



WASHINGTON DEPARTMENT OF FISH AND WILDLIFE

WOOTEN WLA – WATSON LAKE FOOTBRIDGE FOOTBRIDGE INSTALLATION CA:R5:2021-1

Index

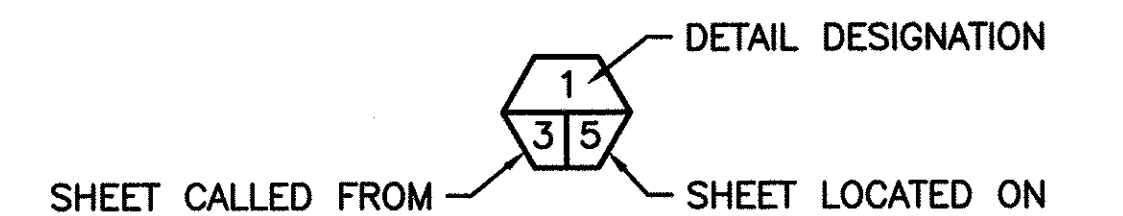
Sheet Title

- 1 COVER
- 2 VICINITY MAP
- 3 EXISTING AND DEMOLITION PLAN
- 4 SITE PLAN
- 5 BRIDGE PLAN AND PROFILE
- 6 BRIDGE ABUTMENT REINFORCEMENT PLAN
- 7 BRIDGE FABRICATION FOR REFERENCE ONLY
- 8 BRIDGE FABRICATION FOR REFERENCE ONLY

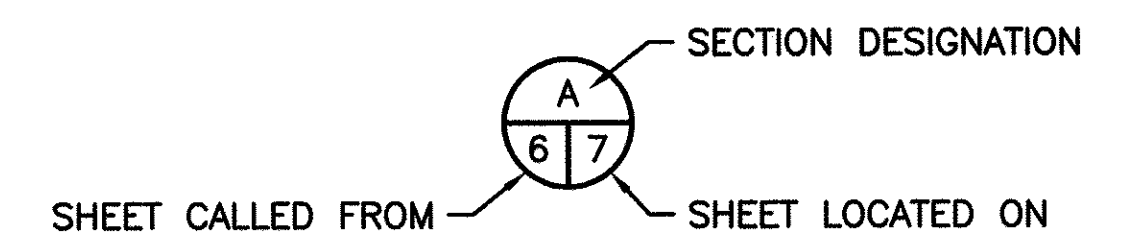
ABBREVIATIONS

ALUM	-	ALUMINUM
L	-	ANGLE
APPROX	-	APPROXIMATELY
BM	-	BENCH MARK
CL	-	CENTERLINE
CLR	-	CLEARANCE
CONC	-	CONCRETE
CSBC	-	CRUSHED SURFACE BASE COURSE
CSTC	-	CRUSHED SURFACE TOP COURSE
DIA	-	DIAMETER
ELEV	-	ELEVATION
FB	-	FLAT BAR
FTG	-	FOOTING
GALV	-	GALVANIZED
IE	-	INVERT ELEVATION
MFG	-	MANUFACTURER'S
MISC	-	MISCELLANEOUS
OC	-	ON CENTER
OD	-	OUTSIDE DIAMETER
OHW	-	ORDINARY HIGH WATER
PL	-	PLATE
REQ'D	-	REQUIRED
SPEC'S	-	PROJECT SPECIFICATIONS
SS	-	STAINLESS STEEL
TYP	-	TYPICAL
UHMW	-	ULTRA HIGH MOLECULAR WEIGHT POLYETHYLENE
WS	-	WATER SURFACE

SHEET SYMBOLS



DETAIL



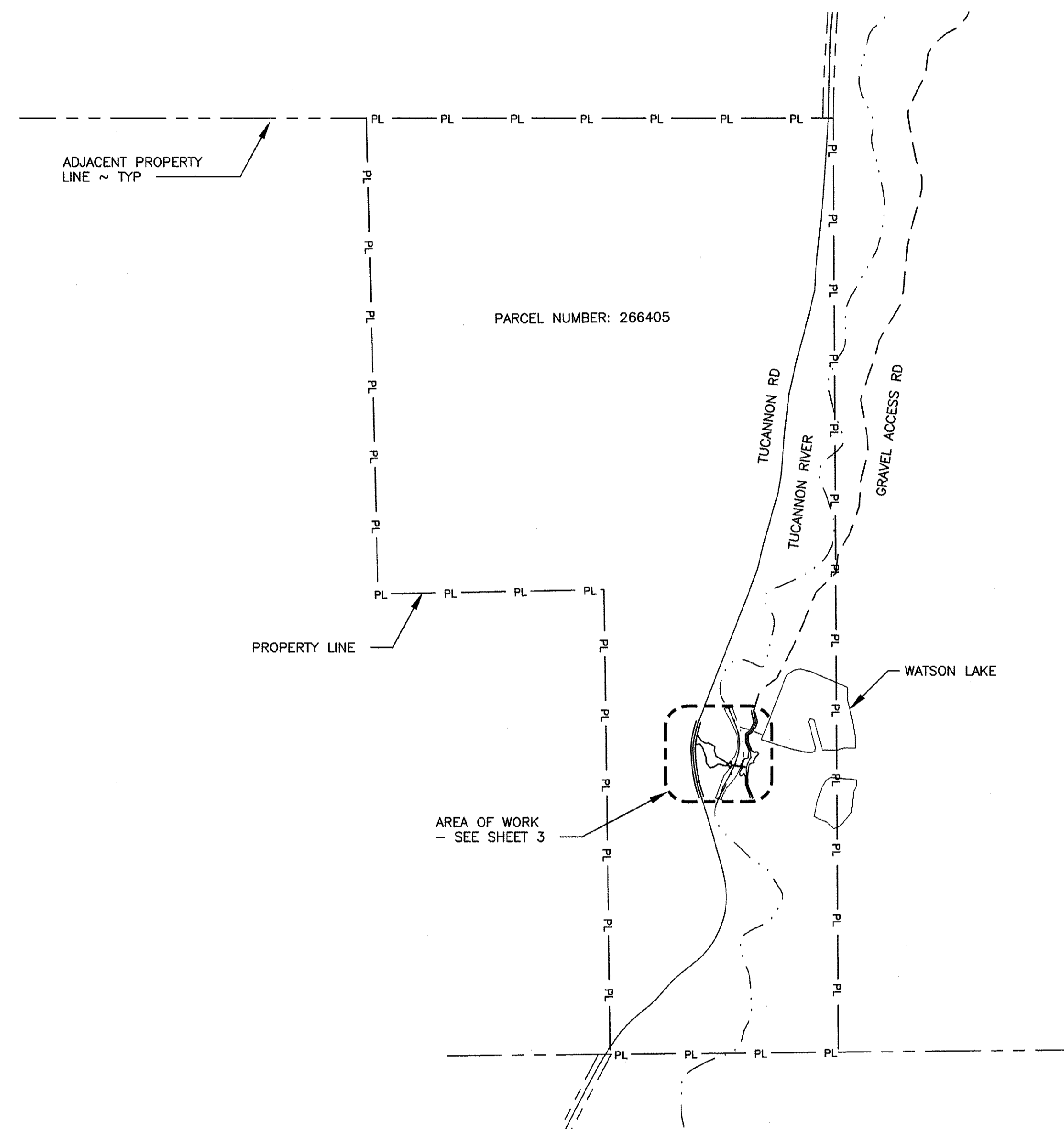
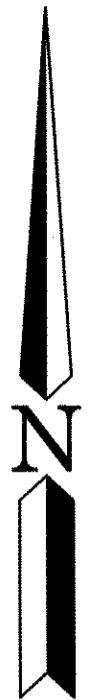
SECTION



