

UTILITY NOTES:

- 1.) THE CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES. THE LOCATION OF ALL EXISTING UTILITIES ARE NOT NECESSARILY SHOWN ON THE PLANS AND WHERE SHOWN ARE ONLY APPROXIMATE. THE CONTRACTOR SHALL ON HIS INITIATIVE AND AT NO EXTRA COSTS HAVE LOCATED ALL UNDERGROUND LINES AND STRUCTURES AS NECESSARY. NO CLAIMS FOR DAMAGES OR EXTRA COMPENSATION SHALL ACCRUE TO THE CONTRACTOR FROM THE PRESENCE OF SUCH PIPE, OTHER OBSTRUCTIONS OR FROM ANY DELAY DUE TO REMOVAL OR REARRANGEMENT OF THE SAME. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO UNDERGROUND STRUCTURES. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL NON-SUBSCRIBING UTILITIES. THE CONTRACTOR(S) SHALL CONTACT "NORTH CAROLINA ONE CALL" AT 1-800-632-4848 FOR ASSISTANCE IN LOCATING EXISTING UTILITIES. CALL AT LEAST 48 HOURS PRIOR TO ANY DIGGING.
- 2.) UTILITY INFORMATION SHOWN HEREON WAS OBTAINED FROM THE BEST AVAILABLE SOURCE AND MAY OR MAY NOT BE EITHER ACCURATE OR COMPLETE. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXACT LOCATIONS OF EXISTING UTILITIES AND IS RESPONSIBLE FOR ANY DAMAGE TO ANY UTILITIES, EITHER PUBLIC OR PRIVATE, SHOWN HEREON OR NOT SHOWN HEREON. ANY REPAIRS SHALL BE DONE TO THE SATISFACTION OF THE APPROPRIATE UTILITY COMPANY.
- 3.) THE GENERAL CONTRACTOR SHALL CONFIRM ALL NEW UTILITY TAP LOCATIONS WITH THE UTILITY OWNERS.
- 4.) IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO VERIFY THE ACTUAL LOCATION AND AVAILABILITY OF ALL EXISTING AND PROPOSED UTILITIES IN THE FIELD PRIOR TO GROUND BREAKING.
- 5.) MINIMUM COVER FOR CONDUITS SHALL BE 36 INCHES UNLESS OTHERWISE SHOWN OR NOTED ON THESE PLANS.
- 6.) ALL MANHOLES, VALVES AND MONUMENT FRAMES SHALL BE SET TO FINISH GRADE AFTER PAVING.
- 7.) THE CONTRACTOR SHALL COMPLY WITH THE RULES AND REGULATIONS OF THE STATE CONSTRUCTION SAFETY ORDERS. TRENCHES SHALL BE SHORED IN ACCORDANCE WITH OSHA.
- 8.) OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION (OSHA) STANDARDS FOR EXCAVATIONS; FINAL RULE 29CFR PART 1926. SUBPART "H" APPLIES TO ALL EXCAVATIONS EXCEEDING 5 FEET IN DEPTH. EXCAVATION EXCEEDING TWENTY (20) FEET IN DEPTH REQUIRES THE DESIGN OF A TRENCH SAFETY SYSTEM BY A REGISTERED PROFESSIONAL ENGINEER.
- 9.) EQUIPMENT AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED PROVIDED PRIOR APPROVAL HAS BEEN OBTAINED FROM THE OWNER IN WRITING PRIOR TO ORDERING OR INSTALLATION. THE CONSTRUCTION SHALL WAIVE ANY CLAIM FOR ADDITIONAL COST RELATED TO THE SUBSTITUTION OF ALTERNATE EQUIPMENT.
- 10.) CONTRACTOR SHALL MAINTAIN AN "AS-BUILT" SET OF DRAWINGS TO RECORD THE EXACT LOCATION OF ALL PIPING PRIOR TO CONCEALMENT. DRAWINGS SHALL BE GIVEN TO THE OWNER UPON COMPLETION OF THE PROJECT WITH A COPY OF THE TRANSMITTAL LETTER TO THE ENGINEER.
- 11.) ALL UTILITY CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE UNION COUNTY PUBLIC WORKS PUBLIC UTILITIES AND CROSS CONNECTION CONTROL REGULATIONS AND STANDARDS.
- 12.) SITE UTILITY CONTRACTOR TO PROVIDE WATER, SANITARY SEWER, AND ROOF DRAIN LEADERS TO WITHIN 5 FEET OF THE BUILDING. CONTRACTOR SHALL COORDINATE SITE PLAN CONNECTIONS WITH THE ARCHITECTURAL BUILDING PLANS.
- 13.) RELATION OF WATER MAINS TO SEWERS:
 - A. LATERAL SEPARATION OF SEWER AND WATER MAINS: WATER MAINS SHALL BE LAID AT LEAST 10 FEET LATERALLY FROM EXISTING OR PROPOSED SEWERS UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT A 10 FOOT LATERAL SEPARATION, IN WHICH CASE:
 1. THE WATER MAIN IS LAID IN A SEPARATE TRENCH, WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER, OR
 2. THE WATER MAIN IS LAID IN THE SAME TRENCH AS THE SEWER LINE WITH THE WATER MAIN LOCATED AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH AND ABOVE THE TOP OF THE SEWER.
 - B. CROSSING A WATER MAIN OVER A SEWER MAIN:

WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS OVER A SEWER THE WATER MAIN SHALL BE LAID AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER MAIN, UNLESS LOCAL CONDITIONS PREVENT A 18 INCH VERTICAL SEPARATION - IN WHICH CASE BOTH THE WATER MAIN AND SEWER MAIN SHALL BE CONSTRUCTED OF FERROUS MATERIALS AND WITH JOINTS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING.
 - C. CROSSING A WATER MAIN UNDER A SEWER MAIN:

WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS UNDER A SEWER MAIN BOTH THE WATER MAIN AND SEWER MAIN SHALL BE CONSTRUCTED OF FERROUS MATERIALS AND WITH JOINTS EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING.
 - D. CROSSING A SEWER LINE OVER OR UNDER A STORM DRAIN:

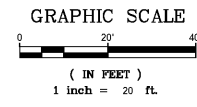
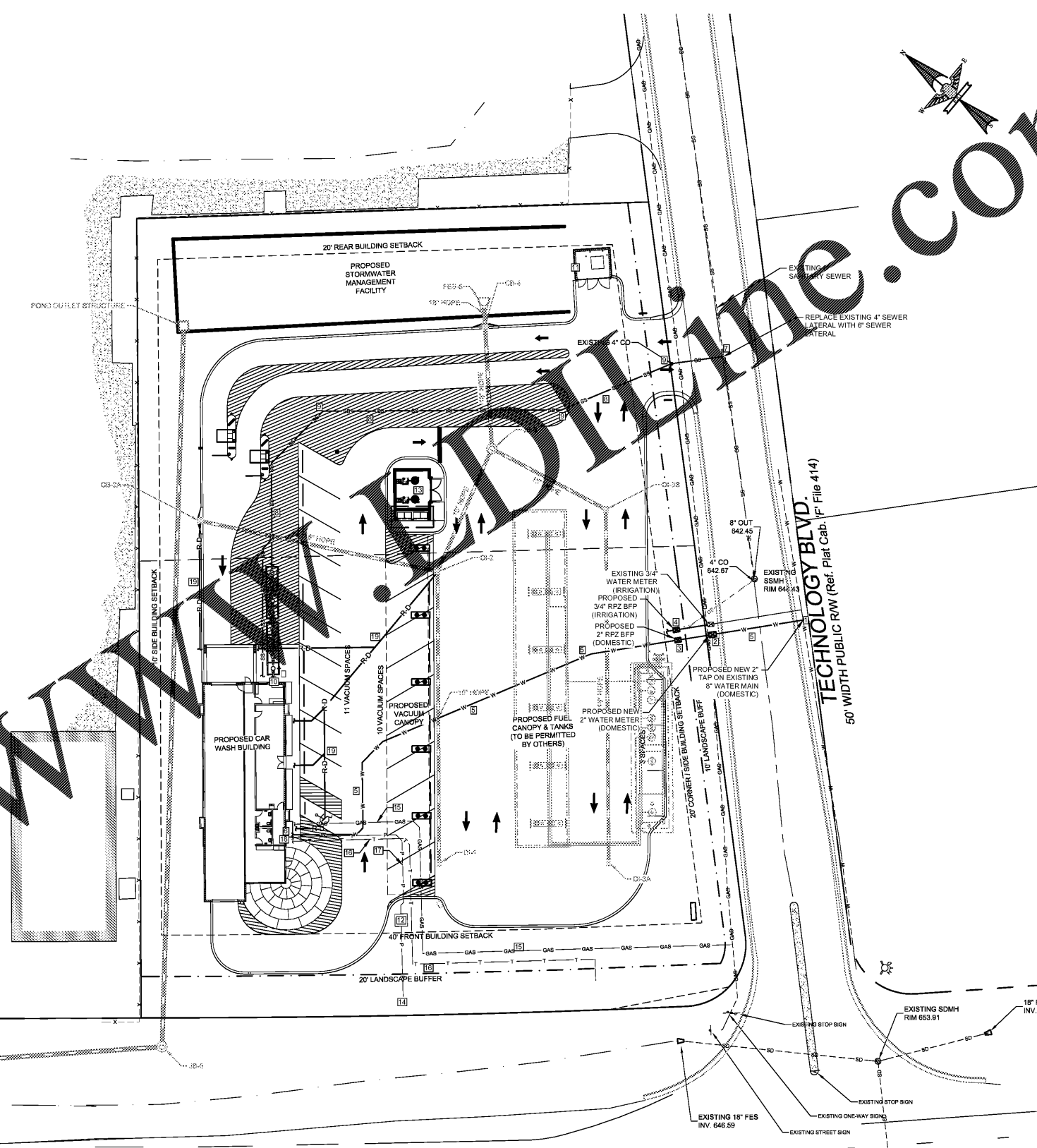
