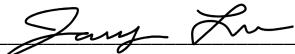
 <p>CITY OF ST PAUL Department of Public Works 25 West 4th Street 1500 City Hall Annex Saint Paul, MN 55102</p>	<h1 style="margin: 0;">ORDINANCE PERMIT</h1>	<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center; margin: 0;">OFFICE USE ONLY</p> <p>Application No. _____</p> <p>Application Date _____</p> <p>SPR File # _____</p> <p>Permit No. _____</p> </div>	
<p>Type of Permit (select one only):</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <input type="checkbox"/> Base Roadway <input type="checkbox"/> Bridge <input type="checkbox"/> Retaining Wall </div> <div style="width: 30%;"> <input type="checkbox"/> Roadway Sidewalks <input type="checkbox"/> Roadway Traffic <input type="checkbox"/> Sanitary Drop Shaft </div> <div style="width: 30%;"> <input type="checkbox"/> Sanitary Sewer Collection System <input type="checkbox"/> Storm Sewer Collection System <input type="checkbox"/> Storm Sewer Treatment System </div> </div>			
<p>Phase:</p>	<p>Location (Street On, From/To, and Adjacent Lots/Blocks):</p>		
<p>Description of Work: <i>[Include the description provided in the permit application and all subsequent amendments or revisions, which are hereby incorporated by reference.]</i></p>			
<p>Applicant Contact Person:</p>	<p>Contact Person Title:</p>	<p>Contact Person Telephone:</p>	<p>Contact Person Email:</p>
<p>Bond Co.:</p>		<p>Bond Amount:</p>	<p>Bond No.:</p>
<p>Insurance Co.:</p>		<p>Insurance Certificate No.:</p>	
<p>Permit Conditions:</p>			

This permit is issued with the stipulation that the work of the permittee and related agents, employees and contractors shall conform in all respects to the Redevelopment Agreement (including all Legal Requirements as defined by Article 1), the City of Saint Paul Department of Public Works Ordinance Permit Process Document, and the Department of Public Works List of Applicable Standards & Specifications. The permit shall be available for display at the site referred to herein and shown to any Police Officer or Inspector upon demand and does not authorize or allow for interference with the work of any Contract made or to be made with the City of Saint Paul.

**THIS PERMIT MAY BE REVOKED AT ANY TIME
BY THE DIRECTOR OF PUBLIC WORKS**

<p>A PERMIT FOR THE ABOVE DESCRIBED CONSTRUCTION IS AUTHORIZED BY:</p>		
<p>Signature <u></u></p>	<p>Title _____</p>	<p>Date _____</p>
<p>Printed Name _____</p>		

PERMIT NUMBER _____

ITEMS TO BE COMPLETED PRIOR TO ACCEPTANCE OF INFRASTRUCTURE AND RELEASE OF PERMIT

Prior to acceptance of any infrastructure and release of City permits, the following items must be completed to the satisfaction of the City:

- ☐ Corrective (punch list) work completed;
- ☐ Original reproducible CAD and PDF as-built plans, signed by the Engineer of Record, provided to Public Works; Submittal of final copies of Metropolitan Council Environmental Services and MN Pollution Control Agency Permits (Sewer Extension, SAC Determination, etc.);
- ☐ Full compliance with project Quality Management Plan or other document(s) governing quality management and quality assurance;
- ☐ Documentation of compliance with all applicable City and non-City permit requirements, including, but not limited to: City Public Works Right-of-Way Office, Minnesota Pollution Control Agency, Capitol Region Watershed District, and National Pollution Discharge Elimination System permit requirements;
- ☐ Documentation of roadway materials at compaction of grading and base, plant mix design report, strength;
- ☐ Video of all sanitary sewer mains and laterals, storm sewer mains and laterals, and any structural BMP's (pipe galleries, drain tile, sediment control structures, weir structures, etc.) installed under any permit, provided to the Public Works Sewer Division;
- ☐ Sewer Permit drawings for paving connections or stubs installed to service vertical development provided to Public Works, in addition to Private Service Lateral Permit Drawings;
- ☐ Documentation of Public Works notified for signal and lighting inspection of pole field layouts (staking), conduits and foundations installed, poles and wiring installed, and head positioning and phasing/detection verification (signals only);
- ☐ For infrastructure within parks: Documentation that Parks Department has been notified of completion status;
- ☐ All applicable operation and maintenance manuals provided to Public Works; and
- ☐ Certificate of Compliance signed and submitted to City by Engineer of Record.

