

\\phelps-engineering.com\projects\220481\Draw\permit plans\DEMOC.dwg Layout:1 Aug 01, 2023 - 11:26am Dakota Bynum



Know what's below.  
Call before you dig.

UTILITY NOTES:  
VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN.  
UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR  
LESSORS, ARE APPROXIMATE AND SHOULD BE VERIFIED IN  
THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL  
FIELD LOCATIONS OF UNDERGROUND UTILITIES CALL 811.

**BENCHMARK:**  
BM #1 CUT N.W. CORNER CONCRETE PAD  
ELEVATION = 1022.60

**CONTROL POINTS:**  
CP #1 FND. 1/2" I.B. W/CAP #10  
ELEVATION = 1019.65  
CP #2 FND. 1/2" I.B. LC 52 #11  
ELEVATION = 1022.12  
CP #3 FND. 1/2" I.B. W/ CAP #9  
ELEVATION = 1020.74  
CP #4 + CUT TOP CURB MID CURVE  
ELEVATION = 1016.39

#### DEMOLITION NOTES:

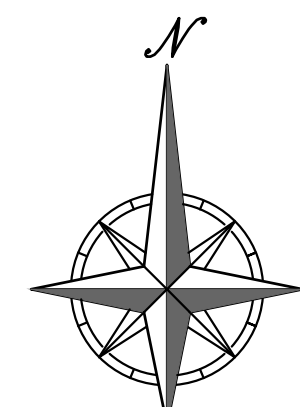
1. THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION, REMOVAL, AND DISPOSAL (IN A LOCATION APPROVED BY ALL GOVERNING AUTHORITIES) ALL CURBS, PARKING, DRIVES, DRAINAGE STRUCTURES, UTILITIES, ETC., SUCH THAT THE IMPROVEMENTS SHOWN ON THE REMAINING PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL.
2. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEBRIS FROM THE SITE AND DISPOSING THE DEBRIS IN A LAWFUL MANNER. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL.
3. DAMAGE TO ALL EXISTING CONDITIONS TO REMAIN WILL BE REPLACED AT CONTRACTOR'S EXPENSE.
4. CONTRACTOR MUST COORDINATE WITH OWNER PRIOR TO ANY CONSTRUCTION TO ESTABLISH CUSTOMER ACCESS AND TRAFFIC FLOW DURING ALL PHASES.
5. ALL TREE CLEARING MUST OCCUR BETWEEN NOVEMBER 1 TO MARCH 31 PER BAT HABITAT REGULATIONS.

#### DEMOLITION KEY NOTES:

- (A) REMOVE EXISTING CURB AND GUTTER.
- (B) REMOVE EXISTING TREE (TYPICAL).
- (C) CONTRACTOR TO RELOCATE EXISTING LIGHT POLE. EXISTING POLE FOUNDATION TO BE REMOVED. (SEE UTILITY PLAN).
- (D) REMOVE 240 L.F. EXISTING 8" PRIVATE WATER LINE (RE: UTILITY PLAN FOR RELOCATION).
- (E) REMOVE 319 L.F. EXISTING 4" PRIVATE WATER LINE (RE: UTILITY PLAN FOR RELOCATION).
- (F) REMOVE 25 L.F. EXISTING 4" PRIVATE WATER LINE (RE: UTILITY PLAN FOR RELOCATION).

#### LEGEND

— PL —	PROPERTY LINE
- - - LL - - -	LOT LINE
- - - R/W - - -	RIGHT-OF-WAY
~~~~~	REMOVE EXISTING CURB & GUTTER
[Blue Hatched Box]	EXISTING BUILDING TO BE REMOVED
[Cross Hatched Box]	EXISTING ASPHALT PAVEMENT TO BE REMOVED
[Diagonal Hatched Box]	EXISTING CONCRETE PAVEMENT/SIDEWALK TO BE REMOVED
[Dotted Box]	EXISTING GRAVEL TO BE REMOVED
[Tree with 'SAVE']	EXISTING TREE TO REMAIN
[Tree with 'X']	REMOVE TREE
— BT —	EXISTING BURIED TELEPHONE
— CATV —	EXISTING CABLE TELEVISION LINE
— FO —	EXISTING FIBER OPTIC LINE
— W —	EXISTING WATER LINE
— G —	EXISTING GAS LINE
— BE —	EXISTING BURIED ELECTRIC
— OHP —	EXISTING OVERHEAD POWER LINE
— SS —	EXISTING SANITARY SEWER
— S —	EXISTING STORM SEWER
[Hydrant Symbol]	EXISTING FIRE HYDRANT
[Light Pole Symbol]	EXISTING LIGHT POLE
— X — X —	EXISTING CHAIN LINK FENCE



SCALE: 1"=30'  
0' 30' 60'

PEI #220481

STATE OF MISSOURI  
MIKE PARSON,  
GOVERNOR

NOT FOR CONSTRUCTION

**GastingerWalker &**

Architects Interior Designers Construction Managers  
817 Wyandotte Kansas City Missouri 64105 816.421.8200 [gastingerwalker.com](mailto:gastingerwalker.com)  
Project Number: 2022.152



PLANNING  
ENGINEERING  
IMPLEMENTATION

**PHelps ENGINEERING, INC.**  
1200 N. Winchester  
Clathe, Kansas 66001  
City 313-399-1955  
Fax (913) 393-1166  
[www.phelpsengineering.com](http://www.phelpsengineering.com)

CERTIFICATE OF AUTHORIZATION  
KANSAS  
LAND SURVEYING - LS-82  
ENGINEERING - E-391

CERTIFICATE OF AUTHORIZATION  
MISSOURI  
LAND SURVEYING-2007001128  
ENGINEERING-2007005068

**OFFICE OF  
ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT,  
DESIGN AND  
CONSTRUCTION**

Project Name  
Troop A Headquarters,  
MSHP

1950 NE Independence Ave.  
Lee's Summit, MO 64086

PROJECT # R2219-01  
SITE # 6018  
FACILITY # 8136018019

REVISION:  
DATE:  
REVISION:  
DATE:  
REVISION:  
DATE: Bid Documents  
ISSUE DATE: 01 August 2023

CAD DWG FILE: C-100.dwg  
DRAWN BY: SNH  
CHECKED BY: DAF  
DESIGNED BY: JDC

SHEET TITLE:

EXISTING  
CONDITIONS /  
DEMOLITION PLAN

SHEET NUMBER:

**C-100**

SHEET \_005\_ OF \_202\_

08/01/2023





Know what's below.  
Call before you dig.

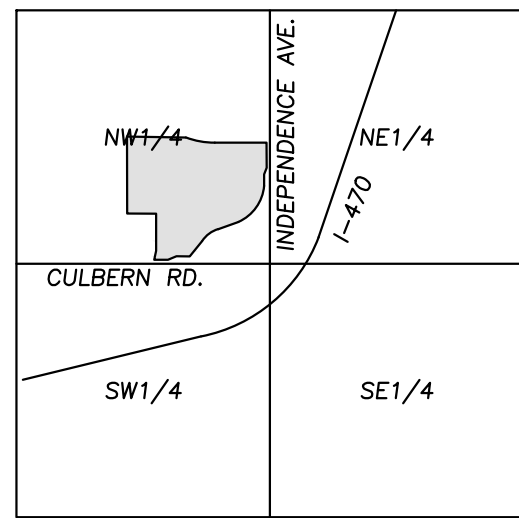
UTILITY NOTES:  
VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN.  
UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR  
LESSORS, ARE APPROXIMATE AND SHOULD BE VERIFIED IN  
THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL  
FIELD LOCATIONS OF UNDERGROUND UTILITIES CALL 811.

#### BUILDING & LOT DATA

Site Area	178,701 S.F./4.10 Ac.
Zoning	CP-2
Proposed Building No. of Stories	1 Story
Main Building S.F.	28,666 S.F.
Total Building S.F.	28,666 S.F.
Floor Area Ratio (FAR)	0.16

#### PARKING SUMMARY

Parking Provided - Lot X	
Standard Parking Provided	108 Spaces
Handicap Accessible Parking Spaces Provided	6 Spaces
Total Parking Provided	114 Spaces

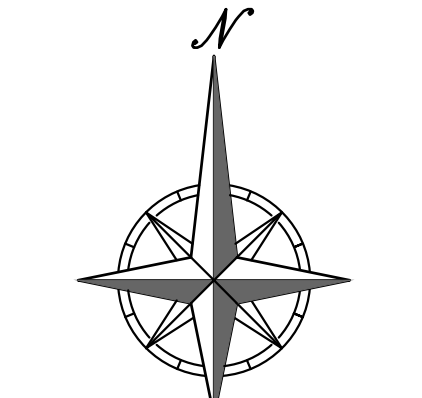


VICINITY MAP  
SEC. 19-48-31



#### LEGEND

PL	PROPERTY LINE
LL	LOT LINE
R/W	RIGHT-OF-WAY
2" CURB & GUTTER	
6" CURB	
STANDARD DUTY ASPHALT PAVEMENT	
HEAVY DUTY ASPHALT PAVEMENT	
PROPOSED BUILDING	
CONCRETE PAVEMENT	
CONCRETE SIDEWALK	
RETAINING WALL	
PARKING LOT LIGHT	



SCALE: 1"=30'  
PEI #220481

#### SITE PLAN NOTES:

- All construction materials and procedures on this project shall conform to the latest revision of the following governing requirements, incorporated herein by reference:  
A) City ordinances & O.S.H.A. Regulations.  
B) Project Specifications
- The contractor shall have one (1) signed copy of the plans (approved by the City) and one (1) copy of the appropriate Design and Construction Standards and Specifications at the job site at all times.
- The contractor will be responsible for securing all permits, bonds and insurance required by the contract documents, and all other governing agencies (including local, county, state and federal authorities) having jurisdiction over the work proposed by these construction documents. The cost for all permits, bonds and insurance shall be the contractors responsibility and shall be included in the bid for the work.
- The contractor is responsible for coordination of his and his sub-contractor's work. The contractor shall assume all responsibility for protecting and maintaining his work during the construction period and between the various trades/sub-contractors constructing the work.
- The demolition and removal(or relocation) of existing pavement, curbs, structures, utilities, and all other features necessary to construct the proposed improvements, shall be performed by the contractor. All waste material removed during construction shall be disposed off the project site. The contractor shall be responsible for all permits for hauling and disposing of waste material. The disposal of waste material shall be in accordance with all local, state and federal regulations.
- Contractor shall be responsible for all relocations, including but not limited to, all utilities, storm drainages, sanitary sewer services, signs, traffic signals & poles, etc. as required. All work shall be in accordance with governing authorities specifications and shall be approved by such. All cost shall be included in base bid.
- All existing utilities indicated on the drawings are according to the best information available to the Engineer; however, all utilities actually existing may not be shown. The contractor shall be responsible for contacting all utility companies for an exact field location of each utility prior to any construction. All underground utilities shall be protected at the contractor's expense. All utilities, shown and unshown, damaged through the negligence of the contractor shall be repaired or replaced by the contractor at his expense.
- The contractor will be responsible for all damage to existing utilities, pavement, fences, structures and other features not designated for removal. The contractor shall repair all damages at his expense.
- The contractor shall verify the flow lines of all existing storm or sanitary sewer connections and utility crossings prior to the start of construction. Notify the engineer of any discrepancies.
- SAFETY NOTICE TO CONTRACTOR:** In accordance with generally accepted construction practices, the contractor shall be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work. This requirement will apply continuously and not be limited to normal working hours. Any construction observation by the engineer of the contractor's performance is not intended to include review of the adequacy of the contractor's safety measures, in, on or near the construction site.
- All site concrete (curbs, pavements, sidewalks, etc.) shall meet Kansas City Materials Metro Board (KMMB) mix design specifications for 4,000 p.s.i. air entrained concrete. APWA detail references are provided for all geometrical and other design information.
- Refer to the building plans for site lighting electrical requirements, including conduits, pole boxes, pull boxes, etc.

#### SITE DIMENSION NOTES:

- BUILDING TIES SHOWN ARE TO THE OUTSIDE FACE OF PROPOSED WALLS. THE SUBCONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR SPECIFIC DIMENSIONS AND LAYOUT INFORMATION FOR THE BUILDINGS.
- ALL DIMENSIONS SHOWN FOR THE PARKING LOT AND CURBS ARE MEASURED FROM BACK OF CURB TO BACK OF CURB.

#### PAVEMENT MARKING AND SIGNAGE NOTES:

- PARKING STALL MARKING STRIPES SHALL BE FOUR INCH (4") WIDE WHITE STRIPES. DIRECTIONAL ARROW AND HANDICAP STALL MARKINGS SHALL BE FURNISHED AT LOCATIONS SHOWN ON PLANS.
- HANDICAP PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO ALL FEDERAL (AMERICANS WITH DISABILITIES ACT) AND STATE LAWS AND REGULATIONS.
- TRAFFIC CONTROL DEVICES AND PAVEMENT MARKINGS SHALL CONFORM TO THE REQUIREMENTS OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".
- STOP SIGNS SHALL BE PROVIDED AT ALL LOCATIONS AS SHOWN ON PLANS AND SHALL CONFORM TO THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES". SIGNS SHALL BE 18" X 12", 18 GAUGE STEEL AND SHALL BE ENGINEER GRADE REFLECTIVE.
- TRAFFIC CONTROL AND PAVEMENT MARKINGS SHALL BE PAINTED WITH A WHITE SHERWIN WILLIAMS S-W TRAFFIC MARKING SERIES B-29Y2 OR APPROVED EQUAL. THE PAVEMENT MARKING SHALL BE APPLIED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. APPLY ON A CLEAN, DRY SURFACE AND AT A SURFACE TEMPERATURE OF NOT LESS THAN 70°F AND THE AMBIENT AIR TEMPERATURE SHALL NOT BE LESS THAN 60°F AND RISING. TWO COATS SHALL BE APPLIED.

#### SITE KEY NOTES:

- CONSTRUCT 2' CONCRETE & CURB & GUTTER (TYPICAL) (RE: DETAIL #4, SHEET C-800).
- CONSTRUCT 6" CONCRETE CURB (TYPICAL) .
- CONSTRUCT CONCRETE SIDEWALK (TYPICAL) (RE: DETAIL #4, SHEET C-800).
- CONSTRUCT ACCESSIBLE PARKING SPACE. INSTALL MARKINGS PER STANDARD DETAIL, AND CONCRETE WHEEL STOPS (RE: DETAIL #4, SHEET C-801).
- INSTALL ACCESSIBLE PARKING SIGN (RE: DETAILS #1-#2, SHEET C-801).
- INSTALL VAN ACCESSIBLE PARKING SIGN (RE: DETAILS #1-#2, SHEET C-801).
- INSTALL TILT UP CONCRETE TRASH ENCLOSURE (RE: ARCHITECT PLANS).
- INSTALL DIRECTIONAL ROAD MARKINGS (RE: DETAIL #2, SHEET C-803).
- INSTALL FLAG POLE (RE: ARCHITECT PLANS).
- INSTALL BOLLARDS (RE: ARCHITECT PLANS).
- INSTALL 6' GALVANIZED CHAIN LINK FENCE AROUND CAR IMPOUND AREA (RE: ARCHITECT PLANS).
- INSTALL STOP SIGN, 10 L.F. SOLID WHITE 24" STOP BAR & 23 L.F. 6" SOLID WHITE LINE. (RE: DETAIL #2, SHEET C-803).
- CONSTRUCT RETAINING WALL (W/ HANDRAIL AT ANY LOCATION WALL EXCEEDS 30" IN HEIGHT) (RE: DETAIL #1, SHEET C-802).
- CONSTRUCT CONCRETE ENTRANCE (RE: DETAIL #3, SHEET C-800).
- PARKING LOT LIGHT POLE (RE: SITE LIGHTING PLANS).
- INSTALL MONUMENT SIGN (RE: ARCH PLANS) (RE: MEP PLANS FOR CONDUIT REQUIREMENTS).
- MECHANICAL EQUIPMENT YARD (RE: MEP PLANS).
- CONSTRUCT PRIVATE SIDEWALK RAMP (RE: DETAIL #3, SHEET C-801).
- INSTALL 6" SOLID WHITE PAINTED CROSSWALK.
- CAR IMPOUND AREA (RE: ARCH PLANS).
- INSTALL CONCRETE STEPS WITH HANDRAILS ON BOTH SIDES AND CONCRETE CHECK WALL (RE: DETAIL #1, SHEET C-803).

STATE OF MISSOURI  
MIKE PARSON,  
GOVERNOR

NOT FOR CONSTRUCTION

GastingerWalker &

Architects Interior Designers Construction Managers  
817 Wyandotte Kansas City Missouri 64105 816.421.8200 gastingerwalker.com  
Project Number: 2022.152



PLANNING  
ENGINEERING  
IMPLEMENTATION  
PHELPS ENGINEERING, INC.  
1320 N. Winchester  
Clerks, Kansas 66001  
(913) 393-1955  
Fax (913) 393-1956  
www.phelpsengineering.com

CERTIFICATE OF AUTHORIZATION  
KANSAS  
LAND SURVEYING - LS-82  
ENGINEERING - E-391

CERTIFICATE OF AUTHORIZATION  
MISSOURI  
LAND SURVEYING-2007001128  
ENGINEERING-2007005068

OFFICE OF  
ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT,  
DESIGN AND  
CONSTRUCTION

Project Name  
Troop A Headquarters,  
MSHP

1950 NE Independence Ave.  
Lee's Summit, MO 64086

PROJECT # R2219-01  
SITE # 6018  
FACILITY # 8136018019

REVISION:  
DATE:  
REVISION:  
DATE:  
REVISION:  
DATE: Bid Documents  
ISSUE DATE: 01 August 2023

CAD DWG FILE: C-200.dwg  
DRAWN BY: SNH  
CHECKED BY: DAF  
DESIGNED BY: JDC

SHEET TITLE:

OVERALL  
SITE  
PLAN

SHEET NUMBER:

C-200  
SHEET 006 OF 202  
08/01/2023





Know what's below.  
Call before you dig.

UTILITY NOTES:  
VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN.  
UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR  
LESSORS, ARE APPROXIMATE AND SHOULD BE VERIFIED IN  
THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL  
FIELD LOCATIONS OF UNDERGROUND UTILITIES CALL 811.

#### FLOOD NOTE:

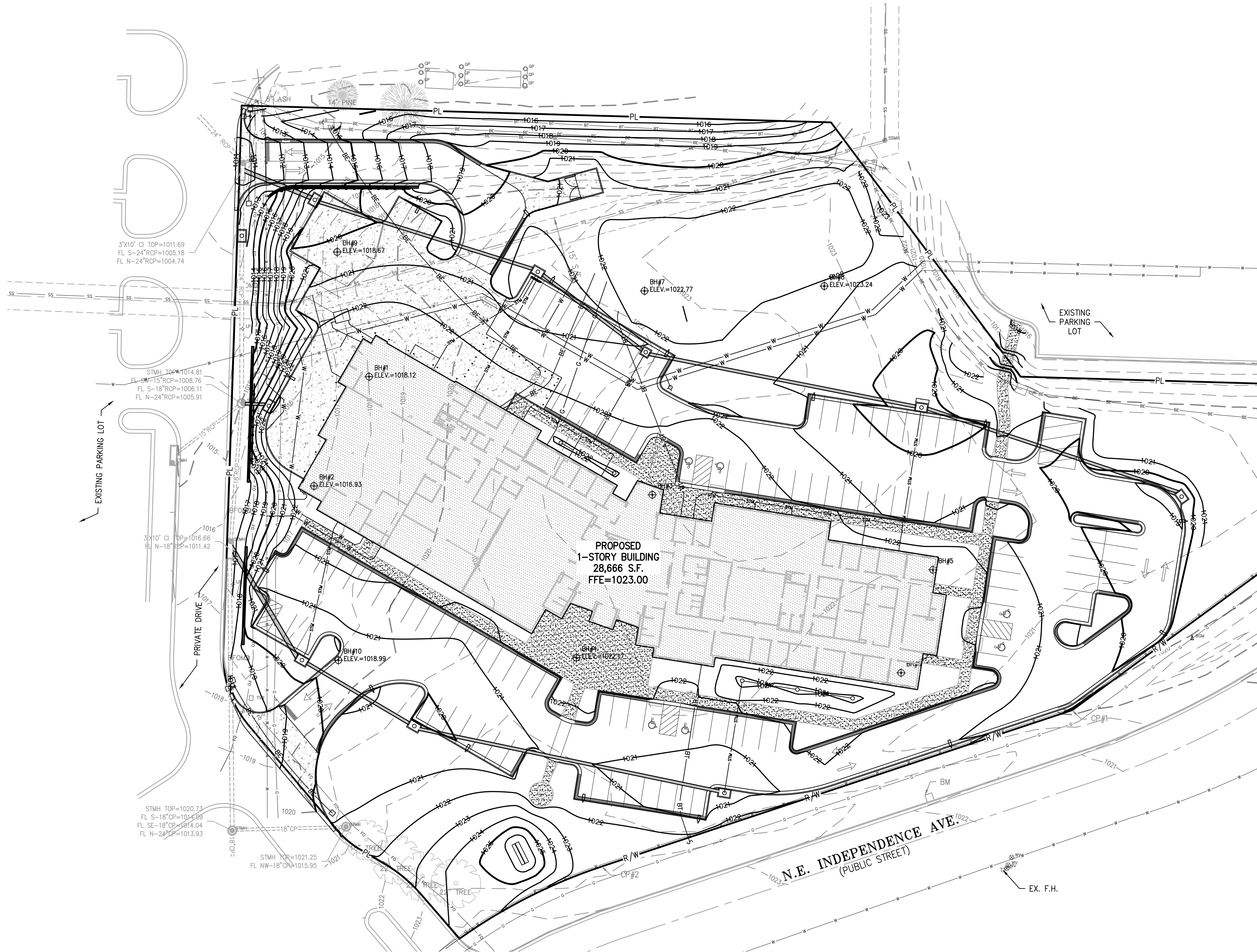
THIS PROPERTY LIES WITHIN ZONE X, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL  
CHANCE FLOODPLAIN, AS SHOWN ON THE FLOOD INSURANCE RATE MAP PREPARED BY THE FEDERAL  
EMERGENCY MANAGEMENT AGENCY FOR THE CITY OF LEE'S SUMMIT, COMMUNITY NO. 290174, JACKSON  
COUNTY, MISSOURI, MAP NO. 29095C0430G, AND DATED JANUARY 20, 2017.

#### BENCHMARK:

BM #1 CUT N.W. CORNER CONCRETE PAD  
ELEVATION = 1022.60

#### CONTROL POINTS:

CP #1 FND. 1/2" L.B. W/CAP #10  
ELEVATION = 1019.65  
CP #2 FND. 1/2" L.B. L.C. 52 #11  
ELEVATION = 1022.12  
CP #3 FND. 1/2" L.B. W/ CAP #9  
ELEVATION = 1020.74  
CP #4 + CUT TOP CURB MID CURVE  
ELEVATION = 1016.39



#### SITE GRADING NOTES:

- CONTOURS AND ELEVATIONS: Existing and proposed contours are shown on plans at one foot (1') contour intervals, unless otherwise noted, proposed contours and elevations shown represent approximate finish grade. Contractor shall hold down subgrades to allow for pavement and sub-base thicknesses.
- If the contractor does not accept existing topography as shown on the plans, without exception, he shall have made at his expense, a topographic survey by a registered land surveyor and submit it to the owner for review.
- CLEARING AND GRUBBING: Prior to beginning preparation of subgrade, all areas under pavements or building shall be stripped of all topsoil, vegetation, large rock fragments (greater than 6 inches in any dimension) and any other deleterious material. The actual stripping depth should be based on visual examination during construction and the results of proof-rolling operations. The root systems of all trees (not designated to remain) shall be removed in their entirety. Stripping materials shall not be incorporated into structural fills.
- TOPSOIL STRIPPING: Prior to the start of site grading, the contractor shall strip all topsoil from areas to be graded, and stockpiled at a location on or adjacent to the site as directed by the owner. At completion of grading operations and related construction, the contractor will be responsible for redistribution of topsoil over all areas disturbed by the construction activities. Topsoil shall be placed to a minimum depth of six inches (6") and in accordance with specifications for landscaping. At that time, and prior to the installation of landscaping or irrigation, all topsoil graded areas shall be visually inspected and accepted by the owner and ITL.
- Contractor shall adjust and/or cut existing pavement as necessary to assure a smooth fit and continuous grade. Contractor shall assure positive drainage away from buildings for all natural and paved areas.
- SUBGRADE PREPARATION: Prior to placement of new fill material, the existing subgrade shall be proofrolled and approved under the direction of the Geotechnical Engineer or his representative.
- PROOFROLLING: Subsequent to completion of stripping and over-excavation, all building and pavement areas to receive engineered fill should be systematically proof-rolled using a tandem axle dump truck loaded to approximately 20,000 pounds per axle. Also, any finished subgrade areas to receive paving shall be proof-rolled within 48 hours of paving. Unstable soils that are detected and that can not be recompacted should be over-excavated and replaced with controlled structural fill.
- EARTHWORK:
  - GEOTECHNICAL: All earthwork shall conform to the recommendations of the Geotechnical report. Said report and its recommendations are herein incorporated into the project requirements by reference. Prior to beginning construction, the contractor shall obtain a copy of and become familiar with the geotechnical report. Unless specifically noted on the plans, the recommendations in the geotechnical report are hereby incorporated into the project requirements and specifications.
  - SURFACE WATER: Surface water shall be intercepted and diverted during the placement of fill.
  - FILLS: All fills shall be considered controlled or structural fill and shall be free of vegetation, organic matter, topsoil and debris. In areas where the thickness of the engineered fill is greater than five, feet building and pavement construction should not commence until so authorized by the on-site geotechnical engineer to allow for consolidation.
  - BUILDING SUBGRADE: As specified in the Geotechnical Engineering Report, the upper section of building subgrade shall consist of Low Volume Change (LVC) material defined as approved, compacted granular fill or low to moderate plasticity cohesive soil materials stabilized with Class C Flyash. Granular fill shall consist of compacted granular materials with a maximum particle size of two (2) inches or less, such as limestone screenings. Refer to geotechnical report for complete requirements.
  - EXISTING SLOPES: Where fill material is to be placed on existing slopes greater than 5:1 (horizontal to vertical), existing slope shall be benched providing a minimum vertical face of twelve inches (12"). The benches should be cut wide enough to accommodate the compaction equipment. Fill material shall be placed and compacted in horizontal lifts not exceeding nine inches (9") (loose lift measurement), unless otherwise approved by the Geotechnical Engineer.
  - COMPACTION REQUIREMENTS: The upper 9 inches of pavement subgrade areas shall be compacted to a minimum density of ninety five percent (95%) of the material's maximum dry density as determined by ASTM D698 (standard proctor compaction). The moisture content at the time of placement and compaction shall within a range of 0% below to 4% above optimum moisture content as defined by the standard proctor compaction procedure. The moisture contents shall be maintained within this range until completion of the work. Where compaction of earth fill by a large roller is impractical or undesirable, the earth fill shall be hand compacted with small vibrating rollers or mechanical tampers.
- All cut or fill slopes shall be 3:1 or flatter. All asphalt parking areas shall be a minimum of 1% slope but not more than 5% slope unless otherwise noted. All pavements within ADA parking areas shall not exceed 2% total slope. All grades around building shall be held down 6" from finish floor and slope away another 6" in 10 feet. Contractor shall notify engineer prior to final subgrade construction of any areas not within this slope requirement.
- TESTING AND INSPECTION: Owner's Independent Testing Laboratory (ITL) shall make tests of earthwork during construction and observe the placement of fills and other work performed on this project to verify that work has been completed in accordance with Geotechnical Engineering Report, Project Specifications and within industry standards. The ITL will be selected by the owner and the cost of testing will be the owner's responsibility.
- CLASSIFICATION: All excavation shall be considered unclassified. No separate or additional payments shall be made for rock excavation.
- PERMANENT RESTORATION: All areas disturbed by earthwork operations shall be sodded, unless shown otherwise by the landscaping plan or erosion control plan.
- UTILITIES: The contractor is specifically cautioned that the location and/or elevation of existing utilities as shown on these plans is based on records of the various utility companies, and where possible, measurements taken in the field. The information is not to be relied on as being exact or complete. The contractor must call the appropriate utility companies at least 48 hours before any excavation to request exact field location of utilities. It shall be the responsibility of the contractor to relocate all existing utilities which conflict with the proposed improvements shown on the plans.
- LAND DISTURBANCE: The contractor shall adhere to all terms & conditions as outlined in the EPA or applicable state N.P.D.E.S. permit for storm water discharge associated with construction activities. Refer to project S.W.P.P.P. requirements.

Earthwork Summary		
Troop A		
5/30/2023		
Raw Excavation	2,880 Cu. Yds.	
In Place Compaction (+15%)	-6,738 Cu. Yds.	
Building Adjustment	2,569 Cu. Yds.	(assume 24" of additional excavation)
Pavement Adjustment	2,452 Cu. Yds.	(assume 12" of additional excavation)
On Site Net	1,162 Cu. Yds.	

\* EARTHWORK COMPUTATIONS BY PHELPS ENGINEERING, INC. ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY AND SHALL BE VERIFIED BY CONTRACTORS BY THEIR CHOSEN METHOD PRIOR TO PLACING BID. ALL EARTHWORK SHALL BE CONSIDERED UNCLASSIFIED. 15% WAS ADDED INTO RAW FILL QUANTITY TO ACCOUNT FOR SHRINKAGE.

#### LEGEND

- PL PROPERTY LINE
- LL LOT LINE
- R/W RIGHT-OF-WAY
- 2' CURB & GUTTER
- EXISTING CONTOURS
- PROPOSED CONTOURS
- PROPOSED SPOT ELEVATION
- LG LIP OF GUTTER
- TC TOP OF CURB
- SW SIDEWALK
- ME MATCH EXISTING
- HP HIGH POINT
- LP LOW POINT
- P TOP OF PAVEMENT
- TE TOP OF STRUCTURE
- GR GROUND ELEVATION
- BS BOTTOM OF STEPS
- TS TOP OF STEPS
- BW BOTTOM OF WALL
- TW TOP OF WALL
- EXISTING STORM SEWER
- PROPOSED STORM PIPE
- PROPOSED WET CURB & GUTTER
- PROPOSED DRY CURB & GUTTER
- PROPOSED RETAINING WALL



SCALE: 1"=30'  
0' 30' 60'

PEI #220481

STATE OF MISSOURI  
MIKE PARSON,  
GOVERNOR

GastingerWalker &



CERTIFICATE OF AUTHORIZATION  
KANSAS  
LAND SURVEYING - LS-82  
ENGINEERING - E-391

PHELPS ENGINEERING, INC.  
1700 N. Winchester  
Olathe, Kansas 66061  
CPO 303-995  
Fax (913) 393-1066  
www.phelpsengineering.com

OFFICE OF  
ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT,  
DESIGN AND  
CONSTRUCTION

Project Name  
Troop A Headquarters,  
MSHP

1950 NE Independence Ave.  
Lee's Summit, MO 64086

PROJECT # R2219-01  
SITE # 6018  
FACILITY # 8136018019

REVISION:  
DATE:  
REVISION:  
DATE:  
REVISION:  
DATE: Bid Documents  
ISSUE DATE: 01 August 2023

CAD DWG FILE: C-300.dwg  
DRAWN BY: SNH  
CHECKED BY: DAF  
DESIGNED BY: JDC

SHEET TITLE:

OVERALL  
GRADING  
PLAN

SHEET NUMBER:

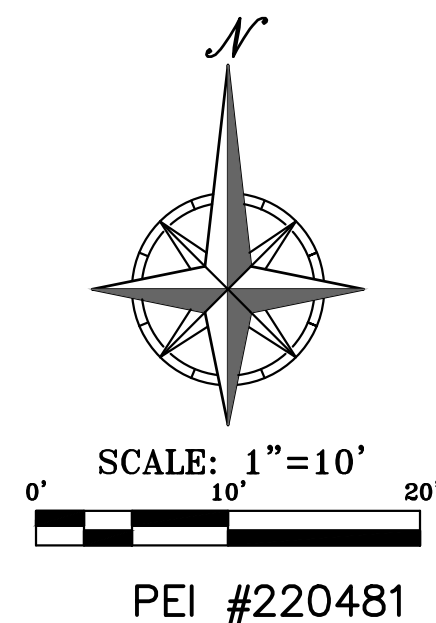
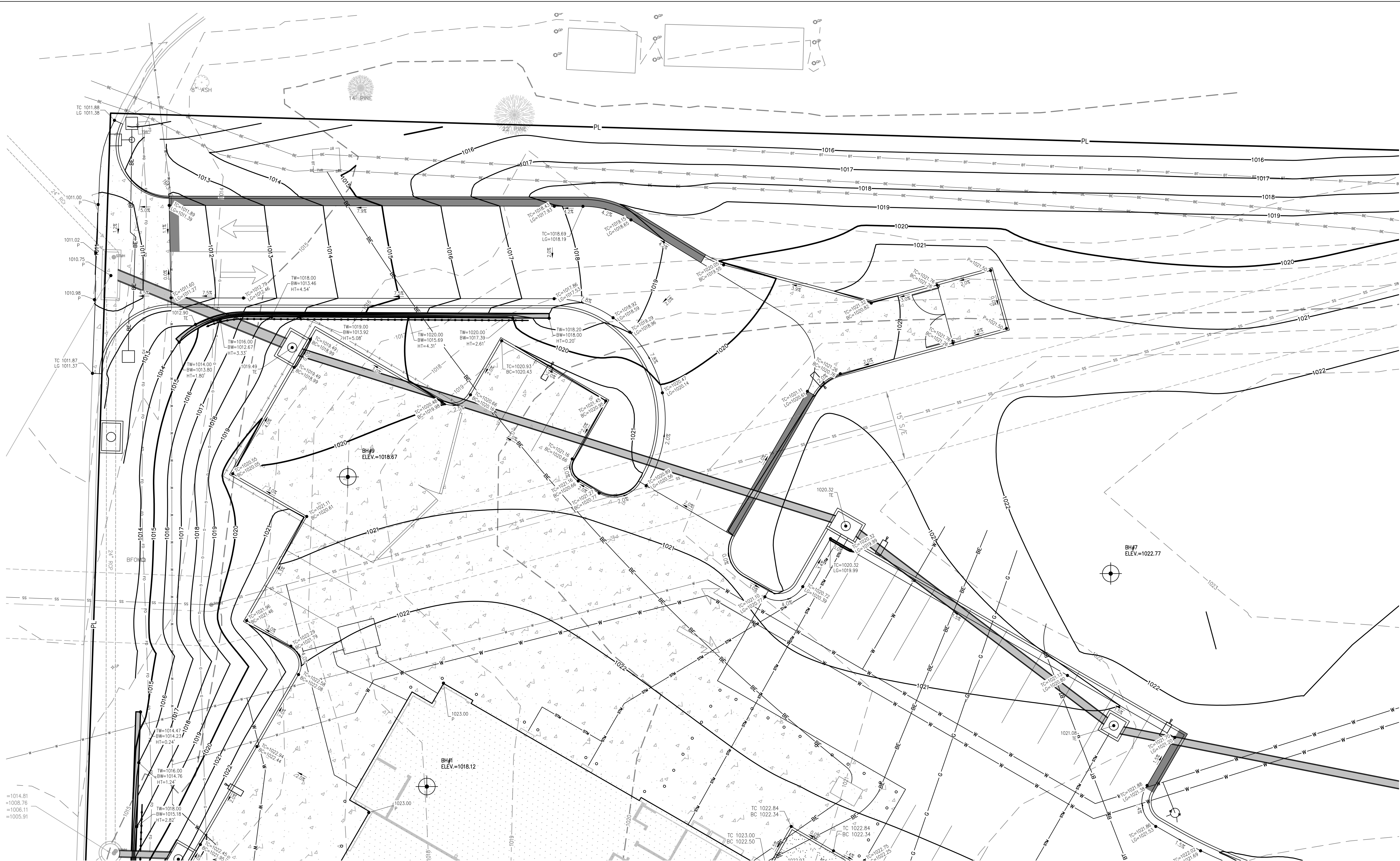
C-300

SHEET 007 OF 202

08/01/2023



\\phelps-server\projects\p\220481\dwg\permit plans\GRAVING.dwg Layout:1 Aug 01, 2023 -- 11:26am Dakota Bynum



STATE OF MISSOURI  
MIKE PARSON,  
GOVERNOR

NOT FOR CONSTRUCTION

GastingerWalker &

Architects Interior Designers Construction Managers  
817 Wyandotte Kansas City Missouri 64105 816.421.8200 gastingerwalker.com  
Project Number: 2022.152



PHELPS ENGINEERING, INC.  
1320 N. Winchester  
Olathe, Kansas 66061  
Cell (913) 393-1955  
Fax (913) 393-1956  
www.phelpsengineering.com

CERTIFICATE OF AUTHORIZATION  
KANSAS  
LAND SURVEYING - LS-82  
ENGINEERING - E-391

CERTIFICATE OF AUTHORIZATION  
MISSOURI  
LAND SURVEYING-2007001128  
ENGINEERING-2007005068

OFFICE OF  
ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT,  
DESIGN AND  
CONSTRUCTION

Project Name  
Troop A Headquarters,  
MSHP

1950 NE Independence Ave.  
Lee's Summit, MO 64086

PROJECT # R2219-01  
SITE # 6018  
FACILITY # 8136018019

REVISION:  
DATE:  
REVISION:  
DATE:  
REVISION:  
DATE: Bid Documents  
ISSUE DATE: 01 August 2023

CAD DWG FILE: C-301.dwg  
DRAWN BY: SNH  
CHECKED BY: DAF  
DESIGNED BY: JDC

SHEET TITLE:

ENLARGED  
GRADING  
PLAN

SHEET NUMBER:

C-301

SHEET 008 OF 202

08/01/2023



Architects | Interior Designers | Construction Managers  
817 Wyandotte Kansas City Missouri 64105 816.421.8200 [gastingerwalker.com](mailto:gastingerwalker.com)  
Project Number: 2022.152



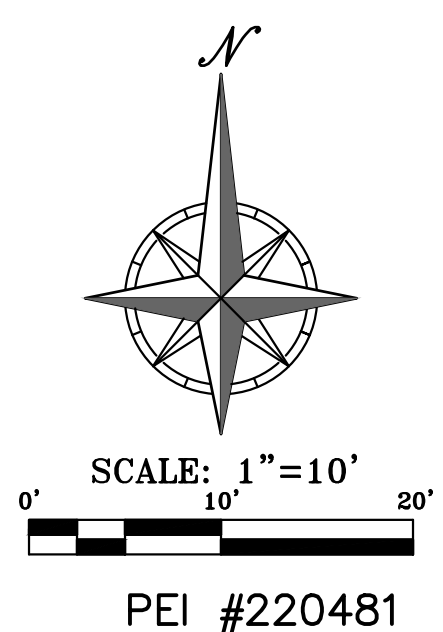
**OFFICE OF  
ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT,  
DESIGN AND  
CONSTRUCTION**

1950 NE Independence Ave.  
Lee's Summit, MO 64086

REVISION:  
DATE:  
REVISION:  
DATE:  
REVISION:  
DATE: Bid Documents  
ISSUE DATE: 01 August 2023

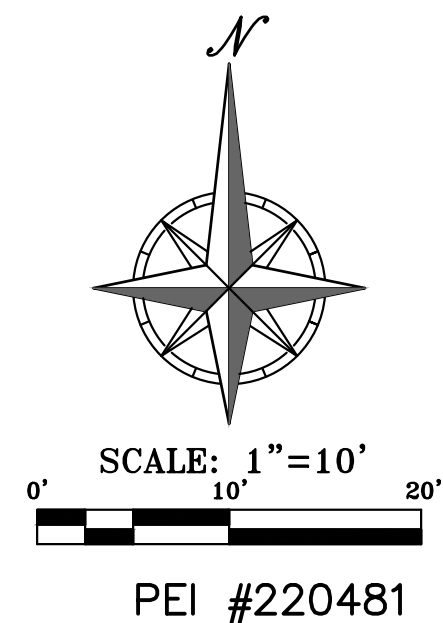
# ENLARGED GRADING PLAN

C-302  
SHEET 009 OF 202  
08/01/2023





\\phelps-servers\projects\p\220481\dwg\permit plans\GRAVING.dwg Layout:3 Aug 01, 2023 - 11:26am Dakota Byrum



STATE OF MISSOURI  
MIKE PARSON,  
GOVERNOR

NOT FOR CONSTRUCTION

GastingerWalker &

Architects | Interior Designers | Construction Managers  
817 Wyandotte Kansas City Missouri 64105 816.421.8200 [gastingerwalker.com](http://gastingerwalker.com)  
Project Number: 2022.152



PLANNING  
ENGINEERING  
IMPLEMENTATION

PHILIPS ENGINEERING, INC.  
