



TNMCorps News

VOLUME 5, ISSUE 1

THE NATIONAL MAP CORPS

MARCH 2019

We're Back!

As you know, we recently experienced the longest government shutdown in U.S. history, during which the operations of The National Map Corps were put on hold. Well, we're back in business! Thank you so much for your patience during and after the shutdown while we've worked to get back on track. As soon as the editor came back online, our awesome volunteers were already hard at work. You really helped us hit the ground running by jumping right back in and contributing, so thank you again!

And if you're just getting started (or need a refresher), we've included a comprehensive list of all our online resources. We're currently working on making some changes and improvements to the web editor, so even you TNMCorps veterans might want to review some of this information. For a quick overview of the changes that are in the works, check out the [New Editor Updates](#) article on [page 2](#) of this newsletter.

HELPFUL INFORMATION

- The [User Guide](#) provides a thorough review of the Editor and the editing process.
- For a quick overview, check out our [Quick Start Guide](#).
- Here is a [List of Structures](#) that we currently collect.
- Our [Mapping Challenges](#) identify areas that need to be edited, and are a good place for new users to start.
- Our [Structure Finder](#) can also help identify points to edit by randomly selecting a point for each user role.

EDITING PROCESS

- Our editors use [Authoritative Sources](#) to confirm whether a point should be published on USGS map products.
- After an editor has confirmed that a point does still exist, they use the [Name & Address Formatting Guide](#) to correctly enter the name and address information about the point.
- It is very important to [make sure the point is on the correct building](#). Check out our recent [newsletters](#) for articles on aerial photo interpretation.

WHAT IF I HAVE QUESTIONS?

- Our [Q&A Page](#) is a great repository of questions users encounter during the editing process. It's searchable too! If you have a question that hasn't been answered yet, post it here.
- Our [Newsletters](#) provide many valuable tips and tricks, and other fun and interesting information about TNMCorps (including puzzles!). Scroll through the articles for further guidance on how to handle different editing scenarios.
- As always, you can contact us at nationalmapcorps@usgs.gov if you still aren't quite sure how to handle a certain point.

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NOTE that Google Chrome™ is the ideal browser to use with our online editor. If you are having trouble viewing our editor properly on another browser, we recommend switching to Chrome™.

Mapping Challenge Updates



A big Texas-sized THANK YOU to all of our volunteers who contributed to the Texas Law Enforcement Mapping Challenge! This mapping challenge is now officially closed. Our [Mapping Challenges](#) page includes information on the results, including a list of the challenge participants.

We've just released our next mapping challenge, which is focused on the Eastern Seaboard in Washington DC. This time we'll be collecting [City / Town Hall structures](#). Check out our [Mapping Challenges](#) page for more information.



Editor Updates

Our developers have spent the last few months making some much needed updates and improvements to the [TNMCorps editor](#). Here's a sample of some of the changes we will be releasing in the next couple of months!

- ✓ Mobile friendly!
- ✓ Cleaner interface
- ✓ More comprehensive edit history
- ✓ Easier way to move points long distances
- ✓ Faster and more efficient search functionality

For those of you eager to do some editing in the field, the editor **will soon be mobile friendly!** Simply pull up the [website](#) on your phone or other mobile device, add the site to your home screen (if desired for easy access), and add, delete, or update points the same way you do on your computer. The editor will adjust to the size of your screen allowing you to edit on-the-go!

Mobile Friendly

Cleaner Interface

The editor interface will still look familiar but will be cleaner and more user friendly!

The edit history tab will look a little different (but still familiar), and the functionality will be expanded to allow you to search for and view additional information!

Edit History

Moving Points

When you click and drag a feature to move it to a new location, you will see a blue point with a blue line that stretches out from the original point as you move across the imagery. This allows you to keep track of where you are moving the point to and from. This feature also makes it easier to move points long distances!

There will now be two search tabs: The **General Search** tab and the **TNMCorps Structures** search tab, which will allow you to filter, or narrow down, your search results with the new Filter Results field.

Search Tabs

Be sure to consult our soon-to-be updated [User Guide](#) for more detailed information, and feel free to [reach out](#) with any questions or suggestions you have regarding these changes.



To Copy and Paste is to Err?

We completely understand how tempting it can be to copy and paste address information from an [authoritative website](#) into the address field of a point. It's quick and easy and saves you from having to manually enter each bit of information. In some cases, copying and pasting might even reduce typos. But frequently, information that is copied and pasted is not always formatted the way we need it to be formatted. So, if you're going to copy and paste information for a point, just make sure to pay close attention and to review all text pasted into the fields before saving.

Every now and then we encounter 'Address 1' fields that contain not only street addresses, but cities, states, and zip codes as well. This can happen if information is copied directly from a source and pasted into the 'Address 1' field.



Westminster City Hall

303-658-2400 - [View Directory](#)

4800 W. 92nd Ave., Westminster, CO 80031

Monday-Thursday, 7 a.m. to 6 p.m., Closed Friday

Water/Sewer Breaks, 303-658-2500 (24/7)

Copy

Paste

Name *required
Westminster City Hall

Address 1
4800 W. 92nd Ave., Westminster, CO 80031

Address 2

City
?