RELEASE OF PERMIT:

Permit No. _____ Council Res. No. _____ Permit Date _____

Release Authorized by _____ Title _____

Drawing name: X:\2019\190225\plan sheets\Phase 3\190225util.dwg Dec 17, 2021 12:48pm



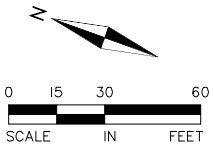
- ### UTILITY NOTES
- EXISTING UTILITIES, SERVICE LOCATIONS AND ELEVATIONS SHALL BE VERIFIED IN FIELD PRIOR TO CONSTRUCTION.
 - ALL UTILITY WORK WITHIN PUBLIC ROAD ROW SHALL COMPLY WITH MNDOT ENGINEERING DESIGN STANDARDS AND THE CITY OF ST. PAUL STANDARD DETAIL PLATES AND SPECIFICATIONS FOR MANHOLES AND SEWER.
 - CONNECTIONS TO PUBLIC SEWERS MUST BE DONE BY A LICENSED HOUSE SEWER CONTRACTOR UNDER A PERMIT FROM ST. PAUL DEPARTMENT OF PUBLIC WORKS.
 - CONTRACTOR TO CONFIRM SEWER TIE IN LOCATION AND ELEVATION PRIOR TO MAKING CONNECTION.
 - CONTRACTOR TO PROVIDE COORDINATION FOR TELEPHONE, GAS, AND ELECTRIC SERVICE CONNECTION WITH THE RESPECTIVE SERVICE COMPANY.
 - SERVICE CONNECTIONS SHALL BE INSTALLED WITH 8' OF COVER AS PER THE ESTABLISHED GRADE FROM THE MAIN TO THE PROPERTY LINE OR, IF APPLICABLE, TO THE UTILITY EASEMENT LINE. WHEN SOLID ROCK CONDITIONS ARE ENCOUNTERED, WATER SERVICES MAY BE INSTALLED WITH 6.5' OF COVER. AT THIS DEPTH, THE NEED FOR INSULATION WILL BE DETERMINED BY SPRWS INSPECTORS.
 - SANITARY SEWER SERVICE SHALL BE 4" PVC C900 WITH DUCTILE IRON CL 52 WYES CONFORMING TO ASTM STANDARD D-2665, FROM THE SERVICE CONNECTION POINT TO THE MAIN LIE CONNECTION POINT PER THE CITY'S STANDARD SPECIFICATIONS FOR CONSTRUCTING AND REPAIRING PRIVATE SEWER CONNECTIONS.
 - WATER SERVICES FOR TOWNHOMES SHALL BE 2" DIA. "TYPE K" COPPER W. 2" CORP. STOP AND 2" ADJUSTABLE CURB BOX. CURB BOX TO BE SET 3' FROM PROPOSED WATERMAIN AND AT FINISHED GRADE. ALL WATER SERVICE VALVE BOXES WITHIN CONSTRUCTION AREA MUST BE EXPOSED AND BROUGHT TO GRADE UPON COMPLETION OF CONSTRUCTION. ALL WATERMAIN OR SERVICE PIPES 2 INCHES AND SMALLER MUST BE TYPE K COPPER, 4" AND 6" PIPES MUST BE DUCTILE IRON CL 53, AND ALL PIPES 8" OR LARGER MUST BE DUCTILE IRON CL 52.
 - SANITARY MANHOLES TO BE 48" DIAMETER CONCRETE W/NEENAH R-1642 CASTING, UNLESS NOTED OTHERWISE. ALL SANITARY SEWER TO BE INSTALLED ACCORDING TO CITY OF ST. PAUL PUBLIC WORKS DETAILS AND SPECIFICATIONS. ALL SANITARY SEWER PIPES, MANHOLES, AND SERVICES MUST BE ADHERE SEWER CONNECTIONS.
 - PROVIDE AND INSTALL MECHANICAL THRUST RESTRAINT FOR ALL WATER MAIN JOINTS.
 - IF PIPE SLOPE IS LESS THAN 2%, LASER EQUIPMENT IS REQUIRED FOR INSTALLATION.
 - ALL WATERMAIN AND WATER SERVICES TO BE INSTALLED ACCORDING TO SPRWS "STANDARDS FOR THE INSTALLATION OF WATER MAINS."
 - THE EXTERIOR OF DUCTILE IRON PIPE SHALL BE COATED WITH A LAYER ARC SPRAYED ZINC PER ISO 8179. THE INTERIOR CEMENT MORTAR LINING SHALL BE APPLIED WITHOUT ASPHALT SEAL COAT. PIPE MUST BE WRAPPED IN V-BIO POLYETHYLENE ENCASEMENT. THE ENCASEMENT SHALL BE INSTALLED SUCH THAT ALL METALLIC SURFACES AND APPURTENANCES OF THE PIPE ARE COVERED WITH THE ENCASEMENT AND SECURED USING POLYETHYLENE COMPATIBLE ADHESIVE TAPE. ALL RIPS, TEARS, AND OTHER DAMAGES SHALL BE REPAIRED WITH COMPATIBLE ADHESIVE TAPE.
