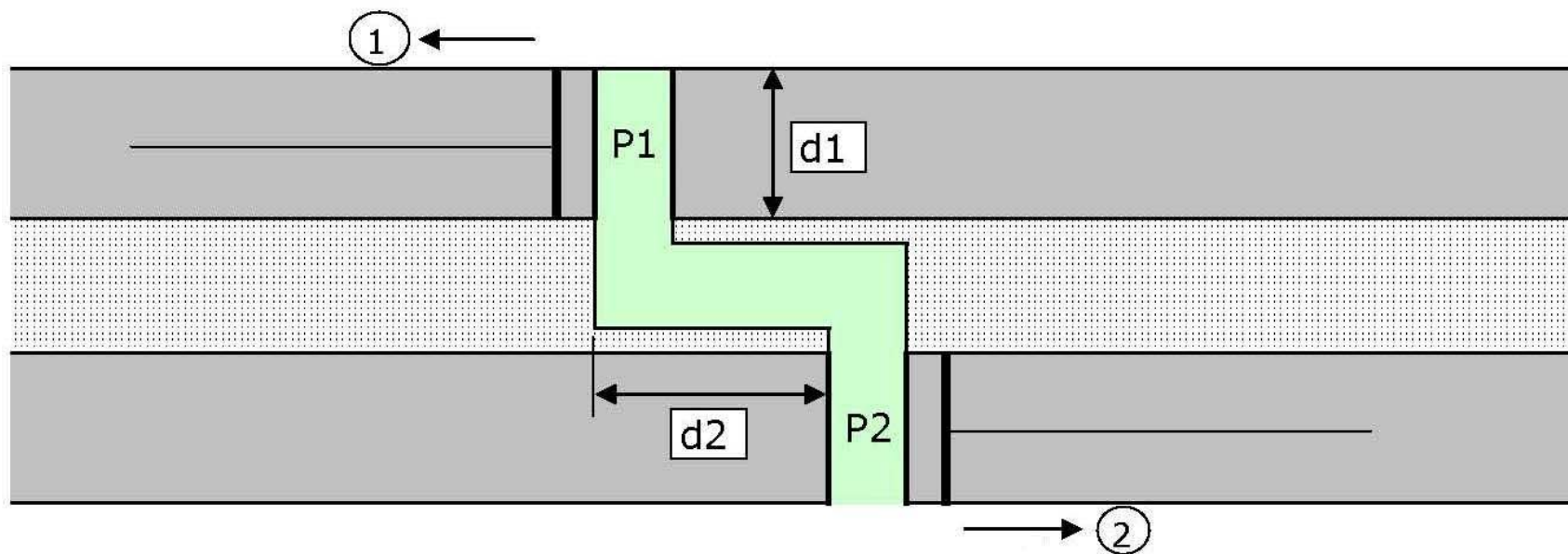


# The SIMPED Crossing

Presented By: Bill Sissons

# SIMPED Crossing Layout

Staggered Independent Midblock Pedestrian (SIMPED) Crossing



# SIMPED Crossing Features

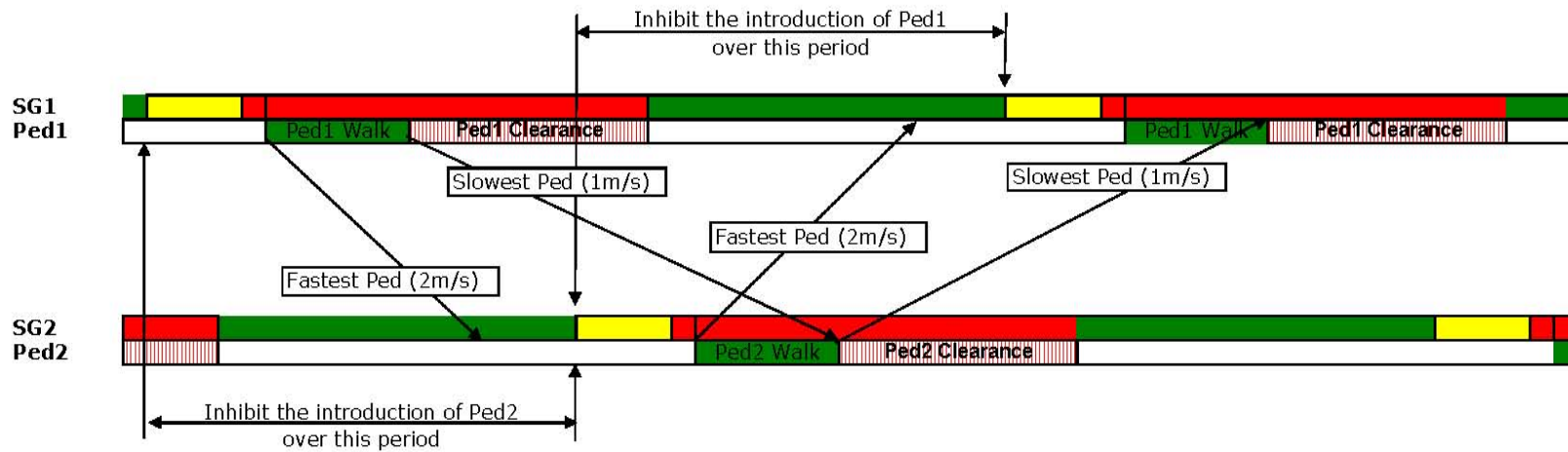
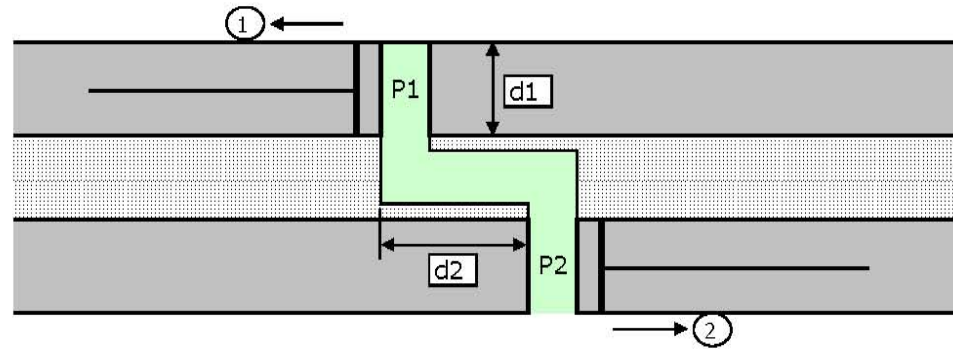
1. Independent Crossing Operation -  
The two crossings can operate completely independently of each other, if allowed.

# SIMPED Crossing Features

## 2. Pedestrian Inhibit Feature -

The two crossings can operate with an inhibit facility whereby the second crossing is inhibited from being introduced until 'safe' to do so.

