



Public Works Department
Engineering Division
Phone: 952.233.9300
Engineering@ShakopeeMN.gov

**CONTRACT DOCUMENTS
AND
SPECIFICATIONS
FOR:**

TH 169 Pedestrian Bridge

SP 7005-138, SAP 166-594-001
City Project No. CIF-22-002

THE CITY OF SHAKOPEE, MINNESOTA

DOCUMENT DATE: December 12, 2022

SEALED BID DUE: 11:00 am, January 17, 2023

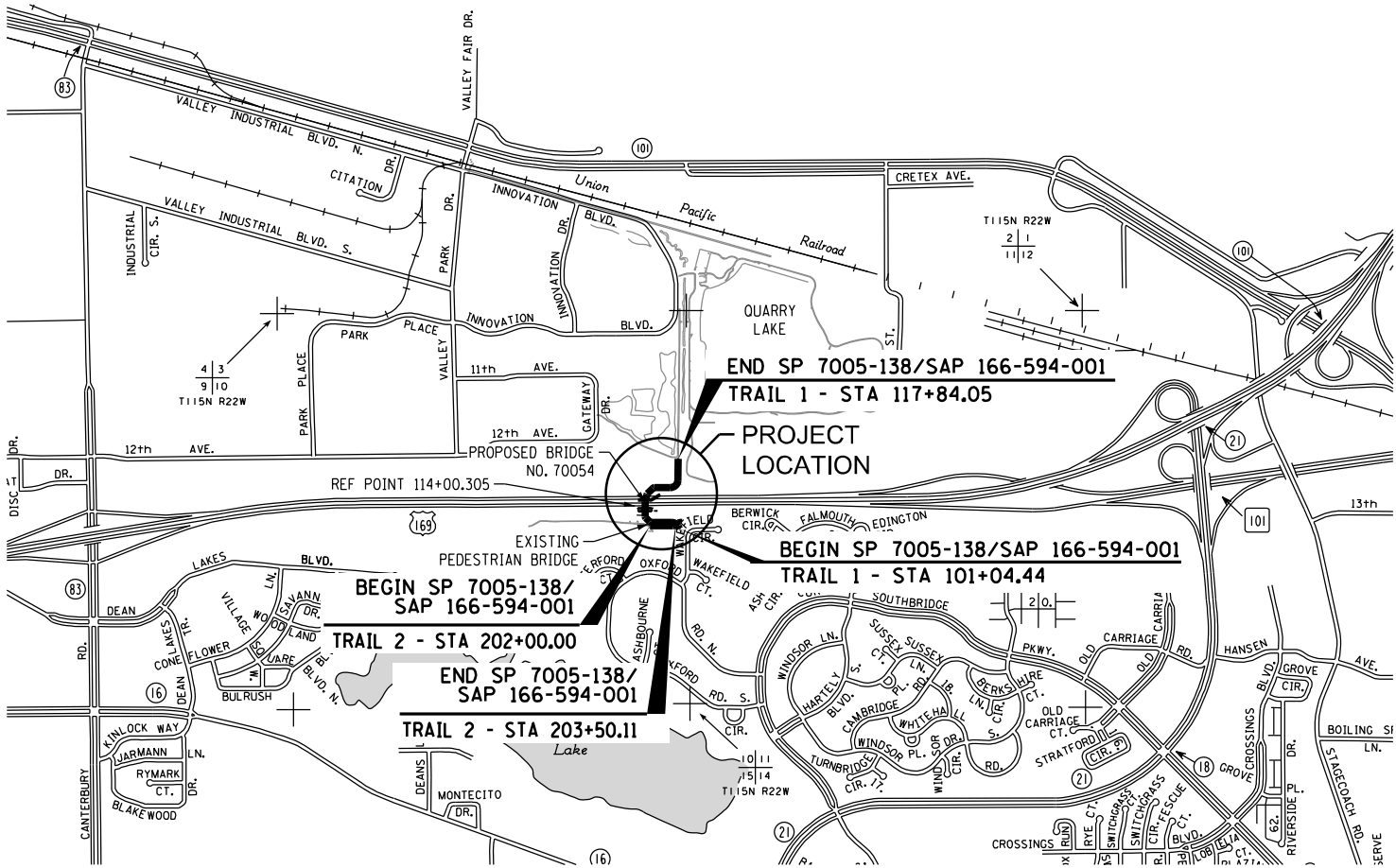
COMPLETION DATE: August 15, 2023 – All work must be completed

