

NG 9-1-1

MSGIC Public Safety /NG 9-1-1 Workgroup
Winter Quarterly Meeting

Panel

- ▶ Eric Pate – Calvert County
- ▶ Patrick Callahan – Prince George's County
- ▶ Robert Horne – Mission Critical Partners, Inc.
- ▶ Peter Hanna – MSGIC Working Group Chair

Objectives

- ▶ What is NG 9-1-1 (Simplified)
- ▶ NG in Calvert County
- ▶ NG in Prince George's County
- ▶ NG Private Sector
- ▶ Border Issues

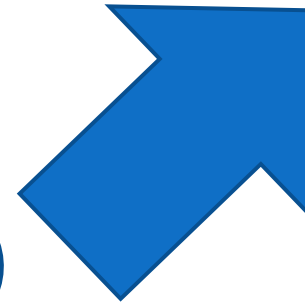
What is NG 9-1-1

- ▶ NG911 is an Internet Protocol (IP)-based system that allows digital information (e.g., voice, photos, videos, text messages) to flow seamlessly from the public, through the 911 network, and on to emergency responders

How does GIS will work with NG 9-1-1



MSAG &
Ani/Al

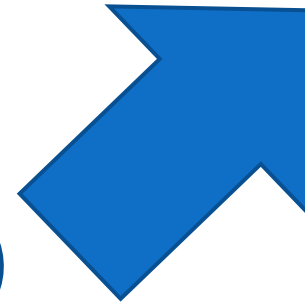


How does GIS will work with NG 9-1-1

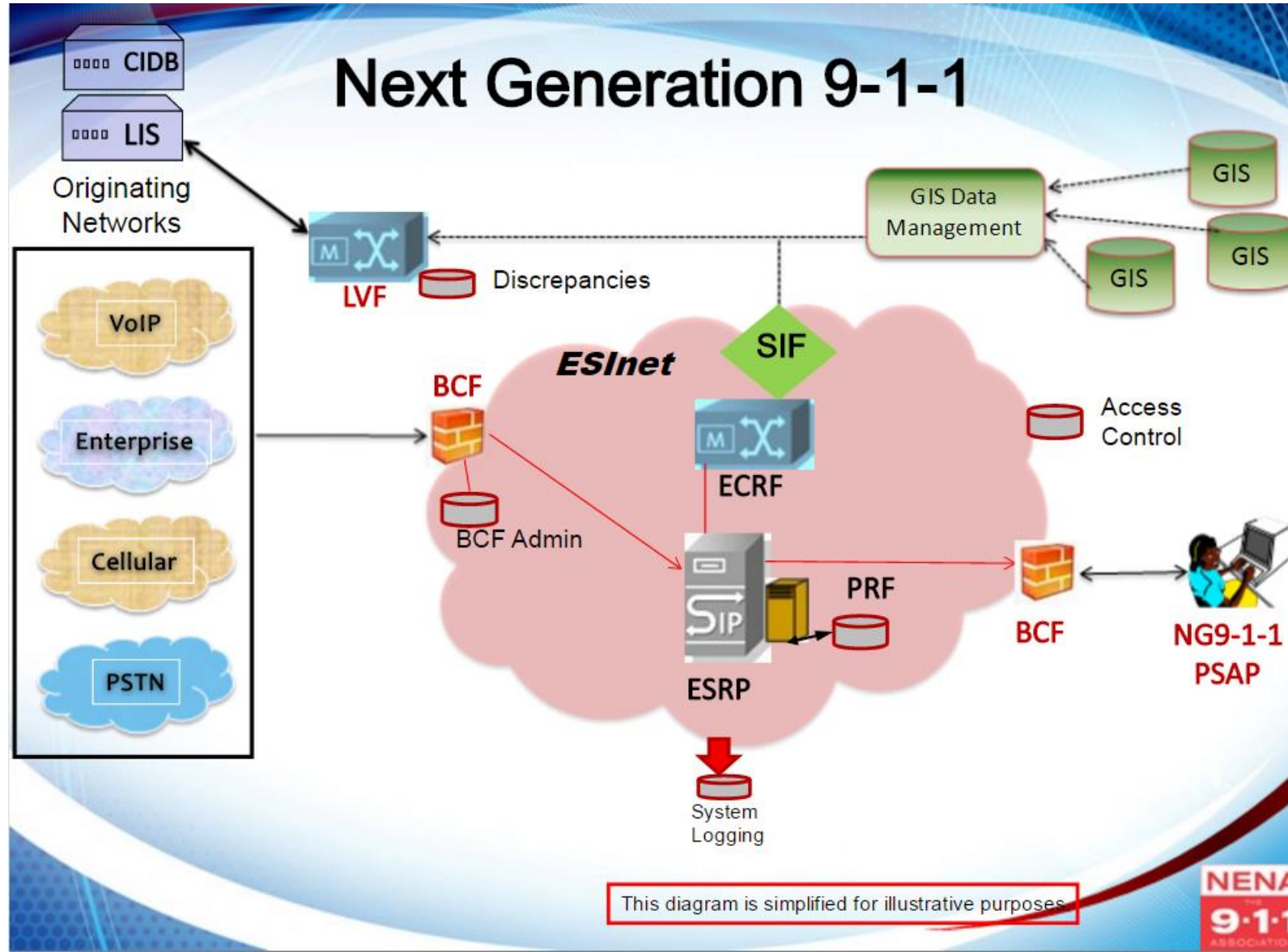


GIS????

