



ArcGIS®

USRC MyMaps – ArcGIS

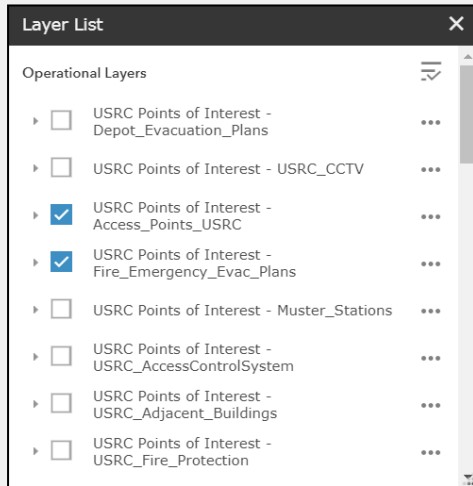
Mapping Analysis of Google MyMaps and ArcGIS

Prepared By Andrew Warias and Mike Bogias

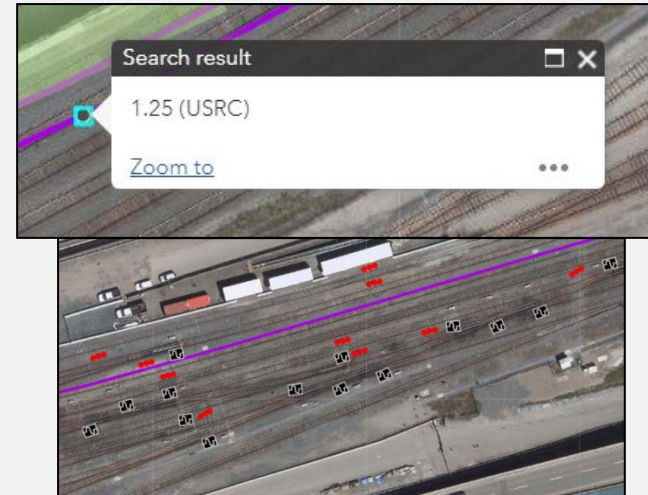
Outstanding Features

ArcGIS has incredible features that improve accessibility for all users. These features cater to the audience to provide sufficient detail for the various uses of the map.

1. Operational Layers provides one-stop service for users and carries potential for expansion.



2. Locating track mileage and signal location on the map is a key tool to assist workblock limits and more.



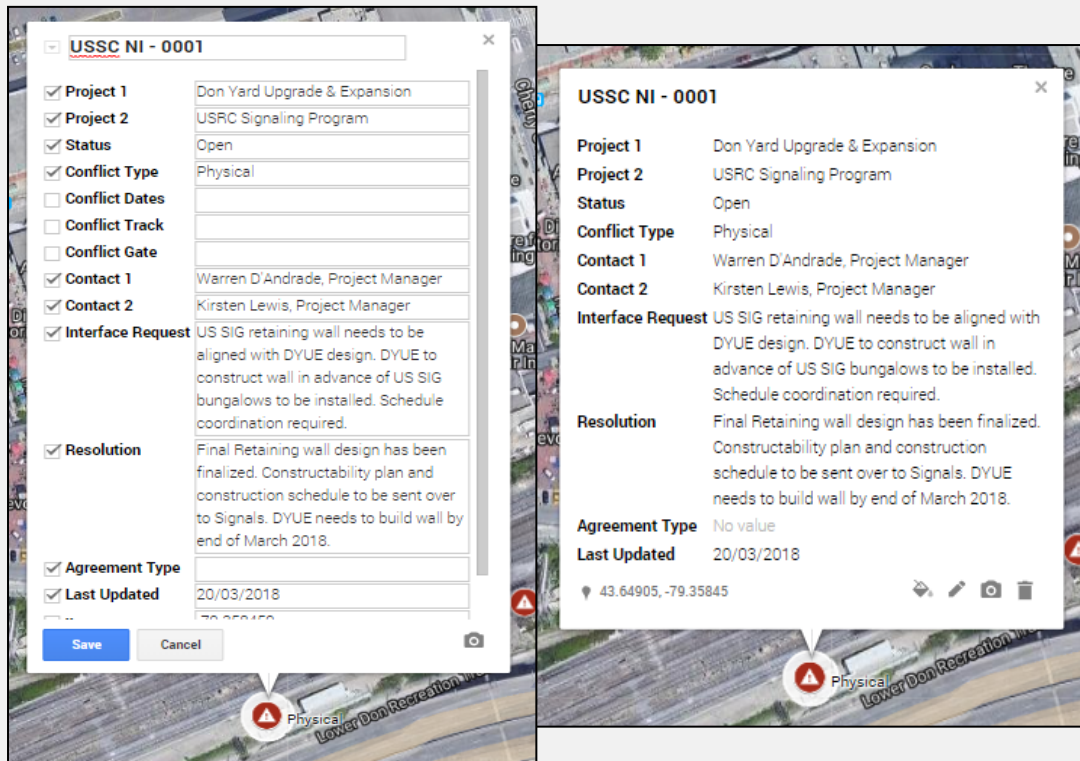
3. Accessing all the tables while viewing a data table and table sorting options