CITY OF SHAKOPEE

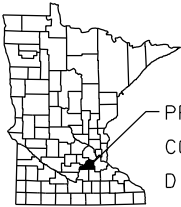
CONSTRUCTION PLAN FOR GRADING, BITUMINOUS TRAIL, RETAINING WALLS, BRIDGE NO. 70054
SP 7005-138 / SAP 166-594-001
LOCATED SOUTH OF QUARRY LAKE PARK CROSSING TH 169 FROM WAKEFIELD CIRCLE TO 550 FT NORTH OF TH 169

QUARRY LAKE PARK TRAIL &
PEDESTRIAN BRIDGE PROJECT
SP 7005-138 / SAP 166-594-001

GROSS LENGTH 1679.61 ft 0.318 miles
BRIDGES-LENGTH 893.31 ft 0.169 miles
EXCEPTIONS-LENGTH ft miles
NET LENGTH 1679.61 ft 0.318 miles



AGREEMENT NO. 1051894
CITY OF SHAKOPEE
SP 7005-138 (TH 169 = 005)
LOCAL FUNDS
METRO DISTRICT



PROJECT LOCATION
COUNTY: SCOTT
DISTRICT: METRO

DESIGN DESIGNATION
SP 7005-138 / SAP 166-594-001

DESIGN SPEED 20 MPH (1)
BASED ON STOPPING SIGHT DISTANCE
HEIGHT OF EYE 4.5 HEIGHT OF OBJECT 0.0
(1) DESIGN SPEED NOT MET AT HORIZONTAL
CURVES, MEETS 12 MPH DESIGN SPEED.

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D
THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38/02,
ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING
SUBSURFACE UTILITY DATA."

LOCAL FUNDS

GOVERNING SPECIFICATIONS

THE 2020 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS
FOR CONSTRUCTION" AND THE "SUPPLEMENTAL SPECIFICATIONS" SHALL GOVERN.
ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL
ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST EDITION OF THE FIELD MANUAL FOR
TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.

INDEX

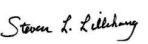
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	GENERAL LAYOUT
3 - 5	ESTIMATED QUANTITIES
6	QUANTITY TABULATIONS
7	EARTHWORK TABULATION
8 - 9	INPLACE UTILITY TABULATION
10	SOILS AND CONSTRUCTION NOTES & STANDARD PLATES
11	TYPICAL SECTIONS
12 - 35	STANDARD PLAN SHEETS
36 - 40	CONSTRUCTION STAGING & TRAFFIC CONTROL
41 - 42	MISCELLANEOUS DETAILS
43 - 44	ALIGNMENT PLAN
45	INPLACE UTILITY & TOPOGRAPHY PLAN
46	REMOVAL PLAN
47	CONSTRUCTION PLAN
48 - 49	PROFILES
50 - 66	RETAINING WALL PLAN
67	DRAINAGE PLAN
68	DRAINAGE PROFILES AND TABULATIONS
69 - 71	SWPPP
72	TURF ESTABLISHMENT & EROSION CONTROL PLANS
73	GRADING PLAN
X1 - X5	CROSS SECTIONS

THIS PLAN CONTAINS 78 SHEETS.

ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND ORDINANCES WILL BE
COMPLIED WITH IN THE CONSTRUCTION OF THIS PROJECT.