1370 N. Winchester  
Olathe, Kansas 66061  
(913) 399-1955  
Fax: (913) 399-1956  
[www.philipsengineering.com](http://www.philipsengineering.com)

CERTIFICATE OF AUTHORIZATION  
KANSAS  
LAND SURVEYING - LS-82  
ENGINEERING - E-391

CERTIFICATE OF AUTHORIZATION  
MISSOURI  
LAND SURVEYING-2007001128  
ENGINEERING-2007005026

OFFICE OF  
ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT,  
DESIGN AND  
CONSTRUCTION

Project Name  
Troop A Headquarters,  
MSHP

1950 NE Independence Ave.  
Lee's Summit, MO 64086

PROJECT # R2219-01  
SITE # 6018  
FACILITY # 8136018019

REVISION:  
DATE:  
REVISION:  
DATE:  
REVISION:  
DATE: Bid Documents  
ISSUE DATE: 01 August 2023

CAD DWG FILE: C-303.dwg  
DRAWN BY: SNH  
CHECKED BY: DAF  
DESIGNED BY: JDC

SHEET TITLE:

ENLARGED  
GRADING  
PLAN

SHEET NUMBER:

C-303

SHEET 010 OF 202

08/01/2023



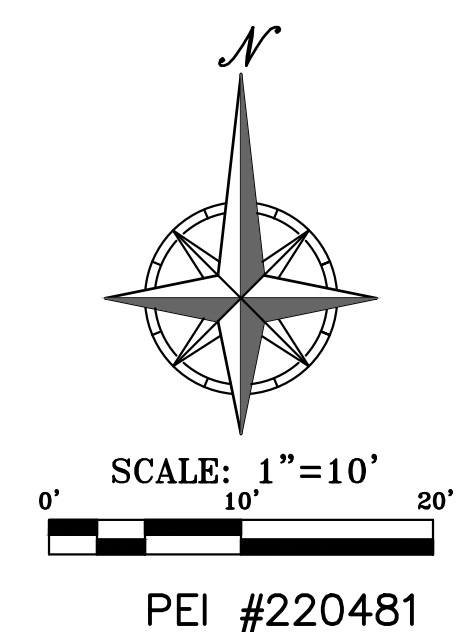
**NOT FOR CONSTRUCTION**

Architects | Interior Designers | Construction Managers  
817 Wyandotte Kansas City Missouri 64105 816.421.8200 gastingenwalker.com  
Project Number: 2022.152



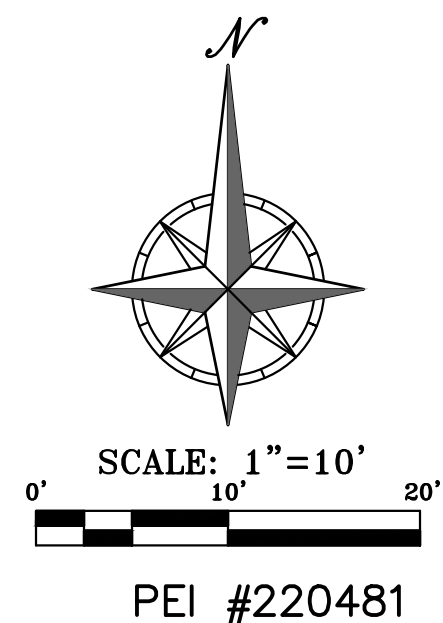
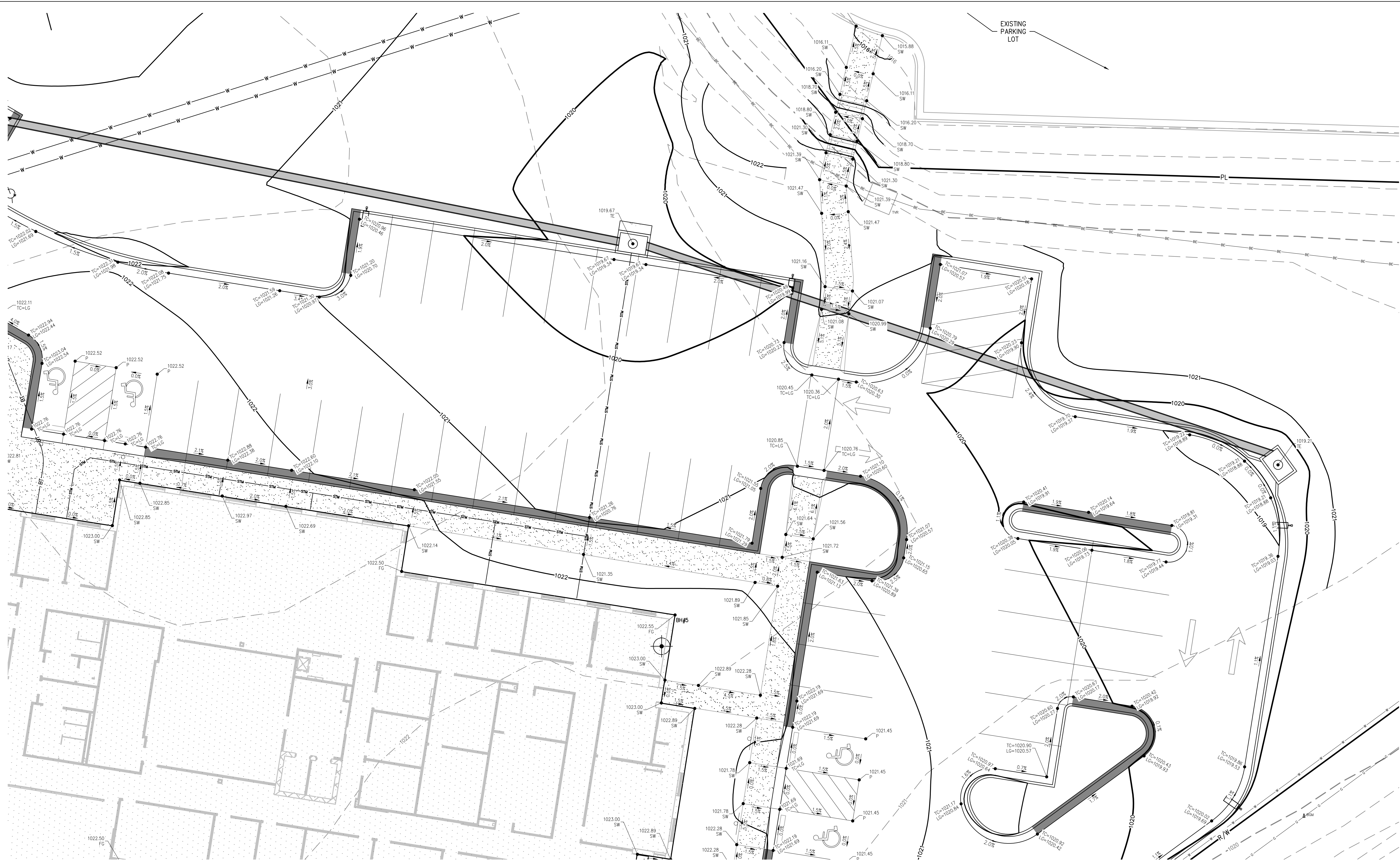
CERTIFICATE OF AUTHORIZATION  
KANSAS  
LAND SURVEYING - LS-82  
ENGINEERING - E-391

C-304  
SHEET 011 OF 202  
08/01/2023





\\phelps-engineering.com\projects\220481\dwg\permit plans\GRAVING.dwg Layout:5 Aug 01, 2023 - 11:27am Dakota Bynum



STATE OF MISSOURI  
MIKE PARSON,  
GOVERNOR

NOT FOR CONSTRUCTION

**GastingerWalker &**

Architects Interior Designers Construction Managers  
817 Wyandotte Kansas City Missouri 64105 816.421.8200 [gastingerwalker.com](mailto:gastingerwalker.com)  
Project Number: 2022.152



PLANNING  
ENGINEERING  
IMPLEMENTATION

PHILIPS ENGINEERING, INC.  
1320 N. Winchester  
Clermont, Kansas 66001  
City 913.393.1152  
Fax 913.393.1156  
[www.philipsengineering.com](http://www.philipsengineering.com)

CERTIFICATE OF AUTHORIZATION  
KANSAS  
LAND SURVEYING - LS-82  
ENGINEERING - E-391

CERTIFICATE OF AUTHORIZATION  
MISSOURI  
LAND SURVEYING-2007001128  
ENGINEERING-2007005068

OFFICE OF  
ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT,  
DESIGN AND  
CONSTRUCTION

Project Name  
Troop A Headquarters,  
MSHP

1950 NE Independence Ave.  
Lee's Summit, MO 64086

PROJECT # R2219-01  
SITE # 6018  
FACILITY # 8136018019

REVISION:  
DATE:  
REVISION:  
DATE:  
REVISION:  
DATE: Bid Documents  
ISSUE DATE: 01 August 2023

CAD DWG FILE: C-305.dwg  
DRAWN BY: SNH  
CHECKED BY: DAF  
DESIGNED BY: JDC

SHEET TITLE:

ENLARGED  
GRADING  
PLAN

SHEET NUMBER:

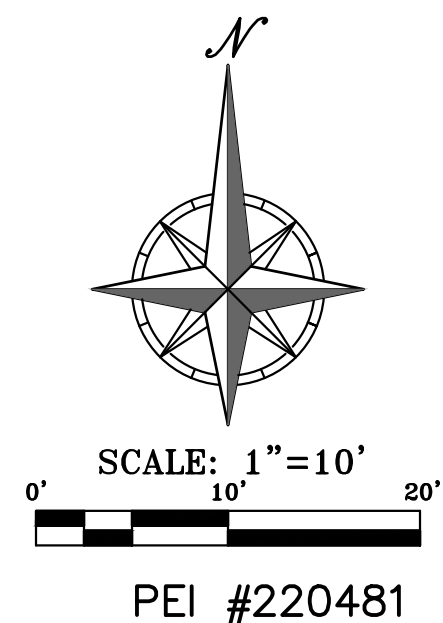
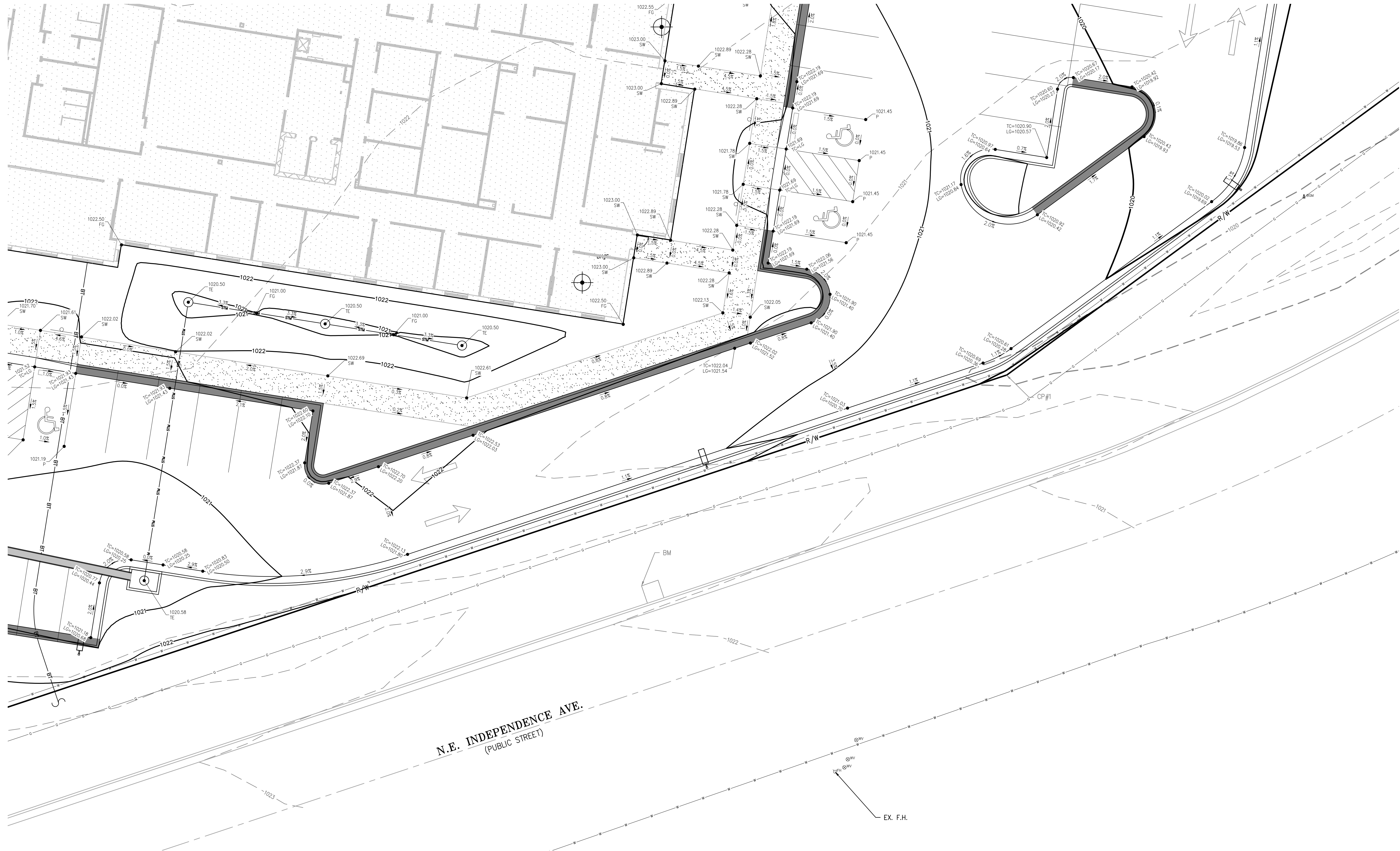
**C-305**

SHEET 012 OF 202

08/01/2023



\\phelps-server\projects\p\220481\dwg\permit plans\GRADING.dwg Layout:6 Aug 01, 2023 - 11:27am Dakota Bynum



STATE OF MISSOURI  
MIKE PARSON,  
GOVERNOR

NOT FOR CONSTRUCTION

GastingerWalker &

Architects Interior Designers Construction Managers  
817 Wyandotte Kansas City Missouri 64105 816.421.8200 gastingerwalker.com  
Project Number: 2022.152



PHILIPS ENGINEERING, INC.  
1200 N. Winchester  
Olathe, Kansas 66061  
City 313-393-1155  
Fax (913) 393-1155  
www.phelpsengineering.com

CERTIFICATE OF AUTHORIZATION  
KANSAS  
LAND SURVEYING - LS-82  
ENGINEERING - E-391

CERTIFICATE OF AUTHORIZATION  
MISSOURI  
LAND SURVEYING-2007001128  
ENGINEERING-2007005068

OFFICE OF  
ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT,  
DESIGN AND  
CONSTRUCTION

Project Name  
Troop A Headquarters,  
MSHP

1950 NE Independence Ave.  
Lee's Summit, MO 64086

PROJECT # R2219-01  
SITE # 6018  
FACILITY # 8136018019

REVISION:  
DATE:  
REVISION:  
DATE:  
REVISION:  
DATE: Bid Documents  
ISSUE DATE: 01 August 2023

CAD DWG FILE: C-306.dwg  
DRAWN BY: SNH  
CHECKED BY: DAF  
DESIGNED BY: JDC

SHEET TITLE:

ENLARGED  
GRADING  
PLAN

SHEET NUMBER:

C-306

SHEET 013 OF 202

08/01/2023

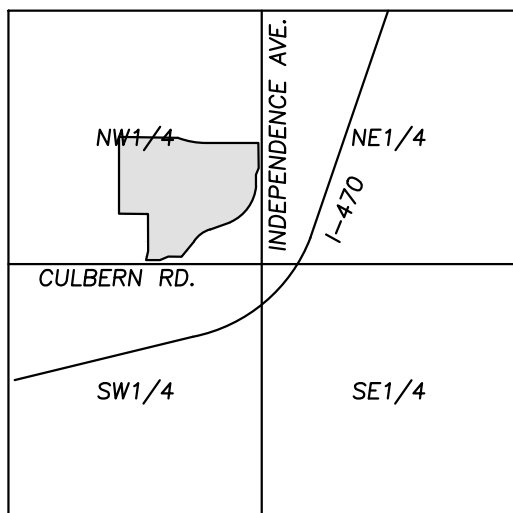


\\phelps-server\projects\PEI\220481\DWG\Permit\plans\UTILITY.dwg Layout:1 Aug 01, 2023 11:27am Dakota Bynum



Know what's below.  
Call before you dig.

UTILITY NOTES:  
VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN.  
UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR LESSORS, ARE APPROXIMATE AND SHOULD BE VERIFIED IN THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL FIELD LOCATIONS OF UNDERGROUND UTILITIES CALL 811.



VICINITY MAP  
SEC. 19-48-31



#### UTILITY COMPANIES:

MISSOURI GAS ENERGY LUCAS WALLS (LUCAS.WALLS@MGE.COM) 3025 SOUTHEAST CLOVER DRIVE LEE'S SUMMIT, MO 64082	(816) 969-2218
ENERGY PHILLIP INGRAM (PHILLIP.INGRAM@CPL.COM) RON DEJARNETTE (RON.DEJARNETTE@CPL.COM) 1300 HAMBLEN ROAD LEE'S SUMMIT, MO 64081	(816) 347-4339 (816) 347-4316
STORM SEWER (PUBLIC WORKS DEPARTMENT) 220 SE GREEN STREET LEE'S SUMMIT, MO 64063	(816) 969-1800
SANITARY SEWER & WATER (WATER UTILITIES DEPT.) 1200 SE HAMBLEN ROAD LEE'S SUMMIT, MO 64081	(816)-969-1900
AT&T (913) 383-4929 MR. CLAYTON ANSPAUGH (CA4089@ATT.COM) 9444 NALL AVENUE OVERLAND PARK, KANSAS 66207	(913) 383-4849-FAX

#### LEGEND

— PL —	PROPERTY LINE
— LL —	LOT LINE
— R/W —	RIGHT-OF-WAY
— CATV —	EXISTING CABLE TELEVISION LINE
— FO —	EXISTING FIBER OPTIC LINE
— G —	EXISTING GAS LINE
— BE —	EXISTING BURIED ELECTRIC LINE
— OHT —	EXISTING OVERHEAD POWER LINE
— SS —	EXISTING SANITARY SEWER LINE
— 18" DPE —	EXISTING STORM SEWER LINE (& SIZE)
— BT —	EXISTING BURIED TELEPHONE LINE
— W —	EXISTING WATER LINE (& SIZE)
— G —	PROPOSED GAS LINE
— BE —	PROPOSED BURIED ELECTRIC LINE
— SS —	PROPOSED SANITARY SEWER LINE
— BT —	PROPOSED STORM SEWER LINE (& SIZE)
— W — 6" —	PROPOSED BURIED TELEPHONE LINE
— ST — 6" —	PROPOSED WATER LINE (& SIZE)
— ST — 6" —	PROPOSED ROOF DRAIN (& SIZE)

EX. 8" PRIVATE FIRE LINE AND 4" PRIVATE WATER LINE  
PER MISSOURI HIGHWAY AND TRANSPORTATION  
COMMISSION "BROWNING - DARK FARM SANITARY  
SEWER" PLANS DATED 1996 (NOT FIELD VERIFIED)

EXISTING PARKING LOT

PROPOSED  
1-STORY BUILDING  
28,666 S.F.  
FFE=1023.00

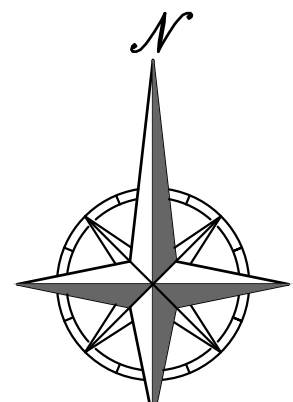
N.E. INDEPENDENCE AVE.  
(PUBLIC STREET)

#### UTILITY NOTES:

- The contractor is specifically cautioned that the location and/or elevation of existing utilities as shown on these plans is based on records of the various utility companies, and where possible, measurements taken in the field. The information is not to be relied on as being exact or complete. The contractor must call the appropriate utility companies at least 48 hours before any excavation to request exact field location of utilities. It shall be the responsibility of the contractor to coordinate with and relocate &/or remove all existing utilities which conflict with the proposed improvements shown on the plans.
- The construction of storm sewers on this project shall conform to the project specifications.
- The contractor shall field verify the exact location and elevation of the existing storm sewer lines and the existing elevation at locations where the proposed storm sewer collects or releases to existing ground. If discrepancies are encountered from the information shown on the plans, the contractor shall contact the design engineer. No pipes shall be laid until direction is received from the design engineer.
- It will be the contractors responsibility to field adjust the top of all manholes and boxes as necessary to match the grade of the adjacent area. Tops of existing manholes shall be raised as necessary to be flush with proposed pavement elevations, and to be 6-inches above finished ground elevations in non-paved areas. No separate or additional compensation will be made to the contractor for making final adjustments to the manholes and boxes.
- Inlet locations, horizontal pipe information and vertical pipe information is shown to the center of the structure. Deflection angles shown for storm sewer pipes are measured from the center of curb inlets and manholes. The contractor shall adjust the horizontal location of the pipes to go to the face of the boxes. All roof drains shall be connected to storm sewer structures. Provide cleanouts on roof drain lines at 100' max. Spacing and at all bend points. Do not connect roof drains directly to storm sewer pipes.
- The contractor shall be responsible for furnishing and installing all fire and domestic water lines, meters, backflow devices, pits, valves and all other incidentals required for a complete operable fire protection and domestic water system. All costs associated with the complete water system for the buildings shall be the responsibility of the contractor. All work shall conform to the requirements of City.
- The contractor shall be responsible for furnishing and installing all sanitary sewer service lines from the buildings to the public line. All work shall conform to the requirements of the City.
- The contractor will be responsible for securing all permits, bonds and insurance required by the contract documents, City, and all other governing agencies (including local, county, state and federal authorities) having jurisdiction over the work proposed by these construction documents. The cost for all permits bonds and insurance shall be the contractors responsibility and shall be included in the bid for the work.
- By the use of these construction documents the contractor hereby agrees that he/she shall be solely responsible for the safety of the construction workers and the public. The contractor agrees to hold the engineer and owner harmless for any and all injuries, claims, losses or damages related to the project.
- The Contractor shall be responsible for furnishing all materials, tools and equipment and installation of electrical power, telephone and gas service from a point of connection from the public utility lines to the building structures. This will include all conduits, service lines, meters, concrete pads and all other incidentals required for a complete and operational system as required by the owner and the public utilities. Refer to building plans for exact tie-in locations of all utilities. Contractor shall verify connection points prior to installation of utility line.
- All fill material is to be in place, compacted, and consolidated before installation of proposed utilities. On-site geotechnical engineer shall provide written confirmation that this requirement has been met and that utilities may proceed in the fill areas. All utilities are to be placed in trench conditions.
- Contractor shall notify the utility authorities inspectors 48 hours before connecting to any existing line.
- Water lines shall be per the project specifications.
- Minimum trench width shall be 2 feet.
- Contractor shall maintain a minimum of 42" cover on all waterlines. All water line joints are to be mechanical joints with thrust blocking as called out in specifications and construction plans. Water mains and service lines shall be constructed in accordance to waterone's specifications for commercial services.
- All waterlines shall be least min. ten (10') apart (parallel) from sanitary sewer lines or manholes. Or when crossing, an 24" vertical clearance (outside edge of pipe to outside edge of pipe) of the water line above the sewer line is required.
- Sanitary conflicts will be resolved prior to permit issuance.
- In the event of a vertical conflict between waterlines, sanitary lines, storm lines and gas lines (existing and proposed), the sanitary line shall be ductile iron pipe with mechanical joints at least 10 feet on both sides of crossing (or encased in concrete this same distance), the waterline shall have mechanical joints with appropriate thrust blocking as required to provide a minimum of 24" clearance. Meeting requirements of ANSI A21.10 or ANSI 21.11 (AWWA C-151) (CLASS 50).
- All underground storm, sanitary, water and other utility lines shall be installed, inspected and approved before backfilling. Failure to have inspection approval prior to backfill will constitute rejection of work.
- All necessary inspections and/or certifications required by codes and/or utility service companies shall be performed prior to announced building possession and the final connection of service. Contractor shall coordinate with all utility companies for installation requirements and specifications.
- Refer to building plans for site lighting electrical plan, irrigation, parking lot security system and associated conduit requirements. Coordinate with Owner that all required conduits are in place & tested prior to paving.
- When a building utility connection from site utilities leading up to the building cannot be made immediately, temporarily mark all such site utility terminations.
- Refer to the building plans for site lighting electrical requirements, including conduits, pole bases, pull boxes, etc.

#### UTILITY KEY NOTES:

- |                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>E1</b> FOLLOW ELECTRIC COMPANY WORK ORDER AND SPECIFICATIONS FOR PRIMARY ELECTRICAL SERVICE ROUTING AND CONNECTION TO EXISTING.                                                                                                                                                                                                     | <b>T1</b> CONTRACTOR TO PROVIDE TWO (2) - 4" PVC SCH. 40 CONDUITS FROM BUILDING TO R/W. CONTRACTOR TO TERMINATE IN QUARTZITE BOX WITH PULL STRING FROM BUILDING TO TELEPHONE FEED POINT. CONTRACTOR TO VERIFY EXACT ROUTING AND FEED POINT WITH TELEPHONE COMPANY.                                                               |
| <b>E2</b> INSTALL CONCRETE TRANSFORMER PAD. CONTRACTOR TO VERIFY EXACT LOCATION AND SIZE WITH ELECTRIC COMPANY PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION OF CONCRETE PAD AND CONDUIT AS REQUIRED BY THE ELECTRIC COMPANY. CONTRACTOR SHALL COORDINATE SAID WORK WITH THE ELECTRIC COMPANY.               | <b>T2</b> CONTRACTOR TO COORDINATE RELOCATION OF EXISTING BURIED FIBER LINE, AS NEEDED, FOR RETAINING WALL INSTALLATION.                                                                                                                                                                                                         |
| <b>E3</b> ELECTRIC ENTRY INTO BUILDING. FOLLOW ELECTRIC COMPANY REQUIREMENTS (RE: MEP PLANS).                                                                                                                                                                                                                                          | <b>T3</b> CONTRACTOR TO COORDINATE ONE (1) - 4" PVC SCH. 40 CONDUITS ROUTING FROM MAIN BUILDING TO FUTURE FIRING RANGE BUILDING (RE: MEP PLANS). CAP AND INSTALL TEE POST.                                                                                                                                                       |
| <b>E4</b> INSTALL SECONDARY ELECTRICAL SERVICE FROM MAIN BUILDING TO FUTURE FIRING RANGE BUILDING (RE: MEP PLANS).                                                                                                                                                                                                                     | <b>S1</b> CONNECT TO BLDG. INTERIOR PLUMBING SANITARY SEWER LINE. TRANSITION FROM 4" (INTERIOR) TO 6" (EXTERIOR) AT FOUNDATION WALL (RE: MEP PLANS).<br>FD=1023.00<br>FL 6"-1018.00                                                                                                                                              |
| <b>E5</b> CONTRACTOR TO INSTALL CONDUITS TO MONUMENT SIGN (RE: BUILDING ELECTRICAL PLANS FOR POWER REQUIREMENTS)                                                                                                                                                                                                                       | <b>S2</b> INSTALL 41 L.F. 6" PVC SANITARY SEWER SERVICE LINE (SDR-26) @ 1.0% MIN. SLOPE.                                                                                                                                                                                                                                         |
| <b>E6</b> CONTRACTOR TO COORDINATE INSTALLATION OF ELECTRICAL CONDUITS FOR FUTURE FIRING RANGE BUILDING. CAP AND MARK WITH TEE POST.                                                                                                                                                                                                   | <b>S3</b> INSTALL 8"x6" WYE CONNECTION TO CONNECT TO EXISTING PUBLIC SANITARY SEWER MAIN.<br>FL=997.78                                                                                                                                                                                                                           |
| <b>E7</b> CONTRACTOR TO INTERCEPT EXISTING STREET LIGHT CABLE. INSTALL NEW JUNCTION BOX, AND INSTALL RELOCATED STREET LIGHT.                                                                                                                                                                                                           | <b>S4</b> INSTALL 500 GALLON SAND/OIL INTERCEPTOR (REF: PROCEPTOR BY GREENTURLE 500, HIGHLAND TANK 550, STREM 500, OR BETTER OPTION).                                                                                                                                                                                            |
| <b>W1</b> CONTRACTOR TO CONNECT TO EXISTING 4" PRIVATE WATER LINE FOR NEW 3" PRIVATE DOMESTIC SERVICE LINE W/ TS&V.                                                                                                                                                                                                                    | <b>S5</b> CONNECT 4" VENT FROM BUILDING TO SAND/OIL INTERCEPTOR (RE: MEP PLANS).                                                                                                                                                                                                                                                 |
| <b>W2</b> 3" DOMESTIC WATER LINE ENTRY TO BUILDING. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ANY APPURTENANCES ON THE DOMESTIC LINE SUCH AS BACKFLOW PREVENTION DEVICES (RE: BUILDING PLANS), GATE VALVES, REDUCERS, BENDS, TEES, ETC., WHICH MAY BE REQUIRED. CONTRACTOR TO COORDINATE WITH THE DEVELOPMENT SERVICES INSPECTOR. | <b>S6</b> ADJUST EXISTING SANITARY SEWER MANHOLE TO NEW FINISHED GRADE.<br>FG=1019.44                                                                                                                                                                                                                                            |
| <b>W3</b> CONTRACTOR TO INSTALL 8"x8"x6" TS&V ON EXISTING PRIVATE 8" FIRE LINE FOR PROPOSED 6" PRIVATE BUILDING FIRE LINE.                                                                                                                                                                                                             | <b>G1</b> INSTALL 4" GAS ENTRY WITH GAS METER. CONTRACTOR SHALL COORDINATE WITH GAS COMPANY FOR TYPING OF INDIVIDUAL METER. SIZE OF GAS MAIN SHALL BE AS DETERMINED BY UTILITY OR AS SHOWN ON BUILDING PLANS. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH GAS COMPANY REGARDING THE SIZE & INSTALLATION OF GAS SERVICE LINE. |
| <b>W4</b> 6" PRIVATE FIRE LINE ENTRY TO BUILDING (UPSTREAM OF BACKFLOW PREVENTION DEVICE). BACKFLOW PREVENTION DEVICE SHALL BE LOCATED INSIDE BUILDING (RE: BUILDING PLANS FOR BACKFLOW PREVENTION DEVICE DETAILS AND SPECIFICATIONS).                                                                                                 | <b>G2</b> CONTRACTOR TO COORDINATE 1-1/2" GAS SERVICE ROUTING FROM MAIN BUILDING TO FUTURE FIRING RANGE BUILDING (RE: MEP PLANS). CAP AND INSTALL TEE POST.                                                                                                                                                                      |
| <b>W5</b> CONTRACTOR TO INSTALL 8" PRIVATE FIRE LINE AROUND BUILDING. SEE DEMOLITION PLAN FOR EXISTING LOCATION.                                                                                                                                                                                                                       | <b>G3</b> CONTRACTOR TO COORDINATE RELOCATION OF EXISTING GAS LINE, AS NEEDED, FOR RETAINING WALL INSTALLATION.                                                                                                                                                                                                                  |
| <b>W6</b> CONTRACTOR TO INSTALL 4" PRIVATE WATER LINE AROUND BUILDING. SEE DEMOLITION PLAN FOR EXISTING LOCATION.                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                  |
| <b>W7</b> CONTRACTOR TO INSTALL PRIVATE FIRE HYDRANT. PRIVATE FIRE SHALL BE PAINTED RED. (RE: DETAIL #2, SHEET C-802).                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                  |
| <b>W8</b> EXISTING PUBLIC FIRE HYDRANT TO REMAIN.                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                  |
| <b>W9</b> CONTRACTOR TO CONNECT TO EXISTING 4" PRIVATE WATER LINE FOR FUTURE 1-1/2" PRIVATE DOMESTIC SERVICE LINE W/ TS&V.                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                  |
| <b>W10</b> INSTALL 1-1/2" DOMESTIC WATER LINE FOR FUTURE FIRING RANGE BUILDING. CAP AND INSTALL TEE POST.                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                  |
| <b>W11</b> INSTALL STRADDLE BLOCKS AT CONNECTION TO EXISTING PRIVATE WATER LINES (TYP). (SEE DETAIL #3, SHEET C-803).                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                  |
| <b>W12</b> CONTRACTOR TO COORDINATE RELOCATION OF EXISTING 4" PRIVATE WATER LINE, AS NEEDED, FOR RETAINING WALL INSTALLATION.                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                  |



SCALE: 1"=30'  
0' 30' 60'

PEI #220481

STATE OF MISSOURI  
MIKE PARSON,  
GOVERNOR

GastingerWalker &



CERTIFICATE OF AUTHORIZATION  
KANSAS  
LAND SURVEYING - LS-82  
ENGINEERING - E-391

PHILIPS ENGINEERING, INC.  
1700 N. Winchester  
Olathe, Kansas 66061  
Cell (913) 393-9955  
Fax (913) 393-9956  
www.phelpsengineering.com

CERTIFICATE OF AUTHORIZATION  
MISSOURI  
LAND SURVEYING-2007001128  
ENGINEERING-2007005068

OFFICE OF  
ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT,  
DESIGN AND  
CONSTRUCTION

Project Name  
Troop A Headquarters,  
MSHP

1950 NE Independence Ave.  
Lee's Summit, MO 64086

PROJECT # R2219-01  
SITE # 6018  
FACILITY # 8136018019

REVISION:  
DATE:  
REVISION:  
DATE:  
REVISION:  
DATE: Bid Documents  
ISSUE DATE: 01 August 2023

CAD DWG FILE: C-400.dwg  
DRAWN BY: SNH  
CHECKED BY: DAF  
DESIGNED BY: JDC

SHEET TITLE:

OVERALL  
UTILITY  
PLAN

SHEET NUMBER:

C-400

SHEET 014 OF 202

08/01/2023

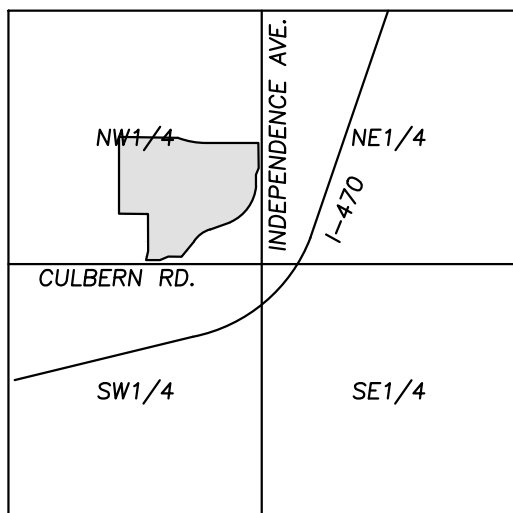


\\phelps-engineering\projects\PEI\220481\Draw\Permit Plans\SECONDARY STORM PLAN.dwg Layout:1 Aug 01, 2023 - 11:27am Dakota Byrum



Know what's below.  
Call before you dig.

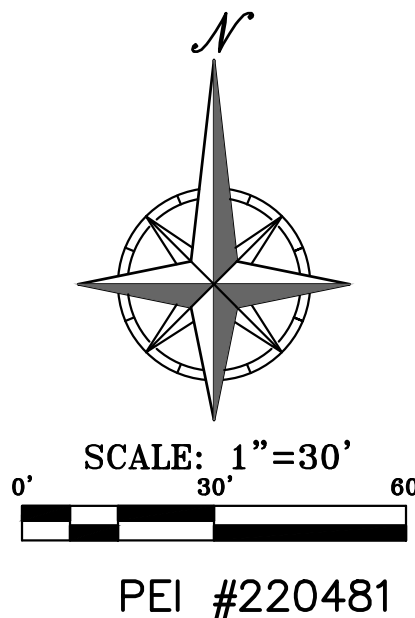
UTILITY NOTES:  
VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN.  
UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR LESSORS, ARE APPROXIMATE AND SHOULD BE VERIFIED IN THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL FIELD LOCATIONS OF UNDERGROUND UTILITIES CALL 811.



VICINITY MAP  
SEC. 19-48-31

#### UTILITY COMPANIES:

MISSOURI GAS ENERGY LUCAS WALLS (LUCAS.WALLS@MGE.COM) 3025 SOUTHEAST CLOVER DRIVE LEE'S SUMMIT, MO 64082	(816) 969-2218
ENERGY PHILLIP INGRAM (PHILLIP.INGRAM@CPL.COM) RON DEJARNETTE (RON.DEJARNETTE@CPL.COM) 1300 HAMBLEN ROAD LEE'S SUMMIT, MO 64081	(816) 347-4339 (816) 347-4316
STORM SEWER (PUBLIC WORKS DEPARTMENT) 220 SE GREEN STREET LEE'S SUMMIT, MO 64063	(816) 969-1800
SANITARY SEWER & WATER (WATER UTILITIES DEPT.) 1200 SE HAMBLEN ROAD LEE'S SUMMIT, MO 64081	(816)-969-1900
AT&T (913) 383-4929 MR. CLAYTON ANSPAUGH (CA4089@ATT.COM) 9444 NALL AVENUE OVERLAND PARK, KANSAS 66207	(913) 383-4849-FAX

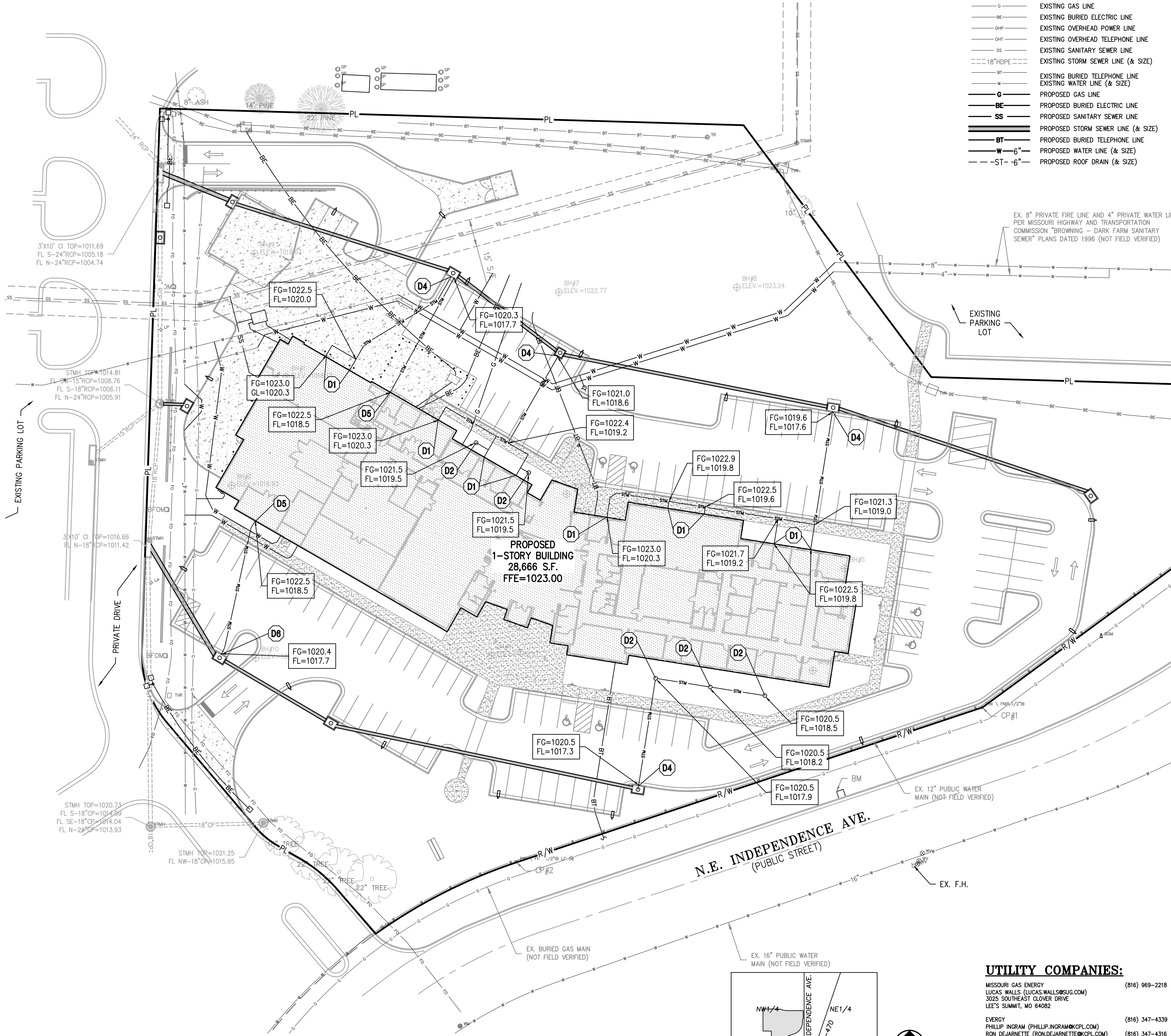


LEGEND	
— PL —	PROPERTY LINE
— LL —	LOT LINE
— R/W —	RIGHT-OF-WAY
— CATV —	EXISTING CABLE TELEVISION LINE
— FO —	EXISTING FIBER OPTIC LINE
— G —	EXISTING GAS LINE
— BE —	EXISTING BURIED ELECTRIC LINE
— OHT —	EXISTING OVERHEAD POWER LINE
— SS —	EXISTING SANITARY SEWER LINE
— 18" HDPE —	EXISTING STORM SEWER LINE (& SIZE)
— BT —	EXISTING BURIED TELEPHONE LINE
— W —	EXISTING WATER LINE (& SIZE)
— G —	PROPOSED GAS LINE
— BE —	PROPOSED BURIED ELECTRIC LINE
— SS —	PROPOSED SANITARY SEWER LINE
— BT —	PROPOSED STORM SEWER LINE (& SIZE)
— W —	PROPOSED BURIED TELEPHONE LINE
— 6" —	PROPOSED WATER LINE (& SIZE)
— ST —	PROPOSED ROOF DRAIN (& SIZE)

#### UTILITY NOTES:

- The contractor is specifically cautioned that the location and/or elevation of existing utilities as shown on these plans is based on records of the various utility companies, and where possible, measurements taken in the field. The information is not to be relied on as being exact or complete. The contractor must call the appropriate utility companies at least 48 hours before any excavation to request exact field location of utilities. It shall be the responsibility of the contractor to coordinate with and relocate &/or remove all existing utilities which conflict with the proposed improvements shown on the plans.
