

CIVIL CONSTRUCTION DOCUMENTS FOR SCHAEFFER RD STRIP CENTER SCHERTZ, TEXAS



LOCATION MAP
NOT TO SCALE

GENERAL NOTES:

- THE CONTRACTOR SHALL ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES.
- ALL CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY OR EASEMENT SHALL CONFORM TO THE STANDARD SPECIFICATIONS AND DRAWINGS OF THE CITY, COUNTY, TxDOT OR PUBLIC UTILITY COMPANY (IF APPLICABLE).
- PRIOR TO CONSTRUCTION, THE CONTRACTOR IS REQUIRED TO CALL IN FOR ALL UTILITY LOCATIONS.
- ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION (OSHA).
- NECESSARY BARRICADES, SUFFICIENT LIGHTS, SIGNS, AND OTHER TRAFFIC CONTROL METHODS AS MAY BE NECESSARY FOR THE PROTECTION AND SAFETY OF THE PUBLIC SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND MAINTAINED AT ALL TIMES (24 HRS PER DAY IF REQUIRED) DURING THE CONSTRUCTION PROCESS. ANY TRAFFIC CONTROL OR PHASING REQUIRED TO PROPERLY CONSTRUCT THE PROJECT IS REQUIRED TO BE IN THE CONTRACTOR'S BID. NO ADDITIONAL PAYMENT/CHANGE ORDERS WILL BE APPROVED AFTER THE CONTRACT HAS BEEN AWARDED.
- THE INFORMATION CONTAINED WITHIN THESE DRAWINGS SPECIFICALLY RELATED TO EXISTING UTILITIES, TOPOGRAPHY, CONTOURS, HYDROGRAPHY, OR SUBSURFACE CONDITIONS IS FURNISHED SOLELY AS TECHNICAL INFORMATION AVAILABLE AT THE TIME THESE DRAWINGS WERE PRODUCED. ITS ACCURACY IS NOT GUARANTEED AND ITS USE IN NO WAY RELEASES THE CONTRACTOR OF ANY RESPONSIBILITY FOR DAMAGES DUE TO ANY INACCURACIES.
- THE LOCATION AND ELEVATION OF ALL IMPROVEMENTS TO BE CONSTRUCTED, SHALL BE CONFIRMED BY FIELD MEASUREMENTS PRIOR TO CONSTRUCTION. THE CONTRACTOR IS TO MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UNDERGROUND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY ARRANGEMENTS WITH THE RESPECTIVE UTILITY COMPANIES. GRAVITY LINE CONSTRUCTION IS REQUIRED TO BE VERIFIED AT CONNECTION POINT THEN CONSTRUCTED UPSTREAM.
- THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING FACILITIES FROM DAMAGE AND COST OF REPAIR TO EXISTING FACILITIES AND IMPROVEMENTS AS A RESULT OF CONTRACTOR'S WORK. THE CONTRACTOR SHALL NOTIFY ALL UTILITY OFFICES PRIOR TO STARTING WORK AND SHALL COORDINATE THEIR WORK WITH THE UTILITY OFFICES.
- DURING CONSTRUCTION, THE OWNER WILL CONTRACT WITH A GEOTECHNICAL LAB TO PROVIDE MATERIALS TESTING DURING THE CONSTRUCTION. TESTING FREQUENCIES AND TYPES SHOULD BE SPECIFIED WITHIN THE GEOTECH REPORT AND STRICTLY ADHERED TO. IF THIS INFORMATION IS NOT INCLUDED IN THE GEOTECH REPORT, AN REQUEST FOR INFORMATION IS REQUIRED. ANY RE-TESTS REQUIRED DUE TO CONTRACTOR PERFORMANCE SHALL BE PAID BY THE CONTRACTOR.
- THE CONTRACTOR SHALL KEEP AND LEAVE THE AREA NEAT AND CLEAN DURING CONSTRUCTION. DEBRIS SHALL NOT BE BURIED OR DUMPED ANYWHERE WITHIN THE LIMITS OF THE PROJECT. ALL DEBRIS, CONSTRUCTION MATERIALS, CONTRACTOR'S BUILDINGS OR EQUIPMENT, LOGS, STUMPS, BOLLERS, OR ANY OTHER EXTRANEOUS MATERIAL DEPOSITED DURING CONSTRUCTION SHALL BE DEPOSITED OFFSITE PROMPTLY IN COMPLIANCE WITH APPLICABLE REGULATIONS.
- ANY EXISTING PAVEMENT, CURBS AND/OR SIDEWALKS DAMAGED OR REMOVED WILL BE REPAIRED BY THE CONTRACTOR AT THEIR EXPENSE.
- ALL UNDERGROUND FACILITIES SHALL BE CONSTRUCTED, CONNECTED AND TESTED PRIOR TO THE CONSTRUCTION OF SURFACE IMPROVEMENTS, SUCH AS SIDEWALKS, CURBS, GUTTERS AND PAVING.
- ALL SURVEY MONUMENTS DISTURBED DURING CONSTRUCTION SHALL BE REPLACED BY A LICENSED SURVEYOR AND PAID FOR BY THE CONTRACTOR.
- THE CONTRACTOR SHALL KEEP THE APPROVED SET OF PLANS ON SITE AT ALL TIMES. THE CONTRACTOR SHALL RELY ON THE ACTUAL LOCATIONS AND DIMENSIONS (VERTICAL AND HORIZONTAL) OF UTILITIES, STRUCTURES, SERVICES, AND OTHER DETAILS DERIVING FROM OR NOT SHOWN ON THE ORIGINAL DRAWINGS. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL SUBMIT AS-BUILT DRAWINGS TO THE OWNER.
- THE CONTRACTOR SHALL RESTORE AND REVEGETATE ALL DISTURBED AREAS NOT COVERED BY THE SITE CIVIL AND/OR LANDSCAPE PLANS. NO SEPARATE PAY APPLICATIONS WILL BE APPROVED OR PAID BY THE OWNER.
- CONTRACTOR SHALL MAKE REQUIRED SUBMITTALS AT LEAST 14 DAYS PRIOR TO USE.
- LANDSCAPE, IRRIGATION AND/OR TREE PRESERVATION PLANS TAKE PRECEDENCE OVER THE DEMOLITION PLAN CONTAINED IN THESE CONSTRUCTION DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE CITY APPROVED TREE PRESERVATION PLANS ARE UTILIZED FOR ANY TREE REMOVAL. IF A CONFLICT EXISTS, CALL KLOVE ENGINEERING, LLC FOR CLARIFICATION.

STORM WATER POLLUTION PREVENTION NOTES

- THE CONTRACTOR SHALL CERTAIN THE NOTICE OF INTENT (NOI) OR CONSTRUCTION SITE NOTICE (CSN) HAS BEEN FILED AND POSTED ONSITE FOR PUBLIC VIEWING AND THE TRACES REPORT AND SWPPP ARE AVAILABLE AT THE TRAILER.
- INSTALL STORM WATER POLLUTION PREVENTION CONTROL PRIOR TO ANY SITE PREPARATION WORK (CLEARING, GRUBBING, EXCAVATION).
- THE PLACEMENT OF STORM WATER POLLUTION PREVENTION CONTROL SHALL BE IN ACCORDANCE WITH THE APPROVED STORM WATER POLLUTION PREVENTION CONTROL PLAN.
- A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD ON-SITE WITH THE CONTRACTOR AND ENGINEER AFTER INSTALLATION OF THE STORM WATER POLLUTION PREVENTION CONTROL AND PRIOR TO BEGINNING ANY SITE PREPARATION WORK.
- ANY MAJOR VARIATION IN MATERIALS OR LOCATIONS OF CONTROLS OR FENCES FROM THOSE SHOWN ON THE APPROVED PLANS WILL REQUIRE A REVISION AND MUST BE APPROVED BY THE ENGINEER AS APPROPRIATE. MINOR CHANGES TO BE MADE AS FIELD REVISIONS TO THE STORM WATER POLLUTION PREVENTION CONTROL PLAN MAY BE REQUIRED BY THE ENGINEER DURING THE COURSE OF CONSTRUCTION TO CORRECT CONTROL INADEQUACIES.
- THE CONTRACTOR IS REQUIRED TO INSPECT THE CONTROLS AND FENCES AT LEAST EVERY TWO (2) WEEKS AND IMMEDIATELY AFTER SIGNIFICANT RAINFALL EVENTS TO INSURE THAT THEY ARE FUNCTIONING PROPERLY. THE PERSON(S) RESPONSIBLE FOR MAINTENANCE OF CONTROLS AND FENCES SHALL IMMEDIATELY MAKE ANY NECESSARY REPAIRS TO DAMAGED AREAS. SILT ACCUMULATION AT CONNECTION POINTS SHALL BE REMOVED WHEN THE DEPTH REACHES SIX (6) INCHES.
- PRIOR TO FINAL ACCEPTANCE BY THE CITY, HAIL ROADS AND WATERWAY CROSSINGS CONSTRUCTED FOR TEMPORARY CONSTRUCTION ACCESS MUST BE REMOVED. ALL MATERIALS AND SEDIMENT REMOVED FROM THE WATERWAY AND THE AREA RESTORED TO THE ORIGINAL GRADE AND REVEGETATED. ALL LAND CLEARING DEBRIS SHALL BE DISPOSED OF PROPERLY.
- WHERE SILT FENCE CANNOT BE PROPERLY INSTALLED USE TRIMMED FILTER STRIPS TO PREVENT EROSION.
- SILT DISTURBANCES SHALL BE MINIMIZED BY EXPOSING ONLY THE SMALLEST PRACTICAL AREA OF LAND REQUIRED FOR THE CLEARING AND GRADING ACTIVITY AND FOR THE CONSTRUCTION ACTIVITY, FOR THE SHORTEST PRACTICAL PERIOD OF TIME.
- INSTALL EROSION CONTROL MEASURES AND CONSTRUCTION ENTRANCES AS SHOWN IN THE SWPPP PRIOR TO BEGINNING CONSTRUCTION. EROSION CONTROL MEASURES SHALL BE REPAIRED, REESTABLISHED, ADJUSTED OR REINSTALLED WITH EACH SUBSEQUENT PHASE OF CONSTRUCTION IN ACCORDANCE WITH THE SWPPP.
- CONTRACTOR IS RESPONSIBLE FOR ANY SEDIMENT THAT ESCAPES THE CONSTRUCTION SITE, AND SHALL REMOVE THE ACCUMULATION OF OFF-SITE SEDIMENT PROMPTLY.
- MAINTAIN SEDIMENT TRAPS OR SEDIMENTATION BASINS.
- TRAFFIC LEAVING THE CONSTRUCTION SITE WILL EXIT THROUGH A STABILIZED CONSTRUCTION EXIT AS LOCATED IN THE SWPPP. WHEN SOILS HAVE COLLECTED ON THE STABILIZED VEHICULAR EXIT TO AN EXTENT WHICH REDUCES ITS INTENDED EFFECTIVENESS, THE SURFACE WILL BE CLEANED AND REESTABLISHED FOR THE INTENDED PURPOSE.
- MUD/DIRT INADVERTENTLY TRACKED OFF-SITE AND ONTO PUBLIC STREETS SHALL BE REMOVED IMMEDIATELY.
- PERMANENT EROSION CONTROL: ALL DISTURBED AREAS SHALL BE RESTORED AS NOTED BELOW.
 - (A) A MINIMUM OF FOUR INCHES OF TOPSOIL SHALL BE PLACED IN ALL DRAINAGE CHANNELS (EXCEPT ROOFS) AND BETWEEN THE CURB AND RIGHT-OF-WAY LINE.
 - (B) THE SEEDING FOR PERMANENT EROSION CONTROL SHALL BE APPLIED OVER AREAS DISTURBED BY CONSTRUCTION AS FOLLOWS UNLESS SPECIFIED OTHERWISE BY THE PROJECT'S LANDSCAPE PLAN:
 - BROADCAST SEEDING:
 - I. FROM SEPTEMBER 15 TO MARCH 1, SEEDING SHALL BE WITH A COMBINATION OF 1 POUND PER 1000 SF OF UNHILLED BERBERMUDA AND 7 POUNDS PER 1000 SF OF WINTER RYE WITH A PURITY OF 90% WITH 90% GERMINATION.
 - II. FROM MARCH 2 TO SEPTEMBER 14, SEEDING SHALL BE WITH HILLED BERBERMUDA AT A RATE OF 2 POUNDS PER 1000 SF WITH A PURITY OF 90% WITH 85% GERMINATION.
 - III. FERTILIZER SHALL BE A PELLETTED OR GRANULAR SLOW RELEASE WITH AN ANALYSIS OF 15-15-15 TO BE APPLIED ONCE AT PLANTING AND ONCE DURING THE PERIOD OF ESTABLISHMENT AT A RATE OF 1 POUND PER 1000 SF.
 - IV. MULCH TYPE USED SHALL BE HAY, STRAW OR MULCH APPLIED AT A RATE OF 45 POUNDS PER 1000 SF.
 - HYDRAULIC SEEDING:
 - I. FROM SEPTEMBER 15 TO MARCH 1, SEEDING SHALL BE WITH A COMBINATION OF 1 POUND PER 1000 SF OF UNHILLED BERBERMUDA AND 7 POUNDS PER 1000 SF OF WINTER RYE WITH A PURITY OF 90% WITH 90% GERMINATION.
 - II. FROM MARCH 2 TO SEPTEMBER 14, SEEDING SHALL BE WITH HILLED BERBERMUDA AT A RATE OF 1 POUND PER 1000 SF WITH A PURITY OF 90% WITH 85% GERMINATION.
 - III. FERTILIZER SHALL BE A WATER SOLUBLE FERTILIZER WITH AN ANALYSIS OF 15-15-15 AT A RATE OF 1.5 POUNDS PER 1000 SF.
 - IV. MULCH TYPE USED SHALL BE HAY, STRAW OR MULCH APPLIED AT A RATE OF 45 POUNDS PER 1000 SF, WITH SOIL TACKIFIER AT A RATE OF 1.4 POUNDS PER 1000 SF.
- THE PLANTED AREA SHALL BE IRRIGATED OR SPRINKLED IN A MANNER THAT WILL NOT EXCEED THE TOPSOIL, BUT WILL SUFFICIENTLY SOAK THE SOIL TO A DEPTH OF SIX INCHES. THE IRRIGATION SHALL OCCUR AT TEN-DAY INTERVALS DURING THE FIRST TWO MONTHS RAINFALL OCCURRENCES OF 1/2 INCH OR MORE SHALL POSITIVELY WATERING SCHEDULE FOR ONE WEEK. (COORDINATE WITH IRRIGATION PLAN)
- RESTORATION SHALL BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST 1 1/2 INCHES HIGH WITH 95% COVERAGE, IMPROVEMENTS TO REMAIN OR PUBLIC RIGHTS OF WAY.
- SAFETY MEASURES TO PROTECT ADJACENT PROPERTIES, LANDSCAPE IMPROVEMENTS TO REMAIN OR PUBLIC RIGHTS OF WAY.
- ASBESTOS OR OTHER HAZARDOUS MATERIAL ABATEMENT

PROJECT AREA NOT COVERED BY PAVEMENT, BUILDING PAD OR PROJECT LANDSCAPING PLANS INCLUDING RIGHT-OF-WAYS AND OFFSITE EASEMENTS.
(4) AT LEAST TWO SEEDINGS SHOULD OCCUR DURING PROJECT. THEY SHOULD OCCUR WITHIN 14 DAYS AFTER PLOTS ARE GRADED AND PRIOR TO FINAL PLANT LIST.

