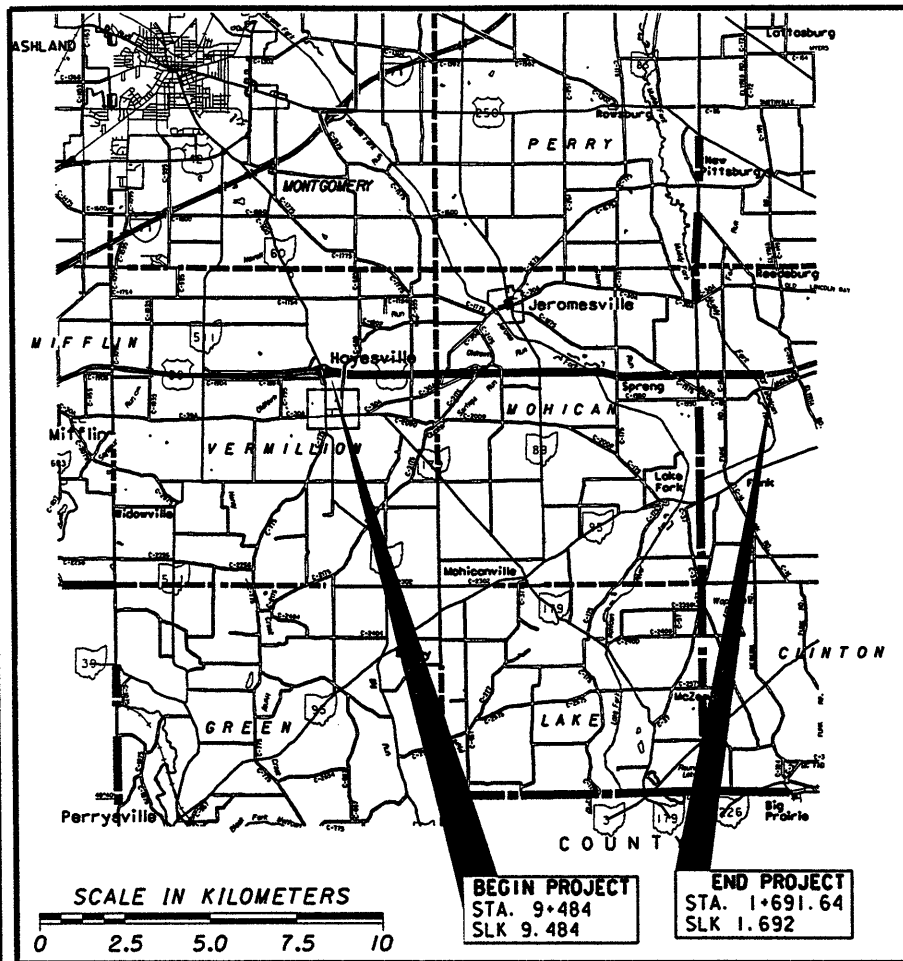


LOCATION MAP



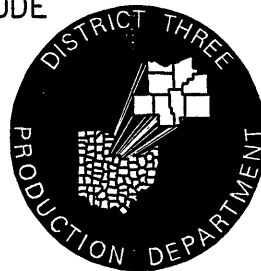
82° 16' 02" W. LONGITUDE 40° 47' 07" N. LATITUDE
 PORTION TO BE IMPROVED _____
 STATE & FEDERAL ROUTES _____
 OTHER ROADS _____

OHIO DEPARTMENT OF TRANSPORTATION

ASD / WAY - 30 - 9.484 / 0.000
VERMILLION, MOHICAN, PLAIN TOWNSHIPS
ASHLAND, WAYNE COUNTIES

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TWO WORKING DAYS BEFORE YOU DIG
 Call 800-362-2764 TOLL FREE
 OHIO UTILITIES PROTECTION SERVICE
 NON-MEMBERS MUST BE CALLED DIRECTLY

SPECIAL PROVISIONS
 WATERWAY PERMIT NWP#3 DATE: 10-12-99

APPROVED DATE: 2/10/00
 THOMAS M. O'LEARY
 DISTRICT DEPUTY DIRECTOR OF TRANSPORTATION
 APPROVED DATE: _____
 DIRECTOR, DEPARTMENT OF TRANSPORTATION

DESIGN DESIGNATION
 CURRENT ADT (2000) _____ 12878
 DESIGN YEAR ADT (2012) _____ 17164
 DESIGN HOURLY VOLUME (2012) _____ 1716
 DIRECTIONAL DISTRIBUTION _____ 55%
 TRUCKS (24 HOUR B&C) _____ 29%
 LEGAL SPEED _____ 60 MPH
 DESIGN SPEED _____ 60 MPH
 DESIGN ESALS = 12.18 M TOTAL FOR 12 YEARS
 3R PROJECT
 DESIGN FUNCTIONAL CLASSIFICATION - RURAL EXPRESSWAY
 DESIGN EXCEPTIONS: NONE REQUIRED

ENGINEER'S SEAL FOR STRUCTURES OVER 6.1 m

 DATE: 2/08/00

ENGINEER'S SEAL: FOR ENTIRE PLAN EXCEPT STRUCTURES OVER 6.1 m

 DATE: 2/08/00

STANDARD DRAWINGS		STANDARD DRAWINGS		STANDARD DRAWINGS		STANDARD DRAWINGS		SUPPLEMENTAL SPECIFICATIONS		SUPPLEMENTAL SPECIFICATIONS	
BP-1.2M	10-28-94	GR-6.1M	01-03-96	MT-95.40M	04-25-94	TC-41.4IM	03-31-94	806	09-09-97	910	7-28-98
BP-2.2M	10-21-97	GR-6.2M	01-03-96	MT-96.11M	01-30-95	TC-41.50M	07-01-94	814	06-02-98	927	06-14-95
BP-2.5M	04-08-97	CB-1.1M	07-12-95	MT-96.20M	01-30-95	TC-42.10M	03-31-94	815	05-30-96	932	10-02-96
BP-3.1M	10-28-94	CB-1.2M	07-12-95	MT-96.25M	01-30-95	TC-42.20M	03-31-94	837	05-06-97	937	05-06-97
BP-9.1	04-29-99	CB-3.2M	07-12-95	MT-97.10M	04-25-94	TC-51.11M	09-30-94	842	01-06-99	954	09-09-97
GR-1.1M	10-21-97	CB-3.3M	07-12-95	MT-98.12M	06-24-93	TC-51.12M	03-31-94	846	09-09-97	970	12-16-97
GR-1.2M	01-03-96	HW-2.1M	06-30-95	MT-98.13M	06-24-93	TC-52.10M	07-29-94	863	09-09-97		
GR-1.3M	11-30-94	HW-2.2M	07-12-95	MT-98.14M	06-24-93	TC-52.20M	07-29-94	870	08-10-99		
GR-2.1M	04-14-98	DM-1.1M	10-21-97	MT-98.15M	06-24-93	TC-61.10M	03-31-94	877	04-13-99		
GR-2.2M	10-21-97	DM-1.2M	10-21-97	MT-98.19M	03-01-96	TC-65.10M	11-01-95	880	06-15-99		
GR-3.4M	10-21-97	DM-2.1M	10-21-97	MT-99.20M	01-30-95	TC-65.11M	11-01-95	885	08-10-99		
GR-4.2M	10-21-97	DM-4.3	4-29-99	MT-101.60M	04-25-94	TC-65.12	11-01-95	887	08-10-99		
GR-4.3M	10-21-97	DM-4.4	4-29-99	MT-105.10M	04-25-94	TC-71.10	09-01-93	899	10-21-98		
GR-4.4M	11-30-94			MT-105.11M	04-25-94			904	05-05-98		
GR-5.1M	04-21-95	MT-35.10M	01-30-95			EXJ-4-87M	2-18-97	905	04-01-98		
GR-5.2M	11-30-94	MT-35.11M	01-30-95	TC-41.10M	03-31-94	PCB-91M	07-06-99	906	05-05-98		
GR-5.3M	11-30-94	MT-95.30M	04-25-94	TC-41.20M	07-01-94	TST-1-99	07-06-99				

PROJECT DESCRIPTION
 MINOR REHABILITATION WITH MISCELLANEOUS DRAINAGE, RESURFACING, AND SAFETY UPGRADING INCLUDING SOME STRUCTURE WORK.

LIMITED ACCESS
 THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE REVISED CODE OF OHIO.

