## GENERAL NOTES

1. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN AND COMPLY WITH ALL PERMITS REQUIRED BY APPLICABLE REGULATORY AGENCIES.

2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE ILLINOIS DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" (ADOPTED JANUARY 1, 2022); THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS" (ADOPTED JANUARY 1, 2024); THE LATEST EDITION OF THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS, THE DETAILS" ON THE PLANS AND THE "SPECIAL PROVISIONS" INCLUDED IN THE CONTRACT DOCUMENTS. ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED AS THE LATEST STANDARD OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION.

3. THE CONTRACTOR/DEVELOPER ASSUMES ALL RESPONSIBILITY AND LIABILITY FOR ANY ACTION RESULTING FROM THEIR WORK WITHIN THE PUBLIC RIGHT-OF-WAY.

4. ALL CONSTRUCTION MATERIALS WITHIN THE PUBLIC RIGHT-OF-WAY MUST BE IDOT CERTIFIED. DOCUMENTATION OF MATERIAL CERTIFICATION SHALL BE SUBMITTED PRIOR TO ENGINEER APPROVAL. ALL CONSTRUCTION MATERIAL NEEDING INSPECTION SHALL BE DONE ACCORDING TO THE LATEST IDOT PROJECT AND PROCEDURES GUIDE.

5. THE CONTRACTOR SHALL PROVIDE THE ENGINEER A LIST OF MATERIALS USED AND IDENTIFY THEIR ASSOCIATED IDOT CERTIFICATION, A COPY OF ALL MATERIAL TESTING COMPANY RESULTS, AND A WEEKLY FIELD REPORT UTILIZING THE APPROPRIATE IDOT FORM.

6. ALL COORDINATES SHOWN ARE BASED UPON THE ILLINOIS STATE PLANE COORDINATE SYSTEM EAST ZONE, MAP COORDINATES REFLECT NAD 83 (2011 ADJUSTMENT)

7. EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.

8. THE CONTRACTOR SHALL MAINTAIN THE SITE IN A CLEAN AND ORDERLY MANNER. DEBRIS AND ANY SURPLUS MATERIAL SHALL BE REMOVED AND RESTORATION SHALL PROCEED AS WORK PROCEEDS. IF THE ENGINEER SO DIRECTS, THE CONTRACTOR SHALL STOP ALL OTHER WORK AND CONCENTRATE ON CLEAN-UP AND RESTORATION. DEBRIS AND SURPLUS MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR OFF-SITE. ANY DAMAGE CAUSED BY THE CONTRACTOR TO EXISTING PAVEMENT, CURB & GUTTER, AND SIDEWALK NOT SHOWN AS REMOVED OR WORKED ON DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED.

9. AGGREGATE SUBGRADE IMPROVEMENT (CU YD) HAS BEEN PROVIDED FOR USE AT THE LOCATIONS INDICATED FOR SOILS THAT TEND TO BE UNSTABLE AND/OR UNSUITABLE. THE ACTUAL NEED FOR REMOVAL AND REPLACEMENT WITH ASI WILL BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION BY THE GEOTECHNICAL ENGINEER. ALL POTENTIALLY UNSTABLE SOILS SHOULD BE TESTED WITH A STATIC OR DYNAMIC CONE PENETROMETER AND TREATED IN ACCORDANCE WITH ARTICLE 301.04 OF THE SSRBC AND IDOT SUBGRADE STABILITY MANUAL. IF UNSTABLE AND/OR UNSUITABLE SOILS ARE NOT ENCOUNTERED, THEN THE QUANTITY SHALL BE DEDUCTED, AND NO ADDITIONAL COMPENSATION WILL BE DUE TO THE CONTRACTOR.

10. THE AGGREGATE GRADATION FOR THE AGGREGATE SUBGRADE IMPROVEMENT 12" LOWER LIFT SHALL BE CS 1 OR RR 1".

11. ALL EXCAVATED MATERIAL, WHICH INCLUDES DIGGING OR GRADING OF ANY SOIL OR FILL MATERIAL, WITH THE EXCEPTION OF AGGREGATE FILLS, MUST BE INCORPORATED WITHIN THE IDOT RIGHT-OF-WAY.

12. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL SECTION OR SUBSECTION MONUMENTS, PROPERTY CORNERS, AND REFERENCE MARKERS UNTIL THE OWNER, HIS AGENT, OR AN AUTHORIZED SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATIONS.

13. SEEDING WILL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDED WILL BE DETERMINED BY THE ENGINEER.

14. THE CONTRACTOR WILL BE REQUIRED TO COMPLY WITH ALL STATE REGULATIONS REGARDING AIR, WATER, AND NOISE POLLUTION. THE CONTRACTOR IS PROHIBITED FROM BURNING ANY MATERIAL WITHIN OR ADJACENT TO THE IMPROVEMENT.

15. BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE PAVEMENT MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.

16. THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR FOR ARTERIALS AT KALPANA.KANNAN-HOSADURGA@ILLINOIS.GOV AT LEAST 72 HOURS IN ADVANCE OF BEGINNING WORK.

17. THE RESIDENT ENGINEER SHALL CONTACT ERIC CAMPOS, AREA TRAFFIC FIELD ENGINEER, VIA EMAIL AT ERIC.CAMPOS@ILLINOIS.GOV, A MINIMUM OF TWO WEEKS BEFORE INSTALLING PERMANENT PAVEMENT MARKINGS.

18. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT THE TOLL-FREE NUMBER 800-892-0123 FOR FIELD LOCATIONS OF ANY AND ALL UTILITIES AND BURIED FACILITIES. 48 HOUR NOTIFICATION IS REQUIRED.

19. TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURBS AND GUTTER AND MEDIANS IN THE FIELD, UNLESS OTHERWISE SHOWN, THE TRANSITION SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SPECIFIED.

20. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE CITY OF JOLIET.

21. THE LOCATION AND ELEVATIONS OF THE UNDERGROUND UTILITIES AS SHOWN ON THE PLANS ARE NOT TO BE TAKEN AS EXACT. THE CONTRACTOR SHALL USE SPECIAL CARE WHEN CONDUCTING CONSTRUCTION OPERATIONS NEAR THEM TO PREVENT DAMAGE.

22. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.

23. ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

24. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

25. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

26. THE CONTRACTOR SHALL REMOVE, STORE, AND RE- ERECT ALL EXISTING SIGNS IN ACCORDANCE WITH THE STATE STANDARD SPECIFICATIONS.

27. PACE MUST BE NOTIFIED A MINIMUM OF TWO (2) WEEKS IN ADVANCE OF ANY ROAD CLOSURES. RICHARD WILLMAN AT TRANSPORTATION.ENGINEER@PACEBUS.COM

28. THE CONTRACTOR SHALL MAINTAIN CONVEYANCE OF ALL DRAINAGE FLOWS DURING CONSTRUCTION OF THIS PROJECT. WHEN EXISTING DRAINAGE FACILITIES ARE DISTURBED, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY OUTLETS AND CONNECTIONS FOR ALL PRIVATE AND PUBLIC DRAINS, SEWERS, CULVERTS AND OTHER DRAINAGE FACILITIES. THE CONTRACTOR SHALL PROVIDE FACILITIES TO TAKE IN ALL STORM WATER WHICH WILL BE RECEIVED BY THESE DRAINS AND SEWERS AND DISCHARGE THE SAME. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN A PUMPING PLAN, IF NECESSARY, AND A TEMPORARY OUTLET AND BE PREPARED AT ALL TIMES TO DISPOSE OF THE WATER RECIEVED FROM THESE TEMPORARY CONNECTIONS UNTIL SUCH TIME THAT THE PERMANENT CONNECTION WITH SEWERS ARE BUILT AND IN SERVICE. THE WORK WILL BE INCLUDED IN THE COST OF THE CONTRACT.

29. THE FEDERALLY ENDANGERED INDIANA BAT (MYOTIS SODALIS) AND THE THREATENED NORTHERN LONG-EARED BAT (MYOTIS SEPTENTRIONALIS) CAN BE FOUND THROUGHOUT ILLINOIS. MEASURES TO MINIMIZE THE POTENTIAL TAKE OF THE INDIANA BAT OR NORTHERN LONG-EARED BAT SHALL BE PERFORMED BY CLEARING TREES THREE (INCHES) AT BREAST HEIGHT OUTSIDE OF THE REPRODUCTIVE SEASON. IF TREE CLEARING IS NECESSARY, IT SHALL NOT OCCUR DURING THE APRIL 1 THRU SEPTEMBER 30TH TIME FRAME TO AVOID IMPACTING THE INDIANA AND NORTHERN LONG-EARED BATS.

## COMMITMENTS

1. THE UNITED STATES COAST GUARD HAS JURISDICTION OF THE AREA. WHILE NOT REQUIRING A PERMIT FROM THE UNITED STATES COAST GUARD (USCG), THE CONTRACTOR WILL NEED A LETTER OF AUTHORIZATION FROM THE USCG PRIOR TO PROCEEDING WITH WORK. THIS MAY INCLUDE PLAN SUBMITTAL FOR REVIEW BY THE USCG. USCG SHALL BE ALERTED AND INFORMED OF PROJECT SCOPE, DURATION, SCHEDULE, LIMITATIONS TO TRAFFIC IN THE CHANNEL, AND ANY OTHER SPECIAL INSTRUCTIONS FOR NAVIGATION INTERESTES. COORDINATION WITH USCG SHALL BE MADE VIA VANESSA RUIZ, ESU, BUREAU OF PROGRAMMING.

   VANESSA RUIZ
   REGION 1/DISTRICT 1
   ENVIRONMENTAL STUDIES UNIT HEAD

   1

2. A U.S. ARMY CORPS OF ENGINEERS PERMIT WAS DETERMINED NOT TO BE NECESSARY FOR THE IMPROVEMENT PLANS AS SHOWN. HOWEVER, THE CONTRACTOR MUST COORDINATE WITH THE U.S. ARMY CORPS OPERATIONS MANAGER PRIOR TO CONSTRUCTION.

3. AN IDNR FLOODWAY PERMIT WAS DETERMINED NOT TO BE NECESSARY FOR THE IMPROVEMENT PLANS AS SHOWN. HOWEVER, THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING A FLOODWAY PERMIT IF ANY TEMPORARY STRUCTURE WILL BE LEFT IN PLACE THAT WOULD IMPEDE FLOWS, SUCH AS A COFFERDAM, CAUSEWAY, OR MOORING A BARGE IN PLACE.

MODEL: $MODELNAME$
FILE NAME: N:\PROJ\00212339,01\CADD\Shts\Misc Sheets\62M79-sht-gen01.dgn

CiorbaGroup
8725 W. Higgins Rd, Ste 600, Chicago, IL 60631
P 773.775.4009 | www.ciorba.com

| | | |
|---|---|---|
| USER NAME = ahacker | DESIGNED - TBH | REVISED - |
| | DRAWN - VZ | REVISED - |
| PLOT SCALE = 2.000 ' / In. | CHECKED - EPS | REVISED - |
| PLOT DATE = 2/23/2024 | DATE - 2/16/2024 | REVISED - |

**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

**US 30 OVER DES PLAINES RIVER**
**GENERAL NOTES AND COMMITMENTS**

SCALE: N.T.S. | SHEET 1 OF 1 SHEETS | STA. | TO STA.

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 607 | 2018-067-BR | WILL | 128 | 3 |
| | | CONTRACT NO. 62M79 | | |
| | ILLINOIS | FED. AID PROJECT | | |

1 REV. 6/4/24

| | SUMMARY OF QUANTITIES | | | | 80% FED 20% STATE | |
|---|---|---|---|---|---|---|
| SPECIALTY ITEM | CODE NO. | ITEM | UNIT | TOTAL | RDWY 0004 | BRIDGE REHAB 0013 |
| | 50300225 | CONCRETE STRUCTURES | CU YD | 48.9 | | 48.9 |
| | | | | | | |
| | 50300255 | CONCRETE SUPERSTRUCTURE | CU YD | 216.8 | | 216.8 |
| | | | | | | |
| | 50300260 | BRIDGE DECK GROOVING | SQ YD | 840 | | 840 |
| | | | | | | |
| | 50300300 | PROTECTIVE COAT | SQ YD | 1,181 | | 1,181 |
| | | | | | | |
| | 50301350 | CONCRETE SUPERSTRUCTURE (APPROACH SLAB) | CU YD | 143.1 | | 143.1 |
| | | | | | | |
| | 50500105 | FURNISHING AND ERECTING STRUCTURAL STEEL | L SUM | 1 | | 1 |
| | | | | | | |
| | 50700105 | TREATED TIMBER | F.B.M. | 9,922 | | 9,922 |
| | | | | | | |
| | 50700305 | HARDWARE | POUND | 557 | | 557 |
| | | | | | | |
| | 50800205 | REINFORCEMENT BARS, EPOXY COATED | POUND | 123,530 | | 123,530 |
| | | | | | | |
| | 52000110 | PREFORMED JOINT STRIP SEAL | FOOT | 139 | | 139 |
| | | | | | | |
| | 52100010 | ELASTOMERIC BEARING ASSEMBLY, TYPE I | EACH | 17 | | 17 |
| | | | | | | |
| | 52100520 | ANCHOR BOLTS, 1" | EACH | 34 | | 34 |
| | | | | | | |
| | 550A0340 | STORM SEWERS, CLASS A, TYPE 2 12" | FOOT | 45 | | 45 |
| | | | | | | |

1

MODEL: $MODELNAME$
FILE NAME: N:\PROJ\0021239.01\CADD\Shts\MiscSheets\62M79-stt-SOQ.dgn

CiorbaGroup
8725 W. Higgins Rd, Ste 600, Chicago, IL 60631
P 773.775.4009 | www.ciorba.com

| | | |
|---|---|---|
| USER NAME = theuer | DESIGNED - TBH | REVISED - |
| | DRAWN - VZ | REVISED - |
| PLOT SCALE = 2.000 ' / in. | CHECKED - EPS | REVISED - |
| PLOT DATE = 3/25/2024 | DATE - 2/16/2024 | REVISED - |

**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

**US 30 OVER DES PLAINES RIVER**
**SUMMARY OF QUANTITIES**

SCALE: N.T.S. | SHEET 3 OF 11 SHEETS | STA. | TO STA.

