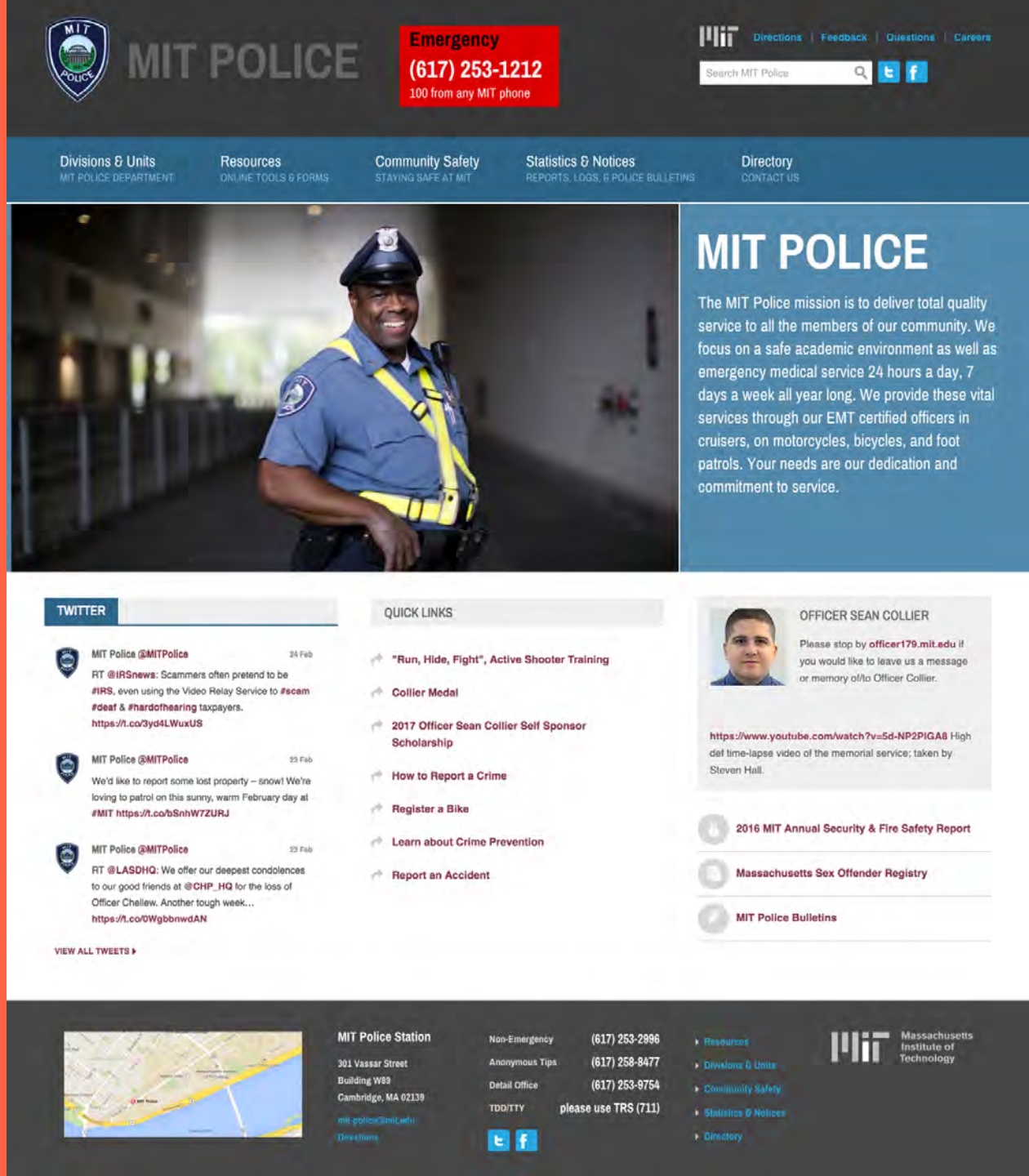


# POLICE.MIT.EDU USER EXPERIENCE AUDIT

## Content First

User Experience & Design

Muzi Meng  
Nancy Gift  
Jan De Wilde  
Ben Ferreira

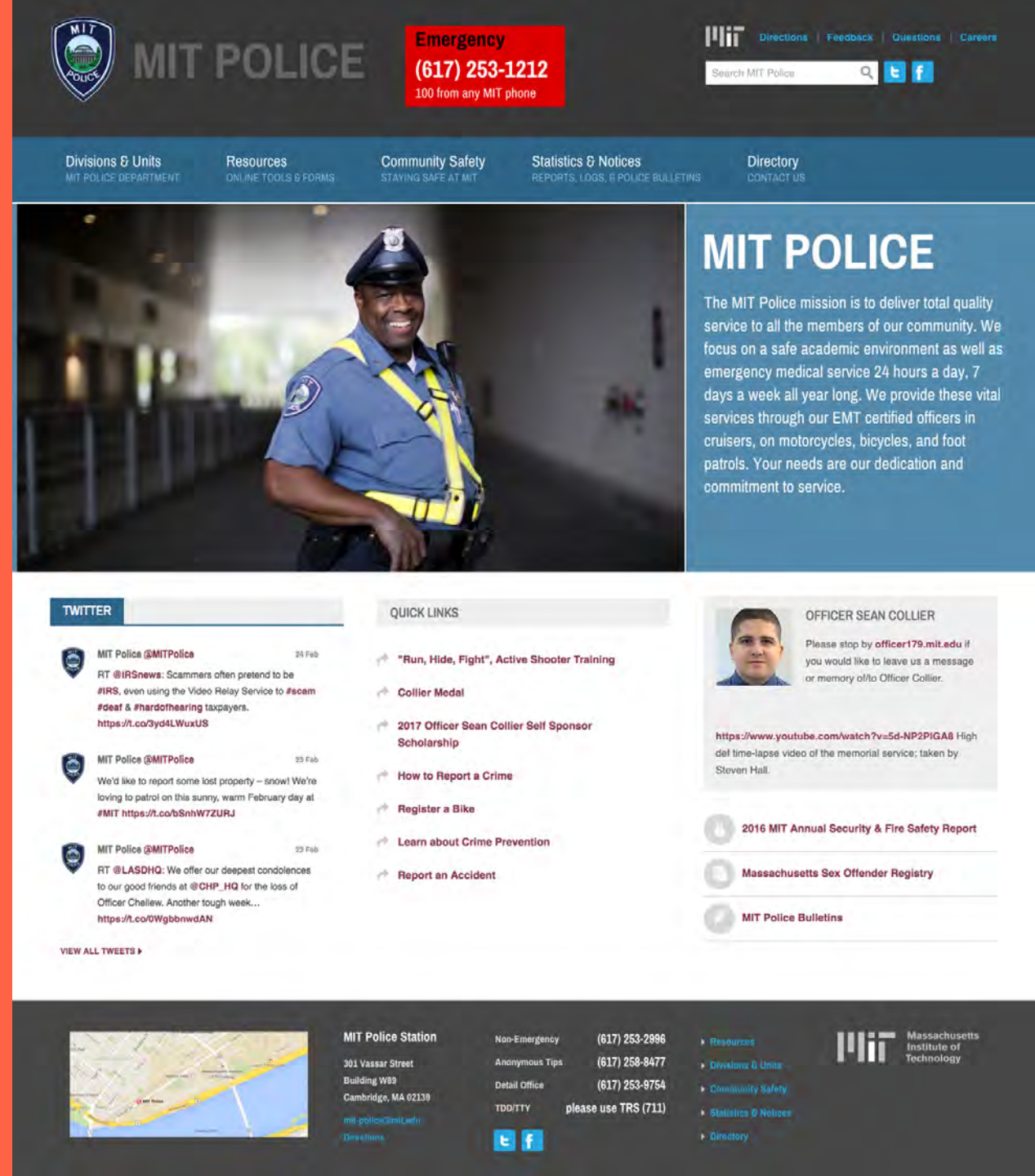


# REDESIGN vs REFACTOR

The scope of this deck is to share usability findings about specific aspects of the [police.mit.edu](http://police.mit.edu) website. Focusing on