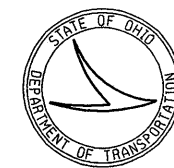
PRIMA FACIE SPEED LIMIT
 UNDER AUTHORITY OF SECTION 4511.21, DIVISION (1) OF THE OHIO REVISED CODE, THE REVISED PRIMA FACIE SPEED LIMITS AS INDICATED HEREIN ARE DETERMINED TO BE REASONABLE AND SAFE, AND ARE HEREBY ESTABLISHED FOR THE DURATION OF THIS PROJECT. THE PRIMA FACIE SPEED LIMIT OR LIMITS HEREBY ESTABLISHED SHALL BECOME EFFECTIVE WHEN APPROPRIATE SIGNS GIVING NOTICE THEREOF ARE ERECTED.

1997 SPECIFICATIONS
 THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS 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.

DESIGN FILE: I:\projects\18286\aw30TH.dgn
 WORKSTATION: sjuzwik DATE: 08 FEB 2000

FEDERAL PROJECT NO. TE21-G990(733)
 PID NO. 18286
 CONSTRUCTION PROJECT NO. 000302
 RAILROAD INVOLVEMENT NONE
 ASD / WAY - 30 - 9.484 / 0.000
 1/344



metric units



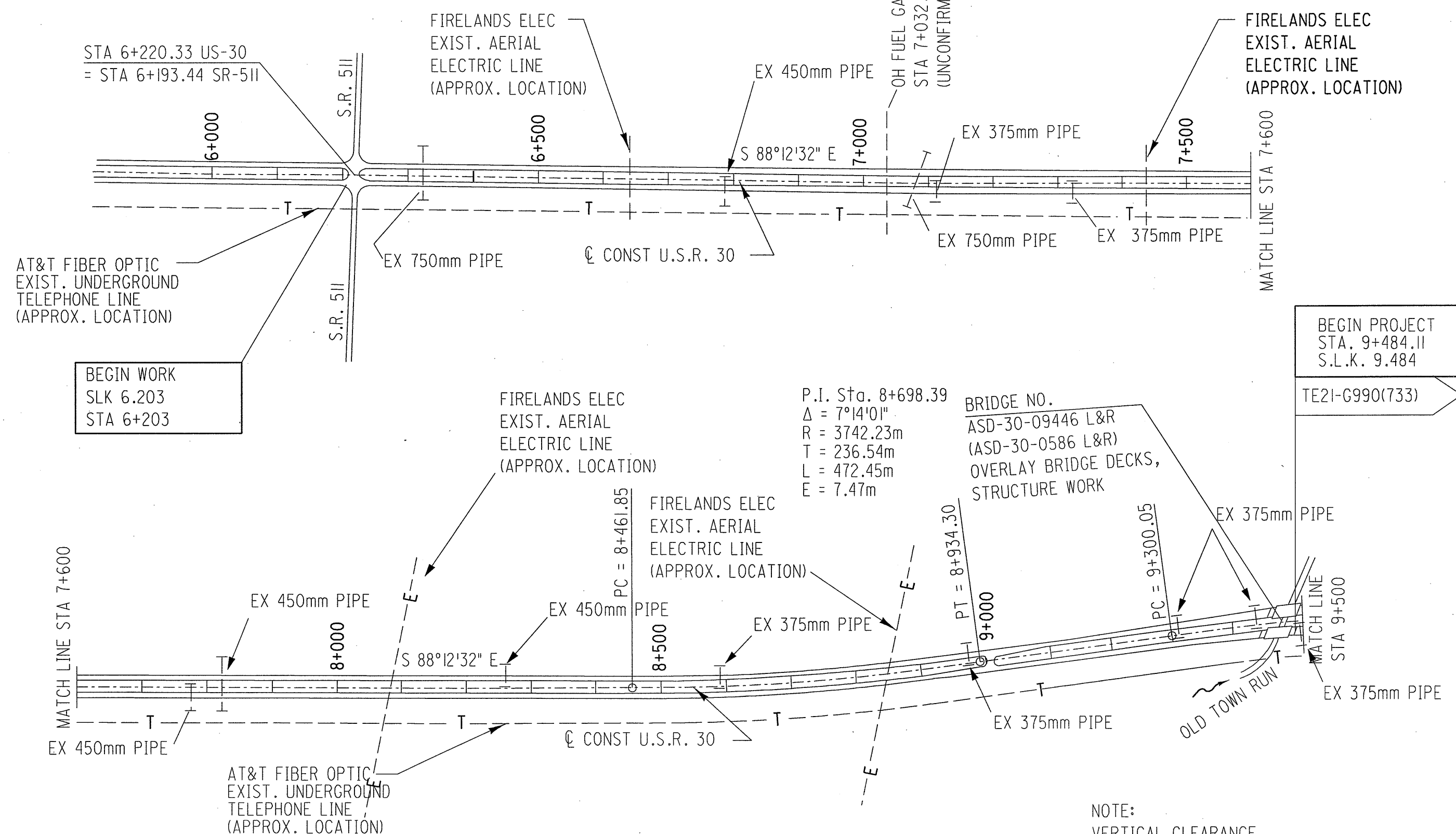
HORIZONTAL SCALE IN METERS

CALCULATED SCJ CHECKED ADB

SCHEMATIC PLAN

ASD / WAY -30-9.484 / 0.000

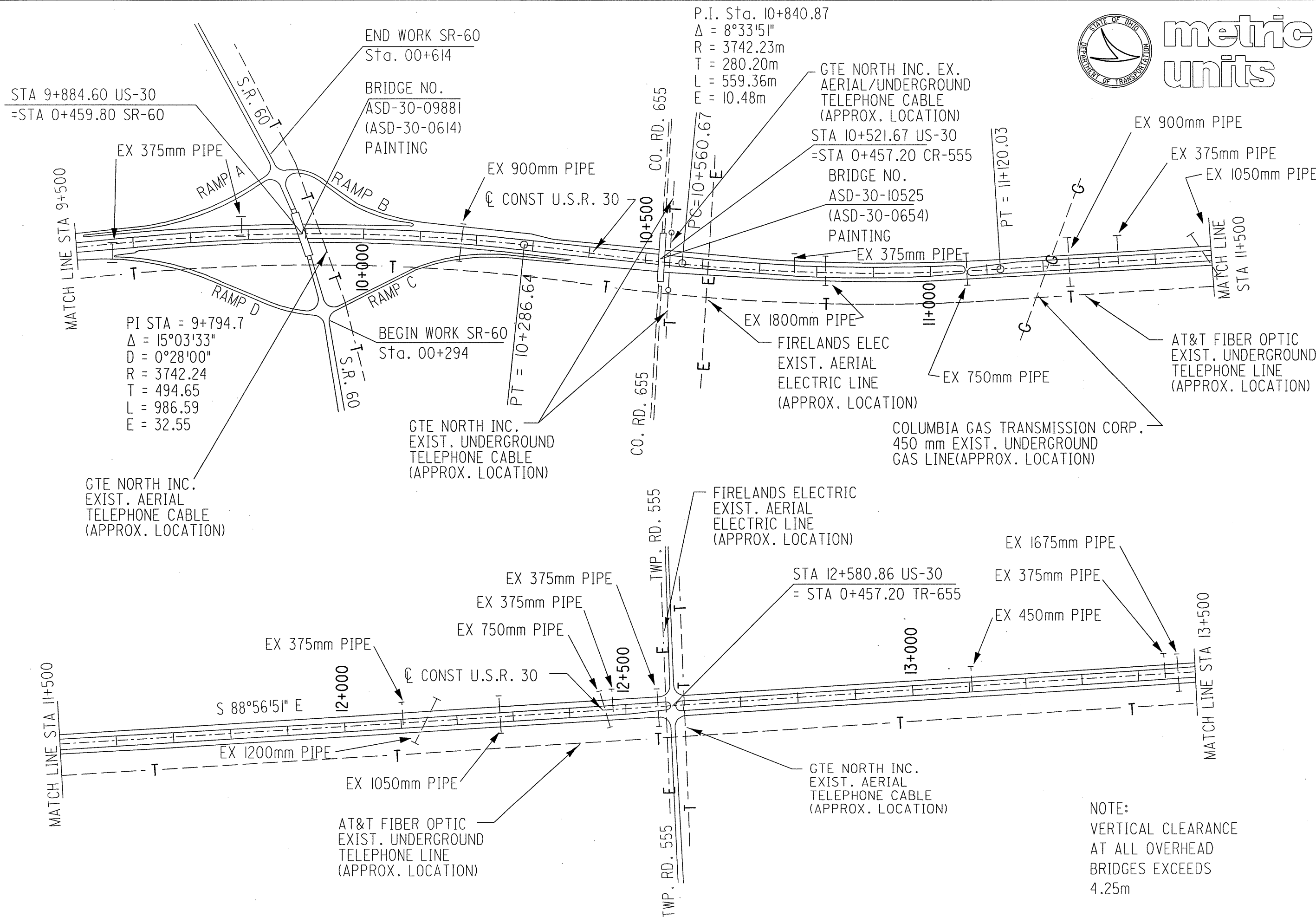
2 / 344



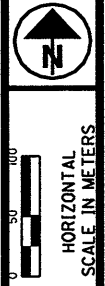
NOTE:
