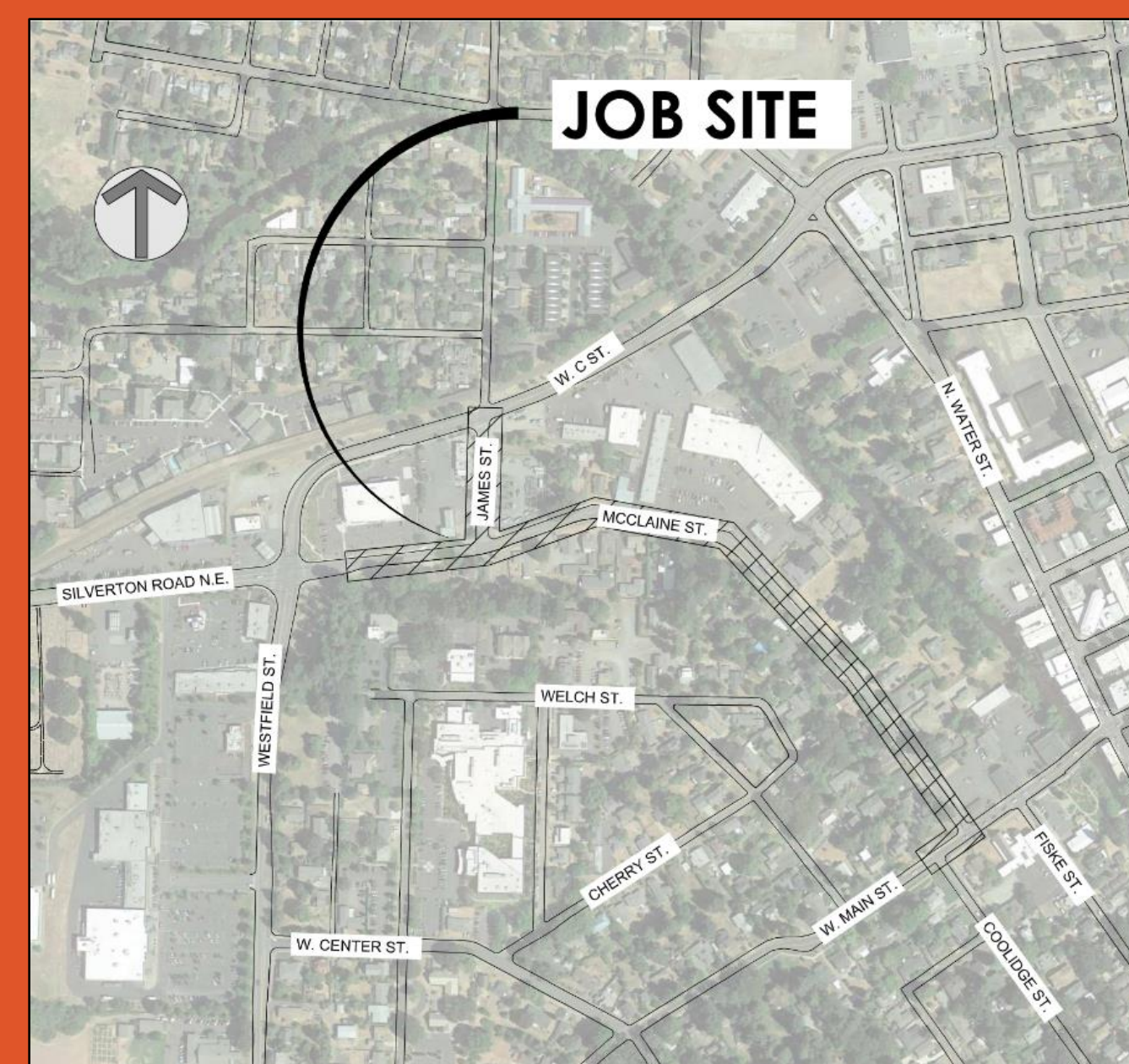


PROJECT BACKGROUND

- LOCATED IN SILVERTON, OREGON
- MCCLAIN STREET BETWEEN C STREET AND MAIN STREET HAS EXCEEDED ITS USEFUL LIFE AND REQUIRES RECONSTRUCTION