- THE EPA GENERAL PERMIT REQUIRES THAT A TEMPORARY OR PERMANENT SEDIMENT BASIN BE INSTALLED IN ANY GRASSLAND LOCATION WHERE MORE THAN 10 ACRES IN THE UPSTREAM DRAINAGE ARE DISTURBED AT ONE TIME. THE SEDIMENT BASIN MUST PROVIDE AT LEAST 3,000 CUBIC FEET OF STORAGE FOR EVERY ACRE OF LAND, WHICH IT DRAINS.
- CONTRACTOR'S FILING OF NOTICE OF TERMINATION (NOT) SHALL OCCUR UPON PROJECT OWNER'S ACCEPTANCE OF REVEGETATION.
- KLOVE ENGINEERING, LLC (THE "CONSULTANT") CONFIRMS TO THE PROJECTS OWNER THAT THE CONSULTANT HAS PREPARED THESE PLANS IN ACCORDANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES).
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING UTILITIES DURING THE CONSTRUCTION OF THIS PROJECT. IF CONTRACTOR FINDS A DISCREPANCY WITH THE TOPOGRAPHIC INFORMATION ON THESE PLANS, HE/SHE SHALL CONTACT THE CONSTRUCTION MANAGER/SUPERVISOR AND CIVIL ENGINEER IMMEDIATELY.
- CONTRACTOR SHALL PROTECT ALL BENCHMARKS AND PROPERTY MONUMENTATION AND SHALL REPLACE OR REPAIR, AT HIS OWN EXPENSE, BENCHMARKS AND MONUMENTATION DISTURBED DURING CONSTRUCTION.
- IF CONTRACTOR RELOCATES OR SETS NEW BENCHMARKS, THE VERTICAL ELEVATIONS OF THE BENCHMARKS SHALL BE SET TO A TOLERANCE OF .01'.
- ALL CURB RADII SHALL BE 3.0' UNLESS OTHERWISE NOTED.
- THE AMERICANS WITH DISABILITIES ACT (ADA) GUIDELINES, BOTH FEDERAL AND STATE ARE TO BE INCORPORATED IN ALL CONSTRUCTION DOCUMENTS. IF ANY CRITERIA CANNOT BE MET THEN CIVIL ENGINEER AND/OR PROJECTS OWNER IS TO BE ALERT OF THE CONDITION AND INFORMED OF THE MEASURES THAT WOULD BE NECESSARY TO BE IN CONFORMANCE.
- GENERAL CONTRACTOR IS RESPONSIBLE TO MEET CITY PLANNING DEPARTMENT REQUIREMENTS. ALL PEDESTRIAN CURB RAMPS TO BE TEXTURED AND STAIRED PER A.D.A./TAS REQUIREMENTS.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXISTING UTILITIES, PAVEMENT AND STRUCTURES WITHIN OR AROUND THE PROPOSED BUILDING PAD LIMITS OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL, RELOCATION AND COORDINATION OF THESE EXISTING UTILITIES, PAVEMENT AND STRUCTURES. CONTRACTOR SHALL CONTACT ENGINEER IF A CONFLICT IS FOUND.
- UNLESS OTHERWISE SHOWN ON THE PLANS, RECOMMENDED BY THE GEOTECHNICAL ENGINEER OR APPROVED BY THE ENGINEER, CONCRETE AREAS SHALL COMPLY WITH THE FOLLOWING ITEMS WITHIN THE TEXAS DEPARTMENT OF TRANSPORTATION 2004 STANDARD SPECIFICATION FOR CONSTRUCTION OF HIGHWAYS, STREETS AND BRIDGES:
 - * ITEM 247 - FLEXIBLE BASE, GRADE 1 OR 2.
 - * ITEM 340 - HOT MIX ASPHALTIC CONCRETE PAVEMENT. HMA-C SHALL ADHERE AT LEAST 80% STRENGTH WHEN EACH ASPHALT CONCRETE COURSE FOR SMOOTHNESS.
 - IN PLACE COMPACTED THICKNESS WILL NOT BE ACCEPTABLE IF EXCEEDING THE FOLLOWING ALLOWABLE VARIATION FROM REQUIRED THICKNESS:
 - * HMA-C SURFACE COURSE: 1/4", PLUS OR MINUS
 - * SURFACE SMOOTHNESS: TEST FINISHED SURFACE OF EACH ASPHALT CONCRETE COURSE FOR SMOOTHNESS.
 - USING 10' STRAIGHTEDGE APPLIES PARALLEL WITH AND AT RIGHT ANGLES TO CENTERLINE OF PAVED AREA. SURFACE DEFECTS WILL NOT BE ACCEPTABLE IF THE MEASURING SURFACE EXCEEDS 3/16".
 - * HMA-C SURFACE COURSE: 1/4", PLUS OR MINUS
 - * SURFACE SMOOTHNESS: TEST FINISHED SURFACE OF EACH ASPHALT CONCRETE COURSE FOR SMOOTHNESS.
 - USING 10' STRAIGHTEDGE APPLIES PARALLEL WITH AND AT RIGHT ANGLES TO CENTERLINE OF PAVED AREA. SURFACE DEFECTS WILL NOT BE ACCEPTABLE IF THE MEASURING SURFACE EXCEEDS 3/16".
- THE INITIAL QUALITY CONTROL TESTING SHALL BE PERFORMED AT THE OWNER'S COST. ANY NECESSARY REPAIRS OR REPLACEMENTS, ALONG WITH ADDITIONAL TESTING, SHALL BE PERFORMED AT THE CONTRACTOR'S EXPENSE. TESTING PROCEDURES SHALL BE IN COMPLIANCE WITH OWNER'S STANDARD SPECIFICATION FOR MATERIAL TESTING.
- CONTRACTOR SHALL ENSURE THE FOLLOWING:
 - A. TESTING LAB TO VERIFY THICKNESS OF BASE MATERIAL INSTALLED.
 - B. VERIFY APPROVED MIX DESIGN MATCHES DELIVERY TICKETS IN FIELD.
 - C. RECORD ARRIVAL TIMES OF TRUCKS AND MIX TEMPERATURE UNDER NORMAL RECORD LOGS.
 - D. RECORD AIR TEMPERATURE & MIX TEMPERATURE AT TIME OF LAYDOWN.
 - E. GEO-TECH ENGINEER OF RECORD TO MAKE MIN. OF TWO SITE VISITS.
 - F. ASPHALT BULK MIX FORMULA APPROVED IN ADVANCE AND IN ACCORDANCE WITH THE TEXAS DEPARTMENT OF TRANSPORTATION 2004 STANDARD SPECIFICATIONS. PRIOR TO PAVING, THIS INCLUDES VERIFYING THE AGGREGATE MEETS ITM 340 REQUIREMENTS AND ALL OTHER SPECIFICATIONS REQUIREMENTS.
 - G. HMA-C SURFACE COURSE SHALL BE ORIENTED SUCH THAT JOINTS OR SEAMS ARE PARALLEL WITH THE DIRECTION OF TRAFFIC.