 VERTICAL CLEARANCE
 AT ALL OVERHEAD
 BRIDGES EXCEEDS
 4.25m

DESIGN FILE: i:\projects\86\aw30sch.dgn
 WORKSTATION: sjuzwik DATE: 03 FEB 2000

DESIGN FILE: i:\projects\86\aw30sch.dgn
 WORKSTATION: s7uzwik DATE: 03 FEB 2000



metric
units

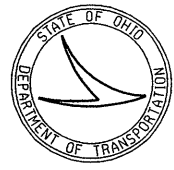


CALCULATED
 CHECKED
 ADB

SCHEMATIC PLAN

ASD / WAY - 30 - 9.484 / 0.000

NOTE:
 VERTICAL CLEARANCE
 AT ALL OVERHEAD
 BRIDGES EXCEEDS
 4.25m



metric units



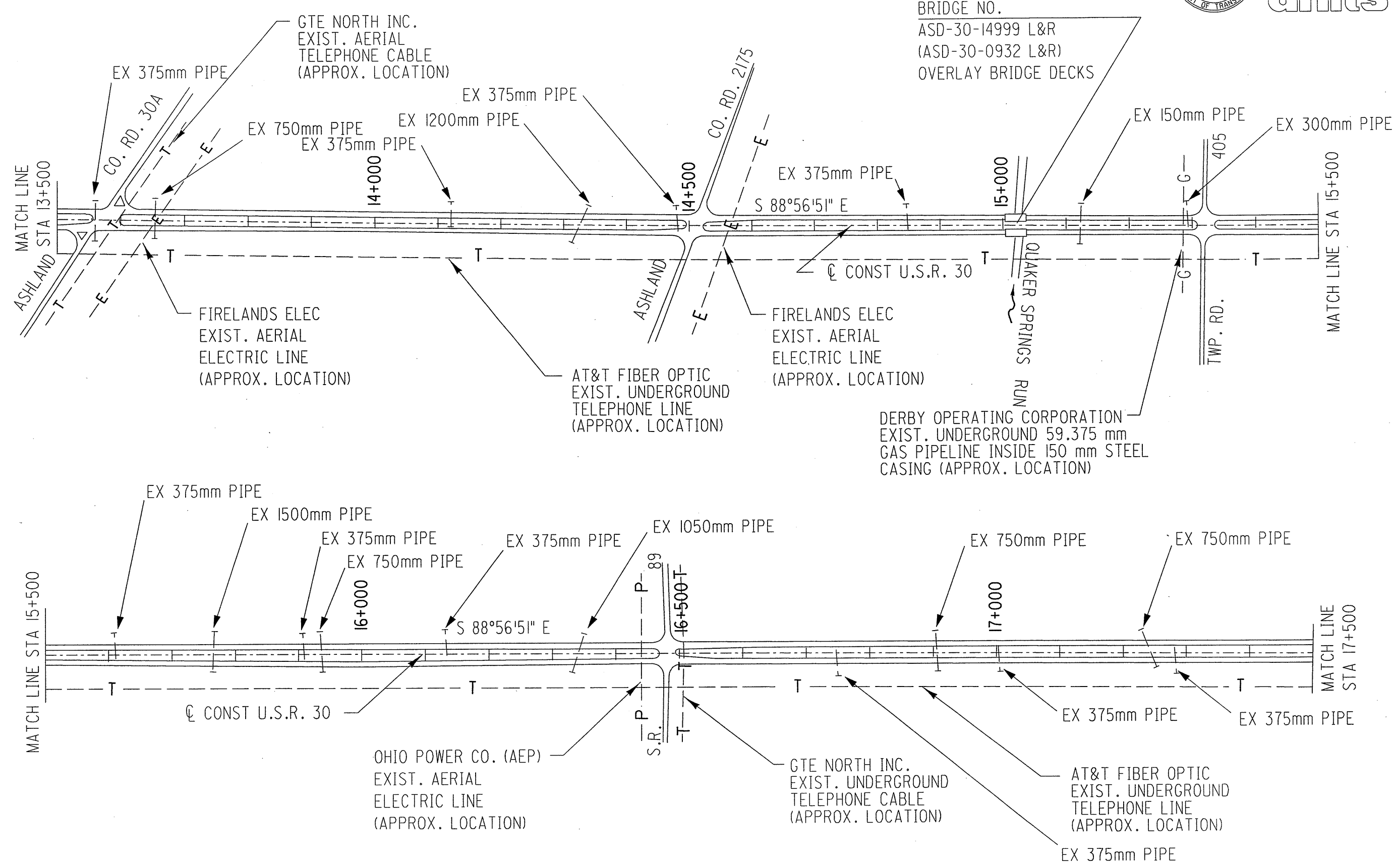
HORIZONTAL SCALE IN METERS

CALCULATED SCJ CHECKED ADB

SCHEMATIC PLAN

ASD / WAY - 30-9.484 / 0.000

BRIDGE NO.
ASD-30-14999 L&R
(ASD-30-0932 L&R)
OVERLAY BRIDGE DECKS



DESIGN FILE: i:\projects\4. 86\aw30sch.dgn
WORKSTATION: sdeer
DATE: 01/31/00

P.I. Sta. 18+329.20
 $\Delta = 14^\circ 32' 48''$
 SUPERELEVATION = N.C.
 ACTUAL DESIGN SPEED = 108 KPH

P.I. Sta. 18+982.23
 R=1191.02m
 $\Delta = 15^\circ 34' 20''$
 SUPERELEVATION = .048 m/m
 ACTUAL DESIGN SPEED = 108 KPH

P.I. Sta. 20+925.48
 $\Delta = 15^\circ 34' 20''$
 R=3743.19m
 SUPERELEVATION = N.C.
 ACTUAL DESIGN SPEED = 108 KPH