ESINET



How does GIS work with NG 9-1-1



Prince George's NG 911 GIS Project

Prince George's NCR NG911 GIS Project

Purpose: Compare and update each Metropolitan Washington Council of Governments (MWCOC) jurisdiction's GIS data with the Master Street Address Guide (MSAG) and Automatic Location Information (ALI) data and **produce each jurisdiction's GIS data into a standard field structure that can be joined as one regional dataset.** The regional GIS dataset will be suitable for provisioning into a live NG911 Emergency Call Routing Function (ECRF)/Location Validation Function (LVF) system residing on an eventual regional Emergency Services Internet Protocol Networks (ESInet).

- ▶ Three GIS feature classes making up the dataset: Street Centerlines, Address Points, PSAP Boundaries
- ▶ NCR Consultants: General Dynamics IT
 - ▶ Technical: Digital Data Technologies, Inc and Mission Critical Partners, Inc.

Prince George's NCR NG911 GIS Project

- ▶ NCR NG911 GIS Dataset Project Status - January 1, 2017
 - ▶ Virginia and Washington DC began work in February 2016
 - ▶ Maryland began work in September 2016

| LOCAL QC'S | MSAG/ROAD SNAME QC | MSAG/ROAD S ADDRESS RANGE QC | MSAG/ROADS BOUNDARY QC | ALI/ROADS NAME QC | ALI/ADDRESSES POINT QC | ALI/ADDRESSES BOUNDARY QC |
|----------------|-----------------------|---|------------------------------|-------------------|---------------------------|------------------------------|
| Alexandria | | | 01/11/2017 | | 12/19/2016 | 01/11/2017 |
| Arlington | | 07/19/2016 | 01/11/2017 | 09/21/2016 | 01/11/2017 | 01/11/2017 |
| Fairfax | | | 01/11/2017 | | 11/08/2016 | 01/11/2017 |
| Falls Church | | | 01/11/2017 | | | |
| Fauquier | | | 01/11/2017 | | 10/14/2016 | 01/11/2017 |
| Loudoun | | | 01/11/2017 | | 11/03/2016 | 01/11/2017 |
| Manassas | | | 01/11/2017 | | 11/29/2016 | 01/11/2017 |
| Prince William | | | 01/11/2017 | | 10/11/2016 | 01/11/2017 |
| Stafford | | | 01/11/2017 | 10/19/2016 | 01/11/2017 | 01/11/2017 |
| Charles | | | 01/11/2017 | | | |
| Frederick | | | | | 10/25/2016 | |
| Montgomery | | | | | 12/09/2016 | |
| Prince Georges | | | | | | |
| Washington DC | | | | | 01/05/2017 | |
| MWAA | 11/22/2016 | | | | | |
| | | QC Layer reviewed and published back to DDTi | | | | |
| | | Review of QC layer in process at jurisdiction | | | | |
| | | QC Layer has not been published to jurisdiction | | | | |

Prince George's municipalities in MWCOG

- Town of Bladensburg
- City of Bowie
- City of College Park
- City of Greenbelt
- City of Hyattsville

All municipalities GIS data managed by OIT-GIS/MNCPPC-PG/PSC except for the City of Laurel

Field Structure Changes and Attribute Issues

Prince George's NCR NG911 GIS Project

- ▶ Transform County data to fit the NENA NG911 standard.
 - ▶ ROAD_CENTERLINE_UNIQUE_ID to have County FIP's code
 - ▶ Segment # 32451 must be **24033**32451
 - ▶ All road types, prefix's, and suffix's must be spelled out
 - ▶ 1352 **North** Crain **Highway Southwest**

| County Name | Field Type | LENGTH | NENA Name | Field Type | LENGTH | Description |
|-------------|------------|--------|--------------------------------|------------|--------|--|
| SEGMENT | LONG | | ROAD_CENTERLINE_UNIQUE_ID | TEXT | 100 | Prince George's Unique Street Segment ID (Primary key managed by OIT-GIS) |
| PREFIX | STRING | 2 | STREET_NAME_PRE_DIRECTIONAL | TEXT | 12 | Street Name Prefix |
| N/A | | | STREET_NAME_PRE_MODIFIER | TEXT | 30 | Word or Phrase Preceding Street name but separate from Pre Directional and Pre Type. |
| N/A | | | STREET_NAME_PRE_TYPE | TEXT | 30 | Precedes the street name and indicates type of thoroughfare. |
| N/A | | | STREET_NAME_PRE_TYPE_SEPARATOR | TEXT | 30 | A prepositional Phrase between the street name pre type and the street name. |
| NAME | STRING | 50 | STREET_NAME | TEXT | 75 | Street Name |
| TYPE | STRING | 4 | STREET_NAME_POST_TYPE | TEXT | 30 | Street Type |
| SUFFIX | STRING | 2 | STREET_NAME_POST_DIRECTIONAL | TEXT | 12 | Street Name Suffix |
| LLEFT | LONG | | LEFT_FROM_ADDRESS | LONG | | Lower Left Address Range |
| HLEFT | LONG | | LEFT_TO_ADDRESS | LONG | | High Left Address Range |
| LRGT | LONG | | RIGHT_FROM_ADDRESS | LONG | | Lower Right Address Range |
| HRGT | LONG | | RIGHT_TO_ADDRESS | LONG | | High Right Address Range |
| FCC | STRING | 5 | ROAD_CLASS | TEXT | 15 | Census Feature Class Code |
| SPEED | LONG | | SPEED_LIMIT | SHORT | | Speed Limit |
| FT_COST | DOUBLE | | N/A | | | Routing cost to travel From/To segment |
| TF_COST | DOUBLE | | N/A | | | Routing cost to travel To/From segment |
| FT_TIME | DOUBLE | | N/A | | | Travel time From/To segment |
| TF_TIME | DOUBLE | | N/A | | | Travel time To/From segment |