key areas of user interaction, content consumption and value creation.

An immediate improvement to the site will be noticed if these concerns are addressed:

1. How content is discovered.
2. Consistent designs applied site wide.



# WHAT WORKS

Briefly...

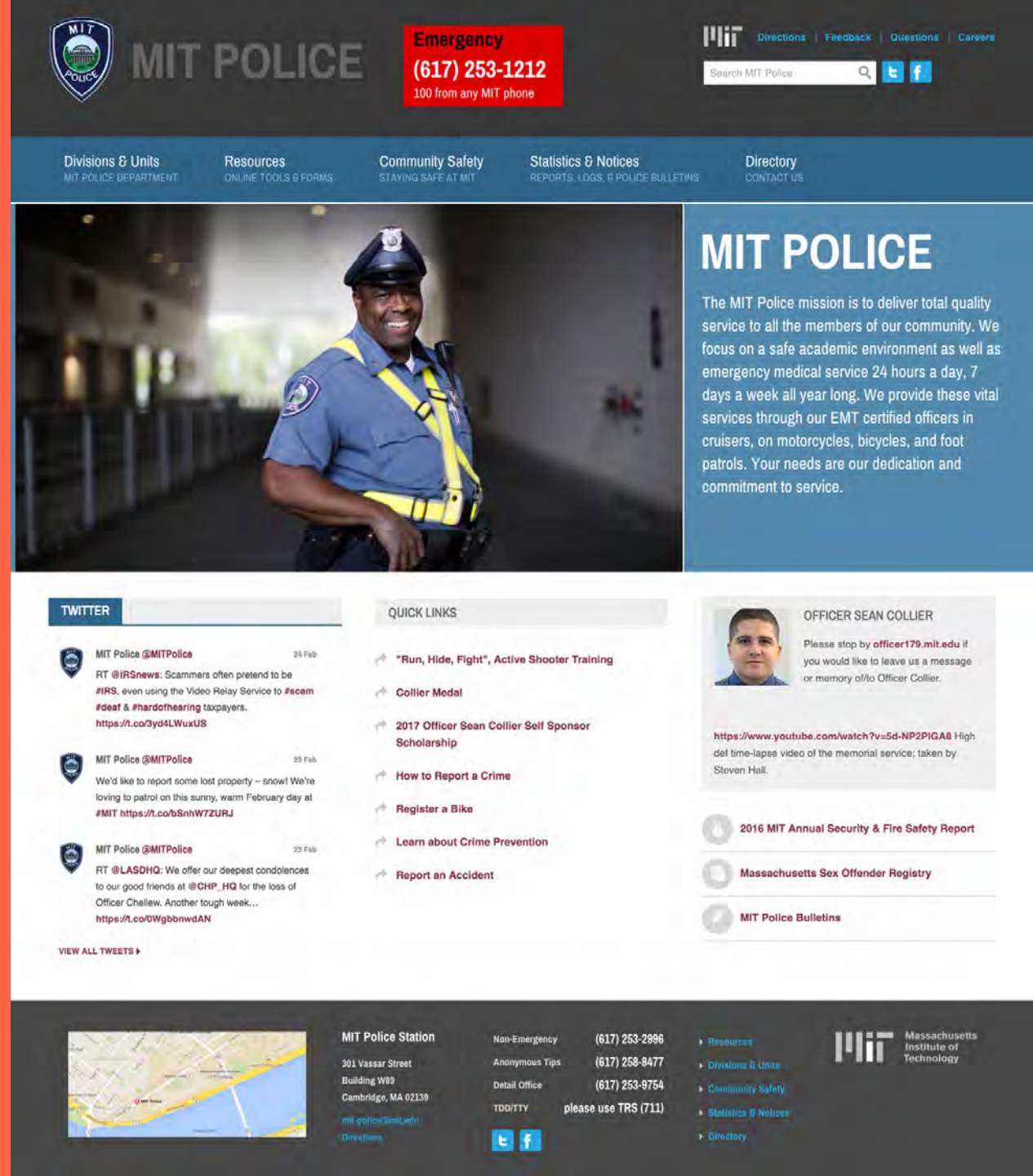
MIT Police Dept. has a distinctive brand. Colors, purpose, and helpful content is present.

