AI Reading Exercise: Class 5

From Digital to Physical Infrastructure
PLAN A6613: AI and the Future of Cities

Daniel Hardesty Lewis
February 17, 2026
Spring 2026

Tool & Process

I used Claude Opus 4.6 with extended thinking via the Antigravity IDE.[1] My first prompt returned vague IoT sensor descriptions. I refined it to demand three named deployments with exact cities, vendors, and funding mechanisms. A third prompt asked how each system operationally works: what data it ingests, what it decides autonomously, and where a human remains in the loop.

Key Findings

1. Curb Space: Automotus in Pittsburgh. Pittsburgh deployed Automotus computer vision cameras across 75 Smart Loading Zones. Cameras on streetlight poles read license plates, enforce tiered commercial loading limits, and automate payment without meters. According to Automotus, the city has seen 40% higher zone turnover and 95% less double-parking since launch. This is the most mature example of the three: a closed operational loop where AI observes, decides, and acts. The U.S. Department of Energy funds the three-year scale-up with a $3.8M grant, supplemented by SaaS revenue from automated payments.

2. Traffic Signals: Flow Labs in North Carolina. NCDOT deployed Flow Labs AI across more than 2,500 intersections, the largest statewide AI traffic deployment in the US. The system ingests connected vehicle GPS data to continuously monitor intersection performance and identify signal timing problems without field studies or new hardware. But as Flow Labs' own documentation clarifies, the system only recommends changes; a human engineer makes the final call. NCDOT funds it as a SaaS contract embedded in existing operations budgets.

3. Power Grid: Google Tapestry & PJM. Google X launched Tapestry with PJM Interconnection, which serves 67 million people across 13 states, using DeepMind AI to simulate grid topology and accelerate the years-long interconnection queue for new renewables. Unlike the first two examples, Tapestry has not yet been deployed: it is a multi-year development partnership where Google funds AI development and PJM provides grid data and operational access. The economic logic is revealing: faster interconnection serves Google's own data center energy needs as much as it serves the public grid.

Verification

- Automotus: Statistics checked out. The telling gap was framing: the AI called it parking tech when it is specifically commercial loading management, a key distinction for curb policy.
- Flow Labs: The AI described the system as controlling signals. Documentation clarifies it only recommends. The human-in-the-loop distinction was entirely absent.
- Tapestry: The AI listed it alongside deployed systems without flagging that it remains a multi-year development effort, not yet operational at scale.

Critical Reflection

The most useful finding was in what the AI failed to distinguish. It treated all three as equivalent when they represent fundamentally different levels of readiness. A planner reading uncritically would overestimate how far AI-managed infrastructure has come. The tool is useful for assembling an initial landscape of who is doing what, but a human is essential for the harder question: how real is this?

References

[1] Automotus. (2023). Smart Loading Zones: Pittsburgh. https://automotus.co/pittsburgh

[2] Marotti, A. (2022). Pittsburgh pilots smart loading zones. Cities Today. https://cities-today.com/pittsburgh-pilots-smart-loading-zones/

[3] Flow Labs. (2025). NCDOT statewide AI traffic signal deployment. https://www.flowlabs.ai

[4] Nyczepir, D. (2024). NC deploys AI traffic signal software statewide. StateScoop. https://statescoop.com/north-carolina-ai-traffic-signals-flow-labs/

[5] X, the Moonshot Factory. (2025). Tapestry. Alphabet. https://x.company/projects/tapestry/

[6] PJM. (2025). PJM, Google multi-year AI collaboration. https://www.pjm.com/about-pjm/newsroom

[1] Verbatim prompt log archived at https://github.com/dhardestylewis/plan-a6613-ai-reading-class-3/tree/main/week5.