Prince George's NCR NG911 GIS Project

- Compare and update the County's GIS data with the MSAG and ALI data

County GIS Data

| Pre Directional | Street Name | Street Type | Community | Low Address | High Address |
|-----------------|-------------------|-------------|----------------|-------------|--------------|
| | PEPPER TREE | DRIVE | BOWIE | 14800 | 14899 |
| | POACHARD | COURT | UPPER MARLBORO | 1000 | 1099 |
| | QUEEN ANNE BRIDGE | ROAD | BOWIE | 16800 | 18699 |
| | EAST RIDGE | ROAD | ACCOKEEK | 3000 | 3099 |
| | REED | STREET | LANHAM | 2900 | 3299 |

- ← Space in Street Name
- ← Street Name Spelling
- ← Different Community Name
- ← Pre Directional in Street Name
- ← Address Ranges don't Match

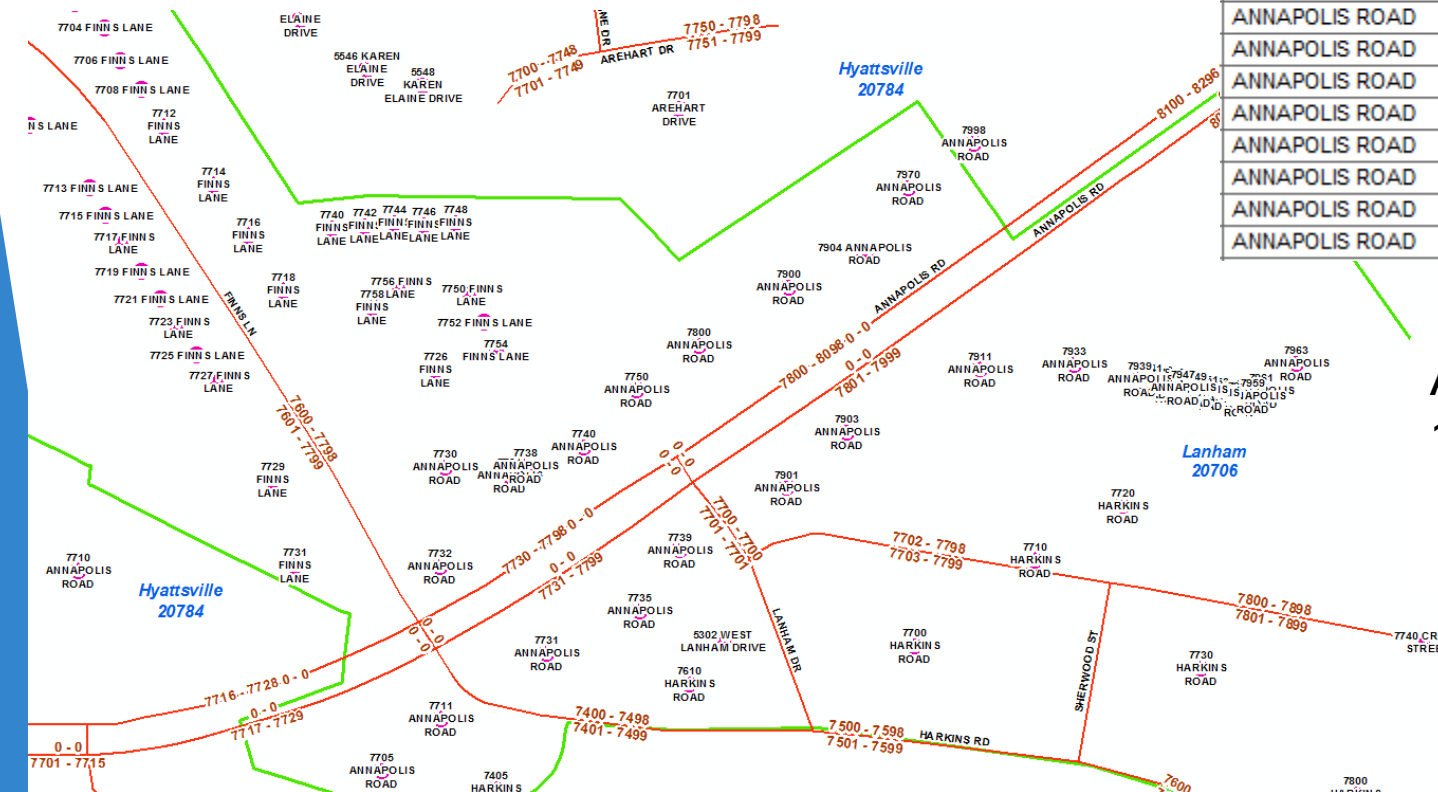
MSAG Data

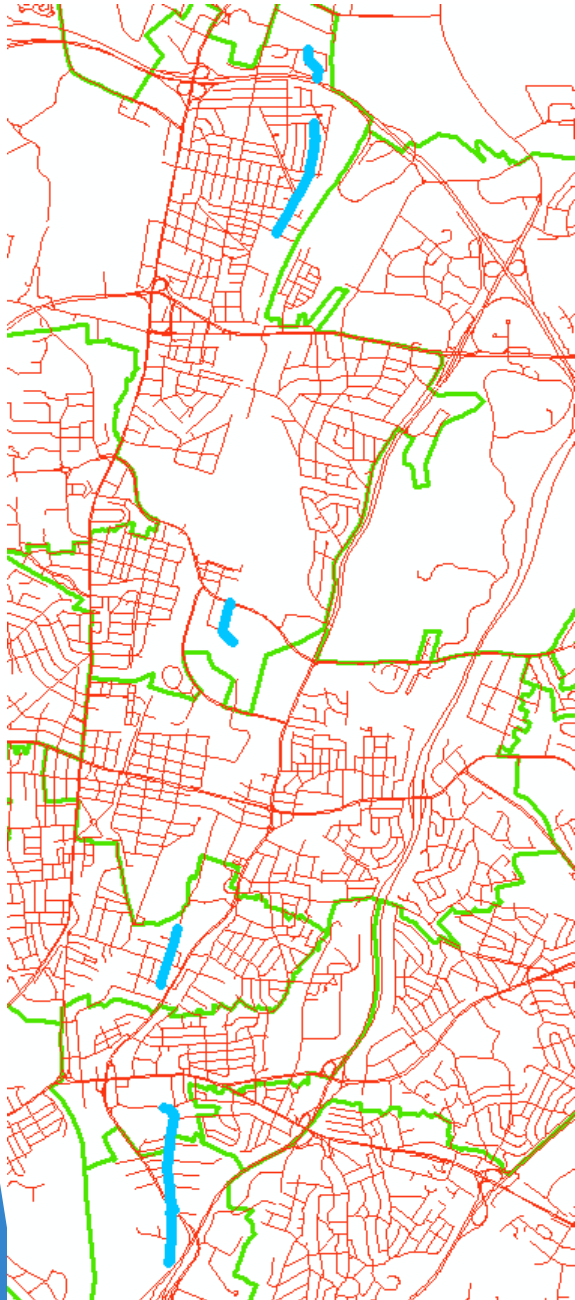
| Pre Directional | Street Name | Street Type | Community | Low Address | High Address |
|-----------------|-------------------|-------------|----------------|-------------|--------------|
| | PEPPERTREE | DRIVE | BOWIE | 14800 | 14899 |
| | POCHARD | COURT | UPPER MARLBORO | 1000 | 1099 |
| | QUEEN ANNE BRIDGE | ROAD | UPPER MARLBORO | 16800 | 18699 |
| EAST | RIDGE | ROAD | ACCOKEEK | 3000 | 3099 |
| | REED | STREET | LANHAM | 2800 | 3212 |

Prince George's NCR NG911 GIS Project