SIGNATURE:  TYPED OR PRINTED NAME: ANDREW J. PLOWMAN, PE
ROADWAY DESIGN ENGINEER: I HEREBY CERTIFY THAT THE ROADWAY PLAN 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 MINNESOTA.
DATE: 11/17/2022 LICENSE NUMBER 44200



APPROVAL: CITY OF SHAKOPEE ENGINEER DATE: 11-17-22

APPROVAL: DISTRICT TRANSPORTATION ENGINEER DATE:

DISTRICT STATE AID ENGINEER: REVIEWED FOR COMPLIANCE WITH
STATE RULES/POLICY DATE:

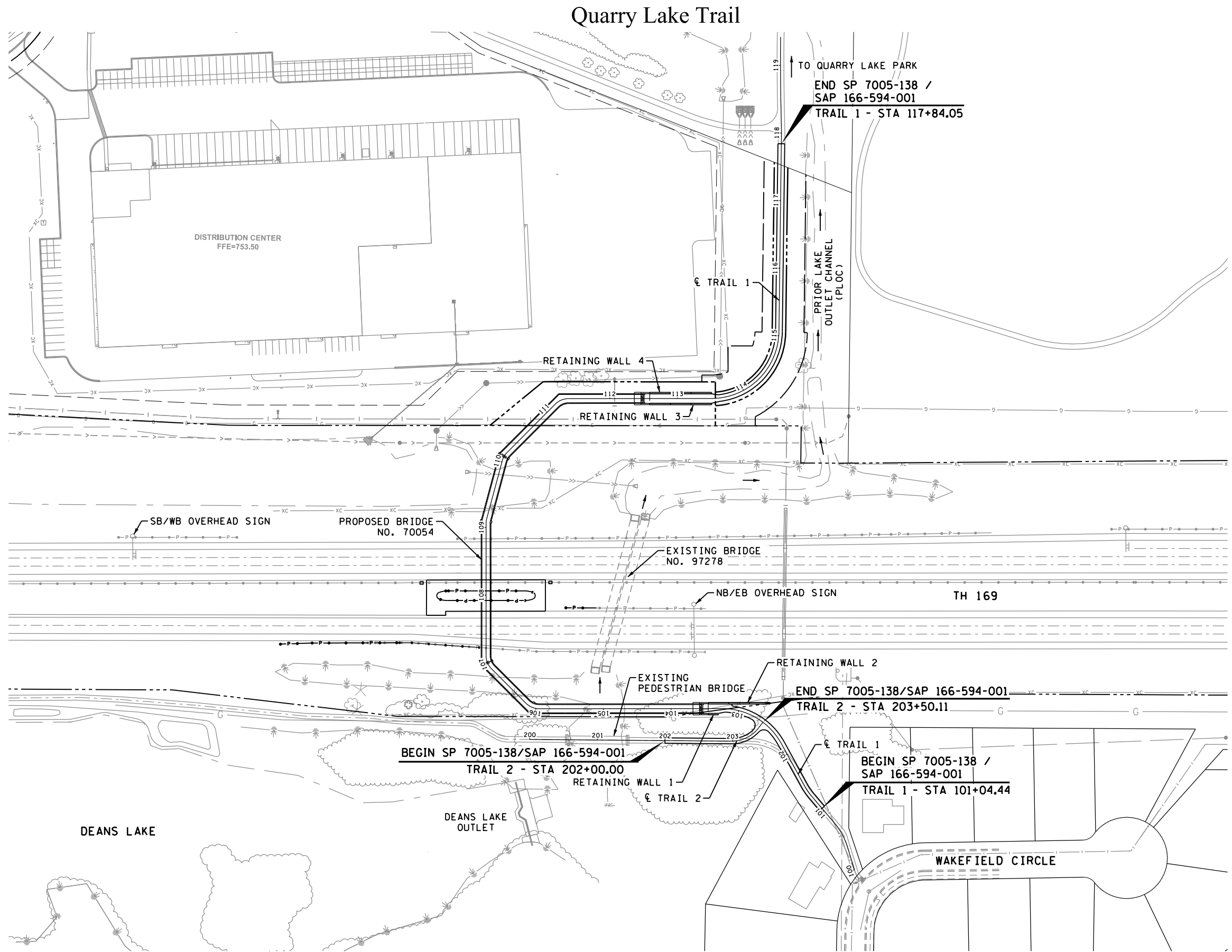
APPROVED: APPROVED FOR STATE AID
FUNDING: STATE AID ENGINEER DATE:

