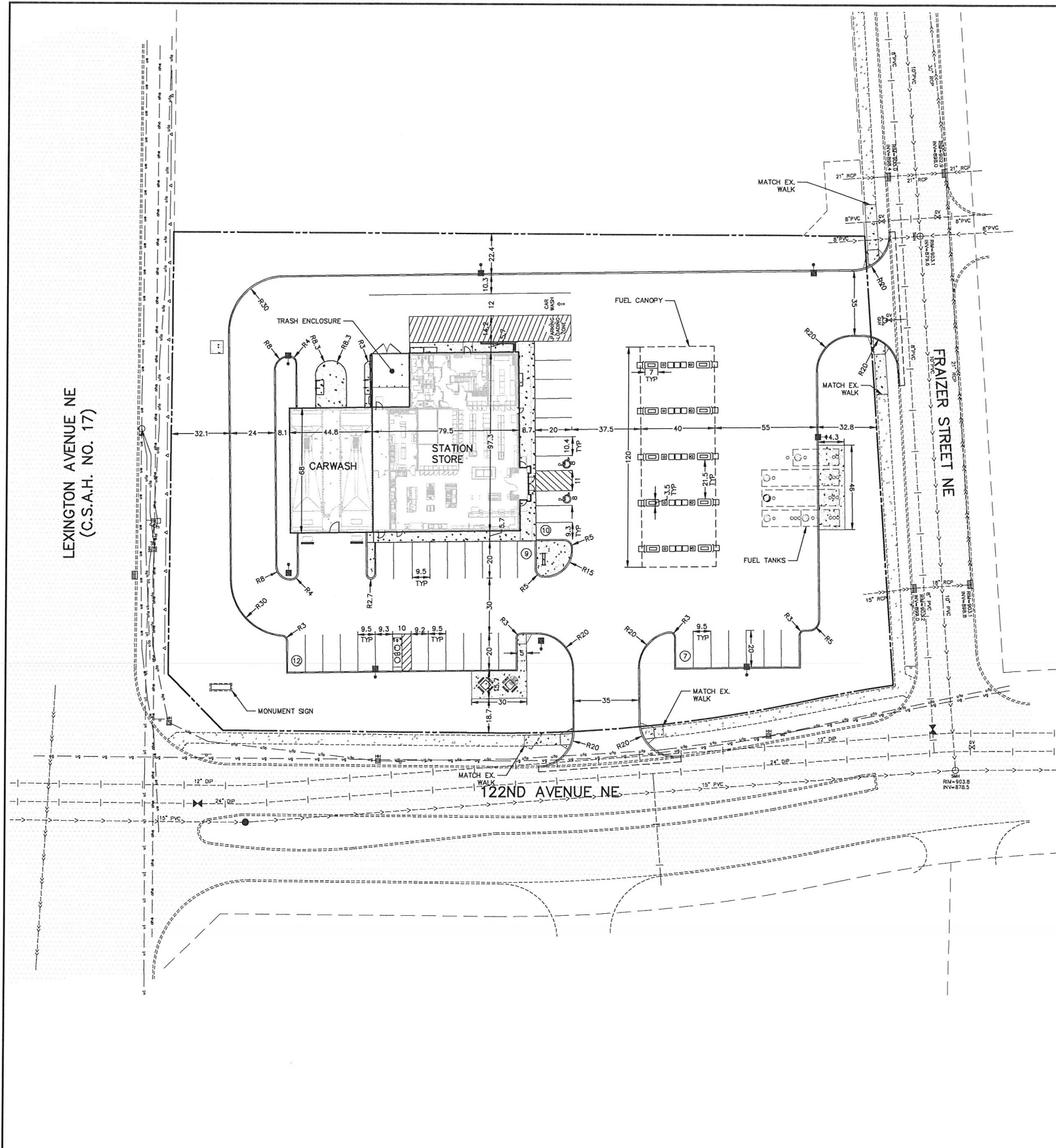


Case File No. 17-0048
Kwik Trip, Inc.

Blaine Planning Department / 10801 Town Square Dr NE / Blaine, MN 55449 / (763) 785-6180





PLAN LEGEND

	EXISTING	PROPOSED
CURB	-----	-----
BITUMINOUS CONCRETE PAVEMENT	-----	-----
CONCRETE WALK	-----	-----
PROPERTY LINE	-----	-----
EASEMENT LINE	-----	-----
STORM SEWER	---<<---	---<<---
SANITARY SEWER	--->>---	--->>---
WATER MAIN	-----	-----
UNDERGROUND GAS	-----	-----
UNDERGROUND ELECTRIC	-----	-----
UNDERGROUND TELEPHONE	-----	-----
UNDERGROUND FIBER OPTIC	-----	-----
SANITARY MANHOLE	○	○
HYDRANT	⊕	⊕
GATE VALVE	⊕	⊕
LIGHT POLE	⊕	⊕
STORM MANHOLE	⊕	⊕
UTILITY POLE	⊕	⊕
ELECTRIC MANHOLE	⊕	⊕
TELEPHONE PEDESTAL	⊕	⊕
UTILITY SERVICE	⊕	⊕
HAND HOLE	⊕	⊕
SIGN	⊕	⊕

