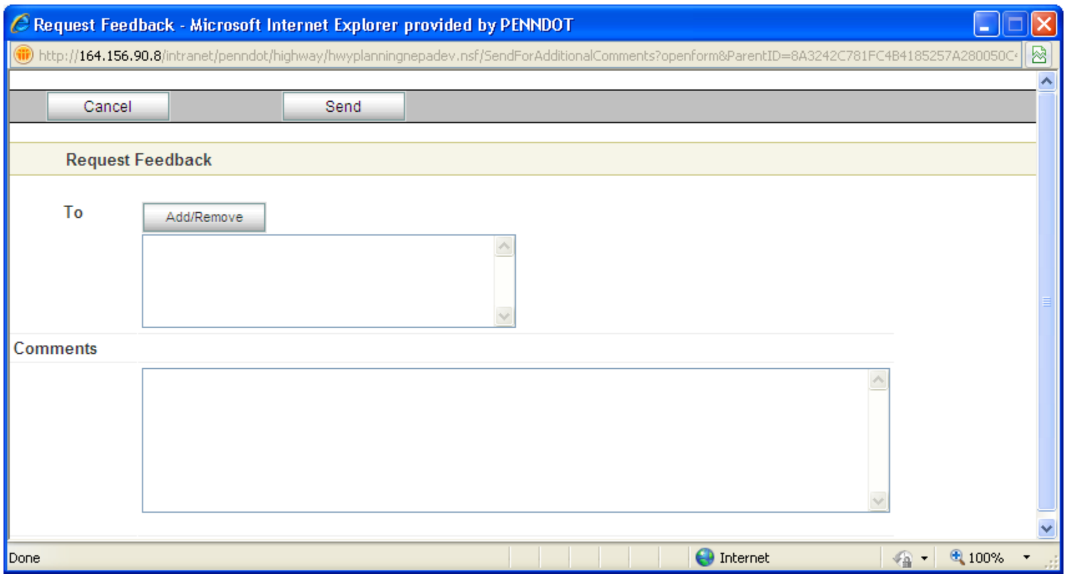


Figure 15: Request Feedback Window

2. Click on [Add/Remove] ; the ***Select People*** window will appear
3. Select the user(s) to be notified and given access to the Level 1 Form by selecting the checkbox next to the first name(s)

> *To search for specific user names, enter the first or last name in the search box at the top right corner of the* ***Select People*** *window and click on* [GO].

4. Enter comments regarding the feedback you are requesting; these comments will appear in the notification email that is sent to the specified recipient(s)
5. Click on [Send]; a notification window will appear asking, "You are about to send email message to selected below recipients. Do you wish to continue?"
6. Click on [OK]

The system will:

- Add the feedback request (and related details) to the **ADDITIONAL COMMENTS TAB** of the form, indicating that a request for feedback has not been fulfilled yet
- Update the **AUDIT TRAIL TAB** to indicate that a request for feedback has been issued
- Generate a notification email to the specified recipient(s)

Submit Feedback

A notification email indicating that feedback is requested is sent to all users identified in the ***Request Feedback*** window. Up to a 10-minute delay may occur between the request for feedback and the notification email reaching the recipient's email inbox. Users (Process Leads, Planners and Reviewers) who receive a notification email can open the Level 1 Form through the link provided in the email. Users can provide feedback/comments to assist the Process Lead in making a recommendation for the Level 1 Form, as long as the form is in a status of "Awaiting Review."

1. Click on the link provided in the **NOTIFICATION** email to access the form; the system displays the form in the ***View*** mode
2. Review the submitted form
3. Click on Submit Feedback at the top of the open form; the system displays the ***Submit Feedback*** window
4. Type comments that may assist in making a recommendation for the Level 1 Form
5. Click on Submit to save comments; a message window will appear asking, *"You will not be able to change the submitted comments, do you wish to continue?"*
6. Click on OK

The system will:

- Add the feedback (and related details) to the **ADDITIONAL COMMENTS TAB** of the form
- Update the **AUDIT TRAIL TAB** to indicate that feedback was added to the form
- Generate a notification email to the user who sent the feedback request

> *The system will automatically update the* **ADDITIONAL COMMENTS TAB** *with each reviewer's returned feedback, providing the Process Lead with the ability to keep track of who completes the requested review. A submitted feedback entry will overwrite the feedback request entry in the Comments Table.*

Process Lead Final Review

The Process Lead should review all feedback from other users and from the MPO/RPO review committee, when applicable, prior to completing **SECTION 1.6 FORM REVIEW**.

1. Select the form from the link in the **NOTIFICATION** email (or from the *Forms List*); the system displays the form in the *View* mode
2. Review the submitted form
3. Click on the **ADDITIONAL COMMENTS TAB** at top of the form to review all comments and feedback provided
4. Click on the **AUDIT TRAIL TAB** at top of the form to review form history
5. Follow the steps below to identify the ***Form Reviewer*** and to select a ***Recommendation***

Section 1.6 Form Review

The Process Lead is required to complete **SECTION 1.6 FORM REVIEW** by providing information that identifies the Form Reviewer, the Reviewer's professional title, and the name of the MPO/RPO review committee, if applicable.

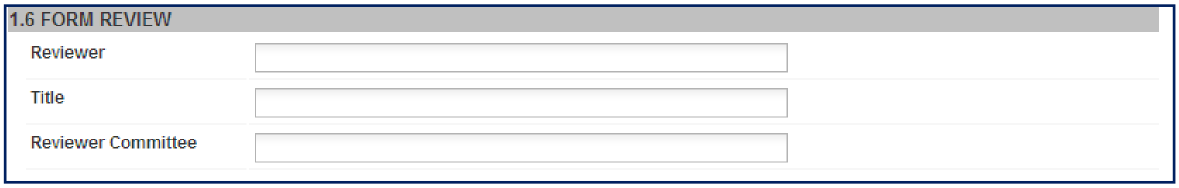


Figure 16: Section 1.6 Form Review

1. Once you have opened the form, click on Edit at the top of the screen to display the form in the ***Edit*** mode
2. Type the first and last name of the **REVIEWER** (Process Lead) who conducted the review of the Level 1 Form
3. Type the professional **TITLE** of the reviewer (Process Lead)
4. Type the name of the **REVIEWER COMMITTEE**, or the names of individuals responsible for assisting the Process Lead with the review of the Level 1 Form
5. Click on Save to save the form

Section 1.7 Review and Recommendation

After the form review and a recommended action are decided by either the Process Lead or the MPO/RPO Committee, the Process Lead will select one of the listed recommendations available for subsequent processing under **SECTION 1.7 LEVEL 2 REVIEW AND RECOMMENDATION**.

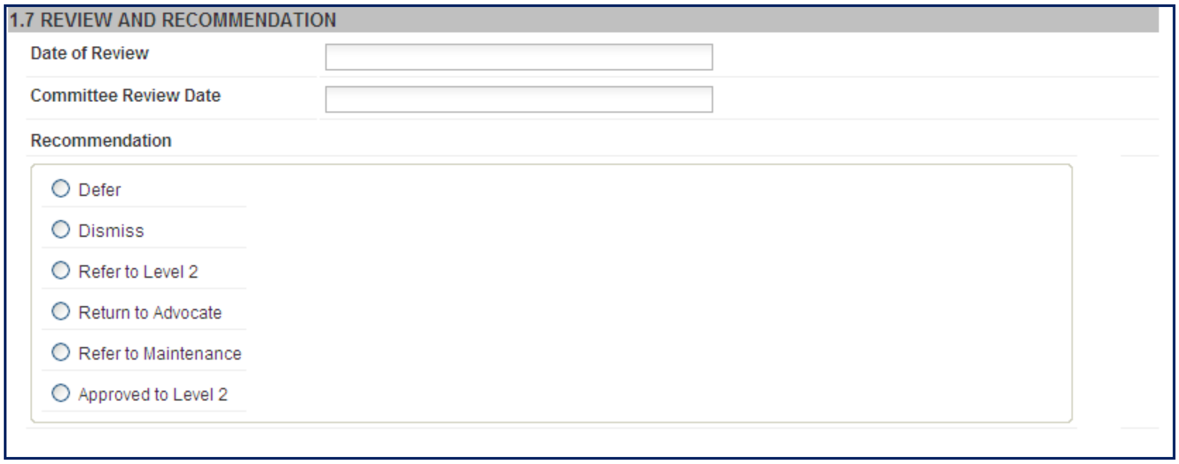


Figure 17: Section 1.7 Review and Recommendation

Review and Committee Review Dates

The **Date of Review** should indicate the review of the Level 1 Form by the Process Lead (reviewer) and by the MPO/RPO Committee. The system populates the **Date of review** with the current timestamp (date and time) when the form is saved with a value in the Reviewer field in **Section 1.6 Form Review**. The system also populates the **Committee Review Date** field with the current timestamp (date and time) when a recommendation is made.

Selecting a Recommendation

The Process Lead will follow the steps provided below to select the appropriate action identified by the MPO/RPO for further processing of the Level 1 Form.

Defer

Select **Defer** when the proposed solution is not able to be accommodated within the process at the current time due to reasons such as limited funding availability or lack of local match.

1. Select **Defer**
2. Type a descriptive reason as to why the problem should be deferred in the ***Defer Reason*** text box
3. Click on [Recommendation] ; the system returns a verification window
4. Click on [OK]

The system will:

- Update the form status to **Defer**
- Update the **Audit Trail tab** with the appropriate action taken
- Generate a notification email to all Process Leads in the MPO/RPO region
- Archive the open form for future reference, viewing and processing

Dismiss

Select **DISMISS** when the problem is inappropriate for the process; such as funding ineligibility, inconsistent with the MPO/RPO Region LRTP, or other known disqualifying elements. A Process Lead will need to reopen a **DISMISSED** form and change the status to **AWAITING REVIEW** if, at some later date, the form is reconsidered for further processing.

1. Select **DISMISS**
2. Type a descriptive reason as to why the problem should be dismissed in the ***DISMISS REASON*** text box
3. Click on [Recommendation] ; the system returns a verification window
4. Click on [OK]

The system will:

- Update the form status to **Dismiss**
- Update the **AUDIT TRAIL TAB** with the appropriate action taken
- Generate a notification email to all Process Leads in the MPO/RPO region
- Close and archive the form for future reference and viewing

Refer to Level 2

Select **REFER TO LEVEL 2** when the transportation problem is appropriate for further information and processing to define the problem. This status selection refers the Form to the MPO/RPO decision-making body to review and consider moving the Form forward to Level 2 for further processing.

1. Select **REFER TO LEVEL 2**
2. Type a descriptive reason as to why the problem warrants a Level 2 Screening in the ***LEVEL 2 SCREENING REASON*** text box
3. Select [Recommendation] ; the system returns a verification window
4. Click on [OK]

The system will:

- Update the form status to **Refer to Level 2**
- Update the **AUDIT TRAIL TAB** with the appropriate action taken
- Generate a notification email to all Process Leads in the MPO/RPO region

Return to Advocate

Select **RETURN TO ADVOCATE** when unable to determine a recommendation due to insufficient Level 1 information, such as the location of the problem or an underdeveloped problem description. The Advocate will receive a notification email with the reason from the Process Lead regarding why the form has been returned, and a link to access the Level 1 Form to update with more information.

1. Select **RETURN TO ADVOCATE**
2. Type a descriptive reason on what additional information is required in the ***RETURN TO ADVOCATE REASON*** text box
3. Select Recommendation ; the system returns a verification window
4. Click on OK

The system will:

- Update the form status to **Return to Advocate**
- Update the **AUDIT TRAIL TAB** with the appropriate action taken
- Generate a notification email to the submitter (Advocate) and to all Process Leads in the MPO/RPO region

Refer to Maintenance

Select **REFER TO MAINTENANCE** when the County Maintenance Office can more appropriately address the problem, such as pothole repair or other routine maintenance activities. The Process Lead should contact the appropriate District staff to notify them of Level 1 Forms referred to maintenance.

1. Select **REFER TO MAINTENANCE**
2. Type a descriptive reason as to why the problem should be referred to maintenance in the ***REFERRED TO MAINTENANCE REASON*** text box
3. Select Recommendation ; the system returns a verification window
4. Click on OK

The system will:

- Update the Form status to **Refer to Maintenance**
- Update the **AUDIT TRAIL TAB** with the appropriate action taken
- Generate a notification email to the submitter (Advocate)
- Generate a notification email to the appropriate PennDOT District Planning and Programming Manager and to all Process Leads in the MPO/RPO region

Approved to Level 2

Select **APPROVED TO LEVEL 2** when the transportation problem is appropriate for further information and processing to define the problem. This status selection should be selected after the MPO/RPO decision-making body reviews and approves the Form to move forward to Level 2. Regions may elect to select the recommended/referred status or approval status at this time. If the region's Form review process requires a review committee and a governing body decision, then the Process Lead should first select **REFER TO LEVEL 2** and then follow ***Changing the Status of a Level 1 Form*** below.

1. Select **APPROVED TO LEVEL 2**

2. Select Recommendation ; the system returns a verification window
3. Click on OK

The system will:

- Update the form status to **Approved to Level 2**
- Update the **AUDIT TRAIL TAB** with the appropriate action taken
- Generate a notification email to all Process Leads in the MPO/RPO region

Changing the Status of a Level 1 Form

The Process Lead, after review and decision by the MPO/RPO Committee/governing body will need to reopen the Level 1 Form(s) with a status of a ***recommended*** action (e.g., Refer to Level 2) and change the status of the form to the ***approved*** status (e.g., Approved to Level 2) for further processing.

If the Level 1 Form is approved for a Level 2 screening by the MPO/RPO decision-making committee, a Process Lead will have to generate a Level 2 Form. If a Process Lead determines that another Process Lead should initiate the Level 2 Form, then the first Process Lead should contact the other user by telephone or email.

1. Select the appropriate view link in the ***Left Navigation Pane***
2. Select the form to be viewed from the ***Forms List***, or select the link from the **NOTIFICATION** email indicating the Level 1 Form has been referred to Level 2; the system displays the form in ***View*** mode
3. Click on Change Status at the top of the form; the system displays the ***Update Status*** window

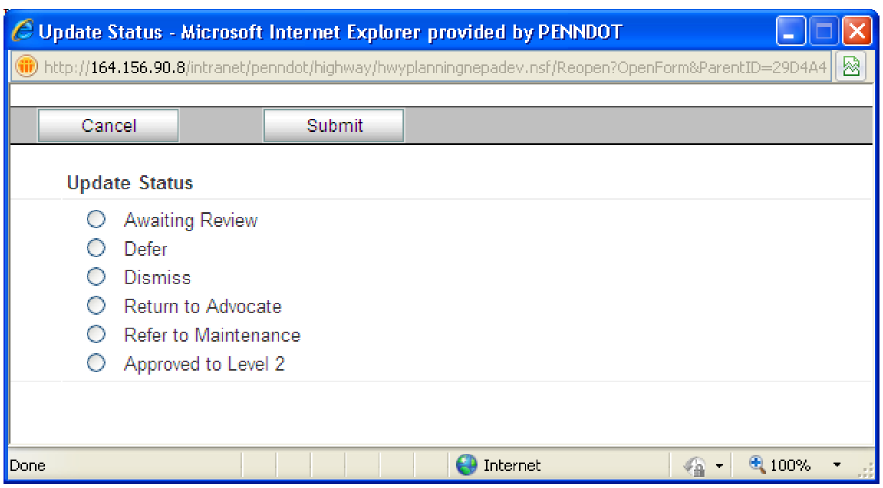


Figure 18: Update Status Window

4. Select the status you want to update the form to
5. Click on Submit; the system returns a verification window
6. Click on OK

The system will:

- Update the form status to your selection
- Update the **AUDIT TRAIL TAB** with the appropriate action taken
- Generate a notification email to the Process Lead
- Generate a notification email to the Advocate if **Awaiting Review** or **Return to Advocate** is selected

6. LEVEL 2 FORM

Overview

Level 2 Forms build on the data collected from Level 1 Forms, but also serve as the initial step in the screening process for proposals being initiated by the MPO/RPO and for Asset Planning proposals from PennDOT. The Level 2 Form collects data pertinent to conceptual engineering and environmental screening, and further refines the problem description to enable better decision-making in the identification and advancement of alternative proposals. In addition, potential alternative solutions and estimated scope, budget, and schedule are identified and refined in the Level 2 Form. Submitted Level 2 Forms should provide ample information to ensure that proposals are consistent with the MPO/RPO's LRTP goals and TIP criteria for inclusion into the LRTP/TIP, if appropriate.

User Roles

Roles and Permissions

The PennDOT Central Office Program Manager and LPN Forms Help Desk have access to all forms. All other users have access only to forms relevant to their areas.

Level 2 Form	Create	Move/ Manage	Edit/Update	Review/ Comment	View
Process Lead	✓	✓	✓		✓
Planners			✓	✓	✓
Reviewers				✓	✓
Stakeholders					✓
Viewers					✓

Available Statuses for Level 2 Forms

- Draft (saved by Advocate, but not submitted)
- Awaiting Review
- Defer
- Dismiss
- Recommend to LRTP/TIP
- On LRTP/TIP
- Planning Study Recommended
- Planning Study Approved
- Recommended to Level 3
- Approved to Level 3

Create a New Level 2 Form

There are two possible origins of a Level 2 Form:

- A Level 1 Form that is approved for Level 2 Screening.
- A Process Lead (MPO/RPO or District) identifies a problem not solicited through a Level 1 Form. These may be problems identified through the MPO/RPO Long Range Transportation Plan (LRTP), transportation studies or asset management needs.

You can initiate the form-creation process by opening a blank Level 2 Form and choosing Location information manually (Create Level 2), or by opening a GIS map and choosing assets that determine the proposal location (Create Level 2 from Map). For more information about map functionality, see Appendix D.

The Level 2 Form contains multiple sections to incorporate engineering, environmental and contextual information to assist in the decision-making process regarding proposal advancement. Some sections will be auto-populated with respective data from the Level 1 Form. Not all sections/sub-sections may be relevant. Sub-sections with checkboxes allow multiple selections.

Create Level 2 from Level 1

If the Level 2 Form is associated with a Level 1 Form that has been approved to Level 2:

1. Open the appropriate Level 1 Form
2. Click on Edit
3. Click on Create Level2 at the top of the Level 1 Form

Create Level 2

(To create a Level 2 Form using the Location Level 2 Map, go here.)

1. To begin, click on the *Create Level 2* link in the ***Left Navigation Pane*** on the ***Home Page***; *the system displays a blank* ***Level 2 Screening Form***

*All required data will be marked with a red asterisk (*) on the Form, and will be highlighted in *red*, with asterisks, within the User's Guide.*

Click on Close *to return to the* ***View List*** *page without saving any entered data.*

A submitted form cannot be edited. Click on Save *to save the form with data to return to editing later. The form status will be set to* ***DRAFT***.

2. Click on [Select County] to select one or more counties and municipalities; the system will open the ***Select Counties and Municipalities*** window with an alphabetical listing of counties

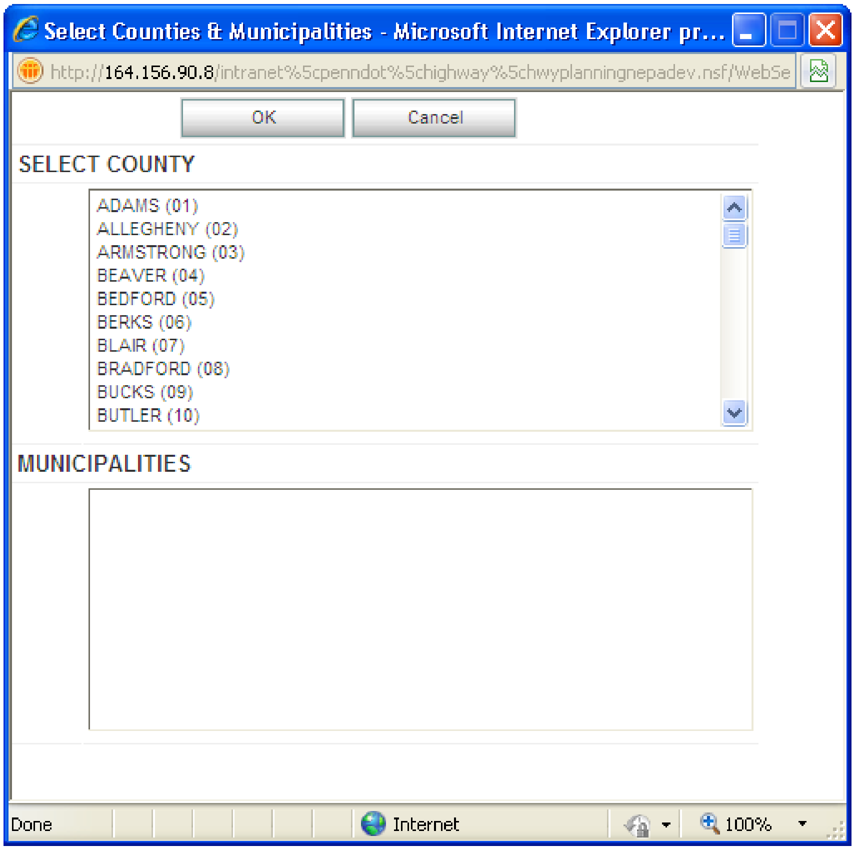


Figure 19: Select Counties & Municipalities Window

3. Select one or more counties from the **SELECT COUNTY** selection box; the system will auto-populate the **MUNICIPALITIES** selection box with all municipalities located within the selected county
4. Select all relevant municipalities from the **MUNICIPALITIES** selection box, if known

Ctrl *Select multiple **COUNTIES** or **MUNICIPALITIES** by holding down the keyboard key while selecting.*

5. Click [OK] to save the selections and close the selection window; the system will auto-populate the **MPO/RPO(S)** and **PENNDOT DISTRICT(S)** fields based on the selected counties and municipalities

Read Appendix D

Create Level 2 from Map

(To create a Level 2 form WITHOUT using the Location Level 2 Map, go here.)

1. To begin, select the *Create Level 2 from Map* link in the ***Left Navigation Pane*** of the ***Home Page***; the system opens a secondary window that displays a Location Level 2 Map for statewide users, or a Region field for regional users

> *Regional users will have to select an MPO/RPO from the Region drop-down list and click OK to access the appropriate map.*

2. If necessary, select an MPO/RPO from the drop-down list and click OK
3. Use the Zoom tools on the toolbar to zoom into an area on the map
4. Turn on the State Bridge and Local Bridge layers by clicking in each checkbox in the Map Legend and then on the Refresh button, if necessary
5. Click on the Spatial Search drop-down below the map and choose a tool (Polygon, Point or Begin/End)
6. Click on the Go button
7. Choose assets by:
   - Drawing a **polygon** around them (click at each point, double-click at the last point); the system creates an Asset Inventory of selected bridges and roadways below the map
   - Clicking on a **point** on the map; the system creates an Asset Inventory of that one point (its Latitude-Longitude coordinates)
   - Clicking on the **Start Segment** button and clicking on a segment on the map, and clicking on the **End Segment** button and clicking on a segment on the map, and clicking Go; the system creates an Asset Inventory of selected segments and bridges on those segments
8. Click in the checkbox(es) of the desired asset(s); enter a Proposal Summary if you are selecting at least one bridge from the Asset Inventory
9. Click on the Create Form(s) button; the system will indicate that form(s) have been created

> *LPN will create certain forms based on the assets you choose from the Asset Inventory on the Location Level 2 Map:*

Selected on Level 2	*Will create*	*Level 2 Screening Type*
Roadway segment(s)	*One form*	*State Roadway or Local Roadway*
Bridge	*One form*	*State Bridge or Local Bridge*
Multiple bridges	*One form per bridge*	*State Bridge or Local Bridge*
Roadway segment(s) and bridge(s)	*One Roadway form and one Bridge form per bridge*	*State Roadway or Local Roadway and State Bridge (s) or Local Bridge(s)*
Lat-Long Point	*Lat-Long Point*	*Latitude-Longitude*

10. Click on the red X of the secondary Location Level 2 Map window to close it
11. Use the views to navigate to your new Level 2 form

The Proposal Summary text box and the "Create Non-contiguous linked forms…" checkbox will appear on Level 2 maps when you capture at least one bridge with the Spatial Search tools. If you select a bridge to put on a Level 2 form, a Proposal Summary is required. You can create a non-contiguous network of linked forms by clicking in the checkbox and selecting at least two bridges from the Asset Inventory. The bridge that appears highest on the list of selected bridges will become the Lead form. The "Create Non-contiguous linked forms…" checkbox has no bearing on roadway selections.

Whether you selected your location manually or by using the map, the remainder of the process is the same, unless otherwise noted. Continue here:

Section 2.0 Proposal Contact Information

The **PROPOSAL CONTACT INFORMATION** will auto-populate from a Level 1 Form for Level 2 Forms associated with Level 1 Forms, or from the user registration data associated with the Process Lead that is creating a Level 2 Form **not** associated with a Level 1 Form. This contact information will be used by the system to generate notification emails.

The Process Lead can initiate a ***Level 2 Form*** for problems identified through the MPO/RPO Long Range Transportation Plan, transportation studies and asset planning. The **PROPOSAL ADVOCATE** field identifies the advocate of the Level 2 Form, and can be an Agency/Organization, Municipality or an Individual.

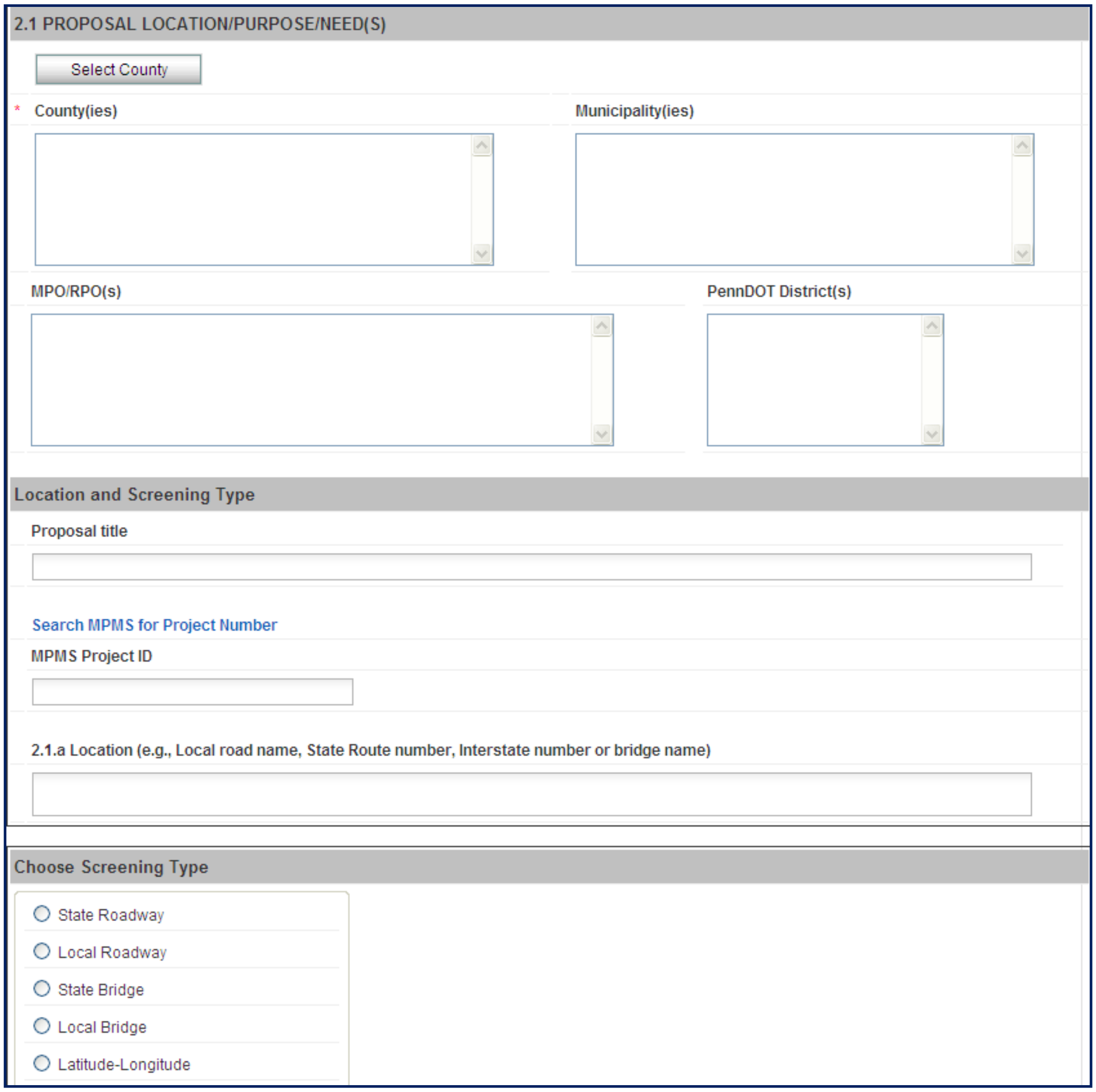
2.0 PROPOSAL CONTACT INFORMATION		
Tracking # LPN001145	Status Draft	Created by district5pl.aol.com on 6/26/12 8:42 AM
Proposal Advocate		
Project Type	Non-Asset Planning Project Tool	
First Name	District Five	
Last Name	Process Lead	
Street Address 1	123 Any Street	
Street Address 2		
City	Allentown	
State	PA	
Zip Code	99999	
Email	district5pl@aol.com	
Fax		
Phone	999.999.9999	

Figure 20: Section 2.0 Proposal Contact Information

Section 2.1 Proposal Location/Purpose/Need(s)

SECTION 2.1 PROPOSAL LOCATION/PURPOSE/NEED(S) will auto-populate with some data from the Level 1 Form for Level 2 Forms associated with a Level 1 Form; however, these fields can be edited. Click on the *Level 1 Document* link (after the field label "Related Screening Forms") to view information provided in the related Level 1 Form. The location of the problem or issue will need to be entered manually for Level 2 Forms **not** associated with a Level 1 Form.

> *If the Level 2 Form originated as a Level 1 Form that was created using the Location Level 1 Map, go to* [*Page 31*]() *for more information about the resulting Level 2 Form's Screening Type.*



2.1 PROPOSAL LOCATION/PURPOSE/NEED(S)

Select County

* County(ies)

Municipality(ies)

MPO/RPO(s)

PennDOT District(s)

Location and Screening Type

Proposal title

Search MPMS for Project Number

MPMS Project ID

2.1.a Location (e.g., Local road name, State Route number, Interstate number or bridge name)

Choose Screening Type

- State Roadway
- Local Roadway
- State Bridge
- Local Bridge
- Latitude-Longitude

Section 2.1 continued on next page…

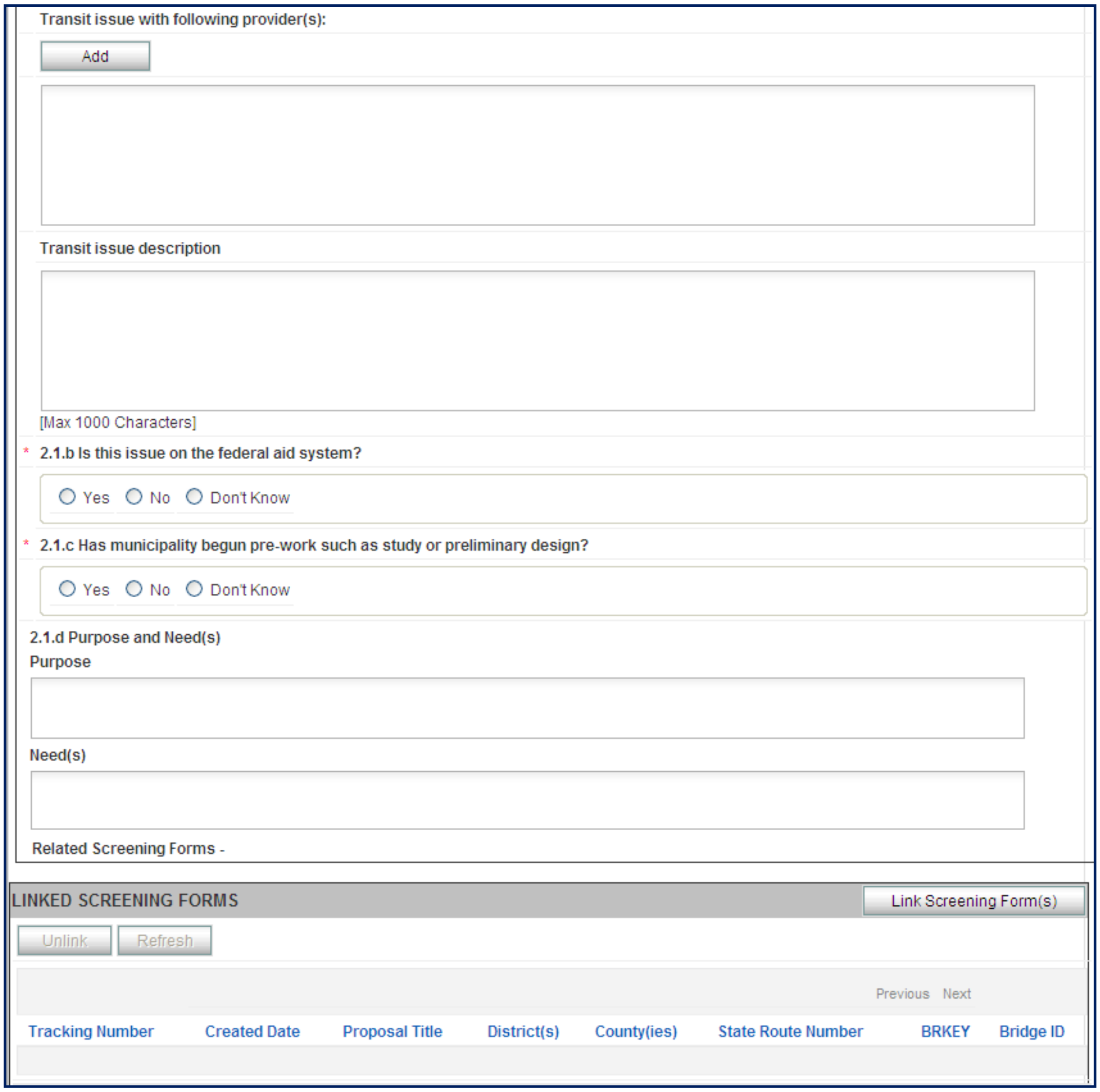


Figure 21: Section 2.1 Proposal Location/Purpose/Need(s)

1. Enter a **PROPOSAL TITLE** (what is entered here will be used to show a relationship to MPMS projects and to other LPN forms in the linked forms process)
2. You can enter an **MPMS PROJECT ID**, if necessary (click here for more information)
3. Type the **LOCATION** (name or route number) of the affected road or bridge
4. Choose a **SCREENING TYPE** (click here for more information); if the Level 2 Form was created using the Location Level 2 Map, the Screening Type will already be selected
5. If the problem relates to a transit issue, click on Add located beneath **TRANSIT ISSUE WITH FOLLOWING PROVIDER(S)**; this accesses the ***Transit Providers*** window
6. Select the appropriate transit provider(s) and click on OK
7. Enter details regarding the transit issue in the **TRANSIT ISSUE DESCRIPTION** text box

8. Select the appropriate radio button *(Yes, No, Don't Know)* located beneath the question ***IS THIS ISSUE ON THE FEDERAL AID SYSTEM?*** to indicate whether the identified transportation problem is on the Federal Aid System

> *Advocates may contact the Highway Performance Monitoring System (HPMS) Coordinator in their respective PennDOT District to determine if the roadway of the identified transportation problem is on the Federal Aid System.*

9. Select the appropriate radio button *(Yes, No, Don't Know)* located beneath the question ***HAS MUNICIPALITY BEGUN PRE-WORK SUCH AS STUDY OR PRELIMINARY DESIGN?*** to indicate whether pre-work such as a study or preliminary design relevant to the identified transportation problem has been initiated or conducted

> *Users may contact the MPO/RPO, PennDOT District, count(ies), or municipality(ies) identified in section 2.1a for assistance in the identification of existing pre-work studies and/or preliminary design.*

Purpose and Need(s)

Identifying project purpose and need is one of the most important components of the transportation project development process. The purpose and need statement is intended to clarify the expected outcome of a public expenditure and to justify that expenditure – what is to be accomplished and why it is necessary. A well-written purpose and need statement helps to:

- Avoid developing an ill-conceived project;
- Develop a shared understanding of the transportation problems, objectives and possible solutions;
- Define a project's scope;
- Guide development of alternatives;
- Evaluate alternatives;
- Allow transportation decisions to be legally defensible;
- Justify impacts and spending of funds; and
- Justify projects for programming.

A sound transportation planning process is the primary source of the project purpose and need. Through transportation planning, state and local governments establish a vision for the region's future transportation system, define transportation goals and objectives for realizing that vision, decide which needs to address, and determine the timeframe for addressing these issues. The transportation planning process also provides a potential forum to define a project's purpose and need by framing the scope of the problem to be addressed by a proposed project (23 CFR 450 subpart C).

The user should provide a description of the purpose and need, and provide a brief summary of the proposal (Item 2.6.j on the Level 2 Form) that has been identified to move forward in the project delivery process. The information provided in this section will be used to develop the Purpose and Needs statements in the post-TIP NEPA process.

The user should refer to the Needs Study Handbook (Pub 319) and PennDOT DM-1 for further guidance.

10. Enter a description in the **PURPOSE** text box

> *A proposal's purpose is a broadly stated objective and is usually no more than a few sentences long. The purpose is what the proposal is intended to accomplish. A proposal's purpose is an overarching statement as to why the proposal is being pursued and the objectives that will be met to address the transportation problem or deficiency. The level of specificity for defining purpose (not too specific/not too general) should be considered in relation to how that may impact the number and range of alternatives to be developed. Care should be taken to define the purpose as it relates to and addresses the transportation need(s) associated with a proposal. The following are elements of a proposal's purpose:*
>
> - *Presents objectives to address the need*
> - *Can be used to develop and evaluate potential solutions*
> - *Achievable*
> - *Unbiased*
> - *Comprehensive enough to allow for a reasonable range of alternatives, yet specific enough to limit the range of alternatives*
> - *Allows for a range of alternatives that are in context with the setting*
>
> *The purpose should not presuppose a solution. For example,* **do not** *state, "The purpose of this project is to replace the structurally deficient bridge over waterway X."* **Do** *state, "The purpose of this project is to address structural deficiencies to provide safe and efficient access across waterway X."*

11. Enter a description in the **NEED(S)** text box

> *The need describes the key problem(s) to be addressed by a proposal and, to the extent possible, explains the underlying causes of those problems. The need provides the factual foundation for the statement of project purpose. A need for a proposal is a tangible, fact-based problem. The following are elements of a proposal's need:*
>
> - *Establishes evidence of a current or future transportation problem or deficiency*
> - *Is factual and quantifiable*
> - *Justifies commitment of resources and impacts to the environment*
> - *Identifies a problem that is fixable/solvable*
> - *Establishes and justifies logical termini (23 CFR 771.111(f))*

Choose Screening Type

If the Level 2 Form was created using the Location Level 2 Map, the Screening Type will already be selected. Otherwise, there are five screening type choices available. Only one screening type can be selected for each Level 2 Form. You should select a roadway screening for an identified problem area (corridor) that includes both roadway(s) and bridge(s). Definitions are in the [*User's Guide* glossary].