Great brand photography adds a human face to the department.

Design still ties in with the parent MIT brand.

Works on many devices with responsive techniques.

Noted a few modern interface practices (2011+)



# WHAT DOESN'T WORK

## Briefly...

**Flow:** Content discovery is confusing. Link duplication doesn't fix the confusion, and only adds to the "choice overload."

**Structure:** Page content structure is not well defined. Placement of copy, images, and links are confusing. Discoverability of key items is obscured.

**Navigation:** A heavy reliance on linking between pages has the user bouncing around to find the desired content. Navigation is clunky.

The image shows a screenshot of the MIT Police website with several red dashed boxes and arrows pointing to specific areas of concern:

- Top Left:** A red dashed box highlights the MIT Police logo and the text "MIT POLICE".
- Top Right:** A red dashed box highlights the "Emergency (617) 253-1212" contact information.
- Navigation Bar:** A red dashed box highlights the navigation menu items: "Divisions & Units", "Resources", "Community Safety", "Statistics & Notices", and "Directory".
- Main Content Area:** A red dashed box highlights the "Wheeled Transportation Information" section, which includes links for "SafeRide Shuttle", "Safety Programs", "Wheeled Transportation Information", "Identify Theft Information", "Suspicious Activity", and "Off-Campus Resources".
- Right Column:** A red dashed box highlights the "WHEELED VIOLATIONS" section, which contains text about illegal parking and the operation of bicycles, roller skates, skateboards, etc.

Annotations include red arrows pointing from the text on the left to these specific areas on the website. A red dashed box also highlights a quote from the MIT Annual Safety and Security Report, 2016, page 10, which is cited in the "WHEELED VIOLATIONS" section.

# WHAT DOESN'T WORK Cont.

**Style:** Page style elements are inconsistent making it hard to differentiate certain elements from each other. Screen is filled but, useful content isn't present.

**Discoverability:** Confusing segmentation of content makes it hard to find out exactly which content the MIT Police think is a priority.

**Accessibility:** We tested the site for ease of use with screen readers and basic inclusive techniques. There are key issues that need to be addressed.

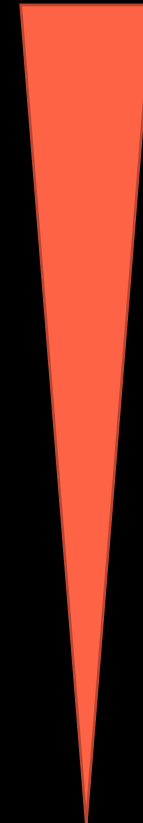
The screenshot shows the MIT Police website with several red dashed boxes and arrows pointing to specific areas:

- Top Left:** MIT POLICE logo and name.
- Top Right:** Emergency contact information: (617) 253-1212, 100 from any MIT phone.
- Navigation Bar:** Divisions & Units, Resources, Community Safety, Statistics & Notices, Directory.
- Main Content Area:** Wheeled Transportation Information.
- Left Sidebar:** SafeRide Shuttle, Safety Programs, Wheeled Transportation Information, Identify Theft Information, Suspicious Activity, Off-Campus Resources.
- Right Content Area:** From the MIT Annual Safety and Security Report, 2016, page 10. WHEELED VIOLATIONS. Bicycles found illegally parked or attached to stairway handrails will be removed by the MIT Parking Department. In order to obtain the release of your bike, you will have to go to MIT Parking and pay a fine of \$50.00. MIT is not responsible for damage to, or the theft/loss of, your bike or lock. The operation of bicycles, roller skates (including inline), skateboards, or any other form of wheeled transportation is prohibited, with the exception of medical mobile equipment, such as wheelchairs and scooters, in Institute Square. Violators will be fined. A fine will be imposed. As a cyclist it is your responsibility to know the rules of the road.
- Bottom:** The following is a summary of Massachusetts General Laws and Cambridge ordinances concerning bicycles. Click here to read the bicycle laws <http://www.bostonbikes.org/resources/bike-laws/>. 1. All bicyclist must obey all traffic laws of the Commonwealth of Massachusetts including *riding on sidewalks and riding with traffic.*