 - A FOUR SIDED TRENCH BOX IS REQUIRED ON ALL EXCAVATIONS DEEPER THAN 5' WHERE UNDERGROUND WORK OR INSPECTION IS TO BE PERFORMED BY SPRWS. FOR ALL WET TAPS TO BE PERFORMED SPRWS, A MINIMUM TRENCH BOX SIZE OF 8 FEET HIGH x 8 FEET WIDE x 10 FEET LONG IS REQUIRED. LADDERS ARE REQUIRED AND MUST EXTEND 3 FEET ABOVE THE SURFACE OF THE TRENCH. EXCAVATED MATERIAL MUST BE KEPT A MINIMUM OF 2' FROM THE EDGE OF THE TRENCH. SIDEWALKS, PAVEMENTS, DUCTS AND APPURTENANT STRUCTURES SHALL NOT BE UNDERMINED UNLESS A SUPPORT SYSTEM OR ANOTHER METHOD OF PROTECTION IS PROVIDED.
 - AT TRUNK WATERMAIN AND SANITARY CROSSINGS, MAINTAIN 3 FEET VERTICAL SEPARATION BETWEEN WATER AND SEWER PIPES OR 18 INCH SEPARATION WITH 4 INCH HIGH DENSITY INSULATION PER SPRWS STANDARD PLATE D-10 FOR TYPICAL WATER MAIN OFFSETS. WHEN 10' HORIZONTAL CLEARANCE FROM SANITARY SEWER CANNOT BE MET, MAINTAIN 5' HORIZONTAL CLEARANCE AND THE SANITARY SEWER MATERIAL SHALL BE PVC C900 DR14 AND PRESSURE RATED TO 200 PSI.
 - ALL PIPE WORK INSIDE OF PROPERTY TO BE PERFORMED BY A PLUMBER LICENSED BY THE STATE OF MINNESOTA AND CERTIFIED BY THE CITY OF SAINT PAUL. SPRWS REQUIRES SEPARATE OUTSIDE AND INSIDE PLUMBING PERMITS FOR EACH NEW WATER SERVICE.
 - IF THE MEANS AND METHODS DETERMINED BY THE CONTRACTOR REQUIRES ANY WORK IN THE ROW, AND ENCROACHMENT PERMIT IS REQUIRED.
 - PERMITS FOR PRIVATE SEWER SERVICES WILL NOT BE ISSUED UNTIL THE PUBLIC SANITARY MAIN IN THE ALLEY HAS BEEN ACCEPTED BY THE CITY.
 - SEWER REPAIR PERMIT: PLUMBING CONTRACTOR TO OBTAIN REPAIR PERMITS FROM PUBLIC WORKS FOR PROPOSED MODIFICATION TO THE EXISTING STORM SEWER CONFECTIONS. CALL ST. PAUL PW PERMIT DESK (651-266-6234) FOR INFORMATION ON OBTAINING THIS PERMIT.
 - CONTRACTOR TO CLEAN AND TELEWISE NEW SANITARY SEWER MAINLINE AND LATERAL STUBS. NEW SANITARY SEWER MAINLINE TO BE AIR TESTED AND MANDREL TESTED. LATERAL STUBS TO BE CAPPED PER CEAM STANDARDS.
 - CONTRACTOR TO SUBMIT TELEVISING VIDEOS, AIR TEST RESULTS, AND MANDREL TEST RESULTS TO THE ENGINEER OF RECORD AND SEWER UTILITY FOR REVIEW.
 - LICENSED HOUSE DRAIN CONTRACTOR TO OBTAIN SEWER CONNECTION PERMIT TO CONSTRUCT NEW SANITARY AND STORM CONNECTION IN STREET FROM MAIN TO PROPERTY. CALL ST. PAUL PW PERMIT DESK (651-266-6234) FOR INFORMATION ON OBTAINING THIS PERMIT.
 - ADHERE TO STD. PLATE 23170 WHEN INSTALLING PIPE BEDDING INTO ROCK.
 - SANITARY SEWER SERVICE PASSING WITHIN 10 FEET OF THE BUILDING ARE GOVERNED BY THE MN PLUMBING CODE. AIR TESTING IS REQUIRED FOR ALL SANITARY SEWER SERVICES WITHIN 10 FEET OF BUILDINGS, COMPLIANT WITH MN STATE PLUMBING CODE 4714 SECTION 1109.0.
 - ALL C900 SANITARY LATERALS STUBBED LESS THAN 2' FROM THE FACE OF THE BUILDING MUST TRANSITION TO SCH40. DUCTILE SLEEVES ARE REQUIRED AT TRANSITIONS. THE TRANSITION MUST BE NO LESS THAN 2' FROM THE FACE OF THE BUILDING.
 - NOTIFY GRAEME CHAPLE AT 651-266-6882 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION AND/OR TESTING.
 - IRRIGATION CONDUITS TO MAINTAIN AT LEAST 1' OF SEPARATION FROM ALL PROPOSED AND EXISTING UTILITIES.

