

INFSCI 1550/2801: Spatial Information
Project 1: Raster/Vector Data Collection Mapping



Digitized map
Oakland GCS
WGS 1984

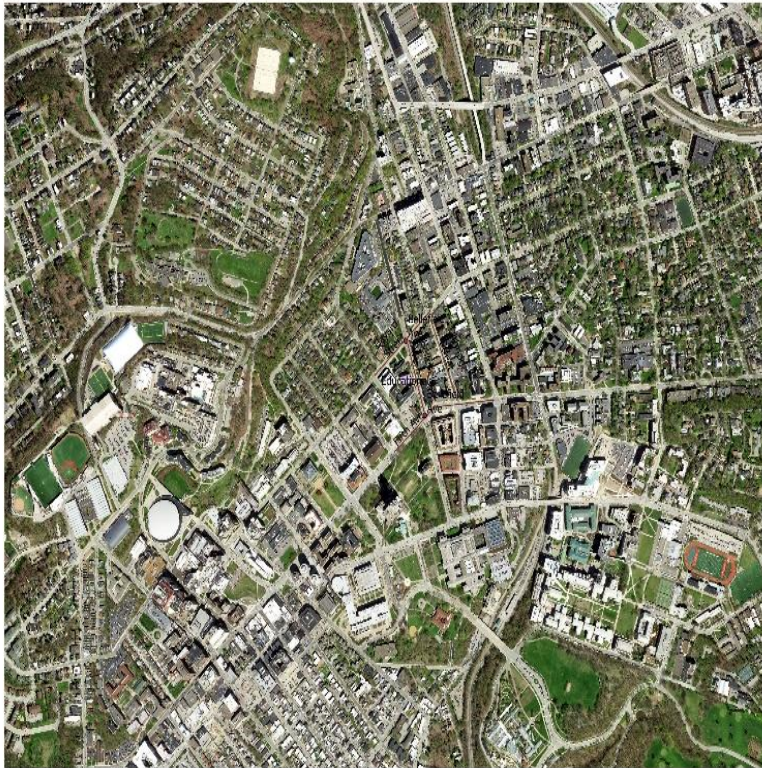


0 0.24 0.48 0.97 Miles

Intersectors
Streets
BuildingType
Industrial
Commercial
HealthCare
Recreational
Educational
Residential
Oakland_PEMA_2_GCS
RGB
Red: Res. 1
Green: Land 2
Blue: Land 3

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MAP 2



NAD 1983 Digitized
Oakland Map

N










0 0.15 0.3 0.6 Miles






• Intersections_NAD
— RoadSegments_NAD
■ Buildings_NAD
Oakland_PEMA_2018.tif
RGB
Red: Band_1
Green: Band_2
Blue: Band_3




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WGS 1984 Attribute tables

Field:		 Add	 Calculate	Selection:		 Select By Attributes	 Zoom To	 Switch	 Clear	 Del
	OBJECTID *	SHAPE *	Shape_Length	Shape_Area	BuildingType	Name				
1	1	Polygon Z	0.000908	0	Residential	House 1				
2	2	Polygon Z	0.004186	0.000001	Recreational	Peterson Events centre				
3	3	Polygon Z	0.003118	0.000001	Educational	Cathy				
4	4	Polygon Z	0.002634	0	Educational	Soilders and Memorial...				
5	5	Polygon Z	0.005483	0	Recreational	Phipps conservatory bot...				
6	6	Polygon Z	0.00499	0.000002	HealthCare	UPMC Presbetaria				
7	7	Polygon Z	0.009081	0.000005	Recreational	Peterson Sports Centre				
8	9	Polygon Z	0.001604	0	Religious	Heinz Memorial Chapel				
9	10	Polygon Z	0.009063	0.000003	Educational	Carnegie Museum of Art				
10	11	Polygon Z	0.001297	0	Educational	School of Computing an...				
Click to add new row.										

Field:	 Add	 Calculate	Selection:	 Select By Attributes	 Zoom To	
	FID	Shape *	Id	Street1	Street2	
1	0	Point	0	Bellefield Ave	Bayard St	
2	1	Point	0	Bellefield Ave	Fifth Ave	
Click to add new row.						

Field:		 Add	 Calculate	Selection:		 Select
	FID	Shape *	Id	Name	Length	
1	0	Polyline	0	Bellefield Ave	0.12264	
2	1	Polyline	0	Fifth Ave	0.239999	
3	2	Polyline	0	Bayard Street	0.159918	
4	3	Polyline	0	Dithridge Street	0.153684	
Click to add new row.						

