

CE 474 – Class 13

September 23, 2015

For next time...

- Read A28
 - Prepare outline of steps
 - List questions that you have
- Read VISSIM tutorial



TRAFFIC ANALYSIS TOOLS PROGRAM




OFFICE OF OPERATIONS 21ST CENTURY OPERATIONS USING 21ST CENTURY TECHNOLOGIES

Traffic Analysis Tools

The Traffic Analysis Tools Program was formulated by FHWA in an attempt to strike a balance between efforts to develop new, improved tools in support of traffic operations analysis and efforts to facilitate the deployment and use of existing tools. FHWA has established two tracks under the Traffic Analysis Tools Program: the **deployment track** and the **development track**. Read more about the [Program Challenges, Needs, and Future Directions](#).

Development Resources

- Next-Generation Simulation (NGSIM)
- Dynamic Traffic Assignment (Dynasmart-P) 
- ITS Deployment Analysis System (IDAS)

Guidance Resources

- Corridor Simulation (CORSIM/TSIS)
- Training & Workshops

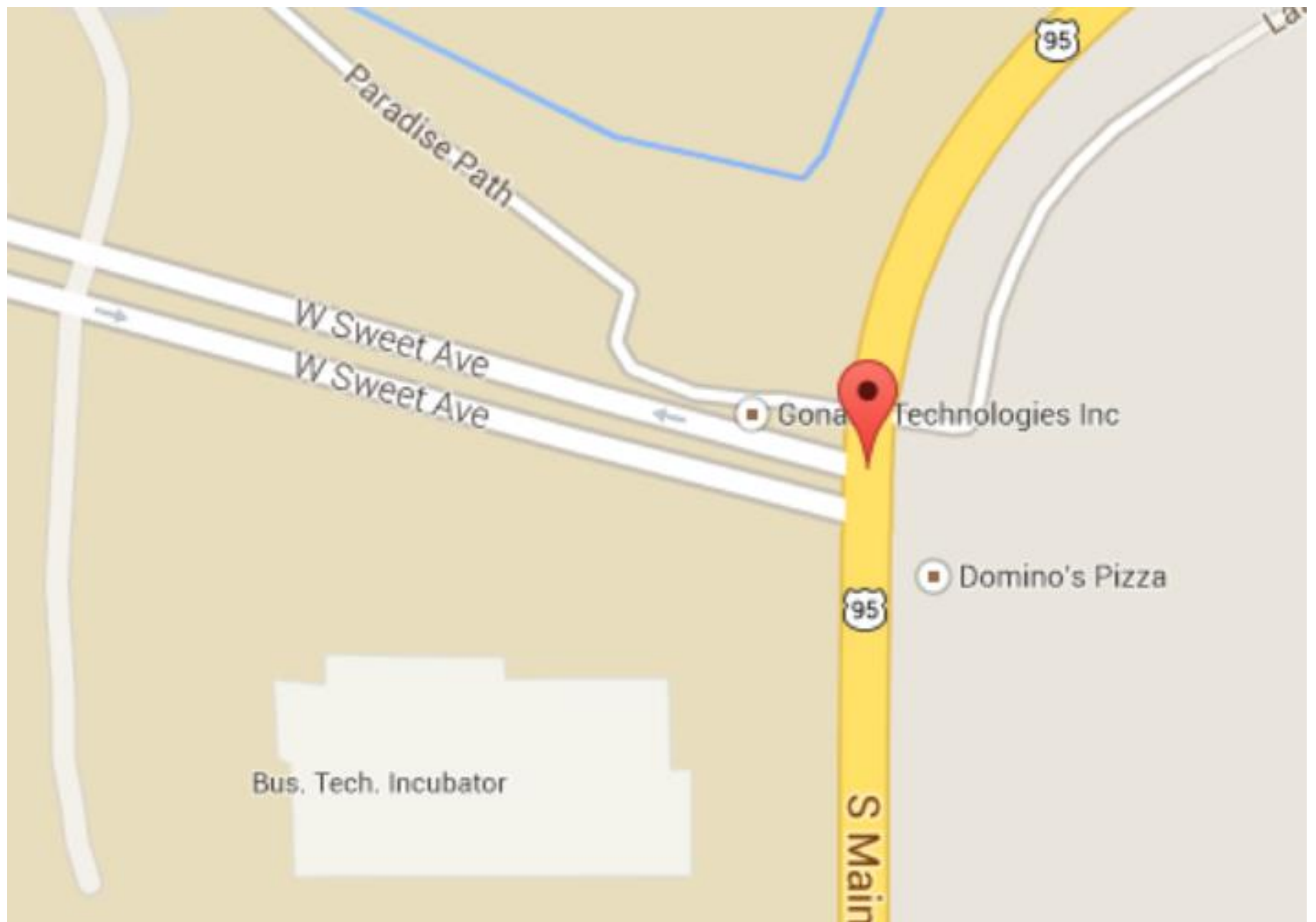
Guidance

- **Volume I: Traffic Analysis Tools Primer** ([HTML](#), [PDF](#) 613KB)
 - [What's in this Volume?](#)
- **Volume II: Decision Support Methodology for Selecting Traffic Analysis Tools** ([HTML](#), [PDF](#) 1.3MB)