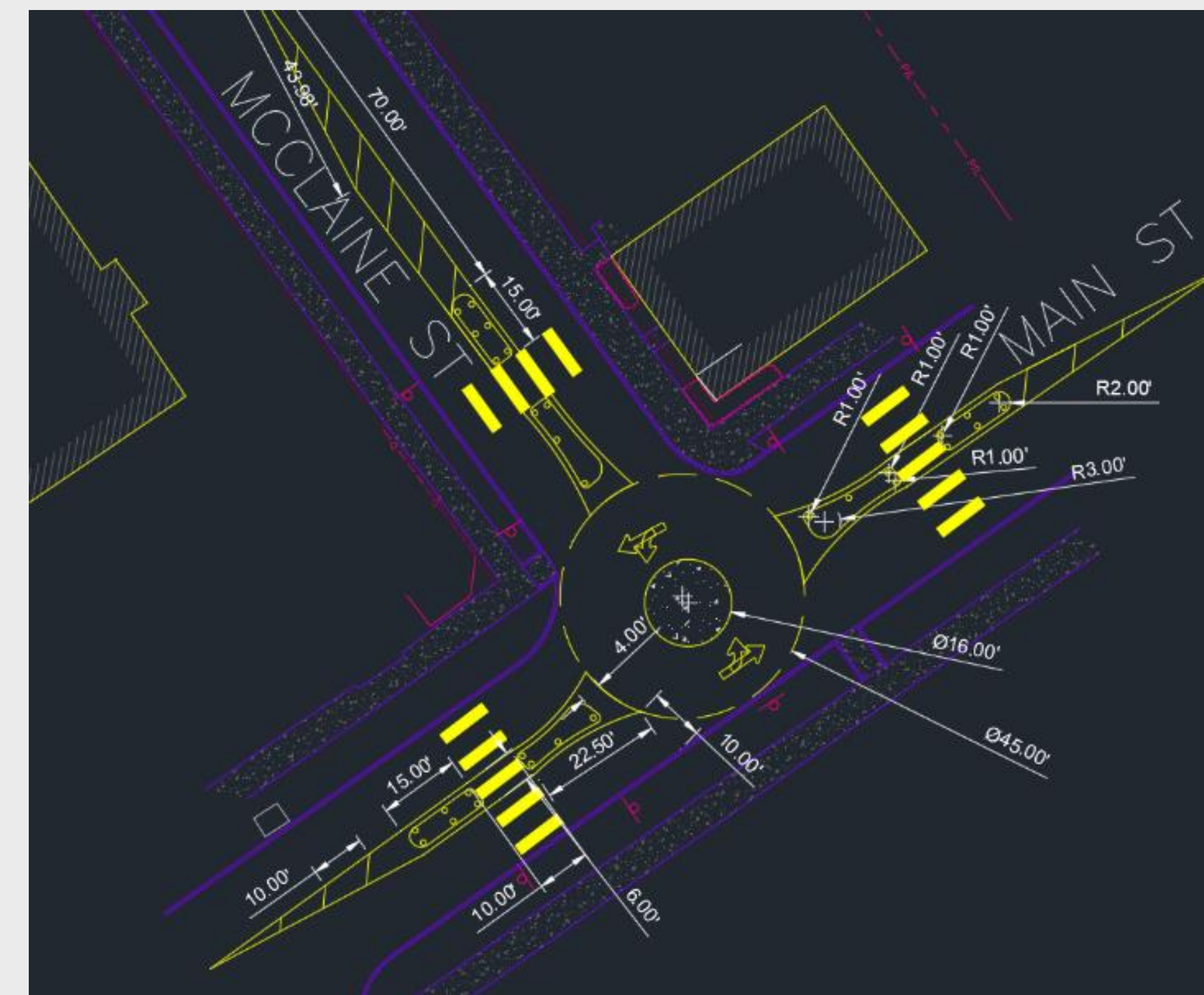
