

## GENERAL SANITARY SEWER CONSIDERATIONS – LANDLORD AND TENANT WORK

THE FIRST WORK TO BE PERFORMED IS THE RELOCATION OF AN EXISTING 8" SANITARY SEWER LINE AND PUBLIC EASEMENT THAT BISECTS THE PROPOSED BUILDING PAD. THIS LINE WILL BE RE-ROUTED TO THE EAST AND NORTH OF THE PROPOSED CHILI'S RESTAURANT. ONE EXISTING SANITARY SEWER MANHOLE WILL BE REMOVED IN ITS ENTIRETY, WITH THE ENTIRE VOID BEING REPLACED WITH COMPACTED 21A CRUSHED STONE. EXISTING PIPES BEING ABANDONED SHALL BE DISCONNECTED FROM MANHOLES PER WYMA DETAIL S-15, SHEET C-16, AND THE REMAINING BARRELS SHALL BE INFILLED WITH FLOWABLE FILL.

A NEW EASEMENT PLAT WILL BE PROVIDED TO CREATE THE NECESSARY 20' WIDE PUBLIC SANITARY SEWER EASEMENT.

ON-SITE SEWER CONSISTS OF A SINGLE SANITARY LINE EXITING THE EASTERN SIDE OF THE BUILDING, A GREASE LINE EXITING THE NORTHERN SIDE, AND AN EMERGENCY DRAIN LOCATED AT THE GREASE STORAGE 'PIG', LOCATED TO THE EAST OF THE DOUBLE DUMPSTERS. IT IS NOTED THAT THE GREASE 'PIG' IS UNDER ROOF, AND THERE IS A LOW-LEVEL CONTAINMENT 'CURB' AROUND THE PERIMETER TO REDUCE INFLOW OF WIND-BLOWN RAIN, AND KEEP ANY SPILLED GREASE WITHIN THE CONTROLLED AREA. THE DRAIN FROM THE GREASE 'PIG' AREA WILL BE TIED INTO THE GREASE LINE UPSTREAM OF THE NEW GREASE INTERCEPTOR.

THE NEW SEWER LATERAL WILL BE TIED INTO THE NEWLY RELOCATED PUBLIC SEWER MAIN, WITH A MAINTENANCE DEMARCATION CLEANOUT BEING PLACED AT THE EDGE OF THE NEW SANITARY SEWER EASEMENT.

## SANITARY SEWER CONSTRUCTION – LANDLORD

ALL NEW SANITARY SEWER PIPE, CLEANOUTS, FITTINGS, ETC. SHALL BE SDR-35 PVC. NEW SANITARY MANHOLES SHALL BE PRE-CAST CONCRETE, WITH FABRICATION AND INSTALLATION IN ACCORDANCE WITH THE REQUIREMENTS OF THE WESTERN VIRGINIA WATER AUTHORITY (WVWA). ALL PIPE CONNECTIONS TO MANHOLES SHALL BE MADE WITH FLEXIBLE BOOT PER WVWA REQUIREMENTS.

NEW MANHOLES AND GREASE INTERCEPTOR SHALL BE MINIMUM H-20 TRAFFIC LOAD RATED.

COORDINATE INSPECTIONS OF PUBLIC PORTIONS OF NEW SANITARY SEWER WITH THE WVWA.

100 THRU 108 ARE EXISTING AND PROPOSED MAIN LINE SANITARY ITEMS, SEE PLAN, AND SEE PROFILE SHEET C-08.

109 PROVIDE 9'-6" SDR-35 PVC AT 4.51% INV. OUT=1119.15

110 PROVIDE 6" SANITARY CLEANOUT ASS'Y, INV.=1119.55

111 PROVIDE 22'-6" SDR-35 PVC AT 4.51% INV. IN=1120.55. CAP FOR FUTURE EXTENSION BY TENANT'S CONTRACTOR.

## ELECTRIC & TELECOMMUNICATIONS – LANDLORD

LANDLORD'S CONTRACTOR SHALL COORDINATE WITH AMERICAN ELECTRIC POWER "AEP" RELATIVE TO INSTALLATION OF NEW TRANSFORMER, SHALL INSTALL TWO 5-INCH CONDUIT WITH APPROPRIATE SIZED PULL ROPES AS SHOWN, WITH ORIGIN TO BE DETERMINED BY AEP, AND SHALL INSTALL NEW TRANSFORMER PAD, WITH PAD DESIGN AND SIZE BY AEP.

TENANT'S CONTRACTOR WILL PROVIDE & INSTALL SECONDARY TO BUILDING FROM TRANSFORMER.