I HEREBY CERTIFY THAT THE FINAL FIELD REVISIONS, IF ANY, OF THE PLAN WERE
MADE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED
PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE LIC. NO.

PLOTTED/REVISED: 11/17/2022

PATH & FILENAME: K:\07896-000\Cad\Plan\7896-000.g01.dgn



NO.	DATE	BY	CHK	REVISIONS

Design By:	MKV	I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. PRINT NAME: <u>ANDREW J. PLOWMAN, PE</u>  DATE <u>11/17/2022</u> LICENSE # <u>44200</u>
Plan By:	CWK	
Checked By:	AJP	
Approved By:	AJP	



**Quarry Lake Trail and
Pedestrian Bridge**
City of Shakopee, Minnesota

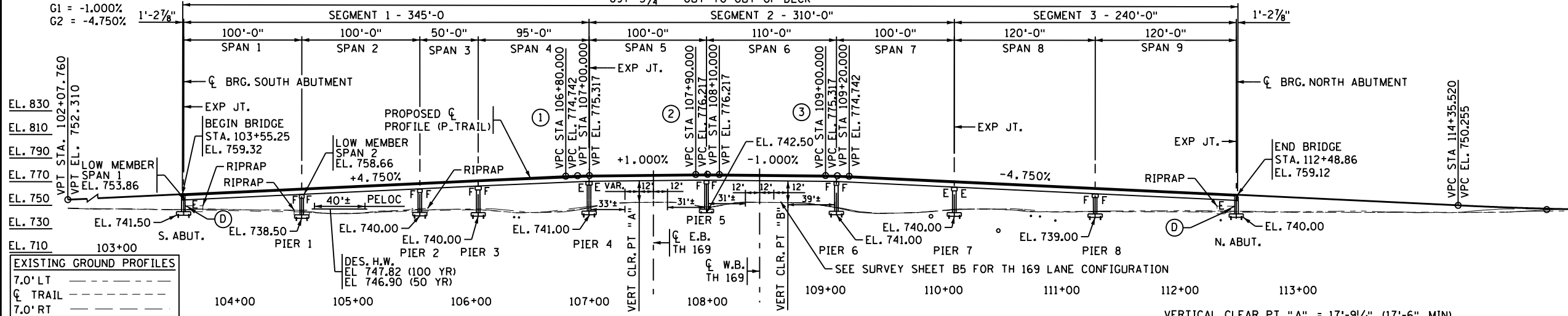
CITY OF SHAKOPEE, MINNESOTA
GENERAL LAYOUT
SP 7005-138 (TH 169) / SAP 166-594-001

SHEET
2
OF
73
SHEETS

11/7/2022 10:49:18 AM K:\07896-000\Cad\Plan\CBR7896-000_GPE.dgn

CONTROL POINT	X-COORD	Y-COORD	TRAIL STATION	T.H. 169 STATION
1	467612.212	213484.773	107+54.164	506+92.699
2	467612.171	213574.773	108+44.164	1506+92.699

- ① 20,000' V.C.
VPI STA. 106+90.000
VPI EL. 775.217
G1 = 4.750%
G2 = 1.000%
- ② 20,000' V.C.
VPI STA. 108+00.000
VPI EL. 776.317
G1 = 1.000%
G2 = -1.000%
- ③ 20,000' V.C.
VPI STA. 109+10.000
VPI EL. 775.217
G1 = -1.000%
G2 = -4.750%