| LSN | ESN | COMM | HNLOW | HNHIGH | PARITY | Translated | A_M_D_G_Q |
|----------------|--------|-------------|-------|--------|--------|------------|-----------|
| ANNAPOLIS ROAD | 3607 | HYATTSVILLE | 261 | 267 | B | 1 | D |
| ANNAPOLIS ROAD | <Null> | BLADENSBURG | 4500 | 5806 | B | <Null> | A |
| ANNAPOLIS ROAD | <Null> | HYATTSVILLE | 5807 | 5999 | O | <Null> | A |
| ANNAPOLIS ROAD | 3607 | BLADENSBURG | 5808 | 5998 | E | 1 | M |
| ANNAPOLIS ROAD | 3607 | HYATTSVILLE | 6000 | 7704 | B | 1 | M |
| ANNAPOLIS ROAD | <Null> | LANHAM | 7705 | 7728 | O | <Null> | A |
| ANNAPOLIS ROAD | <Null> | HYATTSVILLE | 7706 | 7729 | E | <Null> | A |
| ANNAPOLIS ROAD | <Null> | LANHAM | 7730 | 7970 | B | <Null> | A |
| ANNAPOLIS ROAD | <Null> | HYATTSVILLE | 7971 | 8799 | B | <Null> | A |
| ANNAPOLIS ROAD | 3607 | LANHAM | 8800 | 10099 | B | 1 | M |
| ANNAPOLIS ROAD | <Null> | LANHAM | 10100 | 10798 | E | <Null> | A |
| ANNAPOLIS ROAD | <Null> | BOWIE | 10101 | 10799 | O | <Null> | A |
| ANNAPOLIS ROAD | <Null> | BOWIE | 10800 | 10999 | B | <Null> | A |
| ANNAPOLIS ROAD | 3607 | GLENN DALE | 11000 | 13300 | B | 1 | D |
| ANNAPOLIS ROAD | <Null> | GLENN DALE | 11100 | 12698 | E | <Null> | A |
| ANNAPOLIS ROAD | <Null> | BOWIE | 11101 | 12699 | O | <Null> | A |
| ANNAPOLIS ROAD | 3607 | BOWIE | 12700 | 17099 | B | 1 | M |