State *required
CO

Zip-code
?

Oops!

<https://www.cityofwestminster.us/>

Name *required
Westminster City Hall

Address 1
4800 West 92nd Avenue

Address 2

City
Westminster

State *required
CO

Zip-code
80031

That's better! The street address is in the 'Address 1' field, the city is in the 'City' field, and the zip code is in the 'Zip-code' field.

Don't forget to spell out abbreviations!

The 'State' field will be automatically filled out, but double check just to be sure the state was entered correctly.



Remember that there are separate fields for each part of an address: street address, city, state, and zip code. So even though it might take just a little longer, make sure to double check each part of the address if you're going to copy and paste.

We're no longer accepting [4-digit zip code extensions](#), so if that extra information is part of a zip code you've copied (e.g. 87120-1448), make sure to remove the extra digits and the hyphen before saving a point.

For a refresher on how to properly enter and format attribute information, check out our [Name and Address Formatting Guide](#).



Volunteer Collaboration: RISailor and Cgibson

Several months ago, [Cgibson](#) reached out to us after noticing that another volunteer, [RISailor](#), was also focusing their editing efforts on historical cemeteries in Rhode Island. [Cgibson](#) thought it might be a good idea to team up to avoid duplicating each other's work. [RISailor](#) was on board with the idea, and a TNMCorps volunteer collaboration was born! Read on to learn more about how these two tenacious volunteers are working together to tackle some very challenging data.

RISailor

Shortly after I started adding objects to the TNMCorps Map Editor I discovered the [Rhode Island Historical Cemeteries website](#) as a reference source for the cemeteries I added. This is the website of a state advisory commission to study the location, condition, and inventory of historical cemeteries in Rhode Island. This is another government agency that relies on the help of volunteers for its mission. They have done a remarkable job of locating cemeteries and identifying the names of the interred. They locate the cemeteries by a combination of record research and ground surveys. Most of the cemeteries that have been physically located have GPS coordinates tagged to them. I thought that adding the cemeteries in the RI Historical Cemeteries database to the USGS map would be a good complement. On the USGS map you can see all the cemetery locations; something you cannot appreciate on the RI Historical cemeteries web site. So, I reversed the process of locating a cemetery on the USGS imagery and documenting the reference to the RI Historical Cemeteries database to starting with the RI Historical Cemetery web page and locating it on the USGS map. First I do a name search in the [TNMCorps Edit History tool](#) for all users to see if the cemetery has been added to the USGS map. If not I start with the GPS coordinates in the RI Historical Cemeteries database.

One issue I quickly ran into was foliage. Most often the USGS images are taken when the trees are in full bloom. I discovered that Google Earth has the option to select historical images of a location (a little clock icon in the center of the top toolbar). So now my process is to copy the RI Historical Cemetery GPS coordinates into the search field of Google Earth and zoom to that location. Then if the cemetery is not obvious on the latest imagery I select an earlier set that may offer a better view. Foliage cover is not the only factor in spotting a cemetery in the image, shadows can also be an issue. RI currently has images dated 2/2018 and 4/2018 but often the images in 5/2015 are the best due to shadows. The other factor in seeing a cemetery is, of course, the presence of an enclosure. Fortunately, stone walls are very popular in New England. Sometimes granite posts with iron rods are used and can be seen by their regular pattern.

If a cemetery is located close to a street, Google Street View™ is very helpful. If I can locate a cemetery with Street View™ I use that as the primary verification of the RI Historical Cemetery location. On several occasions I have used a street view “tour” to locate a cemetery that had inaccurate GPS coordinates. Google Maps™ is also useful for getting the correct zip code for the cemetery. Click on a structure in Google Maps™ and you get a complete address.

When I locate the cemetery on Google Earth I correct the GPS coordinate if necessary using the pin tool and copy the final GPS coordinates to the TNMCorps Map Editor Location Search tool. If the cemetery is not visible in the USGS image (the ESRI imagery) I drag the image down so that the location marker is right above the word “Open” in the lower border. When I switch to the structure editor I can then position the cemetery icon right above the word “Open” (the location marker disappears when you leave to Location tool). The verification method and link to the RI Historical Cemeteries web page for that cemetery are put in the Edit Comment field.

A few months ago I was contacted by the TNMCorps Team asking if I would like to coordinate with another volunteer in RI, [Cgibson](#), actively adding cemeteries to the USGS map. What we have worked out is that as I go through my aerial search I would note which cemeteries I could not find. So now I create a spreadsheet for each town listing the RI Historical cemeteries not in the USGS database. From those lists we can plan our ground surveys to verify the RI Historical cemetery location before adding the cemetery to the USGS map. I am currently going back over the towns I already covered with Google imagery searches to generate those ground survey lists. [Cgibson](#) is doing most of the leg work.