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 607 | 2018-067-BR | WILL | 128 | 6 |
| | | CONTRACT NO. 62M79 | | |
| | ILLINOIS FED. AID PROJECT | | | |

1 REV. 6/4/24 REV-SEP

| | SUMMARY OF QUANTITIES | | | | 80% FED 20% STATE | |
|---|---|---|---|---|---|---|
| SPECIALTY ITEM | CODE NO. | ITEM | UNIT | TOTAL | RDWY 0004 | BRIDGE REHAB 0013 |
| | 55100500 | STORM SEWER REMOVAL 12" | FOOT | 7 | | 7 |
| | 58700300 | CONCRETE SEALER | SQ FT | 2,998 | | 2,998 |
| | 59000200 | EPOXY CRACK INJECTION | FOOT | 363 | | 363 |
| | 60200105 | CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, OPEN LID | EACH | 2 | 2 | |
| | 60221000 | MANHOLES, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, OPEN LID | EACH | 1 | 1 | |
| | 60224459 | MANHOLES, TYPE A, 8'-DIAMETER, TYPE 1 FRAME, CLOSED LID | EACH | 1 | 1 | |
| | 60234200 | INLETS, TYPE A, TYPE 1 FRAME, OPEN LID | EACH | 2 | 2 | |
| | 60258200 | MANHOLES TO BE RECONSTRUCTED WITH NEW TYPE 1 FRAME, CLOSED LID | EACH | 1 | 1 | |
| | 60266600 | VALVE BOXES TO BE ADJUSTED | EACH | 2 | 2 | |
| | 60500050 | REMOVING CATCH BASINS | EACH | 2 | 2 | |
| | 60500060 | REMOVING INLETS | EACH | 1 | 1 | |
| | 60603800 | COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 | FOOT | 127 | 127 | |
| * | 66900200 | NON-SPECIAL WASTE DISPOSAL | CU YD | 235 | 235 | |

1

MODEL: $MODELNAME$
FILE NAME: N:\PROJ\00212339.01\CADD\ShtMkr\Sheets\62M79-sht-SOQ.dgn

CiorbaGroup
8725 W. Higgins Rd, Ste 600, Chicago, IL 60631
P 773.775.4009 | www.ciorba.com

| | | | |
|---|---|---|---|
| USER NAME = theuer | DESIGNED - TBH | REVISED - | |
| | DRAWN - VZ | REVISED - | |
| PLOT SCALE = 2.000 ' / in. | CHECKED - EPS | REVISED - | |
| PLOT DATE = 3/25/2024 | DATE - 2/16/2024 | REVISED - | |

**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

**US 30 OVER DES PLAINES RIVER**
**SUMMARY OF QUANTITIES**

SCALE: N.T.S. | SHEET 4 OF 11 SHEETS | STA. | TO STA.

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 607 | 2018-067-BR | WILL | 128 | 7 |
| | | CONTRACT NO. 62M79 | | |
| | ILLINOIS | FED. AID PROJECT | | |

1 REV. 6/4/24

| | SUMMARY OF QUANTITIES | | | | 80% FED 20% STATE | |
|---|---|---|---|---|---|---|
| SPECIALTY ITEM | CODE NO. | ITEM | UNIT | TOTAL | RDWY 0004 | BRIDGE REHAB 0013 |
| * | 66900530 | SOIL DISPOSAL ANALYSIS | EACH | 2 | 2 | |
| | | | | | | |
| * | 66901001 | REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN | L SUM | 1 | 1 | |
| | | | | | | |
| * | 66901003 | REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT | L SUM | 1 | 1 | |
| | | | | | | |
| * | 66901006 | REGULATED SUBSTANCES MONITORING | CAL DA | 15 | 15 | |
| | | | | | | |
| | 67100100 | MOBILIZATION | L SUM | 1 | 1 | |
| | | | | | | |
| | 70107025 | CHANGEABLE MESSAGE SIGN | CAL DA | 180 | 180 | |
| | | | | | | |
| * | 72000100 | SIGN PANEL - TYPE 1 | SQ FT | 10 | 10 | |
| | | | | | | |
| * | 78000200 | THERMOPLASTIC PAVEMENT MARKING - LINE 4" | FOOT | 925 | 925 | |
| | | | | | | |
| * | 78000600 | THERMOPLASTIC PAVEMENT MARKING - LINE 12" | FOOT | 264 | 264 | |
| | | | | | | |
| * | 78000650 | THERMOPLASTIC PAVEMENT MARKING - LINE 24" | FOOT | 22 | 22 | |
| | | | | | | |
| * | 78009004 | MODIFIED URETHANE PAVEMENT MARKING - LINE 4" | FOOT | 1,013 | 1,013 | |
| | | | | | | |
| * | 78009012 | MODIFIED URETHANE PAVEMENT MARKINGS - LINE 12" | FOOT | 120 | 120 | |
| | | | | | | |
| * | 78009024 | MODIFIED URETHANE PAVEMENT MARKINGS - LINE 24" | FOOT | 36 | 36 | |
| | | | | | | |

1

1

MODEL: $MODELNAME$
FILE NAME: N:\PROJ\00212339.01\CADD\Shtt\Mkr\Sheets\62M79-sht-SOQ.dgn

CiorbaGroup
8725 W. Higgins Rd, Ste 600, Chicago, IL 60631
P 773.775.4009 | www.ciorba.com

| | | |
|---|---|---|
| USER NAME = theuer | DESIGNED - TBH | REVISED - |
| | DRAWN - VZ | REVISED - |
| PLOT SCALE = 2.000 ' / in. | CHECKED - EPS | REVISED - |
| PLOT DATE = 3/25/2024 | DATE - 2/16/2024 | REVISED - |

**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

**US 30 OVER DES PLAINES RIVER**
**SUMMARY OF QUANTITIES**

SCALE: N.T.S. | SHEET 5 OF 11 SHEETS | STA. | TO STA.

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 607 | 2018-067-BR | WILL | 128 | 8 |
| | | CONTRACT NO. 62M79 | | |
| | ILLINOIS | FED. AID PROJECT | | |

1 REV. 6/4/24

| | SUMMARY OF QUANTITIES | | | | 80% FED 20% STATE | |
|---|---|---|---|---|---|---|
| SPECIALTY ITEM | CODE NO. | ITEM | UNIT | TOTAL | RDWY 0004 | BRIDGE REHAB 0013 |
| | X0327760 | STEEL GRID DECK | SQ FT | 7,233 | | 7,233 |
| | | | | | | |
| | X0328035 | BRIDGE BARRIER | FOOT | 345 | | 345 |
| | | | | | | |
| | X0900033 | BRIDGE BALANCING | L SUM | 1 | | 1 |
| | | | | | | |
| * | X1200139 | REMOVAL OF LIGHTING LUMINAIRE, SALVAGE | EACH | 4 | | 4 |
| | | | | | | |
| | X5051202 | REMOVE AND RE-ERECT EXISTING STRUCTURAL STEEL | L SUM | 1 | | 1 |
| | | | | | | |
| | X5067500 | BRIDGE CLEANING AND PAINTING WARRANTY | L SUM | 1 | | 1 |
| | | | | | | |
| | X5210006 | LIVE LOAD BEARINGS | L SUM | 1 | | 1 |
| | | | | | | |
| | X5509900 | ABANDON AND FILL EXISTING STORM SEWER | FOOT | 27 | 27 | |
| | | | | | | |
| | X6025604 | PROPOSED MANHOLE/CATCH BASIN CONNECTION OVER EXISTING STORM SEWER | EACH | 2 | 2 | |
| | | | | | | |
| | X6030310 | FRAMES AND LIDS TO BE ADJUSTED (SPECIAL) | EACH | 3 | 3 | |
| | | | | | | |
| | X6700410 | ENGINEER'S FIELD OFFICE, TYPE A (SPECIAL) | CAL MO | 24 | 24 | |
| | | | | | | |
| | X7010216 | TRAFFIC CONTROL AND PROTECTION, (SPECIAL) | L SUM | 1 | 1 | |
| | | | | | | |
| * | X8250500 | LIGHTING UNIT COMPLETE, SPECIAL | EACH | 4 | | 4 |
| | | | | | | |

1

MODEL: $MODELNAME$
FILE NAME: N:\PRO\J0021239.01\CADD\Shts\MBcSheets\62M79-alnt-SOQ.dgn

CiorbaGroup
8725 W. Higgins Rd, Ste 600, Chicago, IL 60631
P 773.775.4009 | www.ciorba.com

| | | | |
|---|---|---|---|
| USER NAME = theuer | DESIGNED - TBH | REVISED - | |
| | DRAWN - VZ | REVISED - | |
| PLOT SCALE = 2.000 ' / in. | CHECKED - EPS | REVISED - | |
| PLOT DATE = 3/25/2024 | DATE - 2/16/2024 | REVISED - | |

**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

**US 30 OVER DES PLAINES RIVER**
**SUMMARY OF QUANTITIES**

SCALE: N.T.S. | SHEET 10 OF 11 SHEETS | STA. | TO STA.

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 607 | 2018-067-BR | WILL | 128 | 13 |
| | | CONTRACT NO. 62M79 | | |
| | ILLINOIS | FED. AID PROJECT | | |

1 REV. 6/4/24

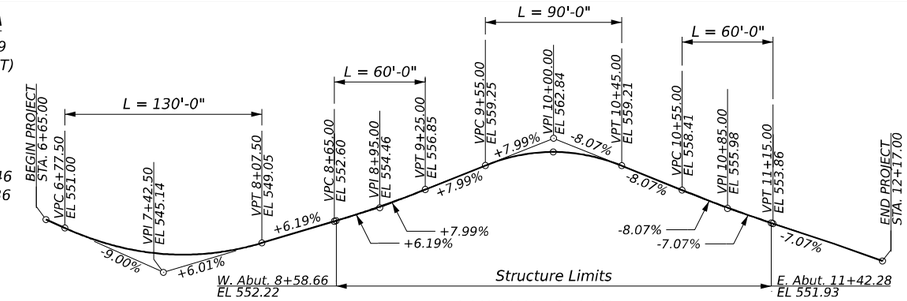
*Existing Structure: The existing structure (S.N. 099-0101), was originally built in 1933 to carry traffic over the Des Plaines River. The structure consists of four steel stringer with concrete deck fixed approach spans and a Scherzer rolling lift double leaf bascule main span. The back to the back abutment length is 289.40' and the out to out deck width is 66'.The structure was rehabbed in 1984 as F.A.P. Route 607 under Section G-R-I-1 (82). Rehabilitation included replacing the existing deck with an open steel grid deck and upgrading the electrical and mechanical system. Additional electrical modifications were made in 2022.*

*Salvage: Bascule span sidewalk stringers, sidewalk lateral bracing, sidewalk brackets and decorative railing is to be removed and reinstalled with new hardware.*

*Traffic: The structure is to be completely closed to traffic during construction. Traffic is to be maintained by detouring traffic onto an alternate route. The channel will be open to river traffic throughout construction.*

