



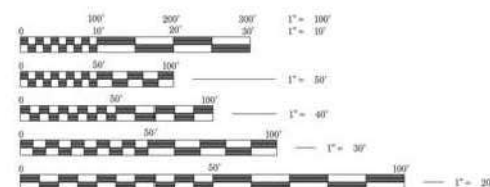
PROJECT MAP

TRAFFIC DATA

ADT (CURRENT) = 7,650
ADT (2040) = 6,800
DESIGN YEAR = 2050



SEE SHEET G-1 FOR INDEX OF SHEETS



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZE PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED SIZE PLANS, THE ABOVE SCALES MAY NOT BE USED.



THIS CERTIFIES THAT THESE DRAWINGS HAVE BEEN REVIEWED TO THE BEST OF MY KNOWLEDGE AND BELIEVE ARE IN ACCORDANCE WITH AMERICANS WITH DISABILITIES ACT (ADA), AND ALL CODES AND BUILDING ORDINANCES OF THE CITY OF CHICAGO, STATE OF ILLINOIS.

Carol Ross Barney
LICENSED ARCHITECT / LICENSED ENGINEER



CITY OF CHICAGO

LORI LIGHTFOOT, MAYOR

DEPARTMENT OF TRANSPORTATION
GIA BIAGI, COMMISSIONER

DIVISION OF ENGINEERING
DANIEL BURKE, P.E., S.E., CHIEF ENGINEER

CONTRACT PLANS FOR WEBSTER AVENUE BRIDGE OVER THE NORTH BRANCH OF THE CHICAGO RIVER FROM ASHLAND AVENUE TO DOMINICK STREET

END IMPROVEMENT
WEBSTER AVENUE
STA. 9+01.62

BEGIN IMPROVEMENT
WEBSTER AVENUE
STA. 15+24.78

C.D.O.T. PROJECT NO. E-1-525
SPECIFICATION NO. 1188838

NET LENGTH OF IMPROVEMENT: 623.16 FEET
(0.118 MILES)

ISSUED BY:
DEPARTMENT OF PROCUREMENT SERVICES
SHANNON E. ANDREWS, CHIEF PROCUREMENT OFFICER



Jamal Grainawi
JAMAL GRAINAWI, S.E., P.E.
WSP USA INC.
LICENSE NO.: 081-005161
EXPIRES: November 30, 2020
DATE: 4/1/2020
SHEETS S-1 THRU S-7,
S-36 THRU S-93 &
S-108 THRU S-113



Moussa A. Issa
MOUSSA A. ISSA, S.E., P.E.
HBM ENGINEERING GROUP, LLC
LICENSE NO.: 081-005738
EXPIRES: November 30, 2020
DATE: April 01, 2020
SHEETS S-8 THRU S-35,
& S-94 THRU S-107



Carol Ross Barney
CAROL ROSS BARNEY, AIA
ROSS BARNEY ARCHITECTS
LICENSE NO.: 001-008045
EXPIRES: November 30, 2020
DATE: April 01, 2020
SHEETS A-0.0 THRU A-6.8



Mohamed Mansour Ahmed
MOHAMED MANSOUR AHMED, P.E.
WSP USA INC.
LICENSE NO.: 062-068573
EXPIRES: November 30, 2021
DATE: 03/31/20
SHEETS G-1 THRU G-7,
C-1 THRU C-12 &
PMK-1 THRU PMK-3



Jude Osei Bonsu
JUDE OSEI BONSU, P.E.
WSP USA INC.
LICENSE NO.: 062-069421
EXPIRES: November 30, 2021
DATE: 4/1/2020
SHEETS M-1 THRU M-8



Mohammed K. Rashed
MOHAMMED K. RASHED, P.E.
EJM ENGINEERING, INC.
LICENSE NO.: 062-053645
EXPIRES: November 30, 2021
DATE: 04/02/2020
SHEETS E-1 THRU E-13



Srijan Adhikari
SRIJAN ADHIKARI, P.E.
EJM ENGINEERING, INC.
LICENSE NO.: 062-069784
EXPIRES: November 30, 2021
DATE: 4/1/2020
SHEETS MOT-1 THRU MOT-4

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|---|--|
| CITY OF CHICAGO DEPARTMENT OF TRANSPORTATION | |
| DATE: | December 17, 2020 |
| APPROVED: | <i>Charlene Howell</i> PROJECT MANAGER |
| APPROVED: | <i>Jim D. Bonds</i> CHIEF BRIDGE ENGINEER |
| APPROVED: | <i>Daniel Burke</i> CHIEF ENGINEER DIVISION OF ENGINEERING |
| APPROVED: | <i>[Signature]</i> COMMISSIONER |

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| PLAN | SURVEYED _____ | BY _____ | DATE _____ |
| | PLOTTED _____ ALIGNMENT CHECKED _____ RT. OF WAY CHECKED _____ CADD FILE NAME _____ | | |
| NOTE BOOK | | | |
| NO. _____ | | | |

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| PROFILE | SURVEYED _____ | BY _____ | DATE _____ |
| | PLOTTED _____ | | |
| NOTE BOOK | GRADES CHECKED _____ | | |
| | B.M. NOTED _____ | | |
| NO. _____ | STRUCTURE NOTAT'NS CHKD _____ | | |

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HIGHWAY STANDARD DETAILS
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SD-16 STANDARD DETAILS - SHEET 16 OF 16

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| PLAN | NOTE BOOK NO. _____ | SURVEYED PLOTTED ALIGNMENT CHECKED BY _____ CADD FILE NAME _____ | BY _____ | DATE _____ |
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| PROFILE | NOTE BOOK NO. _____ | SURVEYED PLOTTED GRADES CHECKED BY _____ STRUCTURE NOTATIONS CHRG _____ | BY _____ | DATE _____ |
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GENERAL NOTES

1. DUE TO THE POSSIBILITY OF UNDOCUMENTED MODIFICATIONS AND CHANGES TO THE STRUCTURE, IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE CORRECTNESS OF ALL REFERENCE DRAWINGS. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING STRUCTURES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR FABRICATION AND ORDERING OF MATERIALS. SUCH VARIATIONS ARE NOT CAUSE FOR ADDITIONAL COMPENSATION OR A CHANGE IN THE SCOPE OF WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK. CONTRACTOR SHALL NOT BE RELIEVED OF PERFORMING DETAILED SURVEY AS PART OF THIS WORK AND MAY REQUEST FOR DOCUMENTATION, IF ANY, OF PREVIOUS REPAIRS PERFORMED SINCE PREPARATION OF THESE DOCUMENTS.
2. ALL CONSTRUCTION MATERIALS AND CONSTRUCTION ACTIVITIES USED ON THIS CONTRACT MUST CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED APRIL 1, 2016 BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION, SPECIFIED SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, DATED JANUARY 1, 2019 AND PROJECT DETAIL SPECIFICATIONS EXCEPT AS MODIFIED HEREIN.
3. THE CONTRACTOR SHOULD EXPECT THAT DUE TO THE NATURE OF THIS REHABILITATION PROJECT, THE EXACT EXTENT OF REPAIR WORK CANNOT ALWAYS BE ACCURATELY DETERMINED PRIOR TO COMMENCEMENT OF WORK. PRE-BID VISITS AND ACCESS TO THE SITE SHALL BE REQUIRED AND CAN BE ARRANGED THROUGH THE CHICAGO DEPARTMENT OF TRANSPORTATION, DIVISION OF ENGINEERING.
4. ALL AVAILABLE EXISTING PLANS WILL BE PROVIDED TO THE CONTRACTOR IN ELECTRONIC FORMAT AND WILL BE AVAILABLE AT CITY HALL ON THE DAY OF BID ADVERTISEMENT. THE CONTRACT PLANS REFERENCE THE APPLICABLE EXISTING PLAN FILE THAT IS USUALLY LOCATED IN THE BOTTOM RIGHT HAND CORNER OF THESE CONTRACT DOCUMENTS.
5. THE CONTRACTOR MUST PROTECT AND CAREFULLY PRESERVE ALL PERMANENT SURVEY MONUMENTS, BENCHMARKS OR PROPERTY MARKERS WHICH ARE ENCOUNTERED DURING THE COURSE OF HIS/HER WORK. IF IT IS NECESSARY TO REMOVE ANY SUCH MONUMENT OR MARKER, THE COMMISSIONER MUST BE NOTIFIED PRIOR TO REMOVAL. THE CONTRACTOR MUST PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE COMMISSIONER, AN AUTHORIZED SURVEYOR, OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. ANY SUCH MONUMENT OR MARKER WHICH HAS BEEN DISTURBED BY THE CONTRACTOR MUST BE RESET BY A REGISTERED PROFESSIONAL LAND SURVEYOR TO THE SATISFACTION OF THE COMMISSIONER AND AT NO ADDITIONAL EXPENSE TO THE CITY.
6. THE CONTRACTOR MUST TAKE ALL NECESSARY SAFETY PRECAUTIONS TO PROTECT ABUTTING PROPERTY, PEDESTRIANS, AND RIVER AND VEHICULAR TRAFFIC. THE CONTRACTOR MUST TAKE PRECAUTIONS TO PROTECT THE PUBLIC FROM FALLING DEBRIS. THE CONTRACTOR MUST SUBMIT PLANS FOR PEDESTRIAN, RIVER, AND VEHICULAR PROTECTION TO THE COMMISSIONER FOR APPROVAL PRIOR TO BEGINNING THE WORK. IF ANY DEBRIS FALLS INTO THE WATERWAY, THE CONTRACTOR SHALL REMOVE IT FROM THE RIVER TO THE COMMISSIONER'S SATISFACTION, AND AT NO ADDITIONAL COST TO THE CITY.
7. ALL TEMPORARY ITEMS INSTALLED WITHIN THE WATERWAY MUST BE COMPLETELY REMOVED. WORK BARGE OR ANY FLOATING WORK PLATFORM SHALL NOT REMAIN MOORED BENEATH DRAW OVERNIGHT OR WHILE WORK IS SUSPENDED.
8. THE CONTRACTOR MUST CALL DIGGER (CHICAGO UTILITY ALERT NETWORK) AT 312-744-7000 TO HAVE THE LOCATION OF EXISTING UNDERGROUND UTILITIES STAKED, 48 HOURS BEFORE STARTING EXCAVATION WORK.
9. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND AND OVERHEAD UTILITIES WITHIN THE PROJECT LIMITS WHETHER OR NOT THE UTILITIES ARE SHOWN ON THE PLANS. THE CONTRACTOR MUST INVESTIGATE THE WORK ZONE TO IDENTIFY LOCATIONS OF SIGNS, POLES, OR OTHER STRUCTURES WHICH WOULD IMPACT THE PROPOSED WORK LOCATIONS. COST ASSOCIATED WITH PROTECTION OF EXISTING UTILITIES IS INCLUDED IN THE COST OF "MOBILIZATION". ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION MUST BE REPAIRED OR REPLACED BY THE CONTRACTOR AT HIS/HER OWN EXPENSE TO THE SATISFACTION OF THE COMMISSIONER.

GENERAL NOTES (CONTINUED)

10. ANY ADJUSTMENT REQUIRED TO EXISTING UTILITIES WILL BE CARRIED OUT BY THE PRIVATE UTILITY COMPANIES OR THEIR CONTRACTORS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH EACH UTILITY COMPANY. COST ASSOCIATED WITH COORDINATING WITH UTILITY COMPANIES IS INCLUDED IN THE COST OF "MOBILIZATION".
11. WHEN ARTIFICIAL LIGHTING IS USED IN NIGHT OPERATIONS THE CONTRACTOR SHALL EXERCISE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC, MARINE TRAFFIC ON THE RIVER, AND ADJOINING COMMERCIAL AND RESIDENTIAL AREAS IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (MUTCD) AND THE ILLINOIS SUPPLEMENT TO THE NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
12. ALL ELEVATIONS SHOWN ON THE PLANS ARE REFERENCED TO THE CHICAGO CITY DATUM: 579.48 FEET ABOVE MEAN SEA LEVEL, 1929 ADJUSTMENT.
13. DO NOT SCALE PLANS.
14. FOR ADDITIONAL GENERAL NOTES, SEE SHEETS MOT-1, S-3, A-1, E-1, LT-1, AND M-1.
15. ALL DIMENSIONS SHOWN ON THE ROADWAY PLANS ARE TO THE FACE OF THE CURB, UNLESS OTHERWISE SPECIFIED.
16. THE ENTIRE AREA WHICH IS TO RECEIVE 'BITUMINOUS MATERIAL PRIME COAT' SHALL BE SWEEP CLEAN BEFORE THE MATERIAL APPLICATION. SWEEPING SHALL NOT BE DEPOSITED IN THE GUTTER OR ON THE CURB, PARKWAY, OR SIDEWALK, BUT SHALL BE PICKED UP AND DISPOSED OF PROPERLY BEYOND THE LIMITS OF THE PROJECT ON THE SAME DAY THAT SWEEPING IS DONE. THIS WORK SHALL BE INCLUDED IN THE COST OF BITUMINOUS MATERIAL (PRIME COAT) AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
17. SAW CUT (FULL DEPTH) SHALL BE REQUIRED AT THE JOINT BETWEEN PAVEMENT, SIDEWALK, CURB AND GUTTER TO BE REMOVED AND THE LEFT IN PLACE OR AS DIRECTED BY THE COMMISSIONER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE REMOVAL ITEMS.
18. THE CONTRACTOR SHALL MAKE HIS OWN INVESTIGATION TO DETERMINE THE EXISTENCE, NATURE AND EXACT LOCATION OF ALL UTILITY LINES AND APPURTENANCES WITHIN THE LIMITS OF IMPROVEMENT. THE COST OF THIS WORK WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
19. ONE-HALF INCH (1/2") THICK EXPANSION JOINTS SHALL BE PLACED BETWEEN THE SIDEWALK, AND ALL STRUCTURES SUCH AS LIGHT STANDARDS, TRAFFIC LIGHT STANDARDS AND MANHOLES WHICH EXTEND THROUGH THE SIDEWALK IN ACCORDANCE WITH SECTION 424.07 OF THE STANDARD SPECIFICATIONS
20. CONSTRUCTION OF THE ADA RAMPS MUST MEET ALL CRITERIA SET FORTH IN THE STANDARDS. ALL SIDEWALK RAMPS CONTAINING TILES AND RAMP FLARES SHALL BE 8" THICK UNLESS OTHERWISE NOTED. ALL LANDING AREAS (KEystone), RAMPS WITHOUT TILES, AND TRANSITION PANEL SHALL BE 8" THICK UNLESS OTHERWISE NOTED.
21. THERMOPLASTIC PAVEMENT MARKING LINE AND/OR LETTERS AND SYMBOLS SHALL BE DONE AT EACH LOCATION WHERE PAVEMENT MARKINGS ARE REQUIRED WITHIN 3 WORKING DAYS AFTER FINAL BITUMINOUS SURFACE IS IN PLACE.
22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STORAGE OF EXISTING SIGN PANELS AND POLE ASSEMBLIES WHICH ARE TO BE SALVAGED AND REINSTALLED UNDER PAY ITEM REMOVE, STORE AND RE-ERECT SIGN PANEL. THE CONTRACTOR SHALL BE RESPONSIBLE TO REPLACE, AT NO ADDITIONAL COST TO THE CONTRACT, ANY SIGNS AND/OR POLE ASSEMBLIES DAMAGED DURING STORAGE AND/OR DURING THE TRANSPORTATION TO AND FROM THE STORAGE LOCATIONS.
23. THE LATEST REVISION NUMBER OF THE IDOT HIGHWAY STANDARD AT THE TIME OF LETTING SHALL APPLY TO THIS CONTRACT.
24. A PERMIT IS REQUIRED FROM THE DEPARTMENT OF WATER MANAGEMENT PRIOR TO THE CONSTRUCTION OF, OR REPAIR TO UNDERGROUND SEWERS, DRAIN CONNECTIONS OR SEWER STRUCTURES, INCLUDING ADJUSTMENT OF SEWER STRUCTURES AND REMOVAL/REPLACEMENT OF FRAMES AND LIDS. THE PERMIT MUST BE OBTAINED BY A DRAINLAYER CURRENTLY LICENSED BY THE DEPARTMENT OF SEWERS.

GENERAL NOTES (CONTINUED)

25. THE CITY DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE INFORMATION SHOWN ON THE PLANS REGARDING UTILITIES, EITHER PUBLIC OR PRIVATE, SUCH AS SEWERS, MANHOLES, CATCH BASINS, GAS AND WATER MAINS, TELEPHONE AND ELECTRICAL DUCT LINES AND SIMILAR STRUCTURES. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL UTILITIES THAT MAY INTERFERE WITH CONSTRUCTION OPERATIONS, AND SHALL REPORT TO THE COMMISSIONER ANY OMISSIONS AND DIFFERENCES FROM THE LOCATIONS SHOWN ON THE PLANS. THE COST OF THIS WORK WILL BE CONSIDERED INCLUDED IN THE COST OF MOBILIZATION.
26. THE CONTRACTOR SHALL MAINTAIN THE SURFACE DRAINAGE OF THE ROAD DURING CONSTRUCTION OF THIS PROJECT.
27. PRIOR TO STARTING CONSTRUCTION AN INSPECTION OF EXISTING MANHOLES AND CATCH BASINS WILL BE MADE BY THE CITY AND THE CONTRACTOR TO DETERMINE THE AMOUNT OF EXISTING DEBRIS IN THESE STRUCTURES. UPON COMPLETION OF THE CONTRACT, THE CONTRACTOR SHALL CLEAN ONLY THOSE STRUCTURES WHERE DEBRIS HAS BEEN ADDED DUE TO CONSTRUCTION. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF MOBILIZATION.
28. WHEN DIRECTED BY THE COMMISSIONER EXISTING CATCH BASINS SHALL BE REMOVED AND REPLACED WITH NEW DEPARTMENT OF WATER MANAGEMENT (DOWM) STANDARD CATCH BASINS. THIS WORK SHALL BE PAID FOR UNDER REMOVING CATCH BASINS AND UNDER CATCH BASINS, TYPE 1, 4' DIAMETER (INCLUDING FRAMES AND LIDS).
29. WHERE PROPOSED CATCH BASINS CAN NOT BE INSTALLED DUE TO EXISTING CONFLICTS, INLETS MAY BE SUBSTITUTED PENDING APPROVAL OF THE COMMISSIONER WITH CONCURRENCE OF THE DEPARTMENT OF WATER MANAGEMENT.
30. EXISTING CATCH BASIN LATERALS TO BE REUSED MUST BE RODDED AND FLUSHED IN THE PRESENCE OF THE DEPARTMENT OF WATER MANAGEMENT INSPECTOR. A NEW CONNECTION TO THE MAIN SEWER IS REQUIRED IF THE EXISTING CATCH BASIN LATERAL IS NOT APPROVED BY THE SEWER INSPECTOR. THE FLUSHING OF THE EXISTING LATERAL WILL BE CONSIDERED INCLUDED IN THE COST OF THE SEWER AND CATCH BASIN WORK ITEMS.
31. IN LOCATIONS WHERE THE MAIN SEWER IS NOT BEING REPLACED AND THE EXISTING DRAINAGE FACILITIES ARE DISTURBED OR DAMAGED DURING CONSTRUCTION BY THE CONTRACTOR, IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO RESTORE AND REPLACE THE DAMAGED FACILITIES AT HIS EXPENSE TO THE SATISFACTION OF THE COMMISSIONER.

CONSTRUCTION NOTES

1. THE CONTRACTOR MUST OBTAIN ALL NECESSARY PERMITS FROM THE CITY OF CHICAGO PRIOR TO COMMENCING CONSTRUCTION. THE COSTS ARE CONSIDERED INCLUDED IN THE COST OF "MOBILIZATION".
2. WORK ON THE RETAINING WALL TO THE NORTHEAST, SOUTHEAST AND SOUTHWEST, ACCESS WILL BE THROUGH ADJACENT PROPERTIES. THE ACCESS WILL OCCUR ON 7-FOOT TO 10-FOOT OR 10-FOOT WIDE TEMPORARY EASEMENT ACCESS AREAS ADJACENT TO WEBSTER AVENUE. WORK ON THESE PROPERTIES WILL BE ONLY FOR A LIMITED PERIOD OF TIME WHEN THE ACTUAL WORK IS BEING COMPLETED. PRIOR WRITTEN NOTIFICATION OF 2-WEEKS FOR WORK START IS REQUIRED FOR ALL 3 PROPERTIES. NO HEAVY EQUIPMENT, NOR VEHICLES, INCLUDING CONCRETE TRUCKS, WILL BE ALLOWED ON ANY OF THE THREE TEMPORARY ACCESS AREAS. WORK ON THE ENCLOSURE WALLS NEED TO BE PERFORMED FROM THE BRIDGE LEVEL. MATERIALS CANNOT BE STORED WITHIN THE TEMPORARY ACCESS AREAS. THE CONTRACTOR SHALL NOT DAMAGE THE ADJACENT PROPERTIES INSIDE AND OUTSIDE THE ACCESS AREAS, AND SHALL AT THE CONTRACTOR'S EXPENSE, REPAIR ANY DAMAGE THAT THE CONTRACTOR OR SUBCONTRACTOR MAY CAUSE. ANY DAMAGE SHALL BE REPAIRED TO PRE-CONSTRUCTION CONDITION, INCLUDING LANDSCAPING, PLANTERS, AND BENCHES.

THE CONTRACTOR SHALL ERECT AND MAINTAIN A 7-FOOT TO 10-FOOT OR 10-FOOT WIDE PERIMETER FENCE AROUND THE ACCESS AREA TO THE NORTHEAST AND SOUTHEAST. ON THE SOUTHEAST PROPERTY, THE FENCE SHALL NOT ENCAPSLATE THE EXISTING PLANTERS AND BENCHES. ON THE NORTHEAST PROPERTY, THERE IS AN EXISTING FENCE. THIS EXISTING FENCE SHALL BE TEMPORARILY ROLLED BACK TO ALLOW FOR ACCESS TO THE ACCESS AREA AND THIS EXISTING FENCE WILL BE CLOSED OFF DURING CONSTRUCTION.

FOR THE MWRD TEMPORARY ACCESS AREA, THE CONTRACTOR SHALL CONTACT JOSEPH MEYER, ENGINEERING TECHNICIAN V OF THE DISTRICT'S MAINTENANCE & OPERATIONS DEPARTMENT AT (847)568-8224 OR VIA EMAIL AT MEYERJ1@MWRD.ORG, PRIOR TO COMMENCING ANY ACTIVITY, AND JEFFREY YOURELL, DISTRICT INVESTIGATOR AT (312)751-6552 TO COORDINATE ACCESS TO THE ACCESS PREMISES. CONTRACTOR WILL NOT LEAVE THE MWRD PROPERTY OPEN WHEN NOT WORKING ON SITE.

CONSTRUCTION NOTES (CONTINUED)

3. A US COAST GUARD (USCG) PERMIT IS NOT REQUIRED, HOWEVER, THE CONTRACTOR MUST PROVIDE A DETAILED DESCRIPTION OF CONSTRUCTION MEANS AND METHODS AND AN EXPECTED DURATION OF CONSTRUCTION ACTIVITIES TO THE USCG A MINIMUM OF 30 DAYS PRIOR TO INITIATING MOBILIZATION AND CONSTRUCTION ACTIVITIES. THE DIMENSIONS OF ANY IN-WATER EQUIPMENT, TO INCLUDE THE LENGTH, BEAM, AND DRAFT OF ANY NEEDED CONSTRUCTION BARGES, SHOULD ALSO BE INCLUDED. AS BUILT PLANS MUST ALSO BE SUBMITTED TO THE NINTH COAST GUARD DISTRICT OFFICE AT THE COMPLETION OF THE PROJECT.
4. STORAGE OF CONSTRUCTION EQUIPMENT AND CONSTRUCTION MATERIAL IS NOT PERMITTED ON THE BRIDGE. THE CONTRACTOR SHALL WORK WITH THE CITY OF CHICAGO TO DETERMINE AN APPROPRIATE CONSTRUCTION STORAGE LOCATION.
5. THE CONTRACTOR IS PROHIBITED FROM STORING A BARGE IN THE RIVER WITHOUT PRIOR APPROVAL FROM THE US COAST GUARD AND THE COMMISSIONER.
6. BEARING SEAT SURFACES SHALL BE CONSTRUCTED OR ADJUSTED TO THE DESIGNATED ELEVATIONS WITHIN A TOLERANCE OF 1/8 INCH. ADJUSTMENT SHALL BE MADE EITHER BY GRINDING THE SURFACE OR BY SHIMMING THE BEARING. TWO ADJUSTING SHIMS OF THE DIMENSIONS OF THE BOTTOM OF THE PLATE SHALL BE PROVIDED FOR EACH BEARING PLACED AS DETAILED. THE FINAL NUMBER AND THICKNESS OF SHIM PLATES MUST BE DETERMINED IN THE FIELD. THE COST OF THE SHIM PLATES IS INCLUDED IN THE COST OF "FURNISHING AND ERECTING STRUCTURAL STEEL".
7. NO CONSTRUCTION JOINT EXCEPT THOSE SHOWN ON THE PLANS WILL BE ALLOWED UNLESS ORDERED OR APPROVED BY THE COMMISSIONER.
8. THE CONTRACTOR SHALL COMPLETE ALL CONSTRUCTION OPERATIONS (MOVABLE PART) DETAILED IN THE CONTRACT PLANS AND SPECIFICATIONS WHILE THE BASCULE BRIDGE LEAVES ARE IN THE CLOSED POSITION UNLESS PERMISSION IS OBTAINED FROM THE COMMISSIONER.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STABILITY OF THE BASCULE BRIDGE IN ALL PHASES OF CONSTRUCTION. PRIOR TO REPLACEMENT OF STEEL MEMBERS DETAILED ON THE STRUCTURAL DRAWINGS, THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION PROCEDURE SHOWING EACH STEP OF THE REMOVAL AND REPLACEMENT PROCESS. THE CONTRACTOR SHALL ALSO SUBMIT CALCULATIONS SEALED BY A LICENSED STRUCTURAL ENGINEER IN THE STATE OF ILLINOIS SHOWING THAT ALL MEMBERS WILL REMAIN STABLE AND NOT BECOME OVERSTRESSED DURING ANY STEP OF THE REMOVAL AND REPLACEMENT PROCESS. THE COST ASSOCIATED WITH PREPARING CALCULATIONS AND REMOVAL AND REPLACEMENT PROCEDURE IS INCLUDED IN THE COST OF REMOVAL OF EXISTING STRUCTURAL STEEL.
10. THE CONTRACTOR SHALL UTILIZE APPROPRIATE CONSTRUCTION PROCEDURES TO ENSURE THAT ALL STRUCTURAL MEMBERS ARE SQUARE DURING THE INSTALLATION OF THE LATERAL BRACING FOR THE ROADWAY STRINGERS, SIDEWALK STRINGERS, FLOORBEAMS AND THE CHORDS OF THE MAIN TRUSS MEMBERS.
11. THE CONTRACTOR IS RESPONSIBLE FOR PROPER ALIGNMENT OF THE TWO LEAVES IN ORDER TO ENGAGE THE NEW CENTER LOCK BAR AND ALLOW FOR PROPER FIT. THE ALIGNMENT IS NECESSARY TO ENSURE THAT THE CENTERLINE OF THE BOTTOM CHORD MEMBERS OF EACH LEAF CONFORM TO THE DESIGN GRADES AND ALIGN WITHIN A TOLERANCE OF ±1/8" AT THE CENTER OF THE STRUCTURE. NECESSARY VERTICAL ADJUSTMENTS CAN BE MADE AT THE ANCHOR COLUMN BUMPERS AND LIVE LOAD SHOES BY THE USE OF SHIM PLATES TO ENSURE THAT THE BOTTOM CHORDS OF EACH LEAF ARE ALIGNED.
12. THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL ON LOCAL ROADS AND CITY STREETS NEAR THE PROJECT SITE. REFER TO MAINTENANCE OF TRAFFIC SHEETS FOR DETAILS. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION STAGING AND TRAFFIC CONTROL OPERATIONS WITH ADJOINING OR OVERLAPPING CONSTRUCTION CONTRACTS, INCLUDING BARRICADE PLACEMENT NECESSARY TO PROVIDE A UNIFORM DETOUR PATTERN PRIOR TO AND THROUGHOUT THE DURATION OF THE PROJECT. SEE SPECIAL PROVISIONS.
13. PEDESTRIAN TRAFFIC ACROSS WEBSTER AVE BASCULE BRIDGE MUST BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
14. DURING A LIMITED ASBESTOS SURVEY CONDUCTED IN SEPTEMBER 2013, ASBESTOS CONTAINING MATERIALS (ACM) WERE IDENTIFIED ON EXISTING CLOTH WIRE INSULATION AND PIPE FITTINGS LOCATED INSIDE THE BRIDGE HOUSES. SHOULD SIMILAR MATERIAL BE FOUND IN CURRENTLY UNEXPOSED AREAS OF THE BUILDING, IT SHOULD ASSUMED TO BE ASBESTOS CONTAINING MATERIAL AND TREATED ACCORDINGLY. THE CONTRACTOR SHALL TAKE APPROPRIATE PRECAUTIONS TO DEAL WITH THE PRESENCE OF ASBESTOS ON THIS PROJECT. SEE SPECIAL PROVISIONS.

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|  <div>WSP USA Inc. 30 N. LA SALLE STREET SUITE 4000 CHICAGO, IL 60602 TEL: (312) 782-8150 FAX: (312) 782-1684</div> | USER NAME = PJLAUX | | DESIGNED - IJL | REVISED - |  <div>CITY OF CHICAGO DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING</div> | WEBSTER AVENUE BRIDGE OVER THE NORTH BRANCH CHICAGO RIVER | | GENERAL NOTES - SHEET 1 OF 2 | | F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
| | | | CHECKED - PUL | REVISED - | | | | | | 1388 | 11-E1525-00-BR | COOK | G-2 |
| | PLOT SCALE = | | DRAWN - IJL | REVISED - | | | | | | | | | |
| | PLOT DATE = 1/5/2021 | | CHECKED - JIG | REVISED - | | | | | | CDOT PROJECT NO. E-1-525 | | | |

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STEEL FABRICATION NOTES

1. DOMESTIC STEEL ACT: ALL IRON AND STEEL PRODUCTS, WHICH ARE TO BE INCORPORATED INTO STATE PROJECTS SHALL BE DOMESTICALLY MANUFACTURED OR PRODUCED AND FABRICATED. THE CONTRACTOR SHALL OBTAIN FROM THE IRON OR STEEL PRODUCER AND/OR FABRICATOR, IN ADDITION TO THE MILL ANALYSIS, A CERTIFICATION THAT ALL IRON OR STEEL MATERIALS MEET THESE DOMESTIC SOURCE REQUIREMENTS. THE APPLICATION OF ALL COATINGS, EPOXY, GALVANIZING, PAINTING, ETC., TO METAL PRODUCTS SHALL BE DOMESTICALLY APPLIED.
2. ALL STRUCTURAL STEEL IS TO BE AASHTO M270, (ASTM A709 GRADE 50) UNLESS OTHERWISE NOTED.
3. FASTENERS ARE TO BE 7/8" DIAMETER HIGH STRENGTH BOLTS, AASHTO M164 (ASTM A325), TYPE I MECHANICALLY GALVANIZED, UNLESS NOTED OTHERWISE. OPEN HOLES ARE TO BE 1 5/16" DIAMETER, UNLESS OTHERWISE NOTED, AND EXCEPT AS REQUIRED BY THE EXISTING DETAILS.
4. 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 THE CONNECTED PARTS.
5. FIELD WELDING IS NOT ALLOWED EXCEPT WHEN APPROVED BY THE COMMISSIONER.
6. FIELD SPLICES SHALL BE AS SHOWN ON THE PLANS OR OTHERWISE APPROVED IN WRITING BY THE COMMISSIONER.
7. FABRICATION DRAWINGS SHALL SHOW THE WEIGHT OF ALL PARTS.
8. ROLLED SHAPED MEMBERS SHALL BE FABRICATED WITH NATURAL CAMBER UP.
9. MAIN TRUSS CONNECTIONS ARE TO BE CONSIDERED SLIP-CRITICAL IN ACCORDANCE WITH AASHTO CRITERIA. CONTACT SURFACES OF BOLTED PARTS MUST MEET THE REQUIREMENTS OF CLASS A AS DESIGNATED IN AASHTO CRITERIA.
10. THE FABRICATOR SHALL NOTE THAT BOLTS ARE USED IN PLACE OF ORIGINAL RIVETS. IT IS ANTICIPATED THAT THIS CHANGE MAY CAUSE SOME INTERFERENCES AND ERECTION CONFLICTS FOR BOLT INSTALLATION. THE CONTACTOR AND THE FABRICATOR SHALL REVIEW THE DRAWINGS FOR SUCH CONFLICTS IN DETAIL AND BRING THEM TO THE ATTENTION OF THE COMMISSIONER FOR RESOLUTION PRIOR TO FABRICATION. LIKewise, THE CONTRACTOR SHALL VERIFY THE FIT AND CLEARANCE OF ALL NEW COMPONENTS THAT CONNECT TO EXISTING OR REPLACED SECTIONS OF THE PRIMARY TRUSS MEMBERS. WHERE INTERFERENCES OCCUR, THE CONTRACTOR SHALL USE CLIPPED WASHERS, TRIM THE EDGE OF INTERFERING MEMBER OR INSTALL COUNTERSUNK BOLTS AS POSSIBLE MITIGATING SOLUTIONS. ALL MODIFICATIONS MUST BE APPROVED BY THE COMMISSIONER PRIOR TO IMPLEMENTATION.
11. AT LOCATIONS WHERE RIVETS ARE TO BE REPLACED WITH HIGH STRENGTH BOLTS, THE BOLTS SHALL BE ORIENTED SO THAT THE HEAD OF THE BOLT IS PLACED ON THE OUTSIDE EXPOSED SURFACE OF THE MEMBER.
12. BOLTS, WASHERS AND NUTS ARE NOT INCLUDED IN THE ESTIMATED WEIGHT OF STRUCTURAL STEEL, BUT ARE CONSIDERED PART OF THE MEMBER TO BE PROVIDED. THE COST OF THESE ITEMS ARE INCLUDED IN THE COST OF "FURNISHING AND ERECTING STRUCTURAL STEEL".
13. IT IS THE CONTRACTOR'S RESPONSIBILITY TO TAKE MEASUREMENTS OF THE EXISTING STRUCTURE WHEREVER NEW STEEL IS TO BE INSTALLED OR CONNECTED INTO THE EXISTING MATERIAL PRIOR TO ORDERING OR FABRICATING NEW STEEL. THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER FITTING AND ASSEMBLY OF ALL PARTS OF THIS WORK. THE CONTRACTOR'S SHOP DRAWINGS MUST INDICATE WHICH DIMENSIONS WERE OBTAINED BY ACTUAL FIELD MEASUREMENTS.
14. THE LOCATION AND DIAMETER OF HOLES IN NEW CONNECTING MATERIAL MUST MATCH HOLES IN THE EXISTING STRUCTURE. HOLES IN EXISTING STRUCTURE MAY BE ENLARGED ONLY WITH THE PERMISSION OF COMMISSIONER AND IN ACCORDANCE WITH THE SPECIFICATIONS. HOLES MAY BE SUB-DRILLED OR SUB-PUNCHED IN NEW MATERIAL WHERE HOLES IN EXISTING MATERIAL ARE TO BE MATCHED. FIELD REAMING OF HOLES IN NEW MATERIAL THAT ARE SUB-PUNCHED OR SUB-DRILLED AND ARE TO MATCH EXISTING HOLES IS ACCEPTABLE, PROVIDED THE SUB-HOLE IS FULLY CONTAINED IN THE OUTLINE OF THE REAMED HOLE. FINAL HOLES MUST BE ROUND AND MAY NOT BE OVERSIZED.
15. BOLT AND RIVET SPACINGS AND SIZES MUST BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ORDERING MATERIAL FOR FABRICATION.
16. BOTTOM FLANGES AND WEBS OF FLOORBEAMS SHALL BE CONSIDERED NON-REDUNDANT MAIN LOAD CARRYING ELEMENTS SUBJECT TO TENSILE STRESSES REQUIRING CONFORMANCE TO FRACTURE CRITICAL MEMBER REQUIREMENTS, FCM, UNLESS OTHERWISE NOTED (SEE SPECIAL PROVISIONS). FABRICATION OF SUCH ELEMENTS SHALL BE ACCORDING TO CLAUSE 12 OF THE AASHTO/AWS D1.5 BRIDGE WELDING CODE.

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REMOVAL OF EXISTING STRUCTURAL STEEL NOTES

1. THE CONTRACTOR MUST PERFORM ALL WORK WITH CARE SUCH THAT ALL MATERIALS WHICH ARE TO REMAIN IN PLACE WILL NOT BE DAMAGED. IF THE CONTRACTOR DAMAGES ANY MATERIALS WHICH ARE TO REMAIN IN PLACE, THE DAMAGED MATERIALS MUST BE REPAIRED OR REPLACED IN A MANNER SATISFACTORY TO THE COMMISSIONER AT NO ADDITIONAL EXPENSE TO THE CITY.
2. FLAME CUTTING OF EXISTING STRUCTURAL STEEL MEMBERS WHICH ARE TO REMAIN IN PLACE IS NOT ALLOWED.
3. EXISTING RIVETS ARE TO BE REMOVED AND REPLACED WITH HIGH STRENGTH BOLTS BY MECHANICAL METHODS, FLAME CUTTING FOR THE PURPOSE OF REMOVING EXISTING RIVETS WILL NOT BE ALLOWED.
4. EXISTING RIVETS ARE TO BE REMOVED ONE RIVET AT A TIME AND REPLACED WITH A HIGH STRENGTH BOLT BEFORE REMOVING THE NEXT RIVET.
5. ALTHOUGH PLANS DESIGNATE EXISTING HOLES AS CONTAINING RIVETS, SOME RIVETS MAY HAVE BEEN REPLACED WITH H.S. BOLTS UNDER PREVIOUS REPAIR CONTRACTS. WHERE THESE LOCATIONS REQUIRE RIVET REMOVAL AND REPLACEMENT WITH H.S. BOLTS, REPLACE EXISTING H.S. BOLTS WITH NEW H.S. BOLTS.
6. WHERE EXISTING STRUCTURAL STEEL TO REMAIN HAS BEEN CUT OR NEW HOLES HAVE BEEN DRILLED, THE EDGES MUST BE DRESSED TO A SMOOTH, UNIFORM SURFACE WITH NO NOTCHES OR GOUGES.
7. REMOVAL OF EXISTING BRIDGE STRUCTURAL STEEL SHALL BE DONE IN A MANNER AND SEQUENCE CONSISTENT WITH THE REHABILITATION OF THE BRIDGE.
8. THE EXISTING STRUCTURAL STEEL COATING ON THE BRIDGE IS ASSUMED TO CONTAIN LEAD. THE CONTRACTOR SHALL TAKE APPROPRIATE PRECAUTIONS TO DEAL WITH THE PRESENCE OF LEAD ON THIS PROJECT. SEE SPECIAL PROVISIONS.
9. THE EXISTING COATINGS INSIDE THE BRIDGE HOUSES ON THE STRUCTURAL STEEL, CONDUIT, STAIRS, SAFETY RAILING, DOORS, DOOR FRAMES, WINDOW FRAMES, WALLS, AND MACHINERY ARE ASSUMED TO CONTAIN LEAD. THE CONTRACTOR SHALL TAKE APPROPRIATE PRECAUTIONS TO DEAL WITH THE PRESENCE OF LEAD ON THIS PROJECT. SEE SPECIAL PROVISIONS.

HIGHWAY STANDARDS

| | |
|-----------|--|
| 000001-05 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS |
| 001001-01 | AREAS OF REINFORCEMENT REBARS |
| 001006 | DECIMAL OF AN INCH AND OF A FOOT |
| 280001-04 | TEMPORARY EROSION CONTROL SYSTEMS |
| 420001-07 | PAVEMENT JOINTS |
| 420401-06 | BRIDGE APPROACH PAVEMENT |
| 424001-05 | CURB RAMPS FOR SIDEWALKS |
| 701606-10 | MULTILANE, SINGLE LANE CLOSURE, 2W W/ MOUNTABLE SIGN |
| 701901-08 | TRAFFIC CONTROL DEVICES |
| 704001-04 | TEMPORARY CONCRETE BARRIER |
| 420406 | PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB |
| 515001 | NAME PLATE |

PROJECT COMMITMENTS

1. STRICT ADHERENCE BY THE CONTRACTOR TO BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL SHALL BE USED TO MINIMIZE THE POSSIBILITY OF ANY ADVERSE IMPACTS TO THE NORTH BRANCH OF THE CHICAGO RIVER AND THE VICINITY LISTED SPECIES.

CONCRETE AND REINFORCEMENT NOTES

1. ALL CONCRETE ON NEW BRIDGE DECK SHALL BE HIGH PERFORMANCE CONCRETE (HPC). SEE SPECIAL PROVISIONS.
2. REINFORCEMENT BARS SHALL BE NEW, DEFORMED, EPOXY COATED BARS CONFORMING TO THE REQUIREMENTS OF AASHTO M31 OR M322, GRADE 60.
3. ALL CONSTRUCTION JOINTS SHALL BE BONDED ACCORDING TO IDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION ARTICLE 503.09, UNLESS OTHERWISE NOTED.
4. REINFORCEMENT BARS MUST CONFORM TO THE REQUIREMENTS OF ASTM A706, GRADE 60. SEE SPECIAL PROVISIONS.
5. ALL REINFORCING BARS SHALL BE EPOXY COATED UNLESS OTHERWISE NOTED.
6. HORIZONTAL AND VERTICAL CONSTRUCTION JOINTS SHOWN OR NOTED ON THE PLANS ARE RECOMMENDED. ANY DEVIATION FROM THOSE SHOWN MUST HAVE APPROVAL OF THE COMMISSIONER.
7. ALL CONSTRUCTION JOINTS SHALL BE BONDED ACCORDING TO IDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION ART 503.09, UNLESS OTHERWISE NOTED.
8. ALL EXPOSED EDGES OF CONCRETE MUST BE CHAMFERED 3/4" UNLESS OTHER MEMBERS ARE ERECTED FLUSH WITH THEM AND UNLESS OTHERWISE NOTED IN THE PLANS.
9. ALL EXPOSED CONCRETE SURFACES MUST BE TREATED WITH SILICONE SEALER. LINSEED OIL OR OTHER SURFACE TREATMENTS ARE NOT ACCEPTABLE.
10. CONCRETE COVER FOR REINFORCEMENT:

EXCEPT AS OTHERWISE NOTED OR SHOWN ON THE DRAWINGS, REINFORCEMENT SHALL HAVE A MINIMUM CONCRETE COVER AS FOLLOWS.

- BOTTOM OF FOUNDATIONS 3"
- BACKFILLED SURFACES 2 1/2"
- SURFACES IN CONTACT WITH WATER 2 1/2"
- INTERIOR SURFACES (NOT EXPOSED TO WATER) 2"
- EXTERIOR WALLS AND SLABS (ABOVE GROUND SURFACE) 2"

SUBSTRUCTURE, BEARINGS AND ANCHOR BOLT NOTES

1. REINFORCEMENT BARS SHALL BE NEW, DEFORMED, EPOXY COATED BARS CONFORMING TO THE REQUIREMENTS OF AASHTO M31 OR M322, GRADE 60.
2. ANCHOR RODS SHALL CONFORM TO ASTM F1554 GRADE 105 WITH SUPPLEMENTARY REQUIREMENT S4. TOP ENDS OF ANCHOR RODS SHALL BE GROUND FLAT AT 90 DEGREES TO ROD AXIS, FINAL SURFACE ROUGHNESS SHALL NOT EXCEED 125 MICRO-INCH.
3. ANCHOR ROD WASHERS SHALL CONFORM TO ASTM F436.
4. ANCHOR ROD NUTS SHALL CONFORM TO ASTM A563, GRADE DH WITH SUPPLEMENTARY REQUIREMENTS S1 AND S2.

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| 1 | 66900200 | NON-SPECIAL WASTE DISPOSAL | CU YD | 70 |
| 2 | 66900530 | SOIL DISPOSAL ANALYSIS | EACH | 2 |
| 3 | 66901001 | REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN | LUMP SUM | 1 |
| 4 | 66901002 | ON-SITE MONITORING OF REGULATED SUBSTANCES | CAL DA | 30 |
| 5 | 66901003 | REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT | LUMP SUM | 1 |
| 6 | 67100100 | MOBILIZATION | LUMP SUM | 1 |
| 7 | CDOT6700010 | ENGINEER'S FIELD OFFICE | CAL MO | 15 |
| 8 | Z0076600 | TRAINEES | ALLOWANCE | 1,000 |
| 9 | ***** | FURNISH AND INSTALL PROJECT SIGN, TYPE A | EACH | 2 |
| 10 | ***** | FURNISH AND INSTALL PROJECT SIGN, TYPE B | EACH | 1 |
| 11 | ***** | FURNISH AND INSTALL PROJECT SIGN, BANNER | EACH | 1 |
| 12 | ***** | ASBESTOS ABATEMENT | ALLOWANCE | 35,000 |
| 13 | ***** | LEAD-BASED PAINT ABATEMENT | ALLOWANCE | 150,000 |
| 14 | ***** | HAZARDOUS MATERIALS ABATEMENT | ALLOWANCE | 30,000 |
| 15 | 20200100 | EARTH EXCAVATION | CU YD | 70 |
| 16 | 25200110 | SODDING, SALT TOLERANT | SQ YD | 81 |
| 17 | 28000510 | INLET FILTERS | EACH | 4 |
| 18 | 31101200 | SUBBASE GRANULAR MATERIAL, TYPE B 4" | SQ YD | 440 |
| 19 | 35501320 | HOT-MIX ASPHALT BASE COURSE, 9" | SQ YD | 33 |
| 20 | 40600275 | BITUMINOUS MATERIALS (PRIME COAT) | POUND | 74 |
| 21 | 40600290 | BITUMINOUS MATERIALS (TACK COAT) | POUND | 576 |
| 22 | 40603080 | HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 | TON | 139 |
| 23 | 40603340 | HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 | TON | 82 |
| 24 | 42000070 | PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB | SQ YD | 48 |
| 25 | 44000100 | PAVEMENT REMOVAL | SQ YD | 201 |
| 26 | 44000155 | HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2" | SQ YD | 15 |
| 27 | 44000165 | HOT-MIX ASPHALT SURFACE REMOVAL, 4" | SQ YD | 841 |
| 28 | 44000500 | COMBINATION CURB AND GUTTER REMOVAL | FOOT | 245 |
| 29 | 44000600 | SIDEWALK REMOVAL | SQ FT | 2,903 |
| 30 | 72000100 | SIGN PANEL - TYPE 1 | SQ FT | 11 |
| 31 | 78000100 | THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS | SQ FT | 69 |
| 32 | 78000200 | THERMOPLASTIC PAVEMENT MARKING - LINE 4" | FOOT | 523 |
| 33 | 78000650 | THERMOPLASTIC PAVEMENT MARKING - LINE 24" | FOOT | 516 |
| 34 | 78008200 | POLYUREA PAVEMENT MARKING TYPE I - LETTERS AND SYMBOLS | SQ FT | 180 |
| 35 | 78008210 | POLYUREA PAVEMENT MARKING TYPE I - LINE 4" | FOOT | 906 |
| 36 | 78008230 | POLYUREA PAVEMENT MARKING TYPE I - LINE 6" | FOOT | 201 |
| 37 | 78008250 | POLYUREA PAVEMENT MARKING TYPE I - LINE 12" | FOOT | 20 |
| 38 | 78008270 | POLYUREA PAVEMENT MARKING TYPE I - LINE 24" | FOOT | 23 |
| 39 | CDOT4240010 | PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH | SQ FT | 2,507 |
| 40 | CDOT4240020 | PORTLAND CEMENT CONCRETE SIDEWALK 8 INCH | SQ FT | 419.5 |
| 41 | CDOT4240040 | PORTLAND CEMENT CONCRETE ADA RAMP 8 INCH | SQ FT | 436 |
| 42 | CDOT4240065 | RADIAL DETECTABLE WARNING TILES (CAST IRON) | SQ FT | 61.5 |

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| 43 | CDOT6020010 | CATCH BASINS, TYPE 1, 4'-DIAMETER, TYPE 1 FRAME, OPEN LID (CITY OF CHICAGO) | EACH | 5 |
| 44 | CDOT6050020 | REMOVING CATCH BASINS | EACH | 2 |
| 45 | CDOT6060020 | COMBINATION CURB AND GUTTER TYPE B V.12 | FOOT | 265.5 |
| 46 | X0326243 | SEDIMENT CONTROL, SILT CURTAIN | LUMP SUM | 1 |
| 47 | X0327980 | PAVEMENT MARKING REMOVAL - WATER BLASTING | SQ FT | 516 |
| 48 | ***** | REMOVE, STORE AND RE-ERECT SIGN PANEL | EACH | 8 |
| 49 | ***** | SIDEWALK REMOVAL (SPECIAL) | SQ FT | 805 |
| 50 | ***** | STORM SEWERS, TYPE 2, 8-INCH (EXTRA STRENGTH VITRIFIED CLAY PIPE) | FOOT | 5 |
| 51 | CDOT6640010 | TEMPORARY CHAIN LINK FENCE WITH SCREENING, 6' | FOOT | 80 |
| 52 | X1400347 | DETOUR TRAFFIC SIGNAL MODIFICATIONS AND MAINTENANCE | EACH | 1 |
| 53 | X7010218 | TRAFFIC CONTROL AND PROTECTION, (SPECIAL) | LUMP SUM | 1 |
| 54 | 20900110 | POROUS GRANULAR BACKFILL | CU YD | 375.0 |
| 55 | 50157300 | PROTECTIVE SHIELD | SQ YD | 1,188 |
| 56 | 50200100 | STRUCTURE EXCAVATION | CU YD | 86.0 |
| 57 | 50300260 | BRIDGE DECK GROOVING | SQ YD | 588 |
| 58 | 50300285 | FORM LINER TEXTURED SURFACE | SQ FT | 2,732 |
| 59 | 50500505 | STUD SHEAR CONNECTORS | EACH | 6,492 |
| 60 | 51500100 | NAME PLATES | EACH | 1 |
| 61 | 52100010 | ELASTOMERIC BEARING ASSEMBLY, TYPE I | EACH | 32 |
| 62 | 50800205 | REINFORCEMENT BARS, EPOXY COATED | POUND | 108,630 |
| 63 | 52000110 | PREFORMED JOINT STRIP SEAL | FOOT | 108 |
| 64 | 52100520 | ANCHOR BOLTS, 1" | EACH | 64 |
| 65 | 59000200 | EPOXY CRACK INJECTION | FOOT | 176 |
| 66 | CDOT5010030 | CONCRETE REMOVAL | CU YD | 253.8 |
| 67 | CDOT5030020 | HIGH PERFORMANCE CONCRETE STRUCTURES | CU YD | 258.0 |
| 68 | CDOT5030030 | HIGH PERFORMANCE CONCRETE SUPERSTRUCTURES | CU YD | 256.3 |
| 69 | CDOT5030050 | CLASS "SI" CONCRETE (MISCELLANEOUS) | CU YD | 32.6 |
| 70 | CDOT5870010 | PROTECTIVE CONCRETE SEALER | SQ YD | 1,100 |
| 71 | X0323444 | DECORATIVE STEEL RAILING | FOOT | 210 |
| 72 | X0326519 | STEEL RAILING REMOVAL | FOOT | 206 |
| 73 | Z0001903 | STRUCTURAL STEEL REMOVAL | POUND | 486,420 |
| 74 | Z0007101 | CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 1 | LUMP SUM | 1 |
| 75 | Z0012754 | STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES) | SQ FT | 589 |
| 76 | Z0012755 | STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES) | SQ FT | 99 |
| 77 | ***** | BALANCING OF BRIDGE AND ALTERATION OF COUNTERWEIGHTS | LUMP SUM | 1 |
| 78 | ***** | BRIDGE OPERATION AND MAINTENANCE | LUMP SUM | 1 |
| 79 | ***** | CLEANING AND PAINTING EXISTING STEEL STRUCTURES | LUMP SUM | 1 |
| 80 | ***** | COUNTERWEIGHT PIT CLEANING | EACH | 2 |
| 81 | ***** | DOLPHINS | EACH | 4 |
| 82 | ***** | DRAINAGE SYSTEM | LUMP SUM | 1 |
| 83 | ***** | FURNISHING AND ERECTING 5-INCH GRATING, HALF CONCRETE FILLED | SQ FT | 6,114 |
| 84 | ***** | FURNISHING AND ERECTING FRP GRATING | SQ FT | 3,227 |

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| 85 | ***** | FURNISHING AND ERECTING STRUCTURAL STEEL | LUMP SUM | 1 |
| 86 | ***** | FURNISHING AND ERECTING STRUCTURAL STEEL , FIELD DISCOVERED CONDITIONS REPAIRED AS DIRECTED BY THE COMMISSIONER | POUND | 20,000 |
| 87 | ***** | FLOOR ACCESS HATCH | EACH | 4 |
| 88 | ***** | METAL LADDERS | EACH | 4 |
| 89 | ***** | PIER PROTECTION REPLACEMENT | FOOT | 301 |
| 90 | ***** | REMOVAL OF DETERIORATED CONNECTORS AND REPLACEMENT WITH HIGH STRENGTH BOLTS | EACH | 51 |
| 91 | ***** | REFURBISHING OF LIVE LOAD BEARINGS | EACH | 4 |
| 92 | ***** | REMOVAL OF EXISTING SUPERSTRUCTURES | EACH | 1 |
| 93 | ***** | REMOVAL OF EXISTING GRID DECK | LUMP SUM | 1 |
| 94 | 64300240 | IMPACT ATTENUATORS (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2 | EACH | 4 |
| 95 | ***** | STEEL RAILING (SPECIAL) | FOOT | 506 |
| 96 | ***** | STRUCTURAL STEEL REPAIRS | POUND | 61,620 |
| 97 | ***** | TEMPORARY SUPPORT | LUMP SUM | 1 |
| 98 | ***** | REMOVE EXISTING BRIDGE HOUSES | EACH | 2 |
| 99 | ***** | REMOVE EXISTING CONCRETE RAILINGS | LIN FOOT | 180 |
| 100 | ***** | PRECAST CONCRETE WALL | SQ FT | 1,500 |
| 101 | ***** | PRECAST CONCRETE RAILINGS | LIN FOOT | 180 |
| 102 | ***** | METAL CLADDED WALL ASSEMBLY | SQ FT | 590 |
| 103 | ***** | PAINT GYPSUM BOARD CEILING | SQ FT | 320 |
| 104 | ***** | LIFE RINGS | EACH | 2 |
| 105 | ***** | INTERIOR PAINTING | SQ FT | 400 |
| 106 | ***** | INSTALL AND PAINT STAIR RAILINGS | FOOT | 100 |
| 107 | ***** | PAINT CONCRETE FLOORS AND STAIRS | SQ FT | 1,600 |
| 108 | ***** | ALUMINUM FRAMED WINDOWS | SQ FT | 485 |
| 109 | ***** | STANDING SEAM METAL ROOFING | SQ FT | 320 |
| 110 | ***** | EXTERIOR DOORS | EACH | 4 |
| 111 | ***** | BREAKDOWN FOUNDATION | EACH | 5 |
| 112 | ***** | BRIDGE HOUSE ELECTRICAL WORK | LUMP SUM | 2 |
| 113 | ***** | CHICAGO 2000 LUMINAIRE ARM, 8 FOOT, WITH SCROLL, 8' | EACH | 4 |
| 114 | ***** | CHICAGO 2000 MAST HEAD AND FINIAL FOR 10" POLE | EACH | 7 |
| 115 | ***** | CHICAGO 2000 POLE BASE | EACH | 11 |
| 116 | ***** | CLEAN EXISTING MANHOLE OR HANDHOLE | EACH | 2 |
| 117 | ***** | COILABLE CONDUIT, HDPE, SCH# 80, DIRECTIONAL BORING, 2" | LIN FOOT | 473 |
| 118 | ***** | COILABLE CONDUIT, HDPE, SCH# 80, DIRECTIONAL BORING, 3" | LIN FOOT | 229 |
| 119 | ***** | CONCRETE FOUNATION, 28" DIAMETER, 1 1/4" ANCHOR RODS, 15" BOLT CIRCLE, 7 FEET | LIN FOOT | 28 |
| 120 | ***** | CONTROLLER STREET LIGHTING, RESIDENTIAL, 240V | EACH | 1 |
| 121 | ***** | DRILL EXISTING MANHOLE OR HANDHOLE | EACH | 3 |
| 122 | ***** | ELECTRICAL CABLE IN CONDUIT, 1/C #10 | LIN FOOT | 1,200 |
| 123 | ***** | ELECTRICAL CABLE IN CONDUIT, 1/C #12 | LIN FOOT | 600 |
| 124 | ***** | ELECTRICAL CABLE IN CONDUIT, 1/C #350 KCMIL | LIN FOOT | 1410 |
| 125 | ***** | ELECTRICAL CABLE IN CONDUIT, 1/C #2/0 | LIN FOOT | 840 |
| 126 | ***** | ELECTRICAL CABLE IN CONDUIT, TRIPLEX 2 1/C NO.6, 1/C NO.8 | LIN FOOT | 1,893 |

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| PLAN | SURVEYED PLOTTED ALIGNMENT CHECKED GRADE CHECKED CADD FILE NAME | DATE |
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| | | |
| | | |
| NOTE BOOK NO. | | |

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| PROFILE | SURVEYED PLOTTED GRADES CHECKED STRUCTURE NOTATIONS CHKGD | DATE |
| | | BY |
| | | |
| | | |
| NOTE BOOK NO. | | |

| ITEM NO. | CODE NO. | ITEM | UNIT | TOTAL QUANTITY |
|----------|----------|--|----------|----------------|
| 127 | ***** | ELECTRICAL HANDHOLE, 30" DIAMETER WITH 24" FRAME AND LID | EACH | 2 |
| 128 | ***** | INSTALL CONDUIT INTO EXISTING HELIX FOUNDATION | EACH | 1 |
| 129 | ***** | INTERCEPT EXISTING CONDUIT | EACH | 2 |
| 130 | ***** | JUNCTION BOX ATTACHED TO STRUCTURE | EACH | 1 |
| 131 | ***** | LED CHANNEL CENTER SIGNAL NAVIGATIONAL LIGHT | EACH | 2 |
| 132 | ***** | LED PIER SIGNAL NAVIGATIONAL LIGHT | EACH | 4 |
| 133 | ***** | LED RESIDENTIAL LUMINAIRE - 108W | EACH | 8 |
| 134 | ***** | LUMINAIRE CHICAGO 2000 PENDANT LED | EACH | 11 |
| 135 | ***** | MAINTAIN LIGHTING SYSTEM | LUMP SUM | 1 |
| 136 | ***** | MAST ARM STEEL 4' | EACH | 8 |
| 137 | ***** | PAINT EXISTING POLE COMPLETE | EACH | 5 |
| 138 | ***** | POLE, STEEL, ANCHOR BASE, 7" DIAMETER, 3 GAUGE, 20' | EACH | 4 |
| 139 | ***** | POLE, STEEL, ANCHOR BASE, 10" DIAMETER, 7 GAUGE, 34'-6" | EACH | 2 |
| 140 | ***** | CONDUIT ATTACHED TO STRUCTURE, 1" | LIN FOOT | 1,236 |
| 141 | ***** | CONDUIT ATTACHED TO STRUCTURE, 3" | LIN FOOT | 55 |
| 142 | ***** | CONDUIT ATTACHED TO STRUCTURE, 4" | LIN FOOT | 52 |
| 143 | ***** | PVC CONDUIT IN TRENCH, 3" PVC, SCH#80 | LIN FOOT | 15 |
| 144 | ***** | REMOVE ANCHOR BASE POLE | EACH | 5 |
| 145 | ***** | REMOVE BRANCH WIRES / CABLES 2#6 | LIN FOOT | 1,414 |
| 146 | ***** | REMOVE LUMINAIRE | EACH | 10 |
| 147 | ***** | REMOVE MAST ARM | EACH | 10 |
| 148 | ***** | REMOVE NAVIGATIONAL SIGNAL | EACH | 6 |
| 149 | ***** | REMOVE TS HEAD, 1-FACE | EACH | 1 |
| 150 | ***** | REMOVE PEDESTRIAN SIGNAL HEAD | EACH | 1 |
| 151 | ***** | REMOVE MONOTUBE M.A. 20' | EACH | 1 |
| 152 | ***** | REMOVE JUNCTION BOX, TSS 18 | EACH | 1 |
| 153 | ***** | REINSTALL SIGNAL HEAD, 3 SECTION, MAST ARM MOUNTED | EACH | 1 |
| 154 | ***** | REINSTALL PEDESTRIAN SIGNAL, BRACKET MOUNTED | EACH | 1 |
| 155 | ***** | REINSTALL MAST ARM, MONOTUBE, 20' | EACH | 1 |
| 156 | ***** | REINSTALL JUNCTION BOX | EACH | 1 |
| 157 | ***** | ROD AND CLEAN DUCT IN EXISTING DUCT SYSTEM | LIN FOOT | 295 |
| 158 | ***** | REMOVE ELECTRICAL BRIDGE HOUSE EQUIPMENT | LUMP SUM | 1 |
| 159 | ***** | SERVICE INSTALLATION - 300A | EACH | 1 |
| 160 | ***** | CLEANING, PAINTING, AND LUBRICATING OPERATING MACHINERY ASSEMBLIES | LUMP SUM | 1 |
| 161 | ***** | REPLACEMENT OF CENTER LOCKS | EACH | 2 |
| 162 | ***** | FURNISH AND INSTALL NEW SUMP PUMPS | EACH | 2 |
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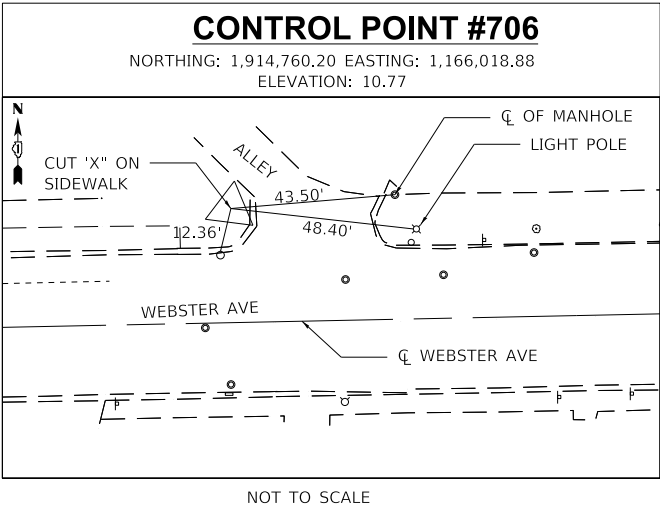
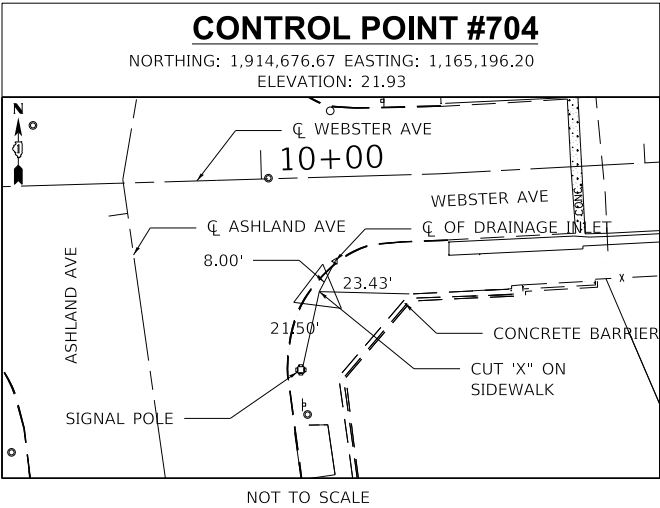
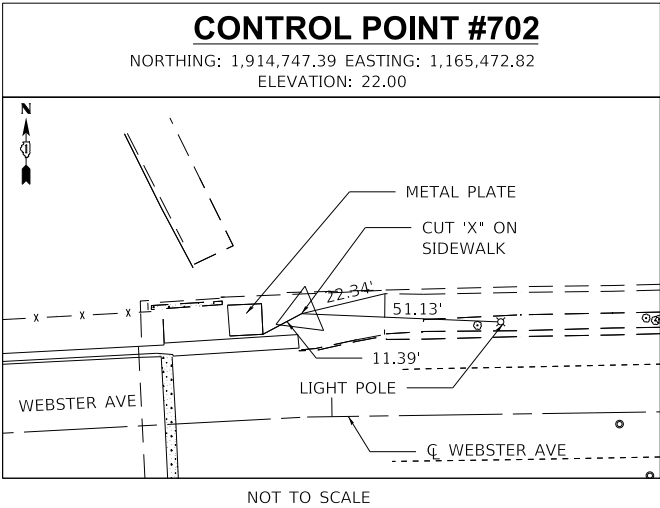
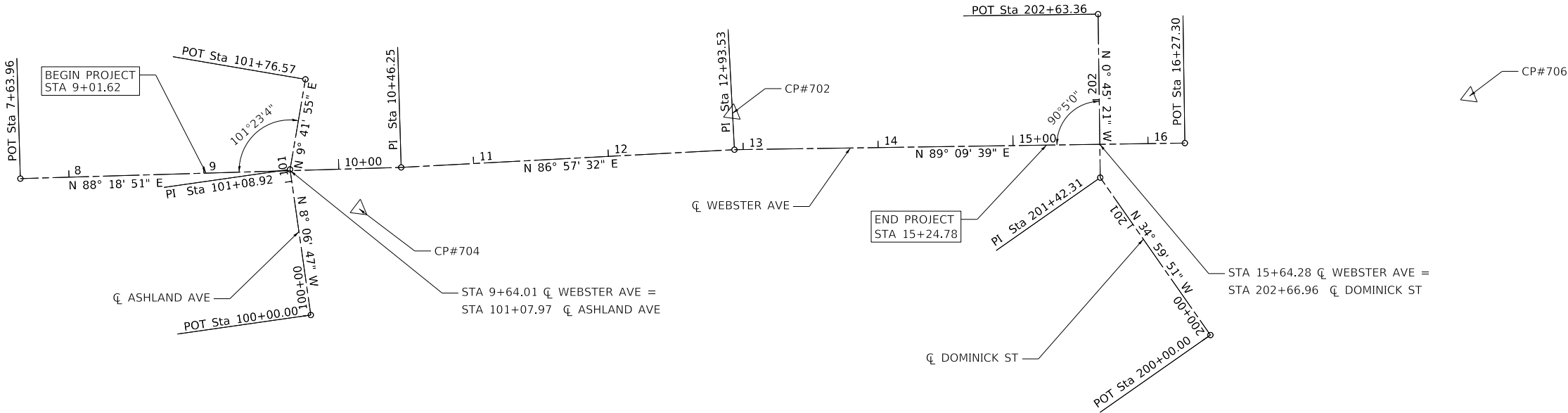
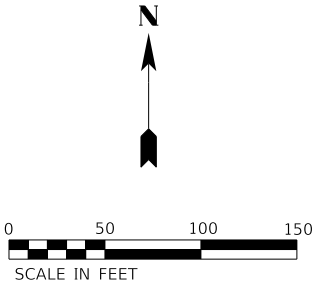
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|-----------|--------------------------|--|----------|------------|
| | PLOTTED _____ | | | |
| NOTE BOOK | ALIGNMENT CHECKED _____ | | BY _____ | DATE _____ |
| NO. _____ | RT. OF WAY CHECKED _____ | | | |
| | CADD FILE NAME _____ | | | |

| PROFILE | | | BY | DATE |
|------------------------|--------------------------------|--|----|------|
| | | | | |
| NOTE BOOK NO. _____ | SURVEYED _____ | | | |
| | PLOTTED _____ | | | |
| | GRADES CHECKED _____ | | | |
| | B.M. NOTED _____ | | | |
| | STRUCTURE NOTATIONS CHKD _____ | | | |

E1525-SHT-ATB-01.DGN

| STATION | NORTHING | EASTING |
|-----------------|--------------|--------------|
| WEBSTER AVENUE | | |
| 7+63.96 | 1,914,699.05 | 1,164,945.19 |
| 10+46.25 | 1,914,707.36 | 1,165,227.35 |
| 12+93.53 | 1,914,720.48 | 1,165,474.29 |
| 16+27.30 | 1,914,725.37 | 1,165,808.02 |
| ASHLAND AVENUE | | |
| 100+00.00 | 1,914,598.05 | 1,165,160.39 |
| 101+08.92 | 1,914,705.87 | 1,165,145.02 |
| 101+76.57 | 1,914,772.56 | 1,165,156.42 |
| DOMINICK STREET | | |
| 200+00.00 | 1,914,583.22 | 1,165,826.95 |
| 201+42.31 | 1,914,699.80 | 1,165,745.33 |
| 202+63.36 | 1,914,820.84 | 1,165,743.73 |

| BENCHMARKS | | | | |
|------------|--------------|--------------|-----------|---|
| MONUMENT | NORTHING | EASTING | ELEVATION | DESCRIPTION |
| BM 1 | 1,914,761.23 | 1,165,204.01 | 23.99 | SQUARE CUT ON TOP OF STONE DOOR SILL OF ASHLAND AVE BRIDGE HOUSE DOORWAY (NE WEBSTER/ASHLAND) |



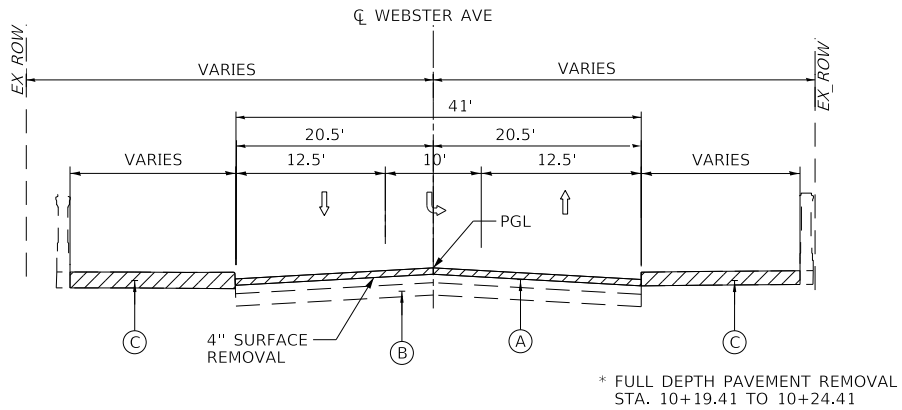
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|--|--------------------|--|----------------|-----------|
| | USER NAME = MMA | | DESIGNED - MMA | REVISED - |
| | | | CHECKED - RPH | REVISED - |
| | PLOT SCALE = | | DRAWN - MMA | REVISED - |
| | PLOT DATE = SDATES | | CHECKED - RPH | REVISED - |

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| CITY OF CHICAGO DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING | WEBSTER AVENUE BRIDGE OVER THE NORTH BRANCH CHICAGO RIVER | |
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|---------------------------------|----------------|--------|--|------------------|
| ALIGNMENT, TIES, AND BENCHMARKS | | | | SHEET NO. C-1 |
| F.A.U. RTE. | SECTION | COUNTY | | |
| 1388 | 11-E1525-00-BR | COOK | | |
| CDOT PROJECT NO. E-1-525 | | | | 9 of 210 |

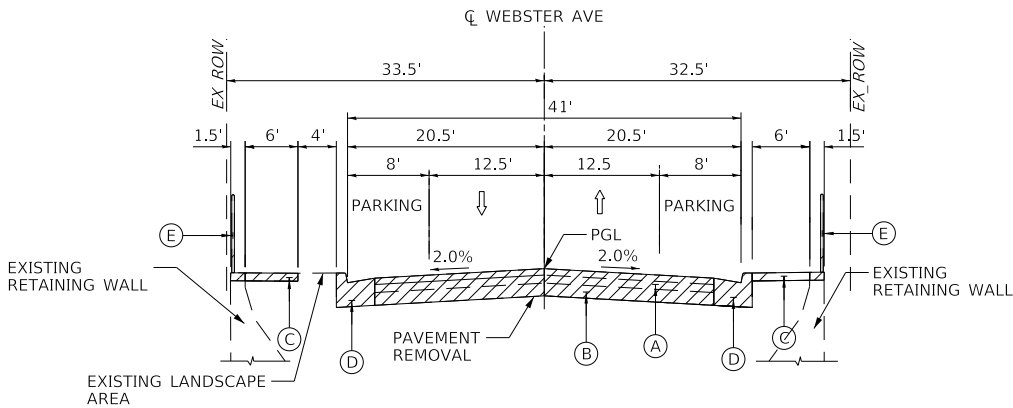
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| NOTE BOOK NO. | | |
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| PROFILE | SURVEYED PLOTTED GRADES CHECKED BY STRUCTURE NOTATIONS CHNG | DATE |
|------------------|---|------|
| | | |
| NOTE BOOK NO. | | |
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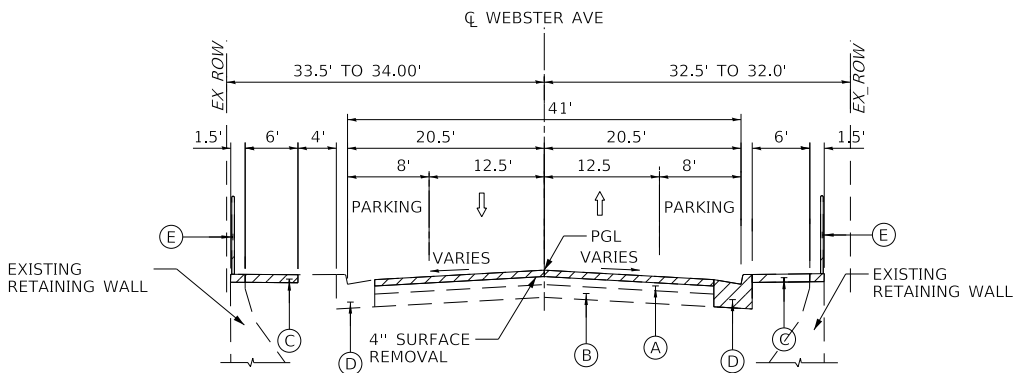
EXISTING ROADWAY TYPICAL SECTION

STA 10+02.43 TO STA 10+24.41
BRIDGE OMMISION
STA 10+24.41 TO 13+14.35



EXISTING ROADWAY TYPICAL SECTION

* CURB AND GUTTER REMOVAL
STA. 13+14.15 TO 13+44.37



EXISTING ROADWAY TYPICAL SECTION

STA 13+55.19 TO STA 15+20.65

EXISTING

- (A) 6" HMA PAVEMENT
- (B) 6" BRICK PAVERS
- (C) 5" PCC SIDEWALK
- (D) CURB AND GUTTER
- (E) PEDSTRIAN RAILING
- REMOVAL

NOTES

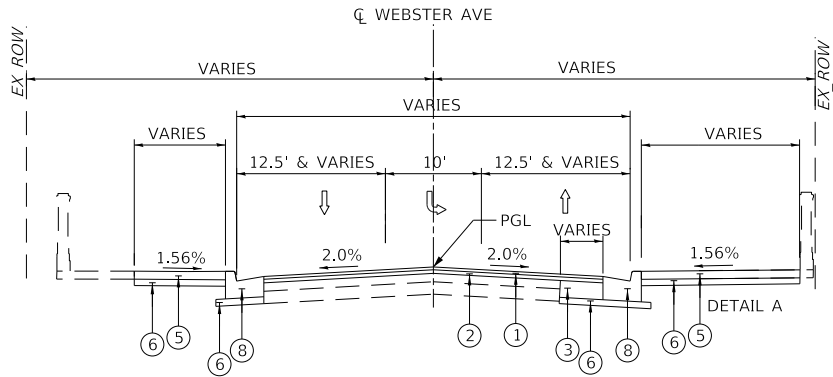
1. TYPICAL SECTIONS NOT TO SCALE.
2. SEE PROPOSED STRUCTURE PLANS FOR TOP OF THE WALL RECONSTRUCTION.
3. AS INDICATED ON THE ROADWAY PLANS, TYPICAL PROPOSED SIDEWALK MUST HAVE A CROSS SLOPE OF 1:64 OR LESS.
4. EXISTING PAVEMENT STRUCTURE HAS BEEN OBTAINED FROM PAVEMENT CORING, EXACT PAVEMENT LAYERS ARE NOT KNOWN.

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| | | | | | | | | | | | | |
|---|--------------------|--|--|----------------|-----------|---|--|-------------------------|--------------------------|----------------|--------|-----------|
|  <div>WSP USA Inc. 30 N. LASALLE STREET SUITE 4200 CHICAGO, IL 60602 TEL: (312) 782-8150 FAX: (312) 782-1684</div> | USER NAME = MMA | | | DESIGNED - MMA | REVISED - | CITY OF CHICAGO DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING | WEBSTER AVENUE BRIDGE OVER THE NORTH BRANCH CHICAGO RIVER | TYPICAL SECTIONS | F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
| | PLOT SCALE = | | | CHECKED - RPH | REVISED - | | | | 1388 | 11-E1525-00-BR | COOK | C-2 |
| | PLOT DATE = SDATES | | | DRAWN - MMA | REVISED - | | | | CDOT PROJECT NO. E-1-525 | | | 10 of 210 |
| | | | | CHECKED - RPH | REVISED - | | | | | | | |

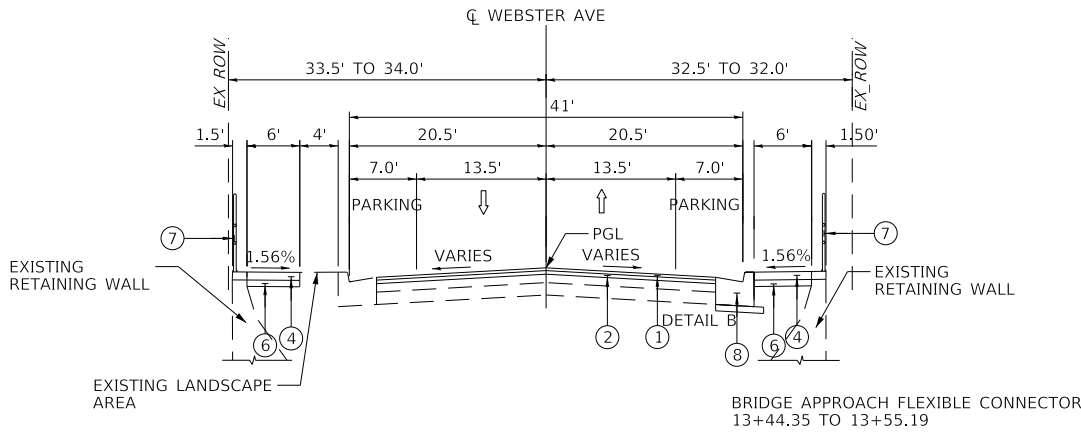
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| PROFILE | SURVEYED PLOTTED GRADES CHECKED STRUCTURE NOTATIONS CHNG | BY | DATE |
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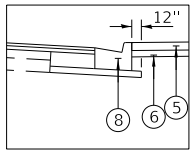
PROPOSED ROADWAY TYPICAL SECTION

STA 10+02.43 TO STA 10+24.41



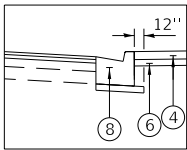
PROPOSED ROADWAY TYPICAL SECTION

STA 13+50.35 TO STA 15+20.65



DETAIL A

AGGREGATE SUB-BASE AT
CONCRETE CURB AND GUTTER TY B V.12
WEST OF THE WEBSTER STRUCTURE



DETAIL B

AGGREGATE SUB-BASE AT
CONCRETE CURB AND GUTTER TY B V.12
EAST OF THE WEBSTER STRUCTURE

BRIDGE OMMISION
STA 10+24.41 TO 13+14.35
BRIDGE APPROACH
STA 13+14.35 TO 13+44.35
BRIDGE APPROACH FLEXIBLE CONNECTOR
13+44.35 TO 13+55.19

PROPOSED

- ① HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70. 1.5"
- ② HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50, 2.5"
- ③ HOT-MIX ASPHALT BASE COURSE, 9"
- ④ PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
- ⑤ PORTLAND CEMENT CONCRETE SIDEWALK 8 INCH
- ⑥ SUBBASE GRANULAR MATERIAL, TYPE B 4"
- ⑦ PEDESTRAIN RAILING (SEE STRUCTURAL PLANS)
- ⑧ CONCRETE CURB AND GUTTER TYPE B V.12

NOTES

1. TYPICAL SECTIONS NOT TO SCALE.
2. SEE PROPOSED STRUCTURE PLANS FOR TOP OF THE WALL RECONSTRUCTION.
3. AS INDICATED ON THE ROADWAY PLANS, TYPICAL PROPOSED SIDEWALK MUST HAVE A CROSS SLOPE OF 1:64 OR LESS.
4. EXISTING PAVEMENT STRUCTURE HAS BEEN OBTAINED FROM PAVEMENT CORING, EXACT PAVEMENT LAYERS ARE NOT KNOWN.

| HOT-MIX ASPHALT MIXTURE REQUIREMENTS | | QUALITY MANAGEMENT |
|--------------------------------------|------------------|-----------------------|
| MIXTURE TYPE | AIR VOIDS @ NDES | |
| PAVEMENT RESURFACING | | |
| HMA SURFACE COURSE, MIX "D", N70 | 4% @ 70 Gyr. | QC/QA OR QCP |
| HMA BINDER COURSE, IL-19.0, N50 | 4% @ 50 Gyr. | QC/QA OR QCP |
| PAVEMENT WIDENING | | |
| HMA SURFACE COURSE, MIX "D", N70 | 4% @ 70 Gyr. | QC/QA OR QCP |
| HMA BINDER COURSE, IL-19.0, N50 | 4% @ 50 Gyr. | QC/QA OR QCP |
| HMA BASE COURSE, N50 | 4% @ 50 Gyr. | QC/QA OR QCP |



WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

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| USER NAME = | DESIGNED - MMA | REVISED - |
| | CHECKED - RPH | REVISED - |
| PLOT SCALE = | DRAWN - MMA | REVISED - |
| PLOT DATE = SDATES | CHECKED - MMA | REVISED - |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

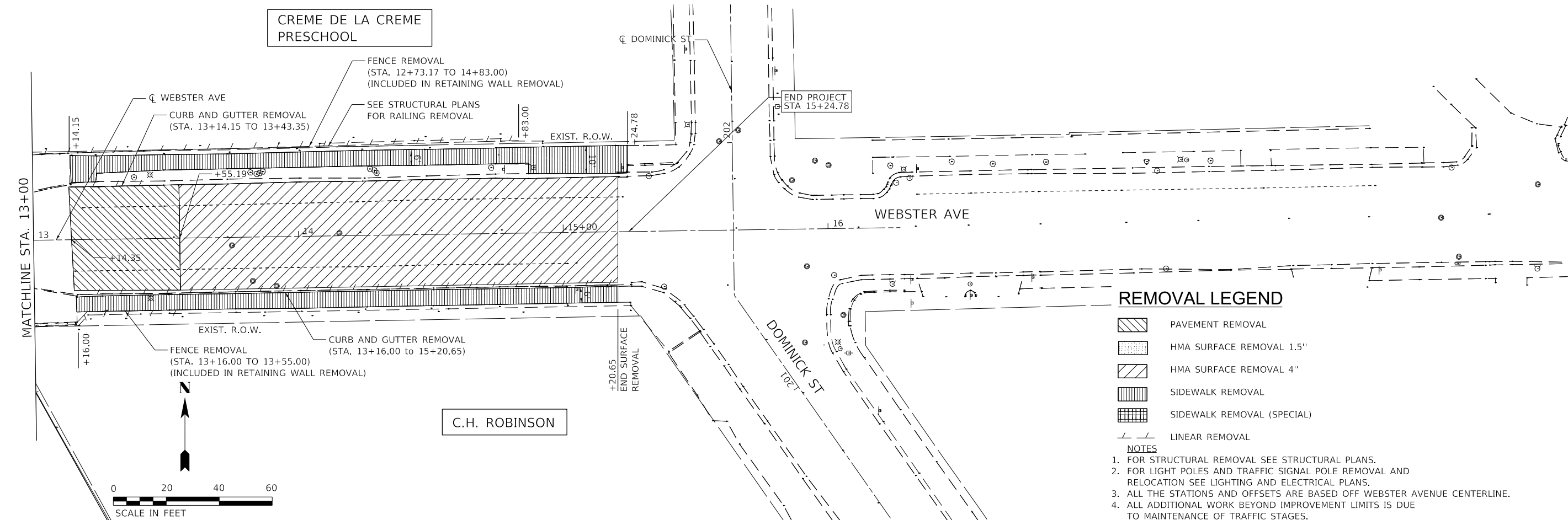
**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

TYPICAL SECTIONS

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. C-3 |
|--------------------------|----------------|--------|-------------------------|
| 1388 | 11-E1525-00-BR | COOK | |
| CDOT PROJECT NO. E-1-525 | | | 11 of 210 |

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| PROFILE | | BY | DATE |
|-----------|--------------------------------|----|------|
| NOTE BOOK | SURVEYED _____ | | |
| | PLOTTED _____ | | |
| | GRADES CHECKED _____ | | |
| | B.M. NOTED _____ | | |
| NO. _____ | STRUCTURE NOTATIONS CHKD _____ | | |



NOTES

1. FOR STRUCTURAL REMOVAL SEE STRUCTURAL PLANS.
2. FOR LIGHT POLES AND TRAFFIC SIGNAL POLE REMOVAL AND RELOCATION SEE LIGHTING AND ELECTRICAL PLANS.
3. ALL THE STATIONS AND OFFSETS ARE BASED OFF WEBSTER AVENUE CENTERLINE
4. ALL ADDITIONAL WORK BEYOND IMPROVEMENT LIMITS IS DUE TO MAINTENANCE OF TRAFFIC STAGES.

NOTES

1. FOR STRUCTURAL REMOVAL SEE STRUCTURAL PLANS.
2. FOR LIGHT POLES AND TRAFFIC SIGNAL POLE REMOVAL AND RELOCATION SEE LIGHTING AND ELECTRICAL PLANS.
3. ALL THE STATIONS AND OFFSETS ARE BASED OFF WEBSTER AVENUE CENTERLINE.
4. ALL ADDITIONAL WORK BEYOND IMPROVEMENT LIMITS IS DUE TO MAINTENANCE OF TRAFFIC STAGES.

| PLAN | SURVEYED PLOTTED | ALIGNMENT CHECKED DATE | CADD FILE NAME | BY | DATE |
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| NOTE BOOK NO. | | | | | |

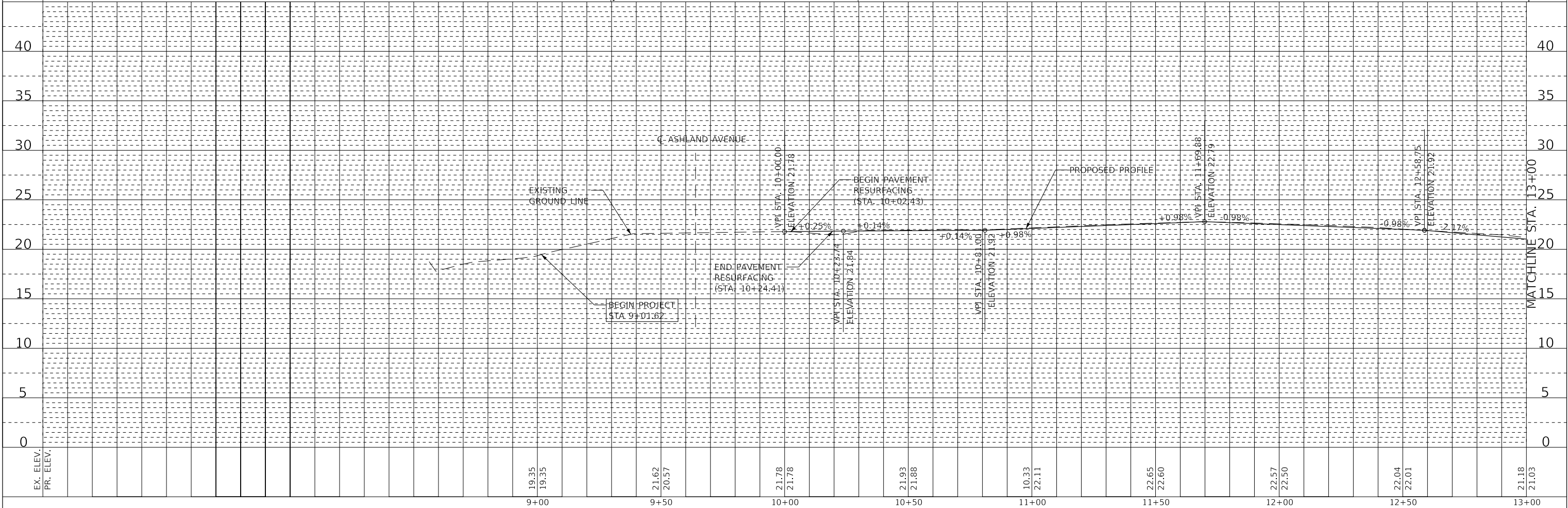
PROPOSED LEGEND

- HMA SURFACE COURSE, MIX "D", N70 1.5"
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50, 2.5"
- HMA SURFACE COURSE, MIX "D", N70 1.5"
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50, 2.5"
HOT-MIX ASPHALT BASE COURSE, 9"
SUBBASE GRANULAR MATERIAL, TYPE B 4"
- HMA SURFACE COURSE, MIX "D", N70 1.5"
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50
- PCC SIDEWALK 5"
SUBBASE GRANULAR MATERIAL TYPE B 4"
- PCC SIDEWALK 8"
SUBBASE GRANULAR MATERIAL TYPE B 4"
- PORTLAND CEMENT CONCRETE ADA 8"
- DETECTABLE WARNINGS

NOTES

- ALL THE STATIONS AND OFFSETS NOTED ARE BASED OFF WEBSTER AVENUE CENTERLINE.
- FOR CURB RAMP OFFSETS AND SLOPES, SEE CURB RAMP DETAILS SHEETS C-8 & C-9.
- SEE BRIDGE PLANS FOR SN 016-6057.

| PROFILE | SURVEYED PLOTTED | GRADES CHECKED DATE | STRUCTURE NOTATIONS CHNG | BY | DATE |
|------------------|---------------------|------------------------|--------------------------|----|------|
| | | | | | |
| NOTE BOOK NO. | | | | | |



CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

PLAN AND PROFILE

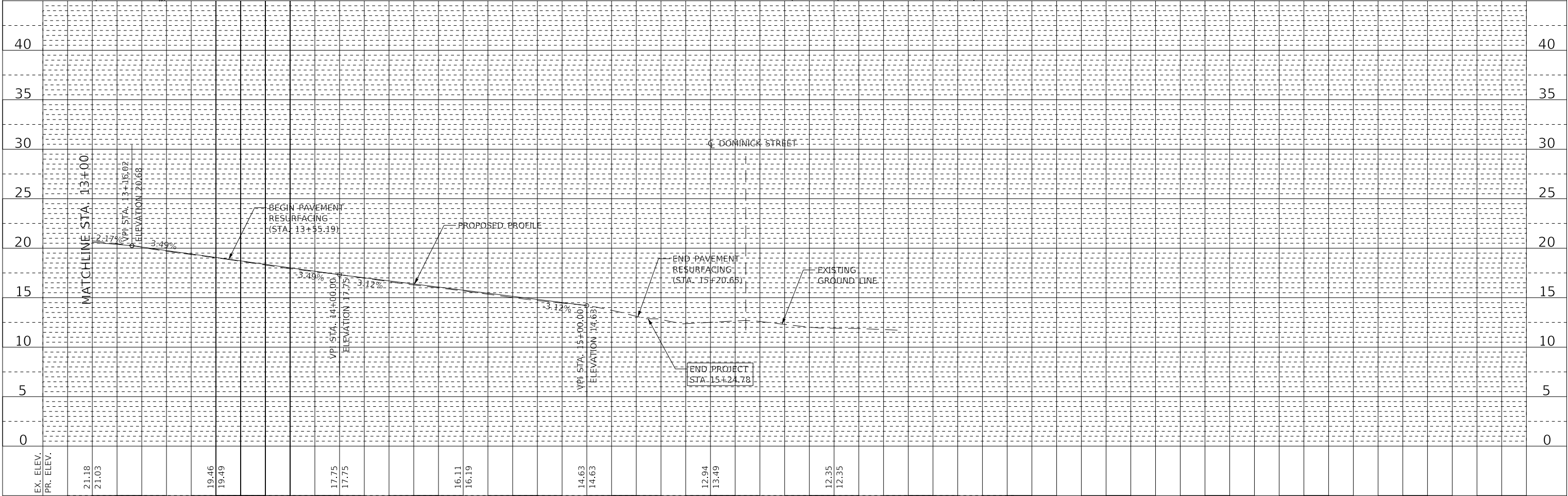
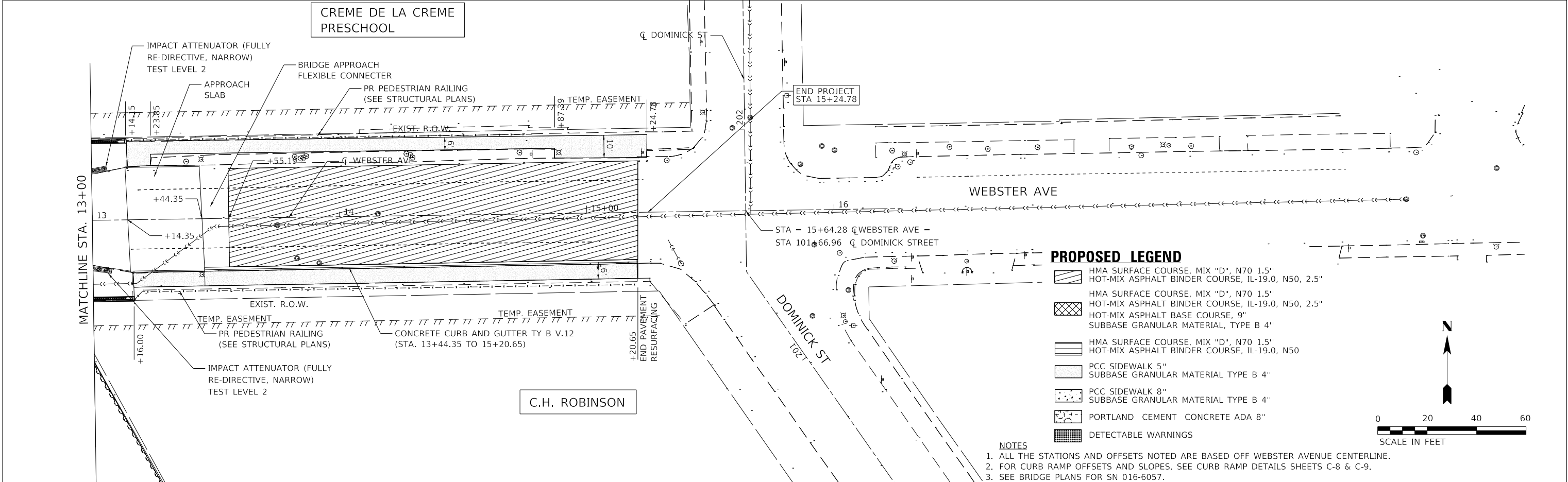
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|--------------------------|----------------|--------|-----------|
| 1388 | 11-E1525-00-BR | COOK | C-5 |
| CDOT PROJECT NO. E-1-525 | | | 13 of 210 |

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| PLAN | SURVIVED PLOTTED ALIGNMENT CHECKED CADD FILE NAME | BY | DATE |
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| NOTE BOOK NO. | | | |

| PROFILE | SURVIVED PLOTTED GRADES CHECKED STRUCTURE NOTATIONS CHNG | BY | DATE |
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| NOTE BOOK NO. | | | |

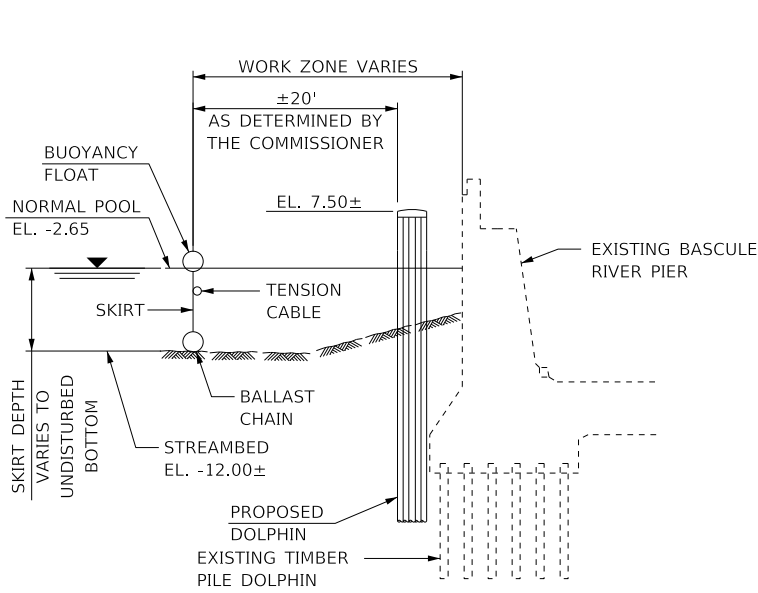
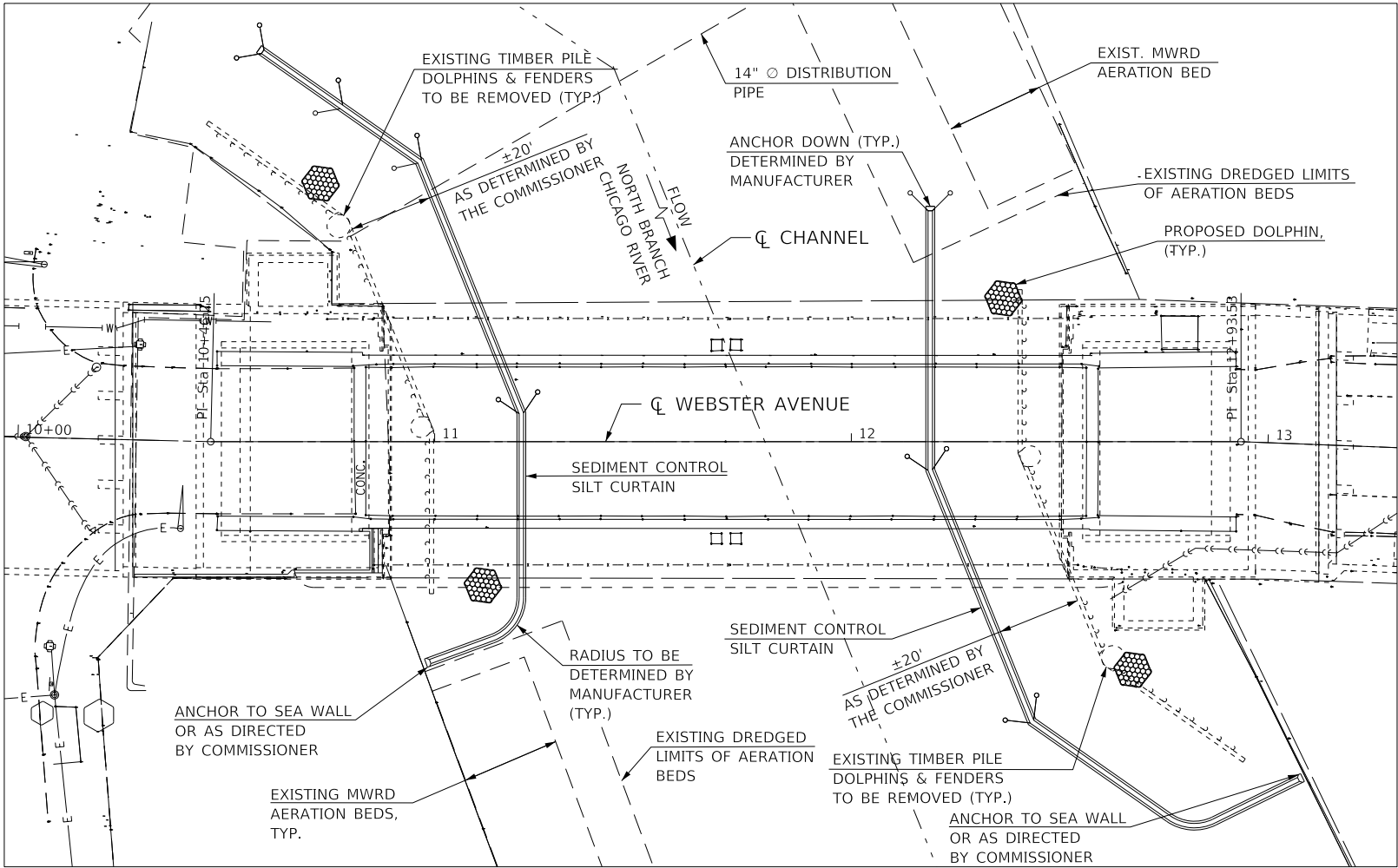
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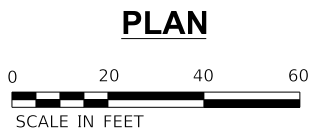
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|---|--|---------------------|--|----------------|--|-----------|--|---|--|--|--|-------------------------|--|-------------|--|----------------|--|--------|--|-----------|--|
| 13+00 | | 13+50 | | 14+00 | | 14+50 | | 15+00 | | 15+50 | | 16+00 | | | | | | | | | |
|  | WSP USA Inc. 30 N. LA SALLE STREET SUITE 4200 CHICAGO, IL 60602 TEL: (312) 782-8150 FAX: (312) 782-1684 | USER NAME = MMA | | DESIGNED - MMA | | REVISED - | | CITY OF CHICAGO <i>DEPARTMENT OF TRANSPORTATION</i> <i>DIVISION OF ENGINEERING</i> | | WEBSTER AVENUE BRIDGE OVER THE NORTH BRANCH CHICAGO RIVER | | PLAN AND PROFILE | | F.A.U. RTE. | | SECTION | | COUNTY | | SHEET NO. | |
| | | | | DRAWN - RPH | | REVISED - | | | | | | | | 1388 | | 11-E1525-00-BR | | COOK | | C-6 | |
| | | PLOT SCALE = | | CHECKED - MMA | | REVISED - | | | | | | | | | | | | | | | |
| | | PLOT DATE = \$DATES | | DATE - RPH | | REVISED - | | | | | | | | | | | | | | | |

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|------------------------|---|----|------|
| | | | |
| NOTE BOOK NO. _____ | | | |

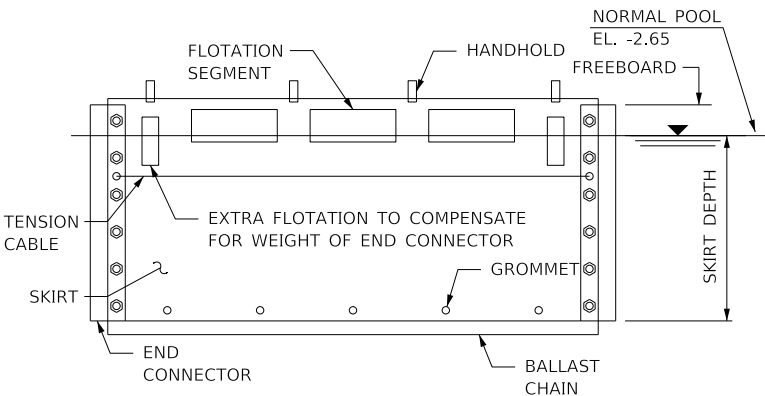
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|------------------------|--|----|------|
| | | | |
| NOTE BOOK NO. _____ | | | |



**CROSS SECTION
THRU WORKZONE**



PLAN



**TYPICAL
ELEVATION**

**SEDIMENT CONTROL SILT CURTAIN DETAILS
(NTS)**

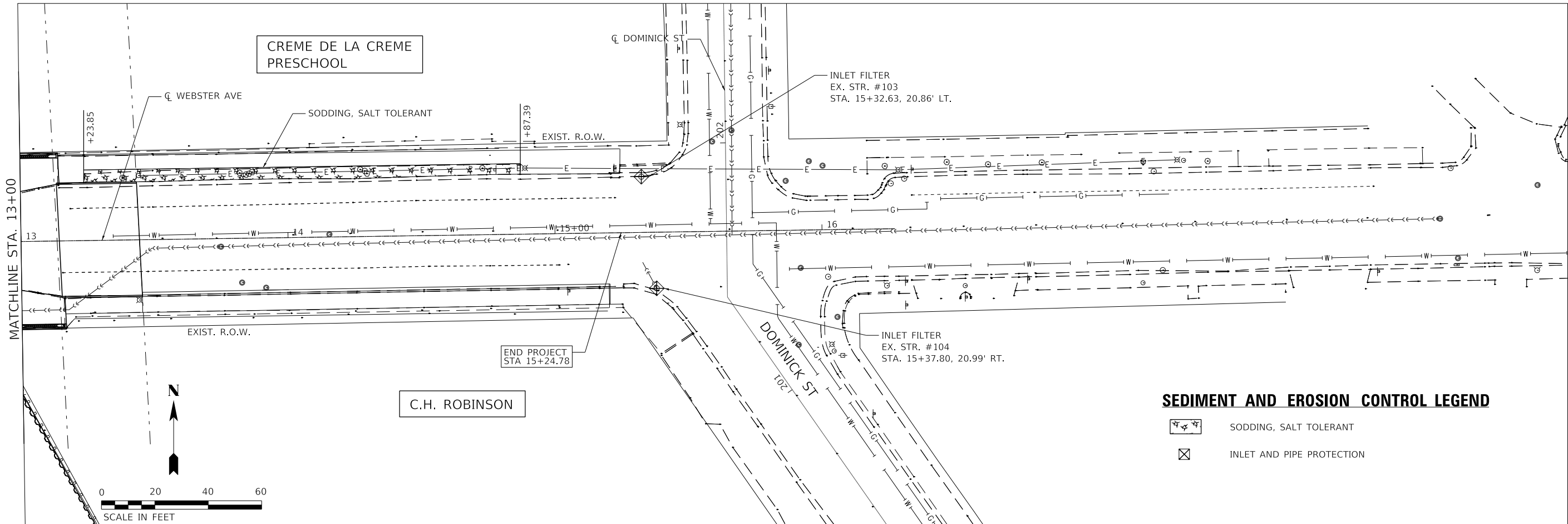
NOTES:

1. THE CONTRACTOR SHALL INSTALL A FLOATING BOOM AROUND THE WORK BARGE AREA IN THE EVENT OF OIL AND/OR FUEL LEAKAGE FROM CONSTRUCTION EQUIPMENT AND TO ACCUMULATE EXCESS BROKEN TIMBER PILE PIECES DURING THE DOLPHIN REMOVAL ACTIVITIES. THIS COST SHALL BE INCLUDED IN "SEDIMENT CONTROL SILT CURTAIN."
2. ANCHOR CURTAIN TO MAINTAIN STATIONARY LOCATION THROUGHOUT CONSTRUCTION.
3. SEE SPECIAL PROVISIONS FOR SEDIMENT CONTROL SILT CURTAIN.

E1525-SHT-SEDEROS-01.DGN

| | | | | | | | | | | | |
|--|--------------------|--|----------------|-----------|---|--|--------------------------------------|--------------------------|----------------|-----------|-----------|
|  WSP USA Inc. 30 N. LA SALLE STREET SUITE 4200 CHICAGO, IL 60602 TEL: (312) 782-8150 FAX: (312) 782-1684 | USER NAME = PJLAUX | | DESIGNED - PJL | REVISED - | CITY OF CHICAGO DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING | WEBSTER AVENUE BRIDGE OVER THE NORTH BRANCH CHICAGO RIVER | SEDIMENT CONTROL SILT CURTAIN | F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
| | PLOT SCALE = | | CHECKED - KKS | REVISED - | | | | 1388 | 11-E1525-00-BR | COOK | C-7 |
| | PLOT DATE = SDATES | | DRAWN - PJL | REVISED - | | | | CDOT PROJECT NO. E-1-525 | | 15 of 210 | |
| | | | CHECKED - KKS | REVISED - | | | | | | | |

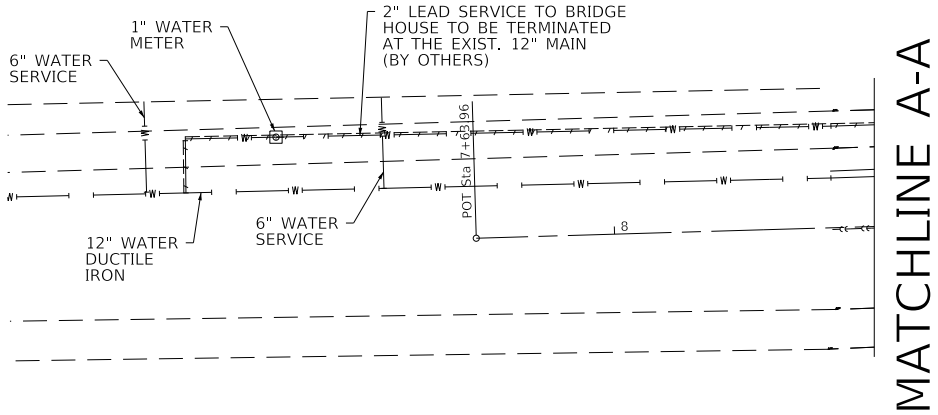
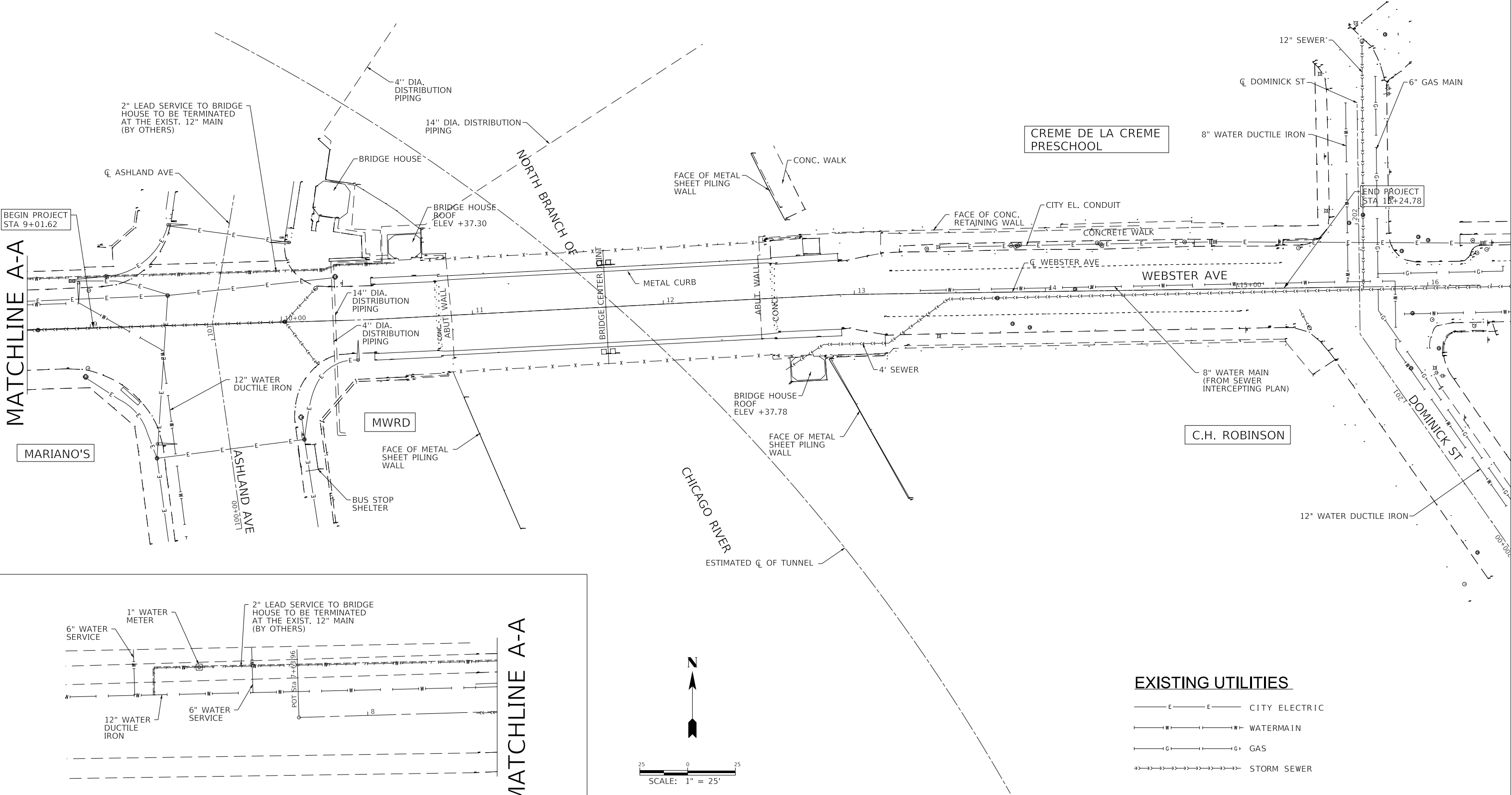
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|-----------|-----------------------------------|----|------|
| NOTE BOOK | SURVEYED _____ | | |
| | PLOTTED _____ | | |
| | GRADES CHECKED _____ | | |
| | B.M. NOTED _____ | | |
| NO. _____ | STRUCTURE NOTATIONS CHECKED _____ | | |



| PLAN | SURVEYED | DATE |
|-----------|-------------------|------|
| NOTE BOOK | PLOTTED | BY |
| NO. | ALIGNMENT CHECKED | |
| | CADD FILE NAME | |

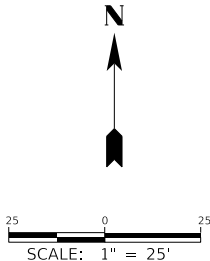
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|-----------|--------------------------|------|
| NOTE BOOK | PLOTTED | BY |
| NO. | GRADES CHECKED | |
| | STRUCTURE NOTATIONS CHNG | |

E1525-SHT-UTILITY.DGN



EXISTING UTILITIES

- E — E — CITY ELECTRIC
- W — W — WATERMAIN
- G — G — GAS
- S — S — STORM SEWER



WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

| | | |
|--------------------|----------------|-----------|
| USER NAME = MMA | DESIGNED - MMA | REVISED - |
| | CHECKED - RPH | REVISED - |
| PLOT SCALE = | DRAWN - MMA | REVISED - |
| PLOT DATE = SDATES | CHECKED - RPH | REVISED - |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

UTILITY PLAN

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|-----------|
| 1388 | 11-E1525-00-BR | COOK | C-9 |
| CDOT PROJECT NO. E-1-525 | | | 17 of 210 |

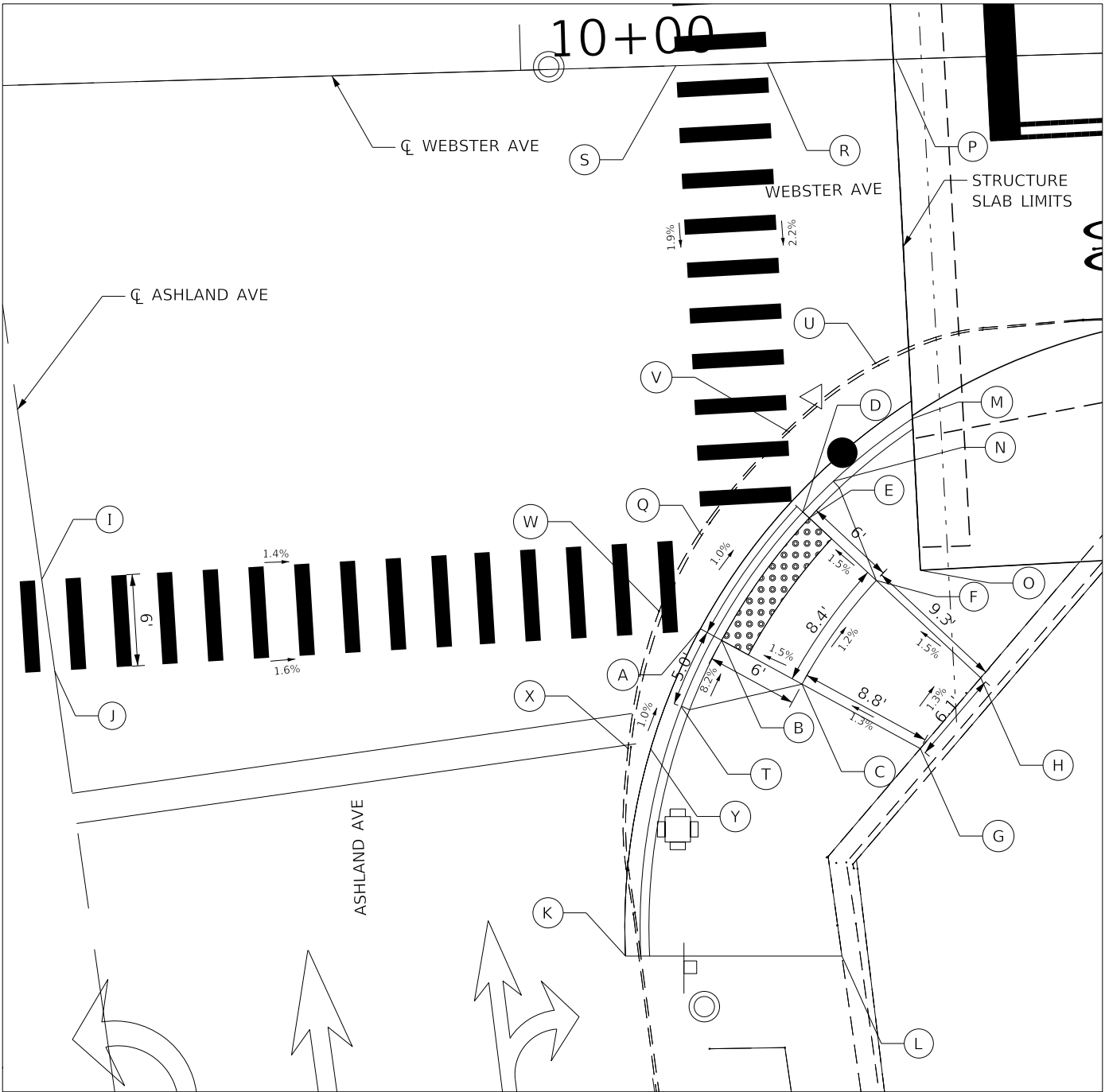
WEBSTER AVE & ASHLAND AVE - SE CORNER

ADA DETAILS FOR WEBSTER AVE

WEBSTER AVE & ASHLAND AVE - NE CORNER

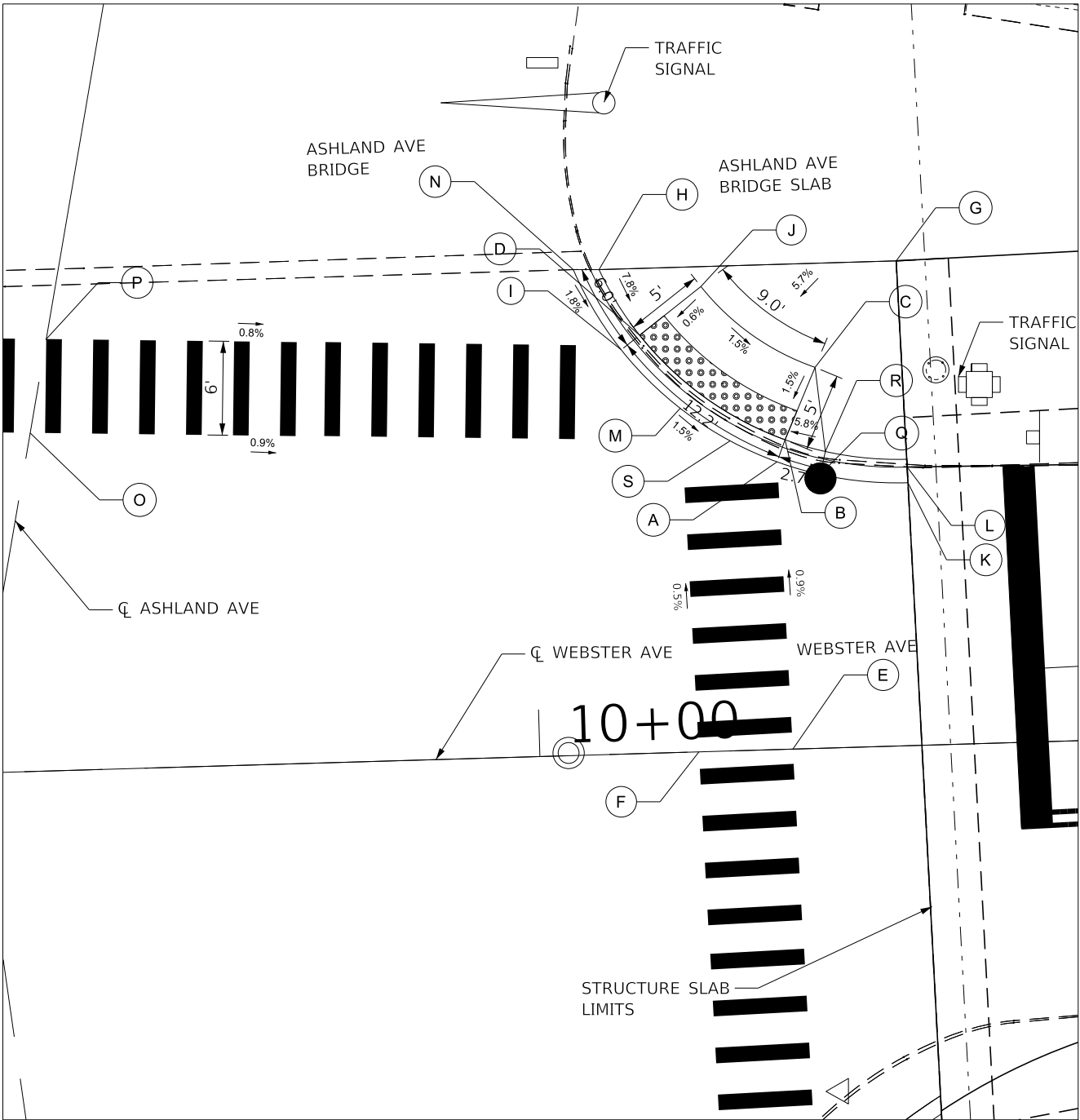
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|------|----------|---------|-------------------|---------------|----------------|------|----|
| | | | | | | | |
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| PROFILE | SURVEYED | PLOTTED | GRADES CHECKED | STRUCTURE NOTATIONS CHKGD | DATE | BY |
|---------|----------|---------|----------------|---------------------------|------|----|
| | | | | | | |
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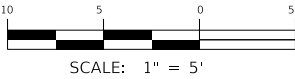
| | STATION | OFFSET | ELEVATION | | STATION | OFFSET | ELEVATION |
|---|----------|----------|-----------|---|----------|----------|-----------|
| A | 10+10.70 | 36.90' R | 21.57 | P | 10+24.58 | 0.00' R | 21.84 |
| B | 10+12.60 | 37.71' R | 21.57 | Q | 10+10.95 | 30.83' R | 21.21 |
| C | 10+17.23 | 40.73' R | 21.66 | R | 10+16.16 | 00.00' R | 21.82 |
| D | 10+17.62 | 29.46' R | 21.47 | S | 10+10.16 | 00.00' R | 21.81 |
| E | 10+18.03 | 29.87' R | 21.47 | T | 10+09.28 | 41.97' R | 21.45 |
| F | 10+22.29 | 34.09' R | 21.56 | U | 10+22.66 | 19.87' R | 21.72 |
| G | 10+24.85 | 45.18' R | 21.78 | V | 10+16.70 | 24.10' R | 21.37 |
| H | 10+28.94 | 40.66' R | 21.70 | W | 10+08.01 | 35.68' R | 21.34 |
| I | 9+67.66 | 32.42' R | 21.80 | X | 10+05.72 | 44.61' R | 21.21 |
| J | 9+68.34 | 38.45' R | 21.73 | Y | 10+07.19 | 44.68' R | 21.12 |
| K | 10+05.15 | 58.20' R | 21.26 | | | | |
| L | 10+19.32 | 58.61' R | 22.05 | | | | |
| M | 10+25.10 | 23.56' R | 22.07 | | | | |
| N | 10+19.68 | 27.51' R | 21.68 | | | | |
| O | 10+25.20 | 33.51' R | 21.92 | | | | |

NOTES:
ALL STATIONS AND OFFSETS NOTED ARE BASED OFF
WEBSTER AVENUE CENTERLINE.



| | STATION | OFFSET | ELEVATION | | STATION | OFFSET | ELEVATION |
|---|----------|----------|-----------|---|----------|----------|-----------|
| M | 10+09.61 | 21.96' L | 21.70 | N | 10+03.05 | 31.00' L | 21.91 |
| A | 10+15.69 | 18.37' L | 21.62 | O | 9+68.59 | 24.18' L | 22.07 |
| B | 10+16.25 | 19.76' L | 21.62 | P | 9+69.80 | 30.21' L | 22.09 |
| C | 10+18.71 | 25.24' L | 21.70 | Q | 10+20.84 | 17.01' L | 21.38 |
| D | 10+07.15 | 26.71' L | 21.80 | R | 10+21.05 | 18.49' L | 21.80 |
| E | 10+16.16 | 00.00' L | 21.82 | S | 10+12.74 | 19.80' L | 21.66 |
| F | 10+10.16 | 00.00' L | 21.81 | | | | |
| G | 10+23.69 | 31.87' L | 22.33 | | | | |
| H | 10+04.69 | 30.97' L | 22.26 | | | | |
| I | 10+05.95 | 25.82' L | 21.80 | | | | |
| J | 10+11.57 | 30.86' L | 21.83 | | | | |
| K | 10+24.01 | 16.79' L | 21.74 | | | | |
| L | 10+24.14 | 18.29' L | 22.34 | | | | |

NOTES:
ALL STATIONS AND OFFSETS NOTED ARE BASED OFF
WEBSTER AVENUE CENTERLINE.



E1525-SHT-ADA1.DGN



WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

| |
|-------------------|
| USER NAME = MMA |
| PLOT SCALE = |
| PLOT DATE = SDATE |

| |
|----------------|
| DESIGNED - MMA |
| CHECKED - KSD |
| DRAWN - MMA |
| CHECKED - KSD |

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| REVISED - |
| REVISED - |
| REVISED - |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

ADA RAMPS DETAILS

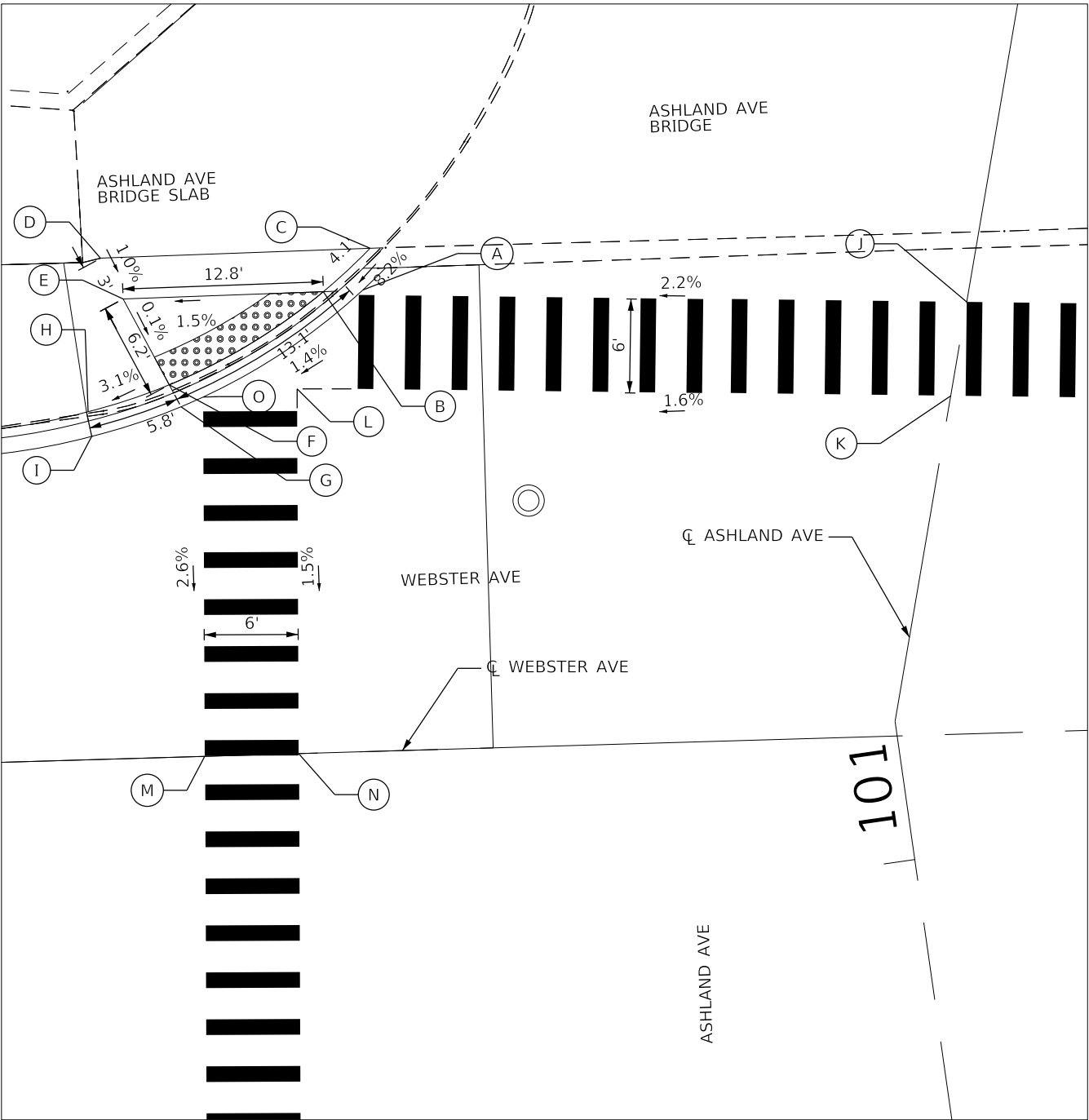
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|--------------------------|----------------|--------|-----------|
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
| 1388 | 11-E1525-00-BR | COOK | C-10 |
| CDOT PROJECT NO. E-1-525 | | | 18 of 210 |

WEBSTER AVE & ASHLAND AVE - NW CORNER

ADA DETAILS FOR WEBSTER AVE

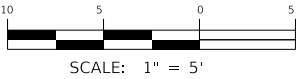
| PLAN | NO. | NOTE BOOK | SURVEYED | PLOTTED | ALIGNMENT CHECKED | GRADE CHECKED | CADD FILE NAME | DATE | BY |
|------|-----|-----------|----------|---------|-------------------|---------------|----------------|------|----|
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| PROFILE | NO. | NOTE BOOK | SURVEYED | PLOTTED | GRADES CHECKED | STRUCTURE NOTATIONS CHNGD | DATE | BY |
|---------|-----|-----------|----------|---------|----------------|---------------------------|------|----|
| | | | | | | | | |



| | STATION | OFFSET | ELEVATION |
|---|---------|----------|-----------|
| A | 9+30.74 | 29.48' L | 21.28 |
| B | 9+28.22 | 29.44' L | 21.28 |
| C | 9+31.28 | 32.13' L | 21.62 |
| D | 9+14.09 | 32.00' L | 21.12 |
| E | 9+15.42 | 29.35' L | 21.09 |
| F | 9+18.20 | 23.79' L | 21.09 |
| G | 9+18.91 | 22.36' L | 21.09 |
| H | 9+12.87 | 22.20' L | 20.91 |
| I | 9+13.15 | 20.64' L | 20.33 |
| J | 9+69.80 | 30.21' L | 20.42 |
| K | 9+68.59 | 24.18' L | 21.84 |
| L | 9+21.15 | 23.30' L | 21.18 |
| M | 9+19.77 | 00.00' L | 20.51 |
| N | 9+25.77 | 00.00' L | 20.84 |
| O | 9+20.34 | 22.94' L | 21.11 |

NOTES:
ALL STATIONS AND OFFSETS NOTED ARE BASED OFF
WEBSTER AVENUE CENTERLINE.



E1525-SHT-ADA2.DGN



WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
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| | | |
|--------------------|----------------|-----------|
| USER NAME = MMA | DESIGNED - MMA | REVISED - |
| | CHECKED - KSD | REVISED - |
| PLOT SCALE = | DRAWN - MMA | REVISED - |
| PLOT DATE = SDATES | CHECKED - KSD | REVISED - |

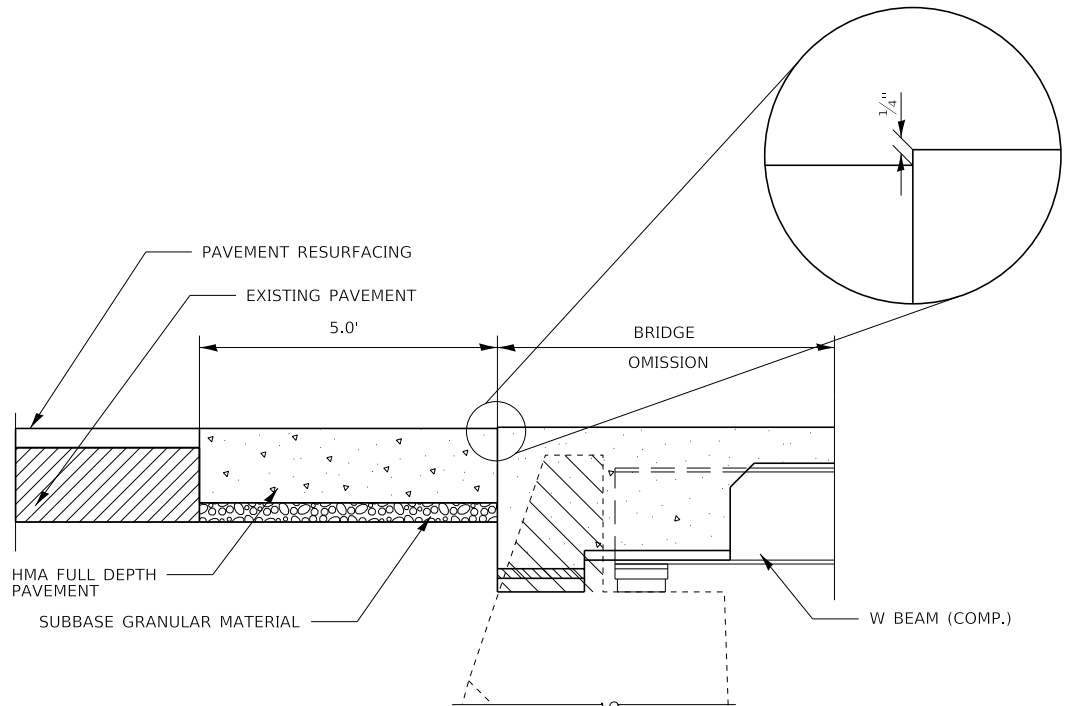
CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER

ADA RAMPS DETAILS

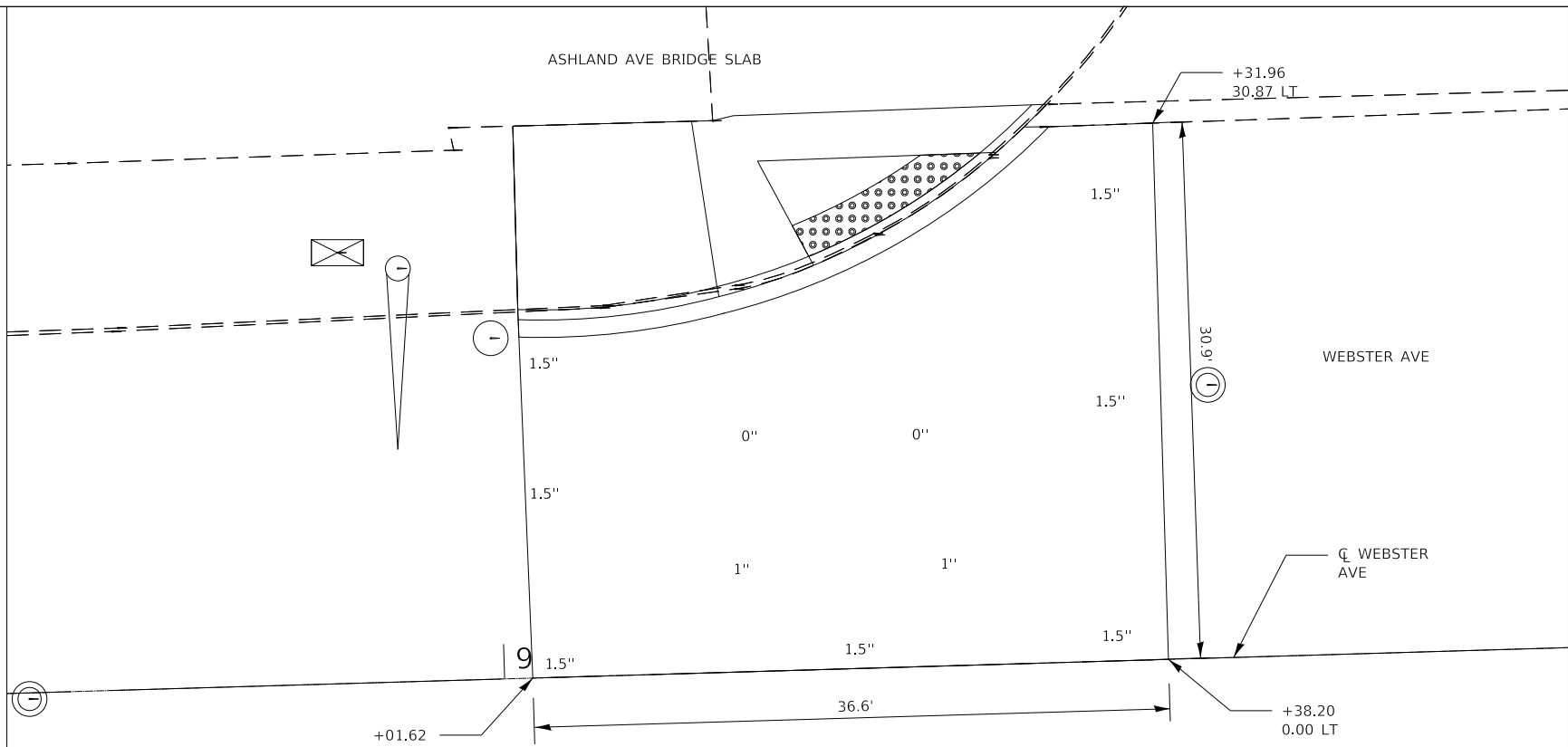
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|-----------|
| 1388 | 11-E1525-00-BR | COOK | C-11 |
| CDOT PROJECT NO. E-1-525 | | | 19 of 210 |

| PLAN | SURVEYED | BY | DATE |
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| NOTE BOOK NO. | PLOTTED | | |
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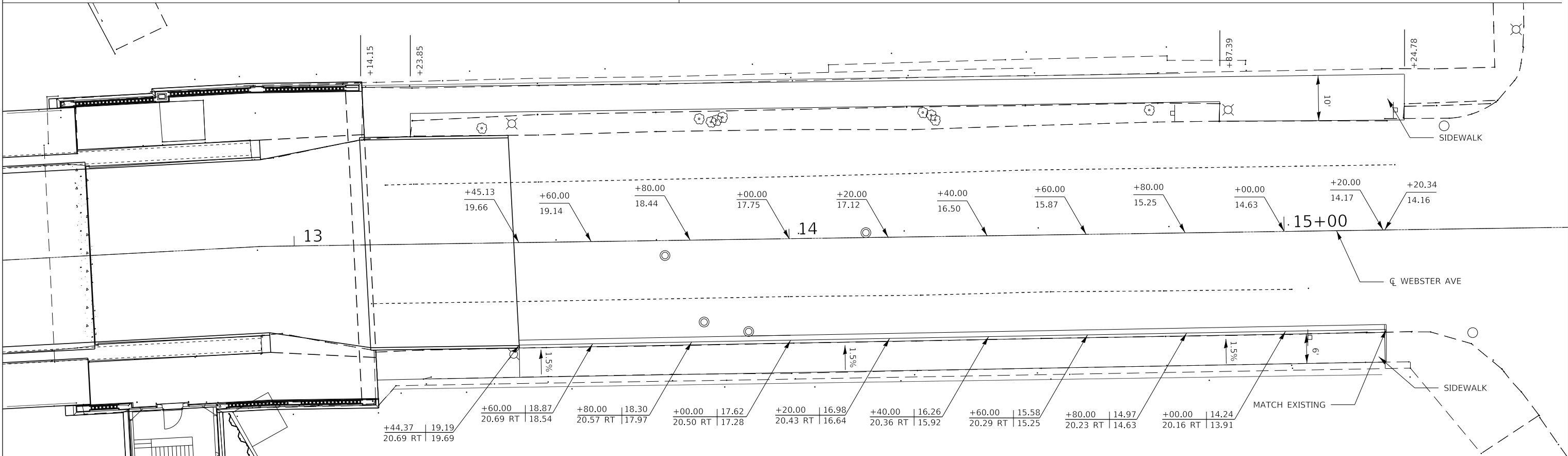
SECTION THRU THE WEST END OF
WEBSTER AVE STRUCTURE

NOTE:
START BINDER COURSE BUILDUP GRADUALLY
FROM WEBSTER AVE CENTER LINE TOWARDS
CURB AND GUTTER, BUT MAINTAIN A 1.5"
DEPTH FOR SURFACE COURSE LAYER.



HMA SURFACE REMOVAL DETAIL

| PROFILE | SURVEYED | BY | DATE |
|---------------|-------------------------|----|------|
| | | | |
| NOTE BOOK NO. | PLOTTED | | |
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| | GRADES CHECKED | | |
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| | STRUCTURE NOTATION CHNG | | |
| | | | |



CURB GRADING DETAIL

E1525-SHT-DETAIL

| | | | | | | | | | | | | |
|--|---|--------------------|--|----------------|-----------|---|--|-----------------------|--------------------------|----------------|-----------|-----------|
| | WSP USA Inc. 30 N. LASALLE STREET SUITE 4200 CHICAGO, IL 60602 TEL: (312) 782-8150 FAX: (312) 782-1684 | USER NAME = MMA | | DESIGNED - MMA | REVISED - | CITY OF CHICAGO DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING | WEBSTER AVENUE BRIDGE OVER THE NORTH BRANCH CHICAGO RIVER | ROADWAY DETAIL | F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
| | | PLOT SCALE = | | CHECKED - P.JL | REVISED - | | | | 1388 | 11-E1525-00-BR | COOK | C-12 |
| | | PLOT DATE = SDATES | | DRAWN - MMA | REVISED - | | | | CDOT PROJECT NO. E-1-525 | | 20 of 210 | |
| | | | | CHECKED - P.JL | REVISED - | | | | | | | |

MAINTENANCE OF TRAFFIC AND DETOUR GENERAL NOTES

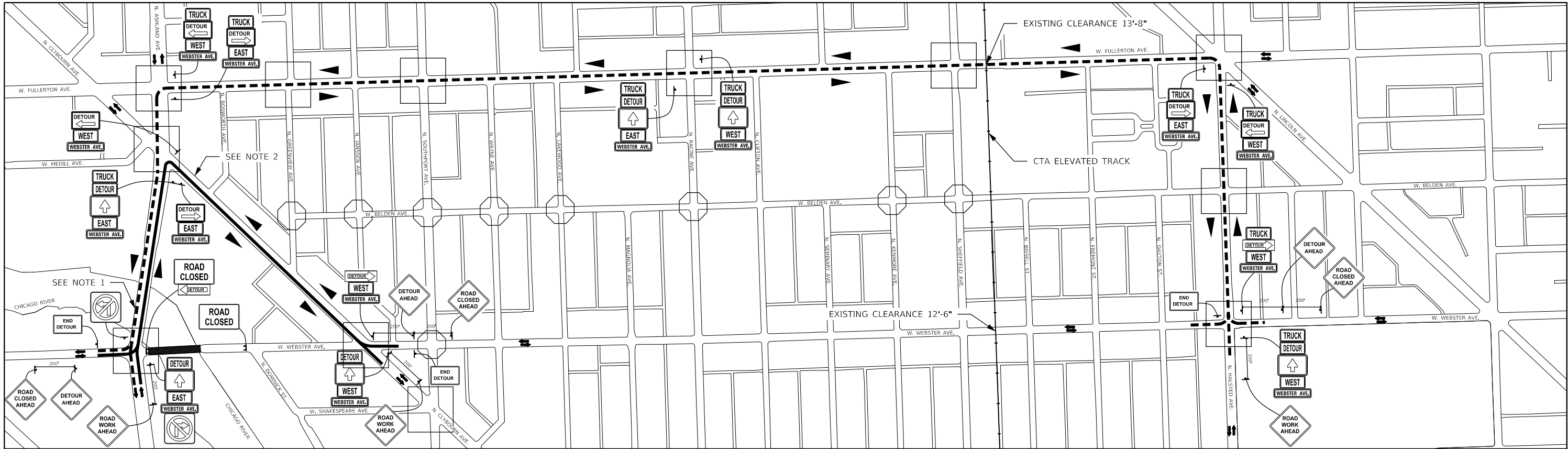
1. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT WHEN WORK COMMENCES, THE CONTRACTOR SHALL ASSUME THE MAINTENANCE OF ANY PAVEMENT, DRAINAGE FACILITIES, TRAFFIC CONTROL SIGNS, TRAFFIC SIGNALS, LIGHTING, PAVEMENT MARKINGS, AND OTHER APPURTENANCES OF ROADWAYS WITHIN THE LIMITS OF THE CONTRACT WHICH ARE USED BY THE PUBLIC DURING CONSTRUCTION.
2. THE CONTRACTOR SHALL RETAIN THIS MAINTENANCE RESPONSIBILITY UNTIL THE CITY ASSUMES THE MAINTENANCE. THE NEED FOR SNOW AND ICE CONTROL FOR THE DETOUR ROUTE DURING THE CONSTRUCTION PERIOD WILL BE ACCOMMODATED FOR BY OTHERS.
3. DETOUR TRAFFIC CONTROL SIGNS SHALL BE INSTALLED AT THE DIRECTION AND UNDER THE SUPERVISION OF THE ENGINEER. SEVEN (7) DAYS NOTICE SHALL BE GIVEN TO THE ENGINEER.
4. CHANGEABLE MESSAGE SIGN ONE EACH SHALL BE PLACED AT EASTBOUND AND WESTBOUND WEBSTER AVENUE AS DIRECTED BY THE ENGINEER. ALL CHANGEABLE MESSAGE SIGNS SHALL BE INSTALLED TWO WEEKS PRIOR TO ANY CONSTRUCTION ACTIVITY.
5. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE AND MAINTAIN ACCESS TO ALL PRIVATE AND COMMERCIAL PROPERTY WITHIN THE WORK AREAS DURING THE CONSTRUCTION PERIOD, WHICH MAY INCLUDE THE PROVISION OF TEMPORARY AGGREGATE IN THE WORK ZONE TO ALLOW TRUCKS TO TURN INTO LOADING BAYS.
6. DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT ADJACENT TRAFFIC LANES OPEN TO TRAFFIC FROM DEBRIS BEING BLOWN OR OTHERWISE REMOVED FROM THE CONSTRUCTION AREAS. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR KEEPING DEBRIS OFF THE ADJACENT TRAVELED LANE SURFACE.
7. THE CONTRACTOR'S VEHICLES SHALL ALWAYS MOVE WITH AND NOT AGAINST OR ACROSS THE FLOW OF TRAFFIC. THESE VEHICLES SHALL ENTER AND LEAVE WORK AREAS IN A MANNER THAT WILL NOT BE HAZARDOUS TO OR INTERFERE WITH NORMAL TRAFFIC AND SHALL NOT STOP OR PARK EXCEPT WITHIN DESIGNATED WORK AREAS. PERSONAL VEHICLES SHALL NOT BE PERMITTED TO PARK WITHIN THE RIGHT-OF-WAY EXCEPT IN SPECIFIC AREAS DESIGNATED BY THE COMMISSIONER.
8. THE CONTRACTOR SHALL WALK THROUGH THE JOB BEFORE CONSTRUCTION ALONG WITH AUTHORIZED REPRESENTATIVE OF THE CITY OF CHICAGO TO CONFIRM THE COUNT OF STREET SIGNS. CONTRACTOR SHALL NOTIFY THE CITY OF CHICAGO AT LEAST 48 HOURS PRIOR TO SCHEDULE THE WALK THROUGH.
9. ALL CONSTRUCTION SIGNS, BARRICADES, LIGHT AND FLAGGER SHALL BE PROVIDED BY THE CONTRACTOR.
10. ADDITIONAL TRAFFIC CONTROL SIGNS MAY BE REQUIRED AS DIRECTED BY THE DIVISION OF INFRASTRUCTURE MANAGEMENT. THE COST SHALL BE CONSIDERED INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION.
11. ALL SIGNS SHALL MEET MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES STANDARDS AND SHALL MEET WITH APPROVAL OF THE DIVISION OF INFRASTRUCTURE MANAGEMENT, REGARDING LOCATION, TYPE, SIZE, NUMBER, AND DURATION, OR AS DIRECTED BY THE ENGINEER.
12. ALL SIDEWALK CLOSURES SHALL FOLLOW CDOT STANDARD CROSSWALK AND SIDEWALK CLOSURE SHEET A-6-11. THE SIDEWALK SHALL BE OPEN ON AT LEAST ONE SIDE OF THE STREET AT ALL TIMES. THE CONTRACTOR SHALL INSTALL TEMPORARY ADA RAMPS WHEN EXISTING RAMPS CANNOT BE USED. THIS SHALL NOT BE PAID FOR SEPARATELY AND SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION, SPECIAL.
13. AT LEAST ONE SIDEWALK SHALL BE OPEN AT ALL TIMES.
14. THE CONTRACTOR SHALL NOT BLOCK ACCESS TO DOMINICK STREET.
15. THE SUGGESTED TRAFFIC CONTROL CAN BE ALTERED WITH APPROVAL OF COMMISSIONER.
16. ALL DETOUR ROUTE SIGNS SHALL BE COVERED AFTER DETOUR IS REMOVED.
17. ALL WORK DESCRIBED IN GENERAL NOTES SHALL BE INCIDENTAL TO TRAFFIC CONTROL AND PROTECTION, SPECIAL UNLESS STATED OTHERWISE.

STAGING DESCRIPTION

WORK: WEBSTER BRIDGE
TRAFFIC: DETOUR

WORK: ADA RAMPS AND TRAFFIC SIGNAL POLE ON ASHLAND
TRAFFIC: SINGLE LANE CLOSURE (OFF PEAK) ON ASHLAND.

| OFF PEAK LANE CLOSURE HOURS | |
|-----------------------------|--|
| ASHLAND AVENUE | 9:30 AM TO 3:30 PM MONDAY THROUGH FRIDAY 8:00 PM TO 6:00 AM EVERY NIGHT EXCEPT HOLIDAY/ HOLIDAY WEEKENDS |
| ASHLAND AVENUE | 8:00 PM TO 6:00 AM MONDAY THROUGH FRIDAY EXCEPT HOLIDAY/ HOLIDAY WEEKENDS |



SIGNALIZED INTERSECTION

STOP CONTROLLED INTERSECTION

ROAD CLOSED
R11-2

ROAD CLOSED AHEAD
W20-3

M6-3

DETOUR
M4-10L

DETOUR
M4-10R

EAST
M3-2

DETOUR AHEAD
W20-2a

R3-1

DETOUR
M4-9L

DETOUR
M4-9R

WEST
M3-4

R3-2

DETOUR
M4-8

END DETOUR
M4-8a

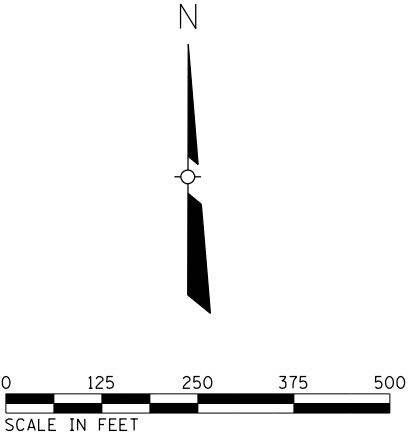
WEBSTER AVE.
CUSTOM SIGN
42"X24"
M3-4

ROAD WORK AHEAD
W20-1

TRUCK
M4-4

NOTES

1. INSTALL BARRICADES TO CLOSE SOUTHBOUND LEFT TURN LANE AT INTERSECTION OF ASHLAND AVENUE AND WEBSTER AVENUE.
2. RESTRICT PARKING ALONG NORTH SIDE OF CLYBOURN AVENUE BETWEEN ASHLAND AVENUE AND BOSWORTH AVENUE. INSTALL TEMPORARY LEFT TURN BAY FOR THE NORTHWESTBOUND LEFT TURN AT INTERSECTION OF CLYBOURN AVENUE AND ASHLAND AVENUE.



LEGEND

- TYPE III BARRICADE
- CONSTRUCTION ZONE
- TRUCK DETOUR ROUTE
- PASSENGER VEHICLE DETOUR ROUTE
- LOCAL TRAFFIC DIRECTION
- TRAFFIC DIRECTION/DETOUR ROUTE

\$\$\$DGN\$\$\$
\$\$SYTIME\$

1"=500'
TranSmartEIM

TRANSMART/EIM
411 S. WELLS STREET
SUITE 1000
CHICAGO, IL 60607
TEL: (312) 922-1700
FAX: (312) 922-3311

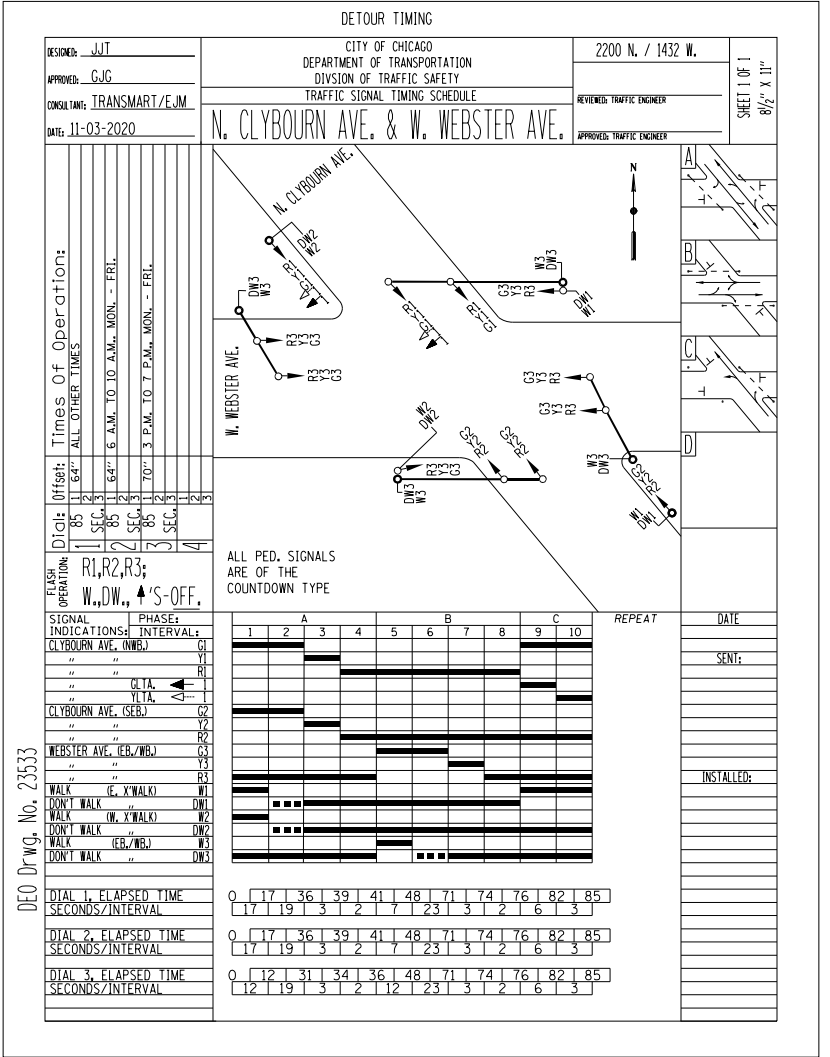
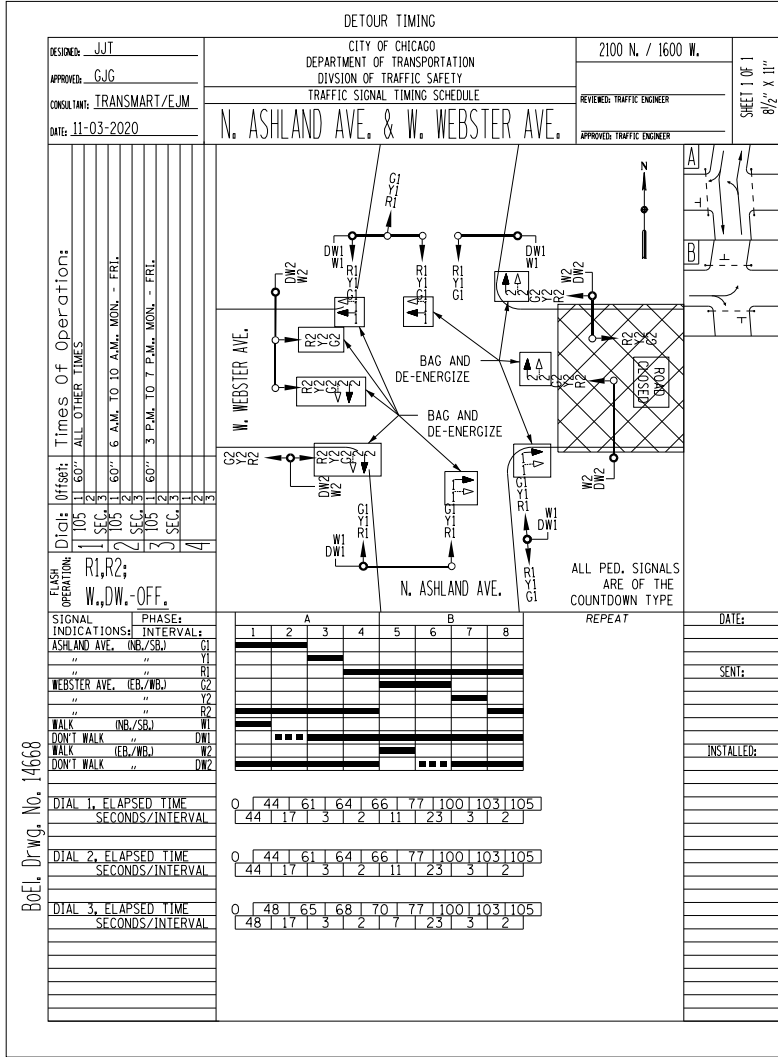
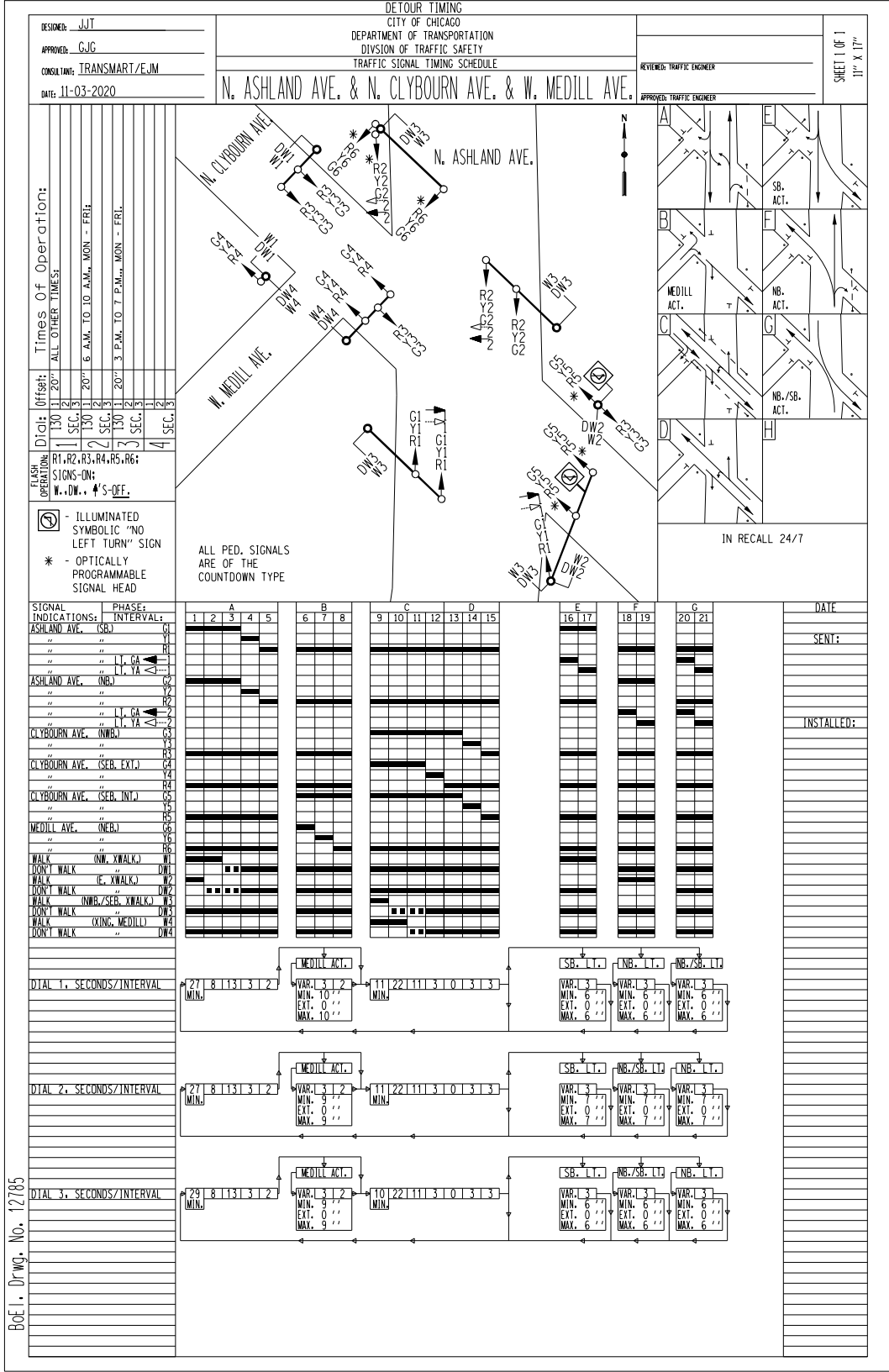
| | | | | | |
|--------------|------------|------------|-----|-----------|--|
| USER NAME = | jturk | DESIGNED - | JJT | REVISED - | |
| | | CHECKED - | SA | REVISED - | |
| PLOT SCALE = | N.T.S. | DRAWN - | JJT | REVISED - | |
| PLOT DATE = | 12/10/2020 | CHECKED - | SA | REVISED - | |

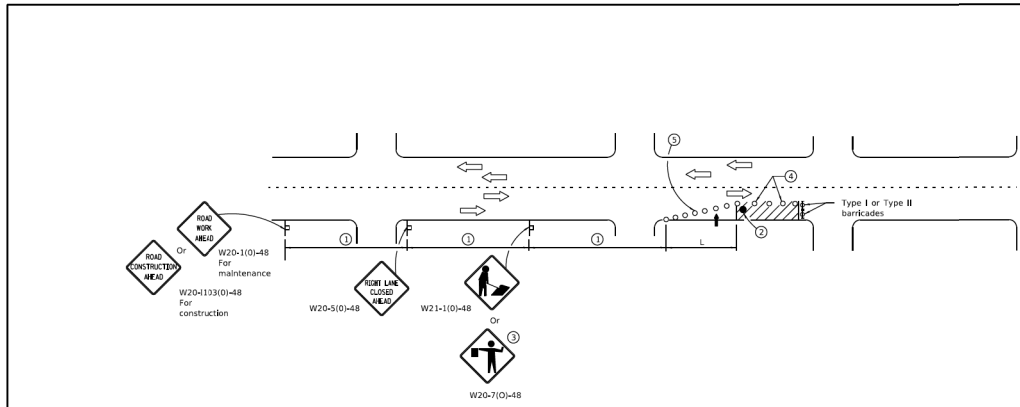
CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**DETOUR PLAN
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|--------------|
| 1388 | 11-E1525-00-BR | COOK | MOT-2 |
| CDOT PROJECT NO. E-1-525 | | | 22 OF 210 |





| POSTED SPEED | SIGN SPACING |
|--------------|--------------|
| 35 | 500' (150 m) |
| 50-45 | 350' (100 m) |
| <45 | 200' (60 m) |

SYMBOLS

- Arrow board
- Cone, drum or barricade
- Sign on portable or permanent support
- Work area
- Barricade or drum with flashing light
- Flagger with traffic control sign.

- Refer to SIGN SPACING TABLE for distances.
- Required for speeds > 40 mph.
- Use flagger sign only when flagger is present.
- Cones at 25' (8 m) centers for 250' (75 m). Additional cones may be placed at 50' (15 m) centers. When drums or Type I or Type II barricades are used, the interval between devices may be doubled.
- Cones, drums or barricades at 20' (6 m) centers in taper.

GENERAL NOTES

This Standard is used where at any time, day or night, any vehicle, equipment, workers or their activities encroach on the pavement requiring the closure of one traffic lane in an Urban area.

Calculate L as follows:

SPEED LIMIT

FORMULAS

English (Metric)

40 mph (70 km/h)

$L = \frac{WS^2}{60}$

or less:

$L = \frac{WS^2}{60}$

45 mph (80 km/h)

$L = \frac{WS^2}{60}$

or greater:

$L = \frac{WS^2}{60}$

W = Width of offset

S = Normal posted speed

mph (km/h).

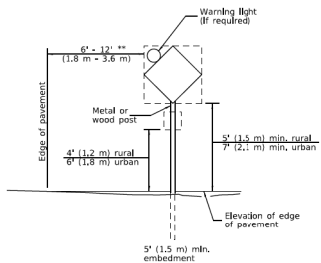
All dimensions are in inches (millimeters)

unless otherwise shown.

URBAN SINGLE LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN

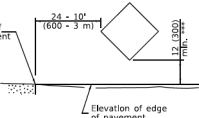
STANDARD 70106-10

| DATE | REVISIONS |
|--------|--|
| 1-1-15 | Renamed standard. Moved case on Sheet 2 to new Highway Standard. |
| 1-1-14 | Revised workers sign number to agree with current MUTCD. |



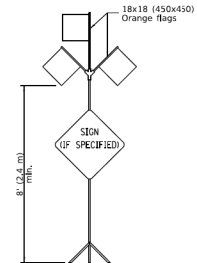
POST MOUNTED SIGNS

** When curb or paved shoulder are present this dimension shall be 24 (600) to the face of curb or 6' (1.8 m) to the outside edge of the paved shoulder.

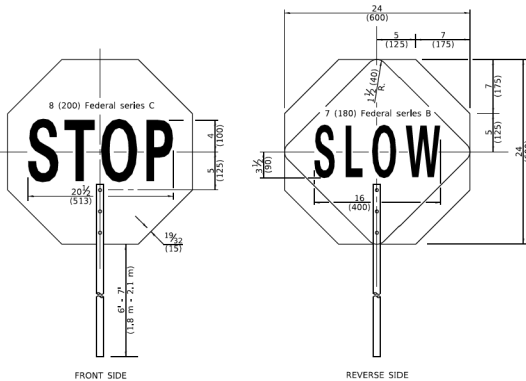


SIGNS ON TEMPORARY SUPPORTS

*** When work operations exceed four days, this dimension shall be 5' (1.5 m) min. If located behind other devices, the height shall be sufficient to be seen completely above the devices.



HIGH LEVEL WARNING DEVICE



FLAGGER TRAFFIC CONTROL SIGN

| ROAD CONSTRUCTION NEXT X MILES | END CONSTRUCTION |
|--------------------------------|------------------|
| G20-104(0)-6036 | G20-4105(0)-6024 |

This signing is required for all projects 2 miles (3200 m) or more in length.

ROAD CONSTRUCTION NEXT X MILES sign shall be placed 500' (150 m) in advance of project limits.

END CONSTRUCTION sign shall be erected at the end of the job unless another job is within 2 miles (3200 m).

Dual sign displays shall be utilized on multi-lane highways.

WORK LIMIT SIGNING

| WORK ZONE | W21-485(0)-3618 |
|-------------------|---------------------|
| SPEED LIMIT | R2-1-3648 |
| PHOTO ENFORCED | R10-4108p-3618 **** |
| XXXX FINE MINIMUM | R2-1106p-3618 |

Sign assembly as shown on Standards or as allowed by District Operations.

| END WORK ZONE SPEED LIMIT | G20-103-6036 |
|---------------------------|--------------|
|---------------------------|--------------|

This sign shall be used when the above sign assembly is used.

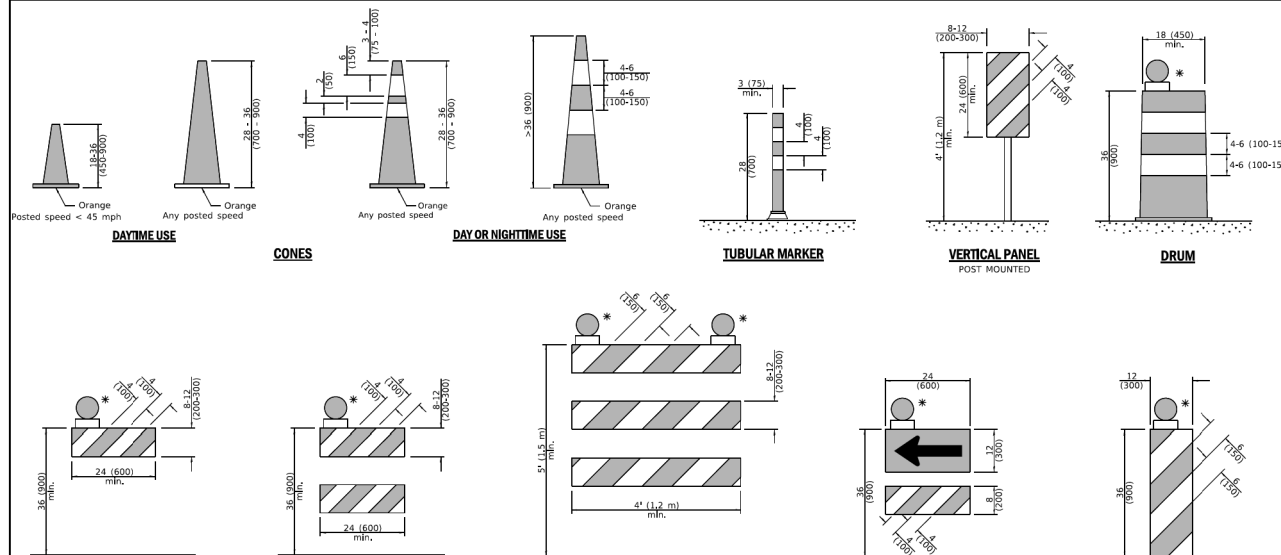
HIGHWAY CONSTRUCTION SPEED ZONE SIGNS

**** R10-4108p shall only be used along roadways under the jurisdiction of the State.

TRAFFIC CONTROL DEVICES

(Sheet 2 of 3)

STANDARD 701901-08



TYPE I BARRICADE

TYPE II BARRICADE

TYPE III BARRICADE

DIRECTION INDICATOR BARRICADE

VERTICAL BARRICADE

* Warning lights (if required)

DETECTABLE PEDESTRIAN CHANNELIZING BARRICADE

GENERAL NOTES

All heights shown shall be measured above the pavement surface.

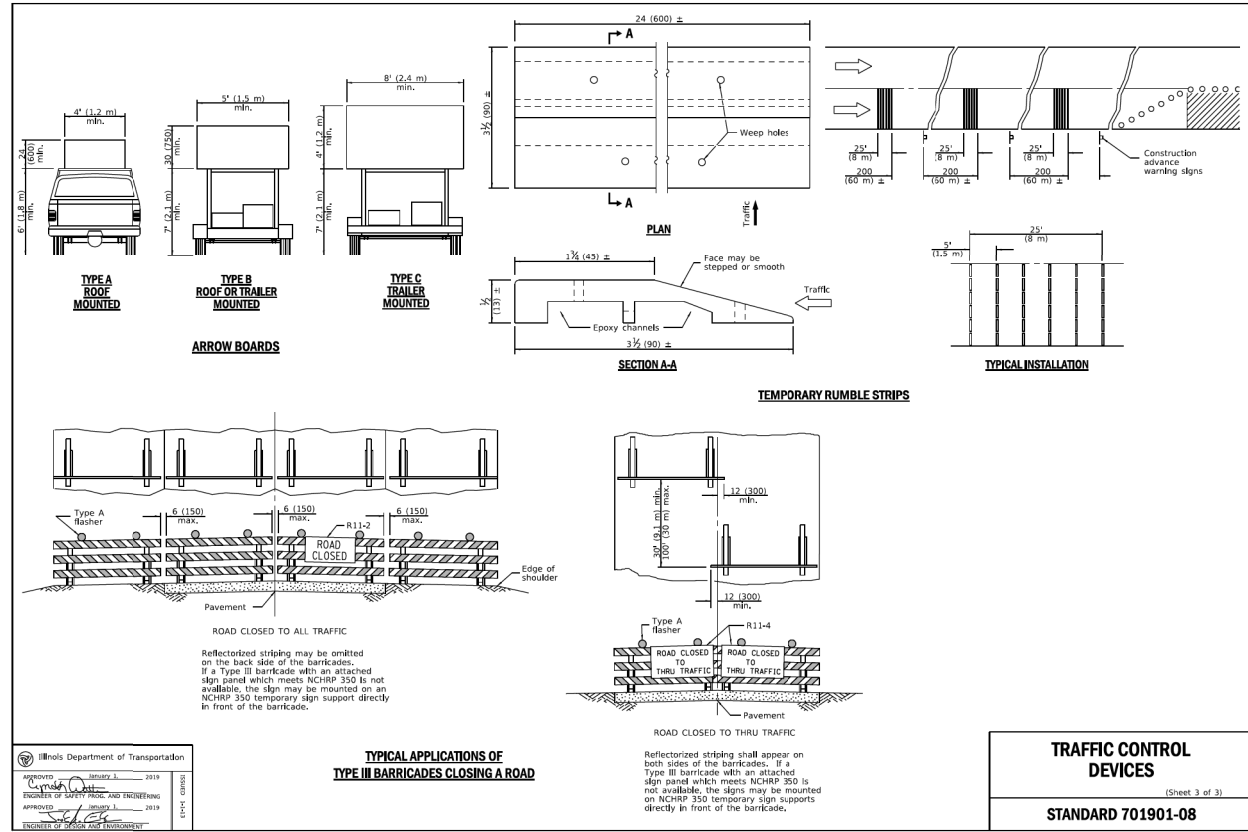
All dimensions are in inches (millimeters) unless otherwise shown.

TRAFFIC CONTROL DEVICES

(Sheet 1 of 3)

STANDARD 701901-08

| DATE | REVISIONS |
|--------|---|
| 1-1-19 | Revised cone usage and added cones >36" (900 m) height. |
| 1-1-18 | Revised END WORK ZONE SPEED LIMIT sign from orange to white background. |



ARROW BOARDS

TEMPORARY RUMBLE STRIPS

TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD

TRAFFIC CONTROL DEVICES

(Sheet 3 of 3)

STANDARD 701901-08

\$\$\$DGN\$\$\$
\$\$SYTIME\$

TranSmart/EJM

TRANSMART/EJM
411 S. WELLS STREET
SUITE 1000
CHICAGO, IL 60607
TEL: (312) 922-1700
FAX: (312) 922-3311

USER NAME = jturk
DESIGNED - JJT
CHECKED - SA
PLOT SCALE = N.T.S.
DRAWN - JJT
CHECKED - SA
PLOT DATE = 12/10/2020

DESIGNED - JJT
CHECKED - SA
DRAWN - JJT
CHECKED - SA
REVISED -
REVISED -
REVISED -
REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER

MAINTENANCE OF TRAFFIC DETAILS
(STRUCTURE NO. 016-6057)

F.A.U.
RTE. 1388
SECTION 11-E1525-00-BR
COUNTY COOK
SHEET NO. MOT-4
CDOT PROJECT NO. E-1-525
24 OF 210

| PLAN | SURVEYED | PLOTTED | ALIGNMENT CHECKED | CADD FILE NAME | DATE |
|------|----------|---------|-------------------|----------------|------|
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| PROFILE | SURVEYED | PLOTTED | GRADES CHECKED | STRUCTURE NOTATIONS CHNG | DATE |
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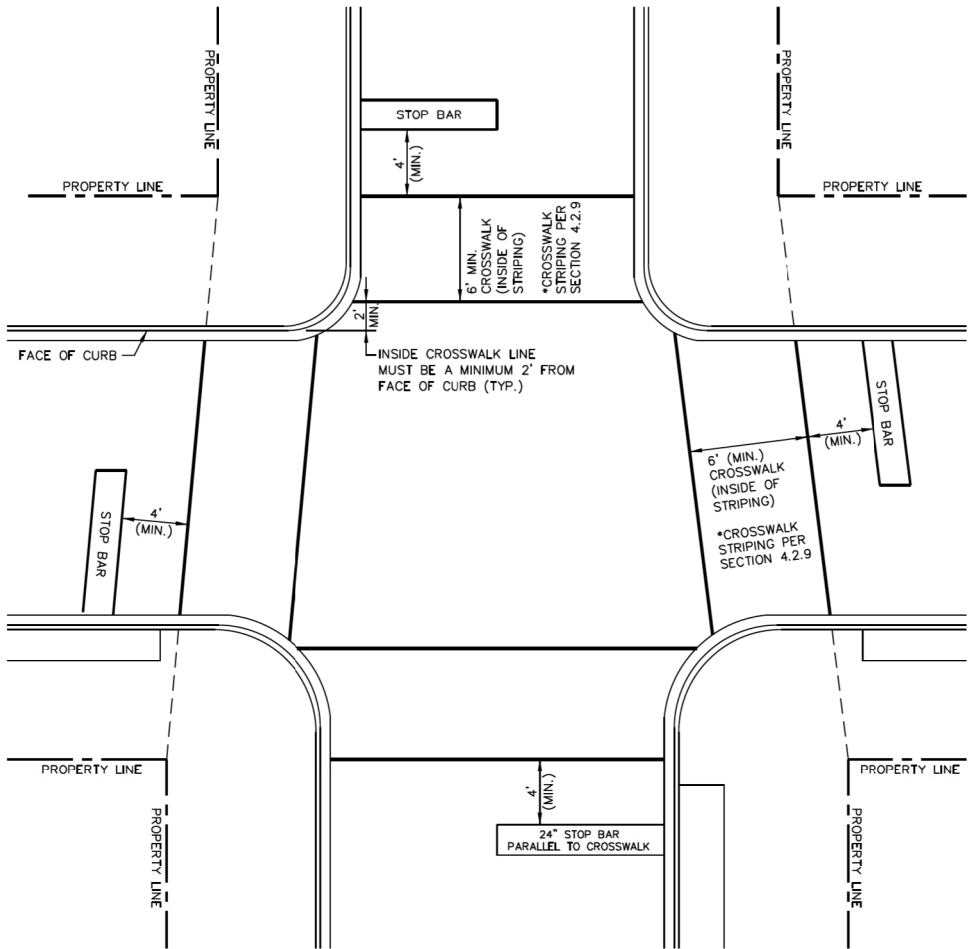
NOTES:

TYPICAL CROSSWALK CONSISTS OF TWO PROJECTED LINES, ONE OF THEM A PROJECTION OF THE PROPERTY LINE AND THE OTHER PARALLEL AS DEFINED BY SIDEWALK WIDTH.

WHERE CROSSWALK LOCATIONS ARE DEFINED BY SPECIFIC CURB RAMP SITUATIONS, THE ABOVE TYPICAL LAYOUT MAY NOT APPLY. SEE CURB RAMP LAYOUTS IN APPENDIX B FOR ADDITIONAL CROSSWALK DETAILS.

FOR CROSSWALKS AT INTERSECTIONS WHERE PROPERTY LINES ARE NOT AT 90 DEGREES, ALIGN THE PROPERTY LINES (SEE DASHED LINE BELOW) TO LOCATE INNER CROSSWALK LINE.

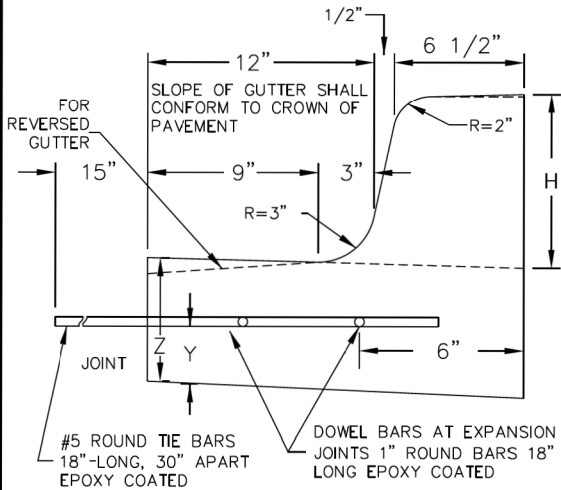
SEE SECTION 4.2.9 AND SHEET A-7-1 FOR GUIDELINES REGARDING THE LAYOUT OF CONTINENTAL AND LADDER MARKINGS.



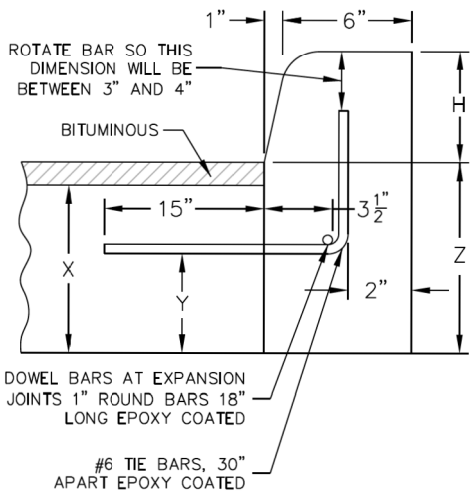
| DATE | REVISION | CITY OF CHICAGO | | |
|----------|------------|-------------------------------|-------|----------|
| 1/1/2014 | REVISION 1 | INTERSECTION CROSSWALK LAYOUT | | |
| | | DATE | SHEET | DRAWN BY |
| | | 01/10/07 | A-1-3 | CDOT |

NOTE: H = VARIABLE 3" TO 9"
X = THICKNESS OF PAVEMENT
Y = ONE HALF THE THICKNESS OF CONCRETE PAVEMENT OR CONCRETE BASE.
Z = 10" OR THICKNESS OF PAVEMENT - WHICHEVER IS GREATER

TYPE BV. 12 OR
TYPE 3 CURB & GUTTER



TYPE B OR TYPE 4 CURB
BARRIER CURB



JOINTS IN CURB, COMBINED CURB & GUTTER

TRANSVERSE JOINTS OF A TYPE SIMILAR TO THAT USED IN THE ADJACENT PAVEMENT SHALL BE INSTALLED IN THE CURB, GUTTER AND COMBINED CURB & GUTTER IN PROLONGATION WITH THE JOINTS IN THE PAVEMENT. THE DETAILS OF THE TRANSVERSE JOINTS IN THE CURB, GUTTER AND COMBINED CURB & GUTTER SHALL BE APPROVED BY THE COMMISSIONER. CURB, GUTTER OR COMBINED CURB & GUTTER IS CONSTRUCTED ADJACENT TO A FLEXIBLE BASE PAVEMENT, 1" THICK EXPANSION JOINTS COMPOSED OF BITUMINOUS PERFORMED JOINT FILLER SHALL BE INSTALLED IN THE CURB AND/OR GUTTER AT POINTS OF CURVATURE AND AT CONSTRUCTION JOINTS. CONTRACTION JOINTS SHALL ALSO BE PLACED BETWEEN THESE EXPANSION JOINTS AT DISTANCES NOT EXCEEDING 20 FEET. ALL TIE BARS SHALL BE DEFORMED-ALL DOWEL BARS SHALL BE SMOOTH.

NOTE: ALL TIE BARS AND DOWEL BARS TO BE EPOXY COATED.

*AT LOCATIONS REQUIRING DEPRESSED CURBS SEE THE ADA STANDARDS FOR CONSTRUCTION DETAILS



| DATE | REVISION | CITY OF CHICAGO | | |
|----------|------------|-------------------------------|-------|----------|
| 1/1/2014 | REVISION 1 | CONCRETE CURB & GUTTER DETAIL | | |
| | | DATE | SHEET | DRAWN BY |
| | | 12/12/06 | A-2-6 | CDOT |

E1525-SHT-STANDARDS-01.DGN



WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

| | | |
|--------------------|----------------|-----------|
| USER NAME = MMA | DESIGNED - MMA | REVISED - |
| | CHECKED - | REVISED - |
| PLOT SCALE = | DRAWN - MMA | REVISED - |
| PLOT DATE = SDATES | CHECKED - | REVISED - |

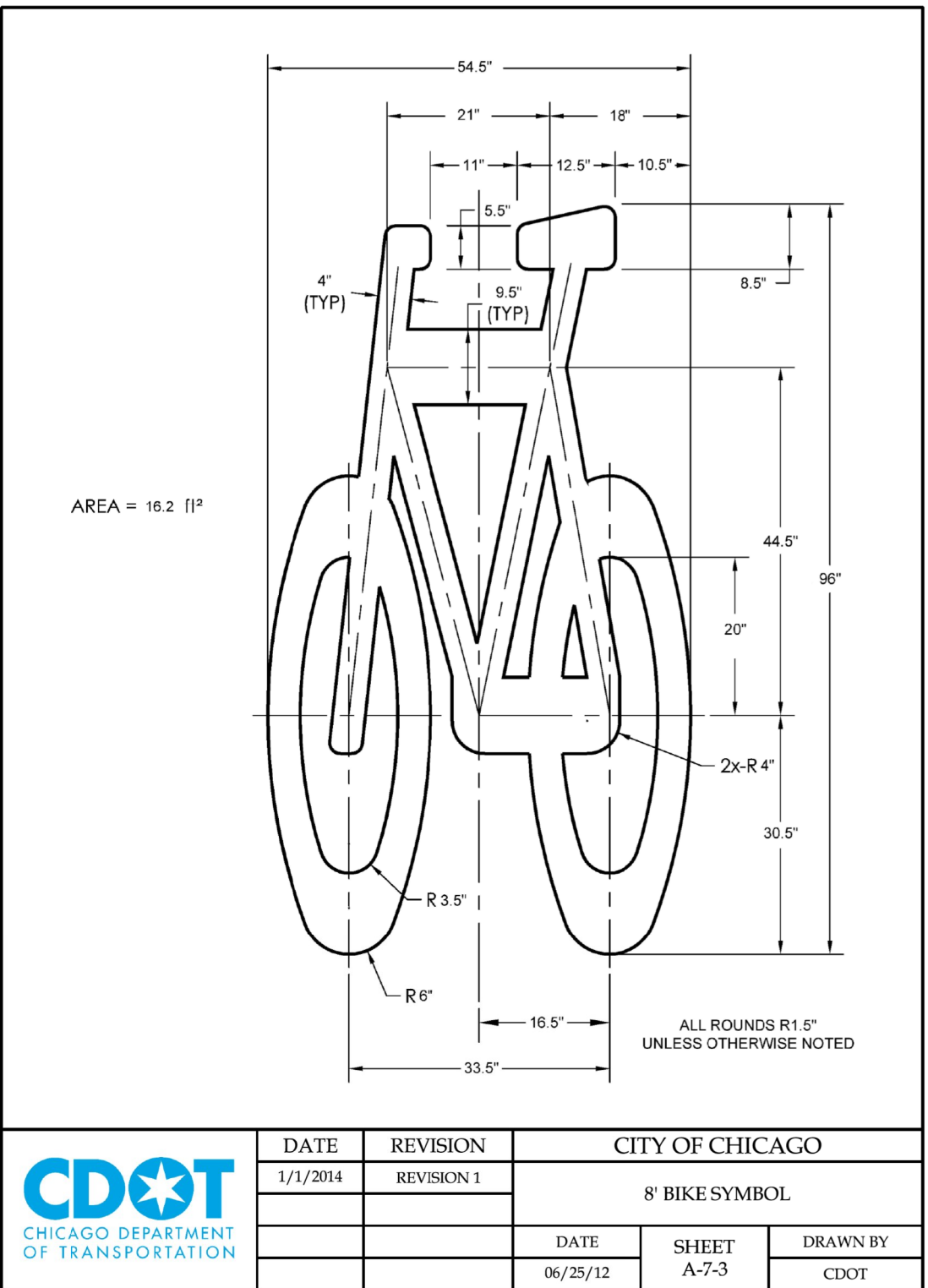
CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER

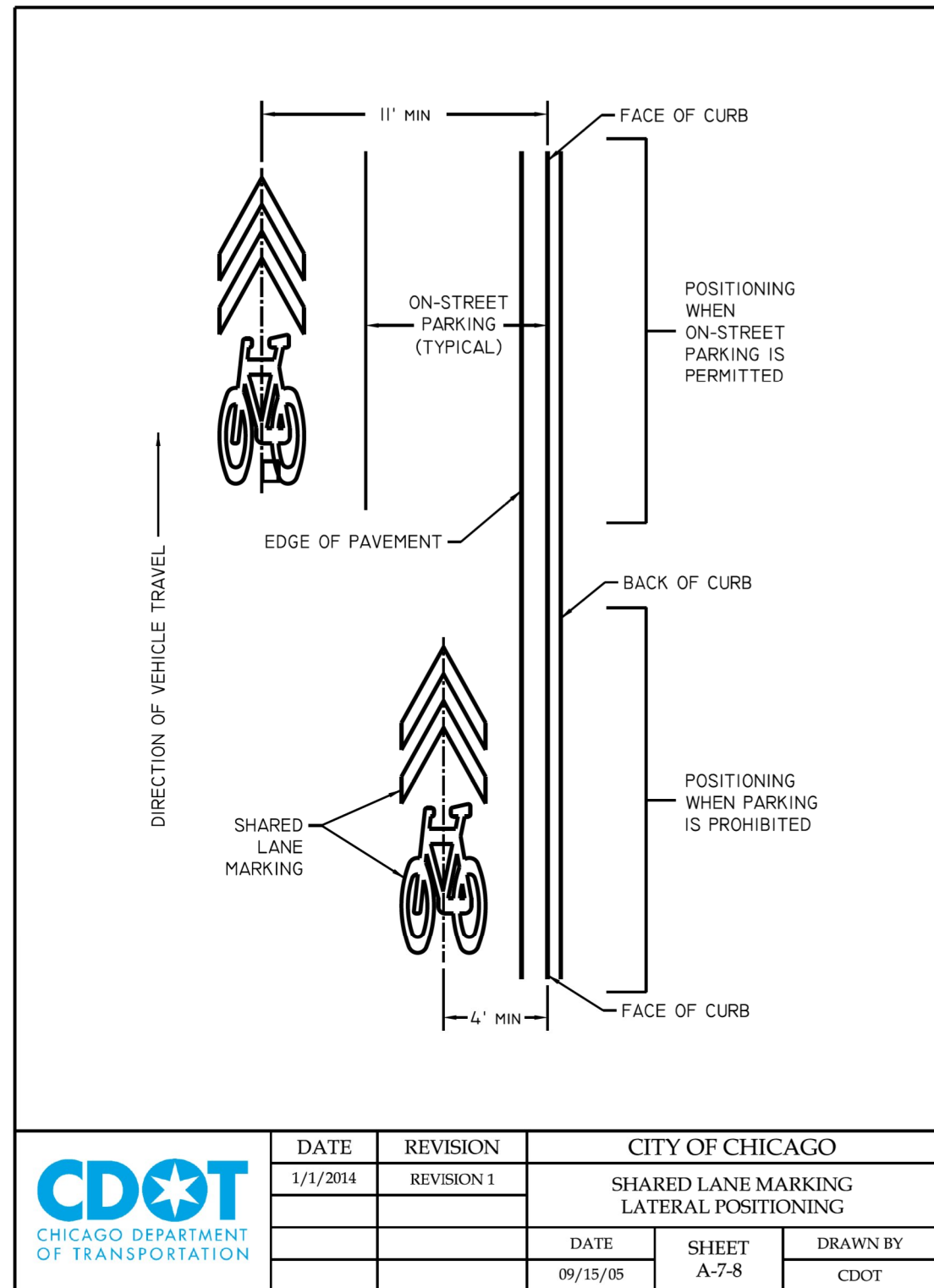
CDOT STANDARDS

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|-----------|
| 1388 | 11-E1525-00-BR | COOK | SD-1 |
| CDOT PROJECT NO. E-1-525 | | | 25 of 210 |

| PROFILE | | BY | DATE |
|------------------------|-----------------------------------|----|------|
| NOTE BOOK NO. _____ | SURVEYED _____ | | |
| | PLOTTED _____ | | |
| | GRADES CHECKED _____ | | |
| | B.M. NOTED _____ | | |
| | STRUCTURE NOTATIONS CHECKED _____ | | |

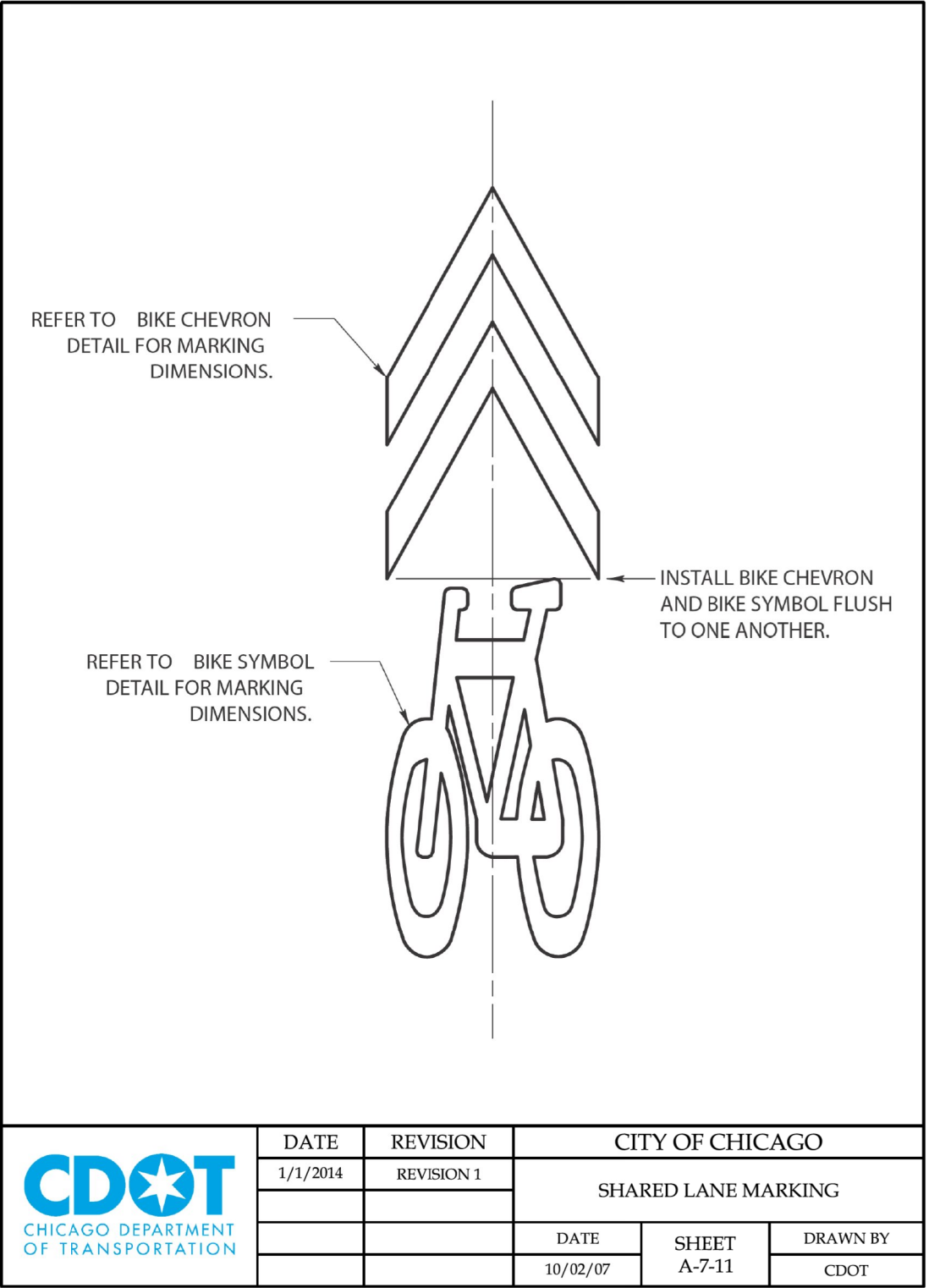
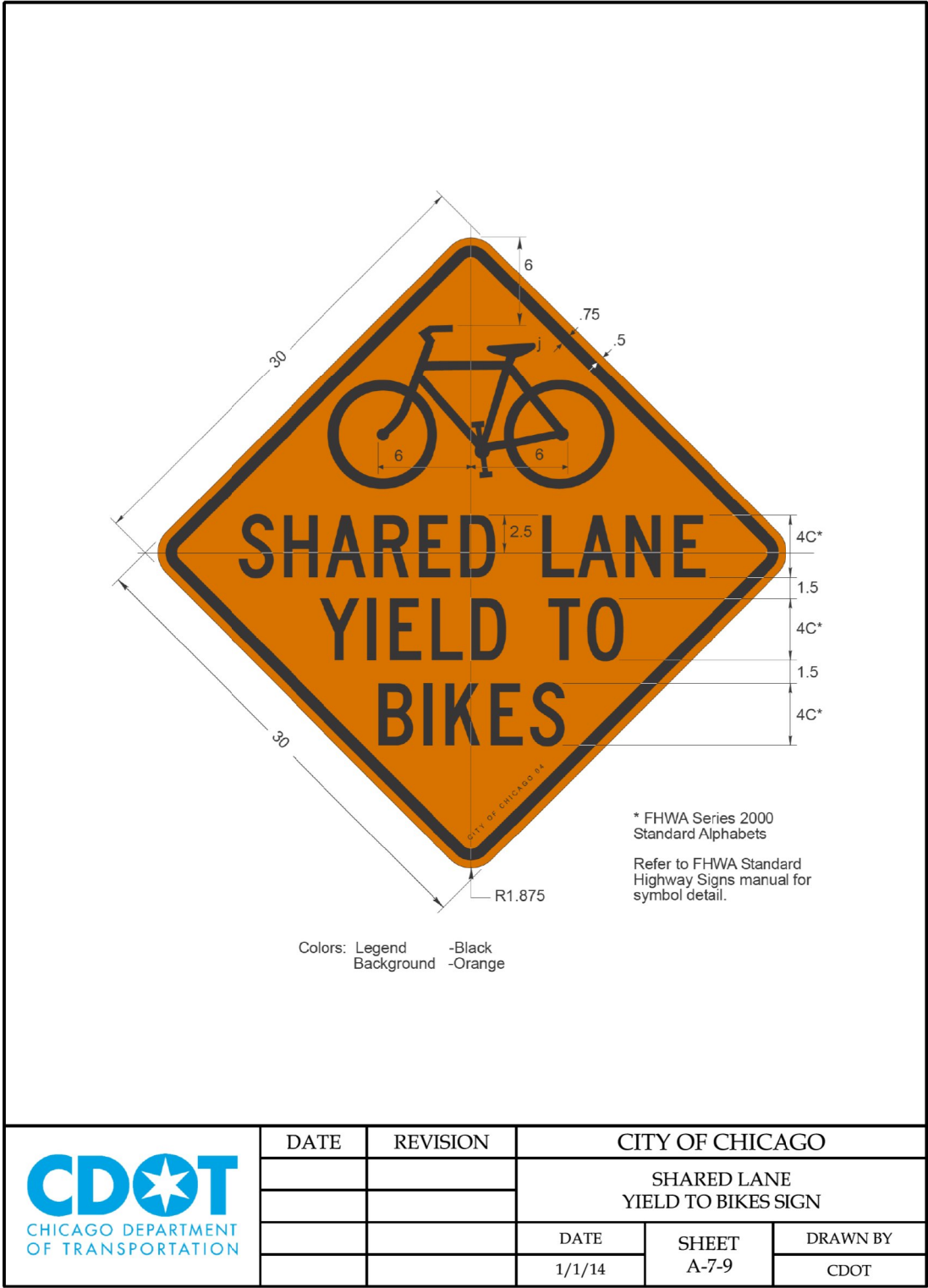


| PROFILE | | BY | DATE |
|------------------------|-----------------------------------|----|------|
| NOTE BOOK NO. _____ | SURVEYED _____ | | |
| | PLOTTED _____ | | |
| | GRADES CHECKED _____ | | |
| | B.M. NOTED _____ | | |
| | STRUCTURE NOTATIONS CHECKED _____ | | |



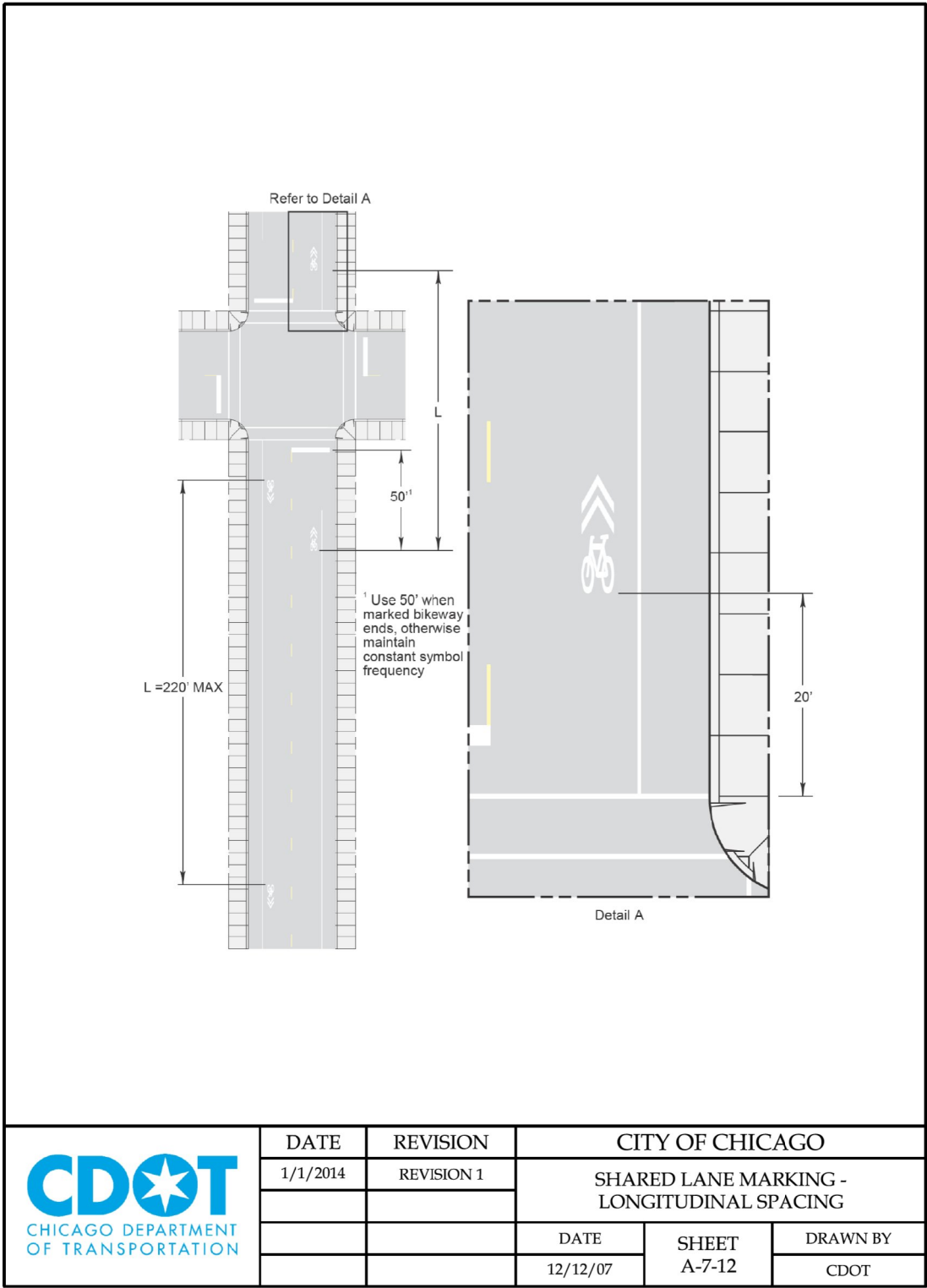
| PLAN | SURVEYED | PLOTTED | ALIGNMENT CHECKED | CADD FILE NAME | DATE |
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| PLAN | SURVEYED PLOTTED ALIGNMENT CHECKED BY FILE NAME | BY | DATE |
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| NOTE BOOK NO. | | | |
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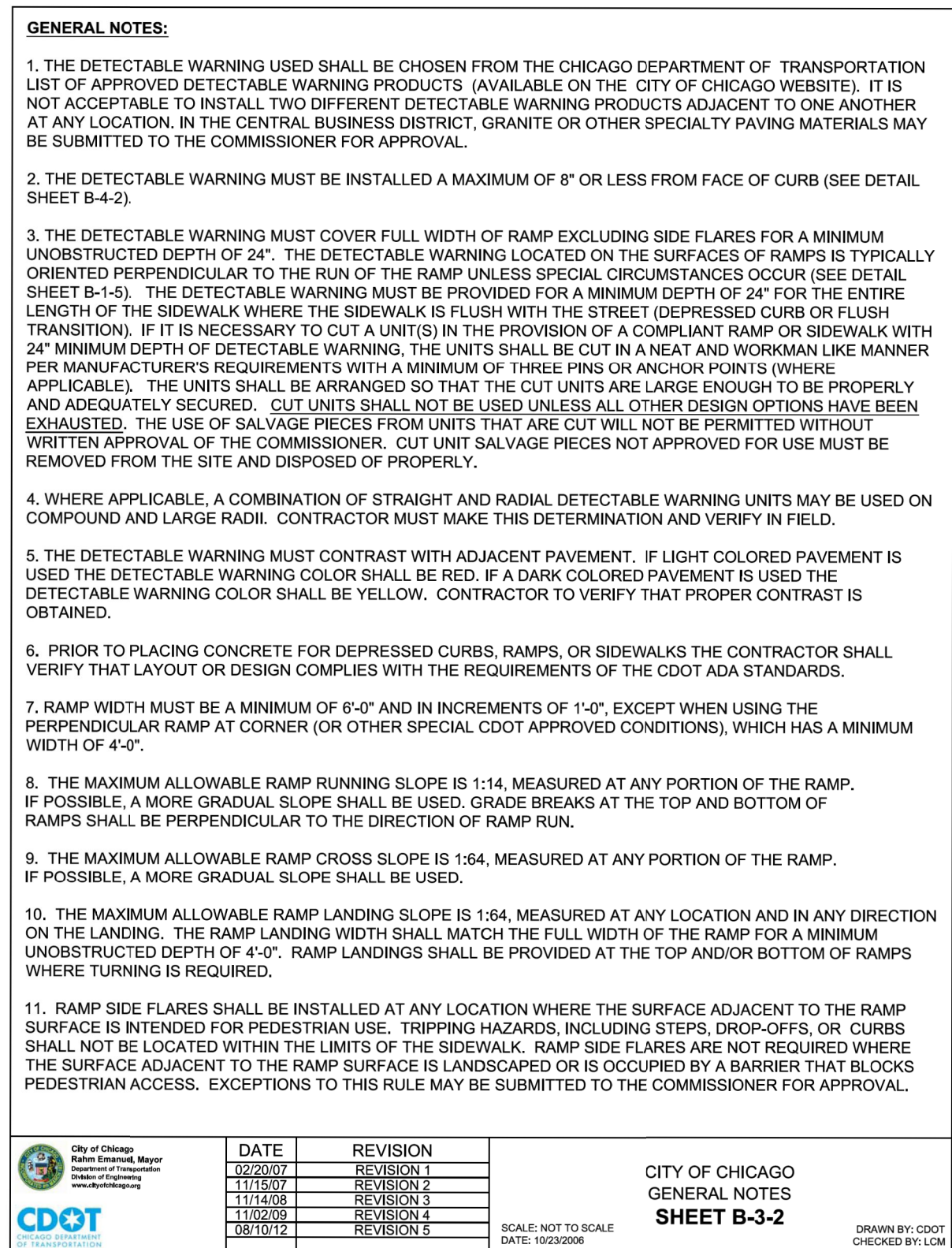
| PROFILE | SURVEYED PLOTTED GRADES CHECKED BY FILE NAME | BY | DATE |
|------------------|---|----|------|
| | | | |
| NOTE BOOK NO. | | | |
| | | | |



| DATE | REVISION | CITY OF CHICAGO | | |
|----------|------------|--|--------|----------|
| 1/1/2014 | REVISION 1 | SHARED LANE MARKING - LONGITUDINAL SPACING | | |
| | | DATE | SHEET | DRAWN BY |
| | | 12/12/07 | A-7-12 | CDOT |

E1525-SHT-STANDARDS-05.DGN

| PROFILE | | BY | DATE |
|------------------------|-----------------------------------|----|------|
| NOTE BOOK NO. _____ | SURVEYED _____ | | |
| | PLOTTED _____ | | |
| | GRADES CHECKED _____ | | |
| | B.M. NOTED _____ | | |
| | STRUCTURE NOTATIONS CHECKED _____ | | |



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|------|------------------------|--|----------|------------|
| PLAN | NOTE BOOK NO. _____ | SURVEYED PLOTTED ALIGNMENT CHECKED BY _____ CADD FILE NAME _____ | BY _____ | DATE _____ |
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|---------|------------------------|---|----------|------------|
| PROFILE | NOTE BOOK NO. _____ | SURVEYED PLOTTED GRADES CHECKED BY _____ STRUCTURE NOTATIONS CHNG | BY _____ | DATE _____ |
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GENERAL NOTES (CONTINUED):

12. UTILITIES, SUCH AS LIGHT POLES, TRAFFIC POLES AND HYDRANTS, MAY BE LOCATED IN THE FLARE OF THE RAMP BUT ARE NOT ALLOWED ON THE RAMP SURFACE OR LANDING AREAS. EXISTING UTILITY STRUCTURE LIDS MAY REMAIN WITHIN THE FLARE OR ON THE SURFACE OF THE RAMP IF THE REQUIREMENTS OF GENERAL NOTE #19 ARE MET.

