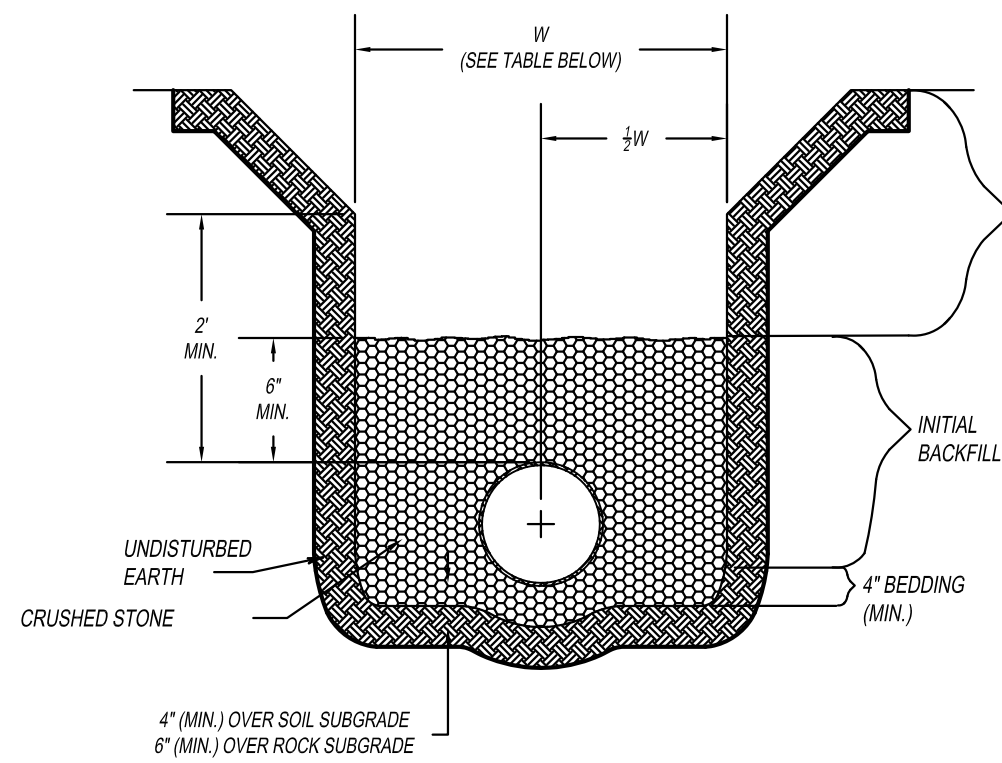
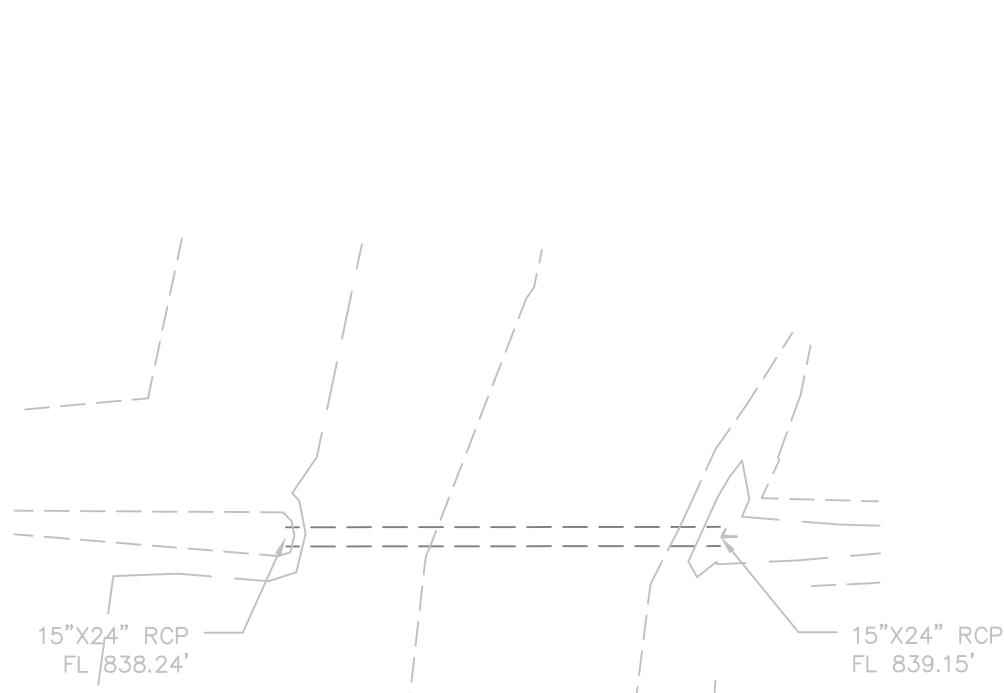




