



Drainage Services Presentation

West Jasper Place/Sherwood Communities
Public Information Session
September 15th, 2015



PROJECT INFORMATION



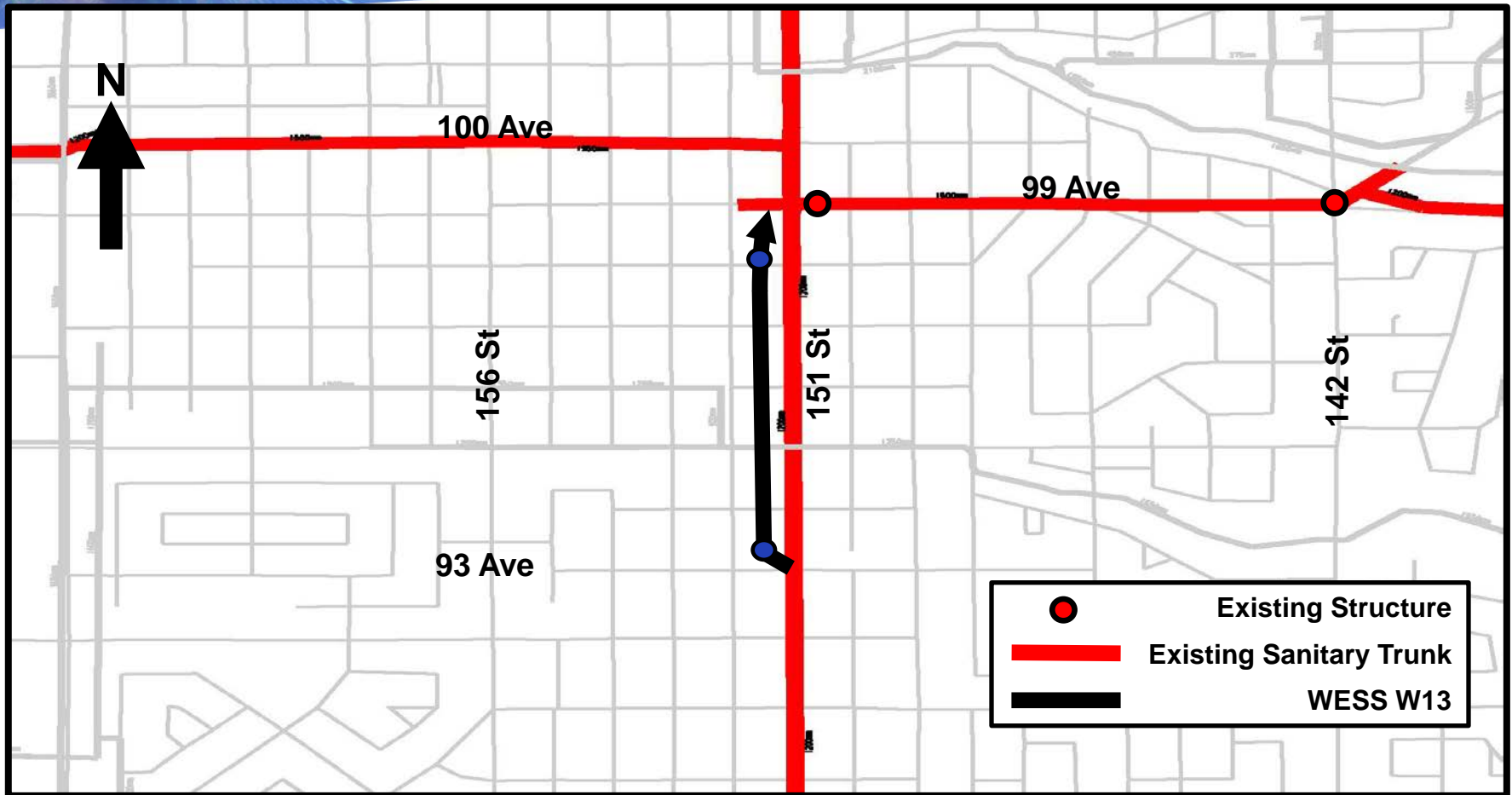
WEST EDMONTON SANITARY SEWER W13 (WESS W13)