Projects (Line)		Projects (Area)		Third Party Projects		Laydown Areas Claimed Projects			
Options ▾		Filter by Map Extent		Zoom to		Clear Selection		Refresh	
Name ▾	Vendor	Scope	When	Start Date	End Date	Created User	Created Date	Last Edited User	Last Edited Date
Wilson Yard	TBD	Bore Hole Investigation	TBD			LeighZ@GOTRAN	June 28, 2018	LeighZ@GOTRAN	June 28, 2018
Wilson Yard						ANDREW@G	July 12, 2018	ANDREW@G	July 12, 2018
West Track Enhancements	TBD	Install 3 Crossovers	Fall 2018 to Spring 2019	August 31, 2018	May 29, 2019	LeighZ@GOTRAN	June 28, 2018	LeighZ@GOTRAN	June 28, 2018

MyMaps Integration

After implementing the USRC corridor into Google MyMaps, many convenient features were found to benefit the team and increase usability with majority of the audience.

1. The ability to hide categories from a polygon's pop-up box improves access and hides overwhelming information. These categories are still available in the data table.

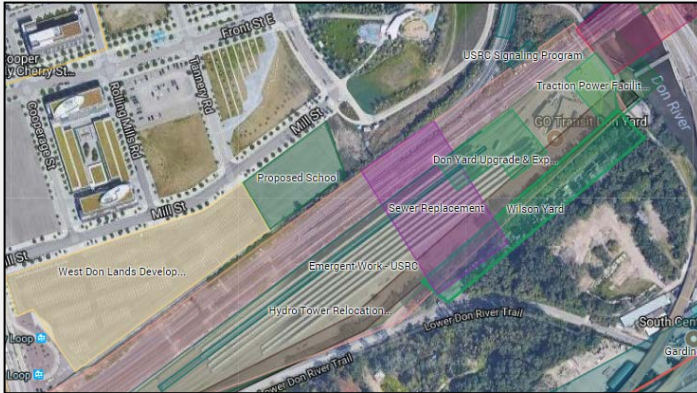


2. A variety of coloured icons used for individual markers helps the viewer differentiate between them without interacting with them.

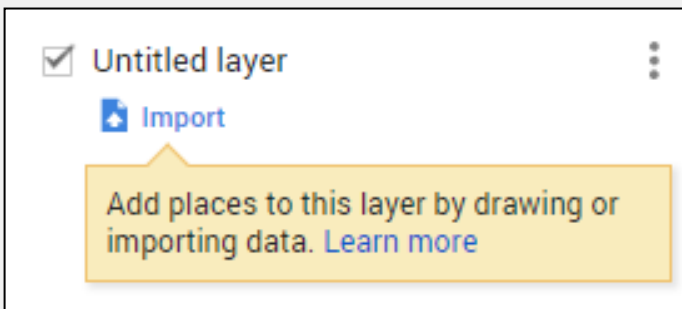


MyMaps Integration


3. Labels help us identify projects from a distance. Improves efficiency by not having to click on each polygon.





4. Importing KML files will help transition between Google MyMaps to ArcGIS. This tool is handy for saving an archive of the map.





