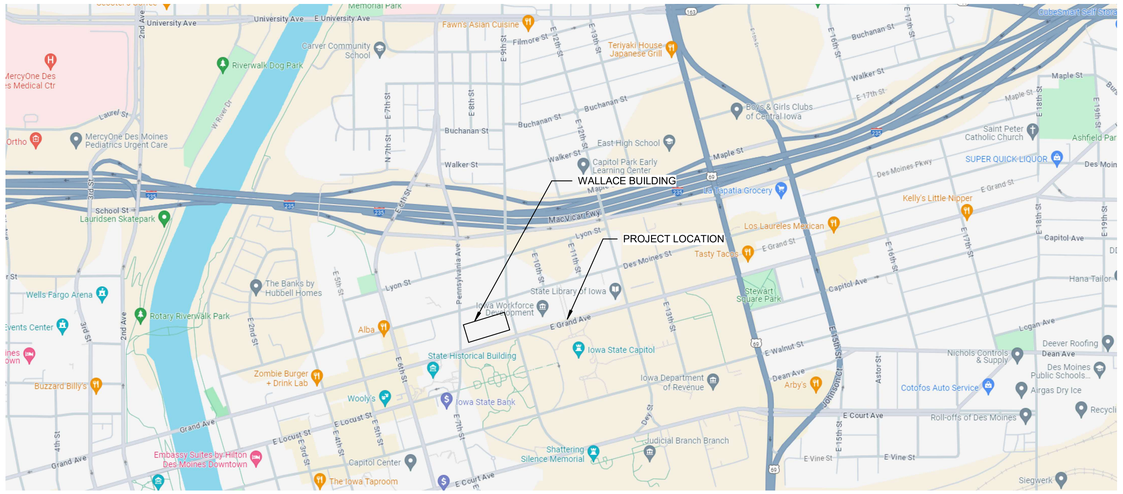
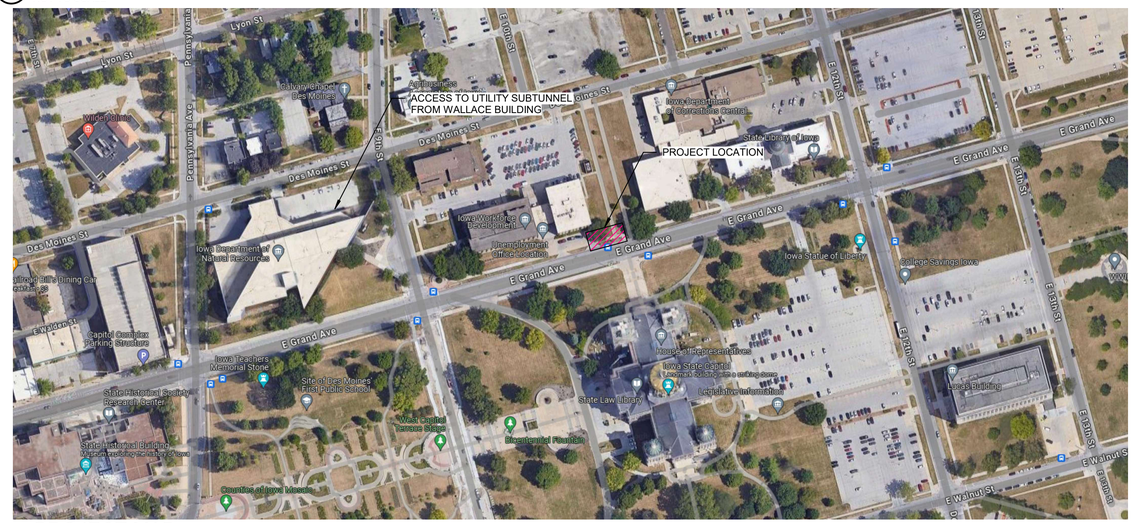
CAPITOL COMPLEX WALLACE SUBTUNNEL REPAIR
DAS PROJECT NO: 9268.01

WALLACE BUILDING
502 E 9TH STREET
DES MOINES, IA 50319



A3 VICINITY MAP
NOT TO SCALE



A4 PROJECT MAP
1" = 10'-0" 0 15'