EARTHWORK

- PREPARE SUBGRADE BY EXCAVATION OR EMBANKMENT FOR THE PROPOSED PAVEMENTS, EXCAVATION AND BACKFILL FOR UNDERGROUND UTILITIES AND GRADEMILL COURSE FOR SUPPORT OF BUILDING SLABS ARE INCLUDED IN THIS ITEM.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL POLLUTION PREVENTION MEASURES SHOWN IN THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP).
- SUBMIT A STORM WATER TRENDS GENERAL PERMIT NOTICE OF INTENT (NOI) AT LEAST TWO DAYS PRIOR TO START OF CONSTRUCTION TO THE APPROPRIATE AGENCY SHOWING:
 - EXCESS MATERIAL RESULTING FROM EXCAVATION OPERATIONS IS THE PROPERTY OF THE CONTRACTOR. APPROPRIATE DISPOSAL SHALL BE AT THE CONTRACTOR'S EXPENSE.
 - ALL EXCAVATION SHALL BE PERFORMED AS DIRECTED IN THE PLANS AND IN COMPLIANCE WITH OSHA STANDARDS.
 - OWNER WILL ENGAGE AT THE OWNER'S COST SOIL TESTING AND INSPECTION SERVICE IN ACCORDANCE WITH MATERIAL TESTING SPECIFICATION TO VERIFY COMPLIANCE. WITH THE PLANS & SPECIFICATIONS. REPLACEMENT AND RETESTING OF DEFICIENT WORK SHALL BE DONE BY CONTRACTOR AT NO ADDITIONAL COMPENSATION.
 - DATA ON SUBSURFACE CONDITIONS IS AVAILABLE TO THE CONTRACTOR. THE OWNER MAKES NO WARRANTY AS TO THE CORRECTNESS OF THESE REPORTS. THE CONTRACTOR MAY, AT HIS OWN EXPENSE, PERFORM ADDITIONAL TEST BORINGS.
 - CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH ALL AFFECTED UTILITY COMPANIES. THIS SHALL INCLUDE LOCATION OF FACILITIES, PROTECTION DURING CONSTRUCTION, DAMAGE REPAIRS AND DISRUPTION OF SERVICE.
 - THE EXCAVATION IS UNCLASSIFIED, AND CONTRACTOR SHALL PERFORM EXCAVATION TO THE ELEVATIONS INDICATED IN THE PLANS, REGARDLESS OF CHARACTER OF MATERIAL WITH NO ADDITIONAL COMPENSATION FROM THE OWNER.
 - CONTRACTOR IS RESPONSIBLE FOR PROVIDING BARRICADES REQUIRED TO WARN AND/OR PREVENT ACCESS TO EXISTING UTILITIES, PAVEMENT AND STRUCTURES.
 - CONTRACTOR IS RESPONSIBLE FOR PROTECTING ADJACENT FACILITIES FROM DAMAGE.
 - EARTHWORK SHALL BE PERFORMED IN COMPLIANCE WITH LANDSCAPE ARCHITECT'S PLANS FOR LANDSCAPE PROTECTION, REVEGETATION, ETC.
 - OVER-EXCAVATION IS NONCOMPENSABLE, AND SHALL BE BACKFILLED AND COMPACTED AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER.
 - CONTRACTOR SHALL PROTECT ALL LABOR AND EQUIPMENT NECESSARY TO PROPERLY Dewater EXCAVATION AREAS AS REQUIRED.
 - EXCAVATED MATERIAL SHALL BE STOCKPILED WHERE DIRECTED BY THE OWNER. STOCKPILE SHALL BE MAINTAINED IN COMPLIANCE WITH ALL RELEVANT POLLUTION PREVENTION PLANS.
 - EARTHWORK SHALL BE PERFORMED TO THE SPECIFICATIONS SHOWN IN THE GEOTECHNICAL REPORT BY **KL** **ENGINEERING**.
 - WHERE STOP BARS ARE SHOWN, A STOP SIGN SHALL BE INSTALLED AS SHOWN ON SITE PLAN DETAILS UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL REMOVE TREES, SHRUBS, GRASS AND OTHER VEGETATION, IMPROVEMENTS OR OBSTRUCTIONS INTERFERING WITH THE INSTALLATION OF NEW CONSTRUCTION WITH THE EXCEPT OF PLANS CLEARING OPERATIONS SHALL INCLUDE REMOVAL OF STUMPS AND ROOTS.
- CONTRACTOR SHALL STRIP TOPSOIL IN A MANNER APPROPRIATE TO SEGREGATE FROM UNDERLYING SUBSOIL. TOPSOIL STRIPPING NEAR TREES INTENDED TO REMAIN SHALL BE COMPLETED IN COMPLIANCE LANDSCAPE PLANS.
- SPOIL SHALL BE STORED ONLY IN AREAS SHOWN ON THE PLANS AND SHALL BE MAINTAINED IN ACCORDANCE WITH APPLICABLE POLLUTION PREVENTION PLANS OR PERMITS.
- WASTE MATERIAL OR EXCESS TOPSOIL GENERATED AS A RESULT OF CLEARING AND GRADING OPERATIONS SHALL BECOME THE PROPERTY OF THE CONTRACTOR. APPROPRIATE DISPOSAL OF ALL SPILL MATERIAL SHALL BE AT THE CONTRACTOR'S EXPENSE. BURNING ON THE OWNER'S PROPERTY IS NOT PERMITTED.
- DEMOLITION NOTES:
FOLLOWING APPROPRIATE SAFETY PROCEDURES, DEMOLISH EXISTING FACILITIES AS SHOWN ON THE PLANS. PROTECTION OF PUBLIC AND PRIVATE PROPERTY AND PROTECTION OF SOIL MATERIAL IS INCLUDED IN THIS ITEM. EXCUTION:
 - CONTRACTOR SHALL SUBMIT FOR APPROVAL TO GOVERNMENTAL AGENCIES AND THE OWNER A DEMOLITION PLAN INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
 - A. METHODS, EQUIPMENT AND SEQUENCE OF OPERATION.
 - B. ORDINALS OF INDIVIDUALS PERFORMING DEMOLITION OPERATIONS, INCLUDING SUBCONTRACTORS.
 - C. SAFETY MEASURES TO PROTECT WORKERS, PERSONNEL AND THE PUBLIC.
 - D. SAFETY MEASURES TO PROTECT ADJACENT PROPERTIES, LANDSCAPE IMPROVEMENTS TO REMAIN OR PUBLIC RIGHTS OF WAY.
 - E. ASBESTOS OR OTHER HAZARDOUS MATERIAL ABATEMENT
 - SITE PREPARATION AND GRADING, FOUNDATION EXCAVATION PLAN INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
 - PLACEMENT AND SEQUENCE OF OPERATION.
 - PAVING INSTALLED SHALL BE FLUSH AT ANY JUNCTURE WITH EXISTING PAVEMENT.
 - ALL FILL MATERIAL PROVIDED SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING AND COMPACTING.
 - ALL FILL MATERIAL AT PAVING AREAS SHALL BE COMPACTED TO 95% OF IN PLACE DENSITY AND 95% OF DRY DENSITY AT ALL LANDSCAPE AREAS.
 - ALL SLOPES STEEPER THAN 3:1 SHALL BE OVERLAIN WITH
 - CONTRACTOR SHALL SUBMIT FOR APPROVAL TO GOVERNMENTAL AGENCIES AND THE OWNER A DEMOLITION PLAN INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
 - PLACEMENT AND SEQUENCE OF OPERATION.
 - ORDINALS OF INDIVIDUALS PERFORMING DEMOLITION OPERATIONS, INCLUDING SUBCONTRACTORS.
 - SAFETY MEASURES TO PROTECT WORKERS, PERSONNEL AND THE PUBLIC.
 - SAFETY MEASURES TO PROTECT ADJACENT PROPERTIES, LANDSCAPE IMPROVEMENTS TO REMAIN OR PUBLIC RIGHTS OF WAY.
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- CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING UTILITIES DURING THE CONSTRUCTION OF THIS PROJECT. IF CONTRACTOR FINDS A DISCREPANCY WITH THE TOPOGRAPHIC INFORMATION ON THESE PLANS, HE/SHE SHALL CONTACT THE CONSTRUCTION MANAGER/SUPERVISOR AND CIVIL ENGINEER IMMEDIATELY.
- CONTRACTOR SHALL PROTECT ALL BENCHMARKS AND PROPERTY MONUMENTATION AND SHALL REPLACE OR REPAIR, AT HIS OWN EXPENSE, BENCHMARKS AND MONUMENTATION DISTURBED DURING CONSTRUCTION.
- IF CONTRACTOR RELOCATES OR SETS NEW BENCHMARKS, THE VERTICAL ELEVATIONS OF THE BENCHMARKS SHALL BE SET TO A TOLERANCE OF .01'.
- ALL CURB RADII SHALL BE 3.0' UNLESS OTHERWISE NOTED.
- THE AMERICANS WITH DISABILITIES ACT (ADA) GUIDELINES, BOTH FEDERAL AND STATE ARE TO BE INCORPORATED IN ALL CONSTRUCTION DOCUMENTS. IF ANY CRITERIA CANNOT BE MET THEN CIVIL ENGINEER AND/OR PROJECTS OWNER IS TO BE ALERT OF THE CONDITION AND INFORMED OF THE MEASURES THAT WOULD BE NECESSARY TO BE IN CONFORMANCE.
- GENERAL CONTRACTOR IS RESPONSIBLE TO MEET CITY PLANNING DEPARTMENT REQUIREMENTS. ALL PEDESTRIAN CURB RAMPS TO BE TEXTURED AND STAIRED PER A.D.A./TAS REQUIREMENTS.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXISTING UTILITIES, PAVEMENT AND STRUCTURES WITHIN OR AROUND THE PROPOSED BUILDING PAD LIMITS OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL, RELOCATION AND COORDINATION OF THESE EXISTING UTILITIES, PAVEMENT AND STRUCTURES. CONTRACTOR SHALL CONTACT ENGINEER IF A CONFLICT IS FOUND.
- UNLESS OTHERWISE SHOWN ON THE PLANS, RECOMMENDED BY THE GEOTECHNICAL ENGINEER OR APPROVED BY THE ENGINEER, CONCRETE AREAS SHALL COMPLY WITH THE FOLLOWING ITEMS WITHIN THE TEXAS DEPARTMENT OF TRANSPORTATION 2004 STANDARD SPECIFICATION FOR CONSTRUCTION OF HIGHWAYS, STREETS AND BRIDGES:
 - * ITEM 247 - FLEXIBLE BASE, GRADE 1 OR 2.
 - * ITEM 360 - CONCRETE PAVING
 - * ITEM 421 - PORTLAND CEMENT CONCRETE
 - * ITEM 529 - CONCRETE CURBS, GUTTER AND COMBINED CURB AND GUTTER
 - * ITEM 531 - SIDEWALKS
- UNLESS OTHERWISE SHOWN ON THE PLANS OR RECOMMENDED BY THE GEOTECHNICAL ENGINEER, DESIGN MIX SHALL PRODUCE NORMAL-WEIGHT CONCRETE WITH THE FOLLOWING PROPERTIES:
 - A. COMPRESSIVE STRENGTH: 3,000 PSI FOR CONCRETE PAVEMENTS. MINIMUM AT 28 DAYS.
 - B. ALL REINFORCEMENT TO HAVE A TENSILE STRENGTH OF 10 KSI.
 - C. SLUMP: MAXIMUM OF 5"
 - D. AIR CONTENT: 4%±1
 - E. ALL EXPOSED CONCRETE CORNERS TO BE CHAMFERED 1".
 - F. FORMS WILL BE SET TO GRADE LINES WITHIN THE FOLLOWING TOLERANCES:
 - A. TOP OF FORMS NOT MORE THAN 1/8" IN MORE
 - B. VERTICAL FACE OR FACE ON LONGITUDINAL AXIS, NOT MORE THAN 1/4" IN 10'.
 - G. LOCATE, PLACE AND SUPPORT REINFORCEMENT AS SPECIFIED IN THE GEOTECHNICAL REPORT AND IN COMPLIANCE WITH TxDOT ITEM 440.
 - H. PRE-POUR INSPECTION BY THE GEOTECH LAB IS REQUIRED PRIOR TO FINAL PLACEMENT OF CONCRETE.
 - I. AUTOMATIC MACHINE MAY BE USED FOR CURB AND GUTTER PLACEMENT. IF MACHINE PLACEMENT IS USED, CONTRACTOR SHALL SUBMIT REVISED MIX DESIGN AND LABORATORY TEST RESULTS THAT MEET OR EXCEED MINIMUMS SPECIFIED. MACHINE PLACED CURBS MUST BE PLACED AT THE CROSS SECTION, LINES, GRADES, FINISH AND JOINTING SPECIFIED, OR SHALL BE REMOVED AND REPLACED WITH FORMED CONCRETE AS SPECIFIED.
 - J. AFTER COMPLETION OF FLOATING AND TROWELING WHEN EXCESS MOISTURE OR SURFACE SHEEN HAS DISAPPEARED, BROOM FINISH BY DRAWING A FINE-HAIR BRUSH TO ACROSS CONCRETE SURFACE PERPENDICULAR TO DIRECTION OF TRAFFIC. REPEAT OPERATION IF REQUIRED TO PROVIDE A TEXTURE ACCEPTABLE TO THE OWNER OR DESIGNATED REPRESENTATIVE.
- CONTRACTOR SHALL PROTECT CONCRETE FROM DAMAGE UNTIL ACCEPTANCE OF WORK. VEHICULAR TRAFFIC SHALL BE PROHIBITED FOR AT LEAST 7 DAYS AFTER PLACEMENT. BROKEN OR DEFECTIVE CONCRETE WILL BE REPAIRED OR REPLACED AS DIRECTED BY THE ENGINEER.
- DRAW TEST CORES WHERE DIRECTED BY THE ENGINEER, WHEN NECESSARY TO DETERMINE MAGNITUDE OF CRACKS OR DEFECTIVE AREAS. TESTING WILL BE IN ACCORDANCE WITH THE MATERIAL TESTING SPECIFICATION.
- CONCRETE PAVED AREAS SHALL BE MAINTAINED BY THE CONTRACTOR SUCH THAT AT FINAL INSPECTION, CONCRETE SHALL BE FREE OF STAINS, DISCOLORATIONS, DIRT AND OTHER FOREIGN MATERIAL.

PAVEMENT MARKINGS

- CONTRACTOR SHALL ESTABLISH AND MAINTAIN REFERENCE POINTS TO HOLD PROPER ELEVATIONS AND GRADES. ALL PAVEMENT SHOULD BE WITHIN 0.3 INCH OF PROPOSED GRADES.
- UNLESS OTHERWISE SHOWN ON THE PLANS, RECOMMENDED BY THE GEOTECHNICAL ENGINEER OR APPROVED BY THE ENGINEER, MATERIALS AND INSTALLATION OF SUCH SHALL COMPLY WITH THE FOLLOWING ITEMS WITHIN THE TEXAS DEPARTMENT OF TRANSPORTATION 2004 STANDARD SPECIFICATION FOR CONSTRUCTION OF HIGHWAYS, STREETS AND BRIDGES:
 - * ITEM 247 - FLEXIBLE BASE, GRADE 1 OR 2.
 - * ITEM 340 - HOT MIX ASPHALTIC CONCRETE PAVEMENT. HMA-C SHALL ADHERE AT LEAST 80% STRENGTH WHEN EACH ASPHALT CONCRETE COURSE FOR SMOOTHNESS.
 - IN PLACE COMPACTED THICKNESS WILL NOT BE ACCEPTABLE IF EXCEEDING THE FOLLOWING ALLOWABLE VARIATION FROM REQUIRED THICKNESS:
 - * HMA-C SURFACE COURSE: 1/4", PLUS OR MINUS
 - * SURFACE SMOOTHNESS: TEST FINISHED SURFACE OF EACH ASPHALT CONCRETE COURSE FOR SMOOTHNESS.
 - USING 10' STRAIGHTEDGE APPLIES PARALLEL WITH AND AT RIGHT ANGLES TO CENTERLINE OF PAVED AREA. SURFACE DEFECTS WILL NOT BE ACCEPTABLE IF THE MEASURING SURFACE EXCEEDS 3/16".
 - * HMA-C SURFACE COURSE: 1/4", PLUS OR MINUS
 - * SURFACE SMOOTHNESS: TEST FINISHED SURFACE OF EACH ASPHALT CONCRETE COURSE FOR SMOOTHNESS.
 - USING 10' STRAIGHTEDGE APPLIES PARALLEL WITH AND AT RIGHT ANGLES TO CENTERLINE OF PAVED AREA. SURFACE DEFECTS WILL NOT BE ACCEPTABLE IF THE MEASURING SURFACE EXCEEDS 3/16".
- THE INITIAL QUALITY CONTROL TESTING SHALL BE PERFORMED AT THE OWNER'S COST. ANY NECESSARY REPAIRS OR REPLACEMENTS, ALONG WITH ADDITIONAL TESTING, SHALL BE PERFORMED AT THE CONTRACTOR'S EXPENSE. TESTING PROCEDURES SHALL BE IN COMPLIANCE WITH OWNER'S STANDARD SPECIFICATION FOR MATERIAL TESTING.
- CONTRACTOR SHALL ENSURE THE FOLLOWING:
 - A. TESTING LAB TO VERIFY THICKNESS OF BASE MATERIAL INSTALLED.
 - B. VERIFY APPROVED MIX DESIGN MATCHES DELIVERY TICKETS IN FIELD.
 - C. RECORD ARRIVAL TIMES OF TRUCKS AND MIX TEMPERATURE UNDER NORMAL RECORD LOGS.
 - D. RECORD AIR TEMPERATURE & MIX TEMPERATURE AT TIME OF LAYDOWN.
 - E. GEO-TECH ENGINEER OF RECORD TO MAKE MIN. OF TWO SITE VISITS.
 - F. ASPHALT BULK MIX FORMULA APPROVED IN ADVANCE AND IN ACCORDANCE WITH THE TEXAS DEPARTMENT OF TRANSPORTATION 2004 STANDARD SPECIFICATIONS. PRIOR TO PAVING, THIS INCLUDES VERIFYING THE AGGREGATE MEETS ITM 340 REQUIREMENTS AND ALL OTHER SPECIFICATIONS REQUIREMENTS.
 - G. HMA-C SURFACE COURSE SHALL BE ORIENTED SUCH THAT JOINTS OR SEAMS ARE PARALLEL WITH THE DIRECTION OF TRAFFIC.

