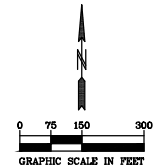
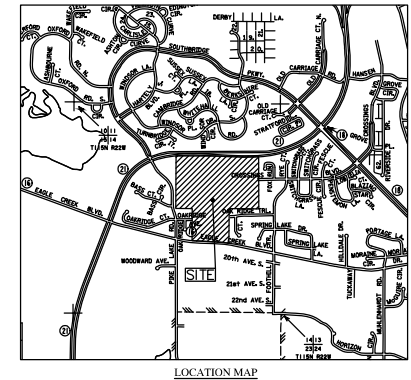
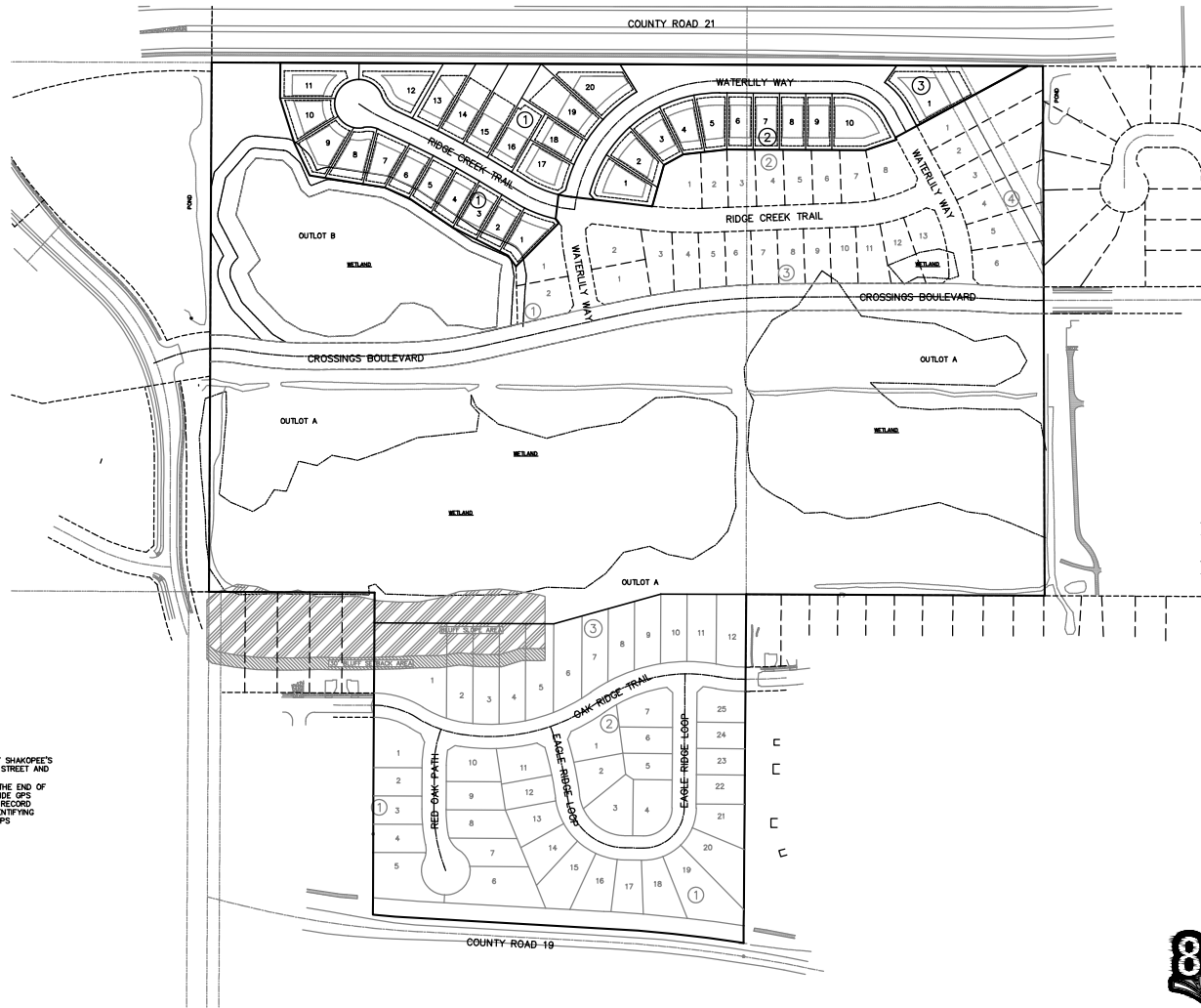


