# NAPSR – PHMSA Public Workshop on DIMP Implementation

## National Association of Pipeline Safety Representatives
## Office of Pipeline Safety

## Massoud Tahamtani, Virginia

# Topic Areas

- Expectations of DIMP
- Observations of noteworthy practices

# Expectations of DIMP

- Procedural documentation describing tasks to be performed as required in §192.1007.
- Procedure means a fixed, step-by-step sequence of activities or course of action (with definite start and end points) that must be followed in the same order to correctly perform a task.
- A DIMP must be customized to the specific operator, and generic plans, procedures, and statements are not adequate.
- A DIMP must be continually improved based on feedback mechanisms within the program.

# Expectations of DIMP (continued)

- Allocation of appropriate resources to perform the required DIMP Tasks.

- Use of technology (GIS, GPS, Bar coding, RFID, etc.) to help manage DIMP.

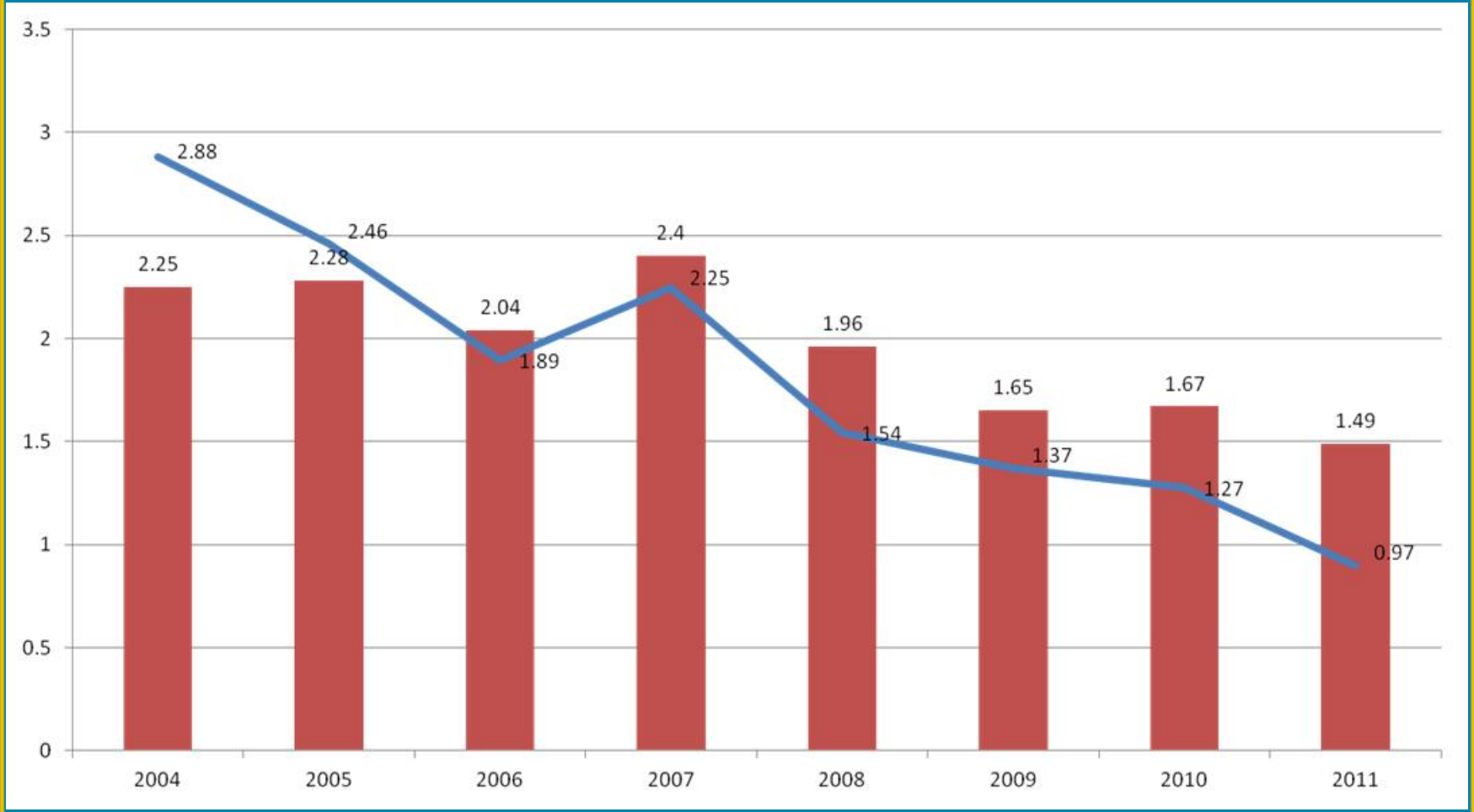
*The benefit derived from a IM Program is proportional to the amount of effort and resources an operator puts into it.*