WESS W13

- 2340mm (1.1 km long and 30 m deep) sanitary trunk designed to:
 - Reduce risk of basement flooding
 - Provide capacity for west end growth

WESS W13





151 STREET & 99 AVENUE SANITARY TRUNK SEWER REHABILITATION

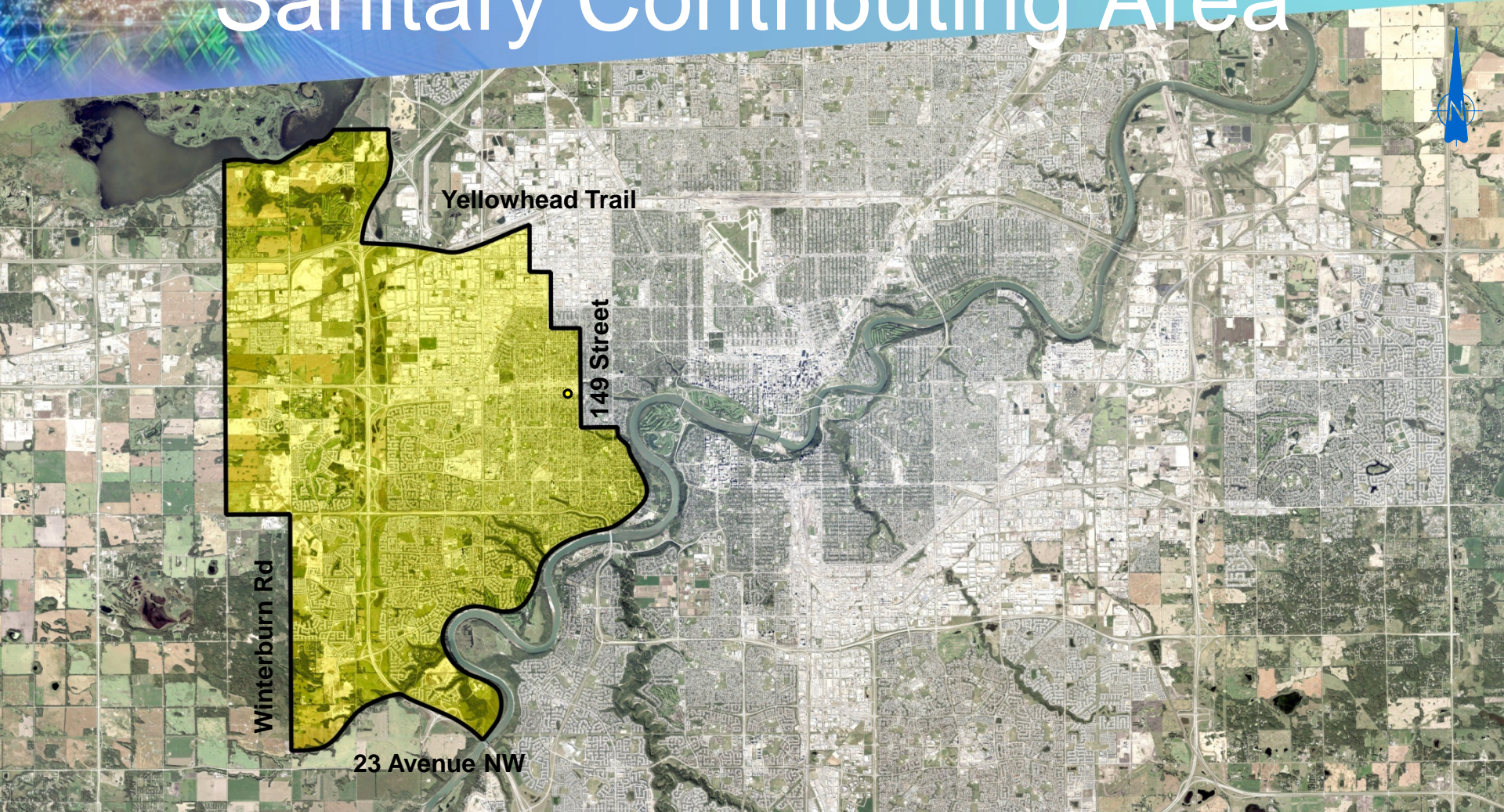
OVERVIEW & PHASE I