- SITE PLAN NOTES**
- ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
 - CONCRETE CURB AND GUTTER SHALL BE B612 UNLESS OTHERWISE NOTED.
 - IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES PRIOR TO THE START OF SITE WORK. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF DISCREPANCIES OR VARIATIONS FROM THE PLAN.
 - UNLESS OTHERWISE SHOWN ON THIS DRAWING, CONTRACTOR SHALL PROVIDE CONTROL JOINTS, CONSTRUCTION JOINT AND EXPANSION JOINTS IN SLAB ON GRADE, SIDEWALKS AND DRIVES PER THE FOLLOWING REQUIREMENTS:
 - CONTROL JOINT MAX. SPACING: WALKS-8' O.C. ALL OTHERS-10' O.C.
 - SAW CUT CONTROL JOINTS MINIMUM 1/2 CONCRETE THICKNESS.
 - EXPANSION JOINT MAX. SPACING: WALKS-24' O.C. *ALL OTHERS-40' O.C.
 - *ALL POINTS WHERE A CHANGE IN PAVEMENT THICKNESS OCCURS SHALL HAVE AN EXPANSION JOINT.
 - DOWELL ALL EXPANSION JOINTS: 24" O.C. MAX.
 - CONCRETE SEALER SHALL BE TK-26UV.

SITE DATA

ZONING:	PBD
PARCEL AREA:	101,973 SF
HARD SURFACE AREA:	
STATION STORE:	7,243 SF 7%
CARWASH:	3,047 SF 3%
PAVEMENT:	59,719 SF 58%
TOTAL:	69,509 SF 68%
PERVIOUS SURFACE AREA:	32,464 SF 32%
BUILDING HEIGHTS:	
STATION STORE:	24.0 FT
CARWASH:	14.0 FT
FUEL CANOPY:	15.5 FT

PARKING SUMMARY

STANDARD STALLS	36
HANDICAP STALLS	2
FUEL CANOPY STALLS	20
TOTAL STALLS	58

BENCHMARKS

1. TOP NUT OF HYDRANT LOCATED ON THE WEST SIDE OF FRAZER STREET N.E., ±240 FEET NORTH OF THE INTERSECTION OF FRAZER STREET N.E. AND 122ND AVENUE N.E.
ELEVATION = 906.43 (NGVD 29)

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P.O. BOX 2107
1626 OAK STREET
LA CROSSE, WI 54602-2107
PH. (608) 781-8988
FAX (608) 781-8960

Carlson McCain
ENVIRONMENTAL, ENGINEERING, SURVEYING
3890 Pleasant Ridge Dr., #100, Blaine, MN 55449
Phone: 763-489-7900 Fax: 763-489-7959

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.

Name: Joseph T. Radach, P.E.
Signature: [Signature]
Date: 11/06/17 License #: 45889

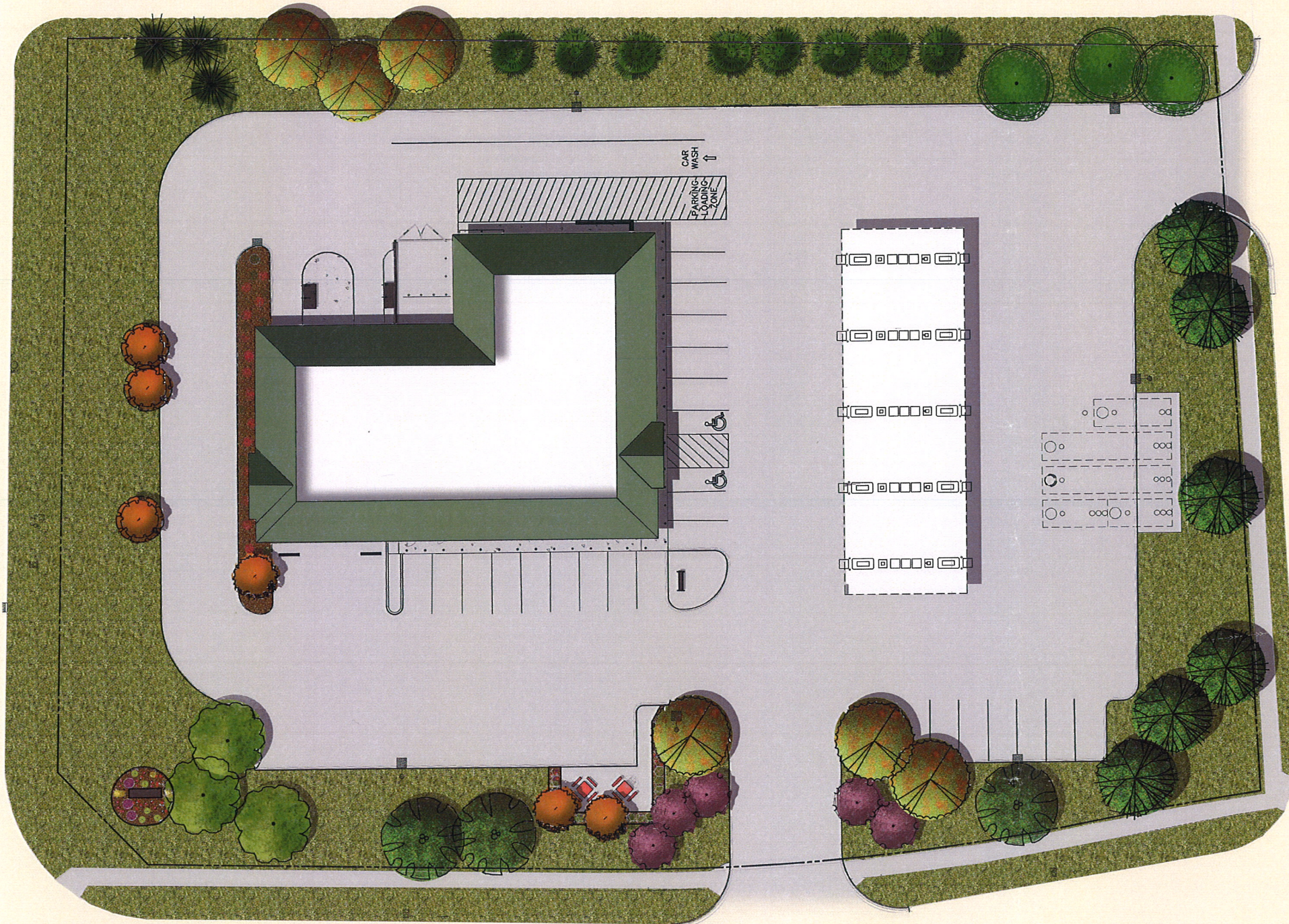
SITE PLAN (LAYOUT)