# Noteworthy Practices

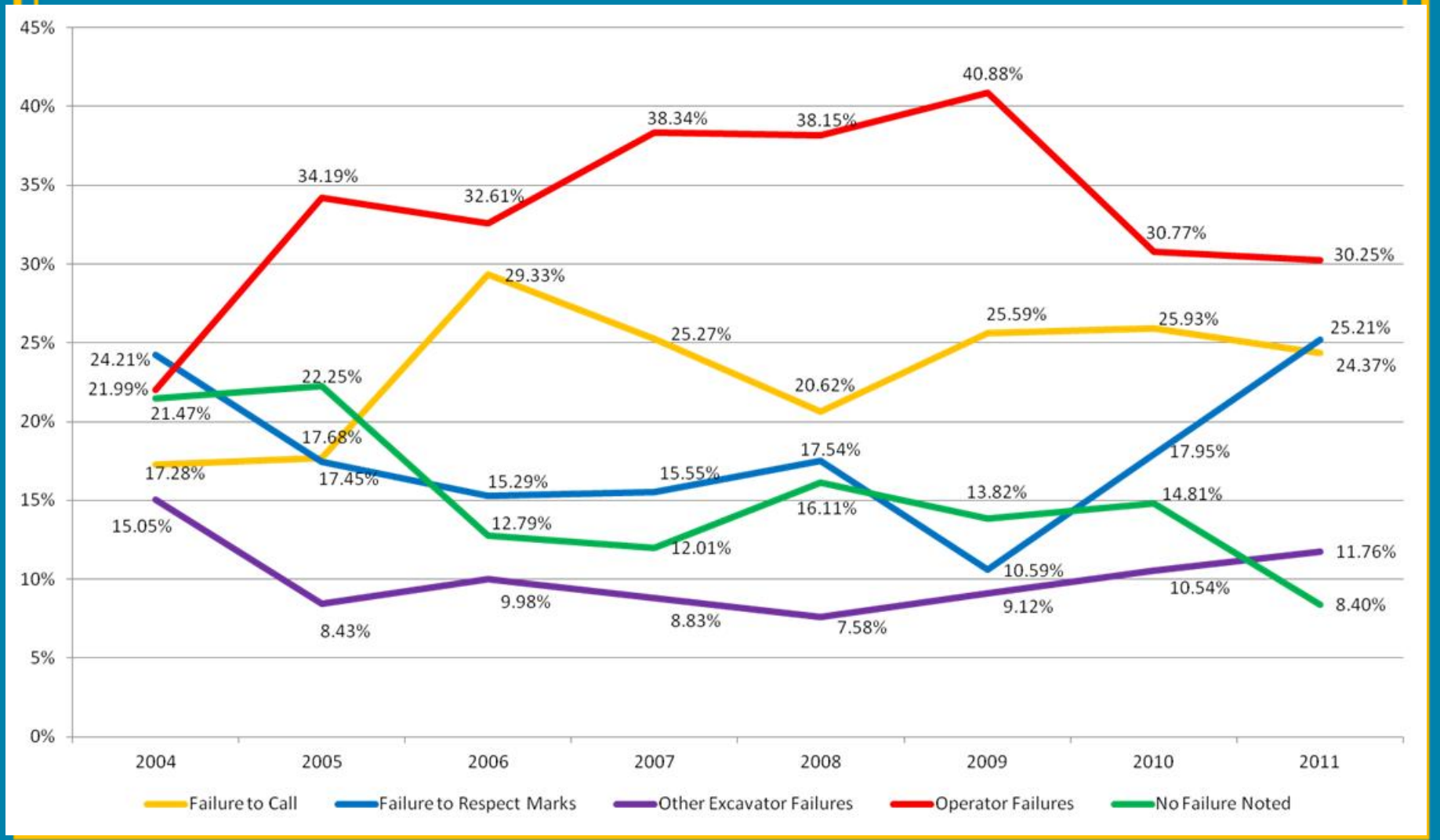
- Excavation damage risk mitigation measures implemented:
  - Have complete buy-in from all employees
  - Have corporate damage prevention goals
  - Conduct pre-construction meetings
  - Enhance awareness education for top offenders
  - Have permanent markings in the high activity areas
  - Enhance locating by use of better technologies
  - Have QA/QC for locators
  - Improve quality of as-builts

*DIMP Team is working on a compendium of implemented risk mitigation factors based on specific threats*