- State Roadway
- Local Roadway
- State Bridge
- Local Bridge
- Latitude-Longitude

> *Users can use PennDOT District Straight Line Diagrams, [PennDOT's Video Log], and Type 10 Maps to assist in the identification of routes and segments in completing the screening type section.*
>
> *After adding a screening type to the form, you must click on* [Retrieve Data] *to initiate the GIS query. You may have to wait approximately 5 to 10 minutes before completing* **SECTION 2.5 ENVIRONMENTAL** *due to server queuing and processing of the GIS query requests.*

Screening Type – State Roadway

Select State Roadway if the roadway is owned and maintained by PennDOT. You will need to select the appropriate State Route and Start and End segments.

1. Select **STATE ROADWAY**; the system displays ***State Roadway Details*** table
2. Click on [Add]; the system displays ***Select Start and End Segments*** window

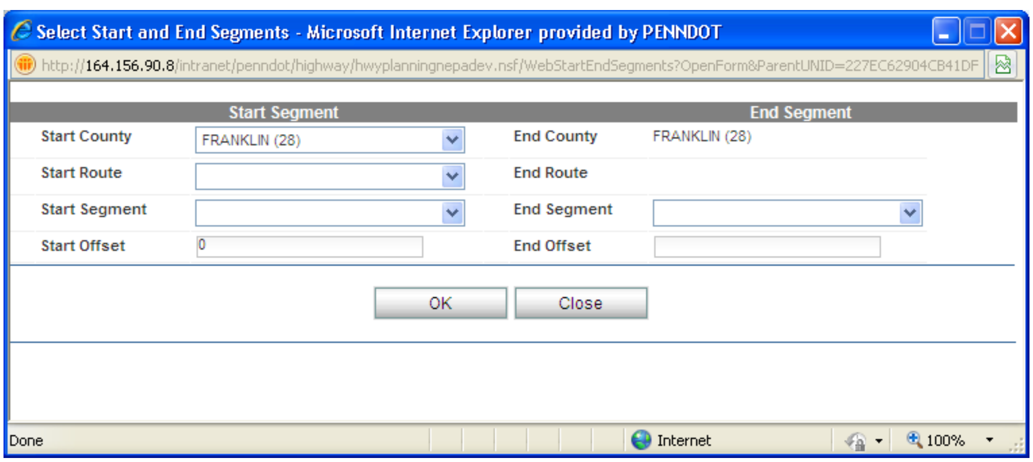


Figure 22: Select Start and End Segments Window

*The system will auto-populate the **START ROUTE** drop-down list with routes based on the selected county(ies) in **SECTION 2.1 PROPOSAL LOCATION/PURPOSE/NEED(S)**. The system will also auto-populate the **START SEGMENT** drop-down list with segment choices based on the selected route.*

3. Click on the **START ROUTE** drop-down arrow and select the appropriate route number/name from the list

*The system will auto-populate the **END COUNTY** and **END ROUTE** with the selected **START COUNTY** and **START ROUTE**.*

4. Click on the **START SEGMENT** drop-down arrow and select the appropriate segment from the list
5. Click on the **END SEGMENT** drop-down arrow and select the appropriate segment from the list

*The system will auto-populate the **START OFFSET** and **END OFFSET**. The **START OFFSET** will always be "0" and the **END OFFSET** will correspond to the **END OFFSET** of the selected end segment.*

*The **START OFFSET** and **END OFFSET** can be manually changed, if known. When the results are returned to the Roadway Data table, the entire length of the segment will be displayed; however, only the selected offset parameters will be retrieved from the Environmental Screening Tool.*

6. Click on OK ; the system displays the ***State Roadway Details*** table, which is populated by the selections you made on the ***Select Start and End Segments*** window
7. Add additional roadways using the steps above, as necessary
8. Click on Retrieve Data for the LPN System to begin the GIS query (the results of the GIS query will be used to calculate the scores in **SECTION 2.5 ENVIRONMENTAL**)
9. Click here to return to Step 5 in *Proposal Location/Purpose/Need(s)*, if necessary

Screening Type – Local Roadway

Select Local Roadway if the roadway is owned by a municipality and is eligible to receive federal funds. You will need to select the appropriate Local Route and Start and End segments.

1. Select **LOCAL ROADWAY**; the system displays ***Local Roadway Details*** table
2. Click on Add; the system displays ***Select Start and End Segments*** window

> *The system will auto-populate the **START ROUTE** drop-down list with routes based on the selected county(ies) in **SECTION 2.1 PROPOSAL LOCATION/PURPOSE/NEED(S)**. The system will also auto-populate the **START SEGMENT** drop-down list with segment choices based on the selected route.*

3. Click on the **START ROUTE** drop-down arrow and select the appropriate route number/name from the list

> *The system will auto-populate the **END COUNTY** and **END ROUTE** with the selected **START COUNTY** and **START ROUTE**.*

4. Click on the **START SEGMENT** drop-down arrow and select the appropriate segment from the list
5. Click on the **END SEGMENT** drop-down arrow and select the appropriate segment from the list

> *The system will auto-populate the **START OFFSET** and **END OFFSET**. **THE START OFFSET** will always be "0" and the **END OFFSET** will correspond to the **END OFFSET** of the selected end segment.*
>
> *The **START OFFSET** and **END OFFSET** can be manually changed, if known. When the results are returned to the Roadway Data table, the entire length of the segment will be displayed; however, only the selected offset parameters will be retrieved from the Environmental Screening Tool.*

4. Click on [OK] ; the system displays the ***Local Roadway Details*** table
5. Add additional roadways using the steps identified above, as necessary
6. Click on [Retrieve Data] for the LPN System to begin the GIS query (the results of the GIS query will be used to calculate the scores in **SECTION 2.5 ENVIRONMENTAL**)
7. Click here to return to Step 5 in *Proposal Location/Purpose/Need(s)*, if necessary

Screening Type – State Bridge

Select State Bridge if the bridge is owned by PennDOT and is greater than eight (8) feet in length. You will need to select the state route and state bridge.

1. Select **STATE BRIDGE**; the system displays ***Select Bridges*** window

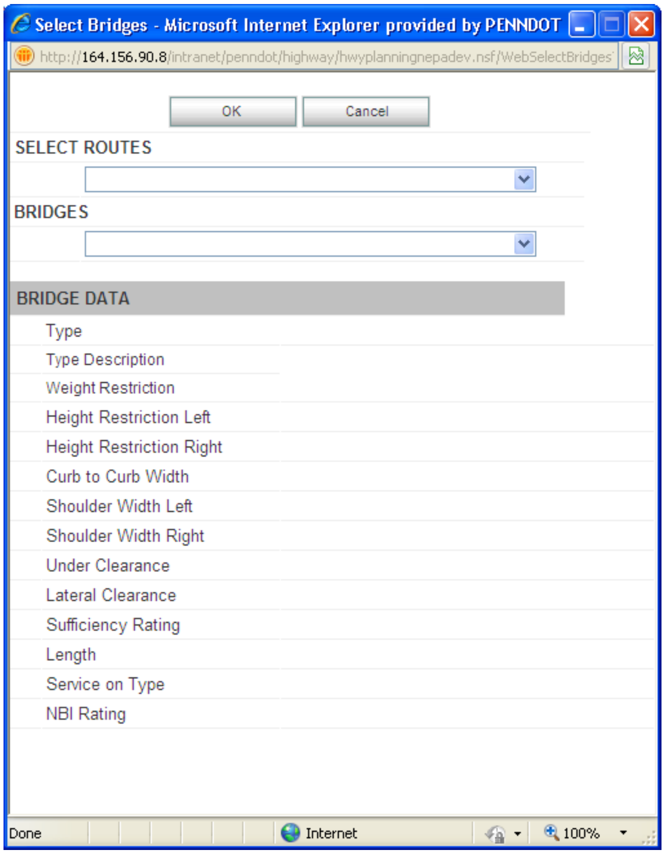


Figure 23: Select Bridges Window

> *The system will auto-populate the* ***SELECT ROUTES*** *drop-down list with routes based on the selected county in* ***SECTION 2.1 PROPOSAL LOCATION/PURPOSE/NEED(S)****, and the* ***BRIDGES*** *drop-down list with state bridges based on the selected route.*

2. Click on the **SELECT ROUTES** drop-down arrow and select the appropriate route from the list
3. Click on the **BRIDGES** drop-down arrow and select the appropriate bridge from the list; the system displays **BRIDGE DATA** for the selected route and bridge
4. Click on OK ; the system displays the ***State Route Data and Bridge Data*** table
5. Add additional bridges using the steps above, as necessary
6. Click on Send data to Process Environmental Results for the LPN System to begin the GIS query (the results of the GIS query will be used to calculate the scores in **SECTION 2.5 ENVIRONMENTAL**)
7. Click here to return to Step 5 in *Proposal Location/Purpose/Need(s)*, if necessary

> *The system will auto-populate the* **EXISTING** *fields in* **SECTION 2.7.f BRIDGE STRUCTURE PROPOSAL** *with the selected bridge data.*

Screening Type – Local Bridge

Select Local Bridge if the bridge is owned by a municipality, greater than 20 feet in length, and eligible to receive federal funds. You will need to select the local route and local bridge.

1. Select **LOCAL BRIDGE**; the system displays ***Select Bridges*** window

> *The system will auto-populate the* **SELECT ROUTES** *drop-down list with routes based on the selected county in* **SECTION 2.1 PROPOSAL LOCATION/PURPOSE/NEED(S)**, *and the* **BRIDGES** *drop-down list with local bridges greater than 20 feet in length based on the selected route.*

2. Click on the **SELECT ROUTES** drop-down arrow and select the appropriate route from the list
3. Click on the **BRIDGES** drop-down arrow and select the appropriate bridge from the list; the system displays **BRIDGE DATA** for the selected route and bridge
4. Click on [OK] ; the system displays the ***State Route Data and Bridge Data*** table
5. Add additional bridges using the steps above, as necessary
6. Click on [Send data to Process Environmental Results] for the LPN System to begin the GIS query (the results of the GIS query will be used to calculate the scores in **SECTION 2.5 ENVIRONMENTAL**)
7. Click here to return to Step 5 in *Proposal Location/Purpose/Need(s)*, if necessary

> *The system will auto-populate the* **EXISTING** *fields in* **SECTION 2.7.f BRIDGE STRUCTURE PROPOSAL** *with the selected bridge data.*

Screening Type – Latitude-Longitude

Select Latitude-Longitude if the general location is known, but existing road or bridge data is not known (or available) through the Roadway Management System (RMS) or Bridge Management System (BMS). These locations may commonly be associated with Transportation Enhancements (trails or buildings), and other locations not directly associated with a route or bridge. The geographic reference point identified by latitude-longitude is used by the system for the environmental screening conducted in **SECTION 2.5 ENVIRONMENTAL** of the Level 2 Form.

1. Select **LATITUDE-LONGITUDE**; the system displays the Latitude and Longitude block

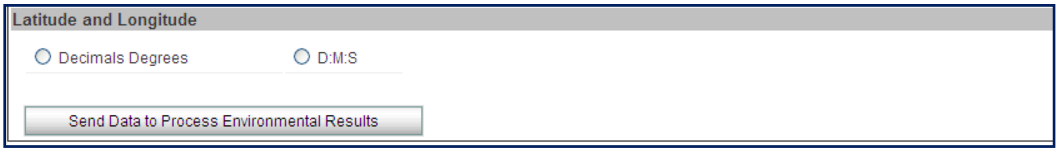


Figure 24: Latitude and Longitude Block

a) Choose "Decimals Degrees" or "D:M:S"
   - Decimals Degrees displays Latitude and Longitude fields, where you must enter a value in each field
   - D:M:S displays Degrees, Minutes and Seconds fields, where you must enter a value in each field

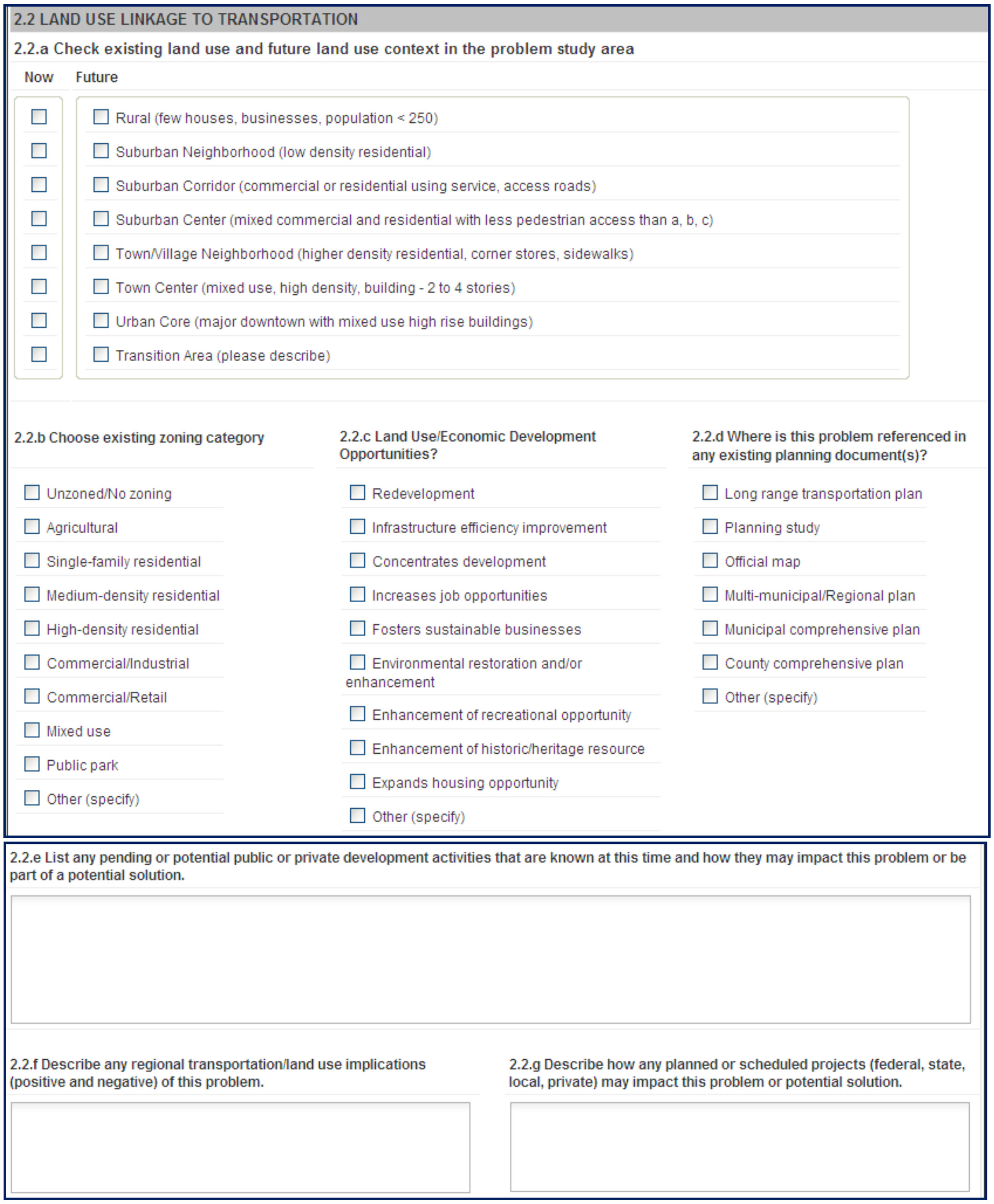
> *Latitude values must be between 39 and 43. Longitude values must be between -74 and -81. The system will prevent you from continuing if the values you enter are outside these ranges.*
>
> *Latitude and longitude coordinates can be obtained using various internet applications such as Bing Maps or Google Earth. The system will automatically convert Longitude to a negative number if it is not entered as such.*

2. Click on [Send data to Process Environmental Results] for the LPN System to begin the GIS query (the results of the GIS query will be used to calculate the scores in **SECTION 2.5 ENVIRONMENTAL**)
3. Click here to return to Step 5 in *Proposal Location/Purpose/Need(s)*, if necessary

Section 2.2 Land Use Linkage to Transportation

SECTION 2.2 LAND USE LINKAGE TO TRANSPORTATION provides the opportunity for the Process Lead or Planner to identify existing land use and proposed future land use contexts for the problem study area. This section allows the user to identify existing zoning within the problem study area (if available), known land use/economic development opportunities, and planning documents that discuss the identified problem. The user can provide detailed descriptions relating to pending or potential development activities, and other associated potential land use or transportation impacts. Not all sub-sections may be relevant. Sub-sections with checkboxes allow multiple selections.

> *If an **OTHER (SPECIFY)** checkbox is selected within any sub-section, the system will display a text box to allow the user to provide additional details.*



2.2 LAND USE LINKAGE TO TRANSPORTATION

2.2.a Check existing land use and future land use context in the problem study area

Now	Future
☐	☐ Rural (few houses, businesses, population < 250)
☐	☐ Suburban Neighborhood (low density residential)
☐	☐ Suburban Corridor (commercial or residential using service, access roads)
☐	☐ Suburban Center (mixed commercial and residential with less pedestrian access than a, b, c)
☐	☐ Town/Village Neighborhood (higher density residential, corner stores, sidewalks)
☐	☐ Town Center (mixed use, high density, building - 2 to 4 stories)
☐	☐ Urban Core (major downtown with mixed use high rise buildings)
☐	☐ Transition Area (please describe)

2.2.b Choose existing zoning category

- ☐ Unzoned/No zoning
- ☐ Agricultural
- ☐ Single-family residential
- ☐ Medium-density residential
- ☐ High-density residential
- ☐ Commercial/Industrial
- ☐ Commercial/Retail
- ☐ Mixed use
- ☐ Public park
- ☐ Other (specify)

2.2.c Land Use/Economic Development Opportunities?

- ☐ Redevelopment
- ☐ Infrastructure efficiency improvement
- ☐ Concentrates development
- ☐ Increases job opportunities
- ☐ Fosters sustainable businesses
- ☐ Environmental restoration and/or enhancement
- ☐ Enhancement of recreational opportunity
- ☐ Enhancement of historic/heritage resource
- ☐ Expands housing opportunity
- ☐ Other (specify)

2.2.d Where is this problem referenced in any existing planning document(s)?

- ☐ Long range transportation plan
- ☐ Planning study
- ☐ Official map
- ☐ Multi-municipal/Regional plan
- ☐ Municipal comprehensive plan
- ☐ County comprehensive plan
- ☐ Other (specify)

2.2.e List any pending or potential public or private development activities that are known at this time and how they may impact this problem or be part of a potential solution.

2.2.f Describe any regional transportation/land use implications (positive and negative) of this problem.

2.2.g Describe how any planned or scheduled projects (federal, state, local, private) may impact this problem or potential solution.

Figure 25: Section 2.2 Land Use Linkage to Transportation

2.2.a Check existing land use and future land use context in the problem study area

The appropriate **NOW** and **FUTURE** land use contexts for the problem study area should be identified by the Process Lead or Planner. Definitions and detailed descriptions of the **NOW** and **FUTURE** land use context choices (Rural, Suburban Neighborhood, Suburban Corridor, Suburban Center, Town/Village Neighborhood, Town Center, Urban Core, and Transition Area) are available in the *Smart Transportation Guidebook and PennDOT Design Manual* . Multiple selections can be made for the **NOW** and **FUTURE** land use contexts. *Available Resources: County planning office(s) and/or municipal official(s), Smart Transportation Guidebook, and PennDOT DM.*

1. Select all appropriate **NOW** and **FUTURE** land use context(s) for the problem study area
2. If Transition Area is selected (Now or Future), enter details in the text box that appears below the list of checkboxes

2.2.b Choose existing zoning category

The Process Lead or Planner should identify the appropriate zoning category that most closely reflects the current zoning within the problem study area. Multiple selections can be made for **CHOOSE EXISTING ZONING CATEGORY**. The Process Lead should contact the appropriate county(ies) or local municipality(ies) to determine the current zoning category(ies). *Available Resources: Municipal officials, county/local municipal comprehensive plans, municipal zoning map.*

1. Select all appropriate **EXISTING ZONING CATEGORY(IES)**
2. If Other (specify) is selected, enter details in the text box that appears below the list of checkboxes

2.2.c Land Use/Economic Development Opportunities?

The Process Lead or Planner should identify the land use/economic development opportunities. The Process Lead should contact the appropriate municipal official(s) to determine if any pending or future land use/economic development opportunities may impact the problem study area. *Available Resources: county planning and/or municipal officials.*

1. Select all relevant **LAND USE OR ECONOMIC DEVELOPMENT** opportunities
2. If Other (specify) is selected, enter details in the text box that appears below the list of checkboxes

2.2.d Where is this problem referenced in any existing planning document(s)?

The Process Lead or Planner should identify the planning documents that refer to the identified transportation problem. *Available Resources: county planning offices and/or municipal officials.*

1. Select the **EXISTING PLANNING DOCUMENTS** that refer to the identified transportation problem
2. If Other (specify) is selected, enter details in the text box that appears below the list of checkboxes

2.2.e List any pending or potential public or private development activities that are known at this time and how they may impact this problem or be part of a potential solution.

The Process Lead or Planner should identify any known pending or potential public and/or private development activities and describe how the development may impact the transportation problem or be part of the potential solution. *Available Resources: county planning and/or municipal officials.*

1. Type a description of potential public and/or private **DEVELOPMENT ACTIVITIES** that may impact the transportation problem

2.2.f Describe any regional transportation/land use implications (positive and negative) of this problem.

The Process Lead or Planner should identify any positive and/or negative impacts on a regional-scale that the identified transportation problem may have on transportation or land use issues. *Available Resources: municipal officials and/or county planning.*

1. Type a description of known **REGIONAL TRANSPORTATION AND/OR LAND USE** implications, including positive or negative impacts

2.2.g Describe how any planned or scheduled projects (federal, state, local, private) may impact this problem or potential solution.

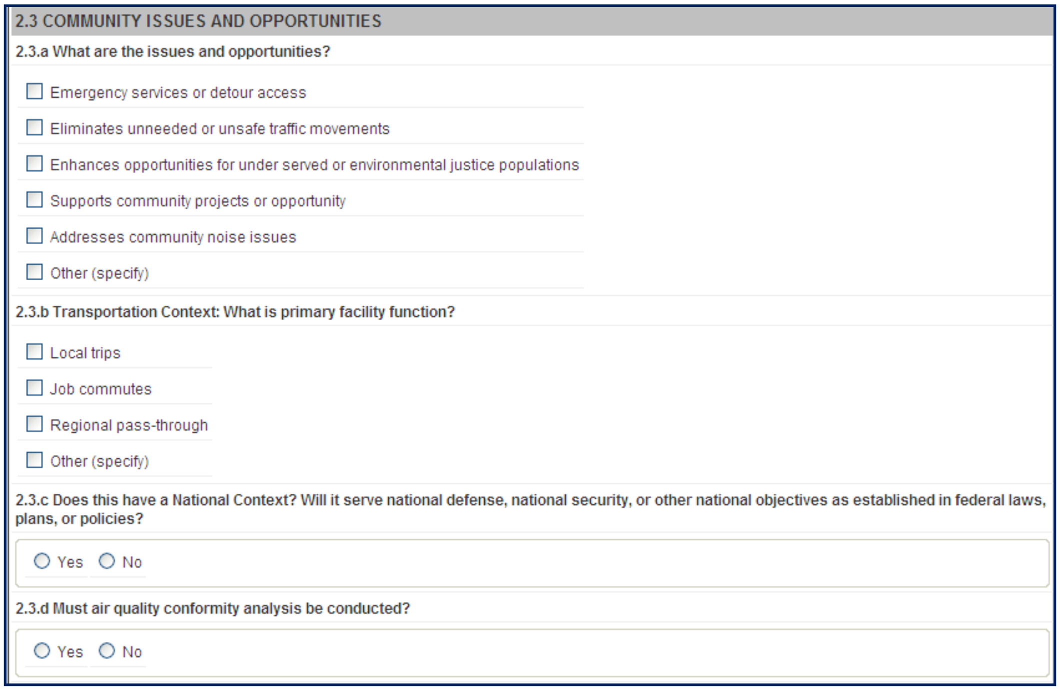
The Process Lead or Planner should identify how planned and/or scheduled transportation projects (public and/or private) may impact the identified transportation problem or potential solutions. *Available Resources: PennDOT districts, MPO/RPOs, municipal officials and/or county planning.*

1. Type a description of known **PLANNED OR SCHEDULED TRANSPORTATION PROJECTS** and how they may impact the identified transportation problem
2. If the transportation project is programmed, include the MPMS Number in the description

Section 2.3 Community Issues and Opportunities

SECTION 2.3 COMMUNITY ISSUES AND OPPORTUNITIES identifies potential community-related impacts related to the transportation problem being described in the form. This section allows the user to identify issues and opportunities in the community that is affected by the proposal, and the primary function of the existing roadway or bridge.

The user can also indicate if the problem study area has a national context, and if an air quality conformity analysis is required in relation to the work being proposed. Not all sub-sections may be relevant. Sub-sections with checkboxes allow multiple selections.



2.3 COMMUNITY ISSUES AND OPPORTUNITIES

2.3.a What are the issues and opportunities?

- ☐ Emergency services or detour access
- ☐ Eliminates unneeded or unsafe traffic movements
- ☐ Enhances opportunities for under served or environmental justice populations
- ☐ Supports community projects or opportunity
- ☐ Addresses community noise issues
- ☐ Other (specify)

2.3.b Transportation Context: What is primary facility function?

- ☐ Local trips
- ☐ Job commutes
- ☐ Regional pass-through
- ☐ Other (specify)

2.3.c Does this have a National Context? Will it serve national defense, national security, or other national objectives as established in federal laws, plans, or policies?

○ Yes ○ No

2.3.d Must air quality conformity analysis be conducted?

○ Yes ○ No

Figure 26: Section 2.3 Community Issues and Opportunities

2.3a What are the issues and opportunities?

The Process Lead or Planner should identify the potential issues and opportunities of potential solutions. They should contact the appropriate municipal official(s) for problems identified on local facilities, and the PennDOT district for problems identified on state facilities. *Available Resources: municipal officials and PennDOT districts.*

1. Select all relevant community **ISSUES** and **OPPORTUNITIES** that may be impacted as part of the potential solution(s)
2. If Other (specify) is selected, enter details in the text box that appears below the list of checkboxes

2.3b Transportation Context: What is the primary facility function?

The Process Lead or Planner should identify the appropriate primary facility function for the location of the identified transportation problem. More than one primary function can be selected, if necessary. The Process Lead or Planner can contact the appropriate PennDOT District Office or MPO/RPO for traffic-related data for problem locations that involve federal aid roadways. *Available Resources: PennDOT districts and MPO/RPOs, Smart Transportation Guidebook.*

1. Select the **TRANSPORTATION CONTEXT** that best reflects the primary function (the type of traffic served) of the existing transportation facility

- **LOCAL TRIPS** – Trips between facilities and services which are generally intra-city and intra-county
- **JOB COMMUTES** – Connects hubs defined as employment centers and other terminals that move goods or people between Pennsylvania regions or between Pennsylvania and other origin/destination markets
- **REGIONAL PASS-THROUGH** – Generally support major flows of interregional, interstate, and international trips
- **OTHER (SPECIFY)**

2. If there is an anticipated change to the primary function of existing transportation facility as part of the potential transportation solution(s), choose **OTHER (SPECIFY)** and type a description of the existing and anticipated future function of the transportation facility in the **OTHER (SPECIFY)** text box

2.3c Does this have a National Context? Will it serve national defense, national security, or other national objectives as established in federal laws, plans, or policies?

The Process Lead or Planner should identify if the potential solutions project will serve known national defense, national security, or other national objectives established in current federal laws, plans or policies. *Available Resources: PennDOT District Office and County Planning.*

1. Select the appropriate radio button *(Yes, No)* located beneath the question

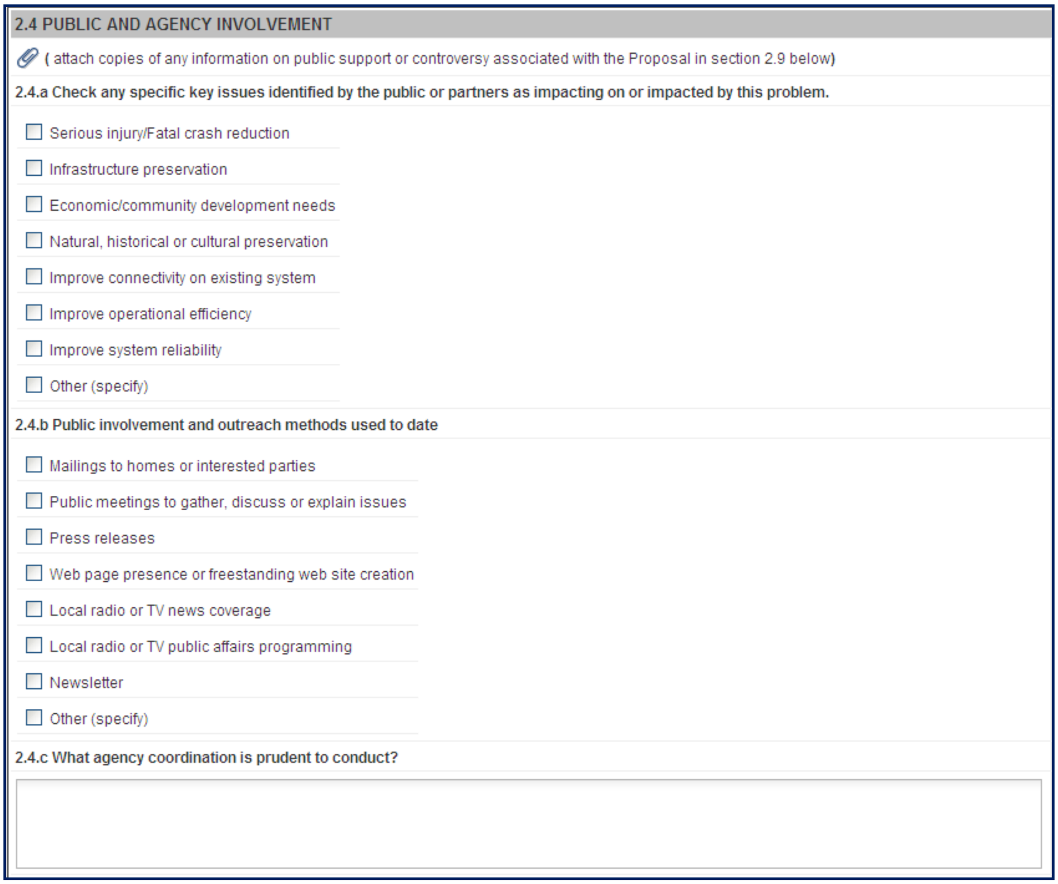
2.3d Must air quality conformity analysis be conducted?

The Process Lead or Planner should identify if an Air Quality Conformity analysis must be conducted. They should contact the MPO/RPO. *Available Resources: MPO/RPO, PennDOT Program Center Air Quality Manager, Project Review and Classification Guidelines for Regional Air Quality Conformity, and Project Level Air Quality Handbook.*

1. Select the appropriate radio button *(Yes, No)* located beneath the question

Section 2.4 Public and Agency Involvement

The Process Lead or Planner should identify known key issues and note all public and agency involvement to date relating to the identified problem in **SECTION 2.4 PUBLIC AND AGENCY INVOLVEMENT**. Not all sub-sections may be relevant. Sub-sections with checkboxes allow multiple selections.



2.4 PUBLIC AND AGENCY INVOLVEMENT

(attach copies of any information on public support or controversy associated with the Proposal in section 2.9 below)

2.4.a Check any specific key issues identified by the public or partners as impacting on or impacted by this problem.

- ☐ Serious injury/Fatal crash reduction
- ☐ Infrastructure preservation
- ☐ Economic/community development needs
- ☐ Natural, historical or cultural preservation
- ☐ Improve connectivity on existing system
- ☐ Improve operational efficiency
- ☐ Improve system reliability
- ☐ Other (specify)

2.4.b Public involvement and outreach methods used to date

- ☐ Mailings to homes or interested parties
- ☐ Public meetings to gather, discuss or explain issues
- ☐ Press releases
- ☐ Web page presence or freestanding web site creation
- ☐ Local radio or TV news coverage
- ☐ Local radio or TV public affairs programming
- ☐ Newsletter
- ☐ Other (specify)

2.4.c What agency coordination is prudent to conduct?

Figure 27: Section 2.4 Public and Agency Involvement

2.4 Public and Agency Involvement

Click on to attach copies of documents regarding public support and/or controversy related to the identified problem, proposed solution(s), and/or the proposal summary. Any documents you attach will appear in **SECTION 2.9** of the form. You can also attach documents in **SECTION 2.9**.

2.4.a Check any specific key issues identified by the public or partners as impacting on or impacted by this problem.

The Process Lead or Planner should identify any key issues that the public or partners have identified as potentially impacting on or impact by the problem. The Process Lead should acquire any studies conducted within the problem study area to help identify potential issues. Coordination with county and local municipal officials, state/federal resource agencies, and related advocacy groups is recommended.

Available Resources: MPO/RPO, PennDOT district office, county planning and local municipal officials, state/federal resource agencies, and advocacy groups.

1. Select all **SPECIFIC KEY ISSUES** identified by the public or partners as impacting on or impacted by the identified problem
2. If Other (specify) is selected, enter details in the text box that appears below the list of checkboxes

2.4.b Public involvement and outreach methods used to date

The Process Lead or Planner should identify any public involvement and outreach methods used to date. Coordination with county planning, local municipal officials and advocacy groups is recommended.

1. Select all **OUTREACH METHODS** that have been used to gather input from the public
2. If Other (specify) is selected, enter details in the text box that appears below the list of checkboxes

2.4.c What agency coordination is prudent to conduct?

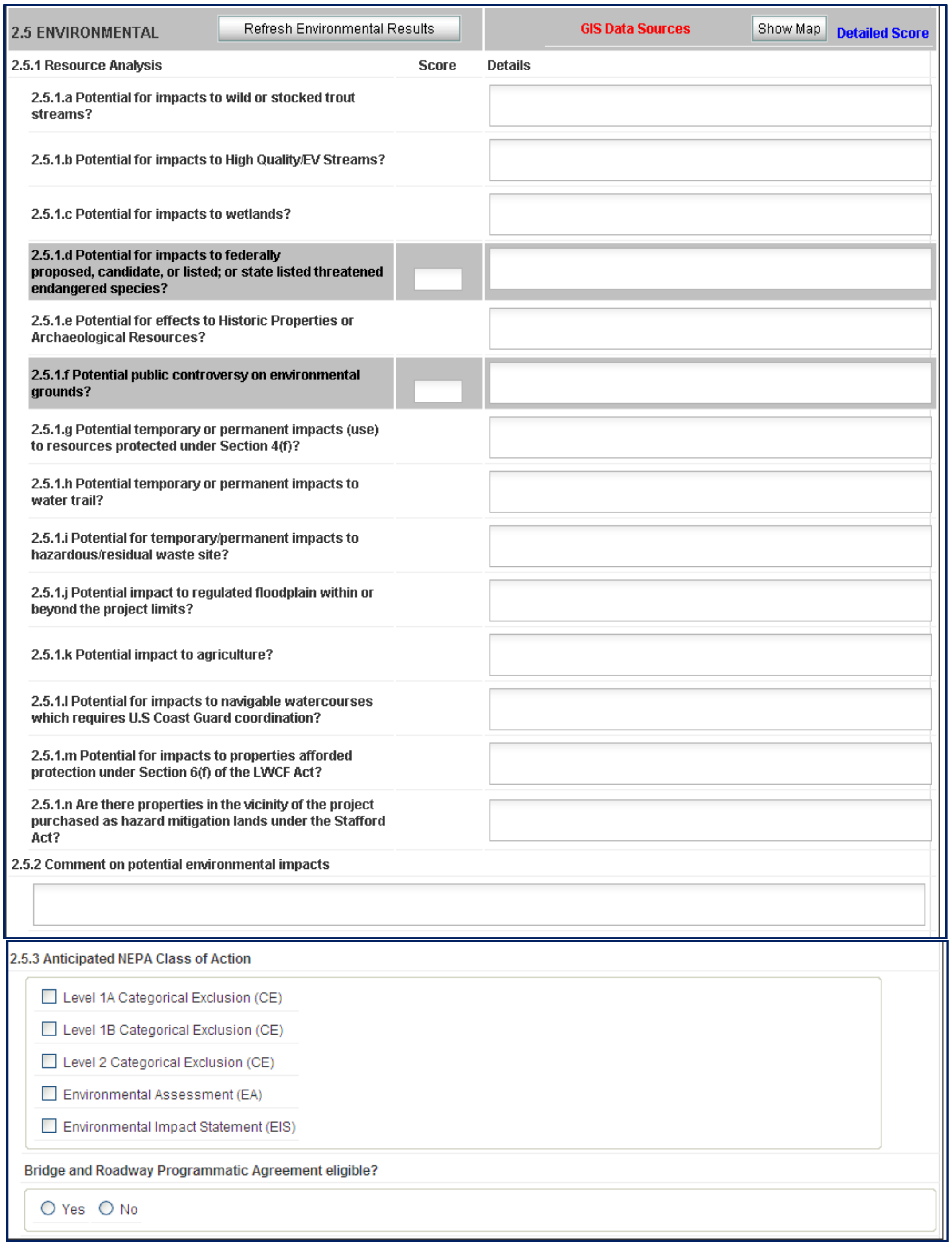
The Process Lead or Planner should assess the information identified in **SECTION 2.4** to determine what agency coordination should be conducted to gather further details.