Annapolis Road (Rt 450)
11 Additional Records
2 Deleted Records
5 Changes to MSAG Address Range



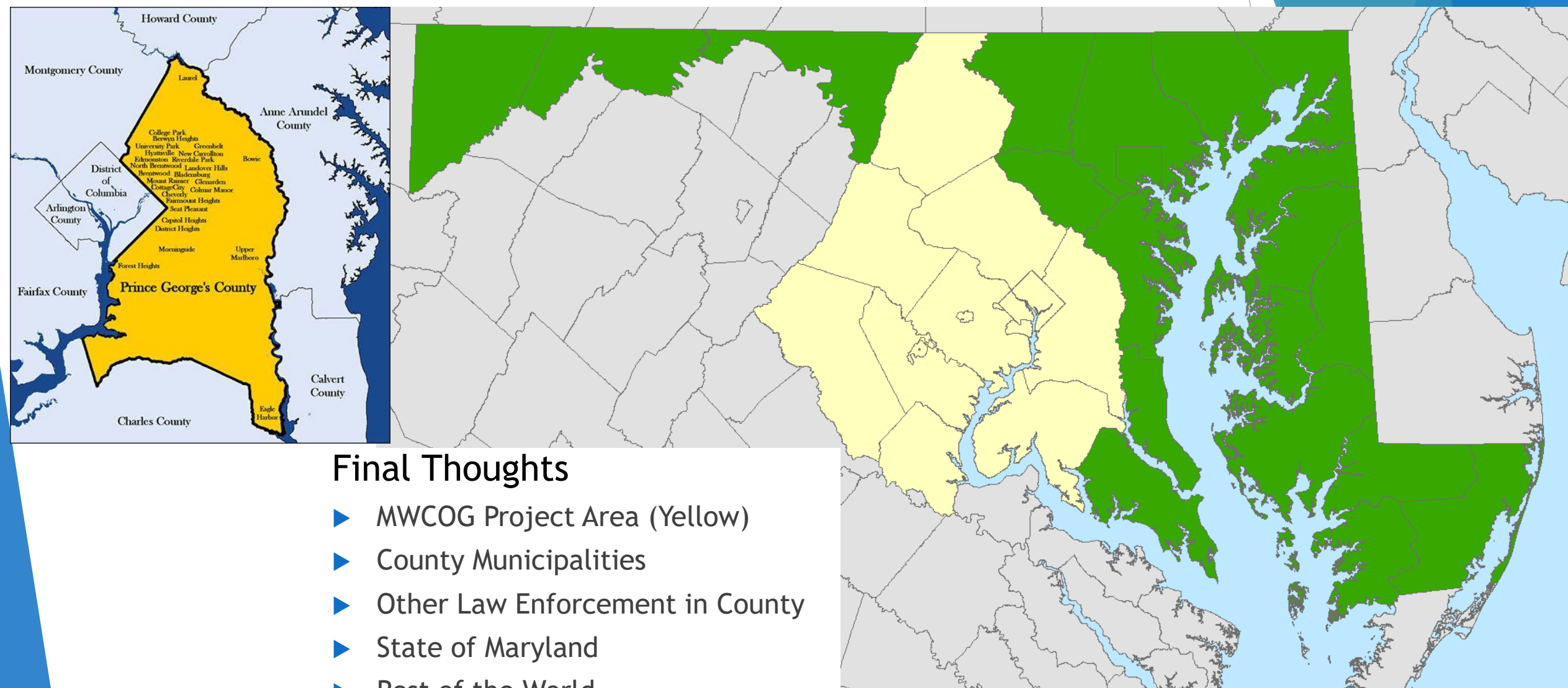


| FULLNAME | LLEFT | LEFT_FROM_ADDRESS | HLEFT | LEFT_TO_ADDRESS | LRGT | RIGHT_FROM_ADDRESS | HRGT | RIGHT_TO_ADDRESS | POSTAL_COMMUNITY_NAME_LEFT | POSTAL_COMMUNITY_NAME_RIGHT |
|----------|-------|-------------------|-------|-----------------|-------|--------------------|-------|------------------|----------------------------|-----------------------------|
| 52ND AVE | 2800 | 2800 | 2898 | 2898 | 2801 | 2801 | 2899 | 2899 | HYATTSVILLE | HYATTSVILLE |
| 52ND AVE | 2900 | 2900 | 3098 | 3098 | 2901 | 2901 | 3099 | 3099 | HYATTSVILLE | HYATTSVILLE |
| 52ND AVE | 3100 | 3100 | 3100 | 3100 | 3101 | 3101 | 3101 | 3101 | HYATTSVILLE | HYATTSVILLE |
| 52ND AVE | 3102 | 3102 | 3198 | 3198 | 3103 | 3103 | 3199 | 3199 | HYATTSVILLE | HYATTSVILLE |
| 52ND AVE | 3198 | 3198 | 3198 | 3198 | 3199 | 3199 | 3199 | 3199 | HYATTSVILLE | HYATTSVILLE |
| 52ND AVE | 3200 | 3200 | 3298 | 3298 | 3201 | 3201 | 3299 | 3299 | HYATTSVILLE | HYATTSVILLE |
| 52ND AVE | 3300 | 3300 | 3308 | 3308 | 3301 | 3301 | 3309 | 3309 | HYATTSVILLE | HYATTSVILLE |
| 52ND AVE | 3310 | 3310 | 3404 | 3404 | 3311 | 3311 | 3405 | 3405 | HYATTSVILLE | HYATTSVILLE |
| 52ND AVE | 3406 | 3406 | 3408 | 3408 | 3407 | 3407 | 3409 | 3409 | HYATTSVILLE | HYATTSVILLE |
| 52ND AVE | 3410 | 3410 | 3496 | 3496 | 3411 | 3411 | 3497 | 3497 | HYATTSVILLE | HYATTSVILLE |
| 52ND AVE | 3498 | 3498 | 3498 | 3498 | 3499 | 3499 | 3499 | 3499 | HYATTSVILLE | HYATTSVILLE |
| 52ND AVE | 3500 | 3500 | 3508 | 3508 | 3501 | 3501 | 3509 | 3509 | HYATTSVILLE | HYATTSVILLE |
| 52ND AVE | 3510 | 3510 | 3548 | 3548 | 3511 | 3511 | 3549 | 3549 | BLADENSBURG | HYATTSVILLE |
| 52ND AVE | 3550 | 3550 | 3598 | 3598 | 3551 | 3551 | 3599 | 3599 | BLADENSBURG | HYATTSVILLE |
| 52ND AVE | 3600 | 3600 | 3698 | 3698 | 3601 | 3601 | 3699 | 3699 | BLADENSBURG | HYATTSVILLE |
| 52ND AVE | 3604 | 3604 | 3698 | 3698 | 3603 | 3603 | 3699 | 3699 | BLADENSBURG | BLADENSBURG |