- The construction of storm sewers on this project shall conform to the project specifications.
- The contractor shall field verify the exact location and elevation of the existing storm sewer lines and the existing elevation at locations where the proposed storm sewer collects or releases to existing ground. If discrepancies are encountered from the information shown on the plans, the contractor shall contact the design engineer. No pipes shall be laid until direction is received from the design engineer.
- It will be the contractors responsibility to field adjust the top of all manholes and boxes as necessary to match the grade of the adjacent area. Tops of existing manholes shall be raised as necessary to be flush with proposed pavement elevations, and to be 6-inches above finished ground elevations in non-paved areas. No separate or additional compensation will be made to the contractor for making final adjustments to the manholes and boxes.
- Inlet locations, horizontal pipe information and vertical pipe information is shown to the center of the structure. Deflection angles shown for storm sewer pipes are measured from the center of curb inlets and manholes. The contractor shall adjust the horizontal location of the pipes to go to the face of the boxes. All roof drains shall be connected to storm sewer structures. Provide cleanouts on roof drain lines at 100' max. Spacing and at all bend points. Do not connect roof drains directly to storm sewer pipes.
- The contractor shall be responsible for furnishing and installing all fire and domestic water lines, meters, backflow devices, pits, valves and all other incidentals required for a complete operable fire protection and domestic water system. All costs associated with the complete water system for the buildings shall be the responsibility of the contractor. All work shall conform to the requirements of City.
- The contractor shall be responsible for furnishing and installing all sanitary sewer service lines from the buildings to the public line. All work shall conform to the requirements of the City.
- The contractor will be responsible for securing all permits, bonds and insurance required by the contract documents, City, and all other governing agencies (including local, county, state and federal authorities) having jurisdiction over the work proposed by these construction documents. The cost for all permits bonds and insurance shall be the contractors responsibility and shall be included in the bid for the work.
- By the use of these construction documents the contractor hereby agrees that he/she shall be solely responsible for the safety of the construction workers and the public. The contractor agrees to hold the engineer and owner harmless for any and all injuries, claims, losses or damages related to the project.
- The Contractor shall be responsible for furnishing all materials, tools and equipment and installation of electrical power, telephone and gas service from a point of connection from the public utility lines to the building structures. This will include all conduits, service lines, meters, concrete pads and all other incidentals required for a complete and operational system as required by the owner and the public utilities. Refer to building plans for exact tie-in locations of all utilities. Contractor shall verify connection points prior to installation of utility line.
- All fill material is to be in place, compacted, and consolidated before installation of proposed utilities. On-site geotechnical engineer shall provide written confirmation that this requirement has been met and that utilities may proceed in the fill areas. All utilities are to be placed in trench conditions.
- Contractor shall notify the utility authorities inspectors 48 hours before connecting to any existing line.
- Water lines shall be per the project specifications.
- Minimum trench width shall be 2 feet.
- Contractor shall maintain a minimum of 42" cover on all waterlines. All water line joints are to be mechanical joints with thrust blocking as called out in specifications and construction plans. Water mains and service lines shall be constructed in accordance to waterline's specifications for commercial services.
- All waterlines shall be least min. ten (10') apart (parallel) from sanitary sewer lines or manholes. Or when crossing, an 24" vertical clearance (outside edge of pipe to outside edge of pipe) of the water line above the sewer line is required.
- Sanitary conflicts will be resolved prior to permit issuance.
- In the event of a vertical conflict between waterlines, sanitary lines, storm lines and gas lines (existing and proposed), the sanitary line shall be ductile iron pipe with mechanical joints at least 10 feet on both sides of crossing (or encased in concrete this same distance), the waterline shall have mechanical joints with appropriate thrust blocking as required to provide a minimum of 24" clearance. Meeting requirements of ANSI A21.10 or ANSI 21.11 (AWWA C-151) (CLASS 50).
- All underground storm, sanitary, water and other utility lines shall be installed, inspected and approved before backfilling. Failure to have inspection approval prior to backfill will constitute rejection of work.
- All necessary inspections and/or certifications required by codes and/or utility service companies shall be performed prior to announced building possession and the final connection of service. Contractor shall coordinate with all utility companies for installation requirements and specifications.
- Refer to building plans for site lighting electrical plan, irrigation, parking lot security system and associated conduit requirements. Coordinate with Owner that all required conduits are in place & tested prior to paving.
- When a building utility connection from site utilities leading up to the building cannot be made immediately, temporarily mark all such site utility terminations.
- Refer to the building plans for site lighting electrical requirements, including conduits, pole bases, pull boxes, etc.

- D1** TYPICAL STORM WATER DRAIN LINE FROM ROOF. ALL SECONDARY STORM LINES SHALL BE PVC SDR 35 OR HDPE (ST). SEE ARCH PLANS FOR BUILDING CONNECTION LOCATIONS.
- D2** INSTALL 18" NYOPLAST DRAIN BASIN W/ STANDARD GRATE.
- D3** INSTALL SECONDARY STORM SEWER FROM ROOF DRAINS AND NYOPLAST DRAIN BASINS. ALL SECONDARY STORM LINES SHALL BE 8" (MINIMUM) WITH 18" COVER (MINIMUM) UNLESS OTHERWISE NOTED ON PLANS. ALL SECONDARY STORM LINES SHALL HAVE A MINIMUM SLOPE SHALL OF 1.0% AND MINIMUM COVER DEPTH OF 18".
- D4** CONNECT SECONDARY STORM LINE TO PROPOSED STORM STRUCTURE.
- D5** INSTALL 6" PVC SDR 35 OR HDPE (ST) @ 1.0% SLOPE (MINIMUM) FROM FOUNDATION DRAIN SYSTEM TO PROPOSED STORM STRUCTURE.
- D6** CONNECT FOUNDATION DRAIN SYSTEM OUTLET PIPE TO PROPOSED STORM STRUCTURE.



STATE OF MISSOURI  
MIKE PARSON,  
GOVERNOR

**GastingerWalker &**



CERTIFICATE OF AUTHORIZATION  
KANSAS  
LAND SURVEYING - LS-82  
ENGINEERING - E-391

PHILIPS ENGINEERING, INC.  
1320 N. Winchester  
Olathe, Kansas 66061  
(913) 393-9555  
Fax (913) 393-9556  
www.phelpsengineering.com

CERTIFICATE OF AUTHORIZATION  
MISSOURI  
LAND SURVEYING-2007001128  
ENGINEERING-2007005068

OFFICE OF  
ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT,  
DESIGN AND  
CONSTRUCTION

Project Name  
Troop A Headquarters,  
MSHP

1950 NE Independence Ave.  
Lee's Summit, MO 64086

PROJECT # R2219-01  
SITE # 6018  
FACILITY # 8136018019

REVISION:  
DATE:  
REVISION:  
DATE:  
REVISION:  
DATE: Bid Documents  
ISSUE DATE: 01 August 2023

CAD DWG FILE: C-401.dwg  
DRAWN BY: SNH  
CHECKED BY: DAF  
DESIGNED BY: JDC

SHEET TITLE:

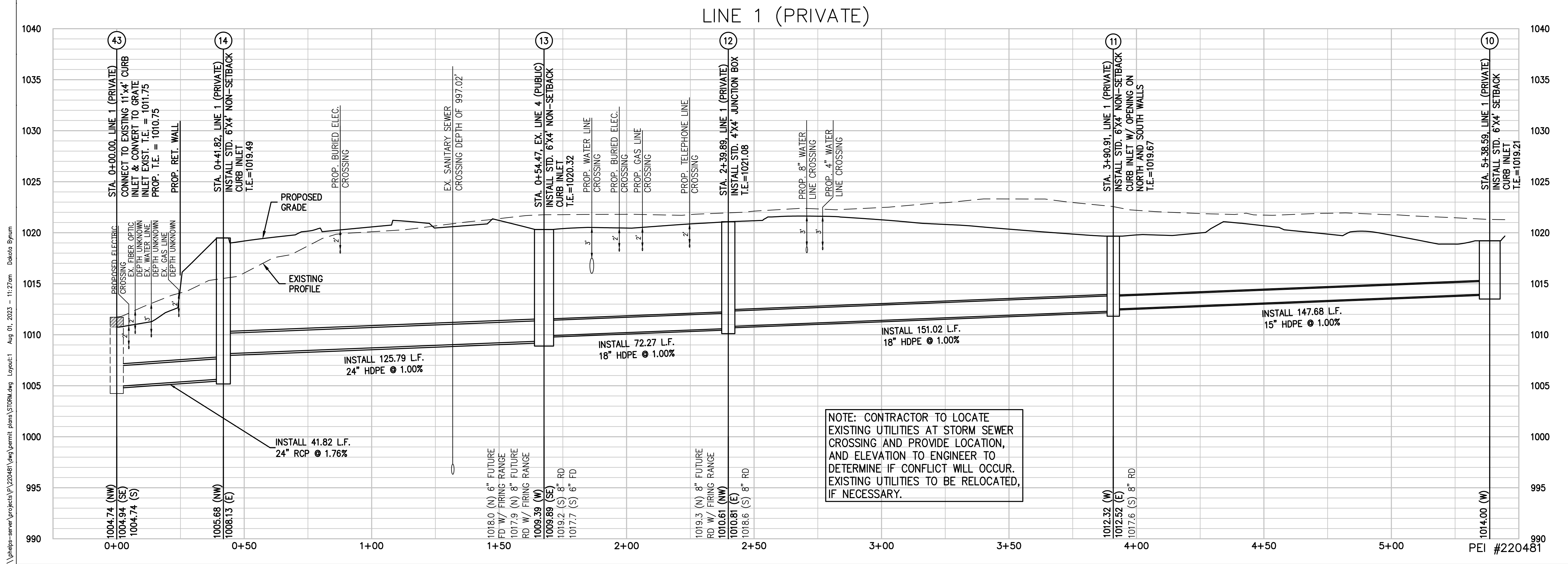
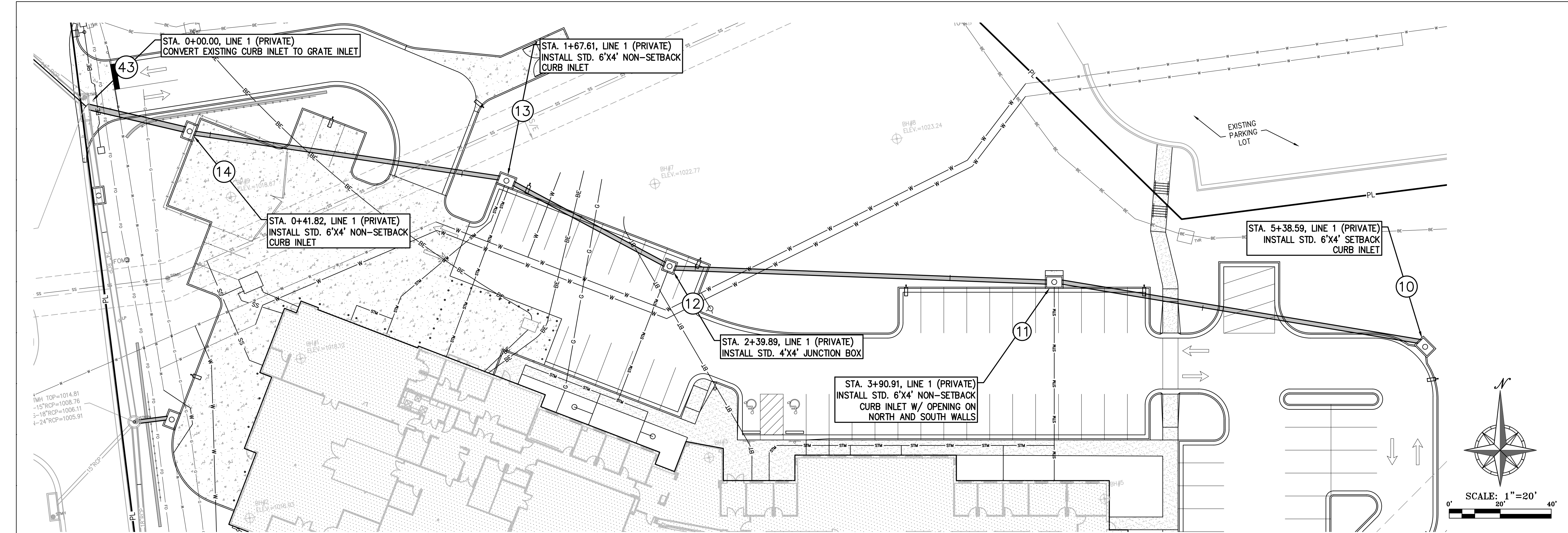
SECONDARY  
STORM  
PLAN

SHEET NUMBER:

**C-401**

SHEET 015 OF 202  
08/01/2023





STATE OF MISSOURI  
MIKE PARSON,  
GOVERNOR

NOT FOR CONSTRUCTION

**GastingerWalker &**  
Architects | Interior Designers | Construction Managers  
817 Wyandotte Kansas City Missouri 64105 816.421.8200 gastingerwalker.com  
Project Number: 2022.152

**PEI** PLANNING  
ENGINEERING  
IMPLEMENTATION  
PHELPS ENGINEERING, INC.  
1320 N. Winchester  
Clerks, Kansas 66001  
(913) 393-1955  
Fax (913) 393-1956  
www.phelpsengineering.com

CERTIFICATE OF AUTHORIZATION  
KANSAS  
LAND SURVEYING - LS-82  
ENGINEERING - E-391  
MISSOURI  
LAND SURVEYING-2007001128  
ENGINEERING-2007005068

OFFICE OF  
ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT,  
DESIGN AND  
CONSTRUCTION

Project Name  
Troop A Headquarters,  
MSHP

1950 NE Independence Ave.  
Lee's Summit, MO 64086

PROJECT # R2219-01  
SITE # 6018  
FACILITY # 8136018019

REVISION:  
DATE:  
REVISION:  
DATE:  
REVISION:  
DATE: Bid Documents  
ISSUE DATE: 01 August 2023

CAD DWG FILE: C-500.dwg  
DRAWN BY: SNH  
CHECKED BY: DAF  
DESIGNED BY: JDC

SHEET TITLE:

STORM SEWER  
PLAN AND  
PROFILE

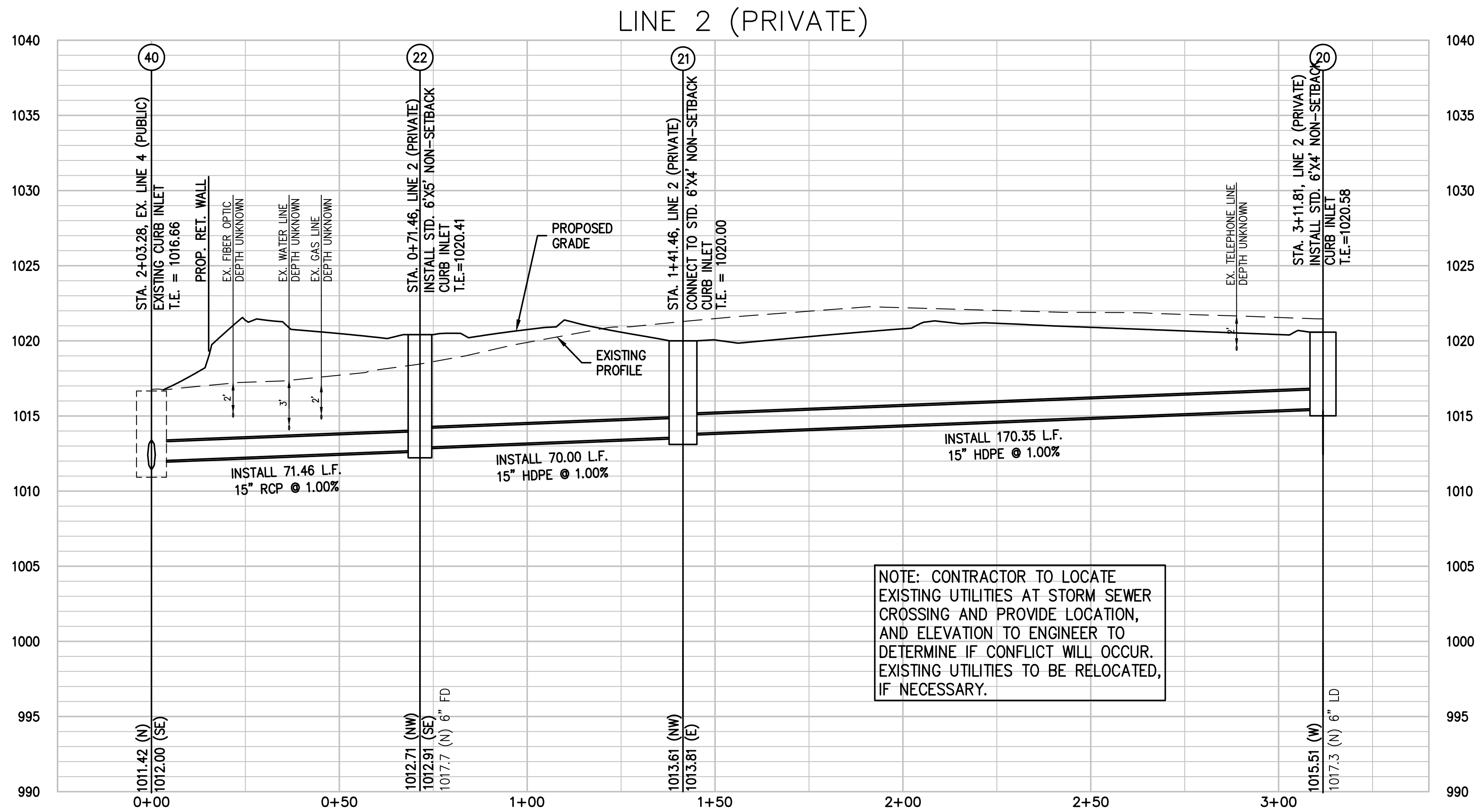
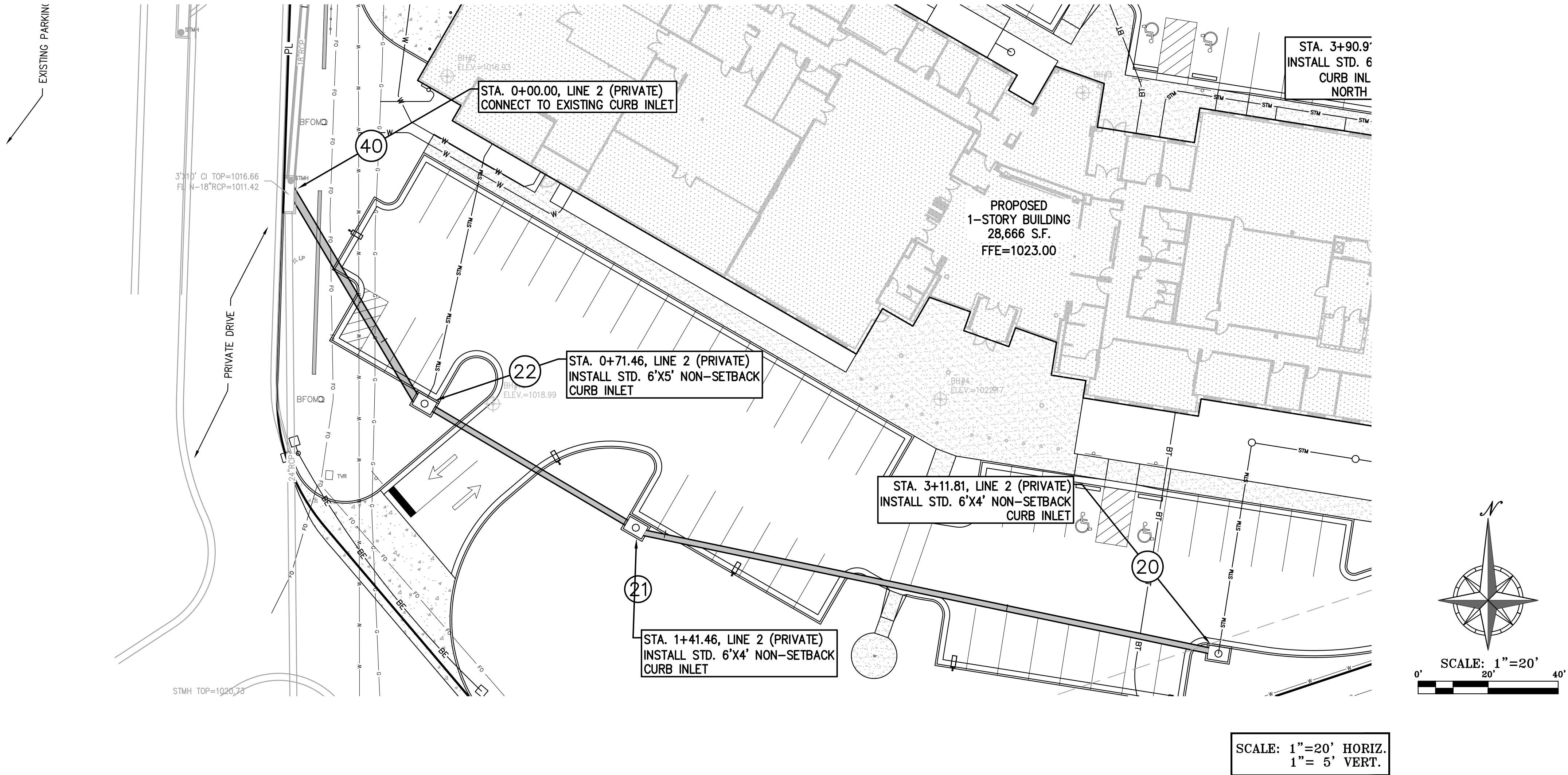
SHEET NUMBER:

**C-500**

SHEET 016 OF 202  
08/01/2023



\\phelps-engineering.com\projects\PEI\220481\Drawings\permit plans\STORM.dwg Layout:2 Aug 01, 2023 11:27am Dakota Bynum



PEI #220481

STATE OF MISSOURI  
MIKE PARSON,  
GOVERNOR

NOT FOR CONSTRUCTION

GastingerWalker &

Architects | Interior Designers | Construction Managers  
817 Wyandotte Kansas City Missouri 64105 816.421.8200 gastingerwalker.com  
Project Number: 2022.152



PLANNING  
ENGINEERING  
IMPLEMENTATION

PHELPS ENGINEERING, INC.  
1320 N. Winchester  
Clerks, Kansas 66001  
City 913.393.1956  
Fax 913.393.1956  
www.phelpsengineering.com

CERTIFICATE OF AUTHORIZATION  
KANSAS  
LAND SURVEYING - LS-82  
ENGINEERING - E-391

CERTIFICATE OF AUTHORIZATION  
MISSOURI  
LAND SURVEYING-2007001128  
ENGINEERING-2007005068

OFFICE OF  
ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT,  
DESIGN AND  
CONSTRUCTION

Project Name  
Troop A Headquarters,  
MSHP

1950 NE Independence Ave.  
Lee's Summit, MO 64086

PROJECT # R2219-01  
SITE # 6018  
FACILITY # 8136018019

REVISION:  
DATE:  
REVISION:  
DATE:  
REVISION:  
DATE: Bid Documents  
ISSUE DATE: 01 August 2023

CAD DWG FILE: C-501.dwg  
DRAWN BY: SNH  
CHECKED BY: DAF  
DESIGNED BY: JDC

SHEET TITLE:

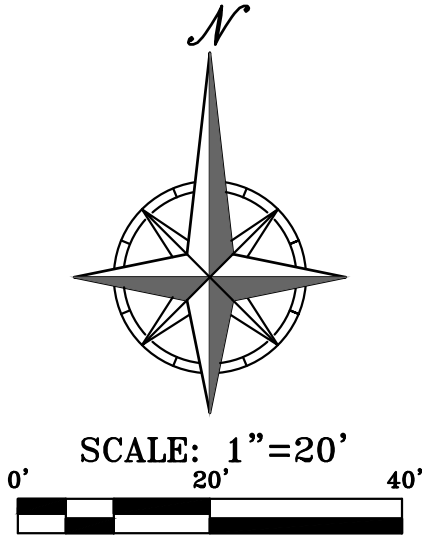
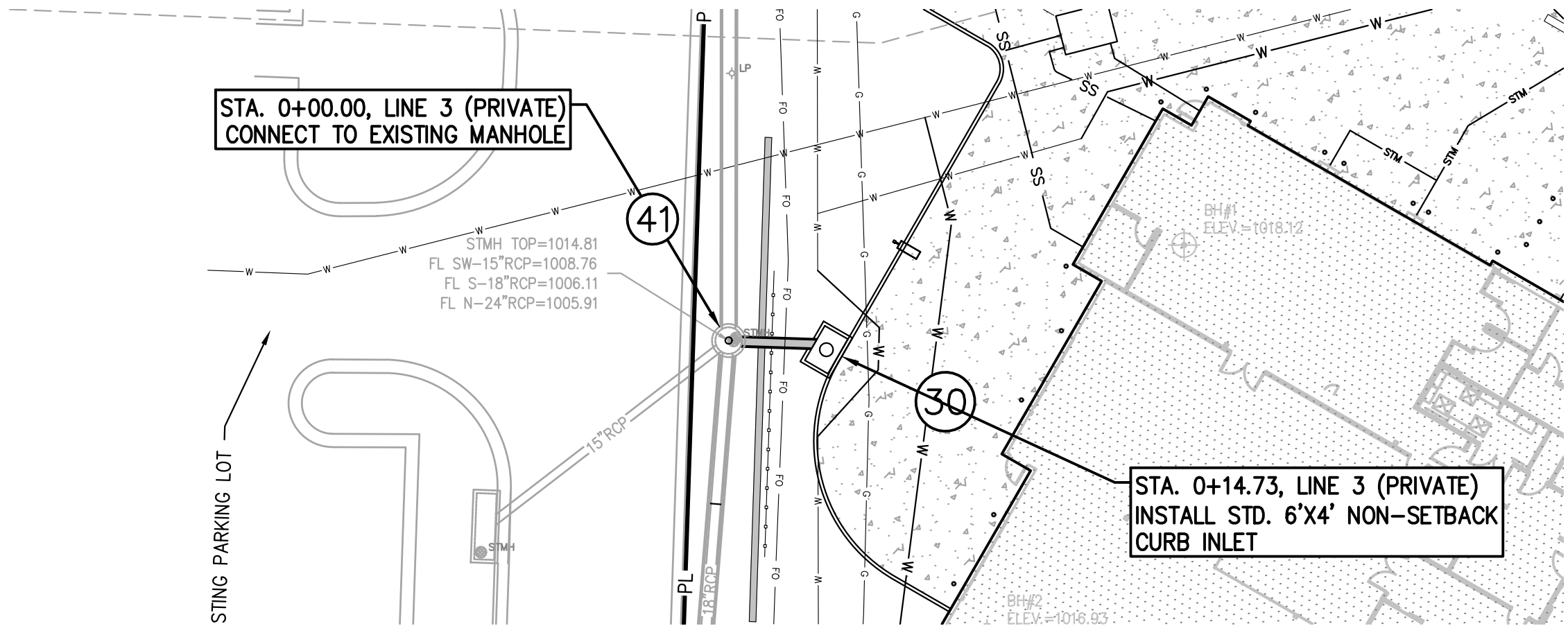
STORM SEWER  
PLAN AND  
PROFILE

SHEET NUMBER:

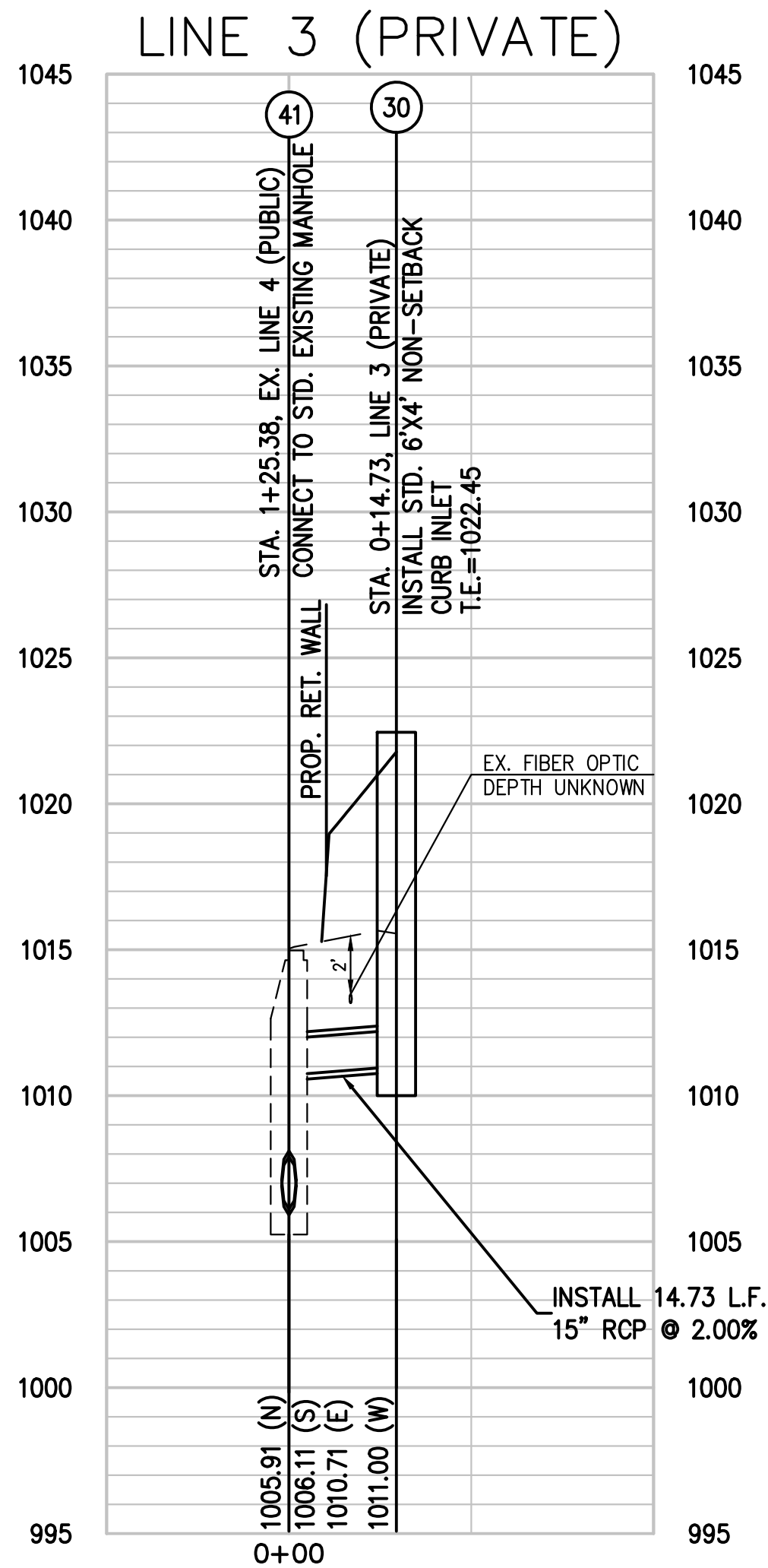
C-501

SHEET 017 OF 202  
08/01/2023





SCALE: 1"=20' HORIZ.  
1"= 5' VERT.



NOTE: CONTRACTOR TO LOCATE EXISTING UTILITIES AT STORM SEWER CROSSING AND PROVIDE LOCATION, AND ELEVATION TO ENGINEER TO DETERMINE IF CONFLICT WILL OCCUR. EXISTING UTILITIES TO BE RELOCATED, IF NECESSARY.

PEI #220481

STATE OF MISSOURI  
MIKE PARSON,  
GOVERNOR

NOT FOR CONSTRUCTION

**GastingerWalker &**

Architects | Interior Designers | Construction Managers  
817 Wyandotte Kansas City Missouri 64105 816.421.8200 [gastingerwalker.com](mailto:gastingerwalker.com)  
Project Number: 2022.152

**PEI** PHILIPS ENGINEERING, INC.  
PLANNING  
ENGINEERING  
IMPLEMENTATION  
1320 N. Winchester  
Clermont, Kansas 66001  
City (913) 393-1155  
Fax (913) 393-1155  
[www.philipsengineering.com](http://www.philipsengineering.com)

CERTIFICATE OF AUTHORIZATION  
KANSAS  
LAND SURVEYING - LS-82  
ENGINEERING - E-391

CERTIFICATE OF AUTHORIZATION  
MISSOURI  
LAND SURVEYING-2007001128  
ENGINEERING-2007005058

OFFICE OF  
ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT,  
DESIGN AND  
CONSTRUCTION

Project Name  
Troop A Headquarters,  
MSHP

1950 NE Independence Ave.  
Lee's Summit, MO 64086

PROJECT # R2219-01  
SITE # 6018  
FACILITY # 8136018019

REVISION:  
DATE:  
REVISION:  
DATE:  
REVISION:  
DATE: Bid Documents  
ISSUE DATE: 01 August 2023

CAD DWG FILE: C-502.dwg  
DRAWN BY: SNH  
CHECKED BY: DAF  
DESIGNED BY: JDC

SHEET TITLE:  
**STORM SEWER  
PLAN AND  
PROFILE**

SHEET NUMBER:  
**C-502**  
SHEET \_018\_ OF \_202\_  
08/01/2023



Architects | Interior Designers | Construction Managers  
817 Wyandotte Kansas City Missouri 64105 816.421.8200 [gastingerwalker.com](http://gastingerwalker.com)  
Project Number: 2022.152



**PHelps ENGINEERING, INC.**  
1270 N. Winchester  
Olathe, Kansas 66061  
(913) 393-1155  
Fax (913) 393-1166  
[www.phelpsengineering.com](http://www.phelpsengineering.com)

CERTIFICATE OF AUTHORIZATION  
KANSAS  
LAND SURVEYING - LS-82  
ENGINEERING - E-391

Project Name  
Troop A Headquarters,  
MSHP

PROJECT # R2219-01  
SITE # 6018  
FACILITY # 8136018019

REVISION:  
DATE:  
REVISION:  
DATE:  
REVISION:  
DATE: Bid Documents  
ISSUE DATE: 01 August 2023

CAD DWG FILE: C-503.dwg  
DRAWN BY: SNH  
CHECKED BY: DAF  
DESIGNED BY: JDC

SHEET TITLE:

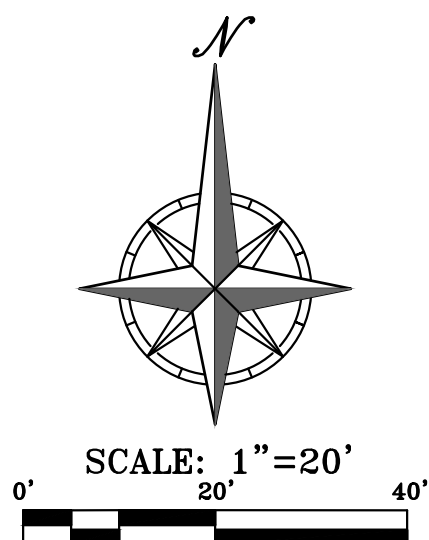
# STORM SEWER PLAN AND PROFILE

SHEET NUMBER:

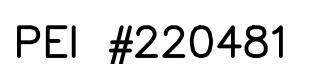
C-503

SHEET 019 OF 202

08/01/2023



SCALE: 1"=20' HORIZ.  
1"= 5' VERT.





\\phelps-engineering.com\projects\220481\Drawings\Permit Plans\DRAINAGE MAP.dwg Layout:1 Aug 01, 2023 - 11:28am Dakota Bynum



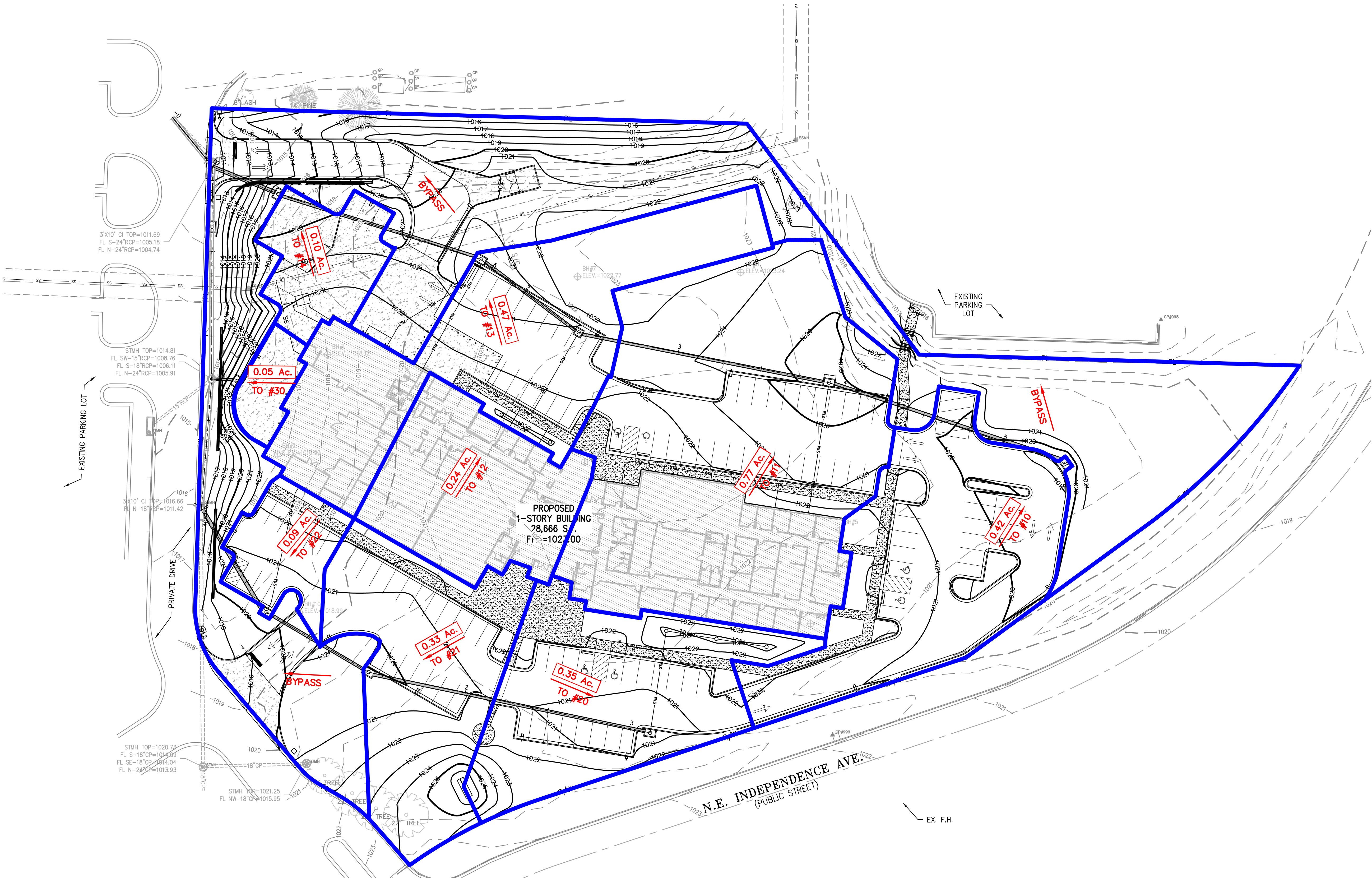
Know what's below.  
Call before you dig.

#### FLOOD NOTE:

THIS PROPERTY LIES WITHIN ZONE X, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON THE FLOOD INSURANCE RATE MAP PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR THE CITY OF LEE'S SUMMIT, COMMUNITY NO. 290174, JACKSON COUNTY, MISSOURI, MAP NO. 29095C04306, AND DATED JANUARY 20, 2017.