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After converting it to NAD 1983

Buildings_NAD X						
Field: Add Calculate Selection: Select By Attributes Zoom To Switch Clear Delete Copy						
	OBJECTID *	SHAPE *	BuildingType	Name	Shape_Length	Shape_Area
1	11	Polygon Z	Educational	School of Computing an...	397.084603	9407.774921
Click to add new row.						

Buildings_NAD RoadSegments_NAD X							
Field: Add Calculate Selection: Select By Attributes Zoom To S							
	OBJECTID *	Shape *	Id	Name	Length	Field	Shape_Length
1	1	Polyline	0	Bellefield Ave	0.12264	0	647.511477
2	2	Polyline	0	Fifth Ave	0.239999	0	1267.142257
3	3	Polyline	0	Bayard Street	0.159918	0	844.332834
4	4	Polyline	0	Dithridge Street	0.153684	0	811.421023
Click to add new row.							

Buildings_NAD RoadSegments_NAD Intersections_NAD X					
Field: Add Calculate Selection: Select By Attributes Zoom To					
	OBJECTID *	Shape *	Id	Street1	Street2
1	1	Point	0	Bellefield Ave	Bayard St
2	2	Point	0	Bellefield Ave	Fifth Ave
Click to add new row.					

After converting it to NAD co-ordinate system most points seem missing, 9 building aren't visible in the attribute table. The intersections and the roads seem unaffected.

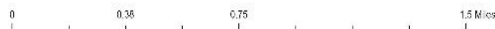
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Part 2

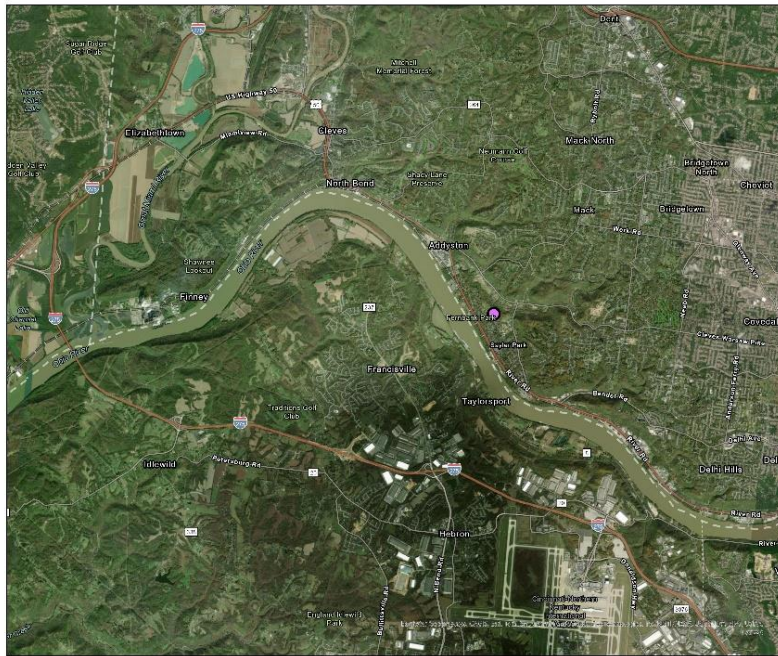
Project 1 Part 2 Hillman



HillmanLibraryGIS_SpatialFeatures
Oakland_PEMA_2018.tif
RGB
Red: Band_1
Green: Band_2
Blue: Band_3