WHENEVER IT IS NECESSARY FOR A SEWER LINE TO CROSS A STORM DRAIN PIPE, THE SEWER LINES SHALL BE LAID AT SUCH AN ELEVATION THAT THE OUTSIDE OF THE SEWER LINE NEAREST TO THE OUTSIDE OF THE STORM DRAIN PIPE SHALL MAINTAIN A 12 INCH CLEAR SEPARATION DISTANCES, OR ENCASED IN EITHER CONCRETE OR DUCTILE IRON PIPE FOR AT LEAST 5 FEET ON EITHER SIDE OF THE CROSSING.
- 14.) UNDERGROUND CONDUITS TO SIGNS, LOT LIGHTS, ETC., SHALL BE PLACED IN GRASS OR LANDSCAPE AREAS WHENEVER POSSIBLE. THE LOCATION OF THE CONDUIT AS SHOWN ON THESE PLANS SHALL BE CONSIDERED TO BE SCHEMATIC WITH ACTUAL LOCATION TO BE VERIFIED BY THE GENERAL CONTRACTOR. PVC SCH. 40 SLEEVES SHALL BE INSTALLED FOR ALL CONDUIT CROSSING UNDER PAVED AREAS.
- 15.) THE CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES TO DETERMINE EXACT POINT OF SERVICE CONNECTION AT EXISTING UTILITY. REFER TO THE BUILDING ELECTRICAL AND PLUMBING DRAWINGS FOR UTILITY SERVICE ENTRANCE LOCATIONS, SIZES AND CIRCUITING.

