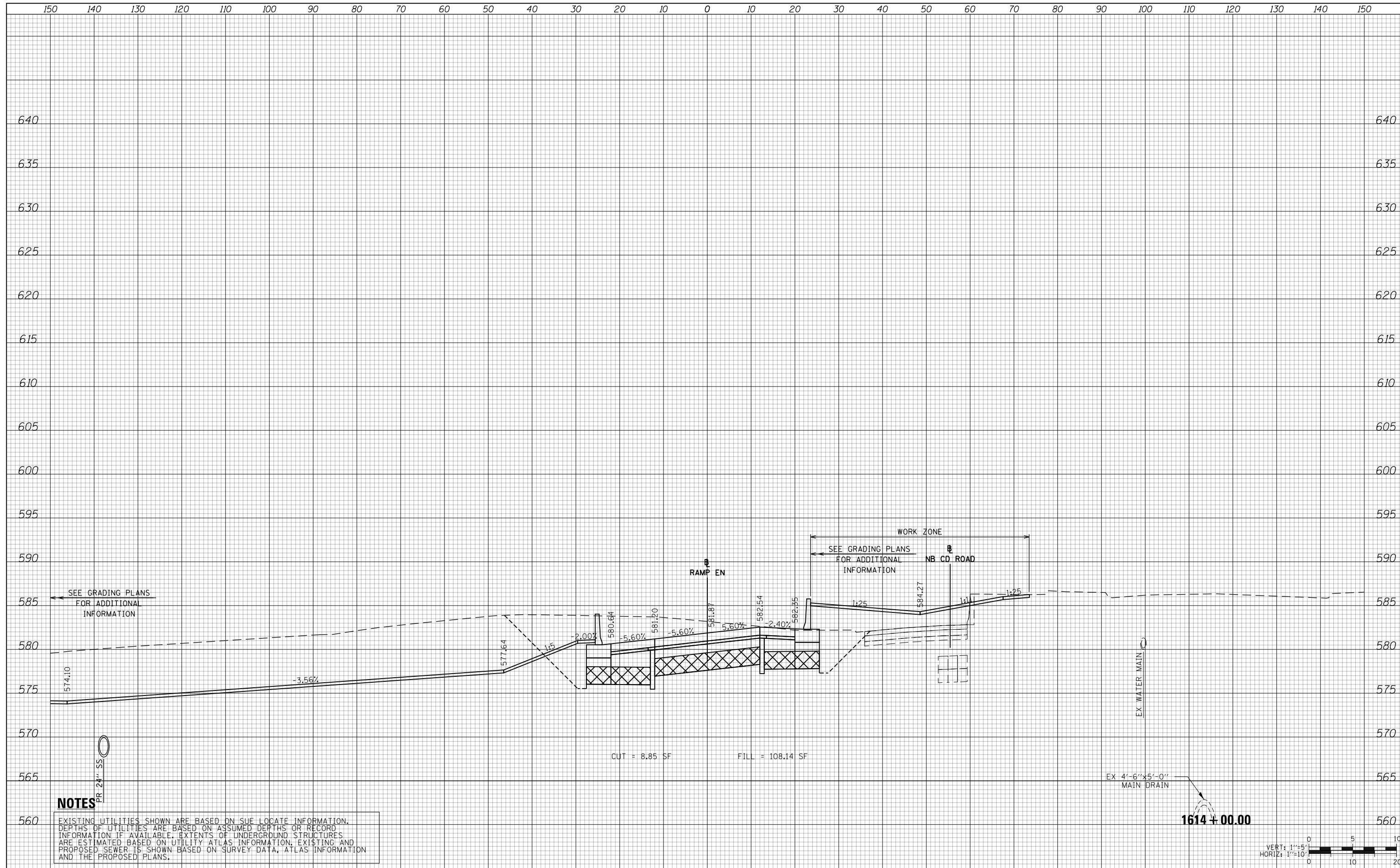


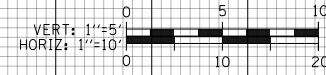
DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



**NOTES**

EXISTING UTILITIES SHOWN ARE BASED ON SUE LOCATE INFORMATION. DEPTHS OF UTILITIES ARE BASED ON ASSUMED DEPTHS OR RECORD INFORMATION IF AVAILABLE. EXTENTS OF UNDERGROUND STRUCTURES ARE ESTIMATED BASED ON UTILITY ATLAS INFORMATION, EXISTING AND PROPOSED SEWER IS SHOWN BASED ON SURVEY DATA, ATLAS INFORMATION AND THE PROPOSED PLANS.



D160X79-SHT-XS-Ramp EN-Stage 3.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

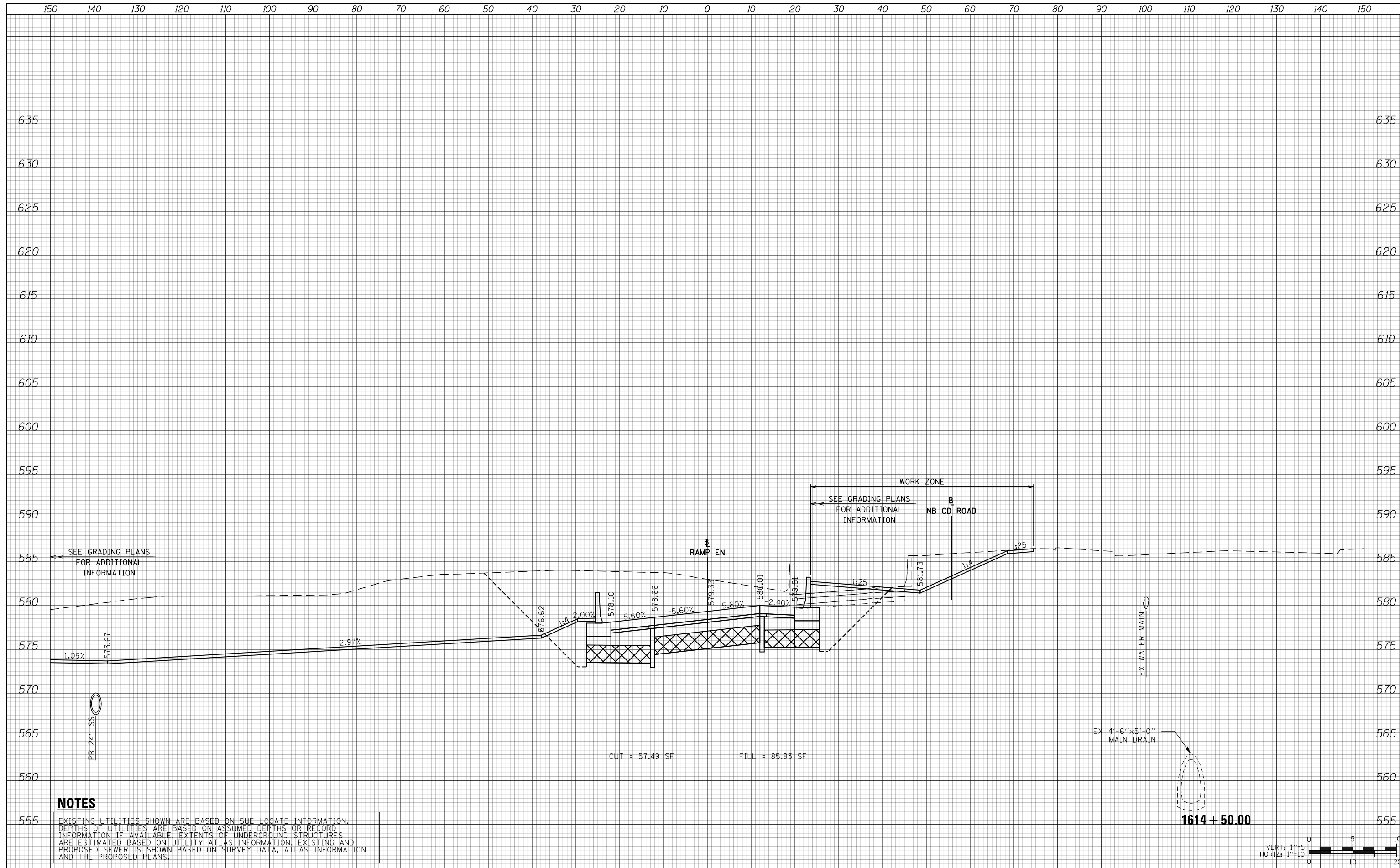
**CROSS SECTIONS  
RAMP EN STAGE 3**

SCALE: 10'H 5'V SHEET 20 OF 29 SHEETS STA. 1614+00.00 TO STA. 1614+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	701
CONTRACT NO. 60X79				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
FINAL SURVEY NO.	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	

DATE	
BY	
ORIGINAL SURVEY NO.	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	



**NOTES**

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
RAMP EN STAGE 3**

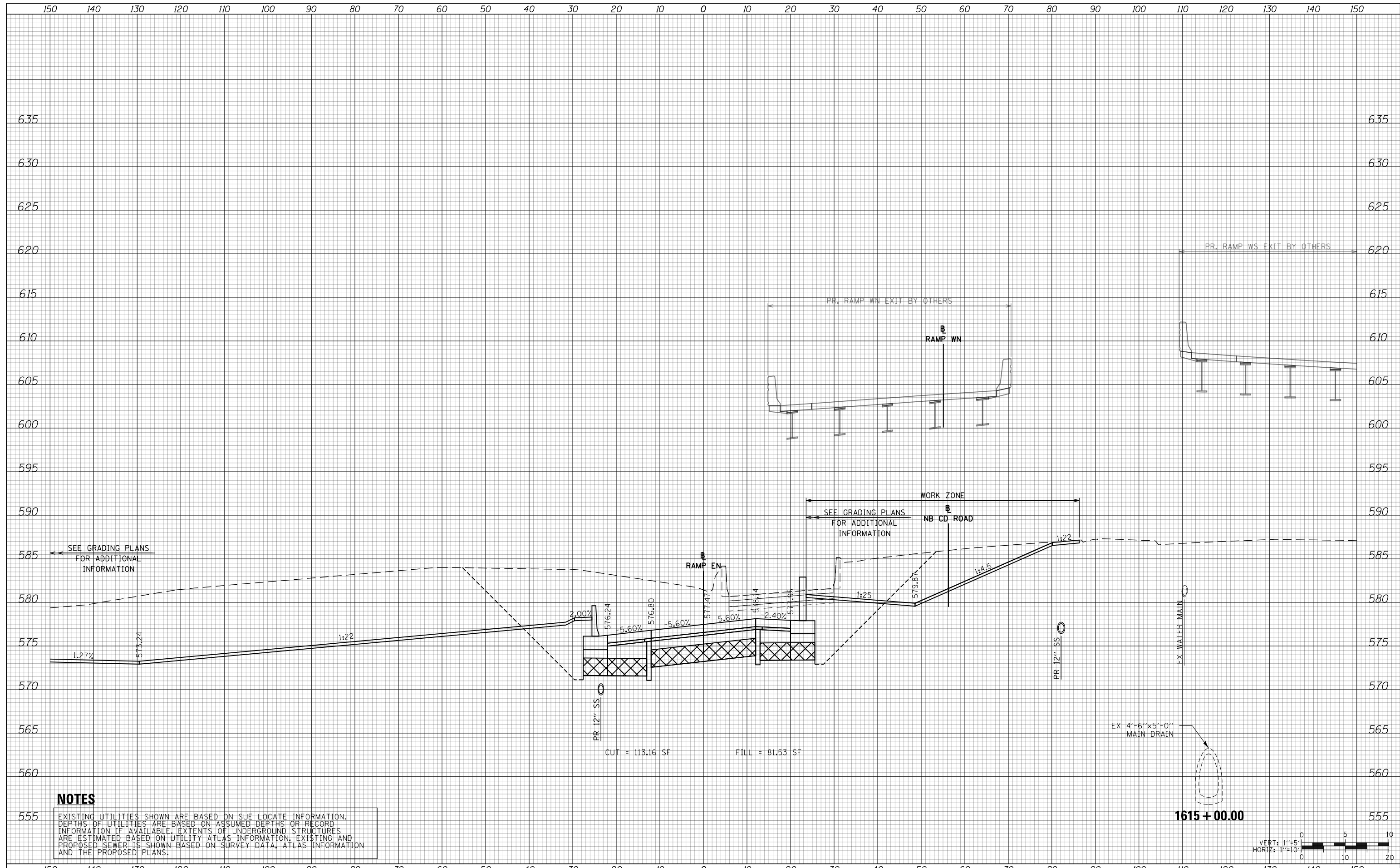


D160X79-SHT-XS-Ramp EN-Stage 3.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

SCALE: 10:H 5:V SHEET 21 OF 29 SHEETS STA. 1614+50.00 TO STA. 1614+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	702
				CONTRACT NO. 60X79
ILLINOIS FED. AID PROJECT				





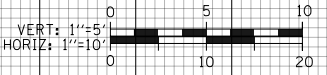
DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	

**NOTES**

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1615 + 00.00



D160X79-SHT-XS-Ramp EN-Stage 3.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

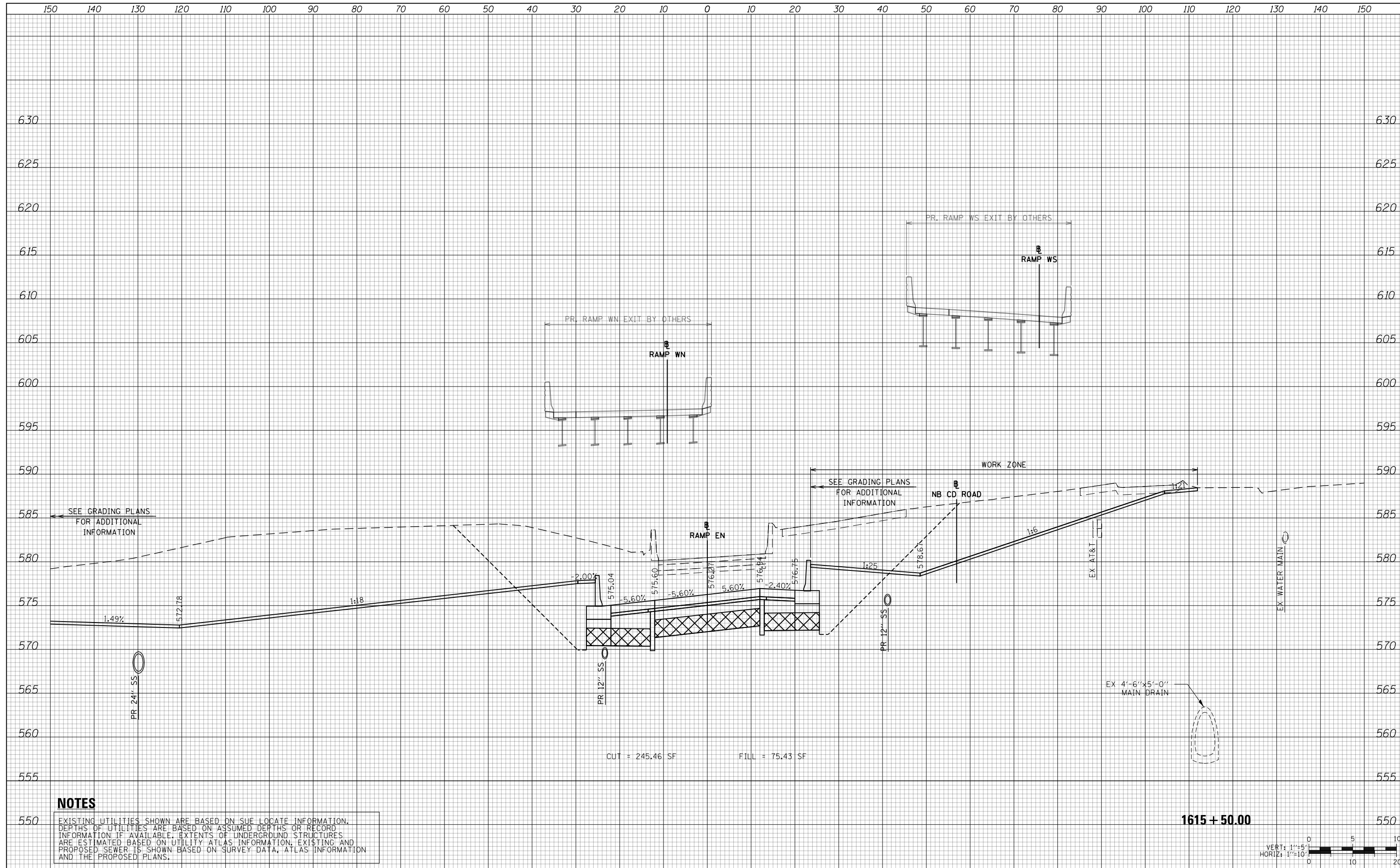
**CROSS SECTIONS  
RAMP EN STAGE 3**

SCALE: 10:H 5:V SHEET 22 OF 29 SHEETS STA. 1615+00.00 TO STA. 1615+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	703
CONTRACT NO. 60X79				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
FINAL SURVEY NO.	
SURVEYED PLOTTED TEMPLATE AREAS CHECKED	
NOTE BOOK AREAS CHECKED	

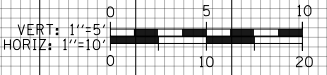
DATE	
BY	
ORIGINAL SURVEY NO.	
SURVEYED PLOTTED TEMPLATE AREAS CHECKED	
NOTE BOOK AREAS CHECKED	



**NOTES**

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1615 + 50.00



D160X79-SHT-XS-Ramp EN-Stage 3.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

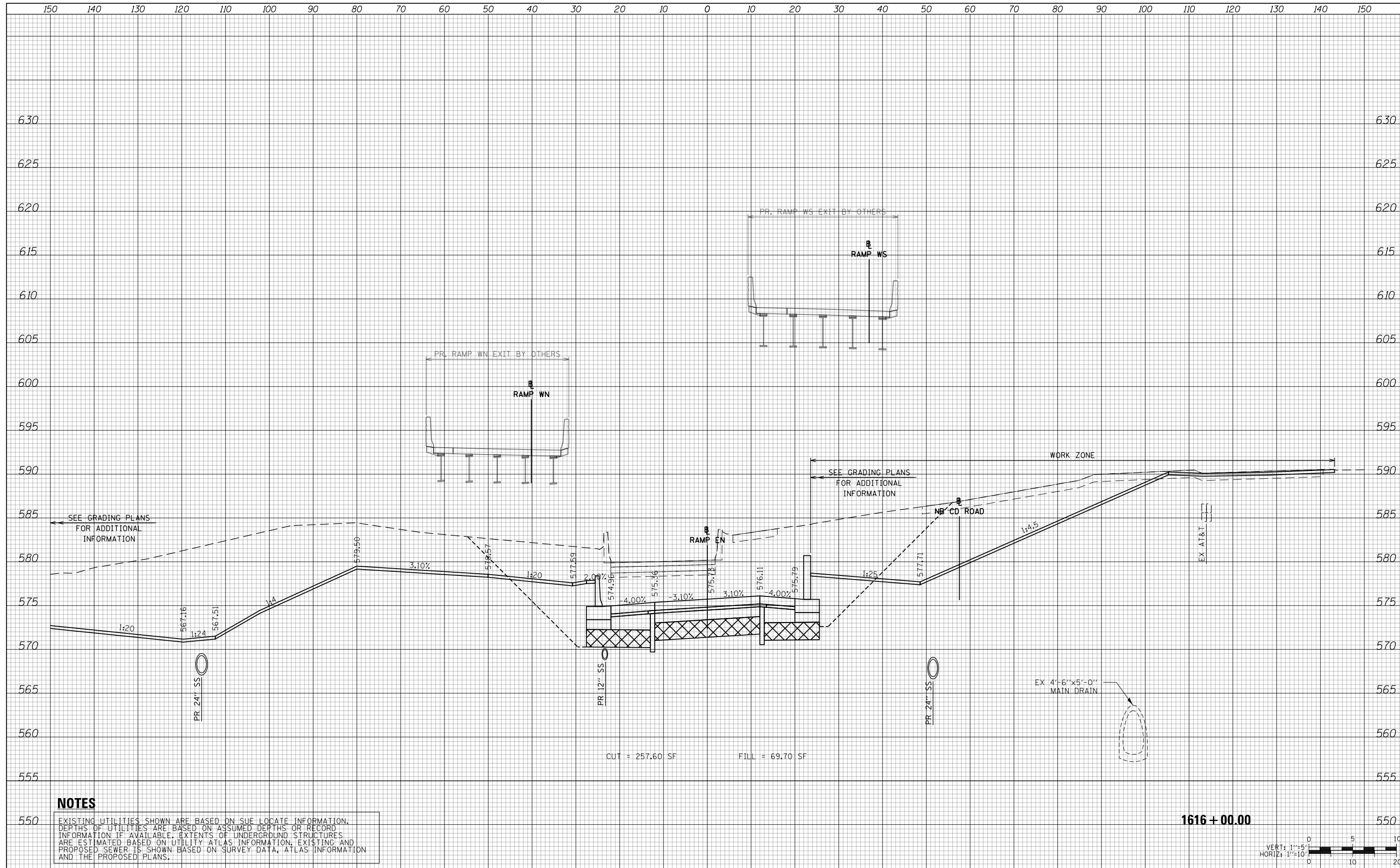
CROSS SECTIONS  
RAMP EN STAGE 3

SCALE: 10:H 5:V SHEET 23 OF 29 SHEETS STA. 1615+50.00 TO STA. 1615+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	704
CONTRACT NO. 60X79				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
FINAL SURVEY NO.	
SURVEYED PLOTTED TEMPLATE AREAS CHECKED	
NOTE BOOK AREAS CHECKED	

DATE	
BY	
ORIGINAL SURVEY NO.	
SURVEYED PLOTTED TEMPLATE AREAS CHECKED	
NOTE BOOK AREAS CHECKED	



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1616 + 00.00



D160X79-SHT-XS-Ramp EN-Stage 3.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

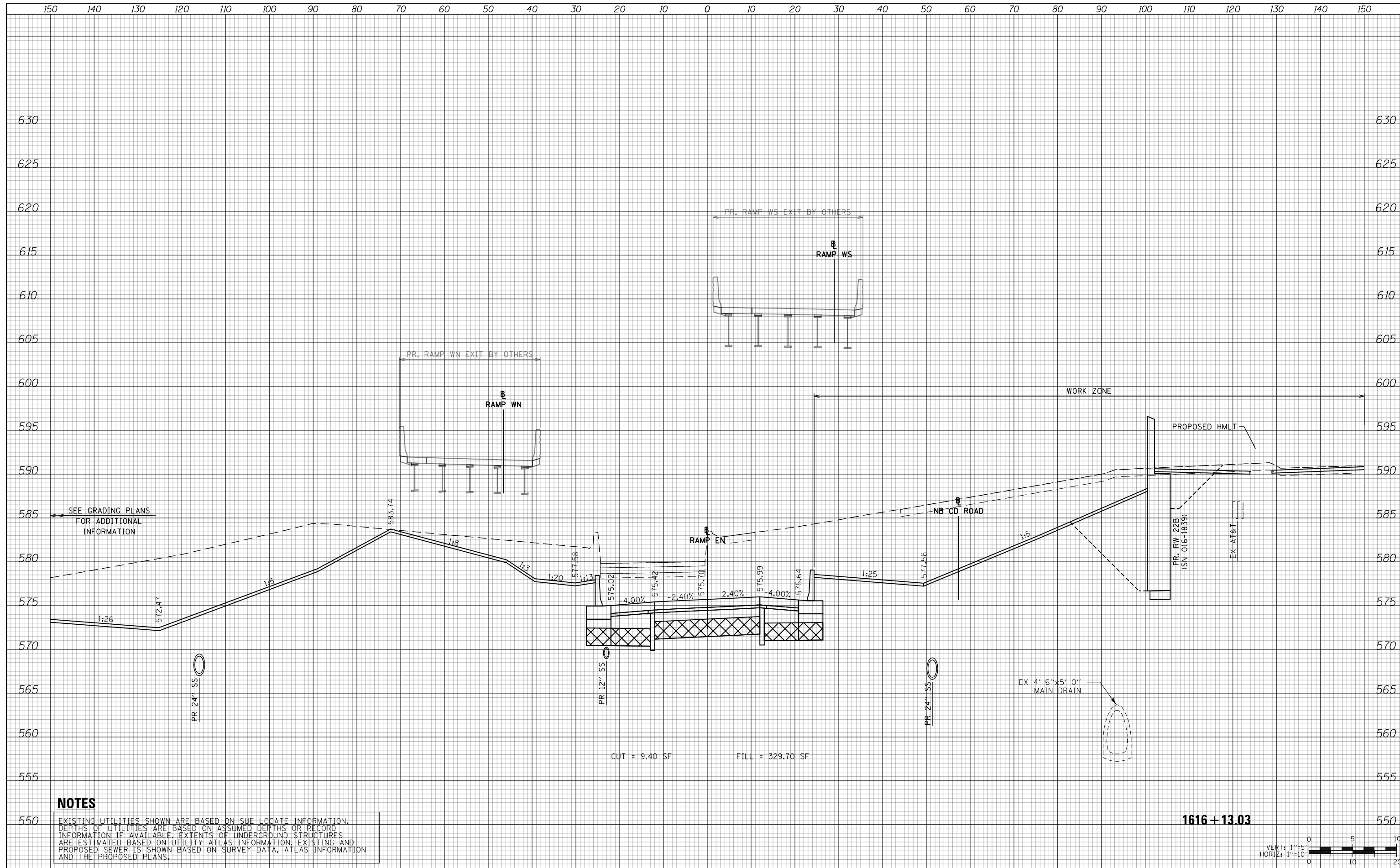
**CROSS SECTIONS  
RAMP EN STAGE 3**

SCALE: 10:H 5:V SHEET 24 OF 29 SHEETS STA. 1616+00.00 TO STA. 1616+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	705
CONTRACT NO. 60X79				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
FINAL SURVEY NO.	
SURVEYED	
PLOTTED	
TEMPLATE	
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DATE	
BY	
ORIGINAL SURVEY NO.	
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1616 + 13.03



D160X79-SHT-XS-Ramp EN-Stage 3.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

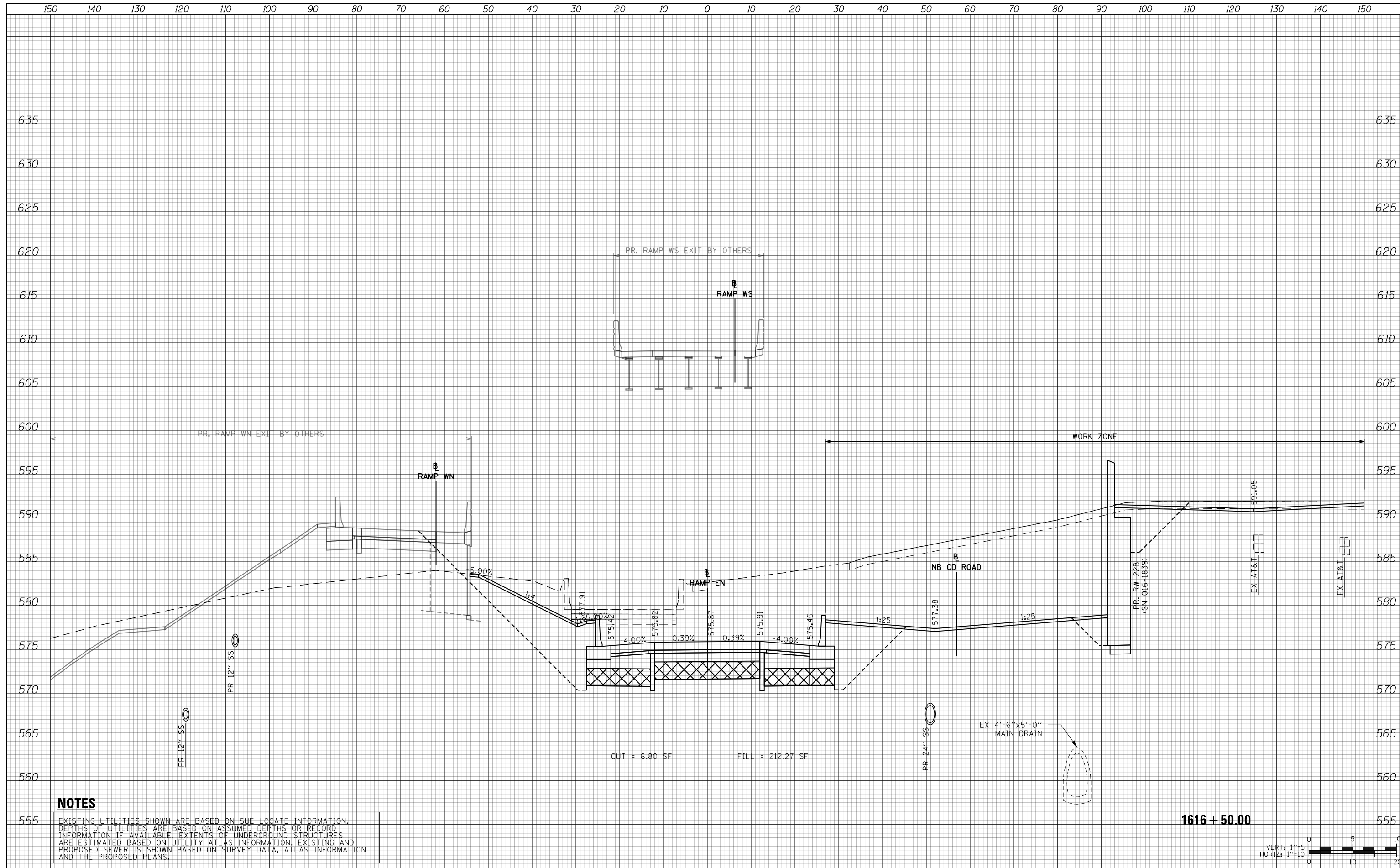
**CROSS SECTIONS  
RAMP EN STAGE 3**

SCALE: 10'H 5'V SHEET 25 OF 29 SHEETS STA. 1616+13.03 TO STA. 1616+13.03

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	706
CONTRACT NO. 60X79				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



**NOTES**

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D160X79-SHT-XS-Ramp EN-Stage 3.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
RAMP EN STAGE 3**

SCALE: 10'H 5'V SHEET 26 OF 29 SHEETS STA. 1616+50.00 TO STA. 1616+50.00

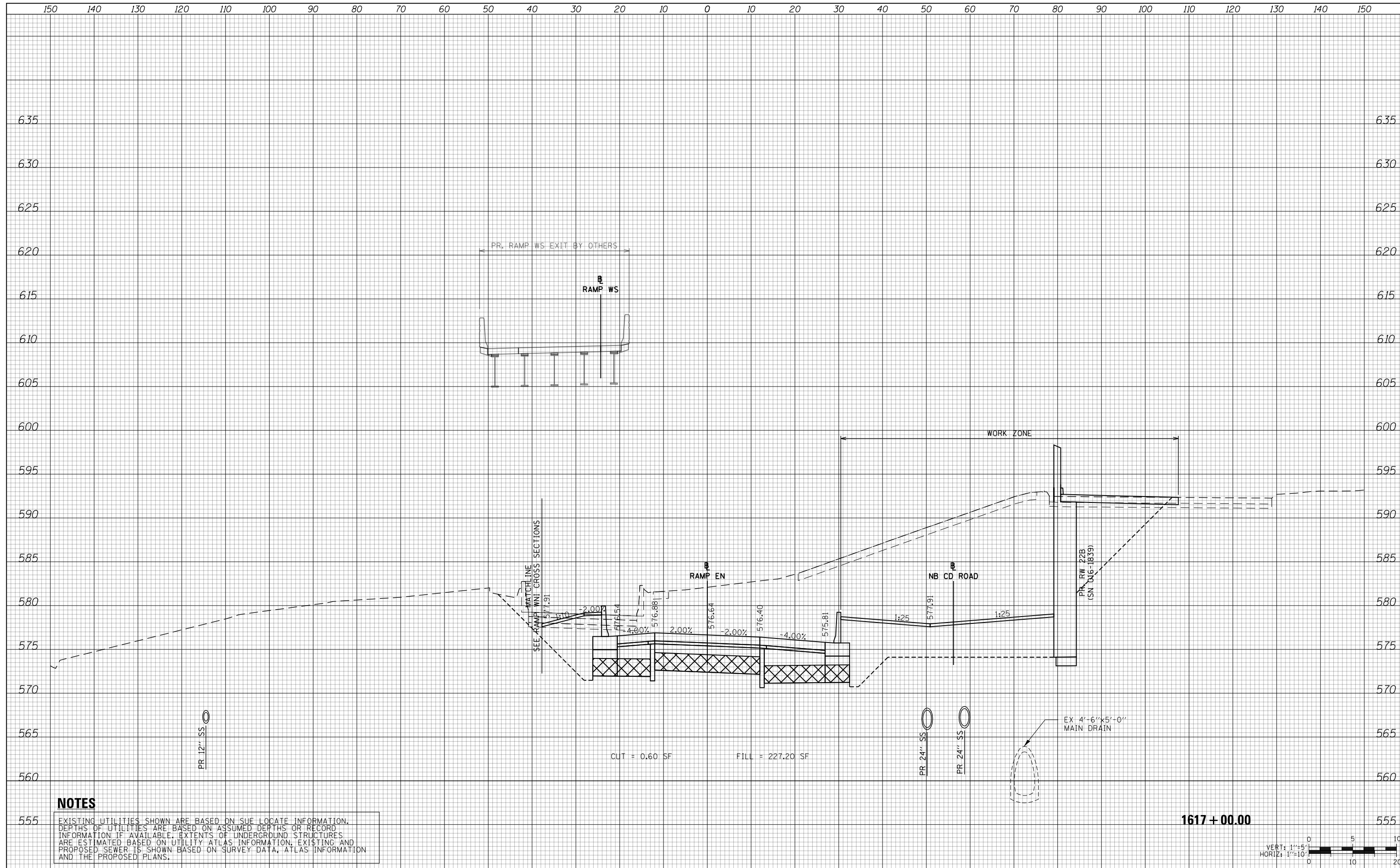
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	707
				CONTRACT NO. 60X79
ILLINOIS FED. AID PROJECT				



1616 + 50.00

DATE	
BY	
FINAL SURVEY NO.	
SURVEYED PLOTTED TEMPLATE AREAS CHECKED	
NOTE BOOK AREAS CHECKED	

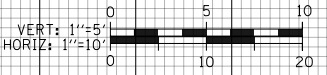
DATE	
BY	
ORIGINAL SURVEY NO.	
SURVEYED PLOTTED TEMPLATE AREAS CHECKED	
NOTE BOOK AREAS CHECKED	



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1617 + 00.00



D160X79-SHT-XS-Ramp EN-Stage 3.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
RAMP EN STAGE 3**

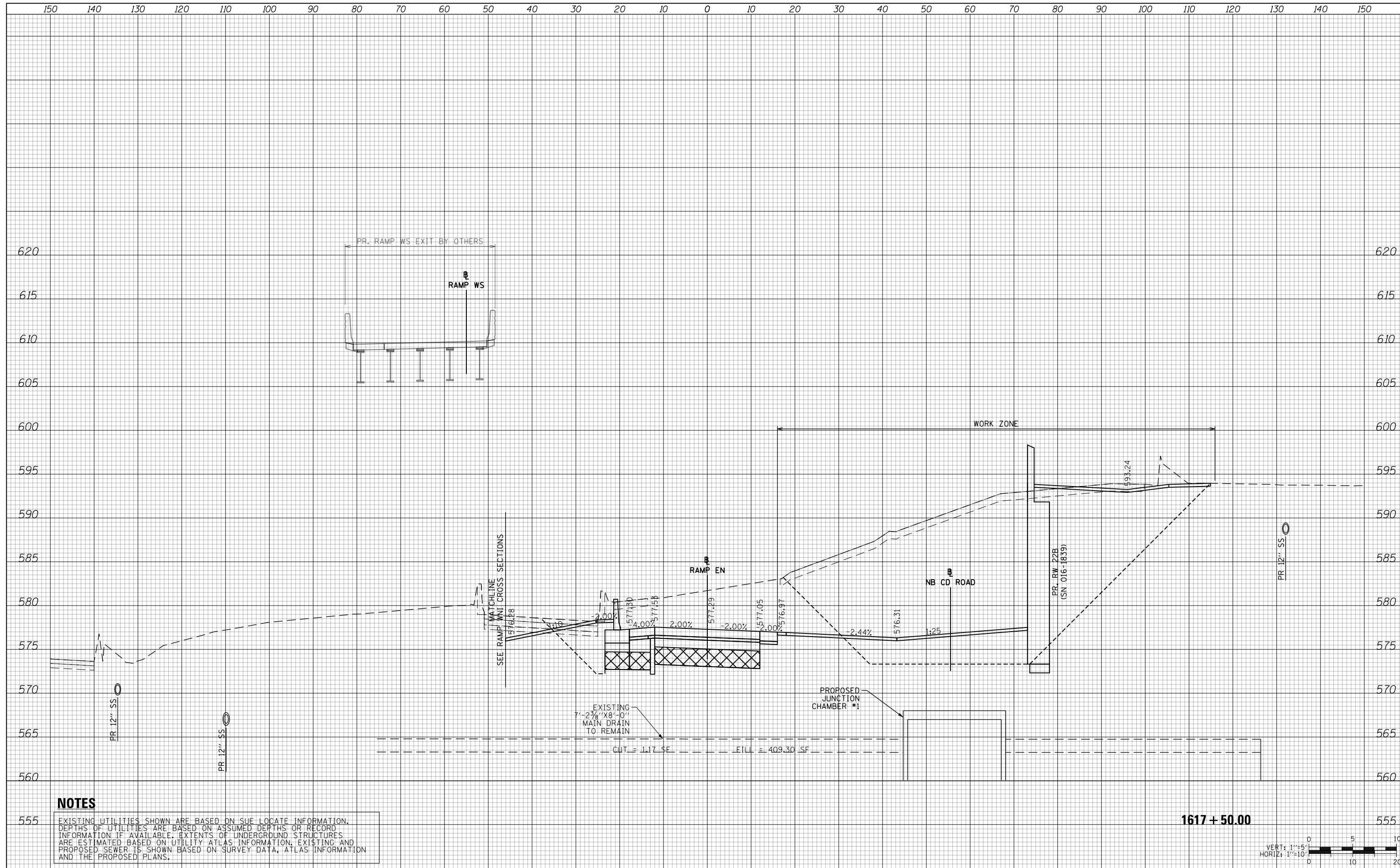
SCALE: 10'H 5'V SHEET 27 OF 29 SHEETS STA. 1617+00.00 TO STA. 1617+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	708
				CONTRACT NO. 60X79
ILLINOIS FED. AID PROJECT				



DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



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1617 + 50.00



D160X79-SHT-XS-Ramp EN-Stage 3.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

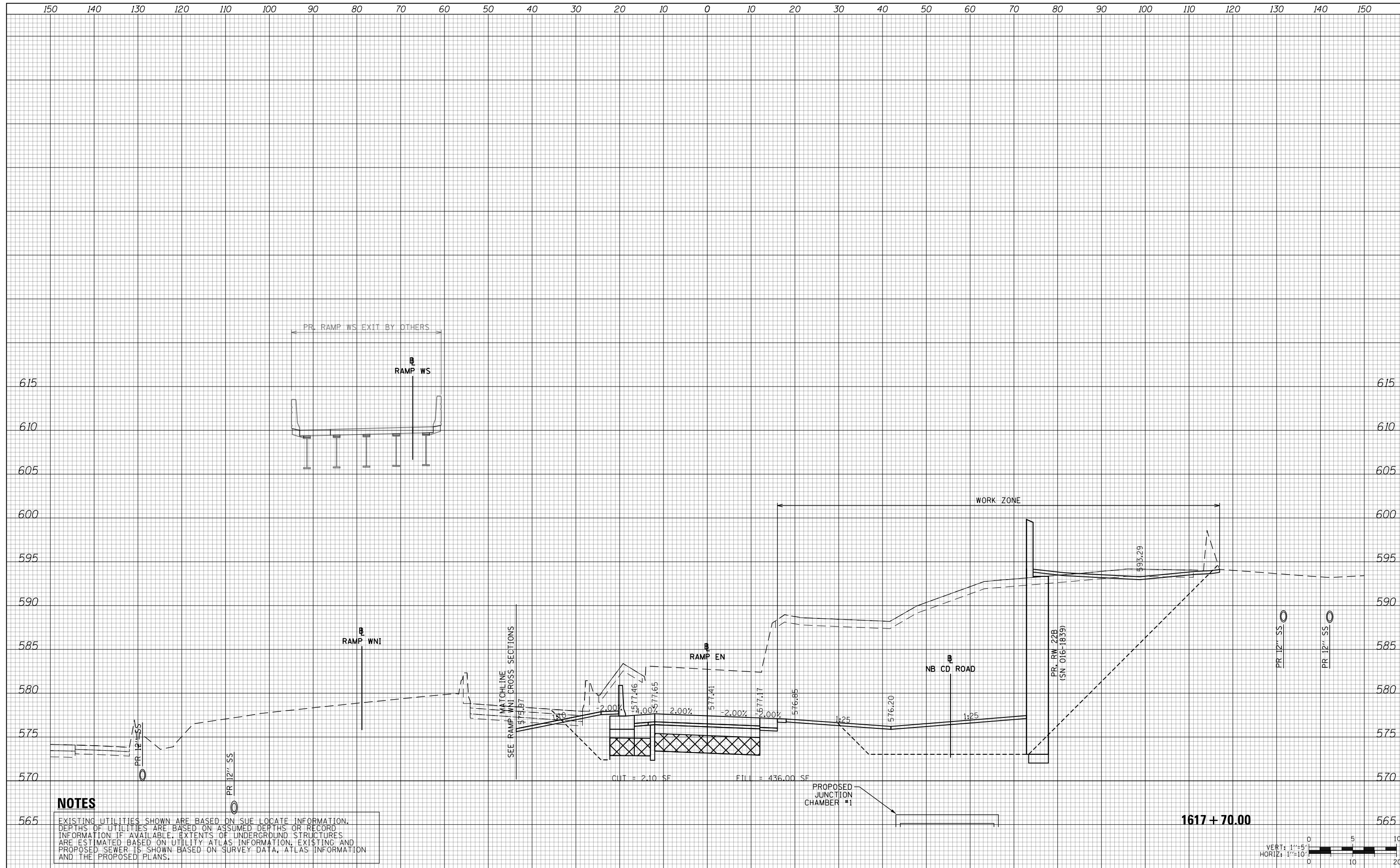
**CROSS SECTIONS  
RAMP EN STAGE 2**

SCALE: 10:H 5:V SHEET 28 OF 29 SHEETS STA. 1617+50.00 TO STA. 1617+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	709
CONTRACT NO. 60X79				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
FINAL SURVEY	
NOTE BOOK	
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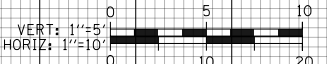
DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
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ORIGINAL SURVEY	
NOTE BOOK	
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1617 + 70.00



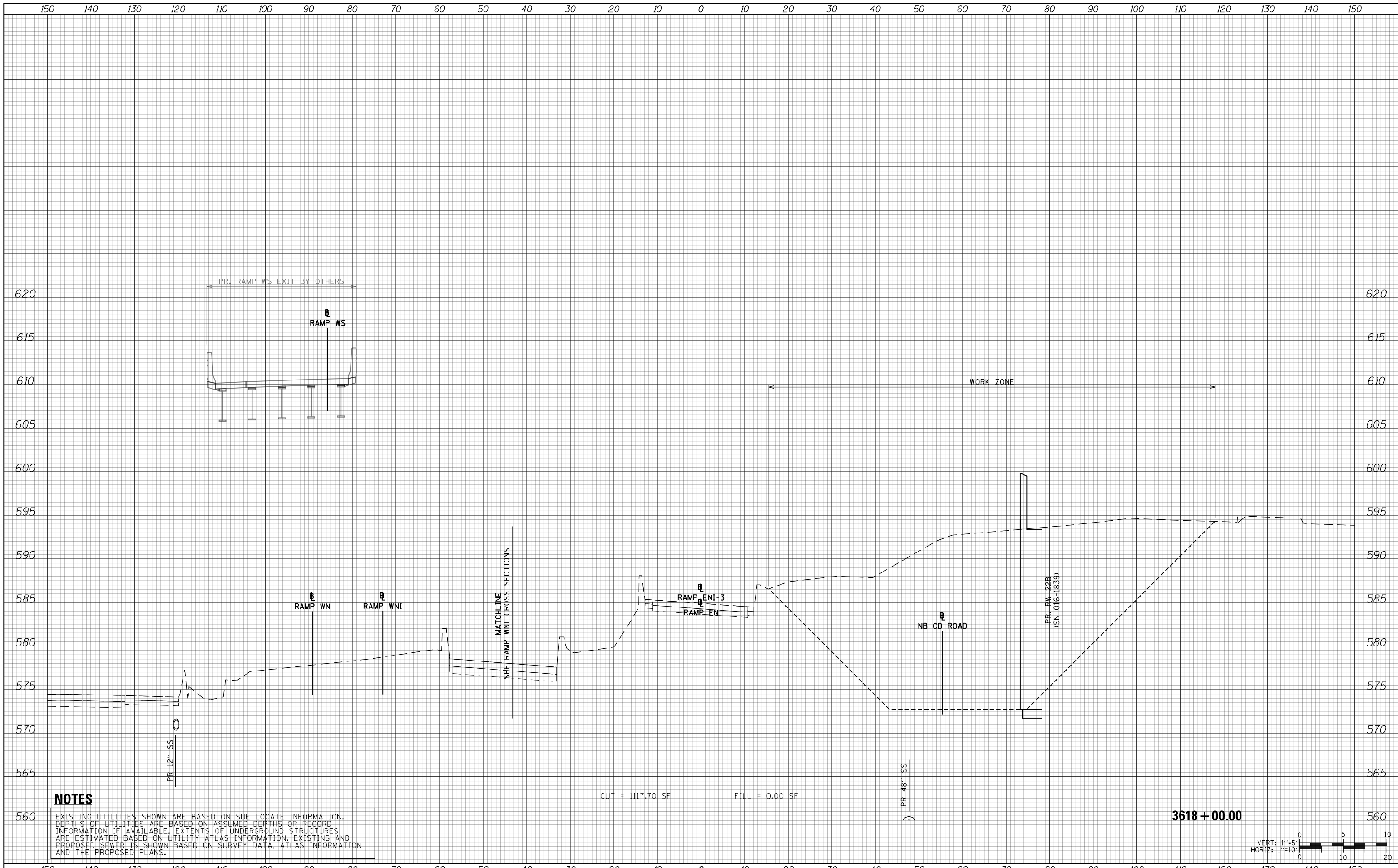
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PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
RAMP EN STAGE 2**

SCALE: 10:H 5:V SHEET 29 OF 29 SHEETS STA. 1617+70.00 TO STA. 1617+70.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	710
CONTRACT NO. 60X79				
ILLINOIS FED. AID PROJECT				



DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	

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CUT = 1117.70 SF FILL = 0.00 SF

3618 + 00.00



D160X79-SHT-XS-Ramp ENI-Stage 1.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

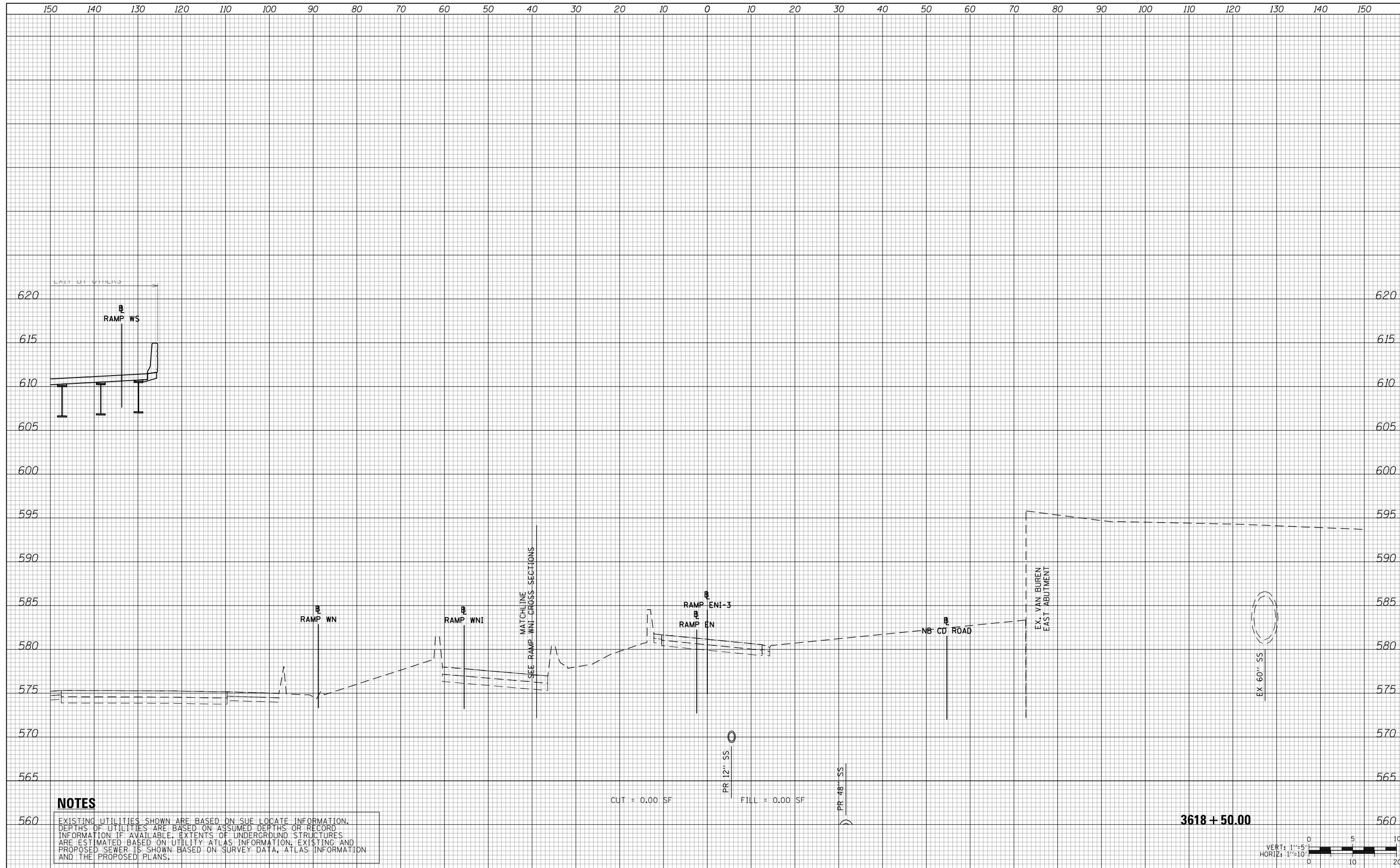
**CROSS SECTIONS  
INTERIM RAMP EN STAGE 1**

SCALE: 10:H 5:V SHEET 1 OF 6 SHEETS STA. 3618+00.00 TO STA. 3618+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	711
				CONTRACT NO. 60X79
ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



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CUT = 0.00 SF      FILL = 0.00 SF

3618 + 50.00



D160X79-SHT-XS-Ramp ENI-Stage 1.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
INTERIM RAMP EN STAGE 1**

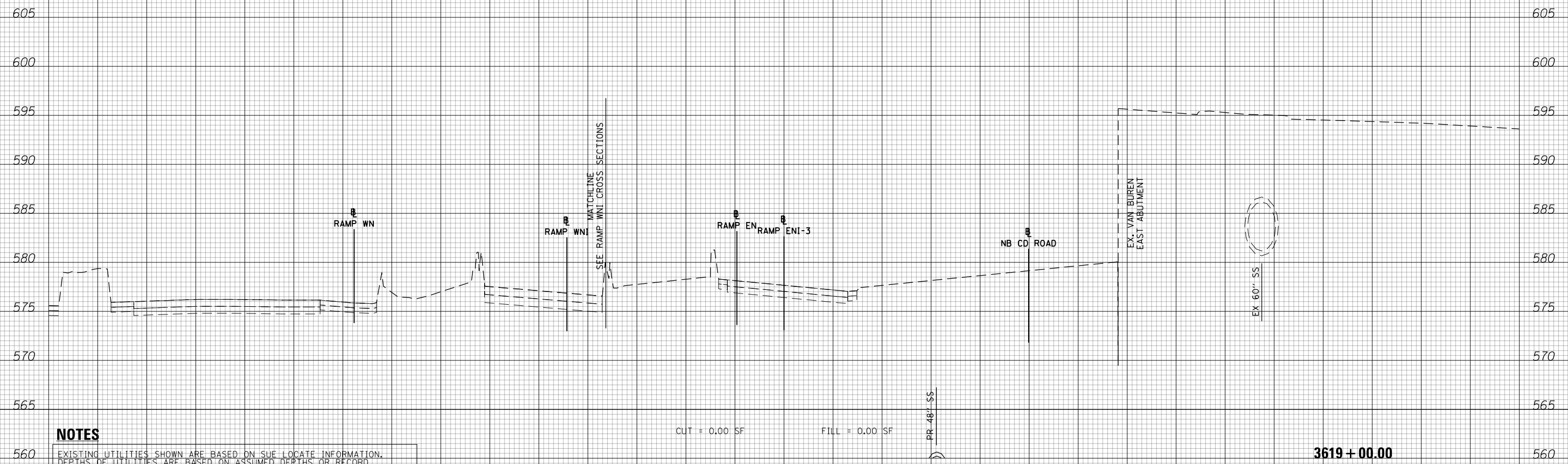
SCALE: 10:H 5:V      SHEET 2 OF 6 SHEETS      STA. 3618+50.00 TO STA. 3618+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	712
CONTRACT NO. 60X79				
ILLINOIS FED. AID PROJECT				

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

DATE	
BY	
FINAL SURVEY NO.	
SURVEYED PLOTTED AREAS CHECKED	
TEMPLATE	
NOTE BOOK	

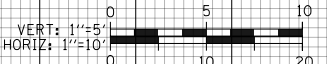
DATE	
BY	
ORIGINAL SURVEY NO.	
SURVEYED PLOTTED AREAS CHECKED	
TEMPLATE	
NOTE BOOK	



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3619 + 00.00



D160X79-SHT-XS-Ramp ENI-Stage 1.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
INTERIM RAMP EN STAGE 1**

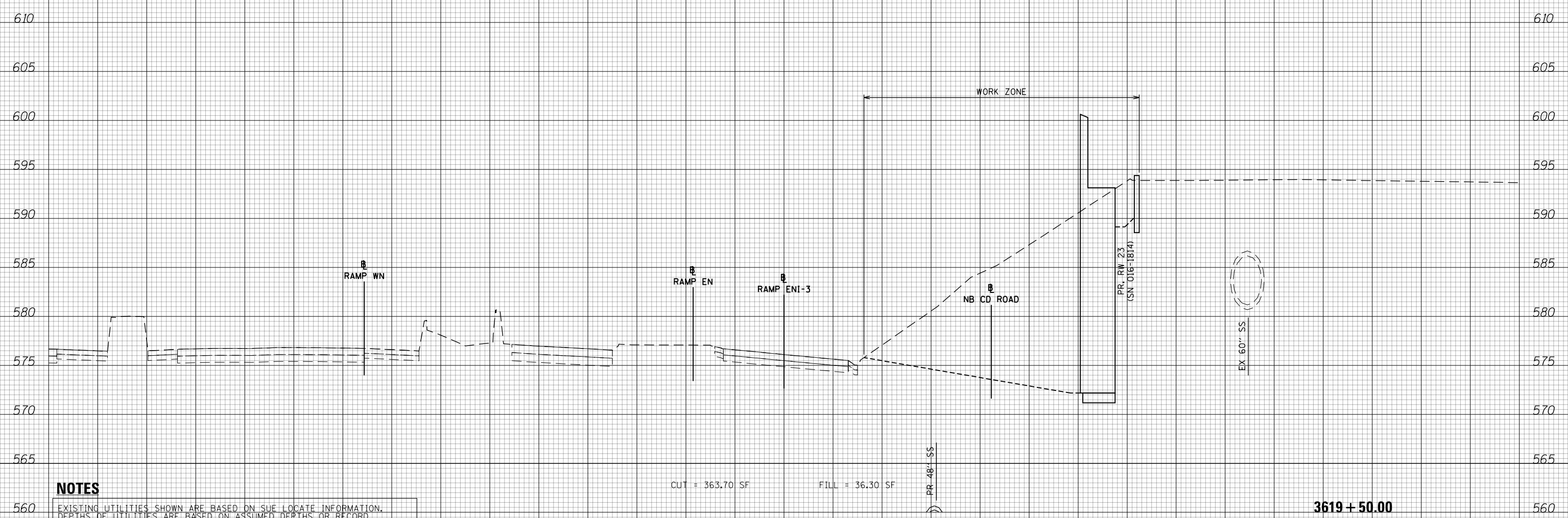
SCALE: 10:H 5:V SHEET 3 OF 6 SHEETS STA. 3619+00.00 TO STA. 3619+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	713
CONTRACT NO. 60X79				
ILLINOIS FED. AID PROJECT				

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

DATE	
BY	
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FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
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ORIGINAL SURVEY	
NOTE BOOK	
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**NOTES**

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3619 + 50.00



D160X79-SHT-XS-Ramp ENI-Stage 1.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
INTERIM RAMP EN STAGE 1**

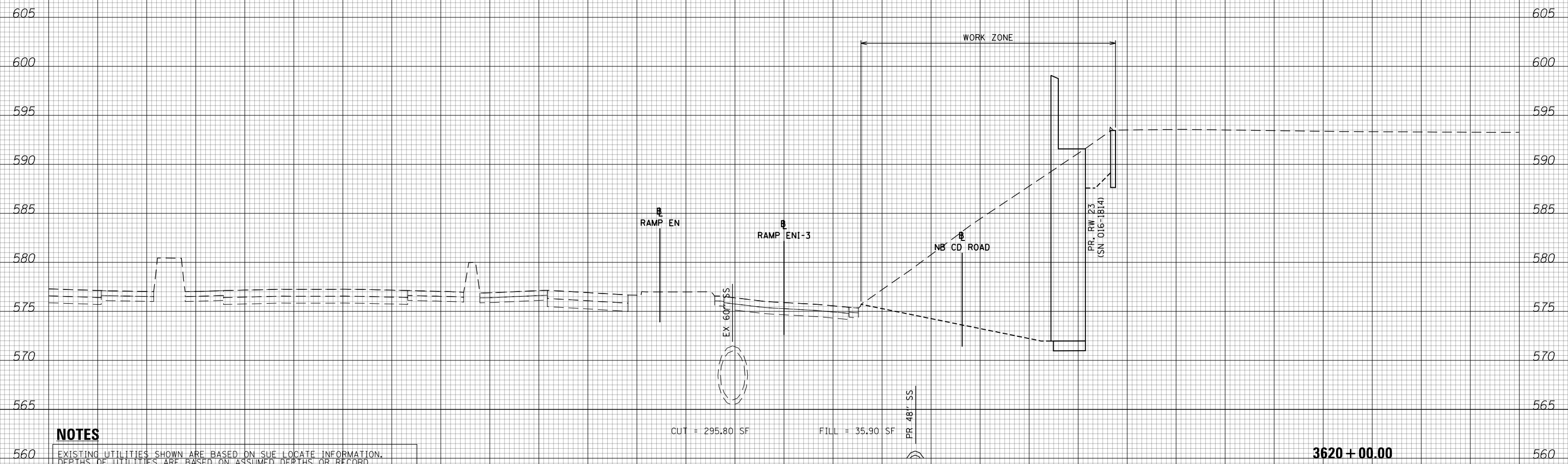
SCALE: 10:H 5:V SHEET 4 OF 6 SHEETS STA. 3619+50.00 TO STA. 3619+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	714
CONTRACT NO. 60X79				
ILLINOIS FED. AID PROJECT				

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
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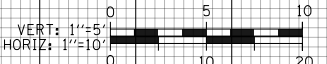


**NOTES**

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CUT = 295.80 SF      FILL = 35.90 SF

3620 + 00.00



D160X79-SHT-XS-Ramp ENI-Stage 1.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
INTERIM RAMP EN STAGE 1**

SCALE: 10'H 5"V      SHEET 5 OF 6 SHEETS      STA. 3620+00.00 TO STA. 3620+00.00

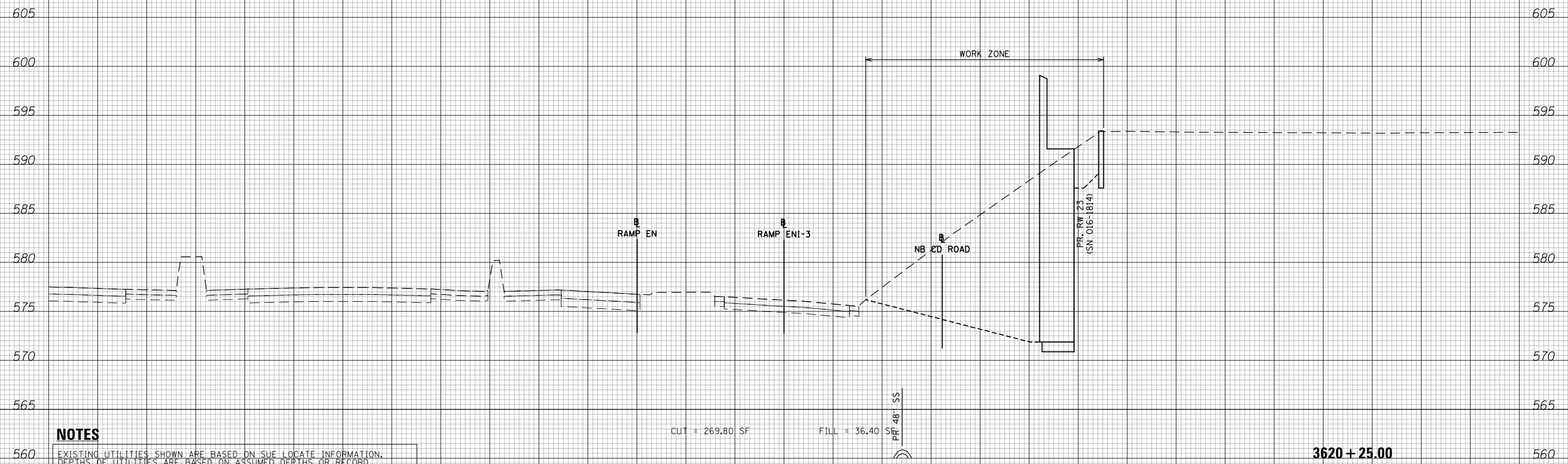
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	715
CONTRACT NO. 60X79				

ILLINOIS FED. AID PROJECT

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

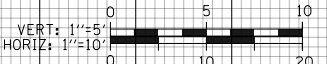
DATE	
BY	
FINAL SURVEY NO.	
SURVEYED PLOTTED AREAS CHECKED	
TEMPLATE	
NOTE BOOK	

DATE	
BY	
ORIGINAL SURVEY NO.	
SURVEYED PLOTTED AREAS CHECKED	
TEMPLATE	
NOTE BOOK	



**NOTES**

EXISTING UTILITIES SHOWN ARE BASED ON SUE LOCATE INFORMATION. DEPTHS OF UTILITIES ARE BASED ON ASSUMED DEPTHS OR RECORD INFORMATION IF AVAILABLE. EXTENTS OF UNDERGROUND STRUCTURES ARE ESTIMATED BASED ON UTILITY ATLAS INFORMATION, EXISTING AND PROPOSED SEWER IS SHOWN BASED ON SURVEY DATA, ATLAS INFORMATION AND THE PROPOSED PLANS.



