

Traffic Engineering Checklist

Location

Hwy 25 @ Cross Street, District of North Peace

(Highway @ Cross Street, Municipality)

Instructions:

- This checklist must be completed for all new or modifications to existing traffic signals.
- Attach supplementary pages if the space provided is not adequate.
- The Traffic Design Scope section must be signed and sealed by the Engineer of Record.
- The MoTI Traffic Operations Engineering Approval section must be signed for completion.

Scope (Describe the scope of work in the box below)

- Modify existing traffic signal – Add NB left turn arrow
- Modify traffic islands – Add right turn lanes in all four directions
- Installation of NB deceleration and acceleration lane

Civil Design Scope

Comments based on: Civil design drawings # R1-456-402 (May 26, 2003)
and/or: Existing electrical drawings TE # _____

Crosswalk revisions

No Yes All channelized right-turns to be “zebra markings”
(Description or attached drawing)

Stop line revisions

No Yes See attached dwg R1-456-402 (May 26, 2003)
(Description or attached drawing)

Lane marking revisions

No Yes Continuity lines at NB deceleration and acceleration lanes
(Description or attached drawing)

Turning path revisions

No Yes All movements designed to accommodate design vehicle WB-15
(Description or attached drawing)

Civil Design prepared by:

Sample Engineer P.Eng.
(Print Name)

Senior Engineer
(Title)

July 15, 2019
(Date)

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Traffic Design Scope

Major Road Classification Urban Arterial

Major Road AADT > 200 200 – 749 750 – 1500 1501 - 6000 6000 +

Minor Road AADT > 200 200 – 749 750 – 1500 1501 - 6000 6000 +

Pedestrian Classification Low (0-10) Medium (11-99) High (100+)

Signing modifications *(If yes below, describe in detail or attach drawing)*

Guide Signs

No Yes Relocate existing post mounted G-1 (destination dirn) sign 50m south
(Size and Location)

Lane Use Signs

No Yes Install shoulder mounted R-82R (this lane right) on EB & WB Cross St
(Locations)

Turn Restriction Signs

No Yes Install R-15L (no left) and R-15T (time restriction tab) on EB Cross St
(Type and Location)

Other Signs

No Yes Remove W-7 (side road) warning sign in NB dirn, as access is being close
(Description and Location)

Special Features *(Describe below in detail)*

Advance Warning Flasher signs *(Complete table below even if no AWF required)*

No Yes Relocate existing NB advance warning flashing (AWF) sign
(List Approaches)

Major	Route: <u>Highway 25</u>			Minor	Route: <u>Cross Street</u>		
	Direction	Speed (km/h)	Grade (%)		Direction	Speed (km/h)	Grade (%)
	Eastbound	60	-4.2		Northbound	50	0
	Westbound	60	2		Southbound	50	0

Island flashers

No Yes Install high intensity sheeting for W-54's- Intersection illuminated
(Note those which exceed standards)

Emergency Pre-emption *(Fire, Police, Ambulance, All)*

No Yes City supplied "Sonic" pre-emption
(Type – Hardwire, Audible, Radio, Strobe)

Indication Lights

No Yes Blue/white indicators on signal arms on N/S approaches
(Type and Approach)

Transit Pre-emption

No Yes _____
(Type – Radio, GPS)

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Railway Pre-emption

No Yes East approach
(Type and approaches)

Blank Out Display

No Yes Fibre optic "no right turn" NB right
(Approach[s])

Audible signals

No Yes N/S movement along Hwy 25 (audible cuckoo) – west side only (PA2)
(Sound Type for Each Intersection leg)

Countdown Timers

Install New Existing in Place Other _____

Cyclist Accommodation

No Yes Stencil markings on Cross St as per City's request
(Describe – Loops, Stencils, Pushbuttons)

Transit/HOV Accommodation

No Yes Relocate bus bay to the downstream of the intersection in the NB direction
(Describe - HOV laning, additional phasing)

Special detector requirements

No Yes NB/SB advance loops at AWF sign locations to extend A1 & A2 phases
(Advance loops, Queue loops, etc.)

Future requirements

No Yes Pre-wire for future WB left turn arrow
(Advance arrows, different phasing, etc.)