1. Type **AGENCY COORDINATION NAMES** and related details to describe what coordination is needed

Section 2.5 Environmental

SECTION 2.5 ENVIRONMENTAL is the primary part of the form that facilitates the consideration of environmental resources and potential impacts from a proposal during project planning. Considering potential environmental impacts during pre-TIP project planning leads to:

1) better estimates of the schedule and cost of the preliminary engineering phase of a project;
2) a shorter NEPA approval during preliminary engineering; and
3) better program and project decisions through early identification of alternatives that avoid and minimize impacts.



2.5 ENVIRONMENTAL | Refresh Environmental Results | GIS Data Sources | Show Map | Detailed Score

2.5.1 Resource Analysis	Score	Details
2.5.1.a Potential for impacts to wild or stocked trout streams?		
2.5.1.b Potential for impacts to High Quality/EV Streams?		
2.5.1.c Potential for impacts to wetlands?		
2.5.1.d Potential for impacts to federally proposed, candidate, or listed; or state listed threatened endangered species?		
2.5.1.e Potential for effects to Historic Properties or Archaeological Resources?		
2.5.1.f Potential public controversy on environmental grounds?		
2.5.1.g Potential temporary or permanent impacts (use) to resources protected under Section 4(f)?		
2.5.1.h Potential temporary or permanent impacts to water trail?		
2.5.1.i Potential for temporary/permanent impacts to hazardous/residual waste site?		
2.5.1.j Potential impact to regulated floodplain within or beyond the project limits?		
2.5.1.k Potential impact to agriculture?		
2.5.1.l Potential for impacts to navigable watercourses which requires U.S Coast Guard coordination?		
2.5.1.m Potential for impacts to properties afforded protection under Section 6(f) of the LWCF Act?		
2.5.1.n Are there properties in the vicinity of the project purchased as hazard mitigation lands under the Stafford Act?		

2.5.2 Comment on potential environmental impacts

2.5.3 Anticipated NEPA Class of Action

- ☐ Level 1A Categorical Exclusion (CE)
- ☐ Level 1B Categorical Exclusion (CE)
- ☐ Level 2 Categorical Exclusion (CE)
- ☐ Environmental Assessment (EA)
- ☐ Environmental Impact Statement (EIS)

Bridge and Roadway Programmatic Agreement eligible?

○ Yes ○ No

Figure 28: Section 2.5 Environmental

This section of the form queries environmental data in PennDOT's Geographic Information System (GIS) when a user clicks on the "Retrieve Data" button (for roadways) or the "Send Data to Process Environmental Results" button (for bridges and latitude-longitude) in the **CHOOSE SCREENING TYPE** part of the form. The GIS query returns a score that helps answer a series of questions about potential impacts to environmental resources. The score for each question indicates the proximity of resources relevant to each question based on the bridge or roadway location identified in **SECTION 2.1 PROPOSAL LOCATION/PURPOSE/NEED(S)**. The score is calculated by determining the shortest distance in feet between a resource and a roadway/bridge location, and comparing that distance to thresholds to determine the score. For example, a distance between 0 and 100 feet results in a score of 10. Details on the thresholds for each question are below.

A high number indicates close proximity of resources to a proposed project, which, when combined with the proposal's scope of work, indicates the potential for environmental impacts that may affect a project's scope, schedule and budget. The GIS queries more than one data layer for the majority of the questions and displays the highest score for that question. A full list of GIS data layers is provided in Appendix B.

The GIS query will return a pop-up that indicates that environmental scores are ready to be loaded. If you click Yes, LPN automatically fills in the "Score" column for all but questions **d** and **f** in **SECTION 2.5.1 RESOURCE ANALYSIS**. Questions **d** and **f** will need to be completed manually because no data is available in PennDOT's GIS database to answer these questions (see the details in **2.5.1 RESOURCE ANALYSIS** below). The user should provide this additional detail in the text boxes available in the "Details" column, if known.

The *GIS Data Sources* link at the top of the section will access an environmental data set spreadsheet, which contains descriptions of environmental layers and notes to users.

The Show Map button will access the Environmental Map, which illustrates the location of environmental resources in the vicinity of a proposed project. You can turn environmental layers on and off, but no asset selections can be made on this map. You do not have to retrieve environmental results to see the map.

The *Detailed Score* link in the upper right of **SECTION 2.5 ENVIRONMENTAL** provides the exact distances in feet between the proposal location and each mapped environmental resource. Please refer to the PennDOT *Design Manual Part 1B (DM-1B)* for additional information on environmental resources.

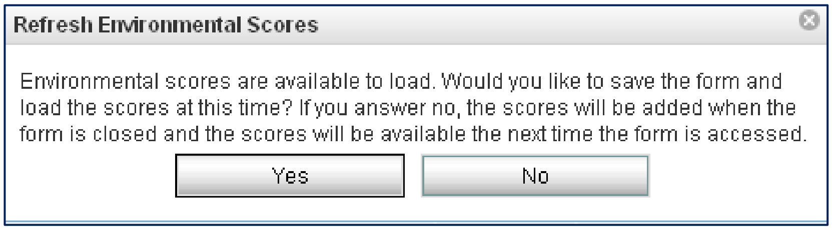
> *Some GIS data sources are incomplete and some resources (e.g., community parks) do not have widely available GIS data.* ***The lack of a result from this tool does not indicate the lack of a resource.*** *Specific data gaps are identified in the detailed description of each question below.*

2.5.1 Resource Analysis

After selecting a roadway, bridge or latitude/longitude position in the **CHOOSE SCREENING TYPE** part of **SECTION 2.1**, the user clicks on the "Retrieve Data" button (for roadways) or the "Send Data to Process Environmental Results" button (for bridges and latitude-longitude), which does two things:

1) gets the roadway or bridge location data from the appropriate database, and
2) triggers the GIS processing that determines the shortest distance between the proposal location and environmental features on more than 30 GIS layers and calculates the resulting score.

If your LPN form is **still open** when scores are ready (this typically takes anywhere from 1 to 10 minutes), you will receive the following message:



- Click Yes to populate the Score fields in Section 2.5 of your open form.
- Click No NOT to populate the Score fields right now, but after the form is saved. The scores will display the next time you open your form.

If you **close** your LPN form before you get this pop-up, the system will automatically populate the scores when they become available. The scores will display the next time you open your form.

If you have not loaded the scores yet, or you think your environmental scores may have changed, you can click on [Refresh Environmental Results] in **SECTION 2.5 ENVIRONMENTAL**. The system will auto-populate the appropriate scores for questions labeled **2.5.1a** through **2.5.1n**, with the exception of questions **2.5.d** and **2.5.f**, which must be manually entered. If the scores have been changed since the last time you retrieved them, the new scores will populate your form. Keep in mind that 2.5.1.d and 2.5.1.f are not populated by the system. Even if new scores are brought into the form, these two user-entered fields maintain the current values.

See the information box below for more details on scoring.

1. Click on [Yes] on the Refresh Environmental Scores pop-up
   OR
2. Click on [Refresh Environmental Results] at any time to auto-populate or update the **RESOURCE ANALYSIS** scores
3. Type the appropriate scores in the corresponding score boxes for **2.5.1.d** and **2.5.1.f** as indicated in the information box below
4. Click on the *Detailed Score* link in the upper right corner of **SECTION 2.5 ENVIRONMENTAL** to view the ***Environment Results*** window, which provides actual distances and corresponding scores for all evaluated resources

> *The score, between 0 and 10, corresponds to the proximity of environmental features to the proposed project's location and therefore the potential for environmental impacts. A high score indicates the high potential for impacts (depending on the engineering scope of a proposed project), while a low score indicates low potential for impacts. The score returned in the Environment Results window is the highest score reported for each question. A value of null indicates a distance of one mile (5,280 feet) or more.*

2.5.1.a Potential for impacts to wild or stocked trout streams?

The presence of wild or stocked trout streams indicates the potential for additional coordination regarding waterway permits, which include restrictions on the times of year during which in-stream work is prohibited.

Feet (up to)	Corresponding Score
100	10
250	8
500	4
750	2
1,000	1

2.5.1.b Potential for impacts to High Quality/EV Streams?

High Quality (HQ) and Exceptional Value (EV) streams are defined under PA Chapter 93 (water quality standards) and afforded additional protection, often resulting in permitting actions or requirements.

Feet (up to)	Corresponding Score
100	10
250	8
500	4
750	2
1,000	1

2.5.1.c Potential for impacts to wetlands?

Wetlands are regulated by federal law, federal executive order, and state law. Work involving wetlands requires permits from the U.S. Army Corps of Engineers and PADEP. *The National Wetlands Inventory (NWI)* indicates known wetlands, but is a dated and incomplete database. Hydric soils from county digital soils maps indicate areas with potential wetlands. Taken together, the two data sets indicate the potential for wetlands impact in a proposal area. The even and odd scores indicate whether the source is the NWI (even, and 1) or soil survey (odd).

Feet (up to)	Corresponding Score (NWI)	Corresponding Score (Hydric Soils)
100	10	9
250	8	7
500	4	5
750	2	3
1,000	1	1

2.5.1.d Potential for impacts to federally proposed, candidate, or listed; or state listed threatened endangered species?

Threatened or endangered (T&E) species are protected by federal and state laws. Users must manually enter the results of T&E species research conducted through the *PA Natural Heritage Project's PNDI (PA Natural Diversity Index) tool*: http://www.gis.dcnr.state.pa.us/hgis-er/default.aspx. The PNDI search does not take long. Users should attach the PNDI receipt to the Level 2 Form.

1. Type "10" for a hit and "0" for no hit in the score box located to the right of the question

2.5.1.e Potential for effects to Historic Properties or Archaeological Resources?

Cultural resources (i.e., historic and archaeological resources) are protected by federal and state laws – the *National Historic Preservation Act (NHPA)* and *PA title 37*, among others. The presence of cultural resources in the vicinity of a project proposal indicates potential to trigger procedures under Section 106 of the NHPA. The Level 2 Form queries the PHMC's cultural resources GIS (CRGIS), which provides the *known* historic and archaeological sites.

Feet (up to)	**Corresponding Score (Historic Sites)**
100	10
250	8
500	4
750	2
1,000	1
Feet (up to)	**Corresponding Score (Archeological Sites)**
100	10
300	7
1,000	4
>1,000	0

2.5.1.f Potential public controversy on environmental grounds?

Public controversy on environmental grounds is one of the important factors in determining the level of required NEPA documentation for a project (e.g., categorical exclusion or environmental impact statement). NEPA's implementing regulations require consideration of "[t]he degree to which the effects on the quality of the human environment are likely to be highly controversial" 40 CFR 1508.27(b)(4). FHWA's NEPA regulations contain a similar provision with regards to categorical exclusions: "Substantial controversy on environmental grounds" should be considered when determining if a CE classification is proper.

"Controversy on environmental grounds" is different from "controversy" based on an opinion that a project should not be constructed. Controversy on environmental grounds will have some basis in factual information related to one or more specific project impacts. Controversy from a "not in my backyard" (NIMBY) opinion would not be grounds for elevation of an EA project to an EIS.

1. Type "10" for potential controversy and "0" for no potential controversy on environmental grounds in the score box located to the right of the question

2.5.1.g Potential temporary or permanent impacts (use) to resources protected under Section 4(f)?

Section 4(f) of the U.S. Department of Transportation Act affords protection to publicly owned parks, recreational areas, wildlife or waterfowl refuges, and any significant historic sites.

The GIS does not currently have the locations of publicly owned parks or wildlife/ waterfowl refuges. However, MPO/RPOs, regional, county, or municipal planning agencies may have that information.

Feet (up to)	Corresponding Score
100	10
250	8
500	4
750	2
1,000	1

1. Place supplementary information on protected resources in the Details text box to the right of the score

2.5.1.h Potential temporary or permanent impacts to water trail?

Water trails are recreational resources that are afforded protection under Section 4(f). Water trails also require coordination with *Pennsylvania Fish and Boat Commission to determine if Aids to Navigation System (ATONS)*, which may affect the scope and cost of the project.

Impact	Corresponding Score
Crossed	10
Not Crossed	0

2.5.1.i Potential for temporary/permanent impacts to hazardous/residual waste site?

The potential for hazardous waste in a proposed project area can indicate the need for additional site evaluations and special handling of waste material during construction.

Feet (up to)	Corresponding Score
250	10
500	8
750	4
1,000	2
2,000	1

2.5.1.j Potential impact to regulated floodplain within or beyond the project limits?

The GIS indicates whether or not special flood hazard areas (i.e., 100-year floodplain boundaries) of regulated floodways (as delineated by FEMA) are present in the vicinity of the proposed project. Depending on the scope of the proposed project, presence of a special flood hazard area might indicate the need for additional consultation with FHWA during design. For all bridge projects with a regulated floodplain within 100 yards, the impact score automatically defaults to 10.

Not all counties have approved, updated FEMA flood maps, so the GIS does not have floodplain data for all counties. PennDOT is adding county floodplain maps as they become available.

Impact	Corresponding Score
Crossed	10
Not Crossed	0

2.5.1.k Potential impacts to agriculture?

Agricultural lands and farmland soils are afforded protection under the federal *Farmland Protection Policy Act (FPPA)*, *4 Pa Code Chapter 7 — Agricultural Land Preservation Policy (ALPP)*, and others. The GIS indicates the presence of prime farmland soils, soils of statewide importance, and agricultural easements.

Agricultural security areas are not provided in the GIS. Users should contact their county planning agencies or conservation districts for their locations.

Feet (up to)	Corresponding Score
300	10

1,000	7
2,000	4
3,000	1

2.5.1.l Potential for impacts to navigable watercourses which requires U.S. Coast Guard coordination?

The GIS indicates the list of navigable waters as determined by the U.S. Army Corps of Engineers. Additional navigable waters will need to be determined from other information; the District Environmental Unit can help make that determination. Indicate additional information in the Details box.

Impact	**Corresponding Score**
Crossed	10
Not Crossed	0

2.5.1.m Potential for impacts to properties afforded protection under Section 6(f) of the LWCF Act?

Section 6(f) of the Land and Water Conservation Fund (LWCF) Act requires that all properties "acquired or developed, either partially or wholly, with LWCF funds" must be maintained as such in perpetuity. Section 6(f)(3) states that those properties acquired or developed with LWCF funds shall not be converted to a use other than public outdoor recreation without the approval of the Secretary of the Department of the Interior, acting through the National Park Service and at the request of the State Delegate/State Liaison Officer. PennDOT proposals using federal or state funds that may change the usage of a property acquired or developed with LWCF funds require additional coordination to comply with the law.

Feet (up to)	**Corresponding Score**
100	10
>100	0

2.5.1.n Are there properties in the vicinity of the project purchased as hazard mitigation lands under the Stafford Act?

These properties have been acquired as part of FEMA and PEMA's Unified Hazard Mitigation Assistance Program as authorized by the Stafford Act. Close proximity to these properties requires additional coordination with PEMA and the local municipality.

Feet (up to)	**Corresponding Score**
250	10
500	8
750	4
1,000	2
2,000	1

2.5.2 Comment on potential environmental impacts

The user can provide comments relating to environmental concerns or controversial public issues related to potential environmental impacts. The user should also provide comments relating to concerns or issues that should be addressed as a result of the scores identified in **SECTION 2.5.1 RESOURCE ANALYSIS**.

2.5.3 Anticipated NEPA Class of Action

The user should identify the anticipated or potential NEPA class of action. The definitions of each anticipated NEPA class of action can be found in *PennDOT DM-1B, sections 3-1 thru 3-10*. The selected class of action is considered an initial anticipated NEPA class of action to determine the budget, scope and schedule of the proposal and is not binding. Further steps in the NEPA analysis may result in a different class of action determination.

> *The District Environmental Unit should complete* **SECTION 2.5.3** *Anticipated NEPA Class of Action.*
>
> *PennDOT's DM-1B provides guidelines to select the appropriate NEPA Class of Action Level and for preparing Categorical Exclusions Evaluations.*

1. Select the appropriate **LEVEL (1A, 1B, 2) OF CATEGORICAL EXCLUSION (CE)** if proposed actions do not individually or cumulatively have a significant environmental effect
2. Select **ENVIRONMENTAL ASSESSMENT (EA)** if the significance of impacts is not clearly established
3. Select **ENVIRONMENTAL IMPACT STATEMENT (EIS)** if actions would significantly affect the environment
4. Select the appropriate radio button *(Yes, No)* to indicate if a proposed project may be eligible for processing under the Bridge and Roadway Programmatic Agreement (BRPA)

> *The BRPA is intended to address environmental clearance for a vast majority of the bridge, roadway and non-complex projects the PennDOT undertakes. The majority of projects eligible for the BRPA would otherwise be processed as level 1B CEs.*

Section 2.6 Potential Approaches/Solutions

SECTION 2.6 POTENTIAL APPROACHES/SOLUTIONS contains several sub-sections that identify a range of alternatives, or possible solutions, to the existing problem. The sub-sections closely parallel the sub-sections in **SECTION 1.2 PROBLEM DESCRIPTION/JUSTIFICATION** of the Level 1 Form. Not all sub-sections may be relevant. Sub-sections with checkboxes allow multiple selections.

2.6 POTENTIAL APPROACHES/SOLUTIONS

2.6.a Roadway Preventative Maintenance

☐ Resurface to Current Configuration	☐ Change Access
☐ Improve Drainage	☐ Roadway Reconstruction
☐ Roadway Realignment	☐ Surface Seals
☐ Concrete Activities	☐ Widening (Shoulder, Lane Width)
☐ Other (specify)	

2.6.b Bridge Preventative Maintenance

☐ Painting	☐ Parapet Repair, Rehab
☐ Slab/Expansion Dam Repair	☐ Deck Patching
☐ Bearing Repair	☐ Scour Protection
☐ Substructure Repair	☐ Other (specify)

2.6.c Congestion

☐ Increased Efficiency (On-Route)	☐ Use Alternative Modes of Travel
☐ Increase Capacity (On-Route)	☐ Use Alternative Routes
☐ Manage Demand (On & Off Route)	☐ Reconfigure Intersection
☐ Change Intersection Operations	☐ Turning Lanes
☐ ITS	☐ Other (specify)

2.6.d Bridge Maintenance

☐ Rehabilitate Bridge	☐ Rebuild Bridge
☐ Remove Bridge	☐ Other (specify)

Section 2.6 Potential Approaches/Solutions, continued on next page…

2.6.e Safety

☐ Modify Intersection Control	☐ Adjust Signal Timing
☐ Improve Road Surface	☐ Enhance Sight Lines (Roadside)
☐ Remove Roadside Obstacles	☐ New Pavement Markings, Signs
☐ Intersection Control Improvements	☐ Improve Pedestrian/ADA Elements
☐ Provide or Upgrade Illumination/Delineation	☐ Access Management Strategy
☐ Modify Geometry	☐ Install Guide Rail
☐ Rumble Strips	☐ Other (specify)

2.6.f Land Use & Economic Development

☐ Create/Modify Land Development Ordinances	☐ Industrial Development Access
☐ Residential Development Access	☐ Other (specify)

2.6.g Transit/Other Modes

☐ Bus Rehabilitation	☐ Bus Replacement
☐ Fleet Expansion	☐ Park and Ride
☐ Transit Services	☐ New Facility
☐ Rehab Facility	☐ Ride Share Service
☐ Linkage to Intercity Passenger Service	☐ Pedestrian Improvements
☐ Bicycle Improvements	☐ Other (specify)

2.6.h Freight

☐ Truck Terminal Access	☐ Port Access
☐ Airport Access	☐ Other (specify)

2.6.i Other

2.6.j Proposal Summary

Figure 29: Section 2.6 Potential Approaches/Solutions

The Process Lead or Planner should choose all appropriate potential solutions to establish a range of alternative solutions to the identified problem. This section should reflect the potential solution(s) identified as a result of coordination efforts between the MPO/RPO and PennDOT District. The information provided in this section should be used to describe the purpose and need(s) in **2.1.d PURPOSE AND NEED(S)**.

1. Select all potential solutions relevant to the identified transportation problem
2. If Other (specify) is selected in any sub-section, enter details in the text box that appears below the list of checkboxes
3. Enter additional details about the proposed solution in **2.6.i OTHER**
4. Enter a short, two- or three-sentence summary of the proposal describing its location and conceptual scope of work in **2.6.j PROPOSAL SUMMARY**

*If any selection has been made within the **2.6.e** **SAFETY** sub-section, the System will display **Yes** and **No** radio buttons for the user to designate whether the solution is **POTENTIALLY HSIP ELIGIBLE** (potentially Highway Safety Improvement Program eligible). If the HSIP eligibility question is answered **Yes**, the system will notify the PennDOT Bureau of Highway Safety and Traffic Engineering upon submission of the Level 2 Form.*

*If <u>any</u> of the transit choices are selected in **2.6.g TRANSIT/OTHER MODES**, the system will notify the Bureau of Public Transportation upon submission of the Level 2 Form.*

Section 2.7 Conceptual Engineering

SECTION 2.7 CONCEPTUAL ENGINEERING contains several sub-sections to define possible engineering solutions to the defined problem. The System pre-populates some sub-sections with information from previous sections or from existing databases based on entries/selections in the screening type section of the Level 2 Form.

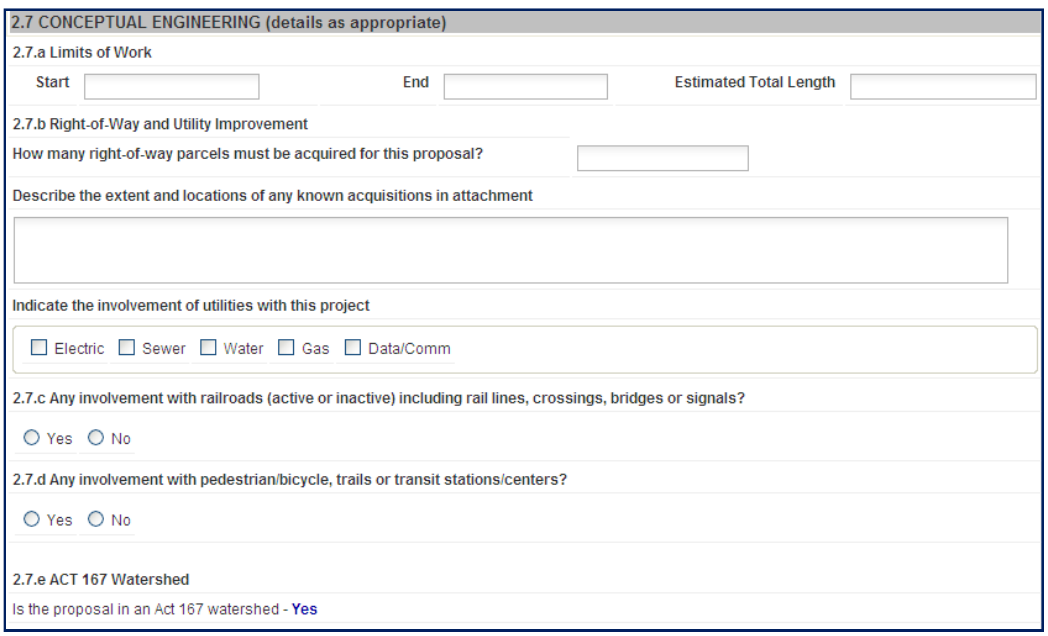

2.7 CONCEPTUAL ENGINEERING (details as appropriate)
2.7.a Limits of Work
Start End Estimated Total Length
2.7.b Right-of-Way and Utility Improvement
How many right-of-way parcels must be acquired for this proposal?
Describe the extent and locations of any known acquisitions in attachment
Indicate the involvement of utilities with this project
☐ Electric ☐ Sewer ☐ Water ☐ Gas ☐ Data/Comm
2.7.c Any involvement with railroads (active or inactive) including rail lines, crossings, bridges or signals?
○ Yes ○ No
2.7.d Any involvement with pedestrian/bicycle, trails or transit stations/centers?
○ Yes ○ No
2.7.e ACT 167 Watershed
Is the proposal in an Act 167 watershed - Yes

Figure 30: Section 2.7 Conceptual Engineering, a through e

<u>*2.7.a Limits of Work*</u>

The user should provide the start and end segments of the specified roadway, and identify the estimated total length (in feet) by calculating the segment length column provided in the **ROADWAY DATA** table (in

SECTION 2.1) of the Level 2 Form. The Process Lead can also provide more accurate measurements, if known, at the time of completing this section of the form.

1. Type the **START SEGMENT** and **END SEGMENT** of the roadway
2. Type the **ESTIMATED TOTAL LENGTH** (type length in numbers, followed by "feet" or "miles") of proposed work

2.7.b Right-of-Way and Utility Improvement

PARCELS: The user should identify the number of parcels that will need to be acquired for adequate Right-of-Way (ROW) for the proposed solution(s). Parcel information can be obtained from tax parcel maps at the local municipality(ies) or from the PennDOT District ROW office for problems identified on state roadways and bridges.

EXTENT AND LOCATION: The user should describe the extent and location of the proposed parcels for acquisition. The user should also identify all proposed parcels for acquisition on a map(s). (The map(s) and any other related documents can be attached to the **ATTACHMENTS** section at the bottom of the Level 2 Form.)

UTILITIES: The user should identify all utilities that will be impacted within the limits of work. The user should use the Utility Relocation Electronic Document Management System (UREDMS), or contact the PennDOT District to identify the appropriate utilities.

2.7.c Railroads Involvement

The User should identify all involvement and/or impacts to active and inactive railroads, including rail lines, crossing, bridges and/or signals. The User should use the Grade Crossing Electronic Document Management System (GCEDMS), or contact the PennDOT District for assistance.

1. Indicate if there is any **RAILROAD INVOLVEMENT**; if **YES** is selected, a **NAME OF RAIL OPERATORS** text box will appear
2. Click on Add; a ***Railroad Operators*** selection window will appear
3. Select the appropriate railroad operator(s) and click on OK

> *Select multiple* ***RAILROAD OPERATORS*** *by holding down the keyboard* Ctrl *key while selecting.*

2.7.d Pedestrian/Bicycle Trails Involvement

The user should identify any known involvement or impact of the proposed solution(s) with pedestrian/bicycle trails and/or transit stations/centers.

1. Indicate if there is any involvement with **PEDESTRIANS, BICYCLE TRAILS, TRANSIT STATIONS/CENTERS**; if **YES** is selected, a **DETAILED DESCRIPTION** text box will appear
2. Type a description of the known pedestrian/bicycle trails or transit station/centers impacts and involvement

2.7.e Act 167 Watershed

The system auto-populates the answer (**YES** or **NO**) to "Is the proposal in an Act 167 watershed?" based on the information generated by **SECTION 2.5.1 RESOURCE ANALYSIS**. The system indentifies watersheds and/or counties with approved Act 167 plans. **YES** indicates that additional coordination on storm water runoff may be necessary.

2.7.f Bridge Structure Proposal

The user should identify the proposed bridge structure information for identified problems and proposed solutions that involve a bridge structure. The user should contact the PennDOT District Design Unit for assistance.

2.7.f Bridge Structure Proposal

Category	Existing	Proposed
Type	1-9-3-10	
Type Description	Reinforced - Other - Continuous, non-composite - I-riveted beams	
Weight Restriction	--A	
Height Restriction Left		
Height Restriction Right	99.9	
Curb to Curb Width	32.0999985	
Shoulder Width Left	1.5	
Shoulder Width Right	1.5	
Under Clearance	99.9	
Lateral Clearance	99.9-99.9	
Sufficiency Rating	76.8	
Length	274	
Service on Type	1	
NBI Rating	2	

Additional Comment

Figure 31: Item 2.7.f Bridge Structure Proposal

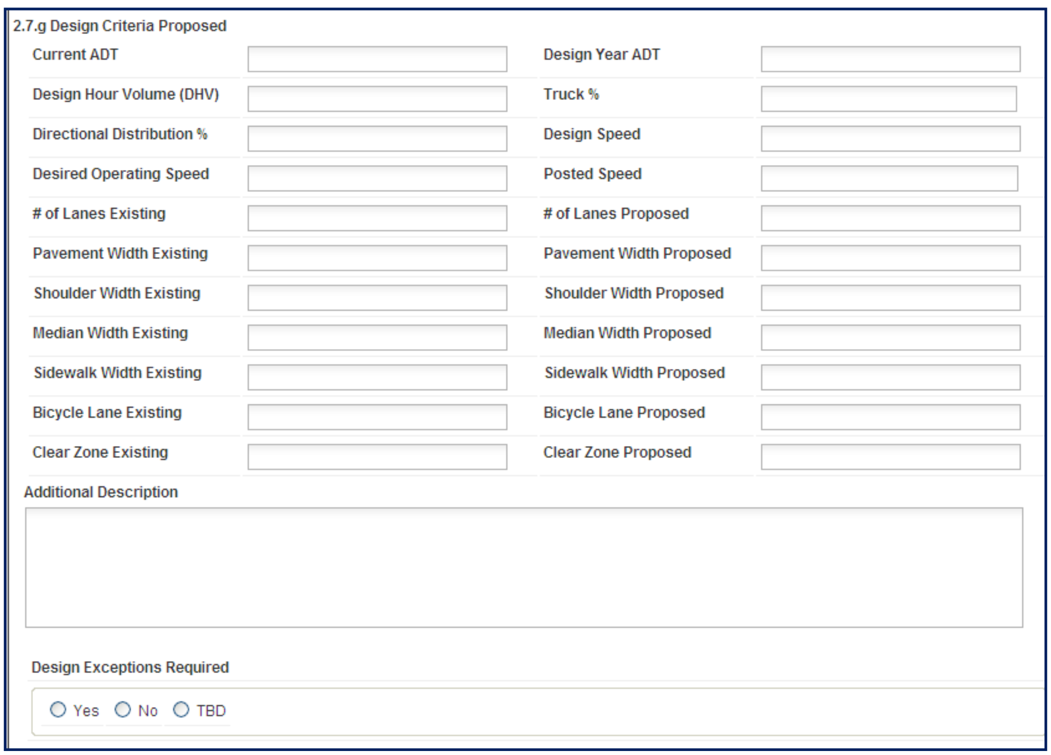
*The system will auto-populate **EXISTING** bridge data for each category with data from the selected bridge(s) in **SECTION 2.1 SCREENING TYPE**. The **PROPOSED** data should be entered as numeric or symbol characters only.*

1. Type the **PROPOSED** Bridge Structure data in the text box to the right of the existing data for each relevant category
2. Type any **ADDITIONAL COMMENTS** related to the structure proposal in the text box at the end of **2.7.f**

2.7.g Design Criteria Proposed

The user should identify the design criteria associated with the route segments identified in **SECTION 2.1 SCREENING TYPE**. The existing and proposed design criteria should be identified by the user on the Level 2 Form. The user should also indicate if any design exceptions are anticipated. Existing design values can be obtained from the roadway data displayed in **SECTION 2.1 SCREENING TYPE**, PennDOT RMS, or by contacting the PennDOT District office.

*Note: The information entered in **SECTION 2.7g** should generally be representative of the entire group of segments identified on the Level 2 Form.*


2.7.g Design Criteria Proposed

Current ADT		Design Year ADT	
Design Hour Volume (DHV)		Truck %	
Directional Distribution %		Design Speed	
Desired Operating Speed		Posted Speed	
# of Lanes Existing		# of Lanes Proposed	
Pavement Width Existing		Pavement Width Proposed	
Shoulder Width Existing		Shoulder Width Proposed	
Median Width Existing		Median Width Proposed	
Sidewalk Width Existing		Sidewalk Width Proposed	
Bicycle Lane Existing		Bicycle Lane Proposed	
Clear Zone Existing		Clear Zone Proposed	

Additional Description

Design Exceptions Required

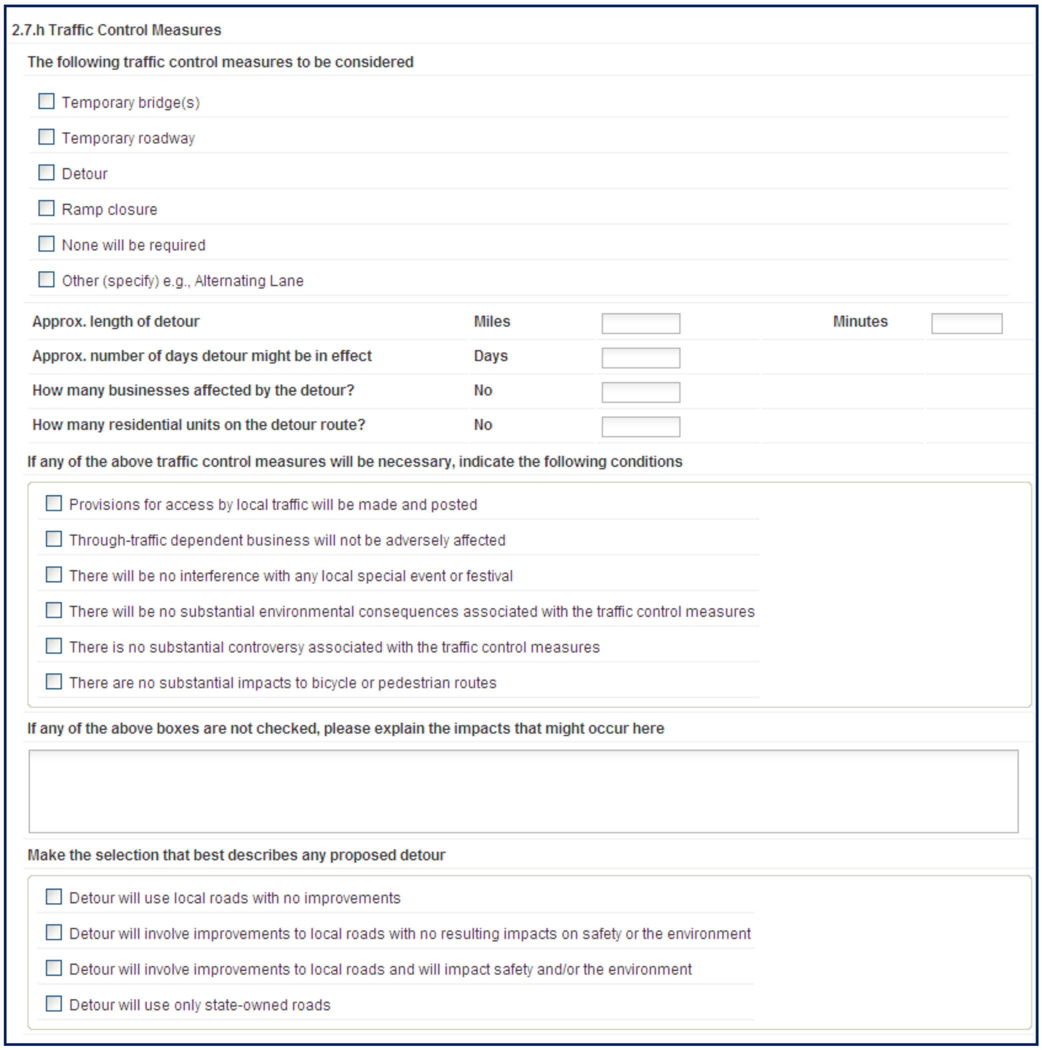
Yes No TBD

Figure 32: Item 2.7.g Design Criteria Proposed

1. Type the **EXISTING DESIGN CRITERIA** in each of the corresponding text boxes for the roadway segment(s)
2. Type the **PROPOSED DESIGN CRITERIA** in each of the corresponding text boxes for the roadway segment(s)
3. Type any **ADDITIONAL DESCRIPTION** or related information in the text box provided
4. Select the appropriate radio button *(Yes, No, TBD)* to indicate anticipated **DESIGN EXCEPTIONS REQUIRED**
5. If **YES** is selected, describe the anticipated design exceptions in the text box provided

2.7.h Traffic Control Measures

The user should identify the appropriate traffic control measures to be considered as part of the proposed solution(s). The user should contact and coordinate with the PennDOT District Traffic Unit to complete this section.



2.7.h Traffic Control Measures

The following traffic control measures to be considered

- ☐ Temporary bridge(s)
- ☐ Temporary roadway
- ☐ Detour
- ☐ Ramp closure
- ☐ None will be required
- ☐ Other (specify) e.g., Alternating Lane

Approx. length of detour	Miles		Minutes	
Approx. number of days detour might be in effect	Days			
How many businesses affected by the detour?	No			
How many residential units on the detour route?	No			

If any of the above traffic control measures will be necessary, indicate the following conditions

- ☐ Provisions for access by local traffic will be made and posted
- ☐ Through-traffic dependent business will not be adversely affected
- ☐ There will be no interference with any local special event or festival
- ☐ There will be no substantial environmental consequences associated with the traffic control measures
- ☐ There is no substantial controversy associated with the traffic control measures
- ☐ There are no substantial impacts to bicycle or pedestrian routes

If any of the above boxes are not checked, please explain the impacts that might occur here

Make the selection that best describes any proposed detour

- ☐ Detour will use local roads with no improvements
- ☐ Detour will involve improvements to local roads with no resulting impacts on safety or the environment
- ☐ Detour will involve improvements to local roads and will impact safety and/or the environment
- ☐ Detour will use only state-owned roads

Figure 33: Item 2.7.h Traffic Control Measures

1. Select all relevant **TRAFFIC CONTROL MEASURES** to be considered in the proposed solution
2. Type the approximate length (**MILES**) of the detour and the approximate travel time (**MINUTES**) of the detour route
3. Type the approximate number of **DAYS** that the detour is expected to be in effect
4. Type the number of **BUSINESSES** that are anticipated to be affected by the detour
5. Type the number of **RESIDENTIAL** units that are located on the detour route
6. Select all **CONDITIONS** related to the identified traffic control measures, if appropriate
7. Type a description of the potential **IMPACTS** for any conditions that are not selected
8. Select the most appropriate description of the **PROPOSED DETOUR**

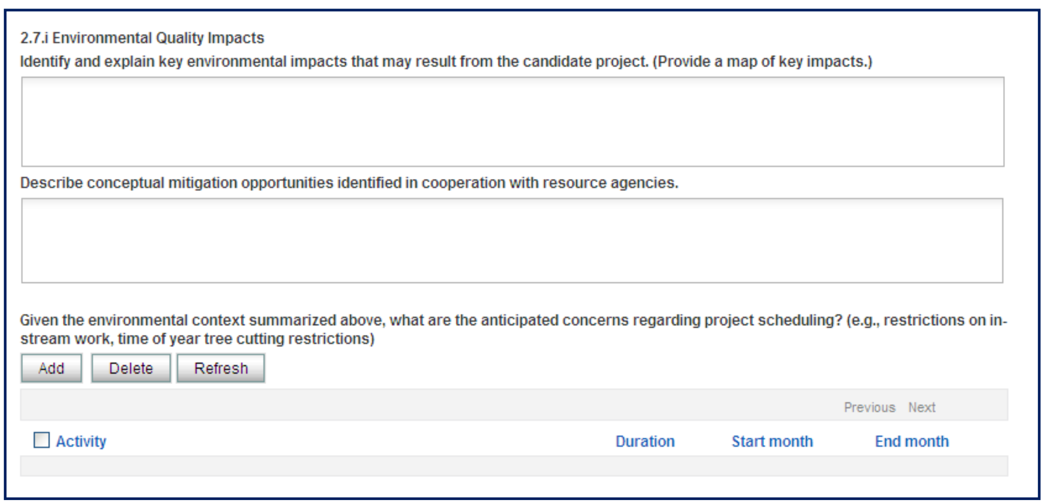
2.7.i Environmental Quality Impacts

The user should identify and explain any key environmental impacts that may result from the proposed solution. The user should attach a map(s) to identify the locations of the key impacts.