D160X79-SHT-XS-Ramp ENI-Stage 1.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
 INTERIM RAMP EN STAGE 1**

SCALE: 10'H 5'V SHEET 6 OF 6 SHEETS STA. 3620+00.00 TO STA. 3620+00.00

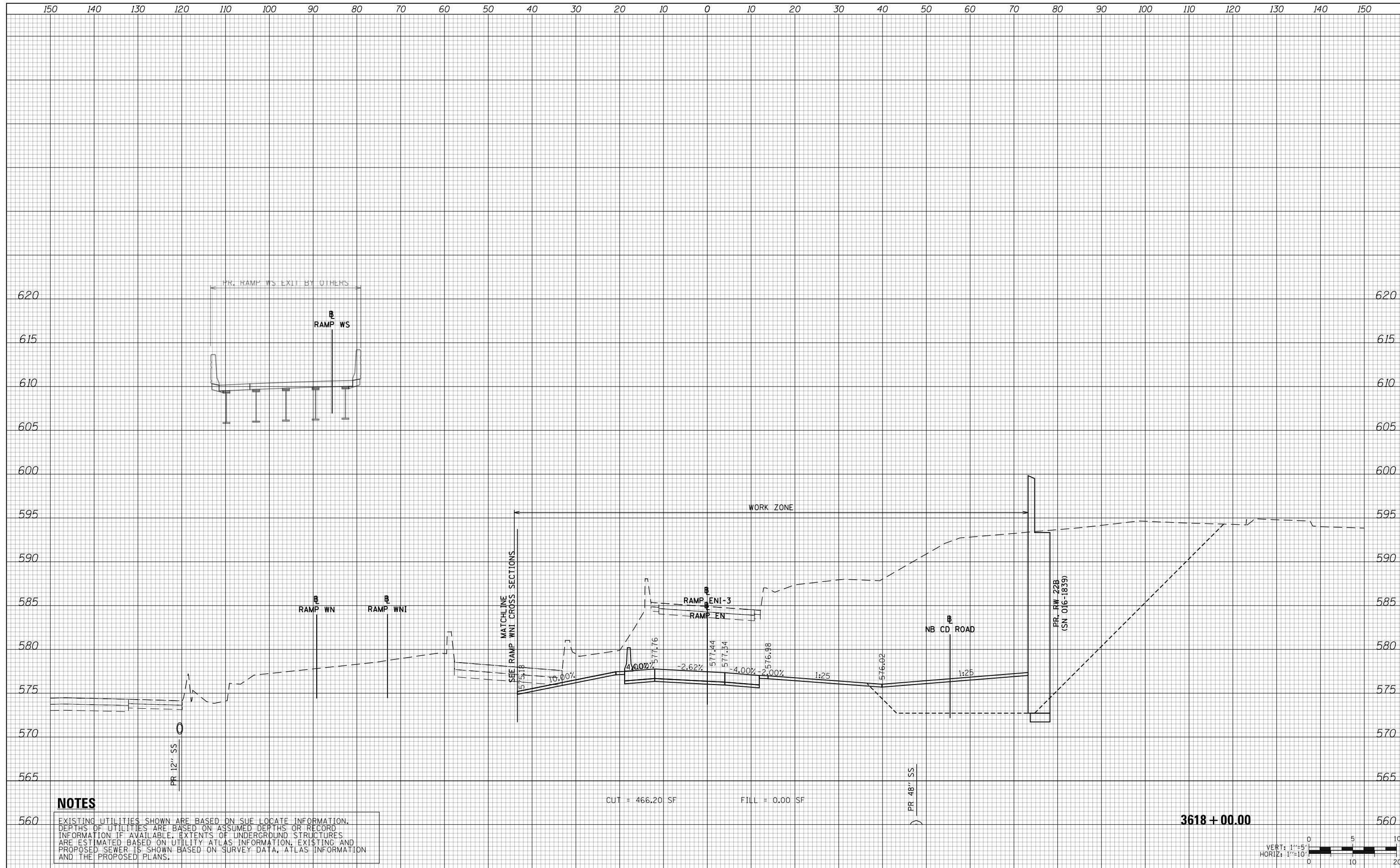
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	716
CONTRACT NO. 60X79				

ILLINOIS FED. AID PROJECT



DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



**NOTES**

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CUT = 466.20 SF      FILL = 0.00 SF

3618 + 00.00



D160X79-SHT-XS-Ramp ENI-Stage 2.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

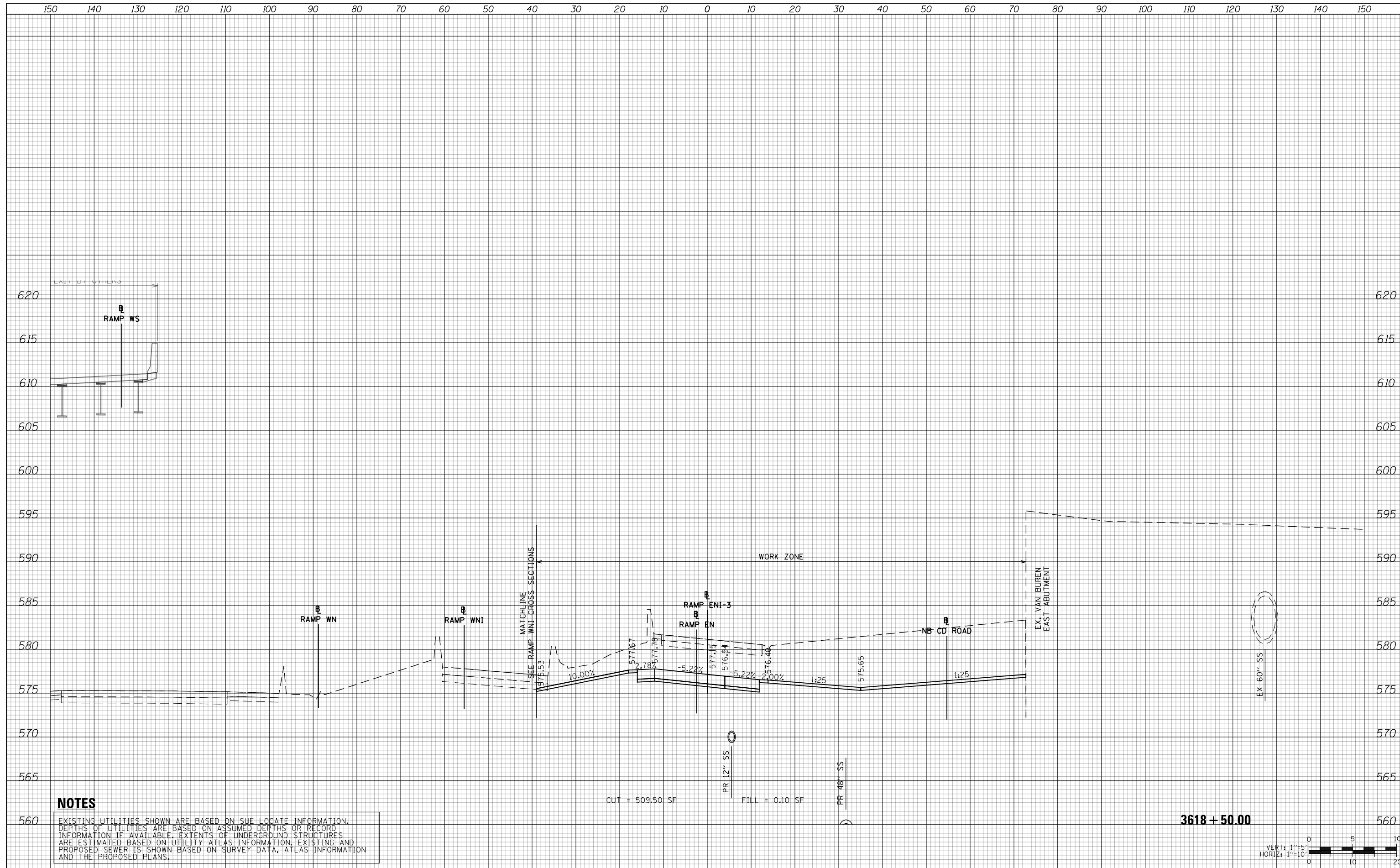
**CROSS SECTIONS  
INTERIM RAMP EN STAGE 2**

SCALE: 10:H 5:V      SHEET 1 OF 6 SHEETS      STA. 3618+00.00 TO STA. 3618+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	717
CONTRACT NO. 60X79				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



**NOTES**

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CUT = 509.50 SF      FILL = 0.10 SF

3618 + 50.00



D160X79-SHT-XS-Ramp ENI-Stage 2.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
INTERIM RAMP EN STAGE 2**

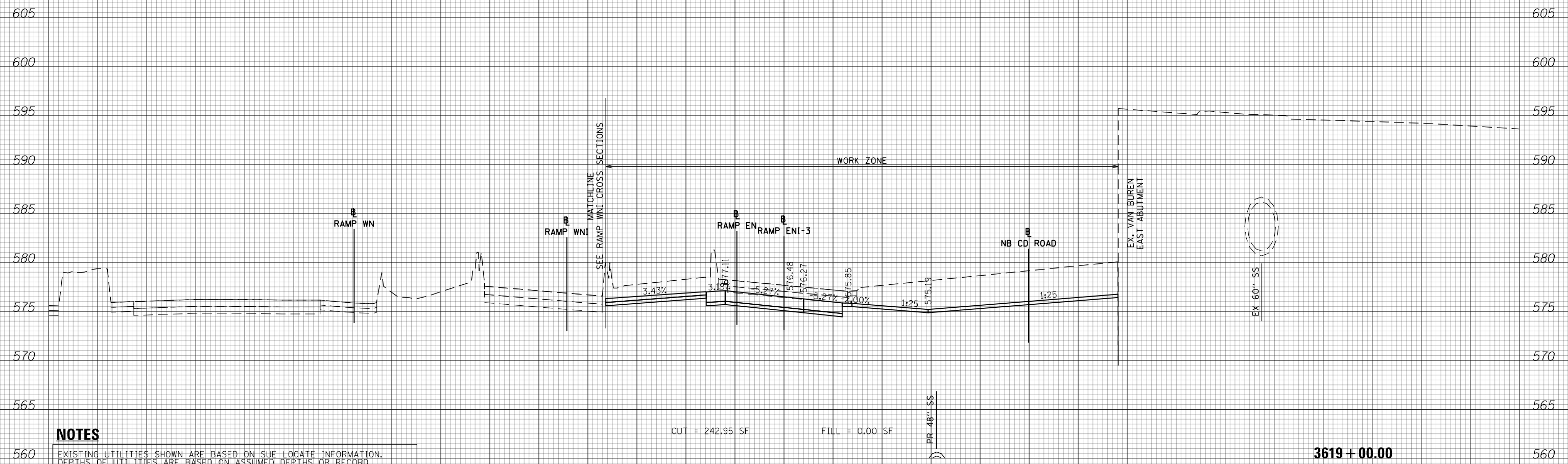
SCALE: 10:H 5:V      SHEET 2 OF 6 SHEETS      STA. 3618+50.00 TO STA. 3618+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	718
CONTRACT NO. 60X79				
ILLINOIS FED. AID PROJECT				

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



**NOTES**

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CUT = 242.95 SF      FILL = 0.00 SF



D160X79-SHT-XS-Ramp ENI-Stage 2.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

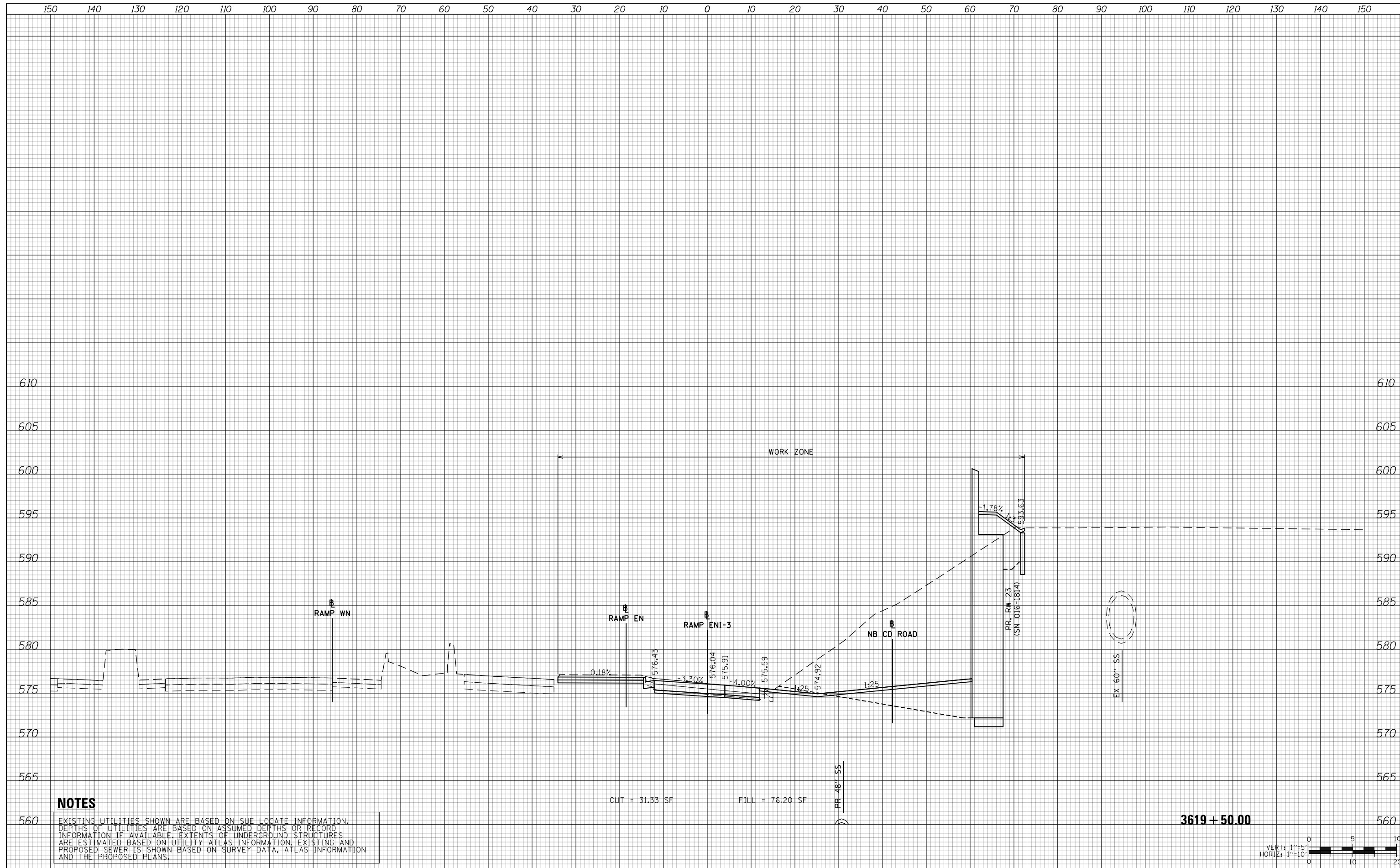
**CROSS SECTIONS  
INTERIM RAMP EN STAGE 2**

SCALE: 10:H 5:V      SHEET 3 OF 6 SHEETS      STA. 3619+00.00 TO STA. 3619+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	719
CONTRACT NO. 60X79				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
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CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



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D160X79-SHT-XS-Ramp ENI-Stage 2.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
INTERIM RAMP EN STAGE 2**

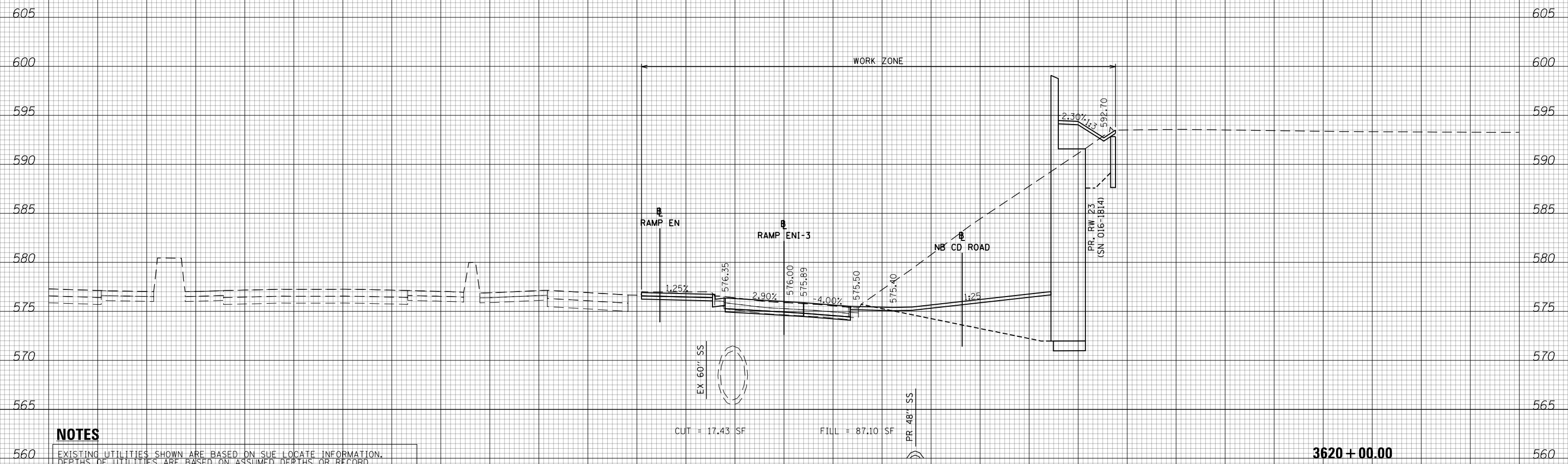
SCALE: 10:H 5:V SHEET 4 OF 6 SHEETS STA. 3619+50.00 TO STA. 3619+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	720
				CONTRACT NO. 60X79
ILLINOIS FED. AID PROJECT				

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

DATE	
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TEMPLATE	
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CHECKED	
FINAL SURVEY	
NOTE BOOK	
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DATE	
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PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



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CUT = 17.43 SF      FILL = 87.10 SF

3620 + 00.00



D160X79-SHT-XS-Ramp ENI-Stage 2.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
INTERIM RAMP EN STAGE 2**

SCALE: 10:H 5:V      SHEET 5 OF 6 SHEETS      STA. 3620+00.00 TO STA. 3620+00.00

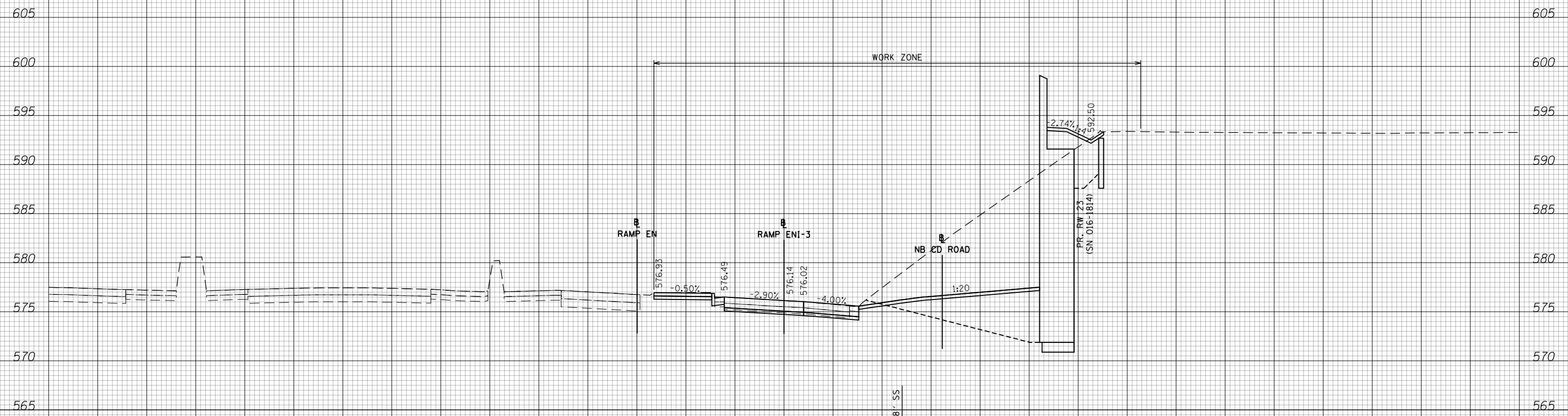
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	721
CONTRACT NO. 60X79				

ILLINOIS FED. AID PROJECT

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

DATE	
BY	
FINAL SURVEY NO.	
SURVEYED PLOTTED AREAS CHECKED	
TEMPLATE	
NOTE BOOK	

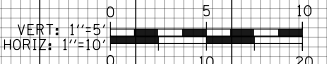
DATE	
BY	
ORIGINAL SURVEY NO.	
SURVEYED PLOTTED AREAS CHECKED	
TEMPLATE	
NOTE BOOK	



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3620 + 25.00



D160X79-SHT-XS-Ramp EN1-Stage 2.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**CROSS SECTIONS  
INTERIM RAMP EN STAGE 2**

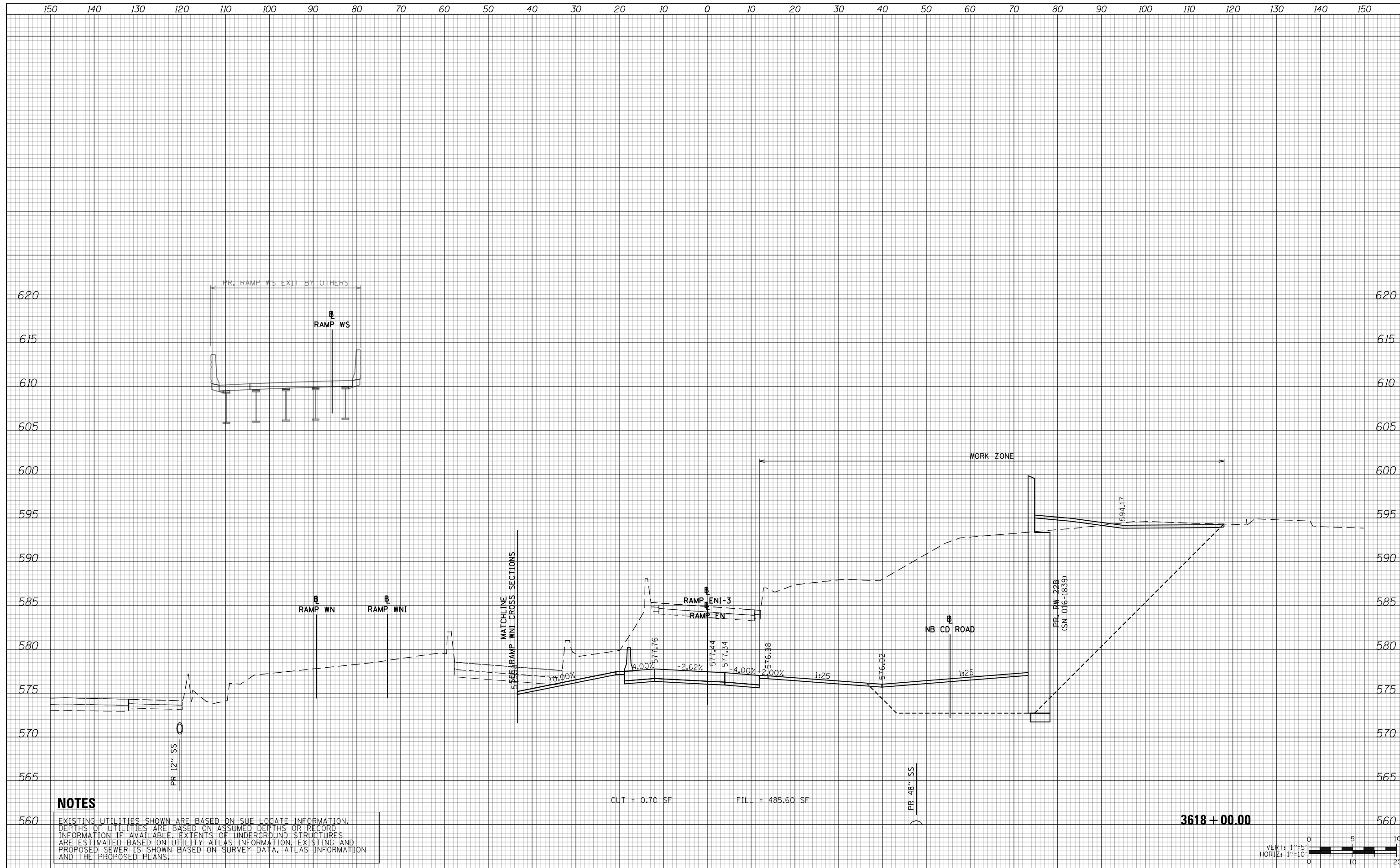
SCALE: 10'H 5'V SHEET 6 OF 6 SHEETS STA. 3620+00.00 TO STA. 3620+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	722
CONTRACT NO. 60X79				

ILLINOIS FED. AID PROJECT

DATE	
BY	
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TEMPLATE	
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CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
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TEMPLATE	
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CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	

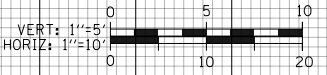


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CUT = 0.70 SF      FILL = 485.60 SF

3618 + 00.00



D160X79-SHT-XS-Ramp ENI-Stage 3.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

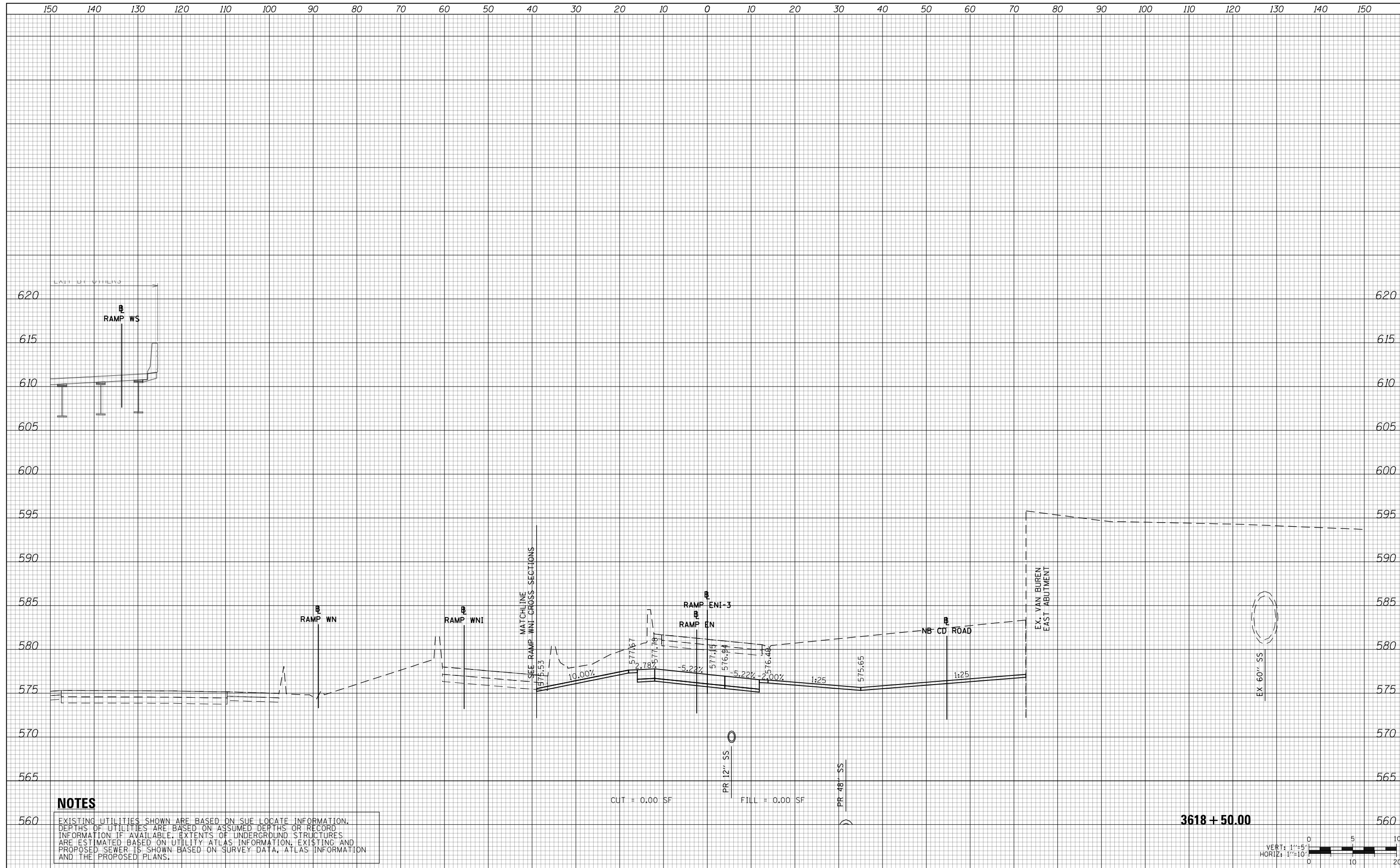
**CROSS SECTIONS  
INTERIM RAMP EN STAGE 3**

SCALE: 10'H 5'V      SHEET 1 OF 6 SHEETS      STA. 3618+00.00 TO STA. 3618+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	723
				CONTRACT NO. 60X79
ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
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CHECKED	
FINAL SURVEY	
NOTE BOOK	
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DATE	
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CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



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CUT = 0.00 SF      FILL = 0.00 SF

3618 + 50.00



D160X79-SHT-XS-Ramp ENI-Stage 3.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
INTERIM RAMP EN STAGE 3**

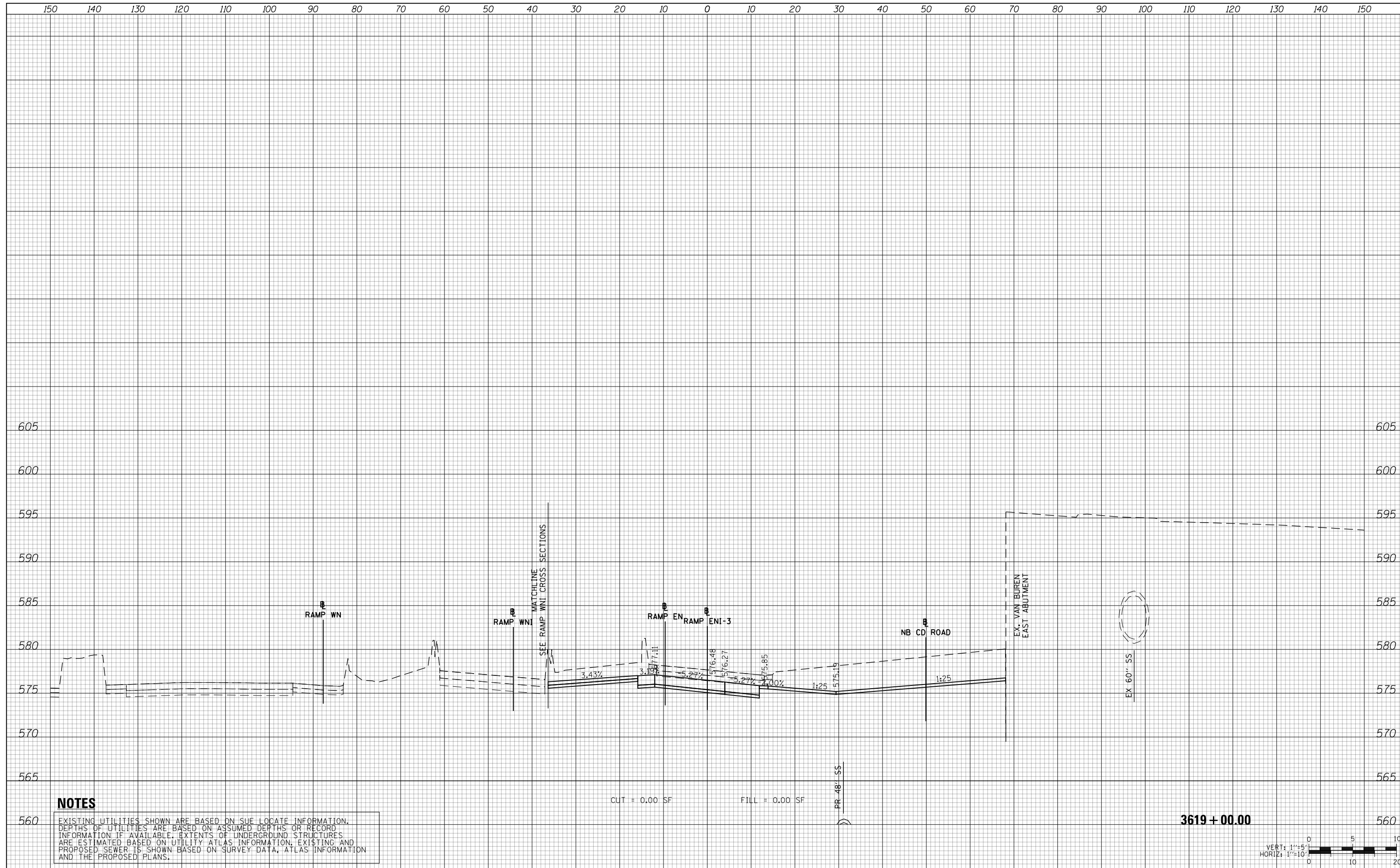
SCALE: 10:H 5:V      SHEET 2 OF 6 SHEETS      STA. 3618+50.00 TO STA. 3618+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	724
				CONTRACT NO. 60X79
ILLINOIS FED. AID PROJECT				



DATE	
BY	
SURVEYED	
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TEMPLATE	
AREAS	
CHECKED	
FINAL SURVEY	
NOTE BOOK	
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DATE	
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CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



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3619 + 00.00

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
INTERIM RAMP EN STAGE 3**

D160X79-SHT-XS-Ramp ENI-Stage 3.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

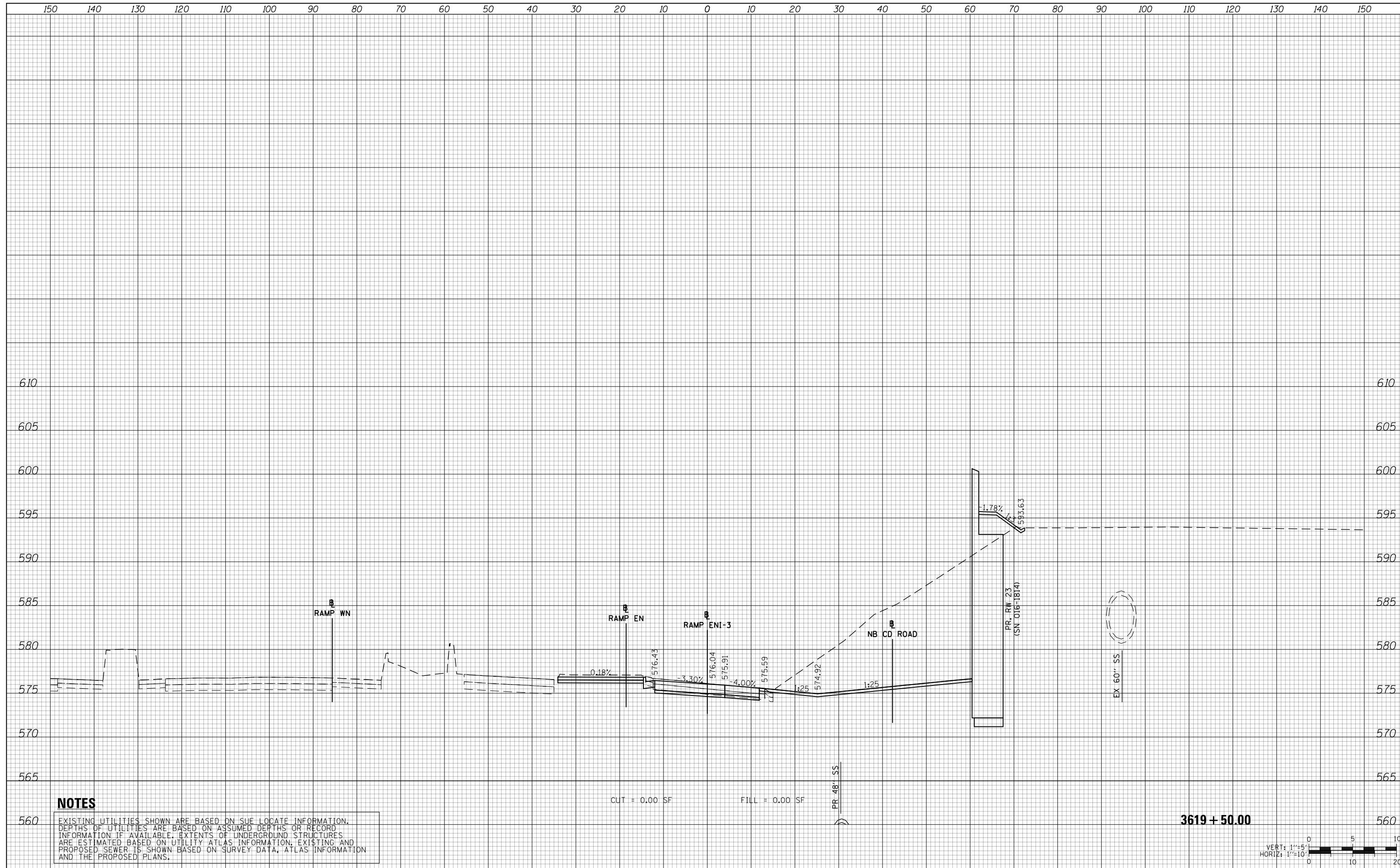
SCALE: 10:H 5:V SHEET 3 OF 6 SHEETS STA. 3619+00.00 TO STA. 3619+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	725
CONTRACT NO. 60X79				
ILLINOIS FED. AID PROJECT				



DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
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CHECKED	
FINAL SURVEY	
NOTE BOOK	
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DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
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CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



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D160X79-SHT-XS-Ramp ENI-Stage 3.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
INTERIM RAMP EN STAGE 3**

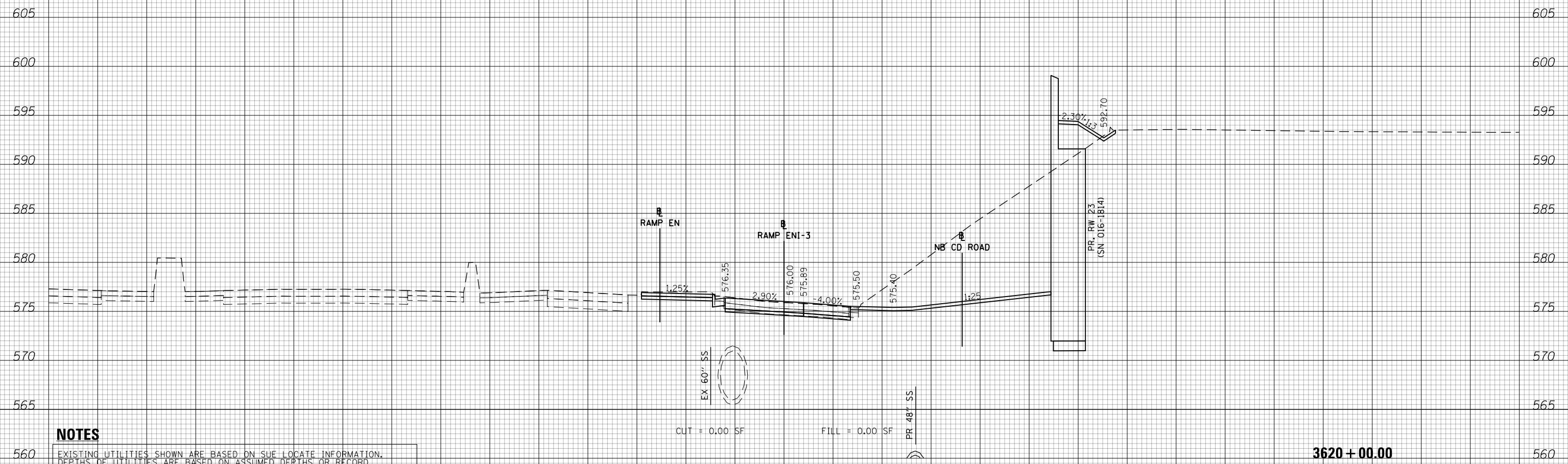
SCALE: 10'H 5'V SHEET 4 OF 6 SHEETS STA. 3619+50.00 TO STA. 3619+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	726
				CONTRACT NO. 60X79
ILLINOIS FED. AID PROJECT				

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
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FINAL SURVEY	
NOTE BOOK	
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DATE	
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PLOTTED	
TEMPLATE	
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CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



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3620 + 00.00



D160X79-SHT-XS-Ramp ENI-Stage 3.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
INTERIM RAMP EN STAGE 3**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	727
CONTRACT NO. 60X79				

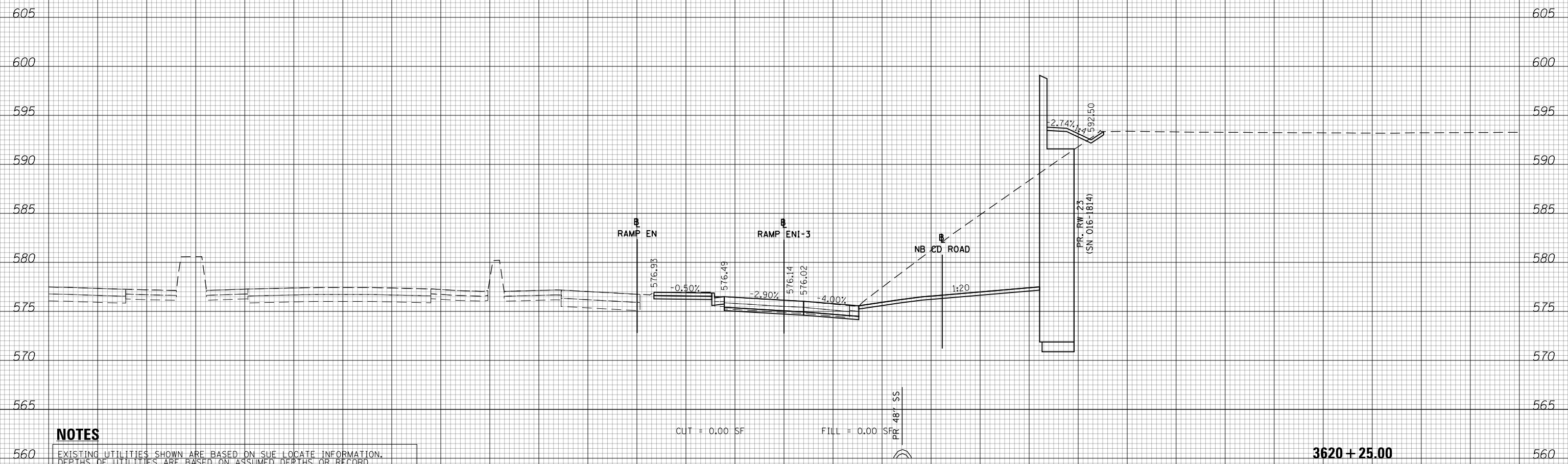
SCALE: 10:H 5:V SHEET 5 OF 6 SHEETS STA. 3620+00.00 TO STA. 3620+00.00

ILLINOIS FED. AID PROJECT

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

DATE	
BY	
FINAL SURVEY NO.	
SURVEYED PLOTTED AREAS CHECKED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	

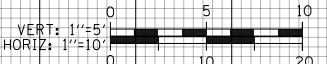
DATE	
BY	
ORIGINAL SURVEY NO.	
SURVEYED PLOTTED AREAS CHECKED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	



**NOTES**

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CUT = 0.00 SF      FILL = 0.00 SF



D160X79-SHT-XS-Ramp ENI-Stage 3.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
INTERIM RAMP EN STAGE 3**

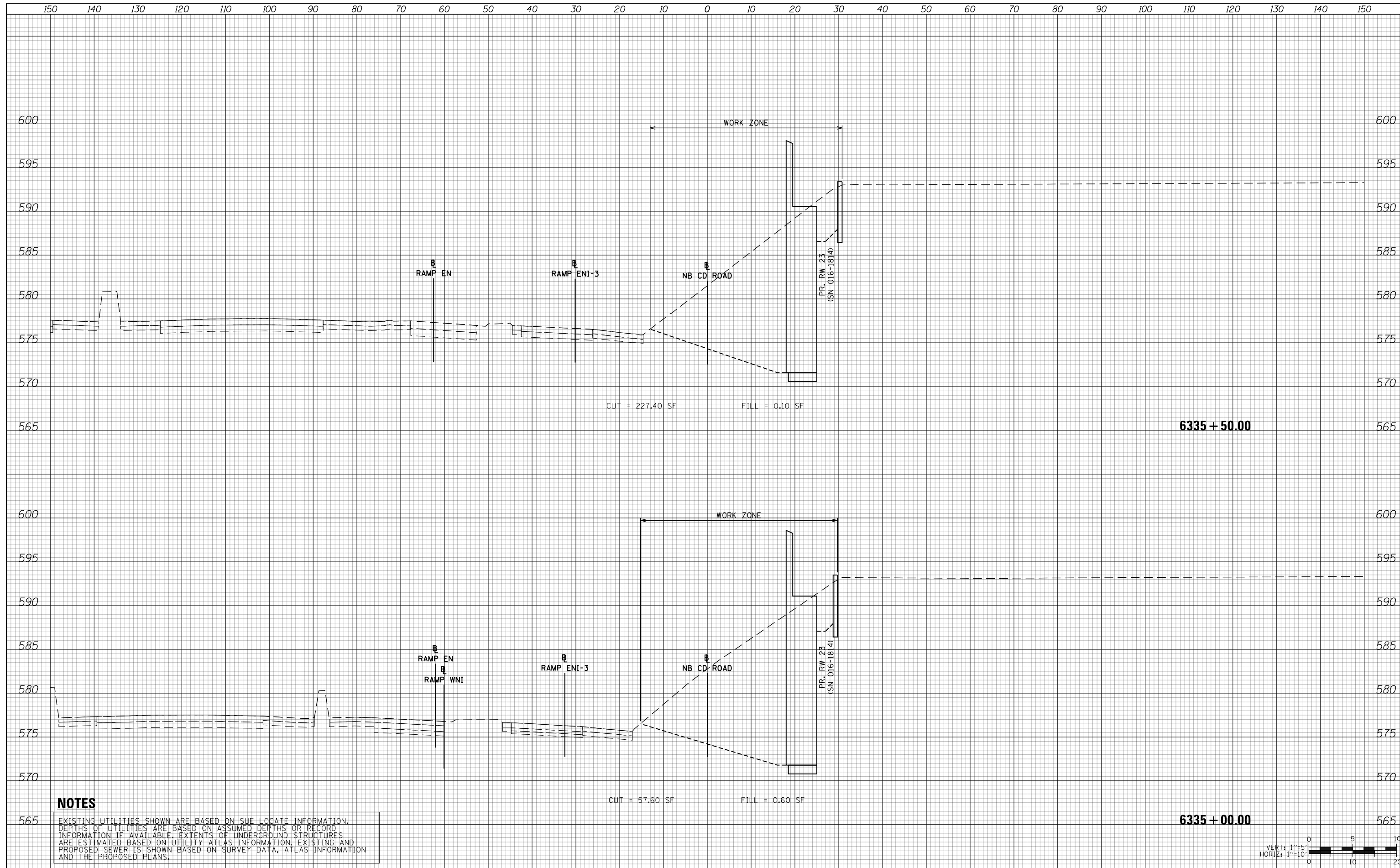
SCALE: 10'H 5'V      SHEET 6 OF 6 SHEETS      STA. 3620+00.00 TO STA. 3620+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	728
CONTRACT NO. 60X79				

ILLINOIS FED. AID PROJECT

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
FINAL SURVEY NOTE BOOK NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
ORIGINAL SURVEY NOTE BOOK NO.	



**NOTES**

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D160X79-SHT-XS-WALL23-Stage 1.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

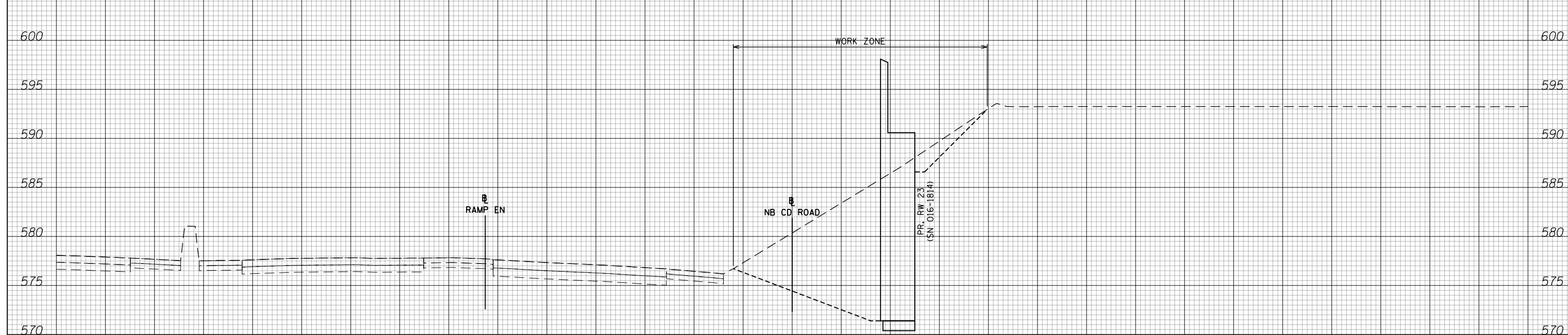
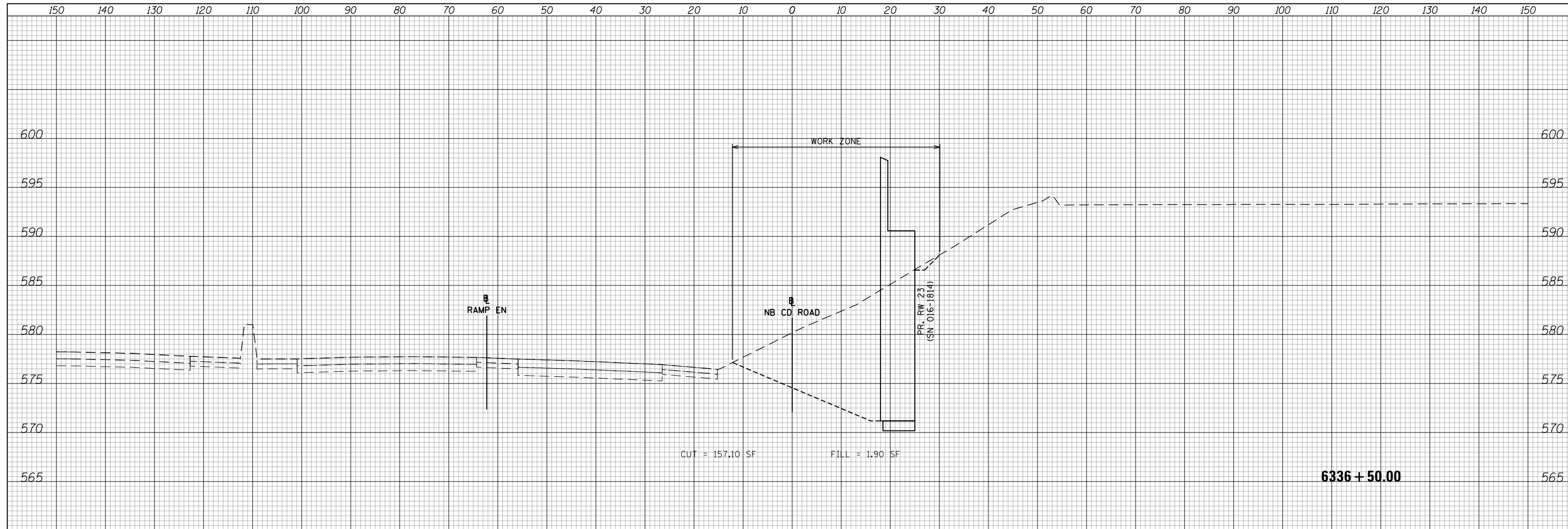
**CROSS SECTIONS  
WALL 23 STAGE 1**

SCALE: 10:H 5:V SHEET 1 OF 3 SHEETS STA. 6335+00.00 TO STA. 6335+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	729
CONTRACT NO. 60X79				
ILLINOIS FED. AID PROJECT				

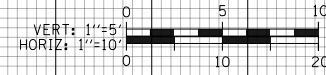
DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
FINAL SURVEY NOTE BOOK NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
ORIGINAL SURVEY NOTE BOOK NO.	