metric
units



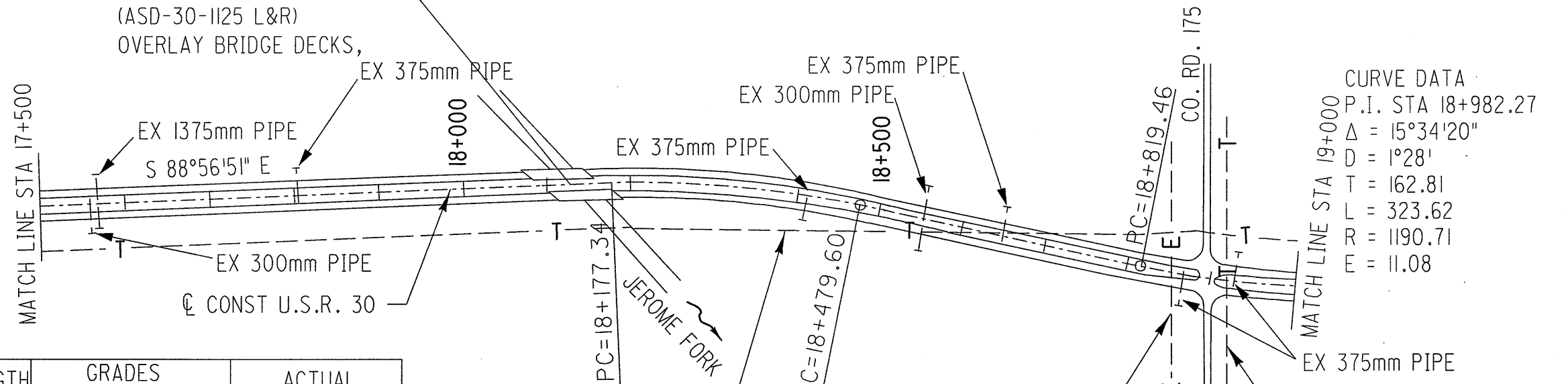
HORIZONTAL
SCALE IN METERS

CHECKED
SCJ

ADB

SCHEMATIC PLAN

ASD / WAY - 30-9.484 / 0.000



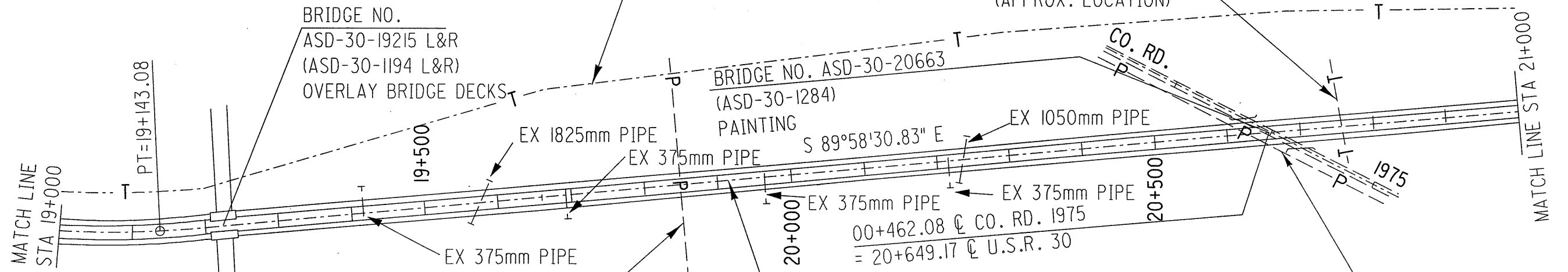
CURVE TYPE	P.V.I. LOCATION	LENGTH m	GRADES		ACTUAL DESIGN SPEED
			G ₁	G ₂	
CREST	14+711.78	183	-0.40%	-3.00%	EXCEEDS 97 KPH
SAG	14+179.04	183	-3.00%	-0.30%	
SAG	16+184.88	183	-0.30%	+1.64%	
CREST	16+520.16	183	+1.64%	-0.58%	
SAG	17+495.52	183	-0.58%	+0.24%	
CREST	18+218.15	244	+0.24%	-0.24%	
SAG	19+080.48	427	-0.24%	+2.96%	
CREST	20+716.27	610	+2.96%	-3.00%	
SAG	00+121.92	152	-3.00%	-1.84%	
SAG	01+325.88	366	-1.84%	-0.2623%	

CURVE DATA
 P.I. Sta. 18+329.29
 $\Delta = 14^\circ 32' 40''$
 L = 302.260m
 R = 1190.710m
 T = 151.947m
 E = 9.656m
 C = 301.449m

AT&T FIBER OPTIC
 EXIST. UNDERGROUND
 TELEPHONE LINE
 (APPROX. LOCATION)

OHIO EDISON COMPANY
 EXIST. AERIAL
 ELECTRIC LINE
 (APPROX. LOCATION)

GTE NORTH INC.
 EXIST. AERIAL
 TELEPHONE CABLE
 (APPROX. LOCATION)



BRIDGE NO.
 ASD-30-19215 L&R
 (ASD-30-1194 L&R)
 OVERLAY BRIDGE DECKS

BRIDGE NO. ASD-30-20663
 (ASD-30-1284)
 PAINTING

NOTE:
 VERTICAL CLEARANCE
 AT ALL OVERHEAD
 BRIDGES EXCEEDS
 4.25m

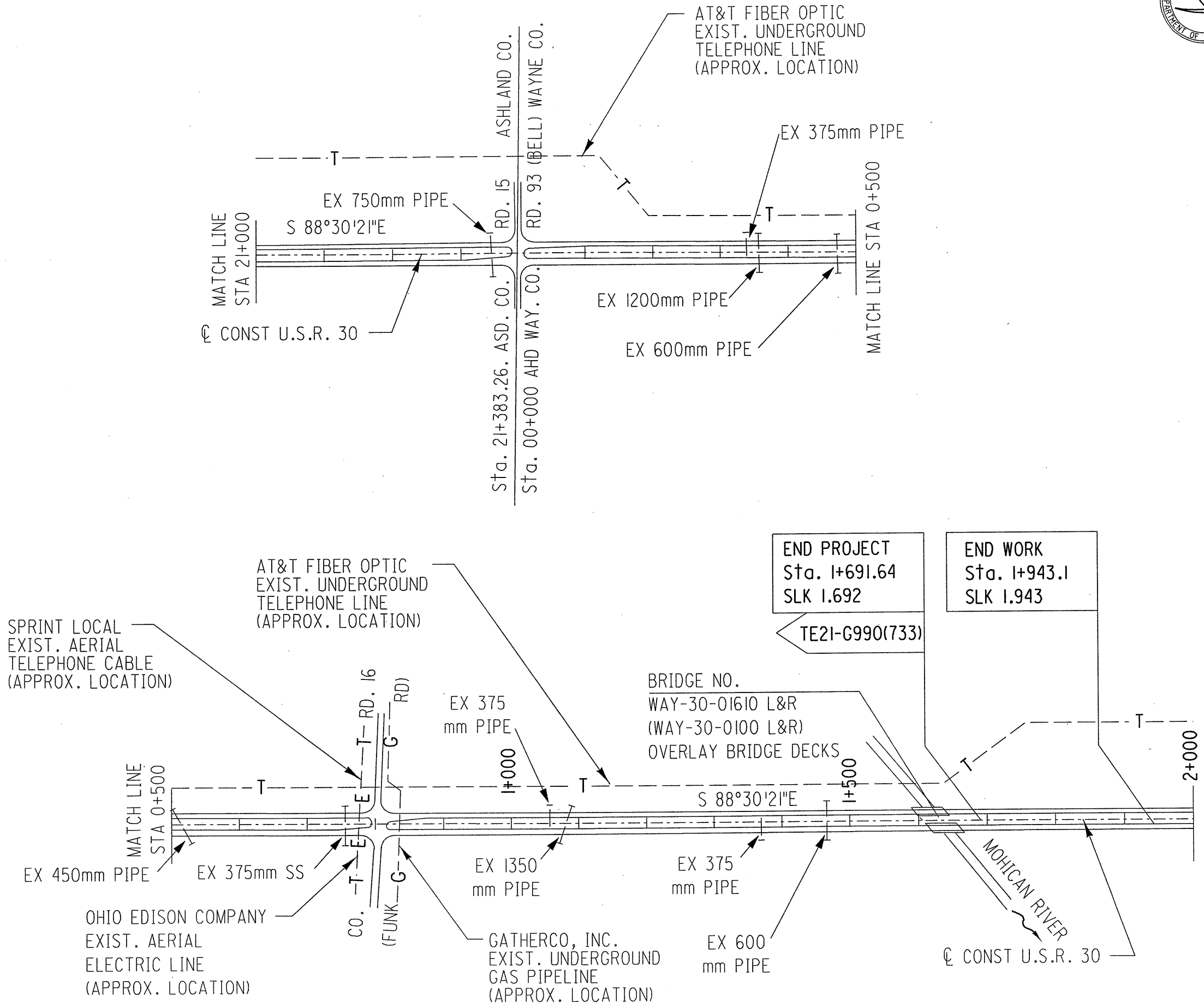
OHIO EDISON COMPANY
 EXIST. AERIAL
 ELECTRIC LINE
 (APPROX. LOCATION)

COUNTY ROAD 1975 (LOCAL ROAD)
 1990 ADT = 250
 NO HORIZONTAL OR VERTICAL
 ALIGNMENT RESTRICTIONS
 EXISTING LANE WIDTH 2m

OHIO EDISON COMPANY
 EXIST. AERIAL
 ELECTRIC LINE
 (APPROX. LOCATION)

DESIGN FILE: i:\projects\86\aw30sch.dgn
 WORKSTATION: stuzwik DATE: 03 FEB 2000

DESIGN FILE: i:\projects\86\aw30sch.dgn
WORKSTATION: sdeer DATE: 01/31/00



metric
units

CALCULATED
SCJ
CHECKED
ADB

HORIZONTAL
SCALE IN METERS

SCHEMATIC PLAN

ASD / WAY -30-9.484 / 0.000

STRUCTURE FILE NO.	BRIDGE NO.	LOCATION	SKEW	DECK LENGTH	DECK WIDTH	PROPOSED WORK
0300454	ASD-30-09446L (ASD-30-0587L)	OVER OLD TOWN RUN	30° L.F.	38 760 mm	18 558 mm AVG.	DECK EDGES, EXP. JOINTS, PAINTING, CONCRETE OVERLAY, SEAL CONCRETE
0300489	ASD-30-09446R (ASD-30-0587R)	OVER OLD TOWN RUN	30° L.F.	38 760 mm	15 853 mm AVG.	
0302074	ASD-30-09881 (ASD-30-0614)	UNDER S.R.60	18° L.F.	77 725 mm	9144 mm	PAINTING
0300543	ASD-30-10525 (ASD-30-0654)	UNDER C.R.655	3° L.F.	77 725 mm	7315 mm	PAINTING
0300578	ASD-30-14999L (ASD-30-0932L)	OVER QUAKER SPRING RUN	0°	34 046 mm	12 192 mm	CONCRETE OVERLAY
0300608	ASD-30-14999R (ASD-30-0932R)	OVER QUAKER SPRING RUN	0°	34 046 mm	12 192 mm	CONCRETE OVERLAY
0300632	ASD-30-18105L (ASD-30-1125L)	OVER JEROME FORK	51° R.F.	67 928 mm	10 516 mm	CONCRETE OVERLAY
0300667	ASD-30-18105R (ASD-30-1125R)	OVER JEROME FORK	51° R.F.	67 928 mm	10 516 mm	CONCRETE OVERLAY
0300691	ASD-30-19215L (ASD-30-1194L)	OVER GLENN RUN	0°	34 046 mm	12 192 mm	CONCRETE OVERLAY
0300721	ASD-30-19215R (ASD-30-1194R)	OVER GLENN RUN	0°	34 046 mm	12 192 mm	CONCRETE OVERLAY
0300756	ASD-30-20663 (ASD-30-1284)	UNDER C.R.1975	57° L.F.	92 702 mm	8108 mm	NO WORK
8501440	WAY-30-01609L (WAY-30-0100L)	OVER MUDDY FORK	37° R.F.	44 013 mm	12 192 mm	CONCRETE OVERLAY
8501475	WAY-30-01609R (WAY-30-0100R)	OVER MUDDY FORK	37° R.F.	44 013 mm	12 192 mm	CONCRETE OVERLAY