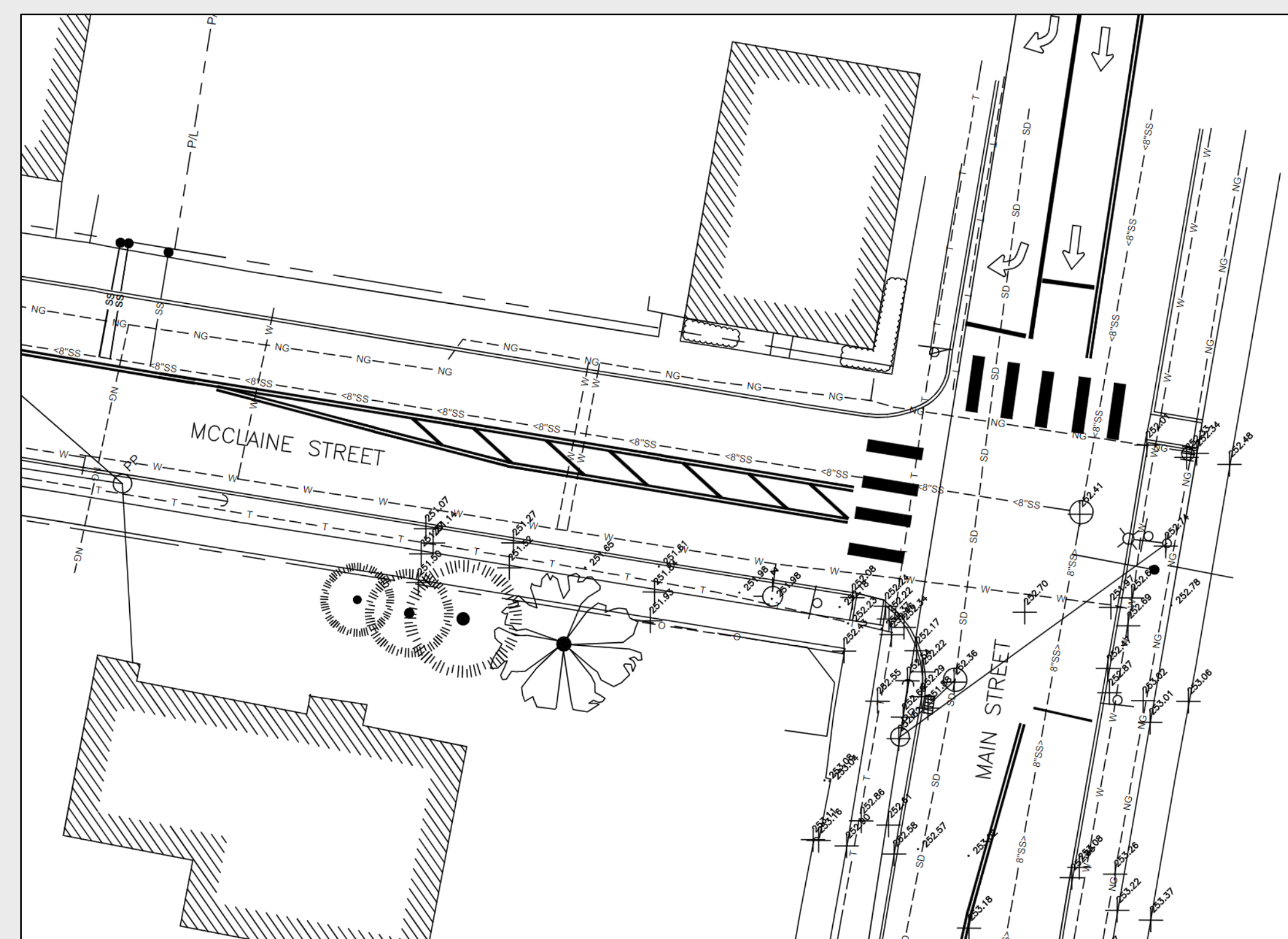