**NOTES**

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D160X79-SHT-XS-WALL23-Stage 1.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

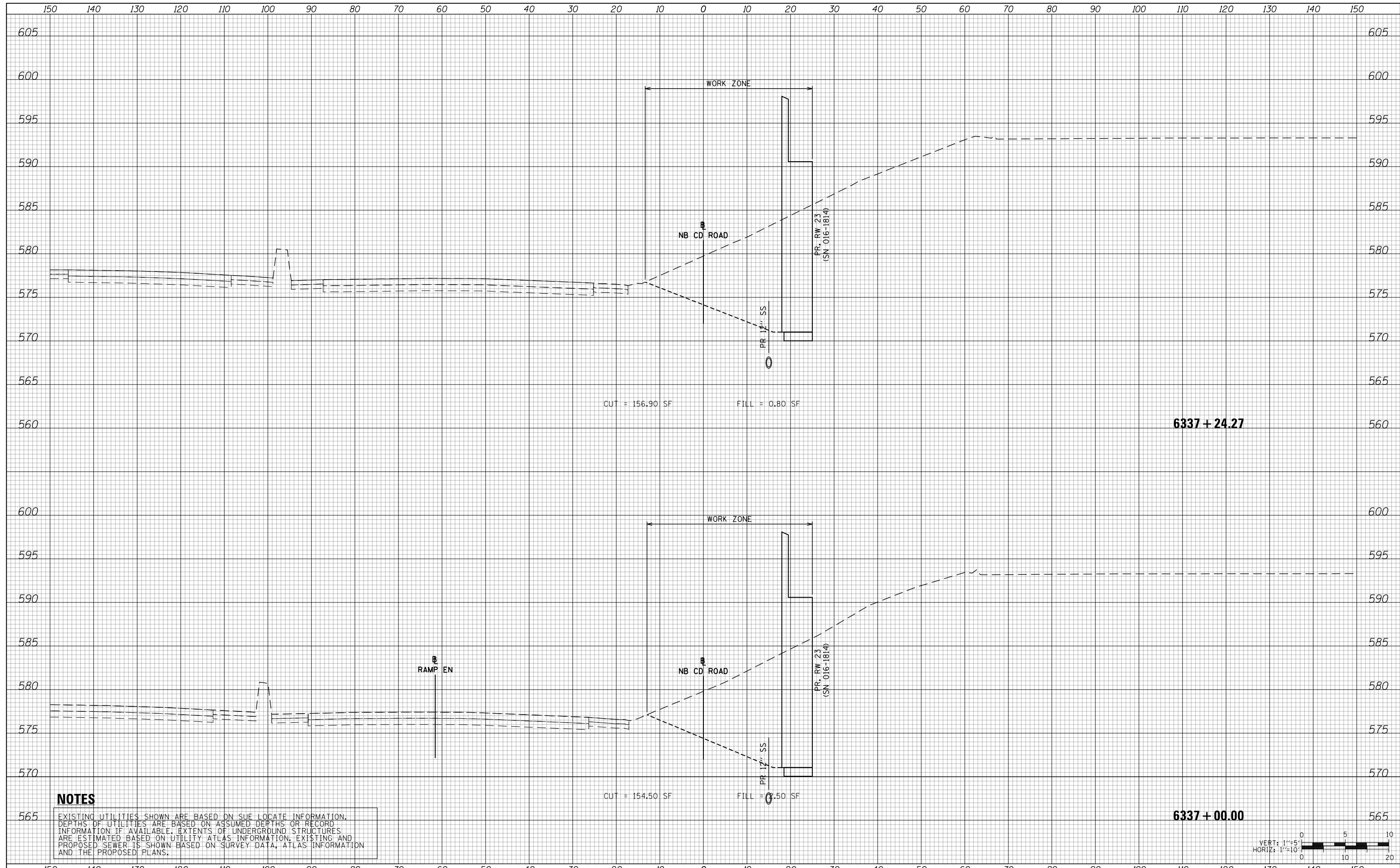
**CROSS SECTIONS  
WALL 23 STAGE 1**

SCALE: 10:H 5:V SHEET 2 OF 3 SHEETS STA. 6336+00.00 TO STA. 6336+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	730
CONTRACT NO. 60X79				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



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D160X79-SHT-XS-WALL23-Stage 1.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

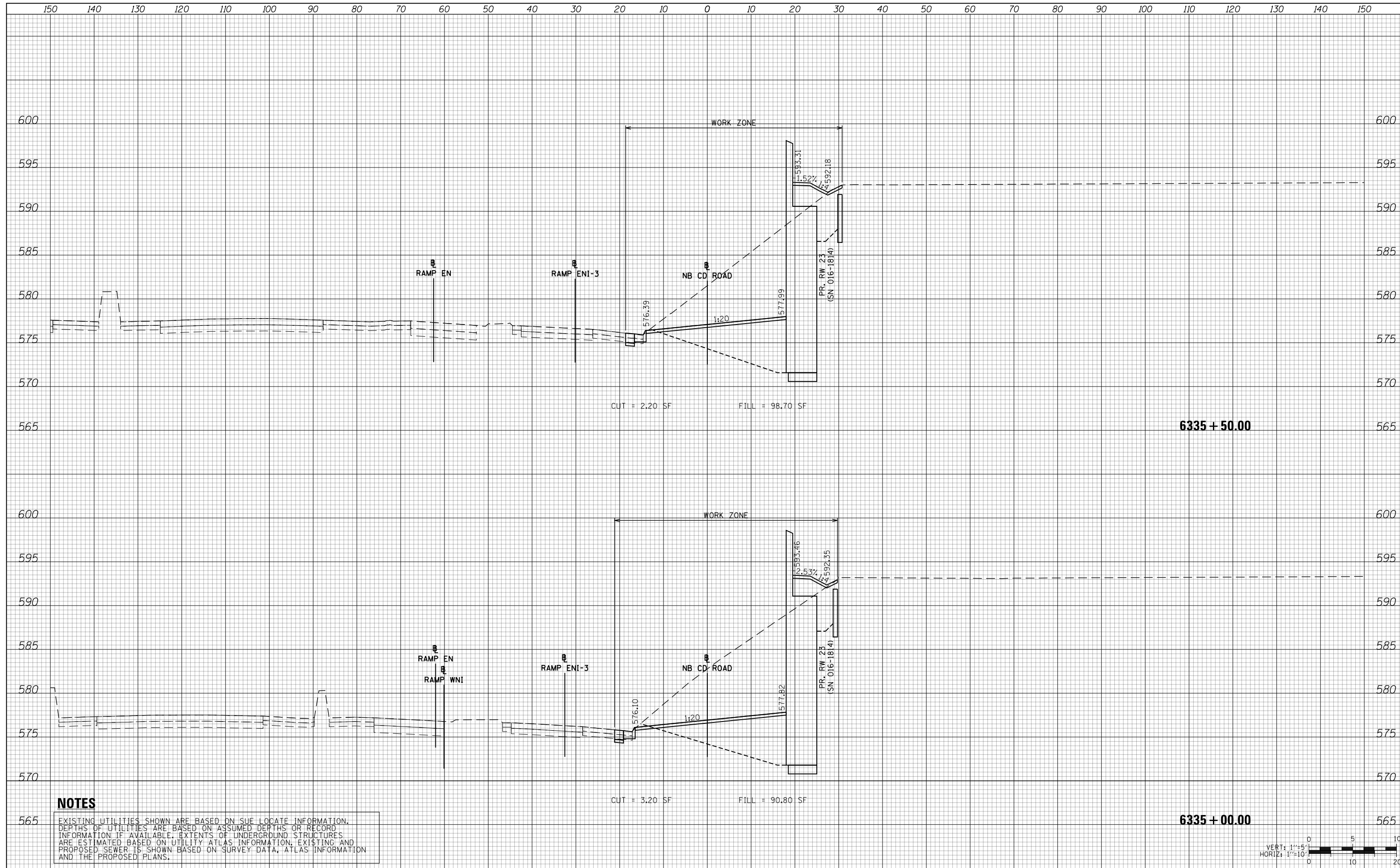
**CROSS SECTIONS  
WALL 23 STAGE 1**

SCALE: 10:H 5:V SHEET 3 OF 3 SHEETS STA. 6337+00.00 TO STA. 6337+24.27

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	731
				CONTRACT NO. 60X79
ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



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D160X79-SHT-XS-WALL23-Stage 2.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
WALL 23 STAGE 2**

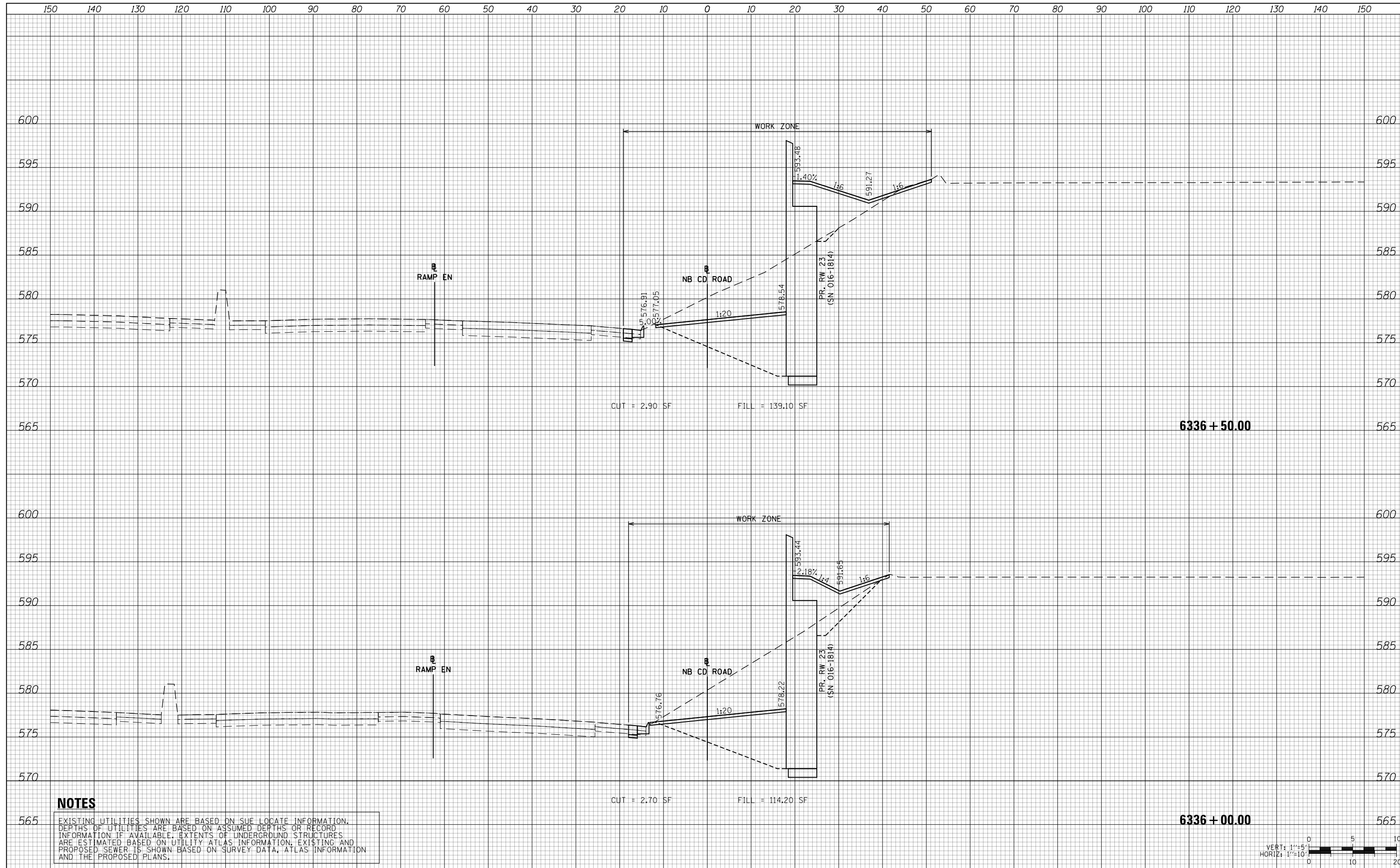
SCALE: 10'H 5'V SHEET 1 OF 3 SHEETS STA. 6335+00.00 TO STA. 6335+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	732
				CONTRACT NO. 60X79
ILLINOIS FED. AID PROJECT				



DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	



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D160X79-SHT-XS-WALL23-Stage 2.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

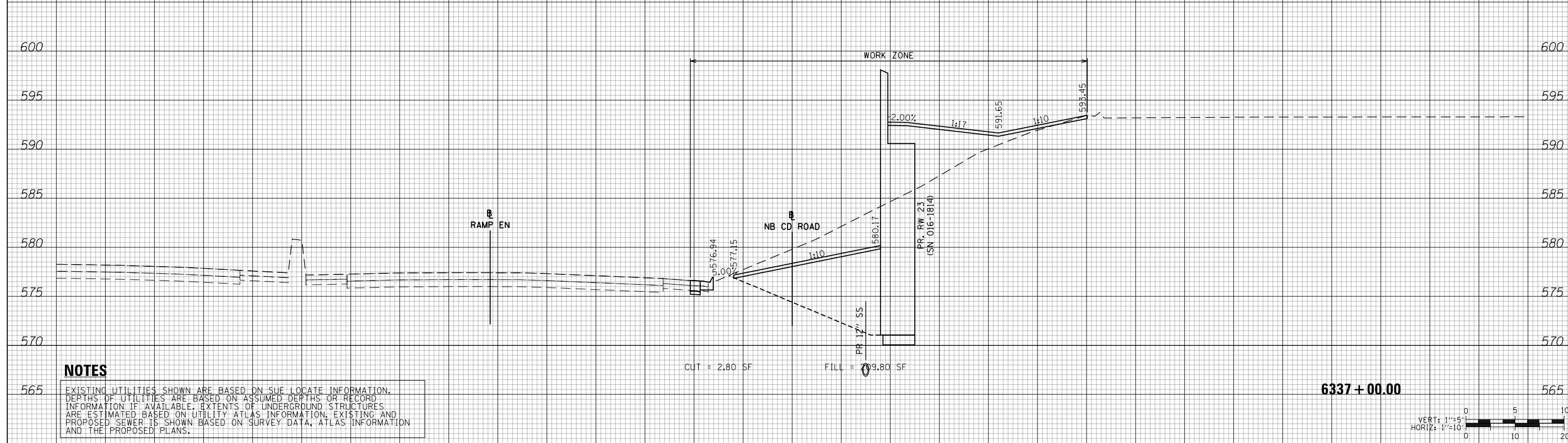
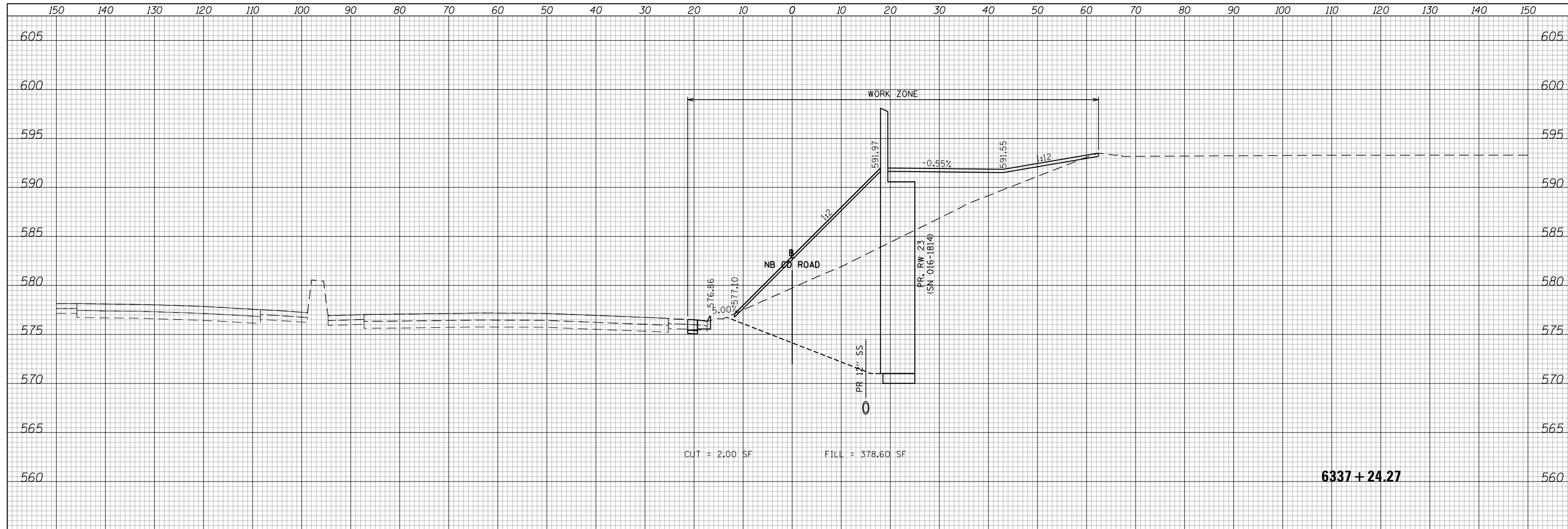
**CROSS SECTIONS  
WALL 23 STAGE 2**

SCALE: 10'H 5'V SHEET 2 OF 3 SHEETS STA. 6336+00.00 TO STA. 6336+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	733
CONTRACT NO. 60X79				
ILLINOIS FED. AID PROJECT				

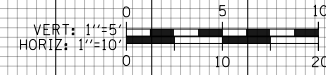
DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



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D160X79-SHT-XS-WALL23-Stage 2.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

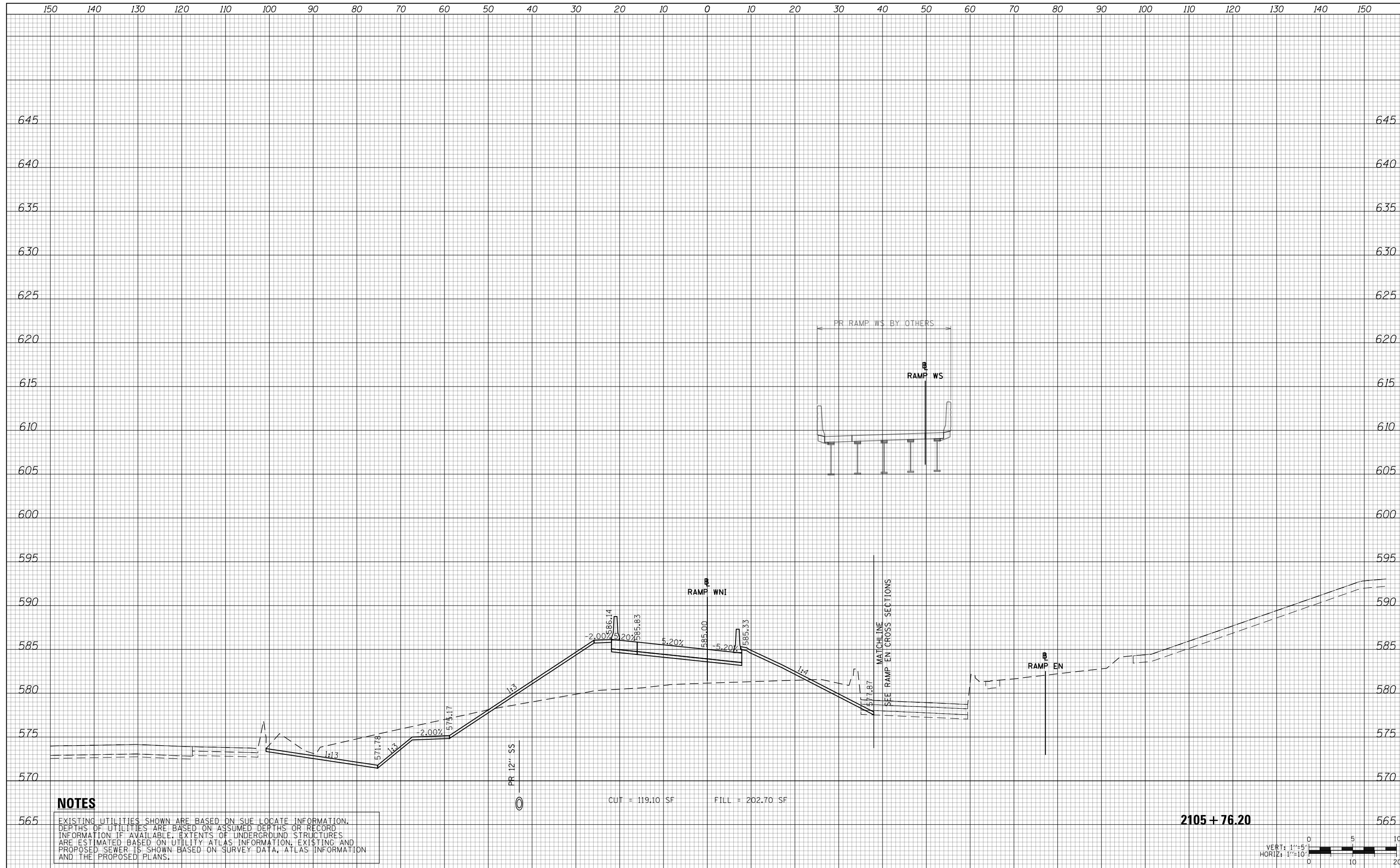
**CROSS SECTIONS  
WALL 23 STAGE 2**

SCALE: 10'H 5'V SHEET 3 OF 3 SHEETS STA. 6337+00.00 TO STA. 6337+24.27

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	734
CONTRACT NO. 60X79				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
FINAL SURVEY NO.	
SURVEYED PLOTTED AREAS CHECKED	
TEMPLATE	
NOTE BOOK	

DATE	
BY	
ORIGINAL SURVEY NO.	
SURVEYED PLOTTED AREAS CHECKED	
TEMPLATE	
NOTE BOOK	



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CUT = 119.10 SF      FILL = 202.70 SF

2105 + 76.20



D160X79-SHT-XS-Ramp WNI.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
INTERIM RAMP WN**

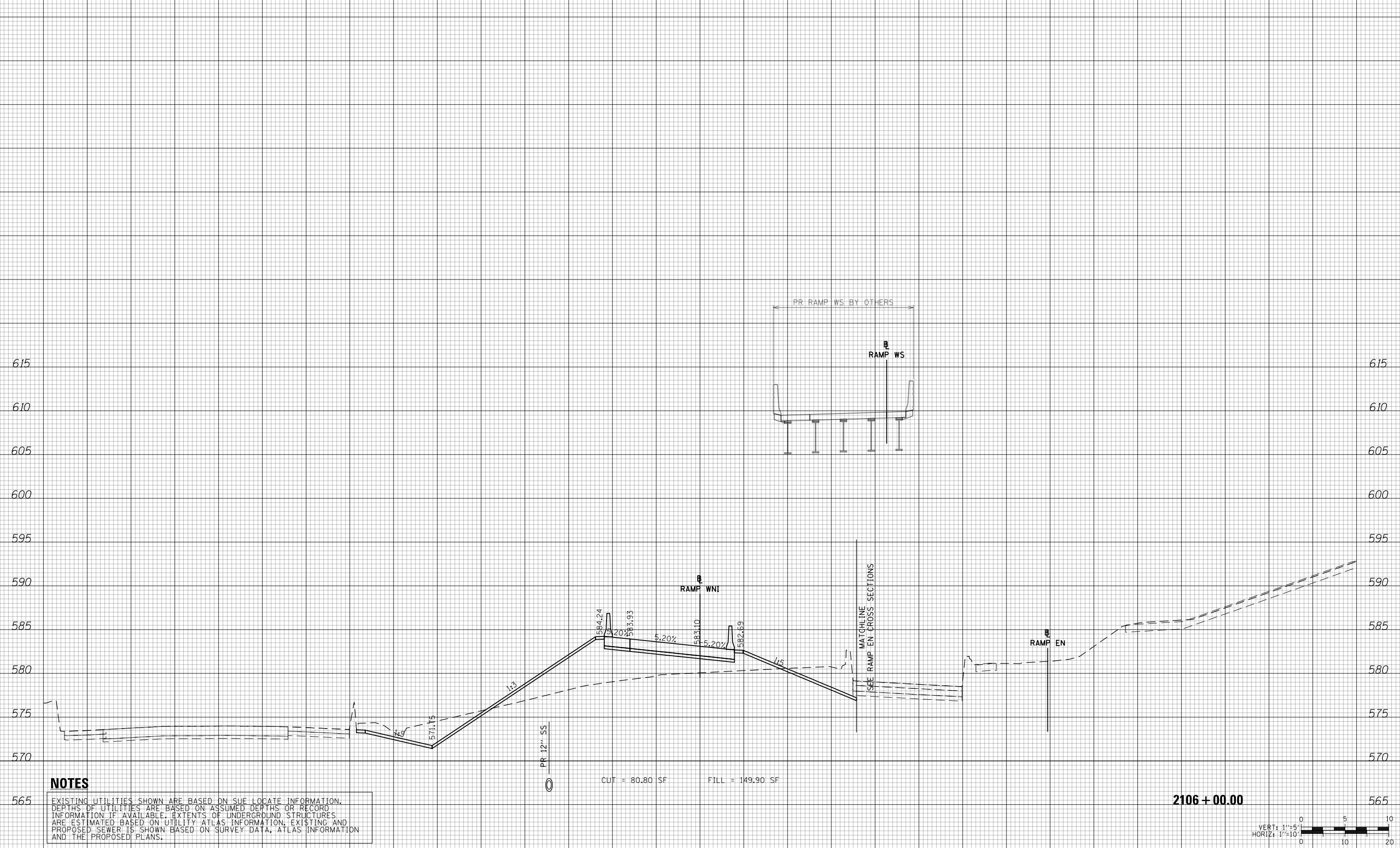
SCALE: 10:H 5:V      SHEET 1 OF 6 SHEETS      STA. 2105+76.20 TO STA. 2105+76.20

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	735
CONTRACT NO. 60X79				
ILLINOIS FED. AID PROJECT				

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

DATE	
BY	
FINAL SURVEY NO.	
SURVEYED PLOTTED AREAS CHECKED	
NOTE BOOK	
TEMPLATE AREAS CHECKED	

DATE	
BY	
ORIGINAL SURVEY NO.	
SURVEYED PLOTTED AREAS CHECKED	
NOTE BOOK	
TEMPLATE AREAS CHECKED	



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2106 + 00.00



D160X79-SHT-XS-Ramp WNI.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

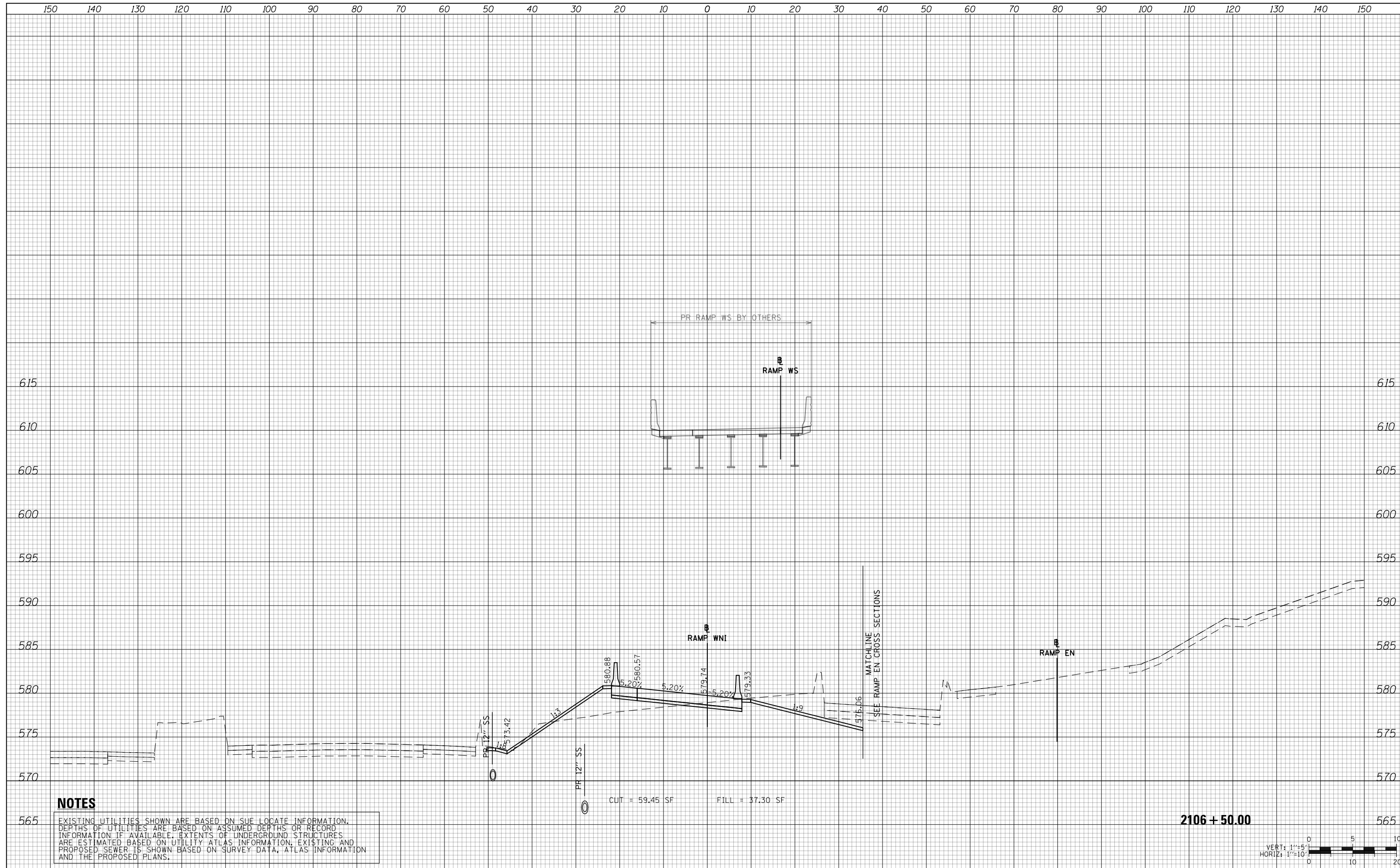
**CROSS SECTIONS  
INTERIM RAMP WN**

SCALE: 10:H 5:V SHEET 2 OF 6 SHEETS STA. 2106+00.00 TO STA. 2106+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	736
CONTRACT NO. 60X79				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
FINAL SURVEY NO.	
SURVEYED PLOTTED AREAS CHECKED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	

DATE	
BY	
ORIGINAL SURVEY NO.	
SURVEYED PLOTTED AREAS CHECKED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	



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D160X79-SHT-XS-Ramp WNI.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

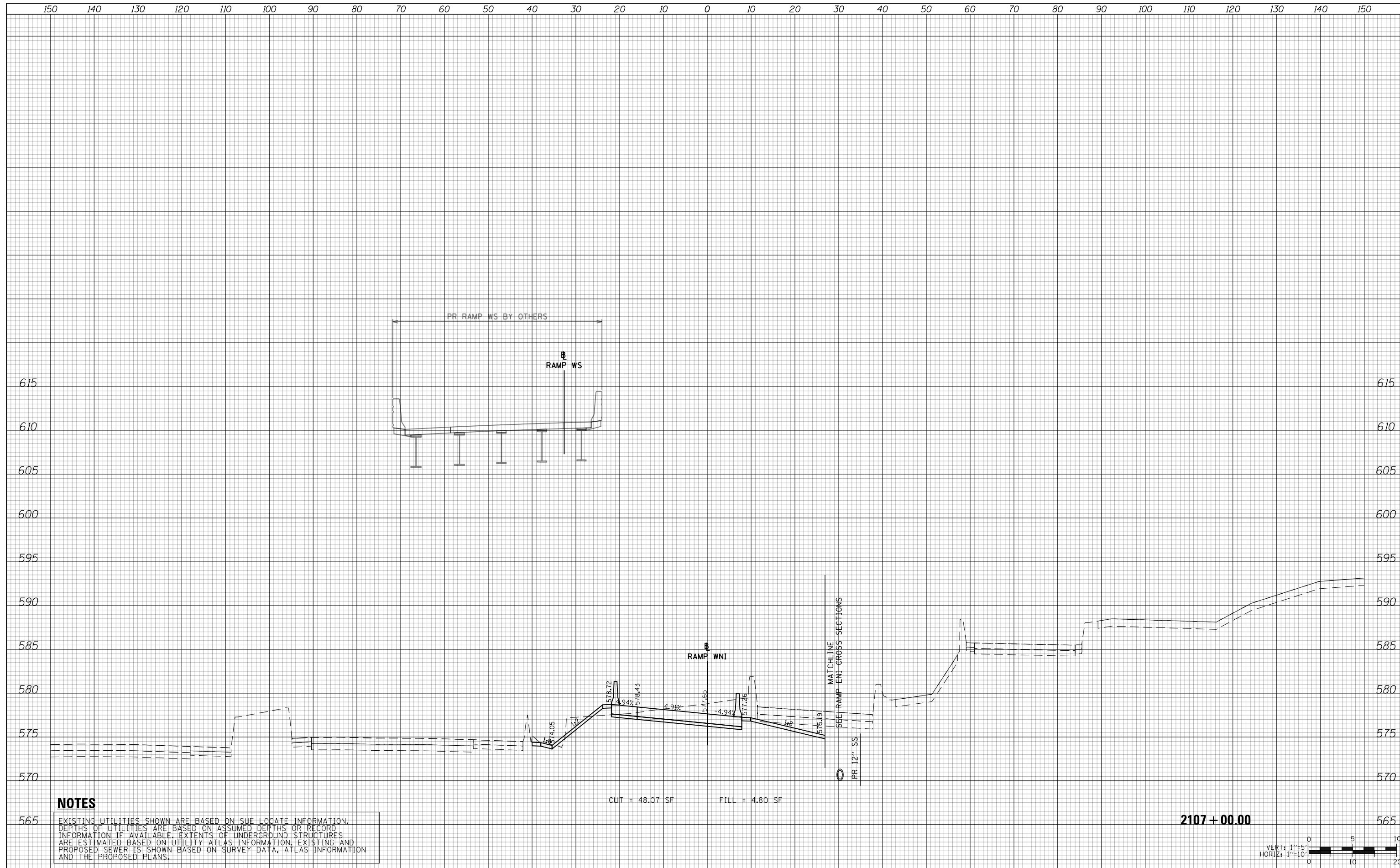
**CROSS SECTIONS  
INTERIM RAMP WN**

SCALE: 10:H 5:V SHEET 3 OF 6 SHEETS STA. 2106+50.00 TO STA. 2106+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	737
CONTRACT NO. 60X79				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



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CUT = 48.07 SF      FILL = 4.80 SF

2107 + 00.00



D160X79-SHT-XS-Ramp WNI.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

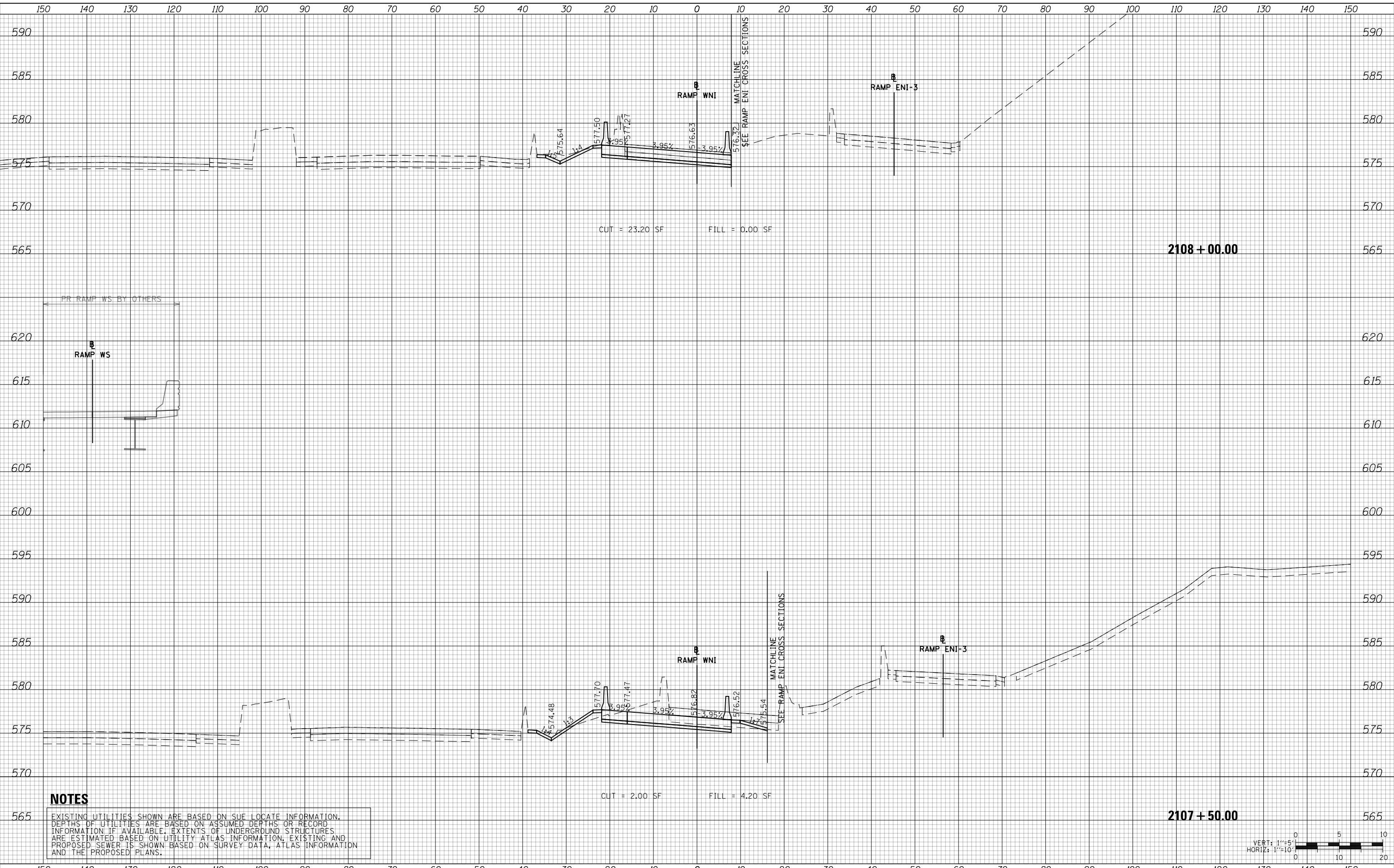
**CROSS SECTIONS  
INTERIM RAMP WN**

SCALE: 10:H 5:V      SHEET 4 OF 6 SHEETS      STA. 2107+00.00 TO STA. 2107+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	738
CONTRACT NO. 60X79				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



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D160X79-SHT-XS-Ramp WNI.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

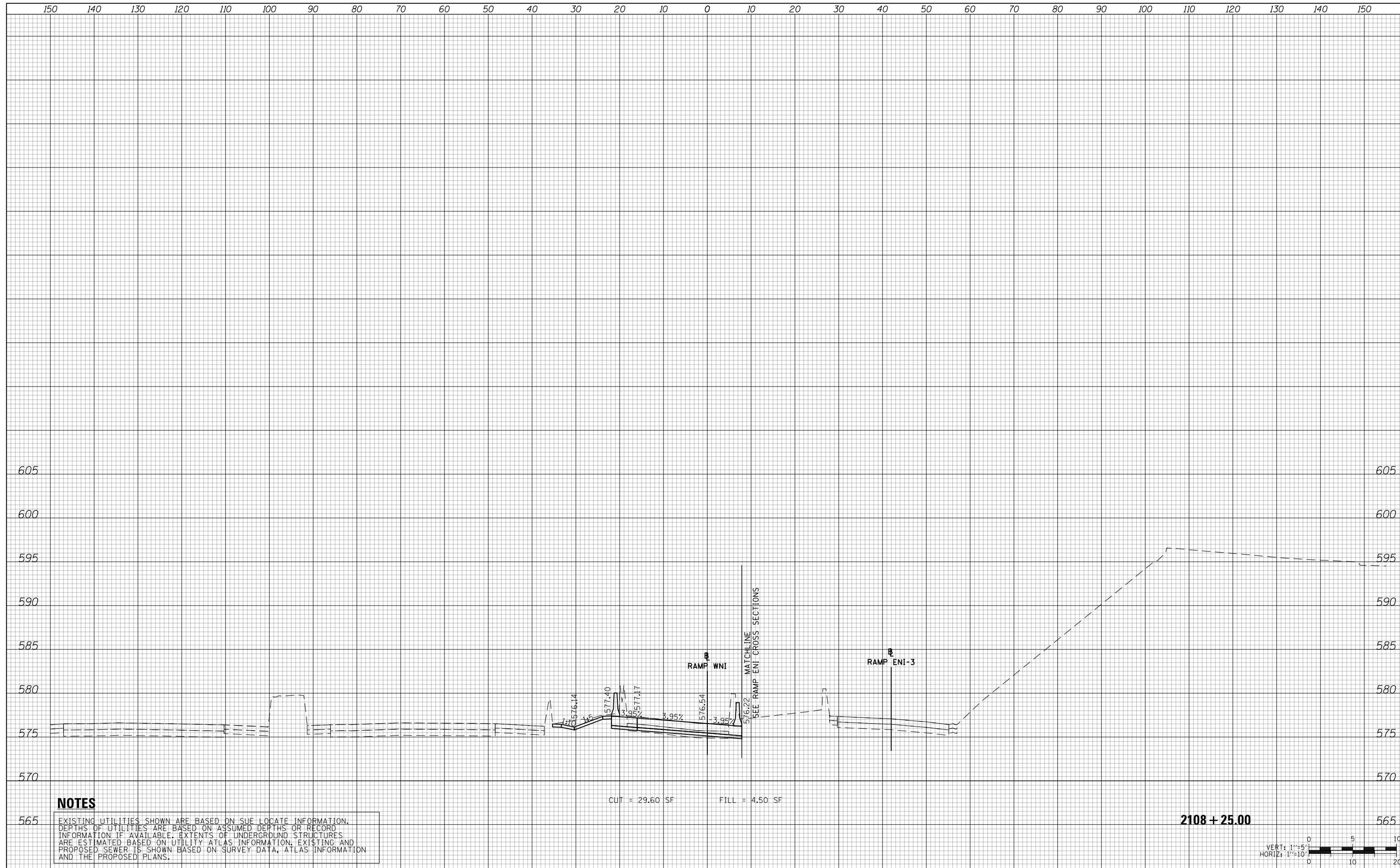
**CROSS SECTIONS  
INTERIM RAMP WN**

SCALE: 10'H 5'V SHEET 5 OF 6 SHEETS STA. 2107+50.00 TO STA. 2108+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	739
CONTRACT NO. 60X79				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



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D160X79-SHT-XS-Ramp WNI.dgn	DESIGNED - VLJ	REVISED -
USER NAME = mkwilson	DRAWN - VLJ	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MKW	REVISED -
PLOT DATE = 7/31/2018	DATE - 7-30-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
INTERIM RAMP WN**

SCALE: 10:H 5:V SHEET 6 OF 6 SHEETS STA. 2108+25.00 TO STA. 2108+25.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	740
CONTRACT NO. 60X79				
ILLINOIS FED. AID PROJECT				



# FOR INFORMATION ONLY

## INDEX OF SHEETS

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Project ACNHPP-0005 (959)  
C-91-360-13  
Contract No. 60W71

*Temporary Soil Retention Systems at East and West Abutments  
for East Harrison Street Bridge (S.N. 016-1711)  
TSRS Plans dated 9/17/2014 with latest revision dated 12/11/2014*

744-797 F.A.I. Route 90/94 at I-290/Congress Parkway  
Project ACNHPP-000V (078)  
C-91-129-16  
Contract No. 62B76

*Structural Plans for Ramp NE over I-90/94 NB Bypass/S. Des Plaines St. (S.N. 016-1710)  
dated 5/6/2016*

798-802 1959 South Route Superhighway: Section S 2626 8-ID  
1949 West Route Superhighway: Section 2425.ID  
1957 Northwest Route Superhighway: Section 0101.2-1B

*Existing Main Drain and Drainage Structures 1959, 1949 and 1957 Plans*

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Contract No. 80063

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*Existing Ramp NE 1988 Plans for Wall No. 7*

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Contract No. 82704

*Existing Ramp EN (S.N. 016-2453) Bridge Deck Repair and Resurfacing Plans dated 11/18/1996*

880-888 F.A.I. Route 90/94  
Section 1985-080 R  
C-91-433-85  
Contract No. 80063

*Existing Retaining Wall #7 along Existing Ramp NE Plans dated 8/14/1987*

FILE NAME: D:\V161749-PWINT-aecomonline.local\AECOM\_DS02\_NAYDocuments\01\_Americas\Transportation\60269938\_CirclePhase\_II\000\_CAD\008\_Structural\Structure\_016-1712\Existing Plans\0161712-60X79-500-INDEX-EXS



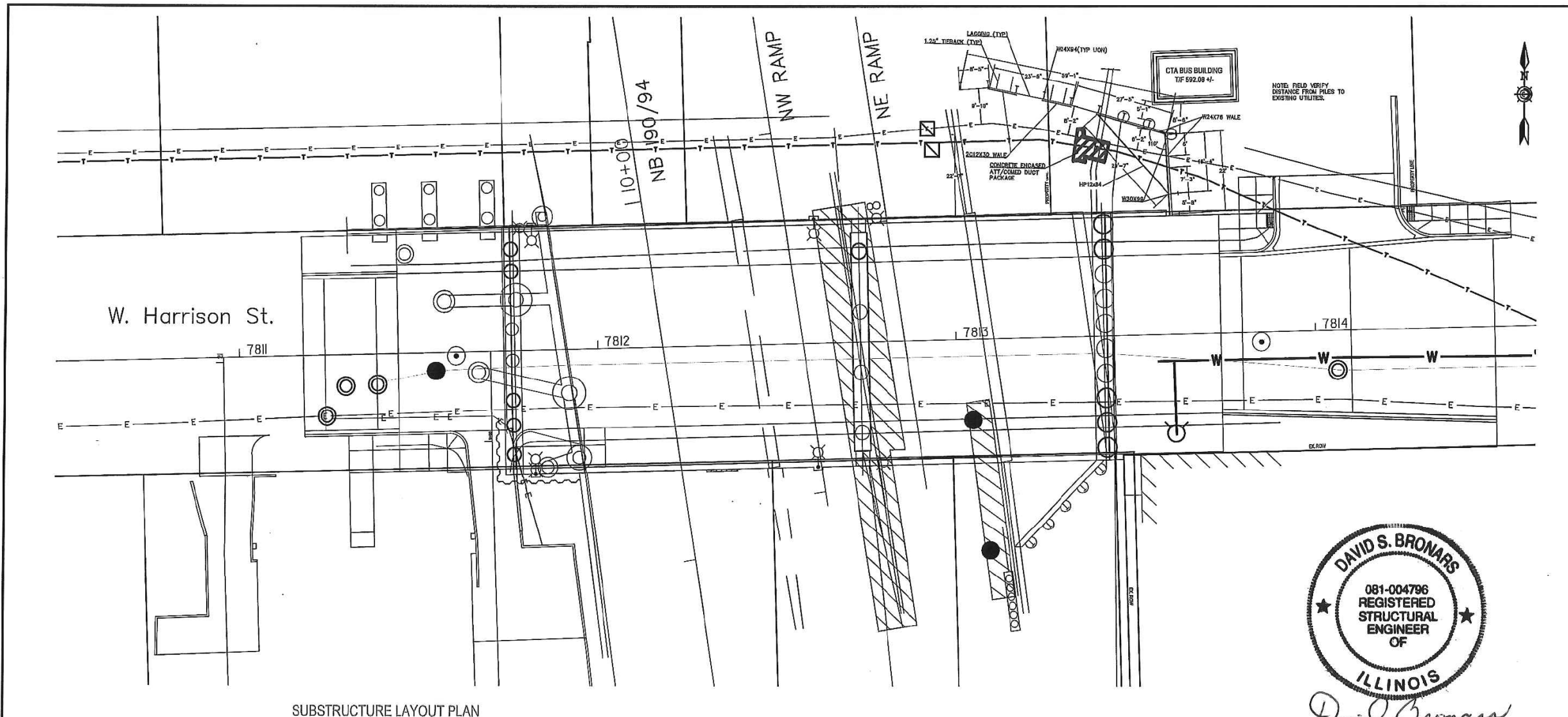
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		CHECKED -	REVISED -
PLOT SCALE =	N.T.S	DRAWN -	REVISED -
PLOT DATE =	7/26/2018	CHECKED - MI, MAI	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

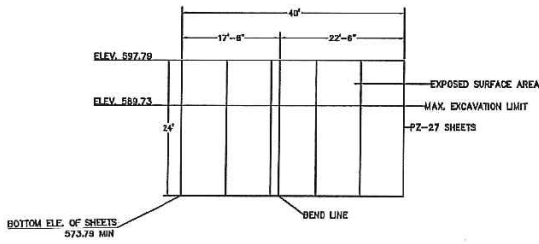
EXISTING RECORD DRAWINGS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	741
CONTRACT NO. 60X79				
		ILLINOIS	FED. AID PROJECT	

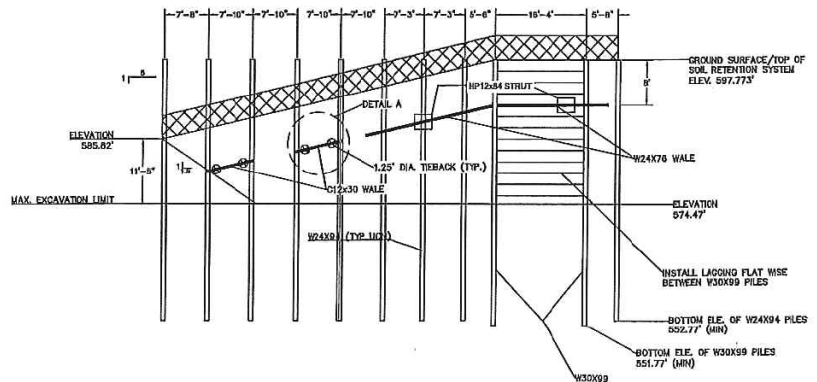
# FOR INFORMATION ONLY



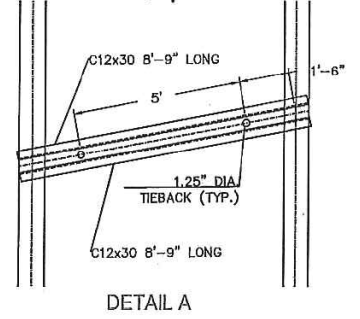
SUBSTRUCTURE LAYOUT PLAN



ELEVATION - TEMP SOIL RETENTION SYSTEM WEST ABUTMENT



ELEVATION - TEMP SOIL RETENTION SYSTEM EAST ABUTMENT



David Bronars  
12/30/14  
Exp 11/30/16

**KAPUR & ASSOCIATES, INC.**  
CONSULTING ENGINEERS  
5025 S. PINE STREET  
BURLINGTON, WI 53105  
Phone: 262.787.2747 Fax: 262.787.2760  
www.kapurengineers.com

PROJECT:  
**IDOT 6 EAST HARRISON ST. BRIDGE**

LOCATION:  
**COOK COUNTY, IL**

CLIENT:  
**WALSH**  
WALSH CONSTRUCTION

RELEASE:  
**PRELIMINARY PLANS - NOT FOR CONSTRUCTION**

#	DATE	DESCRIPTION
1	02/04/14	FOR ENGINEER COMMENTS
2	02/27/14	FOR ENGINEER COMMENTS
3	12/14/14	FOR ENGINEER COMMENTS
4	12/16/14	FOR ENGINEER COMMENTS
5	12/22/14	FOR ENGINEER COMMENTS
6	12/24/14	FOR ENGINEER COMMENTS



SCALE: 1"=30'

DESIGNED BY:	ahmad, issa
CHECKED BY:	MI, MAI
DRAWN BY:	JRT
CHECKED BY:	JRT
DATE:	08/28/14

SHEET:  
**EARTH RETENTION SYSTEM**

PROJECT MANAGER:	CHD
PROJECT NUMBER:	140310
DESIGNED BY:	ahmad, issa
DRAWN BY:	JRT
CHECKED BY:	JRT
DATE:	08/28/14

SHEET NUMBER:  
**1/3**

#	DATE	DESCRIPTION
7	12/01/14	FOR ENGINEER COMMENTS
8	12/01/14	FOR ENGINEER COMMENTS
9	12/10/14	FOR ENGINEER COMMENTS
10	12/15/14	FOR ENGINEER COMMENTS

FILENAME: D:\Illinois\Cook\_Co\Chicago\_City\PH\140349\_IDOT 72 Harrison Harsted Bridge Walsh\SHOP DWG\140349\_ERKS\WALLS HARRISON 120414.dwg

FILE NAME: D:\V61749-PWINT-aecomonline.local\AECOM\_DS02\_NAYDocuments\01\_Americas\Transportation\60269938\_CirclePhase\_I\000\_CAD\008\_Structural\Structure\_016-1712\Existing\_Plans\016-1712-60X79-5x-Existing\_1



USER NAME =	ahmad, issa	DESIGNED -	REvised -
PLOT SCALE =	N.T.S	CHECKED -	REvised -
PLOT DATE =	7/26/2018	DRAWN -	REvised -
		CHECKED -	REvised -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING RECORD DRAWINGS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	742
CONTRACT NO. 60X79				

ILLINOIS FED. AID PROJECT

# FOR INFORMATION ONLY

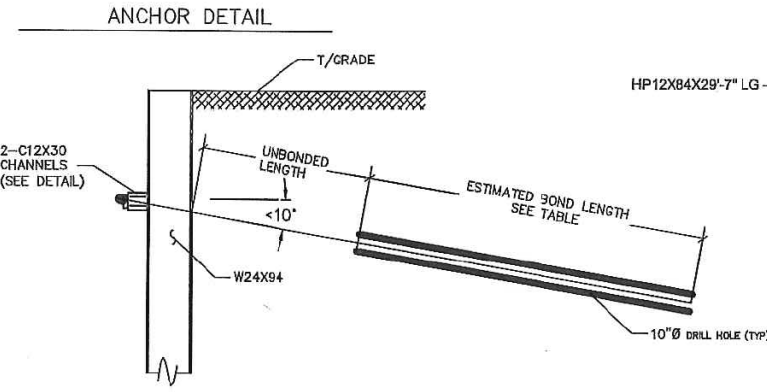
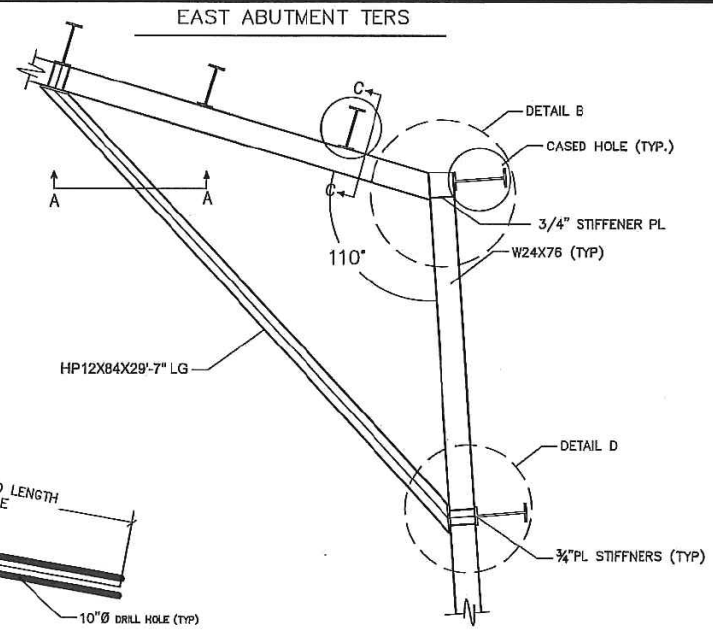
- SEQUENCE OF CONSTRUCTION FOR EAST ABUTMENT**
- 1) STAKE OUT ABUTMENT LIMITS & SHEET PILE LINE.
  - 2) VERIFY NO UTILITY CONFLICTS EXIST.
  - 3) INSTALL SOLDIER PILE AS SHOWN IN PLAN & ELEVATION.
  - 4) EXCAVATE TO 10 FT BELOW TOP OF PILE.
  - 5) INSTALL WALES, STRUT & TIEBACKS.
  - 6) PROOF TEST ALL TIEBACKS.
  - 7) EXCAVATE TO BOTTOM OF EXCAVATION (MAX DEPTH = 574.47')
  - 8) LEAVE SUPPORT OF EXCAVATION INSTALLED FOR FUTURE CONSTRUCTION OF FLYOVER RAMP BRIDGE PIER.