DATE	ROW	DATE
1/31/00	131	
DESIGNED	DESIGNED	DESIGNED
DCW	DCW	DCW
LG	LG	LG
CHECKED	CHECKED	CHECKED
EJG	EJG	EJG
REVISION	REVISION	REVISION

STRUCTURE INFORMATION

 ASD/WAY-30-
 9.484/0.000

1/25

 320
 344

REFERENCES SHALL BE MADE TO STANDARD DRAWINGS:

EXJ-4-87M DATED 2/18/97
 PCB-91M DATED 7/6/99
 TST-1-99 DATED 7/6/99

AND TO SUPPLEMENTAL SPECIFICATIONS:

815	DATED	5/30/96			
842	DATED	1/6/99	885	DATED	8/10/99
846	DATED	9/9/97	904	DATED	5/5/98
848	DATED	6/30/98			
863	DATED	10/12/99			
899	DATED	10/21/98			
910	DATED	7/28/98			
927	DATED	6/14/95			
954	DATED	9/9/97			

EXISTING STRUCTURE VERIFICATION:

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATION AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02 AND 513.02. THE ORIGINAL CONSTRUCTION PLANS OF THE EXISTING BRIDGE ARE AVAILABLE UPON REQUEST AT THE DISTRICT 3 OFFICE OF THE OHIO DEPARTMENT OF TRANSPORTATION, ASHLAND, OHIO.

CONTRACT BID PRICES SHALL BE BASED UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PRE-BID EXAMINATION OF THE EXISTING STRUCTURE BY THE CONTRACTOR. HOWEVER, ALL PROJECT WORK SHALL BE BASED ON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO 'STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES' ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1996 INCLUDING THE 1997 AND 1998 INTERIM SPECIFICATIONS, AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN DATA:

CONCRETE CLASS C - COMPRESSIVE STRENGTH 27.5 MPa
 CONCRETE CLASS S - COMPRESSIVE STRENGTH 31.0 MPa
 REINFORCING STEEL - ASTM A615M, A616M, A617M - GRADE 400 MINIMUM YIELD STRENGTH 400 MPa
 STRUCTURAL STEEL - ASTM A36M - YIELD STRENGTH 250 MPa (UNLESS NOTED OTHERWISE)

EXISTING PAINT SYSTEM:

THE EXISTING PAINT SYSTEM ON THE STRUCTURES TO BE PAINTED CONTAINS LEAD AND CHROMIUM

PROPOSED PAINT COLOR:

THE COLOR OF THE URETHANE GLOSS FINISH COAT SHALL BE DARK RED MEETING FEDERAL STANDARD NUMBER 11136

**ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN, SUPERSTRUCTURE
 ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN, ABUTMENT**

THIS ITEM OF WORK SHALL BE USED TO REMOVE PORTIONS OF THE EXISTING ABUTMENTS AND BRIDGE DECK ON STRUCTURE ASD-30-09446 L&R
 THE REMOVAL LINES ON THE ABUTMENT FACE SHALL BE SAWCUT 25 mm DEEP.

THE CONCRETE SHALL BE REMOVED BY A HYDRAULIC SPLITTING METHOD. A LINE OF HOLES SHALL BE DRILLED ALONG THE REMOVAL LINE AND A HYDRAULIC SPLITTER USED AS PER MANUFACTURER'S RECOMMENDATIONS. SIXTEEN (16) kg AND SEVEN (7) kg JACKHAMMERS SHALL BE USED FOR THE FINAL FINISH WORK. A HOE RAM, CONCRETE CRUSHER, OR OTHER SIMILAR DEVICES SHALL NOT BE PERMITTED TO DO ANY OF THE WORK. CONCRETE SHALL BE REMOVED IN A MANNER THAT PREVENTS CUTTING, ELONGATING, OR DAMAGING OF THE EXISTING REINFORCING STEEL TO BE PRESERVED. IF THE EXISTING REINFORCING STEEL DESIGNATED FOR PRESERVATION IS DAMAGED DURING REMOVAL OPERATIONS, DOWELED REINFORCING STEEL SHALL BE ADDED AT THE CONTRACTOR'S EXPENSE.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER CUBIC METER FOR ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM 202 - REMOVAL MISC.: BEARING DEVICE:

THIS ITEM SHALL CONSIST OF FURNISHING THE NECESSARY MATERIALS AND LABOR TO REMOVE THE EXISTING SLIDING BEARINGS AT THE REAR AND FORWARD ABUTMENTS. THE EXISTING ANCHOR PINS SHALL BE REMOVED TO A DEPTH OF 6mm BELOW THE ABUTMENT SEAT. PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER EACH FOR ITEM 202 - REMOVAL MISC.: BEARING DEVICE WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN, STRUCTURAL STEEL:

THIS ITEM OF WORK SHALL BE USED TO REMOVE THE EXISTING END CROSS FRAMES ON STRUCTURES ASD-30-09446 R & L. CARE SHALL BE TAKEN DURING REMOVAL TO AVOID DAMAGING STEEL TO REMAIN. THOSE AREAS WHERE MEMBERS WITH WELDED ATTACHMENTS ARE REMOVED SHALL BE GROUND SMOOTH. DO NOT GRIND PERPENDICULAR TO THE FLANGE.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER LUMP FOR ITEM 202 - PORTION OF STRUCTURE REMOVED, AS PER PLAN, STRUCTURAL STEEL WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM 516 - BEARING DEVICE, MISC.: SLIDING BEARING:

THIS ITEM SHALL CONSIST OF FURNISHING THE NECESSARY MATERIALS AND LABOR TO INSTALL NEW SLIDING BEARINGS AT THE REAR AND FORWARD ABUTMENTS, AS PER DETAILS IN THE PLAN AND THE SUPPLEMENTAL SPECIFICATION.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER EACH FOR ITEM 516 - BEARING DEVICE, MISC.: SLIDING BEARING WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN:

THIS ITEM SHALL CONSIST OF FURNISHING ALL NECESSARY LABOR, MATERIALS, AND EQUIPMENT TO RAISE THE EXISTING STRUCTURES FOR REPLACEMENT OF THE ABUTMENT BEARINGS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, INSTALLATION AND OPERATION OF AN ADEQUATE JACKING SYSTEM, INCLUDING ANY TEMPORARY OR PERMANENT SUPPORTS NECESSARY TO PERFORM THE WORK DESCRIBED IN THE PROJECT PLANS. THREE (3) SETS OF JACKING PLANS, WHICH INCLUDE THE INFORMATION DESCRIBED IN THIS NOTE, SHALL BE SUBMITTED TO THE DIRECTOR FOR APPROVAL AT LEAST THIRTY (30) DAYS BEFORE ACTUAL WORK IS TO BEGIN. THE PLANS SHALL BE PREPARED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER.

