

# Mt. Lebanon Traffic Safety Session

By:

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# Agenda

- **Pedestrian Accommodation**
  - Different types.
  - Examples within Mt. Lebanon.
- **Crosswalks**
  - PennDOT District 11 preference.
  - Crosswalk timing.
  - Signage.
- **Traffic Signal Timing**
  - Isolated signals
  - Synchronized signal systems.
- **New Signal Technology**
  - Adaptive signals.
  - Vehicle detection technology.
  - Enhancement to pedestrian safety.
- **Questions**



# ▶ Pedestrian Accommodation

Three different types:

- **Exclusive Movement**

- S.R. 19 (Washington Road) at Bower Hill Road.
- Safest for pedestrian movement.

- **Advance Movement**

- S.R. 19 (Washington Road) at Central Square.
- 3 to 5 seconds advance before lights turn green.

- **Concurrent Movement**

- Most common in most municipalities.
- "Walk" time is same as green light in same direction.

# ▶ Crosswalks

## “Ladder-Style” Crosswalks

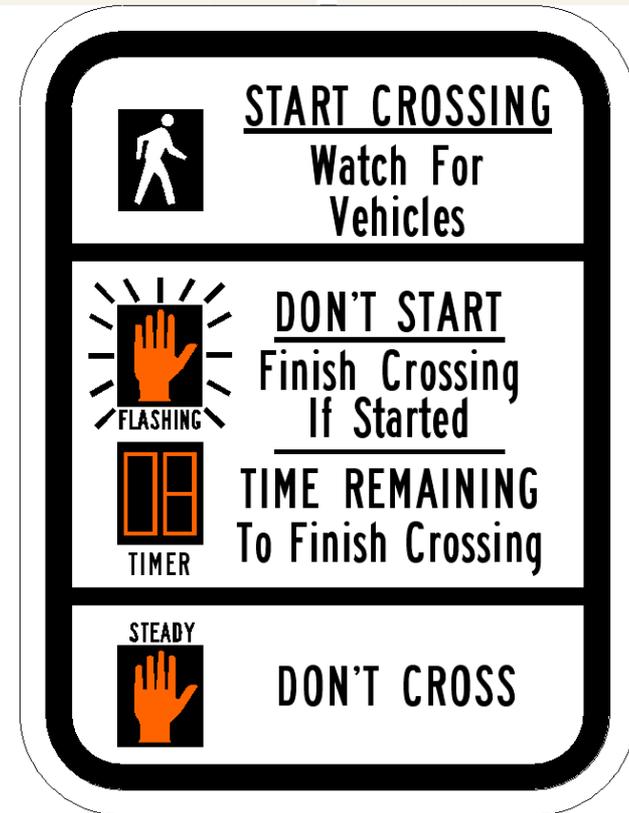


## “Piano-Style” Crosswalks-Preferred



# Crosswalk Timing

## Countdown Timers



# ➤ Crosswalk Signage

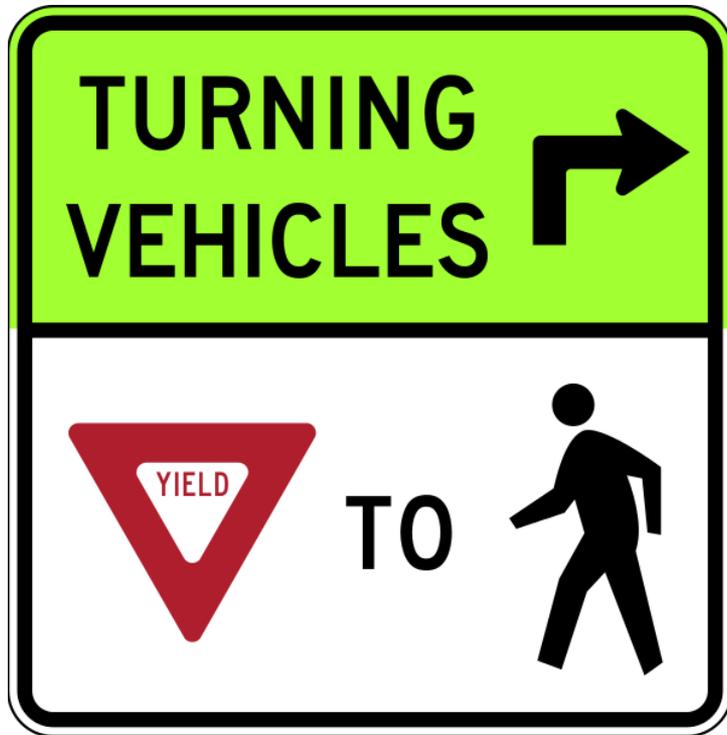
## In-street Crossing Sign



- Placed at mid-block locations.
- PennDOT approval required.
- Roadways with speeds no more than 35 mph.
- Placement should not affect turning radius.
- Drivers must legally yield right-of-way.

# ➤ Crosswalk Signage

## Turning Vehicles Yield Sign



- Where right turns on red are permitted.
- Where crosswalks are clearly marked.
- Installed on a post.
- Drivers must legally yield to pedestrians.

# Signal Technology

- **Synchronized/Coordinated Traffic Signals**
  - Pros and Cons.
  - Examples within District 11.
- **Adaptive Traffic Signals**
  - Examples within District 11.
  - How signals “adapt”.
- **Pedestrian Crosswalk Signals**
  - Rapid fire signal in Mt. Lebanon.



# Signal Technology

## Synchronized Signals



- Effective in CBDs
  - Forbes Ave near Pitt.
- Benefit:
  - Traffic on main road keeps moving.
- Disadvantage:
  - Side streets are delayed.

# Signal Technology

## Adaptive Signals



- Used in congested corridors
  - Green time adjusts to traffic volume.
  - CMU pilot in Oakland/Shadyside on Baum and Center Boulevards.
- Benefits:
  - Distributes green time evenly for all approaches
  - Cuts down on congestion
- Disadvantage:
  - Initial cost may be high depending on existing infrastructure.

# Signal Technology

## Rapid Fire Pedestrian Beacons



- Increases driver awareness
  - Recently approved in PA.
  - Few in District 11.
  - Adjustable warning time.
- Benefits:
  - Effective in increasing driver yielding rates.

\*Education is critical.

# Signal Technology

## In-roadway Lights



- May be used with the Rapid Fire System.
- Recently approved in PA.
- Installed at marked mid-block crosswalks.
- Snow plowable.
- Effective in increasing driver yielding rates.
- Strategic placement is key.



**THANK YOU**

**Questions?**