NOTE REFERENCE

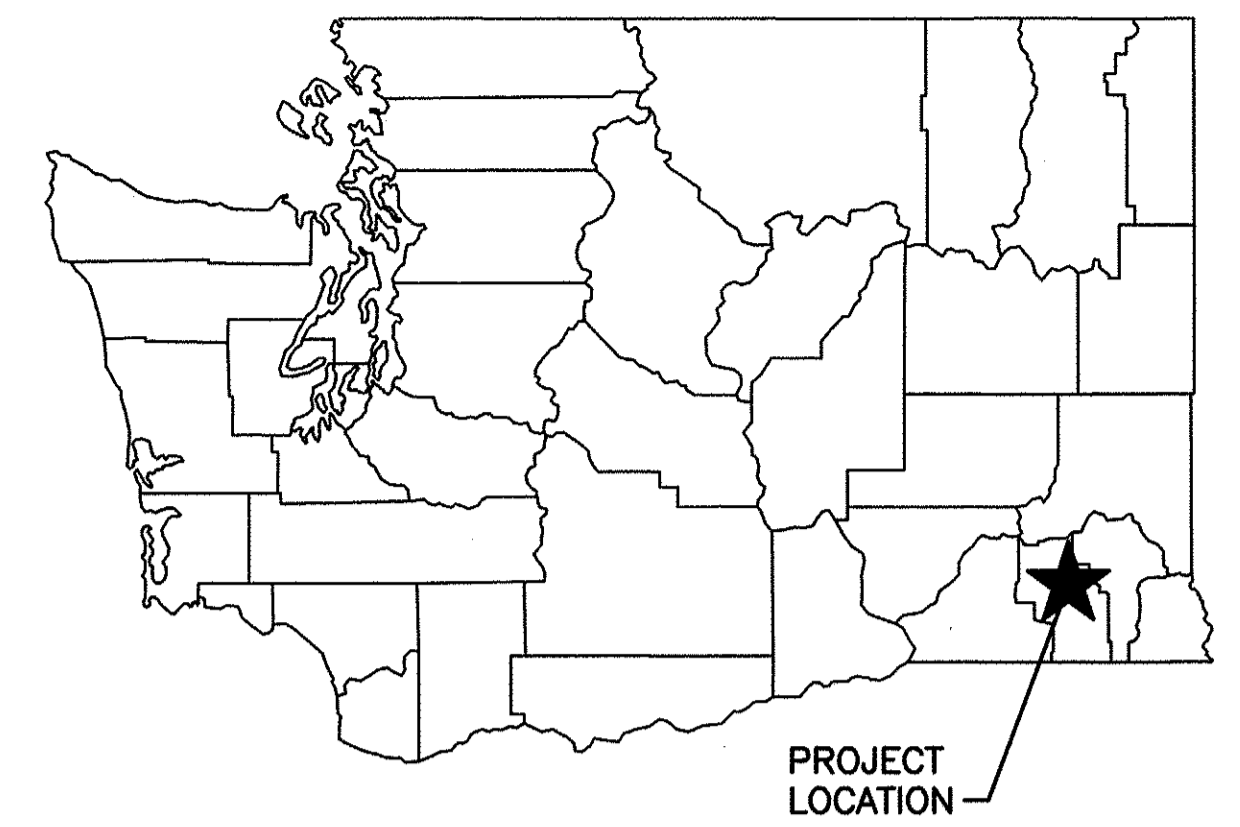
REFERENCE DESIGNATION TO A
NOTE, A PART, OR MATERIAL IN A
SCHEDULE/TABLE

PROJECT NO.	
SHEET	OF
1	8

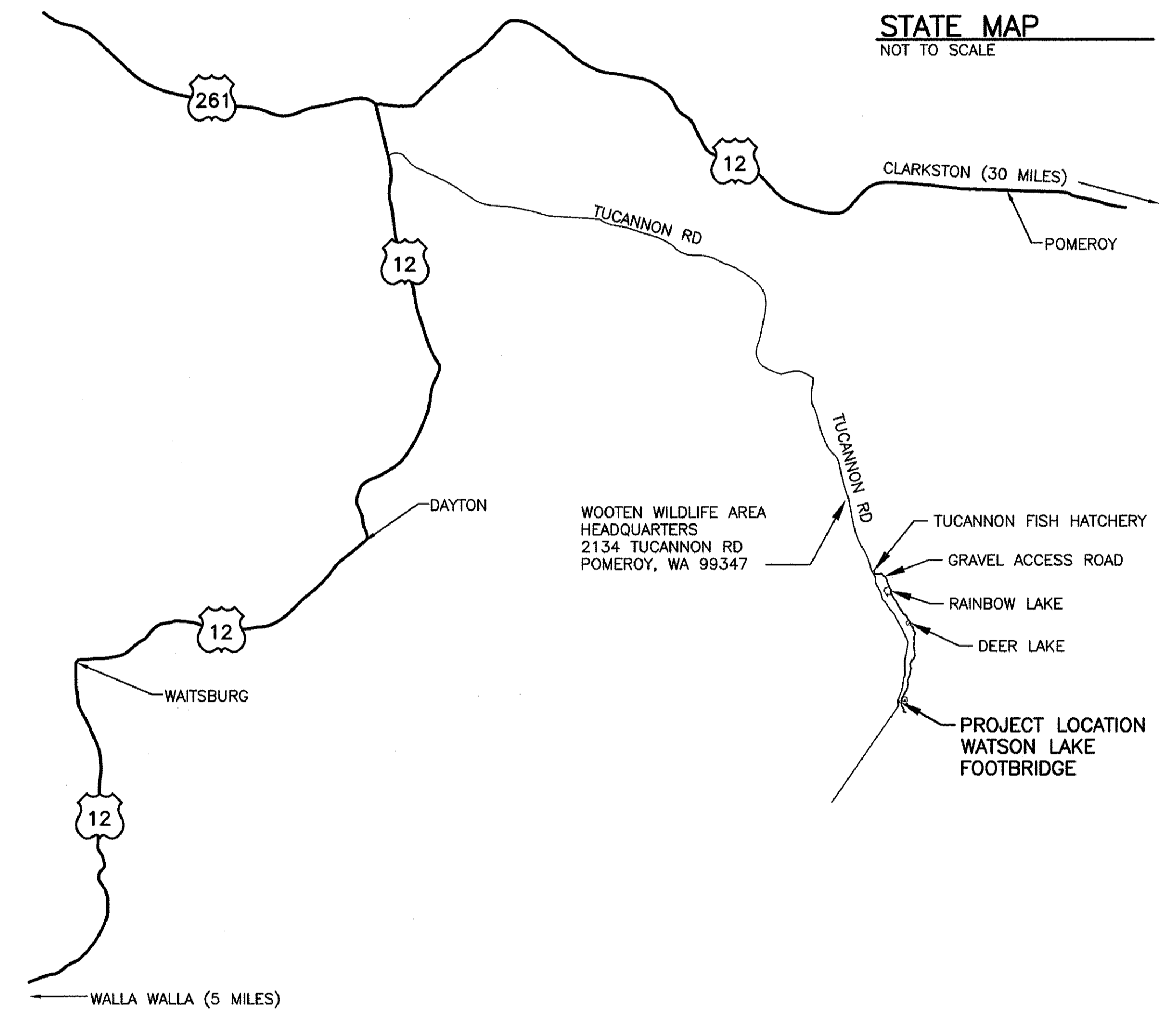


OVERALL SITE PLAN
 1"=500' 22x34
 1"=1000' 11x17

PROPERTY INFORMATION:
 ADDRESS: 2134 TUCANNON RD
 POMEROY, WA 99347
 COUNTY: COLUMBIA
 PARCEL #: 266405
 LAT: 46° 17' 03"
 LONG: 117° 39' 24"
 TOWNSHIP: T09N
 RANGE: R41E
 SECTION: 03



STATE MAP
 NOT TO SCALE



VICINITY MAP
 NOT TO SCALE

DIRECTIONS
 FROM DAYTON, TRAVEL NORTH ON HWY 12 FOR APPROXIMATELY 13 MILES. TURN RIGHT ON TUCANNON RD. PROCEED SOUTHEAST FOR APPROXIMATELY 25 MILES TO WATSON LAKE. ENTER GRAVEL PARKING LOT ON LEFT FOR ACCESS TO FOOTBRIDGE AND WATSON LAKE.

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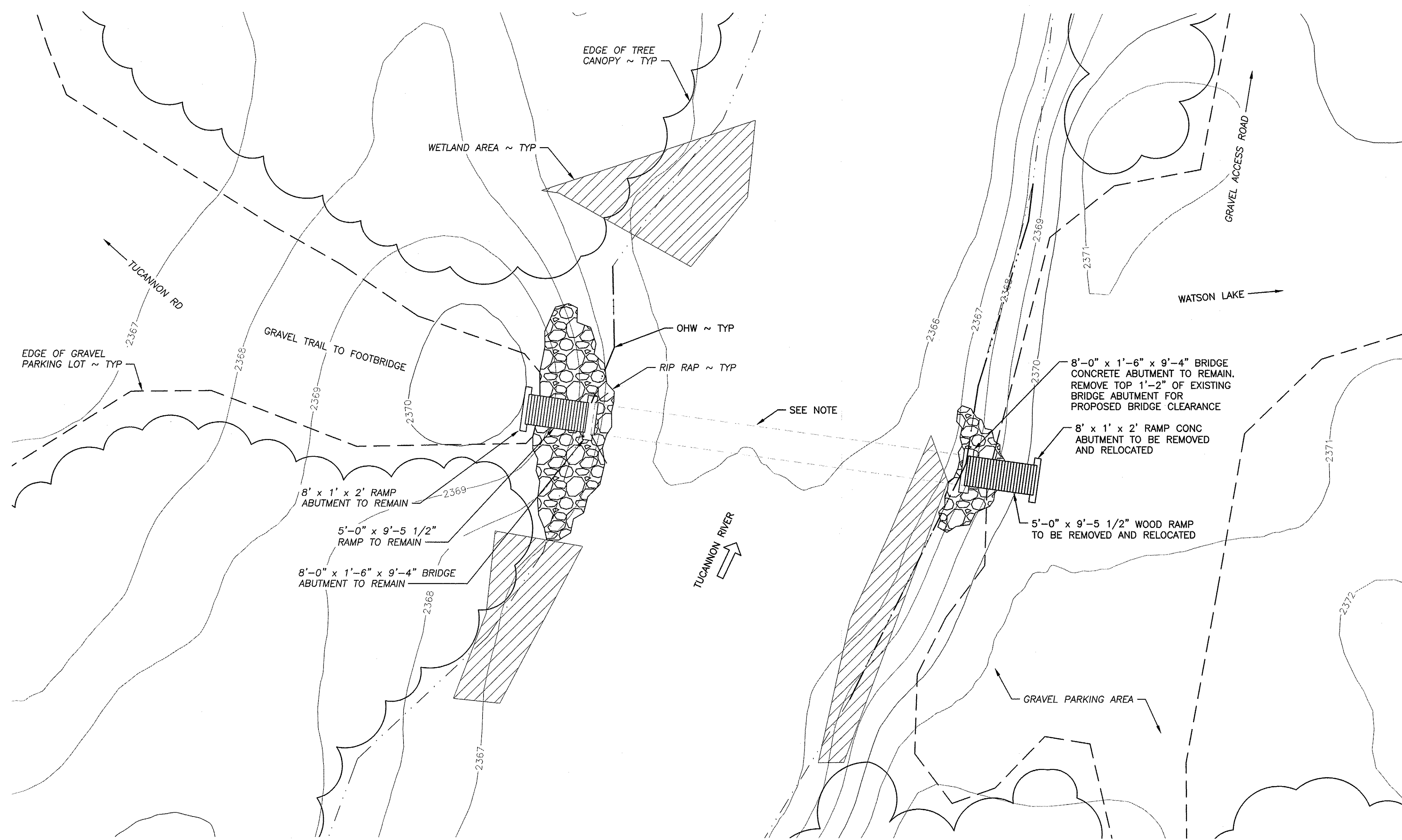


SYM	DATE	REVISION DESCRIPTION	BY
APPROVED AND RELEASED FOR CONSTRUCTION			
CHIEF ENGINEER		<i>[Signature]</i>	DATE: 29 Sep 21
PROGRAM			DATE: 09/28/2021

WOOTEN WILDLIFE AREA WATSON LAKE FOOTBRIDGE INSTALLATION
 OVERALL SITE PLAN AND VICINITY MAP

PROJECT NO. CA:R5:2021-1	
SHEET 2	OF 8

NOTES: ALL LOCATIONS AND ELEVATIONS ARE BASED OFF A COMBINATION OF GPS, GIS & HISTORICAL CONSTRUCTION DATA. CONTRACTOR TO VERIFY LOCATIONS AND ELEVATIONS PRIOR TO CONSTRUCTION.
PROJECT LOCATED IN: T9N,R41E,S3

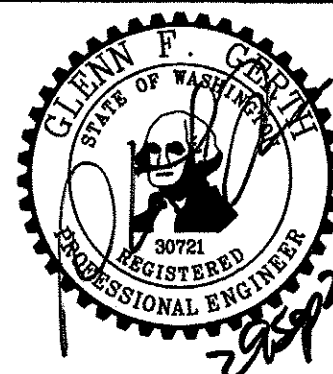


EXISTING AND DEMOLITION PLAN



NOTES: PRE-EXISTING 59'-8" x 4'-8 1/2"
PRE-ENGINEERED ALUMINUM TRUSS BRIDGE WASHED AWAY IN
PRIOR FLOODING. ELEVATIONS ARE FROM ASSUMED GIS DATA