SHEET INDEX

SHEET LIST	
SHEET	NAME
S000	COVER SHEET
S001	STRUCTURAL GENERAL INFORMATION AND DETAILS
S100	PLAN VIEWS AND ELEVATIONS
S200	ELEVATIONS AND PHOTOS

CERTIFICATIONS

STRUCTURAL ENGINEER

LICENSED PROFESSIONAL ENGINEER
CHRISTOPHER R. MARVIN
P27417
IOWA

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

SIGNATURE
DATE: 8-6-2024

PRINTED OR TYPED NAME: Christopher R. Marvin

LICENSE NUMBER: P27417

MY LICENSE RENEWAL DATE IS DECEMBER 31, 2025

PAGES, SHEETS OR DIVISIONS COVERED BY THIS SEAL: ALL

CONTACT INFORMATION

ENGINEER

SHIVE-HATTERY, INC.
ATTN: CHRIS BAUER OR CHRIS MARVIN
CBAUER@SHIVE-HATTERY.COM
CMARVIN@SHIVE-HATTERY.COM
4125 WESTOWN PKWY, SUITE 100
WEST DES MOINES, IOWA 50266
515-223-8104

OWNER

IOWA DEPARTMENT OF ADMINISTRATIVE SERVICES
ATTN: JENNIFER KLEENE
EMAIL: JENNIFER.KLEENE@IOWA.GOV
109 SE 13TH STREET
DES MOINES, IOWA 50319
515-822-8197

CONSTRUCTION MANAGER

DCI GROUP
ATTN: TRAVIS HOYLE
TRAVISH@DCIGROUP-US.COM
220 SE 6TH ST., SUITE 200
DES MOINES, IA 50309
515-244-5043

SITE ADDRESS

WALLACE BUILDING
502 E 9TH ST.
DES MOINES, IA 50319

SHIVEHATTERY
ARCHITECTURE + ENGINEERING
4125 WESTOWN PARKWAY, SUITE 100
WEST DES MOINES, IA 50266
515.223.8104 | SHIVE-HATTERY.COM

CAPITOL COMPLEX WALLACE SUBTUNNEL REPAIR

DAS PROJECT NO: 9268.01
WALLACE BUILDING
502 E 9TH STREET
DES MOINES, IA 50319

ISSUED FOR: CONSTRUCTION
PROJECT ISSUE DATE: 8/6/2024

PROJECT NUMBER: 2142201940

S000

DESIGN INFORMATION

1. CODES:
   A. INTERNATIONAL BUILDING CODE (IBC) 2015
   B. AMERICAN CONCRETE INSTITUTE - BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318)
   C. AMERICAN CONCRETE INSTITUTE - BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530)
   D. AMERICAN INSTITUTE OF STEEL CONSTRUCTION - SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS (AISC 360)
      ALLOWABLE STRENGTH DESIGN (ASD)
   E. AMERICAN SOCIETY OF CIVIL ENGINEERS AND STRUCTURAL ENGINEERING INSTITUTE (ASCE/SEI 7) - MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
   F. AMERICAN WELDING SOCIETY D1.1
   G. AMERICAN IRON AND STEEL INSTITUTE (AISI S100) SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS
2. DESIGN LOADS PER THE 2015 IBC (RISK CATEGORY II)
   A. DEAD LOADS
      STRUCTURE SELF WEIGHT AS SHOWN
      CEILING, MEP & FP 10 PSF
      ROOFING SYSTEM 10 PSF
   B. DEFLECTION CRITERIA
      a. FLOOR LIVE LOAD L/360
      b. TOTAL LOAD ON MEMBERS SUPPORTING MASONRY L/600
3. SOILS INFORMATION BASED ON ASSUMED SOILS PER IBC TABLE 1806.2 "PRESUMPTIVE LOAD-BEARING VALUES".
   NET ALLOWABLE SOIL BEARING PRESSURES:
   SPREAD FOOTINGS 1500 PSF
   CONTINUOUS WALL FOOTINGS 1500 PSF

STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL CONFORM TO THE REFERENCED EDITION OF THE AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS".
2. STRUCTURAL STEEL MATERIAL STANDARDS