JOB NO. T9AD935

DESIGN REVIEW UNIT: KETTLESON

(T.H. 169 = 005)

GENERAL ELEVATION

QUARRY LAKE TRAIL
CITY OF SHAKOPEE, MINNESOTA
S.P. 7005-138 / S.A.P. 166-594-001

TITLE:

GENERAL PLAN
AND ELEVATION

DESIGN DATA

DESIGNED IN ACCORDANCE WITH 2020
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED IN ACCORDANCE WITH 2009 AND
CURRENT INTERIM AASHTO LRFD GUIDE
SPECIFICATIONS FOR THE DESIGN OF
PEDESTRIAN BRIDGES.
PEDESTRIAN LIVE LOAD = 90 PSF
H-10 TRUCK VEHICULAR LIVE LOAD

DEAD LOAD INCLUDES 20 POUNDS PER SQUARE
FOOT ALLOWANCE FOR FUTURE WEARING COURSE
MODIFICATIONS.

MATERIAL DESIGN PROPERTIES:
REINFORCED CONCRETE:
f'c = 4 KSI CONCRETE
fy = 60 KSI PLAIN AND EPOXY COATED BARS
fy = 75 KSI STAINLESS STEEL BARS
n = 8 FOR REINFORCEMENT BARS
PRETENSIONED CONCRETE:
f'c = 6.6 KSI CONCRETE
fpu = 300 KSI LOW RELAXATION STRANDS
n = 1 FOR PRETENSIONING STRANDS
0.72 fpu FOR INITIAL PRESTRESS

DESIGN SPEED:
OVER = 12 MPH (TRAIL)
UNDER = 70 MPH (T.H. 169)
DECK AREA = 13,040 SQUARE FEET

LIST OF SHEETS

NO.	DESCRIPTION
B1	GENERAL PLAN AND ELEVATION
B2	TRANSVERSE SECTION
B3-B4	ALIGNMENT PLAN
B5-B6	BRIDGE LAYOUT
B7-B12	SOUTH ABUTMENT DETAILS
B13-B18	NORTH ABUTMENT DETAILS
B19-B50	PIER DETAILS
B51-B52	FRAMING PLAN
B53-B56	PRESTRESSED BEAM DETAILS
B57-B68	SUPERSTRUCTURE DETAILS
B69-B73	CURB/RAILING/FENCE DETAILS
B74-B79	BRIDGE DETAILS
B80-B81	EXPANSION DEVICE
B82	SLOPE PAVING
B83	BRIDGE SURVEY
B84-B86	BORINGS - PLAN & PROFILE
B87-B88	AESTHETIC DETAILS
B89	AS-BUILT BRIDGE DATA

