

Figure S1 - Existing Sanitary System (Manhole Names)

Scale 1:7,500



- Existing Manholes
- Existing Sanitary Pipes



Figure S2 - Existing Sanitary System (Manhole Names and Lagoon)

Scale 1:3,000



- Existing Manholes
- Existing Sanitary Pipes



Figure S4 - Existing System Model Results (Percentage of Pipe Capacity vs Flow)

Scale 1:8,000



PREPARED FOR VILLAGE OF LINDEN UMP 2021

- Existing Manholes
- Pipe Capacity of 0% to 86%
- Pipe Capacity >86% and <100%
- Pipe Capacity >100%

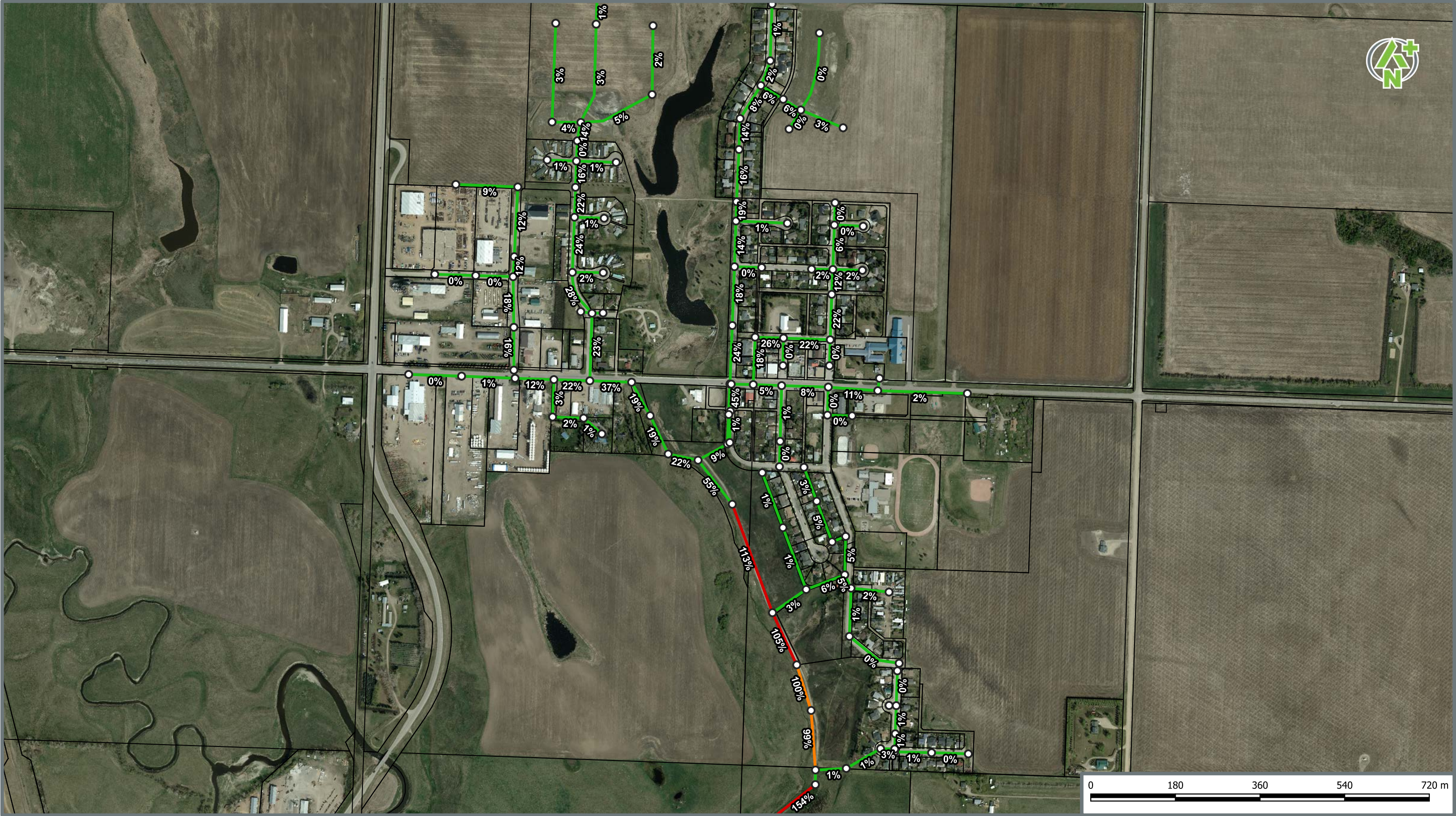


Figure S6 - 20 Year System Model Results - Original Pipes (Percentage of Pipe Capacity vs Flow)

Scale 1:4,000



- Existing Manholes
- Pipe Capacity of 0% to 86%
- Pipe Capacity >86% and <100%
- Pipe Capacity >100%