WIDE FLANGE SECTIONS	ASTM A992	Fy = 50 KSI
ANGLES, CHANNELS & PLATES	ASTM A36	Fy = 36 KSI
SQUARE AND RECTANGULAR HSS	ASTM A500, GR C	Fy = 50 KSI
ROUND HSS	ASTM A500, GR C	Fy = 46 KSI
STANDARD PIPE SECTIONS	ASTM A53, GR B	Fy = 35 KSI

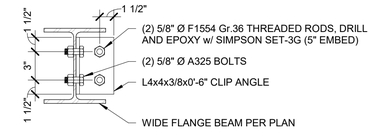
3. STRUCTURAL STEEL CONNECTION STANDARDS:

HIGH STRENGTH BOLTS	ASTM F3125	GRADE A325
HEAVY HEX NUT	ASTM A563	
WASHERS	ASTM F436	
ANCHOR RODS	ASTM F1554	GRADE 36
WELDING ELECTRODES (CARBON STEEL)	AWS 5.1, E70XX	

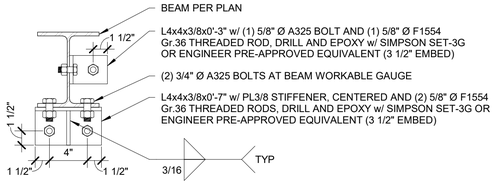
4. WELDING SHALL BE IN ACCORDANCE WITH STRUCTURAL WELDING CODE, AWS D1.1, LATEST EDITION, AND SHALL BE PERFORMED BY CERTIFIED WELDERS ONLY USING PROPER ELECTRODES FOR MATERIAL BEING WELDED. PROVIDE WELD SIZE IN ACCORDANCE WITH AISC SPECIFICATIONS, BUT NOT LESS THAN 3/16" FILLET, CONTINUOUS UNLESS OTHERWISE NOTED.
5. ALL HIGH STRENGTH BOLTS SHALL BE INSTALLED IN ACCORDANCE WITH RCSC - "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS." SEE DRAWINGS FOR BOLTS SIZES. USE 3/4" DIAMETER, A325 BOLTS UNLESS NOTED OTHERWISE.
6. ALL BOLTED CONNECTIONS ARE BEARING TYPE, UNLESS INDICATED AS TENSION CONTROLLED (TC) OR SLIP CRITICAL (SC). PROVIDE STANDARD HOLES FOR BEARING TYPE CONNECTION WHICH ARE 1/16" WIDER DIAMETER THAN THE BOLT.
7. ALL STEEL FRAMING, STEEL LINTEL ASSEMBLIES, BRICK RELIEF ANGLES AND CONNECTORS SHALL BE HOT DIPPED GALVANIZED. ITEMS INDICATED TO BE GALVANIZED SHALL BE HOT-DIP GALVANIZED IN COMPLIANCE WITH ASTM A123.
8. AFTER FABRICATION, ALL STEEL SHALL BE CLEANED OF ALL RUST, LOOSE MILL SCALE AND OTHER FOREIGN MATERIALS. STEEL SHALL BE HAND TOOLED CLEANED (SSPC-SP2) OR POWER TOOL CLEANED (SSPC-SP3).
9. ALL STRUCTURAL STEEL WILL HAVE ONE COAT OF FABRICATOR'S STANDARD LEAD AND CHROMATE-FREE RUST INHIBITIVE PRIMER APPLIED PRIOR TO DELIVERY TO THE JOB SITE UNLESS NOTED OTHERWISE. ALL AREAS OF STRUCTURAL STEEL MEMBERS IN WHICH THE PRIMER COATED SURFACE IS DAMAGED DURING CONSTRUCTION SHALL BE TOUCHED UP WITH MATCHING PRIMER.
10. THERE SHALL BE NO FIELD CUTTING OF STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES WITHOUT PRIOR WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD.
11. CONTRACTOR SHALL PROVIDE ALL TEMPORARY SHORES, GUYS, BRACES AND OTHER SUPPORTS DURING ERECTION TO KEEP STRUCTURAL STEEL SECURE, PLUMB AND IN ALIGNMENT AGAINST TEMPORARY CONSTRUCTION LOADS AND LOADS EQUAL TO DESIGN LOADS. REMOVE ALL TEMPORARY SUPPORTS WHEN PERMANENT STRUCTURAL STEEL FRAMING AND CONNECTIONS ARE COMPLETED.
12. MAINTAIN ERECTION TOLERANCES OF STRUCTURAL STEEL WITHIN AISC 303, "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES."
13. DO NOT ENLARGE MISALIGNED BOLT HOLES BY BURNING OR THERMAL CUTTING. REAM HOLES THAT MUST BE ENLARGED TO INSTALL BOLTS.

