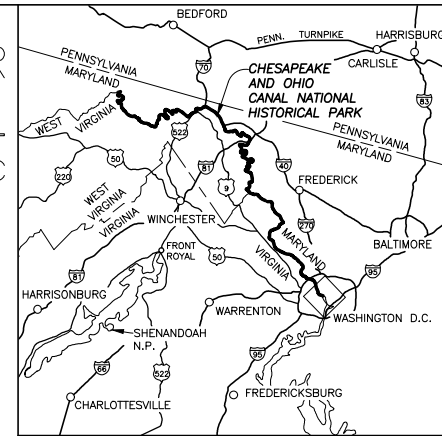
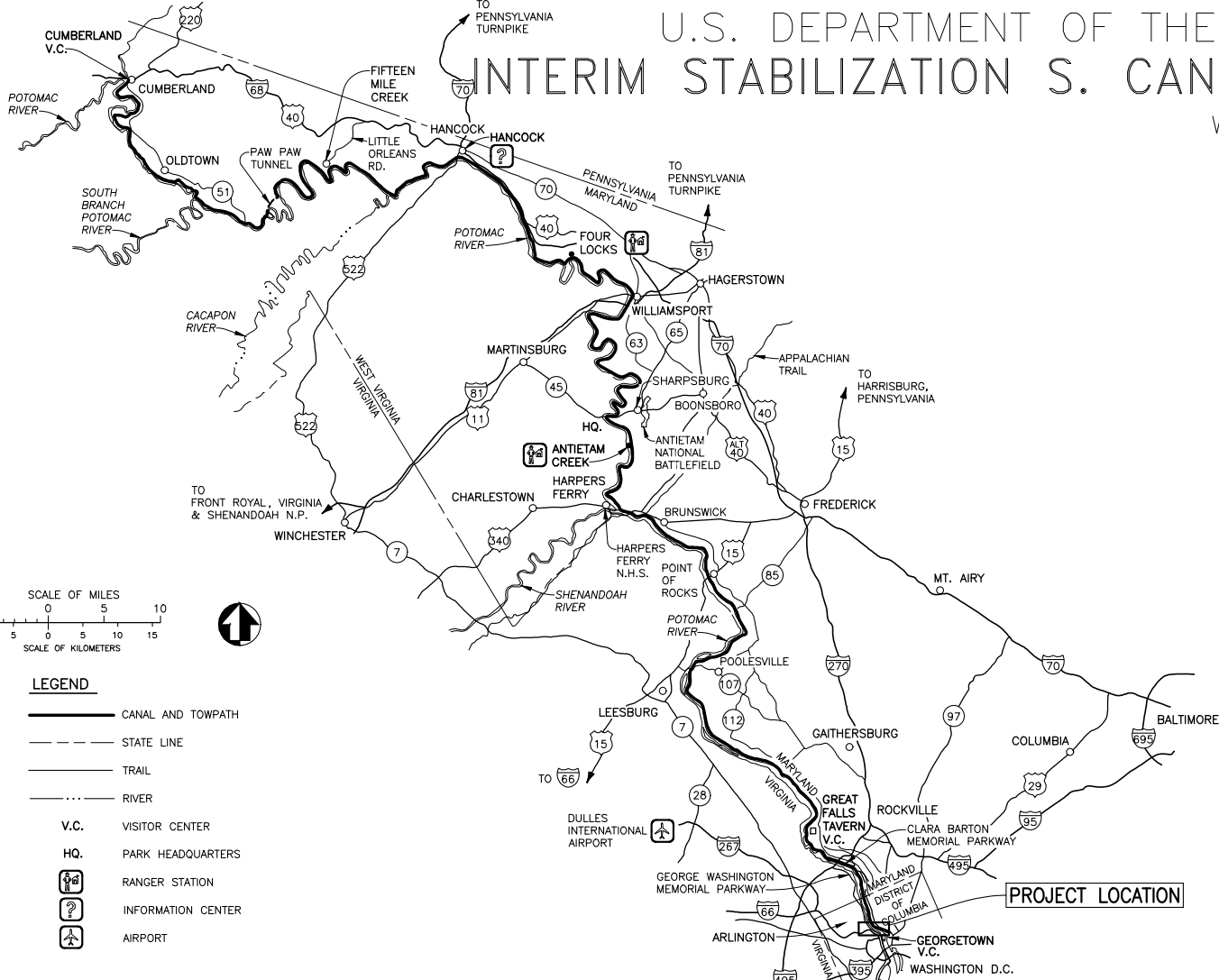
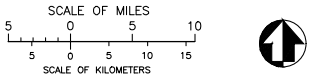


U.S. DEPARTMENT OF THE INTERIOR INTERIM STABILIZATION S. CANAL WALL

WASHINGTON, DC



VIRGINIA & MARYLAND
SCALE OF MILES



- LEGEND**
- CANAL AND TOWPATH
 - STATE LINE
 - TRAIL
 - RIVER
 - V.C. VISITOR CENTER
 - HQ. PARK HEADQUARTERS
 - RANGER STATION
 - INFORMATION CENTER
 - AIRPORT