- SEQUENCE OF CONSTRUCTION FOR EAST ABUTMENT TERS. (NON CORNER PILES)**
- 1) LOCATE EXISTING UTILITIES & PROTECT/SUPPORT AS NECESSARY.
  - 2) DRILL 3'-0" DIA. HOLES & PLACE W24X94 PILES.
  - 3) PLACE CONCRETE HAVING  $f'_c = 4000$  PSI TO ELEVATION OF BOTTOM OF EXCAVATION.
  - 4) FILL REMAINDER OF HOLE WITH SAND.
  - 5) EXCAVATE TWO FEET & INSTALL TIMBER LAGGING BETWEEN PILES AS SHOWN ON THE DRAWINGS.
  - 6) REPEAT STEP 5 UNTIL TWO FEET BELOW WALE ELEVATION.
  - 7) INSTALL WALES, STRUTS, & TIEBACKS AS SHOWN ON THE DRAWINGS.
  - 8) PROOF TEST ALL TIEBACKS, VERIFY ACCEPTANCE OF ALL TIEBACKS PRIOR TO CONTINUED EXCAVATION.
  - 9) REPEAT STEP 5 UNTIL BOTTOM OF EXCAVATION IS REACHED.
  - 10) INSTALL ABUTMENT WALL & FACING.
  - 11) BACKFILL IN FRONT OF THE SOLDIER PILE WALL AS MUCH AS POSSIBLE USING 1:1 SLOPE.

- SEQUENCE OF CONSTRUCTION FOR WEST ABUTMENT**
- 1) STAKE OUT ABUTMENT LIMITS & SHEET PILE LINE.
  - 2) VERIFY NO UTILITY CONFLICTS EXIST.
  - 3) INSTALL SHEET PILE AS SHOWN. MINIMUM TIP ELEVATION TO BE 573.79.
  - 4) EXCAVATE TO ELEVATION 589.73.
  - 5) CONSTRUCT NEW WEST ABUTMENT.
  - 6) BACKFILL.
  - 7) REMOVE SHEET PILE OR CUT DOWN 2'-0" BELOW GRADE / BTM OF APPROACH SLAB.

- SEQUENCE OF CONSTRUCTION FOR EAST ABUTMENT TERS. (CORNER PILES)**
- 1) LOCATE EXISTING UTILITIES & PROTECT/SUPPORT AS NECESSARY.
  - 2) DRILL 3'-0" DIA. HOLES & PLACE 3'-0" DIA. X 0.375 TEMP CAN. INSTALL SOLDIER PILE.
  - 3) PLACE CONCRETE HAVING  $f'_c = 4000$  PSI TO ELEVATION OF BOTTOM OF EXCAVATION.
  - 4) FILL REMAINDER OF HOLE WITH CLSM.
  - 5) EXCAVATE TWO FEET & INSTALL TIMBER LAGGING BETWEEN PILES AS SHOWN ON THE DRAWINGS.
  - 6) REPEAT STEP 5 UNTIL TWO FEET BELOW WALE ELEVATION.
  - 7) INSTALL WALES, STRUTS, & TIEBACKS AS SHOWN ON THE DRAWINGS.
  - 8) PROOF TEST ALL TIEBACKS, VERIFY ACCEPTANCE OF ALL TIEBACKS PRIOR TO CONTINUED EXCAVATION.
  - 9) REPEAT STEP 5 UNTIL BOTTOM OF EXCAVATION IS REACHED.
  - 10) INSTALL ABUTMENT WALL & FACING.
  - 11) BACKFILL IN FRONT OF THE SOLDIER PILE WALL AS MUCH AS POSSIBLE USING 1:1 SLOPE.

- NOTES**
- 1) ALL STEEL PILES & SHAPES TO BE ASTM A572 GR 50.
  - 2) ALL STEEL PLATE TO BE A588 GRADE 50 (BEARING) & ASTM 572 (OTHER)
  - 3) ALL WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1 USING E70XX ELECTRODES
  - 4) SOIL ANCHORS TO BE ASTM A772,  $F_u = 150$  Ksi.
  - 5) ANCHOR GROUT SHALL BE  $f'_c = 4000$  PSI
  - 6) ALL TIMBER LAGGING TO BE 4"x12" ROUGH SAWN, INSTALL WITH 12" VERTICAL EXCEPT AT UTILITY BANK.  $F_b = 1200$  PSI (MIN.)

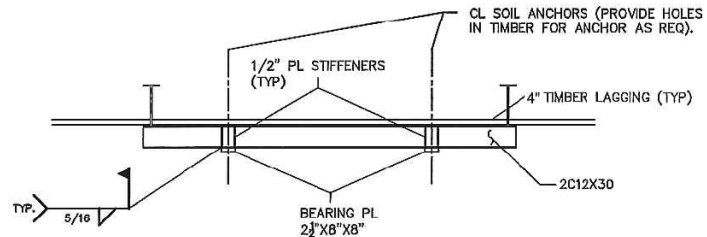


- NOTE:**
1. PROOF LOAD = 1.2 \* DESIGN LOAD
  2. LOCK-OFF LOAD = 0.7 \* DESIGN LOAD

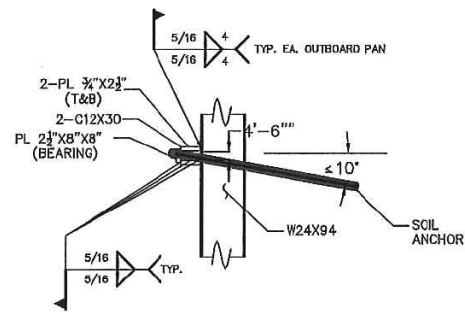
LEVEL	DESIGN LOAD (K)	UNBONDED LENGTH (FT)	EST. BONDED LENGTH (FT)	ANCHOR DIA. (IN)
UPPER	77	14	16	1 1/2

(SEE SHEET 3 FOR TEST PROCEDURE)

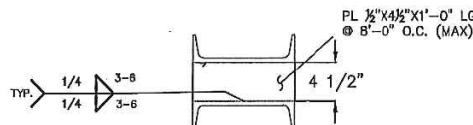
TYPICAL WALE TO ANCHOR CONNECTION



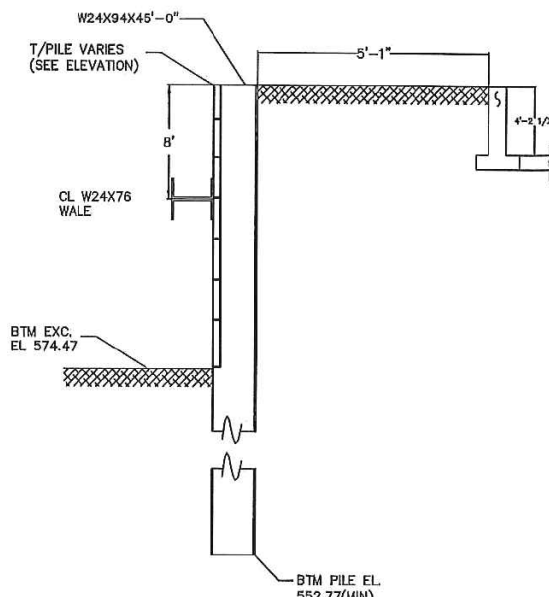
ANCHOR DETAIL



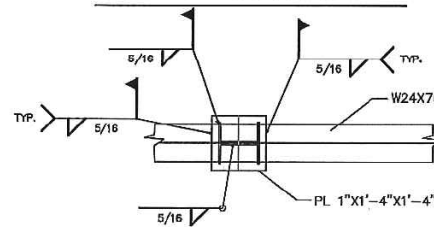
NOTE: BEVELED WASHERS W/ HARDENED WASHER AS REQ'D



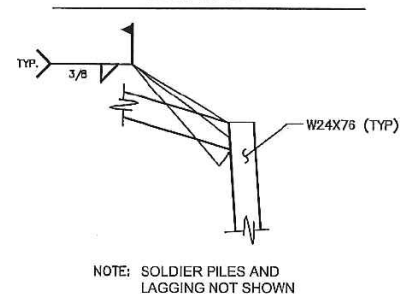
WALL CROSS SECTION AT BUILDING



SECTION A-A

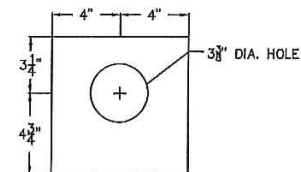


DETAIL B

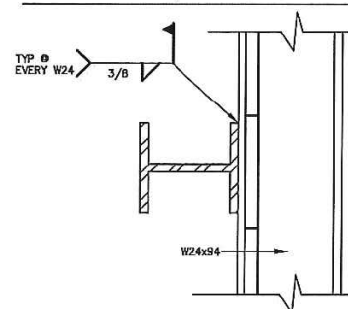


NOTE: SOLDIER PILES AND LAGGING NOT SHOWN

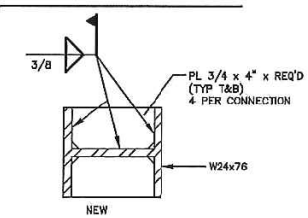
BEARING PLATE DETAIL



SECTION C-C (W30X99 SIMILAR)



DETAIL D



**PROJECT:**  
IDOT 6 EAST HARRISON ST. BRIDGE

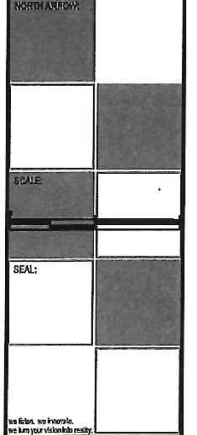
**LOCATION:**  
COOK COUNTY, IL



**RELEASE:**  
PRELIMINARY PLANS - NOT FOR CONSTRUCTION

**REVISIONS:**

#	DATE	DESCRIPTION
1	01/27/14	PER ENGINEER COMMENTS
2	02/27/14	PER ENGINEER COMMENTS
3	10/14/14	PER ENGINEER COMMENTS
4	12/15/14	PER ENGINEER COMMENTS
5	12/21/14	PER ENGINEER COMMENTS
6	12/24/14	PER ENGINEER COMMENTS



**SHEET:**  
EARTH RETENTION SYSTEM DETAILS

**PROJECT MANAGER:** CRJ  
**PROJECT NUMBER:** 14.0349  
**DESIGNED BY:** JRT  
**DRAWN BY:** JRT  
**CHECKED BY:** RMJ  
**DATE:** 01/17/2014

**SHEET NUMBER:**  
2/3

**REVISIONS:**

#	DATE	DESCRIPTION
7	12/25/14	PER ENGINEER COMMENTS
8	12/28/14	PER ENGINEER COMMENTS
9	12/17/14	PER ENGINEER COMMENTS
10	12/17/14	PER ENGINEER COMMENTS

USER NAME = ahmad,issa	DESIGNED -	REVISED -
PLOT SCALE = N.T.S	CHECKED -	REVISED -
PLOT DATE = 7/26/2018	DRAWN -	REVISED -
	CHECKED - MI, MAI	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING RECORD DRAWINGS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	743
			CONTRACT NO. 60X79	
			ILLINOIS FED. AID PROJECT	



# FOR INFORMATION ONLY

\* 250 + 5 = 255 TOTAL SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080 R&B	COOK	250	1
ILLINOIS			CONTRACT NO. 62B76	

FOR INDEX OF SHEETS AND STANDARDS SEE SHEET NO. 2

**DESIGN DESIGNATIONS:**

RAMP NE	4,000(2040) INTERSTATE
RAMP NW	36,000(2040) INTERSTATE
EB CONGRESS PARKWAY	33,000(2040) INTERSTATE
SW RAMP	23,000(2040) INTERSTATE
EN RAMP	31,000(2040) INTERSTATE
SE RAMP	5,000(2040) INTERSTATE
NB C-D ROAD	17,000(2040) INTERSTATE
DES PLAINES STREET	5,000(2040) OTHER PRINCIPAL ARTERIAL

**POSTED DESIGN SPEEDS:**

30/30 MPH
35/35 MPH
45/50 MPH
35/35 MPH
20/20 MPH
25/25 MPH
30/30 MPH
30/30 MPH

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
**PROPOSED HIGHWAY PLANS**

PROJECT LOCATED IN CITY OF CHICAGO

D-91-227-13

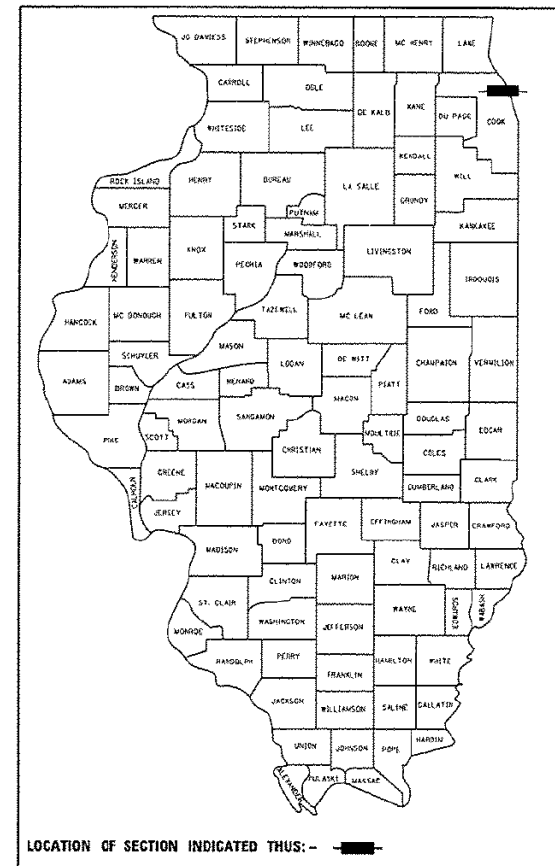
*Jennifer M. Golemba 4/28/2016*  
JENNIFER M. GOLEMB  
LICENSE EXPIRES 11/30/2017  
SHEET RANGE

*Jamal I. Grainawi 4/28/16*  
JAMAL I. GRAINAWI  
LICENSE EXPIRES 11/30/2016  
SHEET RANGE

*William D. Stermer 4/28/2016*  
WILLIAM D. STERMER  
LICENSE EXPIRES 11/30/2017  
SHEET RANGE

FAI ROUTE 9094 AT I-290/CONGRESS PARKWAY (I-90/94)  
(JANE BYRNE INTERCHANGE)  
N TO E CONGRESS PARKWAY  
SECTION 2015-080R&B  
BRIDGE REPLACEMENT,  
RECONSTRUCTION, LIGHTING

PROJECT: ACNHPP-000V (078)  
COOK COUNTY  
C-91-129-16



NPDES PERMIT INFORMATION

NPDES Disturbed	Area = 1.24 Acres
Approximate Location of Roadway is:	
Longitude	87° 38' 40" W
Latitude	41° 52' 30" N

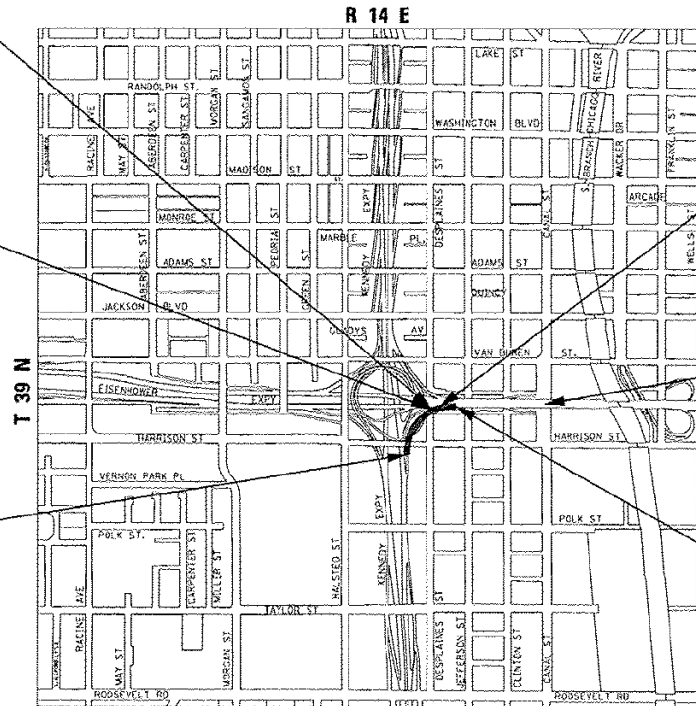
07-29-2016 LETTING ITEM 024

DISTRICT 1 DESIGN /CONSULTANT SERVICES: BRIAN KUTTAB, P.E. (847)705-4431 SCHAUMBURG, ILLINOIS

BEGIN PROJECT LIMIT  
EB CONGRESS VIADUCT  
STA 5160 + 62.57

EB CONGRESS VIADUCT BRIDGE:  
SN 016-0461  
STA 5160 + 62.57 TO  
STA 5163 + 08.35

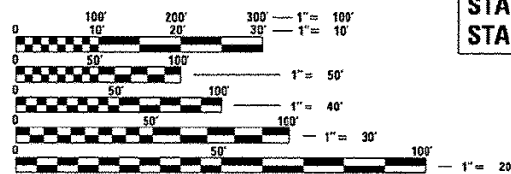
BEGIN PROJECT LIMIT  
RAMP NE  
STA 1703 + 09.05



LOCATION MAP

NOT TO SCALE

GROSS LENGTH = 546.89 FT (0.104 MILES)  
NET LENGTH = 546.89 FT (0.104 MILES)



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

C.U.A.N.  
CHICAGO UTILITY ALERT NETWORK  
1-312-744-7000

PROJECT ENGINEER: LISA CHRZASC  
PROJECT MANAGER: BRIAN KUTTAB

CONTRACT NO. 62B76

RAMP NE BRIDGE:  
SN 016-1710  
STA 1703 + 09.05 TO  
STA 1708 + 55.94

END PROJECT LIMIT  
EB CONGRESS VIADUCT  
STA 5173 + 36.39

END PROJECT LIMIT  
RAMP NE  
STA 1708 + 55.94

TranSystems  
**AECOM**  
PARSONS BRINCKERHOFF

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED *May 1 2016*  
*John F. ...* REGIONAL ENGINEER  
*July 1 2016*  
*Maureen M. Addis, P.E.* ENGINEER OF DESIGN AND ENVIRONMENT  
*July 1 2016*  
*Omari Osman, P.E.* DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

PLOT DATE: 4/28/2016

FILE NAME: D:\V1617479-PWINT-aecom\line\local\AECOM\_DS02\_NAYDocuments\01\_Americas\Transportation\60269938\_Circle\Phase\_I\000\_CAD\008\_Structural\Structure\_016-1712-60X79-5x-Exsting\_3



USER NAME = ahmad,issa	DESIGNED -	REVISED -
PLOT SCALE = N.T.S	CHECKED -	REVISED -
PLOT DATE = 7/26/2018	DRAWN - MI, MAI	REVISED -
	CHECKED -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING RECORD DRAWINGS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	744
ILLINOIS			CONTRACT NO. 60X79	
			FED. AID PROJECT	

# FOR INFORMATION ONLY

Bench Mark: Cut square at center of door entrance to 707 W. Harrison St. South side of Harrison St. ±90' west of west line of Des Plaines. Elevation 597.47.  
 A X cut in the SE anchor bolt at the 11th street light N. of Roosevelt on the W. side of Halsted. Elev. = 594.06

Existing Structure: S.N. 016-2451 was originally built in 1960 under section 0101.6-1P and F.A.I. Route Number 94 carries NB I-90/94 traffic to EB I-290. The existing three (3) span structure has an overall length of approx. 180'-0" and out to out width of 29'-0". The existing superstructure consists of simple span wide flange beams with 7 1/2" thick concrete deck with 2" overlay. The existing substructure consists of reinforced concrete abutment and multi-columns piers. Existing substructure units are supported on caissons. The existing structure is to be removed and replaced.

Traffic Control: Ramp NE and Ramp EN will be closed during construction and traffic will be detoured via local roads.  
 No Salvage.

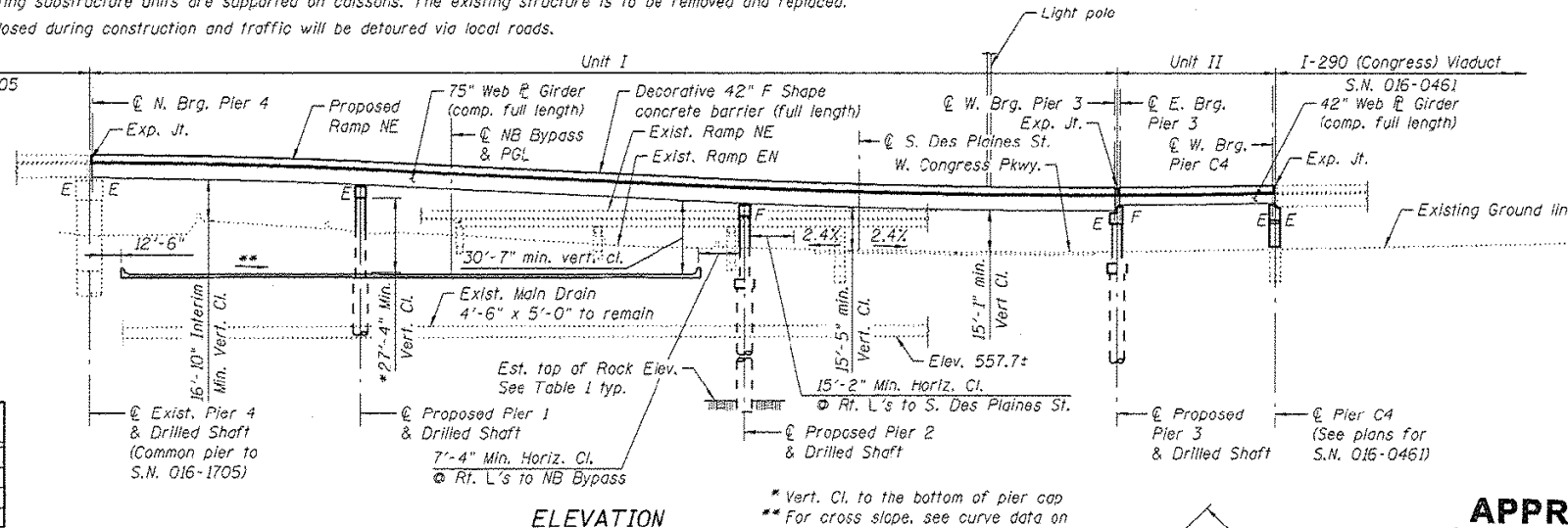
- Notes:
- Span lengths are measured along @ & PGL Ramp NE.
  - All piers are oriented perpendicular to @ & PGL unless noted otherwise.

SCUPPER LOCATION

Station	Offset
1704+13.94	6.0 Rt.
1705+82.94	6.0 Rt.
1707+14.54	6.0 Rt.
1707+27.34	6.0 Rt.
1707+40.14	6.0 Rt.

TABLE 1

Pier	Estimated T/Ground Elev.	Estimated T/Rock Elev.
1 W. Col.	594.55	490.0
1 E. Col.	597.16	490.0
2	588.35	485.5
3	587.55	488.9



**DESIGN SPECIFICATIONS**

2014 AASHTO LRFD Bridge Design Specifications  
 7th Edition

**LOADING HL-93**

Allow 50#/sq. ft. for future wearing surface.

**DESIGN STRESSES**

**FIELD UNITS**

f'c = 3,500 psi  
 fy = 60,000 psi (Reinforcement)  
 fy = 50,000 psi (M270 Grade 50)

**SEISMIC DATA**

Seismic Performance Zone (SPZ) = 1  
 Design Spectral Acceleration at 1.0 sec. (S<sub>D1</sub>) = 0.085g  
 Design Spectral Acceleration at 0.2 sec. (S<sub>D5</sub>) = 0.144g  
 Soil Site Class = D

**APPROVED**  
 For Structural Adequacy Only

*D. Carl Purjes JFS*  
 Engineer of Bridges & Structures



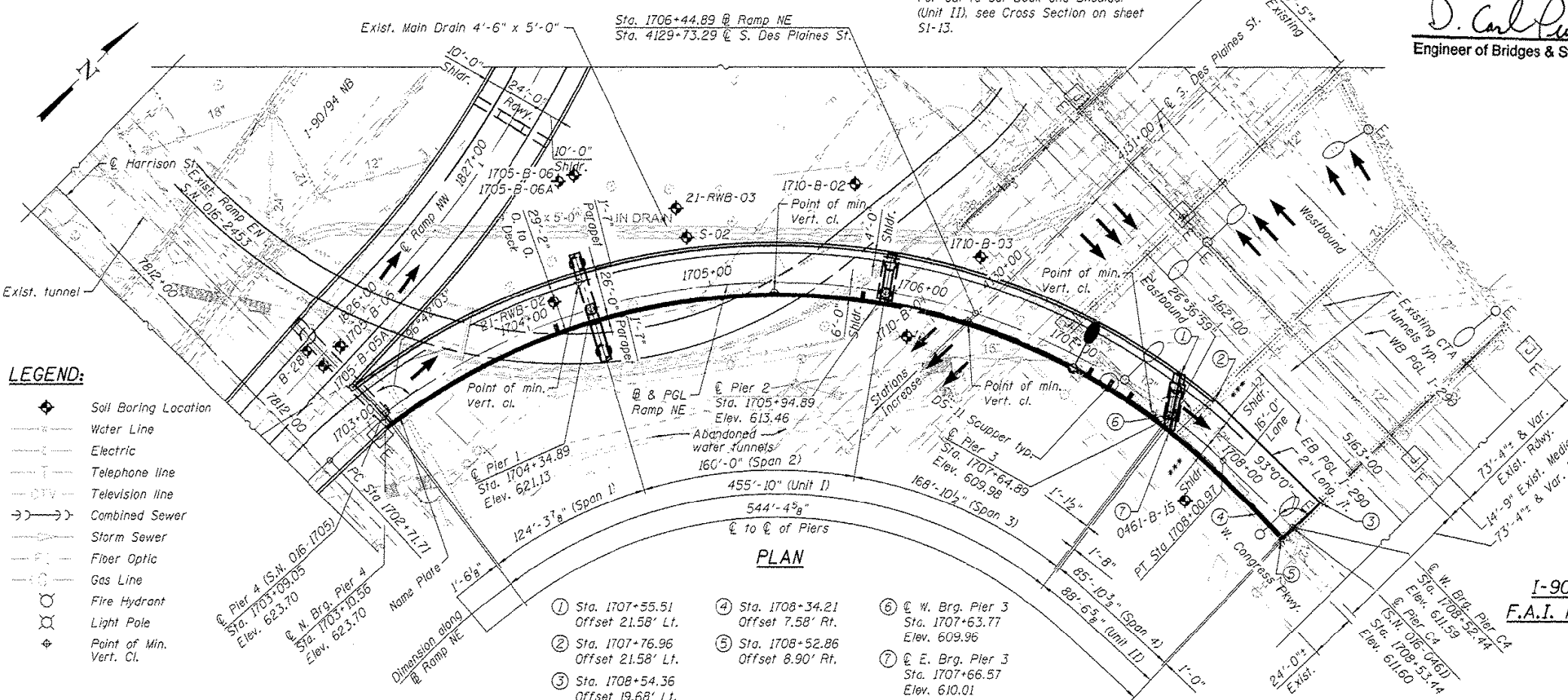
Signed

*Jamal I. Grainawi*

JAMAL I. GRAINAWI, S.E. II. Lic. No. 081-005161  
 Expires 11-30-2016.

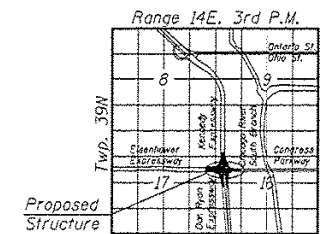
Date

4/28/2016



**LEGEND:**

- ◆ Soil Boring Location
- Water Line
- Electric
- Telephone line
- Television line
- Combined Sewer
- Storm Sewer
- Fiber Optic
- Gas Line
- Fire Hydrant
- Light Pole
- ◆ Point of Min. Vert. Cl.



**GENERAL PLAN AND ELEVATION**

**RAMP NE OVER**  
**I-90/94 NB BYPASS/S. DES PLAINES ST.**  
**F.A.I. RTE. I-90/94 - SECTION 2015-080 R&B**  
**COOK COUNTY**  
**STATION 1704+73.63**  
**STRUCTURE NO. 016-1710**

**PARSONS BRINCKERHOFF**

USER NAME = lopezgonzalez	DESIGNED - IJL	REVISIONS -
PLOT SCALE = N.T.S.	CHECKED - MS	REVISIONS -
PLOT DATE = 5/6/2016	DRAWN - DCP	REVISIONS -
	CHECKED - JIC	REVISIONS -

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

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

**EXISTING RECORD DRAWINGS**

F.A.I. RTE. 80/94/290	SECTION 2015-080R&B	COUNTY COOK	TOTAL SHEETS 25C	SHEET NO. 140
CONTRACT NO. 62B76			ILLINOIS FED. AID PROJECT	

F.A.I. RTE. 80/94/290	SECTION 2014-005R&B	COUNTY COOK	TOTAL SHEETS 888	SHEET NO. 745
CONTRACT NO. 60X79			ILLINOIS FED. AID PROJECT	

**HBM**  
 ENGINEERING GROUP, LLC

USER NAME = ahmad,issa	DESIGNED -	REVISIONS -
PLOT SCALE = N.T.S.	DRAWN -	REVISIONS -
PLOT DATE = 7/26/2018	CHECKED - MI, MAI	REVISIONS -

FILE NAME: D:\V161749-PWINT-accomline.local\AECOM\_DS02\_NAYDocuments\01\_Americas\Transportation\60269938\_CirclePhase\_I\000\_CAD\008\_Structural\Structure\_016-1712-60X79-Sxx-Existing\_4

# FOR INFORMATION ONLY

## GENERAL NOTES:

- Fasteners shall be ASTM A325 Type I, mechanically galvanized bolts. Bolts 7/8" φ, holes 15/16" φ, unless otherwise noted.
- Calculated weight of Structural Steel = 947,980 lbs.
- All structural steel shall be AASHTO M270 Grade 50.
- All structural steel shall be metalized (thermal spraying) (see special provisions).
- No field welding is permitted except as specified in the contract documents.
- Reinforcement bars designated (E) shall be epoxy coated.
- Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8" (0.01 ft.). Adjustment shall be made either by grinding the surface or by shiming the bearings.
- Concrete Sealer shall be applied to the designated areas of the Piers.
- Slipforming of the parapet is not allowed.
- If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.
- Structural steel erection shall be accomplished by an steel erection contractor or subcontractor certified as an Advanced Certified Steel Erector (ACSE) by the American Institute of Steel Construction (AISC). See special provision for "Erection of Complex Steel Structures".
- The Drilled Shaft quantities and reinforcement detailing are based on the estimated elevations shown on the plans. The actual elevations may differ at each shaft locations and corresponding adjustments shall be made to the drilled shaft and reinforcement quantities and payment limits.
- The Contractor shall field verify location of existing utilities prior to construction. The Contractor shall take precautions not to damage existing utilities. Any such damage shall be repaired by the Contractor at no additional cost.
- Limited groundwater elevation data is available in the boring logs. In addition, groundwater may also be present in deeper granular layers. The groundwater may rise in the shafts to an elevation above the top of granular layers. The Contractor shall consider this information when choosing construction methods. The Contractor will not be compensated for issues related to the groundwater elevation.
- Temporary Soil Retention System shall be as per Std. Spec. Section 522.07 and as modified herein. Temporary Soil Retention System shall be installed without the use of impact-type pile drivers. The proposed equipment and procedures used for the installation of Temporary Soil Retention System shall be submitted to the Engineer for approval prior to their use. If vibratory equipment utilized, the Contractor shall also submit documentation regarding the operating noise levels and operating vibration characteristics of the equipment proposed. The approval of the equipment and procedure by the Engineer does not guarantee the performance in the field of the equipment will be acceptable. If in the judgment of the Engineer, the noise and/or vibration effects exceed those required by the local residents, then the Contractor must halt production and find a remedy suitable to the Engineer. Threshold values for vibration monitoring are included in the special provision "CONSTRUCTION VIBRATION MONITORING". The costs incurred finding suitable equipment and procedures shall be included in the cost of Temporary Soil Retention System. No additional costs shall be paid for this effort.

## INDEX OF SHEETS

- SI-1 General Plan & Elevation
- SI-2 General Data
- SI-3 Curve Data & Geometric Layout
- SI-4 Substructure Layout
- SI-5 Temporary Soil Retention System Details
- SI-6 Top of Slab Elevation Plan - Unit I
- SI-7 Top of Slab Elevation I - Unit I
- SI-8 Top of Slab Elevation II - Unit I
- SI-9 Top of Slab Elevation Plan - Unit II
- SI-10 Top of Slab Elevation - Unit II
- SI-11 Deck Plan I - Unit I
- SI-12 Deck Plan II - Unit I
- SI-13 Deck Plan III - Unit II
- SI-14 Deck Details I - Unit I
- SI-15 Deck Details II - Unit II
- SI-16 Deck Details III
- SI-17 Deck Details IV
- SI-18 Drainage Scupper Details, DS-II
- SI-19 Drainage System Details
- SI-20 Modular Expansion Joint - Pier 4
- SI-21 Modular Expansion Joint Details
- SI-22 Preformed Joint Strip Seal - Piers 3 & C4
- SI-23 Framing Plan - Unit I
- SI-24 Superstructure Steel Details I - Unit I
- SI-25 Superstructure Steel Details II - Unit I
- SI-26 Superstructure Steel Details III - Unit I
- SI-27 Superstructure Steel Details IV - Unit I
- SI-28 Superstructure Steel Details V - Unit I
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- SI-31 Superstructure Steel Details I - Unit II
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- SI-53 Boring Logs VIII

## TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Structure Excavation	Cu. Yd.	-	602	602
Concrete Structures	Cu. Yd.	-	309.4	309.4
Concrete Superstructure	Cu. Yd.	569.9	-	569.9
Bridge Deck Grooving	Sq. Yd.	1,503	-	1,503
Form Liner Textured Surface	Sq. Ft.	-	968	968
Rubbed Finish	Sq. Ft.	-	3,113	3,113
Protective Coat	Sq. Yd.	1,859	-	1,859
Furnishing and Erecting Structural Steel	L. Sum	0.9	-	0.9
Stud Shear Connectors	Each	4,998	-	4,998
Reinforcement Bars	Pound	-	131,120	131,120
Reinforcement Bars, Epoxy Coated	Pound	161,370	71,970	233,340
Name Plates		1	-	1
Drilled Shaft in Soil	Cu. Yd.	-	592.6	592.6
Drilled Shaft in Rock	Cu. Yd.	-	10.9	10.9
Preformed Joint Strip Seal	Foot	62	-	62
Elastomeric Bearing Assembly, Type I	Each	-	4	4
Anchor Bolts, 1"	Each	-	48	48
Anchor Bolts, 1 1/4"	Each	-	32	32
Temporary Soil Retention System	Sq. Ft.	-	2,667	2,667
Concrete Sealer	Sq. Ft.	-	4,320	4,320
Crosshole Sonic Logging	Each	-	4	4
Bar Splicers, Special	Each	-	22	22
High Load Multi-Rotational Bearings, Guided Expansion, 250k	Each	4	-	4
High Load Multi-Rotational Bearings, Guided Expansion, 400k	Each	4	-	4
High Load Multi-Rotational Bearings, Guided Expansion, 450k	Each	4	-	4
High Load Multi-Rotational Bearings, Fixed - 600k	Each	4	-	4
Drainage Scuppers, DS-II	Each	5	-	5
Drainage System	L. Sum	0.5	-	0.5
Modular Expansion Joint-Swivel 9"	Foot	28	-	28

STATION 1704+73.63  
SECTION 2015-080R&B  
BUILT BY  
STATE OF ILLINOIS  
F.A.I. ROUTE 90/94  
LOADING HL-93  
STRUCTURE NO. 016-1710

NAME PLATE  
See Std. 515001

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL DATA  
STRUCTURE NO. 016-1710

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	141
			CONTRACT NO. 62B76	
ILLINOIS FED. AID PROJECT				

EXISTING RECORD DRAWINGS

STATE OF ILLINOIS  
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PLOT DATE =	7/26/2018	CHECKED -	MI, MAI	REVISED -	

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	746
			CONTRACT NO. 60X79	
ILLINOIS FED. AID PROJECT				

**HBM**  
ENGINEERING GROUP, LLC

# FOR INFORMATION ONLY

### CURVE DATA

(Ramp NE)  
 PROP. CURVE P-CIR-NE-1  
 P.I. Sta. = 1706+01.77  
 $\Delta = 86^\circ 38' 23''$  (RT.)  
 $D = 16^\circ 22' 13''$   
 $R = 350.00'$   
 $T = 330.05'$   
 $L = 529.25'$   
 $E = 131.08'$   
 $e = 5.60\%$   
 $T.R. = 48'$   
 $S.E. Run = 136'$   
 P.C. Sta. = 1702+71.71  
 P.T. Sta. = 1708+00.97  
 $DS = 30$   
 $PS = 30$

### CURVE DATA

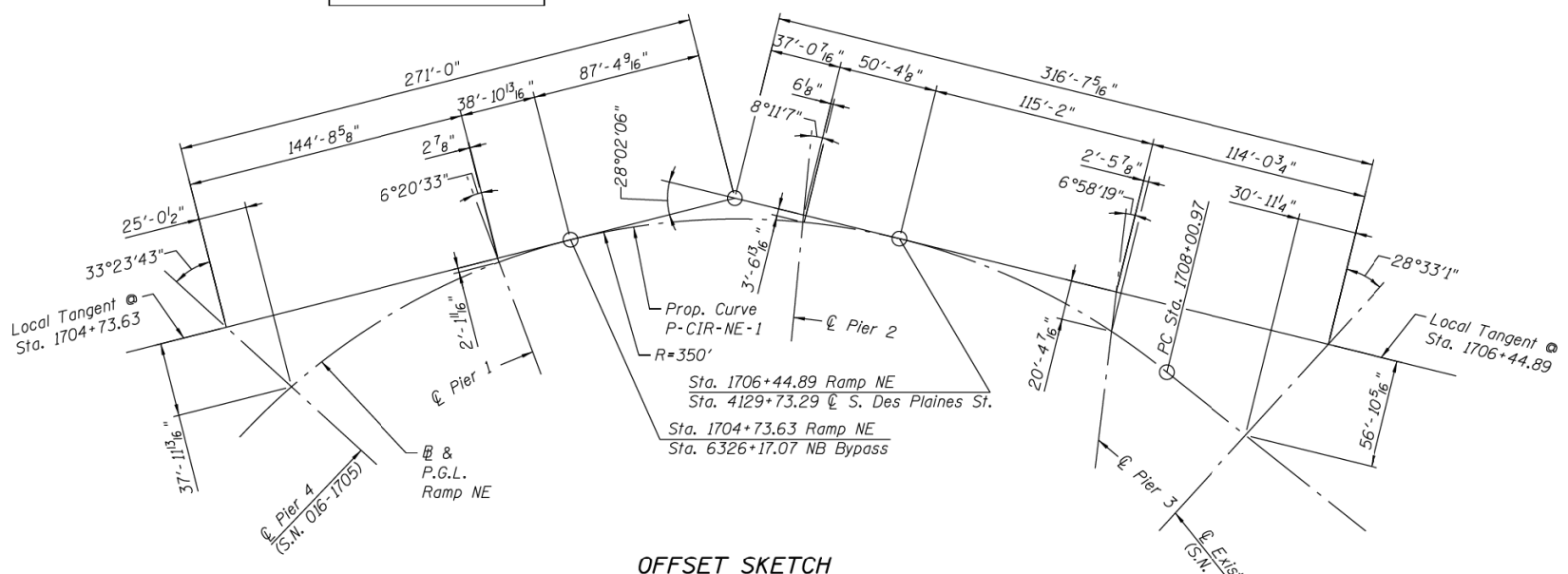
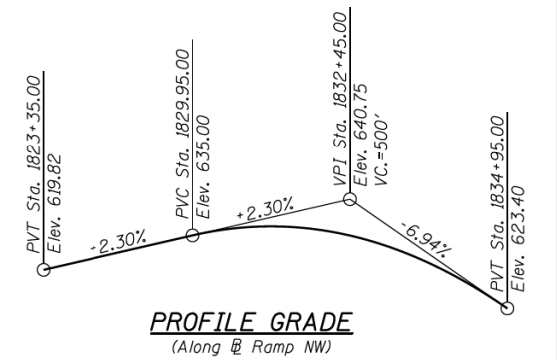
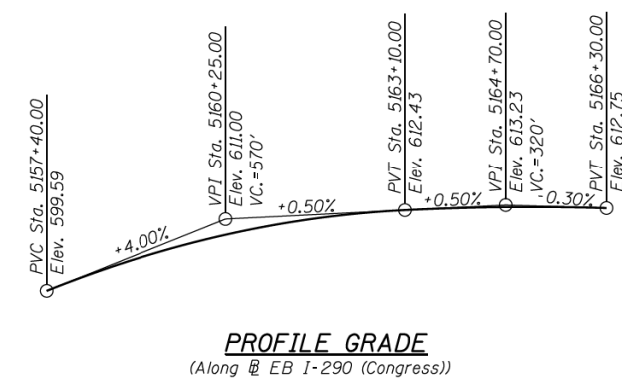
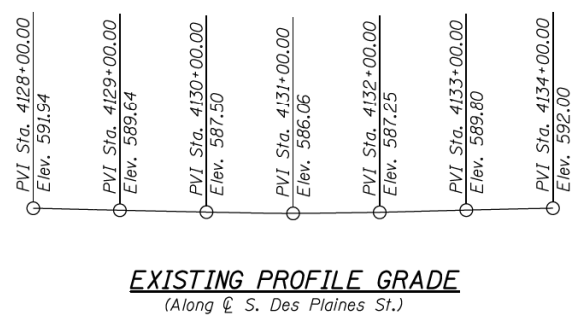
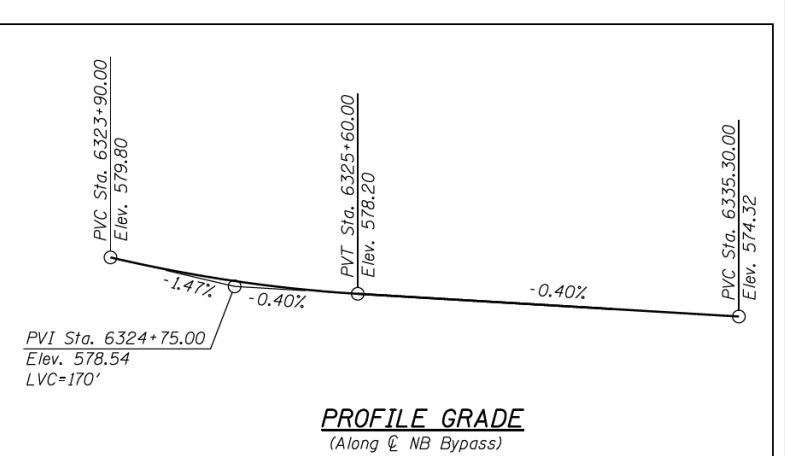
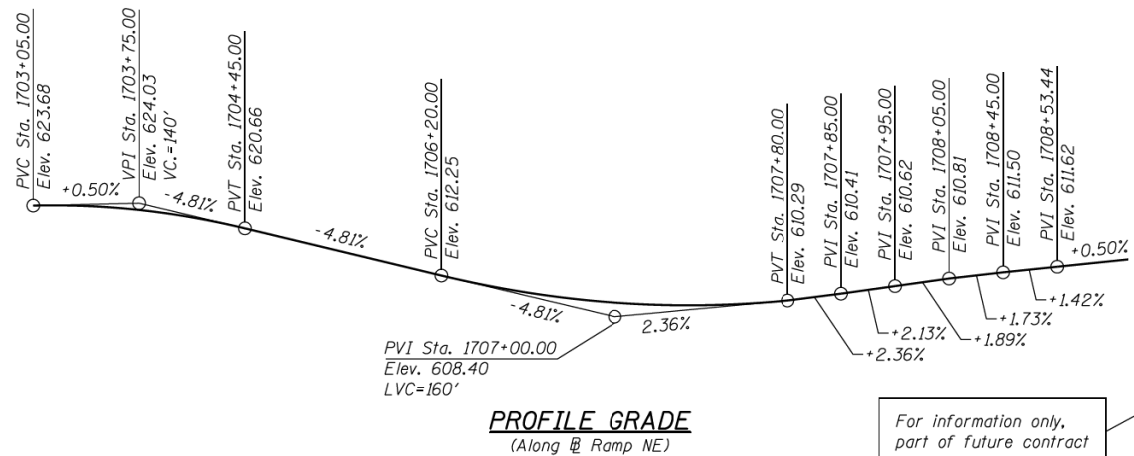
(NB Bypass)  
 PROP. CURVE P-NCD-NX-2  
 P.I. Sta. = 6323+25.02  
 $\Delta = 8^\circ 04' 05''$  (RT)  
 $D = 7^\circ 17' 22''$   
 $R = 786.00'$   
 $T = 55.43'$   
 $L = 110.68'$   
 $E = 1.95'$   
 $e = 5.20\%$   
 $T.R. = NA$   
 $S.E. RUN = 101'$   
 P.C. STA. = 6322+69.59  
 P.T. STA. = 6323+80.27  
 $DS = 35$   
 $PS = 30$

### CURVE DATA

(NB Bypass)  
 PROP. CURVE P-NCD-NX-3  
 P.I. Sta. = 6324+41.27  
 $\Delta = 20^\circ 56' 44''$  (RT)  
 $D = 17^\circ 21' 44''$   
 $R = 330.00'$   
 $T = 61.00'$   
 $L = 120.64'$   
 $E = 5.59'$   
 $e = 5.20\%$   
 $T.R. = NA$   
 $S.E. RUN = 95'$   
 P.C. STA. = 6323+80.27  
 P.T. STA. = 6325+00.91  
 $DS = 30$   
 $PS = 30$

### CURVE DATA

(NB Bypass)  
 PROP. CURVE P-NCD-NX-4  
 P.I. Sta. = 6328+76.78  
 $\Delta = 59^\circ 05' 41''$  (LT)  
 $D = 14^\circ 08' 50''$   
 $R = 405.00'$   
 $T = 229.58'$   
 $L = 417.72'$   
 $E = 60.54'$   
 $e = 5.40\%$   
 $T.R. = 36'$   
 $S.E. RUN = 98'$   
 P.C. STA. = 6326+47.20  
 P.T. STA. = 6330+64.91  
 $DS = 30$   
 $PS = 30$



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	CHECKED - JIG	REVISED -

STATE OF ILLINOIS  
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CURVE DATA & GEOMETRIC LAYOUT  
STRUCTURE NO. 016-1710

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	142
CONTRACT NO. 62B76				

USER NAME = ahmad,issa

DESIGNED -	REVISED -
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING RECORD DRAWINGS

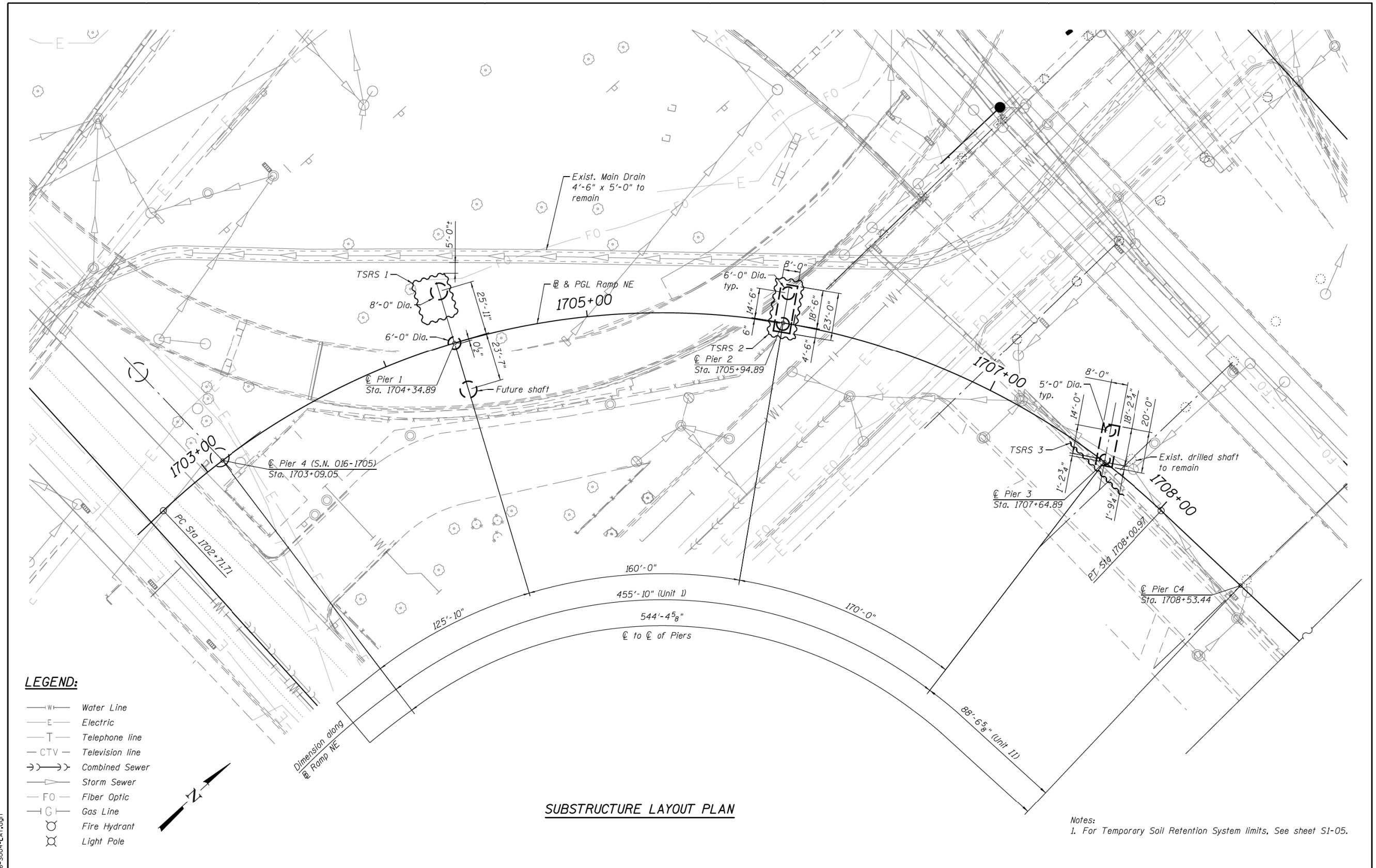
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90/94/290	2014-005R&B	COOK	888	747
CONTRACT NO. 60X79				



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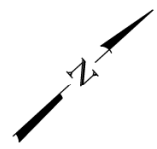
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# FOR INFORMATION ONLY



**LEGEND:**

- W— Water Line
- E— Electric
- T— Telephone line
- CTV— Television line
- Combined Sewer
- S— Storm Sewer
- FO— Fiber Optic
- G— Gas Line
- ⊙ Fire Hydrant
- ⊙ Light Pole



**SUBSTRUCTURE LAYOUT PLAN**

Notes:  
1. For Temporary Soil Retention System limits, See sheet S1-05.

**PARSONS  
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USER NAME = lopezgonzalez	DESIGNED - JZ	REVISSED -
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUBSTRUCTURE LAYOUT  
STRUCTURE NO. 016-1710**

SHEET NO. S1-4 OF S1-53 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	143
CONTRACT NO. 62B76				

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ENGINEERING GROUP, LLC

USER NAME = ahmad,issa	DESIGNED -	REVISSED -
PLLOT SCALE = N.T.S.	CHECKED -	REVISSED -
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	CHECKED -	REVISSED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EXISTING RECORD DRAWINGS**

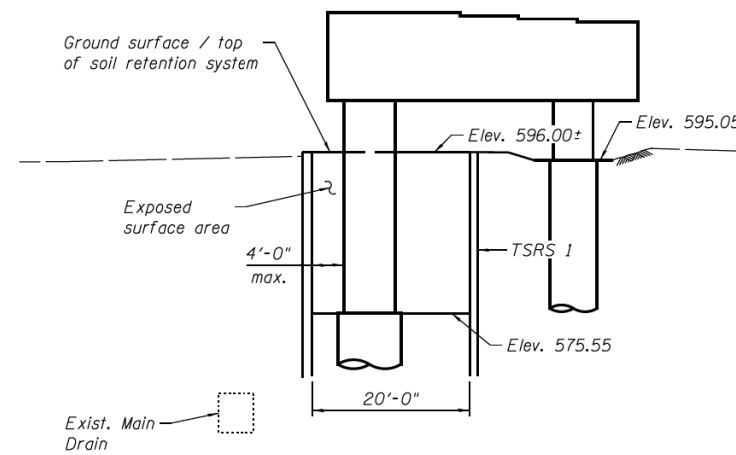
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90/94/290	2014-005R&B	COOK	888	748
CONTRACT NO. 60X79				

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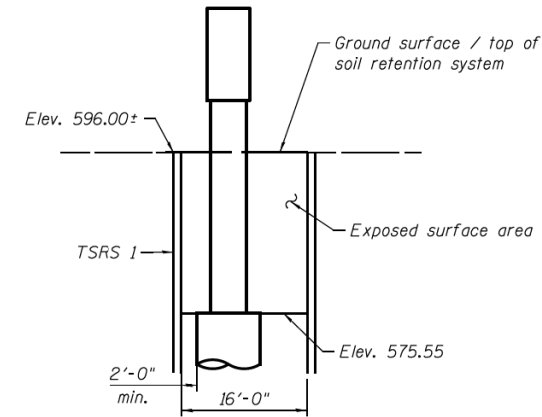
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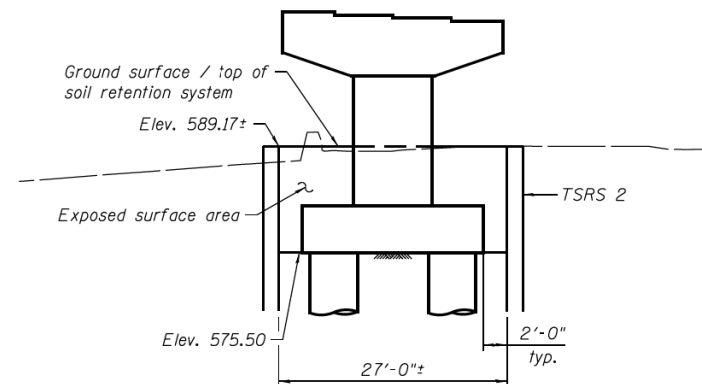
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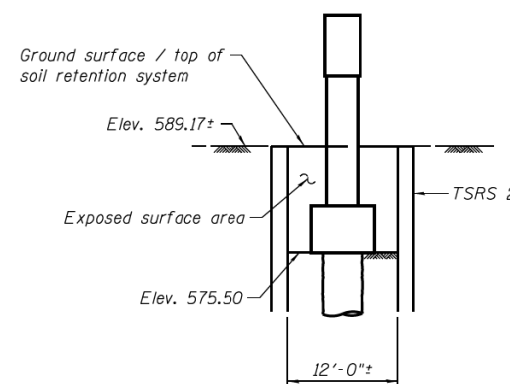
**ELEVATION - PIER 1**



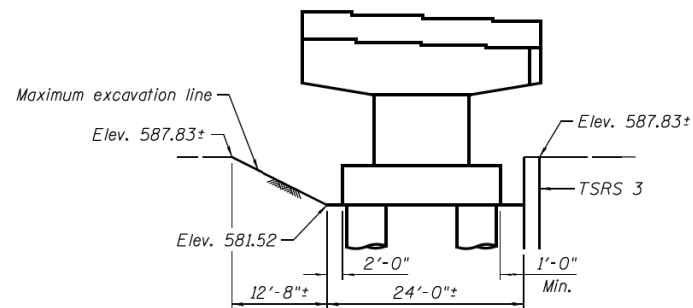
**END VIEW - PIER 1**  
(Looking East)



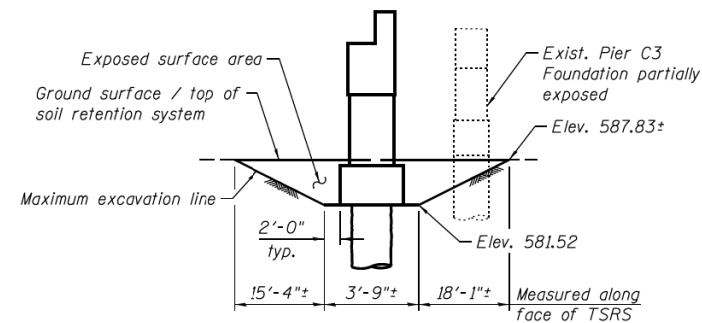
**ELEVATION - PIER 2**



**END VIEW - PIER 2**



**ELEVATION - PIER 3**



**END VIEW - PIER 3**

**BILL OF MATERIAL**

Item	Unit	Total
Temporary Soil Retention System	Sq. Ft.	2,667

**Notes:**

1. Impact driving of piles and temporary sheet piling is not allowed.
2. The maximum allowable excavation slope is 1:2 (V:H)
3. A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.
4. The Contractor shall take precautions to protect existing utilities and foundations during construction of the bridge. The utilities were located based on SUE and utility supplier information available at design.

