Development Plan for Downtown Brunswick

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E.S. 204: Intro to GIS, Fall 2012

What's the Problem?

- 1. Business owners in downtown Brunswick feel that there is not enough public parking to accommodate demand.
- 2. Town wants to eliminate seven parking spots on Maine Street, frustrating business leaders further.

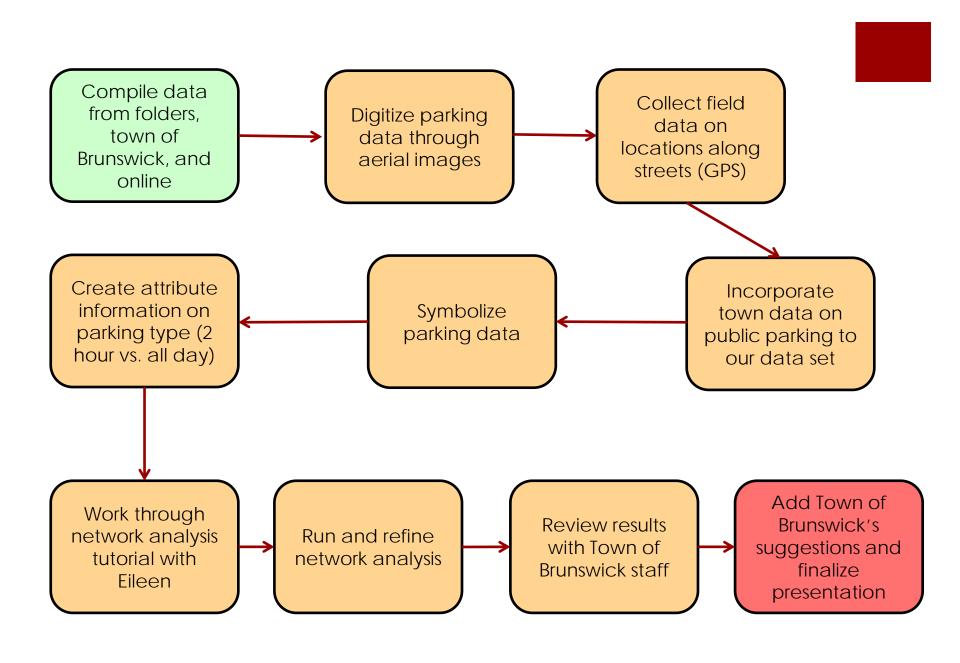
Possible Solutions?

- Town has an available fund of money that could be used to purchase space for a new public parking lot.
- 2. Town could negotiate with private parking lot owners to come to an agreement whereby lots are made available for public use.

Such agreements would make lots publicly available during hours and days when lots are currently under-utilized.

Where do we come in?

- With the help of the Brunswick Police Department (BPD), we created a comprehensive data set of all of the public and private parking spaces in the downtown Brunswick area. (Fort Andros to the North, Federal Street to the East, First Parish Church to the South and Union Street in the West.
- Used network analysis to find walking distances between possible new parking spots and downtown business.