DRAWING INDEX

SHEET	SUB SHEET	TITLE OF SHEET
1.		COVER SHEET
2.	S1.0	BRACING PLAN
3.	S1.1	BRACING FOUNDATION PLAN
4.	S2.0	BRACING ELEVATION
5.	S3.0	BRACING SECTION
6.	S3.1	BRACING DETAILS
7.	S3.2	BRACING DETAILS
8.	S4.0	PRODUCTS - BASIS OF DESIGN
9.	S4.1	PRODUCTS - BASIS OF DESIGN
10.	S4.2	ACCESS PLAN - BASIS OF DESIGN
11.	S4.3	STAGING AREA PLAN
12.	S5.0	EXISTING CONDITIONS - PHOTOS
13.	SS.1	DESIGN NOTES
14.	CV0001	NOTES LEGEND ABBREVIATIONS
15.	CV0001A	NOTES LEGEND ABBREVIATIONS
16.	CV0101	EXISTING CONDITIONS
17.	CV0101A	EXISTING CONDITIONS PHOTO EXHIBIT
18.	CV0101B	EXISTING CONDITIONS PHOTO EXHIBIT
19.	CV0102	DEMOLITION PLAN
20.	CV0103	EROSION & SEDIMENT CONTROL PLAN
21.	CV0104	EROSION & SEDIMENT CONTROL NOTES
22.	CV0105	SITE PLAN
23.	CV0501	EROSION & SEDIMENT CONTROL DETAILS
24.	CV0501A	EROSION & SEDIMENT CONTROL DETAILS
25.	CV0501B	EROSION & SEDIMENT CONTROL DETAILS
26.	CV0502	SITE DETAILS
27.	CV0502A	SITE DETAILS

CHESAPEAKE AND OHIO CANAL NATIONAL HISTORICAL PARK

PMIS # 310405

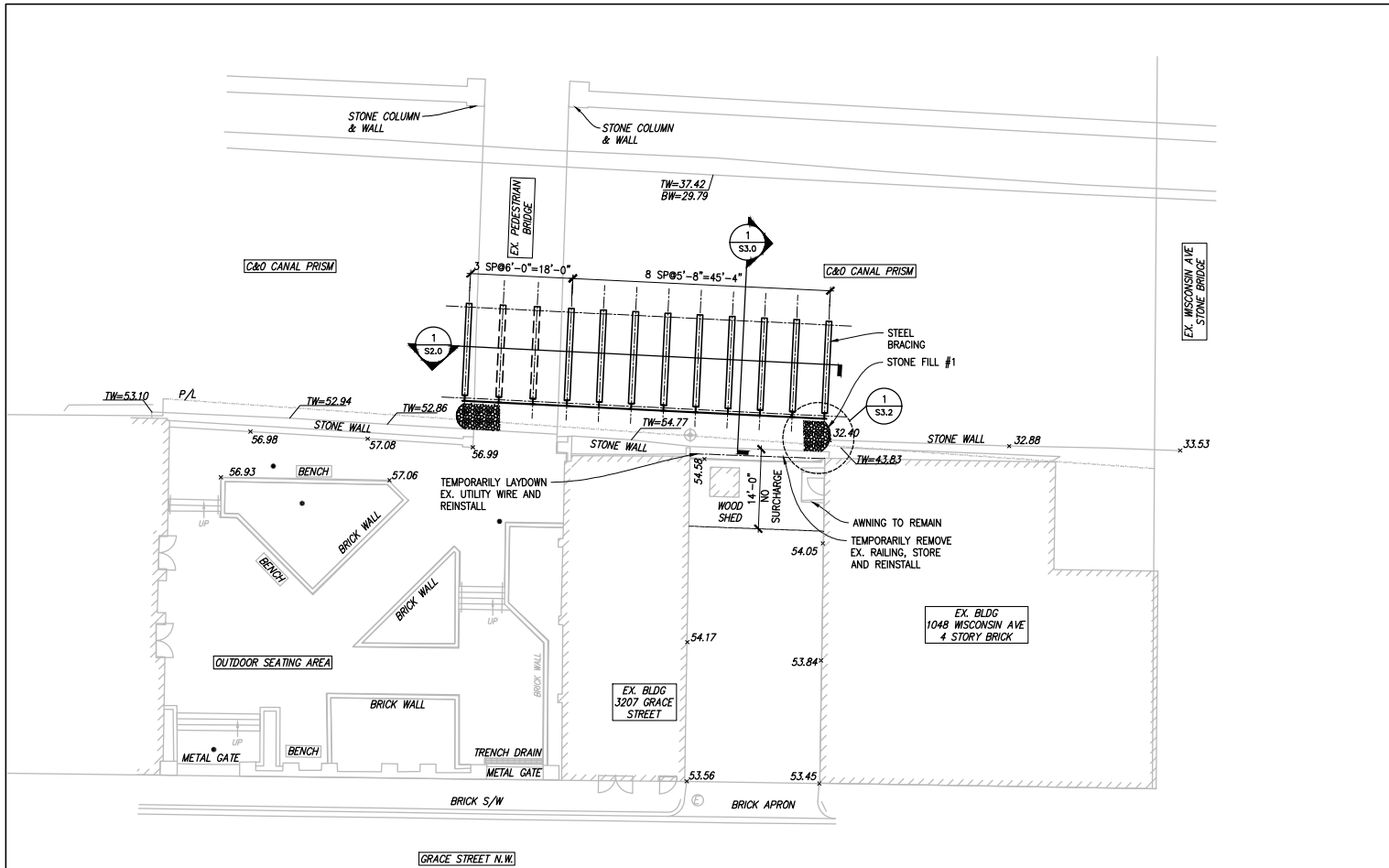
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					Project Manager _____ Date _____



100% DRAFT CONSTRUCTION DOCUMENTS	TITLE OF DRAWING INTERIM STABILIZATION SOUTH CANAL WALL LOCATION WITHIN PARK WASHINGTON, DC NAME OF PARK CHESAPEAKE & OHIO CANAL N.H.P. REGION COUNTY STATE NAT'L CAPITAL WASHINGTON DC	DRAWING NO. 412 167062 SHEET NO. 310405 1 OF 27
UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE DENVER SERVICE CENTER		

BASIC DATA: BOUNDARY MAP 853/40.014 4/71; 412/20.003; PARK MINI FOLDER 1991; COVER REVISED & REDRAWN 2/93. UPDATED 10/98. SGS.