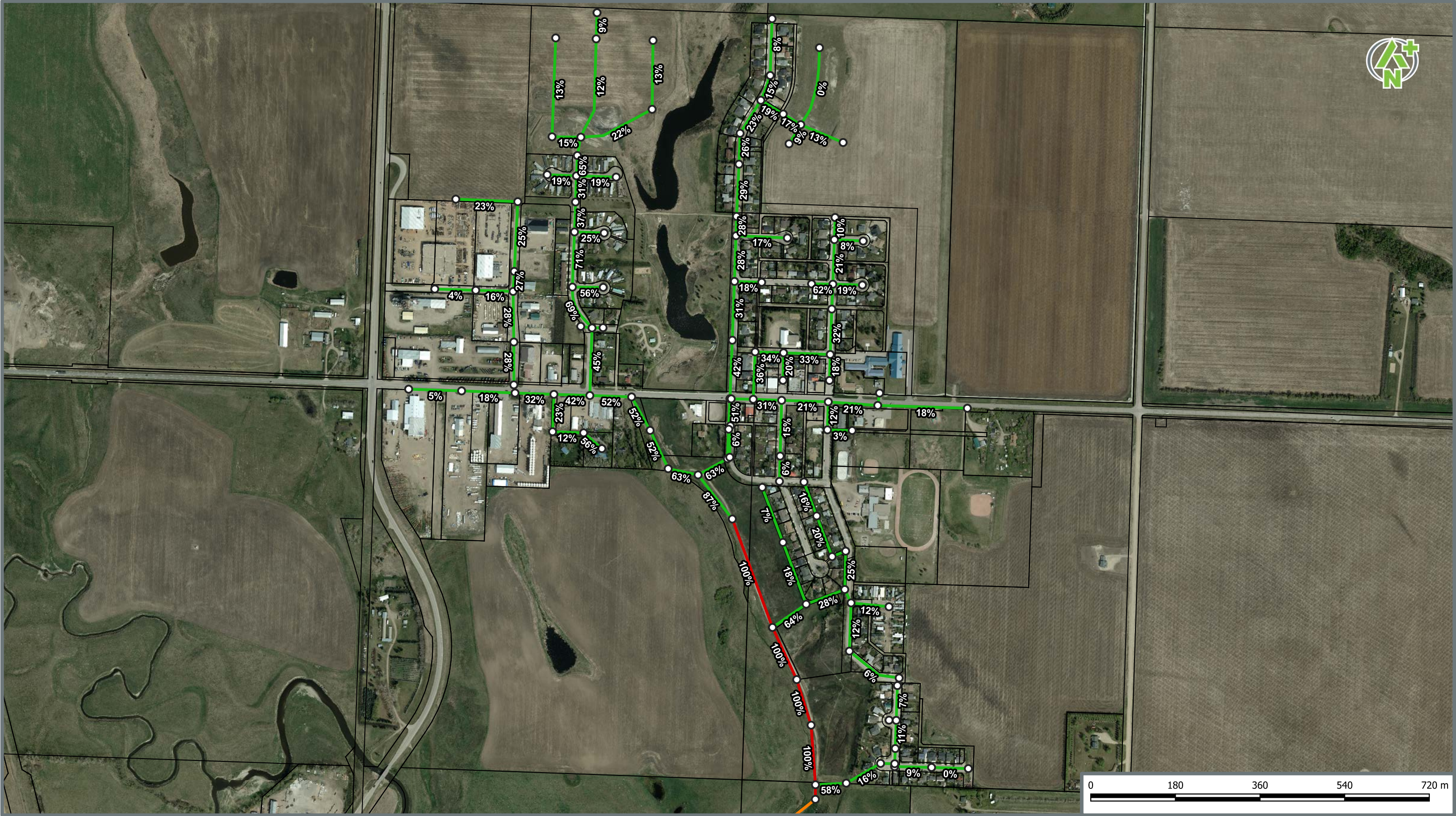


Figure S7 - 20 Year System Model Results - Original Pipes (Percentage of Hydraulic Grade Line vs Pipe Depth)

Scale 1:7,500



- Existing Manholes
- HGL of 0%-90% of Pipe
- HGL of 90%-100% of Pipe
- HGL of >100% of Pipe