> *Upload maps (and other supporting documents) to identify key impacts in **SECTION 2.9 ATTACHMENTS**.*

The user should identify and describe any conceptual mitigation opportunities identified through coordination with resource agencies, including opportunities identified at Agency Coordination Meetings (ACMs).

The anticipated solution proposal schedule of activities should be provided. These activities can be identified through coordination with the appropriate environmental personnel. The user should contact the PennDOT District Environmental Unit for assistance.



2.7.i Environmental Quality Impacts

Identify and explain key environmental impacts that may result from the candidate project. (Provide a map of key impacts.)

Describe conceptual mitigation opportunities identified in cooperation with resource agencies.

Given the environmental context summarized above, what are the anticipated concerns regarding project scheduling? (e.g., restrictions on in-stream work, time of year tree cutting restrictions)

Add Delete Refresh

Previous Next

Activity	Duration	Start month	End month

Figure 34: Item 2.7.i Environmental Quality Impacts

1. Type a description of the **KEY ENVIRONMENTAL IMPACTS** that may result from the candidate project (solution proposal)
2. Attach a map that helps illustrate these impacts in **SECTION 2.9** **ATTACHMENTS**
3. Type a description of the **CONCEPTUAL MITIGATION** opportunities identified in cooperation with resource agencies (e.g., at an ACM)
4. If there are project activities that might be restricted for some reason (weather conditions, for example), click on Add ; this accesses the Project Schedule Activity window

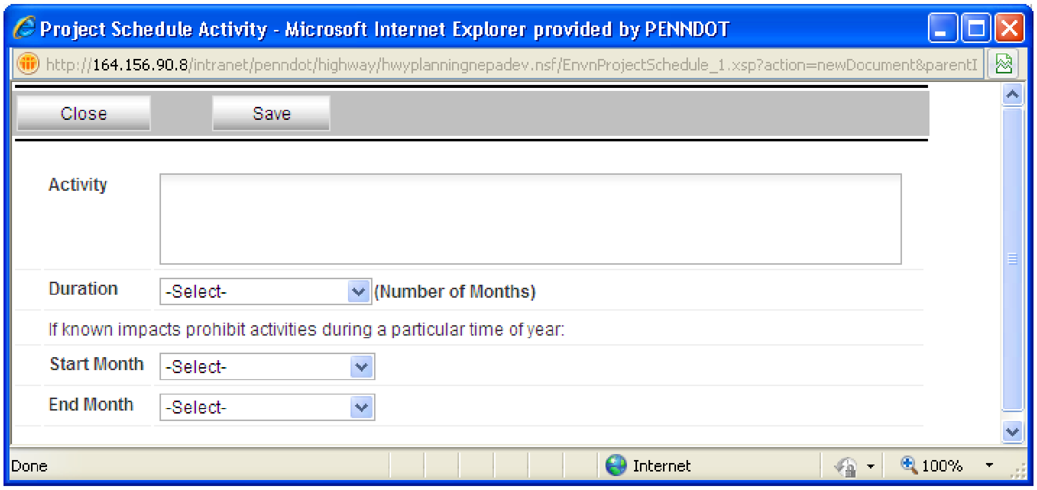


Figure 35: Project Schedule Activity Window

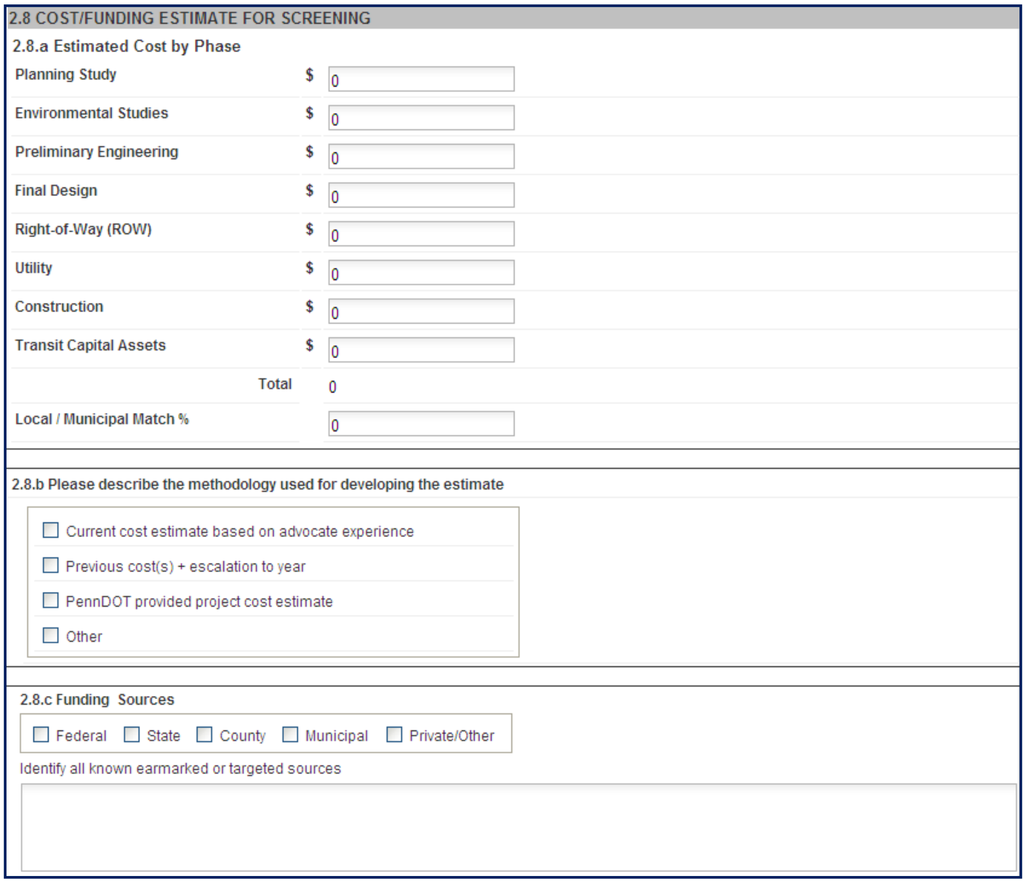
5. Describe the **ACTIVITY**
6. Select a project **DURATION** (number of months)
7. Select **START** and **END** months to indicate a particular time of year during which known impacts prohibit the activity listed
8. Click on Save; the system displays a confirmation window that indicates the activity has been added to the form
9. Click on Close
10. Continue entering project **ACTIVITIES** by following Steps 4 through 9

*There is no limit to the number of **ACTIVITIES** that can be added under Section 2.7.i Environmental Quality Impacts.*

Section 2.8 Cost/Funding Estimate for Screening

The user should identify preliminary cost estimates for each phase of the candidate project in this section. The system will calculate the total estimated cost based on the dollar amounts provided. The user should describe the methodology used to develop the cost estimates and anticipated funding sources to be allocated to the candidate project.

For details on how to use the cost-estimating tool in LPN, see [Appendix E](#).


2.8 COST/FUNDING ESTIMATE FOR SCREENING

2.8.a Estimated Cost by Phase

Planning Study	$	0
Environmental Studies	$	0
Preliminary Engineering	$	0
Final Design	$	0
Right-of-Way (ROW)	$	0
Utility	$	0
Construction	$	0
Transit Capital Assets	$	0
Total		0
Local / Municipal Match %		0

2.8.b Please describe the methodology used for developing the estimate

- ☐ Current cost estimate based on advocate experience
- ☐ Previous cost(s) + escalation to year
- ☐ PennDOT provided project cost estimate
- ☐ Other

2.8.c Funding Sources

☐ Federal ☐ State ☐ County ☐ Municipal ☐ Private/Other

Identify all known earmarked or targeted sources

Figure 36: Section 2.8 Cost/Funding Estimate for Screening

2.8.a Estimated Cost by Phase

The preliminary cost estimates should be jointly developed by the appropriate PennDOT District staff and MPO/RPO staff.

Planning Study

The user should enter any preliminary costs associated with completed or current planning studies related to the proposed project. The user should contact the MPO/RPO to identify completed and/or current planning studies.

Environmental Studies

The user should enter any preliminary costs associated with any completed or current environmental studies related to the proposed project. The user should contact the MPO/RPO and PennDOT District office to identify completed and/or current environmental studies.

Preliminary Engineering

The user should enter the preliminary costs associated with the preliminary engineering phase of the proposed project. The user should refer to the *PennDOT Design Manual Part 1C (DM-1C)* and *PennDOT Estimation Manual (Pub 352),* or contact the PennDOT District office for guidance.

Final Design

The user should enter the preliminary costs associated with the final design phase of the proposed project. The user should refer to the *PennDOT DM-1C* and *PennDOT Estimation Manual (Pub 352),* or contact the PennDOT District office for guidance.

Right-of-Way (ROW)

The user should enter any preliminary costs associated with the right-of-way phase of the proposed project. The user should refer to the *PennDOT DM-1C* and *PennDOT Estimation Manual (Pub 352)*, or contact the PennDOT District office for guidance.

Utility

The user should enter any preliminary costs associated with the utility phase of the proposed project. The user should refer to the *PennDOT DM-1C* and *PennDOT Estimation Manual (Pub 352),* or contact the PennDOT District office for guidance.

Construction

The user should enter any preliminary costs associated with the construction phase of the proposed project. The user should refer to the *PennDOT DM-1C* and *PennDOT Estimation Manual (Pub 352)*, or contact the PennDOT District office for guidance.

Transit Capital Assets

The user should enter any transit capital assets associated with the proposed project. The user should contact the PennDOT Bureau of Public Transit or the local transit provider for more information.

Local/Municipal Match %

The user should identify any known local or municipal funding match to be allocated to the proposed project, and enter the percentage of total project cost. The user should coordinate with the local municipality and PennDOT District office to identify the funding match, if any.

2.8.b Please describe the methodology used for developing the estimate

The user should identify the methodology used in the development of the cost estimates for the proposed project.

1. Select the appropriate **METHODOLOGY** used to develop the cost estimate
2. If Other is selected, enter details, including previous costs and escalation to year identified, in the text box that appears below the list of checkboxes

2.8.c Funding Sources

The user should select the appropriate funding source(s) and identify the years and amounts of any funding earmarks or reserved allocations associated with the proposed project.

1. Select one or more **FUNDING SOURCES** (Federal, State, County, Municipal, Private/Other) associated with the proposed project
2. List the funding agency, monies available and associated years of money availability in the **EARMARK** text box

Section 2.9 Attachments

If the user has attached any documents (maps, meeting minutes, studies, etc.) to the Level 2 Form, they will be listed in the **ATTACHMENTS** section. Additional attachments can be added or deleted here as well.

> *Accepted attachment formats include MS Word, MS Excel, PDF, and any standard Image file type. Maximum size of each attachment is 9MB.*

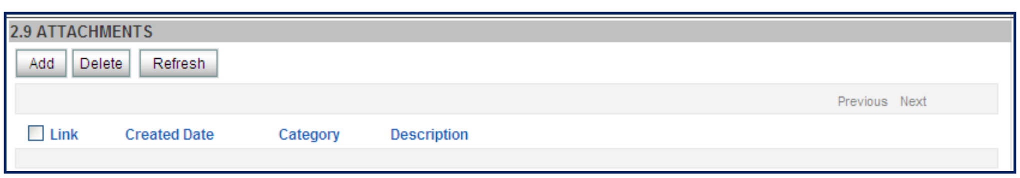


Figure 37: Section 2.9 Attachments

Add Attachments

1. Click on Add to upload any attachments that may assist in the review and processing of the Level 2 Form; the system will open an ***Attachment*** window where you can browse for attachments

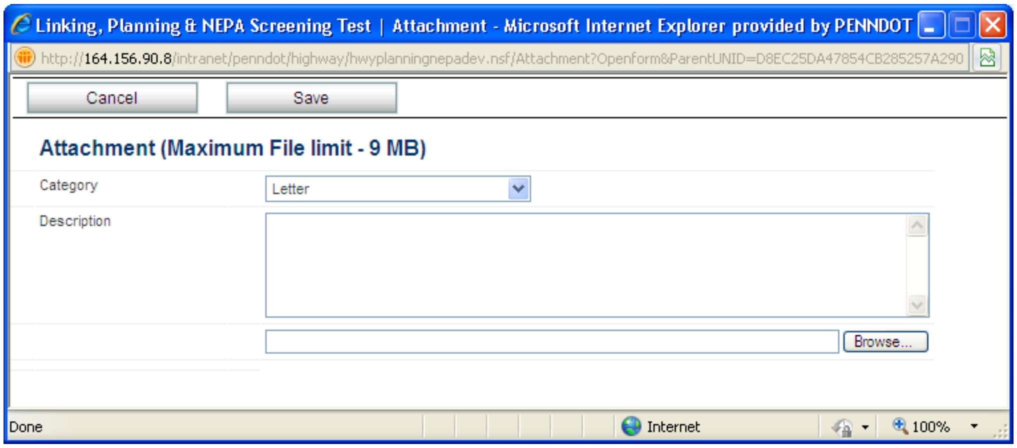


Figure 38: Attachment Window

2. Select a **CATEGORY** from the drop-down list that best describes the type of attachment you are uploading
3. Type a **DESCRIPTION** of the attachment
4. Click on Browse... to open the Windows ***Choose File to Upload*** window and locate the attachment on the local hard drive or network
5. Select the attachment and click on Open to save the attachment path and return to the ***Attachment*** window
6. Click on Save to add the selected attachment to the form
7. Verify that the attachment is listed in the attachment table in **SECTION 2.9** of the Level 2 Form (you might need to click on Refresh to show the most current list of attachments)

Multiple attachments can be uploaded, one attachment at a time. The form will display up to five attachments at a time. Display additional attachments by using the pagination controls in the corner of the attachment listing.

Delete Attachments

1. Click in the checkbox to the left of the attachment to be deleted from the attachment list
2. Click on Delete; the system will display a ***Delete Attachment*** confirmation window
3. Click on OK to delete the specified attachment
4. Verify that the specified attachment was removed from the list (you might need to click on Refresh to show the most current list of attachments)

Select the checkbox located to the left of the **LINK** *heading to delete up to five attachments in one step.*

If there are more than five attachments, the first five will be deleted when you select **LINK** *and click on* Delete*. Once you delete them, the next five attachments will be moved to Page 1, where you can click on* Delete *again to remove them from the form (they will already be checked).*

Request Edits

Process Leads are not expected to complete the entire Level 2 Form on their own. The Process Lead can request input from subject matter experts (other Process Leads and Planners) through a notification email generated by the system. The Process Lead that initiated the Level 2 Form must save the form prior to the request for input from other users. These subject matter experts can open the Level 2 draft and add or edit information as requested by the Process Lead.

The Process Lead must save the form by clicking on Save *prior to requesting edits.*

1. Select Request Edits at the top of the screen; the system displays the ***Request Edits*** window

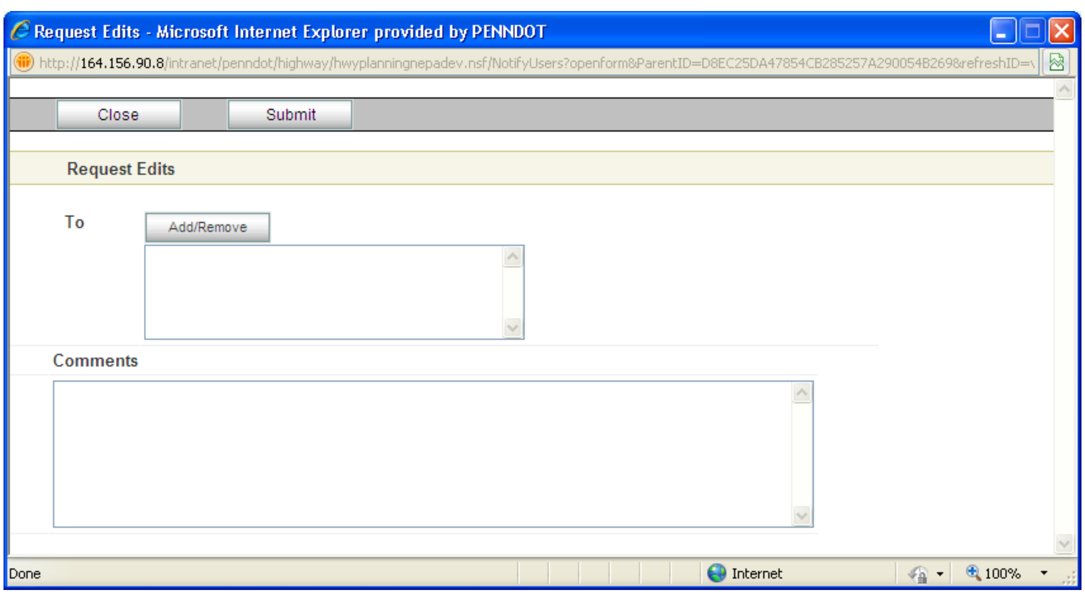


Figure 39: Request Edits Window

2. Click on Add/Remove ; the ***Select People*** window will appear
3. Select the user(s) to be notified and given access to the Level 1 Form by selecting the checkbox next to the first name(s)

> *To search for specific user names, enter the first or last name in the search box at the top right corner of the* ***Select People*** *window and click on* GO.

4. Click on OK
5. Type specific instructions in the Comments text box that include the section(s) of the Level 2 Form to be edited by the email recipient(s)
6. Click on Submit; a notification window will appear asking the user "You are about to send email message to selected below recipients. Do you wish to continue?"
7. Click on OK

The system will:

- Update the **AUDIT TRAIL TAB** to indicate that edits were requested
- Generate a notification email to the specified recipient(s)

Editing Complete

Once the subject matter experts receive the notification email that indicates the Process Lead who created the Level 2 Form wants their input, they can click on the link in the email to open the form. The email will include the Process Lead's comments regarding what parts of the form might need to be edited.

1. Open the notification email from the Process Lead
2. Click on the link in the notification email to open the form in ***View*** mode
3. Click on Edit to switch the form to ***Edit*** mode
4. Make the requested changes to the form
5. When finished, click on Editing Complete; the system returns the ***Editing Complete*** window, which displays the original requester's name in the **TO** field
6. If you want to change the recipient, click on Add/Remove
7. Select the user(s) to be notified that editing is complete by selecting the box next to the first name(s)
8. Click on OK
8. Type a comment in the Comments text box
9. Click on Submit
10. A notification window will appear asking the user "You are about to send email message to selected below recipients. Do you wish to continue?"
11. Click on OK

The system will:

- Update the **AUDIT TRAIL TAB** to indicate that edits were submitted
- Generate a notification email to the specified recipient(s)

Submit a Level 2 Form for Review and Processing

The user should review the Level 2 Form prior to submission to verify all appropriate sections of the form have been completed. Upon submission of the form, the Process Lead will be notified that the form is available for review and recommendation.

1. On the open form, click on [Submit]; the system validates all data

> *Submission of the form cannot proceed with validation errors.*

2. If any validation errors, the system will return a message and highlight each error for correction
3. Correct validation errors and resubmit, if necessary
4. If no validation errors, the system displays a confirmation window
5. Click on [OK] ; the system displays the ***All Submitted Level 2's Forms List***
6. Verify that the submitted form displays in the ***Forms List***

The system will:

- Update the form status to **Awaiting Review**
- Update the **AUDIT TRAIL TAB** to indicate the submission action taken
- Generate a notification email to all Process Leads in the MPO/RPO region

Section 2.10 Form Review

The review and recommendation process begins when the Process Lead receives a notification email that a Level 2 Form has been submitted.

Form Review

The MPO/RPO and PennDOT District Process Leads should review the form (with assistance from Reviewers, if desired). At the time of review, the Process Lead can attach comments to the form, or request feedback from other users before they make a recommendation.

1. Select the form from the link in the **NOTIFICATION** email (or from the ***Forms List***); the system displays the form in the ***View*** mode
2. Review the information provided on the submitted form

Process Lead Comments

The Process Lead can add comments to a Level 2 Form any time before the recommendation is made. Once submitted, Process Lead comments are added to the **ADDITIONAL COMMENTS TAB** of that form.

1. In ***View*** or ***Edit*** mode, click on [Process Lead Comments] at the top of the open form; the system displays the ***Process Lead Comments*** window

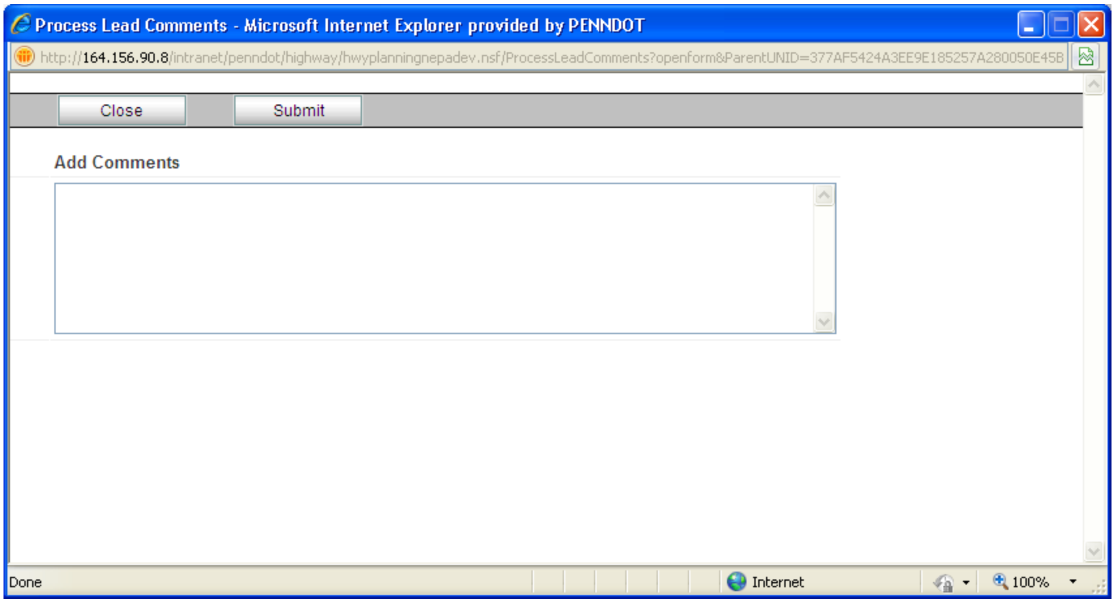


Figure 40: Process Lead Comments Window

2. Type comments in the **ADD COMMENTS** text box
3. Click on [Submit]; a message window will appear asking the user *"You will not be able to change the submitted comments, do you wish to continue?"*
4. Click on [OK]

The system will:

- Add the comment (and related details) to the **ADDITIONAL COMMENTS TAB** of the form
- Update the **AUDIT TRAIL TAB** to indicate that comments were added to the form

Request Feedback

The Process Lead can request additional review and comments from other users (other Process Leads, Planners and Reviewers) while the form is in a status of "Awaiting Review." This step in the process ensures review of the Level 2 Form by all appropriate users, in addition to the Process Lead who created the form.

1. In ***View*** mode, click on Request Feedback at the top of the open form; the system displays the ***Request Feedback*** window

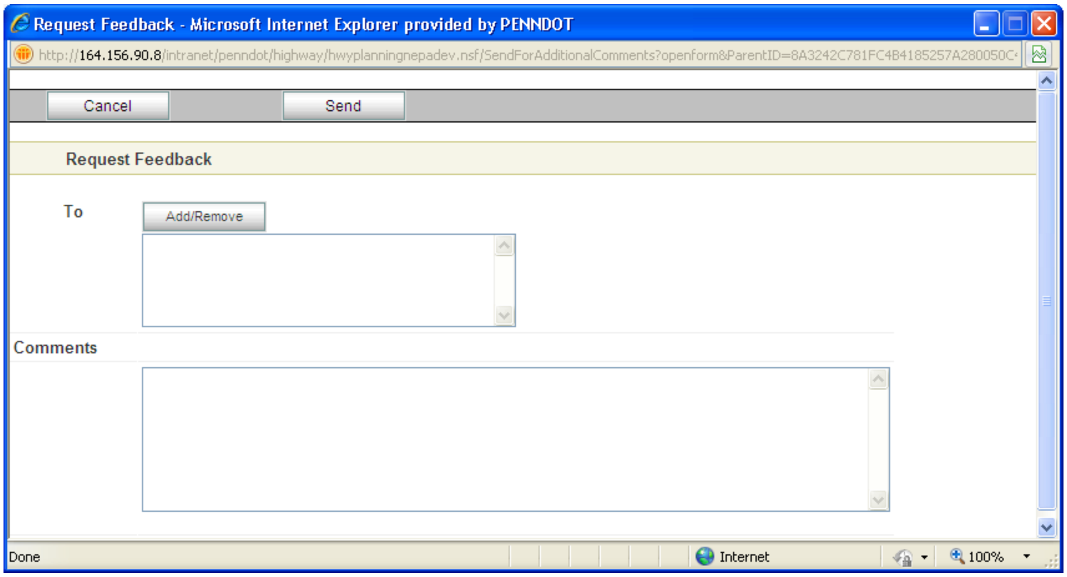


Figure 41: Request Feedback Window

2. Click on Add/Remove ; the ***Select People*** window will appear
3. Select the user(s) to be notified and given access to the Level 1 Form by selecting the checkbox next to the first name(s)

> *To search for specific user names, enter the first or last name in the search box at the top right corner of the* ***Select People*** *window and click on* GO.

4. Click on OK to close the ***Select People*** window, and to add the specified names to the **TO** field on the ***Request Feedback*** window
5. Enter comments regarding the feedback you are requesting; these comments will appear in the notification email that is sent to the specified recipient(s)
6. Click on Send ; a notification window will appear asking the user "You are about to send email message to selected below recipients. Do you wish to continue?"
7. Click on OK

The system will:

- Add the feedback request (and related details) to the **ADDITIONAL COMMENTS TAB** of the form, indicating that a request for feedback has not been fulfilled yet
- Update the **AUDIT TRAIL TAB** to indicate that a request for feedback has been issued
- Generate a notification email to the specified recipient(s)

Submit Feedback

A notification email indicating that feedback is requested is sent to all users identified in the ***Request Feedback*** window. Up to a 10-minute delay may occur between the request for feedback and the notification email reaching the recipient's email inbox. Users (Process Leads, Planners and Reviewers) who receive a notification email can open the Level 2 Form through the link provided in the email. Users can provide feedback/comments to assist the Process Lead in making a recommendation for the Level 2 Form, as long as the form is in a status of "Awaiting Review."

1. Click on the link provided in the **NOTIFICATION** email to access the form; the system displays the form in the ***View*** mode
2. Review the submitted form
3. Click on [Submit Feedback] at the top of the open form; the system displays the ***Submit Feedback*** window
4. Type comments that may assist in making a recommendation for the Level 2 Form
5. Click on [Submit] to save comments; a message window will appear asking the user *"You will not be able to change the submitted comments, do you wish to continue?"*
6. Click on [OK]

The system will:

- Add the feedback (and related details) to the **ADDITIONAL COMMENTS TAB** of the form
- Update the **AUDIT TRAIL TAB** to indicate that feedback was added to the form
- Generate a notification email to the user who sent the feedback request

> *The system will automatically update the **ADDITIONAL COMMENTS TAB** with each reviewer's returned feedback, providing the Process Lead with the ability to keep track of who completes the requested review. A submitted feedback entry will overwrite the feedback request entry in the Comments Table.*

MPO/RPO and PennDOT Process Leads Review

Upon completion of the form, a Process Lead and the MPO/RPO Committee review the information on the form and determine the appropriate recommendation.

1. Open the form; the system displays the form in ***View*** mode
2. Click on [Edit] at the top of the screen to display the form in ***Edit*** mode
3. Click on the **ADDITIONAL COMMENTS TAB** at top of form to review the **COMMENTS TABLE**
4. If a comment exceeds the space provided, click on the <u>…more</u> link to open the ***Submit Feedback*** window, which displays the comment in its entirety
5. Click on [Close] to return to the open form
6. Click on the **AUDIT TRAIL TAB** at top of form to review form history

7. Scroll to **SECTION 2.9 ATTACHMENTS** to view attachments, if provided
8. When appropriate, select the *Yes* checkboxes in **2.10 REVIEW** that correspond to the appropriate Process Leads who have conducted their final reviews
9. Upon selecting *Yes*, the **REVIEW DATE** fields will auto-populate with the current timestamp

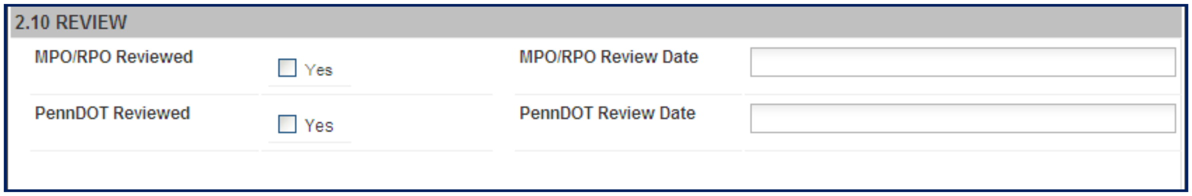


Figure 42: Section 2.10 Review

The MPO/RPO and PennDOT Process Leads must select both Yes checkboxes in order for **SECTION 2.11 RECOMMENDATION** *to appear.*

Process Leads should consider eligibility for alternative funding types such as the CMAQ, HSIP, and Transportation Alternatives programs and coordinate with the appropriate PennDOT Central Office and FHWA staff to determine eligibility for funding of the proposals prior to making any Recommendation to the LRTP/TIP and attach any documentation as appropriate.

The form should be included in a scheduled review committee meeting, per ***MPO/RPO Committee Recommendation*** *outlined below.*

Level 2 Form Recommendation

The recommendation process starts after the Process Leads for the MPO/RPO and the PennDOT District complete the final review of form data, and after completing **SECTION 2.10 REVIEW**. The MPO/RPO Committee will hold a meeting to review submitted Level 2 Forms and to assign recommended actions. The Process Lead will then choose the recommended action on the Level 2 Form to move the form forward for further processing.

Figure 43: Section 2.11 Recommendation

MPO/RPO Committee Recommendation

1. Open the form; the system displays the form in ***View*** mode
2. Click on [Edit] at the top of the screen to display the form in ***Edit*** mode
3. Review the submitted form data, including **SECTION 2.9 ATTACHMENTS**
4. Click on the **ADDITIONAL COMMENTS TAB** at top of form to review the **COMMENTS TABLE**
5. Click on the **AUDIT TRAIL TAB** at top of form to review form history
6. On the main part of the form, select the value in **SECTION 2.11 RECOMMENDATION** that the MPO/RPO Committee agrees on
7. Click on [Recommendation]

The system will:

- Update the status of the form to the selected recommendation
- Display the form in the appropriate ***Forms List***

Selecting a Recommendation

Select the appropriate recommendation from one of the values listed in **SECTION 2.11 RECOMMENDATION** for subsequent processing of the form.

Defer

Select **DEFER** when the proposed solution is not able to be accommodated within the process at the current time due to reasons such as limited funding availability or lack of local match.

1. Select **DEFER**
2. Click on [Recommendation]

The system will:

- Update the form status to **Defer**
- Update the **AUDIT TRAIL TAB** with the appropriate action taken
- Generate a notification email to all Process Leads in the MPO/RPO region
- Archive the open form for future reference, viewing, and processing

Dismiss

Select **DISMISS** when the proposed solution is inappropriate for the process; such as funding ineligibility, inconsistent with the MPO/RPO Region LRTP, or other known disqualifying elements.

1. Select **DISMISS**
2. Click on [Recommendation]

The system will:

- Update the form status to **Dismiss**
- Update the **AUDIT TRAIL TAB** with the appropriate action taken
- Generate a notification email to all Process Leads in the MPO/RPO region
- Close and archive the form for future reference and viewing

Recommended to LRTP/TIP

Select **RECOMMENDED TO LRTP/TIP** when the reviewing committee determines the proposed solution could be appropriately defined and the project should be considered for inclusion in the LRTP (and ultimately the TIP).

1. Select **RECOMMENDED TO LRTP/TIP**
2. Click on [Recommendation]

The system will:

- Update the form status to **Recommended to LRTP/TIP**
- Update the **AUDIT TRAIL TAB** with the appropriate action taken
- Generate a notification email to all Process Leads in the MPO/RPO region

On LRTP/TIP

Select **ON LRTP/TIP** when the reviewing committee determines the proposed solution is appropriately defined and a project is to be entered into the region's selection and prioritization process for inclusion in the LRTP (and ultimately the TIP), at the next update cycle, or an earlier timeframe as appropriate. Follow ***Changing the Status of a Level 2 Form*** below to update the status from **RECOMMENDED TO LRTP/TIP**, if necessary.

1. Select **ON LRTP/TIP**
2. Click on Recommendation

The system will:

- Update the form status to **On LRTP/TIP**
- Update the **AUDIT TRAIL TAB** with the appropriate action taken
- Generate a notification email to all Process Leads in the MPO/RPO region

Recommended to Level 3

Select **RECOMMENDED TO LEVEL 3** when the transportation problem is appropriate for further information and processing to define the problem. This status selection recommends the form to the MPO/RPO decision-making body to review and consider moving the form forward to Level 3 for further processing.

1. Select **RECOMMENDED TO LEVEL 3**
2. Click on Recommendation

The system will:

- Update the form status to **Recommended to Level 3**
- Update the **AUDIT TRAIL TAB** with the appropriate action taken
- Generate a notification email to all Process Leads in the MPO/RPO region

Approved to Level 3

Select **APPROVED TO LEVEL 3** when the transportation problem is appropriate for further information and processing to define the proposed solution. This status selection should be selected after the MPO/RPO decision-making body reviews and approves the form to move forward to Level 3. Regions may elect to select the recommended/referred status or approval status at this time. If the region's form review process requires a review committee and a governing body decision, then the Process Lead should first select **RECOMMENDED TO LEVEL 3** and then follow ***Changing the Status of a Level 2 Form*** below.

1. Select **APPROVED TO LEVEL 3**
2. Click on Recommendation

The system will:

- Update the form status to **Approved to Level 3**
- Update the **AUDIT TRAIL TAB** with the appropriate action taken
- Generate a notification email to all Process Leads in the MPO/RPO region

Planning Study Recommended

Select **PLANNING STUDY RECOMMENDED** when the alternative proposed solutions require further study to gather necessary details to better define scope, budget, and schedule. These studies will typically be funded through the MPO/RPO TIP, and require approval before they can begin.

1. Select **PLANNING STUDY RECOMMENDED**
2. Click on [Recommendation]

The system will:

- Update the form status to **Planning Study Recommended**
- Update the **AUDIT TRAIL TAB** with the appropriate action taken
- Generate a notification email to all Process Leads in the MPO/RPO region

Planning Study Approved

Select **PLANNING STUDY APPROVED** when a recommended planning study has been approved. A Level 3 Form will need to be generated to gather additional information and move alternative solutions forward for selection and prioritization on the LRTP/TIP. The Level 3 Form serves as an addendum to the associated Level 2 Form and therefore collects supplemental information. Follow ***Change Status*** below to update the status from **PLANNING STUDY RECOMMENDED**, if necessary.

1. Select **PLANNING STUDY APPROVED**
2. Click on [Recommendation]

The system will:

- System updates the form status to **Planning Study Approved**
- System updates the **AUDIT TRAIL TAB** with the appropriate action taken
- System generates a notification email to all Process Leads in the MPO/RPO region

Changing the Status of a Level 2 Form

The Process Lead, after review and decision by the MPO/RPO Committee/governing body will need to reopen the Level 2 Form(s) with a status of a ***recommended*** action (e.g., Recommended to LRTP/TIP, Planning Study Recommended, Recommended to Level 3) and change the status of the form to the

approved status (e.g., On LRTP/TIP, Planning Study Approved, Approved to Level 3) for further processing.

If the Level 2 Form is approved for a Level 3 screening, a Level 3 Form will need to be generated by the Process Lead to create an addendum to the Level 2 Form. If a Process Lead determines that another Process Lead should initiate the Level 3 Form, then the first Process Lead should contact the other user by telephone or email.

1. Select the appropriate view link in ***Level 2 Views by Status*** in the ***Left Navigation Pane***
2. Select the form to be viewed from the ***Forms List***, or select the link from the **NOTIFICATION** email indicating the Level 2 Form has been recommended to LRTP/TIP, planning study or Level 3; the system displays the form in the ***View*** mode
3. Click on 

at the top of the form; the system displays the ***Update Status*** window

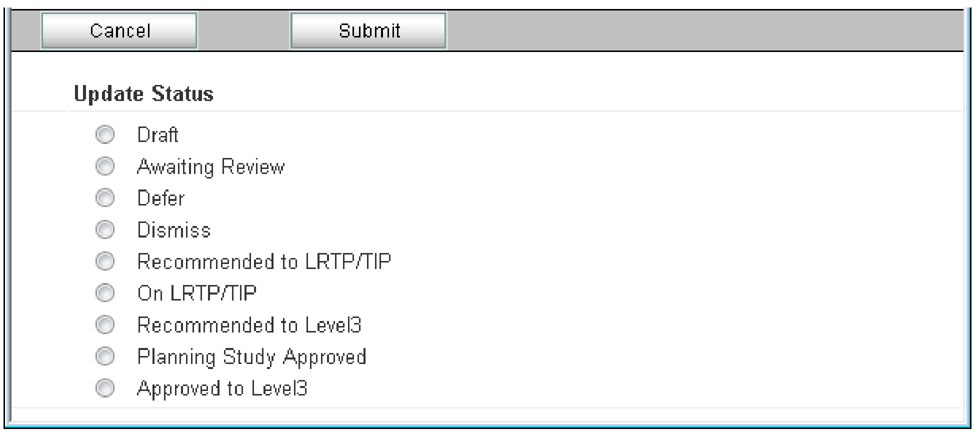


Figure 44: Update Status Window

4. Select the status you want to update the form to
5. Click on 

; the system returns a verification window
6. Click on 

The system will:

- Update the form status to your selection
- Update the **AUDIT TRAIL TAB** with the appropriate action taken
- Generate a notification email to all Process Leads in the MPO/RPO region

Creating a New MPMS Project from an LPN Form

Multi-Modal Project Management System (MPMS) is used to plan and program projects on the federally mandated regional Transportation Improvement Programs (TIPs) and the Commonwealth-mandated Twelve Year Program (TYP). To avoid the need to re-enter data into MPMS for projects that are related to those in LPN, Process Leads can create an MPMS project from an LPN form that is in "On LRTP/TIP" status and does not already have an MPMS project number. This process copies data from LPN to MPMS.