JACKING SUBMITTALS SHALL INCLUDE AT LEAST THE FOLLOWING:

1. THE SIGNATURE AND NUMBER, OR PROFESSIONAL SEAL, OF THE REGISTERED PROFESSIONAL ENGINEER WHO PREPARED THE SUBMITTAL.
2. CALCULATIONS AND ANALYSIS OF THE STRUCTURE TO DETERMINE AND DEFINE THE ACTUAL LOADING APPLIED AT THE CONTRACTOR'S SELECTED JACKING POINTS.
3. A DRAWING SHOWING THE PHYSICAL AND DIMENSIONAL POSITION OF THE JACKS WITH RESPECT TO THE STRUCTURE INCLUDING CLEARANCES AND CENTER OF LIFT.
4. A SCHEMATIC LAYOUT OF JACKS, CHECK VALVES, PUMPS WITH 3 WAY RETRACTOR VALVE, PRESSURE GAGES, FLOW CONTROL VALVES, ETC. IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. ALL JACKS FOR EACH ABUTMENT OR PIER SHALL BE CONNECTED TOGETHER. ALL JACKS AT EACH ABUTMENT OR PIER SHALL BE THE SAME SIZE.
5. ANALYSIS AND CALCULATIONS OF THE STRESSES INDUCED OR CREATED IN THE STRUCTURE AND ANY TEMPORARY OR PERMANENT SUPPORTS. DESIGN CALCULATIONS FOR ANY TEMPORARY OR PERMANENT SUPPORTS.
6. PHYSICAL DIMENSIONS, MATERIALS, AND FABRICATION DETAILS OF ANY TEMPORARY OR PERMANENT SUPPORTS. HORIZONTAL AND VERTICAL MOVEMENT RESTRAINT SHALL BE PROVIDED.
7. A STEP BY STEP PROCEDURE DETAILING ALL STEPS IN THE JACKING OPERATION.
8. METHOD OF ATTACHMENT TO STRUCTURAL MEMBERS. WELDING TO TENSION AREAS WILL NOT BE PERMITTED.

THE ENTIRE SYSTEM INCLUDING JACKS SHALL HAVE 20% MORE CAPACITY THAN REQUIRED BASED ON CALCULATED LOADS.

FOR LIFTS GREATER THAN 25 mm, JACKS SHALL HAVE LOCKING NUTS TO POSITIVELY LOCK AND SUPPORT THE STRUCTURE DURING THE LIFT.

JACKS SHALL HAVE A SWIVEL LOAD CAP, A DOMED PISTON HEAD OR SOME OTHER DEVICE TO PROTECT AGAINST THE EFFECTS OF SIDE LOAD ON THE JACK.

JACKS ALONE SHALL NOT BE USED TO SUPPORT LOADS EXCEPT DURING THE ACTUAL JACKING OPERATION. TEMPORARY SUPPORTS, BLOCKING OR OTHER METHODS APPROVED BY THE DIRECTOR SHALL BE USED.

SINGLE ACTING RAMS WITH NO OVER-TRAVEL PROTECTION SYSTEM SHALL NOT BE USED.

SPARE EQUIPMENT SHALL BE AVAILABLE ON SITE FOR THE REQUIRED STRUCTURE RAISING TO PROCEED IN THE EVENT OF A BREAKDOWN. A LIST OF SPARE EQUIPMENT SHALL BE PROVIDED TO THE ENGINEER.

AT A MINIMUM, A JACKING OPERATION SHALL LIFT ALL BEAMS AT ANY ONE ABUTMENT OR PIER SIMULTANEOUSLY.

MAXIMUM DIFFERENTIAL JACKING HEIGHT BETWEEN ANY ADJACENT ABUTMENTS OR PIERS SHALL BE 25 mm OR LESS.

(CONTINUED)



DESIGN AGENCY: DISTRICT THREE
 DATE: 1-31-00
 REVIEWED: RDW
 DRAWN: GTS
 DESIGNED: PCM
 CHECKED: EBY
 STRUCTURE FILE NUMBER
 STRUCTURAL GENERAL NOTES
 ASD / WAY - 30 - 9.484 / 0.000
 2 / 25
 321 / 344

DESIGN FILE: I:\projects\18286\Struct\gnote.dgn
 WORKSTATION: eg/over DATE: 31 JAN 2000

(CONTINUED)

IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CONCRETE SUPERSTRUCTURE, SEPARATION OF THE CONCRETE DECK FROM THE STEEL STRINGERS, OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, THE JACKING OPERATION SHALL IMMEDIATELY CEASE AND APPROVED SUPPORTS SHALL BE INSTALLED. THE CONTRACTOR SHALL THEN ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. ANY BEAMS THAT SEPARATE FROM THE DECK SHALL BE EPOXY INJECTED FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH THE PROPOSAL NOTE "CONCRETE REPAIR BY EPOXY INJECTION". COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS SHALL BE BORNE BY THE CONTRACTOR.

THE CONTRACTOR SHALL DEMONSTRATE TO THE ENGINEER THAT THE BRIDGE BEARINGS ARE FULLY SEATED BETWEEN ALL CONTACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUITABLE MEANS OF REPAIR, SUBJECT TO THE APPROVAL OF THE ENGINEER, WILL BE REQUIRED AT THE CONTRACTOR'S EXPENSE.

THE JACKING OPERATION SHALL BE DIRECTED BY A PROFESSIONAL ENGINEER EMPLOYED BY THE CONTRACTOR. FAILURE TO HAVE A PROFESSIONAL ENGINEER PRESENT SHALL BE CAUSE FOR CEASING JACKING OPERATIONS.

PAYMENT SHALL BE MADE AT THE LUMP SUM PRICE BID FOR ITEM 516- JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN AND SHALL INCLUDE ALL NECESSARY TOOLS, LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM OF WORK.

**ITEM 842 - CLASS S CONCRETE, SUPERSTRUCTURE, AS PER PLAN:
ITEM 842 - CLASS C CONCRETE, ABUTMENT, AS PER PLAN:**

THESE ITEMS SHALL BE USED AS DETAILED IN THE PLAN.

THESE ITEMS SHALL INCLUDE ALL CONCRETE, REINFORCEMENT, AND ALL INCIDENTALS NECESSARY TO COMPLETE THE DETAILS IN THE PLAN.

THE COARSE AGGREGATE SHALL BE NO. 8 LIMESTONE. REINFORCING STEEL SHALL BE GRADE 400, EPOXY COATED.

NOT MORE THAN 48 HOURS PRIOR TO PLACING THE CONCRETE, ALL EXISTING SURFACES TO WHICH THE CONCRETE IS TO BOND, INCLUDING EXPOSED REINFORCING AND STRUCTURAL STEEL SHALL BE CLEANED BY ABRASIVE BLASTING. THESE SURFACES SHALL BE MADE FREE OF SPALLS, LAITANCE, AND OTHER CONTAMINANTS DETRIMENTAL TO ACHIEVING AN ADEQUATE BOND.

IMMEDIATELY BEFORE THE CONCRETE IS PLACED ALL ADJACENT CONCRETE SURFACES SHALL BE COVERED WITH A THIN LAYER OF BONDING GROUT. THE BONDING GROUT SHALL CONSIST OF EQUAL PARTS BY VOLUME OF PORTLAND CEMENT AND SAND, MIXED WITH ENOUGH WATER TO FORM A SLURRY OF PAINT-LIKE CONSISTANCY WHICH SHALL BE SUCH AS TO ALLOW IT TO BE APPLIED WITH A STIFF BRUSH OR BROOM TO EXISTING CONCRETE SURFACES IN A THIN EVEN COATING THAT WILL NOT RUN OR PUDDLE. THE GROUT SHALL BE APPLIED FOR A SHORT DISTANCE IN ADVANCE OF THE PLACEMENT OF THE CONCRETE AND SHALL NOT BE DRY.

TYPE A WATERPROOFING (CMS 512) SHALL BE APPLIED BETWEEN THE PROPOSED CONCRETE AND THE EXISTING APPROACH SLAB.

CURING SHALL BE IN ACCORDANCE WITH SS 842.14, METHOD A WATER CURING.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER CUBIC METER FOR ITEM 842 WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM 848- MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION(70 mm THICK):

ITEM 848- MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION(82 mm THICK):

ITEM 848- MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS) MATERIAL ONLY:

THESE ITEMS SHALL BE USED AT LOCATIONS INDICATED IN THE PLAN.

THE COARSE AGGREGATE SHALL BE LIMESTONE.

SEE THE SUPPLEMENTAL SPECIFICATION FOR DETAILS.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER SQUARE METER OR CUBIC METER FOR THE ABOVE ITEMS WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM 863 - STRUCTURAL STEEL MEMBERS, MISCELLANEOUS LEVEL FABRICATION:

THIS ITEM OF WORK SHALL BE USED TO INSTALL NEW END CROSS FRAMES. THE END CROSS FRAMES SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD DRAWING EXJ-4-87M. NEW CROSS FRAME MEMBERS SHALL NOT BE SHOP PAINTED.