0161710-62B76-5005-LAY.dgn

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PLOT DATE = 5/6/2016	DRAWN - JZ	REVISED -
	CHECKED - JIG	REVISED -

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**TEMPORARY SOIL RETENTION SYSTEM DETAILS  
STRUCTURE NO. 016-1710**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	144
CONTRACT NO. 62B76				

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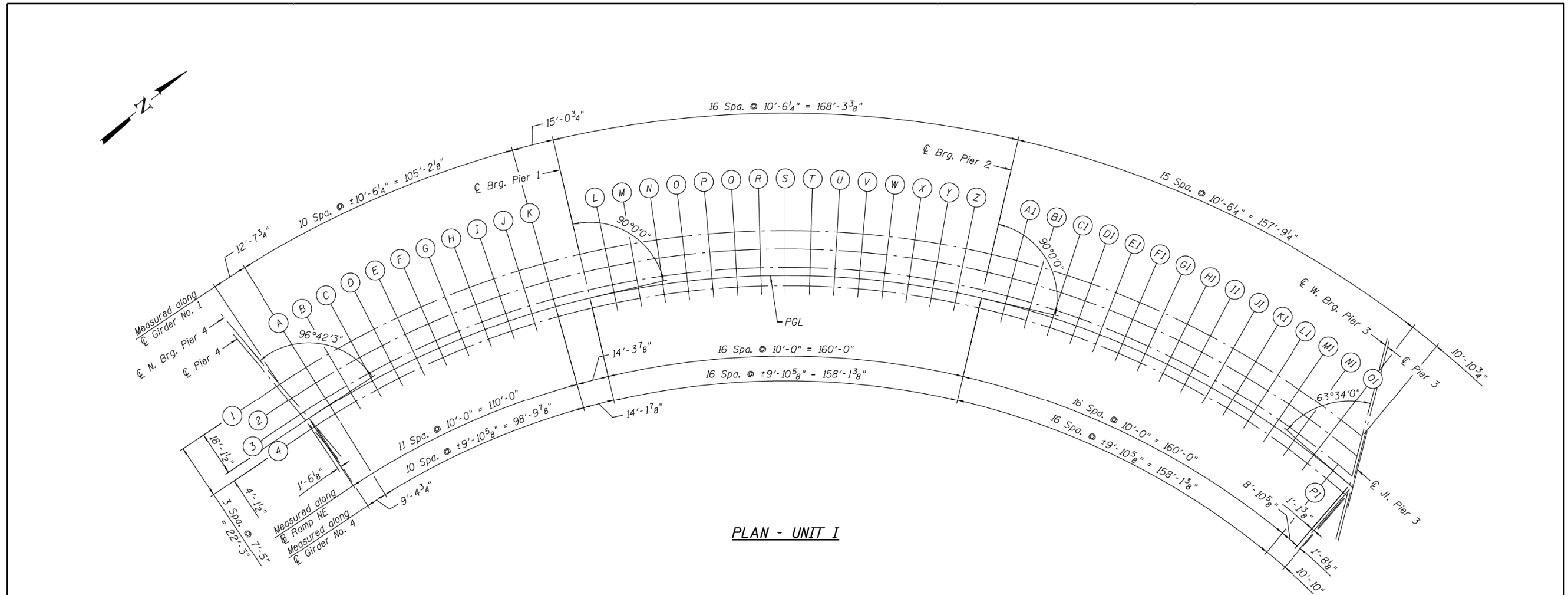
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**EXISTING RECORD DRAWINGS**

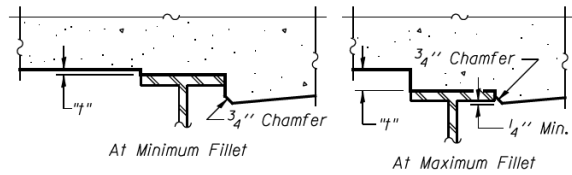
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	749
CONTRACT NO. 60X79				

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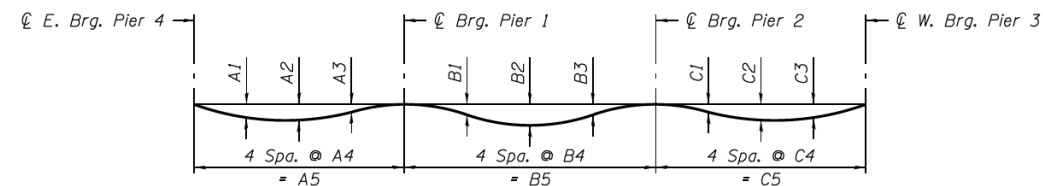


PLAN - UNIT I



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals in tables, see sheet S1-7 thru S1-8. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown below, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:  
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown in tables, see sheet S1-7 & S1-8.

Girder No.	Span 1					Span 2					Span 3				
	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	C1	C2	C3	C4	C5
1	2 1/4"	2 3/4"	1 5/8"	+33'-2 5/8"	132'-10 5/8"	-7"	-1 1/4"	-1 1/4"	+42'-0 7/8"	168'-3 3/8"	3 1/4"	5 5/8"	4 3/8"	42'-2"	168'-8"
2	1 5/8"	2"	1 1/2"	+32'-4 1/2"	129'-4 5/8"	-1/2"	-5/8"	-3/4"	+41'-2 5/8"	164'-10 3/4"	2 1/2"	4 1/4"	3 1/4"	42'-2 1/4"	168'-9"
3	1 1/8"	1 3/8"	3/4"	31'-5 5/8"	125'-10 1/2"	-1/8"	-1/8"	-4"	40'-4 1/2"	161'-6"	1 3/4"	2 7/8"	2 1/8"	42'-2 1/2"	168'-10"
4	5/8"	3/4"	3/8"	30'-7 1/8"	122'-4 1/2"	1/4"	1/2"	1/4"	+39'-6 3/8"	158'-1 3/8"	7/8"	1 5/8"	1 1/4"	+42'-2 7/8"	168'-11 3/8"

0161710-62B76-5006-TSE.dgn

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	CHECKED - JIG	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATION PLAN - UNIT I  
STRUCTURE NO. 016-1710

F.A.I. RTE. 90/94/290	SECTION 2015-080R&B	COUNTY COOK	TOTAL SHEETS 250	SHEET NO. 145
CONTRACT NO. 62B76				

SHEET NO. S1-6 OF S1-53 SHEETS

ILLINOIS FED. AID PROJECT

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ENGINEERING GROUP, LLC

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PLOT DATE = 7/26/2018	DRAWN - MI, MAI	REVISED -
	CHECKED -	REVISED -

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DEPARTMENT OF TRANSPORTATION

EXISTING RECORD DRAWINGS

F.A.I. RTE. 90/94/290	SECTION 2014-005R&B	COUNTY COOK	TOTAL SHEETS 888	SHEET NO. 750
CONTRACT NO. 60X79				

ILLINOIS FED. AID PROJECT

FILE NAME: D:\V161749-PWINT-aecomonline.local\AECOM\_DS02\_NAYDocuments\01\_Americas\Transportation\60269938\_Circle\Phase\_II\000\_CAD\008\_Structural\Structure\_016-1712\Existing\_Plans\016-1712-60X79-Sxx-Existing\_9

# FOR INFORMATION ONLY

**GIRDER NO. 1**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
CL. Pier 4	1703+07.03	-18.13	624.65	624.65
CL. E.Brg. Pier 4	1703+08.54	-18.13	624.66	624.66
A	1703+20.56	-18.13	624.72	624.78
B	1703+30.56	-18.13	624.70	624.82
C	1703+40.56	-18.13	624.63	624.81
D	1703+50.56	-18.13	624.53	624.73
E	1703+60.56	-18.13	624.39	624.60
F	1703+70.56	-18.13	624.21	624.43
G	1703+80.56	-18.13	623.99	624.20
H	1703+90.56	-18.13	623.73	623.91
I	1704+00.56	-18.13	623.44	623.59
J	1704+10.56	-18.13	623.11	623.22
K	1704+20.56	-18.13	622.74	622.81
CL. Brg. Pier 1	1704+34.89	-18.13	622.14	622.14
L	1704+44.89	-18.13	621.68	621.67
M	1704+54.89	-18.13	621.20	621.17
N	1704+64.89	-18.13	620.72	620.67
O	1704+74.89	-18.13	620.24	620.17
P	1704+84.89	-18.13	619.76	619.68
Q	1704+94.89	-18.13	619.28	619.19
R	1705+04.89	-18.13	618.80	618.70
S	1705+14.89	-18.13	618.32	618.21
T	1705+24.89	-18.13	617.84	617.73
U	1705+34.89	-18.13	617.36	617.25
V	1705+44.89	-18.13	616.88	616.77
W	1705+54.89	-18.13	616.39	616.29
X	1705+64.89	-18.13	615.91	615.84
Y	1705+74.89	-18.13	615.43	615.38
Z	1705+84.89	-18.13	614.95	614.93
CL. Brg. Pier 2	1705+94.89	-18.13	614.47	614.47
AI	1706+04.89	-18.13	613.99	614.05
BI	1706+14.89	-18.13	613.51	613.64
CI	1706+24.89	-18.13	613.03	613.23
DI	1706+34.89	-18.13	612.60	612.85
EI	1706+44.89	-18.13	612.20	612.51
FI	1706+54.89	-18.13	611.86	612.21
GI	1706+64.89	-18.13	611.56	611.96
HI	1706+74.89	-18.13	611.30	611.75
II	1706+84.89	-18.13	611.09	611.54
JI	1706+94.89	-18.13	610.92	611.35
KI	1707+04.89	-18.13	610.79	611.20
LI	1707+14.89	-18.13	610.72	611.10
MI	1707+24.89	-18.13	610.68	611.02
NI	1707+34.89	-18.13	610.69	610.94
OI	1707+44.89	-18.13	610.75	610.91
PI	1707+54.89	-18.13	-	-
CL. W.Brg. Pier 3	1707+55.25	-18.13	610.86	610.86
CL. Pier 3	1707+56.30	-18.13	610.87	610.87
CL. Jt. Pier 3	1707+56.83	-18.13	610.87	610.87

**GIRDER NO. 2**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
CL. Pier 4	1703+07.83	-10.71	624.26	624.26
CL. E.Brg. Pier 4	1703+09.34	-10.71	624.27	624.27
A	1703+20.56	-10.71	624.31	624.35
B	1703+30.56	-10.71	624.28	624.37
C	1703+40.56	-10.71	624.22	624.35
D	1703+50.56	-10.71	624.11	624.26
E	1703+60.56	-10.71	623.97	624.13
F	1703+70.56	-10.71	623.79	623.96
G	1703+80.56	-10.71	623.57	623.73
H	1703+90.56	-10.71	623.32	623.45
I	1704+00.56	-10.71	623.03	623.13
J	1704+10.56	-10.71	622.69	622.77
K	1704+20.56	-10.71	622.32	622.37
CL. Brg. Pier 1	1704+34.89	-10.71	621.73	621.73
L	1704+44.89	-10.71	621.27	621.26
M	1704+54.89	-10.71	620.79	620.77
N	1704+64.89	-10.71	620.31	620.28
O	1704+74.89	-10.71	619.83	619.79
P	1704+84.89	-10.71	619.35	619.30
Q	1704+94.89	-10.71	618.87	618.82
R	1705+04.89	-10.71	618.38	618.33
S	1705+14.89	-10.71	617.90	617.85
T	1705+24.89	-10.71	617.42	617.37
U	1705+34.89	-10.71	616.94	616.88
V	1705+44.89	-10.71	616.46	616.40
W	1705+54.89	-10.71	615.98	615.92
X	1705+64.89	-10.71	615.50	615.45
Y	1705+74.89	-10.71	615.02	614.99
Z	1705+84.89	-10.71	614.54	614.52
CL. Brg. Pier 2	1705+94.89	-10.71	614.06	614.06
AI	1706+04.89	-10.71	613.57	613.62
BI	1706+14.89	-10.71	613.09	613.19
CI	1706+24.89	-10.71	612.62	612.77
DI	1706+34.89	-10.71	612.18	612.38
EI	1706+44.89	-10.71	611.79	612.02
FI	1706+54.89	-10.71	611.44	611.71
GI	1706+64.89	-10.71	611.14	611.44
HI	1706+74.89	-10.71	610.88	611.22
II	1706+84.89	-10.71	610.67	611.01
JI	1706+94.89	-10.71	610.50	610.83
KI	1707+04.89	-10.71	610.38	610.68
LI	1707+14.89	-10.71	610.30	610.58
MI	1707+24.89	-10.71	610.27	610.52
NI	1707+34.89	-10.71	610.28	610.46
OI	1707+44.89	-10.71	610.34	610.46
PI	1707+54.89	-10.71	-	-
CL. W.Brg. Pier 3	1707+58.62	-10.71	610.47	610.47
CL. Pier 3	1707+59.70	-10.71	610.48	610.48
CL. Jt. Pier 3	1707+60.24	-10.71	610.49	610.49

**GIRDER NO. 3**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
CL. Pier 4	1703+08.67	-3.29	623.87	623.87
CL. E.Brg. Pier 4	1703+10.18	-3.29	623.88	623.88
A	1703+20.56	-3.29	623.89	623.92
B	1703+30.56	-3.29	623.87	623.93
C	1703+40.56	-3.29	623.80	623.89
D	1703+50.56	-3.29	623.70	623.80
E	1703+60.56	-3.29	623.56	623.66
F	1703+70.56	-3.29	623.38	623.49
G	1703+80.56	-3.29	623.16	623.26
H	1703+90.56	-3.29	622.90	622.99
I	1704+00.56	-3.29	622.61	622.68
J	1704+10.56	-3.29	622.28	622.33
K	1704+20.56	-3.29	621.91	621.94
CL. Brg. Pier 1	1704+34.89	-3.29	621.31	621.31
L	1704+44.89	-3.29	620.85	620.85
M	1704+54.89	-3.29	620.37	620.37
N	1704+64.89	-3.29	619.89	619.89
O	1704+74.89	-3.29	619.41	619.40
P	1704+84.89	-3.29	618.93	618.92
Q	1704+94.89	-3.29	618.45	618.44
R	1705+04.89	-3.29	617.97	617.96
S	1705+14.89	-3.29	617.49	617.48
T	1705+24.89	-3.29	617.01	616.99
U	1705+34.89	-3.29	616.53	616.51
V	1705+44.89	-3.29	616.05	616.03
W	1705+54.89	-3.29	615.56	615.54
X	1705+64.89	-3.29	615.08	615.07
Y	1705+74.89	-3.29	614.60	614.59
Z	1705+84.89	-3.29	614.12	614.12
CL. Brg. Pier 2	1705+94.89	-3.29	613.64	613.64
AI	1706+04.89	-3.29	613.16	613.19
BI	1706+14.89	-3.29	612.68	612.75
CI	1706+24.89	-3.29	612.20	612.31
DI	1706+34.89	-3.29	611.77	611.90
EI	1706+44.89	-3.29	611.37	611.54
FI	1706+54.89	-3.29	611.03	611.21
GI	1706+64.89	-3.29	610.72	610.93
HI	1706+74.89	-3.29	610.47	610.70
II	1706+84.89	-3.29	610.25	610.49
JI	1706+94.89	-3.29	610.09	610.30
KI	1707+04.89	-3.29	609.96	610.17
LI	1707+14.89	-3.29	609.89	610.07
MI	1707+24.89	-3.29	609.85	610.02
NI	1707+34.89	-3.29	609.86	609.98
OI	1707+44.89	-3.29	609.92	610.00
PI	1707+54.89	-3.29	610.02	610.06
CL. W.Brg. Pier 3	1707+62.15	-3.29	610.11	610.11
CL. Pier 3	1707+63.26	-3.29	610.13	610.13
CL. Jt. Pier 3	1707+63.81	-3.29	610.14	610.14

**PARSONS BRINCKERHOFF**

USER NAME = lopezgonzalez	DESIGNED - PUL	REVISIONS -
	CHECKED - IJL	REVISIONS -
PLOT SCALE = N.T.S.	DRAWN - PUL	REVISIONS -
PLOT DATE = 5/6/2016	CHECKED - JIG	REVISIONS -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS I - UNIT I  
STRUCTURE NO. 016-1710

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-08R&B	COOK	250	146
CONTRACT NO. 62B76				
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING RECORD DRAWINGS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	751
CONTRACT NO. 60X79				
ILLINOIS FED. AID PROJECT				

**HBM**  
ENGINEERING GROUP, LLC

USER NAME = ahmad,issa	DESIGNED -	REVISIONS -
	CHECKED -	REVISIONS -
PLOT SCALE = N.T.S.	DRAWN -	REVISIONS -
PLOT DATE = 7/26/2018	CHECKED - MI, MAI	REVISIONS -

FILE NAME: D:\161749-PWINT-aecomonline.local\AECOM\_DS02\_NADDocuments\01\_Americas\Transportation\60269938\_Circle\Phase\_II\000\_CAD\008\_Structural\Structure\_016-1712\Existing\_Plans\016-1712-60X79-5xx-Existing\_10

0161710-62B76-5007-TSE.dgn

# FOR INFORMATION ONLY

## PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
CL. Pier 4	1703+09.05	0.00	623.70	623.70
CL. E.Brg. Pier 4	1703+10.56	0.00	623.70	623.70
A	1703+20.56	0.00	623.71	623.74
B	1703+30.56	0.00	623.68	623.74
C	1703+40.56	0.00	623.62	623.71
D	1703+50.56	0.00	623.51	623.61
E	1703+60.56	0.00	623.37	623.48
F	1703+70.56	0.00	623.19	623.31
G	1703+80.56	0.00	622.98	623.08
H	1703+90.56	0.00	622.72	622.81
I	1704+00.56	0.00	622.43	622.50
J	1704+10.56	0.00	622.09	622.15
K	1704+20.56	0.00	621.73	621.76
CL. Brg. Pier 1	1704+34.89	0.00	621.13	621.13
L	1704+44.89	0.00	620.67	620.67
M	1704+54.89	0.00	620.19	620.18
N	1704+64.89	0.00	619.71	619.70
O	1704+74.89	0.00	619.23	619.22
P	1704+84.89	0.00	618.75	618.74
Q	1704+94.89	0.00	618.27	618.26
R	1705+04.89	0.00	617.78	617.77
S	1705+14.89	0.00	617.30	617.29
T	1705+24.89	0.00	616.82	616.81
U	1705+34.89	0.00	616.34	616.33
V	1705+44.89	0.00	615.86	615.84
W	1705+54.89	0.00	615.38	615.36
X	1705+64.89	0.00	614.90	614.88
Y	1705+74.89	0.00	614.42	614.41
Z	1705+84.89	0.00	613.94	613.93
CL. Brg. Pier 2	1705+94.89	0.00	613.46	613.46
AI	1706+04.89	0.00	612.97	613.01
BI	1706+14.89	0.00	612.49	612.56
CI	1706+24.89	0.00	612.02	612.12
DI	1706+34.89	0.00	611.58	611.72
EI	1706+44.89	0.00	611.19	611.35
FI	1706+54.89	0.00	610.84	611.03
GI	1706+64.89	0.00	610.54	610.75
HI	1706+74.89	0.00	610.28	610.51
II	1706+84.89	0.00	610.07	610.30
JI	1706+94.89	0.00	609.90	610.12
KI	1707+04.89	0.00	609.78	609.98
LI	1707+14.89	0.00	609.70	609.89
MI	1707+24.89	0.00	609.67	609.83
NI	1707+34.89	0.00	609.68	609.80
OI	1707+44.89	0.00	609.74	609.81
PI	1707+54.89	0.00	609.84	609.87
CL. W.Brg. Pier 3	1707+63.77	0.00	609.96	609.96
CL. Pier 3	1707+64.89	0.00	609.98	609.98
CL. Jt. Pier 3	1707+65.45	0.00	609.99	609.99

## GIRDER NO. 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
CL. Pier 4	1703+09.54	4.13	623.48	623.48
CL. E.Brg. Pier 4	1703+11.05	4.13	623.48	623.48
A	1703+20.56	4.13	623.48	623.50
B	1703+30.56	4.13	623.45	623.49
C	1703+40.56	4.13	623.39	623.44
D	1703+50.56	4.13	623.28	623.34
E	1703+60.56	4.13	623.14	623.20
F	1703+70.56	4.13	622.96	623.02
G	1703+80.56	4.13	622.74	622.80
H	1703+90.56	4.13	622.49	622.53
I	1704+00.56	4.13	622.20	622.23
J	1704+10.56	4.13	621.86	621.89
K	1704+20.56	4.13	621.49	621.51
CL. Brg. Pier 1	1704+34.89	4.13	620.90	620.90
L	1704+44.89	4.13	620.44	620.44
M	1704+54.89	4.13	619.96	619.97
N	1704+64.89	4.13	619.48	619.49
O	1704+74.89	4.13	619.00	619.02
P	1704+84.89	4.13	618.52	618.54
Q	1704+94.89	4.13	618.03	618.07
R	1705+04.89	4.13	617.55	617.59
S	1705+14.89	4.13	617.07	617.11
T	1705+24.89	4.13	616.59	616.63
U	1705+34.89	4.13	616.11	616.14
V	1705+44.89	4.13	615.63	615.66
W	1705+54.89	4.13	615.15	615.17
X	1705+64.89	4.13	614.67	614.68
Y	1705+74.89	4.13	614.19	614.20
Z	1705+84.89	4.13	613.71	613.71
CL. Brg. Pier 2	1705+94.89	4.13	613.22	613.22
AI	1706+04.89	4.13	612.74	612.76
BI	1706+14.89	4.13	612.26	612.30
CI	1706+24.89	4.13	611.79	611.84
DI	1706+34.89	4.13	611.35	611.42
EI	1706+44.89	4.13	610.96	611.04
FI	1706+54.89	4.13	610.61	610.71
GI	1706+64.89	4.13	610.31	610.42
HI	1706+74.89	4.13	610.05	610.18
II	1706+84.89	4.13	609.84	609.97
JI	1706+94.89	4.13	609.67	609.80
KI	1707+04.89	4.13	609.55	609.66
LI	1707+14.89	4.13	609.47	609.58
MI	1707+24.89	4.13	609.44	609.53
NI	1707+34.89	4.13	609.45	609.52
OI	1707+44.89	4.13	609.50	609.55
PI	1707+54.89	4.13	609.61	609.63
CL. W.Brg. Pier 3	1707+65.85	4.13	609.79	609.79
CL. Pier 3	1707+66.98	4.13	609.81	609.81
CL. Jt. Pier 3	1707+67.55	4.13	609.82	609.82

**PARSONS  
BRINCKERHOFF**

USER NAME = lopezgonzalez	DESIGNED - P.JL	REVISIONS -
PLOT SCALE = N.T.S.	CHECKED - I.JL	REVISIONS -
PLOT DATE = 5/6/2016	DRAWN - P.JL	REVISIONS -
	CHECKED - JIG	REVISIONS -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS II - UNIT I  
STRUCTURE NO. 016-1710

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	147
CONTRACT NO. 62B76				

EXISTING RECORD DRAWINGS

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	752
CONTRACT NO. 60X79				

**HBM**  
ENGINEERING GROUP, LLC

USER NAME = ahmad,issa	DESIGNED -	REVISIONS -
PLOT SCALE = N.T.S.	CHECKED -	REVISIONS -
PLOT DATE = 7/26/2018	DRAWN -	REVISIONS -
	CHECKED - MI, MAI	REVISIONS -

FILE NAME: D:\V161749-PWINT-aecomonline.local\AECOM\_DS02\_NAD\Documents\01\_Americas\Transportation\60269938\_Circle\Phase\_II\000\_CAD\008\_Structural\Structure\_016-1712\Existing\_Plans\016-1712-60X79-Sxx-Exsting\_11

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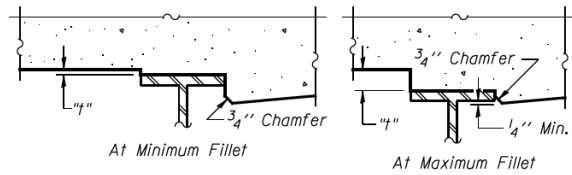
# FOR INFORMATION ONLY

**GIRDER NO. 1**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
CL. Pier 3	1707+55.34	-20.30	610.98	610.98
CL. Jt. Pier 3	1707+55.89	-20.22	610.98	610.98
CL. E.Brg. Pier 3	1707+57.01	-20.07	610.98	610.98
PI	1707+66.57	-18.94	610.99	611.07
Q1	1707+76.57	-18.05	611.07	611.24
R1	1707+86.57	-17.47	611.20	611.44
S1	1707+96.57	-17.18	611.33	611.60
T1	1708+06.57	-17.16	611.45	611.74
U1	1708+16.57	-17.16	611.56	611.82
V1	1708+26.57	-17.16	611.66	611.89
W1	1708+36.57	-17.16	611.77	611.92
X1	1708+46.57	-17.16	611.87	611.93
CL. W.Brg. Pier C4	1708+53.33	-17.16	611.96	611.96
CL. Pier C4	1708+54.34	-17.16	611.98	611.98

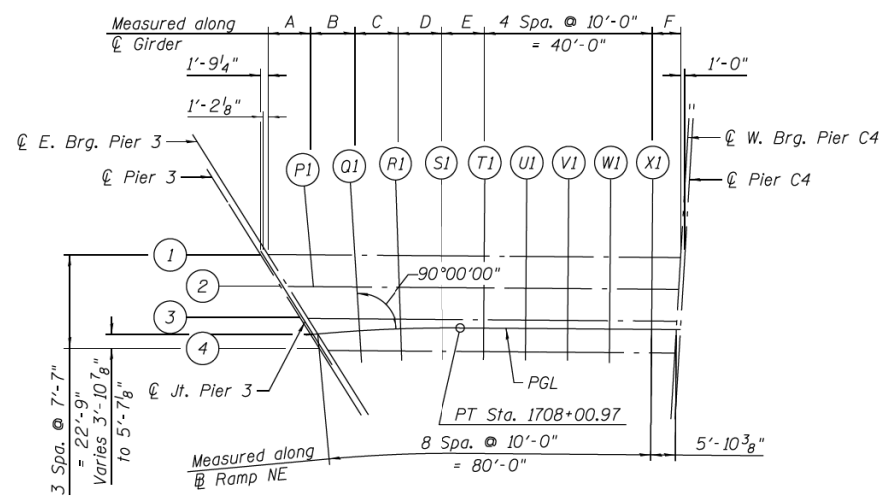
**GIRDER NO. 2**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
CL. Pier 3	1707+59.02	-12.17	610.56	610.56
CL. Jt. Pier 3	1707+59.59	-12.10	610.56	610.56
CL. E.Brg. Pier 3	1707+60.73	-11.96	610.56	610.56
PI	1707+66.57	-11.36	610.60	610.64
Q1	1707+76.57	-10.45	610.70	610.83
R1	1707+86.57	-9.88	610.87	611.06
S1	1707+96.57	-9.60	611.03	611.24
T1	1708+06.57	-9.57	611.17	611.42
U1	1708+16.57	-9.57	611.30	611.52
V1	1708+26.57	-9.57	611.44	611.62
W1	1708+36.57	-9.57	611.57	611.69
X1	1708+46.57	-9.57	611.70	611.75
CL. W.Brg. Pier C4	1708+52.94	-9.57	611.79	611.79
CL. Pier C4	1708+53.94	-9.57	611.80	611.80



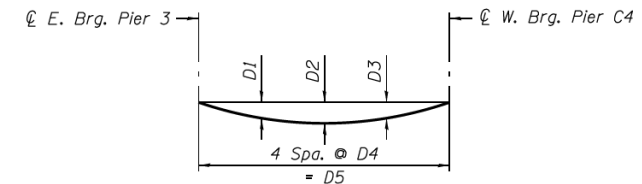
To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals in tables, see this sheet & sheet S1-10. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown below, minus slab thickness, equals the fillet heights "t" above top flange of beams.

**FILLET HEIGHTS**



**PLAN - UNIT II**

Girder No.	Span 4					
	A	B	C	D	E	F
1	10'-1 7/8"	10'-6 3/4"	10'-6 1/4"	10'-6"	10'-2 5/8"	6'-9 1/4"
2	6'-0 7/8"	10'-4 1/8"	10'-3 3/8"	10'-3 3/8"	10'-1 1/2"	6'-4 3/8"
3	-	12'-1 3/8"	10'-1"	10'-0 3/4"	10'-0 1/4"	5'-11 5/8"
4	-	7'-9 5/8"	9'-10 1/2"	9'-10 1/8"	9'-11 1/8"	5'-6 1/8"



**DEAD LOAD DEFLECTION DIAGRAM**

(Includes weight of concrete only.)

Note:  
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown in tables, see this sheet & sheet S1-10.

Girder No.	Span 4				
	D1	D2	D3	D4	D5
1	2 1/2"	3 5/8"	2 5/8"	+20'-9 1/4"	83'-0 3/4"
2	2 1/2"	3"	2 1/2"	+22'-0 3/4"	88'-3 1/4"
3	1 5/8"	2 1/4"	1 5/8"	+23'-4 1/2"	93'-5 3/4"
4	1 1/8"	1 5/8"	1 1/8"	+24'-8 1/8"	98'-8 3/8"

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**PARSONS BRINCKERHOFF**

USER NAME = lopezgonzalez	DESIGNED - PJL	REVISIONS -
PLOT SCALE = N.T.S.	CHECKED - IJL	REVISIONS -
PLOT DATE = 5/6/2016	DRAWN - PJL	REVISIONS -
	CHECKED - JIG	REVISIONS -

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATION PLAN - UNIT II  
STRUCTURE NO. 016-1710**

SHEET NO. S1-9 OF S1-53 SHEETS

F.A.I. RTE. 90/94/290	SECTION 2015-080R&B	COUNTY COOK	TOTAL SHEETS 250	SHEET NO. 148
CONTRACT NO. 62B76				

**HBM**  
ENGINEERING GROUP, LLC

USER NAME = ahmad,issa	DESIGNED -	REVISIONS -
PLOT SCALE = N.T.S.	CHECKED -	REVISIONS -
PLOT DATE = 7/26/2018	DRAWN - MI, MAI	REVISIONS -
	CHECKED -	REVISIONS -

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**EXISTING RECORD DRAWINGS**

F.A.I. RTE. 90/94/290	SECTION 2014-005R&B	COUNTY COOK	TOTAL SHEETS 888	SHEET NO. 753
CONTRACT NO. 60X79				

FILE NAME: D:\161710-62B76-5009-TSE.dgn

# FOR INFORMATION ONLY

**GIRDER NO. 3**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
CL. Pier 3	1707+62.87	-4.08	610.17	610.17
CL. Jt. Pier 3	1707+63.45	-4.02	610.17	610.17
CL. E.Brg. Pier 3	1707+64.62	-3.90	610.18	610.18
PI	-	-	-	-
Q1	1707+76.57	-2.85	610.34	610.42
R1	1707+86.57	-2.29	610.54	610.68
S1	1707+96.57	-2.02	610.73	610.89
T1	1708+06.57	-1.99	610.91	611.09
U1	1708+16.57	-1.99	611.07	611.24
V1	1708+26.57	-1.99	611.24	611.38
W1	1708+36.57	-1.99	611.40	611.50
X1	1708+46.57	-1.99	611.56	611.60
CL. W.Brg. Pier C4	1708+52.54	-1.99	611.64	611.64
CL. Pier C4	1708+53.44	-1.99	611.66	611.66

**PROFILE GRADE LINE**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
CL. Pier 3	1707+64.89	0.00	609.98	609.98
CL. Jt. Pier 3	1707+65.45	0.00	609.99	609.99
CL. E.Brg. Pier 3	1707+66.57	0.00	610.01	610.01
PI	-	-	-	-
Q1	1707+76.57	0.00	610.21	610.28
R1	1707+86.57	0.00	610.44	610.58
S1	1707+96.57	0.00	610.65	610.81
T1	1708+06.57	0.00	610.84	611.02
U1	1708+16.57	0.00	611.01	611.18
V1	1708+26.57	0.00	611.18	611.33
W1	1708+36.57	0.00	611.35	611.45
X1	1708+46.57	0.00	611.52	611.56
CL. W.Brg. Pier C4	1708+52.43	0.00	611.61	611.61
CL. Pier C4	1708+53.44	0.00	611.62	611.62

**GIRDER NO. 4**

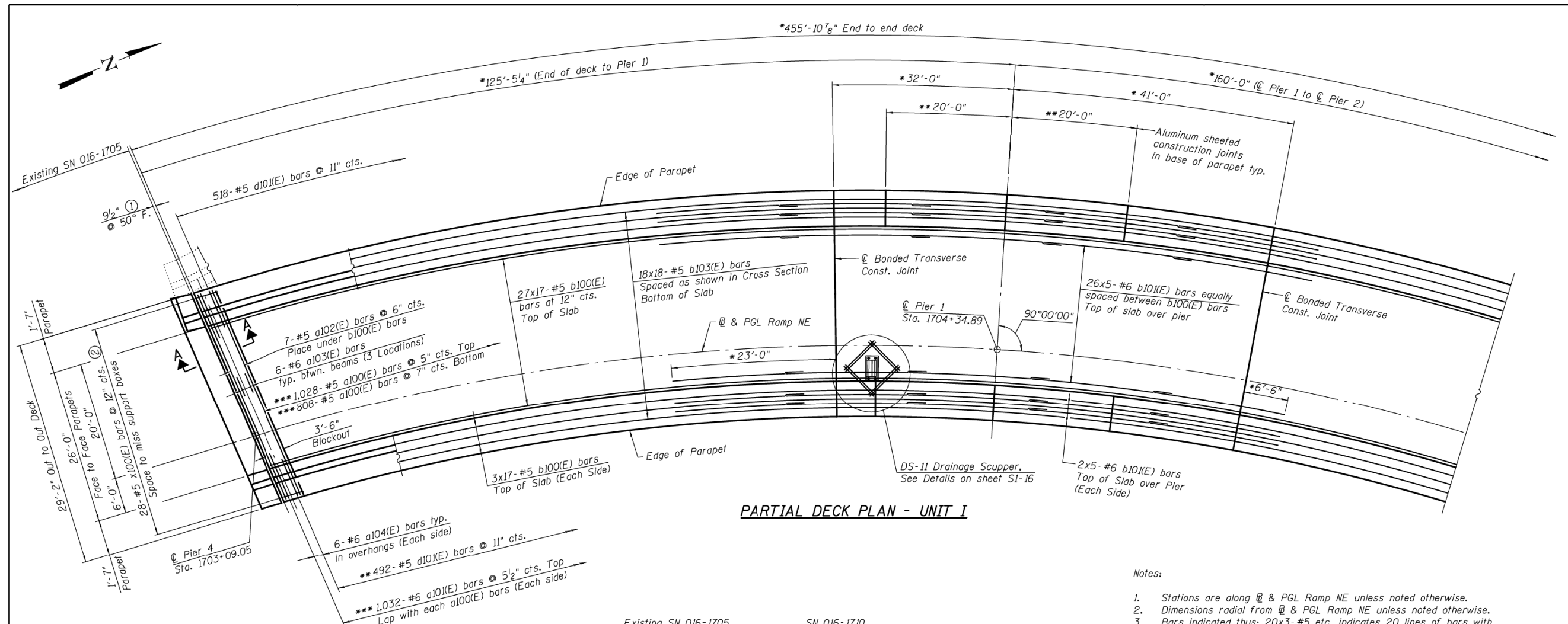
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
CL. Pier 3	1707+66.90	3.96	609.81	609.81
CL. Jt. Pier 3	1707+67.49	4.01	609.82	609.82
CL. E.Brg. Pier 3	1707+68.69	4.12	609.84	609.84
PI	-	-	-	-
Q1	1707+76.57	4.76	609.98	610.02
R1	1707+86.57	5.30	610.21	610.29
S1	1707+96.57	5.57	610.43	610.54
T1	1708+06.57	5.59	610.64	610.77
U1	1708+16.57	5.59	610.84	610.96
V1	1708+26.57	5.59	611.03	611.14
W1	1708+36.57	5.59	611.23	611.30
X1	1708+46.57	5.59	611.42	611.44
CL. W.Brg. Pier C4	1708+52.14	5.59	611.50	611.50
CL. Pier C4	1708+53.14	5.59	611.52	611.52

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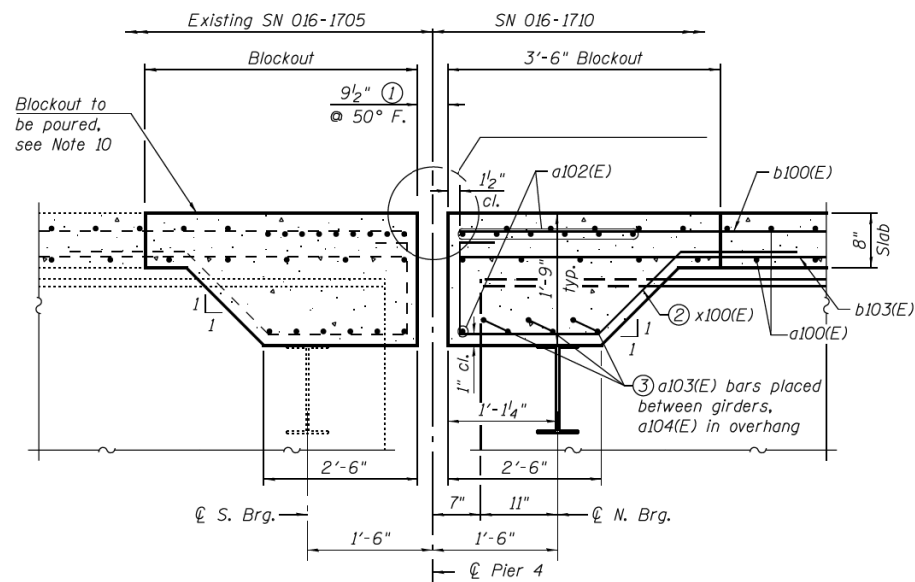
<b>PARSONS BRINCKERHOFF</b>	USER NAME = lopezgonzalez	DESIGNED - P.JL	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TOP OF SLAB ELEVATIONS - UNIT II STRUCTURE NO. 016-1710</b>	F.A.I. RTE. 90/94/290	SECTION 2015-080R&B	COUNTY COOK	TOTAL SHEETS 250	SHEET NO. 149	
	PLOT SCALE = N.T.S.	DRAWN - P.JL	REVISED -			CONTRACT NO. 62B76					
	PLOT DATE = 5/6/2016	CHECKED - JIG	REVISED -			SHEET NO. S1-10 OF S1-53 SHEETS					
<b>HBM ENGINEERING GROUP, LLC</b>	USER NAME = ahmad,issa	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>EXISTING RECORD DRAWINGS</b>	F.A.I. RTE. 90/94/290	SECTION 2014-005R&B	COUNTY COOK	TOTAL SHEETS 888	SHEET NO. 754	
	PLOT SCALE = N.T.S.	DRAWN - MI, MAI	REVISED -			CONTRACT NO. 60X79					
	PLOT DATE = 7/26/2018	CHECKED -	REVISED -			ILLINOIS FED. AID PROJECT					

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# FOR INFORMATION ONLY



**PARTIAL DECK PLAN - UNIT I**



**SECTION A-A**  
(Horiz. Dims. @ RT L's to C/Brg.)

- ① Actual dimension may vary depending on Manufacturer's design
- ② x100(E) bars to be placed at 12" cts. between beams and adjusted in field to miss support boxes
- ③ Bars to be adjusted and/or cut in field to miss support boxes and beam webs, as allowed by the Engineer. The Contractor shall reference and coordinate rebar installation with the approved modular joint shop drawings.

- Notes:
1. Stations are along @ & PGL Ramp NE unless noted otherwise.
  2. Dimensions radial from @ & PGL Ramp NE unless noted otherwise.
  3. Bars indicated thus: 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
  4. Bend longitudinal reinforcement bars as required to fit in the field.
  5. See sheet S1-12, for deck cross section.
  6. See sheet S1-14, for parapet reinforcement.
  7. See sheet S1-17, for deck pouring sequence and Bill of Material.
  8. Reinforcement bars shall not pass thru aluminum sheets and cork joint filler.
  9. Dimensions are based on a Rolled Rail Strip Seal Joint. If the Contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on sheet S1-22.
  10. Contractor shall verify that all reinforcement bar are present in Unit II of S.N. 016-1705 expansion joint blockout at Pier 4 as per 60W28 Contract plans. Contractor shall supplement any missing reinforcement. Cost included with Concrete Superstructure.

- \* Dimensions along @ & PGL Ramp NE.
- \*\* Dimensions along inside face of parapet.
- \*\*\* Dimensions along inside face of left parapet.

**MINIMUM BAR LAP**  
#5 bar = 3'-3"  
#6 bar = 3'-10"

**PARSONS BRINCKERHOFF**

USER NAME = lopezgonzalez	DESIGNED - HA	REVISED -
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PLOT SCALE = N.T.S.	DRAWN - DCP	REVISED -
PLOT DATE = 5/6/2016	CHECKED - JIG	REVISED -

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**DECK PLAN I - UNIT I  
STRUCTURE NO. 016-1710**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	150
CONTRACT NO. 62B76				

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**EXISTING RECORD DRAWINGS**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	755
CONTRACT NO. 60X79				

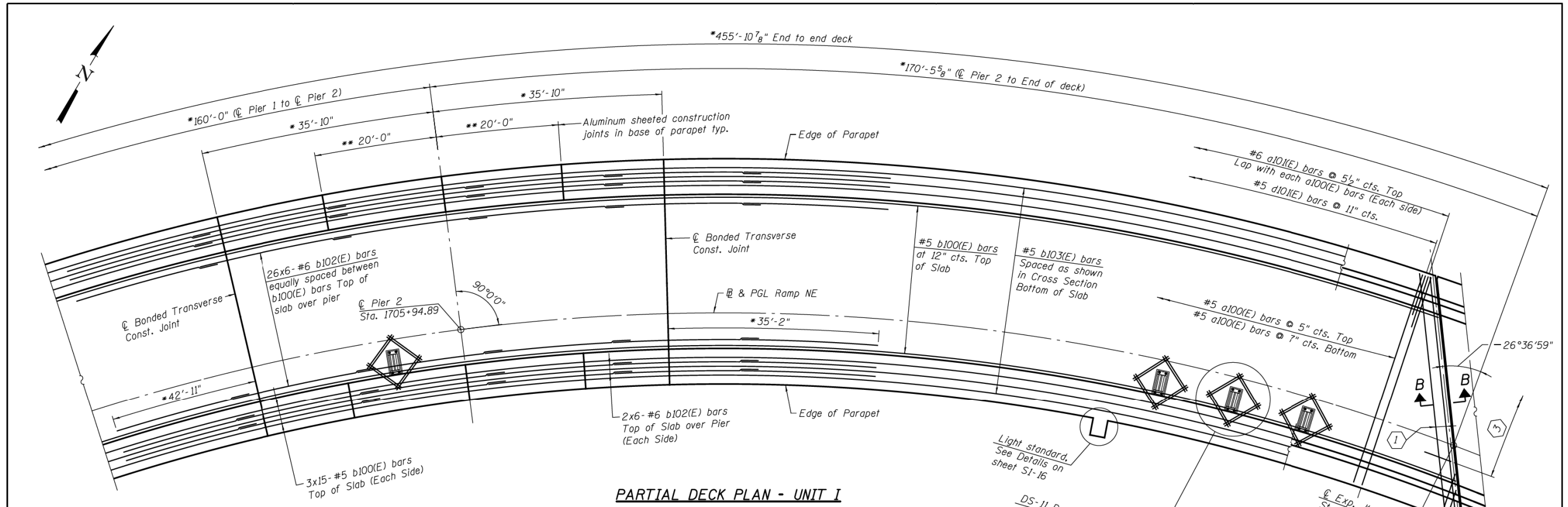
**HBM ENGINEERING GROUP, LLC**

USER NAME = ahmad,issa	DESIGNED -	REVISED -
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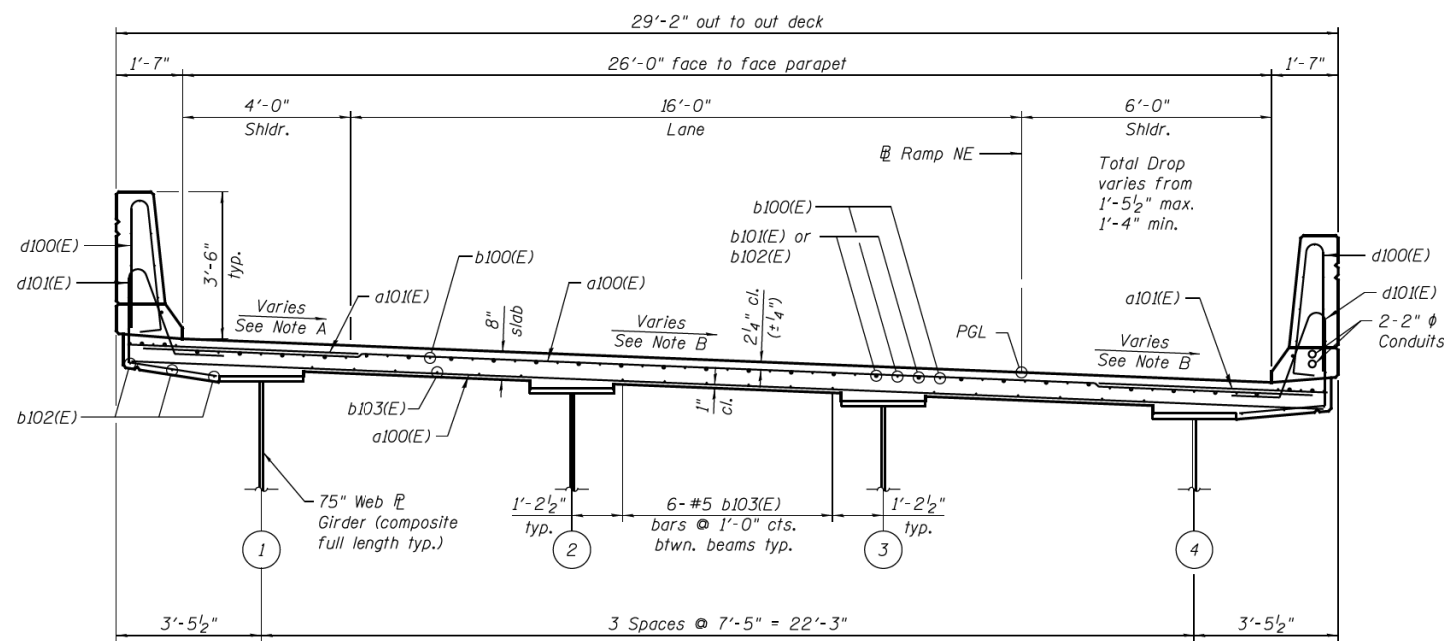
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**PARTIAL DECK PLAN - UNIT I**



**CROSS SECTION - UNIT I**  
(Looking upstation)

- ① 4- #6 a106(E) bars @ 6" cts. Top  
3- #6 a105(E) bars @ 6" cts. Bottom between beams (3 locations)  
1- #6 a107(E) bar Bot.

- ② 33- #5 a108(E) bars @ 5 1/2" cts. Top  
21- #5 a108(E) bars @ 9" cts. Bottom.  
Cut to fit skew and use remainder of bars on opposite side of joint in Unit II.

- ③ 18- #5 a100(E) bars @ 12" cts. between beams. See sheet S1-16.

Note A:  
Transition (4.71% to 5.6%)  
Sta. 1702+78.27 to Sta. 1703+23.07  
Constant cross slope (5.6%)  
Sta. 1703+23.07 to Sta. 1707+55.72  
Transition (5.6% to 4.77%)  
Sta. 1707+55.72 to Sta. 1707+75.81

Note B:  
Transition (2.0% to 5.6%)  
Sta. 1701+39.07 to Sta. 1703+23.07  
Constant cross slope (5.6%)  
Sta. 1703+23.07 to Sta. 1707+55.72  
Transition (5.6% to 1.75%)  
Sta. 1707+55.72 to Sta. 1708+48.72

\* Dimensions along @ & PGL Ramp NE.  
\*\* Dimensions along inside face of parapet.

Notes:

1. Stations are along @ & PGL Ramp NE unless noted otherwise.
2. Dimensions radial from @ & PGL Ramp NE unless noted otherwise.
3. Bars indicated thus: 20x3-#6 etc. indicates 20 lines of bars with 3 lengths per line.
4. Bend longitudinal reinforcement bars as required to fit in the field.
5. See sheet S1-14, for parapet reinforcement.
6. See sheet S1-16, for Section B-B.
7. See sheet S1-17, for deck pouring sequence and Bill of Material.
8. Reinforcement bars shall not pass thru aluminum sheets and cork joint filler.
9. Dimensions are based on a Rolled Rail Strip Seal Joint. If the Contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on sheet S1-22.

**MINIMUM BAR LAP**  
#5 bar = 3'-3"  
#6 bar = 3'-10"

**PARSONS BRINCKERHOFF**

USER NAME = lopezgonzalez	DESIGNED - HA	REVISIONS -
PLLOT SCALE = N.T.S.	CHECKED - JIG	REVISIONS -
PLLOT DATE = 5/6/2016	DRAWN - DCP	REVISIONS -
	CHECKED - JIG	REVISIONS -

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**DECK PLAN II - UNIT I  
STRUCTURE NO. 016-1710**

SHEET NO. S1-12 OF S1-53 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	151
CONTRACT NO. 62B76				

**HBM ENGINEERING GROUP, LLC**

USER NAME = ahmad,issa	DESIGNED -	REVISIONS -
PLLOT SCALE = N.T.S.	CHECKED -	REVISIONS -
PLLOT DATE = 7/26/2018	DRAWN - MI, MAI	REVISIONS -
	CHECKED -	REVISIONS -

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**EXISTING RECORD DRAWINGS**

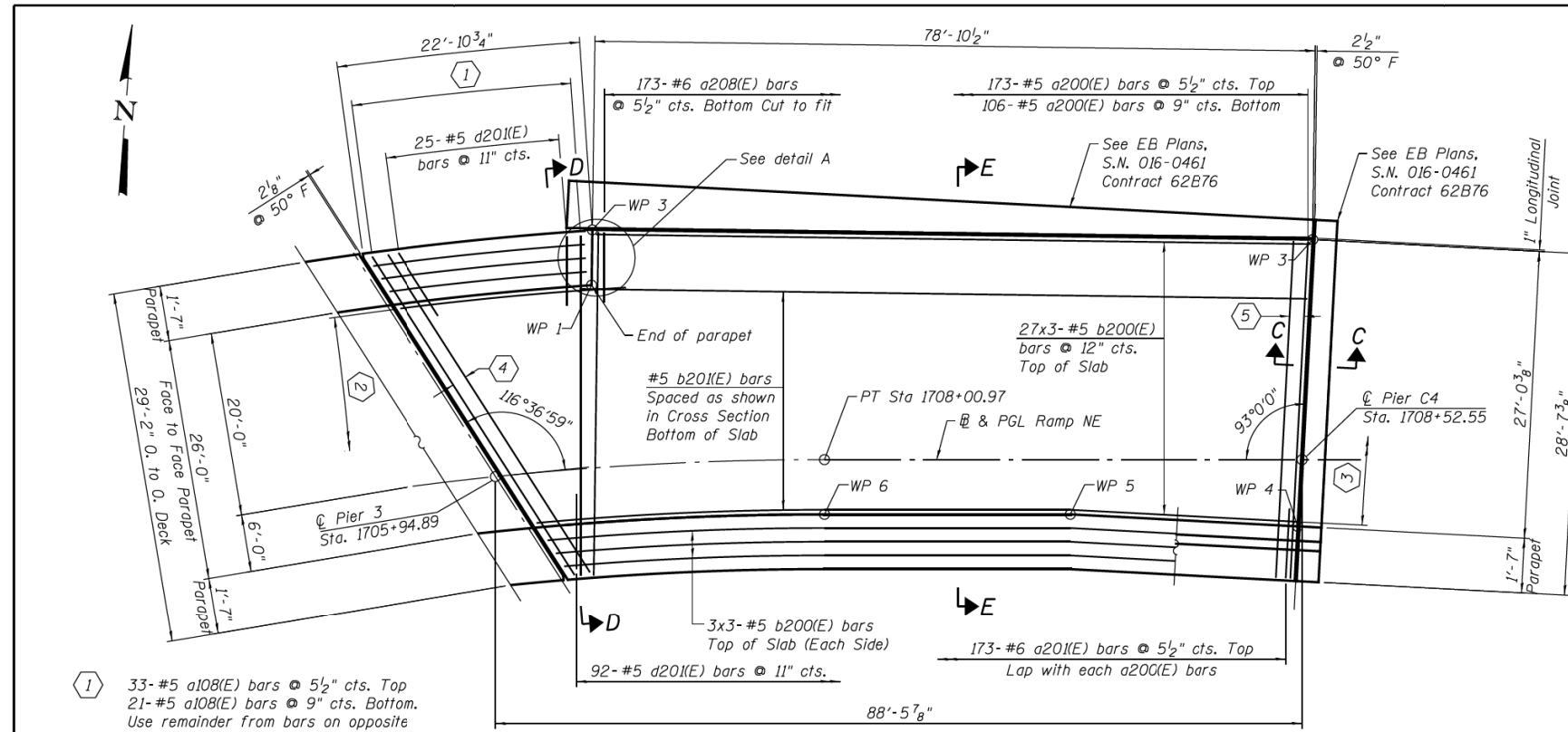
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	756
CONTRACT NO. 60X79				

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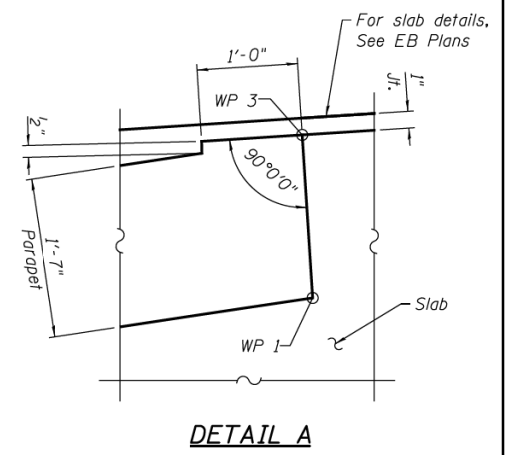


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**WORK POINT TABLE**

WP No.	Station	Offset
1	1707+76.77	20.00' Lt.
2	1707+76.96	21.62' Lt.
3	1708+54.54	21.84' Lt.
4	1708+55.53	7.45' Rt.
5	1708+27.88	6.00' Rt.
6	1708+00.97	6.00' Rt.



Note A:  
Transition (5.6 % to 4.77%)  
Sta. 1707+55.72 to Sta. 1707+75.81

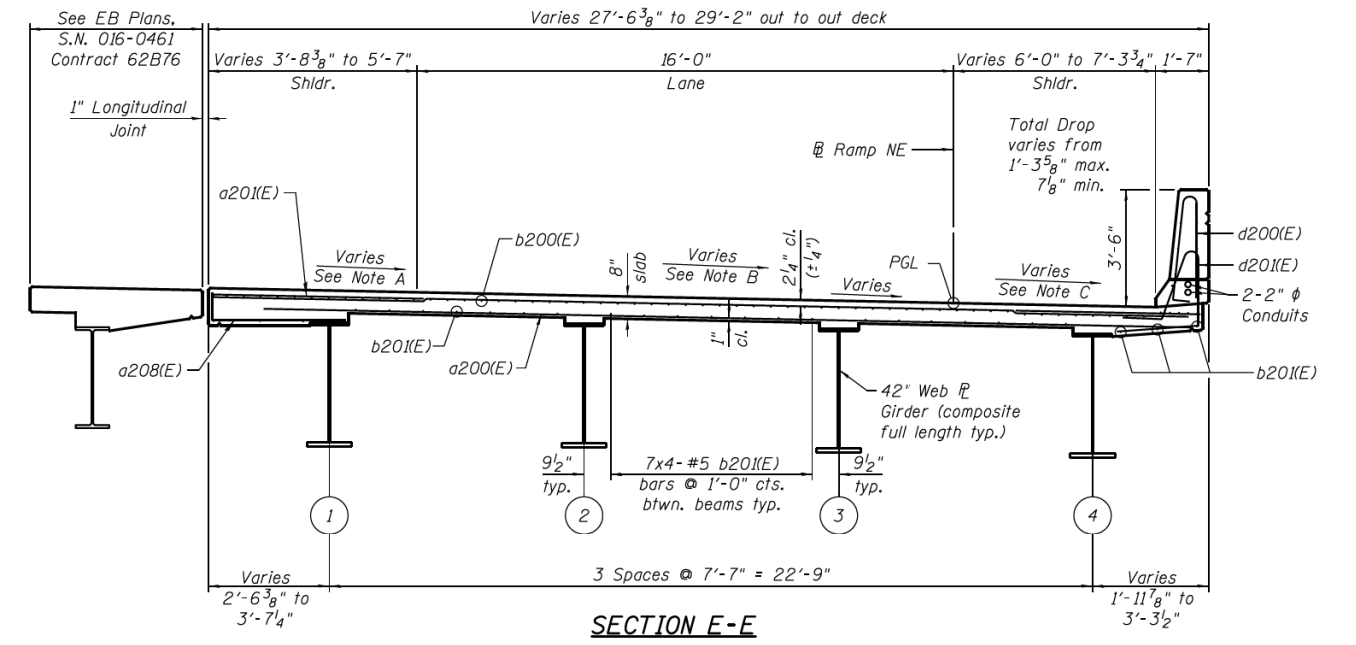
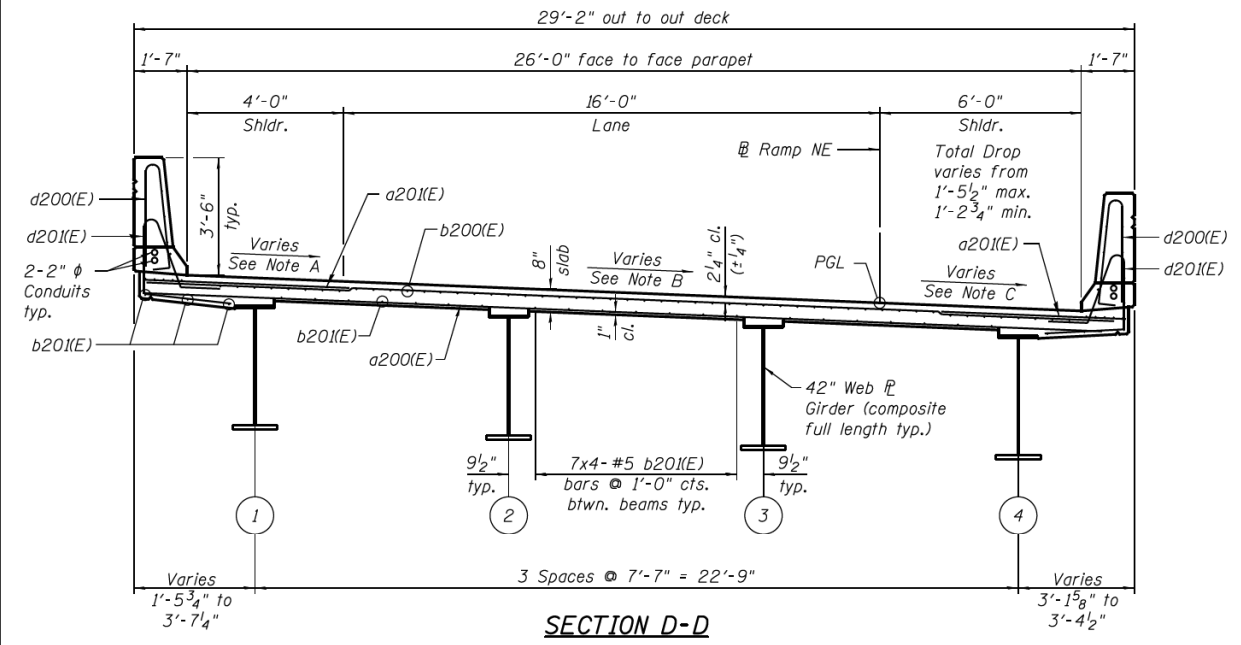
Note B:  
Transition (5.6 % to 1.75%)  
Sta. 1707+55.72 to Sta. 1708+48.72  
Constant cross slope (1.75%)  
Sta. 1708+48.72 to Sta. 1708+51.26  
Transition (1.75% to 1.84%)  
1708+51.26 to 1708+54.37

Note C:  
Transition (5.6 % to 1.75%)  
Sta. 1707+55.72 to Sta. 1708+48.72  
Constant cross slope (1.75%)  
Sta. 1708+48.72 to Sta. 1708+53.44  
Transition (1.75% to 1.84%)  
1708+53.44 to 1708+54.37

**MINIMUM BAR LAP**  
#5 bar = 3'-3"  
#6 bar = 3'-10"

- Notes:
- See sheet S1-17, for deck details and Bill of Material.
  - Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
  - See sheet S1-15, for parapet reinforcement.
  - See sheet S1-16, for Section C-C.