| 52ND AVE | 3700 | 3700 | 3798 | 3798 | 3701 | 3701 | 3799 | 3799 | BLADENSBURG | BLADENSBURG |
| 52ND AVE | 4800 | 4800 | 4898 | 4898 | 4801 | 4801 | 4899 | 4899 | HYATTSVILLE | HYATTSVILLE |
| 52ND AVE | 4900 | 4900 | 4998 | 4998 | 4901 | 4901 | 4999 | 4999 | HYATTSVILLE | HYATTSVILLE |
| 52ND AVE | 5000 | 5000 | 5012 | 5012 | 5001 | 5001 | 5013 | 5013 | HYATTSVILLE | HYATTSVILLE |
| 52ND AVE | 5014 | 5014 | 5098 | 5098 | 5015 | 5015 | 5099 | 5099 | HYATTSVILLE | HYATTSVILLE |
| 52ND AVE | 7000 | 7000 | 7098 | 7098 | 7001 | 7001 | 7099 | 7099 | COLLEGE PARK | COLLEGE PARK |
| 52ND AVE | 7100 | 7100 | 7198 | 7198 | 7101 | 7101 | 7199 | 7199 | COLLEGE PARK | COLLEGE PARK |
| 52ND AVE | 9400 | 9400 | 9498 | 9498 | 9401 | 9401 | 9499 | 9499 | COLLEGE PARK | COLLEGE PARK |
| 52ND AVE | 9500 | 9500 | 9598 | 9598 | 9501 | 9501 | 9599 | 9599 | COLLEGE PARK | COLLEGE PARK |
| 52ND AVE | 9600 | 9600 | 9608 | 9608 | 9601 | 9601 | 9609 | 9609 | COLLEGE PARK | COLLEGE PARK |
| 52ND AVE | 9610 | 9610 | 9612 | 9612 | 9611 | 9611 | 9613 | 9613 | COLLEGE PARK | COLLEGE PARK |
| 52ND AVE | 9614 | 9614 | 9628 | 9628 | 9615 | 9615 | 9629 | 9629 | COLLEGE PARK | COLLEGE PARK |
| 52ND AVE | 9630 | 9630 | 9698 | 9698 | 9631 | 9631 | 9699 | 9699 | COLLEGE PARK | COLLEGE PARK |
| 52ND AVE | 9700 | 9700 | 9748 | 9748 | 9701 | 9701 | 9747 | 9747 | COLLEGE PARK | COLLEGE PARK |
| 52ND AVE | 9750 | 9750 | 9798 | 9798 | 9749 | 9749 | 9799 | 9799 | COLLEGE PARK | COLLEGE PARK |
| 52ND AVE | 10100 | 10100 | 10102 | 10102 | 10101 | 10101 | 10103 | 10103 | COLLEGE PARK | COLLEGE PARK |
| 52ND AVE | 10104 | 10104 | 10108 | 10108 | 10105 | 10105 | 10109 | 10109 | COLLEGE PARK | COLLEGE PARK |
| 52ND AVE | 10110 | 10110 | 10118 | 10118 | 10111 | 10111 | 10119 | 10119 | COLLEGE PARK | COLLEGE PARK |
| 52ND AVE | 10120 | 10120 | 10198 | 10198 | 10121 | 10121 | 10199 | 10199 | COLLEGE PARK | COLLEGE PARK |
| 52ND BL | 4400 | 4400 | 4408 | 4408 | 4401 | 4401 | 4409 | 4409 | BLADENSBURG | BLADENSBURG |