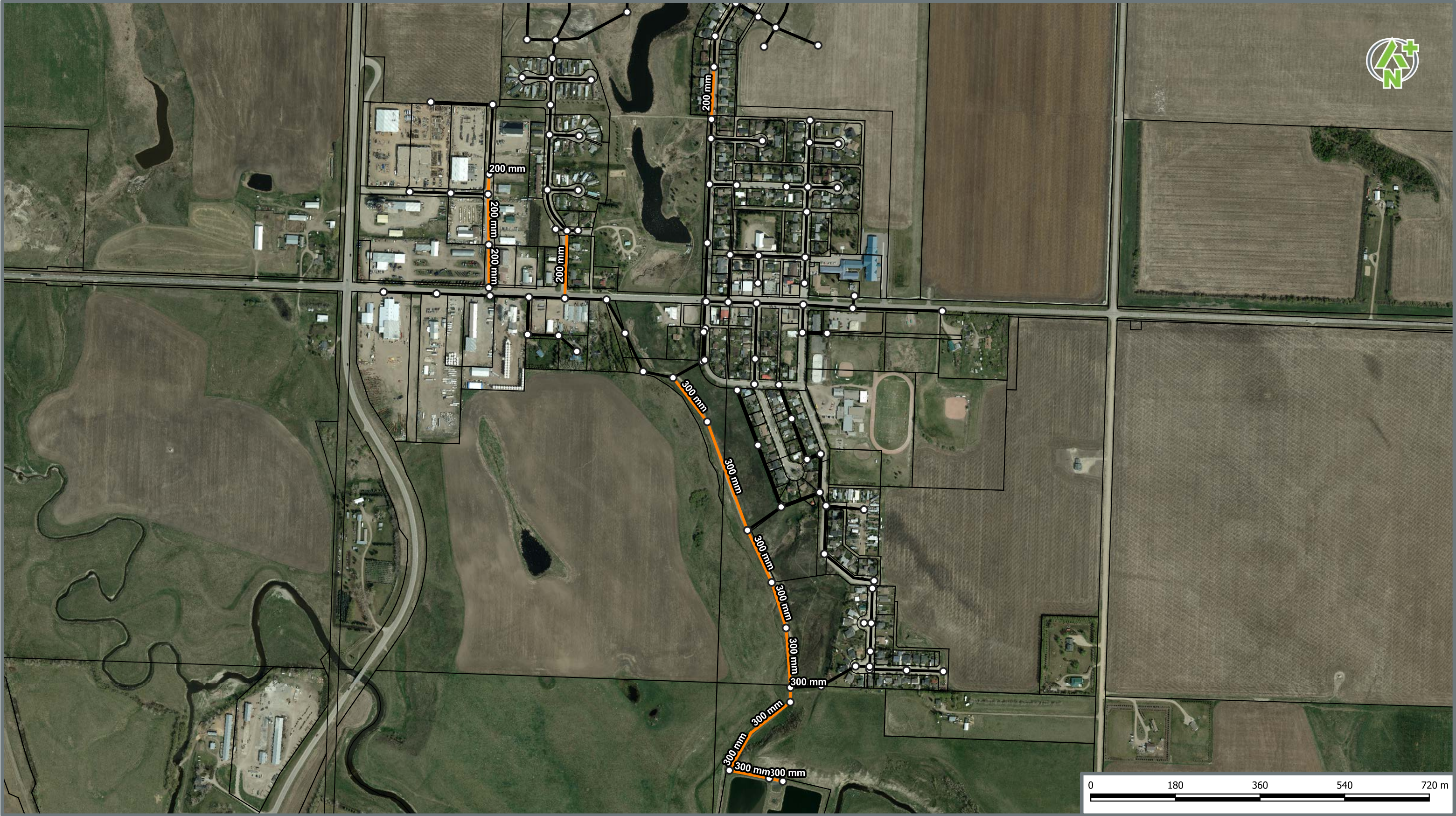


Figure S8 - 20 Year System Proposed Upgrades

Scale 1:7,500



- Existing Manholes
- Proposed Upgrades
- Sanitary Lines

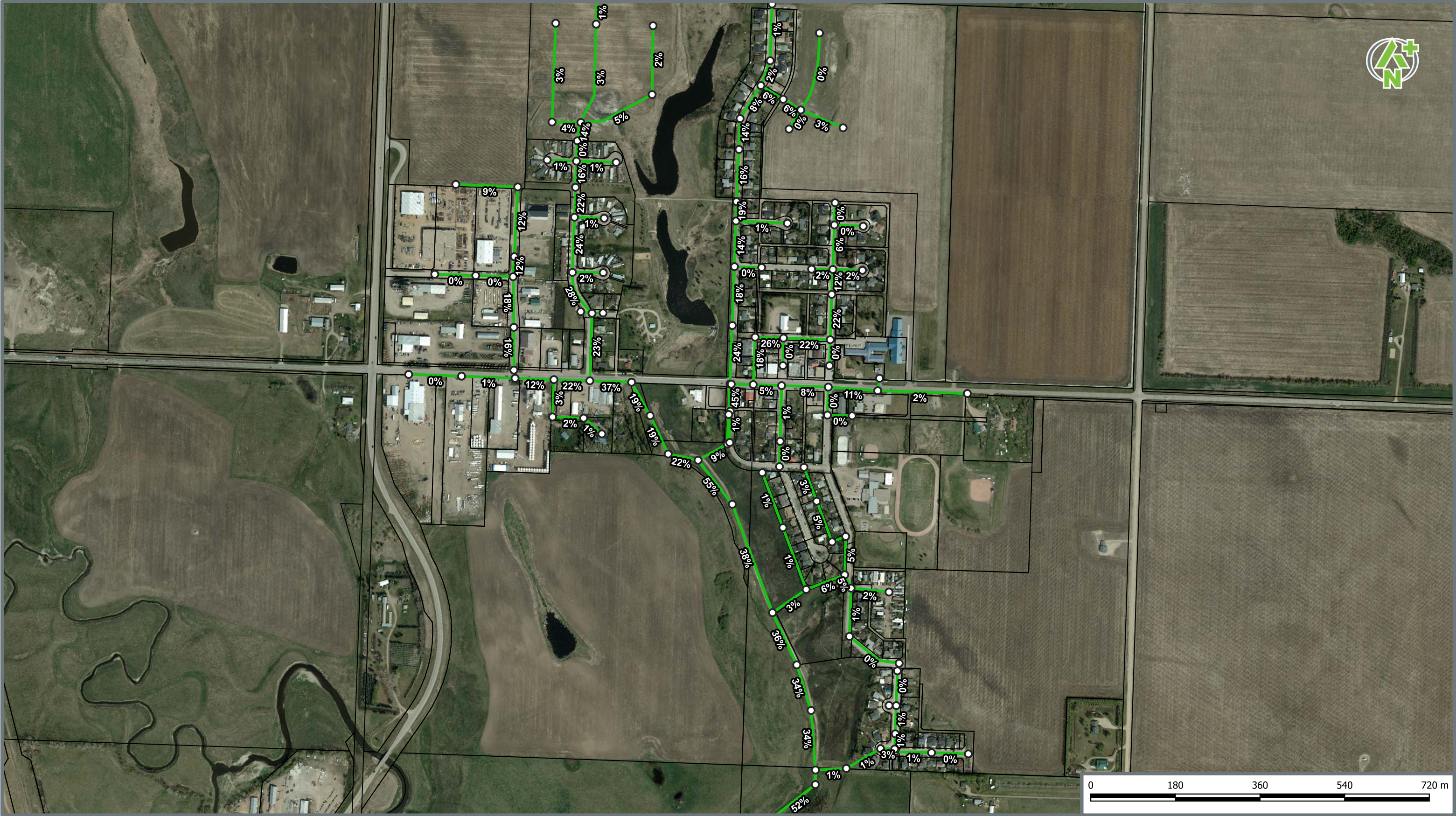


Figure S9 - 20 Year System Model Results - Upgraded Pipes (Percentage of Pipe Capacity vs Flow)

Scale 1:7,500



- Existing Manholes
- Pipe Capacity of 0% to 86%
- Pipe Capacity >86% and <100%
- Pipe Capacity >100%