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Project 1 Part 2 Map 2

Oakland_PEMA_2018.tif

RGB

Red: Band_1
Green: Band_2
Blue: Band_3

fordAVOGPS XYTabletochart

Uinc Notes



0 1.25 2.5 5 Miles

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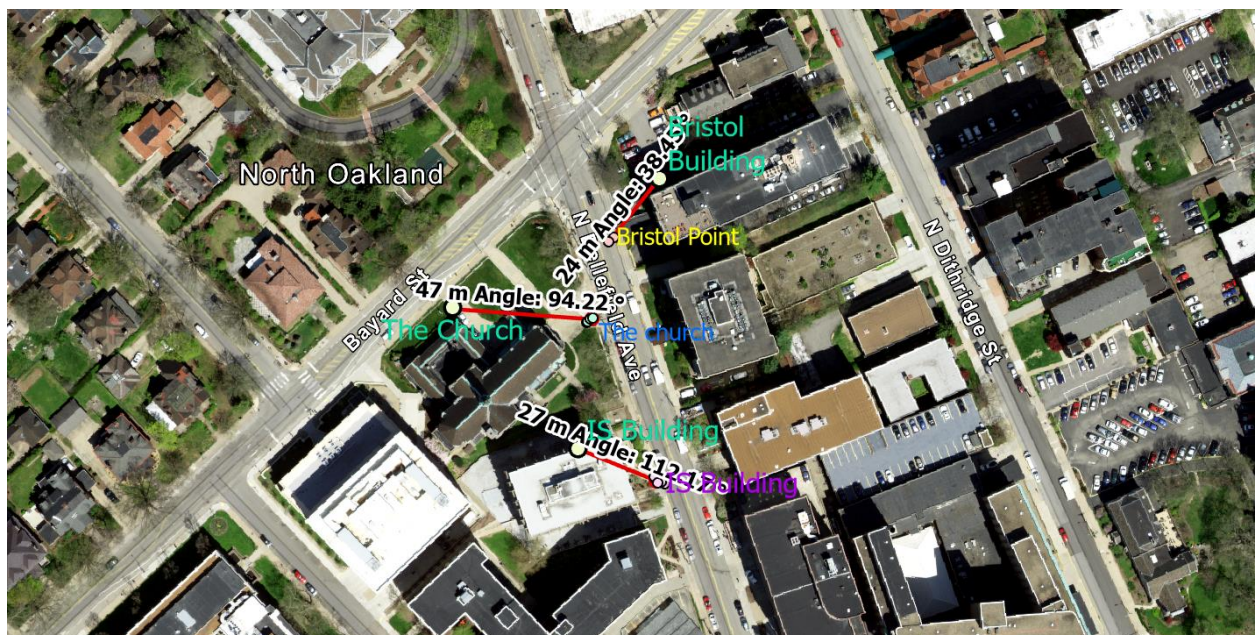


Project 1 Part 3 Collected Data Points

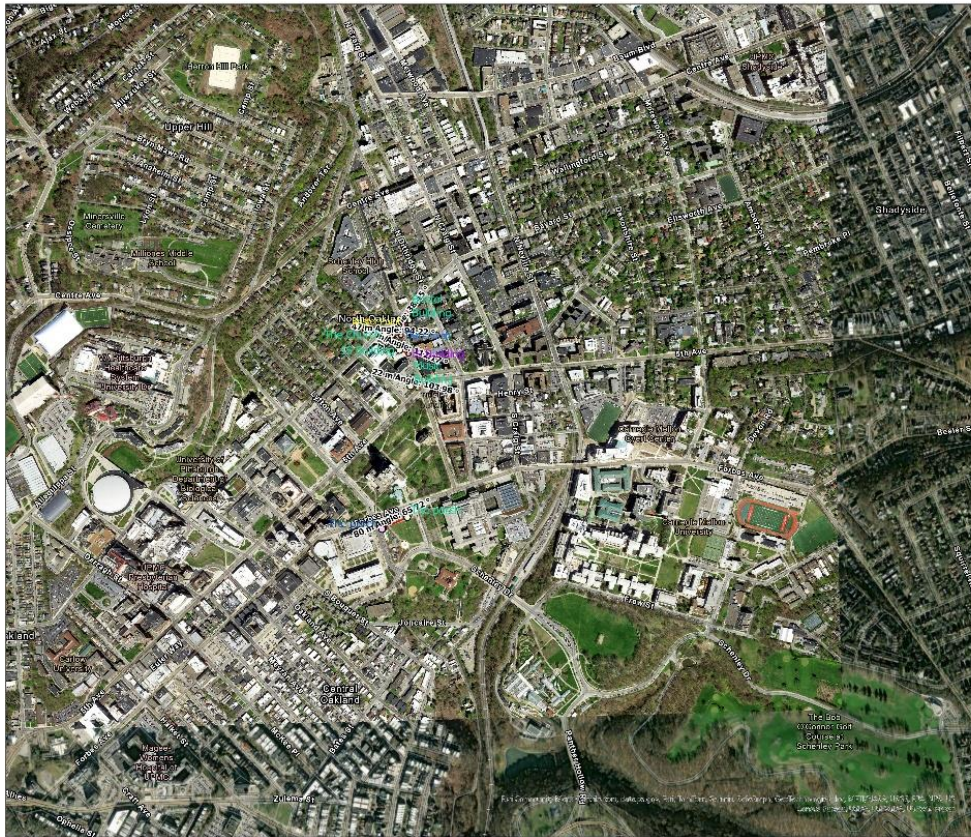
- IS building
- music building
- do 3 restaurant
- church data point
- Bristol point
- Various other features