Cgibson

[RISailor](#) works systematically on a town-by-town basis, locating all the cemeteries he can see on the aerial imagery, and getting them on the National Map Corps editor. Once he has completed a town, he sends me a spreadsheet of the cemeteries in that town that he couldn't locate. He also includes any notes that might be helpful.

Once I get [RISailor](#)'s list, I start planning for field checking. The first thing I do is put the locations of the missing cemeteries into ArcGIS Explorer on my iPad, using the latitude/longitude coordinates provided by the Rhode Island Historical Cemeteries database. ArcGIS Explorer is a free application that allows you to display various basemap images, including the USGS National Map and aerial photographs, as well as add points and notes to a map. I put a point on the map in the approximate location of each cemetery I'm trying to find. Then, by looking at the aerial imagery, I figure out which cemeteries are likely to be accessible. Many are located on private land or in someone's backyard, so I focus on the ones that seem easy to access without trespassing. I also review the Rhode Island Cemeteries Commission information for each cemetery that I'm trying to locate and make some notes in ArcGIS Explorer regarding the cemetery features and names on the headstones, which helps me be sure I've got the right cemetery when I finally find it.

Volunteer Collaboration: RISailor and Cgibson (Continued)

Once I get several cemeteries into ArcGIS Explorer, it's time to get in the car. Because my iPad has cellular service, ArcGIS Explorer shows my location as I drive or walk around in the field, so I can use it to navigate to the cemetery points I've added to the map at home. (You could do the same thing on your smartphone, but the extra screen real estate on the iPad is helpful). This type of field work is a two-person job - one person to drive, and the other to scan around looking into the woods for the missing cemetery - so my husband has learned an awful lot about cemeteries! Many historical cemeteries in Rhode Island are not located near modern roads, so most of the time, we park near where we think the cemetery should be according to my ArcGIS Explorer map, and start trying to locate it on foot. For folks that aren't from New England, it might seem strange that we have to go bushwhacking through the woods to locate a cemetery, but in the 17th, 18th, and 19th centuries here, many European settlers weren't buried in formal cemeteries, but instead were laid to rest on their family farms. Over time, the farms have been abandoned, and old roads are no longer used, so a lot of the cemeteries are pretty remote and sometimes invisible in the underbrush.

After I locate a cemetery, I walk to the middle of it and add a point to my ArcGIS Explorer map, which shows my location as a blinking dot. I also take a look at the headstones. Sadly, some of these cemeteries are abandoned and forgotten, but the folks there are someone's ancestors - whispers of lives long past; so I try to pause and pay my respects before leaving.

Once I get back home, I set up my iPad next to my Desktop computer and transfer the points representing the cemeteries I found in the field to the TNMCorps editor. ArcGIS Explorer records my latitude/longitude when I'm in the field, so I use that to locate a new point on the Editor. I also make some notes in the comments section referring to the information in the Rhode Island Cemeteries database, and the date I field checked the cemetery.

The partnership that RISailor and I have developed is a great way to deal with cemeteries, particularly here in New England where they are scattered all over the place and can't always be located with aerial imagery. We definitely have our work cut out for us. In the tiny state of Rhode Island, there are over 2800 mapped historical cemeteries! We are fortunate here to have the Rhode Island Historical Cemeteries Commission database to start with, but for folks who don't have a similar resource, a town by town approach could be used. Many towns have historical societies or libraries that have a list of cemeteries in that town, and some even have maps or books that could serve as a starting point. Combining careful aerial imagery research and a boots-on-the-ground approach is working great for documenting these important and interesting historical resources. And, with the exception of getting bleary-eyed studying aerial imagery, or dodging mosquitos and poison ivy in the field, it's really rewarding!



Aerial Photo Interpretation Part 9: Schools

This article is the 9th in a series of newsletter articles highlighting aerial photo interpretation for different structure types. This month we will focus on Schools.

Check out our past [newsletters](#) for the other articles in this series:

[September 2017](#) - Part 1: Cemeteries

[November 2017](#) - Part 2: Post Offices

[January 2018](#) - Part 3: Fire Stations and EMS

[March 2018](#) - Part 4: Prisons / Correctional Facilities

[May 2018](#) - Part 5: Hospitals

[July 2018](#) - Part 6: Ambulance Services

[September 2018](#) - Part 7: Law Enforcement

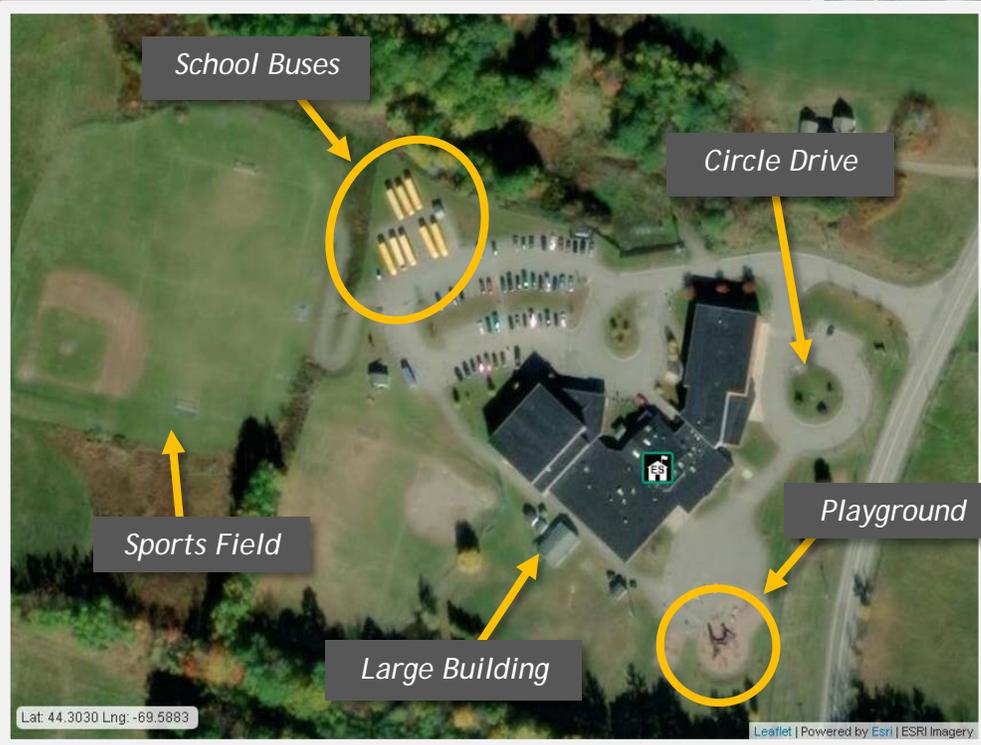
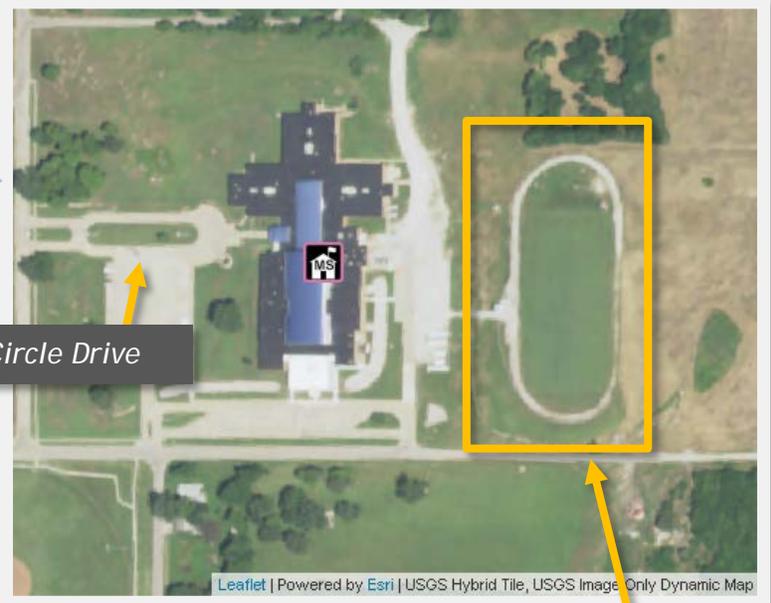
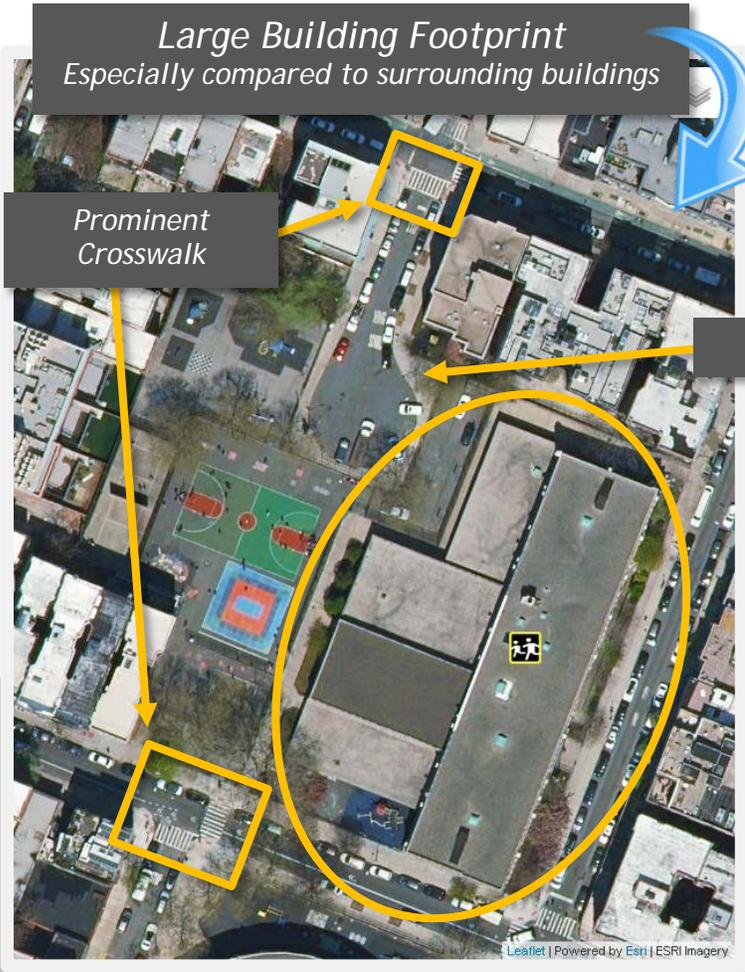
[November 2019](#) - Part 8: City / Town Halls