- 33-#5 a108(E) bars @ 5<sup>1</sup>/<sub>2</sub>" cts. Top  
21-#5 a108(E) bars @ 9" cts. Bottom.  
Use remainder from bars on opposite side of joint in Unit I.  
50-#6 a20(E) bars @ 5<sup>1</sup>/<sub>2</sub>" cts. Top
- 21-#5 x200(E) bars @ 12" cts. between beams. See sheet S1-16.
- 21-#5 x20(E) bars @ 12" cts. between beams. See sheet S1-16.
- 4-#5 a204(E) bars @ 6" cts. Top  
3-#5 a202(E) bars @ 6" cts. Bottom between beams
- 4-#5 a207(E) bars @ 6" cts. Top  
3-#5 a205(E) bars @ 6" cts. Bottom between beams



**PARSONS BRINCKERHOFF**

USER NAME = lopezgonzalez	DESIGNED - HA	REVISED -
PLOT SCALE = N.T.S.	CHECKED - JIG	REVISED -
PLOT DATE = 5/6/2016	DRAWN - DCP	REVISED -
	CHECKED - JIG	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DECK PLAN III - UNIT I  
STRUCTURE NO. 016-1710

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	152
CONTRACT NO. 62B76				

**HBM**  
ENGINEERING GROUP, LLC

USER NAME = ahmad,issa	DESIGNED -	REVISED -
PLOT SCALE = N.T.S.	DRAWN -	REVISED -
PLOT DATE = 7/26/2018	CHECKED - MI, MAI	REVISED -

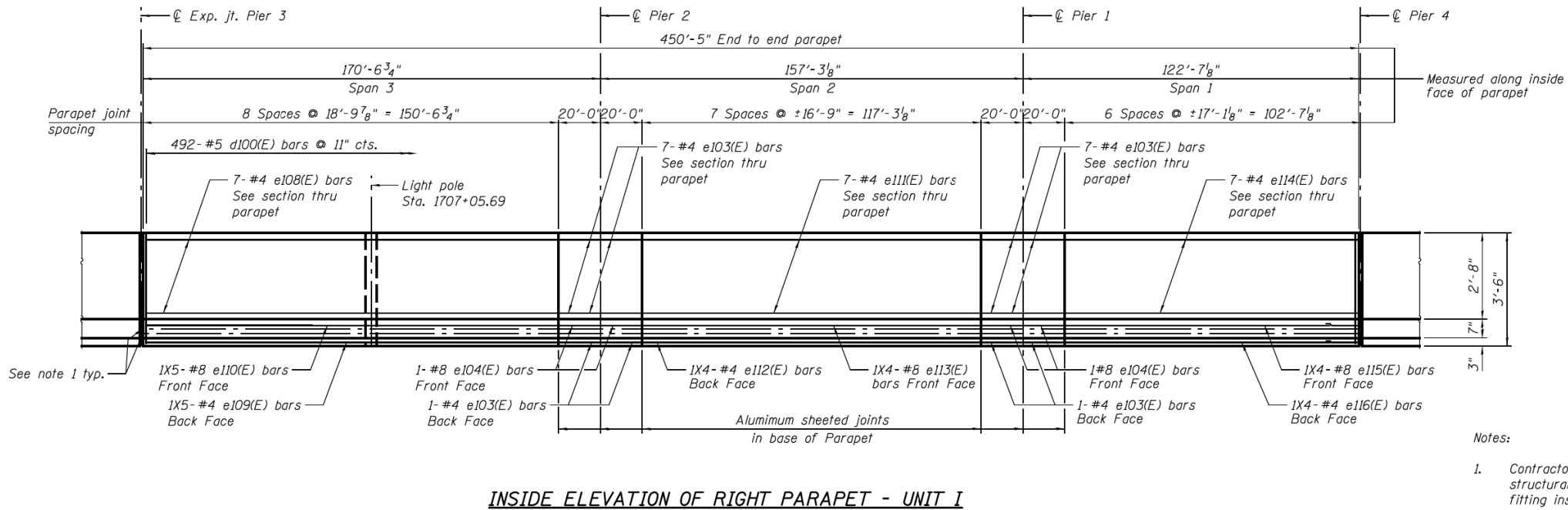
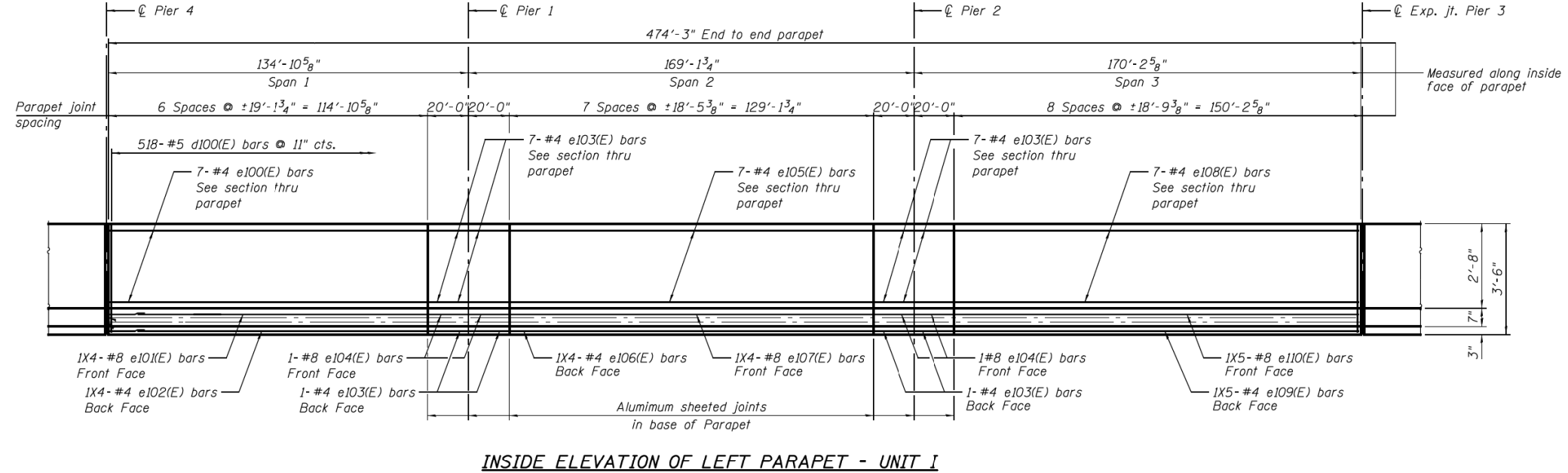
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING RECORD DRAWINGS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	757
CONTRACT NO. 60X79				

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# FOR INFORMATION ONLY



**Notes:**

- Contractor to provide expansion/deflection conduit fittings at all structural expansion joints. See lighting plans for expansion/deflection fitting installation details.
- Bars indicated thru 20x3-#5 etc., indicates 20 lines of bars with 3 lengths per line.
- For Section thru Parapet Details, See sheet S1-16.

**MINIMUM BAR LAP**

(Parapet)  
 #4 bar = 2'-0"  
 #8 bar = 5'-2"

**PARSONS BRINCKERHOFF**

USER NAME = lopezgonzalez	DESIGNED - HA	REVISED -
PLOT SCALE = N.T.S.	CHECKED - PJL	REVISED -
PLOT DATE = 5/6/2016	DRAWN - DDE/DCP	REVISED -
	CHECKED - JIG	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DECK DETAILS I - UNIT I  
STRUCTURE NO. 016-1710**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	153
CONTRACT NO. 62B76				

**HBM**  
ENGINEERING GROUP, LLC

USER NAME = ahmad,issa	DESIGNED -	REVISED -
PLOT SCALE = N.T.S.	DRAWN -	REVISED -
PLOT DATE = 7/26/2018	CHECKED - MI, MAI	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

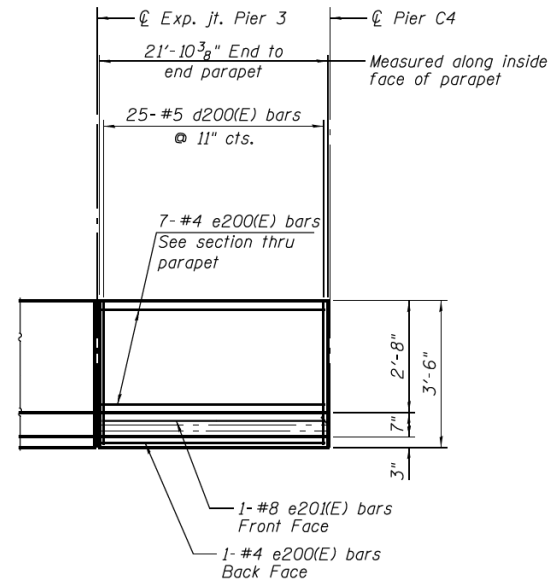
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	758
CONTRACT NO. 60X79				

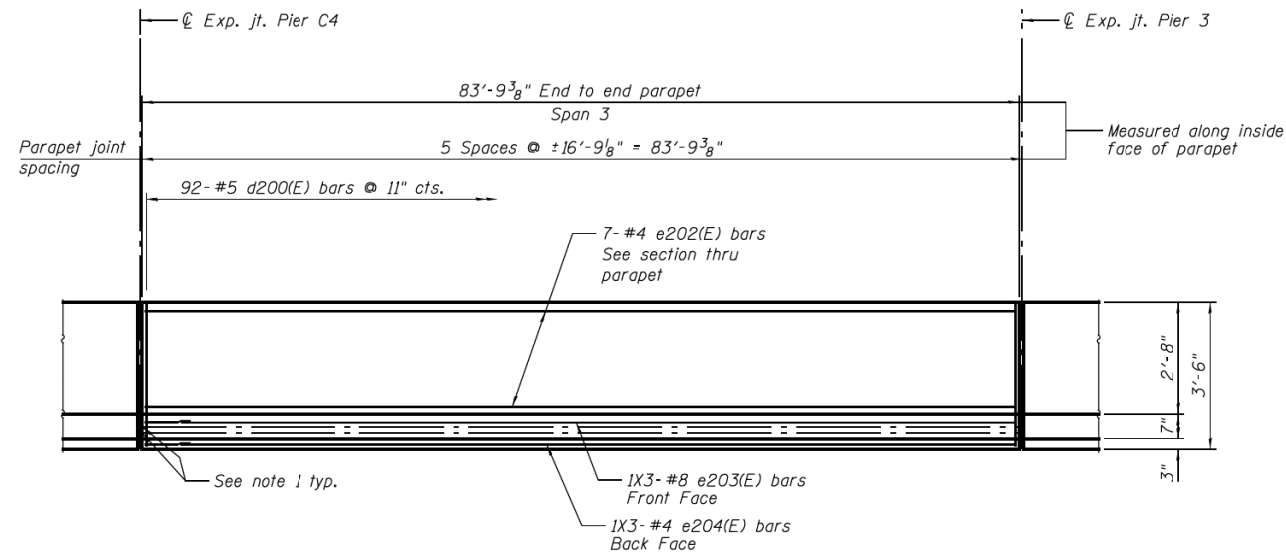
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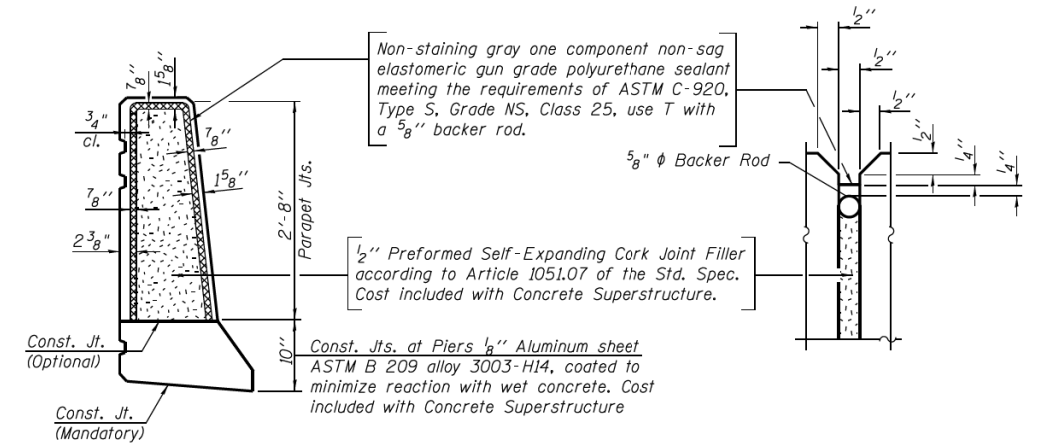
# FOR INFORMATION ONLY



**INSIDE ELEVATION OF LEFT PARAPET - UNIT II**



**INSIDE ELEVATION OF RIGHT PARAPET - UNIT II**



**PARAPET JOINT DETAILS**

**Notes:**

- Contractor to provide expansion/deflection conduit fittings at all structural expansion joints. See lighting plans for expansion/deflection fitting installation details.
- Bars indicated thru 20x3-#5 etc., indicates 20 lines of bars with 3 lengths per line.
- For Section thru Parapet Details, See sheet S1-16.

**MINIMUM BAR LAP**

(Parapet)  
 #4 bar = 2'-0"  
 #8 bar = 5'-2"

0161710-62B76-5015-0ET.dgn

**PARSONS BRINCKERHOFF**

USER NAME =	lopezgonzalez	DESIGNED -	HA	REVISED -	
		CHECKED -	PJL	REVISED -	
PLOT SCALE =	N.T.S.	DRAWN -	DDE/DCP	REVISED -	
PLOT DATE =	5/6/2016	CHECKED -	JIG	REVISED -	

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**DECK DETAILS II - UNIT II  
STRUCTURE NO. 016-1710**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	154
CONTRACT NO. 62B76				

SHEET NO. S1-15 OF S1-53 SHEETS

**HBM**  
ENGINEERING GROUP, LLC

USER NAME =	ahmad,issa	DESIGNED -		REVISED -	
		CHECKED -		REVISED -	
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PLOT DATE =	7/26/2018	CHECKED -	MI, MAI	REVISED -	

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

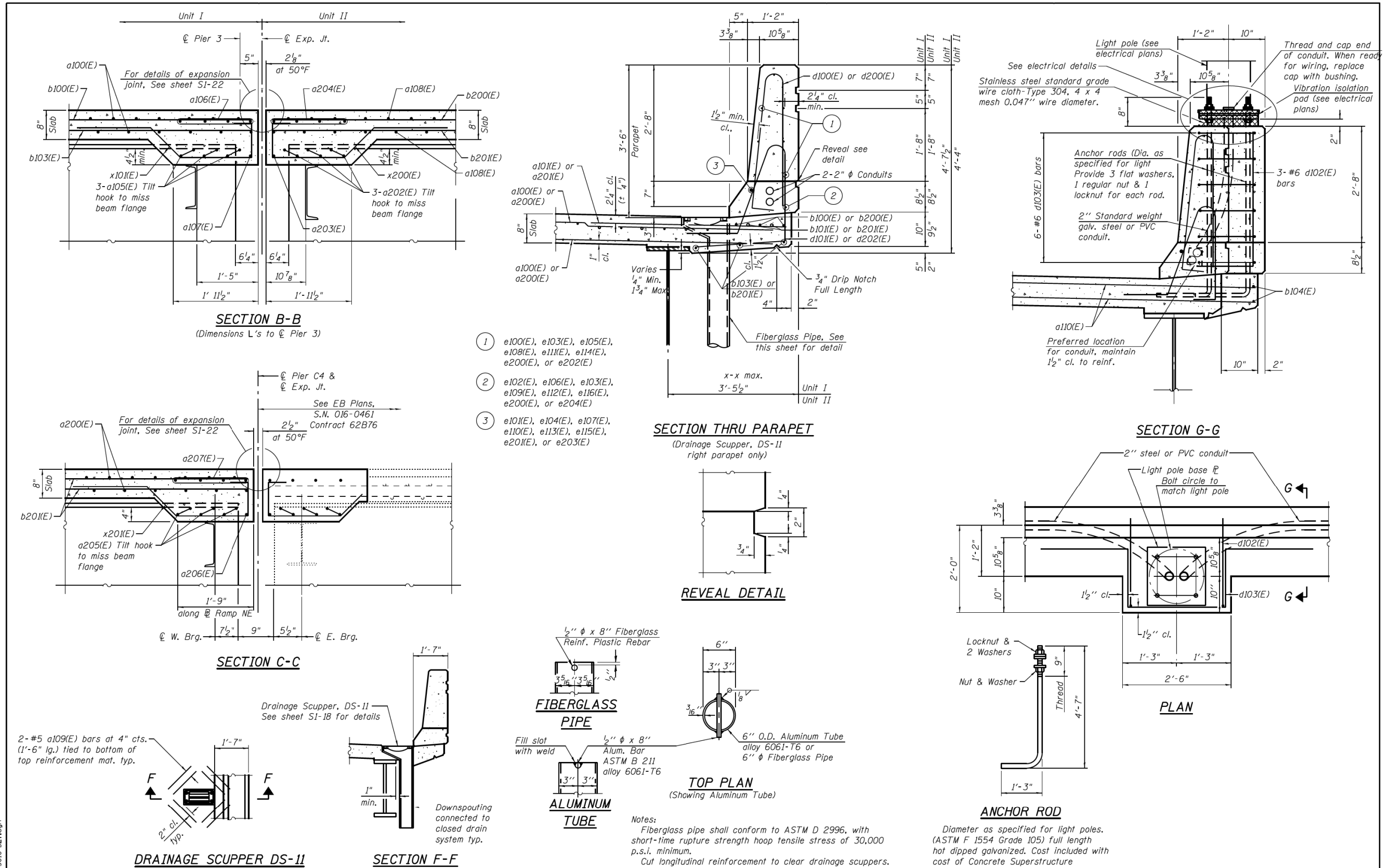
**EXISTING RECORD DRAWINGS**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	759
CONTRACT NO. 60X79				

ILLINOIS FED. AID PROJECT

FILE NAME: D:\V161749-PWINT-aecomonline.local\AECOM\_DS02\_NAYDocuments\01\_Americas\Transportation\60269938\_CirclePhase\_I\000\_CAD\008\_Structural\Structure\_016-1712-60X79-5X-Existing\_18

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	PLOT SCALE = N.T.S.	CHECKED - JIG	REVISIONS -
	PLOT DATE = 5/6/2016	DRAWN - DCP	REVISIONS -
		CHECKED - JIG	REVISIONS -

<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	
<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	

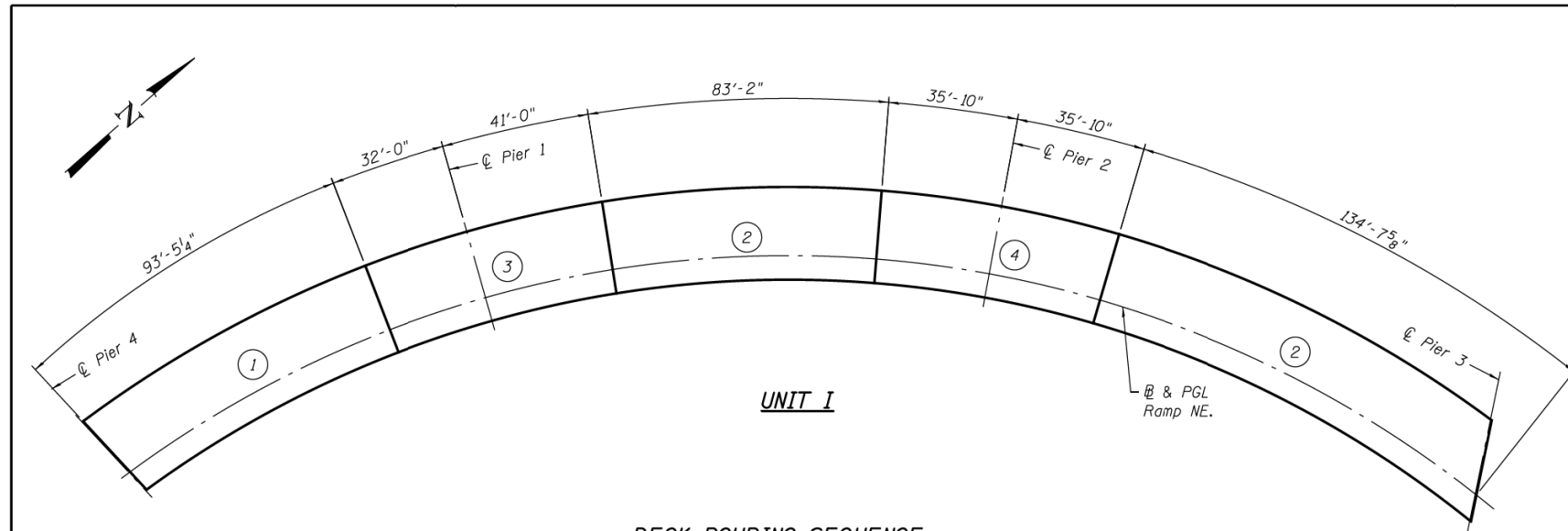
<b>DECK DETAILS III</b>	
<b>STRUCTURE NO. 016-1710</b>	
SHEET NO. S1-16 OF S1-53 SHEETS	

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	155
CONTRACT NO. 62B76				
ILLINOIS FED. AID PROJECT				

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# FOR INFORMATION ONLY



**DECK POURING SEQUENCE**

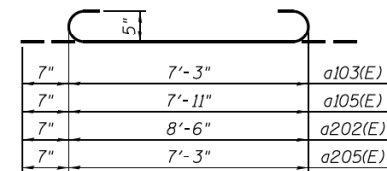
**Pouring Sequence Notes:**

When the deck pour is stopped for the day at one or more of the transverse Bonded Construction Joints in the Deck Pouring Sequence as shown, the next pour shall not be made until both of the following requirements are met:

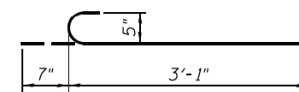
1. At least 72 hours shall have elapsed from the end of the previous pour.
2. The concrete strength shall have attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.

Numbers within the deck pouring sequence indicate the minimum number of group pours required for each unit. Letters next to the group pour numbers indicate the order if pour groups are further subdivided into individual pours. If the Contractor wishes to revise the deck pouring sequence, then the revised deck pouring sequence and calculations shall be submitted to the Engineer for review & approval. The calculations shall be prepared by and sealed by an Illinois Licensed Structural Engineer.

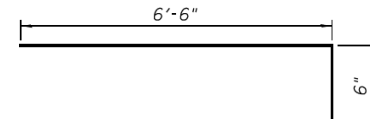
Longitudinal dimensions are measured along  $\mathbb{Q}$  & PGL Ramp NE.



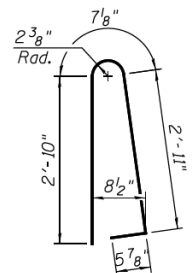
**BARS a103(E), a105(E)  
a202(E) & a205(E)**



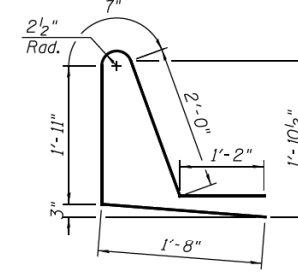
**BAR a104(E)**



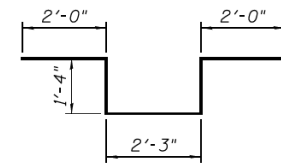
**BAR a208(E)**



**BARS d100(E)  
& d200(E)**

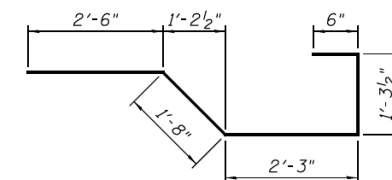


**BARS d101(E)  
& d201(E)**

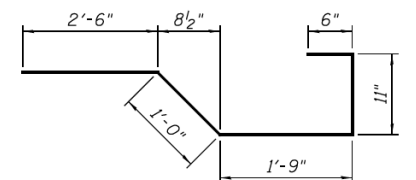


**BAR d103(E)**

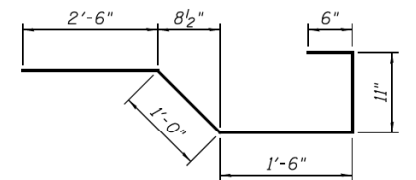
**BAR d102(E)**



**BAR x100(E)**



**BARS x101(E) & x200(E)**



**BAR x201(E)**

**UNIT I  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a100(E)	1,836	#5	28'-7"	—
a101(E)	2,064	#6	6'-6"	—
a102(E)	7	#5	28'-11"	—
a103(E)	18	#6	8'-5"	—
a104(E)	12	#6	3'-8"	—
a105(E)	9	#6	9'-1"	—
a106(E)	4	#5	32'-1"	—
a107(E)	1	#6	24'-10"	—
a108(E)	54	#5	29'-8"	—
a109(E)	40	#5	1'-6"	—
a110(E)	2	#5	2'-8"	—
b100(E)	561	#5	28'-1"	—
b101(E)	150	#6	23'-5"	—
b102(E)	180	#6	27'-3"	—
b103(E)	324	#5	28'-10"	—
b104(E)	2	#5	2'-3"	—
d100(E)	1,010	#5	6'-10"	—
d101(E)	1,010	#5	7'-4"	—
d102(E)	3	#6	5'-1"	—
d103(E)	6	#6	8'-11"	—
x100(E)	28	#5	8'-3"	—
x101(E)	18	#5	6'-8"	—
e100(E)	42	#4	18'-10"	—
e101(E)	4	#8	32'-6"	—
e102(E)	4	#4	30'-2"	—
e103(E)	64	#4	19'-8"	—
e104(E)	8	#8	19'-8"	—
e105(E)	49	#4	18'-1"	—
e106(E)	4	#4	33'-8"	—
e107(E)	4	#8	36'-1"	—
e108(E)	112	#4	18'-5"	—
e109(E)	10	#4	31'-7"	—
e110(E)	10	#8	34'-1"	—
e111(E)	49	#4	16'-5"	—
e112(E)	4	#4	30'-9"	—
e113(E)	4	#8	33'-1"	—
e114(E)	42	#4	16'-9"	—
e115(E)	4	#8	29'-5"	—
e116(E)	4	#4	27'-1"	—
Reinforcement Bars, Epoxy Coated		Pound	139,240	
Concrete Superstructure		Cu. Yds.	482.9	
Protective Coat		Sq. Yd.	1,530	
Bridge Deck Grooving		Sq. Yd.	1,235	

**UNIT II  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a200(E)	279	#5	27'-2"	—
a201(E)	223	#6	6'-6"	—
a202(E)	9	#5	9'-8"	—
a203(E)	1	#5	24'-10"	—
a204(E)	4	#5	32'-1"	—
a205(E)	9	#5	8'-5"	—
a206(E)	1	#5	22'-5"	—
a207(E)	4	#5	28'-3"	—
a208(E)	173	#6	9'-11"	—
b200(E)	81	#5	35'-6"	—
b201(E)	108	#5	27'-4"	—
d100(E)	117	#5	6'-10"	—
d101(E)	117	#5	7'-4"	—
x200(E)	21	#5	8'-3"	—
x201(E)	21	#5	6'-8"	—
e200(E)	8	#4	21'-6"	—
e201(E)	1	#8	21'-6"	—
e202(E)	35	#4	16'-5"	—
e203(E)	3	#8	31'-3"	—
e204(E)	3	#4	29'-2"	—
Reinforcement Bars, Epoxy Coated		Pound	22,130	
Concrete Superstructure		Cu. Yds.	87.0	
Protective Coat		Sq. Yd.	329	
Bridge Deck Grooving		Sq. Yd.	268	

**PARSONS  
BRINCKERHOFF**

USER NAME =	lopezgonzalez	DESIGNED -	HA	REVISED -	
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DEPARTMENT OF TRANSPORTATION**

**DECK DETAILS IV  
STRUCTURE NO. 016-1710**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-08R&B	COOK	250	156
CONTRACT NO. 62B76			ILLINOIS FED. AID PROJECT	

**HBM  
ENGINEERING GROUP, LLC**

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		CHECKED -		REVISED -	
PLOT SCALE =	N.T.S.	DRAWN -		REVISED -	
PLOT DATE =	7/26/2018	CHECKED -	MI, MAI	REVISED -	

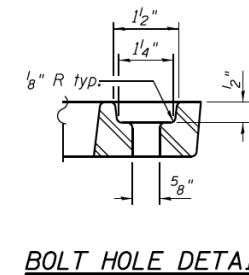
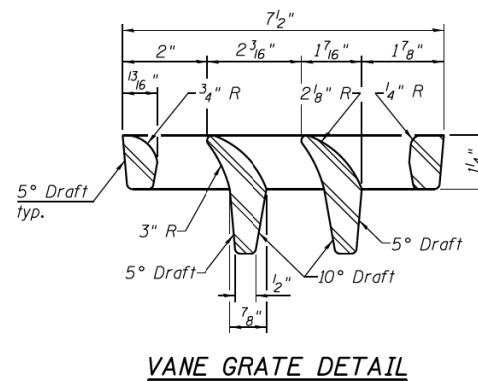
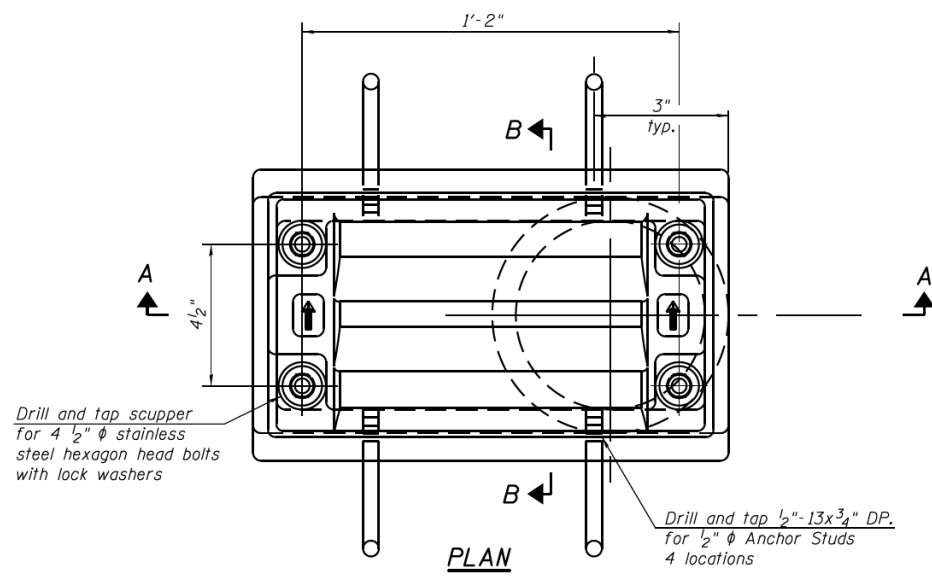
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EXISTING RECORD DRAWINGS**

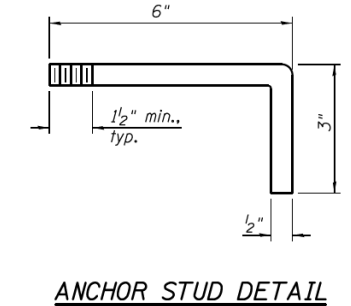
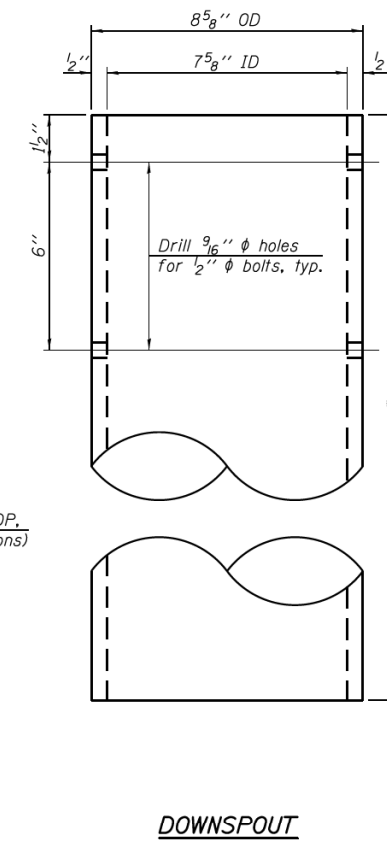
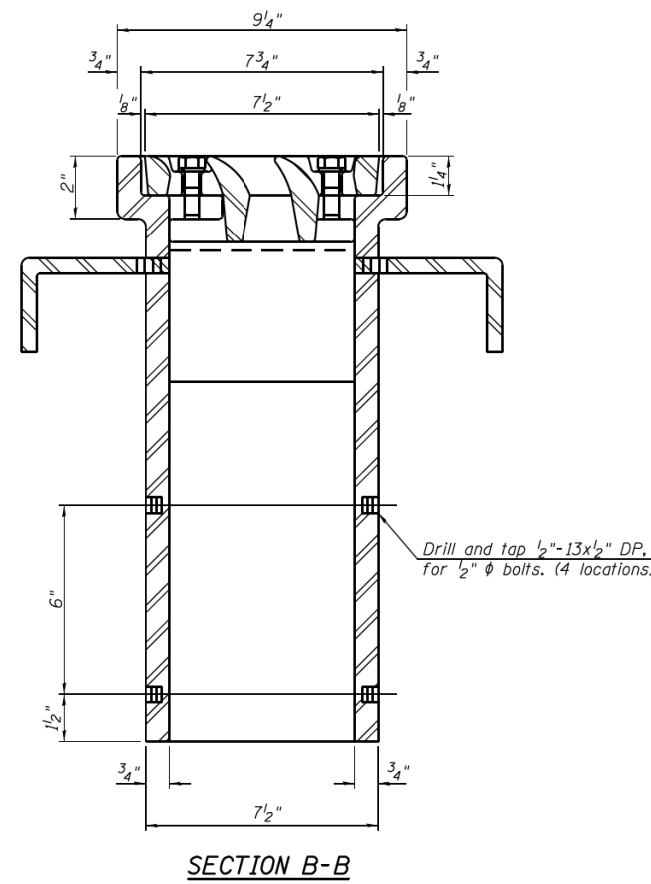
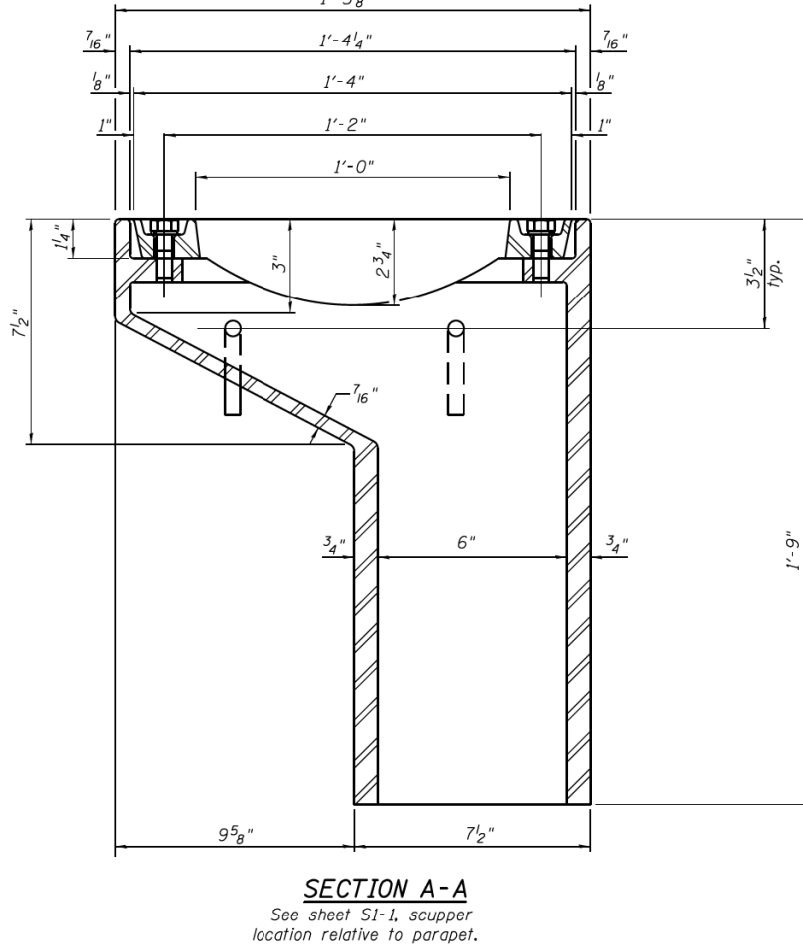
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	781
CONTRACT NO. 60X79			ILLINOIS FED. AID PROJECT	

FILE NAME: D:\161749-PWINT-aecom\online\local\AECOM\_DS02\_NAYDocuments\01\_Americas\Transportation\016-1712-Existing Plans\016-1712-60X79-Sxx-Existing\_20161710-62B76-5017-DET.dgn

# FOR INFORMATION ONLY



**Notes:**  
 All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.  
 Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.  
 Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish steel specified for the exterior side of the fascia beam.  
 As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.  
 Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.  
 The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.  
 Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-11.  
 Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.  
 \* Length of downspout to be coordinated with Drainage System



**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	5

0161710-62B76-5018-SCP.dgn

DS-11

7-1-10

**PARSONS BRINCKERHOFF**

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STATE OF ILLINOIS  
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DRAINAGE SCUPPER DETAILS, DS-11  
STRUCTURE NO. 016-1710

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	157
CONTRACT NO. 62B76				

**HBM**  
ENGINEERING GROUP, LLC

USER NAME = ahmad,issa	DESIGNED -	REVISIONS -
PLOT SCALE = N.T.S.	DRAWN -	REVISIONS -
PLOT DATE = 7/26/2018	CHECKED - MI, MAI	REVISIONS -

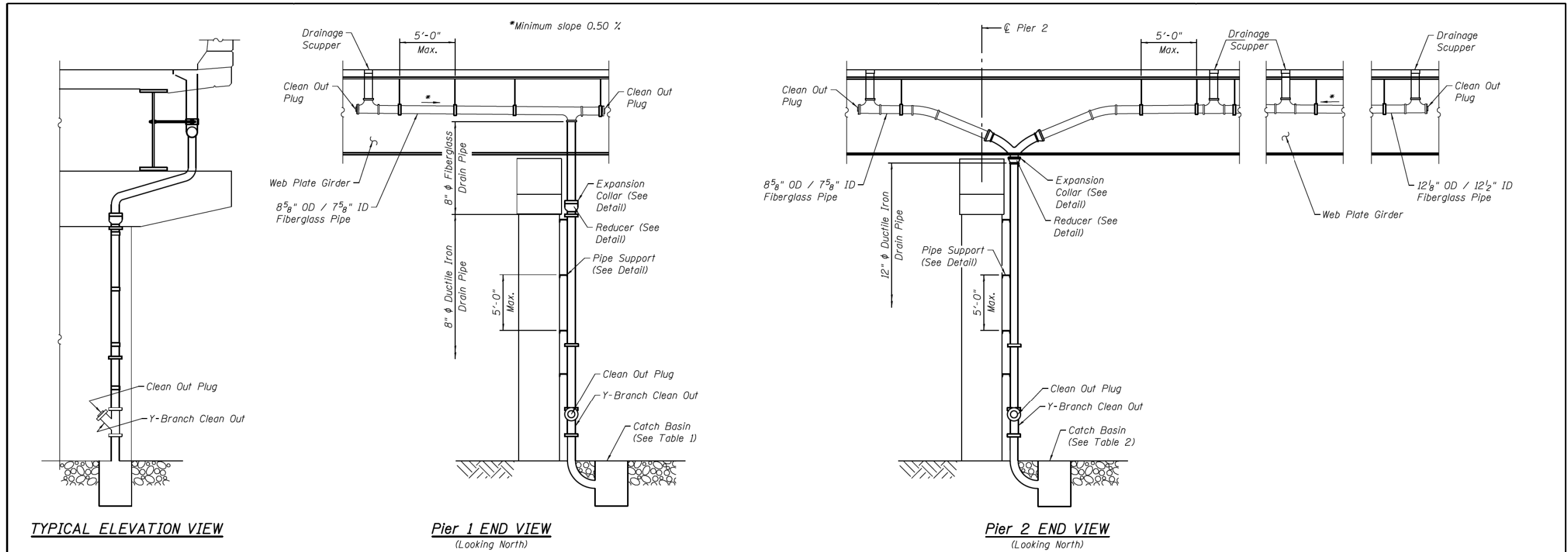
STATE OF ILLINOIS  
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EXISTING RECORD DRAWINGS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	782
CONTRACT NO. 60X79				

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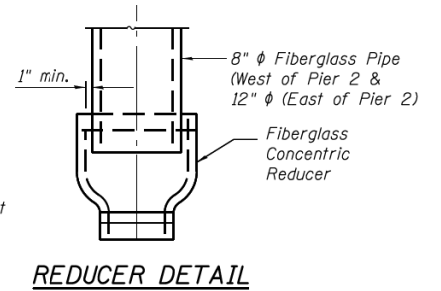
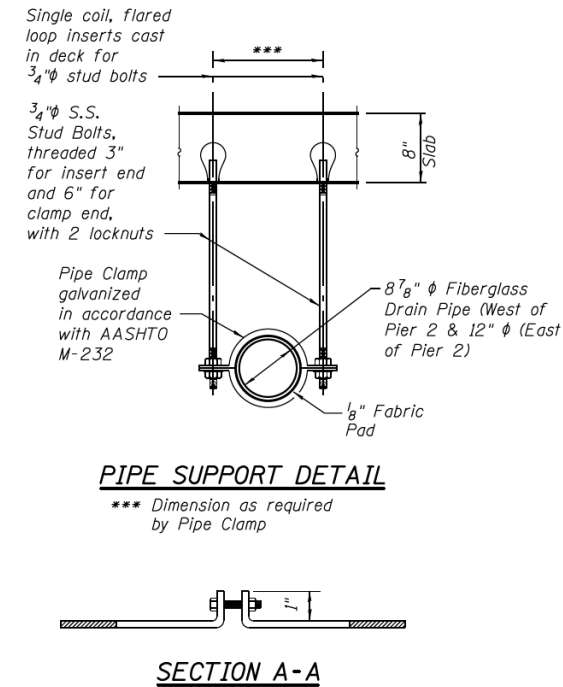
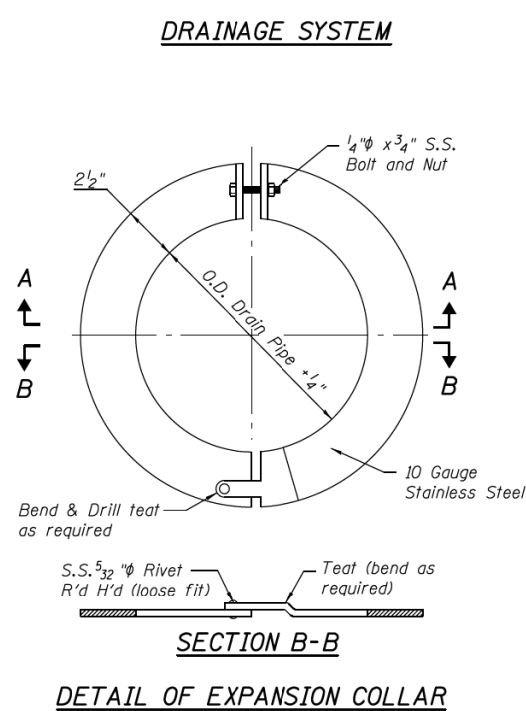
# FOR INFORMATION ONLY



**TABLE 1**

Catch Basin Location	Structure Number
Pier 1	S-01
Pier 2	S-02

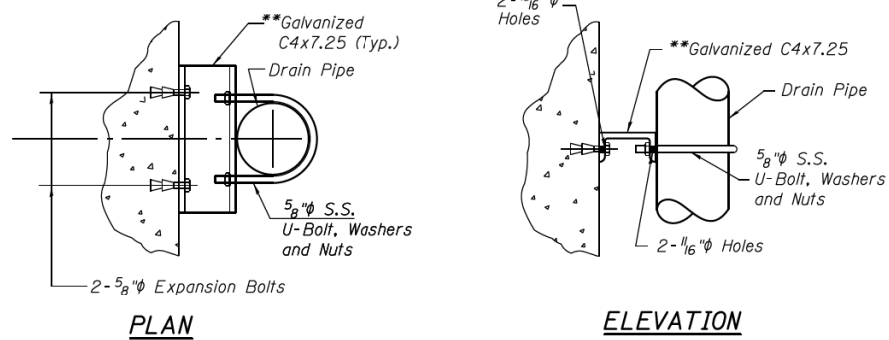
**DRAINAGE SYSTEM**



**BILL OF MATERIAL**

Item	Unit	Quantity
Drainage System	L. Sum	0.5

Note:  
1. S.S. denotes Stainless Steel.



**PIPE SUPPORT DETAIL**

\*\*Provide curved C6x8.2 to fit Round Pier Columns where needed

**PARSONS BRINCKERHOFF**

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DRAINAGE SYSTEM DETAILS  
STRUCTURE NO. 016-1710

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	158
CONTRACT NO. 62B76				

EXISTING RECORD DRAWINGS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	763
CONTRACT NO. 60X79				

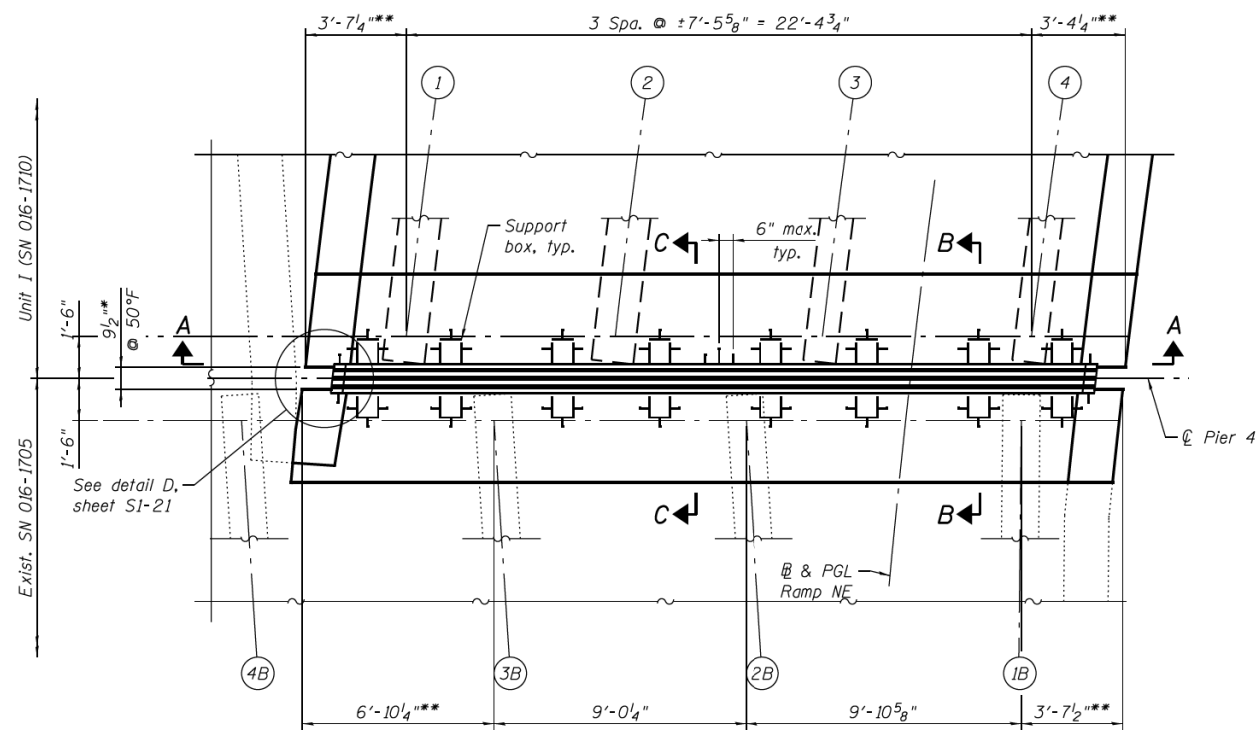
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ENGINEERING GROUP, LLC

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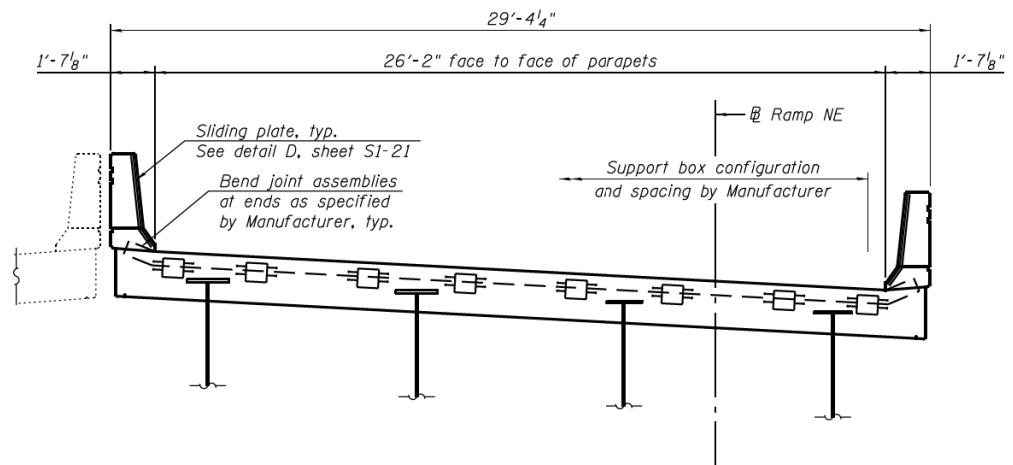
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**PLAN**

\* Actual dimension may vary depending on Manufacturer's design  
 \*\* Measured to edge of deck



**SECTION A-A**

**Notes:**

1. Modular expansion joint shall be designed according to Section 14 of the 2014 AASHTO specifications for HL-93 truck loading with impact and the Special Provision.
2. The joint shall be a shop-fabricated modular assembly with multiple support bars, edge and separation beams and transverse neoprene seals, providing a continuous seal across the deck.
3. Joint shall be fabricated and installed according to the manufacturer's recommendations and as specified in the special provisions for a modular joint system and as approved by the Engineer.
4. Joint shall be fabricated to conform to the roadway profile and cross-slope.
5. All exposed structural steel elements such as separation beams, edge beams, support bars, sliding plate assemblies and cover plates shall be fabricated with AASHTO M270 Grade 50 ksi steel.
6. The expansion joint assembly shall be hot dip galvanized in accordance with AASHTO M111 or M232 after fabrication.
7. Modular expansion joints shall be shipped in one piece unless noted.
8. Concrete anchor studs attached to the modular expansion joint shall conform to the requirements of Article 1006.32 of the Standard Specifications. The cost of the anchor studs shall be included with Modular Expansion Joint-Swivel, 9". Number and spacing of concrete anchor studs shall be determined by Joint Manufacturer in accordance with Note 1 above.
9. No aluminum components shall be allowed.
10. All splices of center beams and edge beams located in the roadway shall be full penetration welds. (Upturn splices may be partial penetration welds)
11. See deck reinforcement plan sheet for bar size, designation and breakout dimensions.
12. Sliding plate assemblies as shown shall be provided for the parapets. The cost of furnishing and installing sliding plate assemblies shall be included with Modular Expansion Joint-Swivel, 9".
13. Coordinate breakout dimensions and pocket locations and reinforcement bar layout with Joint Manufacturer. Breakout area to be poured after expansion assemblies have been adjusted.
14. Modular expansion joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.
15. The manufacturer's recommended installation methods shall be followed.
16. Modular Expansion Joint-Swivel 9" shall provide a minimum total movement of 6 3/8".
17. See sheet S1-21 for sections B-B and C-C.

**BILL OF MATERIAL**

Item	Unit	Total
Modular Expansion Joint-Swivel, 9"	Foot	28

**PARSONS BRINCKERHOFF**

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PLOT DATE = 5/6/2016	CHECKED - JIG	REVISIONS -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**MODULAR EXPANSION JOINT - PIER 4  
STRUCTURE NO. 016-1710**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	159
CONTRACT NO. 62B76				

SHEET NO. S1-20 OF S1-53 SHEETS

ILLINOIS FED. AID PROJECT

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DEPARTMENT OF TRANSPORTATION**

**EXISTING RECORD DRAWINGS**

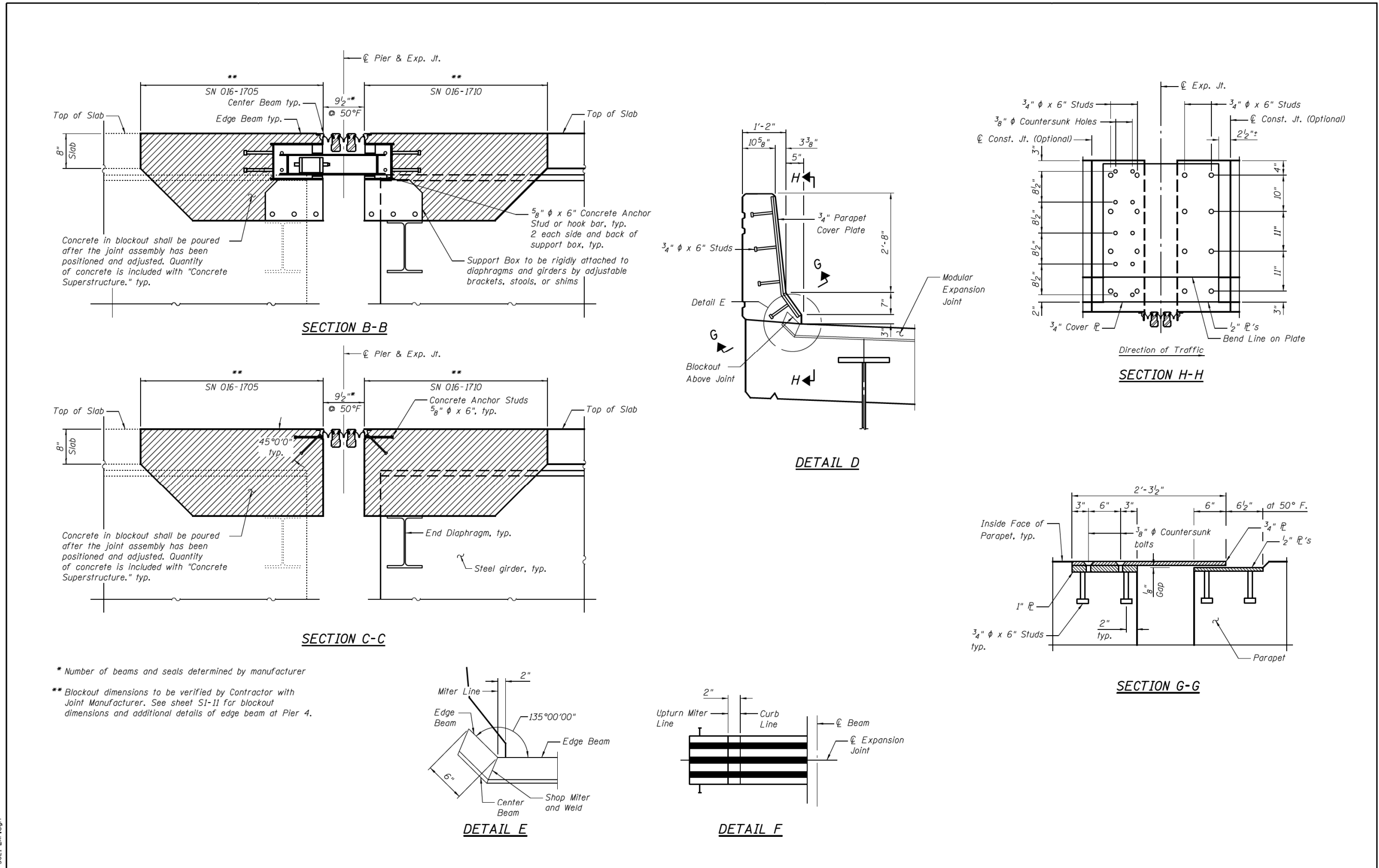
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90/94/290	2014-005R&B	COOK	888	764
CONTRACT NO. 60X79				

ILLINOIS FED. AID PROJECT

FILE NAME: D:\V161749-PWINT-aecomonline.local\AECOM\_DS02\_NAYDocuments\01\_Americas\Transportation\60269938\_Circle\Phase\_II\000\_CAD\008\_Structural\Structure\_016-1712\Existing\_Plans\016-1712-60X79-Sxx-Exp\sting\_23 0161710-62B76-5020-EXP.dgn 12:57:00 PM



# FOR INFORMATION ONLY



\* Number of beams and seals determined by manufacturer  
 \*\* Blockout dimensions to be verified by Contractor with Joint Manufacturer. See sheet S1-11 for blockout dimensions and additional details of edge beam at Pier 4.