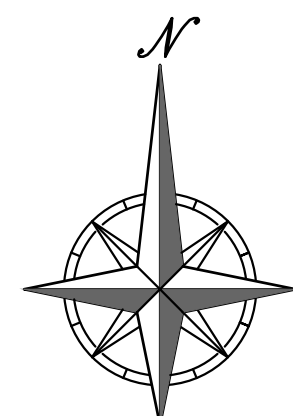
#### UTILITY NOTES:

VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN. UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR LESSORS, ARE APPROXIMATE AND SHOULD BE VERIFIED IN THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL FIELD LOCATIONS OF UNDERGROUND UTILITIES CALL 811.



#### LEGEND

- XXX--- EXISTING CONTOURS
- XXX--- PROPOSED CONTOURS
- XXX--- DENOTES DRAINAGE AREA
- XXX--- DENOTES FLOW DIRECTION
- XXX--- DENOTES DRAINAGE AREA TO STRUCTURE
- XXX--- DENOTES STRUCTURE NUMBER



SCALE: 1"=30'  
0' 30' 60'

PEI #220481

STATE OF MISSOURI  
MIKE PARSON,  
GOVERNOR

NOT FOR CONSTRUCTION

GastingerWalker &

Architects Interior Designers Construction Managers  
817 Wyandotte Kansas City Missouri 64105 816.421.8200 gastingerwalker.com  
Project Number: 2022.152



PLANNING  
ENGINEERING  
IMPLEMENTATION

PHILIPS ENGINEERING, INC.  
1320 N. Winchester  
Olathe, Kansas 66061  
(913) 393-1955  
Fax (913) 393-1956  
www.philipsengineering.com

CERTIFICATE OF AUTHORIZATION  
KANSAS  
LAND SURVEYING - LS-82  
ENGINEERING - E-391

CERTIFICATE OF AUTHORIZATION  
MISSOURI  
LAND SURVEYING - 2007001128  
ENGINEERING - 2007005068

OFFICE OF  
ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT,  
DESIGN AND  
CONSTRUCTION

Project Name  
Troop A Headquarters,  
MSHP

1950 NE Independence Ave.  
Lee's Summit, MO 64086

PROJECT # R2219-01  
SITE # 6018  
FACILITY # 8136018019

REVISION:  
DATE:  
REVISION:  
DATE:  
REVISION:  
DATE: Bid Documents  
ISSUE DATE: 01 August 2023

CAD DWG FILE: C-600.dwg  
DRAWN BY: SNH  
CHECKED BY: DAF  
DESIGNED BY: JDC

SHEET TITLE:

DRAINAGE  
MAP

SHEET NUMBER:

C-600

SHEET 020 OF 202

08/01/2023



\\phelps-server\projects\p\220481\dwg\permit plans\DRAINAGE\_MAP.dwg    Layout:2    Aug 01, 2023    -- 11:28am    Dakota Bynum

STORM DRAINAGE CALCULATIONS

I. RUNOFF											III. PIPE DESIGN								REMARKS
N L I M B E R	S T R U C T U R E	INCREMENTAL			CUMULATIVE		SYSTEM TIME OF CONCENTRATION "T <sub>c</sub> " AT STRUCTURE (MIN)	RAINFALL INTENSITY "I <sub>25</sub> / I <sub>100</sub> " (IN/HR)	ANTECEDENT PRECIPITATION FACTOR "K <sub>25</sub> / K <sub>100</sub> "	RUNOFF "Q <sub>25</sub> / Q <sub>100</sub> " (CFS)	STRUCTURE		PIPE						25-Year Check
		RUNOFF COEFFICIENT "C"	AREA "A" (ACRES)	C x A	AREA "A" (ACRES)	C x A					Upstream Structure Number	Downstream Structure Number	Diameter "D" (IN)	Slope "S" (FT/FT)	Velocity Full V <sub>p</sub> (FPS)	Runoff Q <sub>25</sub> (CFS)	Runoff Q <sub>100</sub> (CFS)	Full Flow Q <sub>s</sub> (CFS)	
1	10	0.81	0.42	0.34	0.42	0.34	6.00	8.19	1.10	3.1	10	11	15	0.0100	5.3	3.1	4.2	7.6	OK
								9.92	1.25	4.2									
	11	0.81	0.77	0.62	1.19	0.96	6.00	8.19	1.10	8.6	11	12	18	0.0100	6.0	8.6	11.9	12.4	OK
								9.92	1.25	11.9									
	12	0.81	0.24	0.19	1.43	1.15	6.00	8.19	1.10	10.4	12	13	18	0.0100	6.0	10.4	14.3	12.4	OK
								9.92	1.25	14.3									
	13	0.81	0.47	0.38	1.90	1.53	6.00	8.19	1.10	13.8	13	14	24	0.0100	7.2	13.8	19.0	26.7	OK
							9.92	1.25	19.0										
2	14	0.81	0.10	0.08	2.00	1.61	6.00	8.19	1.10	14.5	14	43	24	0.0176	9.6	14.5	20.0	35.5	OK
								9.92	1.25	20.0									
	20	0.81	0.35	0.28	0.35	0.28	6.00	8.19	1.10	2.5	20	21	15	0.0100	5.3	2.5	3.5	7.6	OK
								9.92	1.25	3.5									
	21	0.81	0.33	0.27	0.68	0.55	6.00	8.19	1.10	5.0	21	22	15	0.0100	5.3	5.0	6.8	7.6	OK
								9.92	1.25	6.8									
	22	0.81	0.09	0.07	0.77	0.62	6.00	8.19	1.10	5.6	22	40	15	0.0100	5.3	5.6	7.7	7.6	OK
							9.92	1.25	7.7										
3	30	0.81	0.05	0.04	0.05	0.04	6.00	8.19	1.10	0.4	30	41	15	0.0200	7.5	0.4	0.5	10.8	OK
								9.92	1.25	0.5									

STATE OF MISSOURI  
MIKE PARSON,  
GOVERNOR

NOT FOR CONSTRUCTION

GastingWalker &

Architects | Interior Designers | Construction Managers  
817 Wyandotte Kansas City Missouri 64105 816.421.8200 gastingwalker.com  
Project Number: 2022.152

PEI

PLANNING  
ENGINEERING  
IMPLEMENTATION

PHelps ENGINEERING, INC.  
1320 N. Winchester  
Clathe, Kansas 66001  
On 913 393-1155  
Fax 913 393-1166  
www.phelpsengineering.com

CERTIFICATE OF AUTHORIZATION  
KANSAS  
LAND SURVEYING – LS-82  
ENGINEERING – E-391

CERTIFICATE OF AUTHORIZATION  
MISSOURI  
LAND SURVEYING-2007001128  
ENGINEERING-2007005068

OFFICE OF  
ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT,  
DESIGN AND  
CONSTRUCTION

Project Name  
Troop A Headquarters,  
MSHP

1950 NE Independence Ave.  
Lee's Summit, MO 64086

PROJECT # R2219-01  
SITE # 6018  
FACILITY # 8136018019

REVISION:  
DATE:  
REVISION:  
DATE:  
REVISION:  
DATE: Bid Documents  
ISSUE DATE: 01 August 2023

CAD DWG FILE: C-601.dwg  
DRAWN BY: SNH  
CHECKED BY: DAF  
DESIGNED BY: JDC

SHEET TITLE:

DRAINAGE  
CALCULATIONS

SHEET NUMBER:

C-601

SHEET \_021\_ OF \_202\_  
08/01/2023



1950 NE Independence Ave.  
Lee's Summit, MO 64086

REVISION:  
DATE:  
REVISION:  
DATE:  
REVISION:  
DATE: Bid Documents  
ISSUE DATE: 01 August 2023

CHECKED BY: DAF  
DESIGNED BY: JDC

## EROSION CONTROL PHASE I

# C-700

08/01/2023



Know what's **below**.  
**Call** before you dig.

**UTILITY NOTES:**  
VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN.  
UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR  
LESSORS, ARE APPROXIMATE AND SHOULD BE VERIFIED IN  
THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL  
FIELD LOCATIONS OF UNDERGROUND UTILITIES CALL 811.

DISTURBED AREA = 4.10± ACRES

1. Prior to Land Disturbance activities, the contractor shall:
  - Delineate the outer limits of any tree or stream preservation designated to remain with construction fencing.
  - Construct a stabilized entrance/parking/delivery area and install all perimeter sediment controls on the site.
  - Install and request the inspection of the preconstruction erosion and sediment control measures designated on the approved erosion and sediment control plan. Land disturbance work shall not proceed until there is a satisfactory inspection.
  - Identify the limits of construction on the ground with easily recognizable indications such as construction staking, construction fencing, placement of physical barriers or other means acceptable to the contractor and the City inspector.

3. The contractor shall comply with all requirements of City Ordinances or State permit requirements, such as:

- The contractor shall seed, mulch, or otherwise stabilize any disturbed area where the land disturbance activity has ceased for more than 14 days.
- The contractor shall perform inspections of erosion and sediment control measures at least once a every 14 days and within 24 hours following each rainfall event of  $\frac{1}{2}$ " or more within any 24-hour period
- The contractor shall maintain an inspection log including the inspector's name, date of inspection, observations as to the effectiveness of the erosion and sediment control measures, actions necessary to correct deficiencies, when the deficiencies were corrected, and the signature of the person performing the inspection. The log shall be available for review by the City, the State of Kansas, or other authorities having jurisdiction.

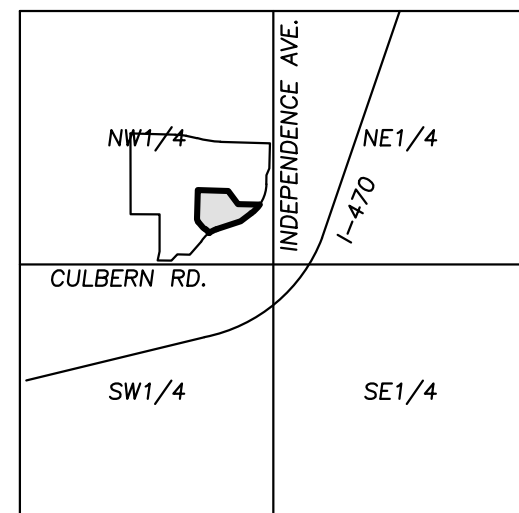
5. The contractor is responsible for providing erosion and sediment control for the duration of a project. If the City determines that the BMP's in place do not provide adequate erosion and sediment control at any time during the project, the contractor shall install additional or alternate measures that provide effective control.

6. Concrete wash or rinsewater from concrete mixing equipment, tools and/or ready-mix trucks, tools, etc., may not be discharged into or be allowed to run directly into any existing water body or storm inlet. One or more locations for concrete wash out will be designated on site, such that discharges during concrete washout will be contained in a small area where waste concrete can solidify in place and excess water evaporated or infiltrated into the ground.

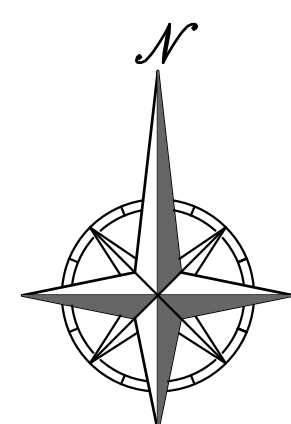
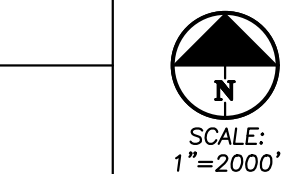
7. Chemicals or materials capable of causing pollution may only be stored onsite in their original container. Materials store outside must be in closed and sealed water-proof containers and located outside of drainageways or areas subject to flooding. Locks and other means to prevent or reduce vandalism should be used. Spills will be reported as required by law and immediate actions taken to contain them.

MAINTENANCE: ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLANATION, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:


1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION.
2. ALL SEEDING AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-THIRD THE HEIGHT OF THE SILT FENCE.
4. THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.
5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.



VICINITY MAP  
SEC. 19-48-31



SCALE: 1"=30'



A horizontal graphic scale bar with alternating black and white segments. It is marked with '0'' at the left end, '30'' at the midpoint, and '60'' at the right end.

PEI #220481

	Project Stage	Order	BMP Description	Remove after Stage:	Notes:
Phase I	A. Prior to Land Disturbance and During Construction.	①	Sediment Fence	C	Place downstream project site perimeter. (APWA ESC-10)
		②	Constr Entrance & Staging Area	C	Maintain during all construction. Include concrete washout. (APWA ESC-01)
		③	Inlet Protection at Existing Inlets	C	Install inlet protection. (APWA Details ESC-06 & ESC-07)
Phase II	B. Mass Grading & Utility Installation	④	Inlet Protection at Proposed Inlets	C	Install inlet protection. (APWA Details ESC-06 & ESC-07)
Phase III	C. Final Stabilization Prior to closure of Land Disturbance Permit		Final Stabilization	N/A	Final Stabilization of all disturbed areas.

Refer to Overall Grading Plan and Landscape Plan for final contours and final land cover.

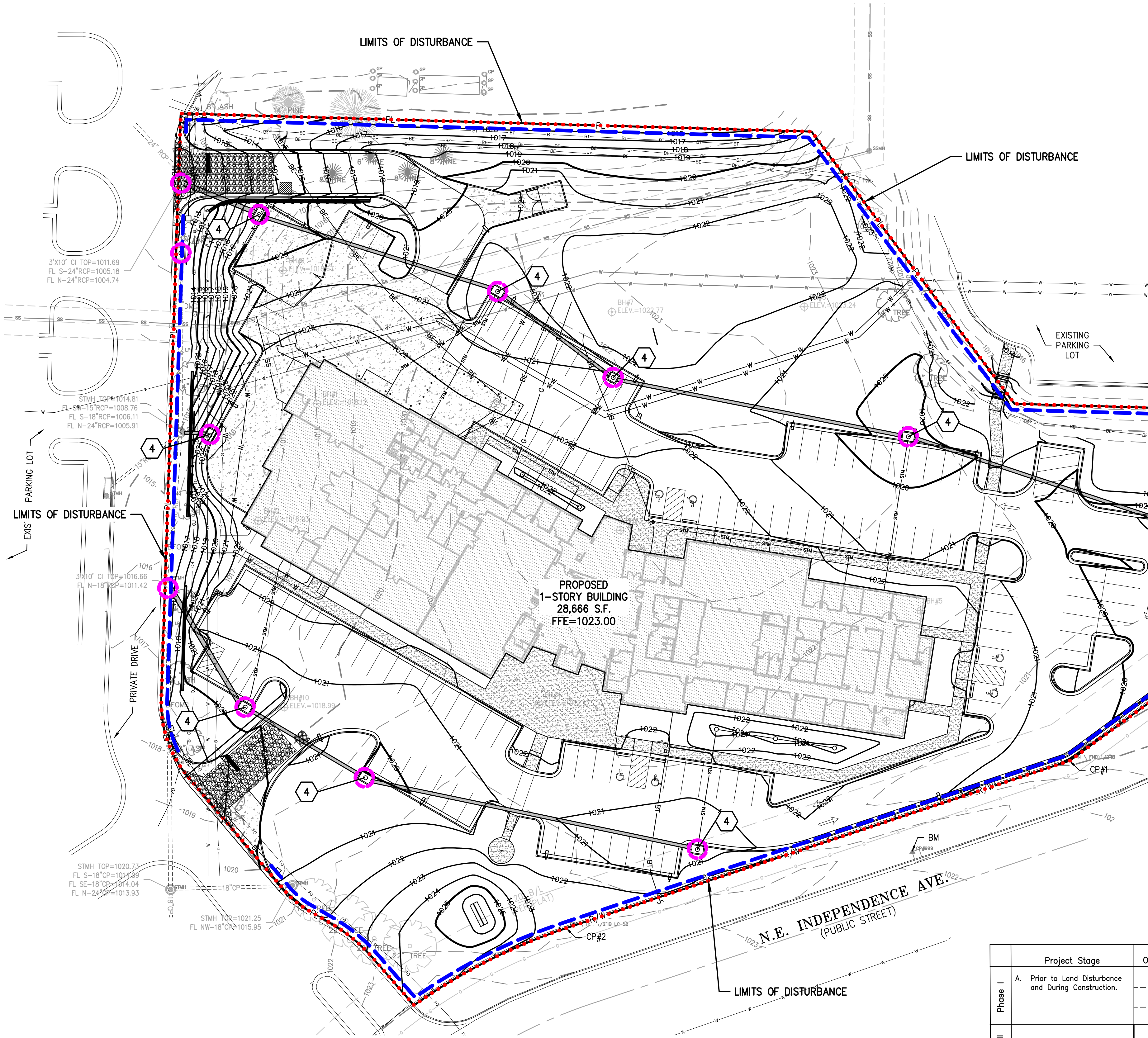


\\phelps-engineering.com\projects\220481\Drawings\Permit\Drawings\EROSION CONTROL.dwg Layout:2 Aug 01, 2023 - 11:28am Dakota Bynum



Know what's below.  
Call before you dig.

UTILITY NOTES:  
VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN.  
UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR  
LESSORS, ARE APPROXIMATE AND SHOULD BE VERIFIED IN  
THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL  
FIELD LOCATIONS OF UNDERGROUND UTILITIES CALL 811.



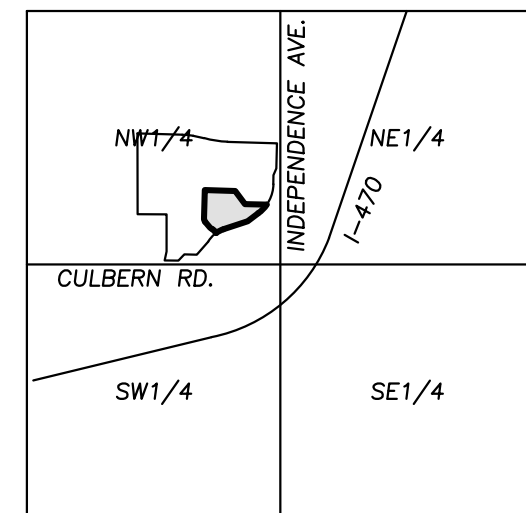
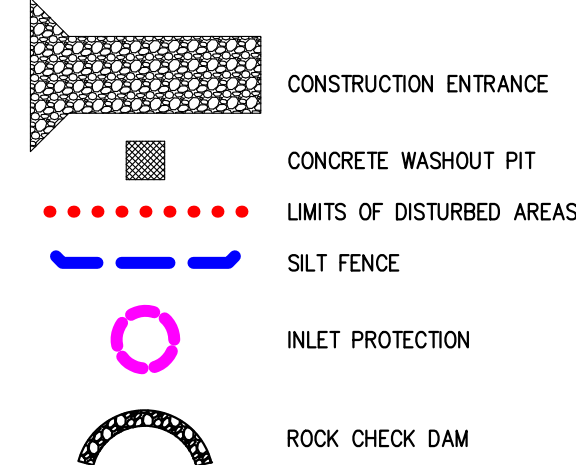
#### EROSION AND SEDIMENT CONTROL GENERAL NOTES:

- Prior to Land Disturbance activities, the contractor shall:
  - Delineate the outer limits of any tree or stream preservation designated to remain with construction fencing.
  - Construct a stabilized entrance/parking/delivery area and install all perimeter sediment controls on the site.
  - Install and request the inspection of the preconstruction erosion and sediment control measures designated on the approved erosion and sediment control plan. Land disturbance work shall not proceed until there is a satisfactory inspection.
  - Identify the limits of construction on the ground with easily recognizable indications such as construction staking, construction fencing, placement of physical barriers or other means acceptable to the contractor and the City inspector.
- Erosion and sediment control devices protecting the public right-of-way shall be installed as soon as the right-of-way has been backfilled and graded.
- The contractor shall comply with all requirements of City Ordinances or State permit requirements, such as:
  - The contractor shall seed, mulch, or otherwise stabilize any disturbed area where the land disturbance activity has ceased for more than 14 days.
  - The contractor shall perform inspections of erosion and sediment control measures at least once every 14 days and within 24 hours following each rainfall event of 1/8" or more within any 24-hour period.
  - The contractor shall maintain an inspection log including the inspector's name, date of inspection, observations as to the effectiveness of the erosion and sediment control measures, actions necessary to correct deficiencies, when the deficiencies were corrected, and the signature of the person performing the inspection. The log shall be available for review by the City, the State of Kansas, or other authorities having jurisdiction.
- The contractor shall maintain installed erosion and sediment control devices on a manner that preserves their effectiveness for preventing sediment from leaving the site or entering a sensitive area such as a natural stream corridor, tree preservation areas of the site intended to be left undisturbed, a storm sewer, or an on-site drainage channel. Failure to do so is a violation of the provisions of City Ordinances and State permit requirements.
- The contractor is responsible for providing erosion and sediment control for the duration of a project. If the City determines that the BMP's in place do not provide adequate erosion and sediment control at any time during the project, the contractor shall install additional or alternate measures that provide effective control.
- Concrete wash or rinsewater from concrete mixing equipment, tools and/or ready-mix trucks, tools, etc., may not be discharged into or be allowed to run directly into any existing water body or storm inlet. One or more locations for concrete wash out will be designated on site, such that discharges during concrete washout will be contained in a small area where waste concrete can solidify in place and excess water evaporated or infiltrated into the ground.
- Chemicals or materials capable of causing pollution may only be stored onsite in their original container. Materials store outside must be in closed and sealed water-proof containers and located outside of drainageways or areas subject to flooding. Locks and other means to prevent or reduce vandalism shall be used. Spills will be reported as required by law and immediate actions taken to contain them.

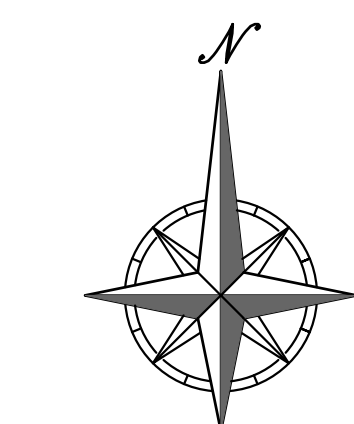
MAINTENANCE: ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLANATION, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

- INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION.
- ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
- SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-THIRD THE HEIGHT OF THE SILT FENCE.
- THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.
- THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.

#### LEGEND



VICINITY MAP  
SEC. 19-48-31



SCALE: 1"=30'  
0' 30' 60'

PEI #220481

STAGING CHART				
	Project Stage	Order	BMP Description	Remove after Stage:
Phase I	A. Prior to Land Disturbance and During Construction.	①	Sediment Fence	C
		②	Constr Entrance & Staging Area	C
		③	Inlet Protection at Existing Inlets	C
Phase II	B. Mass Grading & Utility Installation	④	Inlet Protection at Proposed Inlets	C
Phase III	C. Final Stabilization Prior to closure of Land Disturbance Permit		Final Stabilization	N/A

Refer to Overall Grading Plan and Landscape Plan for final contours and final land cover.

STATE OF MISSOURI  
MIKE PARSON,  
GOVERNOR

NOT FOR CONSTRUCTION

GastingerWalker &

Architects Interior Designers Construction Managers  
817 Wyandotte Kansas City Missouri 64105 816.421.8200 gastingerwalker.com  
Project Number: 2022.152



PLANNING  
ENGINEERING  
IMPLEMENTATION

PHILIPS ENGINEERING, INC.  
1320 N. Winchester  
Clerks, Kansas 66001  
(913) 393-9999  
Fax (913) 393-9955  
www.philipsengineering.com

CERTIFICATE OF AUTHORIZATION  
KANSAS  
LAND SURVEYING - LS-82  
ENGINEERING - E-391

CERTIFICATE OF AUTHORIZATION  
MISSOURI  
LAND SURVEYING-2007001128  
ENGINEERING-2007005068

OFFICE OF  
ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT,  
DESIGN AND  
CONSTRUCTION

Project Name  
Troop A Headquarters,  
MSHP

1950 NE Independence Ave.  
Lee's Summit, MO 64086

PROJECT # R2219-01  
SITE # 6018  
FACILITY # 8136018019

REVISION:  
DATE:  
REVISION:  
DATE:  
REVISION:  
DATE: Bid Documents  
ISSUE DATE: 01 August 2023

CAD DWG FILE: C-701.dwg  
DRAWN BY: SNH  
CHECKED BY: DAF  
DESIGNED BY: JDC

SHEET TITLE:

EROSION  
CONTROL  
PHASE II

SHEET NUMBER:

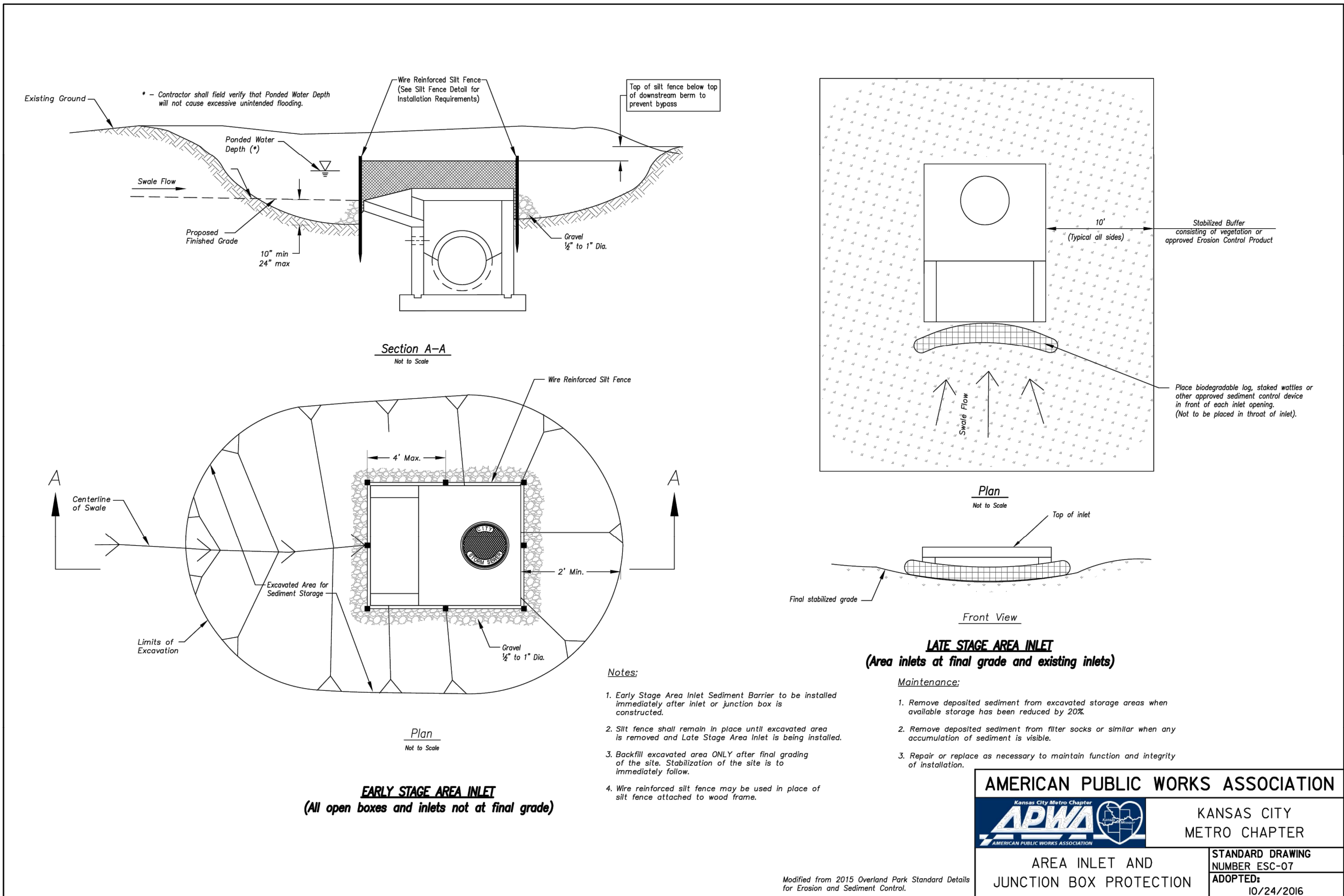
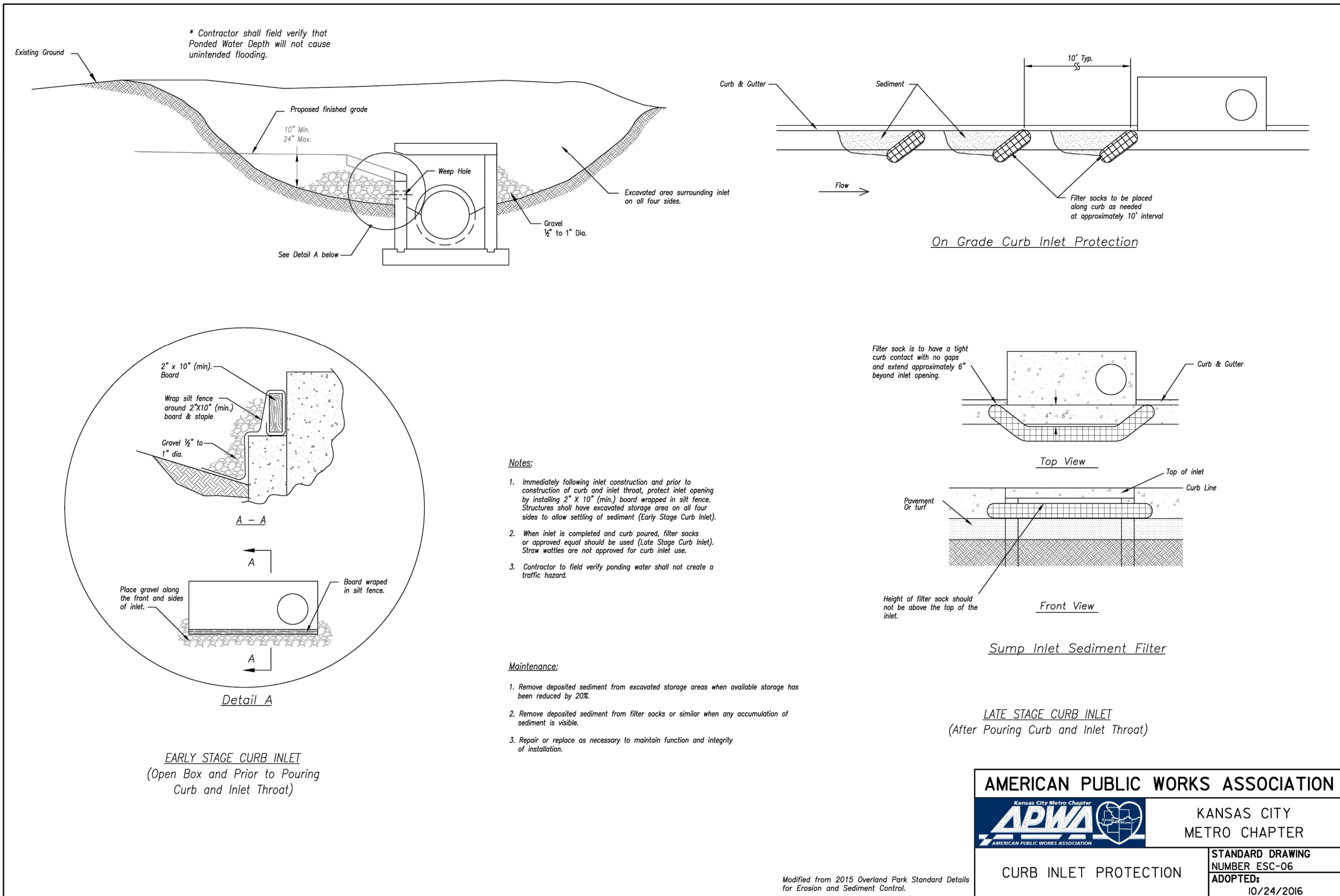
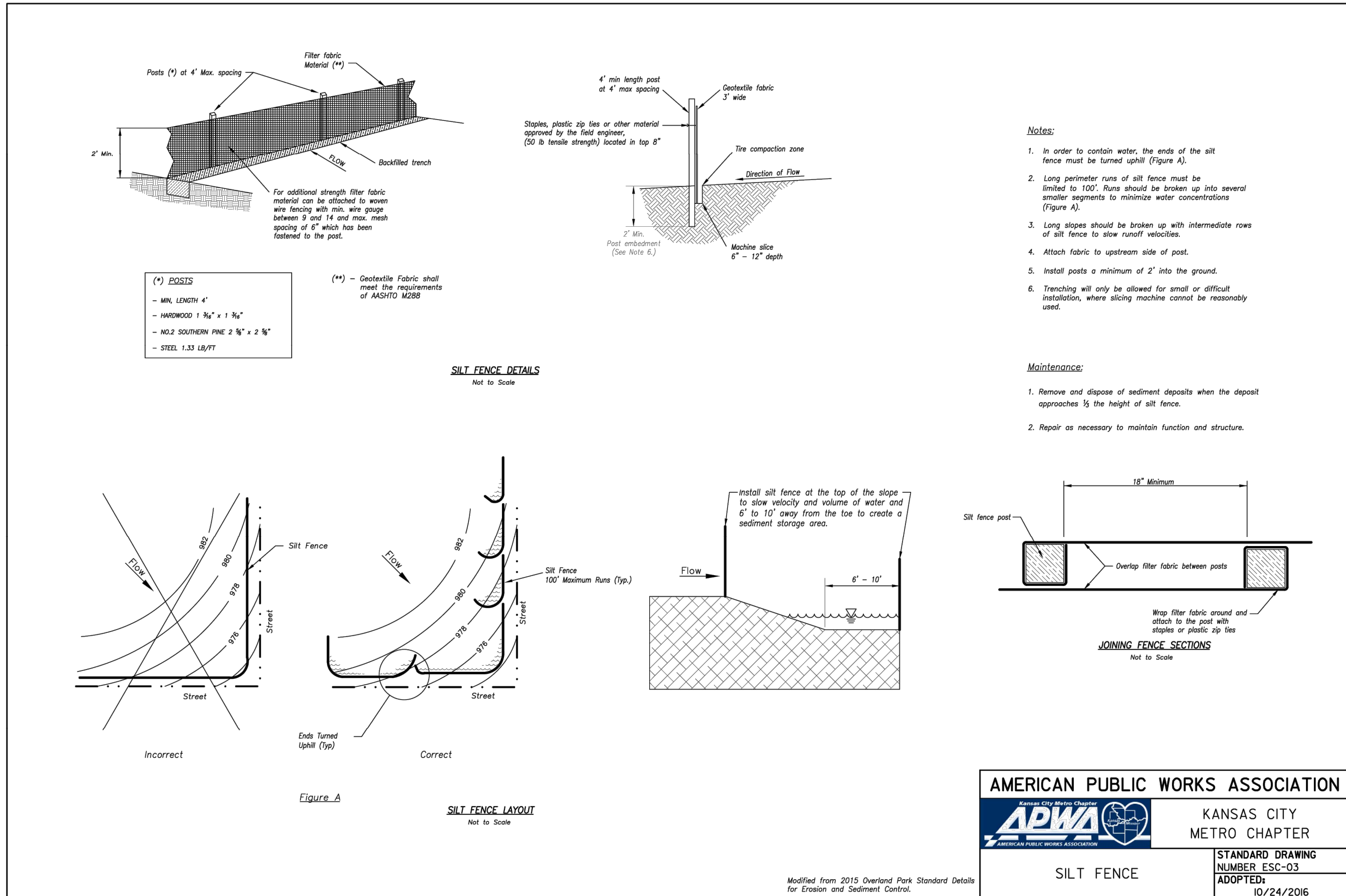
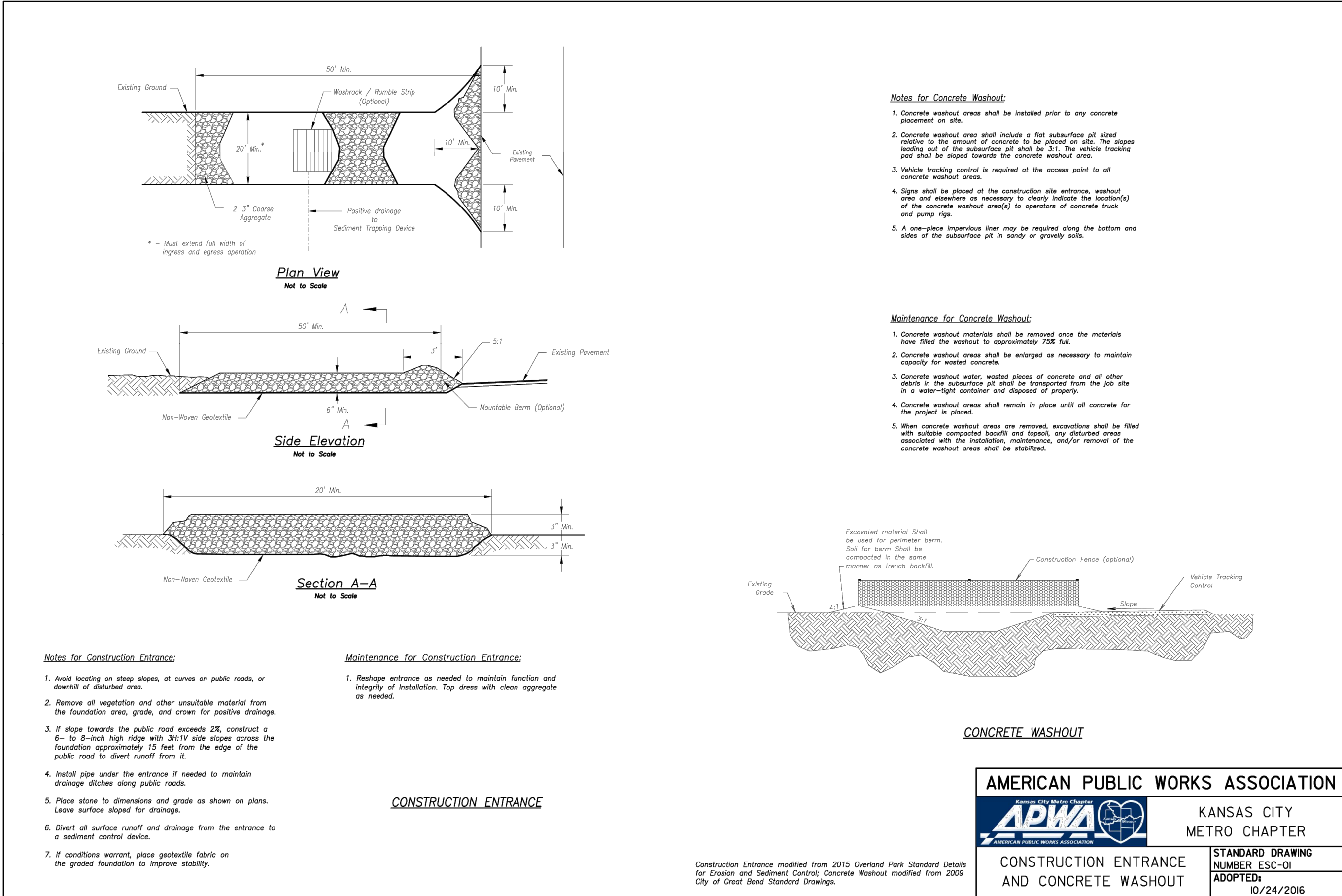
C-701

SHEET 023 OF 022

08/01/2023



\\phelps-server\projects\p\220481\eng\permit plans\DETAILS - EROSION.dwg Layout:1 Aug 01, 2023 - 11:28am Dakota Byrum



STATE OF MISSOURI  
MIKE PARSON,  
GOVERNOR

**GastingerWalker &**

Construction Managers  
817 Wyandotte Kansas City Missouri 64105 816.421.8200 gastingerwalker.com



**PHILIPS ENGINEERING, INC.**  
1320 N. Winchester  
Olathe, Kansas 66061  
Cell (913) 393-1055  
Fax (913) 393-1056  
www.philipsengineering.com

CERTIFICATE OF AUTHORIZATION  
KANSAS  
LAND SURVEYING - LS-82  
ENGINEERING - E-391

CERTIFICATE OF AUTHORIZATION  
MISSOURI  
LAND SURVEYING-2007001128  
ENGINEERING-2007005068

**OFFICE OF  
ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT,  
DESIGN AND  
CONSTRUCTION**

Project Name  
Troop A Headquarters,  
MSHP

1950 NE Independence Ave.  
Lee's Summit, MO 64086

PROJECT # R2219-01  
SITE # 6018  
FACILITY # 8136018019

REVISION:  
DATE:  
REVISION:  
DATE:  
REVISION:  
DATE: Bid Documents  
ISSUE DATE: 01 August 2023

CAD DWG FILE: C-702.dwg  
DRAWN BY: SNH  
CHECKED BY: DAF  
DESIGNED BY: JDC

SHEET TITLE:

**EROSION  
CONTROL  
DETAILS**

SHEET NUMBER:

**C-702**

SHEET \_024\_ OF \_202\_  
08/01/2023

PEI #220481



\\phelps-server\projects\p\220481\dwg\summit plans\DETAILS - PRIVATE.dwg Layout:PAVE 1 Aug 01, 2023 - 11:28am Dakota Bryum

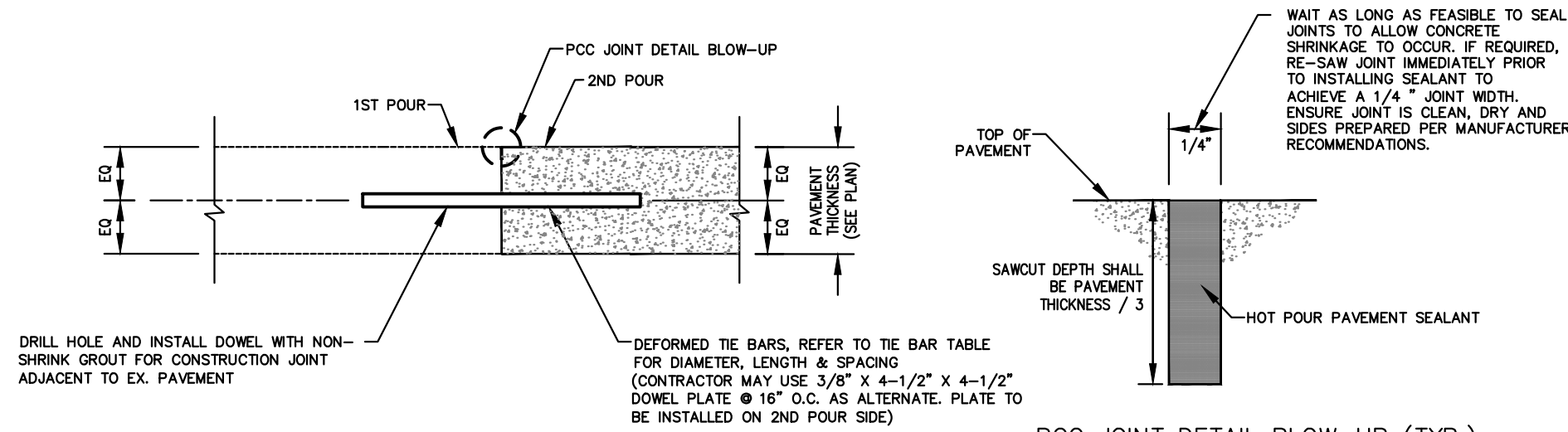
Dowel size <sup>1</sup>			
Slab depth, in. (mm)	Dowel diameter, in. (mm)	Dowel embedment, in. (mm) <sup>2</sup>	Total dowel length, in. (mm) <sup>2</sup>
5 (125)	5/8 (16)	5 (125)	12 (300)
6 (150)	3/4 (19)	6 (150)	14 (360)
7 (180)	7/8 (22)	6 (150)	14 (360)
8 (200)	1 (25)	6 (150)	14 (360)
9 (230)	1-1/8 (29)	7 (180)	16 (400)

<sup>1</sup>All dowels spaced at 12 in. (300 mm) centers.  