 - Decision Support Methodology Automated Tool ([HTML](#), [XLS](#) 786KB)
 - [What's in this Volume?](#)
- **Volume III: Guidelines for Applying Traffic Microsimulation Modeling Software** ([HTML](#), [PDF](#) 1.2MB)
 - [What's in this Volume?](#)
- **Volume IV: Guidelines for Applying CORSIM Microsimulation Modeling Software** ([HTML](#), [PDF](#) 7.2MB)
 - [What's in this Volume?](#)
- **Volume V: Traffic Analysis Toolbox Case Studies - Benefits and Applications** ([HTML](#), [PDF](#) 3.2MB)
 - [What's in this Volume?](#)
- **Volume VI: Definition, Interpretation, and Calculation of Traffic Analysis Tools Measures of Effectiveness** ([HTML](#), [PDF](#) 734KB)
 - [What's in this Volume?](#)
- **Volume VII: Predicting Performance with Traffic Analysis Tools** ([HTML](#), [PDF](#) 1.7MB)
 - [What's in this Volume?](#)

Brief, easy-to-read overview of [Work Zone Analysis](#) and how modeling and simulation can be used as part of the analysis. Includes three short examples.



1. Retrieve CTQ for A26.
2. Organize in teams of 2.
3. Take 2-3 minutes to read your partner's work.
4. Take 5 minutes as a team to identify the five most important points in the readings, that you think are most relevant to your project and work tomorrow. Create a bullet list.
5. Team reports