# Recommendations

- 1. Clean up the header section of the site:** Refine top header to take up less vertical space and transition smoothly. At the same time address accessibility concerns.
- 2. Refactor Navigation Patterns:** Make your page content easier to discover. Refine existing navigation to be more easy to use and address accessibility concerns.
- 3. Make images matter on the page:** Make sure the right image is used for the story told on a page. Reduce amount of visual space images use while increasing their utility and delight.
- 4. Make page structure more natural to read:** Structure pages with clear calls to action and purpose. The layout needs to drive users to their goals with the least amount of distraction possible.
- 5. Refine the design:** Refine the design to reflect a more consistent aesthetic that represents MIT's finest in uniform to the community.

Fastest to  
Impact



Slowest to  
Impact

# FLOW

**Wayfinding the site:** The Home page acts as the first place for content discovery. It is observed that the navigation, links, and calls to action on a page do not guarantee easy access sitewide.

**Sitewide but important on homepage:** The header, tab row and large images are overwhelming at first glance. Content is pushed off the screen (below the fold).

**At the page level:** While navigating to specific Nav items, the page that loads tends to be sparse. When a destination page is filled with content, its structure is “airy,” that is low density content. Pages then become small chunks of quickly consumed content, at times leading the user to click elsewhere to discover more relevant content. (see Bike Registration example)



MIT POLICE

Emergency

(617) 253-1212

100 from any MIT phone

Divisions & Units

MIT POLICE DEPARTMENT

Resources

ONLINE TOOLS & FORMS

Community Safety

STAYING SAFE AT MIT

Statistics

REPORTS,

## Special Services Division

Chief's Welcome

Patrol Division

Special Services Division

Investigation Unit

Executive Protection Unit

Crime Prevention Unit

Administrative Division

Honor Guard

Department History

The Special Services Division encompasses two units that carry out the investigatory functions of the division, including conducting preliminary and follow-up investigations. The units cooperate with other law enforcement agencies in the community and provides MIT community members with procedural assistance. The Special Services Division is responsible for investigating sensitive crimes, including sexual harassment.

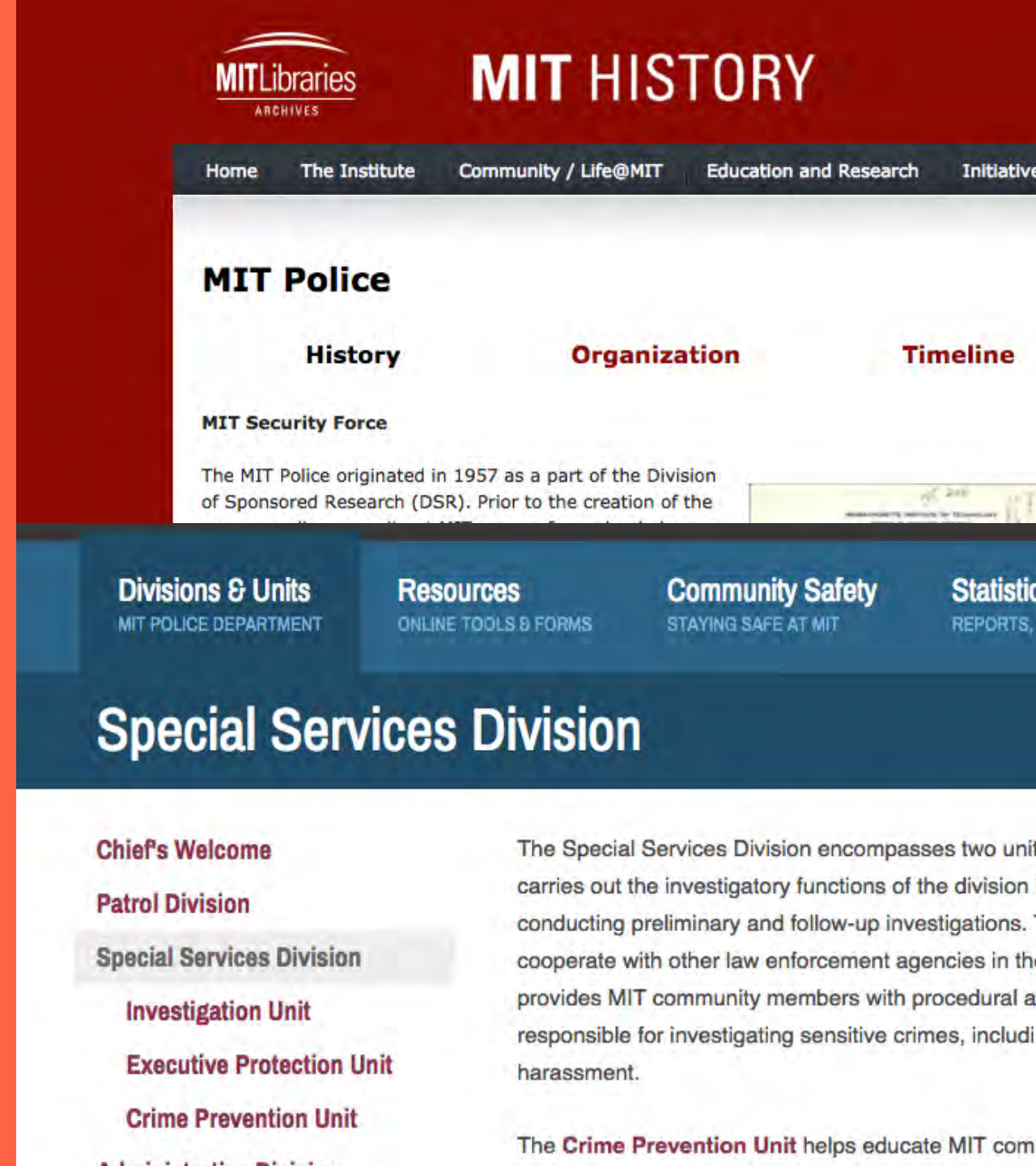
The **Crime Prevention Unit** helps educate MIT community members and themselves.