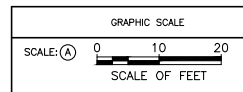
6/12/2020 5:41 PM R16 M:\3900\3907.02 Georgetown Canal\3907-02 COVER.dwg



- BRACING REQUIREMENTS:**
1. THE INTENT OF THIS BRACING PROJECT IS TO INSTALL A SUPPORT SYSTEM WHICH COULD BE IN PLACE FOR 10 YEARS FOR THE EXISTING DRystone WALL AND STRUCTURES THAT IT SUPPORTS.
 2. INSTALL BRACING USING MEANS THAT MINIMIZE VIBRATION WHICH COULD CAUSE FAILURE OF THE EXISTING STONE WALL.
 3. MONITOR THE EXISTING WALL CONTINUOUSLY DURING ANY CONSTRUCTION ACTIVITY THAT COULD CAUSE DAMAGING VIBRATIONS. NOTIFY THE CONTRACTING OFFICER IMMEDIATELY OF ANY CHANGES IN THE EXISTING WALL. MONITORING SHALL INCLUDE SURVEY OF MARKERS ON THE EXISTING STONE WALL AND GROUND VIBRATION MONITORING.
 4. SURVEY THE EXISTING WALL PRIOR TO CONSTRUCTION WITH PHOTOGRAPHS AND LASER SCANNING. DOCUMENT THE LOCATION OF FACE STONES WITH PHOTOGRAPHS. LOCATE THE COORDINATES OF AT LEAST 16 STONES PRIOR TO CONSTRUCTION ACTIVITIES IN THE CANAL PRISM. RESURVEY THOSE 16 POINTS EACH DAY WHEN THERE IS WORK BEING DONE IN THE PRISM OR UNTIL THOSE STONES ARE COVERED BY BRACING. INSTALL VIBRATION MONITORS ON THE WALL AT TWO LOCATIONS AND IN TWO LOCATIONS ON THE SURFACE OF THE BEDROCK NEAR WHERE BRACING IS BEING INSTALLED. MONITOR AND RECORD VIBRATIONS DURING CONSTRUCTION ACTIVITIES IN THE PRISM. PROVIDE A WEEKLY UPDATED REPORT TO THE GOVERNMENT. STONES THAT ARE COVERED BY BRACING NEED NOT BE MONITORED.
 5. SPECIAL EXCAVATION MEANS TO PREVENT DAMAGING VIBRATIONS SHALL BE USED. EXCAVATION OF MATERIALS WITHIN 6 INCHES OF BED ROCK SHALL BE DONE BY VACUUM EXCAVATION OR BY HAND.
 6. INSTALLATION OF BRACING AND FOUNDATION SHALL BE COMPLETED IN THE DRY. PROVIDE TEMPORARY COFFERDAM. REMOVE COFFERDAM AFTER CONSTRUCTION.
 7. SEDIMENT THAT IS EXCAVATED FOR INSTALLATION OF CONCRETE FOUNDATIONS SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH LOCAL REGULATIONS. AFTER REMOVAL OF COFFERDAM, LEVEL REMAINING SEDIMENT THROUGHOUT WORK AREA AND DO NOT RAISE THE LEVEL OF ANY SEDIMENT BEYOND ELEVATION 32.0 FEET. REMOVE AND DISPOSE OF THAT SEDIMENT WHICH IS NOT ABLE TO BE SPREAD.
 8. MAINTAIN 20 FEET CLEAR BETWEEN THE NORTHSIDE CANAL PRISM WALL AND THE CONSTRUCTION WORK AND COFFERDAM.

- SUGGESTED SEQUENCE OF WORK IN PRISM:**
- (ACTUAL SEQUENCE TO BE DETERMINED BY CONTRACTOR AND SUBMITTED FOR APPROVAL)
1. USING CRANE IN ACCESS FROM TEMPORARY CLOSURE OF WISCONSIN AVE (CONTRACTOR TO OBTAIN PERMITS), DELIVER CONSTRUCTION MATERIALS AND EQUIPMENT THAT CANNOT BE DELIVERED FROM THE PARKING LOT BETWEEN 3207 GRACE ST. AND 1048 WISCONSIN AVE. REFER TO ACCESS PLAN BASIS OF DESIGN DRAWING.
 2. INSTALL TEMPORARY COFFERDAM AND PUMPS IN THE PRISM AROUND THE WORK AREA.
 3. EXCAVATE SEDIMENT, CLEAN ROCK SURFACE, INSTALL DOWELS, AND PLACE FOR CONCRETE FOOTINGS. PROVIDE OVERHEAD PROTECTION DURING THE WORK ADJACENT TO THE WALL FROM FALLING STONES.
 4. AFTER CONCRETE REACHES 3000PSI STRENGTH, INSTALL ROCK BOLTS.
 5. CONSTRUCT STEEL BRACING.
 6. INSTALL FABRIC AGAINST EXISTING STONE WALL AND PLACE STONE FILL BETWEEN BRACING AND THE EXISTING WALL IN LAYERS AS THE TIMBER SHEETING IS INSTALLED.
 7. REMOVE COFFERDAM AND SPREAD EXCAVATED MATERIAL EVENLY WITHIN THE WORK AREA.