PORTLAND CEMENT CONCRETE PAVING

- CONTRACTOR SHALL ESTABLISH AND MAINTAIN REFERENCE POINTS TO HOLD PROPER ELEVATIONS AND GRADES. ALL PAVEMENT SHOULD BE WITHIN 0.3 INCH OF PROPOSED GRADES.
- UNLESS OTHERWISE SHOWN ON THE PLANS OR RECOMMENDED BY THE GEOTECHNICAL ENGINEER, DESIGN MIX SHALL PRODUCE NORMAL-WEIGHT CONCRETE WITH THE FOLLOWING PROPERTIES:
 - A. COMPRESSIVE STRENGTH: 3,000 PSI FOR CONCRETE PAVEMENTS. MINIMUM AT 28 DAYS.
 - B. ALL REINFORCEMENT TO HAVE A TENSILE STRENGTH OF 10 KSI.
 - C. SLUMP: MAXIMUM OF 5"
 - D. AIR CONTENT: 4%±1
 - E. ALL EXPOSED CONCRETE CORNERS TO BE CHAMFERED 1".
 - F. FORMS WILL BE SET TO GRADE LINES WITHIN THE FOLLOWING TOLERANCES:
 - A. TOP OF FORMS NOT MORE THAN 1/8" IN MORE
 - B. VERTICAL FACE OR FACE ON LONGITUDINAL AXIS, NOT MORE THAN 1/4" IN 10'.
 - G. LOCATE, PLACE AND SUPPORT REINFORCEMENT AS SPECIFIED IN THE GEOTECHNICAL REPORT AND IN COMPLIANCE WITH TxDOT ITEM 440.
 - H. PRE-POUR INSPECTION BY THE GEOTECH LAB IS REQUIRED PRIOR TO FINAL PLACEMENT OF CONCRETE.
 - I. AUTOMATIC MACHINE MAY BE USED FOR CURB AND GUTTER PLACEMENT. IF MACHINE PLACEMENT IS USED, CONTRACTOR SHALL SUBMIT REVISED MIX DESIGN AND LABORATORY TEST RESULTS THAT MEET OR EXCEED MINIMUMS SPECIFIED. MACHINE PLACED CURBS MUST BE PLACED AT THE CROSS SECTION, LINES, GRADES, FINISH AND JOINTING SPECIFIED, OR SHALL BE REMOVED AND REPLACED WITH FORMED CONCRETE AS SPECIFIED.
 - J. AFTER COMPLETION OF FLOATING AND TROWELING WHEN EXCESS MOISTURE OR SURFACE SHEEN HAS DISAPPEARED, BROOM FINISH BY DRAWING A FINE-HAIR BRUSH TO ACROSS CONCRETE SURFACE PERPENDICULAR TO DIRECTION OF TRAFFIC. REPEAT OPERATION IF REQUIRED TO PROVIDE A TEXTURE ACCEPTABLE TO THE OWNER OR DESIGNATED REPRESENTATIVE.
- CONTRACTOR SHALL PROTECT CONCRETE FROM DAMAGE UNTIL ACCEPTANCE OF WORK. VEHICULAR TRAFFIC SHALL BE PROHIBITED FOR AT LEAST 7 DAYS AFTER PLACEMENT. BROKEN OR DEFECTIVE CONCRETE WILL BE REPAIRED OR REPLACED AS DIRECTED BY THE ENGINEER.
- DRAW TEST CORES WHERE DIRECTED BY THE ENGINEER, WHEN NECESSARY TO DETERMINE MAGNITUDE OF CRACKS OR DEFECTIVE AREAS. TESTING WILL BE IN ACCORDANCE WITH THE MATERIAL TESTING SPECIFICATION.
- CONCRETE PAVED AREAS SHALL BE MAINTAINED BY THE CONTRACTOR SUCH THAT AT FINAL INSPECTION, CONCRETE SHALL BE FREE OF STAINS, DISCOLORATIONS, DIRT AND OTHER FOREIGN MATERIAL.

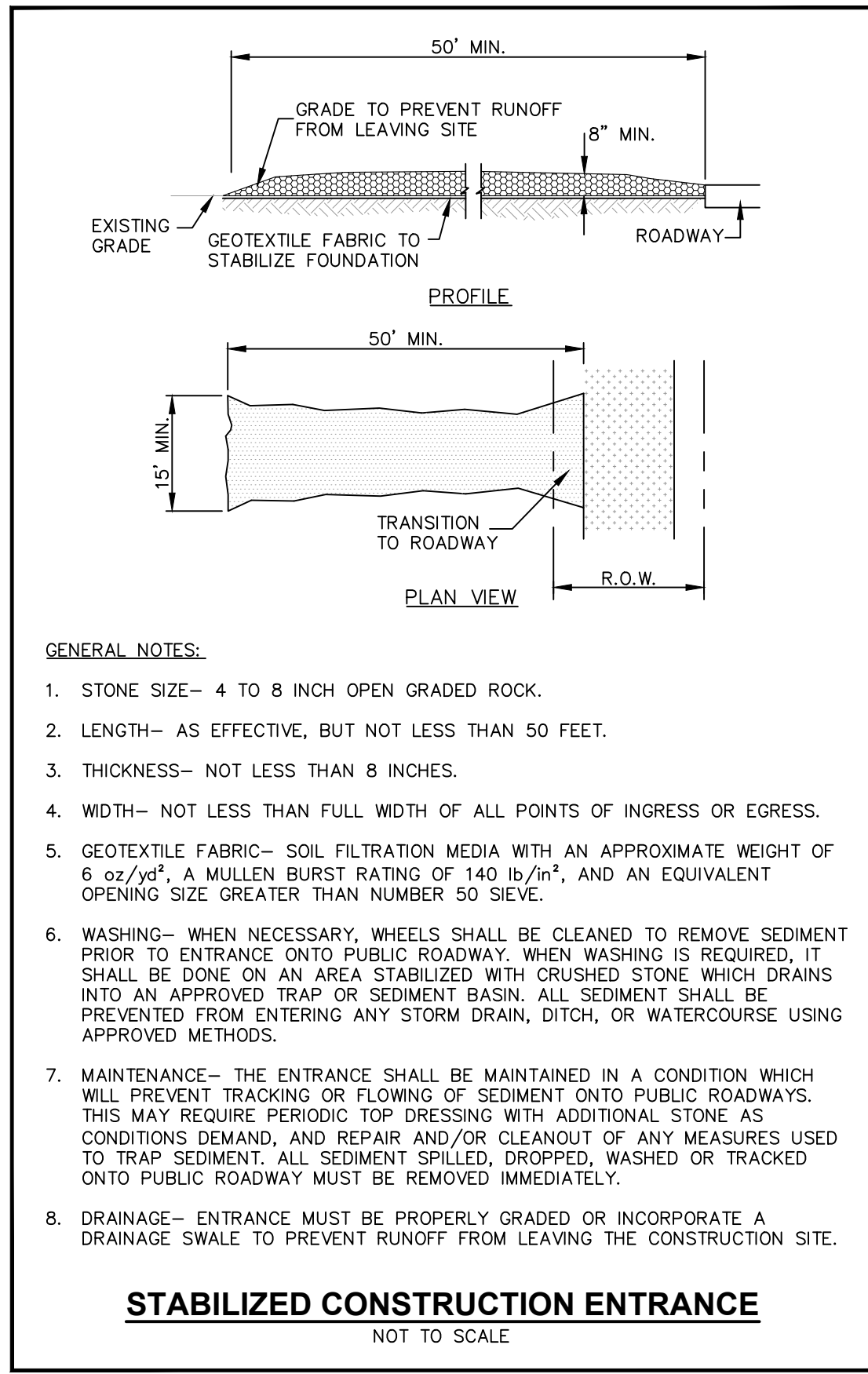
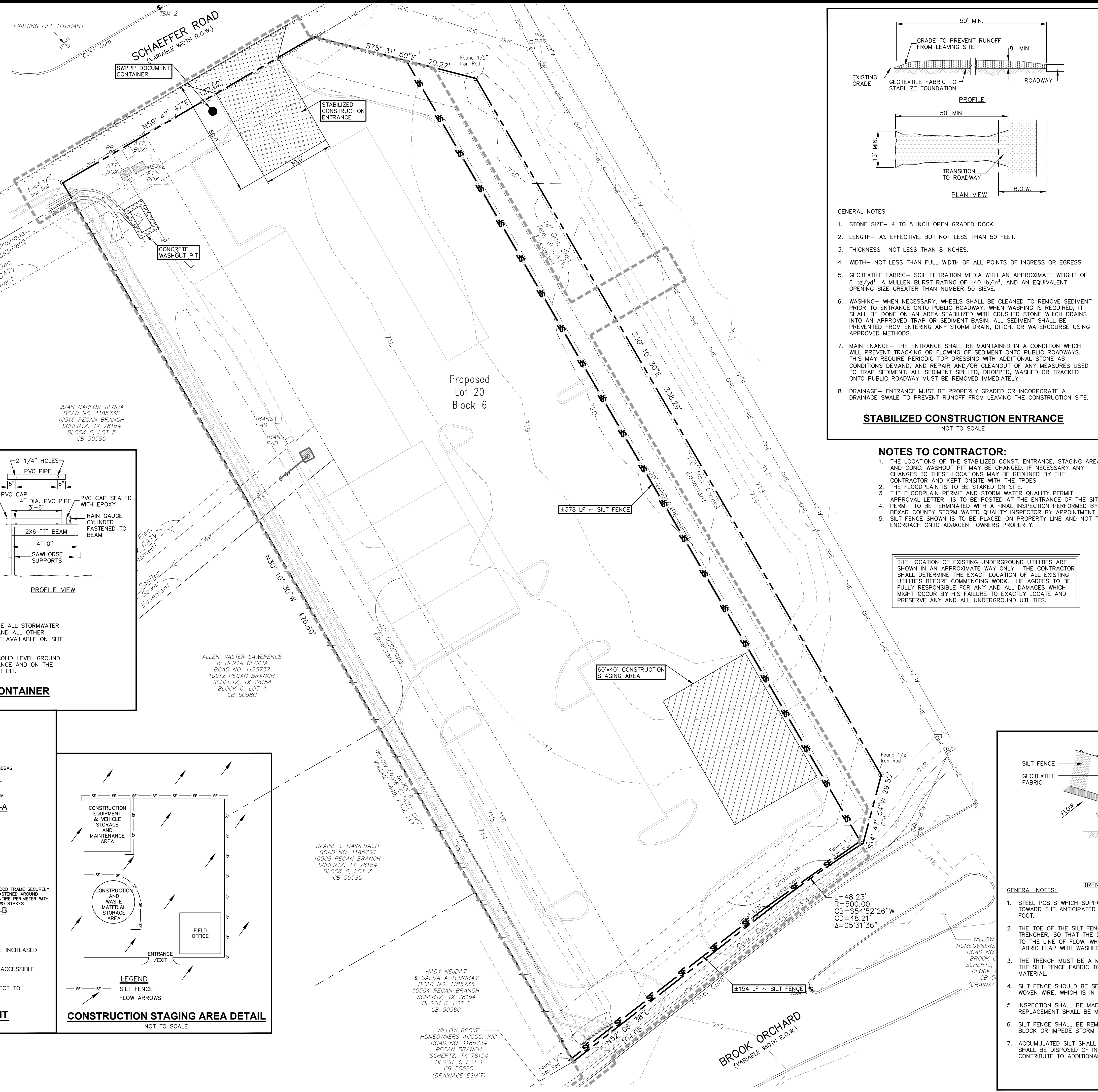
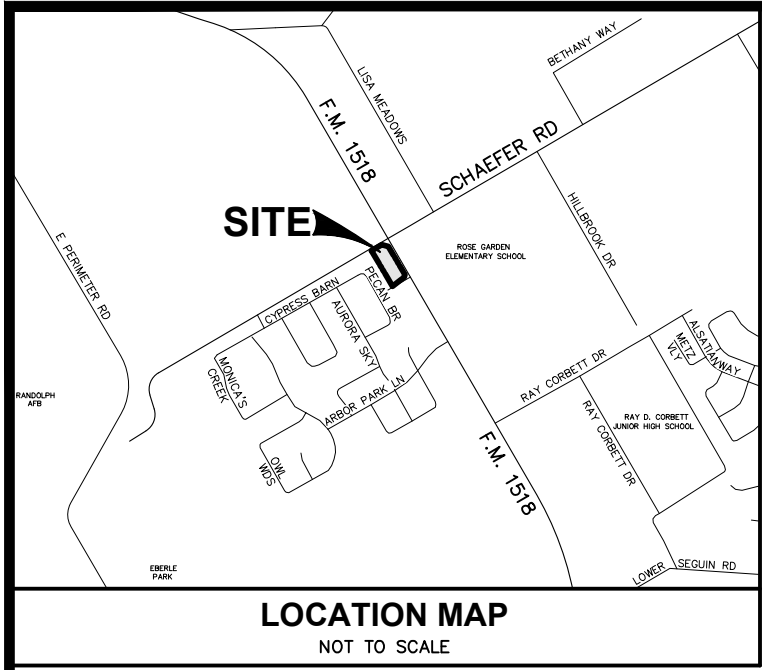
CONCRETE PAVEMENT NOTES:

- DESIGN MIX SUBMITTALS SHALL BE PROVIDED FOR REVIEW AT LEAST 14 DAYS PRIOR TO PLACEMENT.
- DO NOT UNLOAD OR USE ANY HEAVY CONSTRUCTION EQUIPMENT ON NEW CONCRETE FOR AT LEAST 7 DAYS AFTER CONCRETE IS POURED.
- JOINTS SHALL BE PLACED IN ANY PROPOSED CONCRETE PAVEMENT AND CURBS AS RECOMMENDED IN THE GEOTECHNICAL STUDY FOR THIS SITE AND/OR JOINT LAYOUT.
- CONTRACTOR IS RESPONSIBLE FOR COORDINATING WORK SUCH THAT UTILITIES ARE INSTALLED PRIOR TO PAVEMENT BASE BEING INSTALLED OR ELSE LOCATE AND PLACE LINES FOR PROPOSED UNDERGROUND UTILITIES.
- ALL CONCRETE WORK SHALL CONFORM TO ALL APPLICABLE APPROVED FOR GRADING SLOPE. FLY ASH CAN BE USED IN MIX DESIGNS WHERE SUITABLE.
- ALL CONCRETE PAVING AND FLY ASH WILL BE CURED IN COMPLIANCE WITH AMERICAN CONCRETE PAVEMENT ASSOCIATION GUIDELINES.
- THESE PLANS REPRESENT PAVING DESIGN AS RECOMMENDED BY **KL** **ENGINEERING**.
 - A. RECORD AIR TEMPERATURE & MIX TEMPERATURE AT TIME OF LAYDOWN.
 - B. GEO-TECH ENGINEER OF RECORD TO MAKE MIN. OF TWO SITE VISITS.
- HOT MIX ASPHALT CONCRETE PAVING
PROVIDE NECESSARY LABOR AND MATERIALS TO INSTALL THE HOT MIX ASPHALT PAVING SHOWN ON THE PLANS, GEOTECHNICAL REPORT AND THE PAVEMENT DESIGN DETAILS. THIS INCLUDES THE SUBGRADE PREPARATION, AGGREGATE, ASPHALT MATERIALS, MINERAL FILLER, PRIME COAT, TACK COAT AND FINAL ASPHALT PAVING SURFACE.

- CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING UTILITIES DURING THE CONSTRUCTION OF THIS PROJECT. IF CONTRACTOR FINDS A DISCREPANCY WITH THE TOPOGRAPHIC INFORMATION ON THESE PLANS, HE/SHE SHALL CONTACT THE CONSTRUCTION MANAGER/SUPERVISOR AND CIVIL ENGINEER IMMEDIATELY.
- CONTRACTOR SHALL PROTECT ALL BENCHMARKS AND PROPERTY MONUMENTATION AND SHALL REPLACE OR REPAIR, AT HIS OWN EXPENSE, BENCHMARKS AND MONUMENTATION DISTURBED DURING CONSTRUCTION.
- IF CONTRACTOR RELOCATES OR SETS NEW BENCHMARKS, THE VERTICAL ELEVATIONS OF THE BENCHMARKS SHALL BE SET TO A TOLERANCE OF .01'.
- ALL CURB RADII SHALL BE 3.0' UNLESS OTHERWISE NOTED.
- THE AMERICANS WITH DISABILITIES ACT (ADA) GUIDELINES, BOTH FEDERAL AND STATE ARE TO BE INCORPORATED IN ALL CONSTRUCTION DOCUMENTS. IF ANY CRITERIA CANNOT BE MET THEN CIVIL ENGINEER AND/OR PROJECTS OWNER IS TO BE ALERT OF THE CONDITION AND INFORMED OF THE MEASURES THAT WOULD BE NECESSARY TO BE IN CONFORMANCE.
- GENERAL CONTRACTOR IS RESPONSIBLE TO MEET CITY PLANNING DEPARTMENT REQUIREMENTS. ALL PEDESTRIAN CURB RAMPS TO BE TEXTURED AND STAIRED PER A.D.A./TAS REQUIREMENTS.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXISTING UTILITIES, PAVEMENT AND STRUCTURES WITHIN OR AROUND THE PROPOSED BUILDING PAD LIMITS OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL, RELOCATION AND COORDINATION OF THESE EXISTING UTILITIES, PAVEMENT AND STRUCTURES. CONTRACTOR SHALL CONTACT ENGINEER IF A CONFLICT IS FOUND.
- UNLESS OTHERWISE SHOWN ON THE PLANS, RECOMMENDED BY THE GEOTECHNICAL ENGINEER OR APPROVED BY THE ENGINEER, CONCRETE AREAS SHALL COMPLY WITH THE FOLLOWING ITEMS WITHIN THE TEXAS DEPARTMENT OF TRANSPORTATION 2004 STANDARD SPECIFICATION FOR CONSTRUCTION OF HIGHWAYS, STREETS AND BRIDGES:
 - * ITEM 247 - FLEXIBLE BASE, GRADE 1 OR 2.
 - * ITEM 360 - CONCRETE PAVING
 - * ITEM 421 - PORTLAND CEMENT CONCRETE
 - * ITEM 529 - CONCRETE CURBS, GUTTER AND COMBINED CURB AND GUTTER
 - * ITEM 531 - SIDEWALKS
- UNLESS OTHERWISE SHOWN ON THE PLANS OR RECOMMENDED BY THE GEOTECHNICAL ENGINEER, DESIGN MIX SHALL PRODUCE NORMAL-WEIGHT CONCRETE WITH THE FOLLOWING PROPERTIES:
 - A. COMPRESSIVE STRENGTH: 3,000 PSI FOR CONCRETE PAVEMENTS. MINIMUM AT 28 DAYS.
 - B. ALL REINFORCEMENT TO HAVE A TENSILE STRENGTH OF 10 KSI.
 - C. SLUMP: MAXIMUM OF 5"
 - D. AIR CONTENT: 4%±1
 - E. ALL EXPOSED CONCRETE CORNERS TO BE CHAMFERED 1".
 - F. FORMS WILL BE SET TO GRADE LINES WITHIN THE FOLLOWING TOLERANCES:
 - A. TOP OF FORMS NOT MORE THAN 1/8" IN MORE
 - B. VERTICAL FACE OR FACE ON LONGITUDINAL AXIS, NOT MORE THAN 1/4" IN 10'.
 - G. LOCATE, PLACE AND SUPPORT REINFORCEMENT AS SPECIFIED IN THE GEOTECHNICAL REPORT AND IN COMPLIANCE WITH TxDOT ITEM 440.
 - H. PRE-POUR INSPECTION BY THE GEOTECH LAB IS REQUIRED PRIOR TO FINAL PLACEMENT OF CONCRETE.
 - I. AUTOMATIC MACHINE MAY BE USED FOR CURB AND GUTTER PLACEMENT. IF MACHINE PLACEMENT IS USED, CONTRACTOR SHALL SUBMIT REVISED MIX DESIGN AND LABORATORY TEST RESULTS THAT MEET OR EXCEED MINIMUMS SPECIFIED. MACHINE PLACED CURBS MUST BE PLACED AT THE CROSS SECTION, LINES, GRADES, FINISH AND JOINTING SPECIFIED, OR SHALL BE REMOVED AND REPLACED WITH FORMED CONCRETE AS SPECIFIED.
 - J. AFTER COMPLETION OF FLOATING AND TROWELING WHEN EXCESS MOISTURE OR SURFACE SHEEN HAS DISAPPEARED, BROOM FINISH BY DRAWING A FINE-HAIR BRUSH TO ACROSS CONCRETE SURFACE PERPENDICULAR TO DIRECTION OF TRAFFIC. REPEAT OPERATION IF REQUIRED TO PROVIDE A TEXTURE ACCEPTABLE TO THE OWNER OR DESIGNATED REPRESENTATIVE.
- CONTRACTOR SHALL PROTECT CONCRETE FROM DAMAGE UNTIL ACCEPTANCE OF WORK. VEHICULAR TRAFFIC SHALL BE PROHIBITED FOR AT LEAST 7 DAYS AFTER PLACEMENT. BROKEN OR DEFECTIVE CONCRETE WILL BE REPAIRED OR REPLACED AS DIRECTED BY THE ENGINEER.
- DRAW TEST CORES WHERE DIRECTED BY THE ENGINEER, WHEN NECESSARY TO DETERMINE MAGNITUDE OF CRACKS OR DEFECTIVE AREAS. TESTING WILL BE IN ACCORDANCE WITH THE MATERIAL TESTING SPECIFICATION.
- CONCRETE PAVED AREAS SHALL BE MAINTAINED BY THE CONTRACTOR SUCH THAT AT FINAL INSPECTION, CONCRETE SHALL BE FREE OF STAINS, DISCOLORATIONS, DIRT AND OTHER FOREIGN MATERIAL.

WATER AND WASTEWATER UTILITY NOTES

- CONTRACTOR SHALL CONFORM WITH **CITY OF SCHERTZ PUBLIC WORKS**.
- NOTIFY **CITY OF SCHERTZ PUBLIC WORKS** AT LEAST 48 HOURS PRIOR TO STARTING CONSTRUCTION WITHIN ANY PUBLIC R.O.W. OR EASEMENT. DISRUPTION OF SERVICES SHALL BE COORDINATED WITH THE OWNER AND UTILITY COMPANY.
- ALL PRIVATE WATER AND WASTEWATER LINES WILL COMPLY WITH THE INTERNATIONAL PLUMBING CODE 2018.
 - * ALL PRIVATE WATER PIPE 4" AND LARGER SHALL BE CLASS 200 PVC C900 DR18 OR DUCTILE IRON (D.I.) CLASS 50 (IRIGATION LINES AND DOMESTIC SERVICE LINES SHOULD BE SDR-21 RATED PIPE). ALL WATER PIPE LESS THAN 4" SHALL BE COPED OR SCH. 80.
 - * ALL PUBLIC MAIN WASTEWATER PIPE SHALL BE SDR 26 PVC. OR PRESSURE RATED PIPE WHERE REQUIRED. SERVICE LATERALS SHALL BE SDR 26 PVC.
- INSTALL MECHANICAL JOINT (M-J) FITTINGS ON DUCTILE IRON (D.I.) PIPE OR RING JOINT JOINS ON PVC C900 DR18 PIPE.
- ALL THRUST BLOCKING SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY STANDARDS. IF CITY STANDARDS IS NOT AVAILABLE USE DETAIL PROVIDED. WHERE THRUST BLOCKING IS NOT POSSIBLE, RESTRAINED JOINTS SHALL BE INSTALLED.
- ALL WATER MAINS SHALL BE BURIED MIN. 3'. PRIVATE SERVICES LINES ARE TO BE 2' MINIMUM BELOW FINISHED GRADE.
- WHERE THE MINIMUM 8 FOOT SEPARATION DISTANCE BETWEEN WASTEWATER LINES AND WATER LINES CANNOT BE MAINTAINED, THE INSTALLATION OF WASTEWATER LINES SHALL BE IN STRICT ACCORDANCE WITH TRENCH TO LOCATE THESE UTILITIES PRIOR TO STARTING CONSTRUCTION. (SEE SITE INFORMATION SHEET FOR UTILITY CONTACTS)
- VERIFY ALL EXISTING INVERTS AND RIM ELEVATIONS PRIOR TO CONSTRUCTION. CONTACT ENGINEER WITH ANY DISCREPANCIES.
- COMPLETE OR COORDINATE ADJUSTMENT OF OTHER UTILITIES IN ORDER TO CONSTRUCT STORM SEWER TO ELEVATIONS PROVIDED.
- THE FOLLOWING STORM SEWER PIPES ARE ALLOWABLE (WITH MANUFACTURER'S SPECS FOR BACKFILL FOLLOWS):
 - A. 12" THROUGH 48" RCP, D-LOAD DESIGN
 - B. 6" THROUGH 12" PVC, SDR 35 OR SCH. 40
 - C. 12" THROUGH 18" GALVANIZED CORRUGATED METAL PIPE - 2-2 1/2" / 1/2" CORRUGATED
 - D. 12" THROUGH 48" ULTRALOF SPIRAL RIB PIPE (ASAHTO W-2) WITH GALVANIZED STEEL AS PER ASAHTO W-218
 - E. 6" THROUGH 36", HDPE
- FOR PRESSURE TAPS, FURNISH, INSTALL AND AIR TEST THE SLEEVE AND VALVE. CONCRETE BLOCKING SHALL BE PLACED BEHIND AND UNDER ALL TAP SLEEVES TWENTY-FOUR (24) HOURS PRIOR TO MAKING THE WET TAP.
- SEE MECHANICAL PLANS FOR EXACT LOCATION OF WATER AND WASTEWATER CONNECTIONS TO BUILDINGS.
- ALL BACKFLOW DEVICES WILL CARRY A MANUFACTURER RATING NOT TO EXCEED A 7 P.S.I. PRESSURE DROP THROUGH BACKFLOW DEVICE. ABOVE GROUND BACKFLOW ASSEMBLIES AND DEVICES SHALL BE INSULATED USING JACKET OR ENCLOSEURE TO PROTECT FROM FREEZING.
- PROTECT EXISTING STRUCTURES FROM DAMAGE DURING CONSTRUCTION. PRIOR



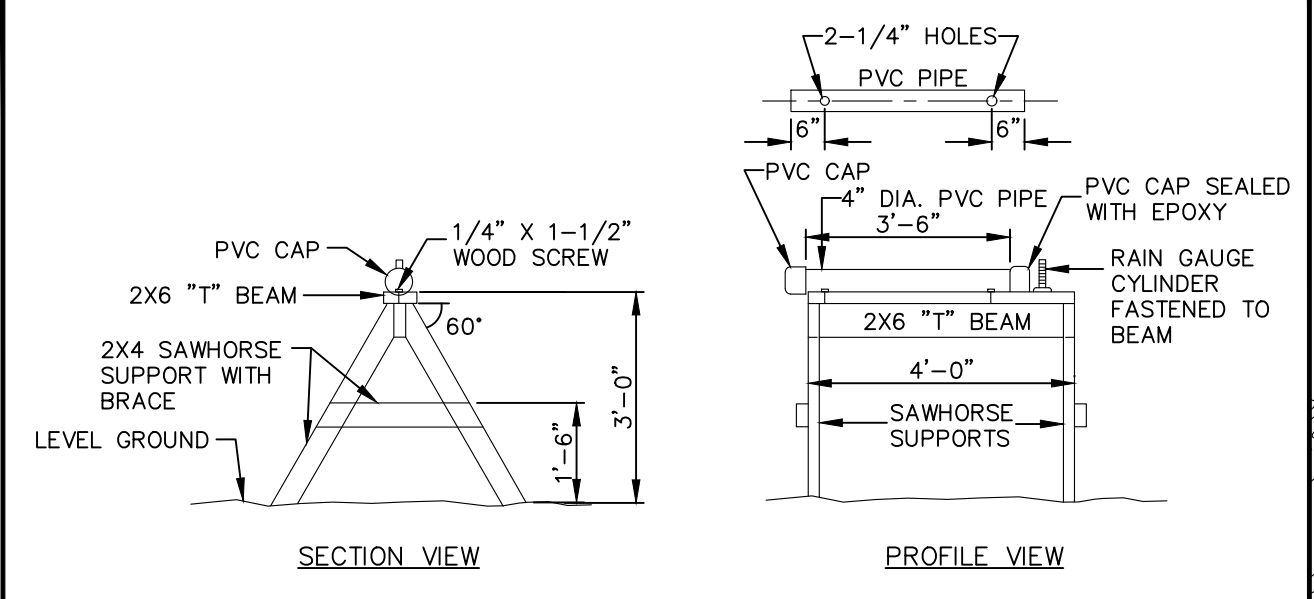
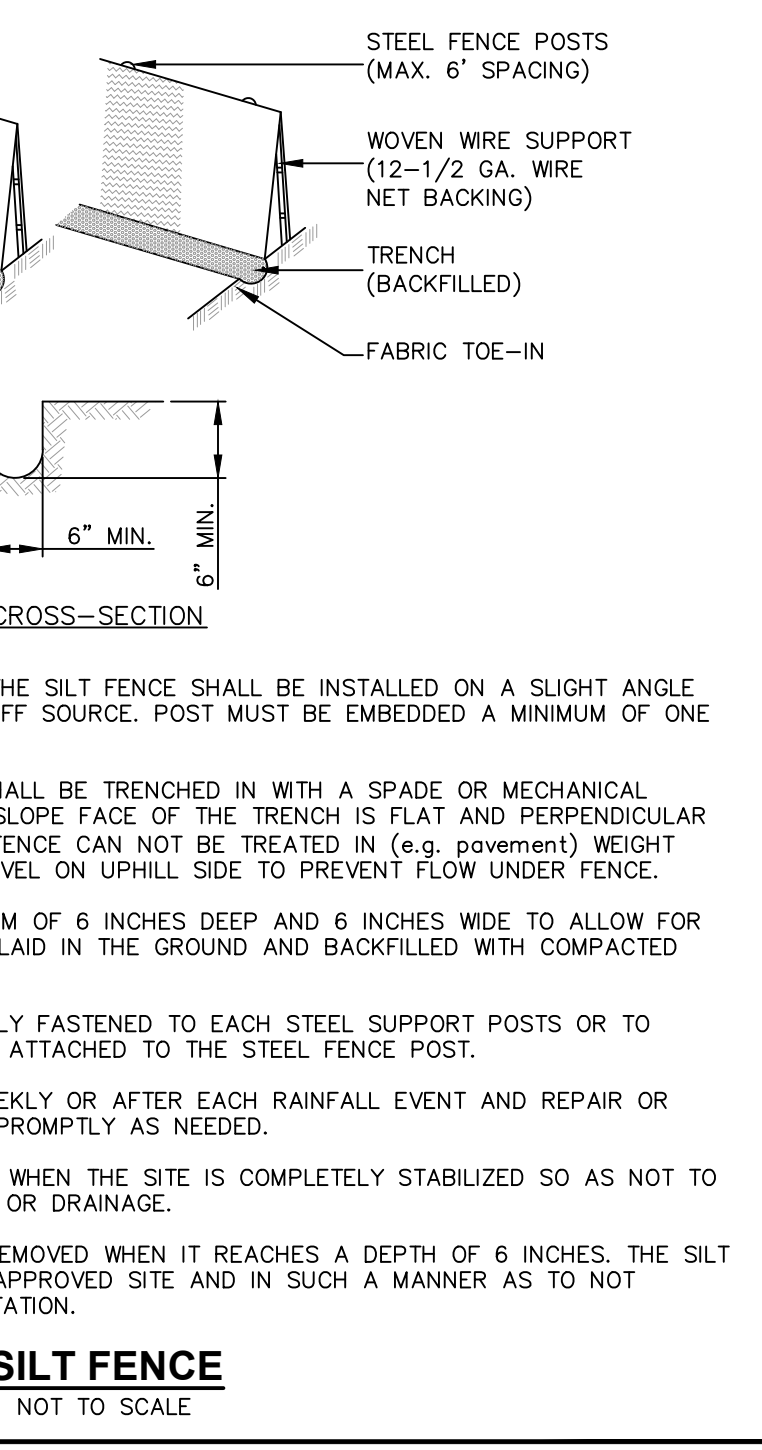
- GENERAL NOTES:**
- STONE SIZE- 4 TO 8 INCH OPEN GRADED ROCK.
 - LENGTH- AS EFFECTIVE, BUT NOT LESS THAN 50 FEET.
 - THICKNESS- NOT LESS THAN 8 INCHES.
 - WIDTH- NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
 - GEOTEXTILE FABRIC- SOIL FILTRATION MEDIA WITH AN APPROXIMATE WEIGHT OF 6 oz/yd², A MULLER BURST RATING OF 140 lb/m², AND AN EQUIVALENT OPENING SIZE GREATER THAN NUMBER 50 SIEVE.
 - WASHING- WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH, OR WATERCOURSE USING APPROVED METHODS.
 - MAINTENANCE- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAYS. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
 - DRAINAGE- ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