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PROGRAM			DATE: 09/28/2021

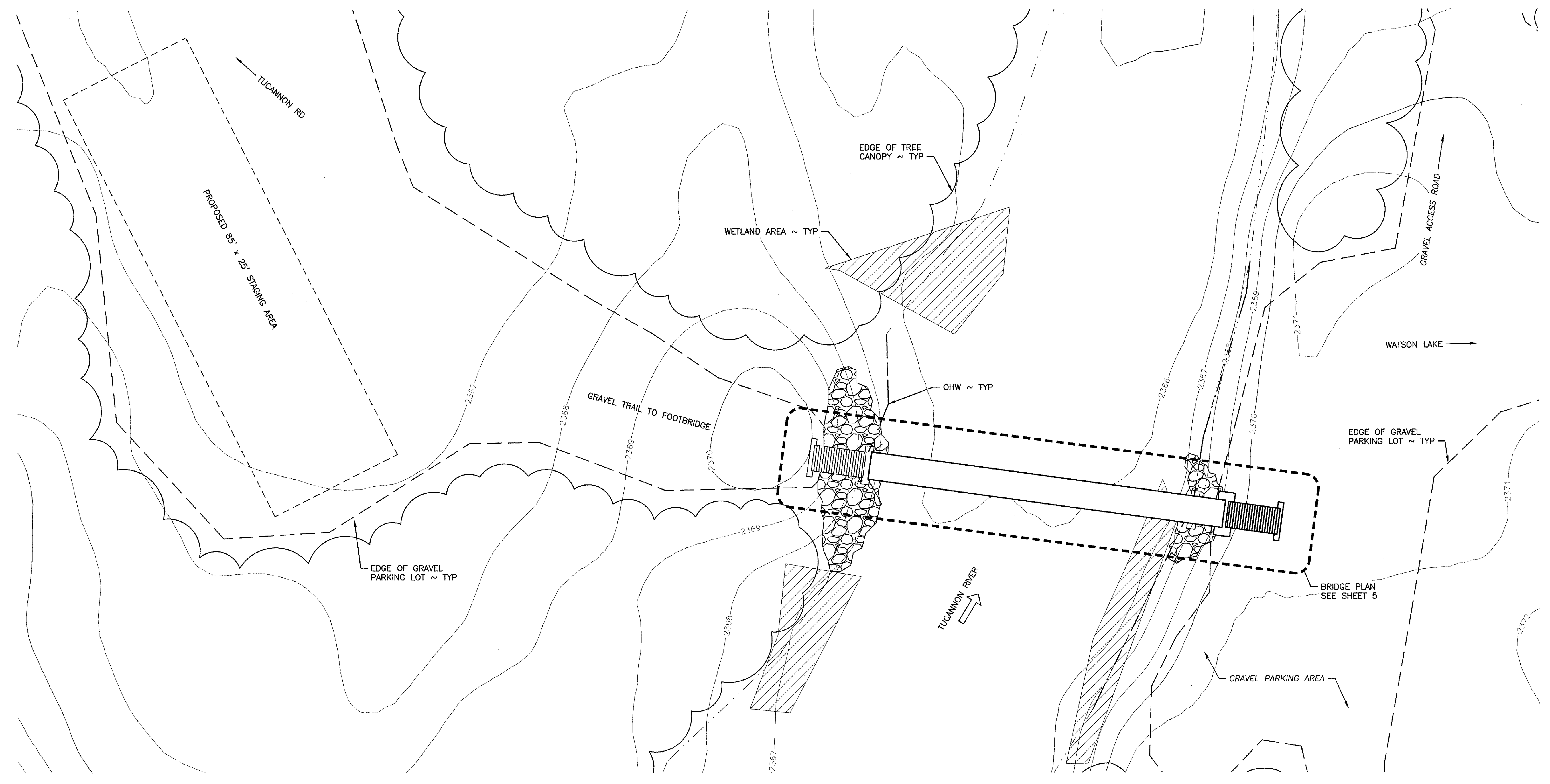
WOOTEN WILDLIFE AREA WATSON LAKE

FOOTBRIDGE INSTALLATION
EXISTING AND DEMOLITION PLAN

PROJECT NO.
CA:R5:2021-1

SHEET OF
3 8

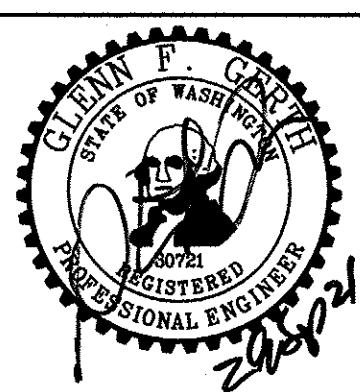
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SITE PLAN



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FISH & WILDLIFE

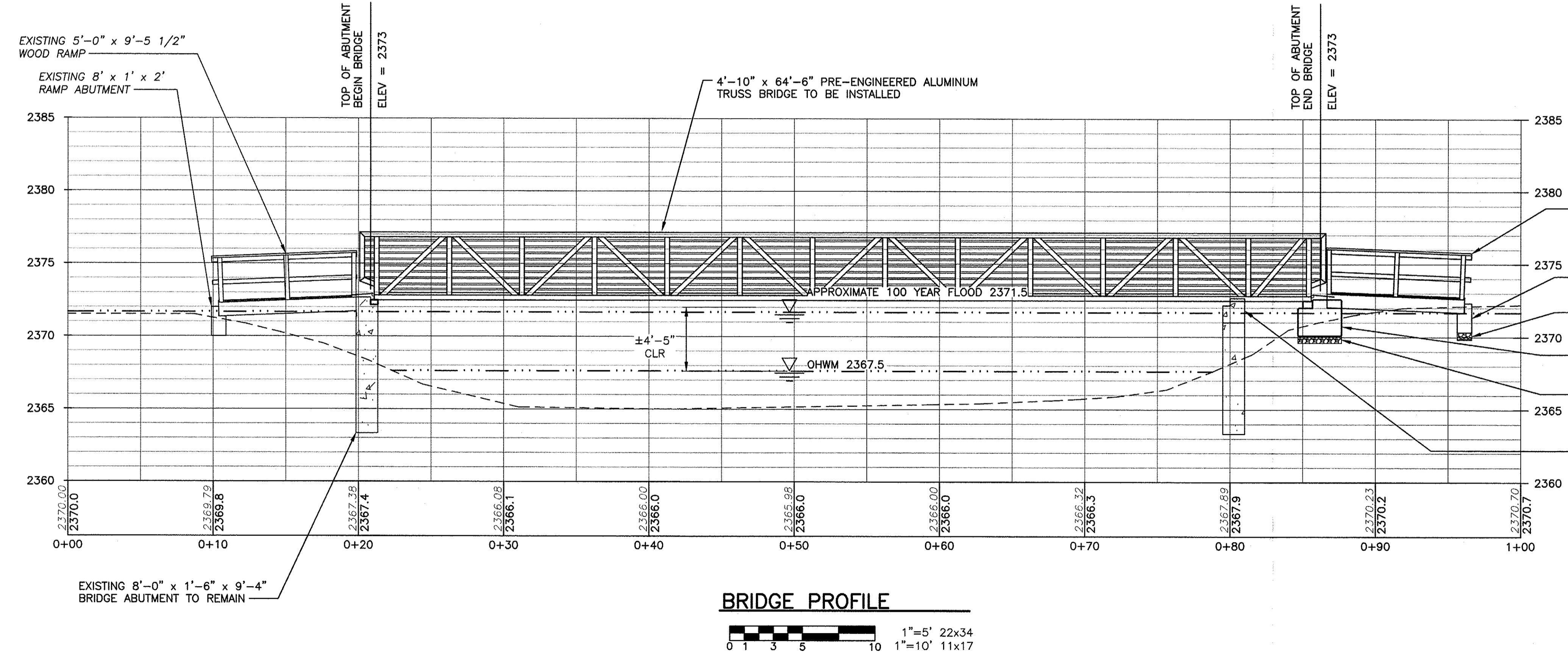
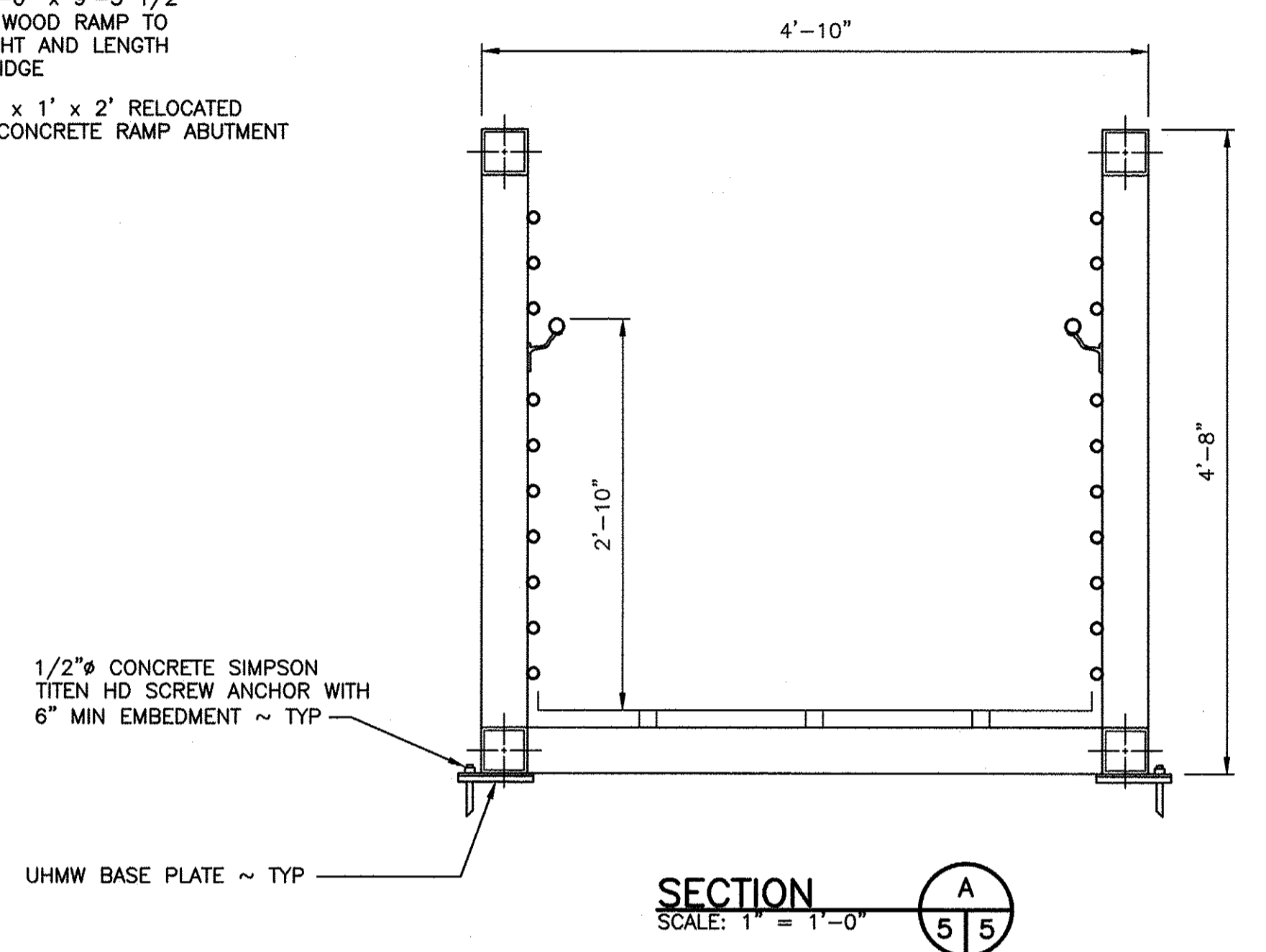
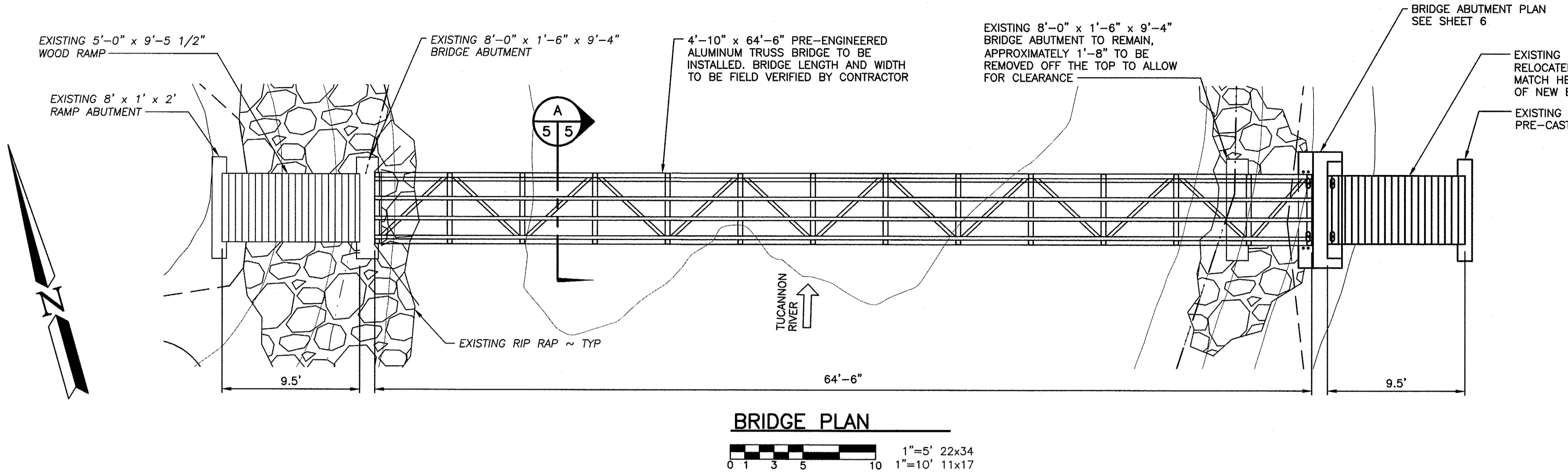


