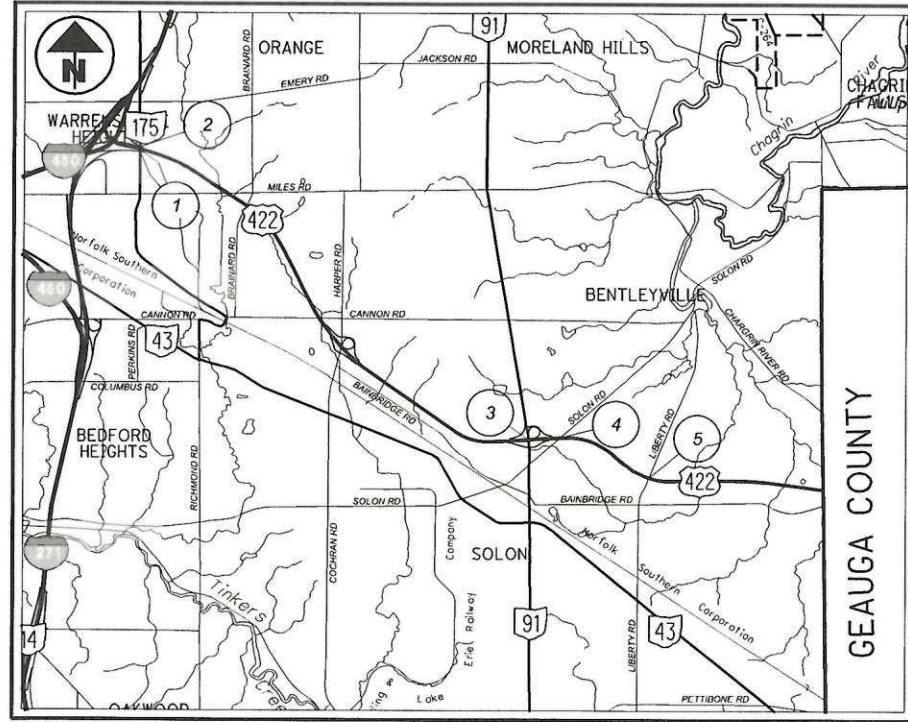


# STATE OF OHIO DEPARTMENT OF TRANSPORTATION CUY-422-13.90/VAR PAINT



**LOCATION MAP**

LATITUDE: 41°23'41.48" LONGITUDE: 81°26'16.19"  
NOTE: FOR COORDINATES PER LOCATION, SEE SHEET 2.

LOCATION	BRIDGE NUMBER	STRUCTURAL FILE NUMBER	CITY
1	CUY-422-1390R CUY-480-0140WE	1814745 1814753	WARRENSVILLE HEIGHTS
2	CUY-422-1390L	1814788	WARRENSVILLE HEIGHTS
3	CUY-422-1804L/R	1814923 1814931	SOLO
4	CUY-422-1827L/R	1814958 1814966	SOLO
5	CUY-422-1911L/R	1815172 1815180	SOLO

**FEDERAL PROJECT NUMBER**

E191 (785)

**RAILROAD INVOLVEMENT**

NONE

**PROJECT DESCRIPTION**

PAINT THE STRUCTURAL STEEL ON MULTIPLE MAINLINE BRIDGES ALONG US-422 CORRIDOR: CUY-422-1390L/R, CUY-480-0140WE, CUY-422-1804L/R, CUY-422-1827L/R, CUY-422-1911L/R.

**EARTH DISTURBED AREAS**

PROJECT EARTH DISTURBED AREA: 0.0 ACRES  
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.0 ACRES  
NOTICE OF INTENT EARTH DISTURBED AREA: N/A

**2019 SPECIFICATIONS**

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED:   
DATE: 11/22/21 DISTRICT DEPUTY DIRECTOR

APPROVED:   
DATE: 11/18/2021 DIRECTOR, DEPARTMENT OF TRANSPORTATION

TITLE SHEET

**PORTION TO BE IMPROVED**

INTERSTATE HIGHWAY	=====
FEDERAL ROUTES	-----
STATE ROUTES	-----
COUNTY & TOWNSHIP ROADS	-----
OTHER ROADS	-----

**INDEX OF SHEETS:**

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**DESIGN EXCEPTIONS**

NONE REQUIRED

**ADA DESIGN WAIVERS**

NONE REQUIRED

**UNDERGROUND UTILITIES**  
Contact Two Working Days  
Before You Dig

OHIO811. 8-1-1. or 1-800-362-2764  
(Non members must be called directly)

PLAN PREPARED BY:



**ENGINEER'S SEAL:**  
FOR SHEETS 4 TO 10

SIGNED:   
DATE: 11/17/2021

**ENGINEER'S SEAL:**  
FOR ENTIRE PLAN EXCEPT SHEETS OTHERWISE NOTED

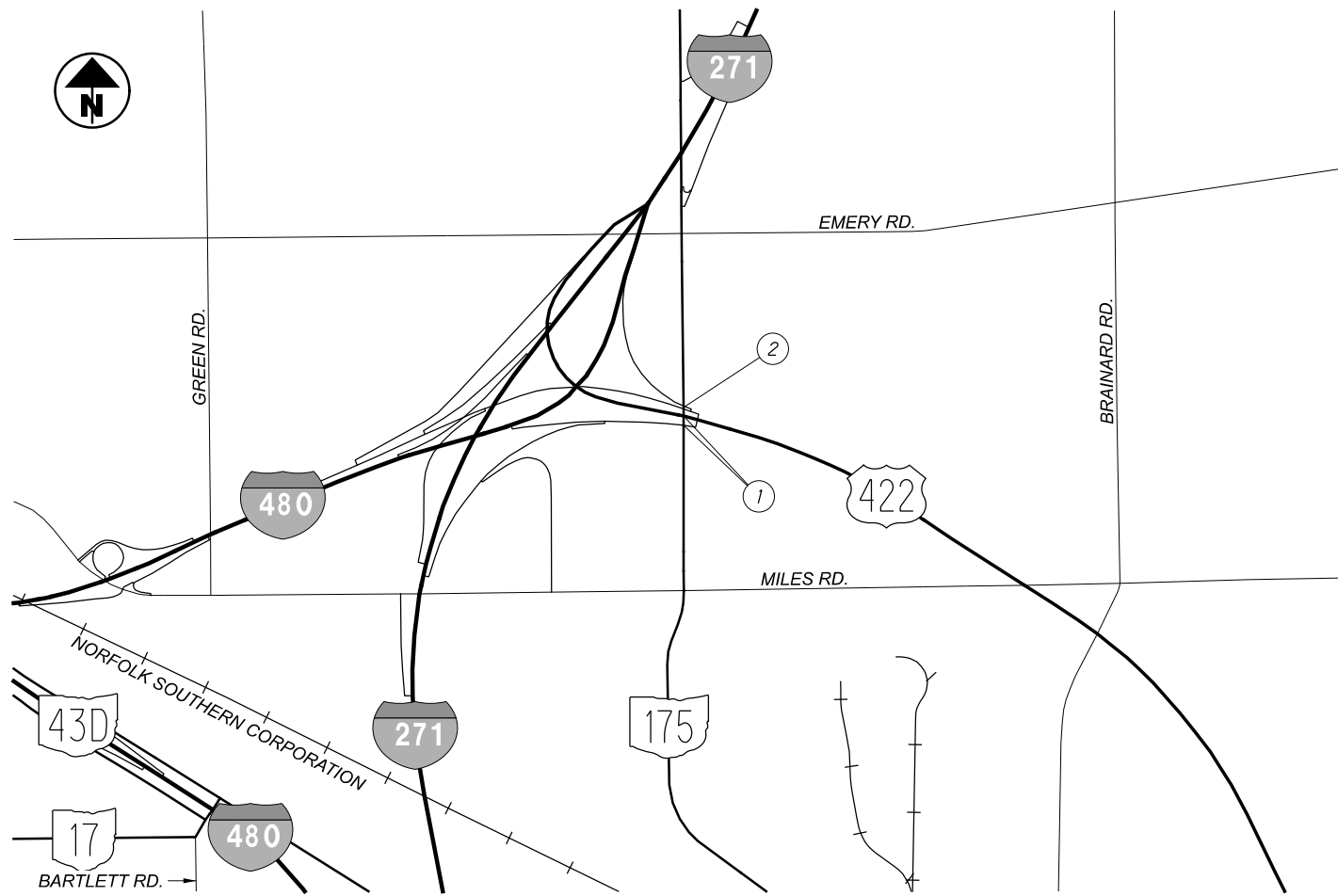
SIGNED:   
DATE: 11/19/2021

STANDARD CONSTRUCTION DRAWINGS		SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
GSD-1-19	1/15/21	SS800 10/15/21	
		SS821 4/20/12	
		SS921 4/20/12	
		SS961 4/17/20	
MT-95.30	7/19/19		
MT-95.31	7/19/19		
MT-95.32	4/19/19		
MT-96.11	4/16/21		
MT-96.20	7/15/16		
MT-96.26	1/18/19		
MT-97.10	4/19/19		
MT-98.22	1/17/20		
MT-105.10	1/17/20		
MT-110.10	7/19/13		
TC-42.20	10/18/13		
TC-52.10	10/18/13		
TC-52.20	1/15/21		

CUY - US 422-13.90/VAR Paint  
220132 PID - 105260  
Dist 12 3/10/2022

Contract Proposal available @ [www.contracts.dot.state.oh.us](http://www.contracts.dot.state.oh.us)  
INVA R/VN/06 31-224-UN

DESIGN AGENCY	
DESIGNER	ATR
REVIEWER	DGN 11-19-21
PROJECT ID	105260
SHEET	TOTAL
1	30



**LOCATION 1 - CUY-422-1390R & CUY-480-0140WE**

SFN: 1814745 (1390R), 1814753 (0140WE)  
 3-SPAN CONTINUOUS STEEL (1390R)  
 3-SPAN CONTINUOUS STEEL (0140WE)  
 LATITUDE: 41°25'45.57" N  
 LONGITUDE: 81°29'52.36" W

**LOCATION 2 - CUY-422-1390L**

SFN: 1814788  
 3-SPAN CONTINUOUS STEEL  
 LATITUDE: 41°25'47.20" N  
 LONGITUDE: 81°29'52.31" W

**LOCATION 3 - CUY-422-1804L/R**

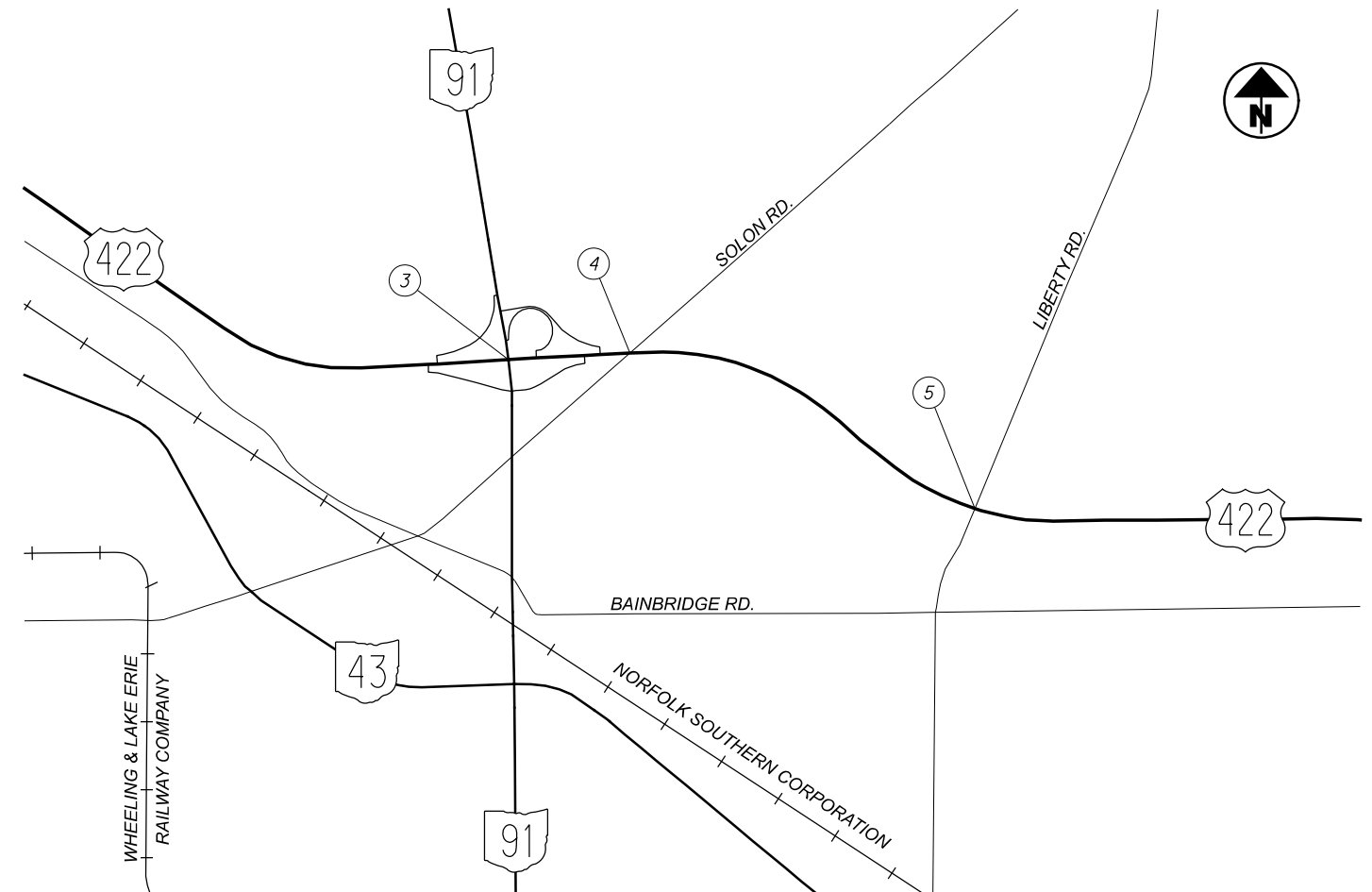
SFN: 1814923 (LT.), 1814931 (RT.)  
 3-SPAN CONTINUOUS STEEL (LT.)  
 3-SPAN CONTINUOUS STEEL (RT.)  
 LATITUDE: 41°23'41.48" N  
 LONGITUDE: 81°26'16.19" W

**LOCATION 4 - CUY-422-1827L/R**

SFN: 1814958 (LT.), 1814966 (RT.)  
 3-SPAN CONTINUOUS STEEL (LT.)  
 3-SPAN CONTINUOUS STEEL (RT.)  
 LATITUDE: 41°23'41.97" N  
 LONGITUDE: 81°25'58.75" W

**LOCATION 5 - CUY-422-1911L/R**

SFN: 1815172 (LT.), 1815180 (RT.)  
 3-SPAN CONTINUOUS STEEL (LT.)  
 3-SPAN CONTINUOUS STEEL (RT.)  
 LATITUDE: 41°23'24.69" N  
 LONGITUDE: 81°25'09.27" W



**UTILITIES**

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

ODOT D12  
5500 TRANSPORTATION BLVD.  
GARFIELD HEIGHTS, OH 44125  
ATTN: KEITH HAMILTON  
PHONE: (216) 584-2220

ODOT D12  
5500 TRANSPORTATION BLVD.  
GARFIELD HEIGHTS, OH 44125  
ATTN: STEVEN SASALA  
PHONE: (216) 584-2181

**ELECTRIC**  
CEI FIRST ENERGY  
PUBLIC WORKS TERRITORIES -  
THE ILLUMINATING COMPANY  
7755 AUBURN RD.  
CONCORD, OH 44077  
ATTN: FREDRICK E. RANDOLPH  
PHONE: (440) 358-4991

CEI FIRST ENERGY  
PUBLIC WORKS TERRITORIES -  
THE ILLUMINATING COMPANY  
6896 MILLER RD., SUITE 101  
BRECKSVILLE, OH 44141  
ATTN: JOHN M. ZASSICK  
PHONE: (440) 546-8706

**COMMUNICATIONS**  
AT&T OHIO  
13630 LORAIN AVE., 2ND FLOOR  
CLEVELAND, OH 44111  
ATTN: JAMES JANIS  
PHONE: (216) 476-6142

AT&T OHIO  
13630 LORAIN AVE., 2ND FLOOR  
CLEVELAND, OH 44111  
ATTN: SCOTT KLEBE  
PHONE: (216) 476-6057

CHARTER COMMUNICATIONS  
578 TERNES LN.  
ELYRIA, OH 44035  
ATTN: DAVID SOBOTKA  
PHONE: (216) 854-0899

CHARTER COMMUNICATIONS  
7820 DIVISION DR.  
MENTOR, OH 44060  
ATTN: EMIL C. SYMISTER  
PHONE: (440) 343-1530

EVERSTREAM  
1228 EUCLID AVE., SUITE 250  
CLEVELAND, OH 44115  
ATTN: STACEY DASHER  
PHONE: (216) 408-9205

VERIZON  
12300 RIDGE RD.  
NORTH ROYALTON, OH 44133  
ATTN: DAN ARZ  
PHONE: (440) 457-4832

**GAS**  
DOMINION ENERGY OHIO  
320 SPRINGSIDE DR., SUITE 320  
AKRON, OH 44333  
ATTN: GREGORY R. TOMPKINS  
PHONE: (330) 664-2409

**WATER**  
CITY OF CLEVELAND DIVISION OF WATER  
1201 LAKESIDE AVE.  
CLEVELAND, OH 44114  
ATTN: FRED ROBERTS  
PHONE: (216) 664-2444 X75590

ONE CALL CONCEPTS LOCATING SERVICES, INC.  
12438 PLAZA DR.  
PARMA, OH 44130  
ATTN: WILLIAM HUNT III  
PHONE: (216) 645-5051

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

**WORK LIMITS**

ALL WORK SHALL BE WITHIN THE EXISTING RIGHT-OF-WAY, AND NO WORK SHALL TAKE PLACE IN STREAMS, WETLANDS, OR POLLINATOR INITIATIVE SITES.

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

**EXISTING STRUCTURE VERIFICATION**

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURES AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURES AND THE PROPOSED WORK BUT SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO SECTIONS 102.05, 105.02, AND 513.04 OF THE 2019 CONSTRUCTION AND MATERIAL SPECIFICATIONS. BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PRE-BID EXAMINATION OF THE EXISTING STRUCTURES BY THE CONTRACTOR.

THE EXISTING STRUCTURE PLANS MAY BE REVIEWED AT THE:

OHIO DEPARTMENT OF TRANSPORTATION  
DISTRICT 12 OFFICE  
5500 TRANSPORTATION BOULEVARD  
GARFIELD HEIGHTS, OH 44125

OR

[HTTP://WWW.DOT.STATE.OH.US/DIVISIONS/CONTRACTADMIN/CONTRACTS/PAGES/DESIGNFILES.ASPX](http://www.dot.state.oh.us/divisions/contractadmin/contracts/pages/designfiles.aspx)

**STAGING AREA ON/WITHIN STATE RIGHT-OF-WAY**

THERE ARE NO SPECIFIC AREAS GIVEN IN THE PLANS FOR THE CONTRACTOR TO USE AS STAGING AREAS. STAGING ANYWHERE WITHIN THE U.S. 422 / S.R. 91 INFIELDS IS PROHIBITED. IF THE CONTRACTOR WANTS TO USE ANY OTHER AREA FOR STAGING, REGARDLESS IF IT FALLS WITHIN THE PROJECT LIMITS OR NOT, THE CONTRACTOR IS TO CONTACT MELVIN STAFFORD AT 216-584-2137 AT DISTRICT 12 IN ORDER TO APPLY FOR A PERMIT PER SECTION 107.02 OF THE C&MS. IF A PERMIT IS GRANTED, ALL CONDITIONS OF THE PERMIT SHALL BE MET IN ADDITION TO THE REQUIREMENTS OF 104.04 OF THE C&MS, AT NO COST TO THE STATE. IF THE PROJECT ENGINEER DEEMS THAT ALL THE CONDITIONS OF THE PERMIT WERE NOT MET, THEN 10% OF THE CONTRACT BID AMOUNT FOR MOBILIZATION SHALL BE WITHHELD UNTIL ALL CONDITIONS OF THE PERMIT ARE SATISFIED.

**EQUIPMENT AND MATERIAL STORAGE**

IN ORDER TO PROVIDE FOR THE SAFETY OF THE TRAVELING PUBLIC THE CONTRACTOR'S ATTENTION IS DIRECTED TO C&MS 614.035. IN ADDITION, THE FOLLOWING PROVISIONS SHALL APPLY:

- ANY REMOVED ITEMS SHALL NOT BE STORED ON THE RIGHT OF WAY FOR MORE THAN THIRTY DAYS
- ALL DISTURBED AREAS SHALL BE RETURNED TO THEIR ORIGINAL CONDITION AT NO EXPENSE TO THE STATE

**R/W FENCE**

R/W FENCES EXIST AT LOCATIONS 1, 2, 4, AND 5. ANY EXISTING FENCE DISTURBED BY THE CONTRACTOR FOR THEIR OPERATIONS SHALL BE CAREFULLY REMOVED AND REINSTALLED. ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO PERFORM THE WORK ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 – MAINTAINING TRAFFIC. ANY FENCE DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT NO ADDITIONAL COST.

**ITEM 201 - CLEARING AND GRUBBING, AS PER PLAN**

TREES AND OTHER VEGETATION SHOWN ON THE SITE PLANS ARE INDICATIVE OF CONDITIONS AT THE TIME OF EXISTING PLAN DEVELOPMENT AND MAY NOT REPRESENT ACTUAL CONDITIONS. HOWEVER, THE SITE PLANS HAVE BEEN SUPPLEMENTED WITH CURRENT TREE LOCATIONS AND SIZES (>6" DBH) IN THE VICINITY OF THE BRIDGES AND JUST OUTSIDE OF THE CONSTRUCTION LIMITS. ALL TREES (>6" DBH) WITHIN THE CONSTRUCTION LIMITS (NOT SHOWN ON THE SITE PLANS) WILL BE FELLED AND REMOVED BY OTHERS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL TRIM ALL REMAINING BRANCHES THAT ARE WITHIN 10'-0" OF ANY LOCATION TO HAVE A PAINTED SURFACE AND CLEAR/REMOVE ALL BRANCHES AND BRUSH WITHIN THE SAME LIMITS. NO TREE REMOVAL BY THE CONTRACTOR IS ALLOWED. GRUBBING, SCALPING, AND STUMP REMOVAL ARE NOT REQUIRED.

ALL WORK DESCRIBED ABOVE SHALL BE INCLUDED UNDER THE LUMP SUM BID FOR ITEM 201 - CLEARING AND GRUBBING, AS PER PLAN.

**ITEM 623 - CONSTRUCTION LAYOUT STAKES, AS PER PLAN**

AN OHIO PROFESSIONAL SURVEYOR SHALL DETERMINE THE MINIMUM VERTICAL CLEARANCES OF ALL EXISTING AND NEW BRIDGES WITHIN THE PROJECT LIMITS. AT A MINIMUM, MEASUREMENTS SHALL BE TAKEN ALONG EACH FASCIA BEAM AT THE EDGE OF SHOULDERS, EDGE LINES, LANE LINES, AND CROWN OF THE ROADWAY BELOW. THE ODOT DISTRICT 12 VERTICAL CLEARANCE SURVEY FORM SHALL BE USED, WHERE APPLICABLE, TO DOCUMENT THE MEASUREMENTS. WHERE THE ODOT DISTRICT 12 VERTICAL CLEARANCE SURVEY FORM IS NOT APPLICABLE, THE MEASUREMENTS SHALL BE DOCUMENTED ON A CONTRACTOR-DEVELOPED FORM THAT CLOSELY RESEMBLES THE ODOT DISTRICT 12 VERTICAL CLEARANCE SURVEY FORM AND ACCURATELY DEPICTS THE BRIDGE AND BELOW LANE AND SHOULDER CONFIGURATION. THE COMPLETED FORM SHALL BEAR THE STAMP OR SEAL OF THE OHIO PROFESSIONAL SURVEYOR WHO HAS TAKEN THE MEASUREMENTS AND SHALL BE SUBMITTED TO THE PROJECT ENGINEER PRIOR TO FINAL ACCEPTANCE OF THE PROJECT.

THE ODOT DISTRICT 12 VERTICAL CLEARANCE SURVEY FORM CAN BE DOWNLOADED FROM THE FOLLOWING WEBSITE:

[HTTP://WWW.DOT.STATE.OH.US/DISTRICTS/D12/HIGHWAYMANAGEMENT/PAGES/PERMITS.ASPX](http://www.dot.state.oh.us/districts/d12/highwaymanagement/pages/permits.aspx)

**ITEM 832 – EROSION CONTROL**

ALTHOUGH NO SPECIFIC EROSION CONTROL MEASURES OR PROJECT SITE PLANS HAVE BEEN INCLUDED IN THESE PLANS, THE FOLLOWING QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

ITEM 832 - EROSION CONTROL                      5,000 EACH

**ENDANGERED BAT HABITAT REMOVAL**

THE PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

CUY-422-13.90/VAR PAINT

GENERAL NOTES

DESIGN AGENCY



DESIGNER

MOJ

REVIEWER

DGN 11-19-21

PROJECT ID

105260

SHEET TOTAL

3 30

**ITEM 614 - MAINTAINING TRAFFIC**

GENERALLY, THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS AS TO MAKE THE PROPOSED REPAIR WITH A MINIMUM OF HAZARD, DELAY, AND INCONVENIENCE TO THE MOTORISTS USING THE HIGHWAY AFFECTED BY THE WORK ZONE UNDER THIS CONTRACT. IN ADDITION TO THE CONSTRUCTION AND MATERIAL SPECIFICATIONS, THE FOLLOWING SPECIFIC PROVISIONS ARE MANDATORY.

**I. NOTIFICATION**

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE (SEE NEXT COLUMN) TO INFORM THE FOLLOWING:

DISTRICT PUBLIC INFORMATION OFFICER BY EMAIL AT (D12.PUBLIC.INFROMATION@DOT.OHIO.GOV)

DISTRICT PERMIT SECTION BY EMAIL AT (DISTRICT12.PERMITS@DOT.OHIO.GOV)

CENTRAL OFFICE SPECIAL HAUL PERMITS SECTION BY EMAIL AT (HAULING.PERMITS@DOT.OHIO.GOV)

CITY OF SOLON ENGINEERING DEPARTMENT  
JOHN J. BUSCH, PE  
PHONE: 440-349-6745  
JBUSCH@SOLONOHIO.ORG

CITY OF SOLON POLICE DEPARTMENT  
RICHARD TONELLI, CHIEF  
PHONE: 440-248-1234  
EMAIL: RTONELLI@SOLONOHIO.ORG

CITY OF SOLON FIRE DEPARTMENT  
MARK VEDDER, CHIEF  
PHONE: 440-349-6333  
EMAIL: FIRECHIEF@SOLONOHIO.ORG

SOLON BOARD OF EDUCATION  
DEBBIE SIEGEL  
PHONE: 440-248-1600

CITY OF WARRENSVILLE HEIGHTS PUBLIC SERVICE DEPARTMENT  
TED SIMS, SERVICE DIRECTOR  
PHONE: 216-587-6570  
EMAIL: TSIMS@CITYOFWARRENSVILLE.COM

CITY OF WARRENSVILLE HEIGHTS POLICE DEPARTMENT  
WESLEY HAYNES, CHIEF  
PHONE: 216-581-1234  
EMAIL: WHAYNES@CITYOFWARRENSVILLE.COM

CITY OF WARRENSVILLE HEIGHTS FIRE DEPARTMENT  
HERB WAUGH, CHIEF  
PHONE: 216-587-6525  
EMAIL: HWAUGH@CITYOF WARRENSVILLE.COM

WARRENSVILLE HEIGHTS BOARD OF EDUCATION  
SAVANNAH HECK, COMMUNICATIONS COORDINATOR  
PHONE: 216-364-1006  
EMAIL: SAVANNAH.HECK@WHCSD.ORG

THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION TIME TABLE		
ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
RAMP & ROAD CLOSURES	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE.