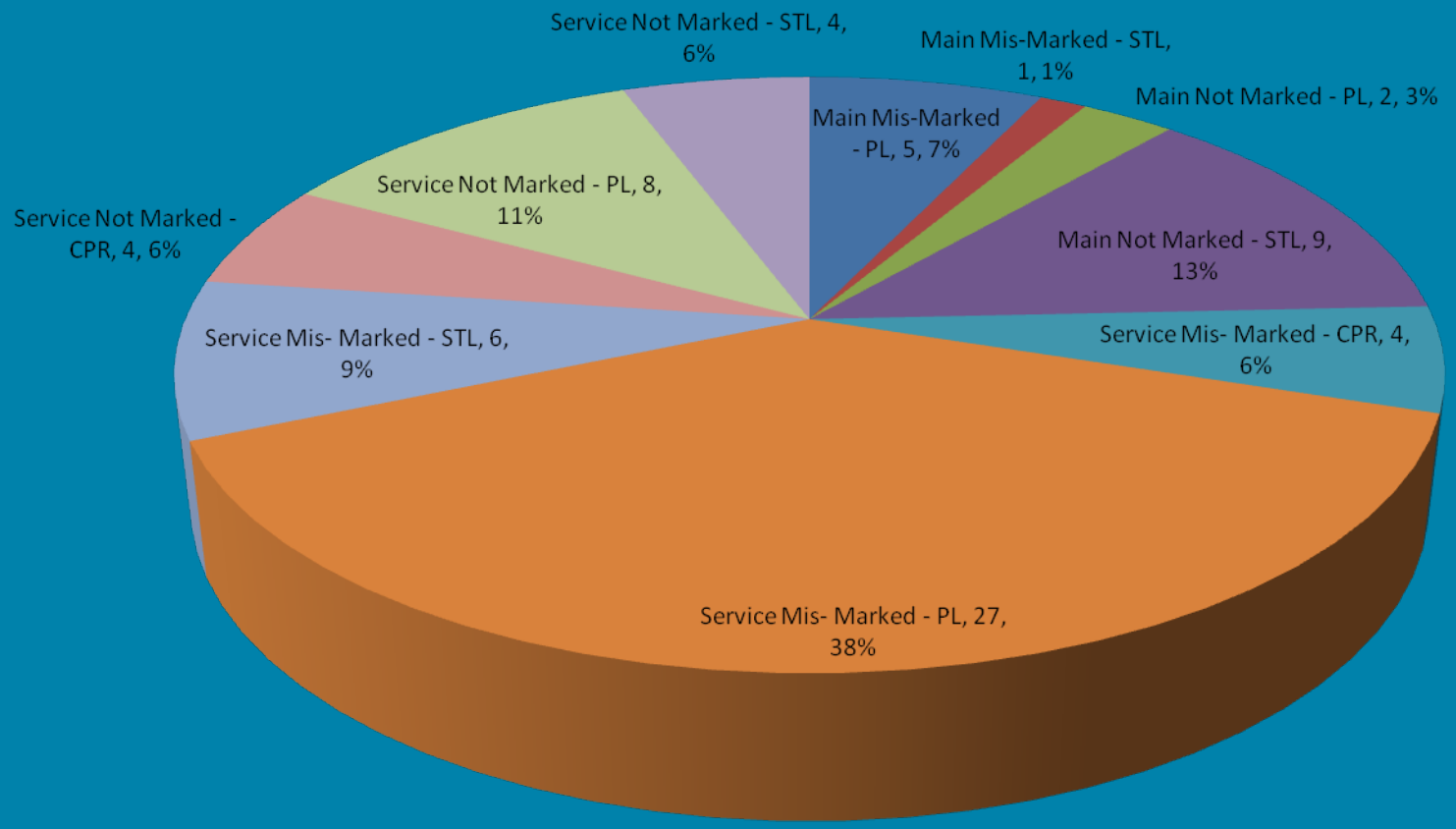
# Damages per 1,000 Excavation Tickets



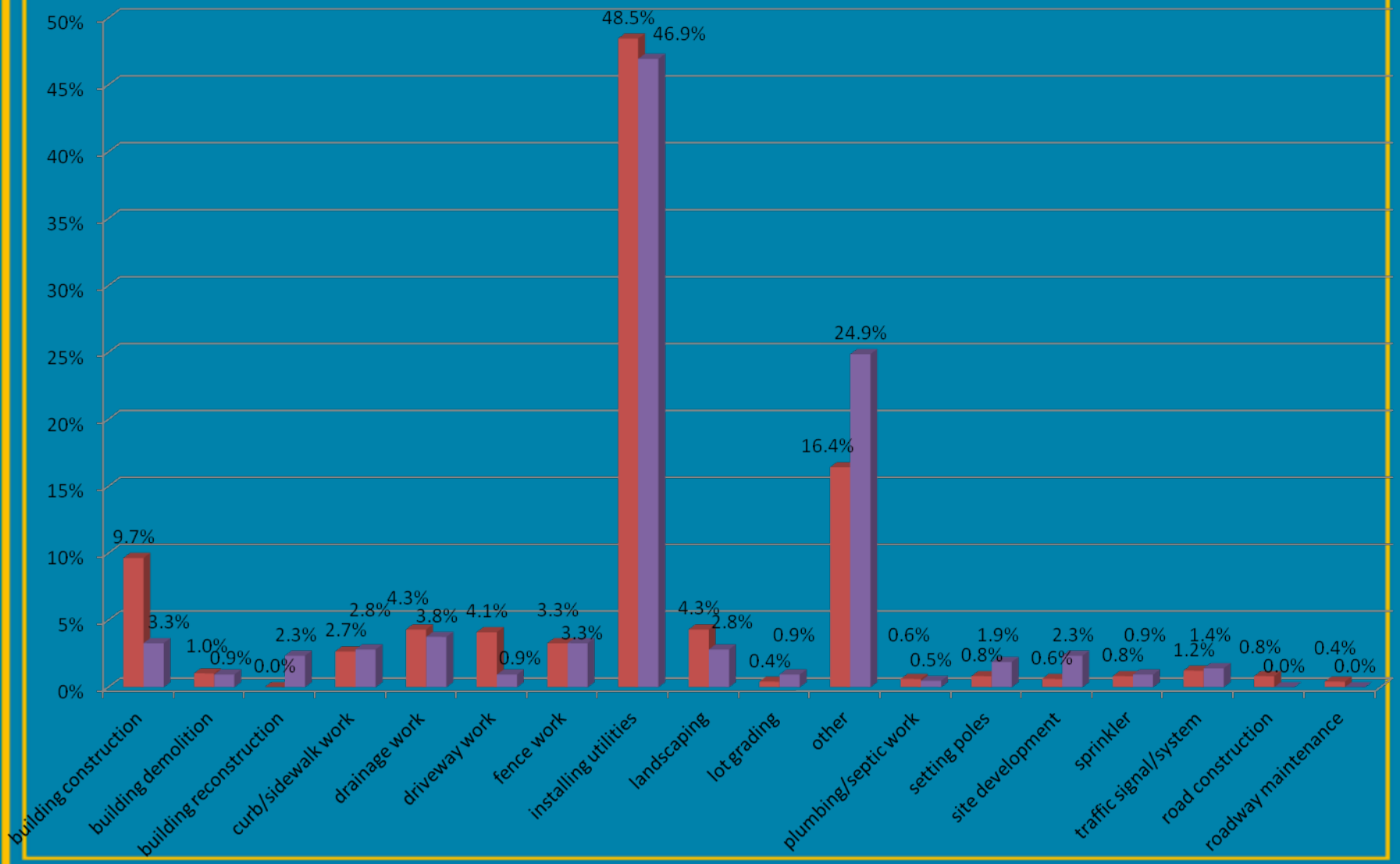
# Company A: Damage Cause Code Distribution