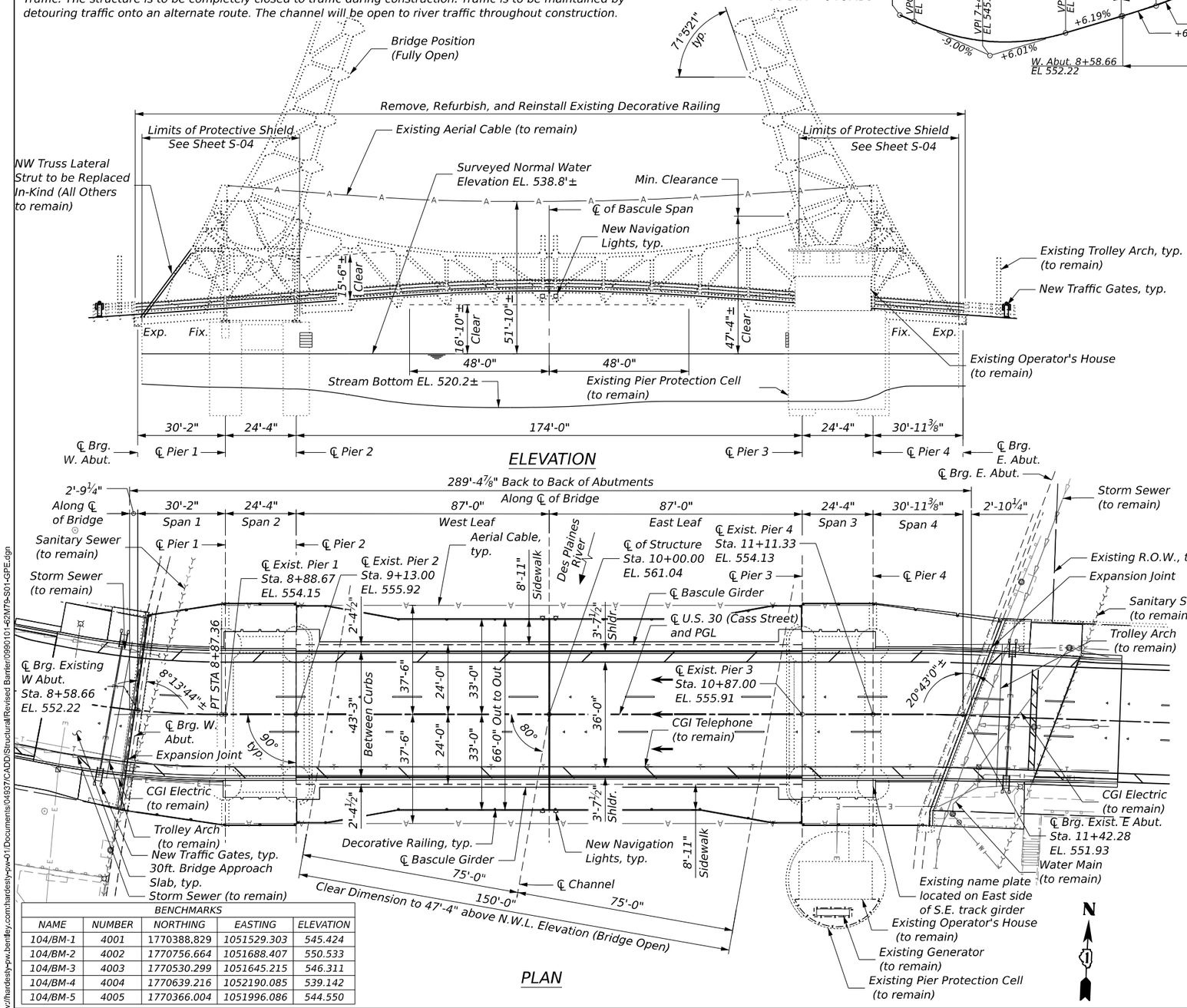
## CURVE DATA

*PI STA = 8+59.49*
*Δ = 10°40'28" (LT)*
*D = 19°05'55"*
*R = 300.00'*
*T = 28.03'*
*L = 55.89'*
*E = 1.31'*
*PC STA = 8+31.46*
*PT STA = 8+87.36*




## PROPOSED PROFILE

*(Along ℄ US 30)*




## PLAN

| BENCHMARKS | | | | |
|---|---|---|---|---|
| NAME | NUMBER | NORTHING | EASTING | ELEVATION |
| 104/BM-1 | 4001 | 1770388.829 | 1051529.303 | 545.424 |
| 104/BM-2 | 4002 | 1770756.664 | 1051688.407 | 550.533 |
| 104/BM-3 | 4003 | 1770530.299 | 1051645.215 | 546.311 |
| 104/BM-4 | 4004 | 1770639.216 | 1052190.085 | 539.142 |
| 104/BM-5 | 4005 | 1770366.004 | 1051996.086 | 544.550 |

## SCOPE OF WORK

*Remove existing timber fenders on piers and replace with new rubber fenders.*

*Remove and reconstruct 8 fiberglass jackets.*

*Repair deteriorated structural concrete and epoxy inject cracks on the piers and abutments.*

*Install new anchor rods and repair bearing stiffeners at rack support columns.*

*Remove and replace bascule span floorbeams.*

*Remove, modify and replace bascule span sidewalk cantilever supports. Salvage bascule span sidewalk stringers, lateral bracing and brackets and re-erect.*

*Remove and replace lateral bracing and gusset plates below bridge deck.*

*Remove all bascule joists (jack beams).*

*Remove and replace all bascule stringers. Raise new stringer top flanges to the elevation of the grid bottom and coped to miss floorbeam flanges.*

*Remove and replace elastomeric bearings at east abutment.*

*Remove and replace select deteriorated end diaphragms at abutment of east approach span.*

*Remove and replace center and rear breaks and supporting brackets.*

*Remove existing open grid decking and replace with new grid deck partially filled with lightweight concrete.*

*Replace approach span concrete decks and sidewalks.*

*Remove preformed joint seals and replace with preformed joint strip seals.*

*Remove existing concrete filled steel curb on the bascule span and replace with new steel curb.*

*Remove and replace all sidewalk timber planks.*

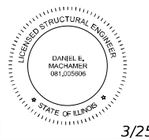
*Remove, clean, and reinstall decorative railing. Repair bent components and replace select posts.*

*Remove and replace in kind Northwest Tower diagonal support.*

*Clean and paint all superstructure steel.*

*Remove and replace both approach slabs.*

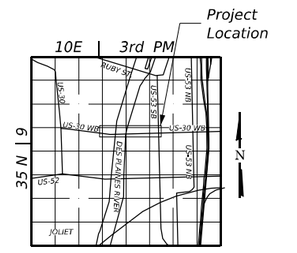
*For Mechanical and Electrical Scope of Work, See Sheet M-02.*




*Daniel E. Machamer, P.E., S.E.*
*Licensed Structural Engineer*
*State of Illinois 081-005606*
*Expires 11/30/2024*

3/25/2024
Date

**APPROVED**
For Structural Adequacy Only
Engineer of Bridges & Structures




## LOCATION SKETCH

## DESIGN STRESSES

FIELD UNITS (New Construction)
f'c = 3,500 psi
f'c = 4,000 psi (Lightweight Concrete)
f'c = 4,000 psi (Superstructure)
fy = 60,000 psi (Reinforcement)
Fy = 50,000 psi (M270 Grade 50)
Fy = 36,000 psi (M270 Grade 36)
Fy = 35,000 psi
(ASTM A27, Railing Posts)
Fb =1,500 psi (Sidewalk Treated Timber)

FIELD UNITS (1984 Rehabilitation)
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
Fy = 36,000 psi (M183)
Fy = 50,000 psi (M222)

FIELD UNITS (Original Construction)
f'c = 2,500 psi
fy = 33,000 psi (Reinforcement)
Fy = 30,000 psi

## DESIGN LOADS

*Dead load: Actual weights of the structure including structural steel, concrete, railings, electrical equipment, mechanical equipment, utilities and other permanent construction and fixtures.*
*Live load on new floor system: HS 20-44*
*Live load on sidewalk: 85 psf*
*All other loads as per AASHTO Specification.*

*No Future Wearing Surface will be allowed.*

## DESIGN SPECIFICATIONS

*AASHTO Standard Specifications for Highway Bridges, 17th Edition, 2002.*

STRUCTURAL DESIGN
*AASHTO Standard Specifications for Movable Highway Bridges, 5th Edition, 1988 with Interims through 1995.*

MECHANICAL DESIGN
*AASHTO LRFD Movable Bridge Design Specification, 2nd Edition, 2007 with Interims through 2022.*

# GENERAL PLAN AND ELEVATION
# US ROUTE 30 WB OVER
# DES PLAINES RIVER PUBLIC WATER
# F.A.P. ROUTE 607 - SECTION 2018-067-BR
# WILL COUNTY
# STATION 10+00
# STRUCTURE NO. 099-0101

MODEL: 099010-62M79-S01
FILE NAME: pw:/hardesty-pw.bentley.com:hardesty-pw-01/Documents/049377/CADD/Structural/Revised Barrier/099010-62M79-S01-GPE.dgn

| USER NAME = ____ | DESIGNED - HMG | REVISED - ____ |
|---|---|---|
| | CHECKED - DM | REVISED - ____ |
| PLOT SCALE = ____ | DRAWN - HMG | REVISED - ____ |
| PLOT DATE = ____ | CHECKED - DM | REVISED - ____ |

5/5/2024 3:48:43 PM

**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

SHEET S-01 OF S-48 SHEETS

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 607 | 2018-067-BR | WILL | 128 | 35 |
| | | CONTRACT NO. 62M79 | | |
| | | ILLINOIS | FED. AID PROJECT | |

1 REV. 6/4/24

## GENERAL NOTES:

1. Fasteners shall be ASTM F3125 Grade A325 Type 1, mechanically galvanized bolts in painted areas. Bolts 7/8 in. diameter, holes 15/16 in. diameter, unless otherwise noted.

2. Calculated weight of Structural Steel AASHTO M270, Grade 50 = 431,610 lbs.
Calculated weight of Structural Steel AASHTO M270, Grade 36 = 1,290 lbs.

3. All structural steel shall be AASHTO M270, Grade 50, unless noted otherwise.

4. No field welding is permitted except as specified in the contract documents.

5. Reinforcement bars designated (E) shall be epoxy coated.

6. Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be paid for according to Article 109.04 of the Standard Specifications.

7. As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that cannot be removed by grinding 1/4 in. deep shall be identified and reported to the Bureau of Bridges & Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.

8. Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering materials. Such variations shall not be cause for additional compensation for a change in the scope of work. However, the Contractor will be paid for the quantity actually furnished at the unit price bid for work.

9. Members or pieces not specifically marked for removal or replacement are to remain in place.

10. All removal work shall be performed with care so that materials which are to remain in place or to be reused will not be damaged. If the Contractor damages any materials that are to remain in place, the damaged materials shall be repaired or replaced in a manner satisfactory to the Engineer at the expense of the Contractor. Special attention shall be made to protecting new and existing machinery throughout construction.

11. Where called for on the plans, existing structural steel, which is to remain in place shall be modified by drilling, sawing or a combination of both. Flame cutting of members, which are to remain in place, will not be allowed.

12. Existing rivets to be removed shall have the heads removed by mechanical methods. Flame cutting for the purpose of removing existing rivets will not be allowed.

13. All new holes shall be drilled, not burned and reamed. Field reaming of bolt holes in plates shall only be allowed with the approval of the Engineer. The cost of field reaming shall be included in the cost of Furnishing and Erecting Structural Steel.

14. Where existing structural steel to remain has been cut or new holes have been drilled, the edges shall be dressed to a smooth, uniform surface with no notches or gouges.

15. The cost of field welding and field drilling of new or existing structural members, as noted in the plans shall be included in the cost of Furnishing and Erecting Structural Steel or Structural Steel Repair as appropriate.

16. It is the Contractor's responsibility to take measurement in the field of the existing structure wherever new steel is to replace or to connect into existing material prior to ordering or fabricating any new steel. The Contractor shall be responsible for the proper fitting and assembly of all parts of this work. The Contractor's shop drawings shall indicate which dimensions were obtained by actual field measurements.

17. The main load carrying member components subject to tensile stress shall conform to Charpy-V-Notch Impact Energy Requirement, Zone 2. These components include all tension flanges and webs for floorbeams and stringers, center and rear break plates, and all members denoted "CVN" in the plans.

18. The Contractor shall submit a detailed plan of proposed construction procedures and sequences for the proposed work on the bascule span to the Engineer for review and approval prior to commencing this work. Approval shall not relieve the Contractor of any responsibility for the stability of the bridge during the removal and replacement operations. Temporary support structures required to ensure stability of the bridge during construction shall be paid as Temporary Support System and Temporary Shoring and Cribbing.

1

19. Work on the structure shall be done in such a manner that the closure of the bridge to river traffic (periods where the bridge is restricted to the down position) is prohibited. River traffic is to be maintained at all times. Work that requires the bridge to be immobilized shall be done with the bridge restricted to the up position. The Contractor shall obtain coast guard approval for any work that may interfere with navigational operations of the navigable waterway. See Sheets 22 and 23 for navigational clearance requirements. A work plan shall be prepared by the Contractor, reviewed and approved by the Engineer and submitted by the Contractor to Vanessa Ruiz, ESU, Bureau of Programming. The work plan should be addressed to:

    Bridge Administrator
    US Coast Guard
    Eighth Coast Guard District
    1222 Spruce Street
    St. Louis, MO 63103-2832

20. The Contractor shall take all necessary measures to ensure that no debris falls into the Des Plaines River or endangers or interferes with river traffic beneath the bridge. If any debris falls into the waterway, the Contractor shall remove it from the river to the engineer's satisfaction and at no additional cost. The cost of this work shall be considered included in the contract.

21. The Contractor shall obtain a construction permit from the Illinois Department of Natural Resources (IDNR), Office of Water Resources for any temporary construction activity placed in the water except cofferdams. This shall include the placement of material for run-arounds, causeways, etc. Any permit application by the Contractor shall refer to the IDNR 3704 Floodway Construction permit number allowing permanent construction as shown in the contract plans.

22. When the leaves of the bascule span are inoperable in fully open position, the leaves must be secured. The Contractor shall submit the method and details, for securing the leaves in fully open position, to the Engineer for approval. the cost of this work shall be considered incidental to the Contract.

