

GENERAL SANITARY SEWER AND WATERLINE CONSIDERATIONS SHOWN BELOW ARE REPEATED HERE FROM SHEET C-07, LANDLORD SITE UTILITY PLAN, TO ENSURE TENANT'S CONTRACTOR IS PROVIDED WITH THE SAME INFORMATION.

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 WYWA 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 – TENANT

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.

- 111 REMOVE CAP INSTALLED BY LANDLORD'S CONTRACTOR. PROVIDE 9'-6" SDR-35 PVC AT 4.51%, INV. OUT=1120.55
- 112 PROVIDE 6" SANITARY CLEANOUT ASS'Y., INV.=1120.95
- 113 PROVIDE 3'-6" SDR-35 PVC AT 4.51%
- 114 PROVIDE WVWA STANDARD SAMPLING MANHOLE
RIM=1127.20
INV. IN=1121.19
INV. OUT=1121.09
- 115 PROVIDE 4'-6" SDR-35 PVC AT 4.51%
- 116 PROVIDE 2000 GAL GREASE INTERCEPTOR. 'PARK MODEL GT-2000', SEE DETAIL, SHEET C-16.
RIMS=1126.55
TOP OF UNIT = 1122.87
INV. IN=1121.62
INV. OUT=1121.37
OUTSIDE BOTTOM OF UNIT = 1114.87
- 117 PROVIDE 28'-6" SDR-35 PVC AT 4.51%
- 118 PROVIDE 6" SANITARY CLEANOUT ASS'Y., INV.=1122.88
- 119 PROVIDE 4" SDR-35 PVC AT 2.08% MIN. WITH DOUBLE CLEANOUT, SEE PLUMBING SHEETS; PROVIDE 4" SDR-35 PVC AT 2.08% MIN.; PROVIDE 4"x6" ECCENTRIC ENLARGER; PROVIDE 6" SDR-35 PVC AT 1.04% MIN.
- 120 PROVIDE 51'-6" SDR-35 PVC AT 10.29%, INV. OUT=1120.95
- 121 PROVIDE 6" SANITARY CLEANOUT ASS'Y., INV.=1126.20
- 122 PROVIDE 4" SDR-35 PVC AT 2.08% MIN. WITH DOUBLE CLEANOUT, SEE PLUMBING SHEETS; PROVIDE 4"x6" ECCENTRIC ENLARGER; PROVIDE 6" SDR-35 PVC AT 1.04% MIN.
- 123 PROVIDE SPILL CONTAINMENT DRAIN UNDER COVERED AREA AT GREASE STORAGE 'PIG'; SEE PLUMBING SHEETS; PROVIDE 4" SDR-35 PVC AT 2.08% MIN.
- 124 PROVIDE 4" SANITARY CLEANOUT ASS'Y., INV.=1123.50; PROVIDE 4" SDR-35 PVC AT 14.50%; PROVIDE 4"x6" ECCENTRIC ENLARGER & 6" SDR-35 AT 14.50% INV. OUT=1121.76

ELECTRIC & TELECOMMUNICATIONS – TENANT

LANDLORD'S CONTRACTOR / AMERICAN ELECTRIC POWER 'AEP' HAVE PROVIDED POWER UP TO AND INCLUDING THE TRANSFORMER.

ALL ELECTRICAL MATERIALS AND INSTALLATION FROM TRANSFORMER TO BUILDING SHALL BE BY TENANT'S CONTRACTOR. COORDINATE WITH BUILDING PLANS.

TELECOMMUNICATIONS – TENANT

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 – TENANT

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 $\pm 2,890$ 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 TO 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 – TENANT

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 NEW BUILDING.

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.

G PROVIDE NEW POST INDICATOR VALVE (PIV), COORDINATE WITH SPRINKLER DESIGNER RELATIVE TO INTERCONNECTION OF NEW POST INDICATOR VALVE WITH INTERIOR FIRE PROTECTION MONITORING PANEL. CONSTRUCT A NEW 3'x6'x6" THICK CONCRETE PAD AT PIV AND FDC (SEE ITEM 'H' BELOW).

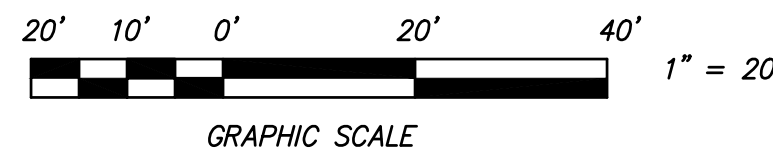
H PROVIDE NEW FREE-STANDING SIAMESE FIRE DEPARTMENT CONNECTION (FDC). FDC SHALL BE 4-INCH DIAMETER WITH TWO 2-1/2" HOSE CONNECTIONS, EACH SUPPLIED WITH 'KNOX' LOCKING CAPS. COORDINATE CAP TYPE WITH LOCAL FIRE MARSHAL'S OFFICE. CONSTRUCT A NEW 3'x6'x6" THICK CONCRETE PAD AT FDC STANDPIPE AND PIV (SEE ITEM 'G' ABOVE). PROVIDE 'FDC' SIGNAGE AT LOCATION OF THE FIRE DEPARTMENT CONNECTIONS. SIZE, COLOR AND LETTERING SHALL MEET THE REQUIREMENTS OF THE FIRE CODE.

PROVIDE NEW 2" DOMESTIC WATERLINE FROM LANDLORD STUB TO BUILDING. COORDINATE WITH PLUMBING SHEETS OF BUILDING PLANS.

PROVIDE NEW 6" FIRE SUPPLY WATERLINE FROM LANDLORD STUB TO BUILDING. COORDINATE WITH PLUMBING SHEETS OF BUILDING PLANS.

PROVIDE NEW 4" WATERLINE FROM SPRINKLER ROOM TO FIRE DEPARTMENT CONNECTION (FDC).

A LOCKING 'KNOX' KEY BOX SHALL BE PROVIDED FOR THE NEW BUILDING. LOCATION TO BE GENERALLY WITHIN 10 FEET OF THE MAIN ENTRY DOOR, AND TO BE PLACED AT APPROXIMATE EYE LEVEL. COORDINATE MODEL AND KEYING REQUIREMENTS WITH OWNER AND FIRE MARSHAL'S OFFICE.



	TENANT 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
	 CALDWELL WHITE ASSOCIATES ENGINEERS / SURVEYORS / PLANNERS 4203 MELROSE AVENUE P.O. BOX 6260 ROANOKE, VIRGINIA 24017-0260 (540) 366-3400 FAX: (540) 366-8702
Designed: <u>C.L. White</u> Drawn: <u>C.L. White</u> Checked: <u>C.L. White</u> Date: <u>October 27, 2021</u> Scale: <u>1" = 20'</u> Tax Parcel: <u>072.16-01-02.00-0000</u> Field Book: <u>CH-22</u> W.O. No.: <u>21-0043/0084/0123</u>	

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