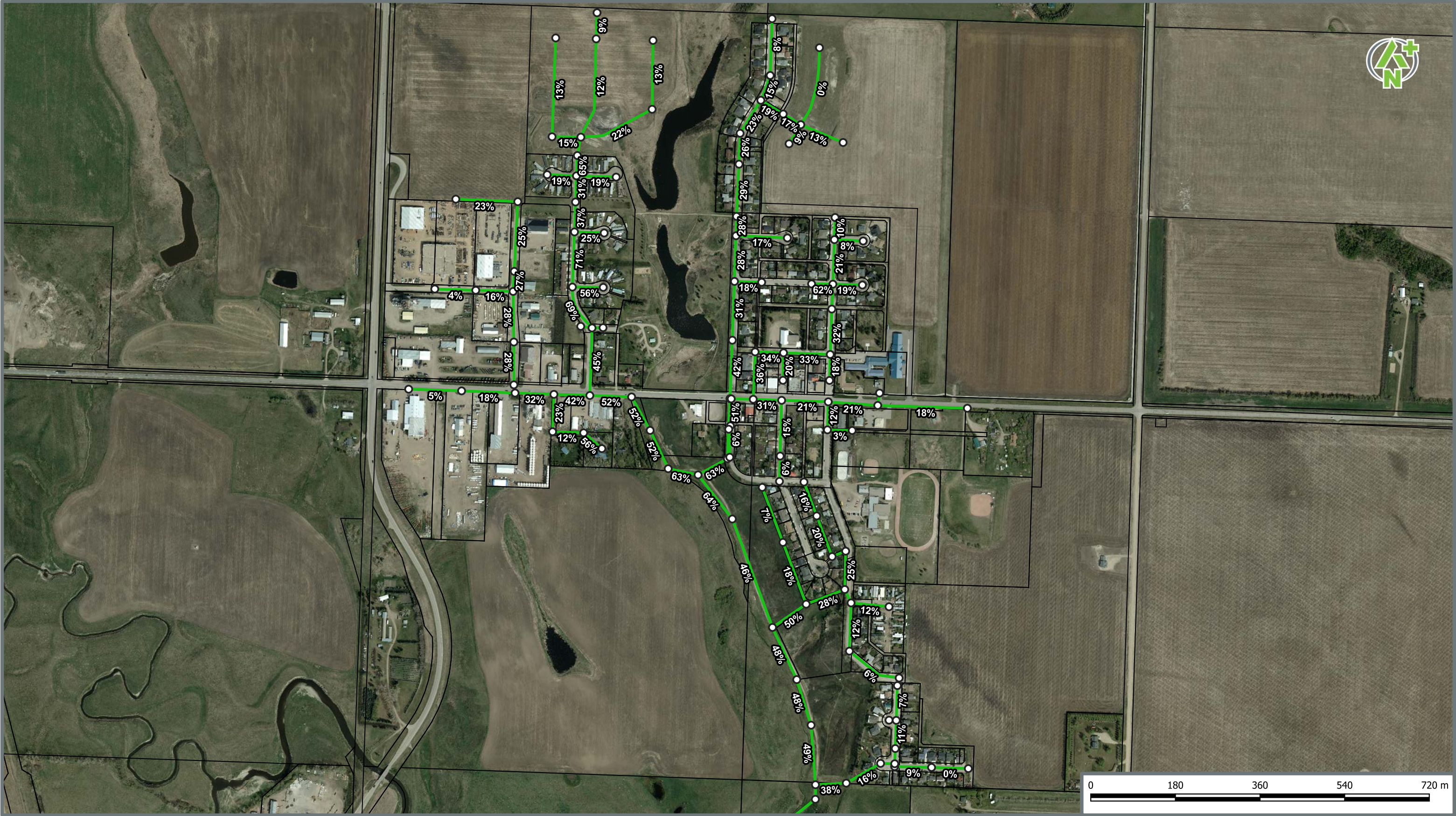


Figure S10 - 20 Year System Model Results - Upgraded Pipes (Percentage of Hydraulic Grade Line vs Pipe Depth)

Scale 1:7,500



PREPARED FOR VILLAGE OF LINDEN UMP 2021

- Existing Manholes
- HGL of 0%-90% of Pipe
- HGL of 90%-100% of Pipe
- HGL of >100% of Pipe