CONVENIENCE STORE #1014 WITH DOUBLE BAY CARWASH

LEXINGTON AVE NE & 122ND AVE NE
BLAINE, MINNESOTA

#	DATE	DESCRIPTION

DRAWN BY: JTR
SCALE: GRAPHIC
PROJ. NO.: 6996-00
DATE: 2017-11-06
SHEET: 1014 SP2



LANDSCAPE LEGEND									
KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	QTY.	INSTALL MATURE			
						HEIGHT	HEIGHT	HEIGHT	HEIGHT
DECIDUOUS TREES									
RM(3")	Acer rubrum 'Nothwoods'	NORTH-WOODS MAPLE	3"	BB	6	14'	50'	STRAIT LEADER NO "Y"	
HL(3")	Gleditsia triacanthos var. inermis 'Shademaster'	SHADEMASTER HONEYLOCUST	3"	BB	3	10'	50'	FULL FORM TO GRADE	
RM	Acer rubrum 'Nothwoods'	NORTH-WOODS MAPLE	2.5"	BB	3	14'	50'		
BL	Tilia americana 'Boulevard'	BOULEVARD LINDEN	2.5"	BB	6	15'	60'		
HB	Celtis occidentalis	HACKBERRY	2.5"	BB	3	15'	50'		
SM	Acer saccharum	SUGAR MAPLE	2.5"	BB	3	14'	50'		
EVERGREEN TREES									
CB(8")	Picea pungens	COLORADO BLUE SPRUCE	6"	BB	3	6'	40'		
AL	Larix laricina	AMERICAN LARCH	6"	BB	8	6'	40'		
ORNAMENTAL TREES									
SB(2")	Amelanchier x grandiflora 'Autumn Brilliance'	AUTUMN BRILLIANCE SERVICEBERRY	2"	BB	3	8'	20'		
SB	Amelanchier x grandiflora 'Autumn Brilliance'	AUTUMN BRILLIANCE SERVICEBERRY	1.5"	BB	2	8'	20'		
TL	Syringa Reticulata	JAPANESE TREE LILAC	1.5"	BB	6	8'	20'		

QUANTITIES SHOWN IN THE PLANTING SCHEDULE ARE FOR THE CONTRACTOR'S CONVENIENCE. CONTRACTOR TO VERIFY QUANTITIES SHOWN ON THE PLAN.

SEED MIX LEGEND (FOR ALL SHEETS)		
SYM.	TYPE	SEED MIX
[Symbol]	NATIVE WET PRAIRIE	MN SEED MIX 34-262 (OLD BWSR W3) WITH "NO MOW FESCUE"
[Symbol]	WETLAND FRINGE	MN SEED MIX 33-261 (OLD BWSR U6) WITH "NO MOW FESCUE"
[Symbol]	COMMERCIAL TURF - SOD	HIGHLAND SOD (PEAT SOD IS UNACCEPTABLE)
[Symbol]	MNDOT 260 ALL AREAS DISTURBED BY CONSTRUCTION NOT INTENDED SODDED, OR RETENTION BASINS	MN SEED MIX 25-131 (OLD MNDOT 260) & W/ "NO MOW FESCUE MIX (USE EROSION CONTROL BLANKET FOR SLOPES OVER 3:1)
[Symbol]	HARDWOOD MULCH SHREADED HARDWOOD MULCH	(NATURAL COLOR)
[Symbol]	1/2" CRUSHED GRANITE	CRUSHED QUARRY GRANITE