You may not realize it, but every time you participate in TNMCorps you are conducting aerial photo interpretation. This part of the process of editing structures can be quite fun and interesting. In order to identify the correct building associated with a structure point, you must do a little bit of detective work by searching for clues in the imagery. You may be an expert at this, or you may be new to it. Either way, here are some helpful tips and tricks for interpreting the aerial photography background layers and identifying building types.

Schools are often easy to identify on aerial imagery, but that isn't always the case. School buildings are typically larger and often have a bigger footprint as compared to nearby buildings. In most cases, sports fields and/or a playground can be seen on the imagery, and even sometimes the school name or mascot! Other clues to look for include: a circle drive (for drop offs and pick ups), yellow school buses, flagpoles, prominent crosswalks, and co-location with or near other schools.

Our [Structures List](#) provides more details on school structure types and what to collect and not collect for each type: General, Elementary, Middle, and High School. It's also important to pay attention to the type of icon you're using to label a school building. This [Tips & Tricks page](#) will help you determine which icon to use for each type of school we collect.

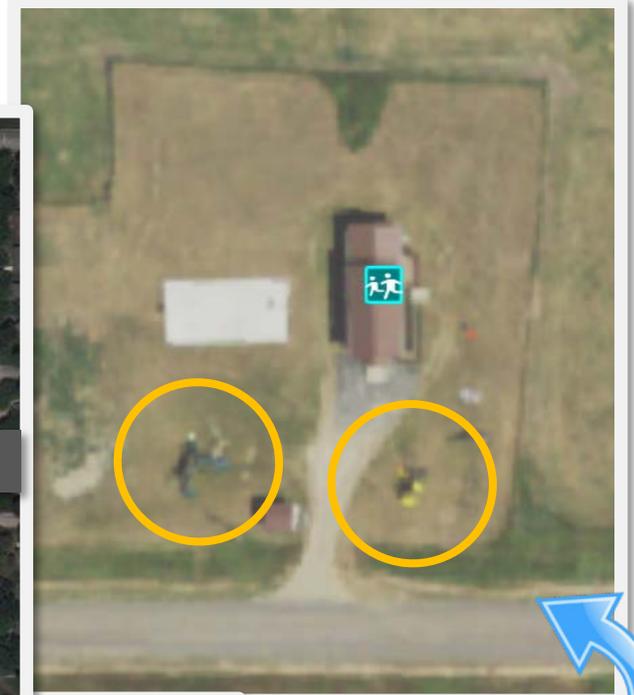
Aerial Photo Interpretation Part 9 (Continued)