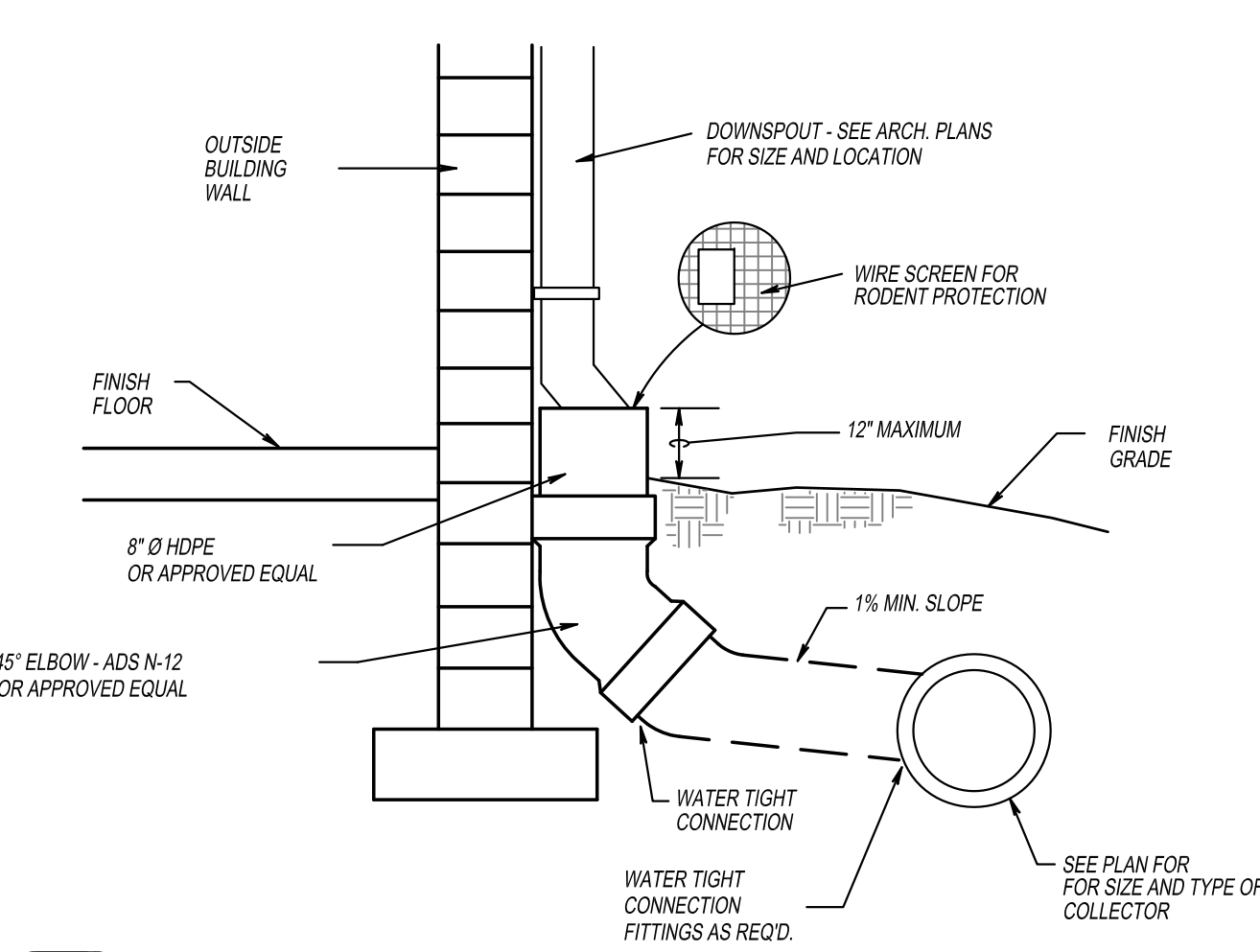
MINIMUM TRENCH WIDTH, W		
PIPE SIZE	CONCRETE AND HDPE	ALL OTHERS
12"	2'-10"	2'-4"
15"	3'-2"	2'-7"
18"	3'-8"	2'-10"
21"	4'-0"	3'-2"
24"	4'-6"	3'-6"
30"	5'-2"	4'-2"
36"	5'-8"	4'-8"
42"	6'-3"	5'-4"
48"	6'-10"	5'-10"

MAXIMUM TRENCH WIDTH, W, ALLOWABLE IS EQUAL TO MINIMUM TRENCH WIDTH PLUS 6"