**II. LANE CLOSURE RESTRICTIONS**

- ALL LANE CLOSURE MAY ONLY BE IMPLEMENTED AT THE TIMES PERMITTED BY THE "DISTRICT 12 PERMITTED LANE CLOSURE TIMES" LIST, WHICH IS LOCATED AT THE ODOT WEBSITE:

[HTTPS://WWW.DOT.STATE.OH.US/DISTRICTS/D12/HIGHWAYMANAGEMENT/PAGES/PERMITTEDLANECLOSURES.ASPX](https://www.dot.state.oh.us/districts/d12/highwaymanagement/pages/permitedlane closures.aspx)

THE LATEST REVISION, AT 14 DAYS PRIOR TO THE BID DATE, SHALL BE IN EFFECT FOR THIS PROJECT.

NO LANE OR SHOULDER CLOSURES SHALL BE IN PLACE WHEN NO WORK IS BEING PERFORMED, UNLESS DIRECTED BY THE ENGINEER. SHOULDER CLOSURES SHALL ONLY BE ALLOWED AT THE TIME SPECIFIED FOR LANE CLOSURES.

ANY ROADWAY NOT LISTED SHALL NOT HAVE ANY LANE CLOSURES ON WEEKDAYS FROM 6:30 AM TO 9:00 AM AND 3:00 PM TO 6:00 PM. CONTACT TROY ONESTI, DISTRICT 12 WORK ZONE TRAFFIC MANAGER, AT (216) 584-2204 IF THERE ARE ANY QUESTIONS.

ALL NOTES ON THE PERMITTED LANE CLOSURE TIMES SHALL BE PART OF THE PROJECT.

- UNLESS OTHERWISE NOTED, EXIT AND ENTRANCE RAMP LANES SHALL REMAIN OPEN AT ALL TIMES AND EXHIBIT A MINIMUM WIDTH OF ELEVEN (11) FEET.
- MAINTENANCE OF TRAFFIC SHALL FOLLOW THE INSTRUCTION OF THE STANDARD CONSTRUCTION DRAWINGS LISTED ON THE TITLE SHEET AND THE LATEST REVISION OF THE OMUTCD.

- PEDESTRIAN TRAFFIC SHALL BE PERMITTED AND ACCOMMODATED ON AT LEAST ONE SIDE AT A TIME AT LOCATIONS WHERE PEDESTRIAN TRAFFIC IS CURRENTLY MAINTAINED.
- ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES.

**LOCATION 1 (CUY-422-1390R & CUY-480-0140WE):**

**LOCATION 2 (CUY-422-1390L):**  
THE CONTRACTOR SHALL STORE PAINTING EQUIPMENT ALONG SR 175 (RICHMOND STREET). PAINTING IS TO BE PERFORMED DURING THE WEEKEND (FRIDAY 8PM TO MONDAY 8AM). ALL LANES OF TRAFFIC ON SR 175 SHALL BE MAINTAINED AT ALL TIMES EXCEPT DURING PAINTING OPERATION WHEN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED. PEDESTRIANS SHALL MAINTAINED AND DETOURED TO THE OPPOSITE SIDE PER SCD MT-110.10.

**LOCATION 3 (CUY-422-1804L/R):**

THE CONTRACTOR SHALL STORE PAINTING EQUIPMENT ALONG SR 91 (SOM CENTER ROAD). PAINTING IS TO BE PERFORMED DURING THE WEEKEND (FRIDAY 8PM TO MONDAY 8AM). ALL LANES OF TRAFFIC ON SR 91 SHALL BE MAINTAINED AT ALL TIMES EXCEPT DURING PAINTING OPERATION WHEN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED. RAMPS SHALL BE MAINTAINED AT ALL TIMES. PEDESTRIANS SHALL MAINTAINED AND PROTECTED DURING PAINTING OPERATIONS. CROSS FRAME REPAIRS SHALL MADE MONDAY THRU FRIDAY BETWEEN THE HOURS OF 9AM TO 3PM UTILIZING LANES CLOSURES. RAMPS SHALL BE MAINTAINED AT ALL TIMES.

**LOCATION 4 (CUY-422-1827L/R):**

THE CONTRACTOR SHALL STORE PAINTING EQUIPMENT ALONG CR 51 (SOLON ROAD). PAINTING IS TO BE PERFORMED BETWEEN THE HOURS OF 8AM TO 8PM. NO WORK IS TO BE PERFORMED ON SUNDAY. ONE LANE TWO-WAY TRAFFIC SHALL BE MAINTAINED UTILIZING TEMPORARY SIGNALS PER SCD MT-96.11, MT-96.20 AND SHEETS 7-8. TWO WAY TRAFFIC SHALL BE MAINTAINED ON ERICO DRIVE AT ALL TIMES.

**LOCATION 5 (CUY-422-1911L/R):**

THE CONTRACTOR SHALL STORE PAINTING EQUIPMENT ALONG CR 148 (LIBERTY ROAD). PAINTING IS TO BE PERFORMED BETWEEN THE HOURS OF 8AM TO 8PM. NO WORK IS TO BE PERFORMED ON SUNDAY. ONE LANE TWO-WAY TRAFFIC SHALL BE MAINTAINED UTILIZING TEMPORARY SIGNALS PER SCD MT-96.11, MT-96.20 AND SHEETS 9-10.

**III. MAINTENANCE OF TRAFFIC SYSTEMS**

- WHEN REQUIRED

WHENEVER ANY PART OF THE TRAVELED SURFACE IS BEING WORKED UPON OR IS OTHERWISE NOT SUITABLE FOR SAFE AND CONVENIENT USE BY VEHICLES, TRAFFIC CONTROL DEVICES SUFFICIENT TO PROTECT SUCH AREAS TO ASSURE THE SAFE AND CONVENIENT PASSAGE OF VEHICULAR TRAFFIC SHALL BE INSTALLED AND MAINTAINED. SUCH TRAFFIC CONTROL DEVICES AND THE MANNER IN WHICH THEY ARE USED SHALL BE CONSISTENT WITH THESE PLANS AND THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, HEREINAFTER REFERRED TO AS THE "MANUAL". THE TRAFFIC CONTROL DEVICE SYSTEM SHALL CONSTITUTE THE MINIMUM PROVISIONS FOR TRAFFIC CONTROL FOR EACH PARTICULAR SITUATION. WHENEVER THE ENGINEER DEEMS IT NECESSARY ESPECIALLY WHERE A GRADE, CURVE, OR MERGE CONDITIONS EXISTS, HE MAY DIRECT THAT ADDITIONAL OR ALTERNATIVE DEVICES BE USED.

- CONDITIONS

DURING ALL PARTS OF THIS PROJECT FLAGGERS, SIGNING, BARRICADES, FLASHING ARROWS, ETC. SHALL BE LOCATED AS INDICATED IN THE "MANUAL" OR AS SHOWN IN THE STANDARD DRAWINGS.

- ADVANCE WARNING SIGNS

ALL ADVANCE WARNING SIGNS FOR ANY CONDITIONS WHICH RESTRICTS TRAFFIC SHALL BE ERECTED BEFORE ANY SUCH RESTRICTION IS PUT INTO EFFECT. ALL SUCH SIGNS SHALL BE COVERED OR REMOVED FROM THE VIEW OF TRAFFIC WHENEVER THEY ARE NOT APPLICABLE.

- FLAGGERS

AT LEAST ONE FLAGGER IS REQUIRED FOR CLOSURE. THE CONTRACTOR SHALL FURNISH ADDITIONAL FLAGGERS AS DIRECTED BY THE ENGINEER.

- PROTECTION OF PUBLIC

PERSONAL CARS SHALL NOT BE PARKED WITHIN THE RIGHT OF WAY.

- FAILURE TO COMPLY

IF THERE IS ANY FAILURE TO COMPLY WITH PROVISIONS OF THE "MANUAL", THE HIGHWAY IN THE VICINITY OF THE WORK AREA SHALL NOT BE CONSIDERED IN A CONDITION FOR THE SAFE AND CONVENIENT USE BY THE TRAVELING PUBLIC. ANY FAILURE TO KEEP THE HIGHWAY, IN THE VICINITY OF THE WORK AREA, IN A CONDITION FOR THE SAFE AND CONVENIENT USE BY THE TRAVELING PUBLIC SHALL BE CONSIDERED A BREACH OF THIS CONTRACT. WORK SHALL BE SUSPENDED UNTIL THE CONTRACTOR COMPLIES WITH THE PROVISIONS OF THE AFOREMENTIONED ITEMS.

**IV. MAINTENANCE OF TRAFFIC MATERIALS**

- SIGNS

SIGN DIMENSIONS AND SPECIFICATIONS, INCLUDING LETTER SIZES ARE TO BE AS PROVIDED IN THE "MANUAL", OR IN DESIGN DRAWINGS PROVIDED BY THE DEPARTMENT OF TRANSPORTATION. THE SIGNS SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER PRIOR TO THE START OF THE PROJECT.

- SIGN SUPPORT

SIGN SUPPORTS SHALL BE OF SUFFICIENT SIZE AND MASS AS TO SUPPORT THE SIGNS AT THE APPROPRIATE HEIGHT. SUPPORTS SHALL BE AS SHOWN ON THE STANDARD DRAWINGS.

- FLASHING ARROW REQUIREMENT

WHENEVER ANY PART OF THE TRAVELED SURFACE IS CLOSED, THE MOTORISTS SHALL BE WARNED AND DIRECTED BY THE CONTRACTOR THROUGH THE USE OF ONE FLASHING ARROW PANEL FOR EACH LANE CLOSED. THE CONTRACTOR SHALL REFER TO SUPPLEMENTAL SPECIFICATION 821, 921 AND THE PROVISIONS SET FORTH IN THE "MANUAL" FOR ALL INFORMATION REGARDING FURNISHING, MAINTAINING, AND USE OF FLASHING ARROW PANELS.

3. FLASHING ARROW REQUIREMENT

WHENEVER ANY PART OF THE TRAVELED SURFACE IS CLOSED, THE MOTORISTS SHALL BE WARNED AND DIRECTED BY THE CONTRACTOR THROUGH THE USE OF ONE FLASHING ARROW PANEL FOR EACH LANE CLOSED. THE CONTRACTOR SHALL REFER TO SUPPLEMENTAL SPECIFICATION 821, 921 AND THE PROVISIONS SET FORTH IN THE "MANUAL" FOR ALL INFORMATION REGARDING FURNISHING, MAINTAINING, AND USE OF FLASHING ARROW PANELS.

4. DRUMS

DRUMS SHALL BE IN ACCORDANCE WITH PERTINENT SECTIONS OF THE "MANUAL". ALL COSTS FOR INSTALLING, MAINTAINING, AND SUBSEQUENT REMOVAL OF SAID DRUMS IS TO BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.

5. CONES

CONES, IF UTILIZED, ARE TO BE LOCATED AS SHOWN IN THE "MANUAL" AND THE STANDARD DRAWINGS.

6. BARRIER

PORTABLE BARRIER IF NECESSARY IS TO BE LOCATED AS SHOWN IN THE "MANUAL" AND THE STANDARD DRAWINGS.

7. FLASHERS

FLASHERS SHALL BE 12 VOLT BATTERY-OPERATED MODELS WITH 7 INCH DIAMETER YELLOW LENSES ILLUMINATED BY RAPID INTERMITTENT FLASHERS OF SHORT DURATION AND ARE TO BE PLACED ON ALL SIGNS AT ALL TIMES AS REQUIRED BY THE "MANUAL" AND THE STANDARD CONSTRUCTION DRAWINGS.

8. FLOODLIGHTING

FLOODLIGHTING OF THE WORKSITE FOR OPERATIONS CONDUCTED DURING THE NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND ENGINEER SHALL DRIVE THROUGH THE WORKSITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

9. WORK VEHICLES

ALL WORK VEHICLES LICENSED TO OPERATE ON THE HIGHWAY, SHALL BE EQUIPPED WITH A FLASHING, ROTATING, OR OSCILLATING AMBER LIGHT VISIBLE TO ALL DIRECTIONS OF TRAFFIC FOR A MINIMUM OF ONE-QUARTER MILE IN BRIGHT SUNLIGHT AND SHALL BE OPERATED WITH LIGHTED HEAD AND TAIL LAMPS. THE AMBER LIGHT SHALL BE IN OPERATION AT ALL TIMES WITHIN THE WORK ZONE AND WHILE TRAVELING TO AND FROM THE WORK ZONE WHENEVER THE VEHICLE SPEED IS BELOW THE POSTED LEGAL LIMIT. VEHICLE HAZARD LIGHTS DO NOT SATISFY THIS REQUIREMENT. ALL OTHER EQUIPMENT SHALL BE EQUIPPED WITH A FLASHING, ROTATING, OR OSCILLATING AMBER LIGHT VISIBLE TO ALL DIRECTIONS OF TRAFFIC FOR A MINIMUM OF ONE-QUARTER MILE IN BRIGHT SUNLIGHT. THE AMBER LIGHT SHALL BE IN OPERATION WHILE THE EQUIPMENT IS WITHIN THE WORK ZONE.

V. PAYMENT

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS, INCLUDING R/W FENCE WORK DESCRIBED ON SHEET 3, SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

MAINTENANCE OF TRAFFIC SCHEME

THE CONTRACTOR SHALL DEVISE A SIMPLE MAINTENANCE OF TRAFFIC SCHEME, WHICH SHALL BE DEVISED BY THE WORKSITE TRAFFIC SUPERVISOR (SCHEME MAY BE A HAND SKETCH) AND PRESENT IT TO THE DISTRICT WORK ZONE TRAFFIC CONTROL ENGINEER, PROJECT ENGINEER, WARRENSVILLE HEIGHTS CITY ENGINEER (LOCATIONS 1 AND 2), AND SOLON CITY ENGINEER FOR ACCEPTANCE AT LEAST TWO WEEKS PRIOR TO IMPLEMENTATION. IN GENERAL, THE METHODS FOR MAINTAINING TRAFFIC THAT THE CONTRACTOR PROPOSES TO USE FOR CONDUCTING THE REQUIRED WORK IN A SAFE AND EFFICIENT MANNER CAN BE SHOWN BY HAND SKETCHES AS NECESSARY. THE MAINTENANCE OF TRAFFIC SCHEME SHALL BE IN CONFORMANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (LATEST REVISION) THE REFERENCED STANDARD CONSTRUCTION DRAWINGS, THE ATTACHED MAINTENANCE OF TRAFFIC SHEETS, AND THE SPECIFICATIONS. THE CONTRACTOR SHALL NOT COMMENCE WORK UNTIL THE MAINTENANCE OF TRAFFIC SCHEME HAS BEEN ACCEPTED.

IF DURING THE PROJECT THE ENGINEER DETERMINES THAT THE APPROVED MAINTENANCE OF TRAFFIC PLAN IS NOT PERFORMING AS DESIRED, THE WORK SHALL BE SUSPENDED UNTIL THE PROBLEM IS RESOLVED TO THE SATISFACTION OF THE ENGINEER, WARRENSVILLE HEIGHTS CITY ENGINEER (LOCATIONS 1 AND 2) AND SOLON CITY ENGINEER AND THE MAINTENANCE OF TRAFFIC PLAN IS REVISED ACCORDINGLY. ANY COSTS OR DELAYS INCURRED AS A RESULT OF THE FAILURE OF THE SATISFACTION OF THE ENGINEER SHALL BE THE FULL RESPONSIBILITY OF THE CONTRACTOR.

PAYMENT FOR ALL THE ITEMS REQUIRED TO MAINTAIN TRAFFIC IN ACCORDANCE WITH THESE REQUIREMENTS IS INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 614- MAINTAINING TRAFFIC.

ITEM 614, MAINTAINING TRAFFIC (ESTIMATED QUANTITIES)

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DETERMINED BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC.

ITEM 614,	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	20 CU. YD.
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ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 800 FEET AND 650 FEET, RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH C&MS 614.03.

THE PROBABLE PCMS LOCATIONS AND WORK LIMITS FOR THOSE LOCATIONS SHALL BE DETERMINED BY THE ENGINEER. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF C&MS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN 20 SIGN MONTH ASSUMING 2 PCMS SIGN(S) FOR 10 MONTH(S)

ITEM SPECIAL, WORK ZONE TRAFFIC SIGNAL

PROVIDE A WORK ZONE TRAFFIC SIGNAL UNDER THE STRUCTURE FOR PAINTING. THE SIGNAL SHALL REMAIN IN OPERATION UNTIL THE PAINTING IS COMPLETE. REMOVAL OF THE TRAFFIC SIGNAL SHALL BE INCIDENTAL TO THIS ITEM.

ALL WORK ZONE TRAFFIC SIGNAL ITEMS SHALL BE AS PER C&MS 632 AND 633. PROVIDE A CONTROLLER CAPABLE OF OPERATING THE PHASING SHOWN IN THE PLANS AND CAPABLE OF UTILIZING A RADAR DETECTION SYSTEM.

FULLY-ACTUATED OPERATION OF WORK ZONE TRAFFIC SIGNAL

THE WORK ZONE SIGNAL CONTROL REQUIRED FOR THIS PROJECT AND SHOWN ON THE PLAN SHEETS AND TRAFFIC SCDS MT-96.11, 96.20 AND 96.26 SHALL BE FULLY TRAFFIC-ACTUATED AND OPERATE IN A MANNER SIMILAR TO THAT DESCRIBED IN SECTION 733.02 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS.

THE INITIAL CONTROLLER TIMING SHALL BE AS SHOWN ON THE PLAN SHEETS.

PROVIDE TIMING APPROPRIATE FOR THE SIGNAL LOCATION UNDER CONSIDERATION. TYPICAL FLOW RATES ARE DISPLAYED IN TABLE 697-2 IN THE ODOT TRAFFIC ENGINEERING MANUAL (TEM).

THE CONTRACTOR SHALL ALSO DESIGN, FURNISH, INSTALL AND MAINTAIN A TRAFFIC DETECTOR ON EACH TRAFFIC APPROACH WHICH WILL RELIABLY DETECT ALL LEGAL TRAFFIC APPROACHING (BUT NOT LEAVING) THE SIGNAL AS IT PASSES OR WAITS IN THE DESIGNATED DETECTOR ZONE SHOWN IN THE PLANS. DETECTOR DESIGNS WHICH DO NOT PROVIDE RELIABLE DETECTION, FREE FROM FALSE CALLS, SHALL BE IMMEDIATELY REPLACED BY THE CONTRACTOR.

DESIGN AGENCY



DESIGNER

KDW

REVIEWER

TWG 09-28-21

PROJECT ID

105260

SHEET TOTAL

5 30

**ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS**

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC, OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

IN ADDITION TO THE REQUIREMENT OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS AS APPROVED BY THE ENGINEER:

FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

FOR OPERATIONS WITHOUT POSITIVE PROTECTION OCCURRING WITHIN 10 FEET OF AN OPEN TRAVELED LANE THAT MEET ALL OF THE FOLLOWING CRITERIA:  
ON A MULTI-LANE DIVIDED INTERSTATE, OTHER FREEWAY OR EXPRESSWAY; AND  
AN AUTHORIZED SPEED LIMIT OF 45 MPH OR GREATER THAT IS IN EFFECT AT THE TIME OF THE OPERATION;  
AND,  
AADT OF 50,000 (OR AADT OF 30,000 WITH 25% OR HIGHER PERCENT TRUCKS)

"WITHOUT POSITIVE PROTECTION" MEANS USE OF DRUMS, CONES, SHADOW VEHICLE, ETC, WITHOUT PROTECTION FROM PORTABLE BARRIER OR OTHER RIGID BARRIER ALONG THE WORK AREA. THIS PHRASE DOES NOT APPLY TO CASES WHERE POSITIVE PROTECTION IS REQUIRED. MOBILE OPERATIONS ARE REGARDED AS "WITHOUT POSITIVE PROTECTION". FOR WORK ZONES USING A COMBINATION OF BARRIER AND TEMPORARY TRAFFIC CONTROL DEVICES (CONES, DRUMS, ETC), THE DESIGNATION SHALL BE BASED UPON THE TYPE OF DEVICES USED IN THE AREA THAT WORKERS ARE LOCATED.

IF MULTIPLE ACTIVE LOCALIZED QUALIFYING WORK AREAS OCCUR WITHOUT POSITIVE PROTECTION, PER MAINLINE TRAFFIC DIRECTION, PROVIDE A UNIFORMED LEO AND OFFICIAL PATROL CAR IN ADVANCE OF:  
THE FIRST ACTIVE WORK AREA THAT DRIVERS WILL ENCOUNTER; OR  
THE ACTIVE WORK AREA LATERALLY CLOSEST TO THE OPEN TRAVELED LANE; OR  
OTHER LOCATION AS APPROVED BY THE ENGINEER.

THE UNIFORMED LEO AND OFFICIAL PATROL CAR MAY RELOCATE AMONG THE LISTED LOCATIONS AS APPROPRIATE AS THE OPERATIONS PROCEED IN THE LOCALIZED QUALIFYING WORK AREAS.

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION (OR AT THE POINT OF ROAD CLOSURE), AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONES.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE THAT SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 100 HOURS

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF A LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

**HOLIDAY CLOSURES**

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

CHRISTMAS MEMORIAL DAY LABOR DAY	NEW YEARS FOURTH OF JULY THANKSGIVING	MOTHER'S DAY EASTER
--	---	------------------------

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF THE WEEK	TIMES ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00 NOON FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00 NOON FRIDAY THROUGH 6:00 AM TUESDAY
TUESDAY	12:00 NOON MONDAY THROUGH 6:00 AM WEDNESDAY
WEDNESDAY	12:00 NOON TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	THURSDAY (THANKSGIVING ONLY) 12:00 NOON WEDNESDAY THROUGH 6:00 AM MONDAY 6:00AM WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00 NOON THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00 NOON FRIDAY THROUGH 6:00 AM MONDAY

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE PER THE LANE VALUE CONTRACT (PN 127).

**LANE CLOSURE DISINCENTIVE**

A LANE CLOSURE IS DEFINED AS ANY RESTRICTION OF A LANE OF TRAFFIC INCLUDING, BUT NOT LIMITED TO, SET-UP AND TEAR-DOWN OF TRAFFIC CONTROL ZONES. THE CONTRACTOR WILL BE ASSESSED A DISINCENTIVE FEE AS PER THE LANE VALUE CONTRACT TABLE FOR LANES THAT ARE CLOSED TO TRAFFIC DURING TIMES DESIGNATED AS "LANE CLOSURE NOT PERMITTED" AS STATED IN THESE PLANS AND ON THE ODOT PLCM WEBSITE.

**LANE VALUE CONTRACT TABLE**

Location	Description of Critical Lane/Ramp to be Maintained	Restricted Time Period	Time Unit	Disincentive \$ per Time Unit per Lane
1	CUY-422-1390R Over SR-175	As per the D12 Permitted Lane Closure Schedule	Each Minute	\$135
2	CUY-480-0140WE Over SR-175	As per the D12 Permitted Lane Closure Schedule	Each Minute	\$95
3	CUY-422-1390L Over SR-175	As per the D12 Permitted Lane Closure Schedule	Each Minute	\$145
4	CUY-422-1804L Over SR-91	As per the D12 Permitted Lane Closure Schedule	Each Minute	\$105
5	CUY-422-1804R Over SR-91	As per the D12 Permitted Lane Closure Schedule	Each Minute	\$60
6	CUY-422-1827L Over Solon Rd	As per the D12 Permitted Lane Closure Schedule	Each Minute	\$75
7	CUY-422-1827R Over Solon Rd	As per the D12 Permitted Lane Closure Schedule	Each Minute	\$75
8	CUY-422-1911L Over Liberty Rd	As per the D12 Permitted Lane Closure Schedule	Each Minute	\$75
9	CUY-422-1911R Over Liberty Rd	As per the D12 Permitted Lane Closure Schedule	Each Minute	\$75

THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE EQUAL TO THE LARGEST DISINCENTIVE WITHIN ALL SECTIONS IMPACTED BY THE PHYSICAL LANE RESTRICTION, INCLUDING THE TRANSITION AREA, ACTIVITY AREA, AND TERMINATION AREA AS DEFINED BY THE OMUTCD. HOLIDAY DISINCENTIVES SHALL BE APPLIED PER SECTION PER LANE PER TIME UNIT.