GENERAL NOTES

1. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ALL PROJECT DRAWINGS AND SPECIFICATIONS. REFER TO ALL DRAWINGS FOR THE COORDINATION OF THE WORK IN THIS PROJECT.
2. THE INTENT OF THESE PLANS AND NOTES IS TO PRESENT THE PROJECT REQUIREMENTS. MAJOR DETAILS HAVE BEEN SHOWN ON THE DRAWINGS. HOWEVER, CERTAIN MINOR DETAILS MUST BE WORKED OUT IN THE FIELD OR SHOP DRAWING PROCESS BY THE CONTRACTOR.
3. UNLESS NOTED OTHERWISE, DETAILS SHOWN ON DRAWINGS ARE TO BE CONSIDERED TYPICAL FOR ALL SIMILAR CONDITIONS.
4. THE STRUCTURE IS DESIGNED TO BE STABLE AND SELF-SUPPORTING AFTER THE STRUCTURE IS FULLY ERECTED AND ALL CONNECTIONS ARE COMPLETED. UNLESS NOTED OTHERWISE, THE DRAWINGS DO NOT INDICATE THE MEANS AND METHODS OF CONSTRUCTION. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ERECTION PROCEDURE AND SEQUENCING TO ENSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES THE ADDITION TEMPORARY BRACING, GUYS AND TIE-DOWNS NECESSARY FOR THE ERECTION PROCESS.
5. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW THE APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.
6. CONTRACTOR'S CONSTRUCTION AND ERECTION SEQUENCE SHALL CONSIDER THE EFFECTS OF THERMAL MOVEMENTS OF THE STRUCTURAL ELEMENTS DURING THE CONSTRUCTION PERIOD.
7. EXISTING CONDITIONS:
   A. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND CONDITIONS RELATING TO EXISTING CONSTRUCTION AND EXISTING SERVICES ON SITE. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LOCATIONS OF EXISTING COLUMNS, WALLS, OPENINGS, ETC, WITH THE DRAWINGS PRIOR TO PROCEEDING WITH THE WORK. ANY DISCREPANCIES WITH THE CONTRACT DOCUMENTS SHALL BE REPORTED TO THE ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK.
   B. DURING CONSTRUCTION THE CONTRACTOR MAY ENCOUNTER EXISTING CONDITIONS WHICH ARE NOT KNOWN OR ARE AT VARIANCE WITH PROJECT DOCUMENTATION (DISCOVERY). SUCH CONDITIONS MAY INTERFERE WITH THE NEW CONSTRUCTION OR REQUIRE PROTECTION AND/OR SUPPORT OF EXISTING WORK DURING CONSTRUCTION. IT MAY ALSO CONSIST OF DAMAGED OR DETERIORATION OF STRUCTURAL MATERIALS OR COMPONENTS WHICH COULD JEOPARDIZE THE STRUCTURAL INTEGRITY OF THE STRUCTURE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ALL DISCOVERIES WHICH MAY INTERFERE WITH THE PROPER EXECUTION OF THE WORK OR JEOPARDIZE THE STRUCTURAL INTEGRITY OF THE STRUCTURE PRIOR TO PROCEEDING WITH THE WORK RELATED TO SUCH DISCOVERIES.
   C. DURING THE CONSTRUCTION PROCESS, IT SHALL BE SOLELY THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE INTEGRITY OF THE EXISTING STRUCTURE AND TO PROTECT IT FROM DAMAGE ANY PORTIONS THAT ARE TO REMAIN.
   D. CONTRACTOR SHALL INVESTIGATE THE SITE DURING EARTHWORK OPERATIONS FOR FILL MATERIAL OR BURIED STRUCTURES. IMMEDIATELY, NOTIFY THE ENGINEER IF ANY SUCH MATERIALS OR STRUCTURES ARE DISCOVERED.
