What are innovative interchanges?
Interchange designs where traffic movements are modified to improve safety, reduce delay, and increase efficiency.

Visit www.virginiadot.org/innovativeintersections to learn more.

What is a SPUI?
- A grade-separated interchange design where all freeway ramps begin or end at a single signalized intersection on the arterial
- Right-turn movements onto and off the freeway ramps are made at unsignalized intersections separate from the main intersection
- Interchange can be designed as an overpass or underpass

When should a SPUI be considered?
- In areas with limited right-of-way
- At locations with heavy left-turn traffic volumes onto and off the freeway ramps
- At locations where wider intersection and structure widths can be accommodated

What are the benefits of a SPUI?
- **Improved safety**: With only one signalized intersection rather than two at a conventional diamond interchange, vehicles only cross paths at one location
- **Increased efficiency**: Main intersection operates with three traffic signal phases rather than four phases in a conventional diamond interchange, which reduces overall interchange delay
- **Increased capacity**: Design allows left turns to be made at higher speeds, which increases the capacity of the main intersection
- **Fewer traffic signals**: A single signalized intersection, rather than two intersections at a conventional diamond interchange, improves travel times on the arterial

A SPUI IS ALSO KNOWN AS:
- Urban Interchange
- Single-Point Interchange (SPI)
- Single-Point Diamond Interchange (SPDI)
INNOVATIVE INTERCHANGES

Navigating a Single-Point Urban Interchange (SPUI)

- Pedestrians use marked crosswalks to safely cross the freeway ramps. At SPUIs, crosswalks are not provided across the arterial. To cross the arterial, pedestrians may use the nearest marked crosswalk (not shown).

- To turn left from a freeway ramp, use the left-turn lane like at a conventional diamond interchange.

- From the arterial, navigate the interchange like at a conventional diamond interchange.

- To turn right from a freeway ramp, use the right-turn lane like at a conventional diamond interchange.

Note: For simplicity, only two directions of traffic are shown. Opposing traffic follows similar routes.

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