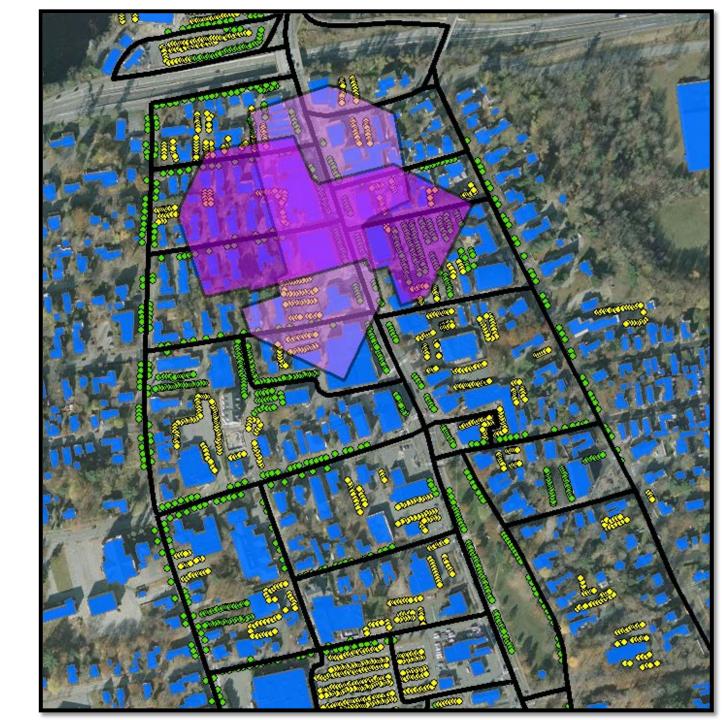
Geocoding Results

- = Public Parking
- O = Private Parking
- Received all street data from BPD. (Thank you!)
- Used GPS to digitize remaining public spots and all private lots within the study area.
- Used GIS to input additional points and to make sure that GPS points were accurate.

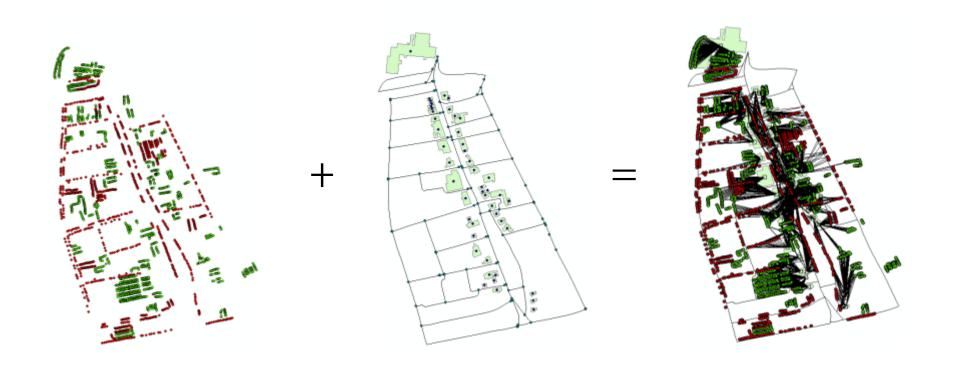


How far are people willing to walk?