13. ALL LOCATIONS WITH TYPE 4 OR TYPE B CURB (EXCEPT ALLEY APRONS) SHALL BE CONSTRUCTED AS CURB AND GUTTER TYPE BV.12 THROUGH THE LIMITS OF THE CORNER AND THE CURB RAMPS.

14. ALTERATIONS SHALL NOT DECREASE THE ACCESSIBILITY TO EXISTING FACILITIES, SIDEWALKS LEADING TO EXISTING FACILITIES, OR DOOR OR GATE ACCESS POINTS TO FACILITIES. THE ELEVATION AT THE EXISTING PROPERTY LINE OR FACILITY ACCESS POINT SHALL BE MAINTAINED AT A MINIMUM. ANY ALTERATIONS ADJACENT TO OR AFFECTING A FACILITY ACCESS POINT SHALL RESULT IN IMPROVED ACCESS OR AT A MINIMUM A REPLICATION OF EXISTING CONDITIONS, INCLUDING SIDEWALK SLOPES AND SURFACE CONDITIONS. FACILITIES INCLUDE, BUT ARE NOT LIMITED TO PRIVATE BUSINESSES, PUBLIC BUILDINGS, RESIDENCES, BUS STOPS, PUBLIC BENCHES, PAY PHONES, AND PARKING METERS.

15. THE MINIMUM CROSSWALK WIDTH IS 6'-0". CROSSWALKS SHALL BE LOCATED AS SHOWN IN THE PLAN SHEETS DEPENDING ON THE TYPE OF CURB RAMP USED. BEYOND THE CURB FACE AT THE BASE OF CURB RAMPS, A CLEAR SPACE OF 4'-0" BY 4'-0" MINIMUM SHALL BE PROVIDED WITHIN THE STRIPES OF THE CROSSWALK (WHERE PROVIDED).

16. IF SIDEWALK AND ALLEY ARE AT THE SAME GRADE, A RAMP IS NOT REQUIRED. IF SIDEWALK AND DRIVEWAY ARE AT THE SAME GRADE, A RAMP IS NOT REQUIRED BUT DETECTABLE WARNING UNITS ARE STILL REQUIRED IF THE DRIVEWAY HAS TRAFFIC CONTROL DEVICES (I.E. TRAFFIC SIGNALS).

17. MAIN LINE SIDEWALK SHALL HAVE A MAXIMUM CROSS SLOPE NOT TO EXCEED 1:64 FOR THE FULL WIDTH OF WALK UNLESS OTHERWISE APPROVED BY THE COMMISSIONER. WHERE TURNING IS REQUIRED AND WHERE SIDEWALKS INTERSECT, THE SLOPE OF THE SIDEWALK SHALL NOT EXCEED 1:64 IN ANY DIRECTION.

18. MAIN LINE SIDEWALK RUNNING SLOPES SHALL NOT EXCEED 1:24 OR THE GENERAL GRADE ESTABLISHED FOR THE ADJACENT STREET, WHICH EVER IS HIGHER.

19. THERE SHALL BE NO VERTICAL LEVEL DIFFERENCES BETWEEN SURFACES GREATER THAN 1/4" ON THE MAIN LINE SIDEWALK. THERE SHALL BE NO HORIZONTAL GAPS OR OPENINGS GREATER THAN 1/2" ON THE MAIN LINE SIDEWALK.


20. WHERE OBSTRUCTIONS EXIST ON THE MAINLINE SIDEWALK, THE CLEAR WIDTH OF USEABLE SIDEWALK SHALL NOT BE LESS THAN 4'-0". OBSTRUCTIONS INCLUDE, BUT ARE NOT LIMITED TO SIDEWALK BENCHES, FIRE HYDRANTS, SIGNAL OR LIGHT POLES, NEWSPAPER DISPENSERS, TRASH RECEPTACLES, AND UTILITY PEDESTALS.

21. CURB RAMPS AND LANDING (KEYSTONE) TO BE CONSTRUCTED WITH 8" THICK CONCRETE AT ALL TRAFFIC SIGNALIZED INTERSECTIONS AND INDUSTRIAL STREET INTERSECTIONS. AT ALL OTHER LOCATIONS, 5" THICK CONCRETE TO BE USED.

22. DEPRESSED CURB, RAMP, OR SIDEWALK DESIGNS OR LAYOUTS SHALL MAINTAIN OR IMPROVE EXISTING DRAINAGE AND THE EXISTING INTERSECTION GEOMETRY SHALL NOT BE MODIFIED WITHOUT CDOT APPROVAL.

23. ALL CONSTRUCTION DOCUMENTS MUST BE STAMPED BY A LICENSED ARCHITECT/LANDSCAPE ARCHITECT/ ENGINEER TO CERTIFY THAT THEY ARE IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA) AND ALL CODES AND BUILDING ORDINANCES OF THE CITY OF CHICAGO AND THE STATE OF ILLINOIS.

24. NO DEVIATIONS FROM THESE STANDARDS ARE ALLOWED WITHOUT WRITTEN APPROVAL FROM THE COMMISSIONER.

| | | | |
|---|----------|------------|---|
|  City of Chicago Rahm Emanuel, Mayor Department of Transportation Division of Engineering www.cityofchicago.org | DATE | REVISION | CITY OF CHICAGO GENERAL NOTES (CONTINUED) SHEET B-3-3 SCALE: NOT TO SCALE DATE: 10/23/2006 DRAWN BY: CDOT CHECKED BY: GK |
| | 02/20/07 | REVISION 1 | |
| | 11/15/07 | REVISION 2 | |
| | 11/14/08 | REVISION 3 | |
| | 11/02/09 | REVISION 4 | |
| | 08/10/12 | REVISION 5 | |
| | 01/01/14 | REVISION 6 | |

ADA COMPLIANCE AND TRANSITION GUIDELINES

POLICY STATEMENT: ANY ALTERATION OF THE PUBLIC WAY MUST BE RESTORED IN AN ADA COMPLIANT MANNER

I. STREET/ALLEY RESTORATION

FOR ANY PROJECT WHERE, WITHIN THE PROJECT LIMITS, A CROSSWALK IS ENCOUNTERED OR WHERE THE PROJECT LIMITS TERMINATE WITHIN 4' OR LESS OF A CROSSWALK, THOSE CROSSWALKS AND THE ASSOCIATED CURB RAMPS MUST BE IMPROVED TO CURRENT ADA STANDARDS IF THEY ARE NOT COMPLIANT (SEE APPENDIX A.)

WHEN A PROJECT CALLS FOR ONLY AN INTERSECTION TO BE REPAVED, THE INTERSECTION LIMITS AS DEFINED BY THE AREA OUTLINED BY OUTERMOST CROSSWALK LINES AND ADJACENT CURB FACES AND ALL ADJOINING CROSSWALKS AND CURB RAMPS MUST BE IMPROVED TO CURRENT ADA STANDARDS IF THEY ARE NOT COMPLIANT (SEE APPENDIX A).

WHEN WORK IS LIMITED TO A SINGLE CORNER OF AN INTERSECTION, THE CURB RAMP MUST BE IMPROVED TO CURRENT ADA STANDARDS AND THE ADJACENT PAVEMENT MUST BE RESURFACED, AS NECESSARY TO PROVIDE FOR A FLUSH TRANSITION (SEE APPENDIX A).

WHEN ADA WORK IS LIMITED TO A SINGLE CORNER OF AN INTERSECTION, THE ADJACENT PAVEMENT MUST BE RESTORED TO THE 1/4-POINT OF THE ROADWAY.

FOR ANY CONSTRUCTION WHERE, WITHIN THE PROJECT LIMITS, AN ALLEY APRON IS ENCOUNTERED, THE ASSOCIATED CURB RAMPS, ALLEY APRON, AND SIDEWALKS MUST BE IMPROVED TO CURRENT ADA STANDARDS IF THEY ARE NOT COMPLIANT (SEE APPENDIX A).

II. SIDEWALK INSTALLATION / REPAIRS / RECONSTRUCTION

THE LIMITS OF ANY MAINLINE SIDEWALK REPLACEMENT, GREATER THAN TEN FEET (10') IN LENGTH, THAT ABUT AN EXISTING RAMP, KEYSTONE, TRANSITION PANEL, AND/OR LANDING AREA (THIS TOTAL LENGTH INCLUDES THE PRIOR ELEMENTS), SHALL BE EXTENDED TO INCLUDE THE AFFECTED RAMPS AND THESE RAMPS SHALL BE RECONSTRUCTED TO CURRENT ADA STANDARDS. IN ADDITION, ALL NEWLY PLACED SIDEWALK TEN FEET (10') OR MORE IN LENGTH SHALL BE CONSTRUCTED IN ACCORDANCE WITH ALL CURRENT APPLICABLE STANDARDS WHICH INCLUDE PROVIDING A MINIMUM FOUR FEET (4') WIDTH ACCESSIBLE PATHWAY WITH A CROSS SLOPE NOT TO EXCEED 1:64 (SEE APPENDIX A).

III. GUIDELINES FOR TRANSITIONING TO EXISTING NON-COMPLIANT CONDITION

NEW SIDEWALK PLACEMENTS GREATER THAN TEN FEET IN CONTIGUOUS LENGTH:

THE LIMITS OF ANY MAINLINE SIDEWALK REPLACEMENT, GREATER THAN TEN FEET (10') IN LENGTH, MUST BE EXTENDED FOR A MINIMUM FIVE ADDITIONAL FEET (5') EITHER SIDE IN ORDER TO PROVIDE A TRANSITION TO MATCH THE EXISTING SIDEWALK. THE LENGTH OF TRANSITION SHALL BE LENGTHENED AS NECESSARY TO ENSURE THAT THE RUNNING SLOPE OF THE TRANSITION DOES NOT EXCEED A SLOPE OF 1:24 (PREFERRED) OR 1:14 (MAXIMUM) AT ANY POINT.


NEW SIDEWALK REPLACEMENTS TEN FEET OR LESS IN CONTIGUOUS LENGTH (REPAIRS):

IT IS ACCEPTABLE PRACTICE TO MATCH ADJACENT SIDEWALKS AT THE EXISTING SLOPE.

CURB RAMP REPLACEMENTS

WHEN REPLACING AN ADA RAMP, THE SIDEWALK REPLACEMENT MUST EXTEND BEYOND THE LIMITS OF THE LANDING AREA AND/OR THE "KEYSTONE" A MINIMUM OF AN ADDITIONAL FIVE FEET (5') ON EITHER SIDE IN ORDER TO PROVIDE A TRANSITION TO MATCH THE EXISTING SIDEWALK. THE TRANSITION PANEL SHALL BE LENGTHENED AS NECESSARY TO ENSURE THAT THE RUNNING SLOPE OF THE TRANSITION PANEL DOES NOT EXCEED A SLOPE OF 1:24 (PREFERRED) OR 1:14 (MAXIMUM) AT ANY POINT.

NO EXCEPTIONS TO THE ABOVE WILL BE ALLOWED WITHOUT WRITTEN APPROVAL FROM THE COMMISSIONER.

| | | | |
|---|----------|------------|--|
|  City of Chicago Rahm Emanuel, Mayor Department of Transportation Division of Engineering www.cityofchicago.org | DATE | REVISION | CITY OF CHICAGO ADA COMPLIANCE AND TRANSITION GUIDELINES SHEET B-3-4 SCALE: NOT TO SCALE DATE: 10/23/2006 DRAWN BY: CDOT CHECKED BY: GK |
| | 02/20/07 | REVISION 1 | |
| | 11/15/07 | REVISION 2 | |
| | 11/14/08 | REVISION 3 | |
| | 11/02/09 | REVISION 4 | |
| | 08/10/12 | REVISION 5 | |
| | 01/01/14 | REVISION 6 | |

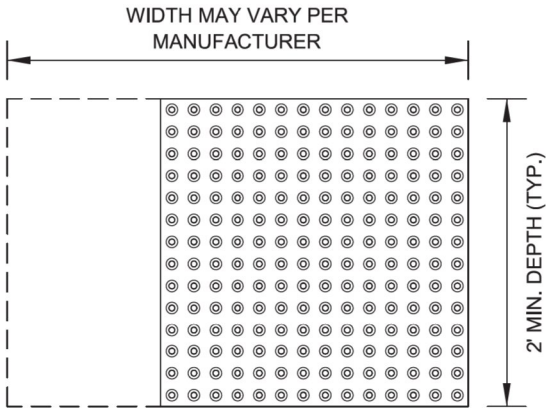
E1525-SHT-STANDARDS-07.DGN

| | | | | | | | | | | |
|---|--------------------|----------------|-----------|---|--|---------------|--------------------------|----------------|--------|-----------|
|  WSP USA Inc. 30 N. LA SALLE STREET SUITE 4200 CHICAGO, IL 60602 TEL: (312) 782-8150 FAX: (312) 782-1684 | USER NAME = MMA | DESIGNED - MMA | REVISED - | CITY OF CHICAGO DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING | WEBSTER AVENUE BRIDGE OVER THE NORTH BRANCH CHICAGO RIVER | ADA STANDARDS | F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
| | | CHECKED - | REVISED - | | | | 1388 | 11-E1525-00-BR | COOK | SD-7 |
| | PLOT SCALE = | DRAWN - MMA | REVISED - | | | | CDOT PROJECT NO. E-1-525 | | | 31 of 210 |
| | PLOT DATE = SDATES | CHECKED - | REVISED - | | | | | | | |

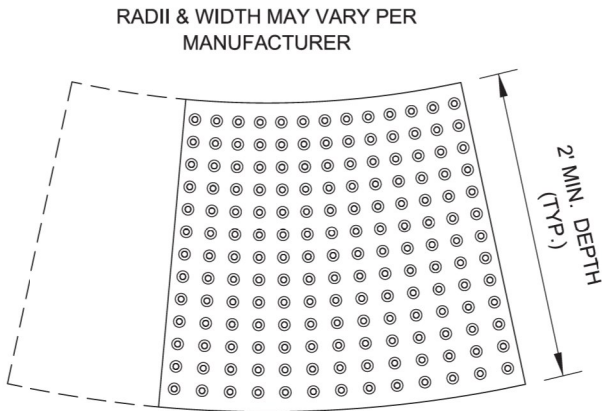
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| | BY | |
| NOTE BOOK NO. | PLOTTED | |
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| | CADD FILE NAME | |

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| PROFILE | SURVEYED | DATE |
| | BY | |
| NOTE BOOK NO. | PLOTTED | |
| | GRADES CHECKED | |
| | STRUCTURE NOTATIONS CHKGD | |

STRAIGHT DETECTABLE WARNING UNITS





RADIAL DETECTABLE WARNING UNITS

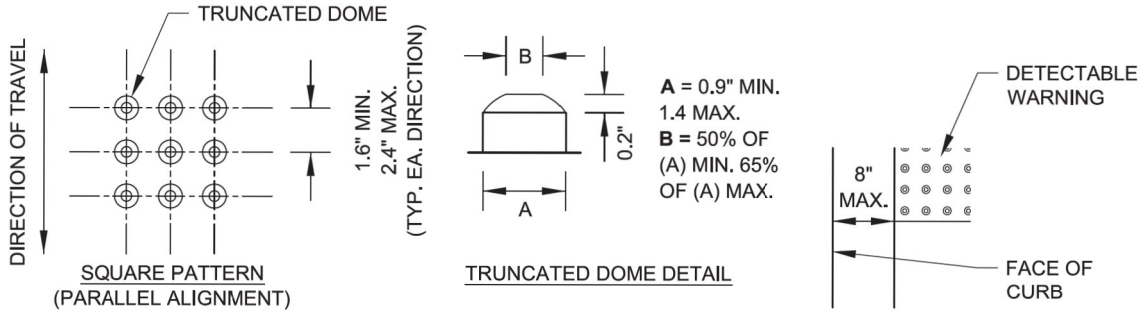


DETECTABLE WARNING UNIT SIZES

- VERIFY ALL DIMENSIONS WITH THE PRODUCT MANUFACTURER.
- IF USING RADIAL UNITS, VERIFY THAT THE CURB RADIUS MATCHES AVAILABLE UNIT RADII WITH THE PRODUCT MANUFACTURER.
- APPROVED LIST OF DETECTABLE WARNING PRODUCTS CAN BE FOUND ON CDOT'S WEBSITE (www.cityofchicago.org).

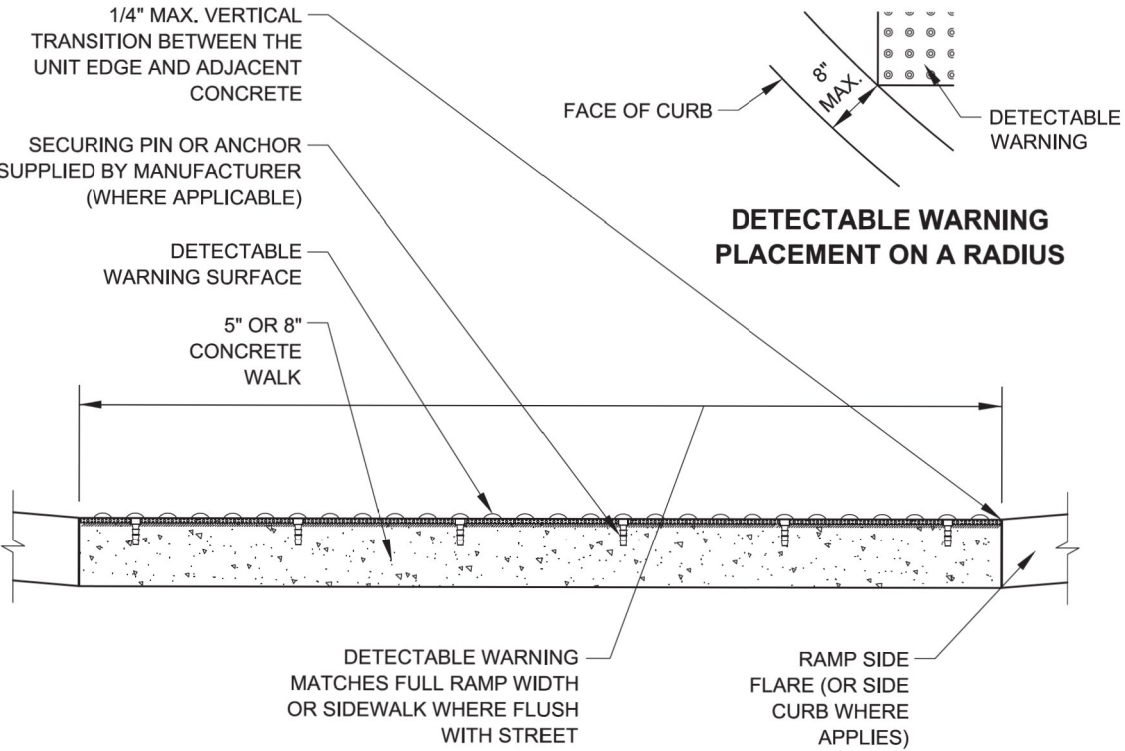
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|---|----------|------------|--|--|
|  City of Chicago Rahm Emanuel, Mayor Department of Transportation Division of Engineering www.cityofchicago.org  CHICAGO DEPARTMENT OF TRANSPORTATION | DATE | REVISION | CITY OF CHICAGO DETECTABLE WARNING UNIT SIZES SHEET B-4-1 SCALE: NOT TO SCALE DATE: 10/23/2006 DRAWN BY: CDOT CHECKED BY: LCM | |
| | 02/20/07 | REVISION 1 | | |
| | 11/15/07 | REVISION 2 | | |
| | 11/14/08 | REVISION 3 | | |
| | 11/02/09 | REVISION 4 | | |
| | 08/10/12 | REVISION 5 | | |

GENERAL NOTE:
THE ROWS OF DOMES IN THE DETECTABLE WARNING MATERIAL MUST BE ALIGNED WITH THE PATH OF WHEELCHAIR TRAVEL WHICH IS REQUIRED TO BE PERPENDICULAR TO THE GRADE BREAK AT THE BOTTOM OF THE RAMP TO PERMIT TRACKING BETWEEN DOME ROWS. ON BLENDED TRANSITIONS OR FLUSH TRANSITIONS, WHERE RADIAL UNITS ARE SITUATED ABOUT THE CURB RADIUS, DOME ORIENTATION IS NOT SIGNIFICANT.





UNIT PATTERN & DOME DETAIL

TYPICAL DETECTABLE WARNING PLACEMENT



DETECTABLE WARNING UNIT SECTION

| | | | | |
|---|----------|------------|--|--|
|  City of Chicago Rahm Emanuel, Mayor Department of Transportation Division of Engineering www.cityofchicago.org  CHICAGO DEPARTMENT OF TRANSPORTATION | DATE | REVISION | CITY OF CHICAGO DETECTABLE WARNING UNIT DETAILS SHEET B-4-2 SCALE: NOT TO SCALE DATE: 10/23/2006 DRAWN BY: CDOT CHECKED BY: LCM | |
| | 02/20/07 | REVISION 1 | | |
| | 11/15/07 | REVISION 2 | | |
| | 11/14/08 | REVISION 3 | | |
| | 11/02/09 | REVISION 4 | | |
| | 08/10/12 | REVISION 5 | | |

E1525-SHT-STANDARDS-08.DGN



WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

| | | |
|-------------------|----------------|-----------|
| USER NAME = MMA | DESIGNED - MMA | REVISED - |
| | CHECKED - | REVISED - |
| PLOT SCALE = | DRAWN - MMA | REVISED - |
| PLOT DATE = SDATE | CHECKED - | REVISED - |

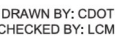
CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER

ADA STANDARDS

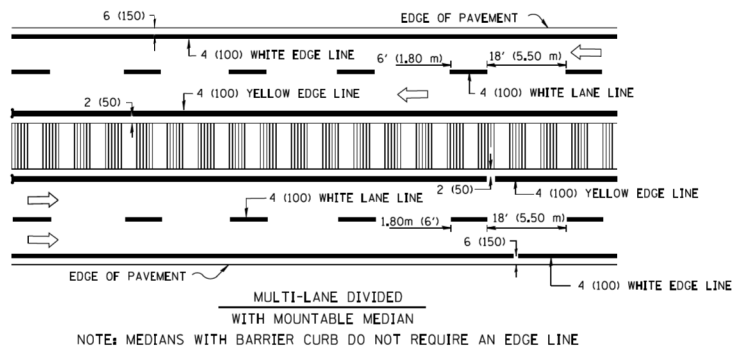
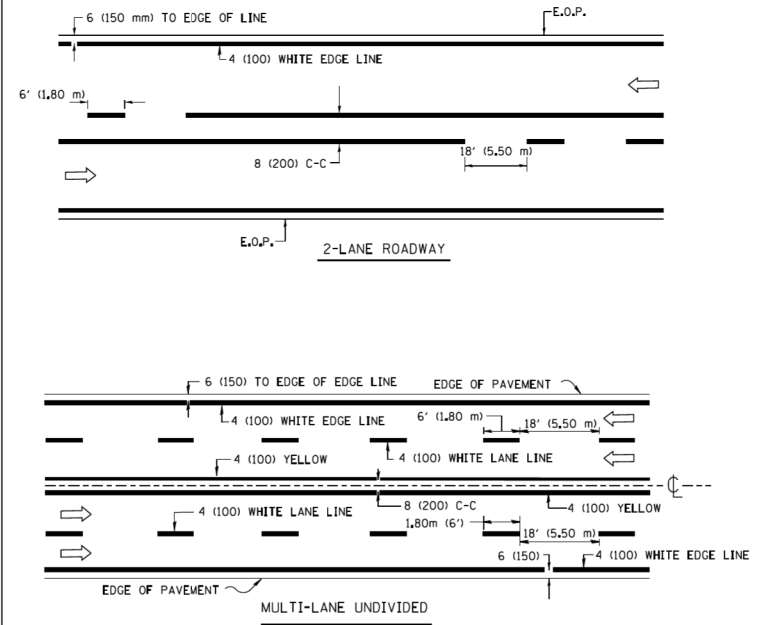
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| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. SD-8 |
| 1388 | 11-E1525-00-BR | COOK | |
| CDOT PROJECT NO. E-1-525 | | | 32 of 210 |

| | | | |
|----------------|---------------------------------|----------|------------|
| PROFILE | SURVEYED _____ | BY _____ | DATE _____ |
| | PLOTTED _____ | | |
| NOTE BOOK | GRADES CHECKED _____ | | |
| NO. _____ | B.M. NOTED _____ | | |
| | STRUCTURE NOTATIONS CH'KD _____ | | |

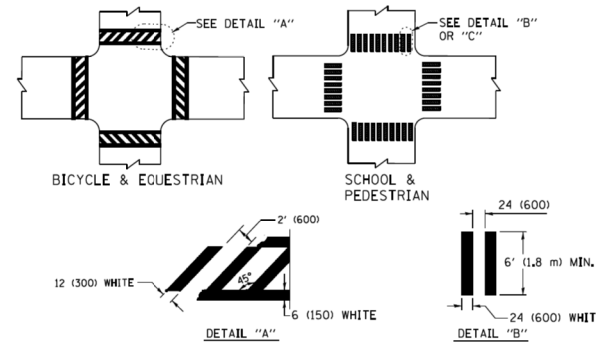


E. 'P.J.M.' THIS SHEET REFERS
TO PREFORMED JOINT
MATERIAL.

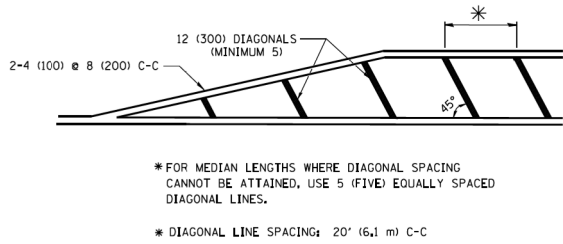
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| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. SD-9 |
| 1388 | 11-E1525-00-BR | COOK | |
| CDOT PROJECT NO. E-1-525 | | | 33 of 210 |



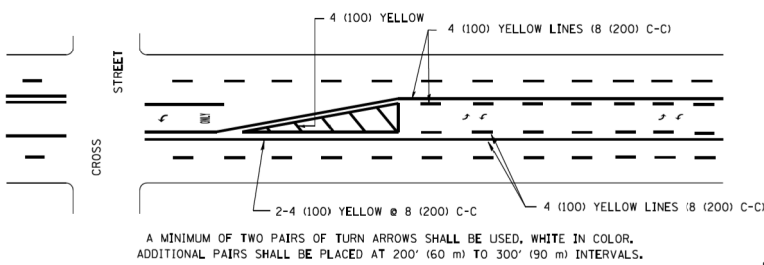
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

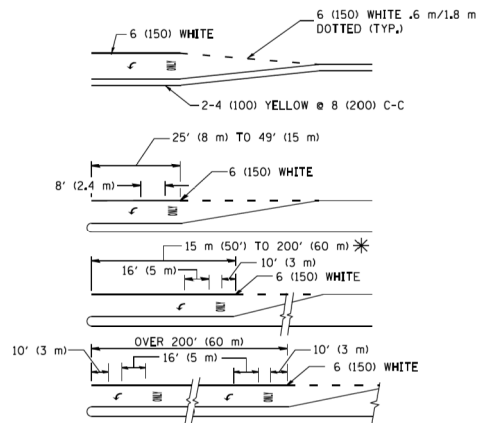


PAINTED MEDIANS



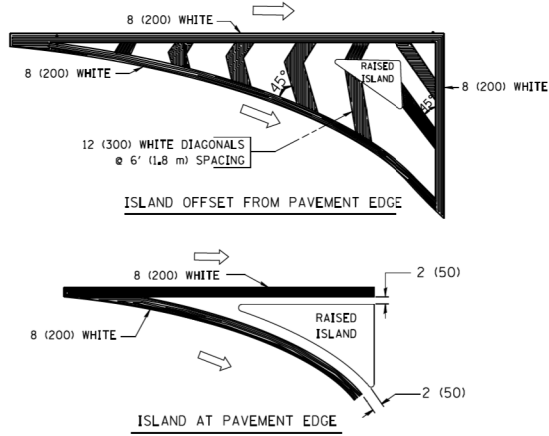
MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING



TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



| TYPE OF MARKING | WIDTH OF LINE | PATTERN | COLOR | SPACING / REMARKS |
|---|--|---------------------------------|---|--|
| CENTERLINE ON 2 LANE PAVEMENT | 4 (100) | SKIP-DASH | YELLOW | 6' (1.80 m) LINE WITH 18' (5.50 m) SPACE |
| CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT | 2 @ 4 (100) | SOLID | YELLOW | 8 (200) C-C |
| NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS | 4 (100) 2 @ 4 (100) | SOLID SOLID | YELLOW YELLOW | 8 (200) C-C |
| LANE LINES | 4 (100) 5 (125) ON FREEWAYS | SKIP-DASH SKIP-DASH | WHITE WHITE | 6' (1.80 m) LINE WITH 18' (5.50 m) SPACE |
| DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS) | SAME AS LINE BEING EXTENDED | SKIP-DASH | SAME AS LINE BEING EXTENDED | 2' (600) LINE WITH 6' (1.8) SPACE |
| EDGE LINES | 4 (100) | SOLID | YELLOW-LEFT WHITE-RIGHT | OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB |
| TURN LANE MARKINGS | 6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4 m)) | SOLID | WHITE | SEE TYPICAL TURN LANE MARKING DETAIL |
| TWO WAY LEFT TURN MARKING | 2 @ 4 (100) EACH DIRECTION 8' (2.4 m) LEFT ARROW | SKIP-DASH AND SOLID IN PAIRS | YELLOW WHITE | 6' (1.8 m) LINE WITH 18' (5.50 m) SPACE FOR SKIP-DASH; 8 (200) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL |
| CROSSWALK LINES A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL & PEDESTRIAN) | 12 (300) @ 45° 24 (600) @ 90° | SOLID SOLID | WHITE WHITE | 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS. |
| STOP LINES | 24 (600) | SOLID | WHITE | PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE |
| PAINTED MEDIANS | 2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° | SOLID | YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC | 8 (200) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING. |
| CORE MARKING AND CHANNELIZING LINES | 8 (200) WITH 12 (300) DIAGONALS @ 45° | SOLID | WHITE | DIAGONALS: 20' (6.1 m) (LESS THAN 30 MPH (50 km/h)) |
| RAILROAD CROSSING | 24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X" | SOLID | WHITE | SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33m²) EACH "X"=54.0 SQ. FT. (5.0 m²) |

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STREET MARKING STANDARDS, PRINTED BY CITY OF CHICAGO, DEPARTMENT OF TRANSPORTATION, BUREAU OF TRAFFIC.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

| | | | |
|--|-----------------------------|------------|---------------------------------|
| FILE NAME = | USER NAME = drvakosgn | DESIGNED - | REVISED - T. RAMMACHER 12-07-00 |
| ca\p\work\p\dot\drvakosgn\080315\td4.dgn | | DRAWN - | REVISED - K. ENG 02-28-12 |
| | PLOT SCALE = 50,000' / 1" = | CHECKED - | REVISED - |
| | PLOT DATE = 3/1/2012 | DATE - | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CITY OF CHICAGO
TYPICAL PAVEMENT MARKINGS

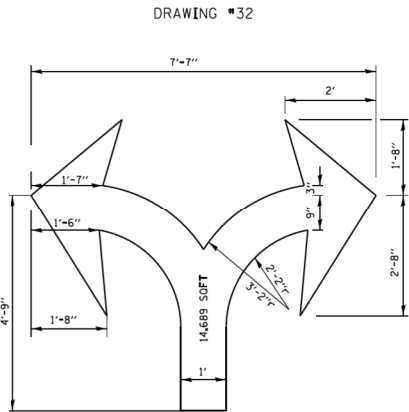
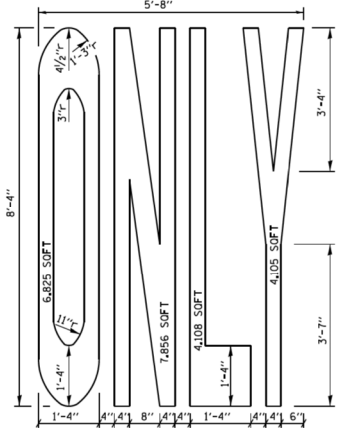
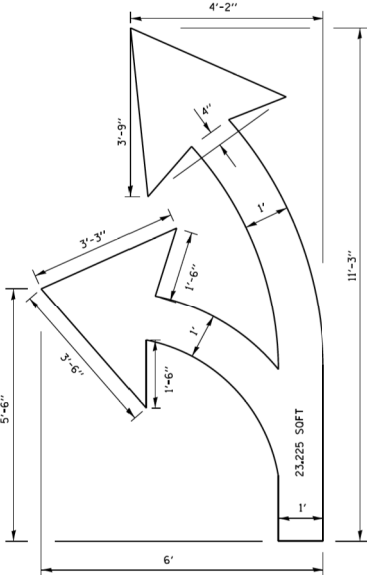
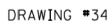
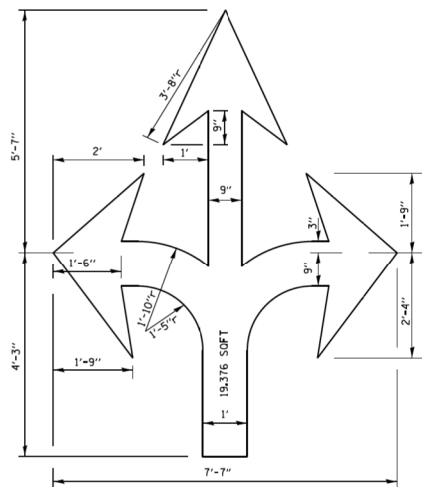
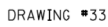
SCALE: NONE SHEET NO. 1 OF 3 SHEETS STA. TO STA.

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| F.A.U. - RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | TC-24 | | | |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT | CONTRACT NO. | |

| | | |
|--------------------|----------------|-----------|
| USER NAME = MMA | DESIGNED - MMA | REVISED - |
| | CHECKED - | REVISED - |
| PLOT SCALE = | DRAWN - MMA | REVISED - |
| PLOT DATE = SDATES | CHECKED - | REVISED - |

| | | | |
|--------------------------|----------------|--------|-----------|
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
| 1388 | 11-E1525-00-BR | COOK | SD-10 |
| CDOT PROJECT NO. E-1-525 | | | 34 of 210 |

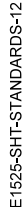
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| PROFILE | SURVEYED _____ | BY _____ | DATE _____ |
| | PLOTTED _____ | | |
| NOTE BOOK _____ | GRADES CHECKED _____ | | |
| NO. _____ | B.M. NOTED _____ | | |
| | STRUCTURE NOTAT'NS CHKD _____ | | |



NOTE: ALL MARKINGS SHALL BE SOLID WHITE UNLESS OTHERWISE NOTED IN THE PLANS

| | | | | | | | | | | | | | |
|---|------------------------|------------|---------------------------------|--|---|--|-------------------------|--|--|---------|--------|--------------|-------------------------|
| FILE NAME = | USER NAME = drsvakosgn | DESIGNED - | REVISED - T. RAMMACHER 12-07-00 | <div>STATE OF ILLINOIS</div> <div>DEPARTMENT OF TRANSPORTATION</div> | <div>CITY OF CHICAGO</div> <div>TYPICAL PAVEMENT MARKINGS</div> | | | | F.A. - | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| ca\pw_work\pavedot\drsvakosgn\td0108315\td024.dgn | | DRAWN - | REVISED - K. ENG 02-28-12 | | | | | | | | | | |
| PLOT SCALE = 50.000 ' / in. | | CHECKED - | REVISED - | | <div>TC-24</div> | | <div>CONTRACT NO.</div> | | <div>FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT</div> | | | | |
| PLOT DATE = 3/24/2012 | | DATE - | REVISED - | | | | | | | | | SCALE: NONE | SHEET NO. 2 OF 3 SHEETS |

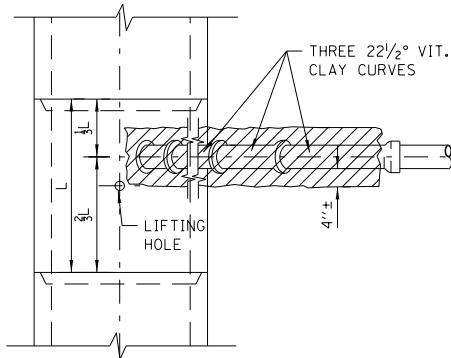
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| NOTE BOOK _____ | GRADES CHECKED _____ | | |
| NO. _____ | B.M. NOTED _____ | | |
| | STRUCTURE NOTAT'NS CHKD _____ | | |



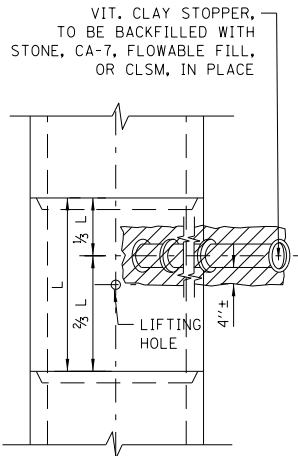
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|  <div>WSP USA Inc. 30 N. LASALLE STREET SUITE 4200 CHICAGO, IL 60602 TEL: (312) 782-8150 FAX: (312) 782-1684</div> | USER NAME = MMA | | DESIGNED - MMA | REVISED - |  <div>CITY OF CHICAGO DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING</div> | <div>WEBSTER AVENUE BRIDGE OVER THE NORTH BRANCH CHICAGO RIVER</div> | <div>IDOT STANDARDS</div> | F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
| | PLOT SCALE = | | CHECKED - | REVISED - | | | | 1388 | 11-E1525-00-BR | C00K | SD-12 |
| | PLOT DATE = \$DATES | | CHECKED - | REVISED - | | | | CDOT PROJECT NO. E-1-525 | | | 36 of 210 |
| | | | | | | | | | | | |

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| NOTE BOOK NO. _____ | | | |
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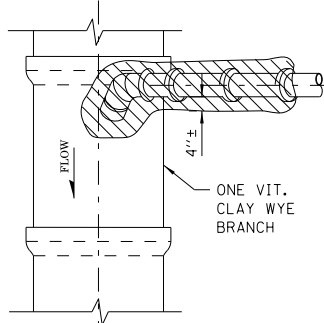
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| NOTE BOOK NO. _____ | | | |
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PLAN

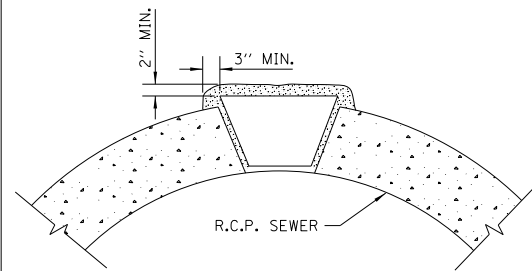


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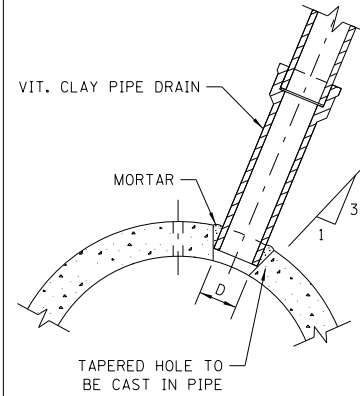


PLAN

NOTE:
PLUG TO BE COATED WITH MORTAR AND
DRIVEN INTO PLACE WITH A WOODEN
Mallet AND THEN SEALED WITH MORTAR.

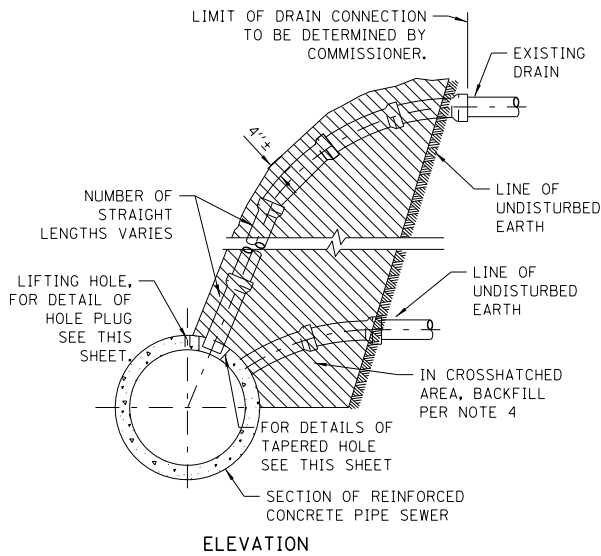


LIFTING HOLE PLUG DETAIL
FOR CONCRETE PIPE

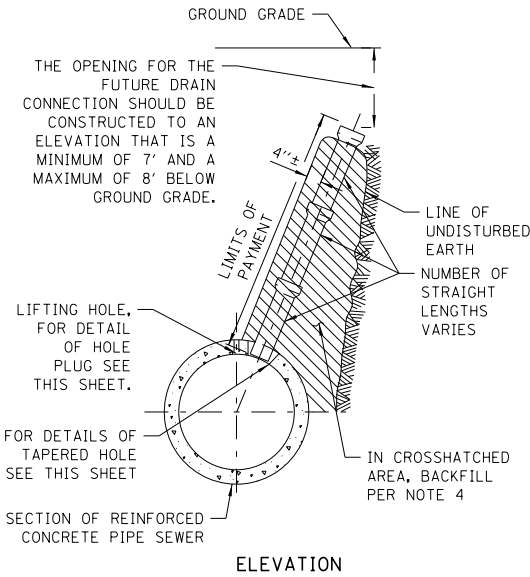


| SIZE OF DRAIN | "D" |
|---------------------|---------|
| 6" | 6 7/8" |
| 8" | 9 1/8" |
| 10" | 11 1/8" |
| 12" | 13 1/2" |
| 15" | 17" |
| 18" | 20 1/4" |
| 21" | 23 7/8" |

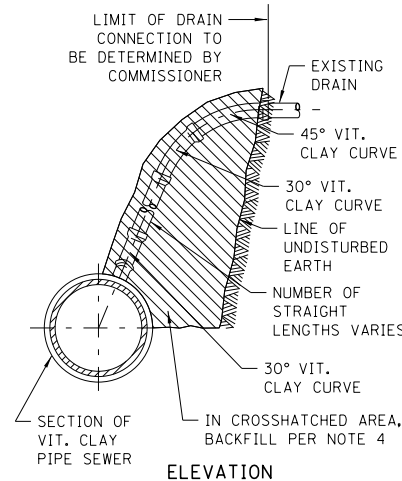
DETAIL OF TAPERED HOLE



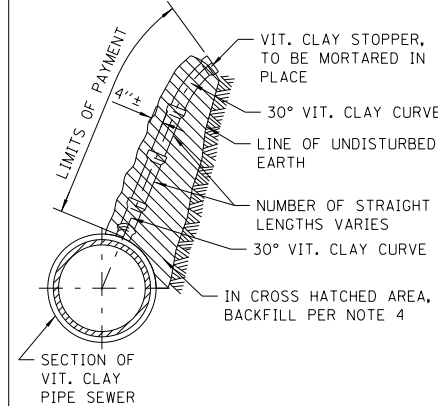
TYPICAL DRAIN CONNECTIONS
FOR EXISTING DRAINS



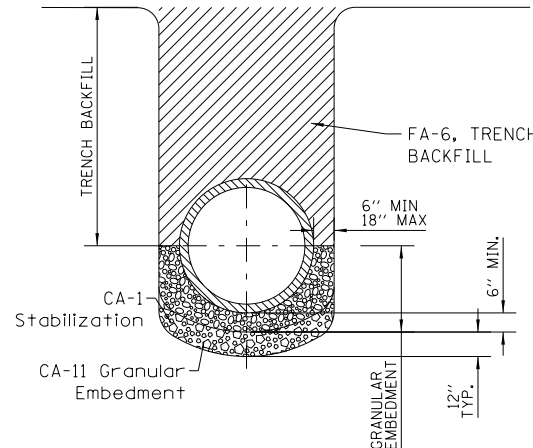
TYPICAL DRAIN STACKS
FOR FUTURE USE



TYPICAL DRAIN CONNECTIONS FOR
EXISTING DRAINS



TYPICAL DRAIN STACKS
FOR FUTURE USE



NOTE:
1. FOR TRENCH BACKFILL, USE FA-6 SAND,
CRUSHED CONCRETE SAND OR STONE SAND.

2. FOR GRANULAR EMBEDMENT, USE CA-11,
CRUSHED GRAVEL, CRUSHED STONE, OR
CRUSHED CONCRETE.

3. 12" OF CA-1 STONE IS ONLY REQUIRED
WHEN UNSTABLE MATERIAL IS ENCOUNTERED
AT TRENCH BOTTOM.

SEWER TRENCH DETAIL

NOTES:

1. ALL DRAIN CONNECTION JOINTS MUST BE MADE AS SPECIFIED IN SPECIFICATIONS..
2. FOR DUCTILE IRON PIPE DRAIN CONNECTIONS SEE SHEET NO. A.2.
3. FOR ALL GRANULAR EMBANKMENT, USE CA-7 OR CA-11
4. FOR BACKFILL OF HATCHED SUPPORT AREAS, USE CONCRETE, CA-11, FLOWABLE FILL, OR CLSM.

STANDARD REVISIONS

| DATE | DESCRIPTION |
|---------|---------------|
| 2/24/15 | APPROVED PLAN |
| | |
| | |
| | |
| | |

PERCENT COMPLETE

| |
|----------|
| 30 |
| 60 |
| 75 |
| 90 |
| 100 |
| BULLETIN |

DATE

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| |
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| |

CITY OF CHICAGO
DEPARTMENT OF WATER MANAGEMENT
BUREAU OF ENGINEERING SERVICES

VITRIFIED CLAY PIPE
DRAIN CONNECTIONS

DRAWN: SBW
DESIGNED: SBW
CHECKED: SBW
GO. GO. GO
REVIEWED: SBW

A.1

OF

PN

wsp

WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = KSD
DESIGNED - KSD
CHECKED -
PLOT SCALE =
DRAWN - KSD
CHECKED -
PLOT DATE = SDATES

DESIGNED - KSD
CHECKED -
DRAWN - KSD
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REVISED -
REVISED -
REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

CDOT STANDARDS

F.A.U.
RTE.

SECTION

COUNTY

SHEET NO.

1388

11-E1525-00-BR

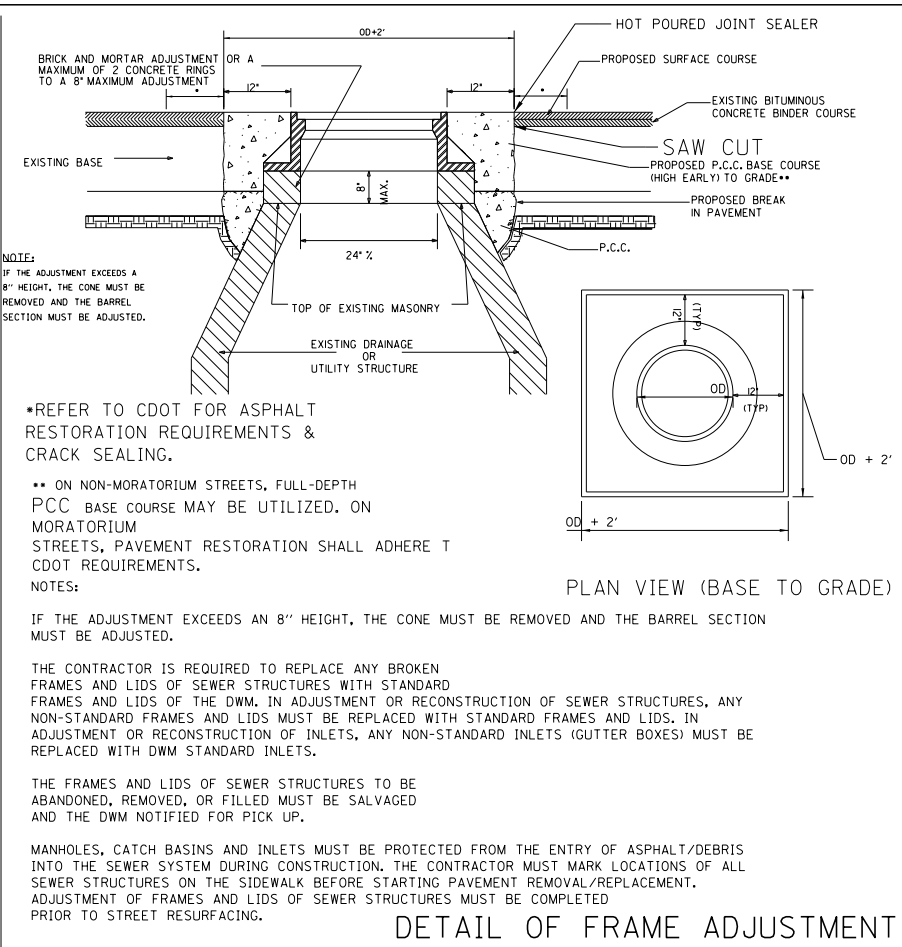
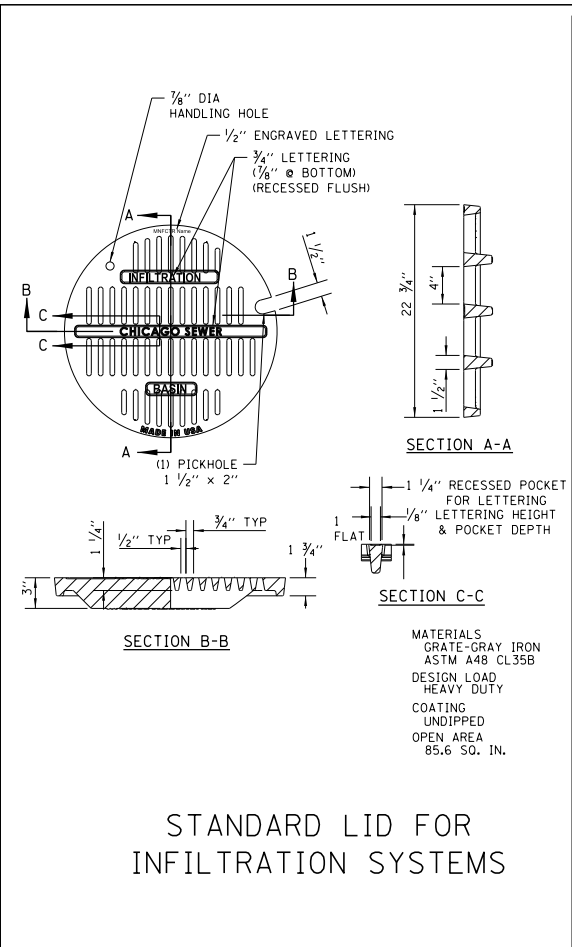
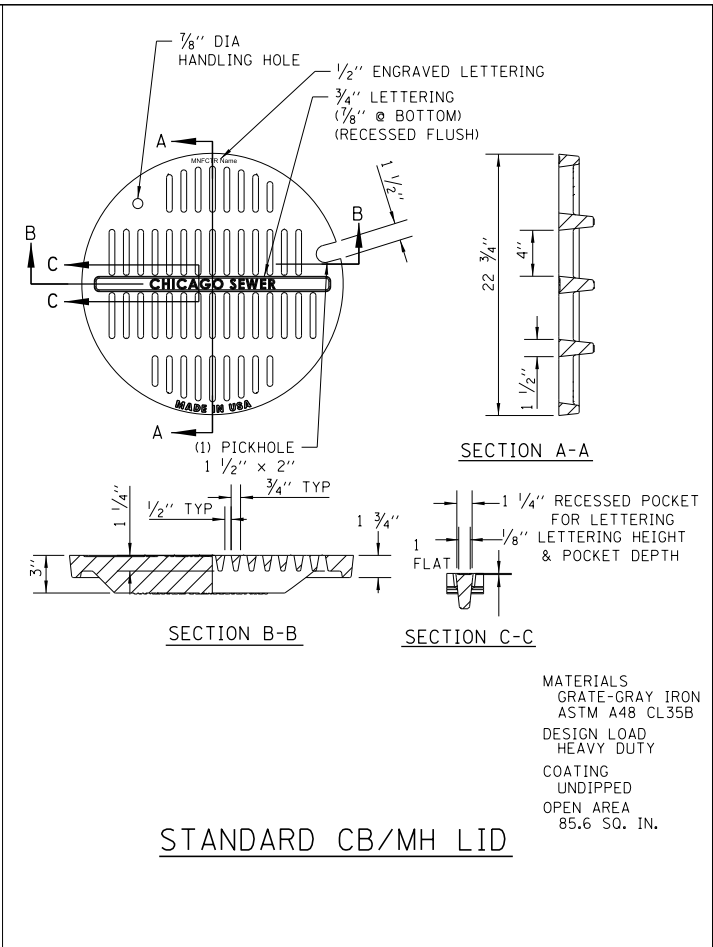
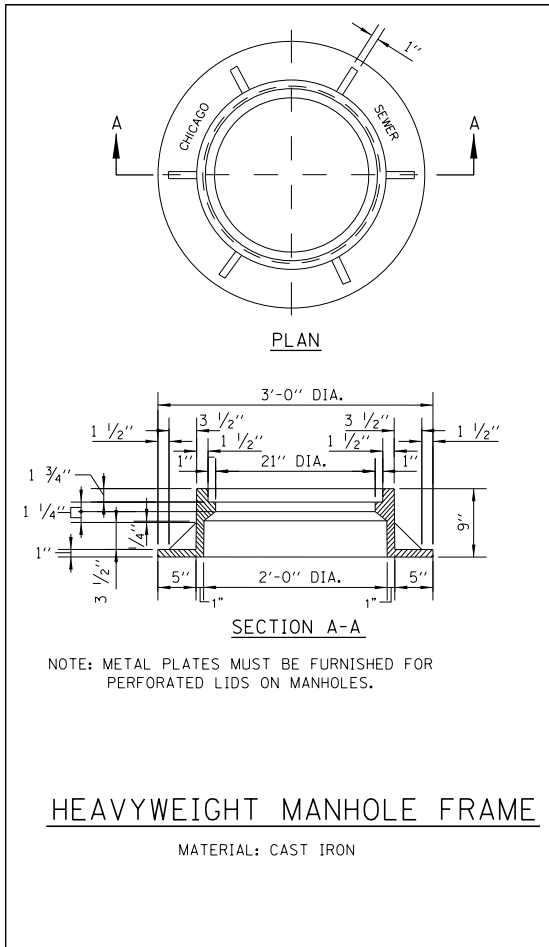
COOK

SD-13

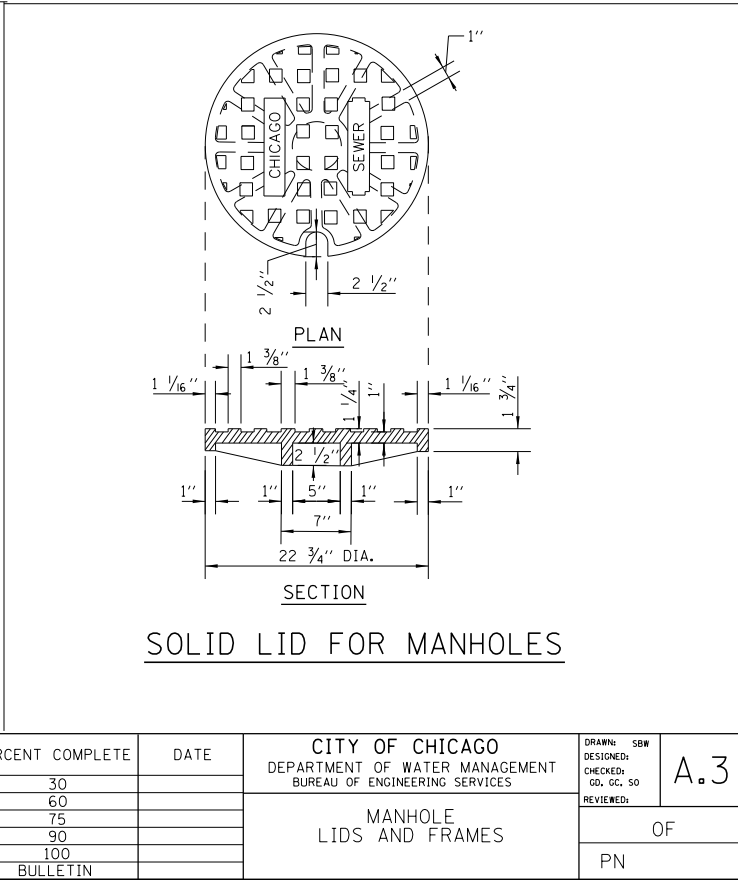
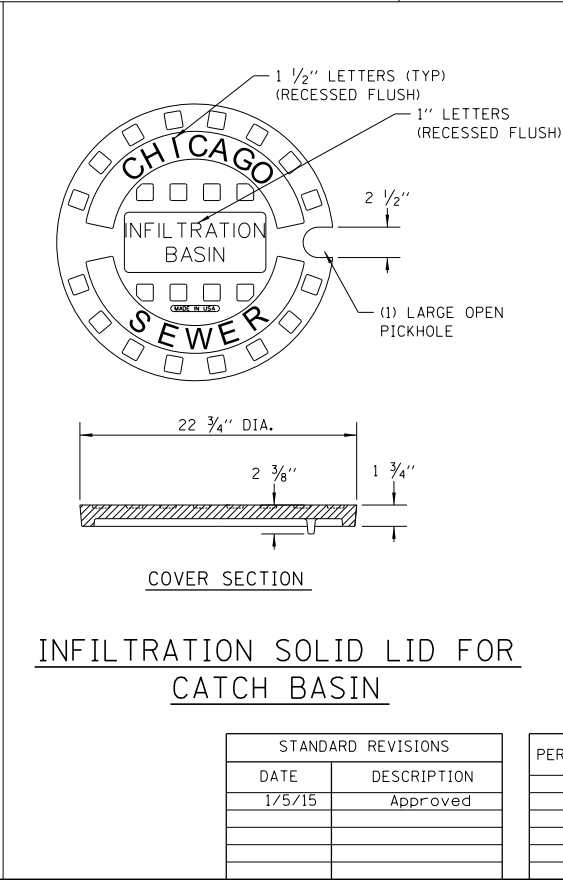
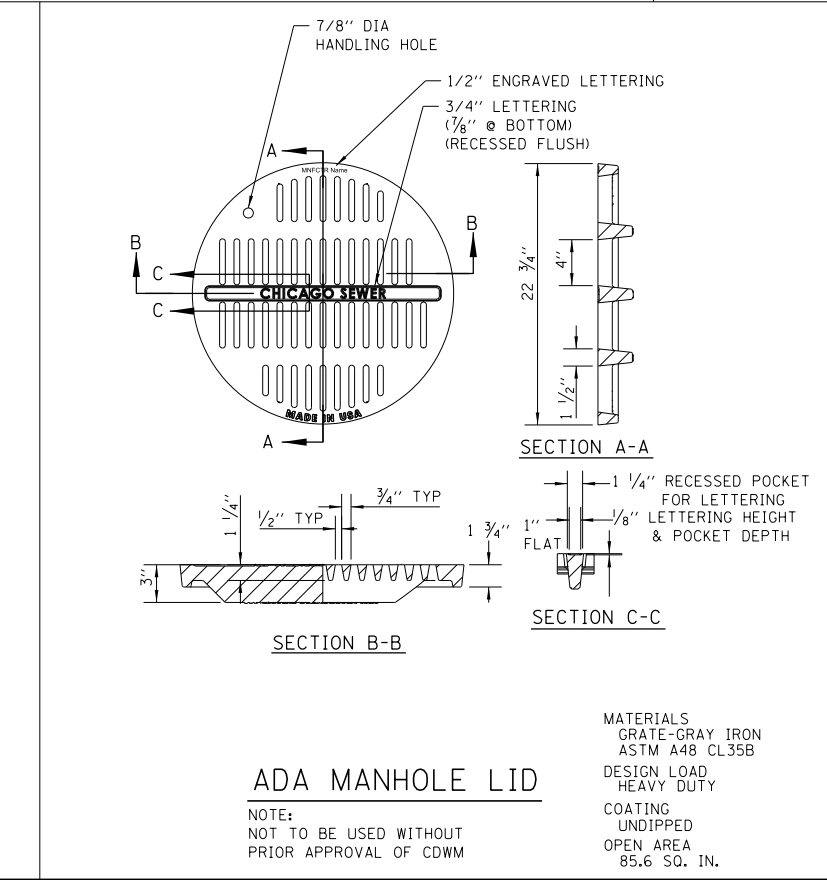
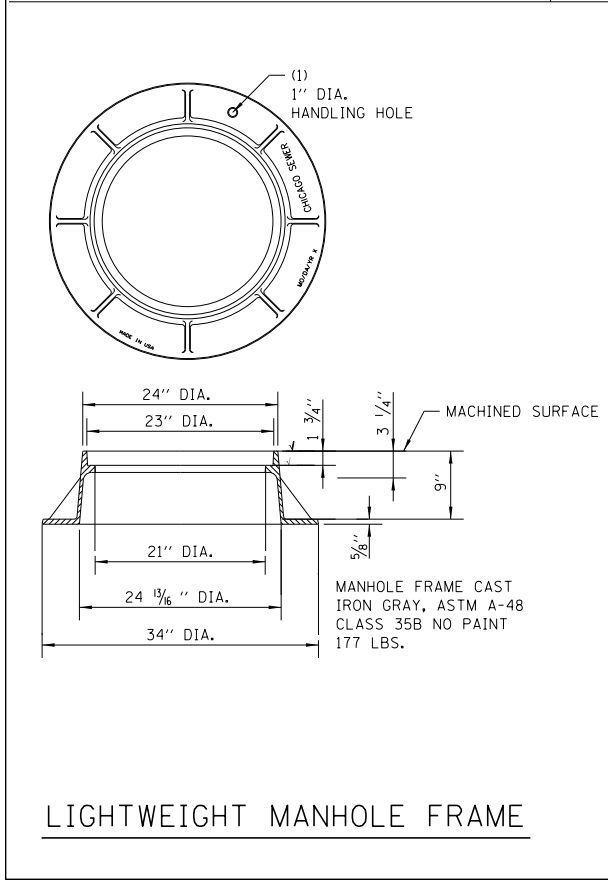
CDOT PROJECT NO. E-1-525

37 of 210

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| PLAN | SURVEYED | DATE |
| | PLOTTED | BY |
| | ALIGNED | |
| | CHECKED | |
| | DESIGNED | |
| | CADD FILE NAME | |
| NOTE BOOK | | |
| NO. | | |



| | | |
|-----------|-------------------------|------|
| PROFILE | SURVEYED | DATE |
| | PLOTTED | BY |
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| | CHECKED | |
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| | STRUCTURE NOTATION CHNG | |
| NOTE BOOK | | |
| NO. | | |



| STANDARD REVISIONS | |
|--------------------|-------------|
| DATE | DESCRIPTION |
| 1/5/15 | Approved |
| | |
| | |
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| PERCENT COMPLETE | DATE |
|------------------|------|
| 30 | |
| 60 | |
| 75 | |
| 90 | |
| 100 | |
| BULLETIN | |

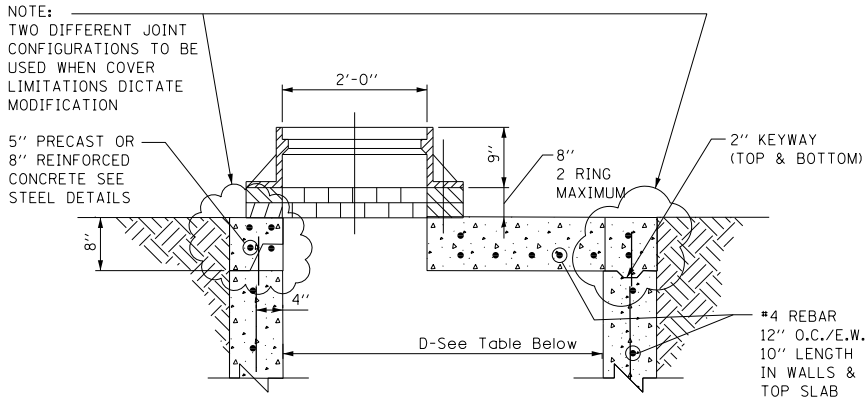
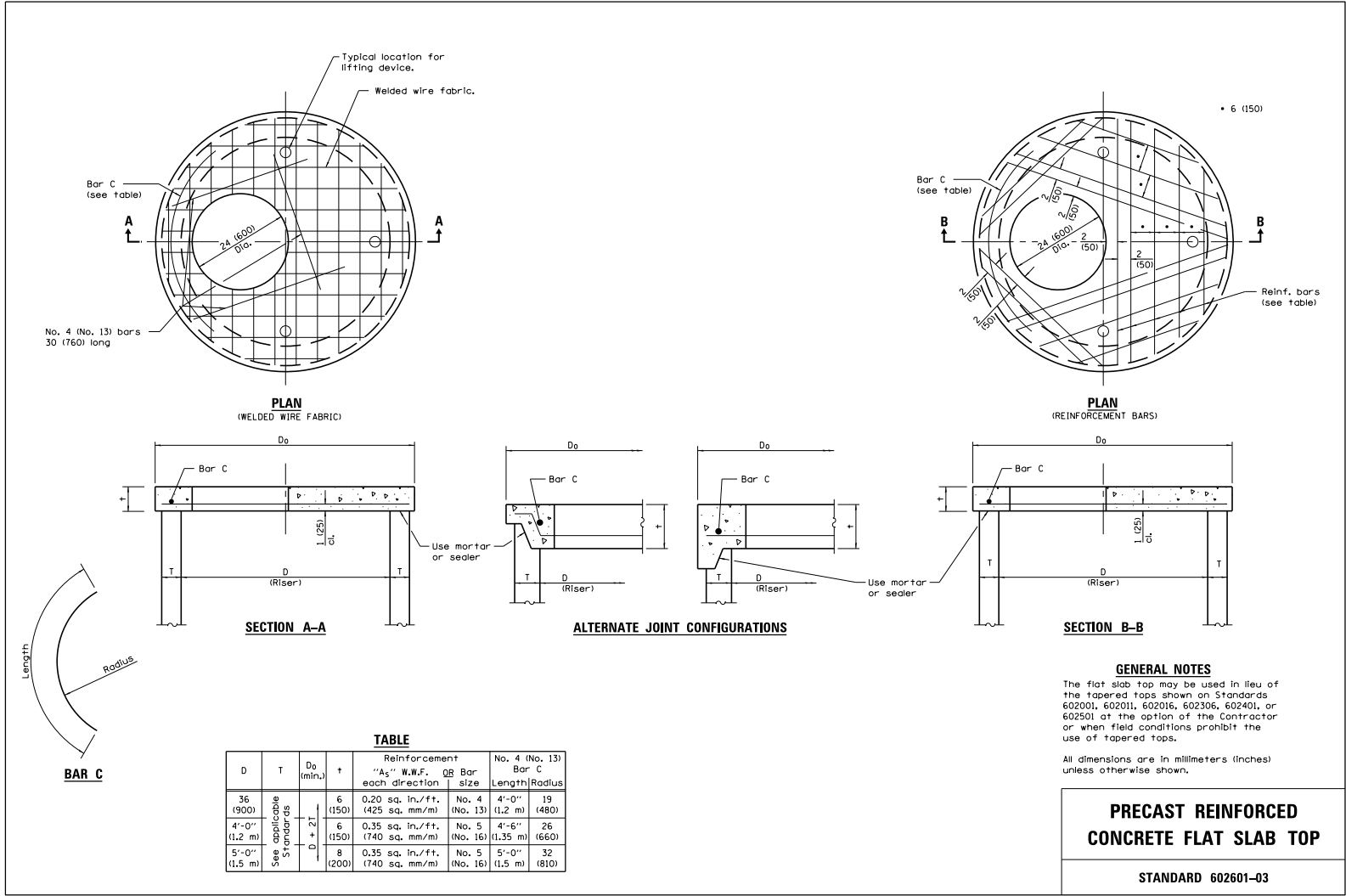
| | | | |
|---|--|--|-----|
| CITY OF CHICAGO DEPARTMENT OF WATER MANAGEMENT BUREAU OF ENGINEERING SERVICES | | DRAWN: SBW DESIGNED: SBW CHECKED: SBW GO. GO. SO REVIEWED: SBW | A.3 |
| MANHOLE LIDS AND FRAMES | | OF | PN |

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| USER NAME = KSD | DESIGNED - KSD | REVISED - |
| | CHECKED - | REVISED - |
| PLOT SCALE = | DRAWN - KSD | REVISED - |
| PLOT DATE = SDATES | CHECKED - | REVISED - |

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| NO. | BY | |
| NOTE BOOK | PLOTTED | |
| | ALIGNMENT CHECKED | |
| | STRUCTURE NOTATION CHKD | |
| | CADD FILE NAME | |

| PROFILE | SURVEYED | DATE |
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| NO. | BY | |
| NOTE BOOK | PLOTTED | |
| | GRADES CHECKED | |
| | STRUCTURE NOTATION CHKD | |

SPECIAL DRAINAGE STRUCTURES
FOR PUBLIC STREETS AND ALLEYS



STANDARD FLAT TOP SLAB
FOR CATCH BASINS

NOTES:
FLAT TOP SLAB APPLICATION CAN ONLY BE USED WITH
WRITTEN PERMISSION FROM CDWM.
USE LATEST IDOT DETAIL, #602601

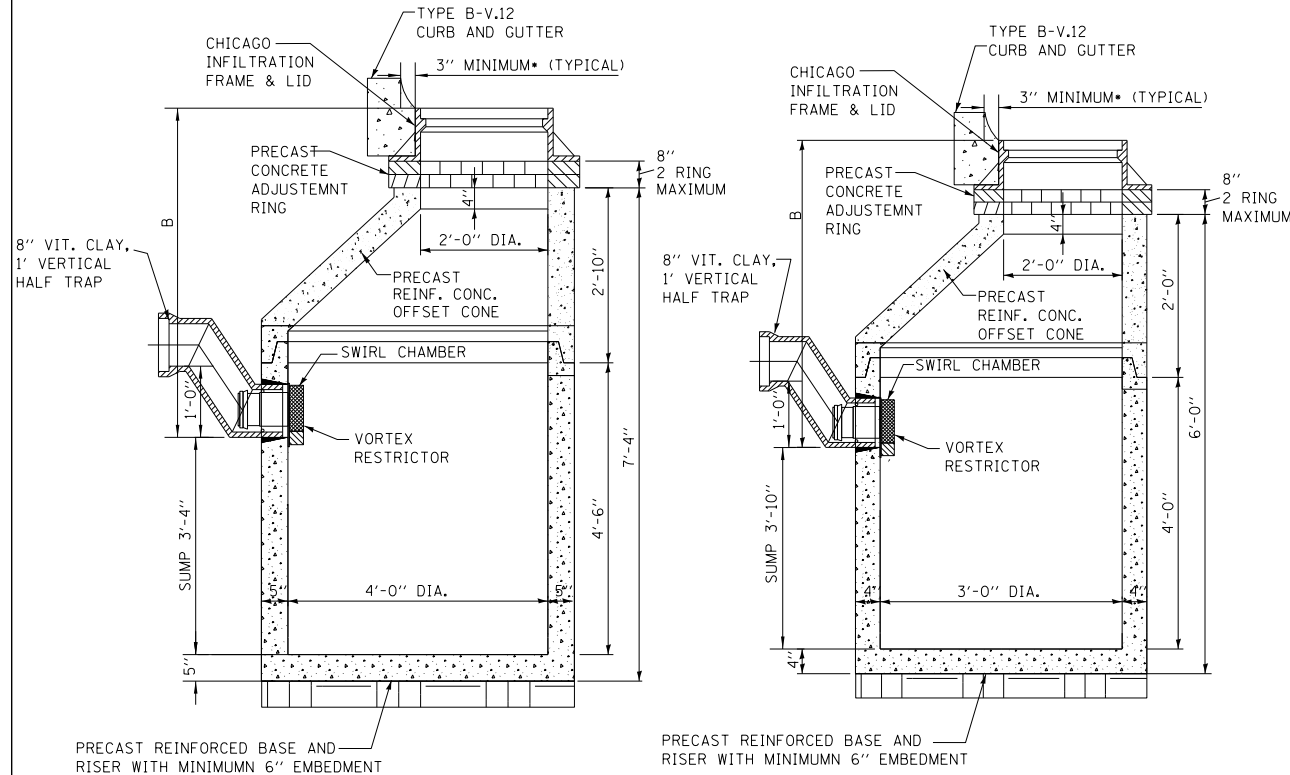
| STANDARD REVISIONS | | PERCENT COMPLETE | DATE | CITY OF CHICAGO DEPARTMENT OF WATER MANAGEMENT BUREAU OF ENGINEERING SERVICES | DRAWN: SBW DESIGNED: CHECKED: REVIEWED: | A.4 OF PN |
|--------------------|---------------|------------------|------|---|--|-----------------|
| DATE | DESCRIPTION | | | | | |
| 1/5/15 | APPROVED PLAN | 30 | | FLAT TOP SLAB DETAILS | | |
| | | 60 | | | | |
| | | 75 | | | | |
| | | 90 | | | | |
| | | 100 | | | | |
| | | BULLETIN | | | | |

E1525-SHT-STANDARDS-15

| | | | | | |
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| DATE | BY | SURVEYED | PLOTTED | ALIGNMENT CHECKED | STRUCTURE NOTATION CHNG |
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| PLAN | | NOTE BOOK | | | |
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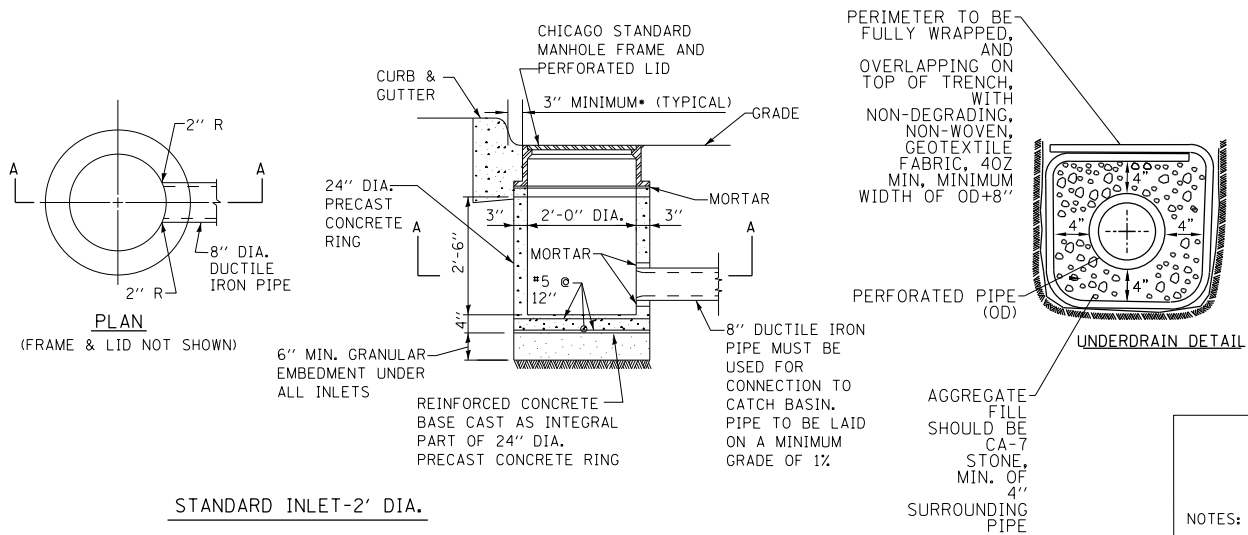
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| DATE | BY | SURVEYED | PLOTTED | GRADES CHECKED | STRUCTURE NOTATION CHNG |
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| PROFILE | | NOTE BOOK | | | |
| | | | | | |

STANDARD DRAINAGE STRUCTURES FOR PUBLIC STREETS



STANDARD CATCH BASIN-4' DIA.

STANDARD CATCH BASIN-3' DIA.



STANDARD INLET-2' DIA.

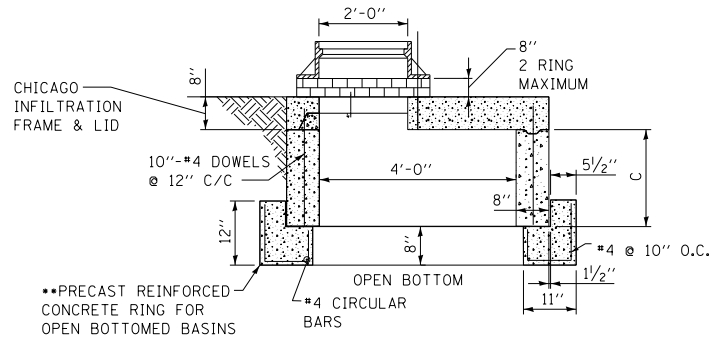
NOTE:
INLETS AND 3' DIAMETER CATCH BASINS ARE TO BE USED ONLY WITH PRIOR APPROVAL OF DWM SEWER ENGINEER OR FIELD INSPECTOR.

FOR TRENCH BACKFILL, USE FA-6 SAND, CRUSHED CONCRETE SAND, OR STONE SAND.

FOR GRANULAR EMBEDMENT, USE CA-11, CRUSHED GRAVEL, CRUSHED STONE, OR CRUSHED CONCRETE.

•OUTER EDGE OF FRAME TO FACE OF CURB

STANDARD DRAINAGE STRUCTURES FOR PUBLIC ALLEYS



GREEN ALLEY OPEN BOTTOM CATCH BASIN

TO BE USED IF STANDARD CONE WITH REQUIRED SUMP DEPTH INSTALLATION IS IMPOSSIBLE.

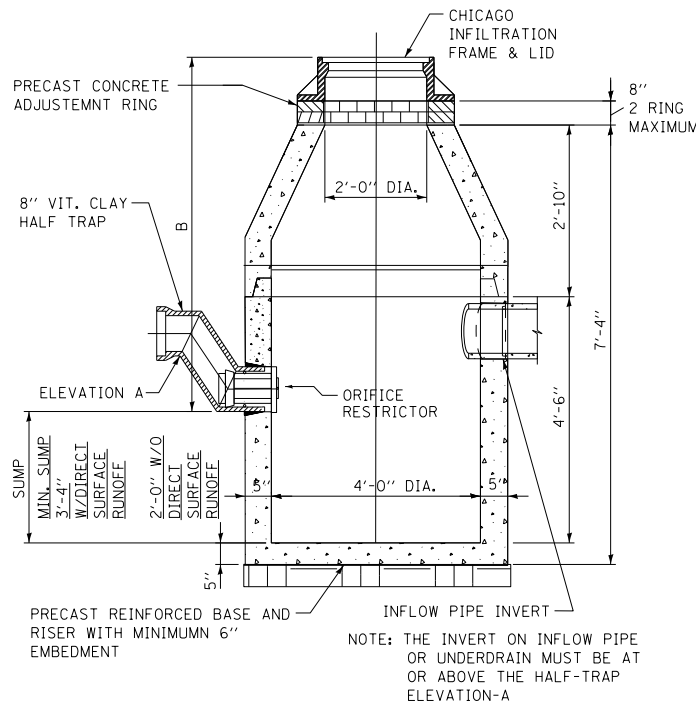
••IF FLAT TOP SLAB CATCH BASIN IS USED IN AN OPEN BOTTOM APPLICATION, THE FOLLOWING CRITERIA MUST BE FOLLOWED:

••"C" MUST BE A MINIMUM OF 3 FEET.

- PROVIDE A MINIMUM AGGREGATE BASE OF 1.0 FEET BELOW PRECAST REINFORCED CONCRETE RING.

-GEOTECH FABRIC MUST BE PLACED ON SIDES AND BOTTOM OF AGGREGATE SURROUNDING BASIN.

-AGGREGATE BASE MUST PROVIDE ADEQUATE STORMWATER STORAGE CAPACITY PER THE APPROVED/PERMITTED PLANS.



CATCH BASIN-ORIFICE RESTRICTOR

N.T.S.

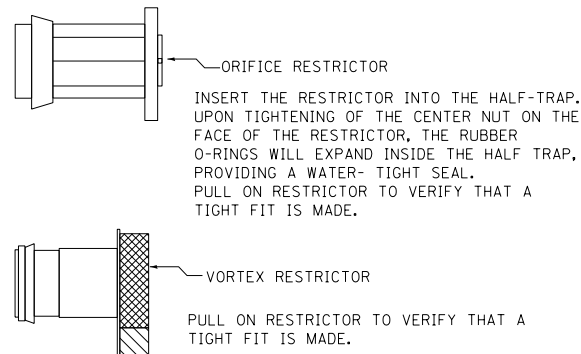
NOTES:

- FOR ANY DRAIN TILE CONNECTION, THE WATER TABLE MUST BE AT LEAST 3.5 FEET BELOW ELEVATION A.
- PVC UNDERDRAINS MUST BE 4" MINIMUM DIAMETER, (6" RECOMMENDED) AND MUST BE WRAPPED IN GEOTECH FABRIC.

| STANDARD REVISIONS | |
|--------------------|-------------|
| DATE | DESCRIPTION |
| 9/30/16 | APPROVED |
| | |
| | |
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| PERCENT COMPLETE | DATE | CITY OF CHICAGO DEPARTMENT OF WATER MANAGEMENT BUREAU OF ENGINEERING SERVICES | | DRAWN: SBW DESIGNED: CHECKED: | A.18 |
|------------------|------|---|--|----------------------------------|------|
| 30 | | DRAINAGE STRUCTURE DETAILS | | REVIEWED: | |
| 60 | | | | | OF |
| 75 | | | | | |
| 90 | | | | | |
| 100 | | | | | PN |
| BULLETIN | | | | | |

DRAINAGE STRUCTURES RESTRICTORS



GENERAL NOTES:

1. CATCH BASIN TO CATCH BASIN CONNECTIONS ARE ALLOWED IN PRIVATE SITES & ALLEYS. ONLY THE DOWNSTREAM CATCH BASIN IS REQUIRED TO HAVE A HALF-TRAP.

2. IF B < 4 FEET, THEN USE A DUCTILE IRON PIPE HALF TRAP AND FLAT TOP SLAB CATCH BASIN AS NECESSARY.

3. INLETS AND 3' DIAMETER CATCH BASINS ARE TO BE USED ONLY WITH PRIOR APPROVAL OF DWM FIELD INSPECTOR.

RESTRICTOR NOTES:

THE DWM'S RAIN BLOCKER RESTRICTOR PROGRAM MUST BE MAINTAINED WITH ANY ROADWAY IMPROVEMENT.

THE DESIGN OF ANY ROADWAY IMPROVEMENT MUST CONSIDER LIMITING THE NUMBER OF CATCH BASINS TO THE EXTENT PRACTICAL. THE NUMBER OF EXISTING STRUCTURES SHOULD NOT BE INCREASED.

THE RESTRICTORS CAN BE OBTAINED FROM DWM CENTRAL DISTRICT AT 3901 S. ASHLAND AVE. THE CONTRACTOR SHOULD ARRANGE FOR PICK UP BY CONTACTING 312-747-1177 (7AM TO 3PM, M-F)

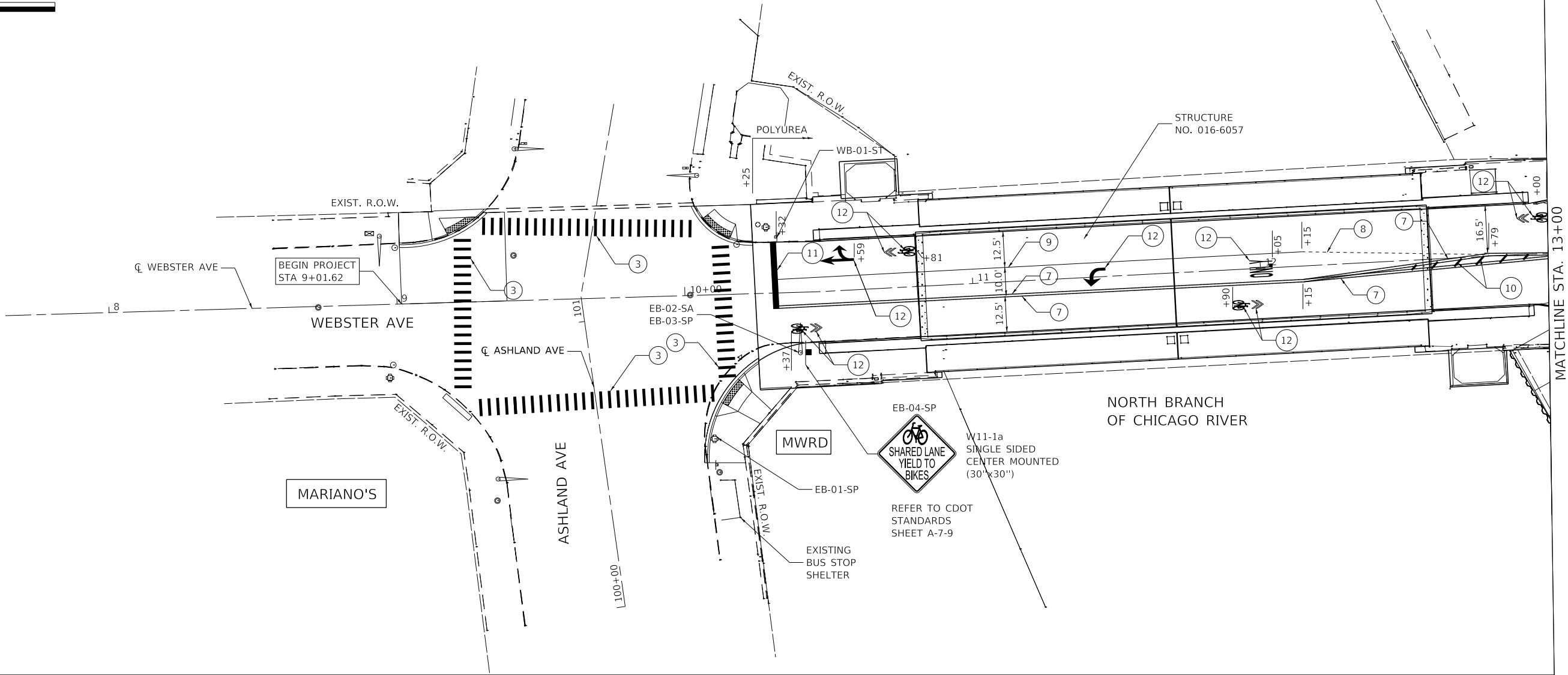
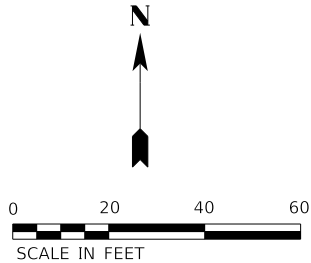
FLOW RESTRICTORS MUST BE INSTALLED IN ALL CATCH BASINS OUTSIDE OF THE CENTRAL BUSINESS DISTRICT. RESTRICTORS MUST NOT BE INSTALLED IN CATCH BASINS IN CLOSE PROXIMITY TO VIADUCT AREAS, BUS STOPS, OR EMERGENCY ENTRANCES. THE DWM MUST APPROVE THE NON-INSTALLATION OR REMOVAL OF ANY RESTRICTOR. REQUIREMENTS FOR RESTRICTOR INSTALLATION ARE AS FOLLOWS:

- ARTERIAL STREETS: 3-INCH ORIFICE RESTRICTOR
- BUS ROUTES: 3-INCH ORIFICE RESTRICTOR
- RESIDENTIAL STREETS: 3-INCH VORTEX RESTRICTOR
- ALLEYS: 3-INCH ORIFICE RESTRICTOR IN THE LAST CB.
- CLOSED LIDS ARE REQUIRED ON ALL MANHOLES EXCEPT AT INTERSECTIONS WHERE A PERFORATED LID SHALL BE USED.

| | | |
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| USER NAME = KSD | DESIGNED - KSD | REVISED - |
| | CHECKED - | REVISED - |
| PLOT SCALE = | DRAWN - KSD | REVISED - |
| PLOT DATE = SDATES | CHECKED - | REVISED - |

| PLAN | NO. | NOTE BOOK | SURVEYED | PLOTTED | ALIGNMENT CHECKED | BY | DATE |
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| PROFILE | NO. | NOTE BOOK | SURVEYED | PLOTTED | GRADES CHECKED | BY | DATE |
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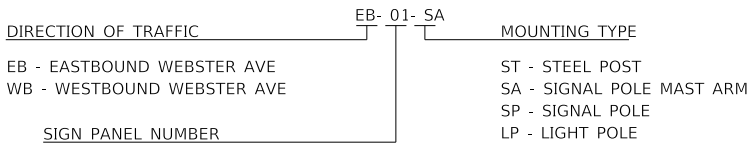


LEGEND

- ① THERMOPLASTIC PAVEMENT MARKING - LINE 4" (WHITE)
- ② THERMOPLASTIC PAVEMENT MARKING - LINE 4" (6' DASH-18' SKIP YELLOW)
- ③ THERMOPLASTIC PAVEMENT MARKING - LINE 24" (WHITE)
- ④ THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS
- ⑤ POLYUREA PAVEMENT MARKING TYPE I - LINE 4" (WHITE)
- ⑥ POLYUREA PAVEMENT MARKING TYPE I - LINE 4" (6' DASH-18' SKIP YELLOW)
- ⑦ POLYUREA PAVEMENT MARKING TYPE I - LINE 4" (YELLOW)
- ⑧ POLYUREA PAVEMENT MARKING TYPE I - LINE 6" (2' DASH-6' SKIP WHITE)
- ⑨ POLYUREA PAVEMENT MARKING TYPE I - LINE 6" (WHITE)
- ⑩ POLYUREA PAVEMENT MARKING TYPE I - LINE 12" (YELLOW)
- ⑪ POLYUREA PAVEMENT MARKING TYPE I - LINE 24" (WHITE)
- ⑫ POLYUREA PAVEMENT MARKING TYPE I - LETTERS AND SYMBOLS
- SIGN

SIGN NUMBERING CODE

EXAMPLE



- NOTES:
- STATIONS AND OFFSETS ARE FROM WEBSTER AVE CENTERLINE.
 - FOR ADDITIONAL DETAILS SEE IDOT DISTRICT 1 STANDARD TC-24
 - FOR SIGN PANEL DETAILS SEE THE MOST CURRENT EDITION OF "SIGN FABRICATION AND INSTALLATIONS" MANUALS.
 - PLACE THE SHARED LANE MARKINGS 5 FEET (ON CENTER) FROM FACE OF THE BRIDGE CURB.

E1525-SHT-PMK-01

wsp

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

| | | |
|--------------------|----------------|-----------|
| USER NAME = MMA | DESIGNED - MMA | REVISED - |
| | CHECKED - RPH | REVISED - |
| PLOT SCALE = | DRAWN - MMA | REVISED - |
| PLOT DATE = SDATES | CHECKED - RPH | REVISED - |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

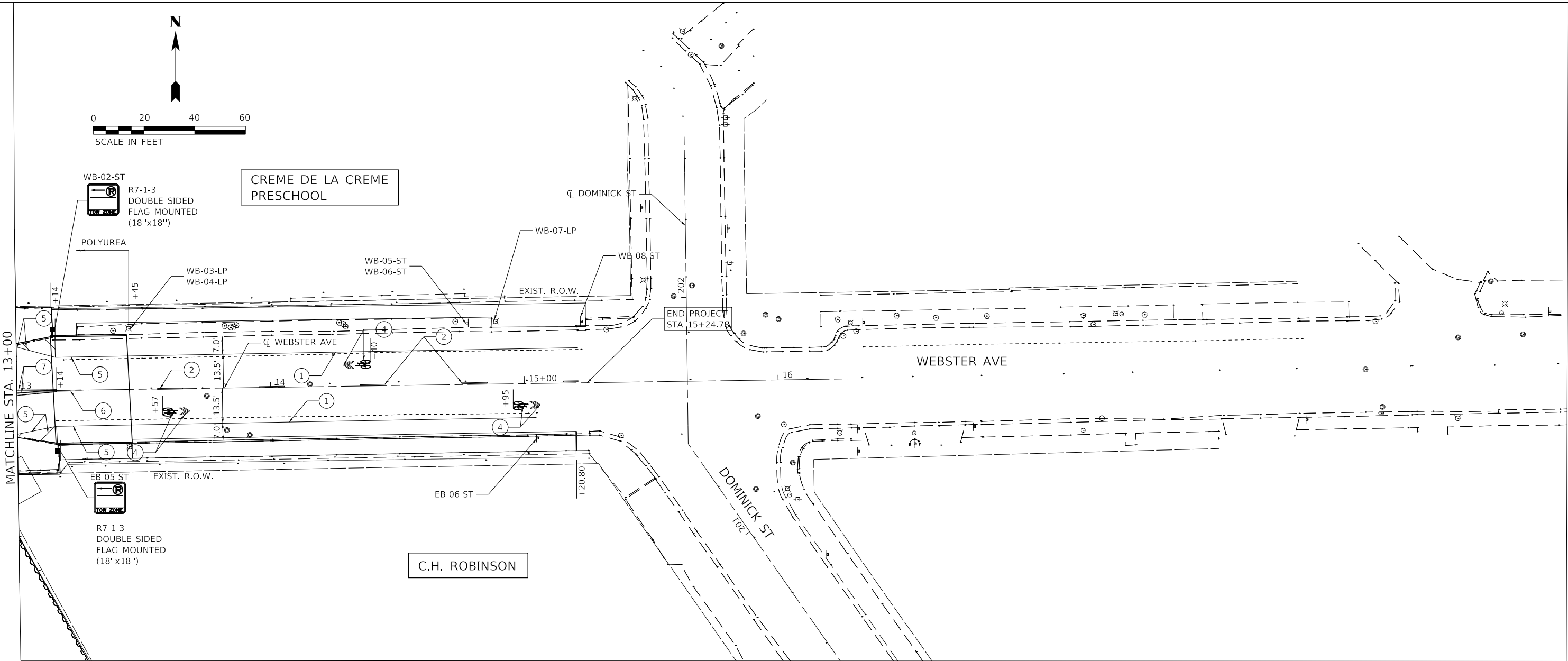
**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

PAVEMENT MARKING AND SIGNING

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|-----------|
| 1388 | 11-E1525-00-BR | COOK | PMK-1 |
| CDOT PROJECT NO. E-1-525 | | | 41 of 210 |

| PLAN | | BY | DATE |
|-----------|--|----|------|
| NOTE BOOK | SURVEYED _____ PLOTTED _____ ALIGNMENT CHECKED _____ RT. OF WAY CHECKED _____ CADD FILE NAME _____ | | |
| NO. _____ | | | |

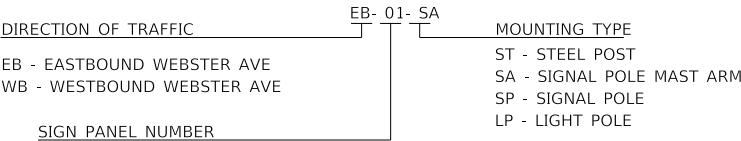
| PROFILE | | BY | DATE |
|-----------|--------------------------------|----|------|
| NOTE BOOK | | | |
| NO. | SURVEYED _____ | | |
| | PLOTTED _____ | | |
| | GRADES CHECKED _____ | | |
| | B.M. NOTED _____ | | |
| | STRUCTURE NOTATIONS CHKD _____ | | |



LEGEND

- ① THERMOPLASTIC PAVEMENT MARKING - LINE 4" (WHITE)
- ② THERMOPLASTIC PAVEMENT MARKING - LINE 4" (6' DASH-18' SKIP YELLOW)
- ③ THERMOPLASTIC PAVEMENT MARKING - LINE 24" (WHITE)
- ④ THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS
- ⑤ POLYUREA PAVEMENT MARKING TYPE I - LINE 4" (WHITE)
- ⑥ POLYUREA PAVEMENT MARKING TYPE I - LINE 4" (6' DASH-18' SKIP YELLOW)
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- ⑪ POLYUREA PAVEMENT MARKING TYPE I - LINE 24" (WHITE)
- ⑫ POLYUREA PAVEMENT MARKING TYPE I - LETTERS AND SYMBOLS
- SIGN

SIGN NUMBERING CODE EXAMPLE



- NOTES:
- STATIONS AND OFFSETS ARE FROM WEBSTER AVE CENTERLINE.
 - FOR ADDITIONAL DETAILS SEE IDOT DISTRICT 1 STANDARD TC-24
 - FOR SIGN PANEL DETAILS SEE THE MOST CURRENT EDITION OF "SIGN FABRICATION AND INSTALLATIONS" MANUALS.
 - PLACE THE SHARED LANE MARKINGS 5 FEET (ON CENTER) FROM FACE OF THE BRIDGE CURB.

E1525-SHT-PMK-02



WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

| | | |
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| USER NAME = MMA | DESIGNED - MMA | REVISED - |
| | CHECKED - RPH | REVISED - |
| PLOT SCALE = | DRAWN - MMA | REVISED - |
| PLOT DATE = SDATES | CHECKED - RPH | REVISED - |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

PAVEMENT MARKING AND SIGNING

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|-----------|
| 1388 | 11-E1525-00-BR | COOK | PMK-2 |
| CDOT PROJECT NO. E-1-525 | | | 42 of 210 |

PLAN

SURVEYED
PLOTTED
ALIGNMENT CHECKED
BY: _____
CADD FILE NAME: _____

NOTE BOOK
NO. _____

BY: _____
DATE: _____

PROFILE

SURVEYED
PLOTTED
GRADES CHECKED
BY: _____
STRUCTURE NOTATIONS CHKD

NOTE BOOK
NO. _____

BY: _____
DATE: _____

PAVEMENT MARKING SCHEDULE

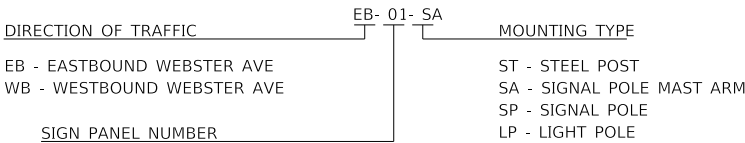
| LOCATION | THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS | THERMOPLASTIC PAVEMENT MARKING - LINE 4" | THERMOPLASTIC PAVEMENT MARKING - LINE 24" | POLYUREA PAVEMENT MARKING - LETTERS AND SYMBOLS | POLYUREA PAVEMENT MARKING TY 1 - LINE 4" | POLYUREA PAVEMENT MARKING TY 1 - LINE 6" | POLYUREA PAVEMENT MARKING TY 1 - LINE 12" | POLYUREA PAVEMENT MARKING TY 1 - LINE 24" | PAVEMENT MARKING REMOVAL - WATER BLASTING |
|----------------|--|---|--|---|---|---|---|---|--|
| | SQ FOOT | FOOT | FOOT | SQ FOOT | FOOT | FOOT | FOOT | FOOT | SQ FT |
| WEBSTER AVENUE | 69 | 379 | 516 | 157 | 906 | 201 | 20 | 23 | 516 |
| TOTAL | 69 | 379 | 516 | 157 | 906 | 201 | 20 | 23 | 516 |

SIGNING SCHEDULE

| LOCATION | SIGN NO. | LEGEND / DESCRIPTION | CODE | MOUNTING TYPE | ACTION | LOCATION (STATION / OFFSET) | | | | PROPOSED PANEL DIMENSIONS | | STEEL POSTS | SIGN PANEL TYPE 1 | REMOVE , STORE AND RE-ERECT SIGN PANEL |
|-------------------|----------|------------------------------|--------|-------------------------|------------------------------------|-----------------------------|----------|----------|----------|------------------------------|--------|----------------|-------------------------|---|
| | | | | | | EXISTING | | PROPOSED | | WIDTH | HEIGHT | | | |
| | | | | | | | | | | (FT) | (FT) | (EACH) | (SQ FT) | (EACH) |
| WEBSTER AVENUE | EB-01-SP | BRIDGE WEIGHT LIMITS-TONS | CUSTOM | TRAFFIC SIGNAL POLE | EXISTING SIGN TO REMAIN | 10+08 | 45.0' RT | - | - | | | | | |
| | WB-01-ST | LANE CONTROL SIGN | R3-8 | STEEL POST | REMOVE AND REINSTALL EXISTING SIGN | 10+32 | 19.5' LT | 10+32 | 19.5' LT | | | | | 1 |
| | EB-02-SA | BRIDGE WEIGHT LIMITS-TONS | CUSTOM | TRAFFIC SIGNAL MAST ARM | REMOVE AND RELOCATE EXISTING SIGN | 10+39 | 16.0' RT | 10+43 | 16.0' RT | | | | | 1 |
| | EB-03-SP | N ASHLAND AVE | D3-1 | TRAFFIC SIGNAL POLE | REMOVE AND RELOCATE EXISTING SIGN | 10+39 | 21.0' RT | 10+43 | 21.0' RT | | | | | 1 |
| | EB-04-SP | SHARED LANE-YIELD TO BIKES | W11-1A | TRAFFIC SIGNAL POLE | FURNISH AND INSTALL | - | - | 10+43 | 21.0' RT | 2.5 | 2.5 | | 6.25 | |
| | WB-02-ST | NO PARKING TOW ZONE | R7-1-3 | STEEL POST | FURNISH AND INSTALL | - | - | 13+15 | 22.0' RT | 1.5 | 1.5 | 1 | 2.25 | |
| | EB-05-ST | NO PARKING TOW ZONE | R7-1-3 | STEEL POST | FURNISH AND INSTALL | - | - | 13+17 | 22.0' LT | 1.5 | 1.5 | 1 | 2.25 | |
| | WB-03-LP | ASHLAND | W16-8P | LIGHT POLE POST | REMOVE AND RELOCATE EXISTING SIGN | 13+44 | 24.0' LT | 13+22 | 24.5' LT | | | | | 1 |
| | WB-04-LP | LANE CONTROL SIGN | R3-8 | LIGHT POLE POST | REMOVE AND RELOCATE EXISTING SIGN | 13+44 | 24.0' LT | 13+22 | 24.5' LT | | | | | 1 |
| | WB-05-ST | ASHLAND | W16-8P | STEEL POST | EXISTING SIGN TO REMAIN | 14+78 | 24.0' LT | - | - | | | | | |
| | WB-06-ST | LEFT LANE MUST TURN LEFT | R3-7 | STEEL POST | EXISTING SIGN TO REMAIN | 14+78 | 24.0' LT | - | - | | | | | |
| | WB-07-LP | BRIDGE WEIGHT LIMITS-TONS | CUSTOM | LIGHT POLE POST | REMOVE AND RELOCATE EXISTING SIGN | 14+89 | 24.5' LT | 15+30 | 25.0' LT | | | | | 1 |
| | EB-06-ST | NO PARKING TOW ZONE | R7-1-3 | STEEL POST | REMOVE AND REINSTALL EXISTING SIGN | 15+04 | 21.5' RT | 15+04 | 21.5' RT | | | | | 1 |
| | WB-08-ST | NO PARKING TOW ZONE | R7-1-3 | STEEL POST | REMOVE AND REINSTALL EXISTING SIGN | 15+04 | 21.5' LT | 15+23 | 24.0' LT | | | | | 1 |
| TOTAL | | | | | | | | | | | | 2.00 | 11 | 8 |

SIGN NUMBERING CODE

EXAMPLE



- NOTES:
1. STATIONS AND OFFSETS ARE FROM WEBSTER AVE CENTERLINE.
 2. FOR ADDITIONAL DETAILS SEE IDOT DISTRICT 1 STANDARD TC-24
 3. FOR SIGN PANEL DETAILS SEE THE MOST CURRENT EDITION OF "SIGN FABRICATION AND INSTALLATIONS" MANUALS.
 4. PLACE THE SHARED LANE MARKINGS 5 FEET (ON CENTER) FROM FACE OF THE BRIDGE CURB.

E1525-SHT-PMK-03

WATERWAY INFORMATION

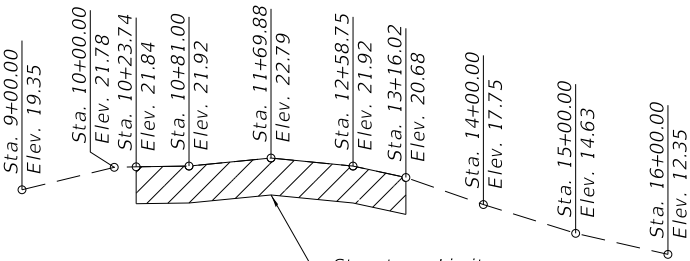
| Drainage Area = 158 sq. mi. Low Beam Elev. 17.45 | | | | | | | | | |
|--|-----------|------------------|---------|-------|-------------|------------|-------|---------------|-------|
| Flood | Freq. Yr. | Discharge C.F.S. | Opening | | Nat. H.W.E. | Head - Ft. | | Headwater El. | |
| | | | Exist. | Prop. | | Exist. | Prop. | Exist. | Prop. |
| Design | 50 | - | - | - | -2.65* | - | - | - | - |
| Base | 100 | - | - | - | 5.65** | - | - | - | - |
| Overtopping | >500 | - | - | - | *** | - | - | - | - |
| Max. Calc. | | | | | | | | | |

Note: The Chicago River has no natural flow and flow frequencies.
It is an artificial channel with flows controlled by MWRDGC.
Frequencies are shown for illustration purposes only of normal design.
* Normal Elevation
** Record elevation on 8/16/1997
*** Cannot overtop
Geometry of existing substructure will not be modified.
The waterway opening clear width will not be altered.
Conversion between USGS sea level datum and CCD datum:
CCD = +579.48 feet above sea level

DESIGN SCOUR ELEVATION TABLE

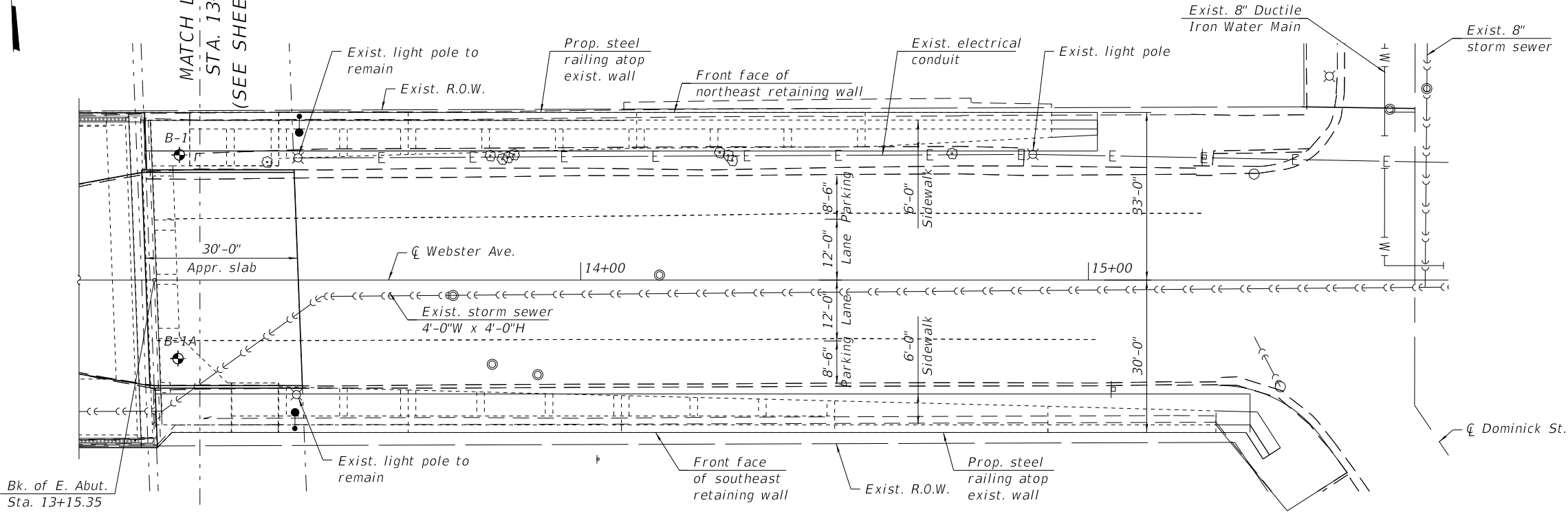
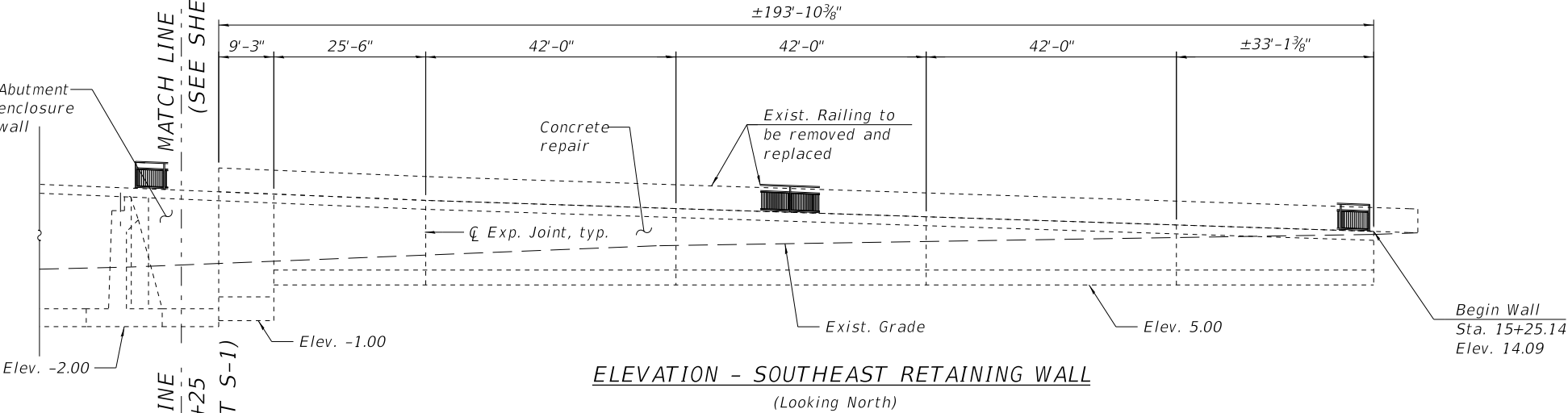
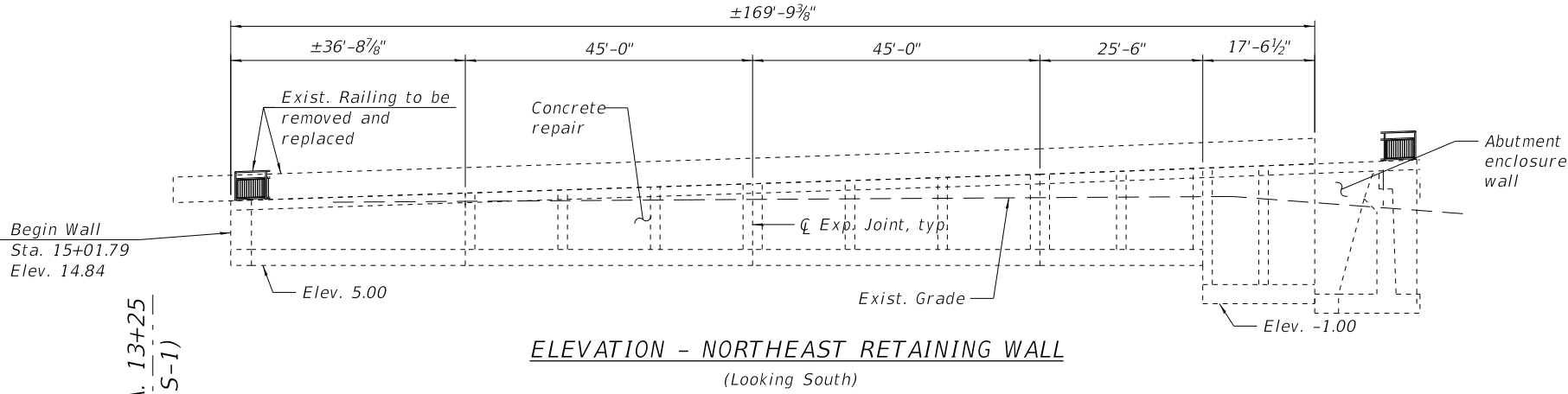
| Design Scour Elevations (CCD) | W. Pier | E. Pier |
|-------------------------------|-----------|-----------|
| | -3.00**** | -4.70**** |

**** Actual Low River Bed Elevation at Pier Location



EXISTING PROFILE GRADE
(along Webster Ave.)

RETAINING WALL PLAN & DETAILS
WEBSTER AVE. OVER N. BRANCH
CHICAGO RIVER (PUBLIC WATER)
BRIDGE REHABILITATION
F.A.U. ROUTE 1388
SECTION 11-E1525-00-BR
COOK COUNTY
STATION 11+69.88
STRUCTURE NO. 016-6057



0166057-E1525-S002-RETAININGWALL.DGN

0166057-E1525-S003-GENDATA1.DGN

GENERAL NOTES

1. Calculated weight of Structural Steel = 166,600 lbs. (Fixed Spans)
= 372,600 lbs. (Bascule Span)
= 6,830 lbs. (Bridge Houses)
2. All structural steel shall be AASHTO M270 Grade 50, unless otherwise noted.
3. Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts 7/8" Ø, holes 15/16" Ø, unless otherwise noted.
4. No field welding is permitted except as specified in the contract documents.
5. Reinforcement bars designated (E) shall be epoxy coated.
6. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
7. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 in. (0.01 ft.). Adjustments shall be made either by grinding the surface or by shimming the bearings.
8. Protective Concrete Sealer shall be applied to the designated areas of the abutments.
9. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
10. All new and existing steel shall be cleaned and painted utilizing Paint System 1 - Oz/E/U. The color of the final finish coat shall match Sherwin Williams Standard Glossy Color SW2717 (Bordeaux). Cost included in the cost of "Cleaning and Painting Structural Steel."
11. All new structural steel shall be shop primed, and faying surfaces shall be cleaned to base metal prior to erection.
12. All existing structural steel that is to remain in place in the movable and fixed spans of the bascule bridge shall be cleaned and painted. This includes, but is not limited to, truss members, floorbeams, stringers, lateral bracing, sidewalk support framing, sidewalk railing, anchor columns and girders, machinery framing, counterweight steel, and all connection steel.
13. The existing structural steel shall be cleaned per near white blast cleaning, SSPC-SP10, and painted as specified in the Special Provision for "Cleaning and Painting Existing Steel Structures."
14. As determined by the Commissioner, inaccessible areas shall be reviewed and possibly omitted from cleaning and painting.
15. All motors and machinery shall be properly protected from cleaning and painting work. No painting may be performed until protection has been approved by the Engineer.
16. If the Contractor elects to use cantilever forming brackets on the exterior beams of the fixed spans, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.
17. All temporary items within the waterway must be removed.
18. All elevations refer to Chicago City Datum.
19. The Contractor shall submit calculations and details demonstrations the structural integrity of the bridge is maintained under the additional imposed loads of the containment system. See special provisions.
20. A minimum of 4 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.
21. SSPC QP1 and SSPC QP2 Certifications are required for this Contract. removed.

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DESIGN SPECIFICATIONS

2017 AASHTO LRFD Bridge Design Specifications
8th Ed. (Prop. Rdwy. Stringers & Floorbeams)
2007 AASHTO LRFD Movable Highway Bridge
Design Specifications 2nd Ed. with 2008, 2010,
2011, 2012, and 2014 Interim Revisions
2002 AASHTO 17th Ed. (Exist. Structure
Rehabilitation)
2009 AASHTO LRFD Guide Specifications for the
Design of Pedestrian Bridges, 2nd Ed. with
2015 Interim Revisions (Prop. Sdwk. Stringers)

LOADING HS20-44 (ROADWAY)

No allowance for future wearing surface

LOADING (SIDEWALK)

Uniform live load for 100psf (pedestrian)
H-5 (not in concurrence with pedestrian)

DESIGN STRESSES

FIELD UNITS (New Construction)

f'c = 3,500 psi
f'c = 4,000 psi (superstructure concrete)
fy = 60,000 psi (reinforcement)
fy = 50,000 psi (AASHTO M270, Gr. 50)

FIELD UNITS (Existing Construction)

f'c = 3,500 psi
fy = 40,000 psi (Reinforcement)
fy = 30,000 psi (Structural Steel)

LEGEND

| | |
|-----|------------------------------------|
| R&R | Remove & replace |
| ⓪ | Truss Panel Point (PP) designation |
| ⦿ | Exist. fastener to remain |
| ○ | Hole to match existing location |
| ● | New hole |
| NW | Northwest |
| SE | Southeast |
| ⚓ | Boring Location |

SEISMIC DATA

Seismic Performance Category (SPC) = A
Horizontal Bedrock Acceleration
Coefficient (A) = 0.025g
Site Coefficient (S) = 1.0

| | | | | | | | | | | | | | | |
|---|--|--------------|-----------|------------|-----|-----------|--|---|--|---|--------------------------|----------------|--------|-----------|
|  | <div>WSP USA Inc. 30 N. LA SALLE STREET SUITE 4000 CHICAGO, IL 60602 TEL: (312) 782-8150 FAX: (312) 782-1684</div> | USER NAME = | IJLOPEZ | DESIGNED - | IJL | REVISED - | |  | <div>WEBSTER AVENUE BRIDGE OVER THE NORTH BRANCH CHICAGO RIVER</div> | <div>GENERAL DATA I: GENERAL NOTES & INDEX OF SHEETS (STRUCTURE NO. 016-6057)</div> | F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
| | | | | CHECKED - | JIG | REVISED - | | | | | 1388 | 11-E1525-00-BR | COOK | S-3 |
| | | PLOT SCALE = | N.T.S. | DRAWN - | IJL | REVISED - | | | | | CDOT PROJECT NO. E-1-525 | | | 46 of 210 |
| | | PLOT DATE = | 10/5/2020 | CHECKED - | JIG | REVISED - | | | | | | | | |

0166057-E1525-S004-GENDATA1.DGN

SCOPE OF WORK

1. Remove the existing open steel grid deck and replace with steel grid half-filled with concrete deck.
2. Remove existing 2" concrete filled steel grid sidewalk and replace with fiberglass sidewalk.
3. Remove and replace the existing fixed span decks and sidewalks.
4. Install expansion joint between bascule and fixed spans between bridge leaves at the center break.
5. Remove and replace steel stringers in the bascule span and remove and replace steel stringers in the fixed spans.
6. Remove all the jackbeams of the bascule span.
7. Remove and replace all floorbeams in the bascule span.
8. Remove and replace all curb and roadway stringers adjacent to the trusses.
9. Remove and replace the bottom lateral bracing and horizontal bracing in the movable spans and over the counterweight pits. Repair deteriorated members of the lattice truss.
10. Perform repairs to the anchor columns and the anchor column girder.
11. Repair and strengthen the main trusses in areas with documented section loss.
12. Clean and paint the entire steel superstructure and substructure (anchor columns) with containment and disposal of any existing lead based paint.
13. Remove, modify, clean and paint, and reinstall the steel railing of the bascule span.
14. Remove and replace the ornamental concrete railing on the fixed spans.
15. Repair and adjust the live load bearings.
16. Perform bridge balancing or counterweight adjustments to account for additional dead load on the bridge.
17. Dewater and clear debris from East and West counterweight pits followed by structural repair of concrete and epoxy crack injection to the pit walls and floor slab.
18. Repair damaged concrete at East and West River Piers using formed concrete repair and epoxy crack injection as required.
19. Remove and reconstruct broken machine room walls above the East River Pier.
20. Remove the existing damaged dolphins and fender system and replace with new dolphins and approved pier protection system.
21. Repair all damaged areas to the Northeast and Southeast Retaining walls using formed concrete repair and epoxy crack injections. Remove all graffiti from the faces of the walls. Remove and replace railing on top of the retaining walls with an ornamental steel railing.
22. Repair concrete abutment stems using formed concrete repair and epoxy crack injections.
23. Remove existing bearing pedestals, repair surrounding concrete and clean bearing area to accommodate new bearings.
24. Remove and replace the existing abutment backwalls to be replaced with semi-integral backwall. Construct approach slabs at east end.
25. Repair any holes or missing damaged portions of machine room enclosure walls. Tuck point where required and remove all graffiti from faces of walls.
26. For the rehabilitation of the bridge houses, remove the existing roof, reconstruct upper portion of third level and roof, repair existing, and remove hazardous materials.
27. Clean and paint existing mechanical equipment with exception of center lock assemblies. Remove existing auxiliary and mechanical center locks. Install new actuator-type locks with hand operation capability.
28. Stripe bridge deck for one 12'-6" wide shared bike lane in each direction (Eastbound and Westbound) and one 10'-0" wide left turn lane from Eastbound Webster Avenue to Southbound Ashland Avenue.
29. Reconstruct the sidewalk at the Northeast and Southeast corners of the Ashland Avenue and Webster Avenue intersection, all crosswalks at the intersection shall be constructed to current ADA standards.
30. Install electrical connection to the bridge.
31. Remove and install new navigational/obstruction lights.
32. Install two arterial street light poles and luminaires at the eastern end of the bridge. Install one davit arm light on each truss (four total).

TOTAL BILL OF MATERIAL

| CODE NO. | ITEM | UNIT | TOTAL |
|-------------|--|-------|---------|
| 20900110 | POROUS GRANULAR BACKFILL | CU YD | 375.0 |
| 50157300 | PROTECTIVE SHIELD | SQ YD | 1,188 |
| 50200100 | STRUCTURE EXCAVATION | CU YD | 86.0 |
| 50300260 | BRIDGE DECK GROOVING | SQ YD | 588 |
| 50300285 | FORM LINER TEXTURED SURFACE | SQ FT | 2,732 |
| 50500505 | STUD SHEAR CONNECTORS | EACH | 6,492 |
| 51500100 | NAME PLATES | EACH | 1 |
| 52100010 | ELASTOMERIC BEARING ASSEMBLY, TYPE I | EACH | 32 |
| 50800205 | REINFORCEMENT BARS, EPOXY COATED | POUND | 108,630 |
| 52000110 | PREFORMED JOINT STRIP SEAL | FOOT | 108 |
| 52100520 | ANCHOR BOLTS, 1" | EACH | 64 |
| 59000200 | EPOXY CRACK INJECTION | FOOT | 176 |
| CDOT5010030 | CONCRETE REMOVAL | CU YD | 253.8 |
| CDOT5030020 | HIGH PERFORMANCE CONCRETE STRUCTURES | CU YD | 258.0 |
| CDOT5030030 | HIGH PERFORMANCE CONCRETE SUPERSTRUCTURES | CU YD | 256.3 |
| CDOT5030050 | CLASS SI CONCRETE MISC | CU YD | 32.6 |
| CDOT5870010 | PROTECTIVE CONCRETE SEALER | SQ YD | 1,100 |
| X0323444 | DECORATIVE STEEL RAILING | FOOT | 210 |
| X0326519 | STEEL RAILING REMOVAL | FOOT | 206 |
| Z0001903 | STRUCTURAL STEEL REMOVAL | POUND | 486,420 |
| Z0007101 | CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 1 | L SUM | 1 |
| Z0012754 | STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES) | SQ FT | 589 |
| Z0012755 | STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES) | SQ FT | 99 |
| ***** | BALANCING OF BRIDGE AND ALTERATION OF COUNTERWEIGHTS | L SUM | 1 |
| ***** | BRIDGE OPERATION AND MAINTENANCE | L SUM | 1 |
| ***** | CLEANING AND PAINTING EXISTING STEEL STRUCTURES | L SUM | 1 |
| ***** | COUNTERWEIGHT PIT CLEANING | EACH | 2 |
| ***** | DOLPHINS | EACH | 4 |
| ***** | DRAINAGE SYSTEM | L SUM | 1 |
| ***** | FURNISHING AND ERECTING 5" GRATING, HALF CONCRETE FILLED | SQ FT | 6,114 |
| ***** | FURNISHING AND ERECTING FRP GRATING | SQ FT | 3,227 |
| ***** | FURNISHING AND ERECTING STRUCTURAL STEEL | L SUM | 1 |
| ***** | FURNISHING AND ERECTING STRUCTURAL STEEL, FIELD DISCOVERED CONDITIONS REPAIRED AS DIRECTED BY THE COMMISSIONER | POUND | 20,000 |
| ***** | FLOOR ACCESS HATCH | EACH | 4 |
| ***** | METAL LADDERS | EACH | 4 |
| ***** | PIER PROTECTION REPLACEMENT | FOOT | 301 |
| ***** | REMOVAL OF DETERIORATED CONNECTORS AND REPLACEMENT WITH HIGH STRENGTH BOLTS | EACH | 51 |
| ***** | REFURBISHING OF LIVE LOAD BEARINGS | EACH | 4 |
| ***** | REMOVAL OF EXISTING SUPERSTRUCTURES | EACH | 1 |
| ***** | REMOVAL OF EXISTING GRID DECK | L SUM | 1 |
| ***** | STEEL RAILING (SPECIAL) | FOOT | 506 |
| ***** | STRUCTURAL STEEL REPAIRS | POUND | 61,620 |
| ***** | TEMPORARY SUPPORT | L SUM | 1 |

WEBSTER AVENUE BRIDGE
OVER
NORTH BRANCH CHICAGO RIVER
RE-BUILT 20-- BY
CITY OF CHICAGO
LOADING HS-20
STRUCTURE NO. 016-6057

NAME PLATE
See Std. 515001

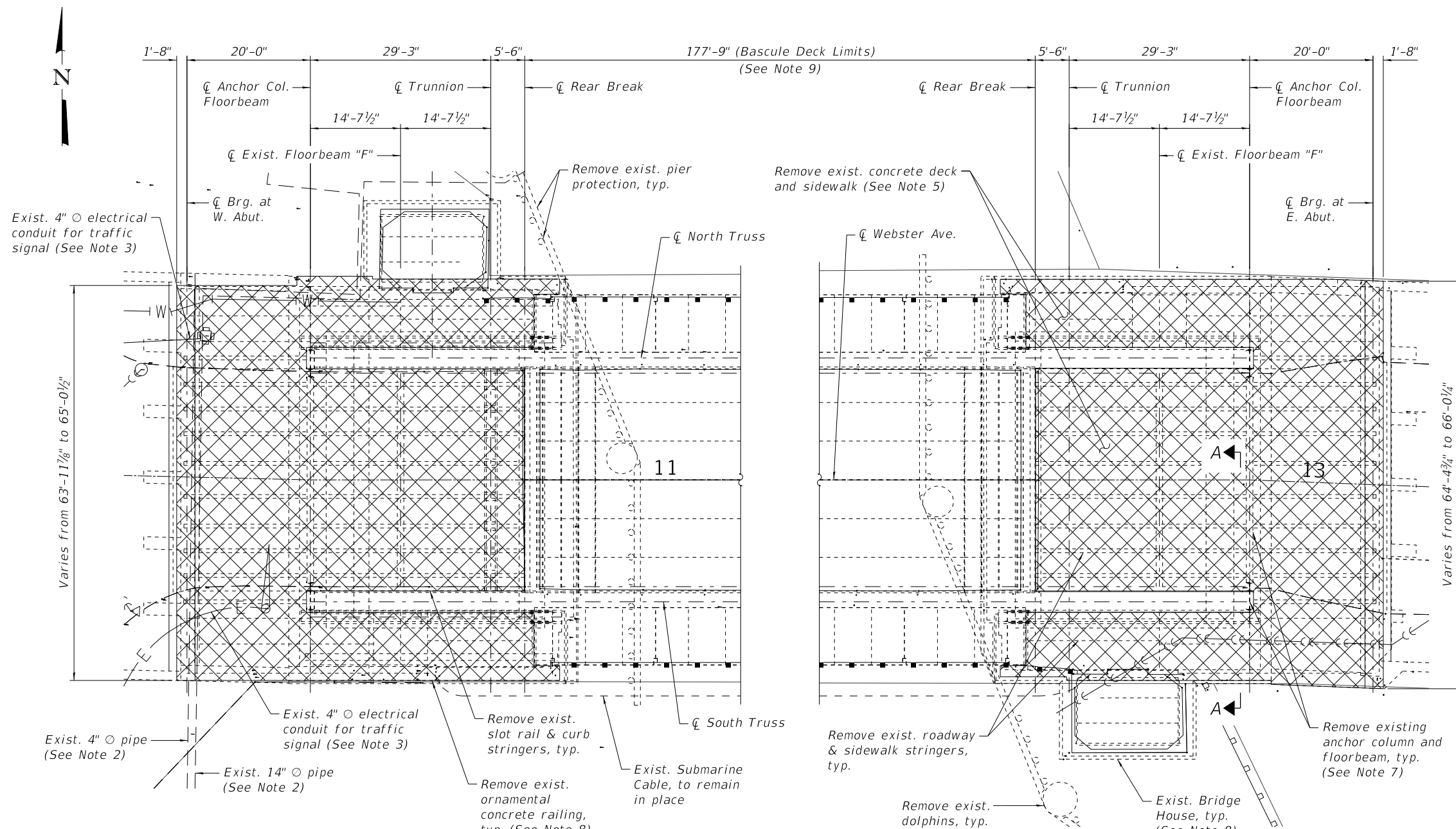


(Looking East, Sta. 10+24.57 to Sta. 10+81.00 and Sta. 12+58.75 to Sta. 13+15.19)

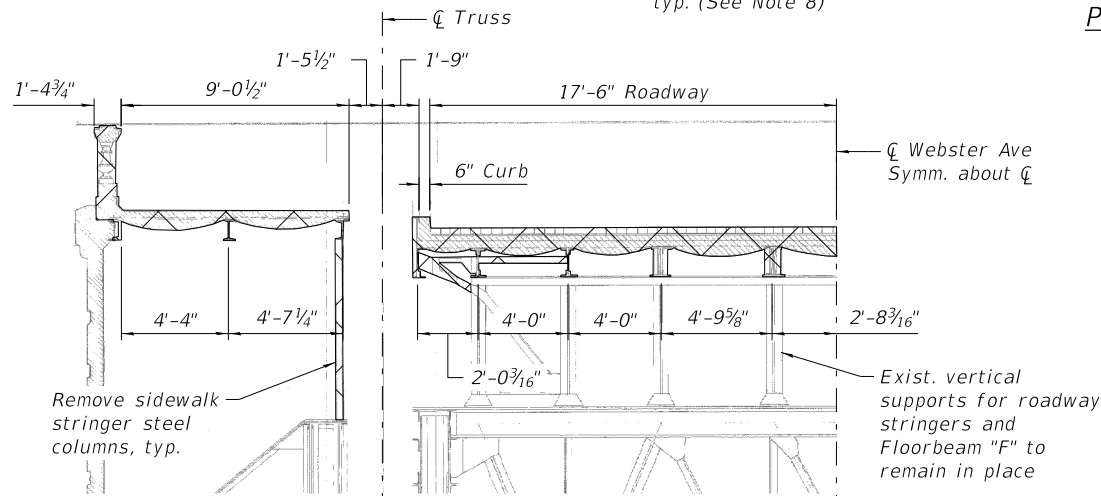


(Looking East, Sta. 10+81.00 to Sta. 12+58.75)

0166057-E1525-S006-EXISTSTRUCTREMFIXED.DGN



PLAN



SECTION A-A - TYPICAL FIXED SPAN HALF SECTION

- Notes:
- Existing fixed span roadway and sidewalk decks are comprised of a concrete deck and steel buckle plates. Additionally, the roadway deck includes an asphalt wearing surface. Removal of existing roadway asphalt, concrete, and steel fixed deck and its supporting existing steel framing including bearings shall be included in the cost of "Removal of Existing Superstructures".
 - Existing pipes attached to existing fixed deck and steel framing shall be temporarily supported during construction. See Special Provisions.
 - Existing electrical conduits on West Approach connecting to existing traffic signals shall remain in place. Conduits shall be protected during removal operations.
 - The Contractor shall exercise extreme care during removal of abutment backwall and concrete deck to prevent damage to conduits. Any damage to the existing conduits to remain in place shall be repaired at the Contractor's expense.
 - Removal of existing dolphins is included in the cost of "Dolphins".
 - Removal of existing pier protection including all timber piles, wales, and anchors is included in the cost of "Pier Protection Replacement".
 - Removal of existing floorbeam between anchor columns is included in the cost of "Removal of Existing Superstructures" and the removal of existing anchor column is included in the cost of "Structural Steel Removal". See sheet S-73 for additional removal details of the anchor column and floorbeam.
 - For details of removal of existing railings, enclosure walls, and bridge houses, see sheets S-80 & S-81 and architectural special provisions.
 - See sheet S-7 for existing structure removal for bascule span.
 - See sheet S-5 for fixed span cross section.
 - Removal of existing steel railing on approach retaining walls is included in "Steel Railing Removal".

BILL OF MATERIAL

| Item | Unit | Quantity |
|-------------------------------------|------|----------|
| Removal of Existing Superstructures | Each | 1 |

LEGEND:

XXXX Removal of Existing Superstructures

REFERENCE DRAWINGS

| Drawing | Sheet No. |
|-------------------------------|------------|
| Fixed Part General Plan | 1660570015 |
| Fixed Part Roadway Stringers | 1660570022 |
| Fixed Part Sidewalk Stringers | 1660570023 |



WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

| | | | | | |
|--------------|----------|------------|-----|-----------|--|
| USER NAME = | PJLAUX | DESIGNED = | PJL | REVISED = | |
| | | CHECKED = | IJL | REVISED = | |
| PLOT SCALE = | N.T.S. | DRAWN = | PJL | REVISED = | |
| PLOT DATE = | \$DATE\$ | CHECKED = | JIG | REVISED = | |

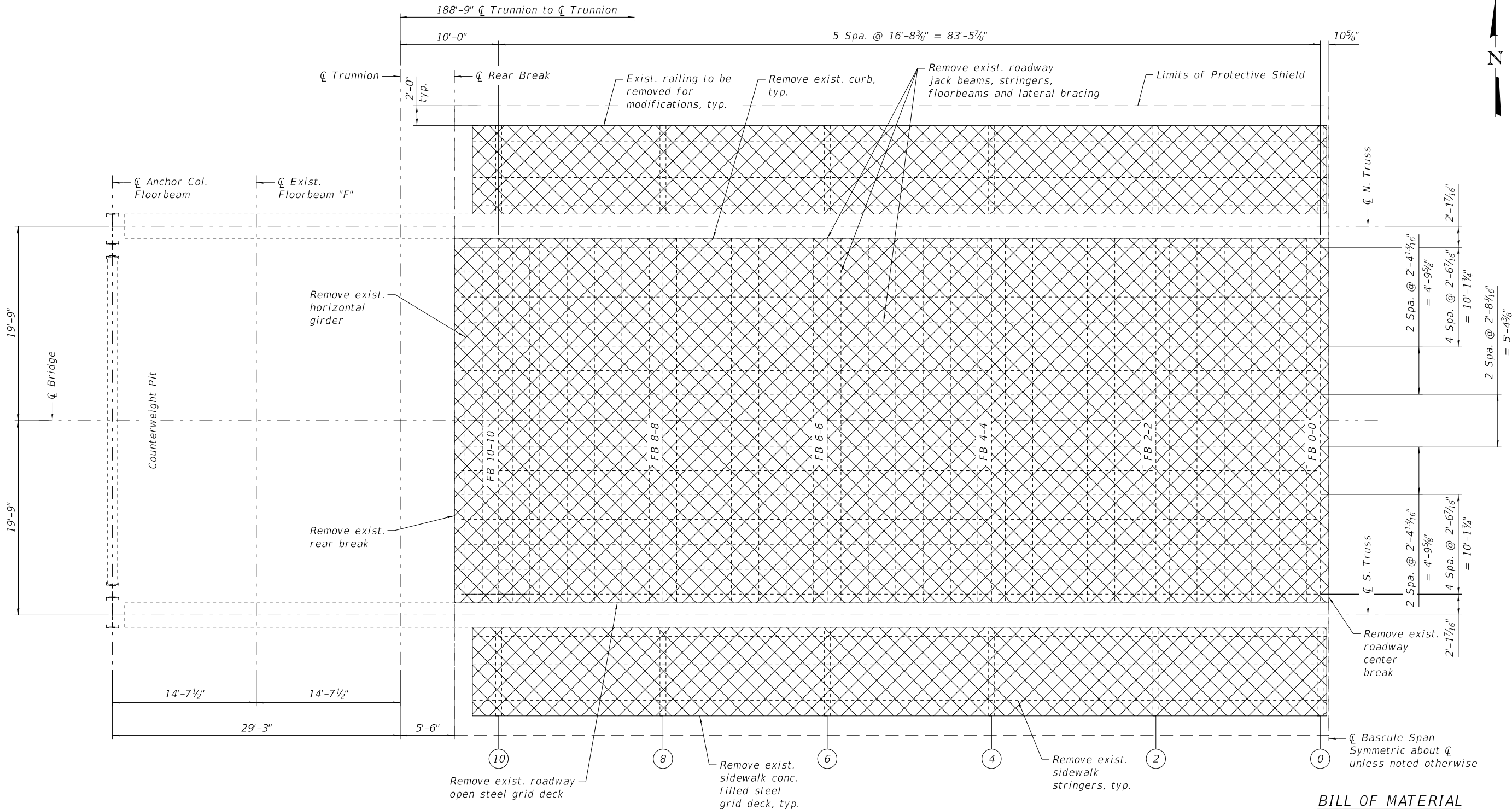
CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**EXISTING PLANS AND REMOVAL
FIXED SPANS
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|-----------|
| 1388 | 11-E1525-00-BR | COOK | S-6 |
| CDOT PROJECT NO. E-1-525 | | | 49 of 210 |

0166057-E1525-S007-EXISTSTRUCTREMBASCULE.DGN




Notes:

1. Removal of existing roadway and sidewalk open steel and concrete filled grid shall be included in the cost of "Removal of Existing Grid Deck".
2. Removal of existing roadway rear breaks, center break, jack beams, stringers, floorbeams, lateral bracing, horizontal girders, and sidewalk stringers shall be included in the cost of "Structural Steel Removal".
3. See sheet S-109 for details of modifications to existing steel railings.
4. The existing lateral bracing has been modified from the original and is comprised of a cable system. The details of the existing cable system are not reflected in the existing drawings but can be found in the 2016 emergency repair plans. The Contractor shall take care to document and weigh the material removed in accordance with the Bridge Balancing special provision.
5. See sheet S-5 for bascule span cross section.
6. See sheet S-6 for existing structure removal for fixed spans.

EXISTING STRUCTURE REMOVAL PLAN - BASCULE SPAN
(West Leaf shown, East Leaf opposite hand)

LEGEND:

 Removal of Existing Grid Deck

BILL OF MATERIAL

| Item | Unit | Quantity |
|-------------------------------|---------|----------|
| Structural Steel Removal | Pound | 452,820 |
| Removal of Existing Grid Deck | L. Sum | 1 |
| Protective Shield | Sq. Yd. | 1,188 |

REFERENCE DRAWINGS

Drawing
Movable Part- Stringers & Sub-Planking
Stringers and Sidewalk Brackets

Sheet No.
1660570015
1660570209



WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = PJLAUX
DESIGNED - PJL
CHECKED - IJL
PLOT SCALE = N.T.S.
DRAWN - PJL
PLOT DATE = \$DATE\$
CHECKED - JIG

DESIGNED - PJL
CHECKED - IJL
DRAWN - PJL
CHECKED - JIG

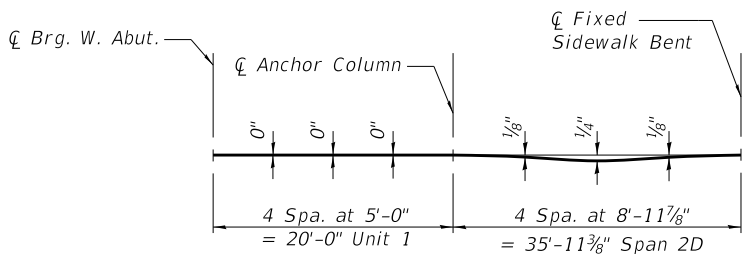
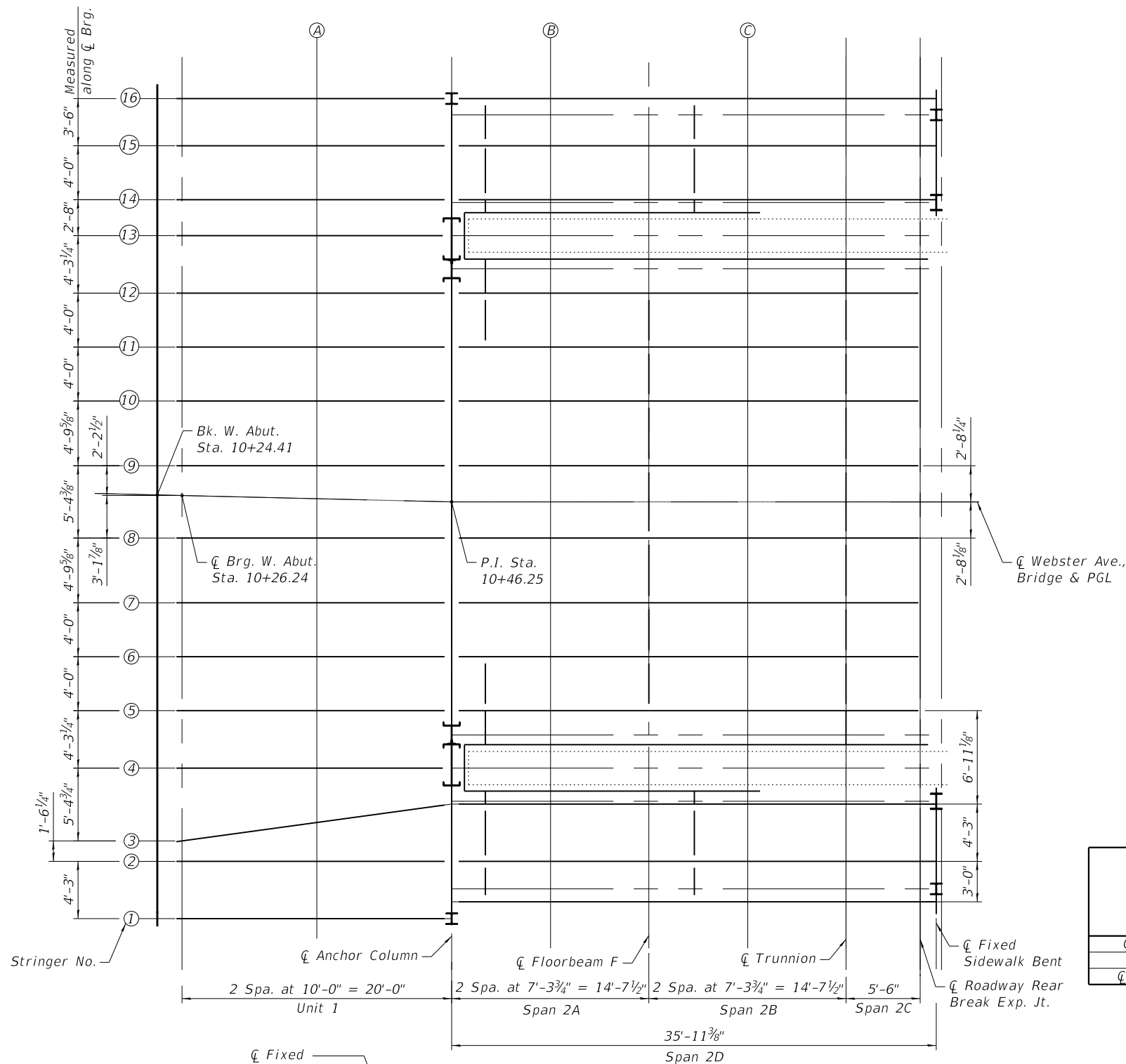
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CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER

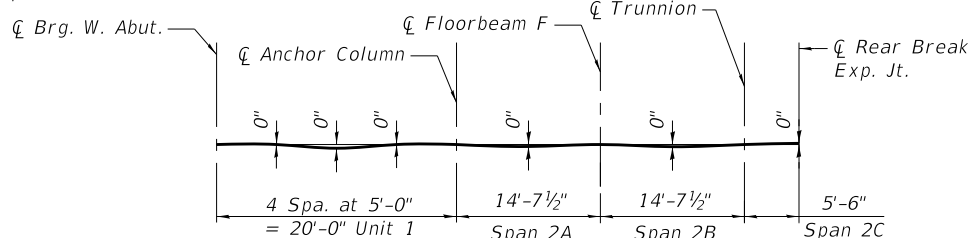
EXISTING PLANS AND REMOVAL
BASCULE SPAN
(STRUCTURE NO. 016-6057)

F.A.U.
R.T.E.
1388
SECTION
11-E1525-00-BR
COUNTY
COOK
SHEET NO.
S-7
CDOT PROJECT NO. E-1-525
50 of 210



STRINGERS 1-4 & 13-16 DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of concrete only.)

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on Sheets S-08 & S-09.



STRINGERS 5-12 DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of concrete only.)

STRINGER 1

| Location | Station | Offset | Theoretical Grade Elevations * | Theoretical Grade Elevations Adjusted For Dead Load Deflection* |
|---------------------------|----------|--------|--------------------------------|---|
| Cl Brg. W. Abut. | 10+26.99 | 31.38' | 21.95 | 21.95 |
| A | 10+36.98 | 31.14' | 22.16 | 22.16 |
| Cl Anchor Column (Unit 1) | 10+46.25 | 30.92' | 22.36 | 22.36 |
| Cl Anchor Column (Unit 2) | 10+46.25 | 29.67' | 22.36 | 22.36 |
| B | 10+53.56 | 29.67' | 22.40 | 22.40 |
| Cl Floorbeam F | 10+60.87 | 29.67' | 22.43 | 22.43 |
| C | 10+68.18 | 29.67' | 22.45 | 22.45 |
| Cl Trunnion | 10+75.50 | 29.67' | 22.48 | 22.48 |
| Rear Break | 10+81.00 | 29.67' | 22.50 | 22.50 |

STRINGER 2

| Location | Station | Offset | Theoretical Grade Elevations * | Theoretical Grade Elevations Adjusted For Dead Load Deflection* |
|------------------|----------|--------|--------------------------------|---|
| Cl Brg. W. Abut. | 10+26.88 | 27.13' | 22.02 | 22.02 |
| A | 10+36.88 | 26.90' | 22.22 | 22.22 |
| Cl Anchor Column | 10+46.25 | 26.67' | 22.40 | 22.40 |
| B | 10+53.56 | 26.67' | 22.43 | 22.43 |
| Cl Floorbeam F | 10+60.87 | 26.67' | 22.46 | 22.46 |
| C | 10+68.18 | 26.67' | 22.48 | 22.48 |
| Cl Trunnion | 10+75.50 | 26.67' | 22.51 | 22.51 |
| Rear Break | 10+81.00 | 26.67' | 22.53 | 22.53 |

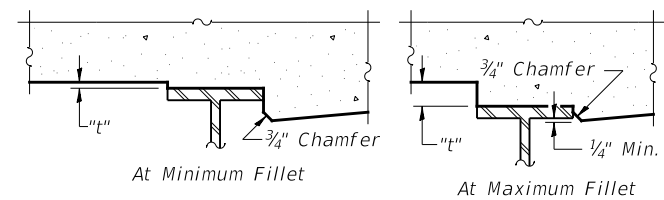
STRINGER 3

| Location | Station | Offset | Theoretical Grade Elevations * | Theoretical Grade Elevations Adjusted For Dead Load Deflection* |
|------------------|----------|--------|--------------------------------|---|
| Cl Brg. W. Abut. | 10+26.85 | 25.62' | 22.04 | 22.04 |
| A | 10+36.81 | 24.01' | 22.25 | 22.25 |
| Cl Anchor Column | 10+46.25 | 22.42' | 22.45 | 22.45 |
| B | 10+53.56 | 22.42' | 22.47 | 22.47 |
| Cl Floorbeam F | 10+60.87 | 22.42' | 22.50 | 22.50 |
| C | 10+68.18 | 22.42' | 22.52 | 22.52 |
| Cl Trunnion | 10+75.50 | 22.42' | 22.55 | 22.55 |
| Rear Break | 10+81.00 | 22.42' | 22.57 | 22.57 |

STRINGER 4

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection | Theoretical Grade Elevations * | Theoretical Grade Elevations Adjusted For Dead Load Deflection* |
|------------------|----------|--------|------------------------------|--|--------------------------------|---|
| Cl Brg. W. Abut. | 10+26.72 | 20.22' | 21.73 | 21.73 | - | - |
| A | 10+36.72 | 19.98' | 21.76 | 21.76 | 22.43 | 22.43 |
| Cl Anchor Column | 10+46.25 | 19.75' | 21.80 | 21.80 | 22.47 | 22.47 |

*Top of Sidewalk Elevations



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheets S-08 and S-09, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

HBM
ENGINEERING GROUP, LLC

wsp

WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

| | | |
|-----------------------|-------------------|-----------|
| USER NAME = | DESIGNED - LAB | REVISED - |
| | CHECKED - MI, MAI | REVISED - |
| PLOT SCALE = N.T.S. | DRAWN - LAB | REVISED - |
| PLOT DATE = 10/5/2020 | CHECKED - MI, MAI | REVISED - |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**TOP OF SLAB ELEVATIONS
WEST FIXED SPANS I
(STRUCTURE NO. 016-6057)**

| | | | |
|--------------------------|----------------|--------|-----------|
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
| 1388 | 11-E1525-00-BR | COOK | S-08 |
| CDOT PROJECT NO. E-1-525 | | | 51 of 210 |

STRINGER 5

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|----------|--------|------------------------------------|---|
| ⌀ Brg. W. Abut. | 10+26.62 | 15.95' | 21.75 | 21.75 |
| A | 10+36.62 | 15.72' | 21.78 | 21.78 |
| ⌀ Anchor Column | 10+46.25 | 15.48' | 21.82 | 21.82 |
| B | 10+53.56 | 15.48' | 21.84 | 21.84 |
| ⌀ Floorbeam F | 10+60.87 | 15.48' | 21.86 | 21.86 |
| C | 10+68.18 | 15.48' | 21.88 | 21.88 |
| ⌀ Trunnion | 10+75.50 | 15.48' | 21.90 | 21.90 |
| Rear Break | 10+81.00 | 15.48' | 21.92 | 21.92 |

STRINGER 6

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|----------|--------|------------------------------------|---|
| ⌀ Brg. W. Abut. | 10+26.53 | 11.95' | 21.78 | 21.78 |
| A | 10+36.52 | 11.72' | 21.80 | 21.80 |
| ⌀ Anchor Column | 10+46.25 | 11.48' | 21.83 | 21.83 |
| B | 10+53.56 | 11.48' | 21.85 | 21.85 |
| ⌀ Floorbeam F | 10+60.87 | 11.48' | 21.87 | 21.87 |
| C | 10+68.18 | 11.48' | 21.89 | 21.89 |
| ⌀ Trunnion | 10+75.50 | 11.48' | 21.91 | 21.91 |
| Rear Break | 10+81.00 | 11.48' | 21.92 | 21.92 |

STRINGER 7

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|----------|--------|------------------------------------|---|
| ⌀ Brg. W. Abut. | 10+26.43 | 7.96' | 21.80 | 21.80 |
| A | 10+36.43 | 7.72' | 21.82 | 21.82 |
| ⌀ Anchor Column | 10+46.25 | 7.48' | 21.84 | 21.84 |
| B | 10+53.56 | 7.48' | 21.86 | 21.86 |
| ⌀ Floorbeam F | 10+60.87 | 7.48' | 21.88 | 21.88 |
| C | 10+68.18 | 7.48' | 21.89 | 21.89 |
| ⌀ Trunnion | 10+75.50 | 7.48' | 21.91 | 21.91 |
| Rear Break | 10+81.00 | 7.48' | 21.92 | 21.92 |

STRINGER 8

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|----------|--------|------------------------------------|---|
| ⌀ Brg. W. Abut. | 10+26.32 | 3.15' | 21.83 | 21.83 |
| A | 10+36.31 | 2.92' | 21.84 | 21.84 |
| ⌀ Anchor Column | 10+46.25 | 2.68' | 21.86 | 21.86 |
| B | 10+53.56 | 2.68' | 21.87 | 21.87 |
| ⌀ Floorbeam F | 10+60.87 | 2.68' | 21.89 | 21.89 |
| C | 10+68.18 | 2.68' | 21.90 | 21.90 |
| ⌀ Trunnion | 10+75.50 | 2.68' | 21.91 | 21.91 |
| Rear Break | 10+81.00 | 2.68' | 21.92 | 21.92 |

⌀ WEBSTER AVE. BRIDGE & PGL

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|----------|--------|------------------------------------|---|
| ⌀ Brg. W. Abut. | 10+26.24 | 0.00' | 21.84 | 21.84 |
| A | 10+36.25 | 0.00' | 21.86 | 21.86 |
| ⌀ Anchor Column | 10+46.25 | 0.00' | 21.87 | 21.87 |
| B | 10+53.56 | 0.00' | 21.88 | 21.88 |
| ⌀ Floorbeam F | 10+60.87 | 0.00' | 21.89 | 21.89 |
| C | 10+68.18 | 0.00' | 21.90 | 21.90 |
| ⌀ Trunnion | 10+75.50 | 0.00' | 21.91 | 21.91 |
| Rear Break | 10+81.00 | 0.00' | 21.92 | 21.92 |

STRINGER 12

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|----------|---------|------------------------------------|---|
| ⌀ Brg. W. Abut. | 10+25.89 | -15.01' | 21.76 | 21.76 |
| A | 10+35.88 | -15.24' | 21.79 | 21.79 |
| ⌀ Anchor Column | 10+46.25 | -15.48' | 21.82 | 21.82 |
| B | 10+53.56 | -15.48' | 21.84 | 21.84 |
| ⌀ Floorbeam F | 10+60.87 | -15.48' | 21.86 | 21.86 |
| C | 10+68.18 | -15.48' | 21.88 | 21.88 |
| ⌀ Trunnion | 10+75.50 | -15.48' | 21.90 | 21.90 |
| Rear Break | 10+81.00 | -15.48' | 21.92 | 21.92 |

STRINGER 13

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection | Theoretical Grade Elevations * | Theoretical Grade Elevations Adjusted For Dead Load Deflection* |
|-----------------|----------|---------|------------------------------------|---|---|--|
| ⌀ Brg. W. Abut. | 10+25.79 | -19.27' | 21.73 | 21.73 | 22.34 | 22.34 |
| A | 10+35.78 | -19.51' | 21.77 | 21.77 | 22.43 | 22.43 |
| ⌀ Anchor Column | 10+46.25 | -19.75' | 21.80 | 21.80 | 22.47 | 22.47 |

STRINGER 9

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|----------|--------|------------------------------------|---|
| ⌀ Brg. W. Abut. | 10+26.19 | -2.21' | 21.83 | 21.83 |
| A | 10+36.19 | -2.44' | 21.85 | 21.85 |
| ⌀ Anchor Column | 10+46.25 | -2.68' | 21.86 | 21.86 |
| B | 10+53.56 | -2.68' | 21.87 | 21.87 |
| ⌀ Floorbeam F | 10+60.87 | -2.68' | 21.89 | 21.89 |
| C | 10+68.18 | -2.68' | 21.90 | 21.90 |
| ⌀ Trunnion | 10+75.50 | -2.68' | 21.91 | 21.91 |
| Rear Break | 10+81.00 | -2.68' | 21.92 | 21.92 |

STRINGER 14

| Location | Station | Offset | Theoretical Grade Elevations * | Theoretical Grade Elevations Adjusted For Dead Load Deflection* |
|-----------------|----------|---------|---|--|
| ⌀ Brg. W. Abut. | 10+25.72 | -21.94' | 22.34 | 22.34 |
| A | 10+35.72 | -22.17' | 22.39 | 22.39 |
| ⌀ Anchor Column | 10+46.25 | -22.42' | 22.44 | 22.44 |
| B | 10+53.56 | -22.42' | 22.48 | 22.48 |
| ⌀ Floorbeam F | 10+60.87 | -22.42' | 22.52 | 22.52 |
| C | 10+68.18 | -22.42' | 22.55 | 22.55 |
| ⌀ Trunnion | 10+75.50 | -22.42' | 22.59 | 22.59 |
| Rear Break | 10+81.00 | -22.42' | 22.62 | 22.62 |

STRINGER 10

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|----------|--------|------------------------------------|---|
| ⌀ Brg. W. Abut. | 10+26.08 | -7.01' | 21.80 | 21.80 |
| A | 10+36.07 | -7.25' | 21.82 | 21.82 |
| ⌀ Anchor Column | 10+46.25 | -7.48' | 21.84 | 21.84 |
| B | 10+53.56 | -7.48' | 21.86 | 21.86 |
| ⌀ Floorbeam F | 10+60.87 | -7.48' | 21.88 | 21.88 |
| C | 10+68.18 | -7.48' | 21.89 | 21.89 |
| ⌀ Trunnion | 10+75.50 | -7.48' | 21.91 | 21.91 |
| Rear Break | 10+81.00 | -7.48' | 21.92 | 21.92 |

STRINGER 15

| Location | Station | Offset | Theoretical Grade Elevations * | Theoretical Grade Elevations Adjusted For Dead Load Deflection* |
|-----------------|----------|---------|---|--|
| ⌀ Brg. W. Abut. | 10+25.63 | -25.94' | 22.34 | 22.34 |
| A | 10+35.63 | -26.17' | 22.38 | 22.38 |
| ⌀ Anchor Column | 10+46.25 | -26.42' | 22.43 | 22.43 |
| B | 10+53.56 | -26.42' | 22.46 | 22.46 |
| ⌀ Floorbeam F | 10+60.87 | -26.42' | 22.49 | 22.49 |
| C | 10+68.18 | -26.42' | 22.52 | 22.52 |
| ⌀ Trunnion | 10+75.50 | -26.42' | 22.55 | 22.55 |
| Rear Break | 10+81.00 | -26.42' | 22.58 | 22.58 |

STRINGER 11

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|----------|---------|------------------------------------|---|
| ⌀ Brg. W. Abut. | 10+25.98 | -11.01' | 21.78 | 21.78 |
| A | 10+35.98 | -11.24' | 21.81 | 21.81 |
| ⌀ Anchor Column | 10+46.25 | -11.48' | 21.83 | 21.83 |
| B | 10+53.56 | -11.48' | 21.85 | 21.85 |
| ⌀ Floorbeam F | 10+60.87 | -11.48' | 21.87 | 21.87 |
| C | 10+68.18 | -11.48' | 21.89 | 21.89 |
| ⌀ Trunnion | 10+75.50 | -11.48' | 21.91 | 21.91 |
| Rear Break | 10+81.00 | -11.48' | 21.92 | 21.92 |

STRINGER 16

| Location | Station | Offset | Theoretical Grade Elevations * | Theoretical Grade Elevations Adjusted For Dead Load Deflection* |
|-----------------|----------|---------|---|--|
| ⌀ Brg. W. Abut. | 10+25.55 | -29.43' | 22.34 | 22.34 |
| A | 10+35.54 | -29.67' | 22.38 | 22.38 |
| ⌀ Anchor Column | 10+46.25 | -29.92' | 22.42 | 22.42 |
| B | 10+53.56 | -29.92' | 22.44 | 22.44 |
| ⌀ Floorbeam F | 10+60.87 | -29.92' | 22.47 | 22.47 |
| C | 10+68.18 | -29.92' | 22.50 | 22.50 |
| ⌀ Trunnion | 10+75.50 | -29.92' | 22.52 | 22.52 |
| Rear Break | 10+81.00 | -29.92' | 22.54 | 22.54 |

*Top of Sidewalk Elevations



WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME =

PLOT SCALE = N.T.S.

PLOT DATE= 10/5/2020

DESIGNED - LAB
CHECKED - MI, MAI

DRAWN - LAB
CHECKED - MI, MAI

REVISED -
REVISED -
REVISED -
REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**TOP OF SLAB ELEVATIONS
WEST FIXED SPANS II
(STRUCTURE NO. 016-6057)**

F.A.U.
RTE.

1388

SECTION

11-E1525-00-BR

COUNTY

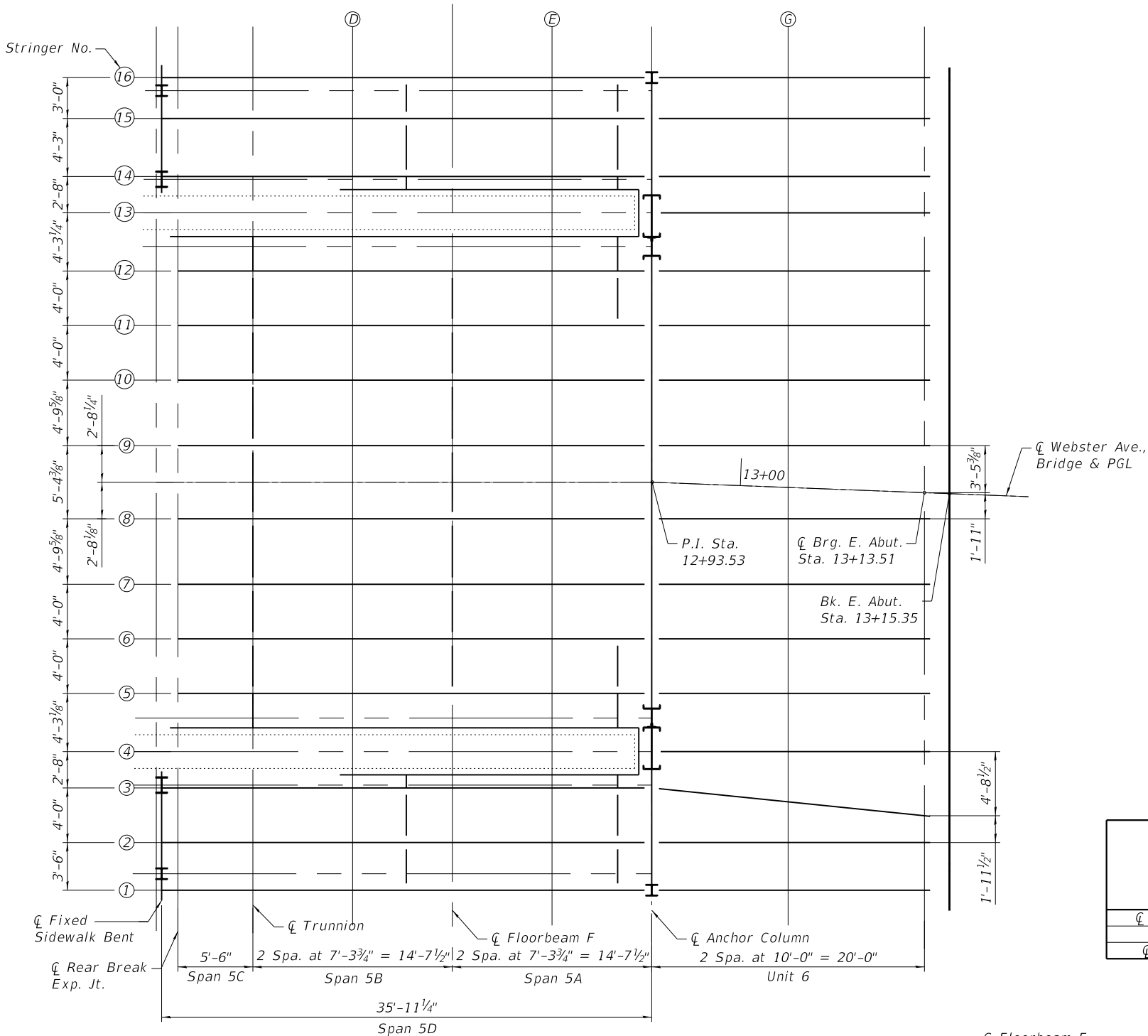
COOK

SHEET NO.

S-09

CDOT PROJECT NO. E-1-525

52 of 210



STRINGERS 1-4 & 13-16 DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:

The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on Sheets S-10 & S-11.

STRINGERS 5-12 DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

STRINGER 1

| Location | Station | Offset | Theoretical Grade Elevations* | Theoretical Grade Elevations Adjusted For Dead Load Deflection* |
|---------------|----------|--------|-------------------------------|---|
| Rear Break | 12+58.75 | 29.92' | 22.54 | 22.54 |
| Trunnion | 12+64.25 | 29.92' | 22.46 | 22.46 |
| D | 12+71.56 | 29.92' | 22.42 | 22.42 |
| Floorbeam F | 12+78.88 | 29.92' | 22.38 | 22.38 |
| E | 12+86.19 | 29.92' | 22.16 | 22.16 |
| Anchor Column | 12+93.50 | 29.92' | 21.94 | 21.94 |
| G | 13+04.64 | 29.51' | 21.64 | 21.64 |
| Brg. E. Abut. | 13+14.63 | 29.13' | 21.34 | 21.34 |

STRINGER 2

| Location | Station | Offset | Theoretical Grade Elevations* | Theoretical Grade Elevations Adjusted For Dead Load Deflection* |
|---------------|----------|--------|-------------------------------|---|
| Rear Break | 12+58.75 | 26.42' | 22.57 | 22.57 |
| Trunnion | 12+64.25 | 26.42' | 22.50 | 22.50 |
| D | 12+71.56 | 26.42' | 22.46 | 22.46 |
| Floorbeam F | 12+78.88 | 26.42' | 22.42 | 22.42 |
| E | 12+86.19 | 26.42' | 22.20 | 22.20 |
| Anchor Column | 12+93.50 | 26.42' | 21.97 | 21.97 |
| G | 13+04.50 | 26.01' | 21.67 | 21.67 |
| Brg. E. Abut. | 13+14.50 | 25.63' | 21.37 | 21.37 |

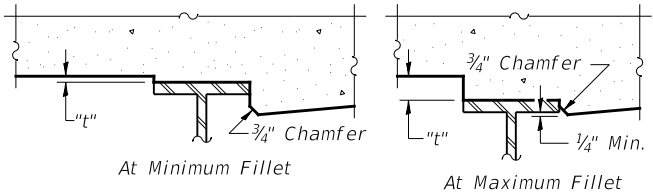
STRINGER 3

| Location | Station | Offset | Theoretical Grade Elevations* | Theoretical Grade Elevations Adjusted For Dead Load Deflection* |
|---------------|----------|--------|-------------------------------|---|
| Rear Break | 12+58.75 | 22.42' | 22.61 | 22.61 |
| Trunnion | 12+64.25 | 22.42' | 22.54 | 22.54 |
| D | 12+71.56 | 22.42' | 22.50 | 22.50 |
| Floorbeam F | 12+78.88 | 22.42' | 22.46 | 22.46 |
| E | 12+86.19 | 22.42' | 22.24 | 22.24 |
| Anchor Column | 12+93.50 | 22.42' | 22.01 | 22.01 |
| G | 13+04.39 | 23.03' | 21.70 | 21.70 |
| Brg. E. Abut. | 13+14.42 | 23.67' | 21.39 | 21.39 |

STRINGER 4

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection | Theoretical Grade Elevations* | Theoretical Grade Elevations Adjusted For Dead Load Deflection* |
|---------------|----------|--------|------------------------------|--|-------------------------------|---|
| Anchor Column | 12+93.50 | 19.75' | 21.37 | 21.37 | 22.03 | 22.03 |
| G | 13+04.25 | 19.35' | 21.06 | 21.06 | 21.73 | 21.73 |
| Brg. E. Abut. | 13+14.24 | 18.97' | 20.76 | 20.76 | - | - |

*Top of Sidewalk Elevations



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheets S-10 and S-11, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

HBM
ENGINEERING GROUP, LLC

wsp

WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

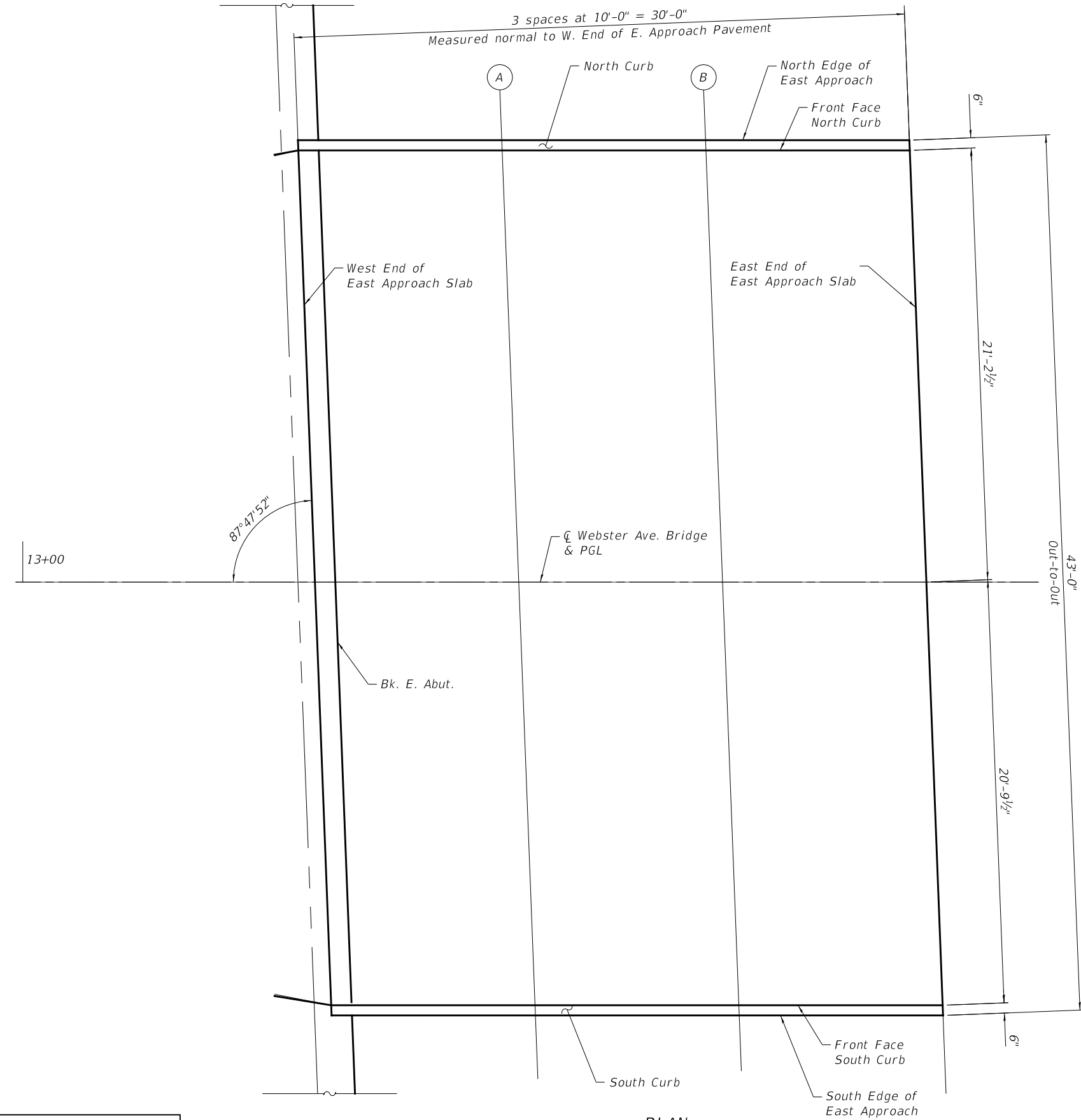
| | | |
|-----------------------|-------------------|-----------|
| USER NAME = | DESIGNED - LAB | REVISED - |
| | CHECKED - MI, MAI | REVISED - |
| PLOT SCALE = N.T.S. | DRAWN - LAB | REVISED - |
| PLOT DATE = 10/5/2020 | CHECKED - MI, MAI | REVISED - |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**TOP OF SLAB ELEVATIONS
EAST FIXED SPANS I
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|-----------|
| 1388 | 11-E1525-00-BR | COOK | S-10 |
| CDOT PROJECT NO. E-1-525 | | | 53 of 210 |



PLAN

FRONT FACE OF NORTH CURB

| Location | Station | Offset | Theoretical Grade Elevations |
|------------------------|----------|---------|------------------------------------|
| W. End of E. Apr. Slab | 13+13.53 | -21.19' | 20.76 |
| A | 13+23.54 | -21.19' | 20.31 |
| B | 13+33.55 | -21.19' | 19.86 |
| E. End of E. Apr. Slab | 13+43.55 | -21.19' | 19.42 |

CL WEBSTER AVE. BRIDGE & PGL

| Location | Station | Offset | Theoretical Grade Elevations |
|------------------------|----------|--------|------------------------------------|
| W. End of E. Apr. Slab | 13+14.35 | 0.00' | 20.73 |
| A | 13+24.35 | 0.00' | 20.43 |
| B | 13+34.36 | 0.00' | 20.12 |
| E. End of E. Apr. Slab | 13+44.37 | 0.00' | 19.82 |

FRONT FACE OF SOUTH CURB

| Location | Station | Offset | Theoretical Grade Elevations |
|------------------------|----------|--------|------------------------------------|
| W. End of E. Apr. Slab | 13+15.14 | 20.77' | 20.71 |
| A | 13+25.15 | 20.77' | 20.26 |
| B | 13+35.16 | 20.77' | 19.82 |
| E. End of E. Apr. Slab | 13+45.17 | 20.77' | 19.38 |

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SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

| | | |
|-----------------------|-------------------|-----------|
| USER NAME = | DESIGNED - LAB | REVISED - |
| | CHECKED - MI, MAI | REVISED - |
| PLOT SCALE = N.T.S. | DRAWN - JMI | REVISED - |
| PLOT DATE = 10/5/2020 | CHECKED - MI, MAI | REVISED - |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

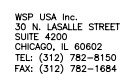
WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER

TOP OF SLAB ELEVATIONS
EAST APPROACH SLAB
(STRUCTURE NO. 016-6057)

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|-----------|
| 1388 | 11-E1525-00-BR | COOK | S-12 |
| CDOT PROJECT NO. E-1-525 | | | 55 of 210 |



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CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

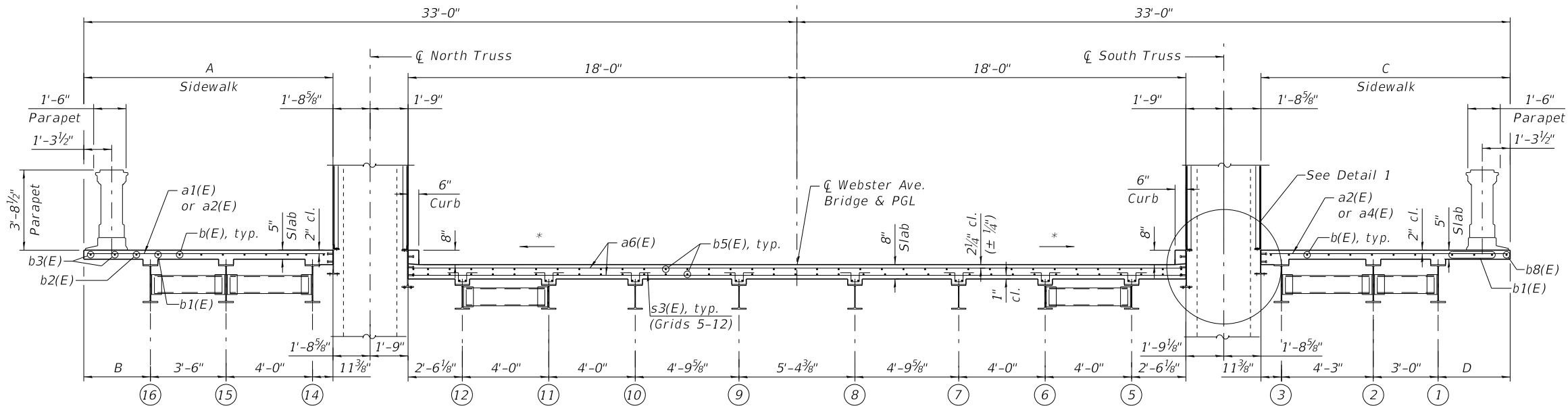
**SUPERSTRUCTURE PLAN GEOMETRICS
WEST FIXED SPANS
(STRUCTURE NO. 016-6057)**

| | | | |
|--------------------------|----------------|--------|-----------|
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
| 1388 | 11-E1525-00-BR | COOK | S-14 |
| CDOT PROJECT NO. E-1-525 | | | 57 of 210 |

NOTES:

1. For additional notes, see Sheet S-13.
2. For bar diagrams and Bill of Material, see Sheet S-18.

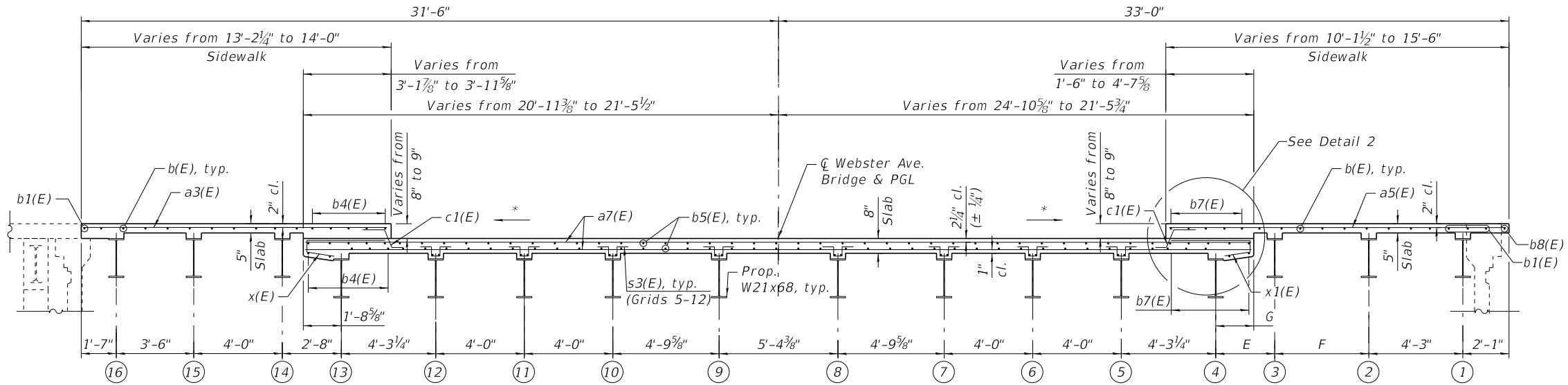
* Slope varies from 0% at Rear Break to 0.57% at West Abutment.



From Sta. 10+45.30 to Sta. 10+55.94 - A = 11'-6 $\frac{3}{8}$ "; B = 3'-1"
From Sta. 10+55.94 to Sta. 10+74.81 - A = 10'-4 $\frac{5}{8}$ "; B = 1'-11 $\frac{1}{2}$ "
From Sta. 10+74.81 to Sta. 10+82.50 - A = 10'-6 $\frac{7}{8}$ "; B = 2'-1 $\frac{1}{2}$ "

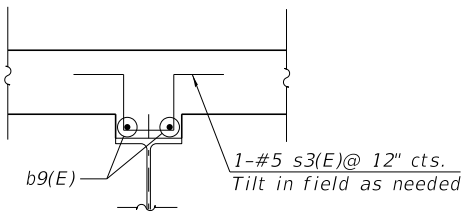
SECTION A-A
(Reinforcement in curb is not shown for clarity)

From Sta. 10+46.13 to Sta. 10+66.79 - C = 11'-6 $\frac{3}{8}$ "; D = 3'-4"
From Sta. 10+66.79 to Sta. 10+82.50 - C = 10'-6 $\frac{7}{8}$ "; D = 2'-4 $\frac{1}{2}$ "



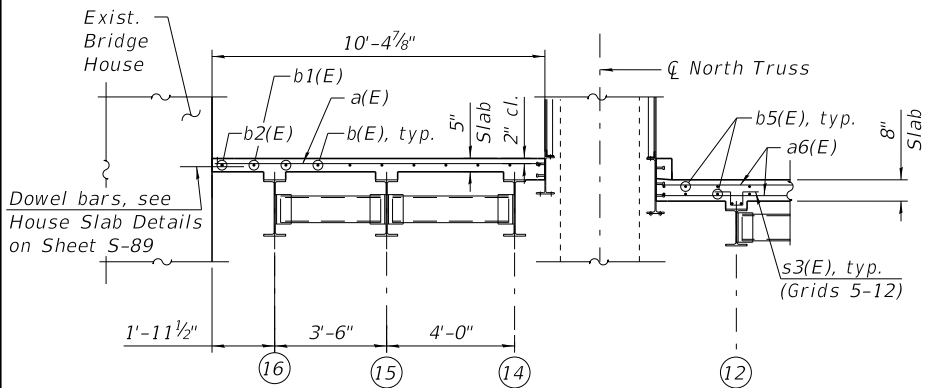
SECTION B-B

E = Varies from 2'-8" at East End to 5'-4 $\frac{3}{4}$ " at West End
F = Varies from 4'-3" at East End to 1'-6 $\frac{1}{4}$ " at West End
G = Varies from 1'-8 $\frac{5}{8}$ " at East End to 4'-7 $\frac{3}{8}$ " at West End

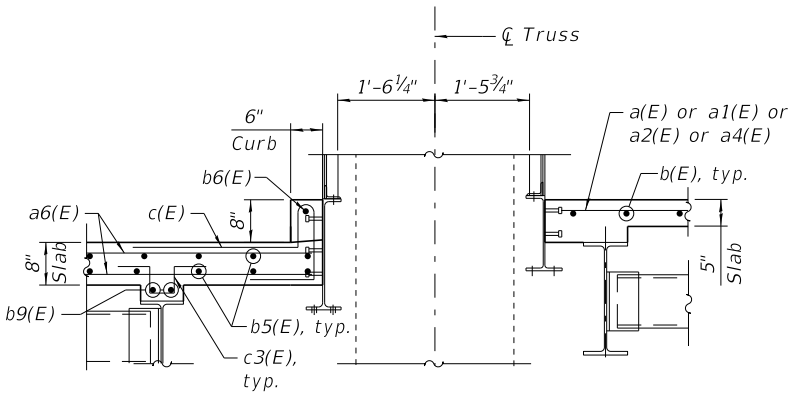


FILLET REINFORCEMENT

Additional reinforcement is required for fillet heights in excess of 6" as shown above. Bars s3(E) are detailed in the bar list. However, the placement of the bars is not shown in the plans. s3(E) are to be placed above beams at Grids 5 thru 12. The Contractor shall place the bars b9(E) between shear reinforcement in accordance with the above detail.

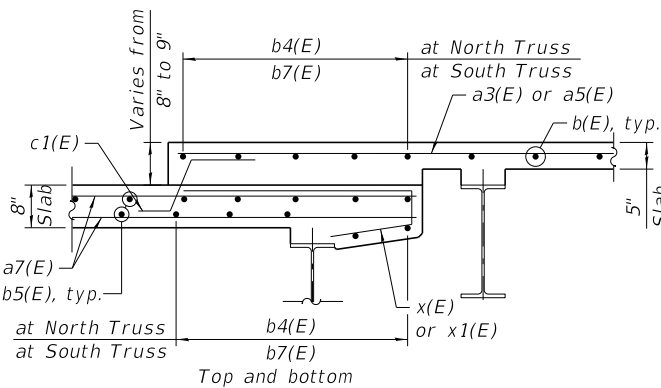


SECTION C-C



DETAIL 1

(South Truss shown. North Truss similar opposite hand)



DETAIL 2

(South Truss shown. North Truss similar opposite hand)

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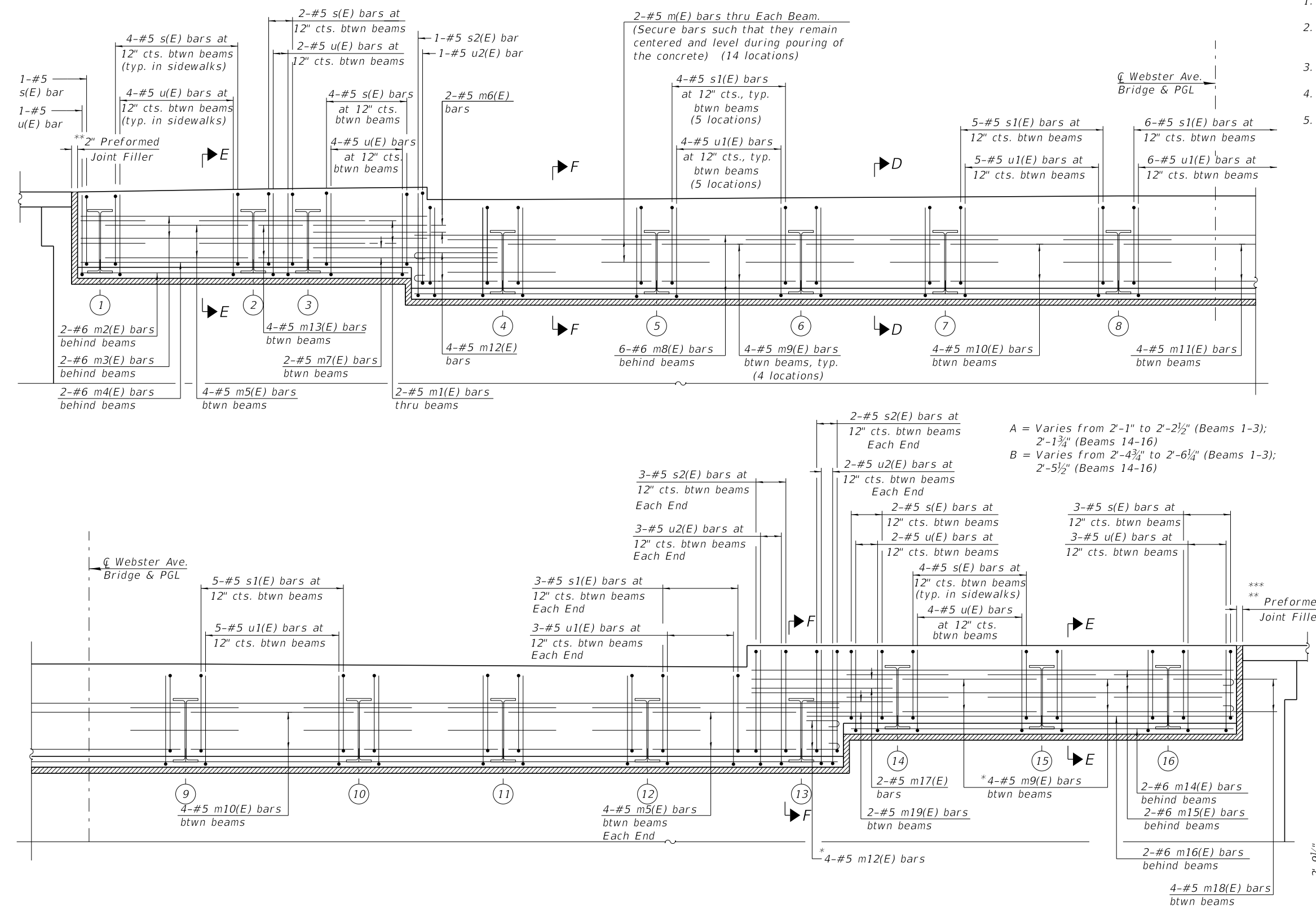
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| USER NAME = | DESIGNED - SK | REVISED - |
| | CHECKED - MI | REVISED - |
| PLOT SCALE = N.T.S. | DRAWN - SK | REVISED - |
| PLOT DATE = \$DATE\$ | CHECKED - MI | REVISED - |

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DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

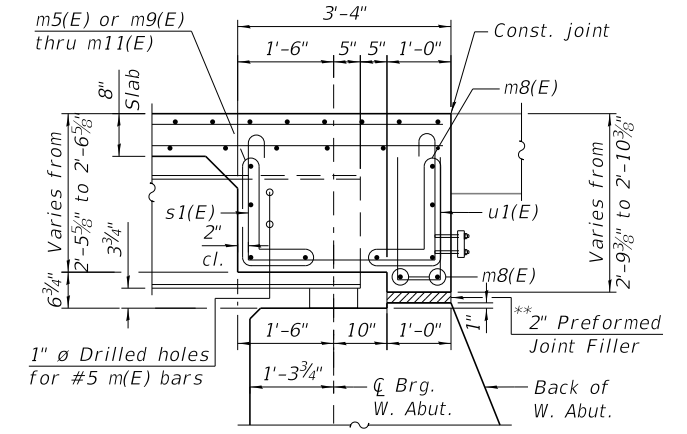
**CROSS SECTIONS
WEST FIXED SPANS
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|-----------|
| 1388 | 11-E1525-00-BR | COOK | S-15 |
| CDOT PROJECT NO. E-1-525 | | | 58 of 210 |

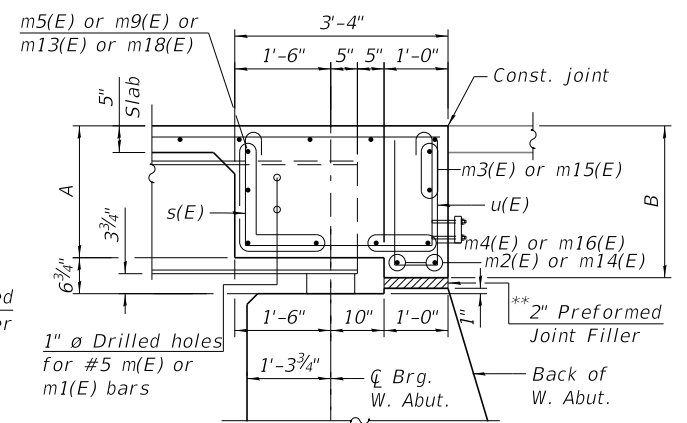


WEST ABUTMENT DIAPHRAGM ELEVATION

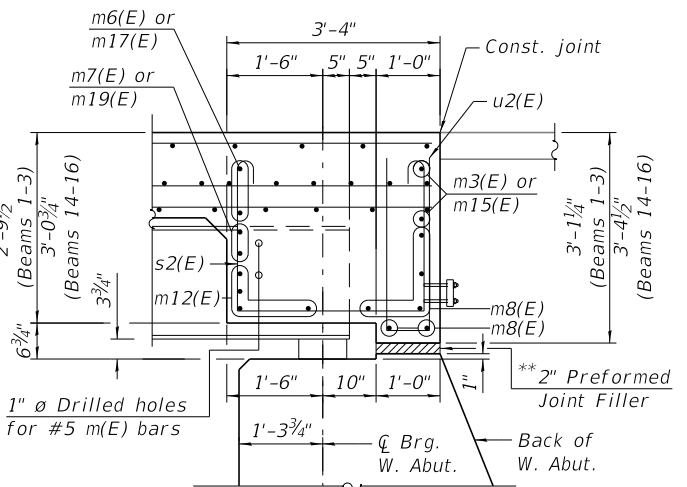
- NOTES:**
1. Reinforcement bars in diaphragm are billed with superstructure.
 2. Concrete in diaphragm is included with High Performance Concrete Superstructure.
 3. For Bill of Material and bar diagrams, see sheet S-18.
 4. For bearing details, see sheet S-35.
 5. Beams shall be braced for stability during erection and remain braced until deck is poured and cured.