SITE MAP COURTESY OF KELLER ASSOCIATES

M3 DESIGN OBJECTIVES

- REDESIGN INTERSECTION AT MCCLAIN STREET AND MAIN TO INCREASE FUNCTIONALITY AND STREET IMPROVE USER SAFETY
- ALTER ROADWAY WITHIN THE RIGHT-OF-WAY
- REDUCE DRIVER SPEEDS
- COLLECT AND TREAT STORMWATER RUNOFF TO PREVENT ROADWAY FLOODING

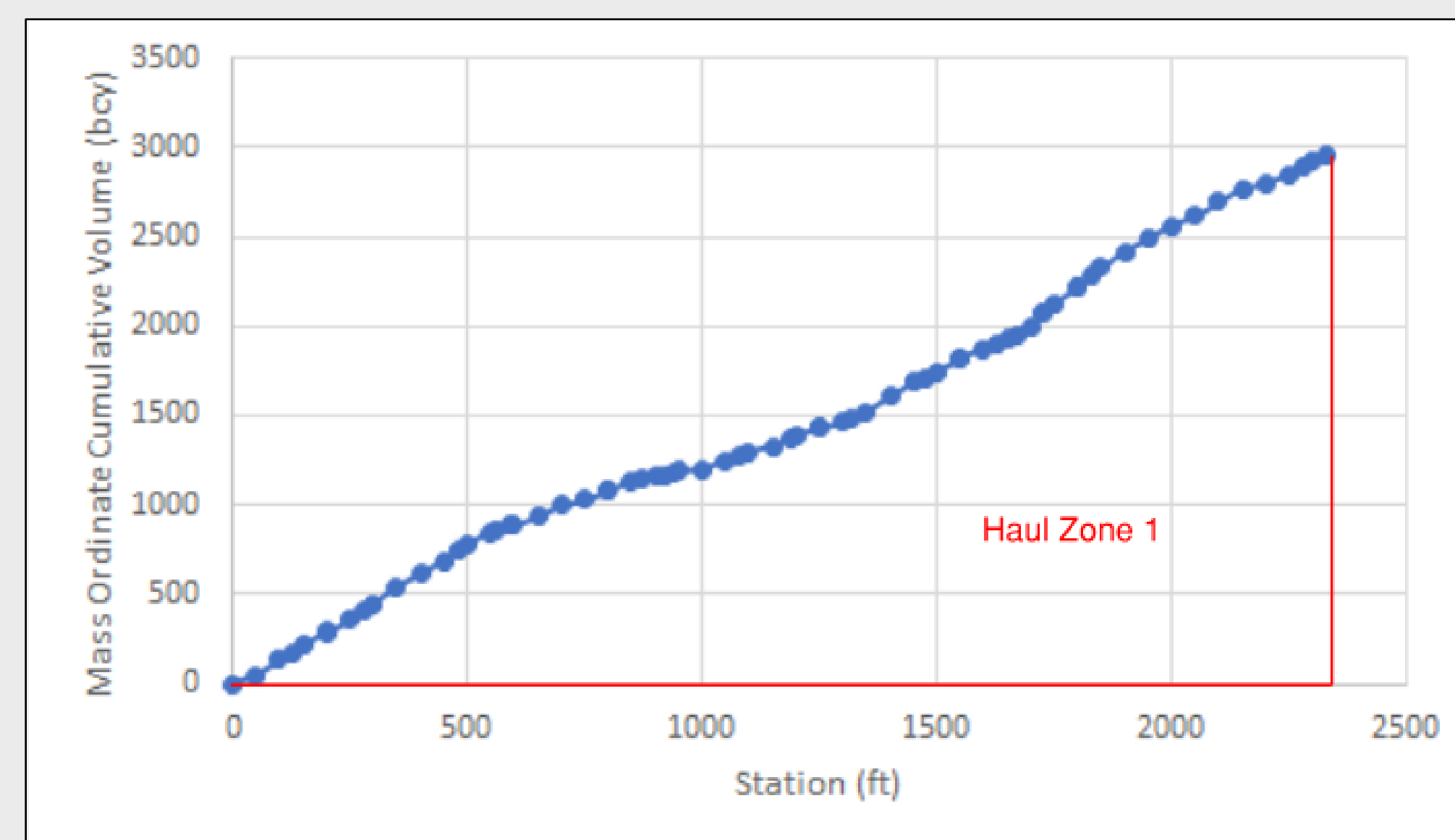