1 BRACING PLAN
 SCALE: A
 NOTE: ELEVATIONS ARE FOR REF. ONLY SEE CIVIL DWG. FOR ACTUAL ELEVATIONS



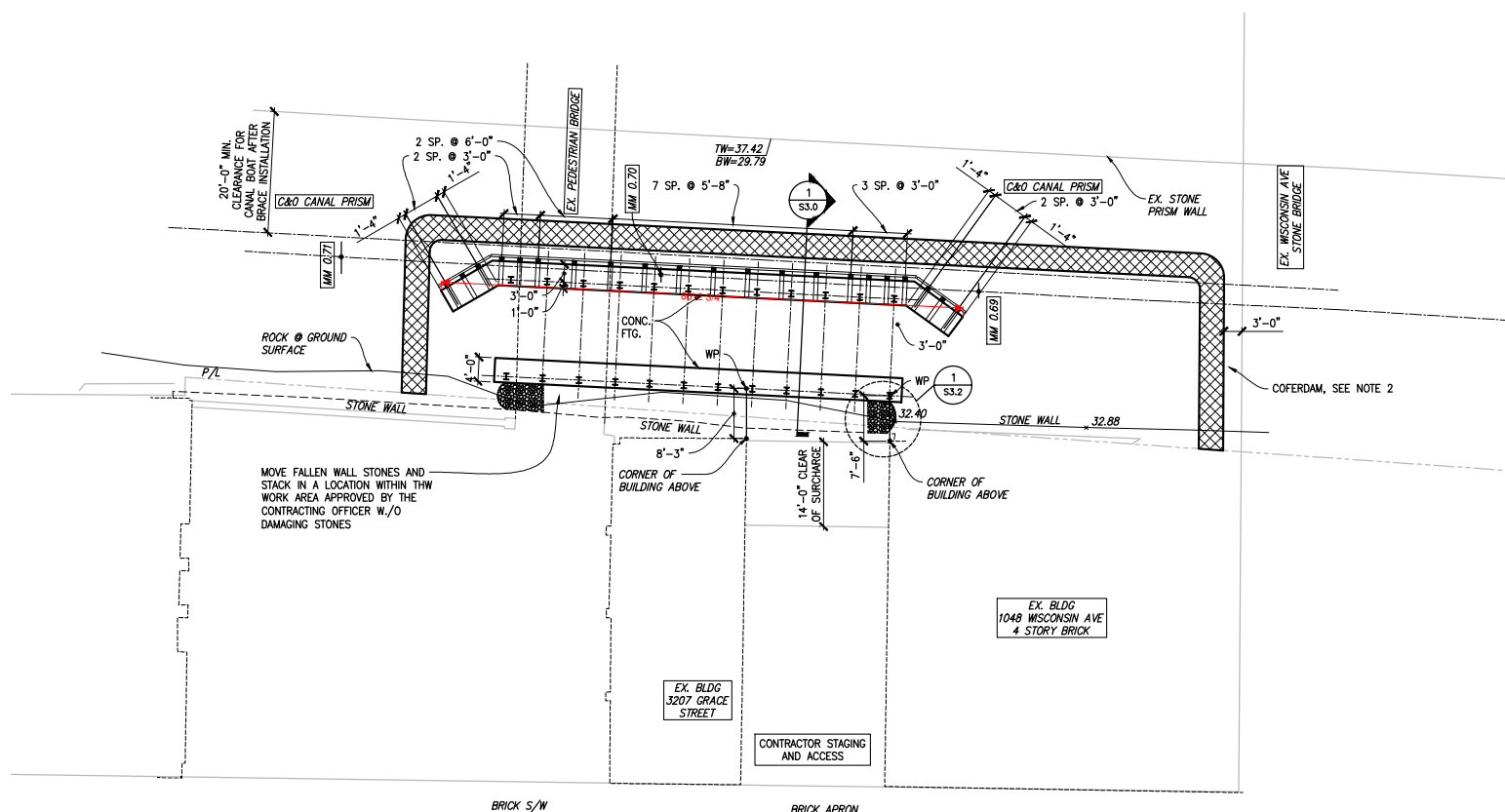
DESIGNED:	DB
BY:	CEN
TECH. REVIEW:	-
DATE:	06/12/2020

SUB SHEET NO.
S1.0

TITLE OF SHEET
BRACING PLAN
STABILIZE SOUTH PRISM WALL

DRAWING NO.	412
167062	
FMS/PKG NO.	310405
SHEET	2 OF 27

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GRACE STREET N.W.