SECTION D-D



SECTION E-E & SECTION G-G
(For signal pole at Section G-G, see sheet S-13)



SECTION F-F

* Cut in field to fit

** 2" PJF (per Article 1051.09 of the Standard Specifications) full width and vertically at edges bonded to abutment cap with suitable adhesive as recommended by supplier.

*** Width varies from 5 3/8" to 6 1/4"



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| PLOT DATE = \$DATE\$ | CHECKED - MI | REVISED - |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

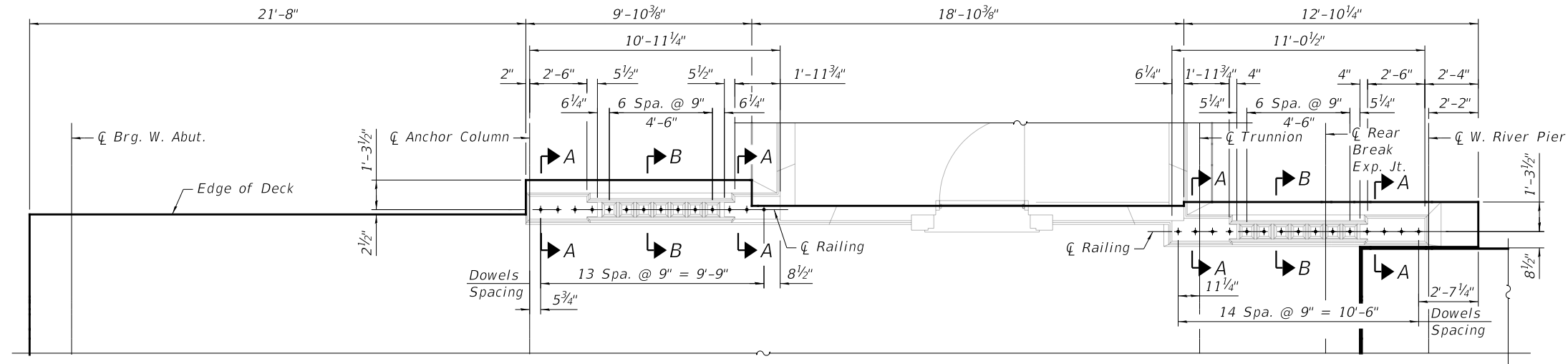
**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**DIAPHRAGM DETAILS
WEST FIXED SPANS
(STRUCTURE NO. 016-6057)**

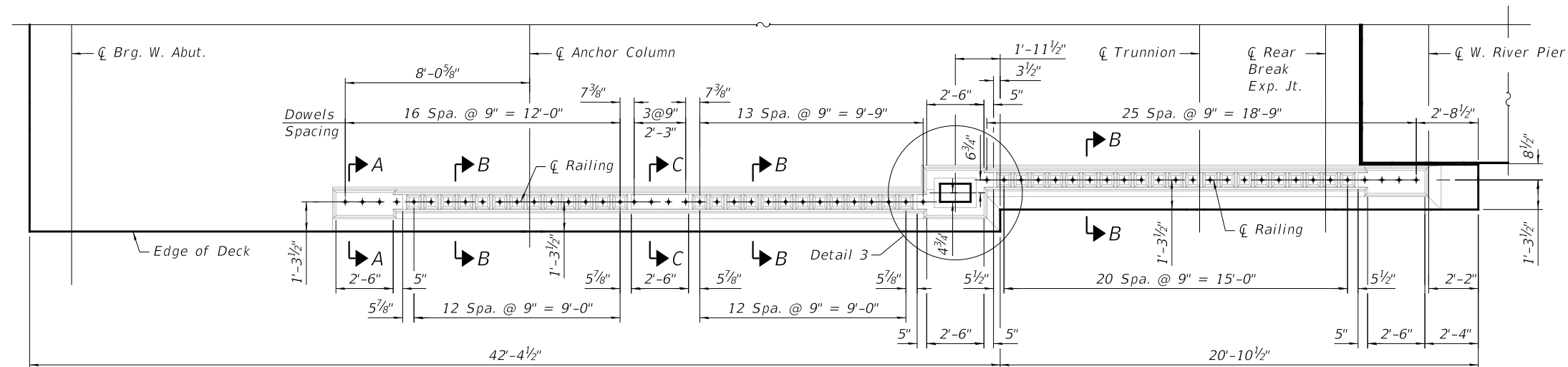
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|-----------|
| 1388 | 11-E1525-00-BR | COOK | S-16 |
| CDOT PROJECT NO. E-1-525 | | | 59 of 210 |

NOTES:

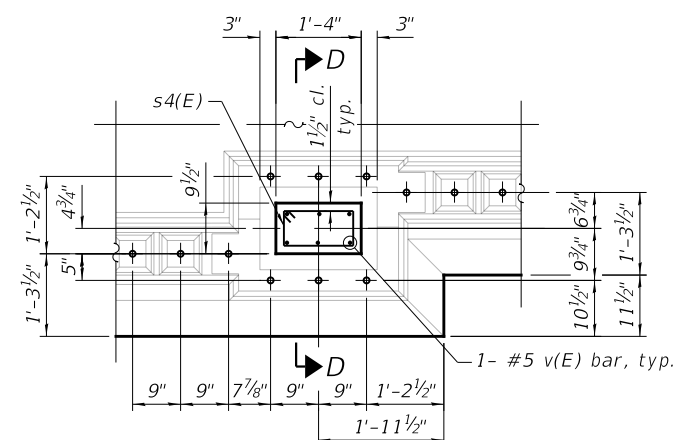
1. Reinforcement bars designated (E) shall be epoxy coated.
2. See sheet S-15 for deck cross sections.
3. For bar diagrams and Bill of material, see sheet S-18
4. See architectural (A-series) sheets for precast railing details.
5. The Contractor must use approved single straight coil loop inserts when pendant mounting threaded rods to a sidewalk. The single straight loop inserts must be cast into the concrete sidewalk.



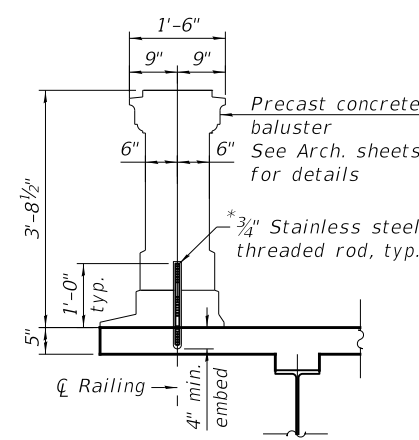
NORTH RAILING PARTIAL LAYOUT PLAN



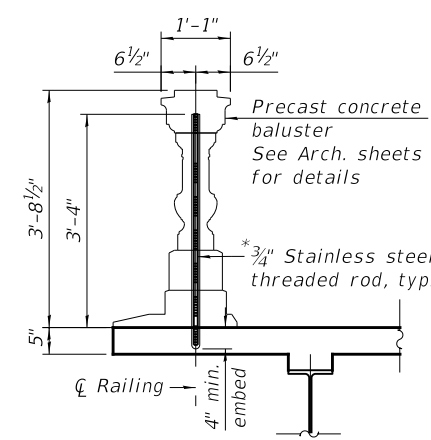
SOUTH RAILING PARTIAL LAYOUT PLAN



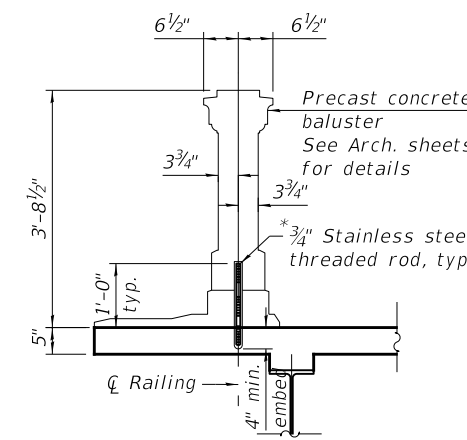
DETAIL 3



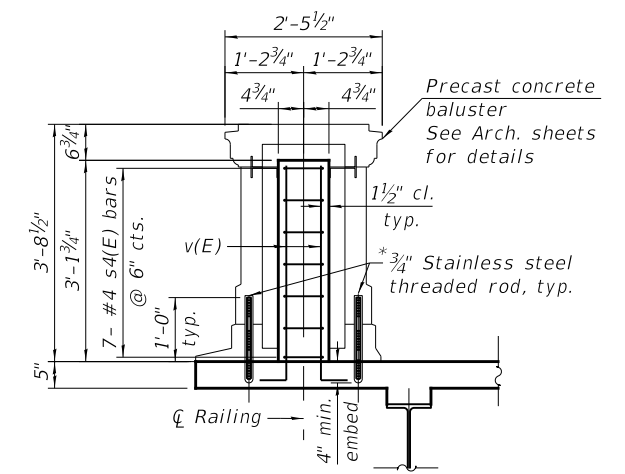
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

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| PLOT DATE = 10/5/2020 | DRAWN - SK | REVISED - |
| | CHECKED - MI | REVISED - |

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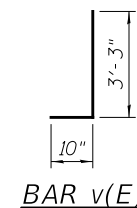
**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**PARAPET ELEVATIONS AND DETAILS
WEST FIXED SPANS
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|-----------|
| 1388 | 11-E1525-00-BR | COOK | S-17 |
| CDOT PROJECT NO. E-1-525 | | | 60 of 210 |

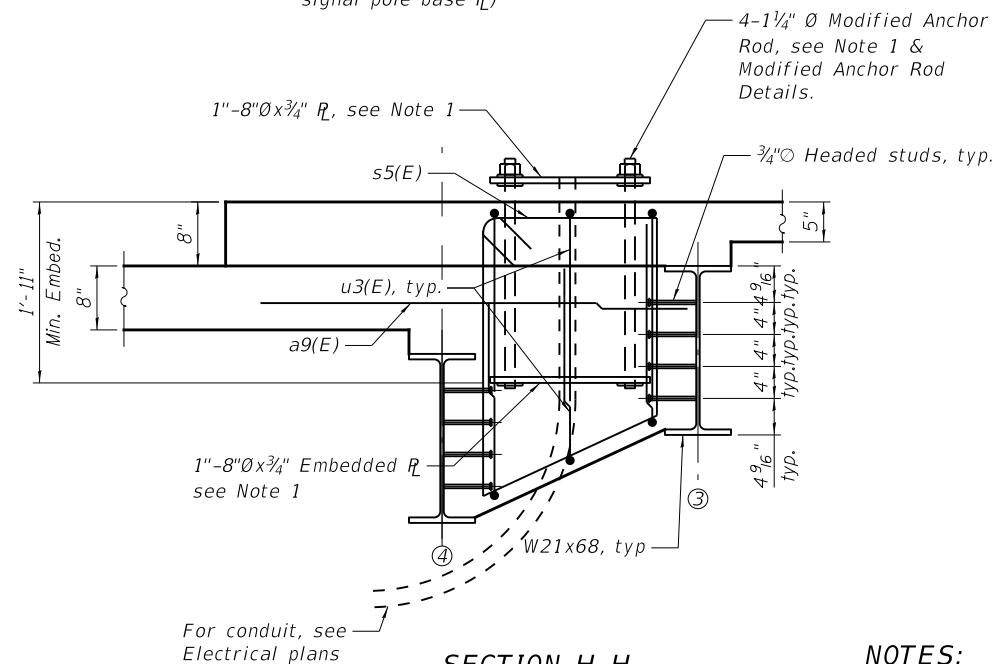
* Included with the cost of "High Performance Concrete Superstructure".

| Bar | No. | Size | Length | Shape |
|-------|-----|------|--------|-------|
| a(E) | 20 | #5 | 10'-1" | ———— |
| a1(E) | 11 | #5 | 11'-2" | ———— |
| a2(E) | 25 | #5 | 10'-3" | ———— |
| a3(E) | 22 | #5 | 13'-8" | ———— |
| a4(E) | 22 | #5 | 11'-2" | ———— |
| a5(E) | 22 | #5 | 15'-2" | ———— |
| a6(E) | 104 | #5 | 35'-8" | ———— |
| a7(E) | 63 | #5 | 45'-6" | ———— |
| a8(E) | 12 | #5 | 1'-8" | ———— |
| a9(E) | 3 | #5 | 7'-0" | ———— |



| | | |
|---|----------------|---------------|
| <i>Bridge Deck Grooving</i> | <i>Sq. Yd.</i> | <i>225</i> |
| <i>Reinforcement Bars, Epoxy Coated</i> | <i>Pound</i> | <i>20,610</i> |
| <i>High Performance Concrete Superstructure</i> | <i>Cu. Yd.</i> | <i>100.5</i> |
| <i>Protective Concrete Sealer</i> | <i>Sq. Yd.</i> | <i>464</i> |

| | | | |
|--------------------------|----------------|--------|------------------------------|
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. S-18 |
| 1388 | 11-E1525-00-BR | COOK | |
| CDOT PROJECT NO. E-1-525 | | | 61 of 210 |



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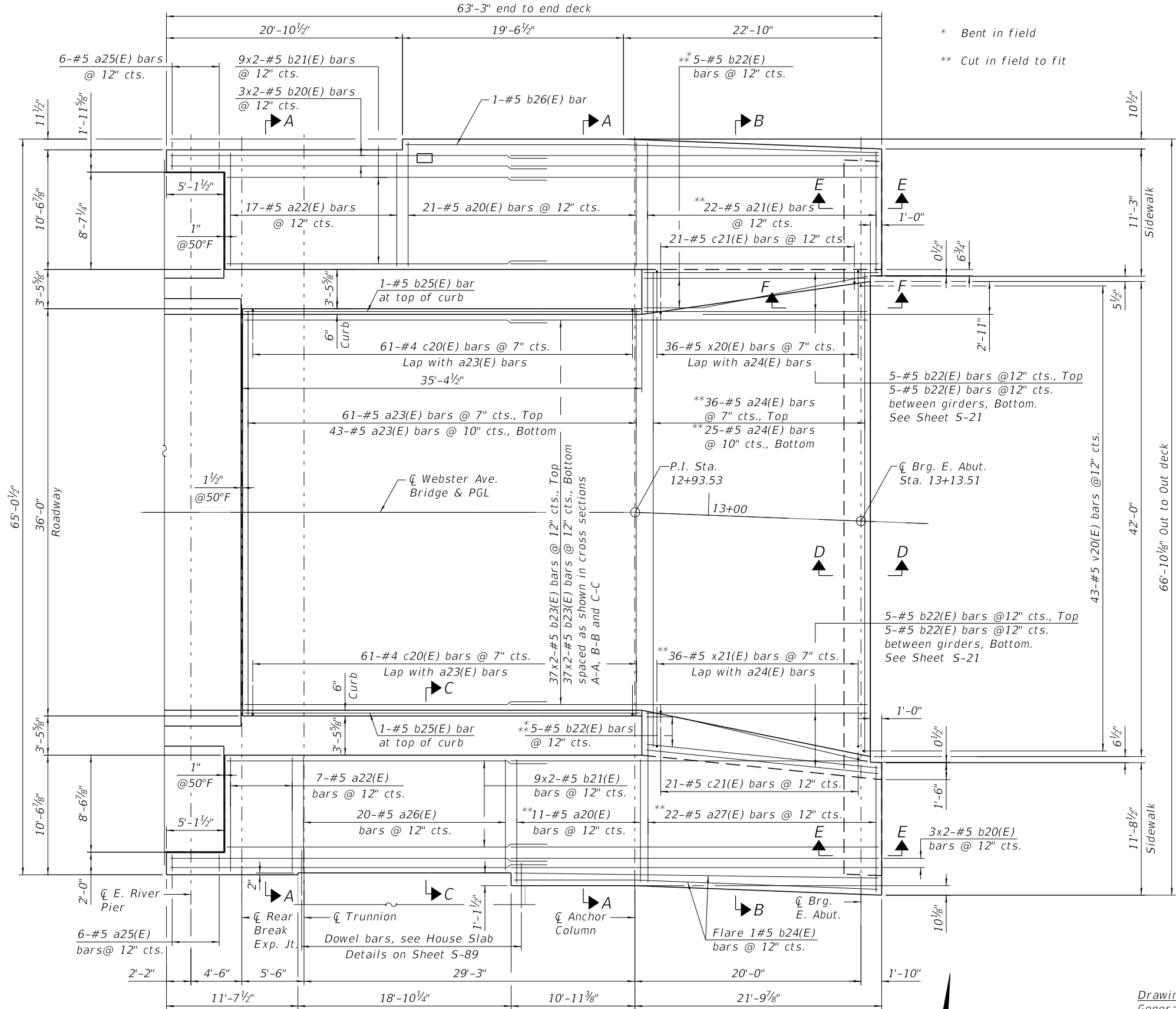
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CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
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**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**SUPERSTRUCTURE DETAILS
WEST FIXED SPANS
(STRUCTURE NO. 016-6057)**

- NOTES:**
- Reinforcement bars designated (E) shall be epoxy coated.
 - Bars indicated as 9x2-#5 etc. indicates 9 lines of bars with two lengths per line.
 - For more dimensions, see Sheet S-20.
 - For sections A-A, B-B, and C-C, see Sheet S-21.
 - For sections D-D, E-E, and F-F, see Sheet S-22.
 - For bar diagrams and Bill of Material, see Sheet S-24.
 - For preformed joint filler quantities & details between the sidewalks and concrete deck, see civil plans.



REFERENCE DRAWINGS

| | |
|--|------------|
| Drawing | Sheet No. |
| General Plan - Substructure and Superstructure | 1660570004 |
| Structural Repairs, Redecking and Rehabilitation | 1660570131 |



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| PLOT DATE = \$DATE\$ | CHECKED - MI | REVISED - |

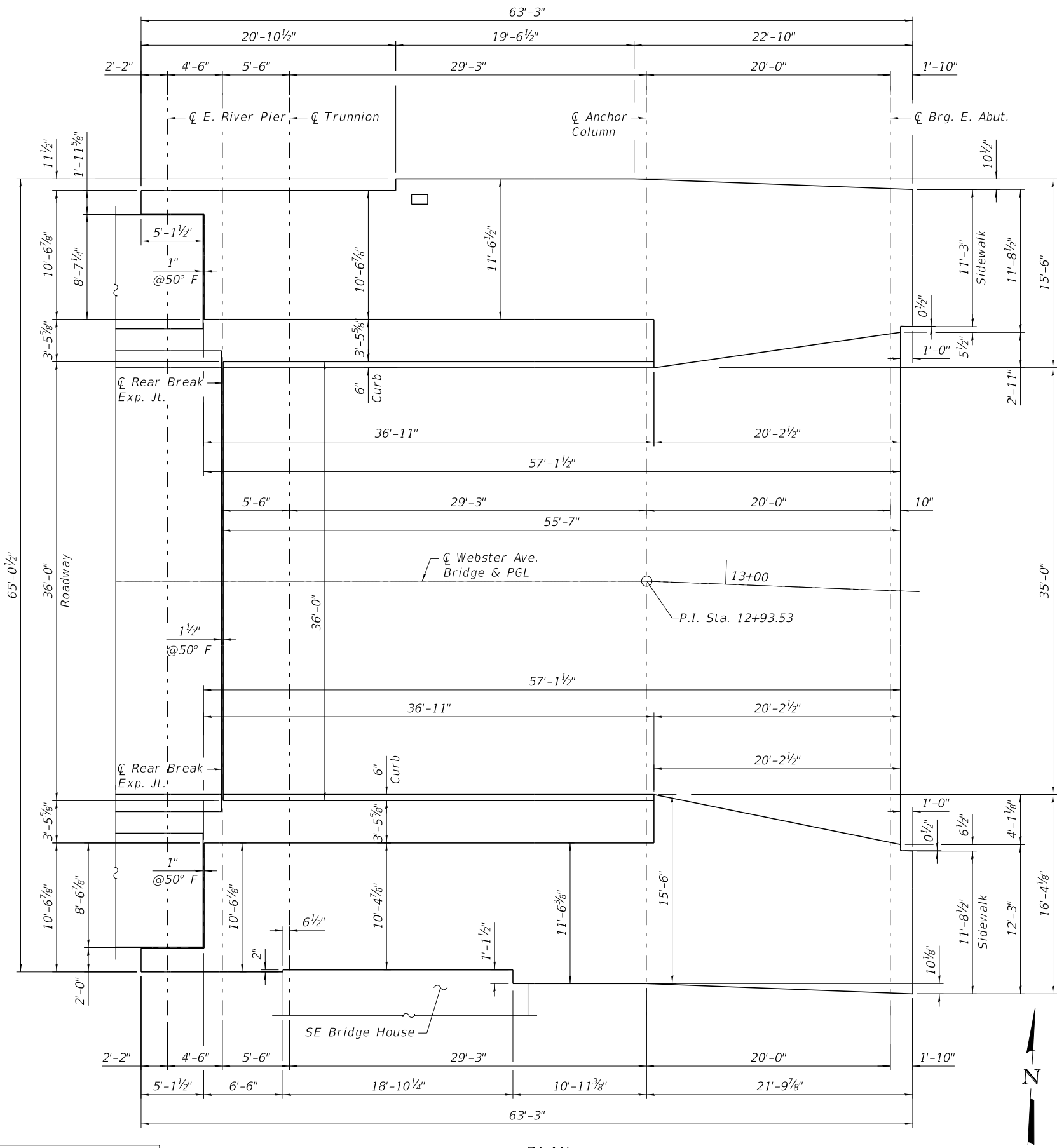
CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
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**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**SUPERSTRUCTURE PLAN
EAST FIXED SPANS
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|-----------|
| 1388 | 11-E1525-00-BR | COOK | S-19 |
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MINIMUM BAR LAP
#5 bar = 3'-6"



PLAN

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**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

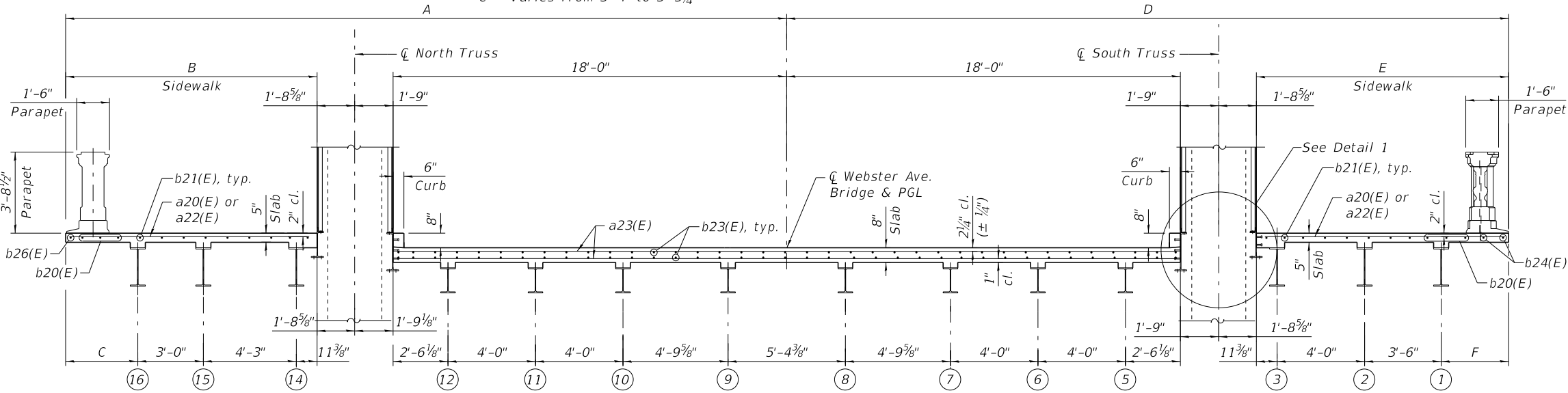
**SUPERSTRUCTURE PLAN GEOMETRICS
EAST FIXED SPANS
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|-----------|
| 1388 | 11-E1525-00-BR | COOK | S-20 |
| CDOT PROJECT NO. E-1-525 | | | 63 of 210 |

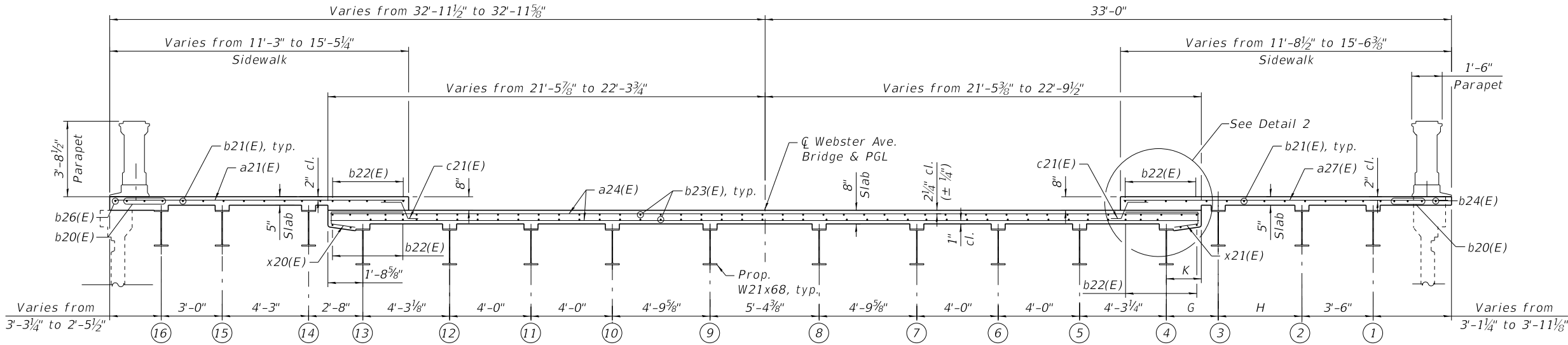
From Sta. 12+57.21 to Sta. 12+72.95 - A = 32'-0½"; B = 10'-6⅞"; C = 2'-4½"
From Sta. 12+72.95 to Sta. 12+92.50 - A = 33'-0"; B = 11'-6½"; C = 3'-4"
From Sta. 12+92.50 to Sta. 12+94.12 - A = Varies from 32'-11½" to 33'-0";
B = Varies from 11'-6⅜" to 11'-5⅝";
C = Varies from 3'-4" to 3'-3¼"

From Sta. 12+57.21 to Sta. 12+63.71 - D = 32'-0½"; E = 10'-6⅞"; F = 2'-1½"
From Sta. 12+63.71 to Sta. 12+82.56 - D = 31'-10½"; E = 10'-4⅞"; F = 1'-11½"
From Sta. 12+82.56 to Sta. 12+94.12 - D = 33'-0"; E = Varies from 11'-6⅜" to 11'-5⅝";
F = Varies from 3'-1" to 3'-1¼"

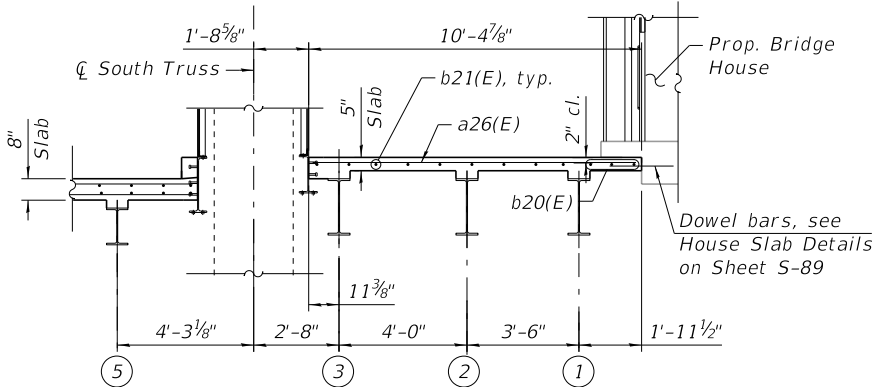
- NOTES:**
- For additional notes, see Sheet S-19.
 - For bar diagrams and Bill of Material, see Sheet S-24.
 - Stations are measured along PGL.



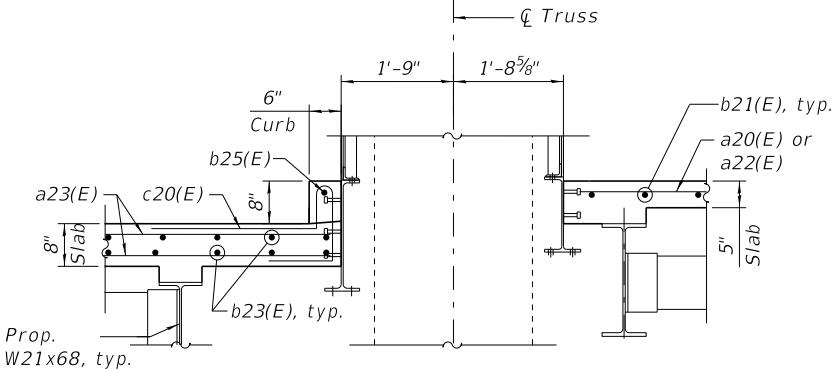
SECTION A-A
(Reinforcement in curb is not shown for clarity)



SECTION B-B

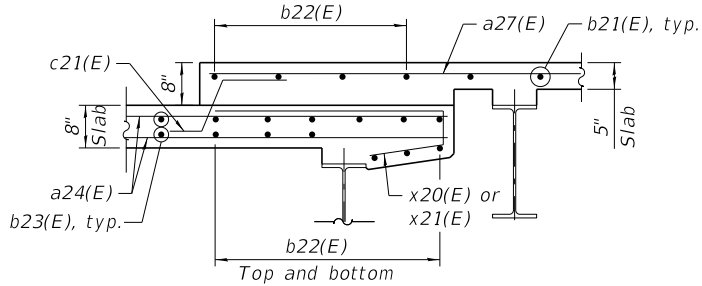


SECTION C-C



DETAIL 1

(South Truss shown. North Truss similar opposite hand.)



DETAIL 2

(South Truss shown. North Truss similar opposite hand.)

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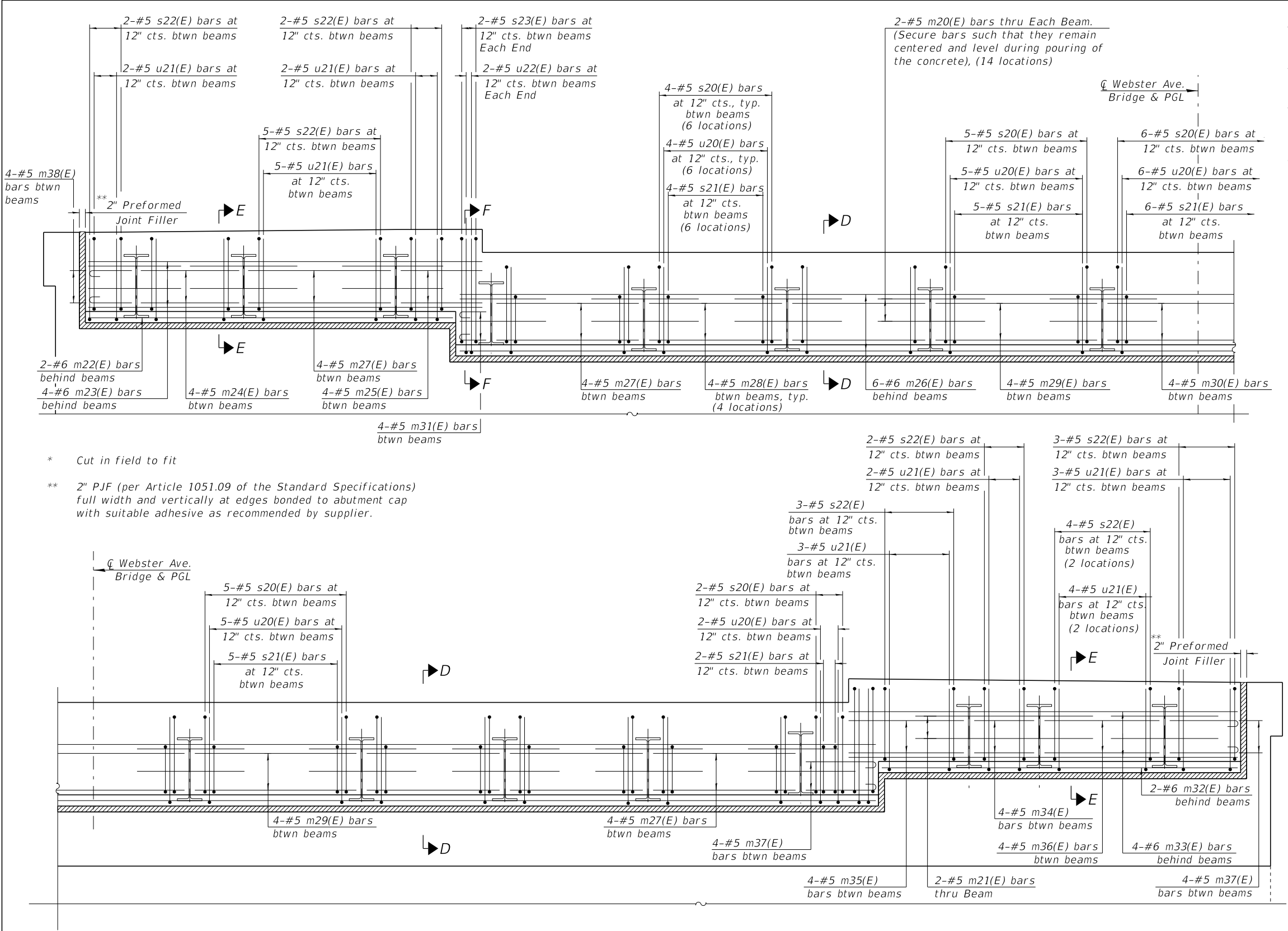
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| PLOT SCALE = N.T.S. | DRAWN - SK | REVISED - |
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**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

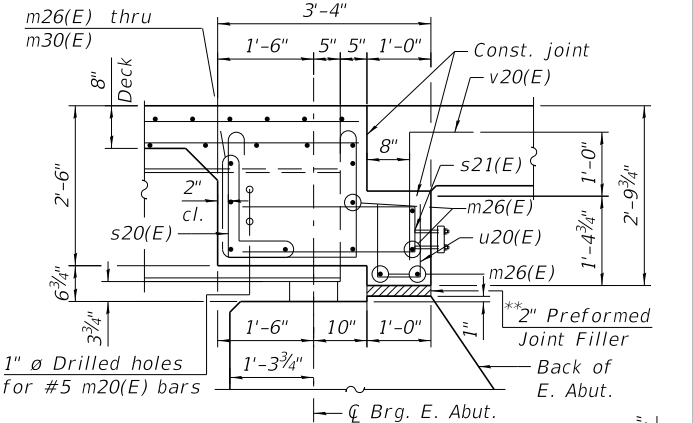
**CROSS SECTIONS
EAST FIXED SPANS
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|-----------|
| 1388 | 11-E1525-00-BR | COOK | S-21 |
| CDOT PROJECT NO. E-1-525 | | | 64 of 210 |

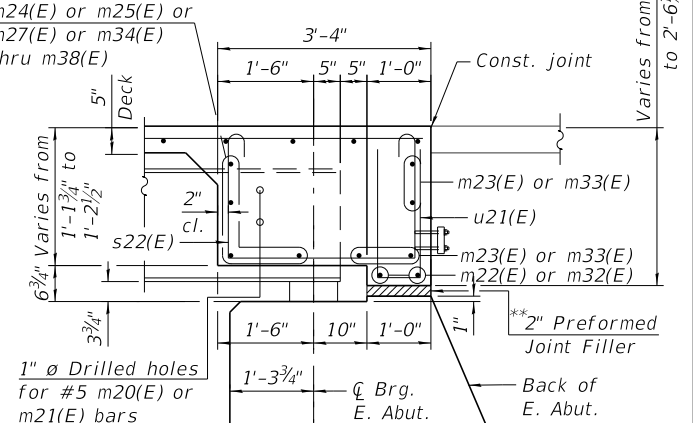


EAST ABUTMENT DIAPHRAGM ELEVATION
(Looking East)

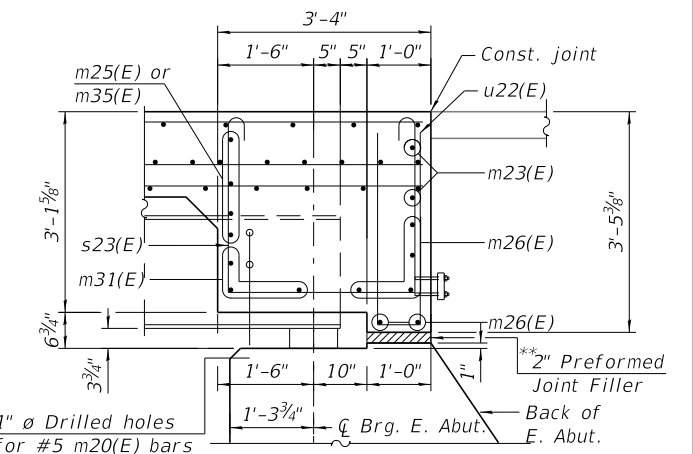
- NOTES:**
1. Reinforcement bars in diaphragm are billed with superstructure.
 2. Concrete in diaphragm is included with High Performance Concrete Superstructure.
 3. For bar diagrams and Bill of Material, see sheet S-24.
 4. For bearing details see sheet S-35.
 5. Beams shall be braced for stability during erection and remain braced until deck is poured and cured.



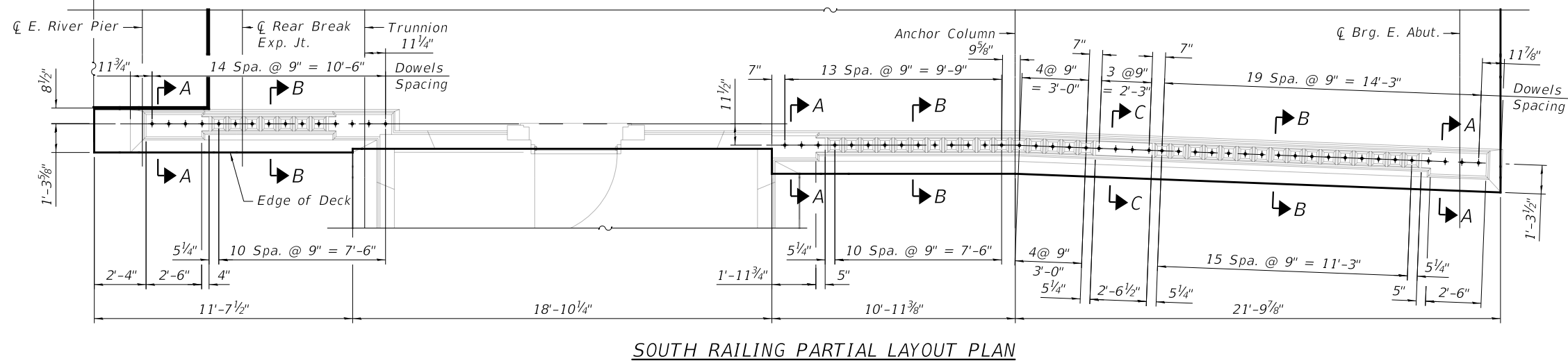
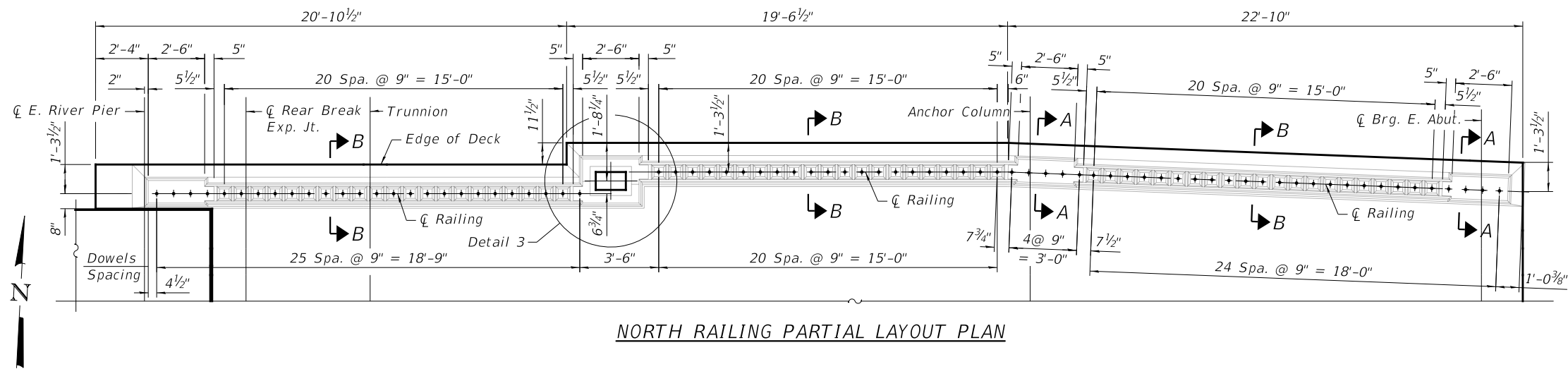
SECTION D-D



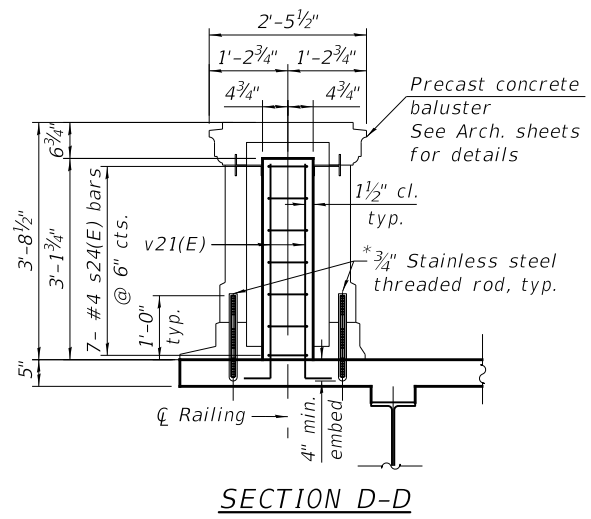
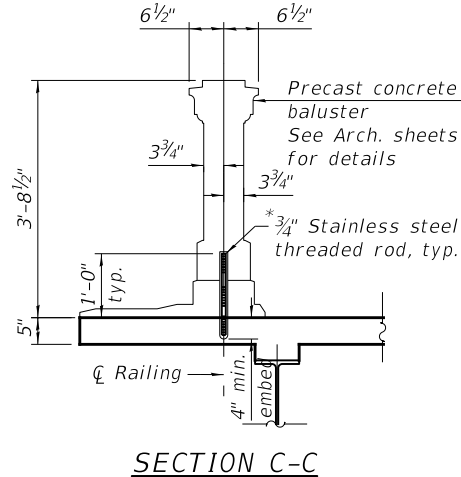
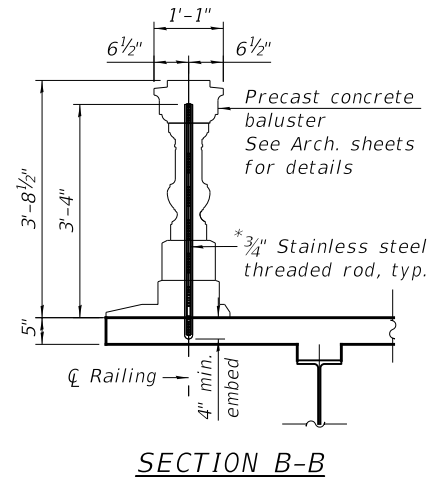
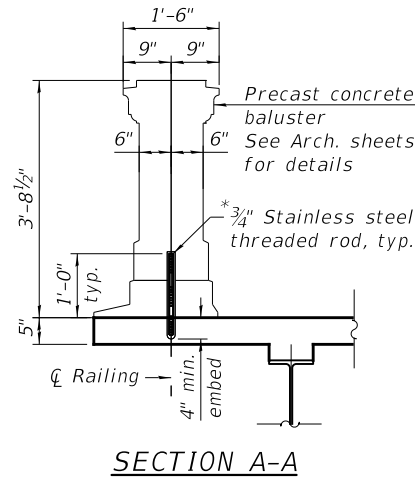
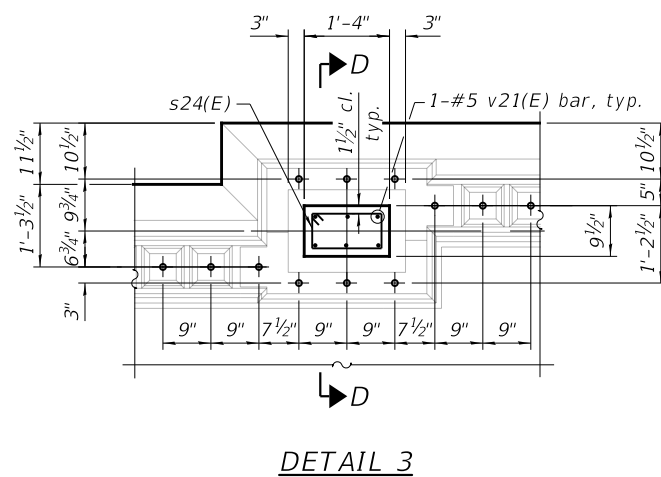
SECTION E-E



SECTION F-F



- NOTES:**
1. Reinforcement bars designated (E) shall be epoxy coated.
 2. See sheet S-21 for deck cross sections.
 3. For bar diagrams and Bill of material, see sheet S-24
 4. See architectural (A-series) sheets for precast railing details.
 5. The Contractor must use approved single straight coil loop inserts when pendant mounting threaded rods to a sidewalk. The single straight loop inserts must be cast into the concrete sidewalk.



* Included with the cost of "High Performance Concrete Superstructure".

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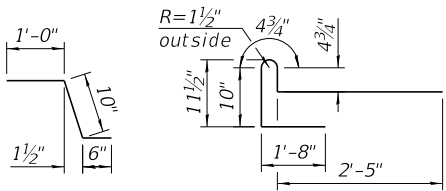
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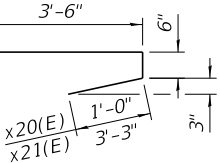
**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**PARAPET ELEVATIONS AND DETAILS
EAST FIXED SPANS
(STRUCTURE NO. 016-6057)**

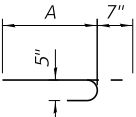
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|-------------|
| 1388 | 11-E1525-00-BR | COOK | S-23 |
| CDOT PROJECT NO. E-1-525 | | | 66 of 210 |



BAR c21(E) BAR c20(E)

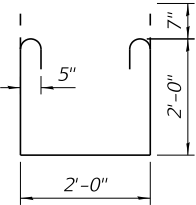


BARS x20(E) or x21(E)

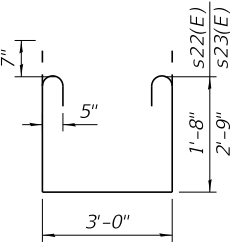


| Bar | A |
|--------|-------|
| m31(E) | 8" |
| m37(E) | 1'-9" |
| m38(E) | 1'-1" |

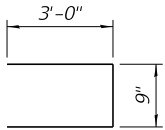
BARS m31(E) or
m37(E) or m38(E)



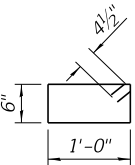
BAR s20(E)



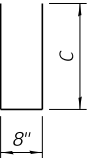
BARS s22(E)
or s23(E)



BAR s21(E)

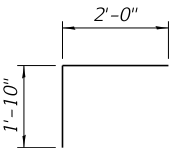


BAR s24(E)

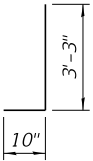


| Bar | C |
|--------|-------|
| u20(E) | 1'-1" |
| u21(E) | 2'-2" |
| u22(E) | 3'-1" |

BARS u20(E),
u21(E) or u22(E)



BAR v20(E)



BAR v21(E)

BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|---|-----|------|---------|--------|
| a20(E) | 32 | #5 | 11'-2" | ▬ |
| a21(E) | 22 | #5 | 15'-2" | ▬ |
| a22(E) | 24 | #5 | 10'-3" | ▬ |
| a23(E) | 104 | #5 | 35'-8" | ▬ |
| a24(E) | 61 | #5 | 44'-8" | ▬ |
| a25(E) | 12 | #5 | 1'-8" | ▬ |
| a26(E) | 20 | #5 | 10'-1" | ▬ |
| a27(E) | 22 | #5 | 15'-2" | ▬ |
| | | | | |
| b20(E) | 12 | #5 | 33'-3" | ▬ |
| b21(E) | 36 | #5 | 30'-8" | ▬ |
| b22(E) | 30 | #5 | 21'-0" | ▬ |
| b23(E) | 148 | #5 | 29'-4" | ▬ |
| b24(E) | 2 | #5 | 32'-5" | ▬ |
| b25(E) | 2 | #5 | 35'-0" | ▬ |
| b26(E) | 1 | #5 | 42'-1" | ▬ |
| | | | | |
| c20(E) | 122 | #4 | 5'-10" | └─ |
| c21(E) | 42 | #5 | 2'-4" | └─ |
| | | | | |
| m20(E) | 28 | #5 | 3'-0" | ▬ |
| m21(E) | 2 | #5 | 5'-0" | ▬ |
| m22(E) | 2 | #6 | 10'-0" | ▬ |
| m23(E) | 4 | #6 | 10'-9" | ▬ |
| m24(E) | 4 | #5 | 2'-8" | ▬ |
| m25(E) | 4 | #5 | 2'-2" | ▬ |
| m26(E) | 6 | #6 | 42'-4" | ▬ |
| m27(E) | 12 | #5 | 3'-11" | ▬ |
| m28(E) | 16 | #5 | 3'-8" | ▬ |
| m29(E) | 8 | #5 | 4'-6" | ▬ |
| m30(E) | 4 | #5 | 5'-0" | ▬ |
| m31(E) | 4 | #5 | 1'-3" | └─ |
| m32(E) | 2 | #6 | 9'-9" | ▬ |
| m33(E) | 4 | #5 | 10'-7" | ▬ |
| m34(E) | 4 | #5 | 1'-8" | ▬ |
| m35(E) | 4 | #5 | 3'-0" | ▬ |
| m36(E) | 4 | #5 | 3'-2" | ▬ |
| m37(E) | 8 | #5 | 2'-4" | └─ |
| m38(E) | 4 | #5 | 1'-8" | └─ |
| | | | | |
| s20(E) | 42 | #5 | 7'-2" | └─ |
| s21(E) | 42 | #5 | 6'-9" | └─ |
| s22(E) | 25 | #5 | 7'-6" | └─ |
| s23(E) | 4 | #5 | 9'-8" | └─ |
| s24(E) | 7 | #4 | 3'-9" | └─ |
| | | | | |
| u20(E) | 42 | #5 | 2'-10" | └─ |
| u21(E) | 25 | #5 | 5'-0" | └─ |
| u22(E) | 4 | #5 | 6'-10" | └─ |
| | | | | |
| v20(E) | 43 | #5 | 3'-10" | └─ |
| v21(E) | 6 | #5 | 4'-1" | └─ |
| | | | | |
| x20(E) | 36 | #5 | 5'-0" | └─ |
| x21(E) | 36 | #5 | 7'-3" | └─ |
| | | | | |
| Bridge Deck Grooving | | | Sq. Yd. | 223 |
| Reinforcement Bars, Epoxy Coated | | | Pound | 18,500 |
| High Performance Concrete Superstructure | | | Cu. Yd. | 95.6 |
| Protective Concrete Sealer | | | Sq. Yd. | 457 |

MINIMUM BAR LAP

#5 bar = 3'-6"



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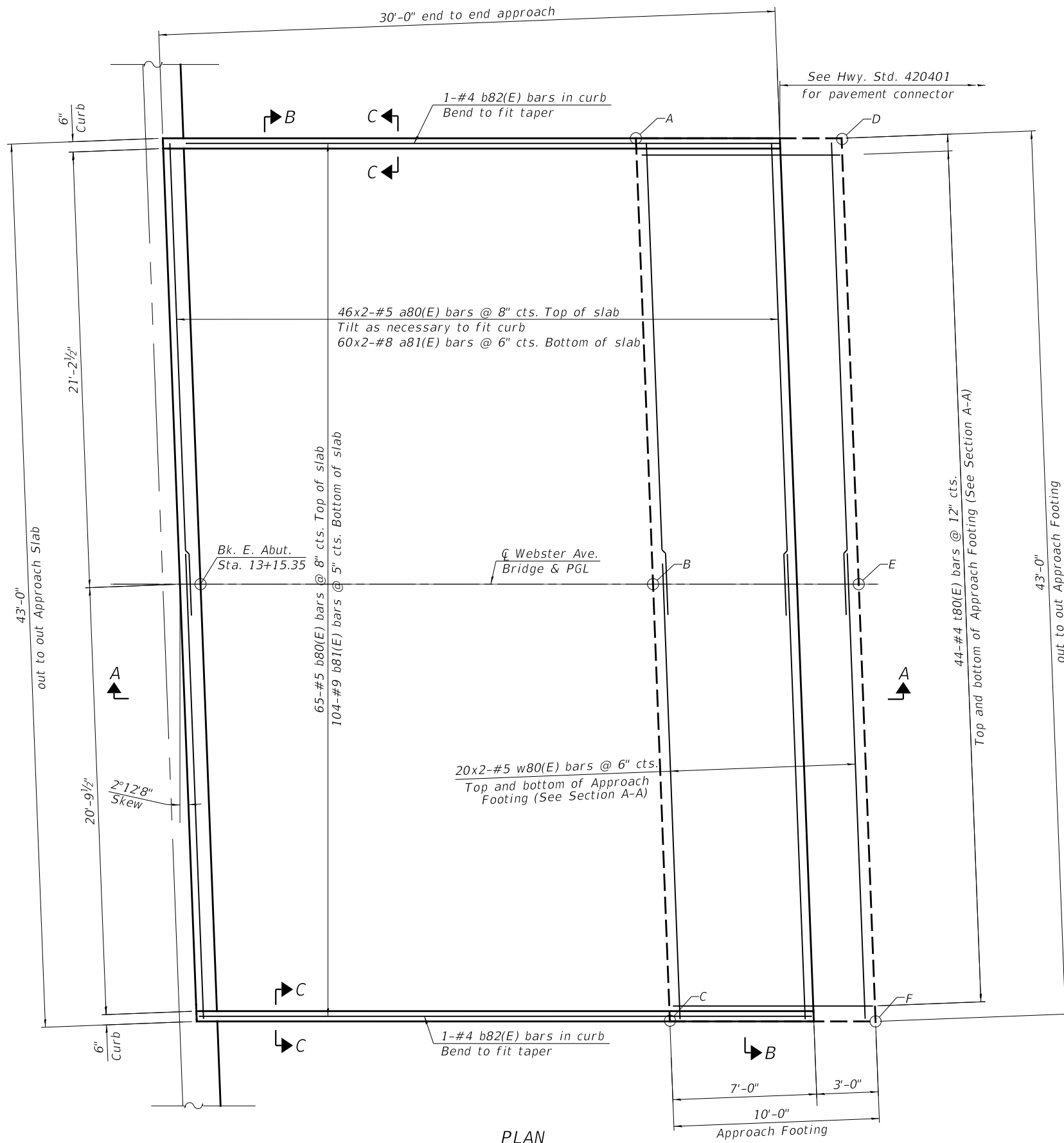
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| | CHECKED - MI | REVISED - |
| PLOT SCALE = N.T.S. | DRAWN - SK | REVISED - |
| PLOT DATE = \$DATE\$ | CHECKED - MI | REVISED - |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER

SUPERSTRUCTURE DETAILS
EAST FIXED SPANS
(STRUCTURE NO. 016-6057)

| F.A.U. R.T.E. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|-----------|
| 1388 | 11-E1525-00-BR | COOK | S-24 |
| CDOT PROJECT NO. E-1-525 | | | 67 of 210 |



PLAN

TOP AND BOTTOM ELEVATIONS
FOR APPROACH FOOTING

| Point | Approach | |
|-------|----------|--------|
| | Top | Bottom |
| A | 18.48 | 17.65 |
| B | 18.78 | 17.95 |
| C | 18.44 | 17.61 |
| D | 18.07 | 17.23 |
| E | 18.48 | 17.64 |
| F | 18.03 | 17.19 |

NOTES:

1. For Sections A-A, B-B, and C-C, see Sheet S-26.
2. a80(E) and a81(E) bar spacings measured along \angle Rdwy.
3. Bars indicated thus 46x2 -#5 indicates 46 lines of bars with 2 length per line.

REFERENCE DRAWINGS

Drawing
East Approach - Retaining Wall Details and Reinforcement Bars
General Plan of Approaches
Paving on Approaches

Sheet No.
1660570051
1660570052
1660570060

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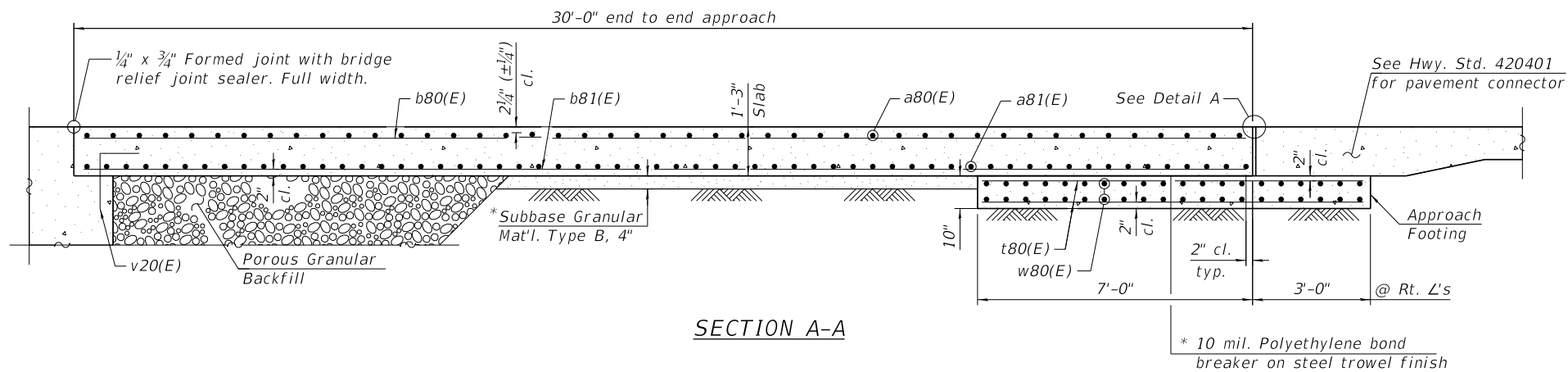
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| USER NAME = | DESIGNED - JMI | REVISED - |
| | CHECKED - MI | REVISED - |
| PLOT SCALE = N.T.S. | DRAWN - JMI | REVISED - |
| PLOT DATE = 10/5/2020 | CHECKED - MI | REVISED - |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**EAST APPROACH SLAB
(STRUCTURE NO. 016-6057)**

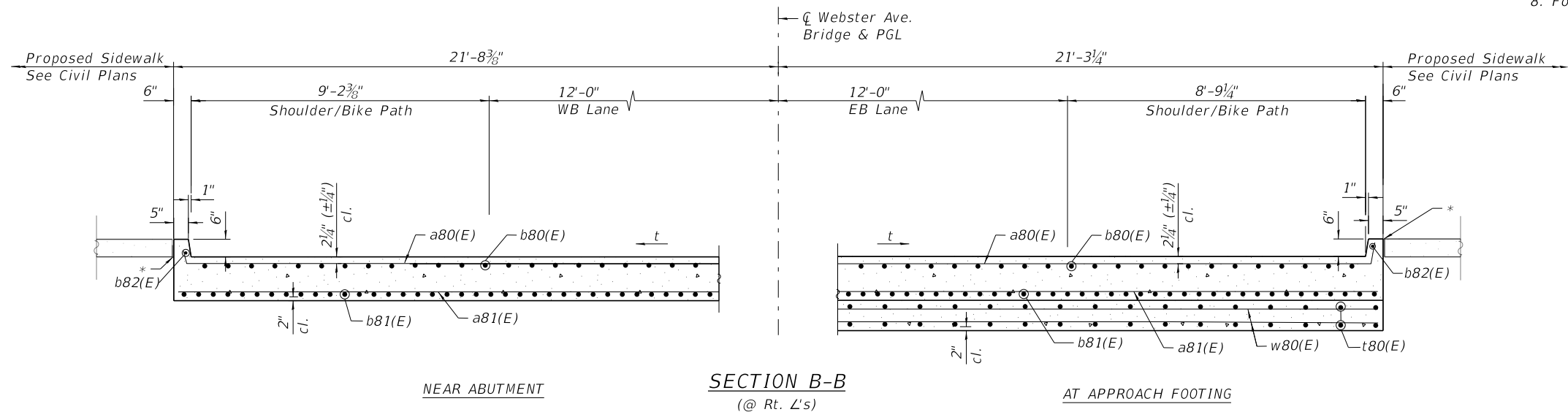
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|-------------|
| 1388 | 11-E1525-00-BR | COOK | S-25 |
| CDOT PROJECT NO. E-1-525 | | | 68 of 210 |



SECTION A-A

NOTES:

1. The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.
2. Approach slab shall be paid for as High Performance Concrete Superstructures.
3. Approach footing concrete shall be paid for as High Performance Concrete Structures.
4. Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
5. For v20(E) bar details, see Sheet S-24.
6. The approach footing maximum applied service bearing pressure (Q_{max}) = 2.0 ksf.
7. Cost of excavation for approach footing included with High Performance Concrete Structures.
8. For Porous Granular Backfill and drainage treatment details, see Sheet S-97.



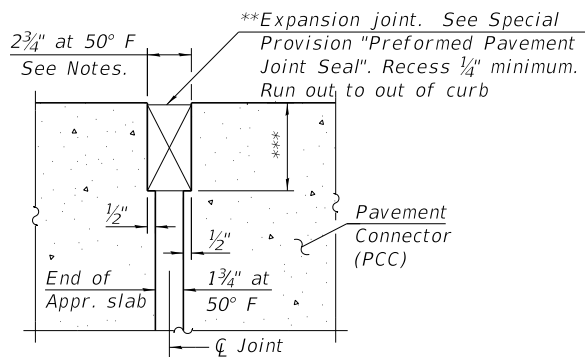
NEAR ABUTMENT

SECTION B-B
(@ Rt. L's)

AT APPROACH FOOTING

BILL OF MATERIAL

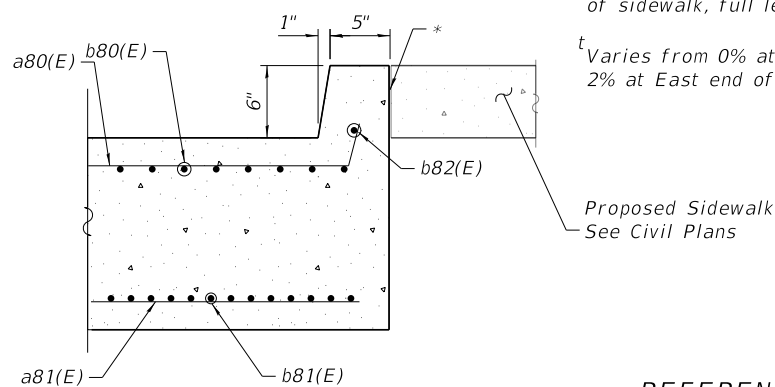
| Bar | No. | Size | Length | Shape |
|---|-----|------|---------|--------|
| a80(E) | 92 | #5 | 23'-9" | — |
| a81(E) | 120 | #8 | 23'-9" | — |
| b80(E) | 65 | #5 | 29'-8" | — |
| b81(E) | 104 | #9 | 29'-8" | — |
| b82(E) | 2 | #4 | 29'-8" | — |
| t80(E) | 88 | #4 | 9'-8" | — |
| w80(E) | 80 | #5 | 23'-1" | — |
| Bridge Deck Grooving | | | Sq. Yd. | 140 |
| Reinforcement Bars, Epoxy Coated | | | Pound | 24,930 |
| High Performance Concrete Structures | | | Cu. Yd. | 13.3 |
| High Performance Concrete Superstructures | | | Cu. Yd. | 60.2 |
| Protective Concrete Sealer | | | Sq. Yd. | 149 |



DETAIL A
(@ Rt. L's)

** Cost included with High Performance Concrete Superstructures

*** Per manufacturer recommendations

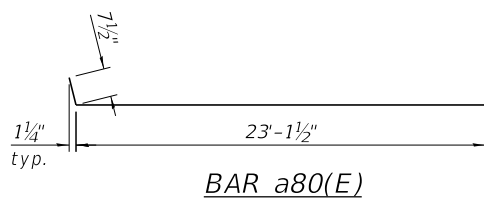


SECTION C-C

REFERENCE DRAWINGS

Drawing
East Approach - Retaining Wall Details and Reinforcement Bars
General Plan of Approaches
Paving on Approaches

Sheet No.
1660570051
1660570052
1660570060



MINIMUM BAR LAP

#4 bar = 2'-5"
#5 bar = 3'-6"
#8 bar = 4'-9"

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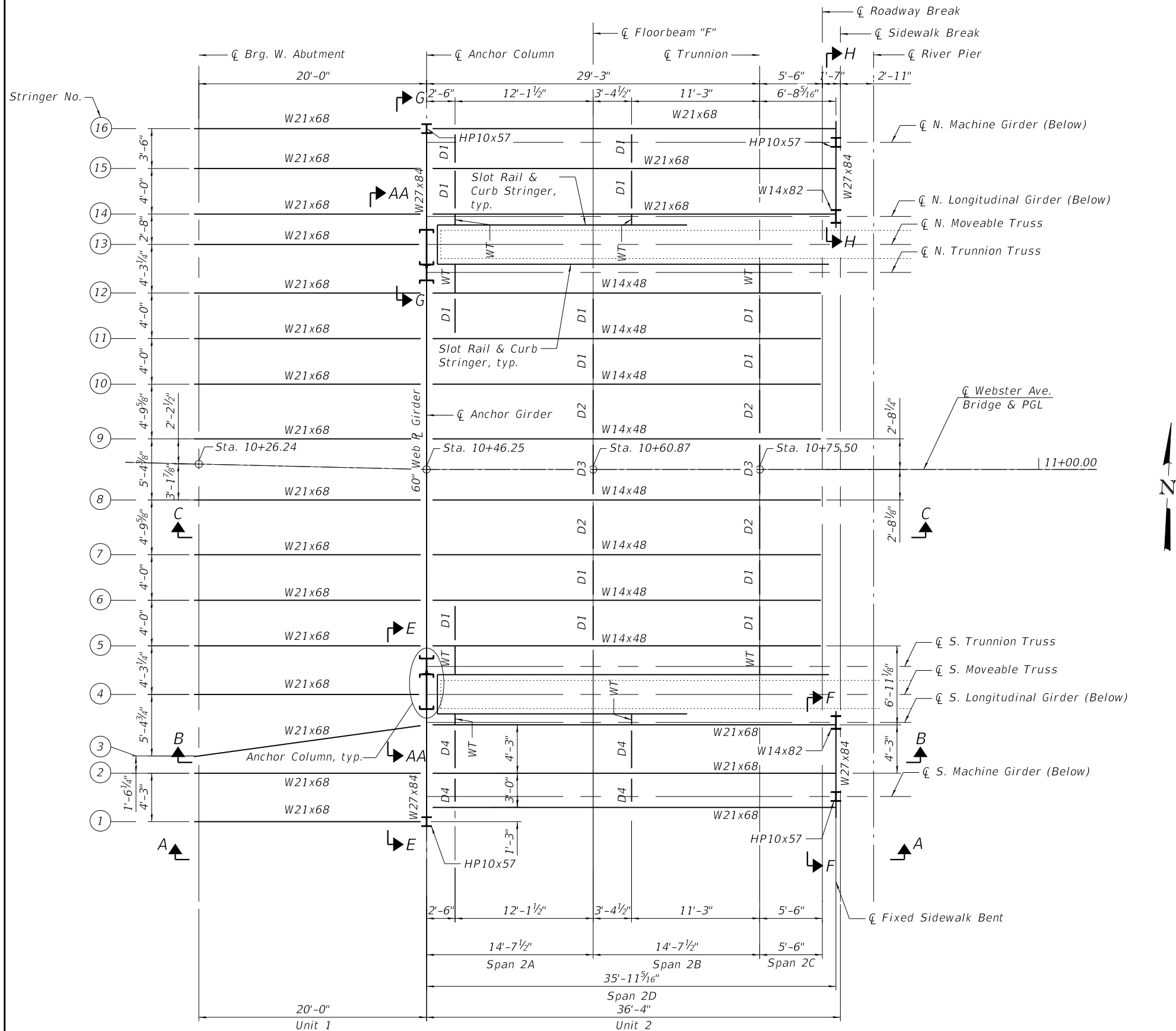
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| USER NAME = | DESIGNED - JMI | REVISED - |
| | CHECKED - MI | REVISED - |
| PLOT SCALE = N.T.S. | DRAWN - JMI | REVISED - |
| PLOT DATE = \$DATE\$ | CHECKED - MI | REVISED - |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
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**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**EAST APPROACH SLAB DETAILS
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|-----------|
| 1388 | 11-E1525-00-BR | COOK | S-26 |
| CDOT PROJECT NO. E-1-525 | | | 69 of 210 |



REFERENCE DRAWINGS

Drawing
Fixed Part - General Plan
Stress Diagrams
Structural Repairs, Redecking and Rehabilitation
Structural Repairs - Fixed Part
General Diagram of Fixed Part

Sheet No.
1660570016
1660570110
1660570131
1660570134
1660570165

NOTES:

1. See Sheet S-03 for general structural notes.
2. For Sections A-A thru C-C see Sheets S-30.
3. For Sections E-E thru H-H see Sheet S-32.
4. For Slot Rail & Curb Stringer detailing, see Sheet S-33.
5. For Section AA-AA see Sheet S-34.
6. For Interior Diaphragm Details see Sheet S-32.

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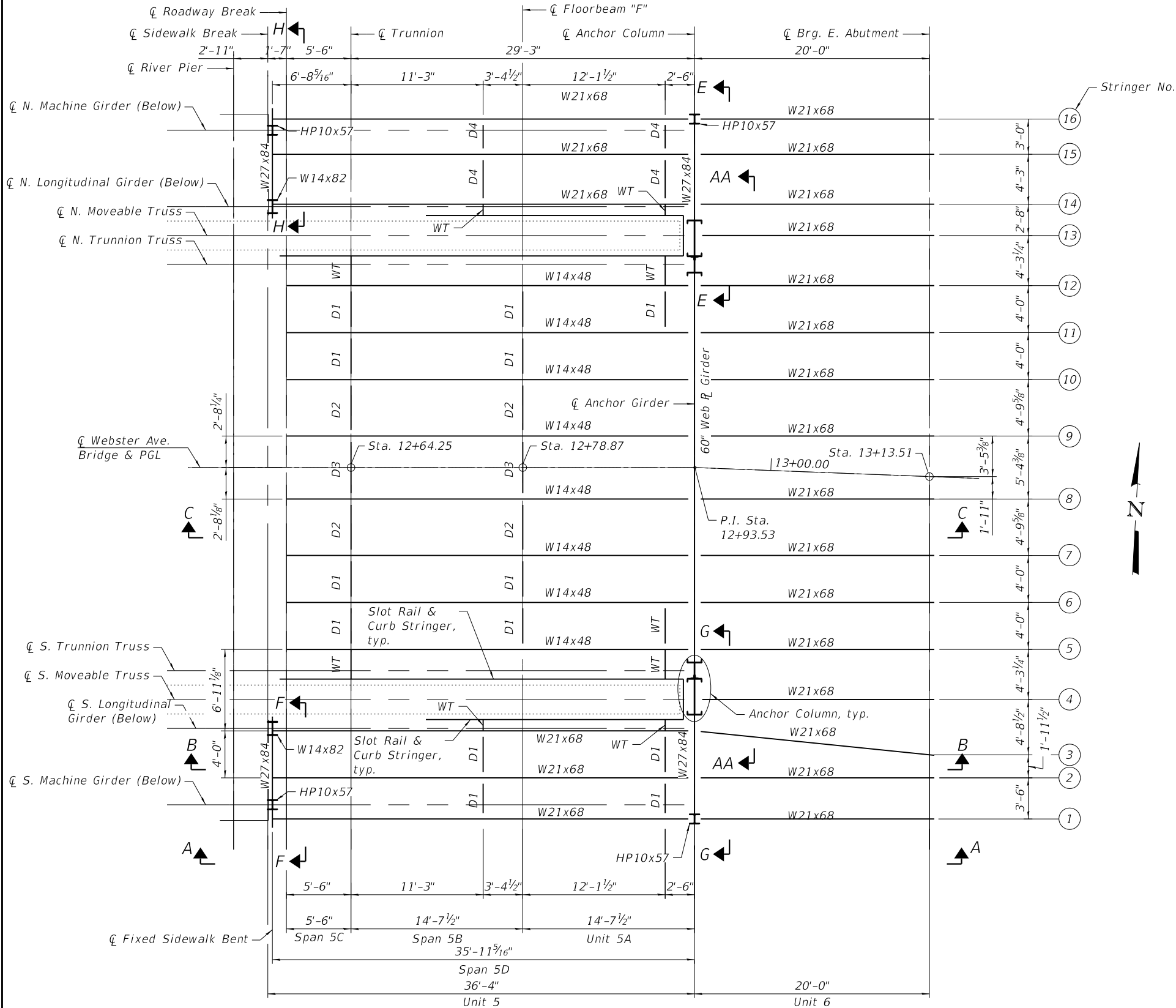
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| USER NAME = | DESIGNED - MA | REVISED - |
| | CHECKED - WM | REVISED - |
| PLOT SCALE = N.T.S. | DRAWN - MA | REVISED - |
| PLOT DATE = 10/5/2020 | CHECKED - WM | REVISED - |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**FRAMING PLAN
WEST FIXED SPANS
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|-------------|
| 1388 | 11-E1525-00-BR | COOK | S-27 |
| CDOT PROJECT NO. E-1-525 | | | 70 of 210 |



FRAMING PLAN

REFERENCE DRAWINGS

Drawing
Fixed Part - General Plan
Stress Diagrams
Structural Repairs, Redecking and Rehabilitation
Structural Repairs - Fixed Part
General Diagram of Fixed Part

Sheet No.
1660570016
1660570110
1660570131
1660570134
1660570165

NOTES:

1. See Sheet S-03 for general structural notes.
2. For Sections A-A thru C-C, see Sheets S-30.
3. For Section E-E thru H-H, see Sheet S-32.
4. For Slot Rail & Curb Stringer detailing, see Sheet S-33.
5. For Section AA-AA, see Sheet S-34.
6. For Interior Diaphragm Details, see Sheet S-32.

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| | | |
|-----------------------|---------------|-----------|
| USER NAME = | DESIGNED - MA | REVISED - |
| | CHECKED - WM | REVISED - |
| PLOT SCALE = N.T.S. | DRAWN - MA | REVISED - |
| PLOT DATE = 10/5/2020 | CHECKED - WM | REVISED - |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
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**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**FRAMING PLAN
EAST FIXED SPANS
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|-------------|
| 1388 | 11-E1525-00-BR | COOK | S-28 |
| CDOT PROJECT NO. E-1-525 | | | 71 of 210 |

| UNIT 1 OR 5 STRINGER MOMENT TABLE | | | |
|--------------------------------------|--------------------|-----------------------------|----------------------|
| | | 0.4 Span 1 or 0.4 Span 5 | |
| | | W21x68 (Roadway) | W21x68 (Sidewalk) |
| <i>I</i> s | (in ⁴) | 1,480 | 1,480 |
| <i>I</i> c(n) | (in ⁴) | 7,689 | 5,551 |
| <i>I</i> c(3n) | (in ⁴) | 5,402 | 3,659 |
| <i>I</i> c(cr) | (in ⁴) | - | - |
| <i>S</i> s | (in ³) | 140 | 140 |
| <i>S</i> c(n) | (in ³) | 305 | 261 |
| <i>S</i> c(3n) | (in ³) | 270 | 224 |
| <i>S</i> c(cr) | (in ³) | - | - |
| <i>DC</i> 1 | (k/') | 0.573 | 0.522 |
| <i>MDC</i> 1 | ('k) | 58 | 44 |
| <i>DC</i> 2 | (k/') | 0.000 | 0.000 |
| <i>MDC</i> 2 | ('k) | 0 | 0 |
| <i>DW</i> | (k/') | 0.220 | 0.000 |
| <i>MDW</i> | ('k) | 11 | 0 |
| <i>LLDF</i> | | - | - |
| <i>M</i> ℓ + <i>I</i> M | ('k) | 146 | 21 * |
| <i>Mu</i> (Strength I) | ('k) | 345 | 92 |
| Øf <i>Mn</i> | ('k) | 1,132 | 729 |
| <i>f</i> s <i>DC</i> 1 | (ksi) | 4.96 | 3.76 |
| <i>f</i> s <i>DC</i> 2 | (ksi) | 0.00 | 0.00 |
| <i>f</i> s <i>DW</i> | (ksi) | 0.49 | 0.00 |
| <i>f</i> s (ℓ+ <i>I</i> M) | (ksi) | 5.75 | 0.98 |
| <i>f</i> s (Service II) | (ksi) | 12.93 | 5.03 |
| 0.95Rh <i>Fy</i> f | (ksi) | 47.50 | 47.50 |
| <i>f</i> s (Total)(Strength I) (ksi) | | 17.00 | 6.41 |
| Øf <i>F</i> n | (ksi) | - | - |
| <i>V</i> f | (k) | 27.46 | - |

| UNIT 2 OR 4 STRINGER MOMENT TABLE | | | | |
|--------------------------------------|--------------------|-------------------------------|---------------------|----------------------|
| | | 0.4 Span 2A or 0.6 Span 2B | Floorbeam "F" | 0.4 Span 2D |
| | | W14x48 (Roadway) | W14x48 (Roadway) | W21x68 (Sidewalk) |
| <i>I</i> s | (in ⁴) | 484 | 484 | 1,480 |
| <i>I</i> c(n) | (in ⁴) | 3,591 | - | 7,689 |
| <i>I</i> c(3n) | (in ⁴) | 2,575 | - | 5,402 |
| <i>I</i> c(cr) | (in ⁴) | - | 1,322 | - |
| <i>S</i> s | (in ³) | 70 | 70 | 140 |
| <i>S</i> c(n) | (in ³) | 184 | - | 305 |
| <i>S</i> c(3n) | (in ³) | 163 | - | 270 |
| <i>S</i> c(cr) | (in ³) | - | 403 | - |
| <i>DC</i> 1 | (k/') | 0.616 | 0.616 | 0.390 |
| <i>MDC</i> 1 | ('k) | 8 | 15 | 59 |
| <i>DC</i> 2 | (k/') | 0.000 | 0.000 | 0.000 |
| <i>MDC</i> 2 | ('k) | 0 | 0 | 0 |
| <i>DW</i> | (k/') | 0.254 | 0.254 | 0.000 |
| <i>MDW</i> | ('k) | 3 | 6 | 0 |
| <i>LLDF</i> | | - | - | - |
| <i>M</i> ℓ + <i>I</i> M | ('k) | 82 | 79 | 57 * |
| <i>Mu</i> (Strength I) | ('k) | 158 | 166 | 174 |
| Øf <i>Mn</i> | ('k) | 702 | 464 | 583 |
| <i>f</i> s <i>DC</i> 1 | (ksi) | 1.37 | 2.56 | 5.05 |
| <i>f</i> s <i>DC</i> 2 | (ksi) | 0.00 | 0.00 | 0.00 |
| <i>f</i> s <i>DW</i> | (ksi) | 0.22 | 0.18 | 0.00 |
| <i>f</i> s (ℓ+ <i>I</i> M) | (ksi) | 5.35 | 2.35 | 2.25 |
| <i>f</i> s (Service II) | (ksi) | 8.55 | 5.80 | 7.97 |
| 0.95Rh <i>Fy</i> f | (ksi) | 47.50 | 47.50 | 47.50 |
| <i>f</i> s (Total)(Strength I) (ksi) | | 11.41 | 7.59 | 10.25 |
| Øf <i>F</i> n | (ksi) | - | - | - |
| <i>V</i> f | (k) | 27.58 | 27.27 | - |

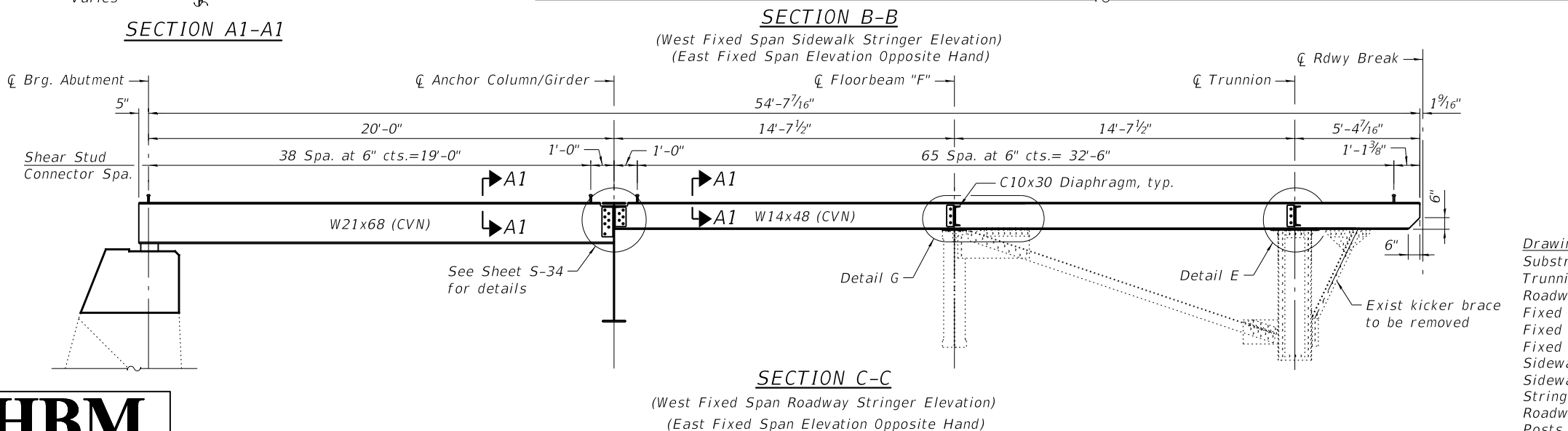
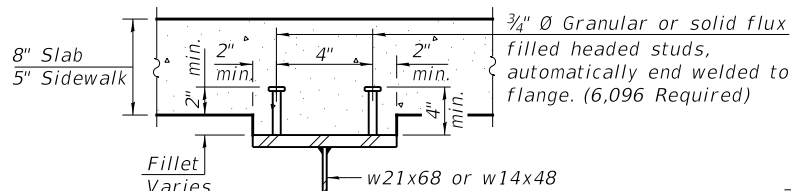
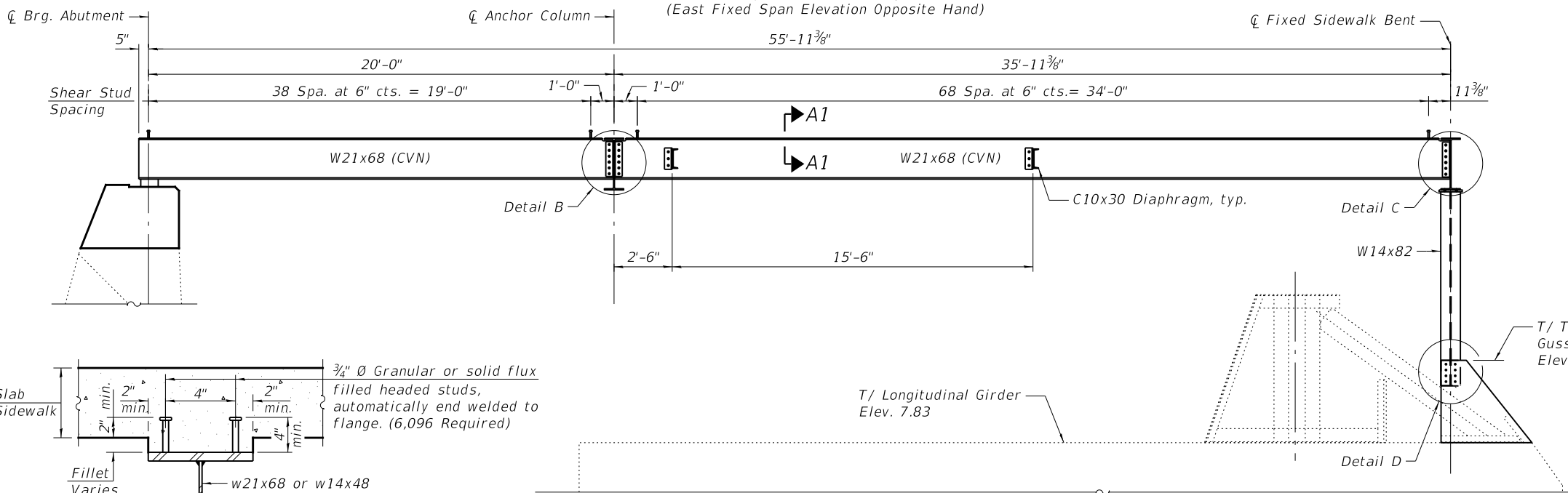
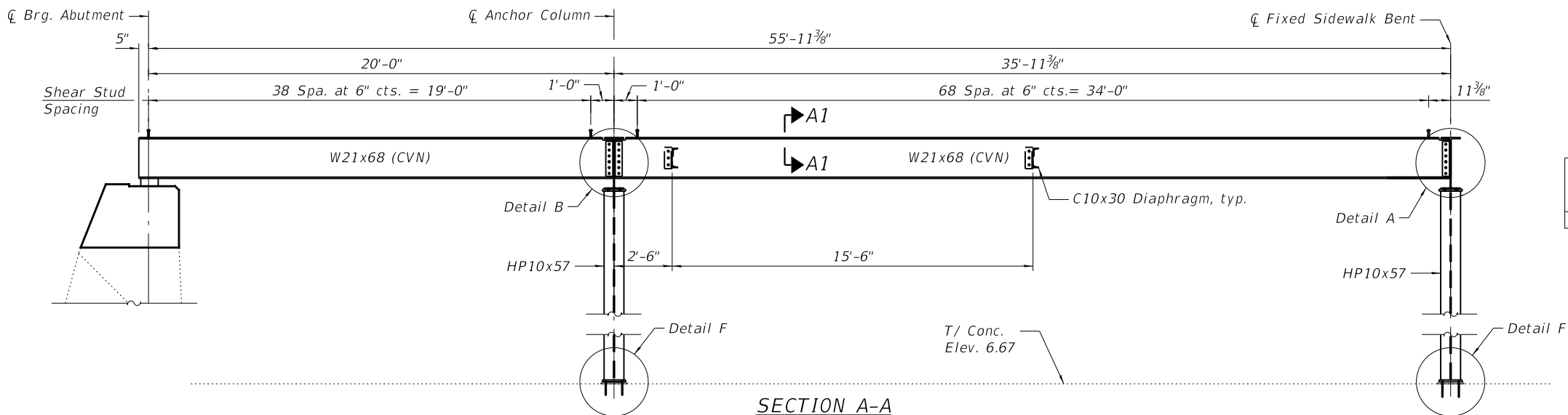
| UNIT 1 OR 5 STRINGER REACTION TABLE | | | |
|-------------------------------------|-----|---------------------|----------------------|
| | | East or West Abut. | |
| | | W21x68 (Roadway) | W21x68 (Sidewalk) |
| <i>LLDF</i> | | - | - |
| <i>OCF</i> | | - | - |
| <i>RDC</i> 1 | (k) | 12.1 | 8.12 |
| <i>RDC</i> 2 | (k) | 0 | 0 |
| <i>RDW</i> | (k) | 3.3 | 0 |
| <i>R</i> ℓ | (k) | 54.65 | 4.25 * |
| <i>R</i> <i>I</i> M | (k) | 18.04 | 0 |
| <i>RTotal</i> | (k) | 88.09 | 12.37 |

| UNIT 2 OR 4 STRINGER REACTION TABLE | | | | |
|-------------------------------------|-----|---------------------|----------------------|---------------------|
| | | Anchor Col. FB | | Floorbeam "F" |
| | | W14x48 (Roadway) | W21x68 (Sidewalk) | W14x48 (Roadway) |
| LLDF | | - | - | - |
| OCF | | - | - | - |
| RDC1 | (k) | 4.45 | 10.72 | 12.47 |
| RDC2 | (k) | 0 | 0 | 0 |
| RDW | (k) | 1.81 | 0 | 6.03 |
| Rℓ | (k) | 51.15 | 6.525* | 59.8 |
| RIM | (k) | 16.88 | 0 | 19.74 |
| RTotal | (k) | 74.29 | 17.245 | 98.04 |

- I*s, *S*s: Non-composite moment of inertia and section modulus of the steel section used for computing *f*s(Total-Strength I, and Service II) due to non-composite dead loads (in.⁴ and in.³).
- I*c(n), *S*c(n): Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing *f*s(Total-Strength I, and Service II) in uncracked sections due to short-term composite live loads (in.⁴ and in.³).
- I*c(3n), *S*c(3n): Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing *f*s(Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads (in.⁴ and in.³).
- I*c(cr), *S*c(cr): Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing *f*s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads (in.⁴ and in.³).
- DC*1: Un-factored non-composite dead load (kips/ft.).
- MDC*1: Un-factored moment due to non-composite dead load (kip-ft.).
- DC*2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
- MDC*2: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
- DW*: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
- MDW*: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).
- M*ℓ + *I*M: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).
- Mu* (Strength I): Factored design moment (kip-ft.).
- 1.25 (*MDC*1 + *MDC*2) + 1.5 *MDW* + 1.75 *M*ℓ + *I*M
- Øf *Mn*: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft).
- f*s *DC*1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
- MDC*1/ *S*nc
- f*s *DC*2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
- MDC*2/ *S*c(3n) or *MDC*2/ *S*c(cr) as applicable.
- f*s *DW*: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
- MDW*/ *S*c(3n) or *MDW*/ *S*c(cr) as applicable.
- f*s (ℓ+*I*M): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).
- M*ℓ + *I*M / *S*c(n) or *M*ℓ + *I*M / *S*c(cr) as applicable.
- f*s (Service II): Sum of stresses as computed below (ksi).
- f*s*DC*1 + *f*s*DC*2 + *f*s*DW* + 1.3 *f*s(ℓ + *I*M)
- 0.95Rh*Fy*f: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).
- f*s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
- 1.25 (*f*s*DC*1 + *f*s*DC*2) + 1.5 *f*s*DW* + 1.75 *f*s(ℓ + *I*M)
- Øf *F*n: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).
- V*f: Maximum factored shear range in span computed according to Article 6.10.10.

Note:
*M*ℓ and *R*ℓ include the effects of centrifugal force and superelevation.

* The live load moment and reaction values for sidewalk stringers are based on uniform pedestrian live load of 100psf without impact.



NOTE:

1. For Details A thru G, see Sheet S-31.
2. "CVN" denotes Charpy-V-Notch Impact Energy Requirements, Zone 2.

TOP OF ROADWAY BEAM ELEVATIONS

W. FIXED SPANS

(For fabrication only)

| | Cl. Brg. W. Abut. | W. Anchor Col. | Floorbeam F | W. Trunnion | W. Rear Break |
|------------|-------------------|----------------|-------------|-------------|---------------|
| Beams 5-12 | 20.87 | 20.55 | 20.86 | 21.02 | 21.02 |

TOP OF ROADWAY BEAM ELEVATIONS

E. FIXED SPANS

(For fabrication only)

| | E. Rear Break | E. Trunnion | Floorbeam F | E. Anchor Col. | Cl. Brg. E. Abut. |
|------------|---------------|-------------|-------------|----------------|-------------------|
| Beams 5-12 | 21.02 | 21.02 | 20.86 | 20.55 | 19.77 |

TOP OF SIDEWALK BEAM ELEVATIONS

W. FIXED SPANS

(For fabrication only)

| | Cl. Brg. W. Abut. | W. Anchor Col. | W. Sidewalk FB |
|---------|-------------------|----------------|----------------|
| Beam 1 | 21.45 | 21.86 | 22.00 |
| Beam 2 | 21.45 | 21.86 | 22.00 |
| Beam 3 | 21.45 | 21.86 | 22.00 |
| Beam 4 | 20.87 | 21.01 | - |
| Beam 13 | 20.87 | 21.01 | - |
| Beam 14 | 21.79 | 21.86 | 22.00 |
| Beam 15 | 21.79 | 21.86 | 22.00 |
| Beam 16 | 21.79 | 21.86 | 22.00 |

TOP OF SIDEWALK BEAM

ELEVATIONS

E. FIXED SPANS

(For fabrication only)

| | E. Sidewalk FB | E. Anchor Col. | Cl. Brg. E. Abut. |
|---------|----------------|----------------|-------------------|
| Beam 1 | 22.00 | 21.43 | 20.70 |
| Beam 2 | 22.00 | 21.43 | 20.70 |
| Beam 3 | 22.00 | 21.43 | 20.70 |
| Beam 4 | - | 20.56 | 19.77 |
| Beam 13 | - | 20.56 | 19.77 |
| Beam 14 | 22.00 | 21.43 | 20.70 |
| Beam 15 | 22.00 | 21.43 | 20.70 |
| Beam 16 | 22.00 | 21.43 | 20.70 |

REFERENCE DRAWINGS

| Drawing | Sheet No. |
|--|------------|
| Substructure Main Piers | 1660570045 |
| Trunnion Pedestal & Strut | 1660570192 |
| Roadway Supports | 1660570195 |
| Fixed Part - Sidewalk Stringers and Supports | 1660570023 |
| Fixed Part - Sidewalk Stringers and Supports | 1660570024 |
| Fixed Part - House Framings, Sidewalk Beams and Supports | 1660570025 |
| Sidewalk Stringers - Fixed Part | 1660570168 |
| Sidewalk Stringers - Fixed Part | 1660570169 |
| Stringers - Fixed Part | 1660570170 |
| Roadway Stringers and Posts - Fixed Part | 1660570172 |
| Posts and Intermediate Framing - Fixed Part | 1660570181 |
| Posts, Bracing and Brake Supports - Fixed Part | 1660570182 |



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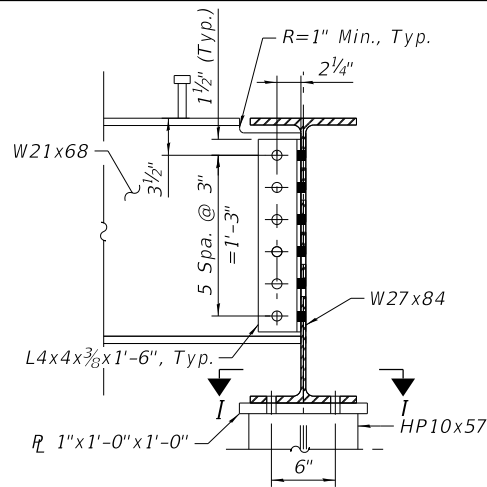
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| | CHECKED - WM | REVISED - |
| PLOT SCALE = N.T.S. | DRAWN - MAA | REVISED - |
| PLOT DATE = 10/5/2020 | CHECKED - WM | REVISED - |

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DIVISION OF ENGINEERING

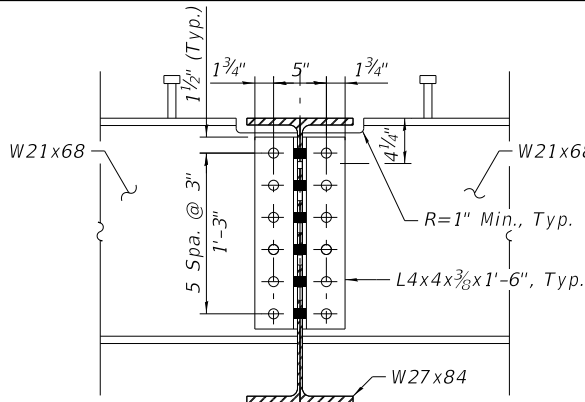
**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**FIXED SPANS
STEEL DETAILS I
(STRUCTURE NO. 016-6057)**

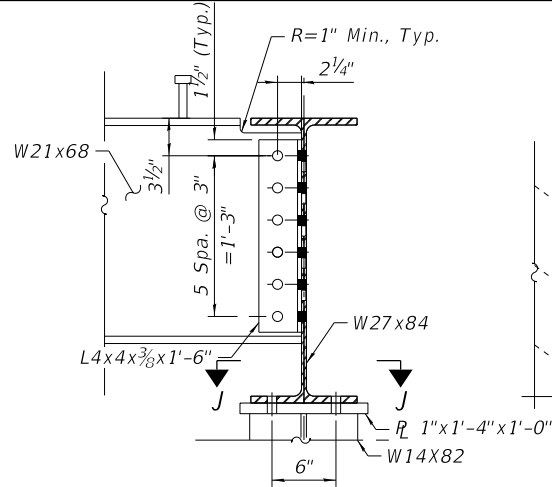
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| 1388 | 11-E1525-00-BR | COOK | S-30 |
| CDOT PROJECT NO. E-1-525 | | | 73 of 210 |



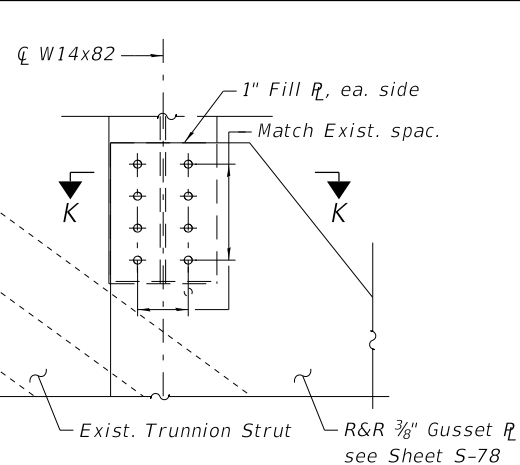
DETAIL A



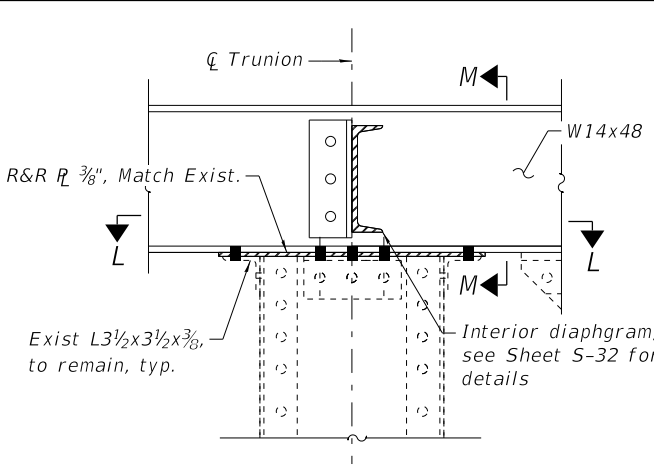
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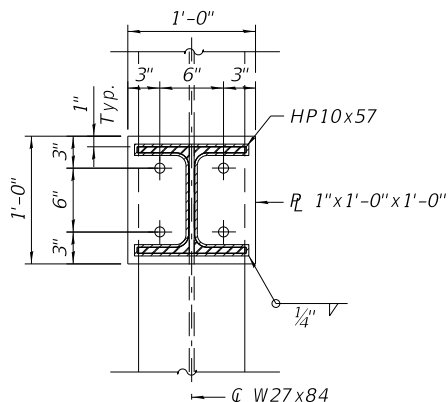
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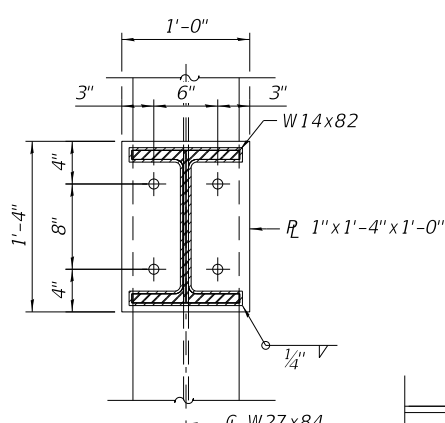
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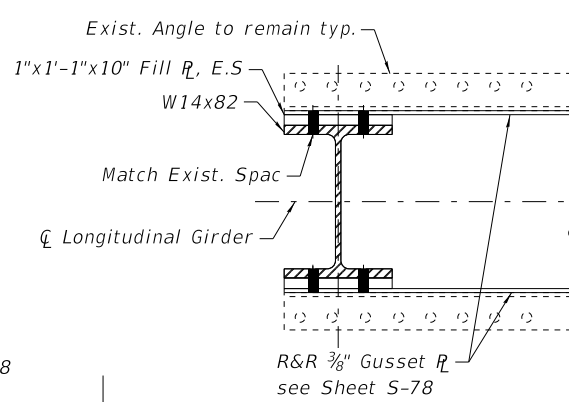
DETAIL E



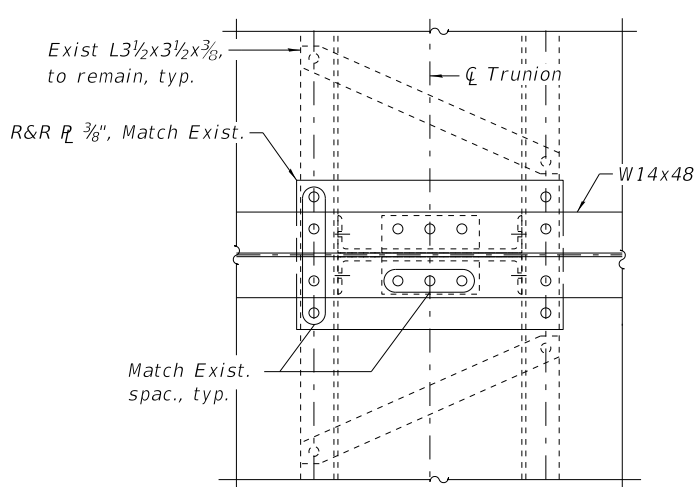
SECTION I-I



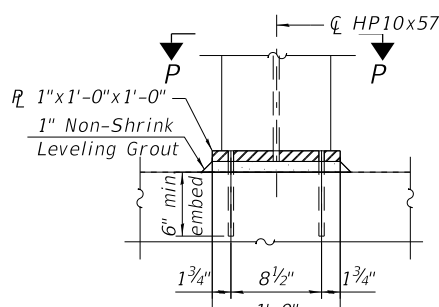
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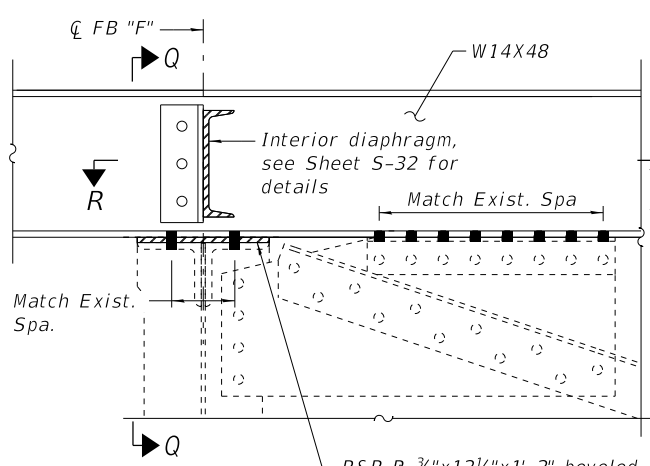
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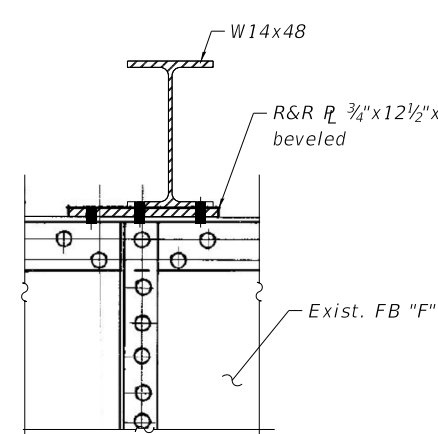
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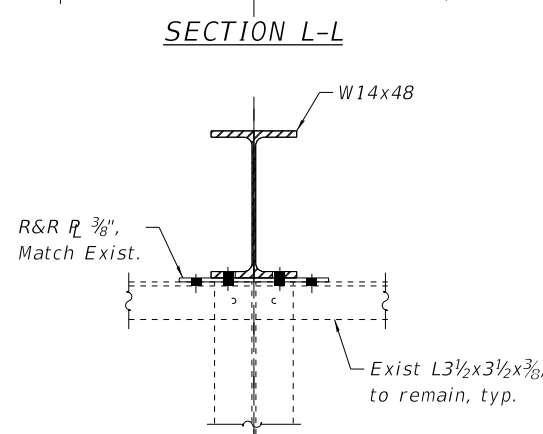
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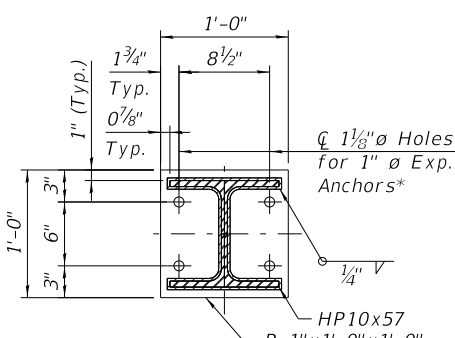
DETAIL G



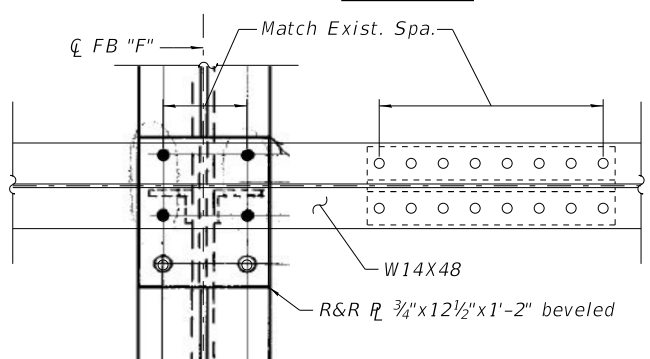
SECTION Q-Q



SECTION M-M



SECTION P-P



SECTION R-R

REFERENCE DRAWINGS

- Drawing
Trunnion Pedestal & Strut
Roadway Supports
Fixed Part - Sidewalk Stringers and Supports
Fixed Part - Sidewalk Stringers and Supports
Fixed Part - House Framings, Sidewalk Beams and Supports
Sidewalk Stringers - Fixed Part
Sidewalk Stringers - Fixed Part
Stringers - Fixed Part
Roadway Stringers and Posts - Fixed Part
Posts and Intermediate Framing - Fixed Part
Posts, Bracing and Brake Supports - Fixed Part

- Sheet No.
1660570192
1660570195
1660570023
1660570024
1660570025
1660570168
1660570169
1660570170
1660570172
1660570181
1660570182

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*Cost of new anchor rods shall be included in the pay item "Furnishing and Erecting Structural Steel".

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PLOT DATE = \$DATE\$

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DRAWN - MAA
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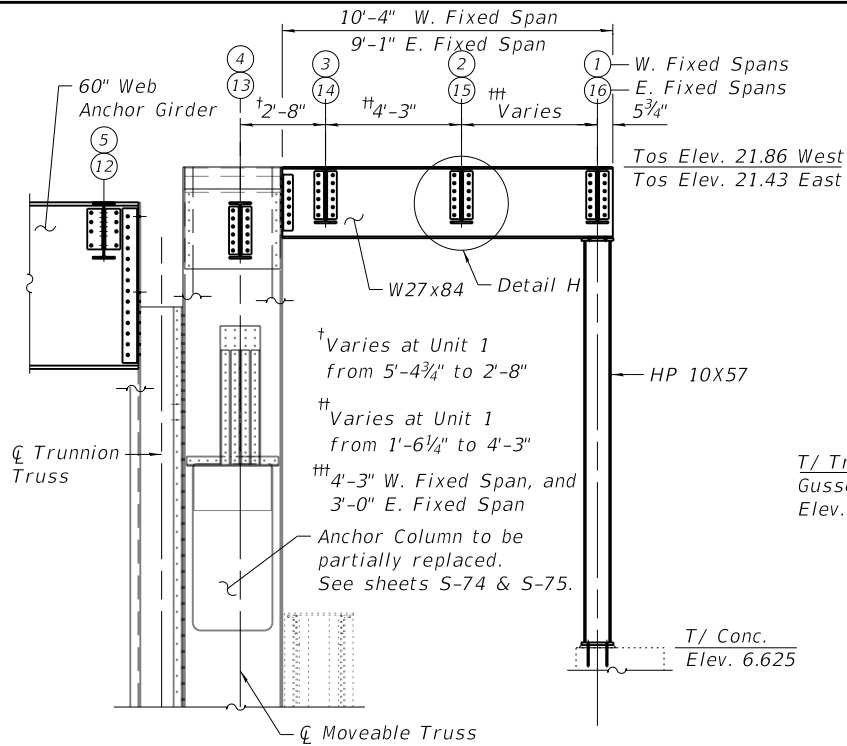
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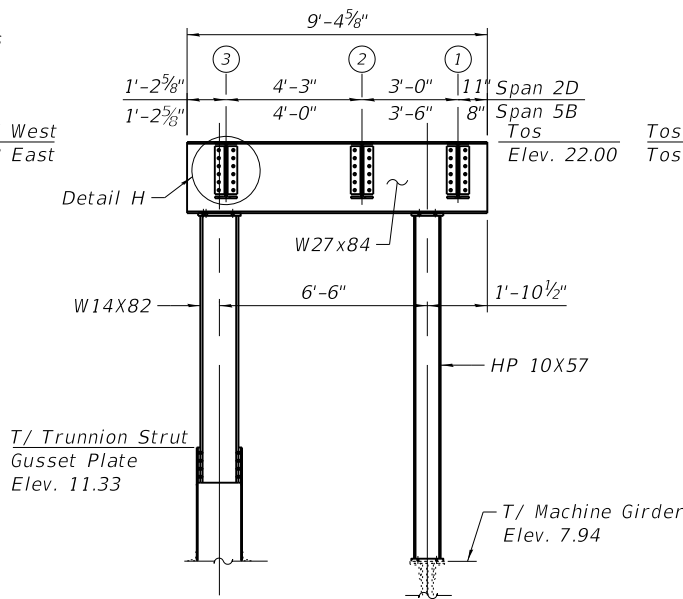
**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**FIXED SPANS
STEEL DETAILS II
(STRUCTURE NO. 016-6057)**

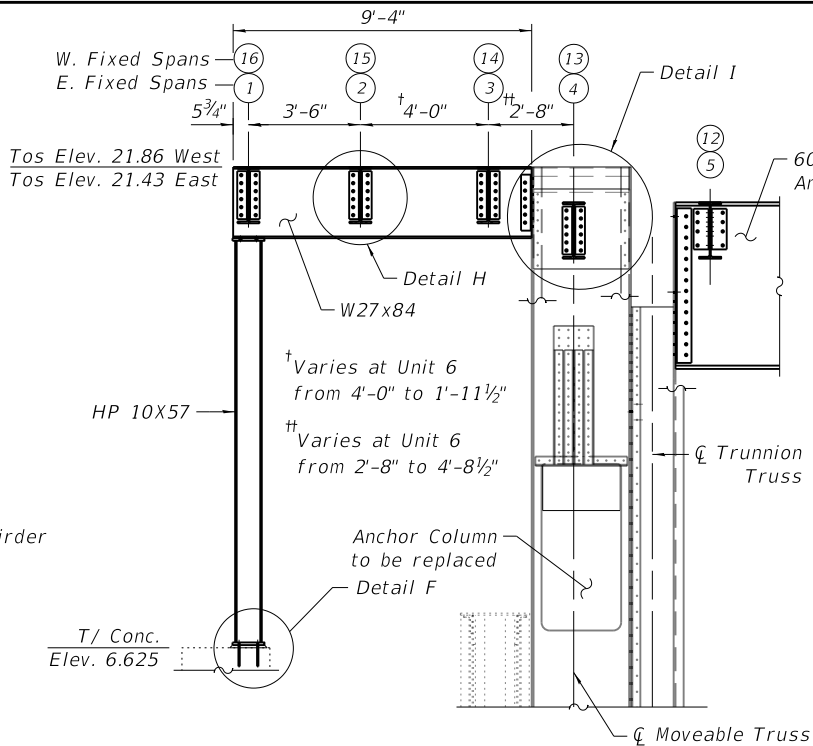
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| CDOT PROJECT NO. E-1-525 | | | 74 of 210 |



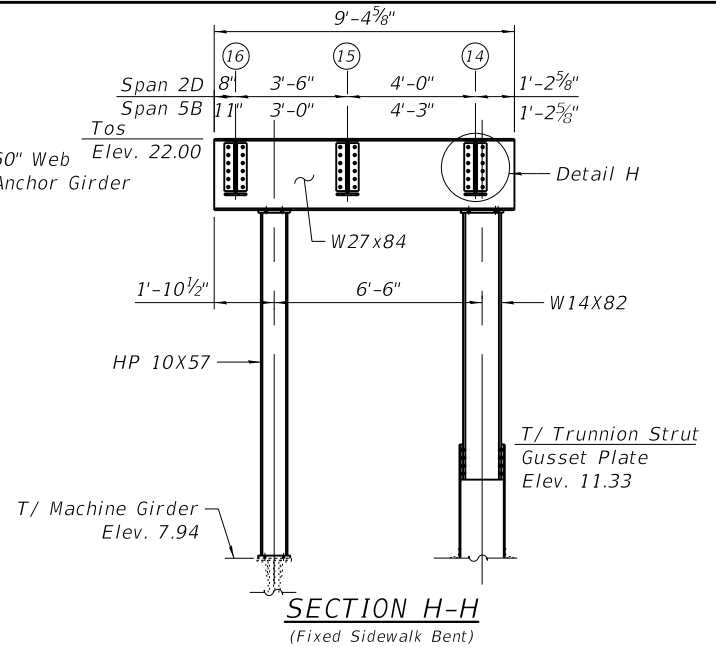
SECTION E-E



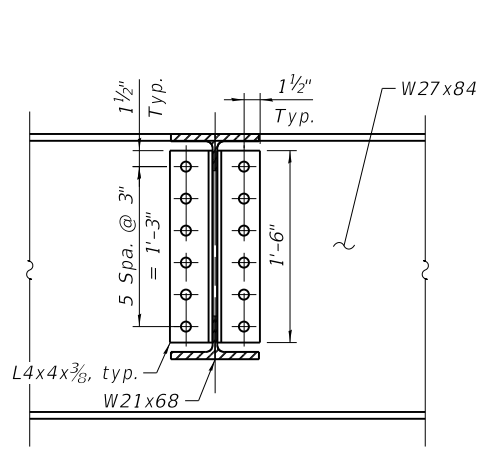
SECTION F-F
(Fixed Sidewalk Bent)



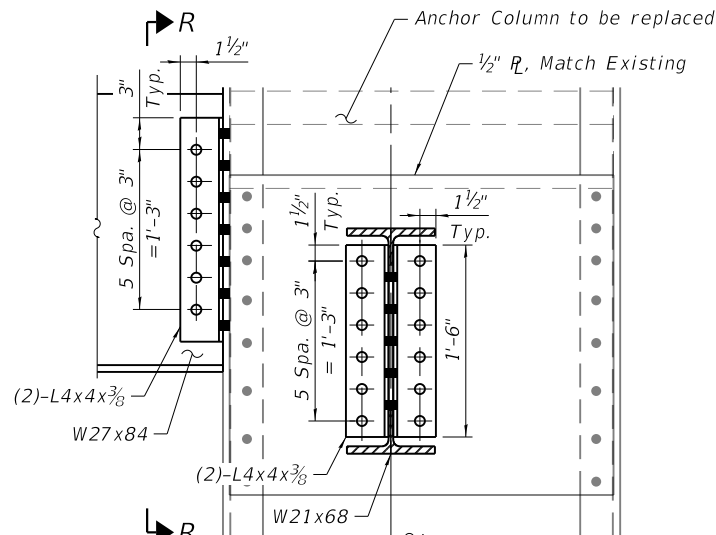
SECTION G-G



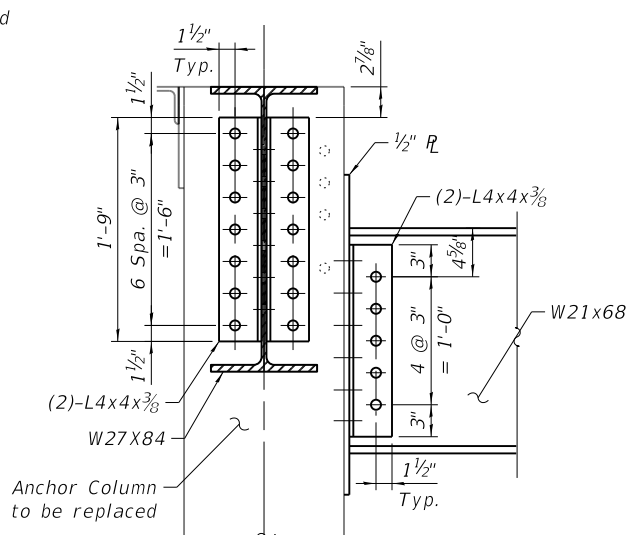
SECTION H-H
(Fixed Sidewalk Bent)



DETAIL H



DETAIL I

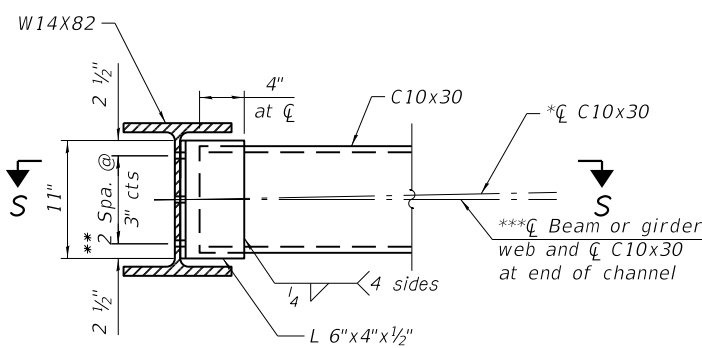


SECTION R-R

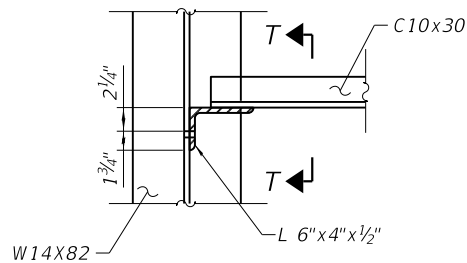
REFERENCE DRAWINGS

Drawing
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Fixed Part - Sidewalk Stringers and Supports
Fixed Part - House Framings, Sidewalk Beams and Supports
Sidewalk Stringers - Fixed Part
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Stringers - Fixed Part
Roadway Stringers and Posts - Fixed Part
Posts and Intermediate Framing - Fixed Part
Posts, Bracing and Brake Supports - Fixed Part

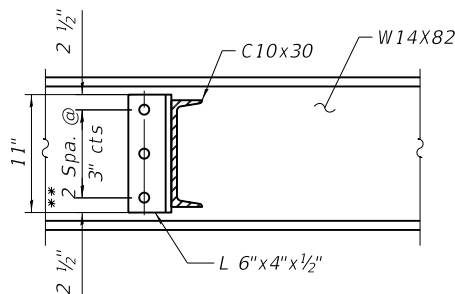
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1660570172
1660570181
1660570182



INTERIOR DIAPHRAGM-D1, D2, D3
(48 Required)



SECTION S-S



SECTION T-T

** 3/4" O HS bolts, 1 5/16" O holes.

*** Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section. The alternate, if utilized, shall be provided at no additional cost to the Department.

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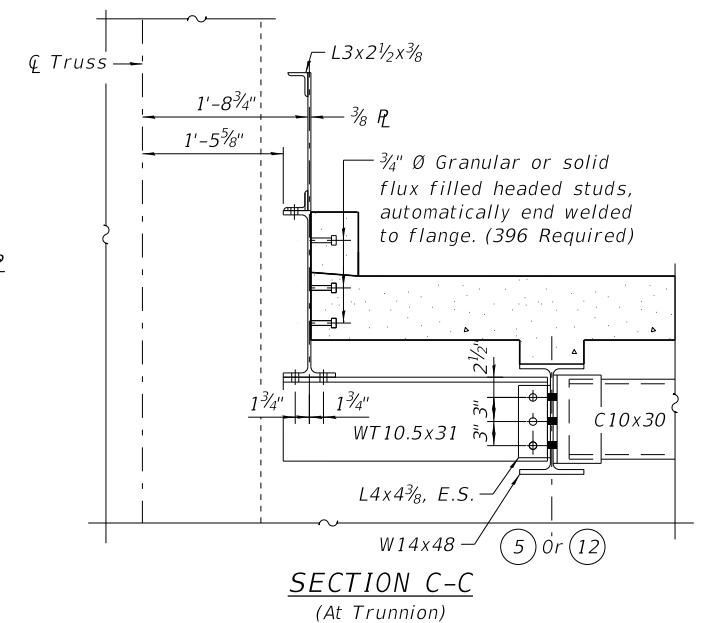
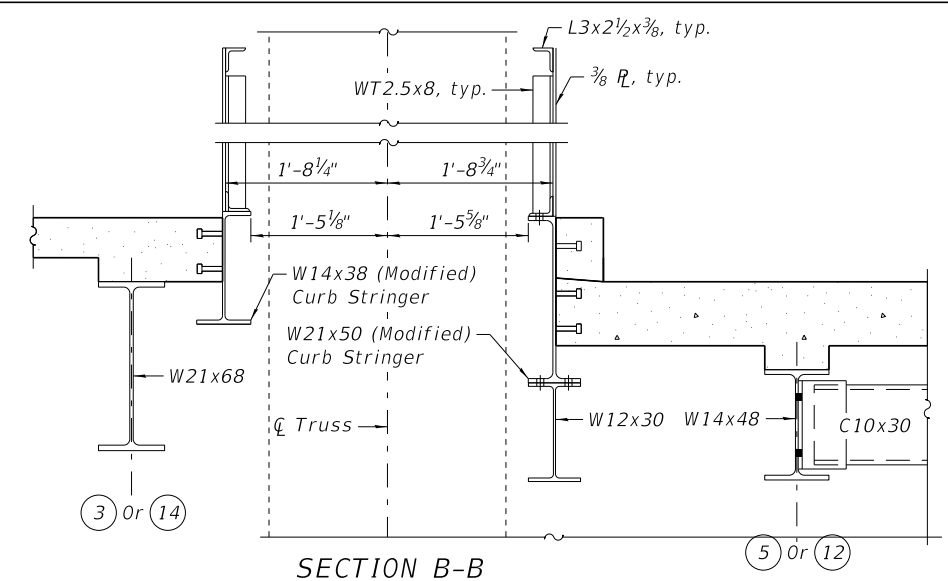
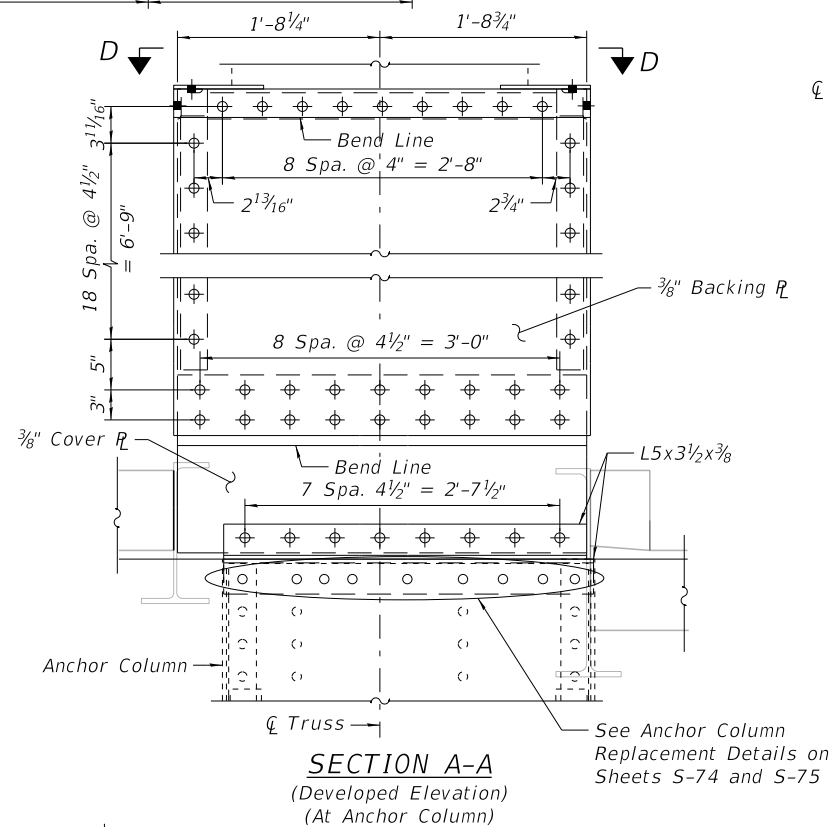
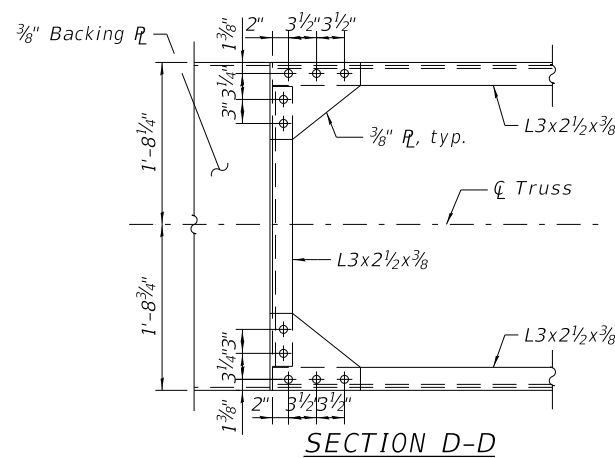
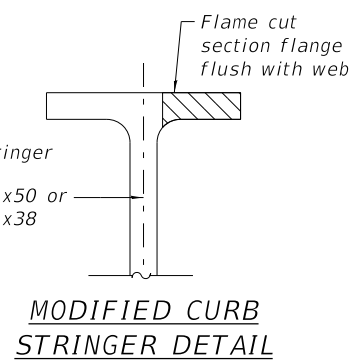
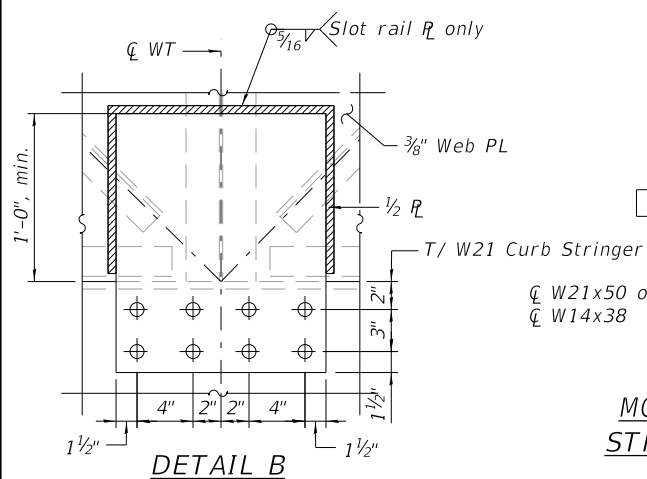
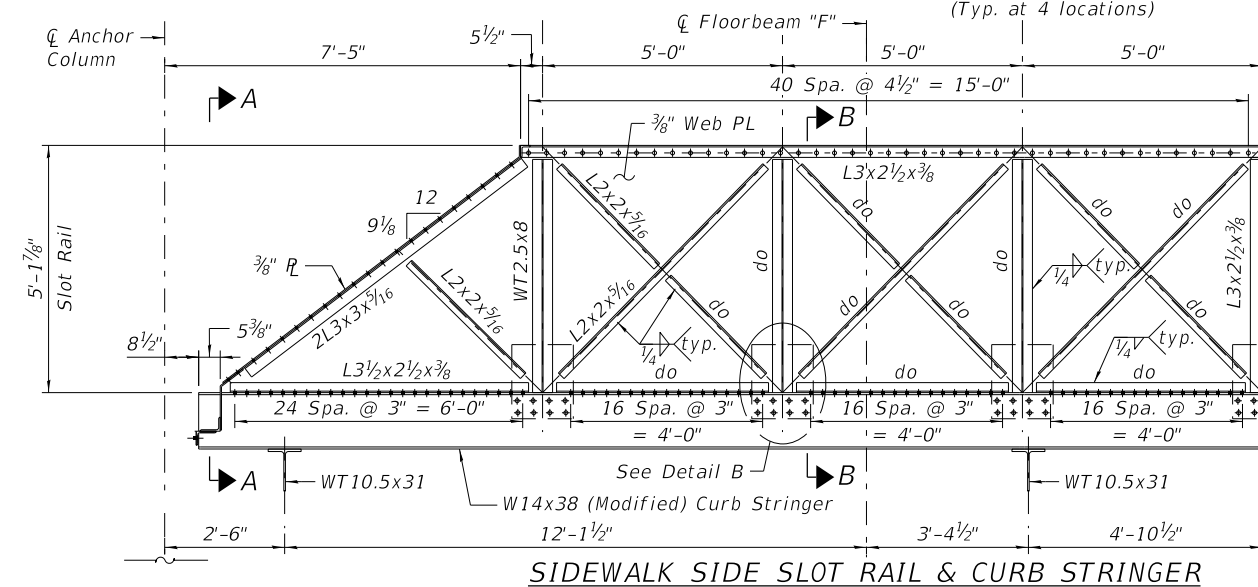
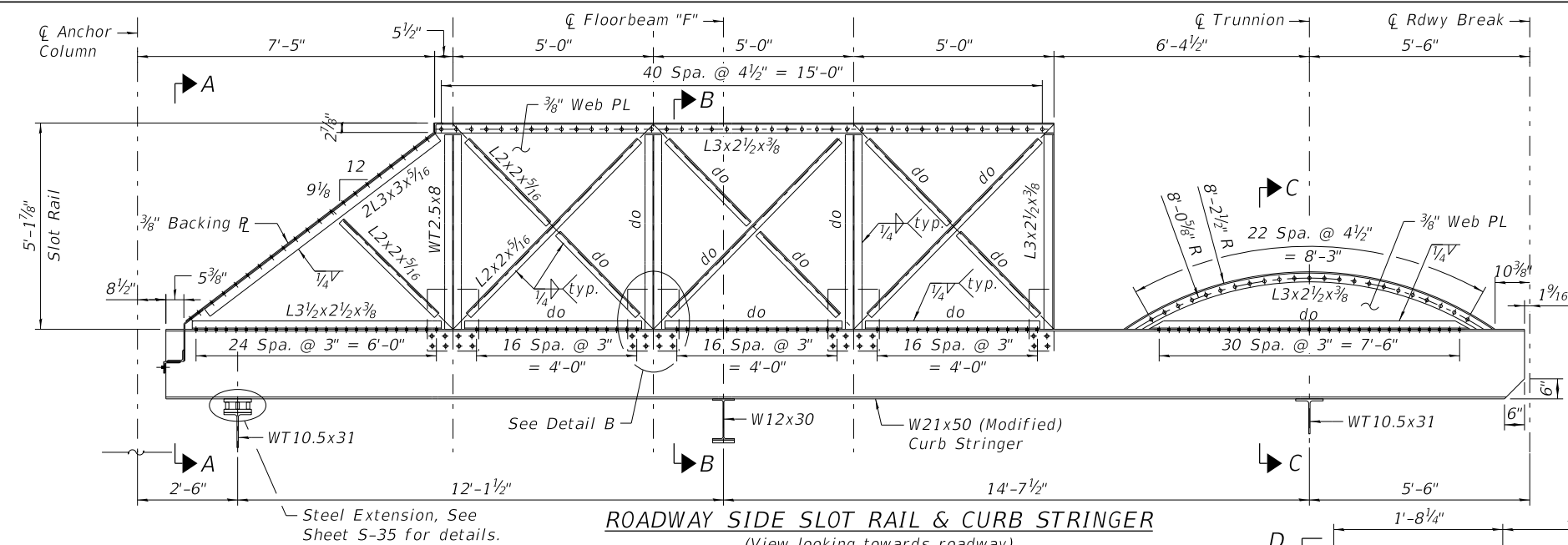
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| PLOT DATE = 10/5/2020 | CHECKED - WM | REVISD - |

CITY OF CHICAGO
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**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**FIXED SPANS
STEEL DETAILS III
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|-----------|
| 1388 | 11-E1525-00-BR | COOK | S-32 |
| CDOT PROJECT NO. E-1-525 | | | 75 of 210 |



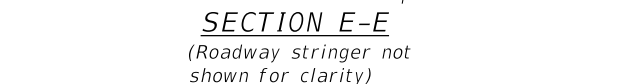
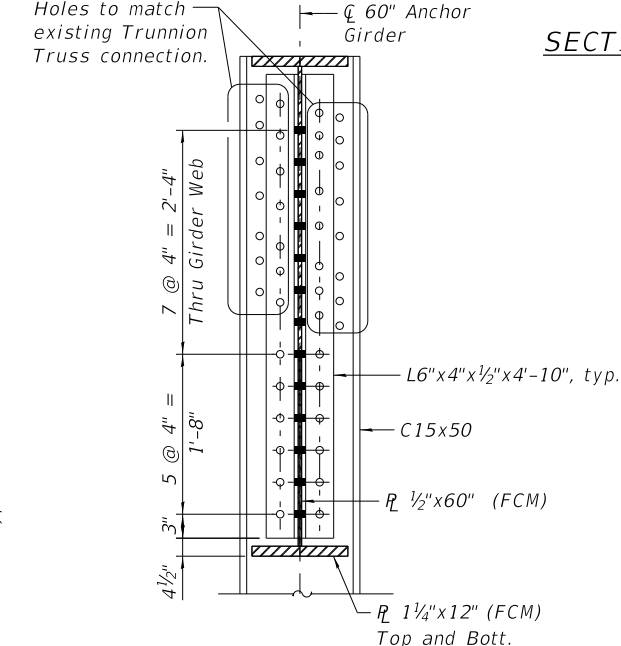
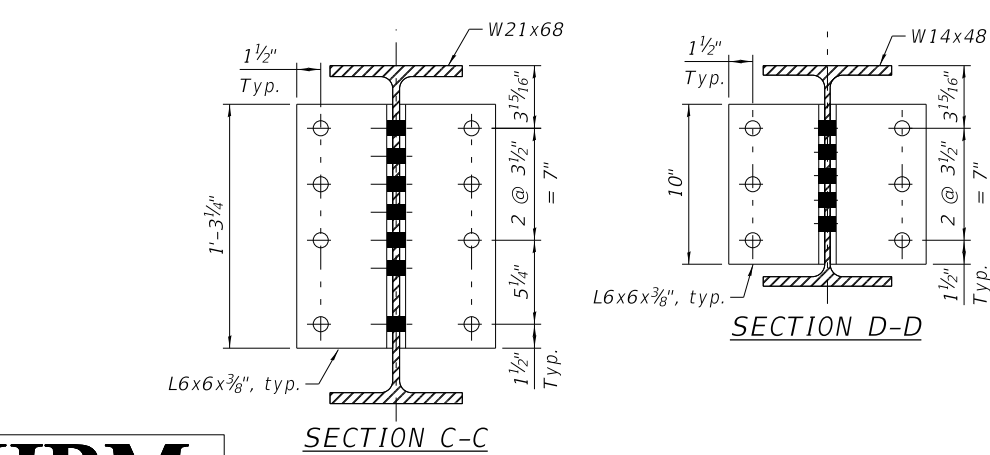
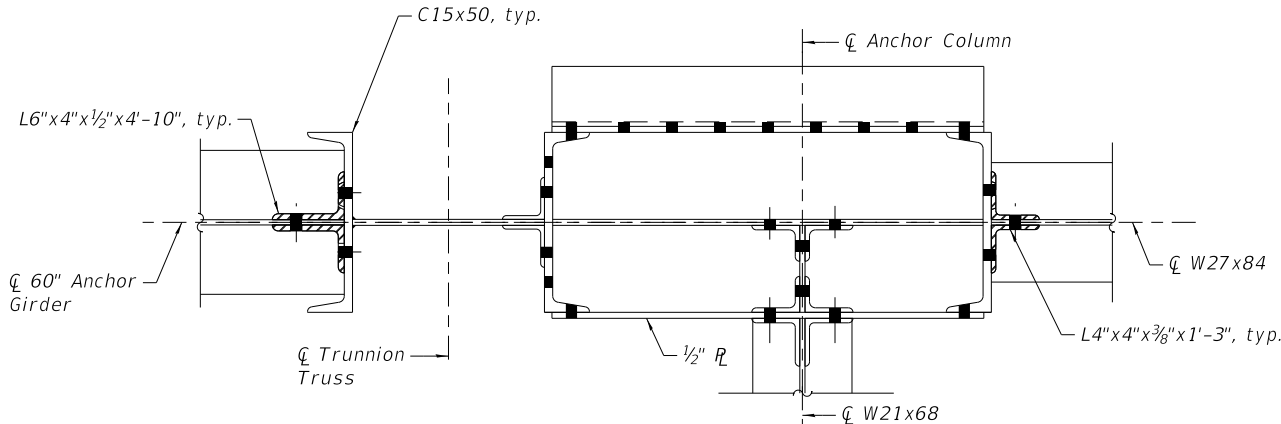
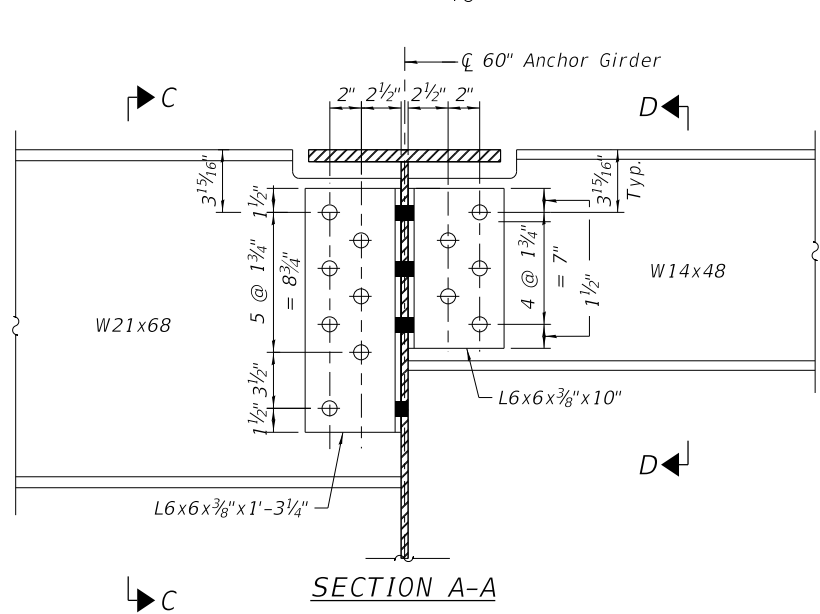
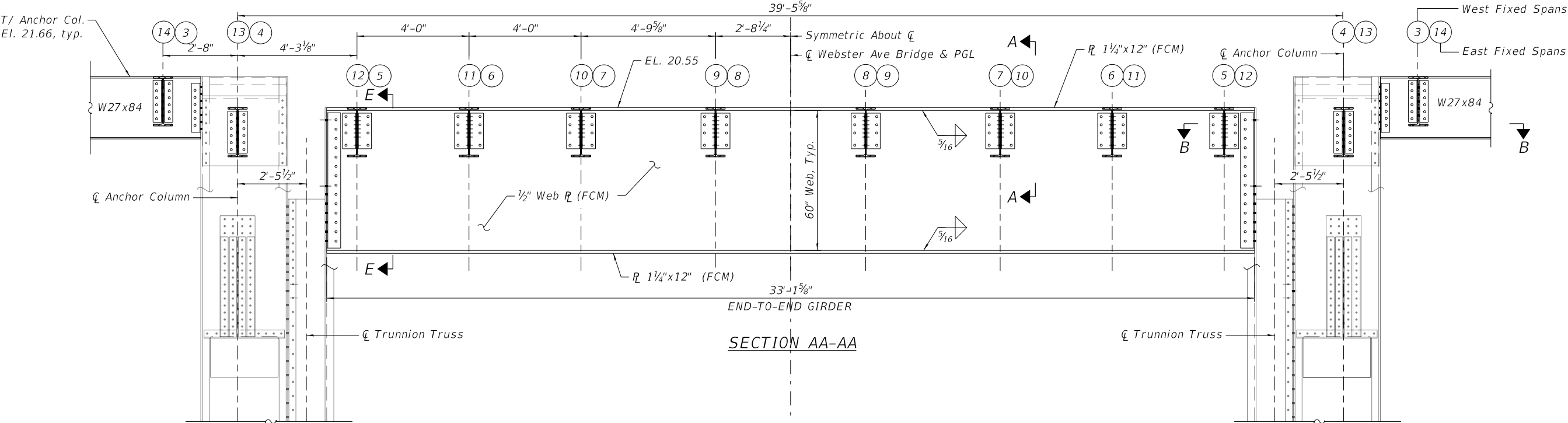
REFERENCE DRAWINGS

Drawing
Slot Rail and Curb Stringer
Slot Rail and Wheel Guards
Fixed Part - Roadway Stringers

Sheet No.
1660570179
1660570180
1660570022

NOTES:

1. For west and east fixed span framing plan, see sheets S-27 and S-28 respectively.
2. Fasteners shall be ASTM A325 Type 1, Mechanically Galvanized Bolts. Bolts connecting new steel members shall be $\frac{7}{8}$ " with $1\frac{5}{16}$ " open holes, unless noted otherwise.
3. For General Notes see Sheet G-2, for Steel Fabrication Notes see Sheet G-3



- NOTES:**
- Fasteners shall be ASTM A325 Type 1, Mechanically Galvanized Bolts. Bolts connecting new steel members shall be 7/8" with 15/16" open holes, unless noted otherwise.
 - The location and diameter of the holes in new connecting material must match holes in the existing structure. Bolt and rivet spacings and size must be verified in the filed by the Contractor prior to ordering material for fabrication. Holes in the existing structure may be enlarged only as approved by the Commissioner and in accordance with the Special Provisions. Holes may be sub-punched or sub-drilled in the new material and field reamed to match existing holes provided the sub-hole is fully contained in the outline of the reamed hole. Final holes must be round and may not be oversized. The cost of this work shall be considered incidental to the pay item which it pertains.
 - The Contractor is responsible for proper fitting and assembly of all parts of the proposed work. Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. The Contractor shall filed verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering material. Such variations shall not be cause for additional compensation for a change in the scope of the work. However, the Contractor will be paid for the quantity actually furnished at the unit price of the work.
 - All contact surfaces on the new and existing steel, including connection bolts, nuts and washers, are free of scale, burrs, dirt and other foreign material, oil, previously applied pain, lacquer or other coatings that would prevent solid seating of the connecting parts.
 - Load carrying components designated "FCM" shall be fabricated according to the provisions of Clause 12 of the AASHTO/AWS D1.5 Bridge Welding Code.
 - For Anchor Column Repairs and Details, see Sheets S-73 thru S-75.

REFERENCE DRAWINGS
Drawing
Fixed Part - Anchor Columns, Etc.

Sheet No.
1660570020

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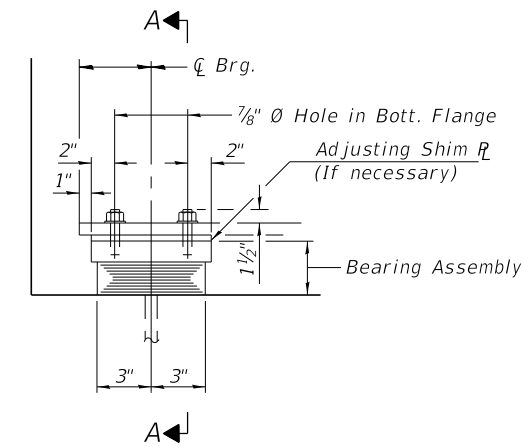
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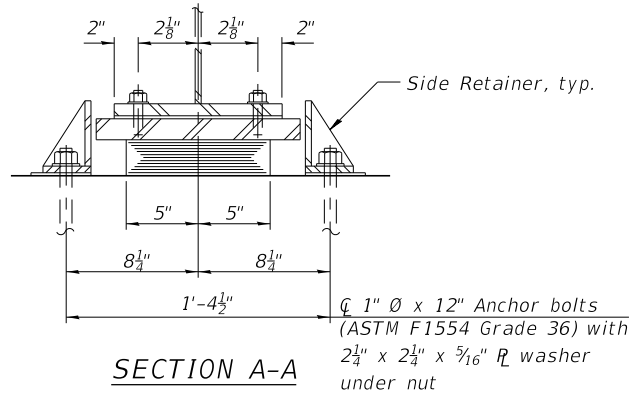
**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**FIXED SPANS
ANCHOR COLUMN FLOORBEAM DETAILS
(STRUCTURE NO. 016-6057)**

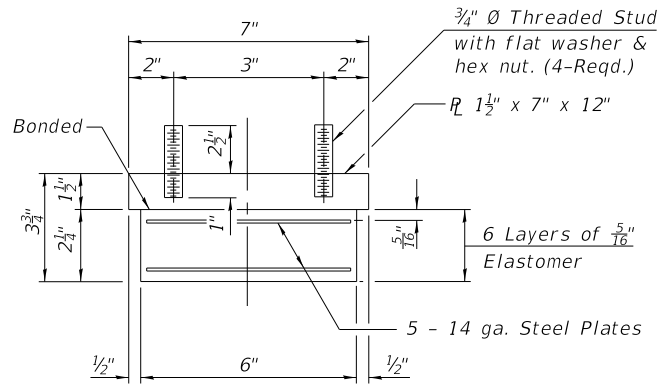
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|--------------------------|----------------|--------|-----------|
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| CDOT PROJECT NO. E-1-525 | | | 77 of 210 |



ELEVATION AT ABUT.

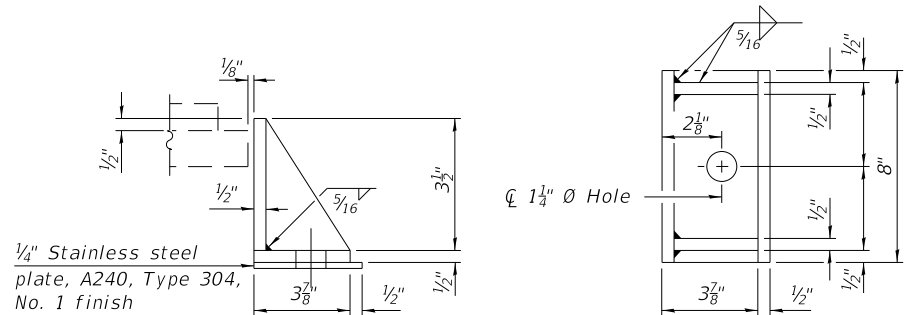


SECTION A-A



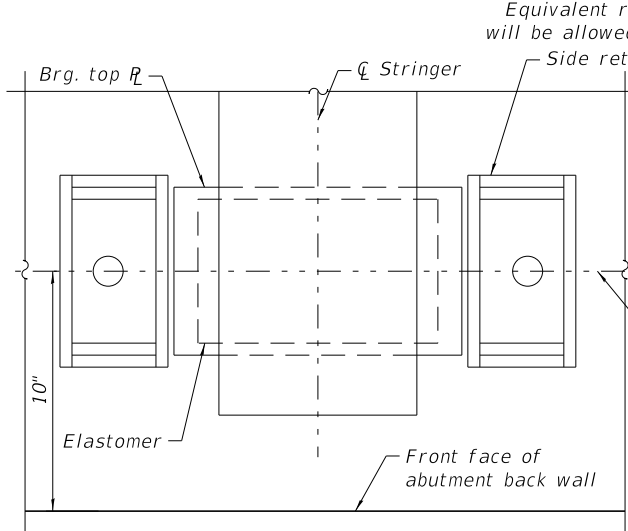
BEARING ASSEMBLY

Note:
Shim plates shall not be placed
under Bearing Assembly.



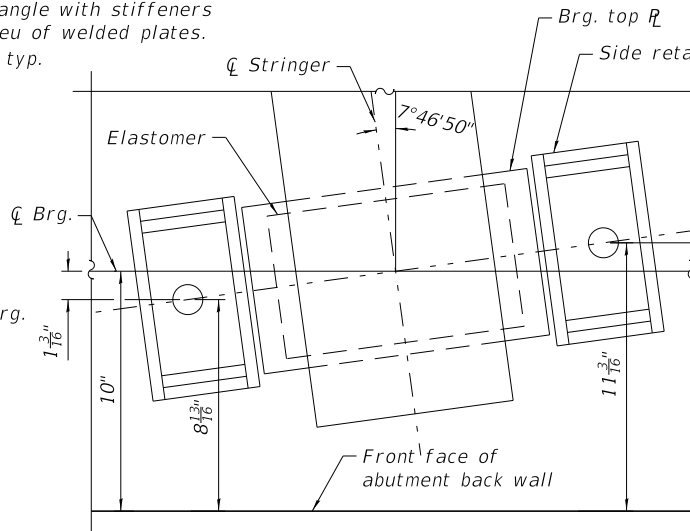
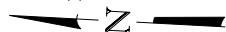
SIDE RETAINER

Equivalent rolled angle with stiffeners
will be allowed in lieu of welded plates.



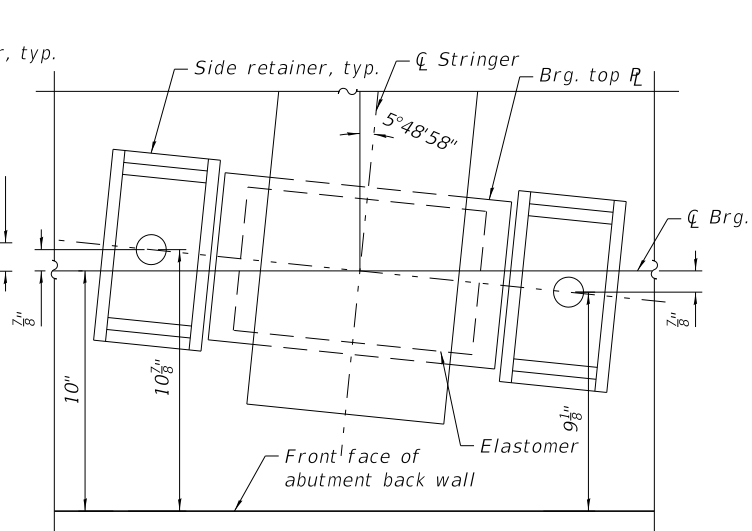
TYPICAL ANCHOR BOLT LAYOUT PLAN

(West abutment shown, east abutment
opposite hand)



ANCHOR BOLT LAYOUT PLAN

(For Stringer 3 at west abutment)



ANCHOR BOLT LAYOUT PLAN

(For Stringer 3 at east abutment)



NOTES:

- Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
- Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
- Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.
- For Slot Railing and Curb Stringer sections and details see Sheet S-33.
- Prior to ordering any material, the Contractor shall field verify all bearing heights and shim thickness dimensions.

BILL OF MATERIAL

| Item | Unit | Total |
|-------------------------------------|------|-------|
| Elastomeric Bearing Assembly Type I | Each | 32 |
| Anchor Bolts, 1" | Each | 64 |

HBM
ENGINEERING GROUP, LLC

wsp

WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

| | | |
|----------------------|----------------|-----------|
| USER NAME = | DESIGNED - JJS | REVISED - |
| | CHECKED - MA | REVISED - |
| PLOT SCALE = N.T.S. | DRAWN - JJS | REVISED - |
| PLOT DATE = \$DATE\$ | CHECKED - MA | REVISED - |

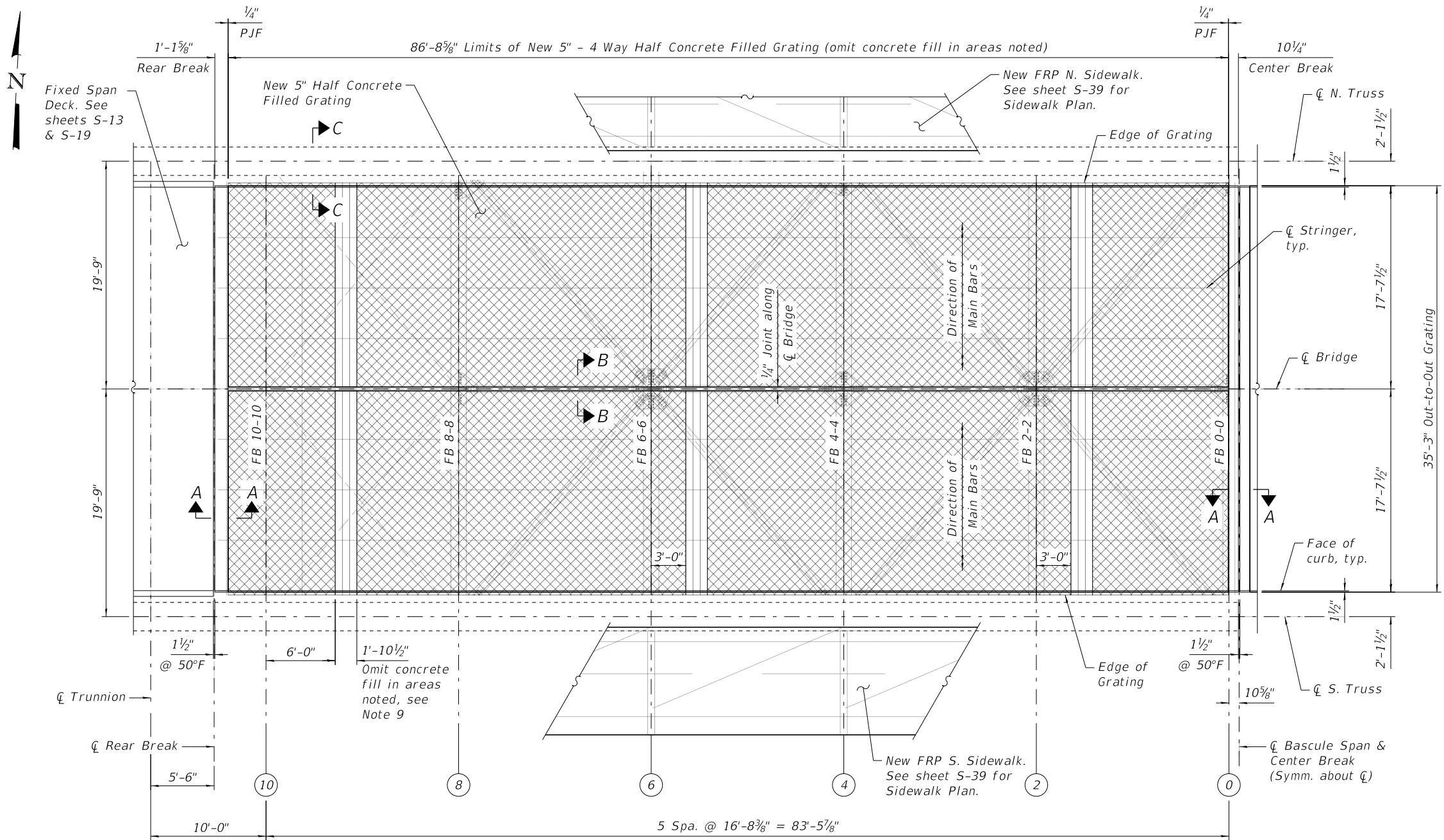
CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

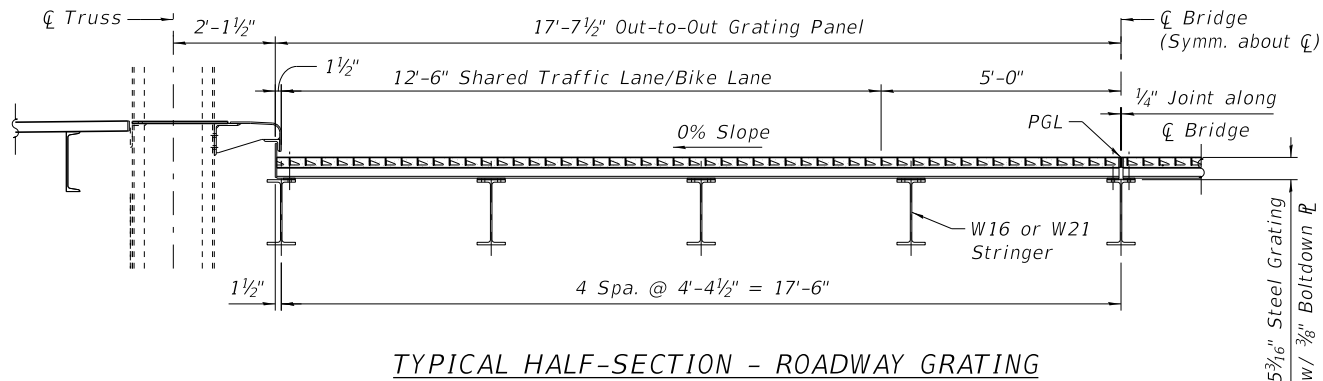
BEARING DETAILS
(STRUCTURE NO. 016-6057)

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|-----------|
| 1388 | 11-E1525-00-BR | COOK | S-35 |
| CDOT PROJECT NO. E-1-525 | | | 78 of 210 |

0166057-E1525-S036-BASCULEDECKPLAN.DGN



DECK PLAN - BASCULE SPAN
(West Leaf shown, East Leaf opposite hand)



LEGEND

- Half Concrete Filled Grating
- Open Grating

BILL OF MATERIAL

| ITEM | UNIT | TOTAL |
|--|---------|-------|
| Furnishing and Erecting 5-inch Grating, Half Concrete Filled | Sq. Ft. | 6,114 |

Quantity shown includes West and East Leaf.

REFERENCE DRAWINGS

Drawing
Roadway Steel Decking

Sheet No.
1660570250



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30 N. LA SALLE STREET
SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

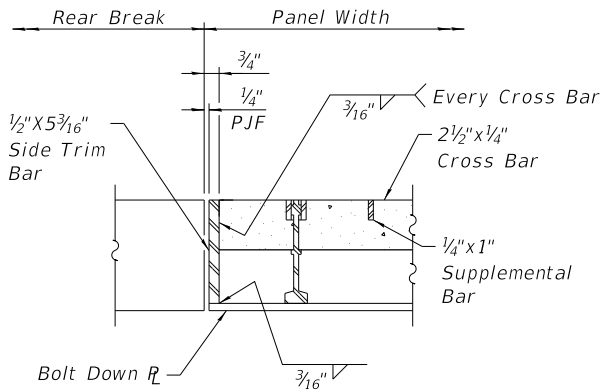
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|--------------|----------|------------|-----|-----------|--|
| USER NAME = | IJLOPEZ | DESIGNED - | IJL | REVISED - | |
| CHECKED - | NBR | REVIS | | | |
| PLOT SCALE = | N.T.S. | DRAWN - | IJL | REVISED - | |
| PLOT DATE = | \$DATE\$ | CHECKED - | JIG | REVISED - | |

CITY OF CHICAGO
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DIVISION OF ENGINEERING

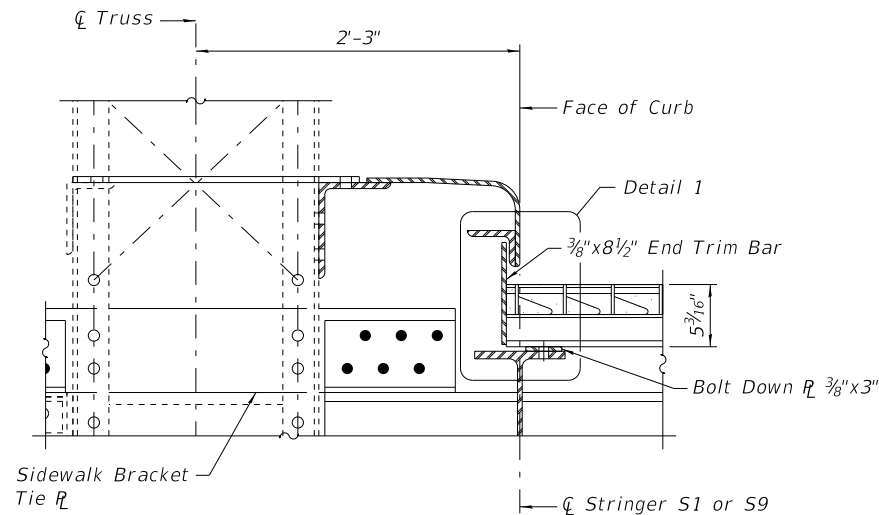
**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**BASCULE SPAN:
DECK PLAN
(STRUCTURE NO. 016-6057)**

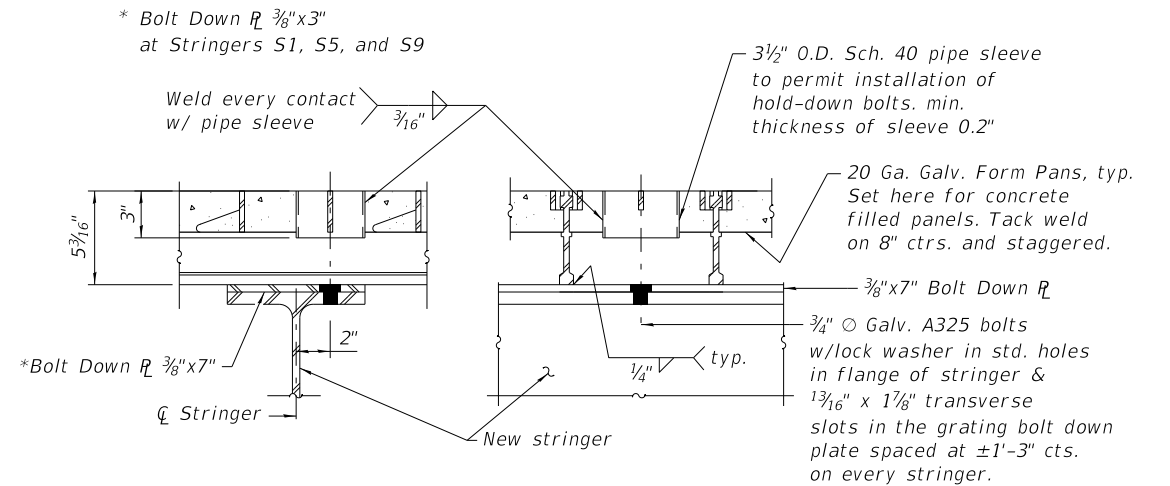
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|-----------|
| 1388 | 11-E1525-00-BR | COOK | S-36 |
| CDOT PROJECT NO. E-1-525 | | | 79 of 210 |



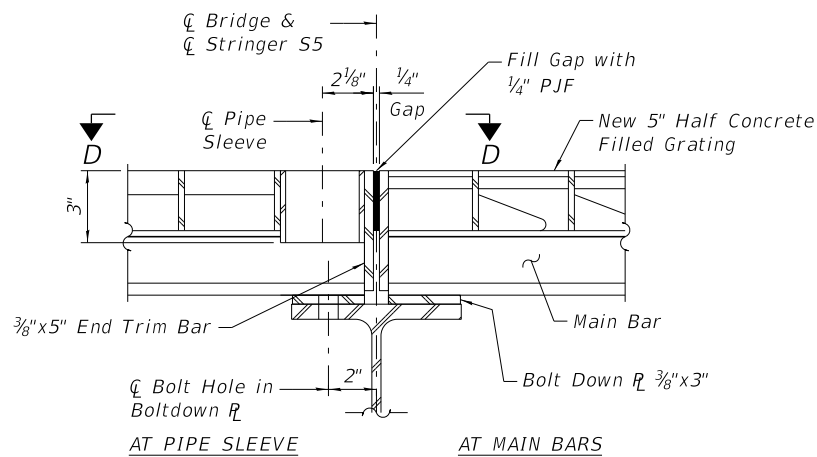
SECTION A-A
END PANEL AT REAR BREAK
(Similar at Center Break)



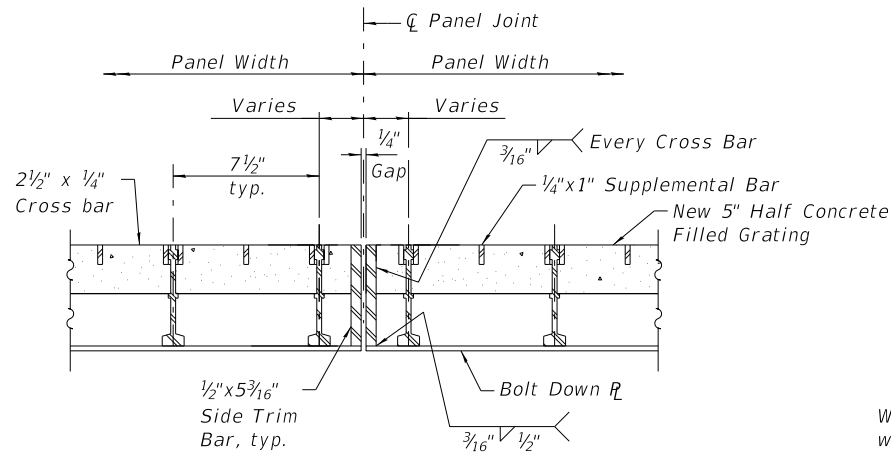
SECTION C-C



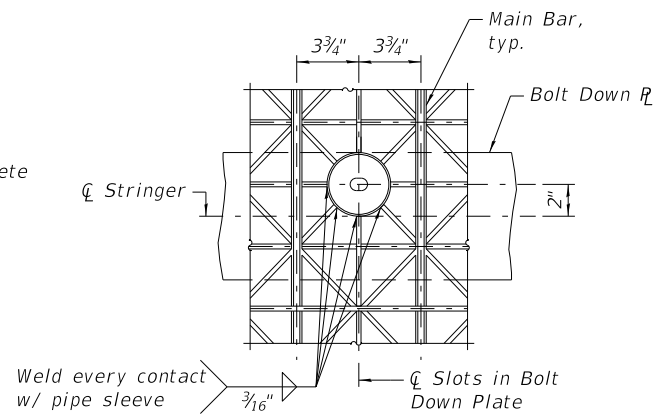
GRATING BOLT DOWN DETAIL
(Typical for all stringers unless noted otherwise)



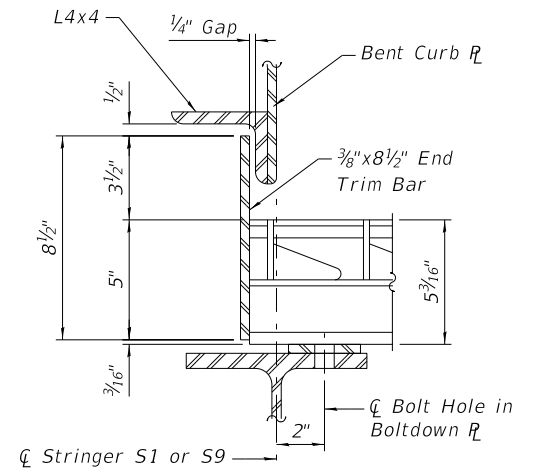
SECTION B-B
(Concrete fill not shown for clarity)



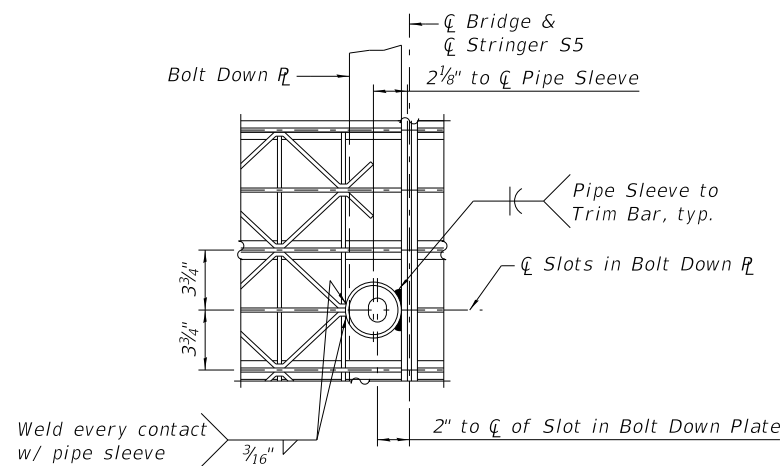
TYPICAL INTERIOR PANEL JOINT



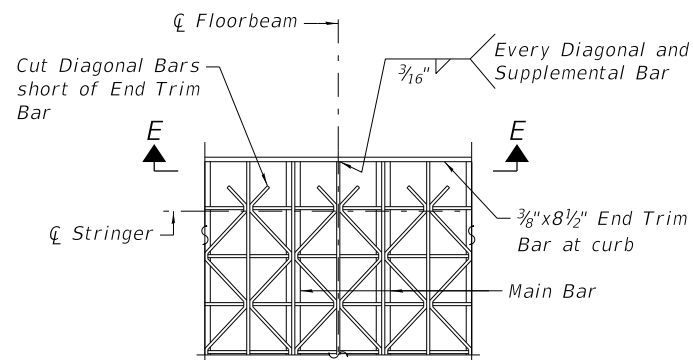
PLAN
PIPE SLEEVE & BOLT DOWN PLATE
(Typical for all stringers unless noted otherwise)



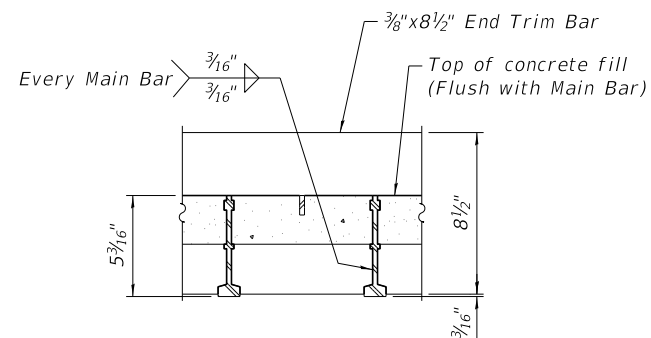
DETAIL 1



VIEW D-D
PIPE SLEEVE & BOLT DOWN PLATE



PLAN
GRATING AT CURB



SECTION E-E
(Diagonal bars not shown for clarity)

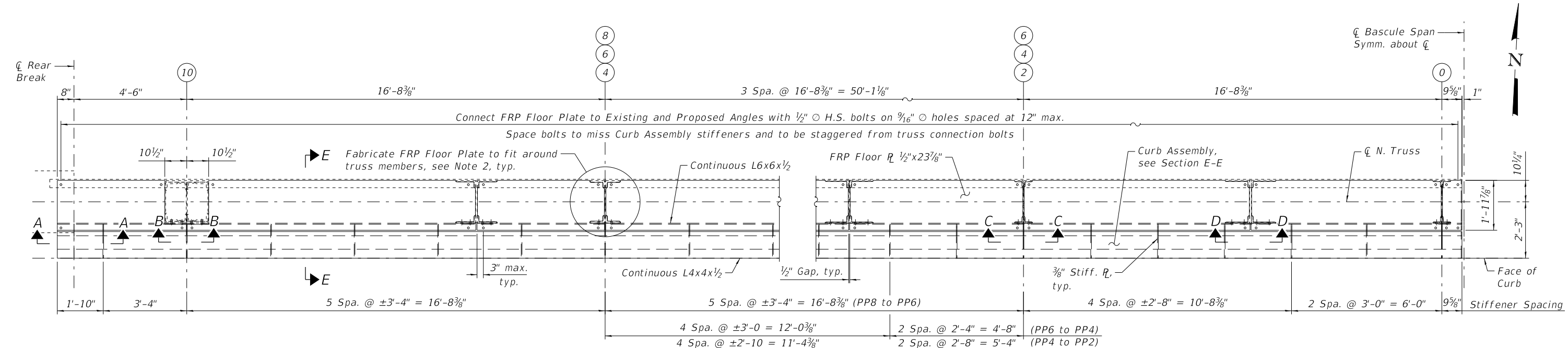
- Notes:
- See sheet S-36 for additional notes and location of Section A-A, B-B, and C-C.
 - See sheet S-38 for curb details.

REFERENCE DRAWINGS

Drawing Roadway Steel Decking Sheet No. 1660570250

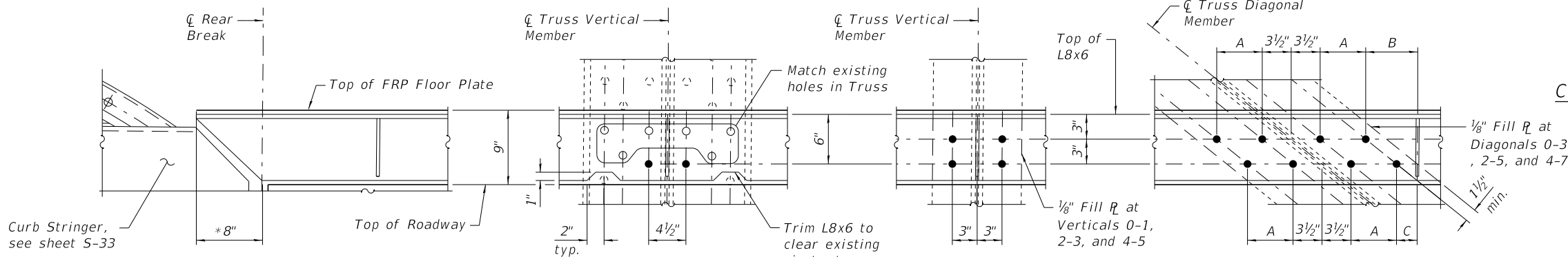
0166057-E1525-S037-DECKDETAILSBASCULE.DGN

| | | | | | | | | | | |
|---|----------------------|----------------|-----------|---|--|--|--------------------------|----------------|--------|-----------|
|  <div>WSP USA Inc. 30 N. LASALLE STREET SUITE 4000 CHICAGO, IL 60602 TEL: (312) 782-8150 FAX: (312) 782-1684</div> | USER NAME = IJLOPEZ | DESIGNED - IJL | REVISED - | <div>CITY OF CHICAGO</div> <div>DEPARTMENT OF TRANSPORTATION</div> <div>DIVISION OF ENGINEERING</div> | <div>WEBSTER AVENUE BRIDGE OVER THE NORTH BRANCH CHICAGO RIVER</div> | <div>BASCULE SPAN: DECK DETAILS (STRUCTURE NO. 016-6057)</div> | F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
| | PLOT SCALE = N.T.S. | CHECKED - NBR | REVISED - | | | | 1388 | 11-E1525-00-BR | COOK | S-37 |
| | PLOT DATE = \$DATE\$ | DRAWN - IJL | REVISED - | | | | CDOT PROJECT NO. E-1-525 | | | 80 of 210 |
| | | CHECKED - JIG | REVISED - | | | | | | | |



* Cope Curb Assembly as shown. Field verify 8" dimension prior to fabrication to provide 1 1/2" clr. to fixed part)

CURB PLAN - BASCULE SPAN
(North Curb on W. Leaf and South Curb on E. Leaf shown, South Curb on W. Leaf and North Curb on E. Leaf opposite hand)



CURB CONNECTION TO TRUSS DIAGONALS

| Diagonal | A | B | C |
|----------|--------|-----------|---------|
| 0-3 | 5 1/2" | 6 1/16" | 1 5/16" |
| 2-5 | 5 1/2" | 6 1/4" | 2 1/2" |
| 4-7 | 4 1/2" | 5 3/8" | 2 1/16" |
| 6-9 | 3 1/2" | 1'-0 1/4" | 9 7/16" |
| 8-11 | 3 1/2" | 11 7/16" | 8 3/8" |

- Notes:
- The cost of furnishing and erecting the roadway curb is included in the cost of Furnishing and Erecting Structural Steel.
 - The FRP floor plate used for truss cover plates shall be included in the cost of Furnishing and Erecting FRP Grating but shall not be measured separately for payment. FRP floor plates shall be fabricated to clear truss vertical and diagonal members. Provide $\pm 1/4"$ clearance between FRP floor plates and truss members.
 - Removal of existing rivets and replacing them with H.S. bolts at vertical truss member 10-10a is included with Furnishing and Erecting Structural Steel.

REFERENCE DRAWINGS

Drawing
Curb Assembly Details
Curb Assembly and Cover Plates

Sheet No.
1660570247
1660570127

0166057-E1525-S038-CURBDETAILSBASCULE.DGN



| | | | | | |
|--------------|----------|------------|-----|-----------|--|
| USER NAME = | IJLOPEZ | DESIGNED - | IJL | REVISED - | |
| | | CHECKED - | NBR | REVISED - | |
| PLOT SCALE = | N.T.S. | DRAWN - | IJL | REVISED - | |
| PLOT DATE = | \$DATE\$ | CHECKED - | JIG | REVISED - | |

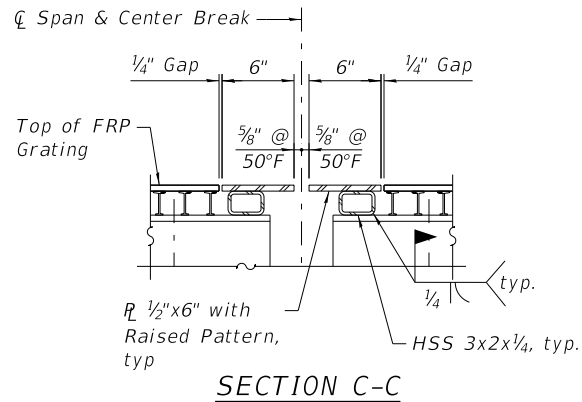
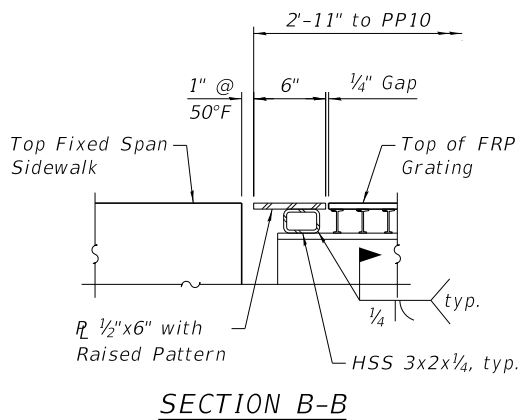
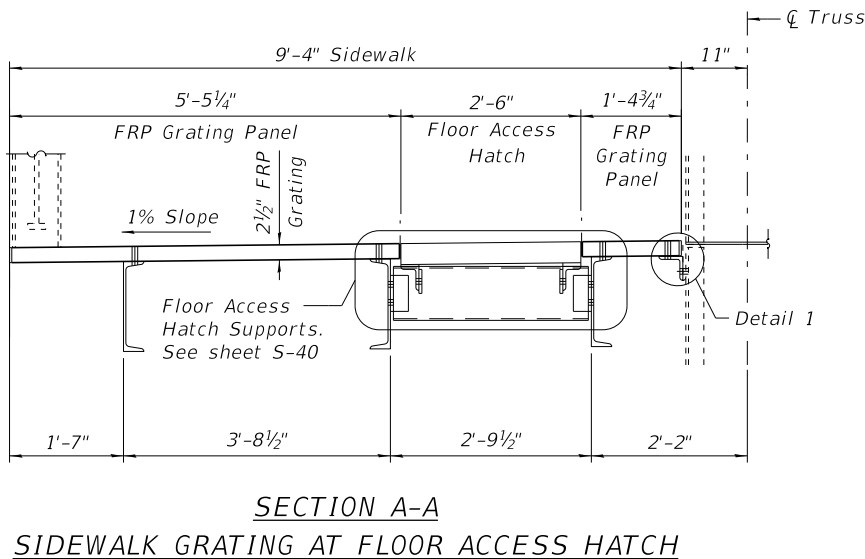
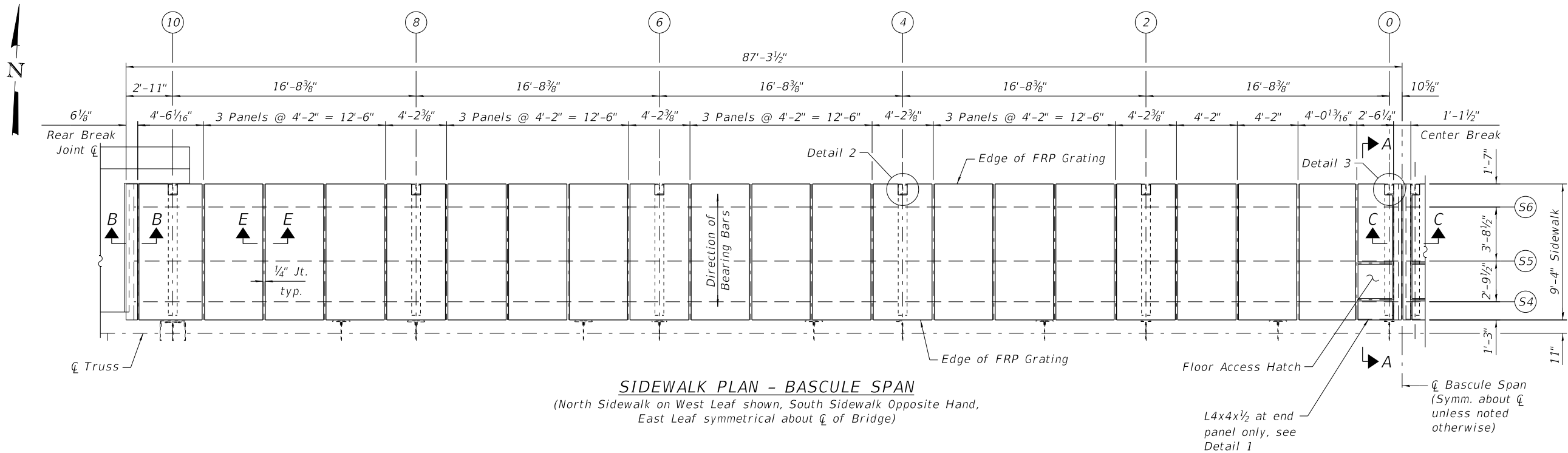
CITY OF CHICAGO
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DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**BASCULE SPAN:
CURB DETAILS
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|-----------|
| 1388 | 11-E1525-00-BR | COOK | S-38 |
| CDOT PROJECT NO. E-1-525 | | | 81 of 210 |

0166057-E1525-S039-SIDEWALKPLANBASCULE.DGN



- Notes:
1. The Contractor shall field verify dimensions of existing sidewalk posts prior to fabrication of sidewalk grating. A gap of $\frac{1}{2}$ " ($\pm \frac{1}{16}$ ") shall be provided around the existing sidewalk posts.
 2. Holes in FRP panels shall be shop drilled. Coordinate fabrication of FRP with Sidewalk Stringer fabrication. Cost for coordinating this effort is included with Furnishing and Erecting FRP Grating.
 3. Raised pattern steel plates shall conform to the requirements of ASTM A786.
 4. Place panels on supporting members and adjust into final position with proper bearing and alignment at joints and supports and fasten immediately. End panel at the breaks shall be the last one to be installed. Adjust height, pitch of the end panels to meet fixed span rear breaks after live load shimming has been completed. Verify required gap at the center and rear breaks. Make corrections to panel widths as necessary to meet required clearances and gaps.
 5. HSS tubes for sidewalk rear and center breaks shall be hot-dip galvanized in accordance with AASHTO M111. See Special Provisions. Cost included with Furnishing and Erecting Structural Steel.
 6. Cost of furnishing and installation of the sidewalk rear and center breaks shall included in the cost of Furnishing and Erecting Structural Steel.
 7. Anchor bolts, nuts and washers for FRP Grating connections to sidewalk stringers shall be Stainless Steel Type 316. Cost included with Furnishing and Erecting FRP Grating.
 8. See sheet S-40 for Details 2 and 3, Section E-E, Floor Door Supports, and for additional FRP Grating and connection details.

BILL OF MATERIAL

| ITEM | UNIT | TOTAL |
|-------------------------------------|---------|-------|
| Furnishing and Erecting FRP Grating | Sq. Ft. | 3,227 |
| Floor Access Hatch | Each | 4 |

Quantity shown includes West and East Leaf.

REFERENCE DRAWINGS

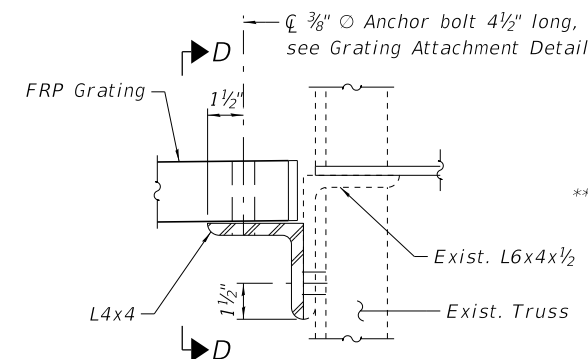
Drawing
Sidewalk Decking

Sheet No.
1660570251

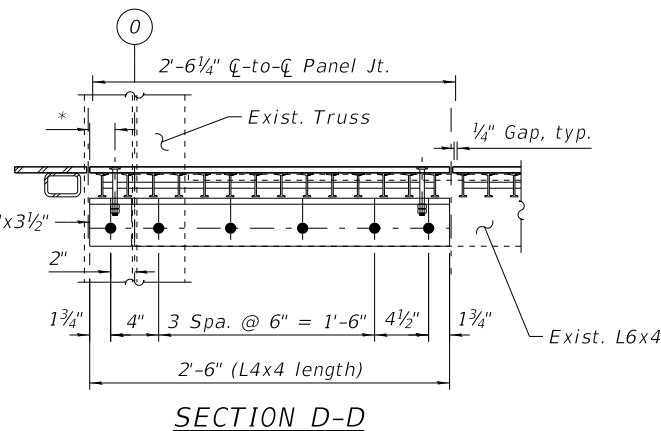
MINIMUM SECTION PROPERTIES

(Properties shown are per foot width of FRP Grating)

I = 1.68 in⁴
St = 1.96 in³
Sb = 1.47 in³
Avg. EI = 7,600,000 lb-in² (Span >= 24")



Holes in L4x4 shall be shop drilled. Use L4x4 as template to field drill holes on existing L6x4 and Truss.



wsp

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CHICAGO, IL 60602
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USER NAME = IJLOPEZ
DESIGNED - IJL
CHECKED - NBR
PLOT SCALE = N.T.S.
DRAWN - IJL
PLOT DATE = \$DATE\$
CHECKED - JIG

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CHECKED - NBR
DRAWN - IJL
CHECKED - JIG

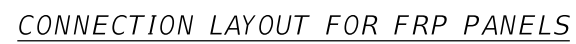
DESIGNED - IJL
CHECKED - NBR
DRAWN - IJL
CHECKED - JIG

CITY OF CHICAGO
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DIVISION OF ENGINEERING

WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER

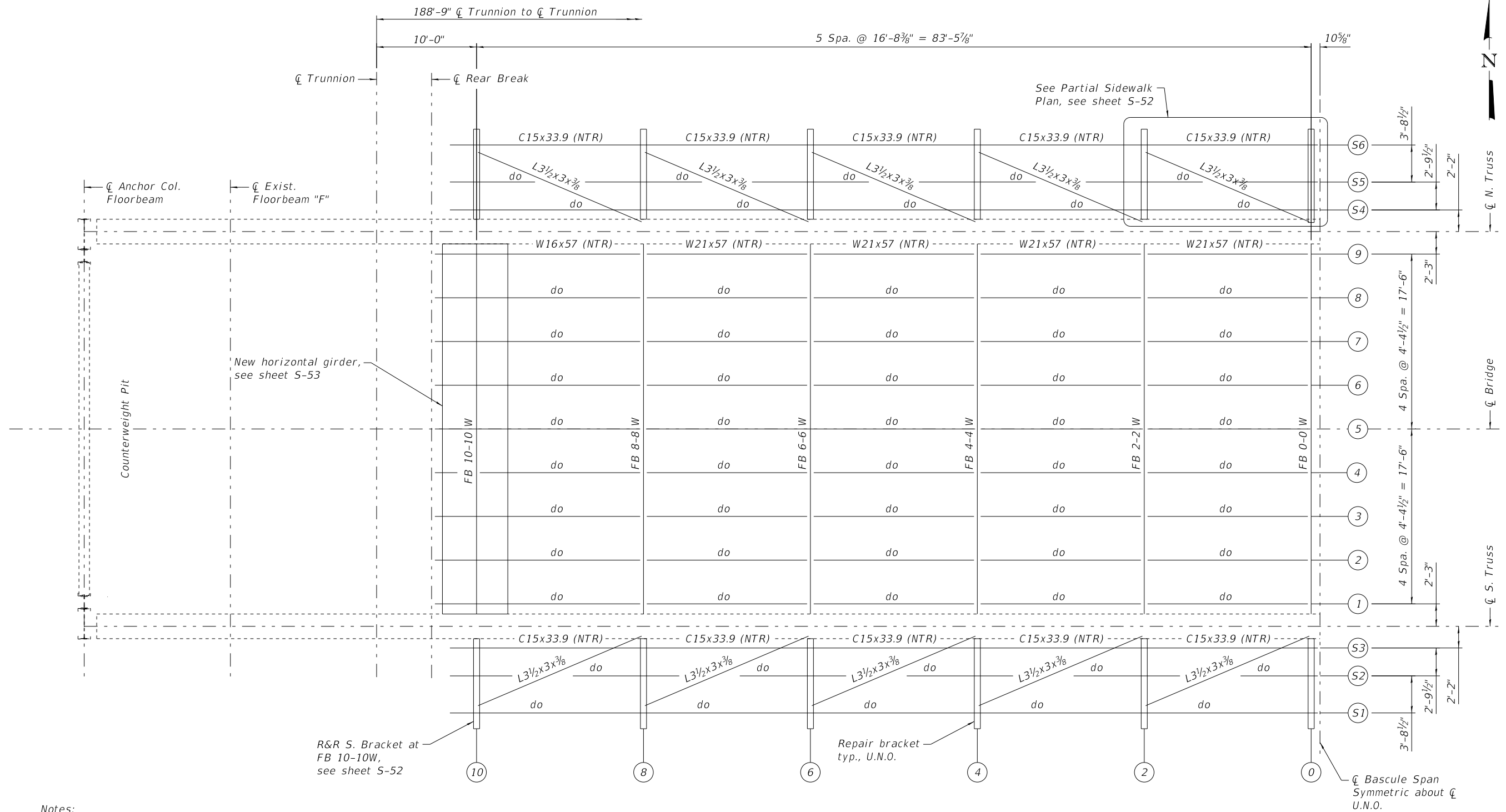
BASCULE SPAN:
SIDEWALK PLAN
(STRUCTURE NO. 016-6057)

F.A.U.
RTE. 1388
SECTION 11-E1525-00-BR
COUNTY COOK
SHEET NO. S-39
CDOT PROJECT NO. E-1-525
82 of 210



VIEW F-F





Notes:

1. Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
2. The cost of removal of the floor system of stringers, floorbeams, and sidewalk lateral bracing shall be included in the cost of Strucutral Steel Removal. The cost of proposed steel for the floor system shall be included in the cost of Furnishing and Erecting Structural Steel.
3. The cost of repairs to the existing sidewalk brackets, including removal and replacement, shall be included in the cost of Structural Steel Repairs. See Special Provision.

FRAMING PLAN

(West Leaf shown, East Leaf opposite hand)

REFERENCE DRAWINGS

Drawing
Movable Part- Stringers and
Sub-Planking
Erection Diagram

Sheet No.

1660570015
1660570245

0166057-E1525-S043-BASCULE FRM.DGN



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30 N. LA SALLE STREET
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CHICAGO, IL 60602
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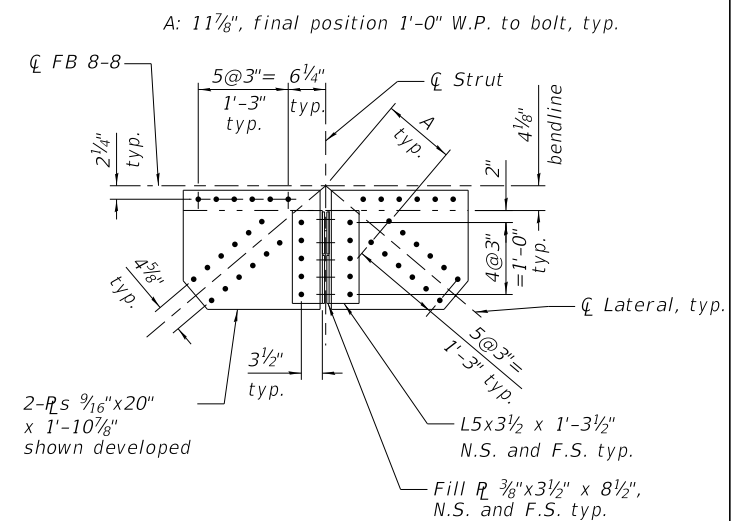
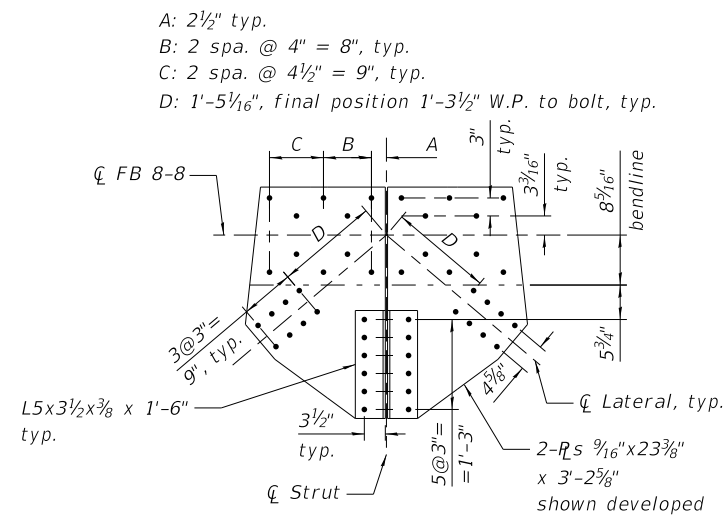
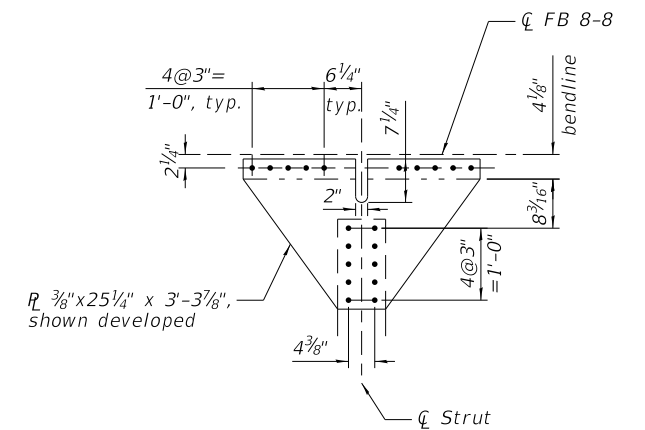
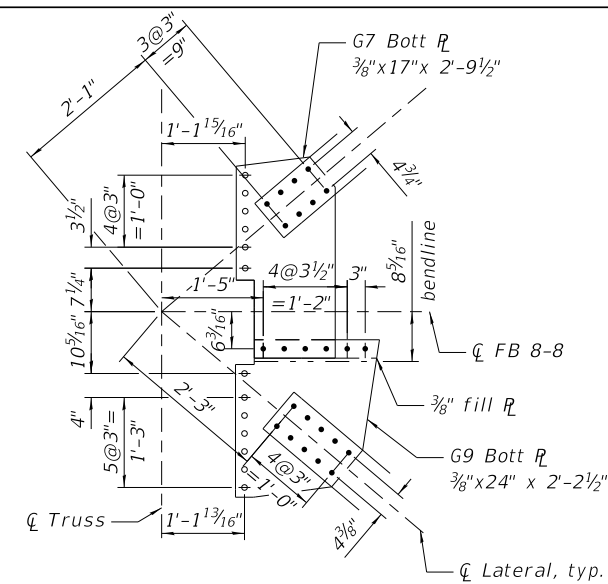
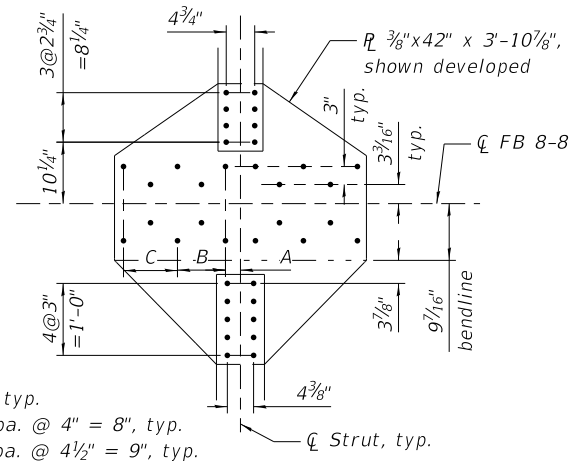
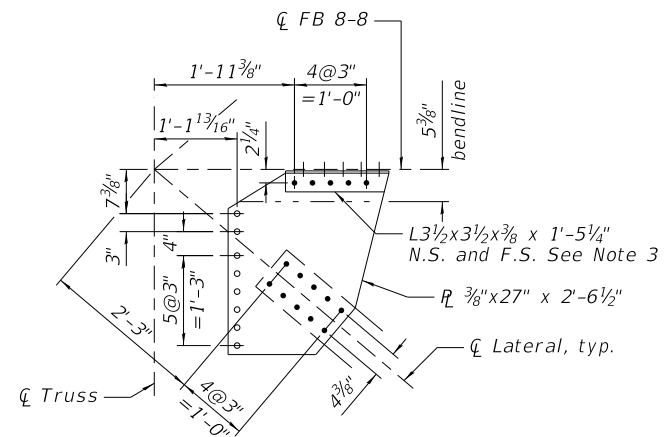
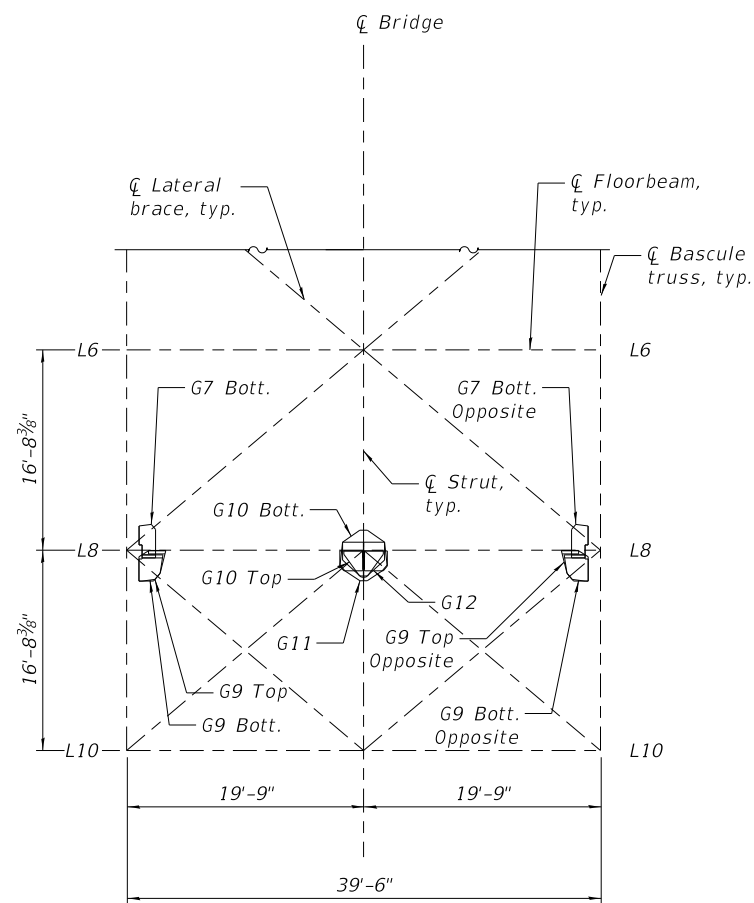
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| USER NAME = | PATELN | DESIGNED - | NJP | REVISED - | |
| | | CHECKED - | PJL | REVISED - | |
| PLOT SCALE = | N.T.S. | DRAWN - | NJP | REVISED - | |
| PLOT DATE = | \$DATE\$ | CHECKED - | JIG | REVISED - | |

CITY OF CHICAGO
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**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**BASCULE SPAN:
FRAMING PLAN
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|-----------|
| 1388 | 11-E1525-00-BR | COOK | S-43 |
| CDOT PROJECT NO. E-1-525 | | | 86 of 210 |



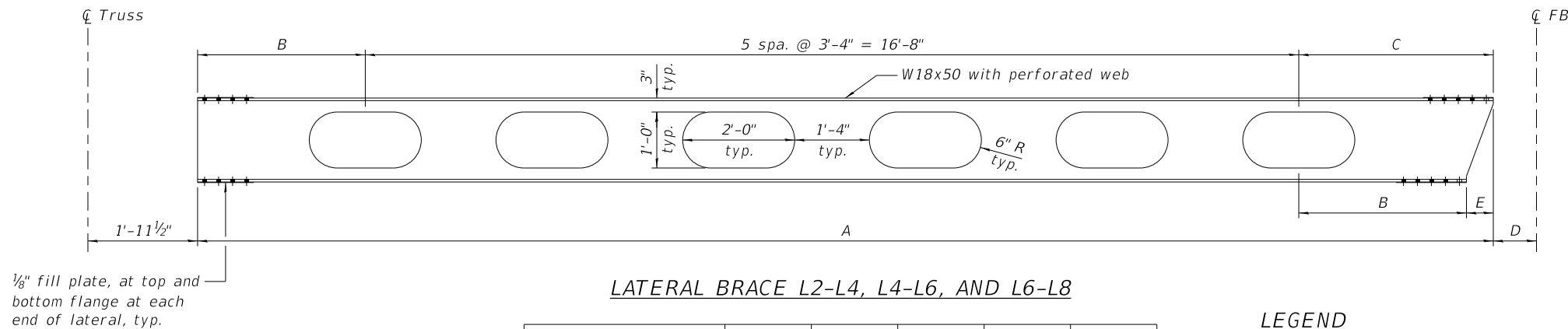
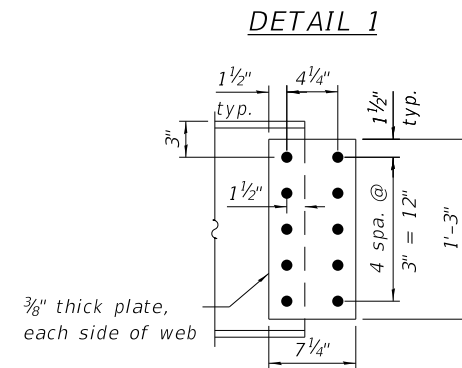
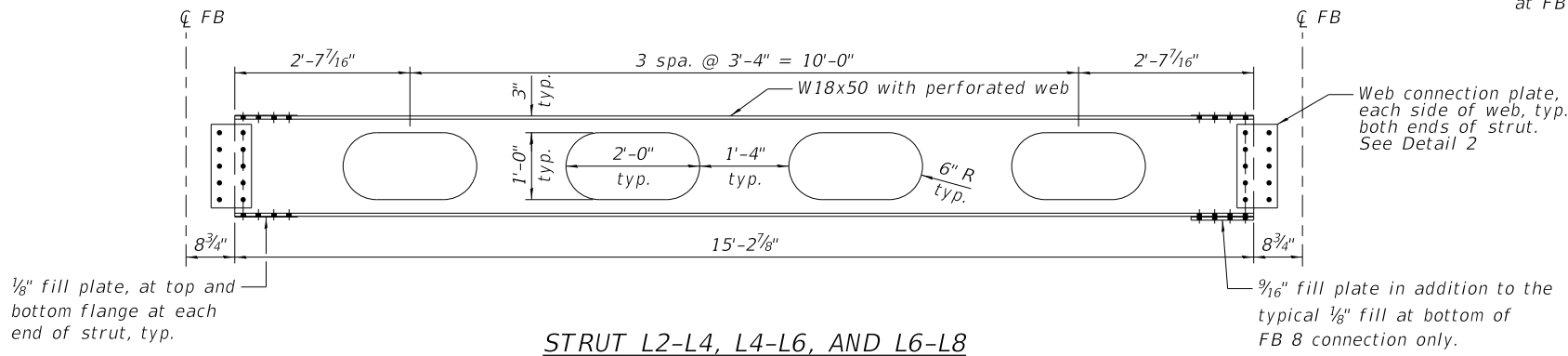
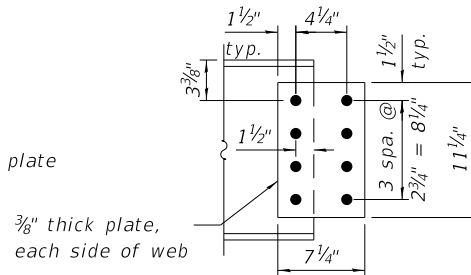
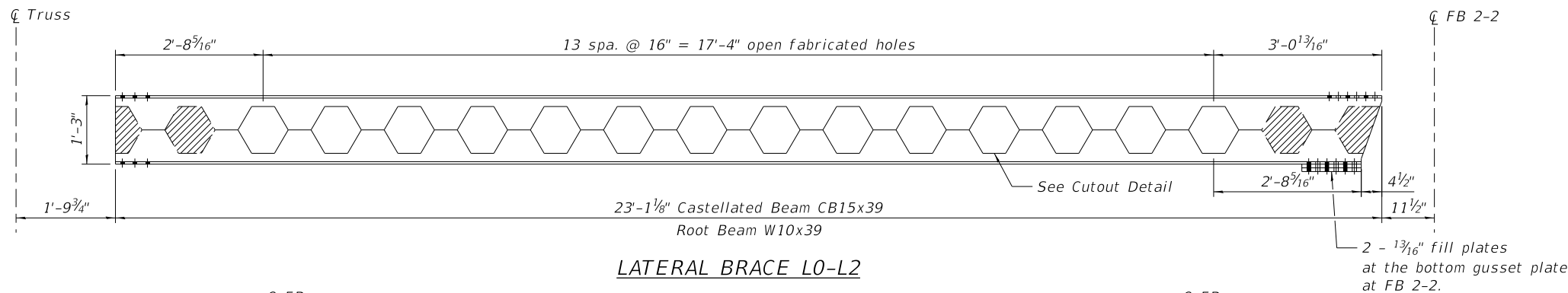
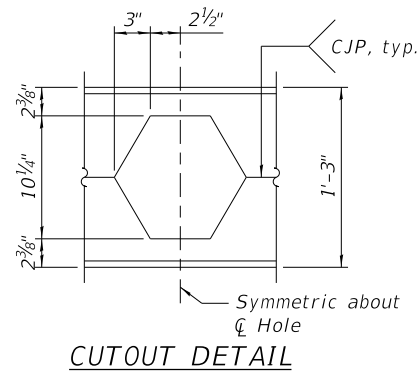
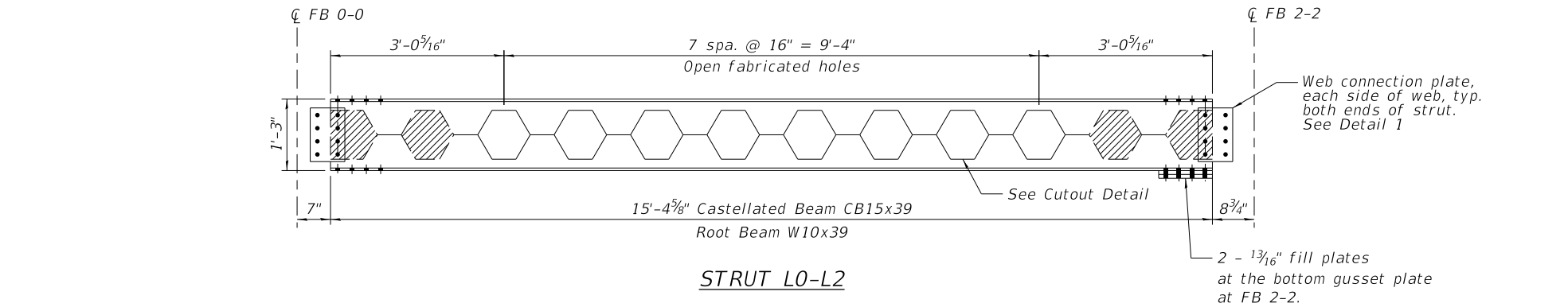
REFERENCE DRAWINGS

| | |
|------------------------------|------------------|
| <u>Drawing</u> | <u>Sheet No.</u> |
| Bracing for Floor Beam 10-10 | 1660570210 |
| Center Lock Platform | 1660570216 |

Notes:

1. Gusset plates to be replaced in kind, except as noted. Gusset plates are symmetrical about the bridge centerline. "Opposite" indicates opposite hand.
2. Edge distances not shown are 1½" minimum.
3. See sheets S-48 thru S-54 for bolt connection details to the floorbeams.
4. See sheets S-46 and S-47 for lateral brace and strut details.
5. See sheets S-44 and S-46 for lateral brace, strut and gusset plate details from L0 to L8.