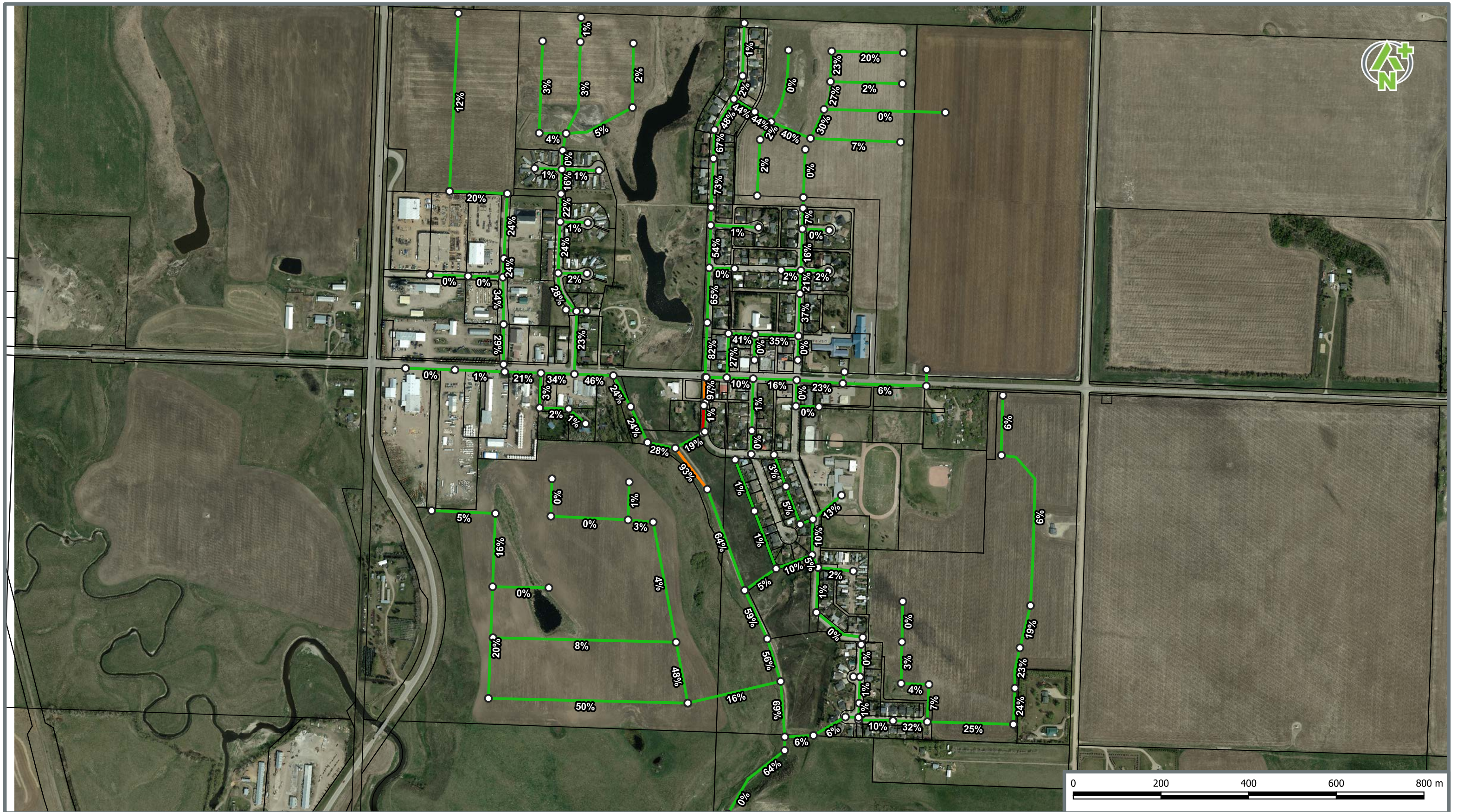


Figure S11 - Full Buildout System Model Results (Percentage of Pipe Capacity vs Flow)

Scale 1:8,000



PREPARED FOR VILLAGE OF LINDEN UMP 2021

- Existing Manholes
- Pipe Capacity of 0% to 86%
- Pipe Capacity >86% and <100%
- Pipe Capacity >100%

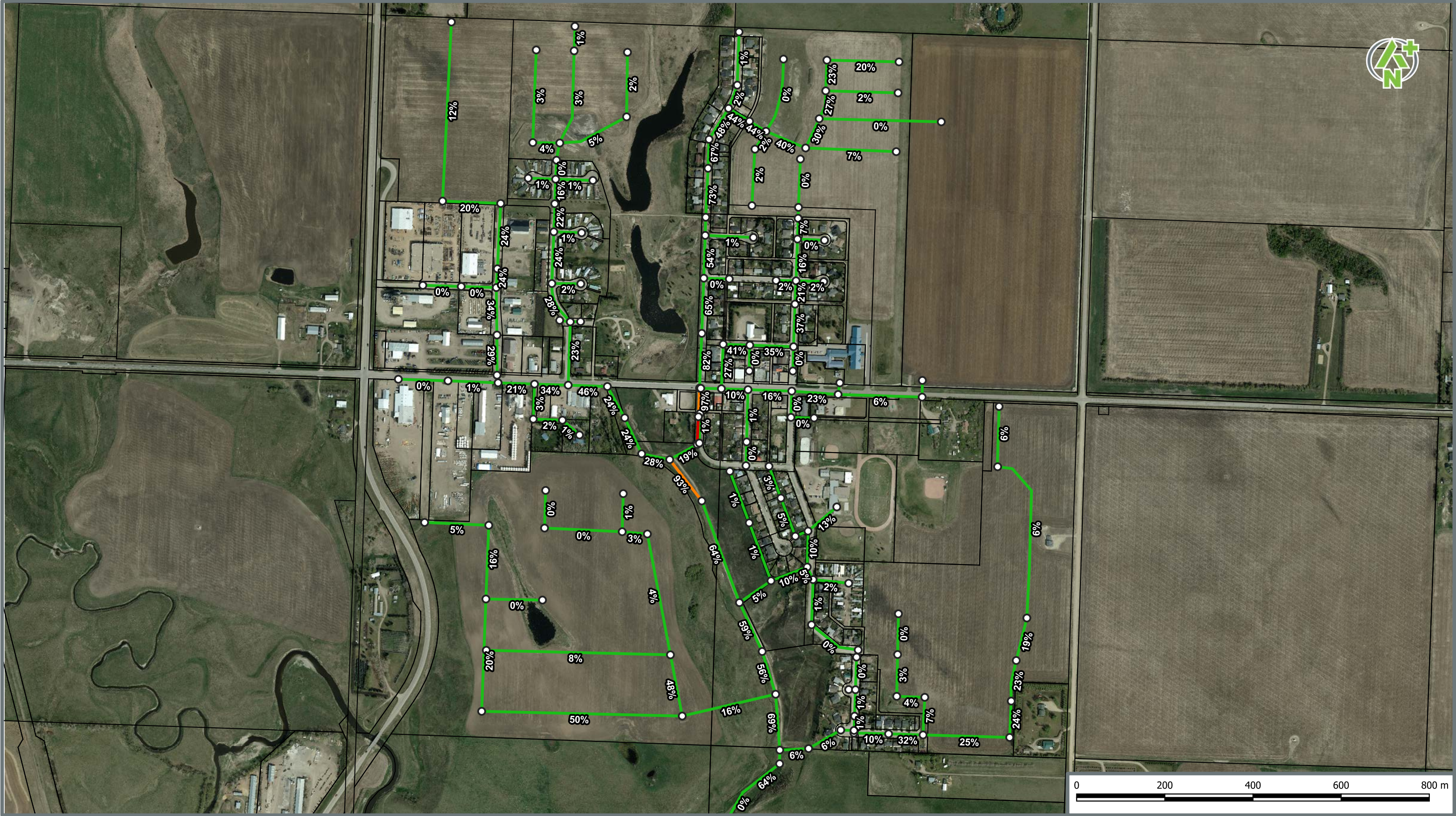


Figure S12 - Full Buildout System Model Results (Percentage of Hydraulic Grade Line vs Pipe Depth)