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KWIK STAR
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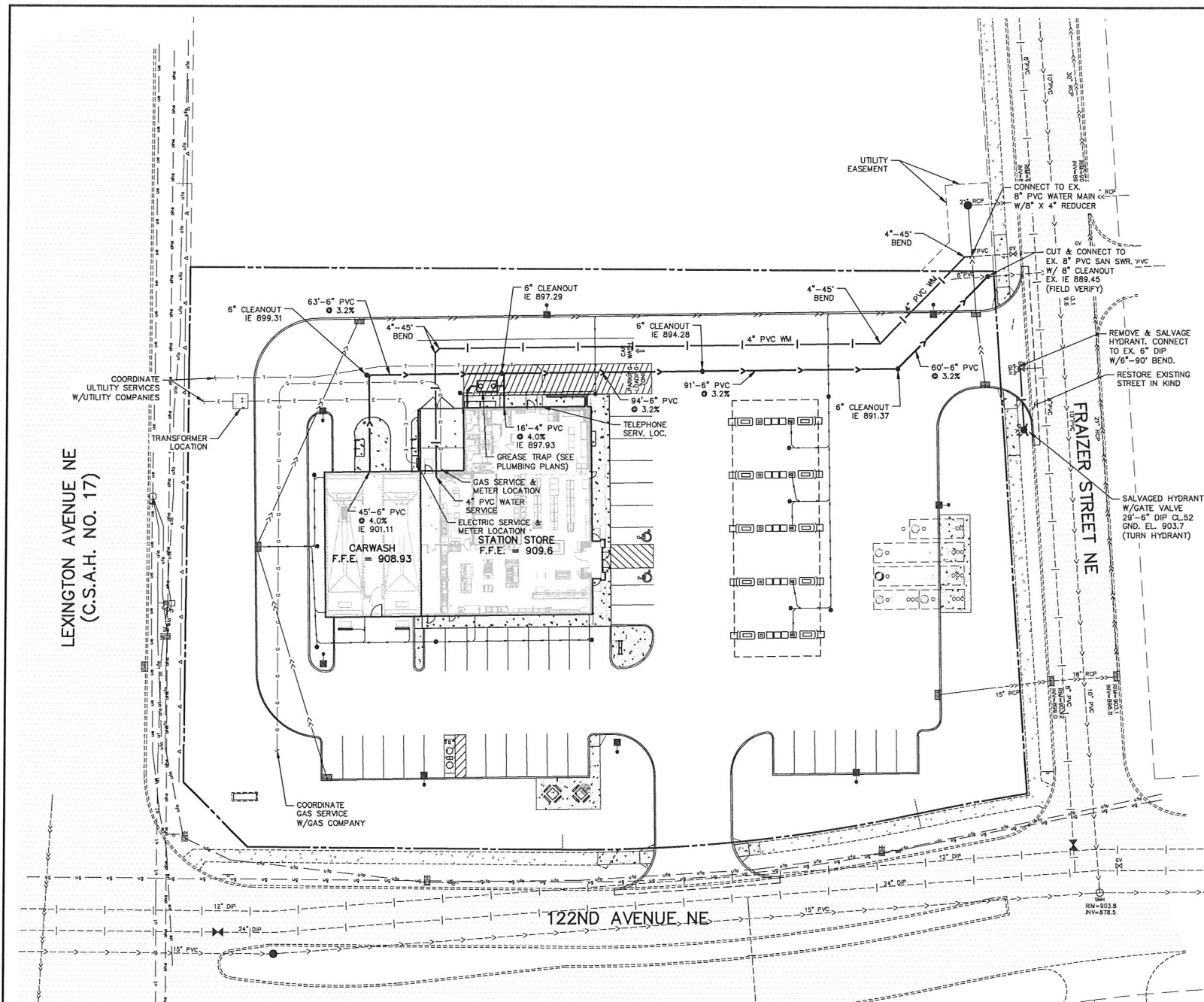
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota.

Name: Jerry M. McKee RLA
 Signature: _____
 Date: 10/06/17 License #: 45071

SITE PLAN (LAYOUT)
 CONVENIENCE STORE #1014
 WITH DOUBLE BAY CARWASH
 LEXINGTON AVE NE & 122ND AVE NE
 BLAINE, MINNESOTA

#	DATE	DESCRIPTION

DRAWN BY _____
 SCALE _____ GRAPHIC
 PROJ. NO. 6996-00
 DATE 2017-10-06
 SHEET 1014 L1



PLAN LEGEND

	EXISTING	PROPOSED
CURB	-----	-----
BITUMINOUS	[Symbol]	[Symbol]
CONCRETE PAVEMENT	[Symbol]	[Symbol]
CONCRETE WALK	[Symbol]	[Symbol]
PROPERTY LINE	-----	-----
EASEMENT LINE	-----	-----
STORM SEWER	---<<---	---<<---
SANITARY SEWER	---<<---	---<<---
WATER MAIN	--- ---	--- ---
UNDERGROUND GAS	---v---	---v---
UNDERGROUND ELECTRIC	---v---	---v---
UNDERGROUND TELEPHONE	---v---	---v---
UNDERGROUND FIBER OPTIC	---v---	---v---
SANITARY MANHOLE	[Symbol]	[Symbol]
HYDRANT	[Symbol]	[Symbol]
GATE VALVE	[Symbol]	[Symbol]
LIGHT POLE	[Symbol]	[Symbol]
STORM MANHOLE	[Symbol]	[Symbol]
UTILITY POLE	[Symbol]	[Symbol]
ELECTRIC MANHOLE	[Symbol]	[Symbol]
TELEPHONE PEDESTAL	[Symbol]	[Symbol]
UTILITY SERVICE	[Symbol]	[Symbol]
HAND HOLE	[Symbol]	[Symbol]
SIGN	[Symbol]	[Symbol]