APPROVED: Stacy L. Lillington 11/10/22
CITY OF SHAKOPEE DATE

wsb

MINNESOTA DEPARTMENT OF TRANSPORTATION

FINAL PLAN Bridge No. 70054

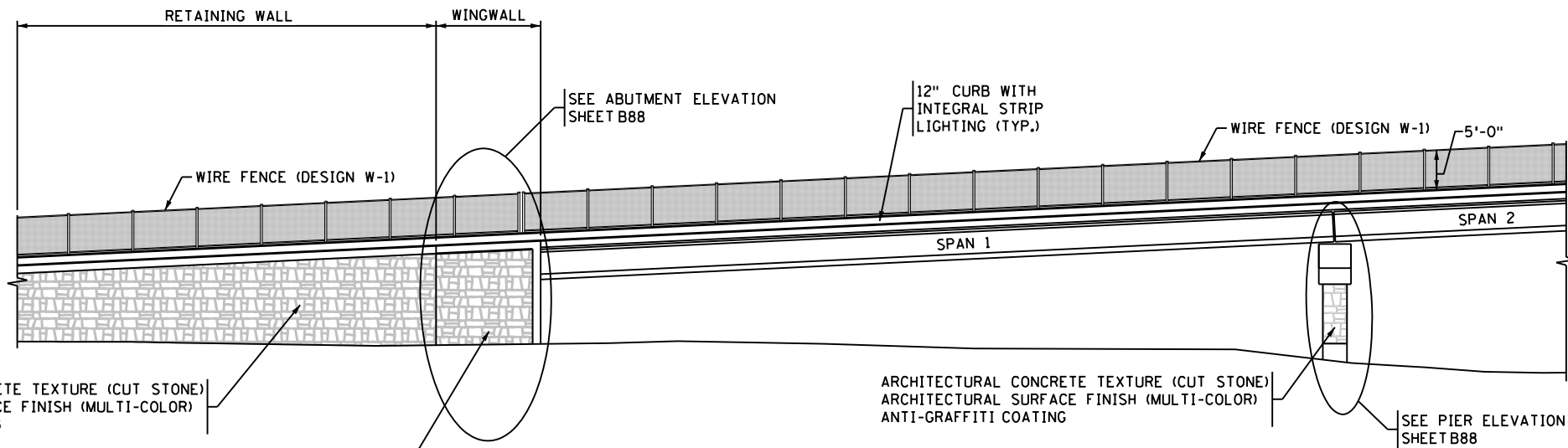
PEDESTRIAN TRAIL OVER
TRUNK HIGHWAY 169
1.4 MILE WEST OF HWY 13
BRIDGE I.D. NO. 501

SEC. 10 TWP. 115 N R. 22 W
CITY OF SHAKOPEE SCOTT COUNTY

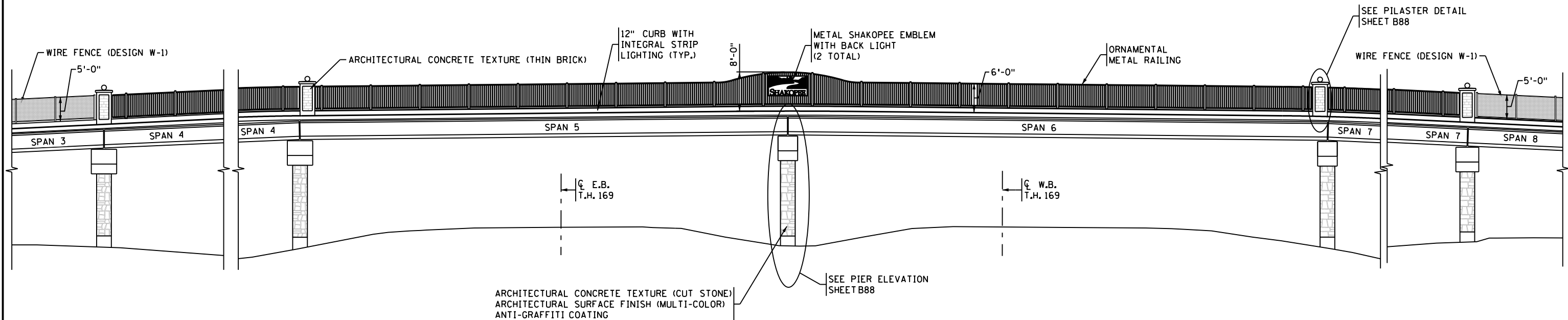
APPROVED: _____
STATE BRIDGE ENGINEER DATE

DES: RBR DR: BJR 70054
CHK: CBO CHK: CBO

Sheet B1 of B89 Sheets



GENERAL ELEVATION



GENERAL ELEVATION

NOTE:
POWDER COAT METAL EMBLEM
METAL EMBLEM = BLACK
METAL CONTROL BOX = GRAY

NO	DATE	BY	CHK	REVISIONS

I HEREBY CERTIFY THAT THIS PLAN 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 MINNESOTA.