DESIGN AGENCY



DESIGNER

KDW

REVIEWER

TWG 09-28-21

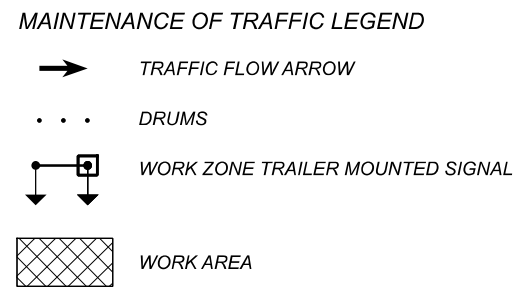
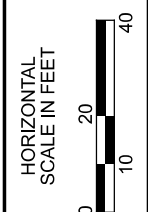
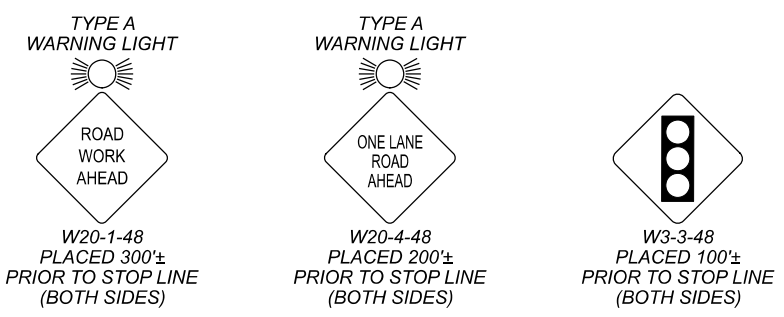
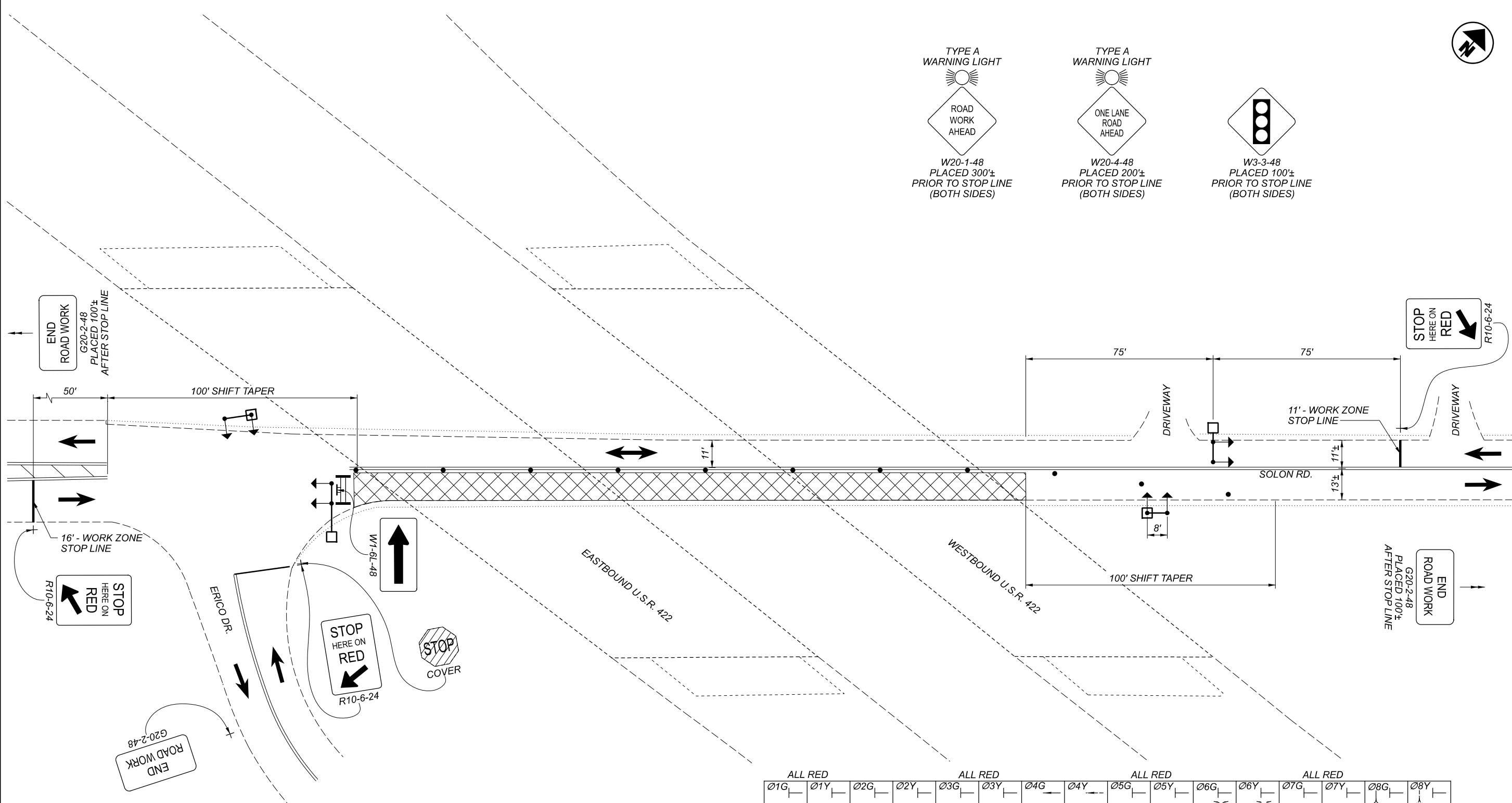
PROJECT ID

105260

SHEET

TOTAL

6 | 30

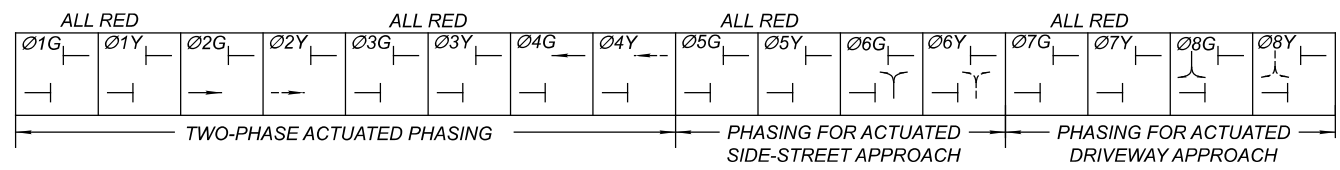


**NOTES**  
 FOR ADDITIONAL DETAILS, SEE SCD MT-96.11

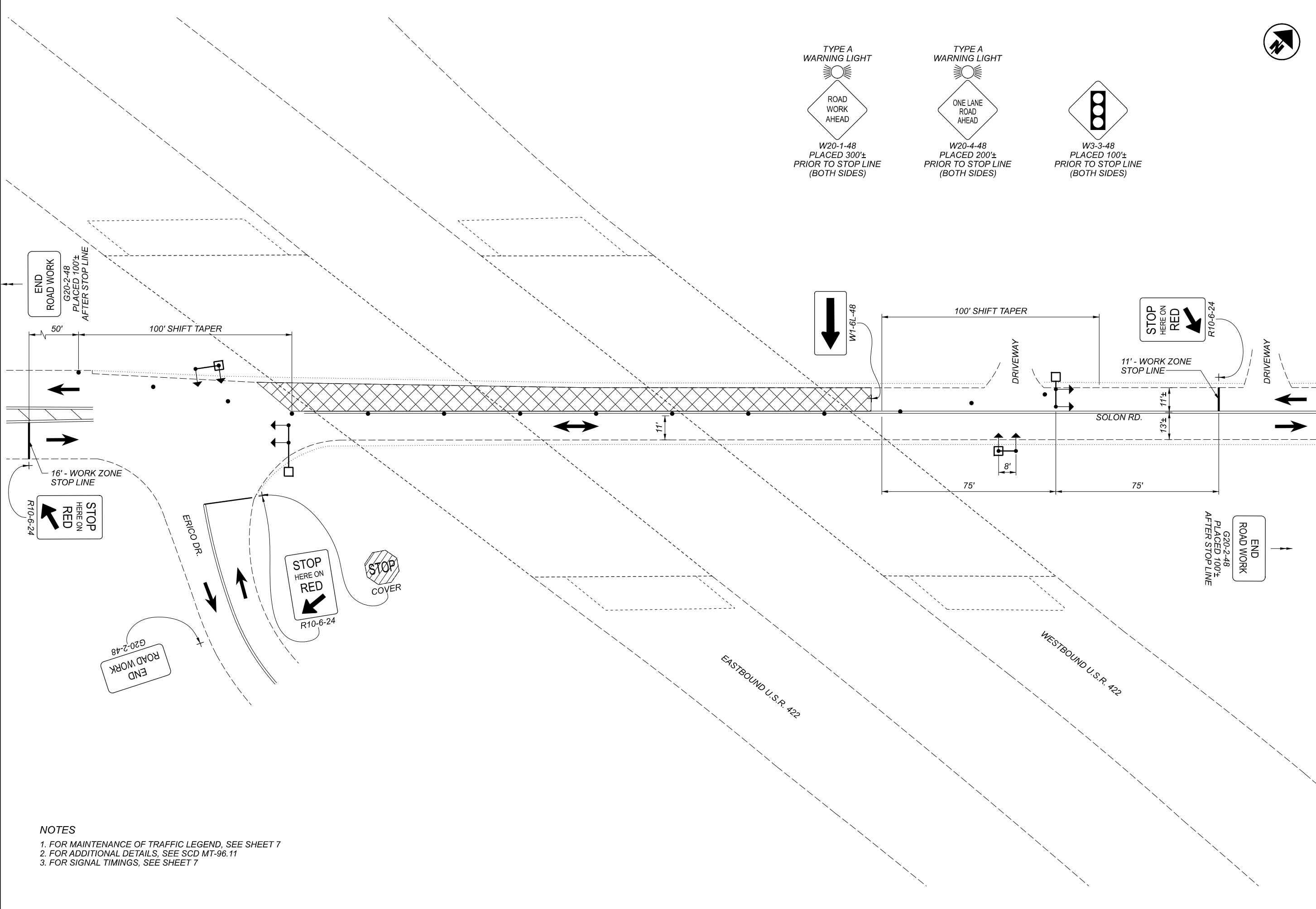
THE FOLLOWING ESTIMATED QUANTITIES HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614, WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I 27 FT

ITEM SPECIAL, WORK ZONE TRAFFIC SIGNAL 1 EACH



	PHASE							
	1 (ALL RED) DUMMY PHASE	2 MAINLINE NORTHBOUND	3 (ALL RED) DUMMY PHASE	4 MAINLINE SOUTHBOUND	5 (ALL RED) DUMMY PHASE	6 SIDE ROAD WESTBOUND	7 (ALL RED) DUMMY PHASE	8 DRIVEWAY EASTBOUND
MIN. GREEN		10		10		10		7
EXTENSION		3		3		3		0
MAX. GREEN		30		16		16		7
YELLOW		5.0		5.0		3.0		3.0
ALL RED	15		15		15		15	
RECALL	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF



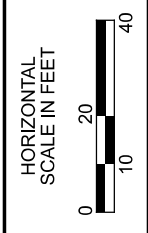
TYPE A WARNING LIGHT

ROAD WORK AHEAD  
 W20-1-48  
 PLACED 300'±  
 PRIOR TO STOP LINE  
 (BOTH SIDES)

TYPE A WARNING LIGHT

ONE LANE ROAD AHEAD  
 W20-4-48  
 PLACED 200'±  
 PRIOR TO STOP LINE  
 (BOTH SIDES)

W3-3-48  
 PLACED 100'±  
 PRIOR TO STOP LINE  
 (BOTH SIDES)

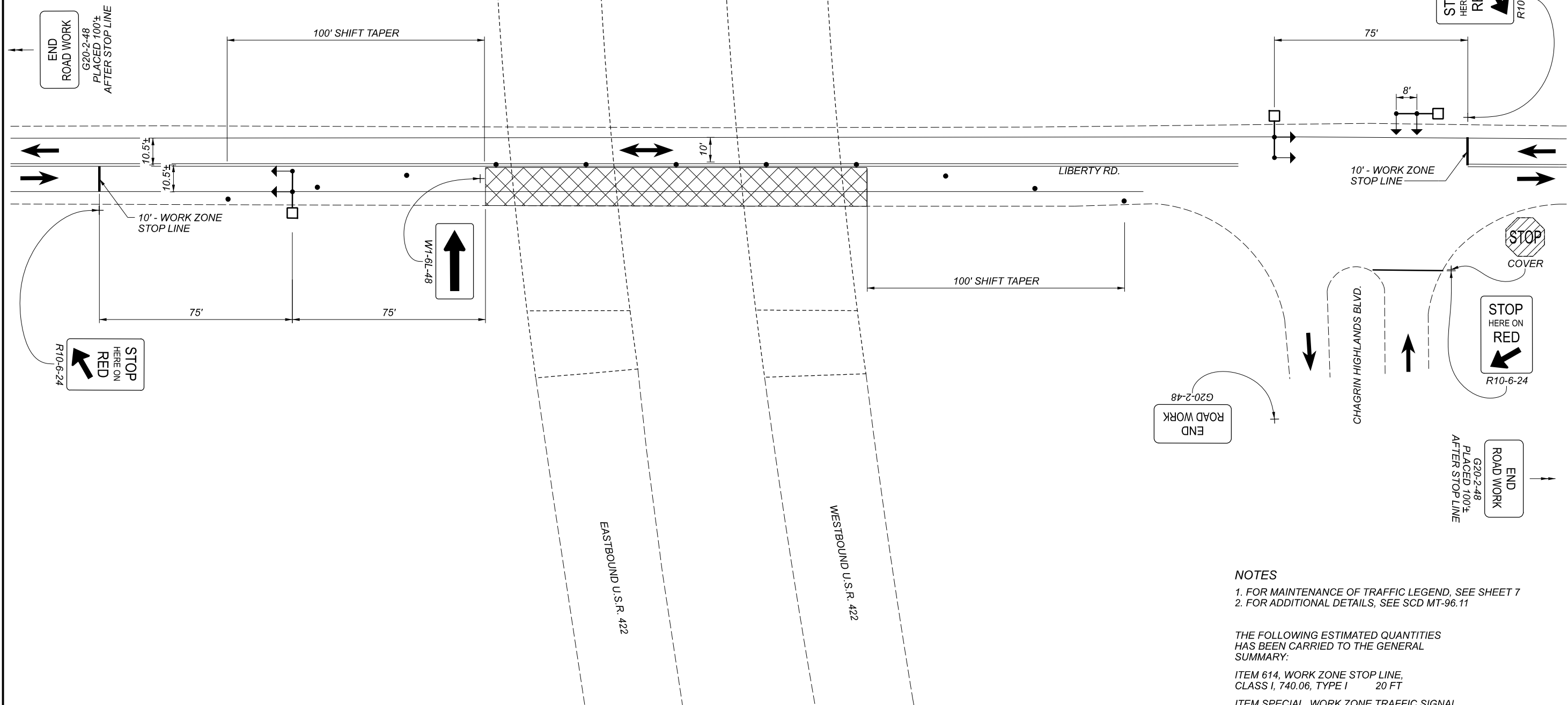
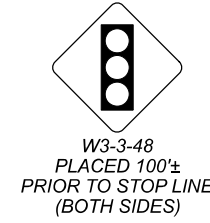
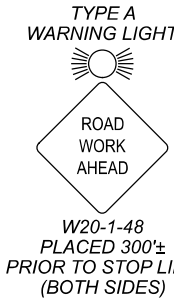


MAINTENANCE OF TRAFFIC PLAN - CUY-422-1827L/R  
 SOLON ROAD SIGNALIZED CLOSURE - PHASE 2

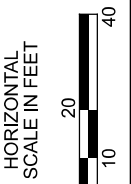
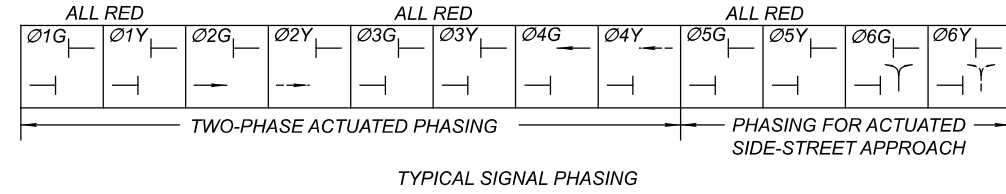
DESIGN AGENCY	
CARPENTER MARTY	
DESIGNER	KDW
REVIEWER	TWG
PROJECT ID	09-28-21
SHEET	105260
TOTAL	8
	30

- NOTES
1. FOR MAINTENANCE OF TRAFFIC LEGEND, SEE SHEET 7
  2. FOR ADDITIONAL DETAILS, SEE SCD MT-96.11
  3. FOR SIGNAL TIMINGS, SEE SHEET 7





	PHASE					
	1 (ALL RED) DUMMY PHASE	2 MAINLINE NORTHBOUND	3 (ALL RED) DUMMY PHASE	4 MAINLINE SOUTHBOUND	5 (ALL RED) DUMMY PHASE	6 SIDE ROAD WESTBOUND
MIN. GREEN		10		10		7
EXTENSION		3		3		3
MAX. GREEN		30		30		16
YELLOW		5.0		5.0		3.0
ALL RED	15		15		15	
RECALL	ON	OFF	OFF	OFF	OFF	OFF



**MAINTENANCE OF TRAFFIC PLAN - CUY-422-1911/LR  
 LIBERTY ROAD SIGNALIZED CLOSURE - PHASE 1**

**NOTES**

1. FOR MAINTENANCE OF TRAFFIC LEGEND, SEE SHEET 7
2. FOR ADDITIONAL DETAILS, SEE SCD MT-96.11

THE FOLLOWING ESTIMATED QUANTITIES HAS BEEN CARRIED TO THE GENERAL SUMMARY:

- ITEM 614, WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I 20 FT
- ITEM SPECIAL, WORK ZONE TRAFFIC SIGNAL 1 EACH

DESIGN AGENCY  

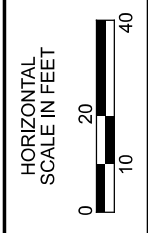
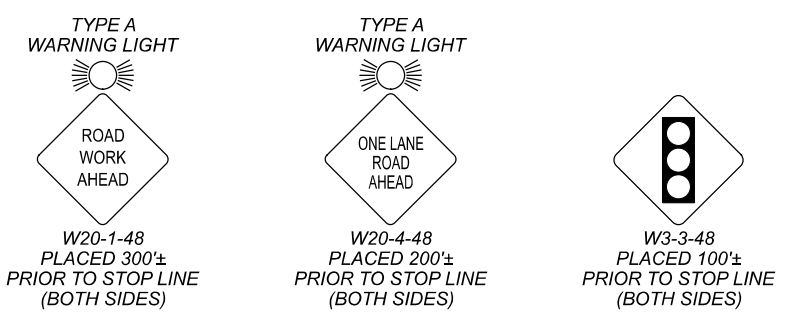
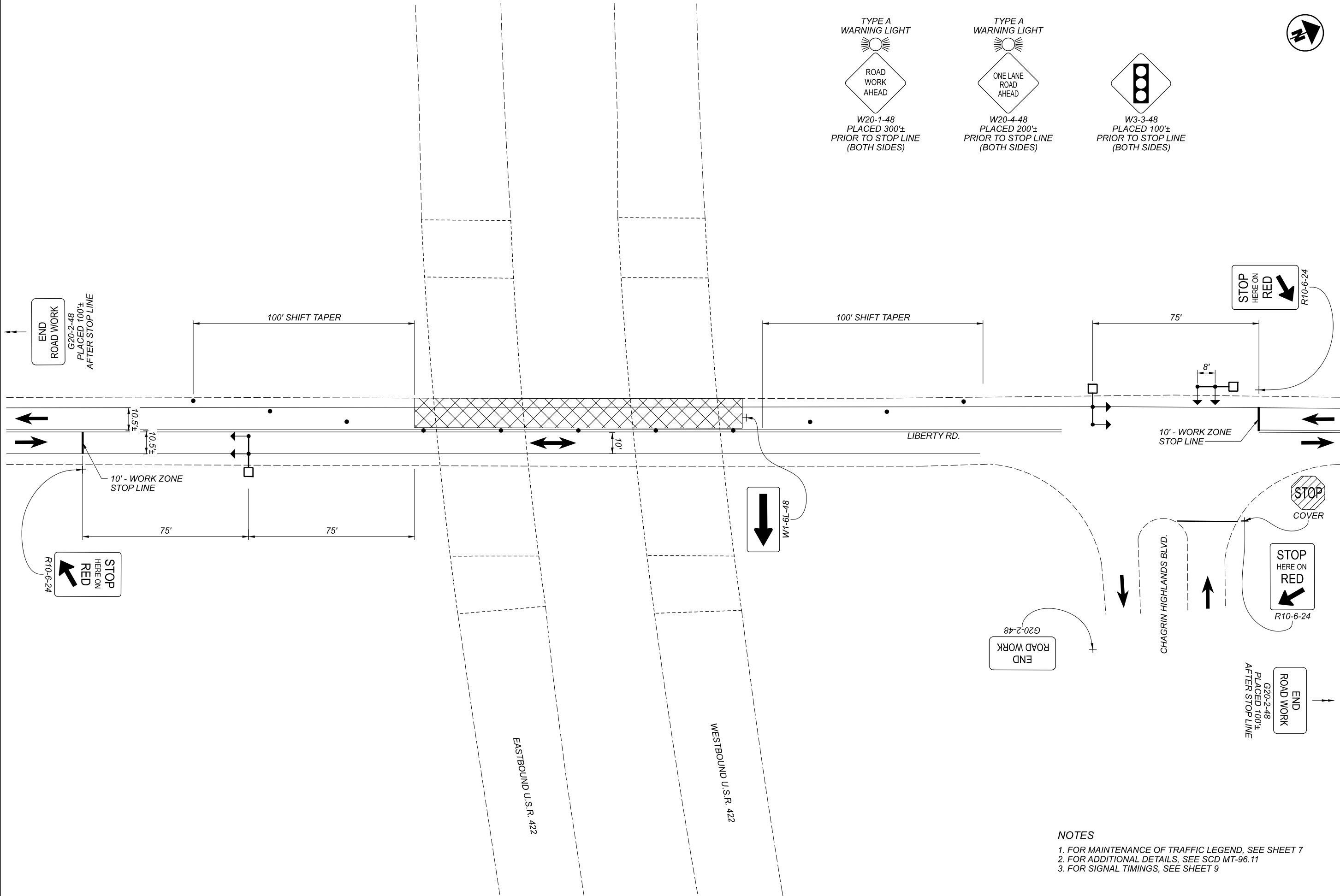
 CARPENTER MARTY

DESIGNER  
 KDW

REVIEWER  
 TWG 09-28-21

PROJECT ID  
 105260

SHEET TOTAL  
 9 30



MAINTENANCE OF TRAFFIC PLAN - CUY-422-1911L/R  
 LIBERTY ROAD SIGNALIZED CLOSURE - PHASE 2

- NOTES**
1. FOR MAINTENANCE OF TRAFFIC LEGEND, SEE SHEET 7
  2. FOR ADDITIONAL DETAILS, SEE SCD MT-96.11
  3. FOR SIGNAL TIMINGS, SEE SHEET 9

DESIGN AGENCY	
CARPENTER MARTY	
DESIGNER	KDW
REVIEWER	TWG 09-28-21
PROJECT ID	105260
SHEET	TOTAL
10	30



SHEET NUM.											PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
						4	5	6	7	9	GEN	01/NHS/BR	02/IMS/BR						
<b>STRUCTURE OVER 20 FOOT SPAN (LOCATION 4: CUY-422-1827L, 1814958)</b>																			
											21,984	21,984		514	00050	21,984	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
											21,984	21,984		514	00056	21,984	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	
											21,984	21,984		514	00060	21,984	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
											3,540	3,540		514	00066	3,540	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT (EXTERIOR COLOR)	
											18,444	18,444		514	00066	18,444	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT (INTERIOR COLOR)	
											24	24		514	00504	24	MNHR	GRINDING FINNS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL	
											16	16		514	10000	16	EACH	FINAL INSPECTION REPAIR	
<b>STRUCTURE OVER 20 FOOT SPAN (LOCATION 4: CUY-422-1827R, 1814966)</b>																			
											25,887	25,887		514	00050	25,887	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
											25,887	25,887		514	00056	25,887	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	
											25,887	25,887		514	00060	25,887	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
											3,598	3,598		514	00066	3,598	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT (EXTERIOR COLOR)	
											22,289	22,289		514	00066	22,289	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT (INTERIOR COLOR)	
											28	28		514	00504	28	MNHR	GRINDING FINNS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL	
											19	19		514	10000	19	EACH	FINAL INSPECTION REPAIR	
<b>STRUCTURE OVER 20 FOOT SPAN (LOCATION 5: CUY-422-1911L, 1815172)</b>																			
											5,984	5,984		514	00050	5,984	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
											5,984	5,984		514	00056	5,984	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	
											5,984	5,984		514	00060	5,984	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
											1,160	1,160		514	00066	1,160	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT (EXTERIOR COLOR)	
											4,824	4,824		514	00066	4,824	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT (INTERIOR COLOR)	
											11	11		514	00504	11	MNHR	GRINDING FINNS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL	
											8	8		514	10000	8	EACH	FINAL INSPECTION REPAIR	
<b>STRUCTURE OVER 20 FOOT SPAN (LOCATION 5: CUY-422-1911R, 1815180)</b>																			
											5,984	5,984		514	00050	5,984	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
											5,984	5,984		514	00056	5,984	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	
											5,984	5,984		514	00060	5,984	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
											1,160	1,160		514	00066	1,160	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT (EXTERIOR COLOR)	
											4,824	4,824		514	00066	4,824	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT (INTERIOR COLOR)	
											11	11		514	00504	11	MNHR	GRINDING FINNS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL	
											8	8		514	10000	8	EACH	FINAL INSPECTION REPAIR	
<b>MAINTENANCE OF TRAFFIC</b>																			
							100				84	16		614	11110	100	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
									1	1	2			SPECIAL	61411300	2	EACH	WORK ZONE TRAFFIC SIGNAL	
						20					17	3		614	13000	20	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
						20					18	2		614	18601	20	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	
									27	20	47			614	26400	47	FT	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I	
<b>INCIDENTALS</b>																			
						LS					LS	LS		614	11000	LS		MAINTAINING TRAFFIC	
											10	2		619	16020	12	MNTH	FIELD OFFICE, TYPE C	
											LS	LS		623	10001	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN	
											LS	LS		624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

DESIGN AGENCY



DESIGNER  
MOJ

REVIEWER

DGN 11-19-21

PROJECT ID  
105260

SHEET TOTAL  
12 30

**STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:**

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING:  
GSD-1-19 REVISED 1-15-21

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION:  
800 DATED 10-15-21

**BRIDGE NO. CUY-422-1804L/R**

**ITEM 513 - REPLACEMENT OF DETERIORATED END CROSSFRAMES, AS PER PLAN**

EXISTING DAMAGED OR DETERIORATED ANGLES ARE TO BE REMOVED AND REPLACED AS PER THE PLANS OR DIRECTED BY THE ENGINEER. THE EXISTING END CROSSFRAME MEMBERS SHALL BE REMOVED FLUSH WITH THE BEAM WEB, WHERE APPLICABLE. ALL END CROSSFRAME MEMBERS DESIGNATED FOR REPLACEMENT IN ONE BAY SHALL BE REMOVED AND REPLACED PRIOR TO REMOVING ANY END CROSSFRAME MEMBERS IN ANOTHER BAY.

EXCEPT AS NOTED IN THE PLANS, EXISTING GUSSET PLATES ARE TO BE REUSED AS WELD CONNECTION POINTS FOR THE NEW STEEL CROSSFRAME MEMBERS. CUT OR GRIND EXISTING GUSSET PLATES TO HAVE A 1½" TAB REMAINING FOR WELDING PURPOSES.

FOR EXISTING DETAILS NOT SHOWN IN THE PLANS, REFER TO ARCHIVED SCD SD-1-69 ON SHEET 30/30.

THE NEW END CROSSFRAMES SHALL BE IN ACCORDANCE WITH ODOT STANDARD DRAWING GSD-1-19.

ALL EQUIPMENT, LABOR, AND MATERIALS REQUIRED TO REMOVE AND INSTALL THE END CROSSFRAMES SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 513 - REPLACEMENT OF DETERIORATED END CROSSFRAMES, AS PER PLAN.

**BRIDGE NO. CUY-422-1390L/R**

**BRIDGE NO. CUY-422-1804L/R**

**BRIDGE NO. CUY-422-1827L/R**

**BRIDGE NO. CUY-422-1911L/R**

**BRIDGE NO. CUY-480-0140WE**

**ITEM 514 - FIELD PAINTING**

THE CONTRACTOR SHALL NOT OVERSPRAY ONTO THE CONCRETE SUPERSTRUCTURE COMPONENTS OR CONCRETE SUBSTRUCTURE COMPONENTS (E.G. DECK, RAILINGS, BACKWALLS, ABUTMENTS, AND PIERS). PAINTING SHALL BE CONFINED TO THE STRUCTURAL STEEL COMPONENTS, UTILITY SUPPORTS, AND SIGN SUPPORTS ATTACHED TO THE BEAMS. DRAINAGE SYSTEM DOWNSPOUTS SHALL BE PAINTED FROM DECK BOTTOM TO TOP OF PIER CAP, ALONG WITH SCUPPERS.

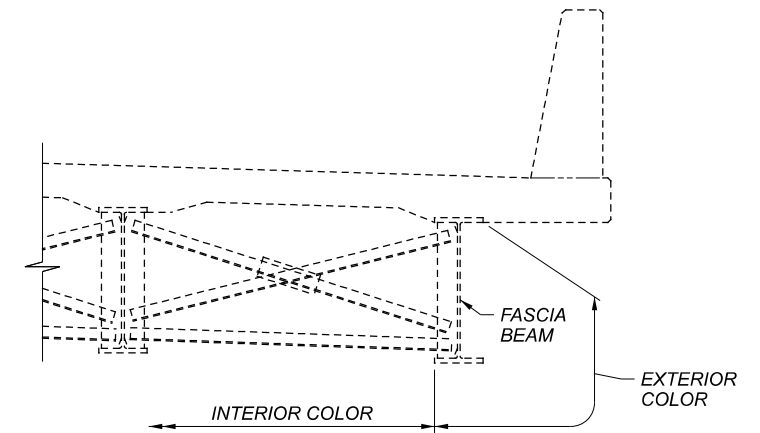
LIGHT FIXTURES, UTILITY CONDUITS, AND ASSOCIATED BRACKETS SHALL NOT BE PAINTED. THE CONTRACTOR SHALL PHYSICALLY PROTECT THEM FROM DAMAGE DURING PAINTING OPERATIONS. THE CONTRACTOR SHALL ALSO COORDINATE WITH UTILITY COMPANIES AND PHYSICALLY PROTECT ALL UTILITY LINES THAT ARE TO BE TEMPORARILY MOVED/SHIFTED BY OTHERS. ANY COST TO REPAIR A UTILITY DAMAGED BY THE CONTRACTOR DURING PAINTING OPERATIONS SHALL BE AT NO ADDITIONAL COST TO THE PROJECT OR UTILITY COMPANY. STEEL UTILITY SUPPORTS ATTACHED TO THE BEAMS/CROSSFRAMES, DRAINAGE SCUPPERS, BEARING ASSEMBLIES, AND PORTIONS OF SIGN SUPPORTS ATTACHED TO THE BEAMS SHALL BE PAINTED.