## Staggered Independent Midblock Pedestrian (SIMPED) Crossing Inhibit Operation



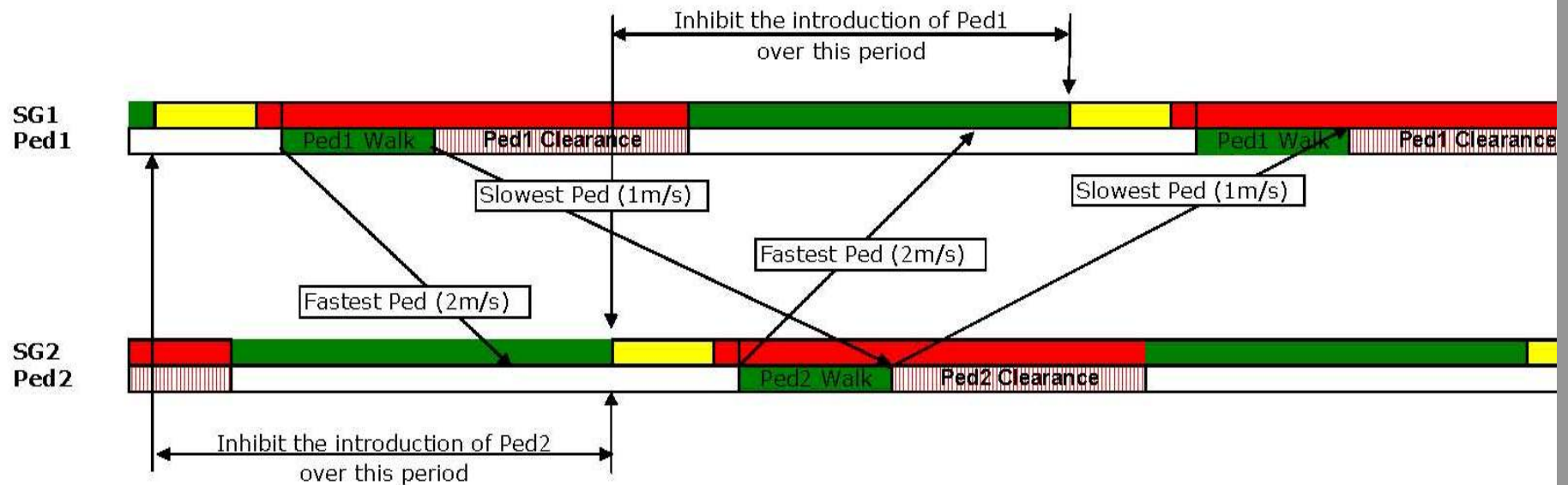
$$\begin{aligned}
 \text{Inhibit Time} &= \text{Yellow} + \text{Red} + \text{WK1}(\text{max}) + d1 + d2 - \text{WK2}(\text{min}) - \text{Red} - \text{Yellow} \\
 &= \text{WK1}(\text{max}) - \text{WK2}(\text{min}) + d1 + d2 \\
 &= 10 - 4 + d1 + d2 \\
 &= 6 + d1 + d2
 \end{aligned}$$

For example,  $d1 = 8\text{m}$  and  $d2 = 3\text{m}$ ,

$$\begin{aligned}
 \text{Inhibit Time} &= 6 + 8 + 3 \\
 &= 17\text{sec}
 \end{aligned}$$

So, when SG1 goes Yellow, SG2 is inhibited from terminating for 17 seconds

## Staggered Independent Midblock Pedestrian (SIMPED) Crossing Inhibit Operation



$$\begin{aligned}
 \text{Inhibit Time} &= \text{Yellow} + \text{Red} + \text{WK1}(\text{max}) + d1 + d2 - \text{WK2}(\text{min}) - \text{Red} - \text{Yellow} \\
 &= \text{WK1}(\text{max}) - \text{WK2}(\text{min}) + d1 + d2 \\
 &= 10 - 4 + d1 + d2 \\
 &= 6 + d1 + d2
 \end{aligned}$$

For example,  $d1 = 8\text{m}$  and  $d2 = 3\text{m}$ ,

$$\begin{aligned}
 \text{Inhibit Time} &= 6 + 8 + 3 \\
 &= 17\text{sec}
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So, when SG1 goes Yellow, SG2 is inhibited from terminating for 17 seconds

# SIMPED Crossing Features

## 3. Call-Ahead Feature -

An Auto Demand feature can be implemented whereby the demand for the first crossing from the kerbside button/pads will but an automatic Call-ahead demand for the second crossing after a preset delay time.

# SIMPED Crossing Features

## 4. WALK Extension -

The ped pads can be allowed to extend the WALK time up to a preset maximum value.

# SIMPED Crossing Features

5. Reduced Maximum Green Feature -  
The Signal Group Maximum Green time can be reduced to a preset value if the crossing is demanded by the median side Button/Pads to reduce the pedestrian waiting time on the median.

# SIMPED Crossing Features

6. Automatic Disabling of Ped Pads -  
Ped Pads can be disabled from the SCATS keyboard or via a Variation Routine by setting the appropriate XSF bit. A stuck-on Pad can be flagged to implement this feature.

# SIMPED Crossing Features

7. Auto-Demand Feature -  
Setting the SCATS Y- will auto-demand both crossings.

# SIMPED Crossing Features

## 8. Coordination of Crossings with Adjacent Intersections -

Coordination of each crossing with adjacent intersections can be achieved by inhibiting the ped demand while the appropriate XSF bit is set. In Flexilink operation, an inhibit window can be created using the R and Q pulses .