

# TECHNICAL MEMORANDUM

**Date:** April 12, 2024 **BKF Job Number:** 221310

**Deliver To:** City of McMinnville (City)

**From:** BKF Engineers

Subject: Third Street Improvement Project - Utility Audit Memorandum

The purpose of this memorandum is to provide a summary of existing utilities considered for replacement within the Third Street Improvement Project limits and adjacent streets. The existing utilities have been evaluated for replacement based on age, condition, location, and planned future improvements noted by the City and/or utility purveyors. See below for a summary of each utility and attached for supporting exhibit.

## **Storm:**

<u>Third Street:</u> All storm drainage infrastructure within project limits is proposed for replaced due to age, condition, and/or location. New storm drain pipes will be re-configured to be within the roadway and no longer be located under sidewalks or curb alignments. Inlets will be located based on the proposed grading and curb re-alignment. Stormwater routing will continue to follow the existing drainage patterns.

<u>Cross Streets:</u> Existing storm mains within Cowls Street, Davis Street, and Ford Street (between 3<sup>rd</sup> Street and 4<sup>th</sup> Street) have been identified by the City to be in very poor condition, with portions of the pipes broken or missing, and are proposed to be replaced based on direction from the City.

<u>Downstream Conveyance</u>: Stormwater along Third Street between Adams Street and Johnson Street is routed to three separate discharge locations. All three stormwater conveyance routes have been reviewed using the City of McMinnville Storm Drainage Master Plan to determine if any known deficiencies exist downstream of the project site prior to these discharge locations. Two of the routes have known issues. Per Section 7a of the Master Plan, it is noted that downstream sections of existing storm line to the north of the project site within 4<sup>th</sup> Street are undersized/deficient between Adams Street and Cowls Street as well as sections west of Adams Street near the discharge point. It is also noted that downstream sections of existing storm line to the south of the project site within 1<sup>st</sup> Street are undersized/deficient between Davis Street and Adams Street as well as a section within Adams Street south of 1<sup>st</sup> Street prior to the discharge.

No downstream pipes (aside from those noted above in the "cross streets" section) are currently proposed for replacement as part of this project but it is recommended the City evaluate this further to determine if the project scope should expand to include upgrades to these systems.

# **Sanitary Sewer:**

<u>Third Street:</u> The majority of Third Street between Adams Street and Johnson Street does not contain sanitary sewer mains as most lateral connections are located within the alleys behind the buildings. The

two parallel sanitary sewer mains within Third Street between Evans Street and Ford will be replaced with one new sanitary sewer main due to the condition and age of the existing (clay tile) pipes. The sanitary sewer main within Third Street between Ford Street and the railroad tracks and between the railroad tracks and Irvine Street are proposed for replacement due to location per City direction; the new mains will be located within the roadway and no longer be located under sidewalks or curb alignments for ease of future maintenance. All existing sanitary laterals are noted for replacement where sanitary sewer mains are to be replaced.

#### **Cross Streets:**

Existing (clay tile) sanitary sewer mains within Cowls Street and Evans Street will be replaced due to age and condition from 3<sup>rd</sup> Street towards both 2<sup>nd</sup> Street to the south and 4<sup>th</sup> Street to the north. At a minimum, these pipes will be replaced from manhole to manhole along Cowls Street and Evans Street. The sanitary sewer main within Galloway Street adjacent to the new improvements is proposed for replacement due to location per City direction; the new main will be shifted east to no longer be located under sidewalks for ease of future maintenance. All existing sanitary laterals are noted for replacement where sanitary sewer mains are to be replaced.

# **Downstream Conveyance:**

The City of McMinnville Sanitary Sewer Conveyance System Master Plan was reviewed and no information concerning the system within the project limits or downstream appears to be mentioned. Per conversations with the City, there are no known sanitary sewer backup issues within this portion of the public system either.