5. Sorting the projects by different columns allows for easy sorting and identification.


▼  **Styled by Status**


 **Open (8)**


 **Closed (3)**


▼  **Styled by Shift**

 **Night (16)**

 **Weekday Day (6)**

 **Day/Night (2)**

 **Day (1)**

 **Night/Day (1)**

Uniform style

Sequence of numbers

Individual styles

Style by data column:

name

Vendor

Scope

When

Shift

Track Closure Required

Tracks Impacted

Metrolinx Group

Contact

Comments

MyMaps Integration

6. Adding, removing, or duplicating columns inside the data table makes editing easier. This map is still in early works and prone to changes in template.

Sort A → Z
Sort Z → A

Insert column before
Insert column after

Duplicate

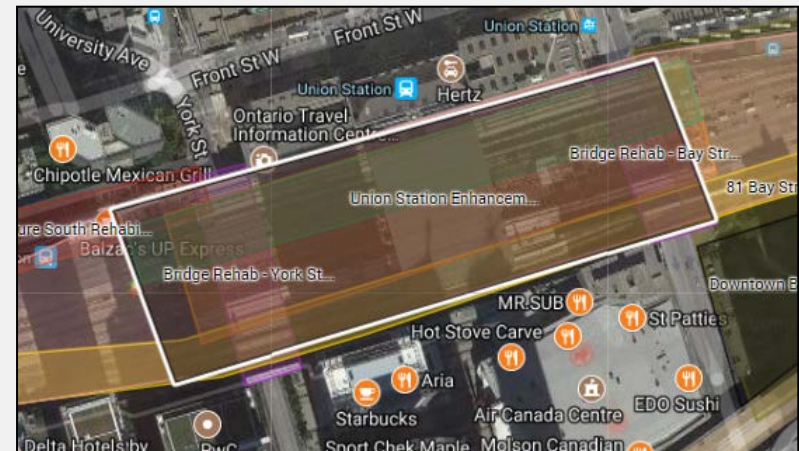
Delete column

Set as title column

7. Being able to move polygons between layers (with the same headers) will be convenient when managing the workblocks.



8. Highlighting a polygon when the cursor hovers over the polygon helps the user know what they're clicking.



MyMaps Integration

9. Enabling **Preview** mode benefits presentations by providing a clean and organized interface to browse information on the map.

The screenshot displays the MyMaps interface for 'USRC Corridor Works'. On the left, a sidebar lists project categories: METROLINX PROJECTS (checked), THIRD PARTY PROJECTS, JULY 2018 WORKBLOCKS, AUGUST 2018 WORKBLOCKS, SEPTEMBER 2018 WORKBLOCKS, LAYDOWN & ACCESS, ACCESS GATES, CONFLICT MANAGEMENT, and COMPLETED SCOPE. The central map shows a detailed view of Toronto, with various landmarks and streets labeled. On the right, a detailed view of the 'Bridge Rehab - York Street' project is shown, including a 3D rendering of the bridge structure. The project details include: name (Bridge Rehab - York Street), Project Number (NA), Status (Design), Scope (Structural Rehabilitation), Business Need (State of Good Repair. Rehabilitation need identified in maintenance program.), Schedule (April 2019 - September 2019), Metrolinx Group (Rail Corridors, Structures), and Contact (Ken Lockett, Bridges & Structures Specialist).