**PARSONS BRINCKERHOFF**

USER NAME =	lopezgonzalez	DESIGNED -	PJL	REVISED -	
		CHECKED -	IJL	REVISED -	
PLOT SCALE =	N.T.S.	DRAWN -	PJL	REVISED -	
PLOT DATE =	5/6/2016	CHECKED -	JIG	REVISED -	

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MODULAR EXPANSION JOINT DETAILS  
 STRUCTURE NO. 016-1710

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	160
CONTRACT NO. 62B76				

EXISTING RECORD DRAWINGS

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	765
CONTRACT NO. 60X79				

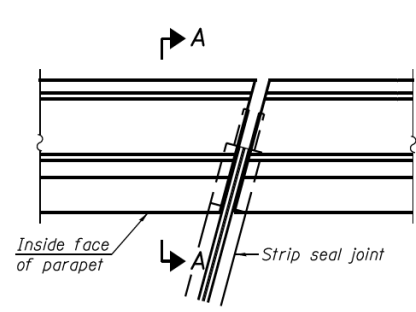
**HBM**  
 ENGINEERING GROUP, LLC

USER NAME =	ahmad,issa	DESIGNED -		REVISED -	
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PLOT SCALE =	N.T.S.	DRAWN -		REVISED -	
PLOT DATE =	7/26/2018	CHECKED -	MI, MAI	REVISED -	

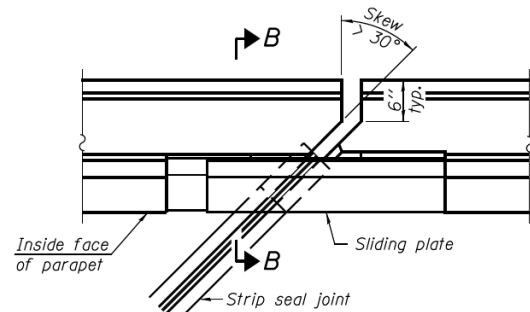
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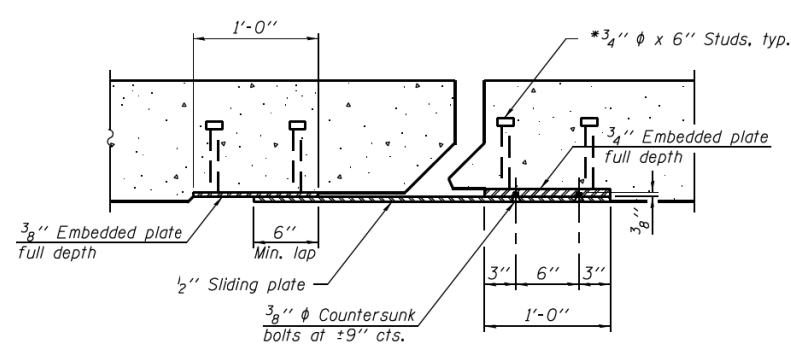
# FOR INFORMATION ONLY



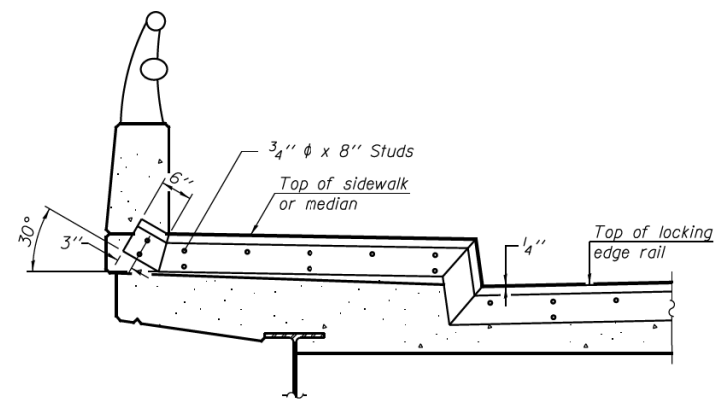
**PLAN**  
(For skews  $\leq 30^\circ$ )



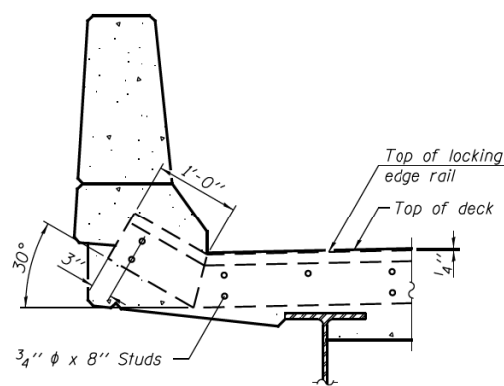
**PLAN**  
(For skews  $> 30^\circ$ )  
Showing point block



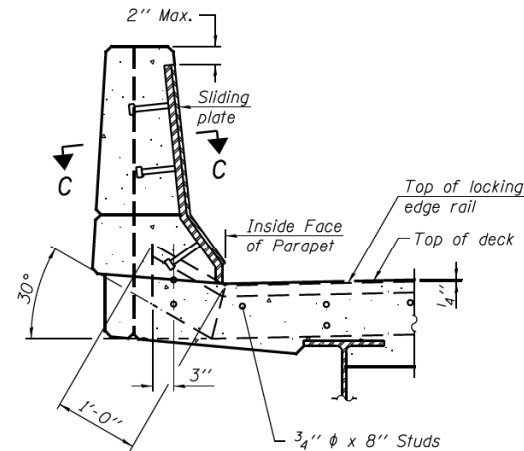
**SECTION C-C**



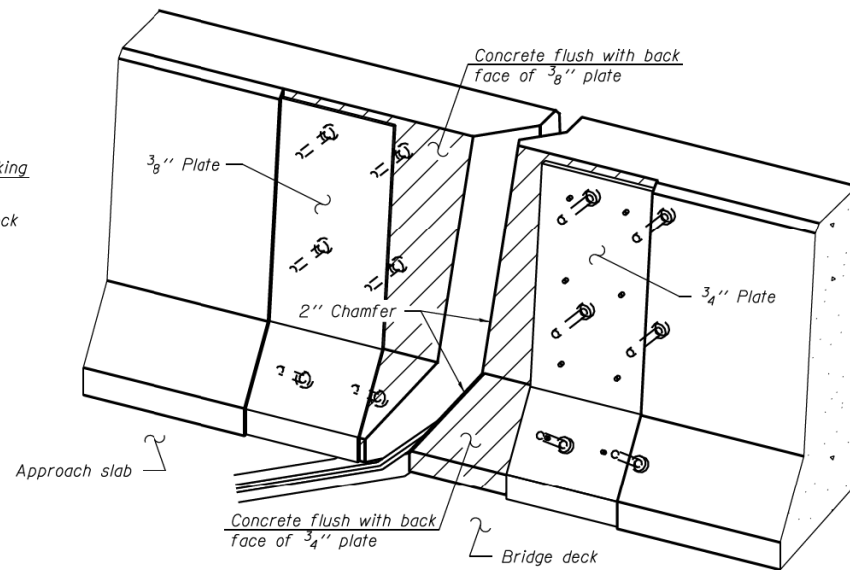
**TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN**  
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



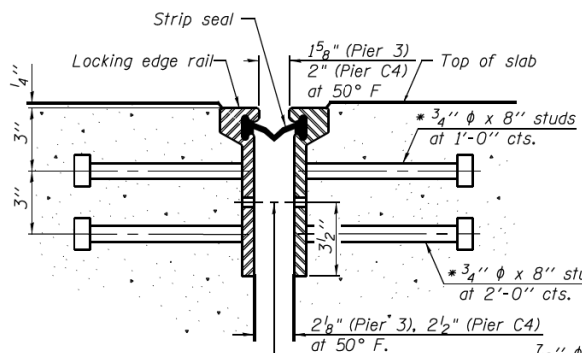
**SECTION A-A**



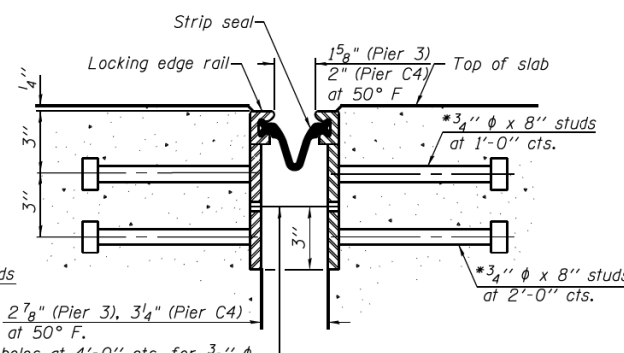
**SECTION B-B**



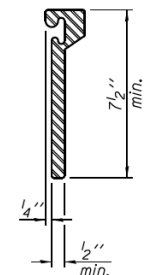
**TRIMETRIC VIEW**  
(Showing back plates only)



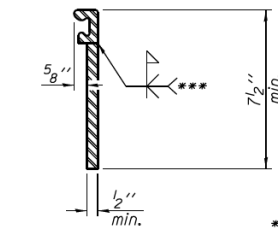
**SECTION THRU ROLLED RAIL JOINT**



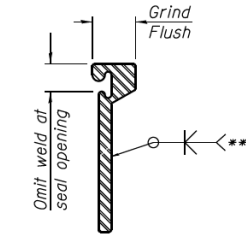
**SECTION THRU WELDED RAIL JOINT**



**ROLLED EXTRUDED RAIL**



**WELDED RAIL**



**LOCKING EDGE RAIL SPLICE**

The inside of the locking edge rail groove shall be free of weld residue.  
Rolled rail shown, welded rail similar.

7/16"  $\phi$  holes at 4'-0" cts. for 3/8"  $\phi$  bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

7/16"  $\phi$  holes at 4'-0" cts. for 3/8"  $\phi$  bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

\* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

\*\*\* Back gouge not required if complete joint penetration is verified by mock-up.

**LOCKING EDGE RAILS**

**BILL OF MATERIAL**

Item	Unit	Total
Preformed Joint Strip Seal	Foot	62

EJ-SSJ

1-27-12

**PARSONS BRINCKERHOFF**

USER NAME = lopezgonzalez	DESIGNED - PUL	REVISIONS -
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PLOT DATE = 5/6/2016	DRAWN - PUL	REVISIONS -
	CHECKED - JIG	REVISIONS -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL - PIERS 3 & C4  
STRUCTURE NO. 016-1710

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	161
CONTRACT NO. 62B76				

**HBM**  
ENGINEERING GROUP, LLC

USER NAME = ahmad,issa	DESIGNED -	REVISIONS -
PLOT SCALE = N.T.S.	CHECKED -	REVISIONS -
PLOT DATE = 7/26/2018	DRAWN -	REVISIONS -
	CHECKED - MI, MAI	REVISIONS -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING RECORD DRAWINGS

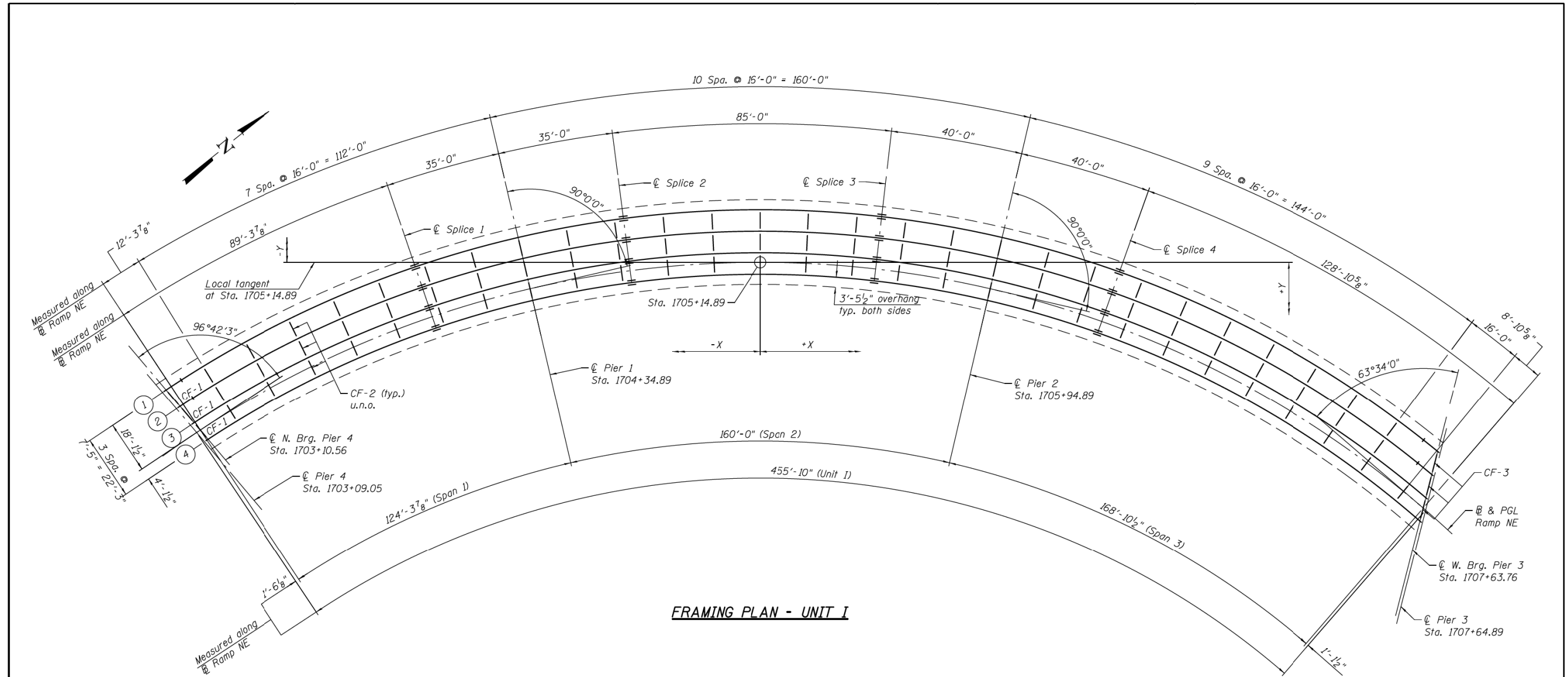
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	766
CONTRACT NO. 60X79				

ILLINOIS FED. AID PROJECT

FILE NAME: D:\V161749-PWINT.aecommonline.local\AECOM\_DS02\_NAYDocuments\01\_Americas\Transportation\60269938\_Circle\Phase\_I\000\_CAD\008\_Structural\Structure\_016-1712-60X79-5X-Existing\_25

0161710-62B76-502-EXP.dgn

# FOR INFORMATION ONLY



**FRAMING PLAN - UNIT I**

**Notes:**

1. See Sheet S1-24 for girder elevation.
2. See Sheet S1-25 for camber, self-weight deflections & top of web elevations.
3. See Sheet S1-26 & S1-27 for moment tables & reaction tables.
4. See Sheet S1-28 for girder bolted field splice details.
5. See Sheets S1-29 for girder cross frame details.
6. Girder spacings and cross frame orientations are radial to the @ Ramp NE, except at @ N. Brg. Pier 4 & @ W. Brg. Pier 3 supports where @ Brg. and cross frame orientations are skewed along the centerline of supports.
7. Temporary lateral bracing for the top flanges in Span 2 will be required during steel erection and deck placement. This work will not be paid for separately, but shall be included in the Steel Erection plan.
8. The Contractor shall submit a comprehensive Steel Erection plan detailing the proposed methods, procedures, and plans for the erection of the structural steel to the desired lines, elevations, and geometry indicated in the Contract plans. Erection plans shall be complete in detail for all phases of the erection process and shall describe the erection procedures, sequences, geometry controls and adjustment procedures, temporary shoring or bracing, bearing and anchor bolt placement, bolt installation and tightening procedures, and shall include any necessary drawings and calculations. The Erection plan shall be prepared and sealed by an Illinois Licensed Structural Engineer and shall be submitted to the Engineer for review and acceptance.

**LAYOUT DIMENSIONS (in feet)**

Girder	@ N. Brg. Pier 4		@ Splice 1		@ Pier 1		@ Splice 2		@ Splice 3		@ Pier 2		@ Splice 4		@ W. Brg. Pier 3	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
1	-204.677	-44.021	-118.791	-1.568	-83.412	8.550	-47.200	15.087	41.980	15.724	83.412	8.550	123.756	-3.301	233.404	-65.327
2	-199.865	-49.726	-116.397	-8.588	-81.732	1.327	-46.249	7.731	41.134	8.355	81.732	1.327	121.263	-10.286	231.376	-73.277
3	-195.051	-55.432	-114.004	-15.608	-80.051	-5.897	-45.298	0.375	40.288	0.984	80.051	-5.897	118.769	-17.271	229.339	-81.265
4	-190.236	-61.140	-111.611	-22.628	-78.371	-13.121	-44.347	-6.980	39.442	-6.381	78.371	-13.121	116.276	-24.256	227.291	-89.293

**PARSONS BRINCKERHOFF**

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		CHECKED -	JIG	REVISED -	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**FRAMING PLAN - UNIT I  
STRUCTURE NO. 016-1710**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	162
CONTRACT NO. 62B76				

**EXISTING RECORD DRAWINGS**

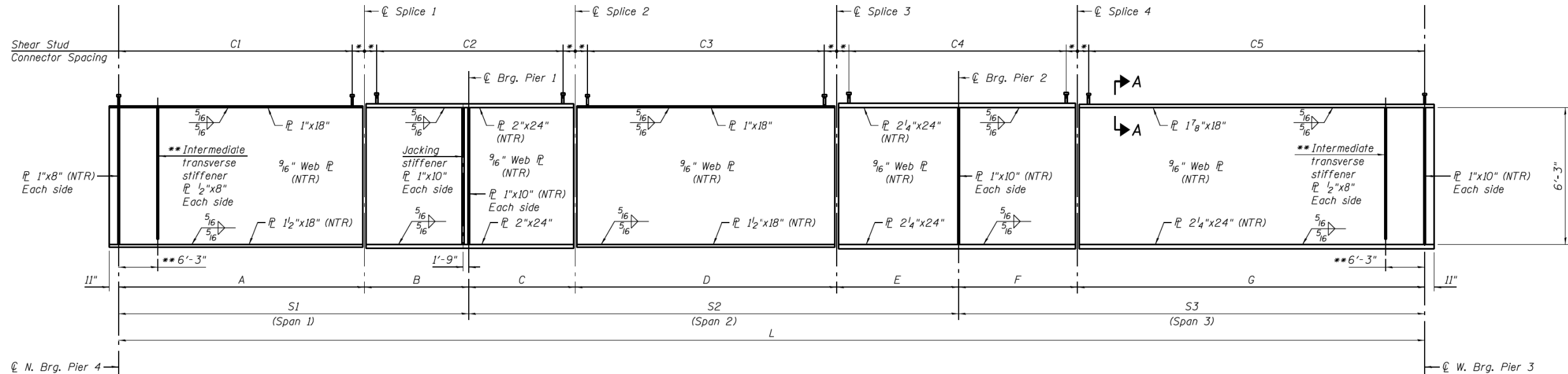
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	767
CONTRACT NO. 60X79				

**HBM  
ENGINEERING GROUP, LLC**

USER NAME =	ahmad,issa	DESIGNED -		REVISED -	
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PLOT DATE =	7/26/2018	DRAWN -		REVISED -	
		CHECKED -	MI, MAI	REVISED -	

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### GIRDER ELEVATION - UNIT I

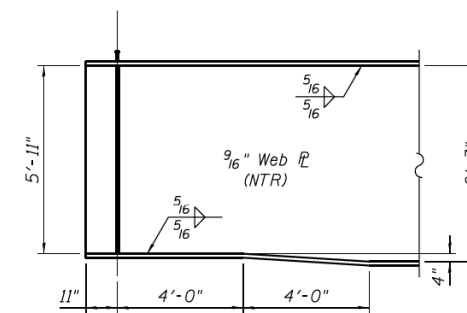
\* No shear connectors over splice plates.  
 \*\* Girders 1 and 2 only, see detail this sheet.

### GIRDER DIMENSIONS (in feet)

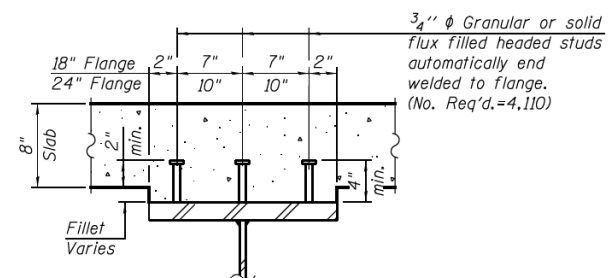
Girder	Radius	L	S1	S2	S3	A	B	C	D	E	F	G
1	368.125	469.847	132.890	168.286	168.671	96.078	36.812	36.812	89.402	42.072	42.072	126.599
2	360.708	463.025	129.385	164.895	168.745	93.314	36.071	36.071	87.600	41.224	41.224	127.521
3	353.292	456.220	125.879	161.505	168.836	90.550	35.328	35.328	85.799	40.376	40.376	128.460
4	345.875	449.433	122.374	158.114	168.946	87.786	34.588	34.588	83.998	39.529	39.529	129.417

### SHEAR STUD CONNECTOR SPACING

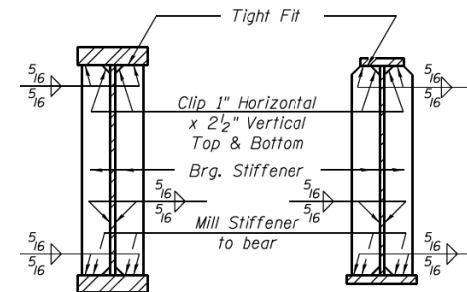
Girder	C1	C2	C3	C4	C5
1	71 Spa. @ 16"	53 Spa. @ 16"	65 Spa. @ 16"	61 Spa. @ 16"	94 Spa. @ 16"
2	69 Spa. @ 16"	52 Spa. @ 16"	63 Spa. @ 16"	59 Spa. @ 16"	94 Spa. @ 16"
3	67 Spa. @ 16"	52 Spa. @ 16"	63 Spa. @ 16"	59 Spa. @ 16"	96 Spa. @ 16"
4	65 Spa. @ 16"	50 Spa. @ 16"	62 Spa. @ 16"	58 Spa. @ 16"	97 Spa. @ 16"



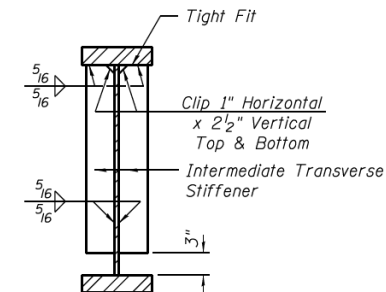
GIRDER 4 LINEAR HAUNCH DETAIL



SECTION A-A



SECTION AT PIERS 1 & 2 SECTION AT PIERS 3 & 4



SECTION AT INTERMEDIATE TRANSVERSE STIFFENER

Notes:

- All structural steel shall be AASHTO M270 Grade 50.
- Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
- Intermediate transverse stiffeners shall use the same size clips & fillet welds as connection plates.

**PARSONS BRINCKERHOFF**

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE STEEL DETAILS I - UNIT I  
STRUCTURE NO. 016-1710

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	163
CONTRACT NO. 62B76				

SHEET NO. S1-24 OF S1-53 SHEETS

ILLINOIS FED. AID PROJECT

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ENGINEERING GROUP, LLC

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	CHECKED - MI, MAI	REVISIONS -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING RECORD DRAWINGS

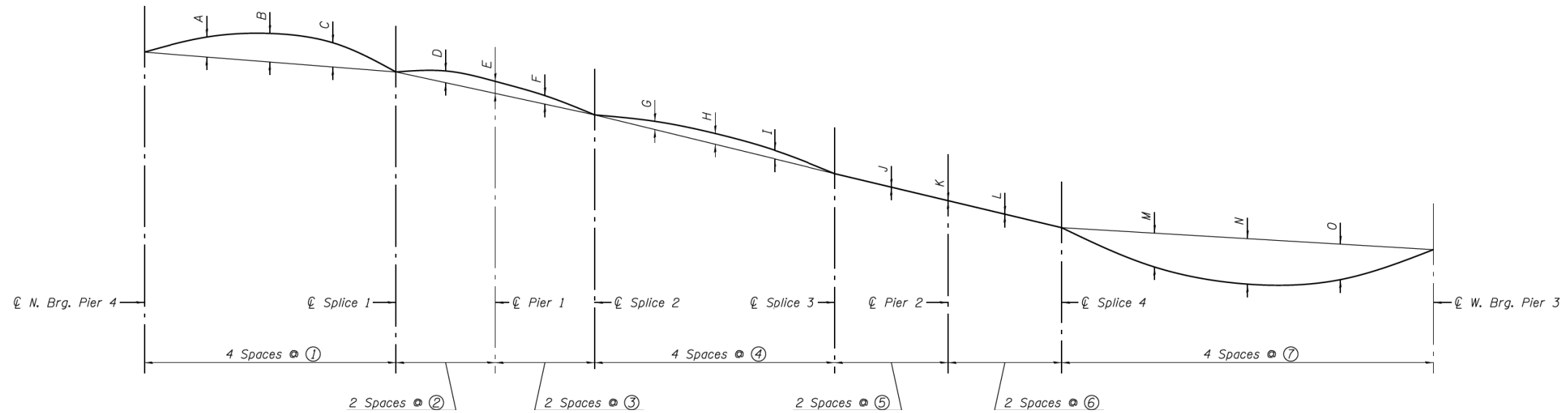
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	788
CONTRACT NO. 60X79				

ILLINOIS FED. AID PROJECT

FILE NAME: D:\161749-PWINT-aecomonline.local\AECOM\_DS02\_NAYDocuments\01\_Americas\Transportation\60269938\_Circle\Phase\_I\000\_CAD\008\_Structural\Structure\_016-1712\Existing\_Plans\016-1712-60X79-Sxx-Existing\_27

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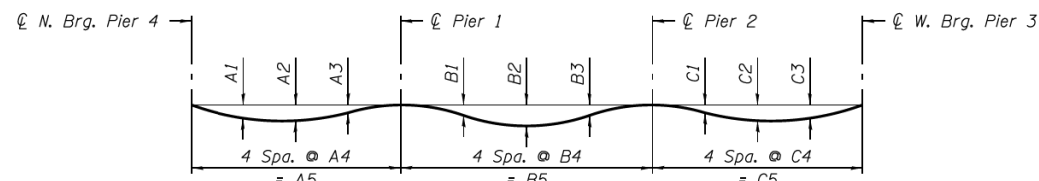
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**CAMBER DIAGRAM**

**CAMBER DIMENSIONS**

Girder	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	①	②	③	④	⑤	⑥	⑦
1	6"	8 1/4"	6 3/4"	2 1/4"	2 1/2"	1 3/4"	1 1/2"	1 3/4"	1 1/2"	0	0	0	2 1/2"	4"	3 1/2"	24.023'	18.406'	18.406'	22.350'	21.036'	21.036'	31.648'
2	5 1/4"	7 1/4"	6 3/4"	2 1/4"	2 1/2"	1 3/4"	1 1/4"	1 3/4"	1 1/4"	0	0	0	3 3/4"	5 3/4"	4 3/4"	23.333'	18.035'	18.035'	21.900'	20.612'	20.612'	31.887'
3	4 3/4"	6 3/4"	5 3/4"	2 1/2"	2 1/2"	1 3/4"	1 1/2"	2"	1 1/2"	0	0	0	5 3/4"	7 1/2"	6"	22.641'	17.665'	17.665'	21.450'	20.188'	20.188'	32.109'
4	4 1/4"	6"	5"	2 1/2"	2 1/2"	1 3/4"	1 3/4"	2 1/4"	1 3/4"	0	0	0	7"	9 1/2"	7 1/2"	21.948'	17.294'	17.294'	21.000'	19.764'	19.764'	32.354'



**DEAD LOAD DEFLECTION DIAGRAM**

(Includes weight of structural steel only.)

Note:  
The calculated deflections of the primary girders under steel self-weight shall be used to detail the diaphragm, cross frame and lateral bracing connections, and to erect the structural steel such that the girders will be plumb within a tolerance of ± 1/8 in. per vertical ft. throughout when supporting their own weight.

Girder No.	Span 1					Span 2					Span 3				
	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	C1	C2	C3	C4	C5
1	3/4"	1"	5/8"	±20'-9 1/4"	83'-0 3/4"	-1/2"	-7/8"	-7/8"	±20'-9 1/4"	83'-0 3/4"	1 5/8"	2 3/4"	2 1/8"	±20'-9 1/4"	83'-0 3/4"
2	5/8"	3/4"	1/2"	±22'-0 3/4"	88'-3 1/4"	-1/4"	-1/2"	-1/2"	±22'-0 3/4"	88'-3 1/4"	1 1/4"	2 1/8"	1 5/8"	±22'-0 3/4"	88'-3 1/4"
3	3/8"	1/2"	1/4"	±23'-4 1/2"	93'-5 3/4"	-1/8"	-1/8"	-1/4"	±23'-4 1/2"	93'-5 3/4"	7/8"	1 3/8"	1"	±23'-4 1/2"	93'-5 3/4"
4	1/8"	1/4"	1/8"	±24'-8 1/8"	98'-8 3/8"	1/8"	1/8"	0	±24'-8 1/8"	98'-8 3/8"	1/2"	3/4"	5/8"	±24'-8 1/8"	98'-8 3/8"

**TOP OF WEB ELEVATIONS**

(For Fabrication only)

Girder	℄ N. Brg. Pier 4	℄ Splice 1	℄ Pier 1	℄ Splice 2	℄ Splice 3	℄ Pier 2	℄ Splice 4	℄ W. Brg. Pier 3
1	623.784	622.617	621.186	619.351	615.177	613.492	611.902	609.908
2	623.395	622.155	620.771	618.978	614.823	613.081	611.390	609.522
3	623.005	621.686	620.351	618.598	614.484	612.661	610.887	609.162
4	622.605	621.230	619.941	618.228	614.132	612.251	610.378	608.842

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**PARSONS BRINCKERHOFF**

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	CHECKED - JIG	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE STEEL DETAILS II - UNIT I  
STRUCTURE NO. 016-1710

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	164
CONTRACT NO. 62B76				

SHEET NO. S1-25 OF S1-53 SHEETS

ILLINOIS FED. AID PROJECT

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ENGINEERING GROUP, LLC

USER NAME = ahmad,issa	DESIGNED -	REVISED -
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING RECORD DRAWINGS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	769
CONTRACT NO. 60X79				

ILLINOIS FED. AID PROJECT

FILE NAME: D:\V161749-PWINT-aecomonline.local\AECOM\_DS02\_NAYDocuments\01\_Americas\Transportation\60269938\_Circle\Phase\_II\000\_CAD\008\_Structural\Structure\_016-1712\Existing\_Plans\016-1712-60X79-Sxx-Existing\_28

# FOR INFORMATION ONLY

EXTERIOR GIRDER 1 MOMENT TABLE						
	0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.6 Sp. 3	
$I_s$	(in <sup>4</sup> ) 83,882	162,103	83,882	180,945	145,449	
$I_c(n)$	(in <sup>4</sup> ) 180,100		180,100		273,226	
$I_c(3n)$	(in <sup>4</sup> ) 130,400		130,400		201,963	
$I_c(cr)$	(in <sup>4</sup> )	176,531		195,595		
$S_s$	(in <sup>3</sup> ) 2,397	4,104	2,397	4,552	4,319	
$S_c(n)$	(in <sup>3</sup> ) 3,123		3,123		5,181	
$S_c(3n)$	(in <sup>3</sup> ) 2,837		2,837		4,795	
$S_c(cr)$	(in <sup>3</sup> )	4,217		4,664		
$S_{xc}$	(in <sup>3</sup> ) 2,886	4,194	3,092	4,625	4,821	
DC1	(k/')	1.116	1.302	1.116	1.343	1.261
MDC1	(k)	2,210	2,739	2,27	5,265	5,012
DC2	(k/')	0.290	0.290	0.290	0.290	0.290
MDC2	(k)	526.1	781.9	138.2	1252.2	1051.5
DW	(k/')	0.33	0.33	0.33	0.33	0.33
MDW	(k)	571.2	751.5	171.4	1284.5	1193.3
$M_L \cdot IM$	(k)	3,268	3,458	2,997	4,003	4,829
$f_i$ (Strength I)	(ksi)	11.67	0.94	7.62	2.48	5.90
$M_u + 1/3 f_i S_{xc}$	(k)	10,930	11,689	6,612	17,396	18,609
$\phi_r M_n$	(k)					
$f_s$ DC1	(ksi)	11.1	8.1	1.2	13.9	14.0
$f_s$ DC2	(ksi)	2.3	2.3	0.6	3.3	2.7
$f_s$ DW	(ksi)	2.5	2.2	0.8	3.4	3.0
$f_s$ ( $\frac{1}{2}IM$ )	(ksi)	12.6	9.9	11.6	10.3	11.2
$f_i$ (Service II)	(ksi)	8.9	0.8	5.7	1.9	4.5
$f_s + 1/2$ (Service II)	(ksi)	36.7	25.8	20.5	35.0	36.5
$0.95R_n F_y f$	(ksi)	47.5	47.5	47.5	47.5	47.5
$f_s + 1/3$ (Total)(Strength I)	(ksi)	45.5	33.9	25.7	45.3	46.5
$\phi_r F_n$	(ksi)	50	48.5	50	48.6	50
Vr	(k)		55.7		56.3	

EXTERIOR GIRDER 1 REACTION TABLE				
	Pier 4	Pier 1	Pier 2	Pier 3
RDC1	(k) 80.4	176.6	213.6	158.4
RDC2	(k) 23.9	55.6	61.9	39.3
R <sub>DW</sub>	(k) 20.6	43.5	51.2	39.8
$R_L \cdot IM$	(k) 120.5	149.1	153.9	165.8
R <sub>total</sub>	(k) 245.4	424.8	480.6	403.3

INTERIOR GIRDER 2 MOMENT TABLE						
	0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.6 Sp. 3	
$I_s$	(in <sup>4</sup> ) 83,882	162,103	83,882	180,945	145,449	
$I_c(n)$	(in <sup>4</sup> ) 181,867		181,867		276,002	
$I_c(3n)$	(in <sup>4</sup> ) 131,648		131,648		203,603	
$I_c(cr)$	(in <sup>4</sup> )	177,008		196,081		
$S_s$	(in <sup>3</sup> ) 2,397	4,104	2,397	4,552	4,319	
$S_c(n)$	(in <sup>3</sup> ) 3,132		3,132		5,193	
$S_c(3n)$	(in <sup>3</sup> ) 2,846		2,846		4,806	
$S_c(cr)$	(in <sup>3</sup> )	4,220		4,666		
$S_{xc}$	(in <sup>3</sup> ) 2,953	4,199	3,080	4,630	4,942	
DC1	(k/')	1.076	1.262	1.076	1.303	1.221
MDC1	(k)	1,650	2,557	4,39	4,815	3,444
DC2	(k/')	0.290	0.290	0.290	0.290	0.290
MDC2	(k)	375	582	160.5	984.4	726.7
DW	(k/')	0.33	0.33	0.33	0.33	0.33
MDW	(k)	437.2	720.2	184.4	1175.9	823.1
$M_L \cdot IM$	(k)	2,272	2,770	2,003	3,209	3,066
$f_i$ (Strength I)	(ksi)	7.2	1.1	5.2	2.1	6.5
$M_u + 1/3 f_i S_{xc}$	(k)	7,753	9,974	4,978	14,898	12,705
$\phi_r M_n$	(k)					
$f_s$ DC1	(ksi)	8.3	7.5	2.2	12.7	9.6
$f_s$ DC2	(ksi)	1.6	1.7	0.7	2.6	1.9
$f_s$ DW	(ksi)	1.9	2.1	0.8	3.1	2.1
$f_s$ ( $\frac{1}{2}IM$ )	(ksi)	8.8	7.9	7.7	8.3	7.1
$f_i$ (Service II)	(ksi)	5.5	0.8	3.9	1.6	2.0
$f_s + 1/2$ (Service II)	(ksi)	26.0	22.0	15.7	30.0	23.8
$0.95R_n F_y f$	(ksi)	47.5	47.5	47.5	47.5	47.5
$f_s + 1/3$ (Total)(Strength I)	(ksi)	32.5	28.7	19.6	38.8	30.6
$\phi_r F_n$	(ksi)	50	48.6	50	48.7	50
Vr	(k)		42.8		38.8	

INTERIOR GIRDER 2 REACTION TABLE				
	Pier 4	Pier 1	Pier 2	Pier 3
RDC1	(k) 65.9	197.2	286.2	81.1
RDC2	(k) 11.9	34.7	49.1	11.6
R <sub>DW</sub>	(k) 18.7	55.7	71.6	20.4
$R_L \cdot IM$	(k) 90.6	145.7	155.3	88.8
R <sub>total</sub>	(k) 187.1	433.3	562.2	201.9

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

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

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

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

$S_{xc}$ : Section modulus about the major axis of section to the controlling flange, tension or compression, taken as yield moment with respect to the controlling flange over the yield strength of the controlling flange (in<sup>3</sup>).

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

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

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

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

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

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

$M_L \cdot IM$ : Un-factored live load moment plus dynamic load allowance (impact)(kip-ft.).

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

$1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_L \cdot IM$

$f_i$ : Factored calculated normal stress at edge of flange for controlling flange plate due to lateral bending, Strength I or Service II as applicable (ksi).

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

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

$M_{DC1} / S_{nc}$

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

$M_{DC2} / S_c(3n)$  or  $M_{DC2} / S_c(cr)$  as applicable.

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

$M_{DW} / S_c(3n)$  or  $M_{DW} / S_c(cr)$  as applicable.

$f_s$  ( $\frac{1}{2}IM$ ): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live plus impact loads as calculated below (ksi).

$M_L \cdot IM / S_c(n)$  or  $M_{DW} / S_c(cr)$  as applicable.

$f_s + 1/2$  (Service II): Sum of stresses as computed below (ksi).

$f_s DC1 + f_s DC2 + f_s DW + 1.3 f_s (\frac{1}{2}IM) + 1/2$

$0.95R_n F_y f$ : Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

$f_s + 1/3$  (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).

$1.25 (f_s DC1 + f_s DC2) + 1.5 f_s DW + 1.75 f_s (\frac{1}{2}IM) + 1/3$

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

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

Note:  
 $M_L$  and  $R_L$  include the effects of centrifugal force and superelevation.

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**PARSONS BRINCKERHOFF**

USER NAME = lopezgonzalez	DESIGNED - IJL	REVISED -
CHECKED - AH	REVISED -	
PLOT SCALE = N.T.S.	DRAWN - IJL	REVISED -
PLOT DATE = 5/6/2016	CHECKED - JIG	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE STEEL DETAILS III - UNIT I  
STRUCTURE NO. 016-1710

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-08R&B	COOK	250	165
CONTRACT NO. 62B76				

EXISTING RECORD DRAWINGS

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

USER NAME = ahmad,issa	DESIGNED -	REVISED -
CHECKED -	REVISED -	
PLOT SCALE = N.T.S.	DRAWN -	REVISED -
PLOT DATE = 7/26/2018	CHECKED - MI, MAI	REVISED -

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	770
CONTRACT NO. 60X79				

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INTERIOR GIRDER 3 MOMENT TABLE						
		0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.6 Sp. 3
$I_s$	(in <sup>4</sup> )	83,882	162,103	83,882	180,945	145,449
$I_c(n)$	(in <sup>4</sup> )	181,867		181,867		276,002
$I_c(3n)$	(in <sup>4</sup> )	131,648		131,648		203,603
$I_c(cr)$	(in <sup>4</sup> )		177,008		196,081	
$S_s$	(in <sup>3</sup> )	2,397	4,104	2,397	4,552	4,319
$S_c(n)$	(in <sup>3</sup> )	3,132		3,132		5,193
$S_c(3n)$	(in <sup>3</sup> )	2,846		2,846		4,806
$S_c(cr)$	(in <sup>3</sup> )		4,220		4,666	
$S_{xc}$	(in <sup>3</sup> )	3,013	4,200	3,053	4,635	5,051
DC1	(k/')	1,076	1,262	1,076	1,303	1,221
MDC1	(k)	1,092	2,377	709	4,107	1,926
DC2	(k/')	0,290	0,290	0,290	0,290	0,290
MDC2	(k)	253.8	496.2	186.3	811.1	423.5
DW	(k/')	0,33	0,33	0,33	0,33	0,33
MDW	(k)	307.3	657.9	212.8	1013.9	493.8
$M_k \cdot IM$	(k)	1,549	2,106	1,451	2,416	1,918
$f_i$ (Strength I)	(ksi)	5.0	1.0	5.2	1.3	4.9
$M_u + \frac{1}{3} f_i S_{xc}$	(k)	5,272	8,380	4,419	12,064	7,721
$\phi_r M_n$	(k)					
$f_s$ DC1	(ksi)	5.5	7.0	3.6	10.9	5.4
$f_s$ DC2	(ksi)	1.1	1.5	0.8	2.1	1.1
$f_s$ DW	(ksi)	1.3	1.9	0.9	2.7	1.3
$f_s$ ( $k+IM$ )	(ksi)	6.0	6.0	5.6	6.3	4.5
$f_i$ (Service II)	(ksi)	3.8	0.8	4.0	1.1	3.8
$f_s + \frac{1}{2} f_i$ (Service II)	(ksi)	17.6	18.6	14.6	24.4	15.6
$0.95R_n F_y f$	(ksi)	47.5	47.5	47.5	47.5	47.5
$f_s + \frac{1}{3}$						
(Total)(Strength I)	(ksi)	22.0	24.2	18.0	31.7	19.2
$\phi_r F_n$	(ksi)	50	48.8	50	48.8	50
Vr	(k)		37.8		34.9	

INTERIOR GIRDER 3 REACTION TABLE					
		Pier 4	Pier 1	Pier 2	Pier 3
RDC1	(k)	50.8	175.4	242.2	52.5
RDC2	(k)	9.0	29.7	40.8	6.3
RDW	(k)	15.2	51.2	63.6	14.7
$R_k \cdot IM$	(k)	81.2	133.4	140.9	83.3
R <sub>total</sub>	(k)	156.2	389.7	487.5	156.8

EXTERIOR GIRDER 4 MOMENT TABLE						
		0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.6 Sp. 3
$I_s$	(in <sup>4</sup> )	83,882	162,103	83,882	180,945	145,449
$I_c(n)$	(in <sup>4</sup> )	180,100		180,100		273,226
$I_c(3n)$	(in <sup>4</sup> )	130,400		130,400		201,963
$I_c(cr)$	(in <sup>4</sup> )		176,531		195,595	
$S_s$	(in <sup>3</sup> )	2,397	4,104	2,397	4,552	4,319
$S_c(n)$	(in <sup>3</sup> )	3,123		3,123		5,181
$S_c(3n)$	(in <sup>3</sup> )	2,837		2,837		4,795
$S_c(cr)$	(in <sup>3</sup> )		4,217		4,664	
$S_{xc}$	(in <sup>3</sup> )	3,071	4,198	3,019	4,638	5,146
DC1	(k/')	1,116	1,302	1,116	1,343	1,261
MDC1	(k)	469	2,292	983	3,442	445
DC2	(k/')	0,290	0,290	0,290	0,290	0,290
MDC2	(k)	134.8	551.4	202.2	774.3	137.9
DW	(k/')	0,33	0,33	0,33	0,33	0,33
MDW	(k)	164	586.7	250	838.9	169
$M_k \cdot IM$	(k)	1,531	2,154	1,581	2,417	1,881
$f_i$ (Strength I)	(ksi)	3.6	0.5	7.1	0.2	4.2
$M_u + \frac{1}{3} f_i S_{xc}$	(k)	3,987	8,262	5,218	10,784	4,874
$\phi_r M_n$	(k)					
$f_s$ DC1	(ksi)	2.4	6.8	5.0	9.1	1.3
$f_s$ DC2	(ksi)	0.6	1.6	0.9	2.0	0.4
$f_s$ DW	(ksi)	0.7	1.7	1.1	2.2	0.5
$f_s$ ( $k+IM$ )	(ksi)	5.9	6.2	6.1	6.3	4.4
$f_i$ (Service II)	(ksi)	2.7	0.4	5.3	0.2	3.2
$f_s + \frac{1}{2} f_i$ (Service II)	(ksi)	12.7	18.4	17.6	21.6	9.5
$0.95R_n F_y f$	(ksi)	47.5	47.5	47.5	47.5	47.5
$f_s + \frac{1}{3}$						
(Total)(Strength I)	(ksi)	16.0	24.0	21.5	28.3	11.6
$\phi_r F_n$	(ksi)	50	48.9	50	48.9	50
Vr	(k)		47.9		49.1	

EXTERIOR GIRDER 4 REACTION TABLE					
		Pier 4	Pier 1	Pier 2	Pier 3
RDC1	(k)	27.6	210.6	272.9	43.2
RDC2	(k)	9.0	56.2	67.8	17.3
RDW	(k)	7.0	50.2	63.6	10.3
$R_k \cdot IM$	(k)	78.3	142.1	150.3	74.0
R <sub>total</sub>	(k)	121.9	459.1	554.6	144.8

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

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

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

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

$S_{xc}$ : Section modulus about the major axis of section to the controlling flange, tension or compression, taken as yield moment with respect to the controlling flange over the yield strength of the controlling flange (in<sup>3</sup>).

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

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

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

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

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

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

$M_k \cdot IM$ : (Total) live load moment plus dynamic load allowance (impact)(kip-ft.).

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

$1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_k \cdot IM$

$f_i$ : Factored calculated normal stress at edge of flange for controlling flange plate due to lateral bending, Strength I or Service II as applicable (ksi).

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

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

$M_{DC1} / S_{nc}$

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

$M_{DC2} / S_c(3n)$  or  $M_{DC2} / S_c(cr)$  as applicable.

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

$M_{DW} / S_c(3n)$  or  $M_{DW} / S_c(cr)$  as applicable.

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

$M_k \cdot IM / S_c(n)$  or  $M_k \cdot IM / S_c(cr)$  as applicable.

$f_s + \frac{1}{2}$  (Service II): Sum of stresses as computed below (ksi).

$f_s DC1 + f_s DC2 + f_s DW + 1.3 f_s (k+IM) + \frac{1}{2}$

$0.95R_n F_y f$ : Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

$f_s + \frac{1}{3}$  (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).

$1.25 (f_s DC1 + f_s DC2) + 1.5 f_s DW + 1.75 f_s (k+IM) + \frac{1}{3}$

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

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

Note:

$M_k$  and  $R_k$  include the effects of centrifugal force and superelevation.

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**PARSONS BRINCKERHOFF**

USER NAME =	lopezgonzalez	DESIGNED -	IJL	REVISED -	
		CHECKED -	AH	REVISED -	
PLOT SCALE =	N.T.S.	DRAWN -	IJL	REVISED -	
PLOT DATE =	5/6/2016	CHECKED -	JIG	REVISED -	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE STEEL DETAILS IV - UNIT I  
STRUCTURE NO. 016-1710

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-08R&B	COOK	250	166
CONTRACT NO. 62B76				
ILLINOIS FED. AID PROJECT				

EXISTING RECORD DRAWINGS

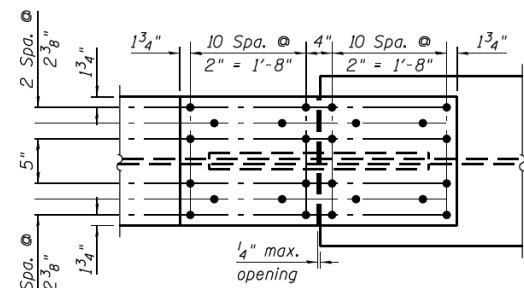
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

USER NAME =	ahmad,issa	DESIGNED -		REVISED -	
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PLOT SCALE =	N.T.S.	DRAWN -		REVISED -	
PLOT DATE =	7/26/2018	CHECKED -	MI, MAI	REVISED -	

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	771
CONTRACT NO. 60X79				
ILLINOIS FED. AID PROJECT				

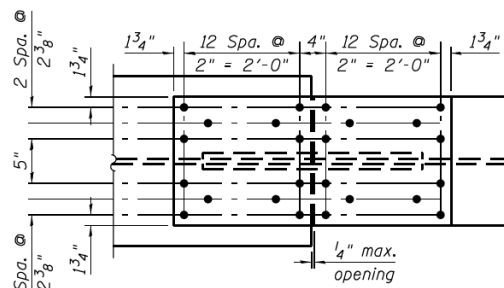
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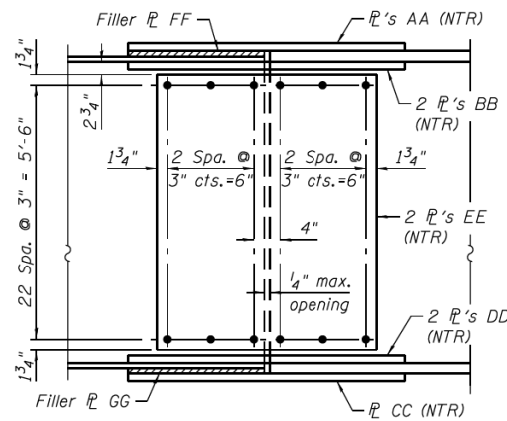
**SPLICE 1, 2 & 3**

(Looking at top of top flange)



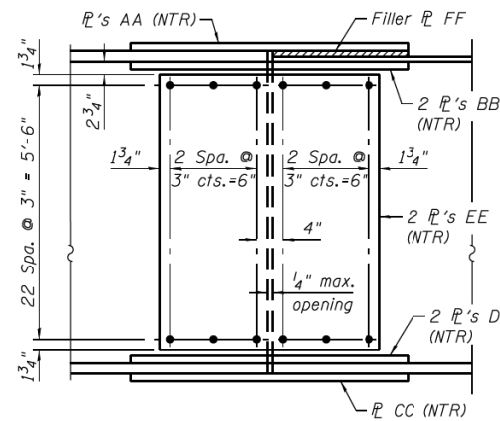
**SPLICE 4**

(Looking at top of top flange)



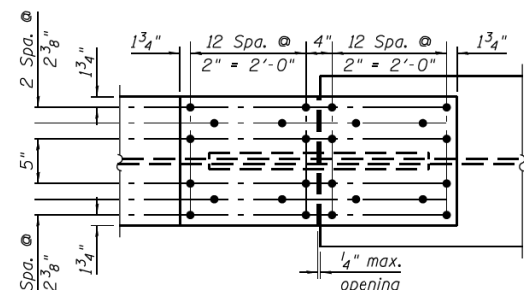
**SPLICE 1, 2 & 3**

**ELEVATION**



**SPLICE 4**

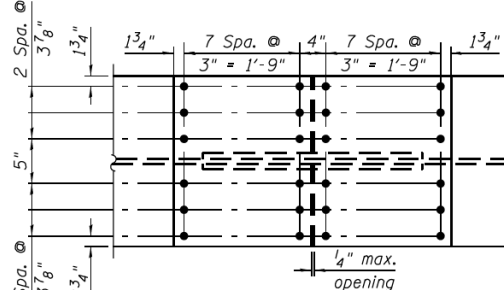
**ELEVATION**



**SPLICE 1, 2 & 3**

**PLAN**

(Looking at bottom of bottom flange)



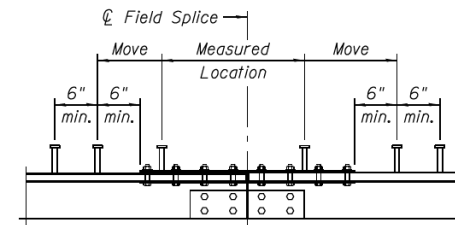
**SPLICE 4**

**PLAN**

(Looking at bottom of bottom flange)

**SPLICE PLATE DIMENSIONS**

Splice	R AA	R BB	R CC	R DD	R EE	Filler R FF	Filler R GG
1, 2	7/8"x1'-6"x3'-11 1/2"	1"x7 1/2"x3'-11 1/2"	1"x1'-6"x4'-7 1/2"	1 1/4"x7 1/2"x4'-7 1/2"	3/8"x1'-7 1/2"x5'-9 1/2"	1"x1'-6"x1'-11 5/8"	2"x1'-6"x2'-3 5/8"
3	7/8"x1'-6"x3'-11 1/2"	1"x7 1/2"x3'-11 1/2"	1"x1'-6"x4'-7 1/2"	1 1/4"x7 1/2"x4'-7 1/2"	3/8"x1'-7 1/2"x5'-9 1/2"	1 1/4"x1'-6"x1'-11 5/8"	3 1/4"x1'-6"x2'-3 5/8"
4	1"x1'-6"x4'-7 1/2"	1 1/4"x7 1/2"x4'-7 1/2"	1 1/4"x2'-0"x4'-1 1/2"	1 1/2"x10 1/2"x4'-1 1/2"	3/8"x1'-7 1/2"x5'-9 1/2"	3/8"x1'-6"x2'-3 5/8"	N/A



**SHEAR CONNECTOR DETAIL AT SPLICES**

DO NOT place shear connectors on splice plates. Move row of studs to 6" beyond nearest edge of splice plate from measured location.

**Notes:**

- AASHTO M270 Grade 50 steel shall be used for all splice plates, except fill plates which may be AASHTO M270 Grade 36 or 50.
- Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness (Zone 2), including all flange and web splice plates (except fill plates).
- Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts 7/8 in.  $\phi$ , holes 5/16 in.  $\phi$ , unless otherwise noted. Design assumes threads in shear plane and Class A slip surface.