#### Water:

# **Third Street:**

Per McMinnville Water & Light direction, all existing cast iron water mains within the project area are to be replaced with new ductile iron pipe. The existing 14" cast iron water main from Adams Street to Ford Street will be replaced with a new ductile iron main. All existing water service laterals are to be replaced along this portion of new main line. Between Ford Street and the railroad tracks, there are two existing parallel water mains: an 8" cast iron main and a 16" ductile iron main. The existing 8" cast iron main between Ford Street and the railroad tracks will be abandoned and all existing services off this main will be replaced and connected to the existing 16" ductile iron main that is to remain.

## **Cross Streets:**

Per McMinnville Water & Light direction, the existing cast iron mains at all cross streets are also to be replaced with new ductile iron pipe. Pipe replacements will occur within the intersections and extend 10'-20' past the project surface improvement limits to the north and south. Baker Street, Davis Street, Ford Street, and Irvine Street all have water mains shown for replacement. All existing water service laterals are to be replaced along these portions of new main line.

#### **Natural Gas:**

Natural gas in the area is provided by NW Natural. Per initial coordination, NW Natural has informed the design team that they will not be proactively installing any additional gas mains within the project area; however, if existing gas mains are in conflict, then theses mains would need to be relocated with the possibility of extending the gas mains at that time.