RIDGE CREEK 3RD ADDITION FINAL UTILITY & STREET CONSTRUCTION PLAN SHAKOPEE, MINNESOTA



- SHEET INDEX**
1. COVER SHEET
 2. LEGEND SHEET
 3. OVERALL WATERMAIN PLAN
 4. OVERALL SANITARY & STORM SEWER
 - 5-7. SANITARY SEWER & WATERMAIN
 - 8-10. STORM SEWER
 - 11-12. STREET CONSTRUCTION
 13. LIGHT & SMALL UTILITIES PLAN
 - 14-18. DETAILS

NOTE:

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CITY OF SHAKOPEE'S GENERAL SPECIFICATIONS AND STANDARD DETAIL PLATES FOR STREET AND UTILITY CONSTRUCTION.
2. THE CONTRACTOR SHALL INSTALL A STEEL MARKER POST AT THE END OF EACH SANITARY SEWER SERVICE. THE DEVELOPER SHALL PROVIDE GPS COORDINATES OF EACH SANITARY SEWER SERVICE WYE. FINAL RECORD DRAWINGS SUBMITTED TO THE CITY SHALL HAVE A TABLE IDENTIFYING EACH SANITARY SEWER SERVICE WITH THE AFOREMENTIONED GPS COORDINATES.

PREPARED BY PIONEER ENGINEERING, P.A.

JOHN M. MOLINARO
REGISTERED PROFESSIONAL CIVIL ENGINEER
45831
REG. NO.

PETER J. HAWKINSON
REGISTERED PROFESSIONAL LAND SURVEYOR

42299
REG. NO.

DEVELOPER

LENNAR
16305 36TH AVENUE NORTH, SUITE 600
PLYMOUTH, MINNESOTA 55344



PROJECT COORDINATES
N 44° 46' 10"
W 93° 25' 33"

PIONEER engineering
THE ENGINEERS LAND SURVEYORS LANDSCAPE ARCHITECTS
2422 Enterprise Drive
Mendota Heights, MN 55120
(651) 681-1914
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I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