THE STRUCTURES AT ALL LOCATIONS SHALL HAVE A TWO-COLOR SCHEME FOR THE STRUCTURAL STEEL. THE COLOR OF THE FINISH COAT SHALL BE AMS-STD-595A COLOR NO. 14533 (LIGHT GREEN, GLOSS) FOR ALL STEEL SURFACES EXCEPT FOR THE EXTERIOR SURFACES OF THE FASCIA BEAMS AND SIGN SUPPORTS ATTACHED TO THE EXTERIOR SURFACES OF THE FASCIA BEAMS. THE COLOR OF THE FINISH COAT SHALL BE AMS-STD-595A COLOR NO. 24108 (GREEN, GLOSS) FOR THE EXTERIOR SURFACES OF THE FASCIA BEAMS (AS DETAILED ON THIS SHEET) AND SIGN SUPPORTS ATTACHED TO THE EXTERIOR SURFACES OF THE FASCIA BEAMS.

PAINT THE INTERIOR MEMBERS' FINISH COAT FIRST. MINIMAL OVERSPRAY FROM THE FASCIA BEAM FINISH COAT IS PERMITTED ONTO THE INTERIOR MEMBERS.

THE CONTRACTOR SHALL PROVIDE AN ADDITIONAL DRAWDOWN CARD (TWO TOTAL) AS SPECIFIED IN CMS 708.02 FOR THE URETHANE FINISH COATS.

ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO PERFORM THE WORK DESCRIBED ABOVE SHALL BE INCLUDED IN THE APPROPRIATE 514 ITEM BID PRICES.



**FASCIA BEAM PAINTING DETAIL**

ALL LOCATIONS

CUY-422-13.90/VAR PAINT

MODEL: SN001 PAPER SIZE: 17x11 (in.) DATE: 11/18/2021 TIME: 1:17:08 PM USER: mjrcaak  
C:\2019\2019254\06105260\400-Engineering\Structures\General\Sheets\105260\_SN001.dgn

STRUCTURE GENERAL NOTES  
BRIDGE NO. VARIES

SFN  
VARIES

DESIGN AGENCY



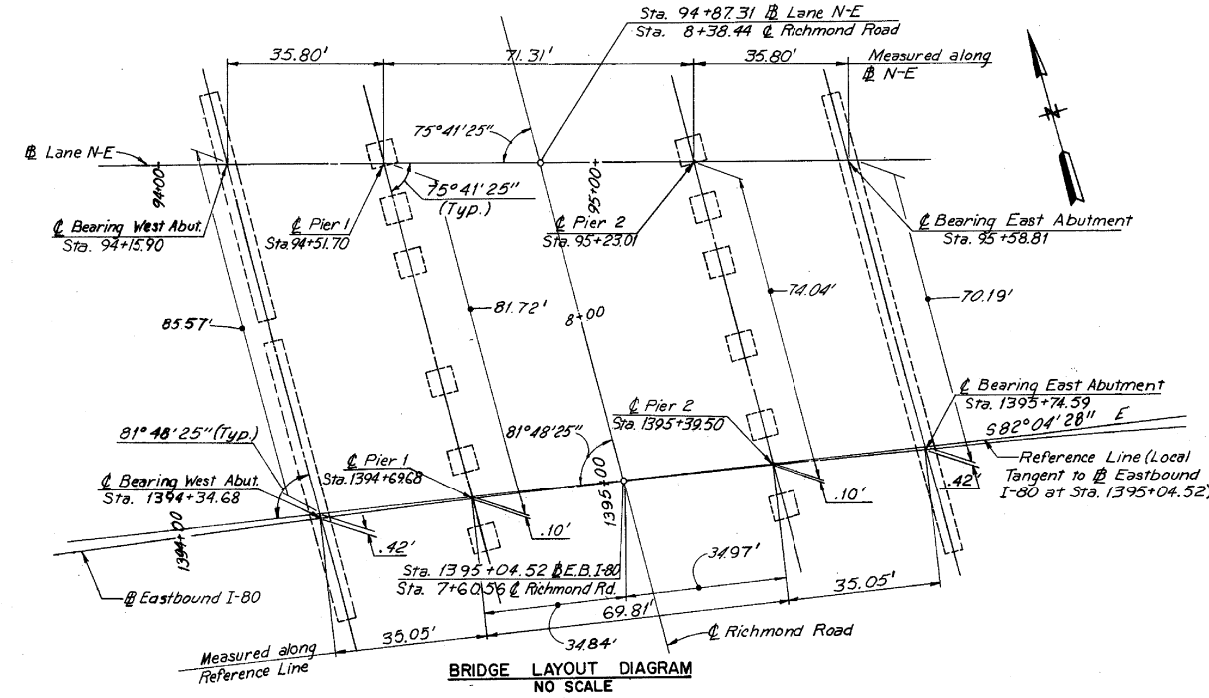
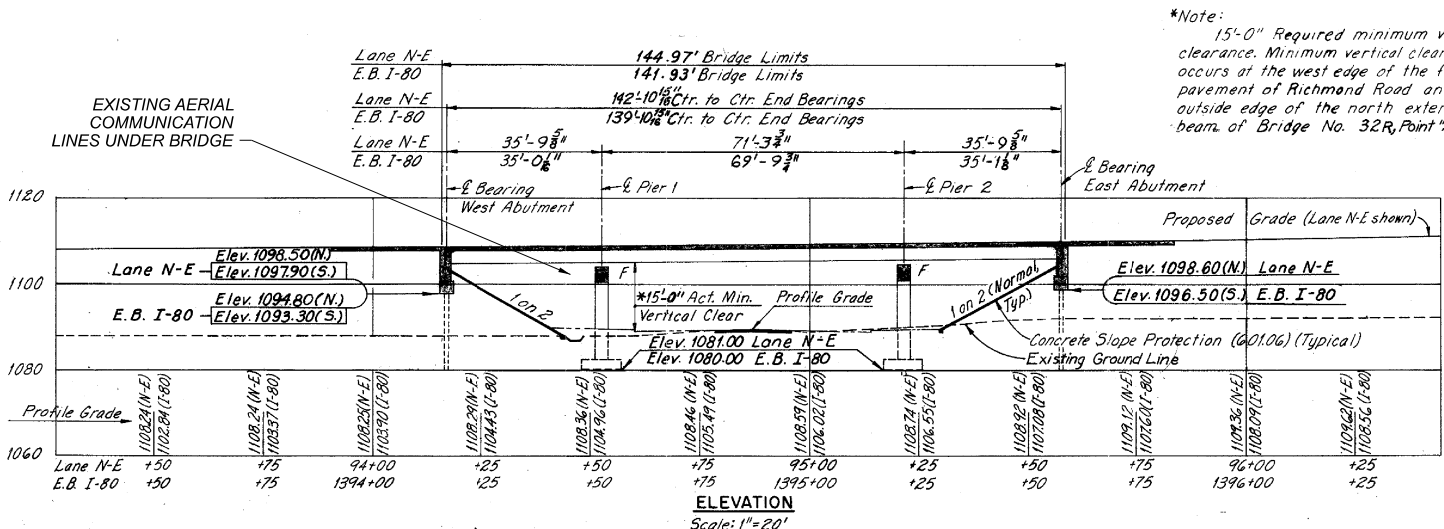
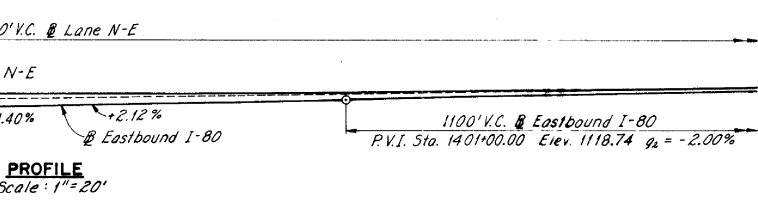
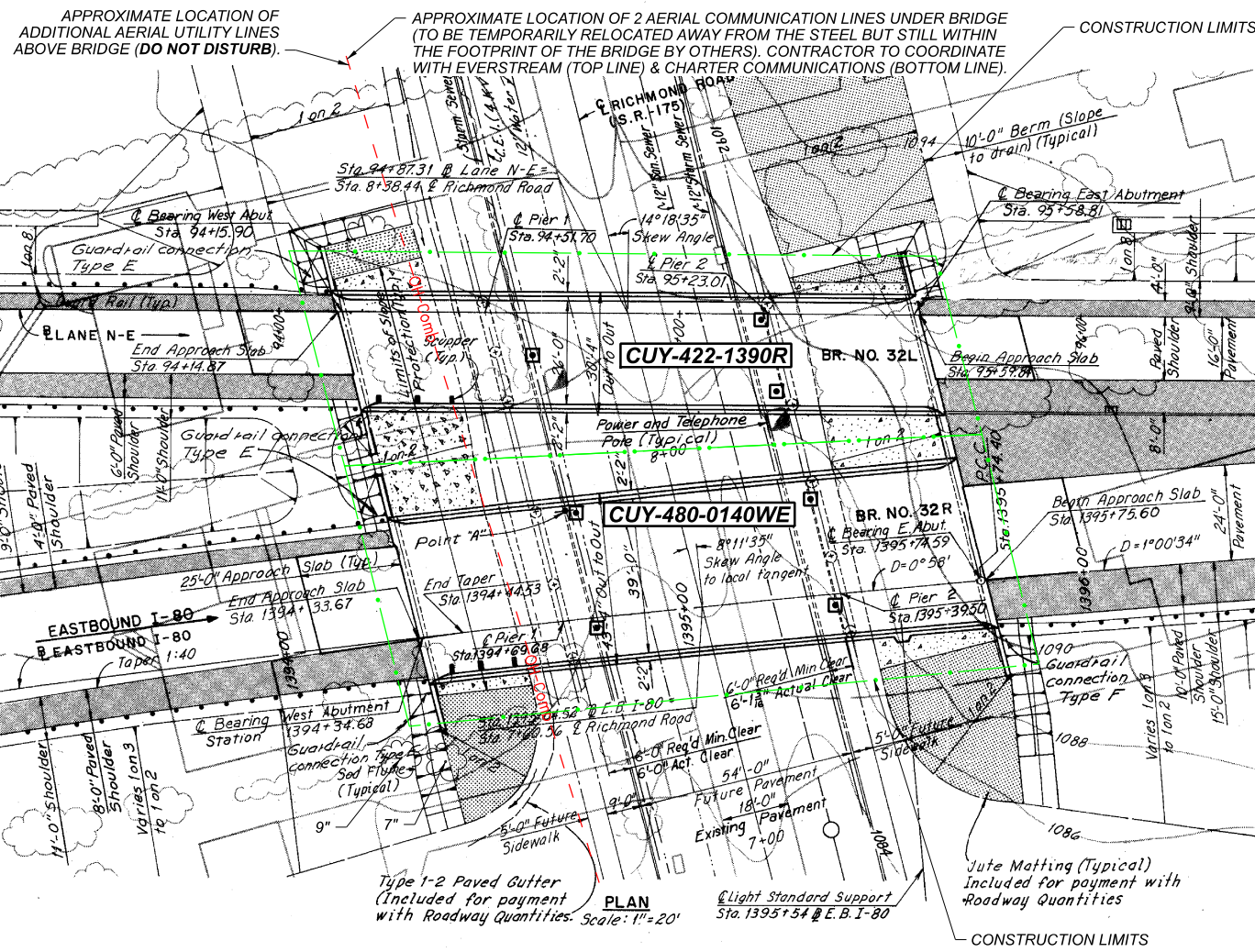
DESIGNER CHECKER  
MOJ DJC

REVIEWER  
DGN 11-19-21

PROJECT ID  
105260

SUBSET	TOTAL
1	1

SHEET	TOTAL
13	30



**CURVE DATA - @ EASTBOUND I-80**

P.I. Sta. = 1394+22.72	1400+16.24
$\Delta = 22^{\circ}33'43.2''$	$8^{\circ}54'10.2''$
$D = 0^{\circ}58'00''$ Right	$1^{\circ}00'34.3''$ Right
$R = 5,927.15'$	$5,675.58'$
$T = 1,182.32'$	$441.84'$
$L = 2,334.00'$	$881.90'$
$E = 116.77'$	$17.77'$

FED RD DIVISION	STATE	PROJECT	
2	OHIO		

CUYAHOGA COUNTY  
 CUY-80-24.63

**PROPOSED STRUCTURES**

TYPE: Continuous steel beam with reinforced concrete deck and substructure.

SPANS: Br. No. 32L 35'-9 7/8", 71'-3 3/4" and 35'-9 7/8"  
 Br. No. 32R 35'-0 7/8", 69'-9 3/4" and 35'-1 7/8"

ROADWAYS: Br. No. 32L 28'-0" face to face parapets  
 Br. No. 32R 41'-0" face to face parapets

LOAD FREQUENCIES: CF2000(S7) Adequate for A. A. S. H. G. alternate loading.

SKREW: Br. No. 32L 14°18'35" Right Forward  
 Br. No. 32R 8°11'35" Right Forward to local tangent.

WEARING SURFACE: 1" Monolithic Concrete

APPROACH SLABS: AS-1-67 (25' long)

ALIGNMENT: Br. No. 32L Tangent  
 Br. No. 32R 0°58' Right

SUPERELEVATION: Br. No. 32L 0.0156 Ft. per Ft.  
 Br. No. 32R 0.024 Ft. per Ft.

**TRAFFIC DATA: (1986)**

Eastbound I-80	15,992 A.D.T.	2,128 D.D.H.V.
Lane N-E	6,664 A.D.T.	893 D.H.V.

H.N.T.B. BRIDGE NO. 32 L & R  
 HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
 CONSULTING ENGINEERS  
 KANSAS CITY CLEVELAND NEW YORK

**SITE PLAN**

EASTBOUND I-80 AND LANE N-E OVER RICHMOND ROAD (SR 175)  
 BR. NO. CUY-80-2596 L & R STA. 1394+33.67 TO STA. 1395+75.60 @ E.B. I-80

CUYAHOGA COUNTY OHIO

DRAWN C.D.W./TRACED P.M.P. CHECKED W.S.F. REVISIONS SHEET 1/9  
 DATE 6-9-67 DATE 7-25-67 DATE 5-11-70

**LEGEND:**

- APPROXIMATE LOCATION OF LIGHTING
- ☁ TREE (>6") TO REMAIN

**NOTES:**

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHALL BE USED FOR INFORMATIONAL PURPOSES ONLY.
2. PERFORM ONLY THE WORK DESCRIBED IN THE GENERAL NOTES AND GENERAL SUMMARY.
3. ODOT D12 HAS POWER SERVICE LINES FOR LIGHTING EMBEDDED IN THE DECK AND ARE EXPOSED AT EACH LIGHT. LINES CAN BE DE-ENERGIZED DURING THE PAINTING OPERATIONS. ODOT REQUESTS 30 DAYS OF NOTICE FOR THIS WORK. CONTACT KEITH HAMILTON AT (216) 584-2220.
4. CHARTER COMMUNICATIONS HAS AN AERIAL LINE BETWEEN THE BRIDGE AND GROUND THAT CAN BE MOVED/SHIFTED DURING PAINTING OPERATIONS. CHARTER COMMUNICATIONS REQUESTS 30 DAYS OF NOTICE FOR THIS WORK. CONTACT DAVID SOBOTKA AT (216) 854-0899.
5. EVERSTREAM HAS AN AERIAL LINE BETWEEN THE BRIDGE AND GROUND THAT CAN BE MOVED/SHIFTED DURING PAINTING OPERATIONS. EVERSTREAM REQUESTS 30 DAYS OF NOTICE FOR THIS WORK. CONTACT STACEY DASHER AT (216) 408-9205.

**SITE PLAN**  
**BRIDGE NO. CUY-422-1390R & CUY-480-0140WE**  
**U.S. 422 EB & I.R. 480 OVER S.R. 175 (RICHMOND ROAD)**

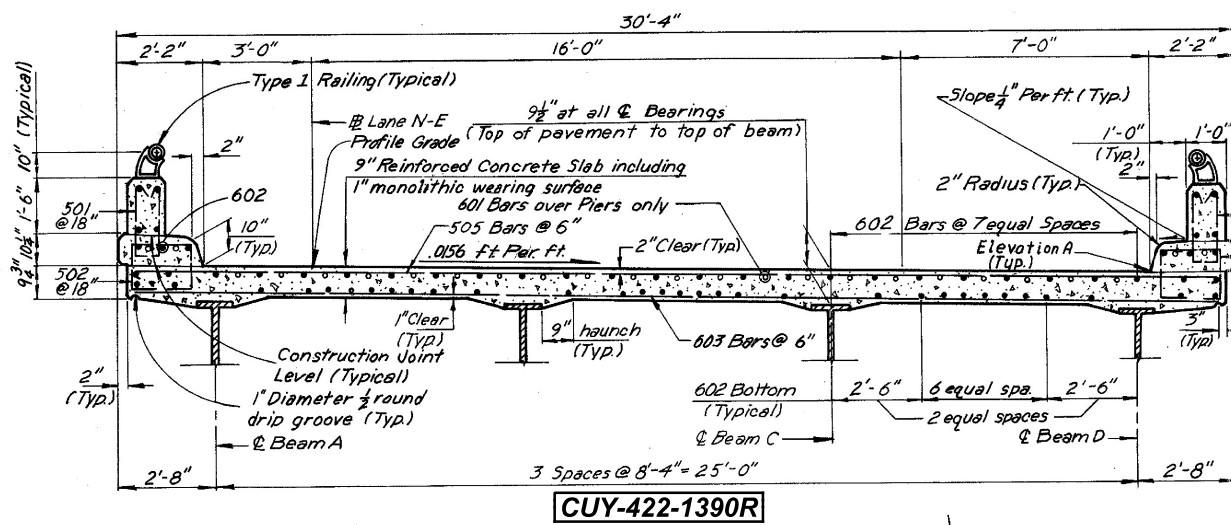
SFN 1814745  
 SFN 1814753  
 DESIGN AGENCY  
**GPD GROUP**

DESIGNER CHECKER  
 MOJ DJC

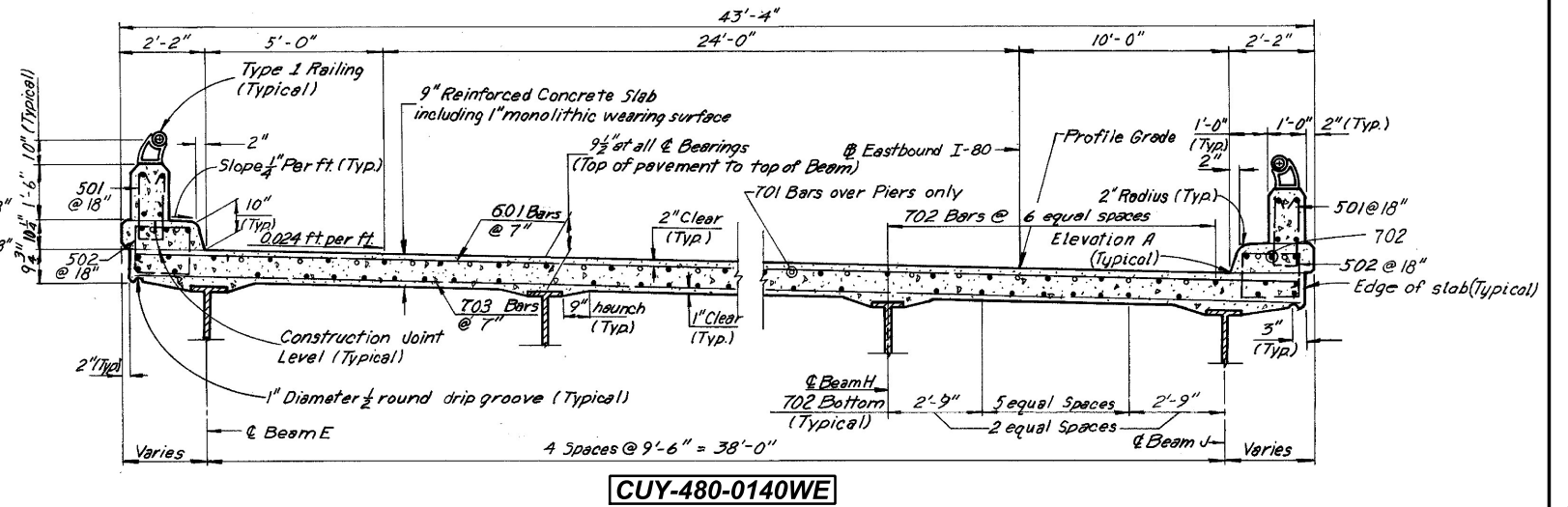
REVIEWER  
 DGN 11-19-21

PROJECT ID  
 105260

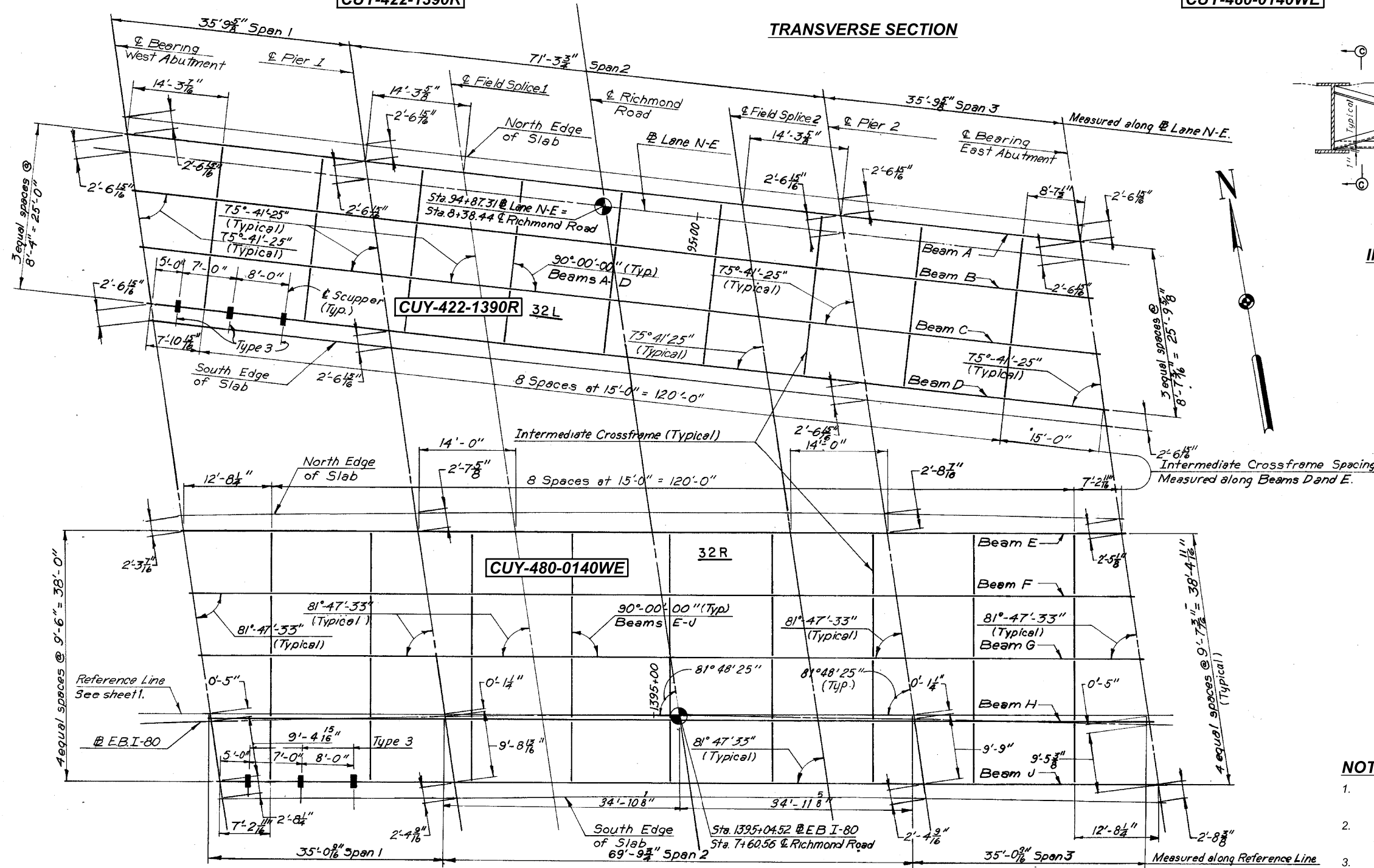
SUBSET	TOTAL
1	2
SHEET	TOTAL
14	30



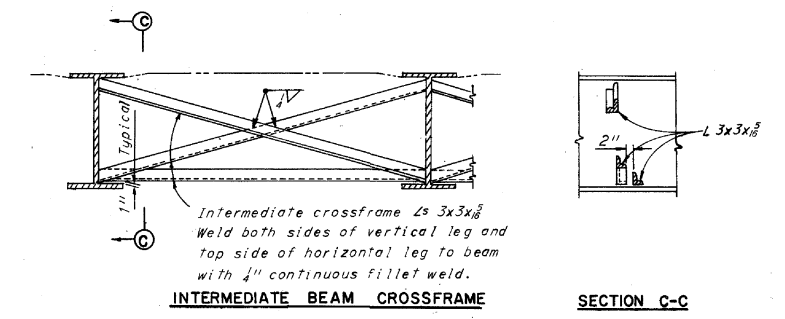
TRANSVERSE SECTION



CUY-480-0140WE



FRAMING PLAN

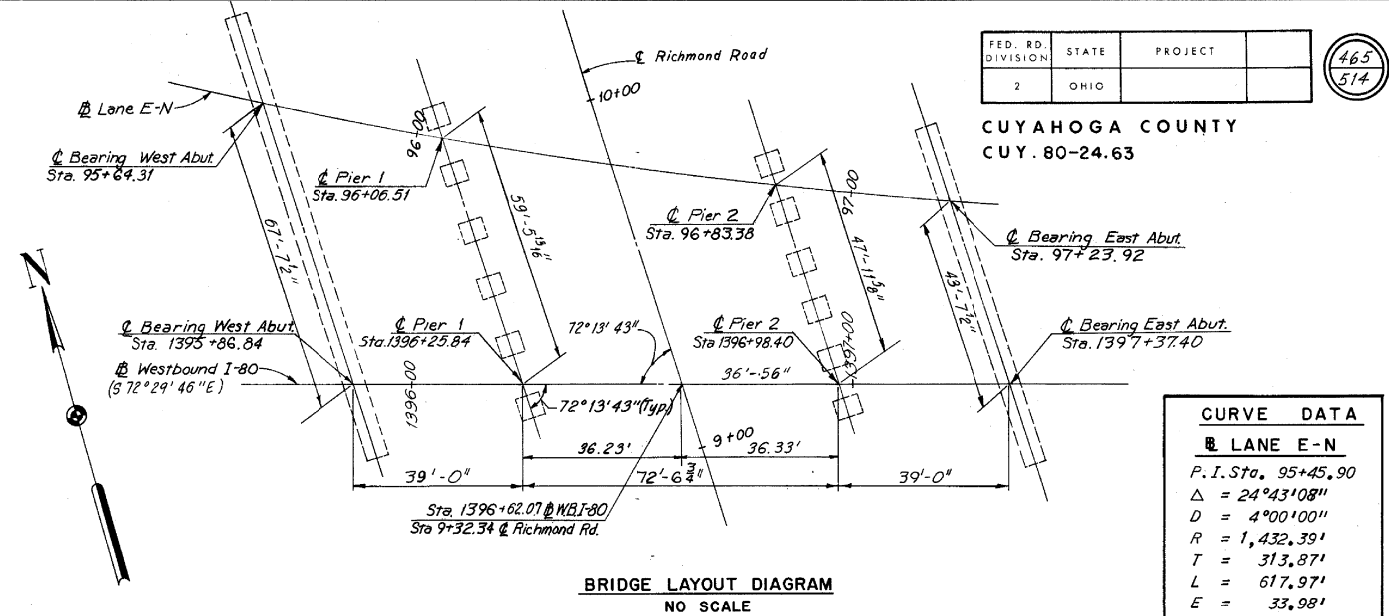
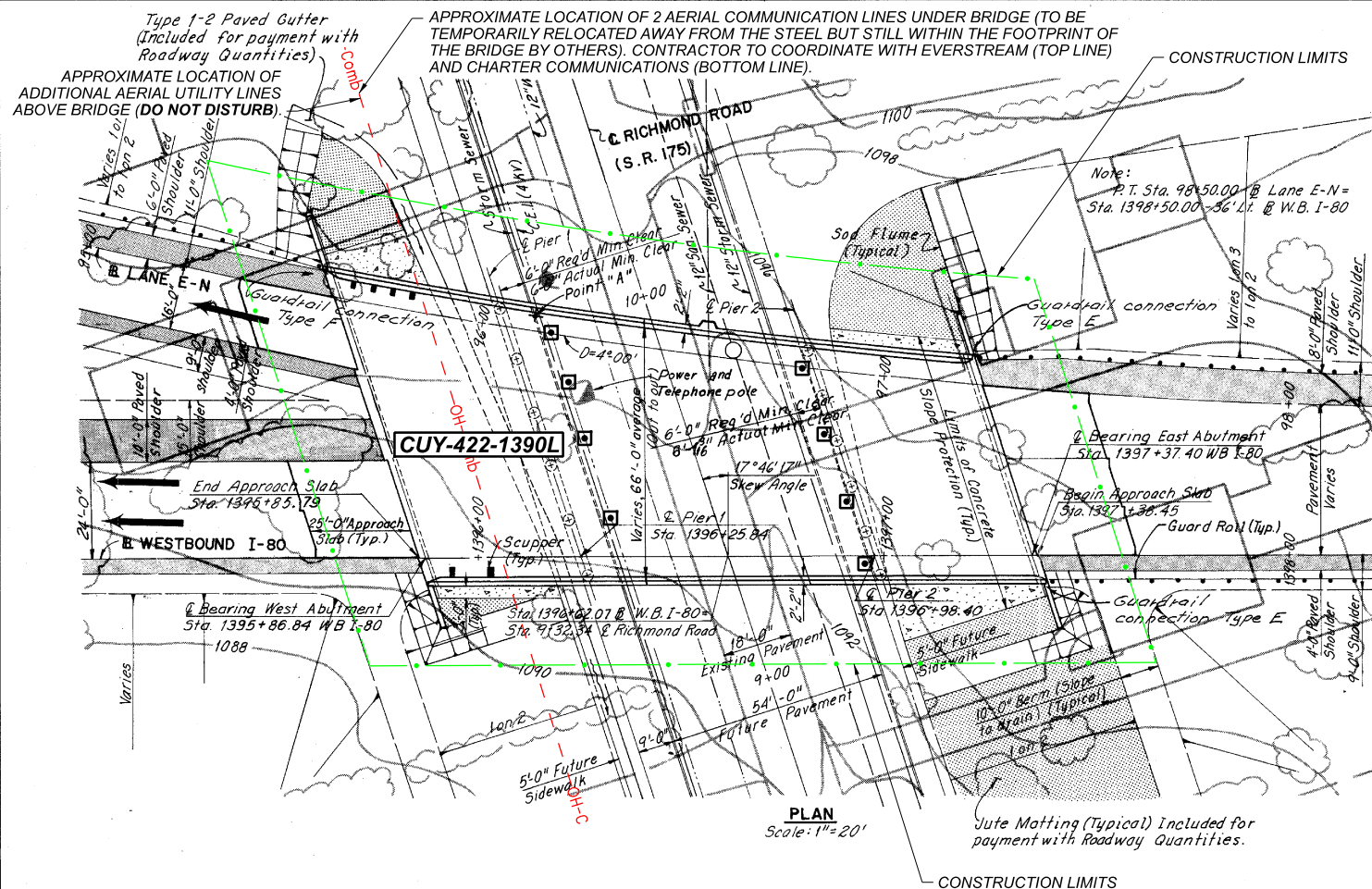