0166057-E1525-S046-LOWERLATERALS1



| Member | A | B | C | D | E |
|-------------------------|--------------------------------------|--------------------------------------|-------------------------------------|----------------------------------|---------------------------------|
| Lateral L2-L4 | 22'-11 ³ / ₈ " | 2'-11 ⁷ / ₁₆ " | 3'-3 ¹ / ₁₆ " | 11 ¹ / ₂ " | 4 ¹ / ₂ " |
| Lateral L4-L6 and L6-L8 | 23'-1 ⁵ / ₈ " | 2'-11 ¹ / ₁₆ " | 3'-5 ¹ / ₁₆ " | 9 ¹ / ₄ " | 5 ³ / ₄ " |

LEGEND



Filled fabricated holes. Filler steel is M270 Grade 50 steel with the same thickness as W10x39 web (3/16") and connected by complete joint penetration welds.

REFERENCE DRAWINGS

Drawing
Laterals

Sheet No.
1660570215

Notes:

- See sheet S-44 for bolt locations on the flanges of the struts and laterals, and for strut and lateral gusset plate details.
- See sheets S-48 thru S-54 for floorbeam details.
- See sheets S-55 thru S-65 for truss details.



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USER NAME = NBROMAN
DESIGNED - NBR
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PLOT SCALE = N.T.S.
DRAWN - NBR
PLOT DATE = \$DATE\$
CHECKED - JIG

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CHECKED - PJL
DRAWN - NBR
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CITY OF CHICAGO
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**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**BASCULE SPAN:
LOWER LATERAL BRACING I
(STRUCTURE NO. 016-6057)**

F.A.U.
RTE.

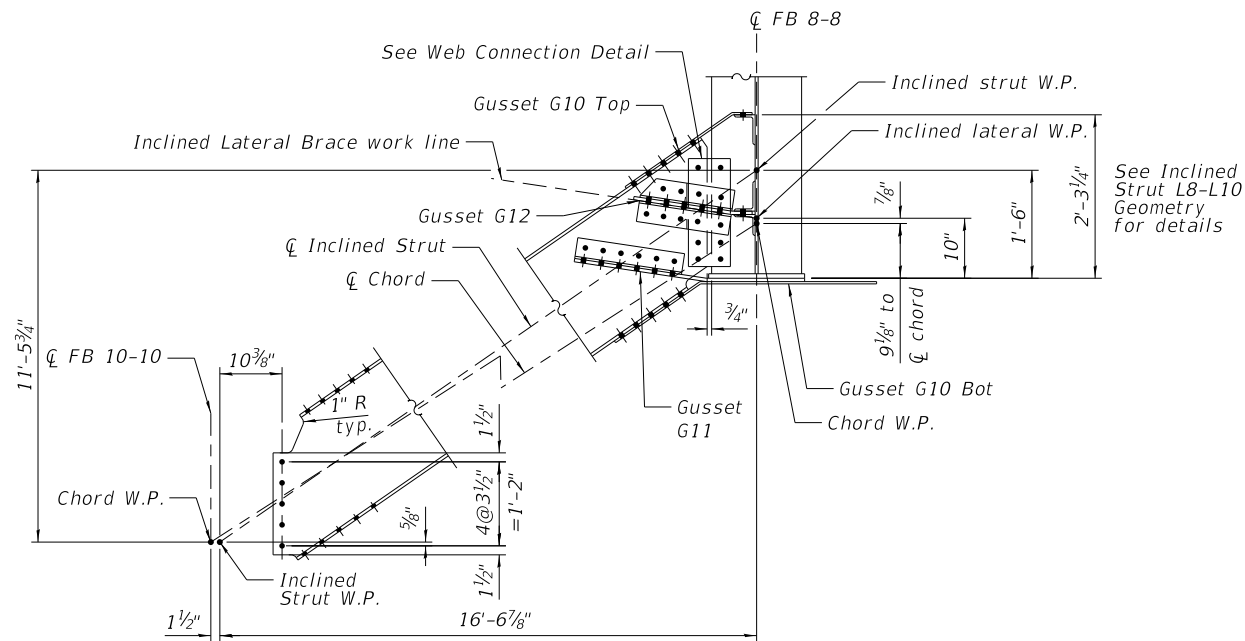
SECTION
11-E1525-00-BR

COUNTY
COOK

SHEET NO.
S-46

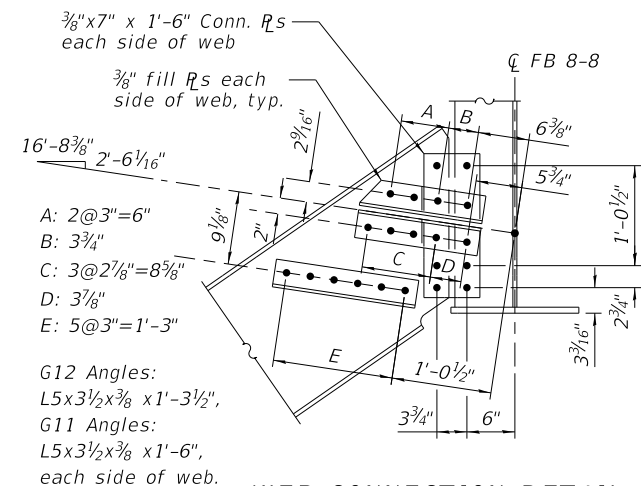
CDOT PROJECT NO. E-1-525

89 of 210

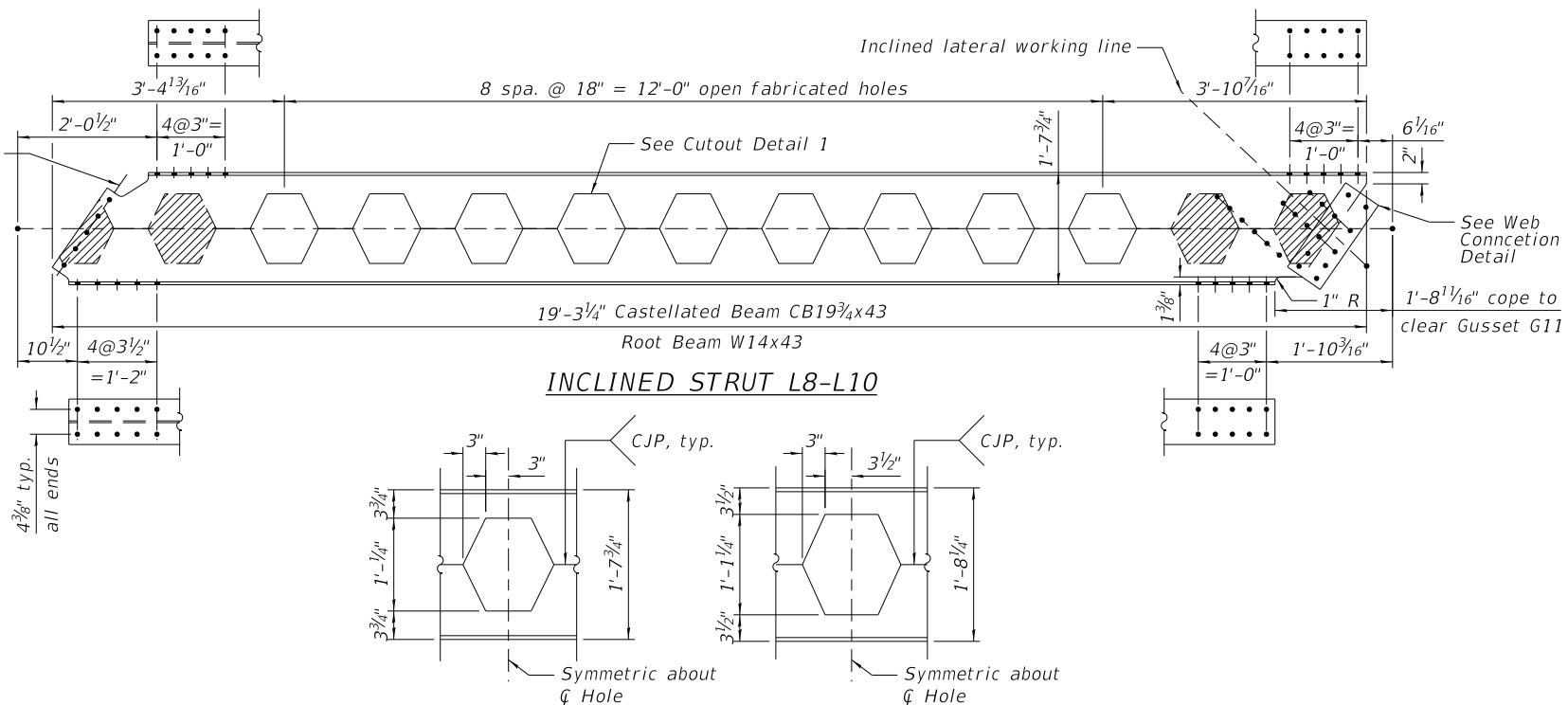
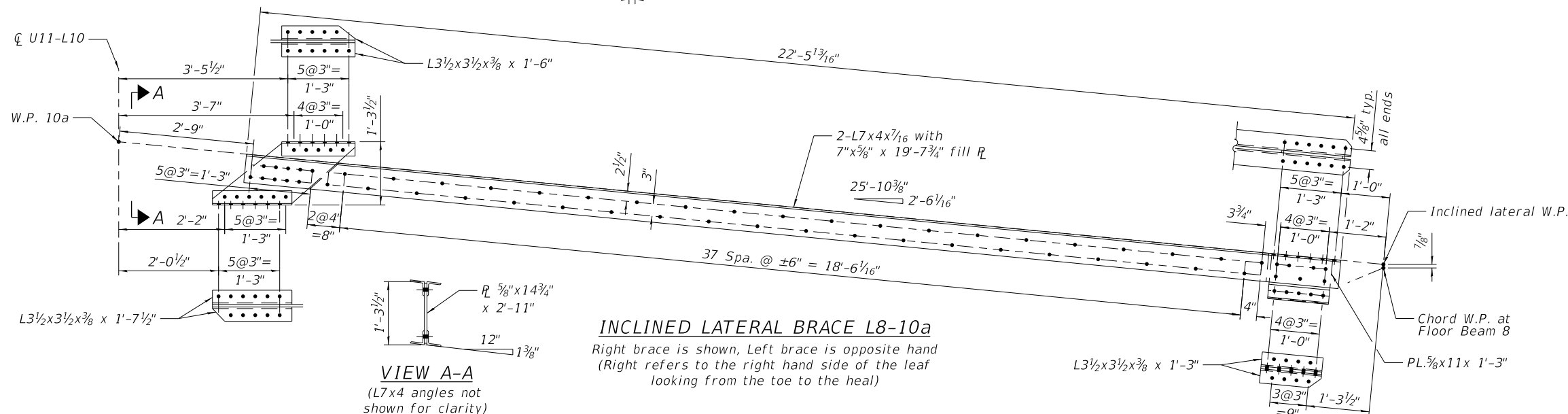


INCLINED STRUT L8-L10 GEOMETRY

Filled castellated web openings not shown for clarity



WEB CONNECTION DETAIL



CUTOUT DETAIL 1

CUTOUT DETAIL 2

11 spaces @ 20' = 18'-4" open fabricated holes

25'-1 13/16" Castellated Beam CB 20 1/4x43

Root Beam W14x43

LATERAL BRACE L8-L10

Right brace is shown, Left brace is opposite hand
(Right refers to the right hand side of the leaf looking from the toe to the heal)

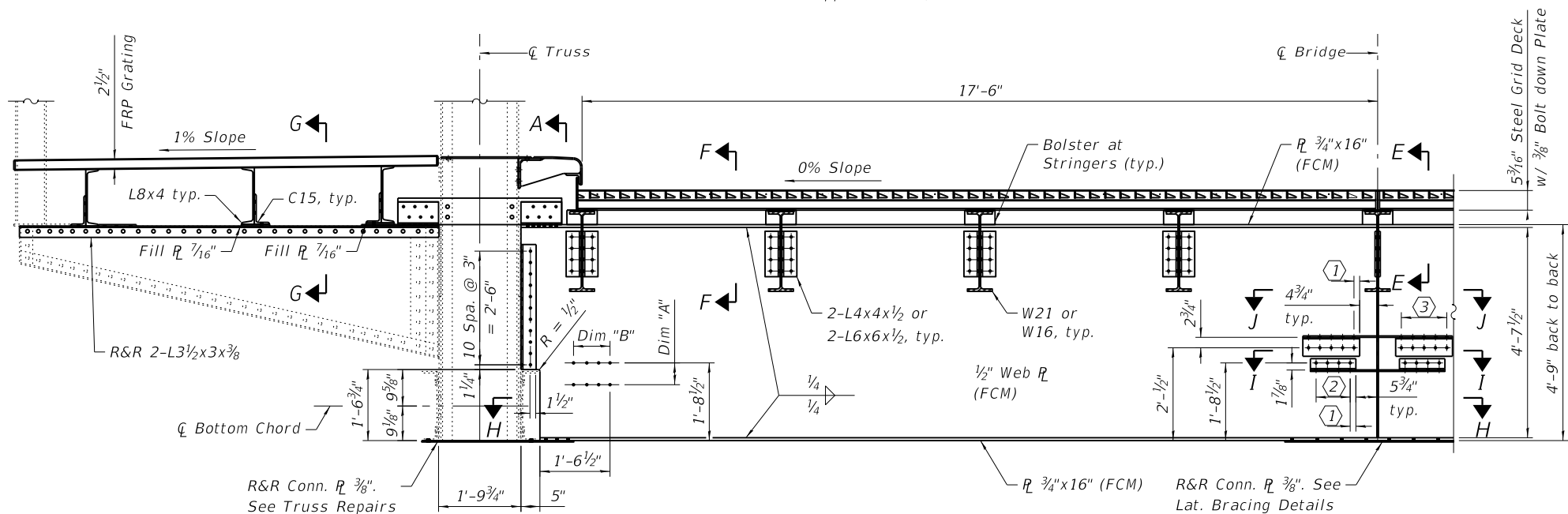
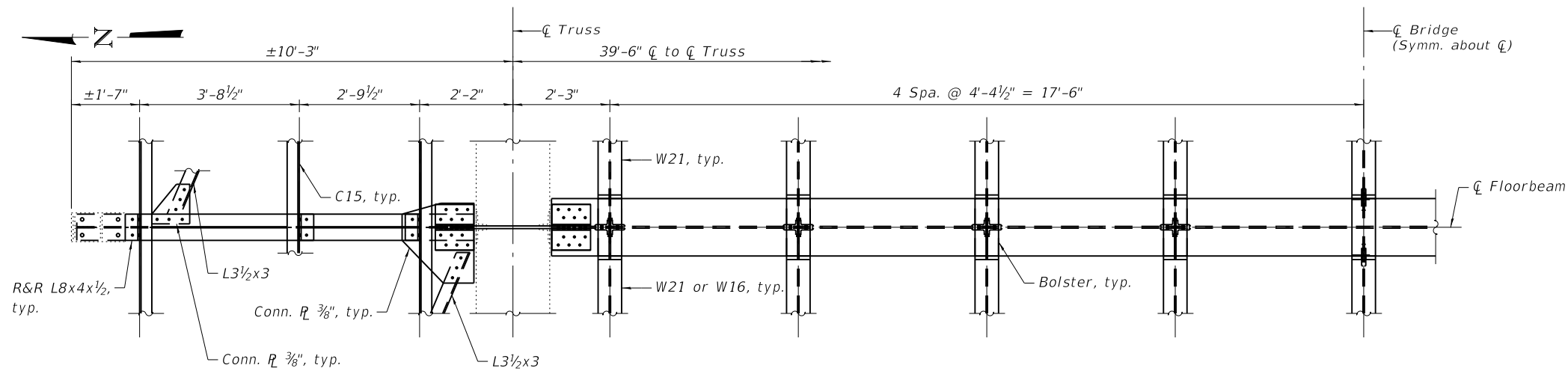
LEGEND

Filled fabricated holes. Filler steel is M270 Grade 50 steel with the same thickness as W14x43 (5/16") web and connected by complete joint penetration welds.

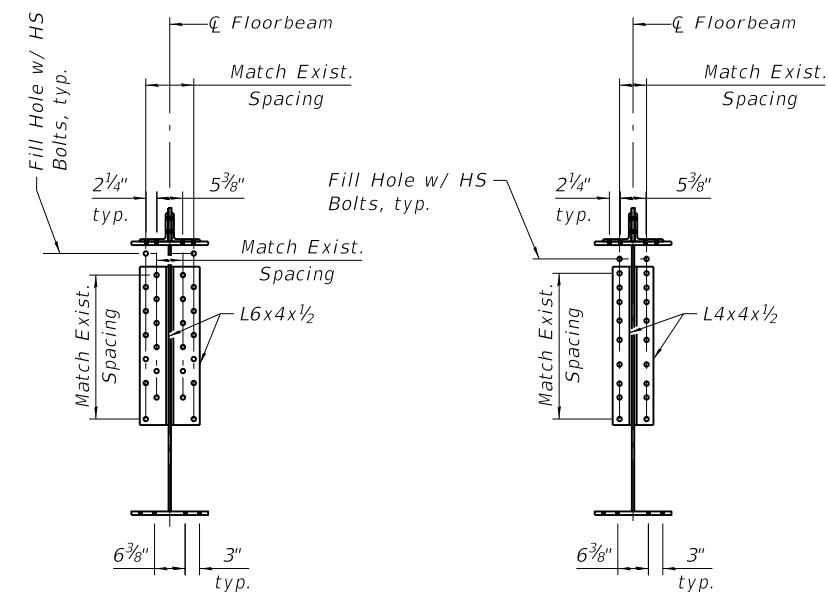
REFERENCE DRAWINGS

Drawing: Bracing for Floorbeam at 10-10
Sheet No.: 1660570210

- Notes:
- See sheet S-45 for gusset plate details.
 - See sheets S-48 thru S-54 for floor beam details.
 - See sheets S-55 thru S-65 for truss details.



| Bracket Panel Pt. | Dimension "A" | Dimension "B" |
|-------------------|-----------------|---------------------|
| 2 | $5\frac{3}{4}"$ | 3 spa. @ 3" = 9" |
| 4 | $5\frac{3}{4}"$ | 3 spa. @ 3" = 9" |
| 6 | $5\frac{1}{4}"$ | 3 spa. @ 3" = 9" |
| 8 | $4\frac{1}{8}"$ | 4 spa. @ 3" = 1'-0" |

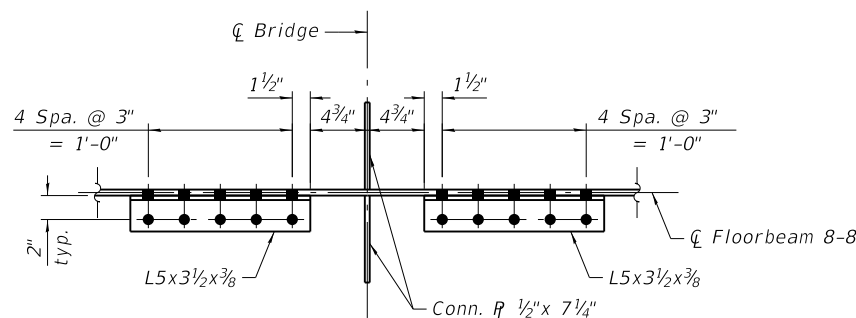
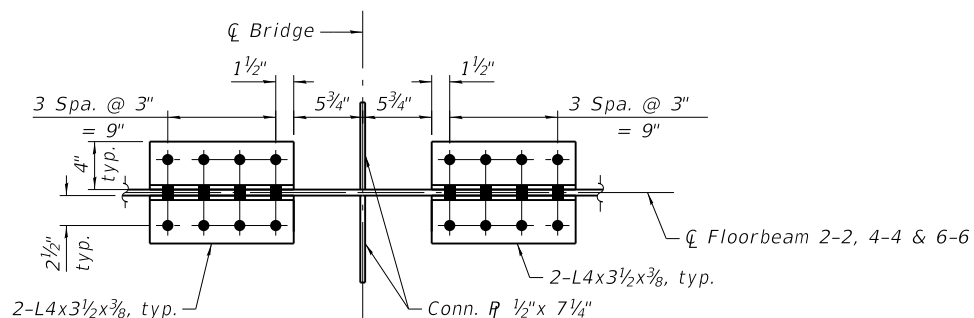


SECTION A-A

- Notes:
- Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
 - Load carrying components designated "FCM" shall be fabricated according to the provisions of Clause 12 of the AASHTO/AWS D1.5 Bridge Welding Code.
 - Install HS Bolts at existing holes, cost included with Furnishing and Erecting Structural Steel
 - See sheet S-50 for Section E-E & F-F, Tie Plate Detail, Stringer Conn. Detail, Connection Plate Detail and Bolster Detail.
 - See sheet S-51 for Section H-H & G-G.

REFERENCE DRAWINGS

| Drawing | Sheet No. |
|---|------------|
| Movable Part-Stringers and Sub-Planking | 1660570010 |
| Erection Plan-Movable Plan | 1660570196 |
| Main Truss Members | 1660570200 |
| Main Truss Members | 1660570203 |
| Floorbeam | 1660570206 |
| Floorbeam | 1660570207 |
| Laterals | 1660570215 |



0166057-E1525-S043-BASCULE FB2-FB8.DGN



WSP USA Inc.
30 N. LAGALLE STREET
SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

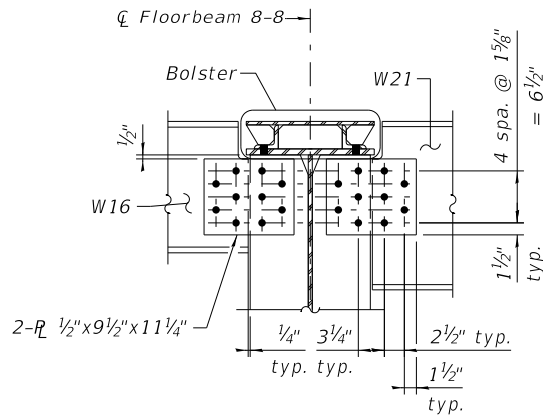
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|--------------|-----------|------------|-----|-----------|--|
| USER NAME = | PATELN | DESIGNED - | NJP | REVISED - | |
| | | CHECKED - | PJL | REVISED - | |
| PLOT SCALE = | N.T.S. | DRAWN - | NJP | REVISED - | |
| PLOT DATE = | 9/16/2020 | CHECKED - | JIG | REVISED - | |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

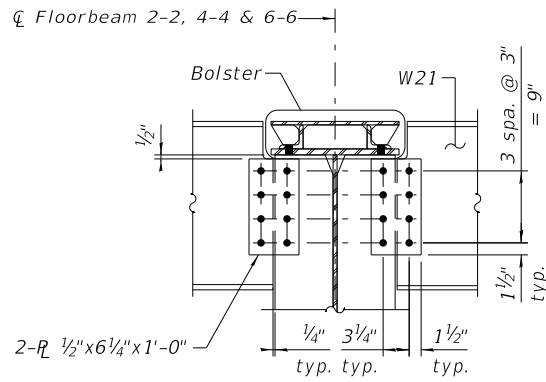
**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**BASCULE SPAN:
FLOORBEAM 2-2, 4-4, 6-6 & 8-8
(STRUCTURE NO. 016-6057)**

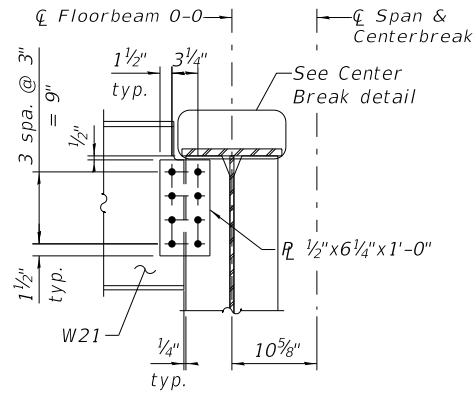
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|-----------|
| 1388 | 11-E1525-00-BR | COOK | S-49 |
| CDOT PROJECT NO. E-1-525 | | | 92 of 210 |



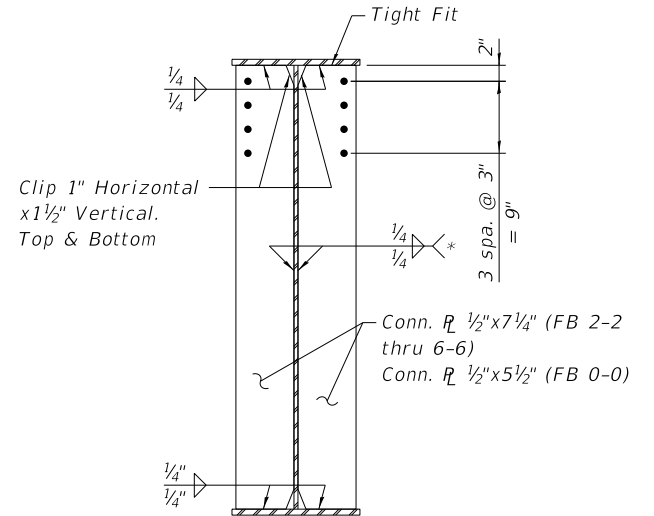
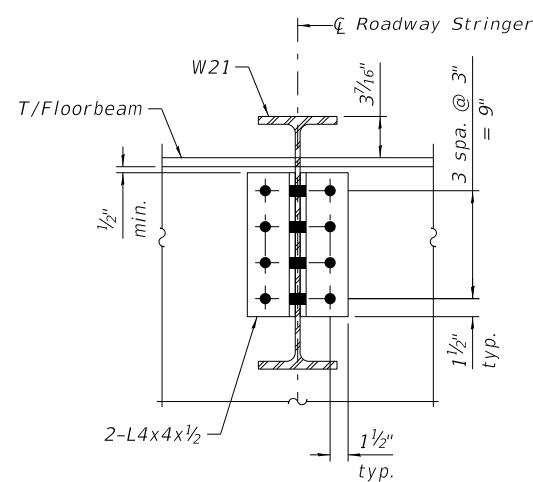
SECTION E-E
(Floorbeam 8-8, 2 locations)



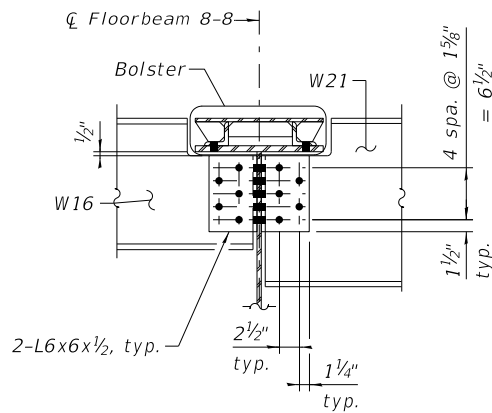
SECTION E-E
(Floorbeam 2-2, 4-4 & 6-6, 6 locations)



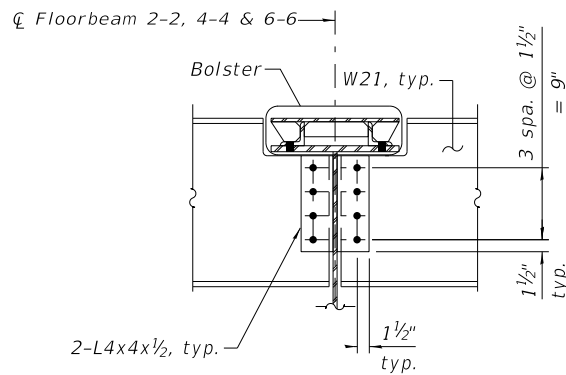
SECTION E-E
(Floorbeam 0-0, 2 locations)



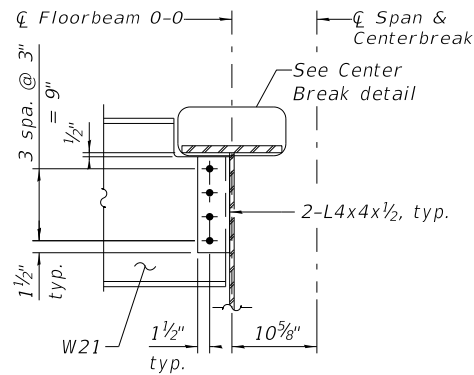
TYPICAL CONNECTION PLATE
* Terminate 1/4" (±1/8) from the end of plate intersects



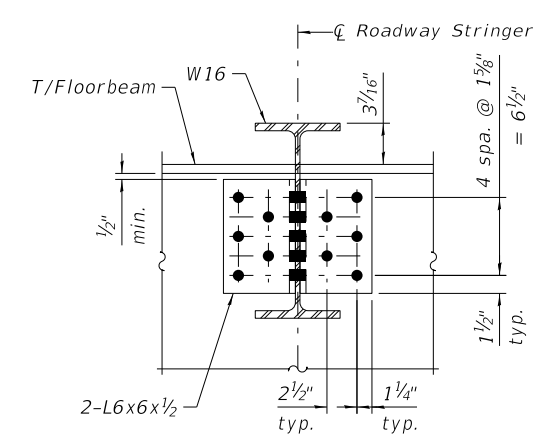
SECTION F-F
(Floorbeam 8-8, 16 locations)



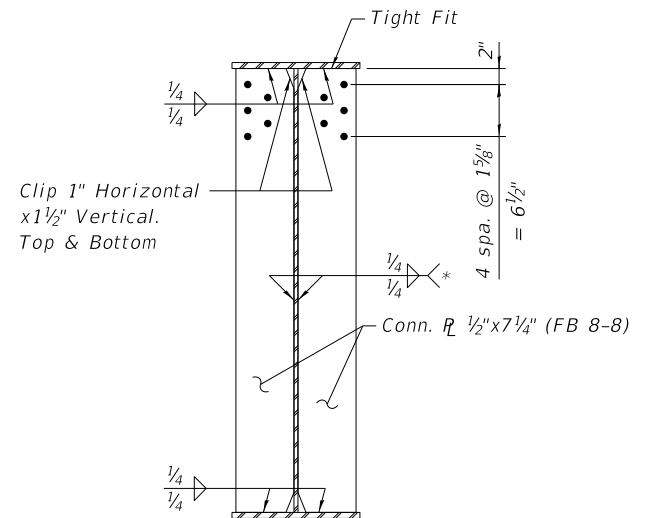
SECTION F-F
(Floorbeam 2-2, 4-4 & 6-6, 48 locations)



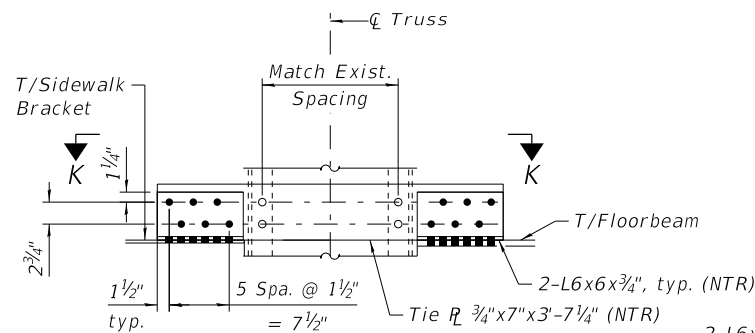
SECTION F-F
(Floorbeam 0-0, 16 locations)



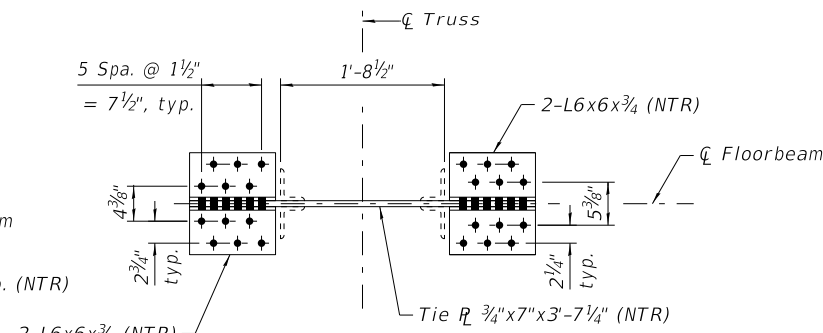
TYPICAL W16 STRINGER CONN.



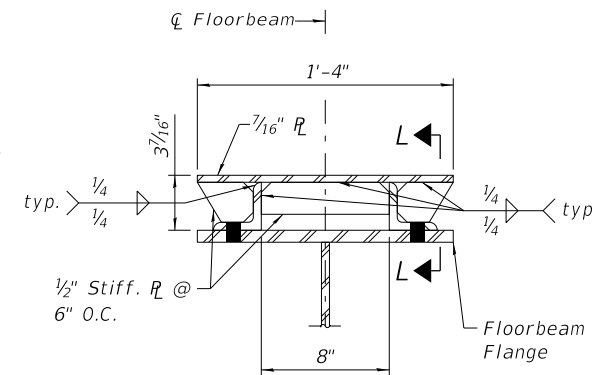
CONNECTION PLATE - FB 8-8
* Terminate 1/4" (±1/8) from the end of plate intersects



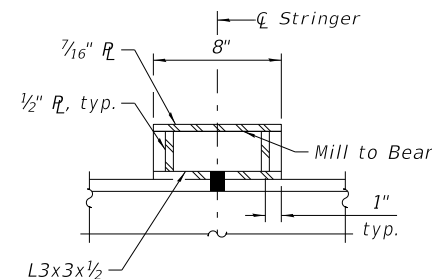
TIE PLATE DETAIL
(20 locations)



SECTION K-K



TYPICAL BOLSTER DETAIL



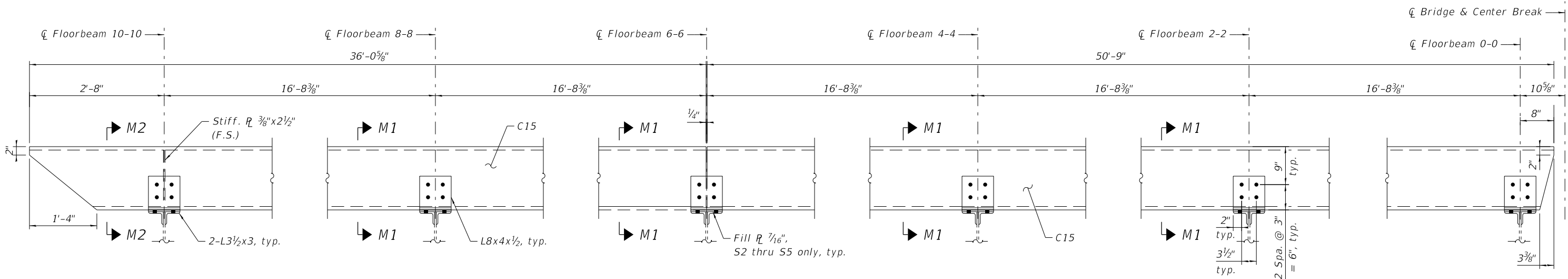
SECTION L-L

- Notes:
- Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.

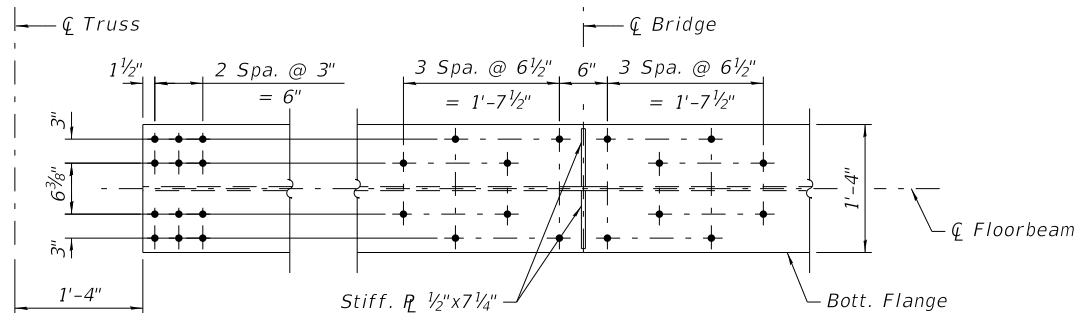
0166057-E1525-S050-FLOORBEAMDETAILBASCULE.DGN

| | | | | | | | | | | | | | |
|--|--------------|----------|------------|-----|-----------|--|---|--|---|--------------------------|----------------|-----------|-----------|
| <p>WSP USA Inc. 30 N. LA SALLE STREET SUITE 4000 CHICAGO, IL 60602 TEL: (312) 782-8150 FAX: (312) 782-1684</p> | USER NAME = | PATELN | DESIGNED - | NJP | REVISED - | | CITY OF CHICAGO DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING | WEBSTER AVENUE BRIDGE OVER THE NORTH BRANCH CHICAGO RIVER | BASCULE SPAN: FLOORBEAM DETAILS I (STRUCTURE NO. 016-6057) | F.A.U. R.T.E. | SECTION | COUNTY | SHEET NO. |
| | PLOT SCALE = | N.T.S. | CHECKED - | PJL | REVISED - | | | | | 1388 | 11-E1525-00-BR | COOK | S-50 |
| | PLOT DATE = | \$DATE\$ | DRAWN - | NJP | REVISED - | | | | | CDOT PROJECT NO. E-1-525 | | 93 of 210 | |
| | CHECKED - | JIG | REVISED - | | | | | | | | | | |

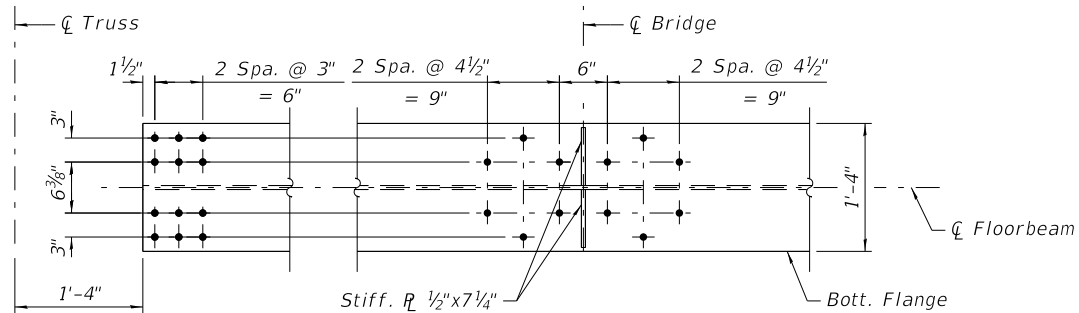
0166057-E1525-S051-FLOORBEAMDETAILIBASCULE.DGN



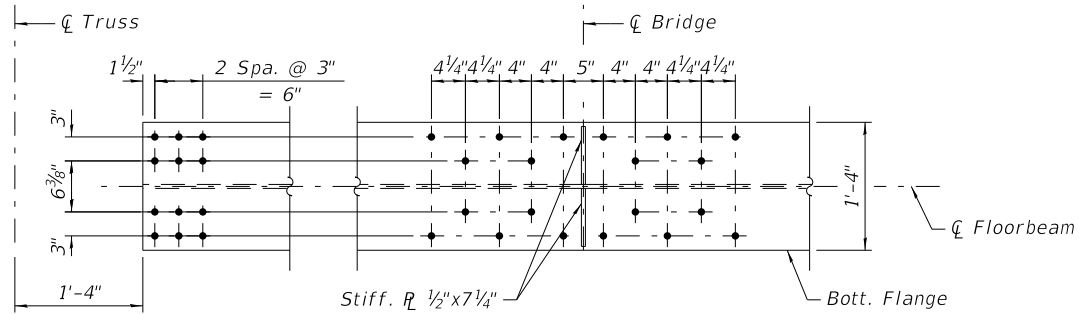
SECTION G-G
(West Leaf shown, East Leaf opposite hand)
(12 Locations)



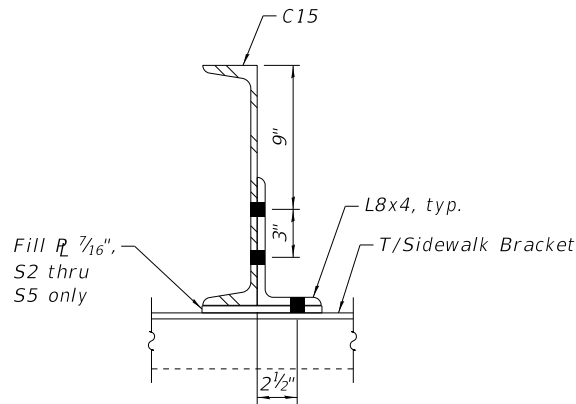
SECTION H-H
Floorbeam 2-2 & 6-6



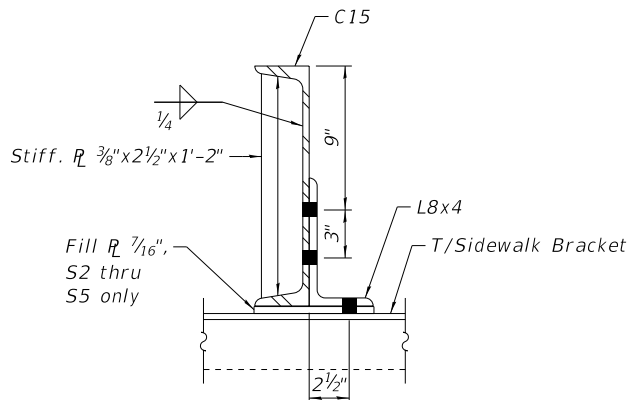
SECTION H-H
Floorbeam 4-4



SECTION H-H
Floorbeam 8-8



SECTION M1-M1



SECTION M2-M2

Note:
1. For locations of Section G-G and Section H-H, see sheets S-48 and S-49.

REFERENCE DRAWINGS

Drawing
Floorbeams
Floorbeams
Walkway Stringers and Cover Plate
Details

Sheet No.
1660570206
1660570207
1660570248



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30 N. LA SALLE STREET
SUITE 4000
CHICAGO, IL 60602
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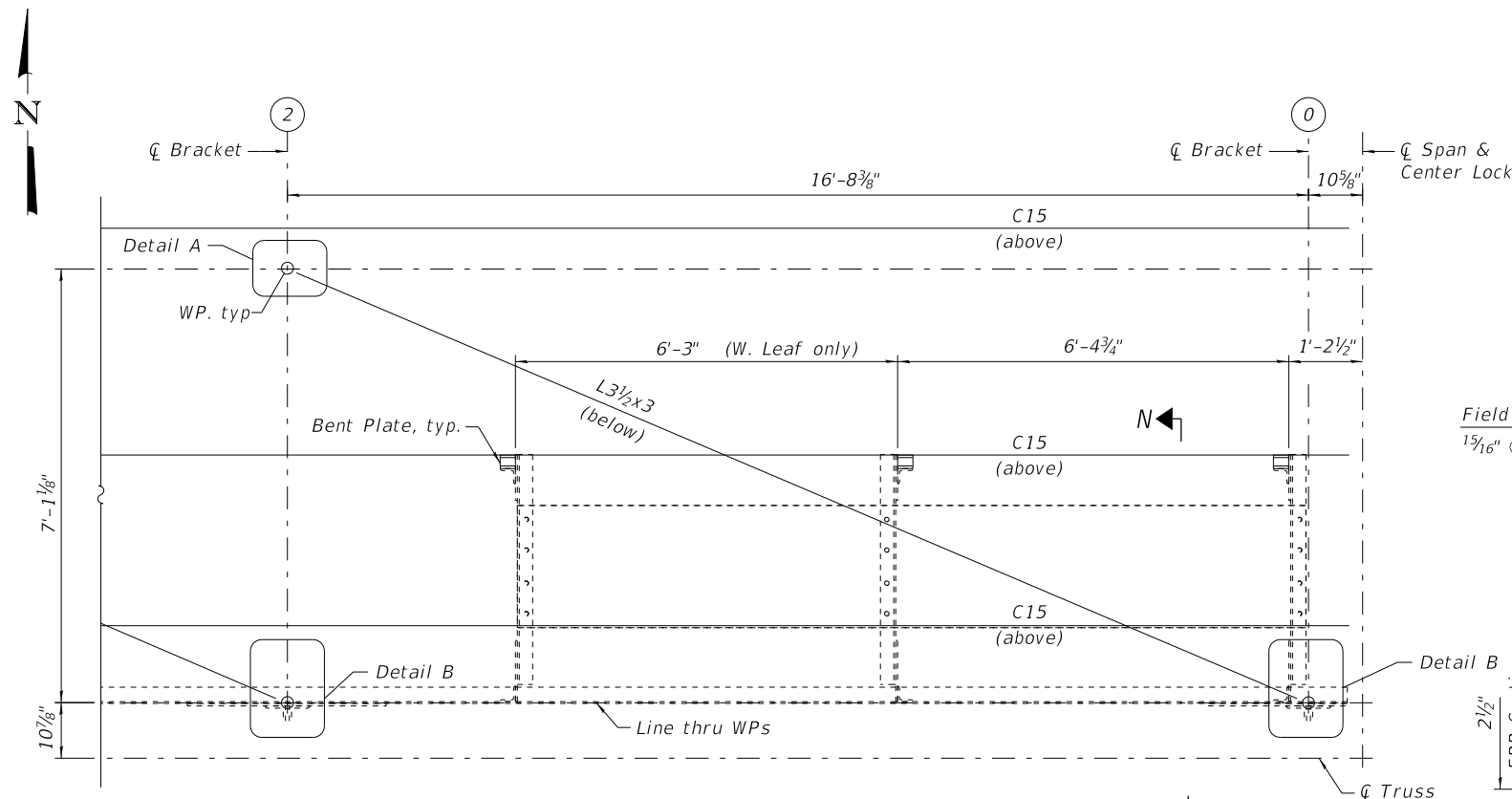
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| USER NAME = | PATELN | DESIGNED - | NJP | REVISED - | |
| | | CHECKED - | PJL | REVISED - | |
| PLOT SCALE = | N.T.S. | DRAWN - | NJP | REVISED - | |
| PLOT DATE = | \$DATE\$ | CHECKED - | JIG | REVISED - | |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

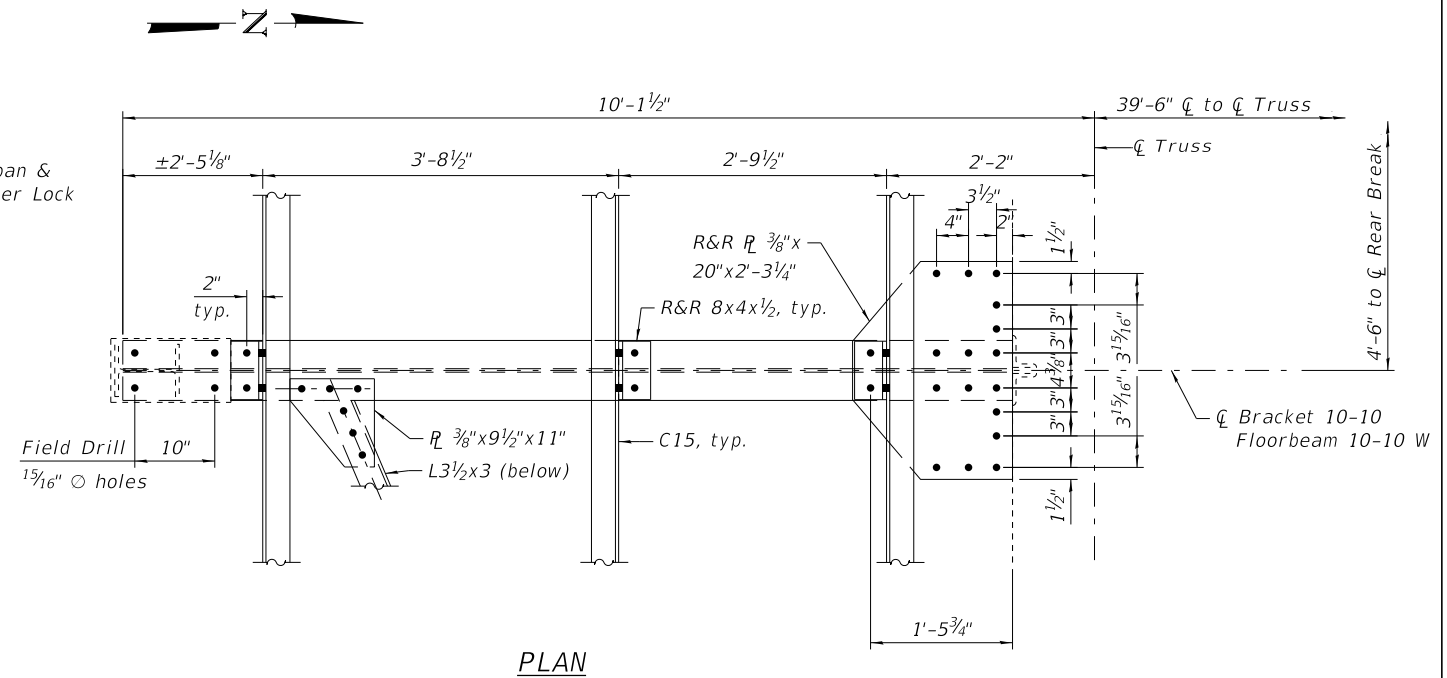
**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**BASCULE SPAN:
FLOORBEAM DETAILS II
(STRUCTURE NO. 016-6057)**

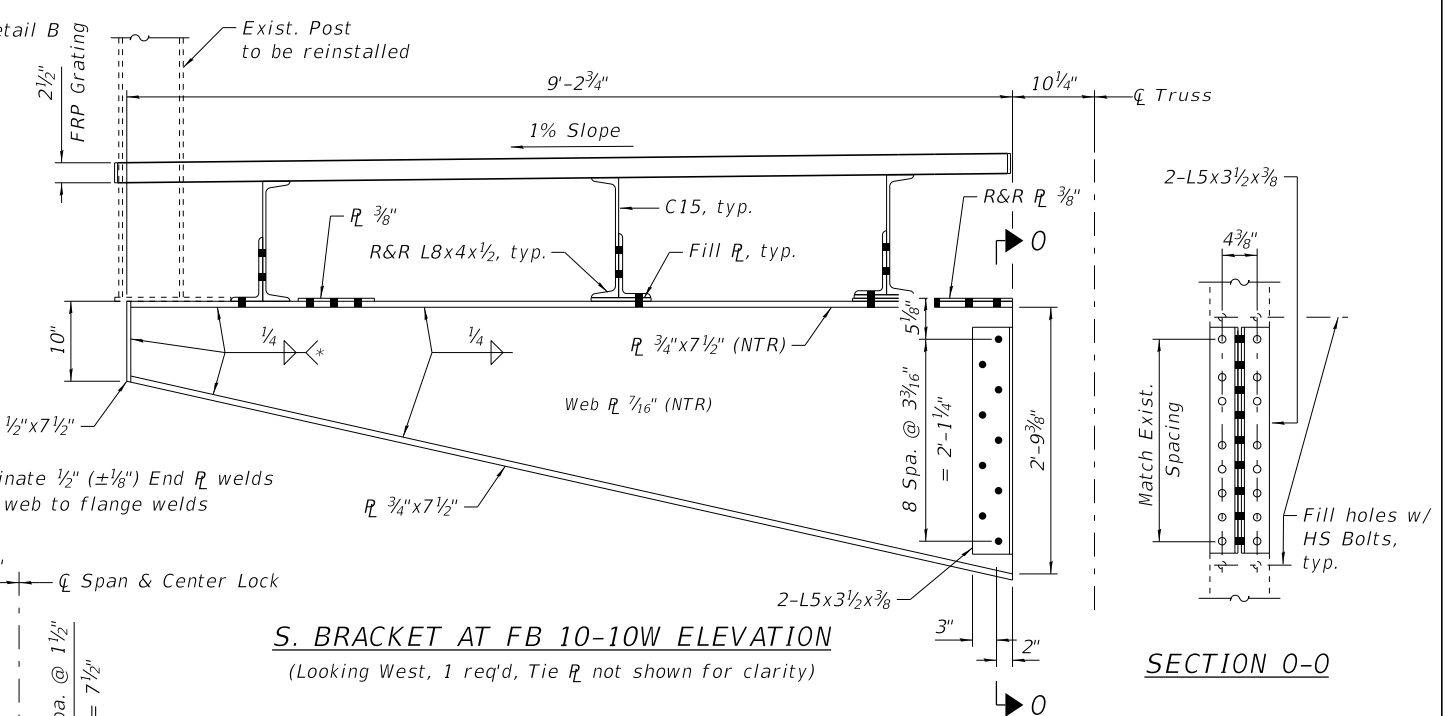
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|-----------|
| 1388 | 11-E1525-00-BR | COOK | S-51 |
| CDOT PROJECT NO. E-1-525 | | | 94 of 210 |



PLAN - LATERAL BRACING & MACHINERY PLATFORM
(West Leaf at N. Truss shown, other locations similar)

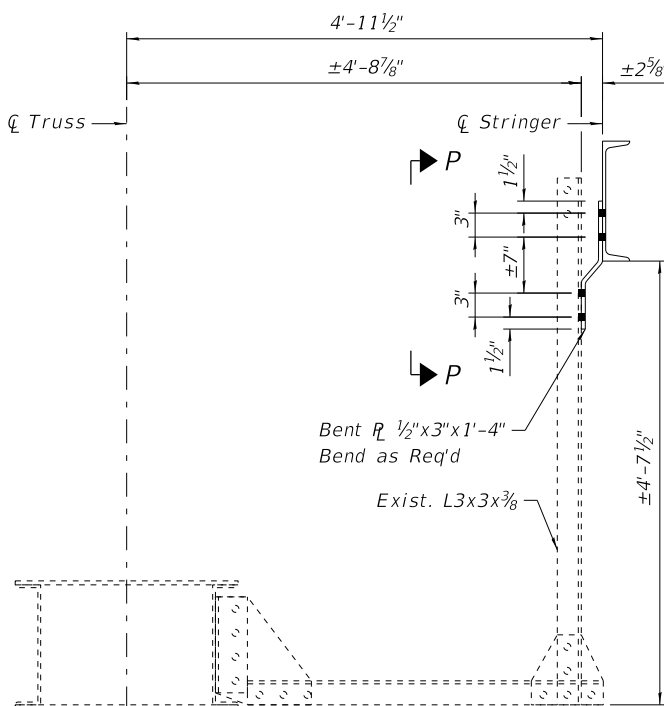


PLAN

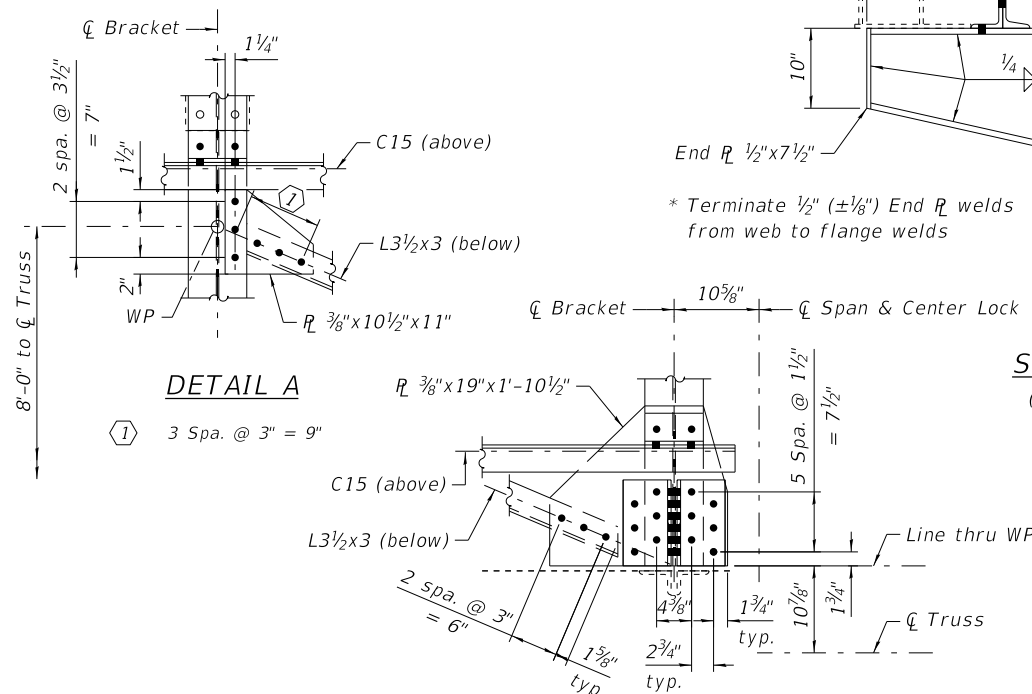


S. BRACKET AT FB 10-10W ELEVATION
(Looking West, 1 req'd, Tie R not shown for clarity)

SECTION 0-0

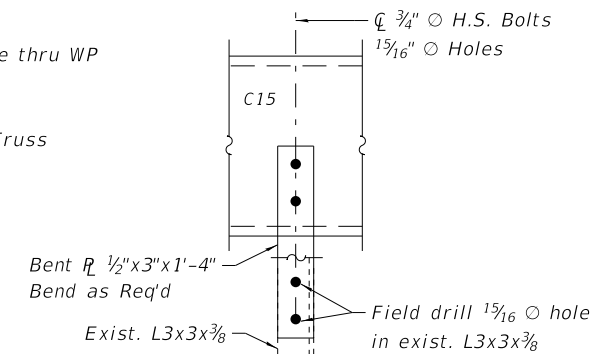


SECTION N-N



DETAIL A

DETAIL B



SECTION P-P

- Notes:
1. Load Carrying components designated "NTR" shall conform to the Impact Testing Requirement. Zone 2.
 2. Install HS Bolts at existing holes, cost included with Furnishing and Erecting Structural Steel.
 3. All bolted bracing connections shall be ASTM A325 Type 1. 3/4\"
 4. Two hardened washers required for each set of oversized holes.

REFERENCE DRAWINGS

Drawing
Stringers and Sidewalks Brackets
Center Lock Platform

Sheet No.
1660570209
1660570216

0166057-E1525-S052-FLOORBEAMDETAILIBASCULE.DGN

wsp
WSP USA Inc.
30 N. LASSALLE STREET
SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

| | | | | | |
|--------------|----------|------------|-----|-----------|--|
| USER NAME = | PATELN | DESIGNED - | NJP | REVISED - | |
| | | CHECKED - | PJL | REVISED - | |
| PLOT SCALE = | N.T.S. | DRAWN - | NJP | REVISED - | |
| PLOT DATE = | \$DATE\$ | CHECKED - | JIG | REVISED - | |

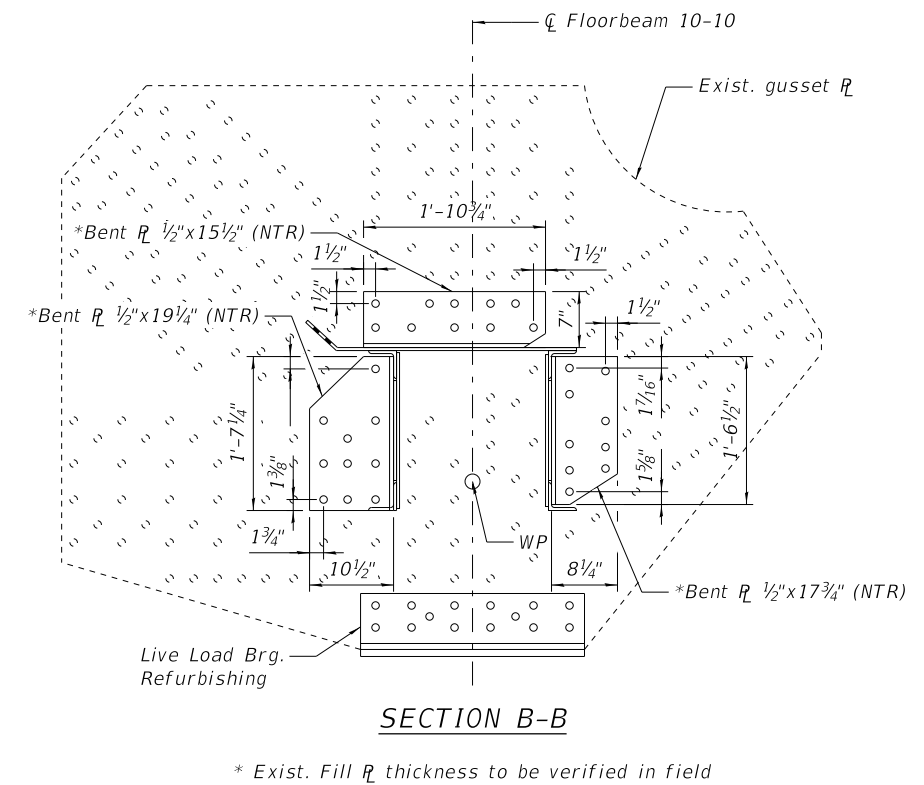
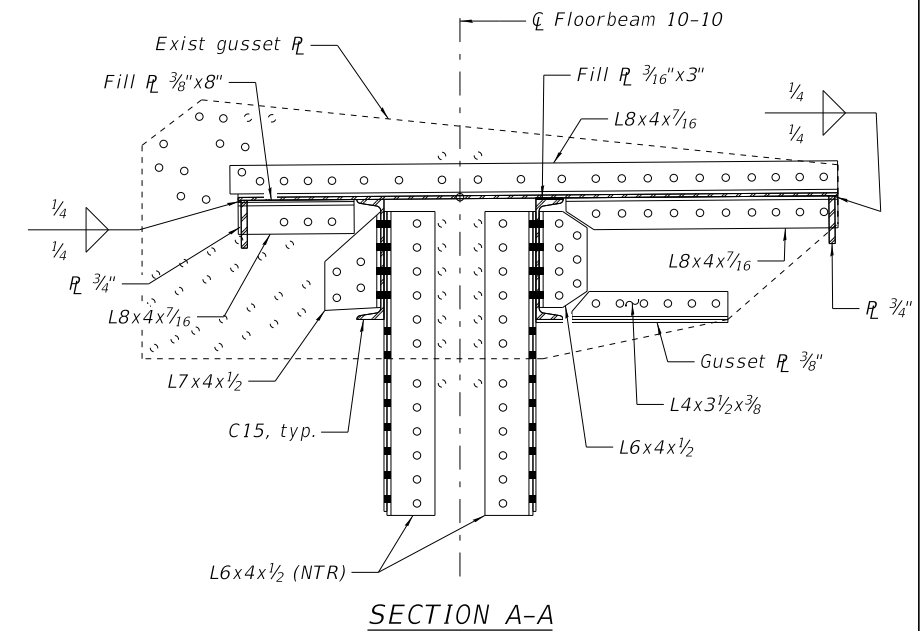
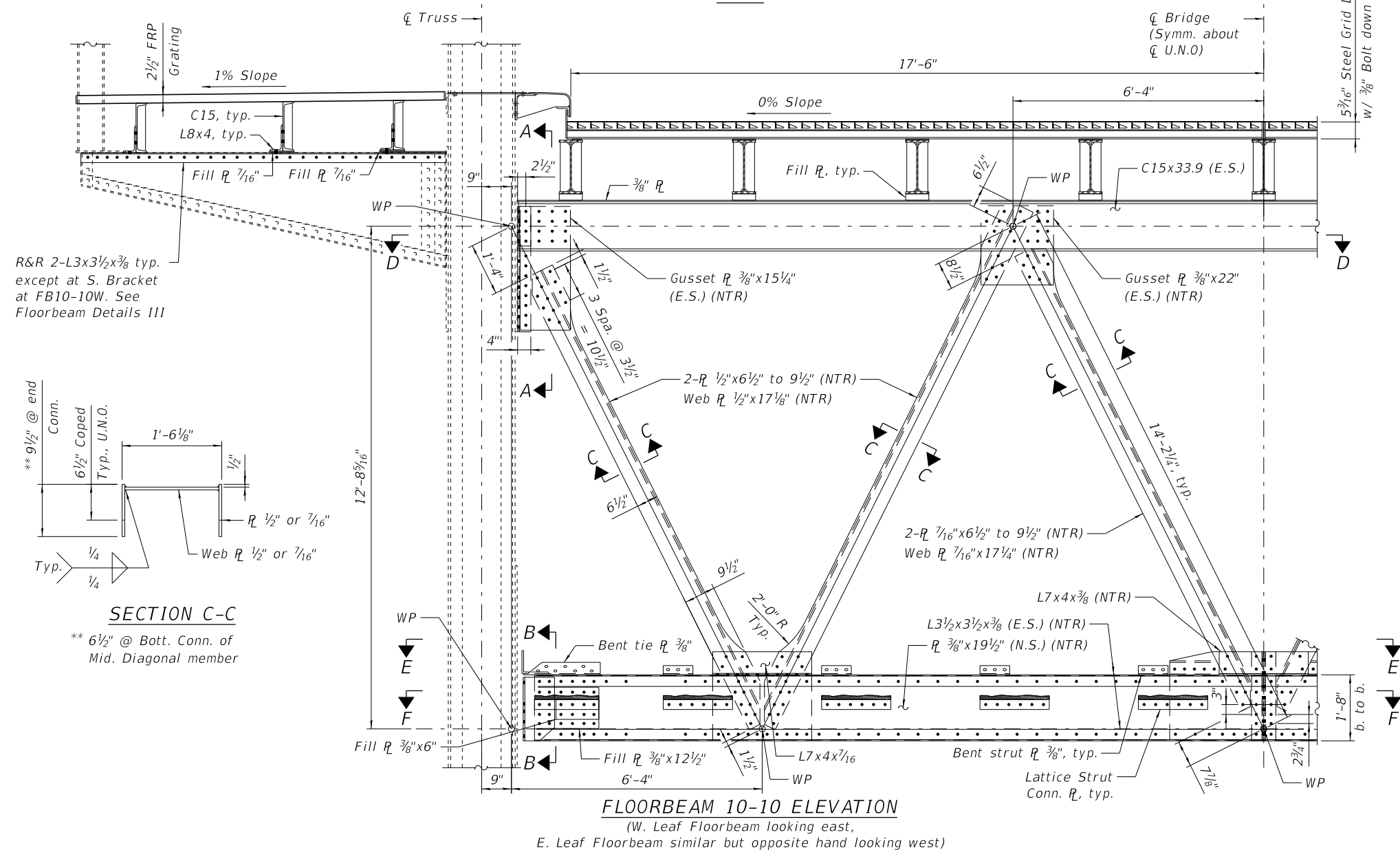
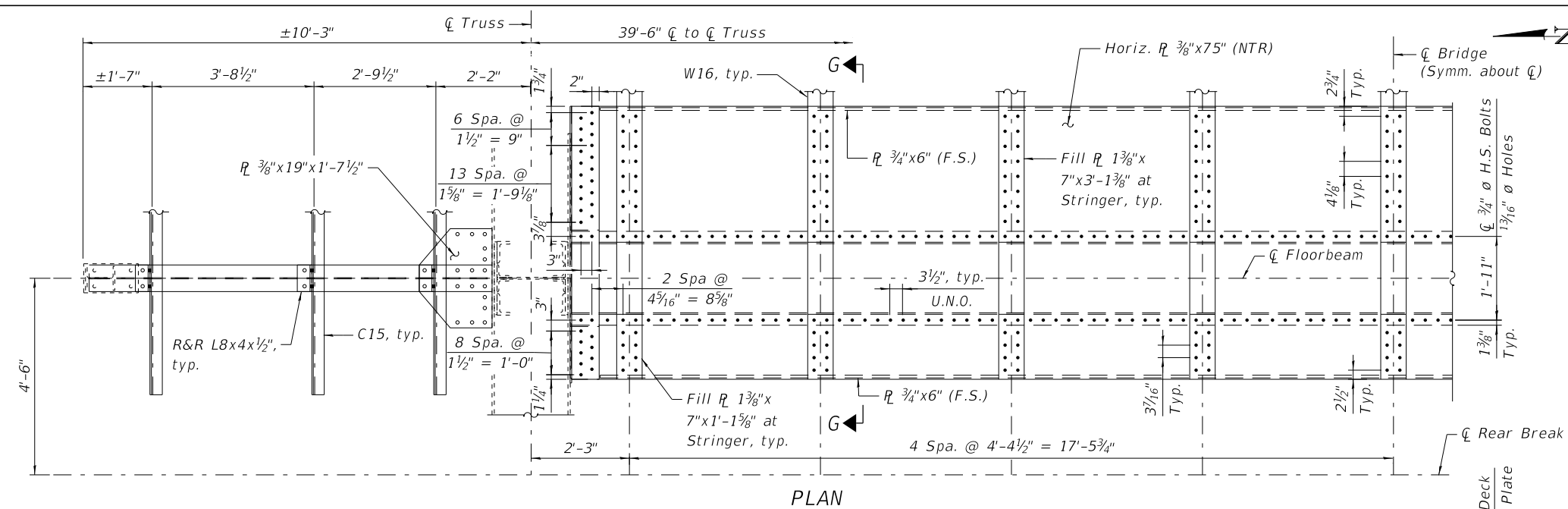
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|------------|-----|
| DESIGNED - | NJP |
| CHECKED - | PJL |
| DRAWN - | NJP |
| CHECKED - | JIG |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**BASCULE SPAN:
FLOORBEAM DETAILS III
(STRUCTURE NO. 016-6057)**

| | | | |
|--------------------------|----------------|--------|-----------|
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
| 1388 | 11-E1525-00-BR | COOK | S-52 |
| CDOT PROJECT NO. E-1-525 | | | 95 of 210 |



* Exist. Fill R_L thickness to be verified in field

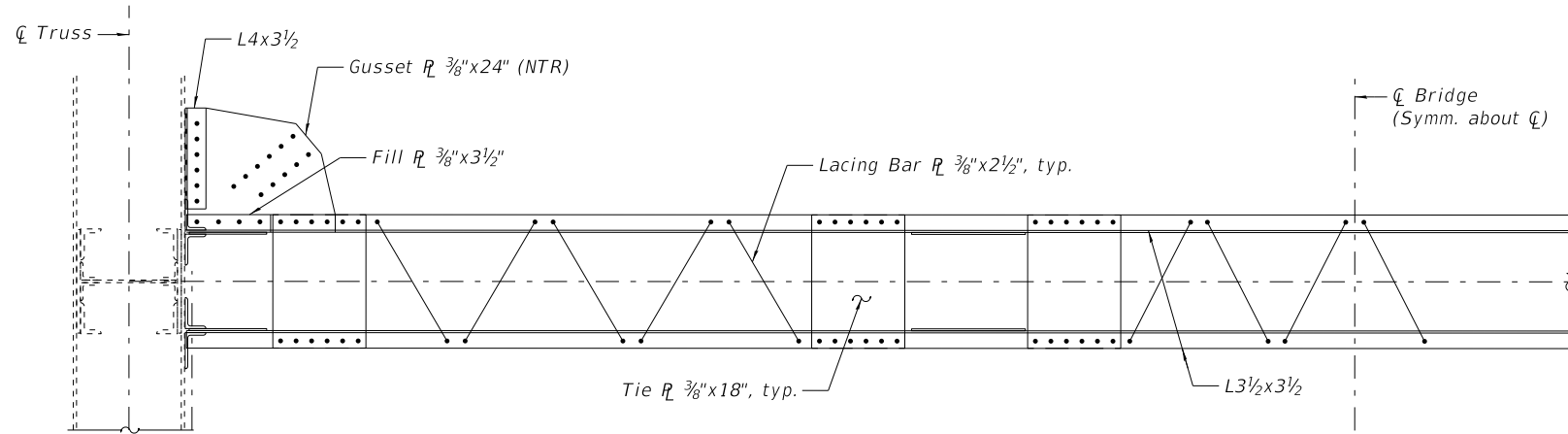
Notes:

1. Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
2. See sheet S-54 for Section D-D thru G-G.

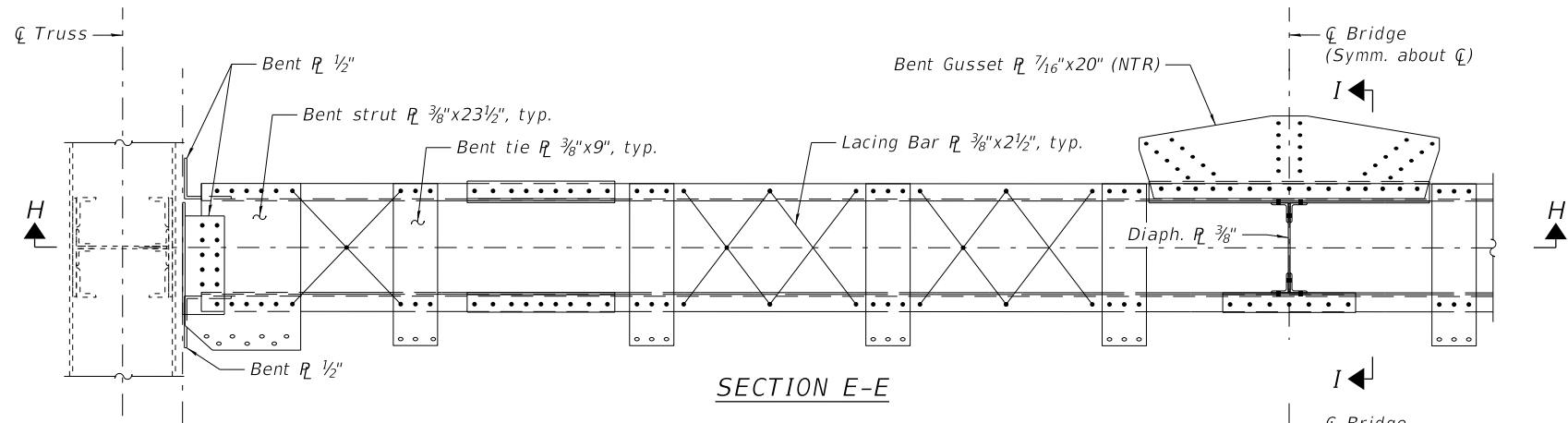
REFERENCE DRAWINGS

Drawing
Posts & Diagonals
Horizontal Girder & Bracing
Stringers & Sidewalk Brackets
Bracing for FB 10-10

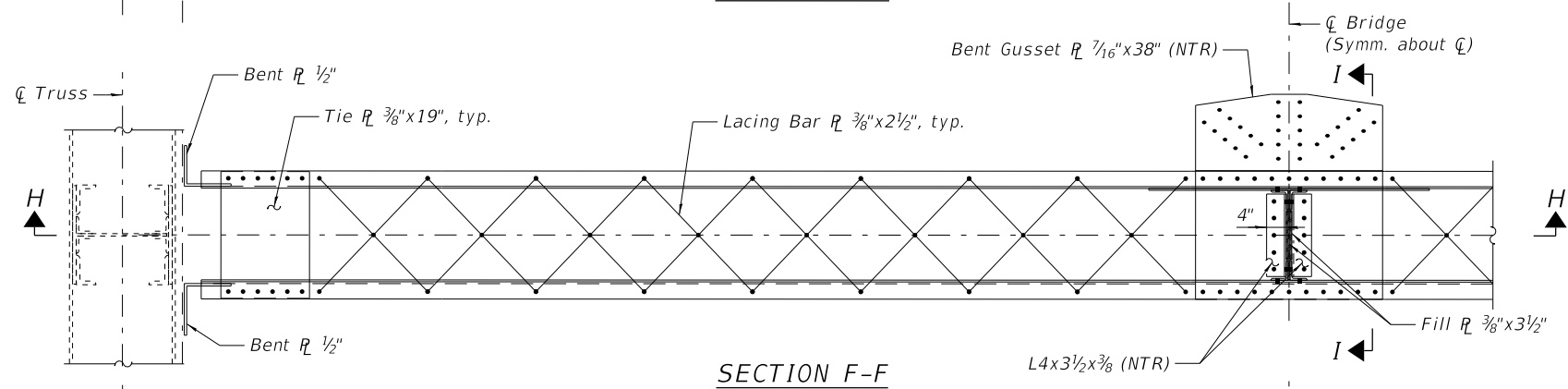
Sheet No.
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1660570208
1660570209
1660570210



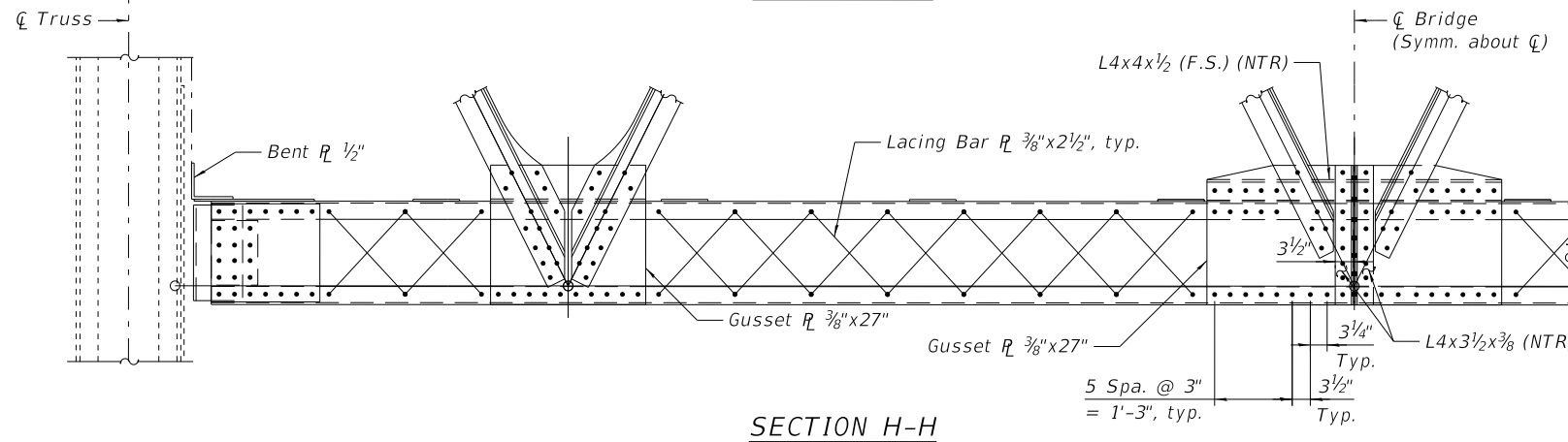
SECTION D-D



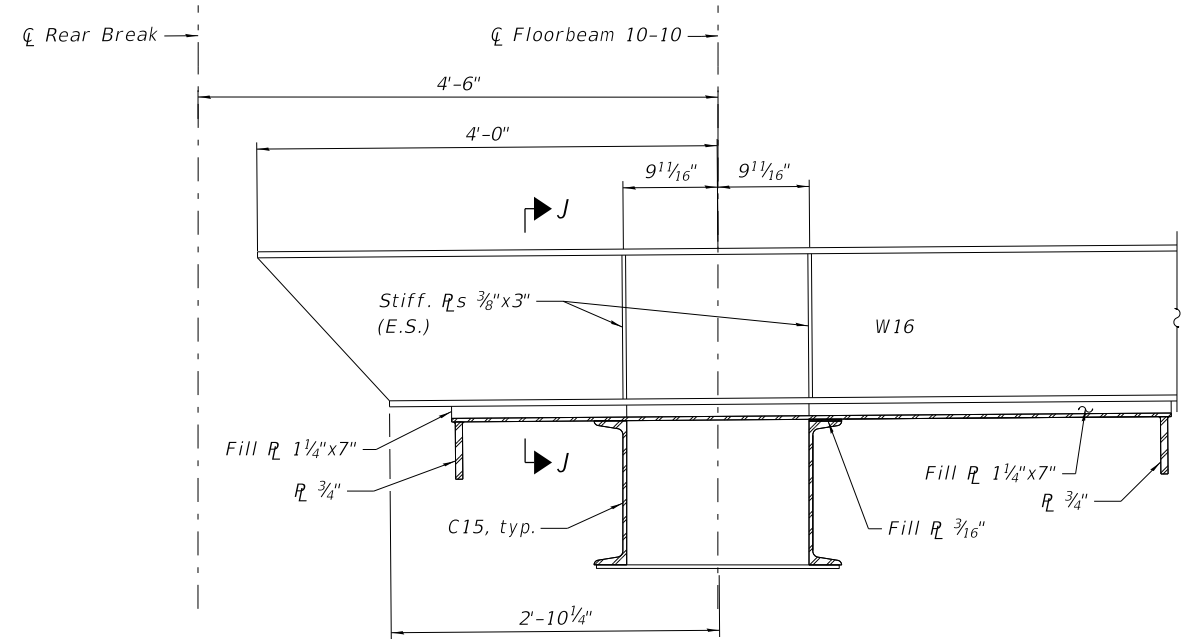
SECTION E-E



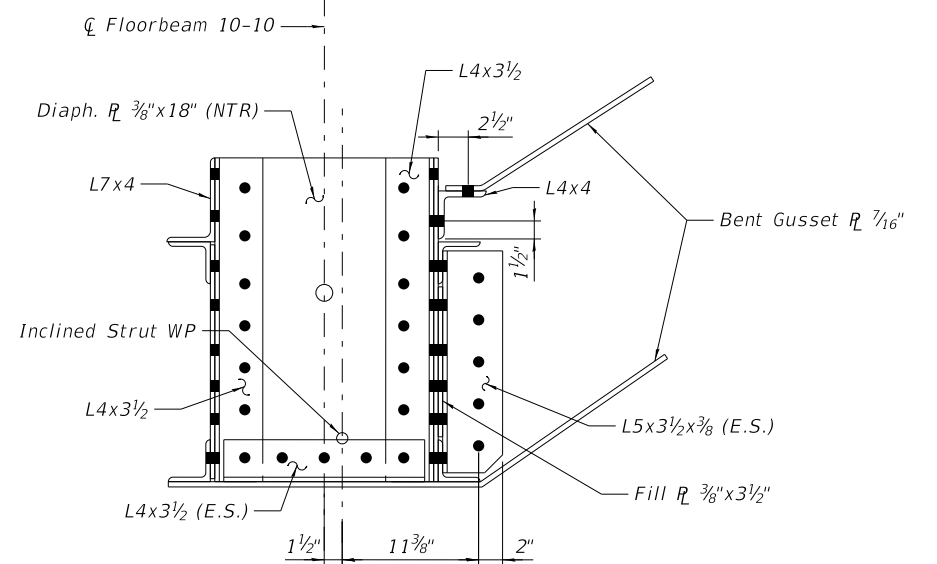
SECTION F-F



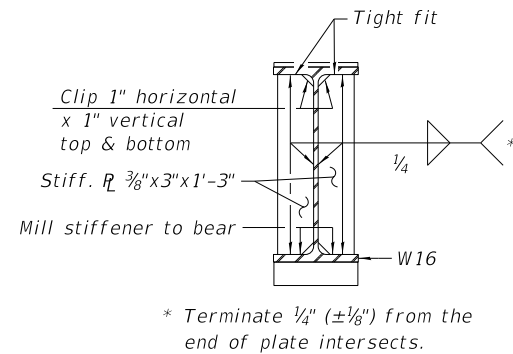
SECTION H-H



SECTION G-G



SECTION I-I



SECTION J-J

Note:
1. See sheet S-53 for location of Section D-D thru G-G.

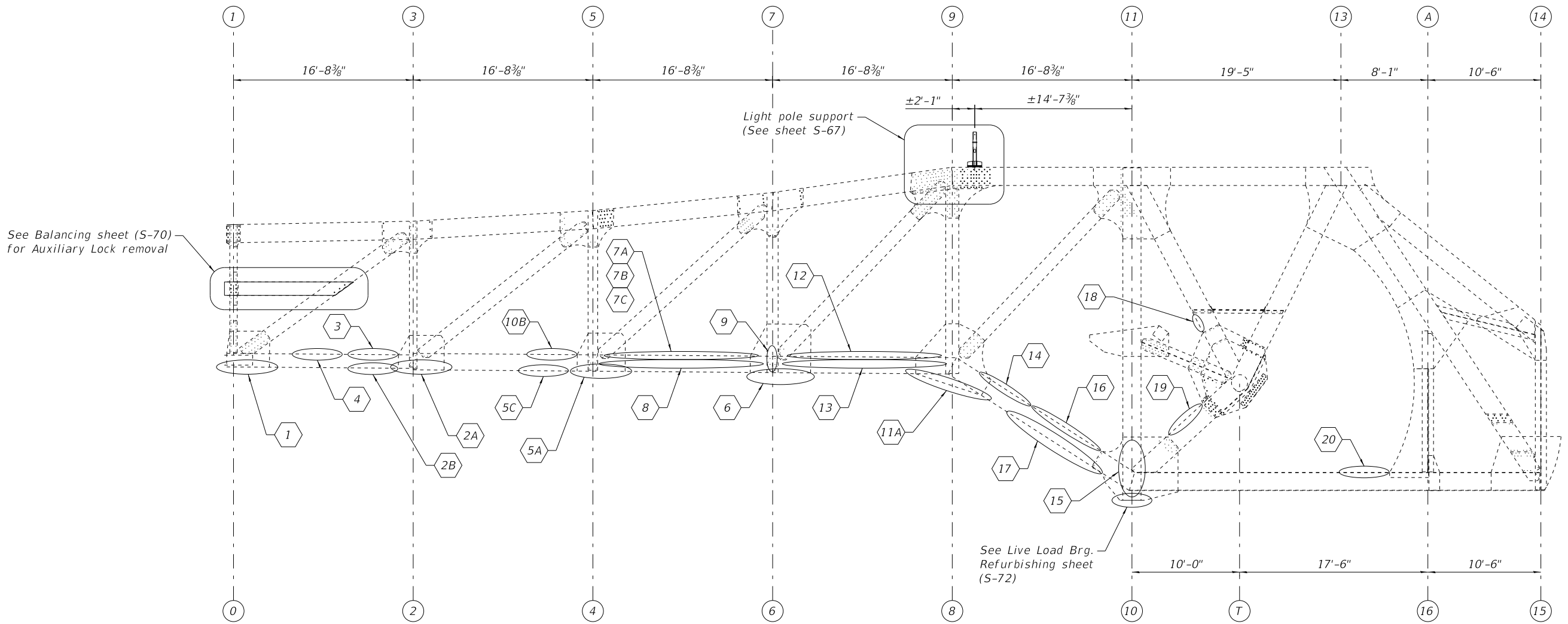
REFERENCE DRAWINGS

Drawing
Posts & Diagonals
Horizontal Girder & Bracing
Stringers & Sidewalk Brackets
Bracing for FB 10-10

Sheet No.
1660570205
1660570208
1660570209
1660570210

0166057-E1525-S054-FLOORBEAM10-10DET.BASCULE.DGN

| | | | | | | | | | | | |
|--|--|----------------------|---------------|-----------|---|--|---|--------------------------|----------------|-----------|-----------|
| | WSP USA Inc. 30 N. LA SALLE STREET SUITE 4000 CHICAGO, IL 60602 TEL: (312) 782-8150 FAX: (312) 782-1684 | USER NAME = IBRAHIM | DESIGNED - MI | REVISED - | CITY OF CHICAGO DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING | WEBSTER AVENUE BRIDGE OVER THE NORTH BRANCH CHICAGO RIVER | BASCULE SPAN: FLOORBEAM 10-10 DETAILS (STRUCTURE NO. 016-6057) | F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
| | | PLOT SCALE = N.T.S. | CHECKED - PJL | REVISED - | | | | 1388 | 11-E1525-00-BR | COOK | S-54 |
| | | PLOT DATE = \$DATE\$ | DRAWN - MI | REVISED - | | | | CDOT PROJECT NO. E-1-525 | | 97 of 210 | |
| | | | CHECKED - JIG | REVISED - | | | | | | | |



SOUTHWEST TRUSS ELEVATION
(Looking south)

- | | | | |
|--|--|---|--|
| 1 R&R Bott. Conn. \bar{r} (See sheet S-59) | 5C R&R Bott. Lacing Bars (See sheet S-60) | 11A R&R Bott. Conn. \bar{r} , Wedge \bar{r} s & Adjacent Lacing Bars (See sheet S-62) | 15 Strengthening Post 10-11 at Live Load Brg. (See sheet S-64) |
| 2A R&R Bott. Conn. \bar{r} & Lacing Bars (See sheet S-59) | 6 R&R Bott. Conn. \bar{r} & Lacing Bars (See sheet S-60) | 12 R&R Top Batten \bar{r} s & Top Lacing Bars (See sheet S-62) | 16 R&R Top Batten \bar{r} & Top Lacing Bars (See sheet S-65) |
| 2B R&R Bott. Lacing Bars (See sheet S-59) | 7A R&R Top Batten \bar{r} R&R Bott. Lacing Bars 7B R&R Top Batten \bar{r} 7C (See sheet S-60) | 13 R&R Diaphragm Top Angles & \bar{r} (See sheet S-63) | 17 R&R Bott. Batten \bar{r} (See sheet S-65) |
| 3 R&R Top Batten \bar{r} (See sheet S-59) | 8 R&R Diaphragm Top Angles & \bar{r} (See sheet S-61) | 14 R&R Top Batten \bar{r} (See sheet S-63) | 18 R&R Bott. Batten \bar{r} (See sheet S-66) |
| 4 R&R Top Batten \bar{r} (See sheet S-59) | 9 Strengthen Diaphragm \bar{r} (See sheet S-61) | | 19 R&R Top Batten \bar{r} s (See sheet S-66) |
| 5A R&R Bott. Conn. \bar{r} (See sheet S-60) | 10B R&R Top Batten \bar{r} (See sheet S-61) | | 20 R&R Top Batten \bar{r} (See sheet S-67) |

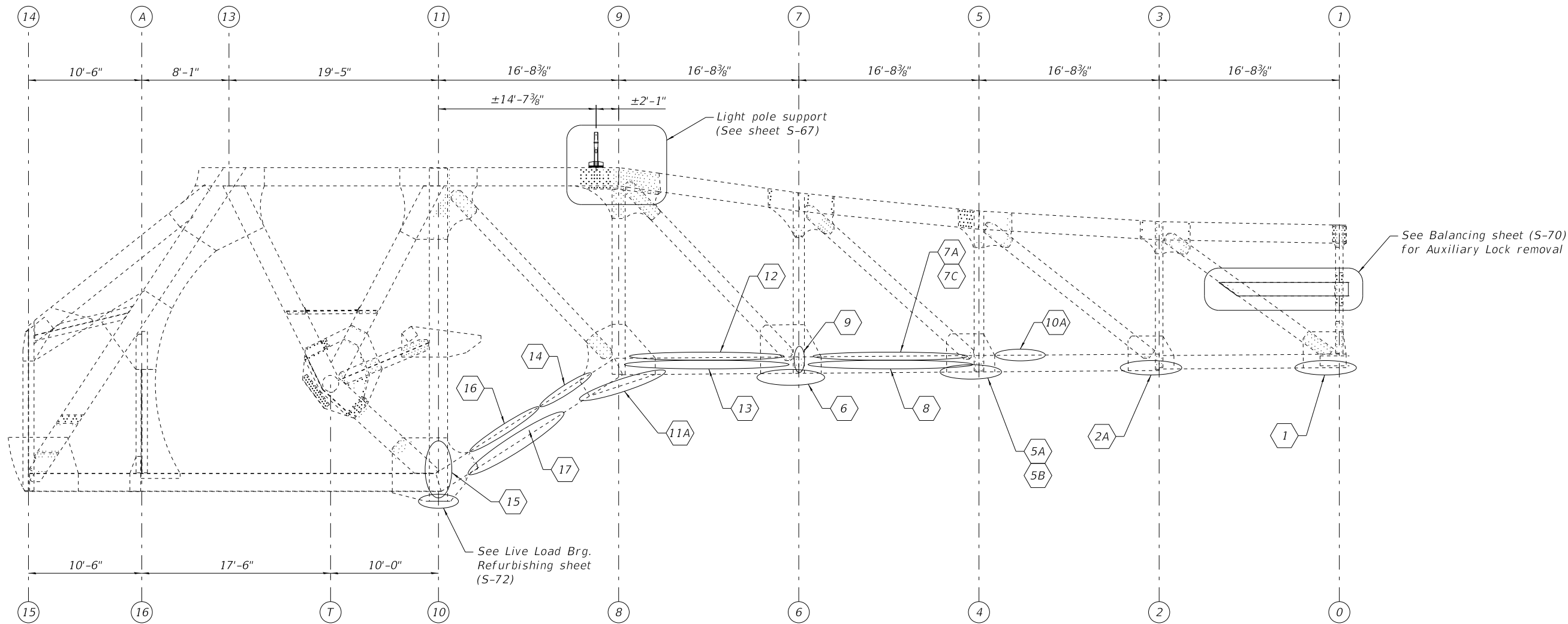
- Notes:
- Locations to be strengthened shall be verified in the field.
 - Cost of furnishing and erecting truss repair steel elements shall be included in "Structural Steel Repair".
 - Cost of removing and replacing rivets in association with furnishing and erecting truss repair steel elements shall be included in "Structural Steel Repair".
 - See sheets S-59 thru S-67 for Truss Repair Details.

REFERENCE DRAWINGS

Drawing
General Plan & Elevation
Erection Plan of Movable Part

Sheet No.
1660570123
1660570196

0166057-E1525-S055-SWTRUSSREPAIRS.DGN



SOUTHEAST TRUSS ELEVATION
(Looking south)

1 R&R Bott. Conn. \bar{r}
(See sheet S-59)

2A R&R Bott. Conn. \bar{r} & Lacing Bars
(See sheet S-59)

5A R&R Bott. Conn. \bar{r}
5B R&R Bott. Lacing Bars
(See sheet S-60)

6 R&R Bott. Conn. \bar{r} & Lacing Bars
(See sheet S-60)

7A R&R Top Batten \bar{r} &
7C R&R Top Batten \bar{r}
(See sheet S-60)

8 R&R Diaphragm Top Angles & \bar{r}
(See sheet S-61)

9 Strengthen Diaphragm \bar{r}
(See sheet S-61)

10A R&R Top Batten \bar{r}
(See sheet S-61)

11A R&R Bott. Conn. \bar{r} , Wedge \bar{r} s &
Adjacent Lacing Bars
(See sheet S-62)

12 R&R Top Batten \bar{r} s & Top Lacing Bars
(See sheet S-62)

13 R&R Diaphragm Top Angles & \bar{r}
(See sheet S-63)

14 R&R Top Batten \bar{r}
(See sheet S-63)

15 Strengthening Post 10-11 at Live Load
Brg.
(See sheet S-64)

16 R&R Top Batten \bar{r} & Top Lacing Bars
(See sheet S-65)

17 R&R Bott. Batten \bar{r}
(See sheet S-65)

Notes:

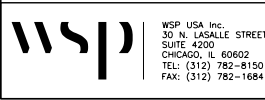
- Locations to be strengthened shall be verified in the field.
- Cost of furnishing and erecting truss repair steel elements shall be included in "Structural Steel Repair".
- Cost of removing and replacing rivets in association with furnishing and erecting truss repair steel elements shall be included in "Structural Steel Repair".
- See sheets S-59 thru S-67 for Truss Repair Details.

REFERENCE DRAWINGS

Drawing
General Plan & Elevation
Erection Plan of Movable Part

Sheet No.
1660570123
1660570196

0166057-E1525-S056-SETRUSSREPAIRS.DGN



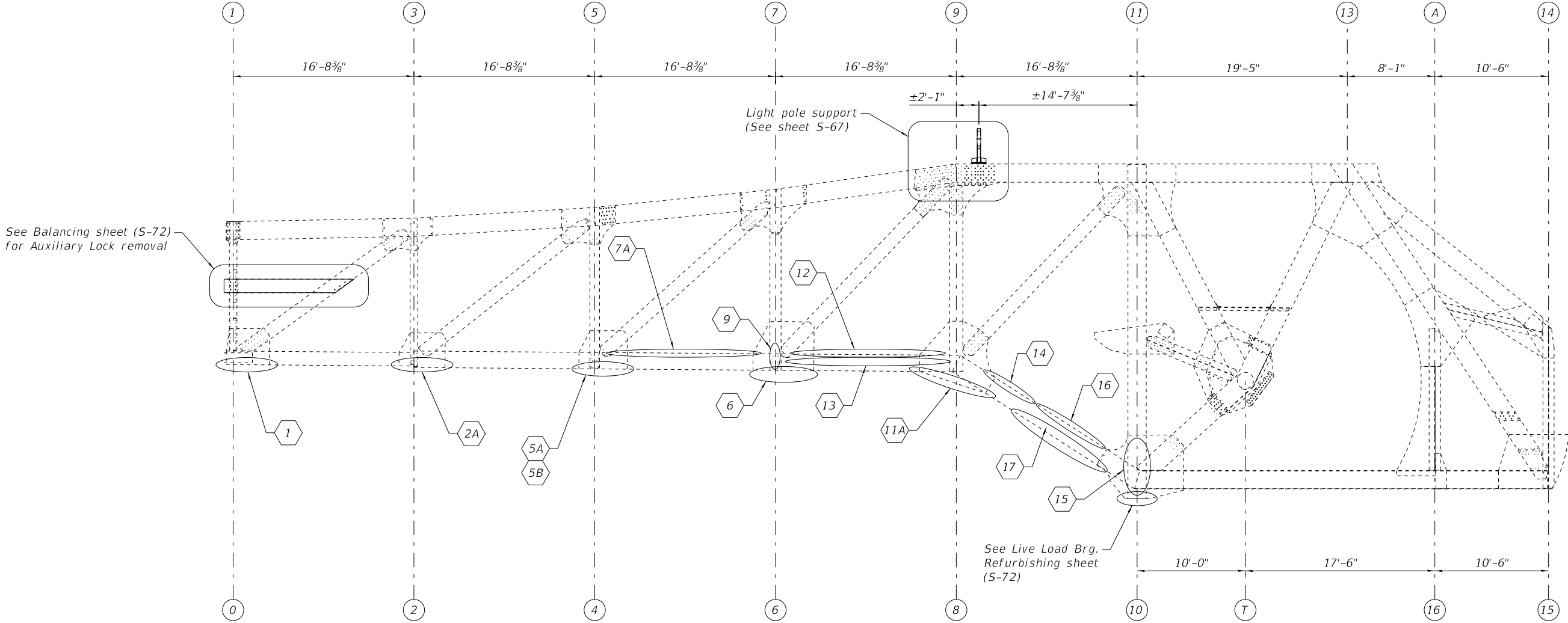
| | | | | | |
|--------------|----------|------------|--------|-----------|--|
| USER NAME = | PJLAUX | DESIGNED - | LD/PJL | REVISED - | |
| | | CHECKED - | NBR | REVISED - | |
| PLOT SCALE = | N.T.S. | DRAWN - | LD/PJL | REVISED - | |
| PLOT DATE = | \$DATE\$ | CHECKED - | JIG | REVISED - | |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**BASCULE SPAN:
SE TRUSS REPAIRS
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|-----------|
| 1388 | 11-E1525-00-BR | COOK | S-56 |
| CDOT PROJECT NO. E-1-525 | | | 99 of 210 |



NORTHEAST TRUSS ELEVATION
(Looking north)

- | | | | |
|--|---|---|--|
| 1 R&R Bott. Conn. \bar{r} (See sheet S-59) | 6 R&R Bott. Conn. \bar{r} & Lacing Bars (See sheet S-60) | 11A R&R Bott. Conn. \bar{r} , Wedge \bar{r} s & Adjacent Lacing Bars (See sheet S-62) | 15 Strengthening Post 10-11 at Live Load Brg. (See sheet S-64) |
| 2A R&R Bott. Conn. \bar{r} & Lacing Bars (See sheet S-59) | 7A R&R Top Batten \bar{r} (See sheet S-60) | 12 R&R Top Batten \bar{r} s & Top Lacing Bars (See sheet S-62) | 16 R&R Top Batten \bar{r} & Top Lacing Bars (See sheet S-65) |
| 5A R&R Bott. Conn. \bar{r} & Lacing Bars 5B R&R Bott. Lacing Bars (See sheet S-60) | 9 Strengthen Diaphragm \bar{r} (See sheet S-61) | 13 R&R Diaphragm Top Angles & \bar{r} (See sheet S-63) | 17 R&R Bott. Batten \bar{r} (See sheet S-65) |
| | | 14 R&R Top Batten \bar{r} (See sheet S-63) | |

- Notes:
- Locations to be strengthened shall be verified in the field.
 - Cost of furnishing and erecting truss repair steel elements shall be included in "Structural Steel Repair".
 - Cost of removing and replacing rivets in association with furnishing and erecting truss repair steel elements shall be included in "Structural Steel Repair".
 - See sheets S-59 thru S-67 for Truss Repair Details.

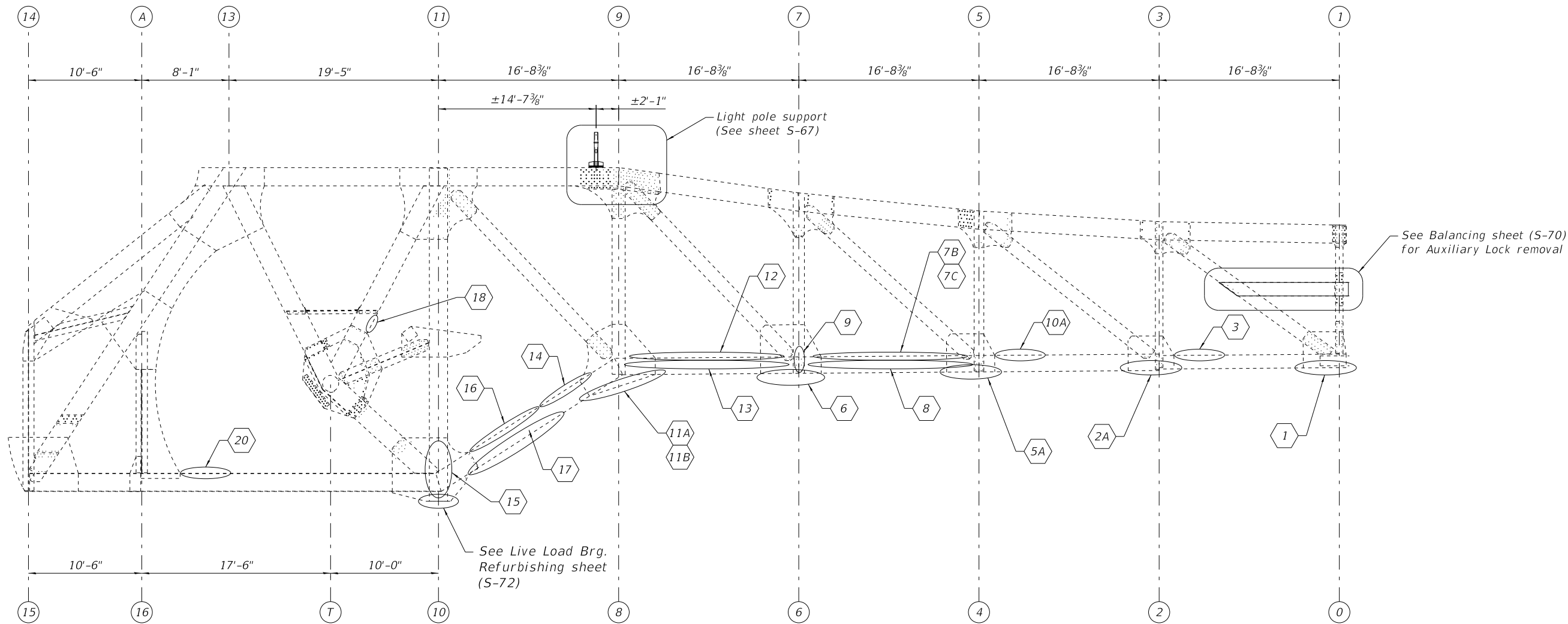
REFERENCE DRAWINGS

Drawing
General Plan & Elevation
Erection Plan of Movable Part

Sheet No.
1660570123
1660570196

0166057-E1525-S057-NETRUSREPAIRS.DGN

| | | | | | | | | | | | |
|--|----------------------|--|-------------------|-----------|---|--|--|--------------------------|----------------|--------|-----------|
|  <div>WSP USA Inc. 30 N. LA SALLE STREET SUITE 4000 CHICAGO, IL 60602 TEL: (312) 782-8150 FAX: (312) 782-1684</div> | USER NAME = PJLAUX | | DESIGNED - LD/PJL | REVISED - | <div>CITY OF CHICAGO</div> <div>DEPARTMENT OF TRANSPORTATION</div> <div>DIVISION OF ENGINEERING</div> | <div>WEBSTER AVENUE BRIDGE OVER THE NORTH BRANCH CHICAGO RIVER</div> | <div>BASCULE SPAN: NE TRUSS REPAIRS (STRUCTURE NO. 016-6057)</div> | F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
| | PLOT SCALE = N.T.S. | | CHECKED - NBR | REVISED - | | | | 1388 | 11-E1525-00-BR | COOK | S-57 |
| | PLOT DATE = \$DATE\$ | | CHECKED - JIG | REVISED - | | | | CDOT PROJECT NO. E-1-525 | | | |
| | | | | | | | | | | | |



NORTHWEST TRUSS ELEVATION
(Looking north)

1 R&R Bott. Conn. R
(See sheet S-59)

2A R&R Bott. Conn. R & Lacing Bars
(See sheet S-59)

3 R&R Top Batten R
(See sheet S-59)

5A R&R Bott. Conn. R & Lacing Bars
(See sheet S-60)

6 R&R Bott. Conn. R & Lacing Bars
(See sheet S-60)

7B R&R Bott. Lacing Bars
R&R Top Batten R
(See sheet S-60)

8 R&R Diaphragm Top Angles & R
(See sheet S-61)

9 Strengthen Diaphragm R
(See sheet S-61)

10A R&R Top Batten R
(See sheet S-61)

11A R&R Bott. Conn. R, Wedge R's &
Adjacent Lacing Bars
R&R Angle
(See sheet S-62)

12 R&R Top Batten R's & Top Lacing Bars
(See sheet S-62)

13 R&R Diaphragm Top Angles & R
(See sheet S-63)

14 R&R Top Batten R
(See sheet S-63)

15 Strengthening Post 10-11 at Live Load
Brg.
(See sheet S-64)

16 R&R Top Batten R & Top Lacing Bars
(See sheet S-65)

17 R&R Bott. Batten R
(See sheet S-65)

18 R&R Top Batten R
(See sheet S-66)

20 R&R Bott. Batten R
(See sheet S-67)

Notes:

- Locations to be strengthened shall be verified in the field.
- Cost of furnishing and erecting truss repair steel elements shall be included in "Structural Steel Repair".
- Cost of removing and replacing rivets in association with furnishing and erecting truss repair steel elements shall be included in "Structural Steel Repair".
- See sheets S-59 thru S-67 for Truss Repair Details.

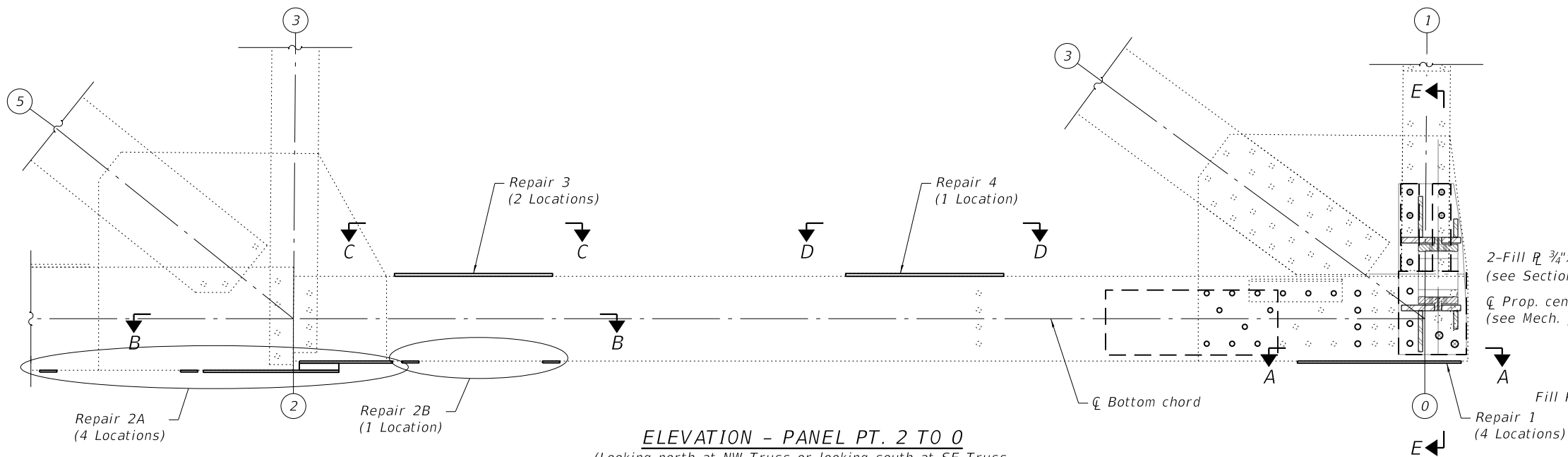
REFERENCE DRAWINGS

Drawing
General Plan & Elevation
Erection Plan of Movable Part

Sheet No.
1660570123
1660570196

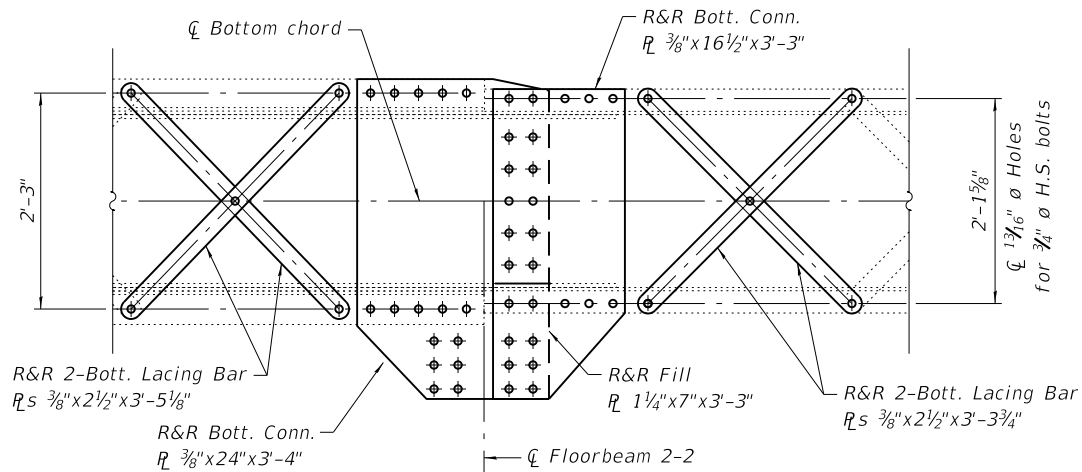
0166057-E1525-S058-NWTRUSSREPAIRS.DGN

0166057-E1525-S059-TRUSSPPOTOP2REPAIRS.DGN



ELEVATION - PANEL PT. 2 TO 0

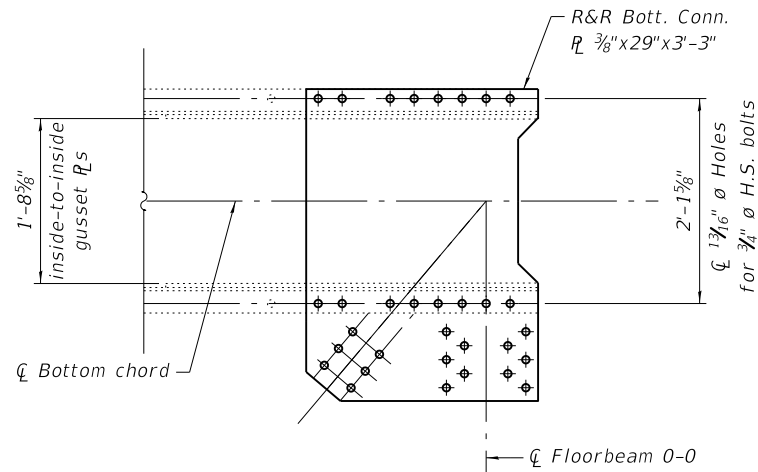
(Looking north at NW Truss or looking south at SE Truss,
NE Truss & SW Truss similar but opposite hand looking north & south, respectively)



SECTION B-B

REPAIR 2A & 2B

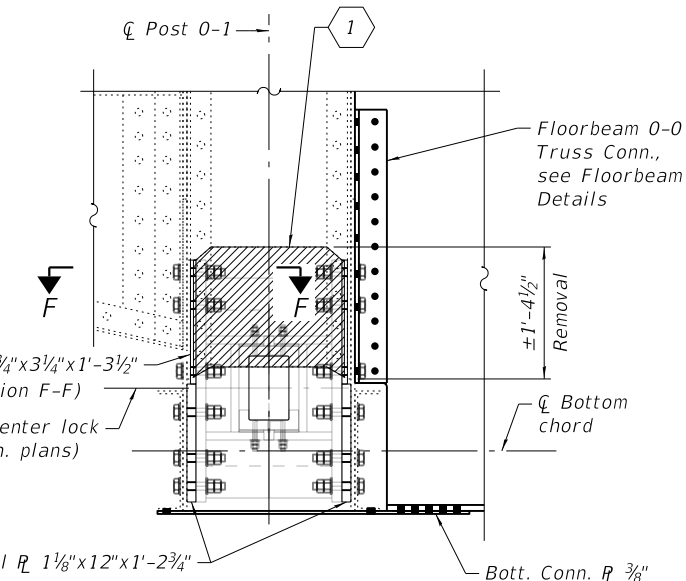
(NW/SE Truss shown, SW/NE Truss
similar but opposite hand)



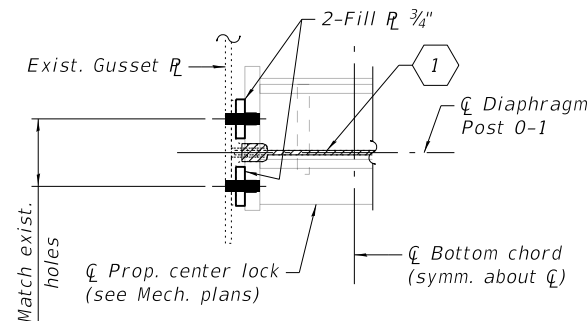
SECTION A-A

REPAIR 1

(NW/SE Truss shown, SW/NE Truss
similar but opposite hand)



SECTION E-E



SECTION F-F

- 1 Cut/remove exist. diaphragm R & attached
angle leg as req'd to accommodate prop.
center lock guide/receiver.
Cost included in the cost of Structural
Steel Repairs.

Notes:

- Locations to be strengthened shall be verified in the field.
- Cost of furnishing and erecting truss repair steel elements shall be included in Structural Steel Repairs.
- Cost of removing and replacing rivets in association with furnishing and erecting truss repair steel elements shall be included in Structural Steel Repairs.
- See sheets S-55 thru S-58 for locations of Truss Repairs.

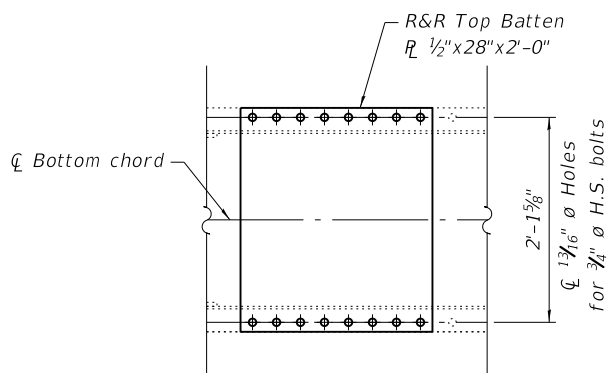
REFERENCE DRAWINGS

Drawing
Main Truss Members 0-4

Sheet No.
1660570203

BILL OF MATERIAL

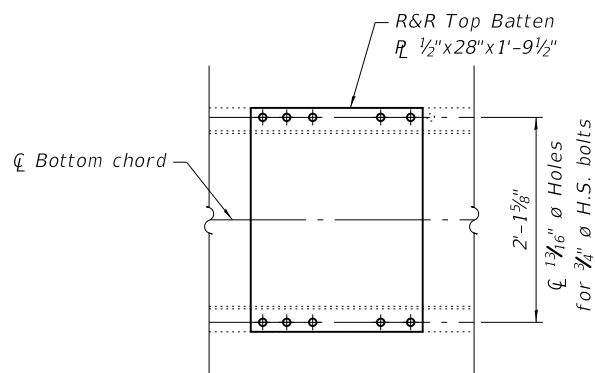
| Item | Unit | Quantity |
|--------------------------|-------|----------|
| Structural Steel Repairs | Pound | 1,680 |



VIEW C-C

REPAIR 3

(NW Truss shown, SW Truss
similar but opposite hand)



VIEW D-D

REPAIR 4

(For SW Truss opposite hand)



WSP USA Inc.
30 N. LAGALLE STREET
SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

| | | | | | |
|--------------|-----------|------------|--------|-----------|--|
| USER NAME = | PJLAUX | DESIGNED - | LD/PJL | REVISED - | |
| | | CHECKED - | NBR | REVISED - | |
| PLOT SCALE = | N.T.S. | DRAWN - | LD/PJL | REVISED - | |
| PLOT DATE = | 10/5/2020 | CHECKED - | JIG | REVISED - | |

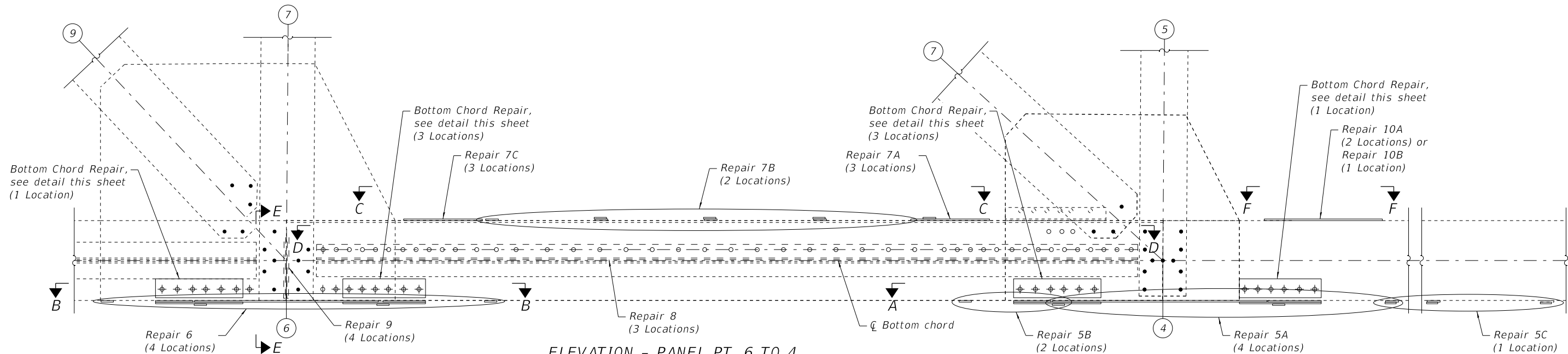
CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**BASCULE SPAN:
TRUSS PP0 TO PP2 REPAIRS
(STRUCTURE NO. 016-6057)**

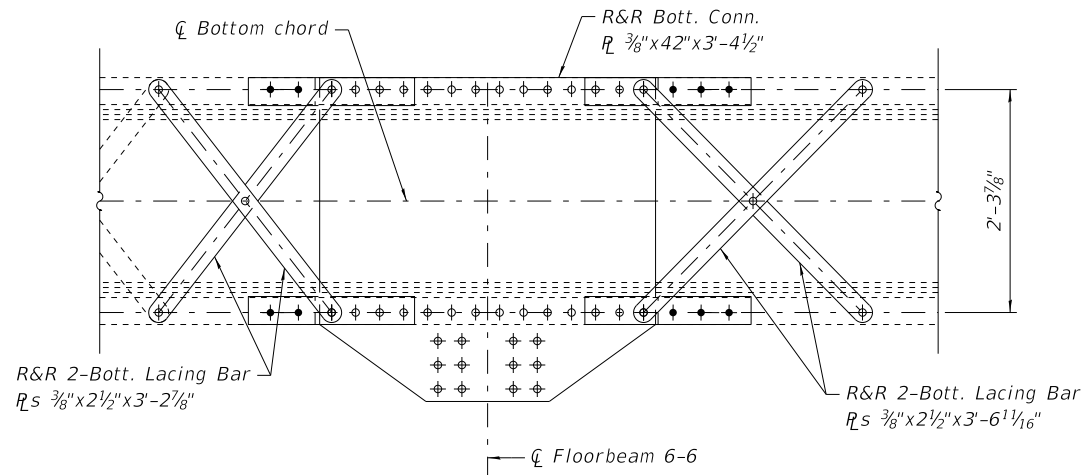
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | S-59 |
| CDOT PROJECT NO. E-1-525 | | | 102 of 210 |

0166057-E1525-S060-TRUSSPP4TOPPREPAIRS.DGN



ELEVATION - PANEL PT. 6 TO 4

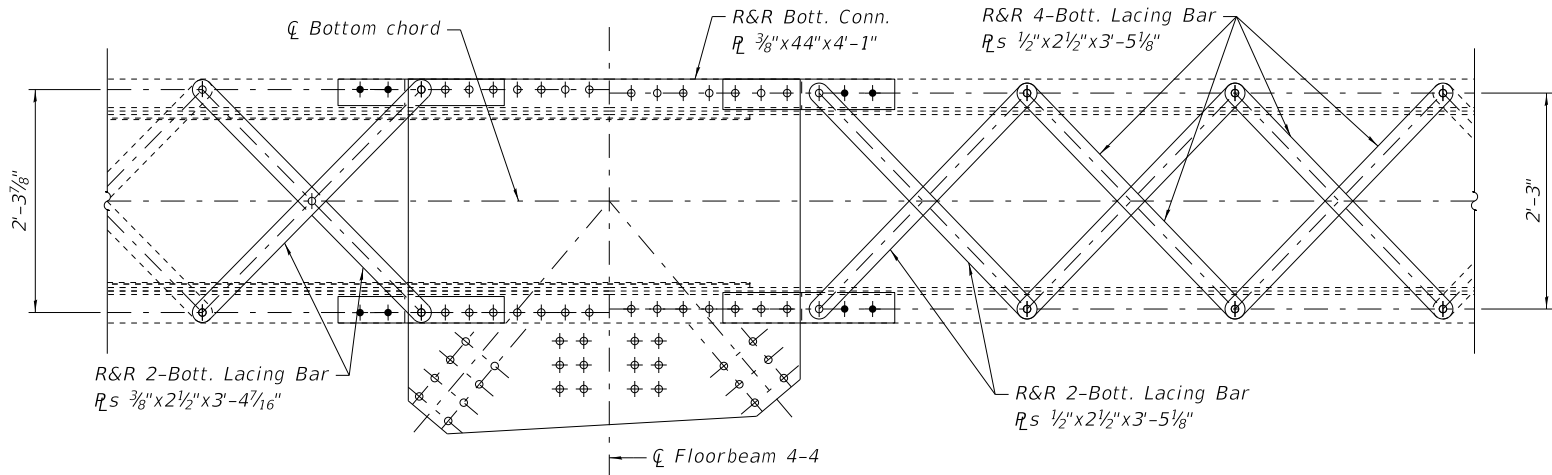
(Looking north at NW Truss or looking south at SE Truss,
NE Truss & SW Truss similar but opposite hand looking north & south, respectively)



SECTION B-B

REPAIR 6

(NW/SE Truss shown, SW/NE Truss
similar but opposite hand)



SECTION A-A

REPAIR 5A, 5B & 5C

(NW/SE Truss shown, SW/NE Truss
similar but opposite hand)

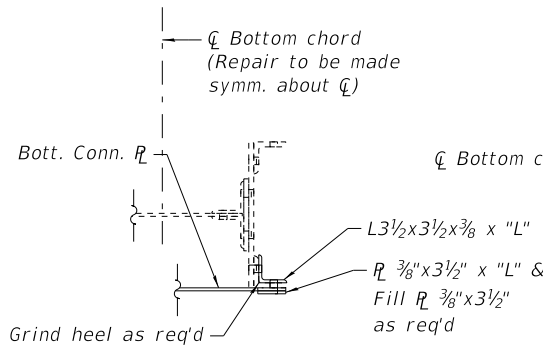
Notes:

- Locations to be strengthened shall be verified in the field.
- Cost of furnishing and erecting truss repair steel elements shall be included in "Structural Steel Repair".
- Cost of removing and replacing rivets in association with furnishing and erecting truss repair steel elements shall be included in "Structural Steel Repair".
- See sheets S-55 thru S-58 for locations of Truss Repairs.
- See sheet S-61 for Section D-D & E-E and View F-F.

REFERENCE DRAWINGS

Drawing
Main Truss Members 4-8
Main Truss Members 0-4
Main Truss Members
Posts & Diagonals

Sheet No.
1660570200
1660570203
1660570204
1660570205

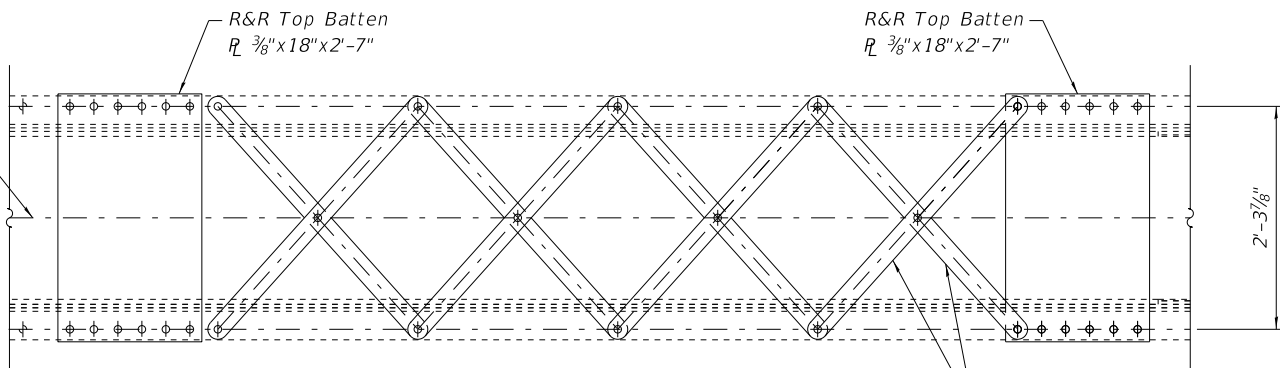


BOTTOM CHORD

BOTT. ANGLE REPAIR

L2-L4 (near PP4) - NE Truss
L4-L6 (near PP4) - NE/SE/NW Truss
L4-L6 (near PP6) - NE/SE/NW Truss
L6-L8 (near PP6) - NE Truss

"L" = Length of repair
angles and Ls to be
field verified w/
min. 3 bolts beyond
limit of defect(s)



VIEW C-C

REPAIR 7A, 7B & 7C

(NW/SE Truss shown, SW/NE Truss
similar but opposite hand)



WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

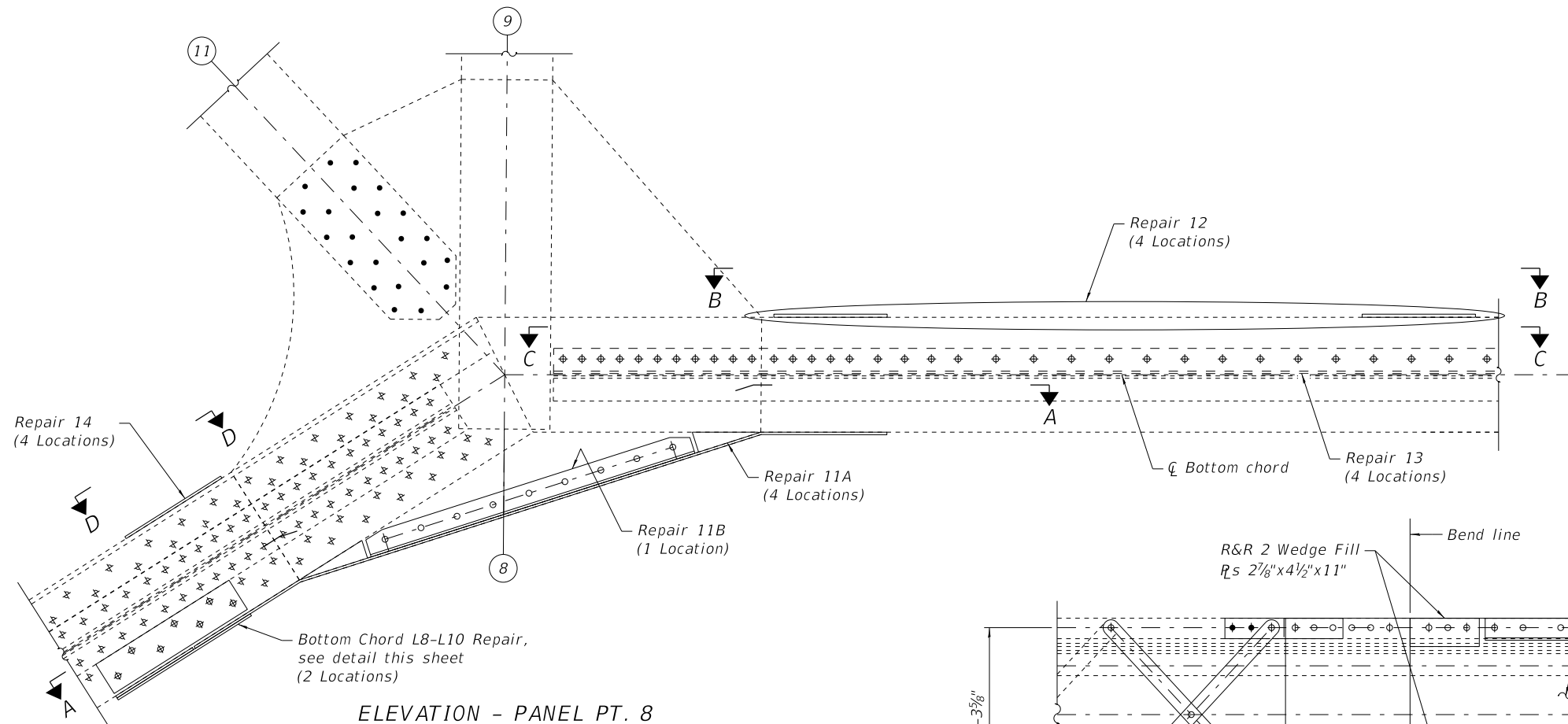
USER NAME = PJLAUX
DESIGNED - LD/PJL
CHECKED - NBR
PLOT SCALE = N.T.S.
DRAWN - LD/PJL
PLOT DATE = \$DATE\$
CHECKED - JIG
REVISED -
REVISED -
REVISED -
REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

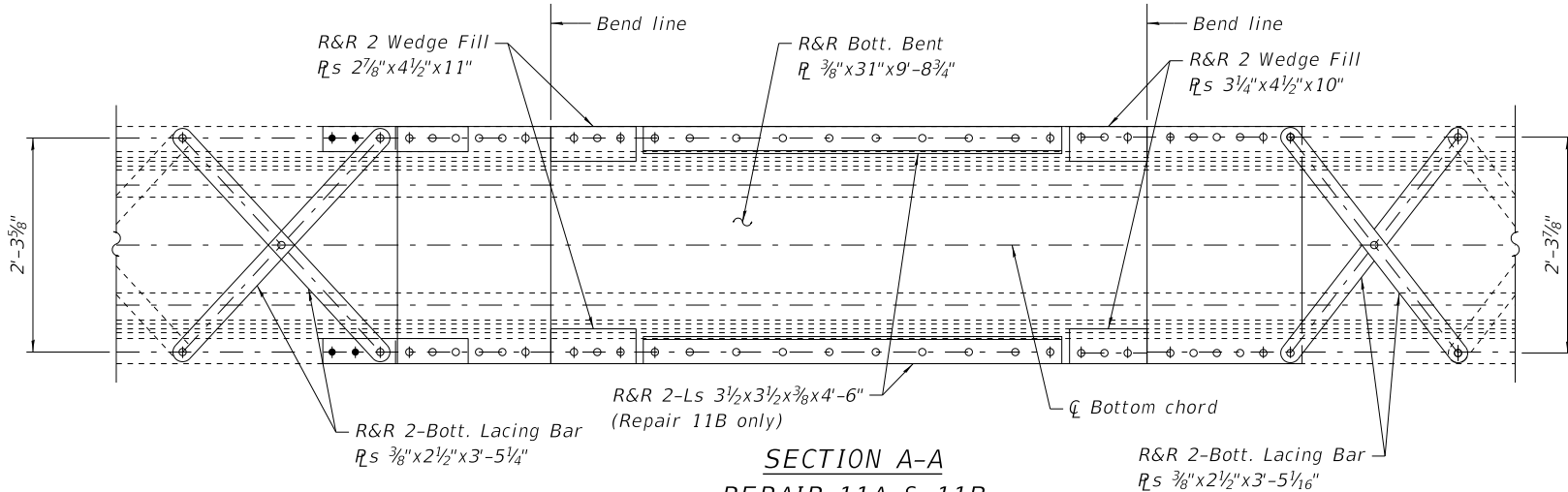
**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**BASCULE SPAN:
TRUSS PP4 TO PP6 REPAIRS I
(STRUCTURE NO. 016-6057)**

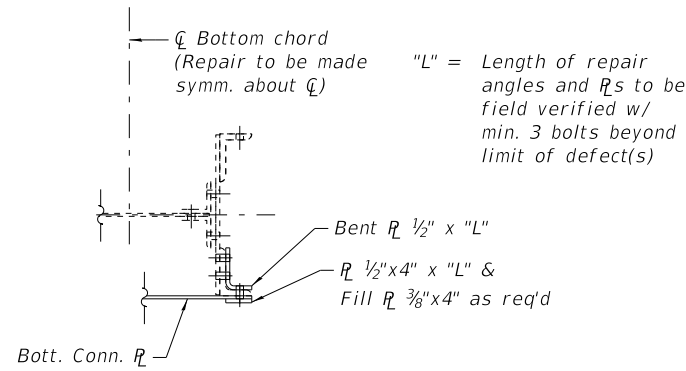
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | S-60 |
| CDOT PROJECT NO. E-1-525 | | | 103 of 210 |



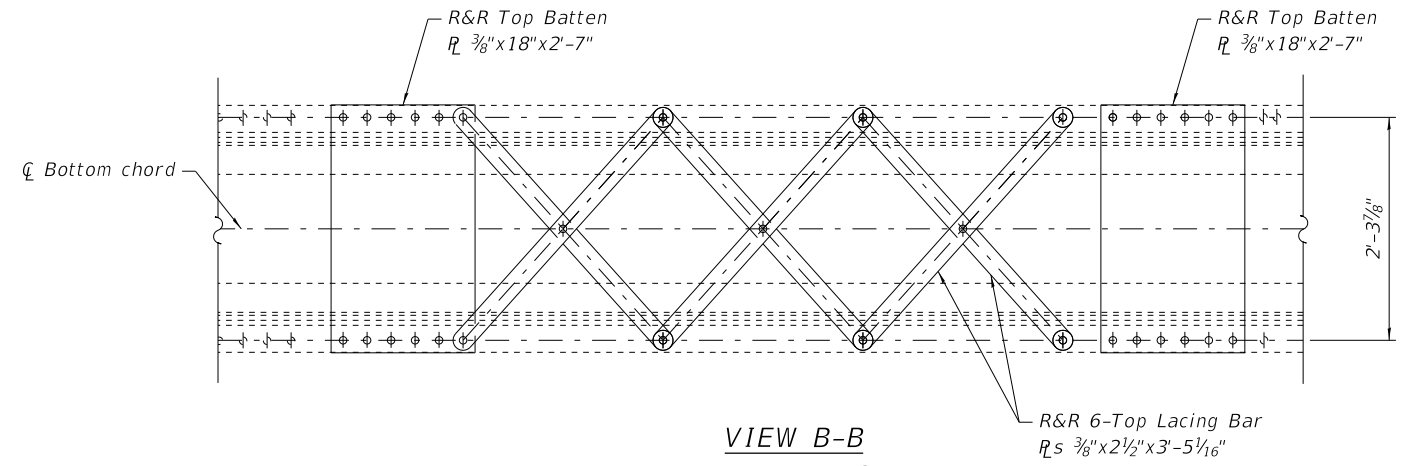
ELEVATION - PANEL PT. 8
(Looking north at NW Truss or looking south at SE Truss,
NE Truss & SW Truss similar but opposite hand looking north & south, respectively)



SECTION A-A
REPAIR 11A & 11B



BOTTOM CHORD L8-L10
BOTT. ANGLE REPAIR
(NW/SW Truss)



VIEW B-B
REPAIR 12
(NW/SE Truss shown, SW/NE Truss
similar but opposite hand)

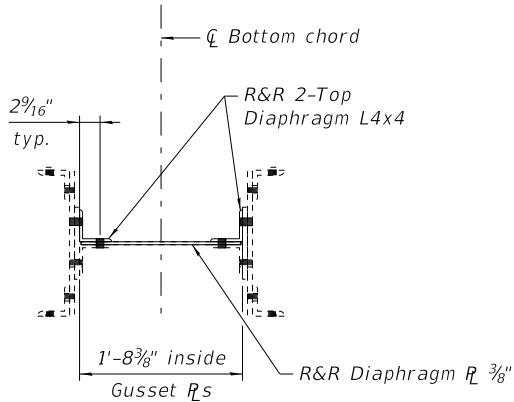
- Notes:
- Locations to be strengthened shall be verified in the field.
 - Cost of furnishing and erecting truss repair steel elements shall be included in "Structural Steel Repair".
 - Cost of removing and replacing rivets in association with furnishing and erecting truss repair steel elements shall be included in "Structural Steel Repair".
 - See sheets S-55 thru S-58 for locations of Truss Repairs.
 - See sheet S-63 for Section C-C & View D-D.

REFERENCE DRAWINGS

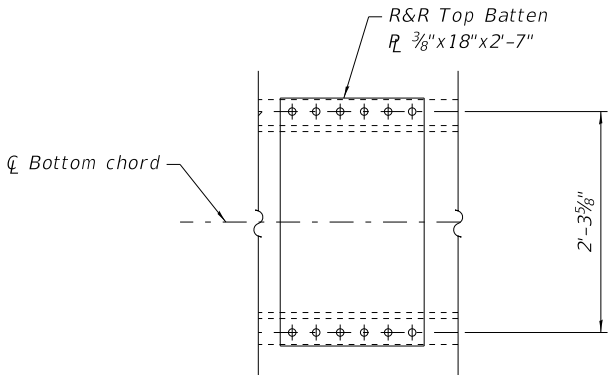
| Drawing | Sheet No. |
|--------------------|------------|
| Main Truss Members | 1660570200 |
| Main Truss Members | 1660570202 |
| Posts & Diagonals | 1660570205 |

0166057-E1525-S062-TRUSSPP8REPAIRSI.DGN

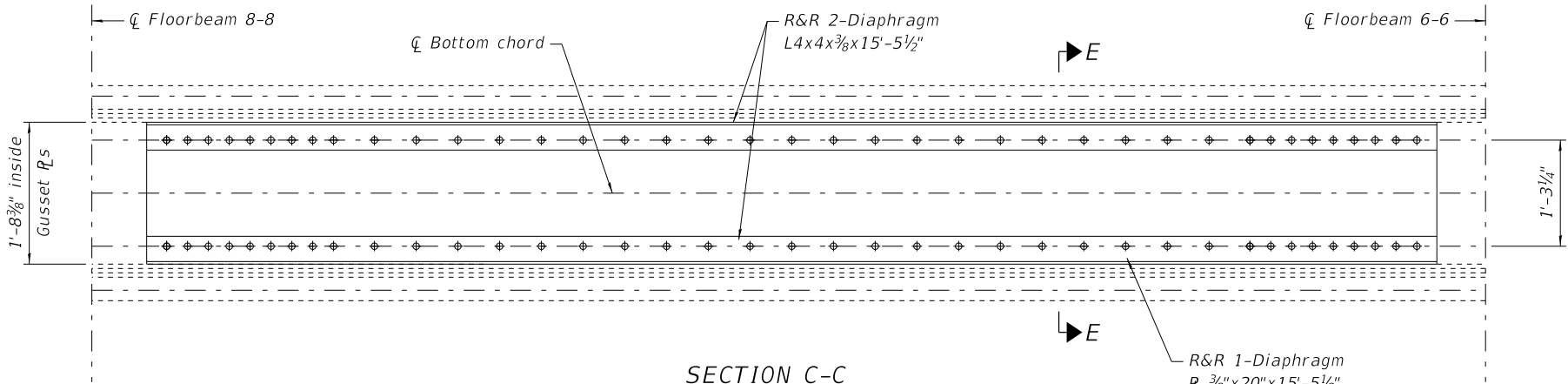
0166057-E1525-S063-TRUSSPP8REPAIRSII.DGN



SECTION E-E



VIEW D-D
REPAIR 14
(NW Truss shown, SW/NE Truss
similar but opposite hand)



SECTION C-C
REPAIR 13
(NW/SE Truss shown, SW/NE Truss
similar but opposite hand)

BILL OF MATERIAL

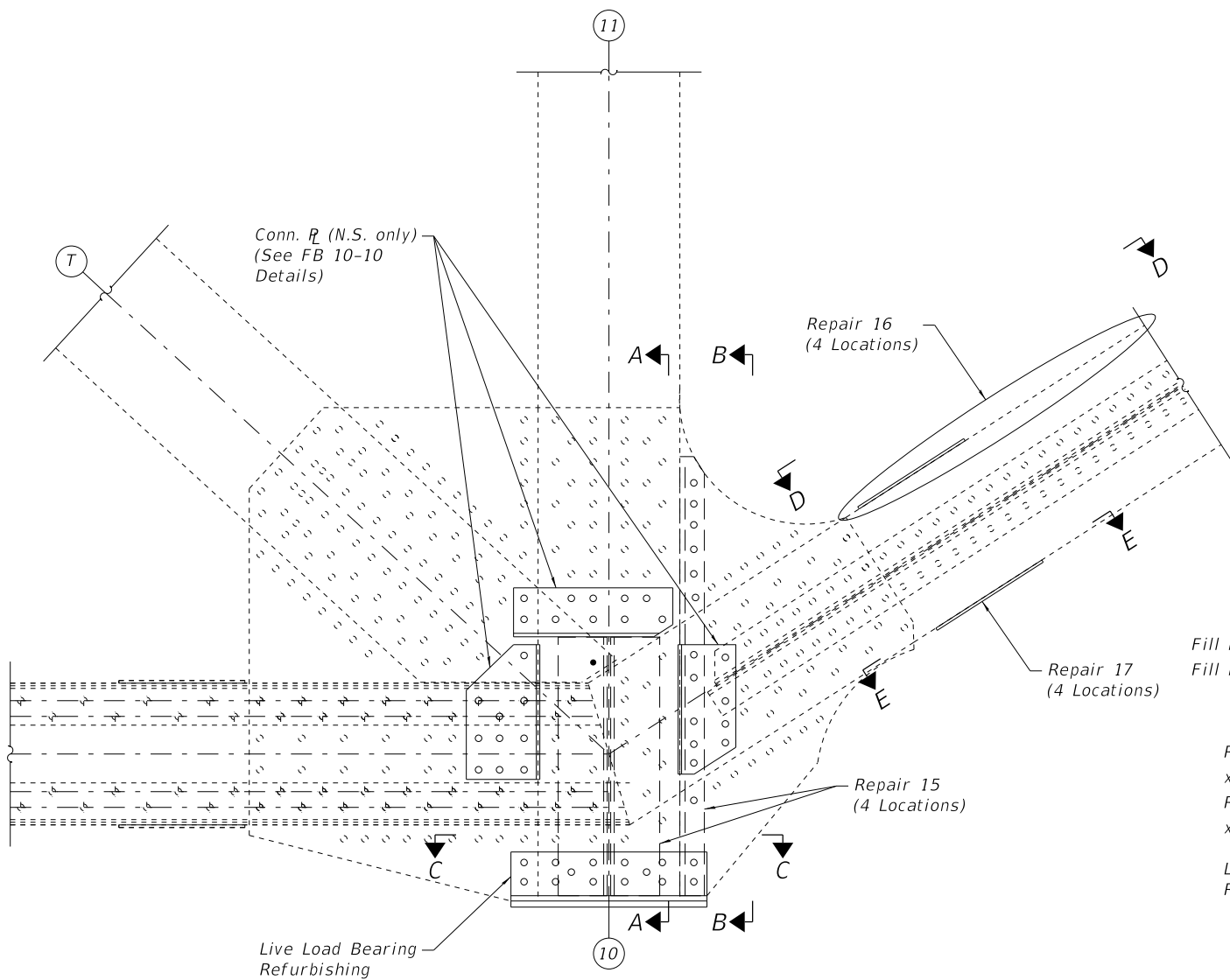
| Item | Unit | Quantity |
|-------------------------|-------|----------|
| Structural Steel Repair | Pound | 5,560 |

- Notes:
- Locations to be strengthened shall be verified in the field.
 - Cost of furnishing and erecting truss repair steel elements shall be included in "Structural Steel Repair".
 - Cost of removing and replacing rivets in association with furnishing and erecting truss repair steel elements shall be included in "Structural Steel Repair".
 - See sheet S-62 for locations of Section C-C & View D-D.

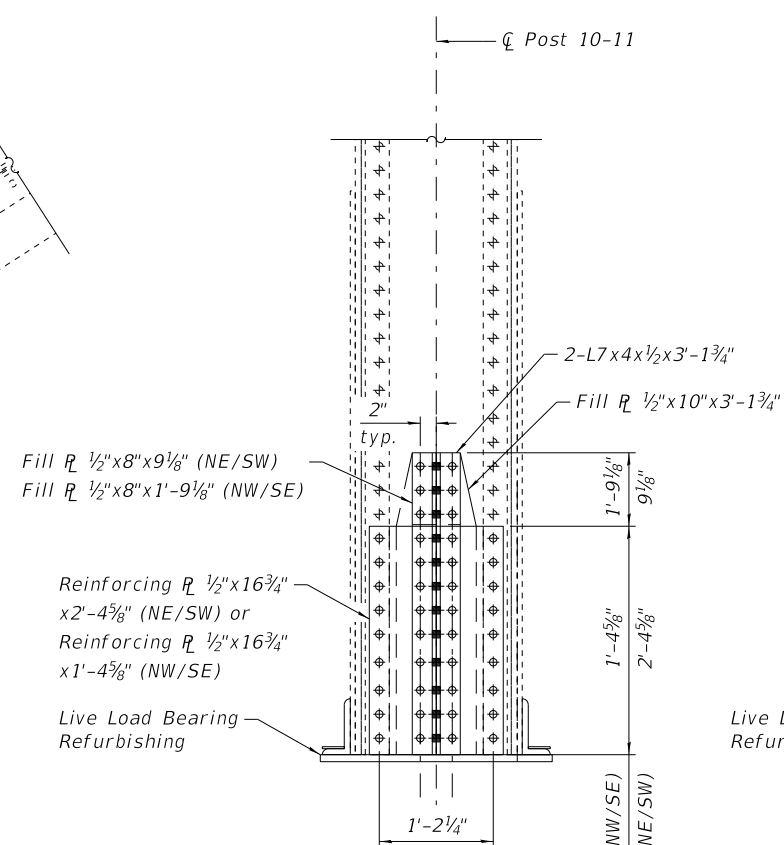
REFERENCE DRAWINGS

Drawing
Main Truss Members
Main Truss Members

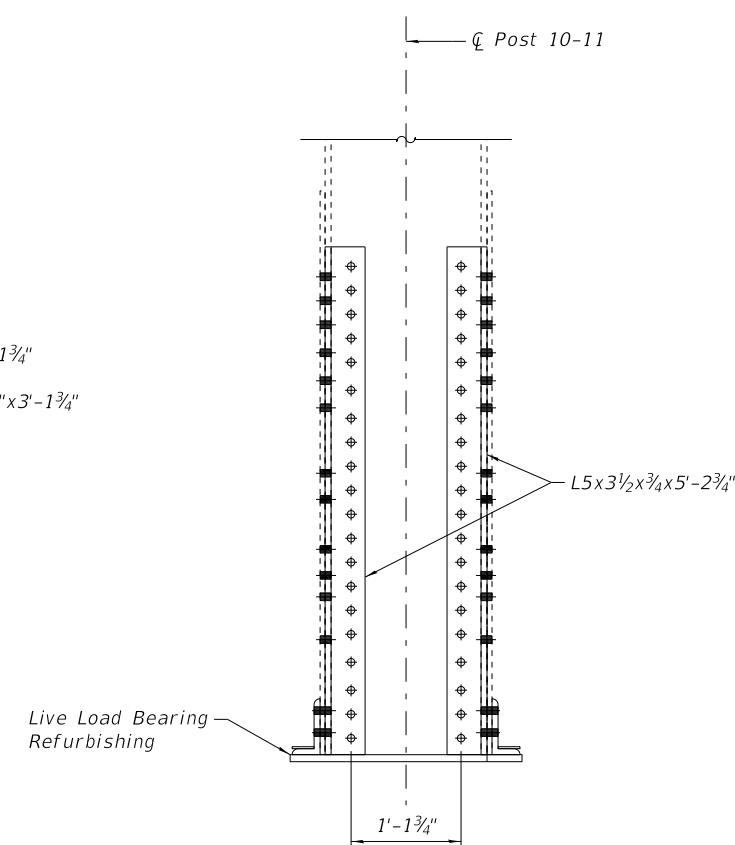
Sheet No.
1660570200
1660570202



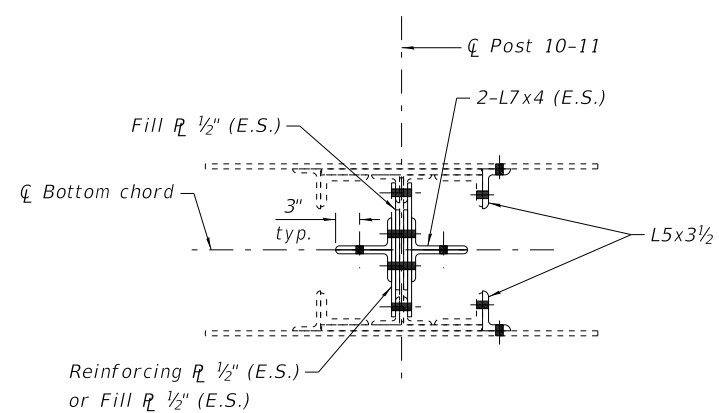
ELEVATION - PANEL PT. 10
(Looking north at NW Truss or looking south at SE Truss,
NE Truss & SW Truss similar but opposite hand looking north & south, respectively)



**SECTION A-A
REPAIR 15**



**SECTION B-B
REPAIR 15**



SECTION C-C

- Notes:
- Locations to be strengthened shall be verified in the field.
 - Cost of furnishing and erecting truss repair steel elements shall be included in "Structural Steel Repair".
 - Cost of removing and replacing rivets in association with furnishing and erecting truss repair steel elements shall be included in "Structural Steel Repair".
 - See sheets S-55 thru S-58 for locations of Truss Repairs.
 - See sheet S-65 for View D-D and Section E-E.

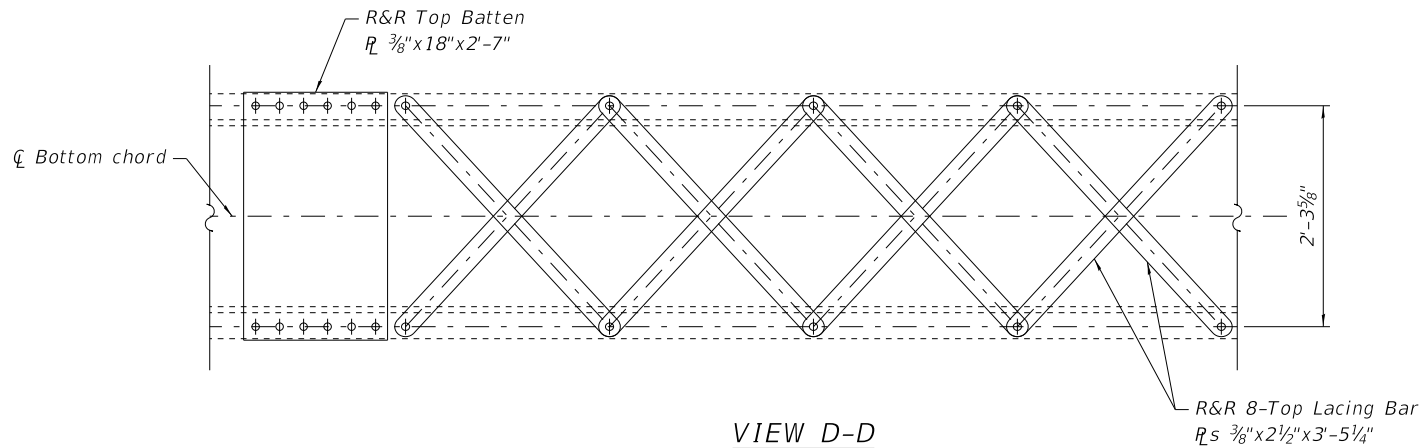
REFERENCE DRAWINGS

Drawing
Main Truss Members
Posts & Diagonals

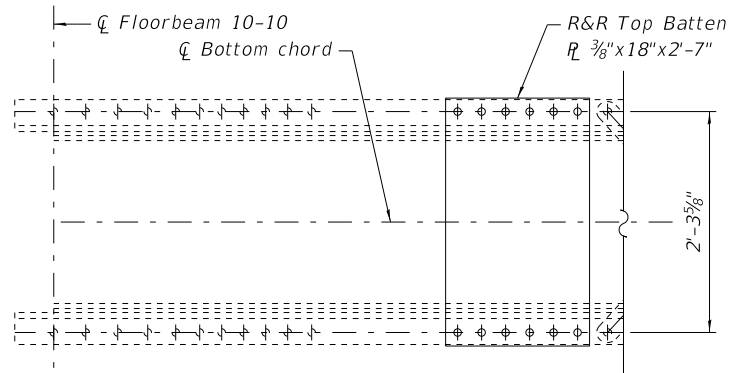
Sheet No.
1660570202
1660570205

0166057-E1525-S064-TRUSSPP10REPAIRSIDGN

| | | | | | | | | | | | |
|--|----------------------|--|-------------------|-----------|---|--|--|--------------------------|----------------|------------|-------------------|
| <p>WSP USA Inc. 30 N. LA SALLE STREET SUITE 4000 CHICAGO, IL 60602 TEL: (312) 782-8150 FAX: (312) 782-1684</p> | USER NAME = PJLAUX | | DESIGNED - LD/PJL | REVISED - | CITY OF CHICAGO DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING | WEBSTER AVENUE BRIDGE OVER THE NORTH BRANCH CHICAGO RIVER | BASCULE SPAN: TRUSS PP10 REPAIRS I (STRUCTURE NO. 016-6057) | F.A.U. RTE. | SECTION | COUNTY | SHEET NO. S-64 |
| | PLOT SCALE = N.T.S. | | CHECKED - NBR | REVISED - | | | | 1388 | 11-E1525-00-BR | COOK | |
| | PLOT DATE = \$DATE\$ | | DRAWN - LD/PJL | REVISED - | | | | CDOT PROJECT NO. E-1-525 | | 107 of 210 | |
| | | | CHECKED - JIG | REVISED - | | | | | | | |



VIEW D-D
REPAIR 16
(NW/SE Truss shown, SW/NE Truss
similar but opposite hand)



SECTION E-E
REPAIR 17
(NW/SE Truss shown, SW/NE Truss
similar but opposite hand)

BILL OF MATERIAL

| Item | Unit | Quantity |
|----------------------------|-------|----------|
| Structural Steel Repair | Pound | 4,240 |

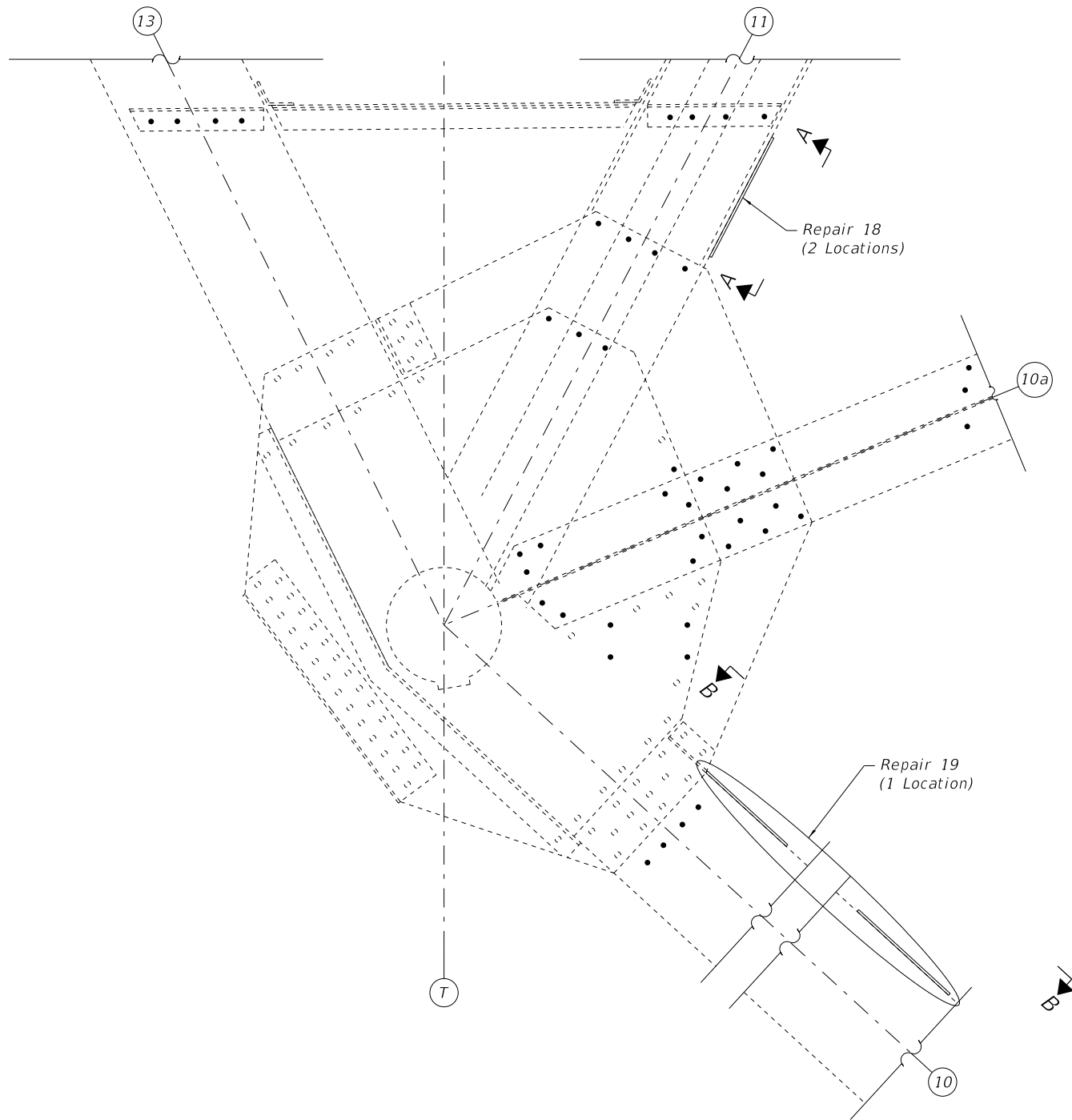
- Notes:
- Locations to be strengthened shall be verified in the field.
 - Cost of furnishing and erecting truss repair steel elements shall be included in "Structural Steel Repair".
 - Cost of removing and replacing rivets in association with furnishing and erecting truss repair steel elements shall be included in "Structural Steel Repair".
 - See sheet S-64 for locations of View D-D & Section E-E.

REFERENCE DRAWINGS

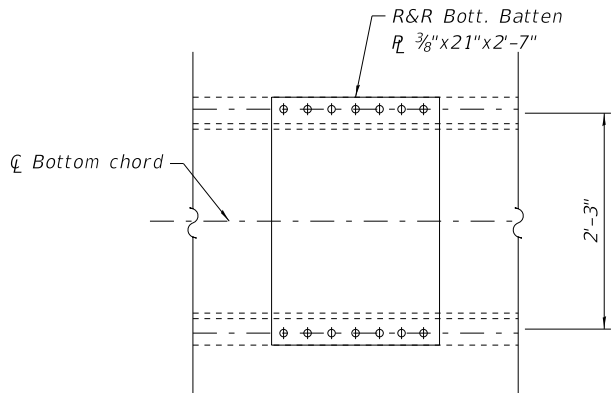
Drawing
Main Truss Members

Sheet No.
1660570202

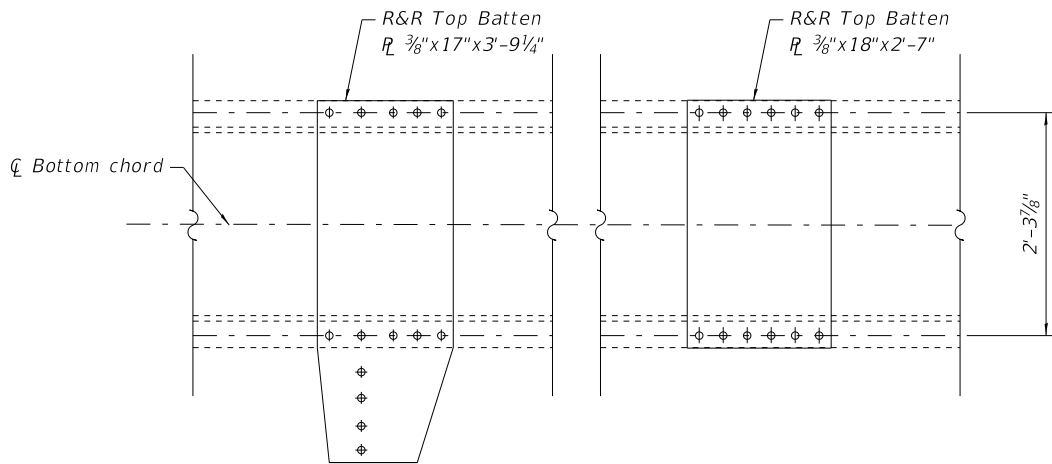
0166057-E1525-S065-TRUSSPP10REPAIRSII.DGN



ELEVATION - PANEL PT. T
(Looking north at NW Truss or looking south at SE Truss,
NE Truss & SW Truss similar but opposite hand looking north & south, respectively)



VIEW A-A
REPAIR 18
(NW Truss shown, SW Truss similar)



VIEW B-B
REPAIR 19
(SW Truss shown)

- Notes:
1. Locations to be strengthened shall be verified in the field.
 2. Cost of furnishing and erecting truss repair steel elements shall be included in "Structural Steel Repair".
 3. Cost of removing and replacing rivets in association with furnishing and erecting truss repair steel elements shall be included in "Structural Steel Repair".
 5. See sheets S-55 thru S-58 for locations of Truss Repairs.

BILL OF MATERIAL

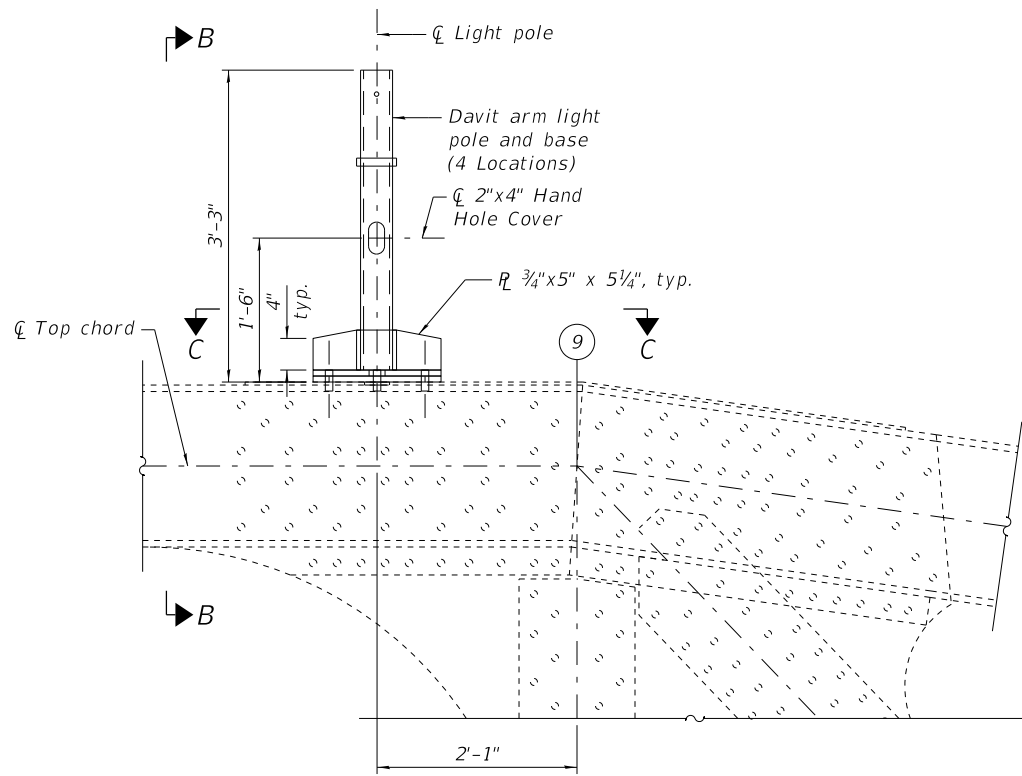
| Item | Unit | Quantity |
|-------------------------|-------|----------|
| Structural Steel Repair | Pound | 360 |

REFERENCE DRAWINGS

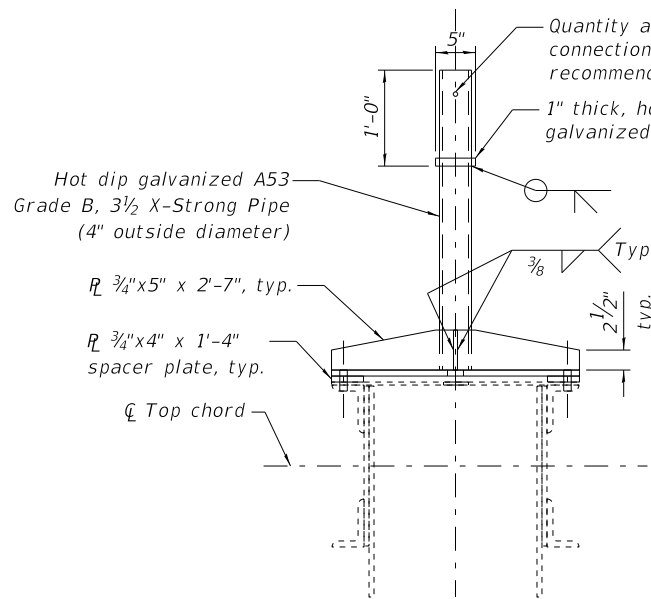
Drawing
Main Truss Members

Sheet No.
1660570199

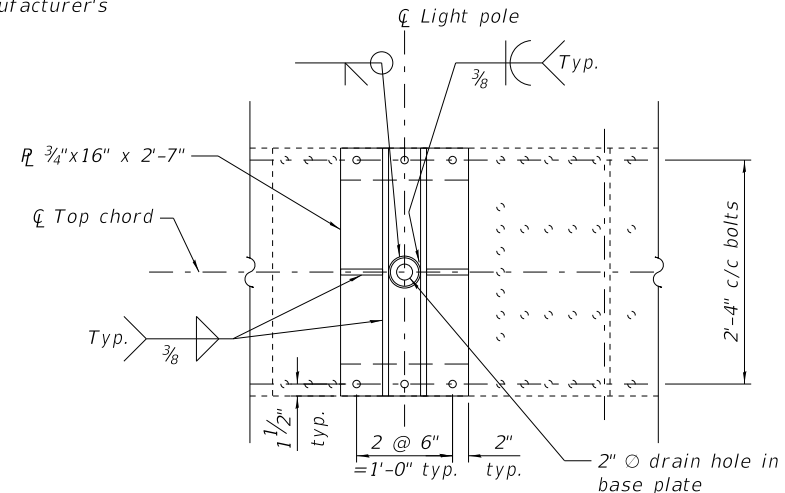
0166057-E1525-S066-TRUSSPPTREPAIRS.DGN



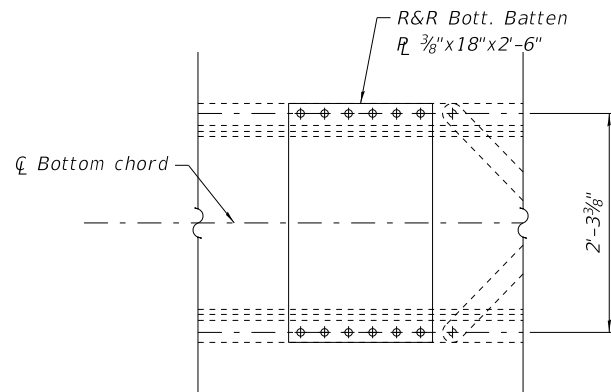
ELEVATION - PANEL PT. 9
(Looking north at NW Truss or looking south at SE Truss,
NE Truss & SW Truss similar but opposite hand looking north & south, respectively)



SECTION B-B



VIEW C-C



VIEW A-A
REPAIR 20
(NW Truss shown, SW Truss similar)

BILL OF MATERIAL

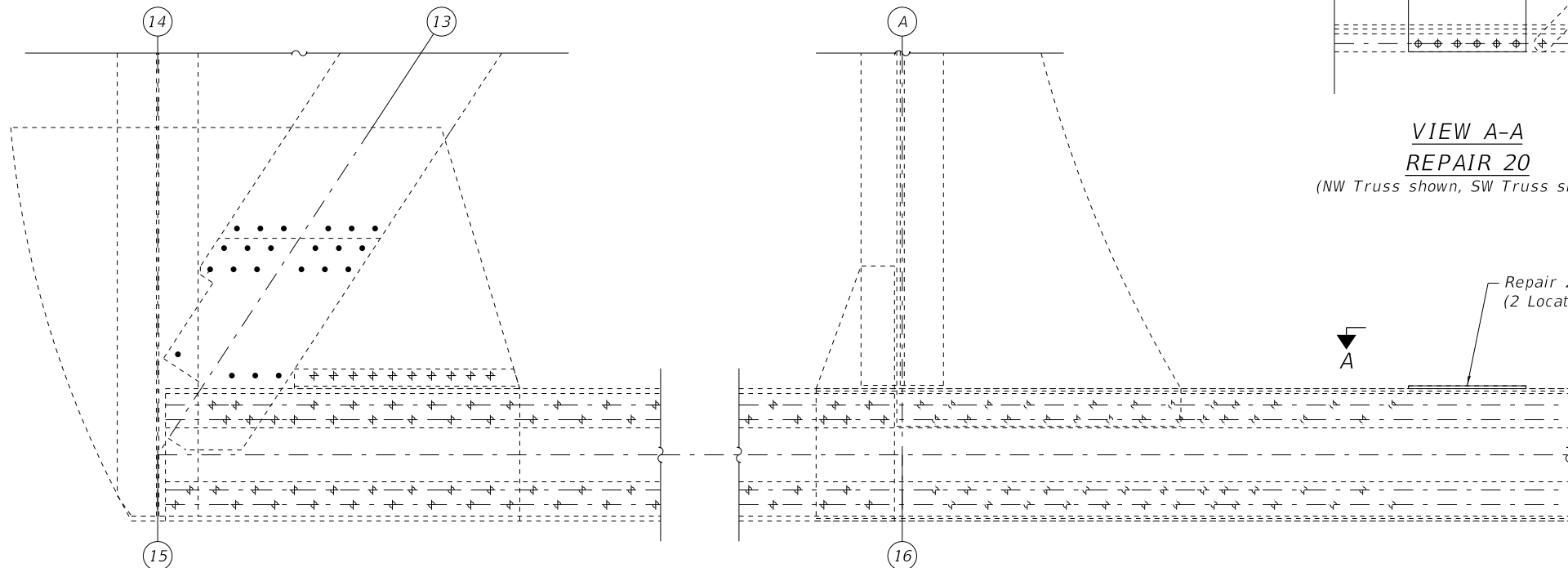
| Item | Unit | Quantity |
|-------------------------|-------|----------|
| Structural Steel Repair | Pound | 140 |
| Mast Arm Steel, 4' | Each | 4 |

Notes:

- Locations to be strengthened shall be verified in the field.
- Cost of furnishing and erecting truss repair steel elements shall be included in "Structural Steel Repair".
- Cost of removing and replacing rivets in association with furnishing and erecting truss repair steel elements shall be included in "Structural Steel Repair".
- See sheets S-55 thru S-58 for locations of Truss Repairs.
- The Davit arm light pole and base, including the collar, stiffener plates, spacer plates shall be fabricated and hot dip galvanized. No portion of the aluminum shall have direct contact with uncoated steel. The davit arm connection holes shall be drilled prior to galvanizing. All steel, unless noted otherwise is M270 Grade 50 steel. All work and materials necessary to fabricate and erect the light pole and base shall be included in item Mast Arm Steel, 4'.

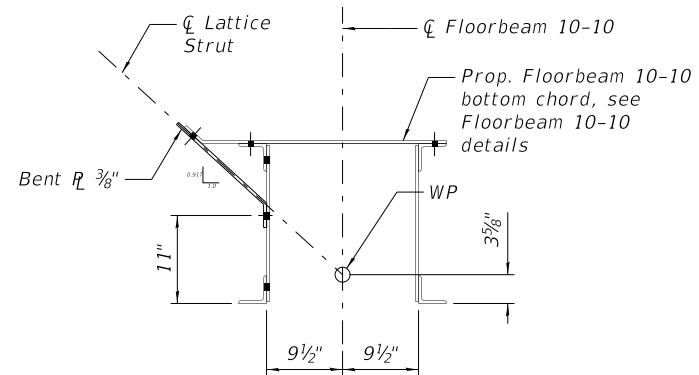
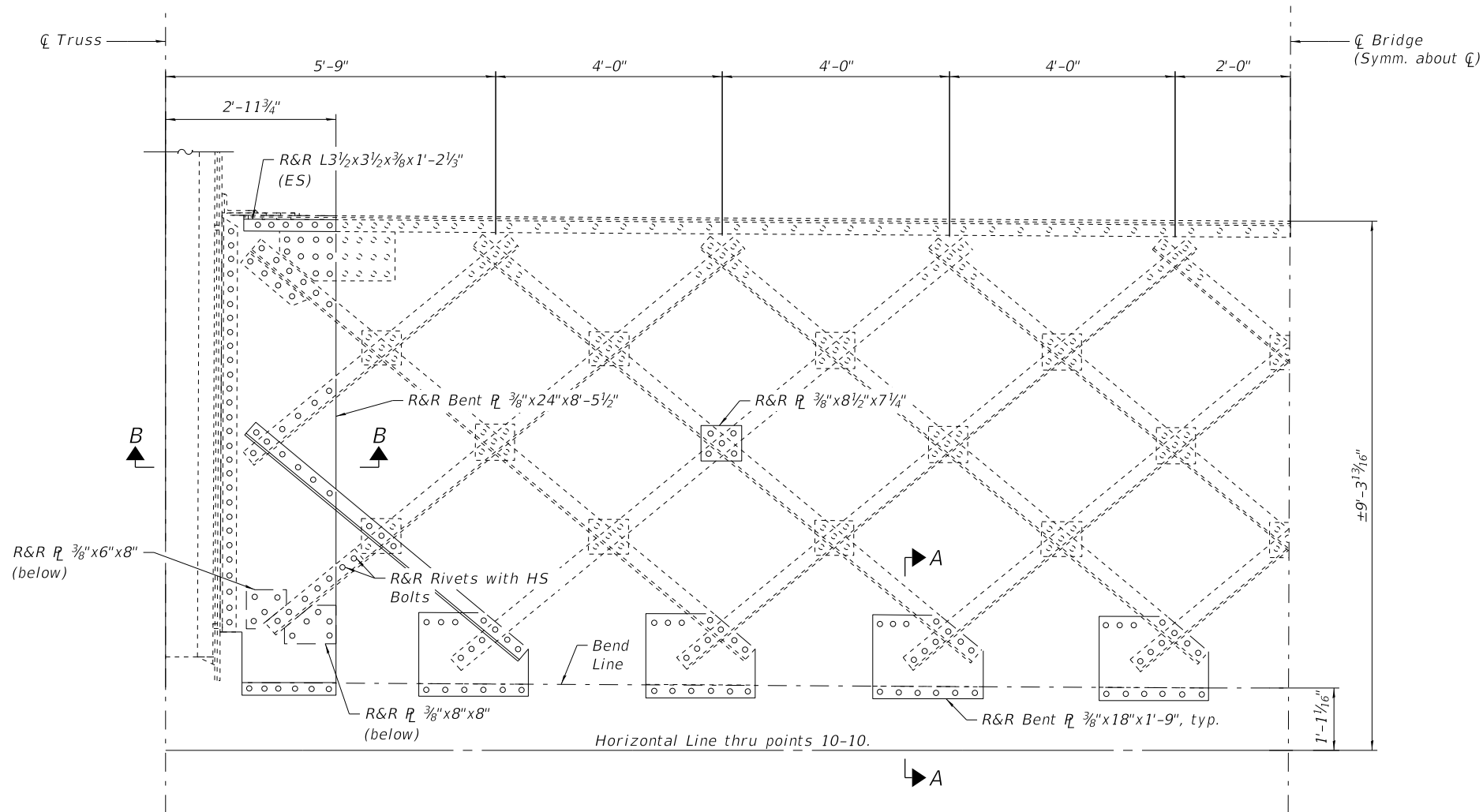
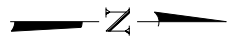
REFERENCE DRAWINGS

| Drawing | Sheet No. |
|--------------------------|------------|
| Main Truss Members 14-15 | 1660570198 |
| Main Truss Members 9-13 | 1660570201 |



ELEVATION - PANEL PT. 15 TO 16
(Looking north at NW Truss or looking south at SE Truss,
NE Truss & SW Truss similar but opposite hand looking north & south, respectively)

0166057-E1525-S067-TRUSSPP9ANDPP15TOPP16REPAIRS.DGN



BILL OF MATERIAL

| Item | Unit | Quantity |
|---|-------|----------|
| Structural Steel Repairs | Pound | 2,820 |
| Removal of Deteriorated Connectors and Replacement with High Strength Bolts | Each | 8 |

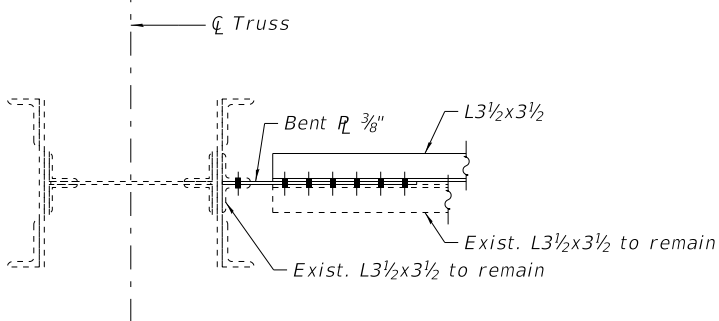
Quantity shown includes West and East Leaf.

REFERENCE DRAWINGS

| Drawing | Sheet No. |
|--------------------------------------|------------|
| Latticed Strut and Horizontal Girder | 1660570013 |
| Horizontal Girder and Bracing | 1660570208 |
| Bracing for Floorbeam at 10-10 | 1660570210 |

Notes:

- Locations to be repaired shall be verified in the field.
- Cost of furnishing and erecting lattice strut steel repairs and removing and replacing rivets associated with these elements shall be included in the cost of Structural Steel Repairs.
- Cost of removing and replacing rivets that are not associated with Structural Steel Repairs shall be included in Removal of Deteriorated Connectors and Replacement with High Strength Bolts.



SECTION B-B

0166057-E1525-S068-LATSTRUTBASCULE.DGN



WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

| | | | | | |
|--------------|----------|------------|-----|-----------|--|
| USER NAME = | RALMASRI | DESIGNED - | RAM | REVISED - | |
| | | CHECKED - | IJL | REVISED - | |
| PLOT SCALE = | N.T.S. | DRAWN - | RAM | REVISED - | |
| PLOT DATE = | \$DATE\$ | CHECKED - | JIG | REVISED - | |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**BASCULE SPAN:
LATTICE STRUT REPAIR DETAILS
(STRUCTURE NO. 016-6057)**

| F.A.U. R.T.E. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | S-68 |
| CDOT PROJECT NO. E-1-525 | | | 111 of 210 |

0166057-E1525-S069BASCULESPANMOM&RXN.DGN

| INTERIOR STRINGER MOMENT TABLE | | | |
|--|--------------------|----------------------|--------|
| | | 0.5 FB-to-FB Spacing | |
| | | W16x57 | W21x57 |
| <i>I_s</i> | (in ⁴) | 758 | 1170 |
| <i>I_c(n)</i> | (in ⁴) | - | - |
| <i>I_c(3n)</i> | (in ⁴) | - | - |
| <i>I_c(cr)</i> | (in ⁴) | - | - |
| <i>S_s</i> | (in ³) | 92.2 | 111 |
| <i>Sc</i> (n) | (in ³) | - | - |
| <i>Sc</i> (3n) | (in ³) | - | - |
| <i>Sc</i> (cr) | (in ³) | - | - |
| <i>DC1</i> | (k/') | 0.30 | 0.30 |
| <i>MDC1</i> | ('k) | 8.9 | 10.3 |
| <i>DC2</i> | (k/') | - | - |
| <i>MDC2</i> | ('k) | - | - |
| <i>DW</i> | (k/') | - | - |
| <i>MDW</i> | ('k) | - | - |
| <i>LLDF</i> | | 0.44 | 0.44 |
| <i>M_ℓ + I_M</i> | ('k) | 132.9 | 78.4 |
| <i>M_u</i> (Strength I) | ('k) | 243.7 | 150.1 |
| <i>Øf Mn</i> | ('k) | - | - |
| <i>f_s DC1</i> | (ksi) | 1.2 | 1.1 |
| <i>f_s DC2</i> | (ksi) | - | - |
| <i>f_s DW</i> | (ksi) | - | - |
| <i>f_s (ℓ+I_M)</i> | (ksi) | 17.3 | 8.5 |
| <i>f_s</i> (Service II) | (ksi) | 23.6 | 12.1 |
| 0.80Rh <i>F_{yf}</i> | (ksi) | 40.0 | 40.0 |
| <i>f_s</i> (Total)(Strength I) (ksi) | | 31.7 | 16.2 |
| <i>Øf F_n</i> | (ksi) | 47.4 | 50.0 |
| <i>V_f</i> | (k) | 98.6 | 80.2 |

| FLOORBEAM MOMENT TABLE | | | |
|--|--------------------|--------------------|----------------------|
| | | 0.5 C-to-C Trusses | |
| | | Floorbeam 0-0 | Floorbeam 2-2 (typ.) |
| <i>I_s</i> | (in ⁴) | 22,670 | 26,109 |
| <i>I_c(n)</i> | (in ⁴) | - | - |
| <i>I_c(3n)</i> | (in ⁴) | - | - |
| <i>I_c(cr)</i> | (in ⁴) | - | - |
| <i>S_s</i> | (in ³) | 819 | 916 |
| <i>Sc</i> (n) | (in ³) | - | - |
| <i>Sc</i> (3n) | (in ³) | - | - |
| <i>Sc</i> (cr) | (in ³) | - | - |
| <i>DC1</i> | (k/') | 1.06 | 0.88 |
| <i>MDC1</i> | ('k) | 208 | 200 |
| <i>DC2</i> | (k/') | - | - |
| <i>MDC2</i> | ('k) | - | - |
| <i>DW</i> | (k/') | - | - |
| <i>MDW</i> | ('k) | - | - |
| <i>LLDF</i> | | - | - |
| <i>M_ℓ + I_M</i> | ('k) | 1224 | 1024 |
| <i>M_u</i> (Strength I) | ('k) | 2522 | 2041 |
| <i>Øf Mn</i> | ('k) | - | - |
| <i>f_s DC1</i> | (ksi) | 3.1 | 2.6 |
| <i>f_s DC2</i> | (ksi) | - | - |
| <i>f_s DW</i> | (ksi) | - | - |
| <i>f_s (ℓ+I_M)</i> | (ksi) | 17.9 | 13.4 |
| <i>f_s</i> (Service II) | (ksi) | 27.7 | 20.1 |
| 0.80Rh <i>F_{yf}</i> | (ksi) | 40.0 | 40.0 |
| <i>f_s</i> (Total)(Strength I) (ksi) | | 37.0 | 26.7 |
| <i>Øf F_n</i> | (ksi) | 50.0 | 46.7 |
| <i>V_f</i> | (k) | 43.8 | 36.7 |

| STRINGER REACTION TABLE | | | |
|--------------------------|-----|----------|--------|
| | | W16x57 | |
| | | FB 10-10 | FB 8-8 |
| <i>R_ℓ</i> | (k) | 4.0 | 2.3 |
| <i>R_ℓ</i> | (k) | 37.3 | 29.2 |
| <i>R_ℓ</i> | (k) | 22.8 | 8.7 |
| <i>R_{Total}</i> | (k) | 64.1 | 40.2 |

| FLOORBEAM REACTION TABLE | | |
|--------------------------|--------|---------------|
| | FB 0-0 | FB 2-2 (typ.) |
| <i>R_ℓ</i> | (k) | 21.0 |
| <i>R_ℓ</i> | (k) | 70.4 |
| <i>R_ℓ</i> | (k) | 41.2 |
| <i>R_{Total}</i> | (k) | 132.6 |

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing *f_s*(Total-Strength I, and Service II) due to non-composite dead loads (in.⁴ and in.³).

I_c(n), Sc(n): Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing *f_s*(Total-Strength I, and Service II) in uncracked sections due to short-term composite live loads (in.⁴ and in.³).

I_c(3n), Sc(3n): Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing *f_s*(Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads (in.⁴ and in.³).

I_c(cr), Sc(cr): Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing *f_s* (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads (in.⁴ and in.³).

DC1: Un-factored non-composite dead load (kips/ft.).

MDC1: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

MDC2: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

MDW: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

M_ℓ + I_M: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).

1.25 (MDC1 + MDC2) + 1.5 MDW + 1.75 M_ℓ + I_M

Øf Mn: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft).

f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).

MDC1/ S_{nc}

f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).

MDC2/ Sc(3n) or MDC2/ Sc(cr) as applicable.

f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).

MDW/ Sc(3n) or MDW/ Sc(cr) as applicable.

f_s (ℓ+I_M): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).

M_ℓ + I_M / Sc(n) or M_ℓ + I_M / Sc(cr) as applicable.

f_s (Service II): Sum of stresses as computed below (ksi).

*f_s*DC1 + *f_s*DC2 + *f_s*DW + 1.3 *f_s*(ℓ + I_M)

0.80Rh*F_{yf}*: Non-Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).

1.25 (*f_s*DC1 + *f_s*DC2) + 1.5 *f_s*DW + 1.75 *f_s*(ℓ + I_M)

Øf F_n: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

V_f: Maximum factored shear range in span computed according to Article 6.10.10.

LEAF REMOVAL ITEMS

| Item | Weight (Lbs) | X (ft) | Y (ft) | Mx (Lb-ft) | My (Lb-ft) |
|---|-----------------|-----------|-----------|---------------|---------------|
| Jack Beams | -10,930 | 50.25 | 5.92 | -549,230 | -64,710 |
| * 5" Rdwy Open Grid | -59,290 | 50.48 | 6.31 | -2,992,960 | -374,120 |
| Center Break | -4,500 | 93.71 | 6.53 | -421,700 | -29,390 |
| Concrete Fill in Rear Break | -5,080 | 7.00 | 5.82 | -35,560 | -29,570 |
| Curb Plate w/checkered PL | -12,940 | 50.04 | 7.04 | -647,520 | -91,120 |
| * 2¼" Sidewalk Grid including Conc. | -55,780 | 50.70 | 7.09 | -2,828,050 | -395,480 |
| Floorbeam 0-0 | -13,030 | 93.49 | 3.98 | -1,218,170 | -51,860 |
| Floorbeam 2-2 | -16,000 | 76.79 | 3.85 | -1,228,640 | -61,600 |
| Floorbeam 4-4 | -15,670 | 60.09 | 3.72 | -941,610 | -58,290 |
| Floorbeam 6-6 | -16,130 | 43.40 | 3.59 | -700,040 | -57,910 |
| Floorbeam 8-8 | -16,610 | 26.70 | 3.46 | -443,490 | -57,470 |
| Floorbeam 10-10 & Horiz. Girder | -22,510 | 9.88 | -3.57 | -222,510 | 80,440 |
| Roadway Stringers | -65,390 | 49.91 | 5.17 | -3,263,610 | -338,070 |
| S. Sdwk Brackets at FB 10-10 (W. Leaf only) | -710 | 10.00 | 4.06 | -7,100 | -2,880 |
| Sidewalk Laterals | -60 | 51.75 | 5.71 | -3,110 | -340 |
| Auxiliary Locks | -1,000 | 87.63 | 8.74 | -87,630 | -8,740 |
| Center Lock (W. Leaf) | -4,190 | 88.35 | 2.63 | -370,200 | -11,030 |
| Center Lock (E. Leaf) | -1,220 | 93.49 | 2.09 | -114,060 | -2,550 |
| Center Lock Platform (W. Leaf) | -470 | 87.00 | 2.00 | -40,890 | -940 |
| Center Lock Platform (E. Leaf) | -240 | 84.12 | 2.00 | -20,190 | -480 |
| Total W. Leaf | -320,290 | | | -16,002,020 | -1,544,140 |
| Total E. Leaf | -316,380 | | | -15,718,080 | -1,550,200 |

LEAF ADDITION ITEMS

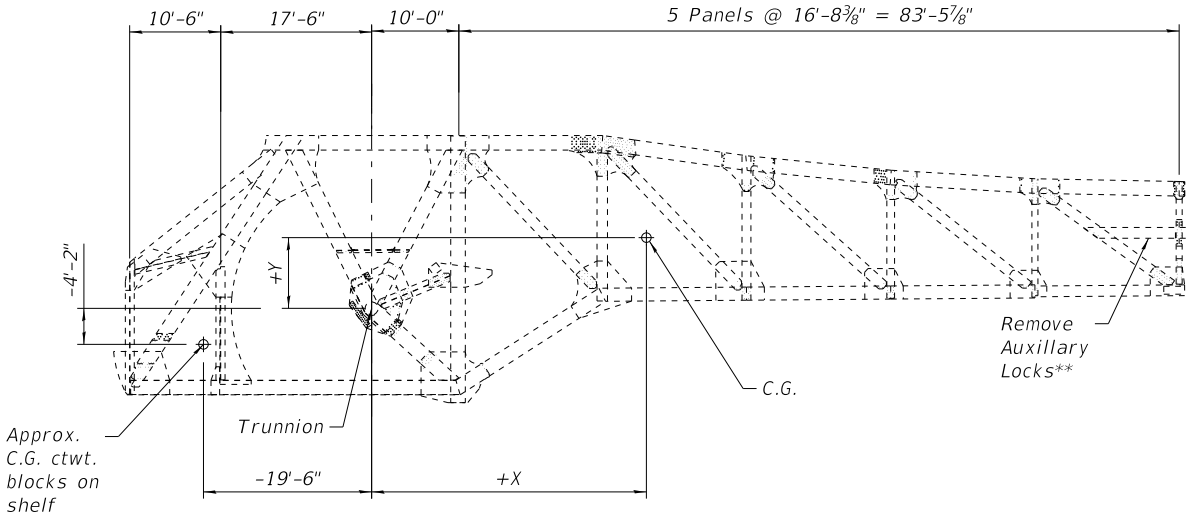
| Item | Weight (Lbs) | X (ft) | Y (ft) | Mx (Lb-ft) | My (Lb-ft) |
|---|-----------------|-----------|-----------|---------------|---------------|
| FRP Grating | 16,030 | 50.56 | 7.10 | 810,480 | 113,810 |
| Sdwk Center Break | 494 | 93.50 | 6.65 | 46,220 | 3,290 |
| Sdwk Rear Break | 374 | 6.33 | 5.62 | 2,370 | 2,100 |
| Rdwy. Open Grid Deck | 4,230 | 48.08 | 6.29 | 203,390 | 26,610 |
| Rdwy. Conc. Filled Deck | 160,390 | 50.12 | 6.39 | 8,038,710 | 1,024,890 |
| Rdwy. Center Break | 3,080 | 93.50 | 6.65 | 287,980 | 20,480 |
| Rdwy. Rear Break | 3,160 | 6.33 | 5.62 | 20,000 | 17,760 |
| Curb Plate w/Checkered PL | 16,860 | 49.56 | 6.95 | 835,580 | 117,180 |
| Floorbeam 0-0 | 6,800 | 93.50 | 3.89 | 635,800 | 26,450 |
| Floorbeam 2-2 | 7,550 | 76.80 | 3.66 | 579,840 | 27,630 |
| Floorbeam 4-4 | 7,560 | 60.10 | 3.50 | 454,360 | 26,460 |
| Floorbeam 6-6 | 7,590 | 43.40 | 3.33 | 329,410 | 25,270 |
| Floorbeam 8-8 | 7,590 | 26.70 | 3.17 | 202,650 | 24,060 |
| Floorbeam 10-10 & Horiz. Girder | 20,120 | 10.00 | 3.13 | 201,200 | 62,980 |
| Roadway Stringers | 46,710 | 50.05 | 5.23 | 2,337,840 | 244,290 |
| S. Sdwk Brackets at FB 10-10 (W. Leaf only) | 710 | 10.00 | 4.06 | 7,100 | 2,880 |
| Sidewalk Laterals | 1,604 | 51.75 | 5.71 | 83,010 | 9,160 |
| Roadway Laterals | 18,728 | 60.00 | 1.97 | 1,123,660 | 36,860 |
| Center Lock (W. Leaf) | 3,390 | 91.63 | 2.76 | 310,610 | 9,340 |
| Center Lock (E. Leaf) | 770 | 93.49 | 2.76 | 71,990 | 2,120 |
| Center Lock Platform (W. Leaf) | 590 | 87.00 | 2.00 | 51,330 | 1,180 |
| Center Lock Platform (E. Leaf) | 300 | 84.12 | 2.00 | 25,240 | 600 |
| Light Pole | 1,000 | 7.98 | 23.21 | 7,980 | 23,210 |
| Total W. Leaf | 334,560 | | | 16,569,520 | 1,845,890 |
| Total E. Leaf | 330,940 | | | 16,297,710 | 1,835,210 |

SUMMARY

| Item | Weight (Lbs) | X (ft) | Y (ft) | Mx (Lb-ft) | My (Lb-ft) |
|---|-----------------|-----------|-----------|---------------|---------------|
| Table 1: Total W. Leaf Removal | -320,290 | 49.96 | 4.82 | -16,002,020 | -1,544,140 |
| Table 2: Total W. Leaf Addition | 334,560 | 49.53 | 5.52 | 16,569,520 | 1,845,890 |
| Net Change | 14,270 | | | 567,500 | 301,750 |
| | | | | | |
| Table 1: Total E. Leaf Removal | -316,380 | 49.68 | 4.90 | -15,718,080 | -1,550,200 |
| Table 2: Total E. Leaf Addition | 330,940 | 49.25 | 5.55 | 16,297,710 | 1,835,210 |
| Net Change | 14,560 | | | 579,630 | 285,010 |
| | | | | | |
| East Ctw. Adjustment (30 Blocks Btwn. A1 & B1) | 13,350 | -19.50 | -4.17 | -260,330 | -55,630 |
| West Ctw. Adjustment (30 Blocks Btwn. A2 & B2) | 13,350 | -19.50 | -4.17 | -260,330 | -55,630 |
| | | | | | |
| NET TOTAL W. LEAF | 27,620 | | | 307,170 | 246,120 |
| NET TOTAL E. LEAF | 27,910 | | | 319,300 | 229,380 |

* The following unit weights are used in the balancing calculation:
Existing Sidewalk Grid Deck = 33.4 psf
Existing Roadway Open Grid Deck = 19.0 psf
Proposed Sidewalk Grid Deck = 10.0 psf
Proposed Roadway Open Grid Deck = 23.2 psf
(includes allowance for coatings, bolt-down plate and accessories)
Proposed Roadway Conc. Filled Deck = 53.1 psf

** Cost of removal of Auxilliary Locks included in Balancing of Bridge and Alteration of Counterweights. Auxiliary Locks shall become property of the City.