- TRENCHING AND BEDDING NOTES:**
- BEDDING AND INITIAL BACKFILL SHALL BE WELL GRADED CRUSHED STONE 3/4" TO 1 1/4" WITH LESS THAN 5% PASSING THE #4 SIEVE.
 - BEDDING AND INITIAL BACKFILL SHALL BE COMPACTED TO 95% STANDARD PROCTOR (ASTM D 698) IN 6" LOOSE LIFTS.
 - SELECT FILL MAY BE EARTH BACKFILL FREE OF LARGE STONE AND ORGANIC MATERIAL IF NOT UNDER TRAFFIC AREAS.
 - IN TRAFFIC AREAS TRENCHES SHALL BE COMPLETELY BACKFILLED WITH CRUSHED STONE TO FINISHED SUB-GRADE AND COMPACTED TO 95% STANDARD PROCTOR (ASTM D 698).
 - TRENCHES GREATER THAN 5 FEET IN DEPTH SHALL BE SLOPED, SHORED, SHEETED, BRACED OR OTHERWISE SUPPORTED PER OSHA AND LOCAL ORDINANCES.

1 STORM SEWER TRENCHING

C1 SCALE: NTS



2 DOWNSPOUT COLLECTOR

C1 SCALE: NTS

KEY NOTES:

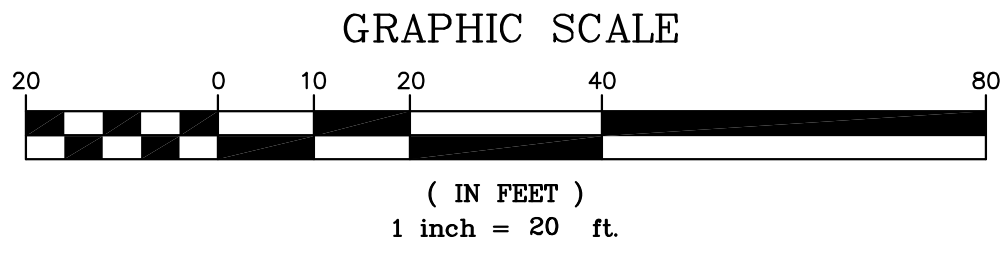