- GENERAL:**
1. **Obtain Specifications:** The latest editions of the Minnesota Department of Transportation "Standard Specifications for Construction", the City Engineers Association of Minnesota (CEAM) Standard Specifications, the City of Blaine Standard Specifications and the Minnesota Plumbing Code.
 2. **Comply with the work safety practices** specified by the Occupational Safety and Health Administration (OSHA). Comply with all applicable local, state, and federal safety regulations. OSHA prohibits entry into "confined spaces", such as manholes and vaults (see 29CFR Section 1910.146) without undergoing certain specific practices and procedures. Construction safety is solely the responsibility of the Contractor, who is also solely responsible for the means, methods, and sequencing of the construction operations.
 3. **Perform all utility work** in accordance with State and City requirements.
 4. **Contact the City of Blaine Public Works Department** for inspection of all utility work.
 5. **Connect to existing sanitary sewer** MH's by coring/cutting. Connect to existing storm sewer MH's by either sawcutting or coring/cutting. Meet all City standards and specifications for the connection. Reconstruct inverts after installation. Use water stop systems in order to provide watertight seals when penetrating a structure wall with a pipe. Take measures before beginning construction to ensure that service connections do not cut into maintenance access structure joints or pipe barrel joints.
 6. **Perform trench excavations** for all utilities in accordance with the requirements of OSHA 29 CFR Part 1926, Subpart P, "Excavations and Trenches". (www.osha.gov)
 7. **Coordinate building utility connection locations** at 5 ft. out from the proposed building with the interior plumbing contractor prior to construction. Verify water and sewer service locations and elevations with the Mechanical Engineer prior to construction.
 8. **The locations of existing utilities** shown on this plan are from record information and field as-built data. The Engineer does not guarantee that all existing utilities are shown or, if shown, exist in the locations indicated on the plan. It is the Contractor's responsibility to verify the vertical and horizontal location of all existing utilities (including water service lines and appurtenances). Notify the Engineer of any discrepancies.
 9. **Contact utility companies** for locations of all public and private utilities within the work area prior to beginning construction. Contact 811 for locations of existing utilities at least 72 hours (not including weekends or holidays) before beginning any construction. Obtain ticket number and meet with representatives of the various utilities at the site. Provide the Owner with the ticket number information.
 10. **Pathways to verify the location of existing underground facilities** at a sufficient number of locations in order to assure that no conflict with the proposed work exists and that sufficient clearance is available.
 11. **Where existing gas, electric, cable, or telephone utilities conflict** with the work, coordinate the abandonment, relocation, offset, or support of the existing utilities with the appropriate utility companies. Coordinate new gas meter and gas line installation, electric meter and electric service installation, cable service and telephone service installation with the local utility companies.
 12. **Arrange for and secure suitable disposal areas off-site.** Dispose of all excess soil, waste material, debris, and all materials not designated for salvage. Waste material and debris include tires, stumps, pipe, concrete, asphaltic concrete, curbs, or other waste material from the construction operation. Obtain the rights to any waste area for disposal of unutilized or surplus material either shown or not shown on the plans. All work in disposing of such material shall be considered incidental to the work. All disposal must conform to applicable solid waste disposal permit regulations. Obtain all necessary permits at no cost to the Owner.
 13. **Straight line saw-cut existing bituminous or concrete surfacing** at the perimeter of pavement removal areas. Use saws that provide water to the blade. Took, and maintain all connections to existing bituminous pavement.
 14. **Relocate overhead power, telephone, and cable lines** as required.
 15. **All materials required for this work** shall be new material conforming to the requirements for class, kind, grade, size, quality, and other details specified herein or as shown on the Plans. Do not use recycled or salvaged aggregate, asphaltic pavement, crushed concrete, or scrap shingles. Unless otherwise indicated, the Contractor shall furnish all required materials.
 16. **Restore the public right-of-way.** Replace any concrete curb and gutter, bituminous pavement, sidewalks, or vegetative cover damaged by the construction activity. Restore damaged turf with sod within the public right-of-way. The work area shown is general and may need to be adjusted in the field.
 17. **When sawing or drilling concrete or masonry, use saws that provide water to the blade.** Do not allow the slurry produced by this process to be tracked outside of the immediate work area or discharged into the sewer system.
 18. **Adjust all curb stops, valve boxes, maintenance hole castings, catch basin castings, cleanout covers, and similar items to finished grade.**
 19. **Install all pipe with the ASTM identification numbers on the top for inspection.** Commence pipe laying at the lowest point in the proposed sewer line. Lay the pipe with the bell end at receiving grade and the pipe pointing up-grade. When connecting to an existing pipe, uncover the existing pipe in order to allow any adjustments in the proposed line and grade before laying any pipe.
 20. **Obtain and pay for all permits, tests, inspections, etc. required by agencies that have jurisdiction over the project.** The Contractor is responsible for all bonds, letters of credit, or cash sureties related to the work. Decide and inspect work in accordance with all local and state codes, rules, ordinances, and regulations pertaining to the particular type of work involved.