NOTES TO CONTRACTOR:

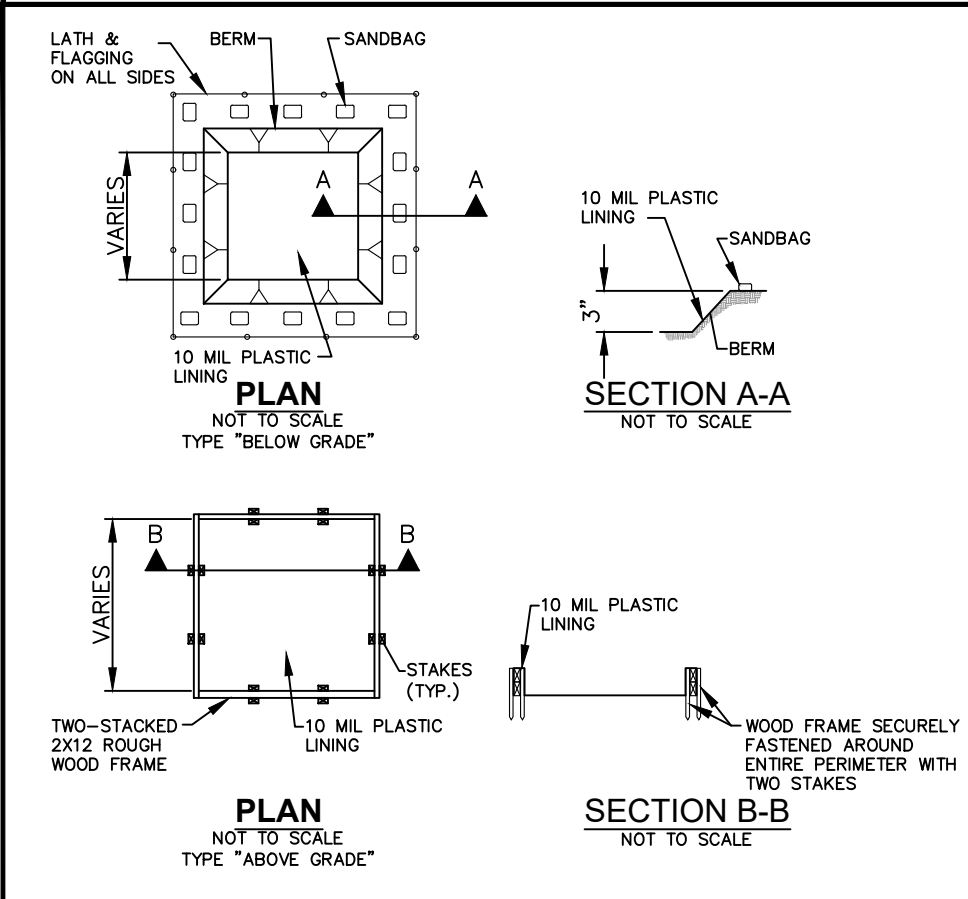
- THE LOCATIONS OF THE STABILIZED CONSTRUCTION ENTRANCE, STAGING AREA AND CONC. WASHOUT PIT MAY BE CHANGED, IF NECESSARY ANY CHANGES TO THESE LOCATIONS MAY BE REDLINED BY THE CONTRACTOR AND KEPT ON SITE WITH THE TPDES.
- THE FLOODPLAIN IS TO BE STAKED ON SITE.
- THE FLOODPLAIN PERMIT AND STORM WATER QUALITY PERMIT APPROVAL LETTER IS TO BE POSTED AT THE ENTRANCE OF THE SITE. PERMIT TO BE TERMINATED WITH A FINAL INSPECTION PERFORMED BY A BEKAR COUNTY STORM WATER QUALITY INSPECTOR BY APPOINTMENT.
- SILT FENCE SHOWN IS TO BE PLACED ON PROPERTY LINE AND NOT TO ENCROACH ONTO ADJACENT OWNERS PROPERTY.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

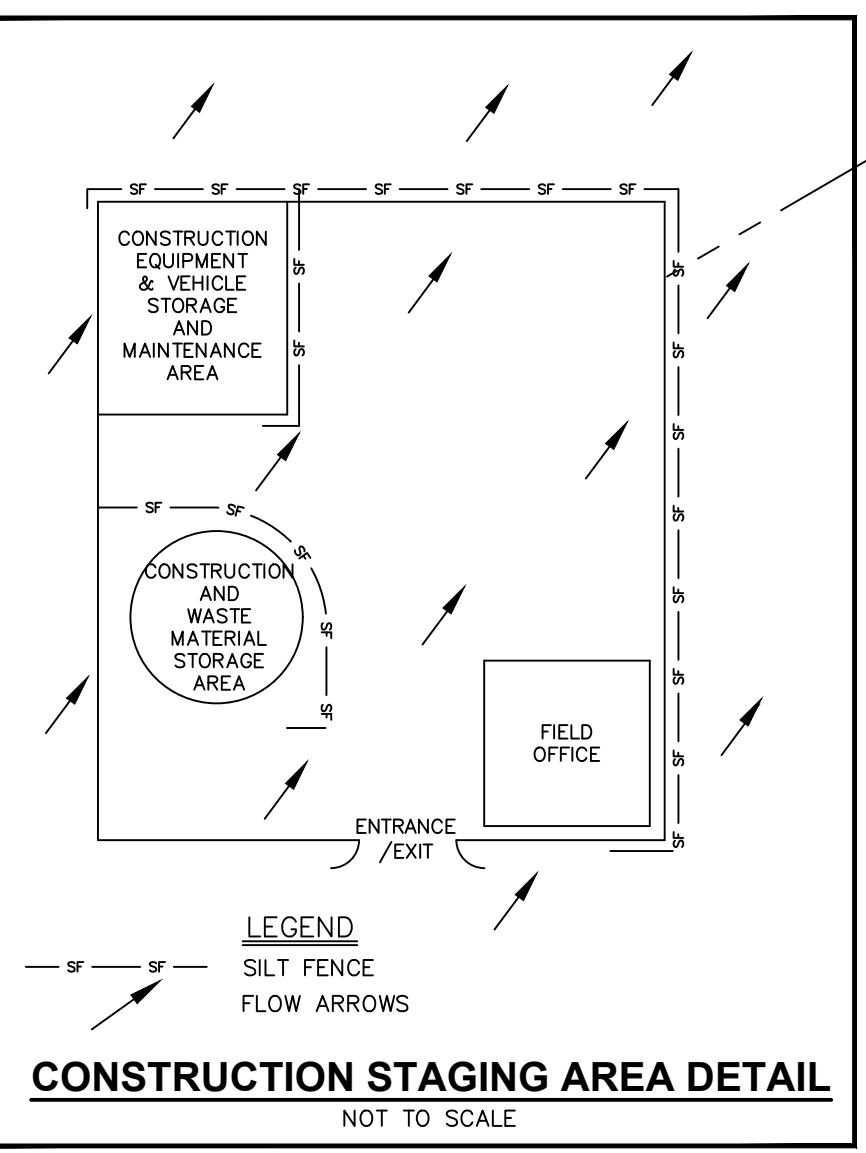
LEGEND		
EXISTING	PROPOSED	DESCRIPTION
(---)	(---)	PROPERTY (R.O.W.) LINE/ SUBDIVISION BOUNDARY
(---)	(---)	ADJACENT PROPERTY RECORD INFORMATION
(---)	(---)	BENCHMARK
(---)	(---)	LIGHT POLE
(---)	(---)	POWER POLE
(---)	(---)	DOWN GUY
(---)	(---)	TRANSFORMER (SIZE VARIES)
(---)	(---)	FIRE HYDRANT
(---)	(---)	WATER VALVE
(---)	(---)	WATER METER
(---)	(---)	WATER METER VAULT
(---)	(---)	WATER MANHOLE
(---)	(---)	TELEPHONE RISER
(---)	(---)	CABLE TV RISER
(---)	(---)	ELECTRIC BOX
(---)	(---)	ELECTRIC METER
(---)	(---)	GAS VALVE
(---)	(---)	GAS METER
(---)	(---)	TRAFFIC CONTROL BOX
(---)	(---)	TRAFFIC SIGNAL POST
(---)	(---)	UNDERGROUND GAS LINE MARKER
(---)	(---)	GREASE TRAP (SIZE VARIES)
(---)	(---)	STORMDRAIN LINE
(---)	(---)	WATER LINE
(---)	(---)	FIRE LINE
(---)	(---)	WASTEWATER LINE
(---)	(---)	GAS LINE
(---)	(---)	OVERHEAD ELECTRIC (PRIMARY)
(---)	(---)	UNDERGROUND ELECTRIC (PRIMARY)
(---)	(---)	UNDERGROUND ELECTRIC (SECONDARY)
(---)	(---)	UNDERGROUND TELEPHONE
(---)	(---)	UNDERGROUND CABLE
(---)	(---)	ELECTRIC MANHOLE (SIZE VARIES)
(---)	(---)	WASTEWATER MANHOLE (SIZE VARIES)
(---)	(---)	STORMDRAIN MANHOLE (SIZE VARIES)
(---)	(---)	TELEPHONE MANHOLE (SIZE VARIES)
(---)	(---)	FIRE DEPARTMENT CONNECTION
(---)	(---)	WASTEWATER CLEANOUT CURB
(---)	(---)	HEADER CURB
(---)	(---)	SAWTOOTH CURB
(---)	(---)	RETAINING WALL
(---)	(---)	CHAINLINK FENCE
(---)	(---)	CONCRETE SIDEWALKS
(---)	(---)	CONTOUR
(---)	(---)	DIRECTION OF FLOW
(---)	(---)	SPOT ELEVATION/TOP OF CURB
(---)	(---)	SPOT ELEVATION
(---)	(---)	SWALE
(---)	(---)	CONCRETE PAVEMENT
(---)	(---)	ASPHALT PAVEMENT
(---)	(---)	STABILIZED CONSTRUCTION ENTRANCE
(---)	(---)	CONSTRUCTION STAGING
(---)	(---)	CONCRETE WASHOUT PIT
(---)	(---)	SWPPP DOCUMENT CONTAINER
(---)	(---)	SILT FENCE
(---)	(---)	INLET PROTECTION
(---)	(---)	LIMITS OF CONSTRUCTION



- NOTES:**
- THIS CANISTER SHALL BE USED TO STORE ALL STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND ALL OTHER RELATED DOCUMENTS SO THAT THEY ARE AVAILABLE ON SITE FOR THE INSPECTOR.
 - THIS CANISTER SHALL BE LOCATED ON SOLID LEVEL GROUND ADJACENT TO THE CONSTRUCTION ENTRANCE AND ON THE OPPOSITE SIDE OF THE TRUCK WASH OUT PIT.



- GENERAL NOTES:**
- DETAIL ILLUSTRATES MINIMUM DIMENSIONS. PIT CAN BE INCREASED IN SIZE DEPENDING ON EXPECTED FREQUENCY OF USE.
 - WASHOUT PIT SHALL BE LOCATED IN AN AREA EASILY ACCESSIBLE TO CONSTRUCTION TRAFFIC.
 - WASHOUT PIT SHALL NOT BE LOCATED IN AREAS SUBJECT TO INUNDATION FROM STORM WATER RUNOFF.