Comments and Questions

Priorities	Additional Features
Layer arrangement	Hide headers on pop-up window
Creating Layers (no template?)	Add icons and colour editing
Attribute Table editing (information + format)	Layer highlight when hovering
Single Point information tables	Layer Labels on map
Preview mode	
Importing csv file into Attribute Table	
Layer sorting by header information	
Move polygons between layers	

1. Can we duplicate/copy polygons to have the same information under multiple layers?
2. Can we move polygons between layers with the same template?
3. Is there a way to create a drawing without picking a template? (ex. Clicking on layer for the drawing to be on)
4. Can you turn on/off interactive zoom?
5. How can we have all (ON) layers be displayed at every zoom view?
6. How can we edit colours and icons of polygons and points?
7. Can we combine Projects (Line) and Projects (Area) to the same attribute table and layer?



ArcGIS®

USRC MyMaps – ArcGIS II

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ArcGIS Transition - Meeting #3

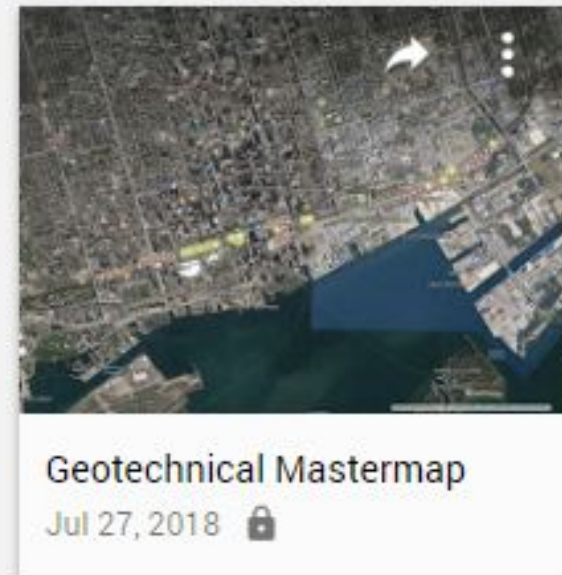
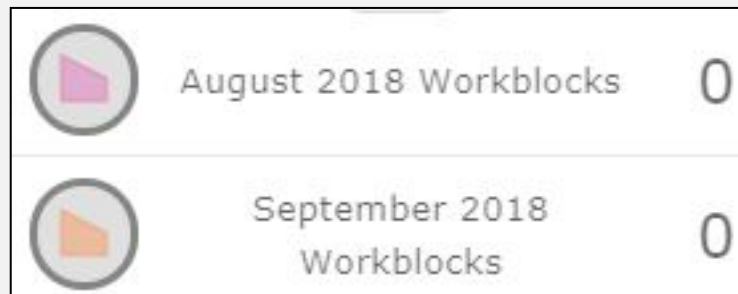
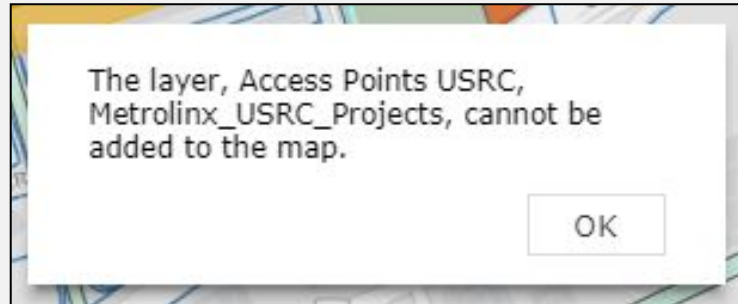
Goals

- *Resolve issues of ArcGIS features*
- *Reorganize layers/polygons to match new ArcGIS format*
- *Clean and simplify the appearance of ArcGIS to increase accessibility for first time/unfamiliar users*