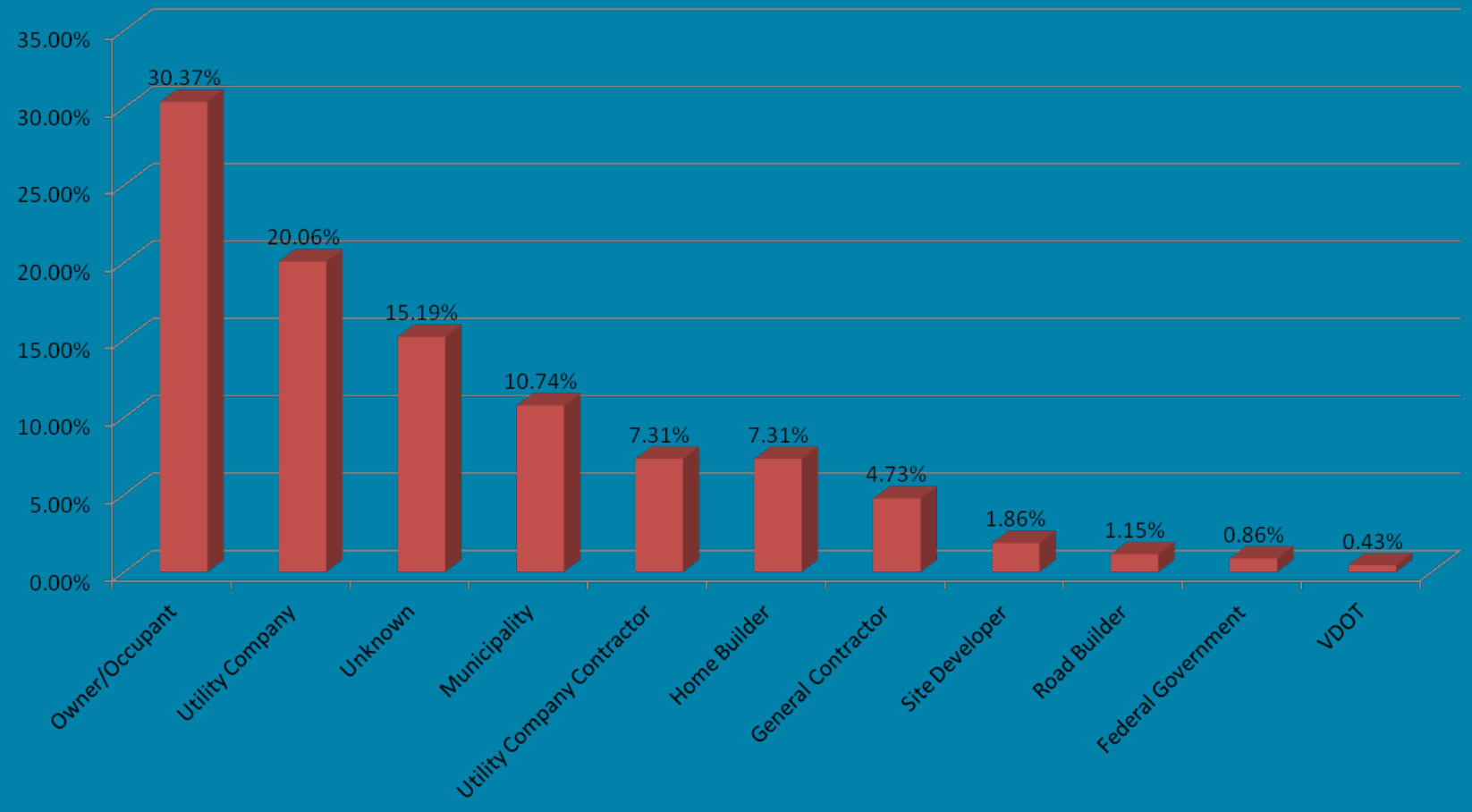
# Company A: Contract Locating Issues (70 Damages)



# 2010 – 2011 Company A: Damages by Excavation Type Comparison



# 2010 – 2011 Company A: Damages Occurred While Excavator was Working For:



# Risk-Based Inspection of Active Tickets

# Elements of a Comprehensive Damage Prevention Program

- Enhanced communication between operators and excavators
- Fostering support and partnership of all stakeholders in all phases (enforcement, public education, etc.) of the program
- Operator's use of performance measures regarding persons performing location and pipeline construction
- Partnership in employee training
- Partnership in public education
- Enforcement agency's role as a partner and facilitator to help resolve issues
- Fair and consistent enforcement of the law to all stakeholders
- Use of technology to improve all parts of the process
- Analysis of data to continually evaluate/improve program effectiveness

# Risk-Based Inspection of Active Tickets

# Objectives:

- Conduct risk based inspections
- Leverage technology to gain efficiency in inspections
- Share risk areas with regional stakeholders to advance damage prevention

# General Overview:

The Risk Assessment Model is a dynamic statistical analysis of Notification Center ("Miss Utility") data and Miss Utility Statistical Tracking ("MUST") data to determine risks associated with each notice of proposed excavation

Miss Utility ticket data is imported on a daily basis into our SQL Server where automated scripts assign potential risk to each ticket