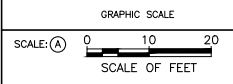
1 BRACING FOUNDATION PLAN

S1.1 SCALE: A

NOTES:

1. ELEVATIONS ARE FOR REF. ONLY SEE CIVIL DWG. FOR ACTUAL ELEVATIONS.
2. COFFERDAM: PROVIDE TEMPORARY COFFERDAM AND OTHER MEASURES AS NECESSARY FOR UP TO 3 FEET OF WATER IN THE CANAL AFTER RAIN EVENTS (UP TO ELEVATION 35.4 FEET.) PUMP WATER IN THE WORK AREA AS NEEDED TO ALLOW FOR WORK IN THE DRY AND DISCHARGE OF WATER INTO PRISM DOWNSTREAM OF THE WORK AREA. DO NOT DISPLACE MATERIAL IN THE CANAL AS A RESULT OF DISCHARGE. REMOVE COFFERDAM AFTER CONSTRUCTION. SUBMIT A WORK PLAN OF THE COFFERDAM FOR APPROVAL, AND INCLUDE A LIST OF ALL EQUIPMENT AND PROCEDURES PROPOSED TO INSTALL, MAINTAIN, AND REMOVE THE COFFERDAM INCLUDING THE PUMPING OF WATER.

100% DRAFT CONSTRUCTION DOCUMENTS



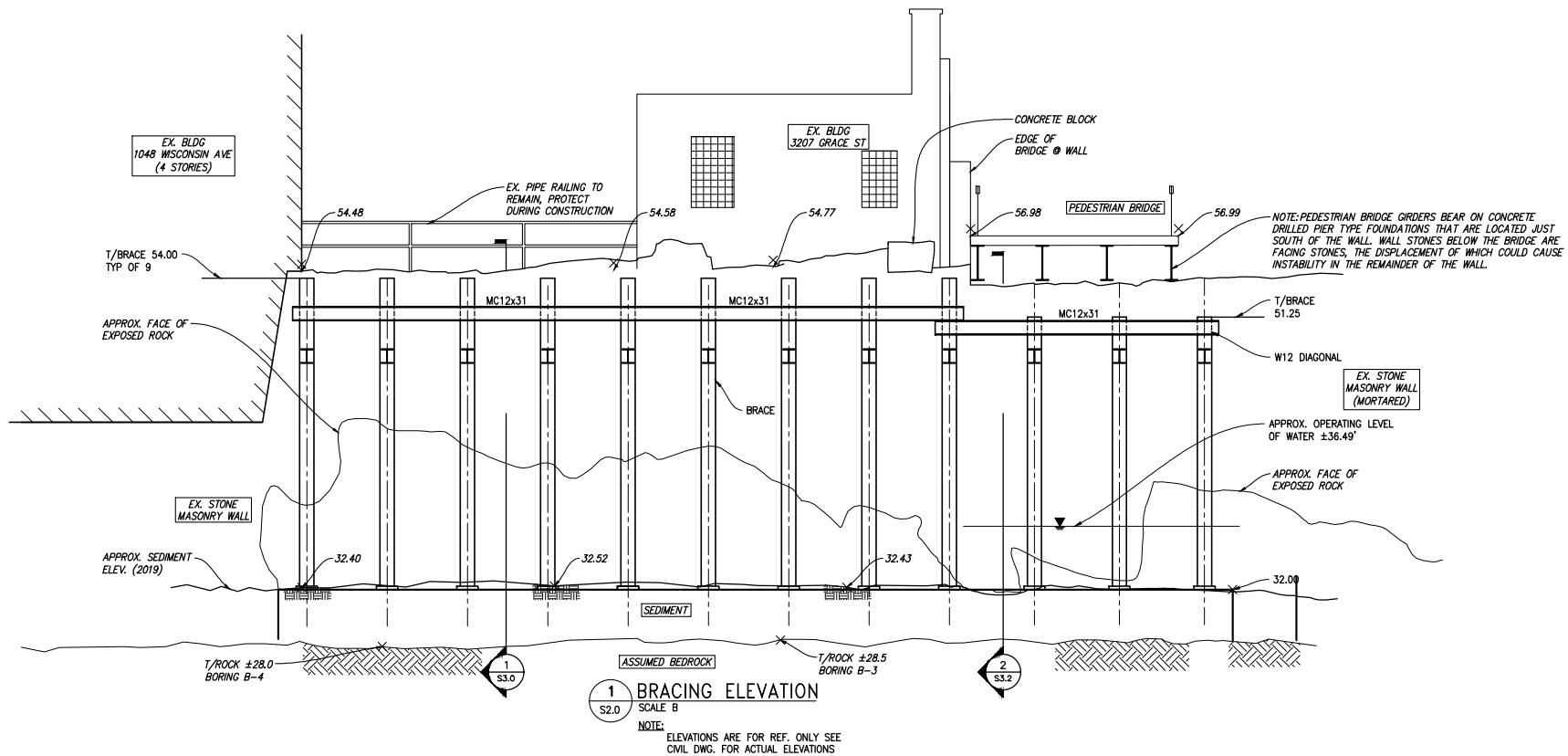
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TECH. REVIEW:
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DATE:
06/12/2020

SUB SHEET NO.
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TITLE OF SHEET
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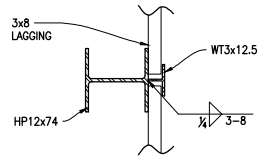
STABILIZE SOUTH PRISM WALL