TRUSS ELEVATION

Notes:

1. It is assumed the bridge is balanced.
2. Weight denotes the weight of member element replacement and not necessarily the total weight of member and reflect final balancing at the completion of the proposed rehabilitation. Items to be replaced in-kind are not included in the balance conditions.
3. The distances X and Y are measured from the center of trunnion. see Truss Elevation.
4. The contractor shall submit to the Commissioner for approval bridge balancing calculations as detailed in the Special Provisions. The Cost shall be included in Balancing of Bridge and Alteration of Counterweights.
5. Balancing of the movable leaves will be paid for as Balancing of Bridge and Alteration of Counterweights. Fabrication and installation of new counterweight blocks (if req'd) and shimming and adjusting the anchor columns and live load bearings as required to properly balance the bridge is included in the Cost of Balancing of Bridge and Alteration of Counterweights. The Contractor shall make all adjustments and relocations necessary to attain the partially or fully balanced condition to the satisfaction of the Commissioner.
6. All dimensions and elevations shown are based on existing drawings. Space available in counterweight pockets and steel racks based on existing drawings. The Contractor shall verify.

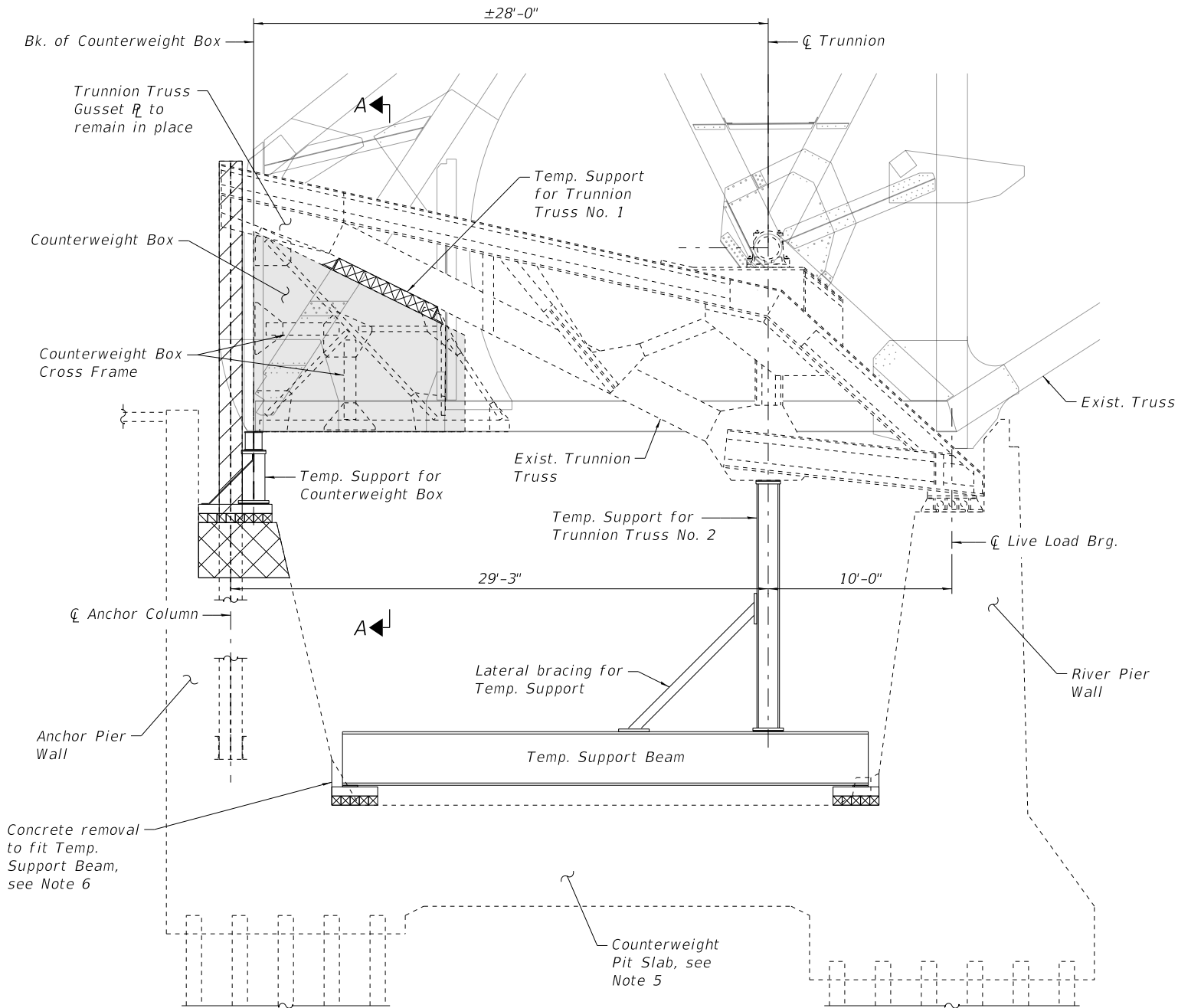
REFERENCE DRAWINGS

Drawing
Counterweight Calculations
Counterweight Balance

Sheet No.
1660570109
1660570128

0166057-E1525-S077-BALANCECALC.DGN

0166057-E1525-S078-TEMPSUPPORT.DGN





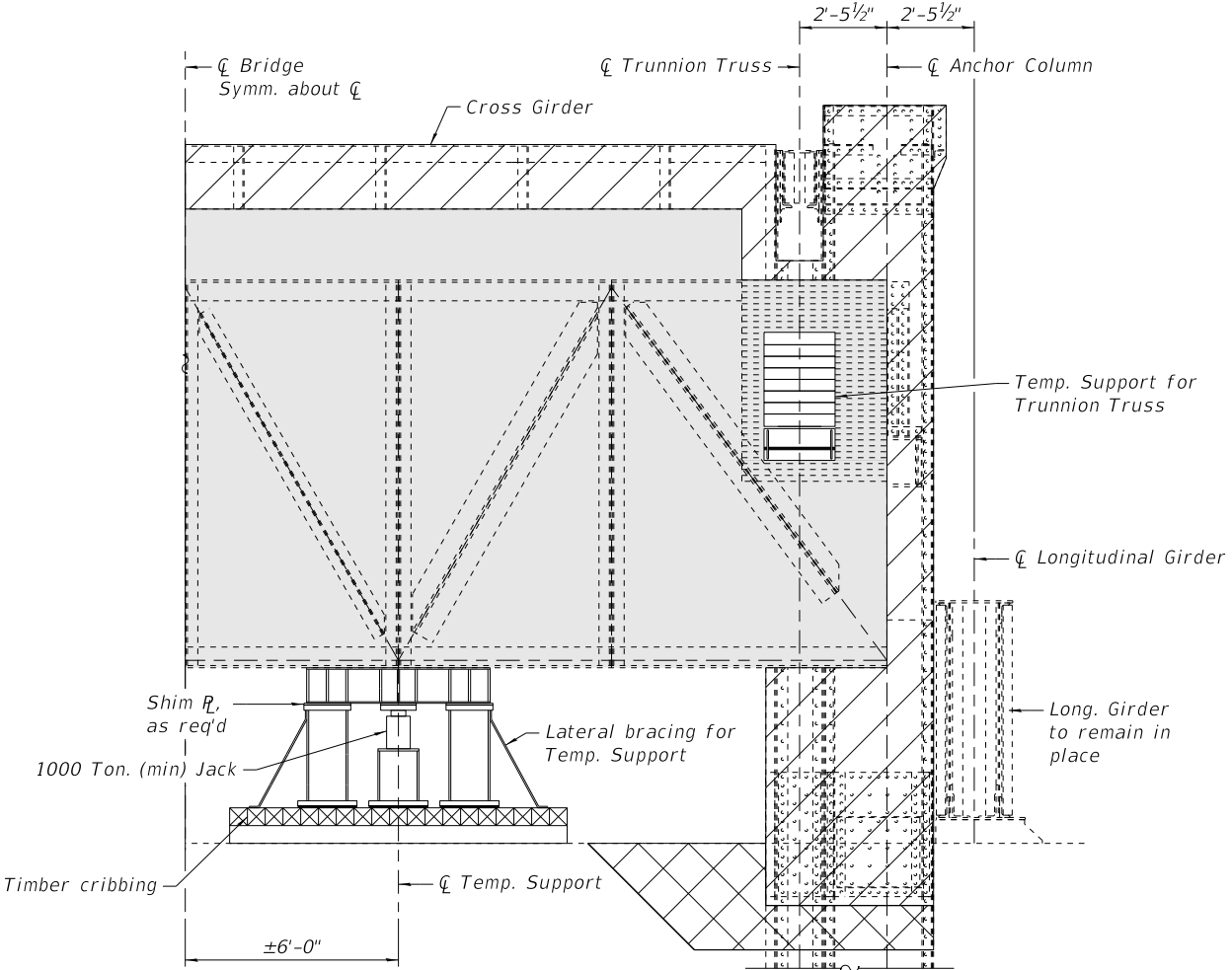
SECTION THRU COUNTERWEIGHT PIT AT TRUNNION TRUSS
(Looking North, West Leaf North Truss, other locations similar.
Longitudinal Girder not shown for clarity)

SUGGESTED WORK PLAN

- A. Remove fixed span concrete deck and superstructure steel framing. Anchor column and cross girder between columns are to remain in place at this stage. Temporary support of sidewalk may be required to maintain pedestrian access. See sheet S-6, for fixed span removal details.
- B. Install temporary support for Counterweight Box. The temporary support shall provide means for adjusting height as work progresses.
- C. Remove Bascule Span deck and steel framing. Maintain pedestrian access at all times. See sheet S-7 for bascule span removal details. Remove center lock. Maintain auxiliary center lock in place until new center lock is installed. New center lock shall be delivered to 31st and Sacramento and installed by IHC.
- D. Refurbish Live Load Bearing as detailed on sheet S-72. Adjustments may be required on counterweight box temporary support to obtain a workable gap in live load bearing to perform work as detailed on sheet S-72.
- E. Remove trunnion bearing caps prior to any jacking to avoid damaging studs.
- F. Jack counterweight box to relieve load at Trunnion and full contact is achieved at the Live Load Bearing. Install strain gauge at Trunnion Shafts prior to jacking counterweight box and monitor throughout the operation such that strain limits are not exceeded. Install shims at Temporary Support to transfer load to temporary support frame. Verify full contact at Live Load Bearing remains. See Special Provision for Temporary Support and Mechanical Specifications.
- G. Install and secure in place temporary supports for trunnion trusses. Trunnion truss may need to be stiffened locally at location of temporary supports.
- H. Remove and replace Anchor Columns and Cross Girders. Extreme care shall be taken to not damage the Trunnion Truss gusset plate connection to anchor column. Gusset plate is to remain in place. See sheets S-73 thru S-75 for Anchor Column replacement details.
- I. Repair Trunnion Truss and Trunnion Truss Bracing. See sheets S-76 thru S-77 for repair details.
- J. Repair Longitudinal Girder. See sheet S-78 and S-79 for repair details.
- K. Remove Trunnion Truss Temp. Supports.
- L. Reattach trunning bearing caps.

LEGEND

-  Structural Steel Removal
-  Concrete Removal

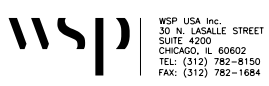


SECTION A-A
(Looking West, West Leaf North Truss, other locations similar)

- Notes:
- Prior to start of all removal operations in the bascule span, the Contractor shall install a temporary support for the counterweight boxes on each leaf as shown on this sheet.
 - The temporary support details shown on this sheet are to be taken as a suggested means of supporting the counterweight boxes and trunnion trusses. The geometry, number, and location of temporary support points shall be determined by the Contractor.
 - All structural steel for temporary supports shall be AASHTO M270 Grade 50.
 - Cost of furnishing and erecting temporary supports, equipment, concrete removal, and workmanship necessary to temporary support the counterweights and the trunnion trusses shall be included in the cost of Temporary Support. See Special Provisions.
 - Placing temporary supports directly on the counterweight pit slab is not recommended, except as shown herein. If Contractor elects to place supports directly on the slab, calculations and details prepared, signed, and sealed by an Illinois Licensed Structural Engineer must be submitted and approved supporting the feasibility of the proposed temporary support.
 - Extreme care shall be taken during concrete removal operations as not to damage the existing reinforcement. Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with Temporary Support.

REFERENCE DRAWINGS

| Drawing | Sheet No. |
|---|------------|
| Sub and Superstructure, Fixed part, Anchor Columns etc. | 1660570020 |
| Substructure Main Piers | 1660570045 |
| Main Truss Members | 1660570197 |
| Main Truss Members | 1660570198 |
| Repairs to Anchor Columns | 1660570120 |
| CWT Box Plates & Cross Frames | 1660570211 |



| | | | | | |
|--------------|----------|------------|-----|----------|--|
| USER NAME = | IJLOPEZ | DESIGNED = | IJL | REVISD = | |
| | | CHECKED = | NBR | REVISD = | |
| PLOT SCALE = | N.T.S. | DRAWN = | IJL | REVISD = | |
| PLOT DATE = | \$DATE\$ | CHECKED = | JIG | REVISD = | |

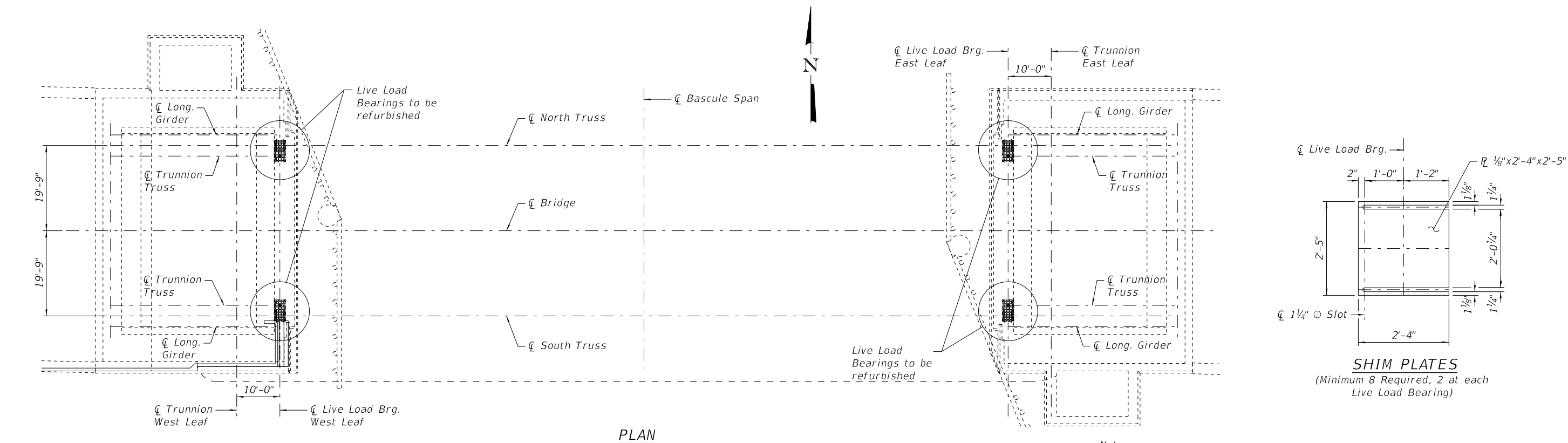
CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**SUGGESTED WORK PLAN AND TEMPORARY
SUPPORT DETAIL AT COUNTERWEIGHT PIT
(STRUCTURE NO. 016-6057)**

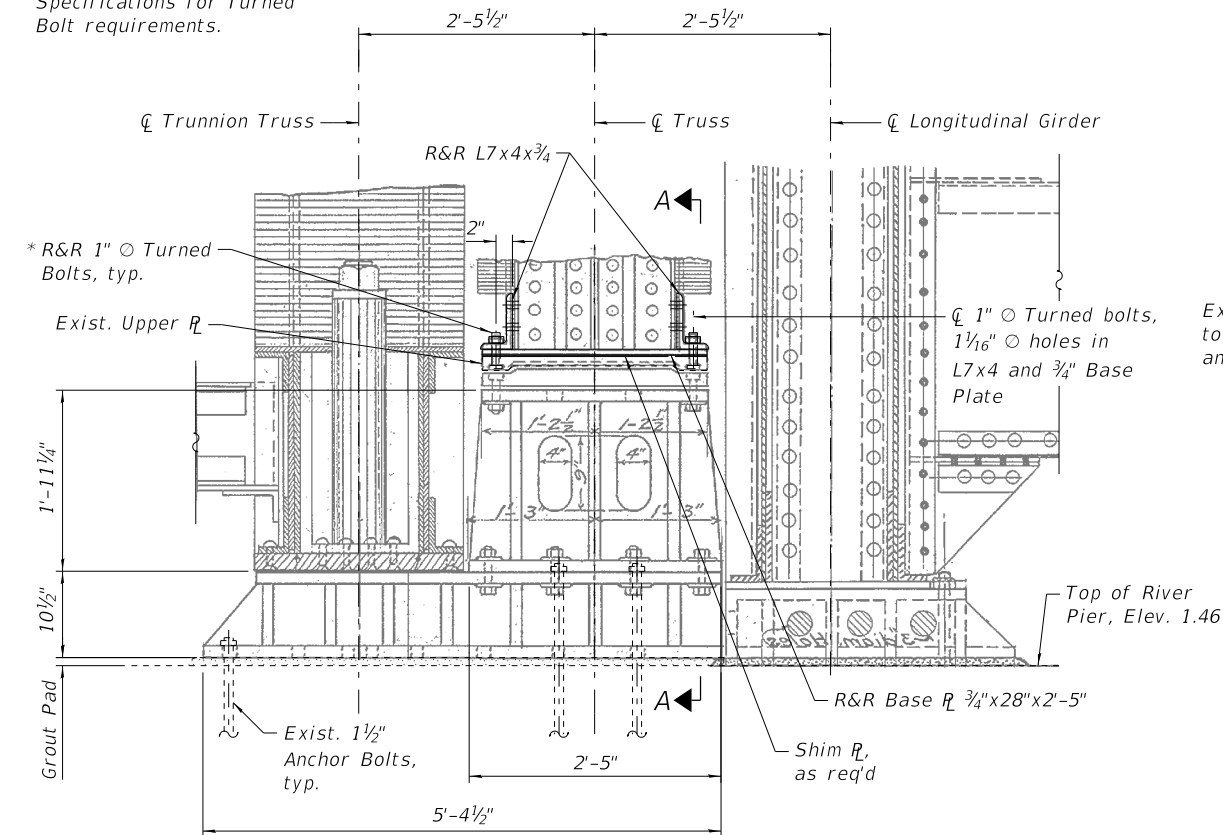
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | S-71 |
| CDOT PROJECT NO. E-1-525 | | | 114 of 210 |

0166057-E1525-S069-LLBEARINGREFURBISHING.DGN



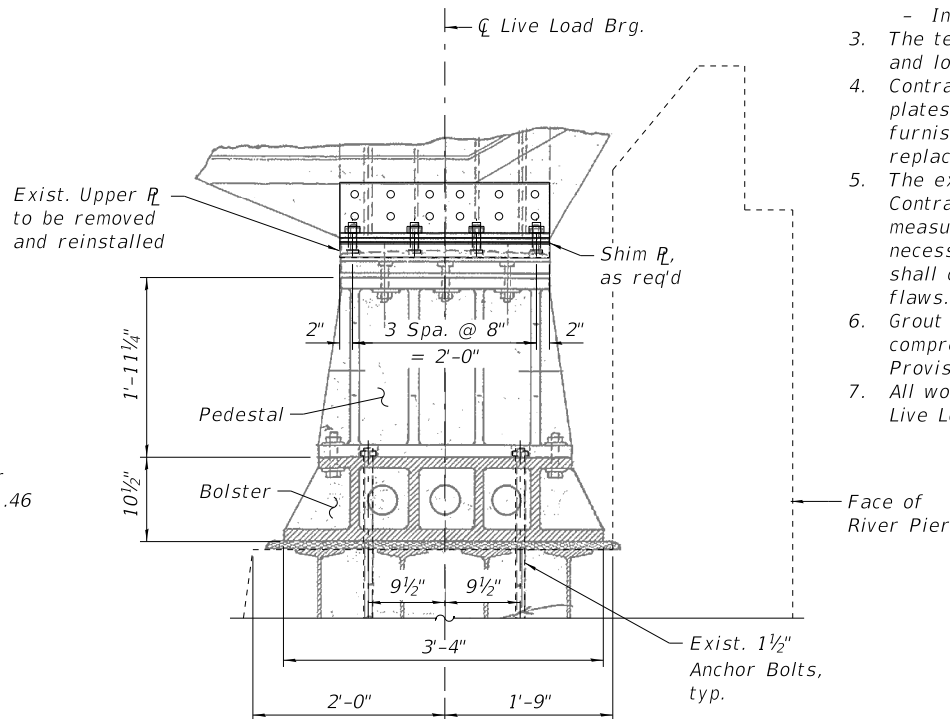
PLAN

* See Detailed Mechanical Specifications for Turned Bolt requirements.



ELEVATION - LIVE LOAD BEARING

(Southwest Live Load Bearing shown, looking east, others similar)



SECTION A-A

Notes:

- All dimensions are taken from existing plans and it is the responsibility of the Contractor to field verify all dimensions. Details shown herein depict the overall details of the Live Load Bearings and the surrounding members.
- Refurbishing of all four live load bearings includes:
 - Removing, refurbishing and reinstalling upper plate
 - Cleaning and painting lower plate, bolster, and pedestal in place
 - Cleaning and painting anchor bolts in place
 - Repairing grout pads
 - R&R L7x4 angles, 3/4" base plate, and 1" dia. turned bolts.
 - Installing shim plates for balancing
- The term 'Live Load Bearings' includes the pedestal, bolster, and cast steel upper and lower plates as called out in the existing plans.
- Contractor shall field verify existing gap and adjust accordingly using shim plates to achieve full bearing. Adjustments may include, but are not limited to, furnishing and erecting shim plates, loosening/tightening turned bolts, or replacing bolts.
- The existing condition of the anchor bolts is unknown. After cleaning, the Contractor shall record the condition of the anchor bolts with photographs and measurements and provide to the Engineer for determination whether repairs are necessary or not. In addition to photographs and measurements, the Contractor shall conduct Non-destructive Testing (NDT) to identify the presence of internal flaws.
- Grout pads shall be repaired as determined by the Engineer. A minimum compressive strength of 5,000 psi shall be used for the grout. See Special Provisions.
- All work described in this sheet shall be included in the cost of "Refurbishing of Live Load Bearings", see Special Provisions.

BILL OF MATERIAL

| Item | Unit | Quantity |
|------------------------------------|------|----------|
| Refurbishing of Live Load Bearings | Each | 4 |

REFERENCE DRAWINGS

| Drawing | Sheet No. |
|-------------------|------------|
| Steel Castings | 1660570185 |
| Iron Castings | 1660570186 |
| Bolts & Washers | 1660570187 |
| Trunnion Trusses | 1660570153 |
| Main Piers | 1660570045 |
| Posts & Diagonals | 1660570205 |



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SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

| | | | | | |
|--------------|----------|------------|--------|-----------|--|
| USER NAME = | PJLAUX | DESIGNED - | RA/IJL | REVISED - | |
| | | CHECKED - | PJL | REVISED - | |
| PLOT SCALE = | N.T.S. | DRAWN - | RA/IJL | REVISED - | |
| PLOT DATE = | \$DATE\$ | CHECKED - | JIG | REVISED - | |

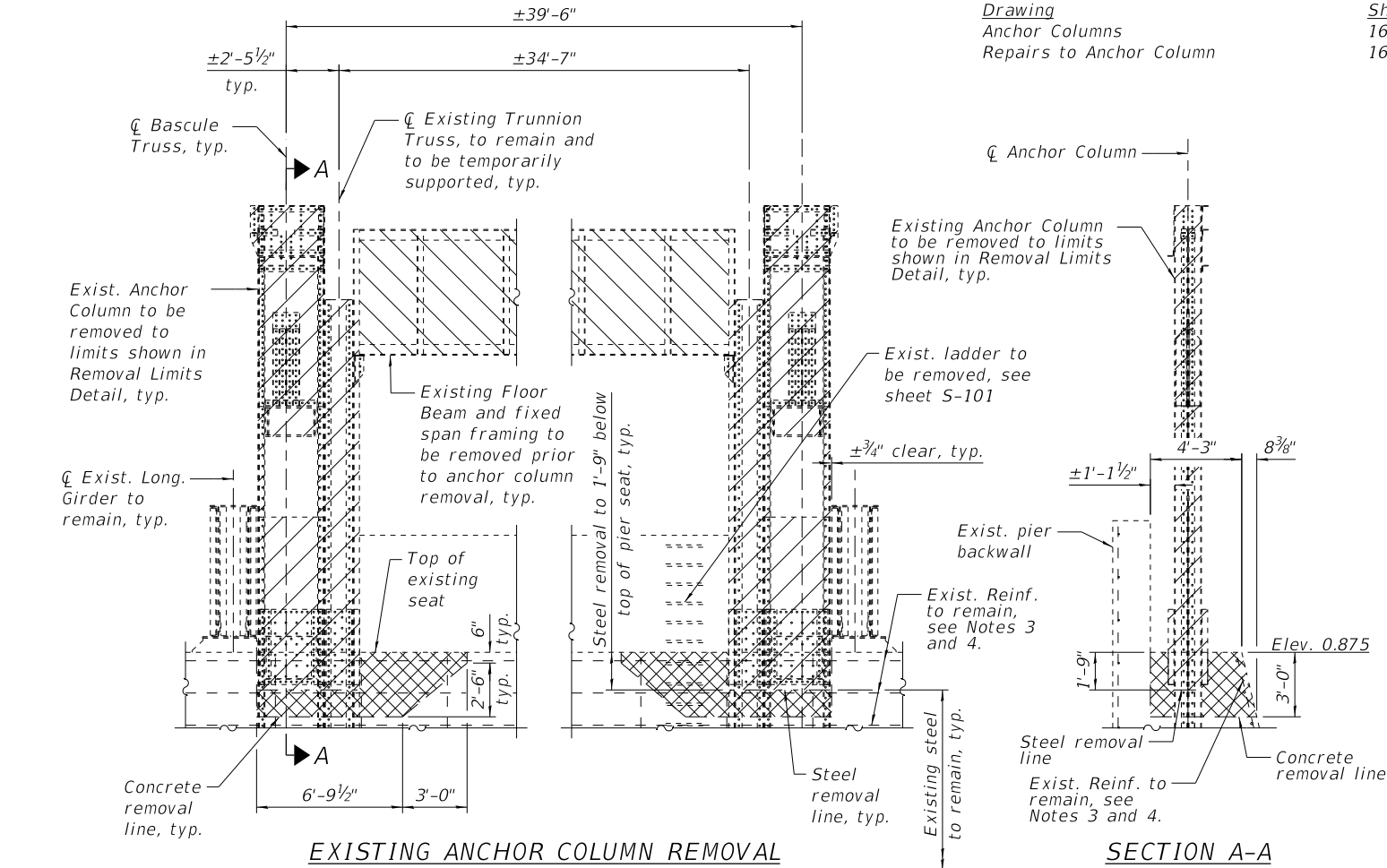
CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

LIVE LOAD BEARING REFURBISHING
(STRUCTURE NO. 016-6057)

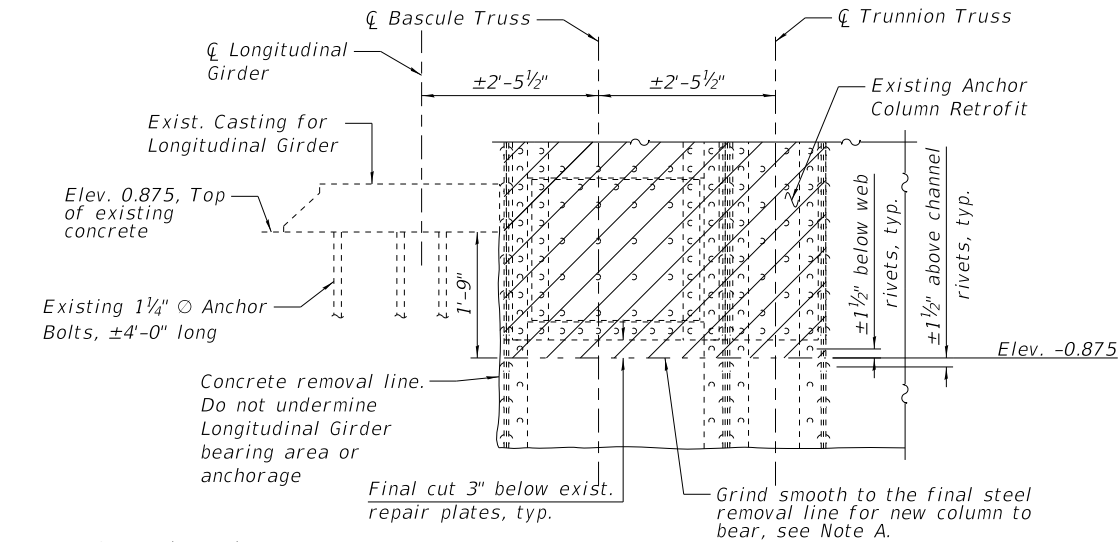
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | S-72 |
| CDOT PROJECT NO. E-1-525 | | | 115 of 210 |

0166057-E1525-S070-ANCHORCOL.DGN



EXISTING ANCHOR COLUMN REMOVAL

(For both West and East Piers. Bascule trusses, trunnion trusses, and their temporary supports not shown for clarity)

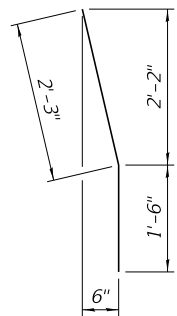


Note A: Cut anchor column above final removal line, and remove column. After column removal, perform final cut and grind steel to remain to the final cut line.

REMOVAL LIMITS DETAIL

(Southwest and Northeast Anchor Columns shown, Northwest and Southeast Columns opposite hand)
(Longitudinal Girder not shown for clarity)

SECTION A-A



BAR n200(E)

LEGEND

Structural Steel Removal

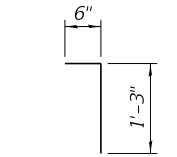
Concrete Removal

Removal of Existing Superstructures

BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|--------------------------------------|-----|------|--------|--------|
| h200(E) | 16 | #5 | 9'-6" | |
| h201(E) | 4 | #5 | 8'-2" | |
| h202(E) | 4 | #5 | 6'-6" | |
| h203(E) | 36 | #5 | 4'-0" | |
| n200(E) | 28 | #5 | 3'-9" | |
| n201(E) | 28 | #5 | 3'-8" | |
| n202(E) | 116 | #4 | 1'-9" | |
| Concrete Removal | | | Cu Yd | 17.5 |
| Structural Steel Removal | | | Pound | 33,600 |
| Reinforcement Bars Epoxy Coated | | | Pound | 790 |
| High Performance Concrete Structures | | | Cu Yd | 17.9 |
| Protective Concrete Sealer | | | Sq Yd | 30 |

Quantities shown include all four locations.



BAR n202(E)

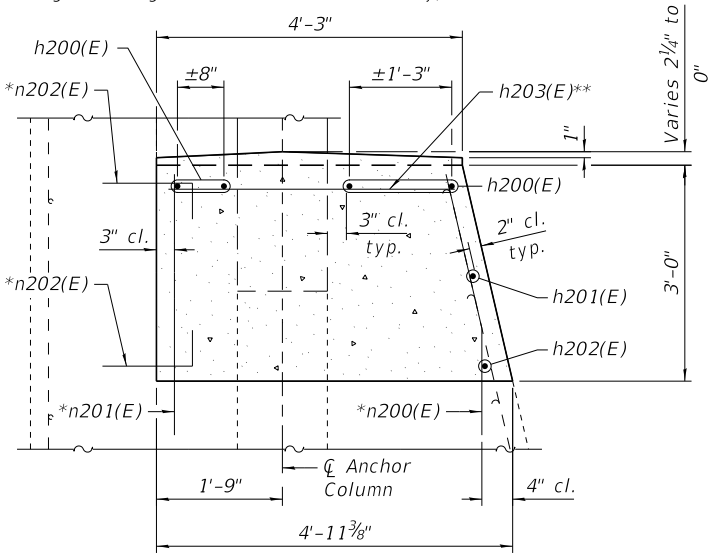
PIER SEAT RECONSTRUCTION AT ANCHOR COLUMN

(Looking towards approaches, symmetrical about bridge centerline, typical both piers.
Anchor column and longitudinal girder not shown for clarity)

* Drill and grout bars according to Article 584 of the Standard Specifications, with a minimum embedment of 9". Cost included with Reinforcement Bars, Epoxy Coated.

** Cut in field to fit at Anchor Column providing a minimum clear distance of 3".

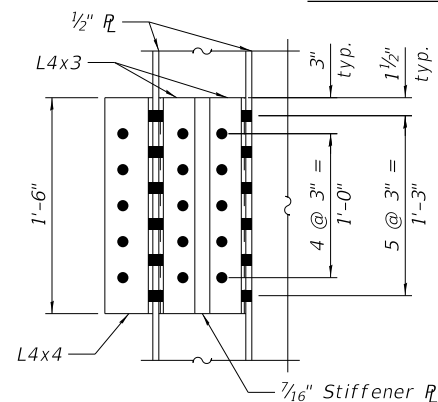
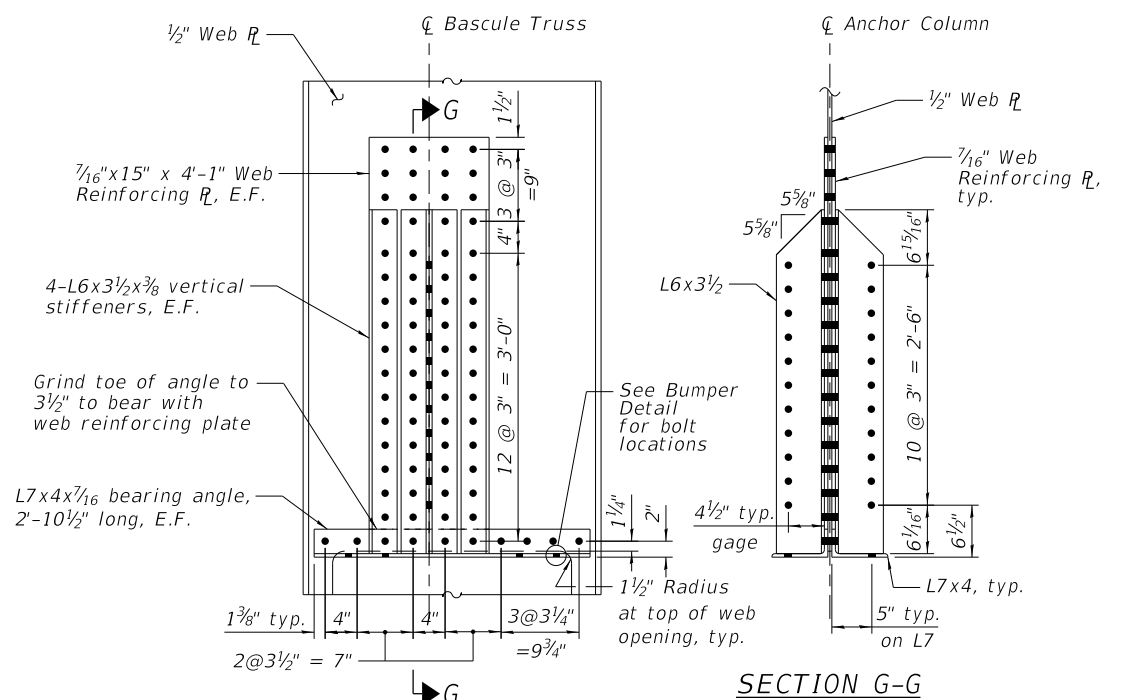
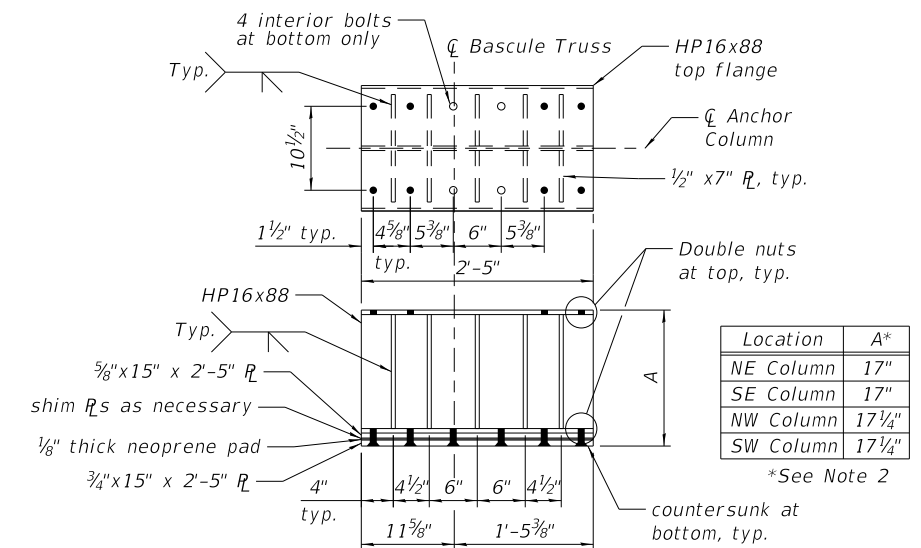
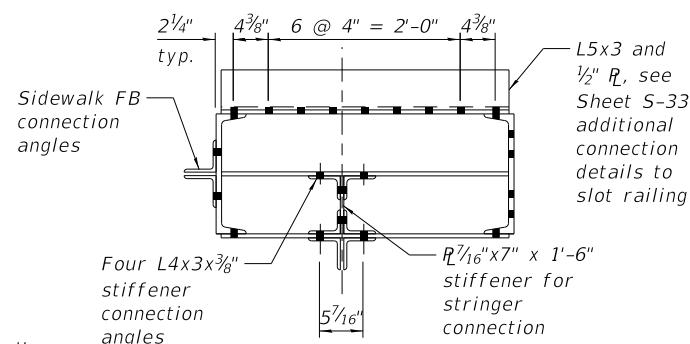
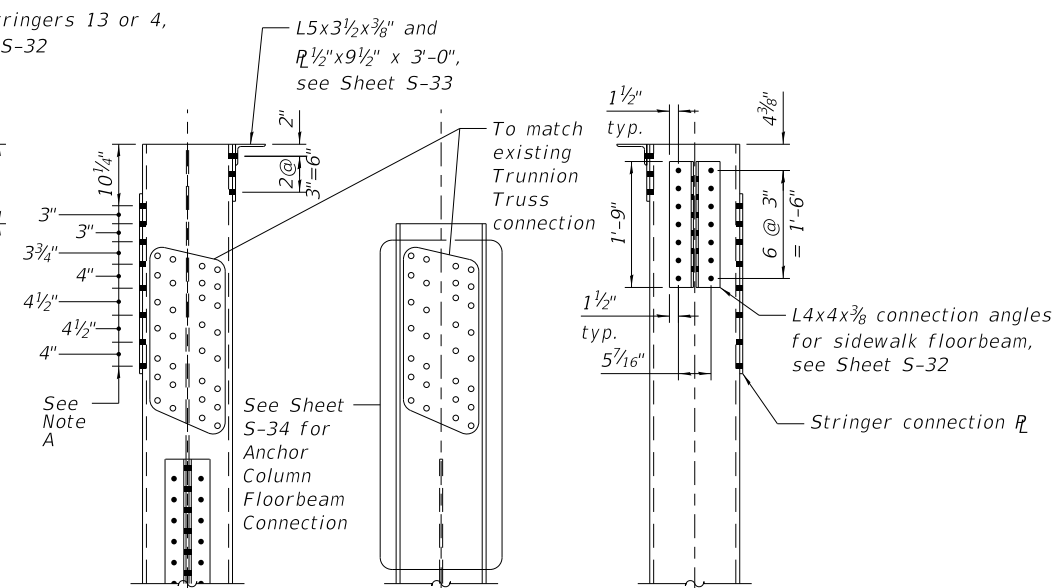
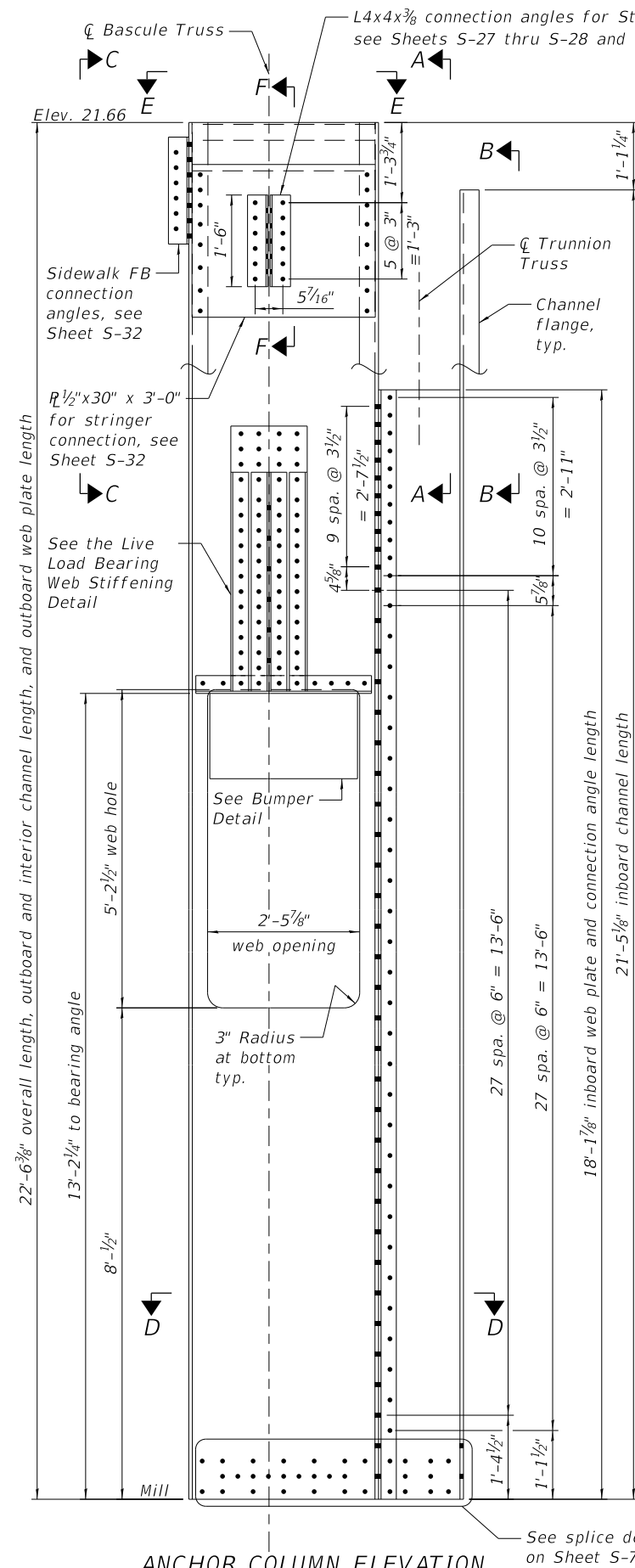
*** Slope front and back faces parallel to crown slope along \perp Anchor Column within 5'-0" shown to maintain a 1" drop away from Anchor Column.



SECTION B-B

Notes:

- All sizes and dimensions shown are taken from the original shop drawings and from the 1945 repair drawings to the anchor columns. All dimensions are to be field verified prior to ordering material and commencing work.
- See sheets S-74 and S-75 for new anchor column and splice details.
- Any existing reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost considered incidental to Concrete Removal.
- Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
- Grind any nicks, gouges, and shallow surface cracks after cutting anchor column. Inspect ground surfaces along steel removal line for cracks using magnetic particle testing. Any cracks found shall be brought up to the Engineer prior to installation of proposed anchor column. Cost included with Structural Steel Repair.
- The Contractor shall exercise extreme care during removal operations to prevent damage to existing longitudinal girder, trunnion truss, portions of anchor column to remain in place, and concrete pier. Any damage to any of the existing members to remain in place shall be repaired at the Contractor's expense.

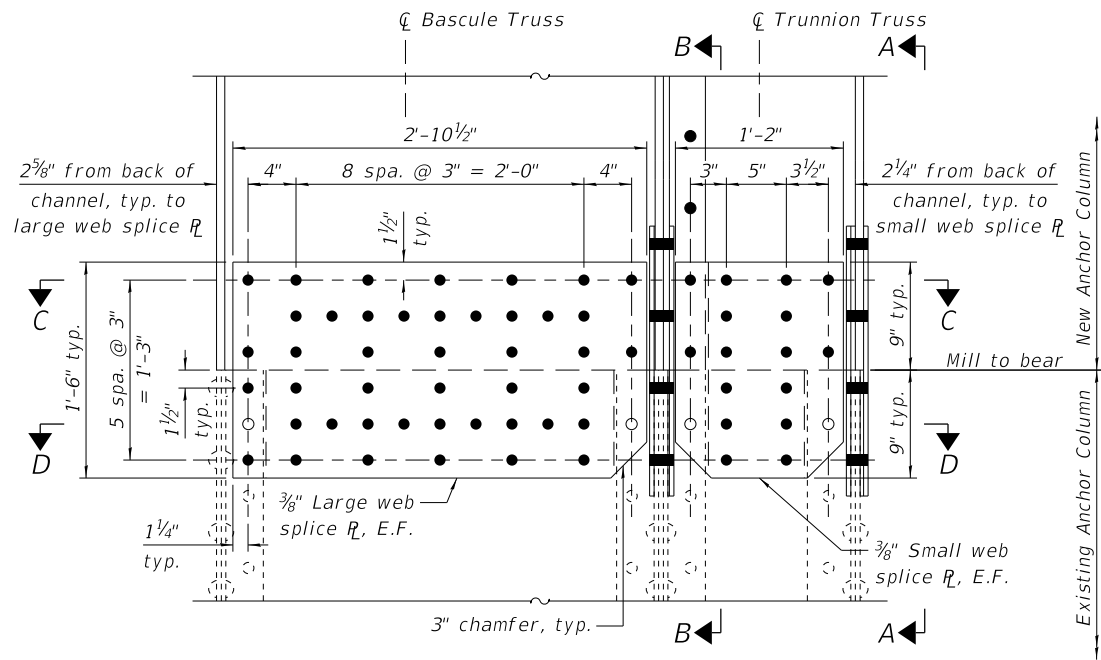


REFERENCE DRAWINGS

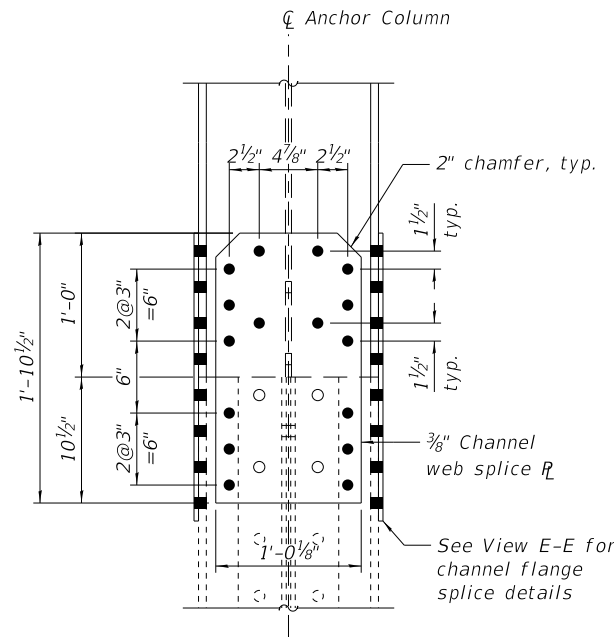
| | |
|----------------|------------------|
| <u>Drawing</u> | <u>Sheet No.</u> |
| Anchor Columns | 1660570163 |
| Steel Bumpers | 1660570119 |

Notes:

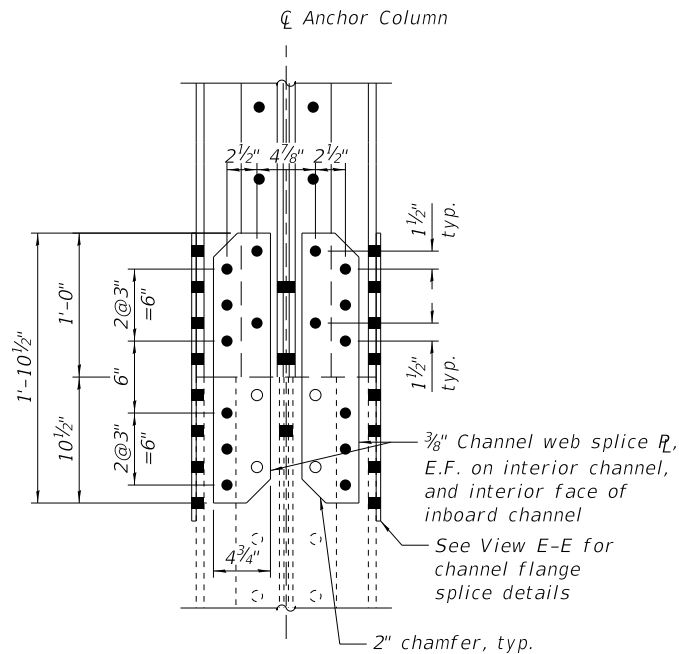
1. Out to out sizes of column shown are taken from the original shop drawings. All dimensions are to be field verified and coordinated with the fixed framing details prior to ordering material and commencing work. Removed existing anchor columns may be used as a template for the trunnion truss connection to the new anchor columns if possible.
2. The overall height (Dimension A) of the live load bumpers is taken from the 1945 rehabilitation drawings. These dimensions shall be field verified and modified as necessary at each rear live load shoe to ensure no gaps or conflicts.
3. Cost of new anchor columns and bumpers, and incidental items such as neoprene pads are included in Furnishing and Erecting Structural Steel.



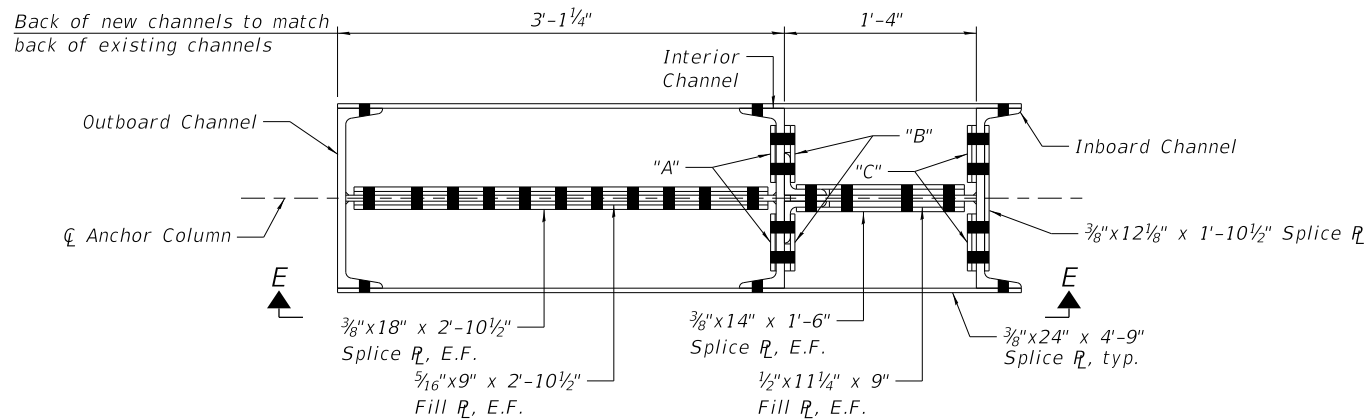
ANCHOR COLUMN SPLICE ELEVATION
 (Northwest and Southeast Anchor Columns shown, Southwest and Northeast Columns opposite hand)
 (Channel flanges not shown for clarity. For fill plates, see Sections C-C and D-D)



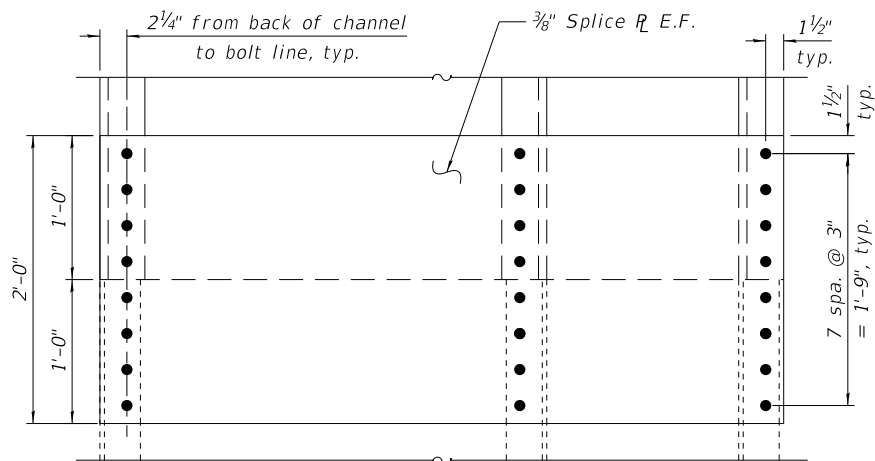
SECTION A-A



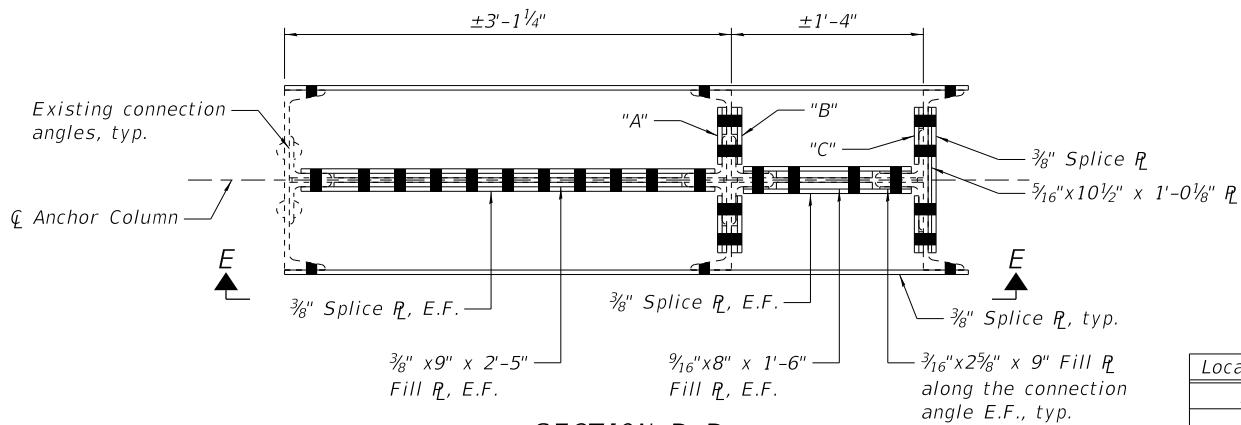
SECTION B-B



SECTION C-C



VIEW E-E



SECTION D-D

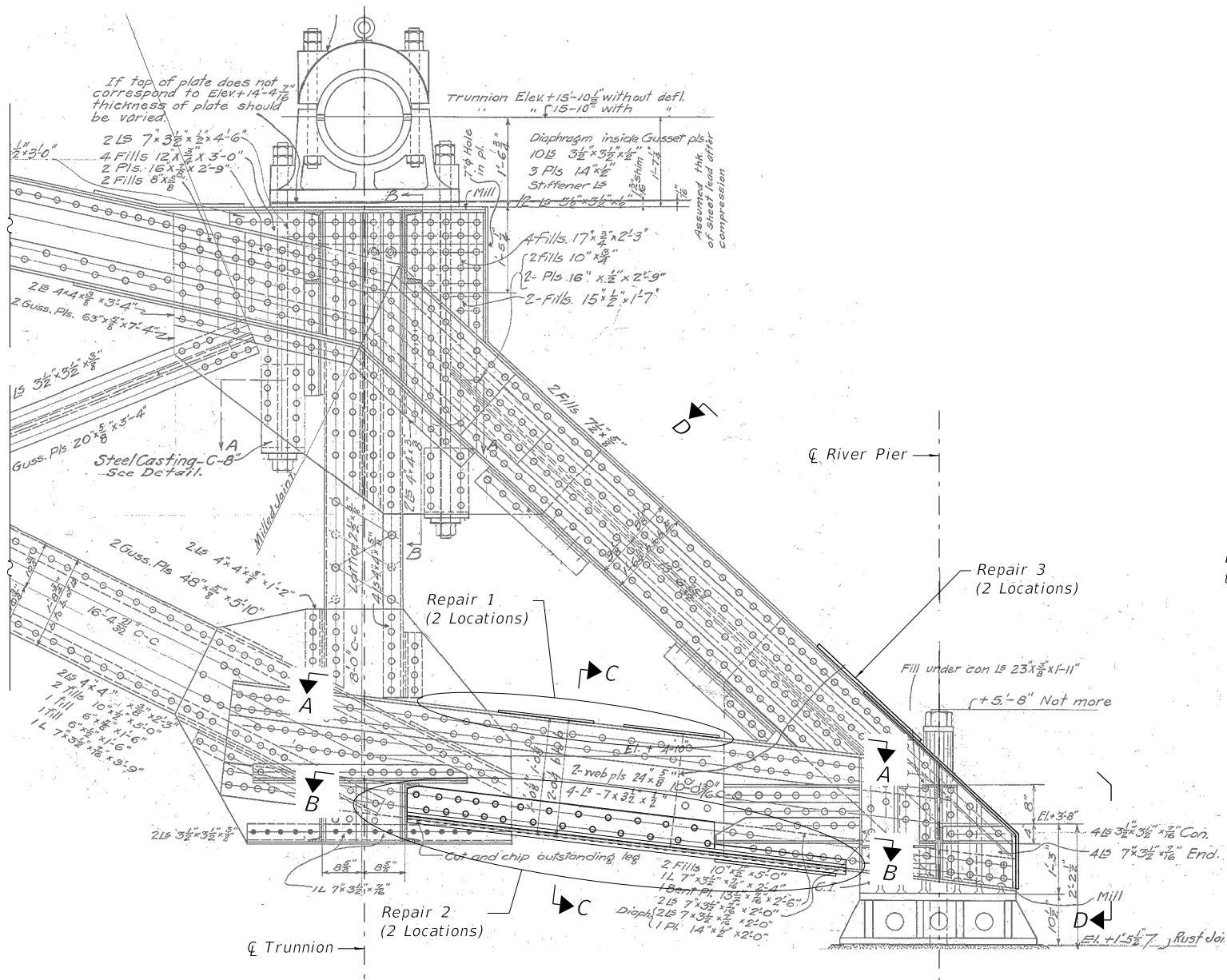
| Location* | Splice \bar{R} | New Section Fill \bar{R} | Existing Section Fill \bar{R} |
|-----------|--|---|--|
| A | | $\frac{1}{16}" \times 4\frac{3}{4}" \times 1'-0"$ | $\frac{3}{8}" \times 2\frac{1}{4}" \times 10\frac{1}{2}"$ |
| B | $\frac{3}{8}" \times 4\frac{3}{4}" \times 1'-10\frac{1}{2}"$ | $\frac{1}{2}" \times 2\frac{1}{4}" \times 1'-0"$ | $\frac{1}{2}" \times 2\frac{1}{4}" \times 10\frac{1}{2}"$ and $\frac{1}{8}" \times 2" \times 10\frac{1}{2}"$ |
| C | | $\frac{3}{8}" \times 4\frac{3}{4}" \times 1'-0"$ | $\frac{3}{8}" \times 1\frac{3}{4}" \times 10\frac{1}{2}"$ |

* The plates at the A, B, and C locations are symmetrical about the \bar{C} of Anchor Column

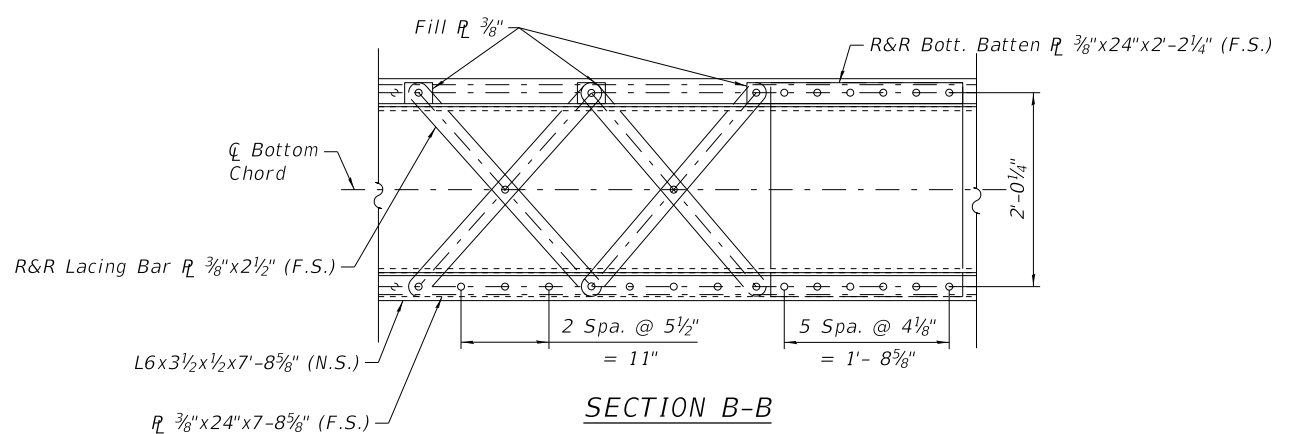
Notes:

1. All dimensions are to be field verified and coordinated with the fixed framing details prior to ordering material and commencing work.
2. Bolting clearances are tight, and a careful tightening sequence should be followed in addition to careful bolt orientation to avoid conflicts when placing bolts adjacent to bolts already placed.
3. Cost of new splice plates, fill plates, and incidental items such as locating and drilling holes in existing steel are included in Furnishing and Erecting Structural Steel.

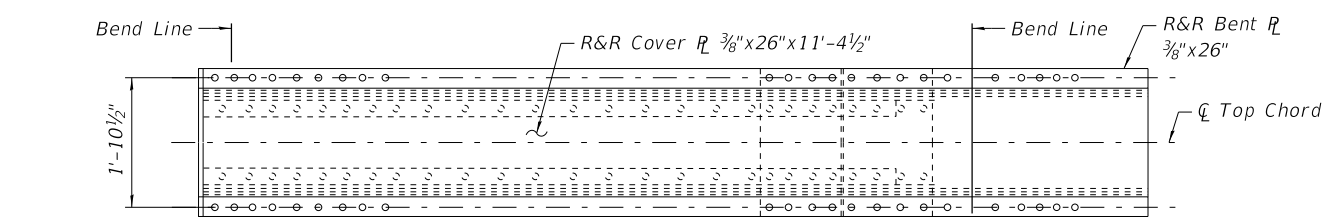
0166057-E1525-S071-ANCHORCOL3.DGN



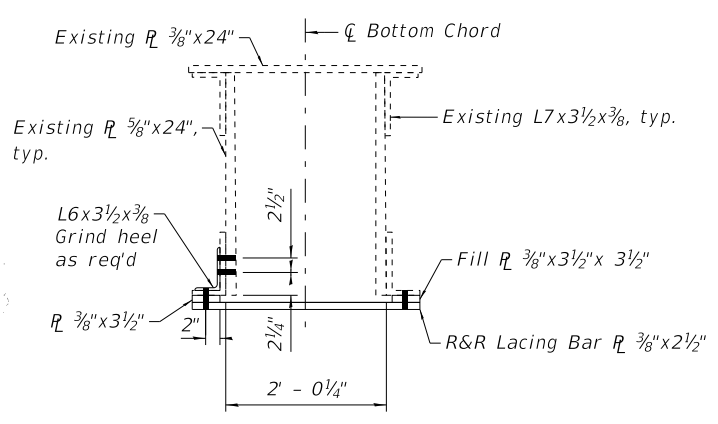
ELEVATION - TRUNNION TRUSS
(Looking north at NW Truss or looking south at SE Truss,
NE Truss & SW Truss similar but opposite hand looking north & south, respectively)



SECTION B-B
REPAIR 2
(NW Truss shown, SW Truss
similar but opposite hand)



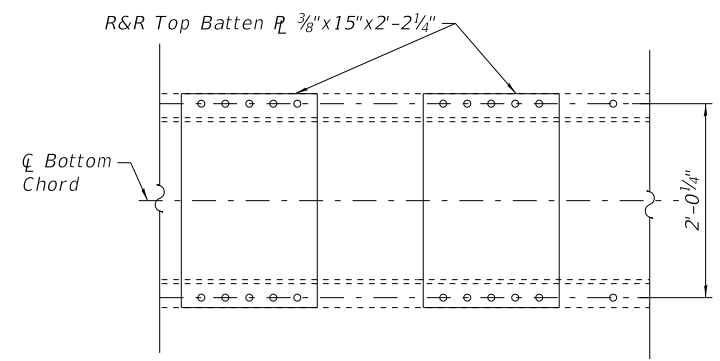
VIEW D-D
REPAIR 3
(Southwest & Northwest Trunnion Truss)



BILL OF MATERIAL

| Item | Unit | Quantity |
|--------------------------|-------|----------|
| Structural Steel Repairs | Pound | 2,540 |

- Notes:
- Locations to be strengthened shall be verified in the field.
 - Cost of furnishing and erecting trunnion truss repair steel elements shall be included in Structural Steel Repairs.
 - Cost of removing and replacing rivets in association with furnishing and erecting trunnion truss repair steel elements shall be included in Structural Steel Repairs.

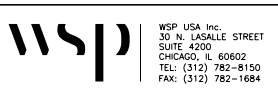


SECTION A-A
REPAIR 1
(NW Truss shown, SW Truss
similar but opposite hand)

REFERENCE DRAWINGS

| Drawing | Sheet No. |
|----------------------------|------------|
| Fixed Part- Trunnion Truss | 1660570017 |
| Trunnion Truss | 1660570190 |

0166057-E1525-S072-TRUNTRUSS.DGN



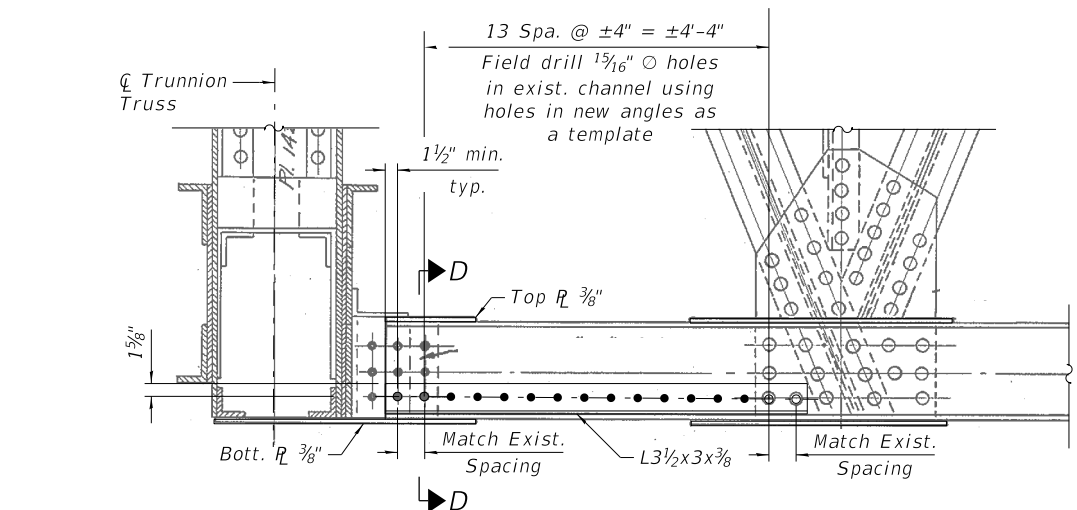
| | | | | | |
|--------------|----------|------------|-----|-----------|--|
| USER NAME = | RALMASRI | DESIGNED - | RAM | REVISED - | |
| | | CHECKED - | PJL | REVISED - | |
| PLOT SCALE = | N.T.S. | DRAWN - | RAM | REVISED - | |
| PLOT DATE = | \$DATE\$ | CHECKED - | JIG | REVISED - | |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

TRUNNION TRUSS REPAIR DETAILS
(STRUCTURE NO. 016-6057)

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | S-76 |
| CDOT PROJECT NO. E-1-525 | | | 119 of 210 |



\bar{C} Horiz. Bracing
 W12x40
 Fill 8" x $\frac{3}{4}$ "
 Match Exist. Spacing

C Horiz. Bracing
 Exist. C12x25
 L3½x3
 Bott. R ¾"
 1'-4½"

Top $R \frac{3}{8}$ "

Bott. $R \frac{3}{8}$ "

$1PI \frac{11}{2} \times \frac{3}{8}$

$1'-7\frac{1}{8}"$

$2-10-3 \frac{1}{2} \times 3 \frac{1}{2} \times \frac{3}{8}$

$Lattice-2 \frac{1}{2} \times \frac{3}{8}$

$R\&R R \frac{3}{8}$

$R\&R Top 2-L3 \frac{1}{2} \times 3 \frac{1}{2}$

$1PI \frac{11}{2} \times \frac{3}{8} = 1'-8"$

$R\&R R \frac{3}{8}$

Cast Iron Shoe $\frac{3}{4}$ " Metal.

Cast

Cem

$1'-9"$

$1'-5\frac{1}{2}"$

Top of Masonry

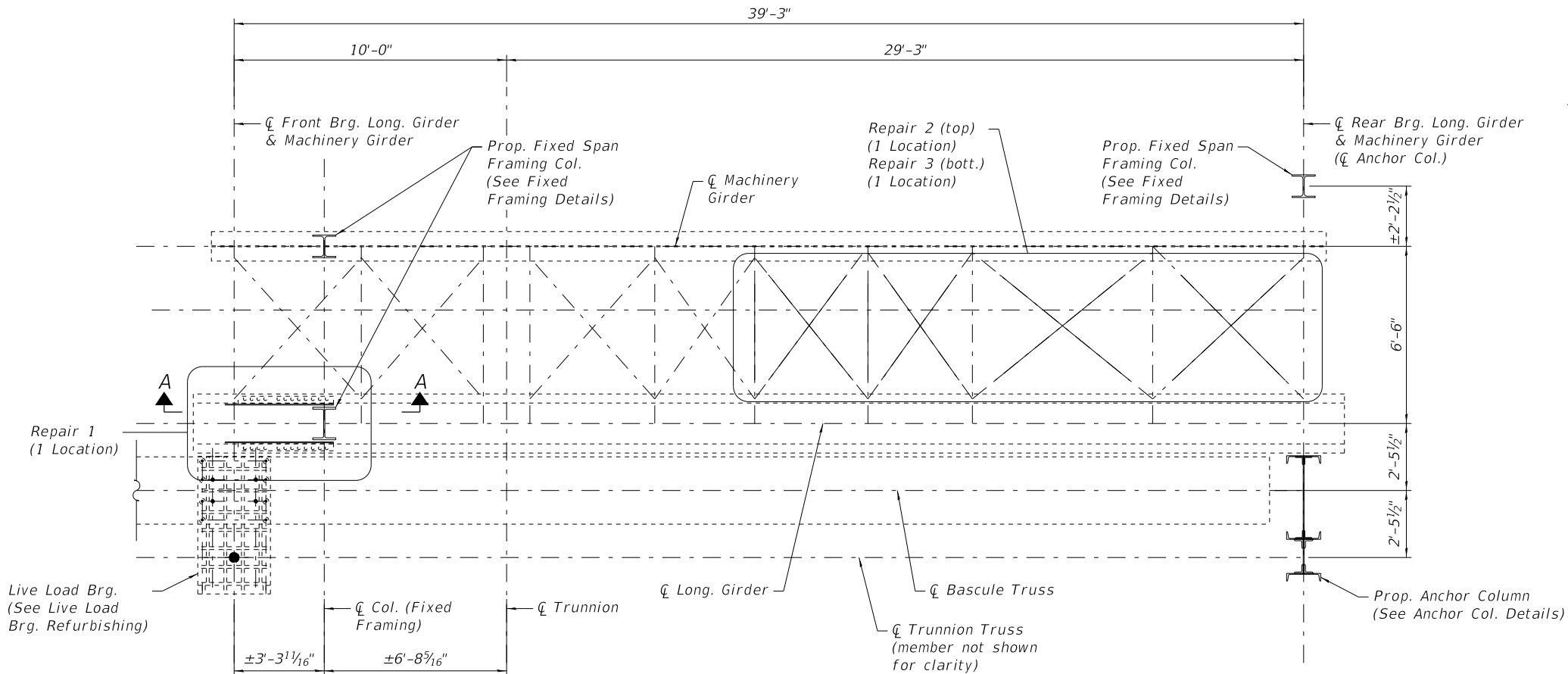
$17'-3\frac{1}{2}"$

| Item | Unit | Quantity |
|--------------------------|-------|----------|
| Structural Steel Repairs | Pound | 36,830 |

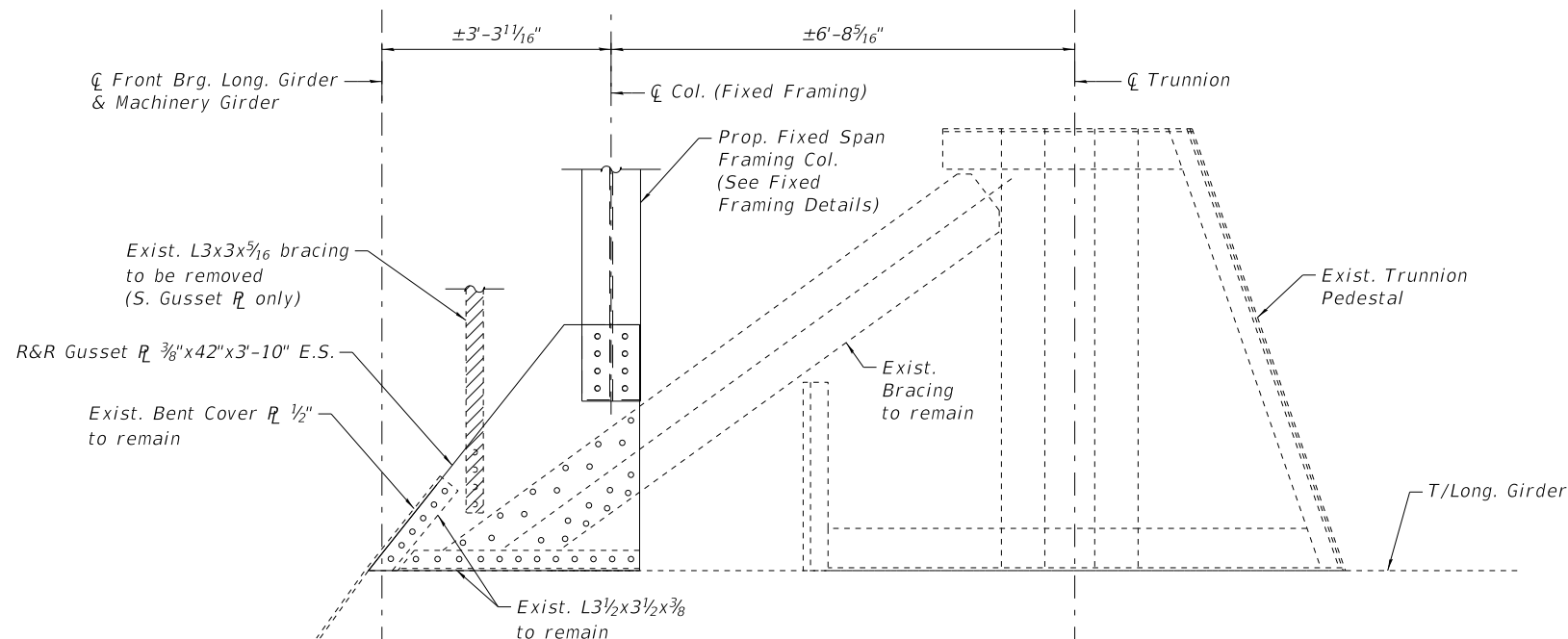
| <u>Drawing</u> | <u>Sheet No.</u> |
|---|------------------|
| Structural Work in Rehabilitation of Horizontal Truss West Side | 1660570133 |
| Structural Work in Rehabilitation of Horizontal Truss West Side | 1660570132 |
| Bracing for Trunnion Truss | 1660570193 |
| Trunnion Truss1660570190 | |
| Bracing for Trunnion Truss | 1660570194 |
| Fixed Part-Trussed Bracing Between Trunnion Trusses | 1660570194 |

1. *Cost of furnishing and erecting Trunnion Truss Lateral Bracing Steel Elements and replacing rivets associated with these elements shall be included in the cost of Structural Steel Repairs.*
2. *Cost of removing and replacing rivets that are not associated with furnishing and erecting steel elements shall be included in Removal of Deteriorated Connectors and Replacement with High Strength Bolts.*

0166057-E1525-S075-LONGGIRDER1.DGN



PLAN
(NE Long. Girder & NE Machinery Girder shown,
other locations similar)



SECTION A-A
REPAIR 1
(NE Long. Girder shown, looking north)

Notes:

- Locations to be strengthened shall be verified in the field.
- Cost of furnishing and erecting long. girder and machinery girder repair steel elements shall be included in Structural Steel Repairs.
- Cost of removing and replacing rivets in association with furnishing and erecting long. girder and machinery girder repair steel elements shall be included in Structural Steel Repairs.
- See sheet S-79 for Repair 2 & 3 Details.

REFERENCE DRAWINGS

| Drawing | Sheet No. |
|-----------------------------------|------------|
| Fixed Part - Anchor Columns, Etc. | 1660570020 |
| Machinery Girders | 1660570188 |
| Machinery Girders | 1660570188 |
| Bracing for Machinery Girders | 1660570191 |
| Trunnion Pedestal and Strut | 1660570192 |



WSP USA Inc.
30 N. LA SALLE STREET
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CHICAGO, IL 60602
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FAX: (312) 782-1684

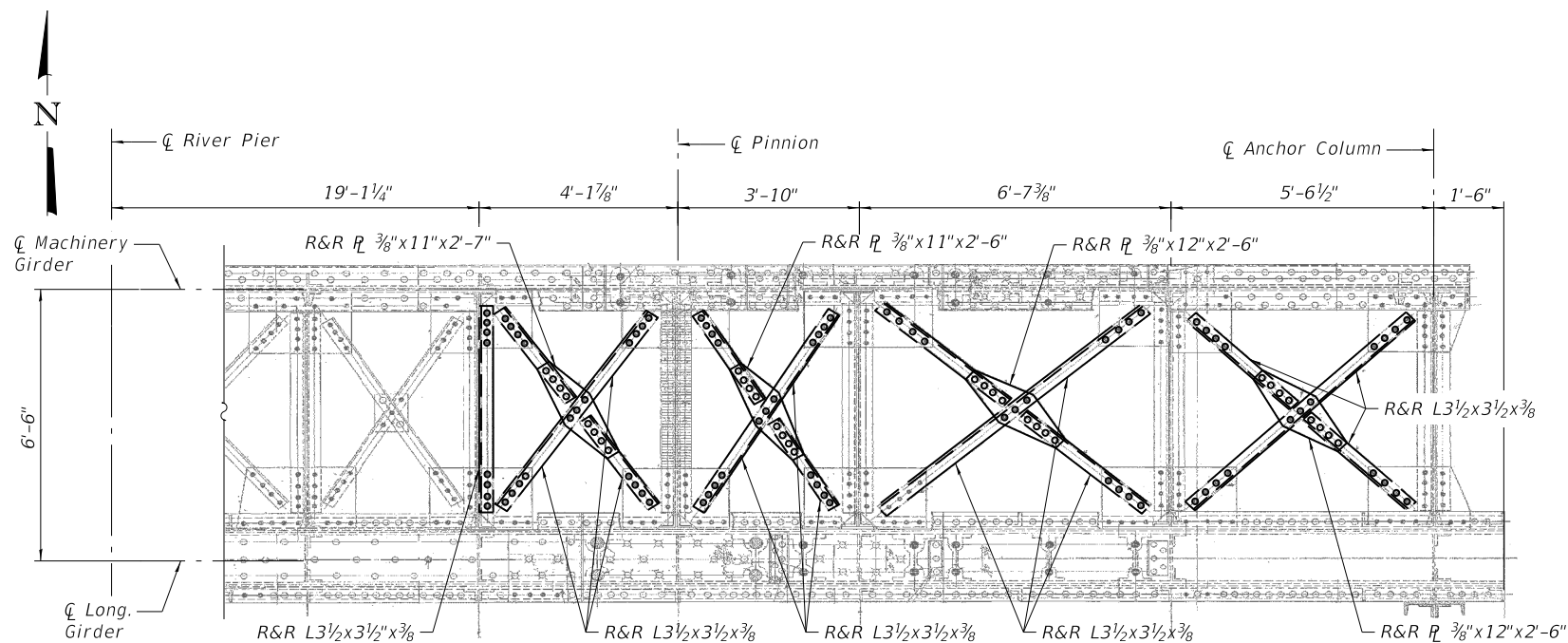
| | | | | | |
|--------------|----------|------------|-----|-----------|--|
| USER NAME = | RALMASRI | DESIGNED - | PJL | REVISED - | |
| | | CHECKED - | RAM | REVISED - | |
| PLOT SCALE = | N.T.S. | DRAWN - | PJL | REVISED - | |
| PLOT DATE = | \$DATE\$ | CHECKED - | JIG | REVISED - | |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

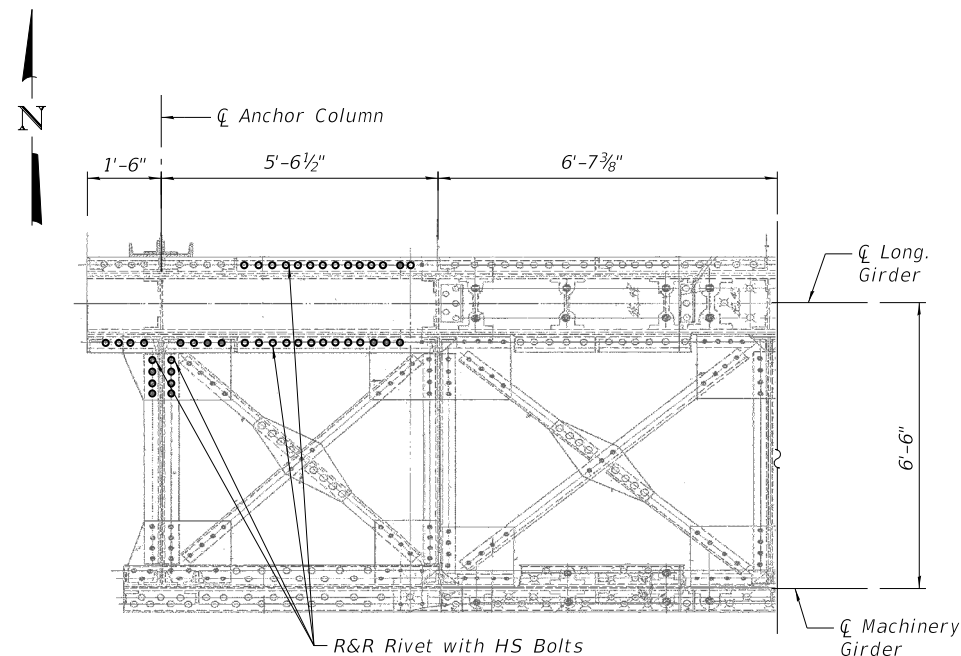
**LONGITUDINAL GIRDER & MACHINERY
GIRDER REPAIRS I
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | S-78 |
| CDOT PROJECT NO. E-1-525 | | | 121 of 210 |



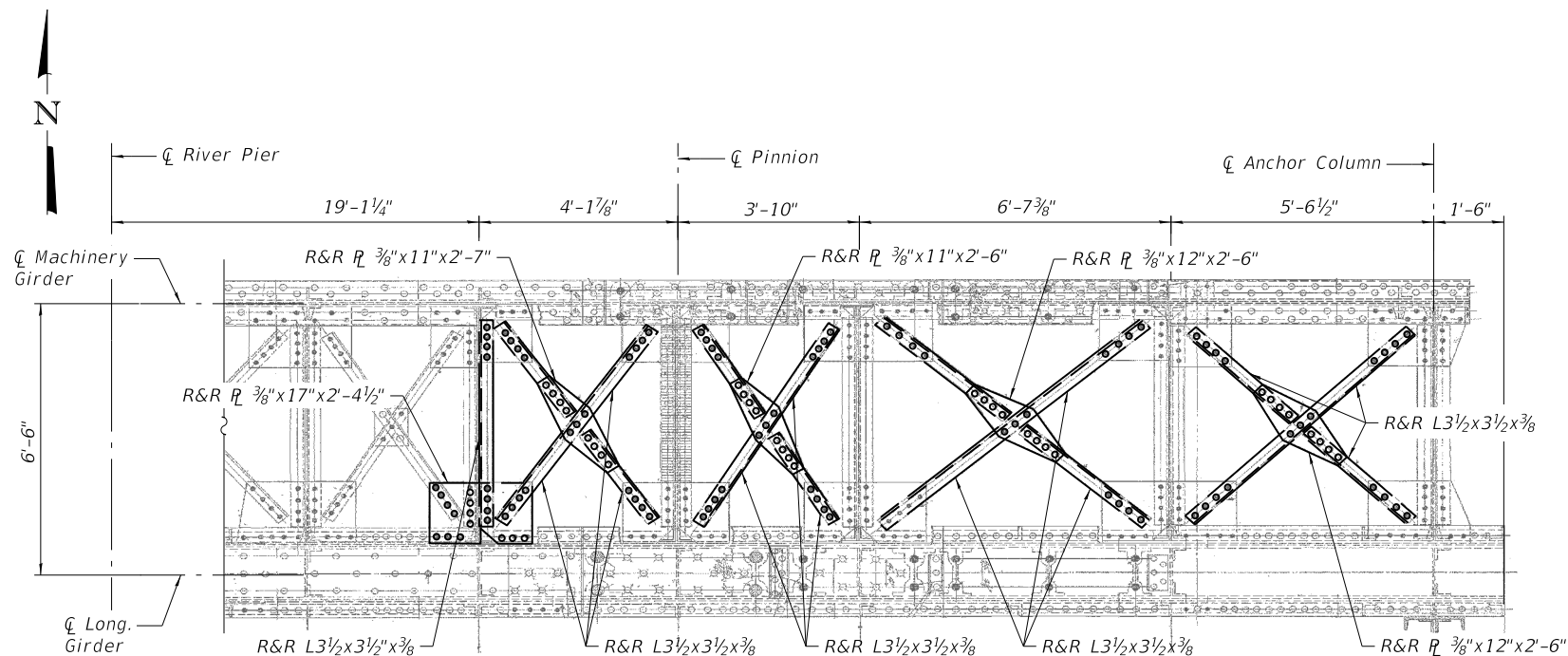
**PARTIAL PLAN
REPAIR 2**

(NE Long. Girder & Machinery Girder, Top Bracing shown)



**PARTIAL PLAN
REPAIR 4**

(SE Long. Girder & Machinery Girder, Top Bracing shown)



**PARTIAL PLAN
REPAIR 3**

(NE Long. Girder & Machinery Girder, Bott. Bracing shown)

BILL OF MATERIAL

| Item | Unit | Quantity |
|---|-------|----------|
| Structural Steel Repairs | Pound | 1,510 |
| Removal of Deteriorated Connectors and Replacement with High Strength Bolts | Each | 43 |

REFERENCE DRAWINGS

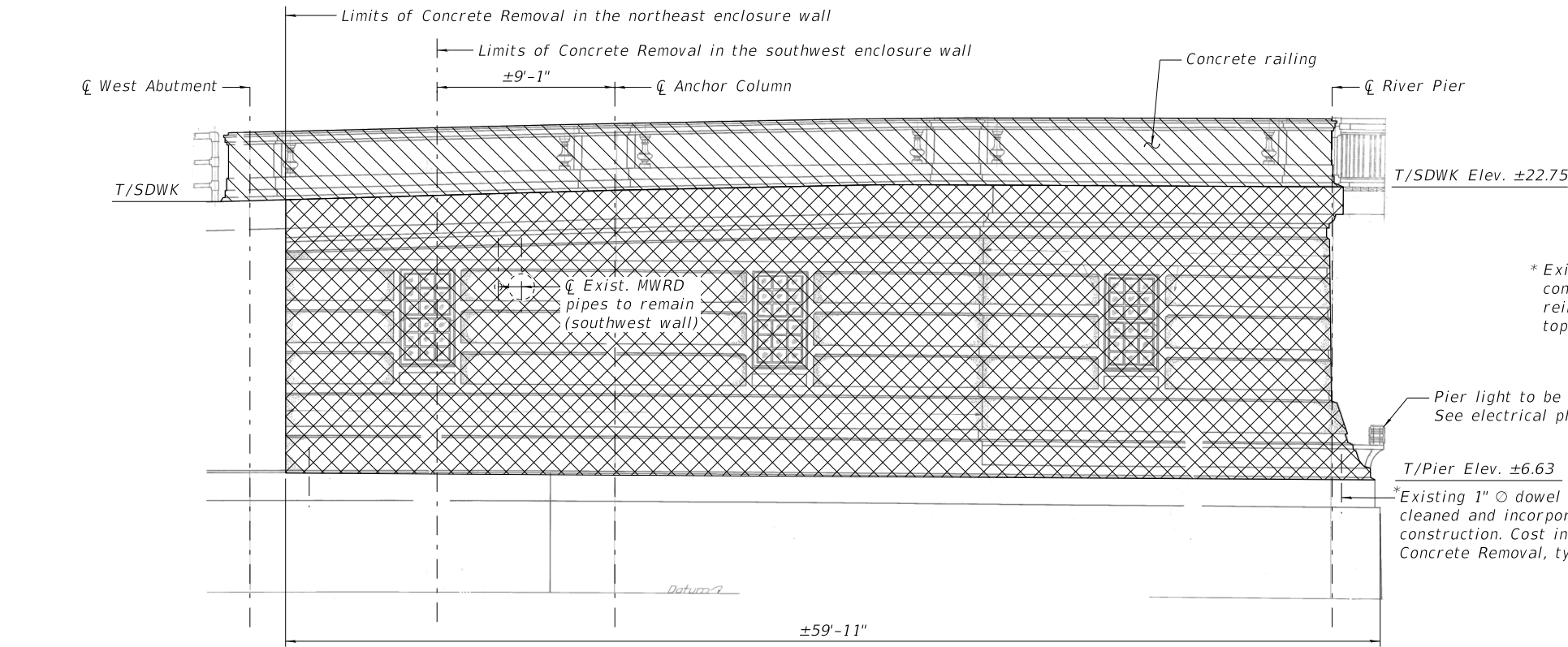
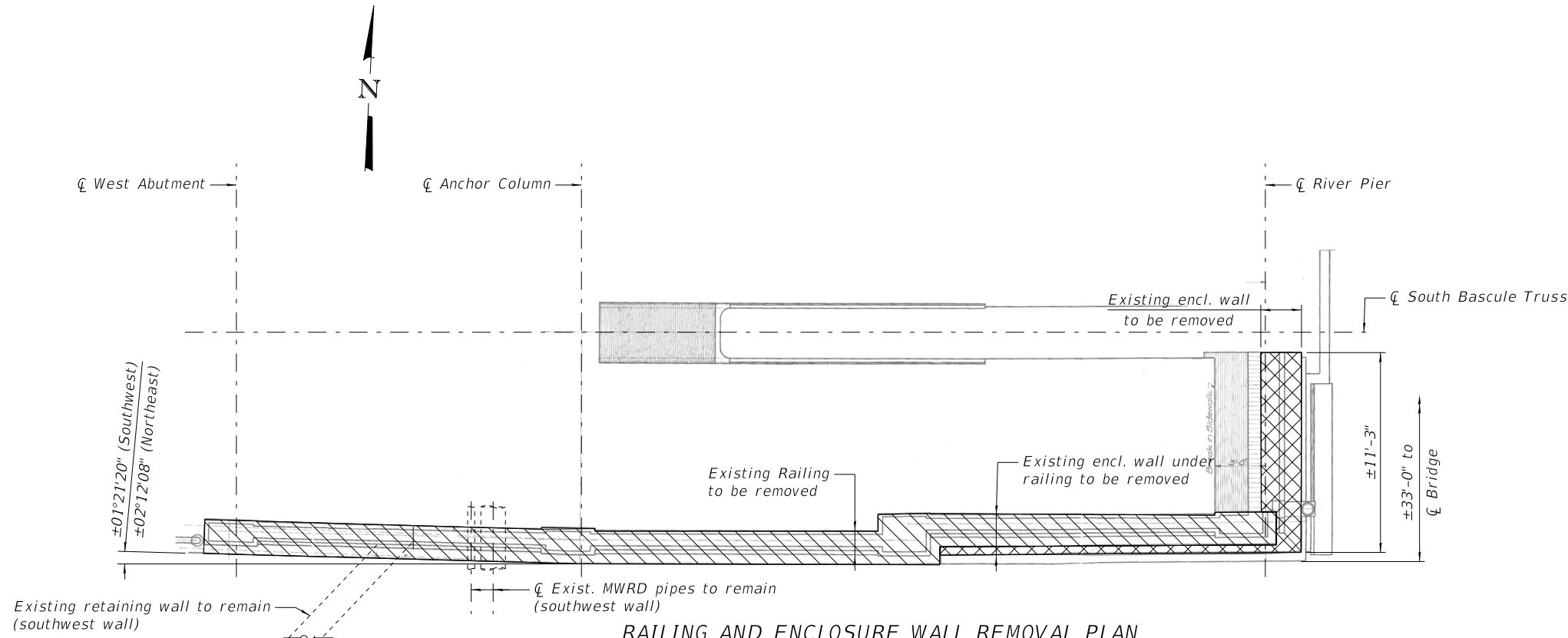
| Drawing | Sheet No. |
|--|------------|
| Fixed Part-Longitudinal and Machinery Girder | 1660570019 |
| Trunnion Pedestal and Strut | 1660570192 |

Notes:

- Locations to be strengthened shall be verified in the field.
- Cost of furnishing and erecting long. girder and machinery girder repair steel elements shall be included in Structural Steel Repairs.
- Cost of removing and replacing rivets in association with furnishing and erecting long. girder and machinery girder repair steel elements shall be included in Structral Steel Repairs.

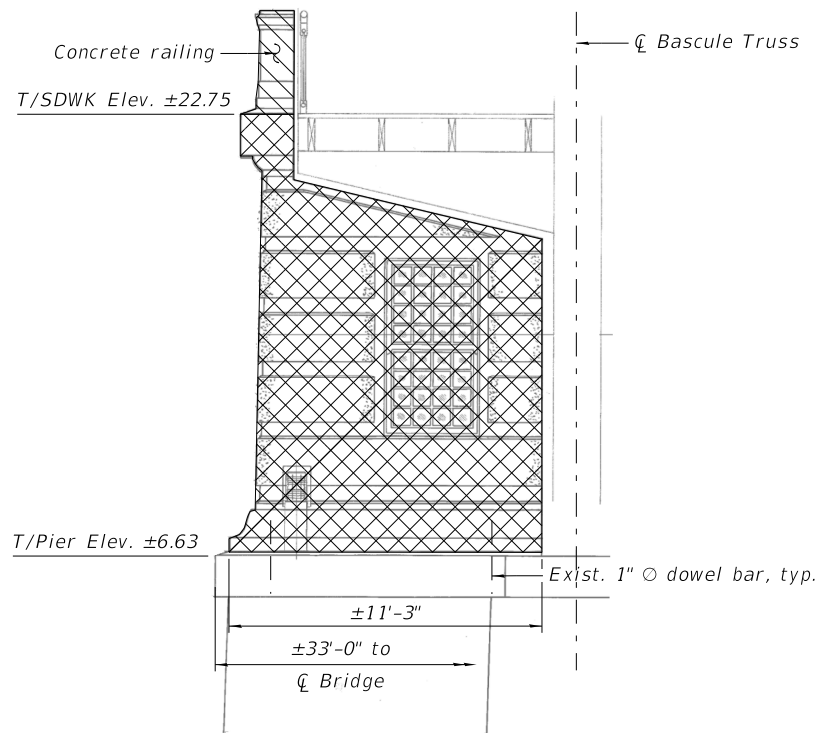
0166057-E1525-S076-LONGGIRDER.IDGN

0166057-E1525-S080-ENCL.WALL_REM.DGN



REMOVAL ELEVATION - SIDE VIEW

(Looking north)
(Southwest enclosure wall is shown. Northeast enclosure wall is similar but opposite hand, except as noted)



REMOVAL ELEVATION - FRONT VIEW

(Looking west)
(Southwest enclosure wall is shown. Northeast enclosure wall is similar but opposite hand, except as noted)

LEGEND

| | |
|--|--------------------------|
| | Concrete Removal |
| | Concrete Railing Removal |

Notes:

- Removal of existing concrete enclosure walls, bridge house slab, and concrete stairwells are included in the cost of Concrete Removal. Steel reinforcing and embedded miscellaneous steel members within the concrete enclosure walls are included in this item.
- Removal of existing concrete railing is included in the cost of Remove Existing Concrete Railings. See architectural special provisions.
- The Contractor shall verify exact limits of the existing walls and railings.
- It shall be the Contractor's responsibility to temporary support existing MWRD pipes interfering with the work. Cost included with Concrete Removal.
- The Contractor shall exercise extreme care during removal operations as not to damage components to remain in place. Any damage to portions that are to remain in place shall be repaired at the Contractor's expense and to the satisfaction of the Commissioner.
- See sheets S-6 and S-7 for fixed and bascule span removal details.

REFERENCE DRAWINGS

Drawing
Operator's House & Enclosure Walls

Substructure Main Piers

Sheet No.
1660570036
1660570037
1660570038
1660570045



WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

| | |
|--------------|----------|
| USER NAME = | IBRAHIM |
| DESIGNED - | MI |
| CHECKED - | PJL |
| PLOT SCALE = | N.T.S. |
| DRAWN - | MI |
| CHECKED - | JIG |
| PLOT DATE = | \$DATE\$ |

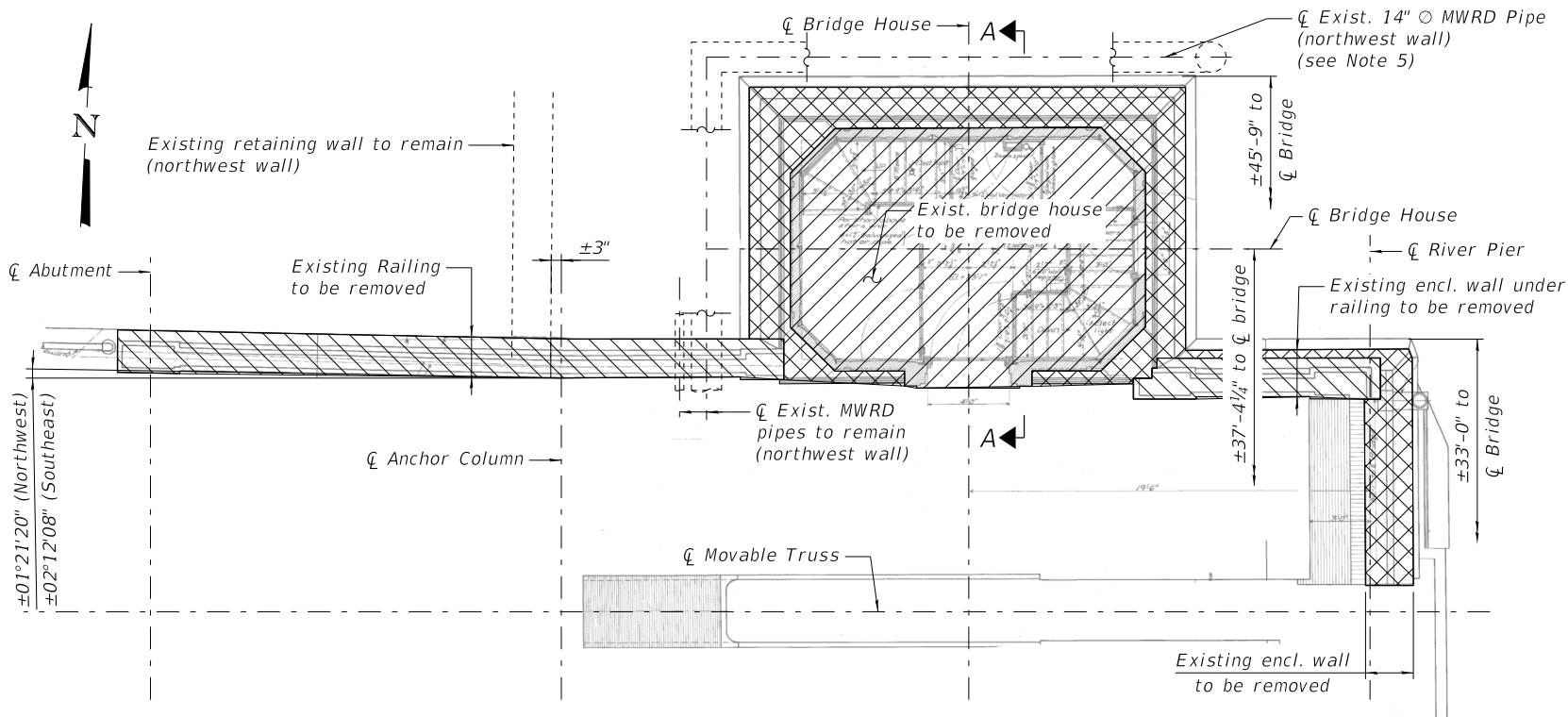
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|-----------|--|
| REVISED - | |
| REVISED - | |
| REVISED - | |
| REVISED - | |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

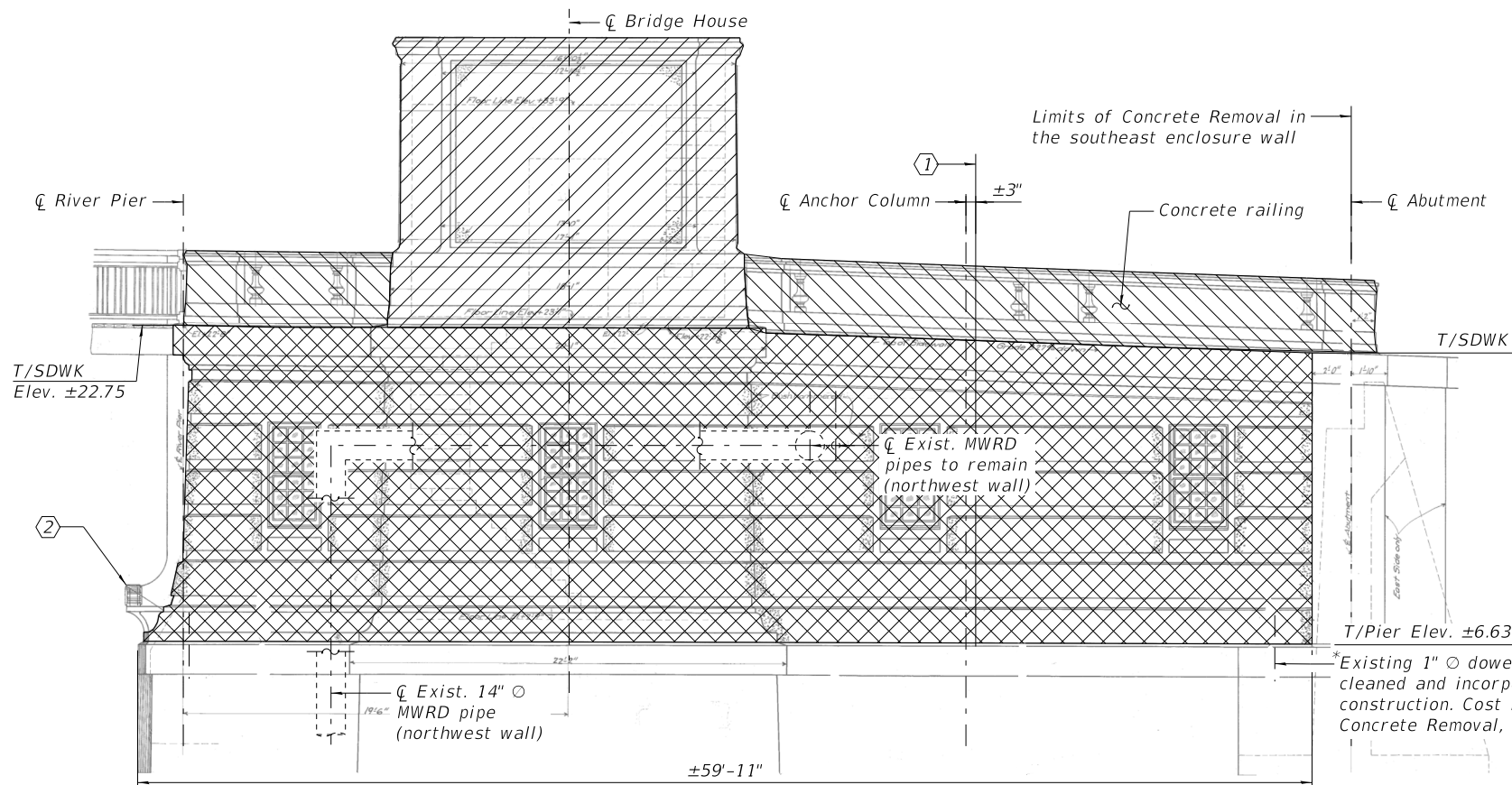
**ENCLOSURE WALLS:
REMOVAL DETAILS I
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | S-80 |
| CDOT PROJECT NO. E-1-525 | | | 123 of 210 |



RAILING AND ENCLOSURE WALL REMOVAL PLAN

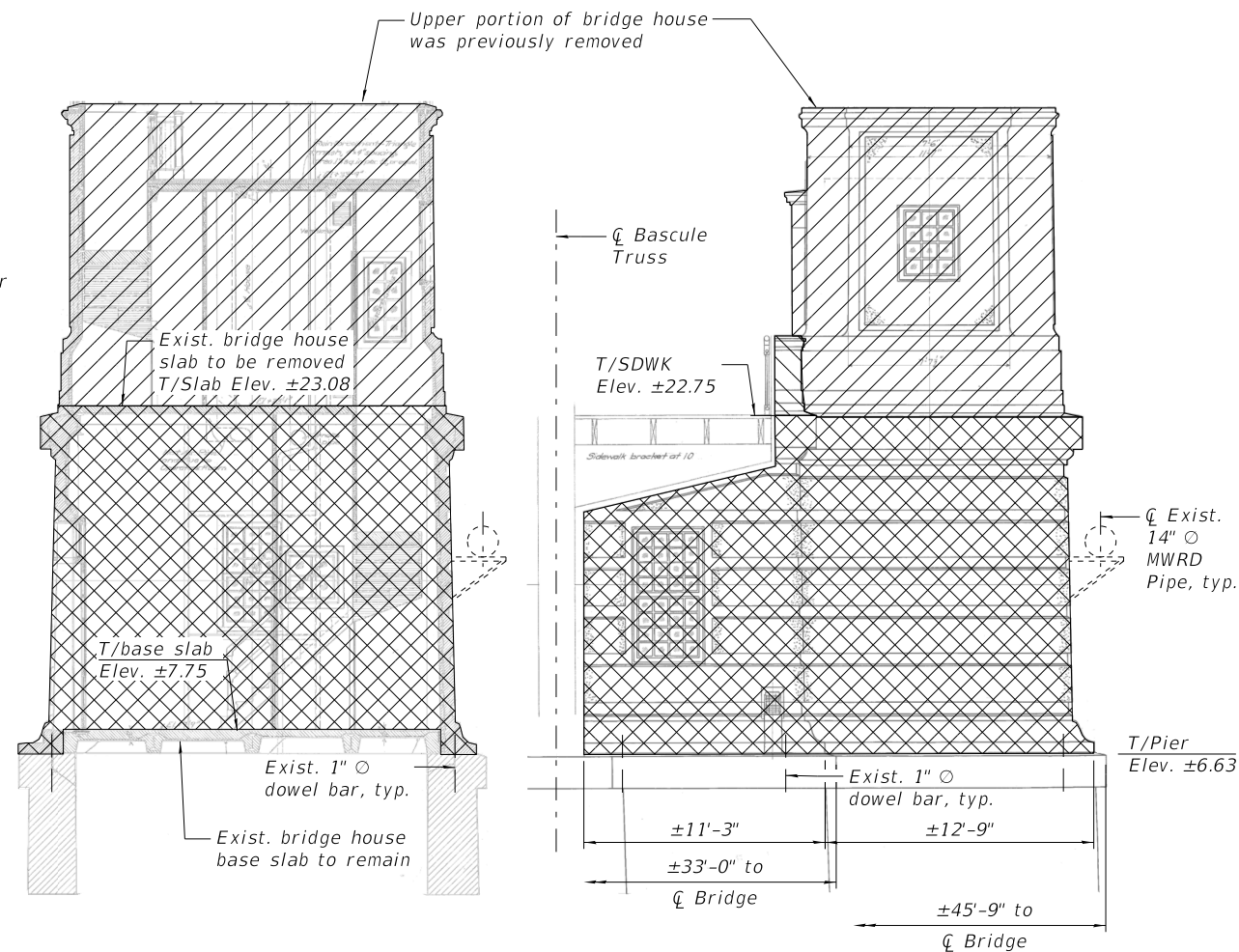
(Northwest enclosure wall is shown. Southeast enclosure wall is similar but opposite hand, except as noted)



REMOVAL ELEVATION - SIDE VIEW

(Looking south)

(Northwest enclosure wall is shown. Southeast enclosure wall is similar but opposite hand, except as noted)



SECTION A-A

① Limits of Concrete Removal in the northwest enclosure wall

② Pier light to be removed. See electrical plans.

LEGEND

| | |
|--|--------------------------|
| | Concrete Removal |
| | Bridge House Removal |
| | Concrete Railing Removal |

BILL OF MATERIAL

| Item | Unit | Quantity |
|------------------|---------|----------|
| Concrete Removal | Cu. Yd. | 184.1 |

REFERENCE DRAWINGS

Drawing
Operator's House & Enclosure Walls

Sheet No.
1660570036
1660570037
1660570038
1660570045

Substructure Main Piers

Notes:

1. Removal of existing concrete enclosure walls, bridge house slab, and concrete stairwells are included in the cost of Concrete Removal. Steel reinforcing and embedded miscellaneous steel members within the concrete enclosure walls are included in this item.
2. Removal of existing concrete railing is included in the cost of Remove Existing Concrete Railings. See architectural special provisions.
3. Removal of existing bridge houses including but not limited to the exterior walls, framing, roofing, partitions, plumbing, and electrical within the limits shown is included in Remove Existing Bridge Houses. See architectural special provisions.
4. The Contractor shall verify exact limits of the existing walls and railings.
5. It shall be the Contractor's responsibility to temporary support existing MWRD pipes interfering with the work. Cost included with Concrete Removal.
6. The Contractor shall exercise extreme care during removal operations as not to damage components to remain in place. Any damage to portions that are to remain in place shall be repaired at the Contractor's expense and to the satisfaction of the Commissioner.
7. See sheets S-6 and S-7 for fixed and bascule span removal details.

0166057-E1525-S081-ENCL.WALL_REMI.DGN

wsp

WSP USA Inc.
30 N. LASSALLE STREET
SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

| | | | | | |
|--------------|----------|------------|-----|-----------|--|
| USER NAME = | IBRAHIMM | DESIGNED - | MI | REVISED - | |
| | | CHECKED - | PJL | REVISED - | |
| PLOT SCALE = | N.T.S. | DRAWN - | MI | REVISED - | |
| PLOT DATE = | \$DATE\$ | CHECKED - | JIG | REVISED - | |

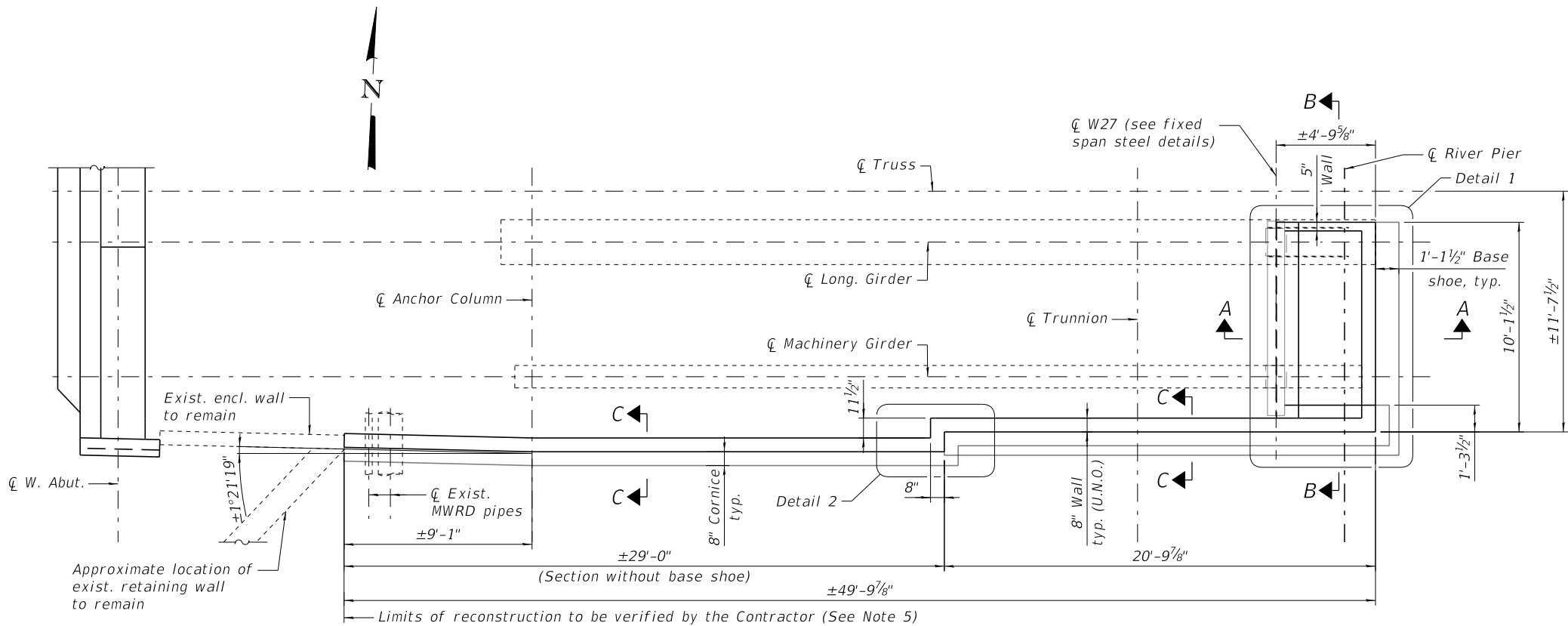
CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

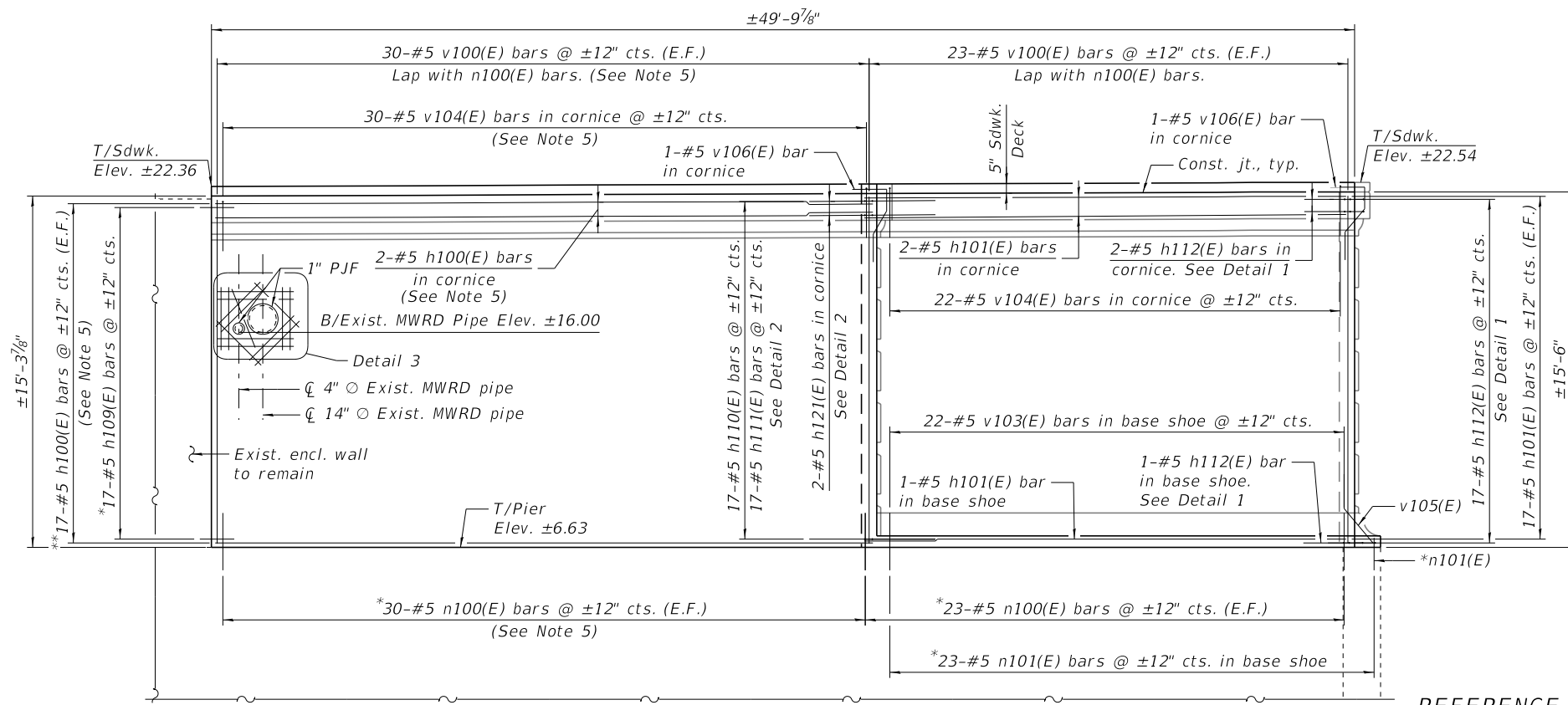
**ENCLOSURE WALLS:
REMOVAL DETAILS II
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | S-81 |
| CDOT PROJECT NO. E-1-525 | | | 124 of 210 |

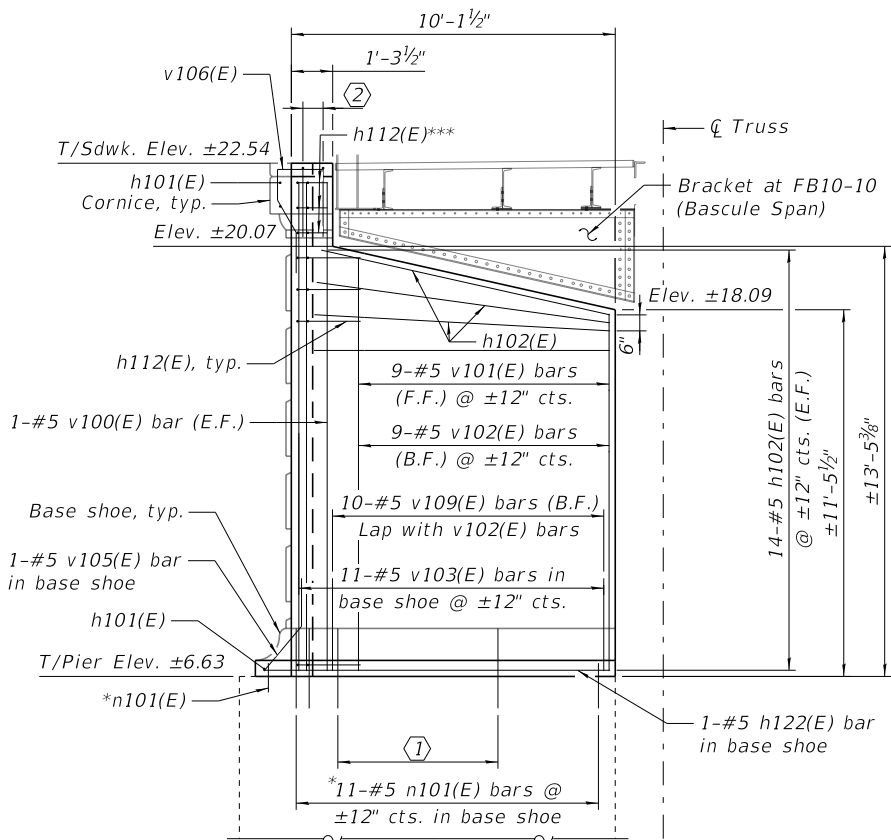
0166057-E1525-S082-SW.ENCLOSUREWALL.DGN



SOUTHWEST ENCLOSURE WALL PLAN



ELEVATION - SIDE VIEW
(Looking north)



ELEVATION - FRONT VIEW
(Looking west)

- ① *5-#5 n100(E) bars @ ±12" cts.
② 2-#5 v104(E) bars in cornice.

* Drill and grout bars according to Article 584 of the Std. Specs., with a minimum embedment of 12" for n100(E) bars and 6" for h109(E) and n101(E) bars. Cost included in the cost of Reinforcement Bars, Epoxy Coated.

** Bend bar to fit.
*** Cut bar to fit.

- Notes:
- See sheet S-86 for reinforcement and details in Sections A-A to C-C and Details 1 & 2.
 - See sheet S-88 for Bill of Materials, bar bend diagrams, reinforcement details around MWRD pipes (Detail 3), and bar cutting diagram for bars v101(E) and v102(E).
 - The Contractor shall verify the locations of the MWRD pipes.
 - Cut vertical and horizontal reinforcements to miss MWRD pipes.
 - The Contractor shall verify the location of the exist. retaining wall and verify the limits of reconstruction prior construction or ordering materials. The quantities of High Performance Concrete Structures, bars n100(E), v100(E), and v104(E), and the length of h100(E) bar shall be verified/adjusted accordingly.

REFERENCE DRAWINGS

Drawing
Operator's House & Enclosure Walls

Sheet No.
1660570036
1660570037
1660570038
1660570045

Substructure Main Piers



WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

| | |
|--------------|----------|
| USER NAME = | IBRAHIMM |
| DESIGNED - | MI |
| CHECKED - | PJL |
| PLOT SCALE = | N.T.S. |
| DRAWN - | MI |
| CHECKED - | JIG |
| PLOT DATE = | \$DATE\$ |

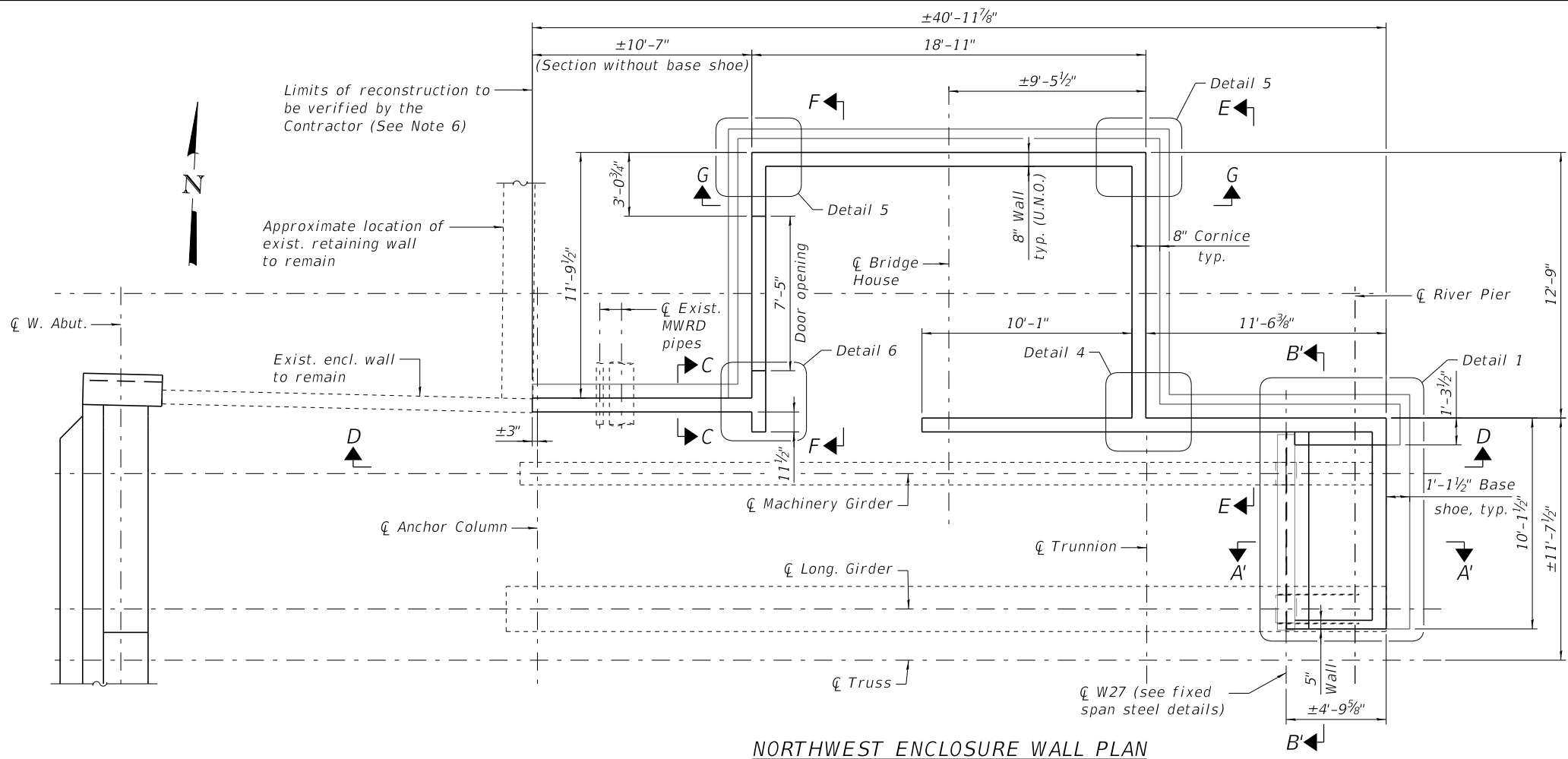
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| REVISED - | |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

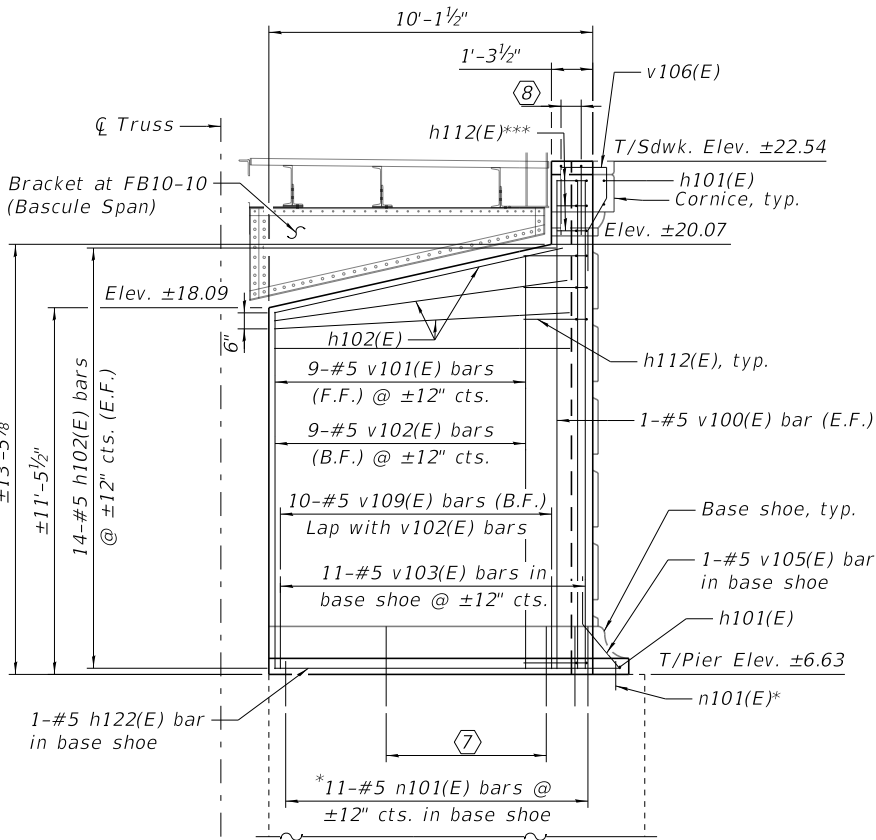
**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**ENCLOSURE WALLS:
PLAN & ELEVATION - SW
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | S-82 |
| CDOT PROJECT NO. E-1-525 | | | 125 of 210 |

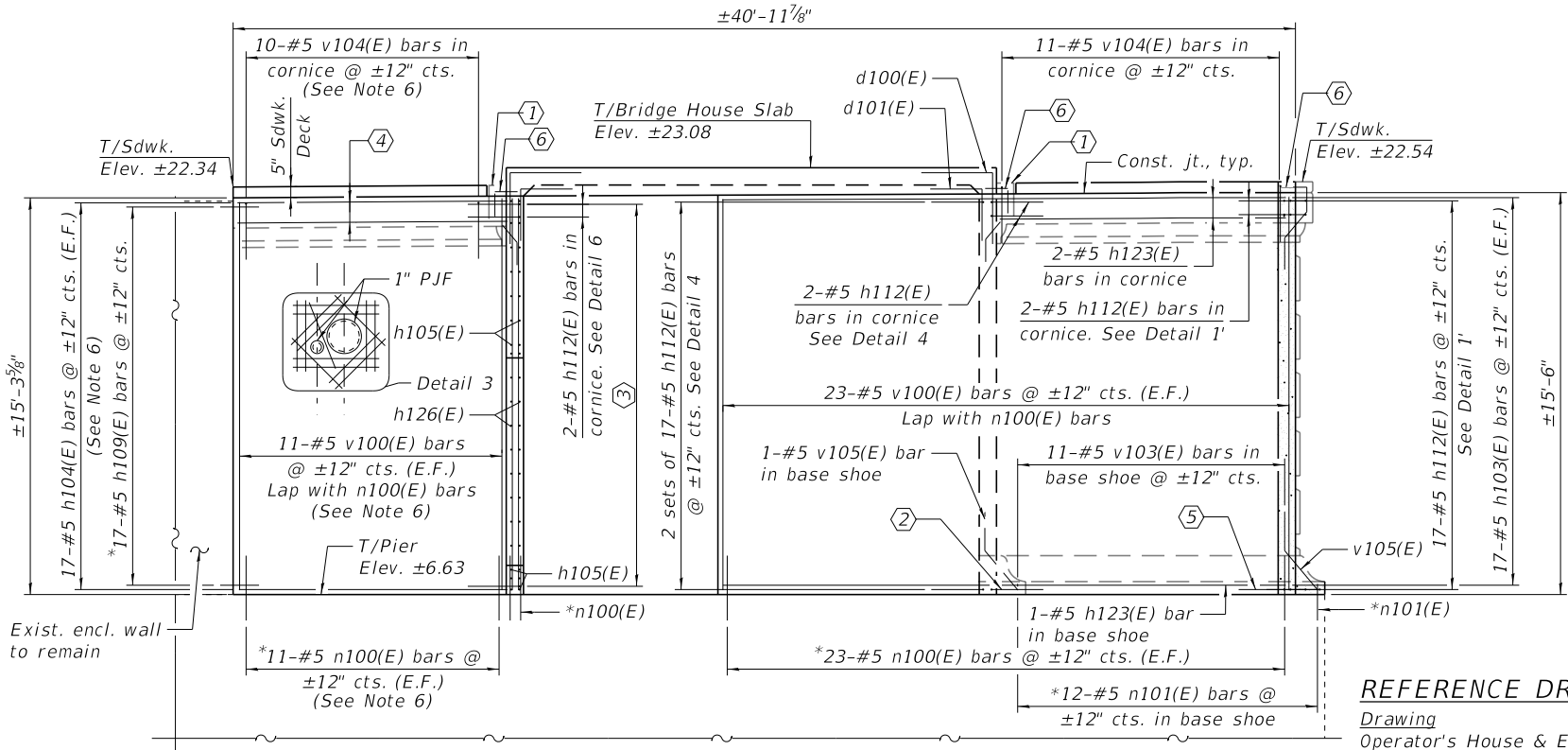


NORTHWEST ENCLOSURE WALL PLAN



ELEVATION - FRONT VIEW
(Looking west)

- ① Top of cornice elevation to match top of Sdwk. elevation.
- ② 1-#5 h112(E) bar in base shoe. See Detail 4.
- ③ 17-#5 h112(E) bars @ ±12" cts. 17-#5 h113(E) bars @ ±12" cts. See Detail 6.
- ④ 2-#5 h104(E) bars in cornice. (See Note 6)
- ⑤ 1-#5 h112(E) bar in base shoe. See Detail 1'.
- ⑥ 1-#5 v106(E) bar in cornice.
- ⑦ *5-#5 n100(E) bars @ ±12" cts.
- ⑧ 2-#5 v104(E) bars in cornice.



SECTION D-D

REFERENCE DRAWINGS

Drawing
Operator's House & Enclosure Walls

Substructure Main Piers

Sheet No.
1660570036
1660570037
1660570038
1660570045

* Drill and grout bars according to Article 584 of the Std. Specs., with a minimum embedment of 12" for n100(E) bars and 6" for h109(E) and n101(E) bars. Cost included in the cost of Reinforcement Bars, Epoxy Coated.

** Bend bar to fit.

*** Cut bar to fit.

Notes:

1. See sheet S-86 for reinforcement and details in Sections A'-A', B'-B', & C-C and Details 1 & 2.
2. See sheet S-87 for reinforcement and details in Sections E-E to G-G and Details 4 & 5.
3. See sheet S-88 for reinforcement and details in Detail 6, Bill of Materials, bar bend diagrams, reinforcement details around MWRD pipes (Detail 3), and bar cutting diagram for bars v101(E) and v102(E).
4. The Contractor shall verify the locations of the MWRD pipes.
5. Cut vertical and horizontal reinforcements to miss MWRD pipes.
6. The Contractor shall verify the location of the exist. retaining wall and verify the limits of reconstruction prior construction or ordering materials. The quantities of High Performance Concrete Structures, bars n100(E), v100(E), and v104(E), and the length of h104(E) bar shall be verified/adjusted accordingly.

0166057-E1525-S083-NW-ENCLOSUREWALL.DGN



WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

| | | | | | |
|--------------|----------|------------|-----|-----------|--|
| USER NAME = | IBRAHIMM | DESIGNED - | MI | REVISED - | |
| | | CHECKED - | PJL | REVISED - | |
| PLOT SCALE = | N.T.S. | DRAWN - | MI | REVISED - | |
| PLOT DATE = | \$DATE\$ | CHECKED - | JIG | REVISED - | |

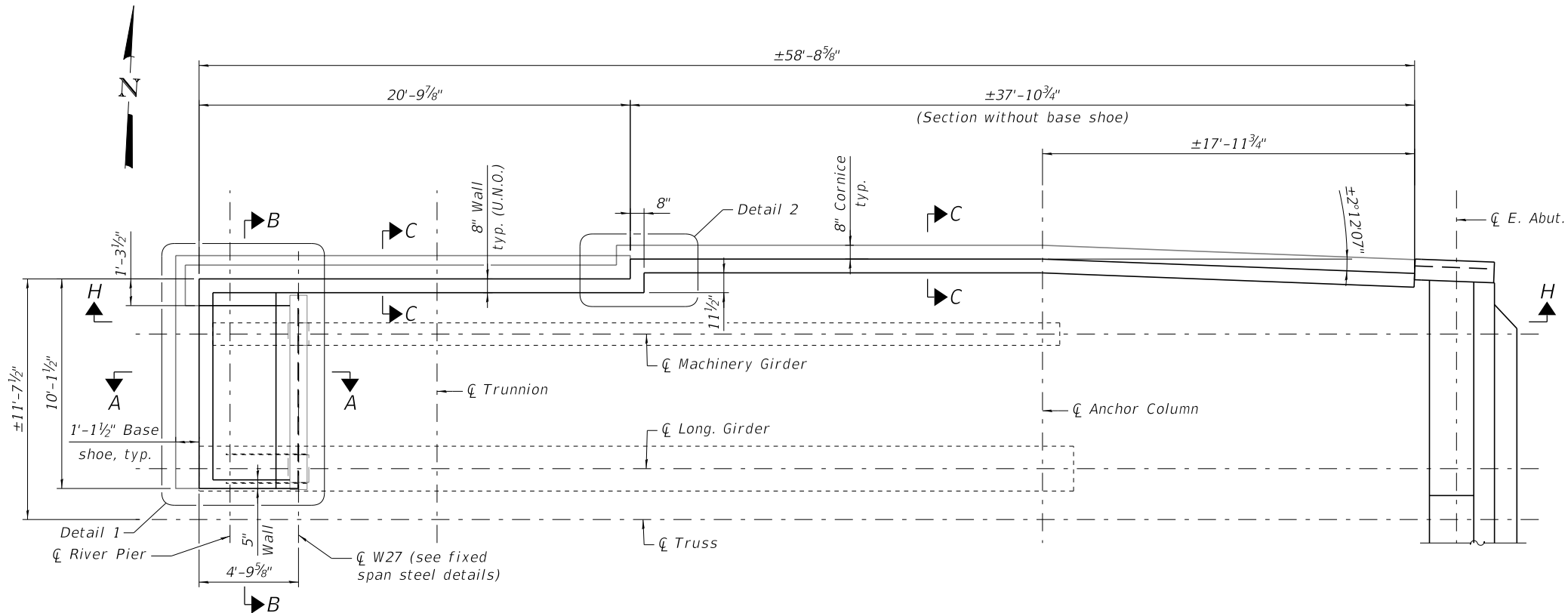
CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

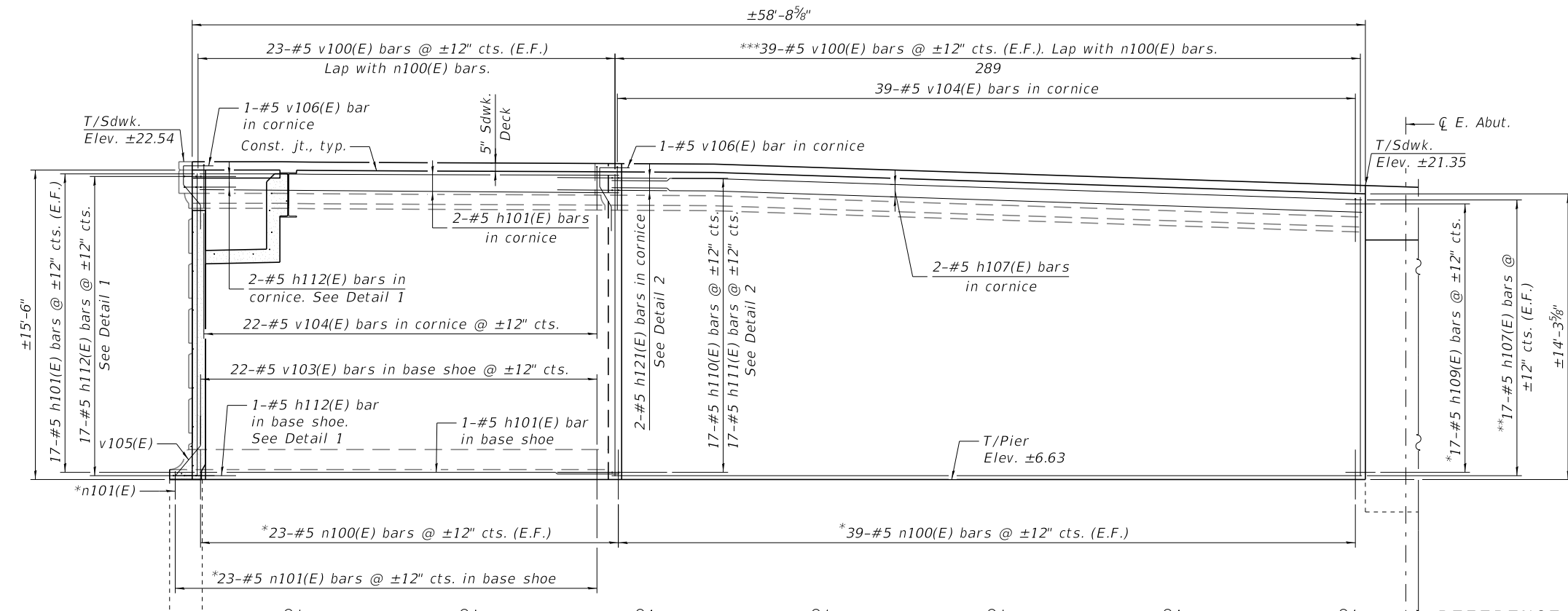
**ENCLOSURE WALLS:
PLAN & ELEVATION - NW
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
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| 1388 | 11-E1525-00-BR | COOK | S-83 |
| CDOT PROJECT NO. E-1-525 | | | 126 of 210 |

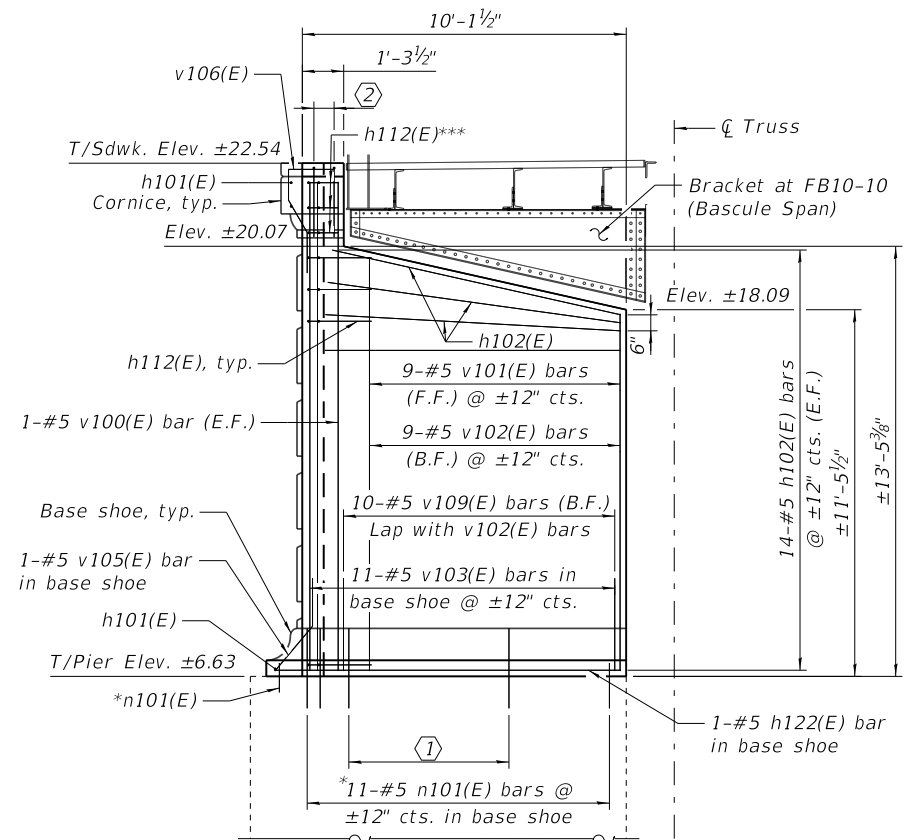
0166057-E1525-S084-NE-ENCLOSUREWALL.DGN



NORTHEAST ENCLOSURE WALL PLAN



SECTION H-H



ELEVATION - FRONT VIEW
(Looking east)

- ① 5-#5 n100(E) bars @ ±12" cts.
② 2-#5 v104(E) bars in cornice.

* Drill and grout bars according to Article 584 of the Std. Specs., with a minimum embedment of 12" for n100(E) bars and 6" for h109(E) and n101(E) bars. Cost included in the cost of Reinforcement Bars, Epoxy Coated.

** Bend bar to fit.

*** Cut bar to fit.

Notes:

- See sheet S-86 for reinforcement and details in Sections A-A to C-C and Details 1 & 2.
- See sheet S-88 for Bill of Materials, bar bend diagrams, reinforcement details around MWRD pipes (Detail 3), and bar cutting diagram for bars v101(E) and v102(E).

REFERENCE DRAWINGS

Drawing
Operator's House & Enclosure Walls

Sheet No.
1660570036
1660570037
1660570038
1660570045

Substructure Main Piers

wsp

WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = IBRAHIMM
DESIGNED - MI
CHECKED - PJL
PLOT SCALE = N.T.S.
DRAWN - MI
PLOT DATE = \$DATE\$
CHECKED - JIG
REVISED -

DESIGNED - MI
CHECKED - PJL
DRAWN - MI
CHECKED - JIG
REVISED -

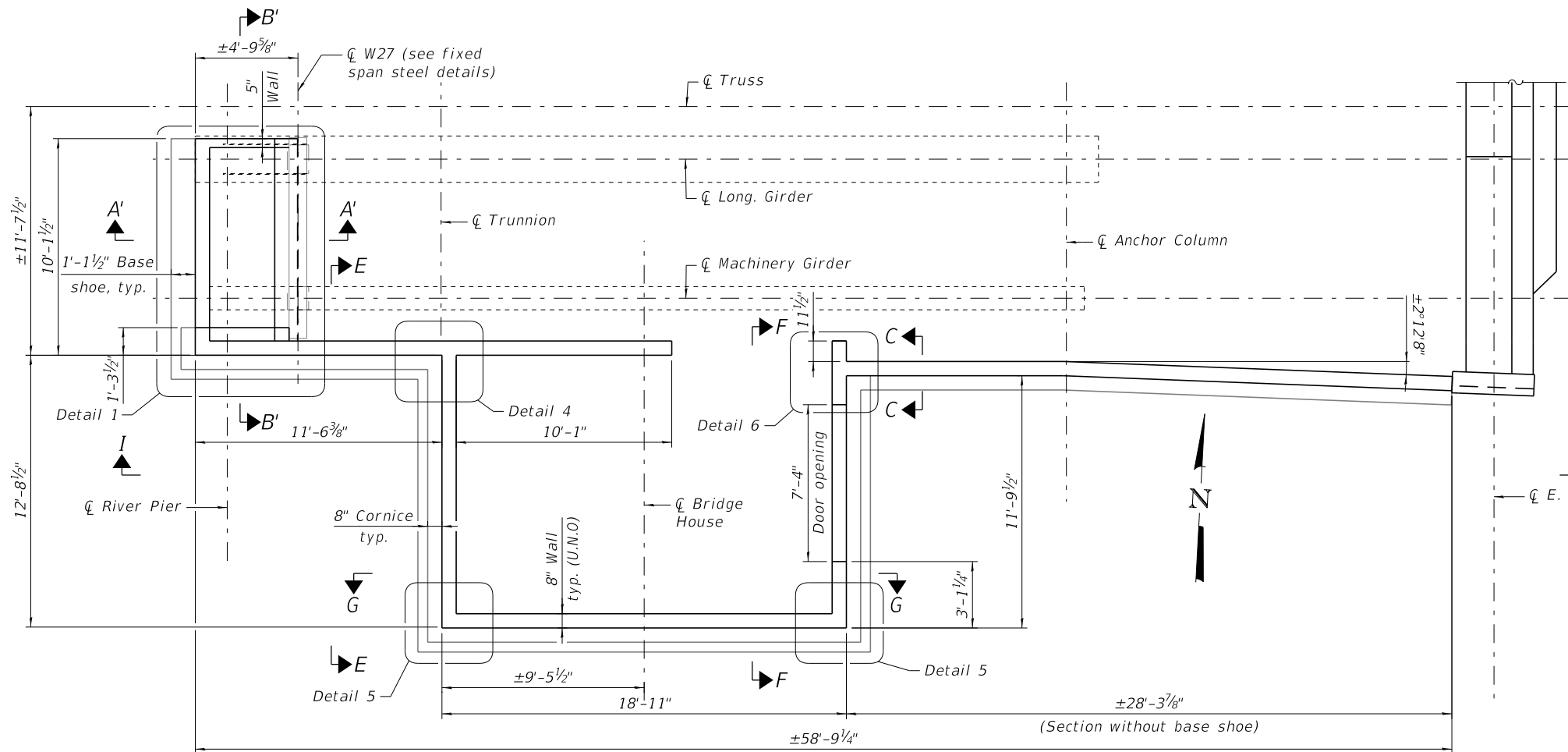
DESIGNED - MI
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DRAWN - MI
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REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

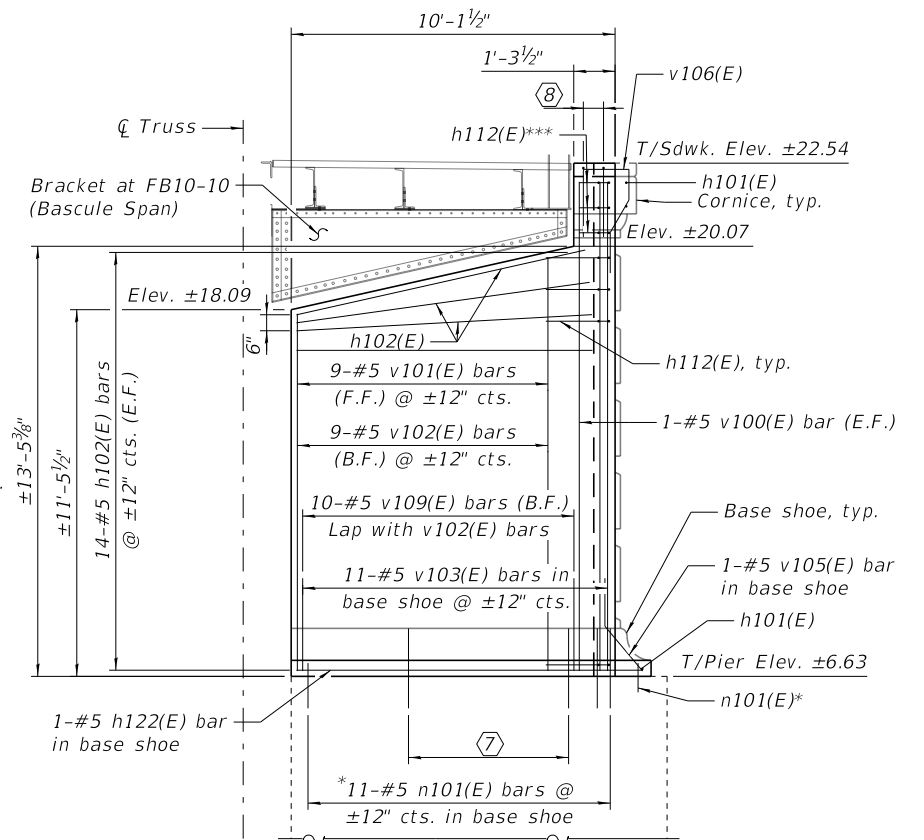
WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER

ENCLOSURE WALLS:
PLAN & ELEVATION - NE
(STRUCTURE NO. 016-6057)

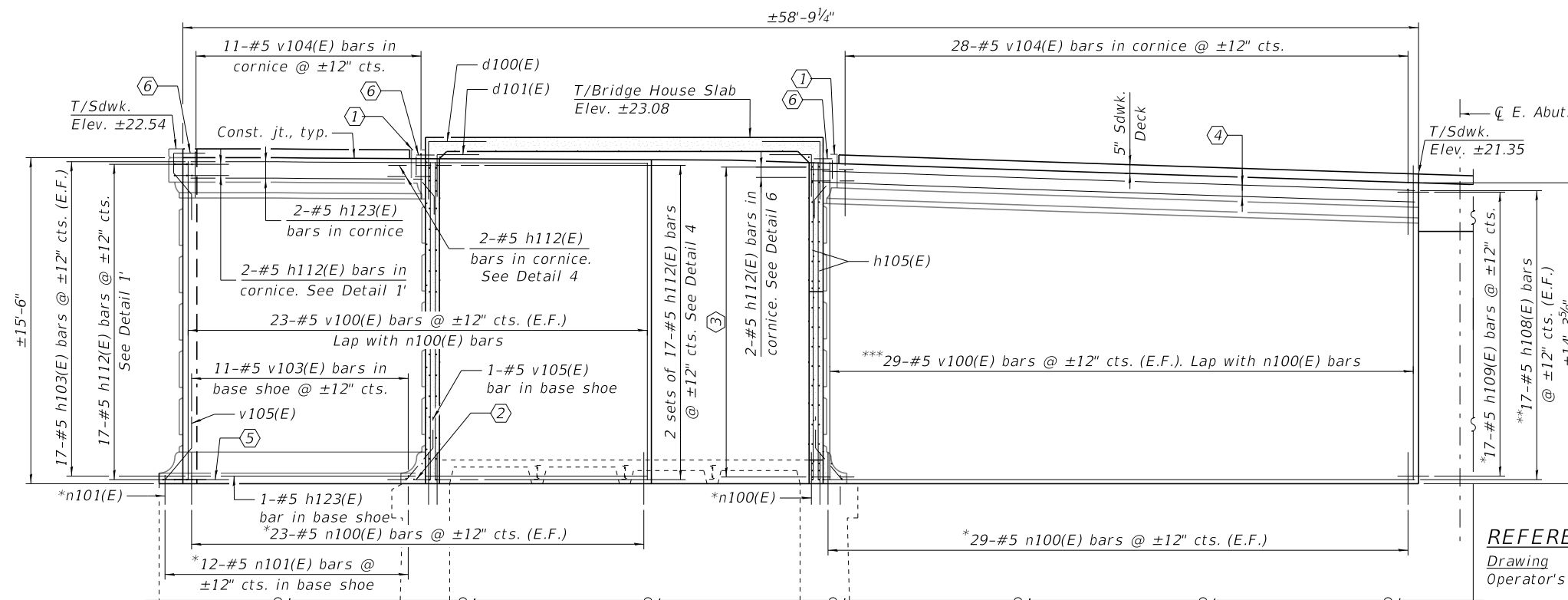
| F.A.U. R.T.E. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | S-84 |
| CDOT PROJECT NO. E-1-525 | | | 127 of 210 |



SOUTHEAST ENCLOSURE WALL PLAN



ELEVATION - FRONT VIEW
(Looking east)



SECTION I-I

- ① Top of cornice elevation to match top of Sdck. elevation.
- ② 1-#5 h112(E) bar in base shoe. See Detail 4.
- ③ 17-#5 h112(E) bars @ ±12" cts. 17-#5 h113(E) bars @ ±12" cts. See Detail 6.
- ④ 2-#5 h108(E) bars in cornice.
- ⑤ 1-#5 h112(E) bar in base shoe. See Detail 1'.
- ⑥ 1-#5 v106(E) bar in cornice.
- ⑦ *5-#5 n100(E) bars @ ±12" cts.
- ⑧ 2-#5 v104(E) bars in cornice.

* Drill and grout bars according to Article 584 of the Std. Specs., with a minimum embedment of 12" for n100(E) bars and 6" for h109(E) and n101(E) bars. Cost included in the cost of Reinforcement Bars, Epoxy Coated.

** Bend bar to fit.
*** Cut bar to fit.

- Notes:
- See sheet S-86 for reinforcement and details in Sections A-A', B'-B', & C-C and Details 1 & 2.
 - See sheet S-87 for reinforcement and details in Sections E-E to G-G and Details 4 & 5.
 - See sheet S-88 for reinforcement and details in Detail 6, Bill of Materials, bar bend diagrams, and bar cutting diagram for bars v101(E) and v102(E).

REFERENCE DRAWINGS

Drawing
Operator's House & Enclosure Walls

Sheet No.
1660570036
1660570037
1660570038
1660570045

Substructure Main Piers

0166057-E1525-S085-SE-ENCLOSUREWALL.DGN



WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

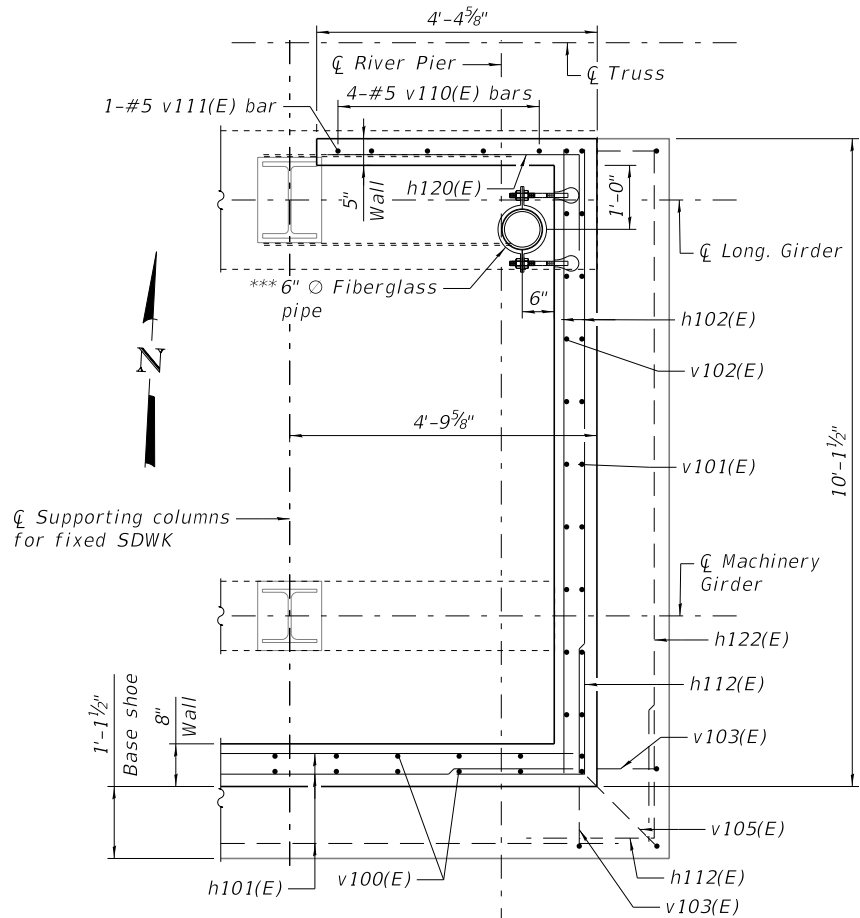
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| USER NAME = | IBRAHIMM | DESIGNED - | MI | REVISED - | |
| | | CHECKED - | PJL | REVISED - | |
| PLOT SCALE = | N.T.S. | DRAWN - | MI | REVISED - | |
| PLOT DATE = | \$DATE\$ | CHECKED - | JIG | REVISED - | |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

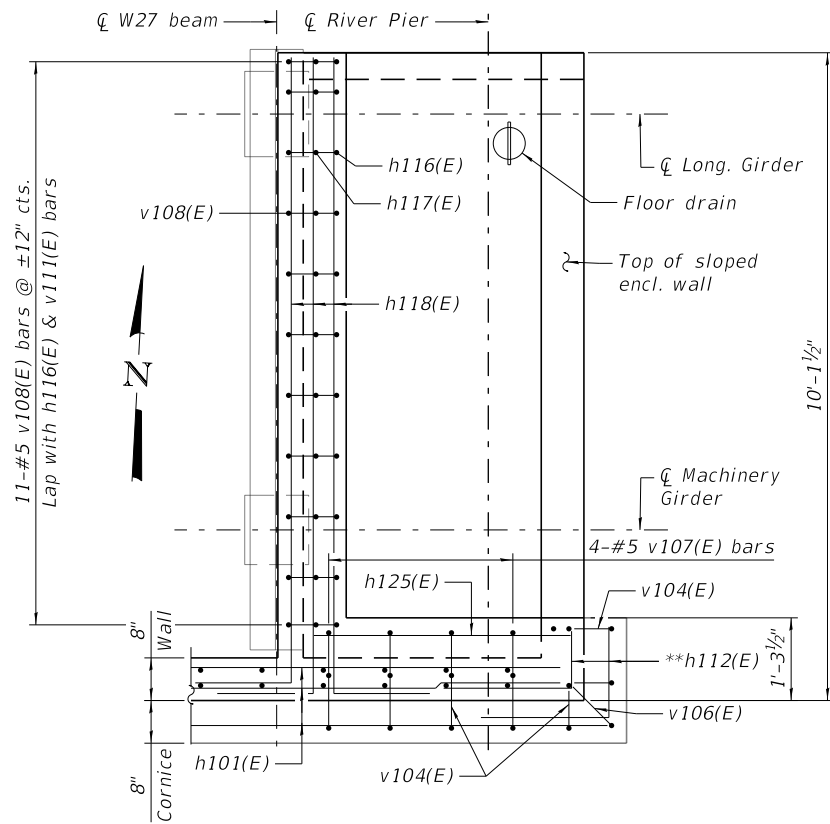
**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**ENCLOSURE WALLS:
PLAN & ELEVATION - SE
(STRUCTURE NO. 016-6057)**

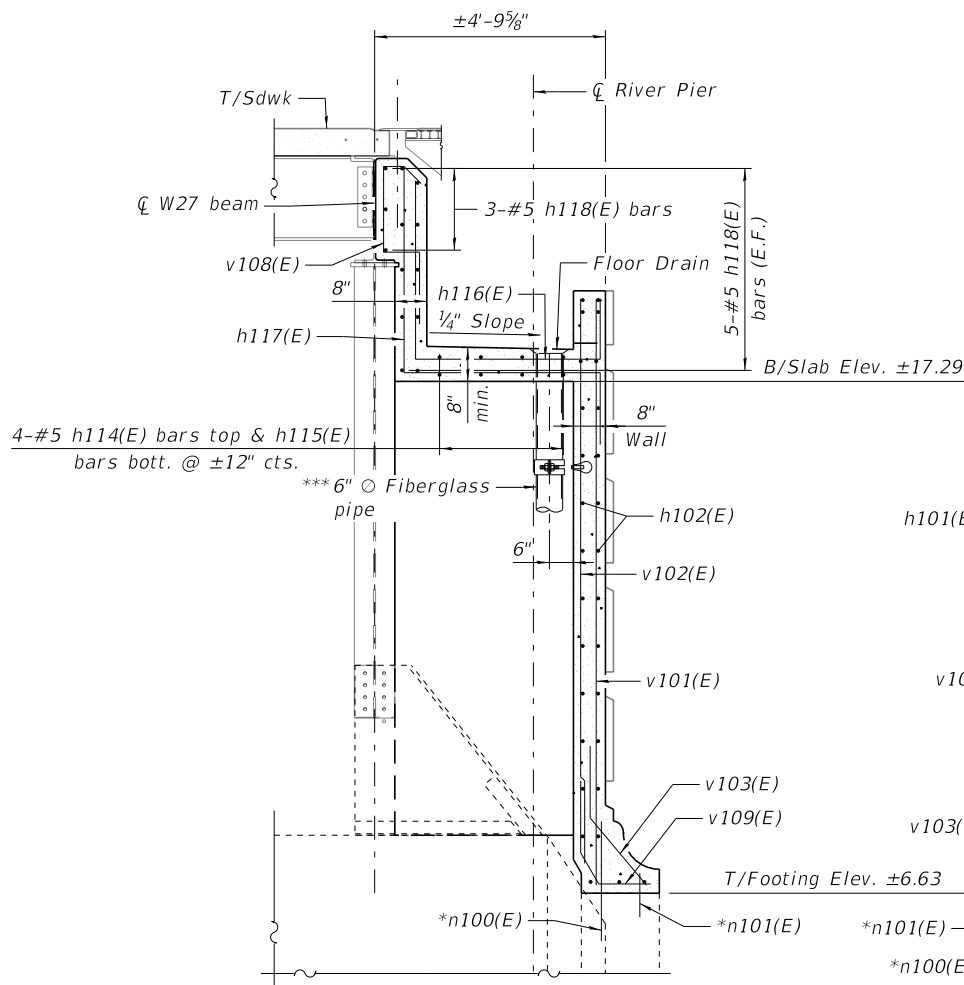
| F.A.U. R.T.E. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | S-85 |
| CDOT PROJECT NO. E-1-525 | | | 128 of 210 |



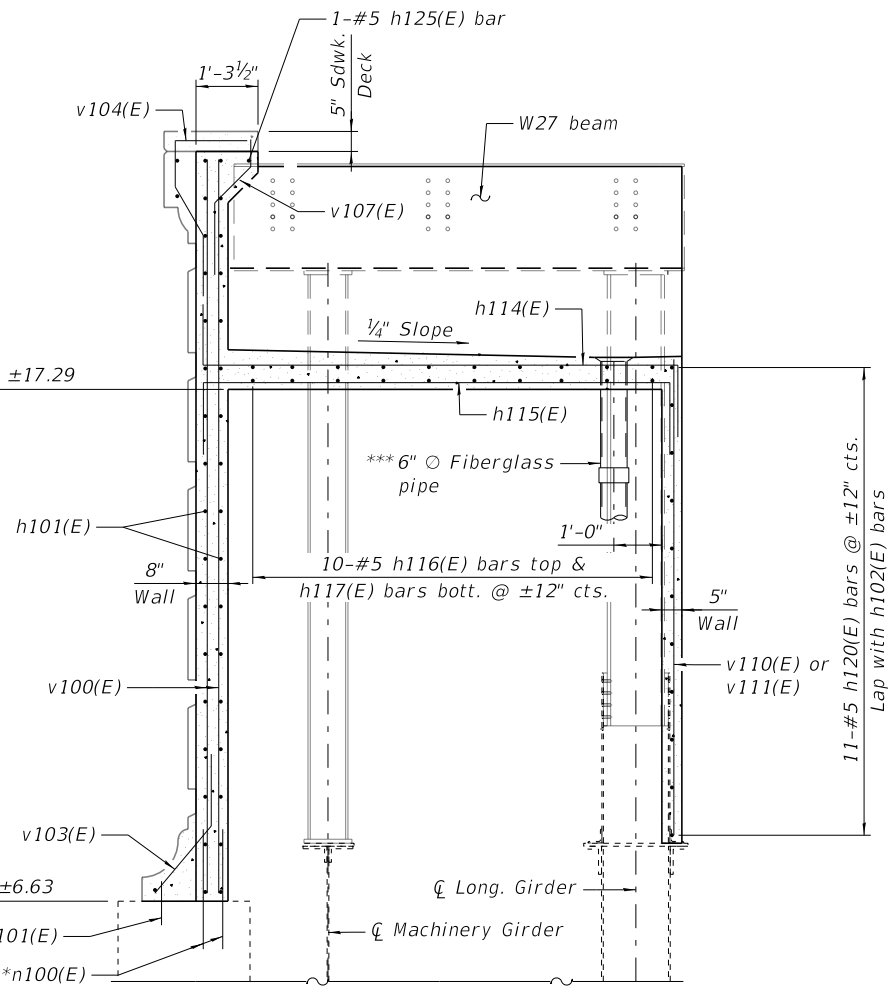
DETAIL 1 - BOTTOM - SW ENCLOSURE WALL
(Detail in NW, NE, & SE Enclosure Walls similar but opposite hand)



DETAIL 1 - TOP - SW ENCLOSURE WALL
(Detail in NW, NE, & SE Enclosure Walls similar but opposite hand)



SECTION A-A
(Section A'-A' similar but opposite hand)



SECTION B-B
(Section B'-B' similar but opposite hand)

*Drill and grout bars according to Article 584 of the Std. Specs., with a minimum embedment of 12" for n100(E) bars and 6" for h109(E) and n101(E) bars. Cost included in the cost of Reinforcement Bars, Epoxy Coated.

**Cut bar to fit.

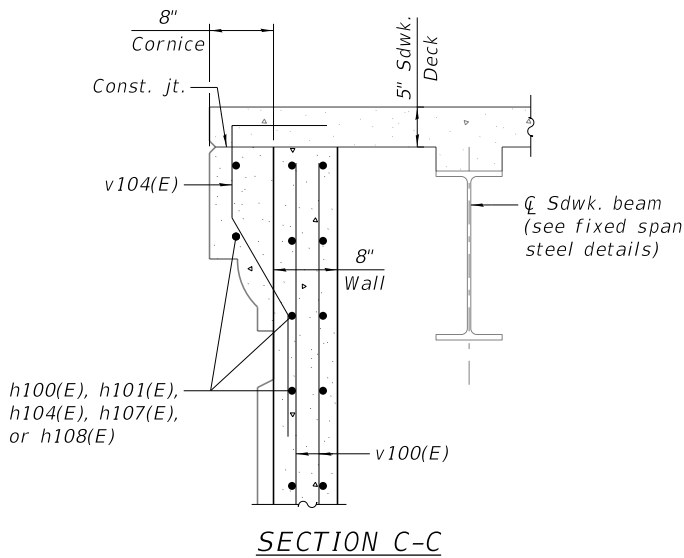
***Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 psi min.

The exterior surfaces of the floor drains shall be coated or pigmented by the manufacturer with a color that matches the concrete.

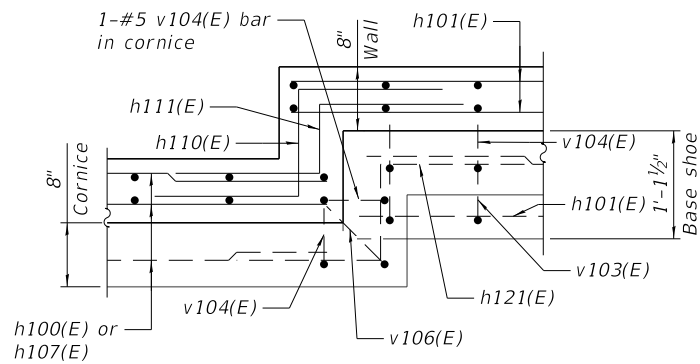
The clamping device and inserts shall be galvanized according to AASHTO M-232. Cost of fiberglass pipe, clamping device and galvanizing included with Drainage System.

Notes:

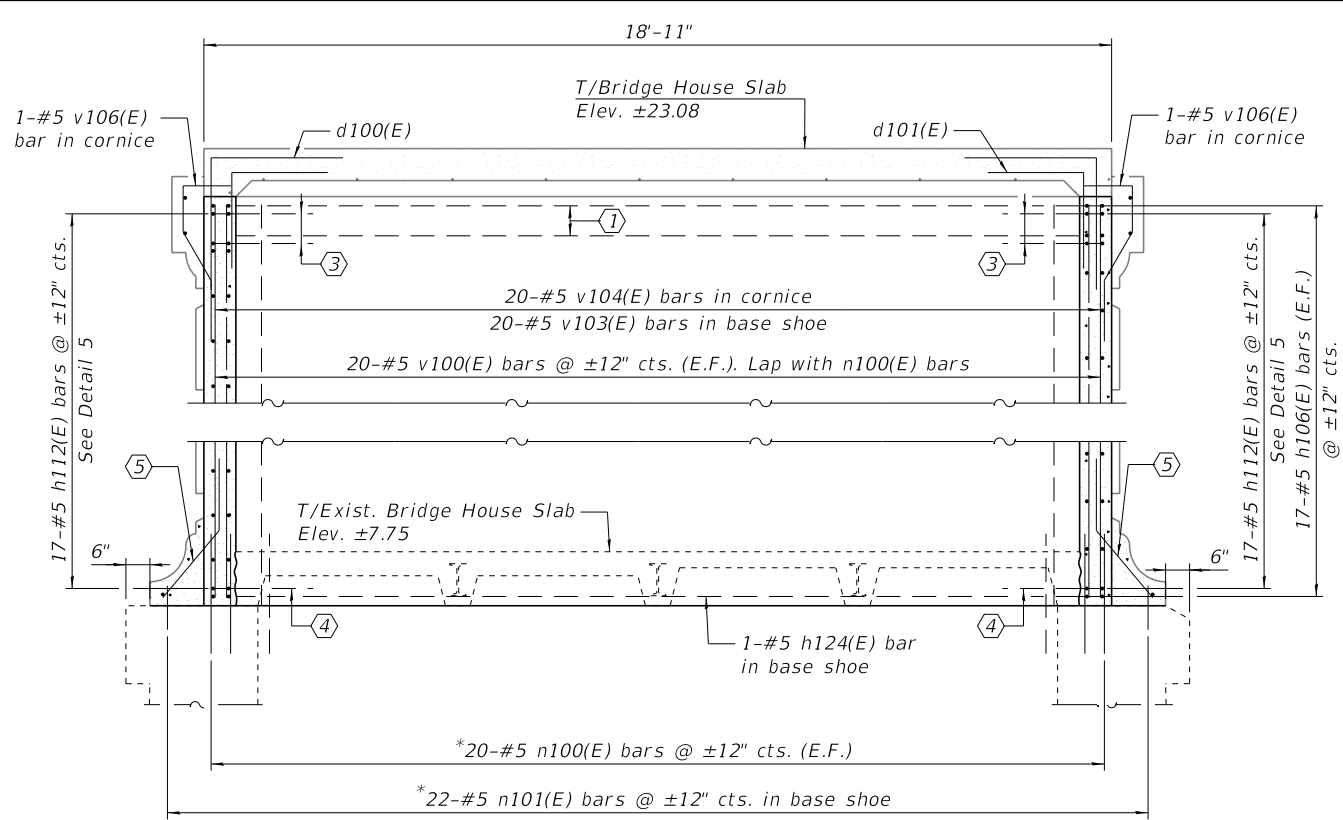
1. See sheets S-82 & S-84 for locations of Sections A-A & B-B and Detail 2.
2. See sheets S-83 & S-85 for locations of Sections A'-A' & B'-B'.
3. See sheets S-82 thru S-85 for locations of Section C-C and Detail 1.
4. See Architectural plans for cornice and base shoe dimensions.
5. See sheet S-88 for Bill of Materials, bar bend diagrams, and fiberglass pipe details and support.



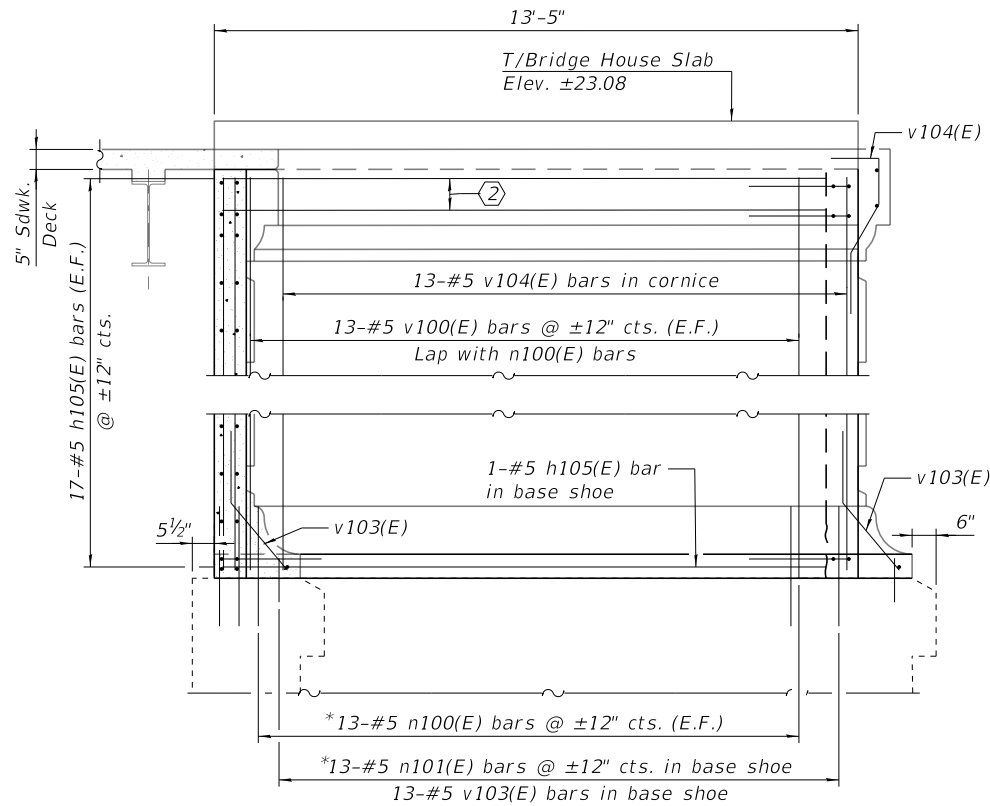
SECTION C-C



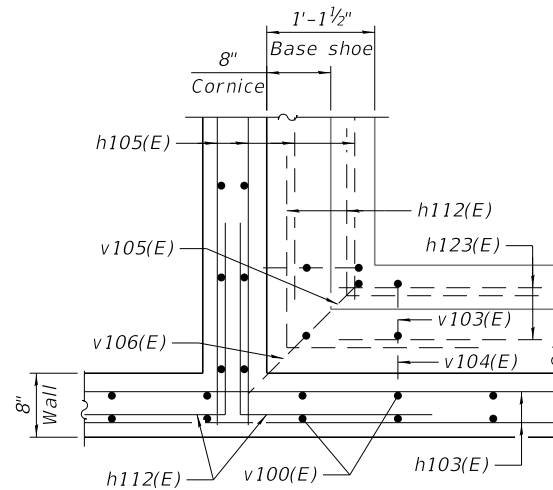
DETAIL 2 - SW ENCLOSURE WALL
(Detail in NE Enclosure Wall similar but opposite hand)



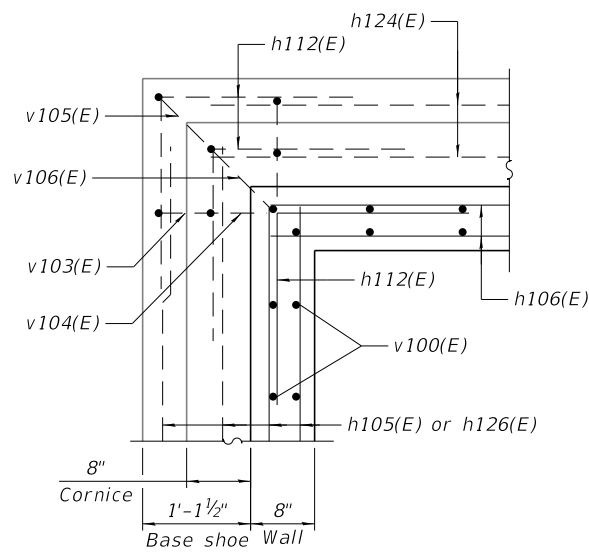
SECTION G-G



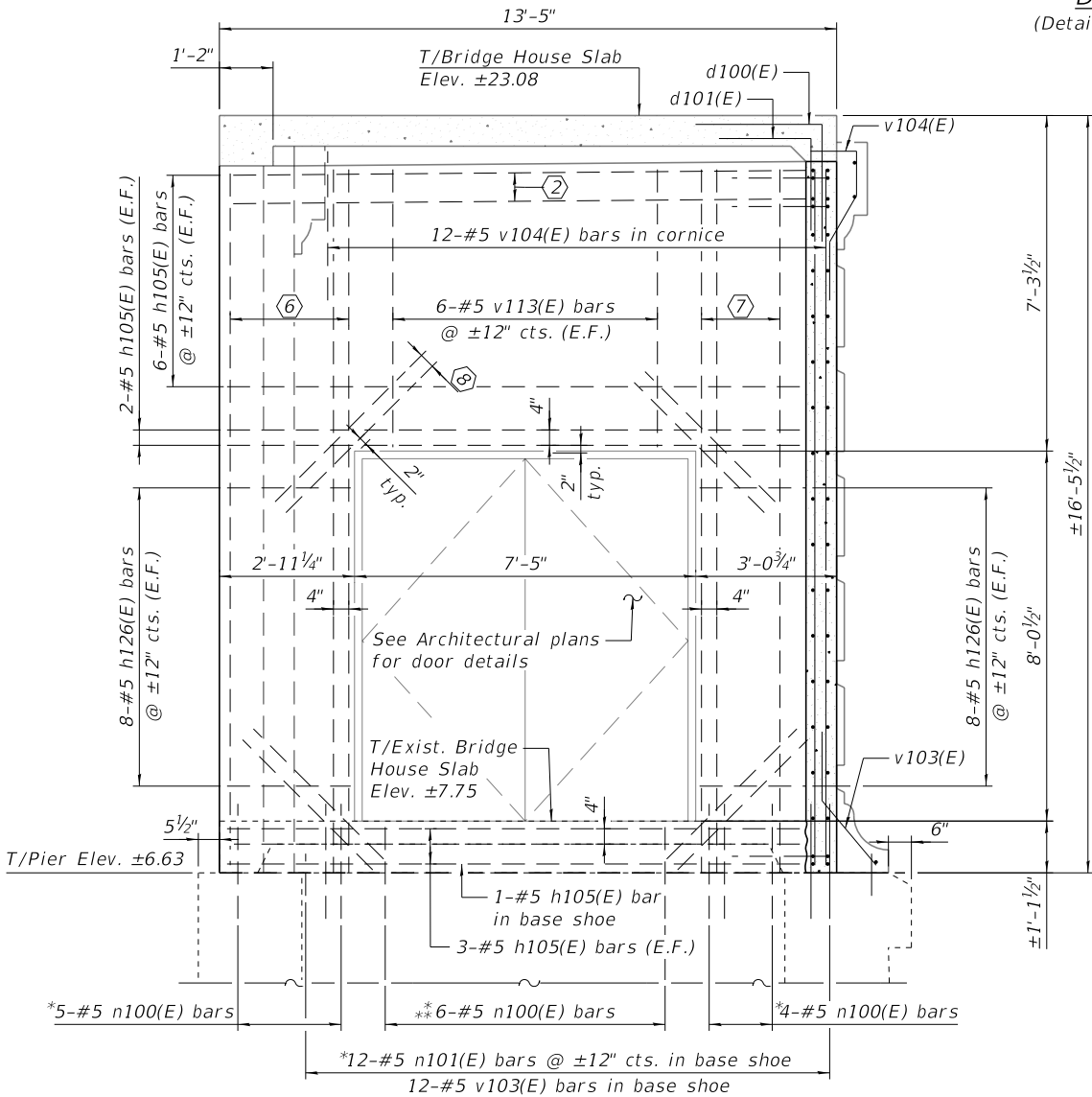
SECTION E-E



DETAIL 4 - NW ENCLOSURE WALL
(Detail in SE Enclosure Wall similar but opposite hand)



DETAIL 5 - NW ENCLOSURE WALL
(Detail in SE Enclosure Wall similar but opposite hand)



SECTION F-F

- ① 2-#5 h124(E) bars in cornice.
- ② 2-#5 h105(E) bars in cornice.
- ③ 2-#5 h112(E) bars in cornice.
- ④ 1-#5 h112(E) bar in base shoe
- ⑤ 1-#5 v105(E) bar in base shoe.
- ⑥ 5-#5 v100(E) bars (E.F.). Lap with n100(E) bars
- ⑦ 4-#5 v100(E) bars (E.F.). Lap with n100(E) bars
- ⑧ 2-#5 h125(E) bars @ 4\"/>

* Drill and grout bars according to Article 584 of the Std. Specs., with a minimum embedment of 12\"/>

** Cut bar to fit.

- Notes:
- See sheets S-83 and S-85 for locations of Sections E-E to G-G and Details 4 & 5.
 - See sheet S-88 for Bill of Materials and bar bend diagrams

0166057-E1525-S086-ENCLOSUREWALLDET2.DGN

| | | | | | | | | | | | |
|---|----------------------|--|---------------|-----------|---|--|---|----------------|----------------|--------|-----------|
|  <div>WSP USA Inc. 30 N. LASALLE STREET SUITE 4200 CHICAGO, IL 60602 TEL: (312) 782-8150 FAX: (312) 782-1684</div> | USER NAME = IBRAHIMM | | DESIGNED - MI | REVISED - | <div>CITY OF CHICAGO</div> <div>DEPARTMENT OF TRANSPORTATION</div> <div>DIVISION OF ENGINEERING</div> | <div>WEBSTER AVENUE BRIDGE OVER THE NORTH BRANCH CHICAGO RIVER</div> | <div>ENCLOSURE WALLS: DETAILS II (STRUCTURE NO. 016-6057)</div> | F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
| | PLOT SCALE = N.T.S. | | CHECKED - PJL | REVISED - | | | | 1388 | 11-E1525-00-BR | COOK | S-87 |
| | PLOT DATE = \$DATE\$ | | DRAWN - MI | REVISED - | | | | | | | |
| | | | CHECKED - JIG | REVISED - | | | | | | | |
| | | | | | | CDOT PROJECT NO. E-1525 | | 130 of 210 | | | |

BILL OF MATERIAL

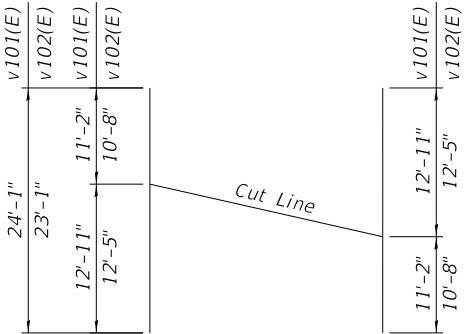
| Bar | No. | Size | Length | Shape |
|--------------------------------------|-----|------|---------|--------|
| h100(E) | 36 | #5 | 28'-8" | |
| h101(E) | 74 | #5 | 21'-0" | |
| h102(E) | 112 | #5 | 9'-9" | |
| h103(E) | 68 | #5 | 19'-5" | |
| h104(E) | 36 | #5 | 10'-5" | |
| h105(E) | 124 | #5 | 13'-1" | |
| h106(E) | 68 | #5 | 18'-6" | |
| h107(E) | 36 | #5 | 37'-8" | |
| h108(E) | 36 | #5 | 28'-2" | |
| h109(E) | 68 | #5 | 2'-0" | |
| h110(E) | 34 | #5 | 5'-4" | |
| h111(E) | 34 | #5 | 4'-8" | |
| h112(E) | 272 | #5 | 4'-0" | |
| h113(E) | 34 | #5 | 2'-11" | |
| h114(E) | 16 | #5 | 12'-8" | |
| h115(E) | 16 | #5 | 12'-8" | |
| h116(E) | 40 | #5 | 8'-10" | |
| h117(E) | 40 | #5 | 9'-6" | |
| h118(E) | 52 | #5 | 11'-3" | |
| h119(E) | 16 | #5 | 3'-4" | |
| h120(E) | 44 | #5 | 5'-6" | |
| h121(E) | 4 | #5 | 5'-0" | |
| h122(E) | 4 | #5 | 10'-11" | |
| h123(E) | 6 | #5 | 11'-3" | |
| h124(E) | 6 | #5 | 19'-9" | |
| h125(E) | 20 | #5 | 4'-0" | |
| h126(E) | 64 | #5 | 2'-8" | |
| | | | | |
| n100(E) | 606 | #5 | 2'-6" | |
| n101(E) | 208 | #5 | 0'-11" | |
| | | | | |
| v100(E) | 570 | #5 | 15'-1" | |
| v101(E) | 18 | #5 | 24'-1" | |
| v102(E) | 18 | #5 | 23'-1" | |
| v103(E) | 200 | #5 | 3'-1" | |
| v104(E) | 273 | #5 | 4'-10" | |
| v105(E) | 10 | #5 | 3'-6" | |
| v106(E) | 14 | #5 | 5'-1" | |
| v107(E) | 16 | #5 | 3'-0" | |
| v108(E) | 44 | #4 | 4'-11" | |
| v109(E) | 40 | #5 | 3'-4" | |
| v110(E) | 16 | #5 | 9'-11" | |
| v111(E) | 4 | #5 | 13'-7" | |
| v112(E) | 40 | #5 | 2'-9" | |
| v113(E) | 24 | #5 | 6'-0" | |
| Reinforcement Bars, Epoxy Coated | | | Pound | 29,890 |
| High Performance Concrete Structures | | | Cu. Yd. | 164.7 |
| Form Liner Textured Surface | | | Sq. Ft. | 2,732 |

MINIMUM BAR LAP

#5 bar = 2'-0"

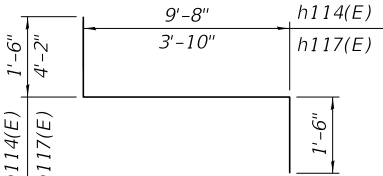
*Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 psi min.
The exterior surfaces of the floor drains shall be coated or pigmented by the manufacturer with a color that matches the concrete.
The clamping device and inserts shall be galvanized according to AASHTO M-232. Cost of fiberglass pipe, clamping device and galvanizing included with Drainage System.

- Notes:
- See sheets S-82 and S-83 for location of Detail 3.
 - See sheets S-83 and S-85 for location of Detail 6.

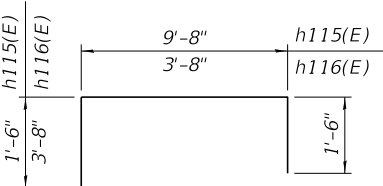


FIELD CUTTING DIAGRAM

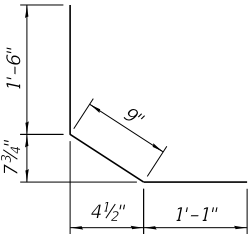
(Order v101(E) & v102(E) full length, cut as shown and use the remainder of bars in opposite face)



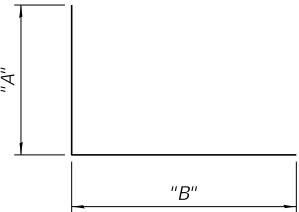
BARS h114(E) & h117(E)



BARS h115(E) & h116(E)

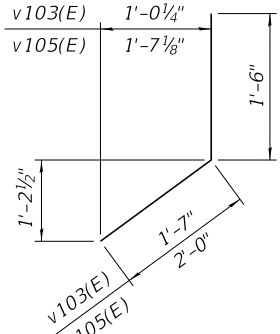


BAR v109(E)

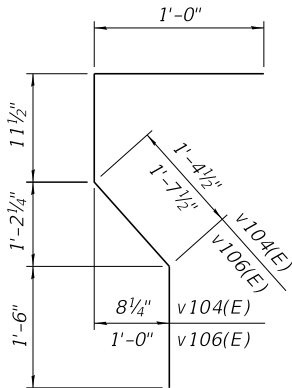


BARS h112(E), h113(E), h118(E), & h120(E)

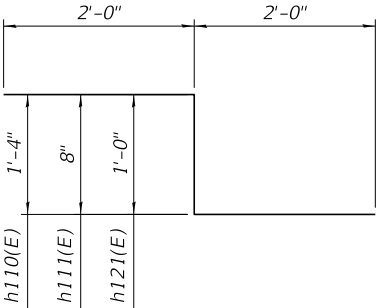
| Bar | "A" | "B" |
|---------|-------|-------|
| h112(E) | 2'-0" | 2'-0" |
| h113(E) | 11" | 2'-0" |
| h118(E) | 1'-6" | 9'-9" |
| h120(E) | 1'-6" | 4'-0" |



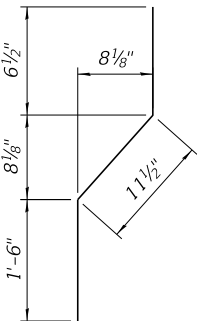
BARS v103(E) & v105(E)



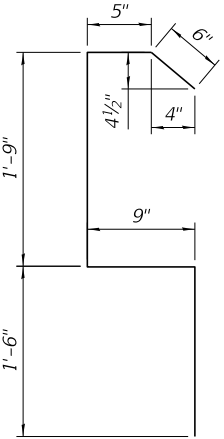
BARS v104(E) & v106(E)



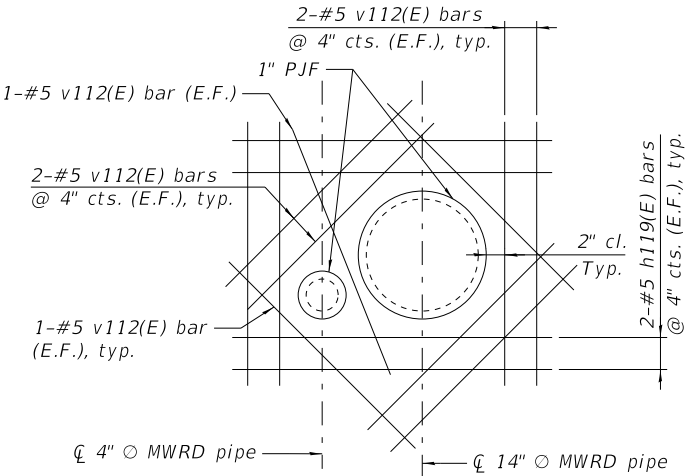
BARS h110(E), h111(E), & h121(E)



BAR v107(E)

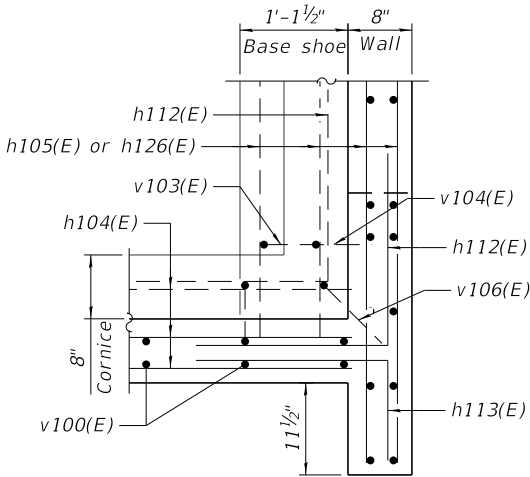


BAR v108(E)



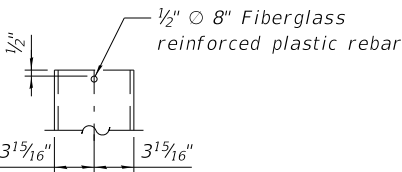
DETAIL 3

(Contractor to locate MWRD pipes)

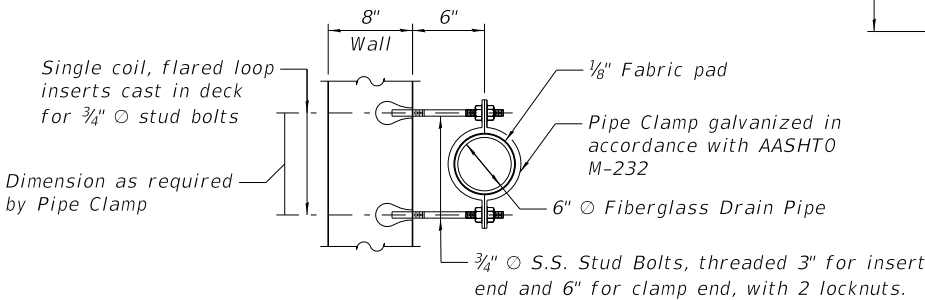


DETAIL 6 - NW ENCLOSURE WALL

(Detail in SE Enclosure Wall similar but opposite hand)



FIBERGLASS PIPE*

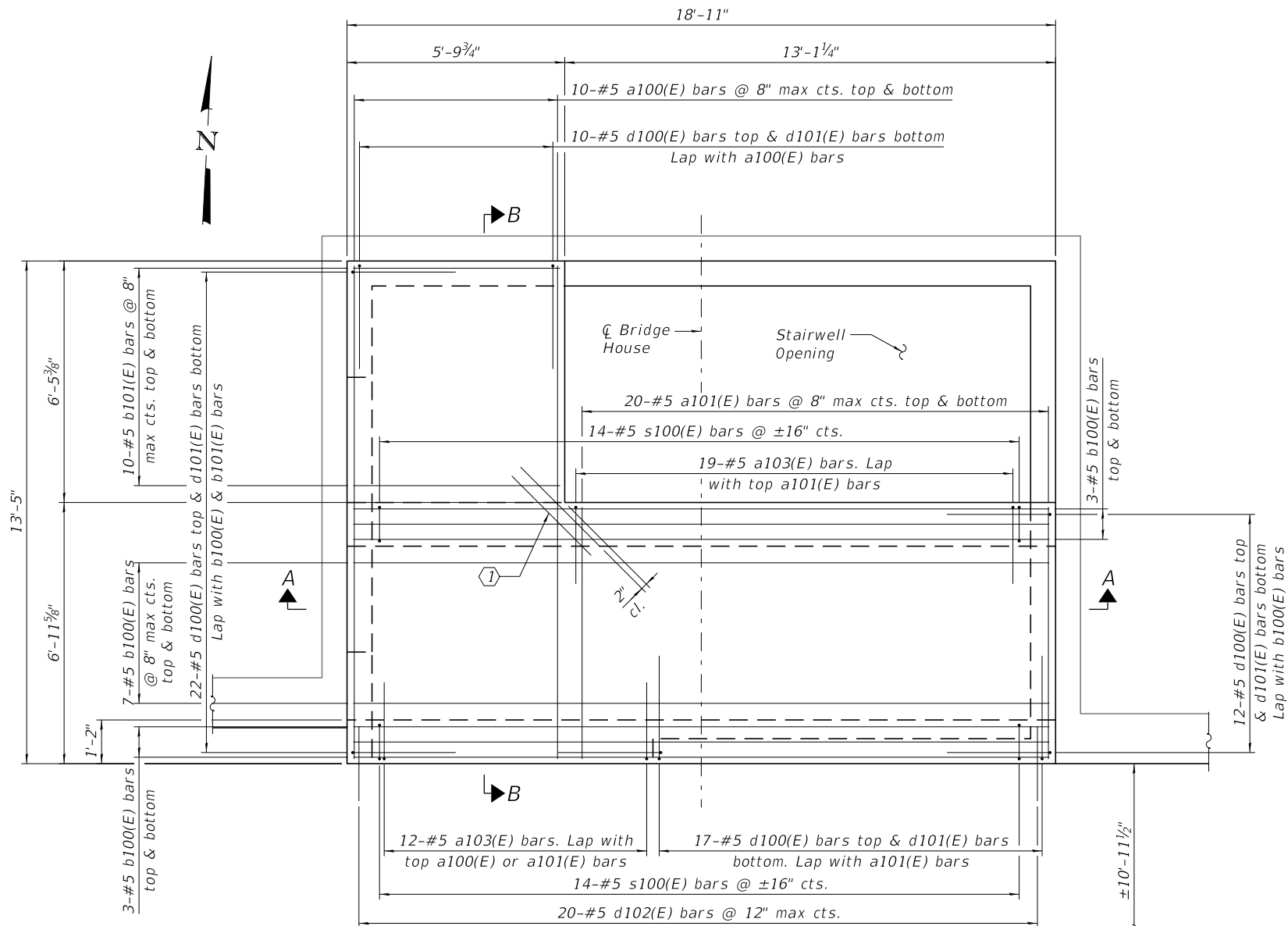


PIPE SUPPORT DETAIL*

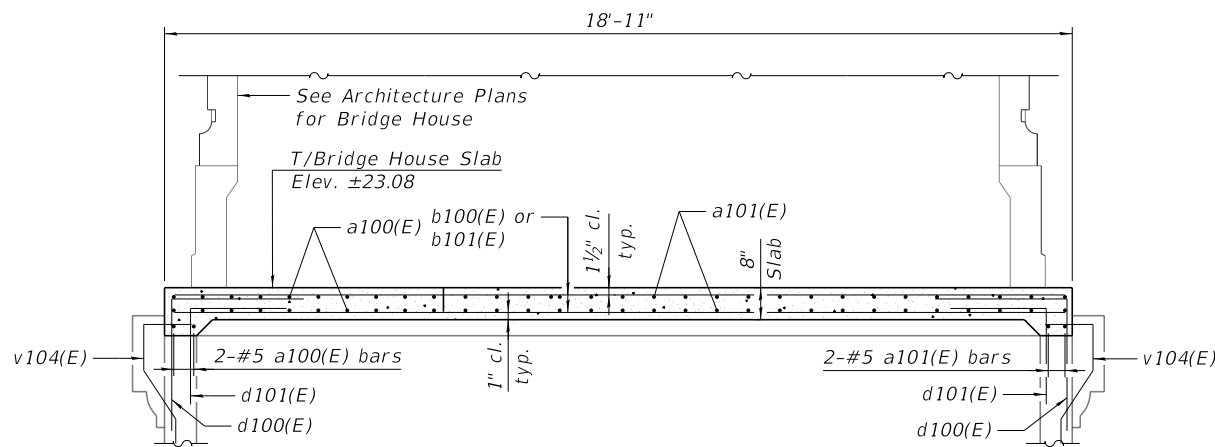
0166057-E1525-S088-ENCLOSUREWALLDET3.DGN

| | | | | | | | | | | | |
|--|----------------------|--|----------------|-----------|---|--|--|--------------------------|----------------|------------|-----------|
|  <div>WSP USA Inc. 30 N. LA SALLE STREET SUITE 4200 CHICAGO, IL 60602 TEL: (312) 782-8150 FAX: (312) 782-1684</div> | USER NAME = IBRAHIMM | | DESIGNED - MI | REVISED - | CITY OF CHICAGO <i>DEPARTMENT OF TRANSPORTATION</i> <i>DIVISION OF ENGINEERING</i> | WEBSTER AVENUE BRIDGE OVER THE NORTH BRANCH CHICAGO RIVER | ENCLOSURE WALLS: DETAILS III (STRUCTURE NO. 016-6057) | F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
| | PLOT SCALE = N.T.S. | | CHECKED - P.JL | REVISED - | | | | 1388 | 11-E1525-00-BR | COOK | S-88 |
| | PLOT DATE = \$DATE\$ | | DRAWN - MI | REVISED - | | | | CDOT PROJECT NO. E-1-525 | | 131 of 210 | |
| | | | CHECKED - JIG | REVISED - | | | | | | | |

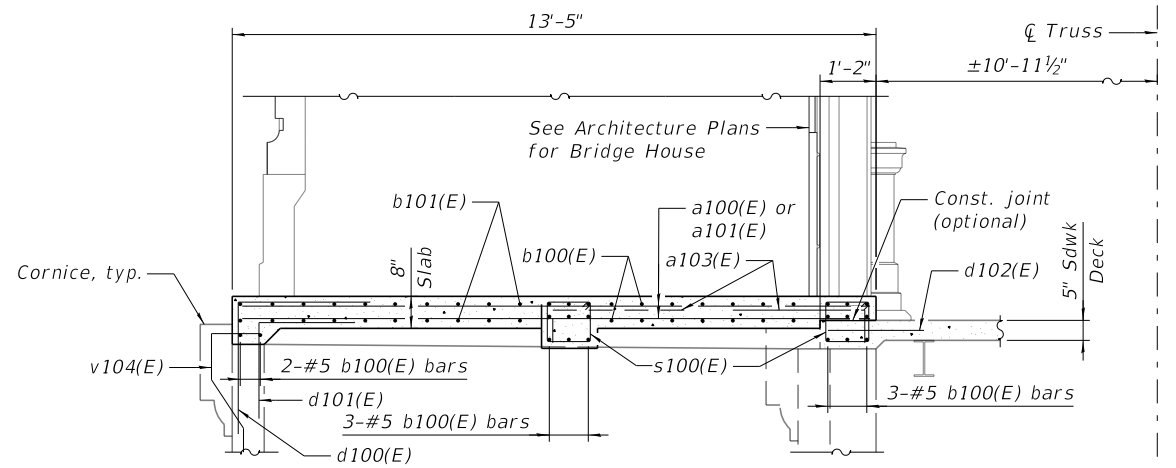
0166057-E1525-S089-HOUSESLABDET.DGN



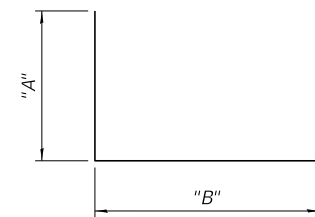
BRIDGE HOUSE SLAB - PLAN
(NW Bridge House is shown. SE Bridge House similar but opposite hand)



SECTION A-A
(Walls reinforcement are not shown for clarity)

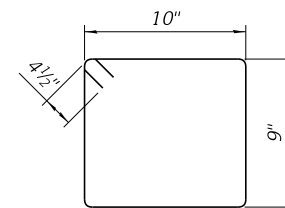


SECTION B-B
(Walls reinforcement are not shown for clarity)



BARS a103(E), d100(E), & d101(E)

| Bar | "A" | "B" |
|---------|-------|-------|
| a103(E) | 10" | 2'-0" |
| d100(E) | 2'-9" | 2'-9" |
| d101(E) | 2'-0" | 2'-0" |



BAR s100(E)

BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|--------------------------------------|-----|------|---------|-------|
| a100(E) | 44 | #5 | 13'-2" | |
| a101(E) | 84 | #5 | 6'-8" | |
| a102(E) | 8 | #5 | 3'-0" | |
| a103(E) | 62 | #5 | 2'-10" | |
| b100(E) | 64 | #5 | 18'-7" | |
| b101(E) | 44 | #5 | 5'-6" | |
| d100(E) | 122 | #5 | 5'-6" | |
| d101(E) | 122 | #5 | 4'-0" | |
| d102(E) | 40 | #5 | 2'-0" | |
| s100(E) | 56 | #4 | 3'-11" | |
| Reinforcement Bars, Epoxy Coated | | | Pound | 4,340 |
| High Performance Concrete Structures | | | Cu. Yd. | 10.6 |

Quantity shown includes NW and SE houses.