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CHIEF ENGINEER		<i>[Signature]</i>	DATE: 2021
PROGRAM			DATE: 09/28/2021

WOOTEN WILDLIFE AREA WATSON LAKE
FOOTBRIDGE INSTALLATION
SITE PLAN

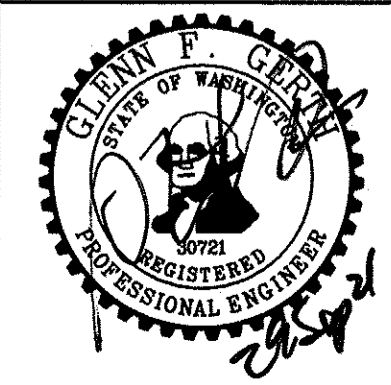
PROJECT NO.
CA:R5:2021-1
SHEET 4 OF 8

CUT AND FILL DATA				
MATERIAL	CUT ABOVE	CUT BELOW	FILL ABOVE	FILL BELOW
CONCRETE	2.24 CY	0	2.24 CY	0
CSBC	.59 CY	0	.59 CY	0
TOTALS	2.83 CY	0	2.83 CY	0



- EXISTING 5'-0" x 9'-5 1/2" RELOCATED WOOD RAMP TO MATCH HEIGHT AND LENGTH OF NEW BRIDGE - MAX SLOPE 5%
- EXISTING 8' x 1' x 2' RELOCATED PRE-CAST CONCRETE RAMP ABUTMENT
- 6" CSBC COMPACTED TO 95% WSDOT 9.03.9(3)
- NEW 8'-0" x 3'-0" x 2'-6" PRE-CAST CONCRETE ABUTMENT
- 6" CSBC COMPACTED TO 95% WSDOT 9.03.9(3)
- EXISTING 8'-0" x 1'-6" x 9'-4" BRIDGE ABUTMENT TO REMAIN, APPROXIMATELY 1'-8" TO BE REMOVED OFF THE TOP TO ALLOW FOR CLEARANCE. APPROPRIATE TEMPORARY EROSION CONTROL BEST MANAGEMENT PRACTICES WILL BE UTILIZED TO ENSURE NO SEDIMENT OR DEBRIS ENTERS THE WATERWAY

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SYM	DATE	REVISION DESCRIPTION	BY
APPROVED AND RELEASED FOR CONSTRUCTION			
CHIEF ENGINEER			DATE: 2/25/21
PROGRAM			DATE: 09/28/2021

WOOTEN WILDLIFE AREA WATSON LAKE
FOOTBRIDGE INSTALLATION
BRIDGE PLAN, PROFILE AND SECTION

PROJECT NO.
CA:R5:2021-1

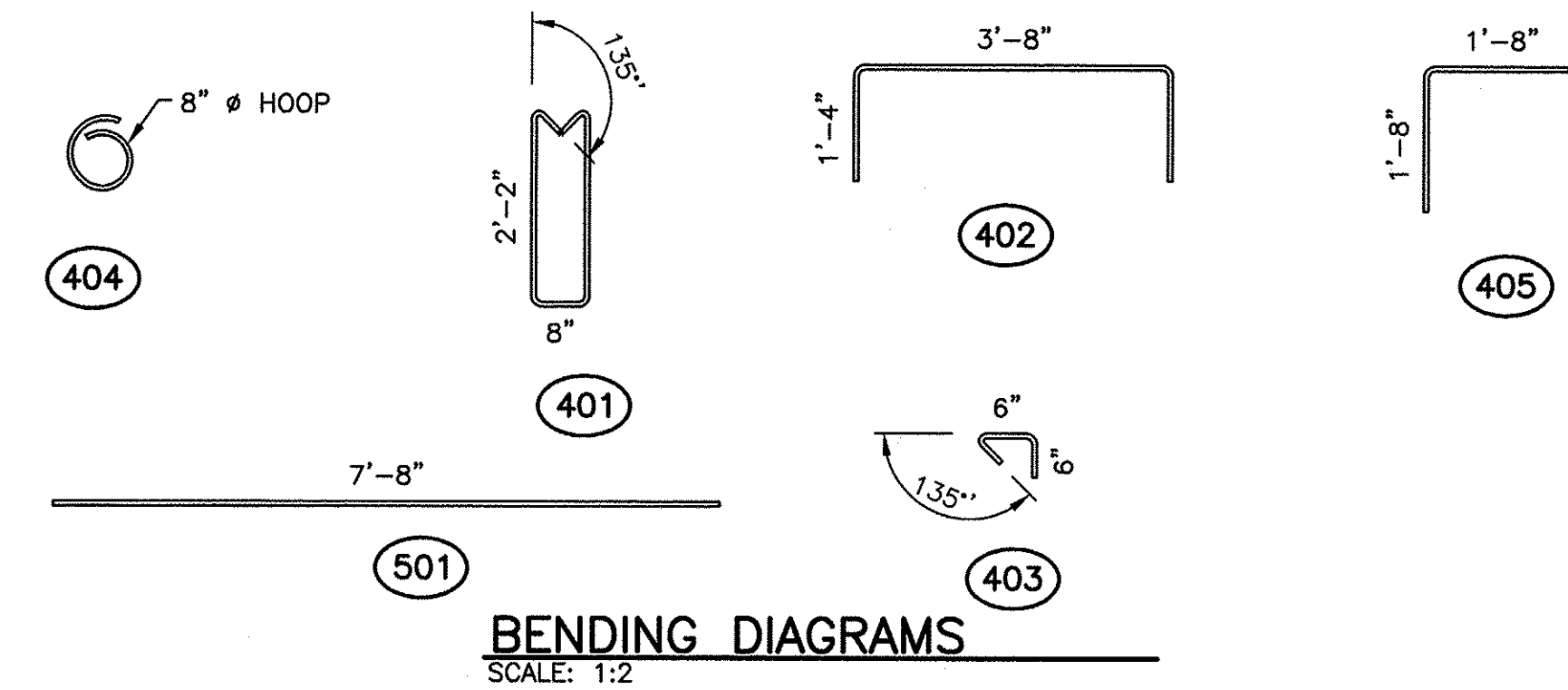
SHEET 5 OF 8

CONCRETE FABRICATION			
MARK	MATERIAL	QUANTITY	REMARKS
C1	CONCRETE ~ 4000 PSI 28 DAY COMPRESSIVE STRENGTH WITH 6% AIR ENTRAINMENT MAXIMUM WATER CEMENT RATIO BY WEIGHT = 0.50 SUBMIT CONCRETE MIX DESIGN FOR APPROVAL PRIOR TO POUR SMOOTH FINISH	AS REQUIRED	
F1	FACE INSERT ~ DAYTON RICHMOND P-94 FLEET LIFT T-ANCHOR ~ 8 TON CAPACITY (PRODUCT CODE FL119) ~ ANCHOR LENGTH = 11 1/8 INCHES	8	[LIFTING ANCHORS]
NOTES:			
1) CONSTRUCTION METHODS, LIFTING AND TRANSPORT SHALL BE IN ACCORDANCE WITH STANDARD PRACTICES OF THE CONCRETE INDUSTRY.			
2) REINFORCEMENT ~ SEE BENDING DIAGRAM AND BAR LIST WHERE SHOWN.			