K LOVE ENGINEERING
Site Development Engineering Services
Firm No. 11042 www.kloveengineering.com (210) 485-5683

OWNER:
TEG SCHERTZ VENTURE, LLC
7801 N LAMAR, STE. B168
AUSTIN, TX 78752

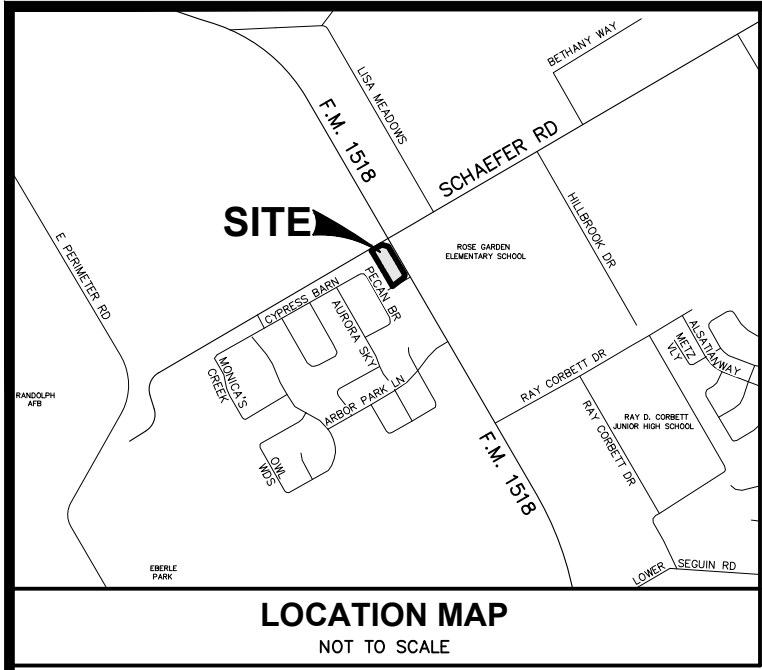
SCHAEFFER RD STRIP CENTER
XXXX SCHAEFFER RD
SCHERTZ, TEXAS 78154

STORM WATER POLLUTION PREVENTION PLAN

DESIGNED BY: ---
DRAWN BY: CT
SCALE: 1"=20"
DATE: 11/10/21
SHEET NO: **C2.0**

Date: Dec 06, 2021, 3:03pm
File: C:\Projects\11042\00_Plan 1518 & Schaeffer rd\Drawings\C2.0_Swppp.dwg





UTILITIES NOTES:
(TECHNICAL SPECIFICATION SECTION 01732)
(UPDATED 7/1/19)

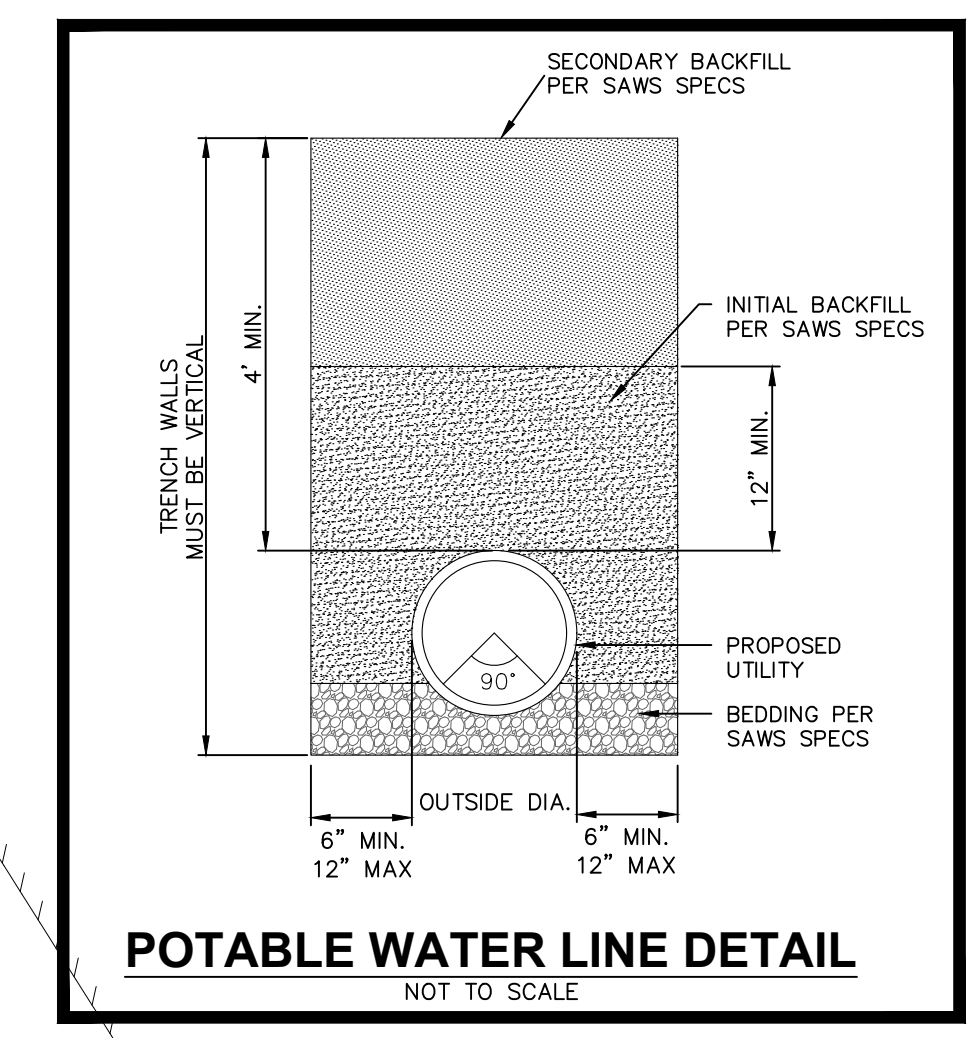
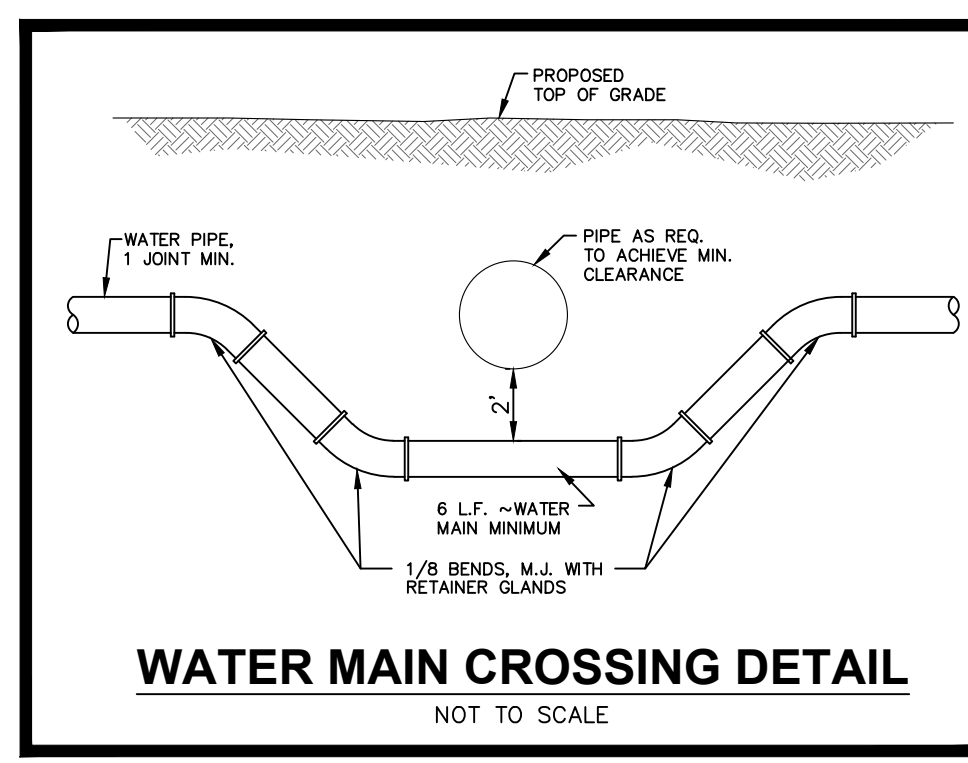
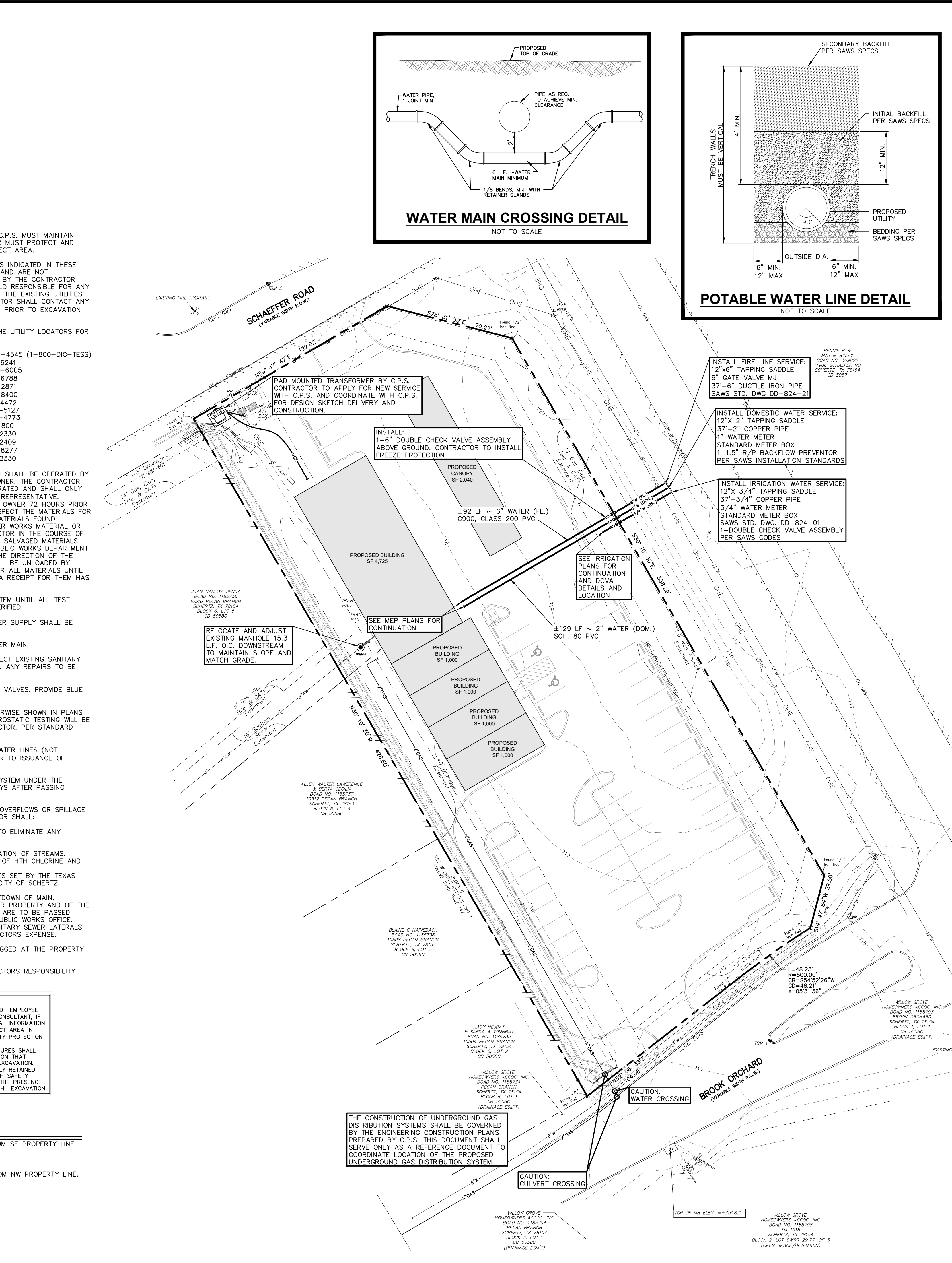
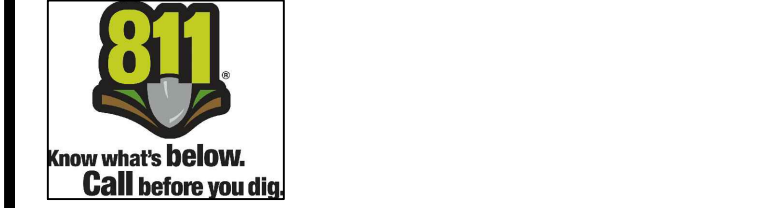
14. DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.181, C.P.S. MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR MUST PROTECT AND WORK AROUND ANY GAS VALVES THAT ARE IN THE PROJECT AREA.
15. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES INDICATED IN THESE PLANS ARE TAKEN FROM THE BEST RECORDS AVAILABLE AND ARE NOT GUARANTEED, BUT SHALL BE INVESTIGATED AND VERIFIED BY THE CONTRACTOR BEFORE STARTING WORK. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY DAMAGE TO, AND FOR MAINTENANCE AND PROTECTION OF THE EXISTING UTILITIES EVEN IF THEY ARE NOT SHOWN ON THE PLANS. CONTRACTOR SHALL CONTACT ANY UTILITIES ENCOUNTERED FORTY-EIGHT (48) HOURS PRIOR TO EXCAVATION OPERATION.
16. THE FOLLOWING IS A LIST OF TELEPHONE NUMBERS OF THE UTILITY LOCATORS FOR THE VARIOUS UTILITIES THAT MAY BE ENCOUNTERED:
TEXAS ONE CALL1-800-245-4545 (1-800-DIG-TESS)
C.C.M.A.(210)-658-6241
CITY PUBLIC SERVICE.....1-800-545-6005
CENTERPOINT ENERGY ENTE.....(210)-659-6785
C.V.E.C.(210)-672-2871
NEW BRAUNFELS UTILITY.....(830)-629-8400
TIME WARNER CABLE.....(210)-352-4472
AT&T.....1-800-828-5127
TXDOT NEW BRAUNFELS.....1-800-644-4773
CITY OF SCHERTZ PUBLIC WORKS DEPT.....(210)-619-1800
GREEN VALLEY WATER DISTRICT.....(830)-914-2330
SCHERTZ SEGUIN LOCAL GOV'T CORP.....(830)-401-2409
GREEN VALLEY TELEPHONE COMPANY.....(830)-885-8277
GREEN VALLEY SPECIAL UTILITY DISTRICT.....(831)-914-2330

