



Introduction.

“We plan to repave Main Street from First Avenue to Ninth Avenue in August.”

“Our gas main and service line replacement program starts in July.”

By coordinating these two projects, both entities (the local municipality and the natural gas distribution company) can realize benefits. If the gas company is aware of the municipality's pavement schedule, they can ensure that the gas main and service lines are replaced before the repaving starts, or, ideally, at the same time. This would allow for project cooperation with potential cost savings for both parties – e.g. the gas company opens the street to replace the lines, and the municipality closes the street to repave. Both parties receive financial benefit, and other stakeholders also benefit – for example, the street is under construction for less time, benefitting the residents of the street and neighborhood.

These types of opportunities only exist if utility companies and right of way custodians communicate by sharing their plans. Traditionally, this has occurred at the local level at a Utility Coordination Committee (UCC) meeting. There, utility stakeholders (utility companies, PennDOT, public works officials, planning commission members) share their projects and project plans in an exercise to find overlap. They meet monthly, or bi-monthly, or quarterly, to discuss and share project plans.

Is there a better way to collaborate?

Coordinate PA is a web service application developed by Pennsylvania 811 to support Public Works and utility project planning and utility coordination within the Commonwealth of Pennsylvania. Coordinate PA uses the power of the Internet to represent a spatial, map-based look at underground utility and public works projects to help identify opportunities for coordination and collaboration when projects overlap in space and overlap in time.

Coordinate PA is the next generation of utility coordination. Instead of meeting to discuss plans, or copy maps, or create a spreadsheet of projects, Utility companies, public works directors and others describe their projects on a map. Coordinate PA then shows the projects and the project timeframes for users and automatically identifies opportunities for collaboration between projects. The user can see project overlap within a geographic area (for example, Main Street from First Avenue and Seventh Avenue) and can query for overlap within a specific time frame.

Maps are used to display project scopes and phases to make it easy for stakeholders to identify opportunities to collaborate far enough in advance to recognize cost savings and minimize disruption to the public through sharing and coordination of their effort.

Coordinate PA integrates with Pennsylvania 811's Web Ticket Entry process to create Design and Excavation notifications to increase project safety and reduce project costs as required by Pennsylvania's Underground Utility Line Protection Law.



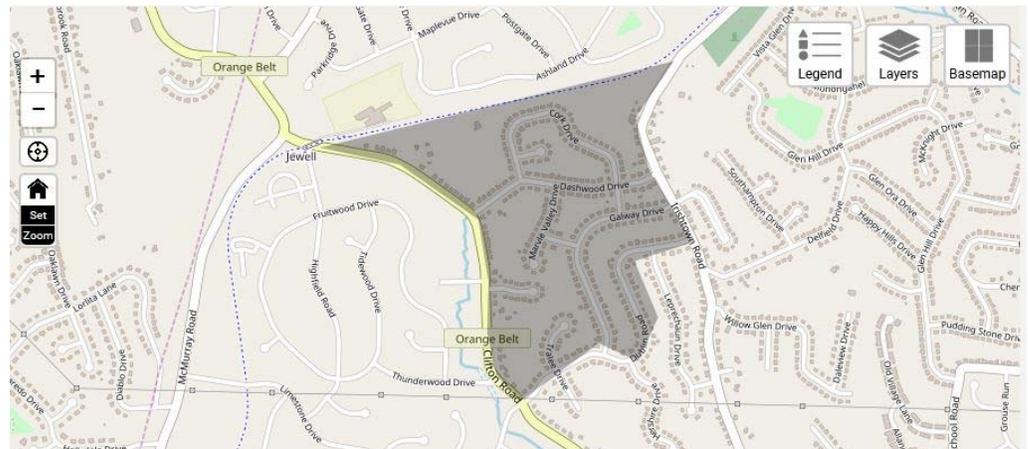
Coordinate PA

The project collaboration and communication tool for Pennsylvania 811 stakeholders

Benefits.

Coordinate PA offers significant benefits to Pennsylvania 811 stakeholders. Coordinate PA has the ability to:

1. Identify project collaboration opportunities across the Commonwealth of Pennsylvania;
2. Identify opportunities to coordinate and collaborate on projects outside your scope of responsibility, saving both parties money and improving the level of service to constituents;
3. Expand information gathering from a broader range of stakeholders beyond project planners and public works officials;
4. Expand information dissemination to a broader range of stakeholders beyond project planners and public works officials;
5. Define projects in an easy to use tool that works inside a Web browser. No special software is required;
6. Record project records, One Call obligations and stakeholder participation of the project in a secure repository;
7. Provide project status and updates in near real time, rather than waiting for a monthly, bi-monthly or quarterly UCC meeting;
8. Significantly improve the impact of utility coordination. Individual project details are captured in a tool that provides a common map base, is available near real time and can be securely accessed from the office or job site.





Navigation.

This is the opening screen in Coordinate PA, after a user logs in to the application. The user has a choice of five different base maps on which to display projects, and can switch between base maps at any point in the session.