ITEM SPECIAL- BRIDGE DECK GROOVING:

THIS ITEM SHALL BE USED TO GROOVE THE NEW MICRO-SILICA MODIFIED CONCRETE OVERLAYS. THE BRIDGE DECK GROOVING SHALL MEET THE REQUIREMENTS OF SUPPLEMENTAL SPECIFICATIONS 842, SECTION 842.161.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER SQUARE METER FOR ITEM SPECIAL- BRIDGE DECK GROOVING WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM SPECIAL - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE):

EPOXY-URETHANE SHALL BE THE "BUFF" COLOR MEETING FEDERAL COLOR STANDARD NO. 37722 AS PER THE DETAILS IN THE PLAN. SEE PROPOSAL NOTE "SEALING OF CONCRETE SURFACES" FOR SURFACE PREPARATION REQUIREMENTS, APPLICATION RATES, MATERIAL REQUIREMENTS, AND APPLICATION PROCEDURES.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER SQUARE METER FOR ITEM SPECIAL - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM SPECIAL - STRUCTURE, MISC.: REPLACEMENT OF REINFORCING STEEL:

ANY EXISTING REINFORCING BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND WHICH ARE MADE UNUSABLE BY THE CONTRACTOR'S CONCRETE REMOVAL OPERATIONS, SHALL BE REPLACED WITH THE NEW STEEL AT HIS COST. ANY EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION SHALL BE REPLACED WITH NEW STEEL.

AN ALLOWANCE OF:

10 KILOGRAMS FOR STRUCTURE ASD-30-09446L AND 10 KILOGRAMS FOR STRUCTURE ASD-30-09446R IS INCLUDED FOR THIS PURPOSE.



DESIGN AGENCY
DISTRICT THREE

DATE
1-31-00
REVISION
RDN

DRAWN
GTS

DESIGNED
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STRUCTURAL GENERAL NOTES

ASD / WAY -30-
9.484 / 0.000

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DESIGN FILE: I:\projects\18286\Struct\gnote.dgn
WORKSTATION: egl/over
DATE: 31 JAN 2000

DESIGN FILE: i:\projects\18286\Struct\summary.dgn
 WORKSTATION: eglover DATE: 31 JAN 2000

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ESTIMATED QUANTITIES

STRUCTURE NO. ASD-30-14999 L SFN 0300578

Item	Item extension	description	unit	total
848	10000	Micro Silica Modified Concrete Overlay using Hydrodemolition (70 mm Thick)	Square Meter	415
848	20000	Surface Preparation using Hydrodemolition	Square Meter	415
848	30000	Micro Silica Modified Concrete Overlay (Variable Thickness), Material Only	Cubic Meter	5
848	50000	Hand Chipping	Square Meter	12
848	50100	Test Slab		Lump
848	50320	Existing Concrete Overlay Removed (45 mm Thick)	Square Meter	415
Special	85050070	Bridge deck grooving	Square Meter	415

STRUCTURE NO. ASD-30-14999 R SFN 0300608

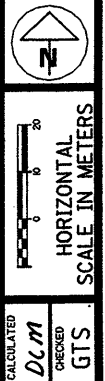
Item	Item extension	description	unit	total
848	10000	Micro Silica Modified Concrete Overlay using Hydrodemolition (70 mm Thick)	Square Meter	415
848	20000	Surface Preparation using Hydrodemolition	Square Meter	415
848	30000	Micro Silica Modified Concrete Overlay (Variable Thickness), Material Only	Cubic Meter	5
848	50000	Hand Chipping	Square Meter	12
848	50100	Test Slab		Lump
848	50320	Existing Concrete Overlay Removed (45 mm Thick)	Square Meter	415
Special	85050070	Bridge deck grooving	Square Meter	415

STRUCTURE NO. ASD-30-18105 L SFN 0300632

Item	Item extension	description	unit	total
848	10000	Micro Silica Modified Concrete Overlay using Hydrodemolition (70 mm Thick)	Square Meter	715
848	20000	Surface Preparation using Hydrodemolition	Square Meter	715
848	30000	Micro Silica Modified Concrete Overlay (Variable Thickness), Material Only	Cubic Meter	8
848	50000	Hand Chipping	Square Meter	21
848	50100	Test Slab		Lump
848	50320	Existing Concrete Overlay Removed (45 mm Thick)	Square Meter	715
Special	85050070	Bridge deck grooving	Square Meter	715

STRUCTURE NO. ASD-30-18105 R SFN 0300667

Item	Item extension	description	unit	total
848	10000	Micro Silica Modified Concrete Overlay using Hydrodemolition (70 mm Thick)	Square Meter	715
848	20000	Surface Preparation using Hydrodemolition	Square Meter	715
848	30000	Micro Silica Modified Concrete Overlay (Variable Thickness), Material Only	Cubic Meter	8
848	50000	Hand Chipping	Square Meter	21
848	50100	Test Slab		Lump
848	50320	Existing Concrete Overlay Removed (45 mm Thick)	Square Meter	715
Special	85050070	Bridge deck grooving	Square Meter	715



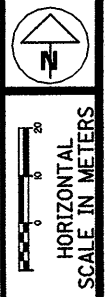
ESTIMATED QUANTITIES

ASD / WAY - 30 -
9.484 / 0.000

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DESIGN FILE: I:\projects\18286\STRUCT\summary.dgn
 WORKSTATION: eglover DATE: 31 JAN 2000