Changes in ArcGIS

1. Some layers went missing/corrupted and were not able to be opened.

**Not sure if Geotechnical map was imported or not*



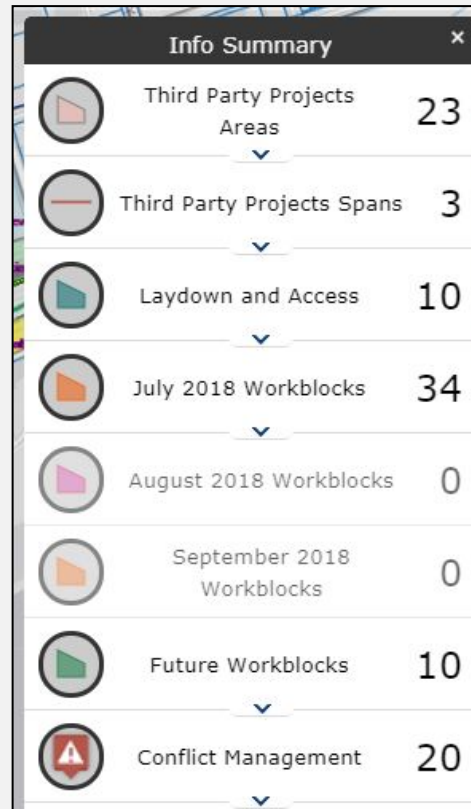
Reformatting in ArcGIS

1. Info Summary organization can be changed and reorganized from the Google MyMap. Google MyMap restricted us from having a sublayer inside a layer resulting in separated drawings of the same project.

**I think it's easier for me to reorganize this in ArcGIS*

Ideally, the layer categorization would be:

- ⇒ Layer Name
 - ⇒ Project
 - ⇒ Project Drawings (If more than 1)
 - ⇒ Project
 - ⇒ Project Drawings (If more than 1)



Category	Count
Third Party Projects Areas	23
Third Party Projects Spans	3
Laydown and Access	10
July 2018 Workblocks	34
August 2018 Workblocks	0
September 2018 Workblocks	0
Future Workblocks	10
Conflict Management	20

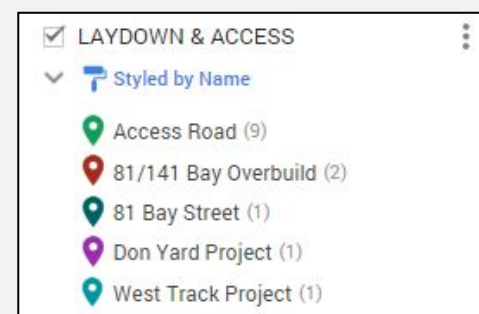
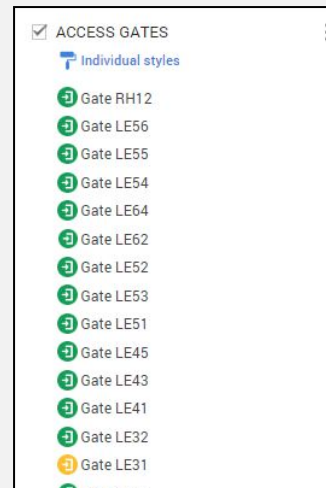
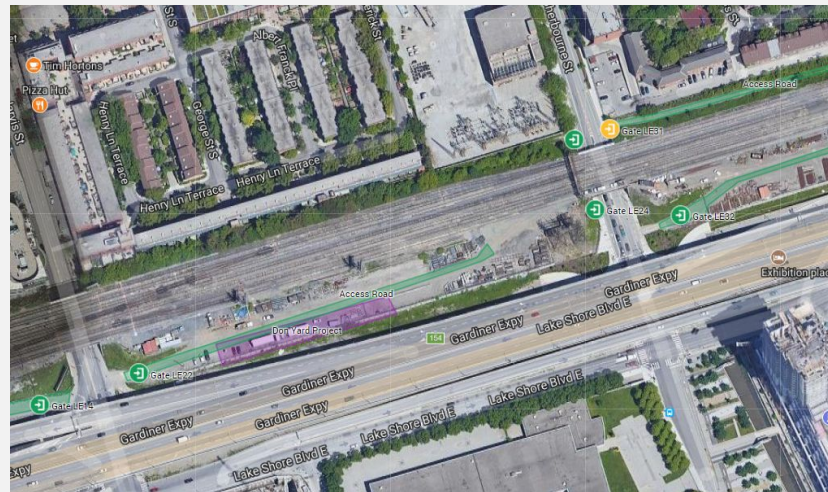
- ⇒ Metrolinx Projects
 - ⇒ Bridge Rehab
 - ⇒ Yonge St
 - ⇒ Bay St
 - ⇒ York St
 - ⇒ Downtown Bus Terminal
 - ⇒ Bus Terminal
 - ⇒ Yonge St PATH
 - ⇒ 81 Bay St Overbuild
- ⇒ July 2018 Workblocks
 - ⇒ Emergent Work
 - ⇒ DY3 Alignment
 - ⇒ Pole Removal
- ⇒ Conflict Management
 - ⇒ Open
 - ⇒ Don Yard/Signaling
 - ⇒ Toronto/Metrolinx
 - ⇒ Closed
 - ⇒ Community/Metrolinx

