



**7 BREW COFFEE**  
**O'FALLON, MO**

1620 STATE HWY K  
 O'FALLON, MO 63366



ENGINEER OF RECORD:  
 NAME: SHAWN W. BARRY  
 LICENSE NO. MO PE-2009001053

PROJECT NUMBER:  
 22089 7BOF

REVISION:  
 09/29/2022 CITY REVIEW COMMENTS

**C-401**  
 UTILITY PLAN

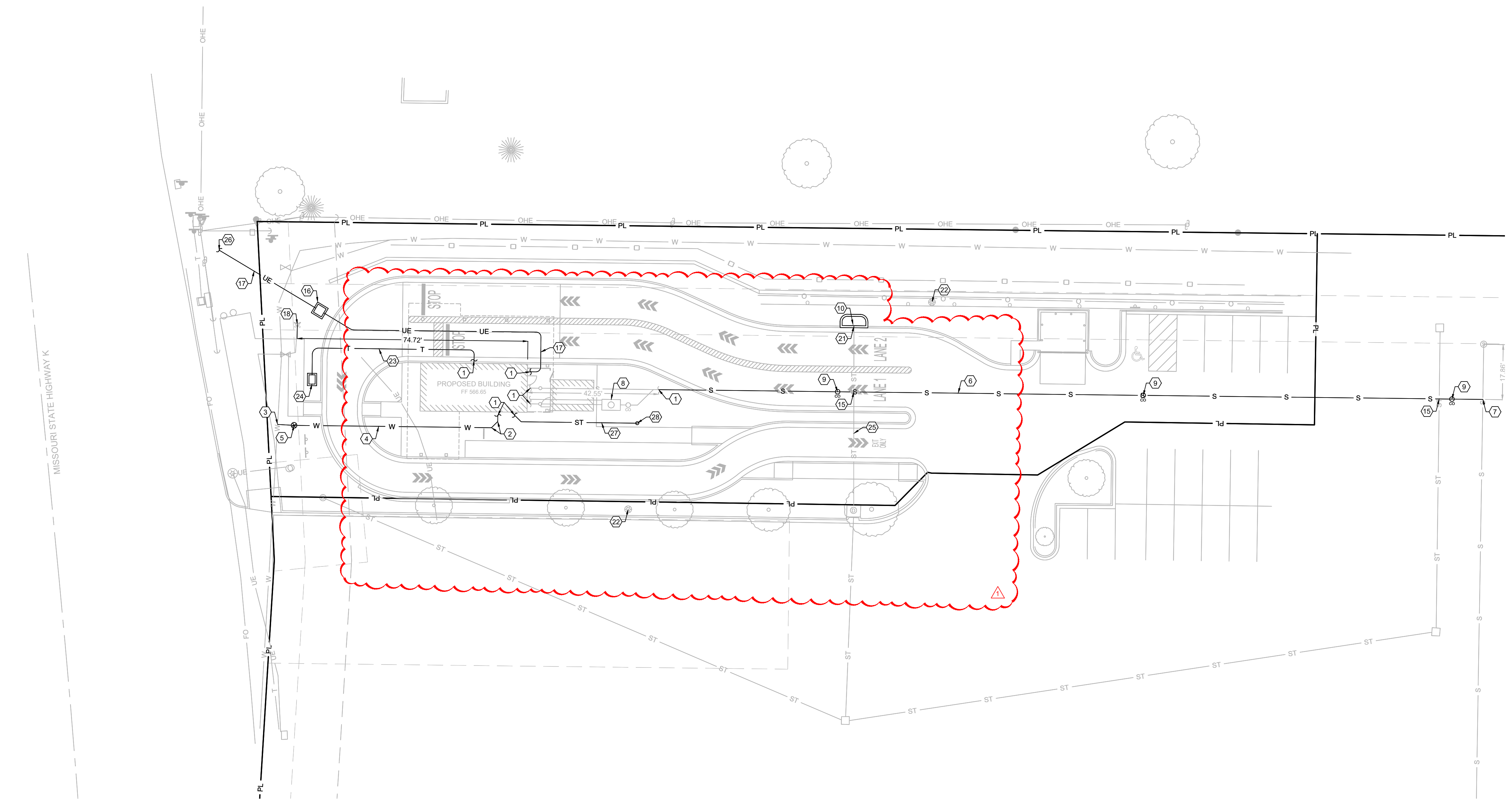
DATE: JULY 22, 2022

**KEY NOTES:**

- 1 SEE MEP PLANS FOR CONTINUATION.
- 2 INSTALL 45° BEND, TYPICAL.
- 3 CONNECTION OF WATER SERVICE TO MAIN BY WATER UTILITY PROVIDER.
- 4 INSTALL 70 L.F. ± OF 1" SCH. 80 PVC WATER LINE TO BE INSTALLED BY CONTRACTOR FROM WATER METER TO BUILDING PER PIPE INSTALLATION DETAILS SHEET C-701. WATER UTILITY PROVIDER TO INSTALL WATER LINE FROM MAIN TO METER.
- 5 1" WATER METER TO BE INSTALLED BY WATER UTILITY PROVIDER AS REQUIRED.
- 6 INSTALL 267 L.F. ± OF 6-INCH SCH. 40 PVC SANITARY SEWER SERVICE AT A MINIMUM SLOPE OF 1.00% PER PIPE INSTALLATION DETAILS SHEET C-701. SEE SHEET C-402 FOR PROFILE.
- 7 CONTRACTOR TO CONNECT 6" SCH. 40 PVC SANITARY SEWER SERVICE LINE TO EXISTING SEWER MAIN. COORDINATE CONNECTION WITH SEWER UTILITY PROVIDER. INSTALL PER METROPOLITAN ST. LOUIS SEWER DISTRICT STANDARDS AND SPECIFICATIONS. APPROXIMATE FLOWLINE OF EXISTING SEWER MAIN IS 548.60±.
- 8 SCHIER MODEL GB-50 GREASE INTERCEPTOR PER DETAIL INCLUDED ON SHEET C-703. SEE MEP PLANS FOR MORE INFORMATION. SEE CAPACITY EVALUATION BREAKDOWN, THIS SHEET.
- 9 SANITARY SEWER CLEANOUT, PER DETAIL SHEET C-701. SEE SHEET C-402 FOR PROFILE.
- 10 INSTALL 4" DIAM. CIRCLE STORM DRAIN MARKER PER CITY OF O'FALLON STORM DRAIN MARKER LOCATION DETAIL, SHEET C-703. MARKER TO READ "NO DUMPING, DRAINS TO WATERWAY".
- 11 OMITTED.
- 12 OMITTED.
- 13 OMITTED.
- 14 OMITTED.
- 15 STORM SEWER AND SANITARY SEWER CROSSING, MAINTAIN 18" VERTICAL CLEARANCE. SEE SHEET C-402 FOR PLAN AND PROFILE.
- 16 ELECTRIC TRANSFORMER, SEE MEP PLANS.
- 17 BURIED ELECTRIC LINE, SEE MEP PLANS.
- 18 EXISTING FIRE HYDRANT, DO NOT DISTURB.
- 19 OMITTED.
- 20 OMITTED.