MCCLAIN STREET IMPROVEMENTS



EXISTING CONDITIONS (LEFT) AND MINI-ROUNDAABOUT DESIGN (RIGHT) AT THE INTERSECTION OF MCCLAIN STREET AND MAIN STREET

EARTHWORK MANAGEMENT

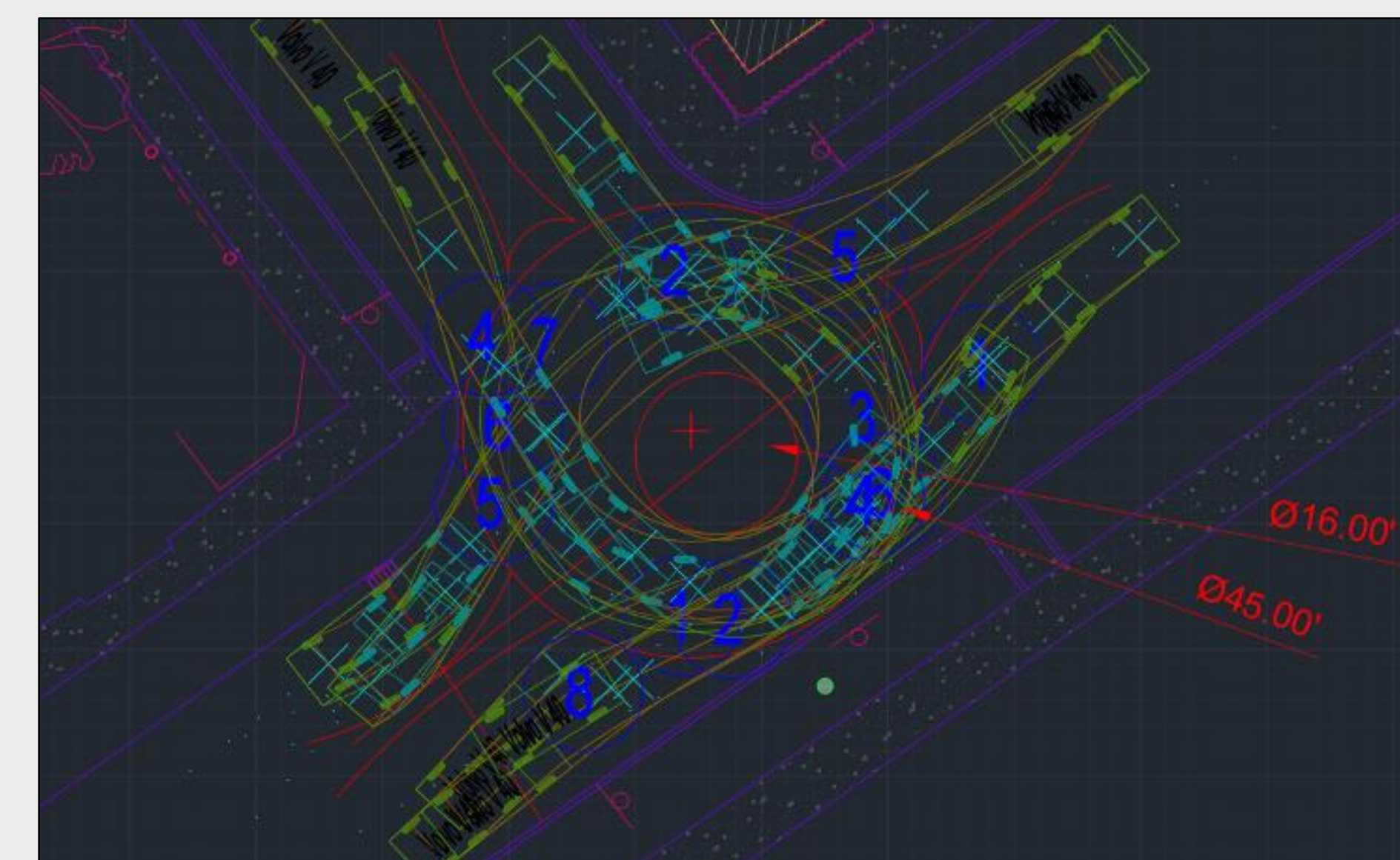
- GEOTECHNICAL REPORT SHOWS BORING LOG DATA TO APPROXIMATE HOW MUCH ASPHALT AND CONCRETE TO REMOVE
- NEW ROADWAY (FULL DEPTH RECONSTRUCTION)