Reformatting in ArcGIS

2. Separate Laydown and Access layer. (Not sure what/who controls Access Gates/Roads in GIS)

**Access Gates on GIS currently do not have information attached*

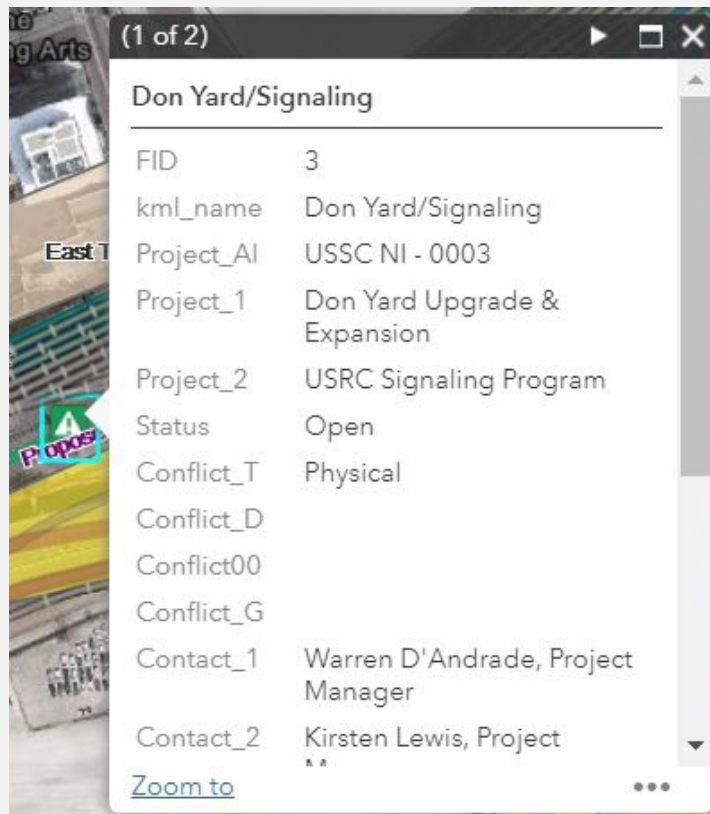
- ➔ Laydown Area
 - ➔ Location
 - ➔ Project
 - ➔ Project
 - ➔ Location
 - ➔ Project
- ➔ Access
 - ➔ Access Roads
 - ➔ Access Road
 - ➔ Access Road
 - ➔ Access Road
 - ➔ Access Gates
 - ➔ LE32
 - ➔ LW14