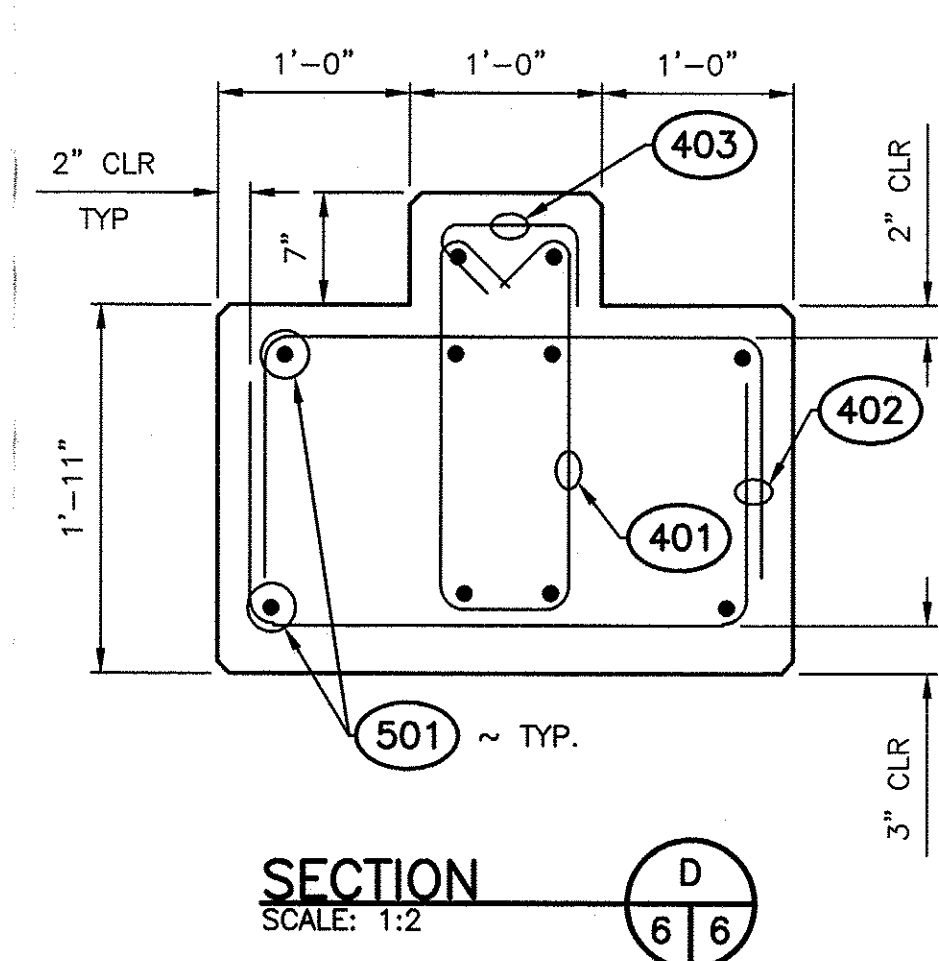
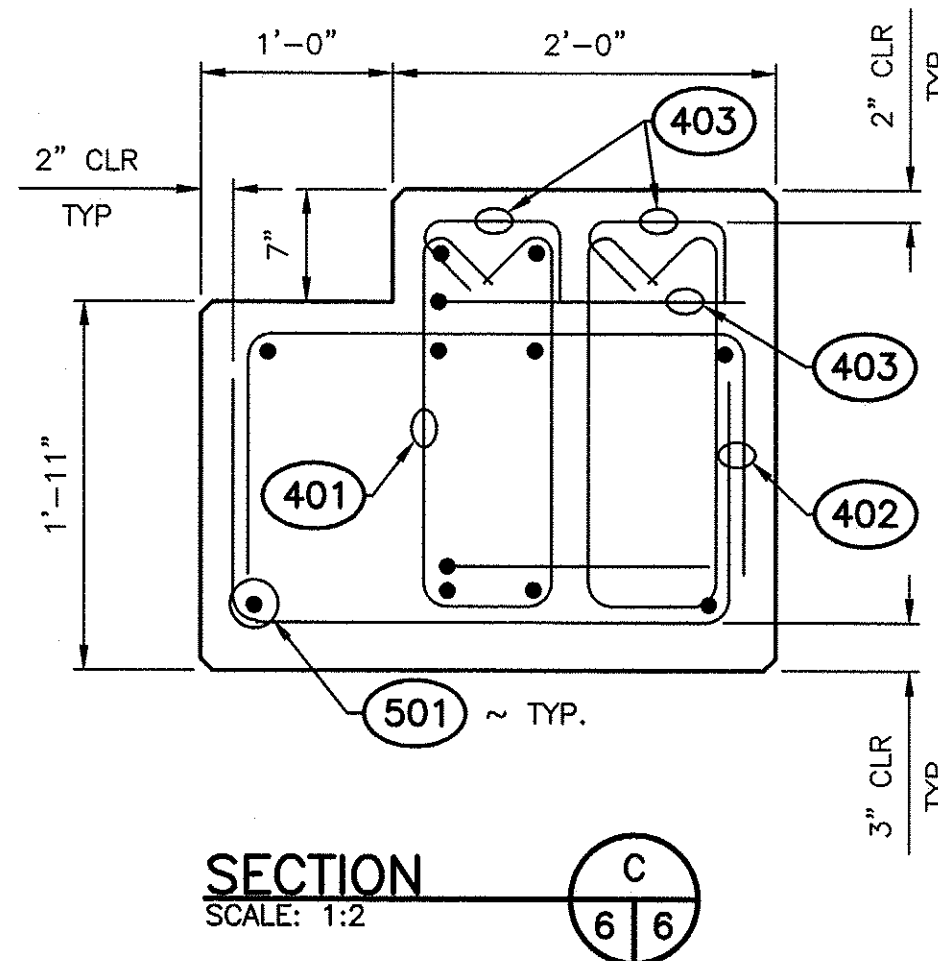
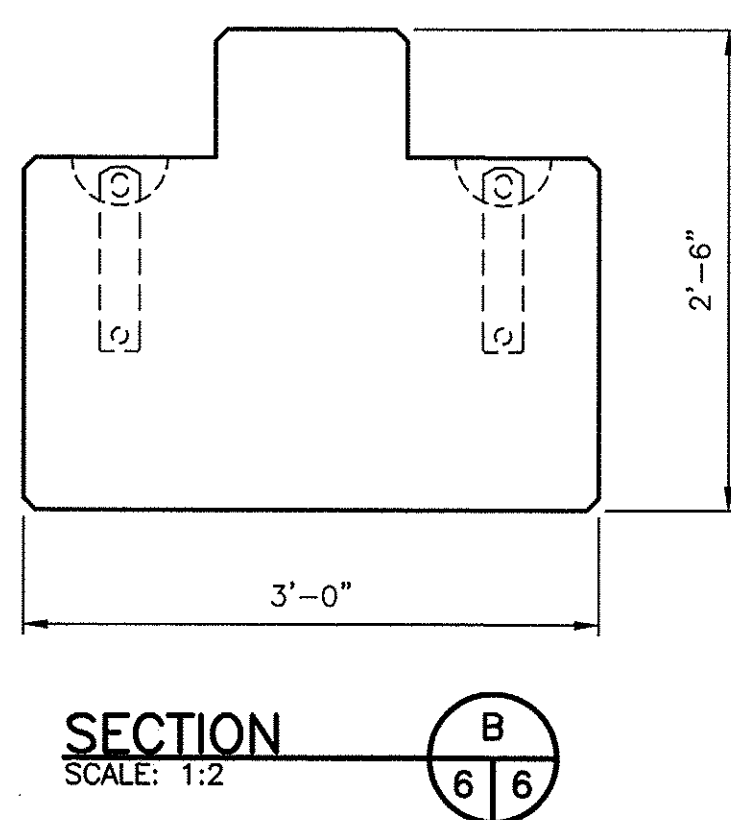
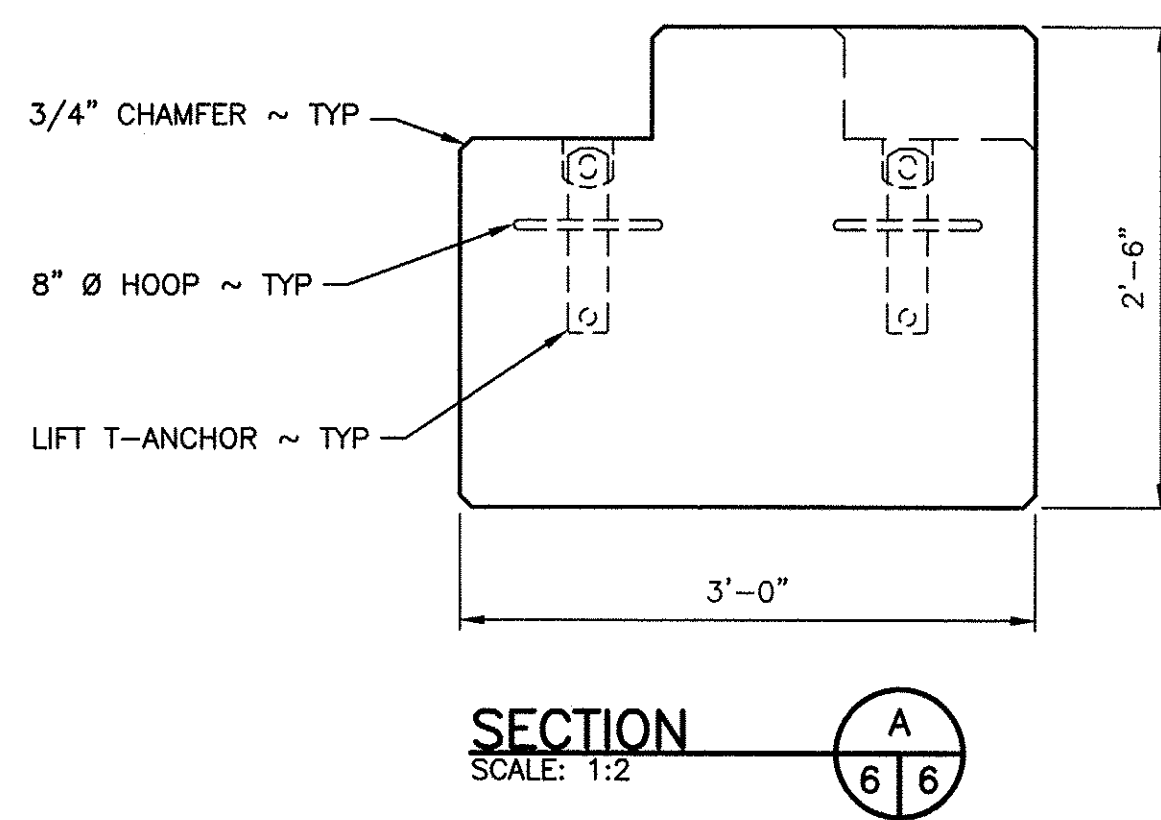
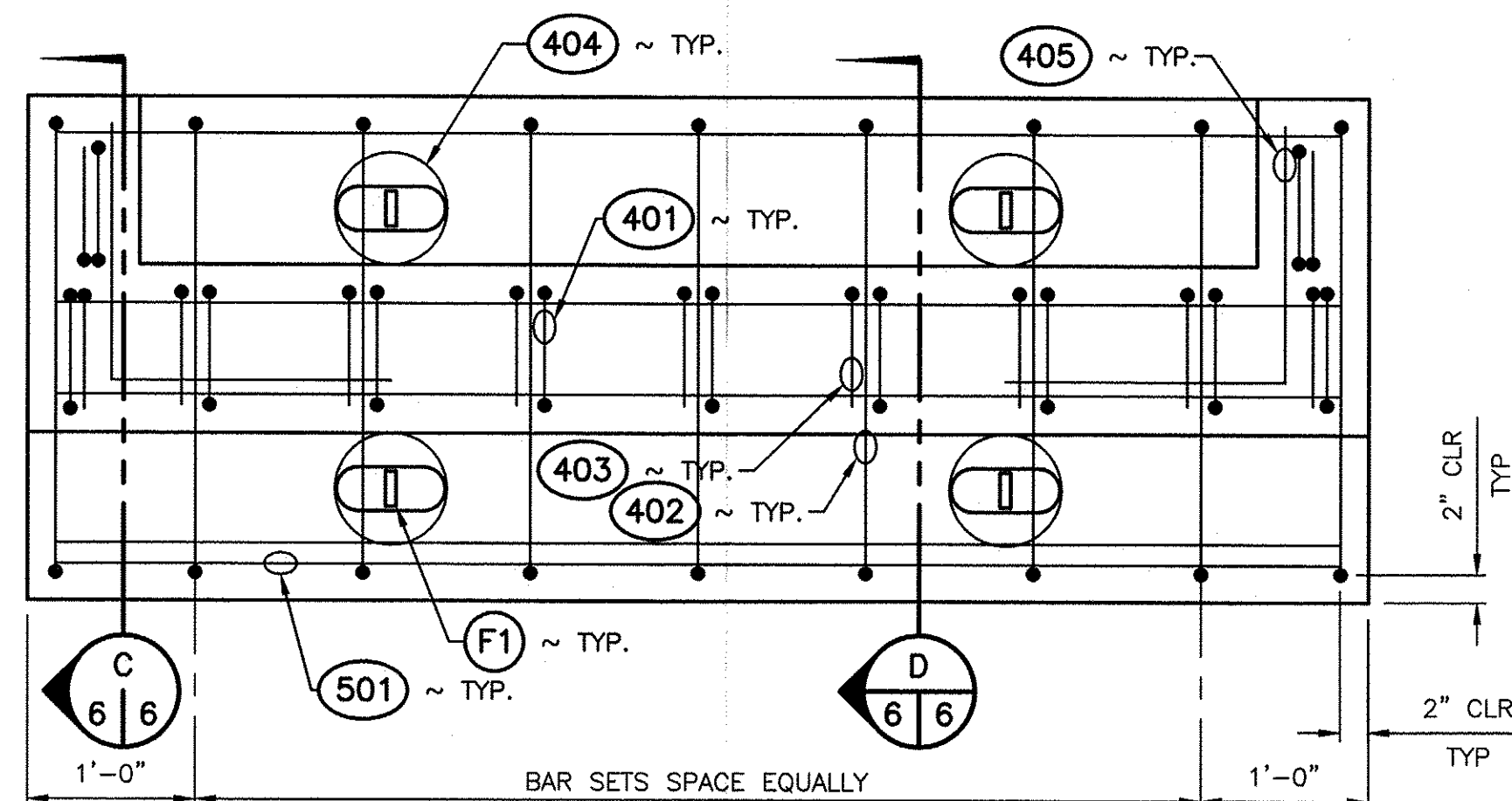
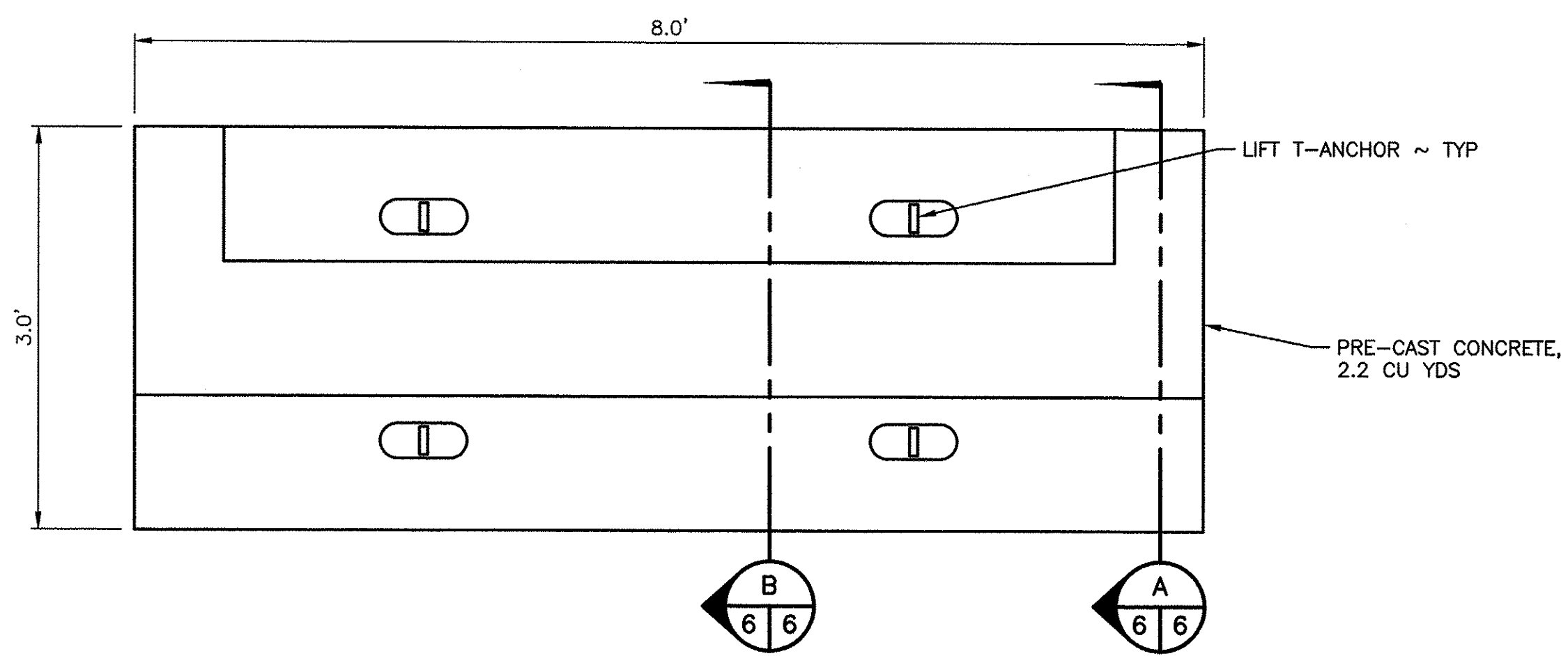
BAR LIST					
MARK	SIZE	GRADE	QUANTITY EACH ABUTMENT	TOTAL QUANTITY	REMARKS
401	4	60	11	22	
402	4	60	18	36	
403	4	60	11	22	
404	4	60	4	8	
405	4	60	4	8	
501	5	60	12	24	