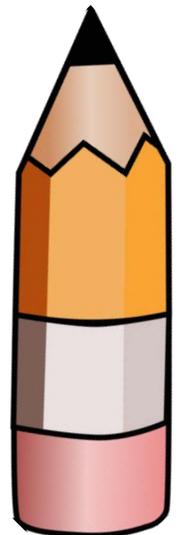
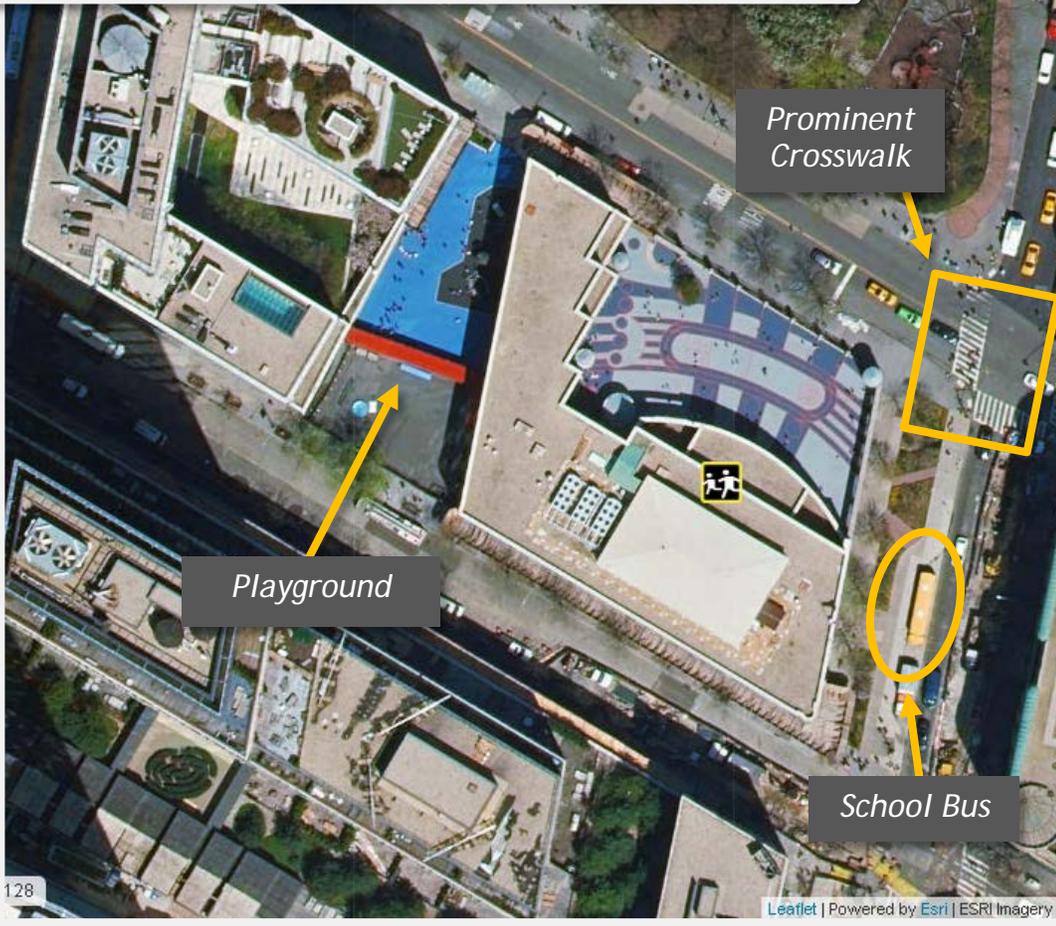
Aerial Photo Interpretation Part 9 (Continued)

Co-location

Sometimes schools are located next to each other: an elementary school next to a high school, or a middle school next to an elementary school



Even a one room schoolhouse will often have indicators, such as playground equipment. You can look for shadows of swings or slides, foursquare markings, or sports fields such as baseball diamonds.



Aerial Photo Interpretation Part 9 (Continued)



Don't forget, sometimes shadows are the best (or only) way to identify certain elements on the aerial imagery, as seen here with a swing-set and a baseball fence.



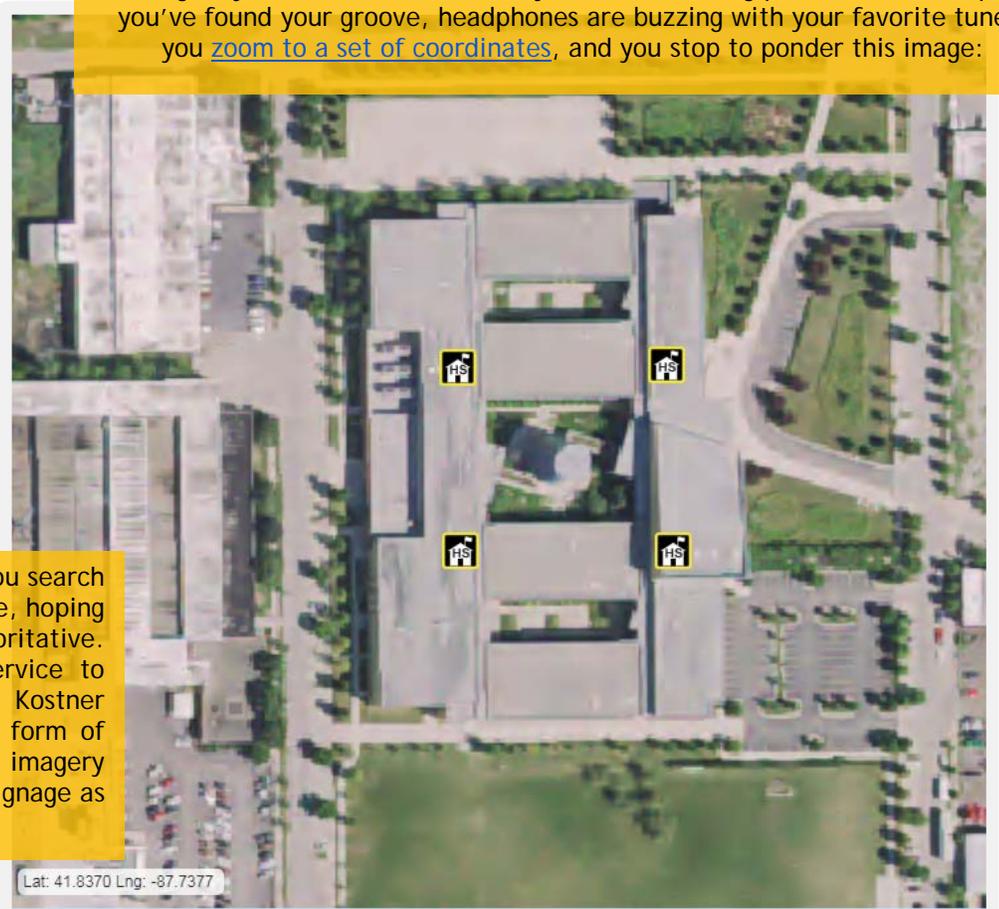
As always, finding on-the-ground photographs of a structure, such as those found in [this article](#), can also help you confirm the correct building.