Name: John M. Molinaro
Reg. No.: 45831
Exp.: 12/31/2018

Revisions

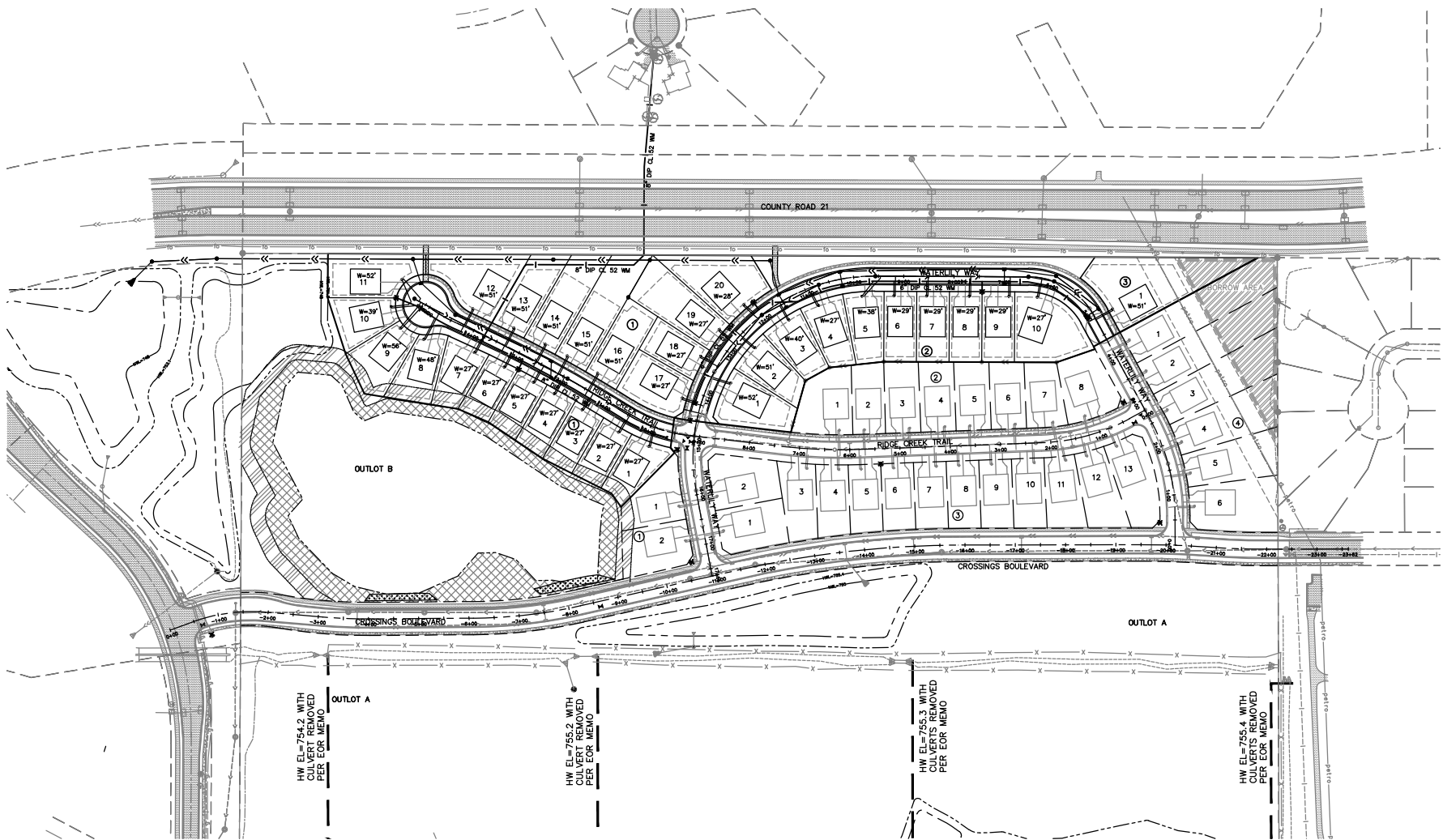
Date: 10/1/2018
Designed: JMM
Drawn: MSN