# FLOW

**External links abound:** Many categorically important links are external. In some cases this may be unavoidable given MIT's silos, but from a visitor's perspective it leaves a negative impression .

**How content is consumed:** The site uses a traditional front-page > linking Mega Menu Nav > page > sub-page drill down. The current template structure requires a lot of click-thru to discover the contents of each section. Each Nav item is a category or topic, with unclear distinction.

We found that content discovery happens not at the NAV dropdown, but instead an errant click down into a Nav Link. A quick perusal then a click back either in the Nav or the sub-nav present at each page. This duplication, while designed as an affordance, exposes a lack of clarity in site organization.





# STRUCTURE

**Parts of the page:** While the content model is logical, the over reliance on small pages as the main consumable item (the thing being read) creates small chunks of disconnected content, hurting discovery.

**Clarity issues:** Content structure is hard to understand, partly due to how many clicks it takes to find content.

The screenshot displays the MIT Police website's 'Administrative Division' page. At the top left is the MIT Police logo. To its right is a red emergency contact box with the number (617) 253-1212 and the note '100 from any MIT phone'. Further right is the MIT logo and navigation links for Directions, Feedback, Questions, and Careers. A search bar labeled 'Search MIT Police' and social media icons for Twitter and Facebook are also present. Below this is a blue navigation bar with links for Divisions & Units, Resources, Community Safety, Statistics & Notices, and Directory. The main content area features a list of divisions on the left, with 'Administrative Division' highlighted, and a corresponding text block on the right. The footer contains a map of the MIT Police Station, contact information for the station, a list of phone numbers for various services, and the MIT logo.

**MIT POLICE**  
**Emergency**  
**(617) 253-1212**  
100 from any MIT phone

MIT Directions Feedback Questions Careers

Search MIT Police

Divisions & Units  
MIT POLICE DEPARTMENT

Resources  
ONLINE TOOLS & FORMS

Community Safety  
STAYING SAFE AT MIT

Statistics & Notices  
REPORTS, LOGS, & POLICE BULLETINS

Directory  
CONTACT US

## Administrative Division

**Chief's Welcome** Captain Cheryl Vossmer oversees the Administrative Division, which is responsible for maintaining the department's records, personnel files, payroll, licensing and information technology.

**Patrol Division**

**Special Services Division** Judith Freeman, the Manager of Finance and Administration, oversees the department budget. Jan Barca, the Financial Assistant, works with Judith and processes the weekly payroll and department purchases.

**Administrative Division**

**Honor Guard**

**Department History**

**MIT Police Station**  
301 Vassar Street  
Building W89  
Cambridge, MA 02139  
[mit-police@mit.edu](mailto:mit-police@mit.edu)  
[Directions](#)

Non-Emergency (617) 253-2996  
Anonymous Tips (617) 258-8477  
Detail Office (617) 253-9754  
TDD/TTY please use TRS (711)

MIT Massachusetts Institute of Technology

# STRUCTURE cont.

**Parts of the page:** While the content model is logical, the over reliance on small pages as the main consumable item (the thing being read) creates small chunks of disconnected content, hurting discovery.

**Clarity issues:** Content structure is hard to understand, partly due to how many clicks it takes to find content.

The screenshot shows the MIT Police website with several red dashed boxes and arrows highlighting specific content elements:

- MIT POLICE** logo and name at the top left.
- Emergency (617) 253-1212** contact information at the top right.
- Search MIT Police** input field at the top right.
- Divisions & Units**, **Resources**, **Community Safety**, **Statistics & Notices**, and **Directory** navigation menu items.
- Wheeled Transportation Information** section header.
- Safety Programs** sub-section with a list of links: **Wheeled Transportation Information**, **Identify Theft Information**, **Suspicious Activity**, and **Off-Campus Resources**.
- From the MIT Annual Safety and Security Report, 2016, page 10.** citation.
- WHEELED VIOLATIONS** section with text: "Bicycles found illegally parked or attached to stairway handrails will be removed by the MIT Parking Department. In order to obtain the release of your bike, you will have to go to MIT Parking and Transportation Services, pay a fine of \$50.00. MIT is not responsible for damage to, or the theft/loss of, your bike or lock."
- The operation of bicycles, roller skates (including inline), skateboards, or any other form of wheeled transportation is prohibited, with the exception of medical mobile equipment, such as wheelchairs and scooters, in Institute Square. Violators will be fined. A fine will be imposed.**
- As a cyclist it is your responsibility to know the rules of the road.**
- The following is a summary of Massachusetts General Laws and Cambridge ordinances concerning bicycles. Click here to read the bicycle laws <http://www.bostonbikes.org/resources/bike-laws/>**
- 1. All bicyclist must obey all traffic laws of the Commonwealth of Massachusetts including *riding on sidewalks and riding with traffic.***