23. The Contractor shall obtain all necessary permits from the State of Illinois prior to commencing construction. The costs shall be included in the cost of the contract.

## GENERAL NOTES FOR PAINT:

1. The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except, where otherwise noted. The final finish coat of the bascule span floorbeams shall be Interstate Green, Munsell NO. 7.5G 4/8, from the interior face of the truss to the connection with the sidewalk brackets. The color of the final finish coat for all other bascule span interior steel surfaces shall be Gray, Munsell No 5B 7/1.

2. Cleaning and painting of the existing structural steel shall be as specified in the Special Provision for "Cleaning and Painting Existing Steel Structures". All existing structural steel shall be cleaned per Near White Blast Cleaning - SSPC - SP10. The color of the final finish coat for the approach span steel, sidewalk brackets, decorative railing and truss, shall be Interstate Green, Munsell No. 7.5G 4/8.

3. Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection according to Special Provision "Cleaning and Painting Contact Surface areas of Existing Steel Structures". All contact surfaces on new and existing steel, including connection bolts, nut or washer contact areas are to be free of scale, burrs, dirt, other foreign materials, oil previously applied paint, lacquer or other coatings that would prevent solid seating of connected parts. Cost included with Structural Steel Repair.

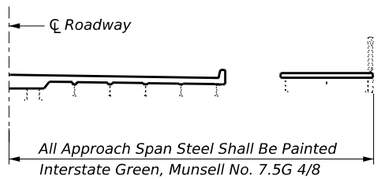
4. The existing structural steel coating contains lead. The Contractor should take appropriate precautions to deal with the presence of lead on this project.

5. The Contractor shall submit calculations and details demonstrating the structural integrity of the bridge is maintained under the additional imposed loads of the containment system. Acceptance by the Engineer shall not relieve the Contractor of their ultimate responsibility for controlling paint debris from escaping the work zone. See Special Provisions.

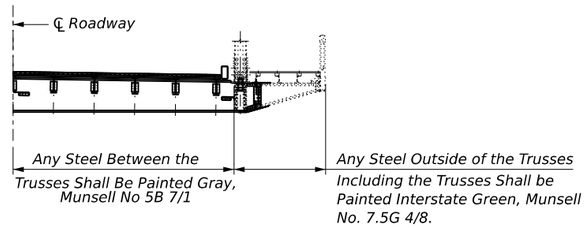
6. A minimum of four air monitors will be required to monitor abrasive blasting operations at this site. See Special Provisions for "Containment and Disposal of Lead Paint Cleaning Residues."

7. The containment shall be dropped in the event of sustained winds of 40 MPH or greater and all materials and equipment secured.

8. Contractor is to protect all mechanical and electrical assemblies from all cleaning, blasting, painting or other foreign material. Protection procedure and sketches shall be submitted to the Engineer for review and approval. Coordinate all painting work with all related mechanical and electrical work.




PAINT DETAILS
(At Approach Spans, Symmetrical about ℄ Roadway)




PAINT DETAILS
(At Bascule Span, Symmetrical about ℄ Roadway)

## REFERENCE DRAWINGS KEY

| Contract No. - Sheet No. | Reference |
|---|---|
| 1345 - XX | Original 1931 Design Plans |
| 630 - XX | Original 1931 Shop Drawings |
| 38306 - XX | 1984 Bridge Rehabilitation Plans (Section G-R-I-1) |

1 REVISED SHEET 6/5/2024

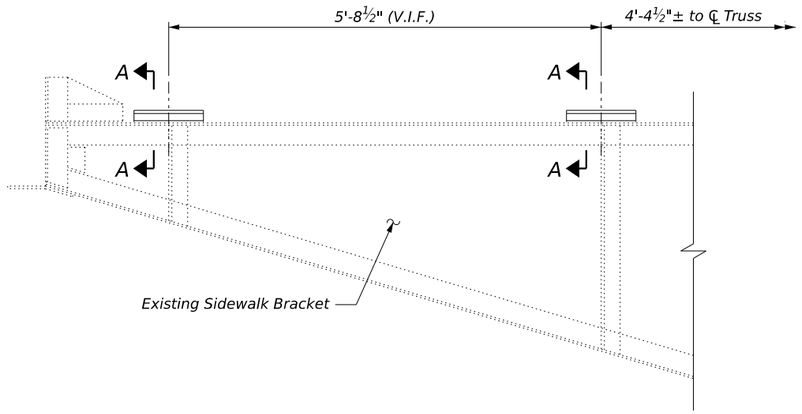
MODEL: 099010-62M79-S02
FILE NAME: pw:\hardesty-pw.bentley.com:hardesty-pw-01\Documents\04937\CADD\Structural\Revised Barrier\099010-62M79-S02-NOT.dgn

5/1/2024 11:27:18 AM

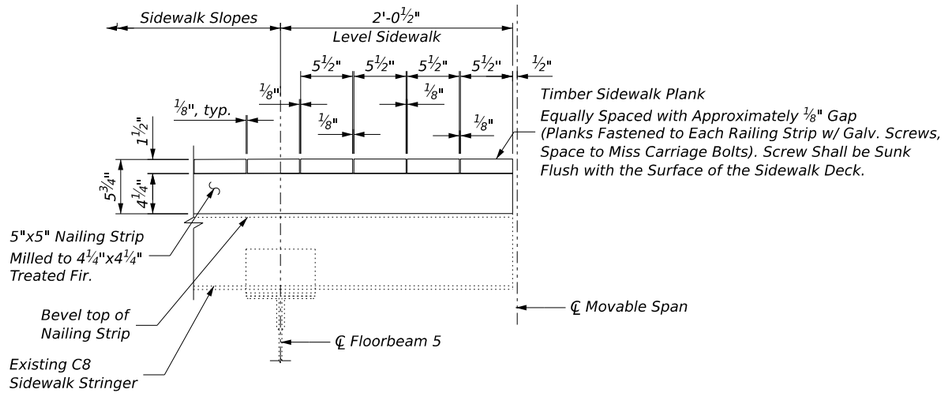
| | | | |
|---|---|---|---|
| USER NAME = | DESIGNED - CEB | REVISED - 1 05/24/24 HMG | STATE OF ILLINOIS<br>DEPARTMENT OF TRANSPORTATION |
| | CHECKED - HMG | REVISED - | |
| PLOT SCALE = | DRAWN - CEB | REVISED - | |
| PLOT DATE = | CHECKED - HMG | REVISED - | |

GENERAL NOTES
STRUCTURE NO. 099-0101
SHEET S-02 OF S-48 SHEETS

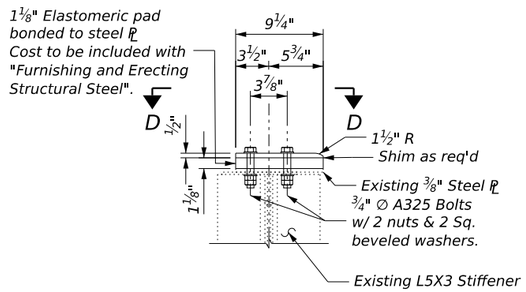
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 607 | 2018-067-BR | WILL | 128 | 36 |
| | | CONTRACT NO. 62M79 | | |
| | ILLINOIS | FED. AID PROJECT | | |



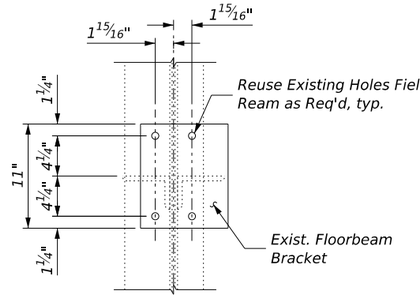

## BEARING PADS @ FLOORBEAM A BRACKET



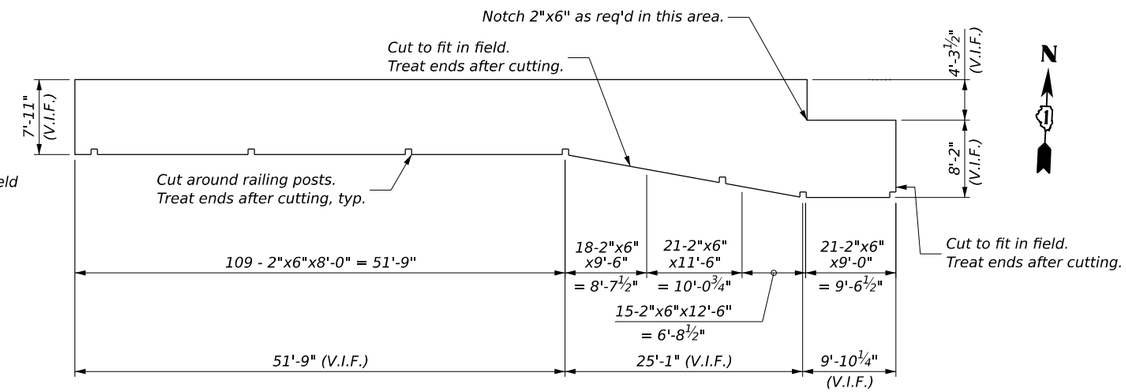

## SECTION C-C




## SECTION A-A

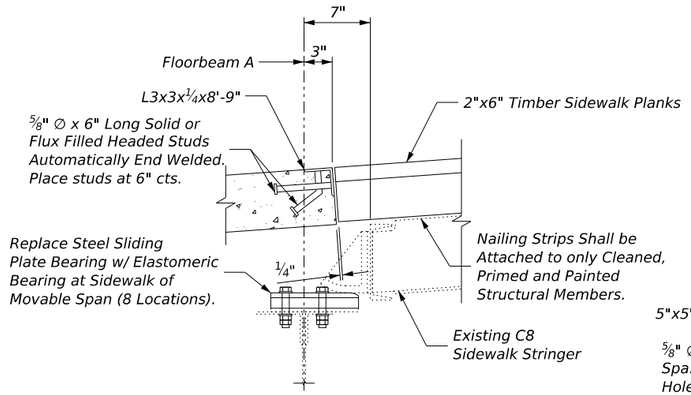



## SECTION D-D



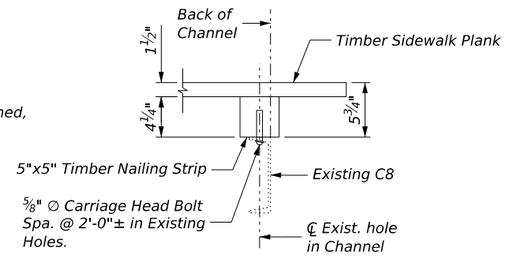

## TIMBER SIDEWALK PLAN

(South East Leaf Shown - all others similar)




## SECTION B-B

## SECTION THRU SIDEWALK BEARING




## DETAIL 1

*Notes:*

*All lengths of 2"x6" given are suggested nominal lengths. Contractor may fabricate sidewalk with planks cut from any nominal length the Contractor chooses, so long as each plank used in sidewalk runs the full width of sidewalk.*

1 *Secure nailing strip to stringers with ⅜" ∅ carriage head bolts at 2'-0"± spacing using existing hole in channels. Beveled washers are required on channels. Bolts, screws, washers and their installation will be paid for under the item, "Hardware". Treated timber will be paid for under the item, "Treated Timber".*

*The material for the timber sidewalks shall meet the Standard Specifications and shall have Fb=1,500 psi (min.).*

*Existing dimensions shown are based on the original 1931 plans, the 1931 shop drawings, and the 1984 rehabilitation plans. The Contractor shall field verify all dimensions before beginning fabrication and installation to confirm proper fit up with the new components.*

*For location of Section B-B and Section C-C, see Sheet S-30. For location of Detail 1, see Sheet S-31.*

## *REFERENCE DRAWINGS:

| Drawing | Sheet No. |
|---|---|
| Details of Struts & Brackets | 630-7 |

*For Reference Drawings Key, see Sheet S-02.

## LEGEND

- New Fastener in Existing or Field Drilled Hole
- New Fastener in New Hole
- Existing Fastener to Remain
- Existing Member to Remain
- New Member

## BILL OF MATERIAL

| Item | Unit | Total |
|---|---|---|
| Treated Timber | FBM | 9,922 |
| Hardware | Pound | 557 |

MODEL: 099010I-62M79-S32
FILE NAME: pw:\\hardesty-pw.bentley.com:hardesty-pw-01\Documents\04937\CADD\Structural\0990101-62M79-S32-DEK3.dgn

6/3/2024 12:47:50 PM

H&H

| | | | |
|---|---|---|---|
| USER NAME = | DESIGNED - CEB | REVISED - ⚠ 05/24/24 HMG | |
| | CHECKED - HMG | REVISED - | |
| PLOT SCALE = | DRAWN - CEB | REVISED - | |
| PLOT DATE = | CHECKED - HMG | REVISED - | |

**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

**BASCULE SPAN - SIDEWALK DETAILS**
**STRUCTURE NO. 099-0101**

SHEET S-32 OF S-48 SHEETS

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 607 | 2018-067-BR | WILL | 128 | 68 |
| | | CONTRACT NO. 62M79 | | |
| | ILLINOIS | FED. AID PROJECT | | |

⚠1 REV. 6/4/24

## General Notes

1. Refer to the existing shop drawings and as-built drawings, which are furnished upon request from Illinois Department of Transportation.