Rare Find: 4 High Schools in One!

How is it possible to have four high schools in the same building???



Imagine yourself in this scenario: you're researching points for TNMCorps, you've found your groove, headphones are buzzing with your favorite tunes, you [zoom to a set of coordinates](#), and you stop to ponder this image:



Scratching your head in search of clarity, you search the web for these high schools by each name, hoping that some of the results returned are authoritative. You also open a commercial mapping service to examine the point's address (3120 South Kostner Avenue, Chicago, IL) for any clues in the form of street signage, etc. Google Street View™ imagery provides a few clues in the form of street signage as do web searches for each high school name.

A Step Back in Time

A similar situation surfaced not too long ago where [two separate hospitals were located in the same building](#). After discussing the matter internally, we concluded that the correct way to map these hospitals is with two points on the same building. Each hospital has its own unique title and its own separate website, and each website lists the same street address. Google Street View™ included signage for the two separate hospitals. In this scenario, the street signage and separate websites served as indicators that these are two entirely separate hospitals; thus the decision to represent these entities with two separate points. Since scenarios like this can be quite tricky to navigate, we created a [Q&A entry outlining the indicators to look for](#) and for users to reference when future scenarios such as this one surface!

Returning to the Present

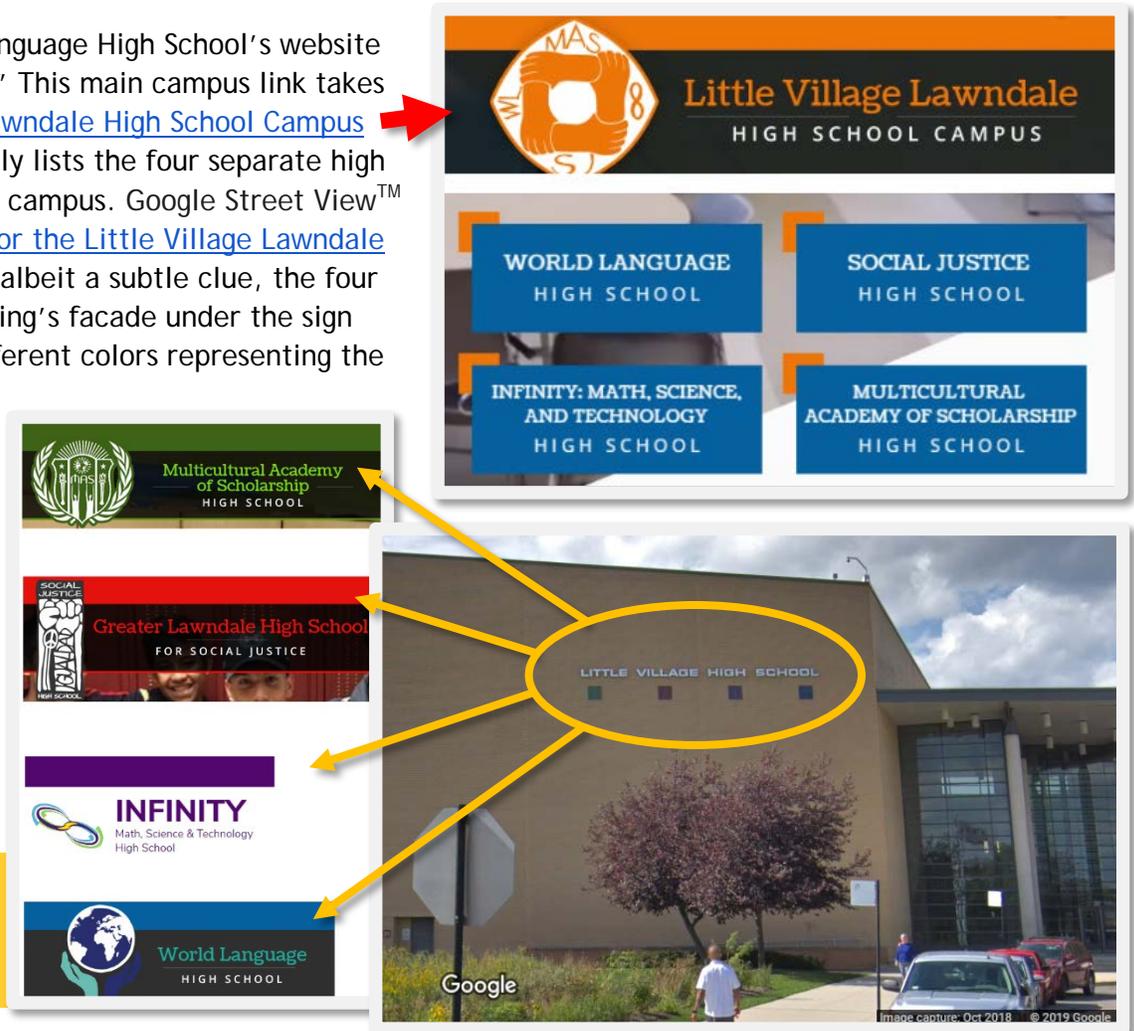
In this school scenario, the correct way to map these high schools is with four points distributed across the same building. Similar to the hospital example above, web searches produce a website for each high school ([World Language High School](#), [Multicultural Academy of Scholarship High School](#), [Greater Lawndale High School for Social Justice](#), and [Infinity Math Science and Technology High School](#)). Each website lists the same street address. Each high school has a different principal. [Chicago Public Schools'](#) website also lists the four high schools separately. All strong indicators thus far.