SANITARY SEWER SCHEDULE:

MH		PIPE SLOPE [FT/FT]	PIPE LENGTH [FT]	INVERT FROM	INVERT TO	RIM ELEV	STRUCTURE SIZE [IN]	MANHOLE BUILD [FT]	COVER [FT]
FROM	TO								
MH 10	MH 9	0.0082	270.80	806.83	804.60	817.33	48	10.50	9.83
MH 9				804.50		816.67	48	12.17	12.07
MH 14	MH 12	0.0050	216.98	807.53	806.45	818.20	48	10.67	10.00
MH 13	MH 12	0.0050	60.00	807.05	806.75	817.72	48	10.67	10.00
MH 12	MH 11	0.0050	80.01	806.35	805.95	818.40	48	12.05	10.98
MH 11				798.06		818.89	48	20.83	12.28

LEGEND

- LOT LINE
- PROPERTY LINE
- PROPOSED PRIVATE UTILITY CORRIDOR / EASEMENT
- ROW
- EXISTING EASEMENT
- PROPOSED STORM SEWER
- PROPOSED CONDUIT
- PROPOSED WATERMAIN
- PROPOSED SANITARY SEWER
- EXISTING WATERMAIN
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING SANITARY MANHOLE
- EXISTING HYDRANT
- EXISTING GATE VALVE
- EXISTING CB
- PROPOSED SANITARY MANHOLE
- PROPOSED GATE VALVE
- PROPOSED HYDRANT



These plans have been reviewed for compliance with City codes, ordinances and policies. Plans are approved by the City of Saint Paul. The approval of these plans by the City of Saint Paul does not authorize any noncompliance with local ordinances, code or state law and are subject to final inspection and approval. These plans shall be available for all requested inspections.