8. STRUCTURAL COORDINATION
   A. MECHANICAL, ELECTRICAL OR PLUMBING LOADS, OPENINGS AND SUPPORT FRAMING ARE SHOWN FOR BIDDING PURPOSES ONLY. CONTRACTOR SHALL OBTAIN APPROVAL OF THE MECHANICAL, ELECTRICAL OR PLUMBING CONTRACTOR BEFORE PROCEEDING WITH SUCH PORTION OF THE WORK.
   B. THE CONTRACTOR SHALL VERIFY THE SIZE AND LOCATION OF ALL OPENINGS, HOLES AND SLEEVES THROUGH FOUNDATIONS AND OTHER STRUCTURAL ELEMENTS WITH THE MECHANICAL, ELECTRICAL AND PLUMBING CONTRACTORS. NO OPENINGS SHALL PASS THROUGH STRUCTURAL MEMBERS UNLESS SHOWN ON THE DRAWINGS OR APPROVED BY THE ENGINEER.
   C. EXCESS COST DUE TO VARIATION IN THE STRUCTURE TO ACCOMMODATE A SUBSTITUTION OR ALTERNATE MANUFACTURER(S) FROM THE LISTED BASIS OF DESIGN SHALL BE BORNE BY THE CONTRACTOR.
9. BEFORE SUBMITTING A BID, EACH BIDDER SHALL VISIT THE SITE AND BECOME FULLY ACQUAINTED WITH THE EXISTING CONDITIONS, CONSTRUCTION REQUIREMENTS, RESTRICTIONS, QUANTITIES AND EQUIPMENT NECESSARY TO COMPLETE THE WORK. THE BID SHALL INCLUDE ALL ITEMS REQUIRED TO COMPLETE THE WORK WITHIN THE EXISTING CONDITIONS. DISRUPTION OF THE OWNERS NORMAL ACTIVITIES AROUND THE CONSTRUCTION SITE SHALL BE KEPT TO A MINIMUM.
10. THE COST OF ADDITIONAL DESIGN WORK DUE TO ERRORS AND OMISSIONS BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE BORNE BY THE RESPONSIBLE CONTRACTOR.
11. ANY ENGINEERING DESIGN PROVIDED BY OTHER AND SUBMITTED FOR REVIEW OR RECORD SHALL BEAR THE STAMP AND SIGNATURE OF A PROFESSIONAL STRUCTURAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT EXISTS.
12. CONTRACTOR SHALL COORDINATE WORK SCHEDULES WITH THE OWNER TO ESTABLISH CONSTRUCTION SEQUENCING AROUND ANY OCCUPIED AREAS. CONTRACTOR SHALL NOT PROCEED TO OCCUPIED AREAS UNTIL AUTHORIZED BY THE OWNER.
13. ALL ELEMENTS AND SURFACES DAMAGED BY DEMOLITION, BUT NOT SCHEDULED FOR REMOVAL SHALL BE REPAIRED AND REFINISHED TO MATCH THE ADJACENT SURFACES AT NO ADDITIONAL COST TO THE OWNER.
14. CONTRACTOR SHALL REMOVE ALL DEBRIS AND WASTE MATERIALS RESULTING FROM CONSTRUCTION FROM THE SITE, UNLESS NOTED OTHERWISE.
15. CONTRACTOR SHALL MINIMIZE CREATION OF DUST, DIRT AND WINDBORNE DEBRIS FROM BLOWING ACROSS THE SITE AND ONTO ADJACENT SITES.
16. CONTRACTOR SHALL COVER ANY EXTERIOR OPENING WITH TEMPORARY CLOSURES WHEN NOT WORKING ON SITE TO PROTECT THE INTERIOR SPACES FROM WEATHER, INSECTS, RODENTS AND INTRUDERS.
17. DESIGN OF A SHORING PLAN IS SOELY THE RESPONSIBILITY OF THE CONTRACTOR. THE SHORING IS TO BE DESIGNED, SIGNED, AND SEALED BY A LICENSED ENGINEER ANDSUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW PRIOR TO INSTALLATION OF THE TEMPORARY SHORING.