- WATER DISTRIBUTION SYSTEM:**
1. **Separation of Water and Sewer:** Provide a minimum horizontal separation of 10 feet between all water and sewer lines. Provide a minimum separation of 18 inches at all water line and sewer line crossings.
 2. **Watermain Depth:** Maintain 7.5 feet of cover over the top of the water lines to the finished grade. Verify elevation of proposed and existing water lines at all utility crossings. Install the water lines at greater depths in order to clear storm sewers, sanitary sewers, or other utilities as required. Include costs to lower water lines in the base bid.
 3. **Disinfection:** Disinfect all completed watermain in accordance with AWWA Standard C651-05 and the City specifications. Water lines shall be flushed prior to disinfection, except when tablet method is used.
 4. **Testing:** Pressure test and perform bacteriological tests on all water lines under the supervision of the City Public Works Department. Notify the City at least 24 working hours prior to any testing. Pressurize the waterline to 1034 kPa (150 psi) gage pressure (measured at the point of lowest elevation) by means of a pump connected to the pipe in a satisfactory manner. Maintain the test pressure for a minimum of 2 hours. Do not add water to the watermain in order to maintain the required pressure during the watermain pressure testing. The test section of pipe is acceptable with a pressure drop of 7.5 kPa (1 psi) or less. Electrical conductivity testing shall be performed as directed by the City.
 5. **Use AWWA C151/A21.51** Thickness Class 52 Ductile Iron Pipe (DIP) with push-on joints for all watermain unless otherwise noted. All watermain fittings shall meet the requirements of AWWA C153, latest section. Bolts and nuts shall be "tor-seal" meeting AWWA C111, latest section.
 6. **Where covered by the municipality, use Polyvinyl Chloride Pipe (PVC)** conforming to AWWA C900 for 4-inch to 12-inch diameter pipe in lieu of DIP. The pipe shall be pressure class of 18 and conforming with the outside diameter dimensions of cast iron pipe. All materials shall meet the specifications and approvals of the Underwriters Laboratories Factory Mutual and the National Sanitation Foundation standard.
 7. **Use mechanical joint restraint devices for joint restraint** on all watermain bends having a vertical or horizontal deflection of 22-1/2 degrees or greater, all valves, stubs, extension, tees, crosses, plugs, all hydrant valves, and all hydrants in accordance with City requirements. Use "Series 1100 Megalug" manufactured by EBAK Iron Inc., Eastland, Texas or approved equal, installed in accordance with the manufacturer's recommendations for restraint on Ductile Iron Pipe.
 8. **All all valve locations which require a 12" or smaller valve, install gate valves** which are of the compression resilient seated (CRS) type. Gate valves shall conform to AWWA C215. Install cast iron valve boxes conforming to ASTM A48 at each valve location. Valve boxes shall be the two-piece screw type with 5-1/4" depth and the word "water" on the lid. Use Tyler 8850 with 4-inch drop lid, or approved equal. Valve boxes shall have at least 6" of adjustment above and below finished grade.
 9. **Copper service pipe** shall be Type K, seamless copper water tubing, soft annealed temper and conform to the requirements of ASTM B88. If high density polyethylene (HDPE) water service will be used in lieu of copper, it shall conform to ASTM D2731, for "Tropure" Water Service Tubing, PC 3408-200 psi, SDR 7 (PS), as manufactured by Ennet Industries complying with ASTM D2774.
 10. **TRACER WIRE:** Tracer wire for all non-metallic pipe shall be No. 8 AWG gauge, single or multiple strand plastic coated copper wire. Wire splices shall be made with a mechanical water proof connection such as "SM 200" or approved equal. Tracer wire shall be fastened to fire hydrant with "Hydrant Tracer Wire Brackets" as manufactured by Vok Products or approved equal.

- SANITARY SEWER:**
1. **Pipe:** Use solid-core, SDR-35, ASTM D3034 (or approved equal) Polyvinyl Chloride (PVC) Pipe for all designated PVC sanitary sewer services unless otherwise noted. Pipe for services shall meet the requirements of ASTM D2685 for Schedule 40. Joints for all sanitary sewer shall have push-on joints with molded rubber gaskets meeting the requirements of ASTM D3212, except for service lateral pipe connections to pipes, lines, vaults, and fittings which shall have solvent-cemented joints meeting the requirements of ASTM D2655 and ASTM D3212. Lay all PVC pipe on a continuous granular bed. Installation must comply with ASTM D2321.
 2. **Cleanouts:** Install cleanouts on all sanitary sewer services. The distance between cleanouts in horizontal piping shall not exceed 100 feet for pipes 4-inch and over in size. Cleanouts shall be of the same nominal size as the pipes they serve. Include frost sleeves and concrete frame and pipe support. Install a meter box frame and solid lid (Mensch R-1914-A, or approved equal) over all cleanouts, unless otherwise noted.
 3. **Testing:** Pressure test all sanitary sewer lines per the City requirements. Test all flexible sanitary sewer lines for deflection after the sewer line has been installed and backfill has been in place for at least 30 days. No pipe shall exceed a deflection of 5% if the test fails, make necessary repairs and retest.
 4. **Unless otherwise indicated, use reinforced, precast, concrete maintenance holes** conforming to ASTM C478, furnished with precast bases. Sanitary sewer maintenance holes shall be supplied with pre-formed inserts and flexible neoprene sleeve connections for all lateral lines 3/8" (1 1/2 inches) in diameter or less, unless otherwise indicated. Joints for all precast maintenance hole sections shall have gasketed rubber "O"-ring gaskets in accordance with ASTM C923. The inside barrel diameter shall not be less than 48 inches.
 5. **Install flexible watertight frame/chimney seals** on all sanitary sewer maintenance holes. Use either Manufactured Maintenance Hole Frame/Chimney Seals or Elastomeric Waterproof Frame/Chimney Seals.
 6. **Use Neenah Foundry Co. R-1733 coating** on all sanitary sewer maintenance holes unless otherwise noted. Covers shall bear the "Sanitary Sewer" label.