# NAVIGATION

## Main Navigation with Dropdown:

Collapses on mobile to a dropdown triggered by a hamburger style button. Some main pages are not accessible on mobile viewports.

**Top Utility Nav:** Gone on mobile, the search bar constrains itself to the Main Nav (doesn't work in iOS 10), MIT logo and Utility Nav which go to low information pages. This creates an over-abundance of click steps.



# NAVIGATION

**Footer Nav Utility:** Besides a benign map image that is a link to the directions link, the footer serves its purpose of looping user thru the site. This is necessary to help lost users find their way back into the flow. The fact that key phone numbers are here is good. But it feels lost around the many other links and details. We suggest keeping the footer focused on directions and emergency contacts.

The screenshot displays the footer of the MIT Police website. At the top left is the MIT Police logo. To its right is a red emergency contact box with the text: "Emergency (617) 253-1212 100 from any MIT phone". Below this is a search bar labeled "Search MIT Police" with a magnifying glass icon. A blue banner with the text "Crime Prevention" and a background image of a police car is positioned below the search bar. Underneath the banner is a paragraph defining crime prevention: "Crime prevention is defined as 'the anticipation, the recognition, and the appraisal of a crime risk and the initiation of action to remove or reduce it.'" It continues: "Crime prevention is a proactive strategy designed to eliminate or minimize criminal opportunities before a crime actually occurs." Below this text is the heading "At Work:". On the right side of the footer, there is a white box with two bullet points: "Store this information in a safe place that is quickly accessible if the items are stolen." and "Report suspicious people any hour of the day to the MIT Police at 100 or 3-1212". Below this is a map of the MIT Police Station area. Under the map is the heading "MIT Police Station" followed by the address "301 Vassar Street Building W89 Cambridge, MA 02139". There are social media icons for Twitter and Facebook. Below the address is the email "mit-police@mit.edu" and a "Directions" link. At the bottom right, there are two phone numbers: "Non-Emergency (617) 253-2996" and "Anonymous Tips (617) 258-8477".

Fig. 1

# NAVIGATION

**Footer Nav Utility:** Besides a benign map image that is a link to the directions link, the footer serves its purpose of looping user thru the site. This is necessary to help lost users find their way back into the flow. The fact that key phone numbers are here is good. But it feels lost around the many other links and details. We suggest keeping the footer focused on directions and emergency contacts.

The screenshot displays the MIT Police website with a blue header and a white main content area. At the top left is a large image of a police officer. To the right is the 'MIT POLICE' title and a mission statement. Below the header, there are sections for 'TWITTER' (with three tweets), 'QUICK LINKS' (with links like 'Run, Hide, Fight', 'Collier Medal', etc.), and a profile for 'OFFICER SEAN COLLIER'. The footer contains a map of the MIT Police Station, contact numbers for non-emergency and emergency services, and various utility links like 'Resources', 'Divisions & Units', and 'Directory'. The MIT logo is in the bottom right corner.

Fig. 2

# NAVIGATION

**Side Nav within Content Pages:** Added as a secondary method of accessing different content pages, it is constrained to specific page category and changes based on the user's current location. In practice it acts as a band aid to solve the problem of fragmented content.

The screenshot displays the MIT Police website interface. At the top left is the MIT Police logo. To its right is a red emergency button with the text: "Emergency (617) 253-1212 100 from any MIT phone". Further right is the MIT logo and a navigation menu with links for "Directions", "Feedback", "Questions", and "Careers". Below this is a search bar labeled "Search MIT Police" and social media icons for Twitter and Facebook.

A horizontal navigation bar contains five categories: "Divisions & Units" (MIT POLICE DEPARTMENT), "Resources" (ONLINE TOOLS & FORMS), "Community Safety" (STAYING SAFE AT MIT), "Statistics & Notices" (REPORTS, LOGS, & POLICE BULLETINS), and "Directory" (CONTACT US).

The main content area is titled "Administrative Division". It features a list of links on the left: "Chief's Welcome", "Patrol Division", "Special Services Division", "Administrative Division" (highlighted), "Honor Guard", and "Department History". To the right of these links is a paragraph of text: "Captain Cheryl Vossmer oversees the Administrative Division, which is responsible for maintaining the department's records, personnel files, payroll, licensing and information technology." Below this is another paragraph: "Judith Freeman, the Manager of Finance and Administration, oversees the department budget. Jan Barca, the Financial Assistant, works with Judith and processes the weekly payroll and department purchases."