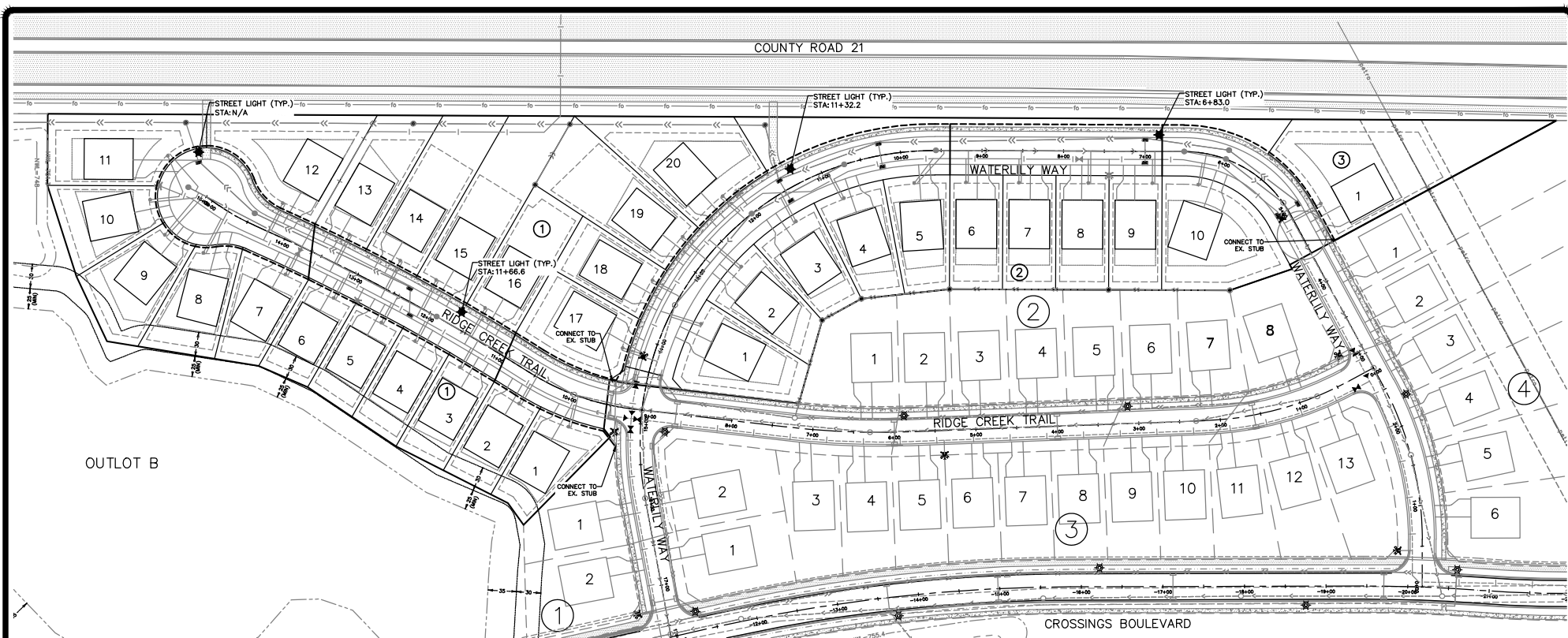
COVER SHEET

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RIDGE CREEK 3RD ADDITION
SHAKOPEE, MINNESOTA

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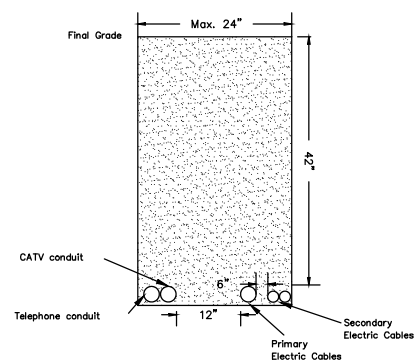


TYPICAL TRENCH DETAILS

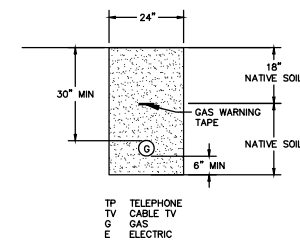
- ALL TRENCHES MUST CONFORM TO CURRENT CITY, COUNTY, STATE, FEDERAL, AND OSHA SPECIFICATIONS AND REQUIREMENTS.
- 80% COMPACTION ON ALL NATIVE MATERIAL
- 95% COMPACTION TYPE II AGGREGATE BASE.
- TOP 18" OF TRENCH FILL IN PAVED AREAS THAT WILL BE SUBJECT TO TRAFFIC LOADING SHALL BE TYPE II BASE.
- TOP 18" OF TRENCH FILL ON PRIVATE PROPERTY THAT WILL NOT BE SUBJECT TO TRAFFIC LOADING MAY BE NATIVE MATERIAL.
- 6" SEPARATION REQUIRED BETWEEN PRIMARY CONDUIT AND SIDE OF TRENCH, MAINTAIN 1 1/2" SEPARATION BETWEEN EACH CONDUIT.
- 2" SEPARATION REQUIRED BETWEEN SECONDARY CONDUIT AND SIDE OF TRENCH, MAINTAIN 1 1/2" SEPARATION BETWEEN EACH CONDUIT.
- ELECTRICAL PRIMARY TRENCH AND ADJOINED TRENCHES SHALL HAVE A MINIMUM DEPTH OF 42" AND A MAXIMUM DEPTH OF 48", AND SHALL HAVE A MINIMUM SEPARATION OF 12" FROM ALL OTHER UTILITIES.
- PRIMARY ELECTRIC AND GAS MAY NOT BE LOCATED IN THE SAME TRENCH, AND MUST BE SEPARATED BY VIRGIN SOIL IF INSTALLED PARALLEL.
- ELECTRIC ONLY CONDUIT, SERVICE/SECONDARY TRENCH SHALL HAVE A MINIMUM DEPTH OF 42" AND MAXIMUM DEPTH OF 48".
- GAS SHALL HAVE A MINIMUM SEPARATION OF 12" FROM THE SIDE OF TRENCH.