The model utilizes ArcGIS to build raster assessment layers and plot Miss Utility ticket coordinates on the map using the center of the notification polygon

Risk assessment is based on three primary layers of risk:

- Utility Density in the excavation area
- Historical Performance of Utility, Excavator, and Locator
- Excavation or Demolition Work Type (such as directional boring)

# Risk Assessment: Scale Value

- Each layer has a potential scale value which translates to point designation

- Layers are weighted and joined for a total possible scale value of 1000 points

- The higher the scale value the higher the risk

# Risk-Based Inspection of Active Tickets Mapping View

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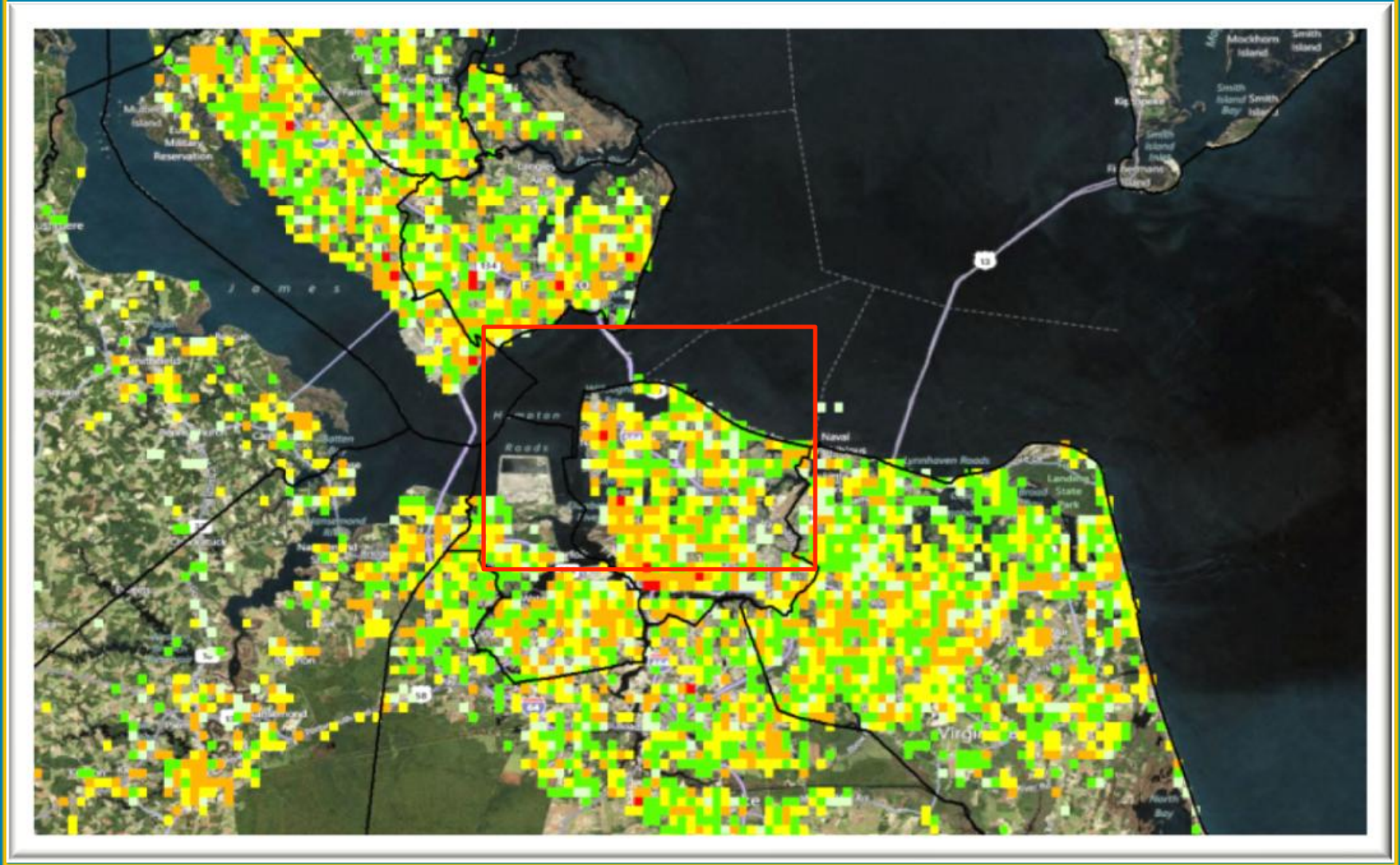