2. Shims must be 1/2" nominal thickness, unless otherwise specified, with adjustment variations as described in the Special Provisions.

3. Machinery dimensions shown on plans are minimum dimensions after machining.

4. Fill any open holes resulting from removal of existing machinery with new ASTM Grade A325 bolts. This is considered incidental to the mechanical work.

5. Machinery dimensions shown on drawings are dimensions after machining. Unless otherwise indicated or required for the proper assembly of parts, dimensional tolerances for machinery in general are as follows:

| | |
|---|---|
| Straightness: (Per linear foot) | ⏤ 0.005 |
| Flatness: | ⏥ 0.005 |
| Parallelism: | // 0.005 – |
| Perpendicularity: (Per linear foot) | ⊥ 0.005 – |
| Angularity: (Degrees per linear foot) | ∠ 0.020 – |
| Position: (Features within a component) | ⌖ 0.005 – |
| Concentricity: | ◎ 0.005 – |
| Circular Runout: | ↗ 0.005 – |

6. Model numbers and details of motors, couplings, and other standard components are based on manufacturer's catalog data current at the time the plans were prepared. Equivalent models from other manufacturer's may be substituted at the option of the Contractor and with the approval of the Engineer. All related structural, mechanical, architectural, and electrical details are to be revised by the Contractor to suit the certified dimensions of the components actually furnished at no additional cost to the department. Mention of a manufacturer's name or model number does not represent a preference, but is used to set a standard.

7. Machine all new mating surfaces of machinery parts, supports and external edges. Blend all transitions of surfaces of machinery parts.

8. Detail fasteners that require tapped holes with a minimum thread engagement of 1.5 times the nominal thread diameter unless otherwise noted. Detail countersunk fasteners with a minimum of a 1/16" recess.

9. Detail and machine the edges and corners of all machinery parts with suitable fillets and chamfers. In general, the minimum edge or corner, radius or chamfer must be 1/8" if the part thickness is less than 1" and 1/4" if equal to or greater, unless otherwise noted. In the case of mating parts, allowance must be made for the proper fit and assembly. Show such details in the shop drawings.

10. Provide machinery covers as indicated by dashed lines and as per the general machinery specification. Provide all mounting hardware and fasteners as required. Configure the mounting hardware using plate (straight or bent), angles and channels with a minimum thickness of 1/2" diameter (2 per support connection). The support is to be rigid and resist movement during span operation. Maximum spacing of supports shall be 2 feet. Sumbit all machinery cover details on shop drawings for approval.

11. Verify all field sensitive dimensions for proper coordination with supports.

12. Weldments to be fabricated per the requirements of the structural steel specifications, with supplemental requirements as per the mechanical specifications and drawings.

13. All dimensions for machine finished surfaces shall be held to plus/minus 0.010", except as otherwise required by the plans or specifications.

14. Machine all surfaces of forgings to the dimensions shown on plans.

15. All connections for work shown on SheetS M-01 thru M-13 are primary. 1

## General Notes (continued)

16. The machinery fits and finishes are as follows, unless otherwise noted:

| Surface Description | Fit (ANSI) | Finish (Microinches) |
|---|---|---|
| Machinery Base on Steel | --- | 125 |
| Machinery Base on Masonry | --- | 500 |
| Machinery Supports | --- | 125 |
| Machinery Parts in Fixed Contact | --- | 125 |
| Shaft Journals | RC6 | 8 |
| Journal Bushing | RC6 | 16 |
| Split Bushing in Base | LC1 | 125 |
| Solid Bushing in Base (To 1/4" Wall) | FN1 | 63 |
| Solid Bushing in Base (Over 1/4" Wall) | FN2 | 63 |
| Hubs on Shafts (To 2" Bore) | FN2 | 32 |
| Hubs on Shafts (Over 2" Bore) | FN2 | 63 |
| Turned Bolts in Finished Holes | LC6 | 63 |
| Keys and Keyways | B17.1, CL2 | 63 |

Note: The above fits and finished for cylindrical parts must also apply to the major dimensions of non-cylindrical parts.

17. Unless otherwise indicated or required for the proper assembly of parts, dimensional tolerances for machinery in general must be as follows:

| Surface | Tolerance |
|---|---|
| Machined (To 1") | +/- 0.015" |
| Machined (Over 1") | +/- 0.030" |
| Rolled | +/- 0.030" |
| Non-Machined Cast (to 1") | +/- 0.030" |
| Non-Machine Cast (Over 1") | +/- 0.060" |
| Component Locations | +/- 0.030" |
| Bolt Hole Locations | +/- 0.030" |
| Angular | +/- 0.5 Deg |

18. All transitions of surfaces of machinery parts are to be blended in smooth. Machine all mating surfaces of machinery parts and supports.

19. Contractor to field verify dimensions before shop drawing submission.

## Machinery Bolts

20. Furnish and install positive locks for all nuts which are to be torqued to less than 70% proof. Double nuts or jam nuts shall be used except for tapped holes which shall use SS safety wire for hex head bolts and permanent thread locking fluid for countersunk bolts, unless otherwise noted.

21. All high strength (H.S.) bolts shall be installed with a hardened plain washer meeting ASTM F436 where shown on the drawings but at a minimum under the turned element.

22. See specifications for detailed definition of bolt types. Unless otherwise noted, the four main types of bolts used for machinery bolts in these drawings are H.S. bolts, turned bolts, finished body bolts (FBB), and countersunk (CSK) bolts:

| | |
|---|---|
| -H.S. bolts: | ASTM F3125 Grade 325 Bolt and 1/16" hole clearance for all bolts 1/2" or larger, ASTM A449 or SAE J429 Grade 5 Cap Screws and 1/32" hole clearance for all bolts under 1/2". Pretension to slip critical requirements. |
| -Turned bolts: | ASTM A449 Bolt U.O.N. with fit and finish in accordance with the fits and finishes table on this sheet. Torque to snug tight. |
| -FBB: | ASTM A449 Bolt or SAE J429 Grade 5 Cap Screws U.O.N., no more than 0.01" clearance U.O.N. Pretension to clip critical for permanent connections and to 70% proof for reusable connections unless otherwise required by the manufacturer or these drawings. |
| -CSK Bolts: | Socket Flat Countersunk Head Cap Screws conforming to ASTM D879 (Stainless Steel) for diameters less than 5/8" and ASTM F835 (Alloy Steel) for diameters greater than or equal to 5/8" U.O.N. |

## Basis of Design

1. The design of the machinery systems conforms to the applicable requirements of the 2007 AASHTO LRFD Movable Highway Bridge Design Specifications, 2nd Edition, with interim revisions through 2018, unless noted otherwise.

2. Machinery loading conforms to AASHTO 1988 Condition B loading with two motors and Condition A with one motor.
   Loading Condition A: 2.5 psf Wind
   Loading Condition B: 2.5psf Wind + 2.5 psf Ice

3. Max load at rack not to exceed 151,000 lb. at 200% Full Load Motor Torque.

4. The mechanical systems are design for the span to be normally left in the lowered (seated) position.

LICENSED PROFESSIONAL ENGINEER
PAUL SKELTON
062.051949
STATE OF ILLINOIS

3/25/2024
Date

Paul Skelton, P.E.
Licensed Professional Engineer
State of Illinois 062-051949
Expires 11/30/2025

## BILL OF MATERIAL

1

| Item | Unit | Total |
|---|---|---|
| Live Load Bearings | L. Sum | 1 |
| Junction Box, Stainless Steel, Attached to Structure, 6"x6"x4" | Each | 4 |
| Junction Box, Stainless Steel, Embedded in Structure, 8"x8"x6" | Each | 4 |
| Electrical Equipment Removal and Salvage | Each | 18 |
| Miscellaneous Electrical Work | L. Sum | 1 |

Note: This Bill of Material covers sheets M01 through M02 and E01 through E21.
See individual sheets for additional pay items pertaining to work shown on each sheet.

MODEL: $MODELNAMES
FILE NAME: $FILELS

H&H

| | | | | | |
|---|---|---|---|---|---|
| USER NAME = _____ | | DESIGNED - CMS | | REVISED - 1 05/24/24 CMS | |
| | | CHECKED - KMC | | REVISED - | |
| PLOT SCALE = NOT TO SCALE | | DRAWN - CMS | | REVISED - | |
| PLOT DATE = JAN 2024 | | CHECKED - KMC | | REVISED - | |

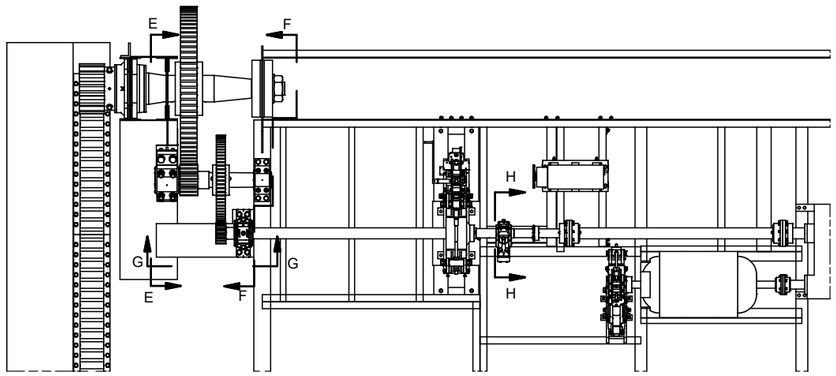
$DATES $TIMES

**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

**GENERAL MACHINERY NOTES**
**STRUCTURE NO. 099-0101**
SHEET M-01 OF M-13 SHEETS

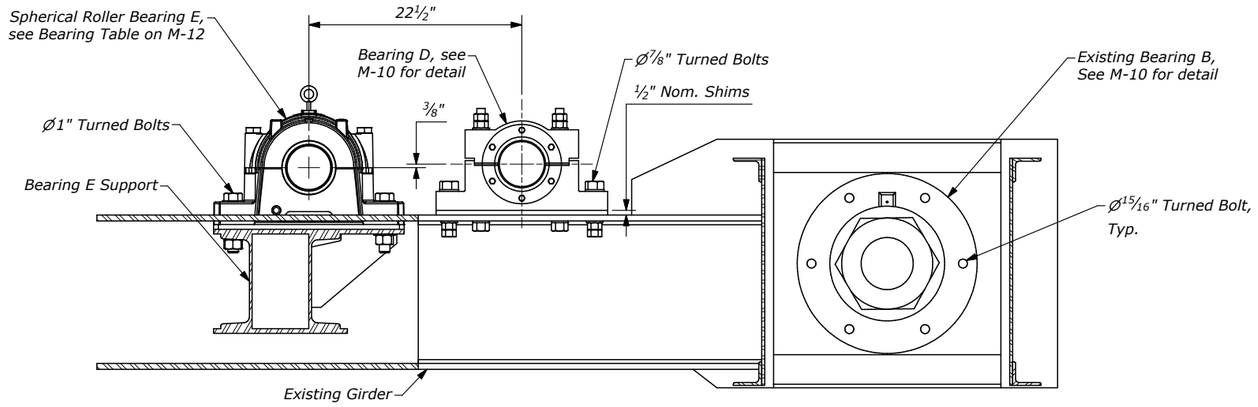
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 607 | 2018-067-BR | WILL | 128 | 83 |
| | | CONTRACT NO. 62M79 | | |
| | ILLINOIS | FED. AID PROJECT | | |

1 REV. 6/4/24



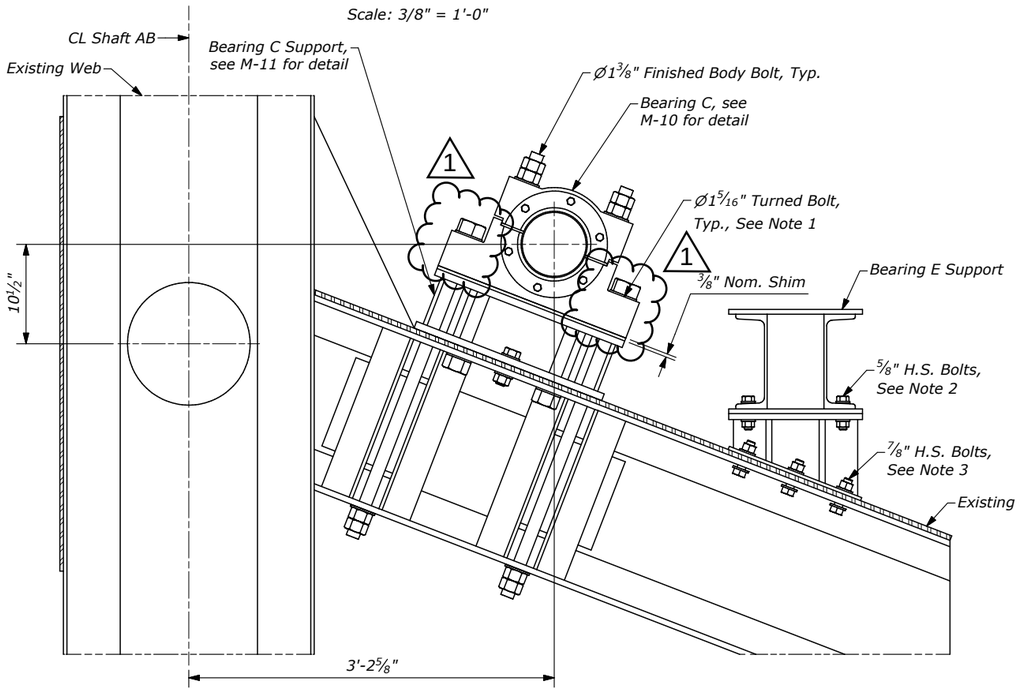

## Key Plan

Scale: 3/8" = 1'-0"