<sup>2</sup>On each side of joint.

<sup>3</sup>Allowance made for joint openings and for minor errors in positioning dowels.

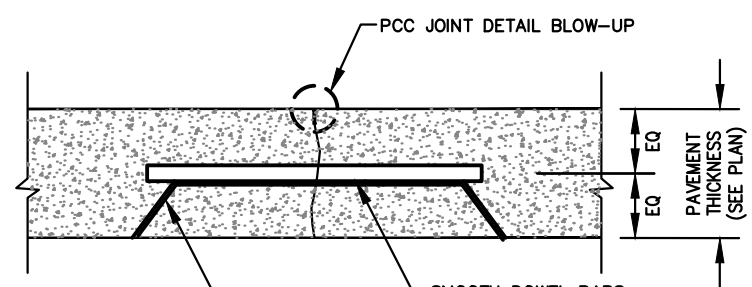
Tie bar dimensions

Slab depth, in. (mm)	Tiebar size, in. (mm)	Tiebar spacing			
		Distance to nearest free edge or to nearest joint where movement can occur			
		10 ft. in. (mm)	12 ft. in. (mm)	14 ft. in. (mm)	24 ft. in. (mm)
5 (125)	1/2 x 24 (13 x 610)	30 (760)	30 (760)	30 (760)	28 (710)
5-1/2 (140)	1/2 x 24 (13 x 610)	30 (760)	30 (760)	30 (760)	25 (630)
6 (150)	1/2 x 24 (13 x 610)	30 (760)	30 (760)	30 (760)	23 (580)
6-1/2 (165)	1/2 x 24 (13 x 610)	30 (760)	30 (760)	30 (760)	21 (530)
7 (180)	1/2 x 24 (13 x 610)	30 (760)	30 (760)	30 (760)	20 (510)
7-1/2 (190)	1/2 x 24 (13 x 610)	30 (760)	30 (760)	30 (760)	18 (460)
8 (200)	1/2 x 24 (13 x 610)	30 (760)	30 (760)	28 (710)	17 (430)
8-1/2 (215)	1/2 x 24 (13 x 610)	30 (760)	30 (760)	36 (910)	16 (410)
9 (230)	1/2 x 30 (13 x 760)	36 (910)	36 (910)	—	24 (610)

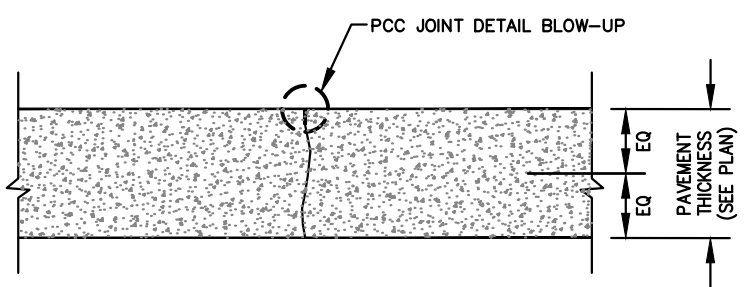


CONSTRUCTION JOINT

PCC JOINT DETAIL BLOW-UP (TYP.)



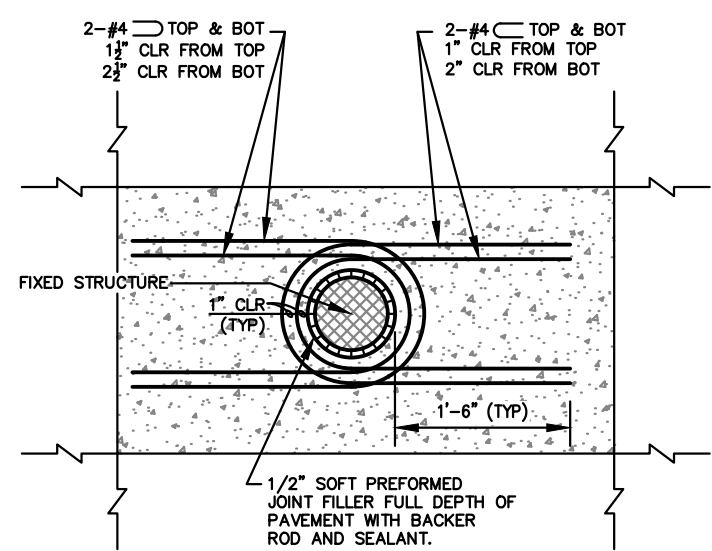
CONTRACTION JOINT (DOWELED)



CONTRACTION JOINT (UNDOWELED)

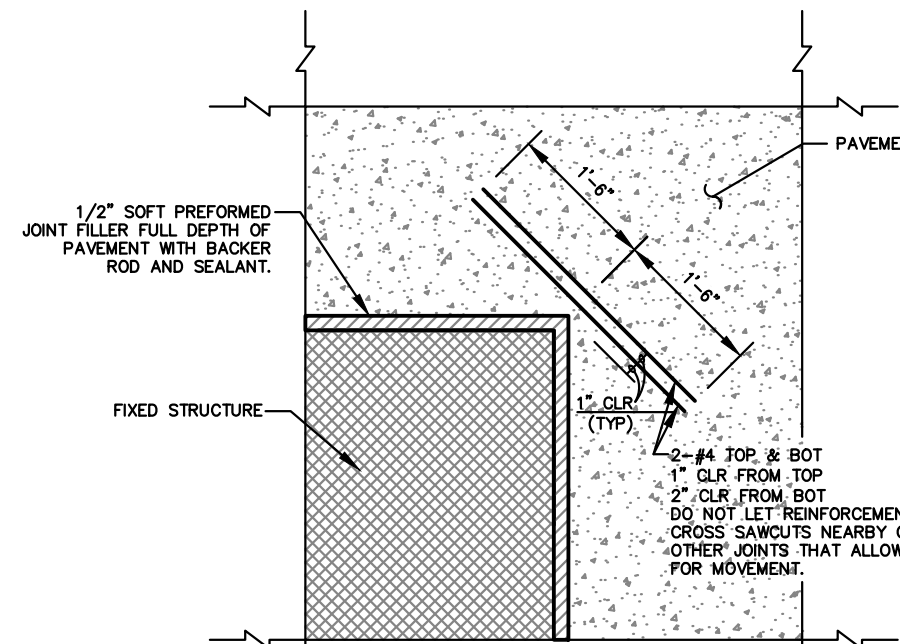
### 1 CONCRETE JOINT DETAILS

SCALE: N.T.S.



TYPICAL ROUND FIXED STRUCTURE PLAN DETAIL

USES: MANHOLES, LIGHT POLE BASES AND BOLLARDS

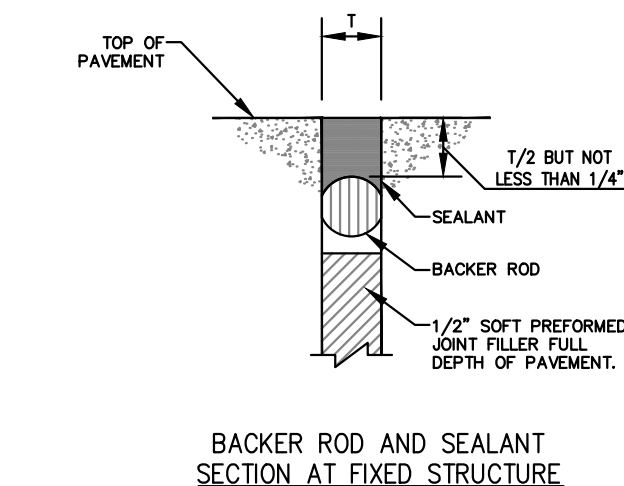


TYPICAL RECTANGULAR FIXED STRUCTURE PLAN DETAIL

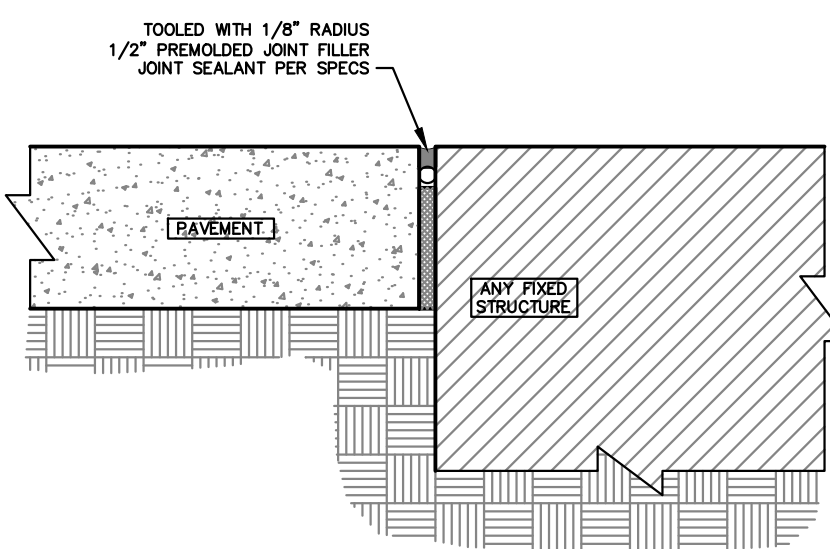
USES: BUILDINGS, RETAINING WALLS/DOCK WALLS AND DROP INLETS

### 2 ISOLATION JOINT DETAILS

SCALE: N.T.S.



BACKER ROD AND SEALANT SECTION AT FIXED STRUCTURE

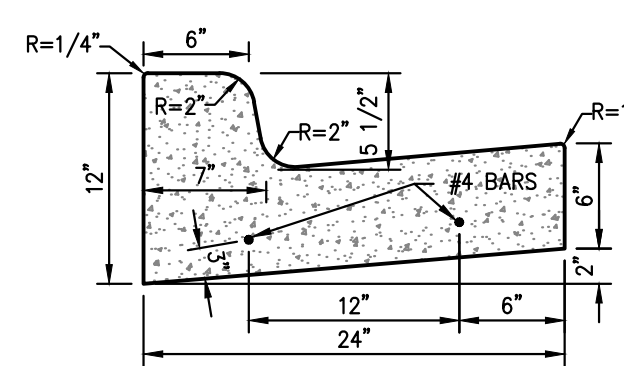


ISOLATION JOINT

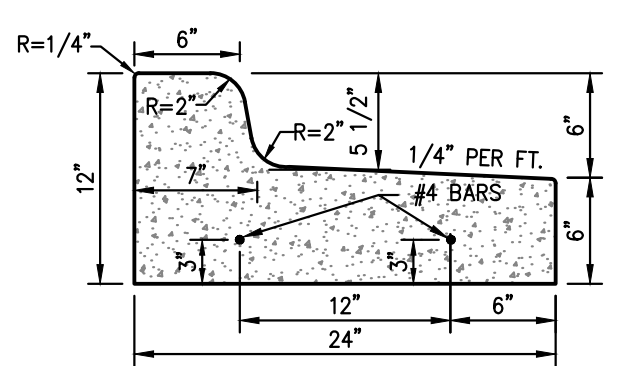
NOTES:

ISOLATION JOINT TO BE USED FOR FIXED STRUCTURES SUCH AS BUILDINGS, RETAINING WALLS/DOCK WALLS, DROP INLETS, MANHOLES, LIGHT POLE BASES AND BOLLARDS.

PAVEMENT IS NOT CONSIDERED A FIXED STRUCTURE.



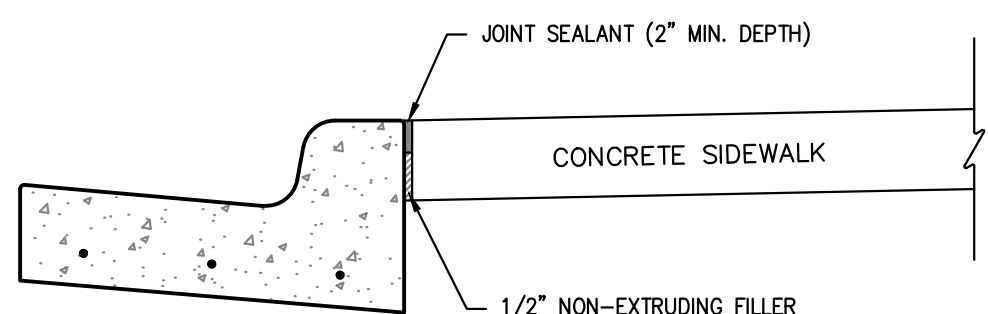
TYPE "B" CURB & GUTTER



TYPE "B" TIP-OUT CURB & GUTTER

### 4 PRIVATE CURB & GUTTER DETAILS

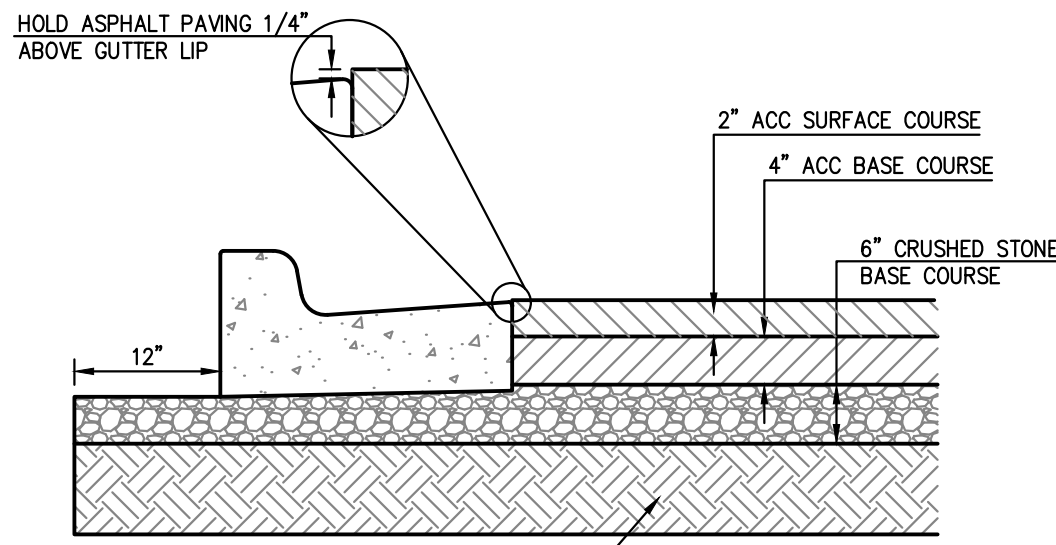
SCALE: N.T.S.



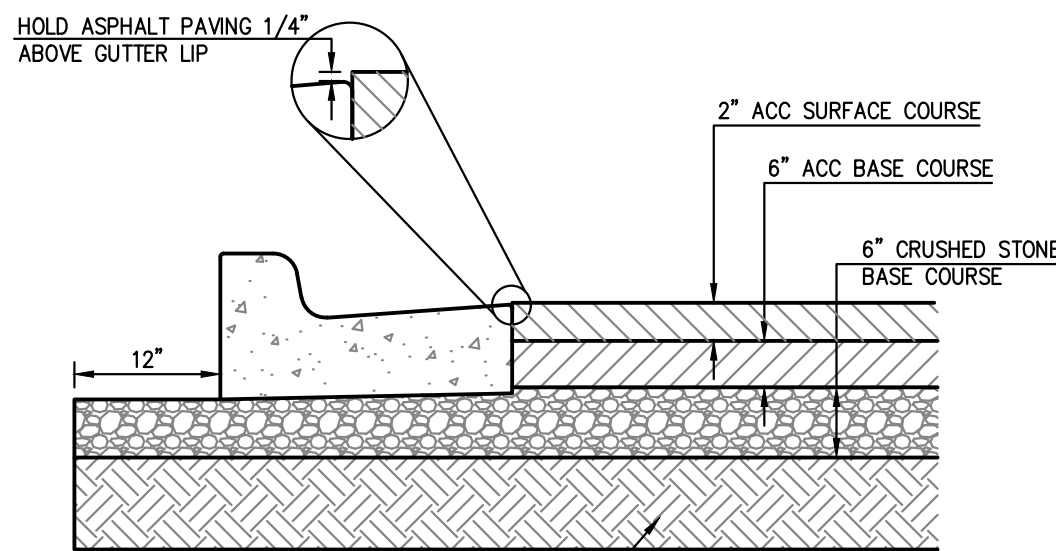
ALL OTHER DETAILS SAME AS SHOWN PER THIS SHEET.

### 6 SIDEWALK AT CURB DETAIL

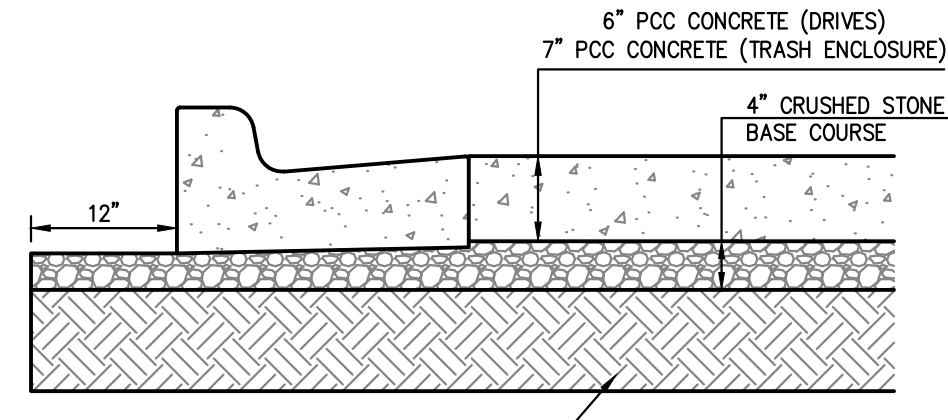
SCALE: N.T.S.



ASPHALT PAVING - STANDARD DUTY AREAS



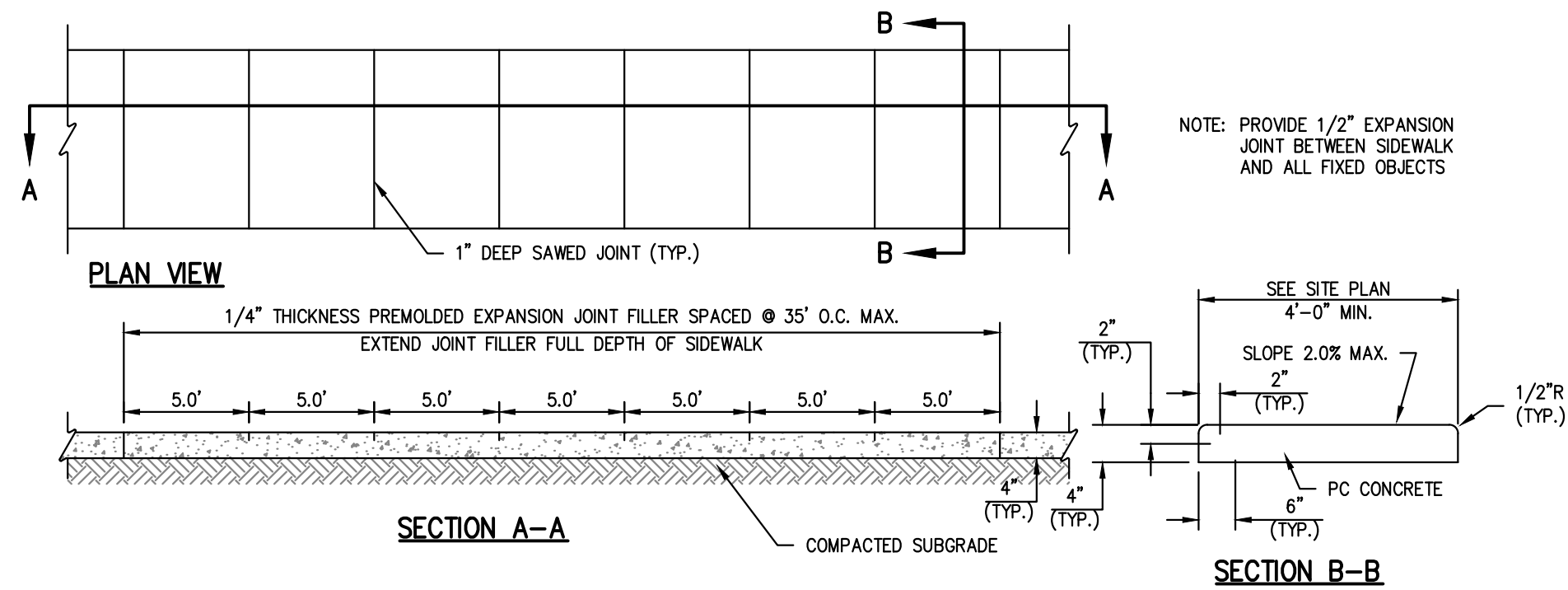
ASPHALT PAVING - HEAVY DUTY AREAS



CONCRETE PAVING

### 3 PAVING SECTIONS

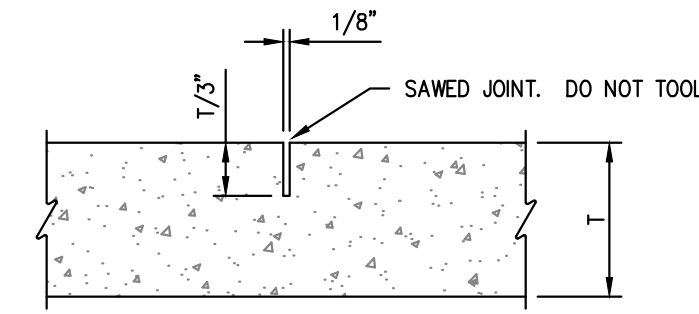
SCALE: N.T.S.



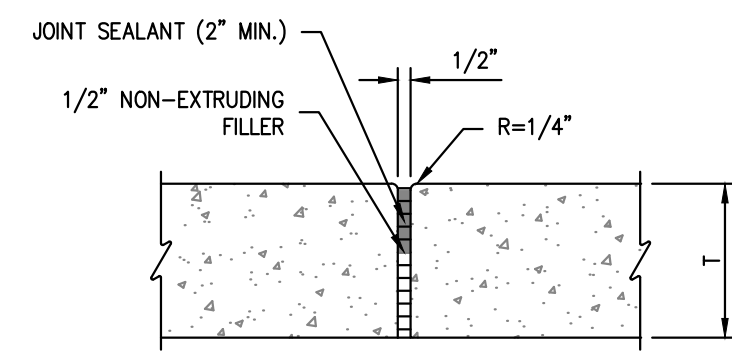
NOTE: 1. USE KANSAS CITY MATERIALS METRO BOARD (KCMRB) MIX DESIGN SPECIFICATIONS FOR 4,000 P.S.I. AIR ENTRAINED CONCRETE FOR ALL PRIVATE SIDEWALKS.

### 5 PRIVATE CONCRETE SIDEWALKS (NON REINFORCED)

SCALE: N.T.S.



TYPE A JOINT



TYPE B JOINT

NOTE: TYPE A JOINTS SHALL NOT EXCEED 20 TIMES THE PAVEMENT THICKNESS (T).

### 7 CONCRETE SIDEWALK JOINT DETAILS

SCALE: N.T.S.

STATE OF MISSOURI  
MIKE PARSON,  
GOVERNOR

NOT FOR CONSTRUCTION

GastingerWalker &

Construction Managers  
Interior Designers  
Architects  
817 Wyandotte Kansas City Missouri 64105 816.421.8200 gastingerwalker.com  
Project Number: 2022.152



PLANNING  
ENGINEERING  
IMPLEMENTATION

PHILIPS ENGINEERING, INC.  
1200 N. Winchester  
Clerks, Kansas 66001  
City 913.393.1155  
Fax 913.393.1155  
www.philipsengineering.com

CERTIFICATE OF AUTHORIZATION  
KANSAS  
LAND SURVEYING - LS-82  
ENGINEERING - E-391

CERTIFICATE OF AUTHORIZATION  
MISSOURI  
LAND SURVEYING-2007001128  
ENGINEERING-2007005068

OFFICE OF  
ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT,  
DESIGN AND  
CONSTRUCTION

Project Name  
Troop A Headquarters,  
MSHP

1950 NE Independence Ave.  
Lee's Summit, MO 64086

PROJECT # R2219-01  
SITE # 6018  
FACILITY # 8136018019

REVISION:  
DATE:  
REVISION:  
DATE:  
REVISION:  
DATE: Bid Documents  
ISSUE DATE: 01 August 2023

CAD DWG FILE: C-800.dwg  
DRAWN BY: SNH  
CHECKED BY: DAF  
DESIGNED BY: JDC

SHEET TITLE:

STANDARD  
DETAILS

SHEET NUMBER:

C-800

SHEET 025 OF 202

08/01/2023

PEI #220481



Project Name  
Troop A Headquarters,  
MSHP

PROJECT # R2219-01  
SITE # 6018  
FACILITY # 8136018019

CAD DWG FILE: C-801.dwg  
DRAWN BY: SNU

SHEET TITLE:

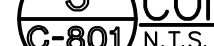
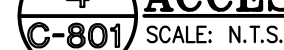
SHEET NUMBER:

PEI #220481



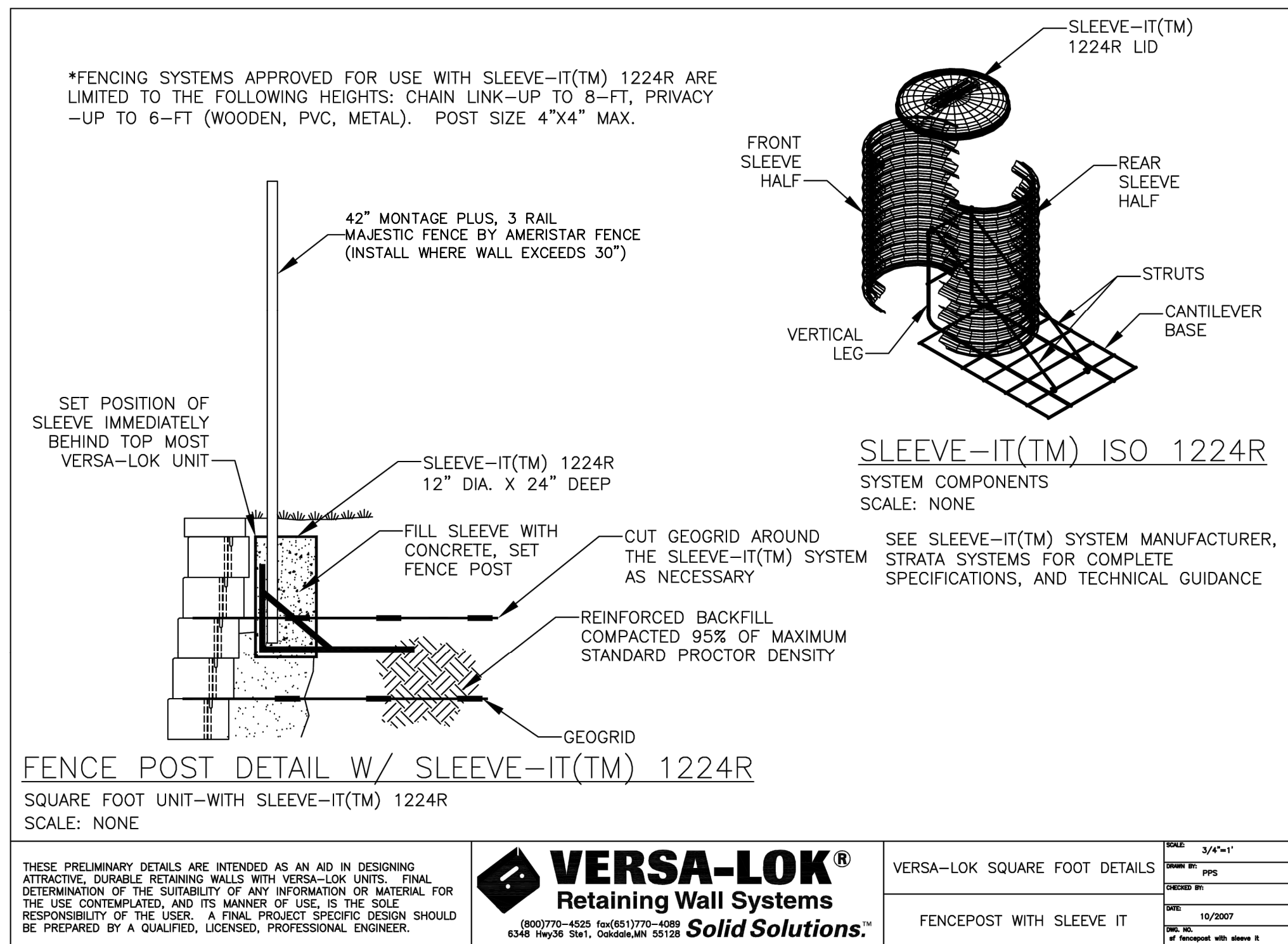
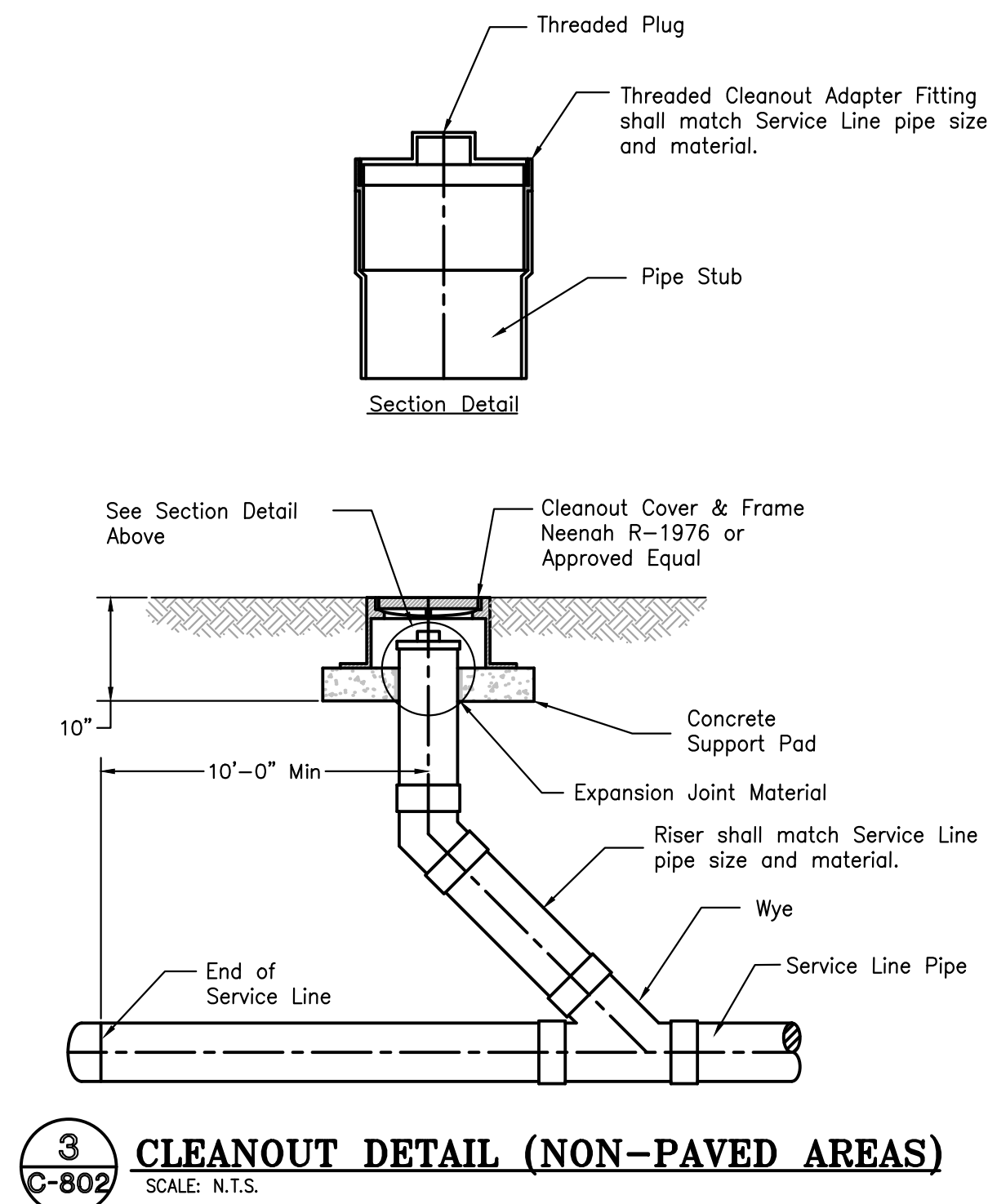
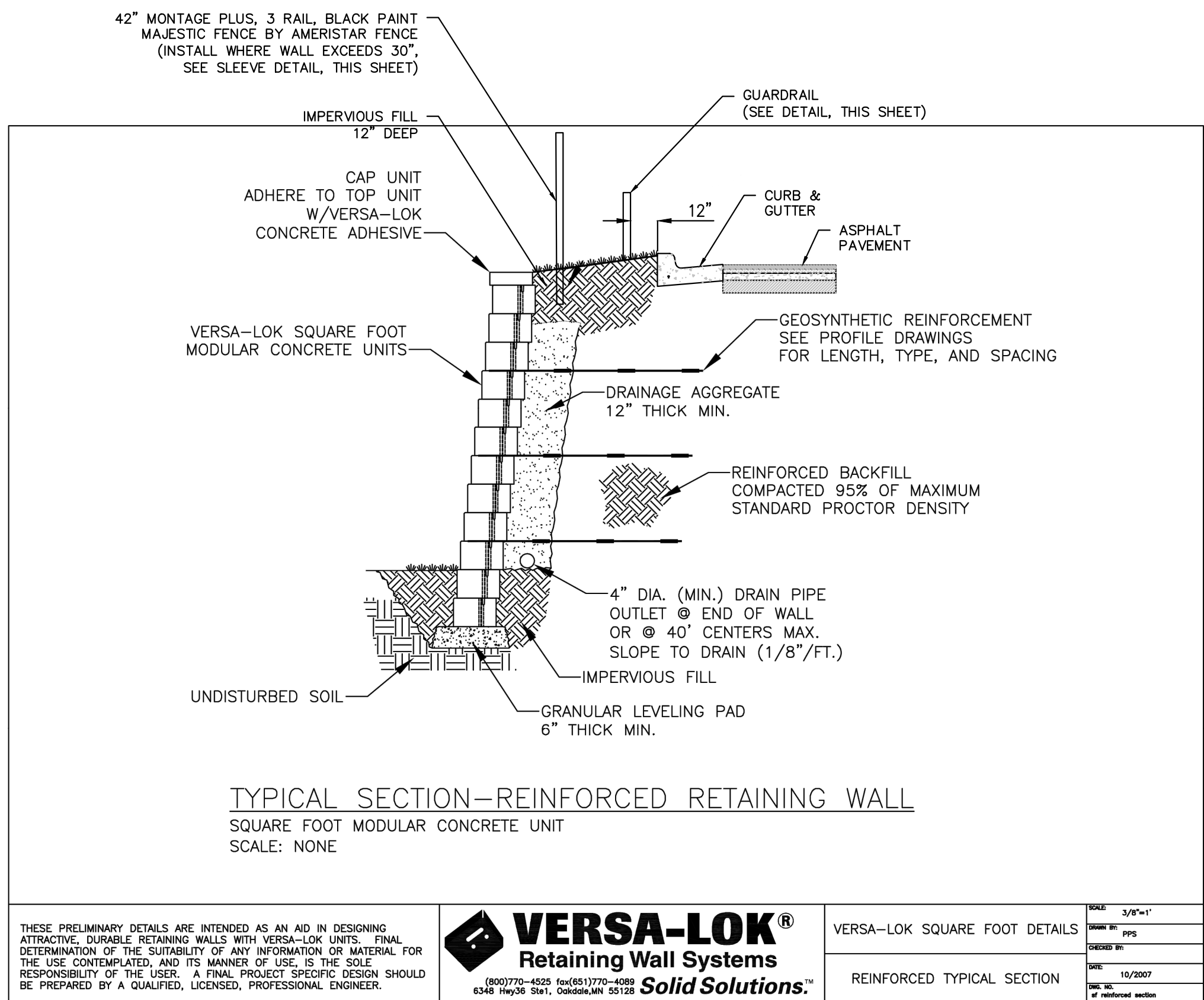
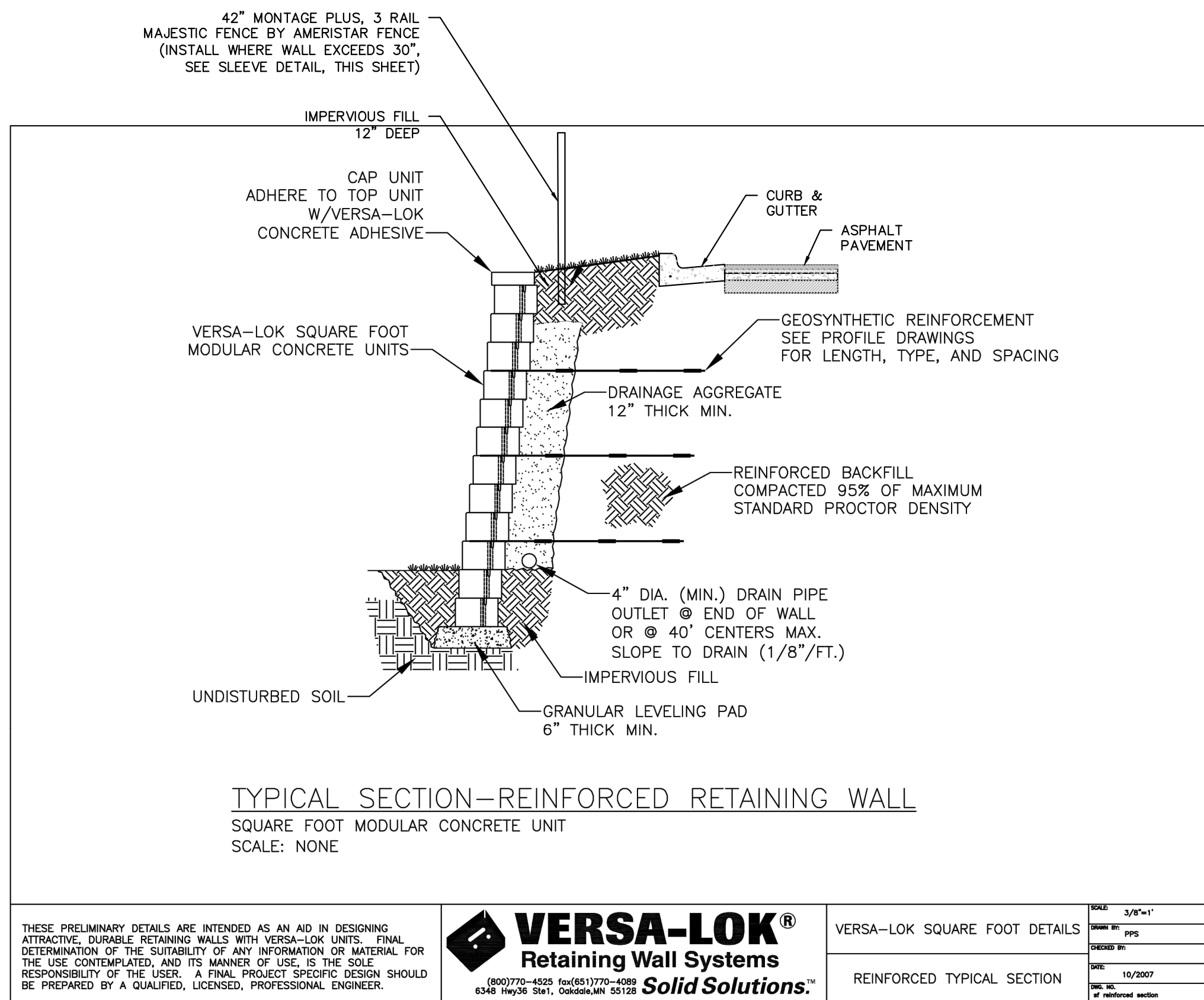
- GENERAL NOTES:

1. ALL PAYMENT MARKINGS SHALL BE APPLIED BY A QUALIFIED CONTRACTOR HAVING A MINIMUM 3 YEARS EXPERIENCE IN TRAFFIC GRADE PAVEMENT MARKING APPLICATIONS.