APPROVED

Approval Date: 04/27/22
Approved By: Tia Anderson
File #: SPR21-295243 - HIGHLAND BRIDGE ROWHOMES PHASE 3B

ALLIANT
733 Marquette Avenue
Suite 700
Minneapolis, MN 55402
612.758.3080
www.alliant-inc.com

Pulte HOMES
Highland Bridge

HIGHLAND BRIDGE ROWHOMES
3RD ADDITION
SAINT PAUL, MINNESOTA
SITE PLAN REVIEW
OVERALL SANITARY SEWER AND WATERMAIN PLANS

I hereby certify that this plan, specification, or report 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

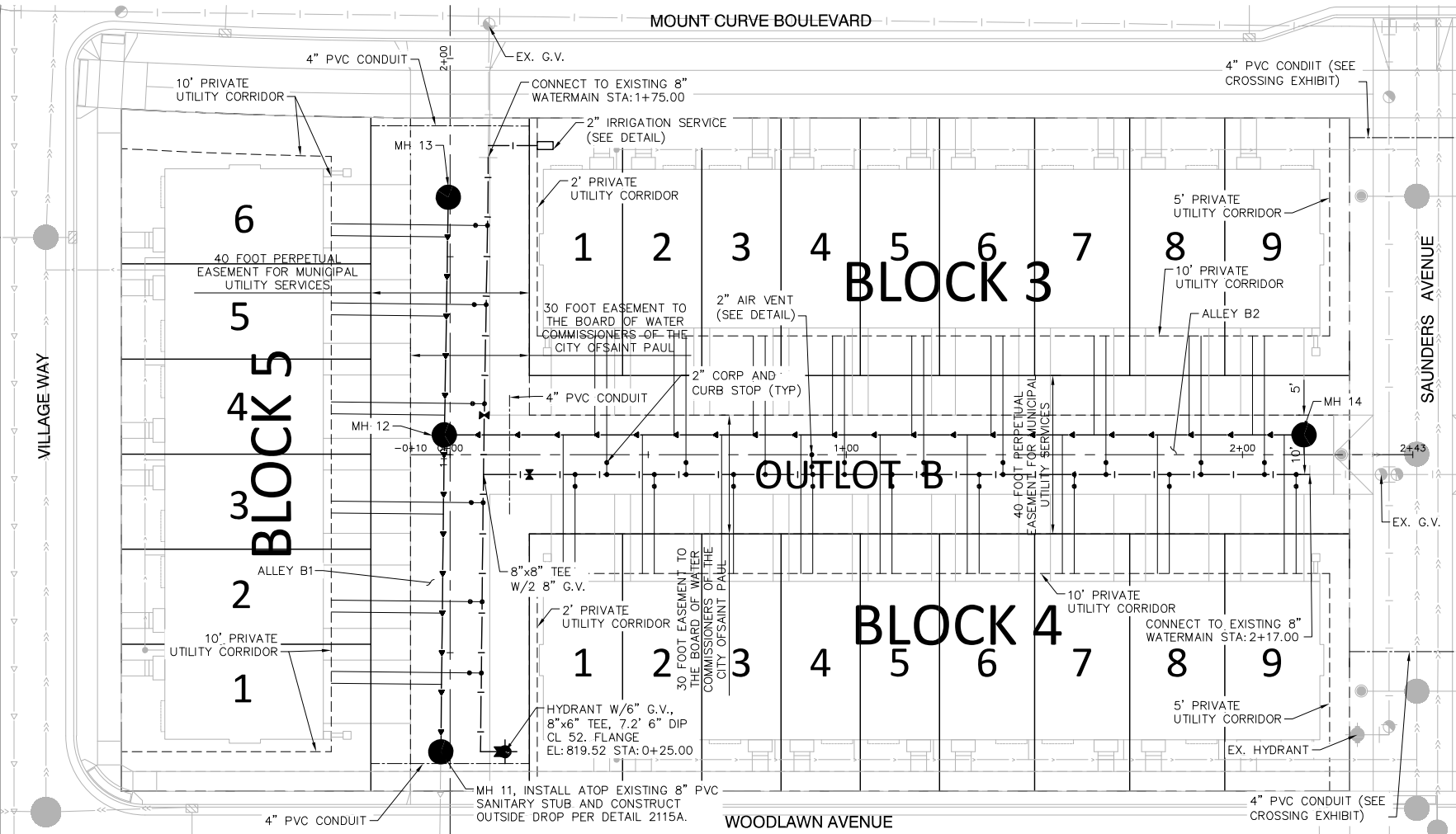
MARK RAUSCH, PE
12-17-21 43480
Date License No.