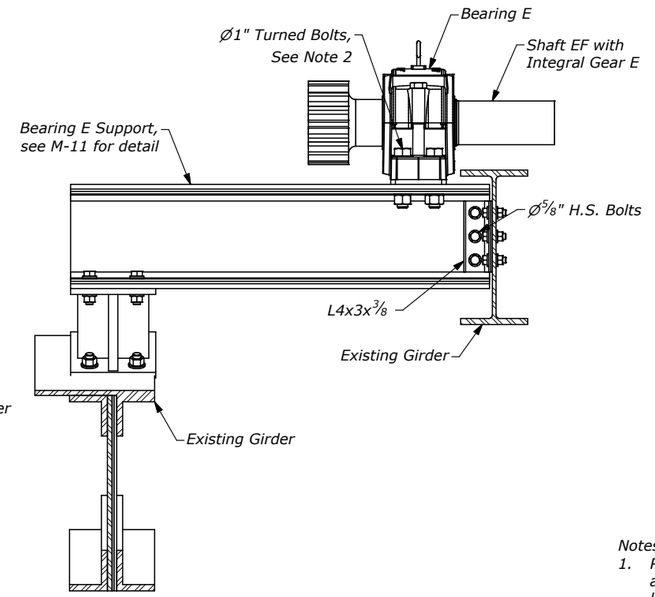

## Section F-F: Bearings B, D & F

Scale: 1 1/2" = 1'-0"



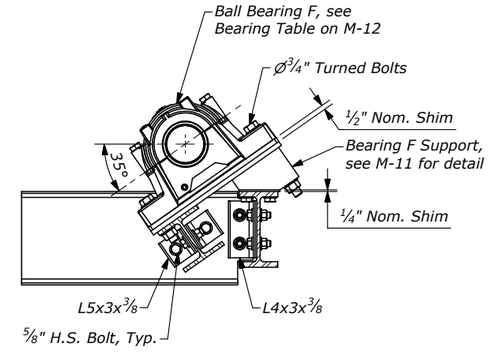

## Section E-E: Bearing C Assembly

Scale: 1 1/2" = 1'-0"




## Section G-G: Bearing E Assembly

Scale: 1 1/2" = 1'-0"




## Section H-H: Bearing F Assembly

Scale: 1 1/2" = 1'-0"

*Notes:*

1. *Reuse existing bolt holes to fasten Bearing C to structure. Contractor to verify size and location of existing bolt holes and ream holes to a maximum 1/16" diameter larger. Furnish turned bolts with a shank size that produces an ANSI LC6 fit with the reamed holes. Thread and head sizes are to match existing bolts.*
2. *Tapered washers to be utilized at the underside of channels where bolt cannot be flush mounted.*
3. *Remove existing rivets where Bearing E support connects to existing girder. Fasten new bolts in existing rivet holes. Contractor to verify size and location of existing rivets.*

*Bearing A and B Alignment Proceduere:*

1. *Contractor is to establish the bridge center of roll by fabricating a jig that can aid in the establishment of bridge center of roll based off the existing curved segments geometry.*
2. *Prior to installation of Bearing B, provide center of roll measurements along with Bearing B hole centers in the structural supports to the EOR for review.*
3. *After EOR review, install Bearing B.*
4. *Bearing A installation can follow. Bearing A and B are to be aligned to produce colinearity of Shafts AB within 1⁄64".*

H&H

| | | | |
|---|---|---|---|
| USER NAME = | DESIGNED - CMS | REVISED - ⚠ 05/24/24 CMS | |
| | CHECKED - KMC | REVISED - | |
| PLOT SCALE = AS SHOWN | DRAWN - CMS | REVISED - | |
| PLOT DATE = JAN 2024 | CHECKED - KMC | REVISED - | |

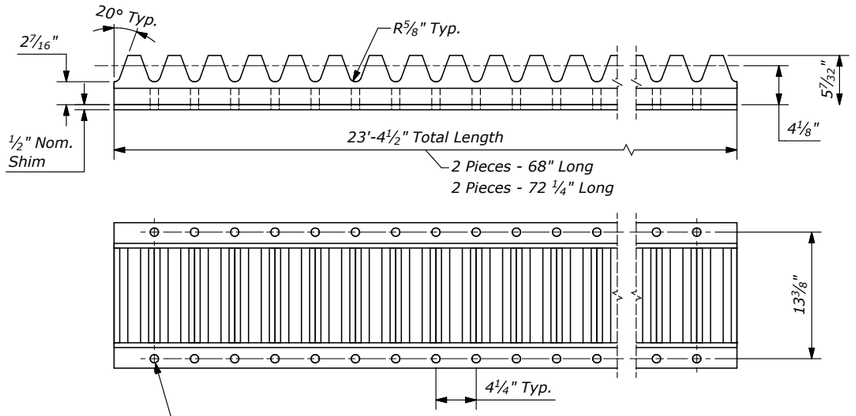
**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

**BEARING ASSEMBLY SECTIONS**
**STRUCTURE NO. 099-0101**

SHEET M-06 OF M-13 SHEETS

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 607 | 2018-067-BR | WILL | 128 | 88 |
| | | CONTRACT NO. 62M79 | | |
| | ILLINOIS | FED. AID PROJECT | | |

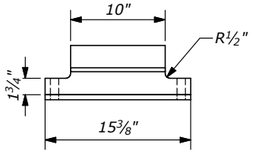
⚠1 REV. 6/4/24

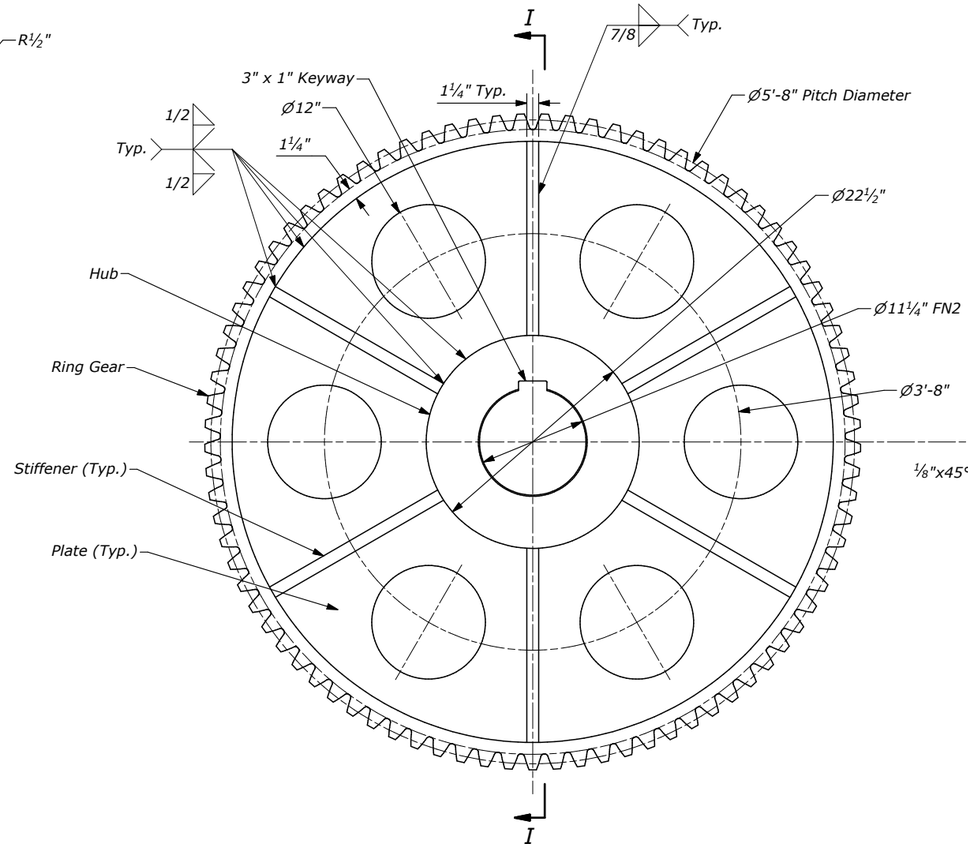



## Rack

Scale: 1 1/2" =1'-0"

Material: ASTM A 291 Gr. 1 Cl. A, S3
Qty: 4

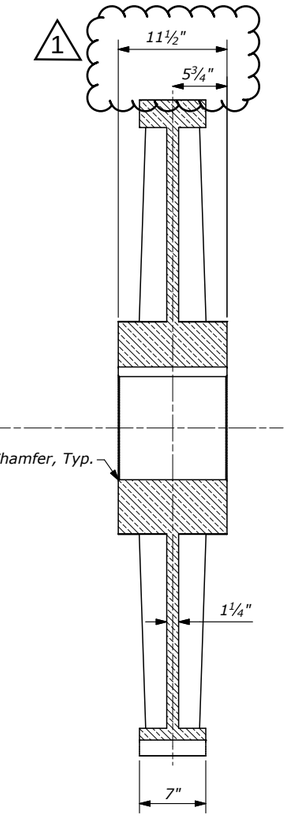



## Gear B

Scale: 1 1/2" = 1'-0"

Materials:
Hub: ASTM A 668 Cl. G, S4
Plates & Stiffeners: ASTM A 709 Gr. 50
Ring Gear: ASTM A 290 Gr. 1 Cl. A, S3
Qty: 4




## Section I-I

Scale: 1 1/2" = 1'-0"




## Gear D

Scale: 3" = 1'-0"

Material: ASTM A 291 Gr. 1 Cl. A, S3
Qty: 4




## Section J-J

Scale: 3" = 1'-0"

## Table of Gears

| Mark | Qty. | No. of Teeth | Face Width | Pitch | Pitch Dia. | Addendum Dia. | Dedendum Dia. | Teeth | Key Size |
|---|---|---|---|---|---|---|---|---|---|
| Rack | 4 | 66 | 10" | 4 1/4" C.P. | - | - | - | 20 deg. involute stub tooth profile | N/A |
| A | 4 | 14 | 10 1/2" | 4 1/4" C.P. | 18.94" | 21.10" | 16.23" | 20 deg. involute stub tooth profile | N/A |
| B | 4 | 85 | 7" | 1 1/4" D.P. | 68" | 69.28" | 66.40" | 20 deg. involute stub tooth profile | 3" x 2" |
| C | 4 | 15 | 7 1/2" | 1 1/4" D.P. | 12" | 13.28" | 10.40" | 20 deg. involute stub tooth profile | N/A |
| D | 4 | 74 | 3 3/4" | 2" D.P. | 37" | 37.80" | 36.00" | 20 deg. involute stub tooth profile | 1 1/2" x 1 1/2" |
| E | 4 | 16 | 4 1/4" | 2" D.P. | 8" | 8.80" | 7.00" | 20 deg. involute stub tooth profile | N/A |

H&H

| | | | |
|---|---|---|---|
| USER NAME = ---------- | DESIGNED - CMS | REVISED - ⚠1 05/24/24 CMS | |
| | CHECKED - KMC | REVISED - | |
| PLOT SCALE = AS SHOWN | DRAWN - CMS | REVISED - | |
| PLOT DATE = JAN 2024 | CHECKED - KMC | REVISED - | |

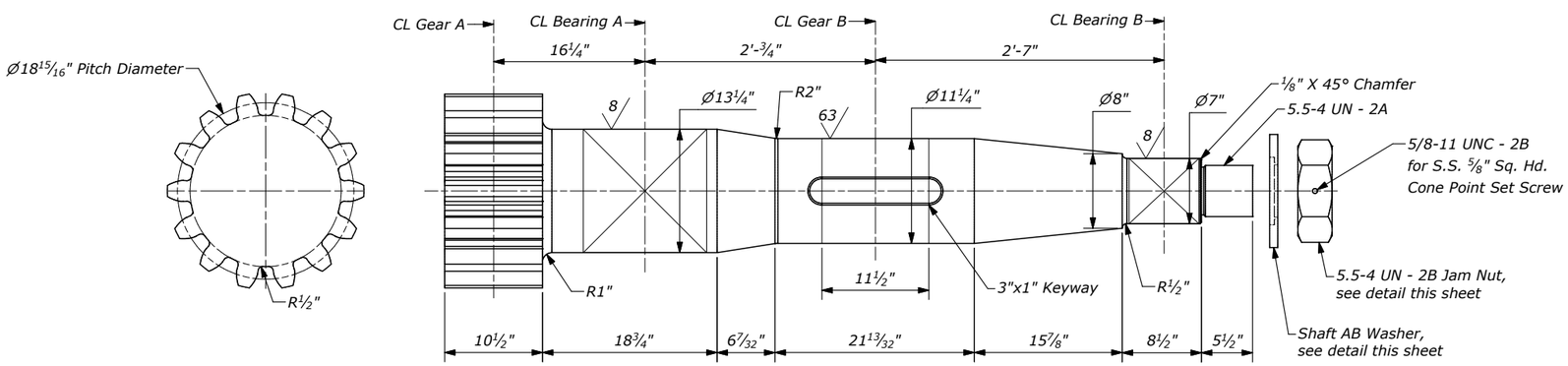
**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