INTERMEDIATE BEAM CROSSFRAME DETAIL

- NOTES:**
1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHALL BE USED FOR INFORMATIONAL PURPOSES ONLY.
  2. PERFORM ONLY THE WORK DESCRIBED IN THE GENERAL NOTES AND GENERAL SUMMARY.
  3. THE TRANSVERSE SECTION SHOWN DOES NOT ACCURATELY DEPICT CURRENT SITE CONDITIONS. THE RAILING HAS BEEN MODIFIED SINCE ORIGINAL CONSTRUCTION.

SUPERSTRUCTURE DETAILS  
 BRIDGE NO. CUY-422-1390R & CUY-480-0140WE  
 U.S. 422 EB & I.R. 480 OVER S.R. 175 (RICHMOND ROAD)

SFN	1814745
SFN	1814753
DESIGN AGENCY	
DESIGNER/CHECKER	MOJ / DJC
REVIEWER	
DGN	11-19-21
PROJECT ID	105260
SUBSET	TOTAL
2	2
SHEET	TOTAL
15	30



FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

CUYAHOGA COUNTY  
CUY.80-24.63

465  
514

**CURVE DATA**

**LANE E-N**

P. I. Sta. 95+45.90

Δ = 24°43'08"

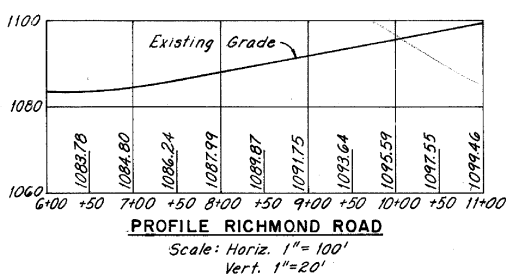
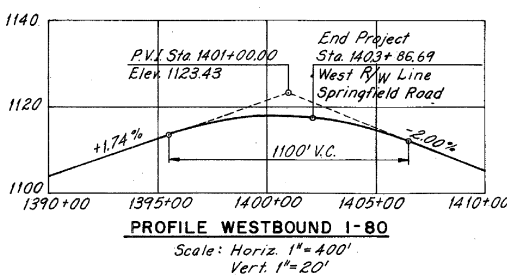
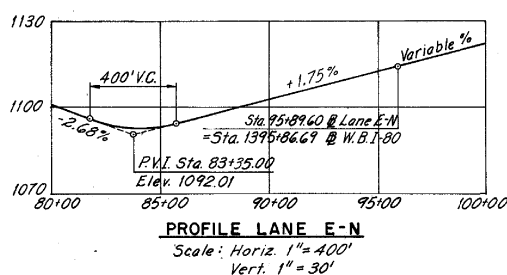
D = 4°00'00"

R = 1,432.39'

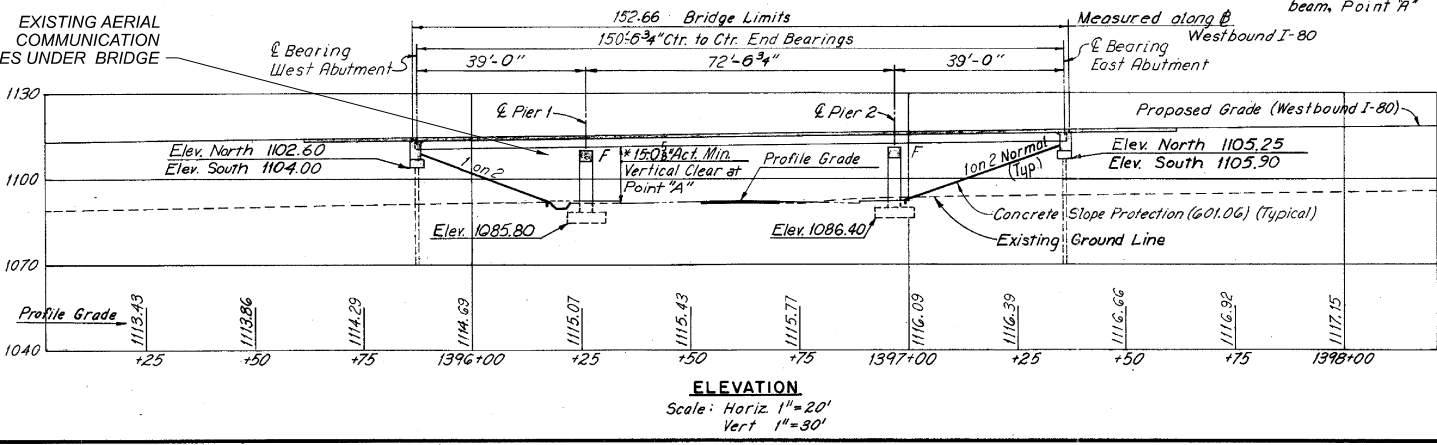
T = 313.87'

L = 617.97'

E = 33.98'



\* Note:  
15'-0" Required minimum vertical clearance. Minimum vertical clearance occurs at the west edge of the future pavement of Richmond Road and the outside edge of the north exterior beam, Point 'A'



**PROPOSED STRUCTURE**

**TYPE:** Continuous steel beam with reinforced concrete deck and substructure.

**SPANS:** 39'-0", 72'-6 3/4" and 39'-0"

**ROADWAY:** Width Varies - 72'-11 7/8" to 53'-9 3/8" face to face of parapets.

**LOAD FREQUENCY:** CF 2000(57) Adequate for A.A.S.H.O. Alternate loading.

**SKIEW:** 17°46'17" Right Forward

**WEARING SURFACE:** 1" Monolithic Concrete

**APPROACH SLABS:** AS-1-67 (25' long)

**ALIGNMENT:** Tangent (W) Westbound I-80)

**SUPERELEVATION:** 0.0156 Ft. per Ft.

**TRAFFIC DATA:** (1988)

Westbound I-80: 22,546 A.D.T., 3,021 D.D.H.V.

H.N.T.B. BR. NO. 33

HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
CONSULTING ENGINEERS  
KANSAS CITY CLEVELAND NEW YORK

**SITE PLAN**

**WESTBOUND I-80 OVER RICHMOND ROAD (SR 175)**

BR. NO. CUY-80-2599 STA. 1395+85.79 TO STA. 1397+38.45

CUYAHOGA COUNTY OHIO

DRAWN/CHECKED/DATE: 6-9-88

TRACED/DATE: 7-24-88

CHECKED/DATE: 8-11-70

REVIEWED/DATE: 8-11-70

DESIGNED BY: MOJ

CHECKED BY: DJC

REVIEWER: MOJ

PROJECT ID: 105260

SUBSET: 1/3

SHEET: 16/30

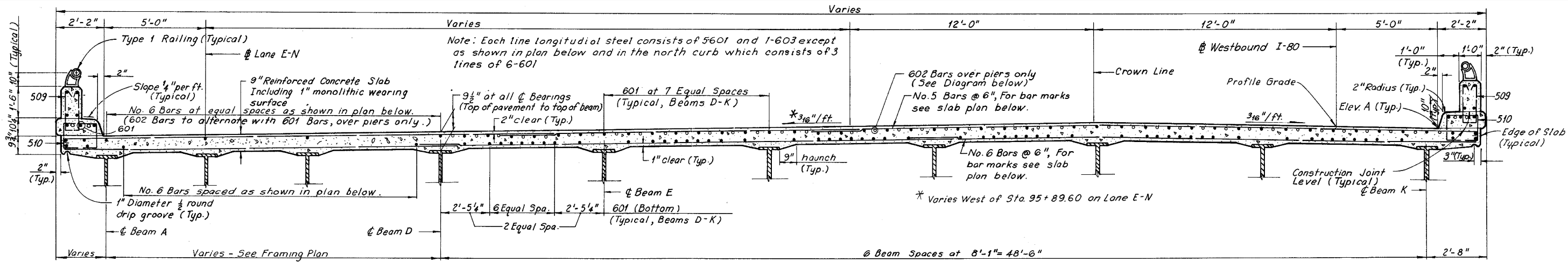
**LEGEND:**

□ APPROXIMATE LOCATION OF LIGHTING

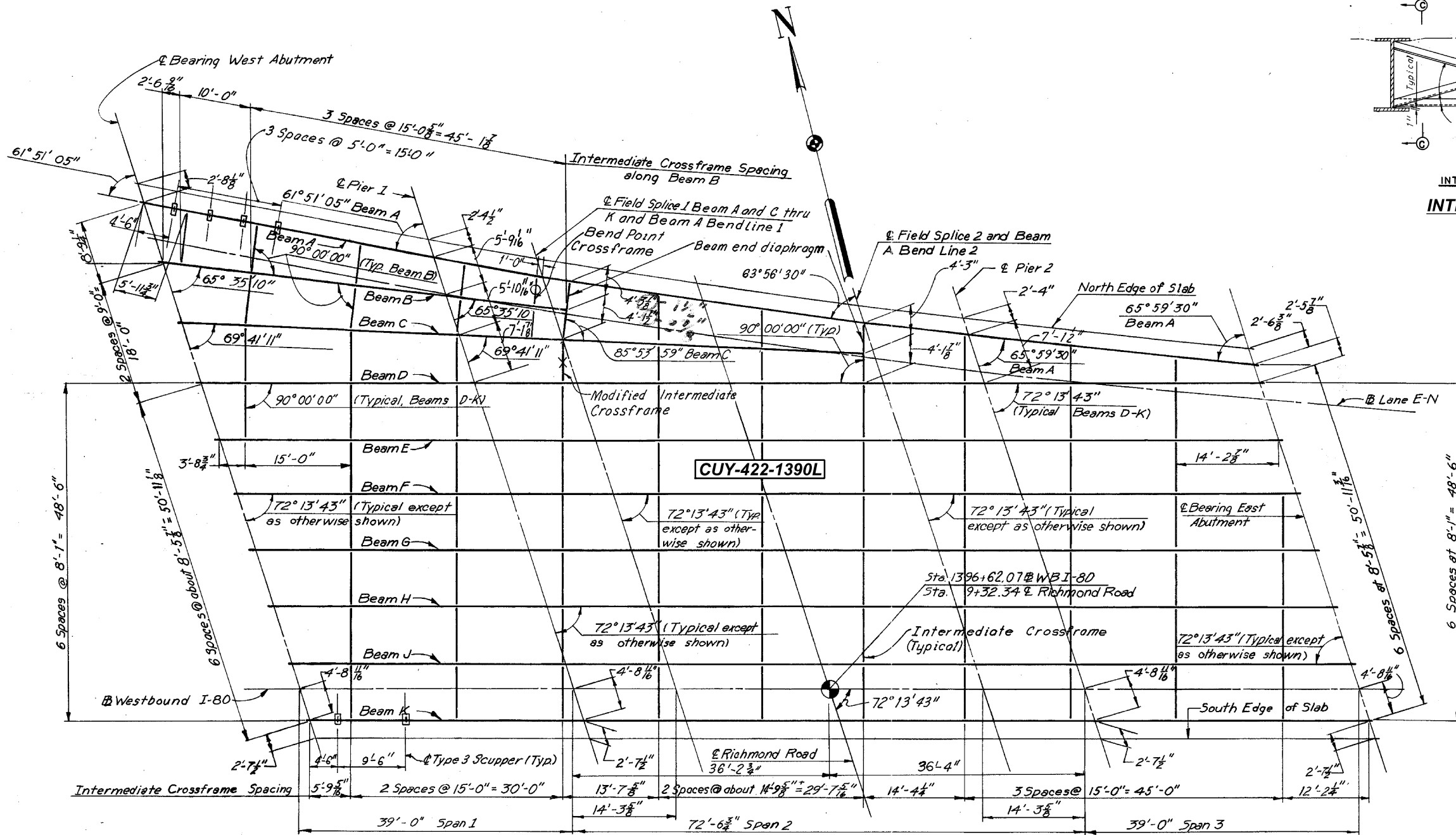
**NOTES:**

- DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHALL BE USED FOR INFORMATIONAL PURPOSES ONLY.
- PERFORM ONLY THE WORK DESCRIBED IN THE GENERAL NOTES AND GENERAL SUMMARY.
- ODOT D12 HAS POWER SERVICE LINES FOR LIGHTING EMBEDDED IN THE DECK AND ARE EXPOSED AT EACH LIGHT. LINES CAN BE DE-ENERGIZED DURING THE PAINTING OPERATIONS. ODOT REQUESTS 30 DAYS OF NOTICE FOR THIS WORK. CONTACT KEITH HAMILTON AT (216) 584-2220.
- CHARTER COMMUNICATIONS HAS AN AERIAL LINE BETWEEN THE BRIDGE AND GROUND THAT CAN BE MOVED/SHIFTED DURING PAINTING OPERATIONS. CHARTER COMMUNICATIONS REQUESTS 30 DAYS OF NOTICE FOR THIS WORK. CONTACT DAVID SOBOTKA AT (216) 854-0899.
- EVERSTREAM HAS AN AERIAL LINE BETWEEN THE BRIDGE AND GROUND THAT CAN BE MOVED/SHIFTED DURING PAINTING OPERATIONS. EVERSTREAM REQUESTS 30 DAYS OF NOTICE FOR THIS WORK. CONTACT STACEY DASHER AT (216) 408-9205.

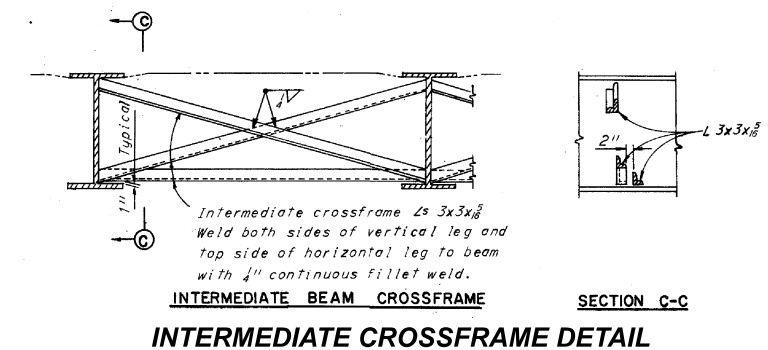




CUY-422-1390L  
**TRANSVERSE SECTION**



**FRAMING PLAN**



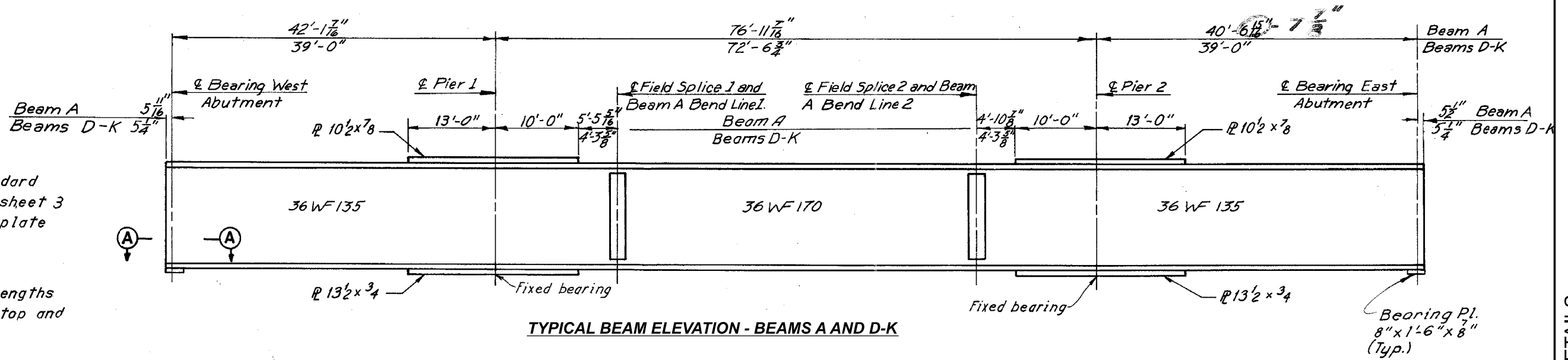
- NOTES:**
1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHALL BE USED FOR INFORMATIONAL PURPOSES ONLY.
  2. PERFORM ONLY THE WORK DESCRIBED IN THE GENERAL NOTES AND GENERAL SUMMARY.
  3. THE TRANSVERSE SECTION SHOWN DOES NOT ACCURATELY DEPICT CURRENT SITE CONDITIONS. THE RAILING HAS BEEN MODIFIED SINCE ORIGINAL CONSTRUCTION.
  4. FOR BEAM ELEVATIONS, SEE SHEET 3/3.

SUPERSTRUCTURE DETAILS  
 BRIDGE NO. CUY-422-1390L  
 U.S. 422 WB OVER S.R. 175 (RICHMOND ROAD)

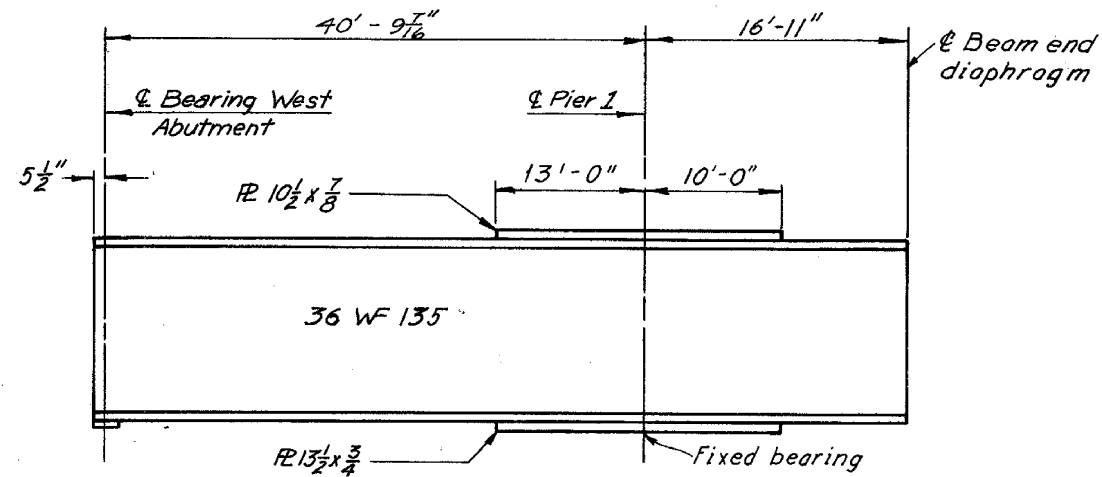
SFN	1814788
DESIGN AGENCY	
DESIGNER/CHECKER	MOJ / DJC
REVIEWER	DCN 11-19-21
PROJECT ID	105260
SUBSET	TOTAL
2	3
SHEET	TOTAL
17	30

Note:  
 See Ohio Standard Drawing SD-1-69, sheet 3 of 4 for moment plate welding details.

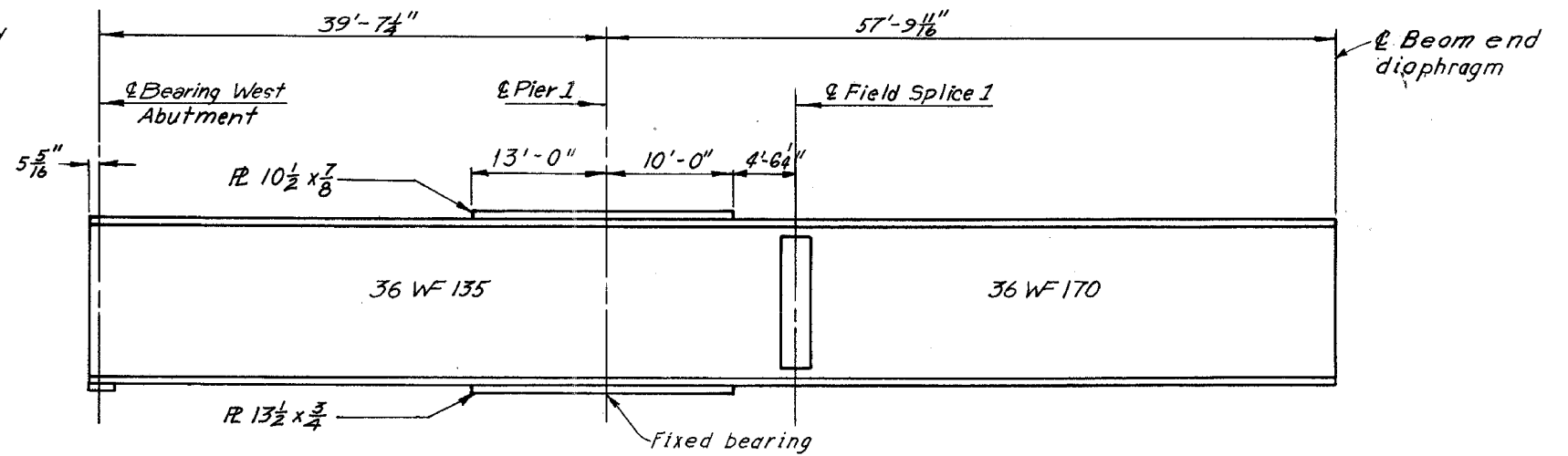
Note:  
 Cover plate lengths are typical for top and bottom.



TYPICAL BEAM ELEVATION - BEAMS A AND D-K



TYPICAL BEAM ELEVATION - BEAM B



TYPICAL BEAM ELEVATION - BEAM C

**NOTES:**

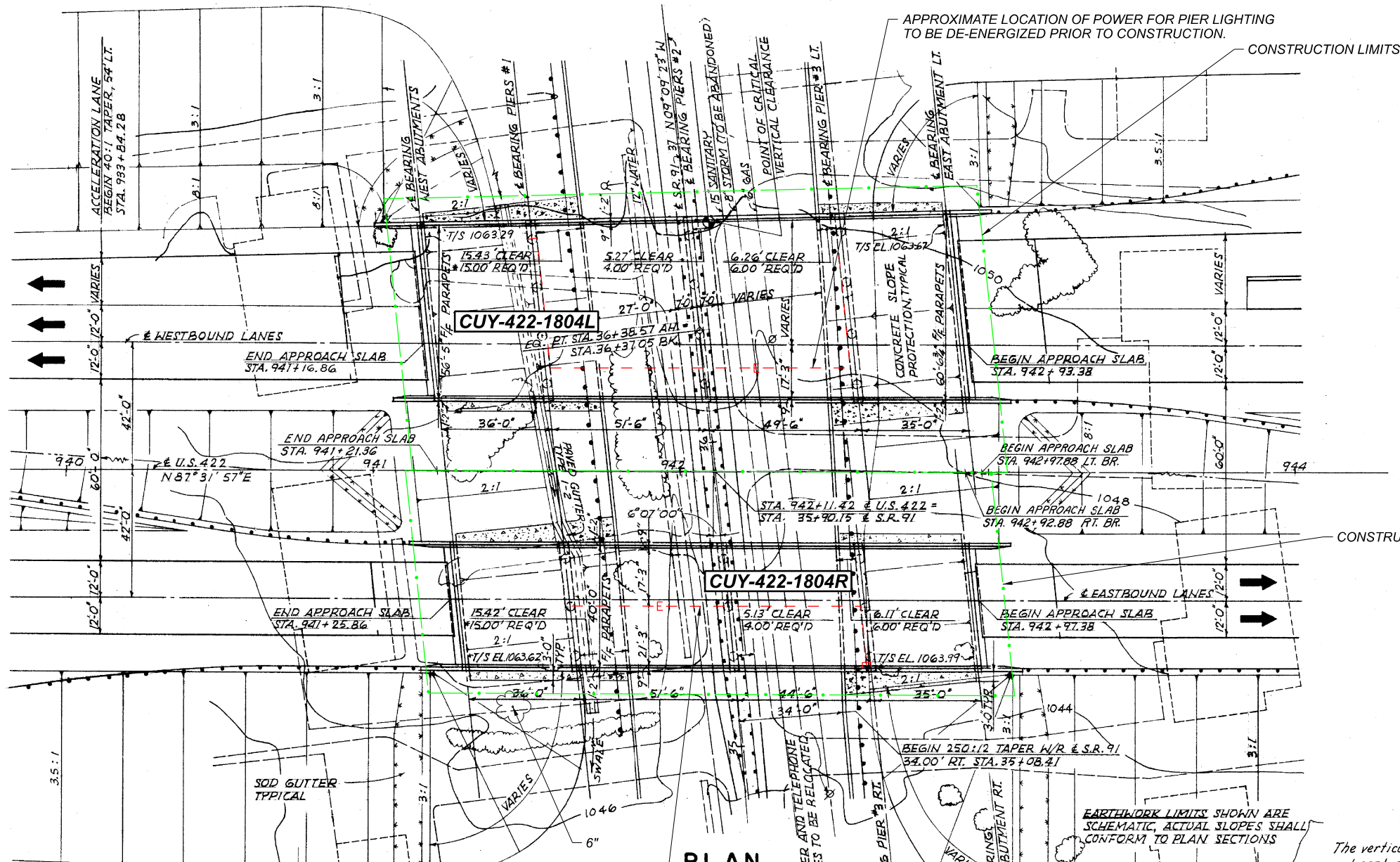
1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHALL BE USED FOR INFORMATIONAL PURPOSES ONLY.
2. PERFORM ONLY THE WORK DESCRIBED IN THE GENERAL NOTES AND GENERAL SUMMARY.