- 52nd Avenue (Highlighted in Blue)
- 3 Different Communities (Green)
 - Address Range Gaps

| LSN | ESN | COMM | HNLOW | HNHIGH | PARITY | Translated | A_M_D_G_Q |
|-------------|--------|--------------|-------|--------|--------|------------|-----------|
| 52ND AVENUE | <Null> | HYATTSVILLE | 2800 | 3509 | B | <Null> | A |
| 52ND AVENUE | <Null> | BLADENSBURG | 3510 | 3599 | E | <Null> | A |
| 52ND AVENUE | <Null> | HYATTSVILLE | 3511 | 3599 | O | <Null> | A |
| 52ND AVENUE | 3607 | BLADENSBURG | 3600 | 3799 | B | 1 | M |
| 52ND AVENUE | 3607 | HYATTSVILLE | 4800 | 5099 | B | 1 | M |
| 52ND AVENUE | <Null> | COLLEGE PARK | 7000 | 7199 | B | <Null> | A |
| 52ND AVENUE | 3607 | COLLEGE PARK | 9400 | 10199 | B | 1 | M |

Prince George's NCR NG911 GIS Project



Final Thoughts

- ▶ MWCOC Project Area (Yellow)
- ▶ County Municipalities
- ▶ Other Law Enforcement in County
- ▶ State of Maryland
- ▶ Rest of the World

Border Issues & Potential Fixes

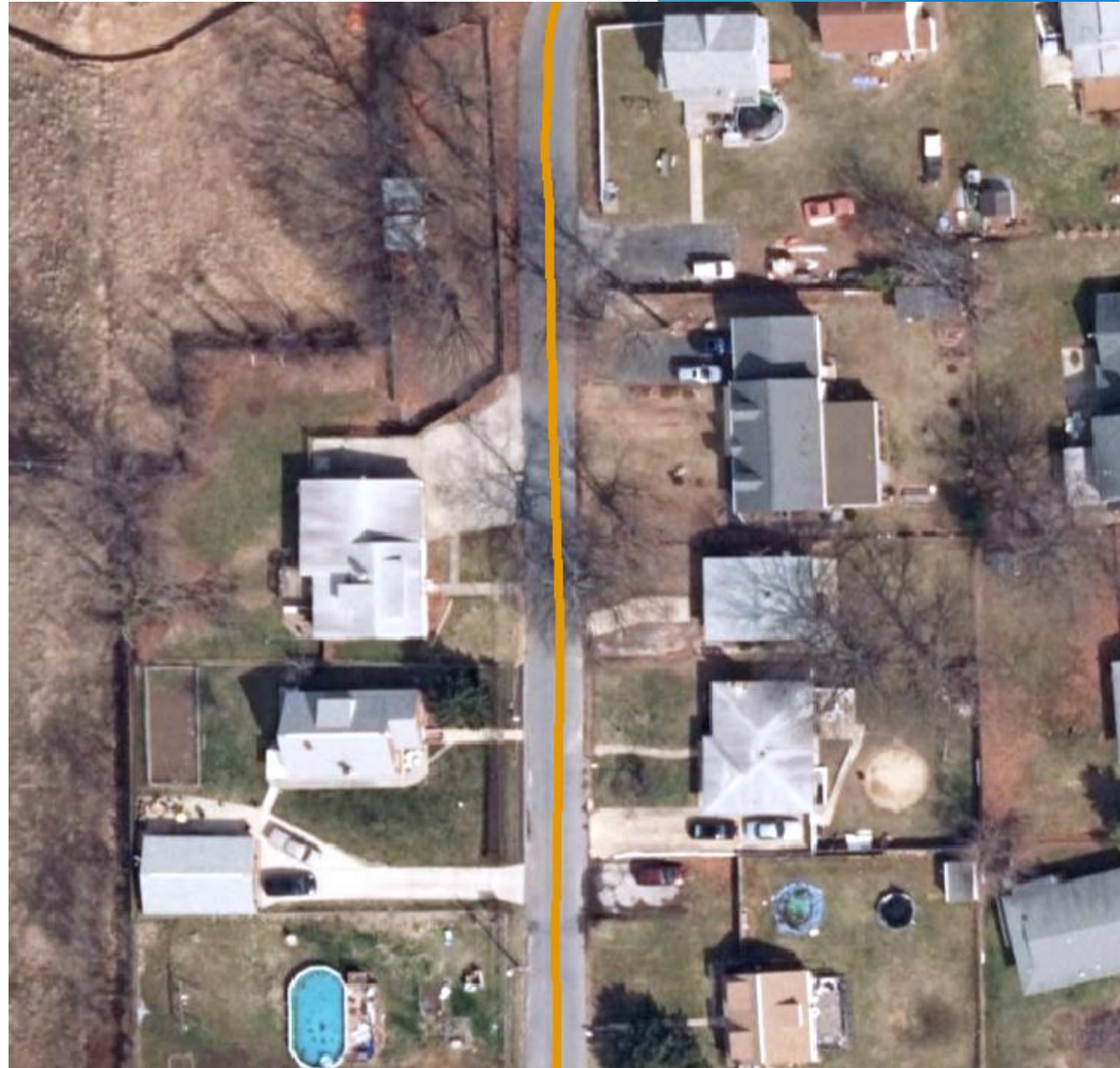
Border Issues



Border Issues - Potential Fix



Border Issues - Potential Fix



Border Issues



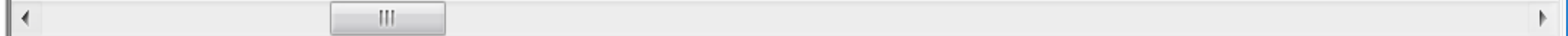
Border Issues

Table - StreetCity



City Streets

| | FULLNAME | FR_ST | TO | TRA | FR_SPE | TO_ | FRADDL | TOADDL | FRADDR | TOADDR | FRADDLA | TOADDLA | FRADDRA | TOADDRA | CIT |
|--|------------|-------|----|-----|--------|-----|--------|--------|--------|--------|---------|---------|---------|---------|-----|
| | AUDREY AVE | | | | 0 | 0 | 4201 | 4299 | 4200 | 4298 | 0 | 0 | 0 | 0 | BC |