MINIMUM BEND DIAMETERS		
BAR SIZE	BEND DIAMETERS MEASURED TO THE INSIDE OF BAR	
4	PRIMARY	STIRRUPS AND TIES
5	3 INCHES	2 INCHES
4	3 3/4 INCHES	2 1/2 INCHES

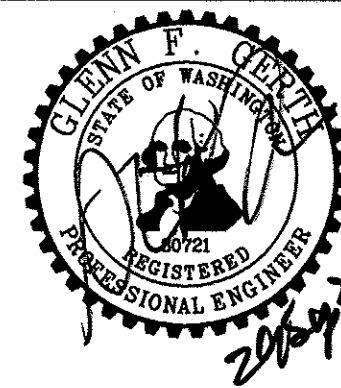
NOTE:
1. ALL DIMENSIONS TO BE MEASURED OUT TO OUT OF BAR
2. ALL BARS TO BE ASTM A615.



LIFTING LOAD PER ABUTMENT
12,000 POUNDS



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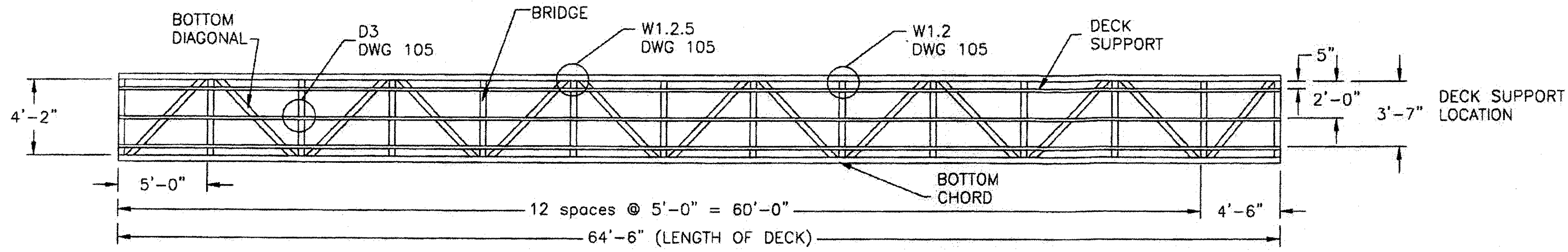


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CHIEF ENGINEER			DATE: 20 Sep 21
PROGRAM			DATE: 09/28/2021

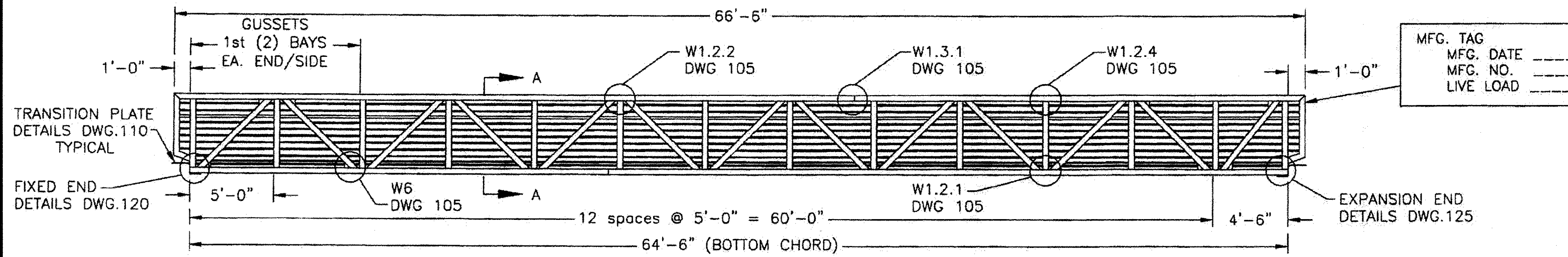
DESIGNED BY WDFW
CHECKED BY D. SMITH
DRAWN BY S. GOODWIN

WOOTEN WILDLIFE AREA WATSON LAKE
FOOTBRIDGE INSTALLATION
BRIDGE ABUTMENT REINFORCEMENT DETAILS

PROJECT NO.
CA:R5:2021-1
SHEET 6 OF 8



FIXED END PLAN VIEW EXPANSION END



ELEVATION VIEW

ALUMINUM - PAINT FINISH

SURFACE PREPARATION TO BE APPLIED TO ALL SURFACES SHALL BE BLAST CLEAN TO SSPC-SP6 USING 70 GRIT GLASS AND /OR SSPC-SP3 POWER TOOL CLEANING.

PRIMER COAT TO APPLIED TO ALL SURFACES SHALL BE SHERWIN WILLIAMS MERCURY AERO-JET SHOP PRIMER, 2-3 MILS DFT MINIMUM.

TOP COAT TO BE APPLIED TO ALL SURFACES SHALL BE SHERWIN WILLIAMS ACRYLIC FAST DRY ENAMEL WITH HARDENER, 2-3 MILS DFT MINIMUM, WITH COLOR TO BE SELECTED BY THE ENGINEER.

PIPE HANDRAIL NOT PAINTED.

GENERAL STRUCTURAL NOTES

CODE REQUIREMENTS:

CONFORMS TO ALUMINUM ASSOCIATION, ASHTO CODES

TEMPORARY CONDITIONS:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR STRUCTURAL STABILITY DURING CONSTRUCTION. THE STRUCTURE SHOWN ON THE DRAWINGS HAS BEEN DESIGNED FOR STABILITY IN THE FINAL CONFIGURATION ONLY.

DESIGN LOADS:

IN ADDITION TO THE DEAD LOADS, THE FOLLOWING LOADS AND ALLOWABLES WERE USED FOR THE DESIGN:

BRIDGE LIVE LOAD: 100 PSF
30 PSF SNOW LOAD
(NON-CONCURRENT WITH LIVE LOAD)

DEFLECTION
WIND L/360
35 PSF & L/360
FIXED AND EXPANSION END RESIST 1500 LBS. UPLIFT
EA. CORNER

STRUCTURAL MATERIAL:
ALL SHAPES TO BE ALUMINUM 6061-T6

STEEL
PLATES: ASTM A36
HSS: ASTM A500 GRADE B
Sy = 46 KSI
GALVANIZING: ASTM A123

FABRICATION SHALL BE IN ACCORDANCE WITH THE AA SPECIFICATIONS FOR ALUMINUM STRUCTURES. WELDING SHALL CONFORM TO THE AWS USING FILIFR ALLOY 5356.