① 2-#5 a102(E) bars @ 4" cts. top & bottom.

Notes:
1. See sheets S-91 to S-93 for Bridge House connection details.



WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

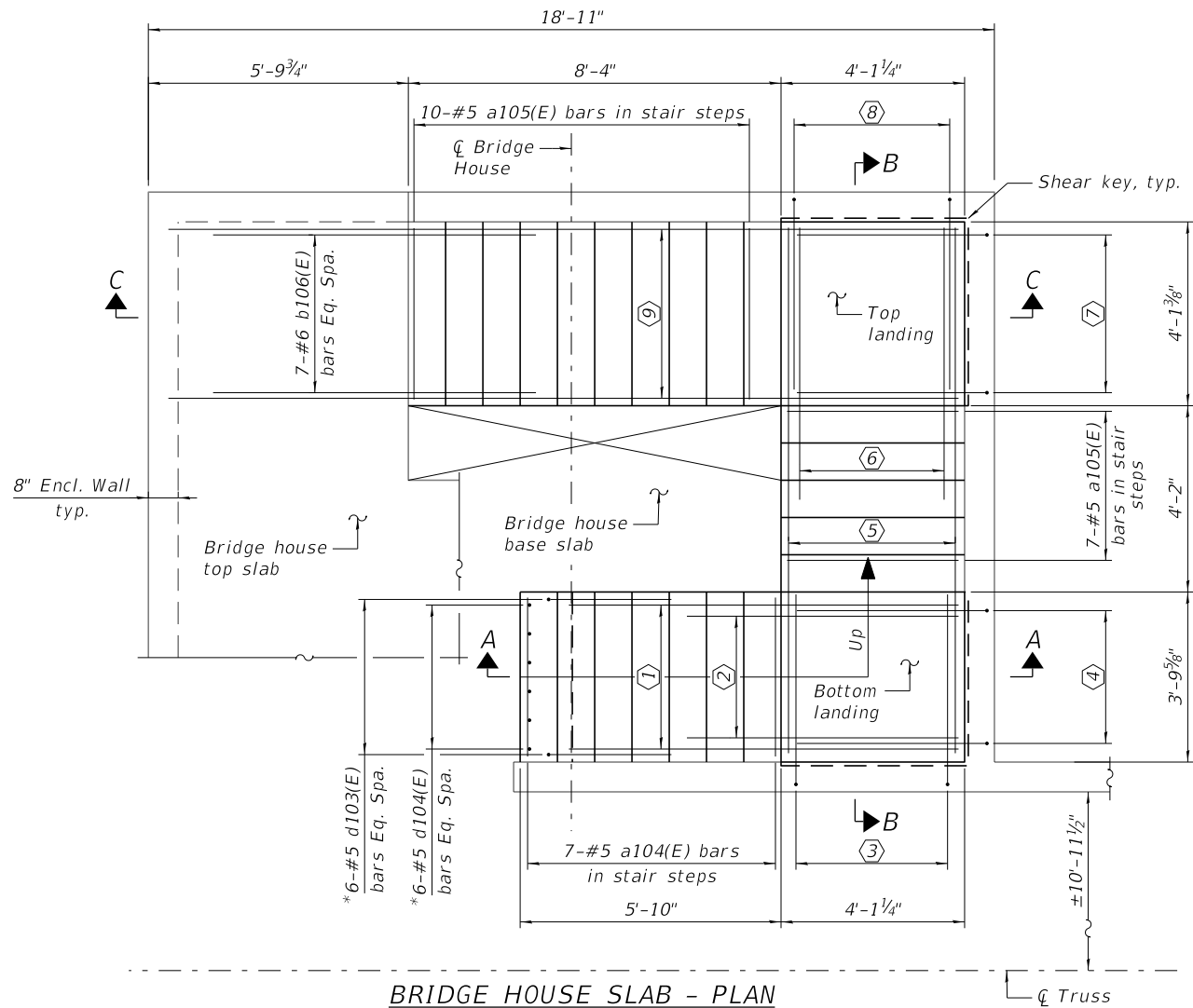
| | | | | | |
|--------------|----------|------------|-----|-----------|--|
| USER NAME = | IBRAHIMM | DESIGNED - | MI | REVISED - | |
| | | CHECKED - | PJL | REVISED - | |
| PLOT SCALE = | N.T.S. | DRAWN - | MI | REVISED - | |
| PLOT DATE = | \$DATE\$ | CHECKED - | JIG | REVISED - | |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

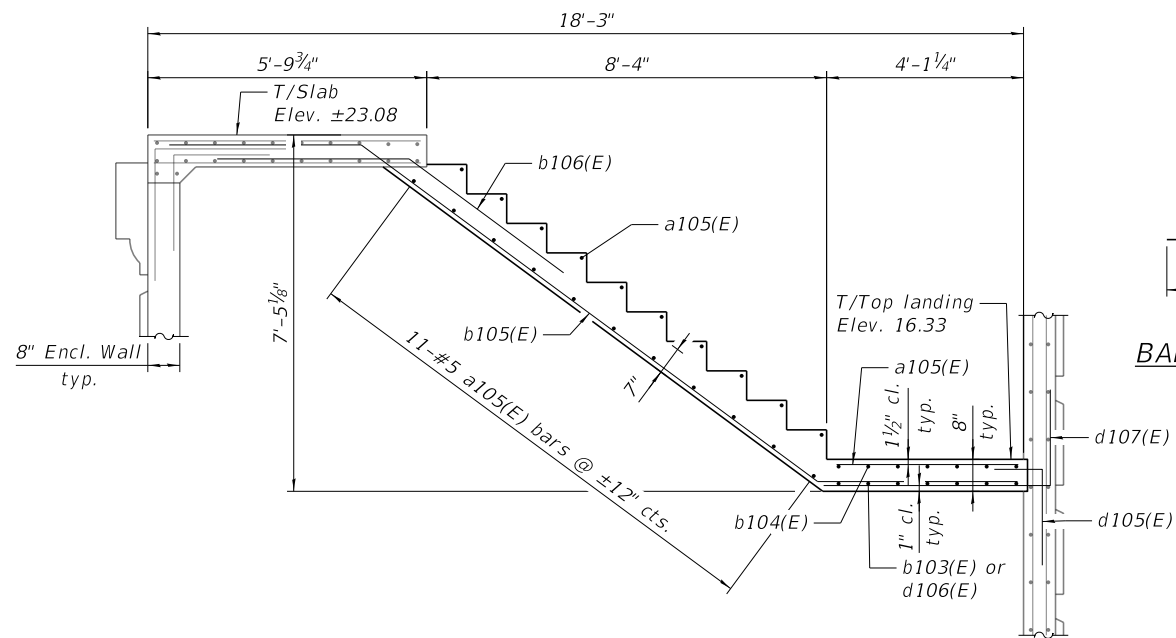
**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**ENCLOSURE WALLS:
HOUSE SLAB DETAILS
(STRUCTURE NO. 016-6057)**

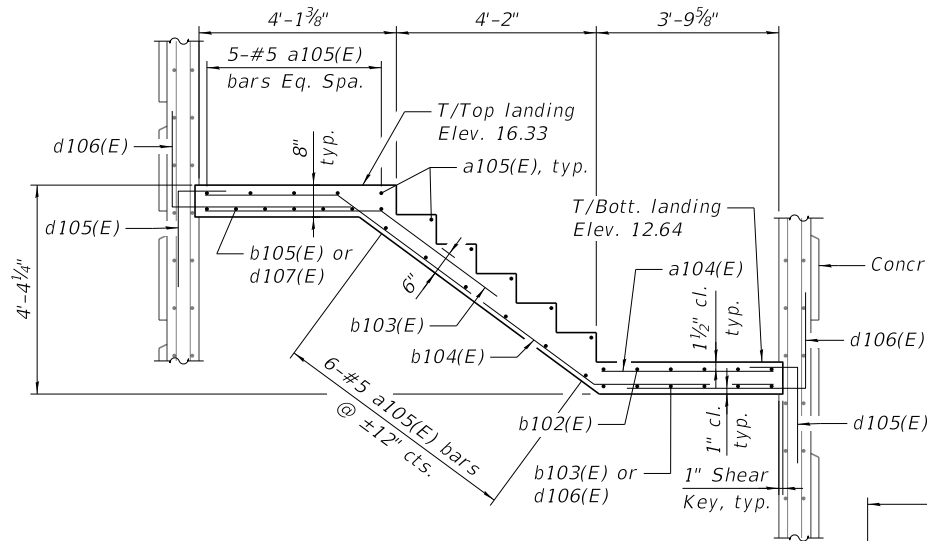
| F.A.U. R.T.E. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | S-89 |
| CDOT PROJECT NO. E-1-525 | | | 132 of 210 |



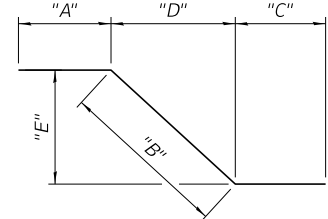
BRIDGE HOUSE SLAB - PLAN
(NW Bridge House is shown. SE Bridge House similar but opposite hand)



SECTION C-C

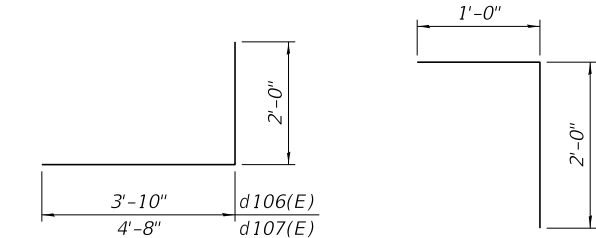


SECTION B-B

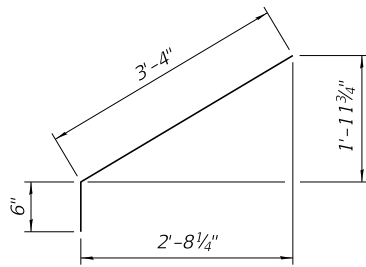


BARS b102(E) thru b106(E)

| Bar | "A" | "B" | "C" | "D" | "E" |
|---------|-------|--------|-------|------------------------------------|------------------------------------|
| b102(E) | 2'-9" | 7'-6" | na | 6'-0 ³ / ₈ " | 4'-5 ³ / ₈ " |
| b103(E) | 3'-9" | 3'-0" | na | 2'-5" | 1'-9 ³ / ₈ " |
| b104(E) | 2'-8" | 6'-10" | 3'-9" | 5'-6" | 4'-0 ³ / ₈ " |
| b105(E) | 4'-0" | 12'-0" | 4'-2" | 9'-7 ⁷ / ₈ " | 7'-1 ¹ / ₂ " |
| b106(E) | 4'-0" | 4'-0" | na | 3'-2 ³ / ₈ " | 2'-4 ¹ / ₂ " |

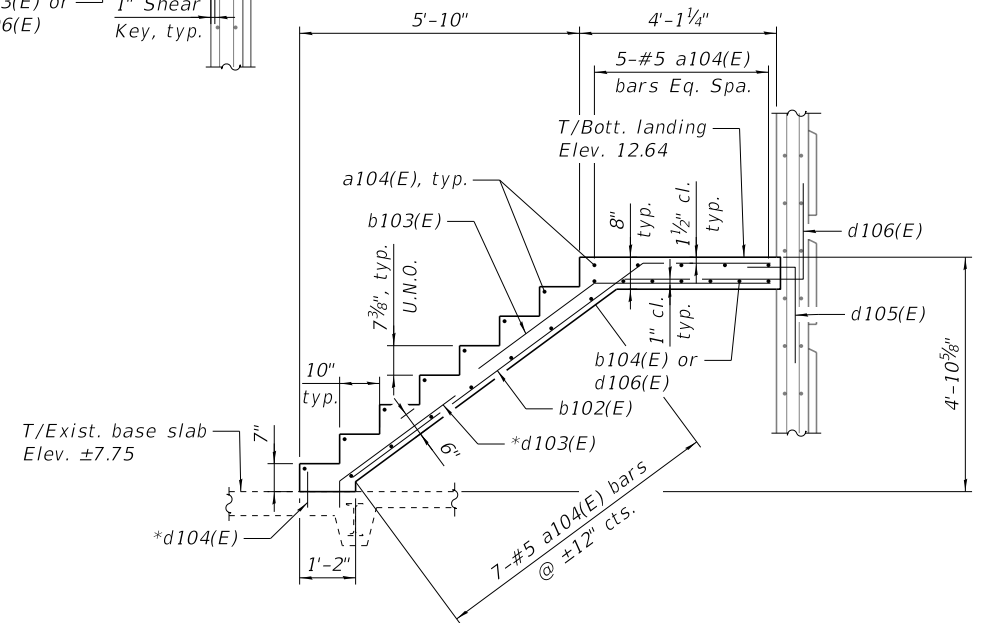


BARS d106(E) & d107(E) BAR d105(E)



BAR d103(E)

* Drill and grout bars according to Article 584 of the Std. Specs., with a minimum embedment of 4". Cost included in the cost of Reinforcement Bars, Epoxy Coated.



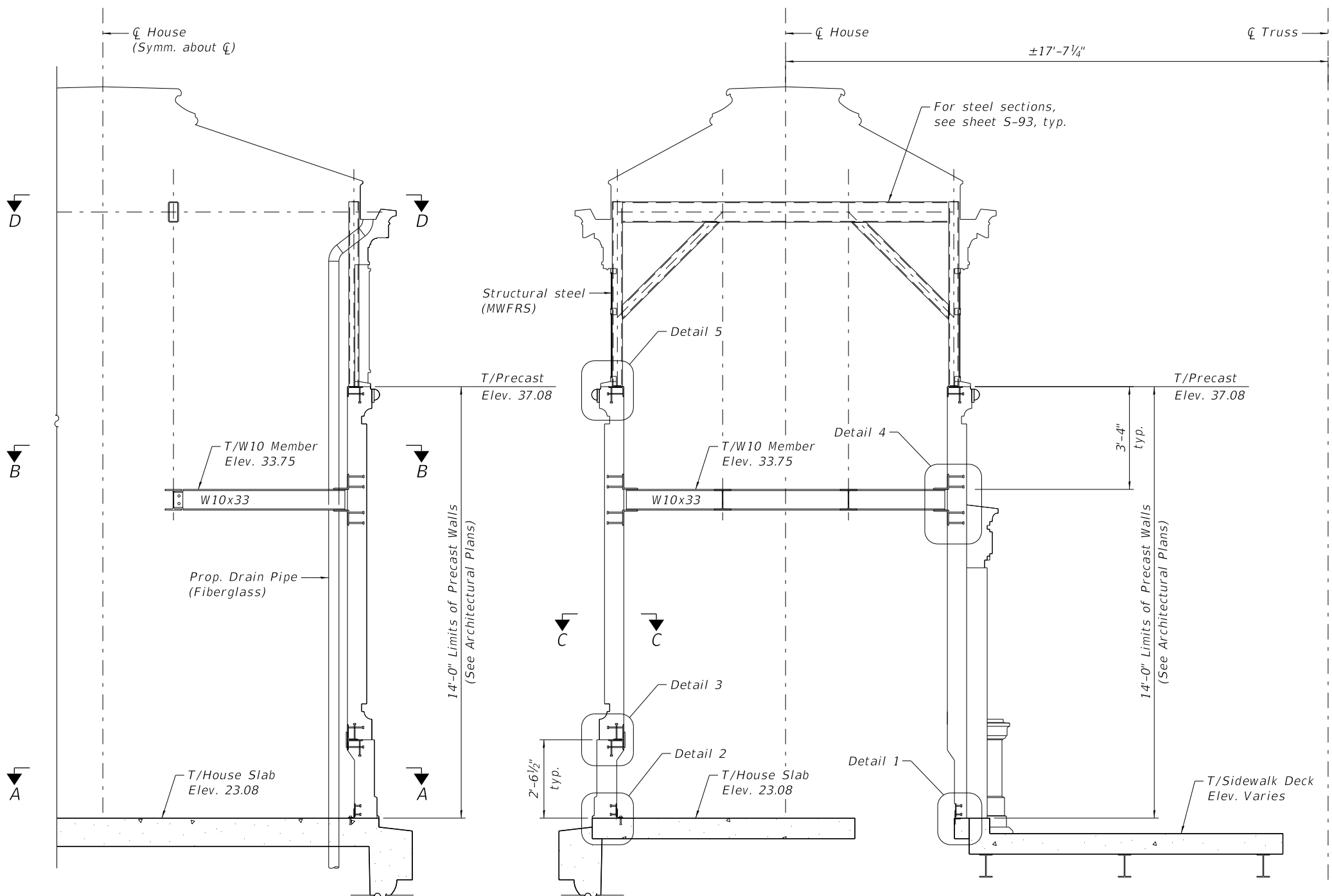
SECTION A-A

BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|--------------------------------------|-----|------|---------|-------|
| a104(E) | 38 | #5 | 3'-6" | |
| a105(E) | 74 | #5 | 3'-10" | |
| b102(E) | 12 | #5 | 10'-3" | |
| b103(E) | 26 | #5 | 6'-9" | |
| b104(E) | 14 | #5 | 13'-3" | |
| b105(E) | 14 | #6 | 20'-2" | |
| b106(E) | 14 | #6 | 8'-0" | |
| d103(E) | 12 | #5 | 3'-10" | |
| d104(E) | 12 | #5 | 0'-9" | |
| d105(E) | 32 | #5 | 3'-0" | |
| d106(E) | 40 | #5 | 5'-10" | |
| d107(E) | 14 | #6 | 6'-8" | |
| Reinforcement Bars, Epoxy Coated | | | Pound | 2,080 |
| High Performance Concrete Structures | | | Cu. Yd. | 8.8 |

- 6-#5 b102(E) bars Eq. Spa.
- 6-#5 b103(E) bars Eq. Spa. Lap with d106(E) bars.
- 4-#5 d105(E) bars top and 7-#5 d106(E) bars bottom Eq. Spa.
- 4-#5 d105(E) bars top and 6-#5 d106(E) bars bottom Eq. Spa.
- 7-#5 b104(E) bars Eq. Spa. Lap with d106(E) bars at bottom landing.
- 7-#5 b103(E) bars Eq. Spa. Lap with d106(E) bars.
- 4-#5 d105(E) bars top and 7-#6 d107(E) bars bottom Eq. Spa.
- 4-#5 d105(E) bars top and 7-#5 d106(E) bars bottom Eq. Spa.
- 7-#6 b105(E) bars Eq. Spa. Lap with d107(E) bars at top landing.

0166057-E1525-S088-BRIDGEHOUSESTRUCTDETI.DGN



HALF LONGITUDINAL SECTION
THRU BRIDGE HOUSE

TYPICAL TRANSVERSE SECTION
THRU BRIDGE HOUSE
(NW House looking east, SE House looking west)

GENERAL NOTES - BRIDGE HOUSE

STRUCTURAL STEEL (MWFRS)

1. Cost of bridge house structural steel included in the cost of Furnishing and Erecting Structural Steel.
2. The structural design for the bridge house structural steel, Main Wind Force Resisting System (MWFRS) is based on the 2017 AASHTO LRFD Bridge Design Specification, 8th Edition and the following wind loading:
Basic wind speed, strength 115 mph (100-year MRI)
Basic wind speed, service 70 mph (25-year MRI)
Wind exposure category B
3. The intermediate bracing is based on wind loads above and dead load of 50 psf, superimposed dead load of 10 psf, and live load of 10 psf.

COLD FORMED STEEL (CFS) FRAMING

1. Cost of cold formed steel framing shall not be measured for payment but considered part of Precast Concrete Wall item.
2. The CFS framing shown is for information purposes only. The CFS framing is to support vertical loads from the upper portion of bridge house which shall include dead load, roof live load, and superimposed dead load.
3. The Contractor shall follow Architectural Detailed Specification Section 054000 - Cold-Formed Metal Framing and the structural performance and standards set forth within the specification.

PRECAST CONCRETE WALLS

1. Cost of precast concrete walls included in the cost of Precast Concrete Wall. See architectural special provisions.
2. Precast concrete walls shall be designed for a minimum of the connection forces shown in the plans and the loads specified by the manufacturer. Precast manufacturer shall work with cold formed steel framing (CFS) delegated designer and account for additional vertical forces from CFS framing.

Notes:

1. Drainage system shall connect through existing lower slab. See sheet S-89 for details. See special provisions.
2. See sheet S-88 for pipe support detail.
3. See sheet S-92 for Section A-A, B-B & C-C and Detail 1 thru 5.
4. See sheet S-93 for Section D-D.

BILL OF MATERIAL

| Item | Unit | Quantity |
|-----------------|--------|----------|
| Drainage System | L. Sum | 1 |



WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

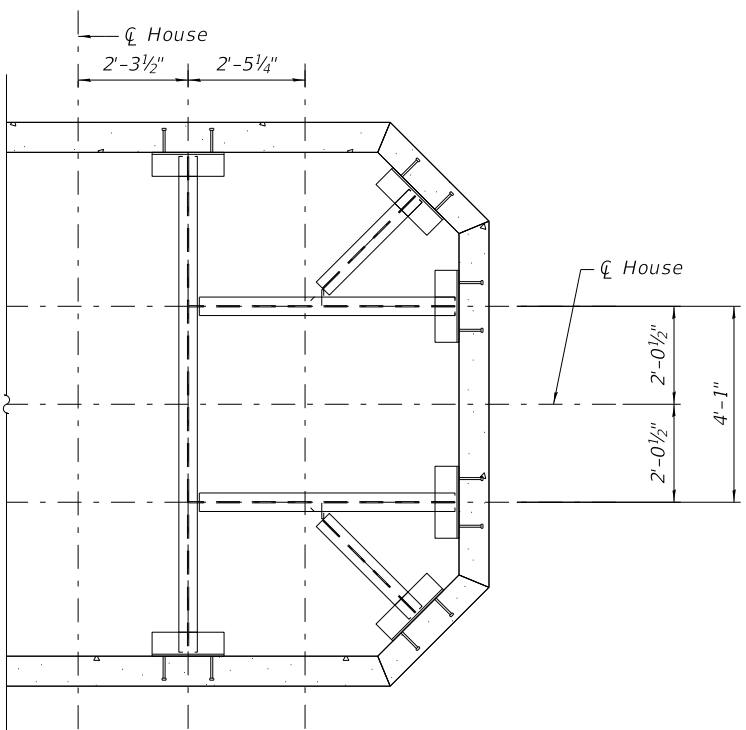
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|--------------|----------|------------|-----|-----------|--|
| USER NAME = | PJLAUX | DESIGNED - | PJL | REVISED - | |
| | | CHECKED - | IJL | REVISED - | |
| PLOT SCALE = | N.T.S. | DRAWN - | PJL | REVISED - | |
| PLOT DATE = | \$DATE\$ | CHECKED - | JIG | REVISED - | |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
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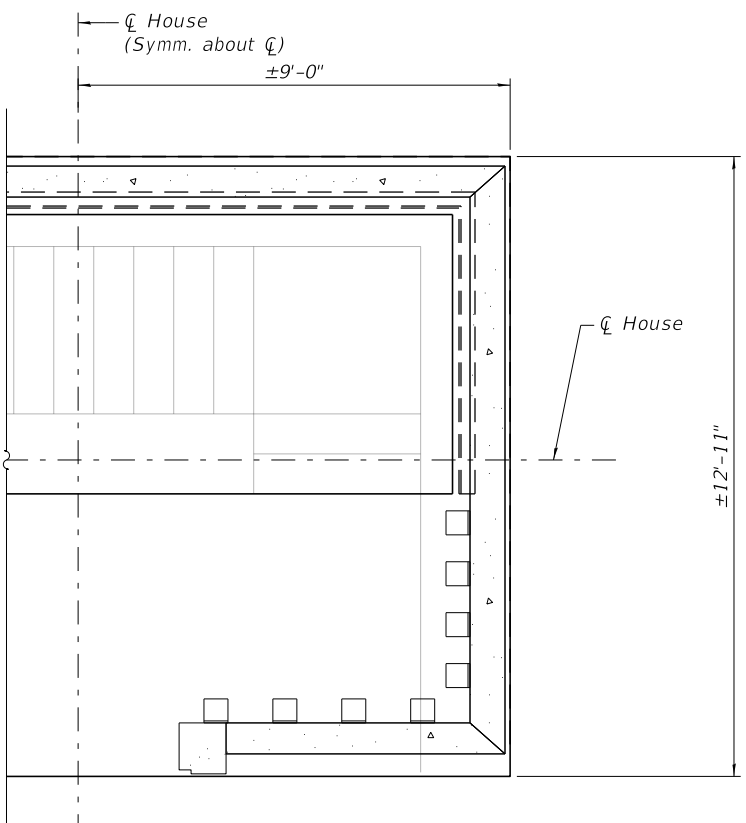
**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**BRIDGE HOUSE:
STRUCTURAL DETAILS I
(STRUCTURE NO. 016-6057)**

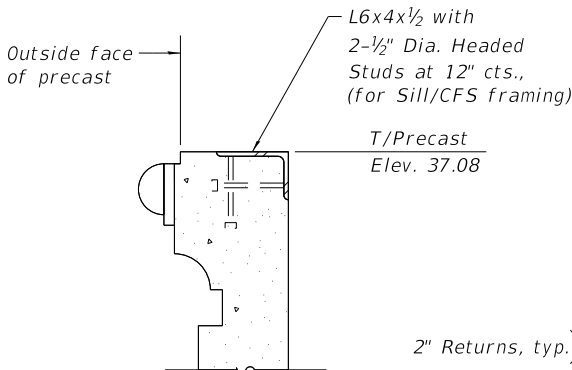
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | S-91 |
| CDOT PROJECT NO. E-1-525 | | | 134 of 210 |



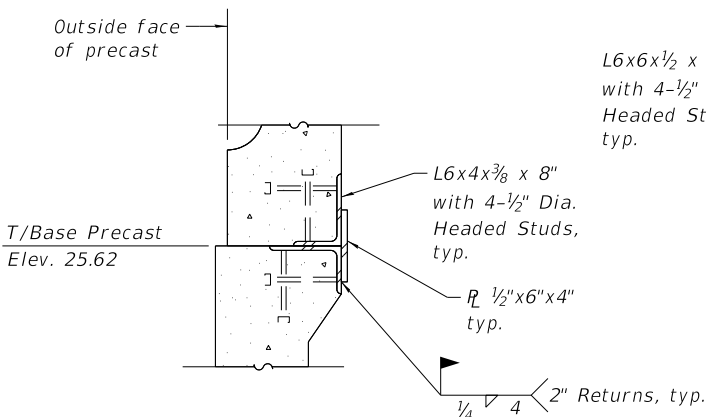
SECTION B-B



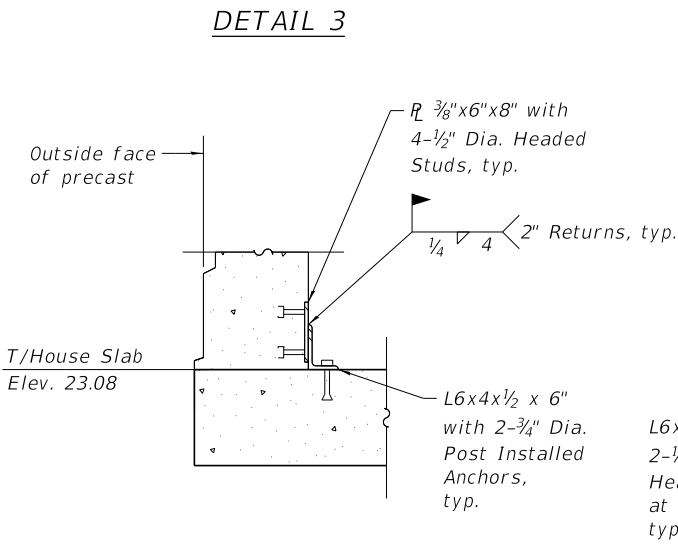
SECTION A-A



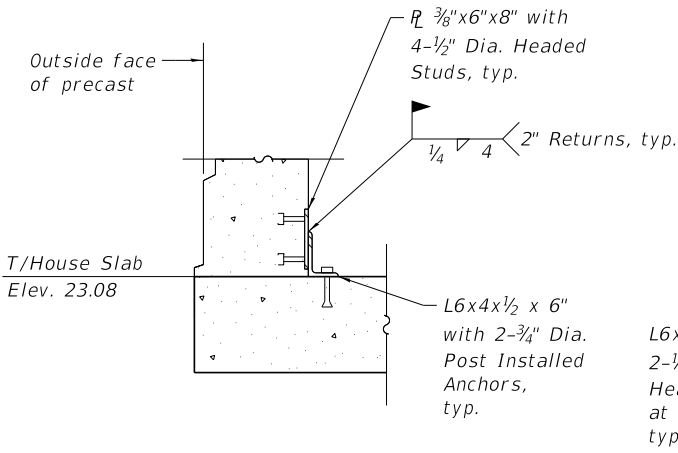
DETAIL 5



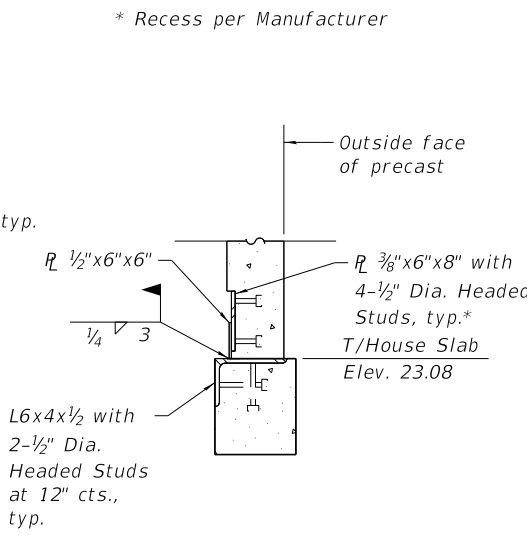
DETAIL 4



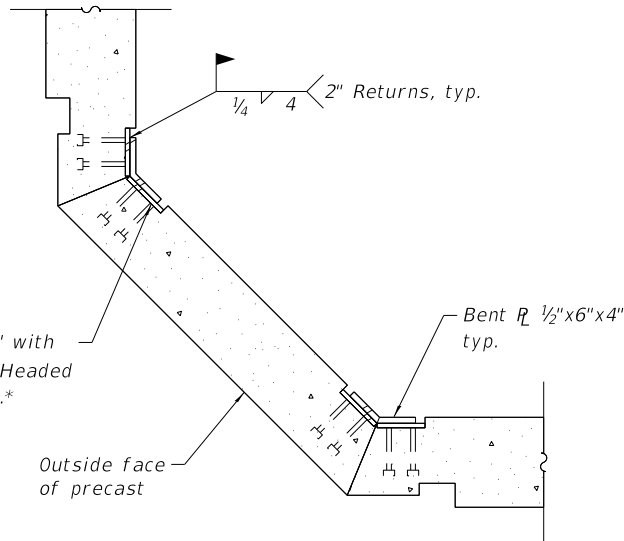
DETAIL 3



DETAIL 2



DETAIL 1



SECTION C-C
(TYP. SIDE PANEL-TO-PANEL CONNECTION)

* Recess per Manufacturer

0166057-E1525-S089-BRIDGEHOUSESTRUCTDET1.DGN



WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

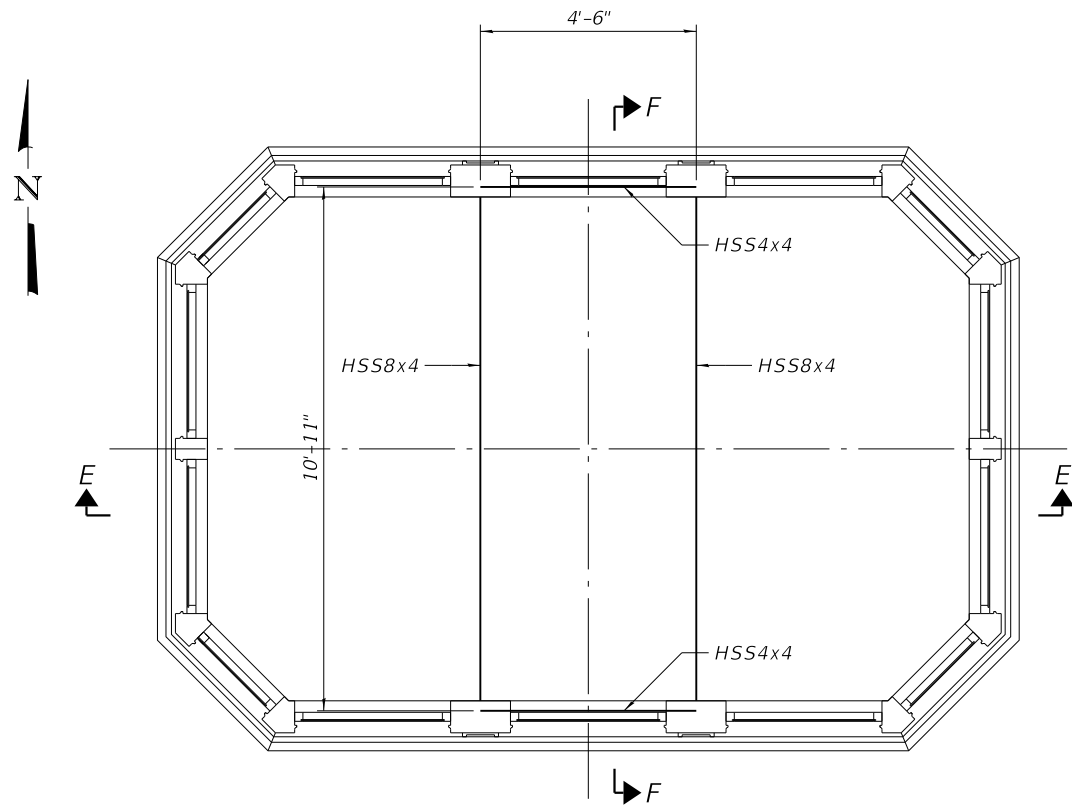
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| | | CHECKED - | IJL | REVISED - | |
| PLOT SCALE = | N.T.S. | DRAWN - | PJL | REVISED - | |
| PLOT DATE = | \$DATE\$ | CHECKED - | JIG | REVISED - | |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
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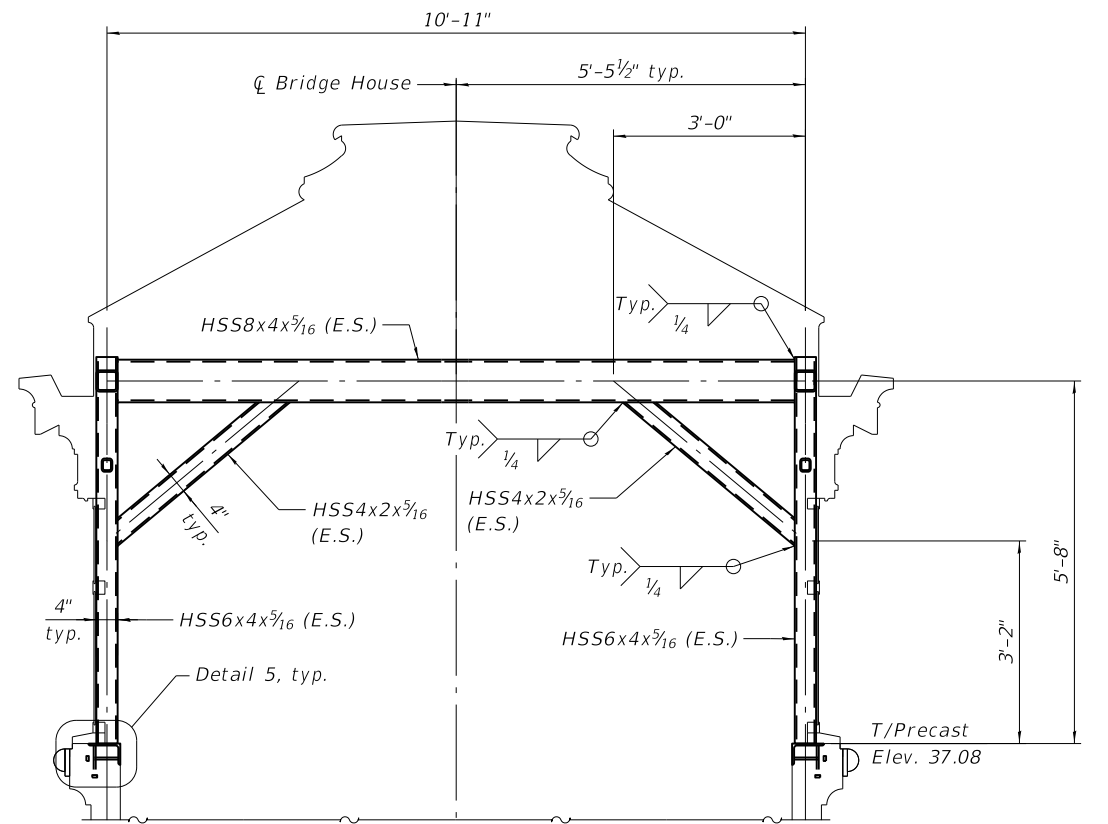
**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**BRIDGE HOUSE:
STRUCTURAL DETAIL II
(STRUCTURE NO. 016-6057)**

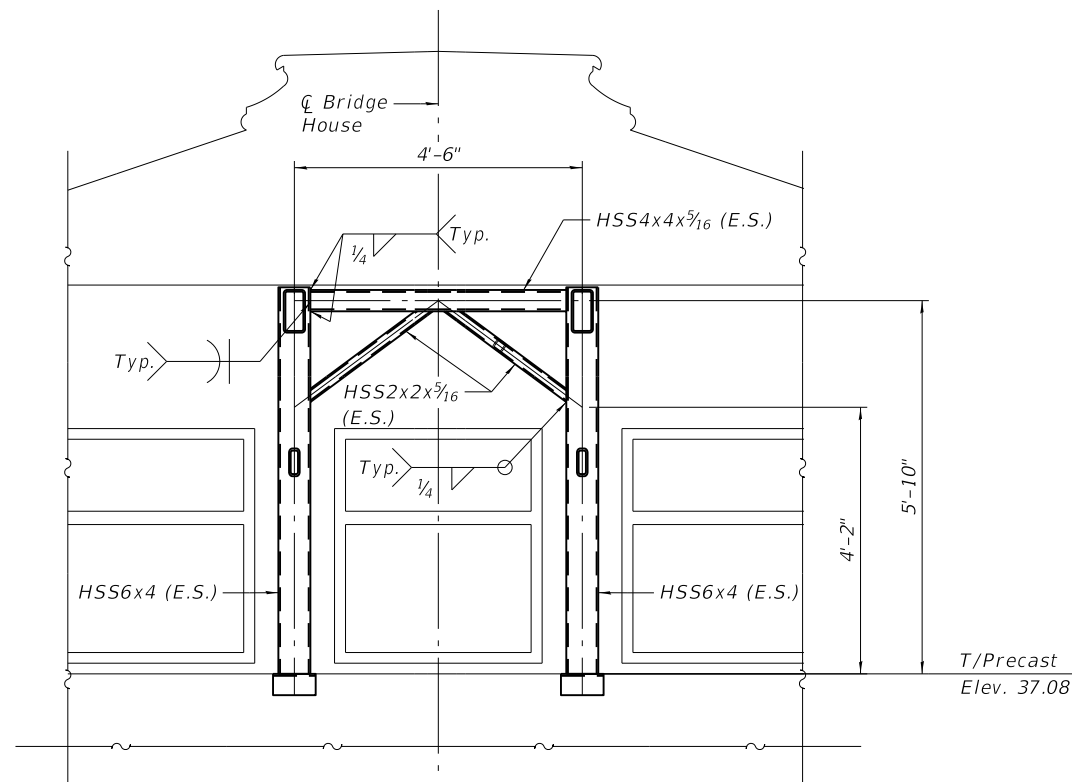
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | S-92 |
| CDOT PROJECT NO. E-1-525 | | | 135 of 210 |



SECTION D-D
(FRAMING PLAN)



SECTION F-F



SECTION E-E

HOUSE CFS FRAMING TABLE

| CFS Member | No. - Size Type (Configuration) | Min. Thickness | Spacing | I.D. (Min. Size) |
|-------------|--|----------------|---------|------------------|
| Base Track | 1 - 4x2 Track | 0.0451" | - | 400T200-43 |
| Jamb | 2 - 4x1.625 Studs with 1 - 4x1.25 Track (Box) | 0.0451" | - | 400S162-43 |
| Head Track | 2 - 4x1.25 Tracks with 2 - 4x1.625 Studs (Box) | 0.0451" | - | 400T125-43 |
| Header | 1 - 4x2 Track | 0.0451" | - | 400S162-43 |
| Roof Rafter | 1 - 8x2 Studs | 0.0451" | at 16" | 400T200-43 |
| Roof Joist | 1 - 4x1.625 Studs | 0.0451" | at 16" | 800S200-43 |
| Ridge Joist | 1 - 8x2 Studs | 0.0451" | - | 400S162-43 |

Note: See Architectural plans for locations and details, and see Special Provisions.

Notes:

1. Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
2. See sheet S-91 for location of Section D-D.
3. See sheet S-92 for Detail 5.

0166057-E1525-S090-BRIDGEHOUSESTRUCTDETAIL.DGN



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USER NAME = PJLAUX
PLOT SCALE = N.T.S.
PLOT DATE = 10/5/2020

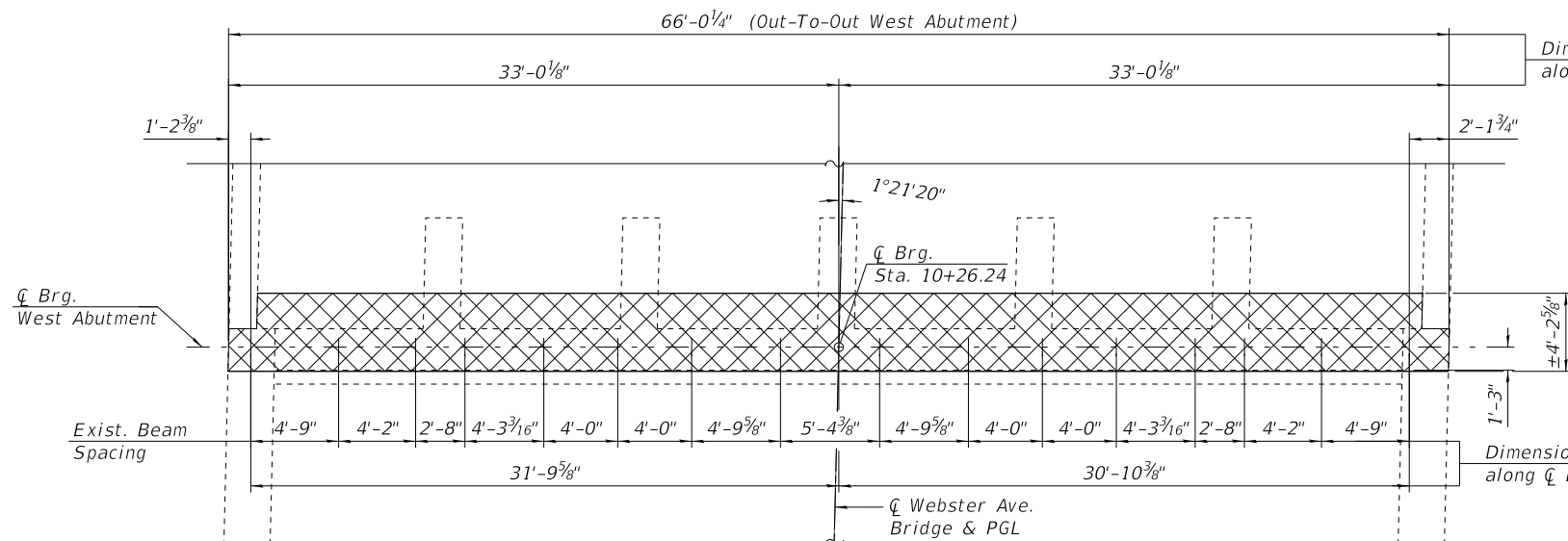
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CHECKED - IJL
DRAWN - PJL
CHECKED - JIG
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REVISED -
REVISED -
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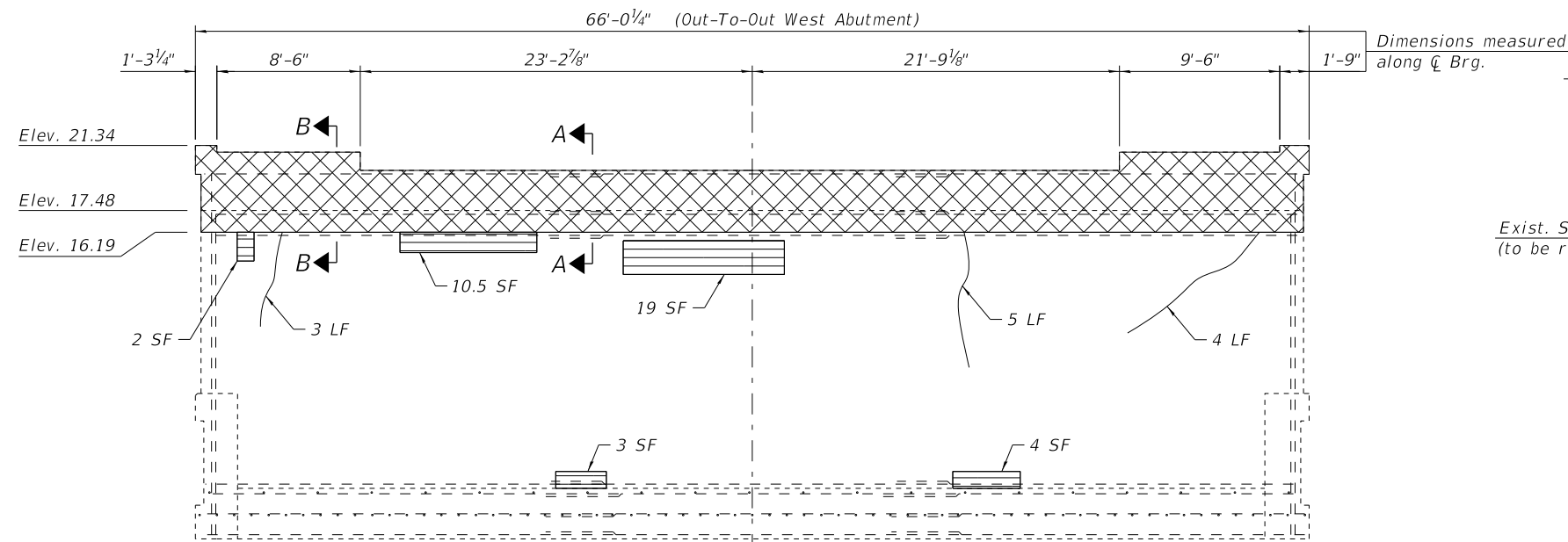
**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**BRIDGE HOUSE:
STRUCTURAL DETAILS III
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|-------------|
| 1388 | 11-E1525-00-BR | COOK | S-93 |
| CDOT PROJECT NO. E-1-525 | | | 136 of 210 |



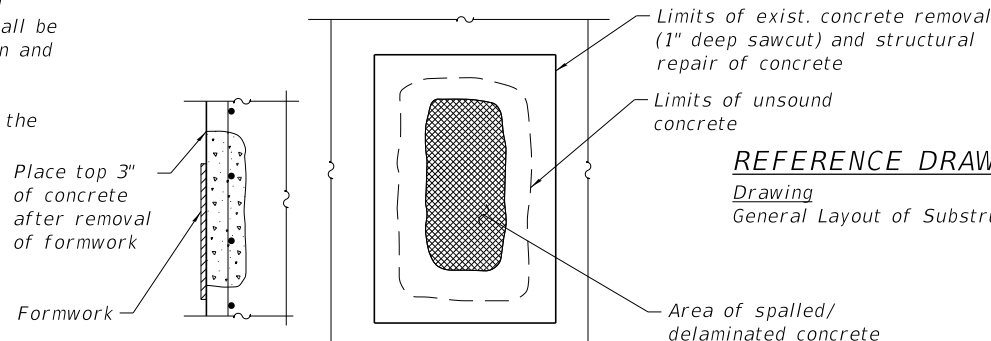
PLAN



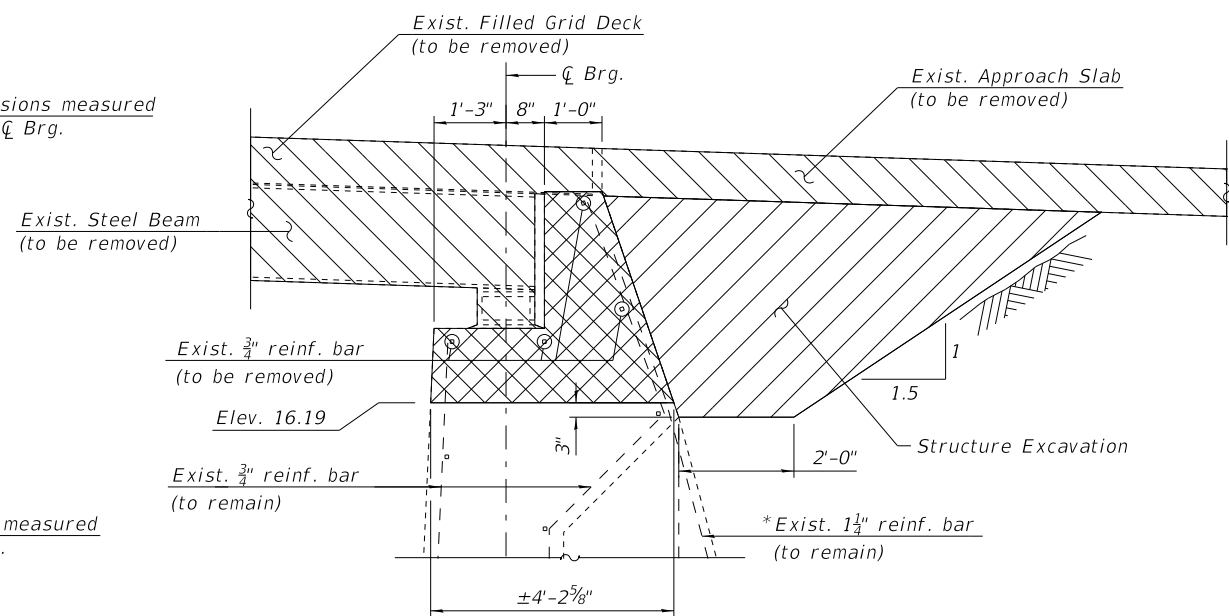
ELEVATION

NOTES:

1. The elevations and limits of the existing abutment presented on this sheet have been taken from historical design drawings and may not represent "as-built" conditions. All existing structure elevations and limits shall be field-verified by the Contractor, and coordinated with the Engineer, prior to ordering materials, fabrication and construction of proposed abutment modification.
2. Quantities and limits shown are estimated for bidding purposes only. The actual areas to be repaired, and the type(s) of repairs to be used, will be determined by the Engineer in the field at the time of construction.
3. It shall be the Contractor's responsibility to temporarily support, relocate and re-install existing utilities interfering with the work.
4. For Bill of Material, see Sheet S-95.
5. For removal of existing filled grid deck, structural steel removal and approach slab/sidewalk removal, see Removal Sheets.

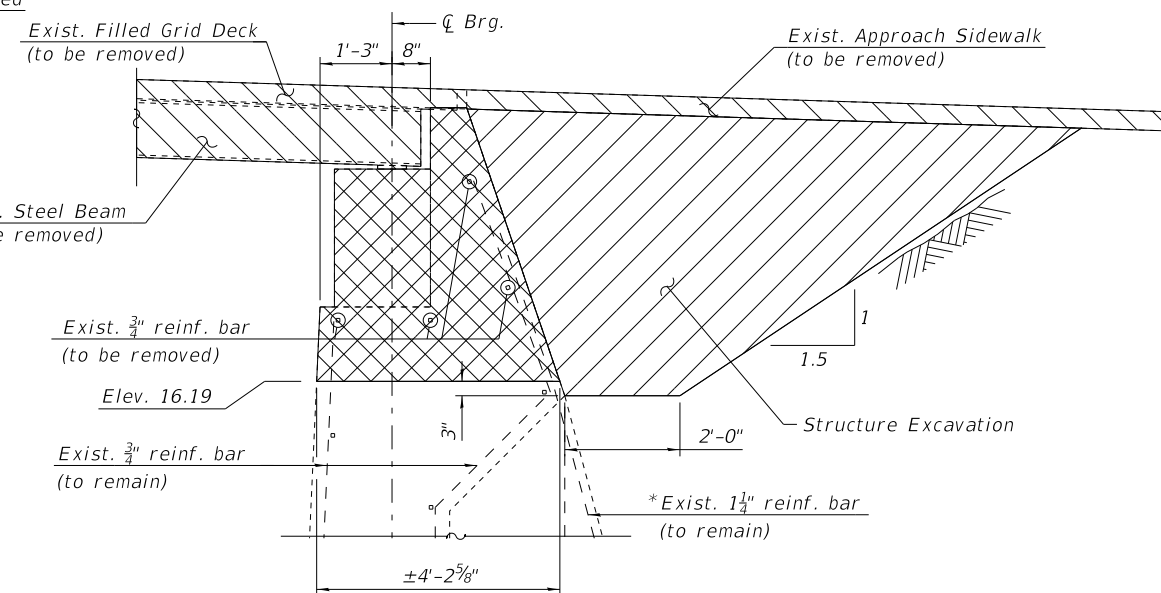


STRUCTURAL REPAIR OF CONCRETE



SECTION A-A

*Existing Reinforcement to be incorporated into new construction. Bend and cut as required.



SECTION B-B

LEGEND:

- Structural Repair of Concrete (Depth Equal to or Less than 5 inches)
- Fixed Span Superstructure Removal and Approach Slab Removal
- Structure Excavation
- Concrete Removal
- Epoxy Crack Injection
- SF Square Foot
- LF Linear Foot

REFERENCE DRAWINGS

Drawing
General Layout of Substructure

Sheet No.
1660570044

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| | | |
|----------------------|----------------|-----------|
| USER NAME = | DESIGNED - KJD | REVISED - |
| | CHECKED - JJS | REVISED - |
| PLOT SCALE = N.T.S. | DRAWN - KJD | REVISED - |
| PLOT DATE = \$DATE\$ | CHECKED - JJS | REVISED - |

CITY OF CHICAGO
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**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**WEST ABUTMENT DETAILS I
(STRUCTURE NO. 016-6057)**

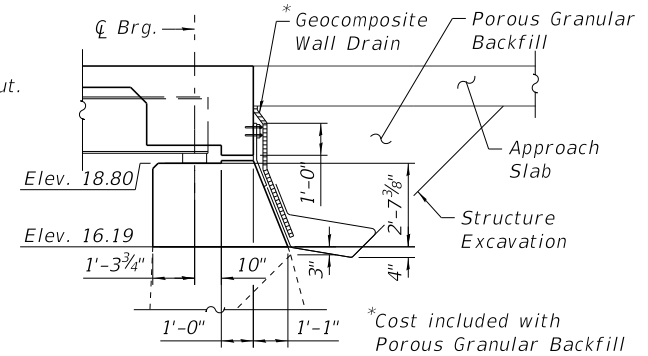
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | S-94 |
| CDOT PROJECT NO. E-1-525 | | | 137 of 210 |

BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|--|-----|-------|---------|-------|
| h60(E) | 8 | #6 | 7'-0" | |
| h61(E) | 27 | #5 | 3'-6" | |
| p60(E) | 18 | #7 | 34'-9" | |
| p61(E) | 4 | #7 | 32'-1" | |
| p62(E) | 4 | #7 | 9'-5" | |
| p63(E) | 4 | #7 | 11'-9" | |
| p64(E) | 1 | #6 | 6'-9" | |
| p65(E) | 1 | #6 | 9'-2" | |
| p66(E) | 8 | #7 | 6'-11" | |
| s60(E) | 45 | #5 | 12'-5" | |
| s61(E) | 8 | #5 | 13'-6" | |
| s62(E) | 10 | #5 | 14'-2" | |
| s63(E) | 4 | #5 | 12'-3" | |
| s64(E) | 4 | #5 | 12'-11" | |
| s65(E) | 5 | #5 | 3'-5" | |
| s66(E) | 5 | #5 | 4'-9" | |
| v60(E) | 90 | #5 | 6'-0" | |
| v61(E) | 22 | #5 | 6'-7" | |
| v62(E) | 26 | #5 | 6'-11" | |
| v63(E) | 5 | #5 | 5'-11" | |
| v64(E) | 10 | #5 | 6'-4" | |
| Porous Granular Backfill | | Cu Yd | 68 | |
| Concrete Removal | | Cu Yd | 25.9 | |
| Structure Excavation | | Cu Yd | 58 | |
| Reinforcement Bars, Epoxy Coated | | Pound | 4,030 | |
| Epoxy Crack Injection | | Foot | 12 | |
| High Performance Concrete Structures | | Cu Yd | 26.3 | |
| Structural Repair of Concrete (Depth Equal To Or Less Than 5 Inches) | | Sq Ft | 39 | |

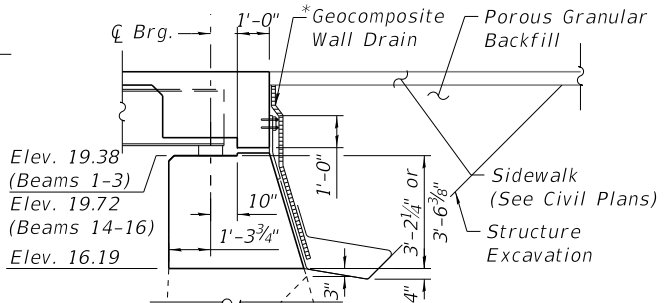
NOTES:

1. Bars indicated as 4x2-#7 etc. indicates 4 lines of bars with two lengths per line.
2. For diaphragm details, see Sheet S-16.



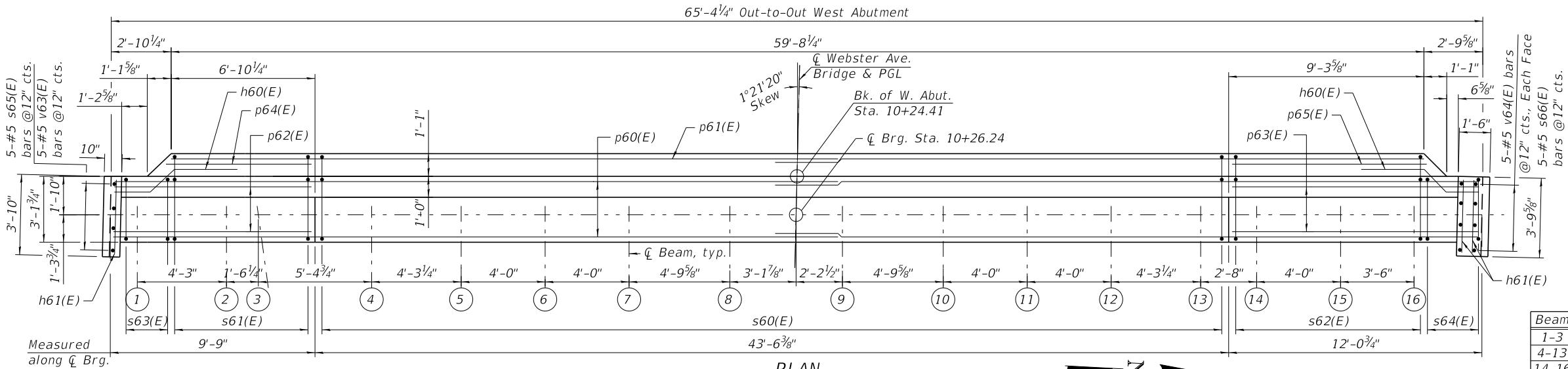
SECTION THRU WEST ABUT.

(At Roadway)

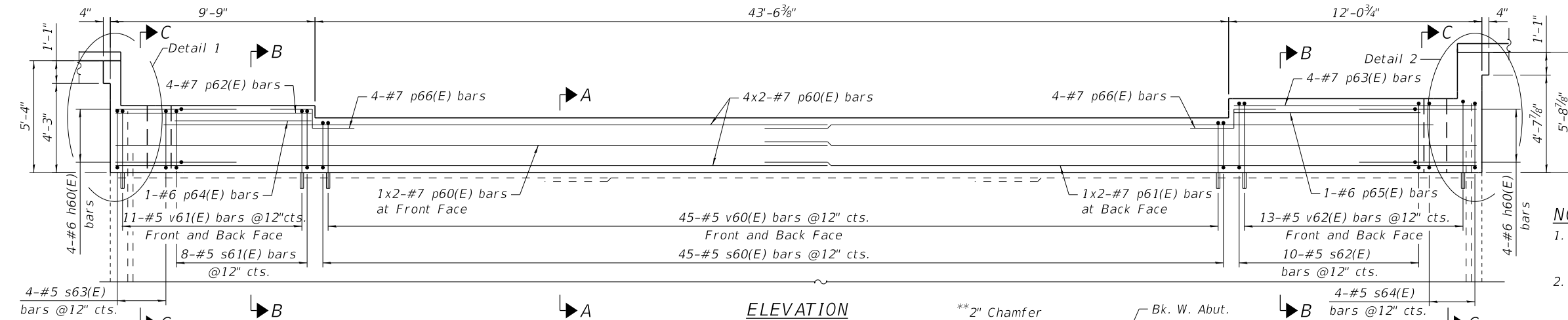


SECTION THRU WEST ABUT.

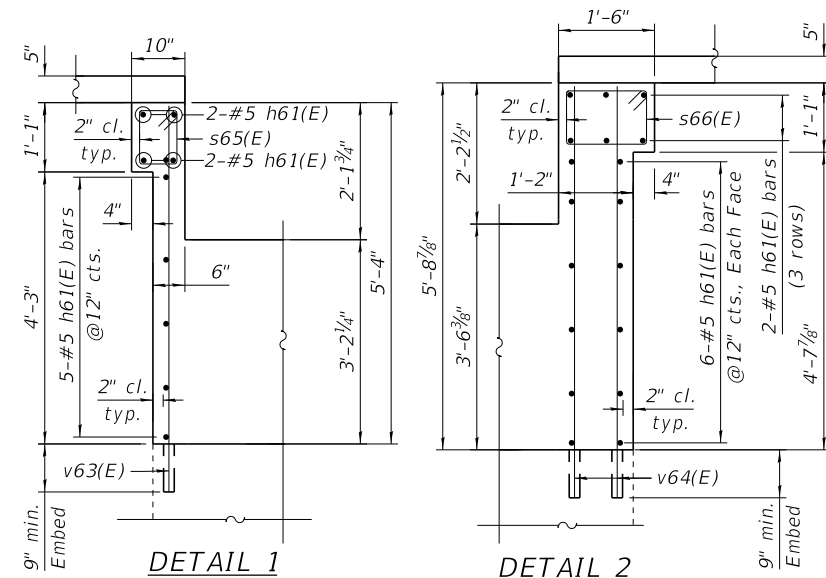
(At Sidewalks)



PLAN

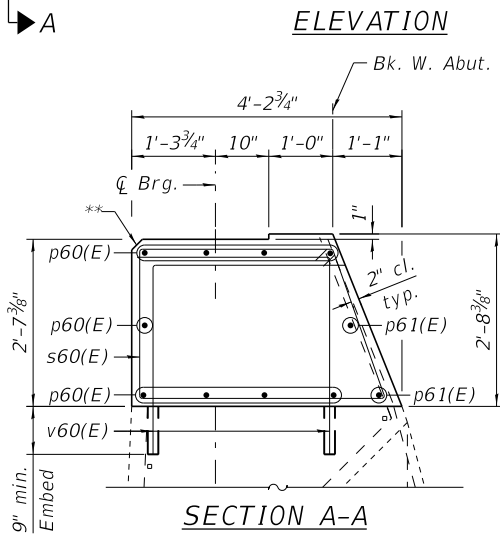


ELEVATION

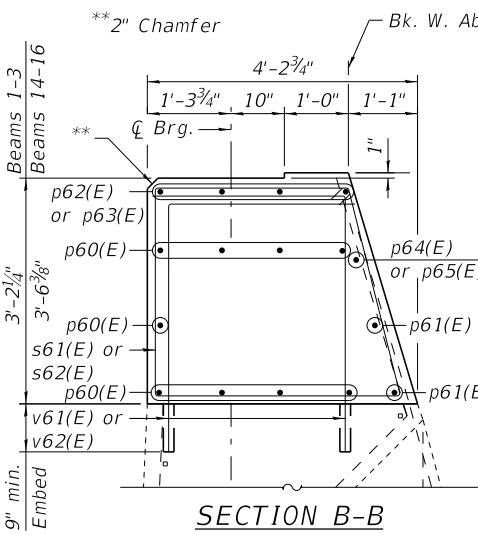


DETAIL 1

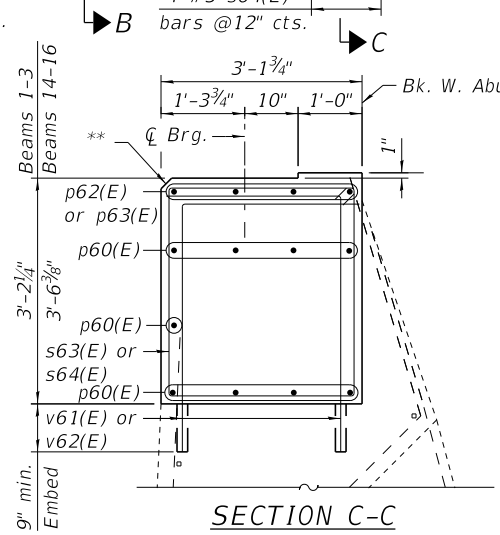
DETAIL 2



SECTION A-A



SECTION B-B



SECTION C-C

| Bar | A | B |
|--------|--------|-------|
| s60(E) | 2'-3" | 2'-6" |
| s61(E) | 2'-10" | 3'-0" |
| s62(E) | 3'-2" | 3'-4" |

| Bar | C | D |
|--------|--------|--------|
| s63(E) | 2'-10" | 2'-10" |
| s64(E) | 3'-2" | 2'-10" |
| s65(E) | 9" | 6" |
| s66(E) | 9" | 1'-2" |

BARS s63(E) thru s66(E)

BARS v60(E) thru v62(E)

| Bar | E |
|--------|-------|
| v60(E) | 3'-2" |
| v61(E) | 3'-9" |
| v62(E) | 4'-1" |

MINIMUM BAR LAP

- #5 bar = 3'-2"
- #6 bar = 3'-10"
- #7 bar = 4'-5"

REFERENCE DRAWINGS

Drawing General Layout of Substructure

Sheet No. 1660570044

HBM ENGINEERING GROUP, LLC

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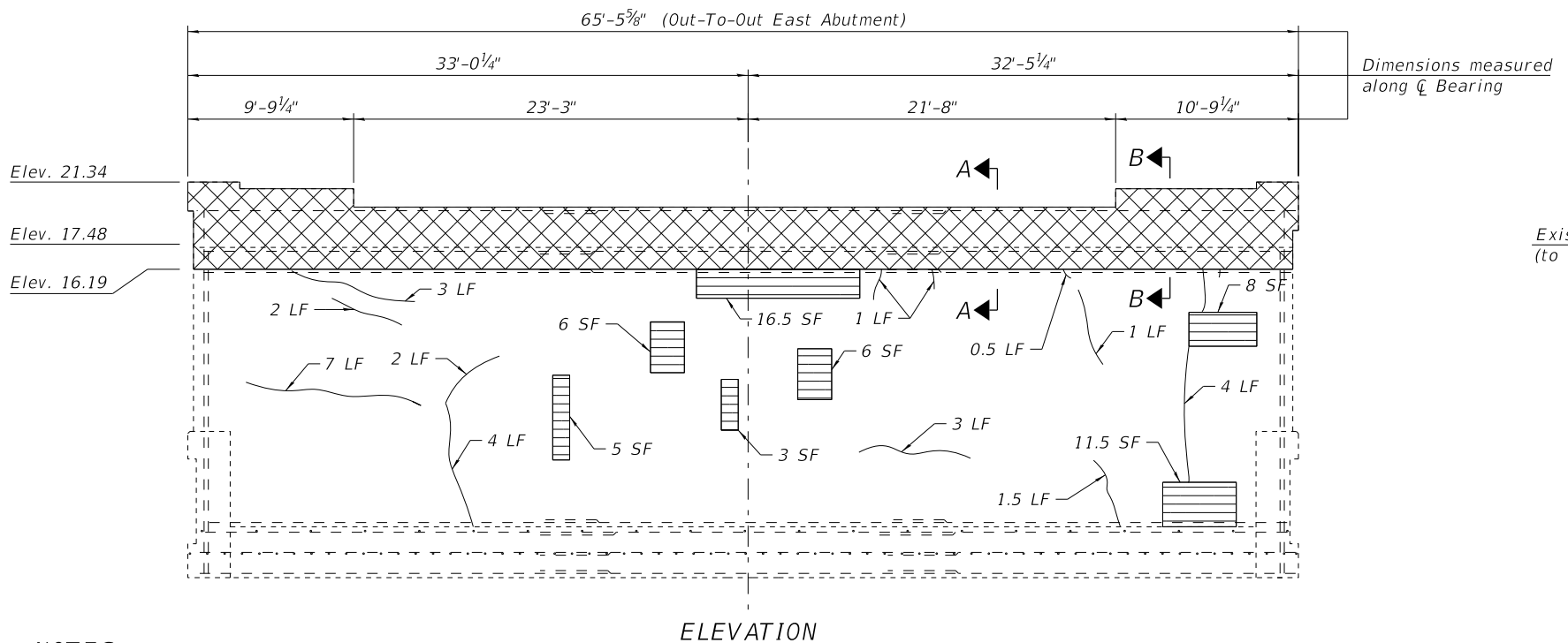
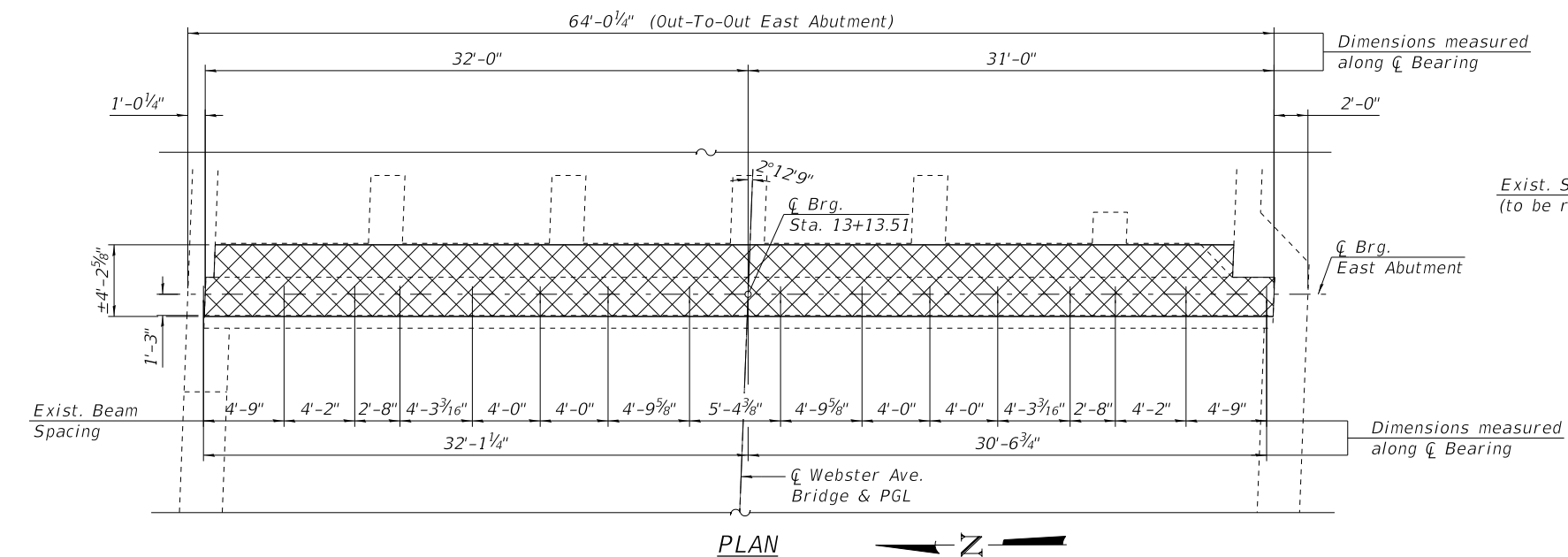
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| PLOT DATE = \$DATE\$ | DRAWN - KJD | REVISED - |
| | CHECKED - JJS | REVISED - |

CITY OF CHICAGO
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WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER

WEST ABUTMENT DETAILS II
(STRUCTURE NO. 016-6057)

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | S-95 |
| CDOT PROJECT NO. E-1-525 | | | 138 of 210 |

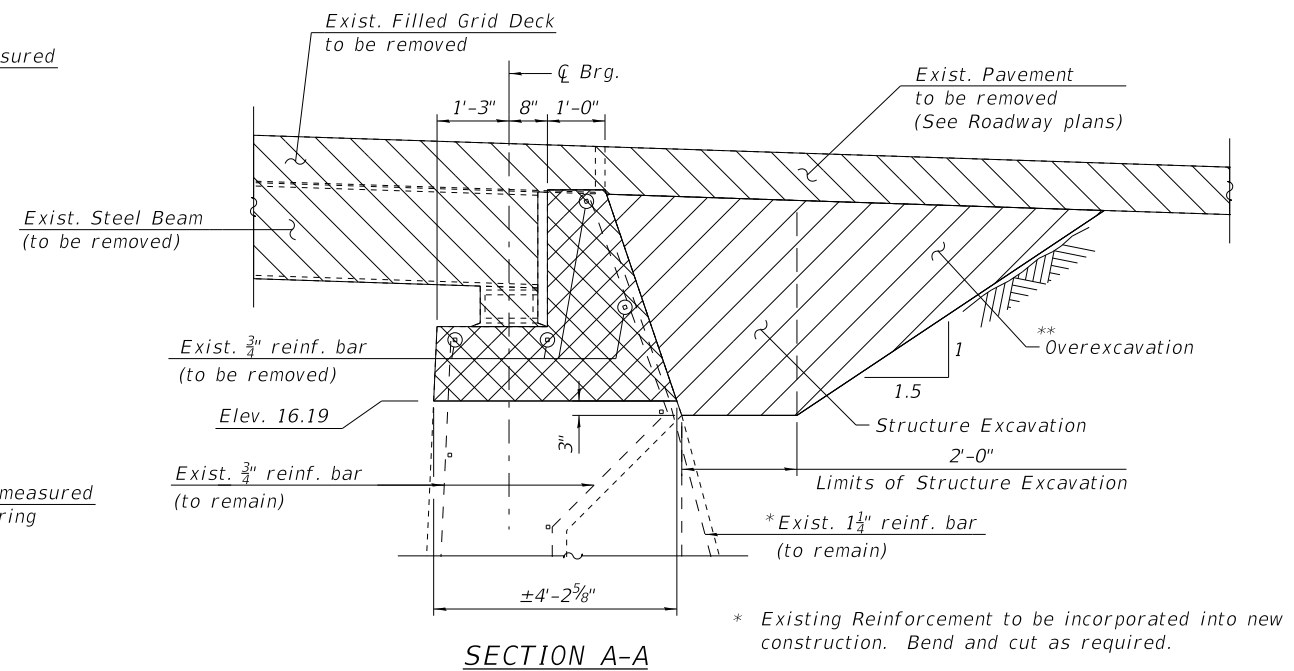
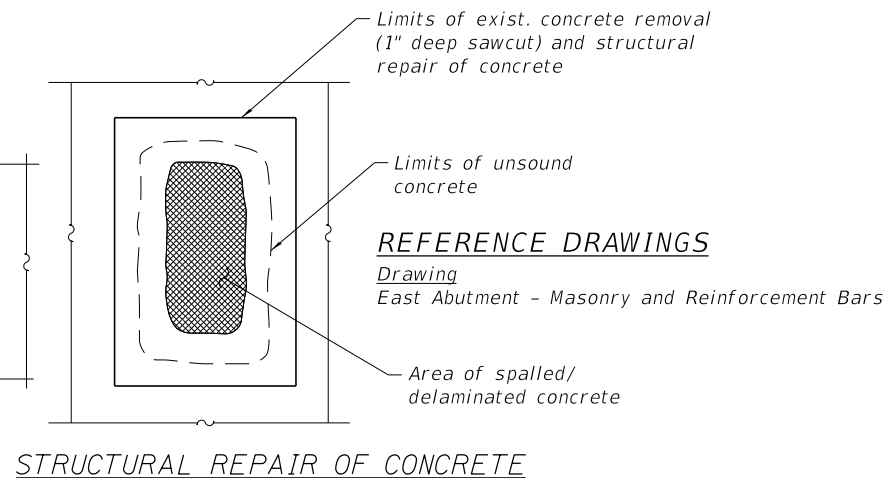


NOTES:

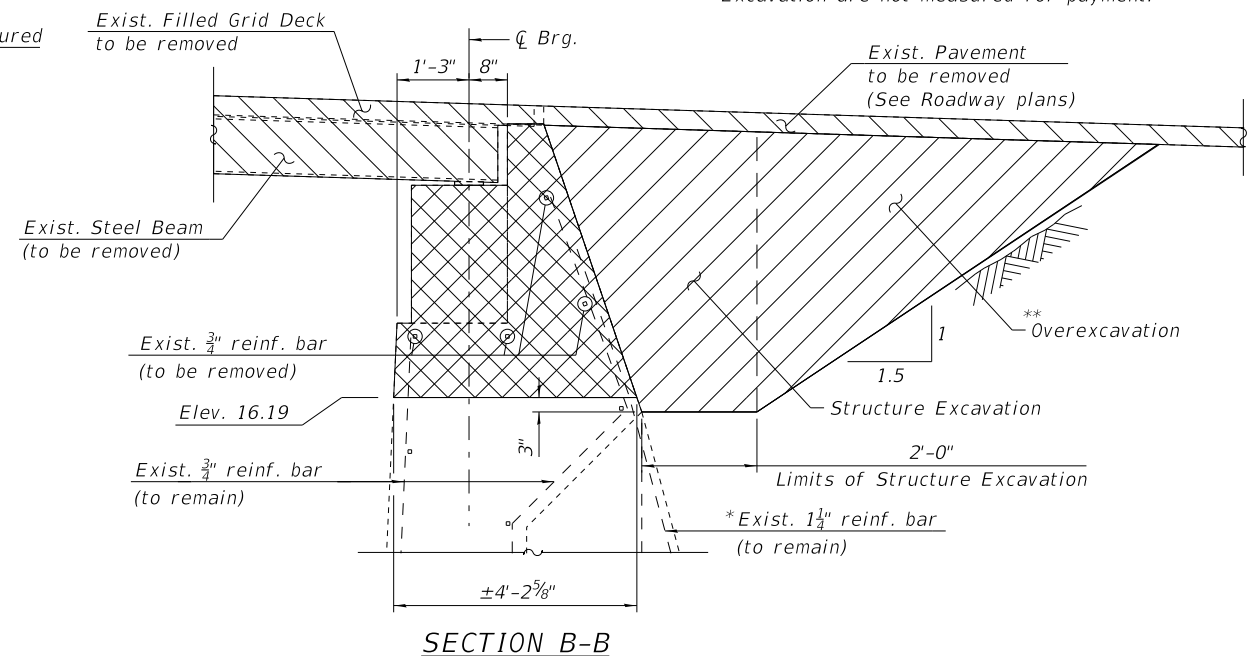
- The elevations and limits of the existing abutment presented on this sheet have been taken from historical design drawings and may not represent "as-built" conditions. All existing structure elevations and limits shall be field-verified by the Contractor, and coordinated with the Engineer, prior to ordering materials, fabrication and construction of proposed abutment modification.
- Quantities and limits shown are estimated for bidding purposes only. The actual areas to be repaired, and the type(s) of repairs to be used, will be determined by the Engineer in the field at the time of construction.
- It shall be the Contractor's responsibility to temporarily support, relocate and re-install existing utilities interfering with the work.
- For Bill of Material, see Sheet S-97.
- For removal of existing filled grid deck, structural steel removal and approach slab/sidewalk removal, see Removal Sheets.

Place top 3" of concrete after removal of formwork

Formwork



- * Existing Reinforcement to be incorporated into new construction. Bend and cut as required.
- ** Overexcavation beyond limits of Structure Excavation are not measured for payment.



LEGEND:

- Structural Repair of Concrete (Depth Equal to or Less than 5 inches)
- Fixed Span Superstructure Removal and Approach Slab Removal
- Structure Excavation
- Concrete Removal
- Epoxy Crack Injection
- SF Square Foot
- LF Linear Foot

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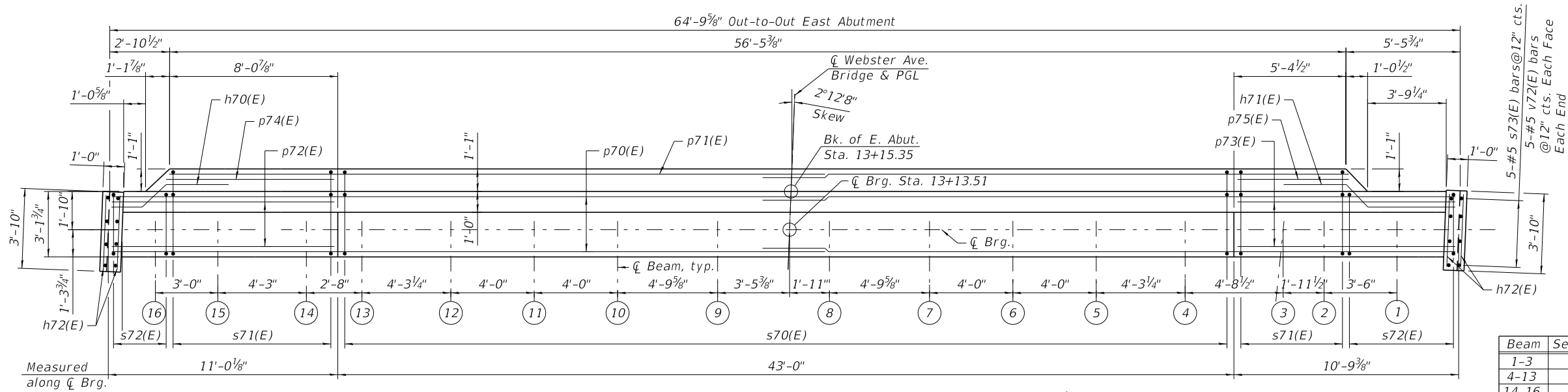
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CITY OF CHICAGO
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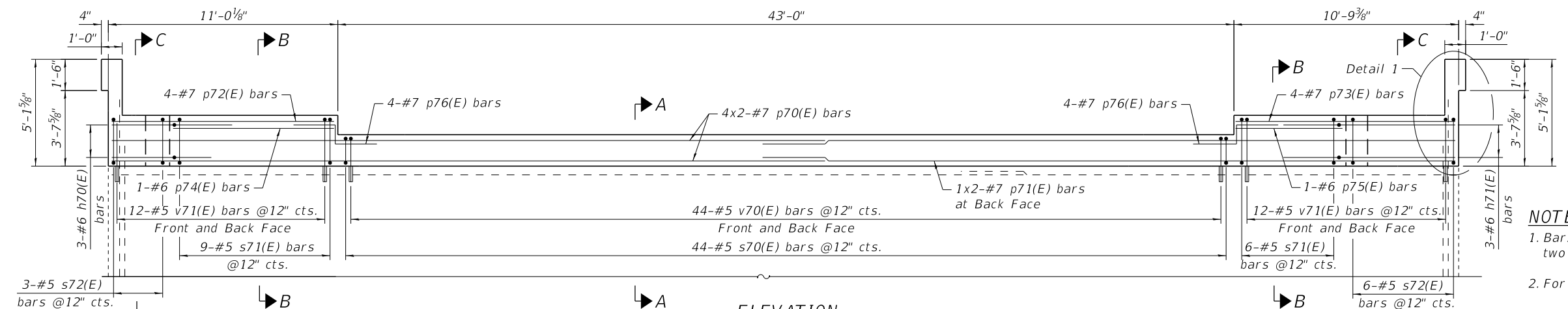
**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**EAST ABUTMENT DETAILS I
(STRUCTURE NO. 016-6057)**

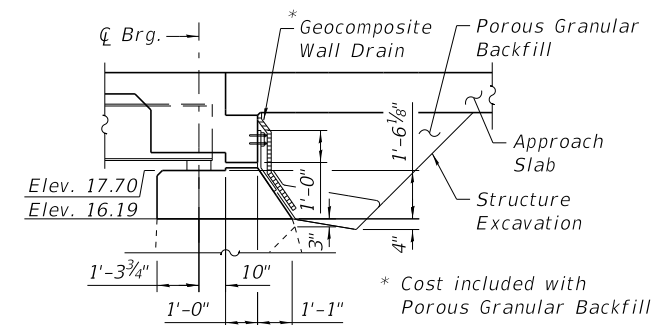
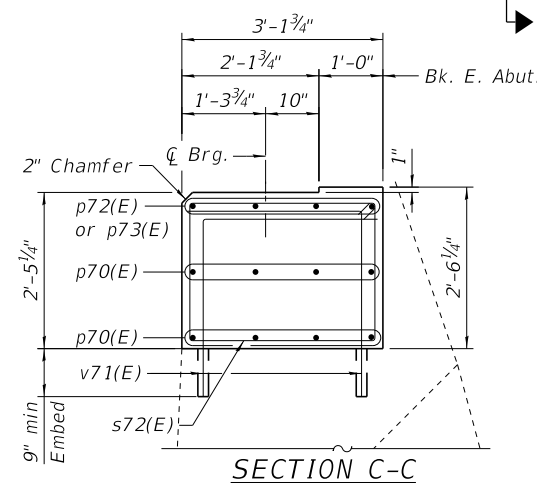
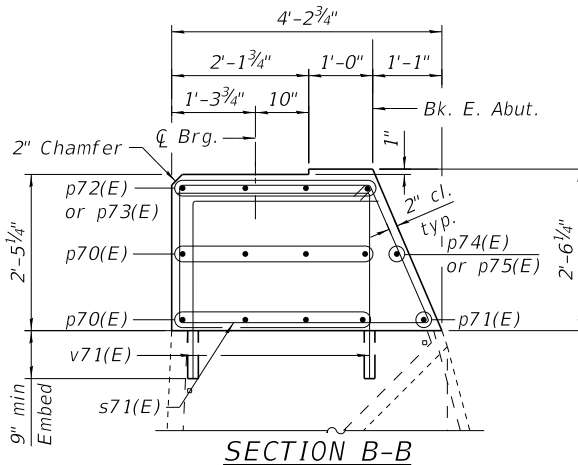
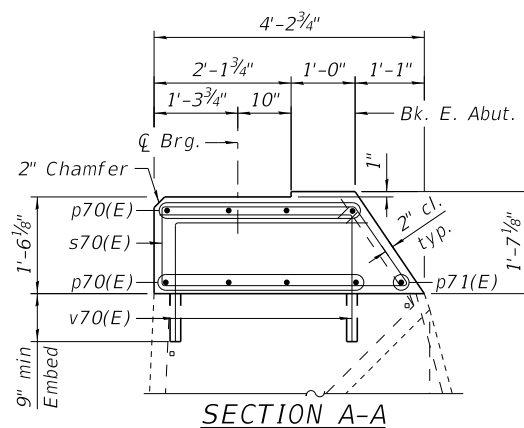
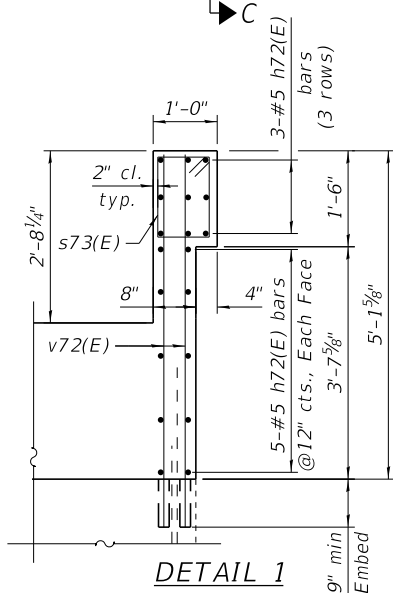
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | S-96 |
| CDOT PROJECT NO. E-1-525 | | | 139 of 210 |



PLAN

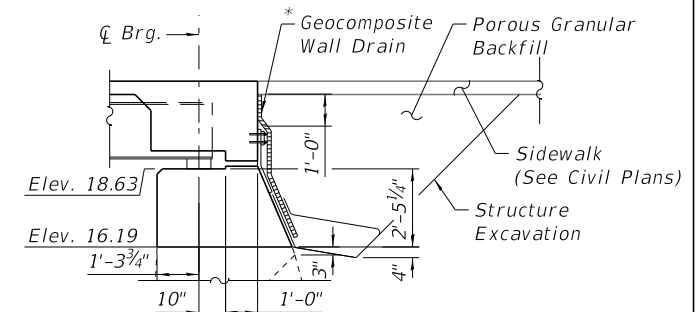


ELEVATION



SECTION THRU EAST ABUT.

(At Roadway)



SECTION THRU EAST ABUT.

(At Sidewalks)

REFERENCE DRAWINGS

Drawing East Abutment - Masonry and Reinforcement Bars
Sheet No. 1660570049

MINIMUM BAR LAP

#5 bar = 3'-2"
#6 bar = 3'-10"
#7 bar = 4'-5"

BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|--|-------|-------|--------|-------|
| h70(E) | 3 | #6 | 7'-0" | |
| h71(E) | 3 | #6 | 9'-8" | |
| h72(E) | 38 | #5 | 3'-6" | |
| p70(E) | 16 | #7 | 34'-6" | |
| p71(E) | 2 | #7 | 30'-4" | |
| p72(E) | 4 | #7 | 10'-8" | |
| p73(E) | 4 | #7 | 10'-5" | |
| p74(E) | 1 | #6 | 7'-10" | |
| p75(E) | 1 | #6 | 5'-2" | |
| p76(E) | 8 | #7 | 6'-11" | |
| s70(E) | 44 | #5 | 10'-5" | |
| s71(E) | 15 | #5 | 12'-1" | |
| s72(E) | 9 | #5 | 10'-9" | |
| s73(E) | 10 | #5 | 4'-7" | |
| v70(E) | 88 | #5 | 4'-11" | |
| v71(E) | 48 | #5 | 5'-10" | |
| v72(E) | 20 | #5 | 5'-9" | |
| Porous Granular Backfill | Cu Yd | 47 | | |
| Concrete Removal | Cu Yd | 26.3 | | |
| Structure Excavation | Cu Yd | 28 | | |
| Reinforcement Bars, Epoxy Coated | Pound | 3,460 | | |
| Epoxy Crack Injection | Foot | 32 | | |
| High Performance Concrete Structures | Cu Yd | 16.4 | | |
| Structural Repair of Concrete (Depth Equal To Or Less Than 5 Inches) | Sq Ft | 56 | | |

NOTES:

- Bars indicated as 4x2-#7 etc. indicates 4 lines of bars with two lengths per line.
- For diaphragm details, see Sheet S-22.

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|----------------------|----------------|-----------|
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| PLOT SCALE = N.T.S. | CHECKED - JJS | REVISED - |
| PLOT DATE = \$DATE\$ | DRAWN - KJD | REVISED - |
| | CHECKED - JJS | REVISED - |

CITY OF CHICAGO
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**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**EAST ABUTMENT DETAILS II
(STRUCTURE NO. 016-6057)**

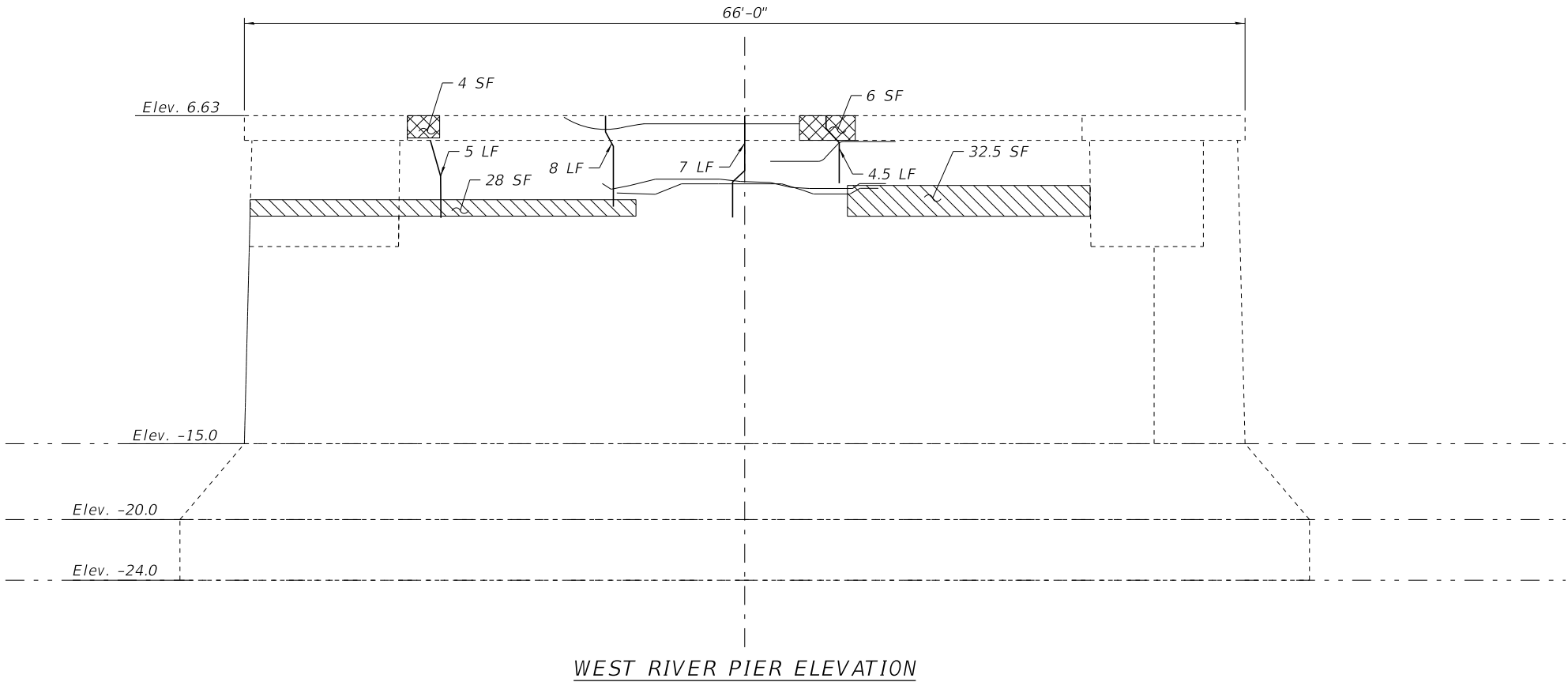
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | S-97 |
| CDOT PROJECT NO. E-1-525 | | | 140 of 210 |

NOTES:

1. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contactor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not because for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
2. The presented elevations and dimensions have been taken from historical design drawings and may not present "as-built" condition. All exisiting structure limits shall be field verified by the contractor and coordinated with the engineer prior to ordering materials, fabrication and construction of the proposed wall modification.
3. Exisiting Utilities in conflict with new construction shall be abandoned, protected or relocated according to directions given on roadway plans.

BILL OF MATERIAL

| Item | Unit | Quantity |
|--|---------|----------|
| Epoxy Crack Injection | Foot | 25 |
| Structural Repair of Concrete (Depth Equal To or Less Than 5 Inches) | Sq. Ft. | 61 |
| Structural Repair of Concrete (Depth Greater Than 5 Inches) | Sq. Ft. | 10 |







WEST RIVER PIER ELEVATION

REFERENCE DRAWINGS

Drawing
General Layout of Substructure
Main Piers
West Piers - Reinforcement Bars

Sheet No.
1660570044
1660570045
1660570046

LEGEND

-  - Structural Repair of Concrete (Depth Equal To or Less Than 5 Inches)
-  - Structural Repair of Concrete (Depth Greater Than 5 Inches)
-  - Epoxy Crack Injection
-  - Hairline Crack (HL) (Width <0.06") (For Information Only)
- SF - Square Foot
- LF - Linear Foot

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30 N. LA SALLE STREET

SUITE 4000

CHICAGO, IL 60602

TEL: (312) 782-8150

FAX: (312) 782-1684

| | | |
|----------------------|----------------|-----------|
| USER NAME = | DESIGNED - AMI | REVISED - |
| | CHECKED - MI | REVISED - |
| PLOT SCALE = N.T.S. | DRAWN - AMI | REVISED - |
| PLOT DATE = \$DATE\$ | CHECKED - MI | REVISED - |

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WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER

WEST RIVER PIER
REPAIR DETAILS
(STRUCTURE NO. 016-6057)

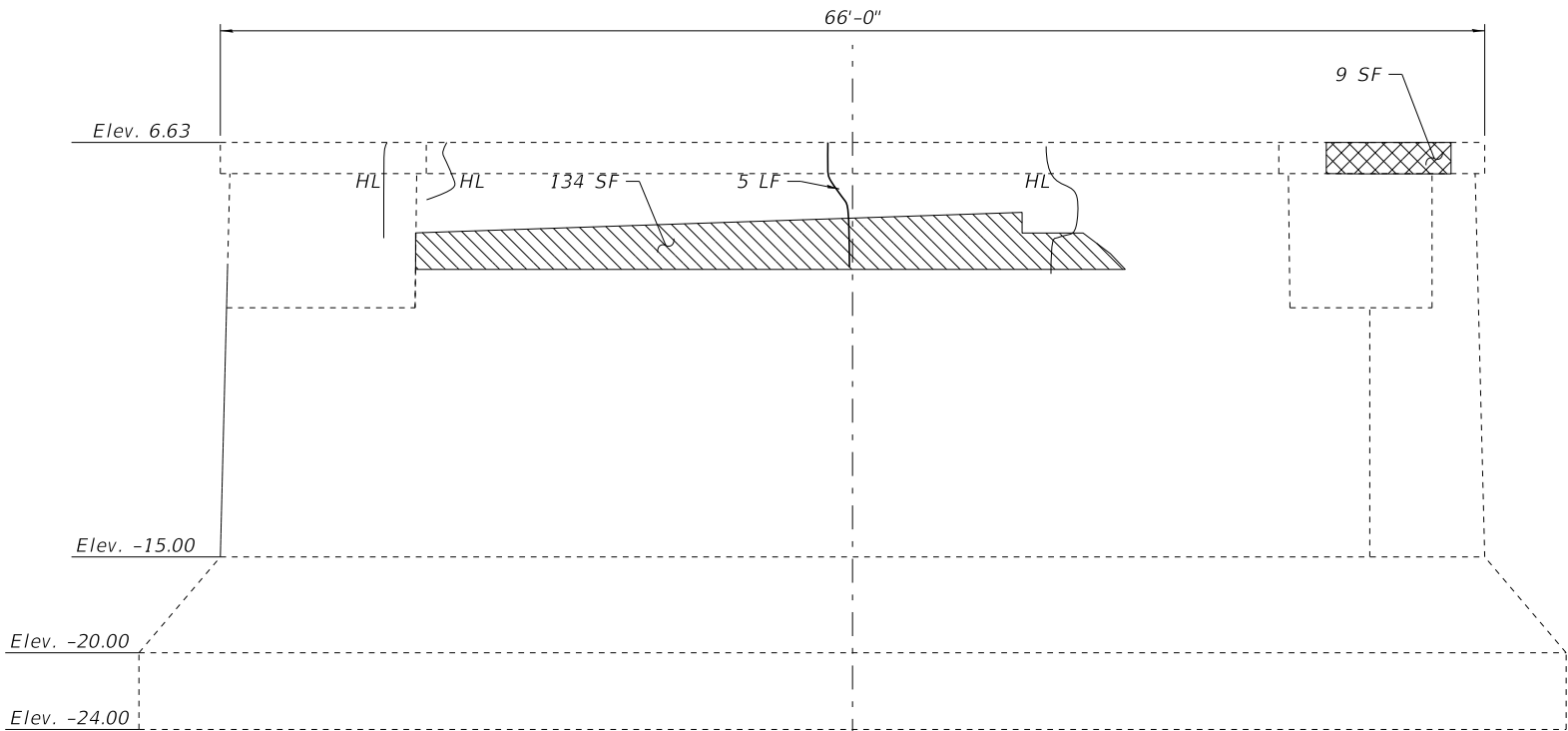
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | S-98 |
| CDOT PROJECT NO. E-1-525 | | | 141 of 210 |

NOTES:

1. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contactor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not because for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
2. The presented elevations and dimensions have been taken from historical design drawings and may not present "as-built" condition. All exisiting structure limits shall be field verified by the contractor and coordinated with the engineer prior to ordering materials, fabrication and construction of the proposed wall modification.
3. Exisiting Utilities in conflict with new construction shall be abandoned, protected or relocated according to directions given on roadway plans.

BILL OF MATERIAL

| Item | Unit | Quantity |
|--|---------|----------|
| Epoxy Crack Injection | Foot | 5 |
| Structural Repair of Concrete (Depth Equal To or Less Than 5 Inches) | Sq. Ft. | 134 |
| Structural Repair of Concrete (Depth Greater Than 5 Inches) | Sq. Ft. | 9 |



EAST RIVER PIER ELEVATION

REFERENCE DRAWINGS

Drawing
General Layout of Substructure
Main Piers
West Piers - Reinforcement Bars

Sheet No.
1660570044
1660570045
1660570046

LEGEND

- Structural Repair of Concrete (Depth Equal To or Less Than 5 Inches)
- Structural Repair of Concrete (Depth Greater Than 5 Inches)
- Epoxy Crack Injection
- Hairline Crack (HL) (Width <0.06") (For Information Only)
- SF

- Square Foot
- LF

- Linear Foot

HBMENGINEERING GROUP, LLC

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TEL: (312) 782-8150
FAX: (312) 782-1684

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| USER NAME = | DESIGNED - AMI | REVISED - |
| | CHECKED - MI | REVISED - |
| PLOT SCALE = N.T.S. | DRAWN - AMI | REVISED - |
| PLOT DATE = \$DATE\$ | CHECKED - MI | REVISED - |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER

EAST RIVER PIER
REPAIR DETAILS
(STRUCTURE NO. 016-6057)

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | S-99 |
| CDOT PROJECT NO. E-1-525 | | | 142 of 210 |

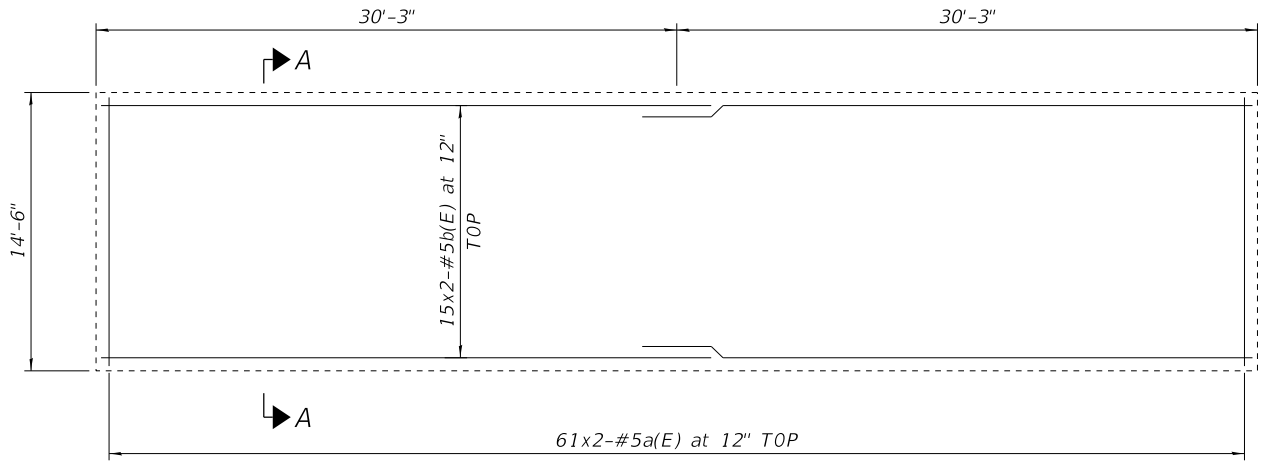
BILL OF MATERIAL
WEST FIXED SPAN

| Bar | No. | Size | Length | Shape |
|-----------------------------------|-----|------|--------|-------|
| a(E) | 61 | #5 | 14'-2" | ———— |
| b(E) | 15 | #5 | 30'-7" | ———— |
| POROUS GRANULAR BACKFILL | | | CU YD | 130 |
| CLASS SI CONCRETE (MISCELLANEOUS) | | | CU YD | 16.3 |
| METAL LADDER | | | EACH | 2 |

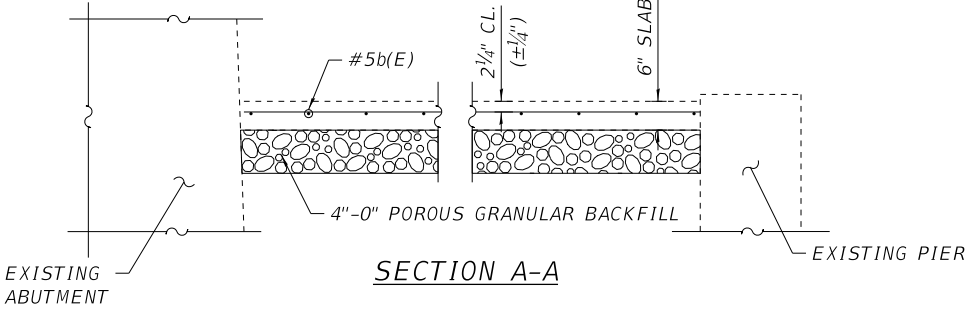
BILL OF MATERIAL
EAST FIXED SPAN

| Bar | No. | Size | Length | Shape |
|-----------------------------------|-----|------|--------|-------|
| a(E) | 61 | #5 | 14'-2" | ———— |
| b(E) | 15 | #5 | 30'-7" | ———— |
| POROUS GRANULAR BACKFILL | | | CU YD | 130 |
| CLASS SI CONCRETE (MISCELLANEOUS) | | | CU YD | 16.3 |
| METAL LADDER | | | EACH | 2 |

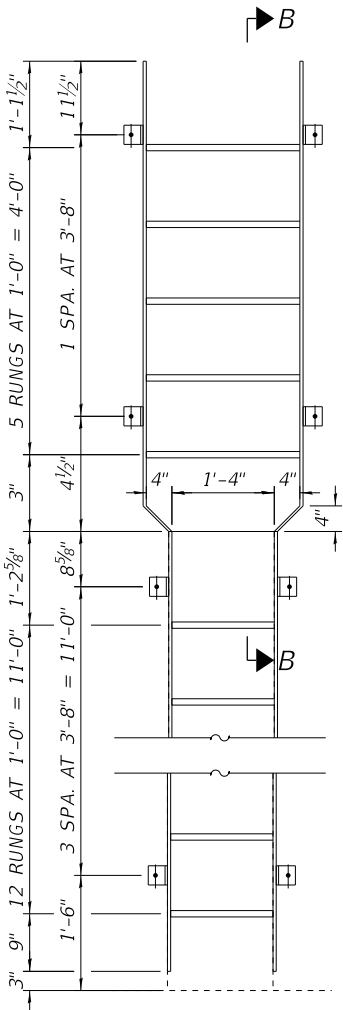
Note: Cost of Reinforcement bars, Epoxy Coated included with Class SI Concrete (Miscellaneous).



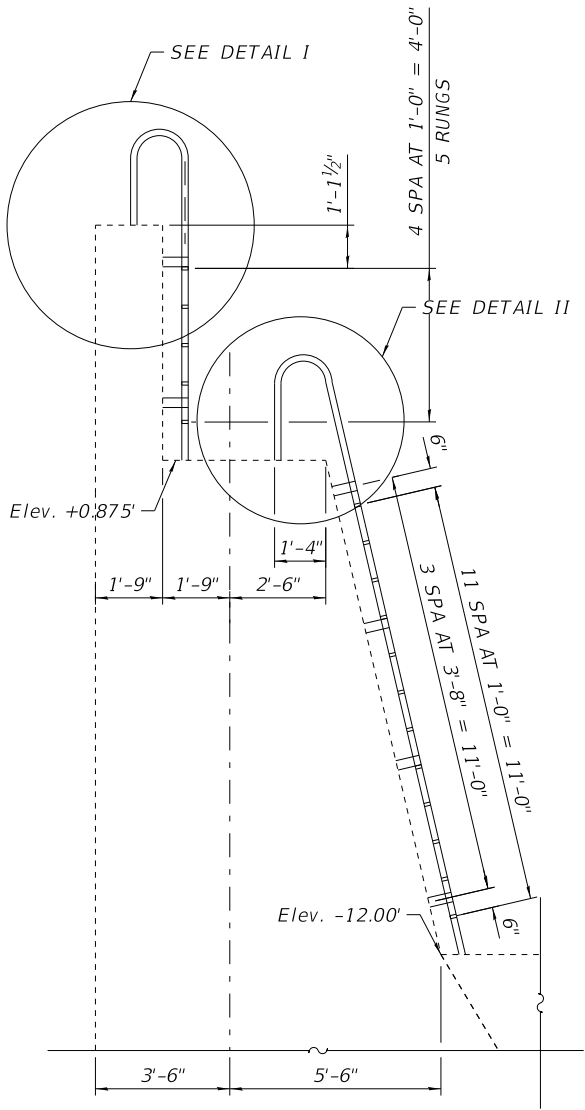
EAST AND WEST PLAN-PIT ACCESS SLAB



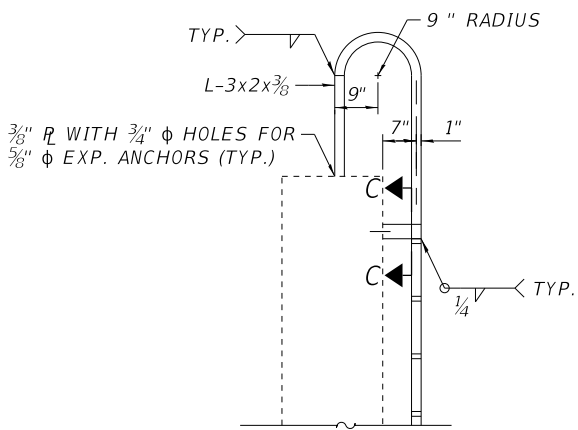
SECTION A-A



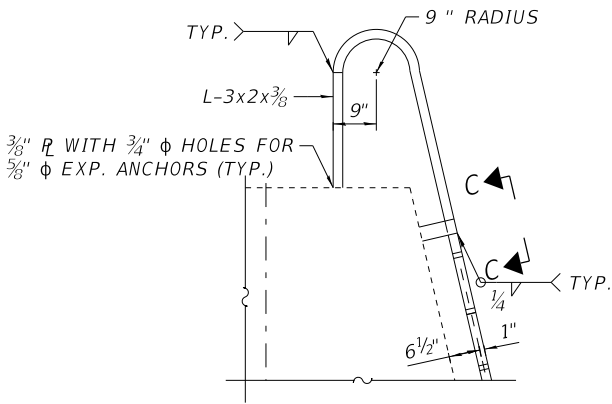
LADDER ELEVATION-DETAILS



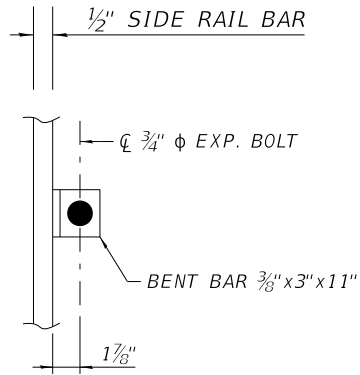
SECTION B-B



DETAIL I



DETAIL II



SECTION C-C

NOTE:

- After removal of existing access slab, the Contactor shall field verify POROUS GRANUAL BACKFILL amount needed and make necessary approved adjustments prior to construction of proposed access slab or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

REFERENCE DRAWINGS

| | |
|--|------------|
| Drawing | Sheet No. |
| General Layout of Substructure | 1660570044 |
| Main Piers | 1660570045 |
| West Piers - Reinforcement Bars | 1660570046 |
| East Piers - Reinforcement Bars and Bar Tables | 1660570047 |

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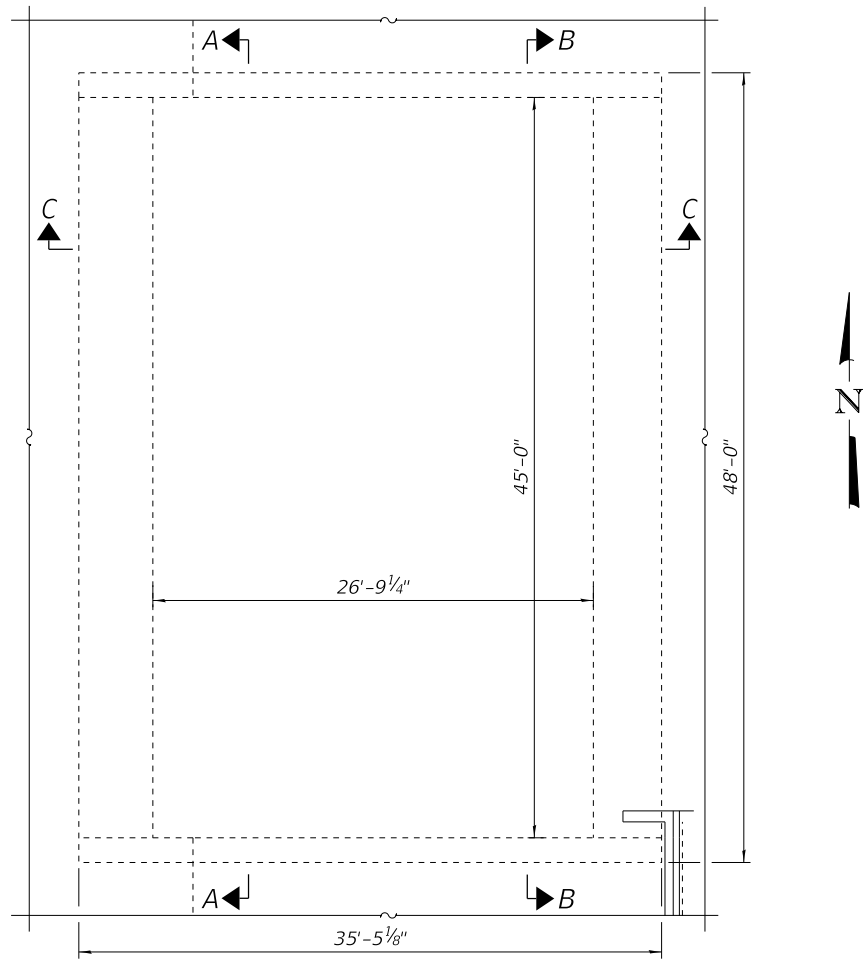
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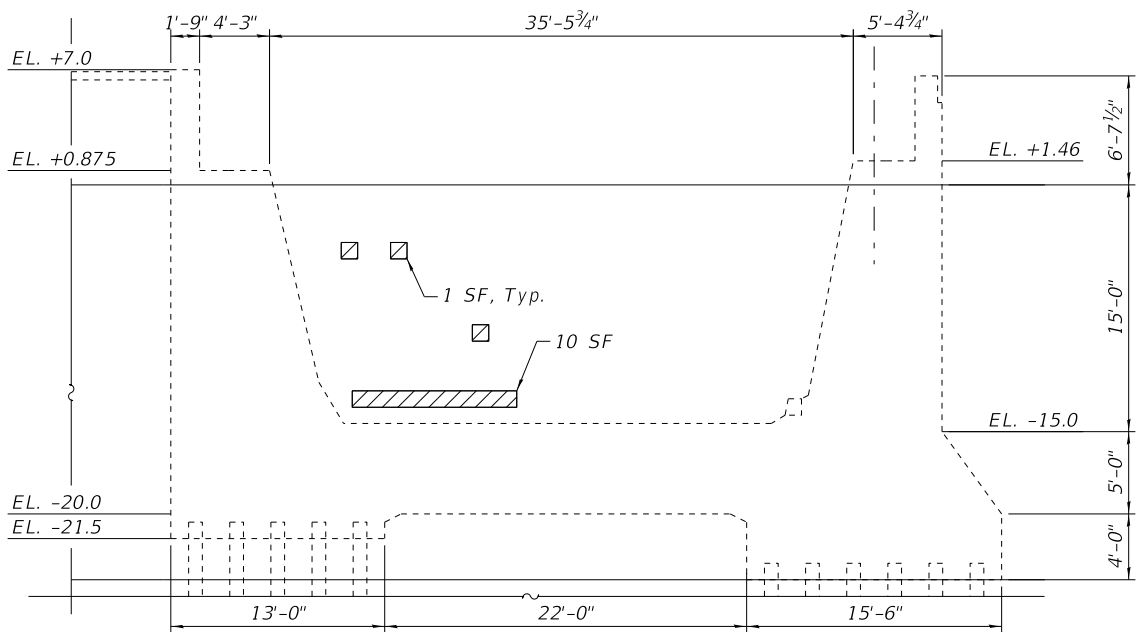
**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**PLATFORM AND LADDER DETAILS
WEST AND EAST FIXED SPANS
(STRUCTURE NO. 016-6057)**

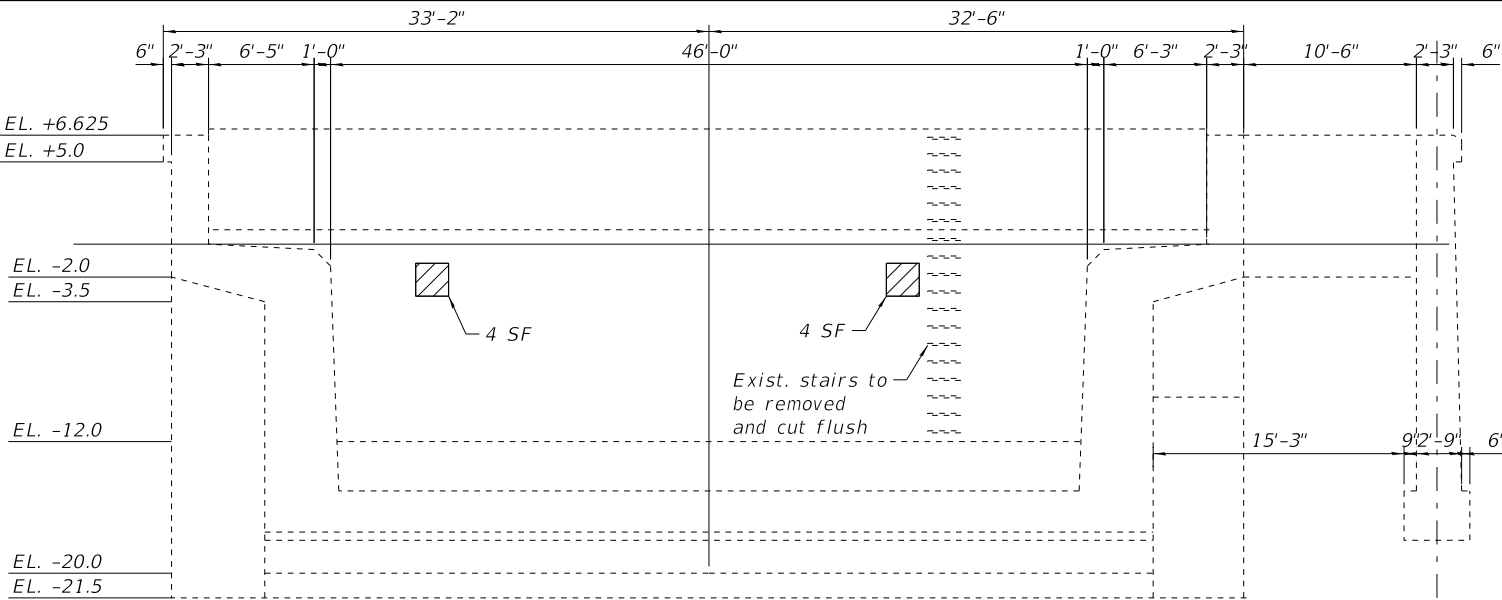
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | S-100 |
| CDOT PROJECT NO. E-1-525 | | | 143 of 210 |



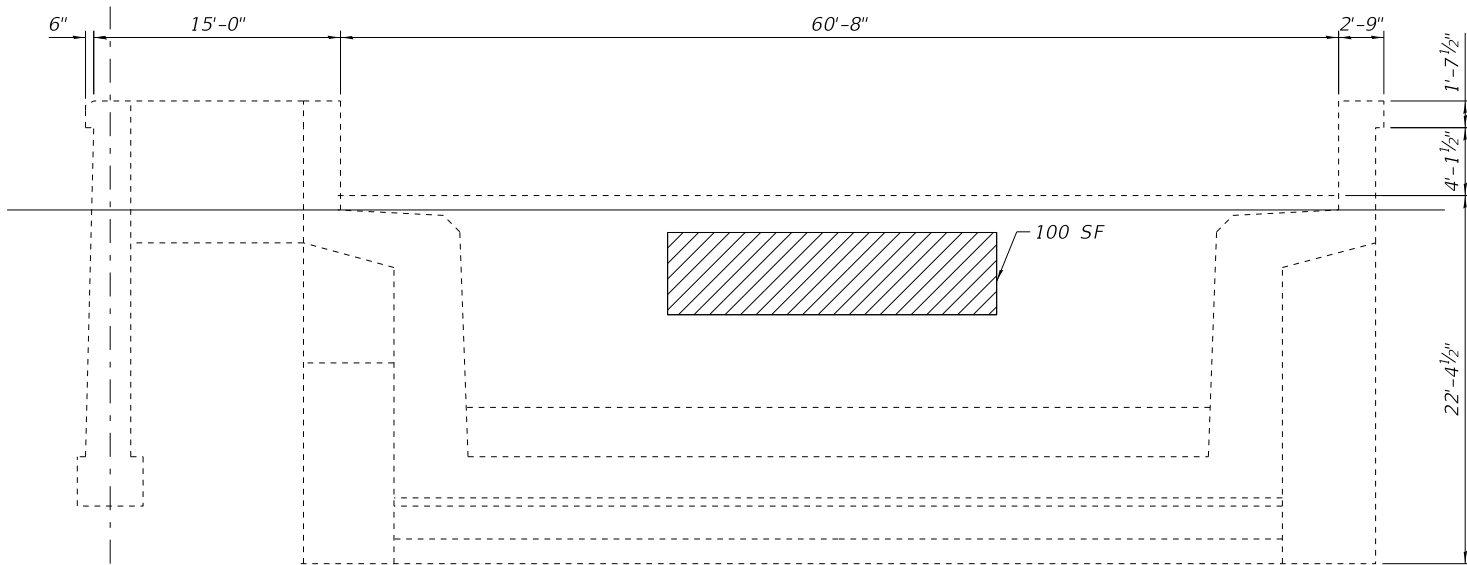
PLAN
WEST COUNTERWEIGHT PIT



SECTION C-C



SECTION A-A



SECTION B-B

BILL OF MATERIAL


| ITEM | UNIT | TOTAL QUANTITY |
|--|---------|----------------|
| Structural Repair of Concrete (Depth Equal to or Less than 5 Inches) | Sq. Ft. | 121 |

REFERENCE DRAWINGS

Drawing
General Layout of Substructure
Main Piers
West Piers - Reinforcement Bars

Sheet No.
1660570044
1660570045
1660570046

LEGEND:

-  Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)
- SF Square Foot
- LF Linear Foot

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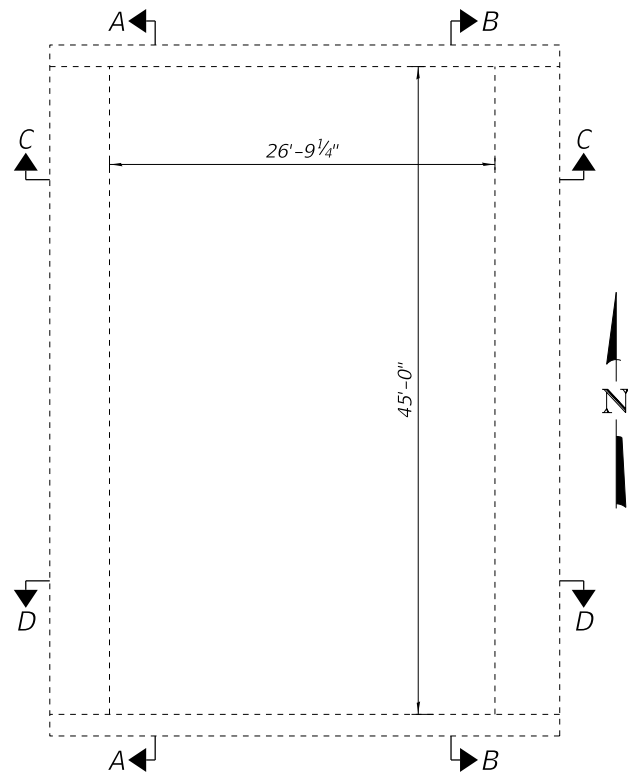
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| PLOT DATE = \$DATE\$ | CHECKED - MAA | REVISED - |

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DIVISION OF ENGINEERING

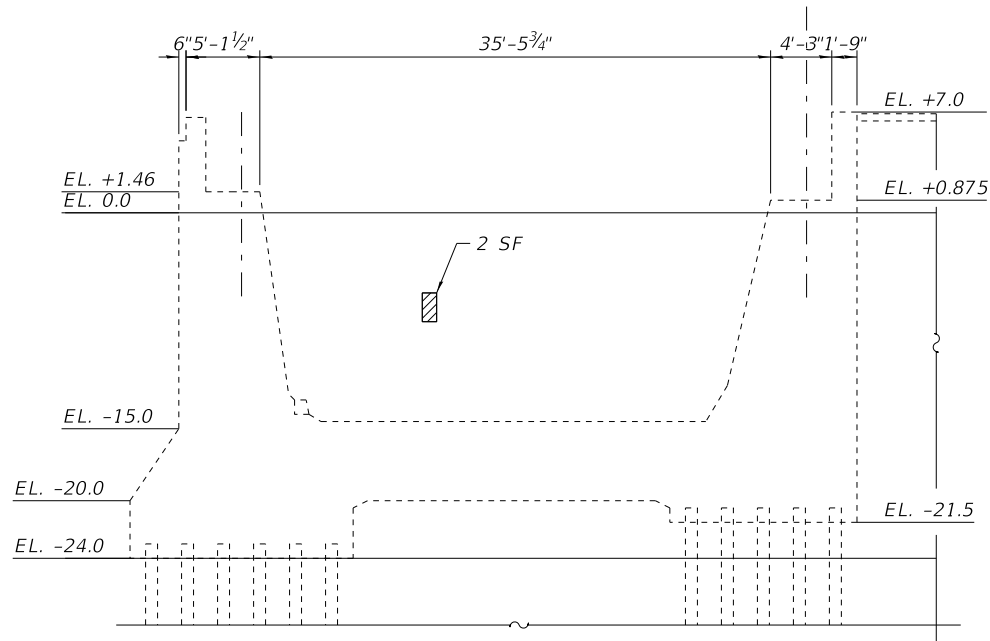
**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**WEST PIT REPAIR DETAILS
(STRUCTURE NO. 016-6057)**

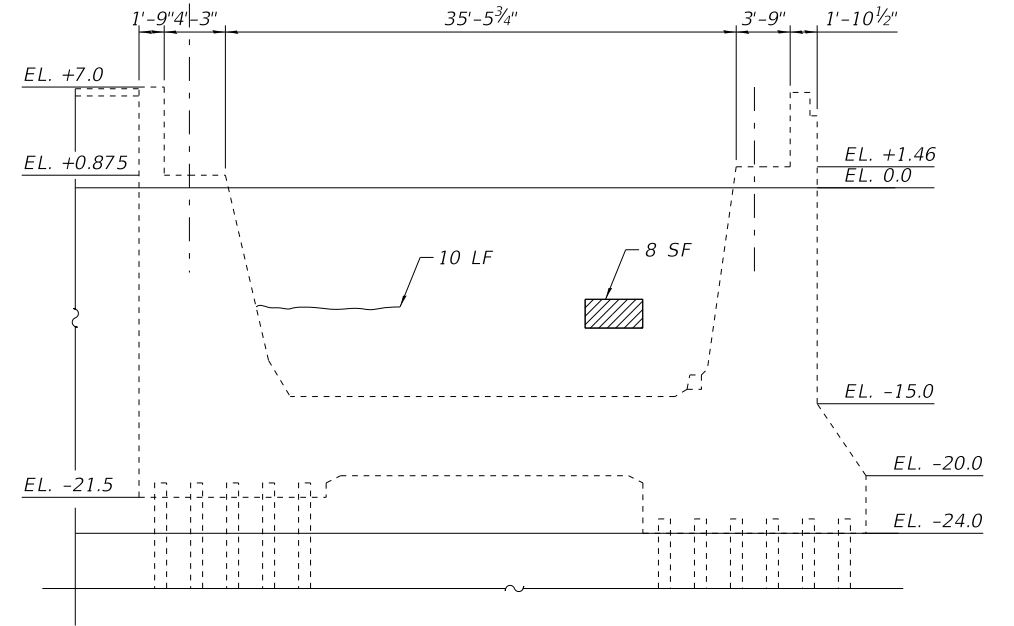
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | S-101 |
| CDOT PROJECT NO. E-1-525 | | | 144 of 210 |



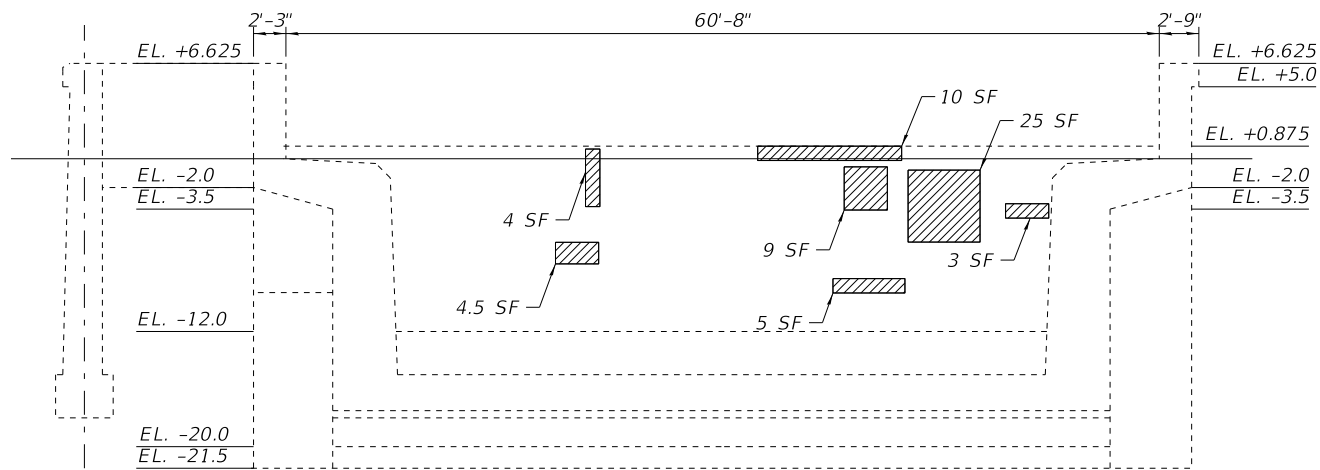
PLAN
EAST COUNTERWEIGHT PIT



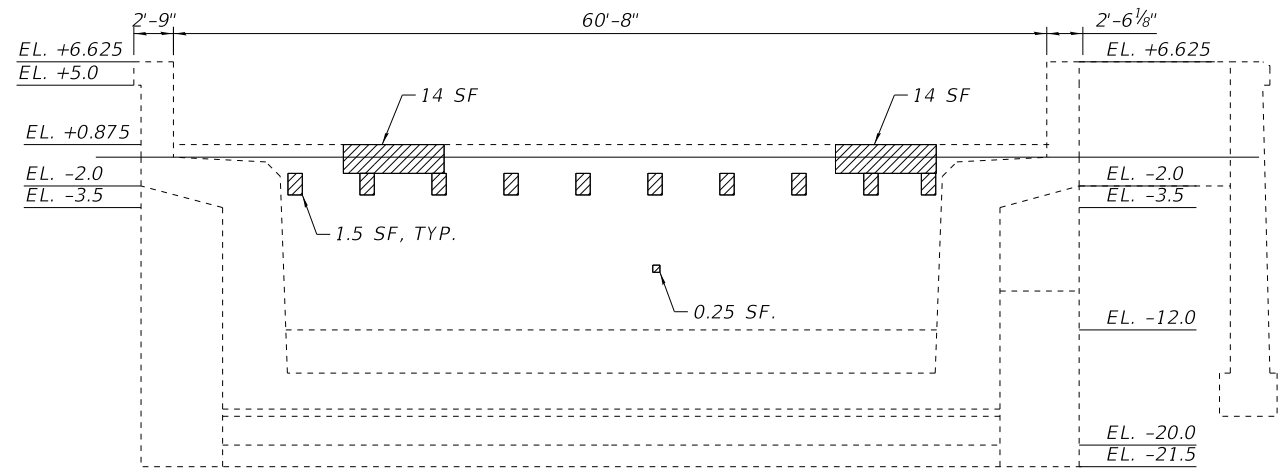
SECTION C-C



SECTION D-D



SECTION A-A



SECTION B-B

BILL OF MATERIAL

| ITEM | UNIT | TOTAL QUANTITY |
|--|---------|----------------|
| Epoxy Crack Injection | Foot | 10 |
| Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches) | Sq. Ft. | 114 |

REFERENCE DRAWINGS

Drawing
General Layout of Substructure
Main Piers
East Piers - Reinforcement Bars and Bar Tables

Sheet No.
1660570044
1660570045
1660570047

LEGEND:

- Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)
- Low Pressure Epoxy Injection
- SF Square Foot
- LF Linear Foot

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| PLOT DATE = \$DATE\$ | CHECKED - MAA | REVISED - |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**EAST PIT REPAIR DETAILS
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | S-102 |
| CDOT PROJECT NO. E-1-525 | | | 145 of 210 |



BILL OF MATERIAL

| Item | Unit | Quantity |
|--|---------|----------|
| Epoxy Crack Injection | Foot | 47 |
| Structural Repair of Concrete (Depth Equal To or Less Than 5 Inches) | Sq. Ft. | 38 |
| Structural Repair of Concrete (Depth Greater Than 5 Inches) | Sq. Ft. | 45.3 |

NOTES:





1. *Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.*
2. *The presented elevations and dimensions have been taken from historical design drawings and may not present "as-built" condition. All existing structure limits shall be field verified by the contractor and coordinated with the engineer prior to ordering materials, fabrication and construction of the proposed wall modification.*
3. *Existing Utilities in conflict with new construction shall be abandoned, protected or relocated according to directions given on roadway plans.*

REFERENCE DRAWINGS

Drawing
Survey Layout
General Layout of Substructure
East Approach - Retaining Wall Details and Reinforcement Bars

Sheet No.
1660570042
1660570044
1660570051

LEGEND

| | |
|---|--|
|  | - Structural Repair of Concrete (Depth Equal To or Less Than 5 Inches) |
|  | - Structural Repair of Concrete (Depth Greater Than 5 Inches) |
|  | - Epoxy Crack Injection |
|  | - Hairline Crack (HL) (Width <0.06") (For Information Only) |
| SF | - Square Foot |
| LF | - Linear Foot |



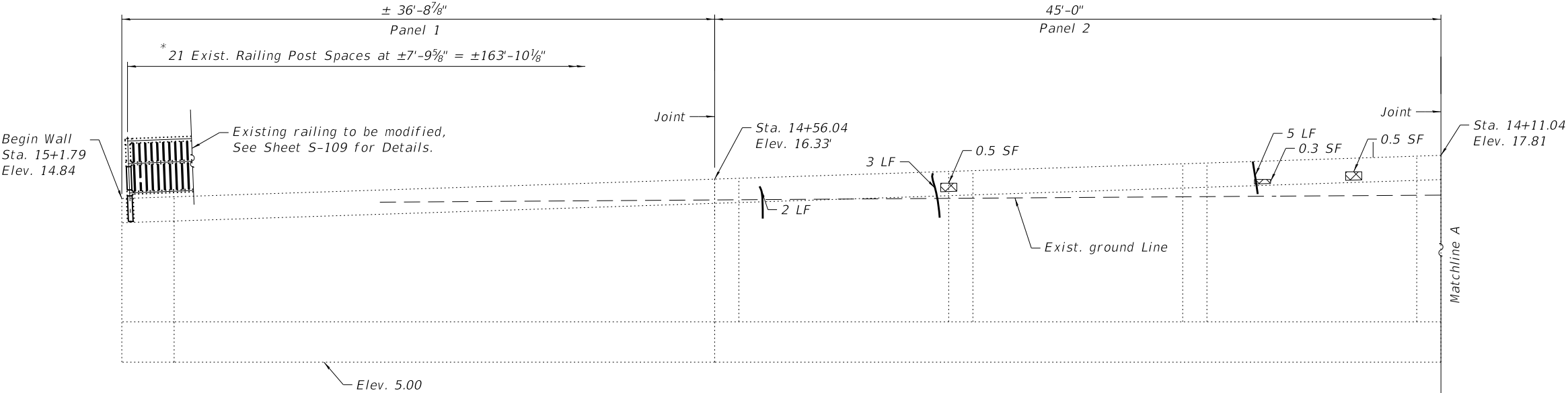
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| PLOT SCALE = N.T.S. | DRAWN - AMI | REVISED - |
| PLOT DATE = 10/5/2020 | CHECKED - MAA | REVISED - |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**NORTHEAST RETAINING WALL
PLAN AND ELEVATION I
(STRUCTURE NO. 016-6057)**

| | | | |
|--------------------------|----------------|--------|------------|
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
| 1388 | 11-E1525-00-BR | COOK | S-103 |
| CDOT PROJECT NO. E-1-525 | | | 146 of 210 |



ELEVATION

*Contractor shall determine/ verify the existing railing post spaces. See Sheets S-108 and S-109 for more details.

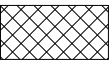

NOTE:

1. For notes, see Sheet S-103.

REFERENCE DRAWINGS

| | |
|---|------------|
| Drawing | Sheet No. |
| Survey Layout | 1660570042 |
| General Layout of Substructure | 1660570044 |
| East Approach - Retaining Wall Details and Reinforcement Bars | 1660570051 |

LEGEND

-  - Structural Repair of Concrete (Depth Greater Than 5 Inches)
-  - Epoxy Crack Injection
- SF - Square Foot
- LF - Linear Foot

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| | CHECKED - MI | REVISED - |
| PLOT SCALE = N.T.S. | DRAWN - AMI | REVISED - |
| PLOT DATE = 10/5/2020 | CHECKED - MAA | REVISED - |

CITY OF CHICAGO

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING

WEBSTER AVENUE BRIDGE OVER

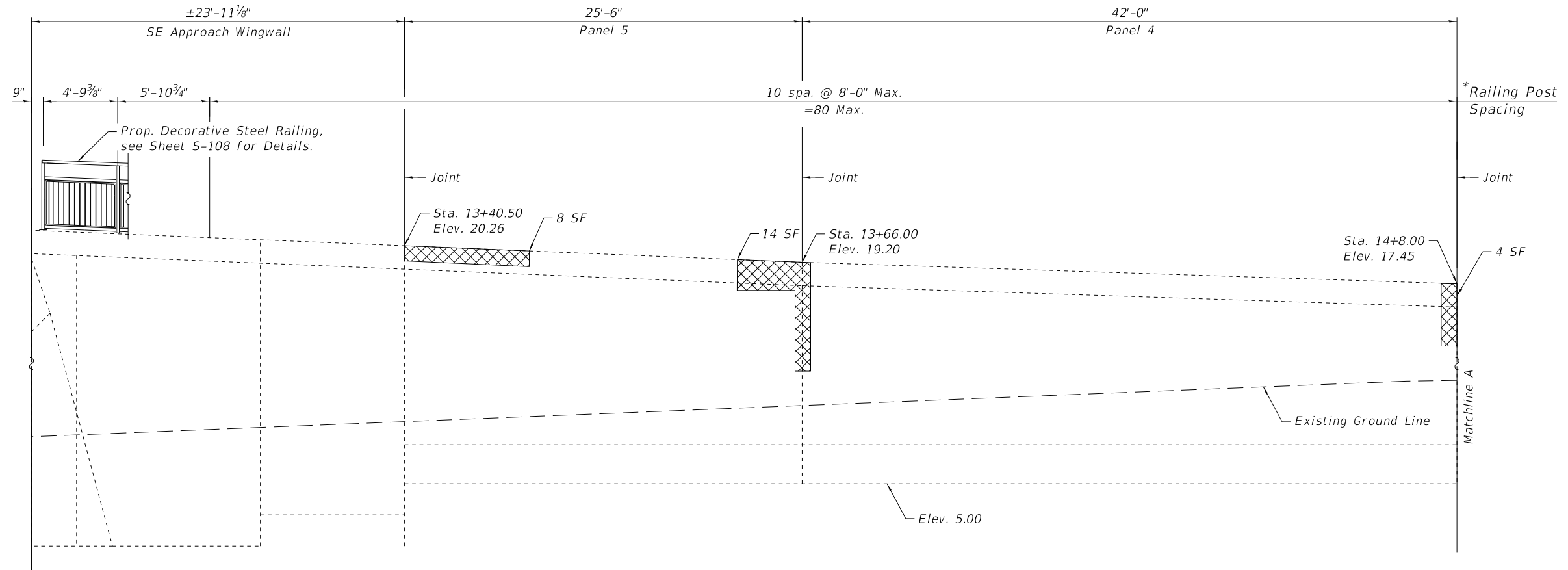
THE NORTH BRANCH CHICAGO RIVER

NORTHEAST RETAINING WALL

PLAN AND ELEVATION II

(STRUCTURE NO. 016-6057)

| | | | |
|--------------------------|----------------|--------|------------|
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
| 1388 | 11-E1525-00-BR | COOK | S-104 |
| CDOT PROJECT NO. E-1-525 | | | 147 of 210 |



ELEVATION

BILL OF MATERIAL

| Item | Unit | Quantity |
|--|---------|----------|
| Epoxy Crack Injection | Foot | 45 |
| Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches) | Sq. Ft. | 26 |
| Structural Repair of Concrete (Depth Greater Than 5 Inches) | Sq. Ft. | 34 |

*Contractor shall determine final post spacing. See Sheet S-108.

NOTE:

- For notes, see Sheet S-103.

LEGEND



- Structural Repair of Concrete (Depth Greater Than 5 Inches)

SF -Square Foot

REFERENCE DRAWINGS

Drawing
Survey Layout
General Layout of Substructure
East Approach - Retaining Wall Details and Reinforcement Bars

Sheet No.
1660570042
1660570044
1660570051

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| USER NAME = | DESIGNED - AMI | REVISED - |
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| PLOT SCALE = N.T.S. | DRAWN - AMI | REVISED - |
| PLOT DATE = \$DATE\$ | CHECKED - MAA | REVISED - |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**SOUTEAST RETAINING WALL
PLAN AND ELEVATION I
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | S-105 |
| CDOT PROJECT NO. E-1-525 | | | 148 of 210 |



REFERENCE DRAWINGS

LEGEND

— - Epoxy Crack Injection

SF - Square Foot

LF - Linear Foot

NOTE:

1. For notes, see Sheet S-103.



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| | CHECKED - MI | REVISED - |
| PLOT SCALE = N.T.S. | DRAWN - AMI | REVISED - |
| PLOT DATE = \$DATE\$ | CHECKED - MAA | REVISED - |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**SOUTHEAST RETAINING WALL
PLAN AND ELEVATION II
(STRUCTURE NO. 016-6057)**

| | | | |
|--------------------------|----------------|--------|------------|
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
| 1388 | 11-E1525-00-BR | COOK | S-106 |
| CDOT PROJECT NO. E-1-525 | | | 149 of 210 |




NOTE:

1. For notes, see Sheet S-103.

REFERENCE DRAWINGS

| <u>Drawing</u> | <u>Sheet No.</u> |
|---|------------------|
| Survey Layout | 1660570042 |
| General Layout of Substructure | 1660570044 |
| East Approach - Retaining Wall Details and Reinforcement Bars | 1660570051 |

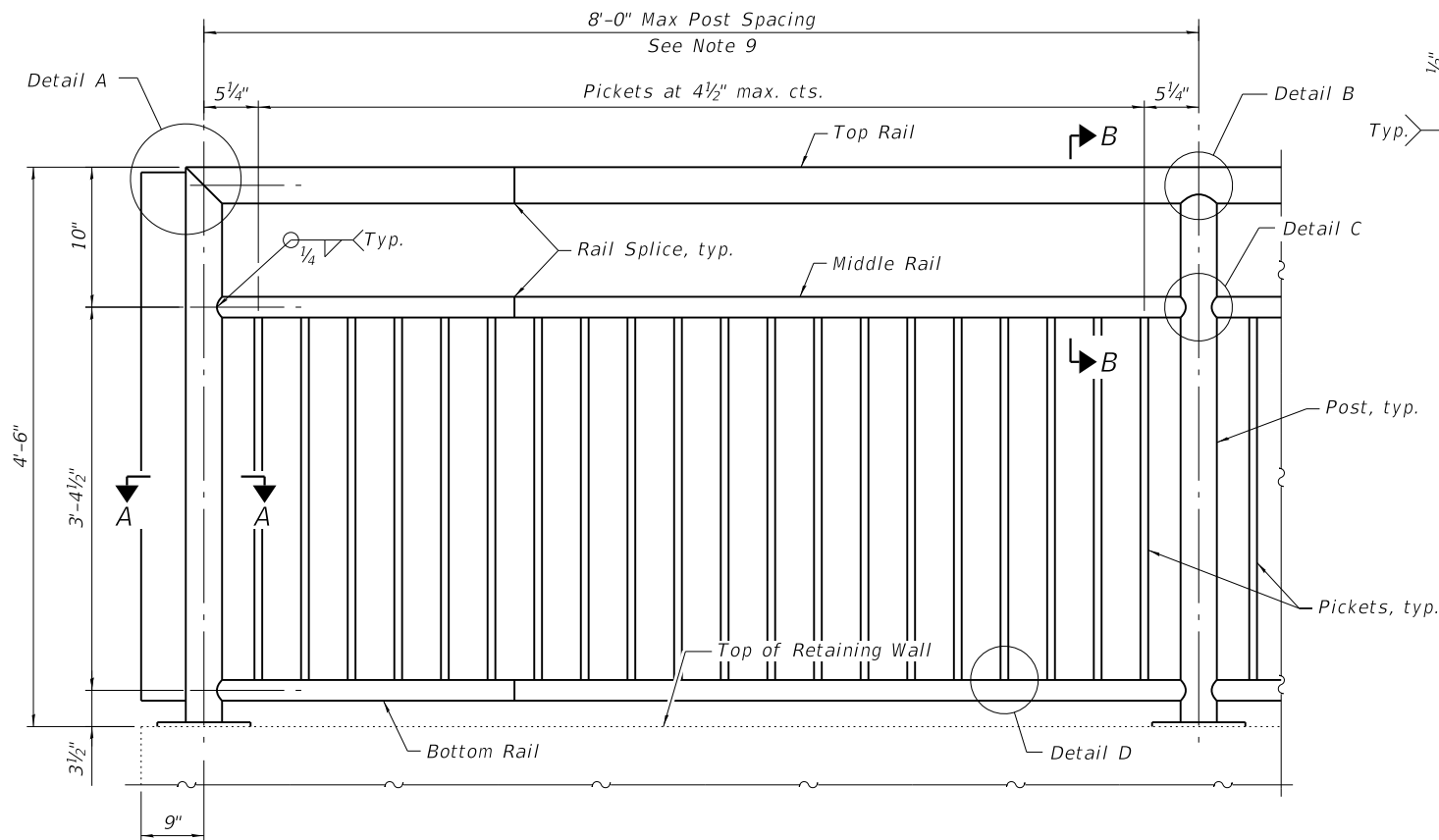
LEGEND

 - Epoxy Crack Injection

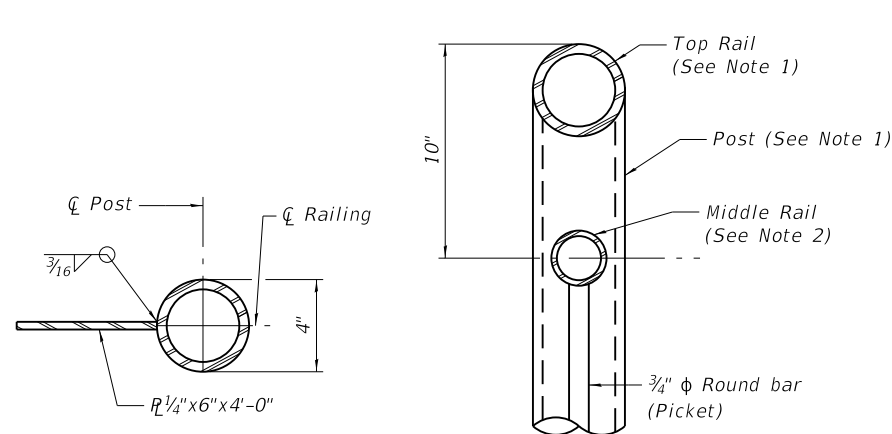
LF - Linear Foot

| | | | | | | | | | | | |
|---|---------------|-------------|--------------------------|----------------|---|--|---|----------------|---------|--------|-----------|
|  | | | | | | | | | | | |
|  WSP USA INC. 30 W. LAGARDE STREET SUITE 4200 CHICAGO, IL 60602 TEL: (312) 782-8150 FAX: (312) 782-1684 | | USER NAME = | DESIGNED - AMI | REVISED - | CITY OF CHICAGO DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING | WEBSTER AVENUE BRIDGE OVER THE NORTH BRANCH CHICAGO RIVER | SOUTHEAST RETAINING WALL PLAN AND ELEVATION III (STRUCTURE NO. 016-6057) | F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
| PLOT SCALE = N.T.S. | CHECKED - MI | REVISED - | 1388 | 11-E1525-00-BR | | | | COOK | S-107 | | |
| PLOT DATE = \$DATE\$ | CHECKED - MAA | REVISED - | CDOT PROJECT NO. E-1-525 | | | | | 150 of 210 | | | |
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0166057-E1525-S108-RETAIN.WALLRAILINGDET.DGN

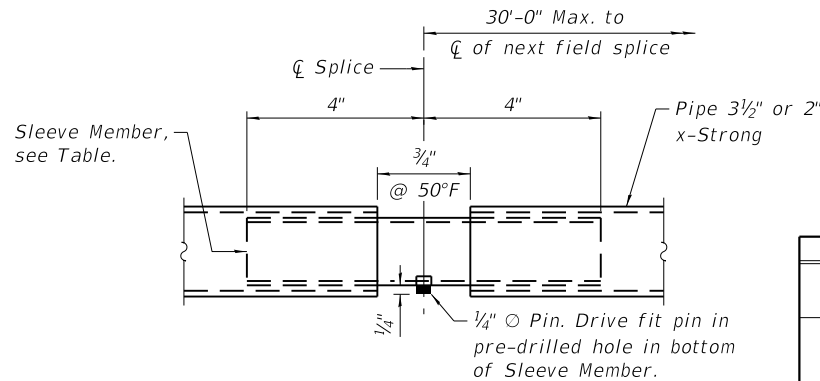


STEEL RAILING ELEVATION

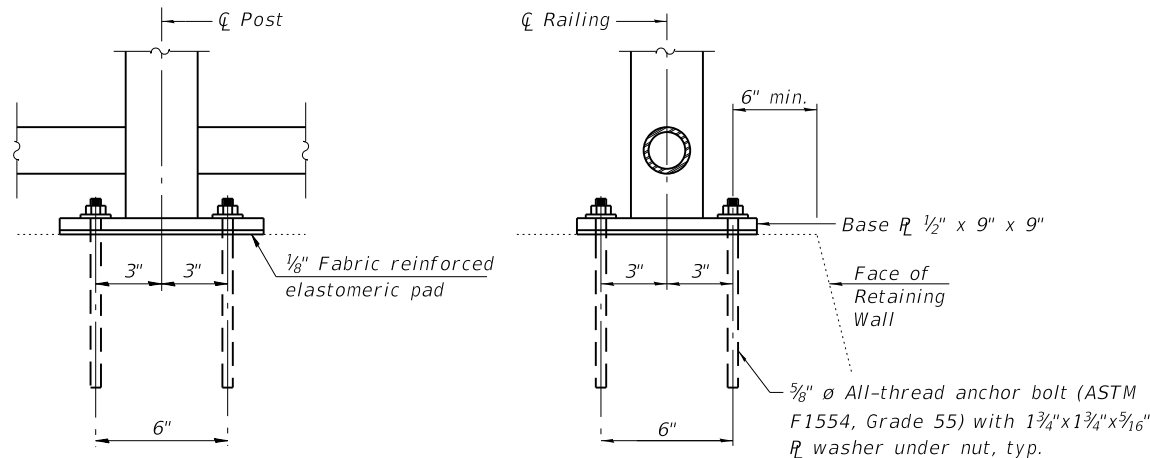


SECTION A-A

SECTION B-B



RAIL FIELD SPLICE



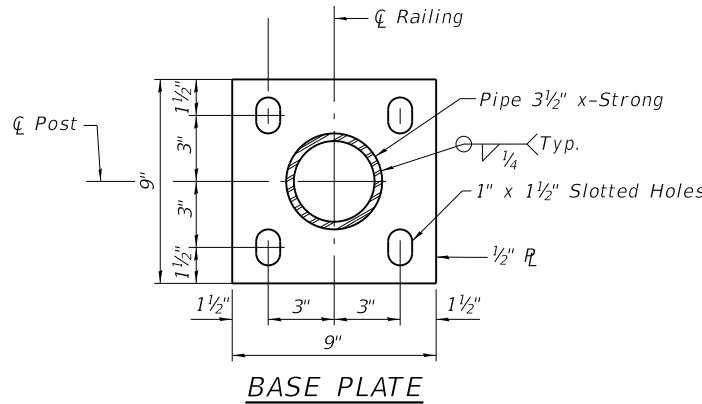
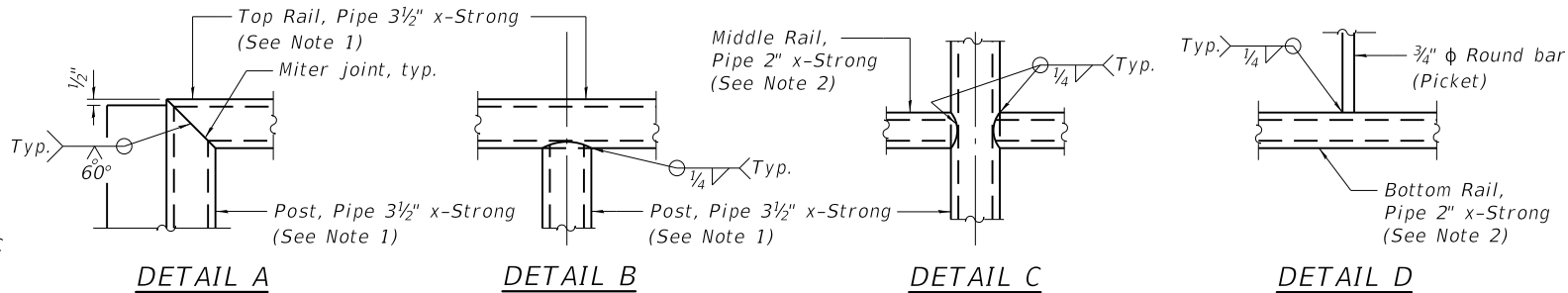
ANCHOR BOLT DETAILS

Drill and set 5/8" Ø anchor bolts according to Article 509.06 of the Standard Specifications. Embedment and edge distances shall be according to the manufacturer's specifications. Galvanize upper half of anchor bolt length and hardware in accordance with AASHTO M232. Cost of anchor bolts, hardware, galvanizing, drilling and setting is included in the cost of Decorative Steel Railing.

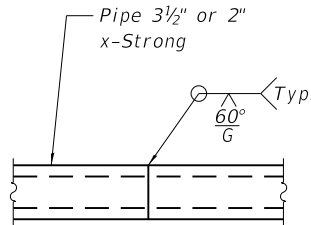
SLEEVE MEMBER

| Rail Size | Sleeve Member |
|-----------------|---|
| 3 1/2" x-Strong | 3 1/4" Ø MT Pipe (3 1/4" O.D., 0.120" wall thickness) |
| 2" x-Strong | 1 3/16" Ø MT Pipe (1 3/16" O.D., 0.120" wall thickness) |

Mechanical tubing (MT) will conform to ASTM A513 Grade 1015 or higher.



BASE PLATE



RAIL SHOP SPLICE

One shop splice per panel is permitted with minimum 85 percent penetration. The weld may be square groove or single vee groove. Grind smooth

Notes:

- Use Pipe 3 1/2" x-Strong (4" O.D., 0.318" wall thickness) for posts and top rail. Provide holes as needed in post and top rail for galvanizing drainage and venting. Plumb all posts.
- Use 2" Ø x-Strong Pipe (2.380" O.D., 0.218" wall thickness) for middle and bottom rails. Parallel to top of retaining wall. Provide holes as needed for galvanizing drainage and venting.
- Pipe will conform to ASTM-A53 Grade B. Steel plates and steel bars will conform to AASHTO M270 Gr. 50.
- All rail elements shall be galvanized according to Article 509.05 of the Standard Specifications
- Railing and any wall or other surface adjacent to them shall be free of any sharp or abrasive elements.
- Submit shop drawings to the Engineer unless noted otherwise.
- For all railings, erection drawings shall be submitted to the Commissioner for approval to ensure proper installation. Drawings shall show field splice locations, railing expansion joints (placed at the existing joint locations in the reinforced concrete wall), post spacing, anchor bolt drilling and setting procedures, profile slope, splice joint locations, shim plates, and railing lengths with identification showing where each railing goes on the layout.
- Railing shall be fabricated such that longitudinal elements are parallel to the top of sidewalk and posts are plumb. Contractor shall field verify sidewalk profile slope.
- All exposed edges will be rounded or chamfered to approximately 1/8" by grinding.
- All existing railing removals and wall repairs shall be completed with the existing post connections marked on walls prior to installation of new decorative railings. Any existing anchors not fully removed shall be removed at least 2" below the surface of the new wall top. Installation of new anchors shall not begin until concrete repairs have reached a minimum of 3,000 psi. Contractor shall determine final post spacing to miss location of existing railing post anchor bolts and submit shop drawings to the Commissioner for approval prior to railing construction.

REFERENCE DRAWINGS

Drawing
East Approach - Retaining Wall Details
and Reinforcement Bars

Sheet No.
1660570051

BILL OF MATERIAL

| Item | Unit | Quantity |
|--------------------------|------|----------|
| Decorative Steel Railing | Foot | 210 |
| Steel Railing Removal | Foot | 206 |



WSP USA Inc.
30 N. LAGALLE STREET
SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

| | |
|--------------|-----------|
| USER NAME = | USERNAME |
| DESIGNED - | IJL |
| CHECKED - | NBR |
| PLOT SCALE = | N.T.S. |
| DRAWN - | IJL |
| CHECKED - | JIG |
| PLOT DATE = | 10/5/2020 |

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| REVISD - | |
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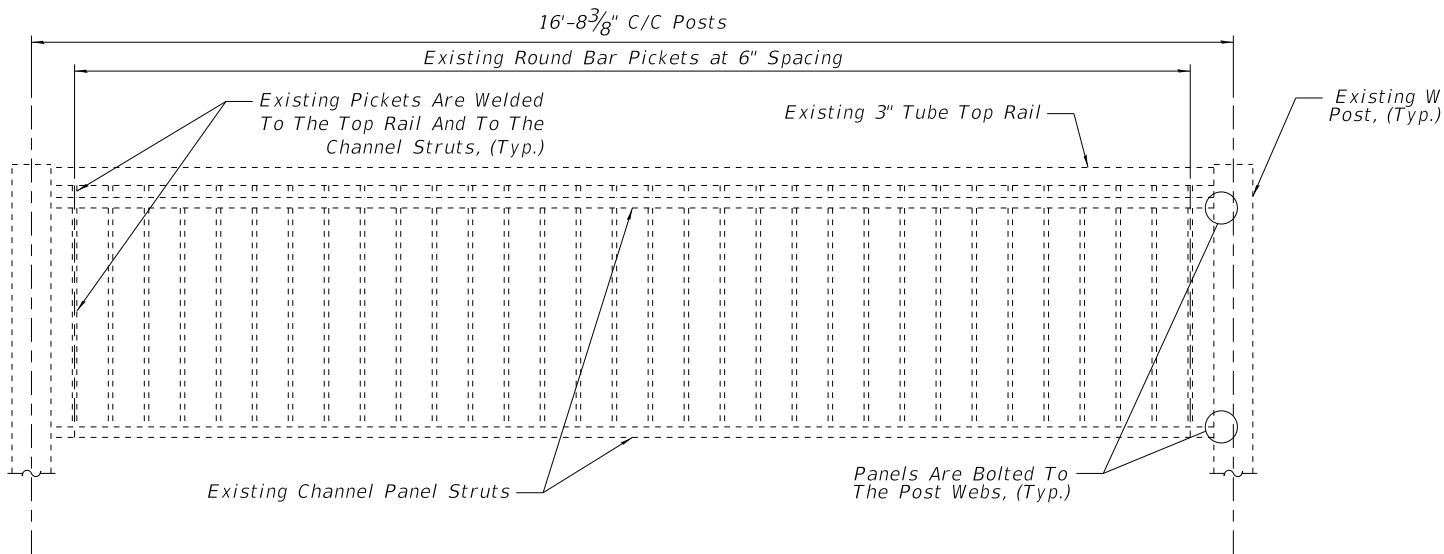
CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

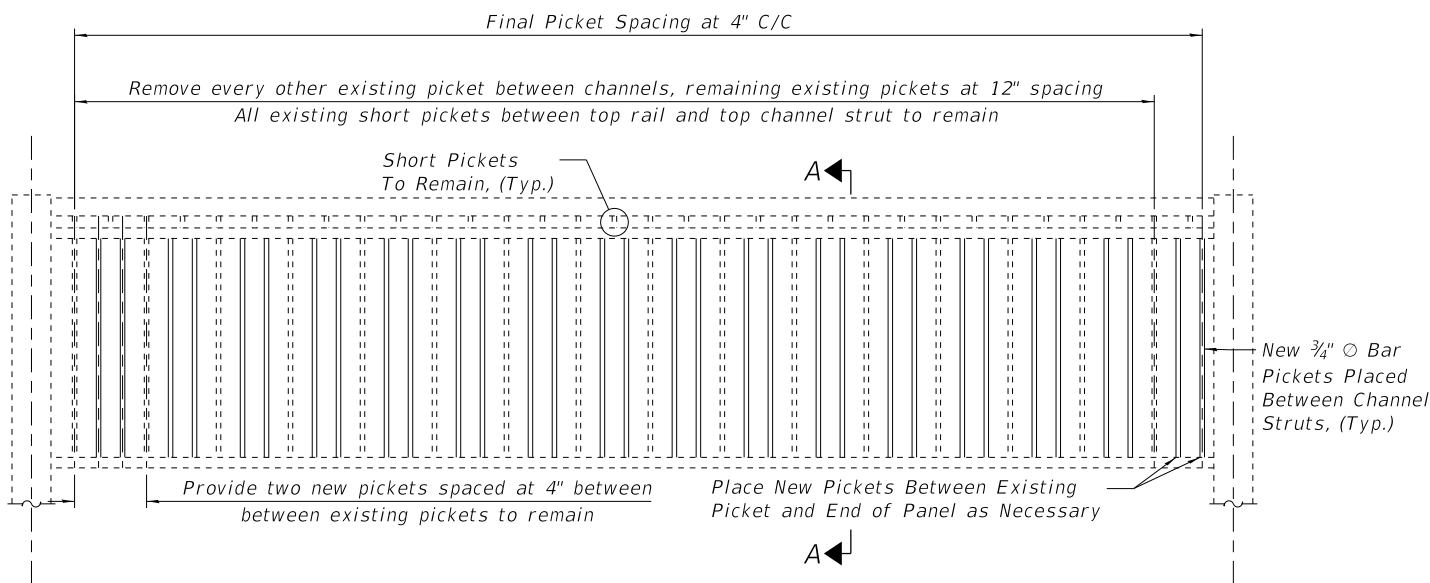
EAST RETAINING WALLS RAILING DETAILS

(STRUCTURE NO. 016-6057)

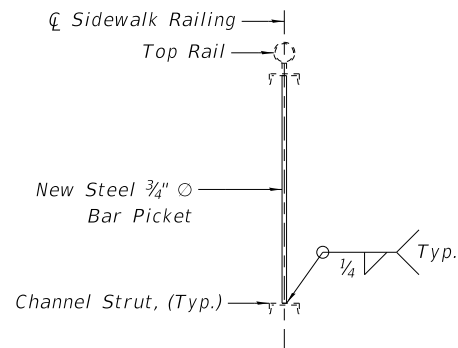
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | S-108 |
| CDOT PROJECT NO. E-1-525 | | | 151 of 210 |



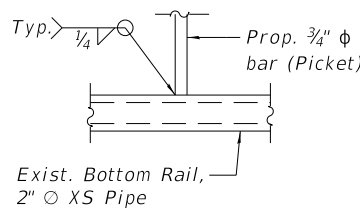
EXISTING BASCULE SIDEWALK RAILING PANEL ELEVATION
(Sidewalk surface and panels other side of posts not shown)



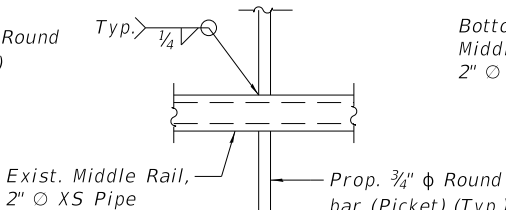
MODIFIED BASCULE SIDEWALK RAILING PANEL ELEVATION



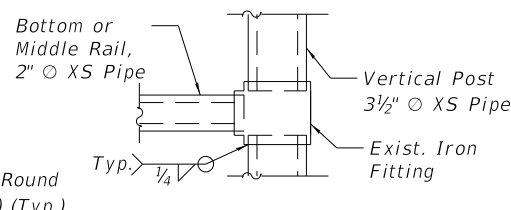
SECTION A-A



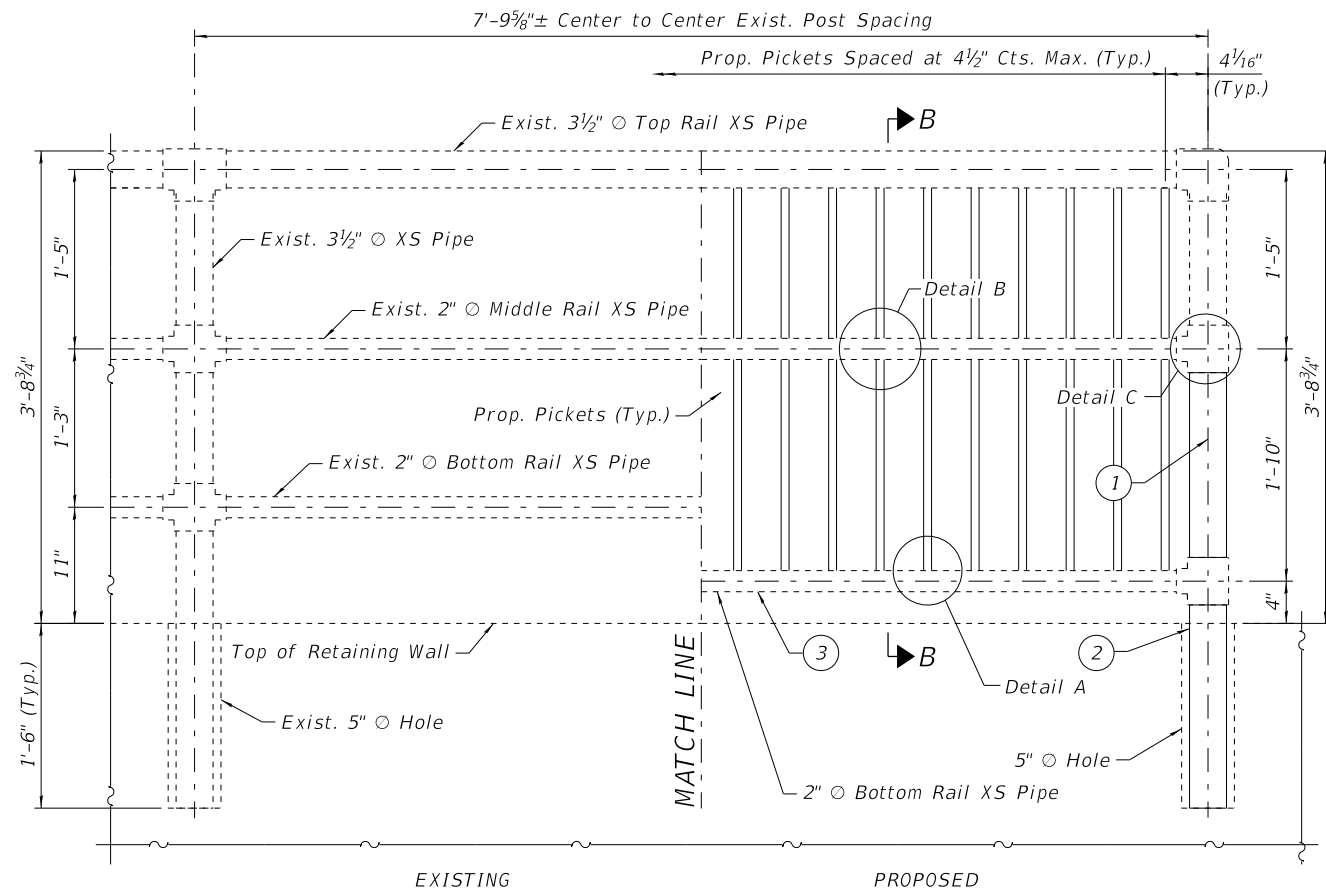
DETAIL A



DETAIL B



DETAIL C



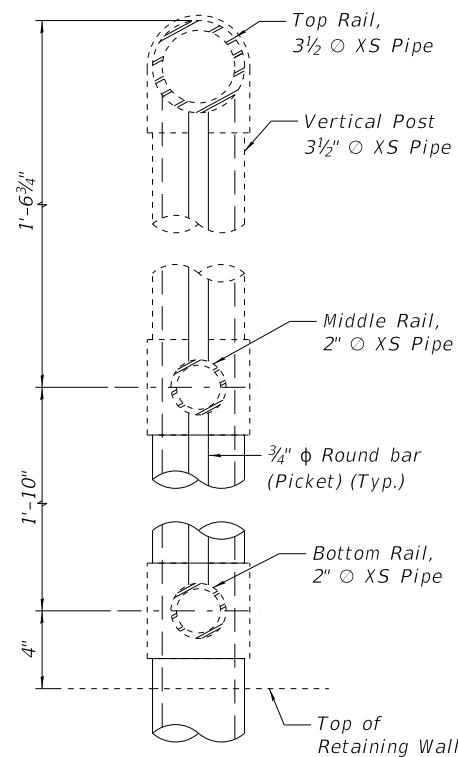
STEEL RAILING ELEVATION

Symbols:

- ① - Remove & replace existing 3 1/2" XS pipe post middle section to accommodate relocated bottom rail position.
- ② - Remove & replace existing 3 1/2" XS pipe post middle section to accommodate relocated bottom rail position and for embedding into wall.
- ③ - Cut exist. 2" XS pipe bottom rail and relocate to lower position.

Notes:

1. For limits of steel railing work, see sheet S-1, S-103 & S-104.
2. Sidewalk panels consist of the top rail, top and bottom channel struts, and the pickets.
3. All panels and posts shall be identified, located, and marked accordingly before removal from the bridge. The railing shall be delivered to the shop for the railing repairs indicated in the specification for the item Steel Railing (Special).
4. Prior to performing the work in this item, the panels shall be unbolted from the posts. Tack welds between the top rail and posts may be present and shall be ground. All welds on the struts after the picket removals shall be ground.
5. All work to clean railings, modify the panels, furnish and fabricate steel pickets, painting, delivery to and from the shop, reassembling the panels to posts at the same locations, and any other incidental work necessary to complete the work as described in Steel Railing (Special), is included in that item for payment.



SECTION B-B

| Item | Unit | Quantity |
|-------------------------|------|----------|
| Steel Railing (Special) | Foot | 506 |

0166057-E1525-S109-STEELRAILINGDET.DGN

wsp

WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

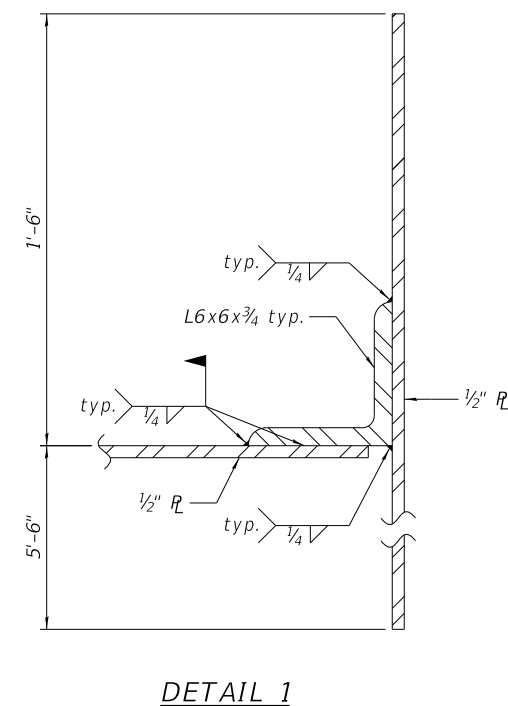
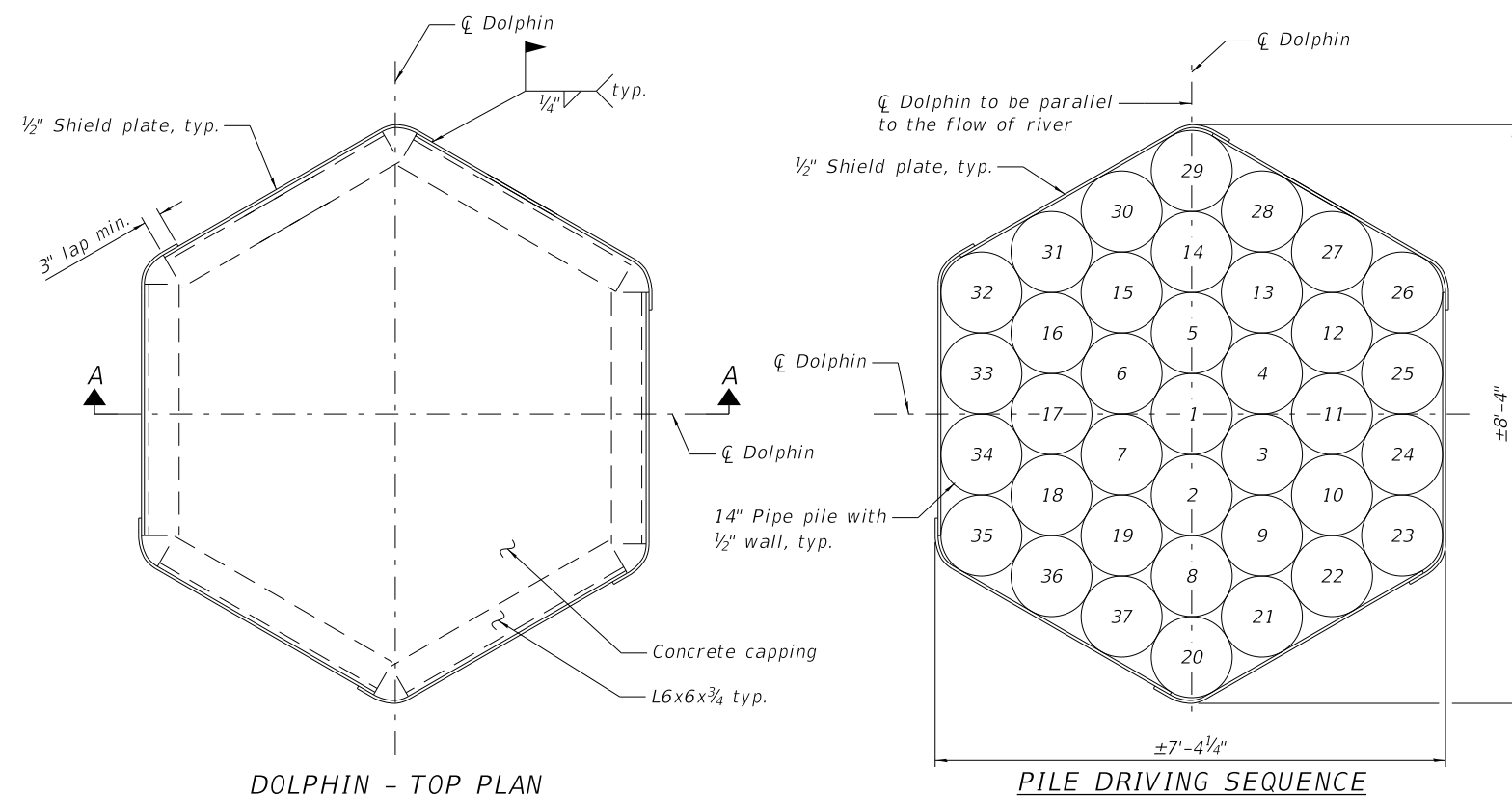
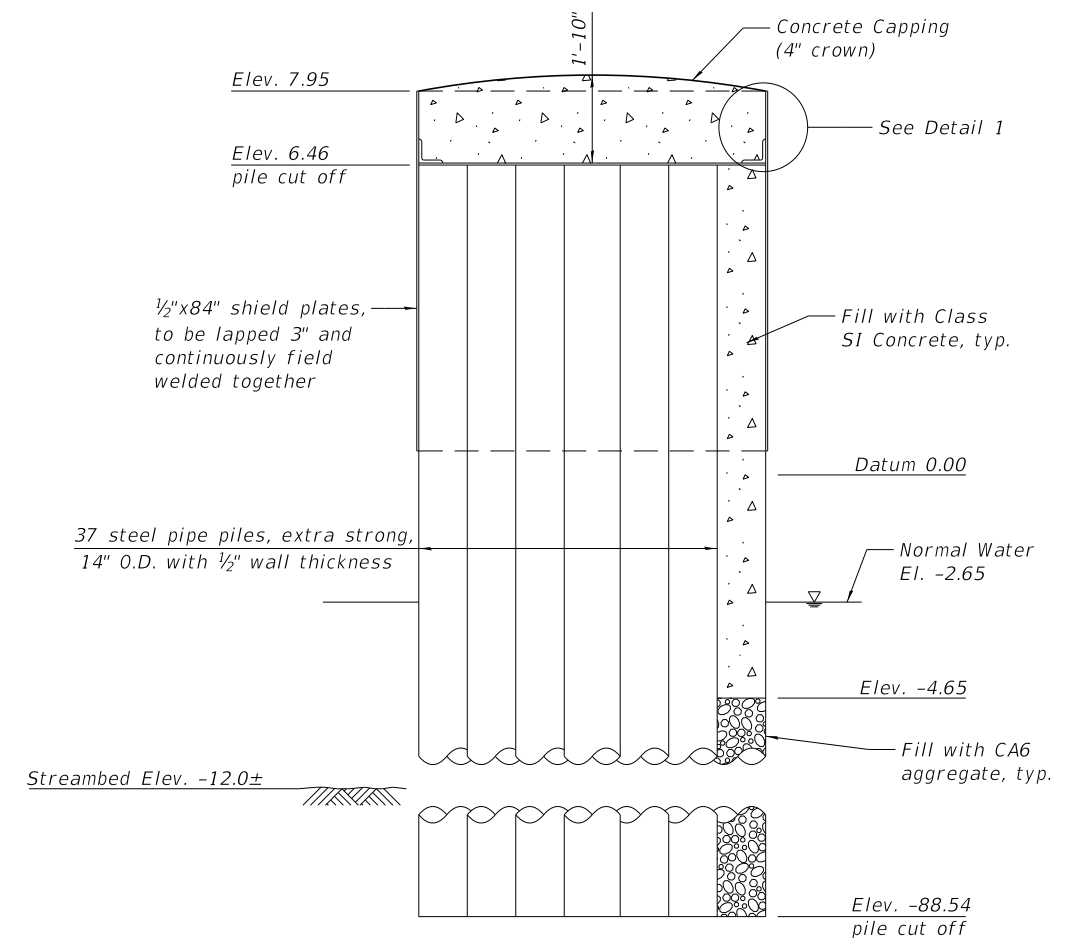
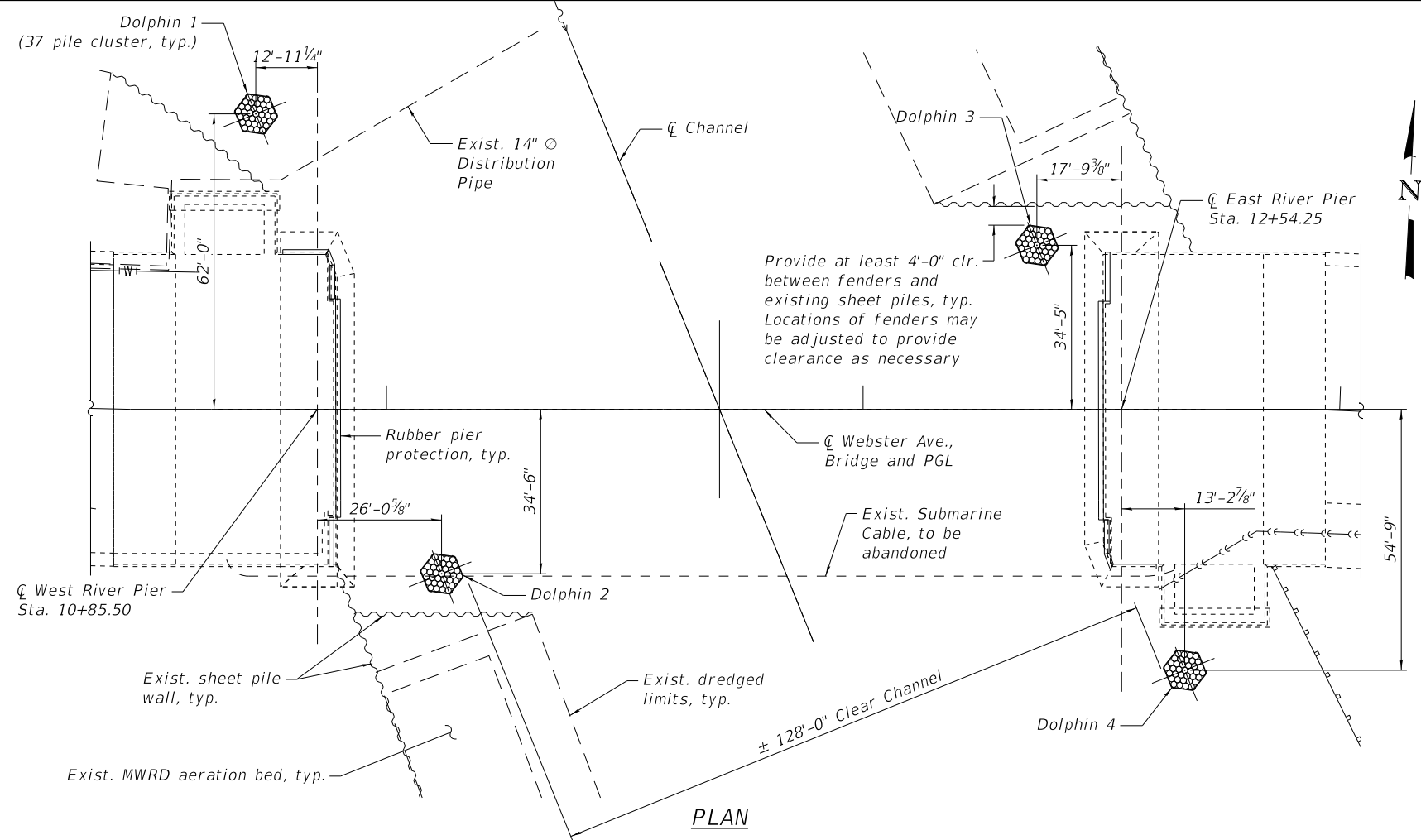
| | | | | | |
|--------------|----------|------------|-----|-----------|--|
| USER NAME = | PJLAUX | DESIGNED = | IJL | REVISED = | |
| | | CHECKED = | NBR | REVISED = | |
| PLOT SCALE = | N.T.S. | DRAWN = | IJL | REVISED = | |
| PLOT DATE = | \$DATE\$ | CHECKED = | JIG | REVISED = | |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

STEEL RAILING DETAILS
(STRUCTURE NO. 016-6057)

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | S-109 |
| CDOT PROJECT NO. E-1-525 | | | 152 of 210 |



BILL OF MATERIAL

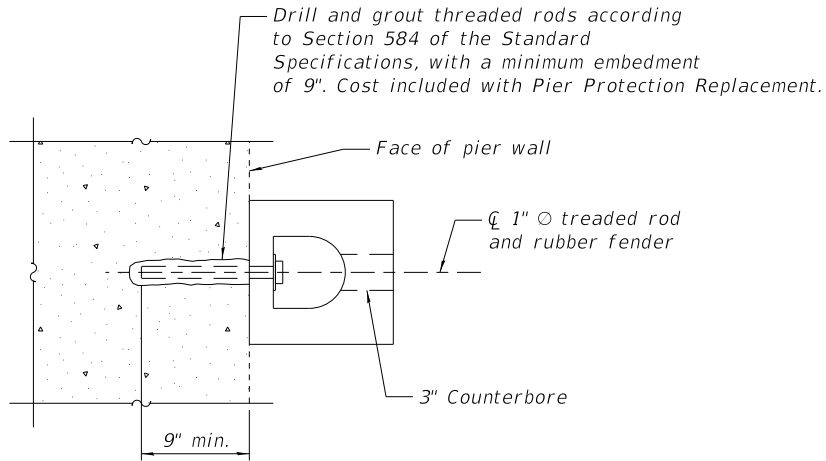
| <i>Item</i> | <i>Unit</i> | <i>Quantity</i> |
|------------------------------------|-------------|-----------------|
| <i>Dolphins</i> | <i>Each</i> | <i>4</i> |
| <i>Pier Protection Replacement</i> | <i>Foot</i> | <i>301</i> |

Notes:

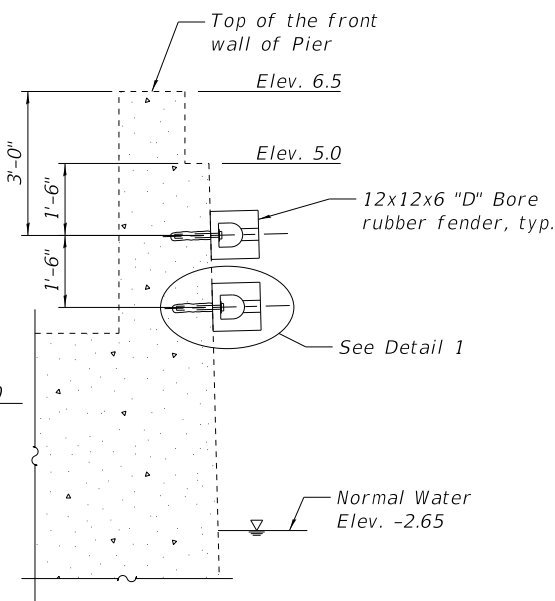
1. *It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to construction and ordering of materials.*
2. *Number on the piles denotes driving sequence.*
3. *See sheet S-111 for the layout plan of the rubber pier protection.*
4. *Removal of existing dolphins and fenders, and the placement of the new dolphins and rubber pier protection shall be included in the cost of Dolphins. See the Special Provisions.*
5. *Existing pier protection and dolphins are heavily deteriorated and not easily visible above the surface of the water. It is the responsibility of the Contractor to locate existing pier protection timber piles and dolphins for removal.*
6. *Pile driving at Dolphin 2 may conflict with existing submarine cables which are to be abandoned in place. Contractor shall plan this work accordingly.*

REFERENCE DRAWINGS

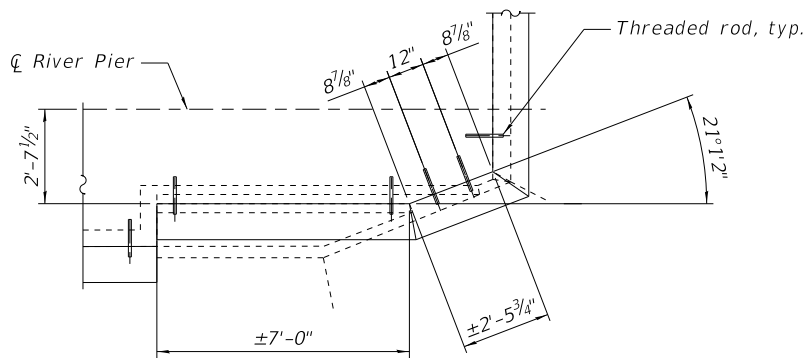
| | |
|------------------------------|------------------|
| <u>Drawing</u> | <u>Sheet No.</u> |
| Substructure Pier Protection | 1660570043 |
| Substructure Plan | 1660570091 |
| Substructure Pier Protection | 1660570096 |



(West Pier shown, East Pier similar)




SECTION A-A



(West Pier shown, East Pier similar)

- Notes:
1. *For Dolphin layout, see sheet S-110.*
 2. *The rubber fender shall be a marine type, extruded rubber. Readily available lengths of rubber fender may be used for the long front face of pier as long as threaded rods are provided at 12" spaces and the minimum edge distances shall not be less than 9". Provide no more than 1" clearance between runs of rubber fenders. The costs for furnishing and erecting rubber fenders and all hardware are included with Pier Protection Replacement.*
 3. *All hardware, rods, nuts, and plate washers shall be galvanized in accordance with AASHTO M 232.*
 4. *The Contractor shall coordinate installation of the rubber pier protection with the structural repair of concrete on the river piers.*



GSG CONSULTANTS, INC.

855 West Adams, Suite 200
Chicago, Illinois 60607
tel: 312.733.6262 • fax: 312.733.5612

SOIL BORING LOG

Page 1 of 4
Date 4/22/15

ROUTE F.A.U. Route 1388DESCRIPTION Bridge Rehabilitation-Webster Ave over Chicago RiverLOGGED BY JJR

SECTION 11-E1525-00-BRLLOCATION Northside of bridge Northing 1914745.514 Easting 1165501.335

COUNTY CookDRILLING METHOD HSAHAMMER TYPE AUTO

STRUCT. NO. 016-6057
Station 11+69.88

BORING NO. B-1
Station NA
Offset

Ground Surface Elev. 588.00 ft

DEPTH LOG

BLOWS Qu

UCS

MOIST

DRY DENSITY (pcf)

ORGANIC (%)

Surface Water Elev. 576.54 ft
Stream Bed Elev. 567.19 ft
Groundwater Elev.:
First Encounter 571.0 ft ▼
Upon Completion None ft
After NA Hrs. NA ft

NOTES:

6 inches of Topsoil 587.50
Black, Wet
FILL: SAND, with gravel, brick and cinders

582.00
Brown and Black, Moist
FILL: CLAY, with brick, cinders, gravel and wood

574.00
Brown and Gray, Moist to Very Moist
FILL: CLAY, with gravel, and wood

571.00 ▼
Brown, Wet
FILL: SAND, with wood, concrete fragments

DEPTH LOG

BLOWS Qu


UCS

MOIST

DRY DENSITY (pcf)

ORGANIC (%)

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)



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SOIL BORING LOG

Page 2 of 4
Date 4/22/15

ROUTE F.A.U. Route 1388DESCRIPTION Bridge Rehabilitation-Webster Ave over Chicago RiverLOGGED BY JJR

SECTION 11-E1525-00-BRLLOCATION Northside of bridge Northing 1914745.514 Easting 1165501.335

COUNTY CookDRILLING METHOD HSAHAMMER TYPE AUTO

STRUCT. NO. 016-6057
Station 11+69.88

BORING NO. B-1
Station NA
Offset

Ground Surface Elev. 588.00 ft

DEPTH LOG

BLOWS Qu

UCS

MOIST

DRY DENSITY (pcf)

ORGANIC (%)

Surface Water Elev. 576.54 ft
Stream Bed Elev. 567.19 ft
Groundwater Elev.:
First Encounter 571.0 ft ▼
Upon Completion None ft
After NA Hrs. NA ft

NOTES:

Brown, Wet
FILL: SAND, with wood, concrete fragments (continued) 566.50
Stiff to Very Stiff
Gray, Moist to Very Moist
CLAY, trace gravel (CL)

553.00
Very Stiff to Hard
Gray, Moist to Very Moist
SILTY CLAY, trace gravel (CL/ML)

DEPTH LOG

BLOWS Qu


UCS

MOIST

DRY DENSITY (pcf)

ORGANIC (%)

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)



WSP USA Inc.
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SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME =

DESIGNED - PJL

REVISED -

PLOT SCALE = N.T.S.

DRAWN - IJL

REVISED -

PLOT DATE = \$DATE\$

CHECKED - JIG

REVISED -

CITY OF CHICAGO

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING

WEBSTER AVENUE BRIDGE OVER

THE NORTH BRANCH CHICAGO RIVER

BORING LOGS I

(STRUCTURE NO. 016-6057)

F.A.U. RTE.

SECTION

COUNTY

SHEET NO.