0 0.25 0.50 1.00 Miles



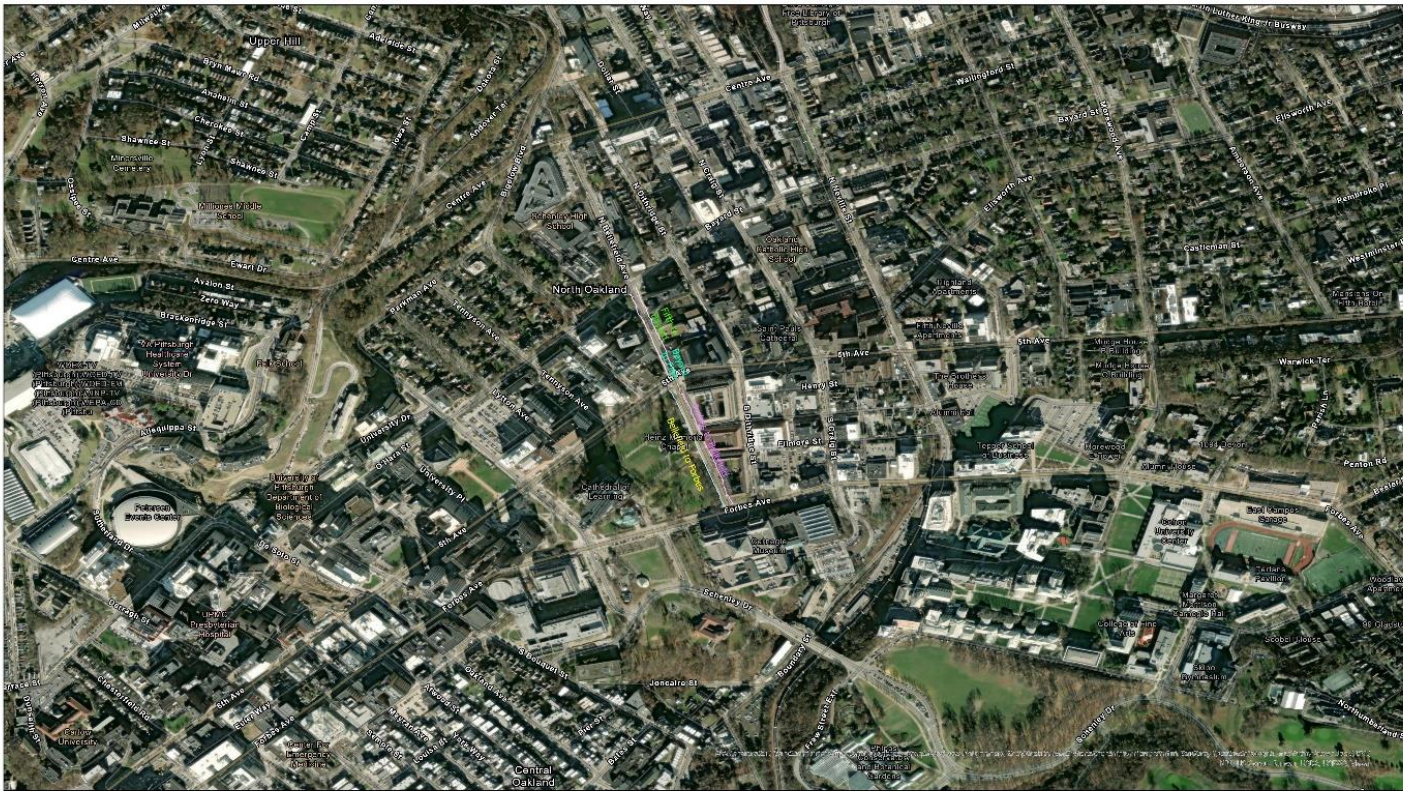
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Google Maps vs
Collected Data Points

- music_building_dp1.GPXtoFeatures1
 - IS_building_dp1.GPXtoFeatures1
 - dp_5_restaurant_Linc_perch.GPXtoFeatures1
 - church_data_point_2.GPXtoFeatures1
 - Bristol_Land_L.GPXtoFeatures1
 - GoogleMapsPoints1_XYTableToPoint
 - Lines
 - Rings
 - Ellipses
 - Circles
 - Sectors
- Oakland_PEMA_2018.tif
- RGB
- Red: Band 1
 - Green: Band 2
 - Blue: Band 3

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0 0.07 0.14 0.27 Miles

— From to Jettied 2 GPXtoFeatures
— Fifth to Bayard GPXtoFeatures
— Jettied to Jettied 2 GPXtoFeatures
— Bayard to Fifth GPXtoFeatures

MAP 8 SEGMENT 1 AND
SEGMENT 2

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0 0.13 0.26 0.51 Miles

- ✓ schenly_plaza_SimpolyPolyg2_Pnt
- schenly_plaza_SimpolyPolyg1_Pnt
- ✓ schenly_plaza_SimpolyPolyg_Pnt
- schenly_plaza_polygeom_GPTColours
- schenly_plaza_SimpolyPolyg1

Map 9 Area and
Perimeter of
Schenley