HAUL ZONE FOR MCCLAIN STREET

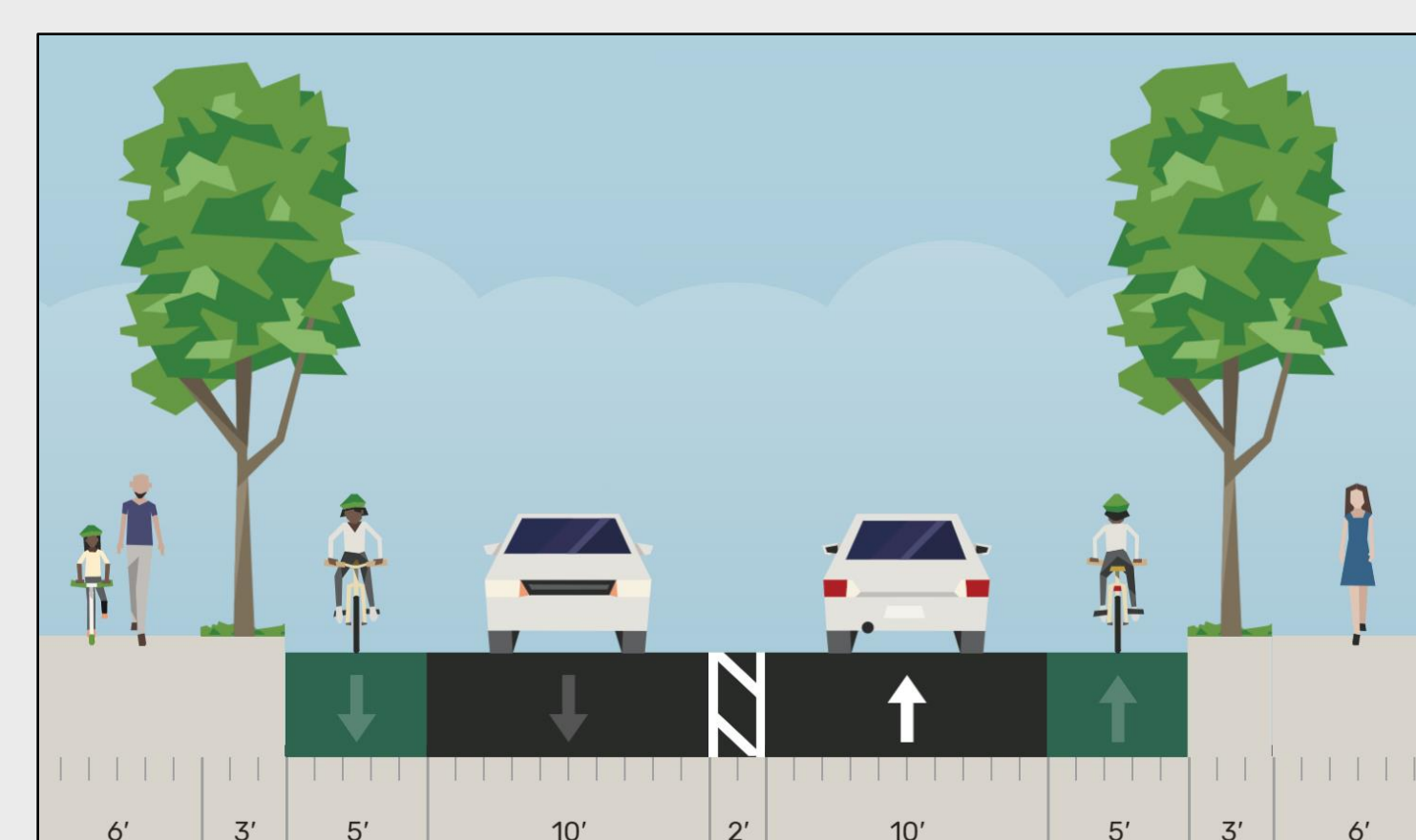
MINI-ROUNDAABOUT DESIGN

- BIKE AND PEDESTRIAN FRIENDLY ROUNDAABOUT DESIGN
- REDUCES RIGHT-ANGLE CRASHES WITHIN THE INTERSECTION AND IMPROVES LEVEL OF SERVICE



SWEPT PATH ANALYSIS

ROADWAY REDESIGN AND SPEED MITIGATION PLAN



MCCLAIN STREET CROSS SECTION

- FULL REDESIGN OF RIGHT-OF-WAY
- NEW BIKE LANES, SIDEWALKS, AND PLANTER STRIPS TO PROMOTE URBAN MOBILITY AND INCREASE VISUAL APPEAL
- USED NARROWING TECHNIQUES TO REDUCE DRIVER SPEEDS