2. PAINT SHALL BE A NON-SLEEDING, QUICK-DRYING, ALKYL PETROLEUM BASE PAINT OF TRAFFIC-WEARING SURFACE AND SHALL MEET ITS TYP-88 & MIXED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS BEFORE APPLICATION.
3. SWEEP AND CLEAN SURFACE TO ELIMINATE LOOSE MATERIAL & DUST.
4. APPLY TWO (2) COATS OF PAINT AT MANUFACTURER RECOMMENDED RATE WITHOUT THE ADDITION OF THINNER, WITH A MAXIMUM OF 100 SQUARE FEET PER HOUR WITH MECHANICAL EQUIPMENT TO PRODUCE UNIFORM STRAIGHT EDGES. AT SIDEWALK, CURBS, AND CROSSLINKS USE A STRAIGHTEDGE TO INSURE A UNIFORM, CLEAN, & STRAIGHT STRIPE.
5. THE FOLLOWING ITEMS SHALL BE PAINTED WITH THE COLORS NOTED BELOW:  
HANDCAUP SYMBOLS: SEE DETAIL SHEET.  
B. PARKING SLAT STRIPING: WHITE
6. ACCESSIBLE PARKING SPACE DESIGN LAYOUT SHALL BE IN ACCORDANCE WITH CURRENT ADA REQUIREMENTS.
7. SEE SITE PLANS FOR COMPLETE PARKING LAYOUT.

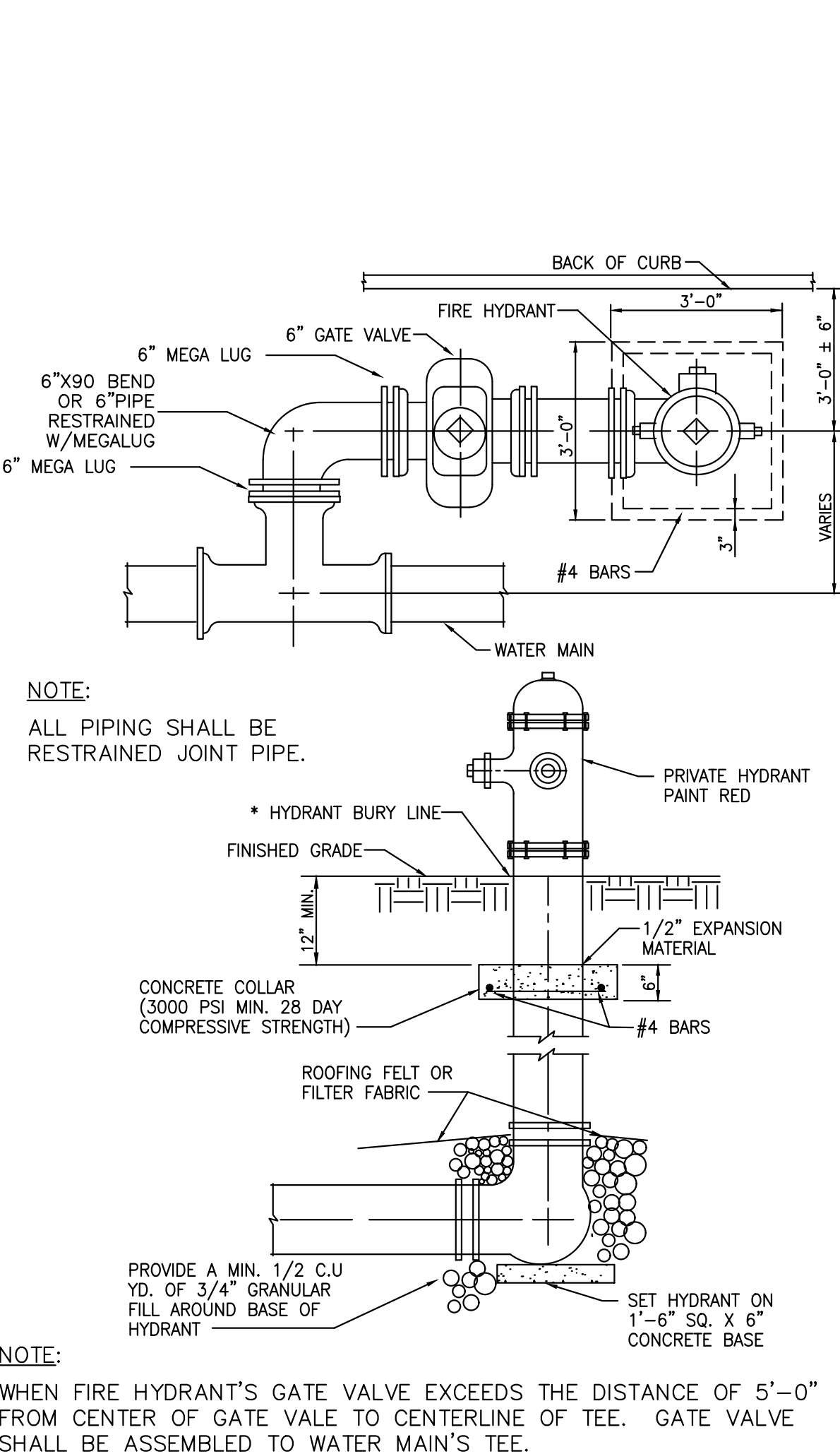




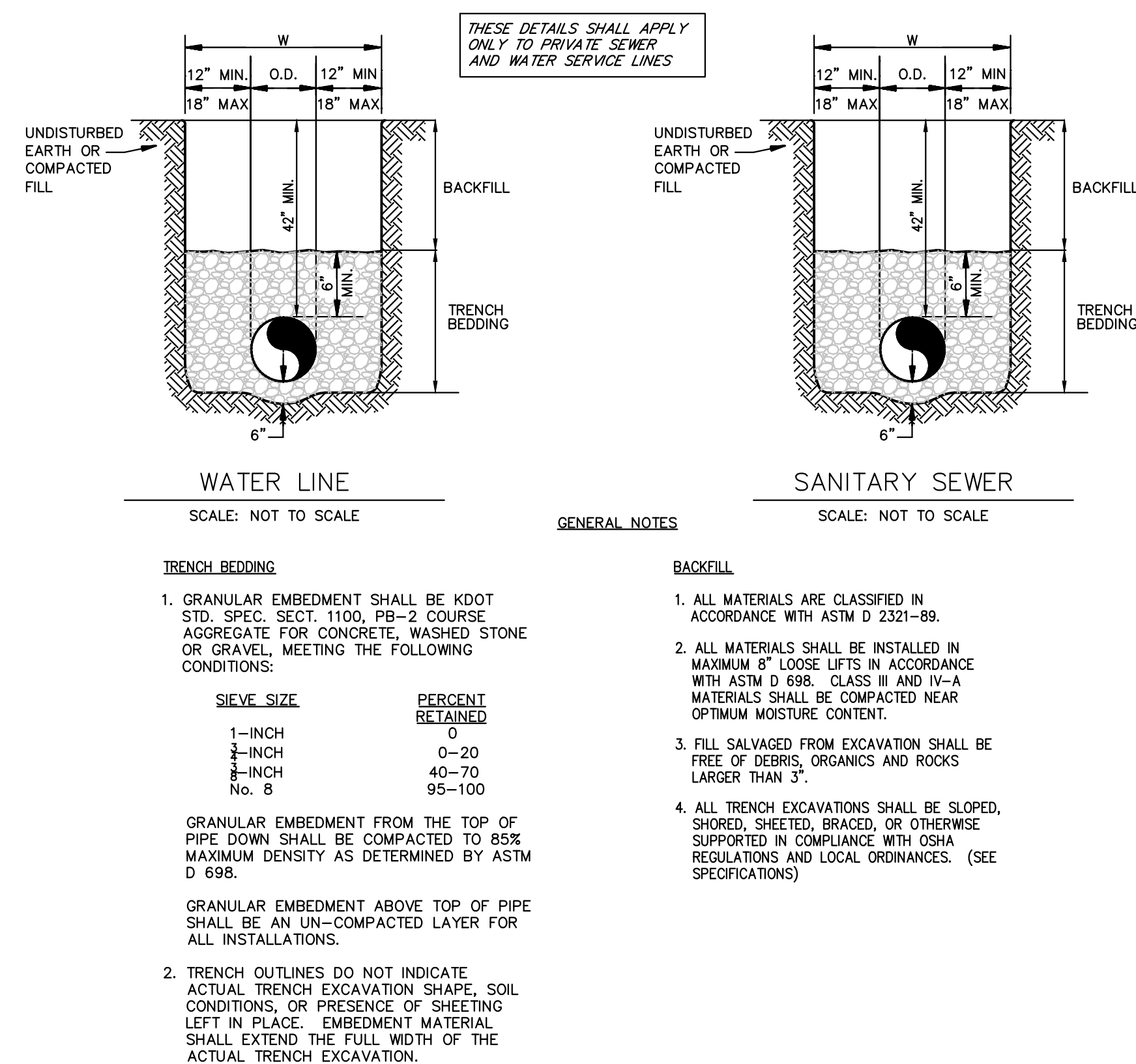
\\phelps-server\projects\p\220481\dwg\permit plans\DETAILS - PRIVATE.dwg Layout:PAVE 3 Aug 01, 2023 - 11:28am Dakota Bynum



**1 REINFORCED LANDSCAPE RETAINING WALL DETAILS**  
SCALE: N.T.S.  
VERSA-LOK SHOWN AS BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR APPROVED ALTERNATIVES.



**2 PRIVATE FIRE HYDRANT INSTALLATION DETAIL**  
SCALE: N.T.S.



**4 UTILITY TRENCH AND BEDDING**

STATE OF MISSOURI  
MIKE PARSON,  
GOVERNOR

NOT FOR CONSTRUCTION

GastingerWalker &

Architects  
817 Wyandotte  
Kansas City Missouri 64105 816.421.8200  
gastingerwalker.com  
Project Number: 2022.152



PLANNING  
ENGINEERING  
IMPLEMENTATION

PHILIPS ENGINEERING, INC.  
1320 N. Winchester  
Clathe, Kansas 66061  
C-802 309-1955  
Fax (913) 393-1166  
www.philipsengineering.com

CERTIFICATE OF AUTHORIZATION  
KANSAS  
LAND SURVEYING - LS-82  
ENGINEERING - E-391

CERTIFICATE OF AUTHORIZATION  
MISSOURI  
LAND SURVEYING-2007001128  
ENGINEERING-2007005068

OFFICE OF  
ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT,  
DESIGN AND  
CONSTRUCTION

Project Name  
Troop A Headquarters,  
MSHP

1950 NE Independence Ave.  
Lee's Summit, MO 64086

PROJECT # R2219-01  
SITE # 6018  
FACILITY # 8136018019

REVISION:  
DATE:  
REVISION:  
DATE:  
REVISION:  
DATE: Bid Documents  
ISSUE DATE: 01 August 2023

CAD DWG FILE: C-802.dwg  
DRAWN BY: SNH  
CHECKED BY: DAF  
DESIGNED BY: JDC

SHEET TITLE:

STANDARD  
DETAILS

SHEET NUMBER:

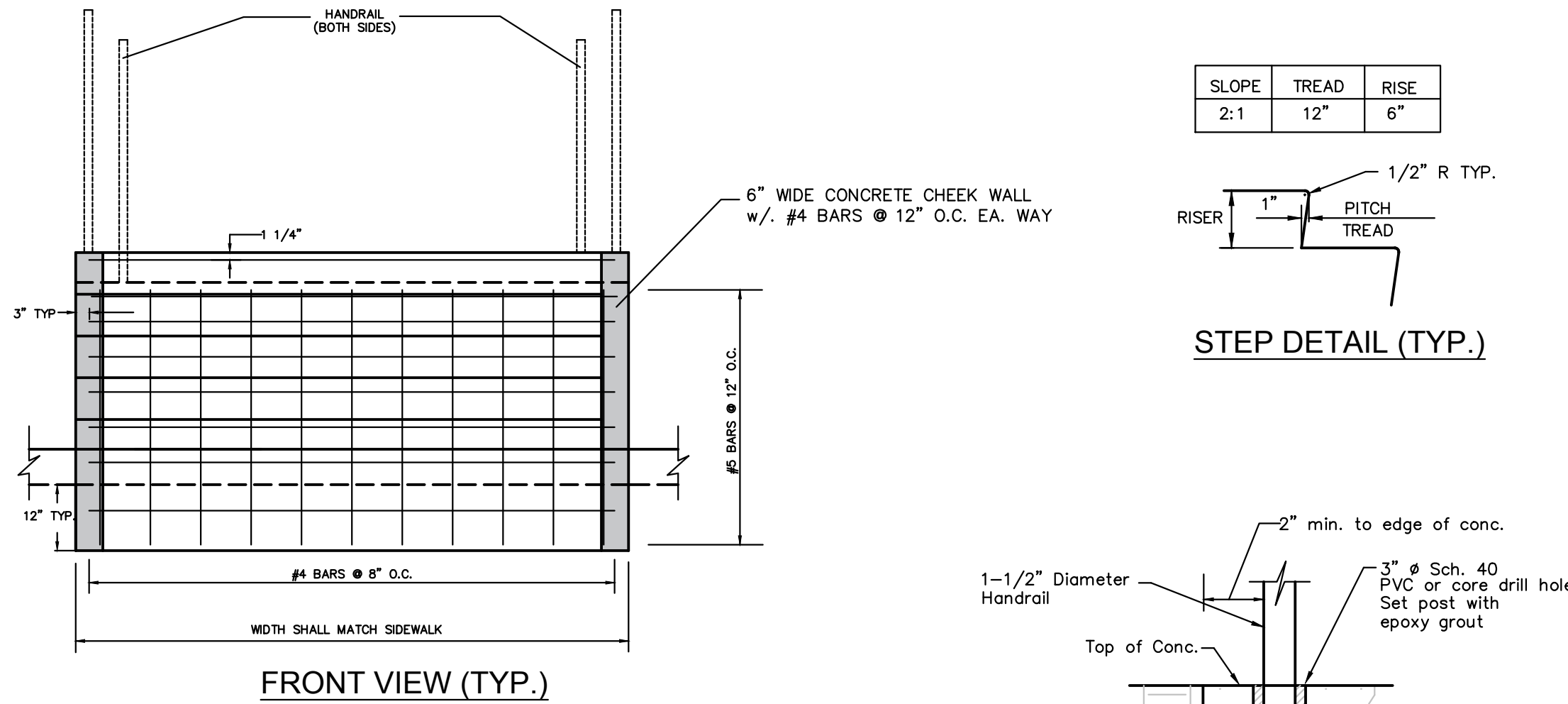
C-802

SHEET 027 OF 202  
08/01/2023

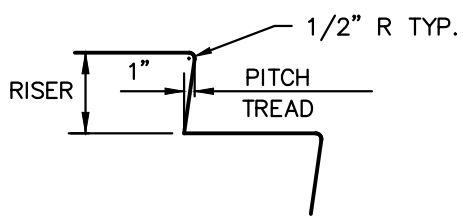
PEI #220481



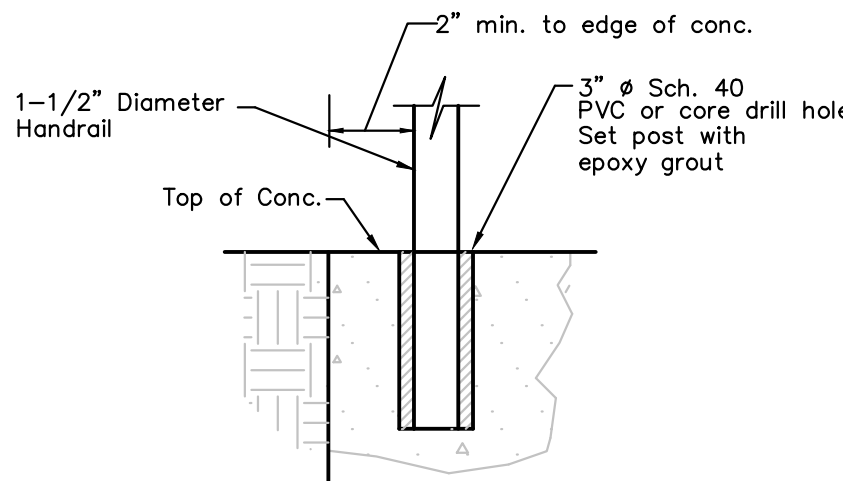
\\phelps-server\projects\p\220481\dwg\usermit\plans\DETAILS - PRIVATE.dwg Layout:PAVE 4 Aug 01, 2023 -- 11:28am Dakota Bynum



SLOPE	TREAD	RISE
2:1	12"	6"

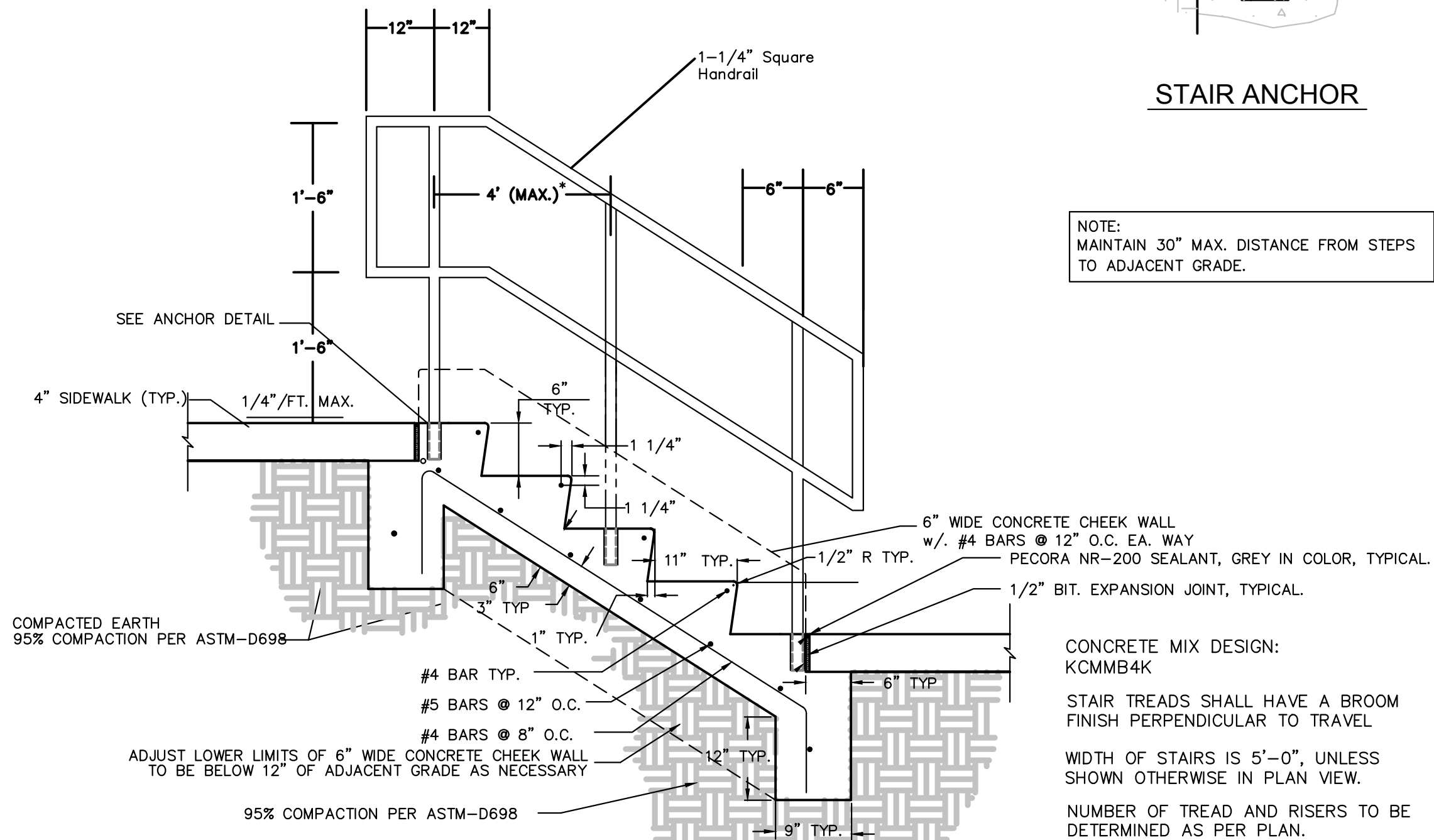


STEP DETAIL (TYP.)



STAIR ANCHOR

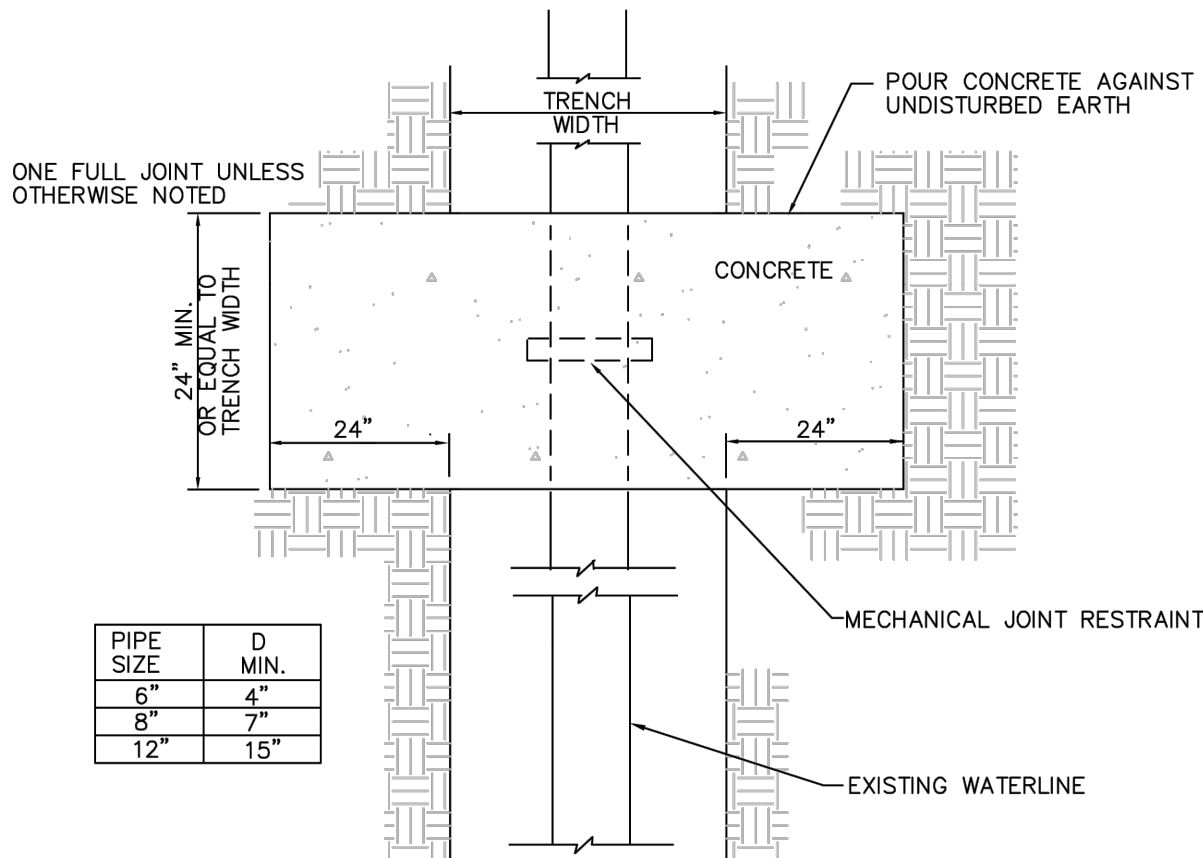
NOTE:  
MAINTAIN 30" MAX. DISTANCE FROM STEPS  
TO ADJACENT GRADE.



STAIR SECTION DETAIL (TYP.)

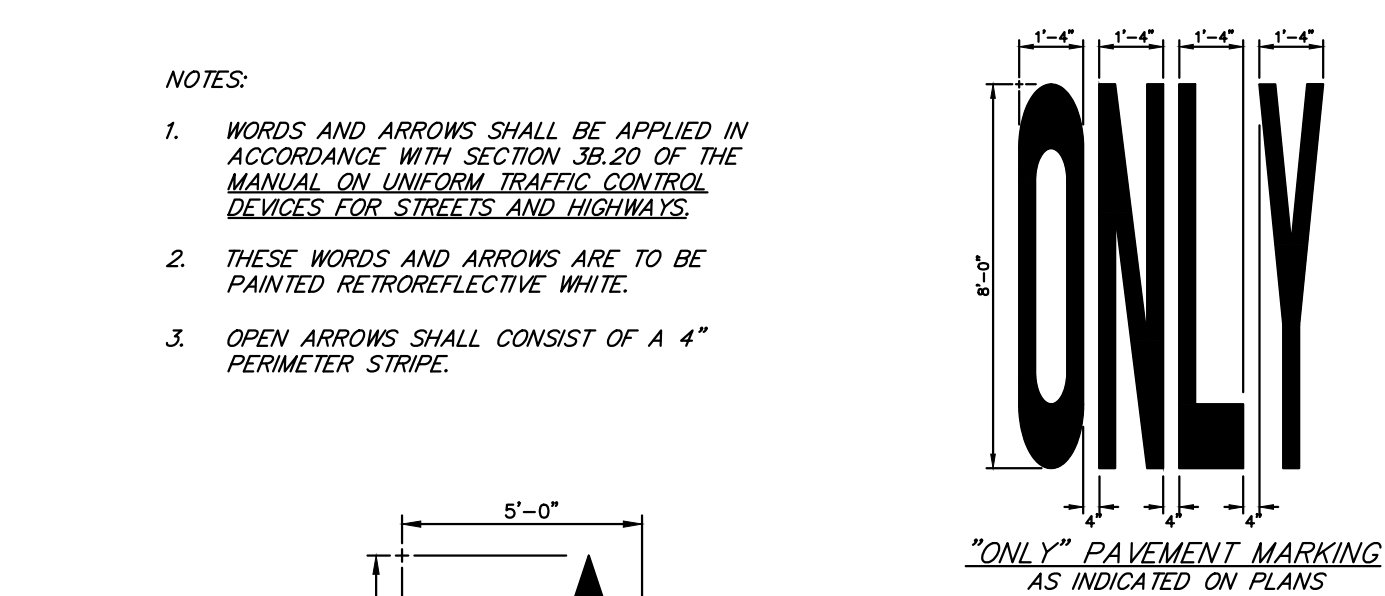
## 1 CONCRETE STAIRS WITH CHEEK WALL AND HANDRAIL DETAILS

SCALE: N.T.S.

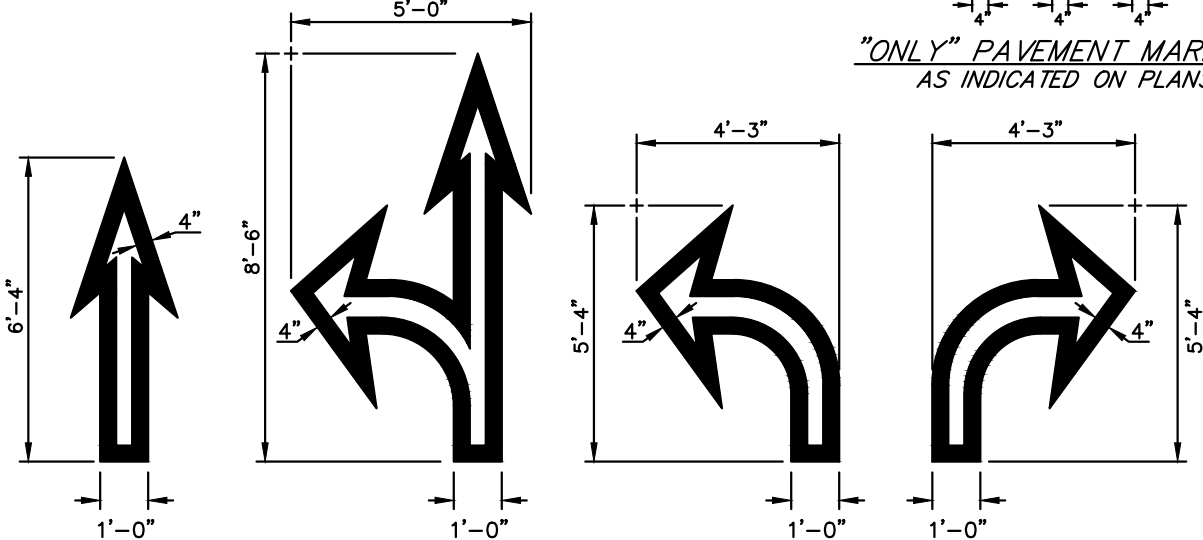


PIPE SIZE	D MIN.
6"	4"
8"	7"
12"	15"

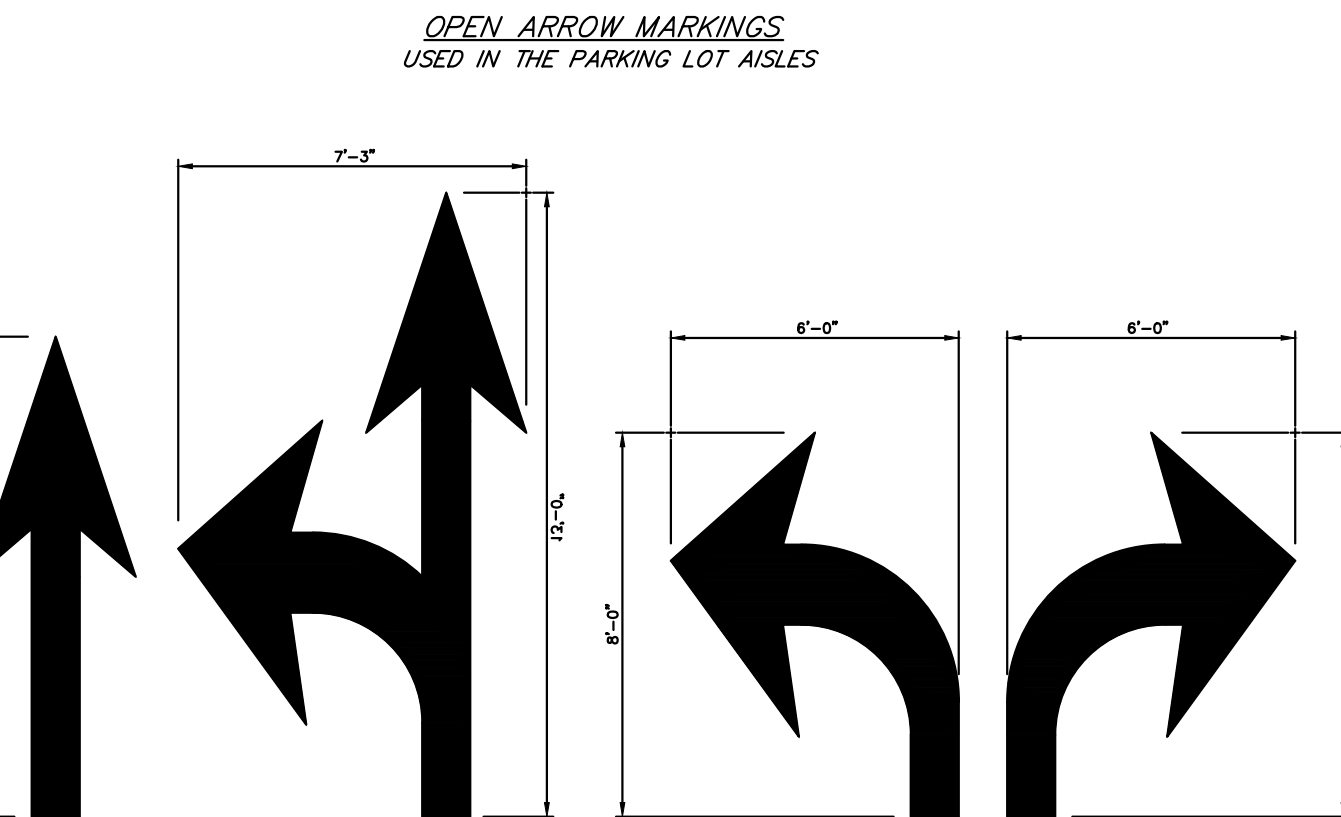
## 3 STRADDLE BLOCK



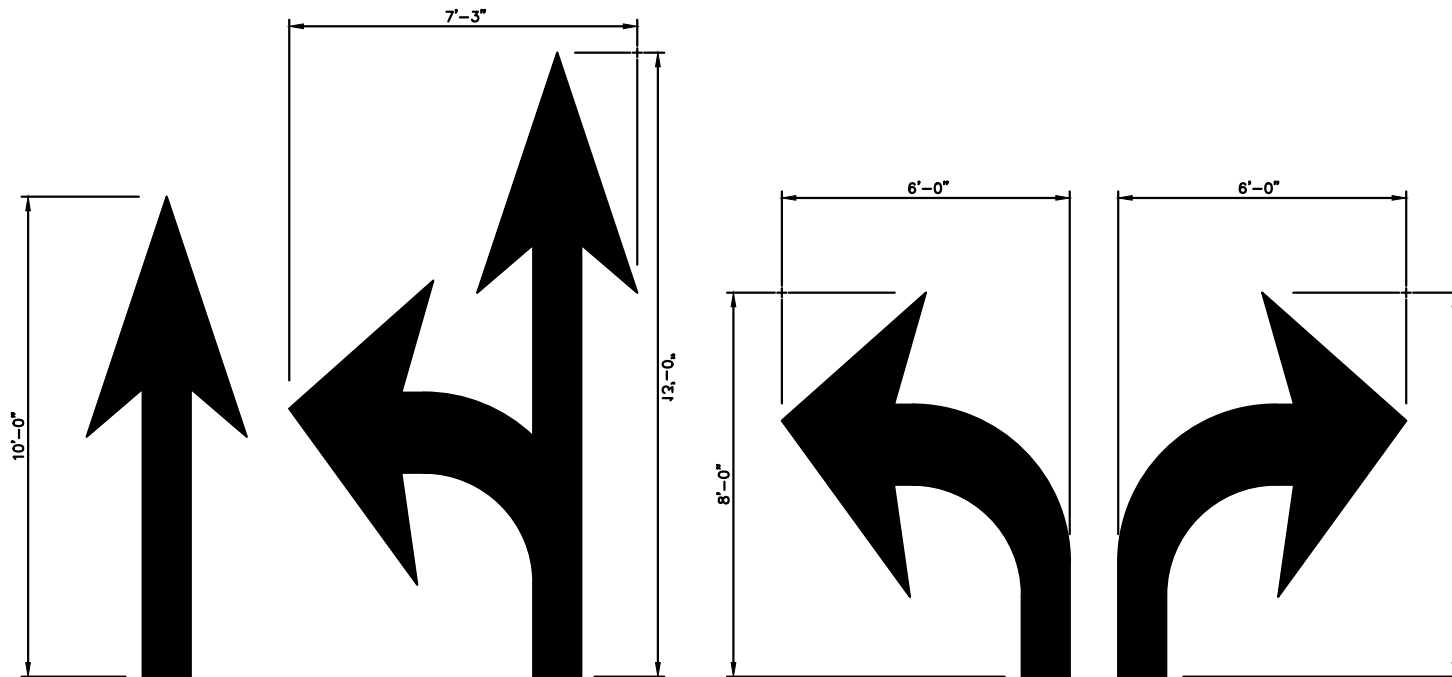
- NOTES:
- WORDS AND ARROWS SHALL BE APPLIED IN ACCORDANCE WITH SECTION 3B.20 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.
  - THESE WORDS AND ARROWS ARE TO BE PAINTED RETROREFLECTIVE WHITE.
  - OPEN ARROWS SHALL CONSIST OF A 4" PERIMETER STRIPE.



"ONLY" PAVEMENT MARKING  
AS INDICATED ON PLANS



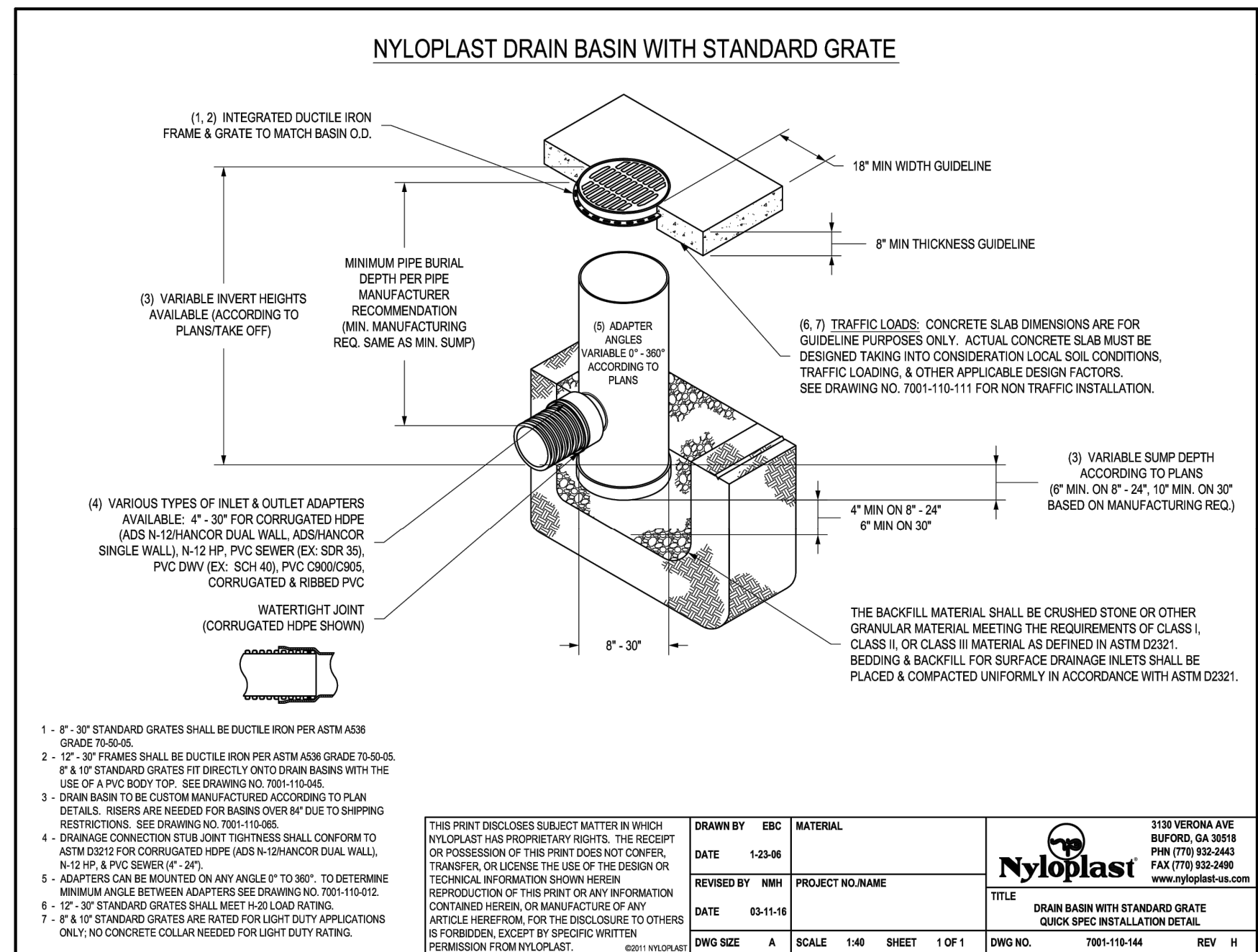
OPEN ARROW MARKINGS  
USED IN THE PARKING LOT AISLES



SOLID ARROW MARKINGS  
USED AT EXITS FROM THE PARKING LOT TO PUBLIC STREETS

## 2 PAVEMENT MARKING DETAILS

C-803



1. 6" - 30" STANDARD GRATES SHALL BE DUCTILE IRON PER ASTM A808 GRADE 70-60.