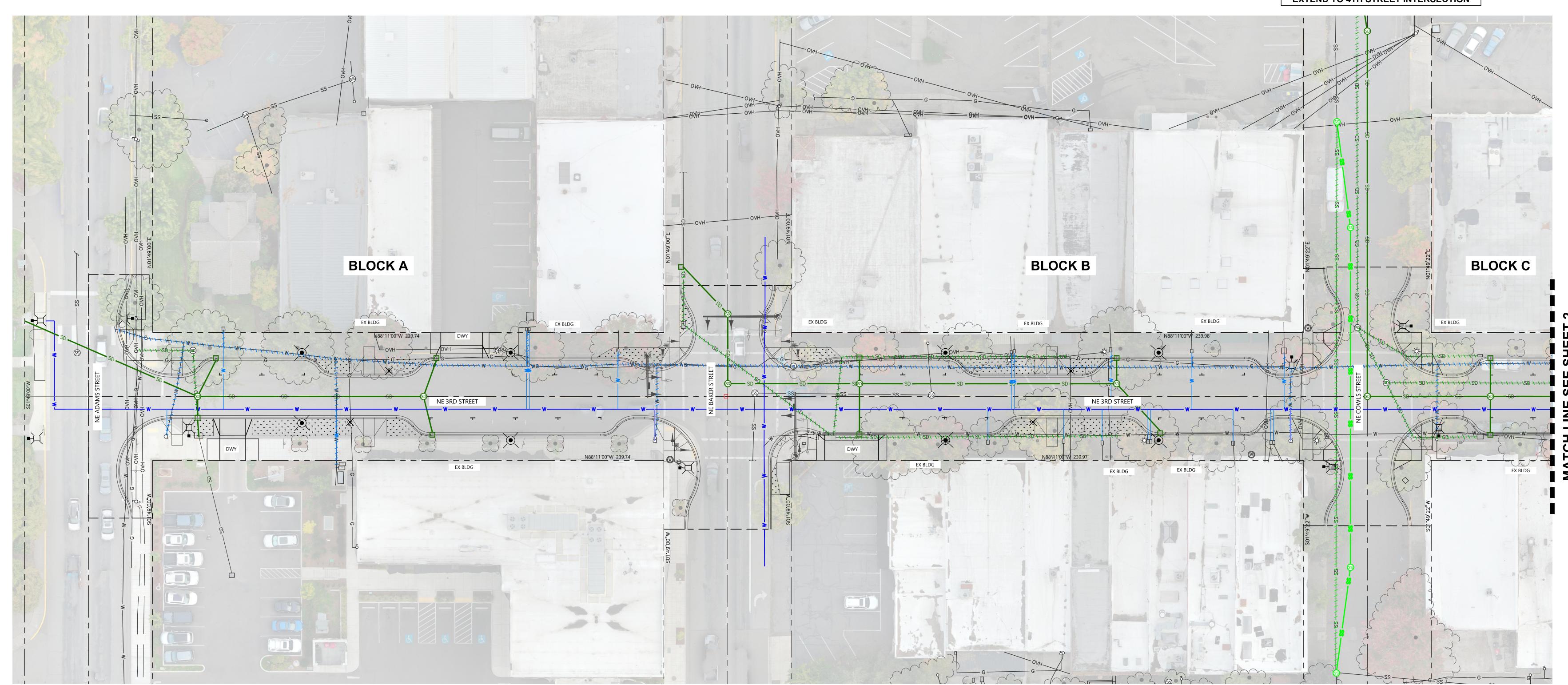


At this time, no gas mains are proposed for replacement/relocation but the design team will continue to coordinate with NW Natural as the design progresses to determine if conflicts require mains to be relocated.

# **Electrical and Telecommunication:**

It is anticipated that new electrical lines will be required for the proposed street lights and potentially for the upgraded traffic signals; however, specific improvements to the existing electrical system have not yet been determined as the layout of these lights are still in flux. Similar to gas, if existing electrical or telecommunication lines are in conflict with the proposed design, then theses lines will need to be relocated. The design team will continue to evaluate these utilities as the design progresses.





PROPERTY LINE

CENTER LINE

PROPOSED WATER MAIN

PROPOSED WATER LATERAL

PROPOSED FIRE SERVICE LATERAL

LEGEND:

PROPOSED SANITARY SEWER LINE

PROPOSED STORM DRAIN LINE

REMOVE OR ABANDON EXISTING WATER LINE

REMOVE OR ABANDON EXISTING SANITARY SEWER LINE

REMOVE OR ABANDON EXISTING STORM DRAIN LINE

© PROPOSED STORM DRAIN MANHOLE

PROPOSED STORM DRAIN INLET

□ HISTORICAL CISTERN

HISTORICAL WATER SUPPLY WELL

PROPOSED STREET LIGHTS

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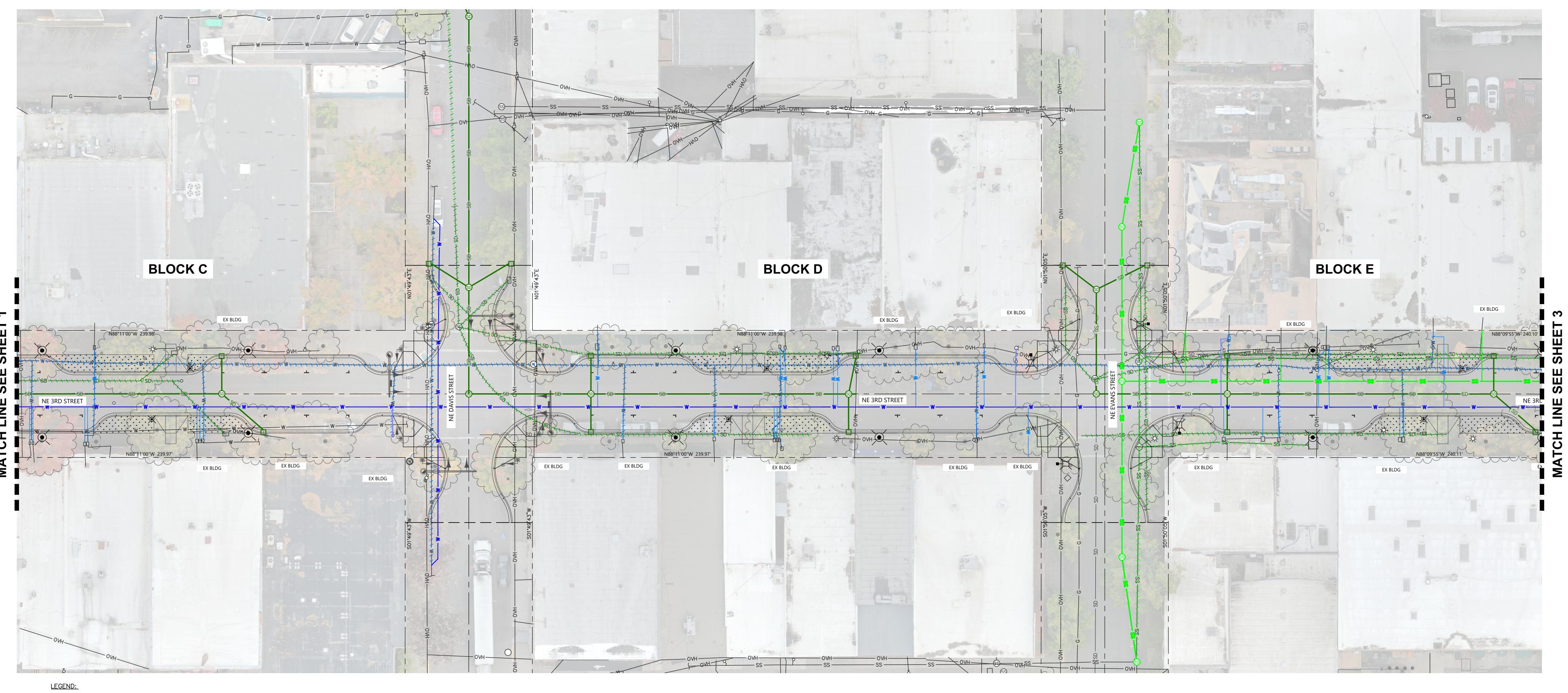
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1" = 20'