Scale 1:8,000



- Existing Manholes
- HGL of 0%-90% of Pipe
- HGL of 90%-100% of Pipe
- HGL of >100% of Pipe

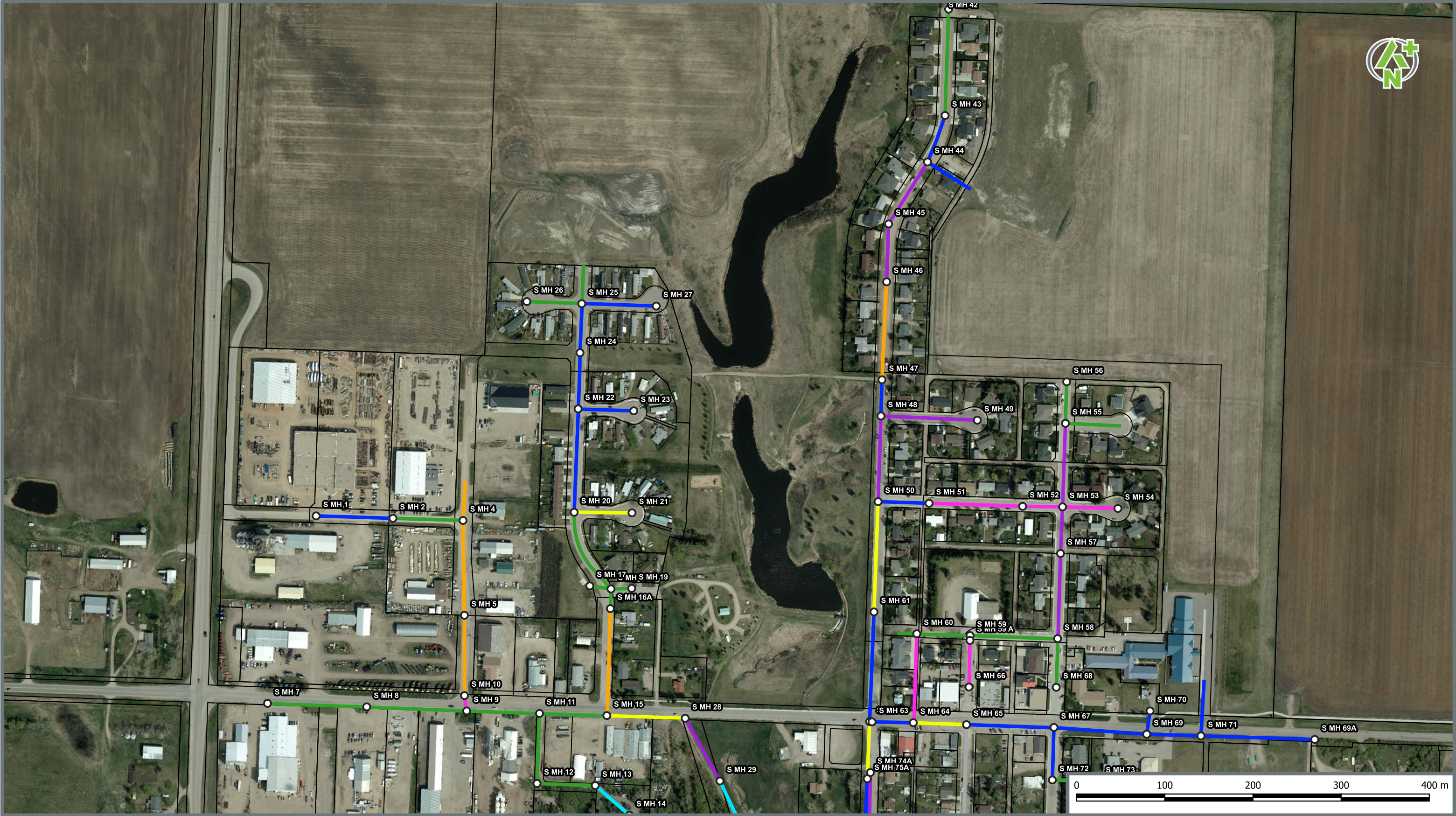


Figure S13A - CCTV Results

Scale 1:4,000



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- | | | | |
|------------------------------------|-----------------------------------|-----------------------------------|----------------|
| ○ Existing Manholes | — Minor Issues (Sags, Ovaling) | — Severe Lining Repairs | — Not Surveyed |
| — Good Condition | — Moderate Issues (Sags, Ovaling) | — Moderate (Requires Replacement) | |
| — Operational / Maintenance Issues | — Moderate Lining Repairs | — Severe (Requires Replacement) | |