- GAS SHALL BE INSTALLED TO A MINIMUM DEPTH OF 36" IN STATE HIGHWAY, 30" IN STREETS OR ROADWAYS, 24" ON PRIVATE PROPERTY. GAS SHALL HAVE A MINIMUM SEPARATION OF 12" FROM ALL OTHER UTILITIES.
- SANITARY SEWER AND STORM SEWER MUST MAINTAIN A 2' SEPARATION FROM ALL GAS UTILITIES, AND A 1' SEPARATION FROM ALL ELECTRICAL UTILITIES.
- SANITARY SEWER AND STORM SEWER MAY NOT BE INSTALLED IN THE SAME TRENCH AS GAS OR ELECTRIC. IF INSTALLED PARALLEL THEY MUST BE SEPARATED BY A MINIMUM OF 12" OF VIRGIN SOIL.
- ELECTRIC MUST MAINTAIN A MINIMUM OF 2' SEPARATION FROM ALL WATER MAINS, AND A 1' SEPARATION FROM ALL OTHER UTILITIES. IF A 1' SEPARATION CAN NOT BE MADE THE ELECTRIC CONDUIT WILL BE ENCASED IN CONCRETE TO 18" EITHER SIDE OF THE CONDUIT, OR GALVANIZED RIGID STEEL CONDUIT WILL BE USED A MINIMUM OF 4" ON EITHER SIDE OF THE CONDUIT.
- HYDRANTS TO BE LOCATED ON THE OPPOSITE SIDE OF THE STREET FROM ALL MAIN ELECTRICAL TRENCHES WHENEVER POSSIBLE.

TYPICAL PRIMARY/SECONDARY TRENCH



TYPICAL GAS TRENCH

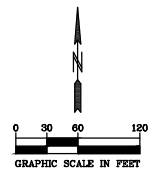


LEGEND

- STREET LIGHT (TYP.)
- UTILITY JOINT TRENCH
- STREET LIGHT WIRE
- CONDUIT CROSSING

GENERAL NOTES:

- CONDUIT LOCATIONS MAY BE MODIFIED IN THE FIELD BY THE ENGINEER.
- CONDUIT WILL BE SUPPLIED BY SPUC AND INSTALLED BY CONTRACTOR.
- STREET LIGHTS TYPICALLY LOCATED 4' FROM FACE CURB, OR 2.5' FROM TRAIL OR WALK.



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I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
 Name: *John M. Molero*
 Reg. No.: 55553 Date: 12/20/2018

Revisions

Date: 12/1/2018
 Designed: JMM
 Drawn: MSN

LIGHT & SMALL UTILITIES PLAN

LENNAR
 16305 36TH AVENUE NORTH, SUITE 600
 PLYMOUTH MN 55446-4370

RIDGE CREEK 3RD ADDITION
 SHAKOPEE, MINNESOTA

13 OF 18