PREQUALIFIED WELDING PROCEDURES SHALL CONFORM TO ANSI/AWS D1.2-2008 AND ANSI/AWS D1.1-2008

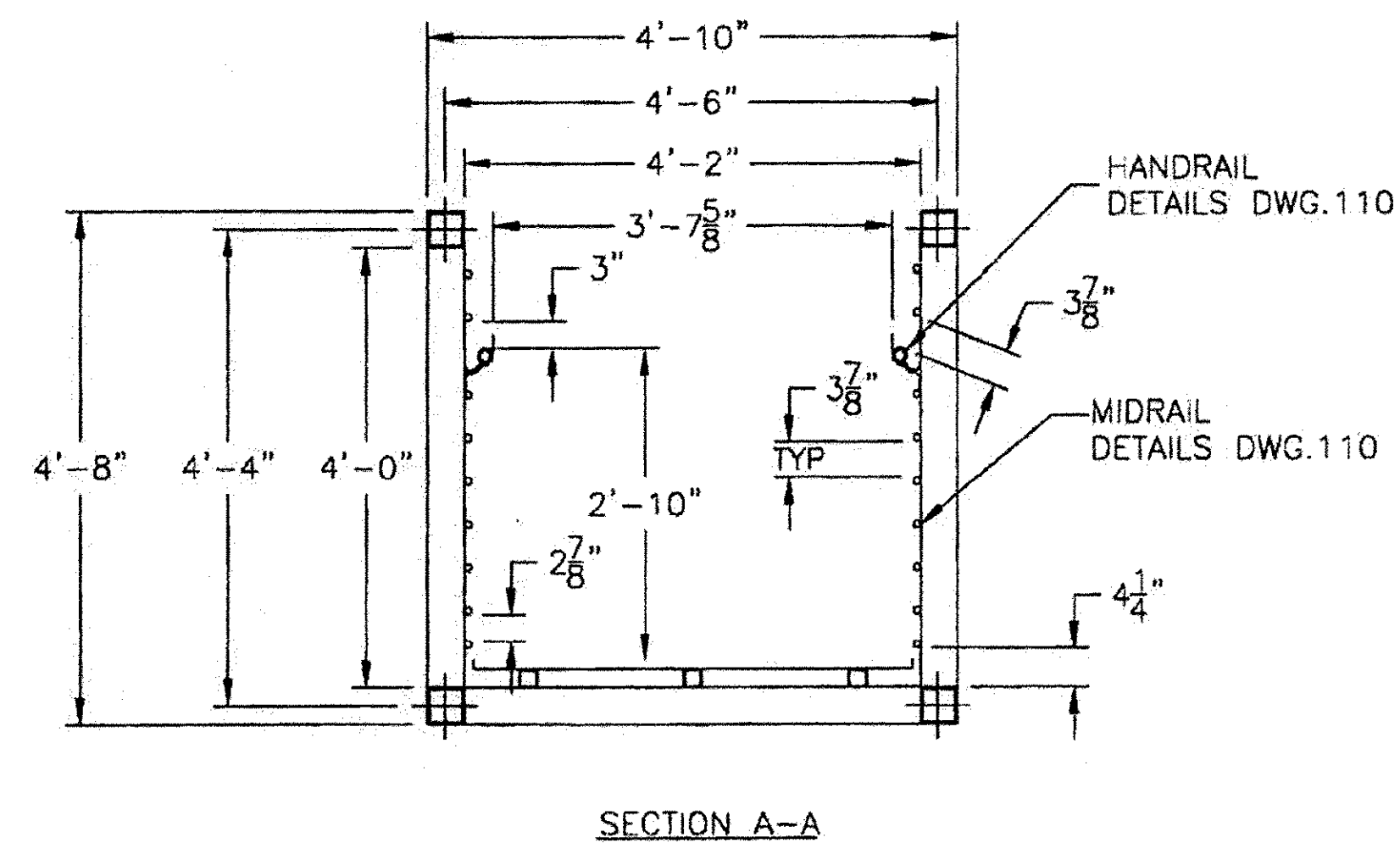
UHMW INDICATES ULTRA HIGH MOLECULAR WEIGHT POLYETHYLENE

FABRICATION NOTES

1. DIMENSIONS DO NOT INCLUDE END CAPS.
2. INTERNAL END CAPS TO BE THICKNESS OF CHORD WALL.
3. PROVIDE $\frac{1}{4}$ " DRAIN HOLES IN BOTTOM OF ALL CHORDS AND EXTENSION DIAGONALS AT BOTH ENDS.

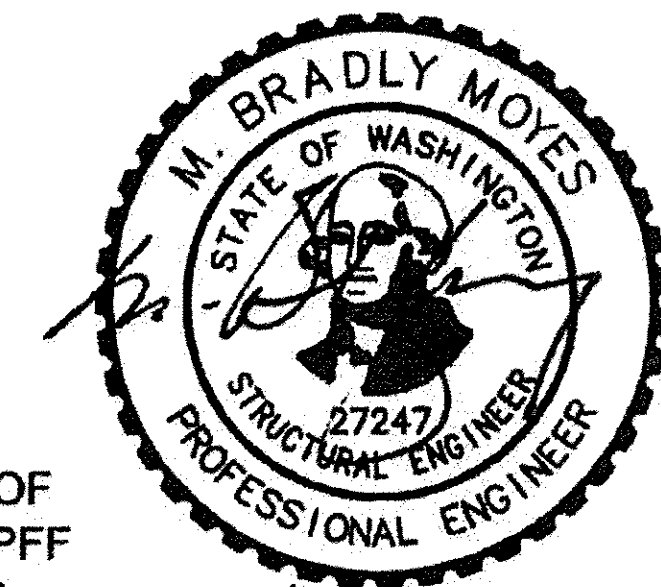
COMPONENTS

TOP CHORDS	4x4x0.250 HSS ALUM TUBE
BOTTOM CHORDS	4x4x0.250 HSS ALUM TUBE
POSSIS	4x4x0.250 HSS ALUM TUBE
SIDE DIAGONALS	4x4x0.125 HSS ALUM TUBE
BRIDGES	4x4x0.250 HSS ALUM TUBE
BOTTOM DIAGONALS	4x4x0.125 HSS ALUM TUBE
DECK SUPPORTS	2x2x0.125 HSS ALUM TUBE
HANDRAILS	1 1/2 SCH 40 ALUM PIPE
MIDRAILS	1/2 SCH 40 ALUM PIPE
DECKING	1" THICK MINI-MESH GRATING; 1/2"x1/2" OPEN MESH, COLOR: GRAY, MEDIUM GRIT TOP, FIRE RETARDANT, UV RETARDANT FASTENED WITH STAINLESS STEEL 'M' CLIPS AND #14 STAINLESS STEEL PAN HEAD TEK SCREW (3 FASTENERS PER SUPPORT)



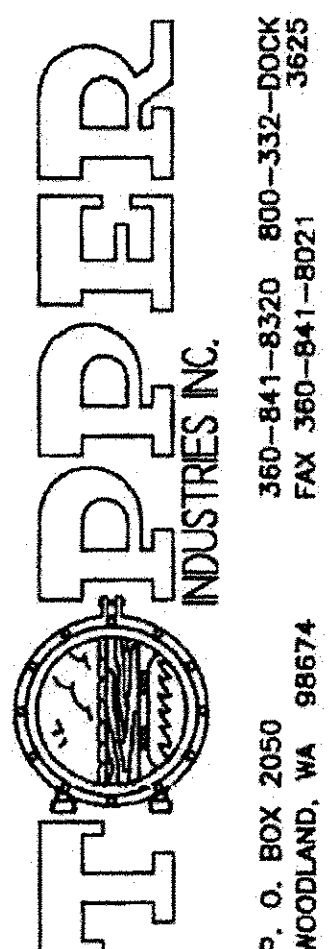
SECTION A-A

PREPARED UNDER SUPERVISION OF
KPFF CONSULTING ENGINEERS. KPFF
IS NOT RESPONSIBLE FOR FIELD
DIMENSIONS



4-29-11

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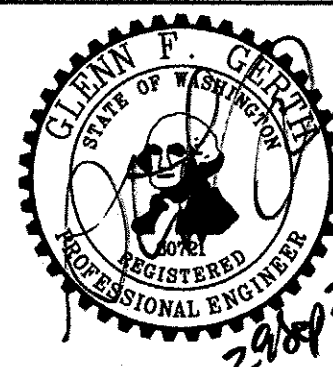


4'-0" x 65' BRIDGE
PLAN, ELEVATION AND SECTION VIEW
WENA'S WILDLIFE AREA
WASHINGTON DEPT. OF FISH &
WILDLIFE
OLYMPIA, WA

6205-100

NO.	DATE	BY	CHK	DESCRIPTION
0	4/25/11	LR	SL	INITIAL RELEASE

WASHINGTON DEPARTMENT OF
FISH & WILDLIFE



SYM	DATE	REVISION DESCRIPTION	BY
APPROVED AND RELEASED FOR CONSTRUCTION			
CHIEF ENGINEER			
PROGRAM			

DESIGNED BY WDFW
CHECKED BY D. SMITH
DRAWN BY S. GOODWIN
DATE 09/28/2021

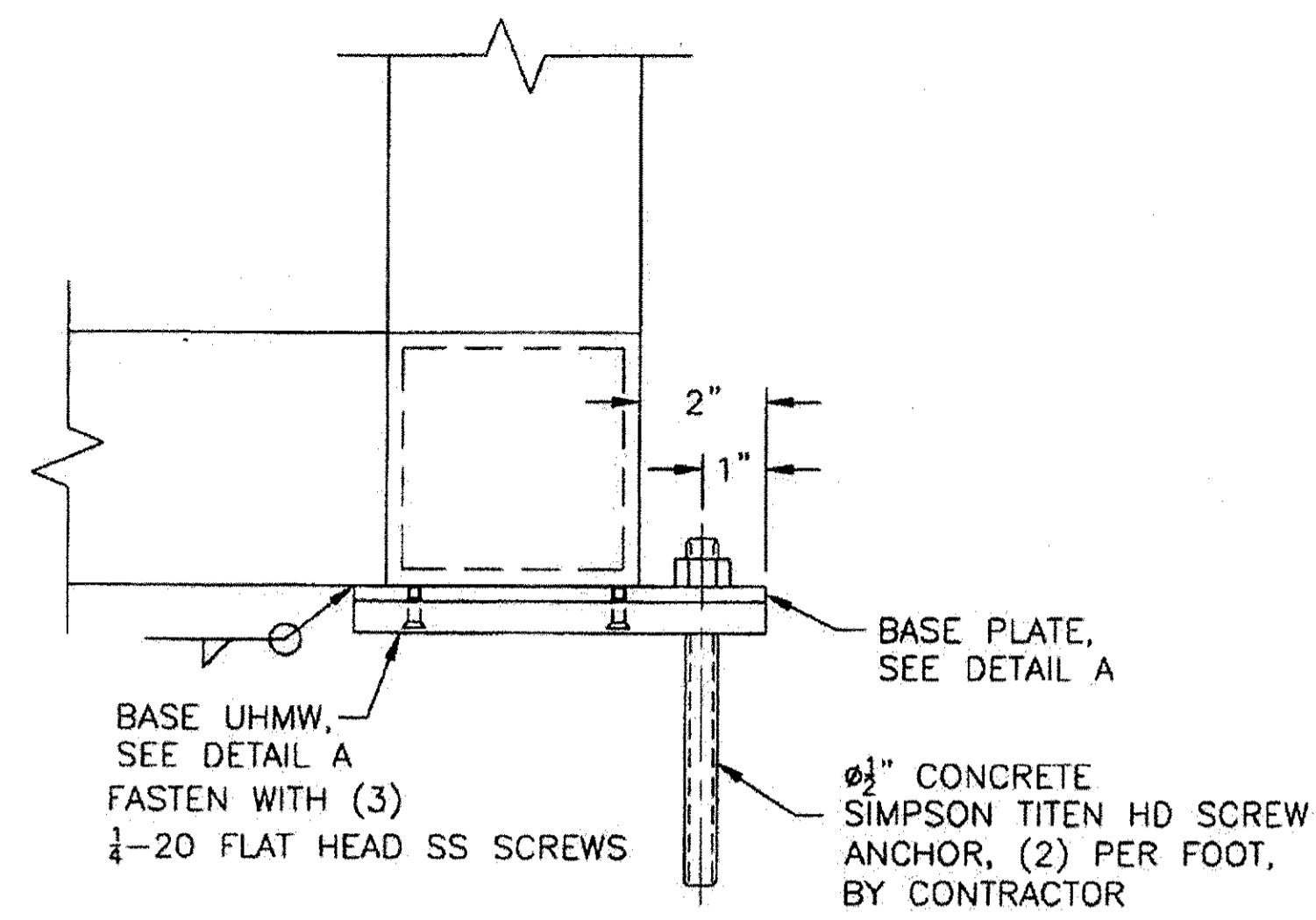
WOOTEN WILDLIFE AREA WATSON LAKE

FOOTBRIDGE INSTALLATION

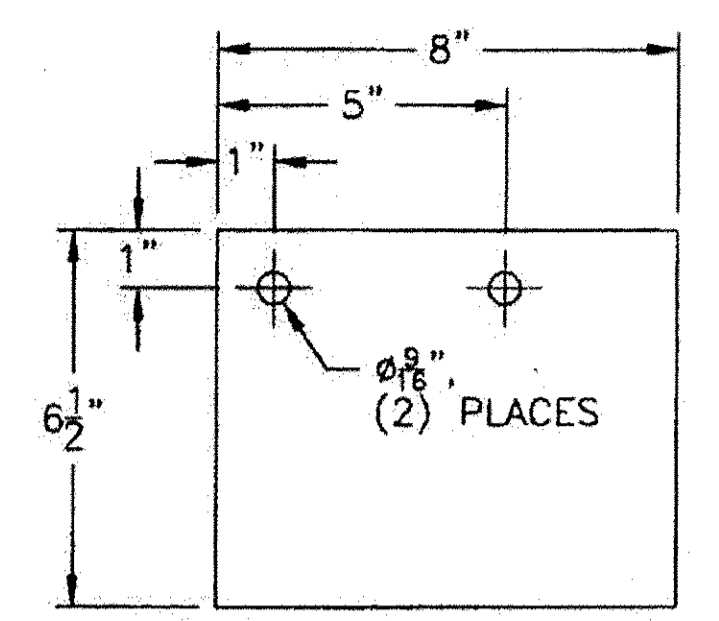
BRIDGE FABRICATION
(REFERENCE ONLY)