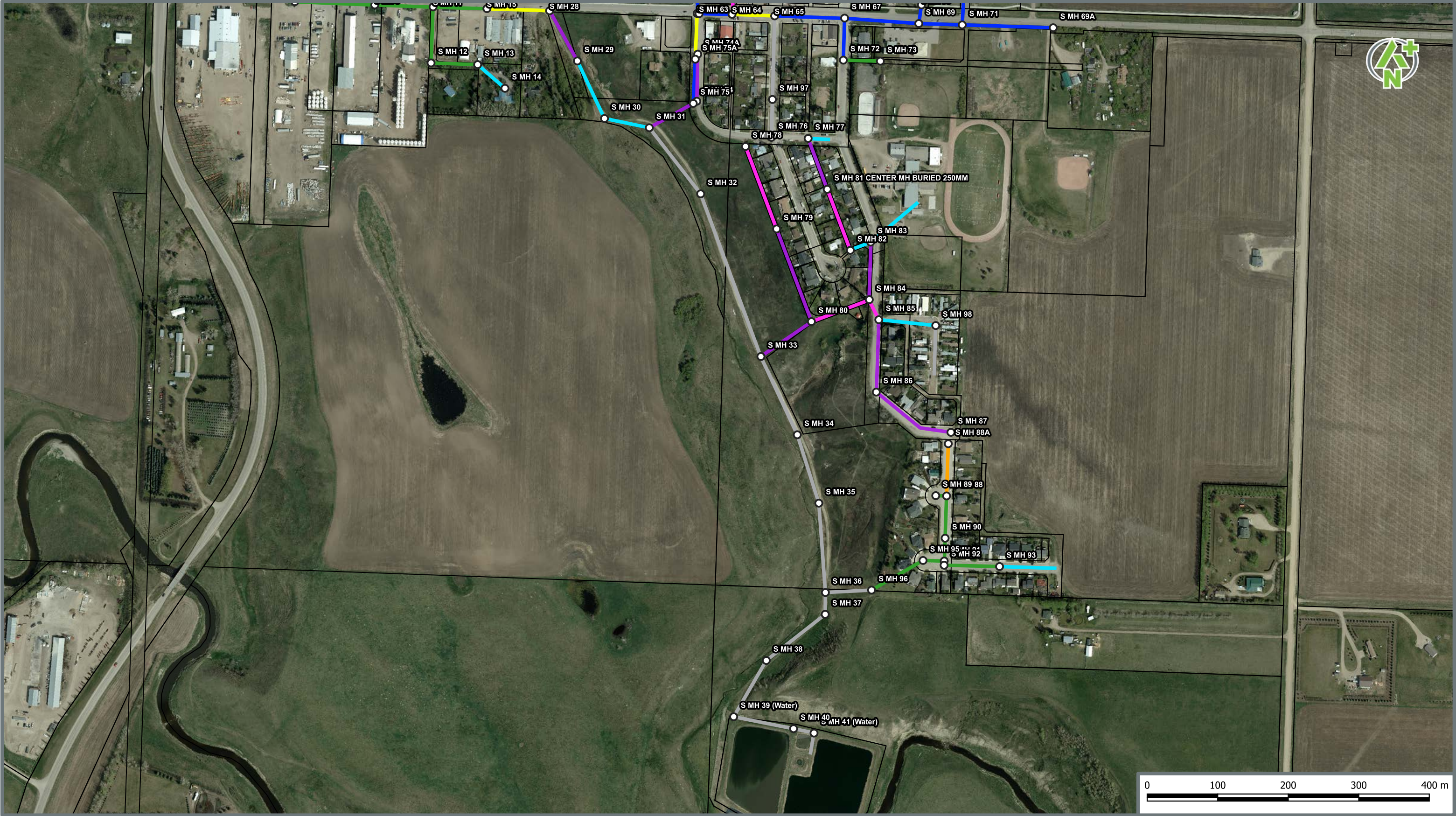


Figure S13B - CCTV Results

Scale 1:5,000



PREPARED FOR VILLAGE OF LINDEN UMP 2021

- | | | | |
|------------------------------------|-----------------------------------|-----------------------------------|----------------|
| ○ Existing Manholes | — Minor Issues (Sags, Ovaling) | — Severe Lining Repairs | — Not Surveyed |
| — Good Condition | — Moderate Issues (Sags, Ovaling) | — Moderate (Requires Replacement) | |
| — Operational / Maintenance Issues | — Moderate Lining Repairs | — Severe (Requires Replacement) | |