Rare Find: 4 High Schools in One! (Continued)

To seal the deal, World Language High School's website refers to a "main campus." This main campus link takes you to the [Little Village Lawndale High School Campus](#) website, which conveniently lists the four separate high schools that operate on its campus. Google Street View™ imagery includes [signage for the Little Village Lawndale High School Campus](#). And, albeit a subtle clue, the four colored boxes on the building's facade under the sign correspond to the four different colors representing the individual high schools.

Therefore, and although not very common, it is possible to have multiple schools operating under the same roof. The deciding factor comes down to how the schools are represented at the local level. An unusual situation indeed!

The four colored squares on the building represent the colors used by the four different high schools.



TNMCorps Team Corner



My name's Alex and I am originally from Jefferson City, Missouri but am currently living in Rolla, Missouri while studying Computer Science at Missouri S&T. I have been in the software development landscape for around 3 years now, and before that I worked in IT. Most of my free time is spent contributing to open-source software libraries, learning new technologies, and refining my existing skill set. A couple of interesting projects I have worked on recently include an OpenCL graphics engine for visualizing WiFi interference algorithms and image recognition software that a local radio station uses to catalog their collection of vinyl records.

In addition to his other tasks, Alex has been working with The National Map Corps to update our editor and make it mobile friendly!

Have a story or photo you'd like to share?

We want them! This could be anything from a photo of you verifying a structure or an interesting story that you discovered while editing.

Photos, graphics, and stories may be used in future news releases and social media posts. All materials submitted become part of the "public domain," and can be used by USGS in the future unless otherwise specified.

Please email them to nationalmapcorps@usgs.gov



New Recognition Category Members



Squadron of Biplane Spectators
(6000-6999)

- tmp21038



Family of Floating Photogrammetrists
(3000-3999)



Theodolite Assemblage
(2000-2999)

- Karen



Stadia Board Society
(500-999)

- SaltyHiker
- jgaddis
- Samuel
- Daniel



Ring of Reconnaissance Rocketeers
(5000-5999)

- tmp21038



Flock of Winged Witnesses
(4000-4999)



Alidade Alliance
(1000-1999)



Circle of the Surveyor's Compass
(200-499)

- chfeng05
- yinm988
- Nateo73
- twong
- MoeLuther
- Daniel
- Samuel
- SMOKEYSF
- boomer



Pedometer Posse (100-199)

- Cgibson
- SMOKEYSF
- CRSGamer
- mwertsalesforce
- JISIBOR
- MoeLuther
- Tlattimo2017
- RyanLIFireEMS
- chfeng05
- mjmkinkley
- rbiguy
- twong
- yinm988
- boomer
- shwetjosh



Society of the Steel Tape (50-99)

- Jeffrey Chagnard
- SMOKEYSF
- JISIBOR
- mwertsalesforce
- AnneG
- MHDgis1
- CrystallnTexas
- Are1718
- Knotthatwaytim
- Scott - Key West
- theJordanabides54
- RyanLIFireEMS
- rbiguy
- yinm988
- kevhea10
- chfeng05
- mjmkinkley
- shwetjosh
- NWPerry
- MCotton
- twong
- kimchi
- rjhale1971



Order of the Surveyor's Chain (25-49)

- Alden0510
- Annabelleski
- Kevin D
- SMOKEYSF
- kevhea10
- DCvegas
- FJD
- J&Hunter
- MHDgis1
- Space Kraft
- AniruddhK99
- Are1718
- mirsk2003
- AlexFloekher
- Jim720
- Knotthatwaytim
- radcircus
- mwertsalesforce
- Edimitri
- RyanLIFireEMS
- rbiguy
- shwetjosh
- Matias Cabeza
- NWPerry
- chfeng05
- mjmkinkley
- shawndkitchen
- ryannejones
- Chirichiello
- gcvallad
- gnolan01
- jdji76
- twong
- CrystallnTexas
- kimchi
- MCotton
- yinm988

CONTACT US AT: nationalmapcorps@usgs.gov for suggestions, questions, additions to the next newsletter, or if you would like to be removed from the email list.