1388


11-E1525-00-BR

COOK

S-112

CDOT PROJECT NO. E-1-525

155 of 210



GSG CONSULTANTS, INC.

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Chicago, Illinois 60607
tel: 312.733.6262 • fax: 312.733.5612

SOIL BORING LOG

Page 3 of 4

Date 4/22/15

ROUTE F.A.U. Route 1388DESCRIPTION Bridge Rehabilitation-Webster Ave over Chicago RiverLOGGED BY JJR

SECTION 11-E1525-00-BRLLOCATION Northside of bridge Northing 1914745.514 Easting 1165501.335

COUNTY CookDRILLING METHOD HSAHAMMER TYPE AUTO

STRUCT. NO. 016-6057
Station 11+69.88

BORING NO. B-1
Station NA
Offset
Ground Surface Elev. 588.00 ft

DEPTH LOG

BL O W S

U C S

M O I S T

D R Y D E N S I T Y

O R G A N I C

Surface Water Elev. 576.54 ft
Stream Bed Elev. 567.19 ft
Groundwater Elev.:
First Encounter 571.0 ft ▼
Upon Completion None ft
After NA Hrs. NA ft

NOTES:

Very Stiff to Hard
Gray, Moist to Very Moist
SILTY CLAY, trace gravel
(CL/ML) (continued)

4

7

8

50/4"

21

23

32

518.00

529.00


18

22

20

21

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)



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Chicago, Illinois 60607
tel: 312.733.6262 • fax: 312.733.5612

SOIL BORING LOG

Page 4 of 4

Date 4/22/15

ROUTE F.A.U. Route 1388DESCRIPTION Bridge Rehabilitation-Webster Ave over Chicago RiverLOGGED BY JJR

SECTION 11-E1525-00-BRLLOCATION Northside of bridge Northing 1914745.514 Easting 1165501.335

COUNTY CookDRILLING METHOD HSAHAMMER TYPE AUTO

STRUCT. NO. 016-6057
Station 11+69.88

BORING NO. B-1
Station NA
Offset
Ground Surface Elev. 588.00 ft

DEPTH LOG

BL O W S

U C S

M O I S T

D R Y D E N S I T Y

O R G A N I C

Surface Water Elev. 576.54 ft
Stream Bed Elev. 567.19 ft
Groundwater Elev.:
First Encounter 571.0 ft ▼
Upon Completion None ft
After NA Hrs. NA ft

NOTES:

Hard to Very Hard
Gray, Moist
SILT, trace gravel (ML)
(continued)

21

46

50/4"

28


23

32

518.00

End of Boring

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)



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30 N. LA SALLE STREET
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CHICAGO, IL 60602
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USER NAME =

DESIGNED - PJL

REVIS

CHECKED - IJL

REVISED -

PLOT SCALE = N.T.S.

DRAWN - PJL

REVIS

PLOT DATE = \$DATE\$

CHECKED - JIG

REVISED -

CITY OF CHICAGO

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING

WEBSTER AVENUE BRIDGE OVER

THE NORTH BRANCH CHICAGO RIVER

BORING LOGS II

(STRUCTURE NO. 016-6057)

F.A.U. RTE.

SECTION

COUNTY

SHEET NO.

1388

11-E1525-00-BR

COOK

S-113

CDOT PROJECT NO. E-1-525

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GENERAL NOTES - DEMOLITION

1. THE CONTRACT IS TO PERFORM THE DEMOLITION SCOPE OF WORK AS REQUIRED TO COMPLETE NEW CONSTRUCTION. COORDINATE ARCHITECTURAL DEMOLITION WITH CIVIL, STRUCTURAL, MECHANICAL AND ELECTRICAL DEMOLITION SCOPE OF WORK.
2. THE CONTRACTOR MUST VISIT THE SITE AND BE KNOWLEDGEABLE OF ALL CONDITIONS. HE/SHE MUST INVESTIGATE, VERIFY, AND BE RESPONSIBLE FOR ALL CONDITIONS OF THE PROJECT AND MUST NOTIFY THE COMMISSIONER OF ANY CONDITIONS REQUIRING MODIFICATION BEFORE PROCEEDING WITH THE WORK.
3. THE CONTRACTOR MUST PERFORM ALL WORK IN ACCORDANCE WITH ALL APPLICABLE CITY OF CHICAGO, COUNTY, STATE, AND FEDERAL LAWS AND REGULATIONS.
4. DUMPSTER PLACEMENT LOCATIONS MUST BE APPROVED BY THE COMMISSIONER.
5. TO THE BEST OF COMMISSIONER'S KNOWLEDGE, THESE DRAWINGS REPRESENT THE EXTENT OF THE EXISTING CONDITIONS. EXISTING CONSTRUCTION TO BE REMOVED, RELOCATED, OR REMAIN SHALL BE VERIFIED AT THE SITE BY THE CONTRACTOR AND COMMISSIONER.
6. THE CONTRACTOR MUST NOTIFY THE COMMISSIONER IN WRITING OF ANY DISCREPANCIES ON THE DRAWING OR THE UNCOVERING OF HIDDEN CONDITIONS WHICH MAY AFFECT THE WORK.
7. ITEMS OF CONSTRUCTION SHOWN AND NOTED TO BE REMOVED SHALL REPRESENT ALL SIMILAR CONDITIONS AND CONSTRUCTION UNLESS NOTED OTHERWISE.
8. DO NOT REMOVE OR ALTER ANY EXISTING STRUCTURAL MEMBER OR PORTION OF THE STRUCTURAL FLOOR SYSTEM UNLESS SPECIFICALLY NOTED OR SHOWN ON THE CONTRACT DOCUMENTS.
9. THE CONTRACTOR MUST NEATLY SAWCUT ALL CONCRETE WALLS AND CONCRETE FLOORS IN A CLEAN AND STRAIGHT MANNER.
10. CONTRACTOR MUST PROVIDE CONTAINMENT INCLUDING CONSTRUCTION BARRICADES OR OTHER DUST COLLECTION METHODS TO PREVENT DUST GENERATED FROM DEMOLITION OR CONSTRUCTION FROM ENTERING THE PUBLIC AREAS.
11. CONTRACTOR MUST PAY ALL APPLICABLE PERMIT FEES AND COSTS RELATED TO REMOVAL AND INSTALLATION.
12. ANSI A-10.6 "SAFETY REQUIREMENTS FOR DEMOLITION" WILL GOVERN EXCEPT AS OTHERWISE MODIFIED HEREIN. WHERE THE REQUIREMENTS SPECIFIED HEREIN OR CONTAINED IN THE ANSI STANDARD DIFFER FROM OTHER APPLICABLE RULES, REGULATIONS, AND CODES, THE MORE STRINGENT REQUIREMENTS SHALL GOVERN THE WORK UNDER CONTRACT.
13. BEFORE COMMENCING ANY WORK, SUBMIT TO THE COMMISSIONER FOR REVIEW A SCHEDULE SHOWING THE COMMENCEMENT OF WORK, THE ORDER, AND THE COMPLETION DATES FOR THE VARIOUS PARTS OF THIS WORK. THE CONTRACTOR MUST OBTAIN COMMISSIONER APPROVAL IN WRITING BEFORE PROCEEDING WITH THIS WORK.
14. PROVIDE, ERECT, AND MAINTAIN TEMPORARY WORK INCLUDING, BUT NOT LIMITED TO BARRICADES, WARNING SIGNS, ETC. AS REQUIRED FOR PROPER PROTECTION OF THE PUBLIC AND PROPERTY DURING REMOVAL OPERATIONS.
15. THE CONTRACTOR WILL BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PHASING OR PROCEDURES AND SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. ALL WORK SHALL MEET THE QUALITY REQUIREMENTS NOTED IN THE CONTRACT DOCUMENTS.
16. COMMISSIONER WILL NOT BE RESPONSIBLE FOR NOR WILL HAVE CONTROL OVER OR CHARGE OF CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PHASING OR PROCEDURES, SAFETY PRECAUTIONS, AND PROGRAMS IN CONNECTION WITH THE WORK, NOR WILL THEY BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. COMMISSIONER WILL NOT BE RESPONSIBLE FOR, OR HAVE CONTROL OR CHARGE OVER THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS, THEIR AGENTS OR EMPLOYEES, OR ANY OTHER PERSON PERFORMING ANY OF THE WORK.
17. ALL DEMOLITION INDICATED TO BE REMOVED MUST BE REMOVED CAREFULLY. ANY ADJACENT MATERIAL DAMAGED SHALL BE REPLACED IN KIND AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE COMMISSIONER.
18. MATERIAL AND/OR ITEMS REMOVED AND NOT DESIGNATED TO BECOME THE PROPERTY OF THE COMMISSIONER WILL BECOME THE PROPERTY OF THE CONTRACTOR AND REMOVED FROM THE JOB SITE. DELIVER ALL ITEMS DESIGNATED AS "SALVAGE" OR "REMIT" TO STORAGE SITE DESIGNATED BY COMMISSIONER. COORDINATE DELIVERY WITH COMMISSIONER.
19. ANY EXISTING COMPONENT REMOVED OR DAMAGED TO ALLOW NEW WORK TO OCCUR MUST BE REINSTALLED OR REPLACED AT THE COMPLETION OF THE NEW WORK UNLESS NOTED OTHERWISE.
20. NO BURNING OF MATERIAL ON THE PREMISES WILL BE PERMITTED. COMBUSTIBLE FUELS ARE PROHIBITED.
21. UPON COMPLETION OF REMOVAL WORK, REMOVE ALL TOOLS, MATERIALS, APPARATUS, AND

RUBBISH OF ANY SORT. THE PORTION OF THE JOB SITE THAT CAN BE SEEN BY THE PUBLIC MUST BE LEFT CLEAN, REMOVE RUBBISH EVERY DAY.

22. REFER TO CONTRACT DOCUMENTS PLANS AND DETAILS INCLUDING APPLICABLE STRUCTURAL, CIVIL, MECHANICAL AND ELECTRICAL SCOPE OF WORK FOR EXISTING CONDITIONS AND NEW WORK COORDINATION.
23. NOTIFY COMMISSIONER IF ANY MATERIAL IS FOUND WHICH IS NOTED TO BE A HAZARDOUS MATERIAL.
24. THE FOLLOWING ITEMS/EQUIPMENT/SYSTEMS ARE TO BE REMOVED FROM THE PROJECT AND DELIVERED TO A SITE AS INDICATED BY THE COMMISSIONER UNLESS NOTED OTHERWISE:
 - ALL BRIDGE EQUIPMENT AT OPERATOR'S LEVEL THAT IS NOT GOING TO BE REUSED.
25. THE FOLLOWING AREAS ARE TO BE CLEANED:
 - COMPLETE CLEANING OF BRIDGE HOUSES, COST INCLUDED IN THE LUMP SUM PRICE FOR BRIDGE HOUSE PAY ITEMS.

GENERAL NOTES - SCOPE OF WORK

THE ARCHITECTURAL SCOPE OF WORK AND ASSOCIATED PAY ITEMS GENERALLY CONSISTS OF THE REHABILITATION OF THE BRIDGE HOUSES AND ABUTMENTS CLOSE TO THEIR ORIGINAL HISTORICAL CONDITION AND THE REPLACEMENT OF BRIDGE RAILINGS AND GUARDRAILS WITH HISTORIC RAILINGS AS INDICATED ON THE DRAWINGS.

GENERAL NOTES - CONSTRUCTION

1. THE COMMISSIONER EXPRESSLY DISCLAIMS ANY RESPONSIBILITY ARISING FROM ANY UNAUTHORIZED USE OF THESE DRAWINGS, PLANS, AND NOTES. ANY AUTHORIZATIONS MUST BE IN WRITING. THESE DRAWINGS MAY HAVE BEEN REPRODUCED AT A SIZE DIFFERENCE THAT ORIGINALLY DRAWN.
2. THE COMMISSIONER WILL NOT BE RESPONSIBLE FOR NOR WILL HAVE ANY CONTROL OVER OR CHARGE OF CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PHASING, OR PROCEDURES OF SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, NOR WILL BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. THE COMMISSIONER WILL NOT BE RESPONSIBLE FOR OR HAVE ANY CONTROL OR CHARGE OVER THE ERRORS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS, THEIR AGENTS, EMPLOYEES, OR ANY OTHER PERSON PERFORMING ANY OF THE WORK.
3. THE CONTRACTOR SHALL VISIT THE SITE AND BE KNOWLEDGEABLE OF ALL CONDITIONS THEREON. THE CONTRACTOR SHALL INVESTIGATE, VERIFY, AND BE RESPONSIBLE FOR ALL CONDITIONS OF THE PROJECT AND SHALL NOTIFY THE COMMISSIONER OF ANY CONDITIONS REQUIRING MODIFICATION OR CLARIFICATION BEFORE PROCEEDING WITH THE WORK. NOTES APPEAR ON VARIOUS SHEETS FOR DIFFERENT SYSTEMS AND MATERIALS: NOTES REFER TO RELATED STRUCTURAL/MEP AND DETAIL DRAWINGS. THESE SHEETS ARE TO BE REVIEWED AND NOTES ON ANY ONE SHEET ARE TO BE APPLIED ON RELATED DRAWINGS AND DETAILS. WHERE DISCREPANCIES EXIST BETWEEN THE DRAWINGS OF VARIOUS DISCIPLINES, CONSULT THE COMMISSIONER DURING THE BID PERIOD AND PRIOR TO PROCEEDING WITH THE WORK.
4. DRAWINGS THAT REPRESENT THE EXISTING PLAN CONDITIONS ARE DIAGRAMMATICALLY SHOWN. EXACT LOCATIONS, SIZES, EXTENT, AND CONDITIONS OF EXISTING CONSTRUCTION TO BE REMOVED, RELOCATED OR TO REMAIN SHALL BE VERIFIED AT THE SITE BY THE CONTRACTOR.
5. THE CONTRACTOR MUST PROVIDE ALL REQUIRED PERMITS. THE CONTRACTOR WILL PERFORM ALL WORK IN ACCORDANCE WITH ALL APPLICABLE CITY OF CHICAGO, COUNTY, STATE, AND FEDERAL LAWS, CODES, ORDINANCES, AND REGULATIONS BY MUNICIPAL AUTHORITIES HAVING JURISDICTION, INCLUDING THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) AND REGULATIONS ADOPTED PURSUANT THERETO.
6. ALL FIRE RATINGS INDICATED FOR WALLS, CEILINGS, AND ROOF ARE TO COMPLY WITH UNDERWRITERS LABORATORIES TEST RATINGS OR AS REGULATED BY CITY OF CHICAGO BUILDING CODE AND NFPA 130 FIXED GUIDE WAY TRANSIT SYSTEMS.
7. ANY DETAILS, SYSTEMS, OR MATERIALS (I.E. ARCHITECTURAL, STRUCTURAL, MECHANICAL, ETC.) WHICH ARE PROPOSED TO BE CHANGED OR SUBSTITUTED MUST BE FIRST REVIEWED AND APPROVED BY THE COMMISSIONER PRIOR TO THE PREPARATION AND SUBMITTAL OF SHOP DRAWINGS. THE COMMISSIONER RESERVES THE RIGHT TO REJECT SUBSTITUTIONS. THE CONTRACTOR IS RESPONSIBLE FOR ADDED JOB COSTS DUE TO HIS SUBSTITUTIONS IMPACTED ON OTHER TRADES.
8. THE CONTRACTOR MUST BE RESPONSIBLE FOR PROVIDING ALL REQUIRED BLOCKING, SUPPORTS, AND BRACING REQUIRED TO ACHIEVE SPECIFIED REQUIREMENTS AND STANDARDS WHETHER SPECIFICALLY INDICATED OR NOT. FIRE RETARDANT BLOCKING MUST BE PROVIDED.
9. ALL NEW GUARDRAILS AND HANDRAILS MUST MEET OSHA, NIOSH, AND ADA GUIDELINES, 200 PSF LIVE LOAD SAFETY CODE HORIZONTAL AND VERTICAL HANDRAIL REQUIREMENTS, UNLESS NOTED OTHERWISE.
10. ALL DISSIMILAR METALS MUST BE EFFECTIVELY ISOLATED FROM EACH OTHER TO AVOID GALVANIC ACTION.
11. DETAILS SHOWN ARE INTENDED TO BE INDICATIVE OF THE PROFILES AND TYPE OF DETAILING REQUIRED FOR THE WORK. CONDITIONS ARE NOT COVERED BY SPECIFIC DETAILS AND MUST MEET

SPECIFIED DESIGN CRITERIA.

12. DETAILS SHOWN MAY NOT NECESSARILY GRAPHICALLY REPRESENT ALL COMPONENTS NECESSARY TO COMPLETE THE TOTAL SYSTEM. THE CONTRACTOR MUST BE RESPONSIBLE TO COORDINATE ALL OF THE REQUIREMENTS SHOWN ON THE DRAWINGS WITH THOSE STATED IN THE APPLICABLE SPECIFICATIONS AND PROJECT NOTES TO PROVIDE A COMPLETE SYSTEM.
13. THE CONTRACTOR MUST COORDINATE ALL MECHANICAL AND ELECTRICAL FLOOR AND WALL SLEEVES, FLOOR PENETRATIONS, EMBEDDED CONDUIT AND MECHANICAL DUCTWORK WITH MECHANICAL, PLUMBING, FIRE PROTECTION, ELECTRICAL, STRUCTURAL, AND ARCHITECTURAL DISCIPLINES.
14. PROVIDE ACCESS PANELS AS REQUIRED BY APPLICABLE CODES AND AS REQUIRED FOR MECHANICAL AND ELECTRICAL EQUIPMENT. COORDINATE LOCATIONS WITH COMMISSIONER PRIOR TO INSTALLATION.
15. ALL PIPES, CONDUITS, AND DUCTWORK THAT PENETRATE WALLS OR ROOF SLABS SHALL BE INSTALLED IN A MANNER THAT WILL PRESERVE THE FIRE RESISTIVE, STRUCTURAL INTEGRITY, AND WATER-TIGHTNESS OF SUCH WALLS OR SLABS AND THE BUILDING. FIRESTOP ALL PENETRATIONS IN WALLS TO MATCH HOURLY RATING OF WALL.
16. DETAILS NOT SHOWN ARE SIMILAR IN CHARACTER TO THOSE SHOWN: WHERE SPECIFIC DIMENSIONS, DETAILS, OR DESIGN INTENT CANNOT BE DETERMINED, CONSULT THE COMMISSIONER BEFORE PROCEEDING WITH WORK.
17. CONTRACTOR TO REMOVE ANY GRAFFITI WITHIN 24 HOURS DURING CONSTRUCTION.
18. REFER TO THE TECHNICAL SPECIFICATIONS FOR ADDITIONAL INFORMATION AND COORDINATION OF THE WORK. IN THE EVENT OF DISCREPANCIES BETWEEN DRAWINGS OR SPECIFICATIONS, CONSULT THE COMMISSIONER FOR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
19. THE CONTRACTOR MUST ASSURE ITSELF BY INDEPENDENT SURVEY THAT NO HAZARDOUS MATERIALS ARE HANDLED OR DISTRIBUTED. IF HAZARDOUS MATERIALS ARE ENCOUNTERED, IT MUST BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE COMMISSIONER.
20. THE CONTRACTOR WILL BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PHASING, PROCEDURES, SAFETY PRECAUTIONS, AND PROGRAMS IN CONNECTION WITH THE WORK. ALL WORK SHALL MEET THE QUALITY REQUIREMENTS NOTED IN THE CONTRACT DOCUMENTS.
21. THE CONTRACTOR IS TO REVIEW AND HAVE A COMPLETE COMMAND OF THE VARIOUS PHASES OF THE CONSTRUCTION WORK PLUS A TOTAL UNDERSTANDING OF THE UNIQUE MANPOWER AND SUPPLY SCHEDULE REQUIREMENTS SPECIFIC TO THE SITE. THE CONTRACTOR MUST COORDINATE ALL CONSTRUCTION RELATED ACTIVITIES WITH BRIDGE LIFT SCHEDULES, OPERATION REQUIREMENTS, AND RESULTING HAZARDOUS CONDITIONS.
22. THE CONTRACTOR MUST BE RESPONSIBLE FOR SECURING THE JOB SITE AND THE PROTECTION OF THE GENERAL PUBLIC FROM ALL POSSIBLE HAZARDS OF THE ENTIRE CONSTRUCTION SITE.
23. THE GENERAL CONTRACTOR AND/OR TRADE CONTRACTOR MUST PROTECT ALL EXISTING SITE ELEMENTS FROM DAMAGE DUE TO ALTERATIONS AND CONSTRUCTION OPERATIONS, AND REPAIR OR REPLACE ELEMENTS DAMAGED DURING THIS PROJECT AT HIS/HER OWN EXPENSE.
24. DRAWINGS ARE TO BE ISSUED TO THE SUBCONTRACTORS BY THE CONTRACTOR IN COMPLETE SETS SO THAT THE EXTENT AND COORDINATION OF WORK IS MADE POSSIBLE.
25. THE CONTRACTOR MUST BE SOLELY RESPONSIBLE FOR THE ACCURATE PLACEMENT AND CONDITIONS OF THE WORK.
26. THE CONTRACTOR IS TO PROTECT, MOVE, AND STORE THE OWNER'S FIXTURES, FURNISHINGS, AND EQUIPMENT.

DIMENSION NOTES

1. ALL DIMENSIONS ARE FACE OF PARTITIONS, COLUMN CENTERLINE, OR FINISHED FACE OF EXTERIOR WALL UNLESS NOTED OTHERWISE.
2. ALL DIMENSIONS SHALL BE VERIFIED IN THE FIELD BEFORE PROCEEDING WITH ANY WORK. THE COMMISSIONER SHALL BE NOTIFIED OF ANY DISCREPANCIES OR CORRECTIONS. DIMENSIONS OF NEW WORK ARE BASED ON RECORD DRAWING OF EXISTING WORK. ANY DISCREPANCIES IN EXISTING WORK THAT WILL AFFECT NEW WORK DIMENSIONS, NOTIFY THE COMMISSIONER. CONTRACTOR TO VERIFY EXISTING CONDITIONS.
3. ALL DIMENSIONS, ELEVATIONS, REPRESENTATIONS OF THE SITE, EXISTING CONDITIONS, AND AS-BUILT DRAWINGS ARE BASED ON INFORMATION OBTAINED FROM COMMISSIONER. SOME VARIATIONS BETWEEN DRAWINGS AND FIELD CONDITIONS MUST BE ANTICIPATED AND ALLOWED FOR.
4. IT IS IMPERATIVE THAT THE CONTRACTOR FULLY FAMILIARIZE ITSELF WITH ALL EXISTING SITE CONDITIONS, SURVEYS AND REPORTS. THE CONTRACTOR MUST FIELD VERIFY ALL DIMENSIONS AND CONDITIONS SHOWN OR DESCRIBED TO BE EXISTING BY ITS OWN FIELD SURVEY PRIOR TO THE START OF SHOP DRAWINGS PREPARATION, FABRICATION, OR SITE CONSTRUCTION. NOTIFY THE COMMISSIONER OF DISCREPANCIES IN WRITING BEFORE PROCEEDING WITH WORK.

5. THE EXISTING COLUMN-TO-COLUMN SPACING VARIES. THE CONTRACTOR MUST CONDUCT ITS OWN FIELD SURVEY TO ESTABLISH EXISTING DIMENSIONAL PARAMETERS AS RELATED TO THE DESIGN BEFORE PROCEEDING WITH THE WORK. NOTIFY THE COMMISSIONER IN WRITING OF DISCREPANCIES WHICH WILL AFFECT EXECUTION OF THE DESIGN AS SHOWN.

PATCHING AND PAINTING NOTES

1. ALL EXISTING AREAS DAMAGED BY WORK OF THIS PROJECT SHALL BE PATCHED TO MATCH EXISTING ADJACENT SURFACES IN FINISH, COLOR, AND TEXTURE UNLESS OTHERWISE INDICATED.
2. ALL EXISTING PAINTED SURFACES DAMAGED OR PATCHED AS PART OF THIS PROJECT SHALL BE PAINTED TO MATCH EXISTING ADJACENT COLOR, TEXTURE, AND FINISH. EXISTING PAINT COLOR, TEXTURE, AND FINISH SHALL BE VERIFIED BY CONTRACTOR IN THE FIELD PRIOR TO CONSTRUCTION.
3. NEWLY INSTALLED EXPOSED ELECTRICAL ITEMS, INCLUDING BUT NOT LIMITED TO, CONDUIT HANGERS, AND FITTINGS SHALL BE PAINTED TO MATCH EXISTING ADJACENT SURFACES.
4. PREFINISHED ITEMS, SUCH AS STAINLESS STEEL, ARE NOT TO BE PAINTED.
5. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL ANCHOR BOLTS, CONDUIT STUBS, AND RELATED PROJECTIONS AND APPURTENANCES FROM FLOOR, WALL, AND CEILING AREAS WHERE ITEMS ARE REMOVED. REMOVE ALL ITEMS TO BELOW FINISH SURFACE PRIOR TO FLOOR PATCHING.
6. ALL EXISTING FLOOR SURFACES DAMAGED OR PATCHED AS PART OF THIS PROJECT SHALL BE PATCHED TO MATCH EXISTING ADJACENT COLOR, TEXTURE, AND FINISH. EXISTING FLOOR FINISH SHALL BE VERIFIED BY CONTRACTOR IN THE FIELD PRIOR TO CONSTRUCTION.
7. ALL NEW AND EXISTING EXPOSED CONCRETE WALLS TO BE CLEANED AND PAINTED, OR AS INDICATED IN THE DRAWINGS AND SPECIFICATIONS.

GENERAL NOTES - HAZARDOUS MATERIALS

ASBESTOS-CONTAINING BUILDING MATERIALS AND LEAD-BASED PAINT ARE, OR MAY BE, PRESENT IN THIS PROJECT. SEE ENVIRONMENTAL PAY ITEMS AND SPECIFICATION SECTIONS PRIOR TO DISTURBING. NO PERSON MAY DISTURB ASBESTOS-CONTAINING BUILDING MATERIALS UNLESS THAT PERSON IS A LICENSED ASBESTOS WORKER AND CONDUCTS SUCH WORK IN ACCORDANCE WITH SPECIFICATION(S) CONTAINED IN THE PROJECTS DOCUMENTS AND IN COMPLIANCE WITH ILLINOIS DEPARTMENT OF PUBLIC HEALTH RULES AND REGULATIONS.



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FAX: (312) 782-1684

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|------------------------|----------------|-----------|
| USER NAME = YJL | DESIGNED — YJL | REVISED — |
| | CHECKED — ECM | REVISED — |
| PLOT SCALE = 1:2 | DRAWN — YJL | REVISED — |
| PLOT DATE = 09/23/2020 | CHECKED — ECM | REVISED — |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

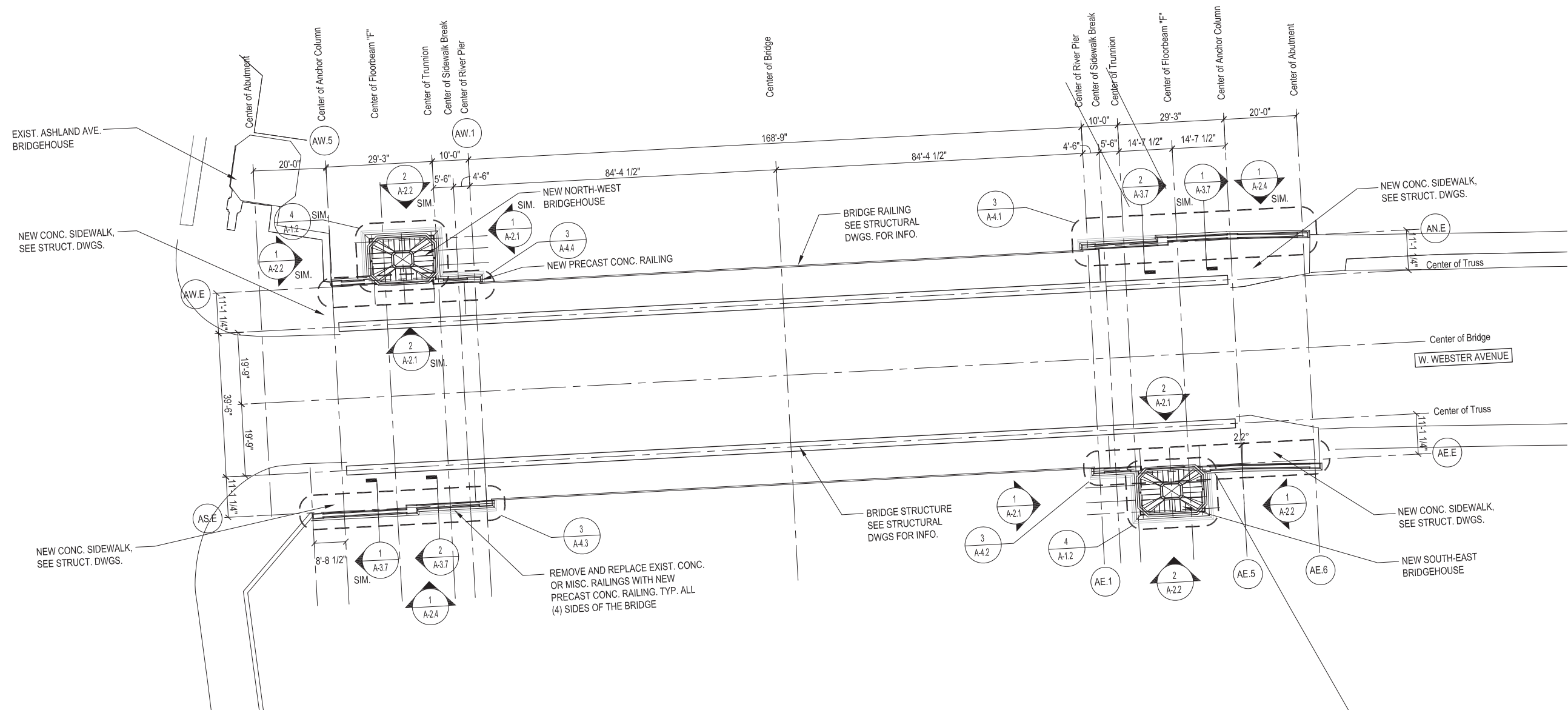
**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

ARCHITECTURAL GENERAL NOTES
(STRUCTURE NO. 016-6057)

| | | | |
|--------------------------|----------------|--------|------------|
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
| 1388 | 11-E1525-00-BR | COOK | A-0.0 |
| CDOT PROJECT NO. E-1-525 | | | 157 of 210 |

WEBSTER AVE. BRIDGEHOUSES & RAILINGS

1. CONTRACTOR TO VERIFY ALL DIMENSIONS IN THE FIELD
2. FIELD VERIFY EXISTING CONDITION, MAINTAIN ALL CLEARANCES AND HOLD ALL DIMENSIONS
3. REMOVE EXISTING BRIDGEHOUSE, SEE STRUCT. AND CIVIL DWGS.
4. REMOVE EXISTING CONCRETE AND MISCELLANEOUS RAILINGS, SEE STRUCT. AND CIVIL DWGS.
5. SEE SHEET A-1.3 FOR LOWER LEVEL PLAN



1 ARCHITECTURAL SITE PLAN
SCALE: 1/16" = 1'-0"

SCALE: 1/16" = 1'-0"



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CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

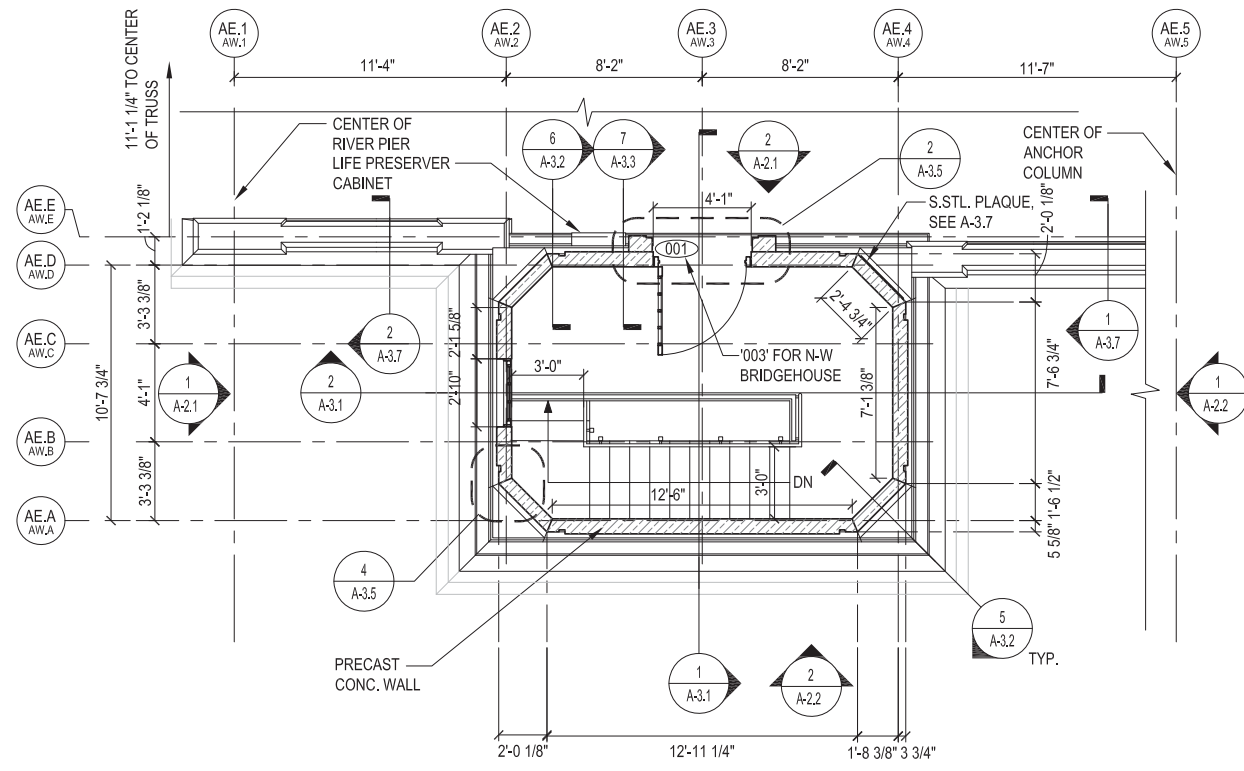
OVERALL SITE PLAN
(STRUCTURE NO. 016-6057)

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| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
| 1388 | 11-E1525-00-BR | COOK | A-1.1 |
| CDOT PROJECT NO. E-1-525 | | | 158 of 210 |

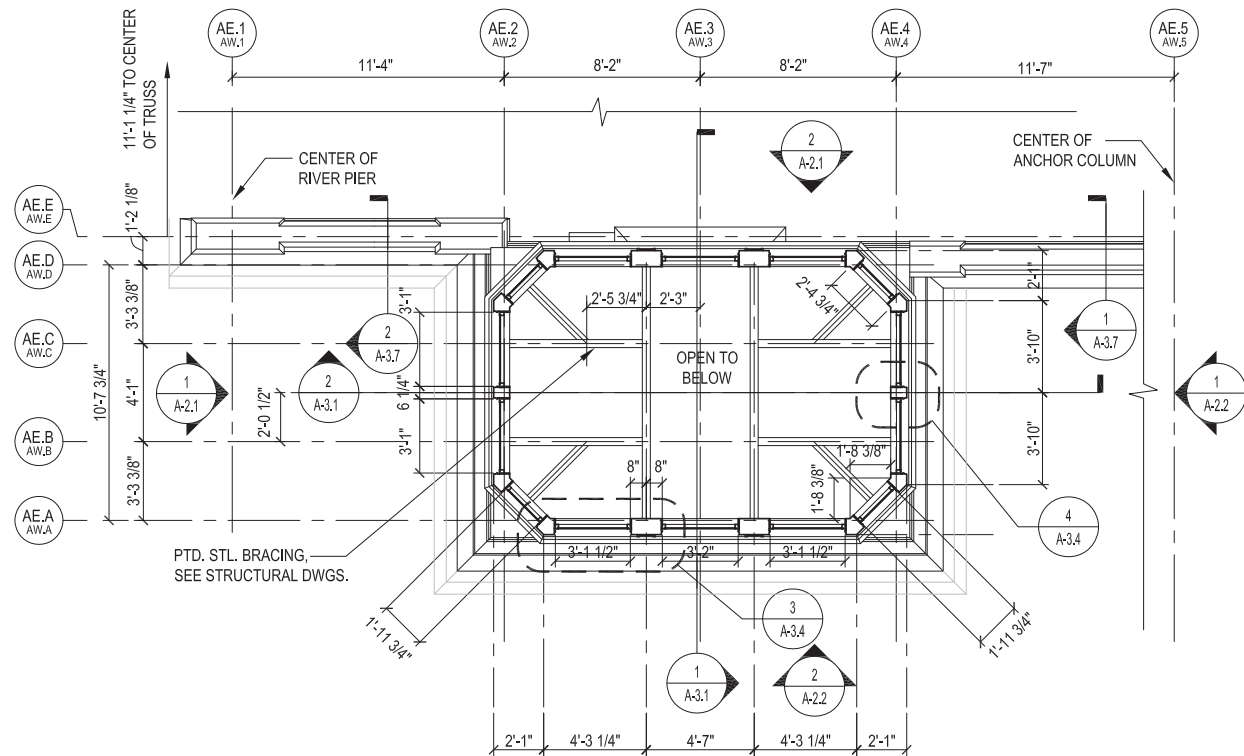
WEBSTER AVE. BRIDGEHOUSES & RAILINGS

-
- Architectural floor plan of the N-W Bridgehouse. The plan shows a rectangular structure with various rooms and structural elements. Key features include:
- Structural Elements:** NEW PRECAST CONC. RAILING, CAST-IN-PLACE EXPOSED CONC. SLAB W/ CONC. SEALER, PRECAST CONC. WALL, PAINT INT. SIDE, CAST-IN-PLACE CONC. STAIR W/ CONC. SEALER, PTD. STL. GUARDRAIL AND HANDRAIL.
 - Rooms and Features:** LIFE PRESERVER CABINET, '003' FOR N-W BRIDGEHOUSE, DN (Down).
 - Dimensions:**
 - Overall width: 17'-7 1/2"
 - Overall depth: 10'-7 3/4"
 - Room dimensions: 11'-9 3/4" x 8'-4", 4'-6 1/4" x 12'-3", 3'-5 3/4" x 5'-1 3/4", 3'-3 3/8" x 4'-1", 11'-1 1/4" x 11'-4", 8'-2" x 8'-2", 11'-7" x 11'-4".
 - Annotations:**
 - AE.1 AW.1, AE.2 AW.2, AE.3 AW.3, AE.4 AW.4, AE.5 AW.5 (Top)
 - AE.E AW.E, AE.D AW.D, AE.C AW.C, AE.B AW.B, AE.A AW.A (Left)
 - 1 A-2.1, 2 A-3.1, 3 A-3.7, 4 A-2.2, 5 A-3.2, 6 A-3.3, 7 A-2.1, 8 A-4.2, 9 A-3.7, 10 A-2.2, 11 A-3.2, 12 A-3.3, 13 A-2.1, 14 A-4.2, 15 A-3.7, 16 A-2.2, 17 A-3.2, 18 A-3.3, 19 A-2.1, 20 A-4.2, 21 A-3.7, 22 A-2.2, 23 A-3.2, 24 A-3.3, 25 A-2.1, 26 A-4.2, 27 A-3.7, 28 A-2.2, 29 A-3.2, 30 A-3.3, 31 A-2.1, 32 A-4.2, 33 A-3.7, 34 A-2.2, 35 A-3.2, 36 A-3.3, 37 A-2.1, 38 A-4.2, 39 A-3.7, 40 A-2.2, 41 A-3.2, 42 A-3.3, 43 A-2.1, 44 A-4.2, 45 A-3.7, 46 A-2.2, 47 A-3.2, 48 A-3.3, 49 A-2.1, 50 A-4.2, 51 A-3.7, 52 A-2.2, 53 A-3.2, 54 A-3.3, 55 A-2.1, 56 A-4.2, 57 A-3.7, 58 A-2.2, 59 A-3.2, 60 A-3.3, 61 A-2.1, 62 A-4.2, 63 A-3.7, 64 A-2.2, 65 A-3.2, 66 A-3.3, 67 A-2.1, 68 A-4.2, 69 A-3.7, 70 A-2.2, 71 A-3.2, 72 A-3.3, 73 A-2.1, 74 A-4.2, 75 A-3.7, 76 A-2.2, 77 A-3.2, 78 A-3.3, 79 A-2.1, 80 A-4.2, 81 A-3.7, 82 A-2.2, 83 A-3.2, 84 A-3.3, 85 A-2.1, 86 A-4.2, 87 A-3.7, 88 A-2.2, 89 A-3.2, 90 A-3.3, 91 A-2.1, 92 A-4.2, 93 A-3.7, 94 A-2.2, 95 A-3.2, 96 A-3.3, 97 A-2.1, 98 A-4.2, 99 A-3.7, 100 A-2.2.

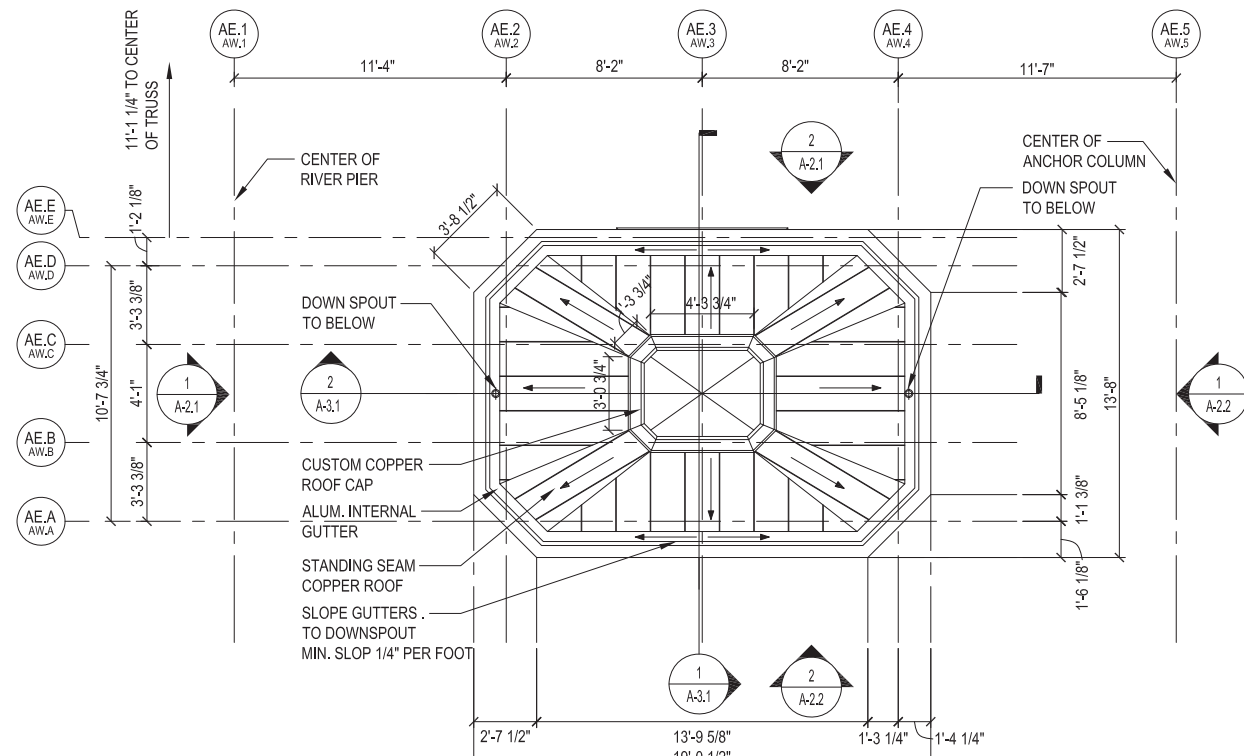
SCALE: 1/4" = 1'-0" NORTH-WEST BRIDGE HOUSE SIMILAR
GRID 'AW.-' FOR N-W, 'AE.-' FOR S-E BRIDGE HOUSE



SCALE: 1/4" = 1'-0" NORTH-WEST BRIDGE HOUSE SIMILAR
GRID 'AW.-' FOR N-W, 'AE.-' FOR S-E BRIDGE HOUSE



SCALE: 1/4" = 1'-0" NORTH-WEST BRIDGE HOUSE SIMILAR
GRID 'AW.-' FOR N-W, 'AE.-' FOR S-E BRIDGE HOUSE



SCALE: 1/4" = 1'-0" NORTH-WEST BRIDGE HOUSE SIMILAR
GRID 'AW.-' FOR N-W, 'AE.-' FOR S-E BRIDGE HOUSE



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| PLOT SCALE = | 1:2 |
| PLOT DATE = | 09/23/2020 |

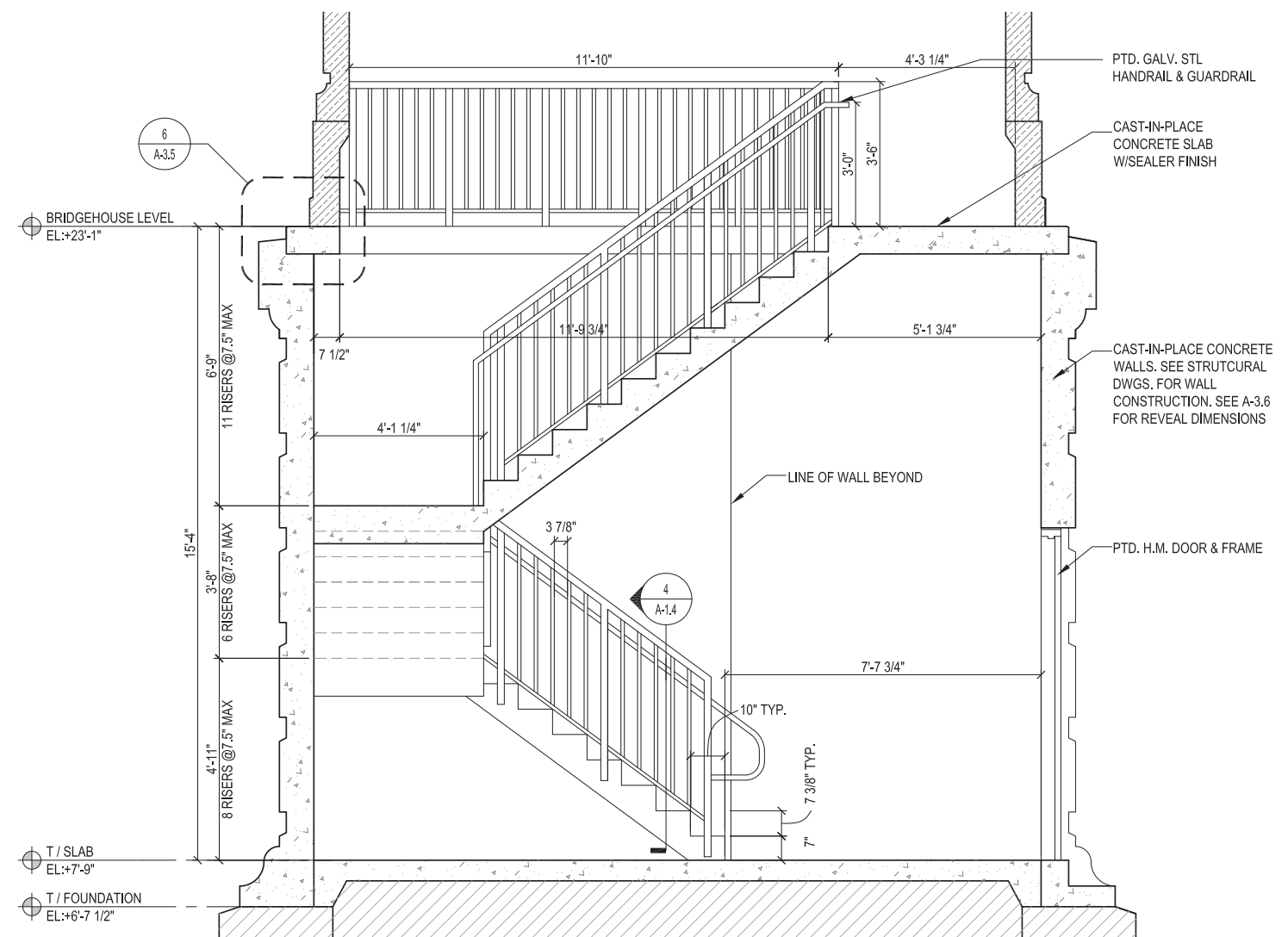
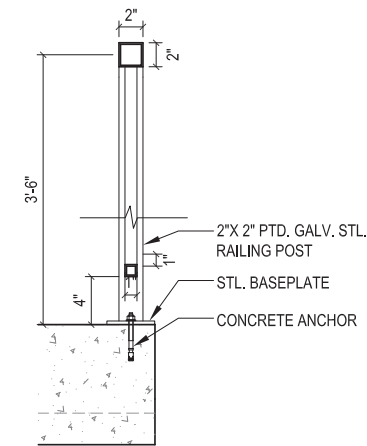
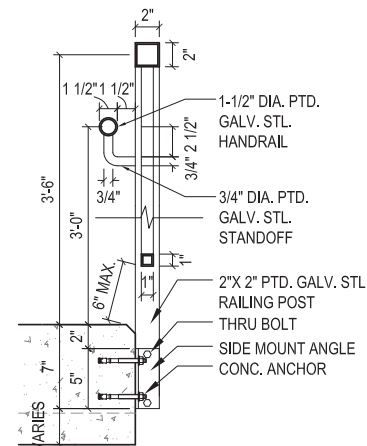
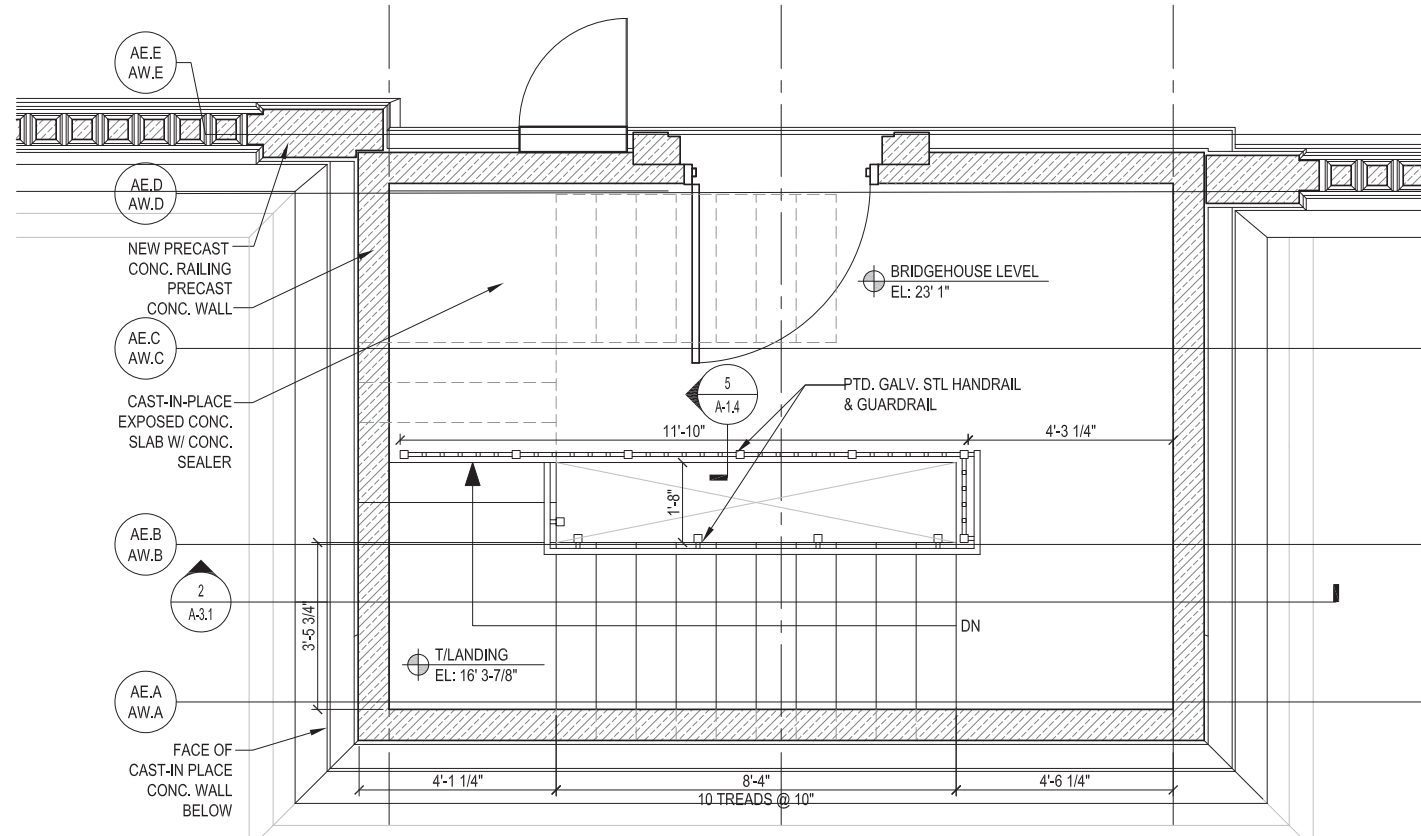
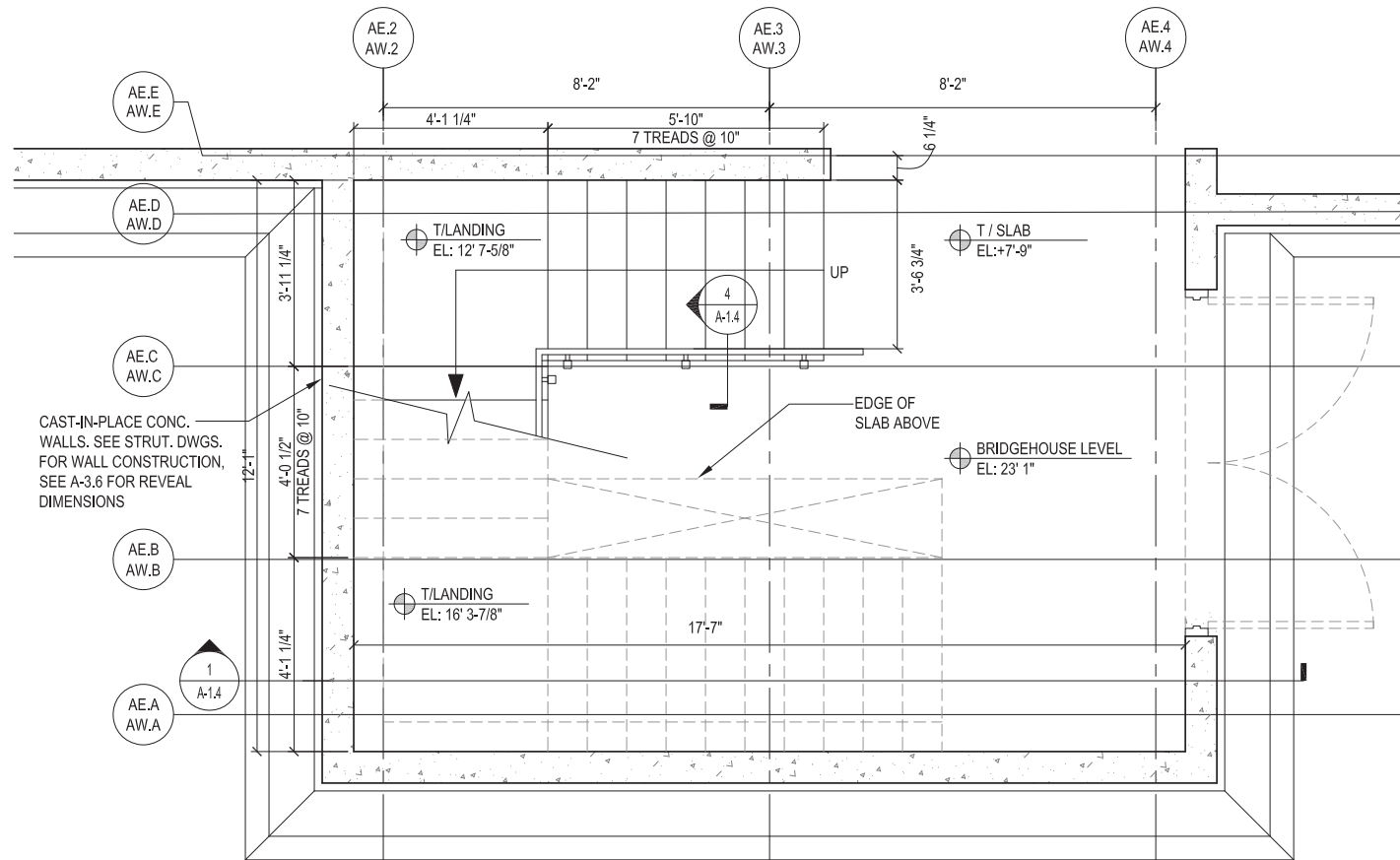
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CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

BRIDGE HOUSE PLAN
(STRUCTURE NO. 016-6057)

| | | | |
|--------------------------|----------------|--------|-------------------------------|
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. A-1.2 |
| 1388 | 11-E1525-00-BR | COOK | |
| CDOT PROJECT NO. E-1-525 | | | 159 of 210 |



r_barc

rose barnes architects

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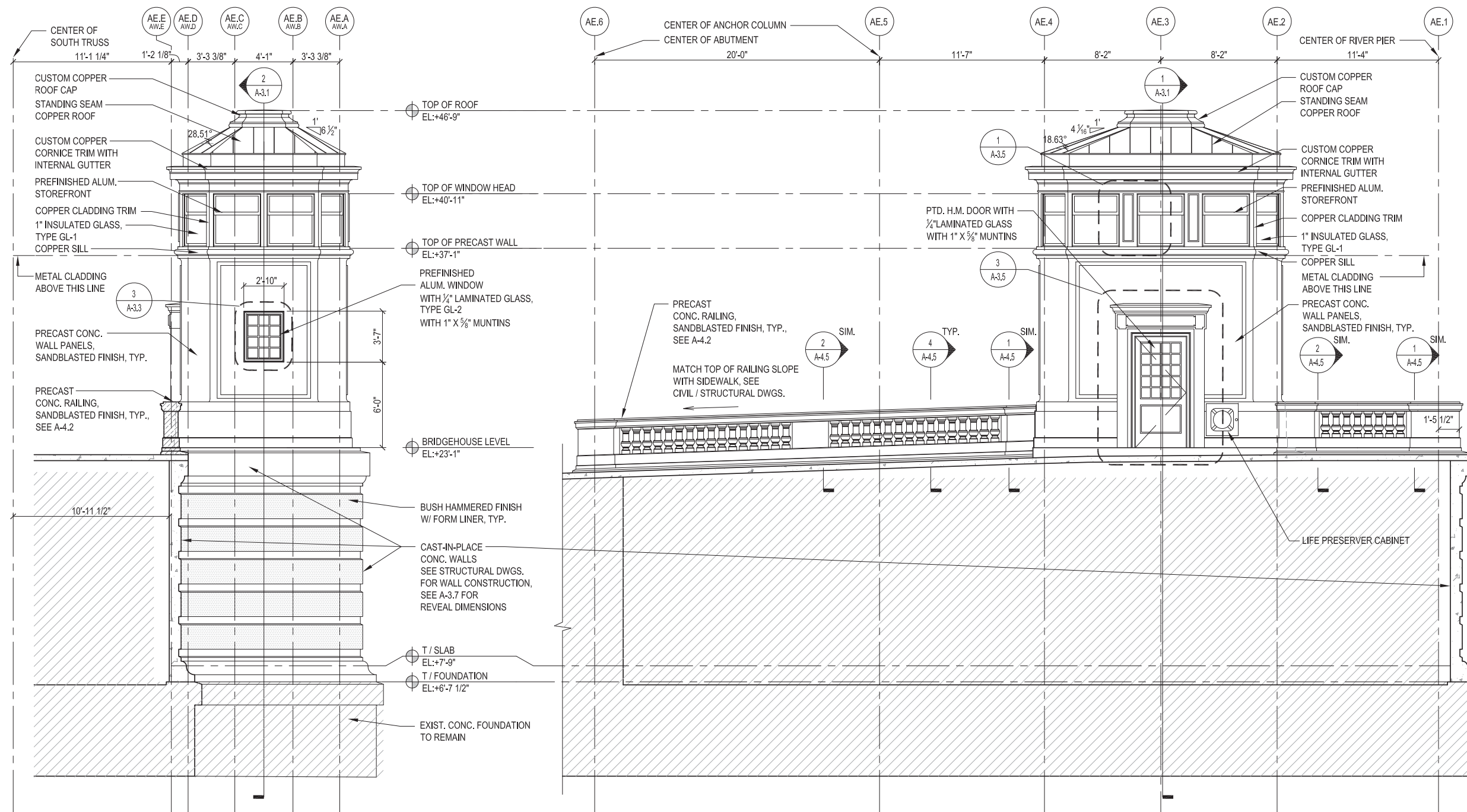
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| PLOT SCALE = 1:2 | CHECKED — ECM | REVISED — |
| PLOT DATE = 09/23/2020 | DRAWN — YJL | REVISED — |
| | CHECKED — ECM | REVISED — |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

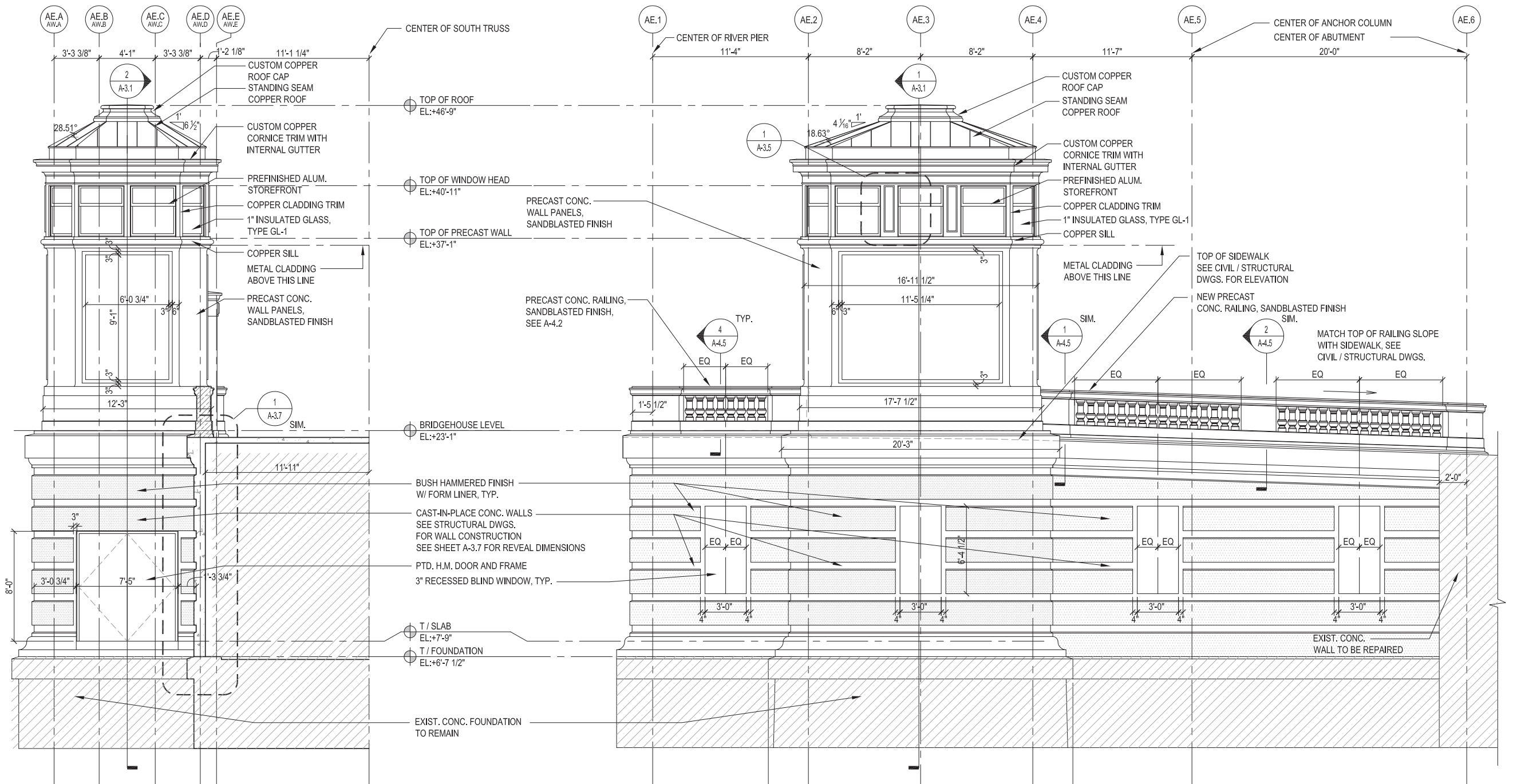
**BRIDGE HOUSE STAIR
PLAN, SECTION, DETAIL
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | A-1.4 |
| CDOT PROJECT NO. E-1-525 | | | 161 of 210 |



1 S-E BRIDGE HOUSE WEST ELEVATION
SCALE: 1/4" = 1'-0"
(N-W BRIDGE HOUSE EAST ELEVATION)

2 S-E BRIDGE HOUSE NORTH ELEVATION
SCALE: 1/4" = 1'-0"



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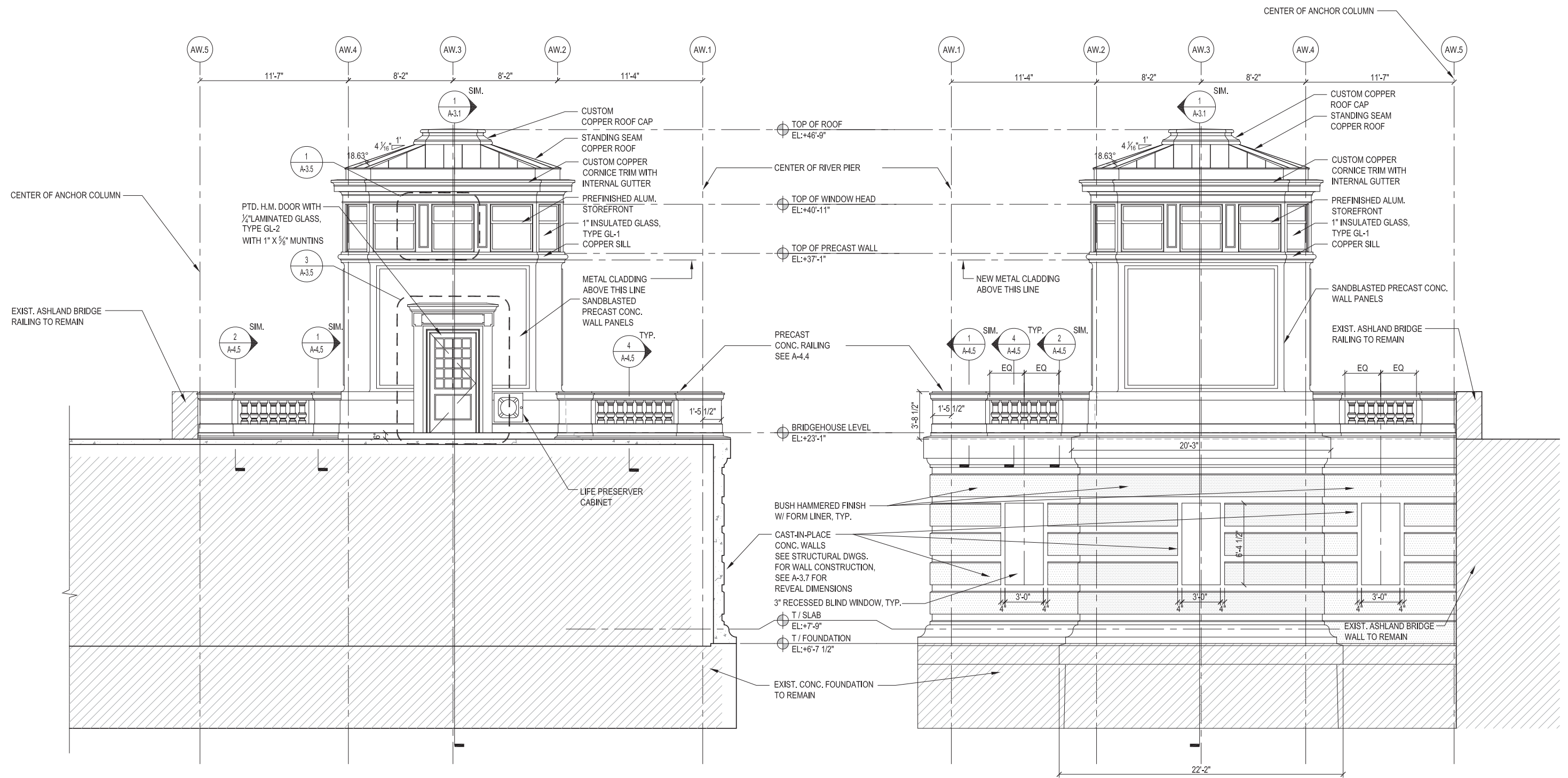
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| PLOT SCALE = 1:2 | DRAWN — YJL | REVISED — |
| PLOT DATE = 09/23/2020 | CHECKED — ECM | REVISED — |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**SOUTHEAST BRIDGE HOUSE ELEVATION
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | A-2.2 |
| CDOT PROJECT NO. E-1-525 | | | 163 of 210 |



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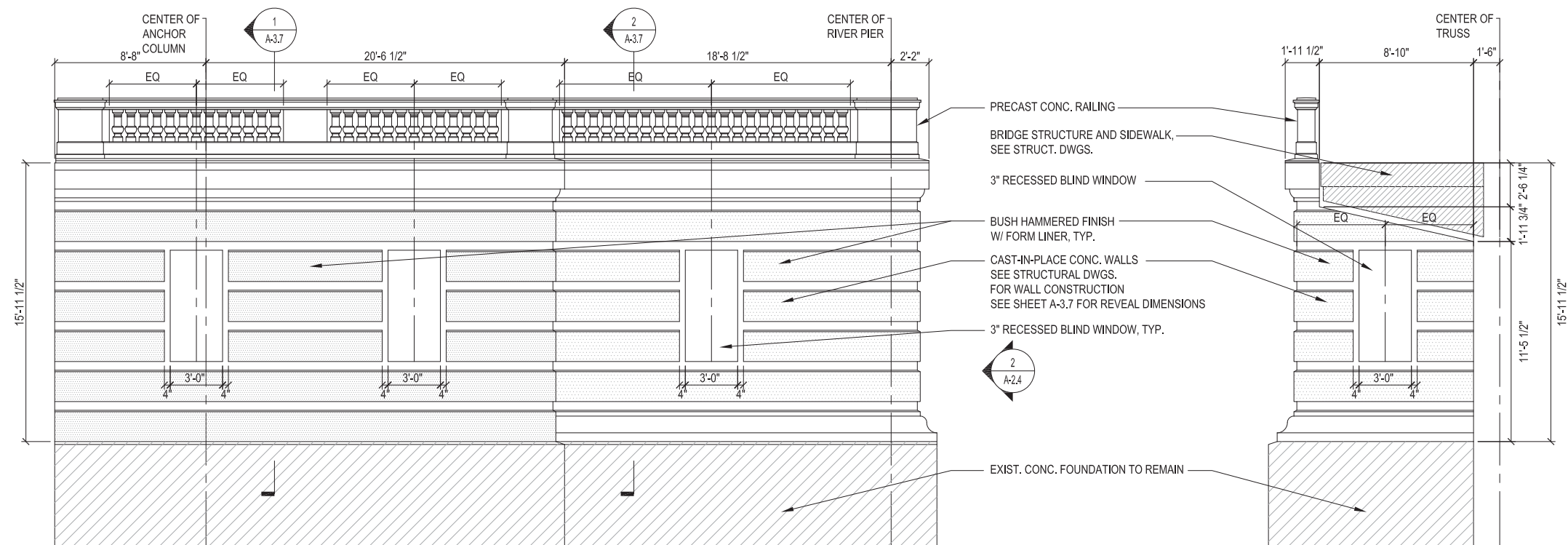
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| USER NAME = YJL | DESIGNED — YJL | REVISED — |
| | CHECKED — ECM | REVISED — |
| PLOT SCALE = 1:2 | DRAWN — YJL | REVISED — |
| PLOT DATE = 09/23/2020 | CHECKED — ECM | REVISED — |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

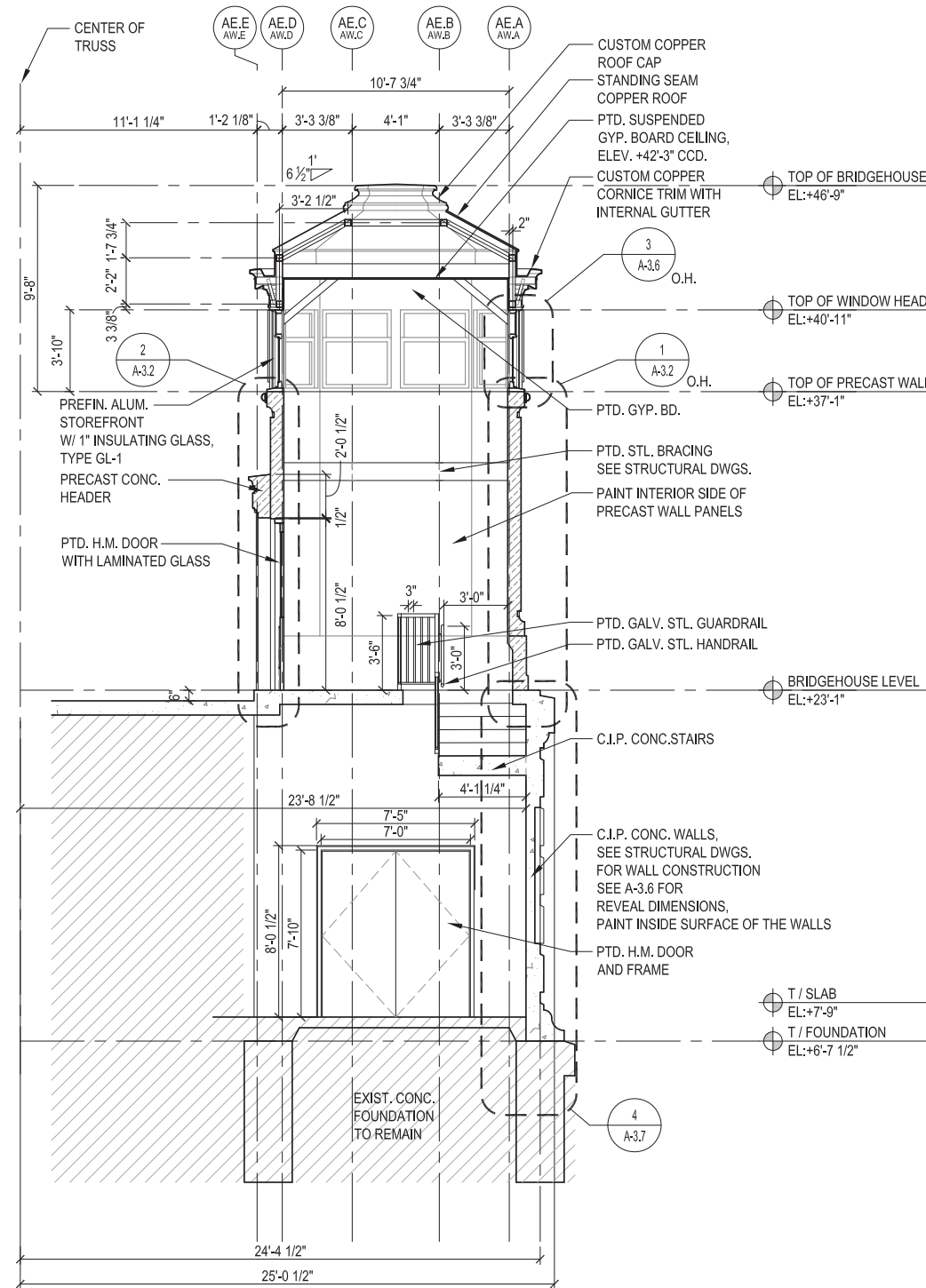
**NORTHWEST BRIDGE HOUSE ELEVATION
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | A-2.3 |
| CDOT PROJECT NO. E-1-525 | | | 164 of 210 |

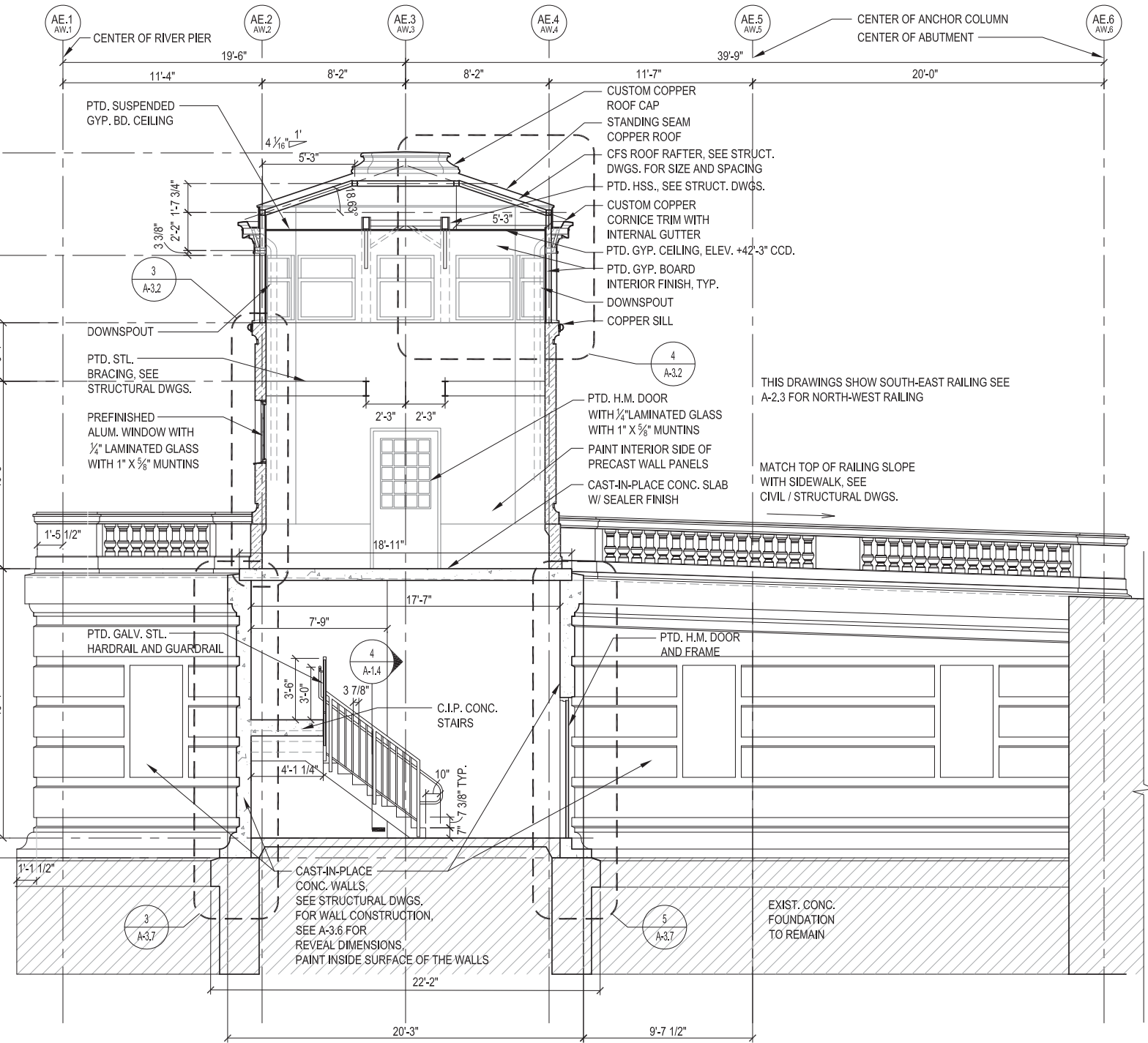


1 S-W BRIDGE WALL ELEVATION
SCALE: 1/4" = 1'-0"

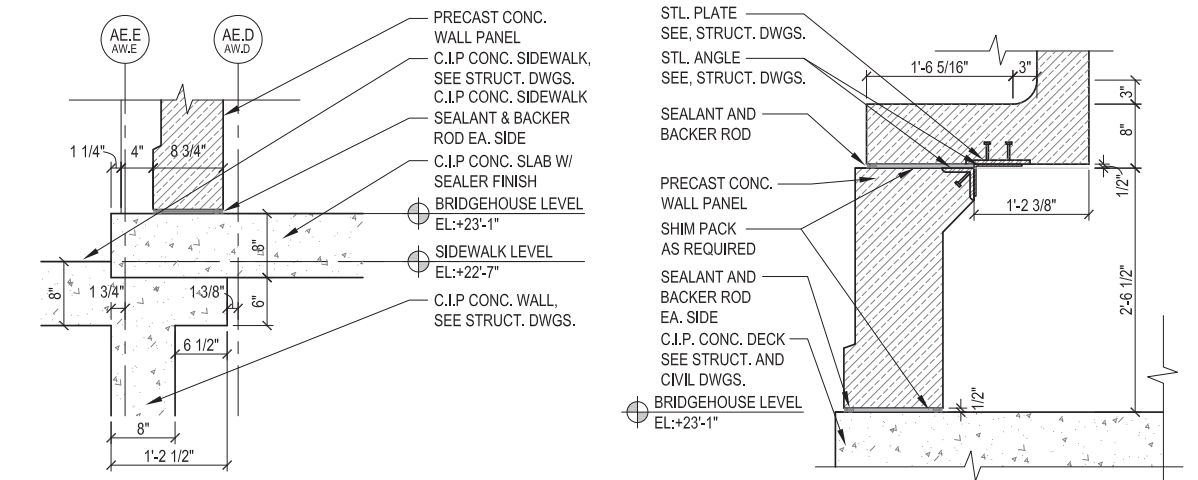
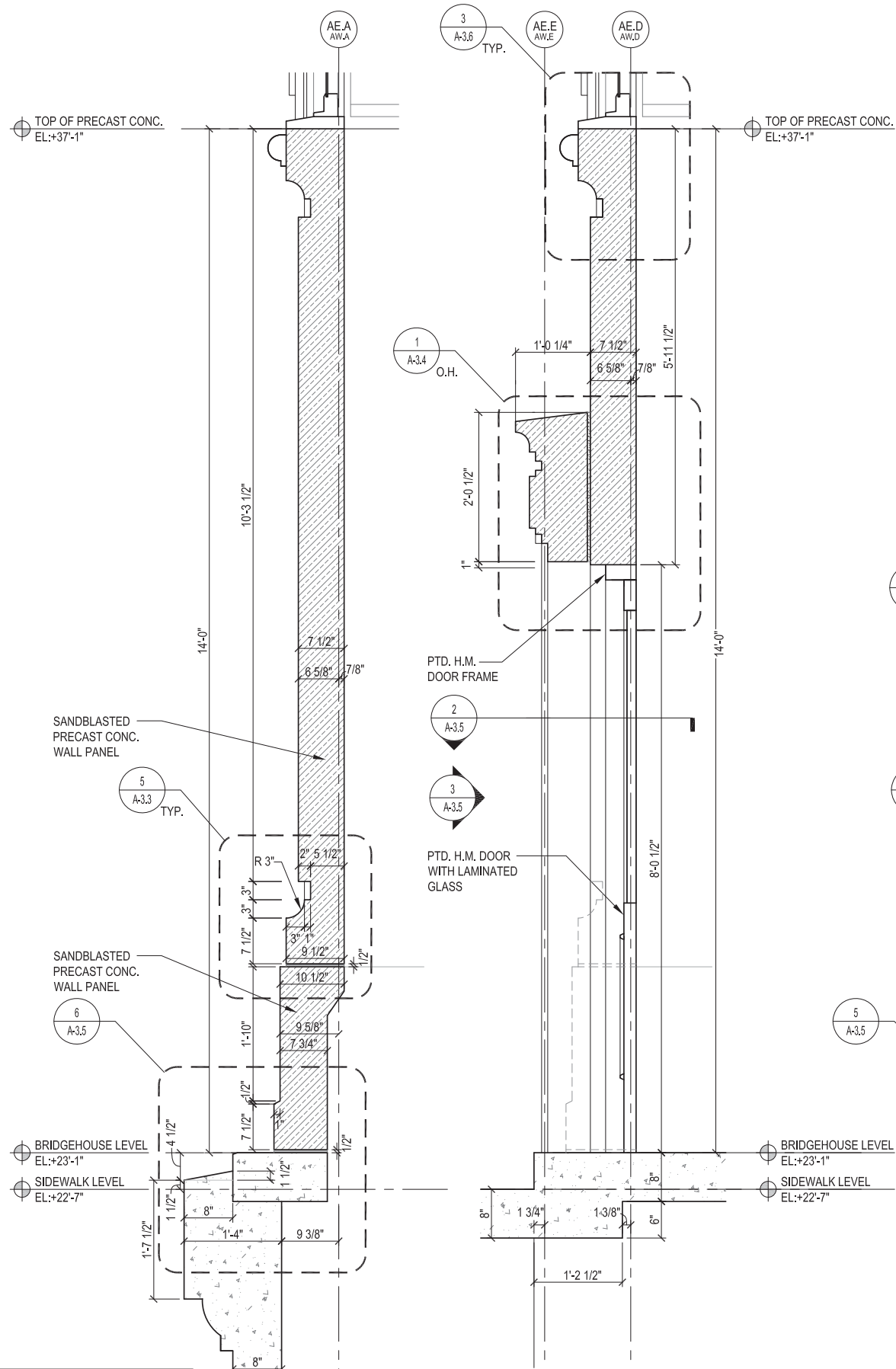
2 S-W BRIDGE WALL ELEVATION
SCALE: 1/4" = 1'-0"



1 S-E BRIDGE HOUSE SECTION
SCALE: 1/4" = 1'-0" (N-W BRIDGE HOUSE SECTION SIMILAR)

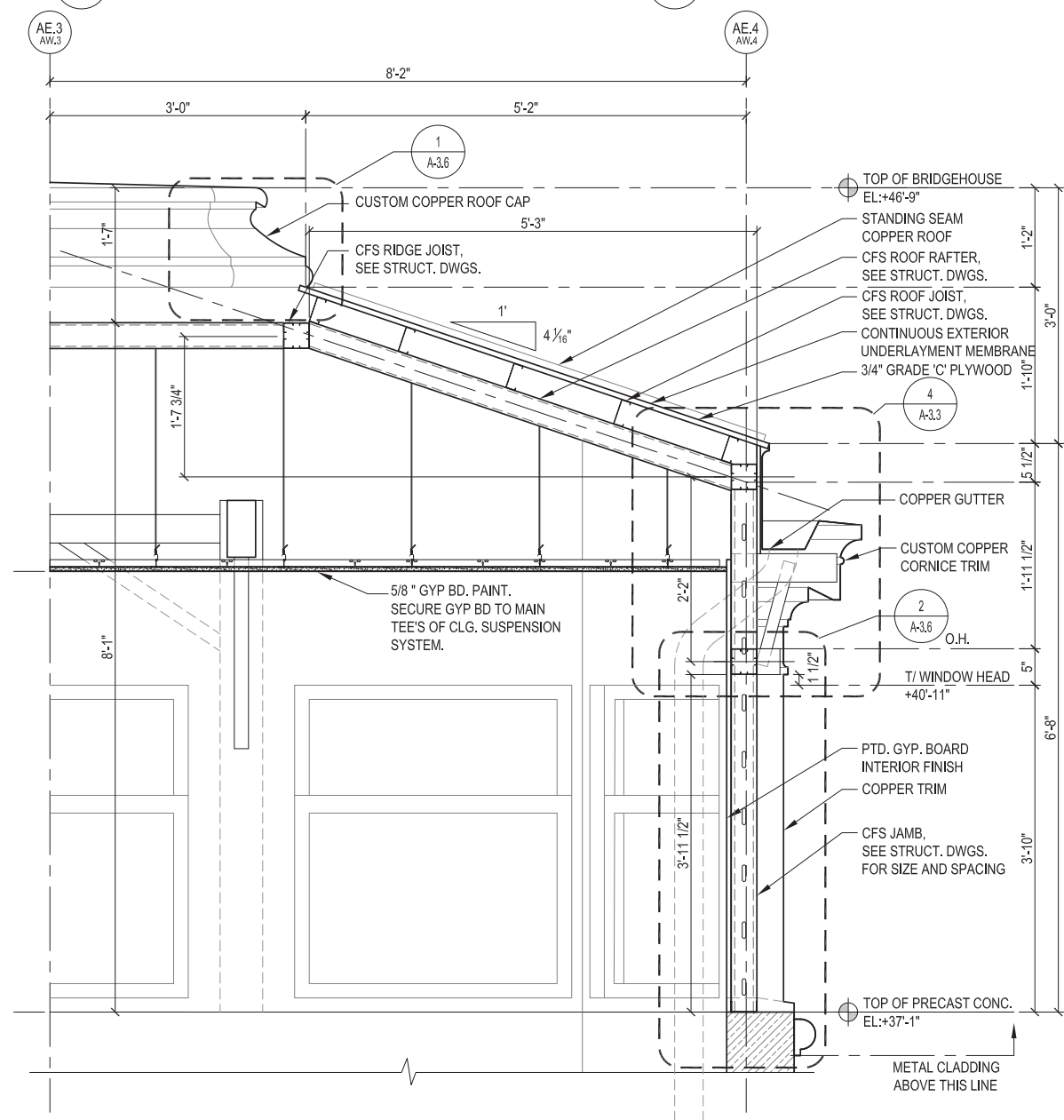


2 S-E BRIDGE HOUSE SECTION
SCALE: 1/4" = 1'-0" (N-W BRIDGE HOUSE SECTION SIMILAR)



6 WALL SECTION,
SCALE: 1" = 1'-0"

5 WALL SECTION, TYP.
SCALE: 1" = 1'-0"



4 SECTION, TYP.
SCALE: 1" = 1'-0"

rbarc
ross barney architects

1 WALL SECTION, TYP.
SCALE: 1" = 1'-0"

2 WALL SECTION
SCALE: 1" = 1'-0"

3 WALL SECTION
SCALE: 1" = 1'-0"

wsp

WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

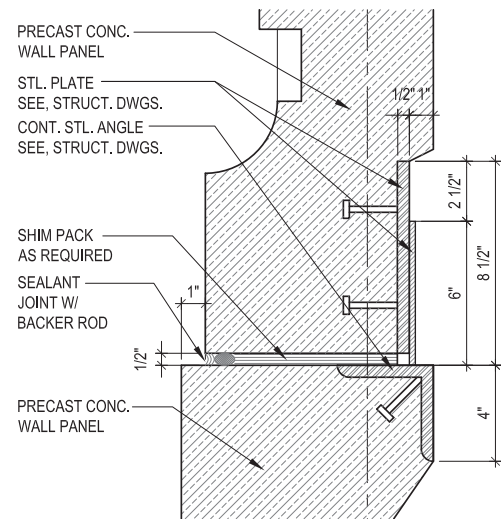
| | | |
|------------------------|----------------|-----------|
| USER NAME = YJL | DESIGNED — YJL | REVISED — |
| PLOT SCALE = 1:2 | CHECKED — ECM | REVISED — |
| PLOT DATE = 09/23/2020 | DRAWN — YJL | REVISED — |
| | CHECKED — ECM | REVISED — |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

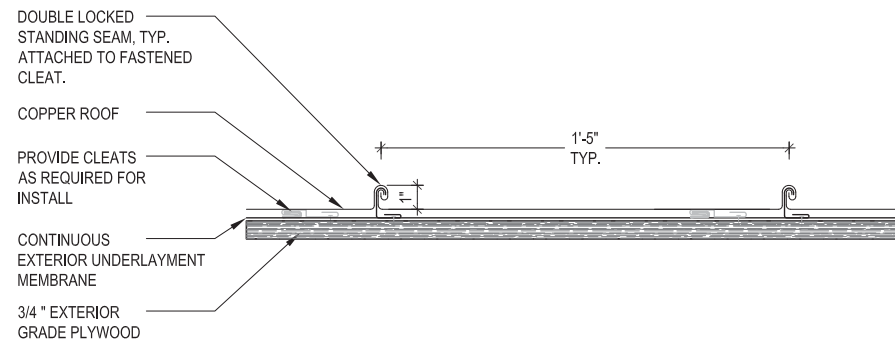
**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**BRIDGE HOUSE WALL SECTION
(STRUCTURE NO. 016-6057)**

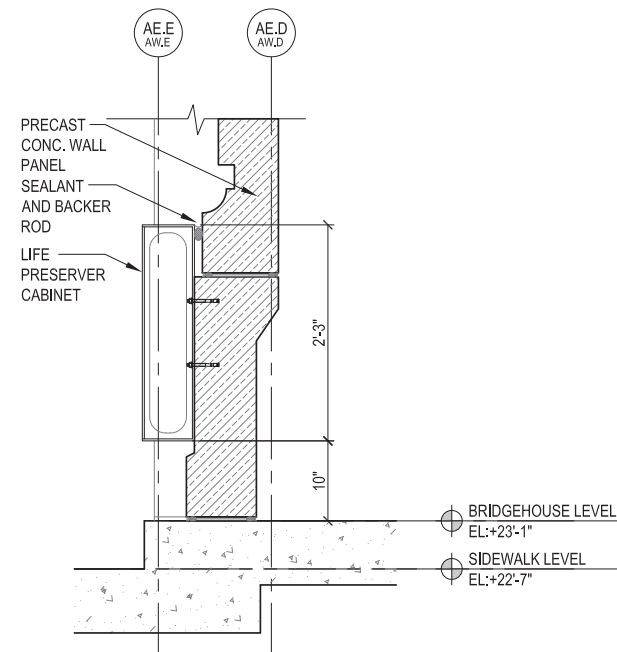
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | A-3.2 |
| CDOT PROJECT NO. E-1-525 | | | 167 of 210 |



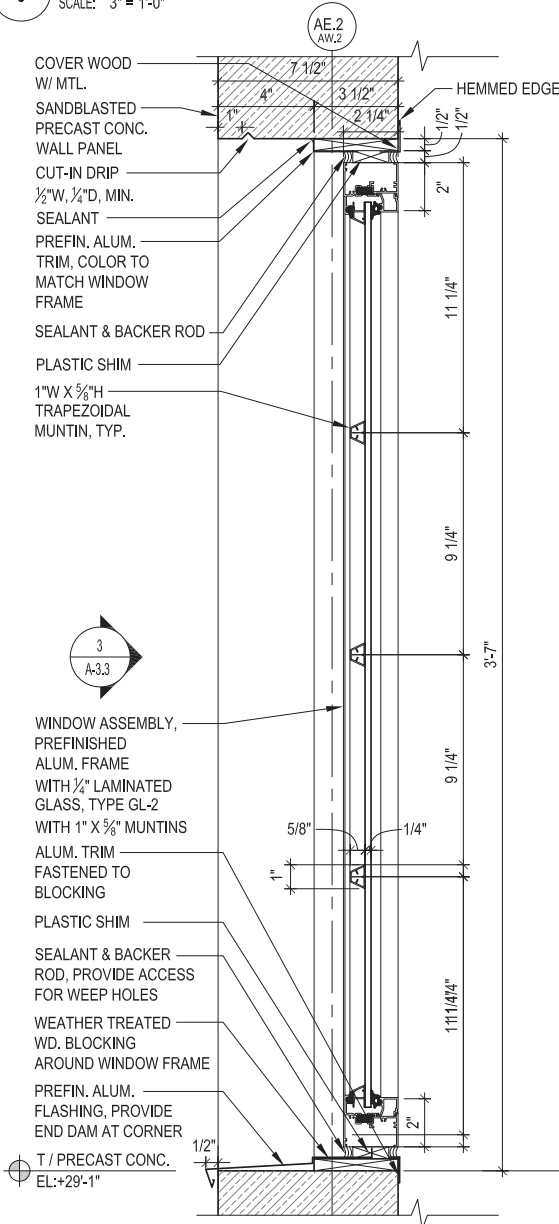
5 TYP. PRECAST CONC. WALL PANEL CONNECTION DETAIL
SCALE: 3" = 1'-0"



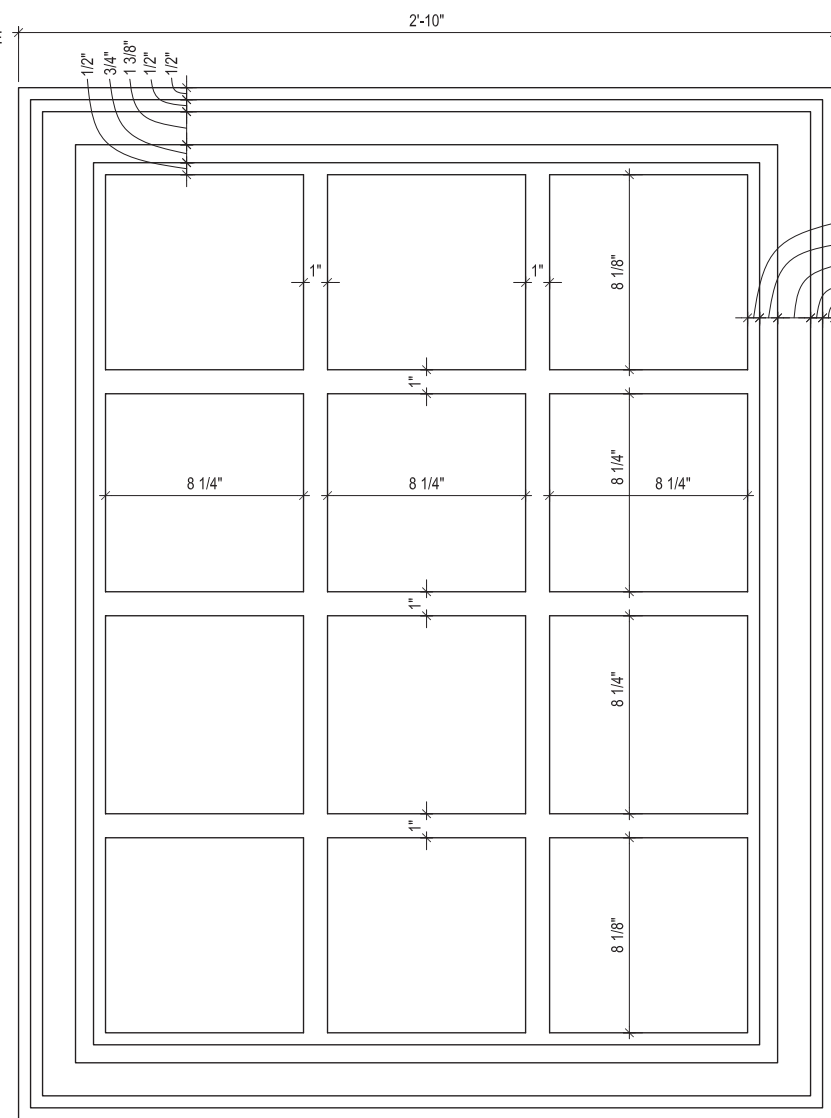
6 STANDING SEAM ROOF CLADDING SECTION DETAIL
SCALE: 3" = 1'-0"



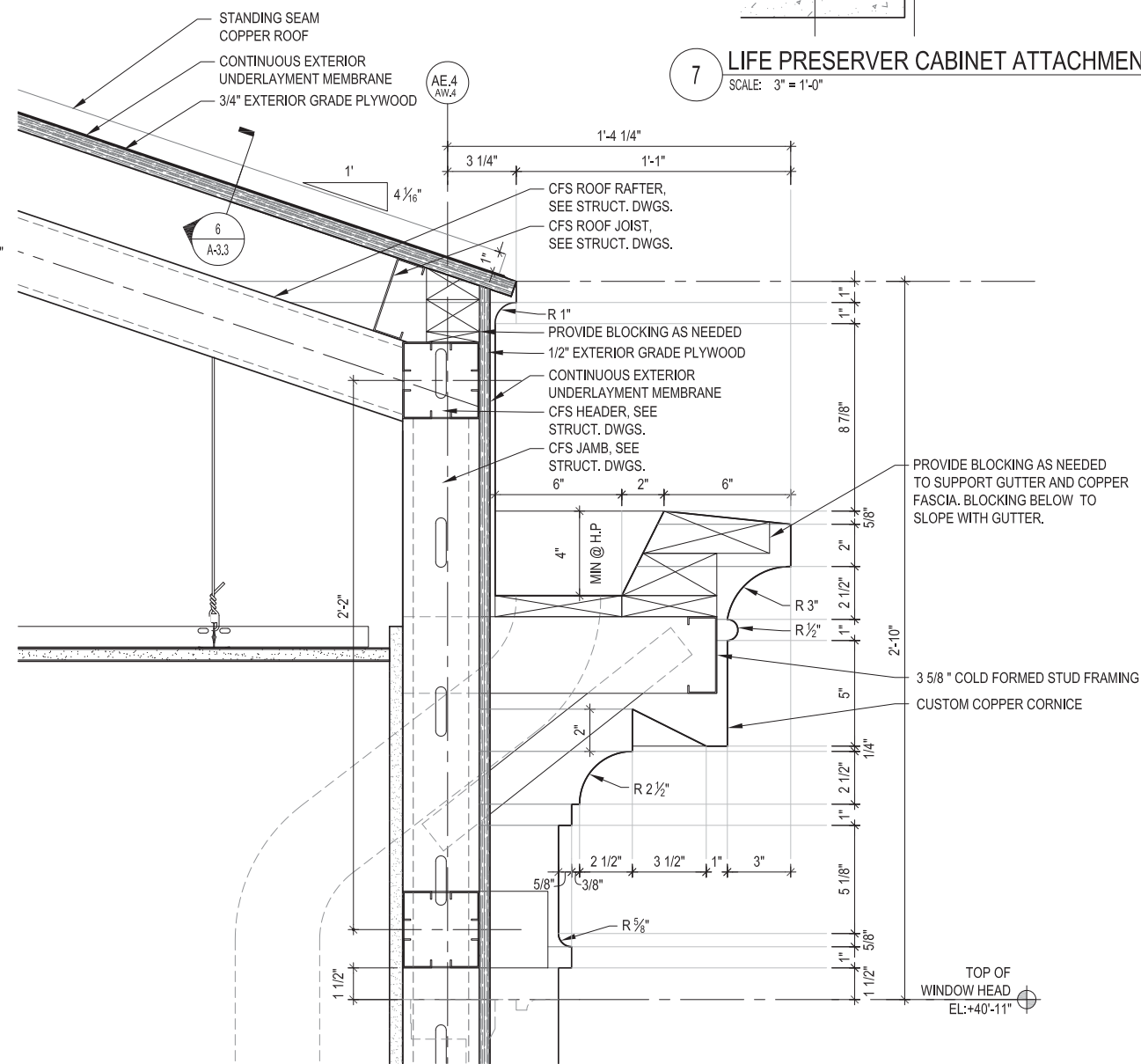
7 LIFE PRESERVER CABINET ATTACHMENT DETAIL
SCALE: 3" = 1'-0"



2 WINDOW DETAIL
SCALE: 3" = 1'-0"



3 WINDOW ELEVATION
SCALE: 3" = 1'-0"



4 ROOF DETAIL
SCALE: 3" = 1'-0"



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CHICAGO, IL 60602
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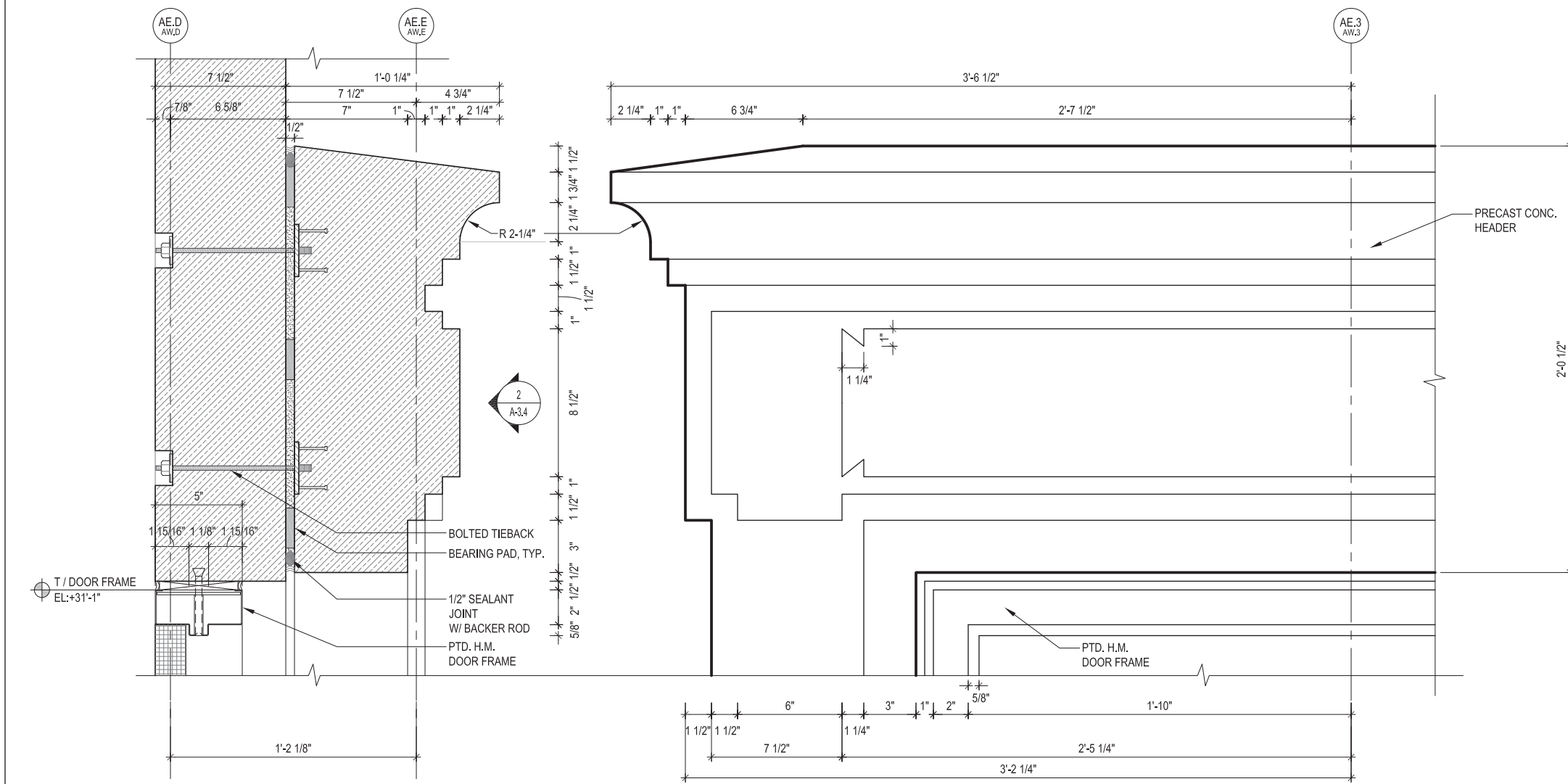
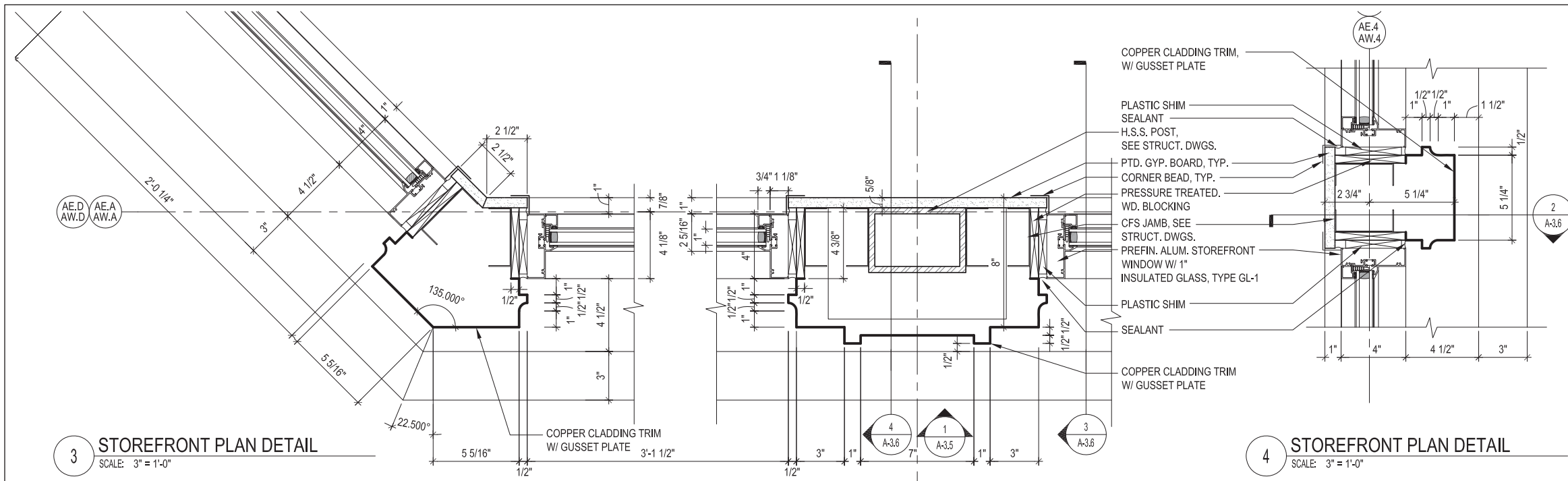
| | | |
|------------------------|----------------|-----------|
| USER NAME = YJL | DESIGNED — YJL | REVISED — |
| PLOT SCALE = 1:2 | CHECKED — ECM | REVISED — |
| PLOT DATE = 09/23/2020 | DRAWN — YJL | REVISED — |
| | CHECKED — ECM | REVISED — |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**BRIDGE HOUSE DETAIL
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | A-3.3 |
| CDOT PROJECT NO. E-1-525 | | | 168 of 210 |



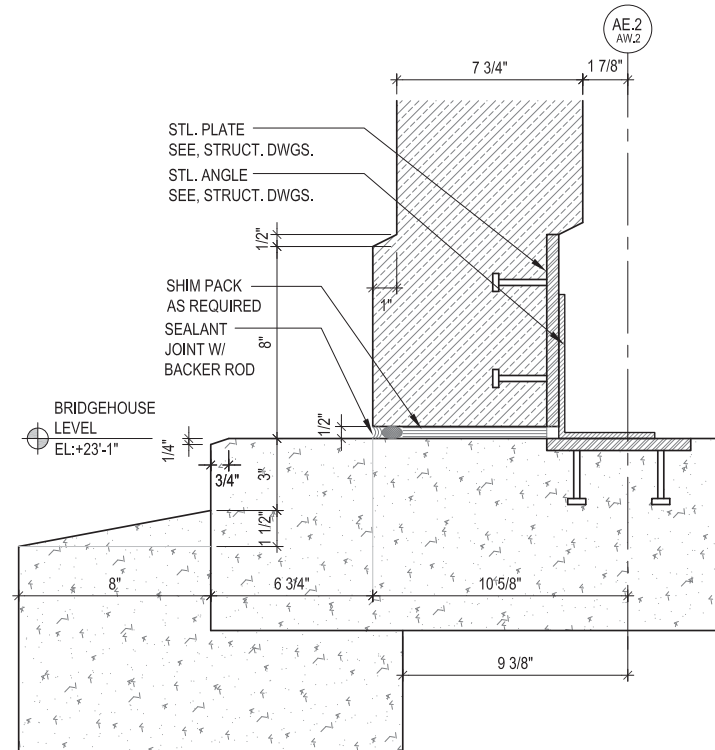
| | | |
|------------------------|----------------|-----------|
| USER NAME = YJL | DESIGNED — YJL | REVISED — |
| PLOT SCALE = 1:2 | CHECKED — ECM | REVISED — |
| PLOT DATE = 09/23/2020 | DRAWN — YJL | REVISED — |
| | CHECKED — ECM | REVISED — |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

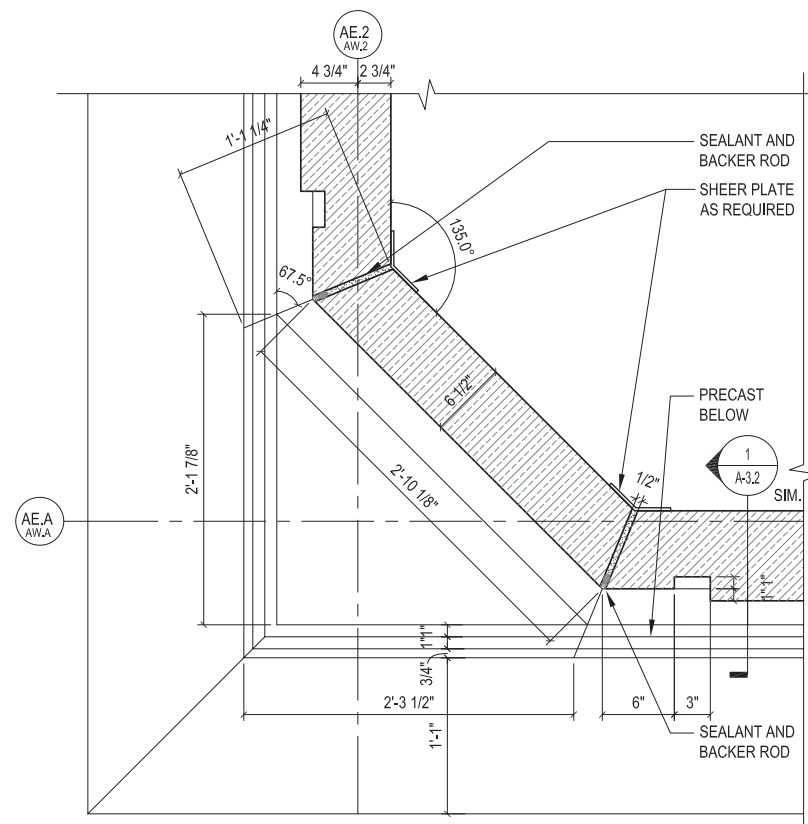
**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**BRIDGE HOUSE DETAIL
(STRUCTURE NO. 016-6057)**

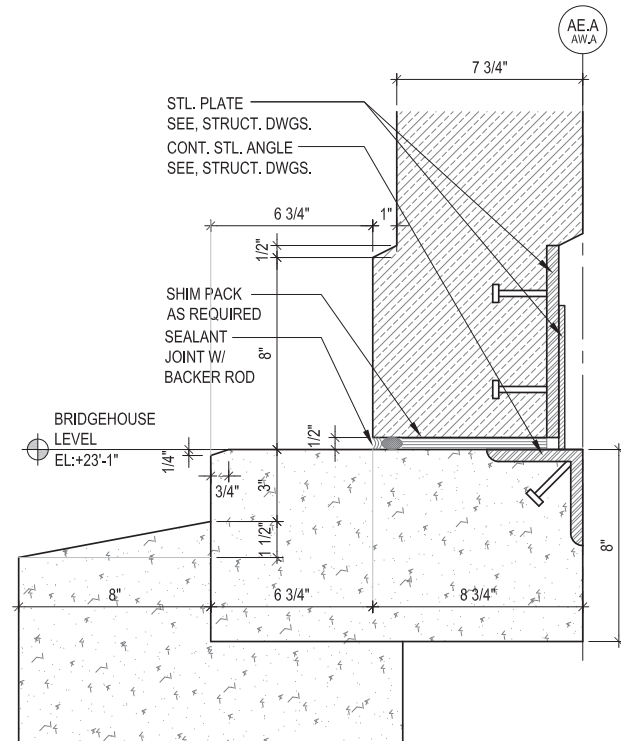
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|--------------|
| 1388 | 11-E1525-00-BR | COOK | A-3.4 |
| CDOT PROJECT NO. E-1-525 | | | 169 of 210 |



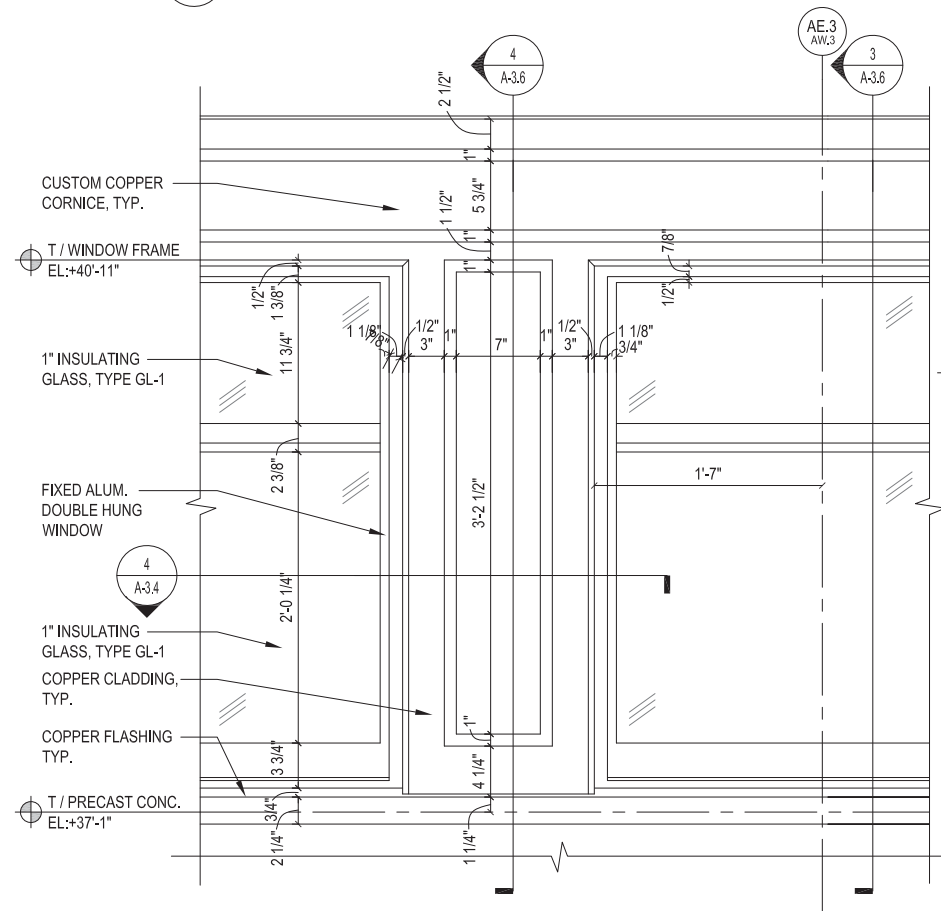
5 WALL PANEL CONNECTION DETAIL
SCALE: 3" = 1'-0"



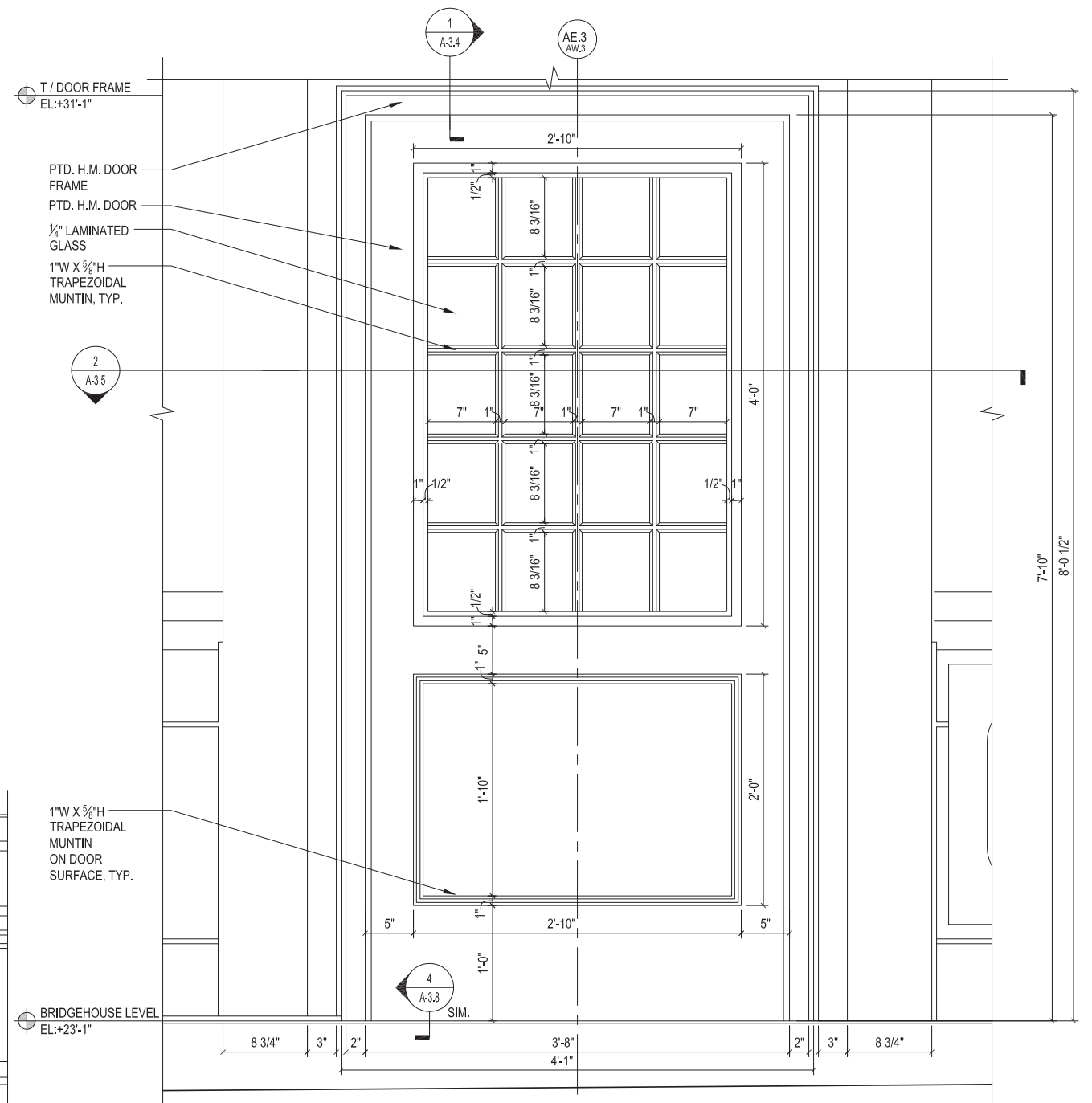
4 WALL PANEL CONNECTION DETAIL
SCALE: 1-1/2" = 1'-0"



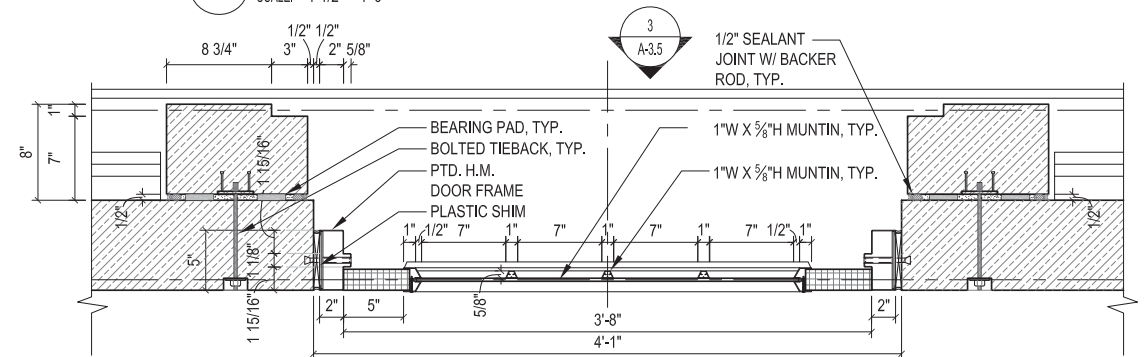
6 WALL PANEL CONNECTION DETAIL
SCALE: 3" = 1'-0"



1 STOREFRONT ELEVATION
SCALE: 1-1/2" = 1'-0"



3 DOOR ELEVATION
SCALE: 1-1/2" = 1'-0"



2 DOOR DETAIL
SCALE: 1-1/2" = 1'-0"

rbarc
russell barry architects

wsp

WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

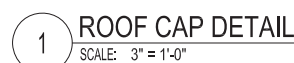
| | | |
|------------------------|----------------|-----------|
| USER NAME = YJL | DESIGNED — YJL | REVISED — |
| PLOT SCALE = 1:2 | CHECKED — ECM | REVISED — |
| PLOT DATE = 09/23/2020 | DRAWN — YJL | REVISED — |
| | CHECKED — ECM | REVISED — |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**BRIDGE HOUSE DETAIL
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | A-3.5 |
| CDOT PROJECT NO. E-1-525 | | | 170 of 210 |



WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

| | | |
|------------|---|-----|
| USER NAME | = | YJL |
| PLOT SCALE | = | 1:2 |
| PLOT DATE | = | 09/ |

23/2020

| | | |
|----------|---|-----|
| DESIGNED | — | YJL |
| CHECKED | — | ECM |
| DRAWN | — | YJL |
| CHECKED | — | ECM |

| | |
|---------|---|
| REVISED | — |
| REVISED | — |
| REVISED | — |
| REVISED | — |

| | |
|---------|---|
| REVISED | — |
| REVISED | — |
| REVISED | — |
| REVISED | — |

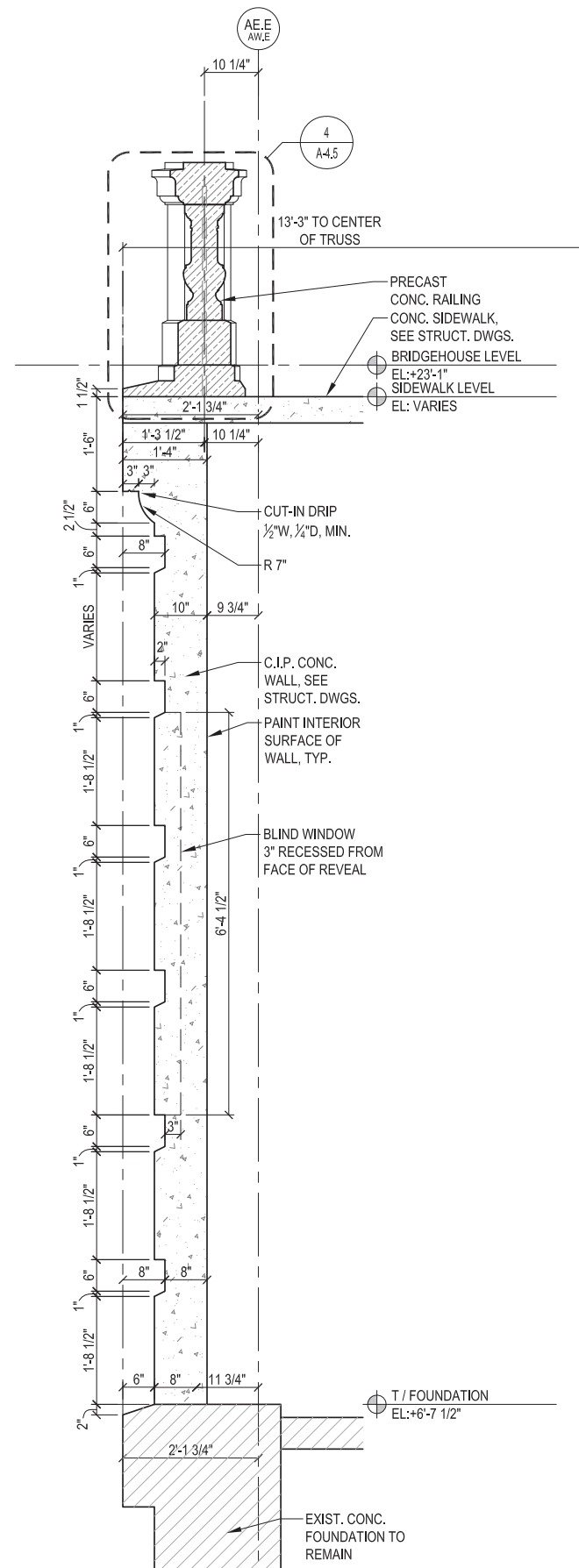
| | |
|---------|---|
| REVISED | — |
| REVISED | — |
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CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

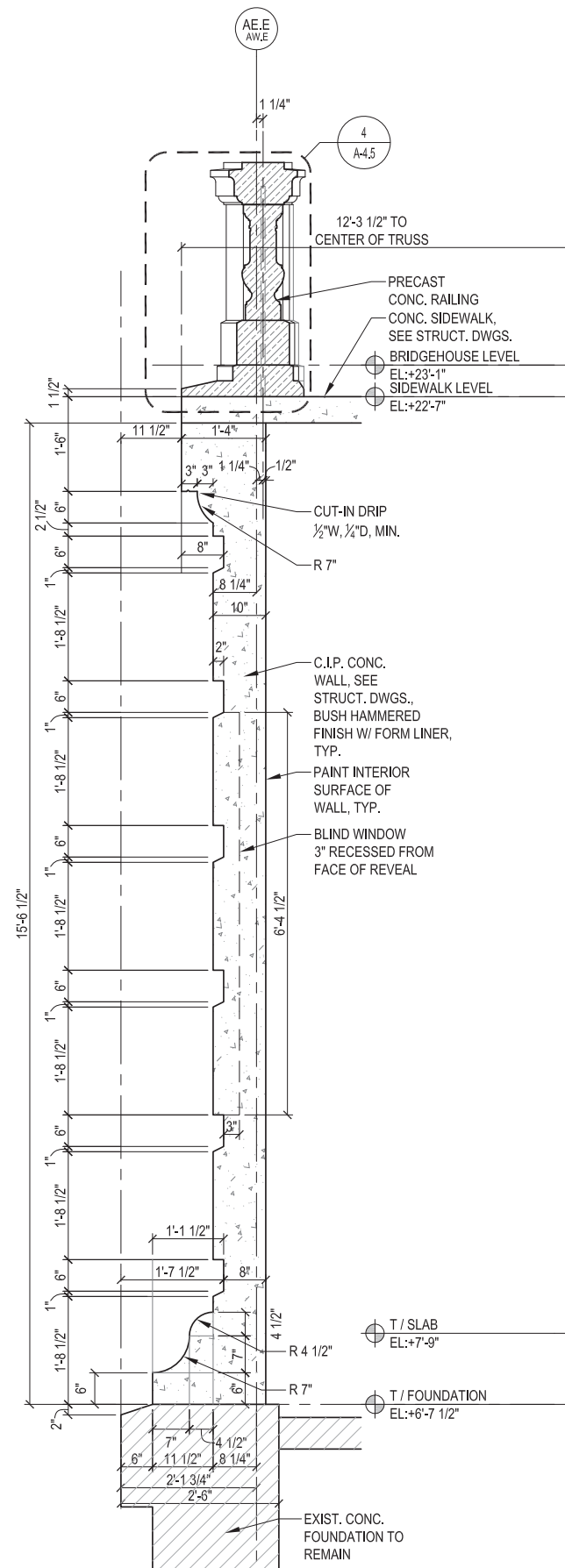
**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

BRIDGE HOUSE DETAIL
(STRUCTURE NO. 016-6057)

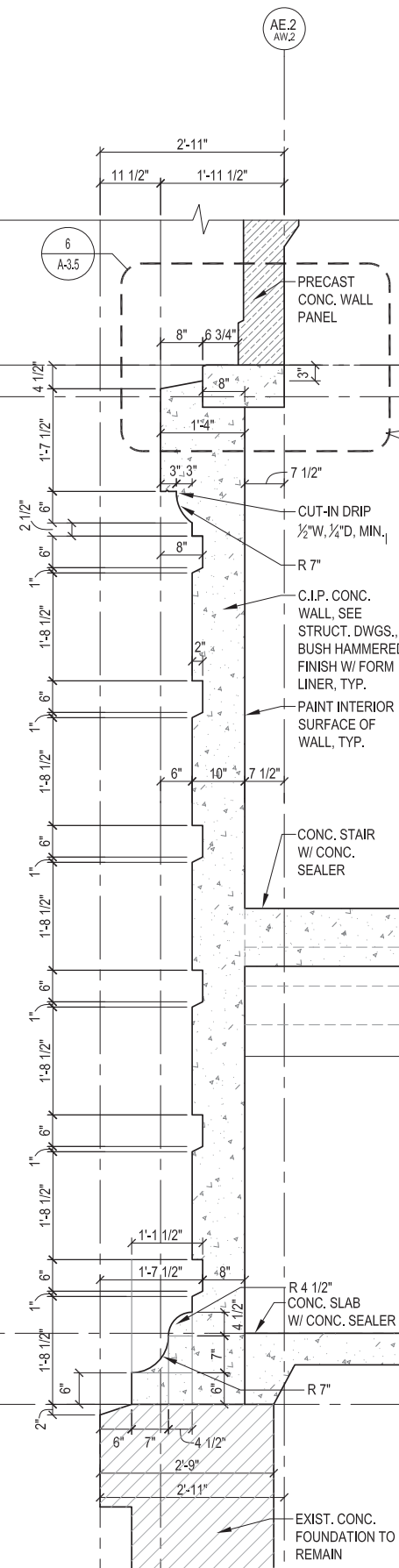
| | | | |
|--------------------------|----------------|--------|------------|
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
| 1388 | 11-E1525-00-BR | COOK | A-3.6 |
| CDOT PROJECT NO. E-1-525 | | | 171 of 210 |



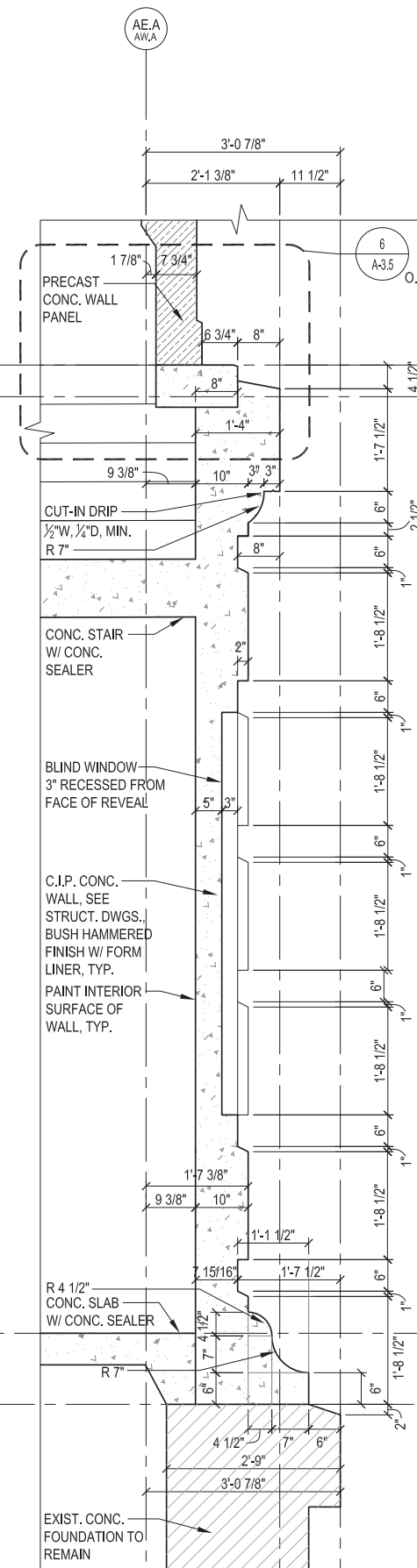
1 LOWER WALL SECTION
SCALE: 3/4" = 1'-0"



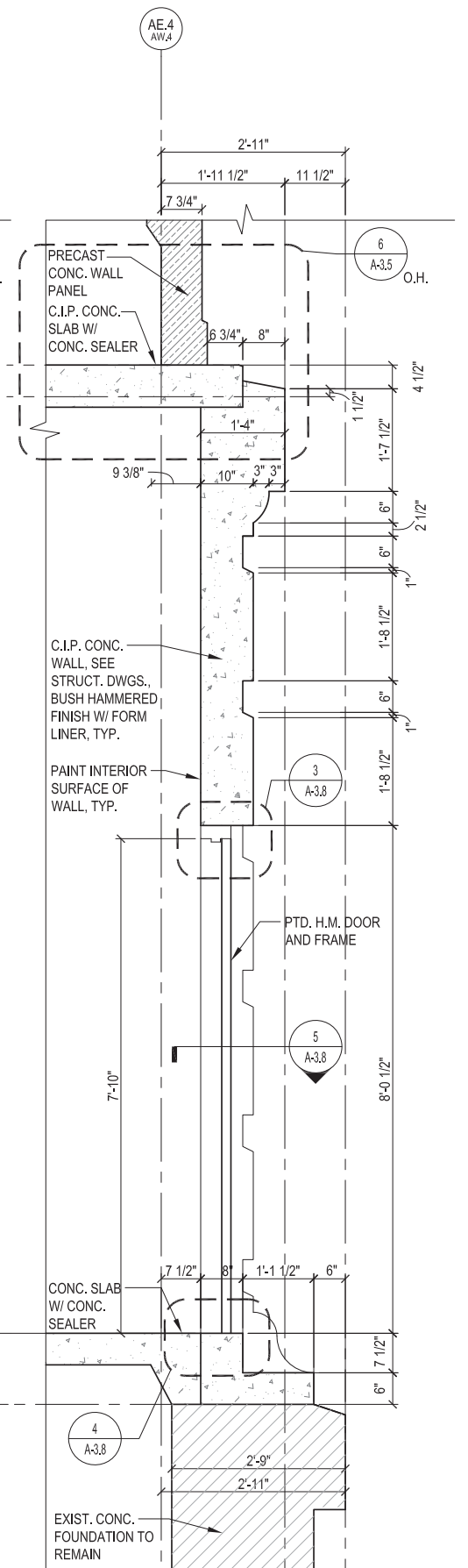
2 LOWER WALL SECTION
SCALE: 3/4" = 1'-0"



3 LOWER WALL SECTION
SCALE: 3/4" = 1'-0"



4 LOWER WALL SECTION
SCALE: 3/4" = 1'-0"



5 LOWER WALL SECTION
SCALE: 3/4" = 1'-0"



WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

| | | |
|------------|---|-----|
| USER NAME | = | YJL |
| PLOT SCALE | = | 1:2 |
| PLOT DATE | = | 09/ |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

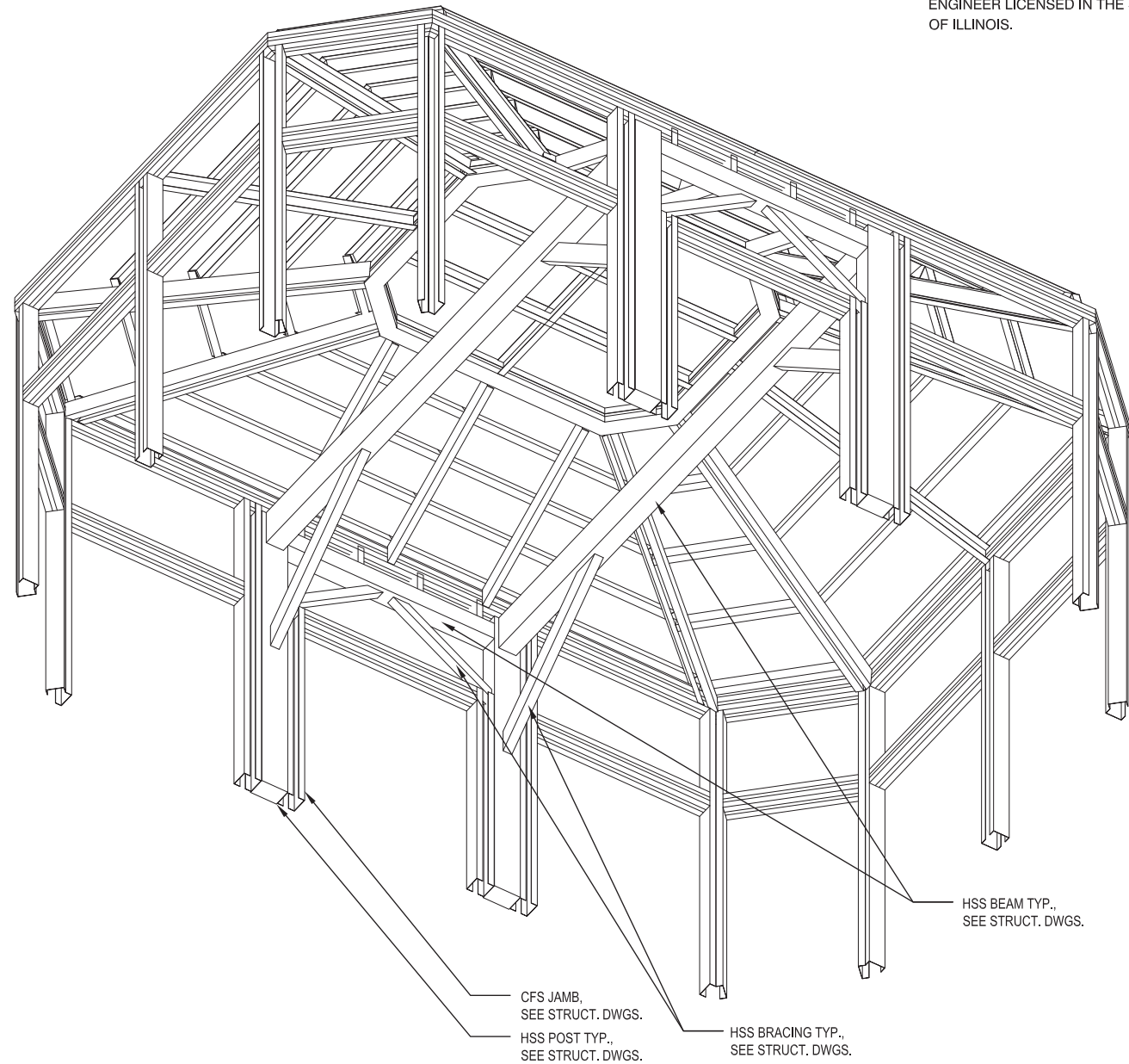
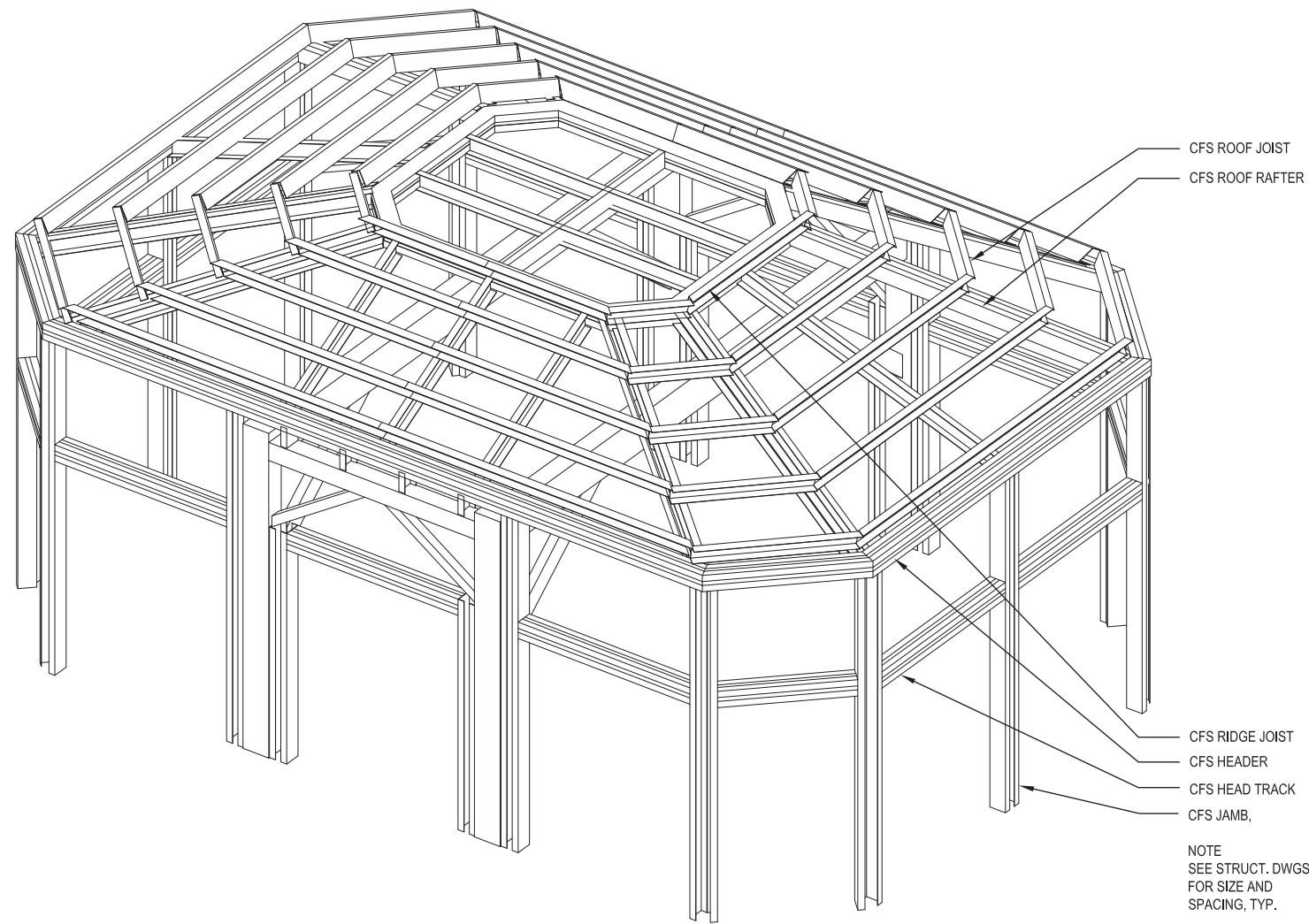
**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

LOWER WALL SECTION
(STRUCTURE NO. 016-6057)

| | | | |
|--------------------------|----------------|--------|------------|
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
| 1388 | 11-E1525-00-BR | COOK | A-3.7 |
| CDOT PROJECT NO. E-1-525 | | | 172 of 210 |

SHEET NOTES
WEBSTER AVE. BRIDGEHOUSES & RAILINGS

1. NOT ALL STUDS AND JOISTS ARE SHOWN FOR CLARITY. THE NECESSARY STUDS, JOISTS, BRACING SHOULD BE PROVIDE AS REQUIRED FOR THE LOADS INDICATED IN THE DOCUMENTS.
2. ALL STUD AND JOIST CONNECTIONS, SIZE, SPACING SHALL BE DESIGNED AND DETAILED BY THE FABRICATOR. THE CONNECTIONS SHALL BE DESIGNED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF ILLINOIS.



1 BRIDGE HOUSE ROOF FRAMING - AXONOMETRIC VIEW
SCALE: NONE
(REFERENCE ONLY)



| | | | | | |
|--------------|------------|------------|-----|-----------|--|
| USER NAME = | YJL | DESIGNED — | YJL | REVISED — | |
| | | CHECKED — | ECM | REVISED — | |
| PLOT SCALE = | 1:2 | DRAWN — | YJL | REVISED — | |
| PLOT DATE = | 09/23/2020 | CHECKED — | ECM | REVISED — | |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

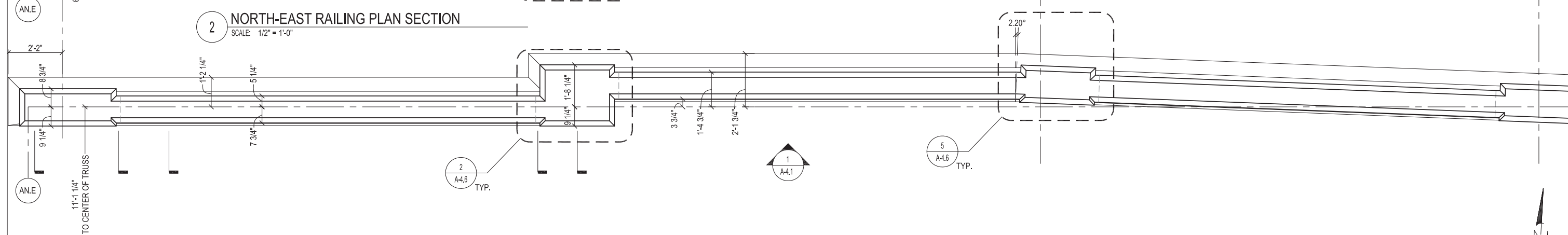
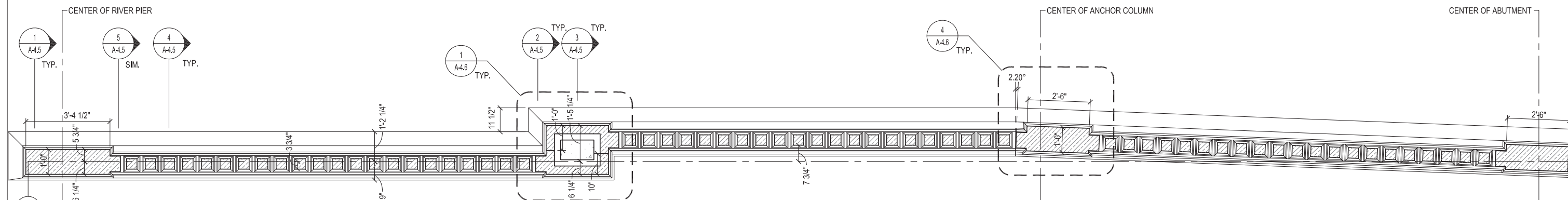
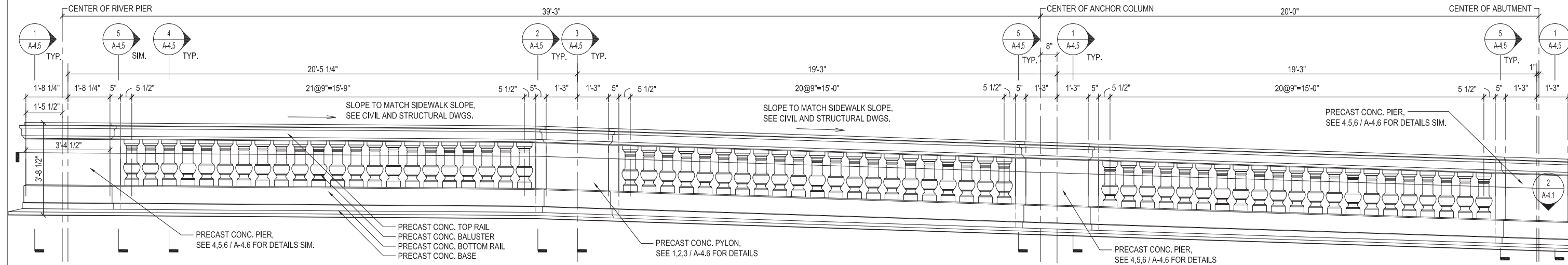
WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER

BRIDGE HOUSE ROOF FRAMING
AXONOMETRIC VIEW
(STRUCTURE NO. 016-6057)

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11—E1525—00—BR | COOK | A-3.9 |
| CDOT PROJECT NO. E—1—525 | | | 174 of 210 |

SHEET NOTES
WEBSTER AVE. BRIDGEHOUSES & RAILINGS

1. PRECAST CONCRETE RAILING
SYSTEM FINISH: SAND BLASTED
2. ALL DIMENSION SHOULD BE FIELD
VERIFIED



WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

| | | | | | |
|--------------|------------|------------|-----|-----------|--|
| USER NAME = | YJL | DESIGNED — | YJL | REVISED — | |
| | | CHECKED — | ECM | REVISED — | |
| PLOT SCALE = | 1:2 | DRAWN — | YJL | REVISED — | |
| PLOT DATE = | 09/23/2020 | CHECKED — | ECM | REVISED — | |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

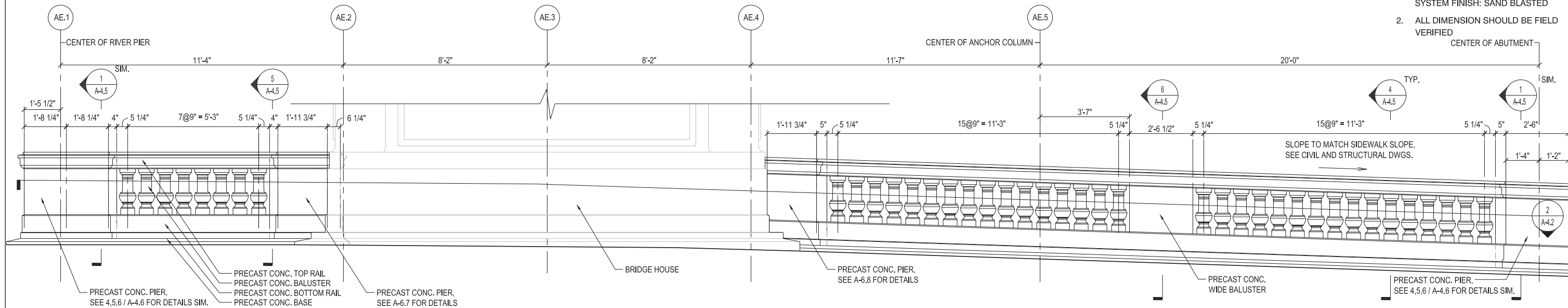
**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**NORTHEAST RAILING
PLAN, SECTION AND ELEVATION
(STRUCTURE NO. 016-6057)**

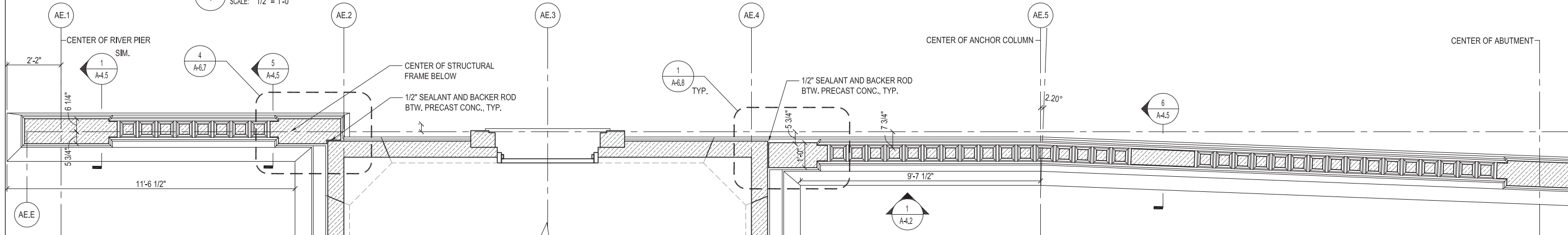
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|--------------------------|----------------|--------|------------|
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
| 1388 | 11-E1525-00-BR | COOK | A-4.1 |
| CDOT PROJECT NO. E-1-525 | | | 175 of 210 |

SHEET NOTES
WEBSTER AVE. BRIDGEHOUSES & RAILINGS

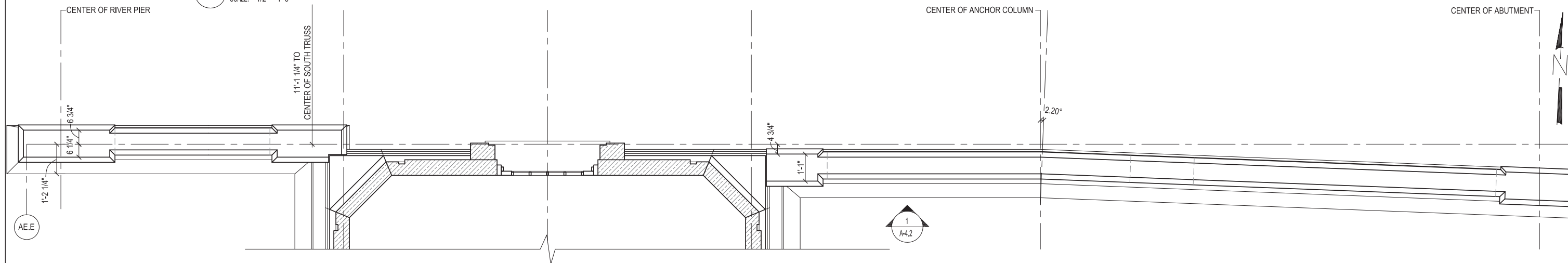
1. PRECAST CONCRETE RAILING
SYSTEM FINISH: SAND BLASTED
2. ALL DIMENSION SHOULD BE FIELD
VERIFIED



1 SOUTH-EAST RAILING SOUTH ELEVATION
SCALE: 1/2" = 1'-0"



2 SOUTH-EAST RAILING PLAN SECTION
SCALE: 1/2" = 1'-0"



3 SOUTH-EAST RAILING PLAN - TOP OF RAILING
SCALE: 1/2" = 1'-0"



WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

| | | | | | |
|--------------|------------|------------|-----|-----------|--|
| USER NAME = | YJL | DESIGNED — | YJL | REVISED — | |
| | | CHECKED — | ECM | REVISED — | |
| PLOT SCALE = | 1:2 | DRAWN — | YJL | REVISED — | |
| PLOT DATE = | 09/23/2020 | CHECKED — | ECM | REVISED — | |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

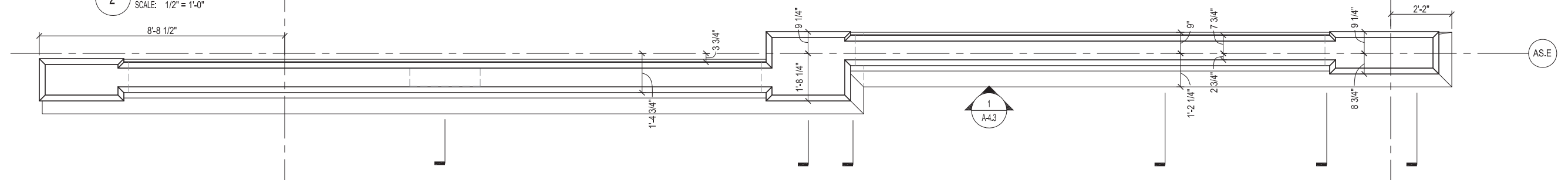
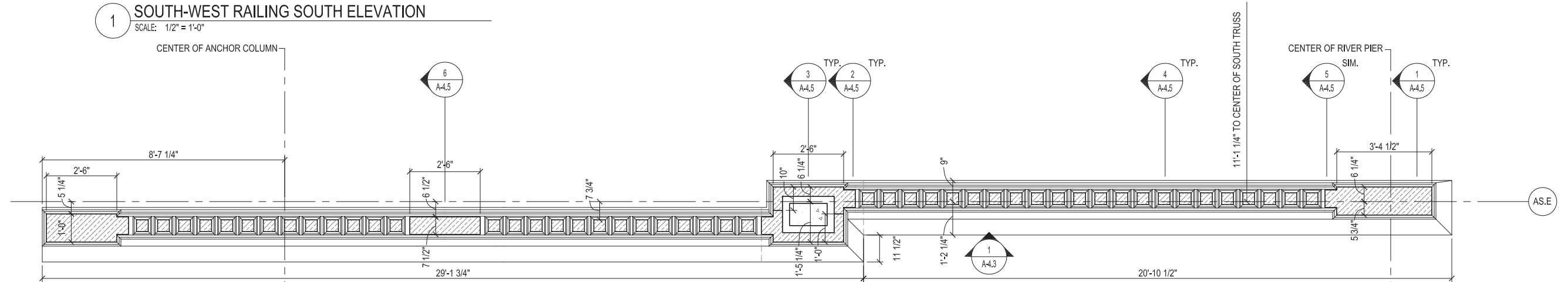
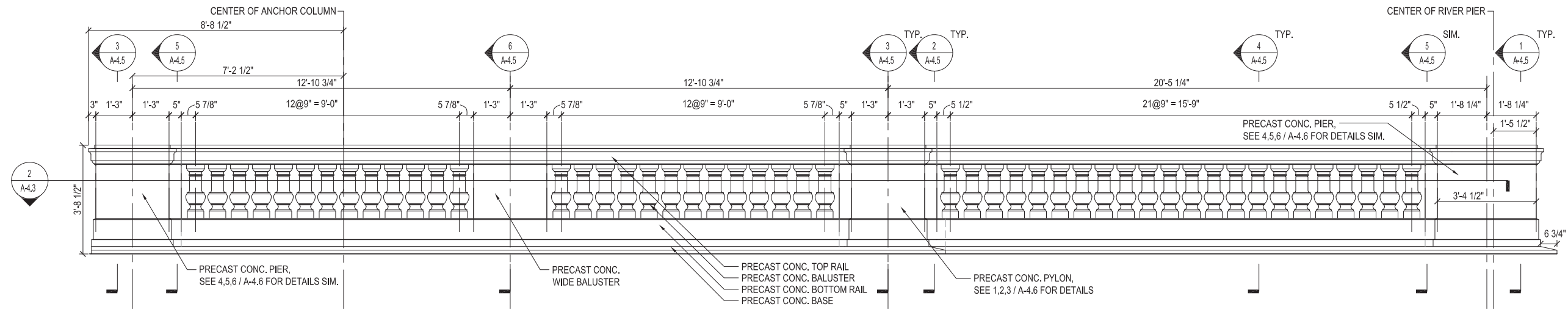
**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**SOUTHEAST RAILING
PLAN, SECTION AND ELEVATION
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | A-4.2 |
| CDOT PROJECT NO. E-1-525 | | | 176 of 210 |

SHEET NOTES
WEBSTER AVE. BRIDGEHOUSES & RAILINGS

1. PRECAST CONCRETE RAILING
SYSTEM FINISH: SAND BLASTED
2. ALL DIMENSION SHOULD BE FIELD
VERIFIED

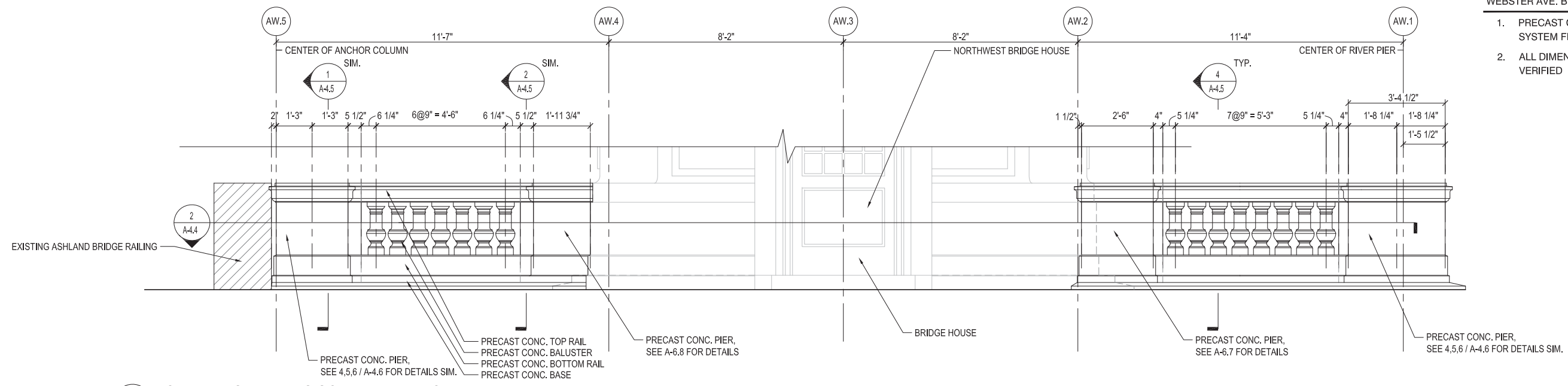


| | | | | | |
|--------------|------------|------------|-----|-----------|--|
| USER NAME = | YJL | DESIGNED — | YJL | REVISED — | |
| | | CHECKED — | ECM | REVISED — | |
| PLOT SCALE = | 1:2 | DRAWN — | YJL | REVISED — | |
| PLOT DATE = | 09/23/2020 | CHECKED — | ECM | REVISED — | |

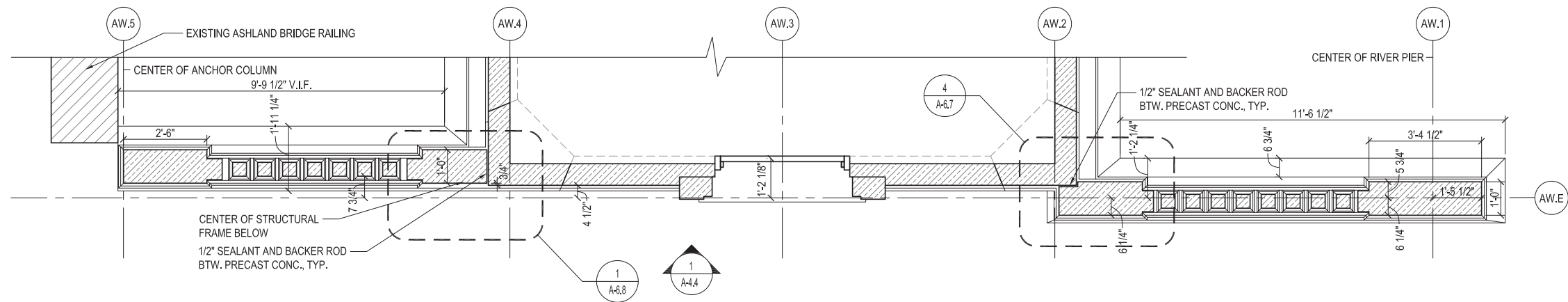
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | A-4.3 |
| CDOT PROJECT NO. E-1-525 | | | 177 of 210 |

SHEET NOTES
WEBSTER AVE. BRIDGEHOUSES & RAILINGS

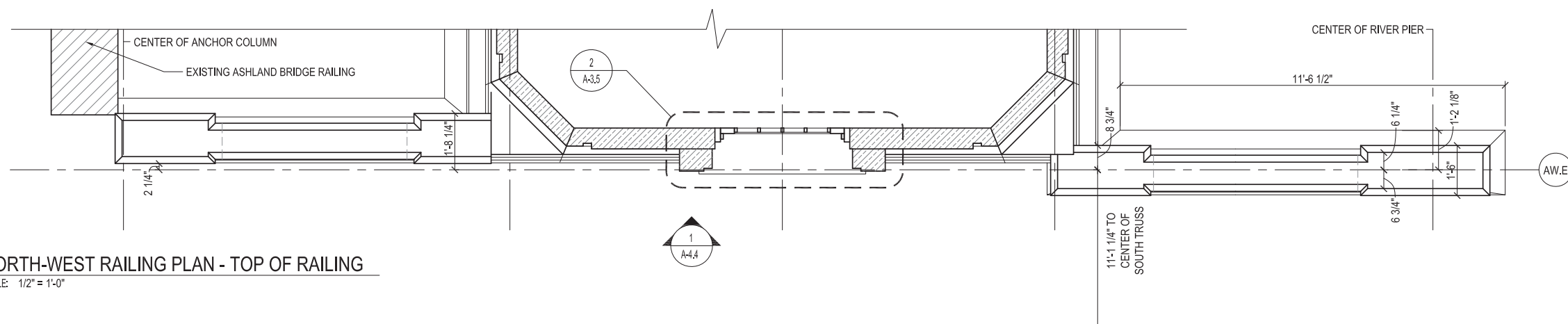
1. PRECAST CONCRETE RAILING
SYSTEM FINISH: SAND BLASTED
2. ALL DIMENSION SHOULD BE FIELD
VERIFIED



1 NORTH-WEST RAILING SOUTH ELEVATION
SCALE: 1/2" = 1'-0"



2 NORTH-WEST RAILING PLAN SECTION
SCALE: 1/2" = 1'-0"



3 NORTH-WEST RAILING PLAN - TOP OF RAILING
SCALE: 1/2" = 1'-0"



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FAX: (312) 782-1684

| | | |
|------------------------|----------------|-----------|
| USER NAME = YJL | DESIGNED — YJL | REVISED — |
| | CHECKED — ECM | REVISED — |
| PLOT SCALE = 1:2 | DRAWN — YJL | REVISED — |
| PLOT DATE = 09/23/2020 | CHECKED — ECM | REVISED — |

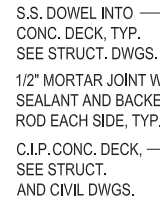
CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER

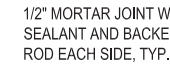
NORTHWEST RAILING
PLAN, SECTION AND ELEVATION
(STRUCTURE NO. 016-6057)

| F.A.U. R.T.E. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | A-4.4 |
| CDOT PROJECT NO. E-1-525 | | | 178 of 210 |

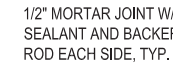
EBSTER AVE. BRIDGEHOUSES & RAILINGS



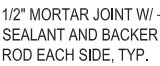
SCALE: 1-1/2" = 1'-0"



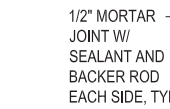
SCALE: 1-1/2" = 1'-0"



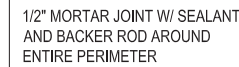
SCALE: 1-1/2" = 1'-0"



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



SCALE: 1-1/2" = 1'-



SCALE: 3" = 1'-0"



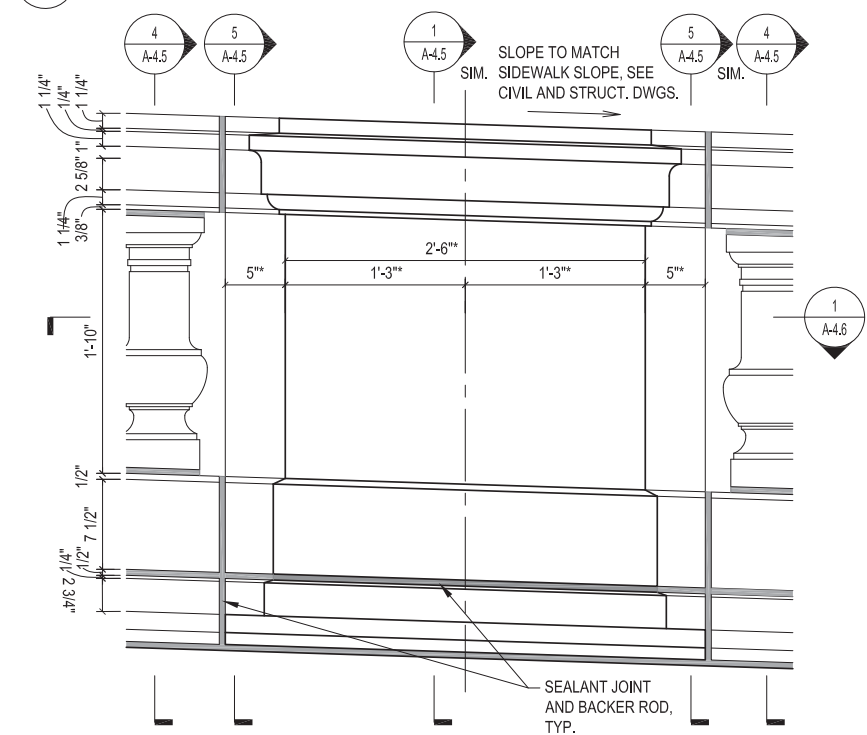
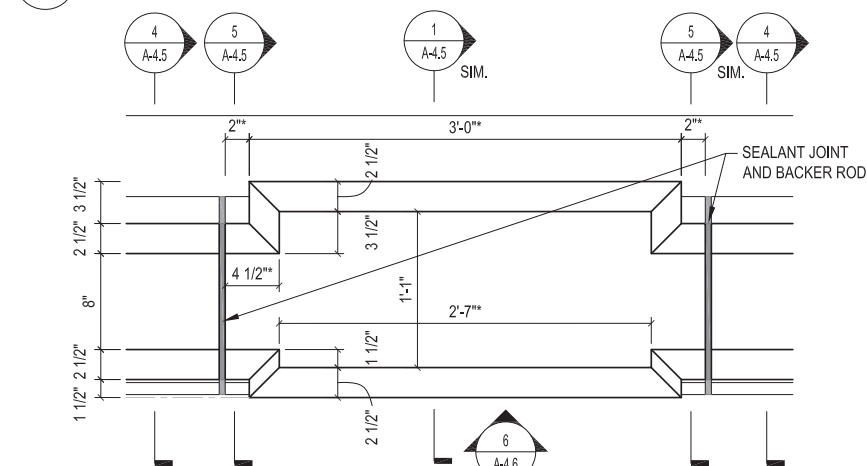
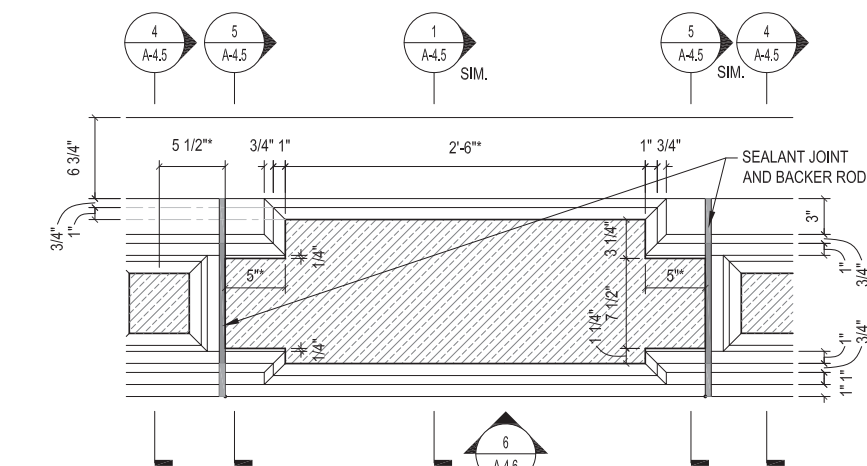
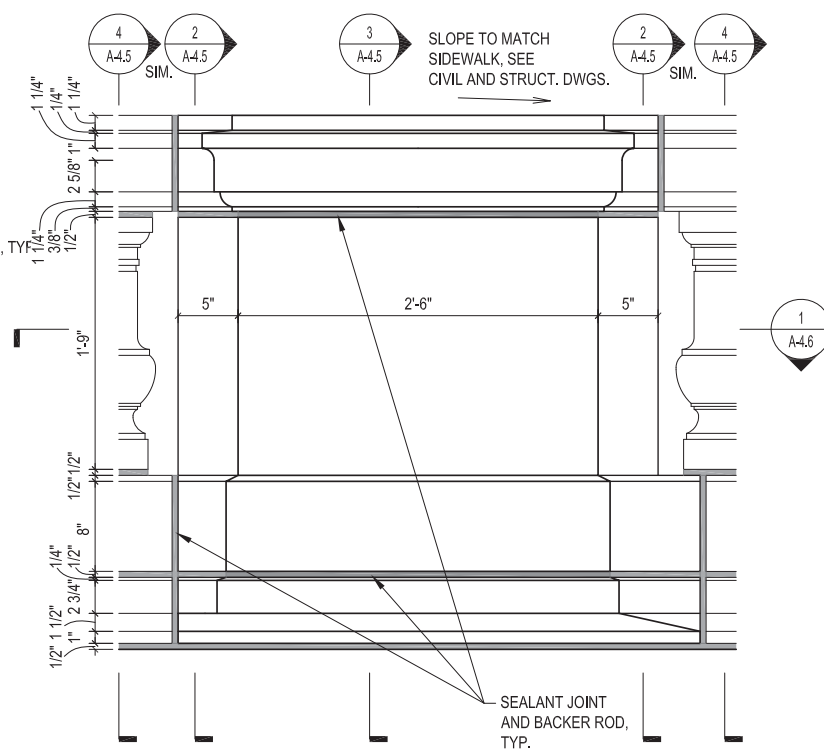
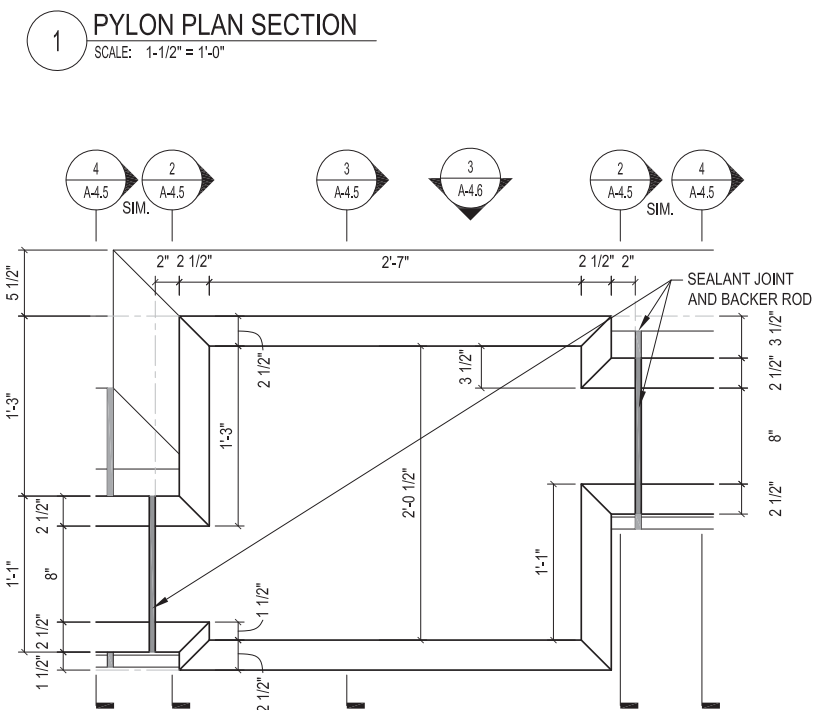
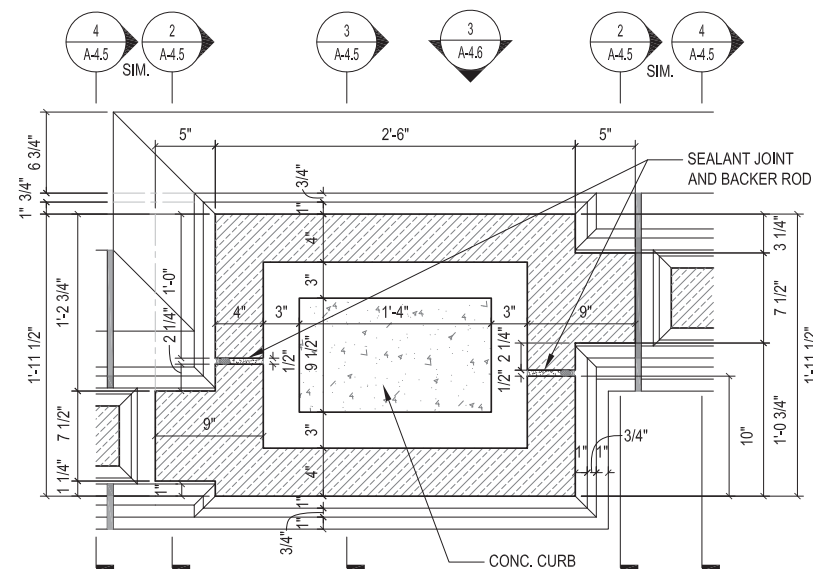
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|------------------------|----------------|-----------|
| USER NAME = YJL | DESIGNED — YJL | REVISED — |
| | CHECKED — ECM | REVISED — |
| PLOT SCALE = 1:2 | DRAWN — YJL | REVISED — |
| PLOT DATE = 09/23/2020 | CHECKED — ECM | REVISED — |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

PRECAST CONCRETE RAILING DETAIL
(STRUCTURE NO. 016-6057)

| | | | |
|--------------------------|----------------|--------|------------|
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
| 1388 | 11-E1525-00-BR | COOK | A-4.5 |
| CDOT PROJECT NO. E-1-525 | | | 179 of 210 |



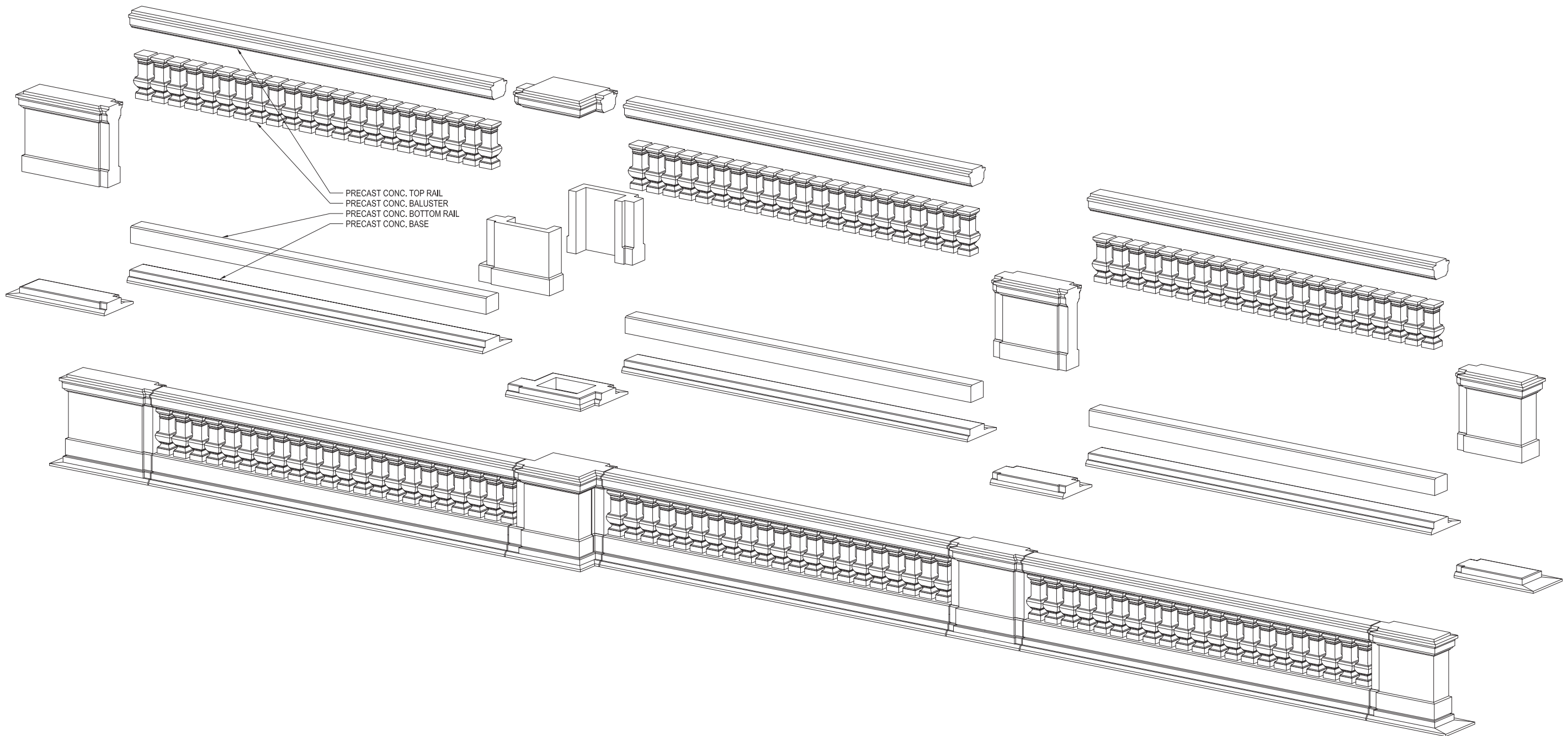
PRECAST CONC. NOTE
WEBSTER AVE. BRIDGEHOUSES & RAILINGS

1. DIMENSIONS ARE BASED ON 1/2" JOINT (MORTAR AND/OR SEALANT), SEE DETAIL.
2. CONTRACTOR RESPONSIBLE FOR DESIGNING CONNECTION DETAILS, SEE SPECIFICATION FOR ADDITIONAL INFORMATION.
3. PRECAST CONCRETE FINISH: SAND BLASTED

SHEET NOTES

WEBSTER AVE. BRIDGEHOUSES & RAILINGS

1. FOR DIMENSIONS FOLLOWED BY " * ",
REFER TO ELEVATIONS ON SHEET
A-4.1, A-4.2, A-4.3, A-4.4



1 RAILING AXONOMETRIC VIEW
SCALE: NONE



WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

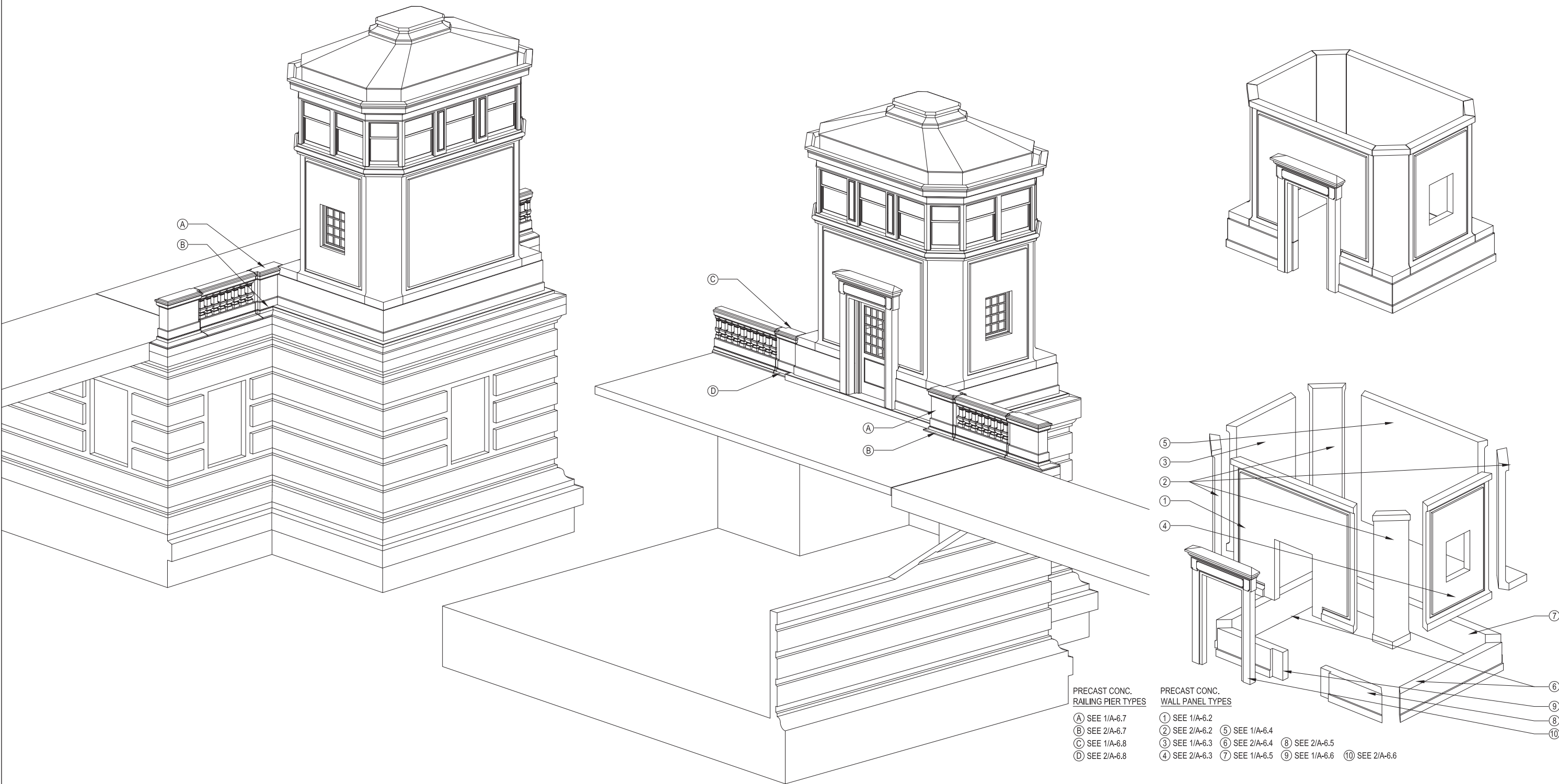
| | | | | | |
|--------------|------------|------------|-----|-----------|--|
| USER NAME = | YJL | DESIGNED — | YJL | REVISED — | |
| | | CHECKED — | ECM | REVISED — | |
| PLOT SCALE = | 1:2 | DRAWN — | YJL | REVISED — | |
| PLOT DATE = | 09/23/2020 | CHECKED — | ECM | REVISED — | |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**PRECAST CONCRETE RAILING
AXONOMETRIC VIEW
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | A-4.7 |
| CDOT PROJECT NO. E-1-525 | | | 181 of 210 |



1 BRIDGE HOUSE AXONOMETRIC VIEW
SCALE: NONE



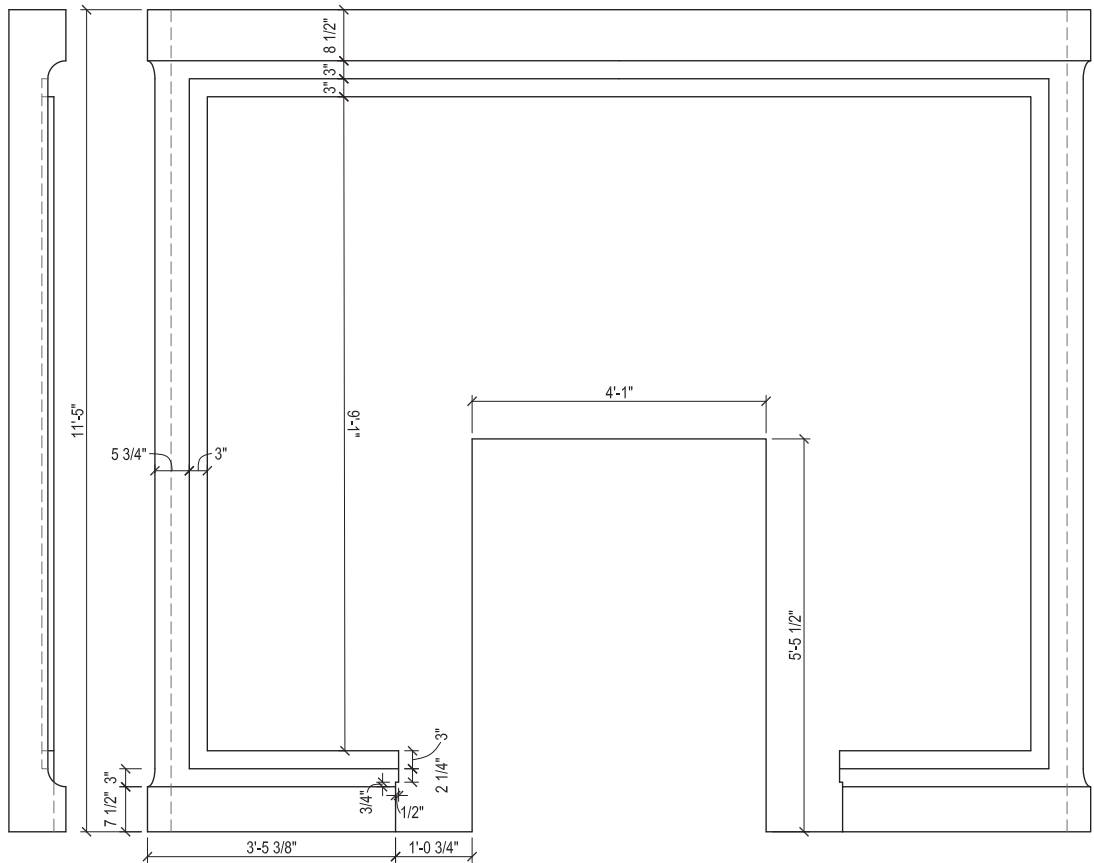
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|------------------------|----------------|-----------|
| USER NAME = YJL | DESIGNED — YJL | REVISED — |
| | CHECKED — ECM | REVISED — |
| PLOT SCALE = 1:2 | DRAWN — YJL | REVISED — |
| PLOT DATE = 09/23/2020 | CHECKED — ECM | REVISED — |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

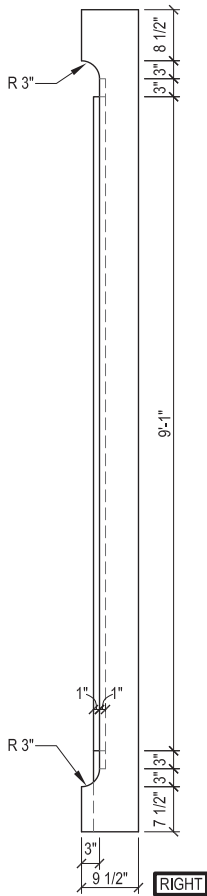
**BRIDGE HOUSE AXONOMETRIC VIEW
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | A-6.1 |
| CDOT PROJECT NO. E-1-525 | | | 182 of 210 |

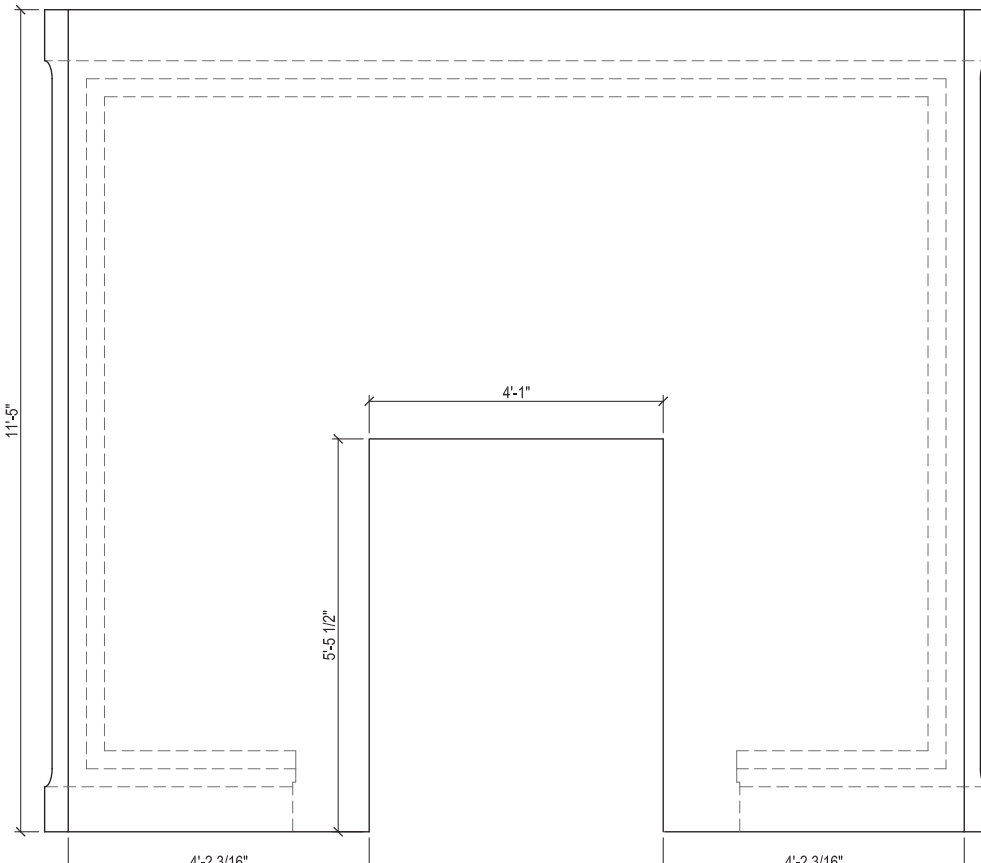


LEFT

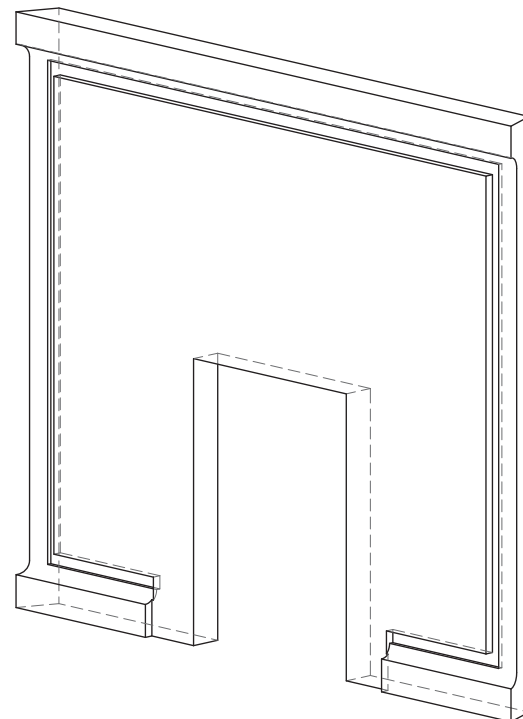
FRONT



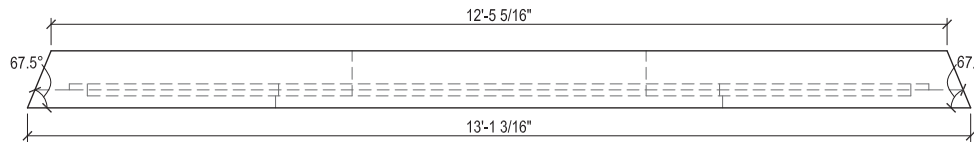
RIGHT



BACK



AXON.

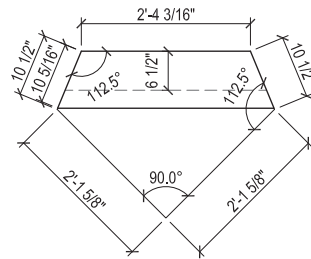


TOP

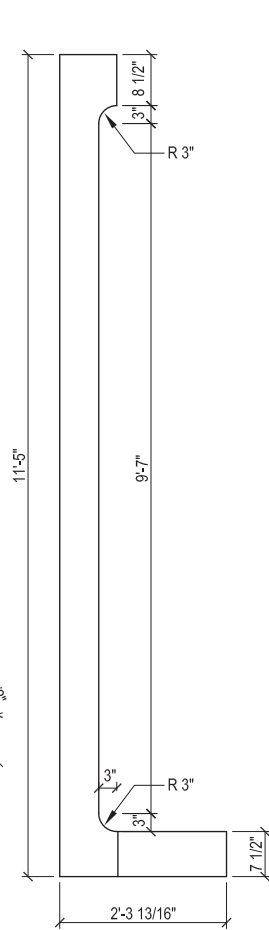
1 PRECAST PANEL NO.1
SCALE: 3/4" = 1' / NONE FOR AXON.

PRECAST CONC. NOTE
WEBSTER AVE. BRIDGEHOUSES & RAILINGS

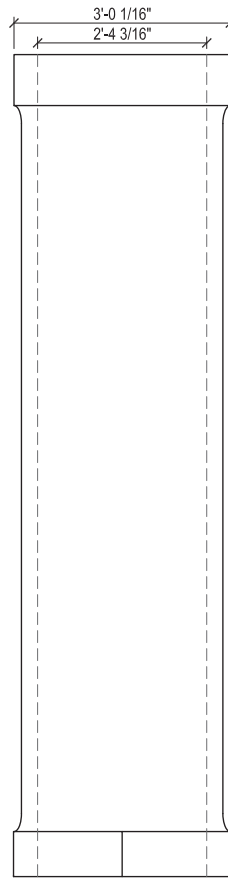
- DIMENSIONS ARE BASED ON 1/2" JOINT (MORTAR AND/OR SEALANT), SEE DETAIL.
- CONTRACTOR RESPONSIBLE FOR DESIGNING CONNECTION DETAILS, SEE SPECIFICATION FOR ADDITIONAL INFORMATION.
- PRECAST CONCRETE FINISH: SAND BLASTED



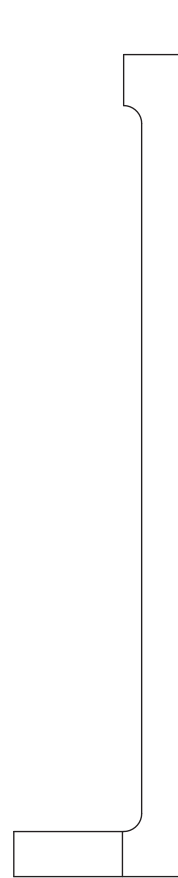
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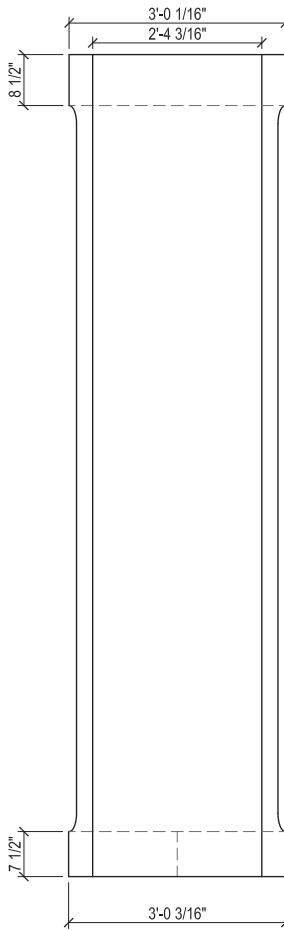
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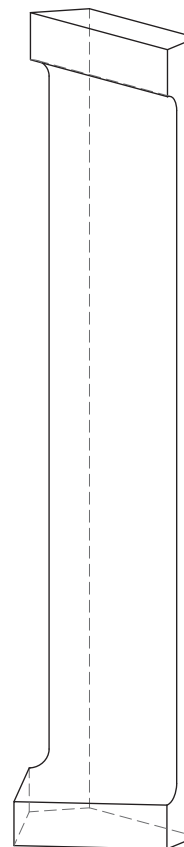
FRONT



RIGHT



BACK



AXON.