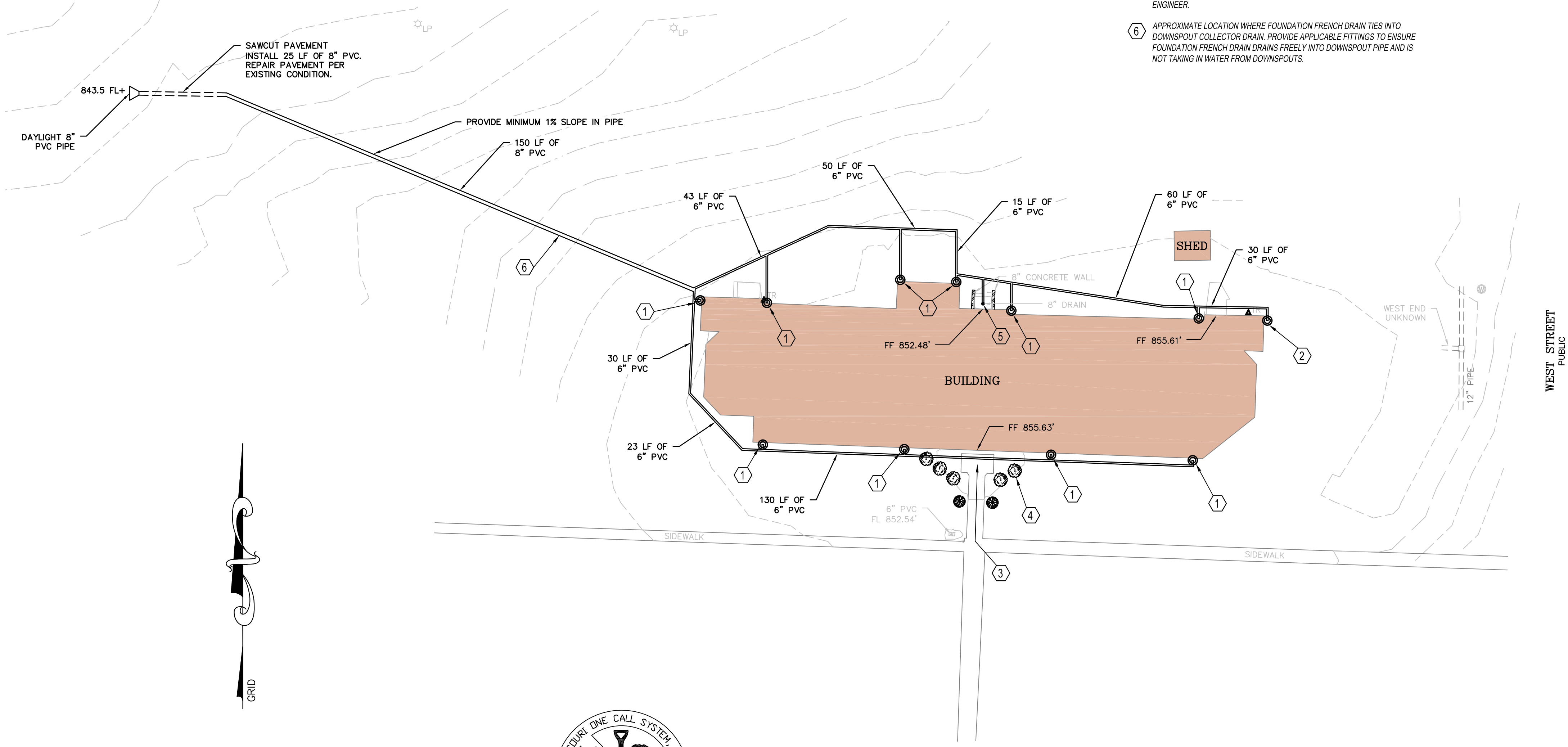
- CONNECT EXISTING DOWNSPOUT TO NEW UNDERGROUND PIPE. SEE DETAIL.
- FIX DOWNSPOUT GUTTERING TO GRADE. MATCH EXISTING CONSTRUCTION AND MATERIALS. CONNECT TO NEW UNDERGROUND COLLECTION SYSTEM.
- SAWCUT EXISTING CONCRETE PAD AND REPAIR BACK PER EXISTING CONDITIONS.
- CONTRACTOR TO AVOID DAMAGES TO EXISTING VEGETATION. REMOVE AND REPLACE PER EXISTING CONDITIONS. COORDINATE WITH OWNER IF REPLACED.
- CONNECT THE EXISTING DRAIN INTO NEW UNDERGROUND COLLECTION SYSTEM. FIELD ADJUST AND VERIFY EXISTING CONDITIONS. COORDINATE WITH ENGINEER.
- APPROXIMATE LOCATION WHERE FOUNDATION FRENCH DRAIN TIES INTO DOWNSPOUT COLLECTOR DRAIN. PROVIDE APPLICABLE FITTINGS TO ENSURE FOUNDATION FRENCH DRAIN DRAINS FREELY INTO DOWNSPOUT PIPE AND IS NOT TAKING IN WATER FROM DOWNSPOUTS.