SFN	1814788
DESIGN AGENCY	
DESIGNER	CHECKER
MOJ	DJC
REVIEWER	
DGN 11-19-21	
PROJECT ID	
105260	
SUBSET	TOTAL
3	3
SHEET	
TOTAL	
18	30

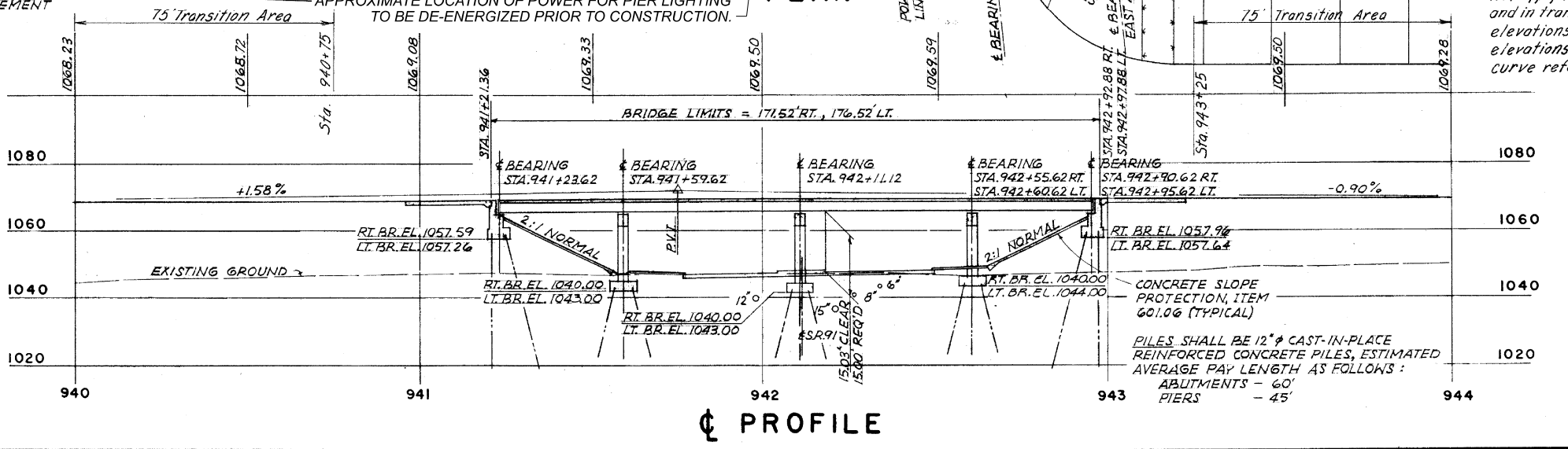
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	U-45B(9)

141  
258

CUYAHOGA COUNTY  
 CUY. - 422 - 16.33



PLAN



PROFILE

LEGEND:

TREE (>6") TO REMAIN

NOTES:

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2. PERFORM ONLY THE WORK DESCRIBED IN THE GENERAL NOTES AND GENERAL SUMMARY.
3. ODOT D12 HAS POWER SERVICE LINES FOR LIGHTING ON THE PIERS AND SUPERSTRUCTURE. LINES CAN BE DE-ENERGIZED DURING THE PAINTING OPERATIONS. ODOT REQUESTS 30 DAYS OF NOTICE FOR THIS WORK. CONTACT KEITH HAMILTON AT (216) 584-2220.

**CURVE DATA**  
 & SURVEY S.R. 91  
 P.I. STA. 33+16.16  
 Δ = 9°38'58"  
 D = 1°30'00"  
 R = 3819.72'  
 T = 322.41'  
 L = 643.30'  
 E = 13.58'

**VERTICAL CURVE DATA**  
 U.S. 422  
 R.V.I. STA. 941+75  
 EL. = 1071.78  
 COR. = 2.48'  
 P.G. = 1069.30  
 V.C. = 800'  
 G<sub>1</sub> = +1.58%  
 G<sub>2</sub> = -0.90%

DESIGN TRAFFIC
1975 A.D.T.
12,850 (W.B.)
4,650 (E.B.)

PROPOSED STRUCTURE

**TYPE:** CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE

**SPANS:** 36'-0" - 51'-6" - 49'-6" - 35'-0" BRGS. LT. BR.  
 36'-0" - 51'-6" - 44'-6" - 35'-0" BRGS. RT. BR.

**ROADWAY:** LEFT - VARIES 56'-5" TO 60'-6"  
 7/8" PARAPETS  
 RIGHT - 40'-0" 7/8" PARAPETS

**LOADING:** HS 20-44

**SKEW:** 6°07'00" RIGHT FORWARD

**SURFACE COURSE:** 1 1/2" ASPHALT CONCRETE

**ALIGNMENT:** TANGENT

**APPROACH SLABS:** LT. BR. - SEE SHEET NO. 134  
 RT. BR. - AS-1-67 (25' LONG)

ADACHE ASSOCIATES INC., ENGINEERS	1814923
CLEVELAND, OHIO 44142	
DESIGN AGENCY	1814931

**SITE PLAN**  
 BRIDGE NO. CUY-422-1800 L/R  
 U.S. 422 OVER S.R. 91  
 LEFT STA. 941+16.86 TO STA. 942+93.38  
 CUYAHOGA COUNTY RIGHT STA. 941+25.86 TO STA. 942+97.38  
 CUY. - 422 - 16.33

DESIGNED	DRAWN	CHECKED	REVIEWED	DATE
L.P.A.	L.P.A.		A.C.	

SITE PLAN  
 BRIDGE NO. CUY-422-1804/L/R  
 U.S. 422 OVER S.R. 91 (SOM CENTER ROAD)

DESIGNER CHECKER  
 MOJ DJC

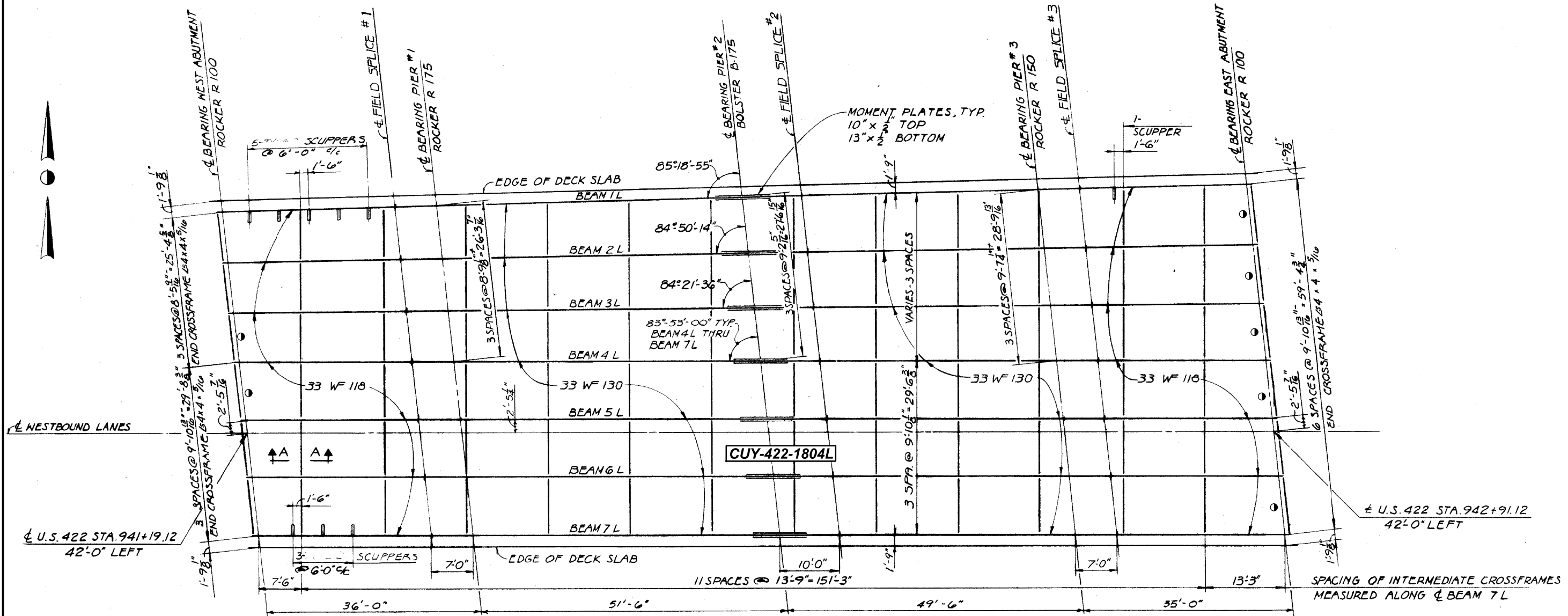
REVIEWER  
 DGN 11-19-21

PROJECT ID  
 105260

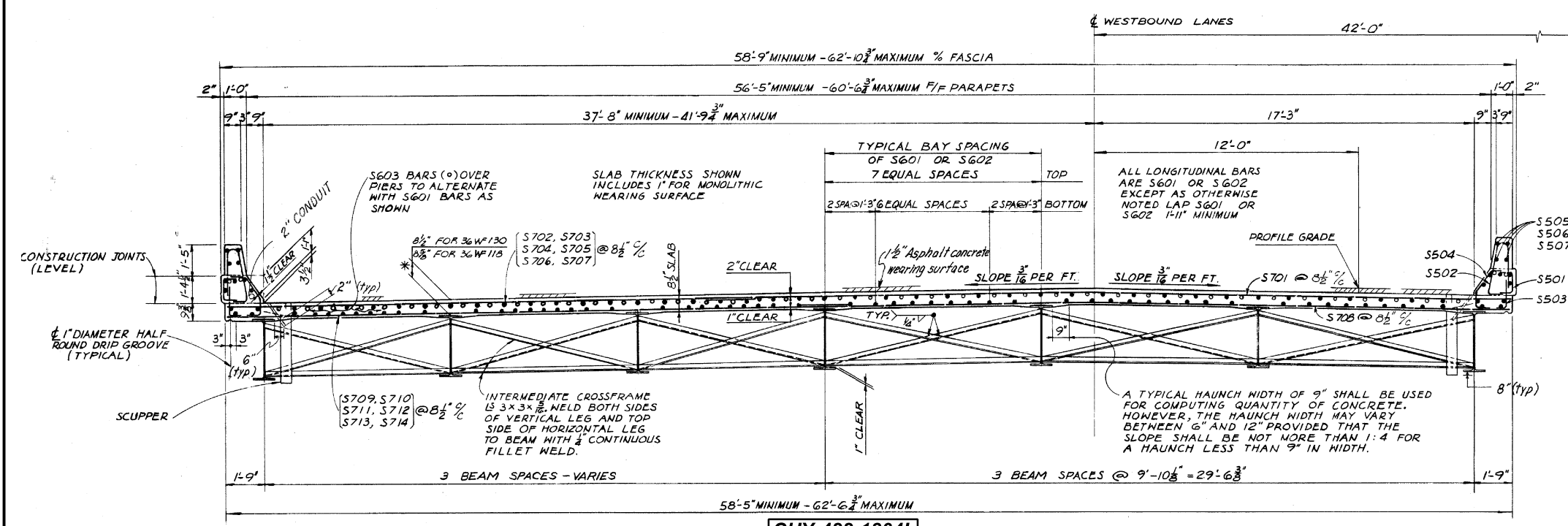
SUBSET TOTAL  
 1 4

SHEET TOTAL  
 19 30





FRAMING PLAN



CUY-422-1804L  
 TRANSVERSE SECTION

\*NOTE

LEGEND:

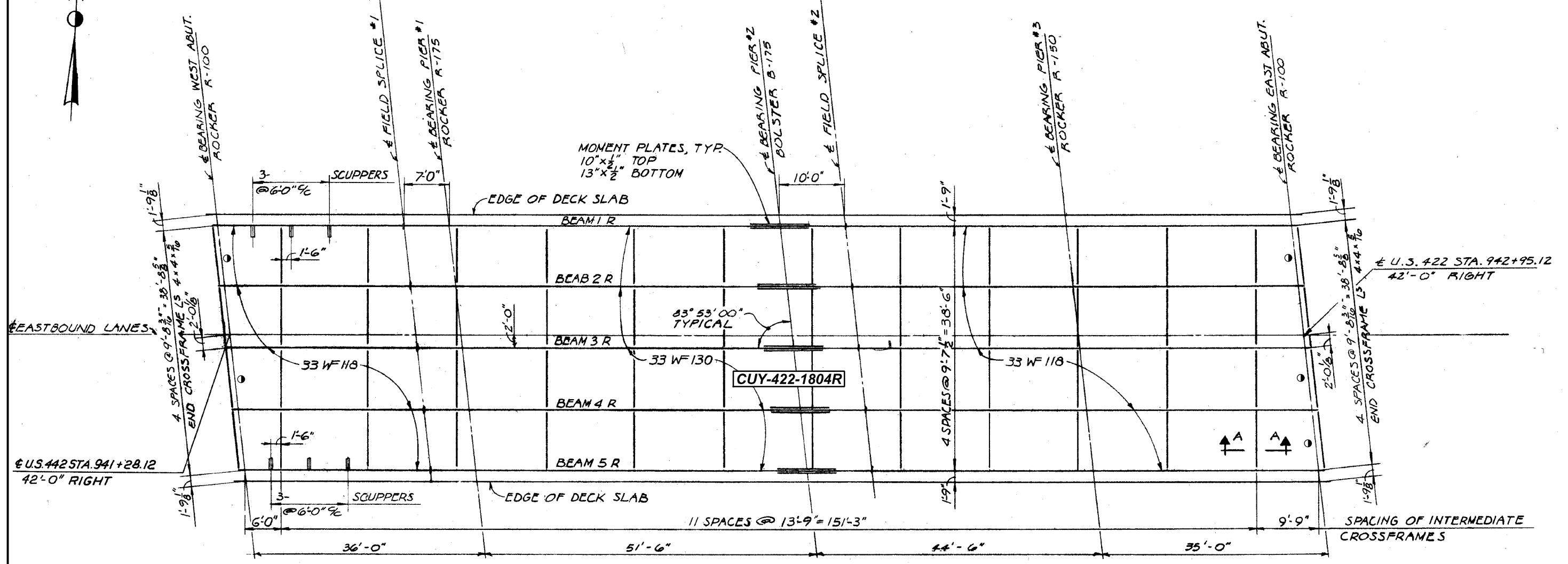
- 1. DETERIORATED END CROSSFRAME TO BE REPLACED UNDER ITEM 513 - REPLACEMENT OF DETERIORATED END CROSSFRAMES, AS PER PLAN FOR DETAILS, SEE SHEET 13/30.

NOTES:

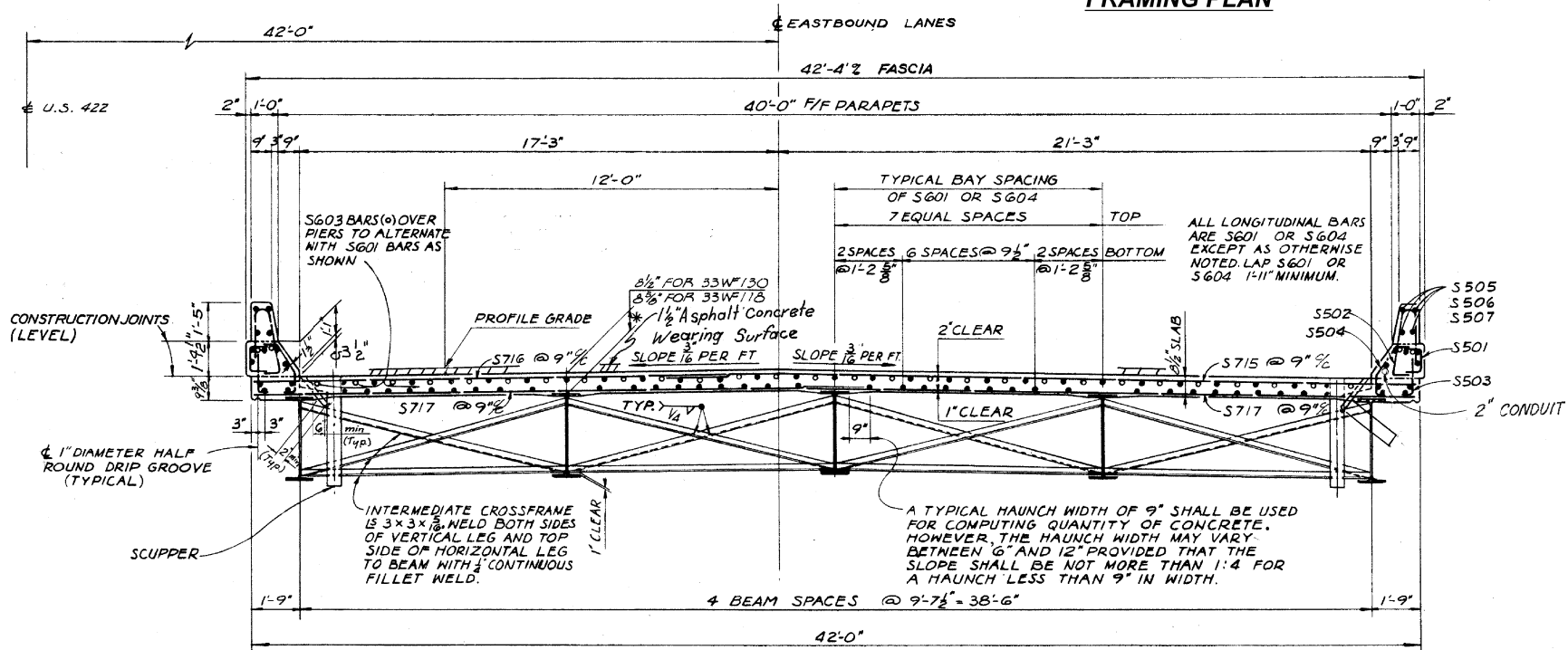
- 1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHALL BE USED FOR INFORMATIONAL PURPOSES ONLY.
- 2. PERFORM ONLY THE WORK DESCRIBED IN THE GENERAL NOTES AND GENERAL SUMMARY.
- 3. FOR BEAM DIMENSIONS, SEE SHEET 4/4.
- 4. AN ESTIMATED QUANTITY OF 2,327 POUNDS HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THE END CROSSFRAME REPLACEMENT WORK.

SUPERSTRUCTURE DETAILS  
 BRIDGE NO. CUY-422-1804L/R  
 U.S. 422 OVER S.R. 91 (SOM CENTER ROAD)

SFN	1814923
SFN	1814931
DESIGN AGENCY	
DESIGNER/CHECKER	MOJ DJC
REVIEWER	DGN 11-19-21
PROJECT ID	105260
SUBSET	2 4
SHEET	20 30



**FRAMING PLAN**



**CUY-422-1804R**  
**TRANSVERSE SECTION**

**LEGEND:**

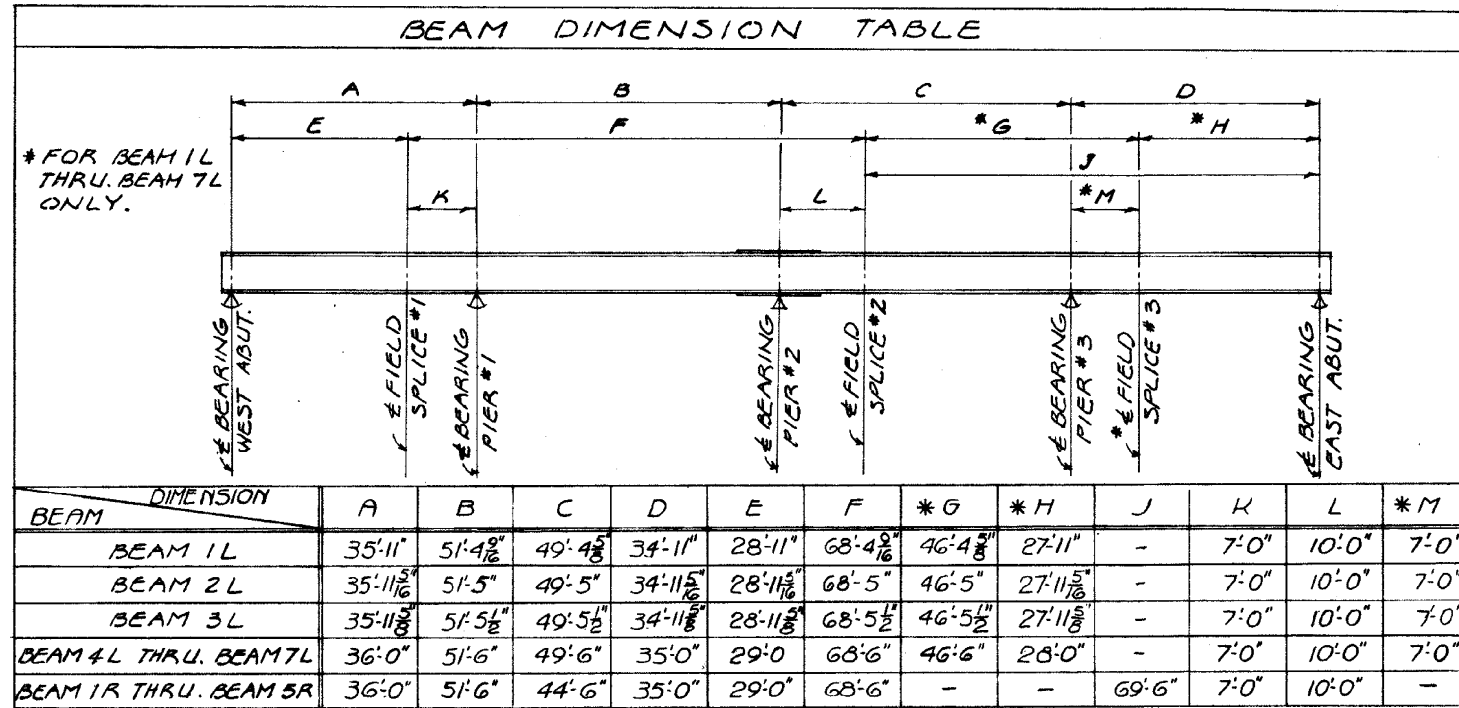
- ① DETERIORATED END CROSSFRAME TO BE REPLACED UNDER ITEM 513 - REPLACEMENT OF DETERIORATED END CROSSFRAMES, AS PER PLAN FOR DETAILS, SEE SHEET 13/30.

**NOTES:**

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHALL BE USED FOR INFORMATIONAL PURPOSES ONLY.
2. PERFORM ONLY THE WORK DESCRIBED IN THE GENERAL NOTES AND GENERAL SUMMARY.
3. FOR BEAM DIMENSIONS, SEE SHEET 4/4.
4. AN ESTIMATED QUANTITY OF 1,661 POUNDS HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THE END CROSSFRAME REPLACEMENT WORK.

**SUPERSTRUCTURE DETAILS**  
**BRIDGE NO. CUY-422-1804L/R**  
**U.S. 422 OVER S.R. 91 (SOM CENTER ROAD)**

SFN	1814923
SFN	1814931
DESIGN AGENCY	
DESIGNER/CHECKER	MOJ / DJC
REVIEWER	DGN
PROJECT ID	105260
SUBSET	3 / 4
SHEET	21 / 30



**NOTES:**

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2. PERFORM ONLY THE WORK DESCRIBED IN THE GENERAL NOTES AND GENERAL SUMMARY.

SFN 1814923

SFN 1814931

DESIGN AGENCY



DESIGNER CHECKER  
 MOJ DJC

REVIEWER  
 DGN 11-19-21

PROJECT ID  
 105260

SUBSET	TOTAL
4	4

SHEET	TOTAL
22	30

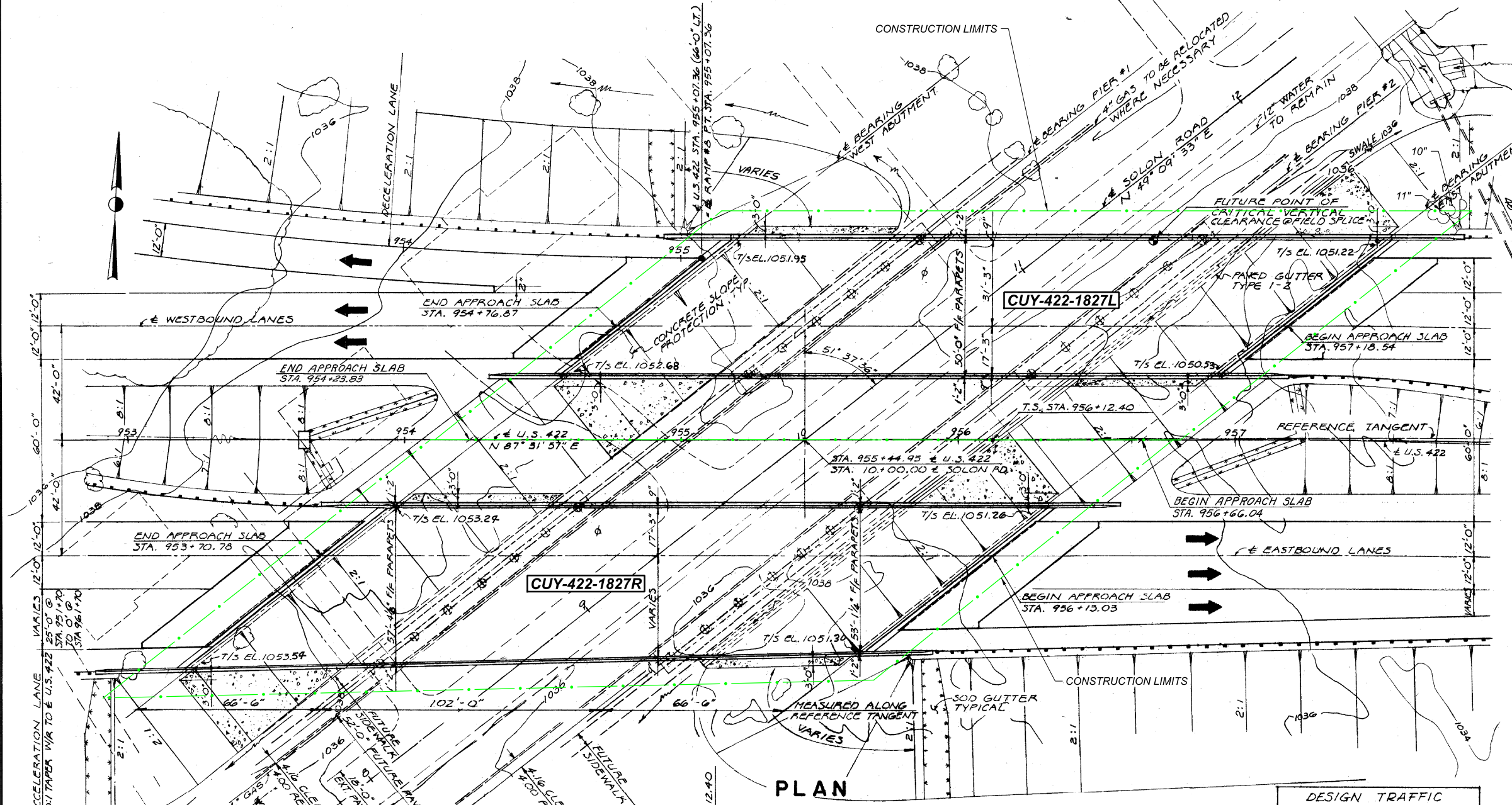
FED. DIVISION	STATE	PROJECT
2	OHIO	U-468(9)

159  
258

CUYAHOGA COUNTY  
 CUY-422-16.33

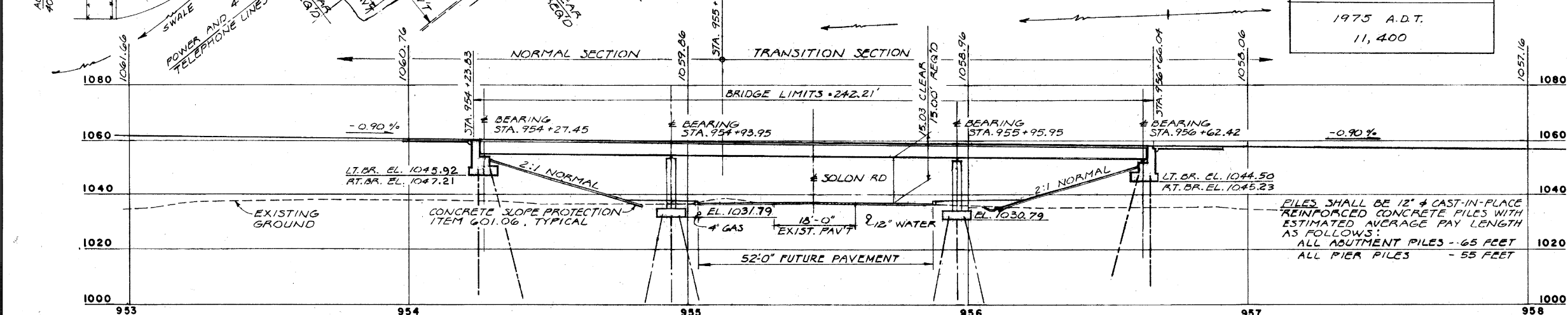
SPIRAL CURVE DATA & SURVEY U.S.R. 422

$R_1 = \text{STA. } 968+77.38$      $L_c = 1825.76'$   
 $\Delta = 42^\circ 30' 55''$  RT     $L_s = 300'$   
 $\Delta_c = 36^\circ 30' 55''$      $T_s = 1264.78'$   
 $D_c = 2^\circ 00' 00''$      $E_s = 210.56$   
 $R_c = 2864.79'$



PLAN

DESIGN TRAFFIC  
 1975 A.D.T.  
 11,400



PROFILE

**PROPOSED STRUCTURE**

**TYPE:** CONTINUOUS STEEL GIRDER WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE

**SPANS:** 66'-6" ~ 102'-0" ~ 66'-6" % BEARINGS ALONG REFERENCE TANGENT.  
**ROADWAY:** LT.BR. - 50'-0" % PARAPETS. RT.BR. - VARIES 53'-1/2" TO 57'-4 1/2" % PARAPETS.