1. Open the Level 2 form in **On LRTP/TIP** status that you wish to create an MPMS project for
2. Click on [Edit]
3. Click on [Create MPMS Project]; the system returns the ***Create MPMS Project*** pop-up window

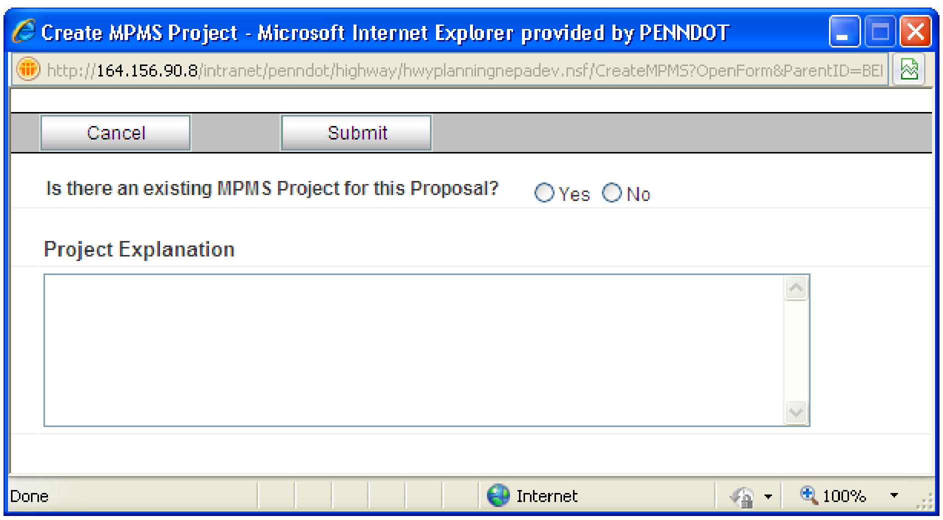


Figure 45: Create MPMS Project Window

4. Click in the No radio button
5. Make an entry in the Project Explanation text box
6. Click on [Submit]

The system will:

- Populate the **MPMS Project ID** field on the LPN form with the new MPMS number (this number is assigned by MPMS when the project is created)
- Update the **Audit Trail tab** with the appropriate action taken and the first 25 characters of the Project Explanation
- Generate a notification email to all Process Leads and Planners in the MPO/RPO region

Once the **MPMS PROJECT ID** field is populated (and the form's status is "On LRTP/TIP"), **the form is locked and cannot be edited**; however, the Change Status button is still displayed, so if you must edit the form, you will have to change the status to something other than "On LRTP/TIP" to open the form for editing. See *Changing the Status of a Level 2 Form* for details.

> *If, for some reason, MPMS is unable to create a project from LPN, an email will be sent to the Process Lead(s) and Planner(s) in the appropriate region, notifying them that MPMS could not process the request.*

Creating a New MPMS Project from a Linked Form in LPN

Only Parent and Lead forms will display the Create MPMS Project button when the form is in "On LRTP/TIP" status and there is no value in the **MPMS PROJECT ID** field. Conversely, Child and Subordinate forms will not display the Create MPMS Project button.

When you create an MPMS project from a Parent or Lead form, the MPMS project number that is returned populates the **MPMS PROJECT ID** field only on the Parent or Lead. The **MPMS PROJECT ID** field on Child and Subordinate forms is not automatically populated, although a Process Lead or Planner can manually enter a project number if necessary.

Searching for an Existing MPMS Project Number

If you click in the Yes radio button and click on Submit on the ***Create MPMS Project*** pop-up window, you will receive a message encouraging you to make sure the correct number exists in the **MPMS PROJECT ID** field; no other processing is performed at this point.

You can search MPMS for an existing project number by clicking on the *Search MPMS for Project Number* link in **SECTION 2.1**. This should take you to the ***MPMS Home Page***, where you can log in and enter search criteria. When you have found the project number you want to use, return to your form in LPN and enter the number in the **MPMS PROJECT ID** field. This is a manual process that does not copy data from LPN to MPMS, or from MPMS to LPN.

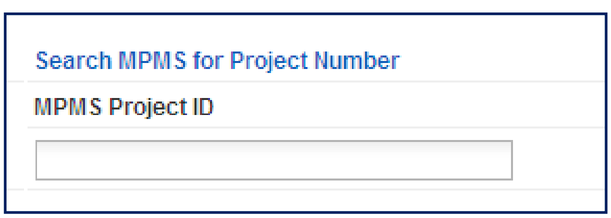


Figure 46: "Search MPMS for Project Number" Link and MPMS Project ID Field

7. LEVEL 3 FORM

Overview

The Level 3 Form is used to capture supplemental information for the associated Level 1 and Level 2 Forms, and to facilitate detailed studies when a Level 2 Form does not provide enough information. The Level 3 Form is used as part of the proposal definition phase of the project development process.

The Level 3 Form requires further refinement of the purpose and need(s) of a problem or proposal through the assessment of potential solutions and key design considerations. The completion of this screening form improves the breadth and depth of the information revealed in prior screening work. Agency coordination to assess preliminary impacts and define a conceptual mitigation plan is required. Ultimately, the information documented on the Level 3 Form will enable the sponsor to conduct an analysis of risk, prepare a project timeline, and develop Year of Expenditure (YOE) costs suitable for presentation to the PAC, which recommends action to the MPO/RPO Coordinating Committee/Board.

The Level 3 Form should be created when there are engineering, environmental and/or public participation issues that must be further defined and clarified prior to MPO/RPO LRTP/TIP consideration. The Level 3 Form should better define the scope, budget and schedule of a proposed solution. For more complex or capacity-adding projects, the Form documents the examination of potential alternatives and their ability to meet purpose and need(s) prior to programming on a TIP. The Level 3 Form serves as an addendum to the associated Level 2 Form.

It is clearly the intent of the proposal definition phase that elements of the planning process should be conducted in such a manner that the outcomes be usable in subsequent NEPA analyses with minimal duplication of effort. **Work done during the proposal definition to refine the purpose and need(s), examine alternatives, assess preliminary environmental impacts and develop a mitigation plan all need to be well documented and attached to the Level 3 Form.**

User Roles

Roles and Permissions

The PennDOT Central Office Program Manager and LPN Forms Help Desk have access to all forms. All other users have access only to forms relevant to their roles. The Process Lead should create the Level 3 form and may ask Planners to update various sections of the form.

Level 3 Form	Create	Move/ Manage	Edit/Update	Review/ Comment	View
Process Lead	✓	✓	✓		✓
Planners			✓	✓	✓
Reviewers				✓	✓
Stakeholders					✓
Viewers					✓

Available Status for Level 3 Forms

- Draft (saved by Advocate, but not submitted)
- Awaiting Review
- Defer
- Dismiss
- Recommended to LRTP/TIP
- LRTP/TIP Approved

Create a New Level 3 Form

A Process Lead must initiate a Level 3 Form. If the Process Lead identifies another Process Lead within his/her MPO/RPO region to initiate the Level 3 Form, then the Process Lead should contact the other user by telephone or email.

<u>Create a New Level 3 Form</u>

1. Open a Level 2 Form from the *<u>Approved to Level 3</u>* link in the ***Left Navigation Pane***; the system displays the form in ***View*** mode
2. Click on Create Level3 located at the top of the Level 2 Form; the system displays a new ***LRTP Development Screening Form (Level 3)***
3. Enter required data by following the steps in ***<u>Data Entry</u>*** below

> *All required data will be marked with a red asterisk (*) on the form, and will be highlighted in *red*, with asterisks, within the User's Guide.*
>
> *Click on* Close *to return to the **View List** page without saving any entered data.*

4. Click on Save to save the form, if you are not ready to submit it yet

> *A submitted form cannot be edited. Click on* Save *to save the form with data to return to editing later. The form status will be set to **DRAFT**.*

5. Click on Submit to submit the form for review and processing; the system generates a notification email to the Process Leads to notify them that a form has been submitted for review

Data Entry

The Level 3 Form contains multiple sections for completion by Process Leads or Planners, who provide additional details and information relating to the proposed solution(s). Some sections will be auto-populated with respective data from the Level 2 Form. Not all sections/sub-sections may be relevant. Sub-sections with checkboxes allow multiple selections.

Section 3.0 Proposal Contact Information

SECTION 3.0 displays the user contact information to be used by the system for notifications of reviews and processing statuses.

> *The system will auto-populate the **3.0 PROPOSAL CONTACT INFORMATION** with the user registration information for the Process Lead identified on the Level 2 Form.*

Section 3.1 Specific Location of Issue/Problem

The user should review and update information on the location of issue/problem. The system will auto-populate all data from **SECTION 2.1 PROPOSAL LOCATION/ PURPOSE/NEED(S)**. The user will have the ability to edit populated fields or add additional information as needed. Click on the *Level 2 Document* link (after the field label "Link to Related Form") to view information provided in the related Level 2 Form.

1. Verify and update the auto-populated information as needed
2. Select the appropriate answer *(Yes, No, Don't Know)* to ***SEPARATE NEEDS DOCUMENTATION EXISTS?***
3. If *Yes* is selected, describe the source and conclusion in the text box that appears

Section 3.2 Purpose and Need(s)

These fields are auto-populated from the data that was entered in **2.1.d PURPOSE** and **NEED(S)** on the Level 2 Form. Any changes to these statements should be provided.

1. Type any updates to the **PURPOSE** and **NEED(S)** provided on the Level 2 Form

Section 3.3 Environmental Review

Review comments and data from **SECTION 2.5 ENVIRONMENTAL** and all other environment-related Level 2 sections.

1. Type any significant changes to any of the environment-related information that was provided on the Level 2 Form

Section 3.4 Indicate Public/Agency Involvement Review Meeting(s) and the Date(s) they were Conducted

Identify public involvement and agency review meetings that occur after the submission of the associated Level 2 Form. Related documents should be attached to the Level 3 Form.

1. Type **LOCATION**, **DATE**, and **TOPIC(S)** for each review meeting initiated by each of the corresponding participants (click on to choose a calendar date)

> *The* **DATE** *must be entered by typing mm/dd/yyyy or by selecting* .

2. Click on (under the 3.4 heading) and follow the steps in ***Attachments*** below to attach relevant **MEETING MINUTES**

Section 3.5 Does the proposed project involve non-project-specific mitigation?

Indicate if the proposed project involves non-project-specific mitigation and provide all relevant attachments.

1. Select the appropriate radio button *(Yes, No)* to indicate whether it is expected that the proposed project will involve non-project-specific mitigation
2. If **YES** is selected, attach a summary of applicable resource agency coordination by clicking on and following the steps in ***Attachments*** below

Section 3.6 Potential Solutions Review

Review comments and data from **SECTION 2.6 POTENTIAL APPROACHES/SOLUTIONS** of the associated Level 2 Form and indicate any changes.

1. Type any significant changes to the proposed solution(s) identified in the associated ***Level 2 Form***

Section 3.7 Conceptual Engineering Review

Review comments and data from **SECTION 2.7 CONCEPTUAL ENGINEERING** of the associated Level 2 Form and indicate any significant changes.

1. Type any significant changes to the proposed solution(s) identified in the associated ***Level 2 Form***

Section 3.8 Cost/Funding Estimate for Screening

These fields are populated with data that was entered in **SECTION 2.8** of the Level 2 Form. The user can update these fields as needed.

Section 3.8.a Estimated Cost by Phase

1. If changes are necessary, type the updated cost/funding estimate for each phase of the project

Section 3.8.b Please Describe Methodology Used for Developing Estimate

1. If changes are necessary, select the **METHODOLOGY** used to develop the cost/funding estimate provided above in **SECTION 3.8.a ESTIMATED COST BY PHASE**

> *If the **OTHER** checkbox is selected, the system will display a text box to allow further description of the other methodology. Type a detailed description in the text box if the methodology used is not provided as a choice.*

Section 3.8.c Funding Sources

1. If changes are necessary, select one or more **FUNDING SOURCES** *(Federal, State, County, Municipal, Private/Other)* associated with the proposed project
2. List the funding agency, monies available, and associated years of money availability in the **EARMARKS** text box; this information should reflect any changes or additional funding that has been earmarked or allocated for the project

Attachments

The user has the ability to attach any resource documentation as needed. Additional attachments can be added or deleted here as well.

> *Accepted attachment formats include MS Word, MS Excel, PDF, and any standard Image file type. Maximum size of each attachment is 9MB.*

Add Attachments

1. Click on [Add] to upload any attachments that may assist in the review and processing of the Level 2 Form; the system will open an ***Attachment*** window where you can browse for attachments
2. Select a **CATEGORY** from the drop-down list that best describes the type of attachment you are uploading

3. Type a **DESCRIPTION** of the attachment
4. Click on [Browse...] to open the Windows ***Choose File to Upload*** window and locate the attachment on the local hard drive or network
5. Select the attachment and click on [Open] to save the attachment path and return to the ***Attachment*** window
6. Click on [Save] to add the selected attachment to the form
8. Verify the attachment is listed in the attachment table on the Level 3 Form (you might need to click on [Refresh] to show the most current list of attachments)

> *Multiple attachments can be uploaded, one attachment at a time. The form will display up to five attachments at a time. Display additional attachments by using the pagination controls in the corner of the attachment listing.*

Delete Attachments

1. Click in the checkbox to the left of the attachment to be deleted from the attachment list
2. Click on [Delete]; the system will display a ***Delete Attachment*** confirmation window
3. Click on [OK] to delete the specified attachment
4. Verify the specified attachment was removed from the list (you might need to click on [Refresh] to show the most current list of attachments)

> *Select the checkbox located to the left of the* **LINK** *heading to select <u>all</u> attachments for deletion in one step.*

Submit a Level 3 Form for Review and Processing

The user should review the Level 3 Form prior to submission to verify all appropriate sections of the form have been completed. Upon submission of the form, the Process Leads in the MPO/RPO region will be notified that the form has been submitted.

Submit the Level 3 Form

1. On the open form, click on [Submit]; the system validates all data

> *Submissions of the form cannot proceed with validation errors.*

2. If any validation errors, the system will return a message and highlight each error for correction
3. Correct validation errors and resubmit, if necessary
4. If no validation errors, the system displays a confirmation window
5. Click on [OK] ; the system displays the ***All Submitted Level 3's Forms List***
6. Verify the submitted form displays in the ***Forms List***

The system will:

- Update the form status to **Awaiting Review**
- Update the **AUDIT TRAIL TAB** to indicate the submission action taken
- Generate a notification email to all the Process Leads in the MPO/RPO region

Section 3.9 Form Review

The review and recommendation process starts when the Process Lead receives a notification email that a Level 3 Form has been submitted.

Form Review

The Process Lead can review the form and forward it to the region's MPO/RPO review committee and to the Program Advisory Committee (PAC), if needed. The Process Lead can also request feedback from planners or reviewers before making a recommendation.

The first Process Lead (MPO/RPO or PennDOT) to check **YES** should save the form after their review to prevent loss of data, and to allow the other Process Lead to access the form for review and make the form recommendation.

1. Select the form from the link in the **NOTIFICATION** email (or from the ***Forms List***); the system displays the form in the ***View*** mode
2. Review the information provided on the submitted form

Process Lead Comments

The Process Lead can add comments to a Level 3 Form any time before the recommendation is made. Once submitted, Process Lead comments are added to the **ADDITIONAL COMMENTS TAB** of that form.

1. In ***View*** or ***Edit*** mode, click on [Process Lead Comments] at the top of the open form; the system displays the ***Process Lead Comments*** window

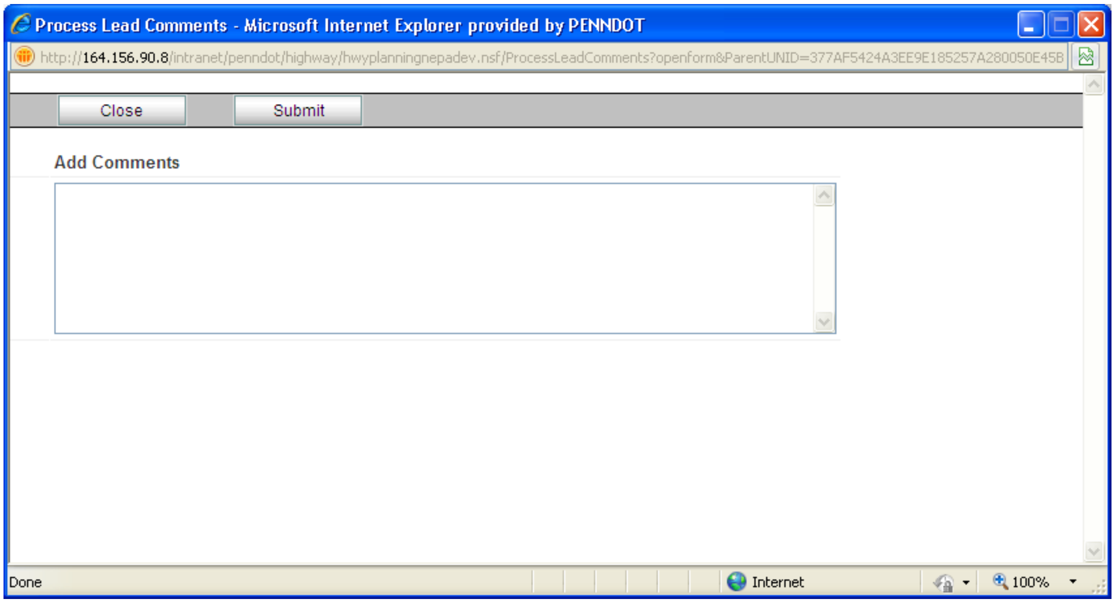


Figure 47: Process Lead Comments Window

2. Type comments in the **ADD COMMENTS** text box
5. Click on [Submit]; a message window will appear asking the user *"You will not be able to change the submitted comments, do you wish to continue?"*
3. Click on [OK]

The system will:

- Add the comment (and related details) to the **ADDITIONAL COMMENTS TAB** of the form
- Update the **AUDIT TRAIL TAB** to indicate that comments were added to the form

Request Feedback

The Process Lead can request additional review and comments from other users (other Process Leads, Planners and Reviewers) while the form is in a status of "Awaiting Review." This step in the process ensures review of the Level 3 Form by all appropriate users, in addition to the Process Lead who created the form.

1. In ***View*** mode, click on [Request Feedback] at the top of the open form; the system displays the ***Request Feedback*** window

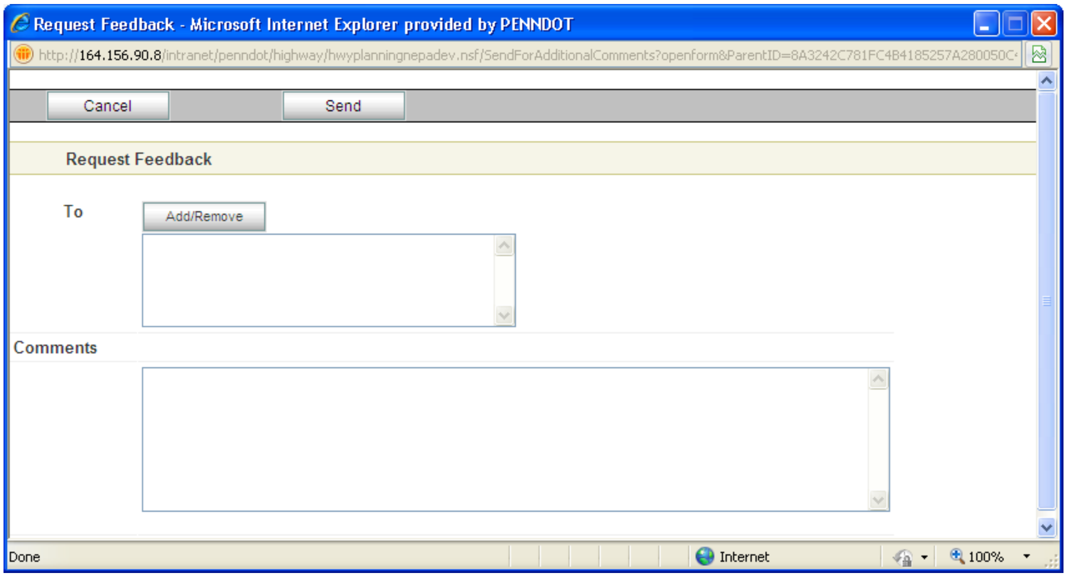


Figure 48: Request Feedback Window

2. Click on [Add/Remove] ; the ***Select People*** window will appear
3. Select the user(s) to be notified and given access to the Level 1 Form by selecting the checkbox next to the first name(s)

> *To search for specific user names, enter the first or last name in the search box at the top right corner of the* ***Select People*** *window and click on* [GO].

4. Click on [OK] to close the ***Select People*** window, and to add the specified names to the **TO** field on the ***Request Feedback*** window
5. Enter comments regarding the feedback you are requesting; these comments will appear in the notification email that is sent to the specified recipient(s)
6. Click on [Send] ; a notification window will appear asking the user "You are about to send email message to selected below recipients. Do you wish to continue?"
7. Click on [OK]

The system will:

- Add the feedback request (and related details) to the **ADDITIONAL COMMENTS TAB** of the form, indicating that a request for feedback has not been fulfilled yet
- Update the **AUDIT TRAIL TAB** to indicate that a request for feedback has been issued
- Generate a notification email to the specified recipient(s)

Submit Feedback

A notification email indicating that feedback is requested is sent to all users identified in the ***Request Feedback*** window. Up to a 10-minute delay may occur between the request for feedback and the notification email reaching the recipient's email inbox. Users (other Process Leads, Planners, Reviewers) who receive a notification email can open the Level 3 Form through the link provided in the email. Users can provide comments to assist the Process Lead in making a recommendation for the Level 3 Form, as long as the form is in a status of "Awaiting Review."

1. Click on the link provided in the **NOTIFICATION** email to access the form; the system displays the form in the ***View*** mode
2. Review the submitted form
3. Click on [Submit Feedback] at the top of the open form; the system displays the ***Submit Feedback*** window
4. Type comments that may assist in making a recommendation for the Level 3 Form
5. Click on [Submit] to save comments; a message window will appear asking the user *"You will not be able to change the submitted comments, do you wish to continue?"*
6. Click on [OK]

The system will:

- Add the feedback (and related details) to the **ADDITIONAL COMMENTS TAB** of the form
- Update the **AUDIT TRAIL TAB** to indicate that feedback was added to the form
- Generate a notification email to the user who sent the feedback request

> *The system will automatically update the **ADDITIONAL COMMENTS TAB** with each reviewer's returned feedback, providing the Process Lead with the ability to keep track of who completes the requested review. A submitted feedback entry will overwrite the feedback request entry in the Comments Table.*

MPO/RPO and PennDOT Process Leads Review

Upon completion of the form, a Process Lead and the MPO/RPO Committee review the information on the form and determine the appropriate recommendation.

1. Open the form; the system displays the form in ***View*** mode
2. Click on [Edit] at the top of the screen to display the Form in ***Edit*** mode
3. Click on the **ADDITIONAL COMMENTS TAB** at top of form to review the **COMMENTS TABLE**

10. If a comment exceeds the space provided, click on the <u>…more</u> link to open the ***Submit Feedback*** window, which displays the comment in its entirety

4. Click on [Close] to return to the open form
5. Select the **AUDIT TRAIL TAB** at top of form to review form history

6. Scroll to **Attachments** at the bottom of the form to view attachments, if provided
7. When appropriate, select the *Yes* checkboxes in **3.9 Review** that correspond to the appropriate Process Leads who have conducted their final reviews
8. Upon selecting *Yes*, the **Review Date** fields will auto-populate with the current timestamp

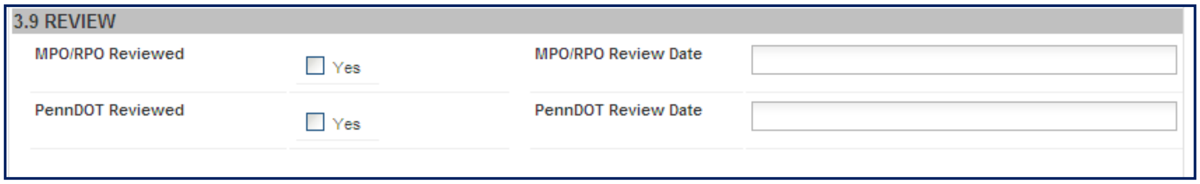


Figure 49: Section 3.9 Review

The MPO/RPO and PennDOT Process Leads must select both Yes checkboxes in order for **Section 3.10 Recommendation** *to appear.*

The form should be included in a scheduled review committee meeting, per ***MPO/RPO Committee Recommendation*** *outlined below.*

Level 3 Form Recommendation

The recommendation process starts after the Process Leads complete the final review of form data and additional comments, and after completing **Section 3.9 Review**. The MPO/RPO review committee will hold a meeting to review submitted Level 3 Forms and to assign recommended actions. The Program Advisory Committee (PAC) may also provide additional review when deemed necessary by either the MPO/RPO or PennDOT.

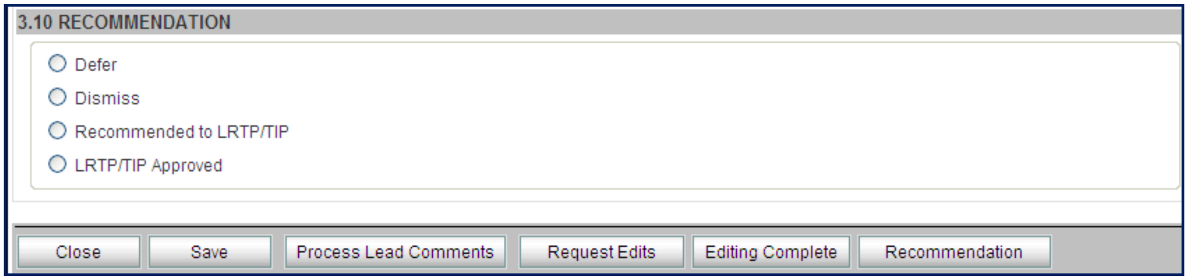


Figure 50: Section 3.10 Recommendation

MPO/RPO Committee Recommendation

1. Open the form; the system displays the form in ***View*** mode
2. Click on [Edit] at the top of the screen to display the form in ***Edit*** mode
3. Review the submitted form data, including the **ATTACHMENTS** section
4. Click on the **ADDITIONAL COMMENTS TAB** at top of form to review the **COMMENTS TABLE**
5. Click on the **AUDIT TRAIL TAB** at top of form to review form history
6. On the main part of the form, select the value in **SECTION 2.11 RECOMMENDATION** that the MPO/RPO Committee agrees on
7. Click on [Recommendation]

The system will:

- Update the status of the form to the selected recommendation
- Display the form in the appropriate ***Forms List***

Selecting a Recommendation

Select the appropriate recommendation from one of the values listed in **SECTION 3.10 RECOMMENDATION** for subsequent processing of the form.

Defer

Select **DEFER** when the proposed solution is not able to be accommodated within the process at the current time due to reasons such as limited funding availability or lack of local match

1. Select **DEFER**
2. Click on [Recommendation]

The system will:

- Update the form status to **Defer**
- Update the **AUDIT TRAIL TAB** with the appropriate action taken
- Generate a notification email to all Process Leads in the MPO/RPO region
- Archive the open form for future reference, viewing, and processing

Dismiss

Select **DISMISS** when the proposed solution is inappropriate for the process; such as funding ineligibility, inconsistent with the MPO/RPO Region LRTP, or other known disqualifying elements.

1. Select **DISMISS**
2. Click on [Recommendation]

The system will:

- Update the form status to **Dismiss**
- Update the **AUDIT TRAIL TAB** with the appropriate action taken
- Generate a notification email to all Process Leads in the MPO/RPO region
- Close and archive the form for future reference and viewing

Recommended to LRTP/TIP

Select **RECOMMENDED TO LRTP/TIP** when the reviewing committee determines the proposed solution is appropriately defined and a project is to be entered into the region's selection and prioritization process for inclusion in the LRTP (and ultimately the TIP), at the appropriate update cycle.

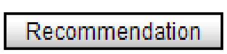
1. Select **RECOMMENDED TO LRTP/TIP**
2. Click on 

The system will:

- Update the form status to **Recommended to LRTP/TIP**
- Update the **AUDIT TRAIL TAB** with the appropriate action taken
- Generate a notification email to all Process Leads in the MPO/RPO region

LRTP/TIP Approved

Select **LRTP/TIP APPROVED** when the reviewing committee determines the proposed solution is appropriately defined and a project is to be entered into the region's selection and prioritization process for inclusion in the LRTP (and ultimately the TIP), at the appropriate update cycle.

1. Select **ON LRTP/TIP**
2. Click on 

The system will:

- Update the form status to **LRTP/TIP Approved**
- Update the **AUDIT TRAIL TAB** with the appropriate action taken
- Generate a notification email to all Process Leads in the MPO/RPO region

8. ASSET PLANNING

Overview

Maintaining Pennsylvania's existing assets is a critical function of transportation planning to ensure the continued safe and efficient movement of people and goods. The Department has established performance goals to drive continuous improvements of existing road and bridge assets. Current guidance for program development indicates 90 percent of programmed funds are to be dedicated to system preservation. In order to support the goals of system preservation, a large portion of transportation problems identified through the Screening Form process will be based on needs to improve the existing road and bridge network.

To support the goals and objectives for Asset Planning, the Asset Planning function provides the District Process Leads and Planners with a filtering tool to assist in the identification and selection of ***bridge*** and ***roadway/pavement assets*** for Level 2 Forms. The system imports data from the Bridge Management System (BMS) and the Roadway Management System (RMS), from which a Process Lead can create a Level 2 Form with bridge or pavement data based on the asset(s) selected.

The District Process Lead will be responsible for manually entering information for the remaining sections of the Level 2 Form that do not auto-populate with data from the Asset Planning database. The user should follow steps outlined in ***Section 6.0 Level 2 Form*** of the *User's Guide* to complete the Asset Planning-related Level 2 Forms.

The Asset Planning function also allows the user to export selected data to Microsoft Excel for additional analysis. A glossary of asset planning terminology and other supporting asset planning information is provided in Appendix C.

> *Planners can use the filtering tool and export results through the Asset Planning options, but cannot create Level 2 Forms.*

Bridges

Pennsylvania's bridges serve as a crucial link in the state's transportation system. Bridge deterioration over time results in the potential need to rebuild or replace bridges to keep the bridges unrestricted for travel and commerce. Regular bridge maintenance and preservation activities are needed to maximize service life for the structures. As an asset planning tool, the following bridge performance measures have been identified by PennDOT:

- Program highest risk Structurally Deficient (SD) bridges (risk assessment);
- Reduce SD backlog and approach national average for SD bridge population;
- Preservation goals – invest in timely preservation activities to keep non-structurally deficient bridges in good repair; and
- Maintain SD levels (once established SD goals have been reached).

As bridge work is needed, the Asset Planning Bridges tool allows a Process Lead to select a specific record (bridge) and to generate a Level 2 Form for that record. Included in the bridge data is the bridge risk assessment structurally deficient score and corresponding statewide and district ranking. A structurally deficient bridge typically requires significant rehabilitation or replacement to address deterioration of one or more of its elements. The bridge risk assessment scores for each structure are calculated based on the structure type, network, and the condition ratings of structural elements. Importance factors are applied to the risk scores to account for factors such as bridge size, traffic volumes and detour lengths. These composite scores are then ranked for use in setting priorities. The bridge data, combined with regional knowledge of bridge conditions, is an important basis for identifying potential problems for consideration.

The system provides the user with seven different filters to generate a detailed list of bridge data. The user can choose which filter(s) to use based on the desired outcome. The filtered data can then be exported to Microsoft Excel for additional analysis.

Filters

The District Process Lead or Planner can select one or more filters to refine the selection of bridge data.

The filters include:

- District
- County
- SR (4 digits)
- Business Plan Network
- MPO/RPO
- Structure Type
- Highlight

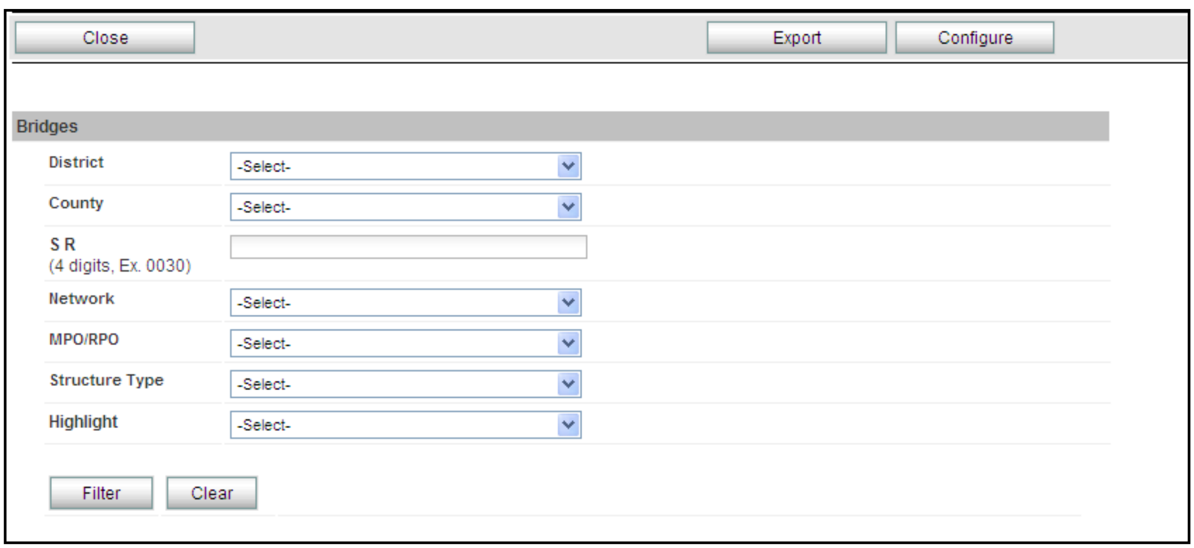


Figure 51: Asset Planning Bridges Filters, Planner View

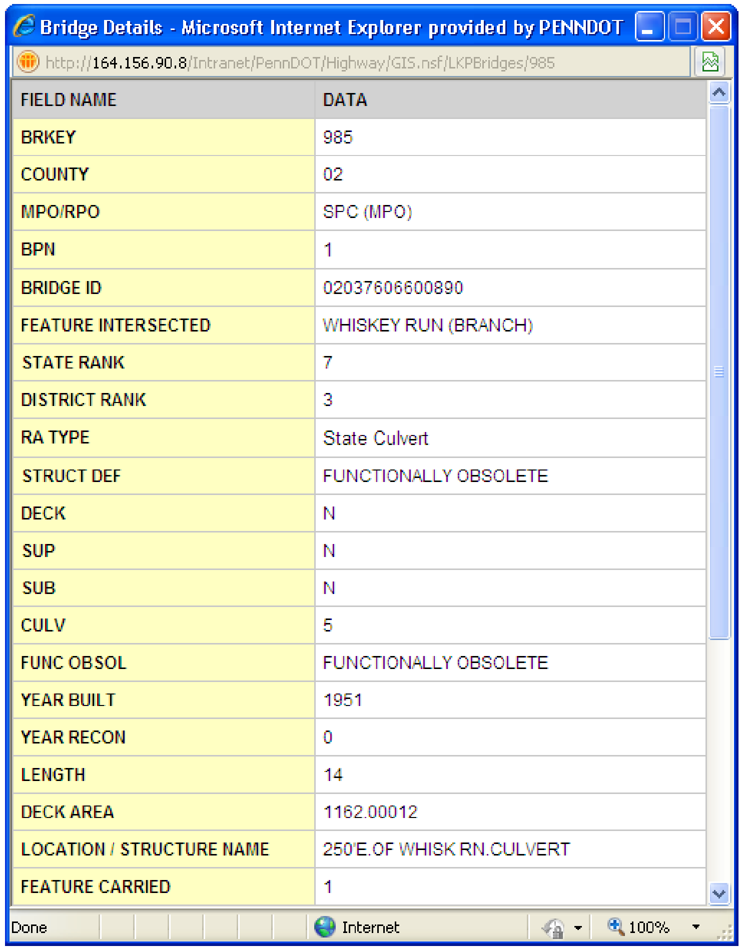
1. Click on the *Asset Planning Bridges* option on the toolbar
2. Select the appropriate district from the **DISTRICT** drop-down menu, if applicable
3. Select the appropriate county from the **COUNTY** drop-down menu, if applicable
4. Type the four-digit State Route number (2- and 3-digit routes should be preceded by leading 0's) in the **SR** text box, if applicable
5. Select the appropriate business plan network from the **NETWORK** drop-down menu, if applicable
    - Interstate
    - National Highway System Non-Interstate
    - Non National Highway System >= 2000 ADT
    - Non National Highway System < 2000 ADT
    - Local
6. Select the appropriate MPO/RPO from the **MPO/RPO** drop-down menu, if applicable
7. Select the structure type from the **STRUCTURE TYPE** drop-down menu, if applicable
    - State Bridge
    - State Culvert
    - Local Bridge
    - Local Culvert
8. Select the bridge filter choice from the **HIGHLIGHT** drop-down menu, if applicable
    - Structurally Deficient
    - Top 100
9. Click on [Filter] to generate a list of bridge records that meet your criteria in the ***Search Results*** list at the bottom of the screen

Up to 1,000 records (bridges) can be displayed on the screen. The system will generate an error message if the search results exceed 1,000 records.

Some data fields in the Search Results offer a sorting function. The user can sort data fields that have a heading link by clicking on the heading of the data field they wish to sort by.