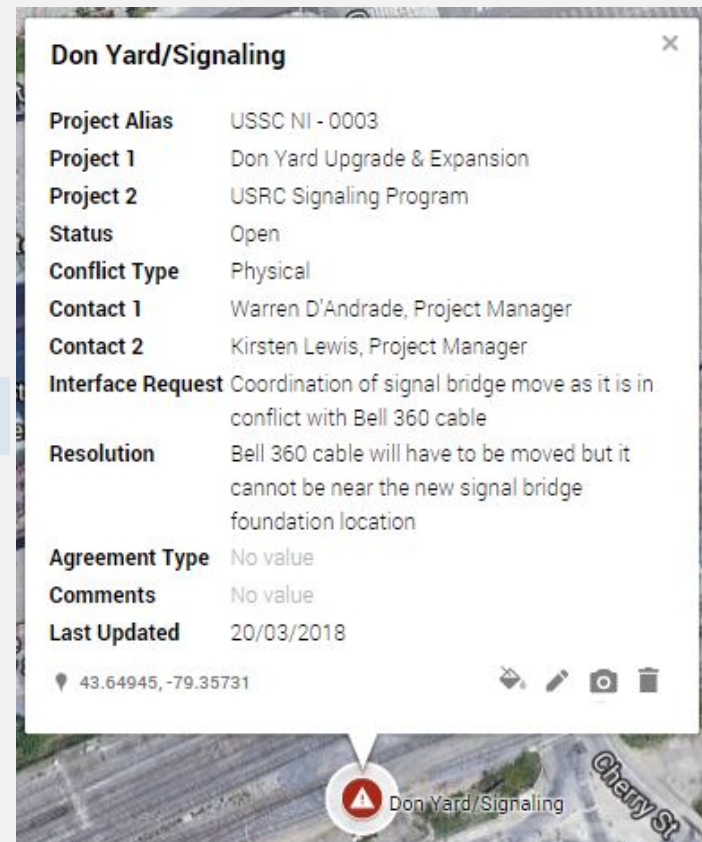
Usability Features

Access and appearance are factors that create an overwhelming work environment for new/unfamiliar users.

1. Extra spacing and large fonts increase the time for the user to find/locate information. Opening all the information to minimize the amount of scrolling will condense the available information.

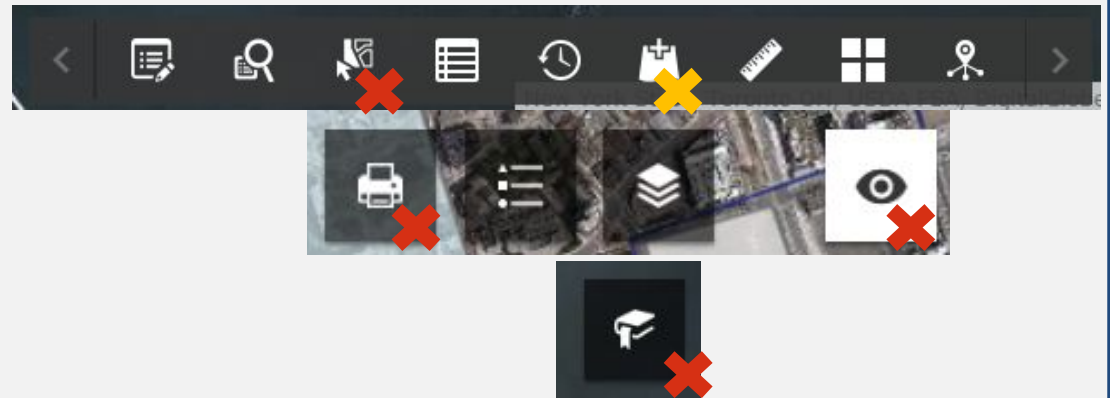
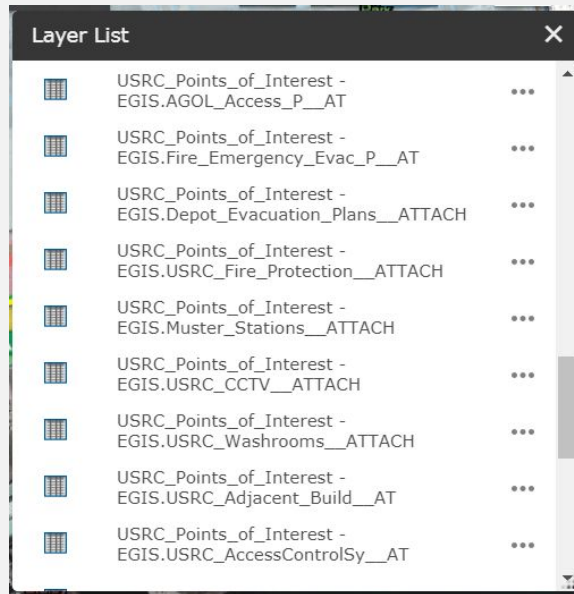


VS.