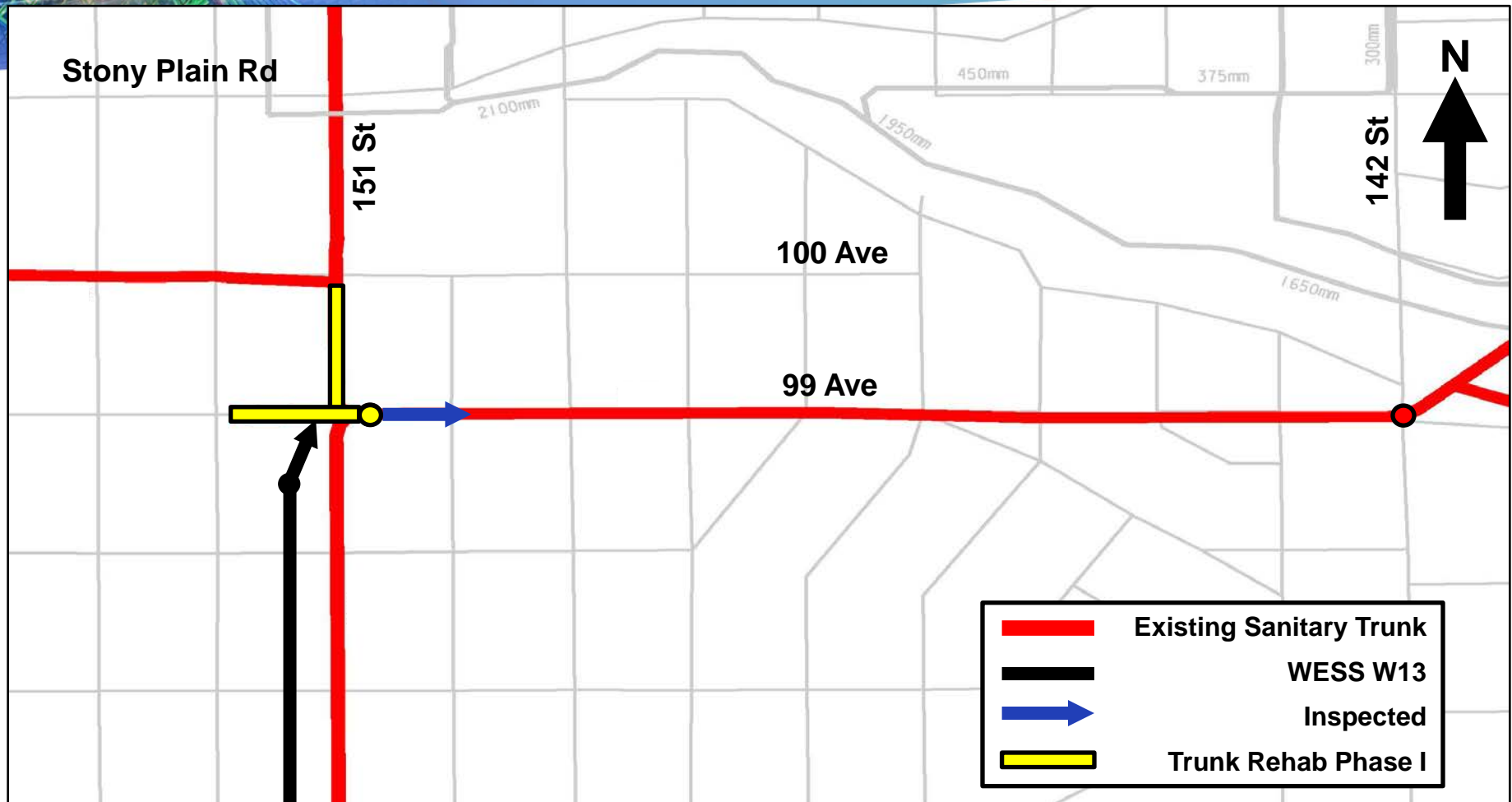
Sanitary Trunk Rehab

- Poor condition was identified during connection of WESS W13
- Condition assessment performed on initial portion
- Design & construction work started immediately on initial portion
- Assessment and design continued on remaining trunk sewer