If you have results in the Search Results grid and want to change your filter criteria, you must click on [Clear] *and enter your new criteria before you can conduct another search.*

10. Click on the *Details* link (use the horizontal scroll bar) to view detailed data fields generated from PennDOT BMS for each individual record of interest; the system displays the ***Bridge Details*** window

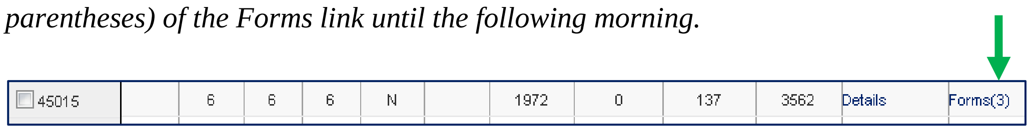


FIELD NAME	DATA
BRKEY	985
COUNTY	02
MPO/RPO	SPC (MPO)
BPN	1
BRIDGE ID	02037606600890
FEATURE INTERSECTED	WHISKEY RUN (BRANCH)
STATE RANK	7
DISTRICT RANK	3
RA TYPE	State Culvert
STRUCT DEF	FUNCTIONALLY OBSOLETE
DECK	N
SUP	N
SUB	N
CULV	5
FUNC OBSOL	FUNCTIONALLY OBSOLETE
YEAR BUILT	1951
YEAR RECON	0
LENGTH	14
DECK AREA	1162.00012
LOCATION / STRUCTURE NAME	250'E.OF WHISK RN.CULVERT
FEATURE CARRIED	1

Figure 52: Bridge Details Window

11. Click on the red X in the upper right corner of the window to close the window and return to the ***Search Results*** list on the filter screen
12. Click in the <u>*Forms*</u> link in the right-most column (use the horizontal scroll bar) to view the Tracking Number and status of each form that exists in the system for that asset

Newly created forms will not appear in the forms count (the number in parentheses) of the Forms link until the following morning.



45015		6	6	6	N		1972	0	137	3562	Details	Forms(3)

13. Click on the red X in the upper right corner of the window to close the window and return to the ***Search Results*** list on the filter screen

Export

After conducting a search, the Process Lead or Planner can export the records in the ***Search Results*** grid to Microsoft Excel for additional analysis. The records will be saved in a spreadsheet on the user's local computer. If the user wants an updated list later, they have to enter the filter criteria in LPN and get a new ***Search Results*** list before they can export it to Excel again.

> *If a user specifies "Top 100" in the Highlight field, and exports their search results to an Excel spreadsheet, the entire list of assets is exported to the spreadsheet, not just the top 100. The user will have to filter out the records they do not need. Planners can then give that information to the Process Lead to create forms.*

1. Click on the *Asset Planning Bridges* option on the toolbar
2. Select the appropriate district from the **District** drop-down menu, if applicable
3. Select the appropriate county from the **County** drop-down menu, if applicable
4. Type the four-digit State Route number (2- and 3-digit routes should be preceded by leading 0's) in the **SR** text box, if applicable
5. Select the appropriate business plan network from the **Network** drop-down menu, if applicable
    - Interstate
    - National Highway System Non-Interstate
    - Non National Highway System >= 2000 ADT
    - Non National Highway System < 2000 ADT
    - Local
6. Select the appropriate MPO/RPO from the **MPO/RPO** drop-down menu, if applicable
7. Select the structure type from the **Structure Type** drop-down menu, if applicable
    - State Bridge
    - State Culvert
    - Local Bridge
    - Local Culvert
7. Select the bridge filter choice from the **Highlight** drop-down menu, if applicable
    - Structurally Deficient
    - Top 100
8. Click on Filter to generate a list of bridge records that meet your criteria in the ***Search Results*** list at the bottom of the screen
9. Click on Export to build and format the query results in Microsoft Excel; a ***dialogue box*** will appear, stating "You are about to export records. It may take up to a minute to build and format your request. Please note that there is a limit of 64,000 records that will be exported."

> *Up to 64,000 records (bridges) can be exported. The system will generate an error message if the search results exceed 64,000 records.*

10. Click on OK; the system will return a ***dialogue box*** that asks if you want to open or save this file
11. Click on Save to close the ***File Download*** dialogue box
12. In the ***Save As*** dialogue box that appears, highlight the local folder in which to save the export file, and rename the file
13. Click on Save to save the file and to close the ***Save As*** dialogue box
14. Navigate to the saved file on the user's computer and double-click on the file name to open the file

Configure

The configure function allows the Process Lead or Planner to choose and display additional bridge data fields that are not normally included in the search process.

1. Click on the Asset Planning Bridges option on the toolbar
2. Select desired search criteria from the default list (District, County, SR, Business Plan Network, MPO/RPO, Highlight)
3. Click on Configure located at the top of the screen to access the Configure block

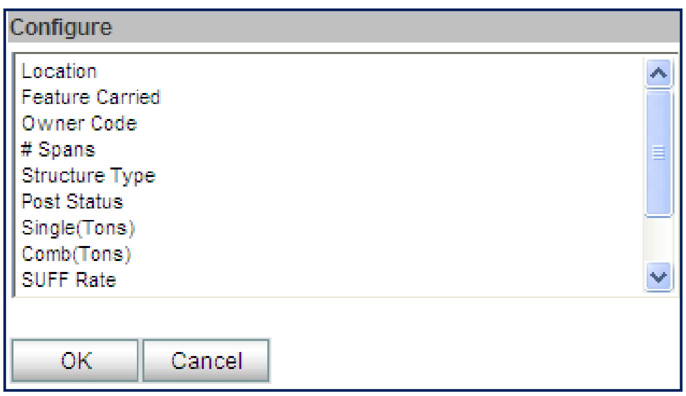


Figure 53: Bridge Configure Block

4. Select one or more data fields listed in the Configure block

> *The user can select more than one configure data field by holding the* Ctrl *key during selection.*
>
> *The parameters you choose from the Configure list remain selected as long as your LPN session is active, or until you change them (even if you click on Cancel or Clear).*

5. Click on [OK] to generate a list that includes the additional data fields in the ***Search Results*** list at the bottom of the screen (use the horizontal scroll bar to see the additional fields you selected in the Configure block)

Submit a Level 2 Form from Asset Planning Bridges

Once a Process lead has retrieved the desired bridge records (they appear in the ***Search Results*** list), they can create a Level 2 Form for each record.

1. In the ***Search Results*** list, click in the checkbox of each record for which you want to create a Level 2 Form (each record will generate one Level 2 Form)
2. Type a description in the ***Proposal Summary*** text box
3. Click on [Submit] at the top of the screen; the system will indicate that a Level 2 Form(s) has been added to your drafts
4. Go to *My Drafts* and to view the ***Forms List***; your new bridge form(s) should be at the top of the list
5. Open one of the ***Level 2 Forms*** that was just added
6. Review the form in ***View*** mode and verify that the bridge data auto-populated in **2.7.f** of the Level 2 Form
7. Click on [Edit] and complete all other sections of the Level 2 Form by following the steps in **Create a New Level 2 Form**

Roadway/Pavements

The Pennsylvania Department of Transportation has over 41,000 center-line miles of state highways that are divided into four major categories called Business Plan Networks. These networks are aging and require continual maintenance, preservation, and inevitable reconstruction to keep them functioning as intended. The pavement segments chosen are intended to coincide with the goals of PennDOT's pavement performance measures. These goals are to:

- reduce the miles of Poor IRI;
- eliminate out-of-cycle pavements (improving IRI);
- not increase backlog of reconstruction needs for pavements past design service life;
- reduce the backlog of resurfacing needs for pavement surfaces where fair and poor OPI are present (as conditions warrant);
- perform reconstruction, resurfacing, and routine maintenance in accordance with prescribed schedule (if the conditions warrant); and
- maintain and preserve OPI for good and excellent pavements.

The Asset Planning function allows the User to select multiple records (roadways segments) to generate a Level 2 form. Pavement data and risk assessment information is provided to help identify asset planning needs. The pavement data includes the Rank for Reconstruction and Rehabilitation and Rank for Preservation.

The risk assessment calls attention to portions of the Pennsylvania roadway network based on an assessment of condition, age, and criticality (amount of traffic volume and truck traffic). The risk assessment provides another analysis for PennDOT and Planning Partners to make informed decisions for the prioritization of roadway pavement asset projects, and is not intended to be used as a substitute for the planning process and prioritization by the stakeholders, field views, and project considerations. Rather, the risk assessment can be used as a tool to facilitate the comparison of condition based risk versus potential treatment cost for roadway segments at risk of rapid deterioration or an increased level of treatment. When a project is planned, the project risk scores of roadways adjacent to the potential project that may also need to be considered, included, or may influence the project. **Note: Errors in pavement history and condition data may incorrectly rank pavement segments.**

The LPN System provides the user with seven different filters to generate a detailed list of roadway/pavement data. The user can choose which filter(s) to use based on the desired outcome. The user may also identify a four-digit State Route (SR) to further refine the filtered results. The filtered data can be exported to Microsoft Excel for additional analysis.

Filters

The District Process Lead or Planner can select one or more filters to refine the selection of roadway/pavement data.

> ***If you are using the Roadway/Pavement Asset Planning Tool to create a Level 2 Form with the intention of linking Contiguous forms to it, please limit the number of segments selected to 90 or less.***
>
> *If you create a Level 2 form with more than 90 segments, the system will not be able to search that many segments to find the associated bridge records when you are trying to create a linked relationship between the roadway and its bridges.*
>
> *If more than 90 segments are required and you intend to link forms to this Level 2 Draft, create a separate Level 2 Screening Form and link it to the related Parent form.*
>
> *Click here for more information on linking forms in a Contiguous relationship.*

The filters include:

- District
- County
- SR (4 digits)
- Business Plan Network

- Direction
- MPO/RPO
- Highlight

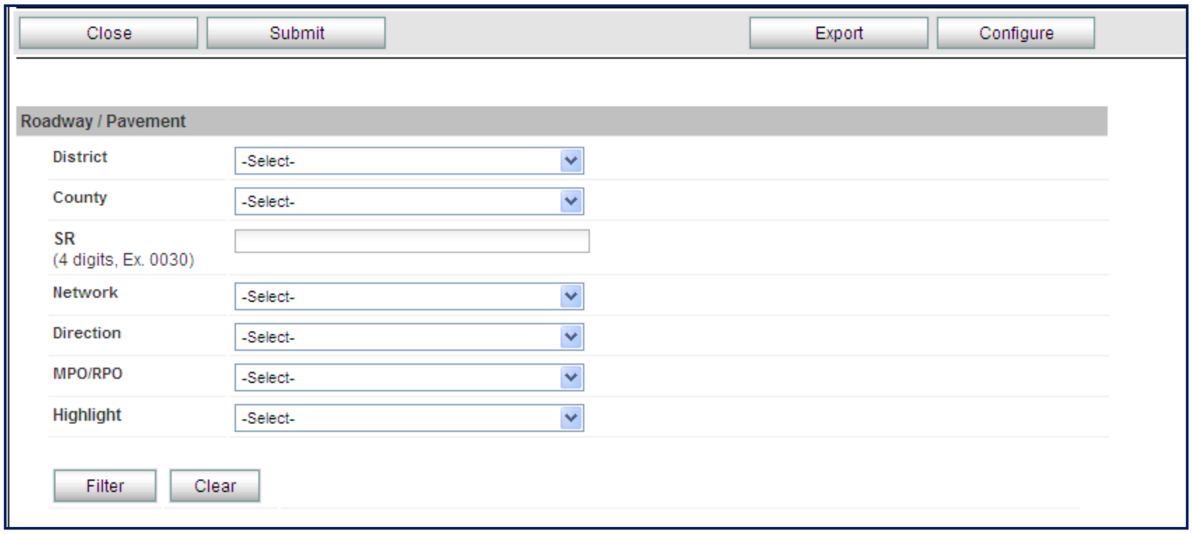


Figure 54: Asset Planning Roadway/Pavement Filters, Process Lead View

1. Click on the *Asset Planning Roadway/Pavements* option on the toolbar
2. Select the appropriate district from the **DISTRICT** drop-down menu, if applicable
3. Select the appropriate county from the **COUNTY** drop-down menu, if applicable
4. Type the four-digit State Route number (2- and 3-digit routes should be preceded by leading 0's) in the **SR** text box, if applicable
5. Select the appropriate network from the **NETWORK** drop-down menu, if applicable
    - Interstate
    - National Highway System Non-Interstate
    - Non National Highway System >= 2000 ADT
    - Non National Highway System < 2000 ADT
    - Local
6. Select the appropriate direction *(Odd or Even)* from the **DIRECTION** drop-down menu, if applicable

> *The Direction filter provides two selection choices: Odd or Even. Odd corresponds to South or West direction, and Even corresponds to North or East direction.*

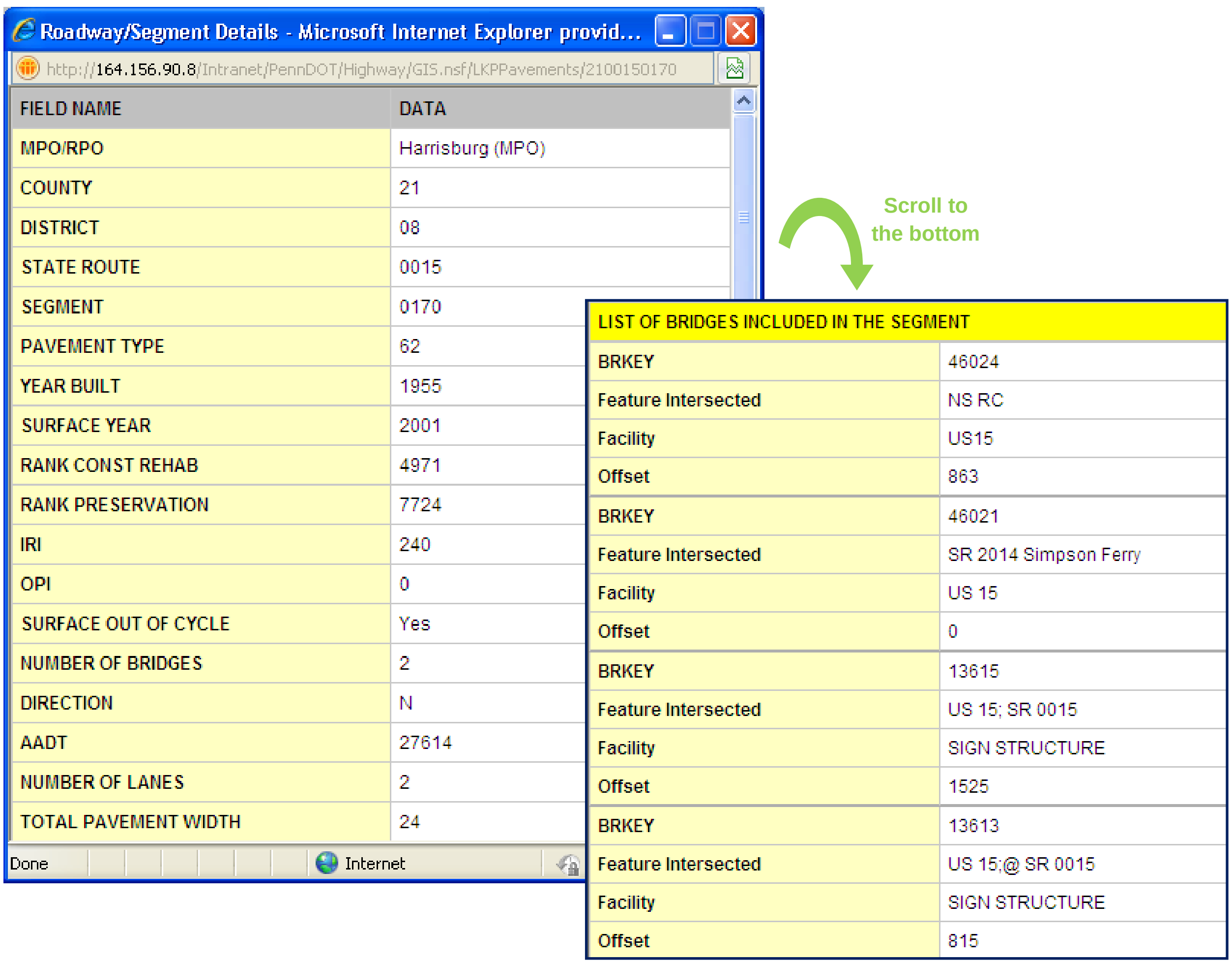
7. Select the appropriate MPO/RPO from the **MPO/RPO** drop-down menu, if applicable
8. Select the bridge filter choice from the **HIGHLIGHT** drop-down menu, if applicable
    - Top 100
9. Select Filter to generate the roadway/pavements records that meet your criteria in the ***Search Results*** list at the bottom of the screen

Up to 1,000 records (segments) can be displayed on the screen. The system will generate an error message if the search results exceed 1,000 records.

Some data fields in the Search Results offer a sorting function. The User can sort data fields that have a heading link by selecting the heading of the data field that they wish to sort.

If you have results in the Search Results grid and want to change your filter criteria, you must click on Clear *and enter your new criteria before you can conduct another search.*

10. Click on the <u>*Details*</u> link located in the right-most column (use the horizontal scroll bar) to view detailed data fields generated from PennDOT RMS for each individual record of interest; the system displays the ***Roadway/Segment Details*** window



FIELD NAME	DATA
MPO/RPO	Harrisburg (MPO)
COUNTY	21
DISTRICT	08
STATE ROUTE	0015
SEGMENT	0170
PAVEMENT TYPE	62
YEAR BUILT	1955
SURFACE YEAR	2001
RANK CONST REHAB	4971
RANK PRESERVATION	7724
IRI	240
OPI	0
SURFACE OUT OF CYCLE	Yes
NUMBER OF BRIDGES	2
DIRECTION	N
AADT	27614
NUMBER OF LANES	2
TOTAL PAVEMENT WIDTH	24

LIST OF BRIDGES INCLUDED IN THE SEGMENT	
BRKEY	46024
Feature Intersected	NS RC
Facility	US15
Offset	863
BRKEY	46021
Feature Intersected	SR 2014 Simpson Ferry
Facility	US 15
Offset	0
BRKEY	13615
Feature Intersected	US 15; SR 0015
Facility	SIGN STRUCTURE
Offset	1525
BRKEY	13613
Feature Intersected	US 15;@ SR 0015
Facility	SIGN STRUCTURE
Offset	815

Figure 55: Roadway/Segment Details Window, showing Facility for each Bridge Key

*The "Facility" field in the Roadway/Segment Details window displays the type of structure the associated Bridge Key represents. A facility of anything **other than** a bridge will not be included in the "# of Bridges" field in the Roadway/Pavements Search Results list. In the example above, the "# of Bridges" field = 2.*

11. Click on the red X in the upper right corner of the window to close the window and return to the ***Search Results*** list on the filter screen
12. Click in the Forms link in the right-most column (use the horizontal scroll bar) to view the Tracking Number and status of each form that exists in the system for that asset

Newly created forms will not appear in the forms count (the number in parentheses) of the Forms link until the following morning.

☐ 45015		6	6	6	N		1972	0	137	3562	Details	Forms(3)

13. Click on the red X in the upper right corner of the window to close the window and return to the ***Search Results*** list on the filter screen

Export

After conducting a search, the Process Lead or Planner can export the records in the ***Search Results*** grid to Microsoft Excel for additional analysis. The records will be saved in a spreadsheet on the user's local computer. If the user wants an updated list later, they have to enter the filter criteria in LPN and get a new ***Search Results*** list before they can export it to Excel again.

If a user specifies "Top 100" in the Highlight field, and exports their search results to an Excel spreadsheet, the entire list of assets is exported to the spreadsheet, not just the top 100. The user will have to filter out the records they do not need. Planners can then give that information to the Process Lead to create forms.

1. Click on the *Asset Planning Roadway/Pavements* option on the toolbar
2. Select the appropriate district from the **DISTRICT** drop-down menu, if applicable
3. Select the appropriate county from the **COUNTY** drop-down menu, if applicable
4. Type the four-digit State Route number (2- and 3-digit routes should be preceded by leading 0's) in the **SR** text box, if applicable
5. Select the appropriate business plan network from the **NETWORK** drop-down menu, if applicable
    - Interstate
    - National Highway System Non-Interstate
    - Non National Highway System >= 2000 ADT

- Non National Highway System < 2000 ADT
- Local

6. Select the appropriate direction from the **DIRECTION** drop-down menu *(Odd or Even)*, if applicable
7. Select the appropriate MPO/RPO from the **MPO/RPO** drop-down menu, if applicable
8. Select the bridge filter choice from the **HIGHLIGHT** drop-down menu, if applicable
   - Top 100
9. Click on Filter to generate a list of roadway/pavement records that meet your criteria in the ***Search Results*** list at the bottom of the screen
10. Click on Export to build and format the query results in Microsoft Excel; a ***dialogue box*** will appear, stating "You are about to export records. It may take up to a minute to build and format your request. Please note that there is a limit of 64,000 records that will be exported."

> *Up to 64,000 records (bridges) can be exported. The system will generate an error message if the search results exceed 64,000 records.*

11. Click on OK; the system will return a ***dialogue box*** that asks if you want to open or save this file
12. Click on Save to close the ***File Download*** dialogue box
13. In the ***Save As*** dialogue box that appears, highlight the local folder in which to save the export file, and rename the file
14. Click on Save to save the file and to close to the ***Save As*** dialogue box
15. Navigate to the saved file on the user's computer and double-click on the file name to open the file

Configure

The configure function allows the Process Lead or Planner to choose and display additional roadway/pavement data fields that are not normally included in the search process.

1. Click on the *Asset Planning Roadway/Pavements* option on the toolbar
2. Select desired search criteria from the default list (District, County, SR, Business Plan Network, Direction, MPO/RPO, Highlight)
3. Click on Configure located at the top of the screen to access the Configure block

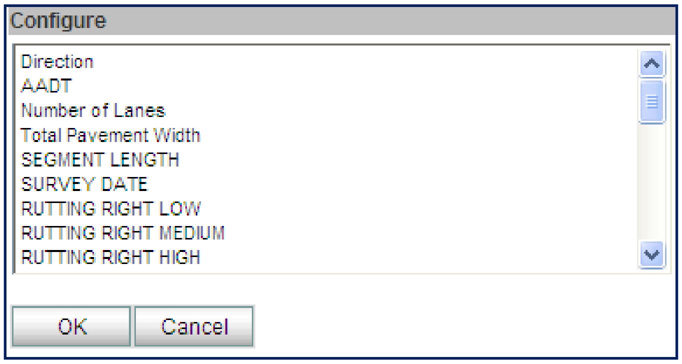


Figure 56: Roadway/Pavement Configure Block

4. Select one or more data fields listed in the Configure block

The user can select more than one configure data field by holding the 

key during selection.

The parameters you choose from the Configure list remain selected as long as your LPN session is active, or until you change them (even if you click on Cancel or Clear).

5. Click on 

to generate a list that includes the additional data fields in the ***Search Results*** list at the bottom of the screen (use the horizontal scroll bar to see the additional fields you selected in the Configure block)

Submit a Level 2 Form from Asset Planning Roadway/Pavements

Once a Process lead has retrieved the desired roadway/pavement records (they appear in the ***Search Results*** list), they can create a Level 2 Form for each record.

1. In the ***Search Results*** list, click in the checkbox of each record for which you want to create a Level 2 Form (each record will generate one Level 2 Form)
2. Click on 

at the top of the screen; the system displays a confirmation window
3. Click on 

; the system will indicate that a Level 2 Form(s) has been added to your drafts
4. Go to <u>*My Drafts*</u> and to view the ***Forms List***; your new roadway form(s) should be at the top of the list
5. Open one of the ***Level 2 Forms*** that was just added

6. Review the form in ***View*** mode and verify that the roadway details auto-populated in **2.7.g** of the Level 2 Form
7. Click on [Edit] and complete all other sections of the Level 2 Form by following the steps in **Create a New Level 2 Form**

Read Appendix D

Asset Planning Map

The Asset Planning Map allows users to visually locate and select bridges and roadway segments for the purpose of creating a new Level 2 Form.

1. To begin, select the *Asset Planning Map* link in the ***Left Navigation Pane*** of the ***Home Page***; the system returns a Filter screen
2. Choose a district
3. Choose an MPO/RPO –OR– a county
4. Specify highlight and ranking, if necessary
5. Click on the [Generate Map] button; the system opens a secondary window that displays an Asset Planning Map that reflects the specified filter criteria

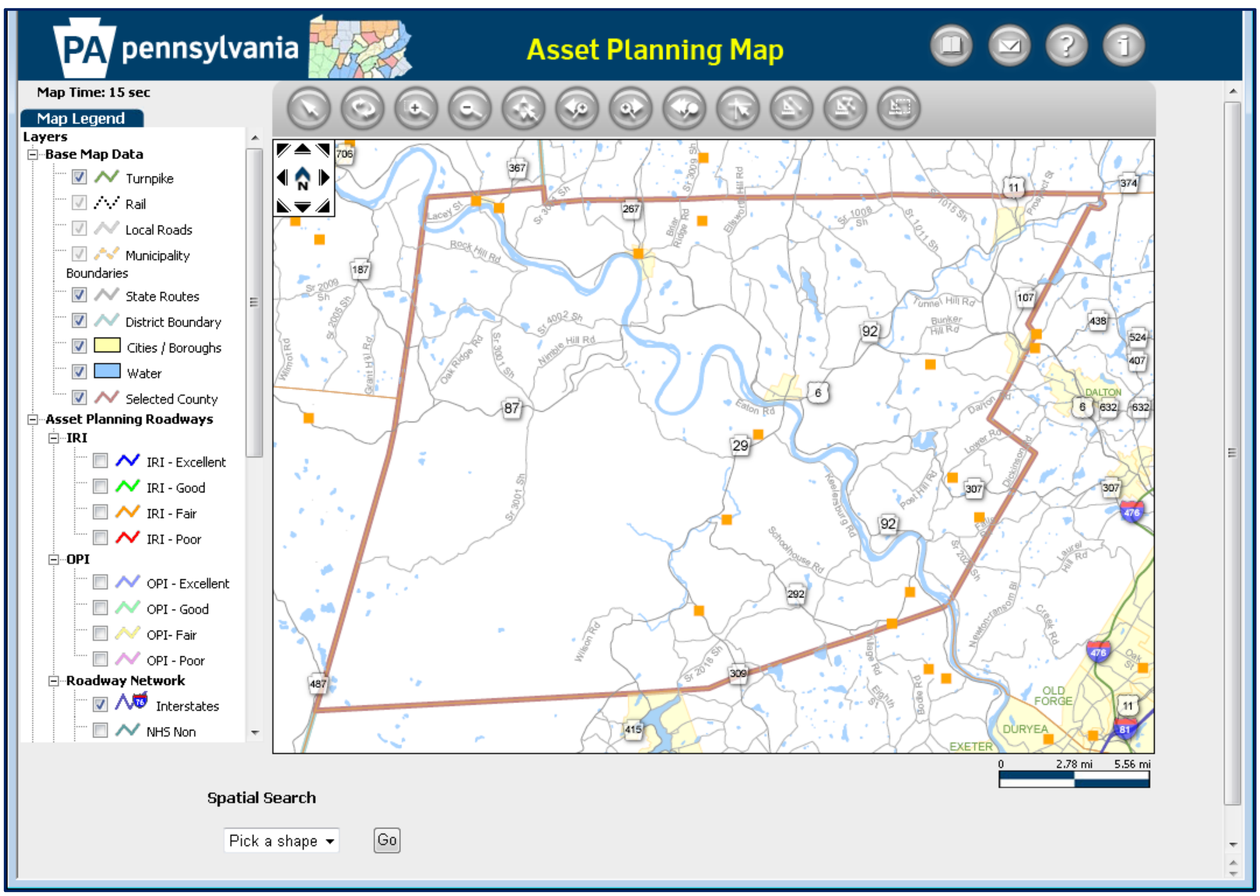


Figure 57: Asset Planning Map, showing District 04/Wyoming County

6. Use the Zoom tools on the toolbar to zoom into an area on the map
7. Turn on the State Bridge and Local Bridge layers by clicking in each checkbox in the Map Legend and then on the Refresh button, if necessary
8. Choose Begin/End or Polygon
9. Click on the Go button
10. Choose assets by:
    - Clicking on the **Start Segment** button and clicking on a segment on the map, and clicking on the **End Segment** button and clicking on a segment on the map; click Go to have the system automatically add the segment range to a new Level 2 Form
    - Drawing a **polygon** around them (click at each point, double-click at the last point); the system creates an Asset Inventory of selected assets below the map

> *The Asset Inventory will include roadways and bridges that fall within the polygon.*

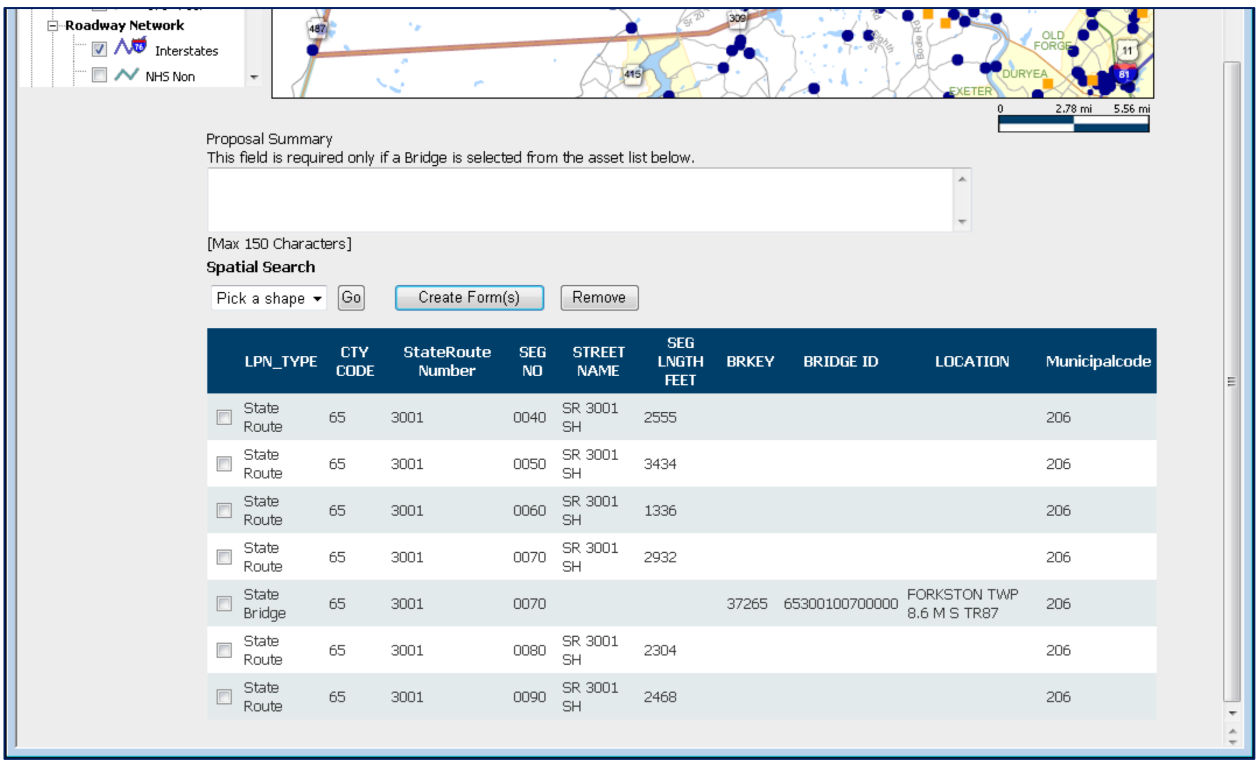


Figure 58: Asset Inventory below the Asset Planning Map

11. Click in the checkbox(es) of the desired asset(s)
12. Enter a Proposal Summary if you are selecting at least one bridge from the Asset Inventory
13. Click on the Create Form(s) button; the system will indicate that a form has been created

LPN will create certain forms based on the assets you choose from the Asset Inventory on the Location Level 2 Map:

Selected on Level 2	***Will create***	***Level 2 Screening Type***
Roadway segment(s)	*One form*	*State Roadway or Local Roadway*
Bridge	*One form*	*State Bridge or Local Bridge*
Multiple bridges	*One form per bridge*	*State Bridge or Local Bridge*
Roadway segment(s) and bridge(s)	*One Roadway form and one Bridge form per bridge*	*State Roadway or Local Roadway and State Bridge (s) or Local Bridge(s)*

14. Click on the red X of the secondary Location Level 2 Map window to close it
15. Use the views to navigate to your new Level 2 form

9. LINKED FORMS

Overview

Separate but related proposals generated within the LPN system and ***in Draft status*** can be linked to each other. This allows for easier grouping of similar proposals (location or type), tracking and managing the forms and connecting to other systems such as CEES and MPMS. The Linked Forms process will establish either Contiguous or Non-contiguous relationships between forms. The relationships are defined as follows:

- **Contiguous** proposals consisting of one or more roadways with one or more structures on them, with independent utility and logical termini. This is referred to as a "Parent/Child" relationship. One Parent can have one or many Child forms linked to it. The Parent must be a roadway form; the Child can only be a bridge form.
- **Non-contiguous** proposals consisting of either roadways or structures grouped for cost effectiveness. This is referred to as a "Lead/Subordinate" relationship. One Lead can have one or many Subordinate forms linked to it. The Lead can be a roadway or a bridge form; the Subordinate can be a roadway or a bridge form.

Contiguous Proposals

For contiguous proposals, **data** is inherited by the Child forms from the Parent form. The only areas <u>not</u> inherited from the Parent are: (1) the evaluation of environmental resources in **SECTION 2.5** and (2) the design criteria for structures in **SECTION 2.7**. All other sections of the Child forms are the same as the Parent form and cannot be edited.

> *The Parent form has funding costs in **SECTION 2.8** for that group of linked forms, and should reflect the costs associated with the entire project, not just for the Parent form's project itself. The Children forms do not have costs; they are always zero and cannot be edited while linked.*

Furthermore, all **actions** are shared from the Parent to the Children. When a Process Lead submits a Parent form, marks the review boxes and/or makes a recommendation, those actions are automatically applied to all Child forms in that linked network. Thus, the status of the Child form always matches the status of its Parent form.