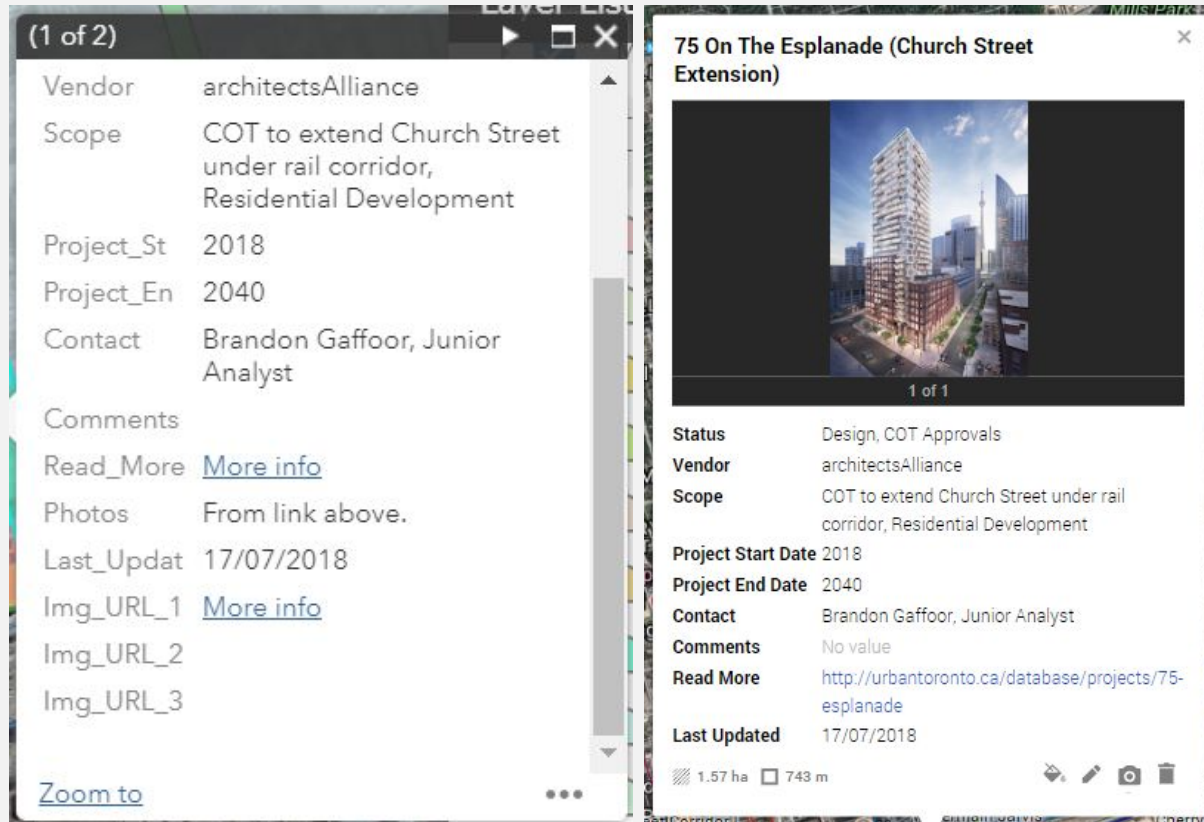
Usability Features

2. Hide buttons and functions that are not used often. Too many (unknown) options to majority of the users will confuse/distract them from easily getting the information they need.



Usability Features

3. Add photo gallery at the top of pop-up window for an appealing presentation and to give the audience a visual idea of the projects.



- *Conflict Management Colours (Green/Red) are reversed*
 - *Closed – Green & Open – Red*