BENCHMARKS

1.	TOP NUT OF HYDRANT LOCATED ON THE WEST SIDE OF FRAZER STREET N.E., ±240 FEET NORTH OF THE INTERSECTION OF FRAZER STREET N.E. AND 122ND AVENUE N.E.
ELEVATION = 906.43 (NGVD 29)	

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3690 Pheasant Ridge Dr., #100, Blaine, MN 55449
Phone: 763-489-7900 Fax: 763-489-7959

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.

Name: Joseph T. Radsch, P.E.
Signature: [Signature]
Date: 11/06/17 License #: 45889

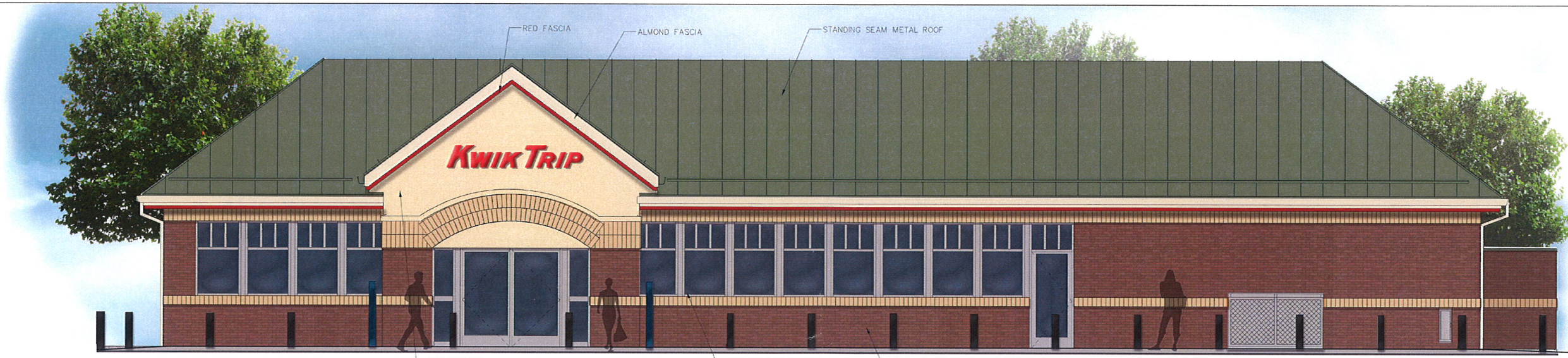
UTILITY PLAN

CONVENIENCE STORE #1014 WITH DOUBLE BAY CARWASH

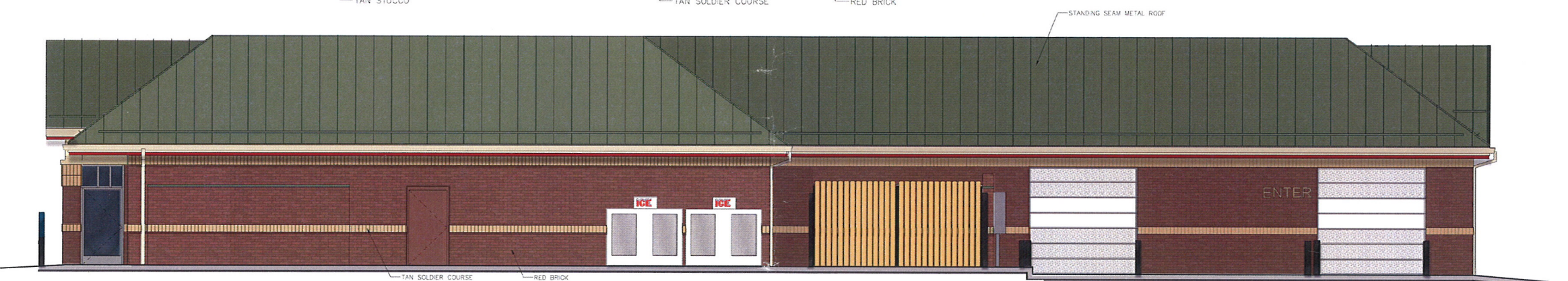
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DRAWN BY: JTR
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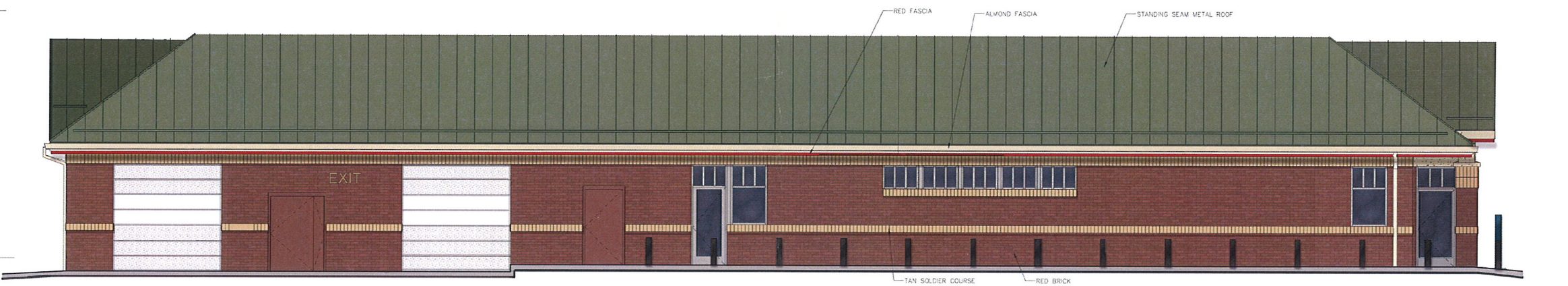
1 FRONT ELEVATION
1/4" = 1'-0"