CLIENT
CITY OF MCMINNVILLE

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SHEET
1 OF 4





CENTER LINE

W PROPOSED WATER MAIN

PROPOSED WATER LATERAL

PROPOSED FIRE SERVICE LATERAL

PROPOSED SANITARY SEWER LINE

PROPOSED STORM DRAIN LINE

REMOVE OR ABANDON EXISTING WATER LINE

REMOVE OR ABANDON EXISTING SANITARY SEWER LINE

REMOVE OR ABANDON EXISTING STORM DRAIN LINE

REMOVE OR ABANDON EXISTING STORM DRAIN LINE

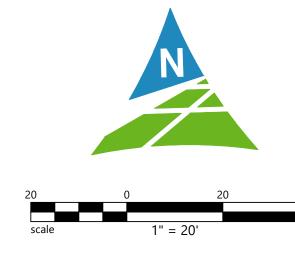
PROPOSED STORM DRAIN MANHOLE

PROPOSED STORM DRAIN INLET

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PROPOSED STREET LIGHTS

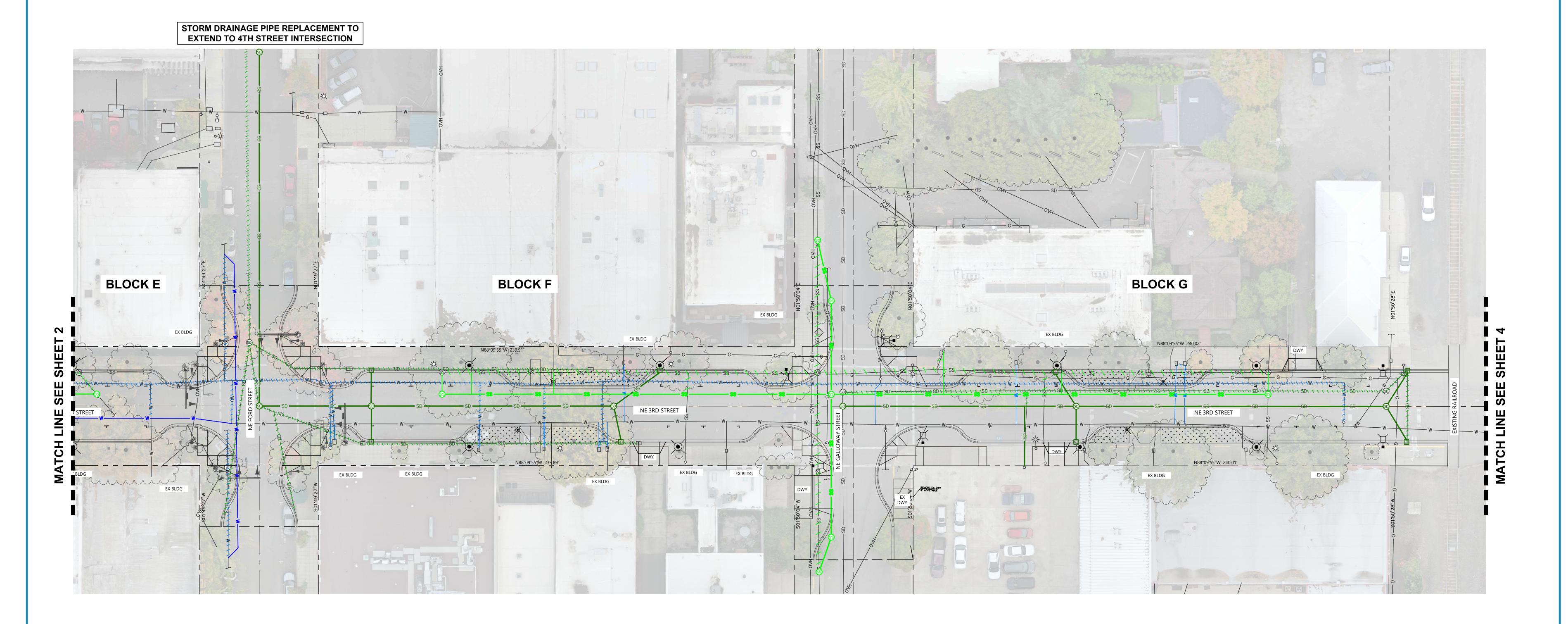


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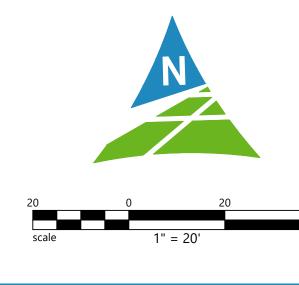
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2 OF 4



LEGEND: PROPERTY LINE CENTER LINE PROPOSED WATER MAIN PROPOSED WATER LATERAL PROPOSED FIRE SERVICE LATERAL PROPOSED SANITARY SEWER LINE PROPOSED STORM DRAIN LINE REMOVE OR ABANDON EXISTING WATER LINE REMOVE OR ABANDON EXISTING SANITARY SEWER LINE REMOVE OR ABANDON EXISTING STORM DRAIN LINE PROPOSED STORM DRAIN MANHOLE PROPOSED STORM DRAIN INLET HISTORICAL CISTERN HISTORICAL WATER SUPPLY WELL PROPOSED STREET LIGHTS

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SHEET
3 OF 4

**AUDIT ATTACHMENT** 

— — — PROPERTY LINE

PROPOSED WATER MAIN

CENTER LINE

PROPOSED WATER LATERAL

PROPOSED FIRE SERVICE LATERAL

PROPOSED SANITARY SEWER LINE

PROPOSED STORM DRAIN LINE

REMOVE OR ABANDON EXISTING WATER LINE

REMOVE OR ABANDON EXISTING SANITARY SEWER LINE

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PROPOSED STORM DRAIN MANHOLE

PROPOSED STORM DRAIN INLET

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M HISTORICAL WATER SUPPLY WELL

PROPOSED STREET LIGHTS

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