**LOADING:** HS 20-44

**SKEW:** 51° 37' 36" LEFT FORWARD W/A TO REFERENCE TANGENT.

**SURFACE COURSE:** 2" Asphalt Concrete

**ALIGNMENT:** LT.BR. - TRANSITION CURVE RT. RT.BR. - TANGENT W/A TO REFERENCE TANGENT

**APPROACH SLABS:** SEE SHEET NO. 137 & 140

**SUPERELEVATION:** VARIES 1/17

ADACHE ASSOCIATES INC., ENGINEERS  
 CLEVELAND, OHIO 44142

**SITE PLAN**

BRIDGE NO. CUY-422-1825L/R  
 U.S. 422 OVER SOLON RD.

CUYAHOGA COUNTY STA. 954+23.83 TO CUY-422-16.33 STA. 956+66.04

DESIGNED	DRAWN	CHECKED	REVIEWED	DATE
JKK	JKK	L.R.A.	B.C.	MAY 4 1973

SFN 1814958

SFN 1814966

DESIGN AGENCY



DESIGNER CHECKER

MOJ DJC

REVIEWER

DGN 11-19-21

PROJECT ID 105260

SUBSET TOTAL 1 4

SHEET TOTAL 23 30

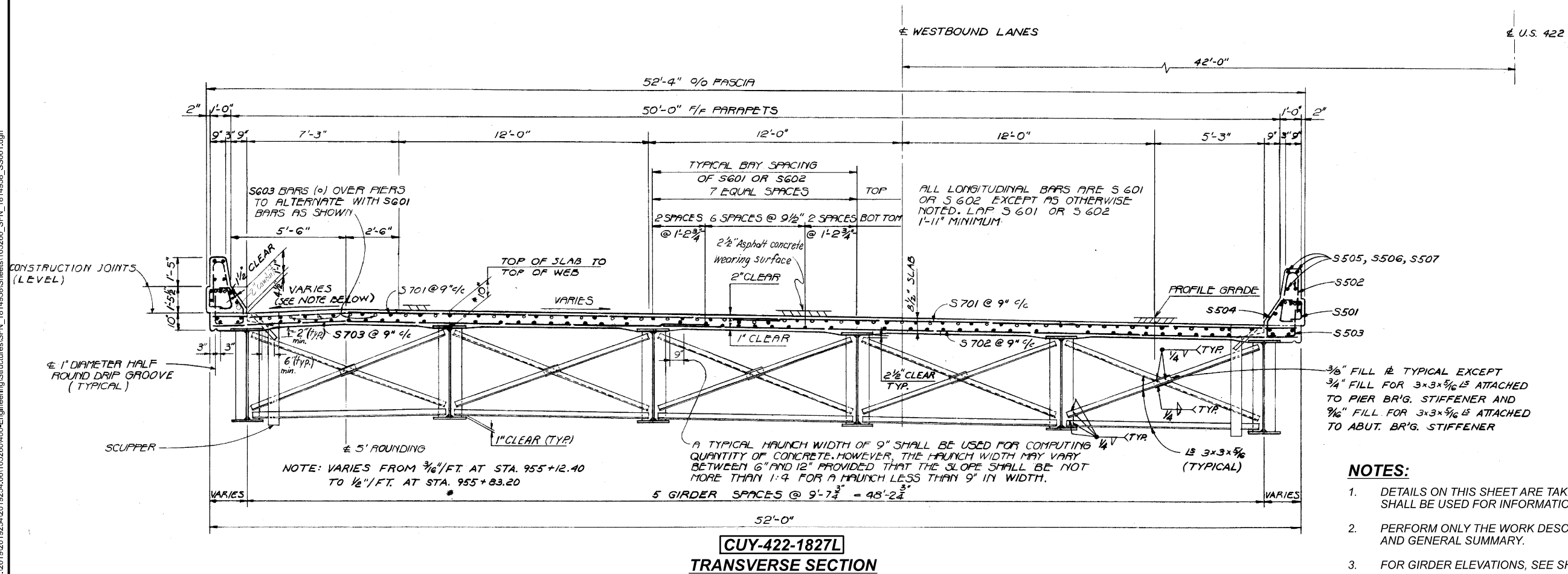
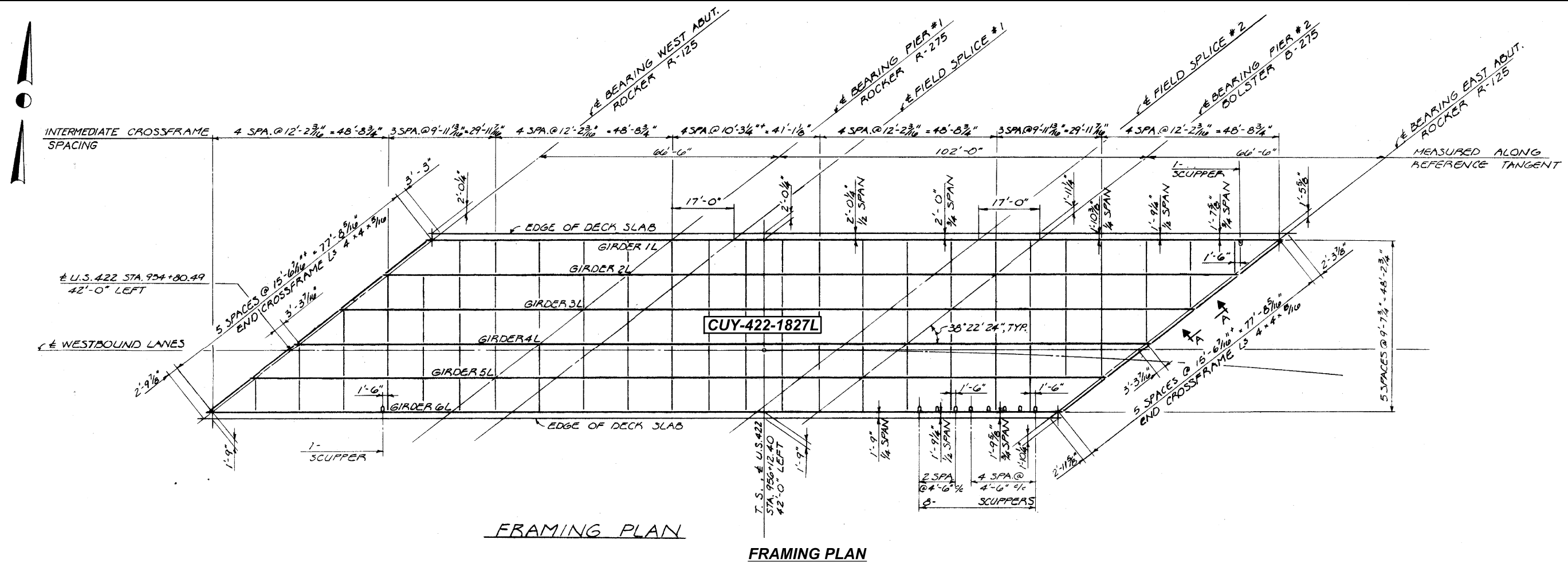
**LEGEND:**

TREE (>6") TO REMAIN

**NOTES:**

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2. PERFORM ONLY THE WORK DESCRIBED IN THE GENERAL NOTES AND GENERAL SUMMARY.

SITE PLAN  
 BRIDGE NO. CUY-422-1827L/R  
 U.S. 422 OVER C.R. 51 (SOLON ROAD)

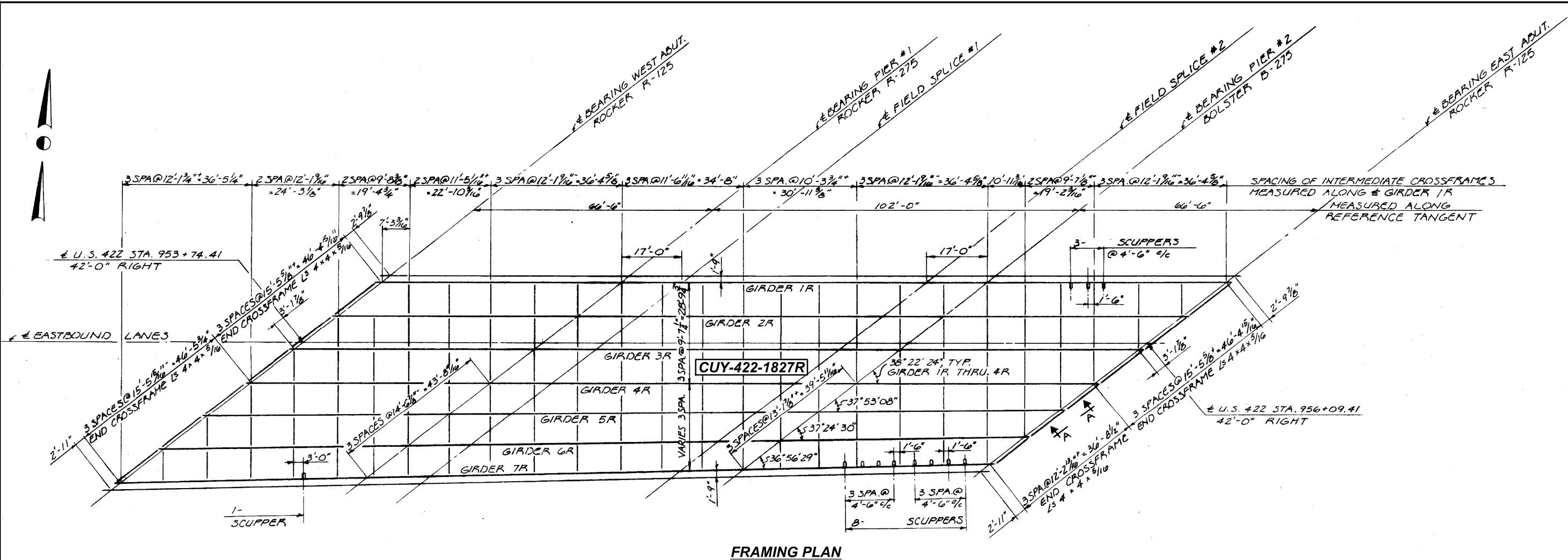


SFN	1814958
SFN	1814966
DESIGN AGENCY	
DESIGNER/CHECKER	MOJ DJC
REVIEWER	DGN 11-19-21
PROJECT ID	105260
SUBSET	TOTAL
2	4
SHEET	TOTAL
24	30

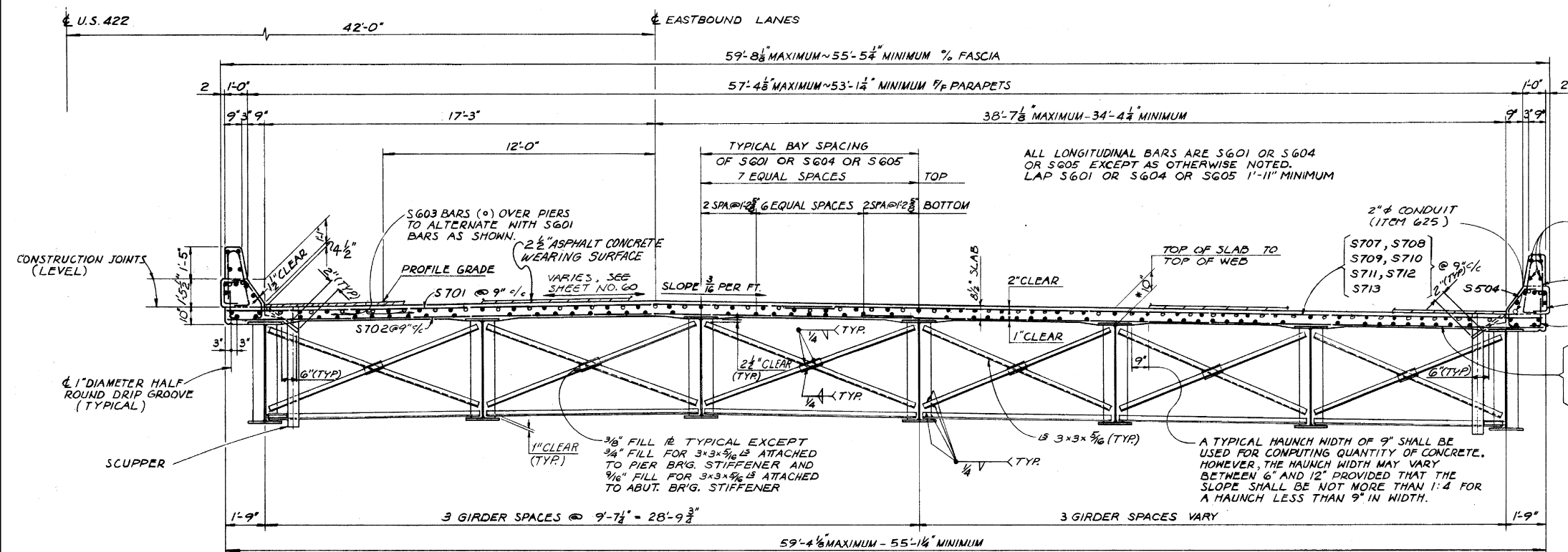


CUY-422-13.90/VAR PAINT

MODEL: SS002 PAPER: 17x11 (in.) DATE: 11/18/2021 TIME: 1:18:24 PM USER: mjurcak  
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FRAMING PLAN



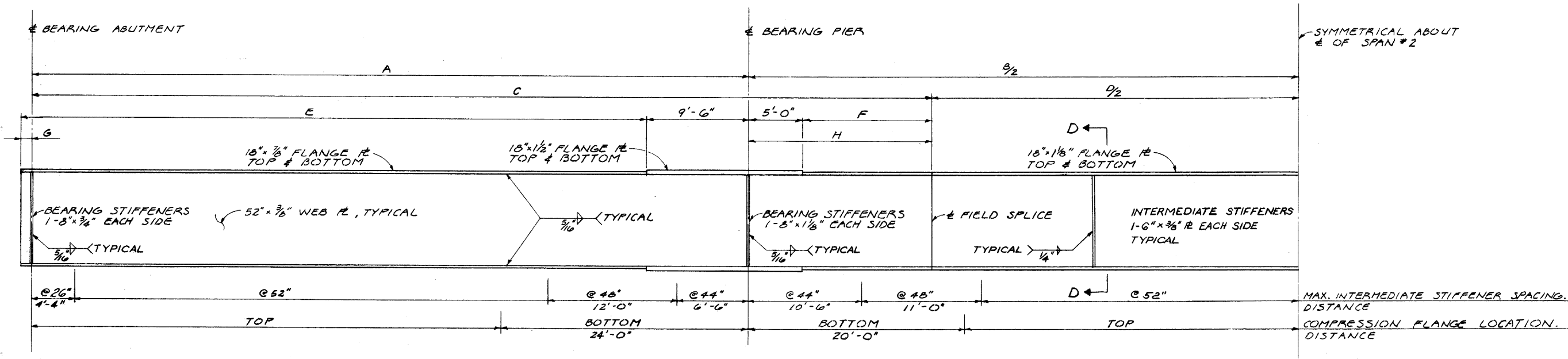
CUY-422-1827R  
TRANSVERSE SECTION

NOTES:

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHALL BE USED FOR INFORMATIONAL PURPOSES ONLY.
2. PERFORM ONLY THE WORK DESCRIBED IN THE GENERAL NOTES AND GENERAL SUMMARY.
3. FOR GIRDER ELEVATIONS, SEE SHEET 4/4.

SUPERSTRUCTURE DETAILS  
 BRIDGE NO. CUY-422-1827L/R  
 U.S. 422 OVER C.R. 51 (SOLON ROAD)

SFN	1814958
SFN	1814966
DESIGN AGENCY	
DESIGNER/CHECKER	MOJ DJC
REVIEWER	DGN 11-19-21
PROJECT ID	105260
SUBSET	TOTAL
3	4
SHEET	TOTAL
25	30



GIRDER ELEVATION

GIRDER DIMENSION TABLE								
DIMENSION	A	B	C	D	E	F	G	H
GIRDER								
GIRDERS 1L THRU 6L	66'-6"	102'-0"	83'-6"	68'-0"	58'-2 1/2"	12'-0"	1'-2 1/2"	17'-0"
GIRDERS 1R THRU 4R								
GIRDER 5R	67'-2 1/10"	103'-1 3/8"	84'-4 5/10"	68'-8 7/8"	58'-11 3/10"	12'-2 1/4"	1'-2 5/8"	17'-2 1/4"
GIRDER 6R	67'-11 7/10"	104'-2 3/4"	85'-3 7/8"	69'-5 7/8"	59'-8 1/4"	12'-4 7/10"	1'-2 13/10"	17'-4 7/10"
GIRDER 7R	68'-8 1/4"	105'-4 1/4"	86'-0 15/16"	70'-2 7/8"	60'-5 1/4"	12'-6 1/10"	1'-3"	17'-6 1/10"

NOTES:

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SUPERSTRUCTURE DETAILS  
 BRIDGE NO. CUY-422-1827/L/R  
 U.S. 422 OVER C.R. 51 (SOLON ROAD)

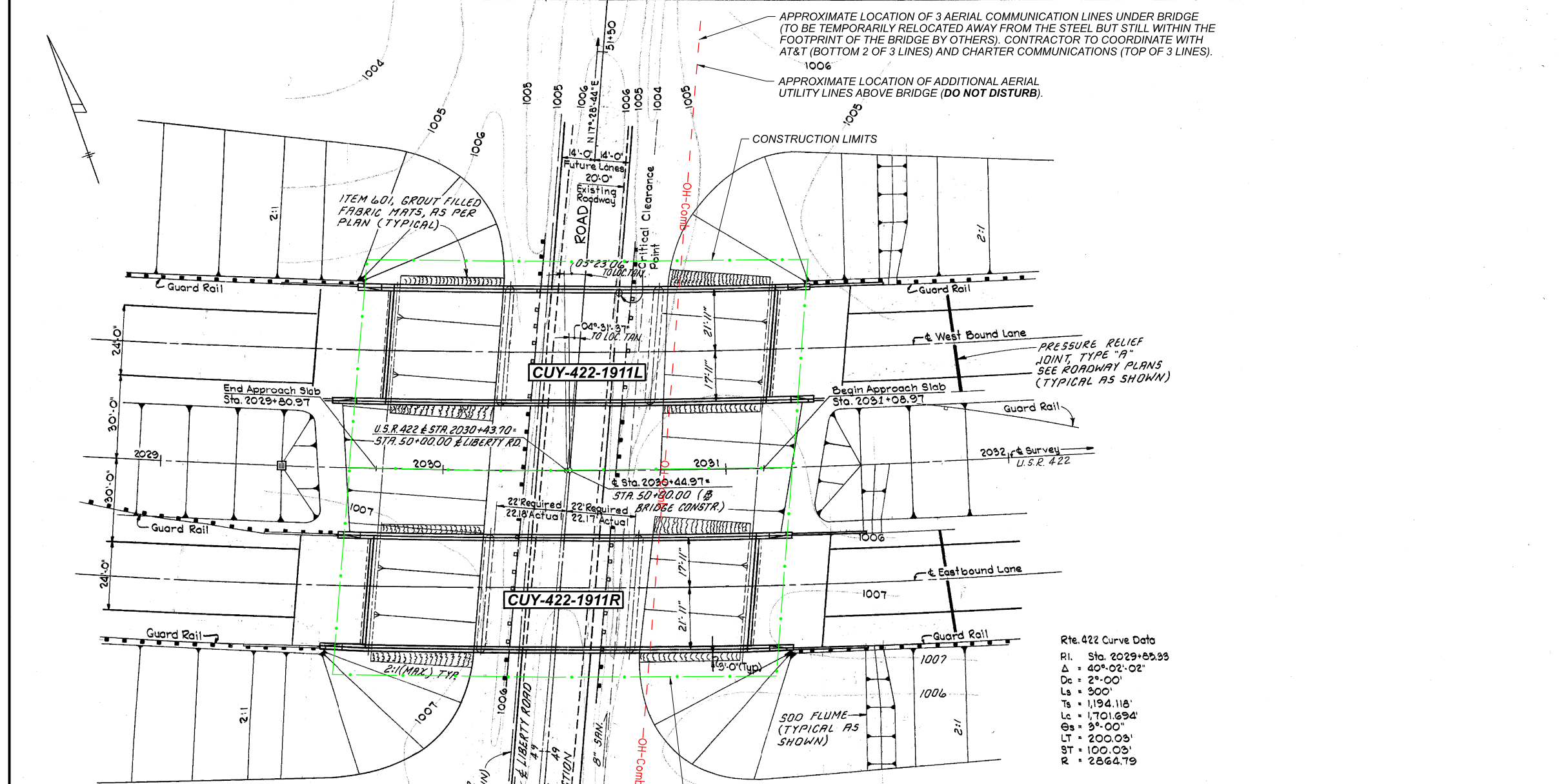
SFN	1814958
SFN	1814966
DESIGN AGENCY	
DESIGNER	MOJ
CHECKER	DJC
REVIEWER	
DGN	11-19-21
PROJECT ID	105260
SUBSET	TOTAL
4	4
SHEET	TOTAL
26	30



FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-U 46B (10)	

227  
321

CUY-422-18.40 GEA-422-000



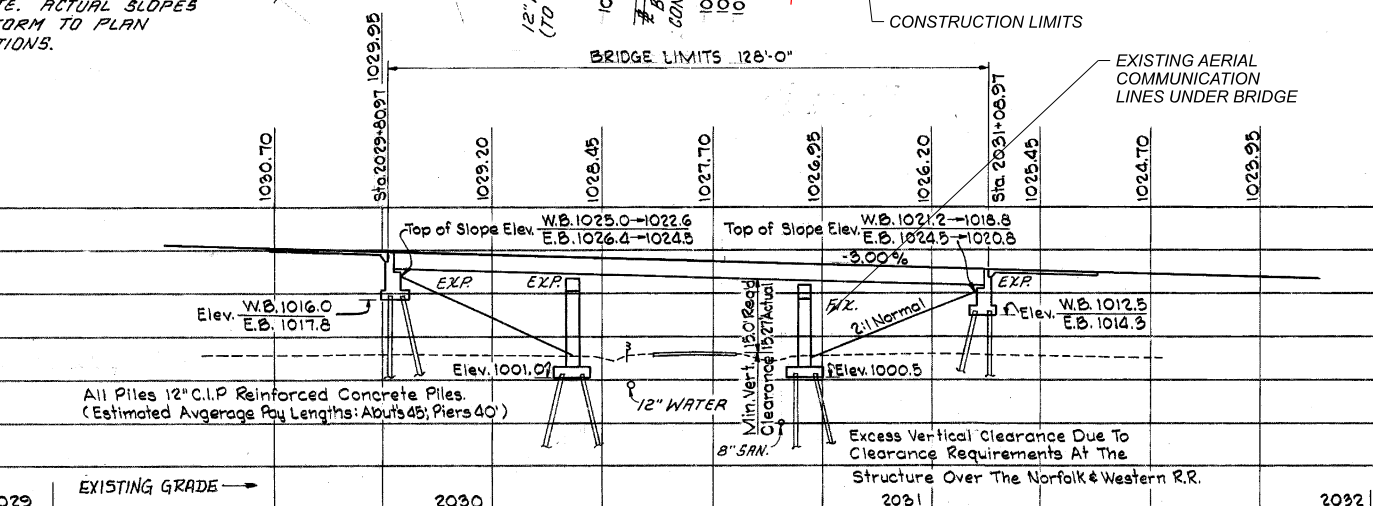
ORIGINAL JOSEPH K. KNOERLE PLANS  
 REVISED BY ROACHE-CIUNI-LYNN  
 ASSOCIATES TO REFLECT CURRENT  
 SPECIFICATIONS AND REQUIREMENTS.  
 JAN. 1986

DESIGN TRAFFIC	
A.D.T. (2007)	32,750
A.D.T. (2007)	1,310

Rte. 422 Curve Data

R1	Sta. 2029+85.33
Δ	40°-02'-02"
Dc	2°-00'
Ls	300'
Ts	1194.118'
Lc	1701.694'
Es	9°-00'
LT	200.03'
ST	100.03'
R	2864.79'

NOTE: EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.