The footer section includes a map of the MIT Police Station location, contact information for the station (301 Vassar Street, Building W89, Cambridge, MA 02139), email (mit-police@mit.edu), and a "Directions" link. It also lists phone numbers for Non-Emergency (617) 253-2996, Anonymous Tips (617) 258-8477, and Detail Office (617) 253-9754, along with TDD/TTY instructions (please use TRS (711)). Social media icons for Twitter and Facebook are present, along with the MIT logo and "Massachusetts Institute of Technology" text.

# STYLE

**Overall:** Branding is effective, but its presentation has issues.

## Inconsistencies noted:

1. Header and Footers
2. Alignment of page elements
3. Color and contrast
4. Icons
5. Links in content
6. Bullets and numbering
7. Gallery Formats
8. Image placements

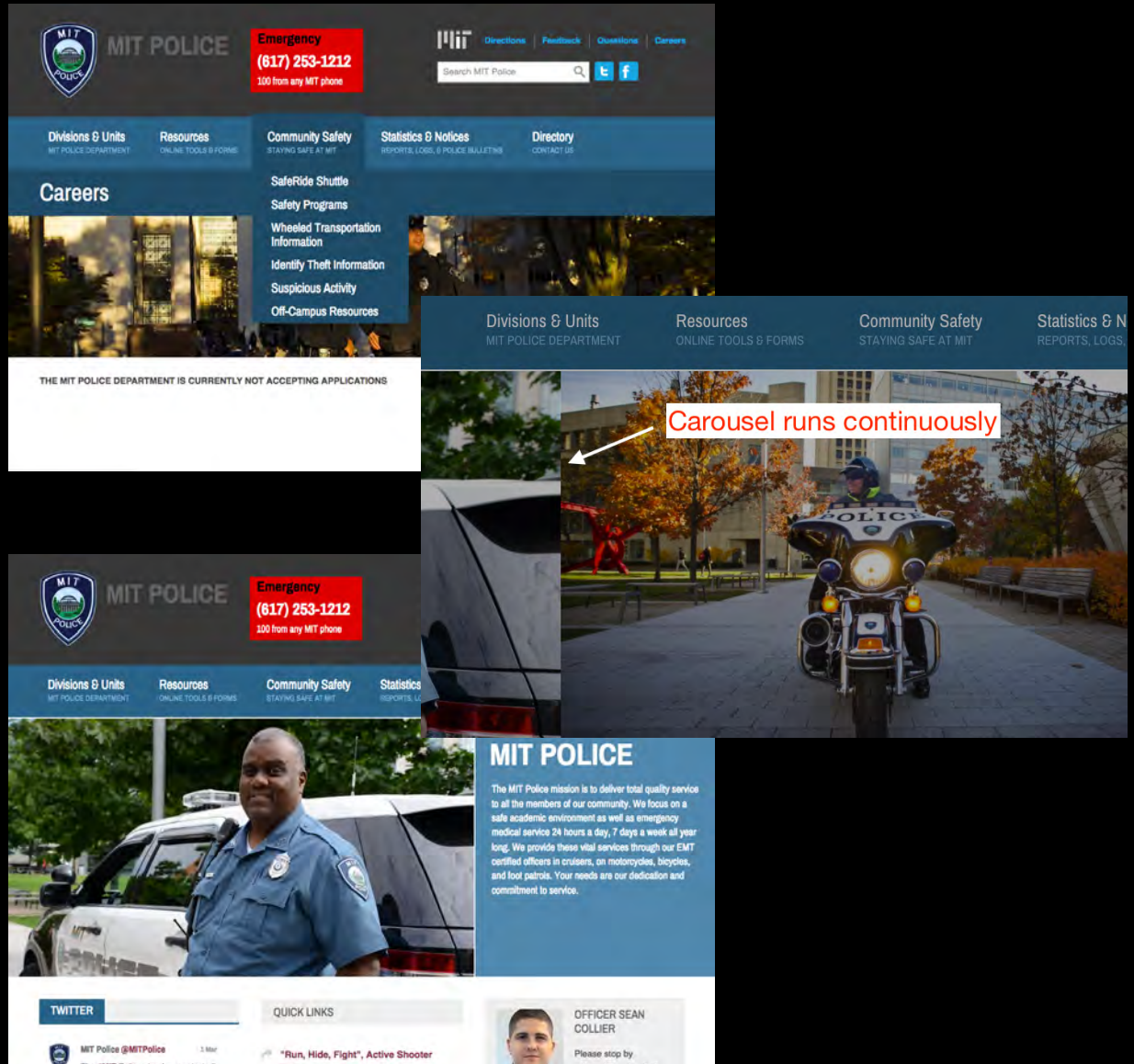
The image shows a screenshot of the MIT Police website with several red dashed boxes highlighting specific areas of concern:

- Header:** The MIT logo and 'MIT POLICE' text are present. An emergency contact box displays '(617) 253-1212' and '100 from any MIT phone'. Navigation links for 'Directions', 'Feedback', 'Questions', and 'Careers' are visible, along with a search bar and social media icons.
- Main Content:** A paragraph describes the 'Patrol Operations' and 'Special Services Division'. A red dashed box highlights the text 'Investigations and crime prevention'.
- Section Header:** A section titled 'When You Are Walking:' contains a list of safety tips, such as 'Body language counts! Walk with confidence.' and 'Do not wear headphones or ear buds.' A red dashed box highlights the first two items.
- Footer:** A list of links is shown, including '2016 MIT Annual Security & Fire Safety Report', 'Massachusetts Sex Offender Registry', and 'MIT Police Bulletins'. A red dashed box highlights the first two links.
- Image:** A photograph of a police car with flashing lights is shown. A red dashed box highlights the image.
- Twitter Feed:** A section titled 'TWITTER' shows three tweets from @MITPolice, including a weather forecast and a historical photo. A red dashed box highlights the entire section.