QUALITY ASSURANCE/CONTROL

BY	DATE
DATE	ISSUE
8-19-21	SPR SUBMITTAL
9-13-21	CRWD SUBMITTAL
10-20-21	SPR RESUBMITTAL
12-17-21	SPR RESUBMITTAL

PROJECT TEAM DATA
DESIGNED: MPR
DRAWN: BJP
PROJECT NO: 219-0225

Drawing name: X:\2019\190225\plan sheets\Phase 3\190225u2.dwg Mar 29, 2022 - 10:49am



SANITARY SERVICE SCHEDULE:

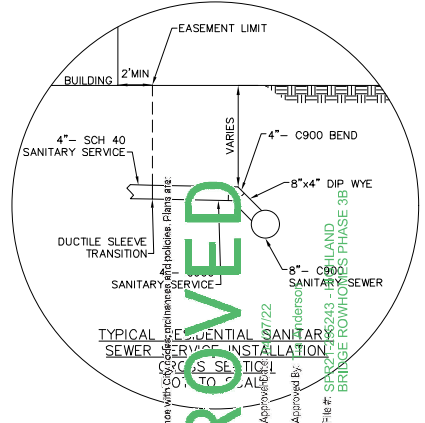
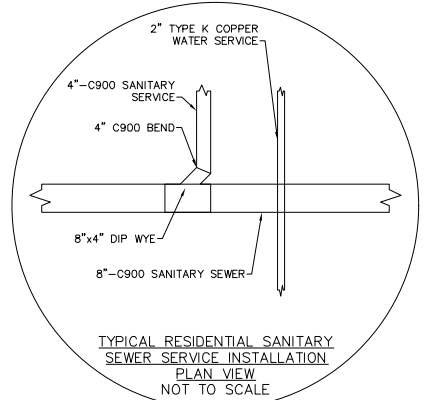
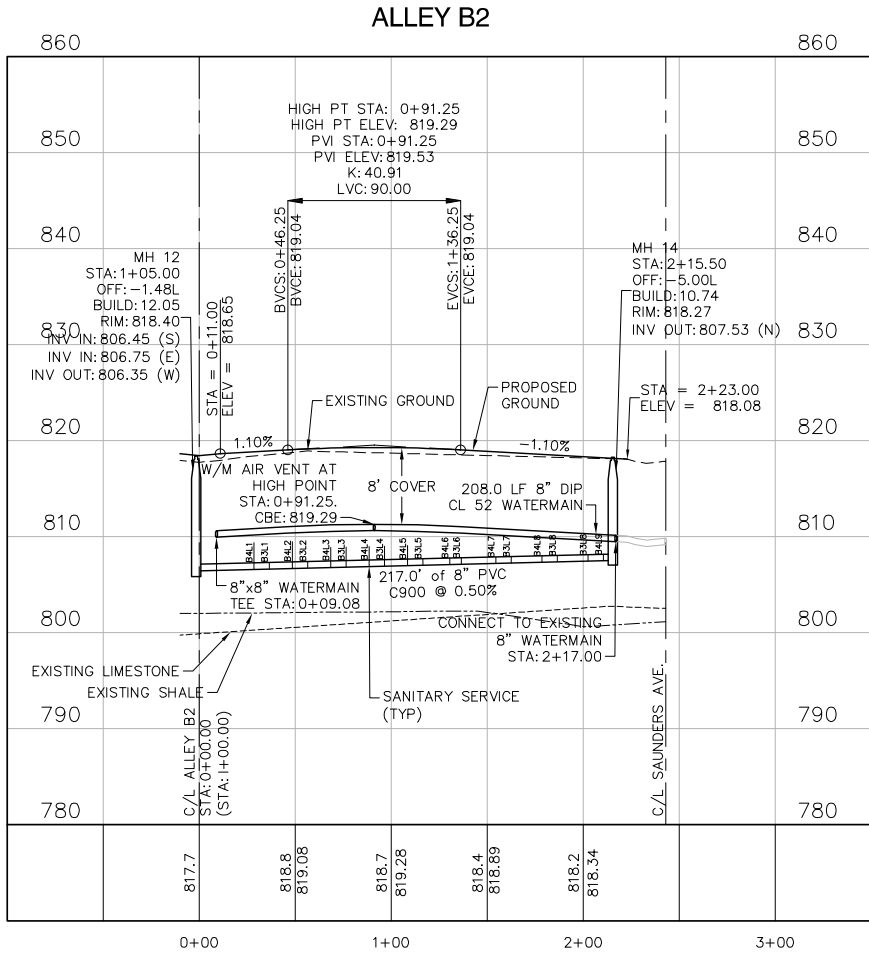
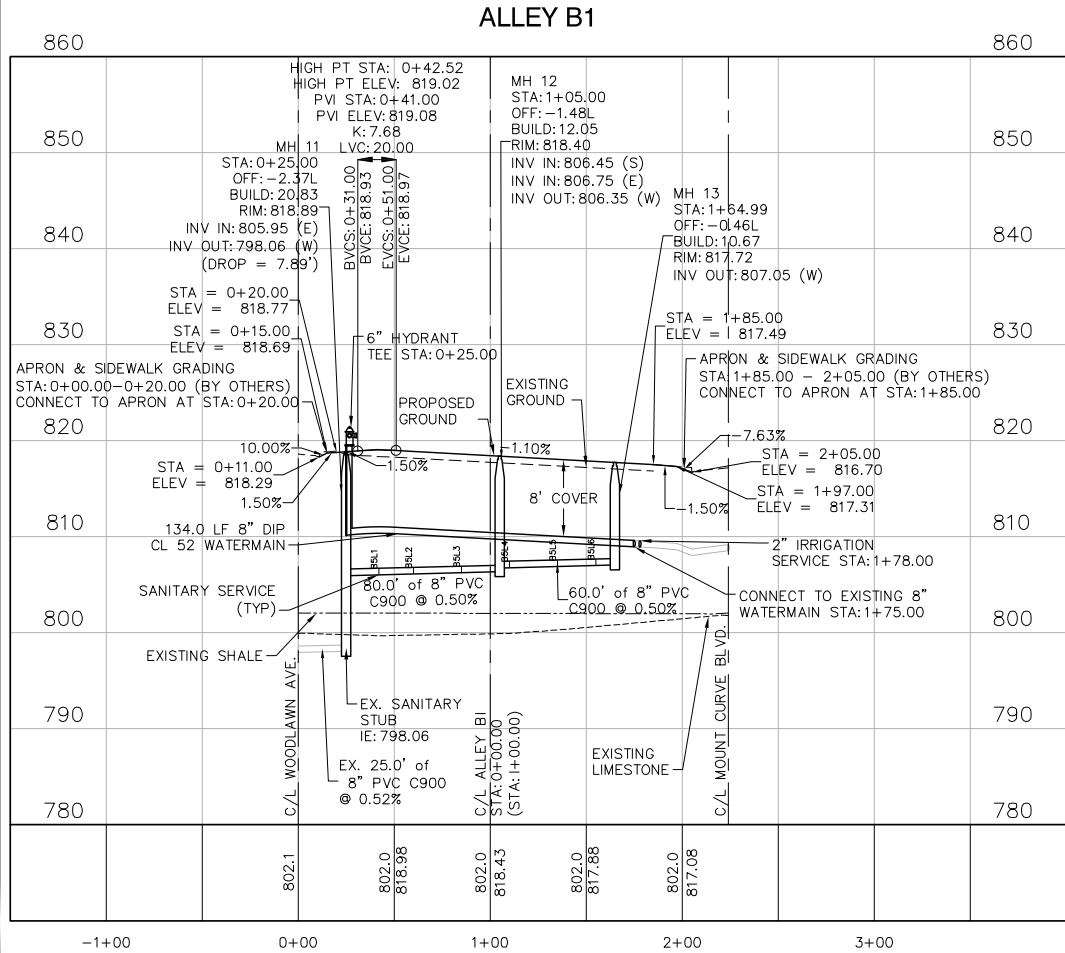
PLAT PHASE	BLOCK	LOT	STATION	IE	PG-RT.*	CBE	LFE	RISER
HBR 3RD	3	1	38	807.80	819.83	819.00	819.65	0
HBR 3RD	3	2	58	807.90	819.85	819.20	819.65	0
HBR 3RD	3	3	78	809.57	820.31	819.31	820.15	2
HBR 3RD	3	4	98	809.67	820.31	819.32	820.15	2
HBR 3RD	3	5	118	809.77	820.31	819.23	820.15	2
HBR 3RD	3	6	138	808.30	819.84	819.04	819.65	0