## TELECOMMUNICATIONS – LANDLORD

LANDLORD'S CONTRACTOR SHALL COORDINATE WITH TELECOMMUNICATION COMPANY RELATIVE TO INSTALLATION OF NEW TELECOMMUNICATION LINES, AND INSTALL TWO 2-INCH CONDUIT AS SHOWN, WITH ORIGIN TO BE DETERMINED BY TELECOMMUNICATION COMPANY, AND SHALL STUB AND CAP CONDUIT INSIDE CURB LINE AS SHOWN. PROVIDE APPROPRIATE PULL ROPES.

TENANT'S CONTRACTOR WILL EXTEND TO BUILDING.

## NATURAL GAS – LANDLORD

LANDLORD'S CONTRACTOR SHALL COORDINATE WITH ROANOKE GAS TO INSTALL NEW GAS LATERAL TO DELIVERY POINT SHOWN. SEE MECHANICAL SHEETS OF BUILDING PLANS FOR ANTICIPATED NATURAL GAS LOAD REQUIREMENTS.

TENANT'S CONTRACTOR WILL COORDINATE WITH ROANOKE GAS FOR EXTENSION TO BUILDING AND PLACEMENT OF NEW METER.

ALL GAS LINE MATERIALS AND INSTALLATION WILL BE PROVIDED / PERFORMED BY ROANOKE GAS, UP TO AND INCLUDING THE METER.

## GENERAL FIRE & DOMESTIC WATERLINE CONSIDERATIONS – LANDLORD AND TENANT WORK

A NEW 8" PUBLIC WATER MAIN WILL BE EXTENDED FROM THE WESTERN MALL ENTRY ROAD TO THE SOUTHERN SIDE OF THE EXISTING CONCRETE DRIVE ISLAND, WHERE A NEW COMBINATION FIRE / DOMESTIC VAULT SHALL BE INSTALLED, AND PROTECTED BY PIPE BOLLARDS.

A NEW PUBLIC WATER EASEMENT WILL BE PROVIDED TO ENCOMPASS THE NEW COMBINATION VAULT AND SUPPLY LINE, WITH PLAT PREPARATION BEING PERFORMED FOLLOWING SITE PLAN APPROVAL. ALL WATERLINE AND APPURTENANCES OUTSIDE THE EASEMENT ARE PRIVATE AND ARE TO BE MAINTAINED BY THE LANDLORD OR TENANT, AS APPLICABLE BASED ON THE LEASE AGREEMENT.

SEPARATE DOMESTIC AND FIRE LINES SHALL BE EXTENDED FROM THE COMBINATION VAULT TO THE NEW BUILDING, WITH A NEW PRIVATE FIRE HYDRANT ASSEMBLY BEING INSTALLED IN THE REAR TRAFFIC ISLAND. CWA HAS PERFORMED MODELING OF THE EXISTING AND PROPOSED WATER SYSTEMS, AND BASED ON THIS MODEL, THE AVAILABLE FIRE FLOW AT THE NEW FIRE HYDRANT WILL BE ± 2,890 GPM WITH A RESIDUAL PRESSURE OF 20 psi. WITH THE NEW FIRE HYDRANT FLOWING, THE MINIMUM PRESSURE IN THE AREA MODELED IS 44.6 psi. AT THE PROPOSED FIRE LINE ENTRY TO THE NEW CHILI'S RESTAURANT.

WITH NO FIRE FLOWS ACTIVATED, THE ANTICIPATED PRESSURE AT THE POINT OF CONNECTION TO THE NEW MAIN IS EXPECTED TO BE ± 114 psi. AS SUCH, A PRESSURE REDUCING VALVE IS REQUIRED TO BE INSTALLED AT THE DOMESTIC METER, USING A TANDEM METER SETTER (FORD METER BOX COMPANY 70 SERIES TANDEM COPPERSETTER, OR WVWA APPROVED ALTERNATE).

NEW POST INDICATOR VALVE (PIV) AND FIRE DEPARTMENT CONNECTION (FDC) WILL BE INSTALLED IN THE ISLAND TO THE SOUTH OF THE NEW REAR SERVICE YARD.

## WATERLINE CONSTRUCTION – LANDLORD

ALL NEW MATERIALS (WATERLINE, VALVES, METER BOXES / VAULTS, FIRE VAULTS, ETC.), INSTALLATION, FLUSHING / DISINFECTION / TESTING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE WESTERN VIRGINIA WATER AUTHORITY (WVWA). UNLESS OTHERWISE APPROVED BY THE WVWA NEW PUBLIC WATER MAIN, FITTINGS & APPURTENANCES SHALL BE MINIMUM CLASS 52 DUCTILE IRON, COORDINATE CLOSELY WITH THE OWNER RELATIVE TO TEMPORARY MEASURES THAT MAY BE REQUIRED IN ORDER TO PERFORM THE INTERCONNECTION AT THE EXISTING MAIN.