100 ft
50 m

©2009 Google - Imagery ©2009 DigitalGlobe, GeoEye, USDA Farm

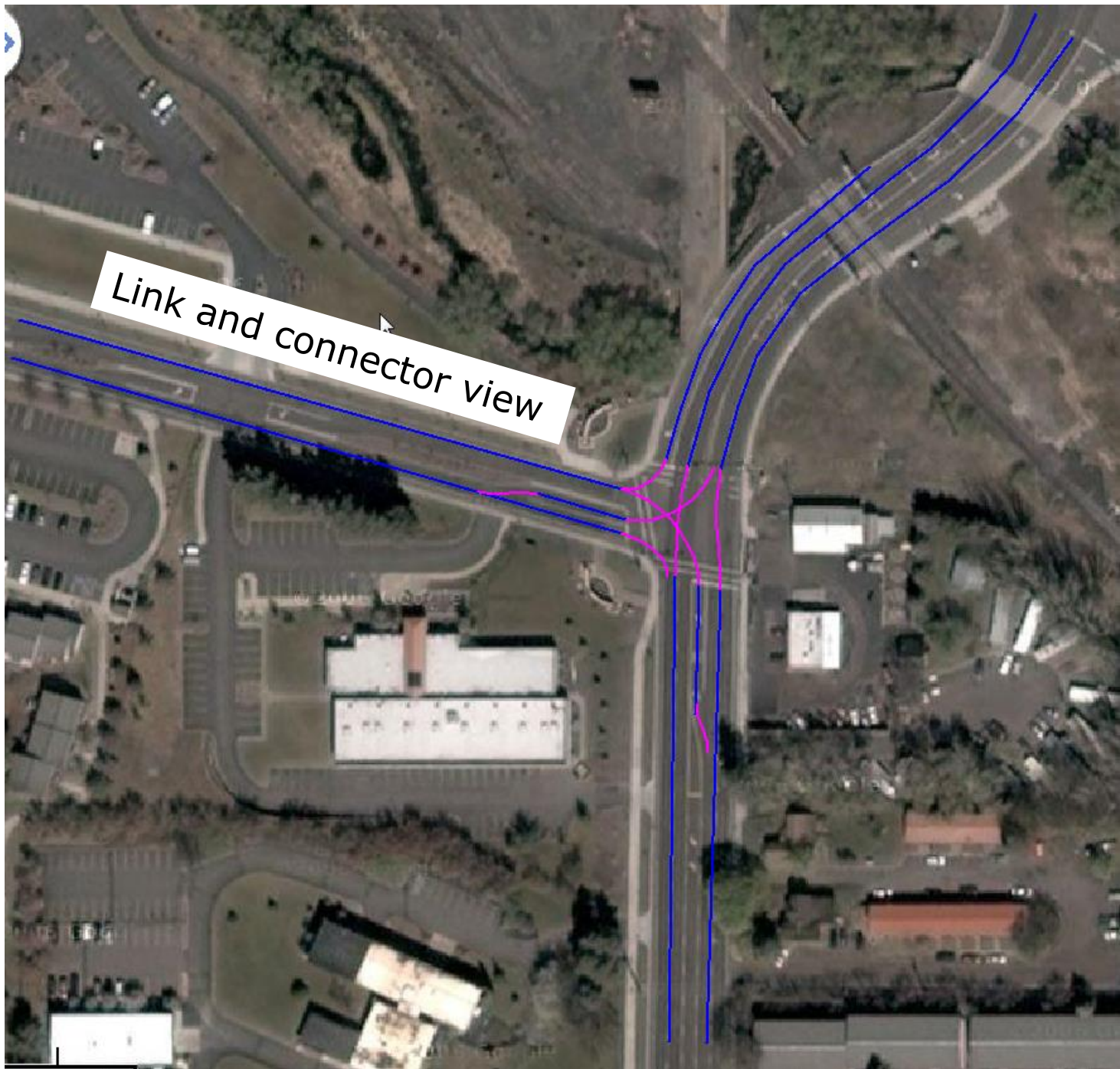
Link characteristics

- Length
- Speed/travel time
- Number of lanes

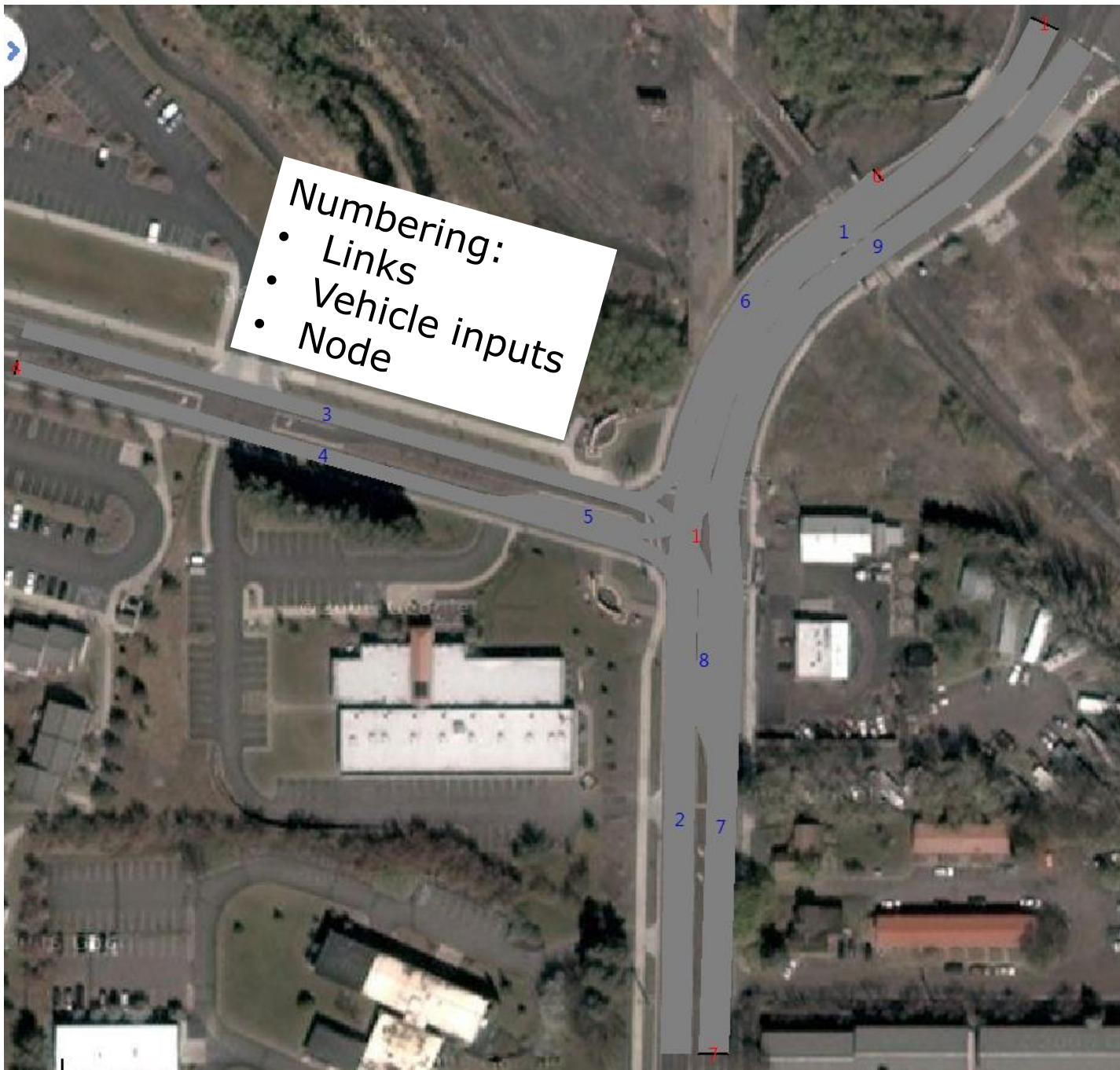


Vehicle
input