PROJECT NO.
CA:R5:2021-1

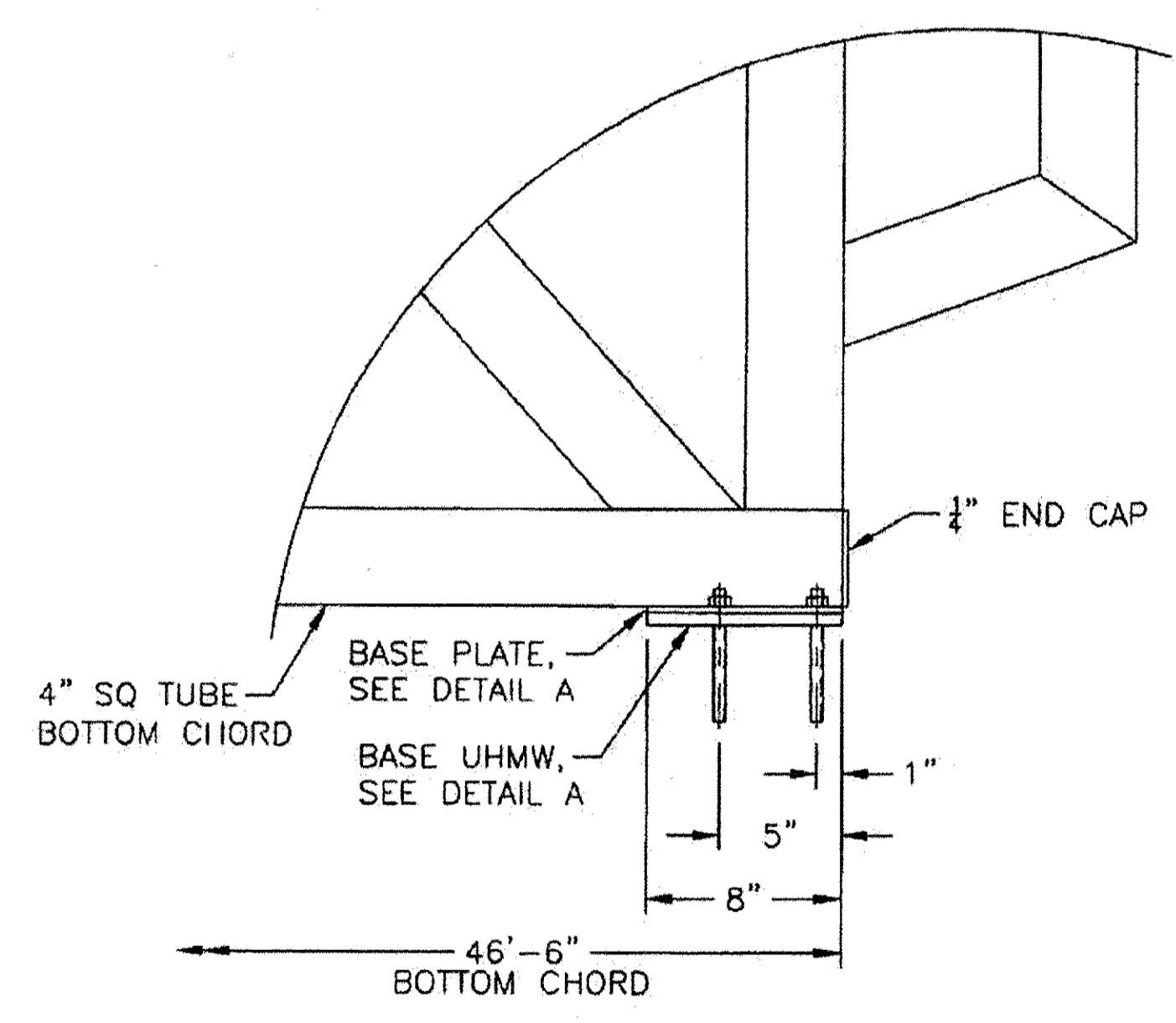
SHEET 7 OF 8



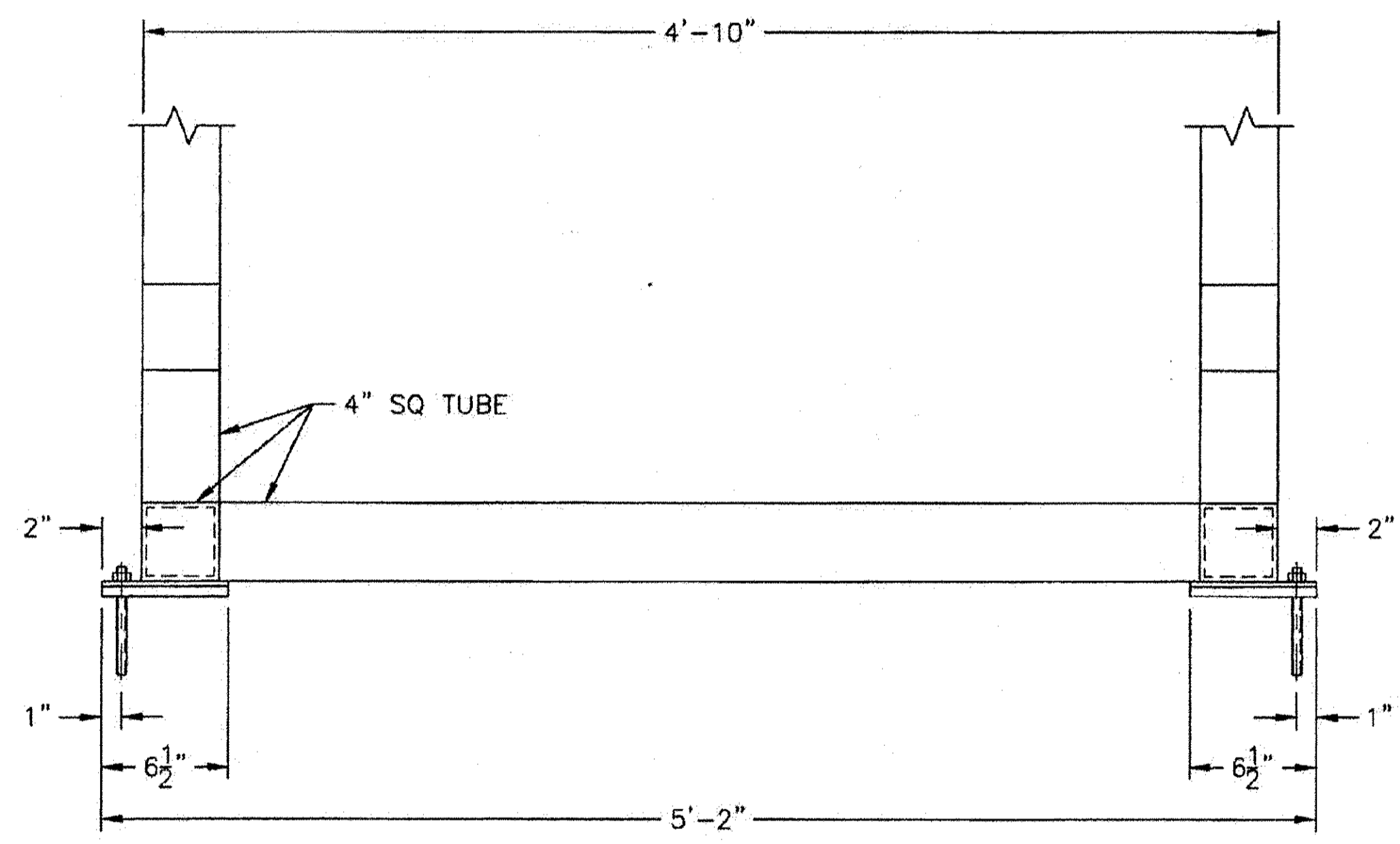
FIXED FOOT DETAILS



DETAIL A
BASE PLATE: 1/4"x6 1/2"FBx8" ALUM, (2) REQUIRED
BASE UHMW: 1/2"x6 1/2"x8" UHMW, (2) REQUIRED

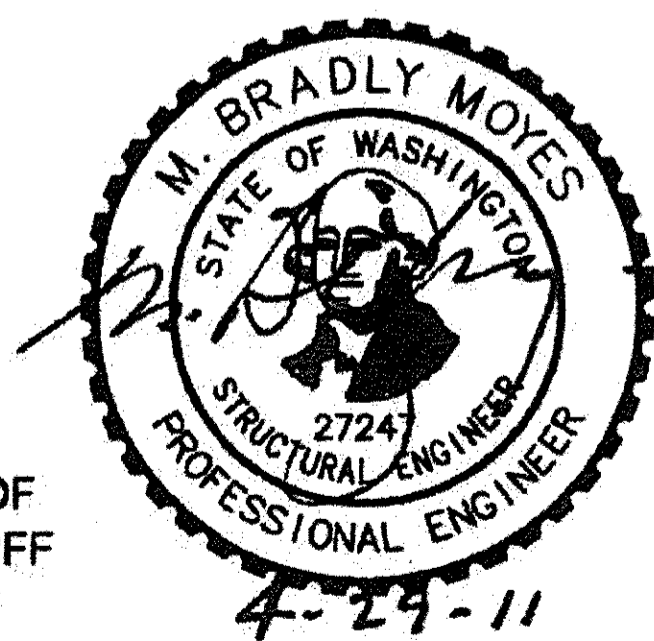


SIDE ELEVATION VIEW



FIXED END ELEVATION VIEW

PREPARED UNDER SUPERVISION OF
KPFF CONSULTING ENGINEERS. KPFF
IS NOT RESPONSIBLE FOR FIELD
DIMENSIONS



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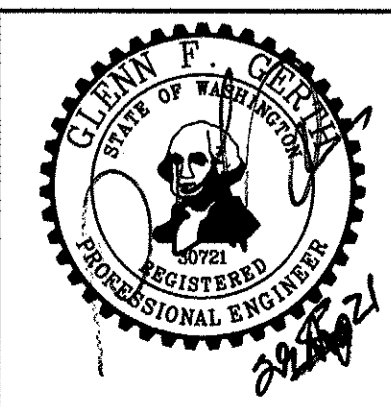
TOPPER INDUSTRIES INC.

360-887-1232 800-332-DOCK 3625
360-887-0345
P. O. BOX 2439
BATTLE GROUND, WA 98604

6205-120

4'x64'-6" BRIDGE
FIXED END FOOTING DETAILS
WENAS WILDLIFE AREA
WASHINGTON DEPT. OF FISH & WILDLIFE
OLYMPIA, WA

WASHINGTON DEPARTMENT OF
FISH & WILDLIFE



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CHIEF ENGINEER			DATE: 29 Sep 21
PROGRAM			DATE: 09/28/2021

DESIGNED BY WDFW
CHECKED BY D. SMITH
DRAWN BY S. GOODWIN

WOOTEN WILDLIFE AREA WATSON LAKE

FOOTBRIDGE INSTALLATION

BRIDGE FABRICATION
(REFERENCE ONLY)

PROJECT NO.
CA:R5:2021-1

SHEET 8 OF 8