# STYLE

**Images without purpose:** The way images are used distracts from the quality of the images themselves.

**Carousel animation of 10 images is distracting:** While it is possible to stop the animation by manually clicking on the image a couple of times, but there is no affordance for this functionality. On small screens viewing site images push content off screen.





# ACCESSIBILITY

**Endless Loops for screen readers:** Many of the elements on the page don't have the basic accessibility affordances. Some elements force the user into a loop.

**Screen Reader accessing unseen content:** Parts of the navigation are accessed on collapse. Which may or may not be intended, but may add many of steps to the consumption of the main content of the page.



# ACCESSIBILITY

**Color Contrasts:** White on blue font appears too condensed; difficult to read. Reverse text fuzziness (halation) is an issue for 50% of the population. Legibility is poor for gray text on gray background, blue text on gray background, and on the areas with blue text on blue background.

OpenAjax Accessibility Extension

All Rules Views

69 Percent Passed 55 Violations  
72 Manual Checks 1 Warning

Rule Result Details

Rule	L	Req.	V/:	MC	P	EQ
Content must be within landmark	A	Yes	30	0	6	
Text must exceed CCR of 4.5	AA	Yes	12	5	34	
Layout tables use ROLE="PRESENT...	A	Yes	5	0	0	
Link text must be unique	A	Yes	5	0	4	
Link text must be descriptive	A	Yes	2	24	0	
Image button must have alt content	A	Yes	1	0	0	
H1 should be in MAIN landmark	AA	No	1	0	0	

79 offscreen elements

(617) 253-1212  
100 from any MIT phone

Directions Feedback Questions Careers

Search MIT Police

Divisions & Units  
MIT POLICE DEPARTMENT

Resources  
ONLINE TOOLS & FORMS

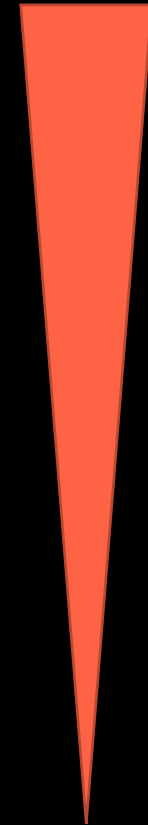
Community Safety  
STAYING SAFE AT MIT

Statistics & Notices  
REPORTS, LOGS, & POLICE BULLETINS

# RECOMENDATIONS

- 1. Clean up the header section of the site:** Refine top header to take up less vertical space and transition smoothly, At the same time address accessibility concerns.
- 2. Refactor Navigation Patterns:** Make your page content easier to discover. Refine existing navigation to be more easy to use and address accessibility concerns.
- 3. Make images matter on the page:** Make sure the right image is used for the story told on a page. Reduce amount of visual space images use while increasing their utility and delight.
- 4. Make page structure more natural to read:** Structure pages with clear calls to action and purpose. The layout needs to drive users to their goals with the least amount of distraction possible.
- 5. Refine the design:** Refine the design to reflect a more consistent aesthetic that represents MIT's finest in uniform to the community.

Fastest to  
Impact



Slowest to  
Impact

# FLOW

## Site Architecture (Site Map):

```
police.mit.edu
|
| {{ Main Nav }}
|- divisions-units [no show mobile]
|   |- chiefs-welcome
|   |- patrol-division
|   |- special-services-division
|     |- investigation-unit
|     |- executive-protection-unit
|     |- crime-prevention-unit
|   |- administrative-division
|   |- honor-guard
|   |- history [broken]
|
|- resources [no show mobile]
|   |- report-crime-or-accident
|   |- bike-registration
|   |- clery-offense-reporting-information-and-
|     reporting-forms
|   |- event-detail [url?]
|   |- fingerprinting-service
|   |- anonymous-sexual-assault-form
|   |- criminal-history-request-cori
|   |- sexual-offender-registry
|
```

```
|- crime-prevention (Community Safety)
  [no show mobile]
|   |- saferide
|   |- safety-programs
|   |- wheeled-transportation-information
|   |- identify-theft-information
|   |- suspicious-activity
|   |- campus-resources
|
|- statistics-notice [no show mobile]
|   |- annual-safety-report
|   |- sean-collier-self-sponsor-scholarship
|   |- police-logs
|   |- police-bulletins* [date sensitive content]
|
|- mit-police-directory
|
```

```
| {{ Secondary Utility Nav }}
|- directions
|- feedback
|- questions
|- careers
|
| {{ Quick Links }}
|- Run, Hide, Fight, Active Shooter Training [external]
|- Collier Medal [non nav accessible]
|- 2017 Officer Sean Collier Self Sponsor
  Scholarship [non nav accessible]
|- How to Report a Crime [Nav accessible]
|- Register a Bike [Nav accessible]
|- Learn about Crime Prevention [Nav accessible]
|- Report an Accident [Nav accessible]
```