SEE PLUMBING SHEETS OF BUILDING PLANS FOR SPECIFIC INFORMATION REGARDING LOCATION OF INTERCONNECTIONS WITH BUILDINGS.

ALL NEW WATERLINE AND APPURTENANCES ON THE PRIVATE SIDE OF THE NEW COMBINATION VAULT ARE PRIVATE. MAINTENANCE OF PRIVATE SYSTEMS IS NOT THE RESPONSIBILITY OF THE WESTERN VIRGINIA WATER AUTHORITY.

NEW WATERLINE SHALL BE INSTALLED WITH A MINIMUM 3 FEET OF COVER TO FINISH GRADE.

A PROVIDE NEW 8"x8" CUT-IN TEE; PROVIDE ±15' NEW 8" WATERLINE, TO WESTERN SIDE OF EXISTING CONCRETE ISLAND.

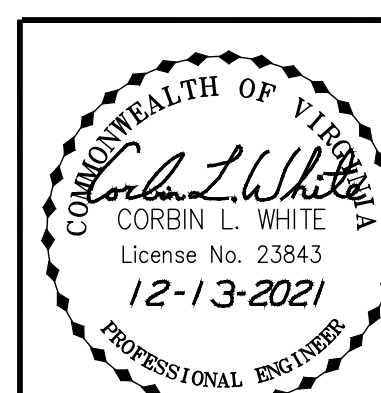
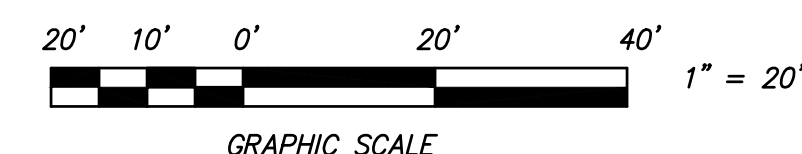
B PROVIDE NEW 8" GATE VALVE ASSEMBLY AND VALVE VAULT. TOP OF VAULT SHALL MATCH EXISTING GRADE TOP OF PAVEMENT.

C PROVIDE NEW COMBINATION FIRE / DOMESTIC WATER VAULT, WITH PRESSURE REDUCING VALVE (PRV), SEE DETAIL W-7, SHEET C-16. THE FIRE SERVICE WILL BE 6 INCH, THE DOMESTIC METER IS 1-1/2 INCH, & THE DOMESTIC LATERAL SHALL BE 2 INCH. AN 8"x6" REDUCER SHALL BE INSTALLED BETWEEN THE DOMESTIC INTERCONNECTION AND THE 6" DETECTOR CHECK.

D PROVIDE ±185' NEW 8" WATERLINE AND ONE 8"x45" BEND. STUB TO 2' BEYOND CURB AND CAP FOR TENANT EXTENSION.

E PROVIDE 6" TEE, 28' NEW 6" WATERLINE, AND FIRE HYDRANT ASSEMBLY WITH ISOLATION VALVE. SEE 'FIRE FLOW NOTES', SHEET C-02 FOR PROJECTED FLOW RATE.

F PROVIDE 189' NEW 2" WATERLINE AND ONE 2"x45" BEND. STUB TO 2' BEYOND CURB AND CAP FOR TENANT EXTENSION.



LANDLORD WORK – SITE UTILITY PLAN  
FOR  
PROPOSED CHILI'S RESTAURANT  
TO BE CONSTRUCTED AT  
TANGLEWOOD MALL  
PREPARED FOR  
BRINKER INTERNATIONAL LLC &  
TANGLEWOOD VENTURE LLC  
SITUATE ELECTRIC ROAD (VA ROUTE 419)  
CAVE SPRING MAGISTERIAL DISTRICT  
COUNTY OF ROANOKE, VIRGINIA

**CWA**  
**CALDWELL WHITE ASSOCIATES**  
ENGINEERS / SURVEYORS / PLANNERS

Designed: C.L. White  
Drawn: C.L. White  
Checked:  
Date: October 27, 2021  
Scale: 1" = 20'  
Tax Parcel: 072.16-01-02.00-0000  
Field Book: CH-22  
W.O. No.: 21-0043/0084/0123

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REVISED DECEMBER 13, 2021 PER FIRST MUNICIPAL REVIEW – C.L. White

APPROVED, 1/19/2022

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