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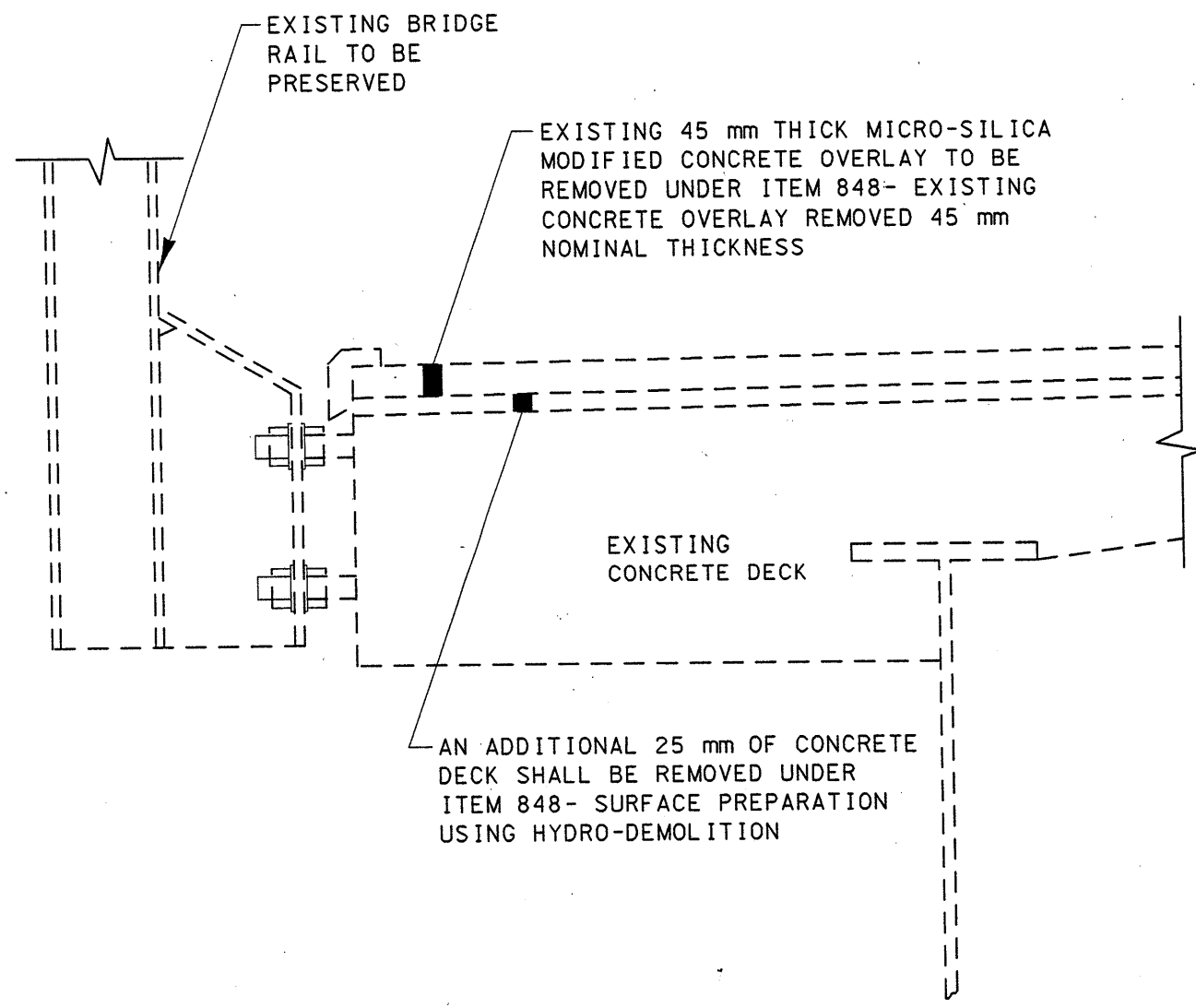
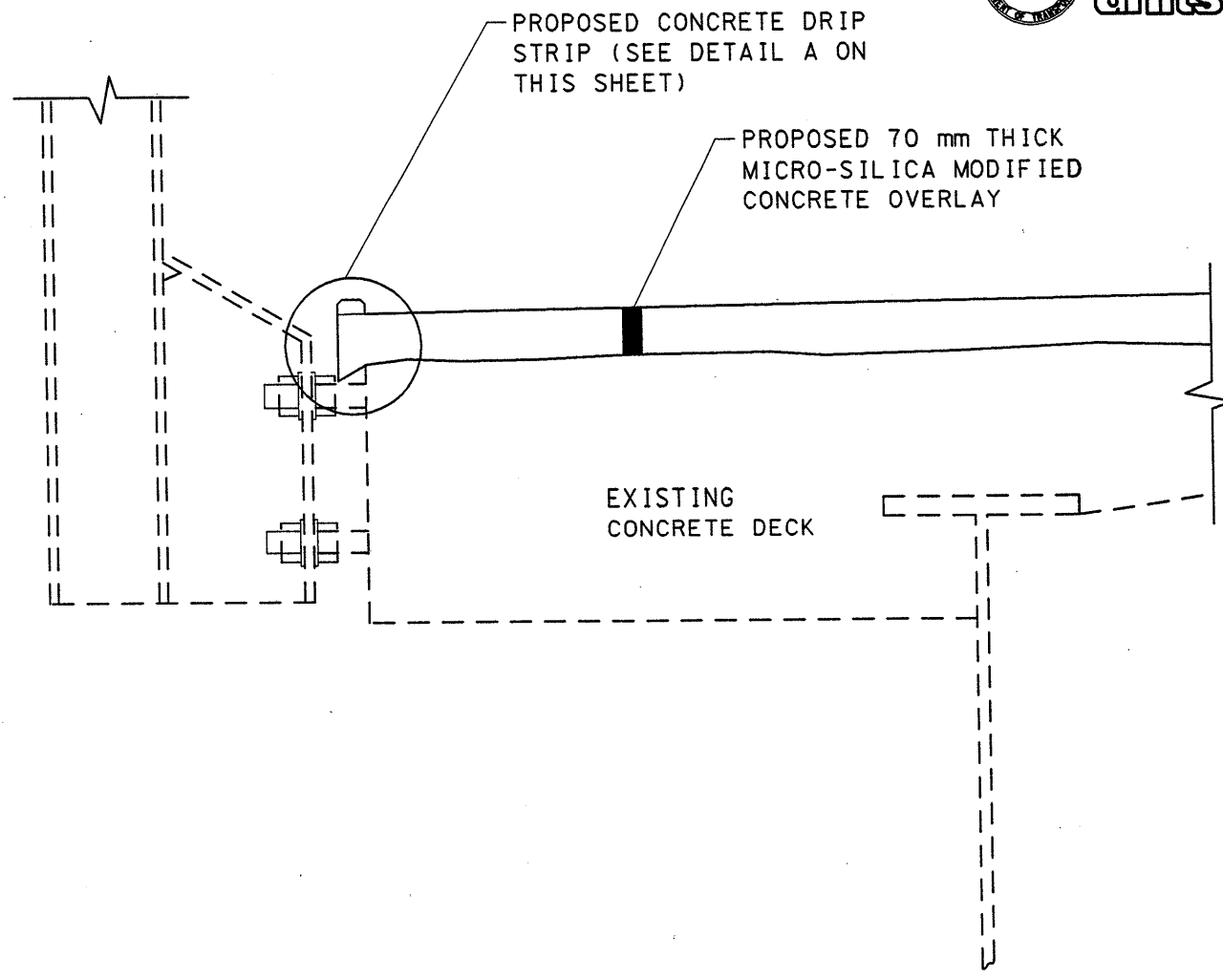
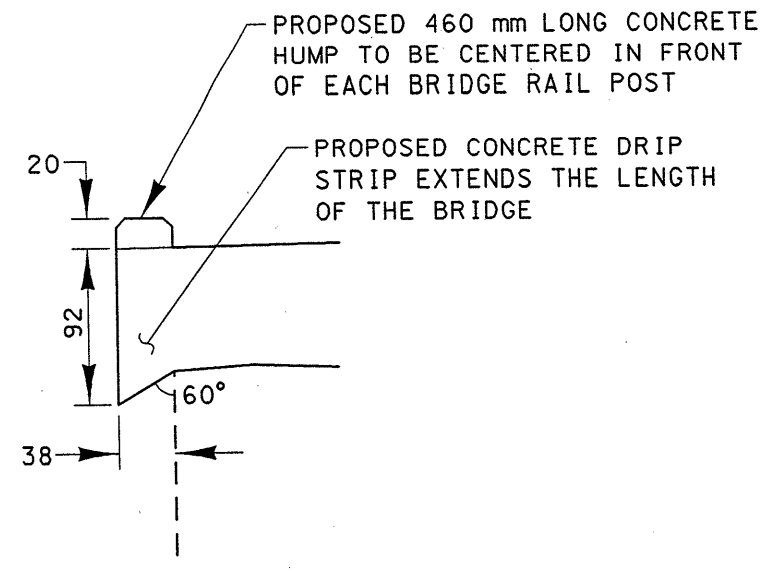
ESTIMATED QUANTITIES

ASD / WAY - 30 -
 9.484 / 0.000

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ESTIMATED QUANTITIES				
STRUCTURE NO. ASD-30-19215 L SFN 0300691				
Item	Item extension	description	unit	total
848	10000	Micro Silica Modified Concrete Overlay using Hydrodemolition (70 mm Thick)	Square Meter	415
848	20000	Surface Preparation using Hydrodemolition	Square Meter	415
848	30000	Micro Silica Modified Concrete Overlay (Variable Thickness), Material Only	Cubic Meter	5
848	50000	Hand Chipping	Square Meter	12
848	50100	Test Slab		Lump
848	50320	Existing Concrete Overlay Removed (45 mm Thick)	Square Meter	415
Special	85050070	Bridge deck grooving	Square Meter	415
STRUCTURE NO. ASD-30-19215 R SFN 0300721				
Item	Item extension	description	unit	total
848	10000	Micro Silica Modified Concrete Overlay using Hydrodemolition (70 mm Thick)	Square Meter	415
848	20000	Surface Preparation using Hydrodemolition	Square Meter	415
848	30000	Micro Silica Modified Concrete Overlay (Variable Thickness), Material Only	Cubic Meter	5
848	50000	Hand Chipping	Square Meter	12
848	50100	Test Slab		Lump
848	50320	Existing Concrete Overlay Removed (45 mm Thick)	Square Meter	415
Special	85050070	Bridge deck grooving	Square Meter	415
STRUCTURE NO. WAY-30-01609 L SFN 8501440				
Item	Item extension	description	unit	total
848	10000	Micro Silica Modified Concrete Overlay using Hydrodemolition (70 mm Thick)	Square Meter	537
848	20000	Surface Preparation using Hydrodemolition	Square Meter	537
848	30000	Micro Silica Modified Concrete Overlay (Variable Thickness), Material Only	Cubic Meter	6
848	50000	Hand Chipping	Square Meter	16
848	50100	Test Slab		Lump
848	50320	Existing Concrete Overlay Removed (45 mm Thick)	Square Meter	537
Special	85050070	Bridge deck grooving	Square Meter	537
STRUCTURE NO. WAY-30-01609 R SFN 8501475				
Item	Item extension	description	unit	total
848	10000	Micro Silica Modified Concrete Overlay using Hydrodemolition (70 mm Thick)	Square Meter	537
848	20000	Surface Preparation using Hydrodemolition	Square Meter	537
848	30000	Micro Silica Modified Concrete Overlay (Variable Thickness), Material Only	Cubic Meter	6
848	50000	Hand Chipping	Square Meter	16
848	50100	Test Slab		Lump
848	50320	Existing Concrete Overlay Removed (45 mm Thick)	Square Meter	537
Special	85050070	Bridge deck grooving	Square Meter	537


TYPICAL EXISTING SECTION

TYPICAL PROPOSED SECTION

DETAIL A

STRUCTURE	STRUCTURE FILE NO.
ASD-30-14999 L&R	0300578/0300608
ASD-30-18105 L&R	0300632/0300667
ASD-30-19215 L&R	0300691/0300721
WAY-30-01609 L&R	8501440/8501475

NOTE:
 THE PROPOSED MICRO-SILICA MODIFIED CONCRETE OVERLAY SHALL BE TEXTURED USING ITEM SPECIAL-BRIDGE DECK GROOVING

ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS NOTED OTHERWISE