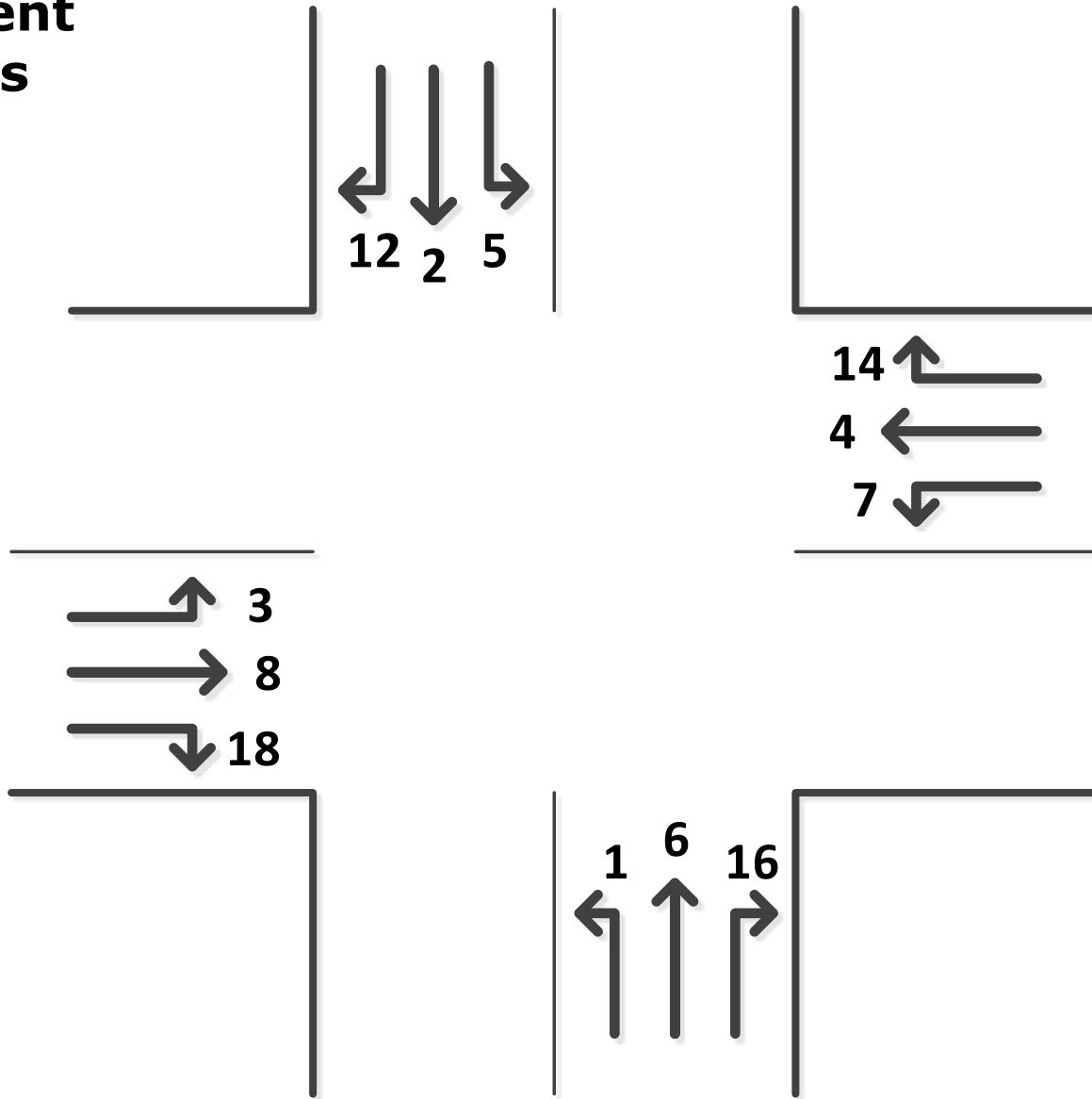




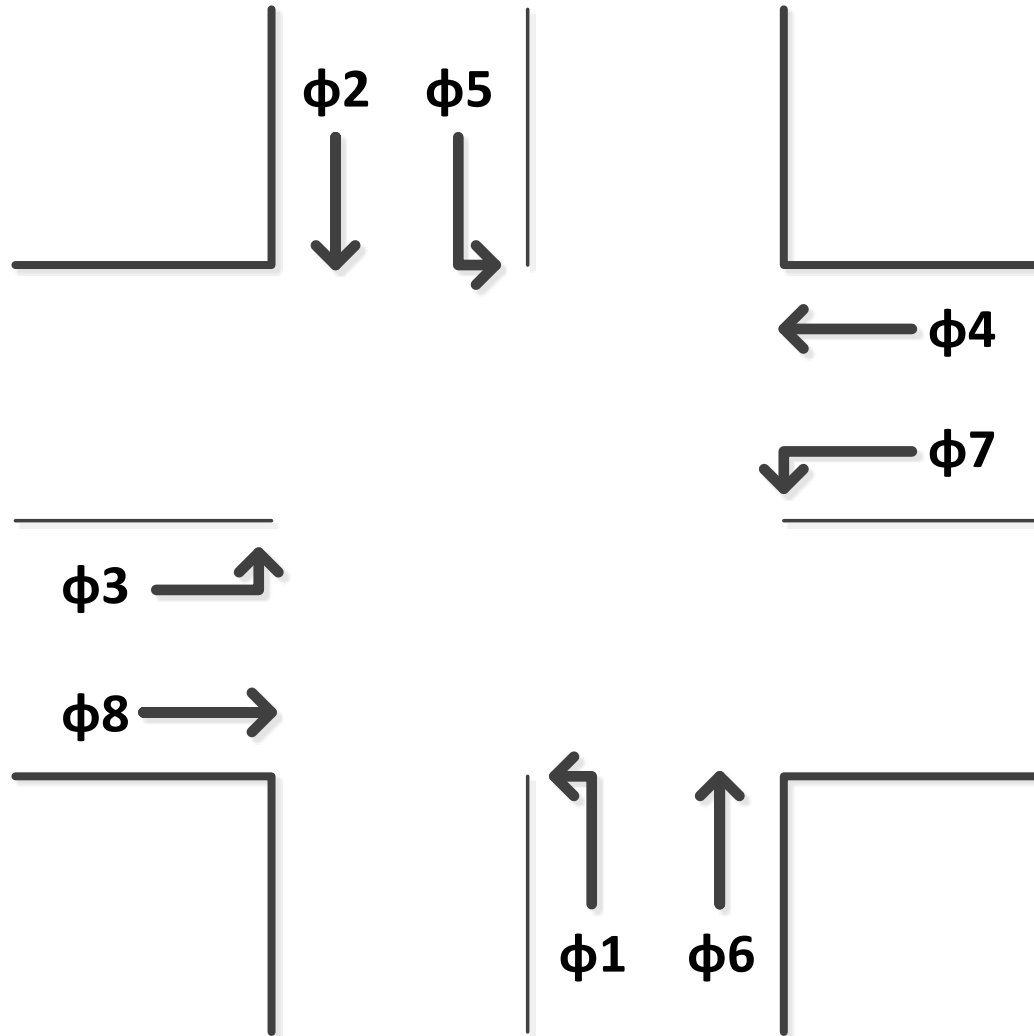
Link and connector view

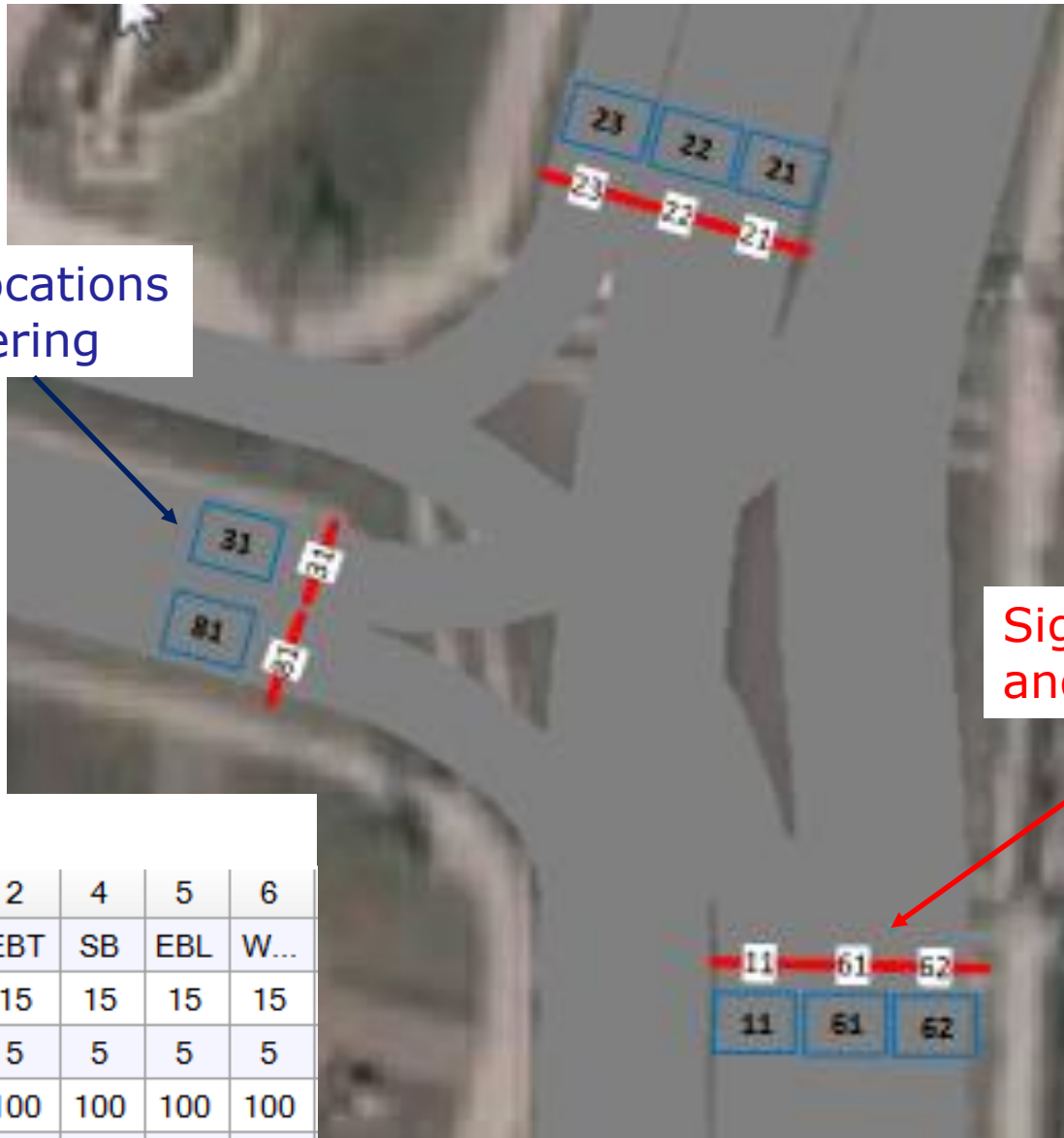


Movement numbers



Phase numbers





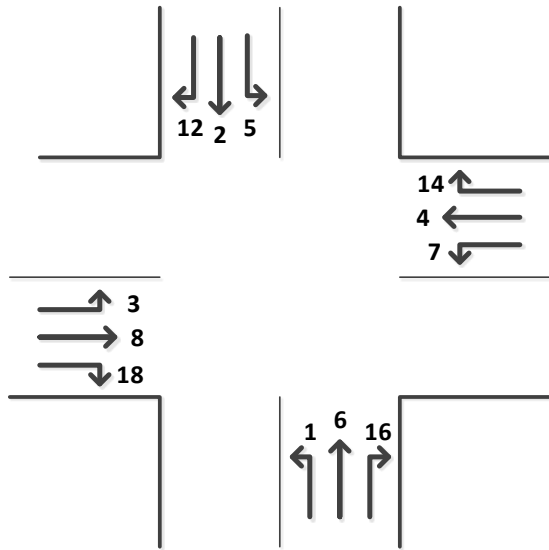