Carl Osberg

LICENSED PROFESSIONAL ENGINEER: CARL OSBERG
DATE: 11/07/2022 REG NO: 42732

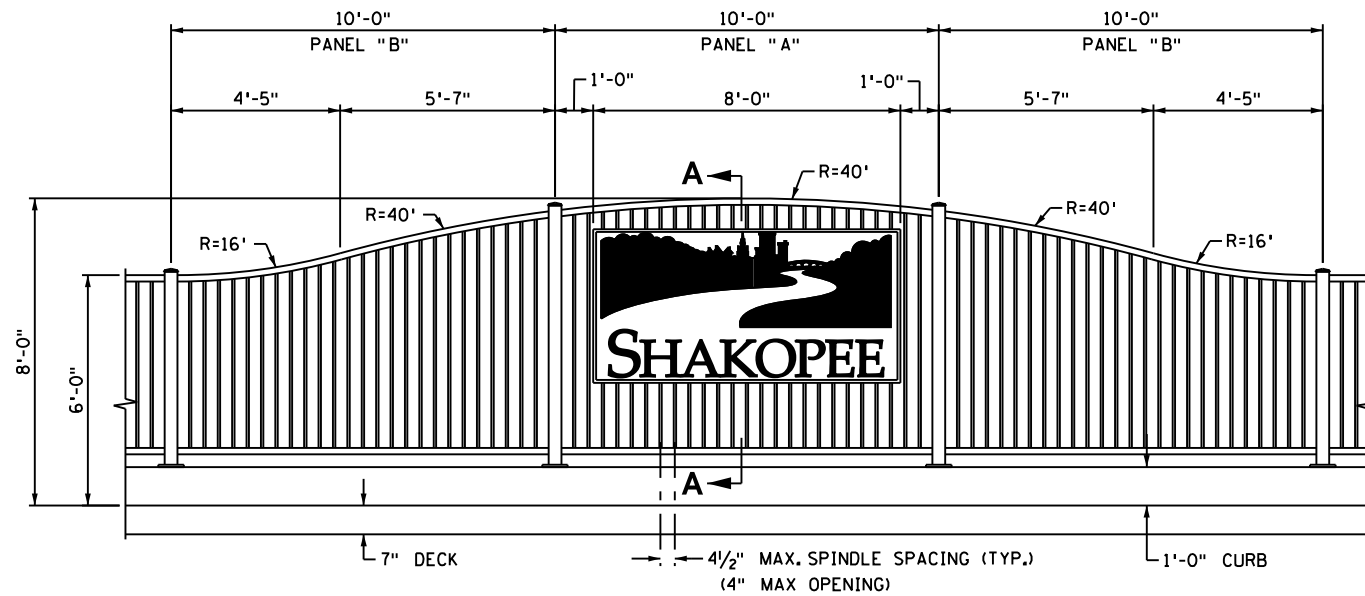


QUARRY LAKE TRAIL
CITY OF SHAKOPEE, MINNESOTA
S.P. 7005-138 / S.A.P. 166-594-001

TITLE:
**AESTHETIC
DETAILS - 1**

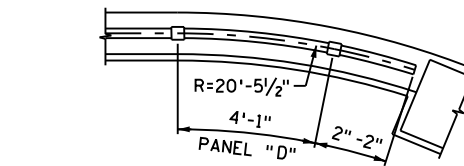
DES: RBR DR: BJR
CHK: CBO CHK: CBO
Sheet B87 of B89 Sheets

Bridge No.
70054

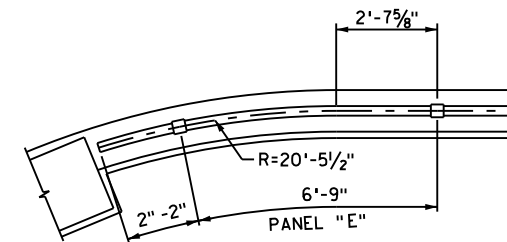


PANEL "A" & "B" DETAIL

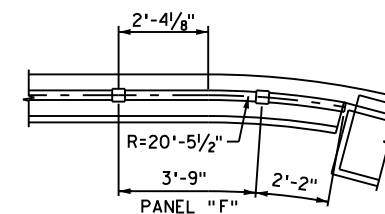
NOTE:
SHAKOPEE METAL EMBLEM CAD FILE TO BE SUPPLIED BY WSB.