2. 12" - 30" FRAMES SHALL BE DUCTILE IRON PER ASTM A808 GRADE 70-60.
3. 12" - 30" STANDARD GRATES FIT DIRECTLY ONTO DRAIN BASINS WITH THE USE OF A PVC BODY TOP. SEE DRAWING NO. 7001-10-040.
4. DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 8" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-10-040.
5. DRAINAGE CONNECTION STYLE JOINT TOP THRESH SHALL CONFORM TO ASTM D2021 FOR CORRUGATED HDPE AND N-12HAWCOR DUAL WALL N-12HAWCOR PVC SERIES 12-30.
6. ADAPTERS CAN BE MOUNTED ON ANY ANGLE UP TO 30°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-10-040.
7. 12" - 30" STANDARD GRATES SHALL MEET 4-20 LOAD RATING.
8. 12" - 30" STANDARD GRATES ARE NOTED FOR LIGHT DUTY APPLICATIONS ONLY; NO CONCRETE COLLAR NEEDED FOR LIGHT DUTY RATING.

THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONFER, TRANSFER, OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN. REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM, FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST.

DRAWN BY: EBC  
DATE: 1-23-94  
REVIEWED BY: NHH  
DATE: 03-11-16

PROJECT NO. NAME  
DWG NO. 7001-10-144  
SHEET 1 OF 1  
SCALE 1/4" = 1'-0"

NYLOPLAST  
3700 VERNON AVE  
BURLINGTON, IA 52601  
PH: (770) 832-3443  
FAX: (770) 832-3480  
www.nyloplast-us.com

TITLE  
DRAIN BASIN WITH STANDARD GRATE  
QUICK-SPIC INSTALLATION DETAIL

STATE OF MISSOURI  
MIKE PARSON,  
GOVERNOR

NOT FOR CONSTRUCTION

GastingerWalker &

Architects Interior Designers Construction Managers  
817 Wyandotte Kansas City Missouri 64105 816.421.8200 gastingerwalker.com



PLANNING  
ENGINEERING  
IMPLEMENTATION

PHILIPS ENGINEERING, INC.  
1320 N. Winchester  
Clermont, Kansas 66001  
City 913-393-1155  
Fax 913-393-1156  
www.philipsengineering.com

CERTIFICATE OF AUTHORIZATION  
KANSAS  
LAND SURVEYING - LS-82  
ENGINEERING - E-391

CERTIFICATE OF AUTHORIZATION  
MISSOURI  
LAND SURVEYING - 2007001128  
ENGINEERING - 2007005068

OFFICE OF  
ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT,  
DESIGN AND  
CONSTRUCTION

Project Name  
Troop A Headquarters,  
MSHP

1950 NE Independence Ave.  
Lee's Summit, MO 64086

PROJECT # R2219-01  
SITE # 6018  
FACILITY # 8136018019

REVISION:  
DATE:  
REVISION:  
DATE:  
REVISION:  
DATE: Bid Documents  
ISSUE DATE: 01 August 2023

CAD DWG FILE: C-803.dwg  
DRAWN BY: SNH  
CHECKED BY: DAF  
DESIGNED BY: JDC

SHEET TITLE:

STANDARD  
DETAILS

SHEET NUMBER:

C-803

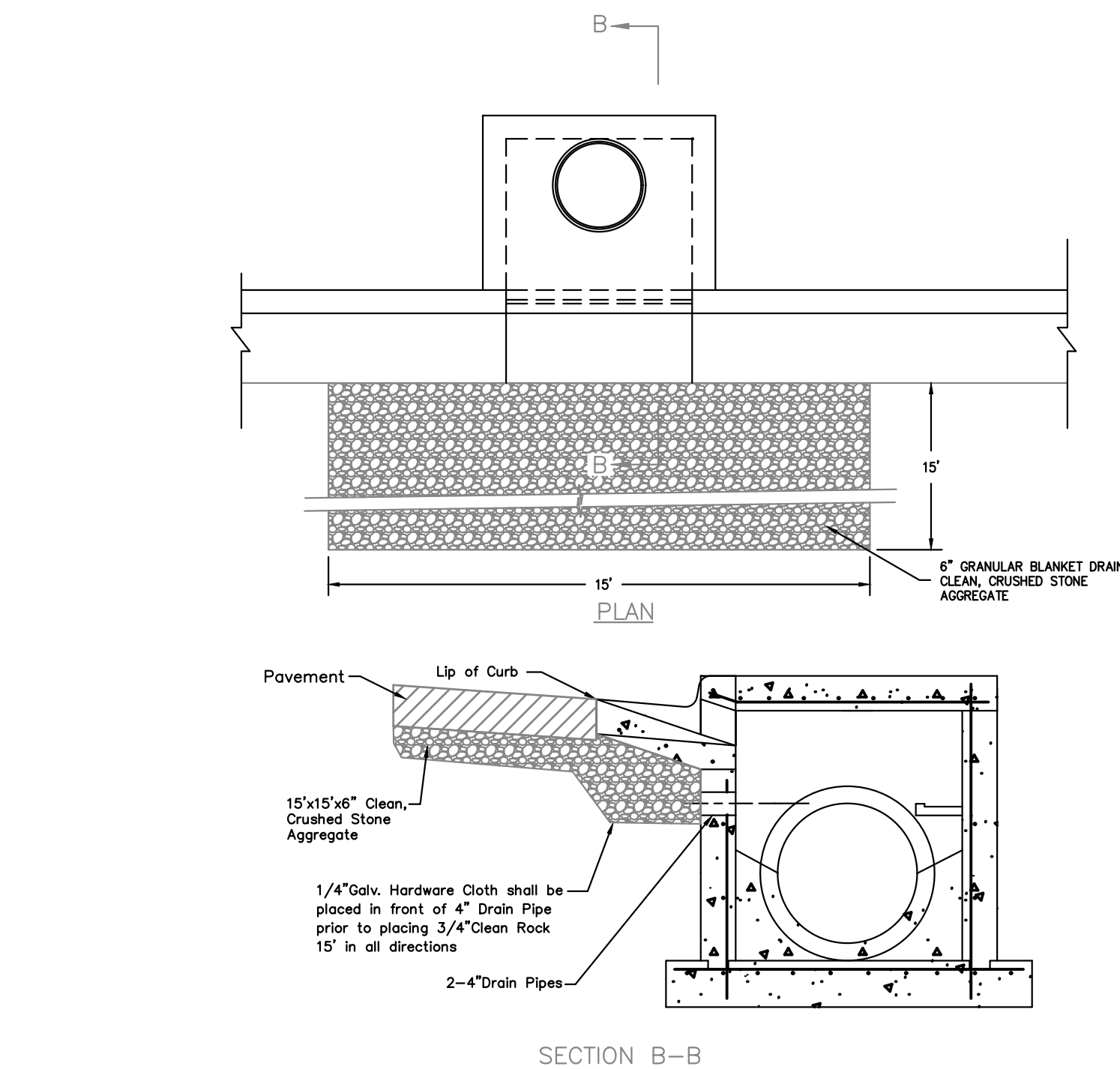
SHEET 028 OF 202

08/01/2023

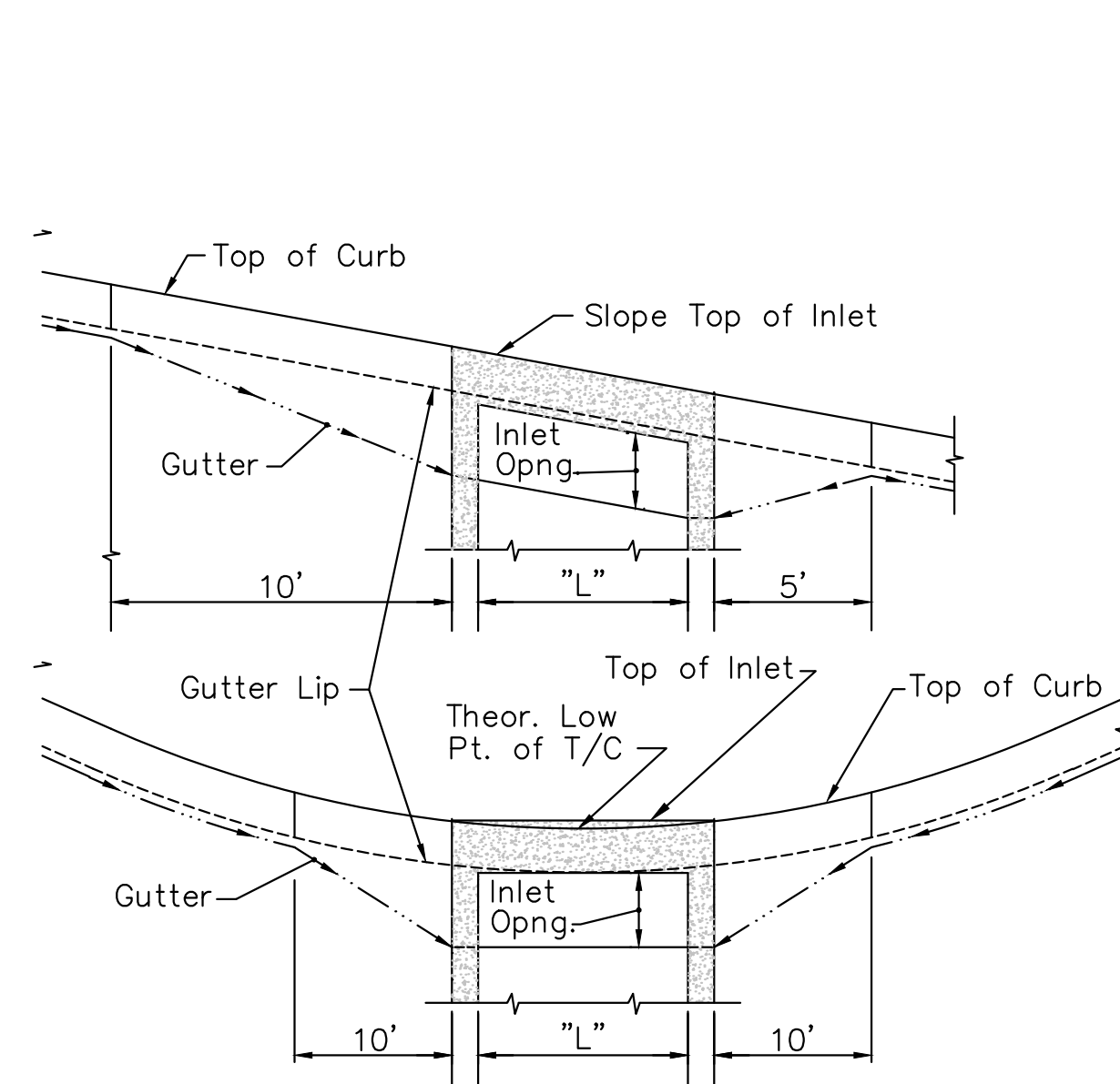
PEI #220481



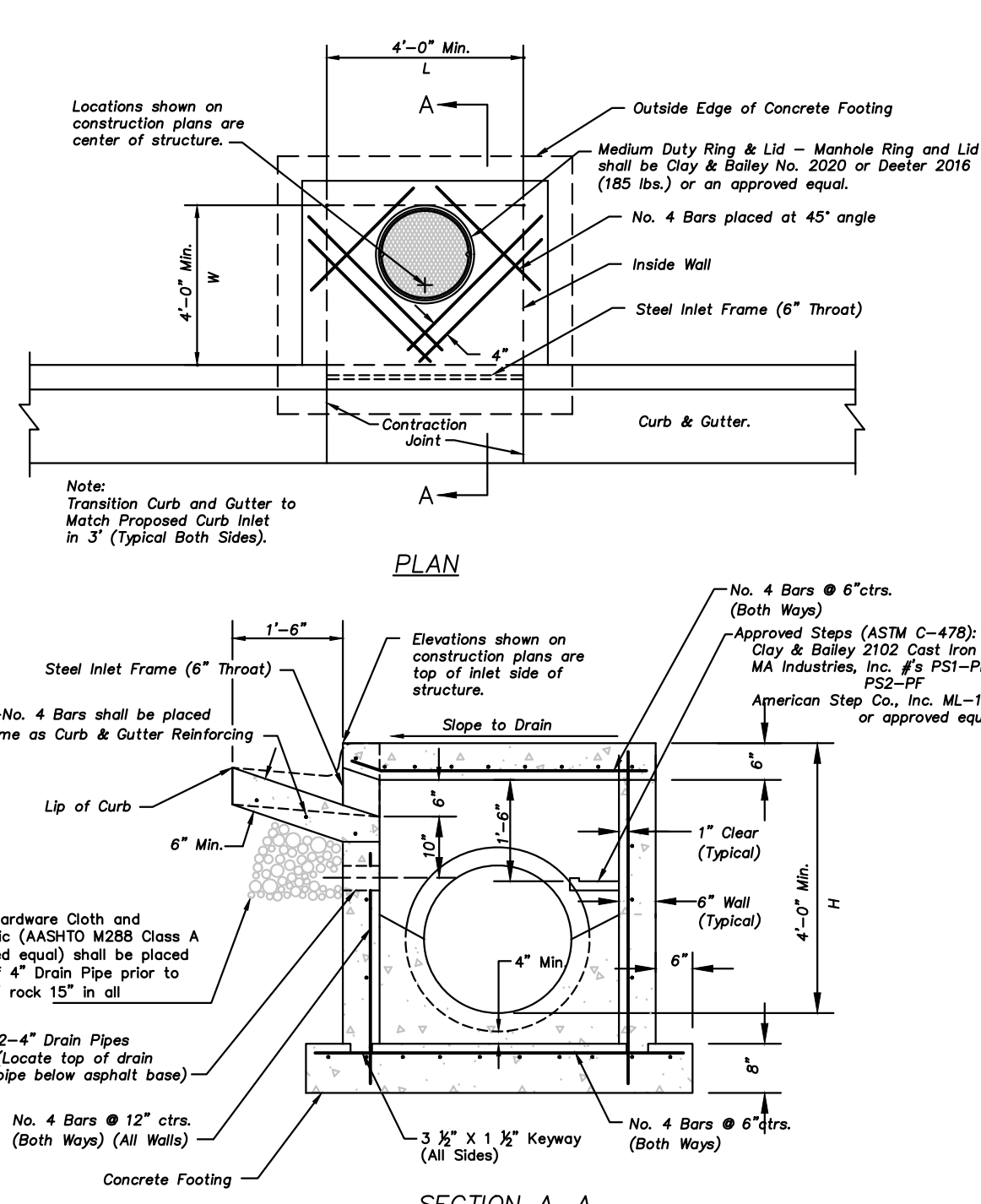
\\pds\server\projects\PEI\220481\Drawings\Details - PRIVATE.dwg Layout:STORM 1 Aug 01, 2023 - 11:28am Dakota Bynum



**1 GRANULAR BLANKET DRAIN ADJACENT TO CURB INLETS**  
SCALE: N.T.S.



**2 INLET SETTING DIAGRAM**  
SCALE: N.T.S.



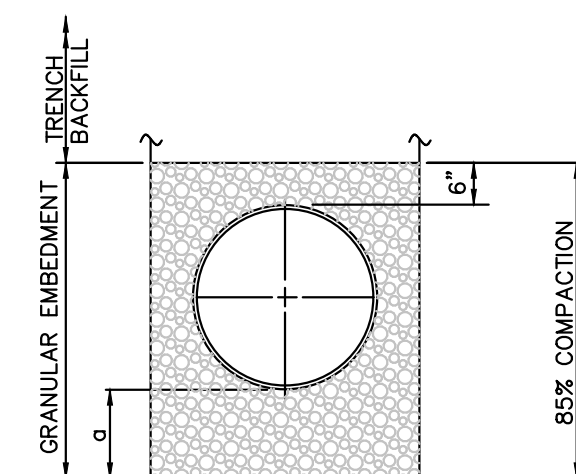
**Non-Setback Curb Inlet Notes**

- General**
- All storm sewer structures shall be pre-cast or poured in place. If pre-cast structures are used for publicly financed, maintained or administered construction, the tops shall be poured in place and the wall steel shall be left exposed to a height 2' below the finish top elevation, or as directed by the City Engineer.
  - Pre-cast shop drawings are to be approved by the City Engineer for publicly financed or administered projects.
  - Do not scale these drawings for dimensions or clearances. Any questions regarding dimensions shall be brought to the attention of the City Engineer prior to construction.
  - The first dimension listed in the construction notes is the "L" dimension. The second dimension is the "W" dimension. The concrete thickness and reinforcement shown is for boxes with "L" > 4'-0" and "W" > 4'-0" less than or equal to 20'. For boxes with either of these calculations greater than 20, a special design is required.
- Concrete**
- Concrete used in this work shall be KOMOMAK, as approved by the Kansas City Metropolitan Materials Board, and shall meet the requirements of the City of Olathe's Technical Specifications.
  - Concrete construction shall meet the applicable requirements of the City of Olathe's Technical Specifications.
  - Inlet floors shall be shaped with non-reinforced concrete inverts to provide smooth flow.
  - Bevel all exposed edges with 3/4" triangular molding.

**Reinforcing Steel**

- Reinforcing steel shall be new billet, minimum Grade 40 as per ASTM A615, and shall be bent cold.
- All dimensions relative to reinforcing steel are to centerline of bars. 2" clearance shall be provided throughout unless noted otherwise. Tolerance of +/- 1/8" shall be permitted.
- All lap splices not shown shall be a minimum of 40 bar diameters in length.
- All reinforcing steel shall be supported on fabricated steel bar supports @ 3'-0" maximum spacing.
- All dowels shall be accurately placed and securely tied in place prior to placement of bottom slab concrete. Sticking of dowels into fresh or partially hardened concrete will not be acceptable.
- Pipe connections to pre-cast structures shall have a minimum of 6" of concrete around the entire pipe within 2' of the structure.
- Material selection and compaction requirements for backfill around structures shall be as specified in City of Olathe's Technical Specifications.

**3 NON-SETBACK CURB INLET**  
(6" Throat)  
SCALE: N.T.S.



**LEGEND**

D NOMINAL PIPE SIZE  
Ø EMBEDMENT BELOW PIPE

GRANULAR EMBEDMENT

D	MIN. SOIL	MIN. ROCK
LESS THAN 60"	4"	6"
60" OR LARGER	6"	12"

**TRENCH BEDDING**

- ALL MATERIALS SHALL BE KDOT STD. SPEC. SECT. 1100, PB-2 COURSE AGGREGATE FOR CONCRETE, WASHED STONE OR GRAVEL, MEETING THE FOLLOWING CONDITIONS:

SIEVE SIZE	PERCENT RETAINED
1-INCH	0
3/4-INCH	0-20
3-INCH	40-70
No. 8	95-100

GRANULAR EMBEDMENT FROM THE TOP OF PIPE DOWN SHALL BE COMPACTED TO 85% MAXIMUM DENSITY AS DETERMINED BY ASTM D 698.

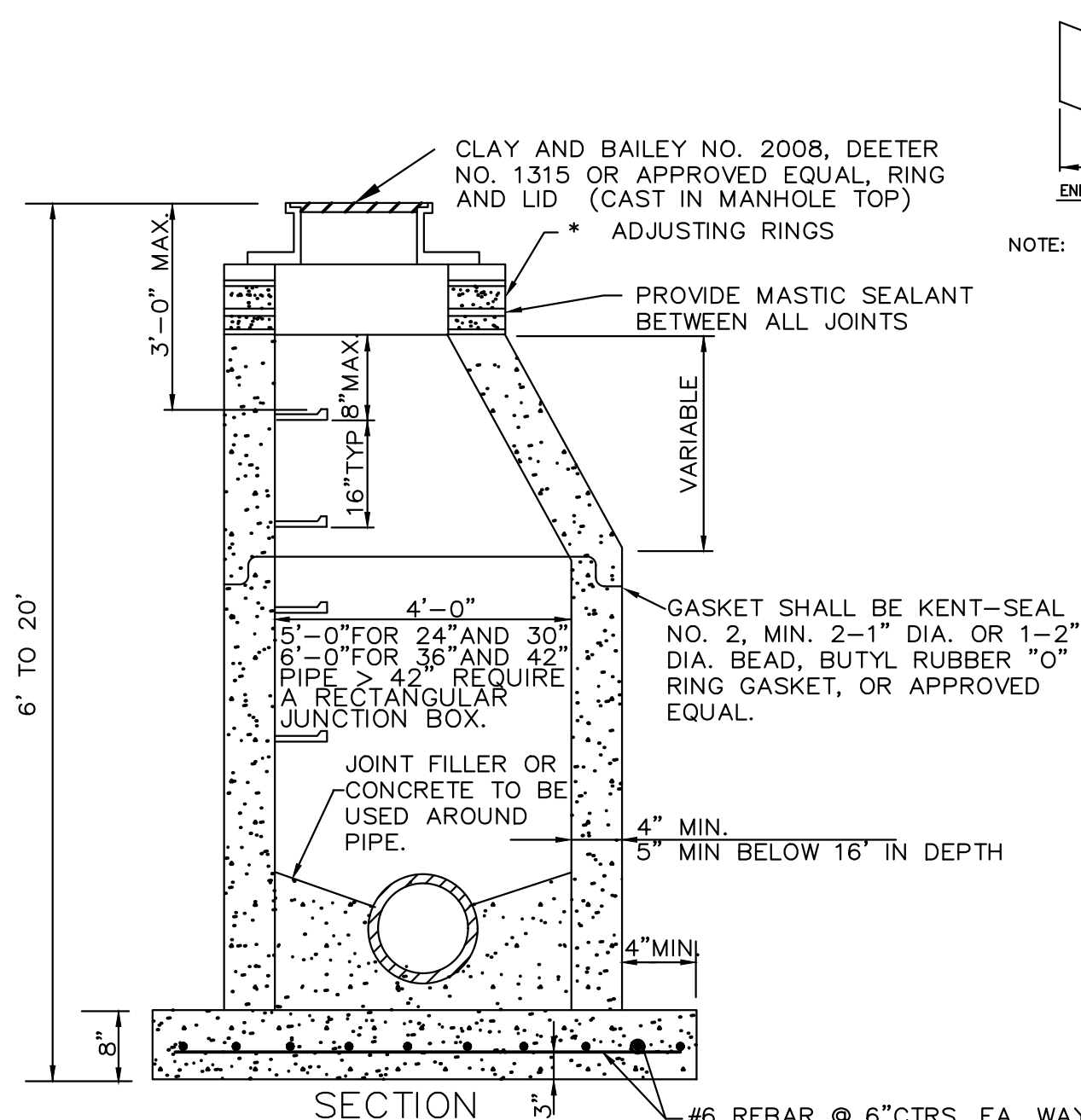
GRANULAR EMBEDMENT ABOVE TOP OF PIPE SHALL BE AN UN-COMPACTED LAYER FOR ALL INSTALLATIONS.

- TRENCH OUTLINES DO NOT INDICATE ACTUAL TRENCH EXCAVATION SHAPE, SOIL CONDITIONS, OR PRESENCE OF SHEETING LEFT IN PLACE. EMBEDMENT MATERIAL SHALL EXTEND THE FULL WIDTH OF THE ACTUAL TRENCH EXCAVATION.

- TRENCH WIDTHS SHALL BE LIMITED BELOW AN ELEVATION OF ONE (1) FOOT ABOVE THE TOP OF THE INSTALLED PIPE AS FOLLOWS: NOT LESS THAN FIFTEEN (15) INCHES NOR MORE THAN TWENTY-FOUR (24) INCHES GREATER THAN THE NOMINAL OUTSIDE DIAMETER OF THE PIPE.

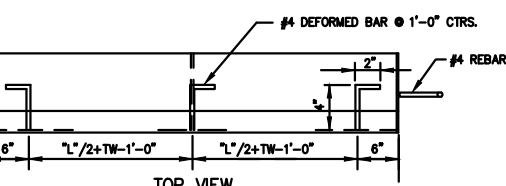
**BACKFILL**

- ALL MATERIALS ARE CLASSIFIED IN ACCORDANCE WITH ASTM D 2321-89.
- ALL MATERIALS SHALL BE INSTALLED IN MAXIMUM 8" LOOSE LIFTS IN ACCORDANCE WITH ASTM D 698, CLASS III AND IV-A MATERIALS SHALL BE COMPACTED NEAR OPTIMUM MOISTURE CONTENT.
- FILL SALVAGED FROM EXCAVATION SHALL BE FREE OF DERRIS, ORGANICS AND ROCKS LARGER THAN 3".
- ALL TRENCH EXCAVATIONS SHALL BE SLOPED, SHORED, SHEETED, BRACED, OR OTHERWISE SUPPORTED IN COMPLIANCE WITH OSHA REGULATIONS AND LOCAL ORDINANCES. (SEE SPECIFICATIONS)

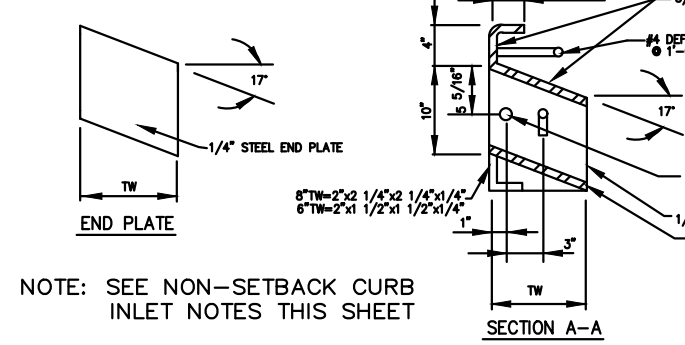


**NOTES:**

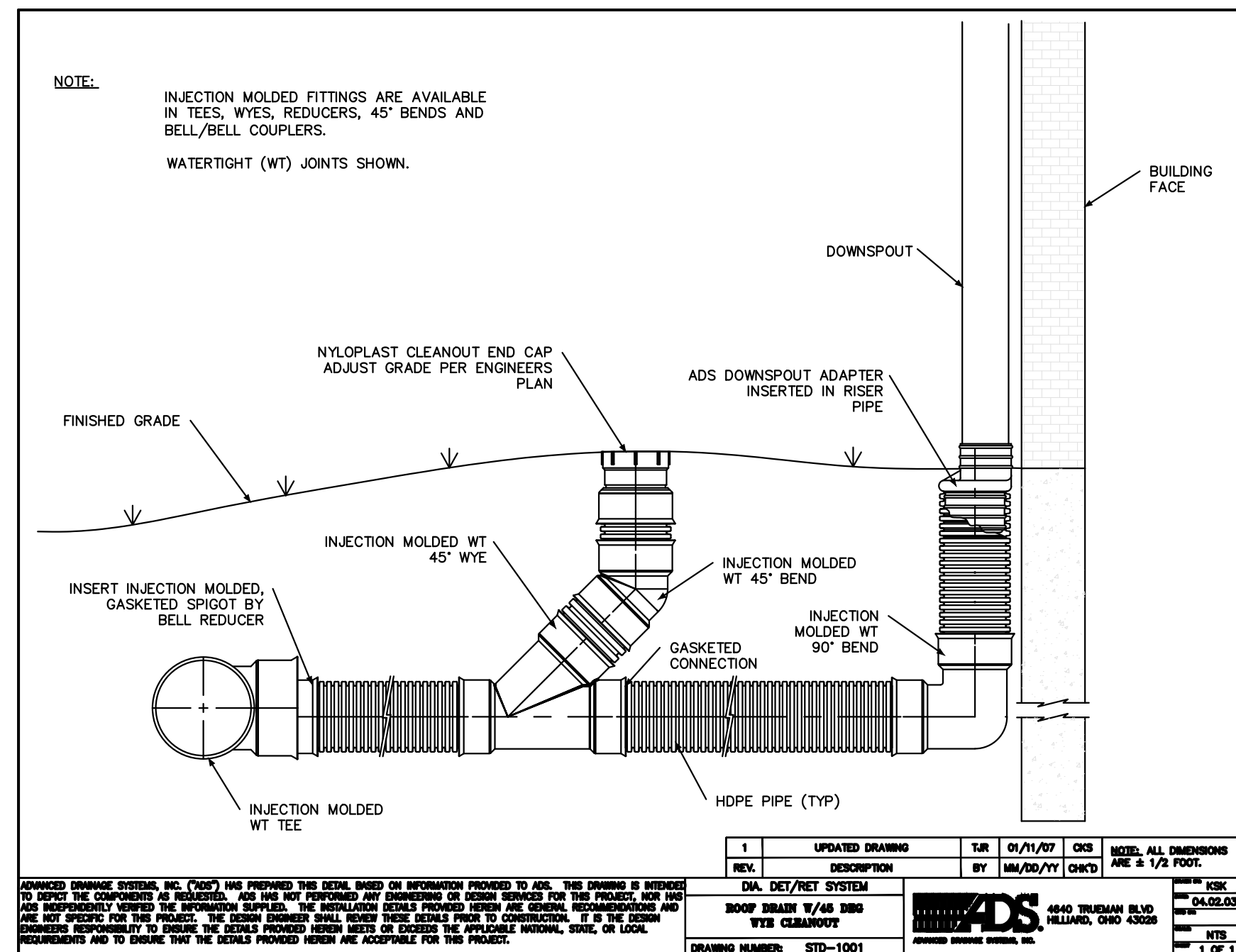
- CONTRACTOR SHALL PROVIDE STEPS SPACED AT 1'-4" O.C. WHERE INLET OR MANHOLE DEPTH IS GREATER THAN 4'-0". STEPS SHALL BE M.A. INDUSTRIES, INC. MODEL PS-2-PF OR APPROVED EQUAL.
- PRECAST CONCRETE MANHOLES SHALL CONFORM TO ASTM C478 EXCEPT AS MODIFIED BY THE SPECIFICATIONS.
- BASES NOT BUILT MONOLITHIC WITH BOTTOM SECTION SHALL BE POURED OF CLASS 1 3000 PSI CONCRETE.
- MANHOLE MAY BE TRANSFERRED TO 4'-0" DIA., 8" ABOVE F.L. OF OUTFALL FOR 5'-0" AND 6'-0" MANHOLES.
- THE BOTTOM SECTION OF ALL PRECAST MANHOLES NOT BUILT MONOLITHIC WITH THE BASE SHALL BE SET INTO A STEEL REINFORCED POURED CONCRETE BASE A MINIMUM OF 6" (#4 @ 6" E.W.).
- THE COMPRESSIVE STRENGTH OF CONCRETE USED IN THE CONSTRUCTION OR PRECAST REINFORCED CONCRETE MANHOLES SHALL NOT BE LESS THAN 4000 PSI.
- ONLY ECCENTRIC MANHOLE CONES WILL BE ALLOWED UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
- ADJUSTING RING(S) SHALL PROVIDE A MINIMUM ADJUSTMENT OF 4" AND A MAXIMUM ADJUSTMENT OF 12".



**STEEL FRAME DETAIL**



**WALL SECTIONS**



**8 ROOF DRAIN W/45 DEG WYE CLEANOUT**  
SCALE: N.T.S.  
ADS SHOWN AS BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR APPROVED ALTERNATIVES.

STATE OF MISSOURI  
MIKE PARSON,  
GOVERNOR

NOT FOR CONSTRUCTION

GastingerWalker &

Architects Interior Designers Construction Managers  
817 Wyandotte Kansas City Missouri 64105 816.421.8200 gastingerwalker.com  
Project Number: 2022.152



**PLANNING  
ENGINEERING  
IMPLEMENTATION**

**PHILIPS ENGINEERING, INC.**  
1200 N. Winchester  
Olathe, Kansas 66061  
GPO 309-1055  
Fax (913) 393-1066  
www.philipsengineering.com

CERTIFICATE OF AUTHORIZATION  
KANSAS  
LAND SURVEYING - LS-82  
ENGINEERING - E-391

CERTIFICATE OF AUTHORIZATION  
MISSOURI  
LAND SURVEYING-2007001128  
ENGINEERING-2007005068

**OFFICE OF  
ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT,  
DESIGN AND  
CONSTRUCTION**

Project Name  
Troop A Headquarters,  
MSHP

1950 NE Independence Ave.  
Lee's Summit, MO 64086

PROJECT # R2219-01  
SITE # 6018  
FACILITY # 8136018019

REVISION:  
DATE:  
REVISION:  
DATE:  
REVISION:  
DATE: Bid Documents  
ISSUE DATE: 01 August 2023

CAD DWG FILE: C-804.dwg  
DRAWN BY: SNH  
CHECKED BY: DAF  
DESIGNED BY: JDC

SHEET TITLE:

**STORM  
SEWER  
DETAILS**

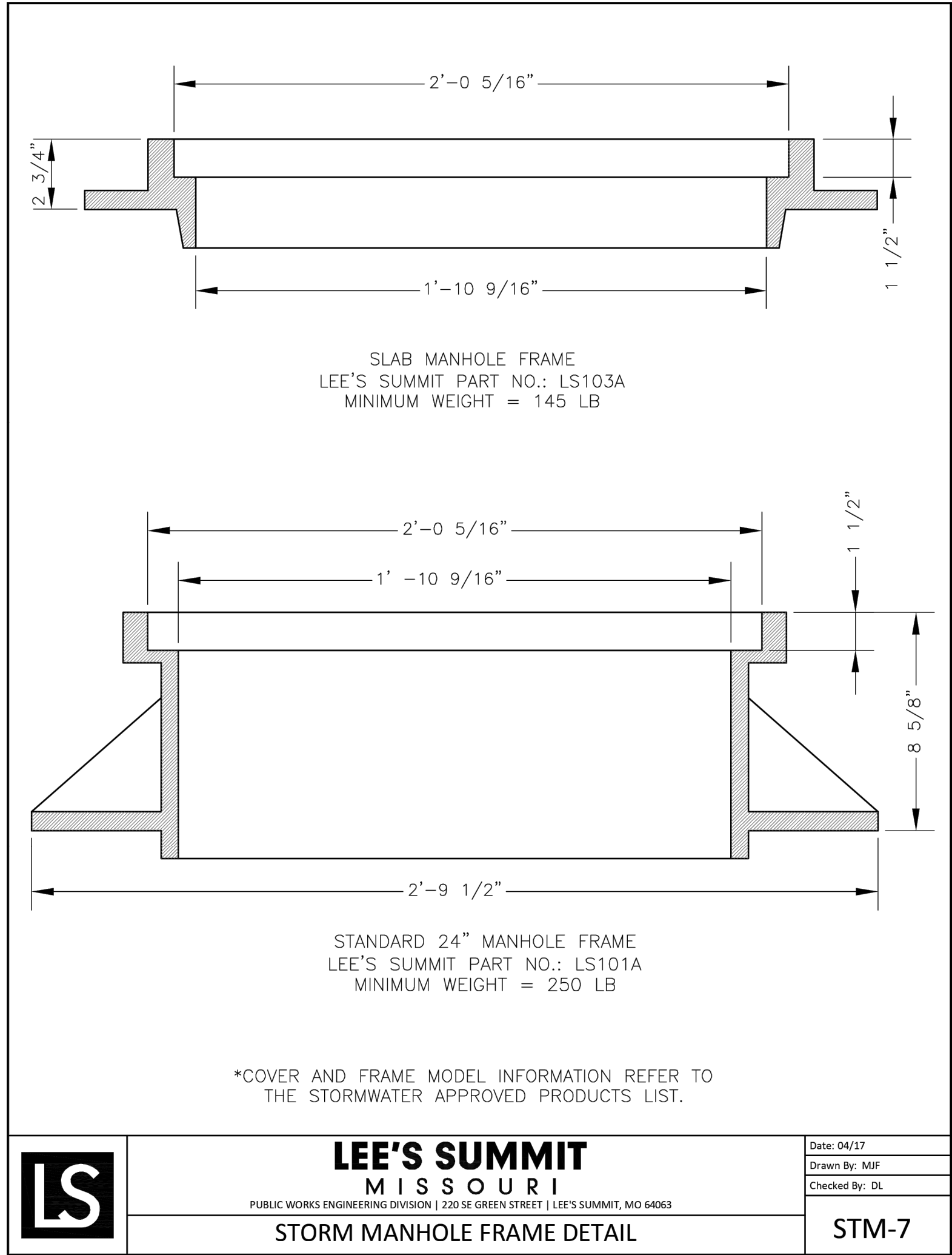
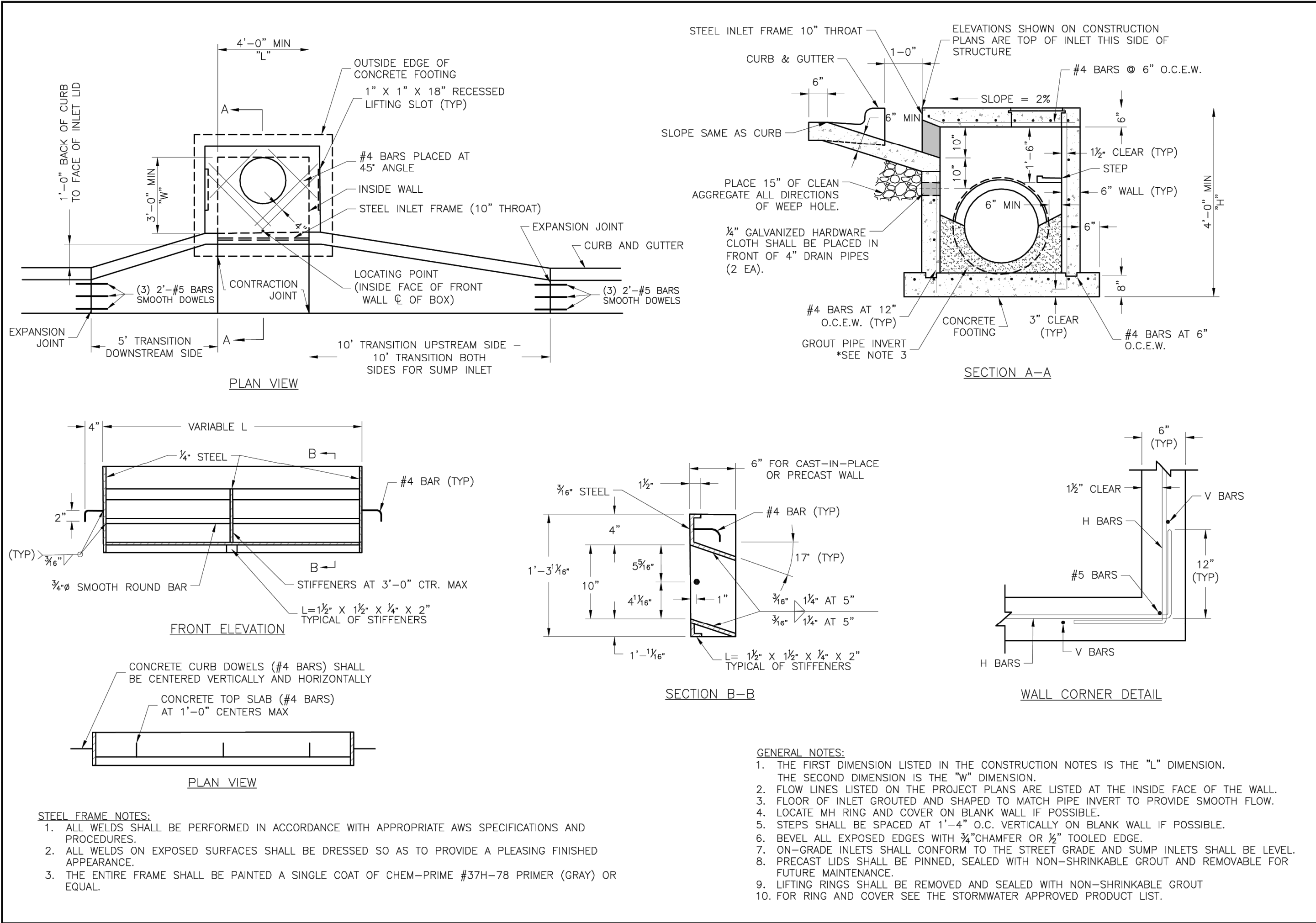
SHEET NUMBER:

**C-804**

SHEET 029 OF 202  
08/01/2023

PEI #220481





STATE OF MISSOURI  
MIKE PARSON,  
GOVERNOR

**GastingerWalker &**

Architects | Interior Designers | Construction Managers  
817 Wyandotte Kansas City Missouri 64105 816.421.8200 [gastingerwalker.com](mailto:gastingerwalker.com)  
Project Number: 2022.152



PLANNING  
ENGINEERING  
IMPLEMENTATION

**PELPHS ENGINEERING, INC.**  
1320 N. Winchester  
Clathe, Kansas 66001  
Cell (913) 393-1155  
Fax (913) 393-1155  
[www.phelpsengineering.com](http://www.phelpsengineering.com)

CERTIFICATE OF AUTHORIZATION  
KANSAS  
LAND SURVEYING - LS-82  
ENGINEERING - E-391

CERTIFICATE OF AUTHORIZATION  
MISSOURI  
LAND SURVEYING-2007001128  
ENGINEERING-2007005068

OFFICE OF  
ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT,  
DESIGN AND  
CONSTRUCTION

Project Name  
Troop A Headquarters,  
MSHP

1950 NE Independence Ave.  
Lee's Summit, MO 64086

PROJECT # R2219-01  
SITE # 6018  
FACILITY # 8136018019

REVISION:  
DATE:  
REVISION:  
DATE:  
REVISION:  
DATE: Bid Documents  
ISSUE DATE: 01 August 2023

CAD DWG FILE: C-805.dwg  
DRAWN BY: SNH  
CHECKED BY: DAF  
DESIGNED BY: JDC

SHEET TITLE:

**STORM  
SEWER  
DETAILS**

SHEET NUMBER:

**C-805**

SHEET 030 OF 202

08/01/2023

PEI #220481



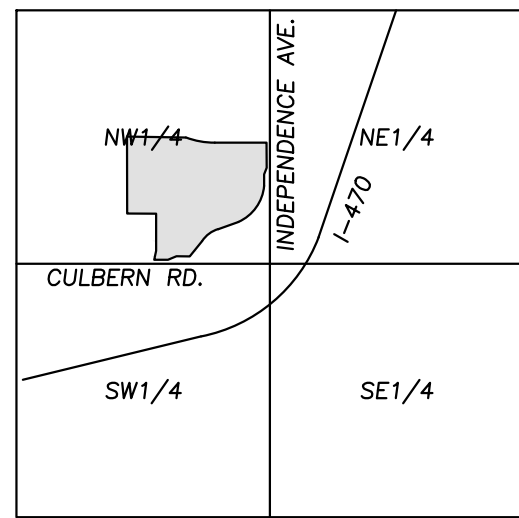
\\phelps-server\projects\p\220481\dwg\permit plans\SITE - 2.dwg Layout:200 Aug 01, 2023 - 11:29am Dakota Blyum



Know what's below.  