DRAWING NO. 412
FMIS/PKG NO. 310405
SHEET 3 OF 27

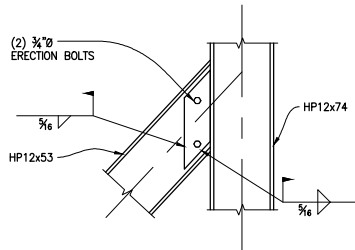


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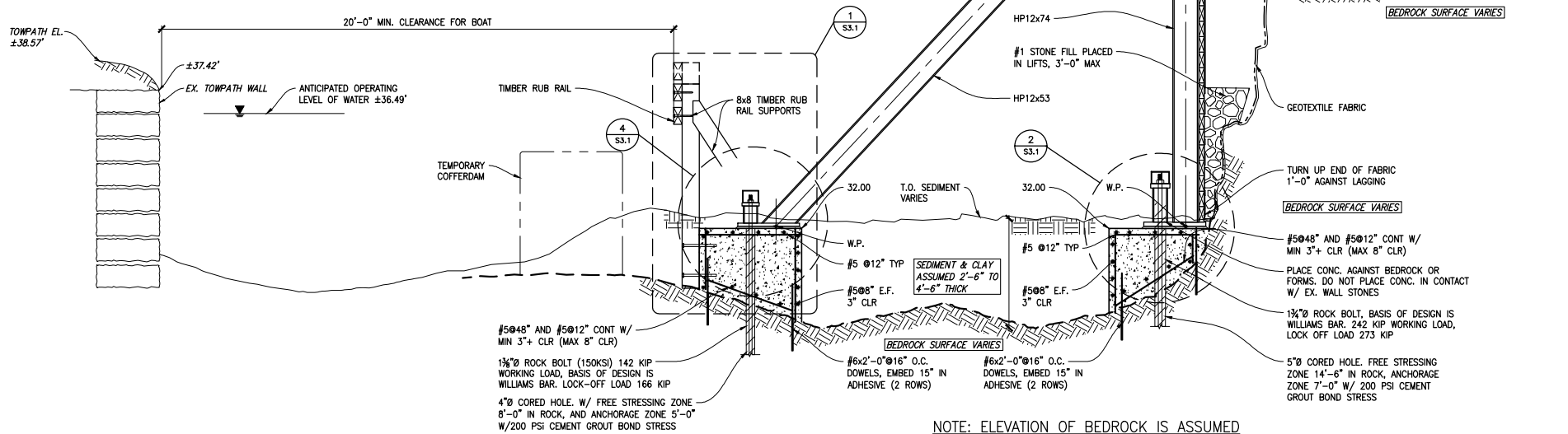
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	TECH. REVIEW: -	DATE: 06/12/2020	STABILIZE SOUTH PRISM WALL	FMIS/PKG NO. 310405
				SHEET 4 OF 27



2 PLAN DETAIL
S3.0 SCALE D



3 BRACING CONN. DETAIL
S3.0 SCALE D



1 BRACING SECTION
S3.0 SCALE C

GRAPHIC SCALE
SCALE: (C) 2 0 2 4
SCALE OF FEET
SCALE: (D) 1 0 1 2
SCALE OF FEET

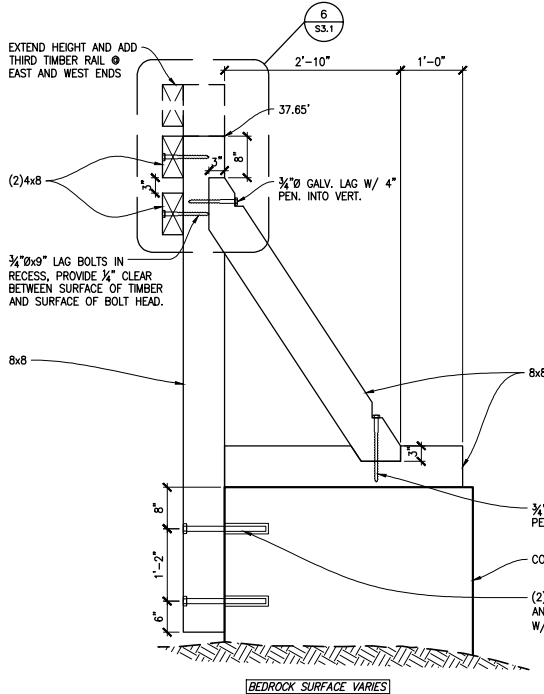
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TECH. REVIEW: -
DATE: 06/12/2020

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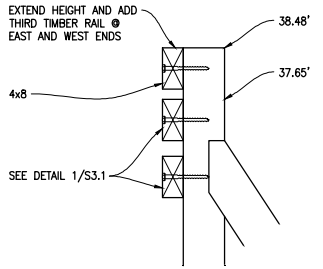
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BRACING DETAILS
STABILIZE SOUTH PRISM WALL