17. NO VALVES IN THE OWNER'S WATER DISTRIBUTION SYSTEM SHALL BE OPERATED BY THE CONTRACTOR WITHOUT PRIOR PERMISSION OF THE OWNER. THE CONTRACTOR SHALL NOTIFY THE OWNER WHEN A VALVE IS TO BE OPERATED AND SHALL ONLY OPERATE THE VALVE IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE. COORDINATE ALL SHUTDOWN OF MAINS FOR TIE-INS WITH OWNER 72 HOURS PRIOR TO WORK BEING COMPLETED. THE CONTRACTOR SHALL INSPECT THE MATERIALS FOR DEFECTS AT THE TIME THEY ARE UNLOADED, AND ANY MATERIALS FOUND DEFECTIVE SHALL BE REMOVED FROM THE SITE. ALL WATER WORKS MATERIAL OR SCRAP OF WHATEVER NATURE REMOVED BY THE CONTRACTOR IN THE COURSE OF THE WORK SHALL REMAIN THE PROPERTY OF THE OWNER. SALVAGED MATERIALS SHALL BE DELIVERED TO AND UNLOADED AT THE CITY PUBLIC WORKS DEPARTMENT BY THE CONTRACTOR UNDER OBSERVATION OF AND AT THE DIRECTION OF THE OWNER. ITEMS TOO HEAVY TO BE HANDLED MANUALLY WILL BE UNLOADED BY EQUIPMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIALS UNTIL THEY HAVE BEEN TURNED IN TO THE OWNER AND UNTIL A RECEIPT FOR THEM HAS BEEN ISSUED BY THE OWNER.
18. NO TIE-IN SHALL BE MADE TO THE EXISTING UTILITY SYSTEM UNTIL ALL TEST RESULTS HAVE BEEN PROVIDED TO THE CITY AND ARE VERIFIED.
19. PRIOR TO TESTING, ANY CONNECTION TO THE CITY'S WATER SUPPLY SHALL BE THROUGH AN APPROVED AND TESTED BACKFLOW DEVICE.
20. PLUG EXISTING SEWER BEFORE INSTALLING ANY NEW SEWER MAIN.
21. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT EXISTING SANITARY SEWER LATERALS AND WATER SERVICES SHOWN IN PLANS. ANY REPAIRS TO BE MADE AT CONTRACTORS EXPENSE.
22. PROVIDE BLUE PAINTED "V" ETCHED IN CURB TO IDENTIFY VALVES. PROVIDE BLUE PAINTED "X" ETCHED IN CURB TO IDENTIFY METER BOXES.
23. NEW WATER MAINS TO BE PVC C900 DR14, UNLESS OTHERWISE SHOWN IN PLANS AND APPROVED BY PUBLIC WORKS OR ENGINEERING. HYDROSTATIC TESTING WILL BE PERFORMED UNDER THE SUPERVISION OF THE CITY INSPECTOR, PER STANDARD SPECIFICATION 02515 AT 200 PSI FOR 4 HOURS.
24. CONTRACTORS SHOULD USE HTH FOR DISINFECTION OF WATER LINES (NOT CHLORINE INJECTION) UNLESS APPROVED OTHERWISE PRIOR TO ISSUANCE OF PERMIT.
25. NEW WATERLINES SHALL BE TIED INTO EXISTING WATER SYSTEM UNDER THE SUPERVISION OF CITY PERSONNEL NO LATER THAN 14 DAYS AFTER PASSING BACTERIOLOGICAL TESTS.
26. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT NO OVERFLOWS OR SPILLAGE OF SEWER OCCURS. SHOULD THIS OCCUR, THE CONTRACTOR SHALL:
 - A. IDENTIFY THE SOURCE OF THE SPILL AND ATTEMPT TO ELIMINATE ANY ADDITIONAL SPILLAGE.
 - B. NOTIFY THE CITY OF SCHERTZ PUBLIC WORKS.
 - C. CONTAIN THE SPILL IN PLACE AND AVOID CONTAMINATION OF STREAMS.
 - D. DISINFECT THE AREA OF THE SPILL WITH A MIXTURE OF HTH CHLORINE AND WATER.
 - E. ALL WORK SHALL BE DONE ACCORDING TO GUIDELINES SET BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY AND THE CITY OF SCHERTZ.
27. CONTRACTOR TO PROVIDE NOTICE TO RESIDENTS OF SHUTDOWN OF MAIN. CONTRACTOR TO NOTIFY RESIDENTS OF WORK WITHIN THEIR PROPERTY AND OF THE RELOCATION OF METERS. ANY COMPLAINTS BY RESIDENTS ARE TO BE PASSED IMMEDIATELY TO THE CITY INSPECTOR OR TO THE MAIN PUBLIC WORKS OFFICE. TAKE APPROPRIATE MEASURES TO PROTECT EXISTING SANITARY SEWER LATERALS SHOWN IN PLANS. ANY REPAIRS TO BE MADE AT CONTRACTORS EXPENSE.
28. ABANDONED CUSTOMER LINES SHALL BE CAPPED OR PLUGGED AT THE PROPERTY LINE.
29. ASBESTOS PIPE REMOVAL AND DISPOSAL IS THE CONTRACTORS RESPONSIBILITY.

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TRENCH EXCAVATION SAFETY PROTECTION
CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES) WITHIN THE PROJECT AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS PROGRAMS AND/OR PROCEDURES. THE CONTRACTOR'S IMPLEMENTATION OF THE SYSTEM'S PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLIES WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATION. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

BENCHMARKS
TBM #1: MAGNAIL IN CURB OF MEDIAN ADJACENT FROM SE PROPERTY LINE.
ELEV. = 718.17'
N=13,742,067.04; E=2,206,422.94
TBM #2: MAGNAIL IN CURB ACROSS THE STREET FROM NW PROPERTY LINE.
ELEV. = 717.49'
N=13,742,479.24; E=2,206,149.68



GENERAL WATER NOTES:
(PW TECH. SPEC SECTION 01145)
(UPDATED 2/26/18)

1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS PROJECT SHALL BE APPROVED BY THE CITY OF SCHERTZ AND COMPLY WITH THE FOLLOWING AS APPLICABLE:
 - a. CURRENT CITY OF SCHERTZ "UNIFIED DEVELOPMENT CODE"
 - b. CURRENT CITY OF SCHERTZ "PUBLIC WORKS SPECIFICATION MANUAL"
 - c. CURRENT TXDOT "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS, AND DRAINAGE."
2. THE CONTRACTOR SHALL NOT PROCEED WITH ANY PIPE INSTALLATION WORK UNTIL THEY HAVE NOTIFIED CITY OF SCHERTZ PUBLIC WORKS WITH AT LEAST 3 WORKING DAYS (72 HOURS) NOTICE. ANY TIE-IN SHALL BE COORDINATED BY THE CONTRACTOR WITH PUBLIC WORKS.
3. THE LOCATIONS AND DEPTHS OF EXISTING UTILITIES, INCLUDING SERVICE LATERALS, AND DRAINAGE STRUCTURES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION AND DEPTHS OF UNDERGROUND UTILITIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION WHETHER SHOWN ON PLANS OR NOT, AND TO PROTECT THE SAME DURING CONSTRUCTION.
 - a. CITY OF SCHERTZ PUBLIC WORKS.....210-619-1800
 - b. TEXAS STATE WIDE ONE CALL.....800-245-4545
 - c. CITY PUBLIC SERVICE.....210-353-5952
 - d. SPECTRUM.....866-874-2389
 - e. GUADALUPE VALLEY ELECTRIC CO.....210-658-7033
 - f. GREEN VALLEY WATER SUPPLY CORP.....830-914-2330
 - g. S.S.I.C.....830-401-2409
 - h. NEW BRAUNFELS UTILITY.....830-606-2074
 - i. CANYON LAKE REGIONAL WATER AUTHORITY.....830-609-0543
 - j. CENTER POINT.....888-878-7866
 - k. SAN ANTONIO RIVER AUTHORITY.....866-345-7272
 - l. C.C.M.A.....210-658-6241
4. NO METER BOXES TO BE SET IN DRIVEWAYS. ANY METER BOXES SET IN DRIVEWAYS WILL BE RELOCATED AT THE CONTRACTOR'S AND / OR DEVELOPER'S EXPENSE.
5. 2", SCHEDULE 40, PVC CASING TO BE USED FOR ALL WATER SERVICE LINES BENEATH ROADWAYS.
6. CONTRACTORS SHOULD USE HTH GRANULAR FOR DISINFECTION OF WATER LINES (NOT CHLORINE INJECTION).
7. NEW WATERLINES SHALL BE TIED INTO EXISTING WATER SYSTEM UNDER THE SUPERVISION OF CITY PERSONNEL NO LATER THAN 14 DAYS AFTER PASSING BACTERIOLOGICAL TESTS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL OR BETTER CONDITION FROM DAMAGE DONE TO EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, LANDSCAPING AND STRUCTURES PER SPECIFICATION 01740.
9. THE CONTRACTOR SHALL AVOID CUTTING ROOTS LARGER THAN ONE INCH IN DIAMETER WHEN EXCAVATING NEAR EXISTING TREES. EXCAVATION IN VICINITY OF TREES SHALL PROCEED WITH CAUTION. THE CONTRACTOR SHALL CONTACT THE CITY ARBORIST AND THE CITY OF SCHERTZ CONSTRUCTION INSPECTOR FOR GUIDANCE.
10. NO EXTRA PAYMENT SHALL BE ALLOWED FOR WORK CALLED FOR ON THE PLANS BUT NOT INCLUDED ON THE BID SCHEDULE. THIS INCIDENTAL WORK WILL BE REQUIRED AND SHALL BE INCLUDED UNDER THE PAY-ITEM TO WHICH IT RELATES.
11. THE DEVELOPER DEDICATES THE WATERMANS UPON COMPLETION BY THE DEVELOPER AND ACCEPTANCE BY THE CITY OF SCHERTZ. THE CITY OF SCHERTZ WILL OWN AND MAINTAIN SAID WATER MAINS WHICH ARE LOCATED WITHIN THIS PARTICULAR SUBDIVISION (AS APPLICABLE).
12. THE CONTRACTOR AND/OR THE CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES) WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES. THE CONTRACTOR'S IMPLEMENTATION OF THE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLIES WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATIONS.
13. WORK COMPLETED BY THE CONTRACTOR WHICH HAS NOT RECEIVED A WORK ORDER OR THE NOTICE TO PROCEED WITH THE CITY OF SCHERTZ CONSTRUCTION INSPECTOR WILL BE SUBJECT TO REMOVAL AND REPLACEMENT BY AND AT THE EXPENSE OF THE CONTRACTOR.
14. THE CONTRACTOR WILL KEEP THE AREA ON TOP OF AND AROUND THE METER BOX FREE OF ALL OBJECTS AND DEBRIS

LEGEND		DESCRIPTION
EXISTING	PROPOSED	PROPERTY (P.O.W.) LINE/ SUBDIVISION BOUNDARY/ ADJACENT PROPERTY RECORD INFORMATION BENCHMARK
---	---	LIGHT POLE
---	---	POWER POLE
---	---	DOWN CUP
---	---	TRANSFORMER (SIZE VARIES)
---	---	FIRE HYDRANT
---	---	WATER VALVE
---	---	WATER METER
---	---	WATER METER VAULT
---	---	WATER MANHOLE
---	---	TELEPHONE RISER
---	---	CABLE TV RISER
---	---	ELECTRIC BOX
---	---	ELECTRIC METER
---	---	GAS VALVE
---	---	GAS METER
---	---	TRAFFIC CONTROL BOX
---	---	TRAFFIC SIGNAL POST
---	---	UNDERGROUND GAS LINE MARKER
---	---	GREASE TRAP (SIZE VARIES)
---	---	STORMDRAIN LINE
---	---	WATER LINE
---	---	FIRE LINE
---	---	WASTEWATER LINE
---	---	GAS LINE
---	---	OVERHEAD ELECTRIC (PRIMARY)
---	---	UNDERGROUND ELECTRIC (PRIMARY)
---	---	UNDERGROUND ELECTRIC (SECONDARY)
---	---	UNDERGROUND TELEPHONE
---	---	UNDERGROUND CABLE
---	---	ELECTRIC MANHOLE (SIZE VARIES)
---	---	WASTEWATER MANHOLE (SIZE VARIES)
---	---	STORMDRAIN MANHOLE (SIZE VARIES)
---	---	TELEPHONE MANHOLE (SIZE VARIES)
---	---	FIRE DEPARTMENT CONNECTION
---	---	WASTEWATER CLEANOUT
---	---	CURB
---	---	HEADER CURB
---	---	SAWTOOTH CURB
---	---	RETAINING WALL
---	---	CHAINLINK FENCE
---	---	CONCRETE SIDEWALKS
---	---	CONTOUR
---	---	DIRECTION OF FLOW
---	---	SPOT ELEVATION/TOP OF CURB
---	---	SWALE
---	---	CONCRETE PAVEMENT
---	---	ASPHALT PAVEMENT

LEGAL DESCRIPTION
UP LOT 29, BLOCK 102, N.C.B. 18612, UNIVERSITY OAKS BUSINESS PARK RECORDED IN VOLUME 3956, PAGE 48 IN THE DEED AND PLAT RECORDS OF BEXAR COUNTY, TEXAS.
ADDRESS
UP XXXX SCHAEFFER RD, SCHERTZ, TX 78154
PLAT NO.
UP COSEA LAND PLAT NO. 19-00000000 OF B. RECORDS PLATED PRIOR TO COSEA ISSUING PLAT NUMBERS

KLOVE ENGINEERING
Site Development Engineering Services
Firm No. 11044Z
www.kloveengineering.com (210) 485-5683

SCHAEFFER RD STRIP CENTER
XXXX SCHAEFFER RD
SCHERTZ, TEXAS 78154
UTILITY PLAN

OWNER: TEG SCHERTZ VENTURE, LLC
7801 N LAMAR, STE. B168
AUSTIN, TX 78752

DESIGNED BY: ---
DRAWN BY: CT
SCALE: 1"=30'
DATE: 11/10/21
SHEET NO: **C4.0**