GEOMATICS

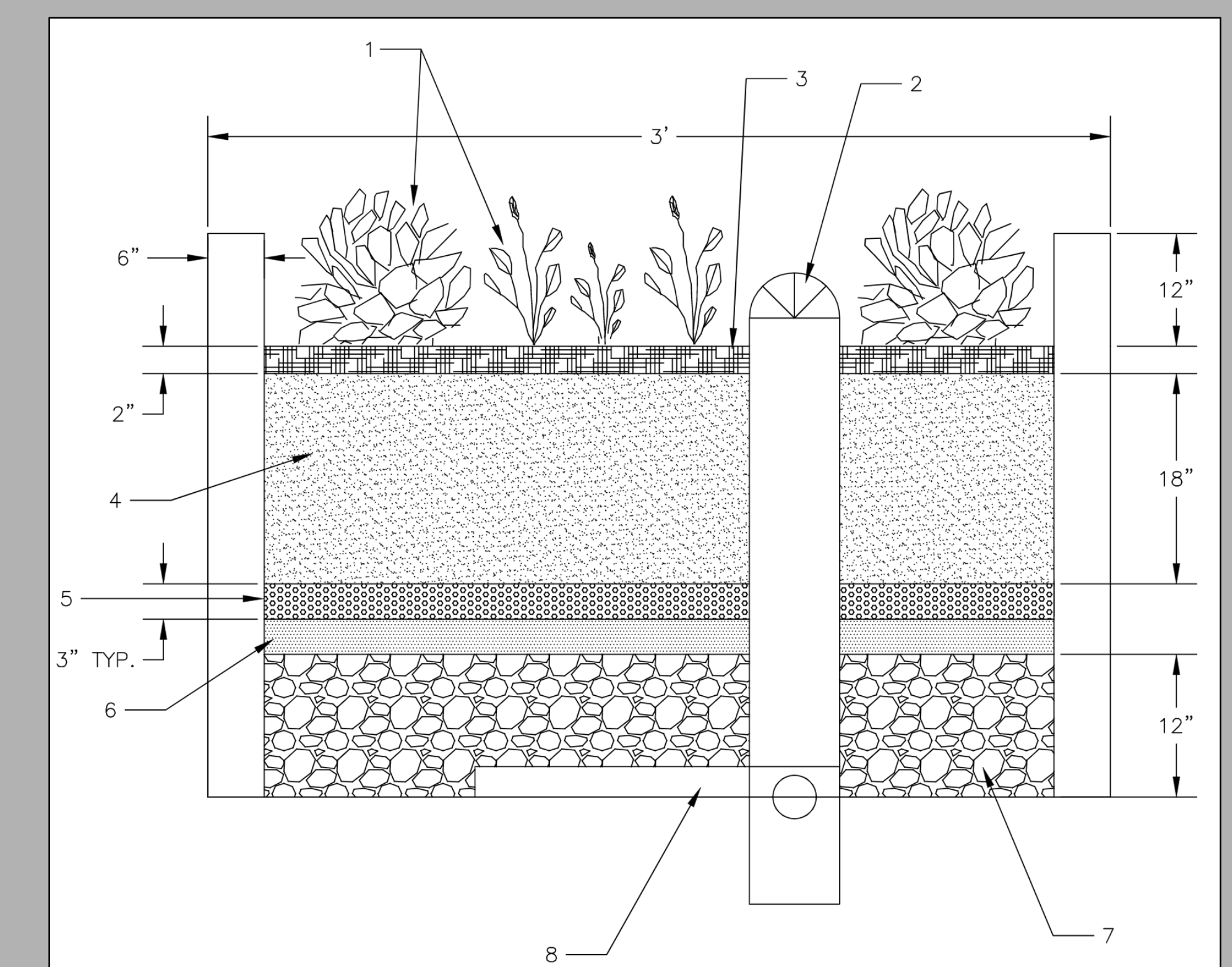
- PROCESSED MULTIPLE SOURCES OF SURVEY DATA TO PRODUCE ACCURATE THREE-DIMENSIONAL DRAWINGS
- USED LIDAR DATA TO DETERMINE ROADWAY GEOMETRIES
- ASSISTED OTHER DISCIPLINES IN THEIR DESIGN



TOPOGRAPHY OF MCCLAIN STREET

WATER RESOURCES

- WORKED WITH GEOMATICS ENGINEER TO DETERMINE WHERE WATER WILL FLOW
- USED THE RATIONAL METHOD TO CALCULATE PEAK RUNOFF VOLUMES AT POINT OF ANALYSIS
- SIZED TWO FILTRATION PLANTERS



FILTRATION PLANTER CROSS-SECTION