100% DRAFT CONSTRUCTION DOCUMENTS

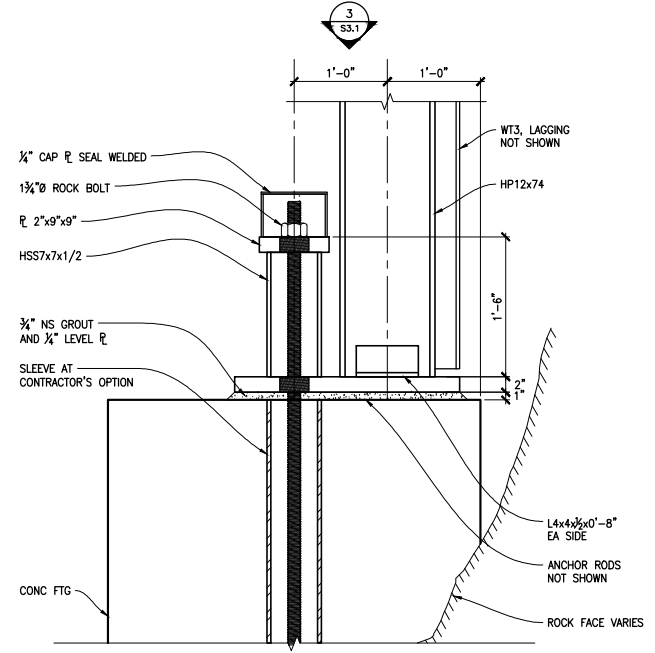
DRAWING NO. 412
167062
FMIS/PKG NO. 310405
SHEET 5 OF 27