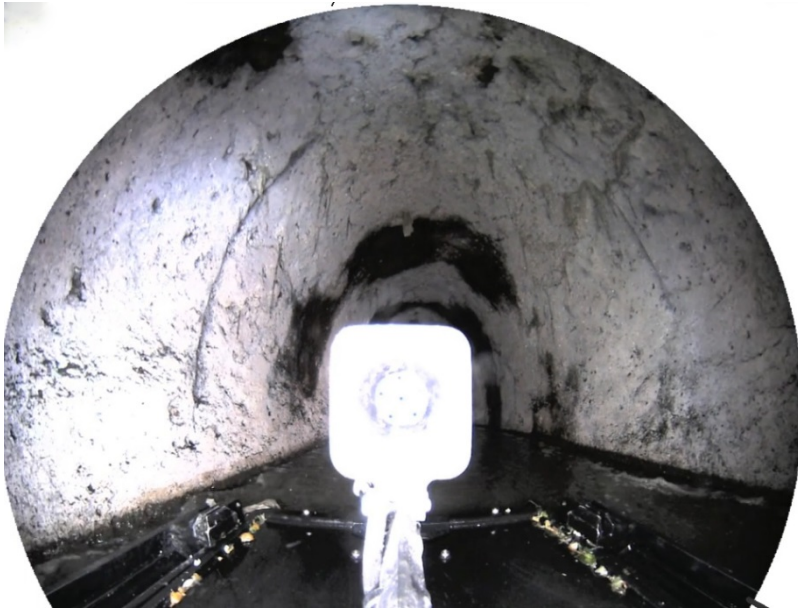
151 Street & 99 Avenue Sanitary Contributing Area