Linking Forms in a Contiguous Relationship

1. Open or create the Level 2 Roadway Draft that you want to link other forms to (this will become the Parent form)
2. If you have opened an existing Level 2 Draft, click on Edit (otherwise, the form you are creating should already be in ***Edit*** mode)

3. After the roadway information is populated on the Parent Level 2 form, click on Link Screening Form(s) in the Linked Screening Forms block at the end of **SECTION 2.1**; this accesses the Linked Forms pop-up window
4. Click on the Relationship drop-down arrow and choose "Contiguous Project"

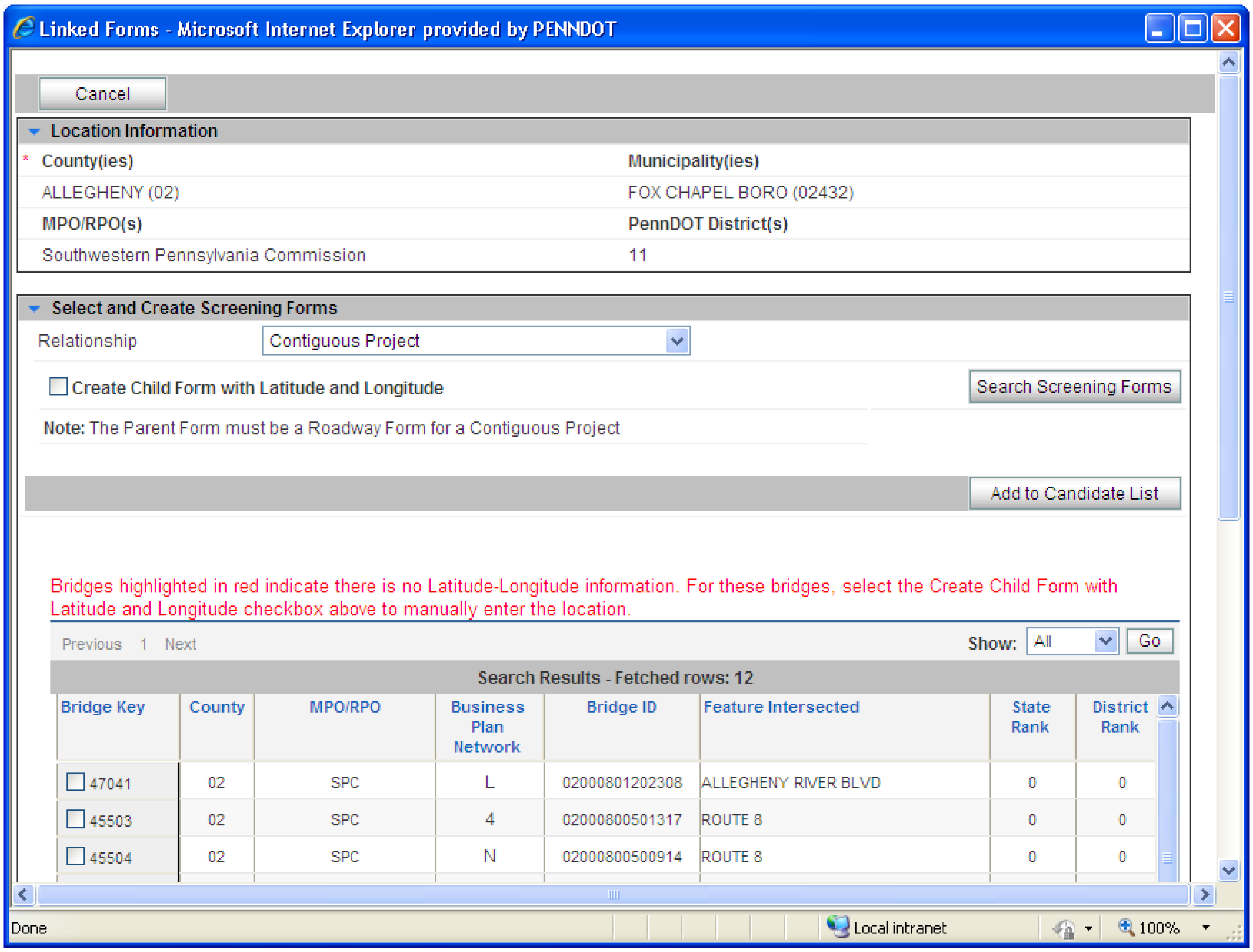


Figure 59: Linked Forms Pop-Up Window, showing bridges associated with specified roadway

If the Level 2 Draft you are linking to the Parent exists already:

(If it does not, go to: If you are creating a new Level 2 Draft to link to the Parent)

5. Click on Search Screening Forms ; this access a Search Existing Forms block, where you can enter criteria by which to search for the desired form

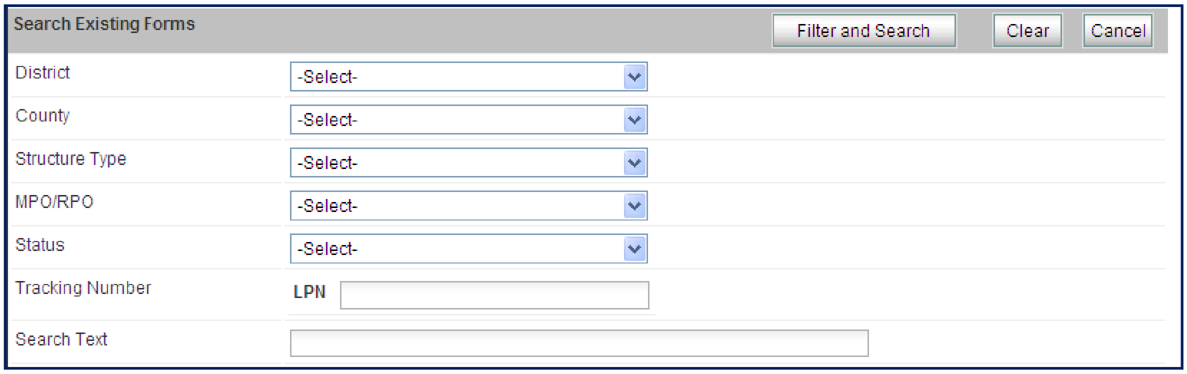


Figure 60: Search Existing Forms Block

6. Enter the search criteria you know about the Level 2 Draft you want to link to the open form
7. Click on [Filter and Search]; the system will return a list of existing Level 2 Drafts that meet your criteria in the Search Results grid below the Search Existing Forms block

> *The system will not return **linked** forms that meet your search criteria. If you do not see a form you expected to receive in your search, it is possible that the form is already part of a linked forms network.*

8. In the Search Results grid, click in the checkbox of the form you want to consider linking to the open form
9. Click on [Add to Candidate List]

> *If you decide you **do not** want the selected record to be considered for linking, click in its checkbox and click on [Remove from Candidate List]. This will move the record back to the Search Results grid and remove it from the Candidate Screening Forms block.*

10. On the verification window that appears, click [OK]; this will move the selected record to the Candidate Screening Forms block
11. Click in the checkbox of the record you want to link to the open form
12. Click on [Create Linked Forms]
13. On the verification window that appears, click [OK]; this will close the Linked Forms pop-up window and move your record to the Linked Screening Forms block at the end of **SECTION 2.1** on the open form
14. When you are done updating the open form, click on [Save]

The system will:

- Save the open form, which is now your Parent form
- Create a Level 2 Draft for the form you linked, which is now your Child form
- Copy data from the Parent form to the Child form, excluding **SECTIONS 2.5** and **2.7** (these remain independent on the Parent and Child forms), and **SECTION 2.8** (these values will always be zero on the Child form while it is linked)
- Display your linked network as a group in My Drafts, indicating the Parent form with P

If you are creating a new Level 2 Draft to link to the Parent:

(If the Level 2 Draft exists and you are not creating a new one, go to: If the Level 2 Draft you are linking to the Parent exists already)

5. In the Search Results grid, click in the checkbox of the bridge or culvert you want to consider linking to the open form
6. Click on Add to Candidate List

> *If you decide you **do not** want the selected record to be considered for linking, click in its checkbox and click on* Remove from Candidate List*. This will move the record back to the Search Results grid and remove it from the Candidate Screening Forms block.*

7. On the verification window that appears, click OK ; this will move the selected record to the Candidate Screening Forms block
8. Click in the checkbox of the record you want to link to the open form
9. Click on Create Linked Forms
10. On the verification window that appears, click OK ; this will close the Linked Forms pop-up window, move your record to the Linked Screening Forms block at the end of **SECTION 2.1** on the open form, and assign a Tracking Number to the Child form

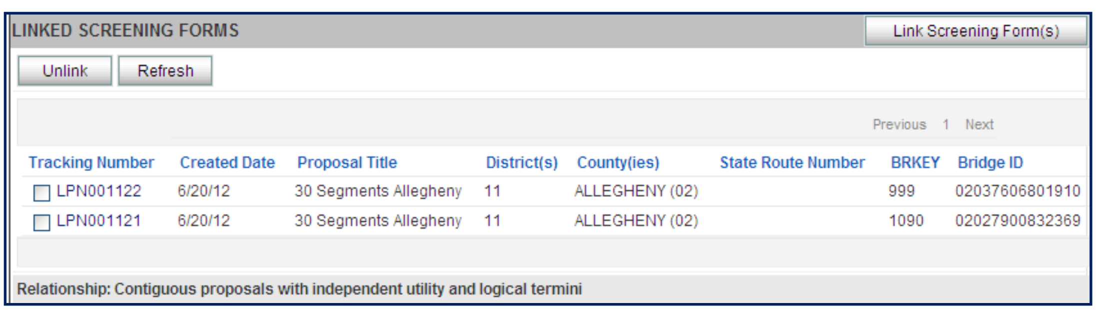


Figure 61: Linked Screening Forms Block, showing two linked forms

11. Click on Save

The system will:

- Save the open form, which is now your Parent form
- Create a Level 2 Draft for the form you linked, which is now your Child form
- Copy data from the Parent form to the Child form, excluding **SECTIONS 2.5** and **2.7** (these remain independent on the Parent and Child forms), and **SECTION 2.8** (these values will always be zero on the Child form while it is linked)
- Display your linked network as a group in My Drafts, indicating the Parent form with P

Creating a Child Form with Latitude and Longitude

1. Open or create the Level 2 Roadway Draft that you want to link other forms to (this will become the Parent form)
2. Click on Edit (if you have opened an existing Level 2 Draft; otherwise, the form you are creating should already be in ***Edit*** mode)
3. After the roadway information is populated on the Parent Level 2 form, click on Link Screening Form(s) in the Linked Screening Forms block at the end of **SECTION 2.1**; this accesses the Linked Forms pop-up window
4. Click on the Relationship drop-down arrow and choose "Contiguous Project"
5. Click in the "Create Child Form with Latitude and Longitude" checkbox; the window displays Latitude and Longitude options (and the Search Results grid is hidden)

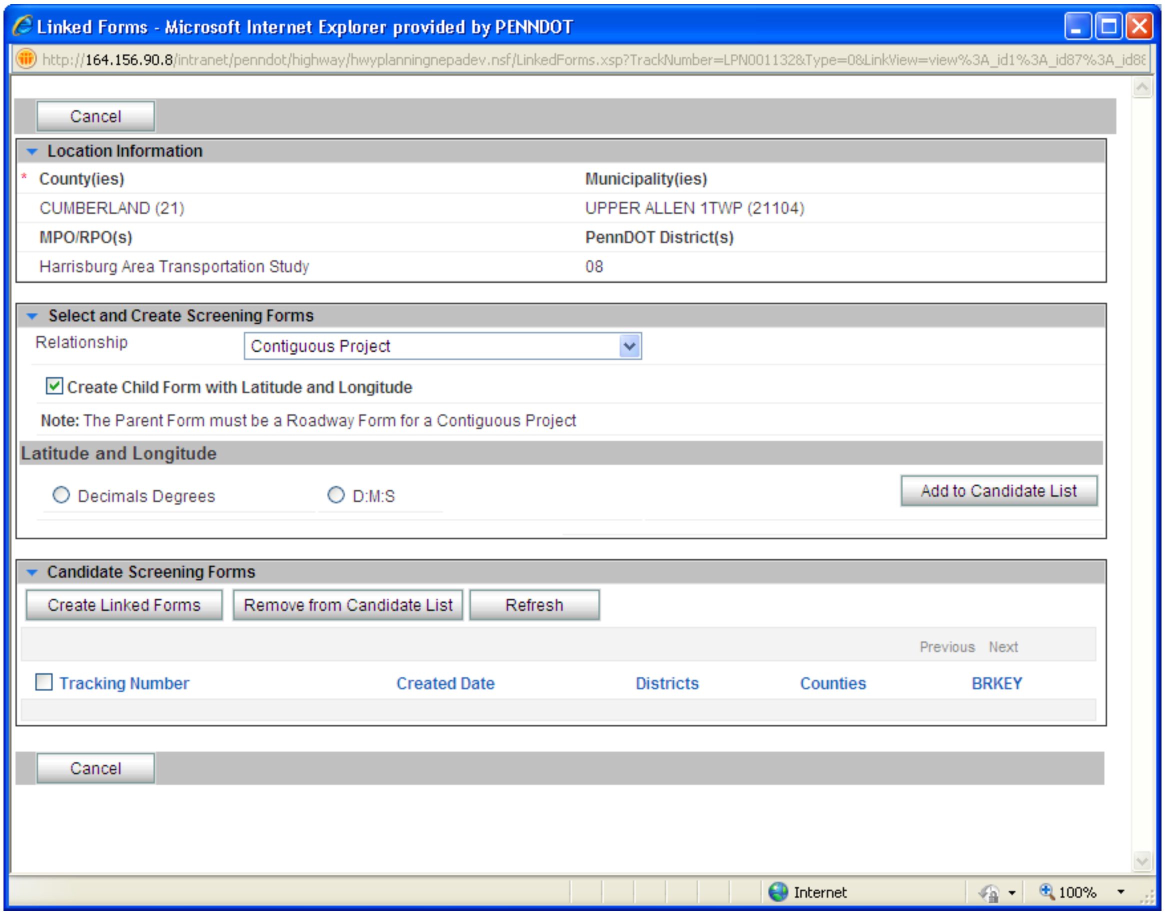


Figure 62: Linked Forms Pop-Up Window, showing Latitude and Longitude options

6. Choose "Decimals Degrees" or "D:M:S"
   - Decimals Degrees displays Latitude and Longitude fields, where you must enter a value in each field
   - D:M:S displays Degrees, Minutes and Seconds fields, where you must enter a value in each field

Latitude values must be between 39 and 43. Longitude values must be between -74 and -81. The system will prevent you from continuing if the values you enter are outside these ranges.

Latitude and longitude coordinates can be obtained using various Internet applications such as Bing Maps or Google Earth. The system will automatically convert Longitude to a negative number if it is not entered as such.

7. Click on Add to Candidate List
8. On the verification window that appears, click OK ; this will move the selected record to the Candidate Screening Forms block with a Tracking Number of "New Link Form"
9. Click in the checkbox of the record you want to link to the open form
10. Click on Create Linked Forms
11. On the verification window that appears, click OK ; this will close the Linked Forms pop-up window, move your record to the Linked Screening Forms block at the end of **SECTION 2.1** on the open form, and assign a Tracking Number to the Child form
12. Click on Save

The system will:

- Save the open form, which is now your Parent form
- Create a Level 2 Draft for the form you linked, which is now your Child form
- Copy data from the Parent form to the Child form, excluding **SECTIONS 2.5** and **2.7** (these remain independent on the Parent and Child forms), and **SECTION 2.8** (these values will always be zero on the Child form while it is linked)
- Display your linked network as a group in My Drafts, indicating the Parent form with P

Non-contiguous Proposals

Non-contiguous forms are essentially independent forms with their own data. That is, no **data** is shared between a Lead form and its Subordinate form(s).

> *Only the Lead form allows entry and edit of funding costs in **SECTION 2.8** for the entire group of linked forms. The Subordinate forms will display the funding costs from the Lead form, but cannot be edited while they are linked to the Lead.*
>
> *The Subordinates also display **2.6.j PROPOSAL SUMMARY** from the Lead form.*

As with linked contiguous forms, **actions** are shared from the non-contiguous Lead to Subordinate forms. When a Process Lead submits a Lead form, marks the review boxes and/or makes a recommendation, those actions are automatically applied to the subordinate forms.

Linking Forms in a Non-contiguous Relationship

1. Open or create the Level 2 Roadway or Bridge Draft that you want to link other forms to (this will become the Lead form)
2. Click on Edit (if you have opened an existing Level 2 Draft; otherwise, the form you are creating should already be in ***Edit*** mode)

3. Once the screening type has been chosen, click on Link Screening Form(s) in the Linked Screening Forms block at the end of **SECTION 2.1**; this accesses the Linked Forms pop-up window

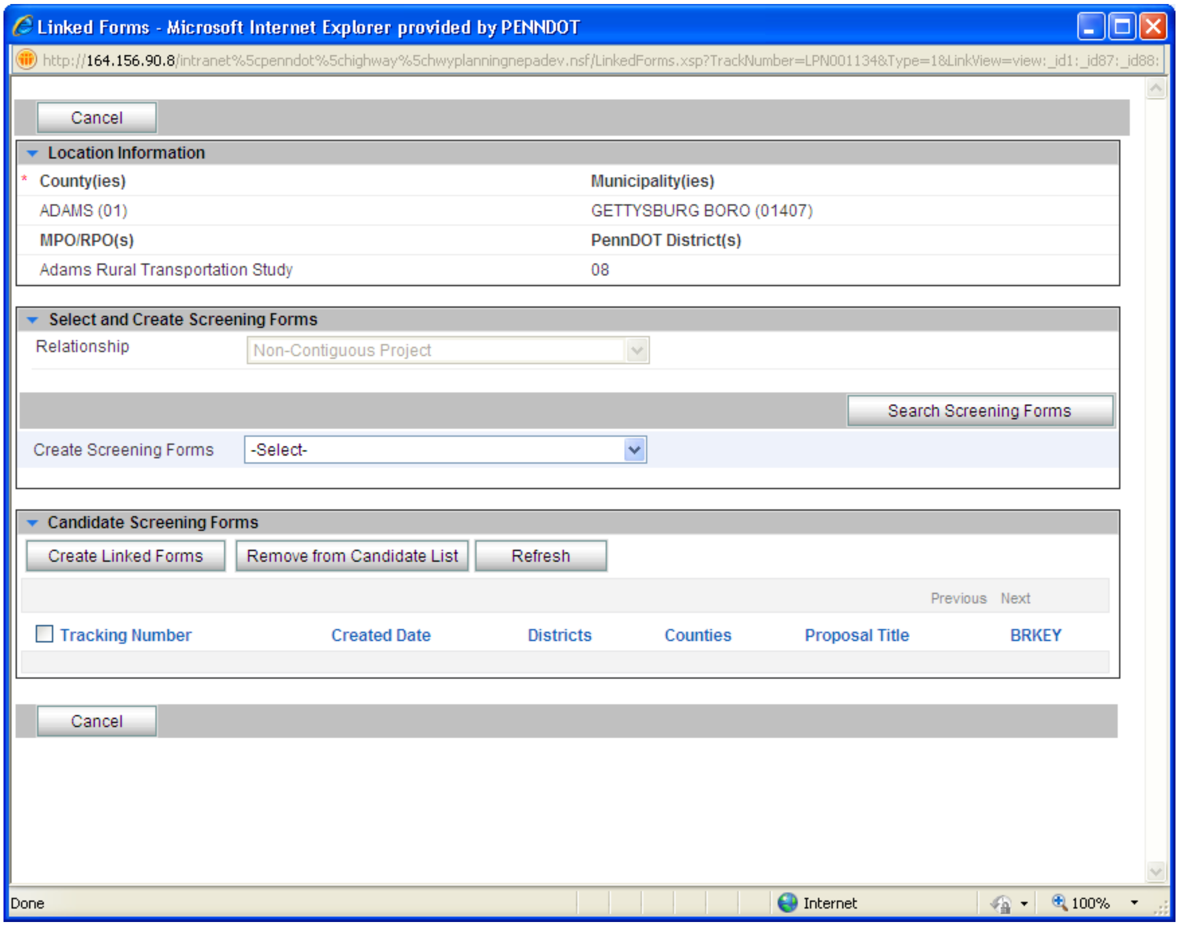


Figure 63: Linked Forms Pop-Up Window, showing Non-contiguous relationship as the default

4. Verify the Relationship field
   - If the form you opened or created is a **bridge** form, the Relationship field displays "Non-Contiguous Project"
   - If the form you opened or created is a **roadway** form, click on the Relationship drop-down arrow and choose "Non-Contiguous Project"

If the Level 2 Draft you are linking to the Lead exists already:

(If it does not, go to: [If you are creating a new Level 2 Draft to link to the Lead](#))

5. Click on [Search Screening Forms]; this access a Search Existing Forms block, where you can enter criteria by which to search for the desired form

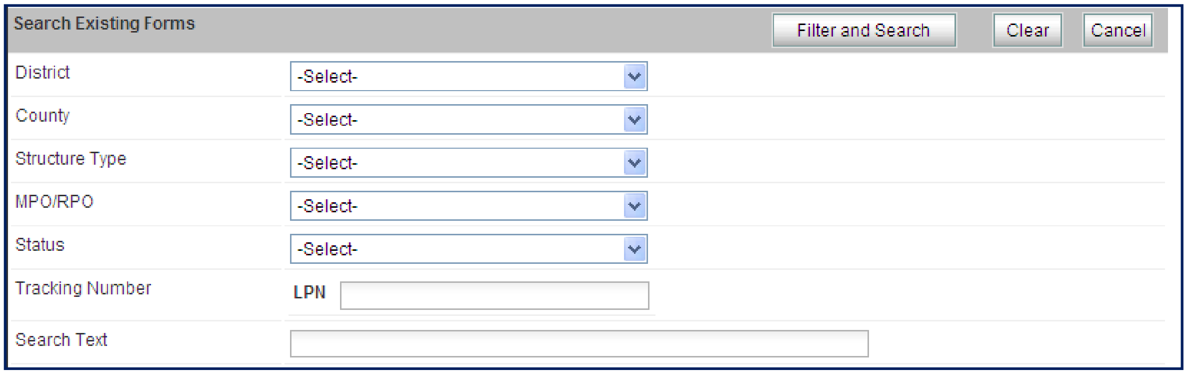


Figure 64: Search Existing Forms Block

6. Enter the search criteria you know about the Level 2 Draft you want to link to the open form
7. Click on [Filter and Search]; the system will return a list of existing Level 2 Drafts that meet your criteria in the Search Results grid below the Search Existing Forms block

> *The system will not return* ***linked*** *forms that meet your search criteria. If you do not see a form you expected to receive in your search, it is possible that the form is already part of a linked forms network.*

8. In the Search Results grid, click in the checkbox of the form you want to consider linking to the open form
9. Click on [Add to Candidate List]

> *If you decide you* ***do not*** *want the selected record to be considered for linking, click in its checkbox and click on* [Remove from Candidate List]*. This will move the record back to the Search Results grid and remove it from the Candidate Screening Forms block.*

10. On the verification window that appears, click [OK]; this will move the selected record to the Candidate Screening Forms block
11. Click in the checkbox of the record you want to link to the open form
12. Click on [Create Linked Forms]

13. On the verification window that appears, click OK ; this will close the Linked Forms pop-up window and move your record to the Linked Screening Forms block at the end of **SECTION 2.1** on the open form
14. When you are done updating the open form, click on Save

The system will:

- Save the open form, which is now your Lead form
- Link the Level 2 Draft you specified, which is now your Subordinate form
- Copy data from **SECTION 2.8** of the Lead form to the Subordinate form
- Display your linked network as a group in My Drafts, indicating the Lead form with

If you are creating a new Level 2 Draft to link to the Lead:

(If the Level 2 Draft exists and you are not creating a new one, go to: If the Level 2 Draft you are linking to the Lead exists already)

5. Click on the Create Screening Forms drop-down arrow and choose one of the following options:

   Create State Roadway Form or **Create Local Roadway Form**
   The system will populate the **CREATE SCREENING FORMS** field with your selection.

   a) Click on Add to Candidate List ; the system returns the Select Start and End Segments pop-up window
   b) Populate empty fields by clicking on each drop-down arrow and choosing a value
   c) Click on OK ; this will create a record in the Candidate Screening Forms block with a Tracking Number of "New Link Form"
   d) Click in the checkbox of the record you want to link to the open form
   e) Click on Create Linked Forms
   f) On the verification window that appears, click OK ; this will close the Linked Forms pop-up window, move your record to the Linked Screening Forms block at the end of **SECTION 2.1** on the open form, and assign a Tracking Number to the Subordinate form
   g) When you are done updating the open form, click on Save

   Create State Bridge Form or **Create Local Bridge Form**
   The system will populate the **CREATE SCREENING FORMS** field with your selection.

   a) Click on Add to Candidate List ; the system displays the State Bridge block
   b) Click on Select Bridge ; the system returns the Select Bridges pop-up window

c) Select a county (if different than what was entered on the Lead form), route and bridge from the drop-down lists
d) Click on OK; the system will populate the **EXISTING** fields in the State Bridge block with the data that corresponds to the bridge you specified
e) Click on Add to Candidate List
f) On the verification window that appears, click OK ; this will move the selected record to the Candidate Screening Forms block with a Tracking Number of "New Link Form"
g) Click in the checkbox of the record you want to link to the open form
h) Click on Create Linked Forms
i) On the verification window that appears, click OK ; this will close the Linked Forms pop-up window, move your record to the Linked Screening Forms block at the end of **SECTION 2.1** on the open form, and assign a Tracking Number to the Subordinate form
j) When you are done updating the open form, click on Save

Create Latitude Longitude Form

The system populates the **CREATE SCREENING FORMS** field with your selection, and displays a Decimals Degrees radio button and a D:M:S radio button.

a) Choose "Decimals Degrees" or "D:M:S"
   - Decimals Degrees displays Latitude and Longitude fields, where you must enter a value in each field
   - D:M:S displays Degrees, Minutes and Seconds fields, where you must enter a value in each field

Latitude values must be between 39 and 43. Longitude values must be between -74 and -81. The system will prevent you from continuing if the values you enter are outside these ranges.

b) Click on Add to Candidate List
c) On the verification window that appears, click OK ; this will move the selected record to the Candidate Screening Forms block with a Tracking Number of "New Link Form"
d) Click in the checkbox of the record you want to link to the open form
e) Click on Create Linked Forms
f) On the verification window that appears, click OK ; this will close the Linked Forms pop-up window, move your record to the Linked Screening Forms

block at the end of **SECTION 2.1** on the open form, and assign a Tracking Number to the Subordinate form

g) When you are done updating the open form, click on Save

The system will:

- Save the open form, which is now your Lead form
- Link the Level 2 Draft you specified, which is now your Subordinate form
- Copy data from **SECTION 2.8** of the Lead form to the Subordinate form
- Display your linked network as a group in My Drafts, indicating the Lead form with L

Linking Forms in a Non-contiguous Relationship through Asset Planning Bridges

The *Asset Planning Bridges* option provides the ability to create a non-contiguous set of linked forms based on the bridges that a user selects. The selected bridge appearing highest on the list of checked bridges will become the Lead form, and all others will become Subordinate forms. The appropriate links between the Lead form and the Subordinate forms will automatically be created at the end of the process, and the relationship will be "Non-contiguous."

See **Asset Planning** for details on how to search for bridge records.

1. Once you have received search results that match your criteria, enter a ***PROPOSAL SUMMARY*** (this will be saved to field **2.6.j PROPOSAL SUMMARY** on all the forms in this linked network)
2. Click in the checkbox next to "Create a Non-contiguous set of linked forms. The selected bridge that appears highest on the list of checked bridges will become the lead form."
3. Click in the checkboxes of at least two bridge records that appear in the Search Results grid.

> STOP *You must select at least two bridges when the "Create a Non-contiguous set of linked forms…" checkbox is checked. The system will not allow you to continue until you either select more than one bridge, or deselect the "Create a Non-contiguous set of linked forms…" checkbox.*

4. Click on Submit
5. On the verification window that appears, click OK
6. When you are done updating the open form, click on Save

The system will:

- Create a Level 2 Draft for each bridge record you chose on the Bridges detail screen
- Link the records you specified
- Make the first checked bridge in the list of checked bridges the Lead form
- Make the other checked bridge(s) the Subordinate form(s)
- Display your linked network as a group in My Drafts, indicating the Lead form with L

Unlinking Forms

Child and Subordinate forms can be unlinked from their Parent or Lead while they are in any status in ***Level 2***. Once unlinked, a form's status is set to **Draft**, regardless of what its status was when it was unlinked. The form then becomes independent and can be edited as normal.

When a Child form is unlinked from its Parent, it retains its values, which were inherited from the Parent form. This means that someone will have to review the newly unlinked form to determine if the values are still appropriate, particularly in **SECTION 2.8**, where no values exist.

When a Subordinate form is unlinked from its Lead, it retains its values, which are independent of the Lead form's values, with the exception of **SECTION 2.8**, which reflects the values of the Lead form. This means that someone will have to review the Lead form after a Subordinate is unlinked to determine if any costs should be deducted from the totals that are represented there. Likewise, the former Subordinate will have to be reviewed for changes.

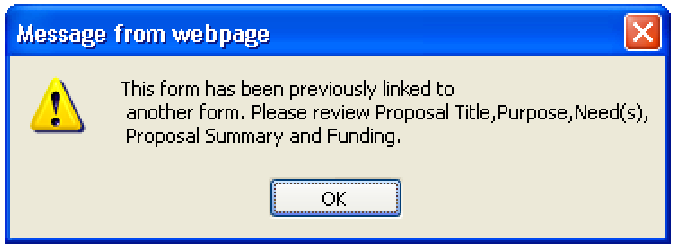
1. Open a Level 2 Draft that has forms linked to it (these are indicated by a P or an L in ***My Drafts*** view)
2. Click on Edit
3. At the end of Section 2.1, click in the checkbox of the form you want to unlink
4. Click on Unlink
5. On the verification window that appears, click OK
6. When you are done updating the open form, click on Save

The system will:

- Remove the unlinked record from the Linked Screening Forms block on the open form
- Set the unlinked form's status to **Draft**
- Retain the unlinked form's data

*When the unlinked from was part of a Non-contiguous relationship, the system will set the previously linked Subordinate form's funding costs in **SECTION 2.8** to zero.*

- Display the unlinked form as a single form in the views
- Return the following message when a newly unlinked form is edited for the first time after it is unlinked (the system will return this message every time the unlinked form is opened and edited, until it is saved):



APPENDIX A: ACRONYMS AND GLOSSARY

ADA	Americans with Disabilities Act
ADT	Average Daily Traffic The average number of vehicles that travel on a road during the day.
Advocate	In the *User's Guide* context, the originator of a submitted form; submitter
Air Quality Conformity	The link between air quality planning and transportation planning
Asset Management	The strategic framework for managing transportation infrastructure aligning resource allocation to maintain and/or improve the system to a specific level
Betterment	Minor projects that enhance the functional quality of an existing roadway by upgrading its pavements and shoulders, guiderail, drainage, signing, line striping and signalization. These projects typically address problems a step beyond the scope of routine maintenance. The purpose of a typical betterment is to improve an existing roadway's safety and operations by restoring and upgrading its existing features.
BHSTE	Bureau of Highway Safety and Traffic Engineering
CE	Categorical Exclusion
CPDM	Center for Program Development and Management
CWOPA	Commonwealth of PA A directory service for internal resources to access intranet accounts
Design Criteria	State and national standards and procedures that guide the establishment of roadway layouts, alignments, geometry, and dimensions for specified types of roadways in certain defined conditions
DHV	Design Hour Volume
DM-1A	PennDOT Design Manual part 1A (Pub. 10A) – Planning Procedures
DM-1B	PennDOT Design Manual part 1B (Pub. 10B) – NEPA Procedures
DM-1C	PennDOT Design Manual part 1C (Pub. 10C) – Engineering Procedures
EA	Environmental Assessment
EIS	Environmental Impact Statement
Environmental Features	Significant resources, facilities, or other features of a study area that serve to restrain, restrict, or prevent the implementation of proposed transportation improvements in a given area
FHWA	Federal Highway Administration
HSIP	Highway Safety Improvement Program
LPN	Linking Planning and NEPA
LRTP	Long Range Transportation Plan
MPMS	Multi-modal Project Management System
MPO	Metropolitan Planning Organizations Required by Federal law for all urbanized areas over 50,000 in population in the US; Responsible for a coordinated, comprehensive, and continuous transportation planning program

NEPA	National Environmental Policy Act The Federal law that requires the preparation of specific environmental documentation for major undertakings using federal funds
PennDOT	The Pennsylvania Department of Transportation. Formed in 1970 from the Department of Highways, PennDOT incorporated Motor Vehicles (from the Dept. of Revenue), Rail Freight, and Aviation functions. The Department is a Cabinet-level agency under the Governor's jurisdiction.
RPO	Rural Planning Organization Name for the transportation planning entity of a non-metropolitan region; Acts the same as MPOs for rural areas in Pennsylvania
TIP	Transportation Improvement Plan
VPN	Virtual Private Network

APPENDIX B: GIS DATA

A significant amount of the data needed to screen transportation proposals for potential impacts to the environment is available from PASDA. The Table below identifies the data sources, including hyperlinks, for the GIS layers used for the ***Level 2 Form, Section 2.5 Environmental Analysis***.

The primary location for GIS data is found at the Pennsylvania Spatial Data Access (PASDA) webpage. The following link provides useful NEPA related GIS layers:

http://www.pasda.psu.edu/uci/SearchResults.aspx?originator=%20&Keyword=DOT_NEPA&searchType=keyword&entry=PASDA&condition=AND

Level 2 Form Question	GIS Data Source(s) for Level 2 Screening Form	Notes to User
2.5.1.a — Potential for impacts to wild or stocked trout streams?	**Title:** Stream Sections that Support Wild Trout Production **Originator:** Pennsylvania Fish and Boat Commission http://www.pasda.psu.edu/uci/MetadataDisplay.aspx?entry=PASDA&file=Trout_NaturalReproduction200805.xml&dataset=980 **Title:** Class A, Wild Trout Streams **Originator:** Pennsylvania Fish and Boat Commission http://www.pasda.psu.edu/uci/MetadataDisplay.aspx?entry=PASDA&file=ClassA_Streams200810.xml&dataset=986 **Title:** Wilderness Trout Streams **Originator:** Pennsylvania Fish and Boat Commission http://www.pasda.psu.edu/uci/MetadataDisplay.aspx?entry=PASDA&file=Wilderness_Trout_Streams200803.xml&dataset=983 **Title:** Existing Use Streams **Originator:** Pennsylvania Department of Environmental Protection http://www.pasda.psu.edu/uci/MetadataDisplay.aspx?entry=PASDA&file=StreamsCH93ExistingUse2011_03.xml&dataset=1099 *Check for updates on PASDA three times per year.*	The first three layers overlap in many places, but the overlap is not complete. A definition query is needed to show only the trout stocking streams. This layer is split between this and the next question.
2.5.1.b — Potential for impacts to High Quality/EV Streams	**Title:** Streams Chapter 93 Designated Use **Originator:** Penn State Institutes of the Environment. The Pennsylvania State University. **Originator:** Creator: Kenneth J. Corradini **Originator:** Research Triangle Institute (RTI) http://www.pasda.psu.edu/uci/MetadataDisplay.aspx?entry=PASDA&file=StreamsChapter93DesignatedUse200812.xml&dataset=1098 **Title:** Existing Use Streams **Originator:** Pennsylvania Department of Environmental Protection http://www.pasda.psu.edu/uci/MetadataDisplay.aspx?entry=PASDA&file=StreamsCH93ExistingUse2011_03.xml&dataset=1099 *Check for updates on PASDA three times per year.*	A definition query is needed in both of these layers to show only the HQ/EV streams.

Level 2 Form Question	GIS Data Source(s) for Level 2 Screening Form	Notes to User
2.5.1.c — Potential for impacts to wetlands?	**Title:** National Wetlands Inventory for Pennsylvania – polygon **Originator:** U.S. Fish and Wildlife Service http://www.pasda.psu.edu/uci/MetadataDisplay.aspx?entry=PASDA&file=panwipolygon.xml&dataset=106 *Check for updates on PASDA three times per year.* **Title: Hydric soils** for each county from NRCS Soil Data Mart http://soildatamart.nrcs.usda.gov/ — soils surveys with shape files and tabular data for each county based processed with the NRCS Soil Data Viewer plug-in (http://soildataviewer.nrcs.usda.gov/default.aspx). *Hydric soils will not need to be updated until the NRCS updates their soil surveys.*	Both data sets are needed. The Soil Data Viewer plug-in for Arc GIS generates a thematic layer from the digital soil survey for each county. The thematic layer then needs a query to show just the hydric soils (not the partially hydric soils). The current plan is to use even numbers for hits to NWI and odd numbers for hits to hydric soils.
2.5.1.d — Potential for impacts to federally proposed, candidate or listed or state listed threatened and endangered species?	This analysis requires processing through the PA Natural Diversity Index (PNDI) for each project: http://www.naturalheritage.state.pa.us/	Currently, the PNDI data sources and PennDOT's GIS system cannot be integrated. The User will need to use the PNDI website.
2.5.1.e — Potential for effects to Historic Properties or Archaeological Resources?	**Title:** PHMC Cultural Resources Database — Restricted availability through PennDOT The CRGIS is updated frequently and the connection between the LPN forms and CRGIS is live. *Planning partners can contact Frank Desendi fdesendi@state.pa.us at PennDOT for information on downloading some CRGIS data.*	Separate scores and thresholds for historic and archaeological data:
2.5.1.f — Potential for public controversy on environmental grounds?	No GIS data source	

Level 2 Form Question	GIS Data Source(s) for Level 2 Screening Form	Notes to User
2.5.1.g — Potential temporary or permanent impacts (use) to resources protected under Section 4(f)?	**Title:** PHMC Cultural Resources Database *for historic features only* — Restricted availability through PennDOT **Title:** Statewide Trails information from DCNR: DCNR is working toward publishing additional trails data/info on PASDA for many long distance hiking trails, state park trails, state forest trails, local trails, etc., but those won't be released until next summer (2011). Contact Mr. Kent Taylor [c-ketaylor@state.pa.us] for information on accessing the GIS trails data. Currently, data is available here: **Title:** DCNR Rail Trails 2008 **Originator:** Rails-to-Trails Conservancy http://www.pasda.psu.edu/uci/MetadataDisplay.aspx?entry=PASDA&file=DCNR_RailTrails200808.xml&dataset=1288 and from here: **Title: Tracks** (Trail Routes) 2010 **Originator:** DCNR https://docs.google.com/leaf?id=0B4BVewkFJgY8MWM0NWNiZDEtNmMyNy00Zjk5LTg0OGMtYjcxZDRjZGVhNjhj&hl=en&authkey=COmy5toD **Title:** Protected Lands Inventory: Federal Lands – November 2004 **Originator:** The Conservation Fund http://www.pasda.psu.edu/uci/MetadataDisplay.aspx?entry=PASDA&file=PA_PLI_Federal.xml&dataset=884 **Title:** Boundaries of State Parks in Pennsylvania 2008 **Originator:** Pennsylvania. Dept. of Conservation and Natural Resources. Bureau of State Parks. **Abstract:** State Park Boundaries http://www.pasda.psu.edu/uci/MetadataDisplay.aspx?entry=PASDA&file=dcnr_stateparkbound_2008.xml&dataset=114 **Title:** DCNR – State Forest Lands 2006 **Originator:** PA Department of Conservation and Natural Resources, Bureau of Forestry http://www.pasda.psu.edu/uci/MetadataDisplay.aspx?entry=PASDA&file=dcnr_stateforestlands_2006.xml&dataset=263 **Title:** State Game Lands **Originator:** Pennsylvania Game Commission http://www.pasda.psu.edu/uci/MetadataDisplay.aspx?entry=PASDA&file=PGC_StateGamelands2007.xml&dataset=86 *Trails and parks information from DCNR needs to be checked twice a year (January and July) once the data is on PADSA.* *For the remaining layers, Check for updates on PASDA three times per year.*	Potential impacts to historic features can also be potential uses under section 4(f), but impacts to archeological resources are often *not* considered uses under section 4(f). DCNR is actively working on improving its trails layers. Currently, the DCNR trails data does not include many trails in state parks. DCNR is working to add them. Note: a definition query is needed to separate the water trails from the DCNR data. For now, the counties are the best source for information on local parks and recreation facilities. The planning partners will need to fill in local information when it is known.

Level 2 Form Question	GIS Data Source(s) for Level 2 Screening Form	Notes to User
2.5.1.h — Potential for temporary or permanent impacts to water trails?	**Title:** PA Water Trails **Originator:** Pennsylvania Fish and Boat Commission http://www.pasda.psu.edu/uci/MetadataDisplay.aspx?entry=PASDA&file=PFBC_WaterTrails_line.xml&dataset=981 *Check for updates on PASDA three times per year.*	
2.5.1.i — Potential for temporary or permanent impacts to hazardous/residual waste site?	**Title:** EPA Geospatial Data Access Project **Originator:** The Environmental Protection Agency • Superfund National Priorities (NPL) • EPA and State Treatment, Storage, and Disposal Facilities • Toxic Release Inventory System • Integrated Compliance Information System (ICIS) • Permit Compliance System (PCS) • Discharge Elimination System – Majors (NPDES) • RCRAInfo – Large Quality Generators (LQG) • RCRAInfo – Corrective Actions • Air Facility System (AFS) – Major discharges • Risk Management Plan (RMP) • Section Seven Tracking System (SSTS) – Pesticides • Brown Field Properties (ACRES) http://www.epa.gov/enviro/geo_data.html **Title:** Land Recycling Cleanup Locations **Originator:** Pennsylvania Department of Environmental Protection http://www.pasda.psu.edu/uci/MetadataDisplay.aspx?entry=PASDA&file=LandRecyclingCleanupLocations2010_01.xml&dataset=279 **Title:** Captive Hazardous Waste Operations **Originator:** Pennsylvania Department of Environmental Protection http://www.pasda.psu.edu/uci/MetadataDisplay.aspx?entry=PASDA&file=CaptiveHazardousWasteOperations2010_01.xml&dataset=270 **Title:** Commercial Hazardous Waste Operations **Originator:** Pennsylvania Department of Environmental Protection http://www.pasda.psu.edu/uci/MetadataDisplay.aspx?entry=PASDA&file=CommercialHazardousWasteOperations2009_01.xml&dataset=272 **Title:** Municipal Waste Operations **Originator:** Pennsylvania Department of Environmental Protection http://www.pasda.psu.edu/uci/MetadataDisplay.aspx?entry=PASDA&file=MunicipalWasteOperations2010_01.xml&dataset=281 **Title:** Storage Tank Locations **Originator:** Pennsylvania Department of Environmental Protection http://www.pasda.psu.edu/uci/MetadataDisplay.aspx?entry=PASDA&file=StorageTankLocations2009_01.xml&dataset=287 *Check for updates with EPA and on PASDA three times per year.*	The data from EPA is the same data that they use in their Enviromapper online application (http://www.epa.gov/emefdata/em4ef.home). It is point data. All point layers are buffered by 250 feet

Level 2 Form Question	GIS Data Source(s) for Level 2 Screening Form	Notes to User
2.5.1.j — Potential impact to regulated floodplain within or beyond the project limits?	Show only 100-year floodplains (special flood hazard area — SFHA) as defined here: http://www.fema.gov/plan/prevent/floodplain/nfipkeywords/flood_zones.shtm. *Continue to order disks from FEMA every two months to get the newest data until all counties are completed.*	New floodplain maps are coming online, county by county. Check the status of the PA flood maps here: http://www.floodmaps.fema.gov/fhm/scripts/ST_srch.asp?state=PA Data for PA received from FEMA on disk. Not 100% coverage at this time, but the data is updated monthly and is provide free of charge. Definition query needed to capture only SFHAs.
2.5.1.k — Potential impacts to agriculture?	**Title:** Prime farmland soils and soils of statewide importance: NRCS Soil Data Mart http://soildatamart.nrcs.usda.gov/ digital surveys by county — Shape files and layer files for each county based on NRCS Soil Data Viewer queries *Prime farmland soils will not need to be updated until NRCS updates the soil surveys.* **Title:** Agricultural Easements Source: PA Dept. of Agriculture *PA Dept. of Ag. Will send PennDOT updated agricultural easements approx. two months after the conservation board meetings.*	The counties are still the only source for data on agricultural security areas. The planning partners will need to fill in local information when it is known.
2**.5.1.l** — Potential for impacts to navigable watercourses which requires U.S. Coast Guard coordination?	List of navigable waters as determined by the U.S. Army Corps of Engineers: P:\Real Property Division Guidance\Navigable Waters\DEP Subfolder\ 2003 DEP List of Streams Declared Navigable by the Corps of Engineers.pdf *This layer will not need to be updated unless the list of navigable rivers identified by the US Army Corps of Engineers changes.*	PennDOT digitized this layer from the descriptions in the source document.