Call before you dig.

UTILITY NOTES:  
VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN.  
UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR  
LESSORS, ARE APPROXIMATE AND SHOULD BE VERIFIED IN  
THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL  
FIELD LOCATIONS OF UNDERGROUND UTILITIES CALL 811.

SCOPE SHOWN ON THIS SHEET  
SHALL BE PART OF ALTERNATE #4

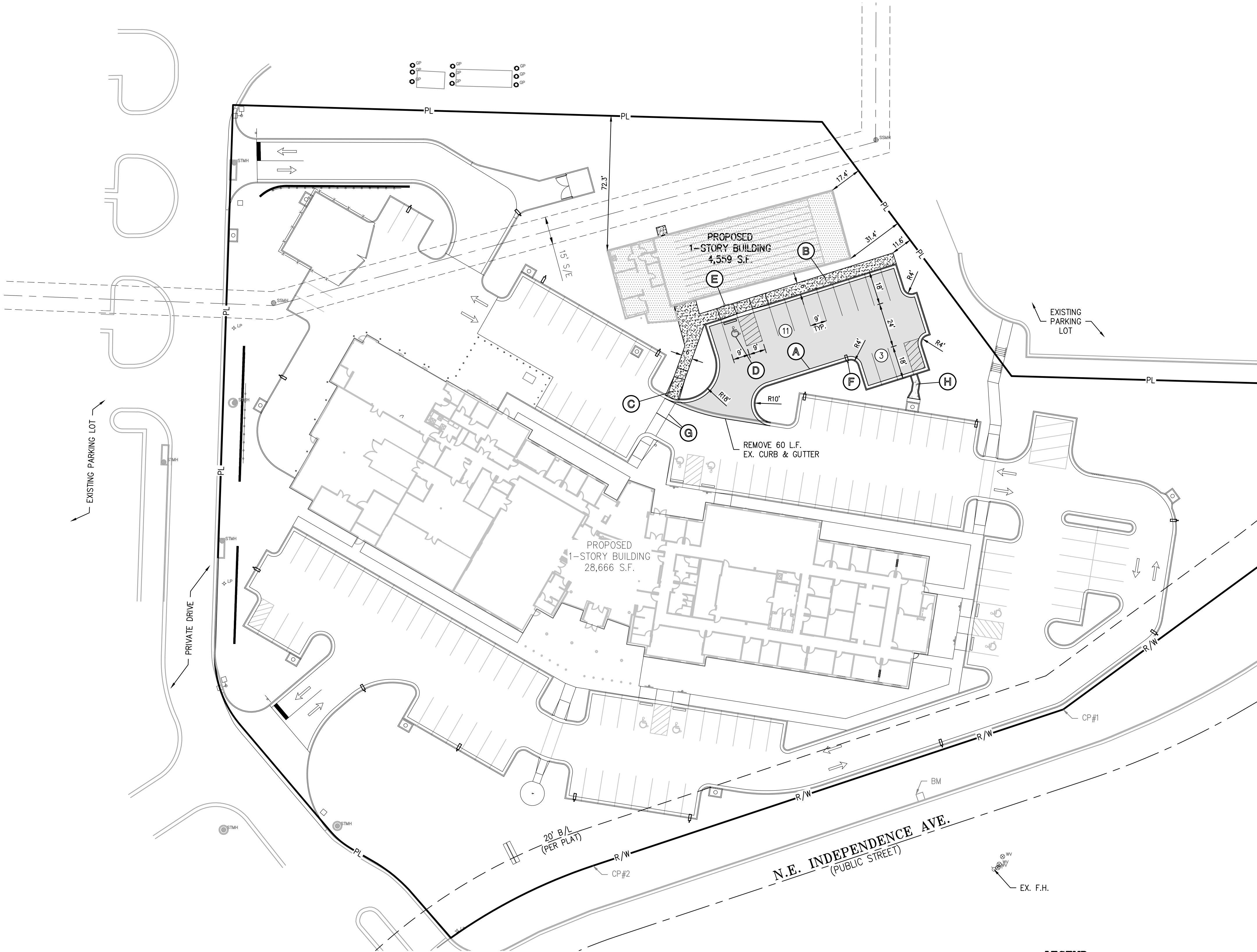
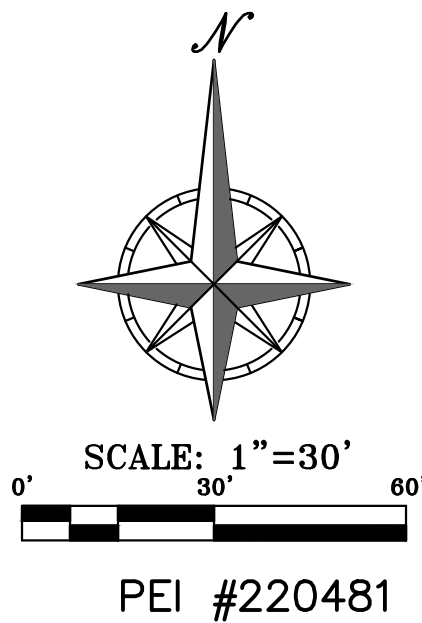


VICINITY MAP  
SEC. 19-48-31



#### LEGEND

— PL —	PROPERTY LINE
— LL —	LOT LINE
— R/W —	RIGHT-OF-WAY
=====	2' CURB & GUTTER
=====	6" CURB
[Pattern]	STANDARD DUTY ASPHALT PAVEMENT
[Pattern]	HEAVY DUTY ASPHALT PAVEMENT
[Pattern]	PROPOSED BUILDING
[Pattern]	CONCRETE PAVEMENT
[Pattern]	CONCRETE SIDEWALK
[Pattern]	RETAINING WALL
[Symbol]	PARKING LOT LIGHT



#### SITE PLAN NOTES:

- All construction materials and procedures on this project shall conform to the latest revision of the following governing requirements, incorporated herein by reference:  
A) City ordinances & O.S.H.A. Regulations.  
B) Project Specifications
- The contractor shall have one (1) signed copy of the plans (approved by the City) and one (1) copy of the appropriate Design and Construction Standards and Specifications at the job site at all times.
- The contractor will be responsible for securing all permits, bonds and insurance required by the contract documents, and all other governing agencies (including local, county, state and federal authorities) having jurisdiction over the work proposed by these construction documents. The cost for all permits, bonds and insurance shall be the contractors responsibility and shall be included in the bid for the work.
- The contractor is responsible for coordination of his and his sub-contractor's work. The contractor shall assume all responsibility for protecting and maintaining his work during the construction period and between the various trades/sub-contractors constructing the work.
- The demolition and removal(or relocation) of existing pavement, curbs, structures, utilities, and all other features necessary to construct the proposed improvements, shall be performed by the contractor. All waste material removed during construction shall be disposed off the project site. The contractor shall be responsible for all permits for hauling and disposing of waste material. The disposal of waste material shall be in accordance with all local, state and federal regulations.
- Contractor shall be responsible for all relocations, including but not limited to, all utilities, storm drainages, sanitary sewer services, signs, traffic signals & poles, etc. as required. All work shall be in accordance with governing authorities specifications and shall be approved by such. All cost shall be included in base bid.
- All existing utilities indicated on the drawings are according to the best information available to the Engineer; however, all utilities actually existing may not be shown. The contractor shall be responsible for contacting all utility companies for an exact field location of each utility prior to any construction. All underground utilities shall be protected at the contractor's expense. All utilities, shown and unshown, damaged through the negligence of the contractor shall be repaired or replaced by the contractor at his expense.
- The contractor will be responsible for all damage to existing utilities, pavement, fences, structures and other features not designated for removal. The contractor shall repair all damages at his expense.
- The contractor shall verify the flow lines of all existing storm or sanitary sewer connections and utility crossings prior to the start of construction. Notify the engineer of any discrepancies.
- SAFETY NOTICE TO CONTRACTOR:** In accordance with generally accepted construction practices, the contractor shall be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work. This requirement will apply continuously and not be limited to normal working hours. Any construction observation by the engineer of the contractor's performance is not intended to include review of the adequacy of the contractor's safety measures, in, on or near the construction site.
- All site concrete (curbs, pavements, sidewalks, etc.) shall meet Kansas City Materials Metro Board (KMMB) mix design specifications for 4,000 p.s.i. air entrained concrete. APWA detail references are provided for all geometrical and other design information.
- Refer to the building plans for site lighting electrical requirements, including conduits, pole boxes, pull boxes, etc.

#### SITE DIMENSION NOTES:

- BUILDING TIES SHOWN ARE TO THE OUTSIDE FACE OF PROPOSED WALLS. THE SUBCONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR SPECIFIC DIMENSIONS AND LAYOUT INFORMATION FOR THE BUILDINGS.
- ALL DIMENSIONS SHOWN FOR THE PARKING LOT AND CURBS ARE MEASURED FROM BACK OF CURB TO BACK OF CURB.

#### PAVEMENT MARKING AND SIGNAGE NOTES:

- PARKING STALL MARKING STRIPES SHALL BE FOUR INCH (4") WIDE WHITE STRIPES. DIRECTIONAL ARROW AND HANDICAP STALL MARKINGS SHALL BE FURNISHED AT LOCATIONS SHOWN ON PLANS.
- HANDICAP PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO ALL FEDERAL (AMERICANS WITH DISABILITIES ACT) AND STATE LAWS AND REGULATIONS.
- TRAFFIC CONTROL DEVICES AND PAVEMENT MARKINGS SHALL CONFORM TO THE REQUIREMENTS OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".
- STOP SIGNS SHALL BE PROVIDED AT ALL LOCATIONS AS SHOWN ON PLANS AND SHALL CONFORM TO THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES". SIGNS SHALL BE 18" X 12", 18 GAUGE STEEL AND SHALL BE ENGINEER GRADE REFLECTIVE.
- TRAFFIC CONTROL AND PAVEMENT MARKINGS SHALL BE PAINTED WITH A WHITE SHERWIN WILLIAMS S-W TRAFFIC MARKING SERIES B-29Y2 OR APPROVED EQUAL. THE PAVEMENT MARKING SHALL BE APPLIED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. APPLY ON A CLEAN, DRY SURFACE AND AT A SURFACE TEMPERATURE OF NOT LESS THAN 70°F AND THE AMBIENT AIR TEMPERATURE SHALL NOT BE LESS THAN 60°F AND RISING. TWO COATS SHALL BE APPLIED.

#### SITE KEY NOTES:

- (A) CONSTRUCT 2' CONCRETE & CURB & GUTTER (TYPICAL) (RE: DETAIL #4, SHEET C-800).
- (B) CONSTRUCT CONCRETE SIDEWALK (TYPICAL) (RE: DETAIL #4, SHEET C-800).
- (C) CONSTRUCT PRIVATE SIDEWALK RAMP (RE: DETAIL #3, SHEET C-801).
- (D) CONSTRUCT ACCESSIBLE PARKING SPACE. INSTALL MARKINGS PER STANDARD DETAIL, AND CONCRETE WHEEL STOPS (RE: DETAIL #4, SHEET C-801).
- (E) INSTALL VAN ACCESSIBLE PARKING SIGN (RE: DETAILS #1-#2, SHEET C-801).
- (F) PARKING LOT LIGHT POLE (RE: SITE LIGHTING PLANS).
- (G) INSTALL 6" SOLID WHITE PAINTED CROSSWALK.
- (H) CONSTRUCT CONCRETE FLUME (RE: DETAIL #5, SHEET C-801).

STATE OF MISSOURI  
MIKE PARSON,  
GOVERNOR

NOT FOR CONSTRUCTION

GastingerWalker &

Architects | Interior Designers | Construction Managers  
817 Wyandotte Kansas City Missouri 64105 816.421.8200 gastingerwalker.com  
Project Number: 2022.152



PLANNING  
ENGINEERING  
IMPLEMENTATION  
PHILIPS ENGINEERING, INC.  
1320 N. Winchester  
Olathe, Kansas 66061  
City (913) 393-1955  
Fax (913) 393-1956  
www.phelpsengineering.com

CERTIFICATE OF AUTHORIZATION  
KANSAS  
LAND SURVEYING - LS-82  
ENGINEERING - E-391

CERTIFICATE OF AUTHORIZATION  
MISSOURI  
LAND SURVEYING-2007001128  
ENGINEERING-2007005068

OFFICE OF  
ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT,  
DESIGN AND  
CONSTRUCTION

Project Name  
Troop A Headquarters,  
MSHP

1950 NE Independence Ave.  
Lee's Summit, MO 64086

PROJECT # R2219-01  
SITE # 6018  
FACILITY # 8136018019

REVISION:  
DATE:  
REVISION:  
DATE:  
REVISION:  
DATE: Bid Documents  
ISSUE DATE: 01 August 2023

CAD DWG FILE: C-900.dwg  
DRAWN BY: SNH  
CHECKED BY: DAF  
DESIGNED BY: JDC

SHEET TITLE:

FIRING RANGE  
SITE PLAN

SHEET NUMBER:

C-900

SHEET \_006\_ OF \_202\_

08/01/2023



Architects | Interior Designers | Construction Managers  
817 Wyandotte Kansas City Missouri 64105 816.421.8200 [gastingerwalker.com](mailto:gastingerwalker.com)  
Project Number: 2022.152



**OFFICE OF  
ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT,  
DESIGN AND  
CONSTRUCTION**

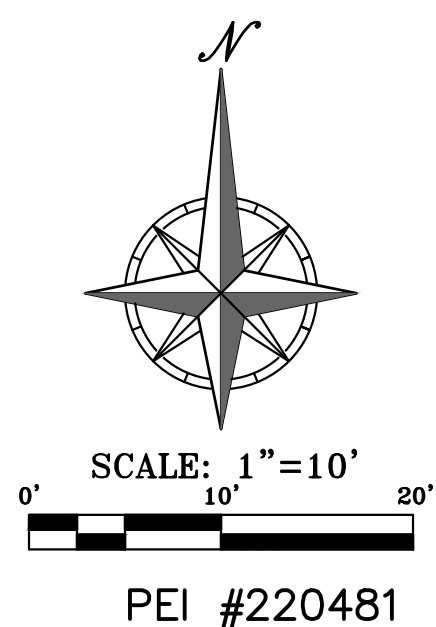
1950 NE Independence Ave.  
Lee's Summit, MO 64086

REVISION:  
DATE:  
REVISION:  
DATE:  
REVISION:  
DATE: Bid Documents  
ISSUE DATE: 01 August 2023

SHEET TITLE:

SHEET NUMBER:

SHEET 013 OF 202  
08/01/2023



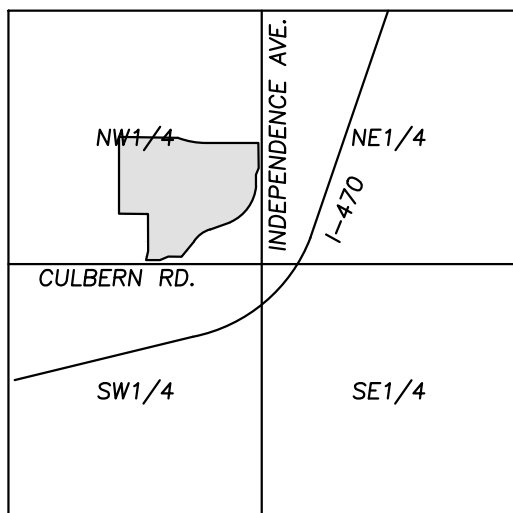


\\phelps-engineering\projects\p\220481\dwg\permit plans\UTILITY - 2.dwg Layout:1 Aug 01, 2023 - 11:29am Dakota Bynum



Know what's below.  
Call before you dig.

UTILITY NOTES:  
VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN.  
UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR LESSORS, ARE APPROXIMATE AND SHOULD BE VERIFIED IN THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL FIELD LOCATIONS OF UNDERGROUND UTILITIES CALL 811.



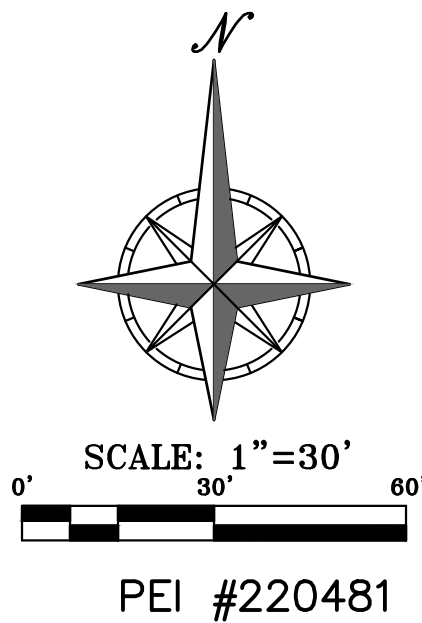
VICINITY MAP  
SEC. 19-48-31



#### UTILITY COMPANIES:

MISSOURI GAS ENERGY LUCAS WALLS (LUCAS.WALLS@MGE.COM) 3025 SOUTHEAST CLOVER DRIVE LEE'S SUMMIT, MO 64082	(816) 969-2218
ENERGY PHILLIP INGRAM (PHILLIP.INGRAM@CPL.COM) RON DEJARNETTE (RON.DEJARNETTE@CPL.COM) 1300 HAMBLEN ROAD LEE'S SUMMIT, MO 64081	(816) 347-4339 (816) 347-4316
STORM SEWER (PUBLIC WORKS DEPARTMENT) 220 SE GREEN STREET LEE'S SUMMIT, MO 64063	(816) 969-1800
SANITARY SEWER & WATER (WATER UTILITIES DEPT.) 1200 SE HAMBLEN ROAD LEE'S SUMMIT, MO 64081	(816)-969-1900
AT&T (913) 383-4929 MR. CLAYTON ANSPAUGH (CA4089@ATT.COM) 9444 NALL AVENUE OVERLAND PARK, KANSAS 66207	(913) 383-4849-FAX

SCOPE SHOWN ON THIS SHEET  
SHALL BE PART OF ALTERNATE #4



LEGEND	
— PL —	PROPERTY LINE
— LL —	LOT LINE
— R/W —	RIGHT-OF-WAY
— CATV —	EXISTING CABLE TELEVISION LINE
— FO —	EXISTING FIBER OPTIC LINE
— G —	EXISTING GAS LINE
— BE —	EXISTING BURIED ELECTRIC LINE
— OHT —	EXISTING OVERHEAD POWER LINE
— SS —	EXISTING SANITARY SEWER LINE
— SSW —	EXISTING STORM SEWER LINE (& SIZE)
— BT —	EXISTING BURIED TELEPHONE LINE
— W —	EXISTING WATER LINE (& SIZE)
— G —	PROPOSED GAS LINE
— BE —	PROPOSED BURIED ELECTRIC LINE
— SS —	PROPOSED SANITARY SEWER LINE
— SSW —	PROPOSED STORM SEWER LINE (& SIZE)
— BT —	PROPOSED BURIED TELEPHONE LINE
— W —	PROPOSED WATER LINE (& SIZE)
— ST —	PROPOSED ROOF DRAIN (& SIZE)

#### UTILITY NOTES:

- The contractor is specifically cautioned that the location and/or elevation of existing utilities as shown on these plans is based on records of the various utility companies, and where possible, measurements taken in the field. The information is not to be relied on as being exact or complete. The contractor must call the appropriate utility companies at least 48 hours before any excavation to request exact field location of utilities. It shall be the responsibility of the contractor to coordinate with and relocate &/or remove all existing utilities which conflict with the proposed improvements shown on the plans.
- The construction of storm sewers on this project shall conform to the project specifications.
- The contractor shall field verify the exact location and elevation of the existing storm sewer lines and the existing elevation at locations where the proposed storm sewer collects or releases to existing ground. If discrepancies are encountered from the information shown on the plans, the contractor shall contact the design engineer. No pipes shall be laid until direction is received from the design engineer.
- It will be the contractors responsibility to field adjust the top of all manholes and boxes as necessary to match the grade of the adjacent area. Tops of existing manholes shall be raised as necessary to be flush with proposed pavement elevations, and to be 6-inches above finished ground elevations in non-paved areas. No separate or additional compensation will be made to the contractor for making final adjustments to the manholes and boxes.
- Inlet locations, horizontal pipe information and vertical pipe information is shown to the center of the structure. Deflection angles shown for storm sewer pipes are measured from the center of curb inlets and manholes. The contractor shall adjust the horizontal location of the pipes to go to the face of the boxes. All roof drains shall be connected to storm sewer structures. Provide cleanouts on roof drain lines at 100' max. Spacing and at all bend points. Do not connect roof drains directly to storm sewer pipes.
- The contractor shall be responsible for furnishing and installing all fire and domestic water lines, meters, backflow devices, pits, valves and all other incidentals required for a complete operable fire protection and domestic water system. All costs associated with the complete water system for the buildings shall be the responsibility of the contractor. All work shall conform to the requirements of City.
- The contractor shall be responsible for furnishing and installing all sanitary sewer service lines from the buildings to the public line. All work shall conform to the requirements of the City.
- The contractor will be responsible for securing all permits, bonds and insurance required by the contract documents, City, and all other governing agencies (including local, county, state and federal authorities) having jurisdiction over the work proposed by these construction documents. The cost for all permits bonds and insurance shall be the contractors responsibility and shall be included in the bid for the work.
- By the use of these construction documents the contractor hereby agrees that he/she shall be solely responsible for the safety of the construction workers and the public. The contractor agrees to hold the engineer and owner harmless for any and all injuries, claims, losses or damages related to the project.
- The Contractor shall be responsible for furnishing all materials, tools and equipment and installation of electrical power, telephone and gas service from a point of connection from the public utility lines to the building structures. This will include all conduits, service lines, meters, concrete pads and all other incidentals required for a complete and operational system as required by the owner and the public utilities. Refer to building plans for exact tie-in locations of all utilities. Contractor shall verify connection points prior to installation of utility line.
- All fill material is to be in place, compacted, and consolidated before installation of proposed utilities. On-site geotechnical engineer shall provide written confirmation that this requirement has been met and that utilities may proceed in the fill areas. All utilities are to be placed in trench conditions.
- Contractor shall notify the utility authorities inspectors 48 hours before connecting to any existing line.
- Water lines shall be per the project specifications.
- Minimum trench width shall be 2 feet.
- Contractor shall maintain a minimum of 42" cover on all waterlines. All water line joints are to be mechanical joints with thrust blocking as called out in specifications and construction plans. Water mains and service lines shall be constructed in accordance to waterline's specifications for commercial services.
- All waterlines shall be kept min. ten (10') apart (parallel) from sanitary sewer lines or manholes. Or when crossing, an 24" vertical clearance (outside edge of pipe to outside edge of pipe) of the water line above the sewer line is required.
- Sanitary conflicts will be resolved prior to permit issuance.
- In the event of a vertical conflict between waterlines, sanitary lines, storm lines and gas lines (existing and proposed), the sanitary line shall be ductile iron pipe with mechanical joints at least 10 feet on both sides of crossing (or encased in concrete this same distance), the waterline shall have mechanical joints with appropriate thrust blocking as required to provide a minimum of 24" clearance. Meeting requirements of ANSI A21.10 or ANSI 21.11 (AWWA C-151) (CLASS 50).
- All underground storm, sanitary, water and other utility lines shall be installed, inspected and approved before backfilling. Failure to have inspection approval prior to backfill will constitute rejection of work.
- All necessary inspections and/or certifications required by codes and/or utility service companies shall be performed prior to announced building possession and the final connection of service. Contractor shall coordinate with all utility companies for installation requirements and specifications.
- Refer to building plans for site lighting electrical plan, irrigation, parking lot security system and associated conduit requirements. Coordinate with Owner that all required conduits are in place & tested prior to paving.
- When a building utility connection from site utilities leading up to the building cannot be made immediately, temporarily mark all such site utility terminations.
- Refer to the building plans for site lighting electrical requirements, including conduits, pole bases, pull boxes, etc.

#### UTILITY KEY NOTES:

- G1** CONTRACTOR TO COORDINATE 1-1/2" GAS SERVICE ROUTING FROM MAIN BUILDING TO FIRING RANGE BUILDING (RE: MEP PLANS).
- E1** CONTRACTOR TO INTERCEPT EXISTING CONDUITS AND PROVIDE ELECTRIC ENTRY INTO BUILDING. FOLLOW ELECTRIC COMPANY REQUIREMENTS (RE: MEP PLANS).
- W1** 1-1/2" DOMESTIC WATER LINE ENTRY TO BUILDING. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ANY APPURTENANCES ON THE DOMESTIC LINE SUCH AS BACKFLOW PREVENTION DEVICES (RE: BUILDING PLANS), GATE VALVES, REDUCERS, BENDS, TEES, ETC., WHICH MAY BE REQUIRED.
- T1** CONTRACTOR TO COORDINATE ONE (1) - 4" PVC SCH. 40 CONDUITS ROUTING FROM MAIN BUILDING TO FIRING RANGE BUILDING (RE: MEP PLANS).
- S1** CONNECT TO BLDG. INTERIOR PLUMBING SANITARY SEWER LINE. TRANSITION FROM 4" (INTERIOR) TO 6" (EXTERIOR) AT FOUNDATION WALL (RE: MEP PLANS).  
FO=1022.50  
FL 6"=1018.50
- S2** INSTALL 20 L.F. 6" PVC SANITARY SEWER SERVICE LINE (SDR-26) @ 1.0% MIN. SLOPE.
- S3** INSTALL 8"x6" WYE CONNECTION TO CONNECT TO EXISTING PUBLIC SANITARY SEWER MAIN.

STATE OF MISSOURI  
MIKE PARSON,  
GOVERNOR

**GastingerWalker &**



CERTIFICATE OF AUTHORIZATION  
KANSAS  
LAND SURVEYING - LS-82  
ENGINEERING - E-391

PHILIPS ENGINEERING, INC.  
1320 N. Winchester  
Clathe, Kansas 66601  
City 913-393-9595  
Fax 913-393-9566  
www.phelpsengineering.com

CERTIFICATE OF AUTHORIZATION  
MISSOURI  
LAND SURVEYING-2007001128  
ENGINEERING-2007005068

OFFICE OF  
ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT,  
DESIGN AND  
CONSTRUCTION

Project Name  
Troop A Headquarters,  
MSHP

1950 NE Independence Ave.  
Lee's Summit, MO 64086

PROJECT # R2219-01  
SITE # 6018  
FACILITY # 8136018019

REVISION:  
DATE:  
REVISION:  
DATE:  
REVISION:  
DATE: Bid Documents  
ISSUE DATE: 01 August 2023

CAD DWG FILE: C-902.dwg  
DRAWN BY: SNH  
CHECKED BY: DAF  
DESIGNED BY: JDC

SHEET TITLE:

OVERALL  
UTILITY  
PLAN

SHEET NUMBER:

**C-902**

SHEET 014 OF 202

08/01/2023

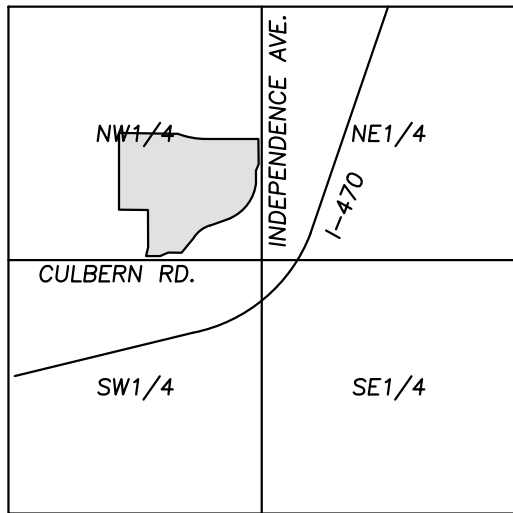


\\phelps-engineering\projects\PEI\220481\Draw\Permit Plans\SECONDARY STORM PLAN - 2.dwg Layout:1 Aug 01, 2023 - 11:29am Dakota Byrum



Know what's below.  
Call before you dig.

UTILITY NOTES:  
VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN.  
UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR LESSORS, ARE APPROXIMATE AND SHOULD BE VERIFIED IN THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL FIELD LOCATIONS OF UNDERGROUND UTILITIES CALL 811.



VICINITY MAP  
SEC. 19-48-31

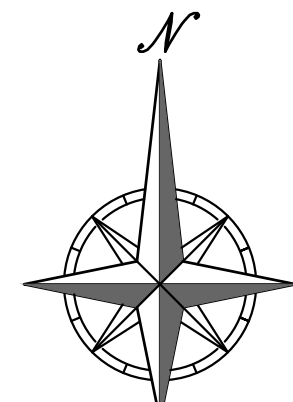


SCALE:  
1"=2000'

#### UTILITY COMPANIES:

MISSOURI GAS ENERGY LUCAS WALLS (LUCAS.WALLS@SGC.COM) 3025 SOUTHEAST CLOVER DRIVE LEE'S SUMMIT, MO 64082	(816) 969-2218
ENERGY PHILLIP INGRAM (PHILLIP.INGRAM@CPL.COM) RON DEJARNETTE (RON.DEJARNETTE@CPL.COM) 1300 HAMBLEN ROAD LEE'S SUMMIT, MO 64081	(816) 347-4339 (816) 347-4316
STORM SEWER (PUBLIC WORKS DEPARTMENT) 220 SE GREEN STREET LEE'S SUMMIT, MO 64063	(816) 969-1800
SANITARY SEWER & WATER (WATER UTILITIES DEPT.) 1200 SE HAMBLEN ROAD LEE'S SUMMIT, MO 64081	(816)-969-1900
AT&T (913) 383-4929 MR. CLAYTON ANSPAUGH (CA4089@ATT.COM) 9444 NALL AVENUE OVERLAND PARK, KANSAS 66207	(913) 383-4849-FAX

SCOPE SHOWN ON THIS SHEET  
SHALL BE PART OF ALTERNATE #4



SCALE: 1"=30'  
0' 30' 60'

PEI #220481

#### LEGEND

— PL —	PROPERTY LINE
— LL —	LOT LINE
— R/W —	RIGHT-OF-WAY
— CATV —	EXISTING CABLE TELEVISION LINE
— FO —	EXISTING FIBER OPTIC LINE
— G —	EXISTING GAS LINE
— BE —	EXISTING BURIED ELECTRIC LINE
— OHP —	EXISTING OVERHEAD POWER LINE
— SS —	EXISTING SANITARY SEWER LINE
— SSW —	EXISTING STORM SEWER LINE (& SIZE)
— BT —	EXISTING BURIED TELEPHONE LINE
— W —	EXISTING WATER LINE (& SIZE)
— G —	PROPOSED GAS LINE
— BE —	PROPOSED BURIED ELECTRIC LINE
— SS —	PROPOSED SANITARY SEWER LINE
— SSW —	PROPOSED STORM SEWER LINE (& SIZE)
— BT —	PROPOSED BURIED TELEPHONE LINE
— W —	PROPOSED WATER LINE (& SIZE)
— ST —	PROPOSED ROOF DRAIN (& SIZE)

#### UTILITY NOTES:

- The contractor is specifically cautioned that the location and/or elevation of existing utilities as shown on these plans is based on records of the various utility companies, and where possible, measurements taken in the field. The information is not to be relied on as being exact or complete. The contractor must call the appropriate utility companies at least 48 hours before any excavation to request exact field location of utilities. It shall be the responsibility of the contractor to coordinate with and relocate &/or remove all existing utilities which conflict with the proposed improvements shown on the plans.
- The construction of storm sewers on this project shall conform to the project specifications.
- The contractor shall field verify the exact location and elevation of the existing storm sewer lines and the existing elevation at locations where the proposed storm sewer collects or releases to existing ground. If discrepancies are encountered from the information shown on the plans, the contractor shall contact the design engineer. No pipes shall be laid until direction is received from the design engineer.
- It will be the contractors responsibility to field adjust the top of all manholes and boxes as necessary to match the grade of the adjacent area. Tops of existing manholes shall be raised as necessary to be flush with proposed pavement elevations, and to be 6-inches above finished ground elevations in non-paved areas. No separate or additional compensation will be made to the contractor for making final adjustments to the manholes and boxes.
- Inlet locations, horizontal pipe information and vertical pipe information is shown to the center of the structure. Deflection angles shown for storm sewer pipes are measured from the center of curb inlets and manholes. The contractor shall adjust the horizontal location of the pipes to go to the face of the boxes. All roof drains shall be connected to storm sewer structures. Provide cleanouts on roof drain lines at 100' max. Spacing and at all bend points. Do not connect roof drains directly to storm sewer pipes.
- The contractor shall be responsible for furnishing and installing all fire and domestic water lines, meters, backflow devices, pits, valves and all other incidentals required for a complete operable fire protection and domestic water system. All costs associated with the complete water system for the buildings shall be the responsibility of the contractor. All work shall conform to the requirements of City.
- The contractor shall be responsible for furnishing and installing all sanitary sewer service lines from the buildings to the public line. All work shall conform to the requirements of the City.
- The contractor will be responsible for securing all permits, bonds and insurance required by the contract documents, City, and all other governing agencies (including local, county, state and federal authorities) having jurisdiction over the work proposed by these construction documents. The cost for all permits bonds and insurance shall be the contractors responsibility and shall be included in the bid for the work.
- By the use of these construction documents the contractor hereby agrees that he/she shall be solely responsible for the safety of the construction workers and the public. The contractor agrees to hold the engineer and owner harmless for any and all injuries, claims, losses or damages related to the project.
- The Contractor shall be responsible for furnishing all materials, tools and equipment and installation of electrical power, telephone and gas service from a point of connection from the public utility lines to the building structures. This will include all conduits, service lines, meters, concrete pads and all other incidentals required for a complete and operational system as required by the owner and the public utilities. Refer to building plans for exact tie-in locations of all utilities. Contractor shall verify connection points prior to installation of utility line.
- All fill material is to be in place, compacted, and consolidated before installation of proposed utilities. On-site geotechnical engineer shall provide written confirmation that this requirement has been met and that utilities may proceed in the fill areas. All utilities are to be placed in trench conditions.
- Contractor shall notify the utility authorities inspectors 48 hours before connecting to any existing line.
- Water lines shall be per the project specifications.
- Minimum trench width shall be 2 feet.
- Contractor shall maintain a minimum of 42" cover on all waterlines. All water line joints are to be mechanical joints with thrust blocking as called out in specifications and construction plans. Water mains and service lines shall be constructed in accordance to waterline's specifications for commercial services.
- All waterlines shall be kept min. ten (10') apart (parallel) from sanitary sewer lines or manholes. Or when crossing, an 24" vertical clearance (outside edge of pipe to outside edge of pipe) of the water line above the sewer line is required.
- Sanitary conflicts will be resolved prior to permit issuance.
- In the event of a vertical conflict between waterlines, sanitary lines, storm lines and gas lines (existing and proposed), the sanitary line shall be ductile iron pipe with mechanical joints at least 10 feet on both sides of crossing (or encased in concrete this same distance), the waterline shall have mechanical joints with appropriate thrust blocking as required to provide a minimum of 24" clearance. Meeting requirements of ANSI A21.10 or ANSI 21.11 (AWWA C-151) (CLASS 50).
- All underground storm, sanitary, water and other utility lines shall be installed, inspected and approved before backfilling. Failure to have inspection approval prior to backfill will constitute rejection of work.
- All necessary inspections and/or certifications required by codes and/or utility service companies shall be performed prior to announced building possession and the final connection of service. Contractor shall coordinate with all utility companies for installation requirements and specifications.
- Refer to building plans for site lighting electrical plan, irrigation, parking lot security system and associated conduit requirements. Coordinate with Owner that all required conduits are in place & tested prior to paving.
- When a building utility connection from site utilities leading up to the building cannot be made immediately, temporarily mark all such site utility terminations.
- Refer to the building plans for site lighting electrical requirements, including conduits, pole bases, pull boxes, etc.

- D1 TYPICAL STORM WATER DRAIN LINE FROM ROOF. ALL SECONDARY STORM LINES SHALL BE PVC SDR 35 OR HDPE (ST). SEE ARCH PLANS FOR BUILDING CONNECTION LOCATIONS.
- D2 CONNECT SECONDARY STORM LINE TO PROPOSED STORM STRUCTURE.
- D3 INSTALL 6" PVC SDR 35 OR HDPE (ST) @ 1.0% SLOPE (MINIMUM) FROM FOUNDATION DRAIN SYSTEM TO PROPOSED STORM STRUCTURE.
- D4 CONNECT FOUNDATION DRAIN SYSTEM OUTLET PIPE TO PROPOSED STORM STRUCTURE.

STATE OF MISSOURI  
MIKE PARSON,  
GOVERNOR

**GastingerWalker &**



CERTIFICATE OF AUTHORIZATION  
KANSAS  
LAND SURVEYING - LS-82  
ENGINEERING - E-391

PHILIPS ENGINEERING, INC.  
1320 N. Winchester  
Olathe, Kansas 66061  
CRO 393-955  
Fax (913) 393-1566  
www.phelpsengineering.com

CERTIFICATE OF AUTHORIZATION  
MISSOURI  
LAND SURVEYING-2007001128  
ENGINEERING-2007005068

OFFICE OF  
ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT,  
DESIGN AND  
CONSTRUCTION

Project Name  
Troop A Headquarters,  
MSHP

1950 NE Independence Ave.  
Lee's Summit, MO 64086

PROJECT # R2219-01  
SITE # 6018  
FACILITY # 8136018019

REVISION:  
DATE:  
REVISION:  
DATE:  
REVISION:  
DATE: Bid Documents  
ISSUE DATE: 01 August 2023

CAD DWG FILE: C-903.dwg  
DRAWN BY: SNH  
CHECKED BY: DAF  
DESIGNED BY: JDC

SHEET TITLE:

FIRING RANGE  
SECONDARY  
STORM PLAN

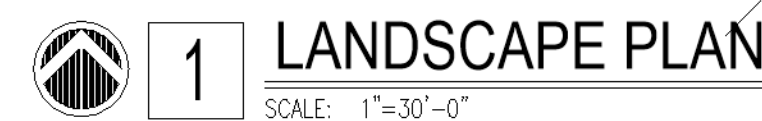
SHEET NUMBER:

**C-903**

SHEET 015 OF 202  
08/01/2023

NOT FOR CONSTRUCTION






Symbol	Qty.	Botanical Name	Common Name	Min.Root	Min.Size	Caliper	Remarks
OVERSTORY TREES							
	4	Acer x truncatum 'Warrenred'	Pacific Sunset Maple		2.5"	6" min. clear., ground to canopy	

Diagram illustrating the components and instructions for a tree installation:

- DO NOT PRUNE LEADER
- PRUNE DAMAGED OR DEAD WOOD IMMEDIATELY PRIOR TO PLANTING. NEVER LEAVE "V" CROTCHES OR DOUBLE LEADER.
- TREE TIE SYSTEM: SEE STAKING REQUIREMENTS
- 3 METAL STAKES. PLACE NEXT TO ROOT BALL AS SHOWN. SPACE EQUIDISTANT AROUND TREE
- 4" MIN. SPECIFIED MULCH
- PLANT ROOT BALL 2" HIGHER THAN GRADE AT WHICH TREE GREY
- INSTALL WEED CONTROL FABRIC IF TREE IS IN LANDSCAPE BED
- CONTINUOUS SAUCER, RIM FOR WATER & MULCH CUT & REMOVE BURLAP FROM TOP 1/3 OF BALL. SPECIFIED BACKFILL MIXTURE
- EXISTING UNDISTURBED SUBSOIL
- ROOT BALL
- 1/2" DIAM OF BALL