- 21 INSTALL DOUBLE UNTRAPPED STREET INLET PER METROPOLITAN ST. LOUIS SEWER DISTRICT STANDARD DETAIL SHEETS 37 AND 43, SHEET C-703. RIM = 562.85; FL OUT = 654.38. CUT EXISTING RCP STORM PIPE TO FIT TO CURB INLET LOCATION. FILL VOIDS WITH NON-SHRINK GROUT. MAINTAIN EXISTING FLOWLINE.
- 22 EXISTING LIGHT POLE, TO REMAIN.
- 23 (2) 2" COMMUNICATIONS CONDUITS WITH PULL WIRE.
- 24 COMMUNICATIONS PULL BOX, SEE MEP PLANS.
- 25 EXISTING 18" RCP.
- 26 COORDINATE WITH ELECTRIC UTILITY PROVIDER FOR CONTINUATION.
- 27 2.0" DIA. SCH. 40 PVC DISCHARGE LINE FROM SUMP PUMP.
- 28 TERMINATE 2.0" SUMP PUMP DISCHARGES LINE WITH 90° POP-UP EMITTER.

**EXISTING UTILITY PROVIDER CONTACT INFORMATION:**

1. WATER PUBLIC WATER SUPPLY DISTRICT #02  
 100 WATER DRIVE  
 O'FALLON, MISSOURI 63368  
 (636) 561-3737
2. ELECTRIC AMEREN MISSOURI  
 PO BOX 790098  
 ST. LOUIS, MISSOURI 63179  
 (866) 992-6519
3. MISC. CITY OF O'FALLON  
 100 NORTH MAIN STREET  
 O'FALLON, MISSOURI 63368  
 (636)-379-5602 - TRAFFIC  
 (636)-379-5556 - ENGINEERING DIVISION  
 (636)-379-5596 - CONSTRUCTION INSPECTION DIVISION  
 (636)-281-2858 - SEWER / STORM



**GREASE INTERCEPTOR CALCULATIONS:**

(SCHIER MODEL GB-50)

FLOW RATE/GREASE CAPACITIES: 50 GPM / 439.5 LBS  
 LIQUID CAPACITY: 65 GALLONS

1. FLOW RATE TO GREASE INTERCEPTOR

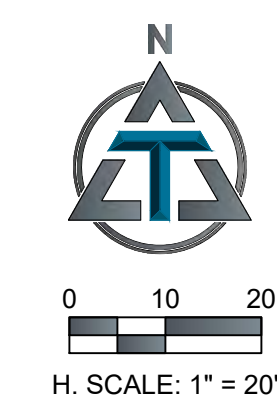
ITEM	FLOW RATE
3-COMP SINK	30.07 GPM
FLOOR SINK	4.00 GPM
MOP BASIN	9.35 GPM
TRENCH DRAIN	3.00 GPM
<b>TOTAL</b>	<b>46.42 GPM</b>

2. GREASE PRODUCTION

EQUATION:  
 $[(\text{DINING AREA})^A / (14 \text{ SQ FT PER SEAT})] \times (4 \text{ TURNS PER SEAT PER DAY}) \times (\text{GREASE PRODUCTION VALUE})^B \times (\text{DAY BETWEEN PUMP OUT})^C$

A. "DINING AREA" EQUAL TO 60% OF FLOOR AREA (510 SQ. FT. X 0.60 = 306 SQ. FT.)  
 B. GREASE PRODUCTION VALUE FOR DRIVE THRU COFFEE SHOP = 0.005 LBS PER SERVING  
 C. DAYS BETWEEN PUMP OUTS = 90 DAYS

(306 SQ FT / (14 SQ FT PER SEAT)) X (4 TURNS PER SEAT PER DAY) X (0.005) X (90) = 39.343 LBS OF FOG



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