- = Public Parking
- O = Private Parking
- = Walmart P Lot



Network Analysis



O-D Analysis

Public Parking 500 feet From Stores Downtown

Spaces per Building

0 - 20

21 - 40

41 - 60

61 - 80

>80

= Public Parking

O = Private Parking



Parking Allocation

Spaces per Building

0 - 20

21 - 40

41 - 60

61 - 80

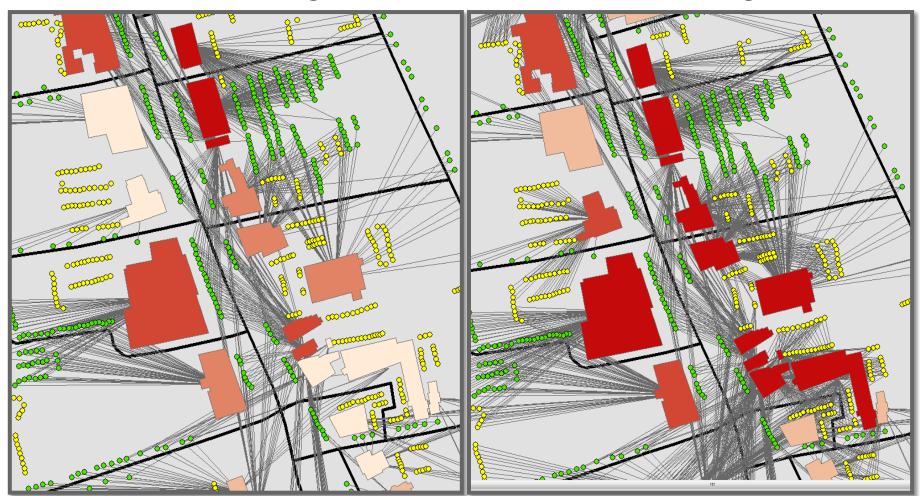
>80

Public Parking



O = Private Parking

All Parking



Service Area Analysis

Distance to Private Parking



0 - 250



250 - 500

Distance to Public Parking

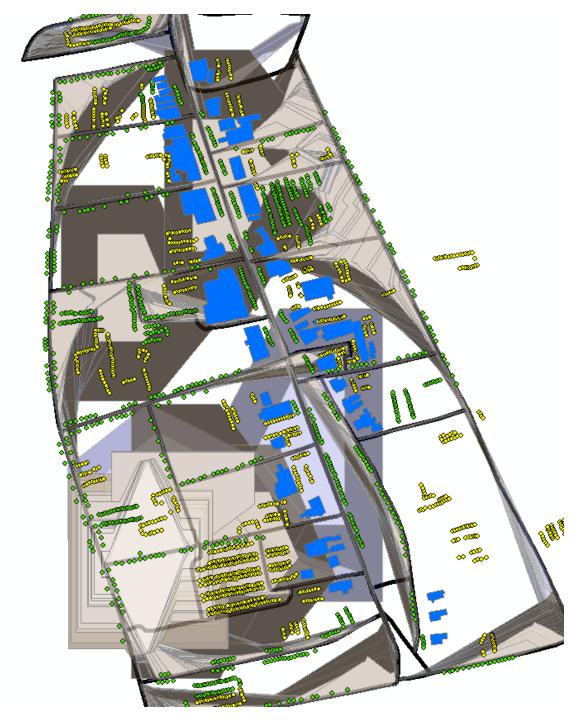
0 - 250



250 - 500

= Public Parking

O = Private Parking



Service area around Brunswick 'Green'

Distance to Private Parking



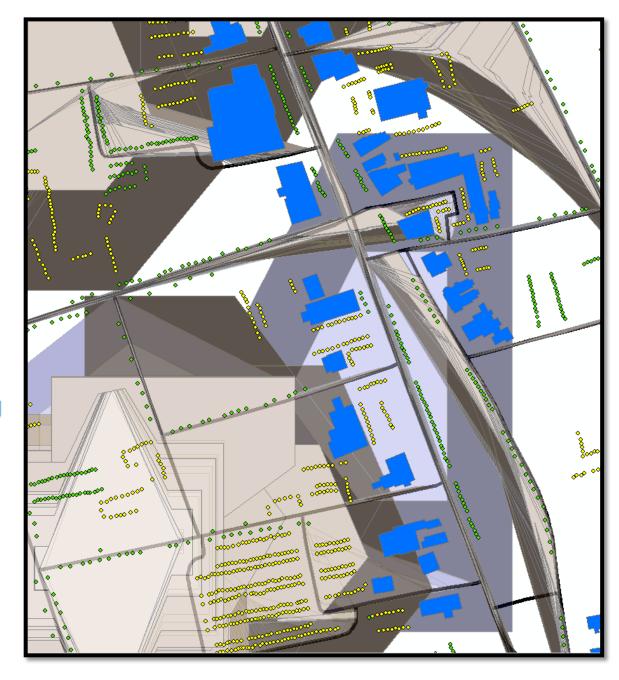
250 - 500

Distance to Public Parking

0 - 250

250 - 500

= Public Parking= Private Parking



What we found.

- There are 1075 public parking spots in downtown Brunswick.
- There are 1506 private, non-residential parking spots in downtown Brunswick.
- Northern and Southern ends of Maine Street are especially in need of extra parking spots.
- Banks and churches have the most unutilized parking spaces.

What's Next?

- Negotiate with private businesses to open up private lots to public use.
- Generate data set of times when downtown Brunswick businesses are active.
- Invest in signage so people know what parking is public.
- Make public parking spaces more user friendly.