2 LEFT ELEVATION
3/16" = 1'-0"



3 REAR ELEVATION
3/16" = 1'-0"

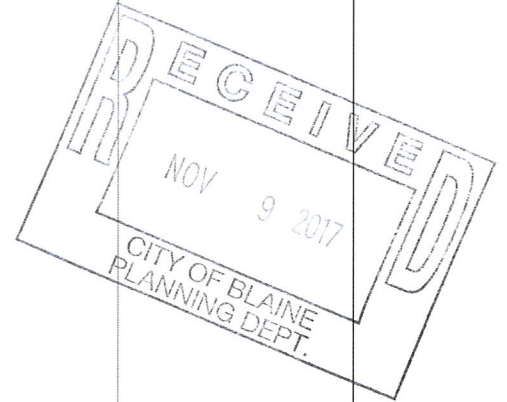


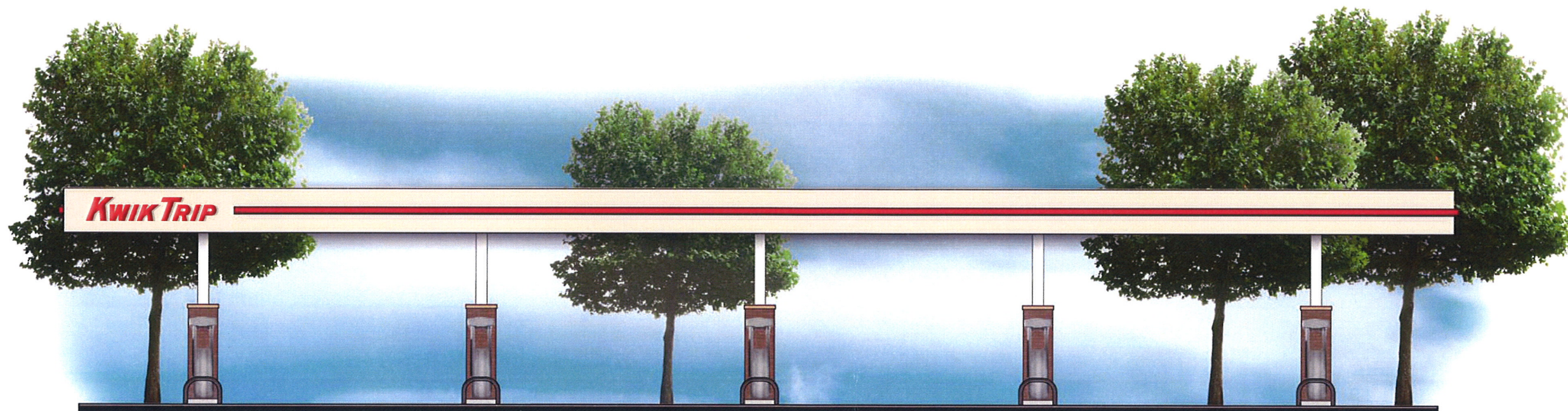
4 RIGHT ELEVATION
3/16" = 1'-0"

VANTAGE ARCHITECTS INC
750 N. Third Street
Ph (608) 784-2729
La Crosse, WI 54601
Fax (608) 784-2826



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FAX (608) 781-8980





FRONT ELEVATION
3/16" = 1'-0"



SIDE ELEVATION
3/16" = 1'-0"

**KWIK
TRIP**

**KWIK
STAR**

KWIK TRIP, Inc.
P.O. BOX 2107
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LA CROSSE, WI 54602-2107
PH. (608) 781-8988
FAX (608) 781-8960

Flat Canopy
w/ Brick

10 MPD