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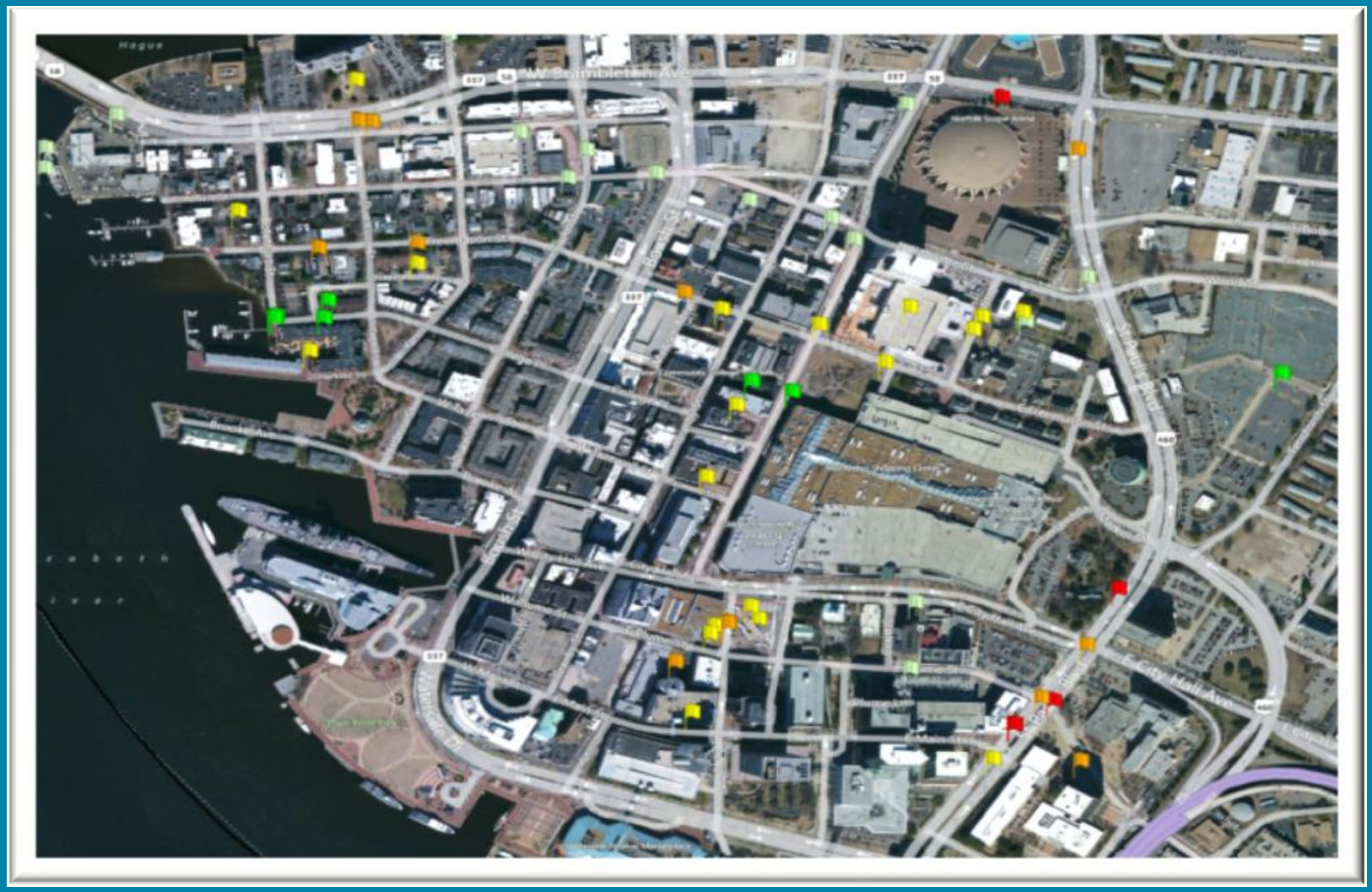
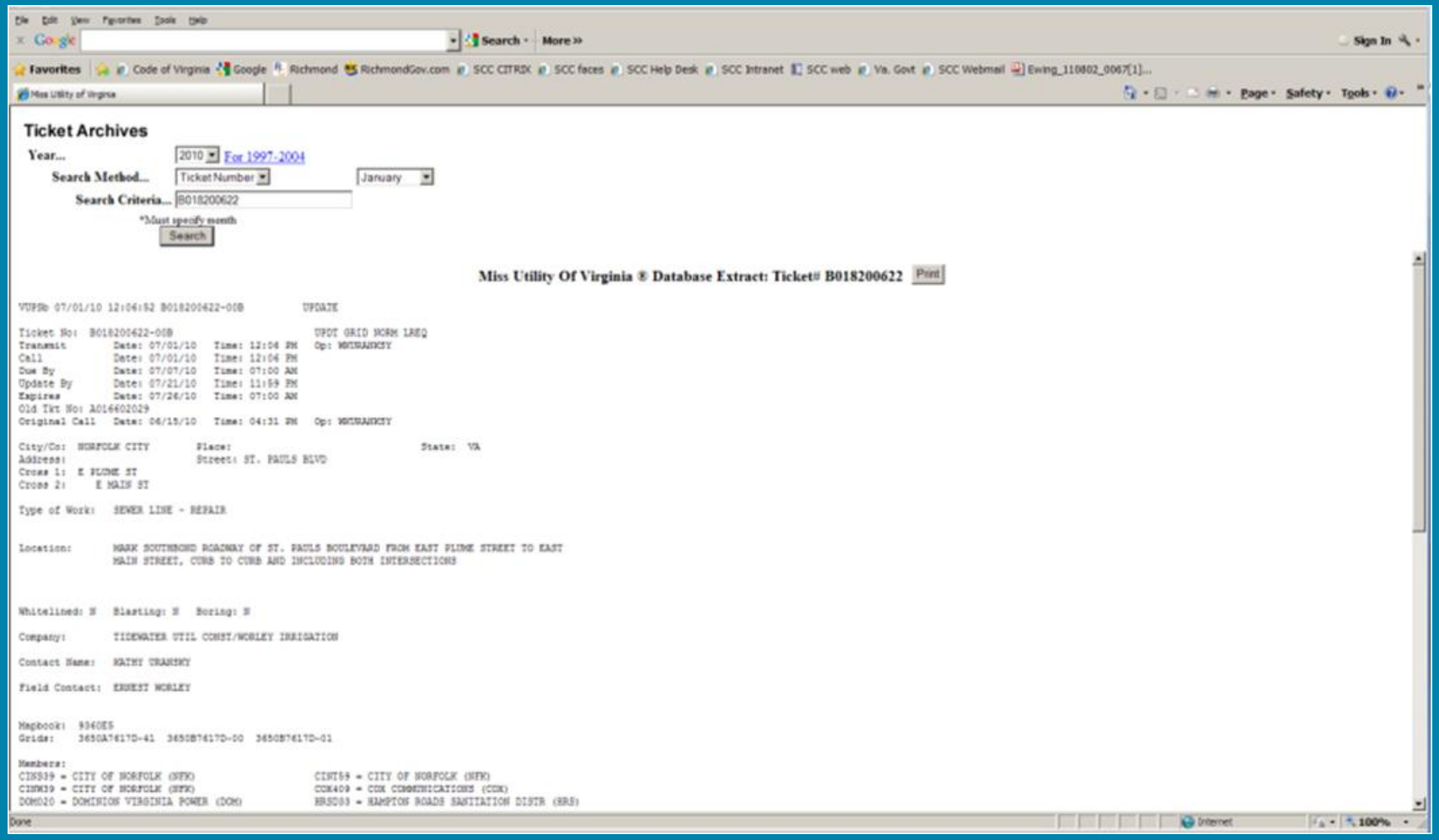