HBR 3RD	3	7	164	808.43	819.80	818.76	819.65	0
HBR 3RD	3	8	188	808.55	819.35	818.49	819.15	0
HBR 3RD	3	9	204	808.63	818.87	818.32	819.15	0
HBR 3RD	4	1	30	809.53	820.33	819.04	820.37	2
HBR 3RD	4	2	50	809.63	820.35	819.25	820.37	2
HBR 3RD	4	3	70	809.73	820.37	819.40	820.37	2
HBR 3RD	4	4	90	809.83	820.38	819.45	820.37	2
HBR 3RD	4	5	110	808.36	819.92	819.40	819.87	0
HBR 3RD	4	6	132	808.47	819.90	819.23	819.87	0
HBR 3RD	4	7	156	808.59	819.89	818.96	819.87	0
HBR 3RD	4	8	180	808.71	819.41	818.70	819.37	0
HBR 3RD	4	9	212	808.87	818.91	818.33	819.37	0
HBR 3RD	5	1	17	808.82	819.67	819.15	819.61	2
HBR 3RD	5	2	35	808.91	819.64	818.96	819.61	2
HBR 3RD	5	3	60	807.48	819.18	818.68	819.21	0
HBR 3RD	5	4	5	808.01	819.14	818.41	819.21	0
HBR 3RD	5	5	30	808.15	818.68	818.14	818.71	0
HBR 3RD	5	6	50	808.25	818.65	817.92	818.71	0