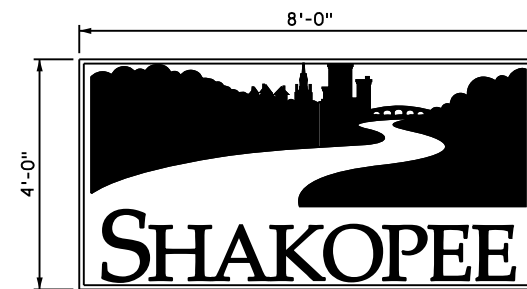
PANEL "D" DETAIL
(PLAN VIEW)



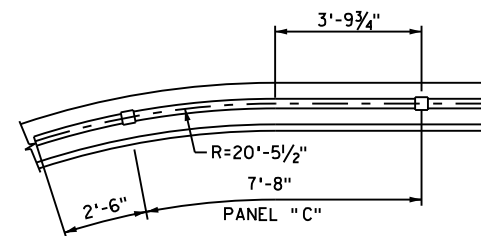
PANEL "E" DETAIL
(PLAN VIEW)



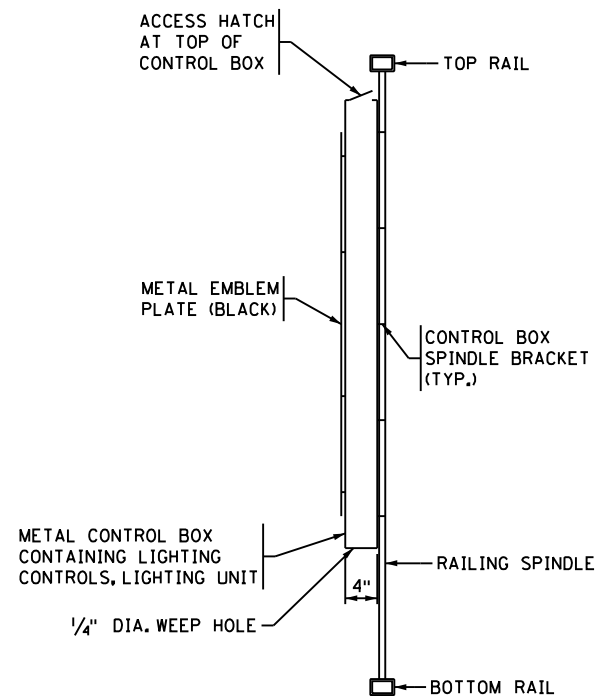
PANEL "F" DETAIL
(PLAN VIEW)



SHAKOPEE METAL EMBLEM DETAIL
STEEL LOGO, 3/8" MIN. THICKNESS

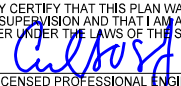


PANEL "C" DETAIL
(PLAN VIEW)



SECTION A-A

11/10/2022 2:20:59 PM K:\017896-000_Cad\Plan\CBRT7896-000_RAL01.dgn

NO.	DATE	BY	CHK	REVISIONS	I HEREBY CERTIFY THAT THIS PLAN 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 MINNESOTA.  LICENSED PROFESSIONAL ENGINEER: CARL OSBERG DATE: 11/07/2022 REG NO: 42732					QUARRY LAKE TRAIL CITY OF SHAKOPEE, MINNESOTA S.P. 7005-138 / S.A.P. 166-594-001		TITLE: ORNAMENTAL METAL RAILING DETAILS		DES: RBR	DR: BJR	Bridge No. 70054
														CHK: CBO	CHK: CBO	
														Sheet B71 of B89 Sheets		