Sanitary Trunk Rehab 151 St & 99 Ave Area



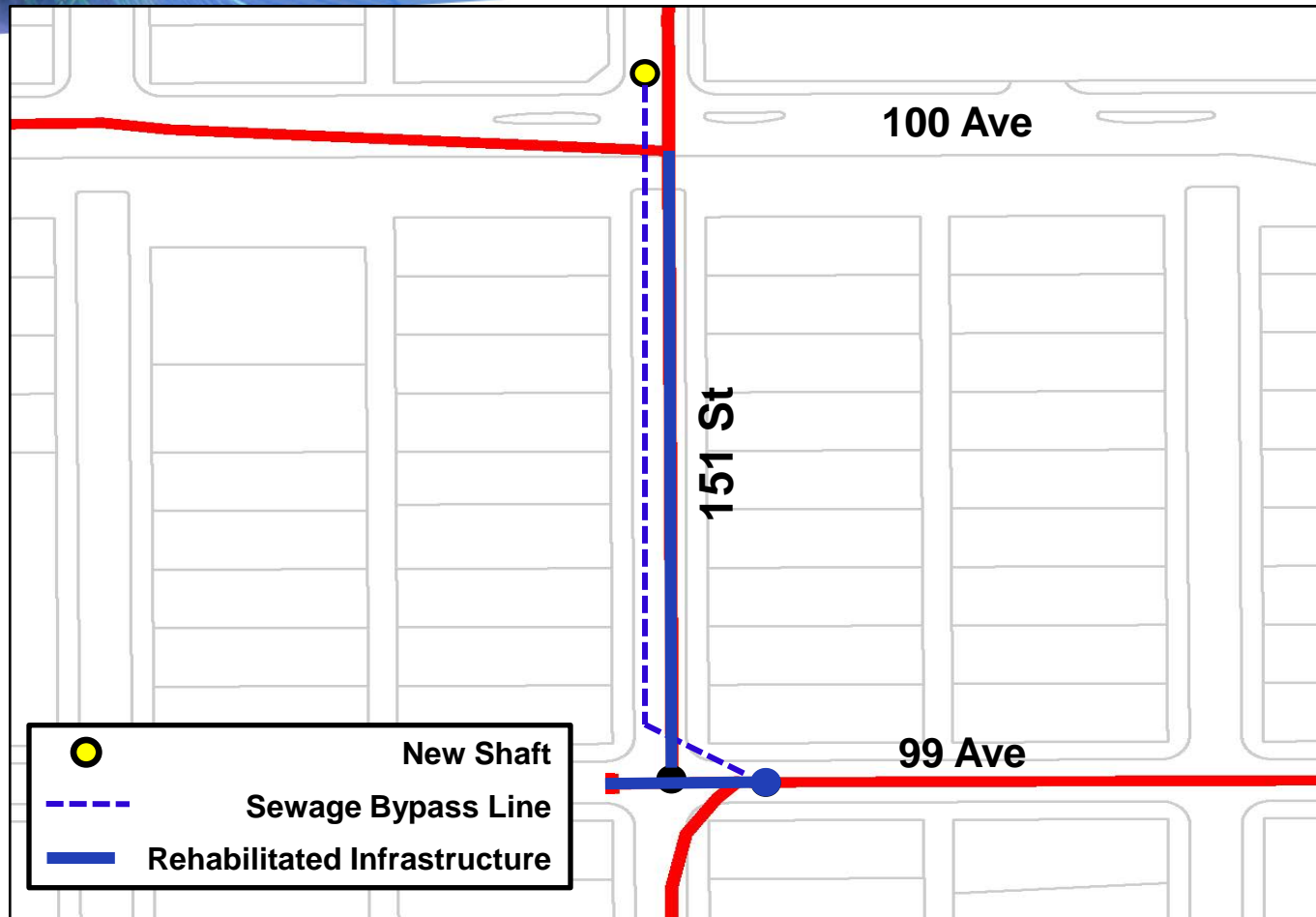
Sanitary Trunk Rehab Existing Condition



Sanitary Trunk Rehab Channeline Structural Liner



151 St and 99 Ave Sanitary Trunk Rehab Phase I Overall Plan





Trunk Sewer Rehab Phase I Activities

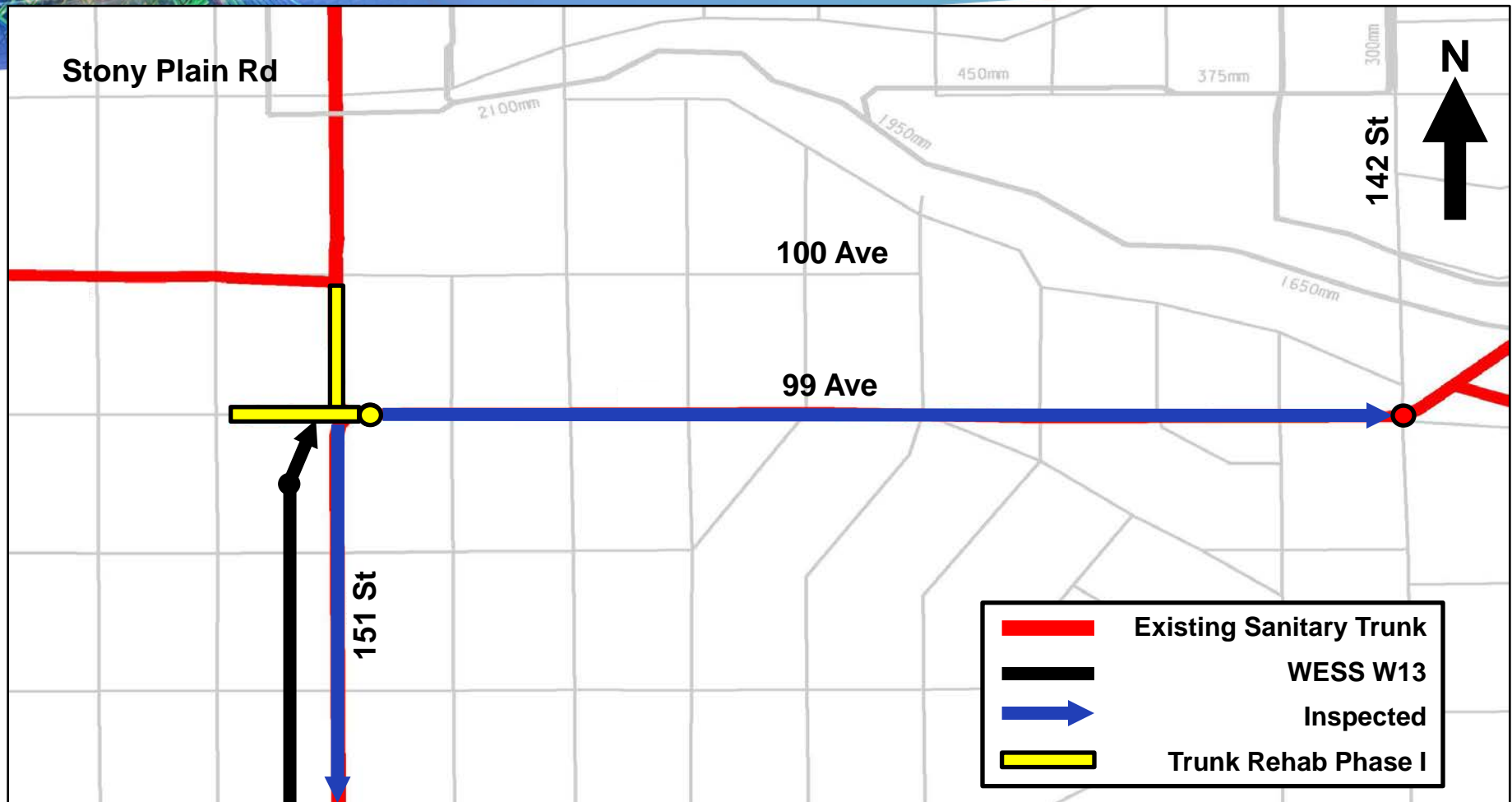
- | | |
|---|-----------|
| 1. New Shaft
(100 Avenue & 151 Street) | Start Oct |
| 2. Sewage Bypass Line
(West Side of 151 Street) | Nov 2015 |
| 3. Liner Installation/Sewer Rehab | Nov - Apr |
| 4. Finish Shaft Structures
& Seal Manholes
(100 Ave & 99 Ave) | May 2016 |



151 STREET & 99 AVENUE SANITARY TRUNK SEWER REHABILITATION

FUTURE PHASE(S)

Sanitary Trunk Rehab 151 St & 99 Ave Area





Sanitary Trunk Rehab Future Phase(s)

- | | |
|---|--------------------|
| 1. Inspection
(99 Avenue & 151 Street South) | Completed |
| 2. Structural Assessment | Oct 2015 |
| 3. Design & Final Option | Nov to Spring 2016 |
| 4. Construction | TBD |