Cabinet and Controller

Cabinet Installation

Install New Use existing *(see below)*

Cabinet Type *(enter type whether using new or existing as indicated above)*

M Cabinet S Cabinet P6 Cabinet Other _____

Controller Installation

Install New Use existing

Controller Type *(enter type whether using new or existing as indicated above)*

Cobalt Naztec LMD Other _____

UPS Installation

Install New Existing in Place Other _____

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Other items or comments: *(Add comments below. Attach supplementary pages if not adequate.)*

- Signed and sealed civil drawings included

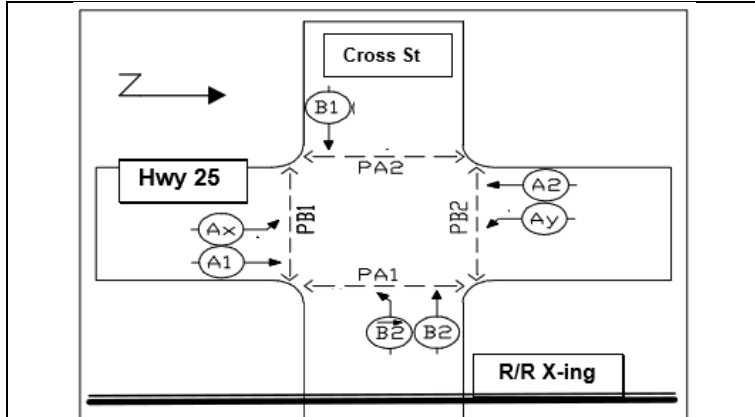
Attach a preliminary timing sheet showing the following:

- Phase Assignments
- Resting/Recall Phases
- Advance Warning Times

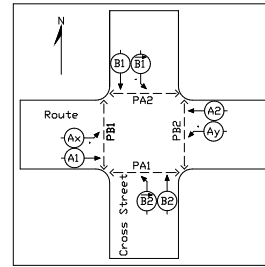
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Traffic Design Scope (Continued)

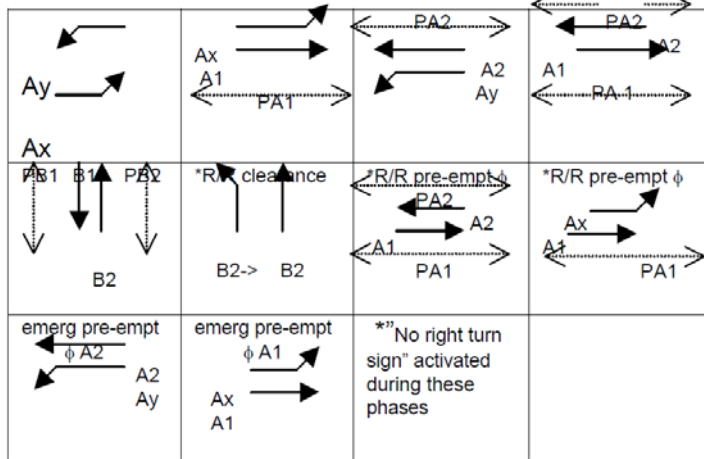
Signal Phasing Layout (show all movements and North arrow)



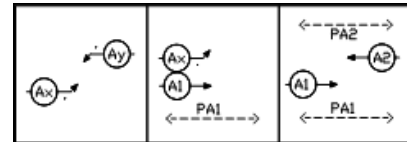
Example



Signal Phasing Compatibility Diagram (relative to site diagram above)



Example

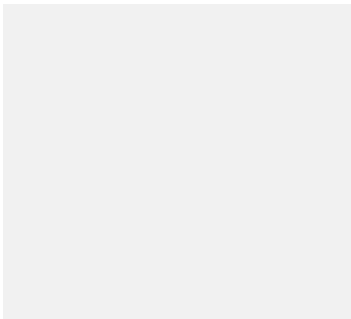


Show all combinations of vehicle and pedestrian movements in sequence.

Show emergency, railway, bus and other pre-emption sequences.

Identify clearance and pre-emption phases.

Traffic Engineering Prepared By:



_____ (Printed Engineer's Name)

_____ (Date)

_____ (Position)

_____ (Reviewed By)

_____ (Date)

_____ (Reviewer's Signature)

MoTI Traffic Operations Engineering Approval (Section must be completed)

- Internal Project (Sign off not required)
- Recommend to proceed.
- Changes required (Consultant must resubmit. See Comments below):

_____ (MoTI Traffic Operations Engineer Signature)

_____ (Title)

_____ (Date)