Level 2 Form Question	GIS Data Source(s) for Level 2 Screening Form	Notes to User
2.5.1.m — Potential for impacts to properties afforded protection under Section 6(f) of the LWCF Act?	Two layers provided by DCNR: 2. **LWCF acquisitions** — Property boundaries for lands acquired with LWCF money. 3. **Grants2010_LWCF_buffer** — point layer for development projects (e.g., playground equipment in a park) that use LWCF grants. Points were buffered by 150 feet. A definition query removed the points representing acquisitions, which are covered by the polygon layer above. DCNR contact: Shane Hoover shhoover@state.pa.us *The LWCF layers are updated twice per year (January and July).*	The acquisitions layer is a polygon layer with property boundaries. The grants layer is a buffered points layer representing development projects. The projects are smaller in scale than land acquisitions.
2.5.1.n — Are there properties in the vicinity of the project purchased as hazard mitigation lands under the Stafford Act?	These properties have been purchased as part of FEMA and PEMA's Unified Hazard Mitigation Assistance Program as authorized by the Stafford Act. These properties require additional necessary coordination with PEMA and the local municipality. PEMA GIS contacts: Julie Yu (juyu@state.pa.us) and Steve Kiouttis (skiouttis@state.pa.us) *These layers are updated twice per year (January and July).*	This is a point layer. Points are buffered by 150 feet.
2.7.5 — Is the proposal in an Act 167 watershed?	Layer provided by DEP: Provided by DEP. Layer indicates watersheds and/or counties with approved Act 167 plans. DEP contact: Michael Hill: mihill@state.pa.us *This layer is updated once each year (January).*	This layer indicates which watersheds or portions of watersheds have approved Act 167 plans.

APPENDIX C: ASSET PLANNING DATA FIELDS

# Spans	The number of horizontal spaces between two supports of a structure
AADT	It is the total volume of vehicle traffic of a highway or road for a year divided by 365 days.
Bituminous Patching Area Square Ft	Area of bituminous patches (Square feet)
Bituminous Patching Count	Number of bituminous patches
BRIDGE_ID (County-State Route-Segment-Offset) (BMS ID)	The unique 12-digit number assigned to any structure meeting the definition of a bridge
BRKEY (Bridge Key)	Bridge reference number. This is a unique key that is permanently assigned to the bridge structure and will not change due to segment realignment.
Business Plan Network (BPN)	PennDOT roadway classification system for the purpose de-developing District Business Plans and system monitoring. Includes: Interstate [BPN-1]; National Highway System (non-Interstate) [BPN-2]; Non-National Highway System >= 2000 Average Daily Trips [BPN-3]; Non-National Highway System < 2000 Average Daily Trips [BPN-4]; Local Network [BPN-L].
Comb (Tons)	Indicates the Posted Weight restriction for combined axles motor vehicle over a structure.
County	Name of County in which the segment is located
COUNTY	PennDOT county code.
CULV (Culvert)	The structural condition rating of a culvert (circular, arch, or box shaped) type of bridge structure.
DECK (Deck Condition Rating)	The structural condition rating of the bridge deck (the roadway/surface portion of a bridge).
Deck Area	The measure of the bridge deck area in square feet.
Direction	Direction of traffic flow within the segment (North, South, East, West)
District	Name of PennDOT Engineering District in which the segment is located
Edge Deterioration	Edge cracks are longitudinal cracks which develop within one or two feet of the outer edge of a pavement. These cracks form because of a lack of support at the pavement edge.
Edge Deterioration High	Length of edge deterioration considered high severity (ft)
Edge Deterioration Low	Length of edge deterioration considered low severity (ft)

Edge Deterioration Medium	Length of edge deterioration considered medium severity (ft)
Fatigue Cracking	Fatigue cracking is sometimes called alligator cracking due to the interconnected cracks which resemble an alligator's skin. Fatigue cracking is caused by load-related deterioration resulting from a weakened base course or sub grade, too little pavement thickness, overloading, or a combination of these factors.
Fatigue Cracking High	Length of fatigue cracking considered high severity (ft)
Fatigue Cracking Low	Length of fatigue cracking considered low severity (ft)
Fatigue Cracking Medium	Length of fatigue cracking considered medium severity (ft)
FEATURE CARRIED	Description of the features carried by the structure.
FEATURE INTERSECTED	Description of the features intersected by the structure.
Func Obsol (Functionally Obsolete)	A functionally obsolete bridge is one that was built to standards that are not used today. These bridges are not automatically rated as structurally deficient, nor are they inherently unsafe. Functionally obsolete bridges are those that do not have adequate lane widths, shoulder widths, or vertical clearances to serve current traffic demand, or those that may be occasionally flooded.
Functional Class	Functional classification is the process by which streets and highways are grouped into classes, or systems, according to the character of traffic service that they are intended to provide. There are three highway functional classifications: arterial, collector, and local roads. All streets and highways are grouped into one of these classes, depending on the character of the traffic (i.e., local or long distance) and the degree of land access that they allow.
IRI	The index measures pavement roughness in terms of the number of inches per mile that a laser, mounted in a specialized van, jumps as it is driven across the interstate and expressway system. The lower the IRI number, the smoother the ride.
LENGTH	Whether the structure meets or exceeds the minimum length specified to be designated as a bridge for National Bridge Inspection Standards purposes.
LOCATION / STRUCTURE NAME	The location and designated name of the structure
Miscellaneous Cracking	All other types of pavement cracking not specifically defined
Miscellaneous Cracking High	Length of miscellaneous cracking considered high severity (ft)
Miscellaneous Cracking Low	Length of miscellaneous cracking considered low severity (ft)
Miscellaneous Cracking Medium	Length of miscellaneous cracking considered medium severity (ft)

MUNI (Municipality)	Municipality that structure is located in
Number of bridges	Number of bridges within the segment
Number of Lanes	Number of traffic lanes within the segment
OPI	A calculation of Overall Pavement Index combining all pavement conditions into a rating scale ranging from 0 (worst) to 100 (best) used to evaluate and prioritize maintenance, rehabilitation, and reconstruction of the highway system on an annual basis
OWNER CODE	Used to record the owner or principal custodian of the bridge
Pavement Type	Type of Pavement
POST STATUS (Posting Status)	Indicates the open, closed, or posted status of the bridge
Primary Facility Function	The primary usage of the existing facility considering all modes of transportation. Understanding how an identified facility or corridor is currently operating can inform the range of solutions to correct the problem.
RA - SD District Rank (Risk Assessment-Structurally Deficient District Rank)	District Ranking of bridges using the Bridge Risk Assessment tool Structurally Deficient Criteria to assess and manage risk level of bridges to maintain a functional, cost effective, and safe transportation system.
RA - SD Statewide Rank (Risk Assessment-Structurally Deficient Statewide Rank)	Statewide Ranking of bridges using the Bridge Risk Assessment tool Structurally Deficient Criteria to assess and manage risk level of bridges to maintain a functional, cost effective, and safe transportation system.
RA Type (Risk Assessment Type)	Category of Risk Assessment used for scoring and ranking bridges. Types include: State Bridge, State Culvert, Local Bridge, and Local Culvert.
RA Year (Risk Assessment Year)	Year Risk Assessment analysis was performed (including calculation and rankings).
Rank Construction Rehab	Pavement statewide rehabilitation and reconstruction risk assessment ranking based on Traffic, Age, and condition of the pavement segment.
Rank Preservation	Pavement statewide preservation risk assessment ranking based on average IRI deterioration projected to change from good IRI category to fair IRI category.
Raveling / Weathering	Raveling is the wearing away of the aggregate particles from the asphalt cement. This condition indicates that the asphalt has hardened or that a poor quality mixture was used. Raveling occurs in the presence of traffic.

Raveling/ Weathering (Ft) High	Length of raveling or weathering considered high severity (ft)
Raveling/ Weathering (Ft) Medium	Length of raveling or weathering considered medium severity (ft)
Rutting	Rutting is a linear, surface depression in the wheel path. Rutting is caused by deformation or consolidation of any of the pavement layers or sub grade. It can be caused by insufficient pavement thickness, lack of compaction, and weak asphalt mixtures.
Rutting Left High	Length of rutting considered high severity in the left wheel path (ft)
Rutting Left Low	Length of rutting considered low severity in the left wheel path (ft)
Rutting Left Medium	Length of rutting considered medium severity in the left wheel path (ft)
Rutting Right High	Length of rutting considered high severity in the right wheel path (ft)
Rutting Right Low	Length of rutting considered low severity in the right wheel path (ft)
Rutting Right Medium	Length of rutting considered medium severity in the right wheel path (ft)
Segment	Every state route is divided into specified sections of roadway known as segments. Segments can vary in length, but the majority of them are approx. one-half mile in length. Where possible, segments typically start and end at easily identifiable physical features along the roadway such as intersections, bridges, overpasses or railroad tracks.
Segment Length	Length of roadway segment (ft)
Single (Tons)	Indicates the Posted Weight restriction for a single axles motor vehicle over a structure.
State Route	In the U.S. state of Pennsylvania, state highways are maintained by the Pennsylvania Department of Transportation. Each is assigned a four-digit State Route (SR) number in the present Location Referencing System. Traffic Routes are signed as Interstate Highways, U.S. Routes and Pennsylvania Routes (PA Routes), and are prefixed with one to three zeros to give a four-digit number. PA Routes are also called Pennsylvania Traffic Routes, and formerly State Highway Routes
Struct Def (Structurally Deficient)	Bridges are considered structurally deficient if a structural element (or elements) is found to be in poor condition due to deterioration or the adequacy of the waterway opening provided by the bridge is determined to be extremely insufficient to point of causing intolerable traffic interruptions. The fact that a bridge is classified under the federal definition as "structurally deficient" does not imply that it is unsafe. A structurally deficient bridge, when left open to traffic, typically requires significant maintenance and repair to remain in service and eventual rehabilitation or replacement to address deficiencies. To remain in service, structurally deficient bridges are sometimes posted with weight limits to restrict the gross weight of vehicles using the bridges to less than the maximum weight typically allowed by statute.

Structure Type	Bridges vary depending on the function of the bridge, the nature of the terrain where the bridge is constructed, the material used to make it and the funds available to build it. There are six main types of bridges: beam bridges, cantilever bridges, arch bridges, suspension bridges, cable-stayed bridges and truss bridges.
SUB (Substructure)	The structural condition rating of the bridge substructure (the elements of the bridge which support the superstructure, including abutments, piers, etc.).
Sufficiency Rating	A bridge sufficiency rating includes a multitude of factors: inspection results of the structural condition of the bridge, traffic volumes, number of lanes, road widths, clearances, and importance for national security and public use, to name just a few. The sufficiency rating is calculated per a formula defined in Federal Highway Administration's Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges. This rating is indicative of a bridge's sufficiency to remain in service. The formula places 55 percent value on the structural condition of the bridge, 30 percent on its serviceability and obsolescence, and 15 percent on its essentiality to public use. The point calculation is based on a 0-100 scale and it compares the existing bridge to a new bridge designed to current engineering standards. The bridge's sufficiency rating provides an overall measure of the bridge's condition and is used to determine eligibility for federal funds. Bridges are considered structurally deficient if significant load carrying elements are found to be in poor condition due to deterioration or the adequacy of the waterway opening provided by the bridge is determined to be extremely insufficient to point of causing intolerable traffic interruptions.
SUP (Superstructure Condition Rating)	The structural condition rating of the superstructure (the components of the structure that provide the horizontal span).
Surface Out of Cycle	Pavement surface older than recommended by treatment cycle
Surface year	Year roadway segment surface was placed based on predominate length
Survey date	The date pavement conditions were last collected for the segment. The Nation Highway System roadways are collected every year, and the Non-NHS roadways are collected on a two year cycle.
Total Pavement Width	Total paved width measurement from edge of pavement to edge of pavement, including any parking lanes
Transverse Cracking	Transverse cracks occur roughly perpendicular to the centerline of the pavement. They can be caused by shrinkage of the asphalt layer or reflection from an existing crack. They are not load-related.
Transverse Cracking High (ft)	Length of transverse cracking considered high severity (ft)
Transverse Cracking High Count	Number of transverse cracks considered high severity

Transverse Cracking Low (ft)	Length of transverse cracking considered low severity (ft)
Transverse Cracking Low Count	Number of transverse cracks considered low severity
Transverse Cracking Medium (ft)	Length of transverse cracking considered medium severity (ft)
Transverse Cracking Medium Count	Number of transverse cracks considered medium severity
Year Built	Year roadway segment was built or reconstructed based on predominate length
YEAR BUILT	The year the Structure was built.
Year Rebuilt	Year Structure was re-constructed.
Year Recon (Year Reconstructed)	The last year that a major reconstruction was performed on the structure.

<table>
<tr><th rowspan="2">IRI Ranges (inches per mile)</th><th colspan="2">National Highway System (NHS)</th><th colspan="2">Non - National Highway System</th></tr>
<tr><th>Interstate</th><th>Non-Interstate</th><th>ADT ≥ 2000</th><th>ADT < 2000</th></tr>
<tr><td>≤ 70</td><td>Excellent</td><td rowspan="2">Excellent</td><td rowspan="3">Excellent</td><td rowspan="4">Excellent</td></tr>
<tr><td>71-75</td><td rowspan="2">Good</td></tr>
<tr><td>76-100</td><td rowspan="2">Good</td></tr>
<tr><td>101-120</td><td rowspan="2">Fair</td><td rowspan="2">Good</td></tr>
<tr><td>121-150</td><td rowspan="2">Fair</td><td rowspan="2">Good</td></tr>
<tr><td>151-170</td><td rowspan="4">Poor</td><td rowspan="2">Fair</td></tr>
<tr><td>171-195</td><td rowspan="3">Poor</td><td rowspan="2">Fair</td></tr>
<tr><td>196-220</td><td rowspan="2">Poor</td></tr>
<tr><td>> 220</td><td>Poor</td></tr>
</table>

Figure 65: IRI Classification by Business Plan Network
(Source: 2010 State of Pavement Smoothness Report, PennDOT)

<table>
<tr><th rowspan="2">Category</th><th colspan="2">National Highway System (NHS)</th><th colspan="2">Non-National Highway System</th></tr>
<tr><th>Interstate</th><th>Non-Interstate</th><th>ADT ≥ 2000</th><th>ADT < 2000</th></tr>
<tr><td>> 95</td><td>Excellent</td><td>Excellent</td><td rowspan="2">Excellent</td><td rowspan="3">Excellent</td></tr>
<tr><td>91-95</td><td rowspan="2">Good</td><td rowspan="3">Good</td></tr>
<tr><td>86-90</td><td rowspan="2">Good</td></tr>
<tr><td>81-85</td><td rowspan="2">Fair</td><td rowspan="3">Good</td></tr>
<tr><td>76-80</td><td rowspan="2">Fair</td><td rowspan="3">Fair</td></tr>
<tr><td>71-75</td><td rowspan="4">Poor</td></tr>
<tr><td>66-70</td><td rowspan="3">Poor</td><td rowspan="2">Fair</td></tr>
<tr><td>60-65</td><td rowspan="2">Poor</td></tr>
<tr><td>< 60</td><td>Poor</td></tr>
</table>

Figure 66: OPI Classification by Business Plan Network, PennDOT

RMS #	Surface Type	LPN Surface Type
20	Earth - Unimproved	Other
30	Earth – Graded / Drained	Other
40	Stabilized (Soil, Gravel, Stone)	Other
51	Bituminous surface treatment	Bituminous
52	Bituminous intermediate type	Bituminous
61	Bituminous High Type	Bituminous
62	Bituminous on PCC base	Composite
71	Plain Portland cement concrete	Concrete
72	Reinforced Portland cement concrete	Concrete
73	Continuously reinforced / prestressed	Concrete
74	Concrete over concrete - bonded	Concrete
75	Concrete over concrete - unbonded	Concrete
76	Concrete over bituminous	Concrete
80	Brick / Block	Other
98	Bridge	Bridge
99	Undefined	Other

Figure 67: PennDOT Roadway Surface Type Codes Table

APPENDIX D: INFORMATION ABOUT MAP FUNCTIONALITY

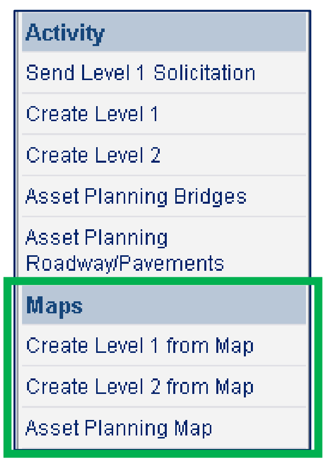
- Adobe SVG Viewer is plug-in software that is required to view maps. You should already have this installed on your PC, but if you do not, when you try to access a map for the first time, you will receive a pop-up message indicating that you need to install SVG Viewer. Go through your normal protocol for installing software on your PC.

  Please note that most of PennDOT's PCs should default to the 32-bit version of Internet Explorer. If your Internet Explorer is set to open at 64-bit, you will not be able to install SVG Viewer, as this software is not compatible with the 64-bit version of Internet Explorer. Contact your IT Support Team for assistance if needed.

- The map-loading process is very complex. Generally the maps take only a few moments to be generated, but sometimes this takes a little longer depending on many variables.

- Map tools have been added to the left navigation pane. Instead of going directly to a blank form, you will see a map from which to choose assets to put on the form. The end result is the same Level 1 or Level 2 form that you are used to.

  Note: You can still create forms without using maps. You cannot, however, use the map to add assets to a form that was <u>created without a map</u>. **To add roadway assets to a roadway form using the map, you must have created the original form using the Location Map.**

  You cannot add bridges to a bridge form, or Lat-Long points to a Latitude-Longitude form, which is the way LPN already works. This is why there is no Spatial Search drop-down on any saved form, except Roadway forms.

- You can create multiple forms while a Location Map or an Asset Planning Map is open by choosing assets and clicking on the Create Form(s) button as many times as necessary. It is recommended that when you are finished creating forms, you **close the map window** before proceeding to your next activity (viewing forms, opening display maps from within forms, etc.). You should not have multiple map windows open at the same time; doing so may cause the incorrect legend to be rendered on the next map you open.

- To display map layers, you must click in each desired checkbox, then on the Refresh button.

    - Checked layer names that are **no longer bold** indicate that those layers are visible in the current map view. If a layer name is no longer bold, but you do not see it on the map, zoom out (sometimes more than once) to see that layer. The GIS software looks at a distance slightly beyond the map view for checked resources, so it is possible that a resource exists just beyond where you can see it in your current view.

    - Checked layer names that **remain bold** indicate that no data was retrieved from the database for the current map view.

  When you click on the Refresh button, the system retrieves checked layers only. If you check a layer, click on Refresh, then want to see an additional layer, you must leave the first layer checked or it will not be retrieved by the second refresh.

  Note: *This will change when the new Web Service is installed (date forthcoming); you will no longer need to click on the Refresh button to activate layers.*

- Some state routes contain sections that are designated as local roadways. **Local roadway segments added to a form via the Location Maps** do not have enough information stored in the RMS database to generate maps, so although Show Map buttons are displayed in Sections 2.1 and 2.5 of Level 2 forms, clicking on these buttons will not yield maps (you will receive an "unhandled error" instead). The system will display the proper Location and Environmental maps when a Local Roadway form is creating WITHOUT using a map.

- Greyed-out items on any map legend mean those features are not visible at the current map extent. To see those features, you can use the Zoom tools on the map toolbar to zoom in closer.

- The "state bridge dot" may become smaller when you hover over it; this is innate software functionality that cannot be changed.

- The Proposal Summary text box and the "Create Non-contiguous linked forms…" checkbox will appear on Asset Planning Level 2 maps when you capture at least one bridge with the Spatial Search tools. If you select a bridge to put on a Level 2 form, a Proposal Summary is required.

- Assets are stored in the background of the Level 1 form when you select Create Level 1 from Map. What shows on the subsequent Level 2 form depends on what you select from the Asset Inventory on the Level 1 Location Map:

Selected on Level 1	Will show on Level 2	Level 2 Screening Type
Roadway segment(s)	Roadway segment(s)	State Roadway or Local Roadway
Bridge	Bridge	State Bridge or Local Bridge
Multiple bridges	Selected bridge that was highest in the	State Bridge or Local Bridge

	list of assets	
Roadway segment(s) and bridge(s)	Roadway	State Roadway or Local Roadway
Lat-Long Point	Lat-Long Point	Latitude-Longitude

This is why you are instructed with the following text after you create an Asset Inventory on a Level 1 Map: Select **only one bridge <u>or</u> one or more segments from just one roadway** from the asset list. The system will not create forms containing multiple assets.

- The difference between using the Polygon tool and the Start/End Segments tool to select assets is:
  - Polygon tool = the system will add each segment included in the polygon to the Asset Inventory. From there, you can select any combination of segments to add to the form. The segments are stored as separate line items in the database.
  - Start/End Segments tool = the system will automatically add the Start Segment, the End Segment and every segment in between to the form. The entire route contained within the Start and End Segments is stored as one item in the database.
- Once you have added assets to the Asset Inventory below the map (the list of roadways and bridges you selected with the Spatial Search tools):
  - If you zoom, your Asset Inventory will be emptied and you will have to use the Spatial Search tools to recapture them.
  - If you use the Spatial Search tools again, your original Asset Inventory will be replaced with the new list of selections.
- There is an ongoing issue with the Asset Planning Map that causes activated layers to "disappear" when you move your cursor over the map. This is most prevalent at the district and county zoom levels; the problem should self-correct when you zoom to a closer extent. If it does not correct when you zoom, you can try zooming a little closer, or try the Refresh Map tool on the toolbar. When the Web Service is upgraded to Version 6.1 (schedule forthcoming), this behavior of the GIS software should no longer be an issue.
- Once you click on the Create Form(s) button, you will receive the message **Form(s) have been created**. You will have to close the map window to return to LPN, and use the views to find the form(s) you want to work with.

APPENDIX E: LPN0050 PLANNING COST ESTIMATING REPORT TOOL

Introduction

Developed using Crystal Reports, the Planning Cost Estimating Report Tool (LPN0050) is available to Planning Partners on the LPN System.

Reports

Code	Excel	Excel Data Only	PDF	Description
LPN0001				Level 1 Screening Form by MPO/RPO
LPN0002				Level 1 Screening Form by District
LPN0003				LRTP/TIP Funding by MPO/RPO
LPN0004				LRTP/TIP Funding by District
LPN0005				Proposal Scope and Environmental Summary by MPO/RPO
LPN0006				Proposal Scope and Environmental Summary by District
LPN0050				Planning Cost Estimating Report

LPN0050 is designed to summarize cost data from both MPMS and ECMS to support the development of an initial planning cost estimate (prior to scoping) by:

- Grouping cost data by project type (e.g., bridge rehabilitation, bridge replace, highway reconstruction, highway resurface, etc.)
- Sorting cost data by Design-Build status
- Providing direct links to MPMS-IQ system for additional planning information by MPMS project number and Bridge Key number
- Providing users various input parameters to limit or expand data (i.e., district, county, cost range)
- Providing additional summary data via ECMS from the fund codes when multiple structures or roadway and structure is included in the project

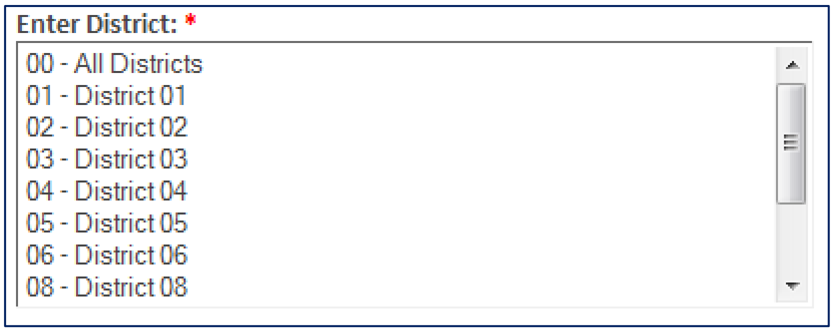
Parameters Input

In developing a Planning Estimating Report within the LPN System, users will have the ability to define various parameters to develop a report that meets their needs. As a reminder, the more parameters that are placed on the data, the fewer results (projects) will be returned.

Parameters are selected in two ways: Selecting Values from a list (e.g., Districts), or by entering ranges (e.g., Actual Let Date).

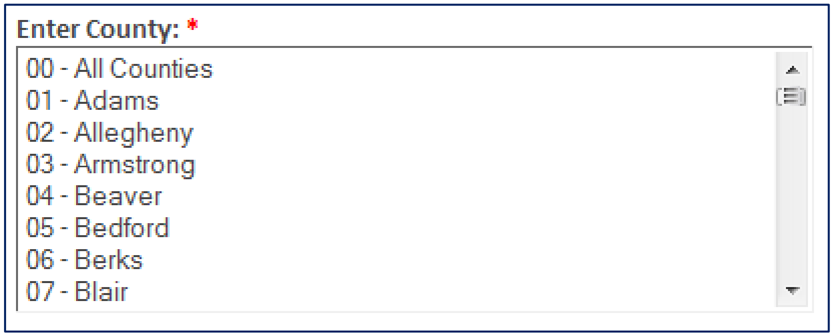
The following figures show the listing of current parameters available in the report tool. NOTE: Be sure to inspect and remove previous parameters based on the type of data to be queried.

Parameter Input – District, County Federal Aid Status, Urban/Rural, Cost Range Enter District (ECMS):



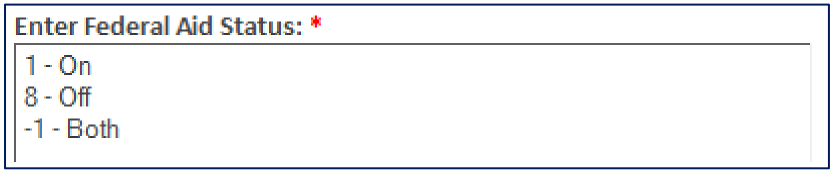
Enter District: *
00 - All Districts
01 - District 01
02 - District 02
03 - District 03
04 - District 04
05 - District 05
06 - District 06
08 - District 08

Enter District (ECMS):
Parameter Type: Value Selection
Parameter Options:
- Single district entry
- Multiple districts (Hold **Control** to select multiple Districts)
- Select "All Districts" for statewide data

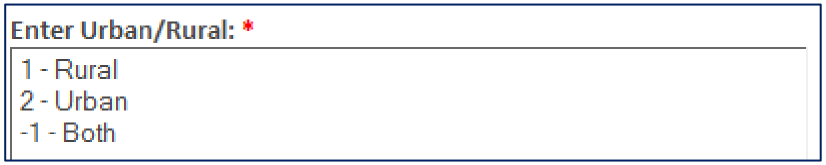


Enter County: *
00 - All Counties
01 - Adams
02 - Allegheny
03 - Armstrong
04 - Beaver
05 - Bedford
06 - Berks
07 - Blair

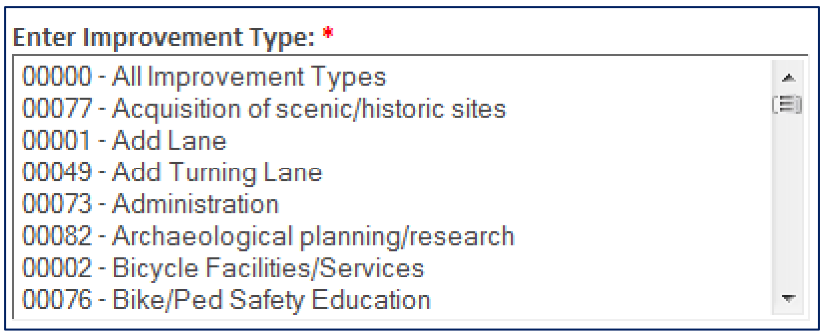
Enter County (ECMS):
Parameter Type: Value Selection
Parameter Options:
- Single county entry
- Multiple counties (Hold **Control** to select multiple Districts)
- Select "All Counties" for statewide data


Enter Federal Aid Status: *
1 - On
8 - Off
-1 - Both

Enter Federal Aid Status (MPMS):
Parameter Type: Value Selection
Parameter Options:
- On, Off, or Both


Enter Urban/Rural: *
1 - Rural
2 - Urban
-1 - Both

Enter Urban/Rural (MPMS):
Parameter Type: Value Selection
Parameter Options:
- Urban, Rural, or Both


Enter Improvement Type: *
00000 - All Improvement Types
00077 - Acquisition of scenic/historic sites
00001 - Add Lane
00049 - Add Turning Lane
00073 - Administration
00082 - Archaeological planning/research
00002 - Bicycle Facilities/Services
00076 - Bike/Ped Safety Education

Enter Improvement Type (MPMS):
Parameter Type: Value Selection
Data Source: MPMS Improvement Type Code
Parameter Options:
- Individual improvement type entries
- Multiple improvement types (Hold **Control** to select multiple Districts)
- Select "All Improvement Types"


Enter Beginning Original Contract Amount *
Enter Ending Original Contract Amount *

Enter Cost Range:
Parameter Type: Range
Data Source: ECMS Original Contract Amount (i.e. Contract amount at the time of contract execution)
Parameter Options:
- Enter dollar value for Start/End of Range

Enter Beginning Let Date (mm/dd/yyyy) *

Enter Ending Let Date (mm/dd/yyyy) *

Enter Actual Let Date:
Parameter Type: Range
Data Source: ECMS Actual Let Date
Parameter Options:
• Enter date value (MM/DD/YYYY or calendar select) for Start/End of Range
NOTE: Lower value is limited by the ECMS go live date of 2002.

District 4-0					
Let Year: 2010					
Urban				MPMS Committed	%/CON
83037	ECMS Let Date = 3/18/2010	ECMS Original Contract Amount: 1,006,764.43	PE	0.00	0.00
SR: 309 Section: 352	ECMS Final Date = 11/28/2012	ECMS Current Contract Cost: 1,010,355.08	FD	0.00	0.00
SR 309 Ov. Toby Creek	MPMS Project Length in Miles: 0.57		UTIL	0.00	
Luzerne County	ECMS Prime Contractor: Fabcor Inc.		ROW	0.00	
	ECMS Lead Designer:		CON	1,103,870.57	
Number of Bridges: 2			TOTAL	1,103,870.57	
23898 - 3,290 SF 23899 - 2,489 SF					
FUND CODE FUND DESCRIPTION		TOTAL PAID AMT			
01 MPMS 9228 S 30016		562,628.00			
02 MPMS 83037 S 28732 ACT 44		447,728.00			
Bridge Rehabilitation	Conventional (Non-Design Build)				
Rural				MPMS Committed	%/CON
10125	ECMS Let Date = 7/22/2010	ECMS Original Contract Amount: 2,456,000.00	PE	845,376.03	30.67
SR: 6 Section: 772	ECMS Post Construction Date = 9/20/2010	ECMS Current Contract Cost: 2,459,374.79	FD	121,134.40	4.40
Deer Park Bridge	MPMS Project Length in Miles: 0.10		UTIL	0.00	
Wyoming County	ECMS Prime Contractor: Glenn O. Hawbaker, Inc.		ROW	10,631.75	
	ECMS Lead Designer:		CON	2,756,000.00	
Number of Bridges: 1			TOTAL	3,733,142.18	
37077 - 11,331 SF					

Sort Level: Reporting Data is sorted by the hierarchy of District, Let Calendar Year, Project Improvement Type, Urban/Rural, Project Number, and Design-Build Status.

Blue **MPMS project numbers** link to the MPMS-IQ system for map location and additional project information

Blue **Bridge Key Numbers** link to MPMS-IQ system

Fund Codes provide an additional level of construction cost data for individual bridges, roadway, and construction engineering costs on a project.

NOTE: This data is suppressed for projects that are not in Final Status in order to provide the full "Total Paid Amount." Projects not in final status will only provide the "Total Paid Amount" for the date of the query, and will not reflect the total estimate or value of the construction items that are associated with the fund code in ECMS.

Project Information, Bridge Information and Dates

10203
SR: 6 Section: 773
Bardwell Bridge
Wyoming County

Number of Bridges: 1
37078 - 8,033 SF

FUND CODE	FUND DESCRIPTION
01	Roadway pay items, 100% state
02	Structure pay items, 100% state
03	Construction Management pay items, 100%

79523
SR: 2013 Section: 252
SR 2013 Ov. Choke Ck
Lackawanna County

Number of Bridges: 1
20725 - 1,368 SF

ECMS Let Date = 7/22/2010
ECMS Post Construction Date = 9/20/2010
MPMS Project Length in Miles: 0.10
ECMS Prime Contractor: Glenn O. Hawbaker, Inc.
ECMS Lead Designer:

ECMS Let Date = 6/17/2010
ECMS Final Date = 8/22/2012
MPMS Project Length in Miles: 0.57
ECMS Prime Contractor: Fahs Construction Group, Inc.
ECMS Lead Designer:

MPMS Number: links to the MPMS-IQ systems.

Number of Bridges: Displays number of bridges that were worked on as a part of the construction project.
Data Source: BMS

Bridge Key Number – Bridge Square Foot: Links to the MPMS-IQ system and displays square foot deck area per bridge
Data Source: BMS

ECMS Let Date: Actual Let Date
Data Source: ECMS (Project Milestone Screen)

ECMS Project Status Date: Output is variable base on project status. Options include:
NFQ: Notice of Final Quantities Date,
Construction: Estimate Construction Date,
Post-Construction: Physical work is complete but project is not yet in Final Status,
Final: Project in Final Status Date
Data Source: ECMS

MPMS Project Length in Miles
Data Source: MPMS
NOTE: ***This is not the project lane miles*** and may be different than actual construction length.

ECMS Prime Contractor Data Source: ECMS

ECMS Lead Designer Data Source: ECMS

		MPMS Committed	%/CON
ECMS Original Contract Amount: 6,593,719.58	PE	881,744.51	11.63
ECMS Current Contract Cost: 6,703,059.37	FD	707,749.37	9.34
	UTIL	213,000.00	
	ROW	683,000.00	
	CON	7,580,045.48	
	TOTAL	10,065,539.36	
ECMS Original Contract Amount: 933,000.00	PE	25,765.62	2.38
ECMS Current Contract Cost: 945,627.92	FD	67,610.50	6.25
	UTIL	57,169.38	
	ROW	63,528.50	
	CON	1,081,250.00	
	TOTAL	1,295,324.00	

ECMS Original Contract Amount: The dollar value of the construction contract at the time of execution of the contact.
Data Source: ECMS (Summation of
Bid Item Costs)

ECMS Current Contract Cost: The current value of the construction contract taking into account all of the Change Orders that have been executed since the ECMS Original Contract Amount was set at the time of project execution.
Data Source: ECMS (Summation of Contract Item Costs)

MPMS Committed:

PE: Amount of Preliminary Engineering Phase monies committed.
FD: Amount of Final Design Phase monies committed.
UTIL: Amount of Utility Relocation Phase monies committed.
ROW: Amount of Right-of-Way Phase monies committed.
CON: Amount of Construction (Construction and Construction Inspection) Phase monies committed.
ACTUAL TOTAL: Summation of the PE, FD, UTIL, ROW, and CON Phase monies committed.

NOTE: Committed Costs include Actual Costs expended to date and programmed costs for future spending.

%/CON: By Phase, the phase monies spent as a percentage of the Construction (Construction and Construction Inspection) Phase monies spent for the MPMS Number.

PE: The Preliminary Engineering Phase monies spent as a percentage of the Construction (Construction and Construction Inspection) Phase monies spent for the MPMS Number.

FD: The Final Design Phase monies spent as a percentage of the Construction (Construction and Construction Inspection) Phase monies spent for the MPMS Number.

District 4-0				
Let Year: 2009				
Bridge Preservation Activities	**Conventional (Non-Design Build)**			
Urban			MPMS Committed	%/CON
83947	ECMS Let Date = 3/19/2009	ECMS Original Contract Amount: 1,926,410.55	PE 0.00	0.00
SR: 3102 Section: 250	ECMS Final Date = 10/7/2011	ECMS Current Contract Cost: 4,055,652.47	FD 0.00	0.00
SR 3102, River St, Act 44	MPMS Project Length in Miles: 0.05		UTIL 0.00	
Lackawanna County	ECMS Prime Contractor: Kriger Construction, Inc.		ROW 0.00	
	ECMS Lead Designer:		CON 4,379,179.84	
Number of Bridges: 1			TOTAL 4,379,179.84	
20442 - 17,279 SF				

FUND CODE	FUND DESCRIPTION	TOTAL PAID AMT
01	Roadway Items	3,262,781.00
02	Structure Items	747,106.00
03	Construction Management	45,769.00

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FUND CODES: From ECMS, a breakdown of the total amount paid for each of the Fund Codes (roadway, structure and construction engineering items) associated with the project.

NOTE: In order to properly display the "Total Paid Amount" data for each fund code, only projects in Final" status will be displayed, regardless of selected parameter. For projects that are not in "Final" status, "Total Amount Paid" only shows accumulated payments for that fund code to date, and not the total estimate.

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