# Risk-Based Inspection of Active Tickets Mapping View

# Flags Hyperlink Directly to Ticket Archives for Additional Information



Ticket Archives

Year... 2010 For 1997-2004

Search Method... Ticket Number January

Search Criteria... B018200622

*Must specify month

Search

Miss Utility Of Virginia ® Database Extract: Ticket# B018200622 Print

```
VUPSb 07/01/10 12:06:52 B018200622-00B          UPDATE

Ticket No:  B018200622-00B                       UPDT GRID NORM LREQ
Transmit        Date: 07/01/10   Time: 12:06 PM  Op: WKURANSKY
Call            Date: 07/01/10   Time: 12:06 PM
Due By          Date: 07/07/10   Time: 07:00 AM
Update By       Date: 07/21/10   Time: 11:59 PM
Expires         Date: 07/26/10   Time: 07:00 AM
Old Tkt No: A016602029
Original Call   Date: 06/15/10   Time: 04:31 PM  Op: WKURANSKY

City/Co:  NORFOLK CITY        Place:                          State:  VA
Address:                      Street: ST. PAULS BLVD
Cross 1:  E PLUME ST
Cross 2:      E MAIN ST

Type of Work:   SEWER LINE - REPAIR


Location:       MARK SOUTHBOUND ROADWAY OF ST. PAULS BOULEVARD FROM EAST PLUME STREET TO EAST
                MAIN STREET, CURB TO CURB AND INCLUDING BOTH INTERSECTIONS


Whitelined: N   Blasting: N   Boring: N

Company:        TIDEWATER UTIL CONST/WORLEY IRRIGATION

Contact Name:   KATHY URANSKY

Field Contact:  ERNEST WORLEY


Mapbook:  9360E5
Grids:    3650A7617D-41  3650B7617D-00  3650B7617D-01

Members:
CIN539 - CITY OF NORFOLK (NFK)                  CIN559 - CITY OF NORFOLK (NFK)
CIN939 - CITY OF NORFOLK (NFK)                  COX409 - COX COMMUNICATIONS (COX)
DOM020 - DOMINION VIRGINIA POWER (DOM)          HRSD03 - HAMPTON ROADS SANITATION DISTR (HRS)
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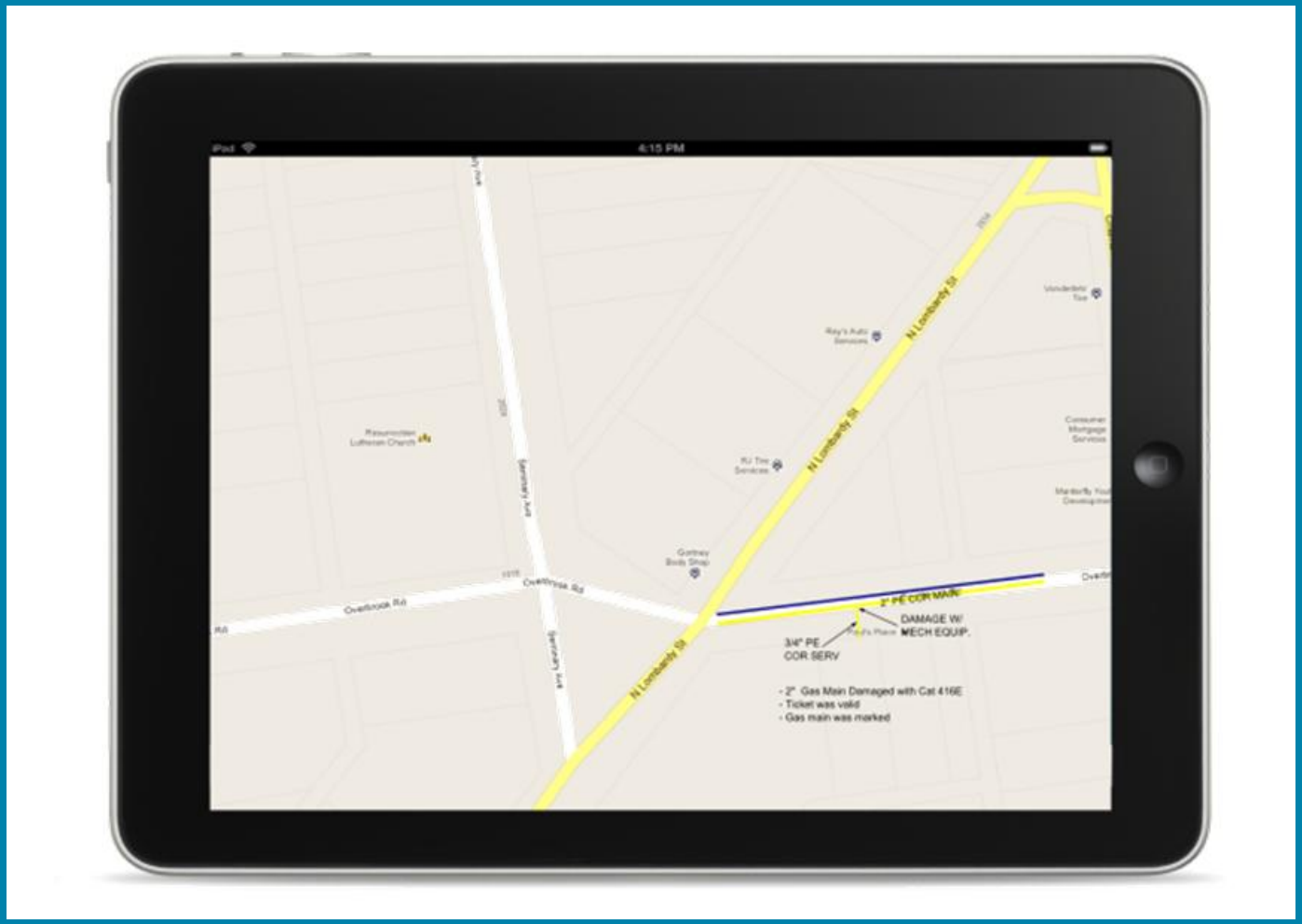
# Field Inspection Documentation Using iPads



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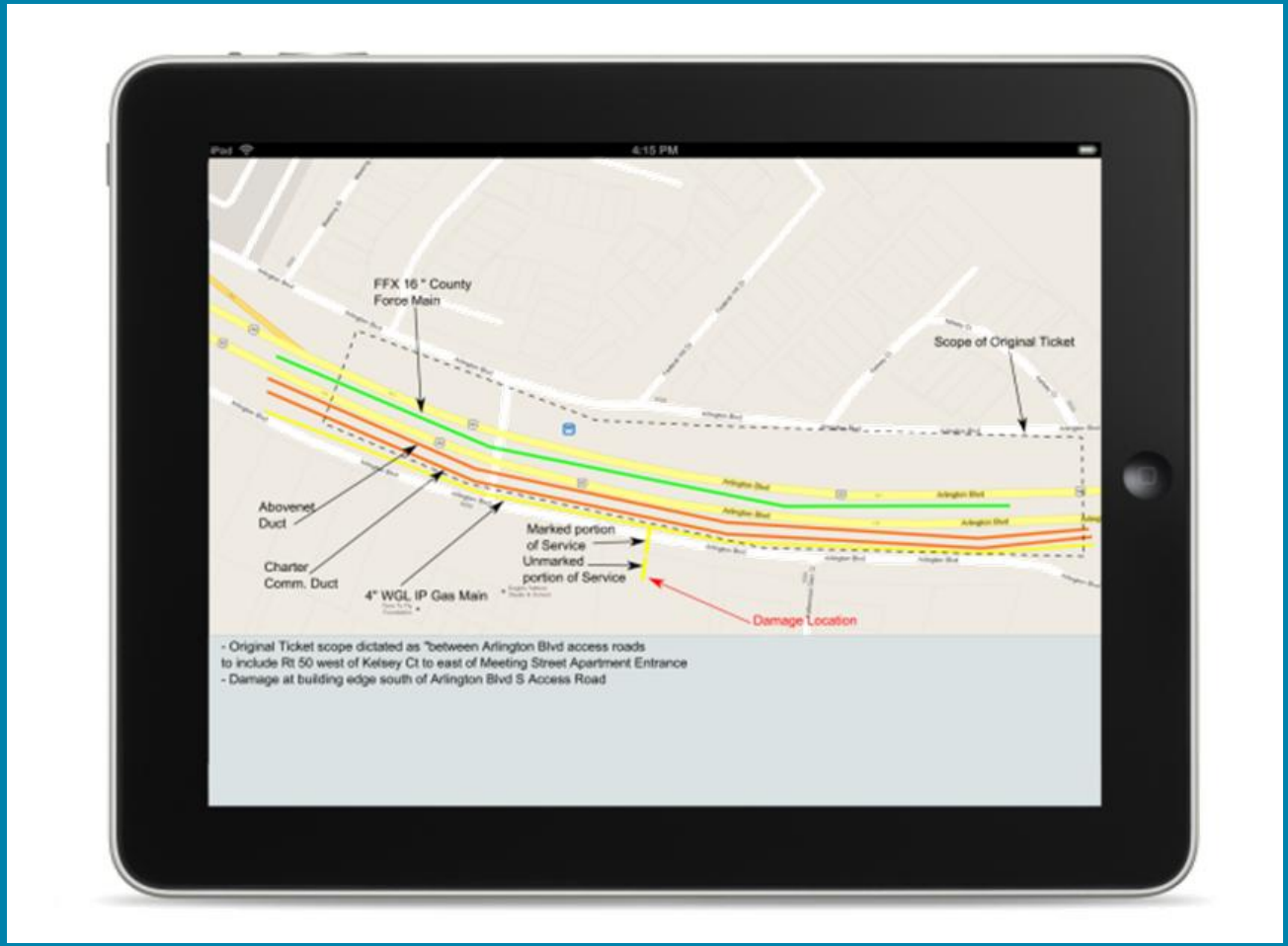

# Thank You