Detector locations and numbering

Signal head locations and numbering

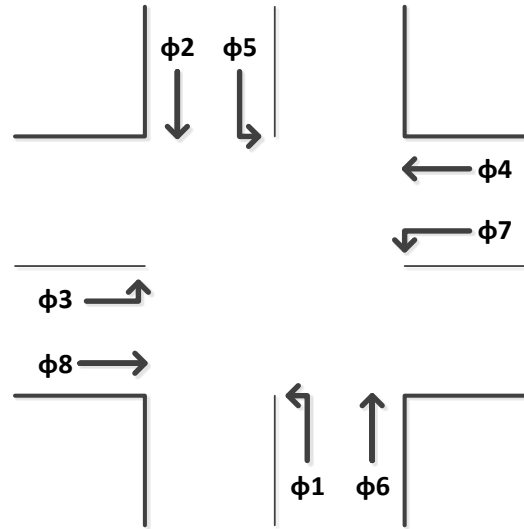
Timing plan

SG Number	2	4	5	6
SG Name	EBT	SB	EBL	W...
Min Green	15	15	15	15
Veh Extension	5	5	5	5
Max 1	100	100	100	100
Yellow	3	3	3	3
Red Clearance	1	1	1	1

Movement numbers



Phase numbers

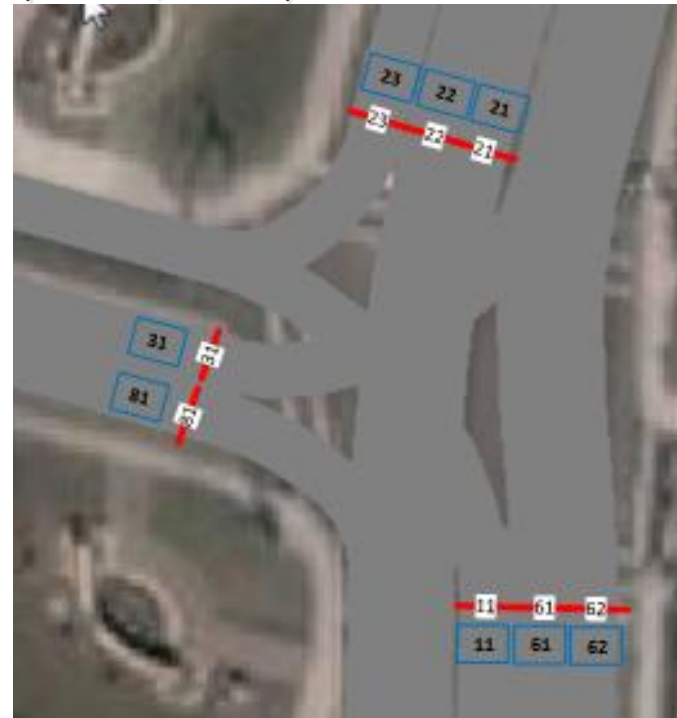


ACTIVITY

28 Building a Simulation Model Network

Complete task 1

- Sketch #1
- Sketch #2



PURPOSE

The purpose of this activity is to introduce you to the VISSIM simulation environment and to give you the opportunity to explore some of its features.



- Download and watch video
- Answer CTQ

For next time...

- Read A28
 - Prepare outline of steps
 - List questions that you have
- Read VISSIM tutorial