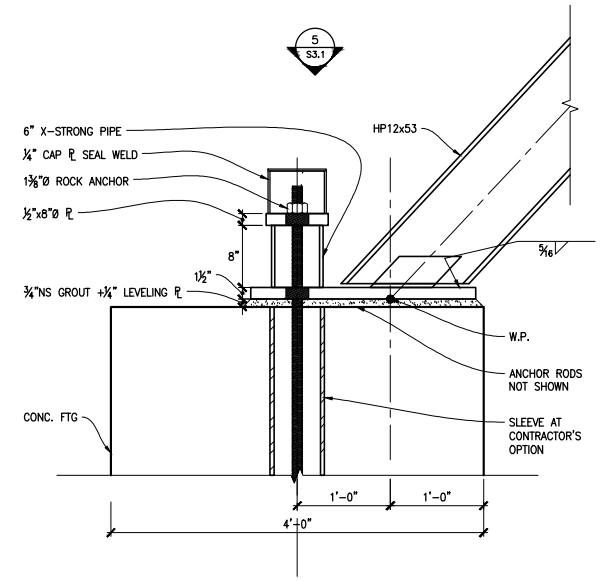
1 TIMBER RUB RAIL DETAIL
S3.1 SCALE D



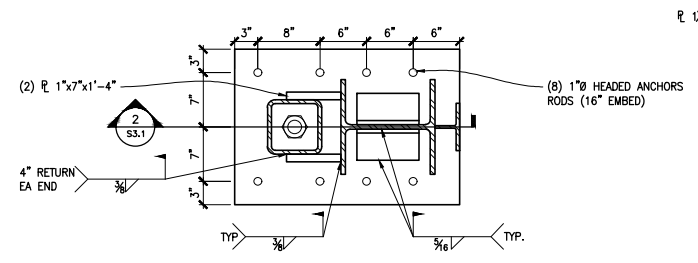
6 EXTENDED RUB RAIL DETAIL
S3.1 SCALE D



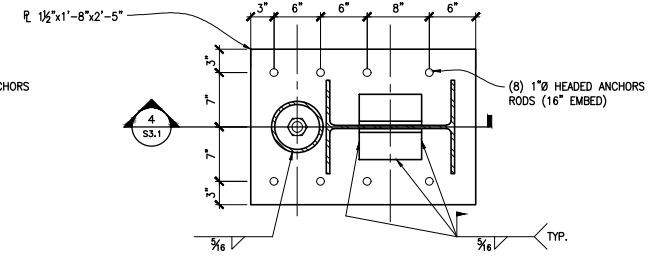
2 SECTION @ BASE
S3.1 SCALE E



4 SECTION @ BASE
S3.1 SCALE E

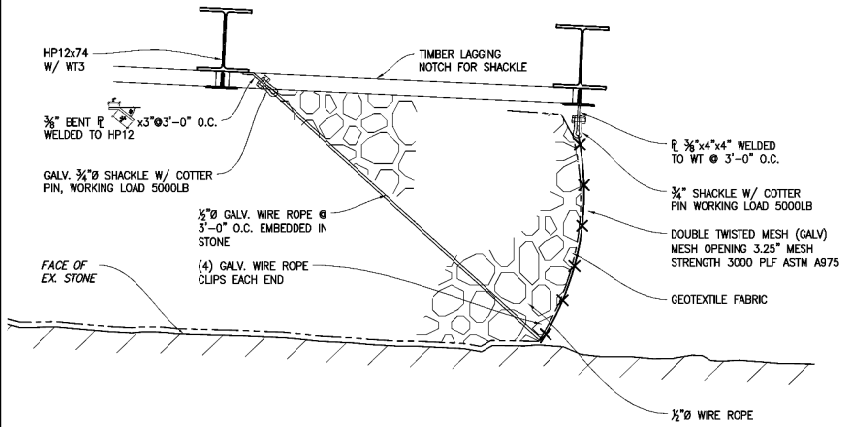


3 BASE DETAIL
S3.1 SCALE E

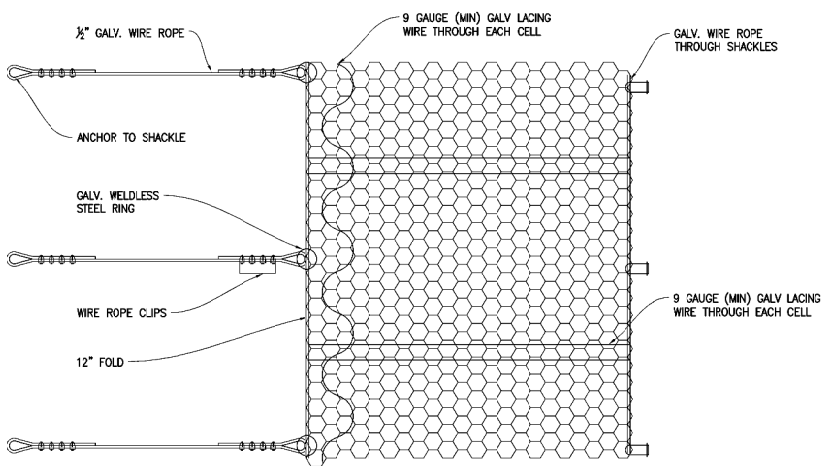


5 BASE DETAIL
S3.1 SCALE E

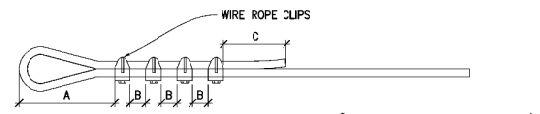
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1 PLAN DETAIL
 S3.2 SCALE D

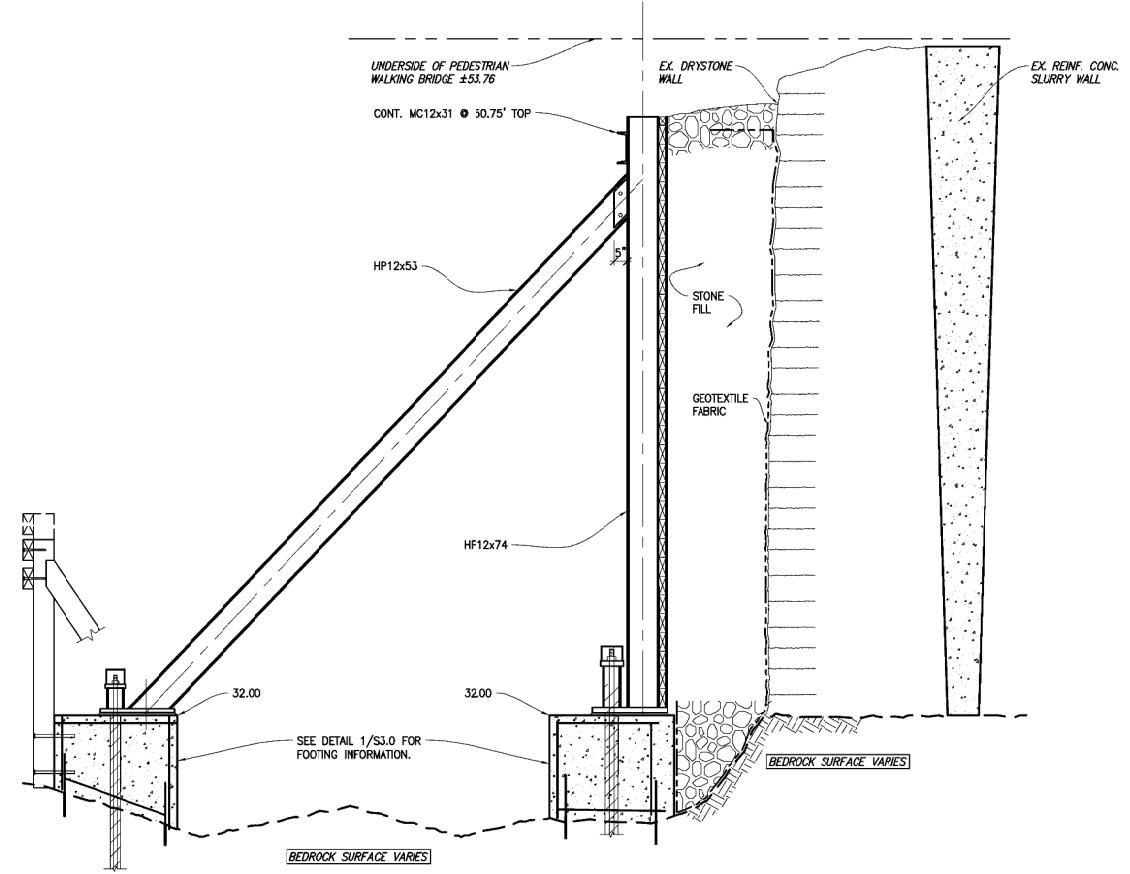


3 MESH DETAIL
 S3.2 SCALE D

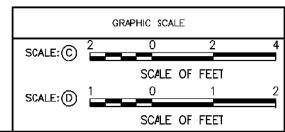


4 DETAIL
 S3.2 SCALE F

NOTE: DISTANCES A, B, C AND TORQUE COMPLY WITH MANUFACTURE'S SPECIFICATION FOR 4000LB WORKING LOAD.



2 BRACING SECTION
 S3.2 SCALE E



DESIGNED: DB
 CHECKED: CEN
 TECH. REVIEW: -
 DATE: 06/12/2020

SUB SHEET NO. S3.2

TITLE OF SHEET
BRACING DETAILS

STABILIZE SOUTH PRISM WALL

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DRAWING NO. 412
 167062
 FMS/PKG. NO. 310405
 SHEET 7 of 27