PROFILE ON PROPOSED CENTER LINE

**PROPOSED STRUCTURE**  
 TYPE: Continuous Steel Beam With Reinforced Concrete Deck And Substructure.  
 SPANS: 38'-0", 41'-6", 38'-0" 9% Brgs.  
 ROADWAY: 2 @ 37'-10" 1/2 Parapets, 41'-8" OUT/OUT SLAB  
 LOADING: HS20-44 (CASE II) AND THE ALTERNATE MILITARY LOADING  
 SKEW: 04°-31'-37" L.F. (TO LOCAL TANGENT)  
 WEARING SURFACE: Monolithic Concrete  
 APPROACH SLABS: A5-1-81 (25' LONG)  
 ALIGNMENT: 2°-00' Curve Left  
 SUPERELEVATION: 0.064 1/1  
 SLOPE PROTECTION: GROUT FILLED FABRIC MATS

JOSEPH K. KNOERLE  
 CONSULTING ENGINEER  
 CLEVELAND, OHIO

**SITE PLAN**  
 BRIDGE NO. CUY 422-1907 L&R  
 OVER LIBERTY ROAD  
 CUYAHOGA CO. US. ROUTE 422

SEC. CUY-422-18.40 STA. 2029+80.97  
 SCALE 1" = 20' 2031+08.97

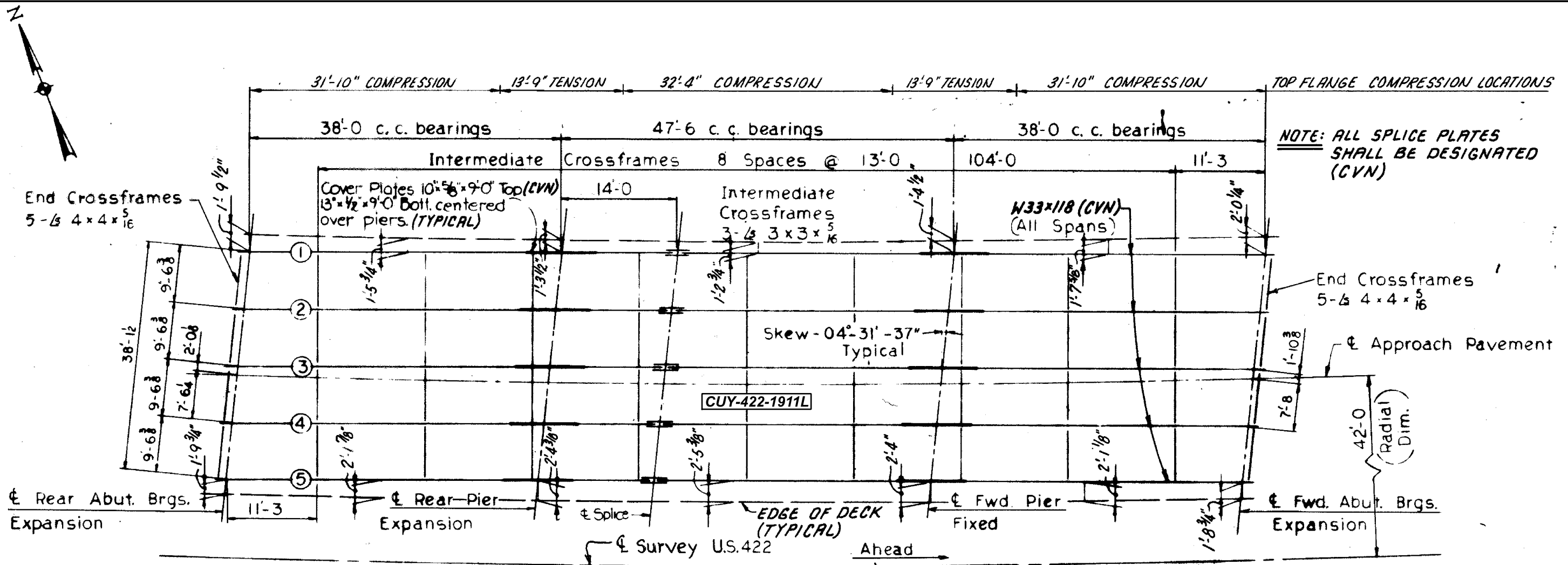
PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
R.N.	T.L.J.	RES.	J.H.	C.H.I.	C.S.M. 4-28-67

**NOTES:**

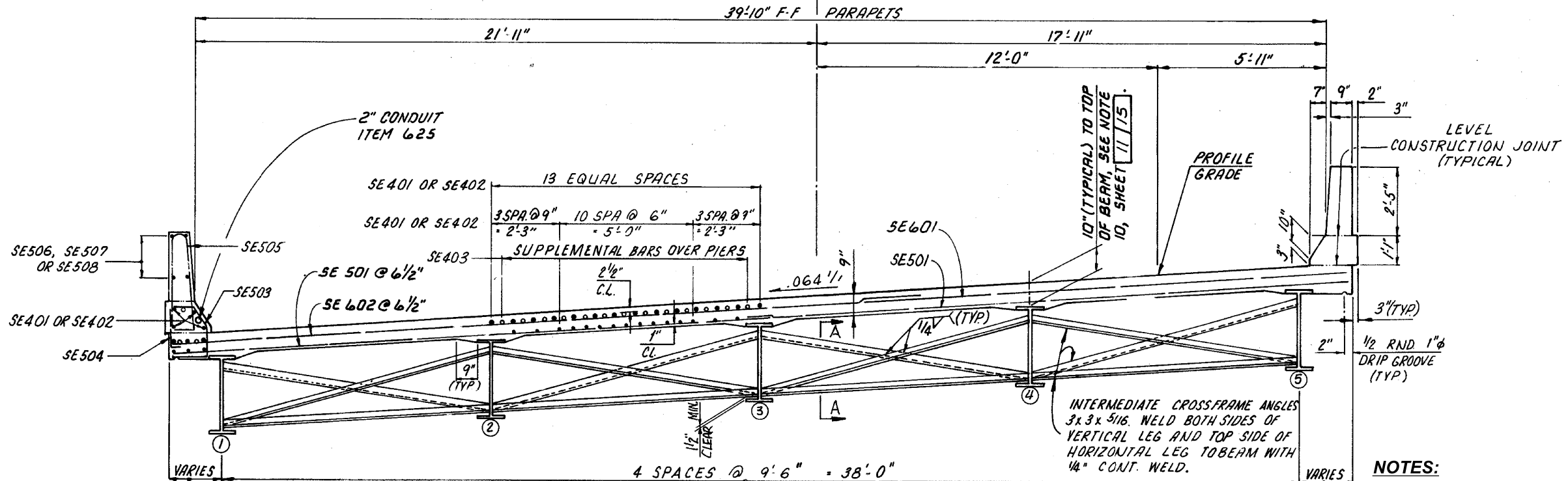
- DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHALL BE USED FOR INFORMATIONAL PURPOSES ONLY.
- PERFORM ONLY THE WORK DESCRIBED IN THE GENERAL NOTES AND GENERAL SUMMARY.
- CHARTER COMMUNICATIONS HAS AN AERIAL LINE BETWEEN THE BRIDGE AND GROUND THAT CAN BE MOVED/SHIFTED DURING PAINTING OPERATIONS. CHARTER COMMUNICATIONS REQUESTS 30 DAYS OF NOTICE FOR THIS WORK. CONTACT DAVID SOBOTKA AT (216) 854-0899.
- AT&T HAS TWO AERIAL LINES BETWEEN THE BRIDGE AND GROUND THAT CAN BE MOVED/SHIFTED DURING PAINTING OPERATIONS. AT&T REQUESTS 30 DAYS OF NOTICE FOR THIS WORK. CONTACT JAMES JANIS AT (216) 476-6142.

SITE PLAN  
 BRIDGE NO. CUY-422-1911L/R  
 U.S. 422 OVER C.R. 148 (LIBERTY ROAD)

SFN	1815172
SFN	1815180
DESIGN AGENCY	
<b>GPD GROUP</b>	
DESIGNER	CHECKER
MOJ	DJC
REVIEWER	
DGN	11-19-21
PROJECT ID	105260
SUBSET	TOTAL
1	3
SHEET	TOTAL
27	30



FRAMING PLAN

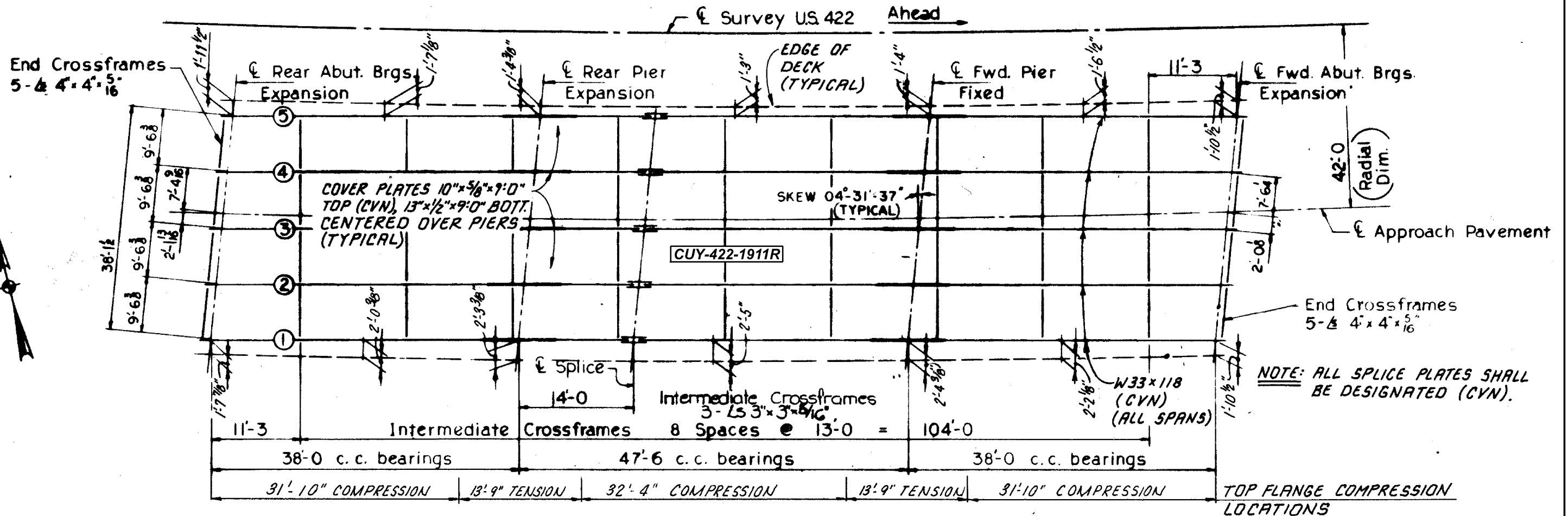


CUY-422-1911L  
 TRANSVERSE SECTION

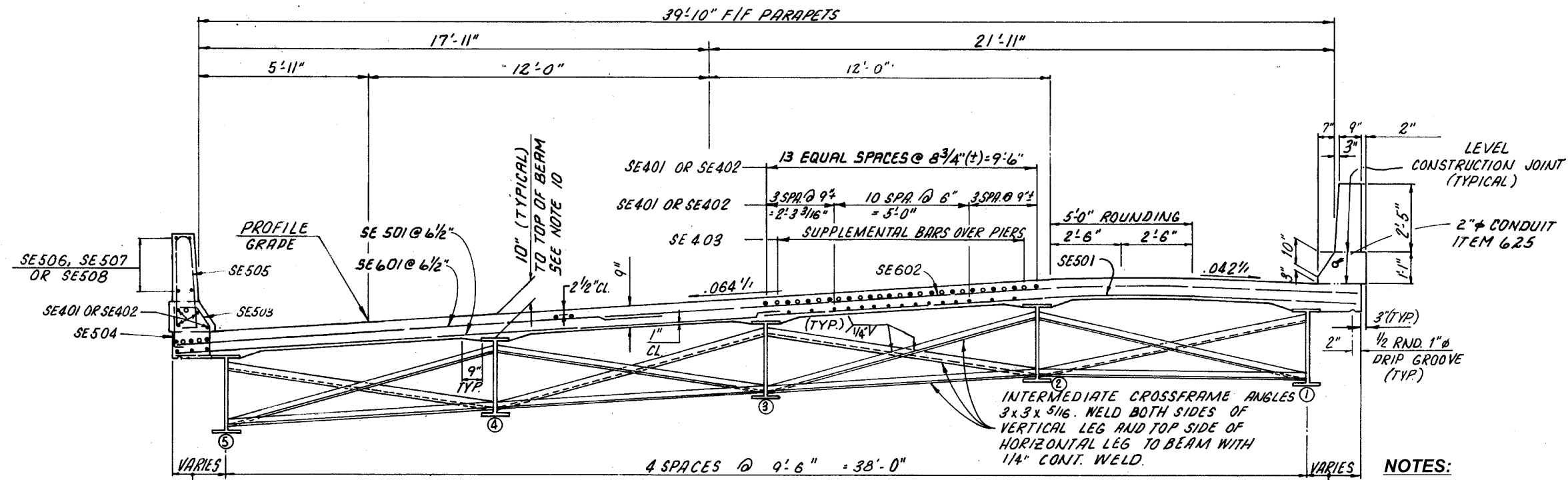
- NOTES:**
- DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHALL BE USED FOR INFORMATIONAL PURPOSES ONLY.
  - PERFORM ONLY THE WORK DESCRIBED IN THE GENERAL NOTES AND GENERAL SUMMARY.

SUPERSTRUCTURE DETAILS  
 BRIDGE NO. CUY-422-1911L/R  
 U.S. 422 OVER C.R. 148 (LIBERTY ROAD)

SFN	1815172
SFN	1815180
DESIGN AGENCY	
DESIGNER/CHECKER	MOJ/DJC
REVIEWER	
DGN	11-19-21
PROJECT ID	105260
SUBSET	TOTAL
2	3
SHEET	TOTAL
28	30



FRAMING PLAN

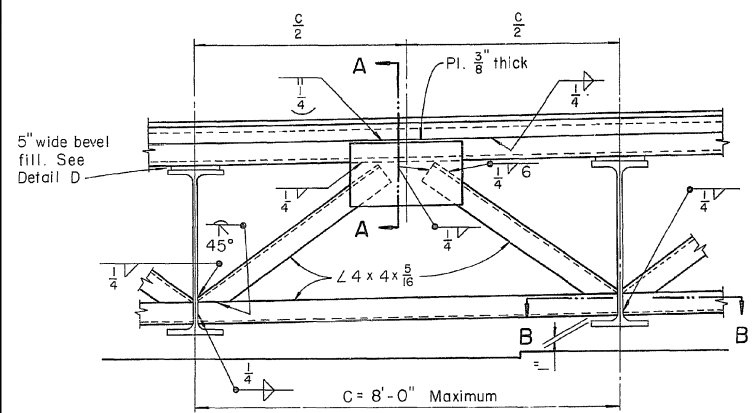


CUY-422-1911R  
 TRANSVERSE SECTION

NOTES:

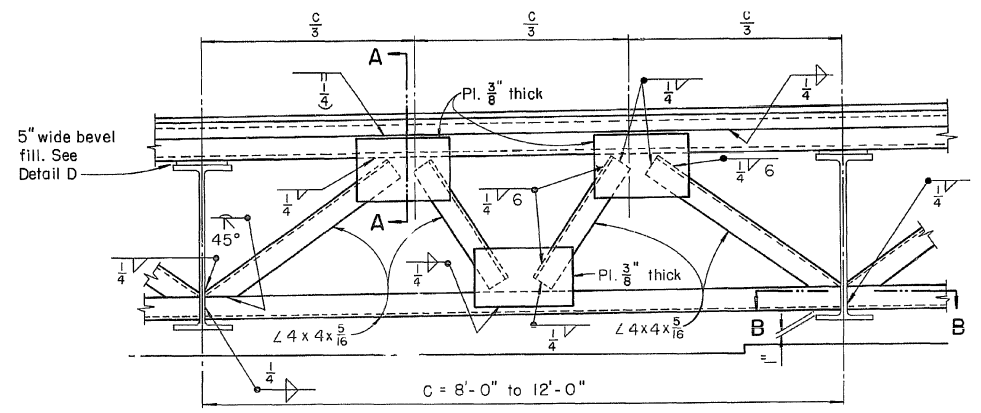
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2. PERFORM ONLY THE WORK DESCRIBED IN THE GENERAL NOTES AND GENERAL SUMMARY.

SFN	1815172
SFN	1815180
DESIGN AGENCY	
DESIGNER/CHECKER	MOJ / DJC
REVIEWER	
DGN	11-19-21
PROJECT ID	105260
SUBSET	3 / 3
SHEET	29 / 30



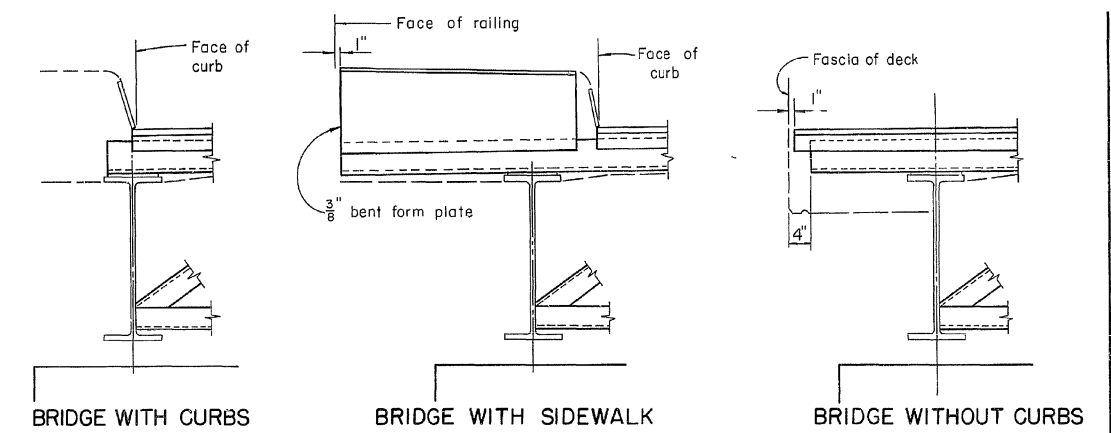
**END CROSSFRAME**

For beam spacing of 8'-0" or less measured parallel to end dam.

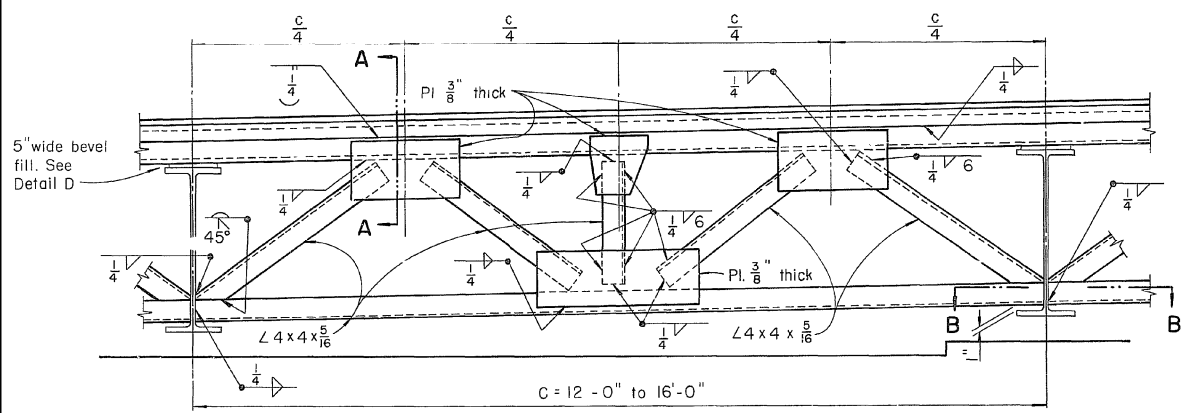


**END CROSSFRAME**

For beam spacing of 8'-0" to 12'-0" measured parallel to end dam.

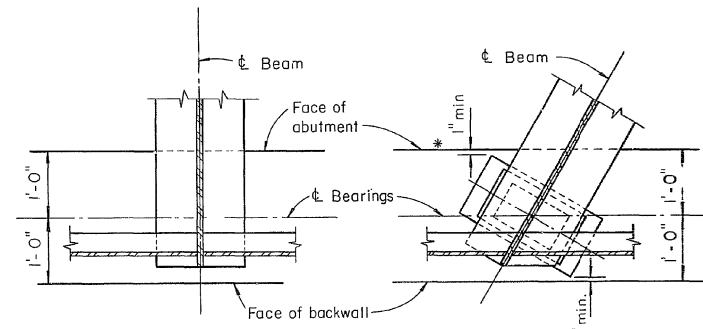


**END DAM DETAILS AT FASCIA BEAM**  
 (For additional details see Sheet No 2)



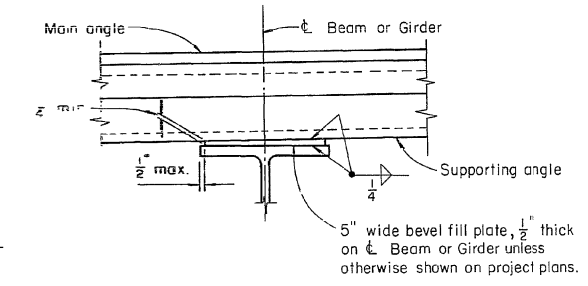
**END CROSSFRAME**

For beam spacing of 12'-0" to 16'-0" measured parallel to end dam.

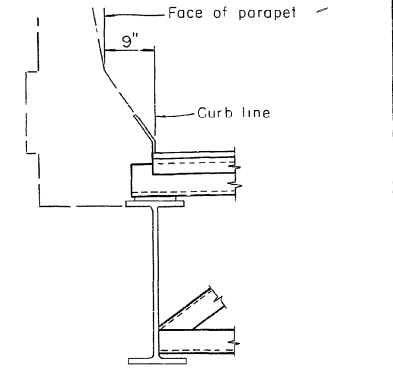


**SECTION B - B**  
 FOR SQUARE BRIDGES      FOR SKEWED BRIDGES

\* Where necessary, cope corner of masonry plate in order to maintain 1" clearance.



**DETAIL D**



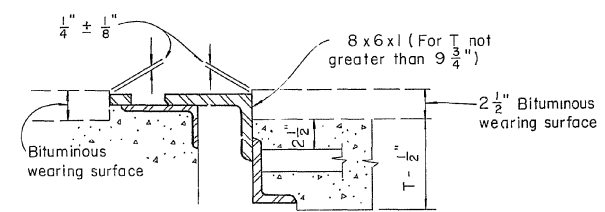
**BRIDGE WITH ROADWAY PARAPET RAILING**

A welded butt joint in the end dam, at the apex of roadway, will be required for that portion of the end dam attached to the superstructure. The portion attached to the backwall shall be placed in segments not less than 6'-0" in length, with a joint at each joint in the backwall and with one of the joints at the apex of roadway. These shall be closely butted but shall not be welded.

$\frac{5}{8}$ " x 2" bolts at not more than 2'-0" with nuts tack-welded to under side of lower angle.  $\frac{1}{16}$ " holes in upper angle. Center  $\frac{5}{8}$ " bolts in  $\frac{1}{16}$ " holes. Apply flake graphite between washers and angle. Turn bolts tight and release one-half turn. Remove bolts as soon as concrete has set, preferably within two hours after placing, to avoid damage due to temperature expansion or contraction of superstructure. Fill holes with bituminous material.

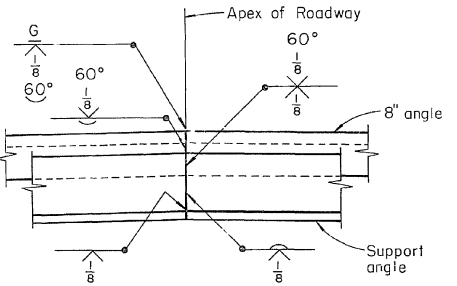
Steel washers

This contact surface shall not be painted but shall be cleaned and lubricated with flake graphite in the field immediately prior to placing of backwall concrete.



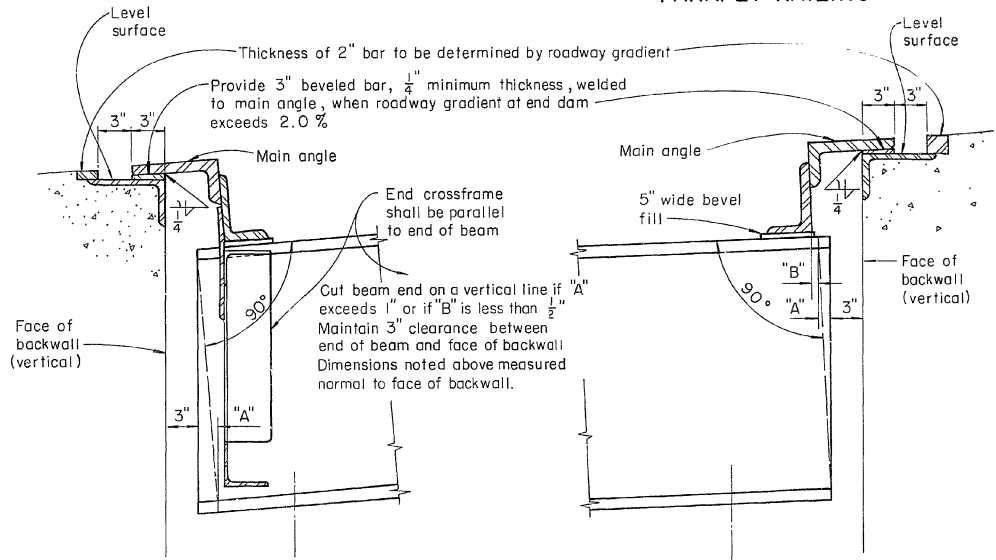
**SECTION A - A**  
 SHOWING ROADWAY END DAM FOR BITUMINOUS WEARING SURFACE

Same as SECTION A-A for monolithic wearing surface except as shown.

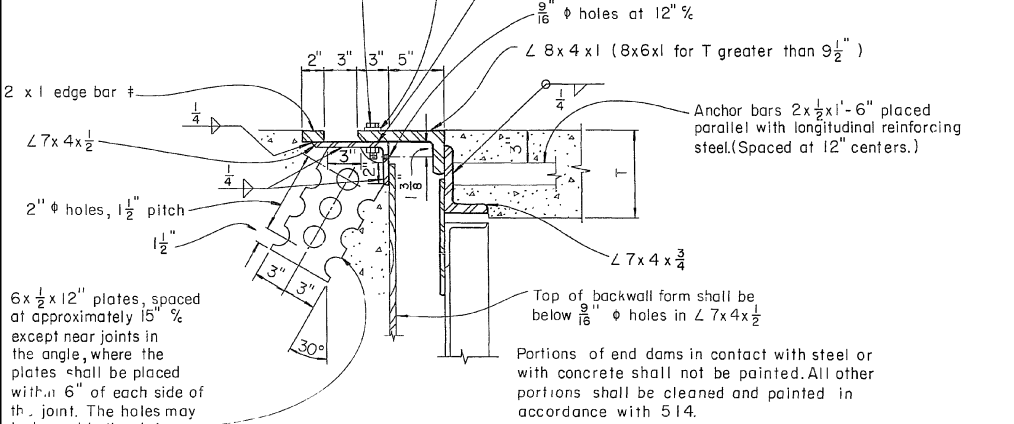


**WELDED BUTT JOINT IN SUPERSTRUCTURE END DAM**

When end dam contains no apex, a butt joint may be furnished near the centerline of the deck, if necessary to facilitate handling and shipping.



**LONGITUDINAL SECTION BRIDGE ON GRADE**



**SECTION A - A**  
 SHOWING ROADWAY END DAM FOR MONOLITHIC WEARING SURFACE

† Furnish different thickness if required to compensate for grades in excess of 2%.

STATE OF OHIO DEPARTMENT OF HIGHWAYS DIVISION OF DESIGN AND CONSTRUCTION BUREAU OF BRIDGES			
<b>STANDARD SUPERSTRUCTURE DETAILS FOR STEEL BEAM AND GIRDER BRIDGES</b>			
APPROVED: <i>[Signature]</i>	DRAWING NUMBER <b>SD-1-69</b>		
DATE: 6-12-69	ENGINEER OF BRIDGES	REVIEWED	SHEET NO. 1 OF 4 SHEETS
PREPARED FFE	TRACED NRB	CHECKED WJF	DESIGNED CDB RVH BFG

**NOTES:**

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHALL BE USED FOR INFORMATIONAL PURPOSES ONLY.

DESIGN AGENCY	<b>GPD GROUP</b>
DESIGNER	<b>MOJ</b>
REVIEWER	<b>MOJ</b>
DGN	11-19-21
PROJECT ID	105260
SHEET	TOTAL
30	30