Basic map navigation is always available, as is the ability to zoom to a specific county and municipality within the county.

Coordinate PA (updated 12/12/2017) Logged in as DAN LUCARELLI (PENNSYLVANIA ONE CALL SYSTEM INC.) | Logout

Zoom To: County Select a County... Import Project Add Project

Search a [checked] Used to zoom the map in (closer) and out (farther away)

Used to center the map at the user's geographic location

Used to set the map to the current view for the next login by this user

Used to choose what basemap to view projects on. Five different base maps are available.

Basemaps

- Open Street Map
- Open Topo Map
- ESRI Imagery
- ESRI National Geographic
- POCS Base Layer

Narrow by:

All Projects Select Dates Any Facility Type Any owner Reset Filters

Project	Id	Dates	Facility Type	Owner	Actions
JMP XML Test Project 1	30503	Oct 1, 2017 - Sep 30, 2018	Cable TV	PENNSYLVANIA ONE CALL SYSTEM INC.	View Edit Zoom Create Ticket



The bottom third of the main screen displays a list of projects. By default, the list displays user and public projects within the scope of the displayed map. The user can narrow the list by project type (preliminary design or final design), by date, by facility type, or by owner.

The user can **<VIEW>** details of a project, **<EDIT>** the details, **<ZOOM>** to the project on the map, or **<CREATE TICKET>**. The **<CREATE TICKET>** interfaces with the Pennsylvania One Call Web Ticket Entry application to generate design or construction tickets associated with the project.

Zoom To: County

Search as I move the map

Basemaps

- Open Street Map
- Open Topo Map
- ESRI Imagery
- ESRI National Geographic
- POCS Base Layer

Narrow by:

All Projects

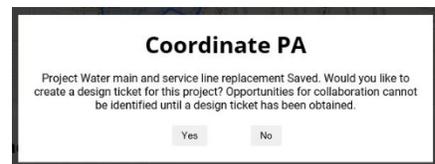
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Next Generation Utility Coordination.

Utility coordination using the Coordinate PA application involves these steps:

1. **Gaining access to the system.** Pennsylvania 811 stakeholders with a valid user id on the www.paonecall.org website have access to Coordinate PA. The user needs to be familiar with Web Ticket Entry.
2. **Entering projects in the system.** Project information includes the geographic scope of the project and high level project details: project owner, facility type, work type, status, estimated project start, estimated project end, and estimated bid let date.
3. **Adding project contact information.** Adding contact information for the project is a critical piece of the coordination and collaboration puzzle. Without contact information, project owners with other projects that can coordinate with yours will not be able to contact you.
4. **Adding project phases.** If project phases are known, adding the phases (with dates) increases the opportunity that a portion of the project can intersect with another project, increasing the probability that coordination can occur.
5. **Making the project public.** Opportunities to collaborate between projects are only available if the projects are public. A public project in Coordinate PA means that all users have visibility to the project, increasing the opportunities to collaborate.
6. **Querying the map for opportunities to collaborate.** Users can search the map of Pennsylvania for projects. All projects with a flag of 'public' (set by the owner of the project) are visible and searchable. The map zoom is also intelligent: panning and zooming within Pennsylvania automatically updates the list of user and public projects within the bounds of the map.
7. **Generating One Call tickets.** One of Coordinate PA's strengths is the ability to easily comply with Pennsylvania 73 P. S. § 176 et. seq. (The Pennsylvania "One Call Law"). Preliminary design, final design and construction one call tickets are easily generated and associated with the project, making record keeping more robust for the project.



Creating a project involves drawing a polygon on the map to denote the geographic scope of the project, answering eight questions related to the project and adding appropriate contacts. See **[Figure x]**. This screen shows a new project just before <SAVE>ing. The user drew a polygon



around the project scope and entered basic project information. For collaboration opportunities with other projects, check the "Make Project Public" box.

When the project is saved, the application will ask if the user wants to create a One Call Ticket. "Yes" will automatically launch the PA One Call Web Ticket Entry web application and transfer project information to appropriate ticket entry fields.

The screenshot shows the 'Coordinate PA' web application interface. At the top, there is a navigation bar with the logo and the text 'Coordinate PA (updated 12/14/2017)'. Below this is a 'Zoom To: County' dropdown menu. The main area is a map showing a residential neighborhood with a blue polygon representing a project boundary. Below the map, there is a 'Project Boundary' section with instructions to use the draw polygon tool. The 'Create New Project' section contains several form fields: 'Project Name*' (Water main and service line replacement), 'Facility Type*' (Water - Potable), 'Work Type*' (Main and service replacement), 'Project Status*' (Planning), 'Planned Construction Dates*' (07/02/2018 - 05/30/2019), and 'Bid Date*' (2018/05/01). There is also a 'Project Contacts*' section with a table listing 'DAN LUCARELLI' with email 'djlucarelli@pa1call.org'. At the bottom, there are buttons for 'Back', 'Cancel', 'Save and Continue', and 'Save and Add Phases(s)'. A 'Make Project Public' checkbox is also present.