**OPEN GEARING DETAILS**
**STRUCTURE NO. 099-0101**

SHEET M-07 OF M-13 SHEETS

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 607 | 2018-067-BR | WILL | 128 | 89 |
| | | CONTRACT NO. 62M79 | | |
| | ILLINOIS | FED. AID PROJECT | | |

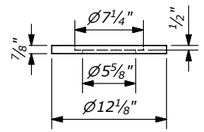
⚠1 REV. 6/4/24




## Shaft AB with Integral Gear A

Scale: 1 1/2" =1'-0"

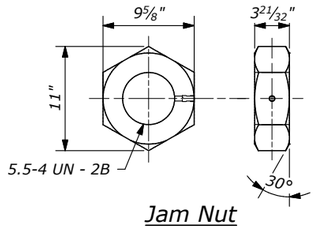
Material: ASTM A 291 Gr. 4 Cl. E, S3
Qty: 4




## Shaft AB Washer

Scale: 1 1/2" =1'-0"

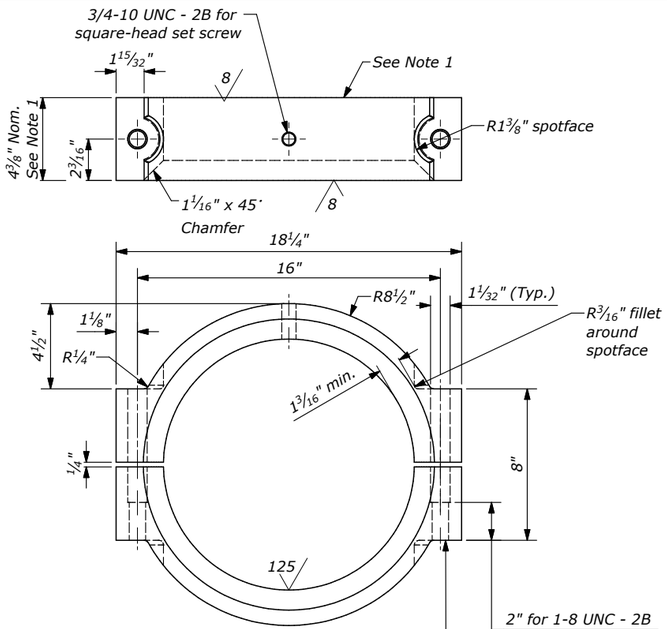
Material: ASTM B22 C91100
Finish: 16 Micro-inch F.A.O.
Qty: 4




## Jam Nut

Scale: 1 1/2" =1'-0"

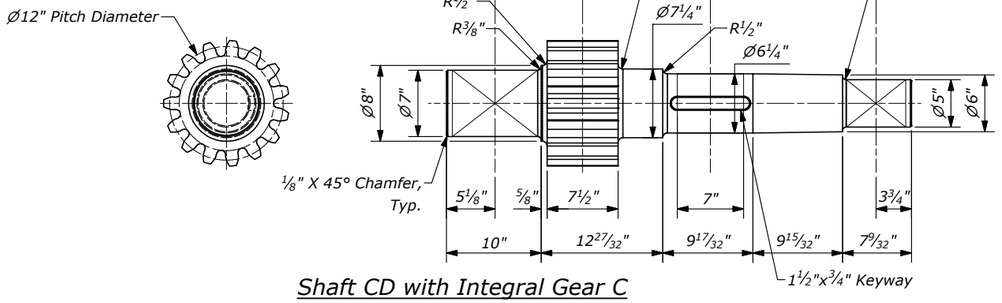
Material: ASTM A 709 Gr. 50
Qty: 4




## Shaft AB Collar

Scale: 3" = 1'-0"

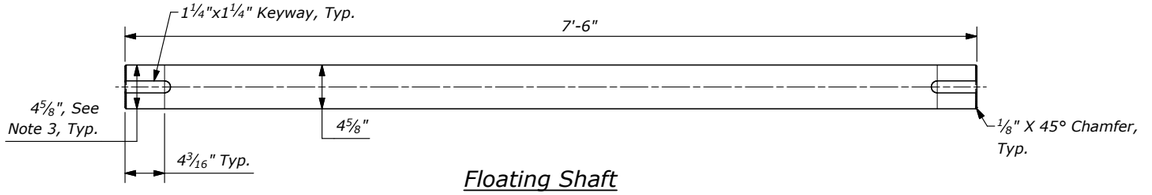
Material: ASTM A 668 Cl. D
Qty: 4




## Shaft CD with Integral Gear C

Scale: 1 1/2" = 1'-0"

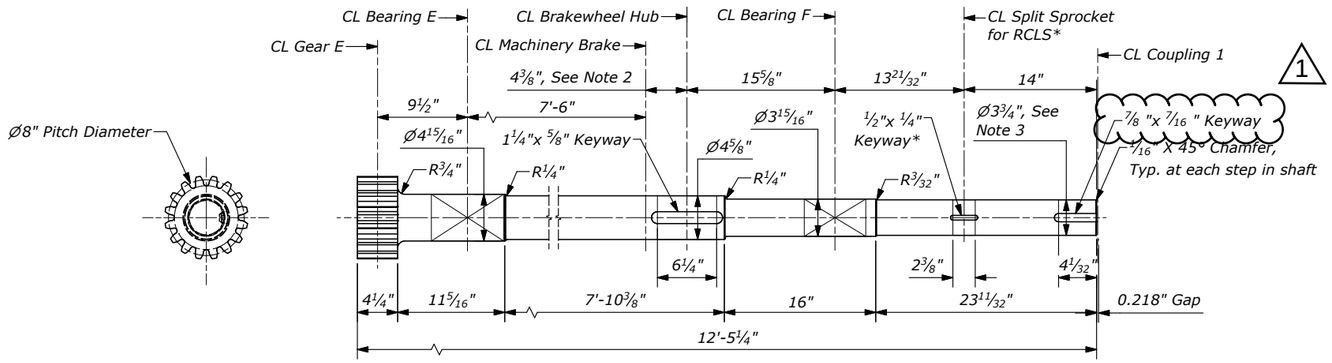
Material: ASTM A 291 Gr. 4 Cl. E, S3
Qty: 4




## Floating Shaft

Scale: 1 1/2" = 1'-0"

Material: ASTM A 668 Cl. D
Qty: 4




## Shaft EF with Integral Gear E

Scale: 1 1/2" = 1'-0"

Material: ASTM A 291 Gr. 4 Cl. E, S3
Qty: 4
*RCLS only required on one shaft per leaf (2 total)
Note: Roller/ball bearing fits and finishes to be per mfg. requirements

*Notes:*

1. *Oversize Shaft AB Collar to allow for machining for a tight fit between the Inboard face of Gear A and the Outboard Face of Bearing A. Each finish-machined Shaft AB Collar to be custom for all Shaft AB locations on the bridge. Only machine the side that is indicated to match the required thickness.*
2. *Brake wheel geometry, including hub length and offset, to be specified by manufacturer.*
3. *Coupling interference fit to be specified by manufacturer.*
4. *Shaft lengths and locations of gears, couplings, and bearings to be field verified by Contractor.*
5. *Contractor to furnish wrench for Jam Nut.*

| | | | |
|---|---|---|---|
| USER NAME = ---------- | DESIGNED - CMS | REVISED - ⚠1 05/24/24 CMS | |
| | CHECKED - KMC | REVISED - | |
| PLOT SCALE = AS SHOWN | DRAWN - CMS | REVISED - | |
| PLOT DATE = JAN 2024 | CHECKED - KMC | REVISED - | |

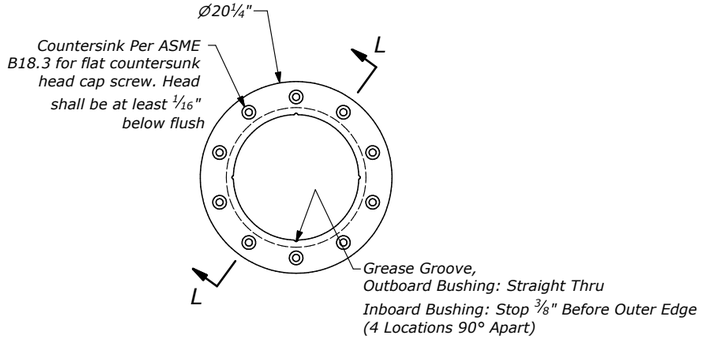
**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

**SHAFTIING DETAILS**
**STRUCTURE NO. 099-0101**

SHEET M-08 OF M-13 SHEETS

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 607 | 2018-067-BR | WILL | 128 | 90 |
| | | CONTRACT NO. 62M79 | | |
| | ILLINOIS | FED. AID PROJECT | | |

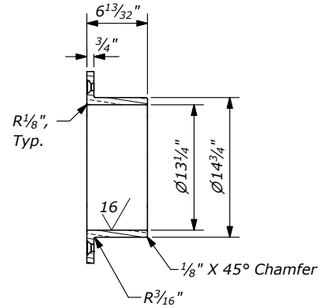
⚠1 REV. 6/4/24




## Bearing A Bushing

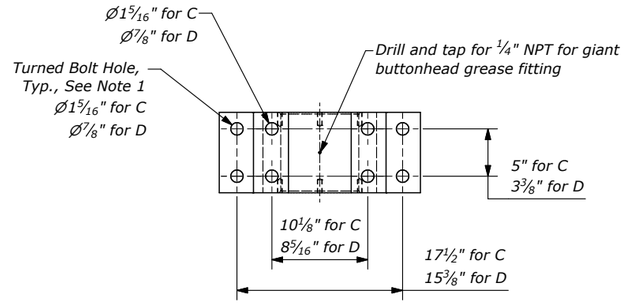
1 1/2" = 1'-0"

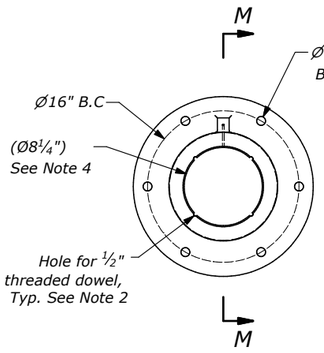
Material: ASTM B22 C91100
Qty: 8




## Section L-L

1 1/2" = 1'-0"

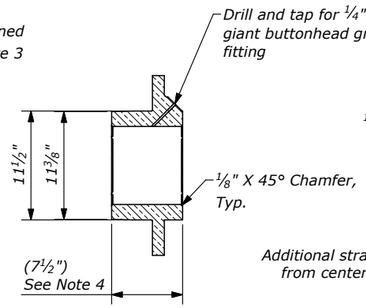



## Existing Bearing B Housing

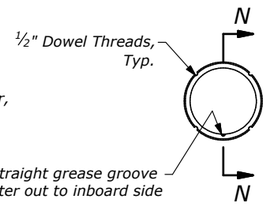
Scale: 1 1/2" = 1'-0"

Qty: 4




## Section M-M

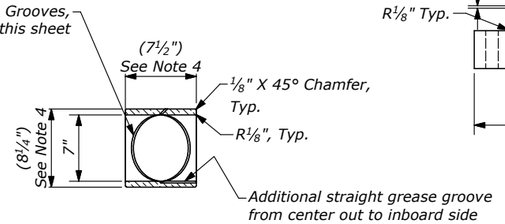
1 1/2" = 1'-0"




## Bushing B

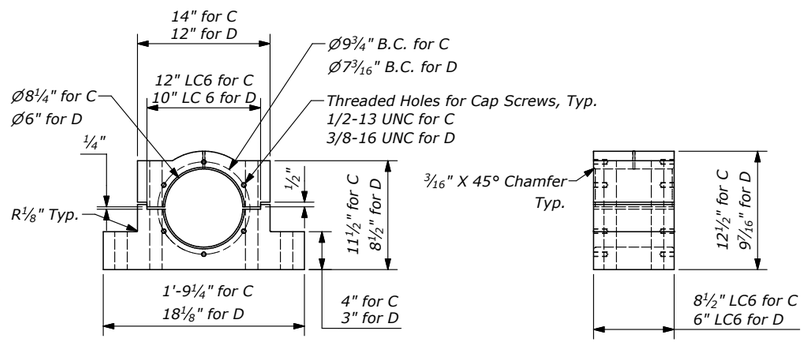
Scale: 1 1/2" = 1'-0"

Material: ASTM B22 C91100
Qty: 4




## Section N-N

1 1/2" = 1'-0"

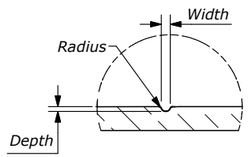



## Bearing C & D Split Pillowblock Housing

Scale: 1 1/2" = 1'-0"