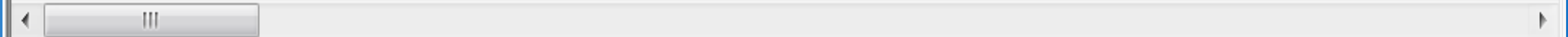


« ◀ 0 ▶ » (1 out of 34858 Selected)

City Streets

AA County Streets

| | FID | Shape * | OBJECTID | NAMEFULL | FROMLEFT | TOLEFT | FROMRIGHT | TORIGHT | ST_NAM |
|---|-------|------------|----------|------------|----------|--------|-----------|---------|--------|
| ▶ | 32021 | Polyline M | 20040 | AUDREY AVE | 418 | 4234 | 419 | 4233 | AUDREY |



« ◀ 1 ▶ » (1 out of 33613 Selected)

AA County Streets

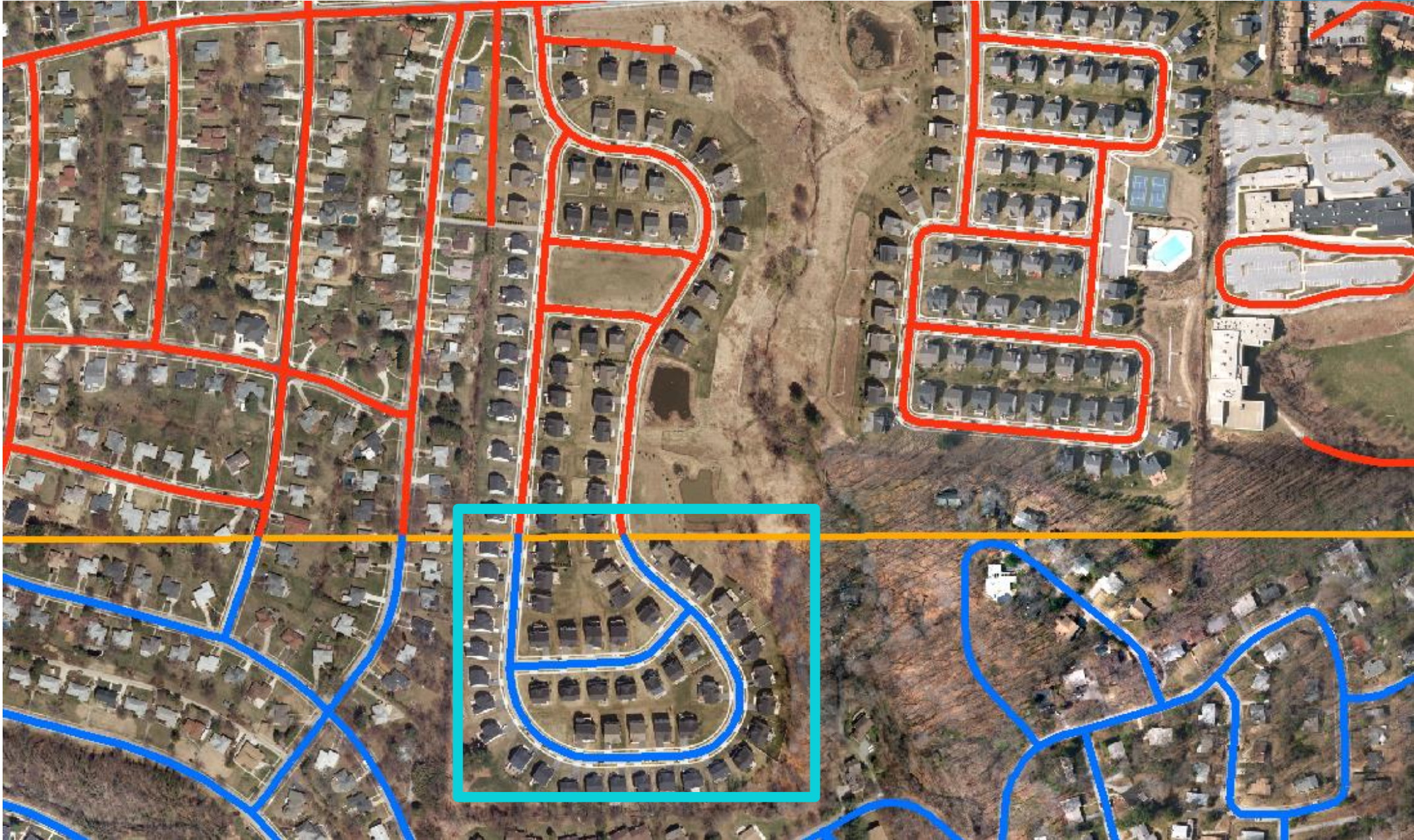
Border Issues - Potential Fix



Border Issues



Border Issues



Border Issues



Border Issues