E1 BEAM CLIP ANGLE
1 1/2" = 1'-0"



E2 BEAM SEAT ANGLE
1 1/2" = 1'-0"

SHIVEHATTERY
ARCHITECTURE + ENGINEERING
4125 WESTOWN PARKWAY, SUITE 100
WEST DES MOINES, IA 50266
515.223.8104 | SHIVE-HATTERY.COM

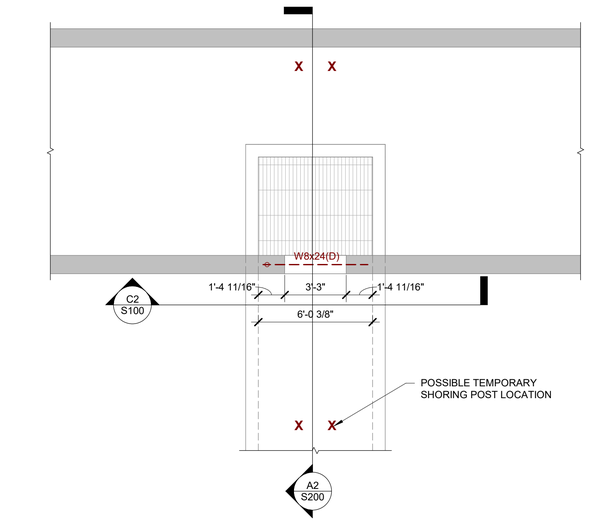
CAPITOL COMPLEX WALLACE SUBTUNNEL REPAIR

DAS PROJECT NO. 9268.01
WALLACE BUILDING
502 E 9TH STREET
DES MOINES, IA 50319

DRAWN BY	CRM
APPROVED BY	CRB
ISSUED FOR	CONSTRUCTION
ISSUE DATE	8/6/2024
PROJECT NUMBER	21422201940
FIELD BOOK	

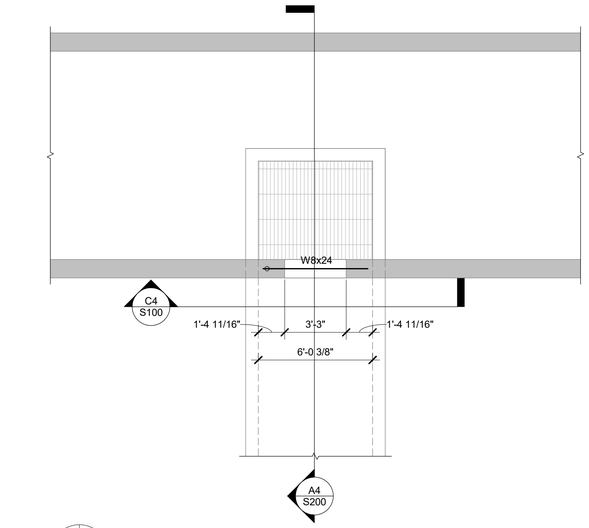
STRUCTURAL GENERAL INFORMATION AND DETAILS

S001



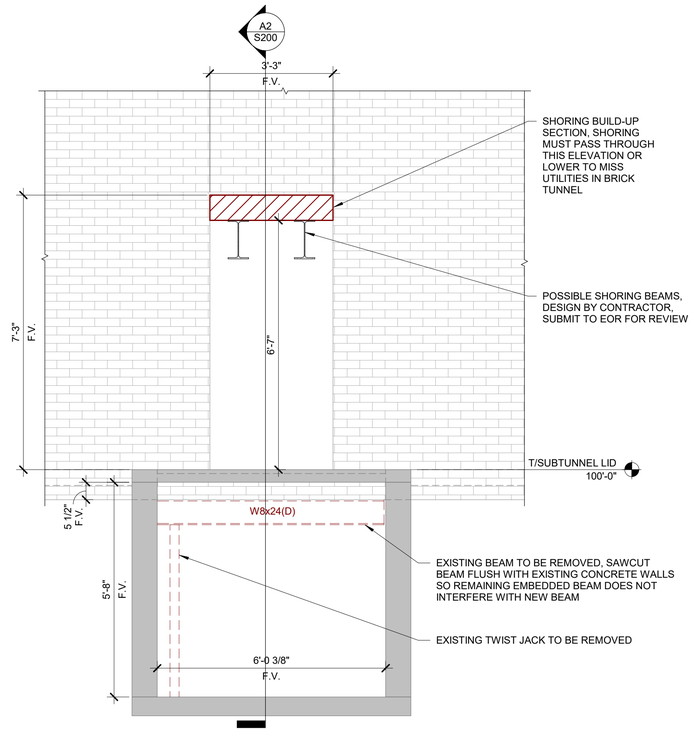
NORTH

A2 DEMOLITION PLAN
1/4" = 1'-0"

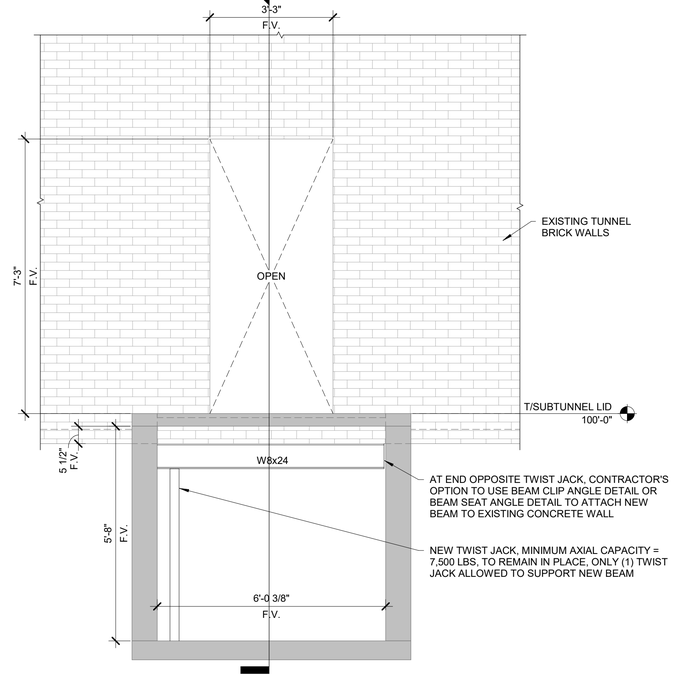


NORTH

A4 FOUNDATION PLAN
1/4" = 1'-0"



C2 DEMOLITION ELEVATION
1/2" = 1'-0"



C4 NEW CONSTRUCTION ELEVATION
1/2" = 1'-0"

FOUNDATION PLAN NOTES

1. SEE SHEET S001 FOR GENERAL NOTES.
2. NORTH ARROW SHOWN IS FOR STRUCTURAL REFERENCE ONLY. SEE CIVIL DRAWINGS FOR ACTUAL BUILDING ORIENTATION.
3. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS INDICATED INCLUDING FLOOR ELEVATIONS, DIMENSIONS, ETC.
4. DESIGN OF A SHORING PLAN IS SOELY THE RESPONSIBILITY OF THE CONTRACTOR. THE SHORING IS TO BE DESIGNED, SIGNED, AND SEALED BY A LICENSED ENGINEER ANDSUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW PRIOR TO INSTALLATION OF THE TEMPORARY SHORING.
5. CONTRACTOR SHALL PROTECT ALL UTILITIES IN ALL TUNNELS DURING ENTIRETY OF CONSTRUCTION. UTILITIES IN TUNNEL NEED TO REMAIN IN-SERVICE THROUGHOUT CONSTRUCTION.