*Final grade elevation at sanitary service stub

- STATION = SANITARY SERVICE WYE STATION (FROM DOWNSTREAM MH)
- IE = SANITARY SERVICE INVERT ELEVATION
- CBE = CURB BOX ELEVATION
- RISER = RISER LENGTH (ACTUAL LENGTH, NOT VERTICAL RISE)
- LFE = LOW FLOOR ELEVATION

LEGEND

- LOT LINE
- PROPERTY LINE
- BUILDING SETBACK
- PROPOSED EASEMENT
- PRIVATE UTILITY CORRIDOR
- ROW
- EXISTING EASEMENT
- PROPOSED STORM SEWER
- PROPOSED CONDUIT
- PROPOSED WATERMAIN
- PROPOSED SANITARY SEWER
- EXISTING WATERMAIN
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING SANITARY MANHOLE
- EXISTING HYDRANT
- EXISTING GATE VALVE
- EXISTING CB
- PROPOSED SANITARY MANHOLE
- PROPOSED GATE VALVE
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NOTE: SEE SHEET 18 FOR SANITARY SERVICE NOTES

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Pulte Homes
HIGHLAND
Bridge

HIGHLAND BRIDGE ROWHOMES
3RD ADDITION
SAINT PAUL, MINNESOTA
SITE PLAN REVIEW
STREET AND UTILITY PLAN AND PROFILES - PHASE 3B

I hereby certify that this plan, specification, or report 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
Mark Rausch
MARK RAUSCH, PE
3-29-22 43480
Date License No.
QUALITY ASSURANCE/CONTROL
BY DATE
DATE ISSUE
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9-13-21 CRWD SUBMITTAL
10-20-21 SPR RESUBMITTAL
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DRAWN: BJP
PROJECT NO: 219-0225
20
SHEET 20 of 30