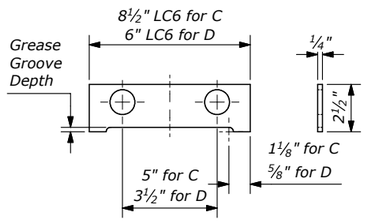
Material: ASTM A 668 Cl. G
Qty: 4 each of Bearings C and D

| Grease Groove Dimensions | | | |
|---|---|---|---|
| Bearing ID | Width (in.) | Depth (in.) | Radius (in.) |
| A | 3/8 | 1/8 | 1/16 |
| B | 3/8 | 1/8 | 1/16 |
| C | 15/32 | 15/64 | 1/8 |
| D | 11/32 | 11/64 | 1/16 |




## Grease Groove Detail

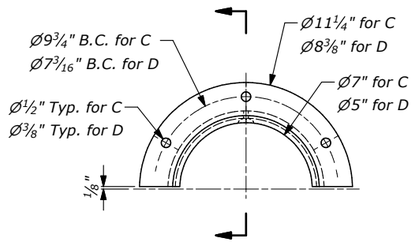
Scale: 6" = 1'-0"

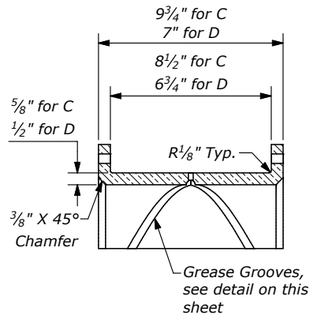



## Bearing C & D Liner

Scale: 1 1/2" = 1'-0"

Material: See Specs
Qty: 2 per Bearing C (8 total)
2 per Bearing D (8 total)




## Bearing C & D Bushing

1 1/2" = 1'-0"

Material: ASTM B 22 C91100
Qty: 2 per Bearing C (8 total)
2 per Bearing D (8 total)

1

Notes:

1. Contractor to verify existing size and location of turned bolts for Bearing C and D. New turned bolts to be 1/16" larger than existing, and reuse existing holes in structure.
2. Existing Bearing B housing to remain. Replace existing threaded dowels and bushings with new. Replace Existing Bearing B 1/2" threaded dowels with new ASTM A449 dowels machined at same dimensions as existing.
3. Reuse existing bolt holes to re-fasten Bearing B to structure. Contractor to verify size and location of existing bolt holes and ream holes to a maximum 1/32" diameter larger. Furnish turned bolts with a shank size that produces an ANSI LC6 fit with the reamed holes. Thread and head sizes are to match existing bolts.
4. Contractor to verify Existing Bearing B dimensions prior to machining bushing.

| | | | |
|---|---|---|---|
| USER NAME = | DESIGNED - MAD | REVISED - 1 05/24/24 MAD | |
| | CHECKED - KMC | REVISED - | |
| PLOT SCALE = | DRAWN - MAD | REVISED - | |
| PLOT DATE = JAN 2024 | CHECKED - KMC | REVISED - | |

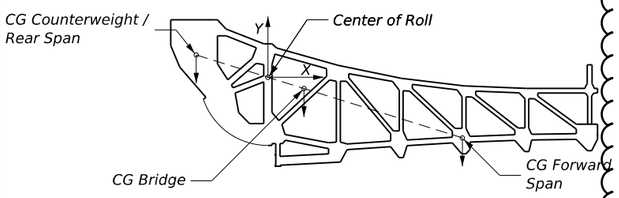
**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

**BEARING DETAILS**
**STRUCTURE NO. 099-0101**

SHEET M-10 OF M-13 SHEETS

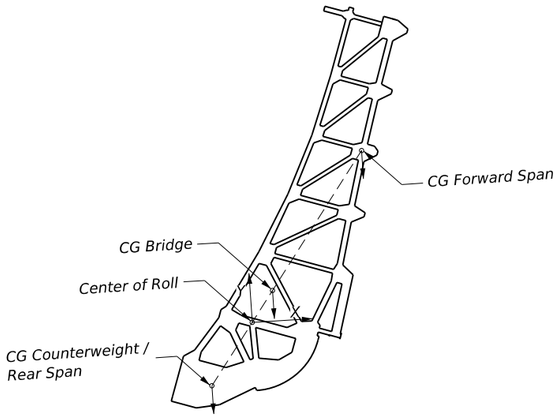
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 607 | 2018-067-BR | WILL | 128 | 92 |
| | | CONTRACT NO. 62M79 | | |
| | ILLINOIS | FED. AID PROJECT | | |

1 REV. 6/4/24



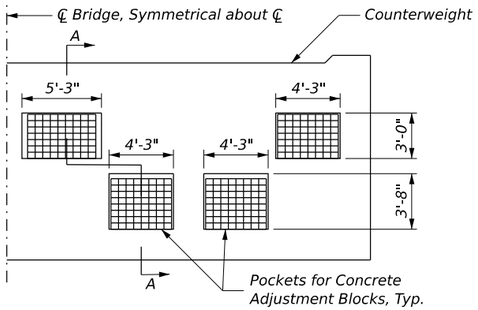

## Elevation - Bascule Closed

Scale: NTS



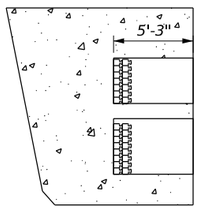

## Elevation - Bascule Open

Scale: NTS



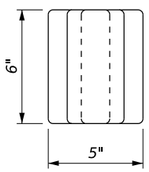

## Counterweight Elevation - Front

Scale: NTS

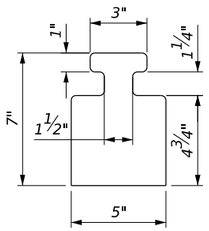



## Section A-A

Scale: NTS




Plan View




Elevation View

## Balance Block Detail

Scale: 3"=1'-0"

Material: Cast Steel ASTM A27

Weight: 48.5 lbs ea.

# Balance Tables

*Note: Values given in table are for the span in the fully closed position.*

| West Leaf | | | | | |
|---|---|---|---|---|---|
| Item | Weight | Location | | Moment | |
| | Total Weight (kips) | X (ft) | Y (ft) | Mx (kip*ft) | My (kip*ft) |
| Existing CG | 1,818.00 | -0.06 | 0.00 | -100.64 | -8.33 |
| Removed Items | | | | | |
| Existing Steel Curb | 23.31 | 43.99 | -17.46 | 1,025.46 | -407.03 |
| Existing Open Grid Deck | 90.21 | 43.70 | -17.87 | 3,942.43 | -1,612.53 |
| Existing Deck Joist Removal | 14.79 | 43.58 | -18.35 | 644.64 | -271.48 |
| Existing Stringer Removal | 75.05 | 43.95 | -18.41 | 3,298.46 | -1,382.03 |
| Existing Floorbeam Removal | 102.28 | 42.02 | -19.66 | 4,298.13 | -2,010.38 |
| Existing Rear Break | 7.51 | 1.65 | -20.12 | 12.40 | -151.16 |
| Existing Center Break | 12.65 | 86.32 | -16.49 | 1,091.88 | -208.62 |
| Total Removed | 325.81 | 43.93 | -18.55 | 14,313.43 | -6,043.24 |
| Added Items | | | | | |
| Bridge Barrier | 11.52 | 43.92 | -17.39 | 505.96 | -200.34 |
| Half Filled Grid Deck | 153.41 | 44.02 | -17.54 | 6,752.86 | -2,690.79 |
| Stringer | 54.29 | 40.75 | -18.78 | 2,212.33 | -1,019.34 |
| Floorbeam | 98.09 | 43.12 | -19.79 | 4,230.04 | -1,941.30 |
| Rear Break | 10.05 | 1.89 | -20.65 | 18.97 | -207.59 |
| Center Break | 11.45 | 85.94 | -15.88 | 984.37 | -181.89 |
| Steel Balance Plates 1, See Note 6 | 1.99 | 81.33 | -10.59 | 161.44 | -21.02 |
| Total Added | 340.81 | 43.15 | -18.37 | 14,704.53 | -6,262.27 |
| Balance Blocks | Qty. | | | | |
| Upper Pocket | 315 | 15.28 | -18.00 | 10.46 | -275.00 | 159.80 |
| Lower Pocket | 0 | 0 | - | - | 0 | 0 |
| Proposed CG | | 1,848.28 | 0.01 | -0.04 | 15.46 | -67.56 |

| East Leaf | | | | | |
|---|---|---|---|---|---|
| Item | Weight | Location | | Moment | |
| | Total Weight (kips) | X (ft) | Y (ft) | Mx (kip*ft) | My (kip*ft) |
| Existing CG | 1,818.00 | -0.04 | 0.00 | -67.33 | 1.50 |
| Removed Items | | | | | |
| Existing Steel Curb | 23.31 | 43.99 | -17.42 | 1,025.46 | -406.01 |
| Existing Open Grid Deck | 90.21 | 43.70 | -17.88 | 3,942.43 | -1,613.37 |
| Existing Deck Joist Removal | 14.79 | 43.58 | -18.36 | 644.64 | -271.62 |
| Existing Stringer Removal | 75.05 | 43.95 | -18.41 | 3,298.46 | -1,382.03 |
| Existing Floorbeam Removal | 102.28 | 42.02 | -19.66 | 4,298.13 | -2,010.37 |
| Existing Rear Break | 7.51 | 1.65 | -20.12 | 12.40 | -151.16 |
| Existing Center Break | 12.65 | 86.32 | -16.49 | 1,091.92 | -208.62 |
| Existing Steel Balance Plates 1, See Note 6 | 2.64 | 83.25 | -11.75 | 219.78 | -31.02 |
| Existing Steel Balance Plates 2, See Note 6 | 1.19 | 78.50 | -10.25 | 93.49 | -12.20 |
| Total Removed | 329.64 | 44.37 | -18.46 | 14,626.63 | -6,086.41 |
| Added Items | | | | | |
| Bridge Barrier | 11.52 | 43.92 | -17.41 | 505.96 | -200.57 |
| Half Filled Grid Deck | 153.41 | 44.02 | -17.54 | 6,752.86 | -2,690.79 |
| Stringer | 54.77 | 40.92 | -18.77 | 2,241.54 | -1,027.84 |
| Floorbeam | 98.09 | 43.12 | -19.79 | 4,230.04 | -1,941.29 |
| Rear Break | 10.88 | 1.90 | -20.68 | 20.62 | -224.99 |
| Center Break | 11.45 | 85.94 | -15.88 | 984.37 | -181.91 |
| Steel Plate Along Member 39G1, See Note 7 | 8.87 | 5.92 | -21.53 | 52.51 | -190.97 |
| Total Added | 349.00 | 42.37 | -18.51 | 14,787.90 | -6,458.35 |
| Balance Blocks | Qty. | | | | |
| Upper Pocket | 0 | 0 | - | - | 0 | 0 |
| Lower Pocket | 310 | 15.04 | -18.29 | 5.75 | -274.99 | 86.45 |
| Proposed CG | | 1822.32 | -0.10 | -0.16 | -181.05 | -283.99 |

Notes:

1. This balance information is for bidding purposes only. The exact values will be determined by the Contractor's counterweight balance calculations in accordance with the Special Provision "Bridge Balancing".
2. Contractor to document the exact quantity, type, and location of existing balance blocks in all counterweight pockets prior to starting work.
3. Contractor to maintain an inventory of the weights and center of gravity locations of all materials removed and added to the lift span and counterweight.
4. The span to be maintained in a balanced condition throughout the construction period.
5. Contractor to provide additional balance blocks for future adjustment in the amount of 0.5% of the weight of the new deck, with a minimum requirement of 150 blocks.
6. Existing Steel Balance Plates 1 and 2 refer to the additional steel plates that have been added to the toe of the bridge. Steel Balance Plates 1 refers to the plates located near the center break, and Steel Balance Plates 2 refers to the steel plates located on the diagonal member. Note that on the East Leaf, all of the existing plates are to be removed and on the West Leaf plates are to be added.
7. See Structural Drawings for details of Steel Plate Along Member 39G1. The additional weight is provided at this location to lower the CG and should be accounted for in any changes the Contractor makes once construction begins.
8. The desired final condition is:
   Seated Toe Load = 2,000 lbs. (Toe-Heavy)
   CG Angle = 0 ± 25°
   Imbalance Moment = 174 kip*ft

## BILL OF MATERIAL

| Item | Unit | Total |
|---|---|---|
| Bridge Balancing | L. Sum | 1 |

MODEL: $MODELNAME$
FILE NAME: $FILE$

$DATE$ $TIME$

| | | | |
|---|---|---|---|
| USER NAME = ____ | DESIGNED - CMS | REVISED - 1 05/24/24 CMS | |
| | CHECKED - KMC | REVISED - | |
| PLOT SCALE = AS SHOWN | DRAWN - CMS | REVISED - | |
| PLOT DATE = JAN 2024 | CHECKED - KMC | REVISED - | |

**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

**COUNTERWEIGHT BALANCE TABLES AND BALANCE BLOCK DETAIL**
**STRUCTURE NO. 099-0101**

SHEET M-13 OF M-13 SHEETS

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 607 | 2018-067-BR | WILL | 128 | 95 |
| | | CONTRACT NO. 62M79 | | |
| | ILLINOIS | FED. AID PROJECT | | |

1 REV. 6/4/24