SHIVEHATTERY
ARCHITECTURE + ENGINEERING
4125 WESTOWN PARKWAY, SUITE 100
WEST DES MOINES, IA 50266
515.223.8104 | SHIVE-HATTERY.COM

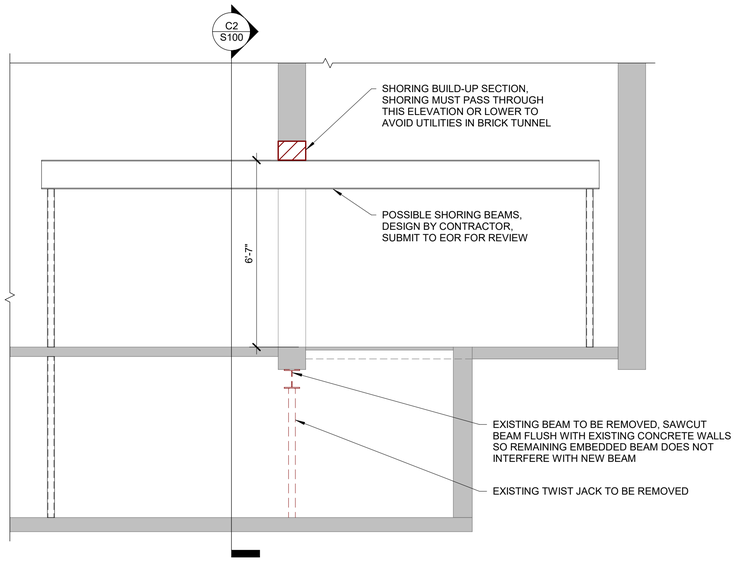
CAPITOL COMPLEX WALLACE SUBTUNNEL REPAIR

DAS PROJECT NO. 9268.01
WALLACE BUILDING
502 E 9TH STREET
DES MOINES, IA 50319

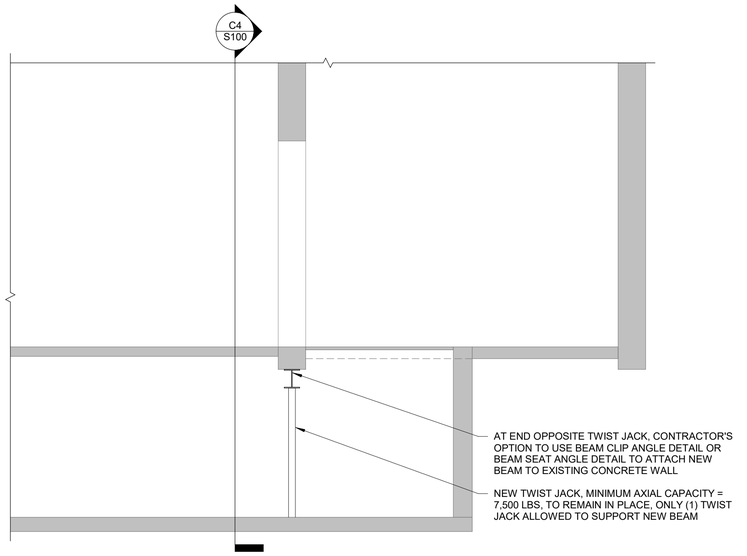
DRAWN BY	CRM
APPROVED BY	CRB
ISSUED FOR	CONSTRUCTION
ISSUE DATE	8/6/2024
PROJECT NUMBER	2142201940
FIELD BOOK	

PLAN VIEWS AND ELEVATIONS

S100



A2 DEMOLITION SECTION
3/8" = 1'-0" 0 4'



A4 NEW CONSTRUCTION SECTION
3/8" = 1'-0" 0 4'

C2 PHOTO 1
1 1/2" = 1'-0" 0 1'

C3 PHOTO 2
1 1/2" = 1'-0" 0 1'

C4 PHOTO 3
1 1/2" = 1'-0" 0 1'

E2 PHOTO 4
1 1/2" = 1'-0" 0 1'

E4 PHOTO 5
1 1/2" = 1'-0" 0 1'

SHIVEHATTERY
ARCHITECTURE + ENGINEERING
4125 WESTOWN PARKWAY, SUITE 100
WEST DES MOINES, IA 50266
515.223.8104 | SHIVE-HATTERY.COM

CAPITOL COMPLEX WALLACE SUBTUNNEL REPAIR

DAS PROJECT NO. 9268.01
WALLACE BUILDING
502 E 9TH STREET
DES MOINES, IA 50319

DRAWN BY	CRM
APPROVED BY	CRB
ISSUED FOR	CONSTRUCTION
ISSUE DATE	8/6/2024
PROJECT NUMBER	21422201940
FIELD BOOK	

ELEVATIONS AND PHOTOS

S200