UTILITY KEY NOTES:

- 1 - PROPOSED 2" WATER TAP, SEE DETAIL
- 2 - PROPOSED 2" DOMESTIC WATER METER, SEE DETAIL
- 3 - PROPOSED 2" REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY INSTALLED IN ABOVE GROUND, INSULATED ENCLOSURE, SEE DETAIL
- 4 - PROPOSED 3/4" REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY INSTALLED IN ABOVE GROUND, INSULATED ENCLOSURE, SEE DETAIL
- 5 - PROPOSED 2" PVC DOMESTIC WATER LINE
- 6 - PROPOSED 2" WATER TIE TO BUILDING (SEE PLUMBING PLANS FOR CONTINUATION)
- 7 - PROPOSED SANITARY SEWER CONNECTION - TIE TO EXISTING PIPE (6 INCH SERVICE TO REPLACE EXISTING 4 INCH SERVICE)
- 8 - PROPOSED 6" PVC SANITARY SEWER LINE (1/8" PER 1' MINIMUM SLOPE)
- 9 - PROPOSED SANITARY SEWER CLEANOUT (75' O.C. MAX. & AT BENDS)
- 10 - SEE PLUMBING/BELANGER PLANS FOR CONNECTION TO RECLAIM TANKS & BUILDING
- 11 - PROPOSED LIGHT POLE LOCATION. POLE BASE TOP SHALL BE FORMED TO SHED WATER (SEE SITE LIGHTING PLAN BY CREE FOR DETAILS)
- 12 - PROPOSED TRANSFORMER PAD LOCATION COORDINATE WITH POWER COMPANY PRIOR TO INSTALLATION
- 13 - PROPOSED VACUUM EQUIPMENT (SEE EUROVAC PLANS FOR DETAILS)
- 14 - PROPOSED ELECTRICAL CONNECTION (COORDINATE WITH POWER COMPANY PRIOR TO INSTALLATION)
- 15 - PROPOSED GAS SERVICE COORDINATE WITH PROVIDER
- 16 - PROPOSED TELEPHONE SERVICE COORDINATE WITH PROVIDER
- 17 - PROPOSED ELECTRICAL SERVICE COORDINATE WITH PROVIDER (APPROX. 115 LF OF (2) - 6" CONDUITS FROM TRANSFORMER TO CT CABINET TO BE PROVIDED BY GENERAL CONTRACTOR)
- 18 - PROPOSED ELECTRICAL CT CABINET (SEE ELECTRICAL PLANS FOR DETAILS)
- 19 - PROPOSED ROOF DRAIN (TIE FROM BUILDING TO STORM DRAINS - SEE PLUMBING PLANS FOR CONTINUATION AT BUILDING)

LEGEND:

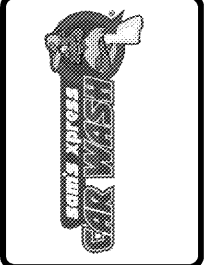
- GAS --- EXISTING GAS LINE
- SS --- EXISTING SANITARY SEWER
- W --- EXISTING WATER MAIN
- P --- EXISTING POWER AND ELECTRIC
- S --- EXISTING STORM DRAINAGE PIPE
- T --- EXISTING TRENCH BASIN
- M --- EXISTING SANITARY SEWER MANHOLE
- U --- EXISTING UTILITY POLE
- V --- EXISTING VALVE
- S --- PROPOSED SANITARY SEWER LINE
- C --- PROPOSED SANITARY SEWER CLEANOUT
- W --- PROPOSED WATER SERVICE LINE
- M --- PROPOSED WATER METER
- E --- PROPOSED BACKFLOW PREVENTION ENCLOSURE
- --- PROPOSED EMPTY CONDUIT
- --- PROPOSED LIGHT POLE
- --- PROPOSED STORM DRAINAGE PIPE
- --- PROPOSED CATCH BASIN



ENGINEERING
 FIRM LICENSE # C-0873
 P.O. BOX 551
 Indian Trail, NC 28079
 (704) 882-4222
 www.egpinc.com

SEAL
 14959
 NORTH CAROLINA
 PROFESSIONAL ENGINEER
 HOUSTON
 07/05/17

NO.	DATE	BY	REVISION



SAM'S Xpress CAR WASH
 TECHNOLOGY DRIVE
 INDIAN TRAIL, NC
 SAM'S REAL ESTATE
 7935 COUNCIL PLACE, SUITE 102
 MATTHEWS, NC 28105

UTILITY PLAN

DESIGNED BY	JLR	CHECKED BY	JHR
DRAWN BY	JAR	DATE	07/05/17
SCALE	AS SHOWN	JOB NUMBER	5558

Sheet
C-5.0