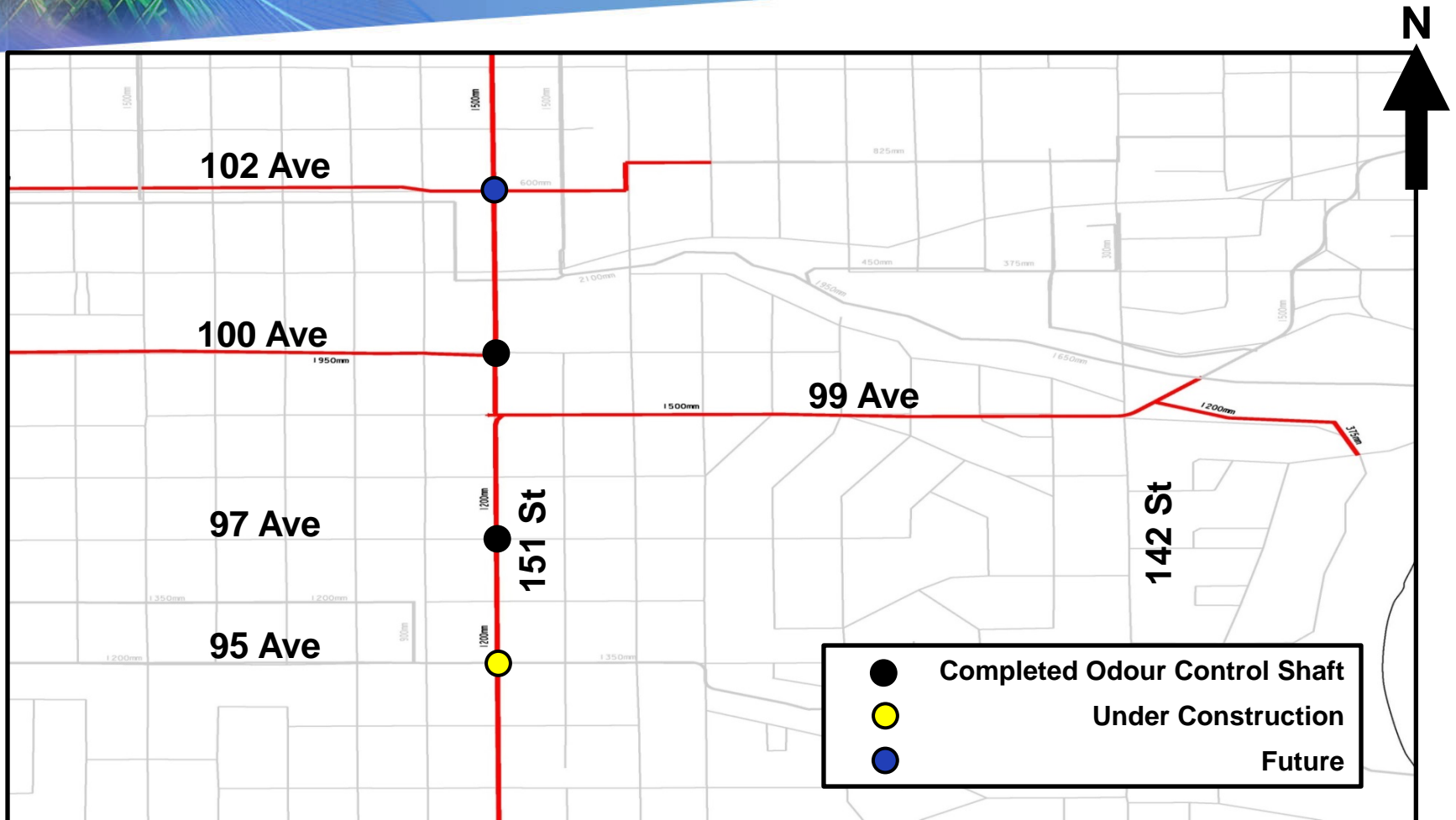
ODOUR CONTROL SHAFTS



Odour Control Shafts

- Designed to reduce amount of odour escaping from trunk sewers

Odour Control Shafts



Odour Control Shafts





RESIDENT CONCERNS



Resident Concerns

- Odours & Hydrogen Sulfide
- Traffic Impacts
- Noise



Odour & Hydrogen Sulfide

- Odour in sewers is primarily a result of hydrogen sulfide (H_2S)
- H_2S is created by chemical reactions when there is a lack of oxygen
- H_2S can be air borne gas or held within the liquids
- H_2S can be released from the liquid by disturbance



Odour & Hydrogen Sulfide (cont)

Odour Reduction Steps:

1. Prevent H₂S from being generated (e.g. oxygen, chemicals)
2. Prevent odours from escaping (e.g. barrier, odour control structures)
3. Removing H₂S from air (e.g. air scrubbers)



Odour & Hydrogen Sulfide (cont)

H2S Monitoring

- Installed a H2S monitor at street level beside the shaft
- Monitor runs continuously recording at 5 minute increments



Other Concerns

- Traffic Impacts
- Noise



ALBERTA HEALTH SERVICES



QUESTIONS