GENERAL NOTES

- THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR THE DESIGN FUNCTIONS AND USES INTENDED BY THE OWNER AT THIS TIME. NEITHER THE ENGINEER NOR ITS PERSONNEL CAN OR DO WARRANT THESE DESIGNS OR PLANS AS CONSTRUCTED EXCEPT IN THE SPECIFIC CASES WHERE THE ENGINEER INSPECTS AND CONTROLS THE PHYSICAL CONSTRUCTION ON A TEMPORARY BASIS AT THIS SITE.
- CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO THE PROJECT DOCUMENTS.
- THE CONTRACTOR SHALL FIELD VERIFY ALL HORIZONTAL AND VERTICAL LINES AND GRADES OF EXISTING UTILITIES PRIOR TO THE CONSTRUCTION OF IMPROVEMENTS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY UPON DISCOVERY OF A DISCREPANCY BETWEEN CONTRACT DRAWINGS AND ACTUAL FIELD CONDITIONS.
- APPLICABLE PERMITS MUST BE OBTAINED FROM THE CITY, STATE AND COUNTY PRIOR TO EXCAVATION WITHIN ANY RIGHT-OF-WAY, AND PRIOR TO ANY CONSTRUCTION.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE LOCATION OF ANY UNDERGROUND UTILITIES OR OTHER OBSTRUCTIONS AND TO BE LIABLE FOR DAMAGE AND CONSEQUENT REPAIR TO SUCH IN THE COURSE OF HIS OPERATIONS.
- THE CONTRACTOR AND/OR BUILDER WILL KEEP THE SUBDIVISION NEAT AND ORDERLY AT ALL TIMES WHILE CONSTRUCTION IS TAKING PLACE. ALL CITY STREETS ADJACENT TO THE DEVELOPMENT SHALL BE KEPT CLEAR OF MUD, ROCK, DIRT, DEBRIS, PAPER AND WASTE MATERIAL AT ALL TIMES. THE PROPER AMOUNT OF INSPECTION SHALL BE CALLED FOR AT THEIR PROPER TIMES, OR ANY AND ALL WORK MAY BE REJECTED.
- IF ANY WORK OR ACCESS TO ANY ADJOINING PROPERTY IS DONE, IT IS THE FULL RESPONSIBILITY OF THE APPLICANT/OWNER TO OBTAIN PROPER RELEASES FROM ADJOINING PROPERTY OWNERS AND ASSUME ALL LIABILITY FOR ACTION TAKEN DURING ALL CONSTRUCTION.
- ALL DISTURBED AREAS ARE TO BE RE-SEEDING IN ACCORDANCE WITH THE APPROVED PLANS, LOCAL MUNICIPALITY, OR EXISTING CONDITIONS.
- CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE ANY EXISTING STREET, CURB AND GUTTER, SIDEWALK AND DRIVEWAYS.
- THE CONTRACTOR SHALL HAVE ON SITE A SET OF PLANS. THE CONTRACTOR SHALL HAVE ON THE PROJECT AT ALL TIMES, AS HIS AGENT, A COMPETENT SUPERINTENDENT CAPABLE OF READING AND THOROUGHLY UNDERSTANDING THE PLANS AND SPECIFICATIONS, THOROUGHLY EXPERIENCED IN THE TYPE OF WORK BEING PERFORMED, AND WHO SHALL RECEIVE INSTRUCTIONS FROM THE ENGINEER OR HIS AUTHORIZED REPRESENTATIVE.
- ALL TRENCHES, WHICH LIE UNDER PROPOSED PAVEMENT OR LIE WITHIN TWO FEET OF THE BACK OF CURB SHALL BE BACKFILLED TO PAVEMENT SUBGRADE WITH COMPACTED GRANULAR MATERIAL.
- MANHOLE COVERS, VALVE BOXES AND OTHER UTILITY APPURTENANCES SHALL NOT ENROACH ON SIDEWALKS, CURBS OR PAVEMENT. WHERE CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR INSTRUCTION PRIOR TO PROCEEDING.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY NEW MINES OR SINKHOLES ARE DISCOVERED DURING CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL METHODS, SEQUENCING, AND SAFETY CONCERNS ASSOCIATED WITH THIS PROJECT DURING CONSTRUCTION, UNLESS SPECIFICALLY ADDRESSED OTHERWISE IN THIS PLAN OR ELSEWHERE IN THE CONTRACT.
- THE QUANTITIES AND SITE CONDITIONS DEPICTED IN THESE PLANS ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE SUBJECT TO ERROR AND OMISSION. CONTRACTORS SHALL SATISFY THEMSELVES AS TO ACTUAL QUANTITIES AND SITE CONDITIONS PRIOR TO BIDDING THE WORK FOR THE CONSTRUCTION COVERED BY THIS PLAN.
- A REASONABLE EFFORT HAS BEEN MADE TO SHOW THE LOCATIONS OF EXISTING UNDERGROUND FACILITIES AND UTILITIES IN THE CONSTRUCTION AREA. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES AND/OR FACILITIES CAUSED DURING THEIR CONSTRUCTION OPERATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION OF CONSTRUCTION AFFECTING UTILITIES AND THE COORDINATION OF ANY NECESSARY UTILITY RELOCATION WORK.
- COORDINATION BETWEEN ALL PARTIES IS AN ESSENTIAL PART OF THE CONTRACT.

THIS SURVEY REFLECTS ABOVE GROUND INDICATIONS OF UTILITIES AND INFORMATION AVAILABLE FROM UTILITY COMPANIES. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED, ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

CONTRACTOR TO PROVIDE ALL APPLICABLE TEES, ELBOWS, FITTINGS, REDUCERS, ETC. NECESSARY TO CONSTRUCT DOWNSPOUT COLLECTION.



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70012-16 CKC-WAS
2-18-16
JOP-100-4065

REVISIONS:

MISSOURI STATE CERTIFICATE OF AUTHORITY #2010011493

STATE OF MISSOURI
WAYNE A. STEPHENSON
NUMBER
PE-2012018139

2-18-16
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REVISION SCHEDULE

C1-0 Crowder College Renovations
Grading and Downspout Pipe Plan

PROJECT NUMBER:
70012-16
DATE:
FEBRUARY 2016

600 W. EDWARDS PLACE
NEVADA, MO 64772
PROJECT ARCHITECT:
DRAWN BY:
CHECKED BY:

PROJECT DESCRIPTION:
Crowder College Renovations
Grading and Downspout Pipe Plan