2 PRECAST PANEL NO.2
SCALE: 3/4" = 1' / NONE FOR AXON.



| | | | | | |
|--------------|------------|------------|-----|-----------|--|
| USER NAME = | YJL | DESIGNED — | YJL | REVISED — | |
| | | CHECKED — | ECM | REVISED — | |
| PLOT SCALE = | 1:2 | DRAWN — | YJL | REVISED — | |
| PLOT DATE = | 09/23/2020 | CHECKED — | ECM | REVISED — | |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER

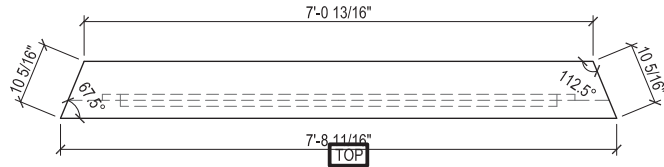
BRIDGEHOUSE PRECAST CONCRETE PANEL
(STRUCTURE NO. 016-6057)

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | A-6.2 |
| CDOT PROJECT NO. E-1-525 | | | 183 of 210 |

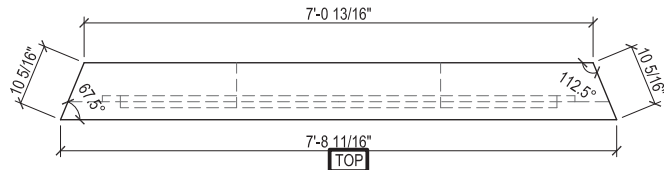
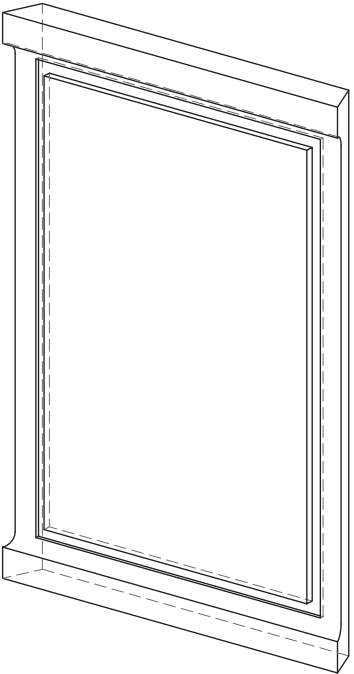
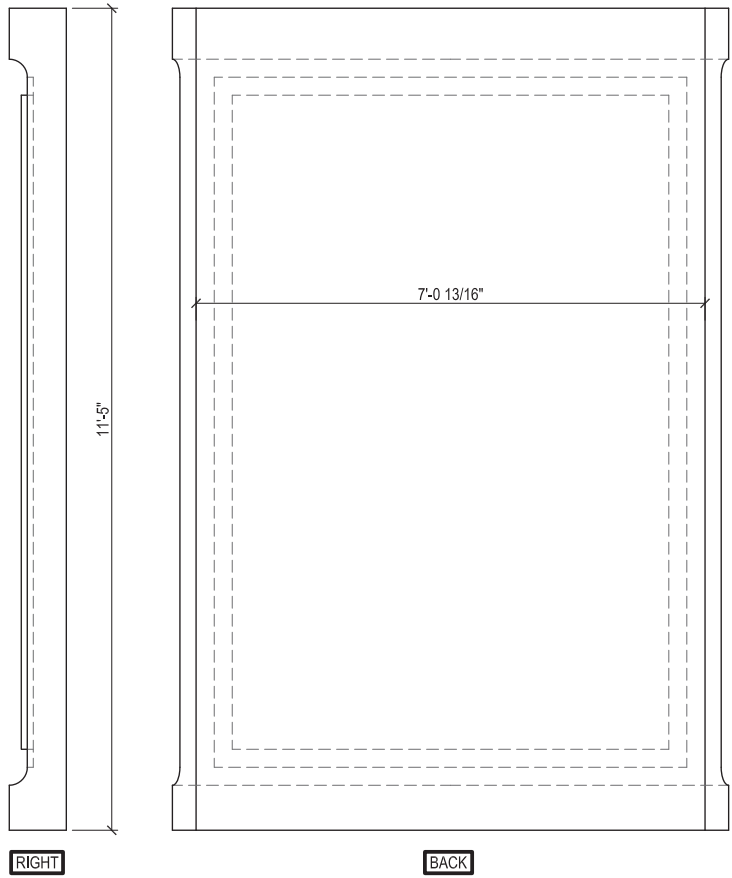
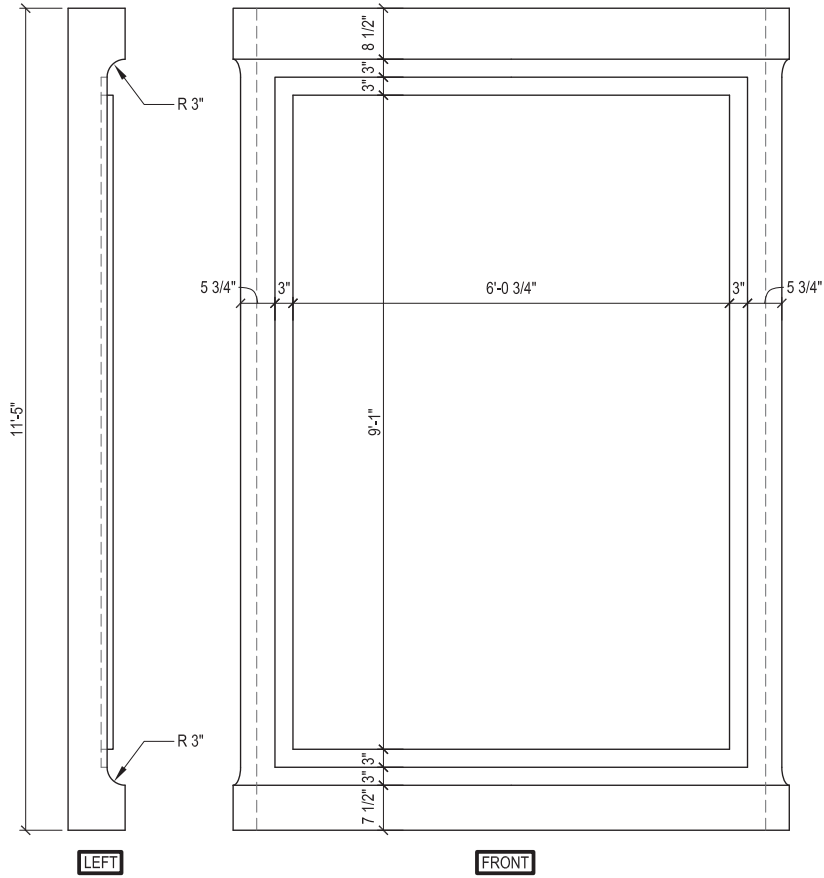
PRECAST CONC. NOTE

WEBSTER AVE. BRIDGEHOUSES & RAILINGS

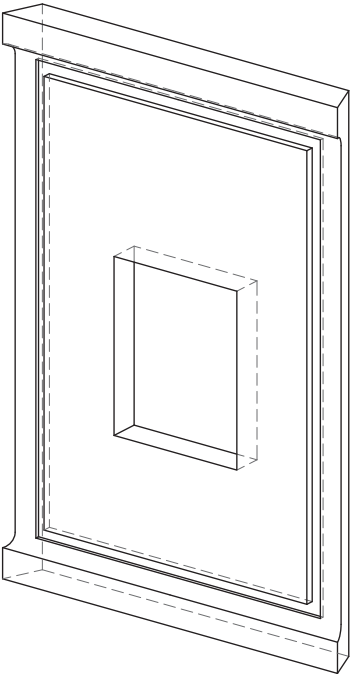
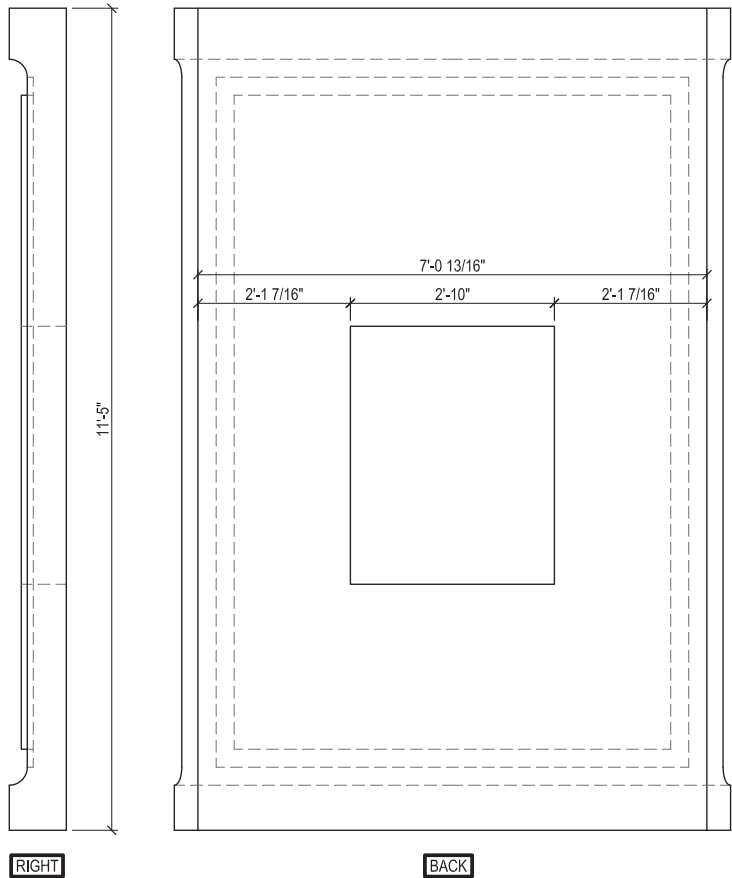
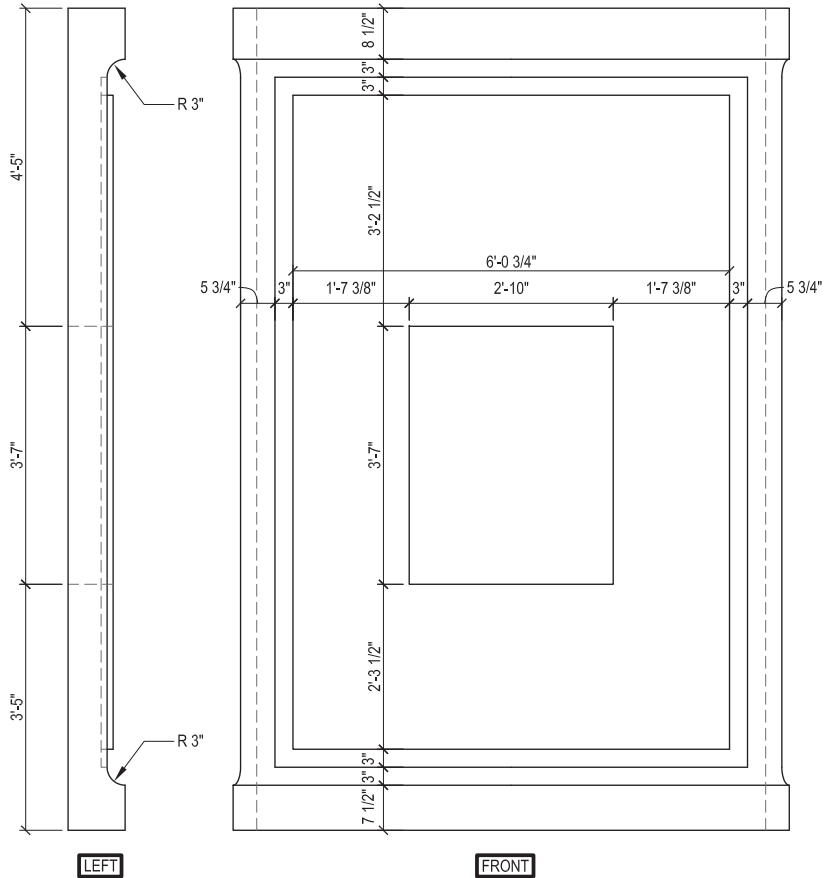
1. DIMENSIONS ARE BASED ON 1/2" JOINT (MORTAR AND/OR SEALANT), SEE DETAIL.
2. CONTRACTOR RESPONSIBLE FOR DESIGNING CONNECTION DETAILS, SEE SPECIFICATION FOR ADDITIONAL INFORMATION.
3. PRECAST CONCRETE FINISH: SAND BLASTED



1 PRECAST PANEL NO.3
SCALE: 3/4" = 1' / NONE FOR AXON.



2 PRECAST PANEL NO.4
SCALE: 3/4" = 1' / NONE FOR AXON.



WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

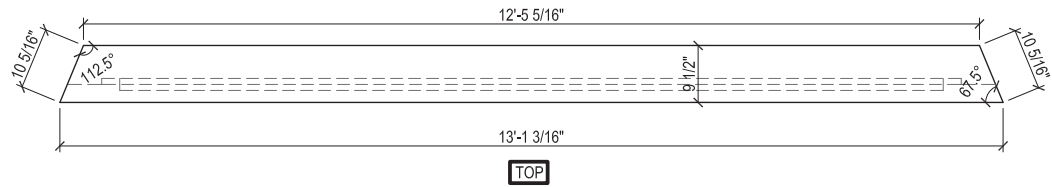
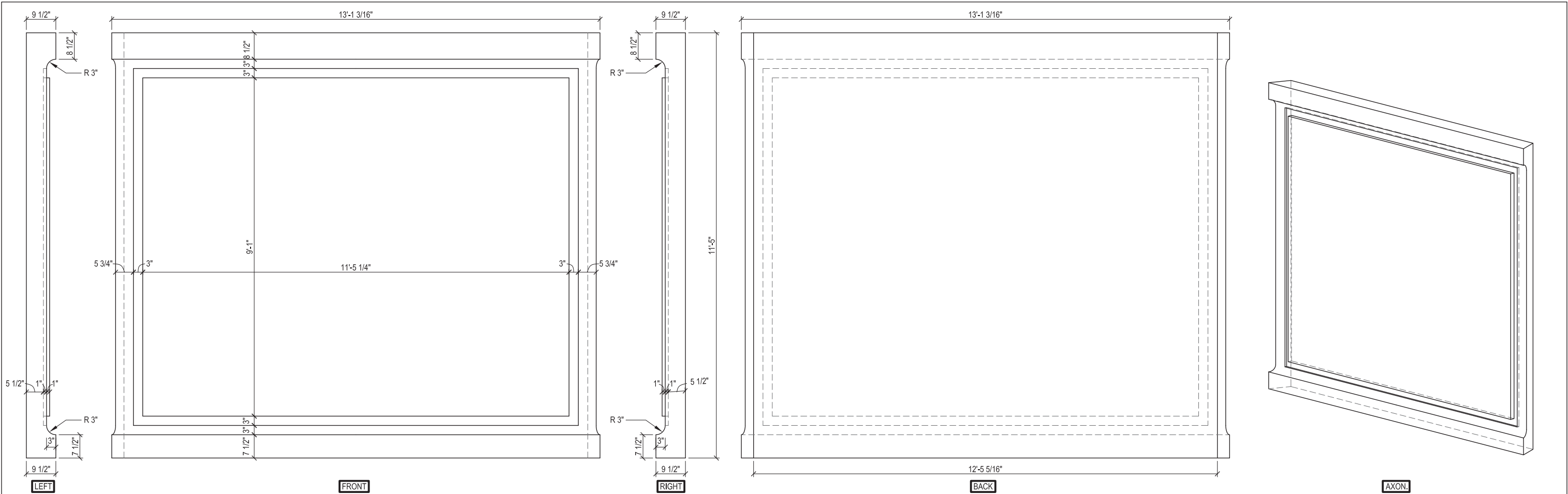
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|--------------|------------|------------|-----|-----------|--|
| USER NAME = | YJL | DESIGNED — | YJL | REVISED — | |
| | | CHECKED — | ECM | REVISED — | |
| PLOT SCALE = | 1:2 | DRAWN — | YJL | REVISED — | |
| PLOT DATE = | 09/23/2020 | CHECKED — | ECM | REVISED — | |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

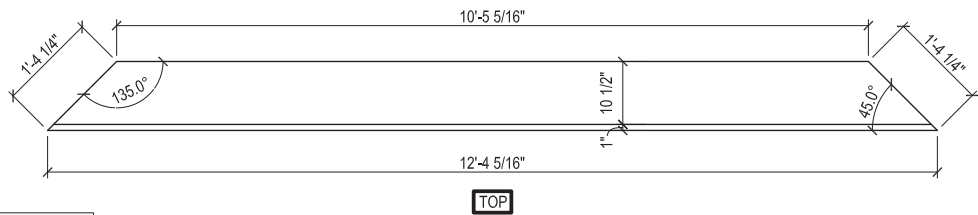
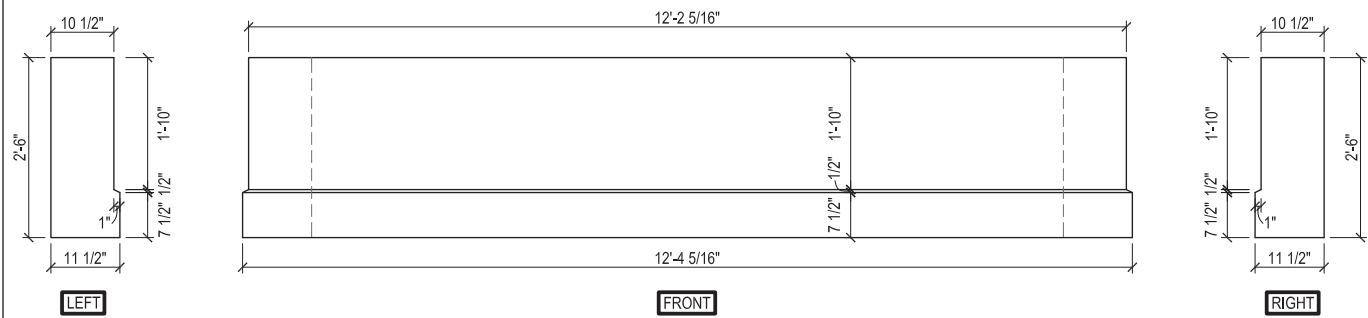
WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER

BRIDGEHOUSE PRECAST CONCRETE PANEL
(STRUCTURE NO. 016-6057)

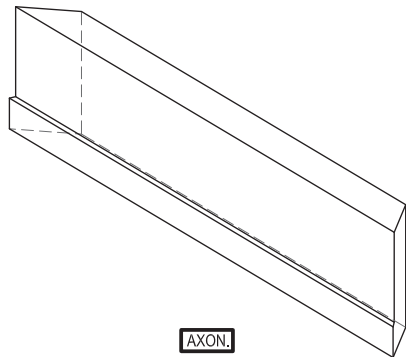
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11—E1525—00—BR | COOK | A-6.3 |
| CDOT PROJECT NO. E—1—525 | | | 184 of 210 |



1 PRECAST PANEL NO.5
SCALE: 3/4" = 1' / NONE FOR AXON.



2 PRECAST PANEL NO.6
SCALE: 3/4" = 1' / NONE FOR AXON.



- PRECAST CONC. NOTE**
WEBSTER AVE. BRIDGEHOUSES & RAILINGS
- DIMENSIONS ARE BASED ON 1/2" JOINT (MORTAR AND/OR SEALANT), SEE DETAIL.
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 - PRECAST CONCRETE FINISH: SAND BLASTED



WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

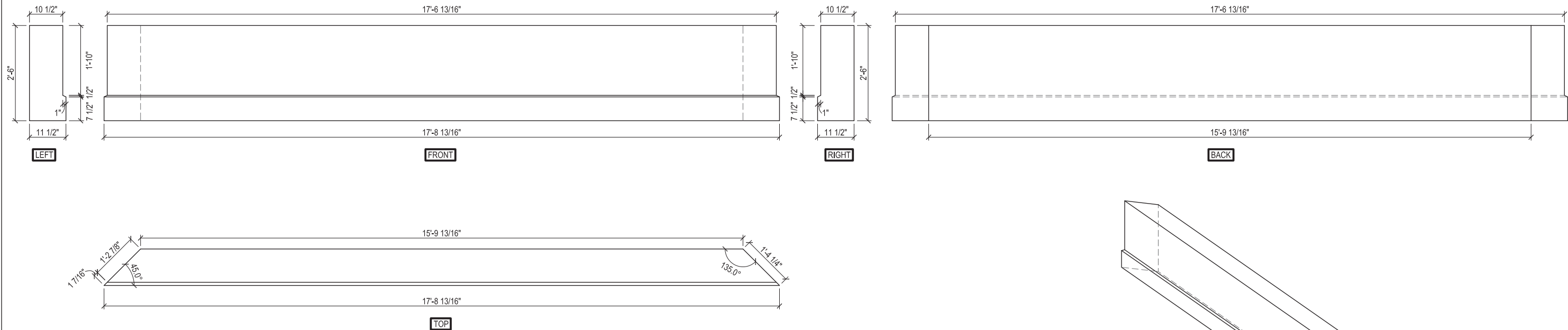
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| USER NAME = | YJL | DESIGNED — | YJL | REVISED — | |
| | | CHECKED — | ECM | REVISED — | |
| PLOT SCALE = | 1:2 | DRAWN — | YJL | REVISED — | |
| PLOT DATE = | 09/23/2020 | CHECKED — | ECM | REVISED — | |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

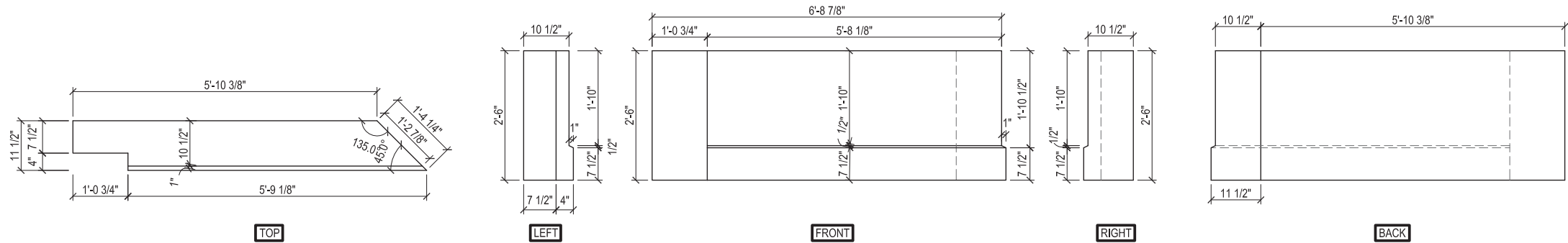
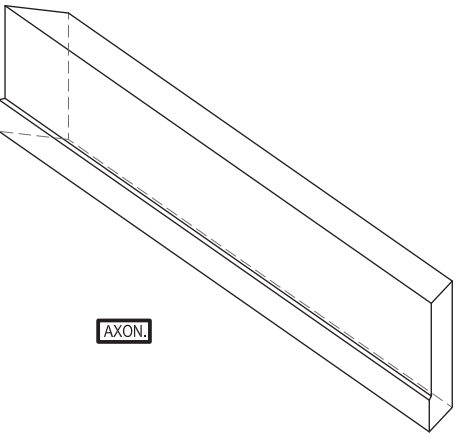
**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

BRIDGEHOUSE PRECAST CONCRETE PANEL
(STRUCTURE NO. 016-6057)

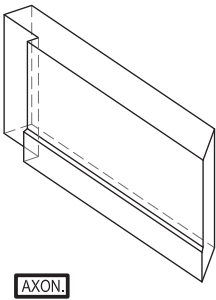
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | A-6.4 |
| CDOT PROJECT NO. E-1-525 | | | 185 of 210 |



1 PRECAST PANEL NO.7
SCALE: 3/4" = 1' / NONE FOR AXON.



2 PRECAST PANEL NO.8
SCALE: 3/4" = 1' / NONE FOR AXON.



- PRECAST CONC. NOTE**
WEBSTER AVE. BRIDGEHOUSES & RAILINGS
- DIMENSIONS ARE BASED ON 1/2" JOINT (MORTAR AND/OR SEALANT), SEE DETAIL.
 - CONTRACTOR RESPONSIBLE FOR DESIGNING CONNECTION DETAILS, SEE SPECIFICATION FOR ADDITIONAL INFORMATION.
 - PRECAST CONCRETE FINISH: SAND BLASTED



wsp WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

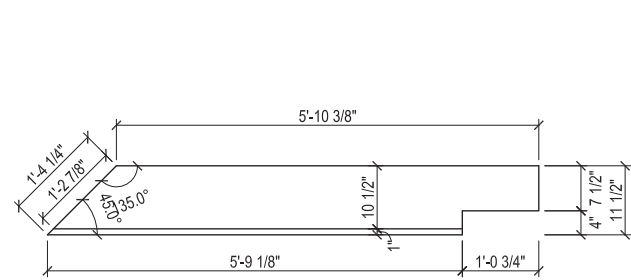
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| USER NAME = | YJL | DESIGNED — | YJL | REVISED — | |
| | | CHECKED — | ECM | REVISED — | |
| PLOT SCALE = | 1:2 | DRAWN — | YJL | REVISED — | |
| PLOT DATE = | 09/23/2020 | CHECKED — | ECM | REVISED — | |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

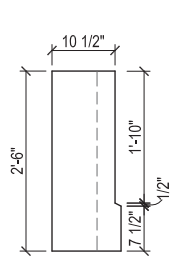
**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

BRIDGEHOUSE PRECAST CONCRETE PANEL
(STRUCTURE NO. 016-6057)

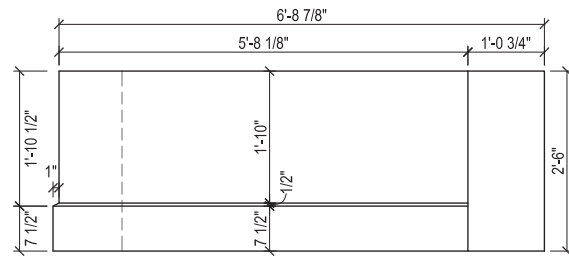
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|--------------|
| 1388 | 11—E1525—00—BR | COOK | A-6.5 |
| CDOT PROJECT NO. E—1—525 | | | 186 of 210 |



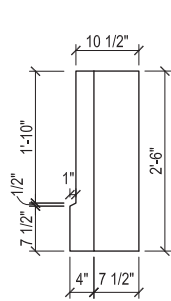
TOP



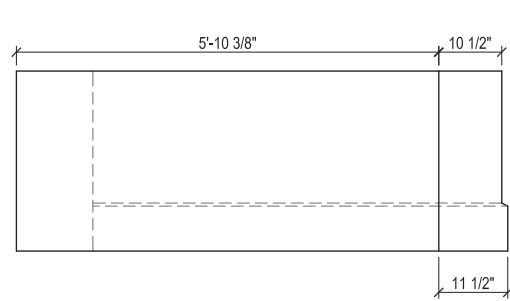
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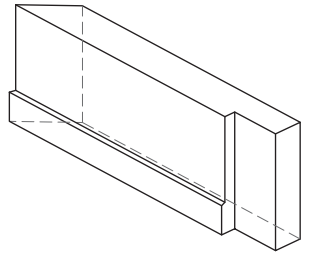
FRONT



RIGHT

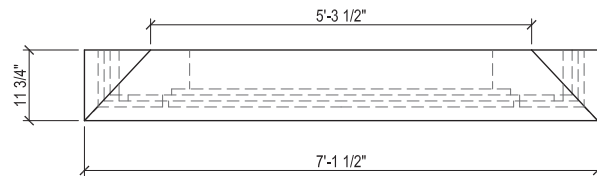


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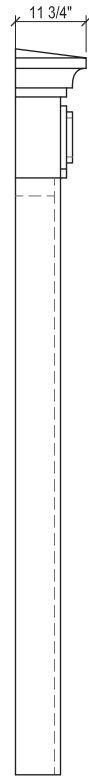


AXON.

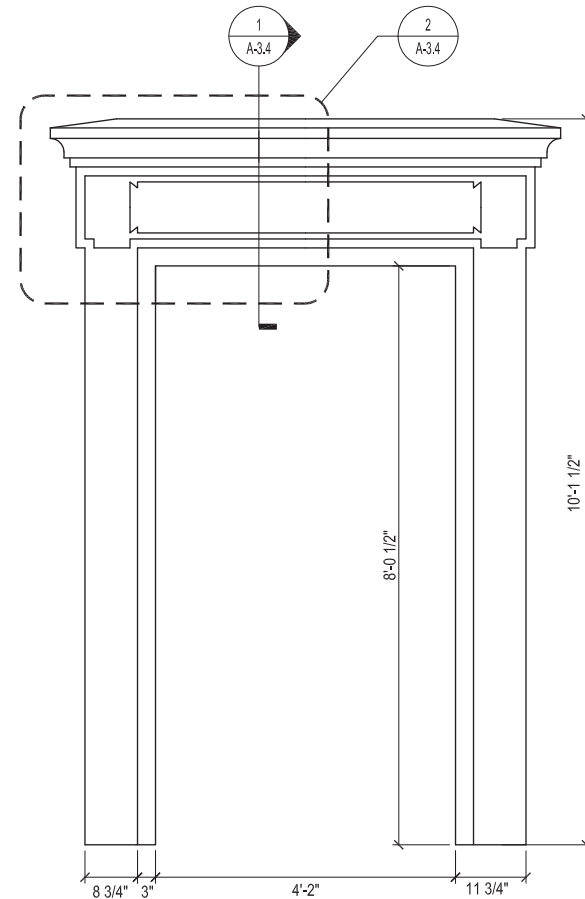
1 PRECAST PANEL NO.9
SCALE: 3/4" = 1' / NONE FOR AXON.



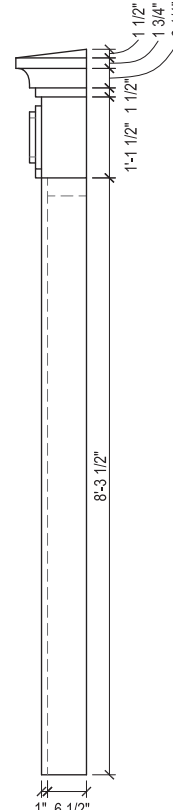
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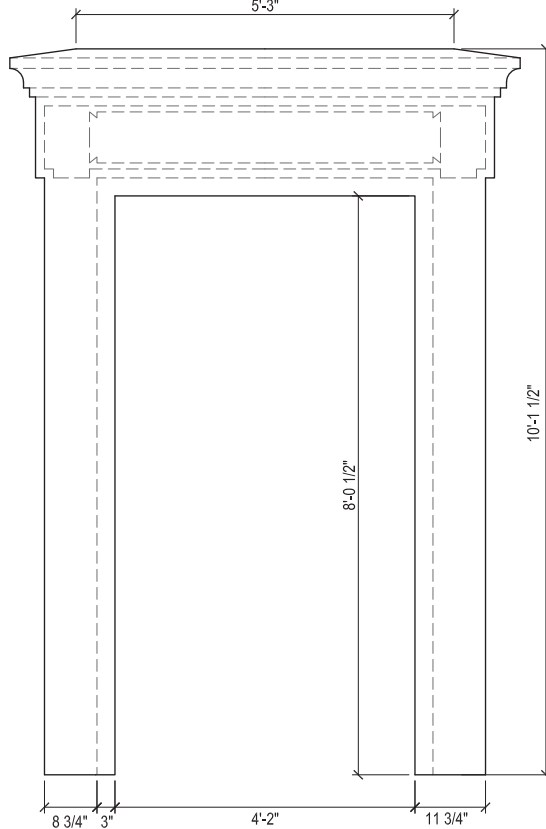
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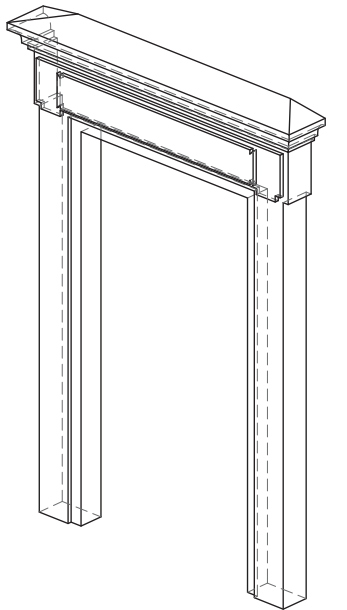
FRONT



RIGHT



BACK



AXON.

2 PRECAST PANEL NO.10
SCALE: 3/4" = 1' / NONE FOR AXON.

PRECAST CONC. NOTE
WEBSTER AVE. BRIDGEHOUSES & RAILINGS

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- CONTRACTOR RESPONSIBLE FOR DESIGNING CONNECTION DETAILS, SEE SPECIFICATION FOR ADDITIONAL INFORMATION.
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WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

| | | | | | |
|--------------|------------|------------|-----|-----------|--|
| USER NAME = | YJL | DESIGNED — | YJL | REVISED — | |
| | | CHECKED — | ECM | REVISED — | |
| PLOT SCALE = | 1:2 | DRAWN — | YJL | REVISED — | |
| PLOT DATE = | 09/23/2020 | CHECKED — | ECM | REVISED — | |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER

BRIDGEHOUSE PRECAST CONCRETE PANEL
(STRUCTURE NO. 016-6057)

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11—E1525—00—BR | COOK | A-6.6 |
| CDOT PROJECT NO. E—1—525 | | | 187 of 210 |

WEBSTER AVE. BRIDGEHOUSES & RAILINGS



SCALE: 1-1/2" = 1'



SCALE: NONE

| | | |
|------------------------|----------------|-----------|
| USER NAME = YJL | DESIGNED — YJL | REVISED — |
| | CHECKED — ECM | REVISED — |
| PLOT SCALE = 1:2 | DRAWN — YJL | REVISED — |
| PLOT DATE = 09/23/2020 | CHECKED — ECM | REVISED — |

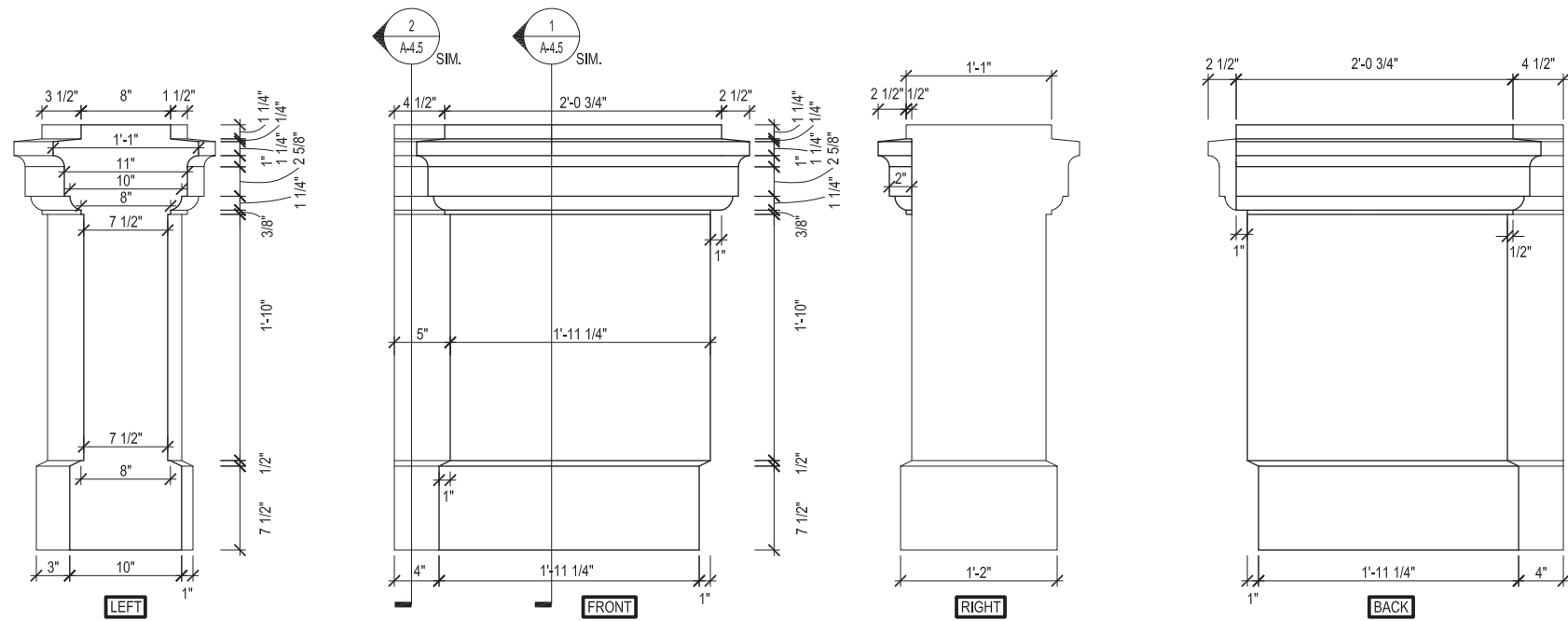
**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**PRECAST CONCRETE RAILING PYLON
AT BRIDGE HOUSE
(STRUCTURE NO. 016-6057)**

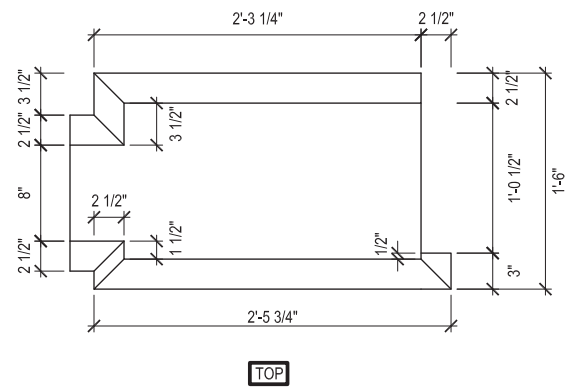
| | | | |
|--------------------------|----------------|--------|------------|
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
| 1388 | 11-E1525-00-BR | COOK | A-6.7 |
| CDOT PROJECT NO. E-1-525 | | | 188 of 210 |

PRECAST CONC. NOTE
WEBSTER AVE. BRIDGEHOUSES & RAILINGS

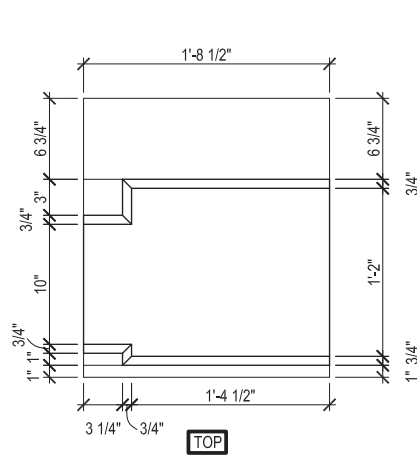
1. DIMENSIONS ARE BASED ON 1/2" JOINT (MORTAR AND/OR SEALANT), SEE DETAIL.
2. CONTRACTOR RESPONSIBLE FOR DESIGNING CONNECTION DETAILS, SEE SPECIFICATION FOR ADDITIONAL INFORMATION.
3. PRECAST CONCRETE FINISH: SAND BLASTED



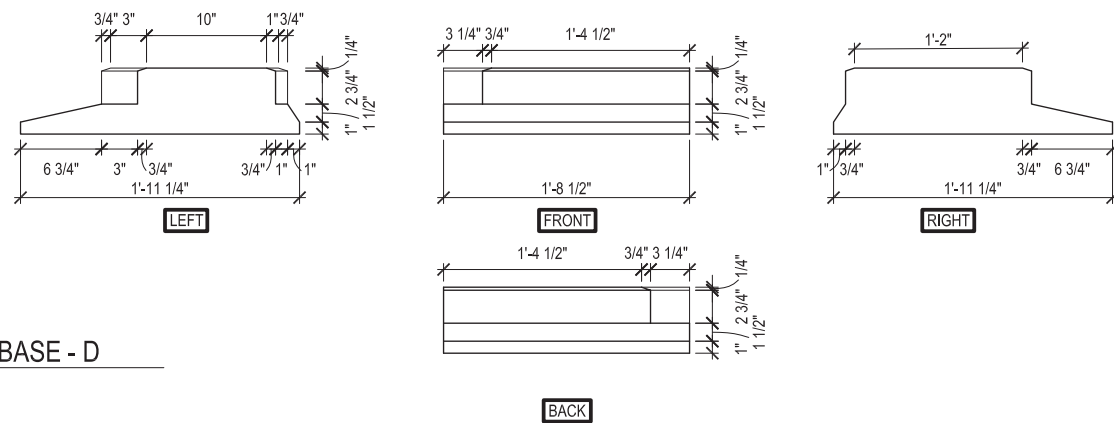
5 PRECAST CONC. PIER PLAN SECTION
SCALE: 1-1/2" = 1'



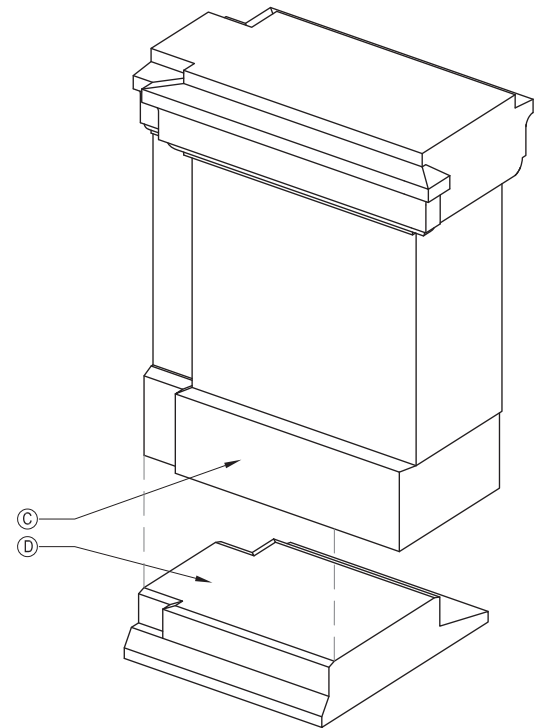
1 PRECAST CONC. PIER - C
SCALE: 1-1/2" = 1'



4 PRECAST CONC. PIER PLAN SECTION
SCALE: 1-1/2" = 1'



2 PRECAST CONC. BASE - D
SCALE: 1-1/2" = 1'



3 PRECAST CONC. PIER AXON. VIEW - C,D
SCALE: NONE



WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

| | | | | | |
|--------------|------------|------------|-----|-----------|--|
| USER NAME = | YJL | DESIGNED — | YJL | REVISED — | |
| | | CHECKED — | ECM | REVISED — | |
| PLOT SCALE = | 1:2 | DRAWN — | YJL | REVISED — | |
| PLOT DATE = | 09/23/2020 | CHECKED — | ECM | REVISED — | |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**PRECAST CONCRETE RAILING PYLON
AT BRIDGE HOUSE
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11—E1525—00—BR | COOK | A-6.8 |
| CDOT PROJECT NO. E—1—525 | | | 189 of 210 |

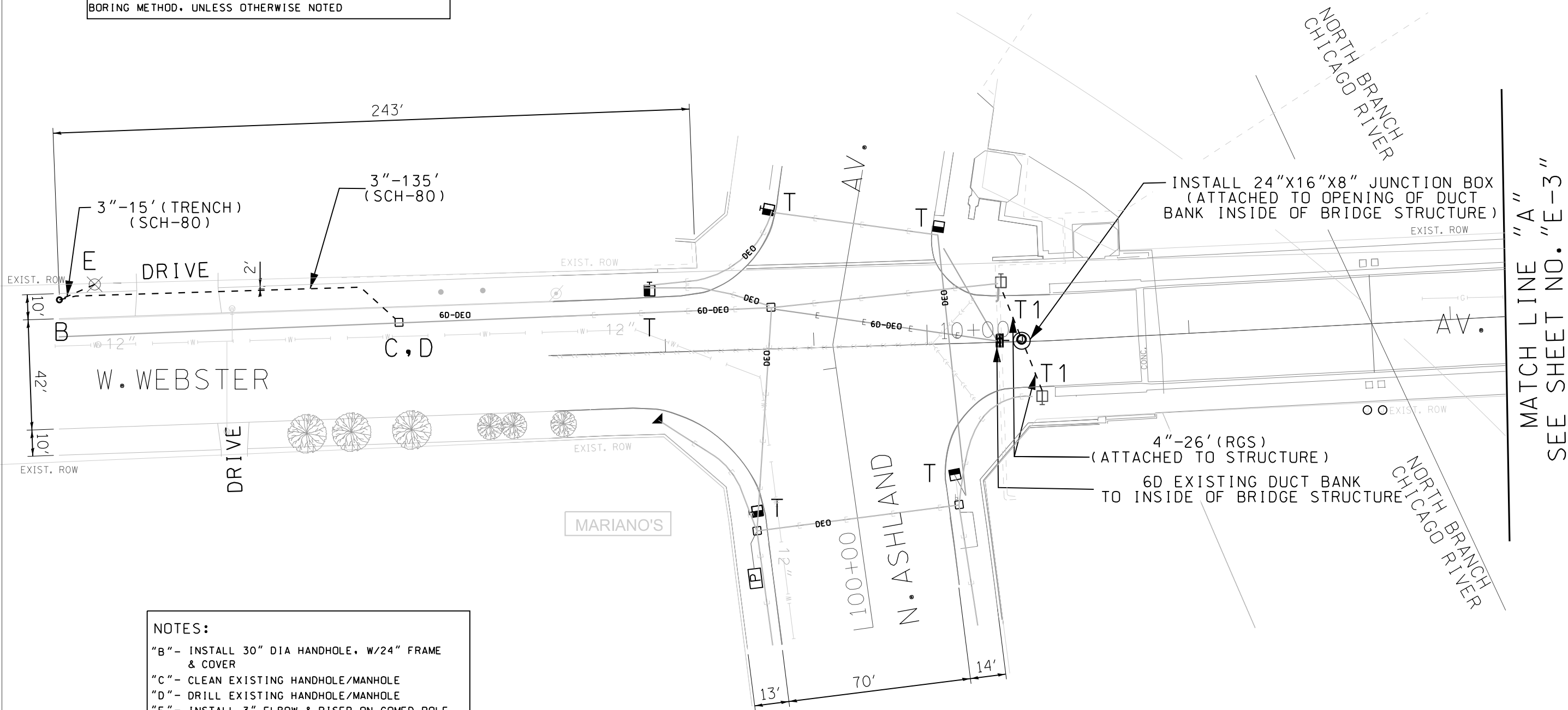
| PROPOSED | PRESENT | | PROPOSED | PRESENT | | C.M.H. LUMINAIRES |
|----------|---------|--|----------|---------|--|--|
| | | SIGNAL, TRAFFIC 3 SECTION 1-WAY ADJUSTABLE, 12" OR AS NOTED | | | MANHOLE, 3'x4'x4' 24" F & C (DWG.#730) (A) 30" F & C (DWG#729) (B) | <div>PROPOSED</div> <div>PRESENT</div> |
| | | SIGNAL, TRAFFIC 3 SECTION 2-WAY ADJUSTABLE, 12" OR AS NOTED | | | MANHOLE, 4'x6'x6' 24" F & C (DWG.#732) (C) 30" F & C (DWG#733) (D) | <div>PROPOSED</div> <div>PRESENT</div> |
| | | SIGNAL OPTICALLY PROGRAMMED | | | HANDHOLE, HEAVY DUTY, 36" I.D. (DWG.#866) 24" F & C (E). (DWG#871) 30" F & C (F) | <div>PROPOSED</div> <div>PRESENT</div> |
| | | SIGNAL, PEDESTRIAN, COUNTDOWN | | | HANDHOLE, CIRCULAR WITH 24"FRAME & COVER,30"i.d. (#867) (G) | <div>PROPOSED</div> <div>PRESENT</div> |
| | | SIGNAL, PEDESTRIAN, DON'T WALK/WALK | | | FOUNDATION, CONTROLLER OR PEDESTAL, 13" B.C.,20"x5' (DWG. #709) | <div>PROPOSED</div> <div>PRESENT</div> |
| | | SIGNAL FACE ARROW, 12" COLOR AS NOTED | | | FOUNDATION, TRAFFIC CONTROLLER DWG. #854. F.A. TERMINAL FND. DWG. #11972 | <div>PROPOSED</div> <div>PRESENT</div> |
| | | SIGNAL BASE, 1 SECTION YELLOW/GREEN ARROW DUAL INDICATION | | | FOUNDATION, TRAFFIC TYPE "P", BASE MOUNT. (DWG. #888) | <div>PROPOSED</div> <div>PRESENT</div> |
| | | PUSH BUTTON, PEDESTRIAN | | | FOUNDATION,CONTROLLER STREET LIGHT ,SPECIAL, 100A & 200A. (DWG.#876 & # 880) | <div>PROPOSED</div> <div>PRESENT</div> |
| | | SIGN,ILLUMINATED, WITH MESSAGE OR SYMBOL AS INDICATED | | | FOUNDATION, TRANSCLOSURE; TRANSCLOSURE HOUSING. (DWG.# 583 & #891) | <div>PROPOSED</div> <div>PRESENT</div> |
| | | MAST ARM, MONOTUBE, STEEL. SIZE AS INDICATED (SEE DWG. #870) | | | CONTROLLER,UNDERPASS LIGHTING 120V. & 240V. (DWG. #860 & #861) | <div>PROPOSED</div> <div>PRESENT</div> |
| | | MAST ARM, TRUSS, ALUMINUM. SIZE AS INDICATED | | | MANHOLE, UTILITY, E=COMMONWEALTH EDISON; T=ILL.BELL TEL.; G=PEOPLES GAS; W=CITY WATER; P=CHGO PARK DISTRICT; CTA=C.T.A; S= SEWER JUNCTION BOX, IN PAVEMENT (DWG. #815) | <div>PROPOSED</div> <div>PRESENT</div> |
| | | CONTROLLER, TRAFFIC SIGNAL. PEDESTAL OR BASE MOUNTED AS INDICATED | | | DETECTOR LOOP IN PAVEMENT | <div>PROPOSED</div> <div>PRESENT</div> |
| | | CONTROLLER, STREET LIGHTING. PEDESTAL OR BASE MOUNTED. (DWG. 876 or 880) | | | CONDUIT or P.V.C., NUMBER,SIZE & TYPE. (AS NOTED) | <div>PROPOSED</div> <div>PRESENT</div> |
| | | CONTROLLER,STREET LIGHTING. POLE MOUNTED (DWG. #11940) | | | CONDUIT or P.V.C. ENCASED IN CONCRETE. (SECTION or NUMBER OF CONDUIT INDICATED) | <div>PROPOSED</div> <div>PRESENT</div> |
| | | POLE, WOOD. COMMONWEALTH EDISON COMPANY, SERVICE | | | LUMINAIRE, H.P.S.V. 400W LAMP, 240V, SEMI-CUTOFF | <div>PROPOSED</div> <div>PRESENT</div> |
| | | POLE, CITY STEEL, ANCHOR BASE, 34'6", 7 GA. 10" DI A. AND 15"B.C. 24"x7' FND. W/1 1/4" ANCHOR RODS DRG. #818. | | | LUMINAIRE, H.P.S.V. 400W LAMP, 240V, CUTOFF | <div>PROPOSED</div> <div>PRESENT</div> |
| | | POLE, CITY STEEL, ANCHOR BASE, 34'-6", 3 GA. 10" DIA. AND 15" B.C. 24"x9' FND. W/1 1/4" ANCHOR RODS DRG. #818 (16',20'or 26'M.A.) | | | LUMINAIRE, H.P.S.V. 310W LAMP, 240V | <div>PROPOSED</div> <div>PRESENT</div> |
| | | POLE, CITY STEEL, ANCHOR BASE, 34"-6", 3GA., 11" DIA. AND 17 1/4" B.C. 30"x9' FND. W/1 1/4" ANCHOR RODS DRG. #816. (30' M.A.) | | | LUMINAIRE, H.P.S.V. 310W LAMP 240V, CUTOFF | <div>PROPOSED</div> <div>PRESENT</div> |
| | | POLE, CITY STEEL, ANCHOR BASE 34'-6", 3 GA. 12 1/2" DIA. AND 16 1/2"B.C. 30"x11' FND. W/1 1/2" ANCHOR RODS DRG.#817. (35',40'or 44' M.A.) | | | LUMINAIRE, H.P.S.V. 150W LAMP, 240V | <div>PROPOSED</div> <div>PRESENT</div> |
| | | POLE, CITY STEEL, ANCHOR BASE, 32'-6", 3 GA. 10" DIA., WITH 3 GA. BAL. HSG. BASE AND 17 1/4" B. C. ON 30"x9' FND. W/ 11/4" ANCHOR RODS DRG. #816. | | | LUMINAIRE, H.P.S.V. 150W LAMP, 120V | <div>PROPOSED</div> <div>PRESENT</div> |
| | | POLE, CITY STEEL, ANCHOR BASE, 20',27'-6",29'-6", 7 GA. WITH STEEL BAL. HSG. BASE AND FND. W/10" D. B.C. AND 1" ANCHOR RODS DRG. #716. | | | LUMINAIRE, H.P.S.V. 250W LAMP, 120V, (ALLEY LIGHT) | <div>PROPOSED</div> <div>PRESENT</div> |
| | | POLE,CITY STEEL, ANCHOR BASE, 20',27'-6",29'-6", 3 GA., WITH STEEL BAL. HSG. BASE AND FND. W/10" D. B.C. AND 1" ANCHOR RODS DWG.#719. | | | LUMINAIRE, H.P.S.V. 250W LAMP, 120V | <div>PROPOSED</div> <div>PRESENT</div> |
| | | POLE, CITY STEEL, ANCHOR BASE, 20',27'-6", 29'-6" 7 GA., AND ALUMINUM RESIDENTIAL DAVIT AND FND. WITH 10" B.C. AND 1" ANCHOR RODSDWG#565 (CONCRETE) OR DWG.#936 (HELIX). | | | LUMINAIRE, H.P.S.V. 400W LAMP, 240V, (FLOOD LIGHT) | <div>PROPOSED</div> <div>PRESENT</div> |
| | | POLE, CITY STEEL, ANCHOR BASE, 20',27'-6",29'-6" 3 GA.,AND FND. WITH 10" B.C. AND 1" ANCHOR RODS DWG. #565 (CONCRETE) OR DWG.#936 (HELIX). | | | TERMINAL, CABINET F.A. & P.C. | <div>PROPOSED</div> <div>PRESENT</div> |
| | | POLE, CITY STEEL, ANCHOR BASE, 32'-6", 7 GA., AND FND. WITH 11 1/2" B.C. AND 1" ANCHOR RODS DWG. #753. | | | FIRE ALARM BOX, MOUNTED | <div>PROPOSED</div> <div>PRESENT</div> |
| | | POLE, CITY STEEL, ANCHR BASE, 32'-6", 3 GA., AND FND. WITH 11 1/2" B.C. AND 1" ANCHOR RODS DWG. #753. | | | FIRE ALARM BOX, POLE MOUNTED | <div>PROPOSED</div> <div>PRESENT</div> |
| | | POLE, CITY STEEL, ANCHOR BASE, 32'-6" 7 GA., ALUM. BHB AND FND. WITH 15" B.C.-24"x7' WITH 1" ANCHOR RODS DRG. #691. | | | CABLE, TRAFFIC SIGNAL, COMMUNICATION, 1-PAIR #14 SHIELDED, IN CONDUIT | <div>PROPOSED</div> <div>PRESENT</div> |
| | | POLE, CITY STEEL, ANCHOR BASE, 32'-6", 3 GA., ALUM. BHB AND FND. WITH 15" B.C. 24"x 7' WITH 1" ANCHOR RODS DWG. #691. | | | CABLE, TRAFFIC SIGNAL POWER SUPPLY, 2/C- #4, 600 V. EPR. IN CONDUIT | <div>PROPOSED</div> <div>PRESENT</div> |
| | | POLE, CITY ALUMINUM, WITH ROUND BAL. HSG. BASE, 25', 28', or 30' ON FND.WITH 14" B.C., ACQUIRED FROM CHICAGO PARK DISTRICT. | | | CABLE, TRAFFIC SIGNAL POWER SUPPLY, 2 1/C-#2 or #1/0 600V. EPR IN CONDUIT | <div>PROPOSED</div> <div>PRESENT</div> |
| | | POLE, CITY STEEL, EMBEDDED, 4"x 9"x 35' 7 GA., TAPERED TUBULAR. (DWG. #658) | | | CABLE, TRAFFIC SIGNAL POWER SUPPLY, 2/C-#10 or #6, 600V NSRI, IN CONDUIT | <div>PROPOSED</div> <div>PRESENT</div> |
| | | POLE, CITY STEEL, EMBEDDED, 4"x 9"x 35' 3 GA., TAPERED TUBULAR. (DWG. #658) | | | CABLE, TRAFFIC SIGNAL, 7/C-#12 or #14, 600V, EPR IN CONDUIT | <div>PROPOSED</div> <div>PRESENT</div> |
| | | POLE, CITY STEEL, EMBEDDED. (ACQUIRED FROM CTA) | | | CABLE, TRAFFIC SIGNAL, 10/C-#12 600V. EPR IN CONDUIT | <div>PROPOSED</div> <div>PRESENT</div> |
| | | COLUMN,ELEVATED STRUCTURE | | | CABLE, TRAFFIC SIGNAL, 14/C-#14, 600V. EPR IN CONDUIT | <div>PROPOSED</div> <div>PRESENT</div> |
| | | POLE, WOOD. (SIZE AS NOTED) | | | CABLE, TRAFFIC SIGNAL, 19/C-#12 600V, EPR IN CONDUIT | <div>PROPOSED</div> <div>PRESENT</div> |
| | | POLE, FOUNDATION WITH ELBOWS AS INDICATED.(SIZE AS NOTED) | | | CABLE, STREET LIGHT, 2 1/C-#6, 600V. RINS IN PARKWAY | <div>PROPOSED</div> <div>PRESENT</div> |
| | | POLE, ORNAMENTAL OR OTHER, AS INDICATED ON THE PLANS | | | CABLE, STREET LIGHT, 2 1/C-#6, 600V. RINS IN CONDUIT | <div>PROPOSED</div> <div>PRESENT</div> |
| | | RESIDENTIAL STREET LIGHTING CONTROLLER | | | CABLE, STREET LIGHT, 2 1/C-#6 EPRN 600V. & 1 1/C-#8 GREEN, TRIPLEXED,IN CONDUIT | <div>PROPOSED</div> <div>PRESENT</div> |
| | | | | | CABLE, STREET LIGHT, 3 1/C-#1/0, or #2/0, or #4, 600V. EPR IN CONDUIT | <div>PROPOSED</div> <div>PRESENT</div> |
| | | | | | WIRE, STREET LIGHT, 2 1/C-#6, HDNS. AERIAL | <div>PROPOSED</div> <div>PRESENT</div> |
| | | | | | WIRE, STREET LIGHT, 2 1/C-#6 & 1 1/C #8, HDNS. AERIAL | <div>PROPOSED</div> <div>PRESENT</div> |
| | | | | | CABLE, STREET LIGHT AERIAL, 3 1/C-#4 or #2 SELF SUPPORTING, 600V EPR | <div>PROPOSED</div> <div>PRESENT</div> |
| | | | | | WIRE, F.A. & P.C. AERIAL, 1/C-#10, NUMERAL DENOTES QUANTITY | <div>PROPOSED</div> <div>PRESENT</div> |
| | | | | | CABLE, F.A. & P.C. AERIAL, W/ MESSENGER #19-(NUMBER OF PAIRS AS INDICATED) | <div>PROPOSED</div> <div>PRESENT</div> |
| | | | | | CABLE, F.A. & P.C. AERIAL, SELF SUPPORTING, #19-(NUMBER OF PAIRS AS INDICATED) | <div>PROPOSED</div> <div>PRESENT</div> |
| | | | | | CABLE, F.A. & P.C., IN CONDUIT, #19-(NUMBER OF PAIRS AS INDICATED) | <div>PROPOSED</div> <div>PRESENT</div> |
| | | | | | DOWNLIGHT ASSEMBLY. (DWG. #850) | <div>PROPOSED</div> <div>PRESENT</div> |
| | | | | | LIGHT, TRAFFIC SAFETY ISLAND | <div>PROPOSED</div> <div>PRESENT</div> |
| | | | | | FLASHING BEACON & DOWNLIGHT | <div>PROPOSED</div> <div>PRESENT</div> |

| | | | |
|---|----------|-------------------------------|-------------|
| E | 09-19-13 | ADDED CMH LUMINAIRES | A.VIEU |
| D | 02-06-04 | REVISED/REDRAW | R.POOL/B.I. |
| C | 04-01-02 | REVISED/REDRAW | R.POOL/B.I. |
| B | 12-4-01 | ADDED ORNAMENTAL SYMBOLS | |
| A | 8-6-96 | REDRAWN | |
| DATE | | REVISION | |
| SUPERSEDES DWG. # | | | |
| WORK ORDER NO. _____ DATE _____ | | | |
| COST ALLOCATION ACCOUNT _____ | | | |
| APPROPRIATION ACCOUNT | | MATERIAL _____ | |
| | | LABOR _____ | |
| STANDARD CODE FOR TRAFFIC SIGNALS/ STREET LIGHTING | | | |
| CITY OF CHICAGO DEPT. OF TRANSPORTATION DIVISION OF ENGINEERING ELECTRICAL SECTION | | | |
| DRAFTSMAN: R. IVY | | CHIEF DRAFTSMAN: R. CARTER | |
| SUPERVISING ENGINEER: | | ENGINEER: R. POOL/R.C/W.T. | |
| ENGINEER OF ELECTRICITY: | | DWG. NO. | |
| DEPT. SUPT. OF CONSTRUCTION: | | 826 | |
| DEPUTY COMMISSIONER: | | | |
| SIZE: 22" 36" | | SCALE: NONE | |
| | | DATE: 09-19-13 | |

SEE SHEET E-1 FOR DEO STANDARD DRAWING NO. 826 -
STANDARD CODES FOR TRAFFIC SIGNALS / STREET LIGHTING

ALL EXISTING CONDUITS THAT WILL CONTAIN PROPOSED CABLES NEED TO ROD & CLEANED

ALL CONDUIT IS TO BE INSTALLED BY THE DIRECTIONAL
BORING METHOD, UNLESS OTHERWISE NOTED



NOTES:

- "B"- INSTALL 30" DIA HANDHOLE, W/24" FRAME & COVER
- "C"- CLEAN EXISTING HANDHOLE/MANHOLE
- "D"- DRILL EXISTING HANDHOLE/MANHOLE
- "E"- INSTALL 3" ELBOW & RISER ON COMED POLE
- "T"- EXISTING FOUNDATION TO REMAIN
- "T1"-SEE TRAFFIC DRAWING FOR PROPOSED TRAFFIC POLE FOUNDATION

\$\$\$DGN\$\$\$
\$\$\$SYTIME\$\$\$

TranSmart/EJM

TRANSMART/EJM
411 S. WELLS STREET
SUITE 1000
CHICAGO, IL 60607
TEL: (312) 922-1700
FAX: (312) 922-3311

| | | |
|-----------------------|----------------|-----------|
| USER NAME = \$USER\$ | DESIGNED - N,J | REVISED - |
| | CHECKED - M,R | REVISED - |
| PLOT SCALE = 1' = 20" | DRAWN - R,S | REVISED - |
| PLOT DATE = \$DATE\$ | CHECKED - M,R | REVISED - |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER

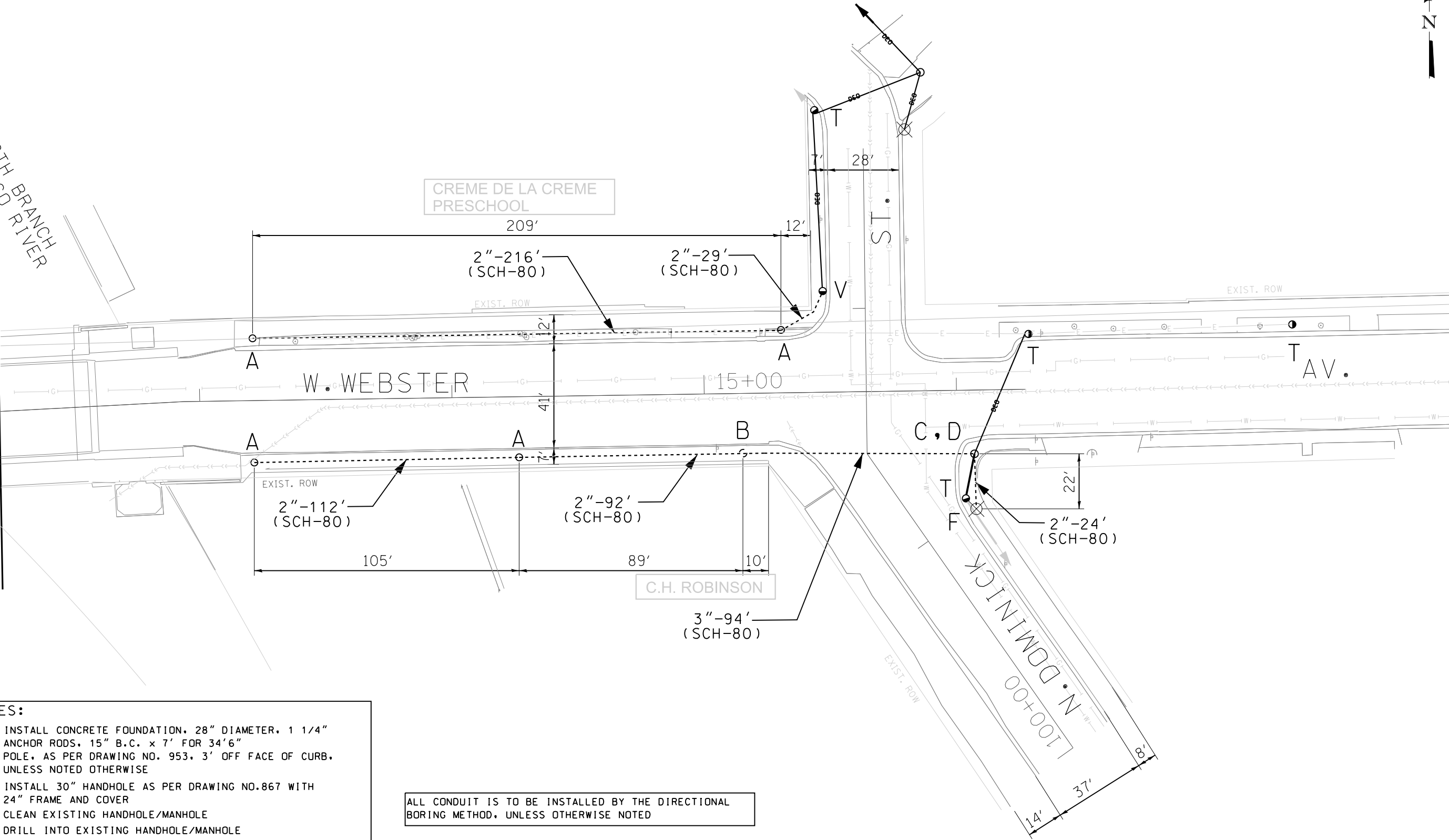
ROADWAY FOUNDATION &
CONDUIT PLAN
(STRUCTURE NO. 016-6057)

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | E-2 |
| CDOT PROJECT NO. E-1-525 | | | 191 of 210 |



NORTH BRANCH
CHICAGO RIVER

MATCH LINE "A"
SEE SHEET NO. "E-2"



NOTES:

- "A"- INSTALL CONCRETE FOUNDATION, 28" DIAMETER, 1 1/4" ANCHOR RODS, 15" B.C. x 7' FOR 34'6" POLE, AS PER DRAWING NO. 953, 3' OFF FACE OF CURB, UNLESS NOTED OTHERWISE
- "B"- INSTALL 30" HANDHOLE AS PER DRAWING NO.867 WITH 24" FRAME AND COVER
- "C"- CLEAN EXISTING HANDHOLE/MANHOLE
- "D"- DRILL INTO EXISTING HANDHOLE/MANHOLE
- "F"- INSTALL 3" ELBOW & 3" RISER ON COMED POLE
- "T"- EXISTING FOUNDATION TO REMAIN
- "V"- INSTALL CONDUIT INTO EXISTING HELIX FOUNDATION

ALL CONDUIT IS TO BE INSTALLED BY THE DIRECTIONAL BORING METHOD, UNLESS OTHERWISE NOTED

SEE SHEET E-1 FOR DEO STANDARD DRAWING NO. 826 - STANDARD CODES FOR TRAFFIC SIGNALS / STREET LIGHTING

\$\$\$DGN\$\$\$
\$\$SYTIME\$

TranSmart/EJM

TRANSMART/EJM
411 S. WELLS STREET
SUITE 1000
CHICAGO, IL 60607
TEL: (312) 922-1700
FAX: (312) 922-3311

| | | | | | |
|--------------|----------|------------|-----|-----------|--|
| USER NAME = | \$USER\$ | DESIGNED - | N,J | REVISED - | |
| | | CHECKED - | M,R | REVISED - | |
| PLOT SCALE = | 1' = 20" | DRAWN - | R,S | REVISED - | |
| PLOT DATE = | \$DATE\$ | CHECKED - | M,R | REVISED - | |

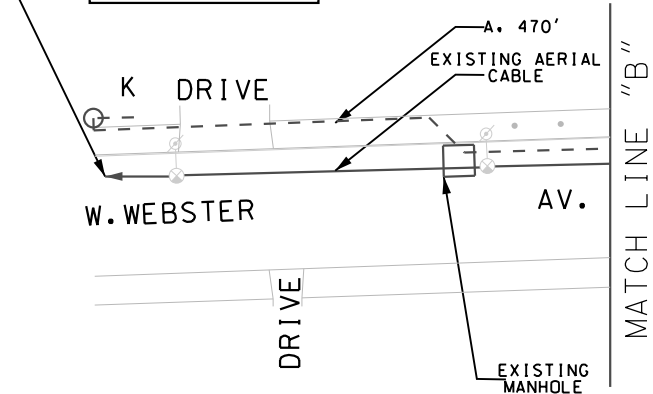
CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER

ROADWAY FOUNDATION &
CONDUIT PLAN
(STRUCTURE NO. 016-6057)

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | E-3 |
| CDOT PROJECT NO. E-1-525 | | | 192 of 210 |

ATLAS NO. L-17
GROUP NO. 6
(10) 195W HPS LUM.
(32) 341W HPS LUM.
240V



NOTES:

1. ALL CONDUITS ATTACHED TO STRUCTURE SHALL BE RIGID STEEL CONDUIT UNLESS OTHERWISE SPECIFIED.
2. ALL BRIDGE LIGHTING CONDUIT & POWER CONDUIT BETWEEN BRIDGE HOUSES SHALL BE ATTACHED TO STRUCTURE.
3. ALL CONDUITS FROM LIGHTING JUNCTION BOX TO LIGHTS SHALL BE LIQUID TIGHT FLEXIBLE CONDUITS.
4. ALL CONDUIT AND CONDUIT FITTINGS SHALL BE UL LISTED FROM APPROVED VENDOR.
5. ALL CONDUITS TO BE FASTENED SECURELY AT 5' INTERVALS WITH BEAM CLAMPS.

----- PROPOSED PED/BIKE LIGHTING CABLE & CONDUIT ATTACHED TO STRUCTURE.. TRIPLEX, 2-1/C#6, 1-1/C#8 GND, EPRN, 600V
----- PROPOSED POWER CABLE & CONDUIT ATTACHED TO STRUCTURE

SEE SHEET E-1 FOR DEO STANDARD DRAWING NO. 826 -
STANDARD CODES FOR TRAFFIC SIGNALS / STREET LIGHTING

ALL LIGHT POLES MOUNTED ON BRIDGE STRUCTURE
SHALL MATCH STANDARD GLOSSY COLOR CODE
R76G34B35(SW2717.BORDEAUX)



ATLAS NO. M-17
GROUP NO. 20
(2) LED ART. TEARDROP LUM.
(5) 295W HPS LUM.
(5) 70W HPS LUM.
60A-240V
SPARE CIRCUIT

ATLAS NO. M-17
GROUP NO. 7
(13) 170W HPS LUM.
120V

ATLAS M-17
GROUP NO. 21
(2) LED ART. TEARDROP LUM.
60A-240V
SPARE CIRCUIT

CIRCUIT #1
(2) LED ART. TEARDROP LUM.
(5) 250W HPS LAMP
(5) 50W HPS LAMP

CIRCUIT #1
(4) LED 108W LUM.

CIRCUIT #2
(2) LED ART. TEARDROP LUM.

CIRCUIT #2
(4) LED 108W LUM.

NOTES:

- "A"-- PROPOSED POWER CABLE, 3-1/C#350 KCMIL
"A1"-- PROPOSED POWER CABLE, 3-1/C#270 INSTALLED IN PROPOSED 3" RGS CONDUIT
"G"-- INSTALL 34.5' POLE, 8' CHICAGO 2000 ARM & BASE, LED ARTERIAL TEARDROP LUMINAIRE WITH NODE AS PER DRAWING NO. 930, 930B, 930C, 931A
"G1"-- INSTALL DUAL 4' DAVIT MAST ARMS ON PROPOSED POLE MOUNTED ON BRIDGE STRUCTURE AS PER DETAIL "AA" IN SHEET E-8
INSTALL (2) 108W LED RESIDENTIAL STREET LIGHTING LUMINAIRES W/ NODES
"H"-- INSTALL 60A-240V RESIDENTIAL STREET LIGHT CONTROLLER AS PER DRAWING NO. 955
"H1"-- INSTALL 300A POWER CABINET NEAR EXISTIN POWER CABINET IN BRIDGE HOUSE.SEE SHEET E-10 FOR CABINET DETAILS
"H2"-- INSTALL 100A POWER CABINET NEAR EXISTING POWER CABINET IN BRIDGE HOUSE.SEE SHEET E-10 FOR CABINET DETAILS
"I"-- INSTALL CHICAGO 2000 ARM ASSEMBLY 10", CHICAGO 2000 BASE, & LED ARTERIAL TEARDROP LUMINAIRE WITH NODE ON PROPOSED POLE.
"J"-- INSTALL CHICAGO 2000 ARM ASSEMBLY 10", CHICAGO 2000 BASE, & LED ARTERIAL TEARDROP LUMINAIRE WITH NODE ON EXISTING POLE & PAINT POLE COMPLETE
"K"-- INSTALL SERVICE EQUIPMENT ON COMED POLE AS PER DWG. NO. 11925
"O"-- PROPOSED STREET LIGHT CABLE, TRIPLEX, 2-1/C #6, & 1-1/C#8 GND, EPRN, 600V INSTALLED IN RGS 1" CONDUIT
"P"-- PROPOSED STREET LIGHT CABLE INSTALLED IN 1" LIQUID TIGHT FLEXIBLE CONDUIT BETWEEN JUNCTION BOXES
"PP"-- PROPOSED POWER CABLE INSTALLED IN 3" LIQUID TIGHT FLEXIBLE CONDUIT BETWEEN JUNCTION BOXES

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER

ROADWAY LIGHTING
INSTALLATION PLAN
(STRUCTURE NO. 016-6057)

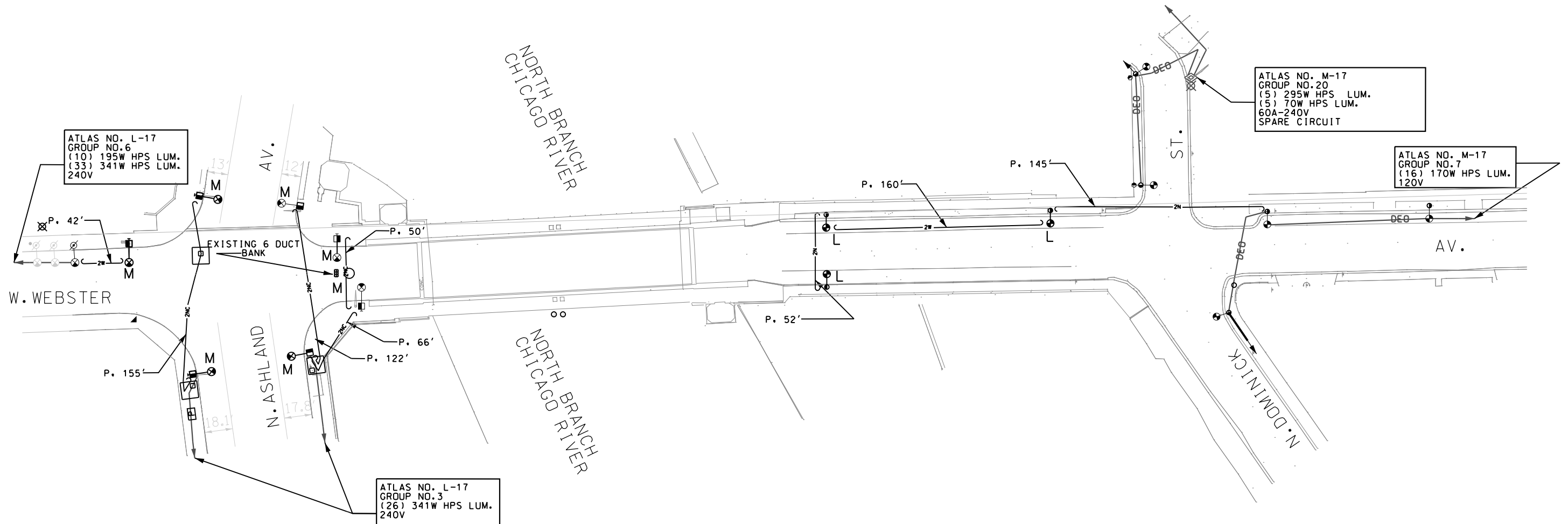
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | E - 4 |
| CDOT PROJECT NO. E-1-525 | | | 193 of 210 |

\$\$\$DGN\$\$\$
\$\$SYTIME\$

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411 S. WELLS STREET
SUITE 1000
CHICAGO, IL 60607
TEL: (312) 922-1700
FAX: (312) 922-3311

| | | |
|----------------------|----------------|-----------|
| USER NAME = \$USER\$ | DESIGNED - N.J | REVISED - |
| | CHECKED - M.R | REVISED - |
| PLOT SCALE = N.T.S | DRAWN - R.S | REVISED - |
| PLOT DATE = \$DATE\$ | CHECKED - M.R | REVISED - |



NOTES:

"L" - REMOVE ANCHOR BASE POLE, MAST ARM WITH LUMINAIRE AND BREAKDOWN FOUNDATION

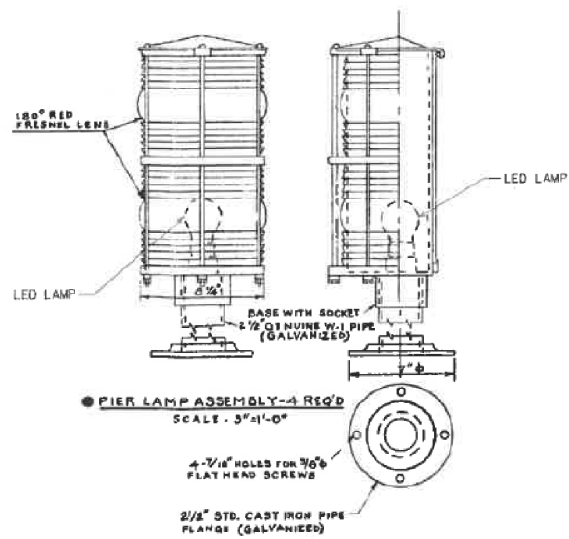
"M" - REMOVE MAST ARM WITH LUMINAIRE

"P" - REMOVE STREET LIGHTING CABLE

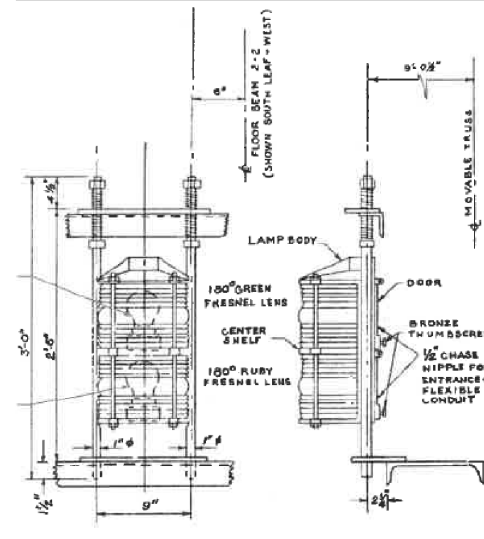
SEE SHEET E-1 FOR DEO STANDARD DRAWING NO. 826 - STANDARD CODES FOR TRAFFIC SIGNALS / STREET LIGHTING

\$\$\$DGN\$\$\$
\$\$SYTIME\$

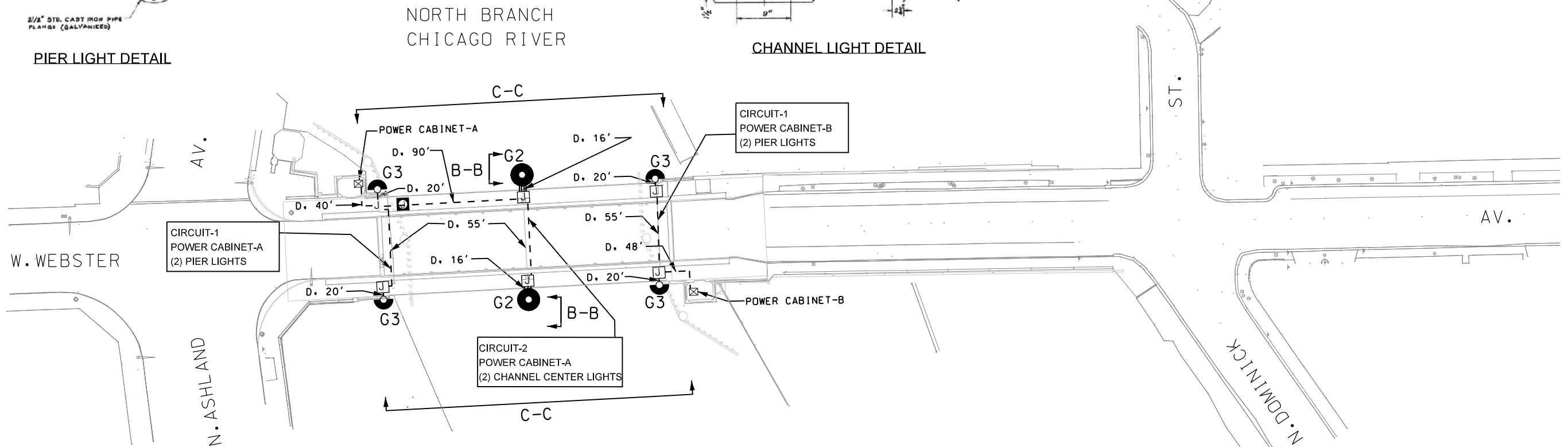
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| TranSmart/EJM <small>TRANSMART/EJM 411 S. WELLS STREET SUITE 1000 CHICAGO, IL 60607 TEL: (312) 922-1700 FAX: (312) 922-3311</small> | USER NAME = \$USER\$ | | DESIGNED - N.J | REVISED - | CITY OF CHICAGO DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING | WEBSTER AVENUE BRIDGE OVER THE NORTH BRANCH CHICAGO RIVER | ROADWAY LIGHTING REMOVAL PLAN (STRUCTURE NO. 016-6057) | F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
| | PLOT SCALE = N.T.S | | CHECKED - M.R | REVISED - | | | | 1388 | 11-E1525-00-BR | COOK | E-5 |
| | PLOT DATE = \$DATE\$ | | DRAWN - R.S | REVISED - | | | | CDOT PROJECT NO. E-1-525 | | | 194 of 210 |
| | | | CHECKED - M.R | REVISED - | | | | | | | |



PIER LIGHT DETAIL



CHANNEL LIGHT DETAIL



SYMBOLS:

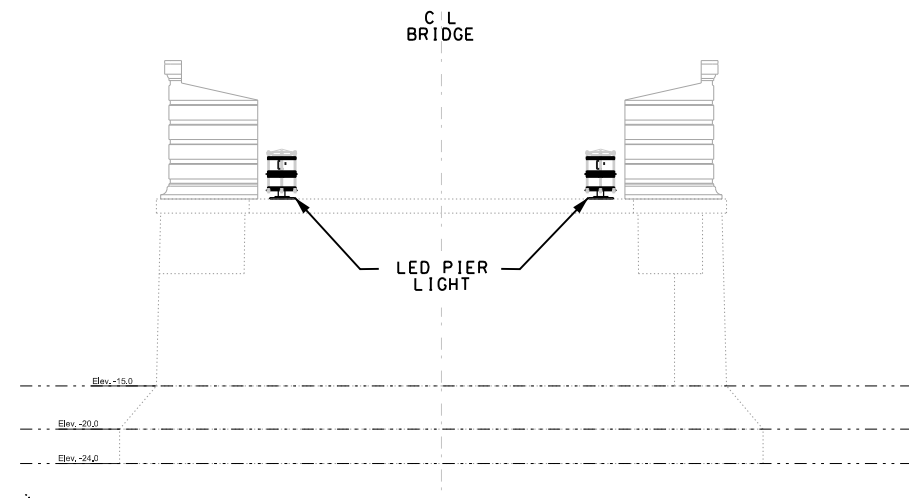
- CHANNEL CENTER - 360° GREEN
- PIER - 180° RED
- PROPOSED JUNCTION BOX
- POWER CABINET

NOTES:

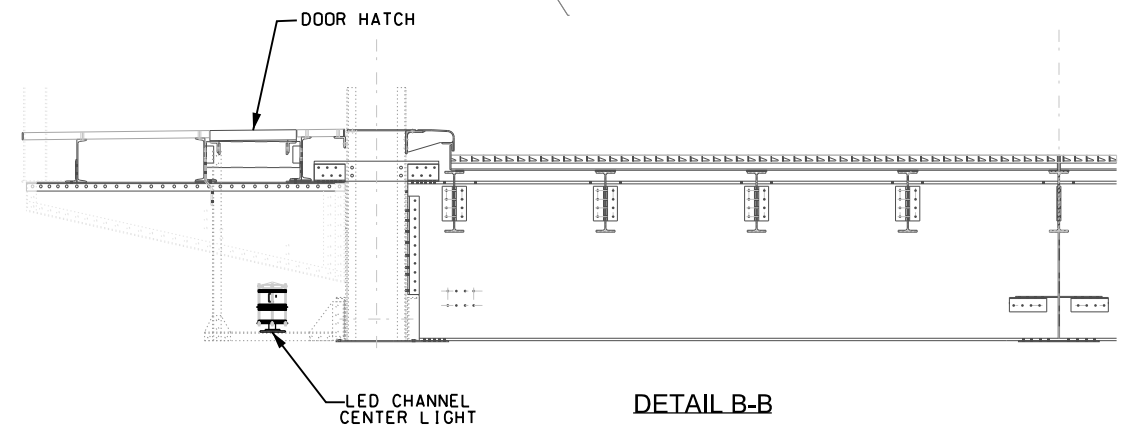
- "G2"-INSTALL LED CHANNEL CENTER SIGNAL
- "G3"-INSTALL LED PIER LIGHTS
- "D"- PROPOSED CABLE, 2-1/C#10, 1-1/C#12 GND INSTALLED IN 1" CONDUIT

NOTES:

1. ALL CONDUITS ATTACHED TO STRUCTURE SHALL BE 1" RIGID STEEL CONDUIT.
2. ALL CONDUITS FROM LIGHTING JUNCTION BOX TO LIGHTS SHALL BE LIQUID TIGHT FLEXIBLE CONDUIT.
3. ALL CONDUIT AND CONDUIT FITTINGS SHALL BE UL LISTED FROM APPROVED VENDOR.



DETAIL C-C



DETAIL B-B

\$\$\$DGN\$\$\$
\$\$SYTIME\$

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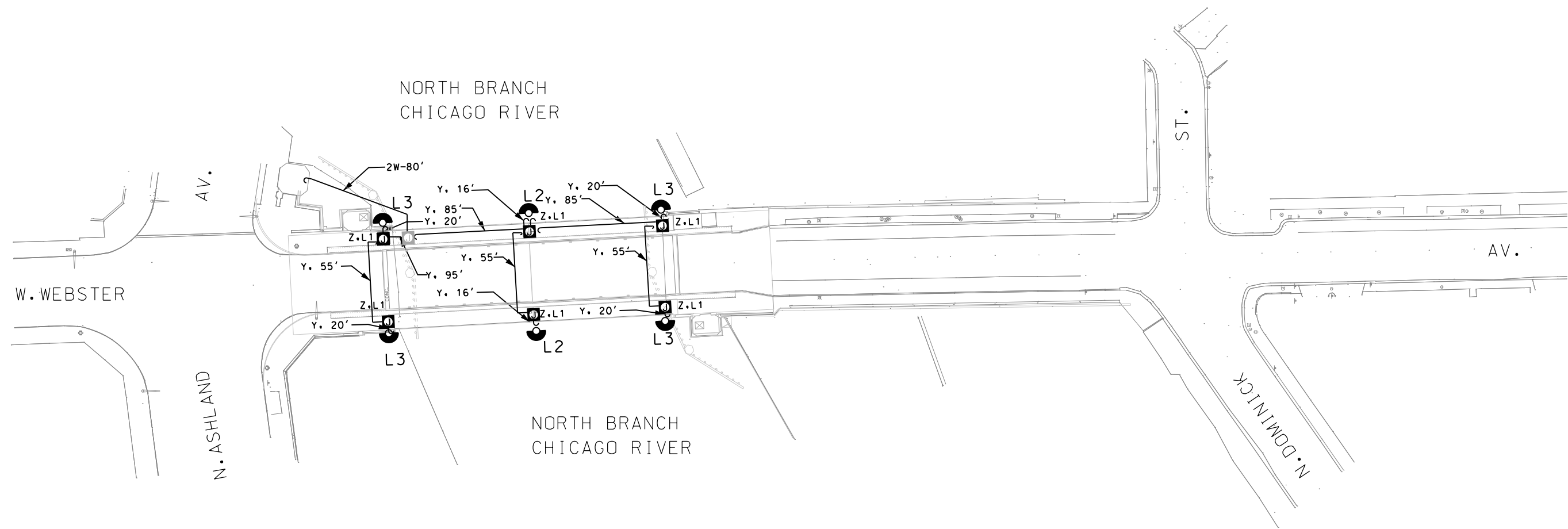
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| | | CHECKED - | M.R | REVISED - | |
| PLOT SCALE = | N.T.S | DRAWN - | R.S | REVISED - | |
| PLOT DATE = | \$DATE\$ | CHECKED - | M.R | REVISED - | |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING





WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER

NAVIGATIONAL LIGHTING
INSTALLATION PLAN
(STRUCTURE NO. 016-6057)

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | E-6 |
| CDOT PROJECT NO. E-1-525 | | | 195 of 210 |



SYMBOLS:

-  CHANNEL CENTER - 180° GREEN
-  PIER - 180° RED
-  EXISTING JUNCTION BOX
-  EXISTING POWER CABINET

NOTES:

- "L1"-REMOVE EXISTING JUNCTION BOX ATTACHED TO STRUCTURE
- "L2"-REMOVE CHANNEL CENTER SIGNAL
- "L3"-REMOVE AXIS SIGNAL
- "Y"- CABLE, 2-1/C#12, 1-1/C#10 GND
- "Z"- LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT

REMOVE ALL EXISTING ELECTRICAL ITEMS IN BRIDGE HOUSE AND ABOVE/BELOW FIXED DECKS/BEAMS. ITEMS ASSOCIATED WITH THE OPERATION OF THE BRIDGE SAY MOTORS, DRIVE MACHINERY ETC SHALL REMAIN IN PLACE

\$\$\$DGN\$\$\$
\$\$SYTIME\$

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411 S. WELLS STREET
SUITE 1000
CHICAGO, IL 60607
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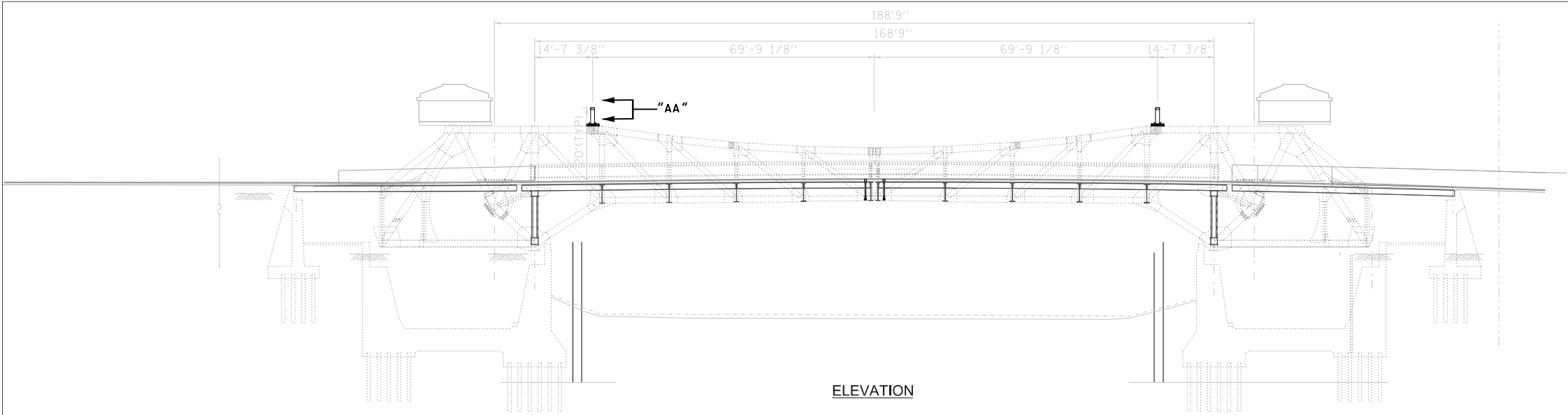
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| | CHECKED - M.R | REVISED - |
| PLOT SCALE = N.T.S | DRAWN - R.S | REVISED - |
| PLOT DATE = \$DATE\$ | CHECKED - M.R | REVISED - |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

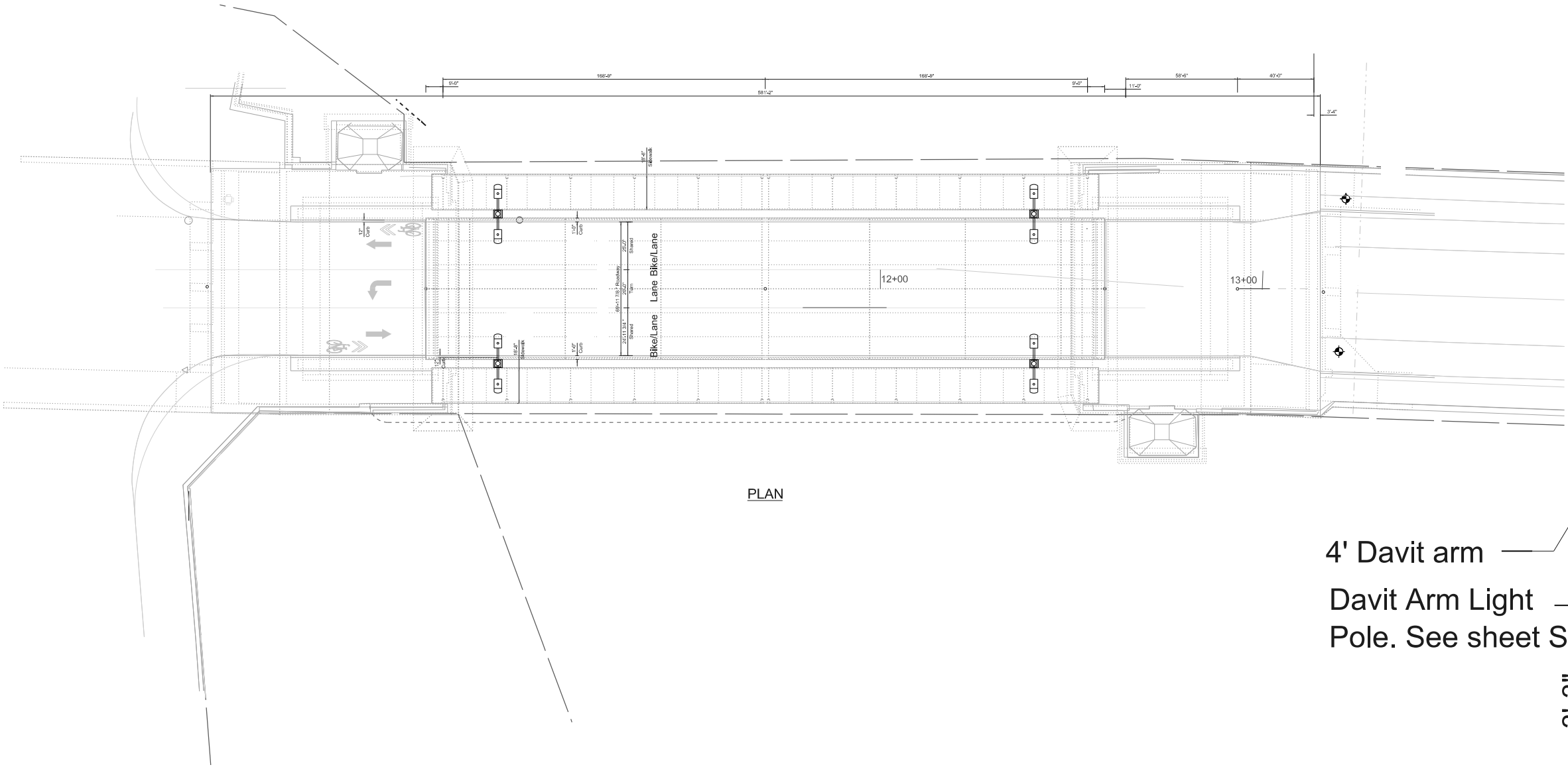
WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER

**NAVIGATIONAL LIGHTING
REMOVAL PLAN
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | E - 7 |
| CDOT PROJECT NO. E-1-525 | | | 196 of 210 |

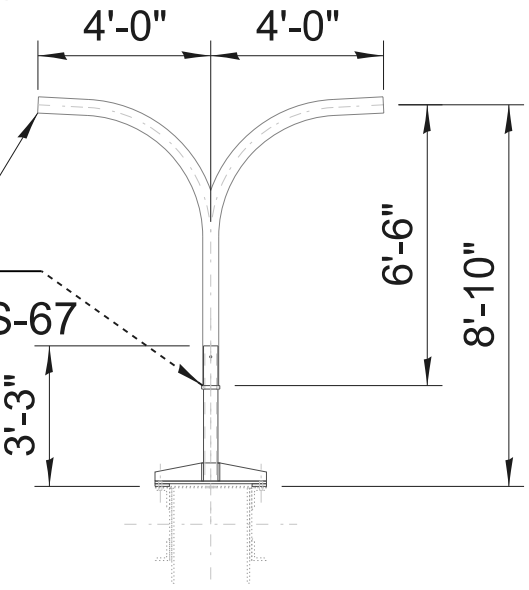


ELEVATION



PLAN

4' Davit arm
Davit Arm Light
Pole. See sheet S-67



DETAIL "AA"

\$\$\$DN\$\$\$
\$\$YTIMES

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TRANSMART/EJM
411 S. WELLS STREET
SUITE 1000
CHICAGO, IL 60607
TEL: (312) 922-1700
FAX: (312) 922-3311

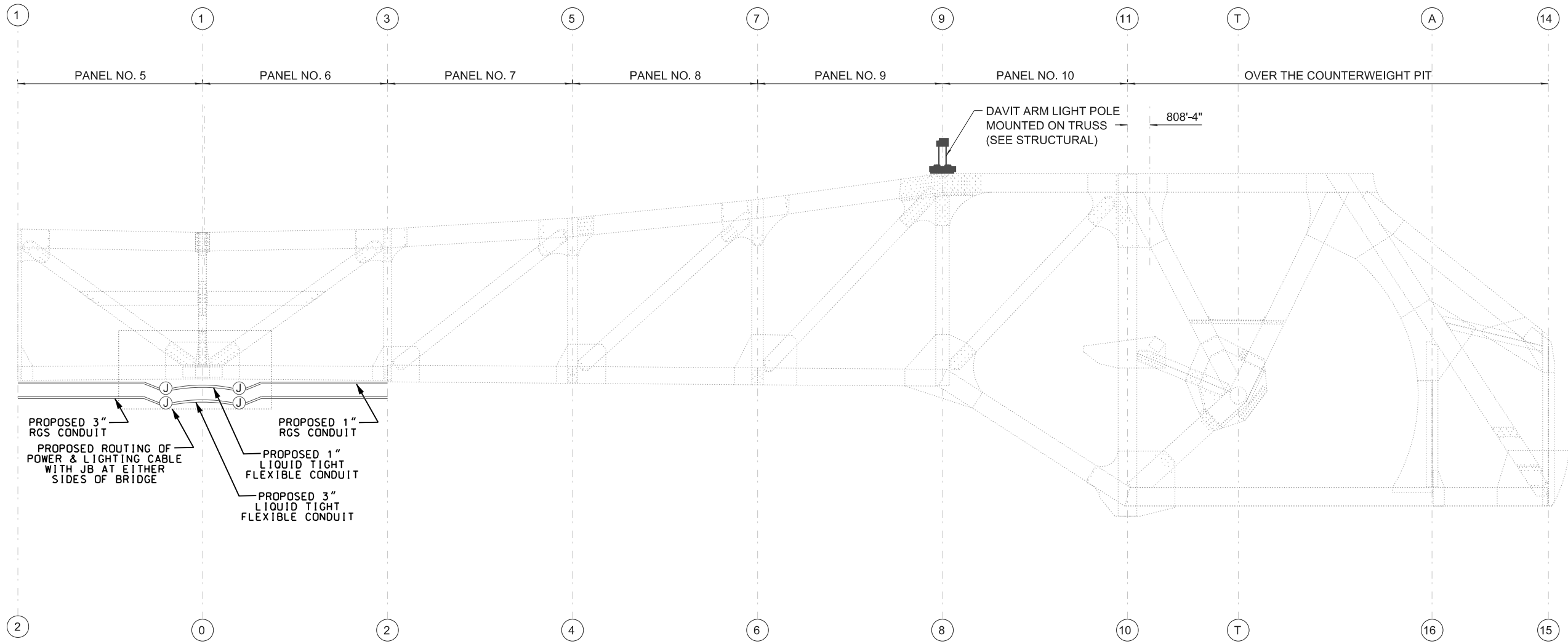
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| PLOT SCALE = | DRAWN - R.S | REVISED - |
| PLOT DATE = \$DATE\$ | CHECKED - M.R | REVISED - |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER

ELECTRICAL DETAILS
(STRUCTURE NO. 016-6057)

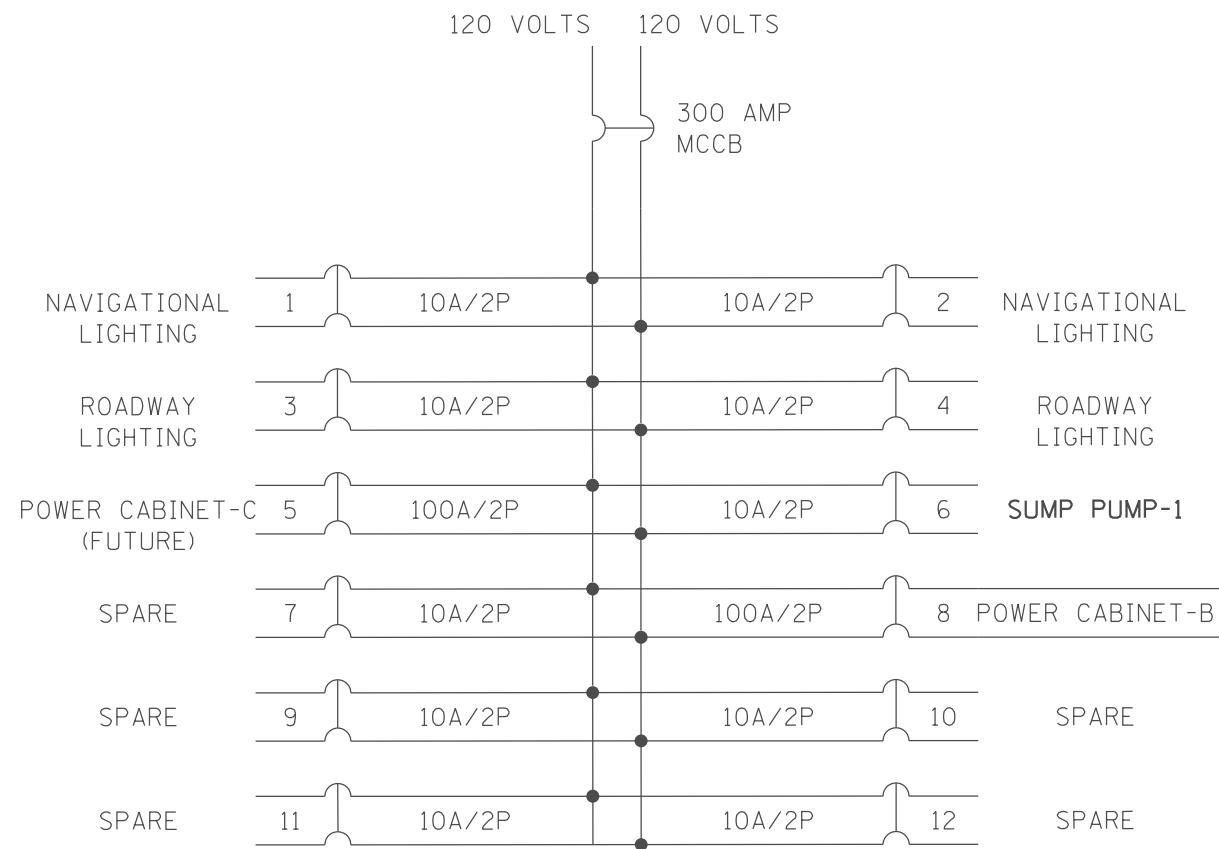
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|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | E - 8 |
| CDOT PROJECT NO. E-1-525 | | | 197 of 210 |



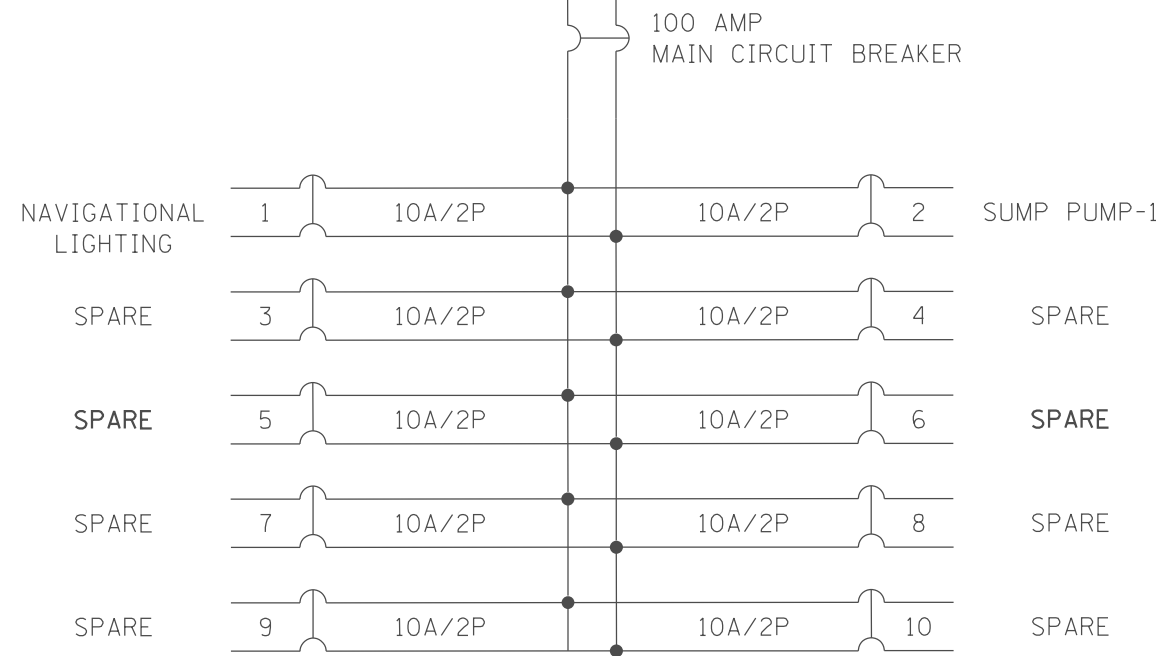
TRUSS ELEVATION LOOKING NORTH

- NOTES:
1. ALL ELECTRICAL PANELS SHALL BE 316L, SS, NEMA-4X, UL LISTED

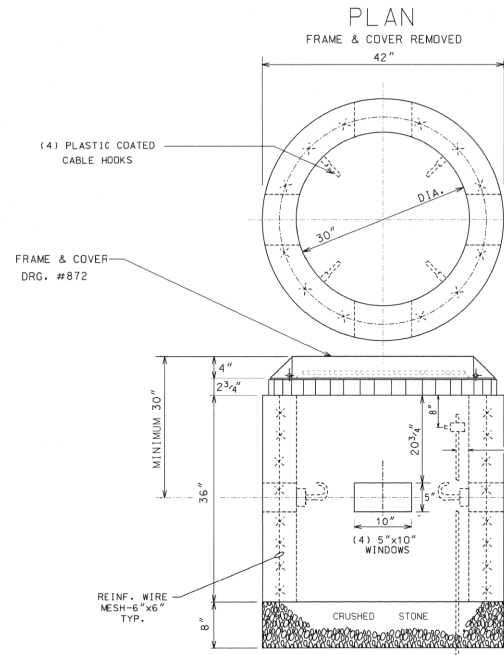
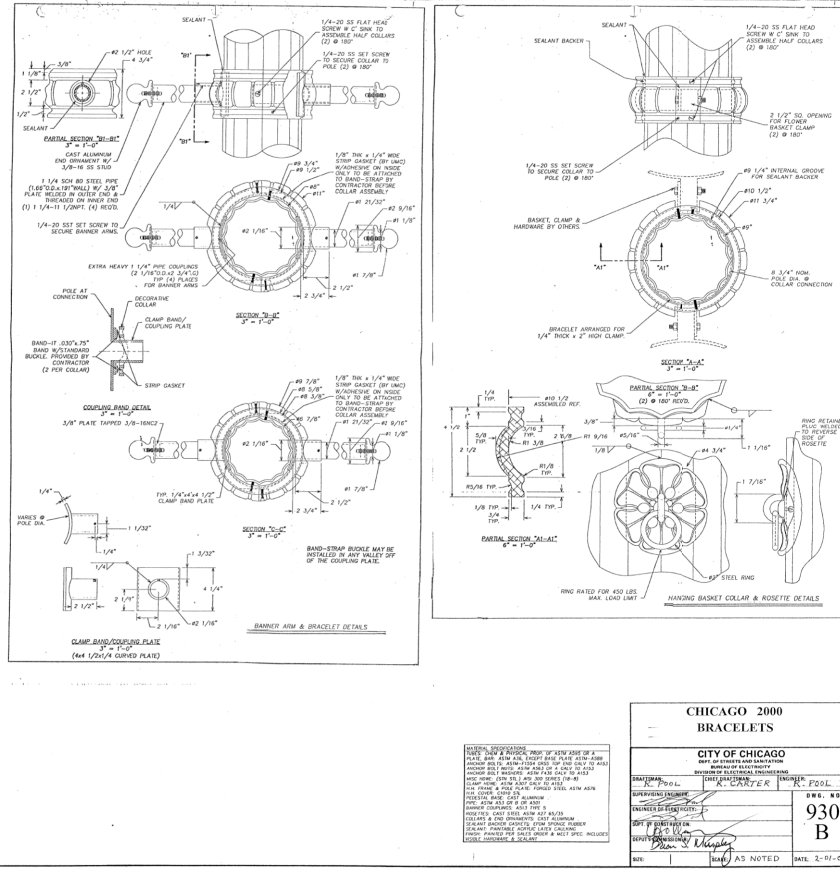
2. ALL PANELS SHALL BE GROUNDED



POWER CABINET-A
BRIDGE HOUSE- 1



POWER CABINET-B
BRIDGE HOUSE- 2



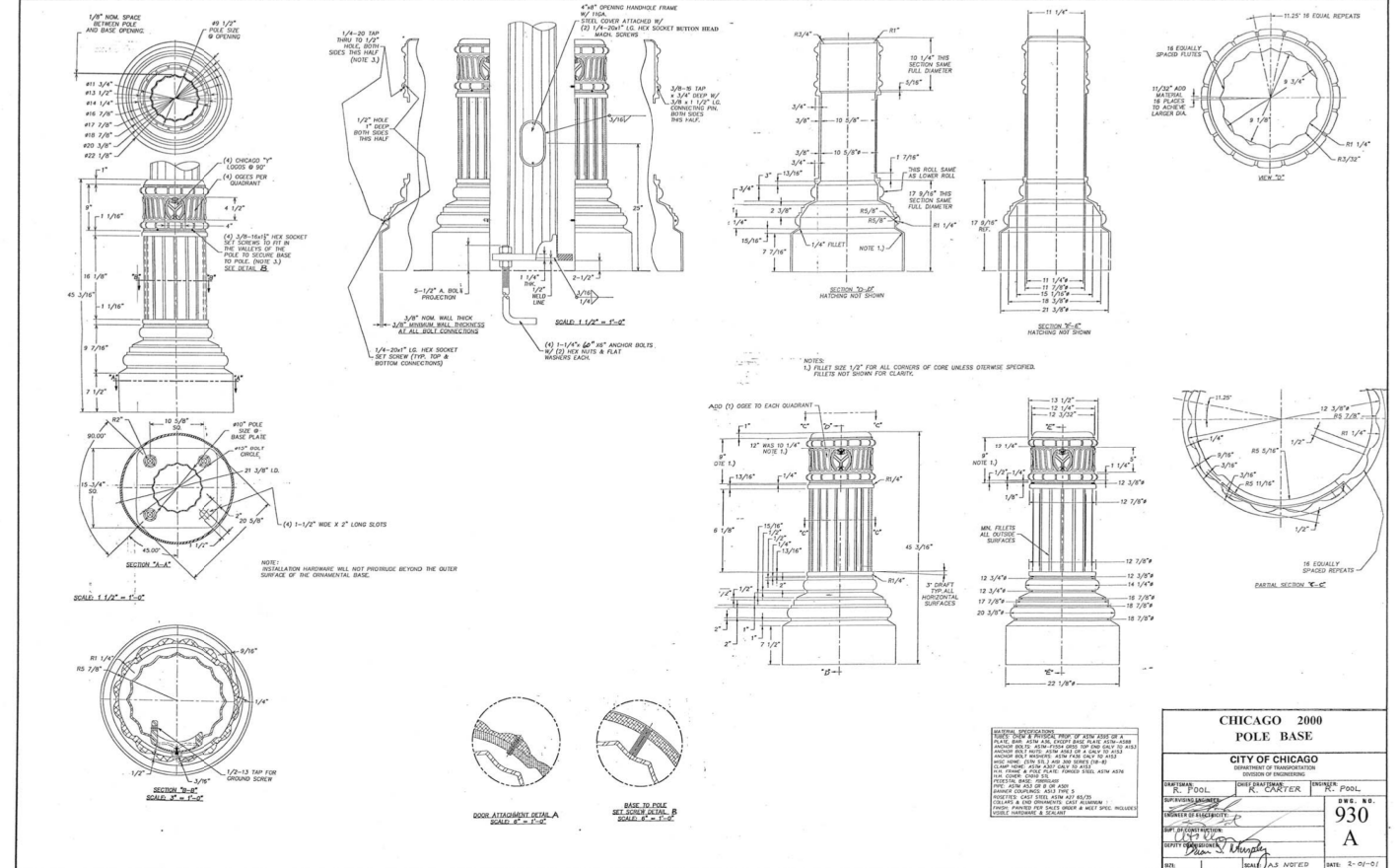
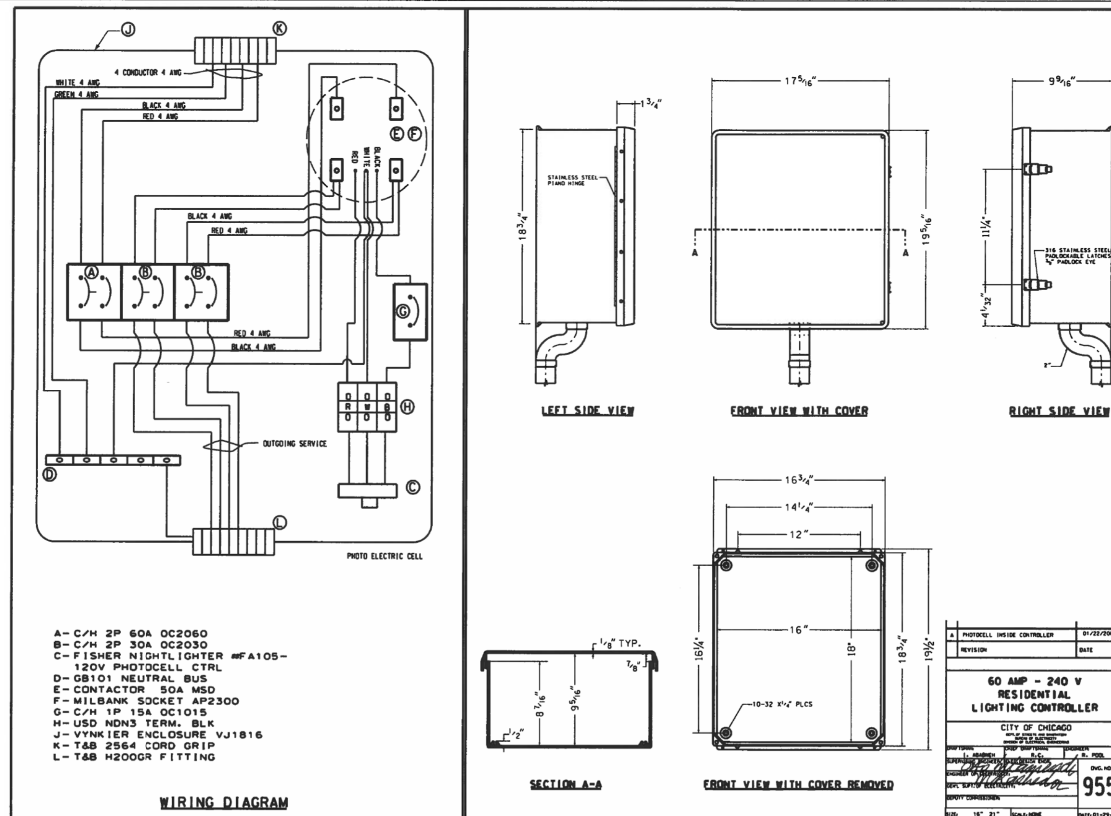
| CODE NO. | MATERIALS | SIZE | QUAN. |
|------------------|--------------------|----------|-------|
| (1) 05-6610-5310 | PRE-CAST HANDHOLE | 30"x36" | 1 |
| (2) 05-9075-5470 | STONE 3/4" CRUSHED | BAG | 5 |
| (2) 05-5082-5330 | SONO TUBE | 30" | 1 |
| (2) 05-5082-5342 | SONO TUBE | 42" | 1 |
| (2) 05-3267-2940 | CONC. REDI-MIX | CU. YD. | 1/2 |
| (2) 57-0770-0000 | 6" X 6" MESH | 36"x10' | 1 |
| 05-1452-9720 | BRICK | 24" | 24 |
| 02-4299-5524 | FRAME MANHOLE | 24" | 1 |
| 02-4574-5040 | COVER, MANHOLE | 24" | 1 |
| 09-7796-9312 | GROUND ROD | 3/4"x12' | 1 |
| 09-2630-3240 | GROUND CLAMP | | 1 |

- (1) PRE-CAST HANDHOLE SHALL INCLUDE CABLE HOOKS AND CONDUIT KNOCKOUTS.
(2) THESE ITEMS ARE FOR POURED-IN-PLACE HANDHOLES ONLY.

CONSTRUCTION NOTES:

- 8" BED OF STONE FOR DRAINAGE.
- ALL METALLIC CONDUITS ENTERING HANDHOLE SHALL EXTEND MINIMUM 1" & MAXIMUM 3" INSIDE INNER WALL AND BE EQUIPPED WITH AN APPROVED TYPE OF THREADED GROUNDING BUSHING.

| | |
|-------------------------------|-------------------------|
| 30" DIA. CONCRETE HANDHOLE | |
| CITY OF CHICAGO | |
| DESIGNED BY: [Signature] | CHECKED BY: [Signature] |
| DRAWN BY: [Signature] | DATE: 12-01-01 |
| 867 | |

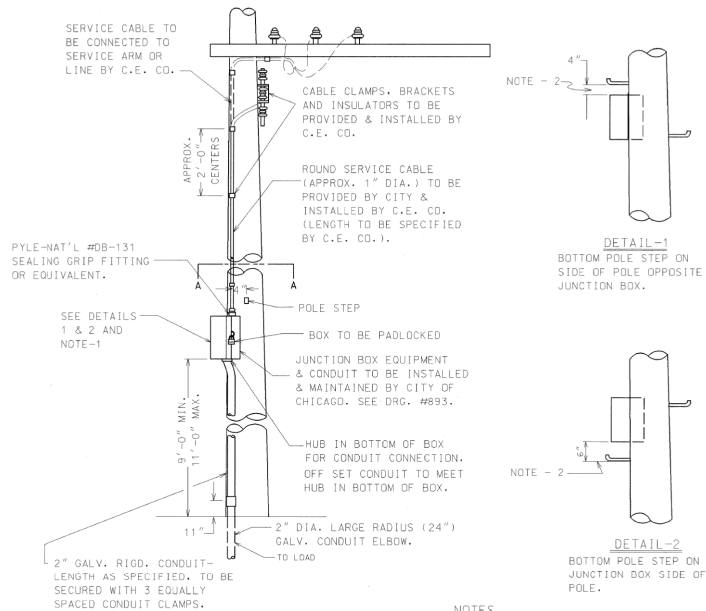


CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

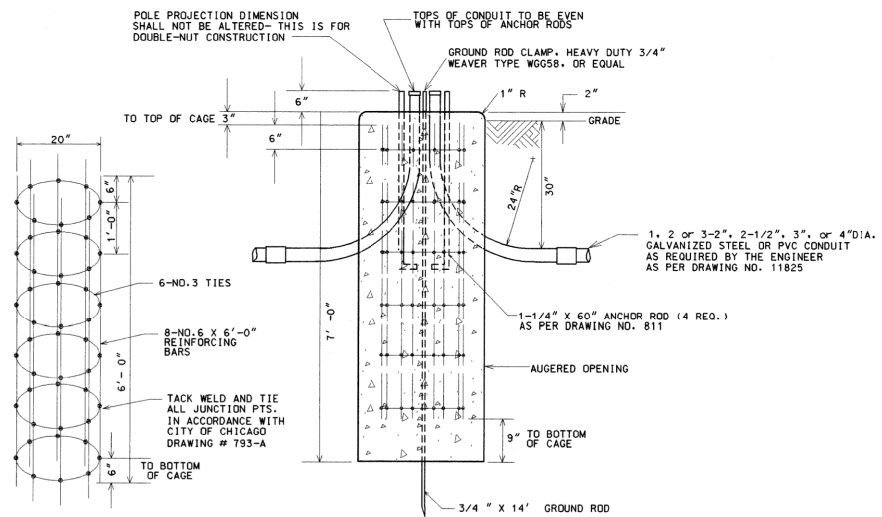
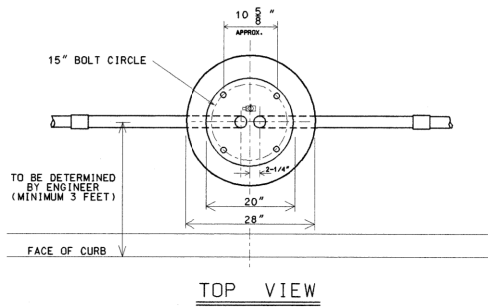
**ELECTRICAL DETAILS
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | E-11 |
| CDOT PROJECT NO. E-1-525 | | | 200 of 210 |



- NOTES
- 1 - WHERE POSSIBLE THE JUNCTION BOX SHALL BE LOCATED FACING THE PROPERTY LINE.
 - 2 - BOX SHALL HAVE A MINIMUM CLEARANCE OF 4" BELOW POLE STEP, DETAIL-1, OR 6" ABOVE STEP, DETAIL-2.
 - 3 - SERVICE CABLE TO ENTER BOX THROUGH SEALING GRIP FITTING IN TOP.

| | | |
|---|--|----------------------|
| DATE | REVISION | MP |
| INSTALLATION OF SERVICE EQUIPMENT ON C.E. CO. WOOD POLES | | |
| CITY OF CHICAGO DEPT. OF STREETS AND SANITATION BUREAU OF ELECTRICITY DIVISION OF ELECTRICAL ENGINEERING | | |
| DRAFTSMAN: E. LEMASTER | CHIEF DRAFTSMAN: J. BORE | ENGINEER: J. BORE |
| SUPERVISING ENGINEER: S.W. BERTRAM | ELEC. DESIGN ENGR. J. BORE | DWG. NO. 11925 |
| ENGINEER OF ELECTRICITY: J. BORE | GEN'L. SPT. OF ELECTRICITY: J. BORE | DATE: 12-26-56 |
| DEPUTY COMMISSIONER: J. BORE | SIZE: | |



| CODE | COMMODITY | SIZE | QUANTITY |
|--------------|---------------------|-----------------|-------------|
| 05-3267-2940 | RED-MIX CONCRETE | CU. YD. | 1.11 |
| 09-4001- | ELBOW, LARGE RADIUS | 2"x2-1/2"x3"x4" | AS REQUIRED |
| 37-8180-0200 | ANCHOR ROD | 1-1/4" X 60" | 4 |
| 05-5054-6910 | RE-BAR CAGE | 20" X 5'-0" | 1 |
| 09-7796 | GROUND ROD | 3/4" X 14'-0" | 1 |
| 09-2636- | GROUND ROD CLAMP | 3/4" | 1 |
| | GROUND BUSHING | 2"x2-1/2"x3"x4" | AS REQUIRED |

| | |
|---|------------------------------------|
| DATE | REVISION |
| FOUNDATION FOR CHICAGO 2000 GATEWAY POLE & CHICAGO 2000 PEDESTRIAN POLE | |
| CITY OF CHICAGO DEPT. OF STREETS AND SANITATION BUREAU OF ELECTRICITY DIVISION OF ELECTRICAL ENGINEERING | |
| DRAFTSMAN: B. GARNSEY | CHIEF DRAFTSMAN: R. CARTER |
| ENGINEER OF ELECTRICITY: B. GARNSEY | ENGINEER: B. GARNSEY |
| GENERAL SUPERINTENDENT: B. GARNSEY | DEPUTY COMMISSIONER: B. GARNSEY |
| SIZE: 11" X 17" | SCALE: NONE |
| DRAWING NO. 953 | |
| DATE: 8/21/02 | |

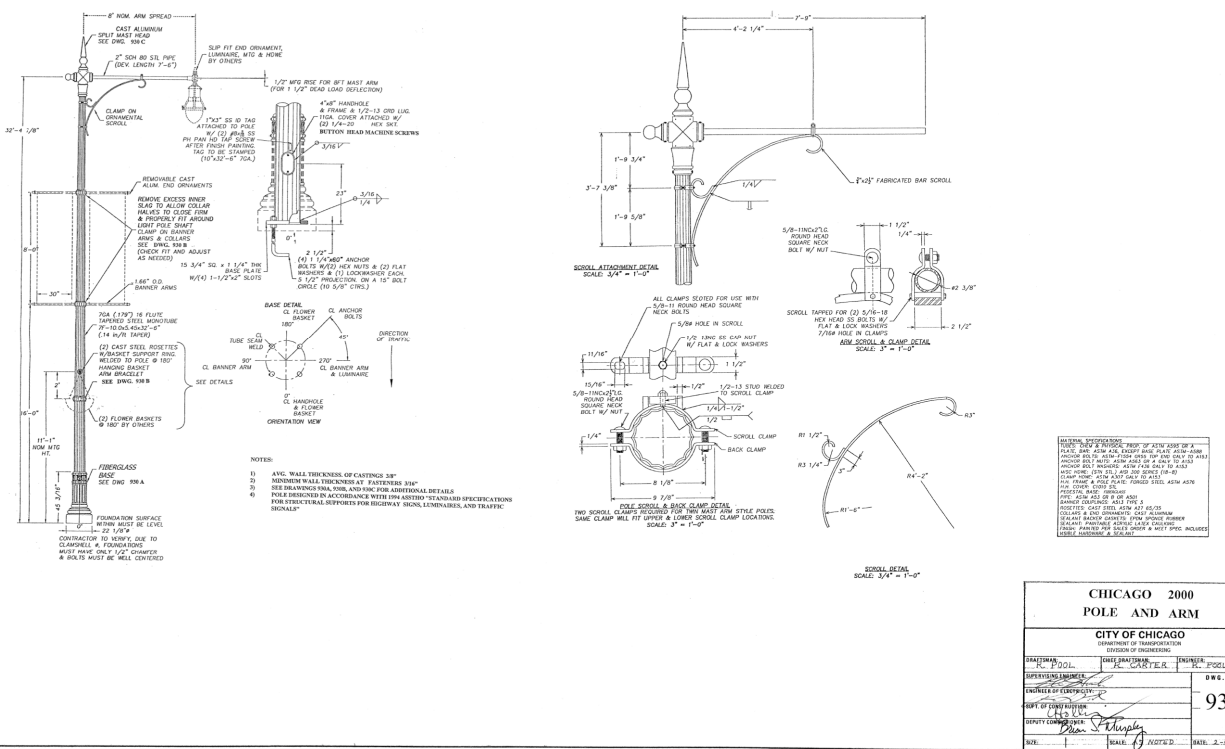
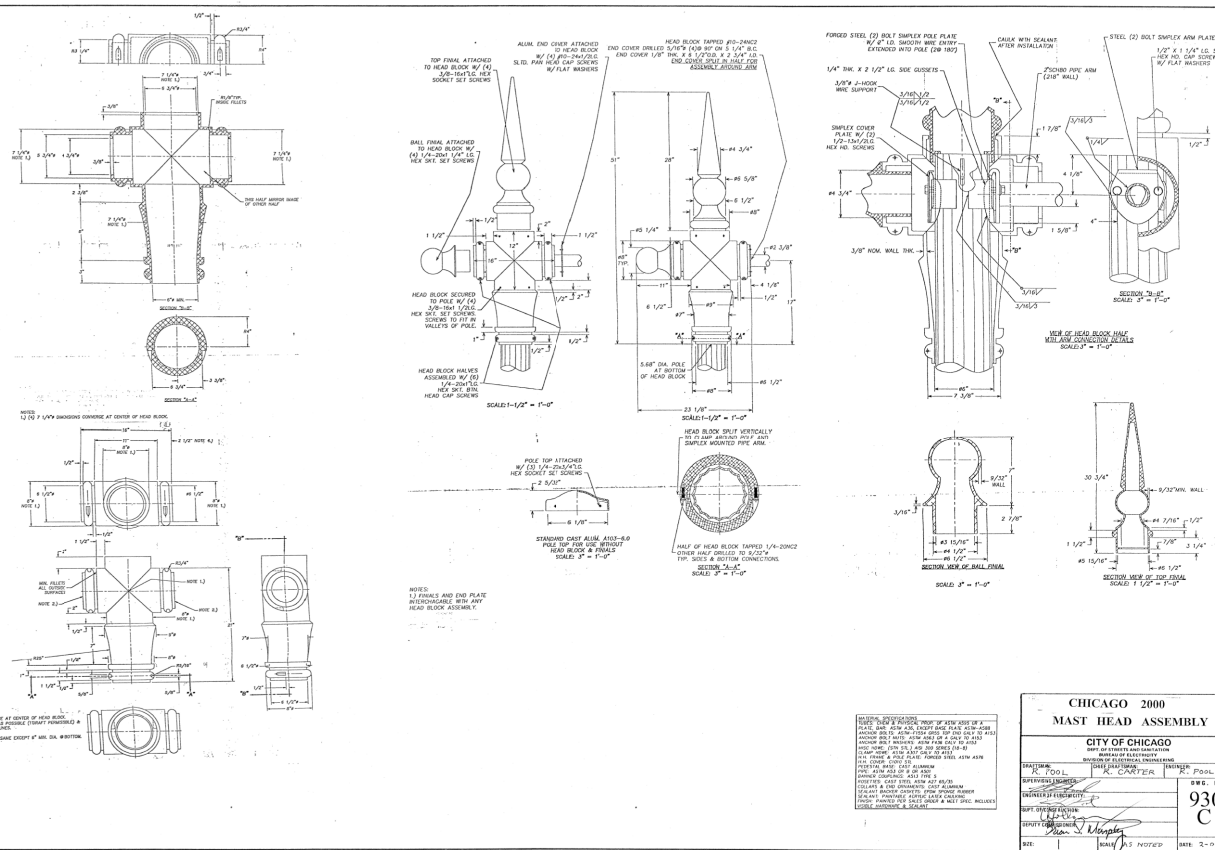
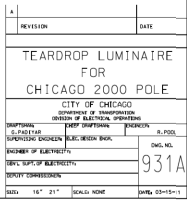
CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER

(STRUCTURE NO. 016-6057)

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | E-12 |
| CDOT PROJECT NO. E-1-525 | | | 201 of 210 |

| | | |
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| USER NAME = \$USER\$ | DESIGNED - N.J | REVISED - |
| PLOT SCALE = N.T.S. | CHECKED - M.R | REVISED - |
| PLOT DATE = \$DATE\$ | DRAWN - R.S | REVISED - |
| | CHECKED - M.R | REVISED - |



0166057-E1525-M001.dgn

GENERAL MACHINERY NOTES

1. The Contractor shall perform all work in accordance with these Contact Drawings, the Contract Specifications, and all other Contract Documents as defined within the Specifications. Any reference to the specifications includes references to all supplemental specifications, special provisions, and specifications referenced herein.
2. The existing details, dimensions, and elevations shown on these plans have been obtained from record drawings and field measurements on the existing structure. The Contractor shall perform a field survey to verify all dimensions affecting fabrication or construction. Shop and construction drawings shall indicate field verified dimensions. Payment for completing the field survey shall be considered as included within the cost for fabrication of materials affected.
3. Details of machinery shall conform to the 2007 Standard Specifications for Movable Highway Bridges published by the American Association of State Highway and Transportation Officials, and all interim revisions. Welding shall be in accordance with AWS Bridge Welding Code AASHTO/AWS D1.5.M/D1.5: 2015
4. Materials: The following items shall be of the materials specified and conformed to the following ASTM code provisions unless otherwise noted:

Weldment and Plates:

ASTM A709 Grade 50.

Structural steel supports for mechanical components:

ASTM A709 Grade 50.
5. Provide ASTM A449 H.S. (High strength) turned bolts as required to connect machinery to structural steel. All H.S. turned bolts shall have an ANSI B4.1 LC6 clearance between the body of the bolt and the hole. All H.S. Fasteners shall have a hardened plain washer under the head and the nut. New ASTM A449 bolts shall not be torqued more than once. Replacement of turned bolts shall be of the same nominal size as existing except as shown. Bolt area and bolt holes shall be cleaned by a wire brush before new bolt installation.
6. All H.S. fasteners shall have nuts conforming to ASTM A563. All nuts shall be secured by effective locks. If double nuts are used, both nuts shall be of the same thickness unless otherwise noted. All H.S. fasteners shall have a hardened plain washer under the head and the nut. All hardened steel plain washers shall conform to ASTM F436.
7. Provide type 316 stainless steel shims for leveling and aligning all machinery components. Shims shall be 1/2 inch nominal thickness, unless otherwise specified, with adjustment variations and described in the Specifications. All shims to be full footprint of machinery component. U-shaped or slotted shims are not permitted.
8. Machinery dimensions shown on drawings are dimensions after machining.
9. All machinery support surfaces shall be flat, level, and parallel to each other and the mounting base plate. Thickness of mounting plates given are for after finishing. Machinery supports shall be machined after welding and stress relief to provide a uniform mounting surface.
10. All dimensions for machine finished surfaces shall be held to 0.01 inch except as otherwise required, shown on the plans, by Specifications or as directed by the Engineer.
11. Fits and finishes for machinery shall be as follows:

| | | |
|--|------------------------|---------------------------|
| Surface | Fit (Per ANSI B4.1) | Finished (Microinches) |
| Machinery Parts in Fixed Contact | - | 125 |
| Shaft Journal | RC6 | 8 |
| Journal Bushings | RC6 | 16 |
| 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 |
| Split Bushing in Base | LC1 | 125 |
| Sliding Bearings | RC6 | 32 |
| Keys and Keyways | LC4 | 63 |
| Shafts | - | 63 |
| Turned Bolts in Finished Holes | LC6 | 63 |

The above fits for cylindrical parts shall also apply to the dimensions of non-cylindrical parts.

GENERAL MACHINERY NOTES (CONTINUED)

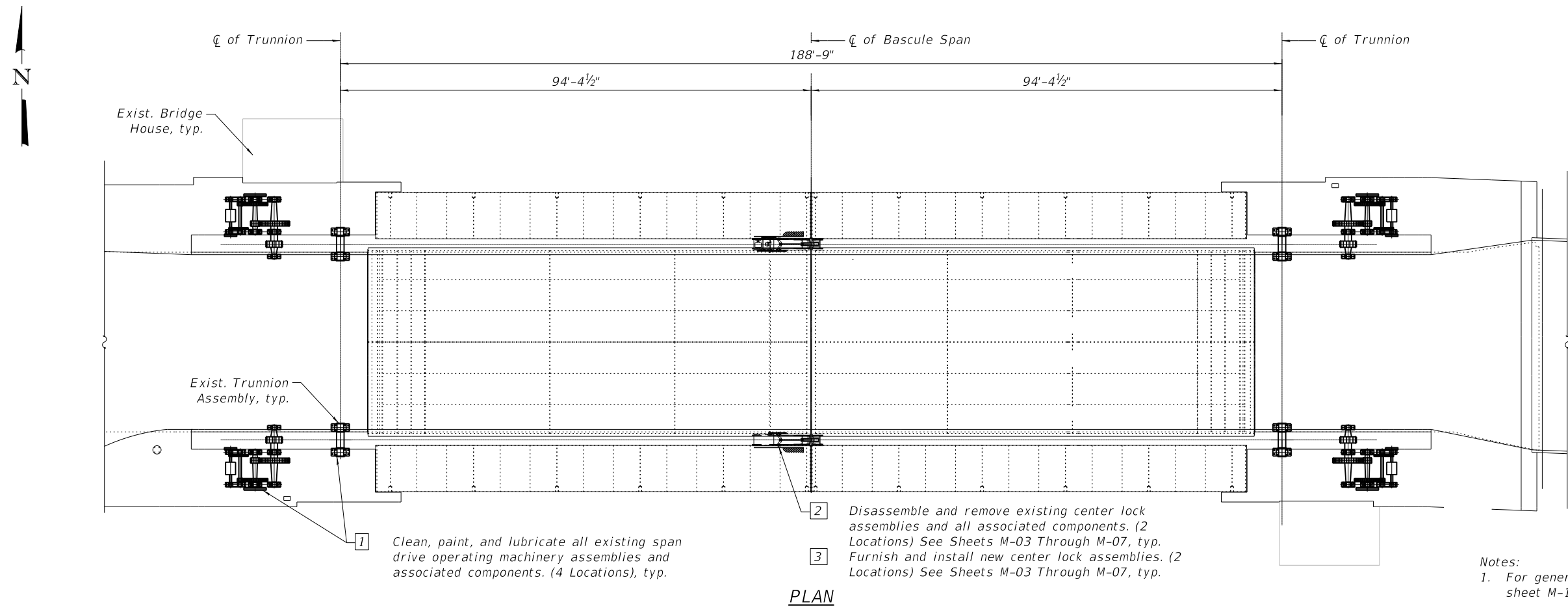
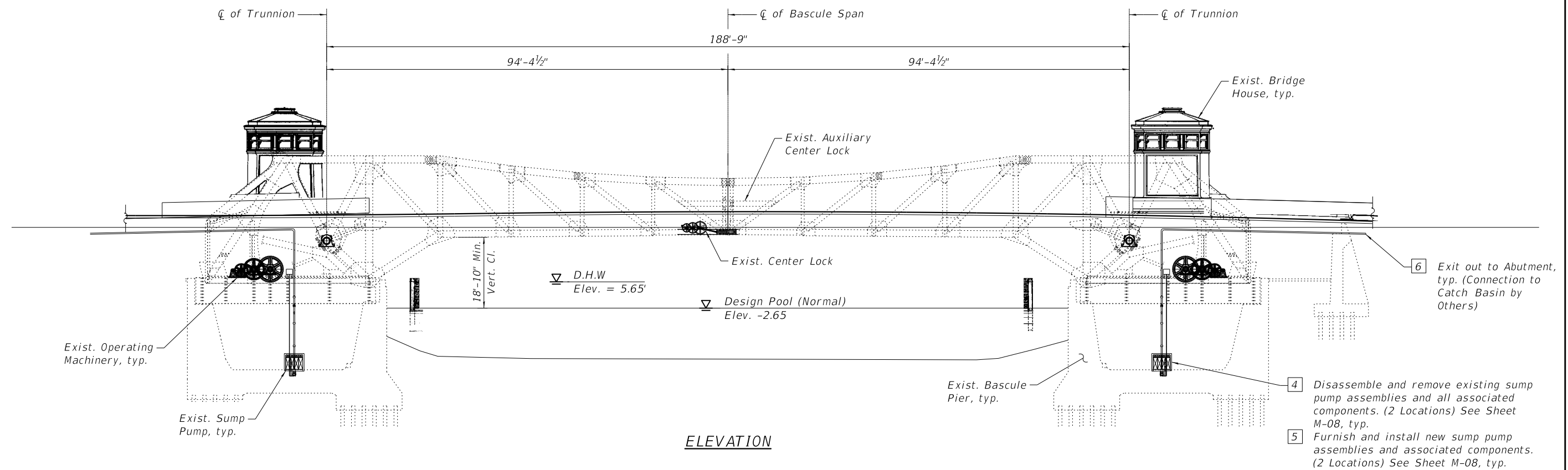
12. The Contractor shall perform all work with care such that any materials that are to remain in place, that are to be re-used, or that are to remain the property of the City of Chicago will not be damaged. If the Contractor damages any such materials, the damaged materials shall be repaired or replaced in a manner satisfactory to the Engineer, at no additional cost to the City.
13. Where new steel is to be connected to existing steel, the existing surfaces shall be cleaned to bare steel of all paint, loose rust, and other foreign material, then, painted with one coat of primer prior to the installation of new material. Existing paint shall be cleaned from all areas within 2 inches of high strength bolts. The cost for this cleaning shall be included in the cost for installation of new material.
14. The existing machinery components coating contains lead. The Contractor shall take appropriate precautions to deal with the present of lead on this project in accordance with the Mechanical Equipment Detailed Specification.
15. The Contractor shall submit to the Engineer final design, drawings, and design calculations of temporary access, construction platforms, and temporary protective shields.
16. All weldments shall be stress relieved after welding and before machining.
17. The Contractor shall submit sketches showing the method of bringing up or lowering the materials. The Contractor shall propose locations of support or hanging of the lifting equipment. The Contractor shall obtain the Engineer's approval for these location and connection details.
18. Drawings shall be fully dimensioned and shall show existing members, drawings, and calculations shall each bear the signature and raised, embossed seal of the designer, who shall be a Licensed Professional Engineer in the State of Illinois. Drawings shall conform to the requirements stated in the Specifications.
19. The Contractor shall not disturb any existing utilities except as specifically defined within the scope of work for this Contract. Where work affects or is affected by the existing utilities, the work shall be coordinated with the Department.

PAY ITEM LIST AND SCOPE OF WORK

| | |
|----------|---|
| ITEM 156 | CLEANING, PAINTING, AND LUBRICATING OPERATING MACHINERY ASSEMBLIES |
| 1 | Clean, paint, and lubricate all existing span drive operating machinery assemblies and associated components as accessibility allows and per direction from Commissioner. |
| ITEM 157 | REPLACEMENT OF CENTER LOCKS |
| 2 | Disassemble and remove existing center lock assemblies and all associated components. |
| 3 | Furnish and install new center lock assemblies. |
| ITEM 158 | FURNISH AND INSTALL NEW SUMP PUMPS |
| 4 | Disassemble and remove existing sump pump assemblies and all associated components. |
| 5 | Furnish and install new sump pump assemblies and associated components. |
| 6 | Connect to Drainage System, see special provisions. Drainage System to exit out back to abutment. Drainage System to be connected to catch basin (by others). |

INDEX OF MECHANICAL DRAWINGS

| SHEET NO. | SHEET TITLE |
|-----------|--------------------------------------|
| M-1 | GENERAL MACHINERY NOTES |
| M-2 | GENERAL PLAN AND ELEVATION |
| M-3 | EXISTING CENTER LOCK DEMOLITION PLAN |
| M-4 | NEW CENTER LOCK ASSEMBLY |
| M-5 | NEW CENTER LOCK DETAILS 1 |
| M-6 | NEW CENTER LOCK DETAILS 2 |
| M-7 | NEW CENTER LOCK DETAILS 3 |
| M-8 | NEW SUMP PUMP ASSEMBLY |



Notes:
1. For general machinery notes, refer to sheet M-1.

0166057-E1525-M002.dgn



WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

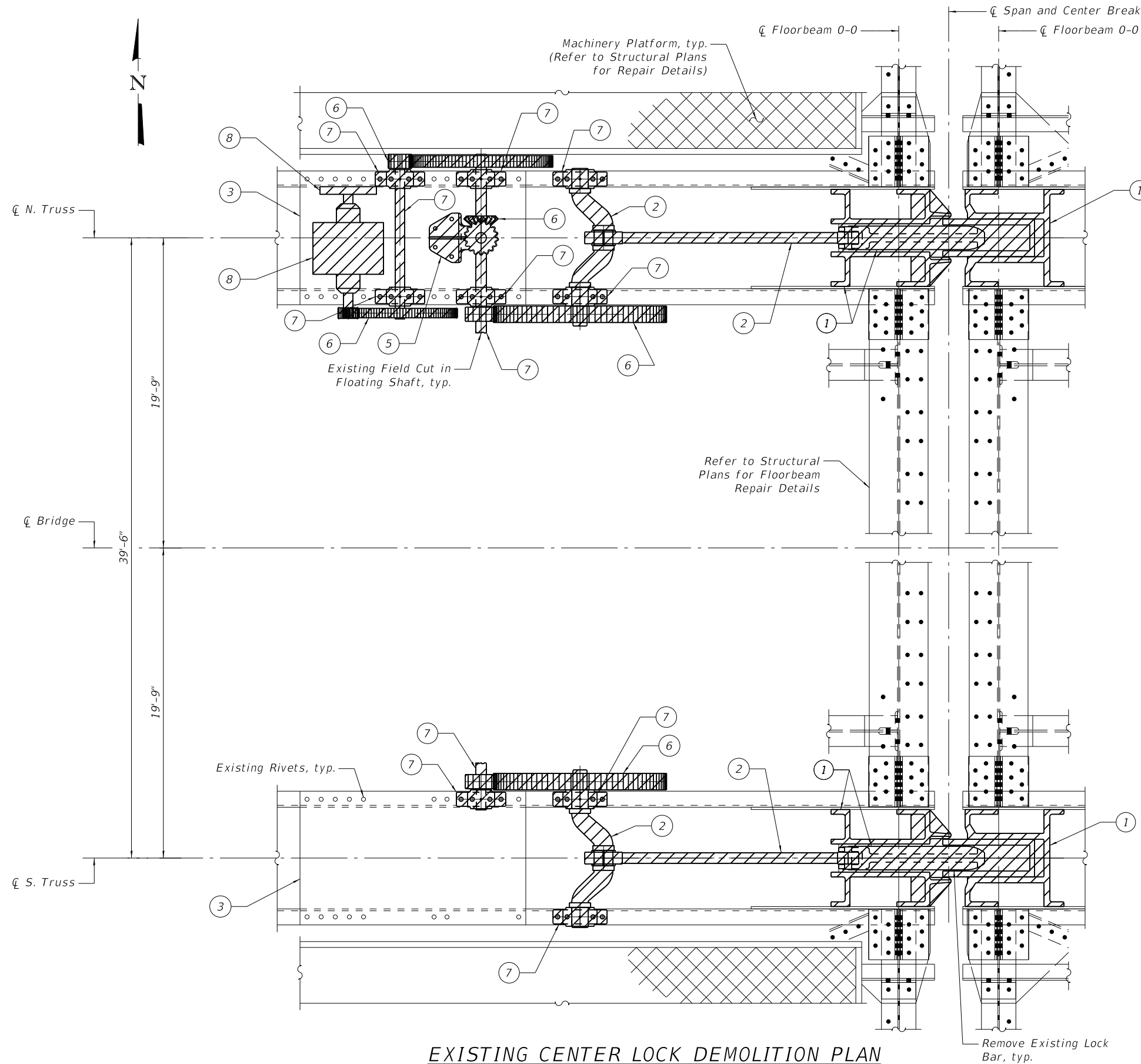
| | | | | | |
|--------------|-----------|------------|----|-----------|--|
| USER NAME = | RALGAZI | DESIGNED - | RA | REVISED - | |
| | | CHECKED - | JB | REVISED - | |
| PLOT SCALE = | N.T.S. | DRAWN - | RA | REVISED - | |
| PLOT DATE = | 9/24/2020 | CHECKED - | JB | REVISED - | |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**GENERAL PLAN AND ELEVATION
(STRUCTURE NO. 016-6057)**

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | M-2 |
| CDOT PROJECT NO. E-1-525 | | | 204 OF 210 |




SCOPE OF WORK FOR CENTER LOCK DEMOLITION:

Remove and dispose of all existing center lock equipment and associated supports. Demolition shall include but not limited to the following.

- 1 All lock bars, guides, and receiver assemblies and all associated components.
- 2 All lock bar cranks, actuating linkages assemblies, and associated components.
- 3 All machinery supports.
- 4 All limit switch assemblies.
- 5 All manual drive mechanisms, associated components, and associated supports.
- 6 All spur gears, reducers, shafts, and keys.
- 7 All transverse line shafts, associated bearings, and couplings
- 8 All electrical motors, brakes, and all associated electrical components.
- 9 All lubrication lines and associated components.

LEGEND:

 Remove and Discard

NOTES:

1. For general machinery notes, see sheet M-1.
2. Contractor shall field verify all dimensions.
3. All removals and disposals shall be in accordance with all city, state, and federal regulations.
4. Machinery equipment contains lubricating oil or grease. Removals and disposals shall be in accordance with all city, state, and federal regulations.
5. All existing lock bar guides and receivers are bolted and tack welded to the bascule truss. Guide and receiver removal will require breaking welds and unbolting the guides and receivers. All tack welds shall be ground smooth and flush with the surface of the bascule truss.
6. Existing structural support to remain unless otherwise noted.
7. Refer to the Mechanical Equipment Detailed Specifications for Demolition Requirements.

REFERENCE DRAWINGS

| | |
|------------------------------------|------------|
| Drawing | Sheet No. |
| Center Lock Machinery | 1660570229 |
| Details of Lock and Lock Indicator | 1660570230 |

EXISTING CENTER LOCK DEMOLITION PLAN

Remove Existing Lock Bar, typ.

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wsp
WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

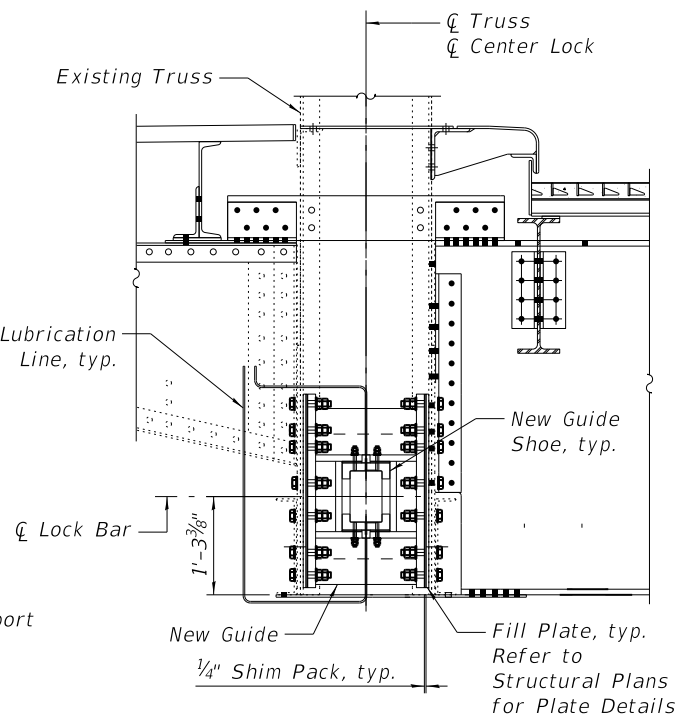
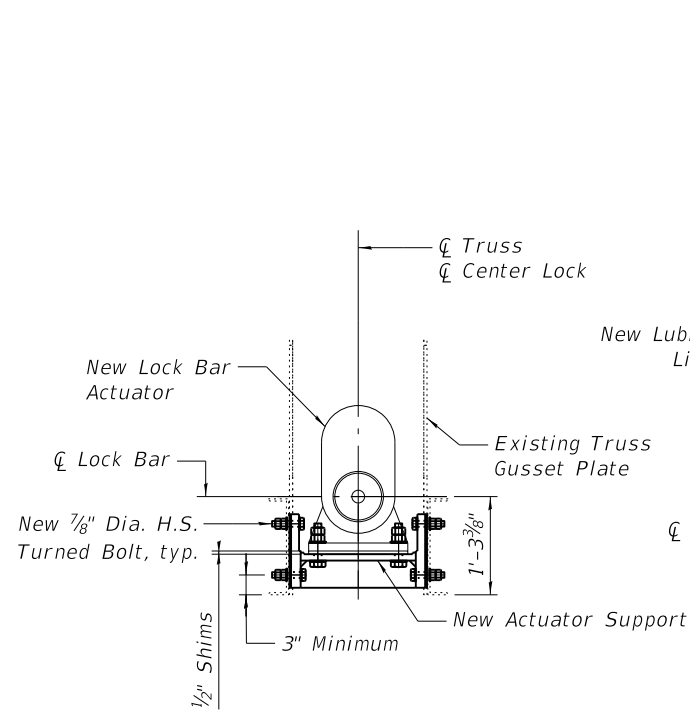
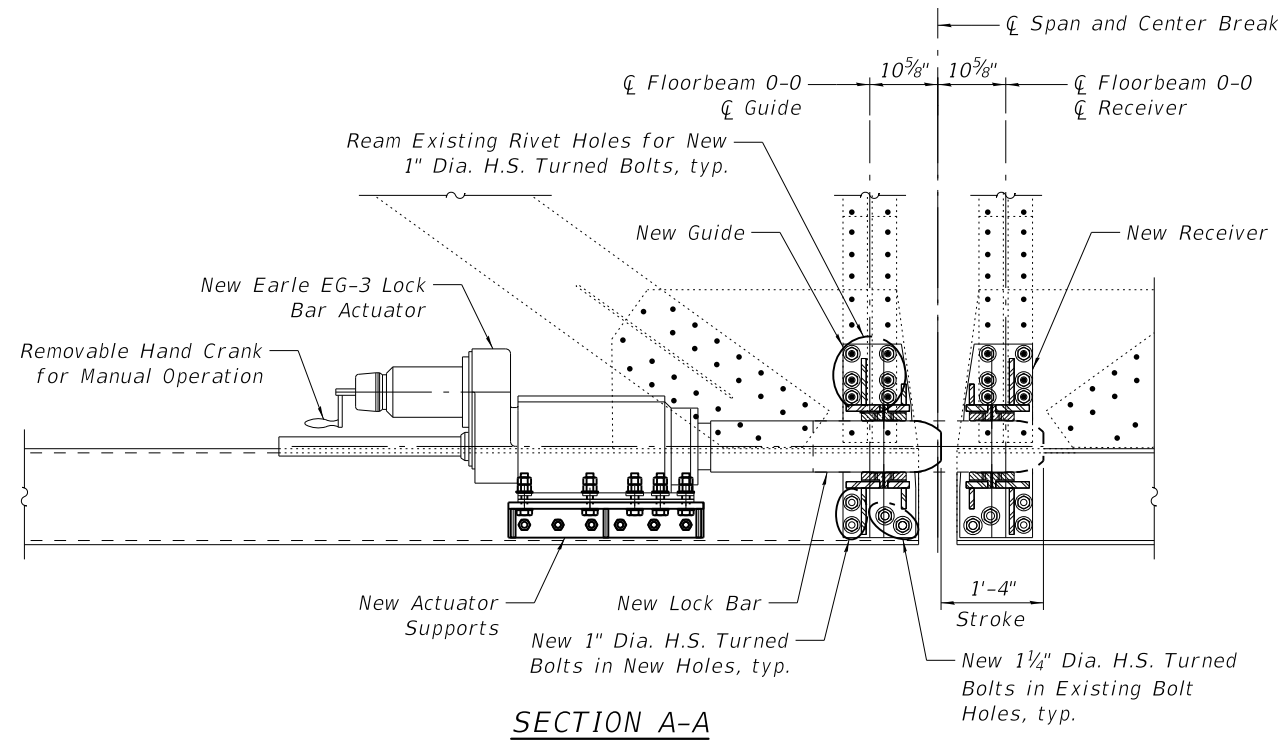
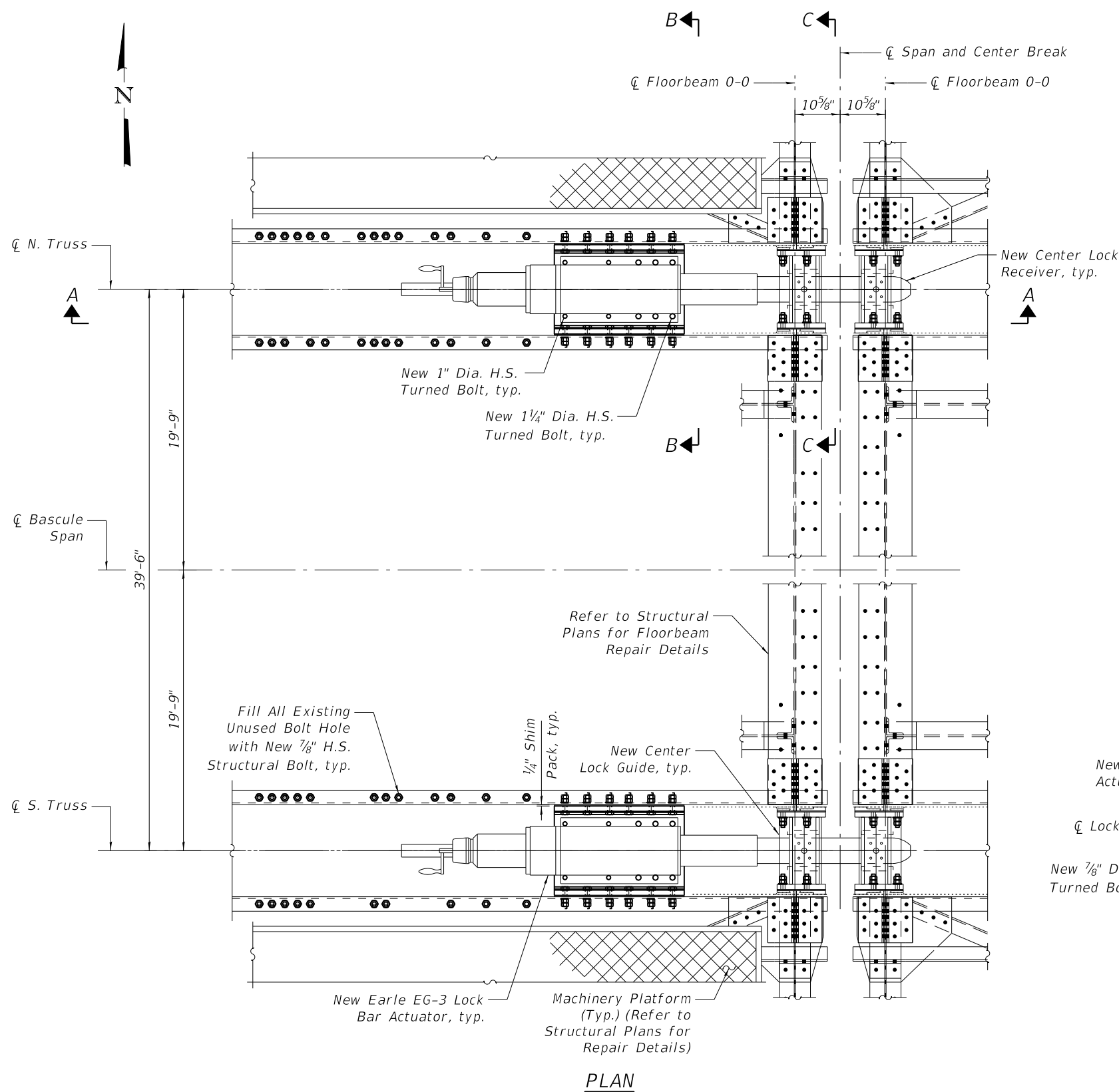
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|--------------|-----------|------------|----|-----------|--|
| USER NAME = | RALGAZI | DESIGNED - | RA | REVISED - | |
| | | CHECKED - | JB | REVISED - | |
| PLOT SCALE = | N.T.S. | DRAWN - | RA | REVISED - | |
| PLOT DATE = | 9/24/2020 | CHECKED - | JB | REVISED - | |

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

EXISTING CENTER LOCK DEMOLITION PLAN
(STRUCTURE NO. 016-6057)

| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | M-3 |
| CDOT PROJECT NO. E-1-525 | | | 205 OF 210 |



NOTES:

- For general machinery notes, see sheet M-1.
- Work this drawing with Sheets M-5 thru M-7.
- Contractor shall ensure that all components are installed and aligned properly by furnishing shims needed to properly install and align the lock bar actuator, guide, and receivers for proper operation.
- Adjustment of live load bearings and span lock guide and receiver may require multiple iterations of adjustment to achieve proper adjustment within allowable tolerances. Such adjustment shall be considered part of the work.
- Live load reaction shoe adjustment must be completed before adjusting the lock bar receiver shoes.
- Contractor shall field verify all dimensions.

REFERENCE DRAWINGS

Drawing
Center Lock Machinery
Details of Lock and Lock Indicator

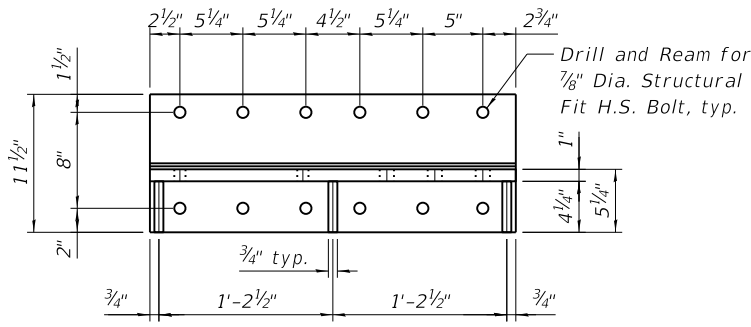
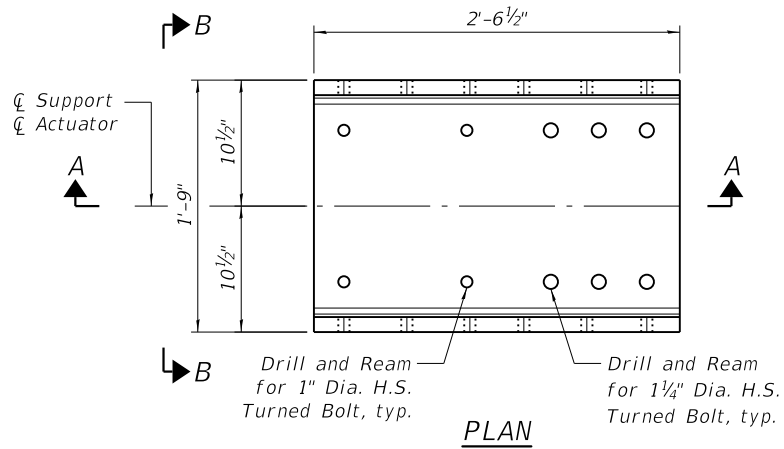
Sheet No.
1660570229
1660570230

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

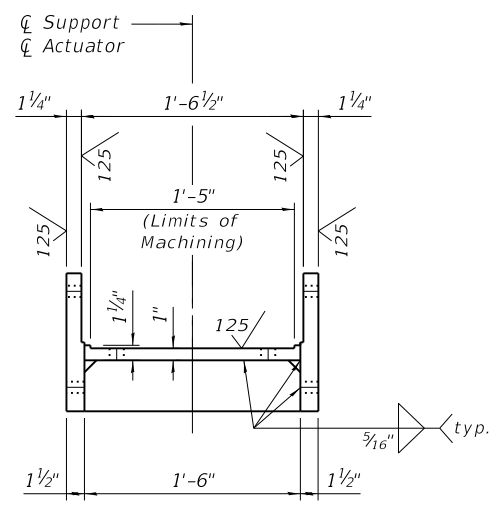
**WEBSTER AVENUE BRIDGE OVER
THE NORTH BRANCH CHICAGO RIVER**

**NEW CENTER LOCK ASSEMBLY
(STRUCTURE NO. 016-6057)**

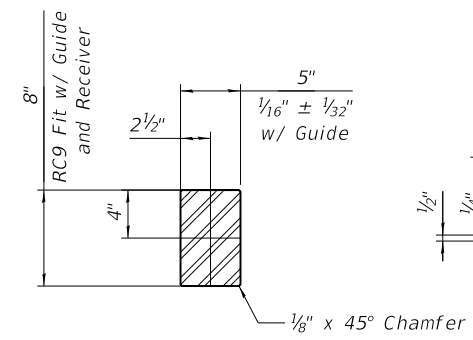
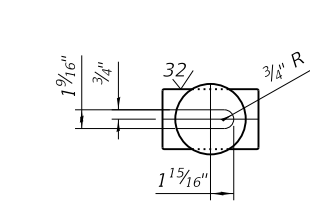
| F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
|--------------------------|----------------|--------|------------|
| 1388 | 11-E1525-00-BR | COOK | M-4 |
| CDOT PROJECT NO. E-1-525 | | | 206 OF 210 |



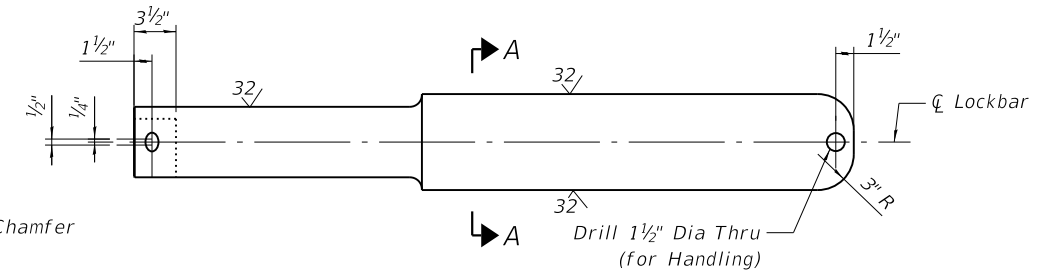
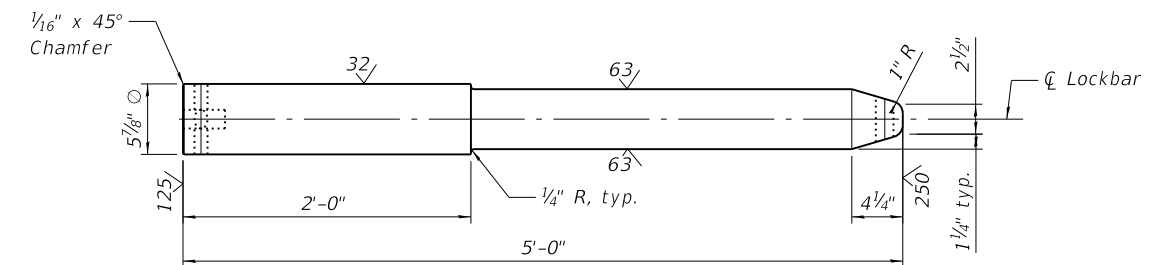
SECTION A-A
NEW ACTUATOR SUPPORT
Material: ASTM A709, Grade 50



VIEW B-B



SECTION A-A

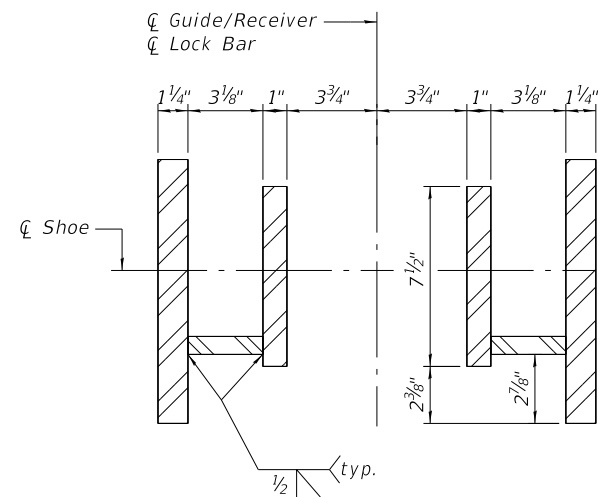
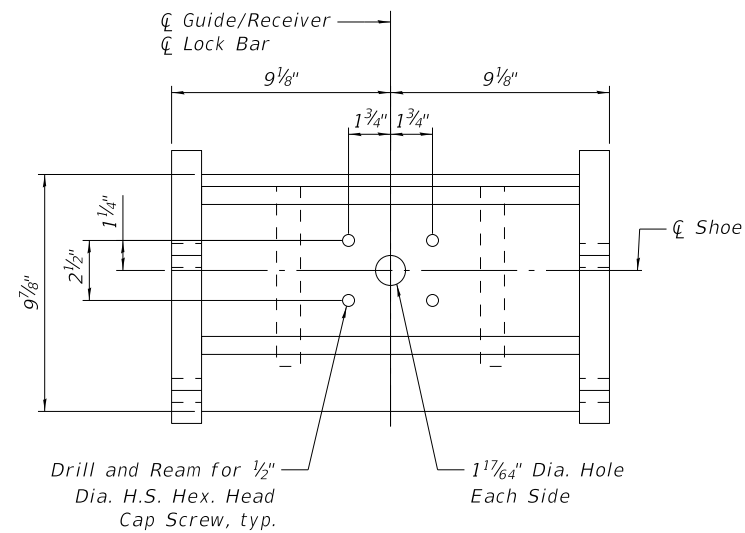


NEW LOCKBAR
Material: ASTM A668, Class M Forging
Quenched and Tempered to 290-320 BHN.

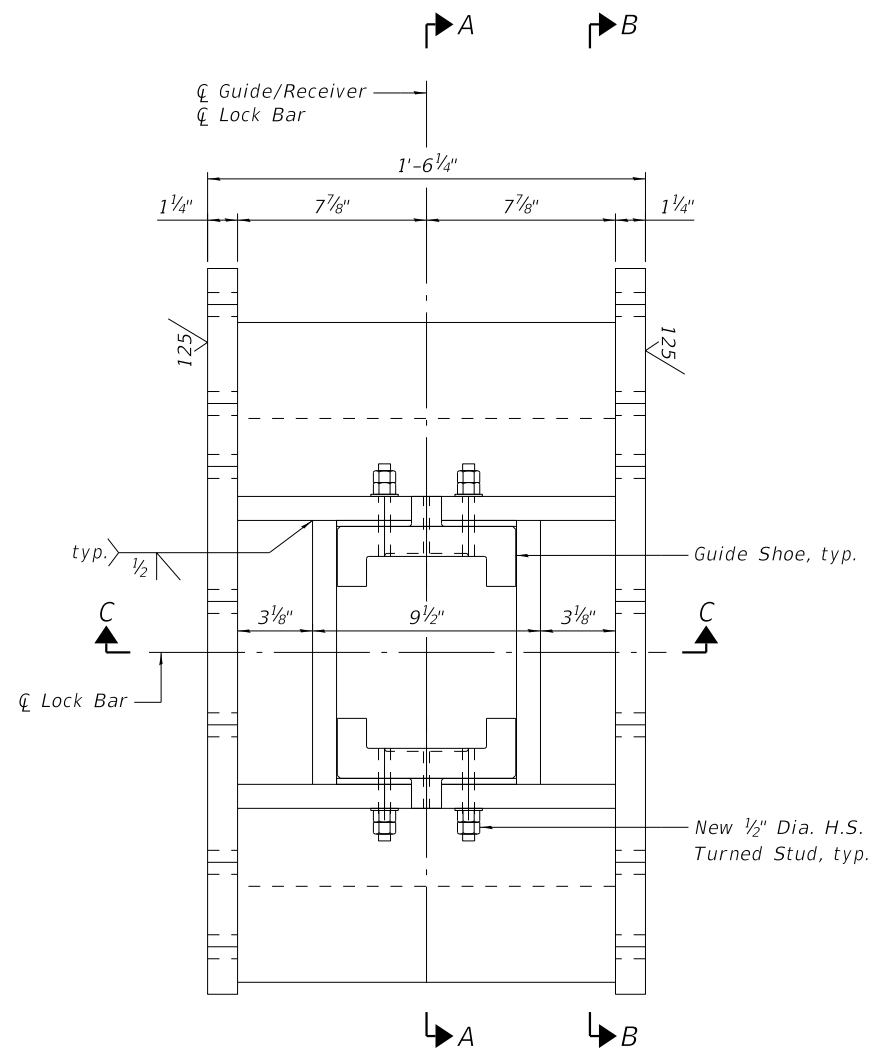
- NOTES:
- For general machinery notes, see sheet M-1.
 - Work this drawing with sheets M-4 thru M-7.
 - Contractor shall field verify all dimensions.
 - Coat machined surfaces of lock bar that does not contact the guide and receiver with anti-corrosion compound after installation.

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| | | | | | | | | | | | |
|---|-----------------------|--|---------------|-----------|---|---|--|--------------------------|----------------|------------|-----------|
|  <div>WSP USA Inc. 30 N. LASALLE STREET SUITE 4200 CHICAGO, IL 60602 TEL: (312) 782-8150 FAX: (312) 782-1684</div> | USER NAME = RALGAZI | | DESIGNED - RA | REVISED - | <div>CITY OF CHICAGO</div> <div>DEPARTMENT OF TRANSPORTATION</div> <div>DIVISION OF ENGINEERING</div> | <div>WEBSTER AVENUE BRIDGE OVER</div> <div>THE NORTH BRANCH CHICAGO RIVER</div> | <div>NEW CENTER LOCK DETAILS 1</div> <div>(STRUCTURE NO. 016-6057)</div> | F.A.U. RTE. | SECTION | COUNTY | SHEET NO. |
| | PLOT SCALE = N.T.S. | | CHECKED - JB | REVISED - | | | | 1388 | 11-E1525-00-BR | COOK | M-5 |
| | PLOT DATE = 9/24/2020 | | DRAWN - RA | REVISED - | | | | CDOT PROJECT NO. E-1-525 | | 207 OF 210 | |
| | | | CHECKED - JB | REVISED - | | | | | | | |

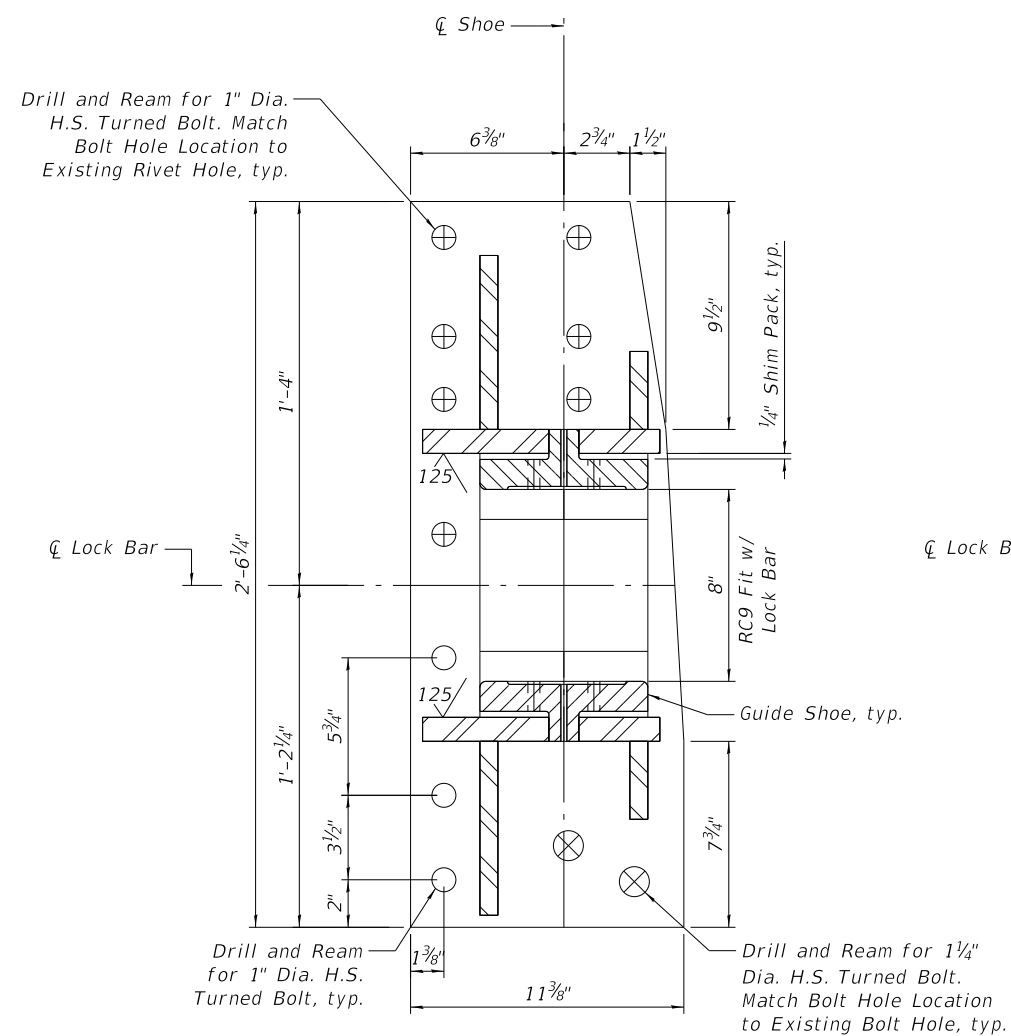


SECTION C-C

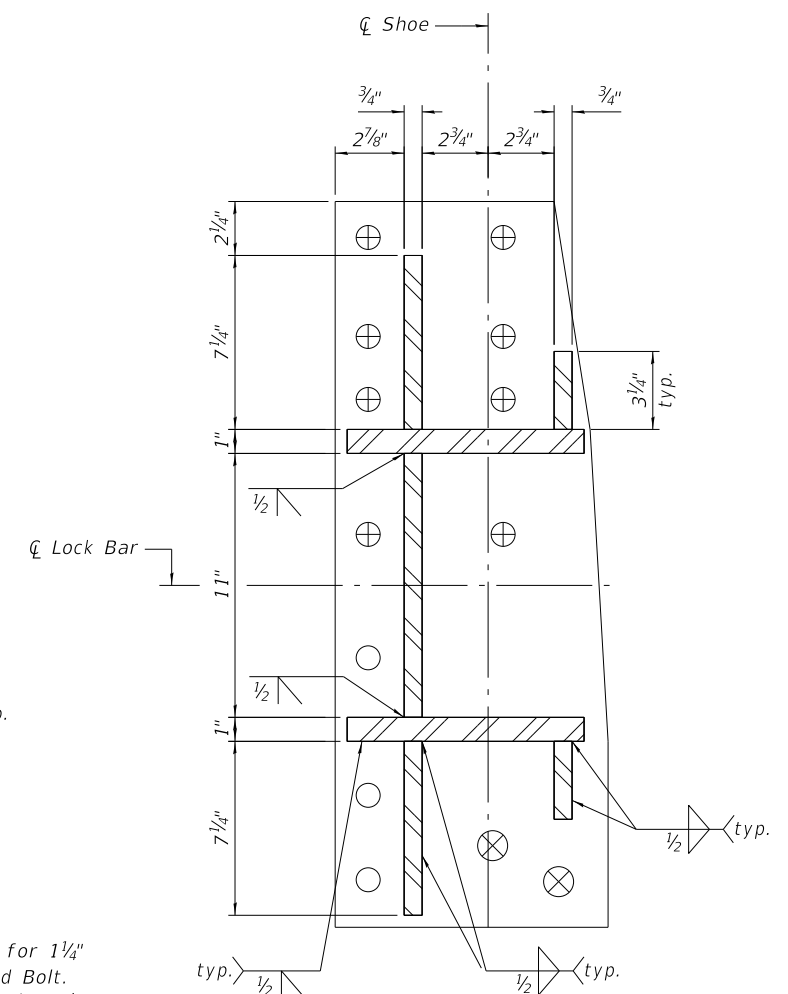


CENTER LOCK GUIDE AND RECEIVER

Material: ASTM A709 Gr. 50
Guide Shown, Receiver Similar



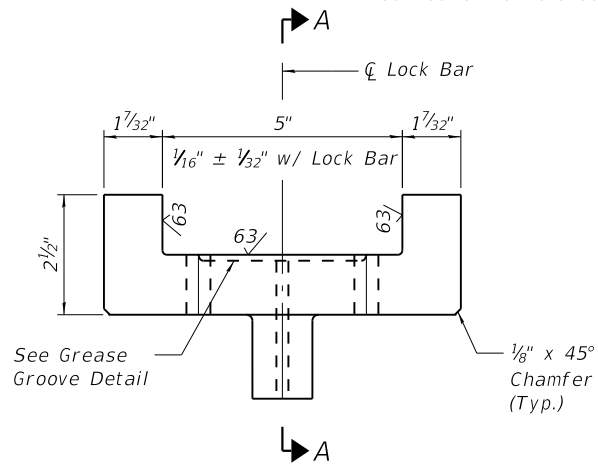
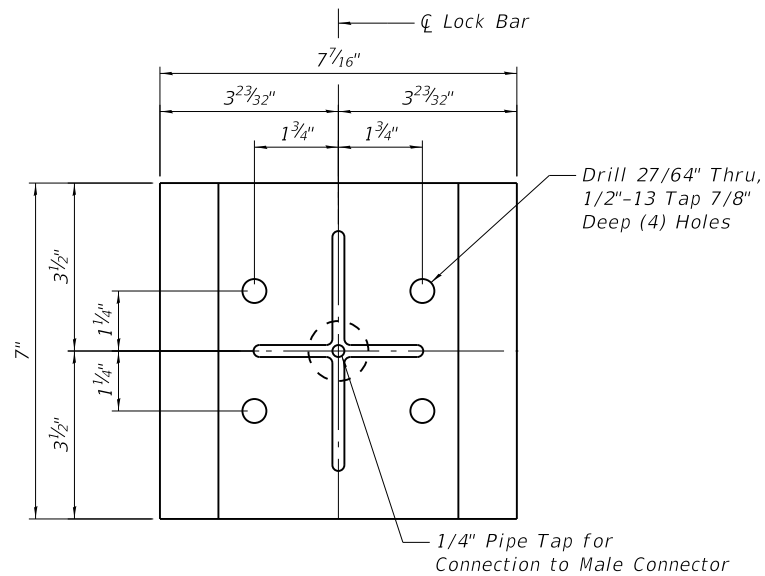
SECTION A-A



SECTION B-B

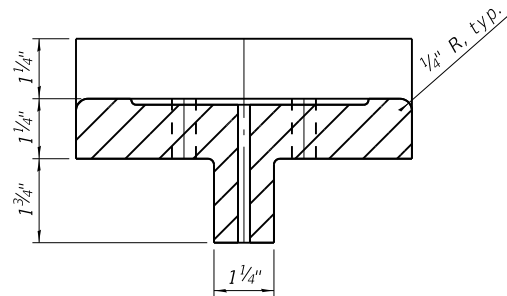
- NOTES:

1. For general machinery notes, see sheet M-1.
2. Work this drawing with sheets M-4 thru M-7.
3. All welds not shown shall be $\frac{1}{2}$ " continuous fillet weld with no open joints. Stress relieve after welding.
4. Stress relieve all weldments prior to machining.
5. Contractor shall field verify all dimensions.

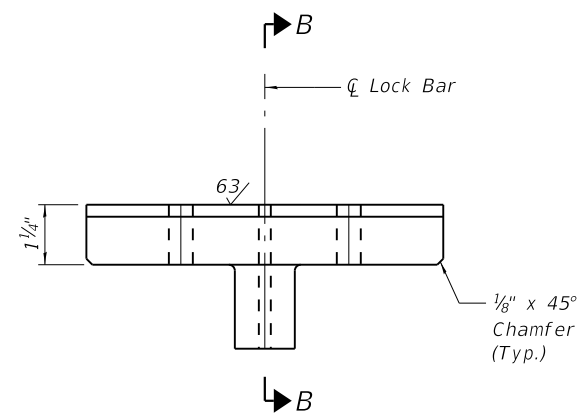
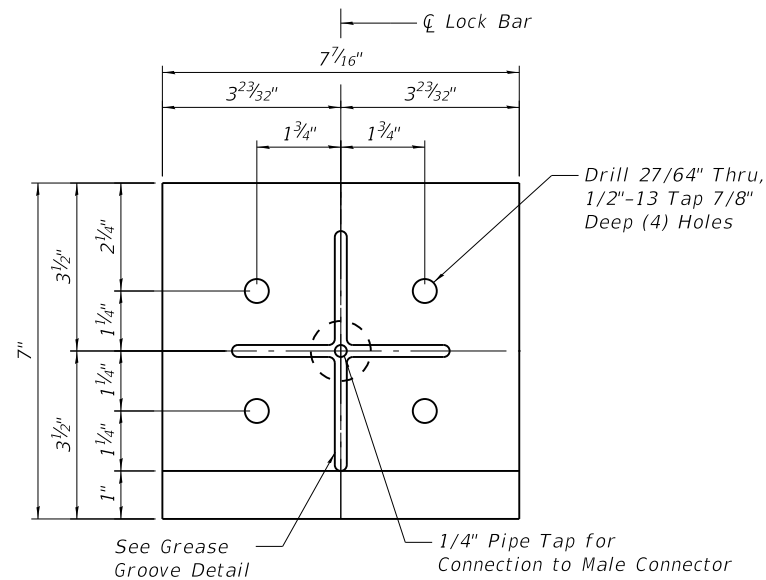


GUIDE SHOE

Material: ASTM B22 C86300

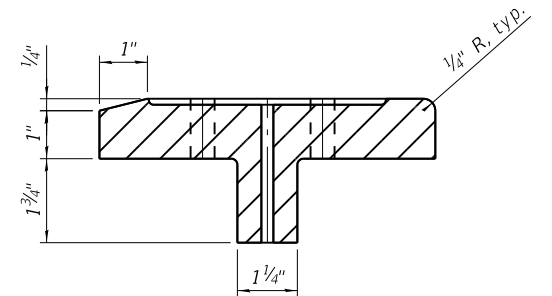


SECTION A-A

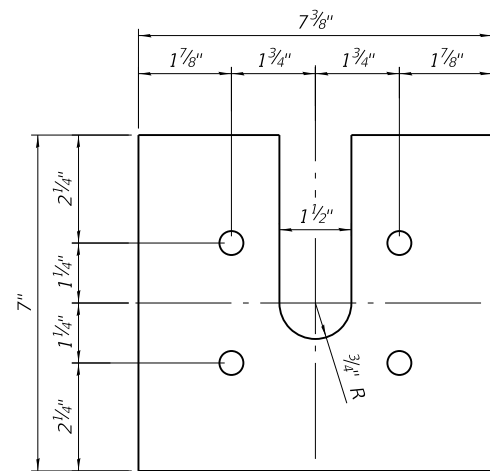


RECEIVER SHOE

Material: ASTM B22 C86300

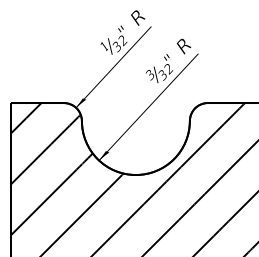


SECTION B-B



SHIM PACK DETAIL

(See Note 4)



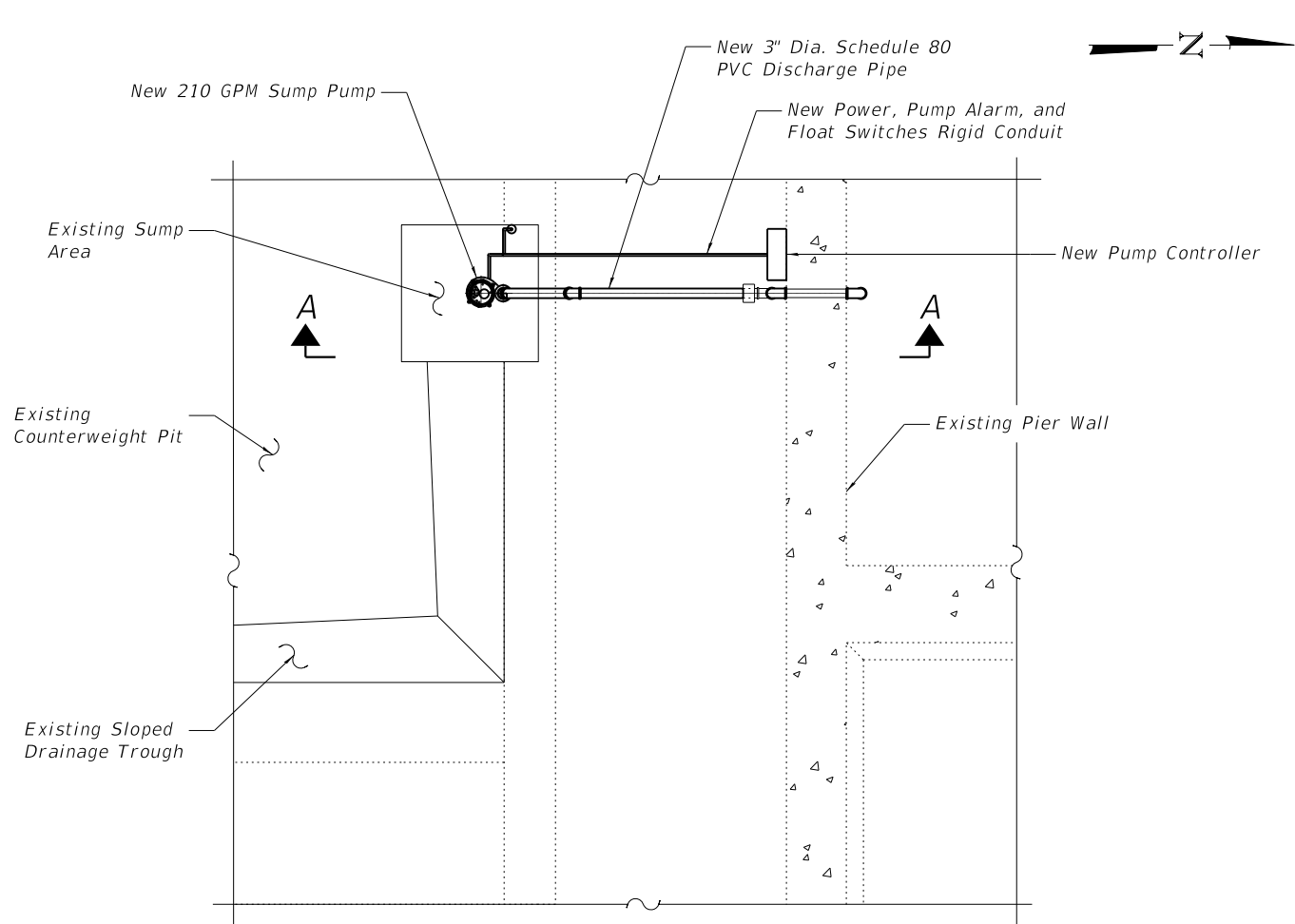
GREASE GROOVE DETAIL

TABLE OF CENTER LOCK COMPONENTS

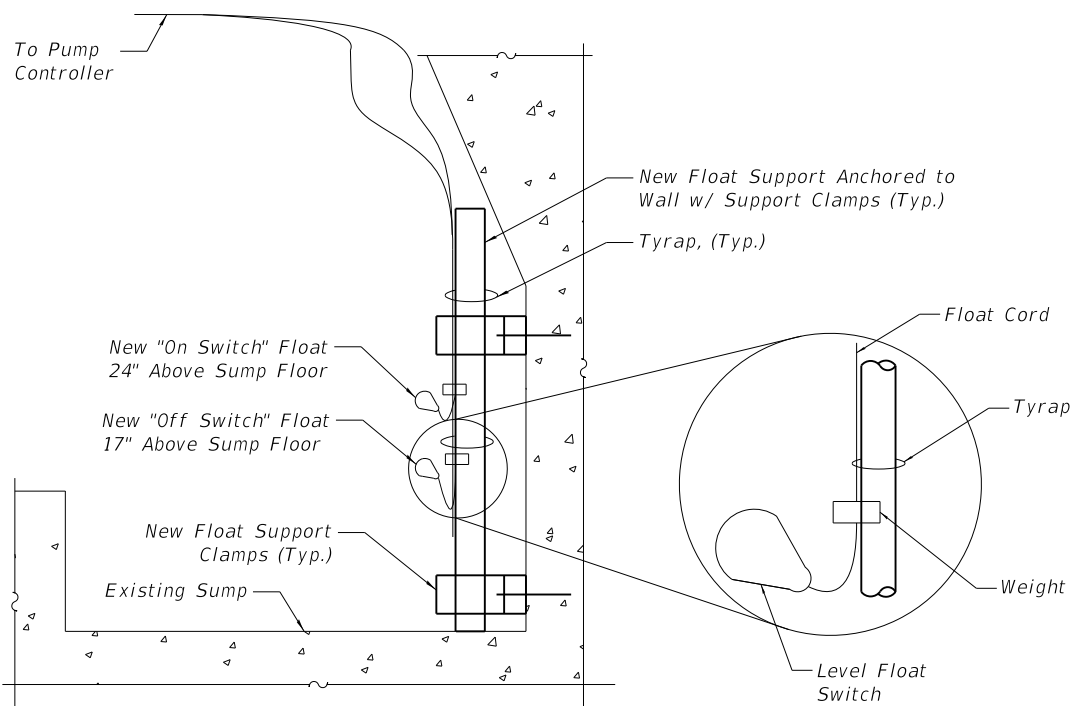
| Item | Quantity |
|---|----------|
| Earle EG-3 Linear Actuator w/ Manual Hand Crank, 5 HP Motor, 1'-6" Stroke Manufactured by Steward Machine Co. (Or Approved Equal) | 2 |
| Lock Bar | 2 |
| Guide | 2 |
| Receiver | 2 |
| Actuator Support | 2 |
| Guide Shoe | 4 |
| Receiver Shoe | 4 |

NOTES

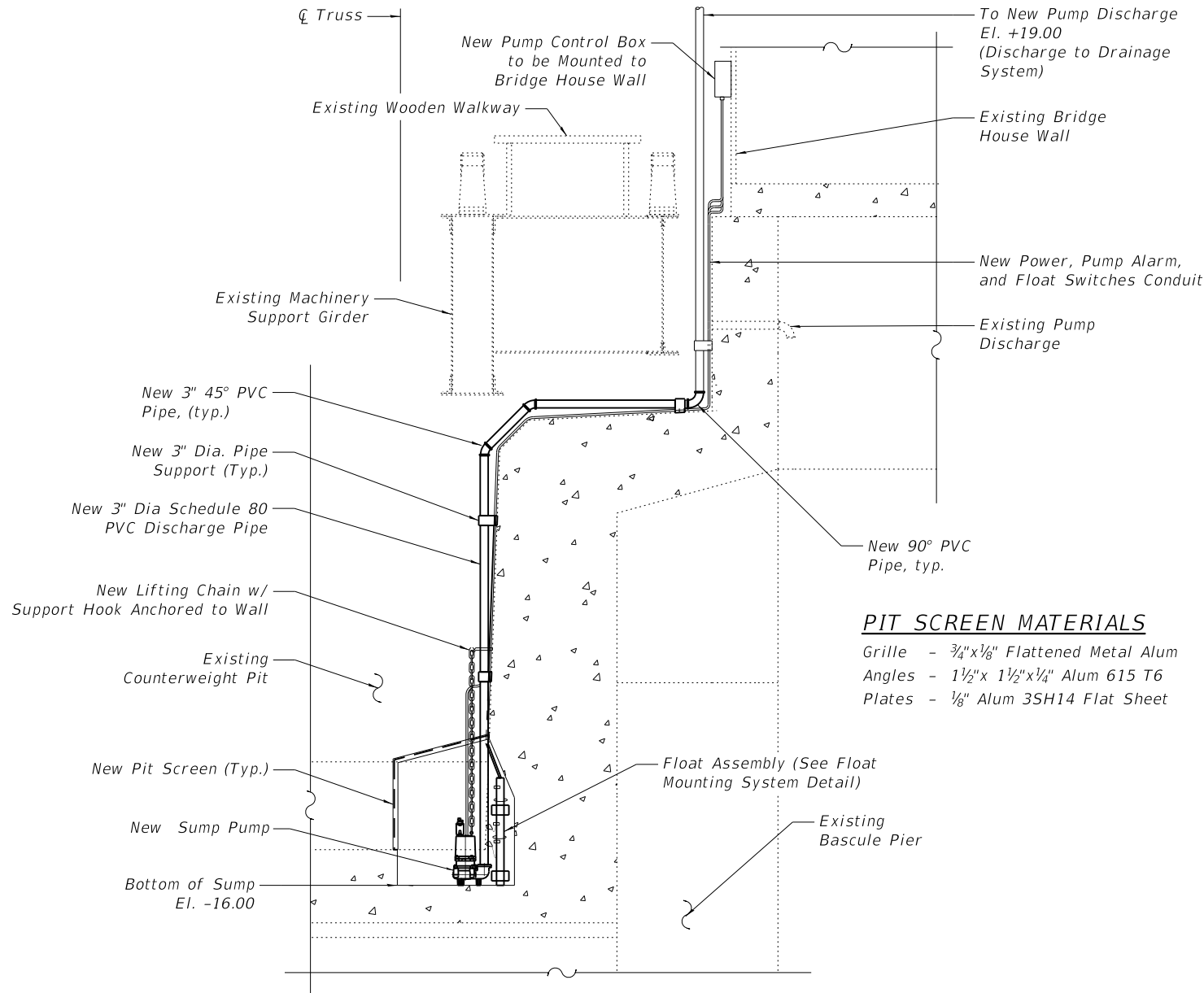
- For general machinery notes, see sheet M-1.
- Work this drawing with sheets M-4 thru M-7.
- Contractor shall field verify all dimensions.
- Refer to the Mechanical Equipment Detailed Specifications for shim pack material and thickness variation requirements.



PLAN
(West Pier Shown, East Pier Similar)



FLOAT MOUNTING SYSTEM DETAIL



SECTION A-A

Typical for 2

PUMP SCHEDULE

| Location | Flow (GPM) | Voltage | Phase | H.P. | RPM | Type | MFG., Model* |
|-----------|------------|---------|-------|------|------|-----------------------|------------------------|
| East Pier | 210 | 230 | 1 | 2 | 3450 | Submersible, Non-Clog | Liberty Pumps LEH202M3 |
| West Pier | 210 | 230 | 1 | 2 | 3450 | Submersible, Non-Clog | Liberty Pumps LEH202M3 |

* Or Approved Equal

NOTES

- For general machinery notes, see Sheet M-1
- Contractor shall field verify all dimensions before beginning fabrication and installation. All field measurements shall be indicated on the shop drawings.
- See the Mechanical Equipment Detailed Specifications for sump pump requirements.
- The materials for all anchor bolts, nuts, washers, and lifting chain shall be 316 stainless steel.
- All float switches shall be tied separately to support pipe.
- All support clamps, pipe clamps, and bracket holders for all discharge and float mounting pieces shall be stainless steel.
- Provide all support clamps, bracket holders as necessary.
- Provide openings in pit screen for all float power and float cords, discharge pipes, float support pipes, and lifting chain.
- Ensure all new piping and conduit do not interfere with the bascule span in any position.

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