0161710-62B76-S028-DET.dgn

**PARSONS BRINCKERHOFF**

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PLOT DATE = 5/6/2016	DRAWN - IJL	REVISED -
	CHECKED - JIG	REVISED -

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE STEEL DETAILS V - UNIT I  
STRUCTURE NO. 016-1710**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	167
CONTRACT NO. 62B76				

SHEET NO. S1-28 OF S1-53 SHEETS

ILLINOIS FED. AID PROJECT

**HBM**  
ENGINEERING GROUP, LLC

USER NAME = ahmad,issa	DESIGNED -	REVISED -
PLOT SCALE = N.T.S.	CHECKED -	REVISED -
PLOT DATE = 7/26/2018	DRAWN -	REVISED -
	CHECKED - MI, MAI	REVISED -

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**EXISTING RECORD DRAWINGS**

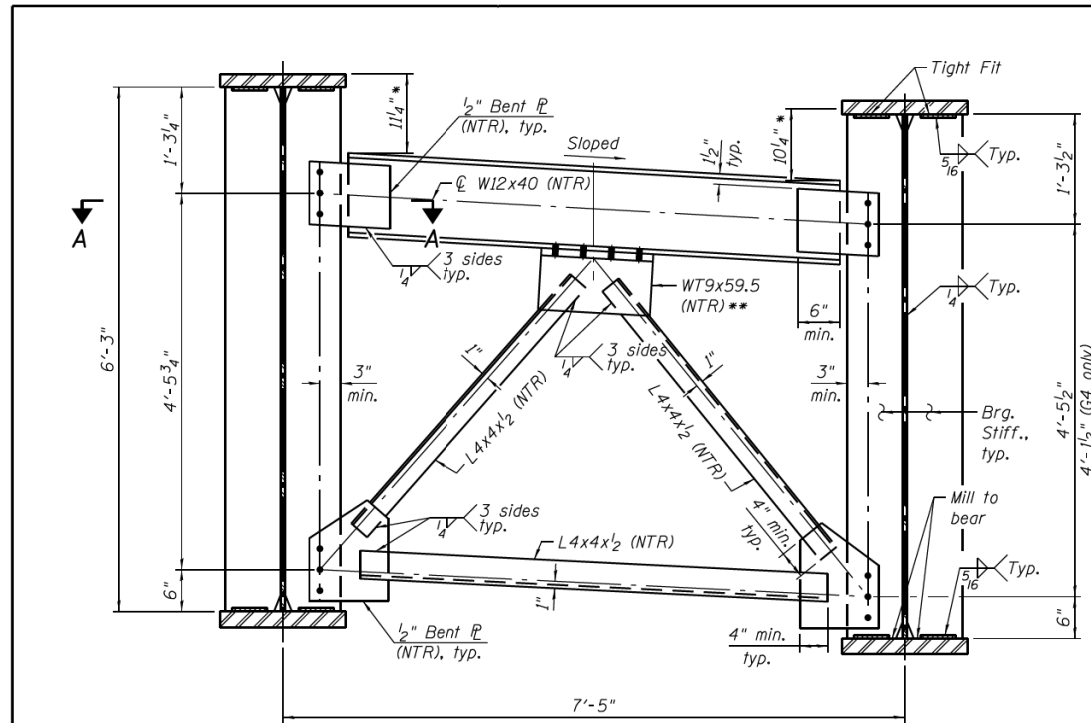
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	772
CONTRACT NO. 60X79				

ILLINOIS FED. AID PROJECT

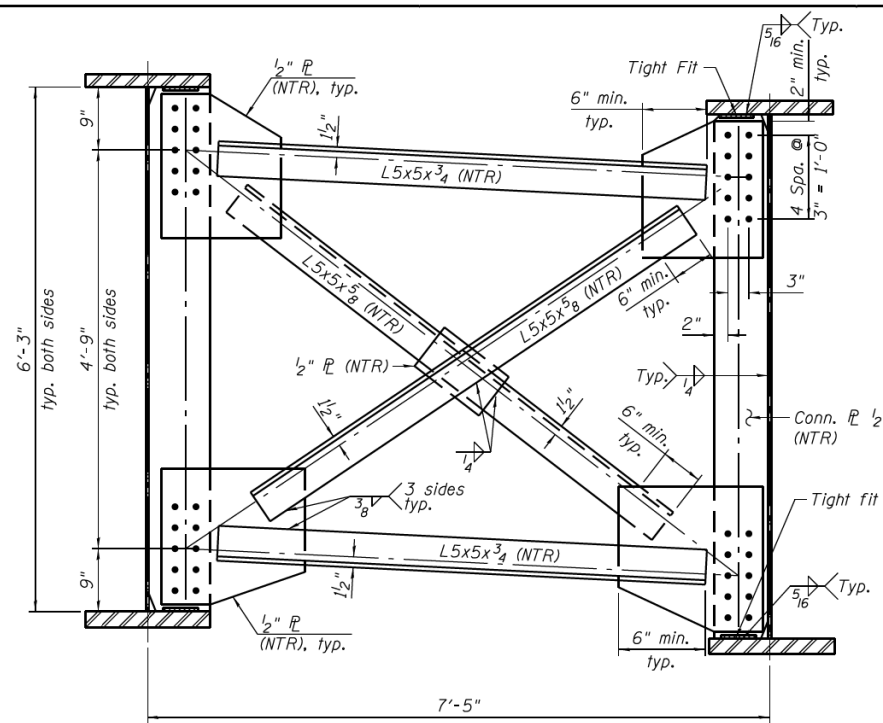
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# FOR INFORMATION ONLY

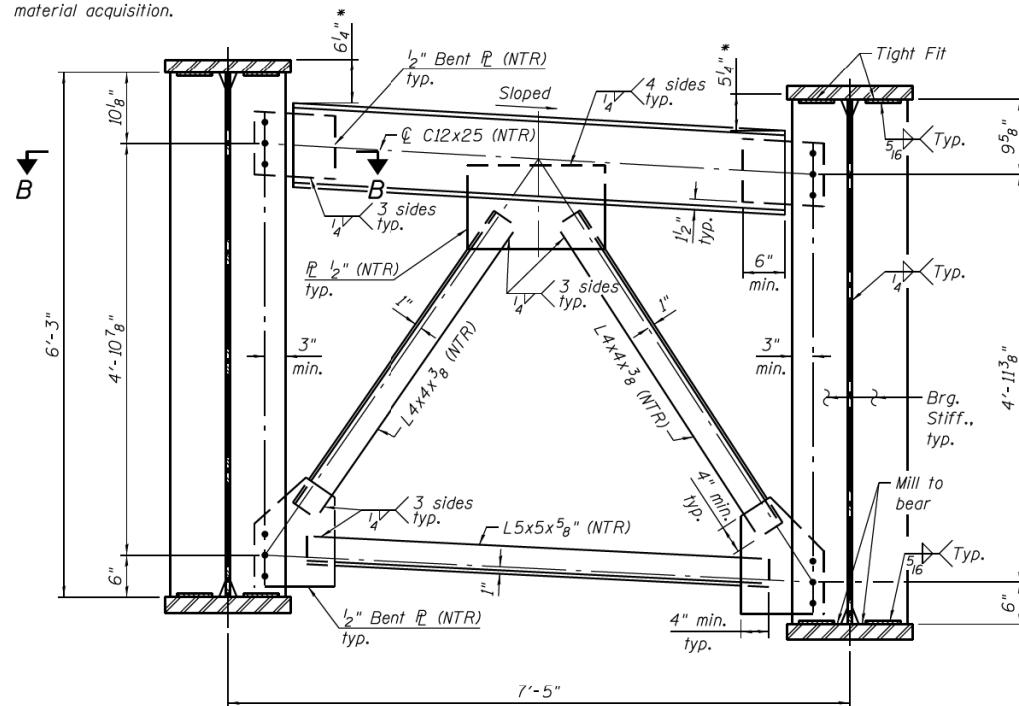


**END CROSS FRAME CF-1**  
(3 Required)

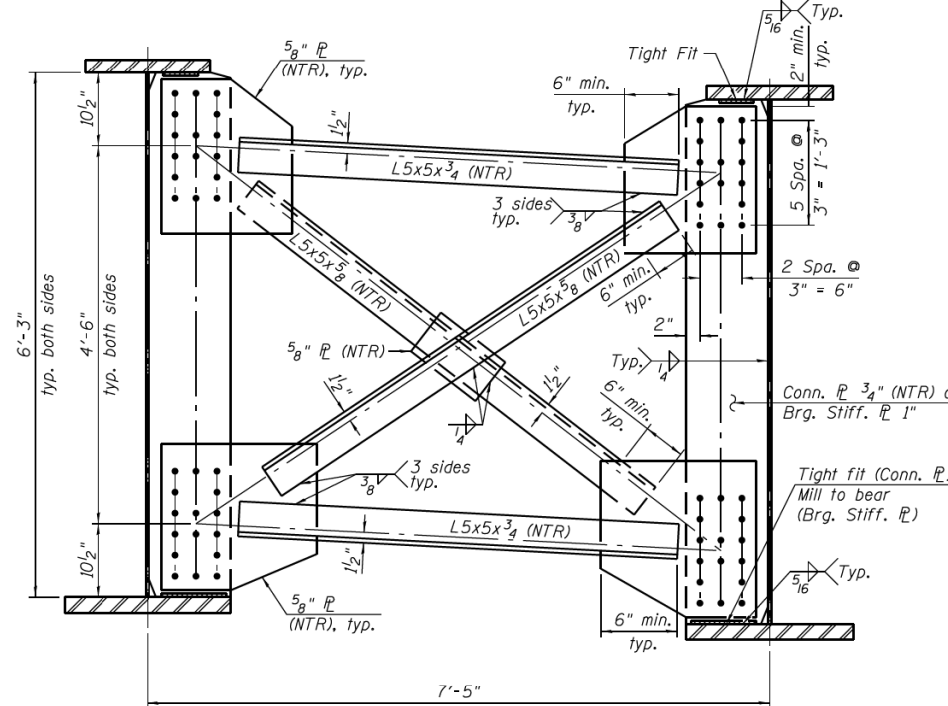


**INTERIOR CROSS FRAME CF-2**  
(55 Required)

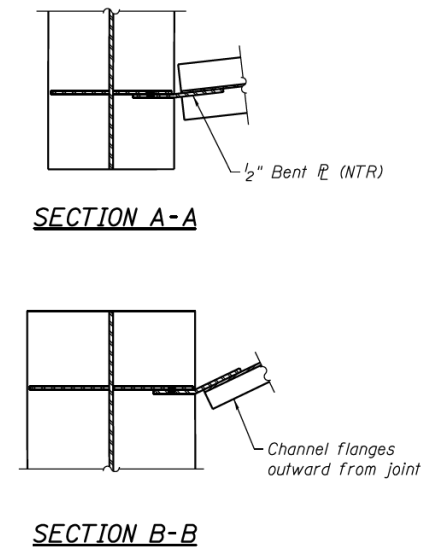
\* Contractor to coordinate with Modular Joint Manufacturer.  
 \*\* Alternate WT shapes utilizing 5/8" web thickness are permitted to facilitate material acquisition.



**END CROSS FRAME CF-3**  
(3 Required)



**INTERIOR CROSS FRAME CF-4**  
(21 Required)



- Notes:
- See sheet S1-23 for location of girder cross frames.
  - AASHTO M270 Grade 50 steel shall be used for all cross frames, connection plates, and bearing stiffeners, unless noted otherwise.
  - Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness (Zone 2), including all flange and web splice plates (except fill plates).
  - Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts 7/8 in.  $\phi$ , holes 15/16 in.  $\phi$ , unless otherwise noted. Two hardened washers required for each set of oversized holes. Bolt spacing shall be 3" min. and edge distances shall be 2" min.
  - All cross frames or diaphragms between beams or girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
  - Erection shall be accomplished by a steel erection contractor or sub-contractor certified as an Advanced Certified Steel Erector (ACSE) by the American Institute of Steel Construction (AISC). See special provision for "Erection of Complex Steel Structures".
  - If any field reaming is required, two hardened washers are required for each oversized bolt hole.
  - The Contractor shall either:
    - Ream cross frame connection holes during shop assembly, or
    - Provide detailing fabrication controls acceptable to the Engineer which ensures accuracy such that field reaming will not exceed the amount permitted in Article 505.08(1) of the Standard Specifications.

**PARSONS BRINCKERHOFF**

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PLOT DATE = 5/6/2016	DRAWN - IJL	REVISED -
	CHECKED - JIG	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE STEEL DETAILS VI - UNIT I  
STRUCTURE NO. 016-1710

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	168
CONTRACT NO. 62B76				

**HBM**  
ENGINEERING GROUP, LLC

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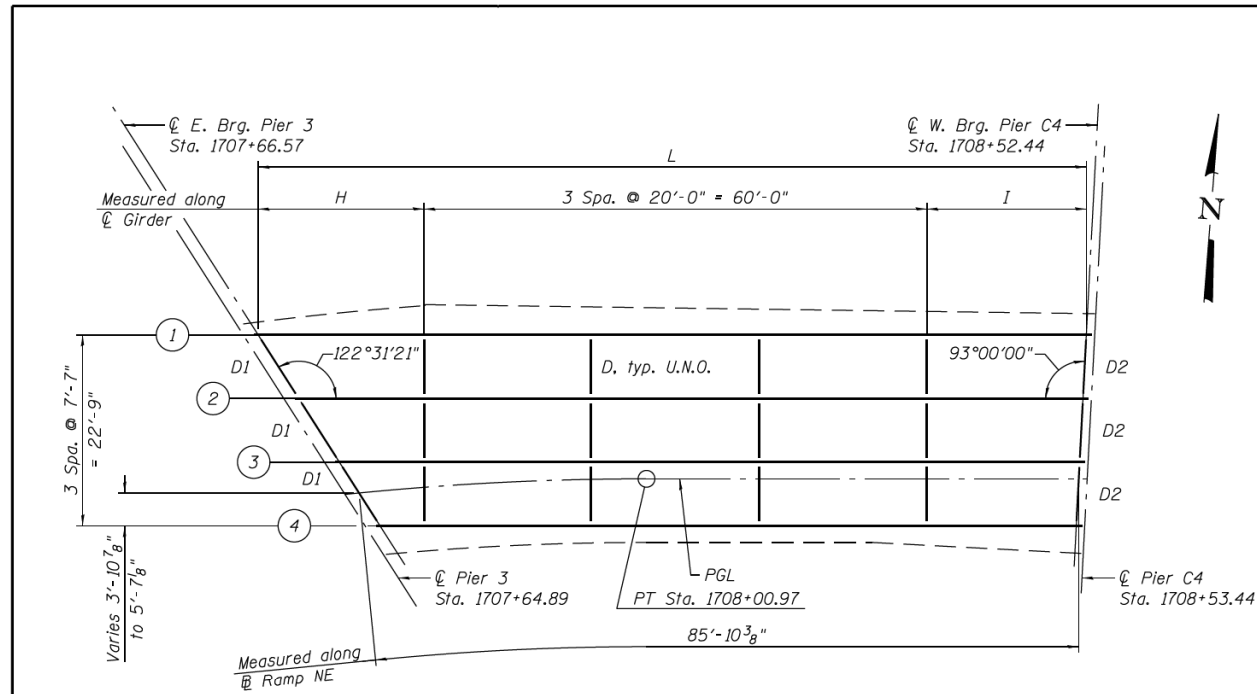
EXISTING RECORD DRAWINGS

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CONTRACT NO. 60X79				

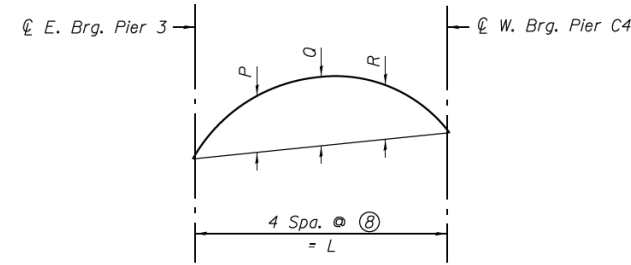
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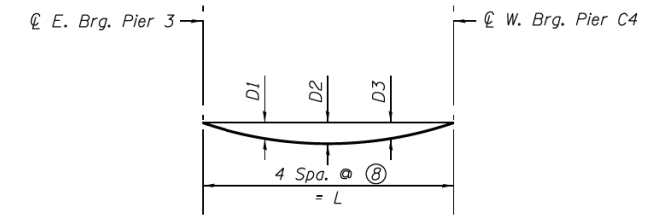
FRAMING PLAN - UNIT II



CAMBER DIAGRAM

CAMBER DIMENSIONS

Girder	P	Q	R
1	2"	3 1/2"	2 1/2"
2	1 3/4"	3 1/4"	2 1/4"
3	1 3/4"	3"	2"
4	1 1/2"	2 1/2"	1 3/4"



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of structural steel only.)

Girder No.	Span 4			
	D1	D2	D3	⊙
1	5/8"	7/8"	5/8"	±20'-9 1/4"
2	1/2"	11/16"	1/2"	±22'-0 3/4"
3	3/8"	9/16"	3/8"	±23'-4 1/2"
4	5/16"	7/16"	5/16"	±24'-8 1/8"

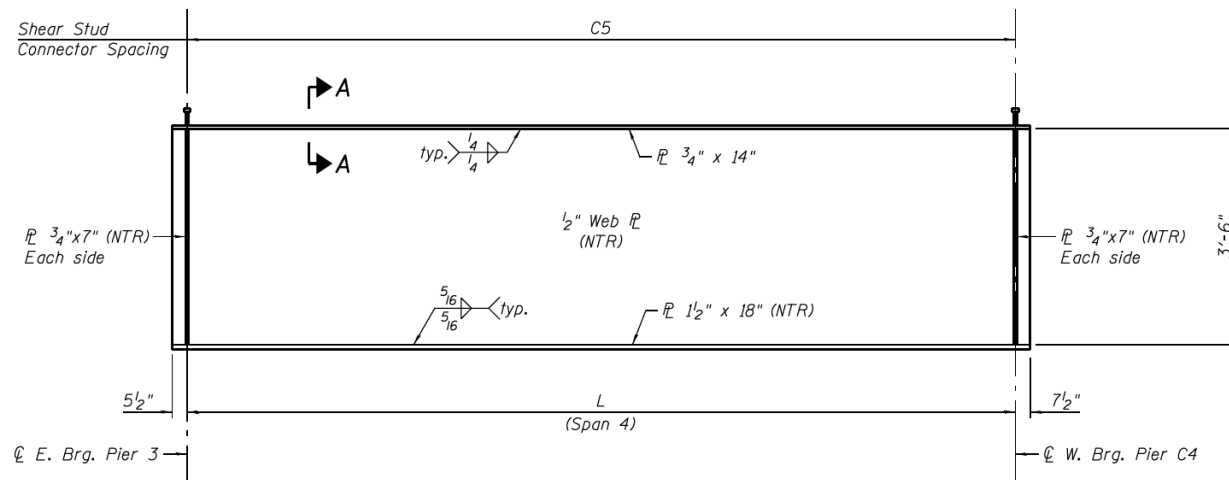
GIRDER DIMENSIONS & SHEAR STUD CONNECTOR SPACING

Girder	H	I	L	C5
1	19'-9 1/8"	18'-11 5/8"	98'-8 3/4"	79 Spa. @ ±15"
2	14'-11"	18'-6 3/8"	93'-5 3/8"	75 Spa. @ ±15"
3	10'-1 1/8"	18'-2 1/8"	88'-3 1/4"	71 Spa. @ ±14 7/8"
4	5'-3"	17'-9 3/8"	83'-0 3/8"	67 Spa. @ ±14 7/8"

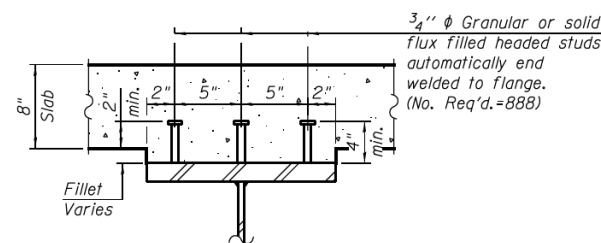
TOP OF WEB ELEVATIONS

(For Fabrication only)

Girder	⊙ E. Brg. Pier 3	⊙ W. Brg. Pier C4
1	609.96	610.92
2	609.71	610.91
3	609.33	610.77
4	608.99	610.63



GIRDER ELEVATION - UNIT II



SECTION A-A

Notes:

- See Sheets S1-31 for steel details.
- See Sheet S1-32 for moment tables & reaction tables.
- All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
- Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.

**PARSONS BRINCKERHOFF**

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	CHECKED - JIG	REVISIONS -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN - UNIT II  
STRUCTURE NO. 016-1710

SHEET NO. S1-30 OF S1-53 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	169
CONTRACT NO. 62B76				

EXISTING RECORD DRAWINGS

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

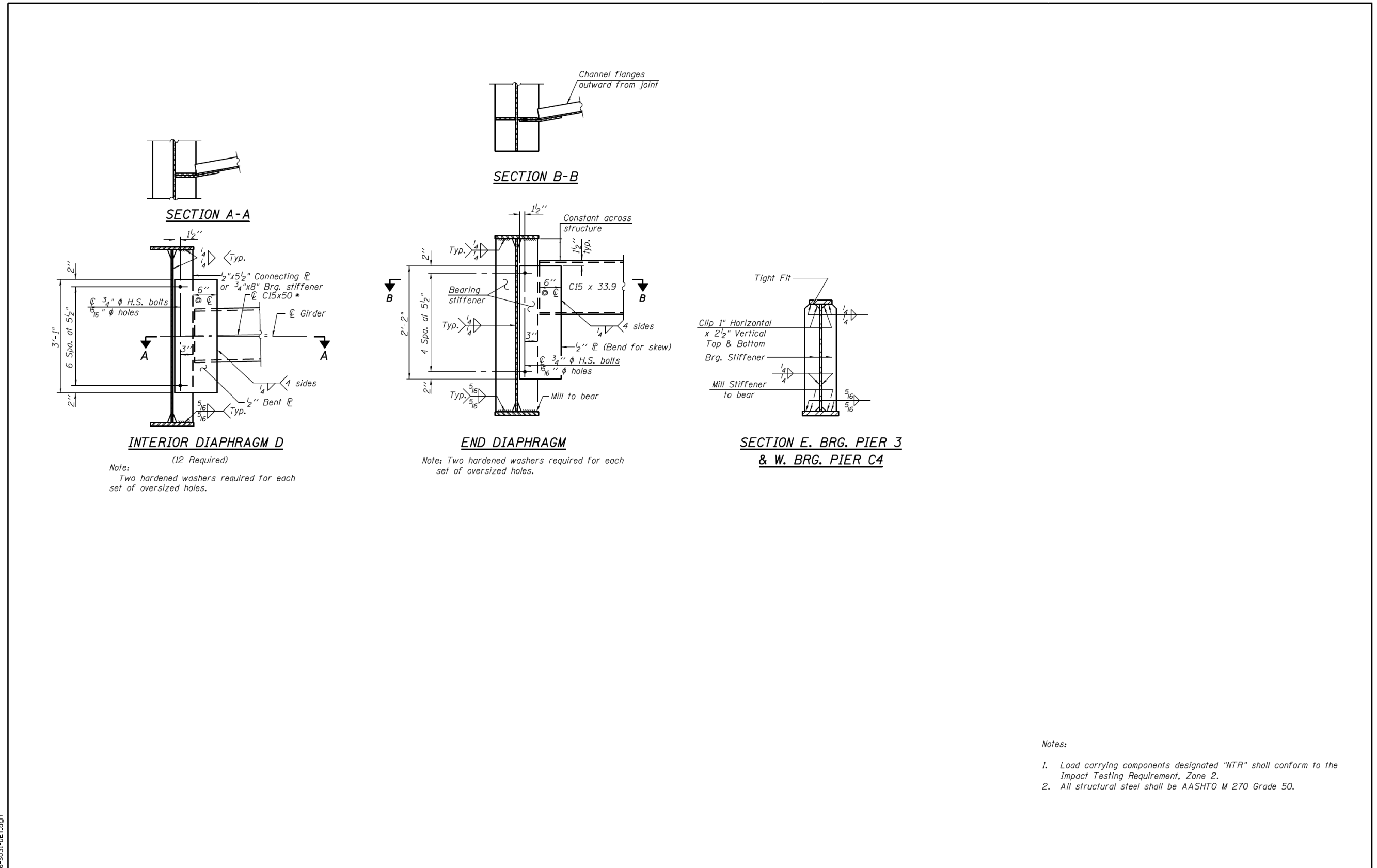
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90/94/290	2014-005R&B	COOK	888	774
CONTRACT NO. 60X79				

**HBM**  
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USER NAME = ahmad,issa	DESIGNED -	REVISIONS -
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Note:  
Two hardened washers required for each set of oversized holes.

Note: Two hardened washers required for each set of oversized holes.

Notes:  
1. Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.  
2. All structural steel shall be AASHTO M 270 Grade 50.

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<b>PARSONS BRINCKERHOFF</b> USER NAME = lopezgonzalez DESIGNED - PJL CHECKED - AH PLOT SCALE = N.T.S. DRAWN - PJL PLOT DATE = 5/6/2016 CHECKED - JIG REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION SUPERSTRUCTURE STEEL DETAILS I- UNIT II STRUCTURE NO. 016-1710 SHEET NO. S1-31 OF S1-53 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		90/94/290	2015-080R&B	COOK	250	170
<b>HBM</b> ENGINEERING GROUP, LLC USER NAME = ahmad,issa DESIGNED - CHECKED - PLOT SCALE = N.T.S. DRAWN - PLOT DATE = 7/26/2018 CHECKED - MI, MAI REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION EXISTING RECORD DRAWINGS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		90/94/290	2014-005R&B	COOK	888	775
		ILLINOIS		FED. AID PROJECT		

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# FOR INFORMATION ONLY

		0.5 Sp. 4
$I_s$	(in <sup>4</sup> )	18,412
$I_c(n)$	(in <sup>4</sup> )	56,601
$I_c(3n)$	(in <sup>4</sup> )	38,655
$I_c(cr)$	(in <sup>4</sup> )	
$S_s$	(in <sup>3</sup> )	1,130
$S_c(n)$	(in <sup>3</sup> )	1,603
$S_c(3n)$	(in <sup>3</sup> )	1,463
$S_c(cr)$	(in <sup>3</sup> )	
$DC1$	(k/')	1.00
$M_{DC1}$	(k)	1,206
$DC2$	(k/')	0.30
$M_{DC2}$	(k)	353
$DW$	(k/')	0.38
$M_{DW}$	(k)	447
$M_k + IM$	(k)	1,582
$M_u$ (Strength I)	(k)	5,388
$\phi_r M_n$	(k)	7,260
$f_s DC1$	(ksi)	12.9
$f_s DC2$	(ksi)	2.9
$f_s DW$	(ksi)	3.7
$f_s (\pm IM)$	(ksi)	11.9
$f_s$ (Service II)	(ksi)	35.0
$0.95R_n F_y$	(ksi)	47.5
$f_s$ (Total)(Strength I)	(ksi)	46.1
$\phi_r F_n$	(ksi)	
$V_r$	(k)	37.0

	E. Brg. Pier 3	W. Brg. Pier C4
$R_{DC1}$	(k) 47.5	48.1
$R_{DC2}$	(k) 14.4	14.7
$R_{DW}$	(k) 18.3	18.6
$R_k + IM$	(k) 62.5	70.0
$R_{Total}$	(k) 142.7	151.4

		0.5 Sp. 4
$I_s$	(in <sup>4</sup> )	18,412
$I_c(n)$	(in <sup>4</sup> )	57,977
$I_c(3n)$	(in <sup>4</sup> )	39,831
$I_c(cr)$	(in <sup>4</sup> )	
$S_s$	(in <sup>3</sup> )	1,130
$S_c(n)$	(in <sup>3</sup> )	1,610
$S_c(3n)$	(in <sup>3</sup> )	1,475
$S_c(cr)$	(in <sup>3</sup> )	
$DC1$	(k/')	1.00
$M_{DC1}$	(k)	1,101
$DC2$	(k/')	0.30
$M_{DC2}$	(k)	333
$DW$	(k/')	0.38
$M_{DW}$	(k)	421
$M_k + IM$	(k)	1,543
$M_u$ (Strength I)	(k)	5,124
$\phi_r M_n$	(k)	7,359
$f_s DC1$	(ksi)	11.7
$f_s DC2$	(ksi)	2.8
$f_s DW$	(ksi)	3.5
$f_s (\pm IM)$	(ksi)	11.5
$f_s$ (Service II)	(ksi)	33.0
$0.95R_n F_y$	(ksi)	47.5
$f_s$ (Total)(Strength I)	(ksi)	43.5
$\phi_r F_n$	(ksi)	
$V_r$	(k)	46.0

	E. Brg. Pier 3	W. Brg. Pier C4
$R_{DC1}$	(k) 47.7	47.8
$R_{DC2}$	(k) 14.3	14.2
$R_{DW}$	(k) 18.1	18.0
$R_k + IM$	(k) 82.7	82.4
$R_{Total}$	(k) 162.8	162.4

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

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

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

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

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

$M_{DC1}$ : Un-factored moment due to non-composite dead load (kip-ft.).

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

$M_{DC2}$ : Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

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

$M_{DW}$ : Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

$M_k + IM$ : Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

$M_u$  (Strength I): Factored design moment (kip-ft.).  
 $1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_k + IM$

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

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

$f_s DC2$ : Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).  
 $M_{DC2} / S_c(3n)$  or  $M_{DC2} / S_c(cr)$  as applicable.

$f_s DW$ : Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).  
 $M_{DW} / S_c(3n)$  or  $M_{DW} / S_c(cr)$  as applicable.

$f_s (\pm IM)$ : Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).  
 $M_k + IM / S_c(n)$  or  $M_{DW} / S_c(cr)$  as applicable.

$f_s$  (Service II): Sum of stresses as computed below (ksi).  
 $f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3 f_s (\pm IM)$

$0.95R_n F_y$ : Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

$f_s$  (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).  
 $1.25 (f_{sDC1} + f_{sDC2}) + 1.5 f_{sDW} + 1.75 f_s (\pm IM)$

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

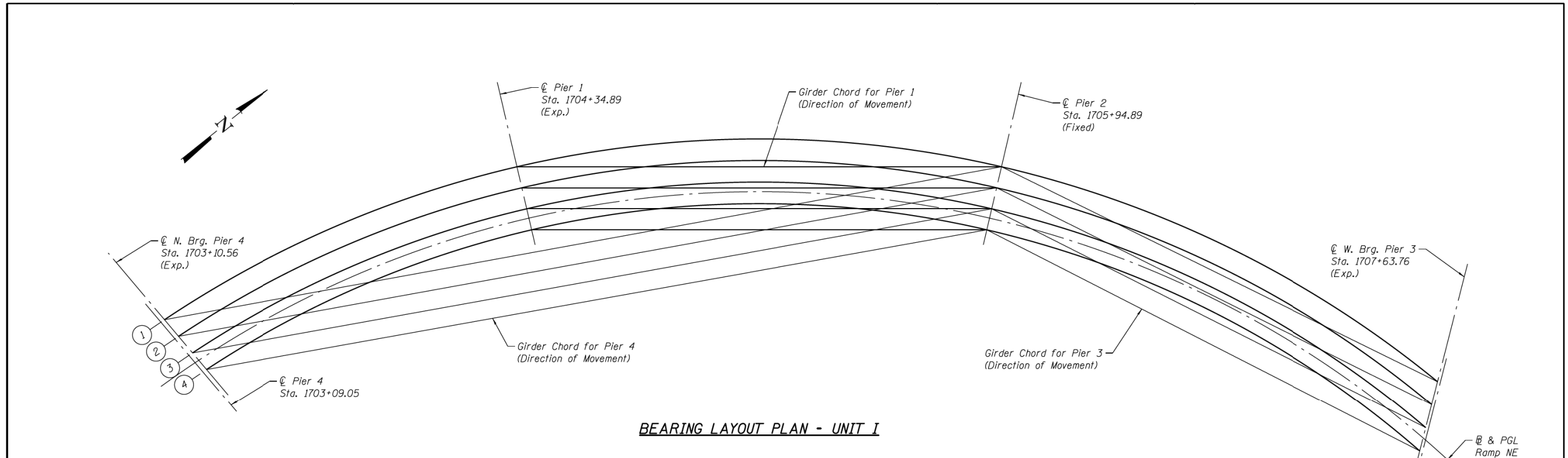
$V_r$ : Maximum factored shear range in span computed according to Article 6.10.10.

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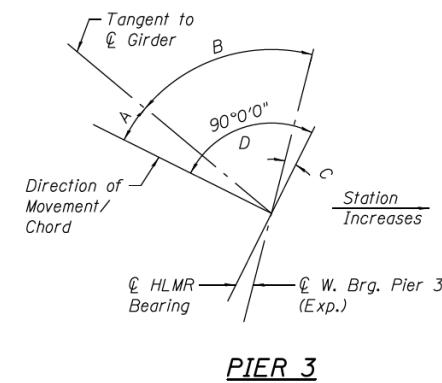
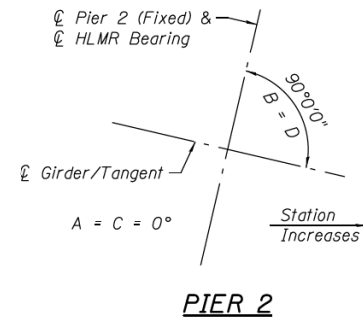
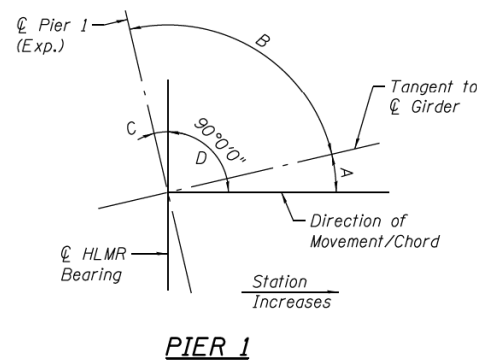
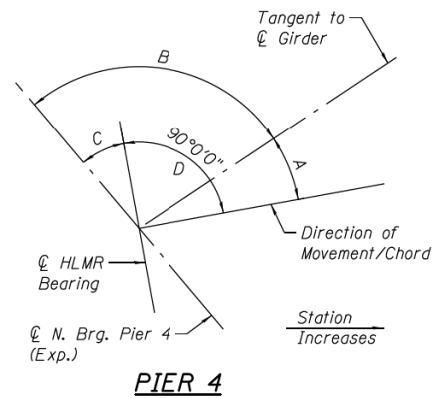
<b>PARSONS BRINCKERHOFF</b> USER NAME = lopezgonzalez DESIGNED - PJL CHECKED - AH REVISIONS - PLOT SCALE = N.T.S. DRAWN - PJL REVISIONS - PLOT DATE = 5/6/2016 CHECKED - JIG REVISIONS -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DESIGNED - PJL CHECKED - AH REVISIONS - DRAWN - PJL REVISIONS - CHECKED - JIG REVISIONS -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b> SUPERSTRUCTURE STEEL DETAILS II - UNIT II <b>STRUCTURE NO. 016-1710</b> SHEET NO. S1-32 OF S1-53 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			90/94/290	2015-080R&B	COOK	250	171
			ILLINOIS FED. AID PROJECT				
<b>HBM</b> ENGINEERING GROUP, LLC USER NAME = ahmad,issa DESIGNED - CHECKED - REVISIONS - PLOT SCALE = N.T.S. DRAWN - REVISIONS - PLOT DATE = 7/26/2018 CHECKED - MI, MAI REVISIONS -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DESIGNED - CHECKED - REVISIONS - DRAWN - REVISIONS - CHECKED - MI, MAI REVISIONS -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b> EXISTING RECORD DRAWINGS SHEET NO. S1-32 OF S1-53 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			90/94/290	2014-005R&B	COOK	888	776
			ILLINOIS FED. AID PROJECT				

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# FOR INFORMATION ONLY



BEARING LAYOUT PLAN - UNIT I



BEARING ORIENTATION - UNIT I

BEARING ORIENTATION ANGLES

Girder	Pier 4			Pier 1			Pier 3		
	A	B	C	A	B	C	A	B	C
1	23°13'55"	96°46'52"	30°0'47"	13°5'46"	90°0'0"	13°5'46"	13°59'36"	63°13'35"	12°46'49"
2	23°18'13"	96°38'17"	29°56'30"	13°5'46"	90°0'0"	13°5'46"	13°41'26"	63°49'54"	12°28'40"
3	23°22'20"	96°30'3"	29°52'23"	13°5'46"	90°0'0"	13°5'46"	13°24'7"	64°24'33"	12°11'20"
4	23°26'16"	96°22'10"	29°48'26"	13°5'46"	90°0'0"	13°5'46"	13°7'34"	64°57'39"	11°54'47"

A = Angle between Tangent to Girder and Direction of Movement/Chord.  
 B = Angle between Tangent to Girder and  $\phi$  of Pier.  
 C = Setting angle between  $\phi$  of Bearing Base Plate and  $\phi$  of Pier.  
 D = Set Bearing Base Plates at right angles to the Direction of Movement/Chord.

Notes:  
 1. Each Girder Chord is constructed as a straight line from  $\phi$  bearing at a Fixed Pier, in the direction of expansion, to  $\phi$  of bearing at each Expansion Pier.

**PARSONS BRINCKERHOFF**

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STATE OF ILLINOIS  
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BEARING LAYOUT - UNIT I  
STRUCTURE NO. 016-1710

SHEET NO. S1-33 OF S1-53 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	172
CONTRACT NO. 62B76				

**HBM**  
ENGINEERING GROUP, LLC

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING RECORD DRAWINGS

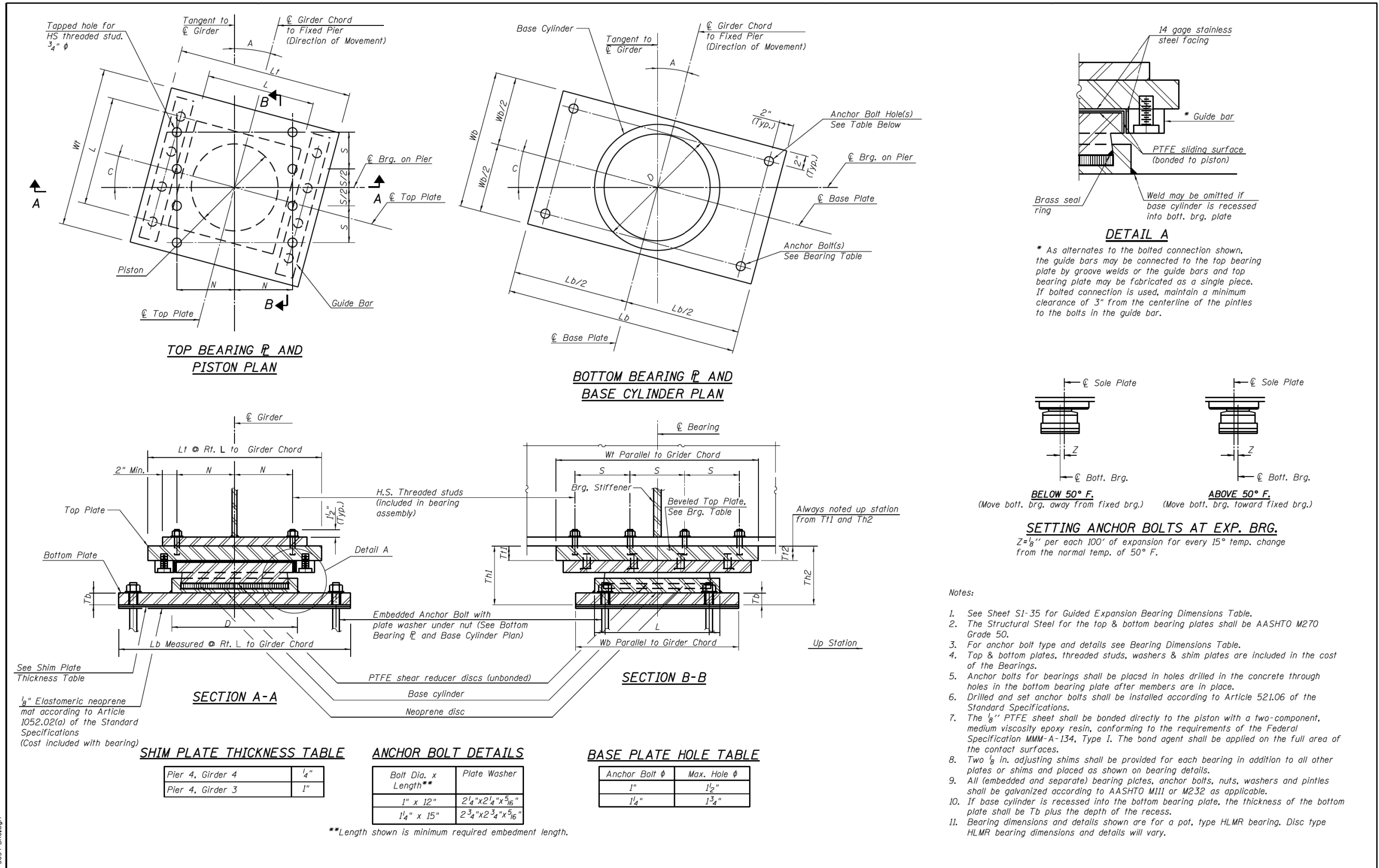
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90/94/290	2014-005R&B	COOK	888	777
CONTRACT NO. 60X79				

ILLINOIS FED. AID PROJECT

FILE NAME: D:\161749-PWINT-aecomonline.local\AECOM\_DS02\_NAD\Documents\01\_Americas\Transportation\60269938\_Circle\Phase\_I\000\_CAD\008\_Structural\Structure\_016-1712\Existing\_Plans\016-1712-60X79-Sxx-Existing\_36

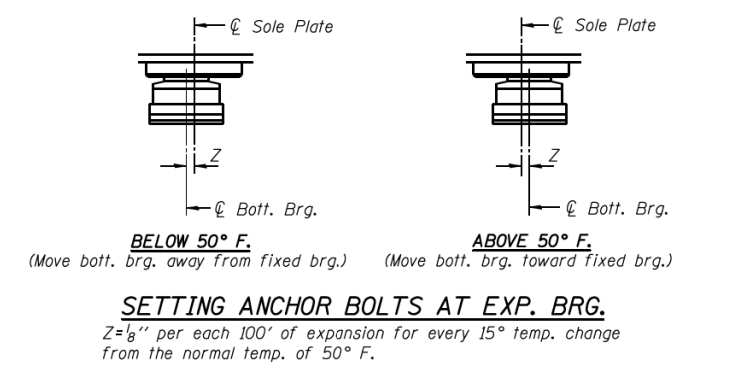
0161710-62B76-5033-BRC.dgn

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**DETAIL A**

\* As alternates to the bolted connection shown, the guide bars may be connected to the top bearing plate by groove welds or the guide bars and top bearing plate may be fabricated as a single piece. If bolted connection is used, maintain a minimum clearance of 3" from the centerline of the pintles to the bolts in the guide bar.



- Notes:
- See Sheet SI-35 for Guided Expansion Bearing Dimensions Table.
  - The Structural Steel for the top & bottom bearing plates shall be AASHTO M270 Grade 50.
  - For anchor bolt type and details see Bearing Dimensions Table.
  - Top & bottom plates, threaded studs, washers & shim plates are included in the cost of the Bearings.
  - Anchor bolts for bearings shall be placed in holes drilled in the concrete through holes in the bottom bearing plate after members are in place.
  - Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
  - The 1/8" PTFE sheet shall be bonded directly to the piston with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.
  - Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
  - All (embedded and separate) bearing plates, anchor bolts, nuts, washers and pintles shall be galvanized according to AASHTO M111 or M232 as applicable.
  - If base cylinder is recessed into the bottom bearing plate, the thickness of the bottom plate shall be T<sub>b</sub> plus the depth of the recess.
  - Bearing dimensions and details shown are for a pot, type HLMR bearing. Disc type HLMR bearing dimensions and details will vary.

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	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>		<b>EXISTING RECORD DRAWINGS</b>		ILLINOIS FED. AID PROJECT	SECTION 2014-005R&B	COUNTY COOK	TOTAL SHEETS 888	SHEET NO. 778

CONTRACT NO. 62B76

CONTRACT NO. 60X79

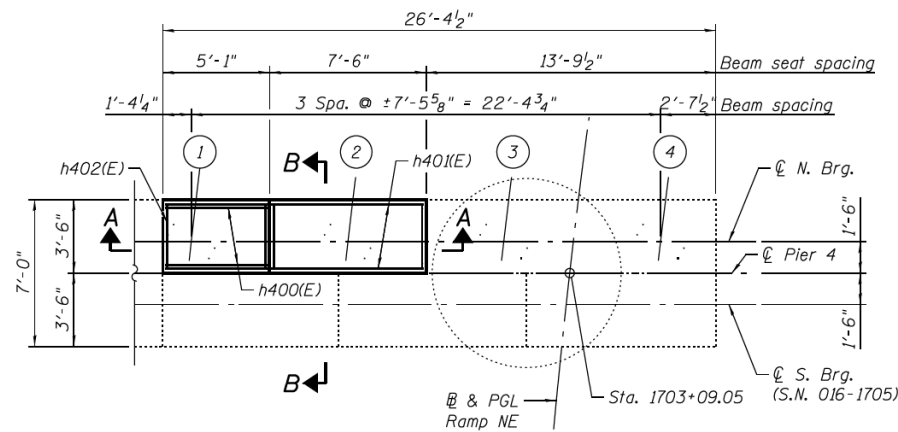
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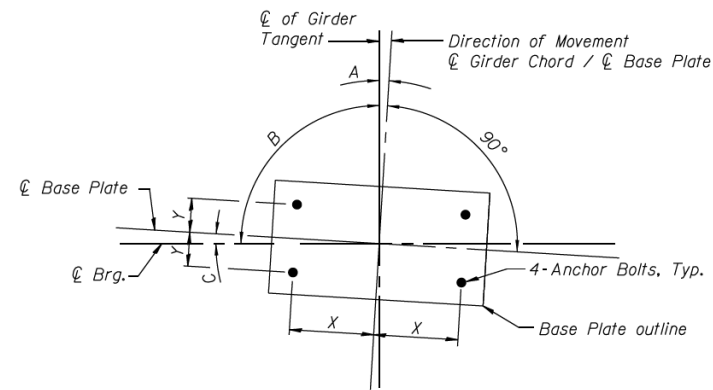
GUIDED EXPANSION BEARING DIMENSIONS TABLE

Brg. Location	Vertical Design Load (kips)	Lateral Design Load (kips)	Total Required Movement (inches)	Design Rotation (radians)	Bottom Bearing Plate			Top Bearing Plate					*Th1	*Th2	*L	*D	Anchor Bolt Dia.	Anchor Bolt Specification Grade	
					Tb	Lb	Wb	Tt1	Tt2	Lt	Wt	N							S
Pier 4	224.3	44.9	2"	0.0002	2 1/2"	2'-7"	1'-0 3/4"	2"	2"	1'-5"	1'-2"	5"	3"	8 1/2"	8 1/2"	1'-0"	11 3/4"	1"	F1554, Grade 36
Pier 1	442.2	88.4	1 1/4"	0.0001	2 1/2"	3'-0"	1'-4 3/4"	3 1/2"	2 3/4"	1'-10"	1'-5 3/4"	5"	4 3/4"	11 5/8"	10 7/8"	1'-8"	1'-3 3/4"	1 1/4"	F1554, Grade 36
Pier 3	377.5	75.5	1 1/4"	0.0001	2 1/2"	3'-0"	1'-4"	2 5/8"	2 7/8"	1'-8 1/2"	1'-5"	7"	4"	10 1/4"	10 1/2"	1'-3"	1'-3"	1"	F1554, Grade 36

\* Dimensions may vary depending on manufacturer's design



PARTIAL TOP PLAN - PIER 4



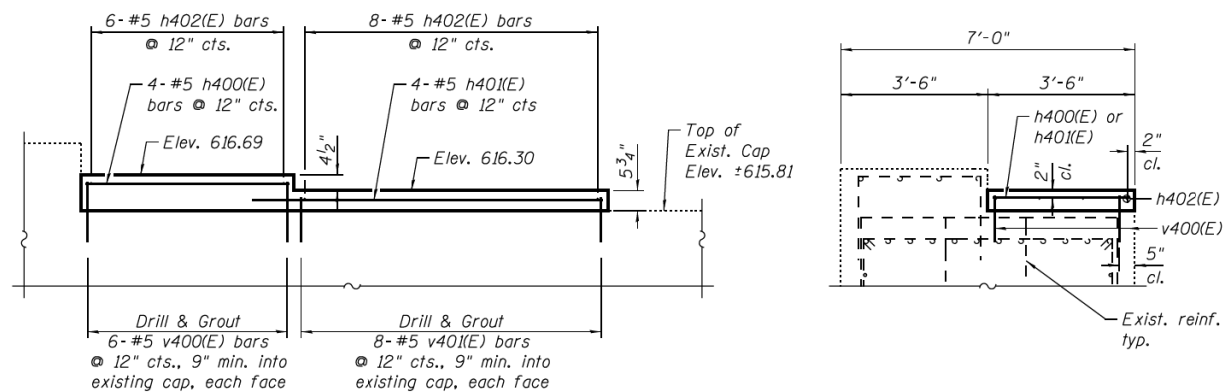
ANCHOR BOLT LOCATION DETAIL

Location	X	Y	A	B	C
Pier 4	1'-1 1/2"	3 3/8"	**	**	**
Pier 1	1'-4"	6 3/8"	13°05'46"	90°00'00"	13°05'46"
Pier 3	1'-4"	6"	**	**	**

\*\* Angle varies by girder. See sheet S1-33 for Bearing Orientation Angles Table.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h400(E)	4	#5	4'-9"	—
h401(E)	4	#5	12'-3"	—
h402(E)	14	#5	3'-2"	—
v400(E)	12	#5	1'-7"	—
v401(E)	16	#5	1'-3"	—
Concrete Structures		Cu. Yd.	1.0	
Reinforcement Bars, Epoxy Coated		Pound	160	
Concrete Sealer		Sq. Ft.	55	
High Load Multi-Rotation Bearings, Guided Expansion, 250k.		Each	4	
High Load Multi-Rotation Bearings, Guided Expansion, 400k.		Each	4	
High Load Multi-Rotation Bearings, Guided Expansion, 450k.		Each	4	
Anchor Bolts, 1"		Each	32	
Anchor Bolts, 1 1/4"		Each	16	



SECTION A-A

SECTION B-B

Notes:

- See Sheet S1-34 for Guided Expansion Bearing details.
- See Sheet S1-33 for bearing layout & orientation.
- Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
- Space reinforcement in cap to miss anchor bolts.
- Drilling and grouting of bars into existing pier cap shall be done in accordance with Art. 584 of the Std. Specs. Drilled and grouted bars shall maintain 5" clearance from an existing face of concrete and shall be installed such that they miss existing pier cap reinforcement. Cost included with Reinforcement Bars, Epoxy Coated.

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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BEARING DETAILS II - UNIT I  
STRUCTURE NO. 016-1710

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	174
CONTRACT NO. 62B76				

EXISTING RECORD DRAWINGS

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

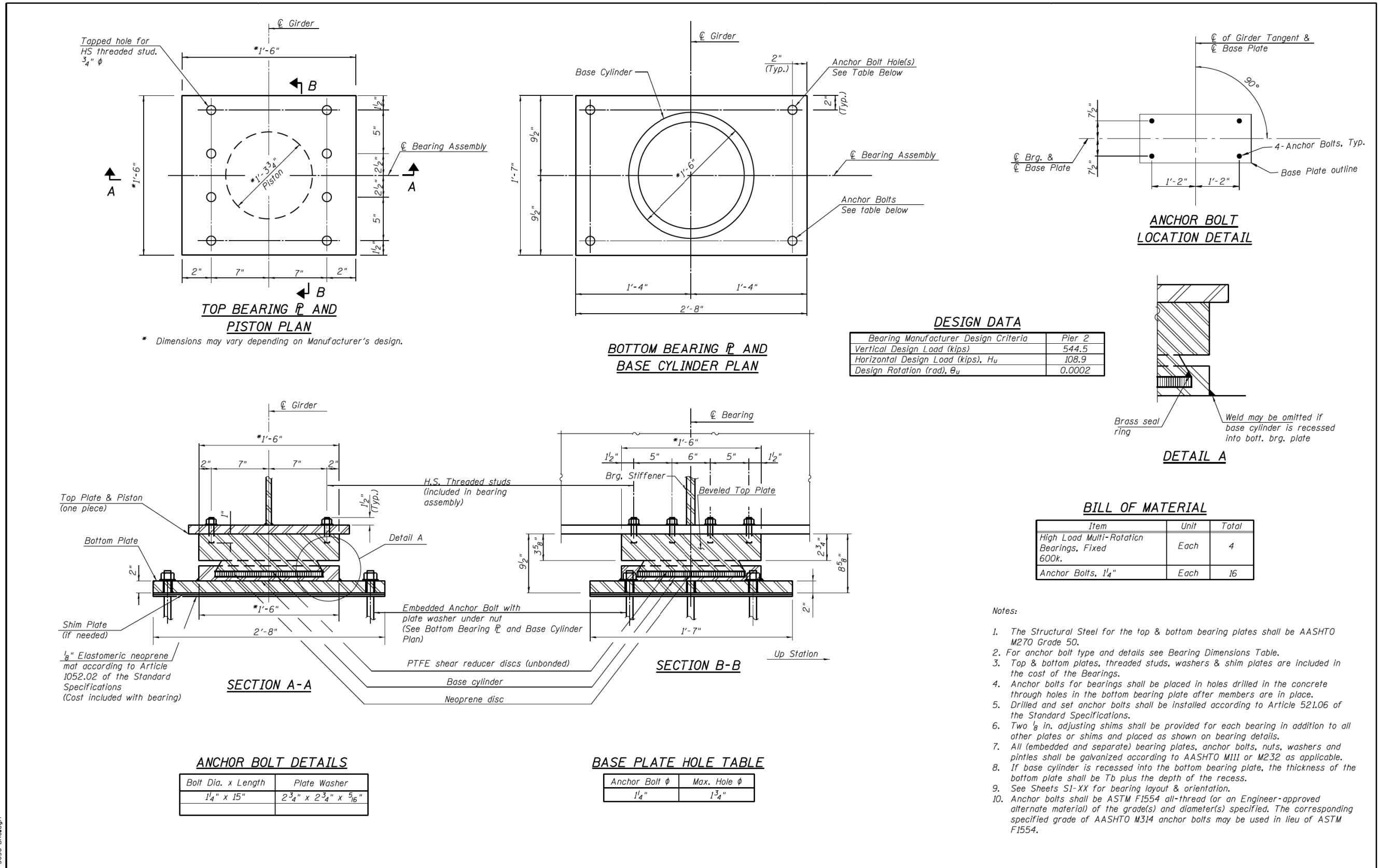
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	779
CONTRACT NO. 60X79				

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\* Dimensions may vary depending on Manufacturer's design.

### DESIGN DATA

Bearing Manufacturer Design Criteria	Pier 2
Vertical Design Load (kips)	544.5
Horizontal Design Load (kips), $H_u$	108.9
Design Rotation (rad), $\theta_u$	0.0002

### BILL OF MATERIAL

Item	Unit	Total
High Load Multi-Rotation Bearings, Fixed 600k.	Each	4
Anchor Bolts, 1/4"	Each	16

#### Notes:

- The Structural Steel for the top & bottom bearing plates shall be AASHTO M270 Grade 50.
- For anchor bolt type and details see Bearing Dimensions Table.
- Top & bottom plates, threaded studs, washers & shim plates are included in the cost of the Bearings.
- Anchor bolts for bearings shall be placed in holes drilled in the concrete through holes in the bottom bearing plate after members are in place.
- Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
- Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
- All (embedded and separate) bearing plates, anchor bolts, nuts, washers and pintles shall be galvanized according to AASHTO M111 or M232 as applicable.
- If base cylinder is recessed into the bottom bearing plate, the thickness of the bottom plate shall be  $T_b$  plus the depth of the recess.
- See Sheets S1-XX for bearing layout & orientation.
- Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

**PARSONS BRINCKERHOFF**

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS III - UNIT I  
STRUCTURE NO. 016-1710

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	175
CONTRACT NO. 62B76				

EXISTING RECORD DRAWINGS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	780
CONTRACT NO. 60X79				

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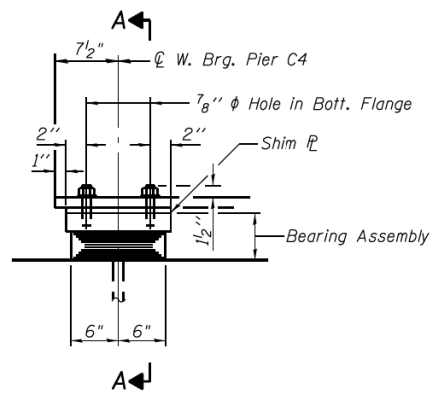
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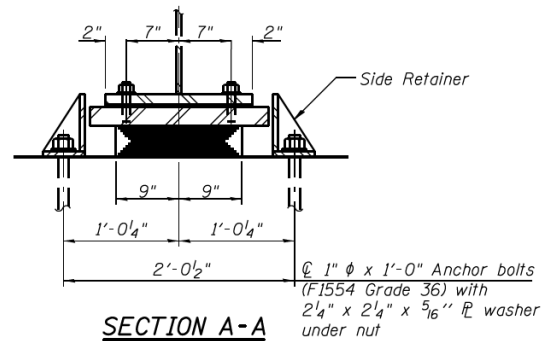
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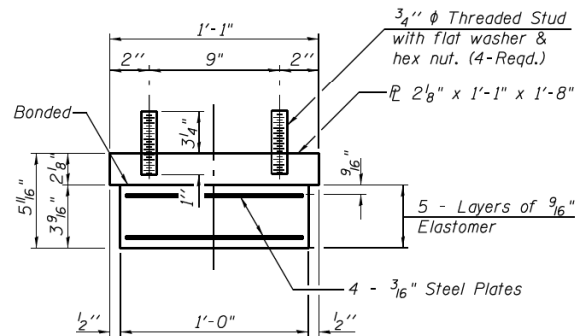
ELEVATION AT W. BRG. PIER C4



SECTION A-A

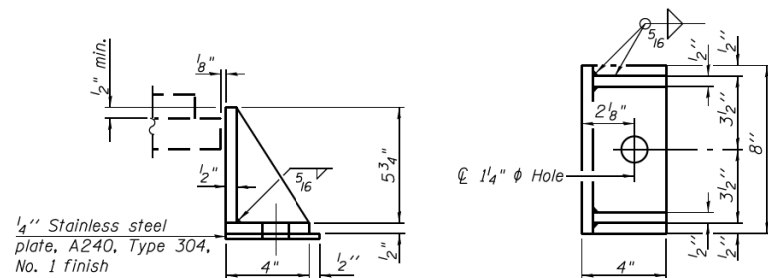
**TYPE I ELASTOMERIC EXP. BRG. AT W. BRG. PIER C4**

(4 Required)



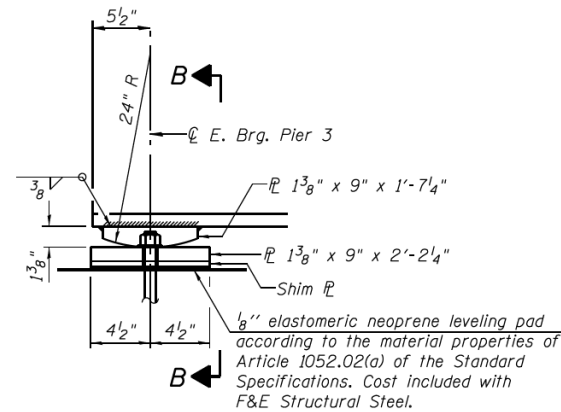
BEARING ASSEMBLY

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

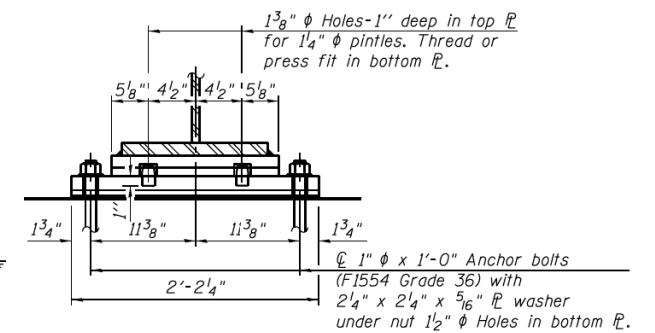


SIDE RETAINER

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



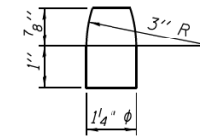
ELEVATION AT E. BRG. PIER 3



SECTION B-B

**FIXED BEARING AT E. BRG. PIER 3**

(4 Required)



PINTLE

Notes:  
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.  
Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.  
Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.  
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.  
Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.  
Fixed Bearing Assembly included in the cost of Furnishing and Erecting Structural Steel.  
Two 1/8" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.  
All (embedded and separate) bearing plates, side retainers, anchor bolts, nuts, washers and pintles shall be galvanized according to AASHTO M111 or M232 as applicable.

**BILL OF MATERIAL**

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	4
Anchor Bolts 1"	Each	16

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STATE OF ILLINOIS  
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BEARING DETAILS I - UNIT II  
STRUCTURE NO. 016-1710

SHEET NO. S1-37 OF S1-53 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	176
CONTRACT NO. 62B76				
ILLINOIS FED. AID PROJECT				

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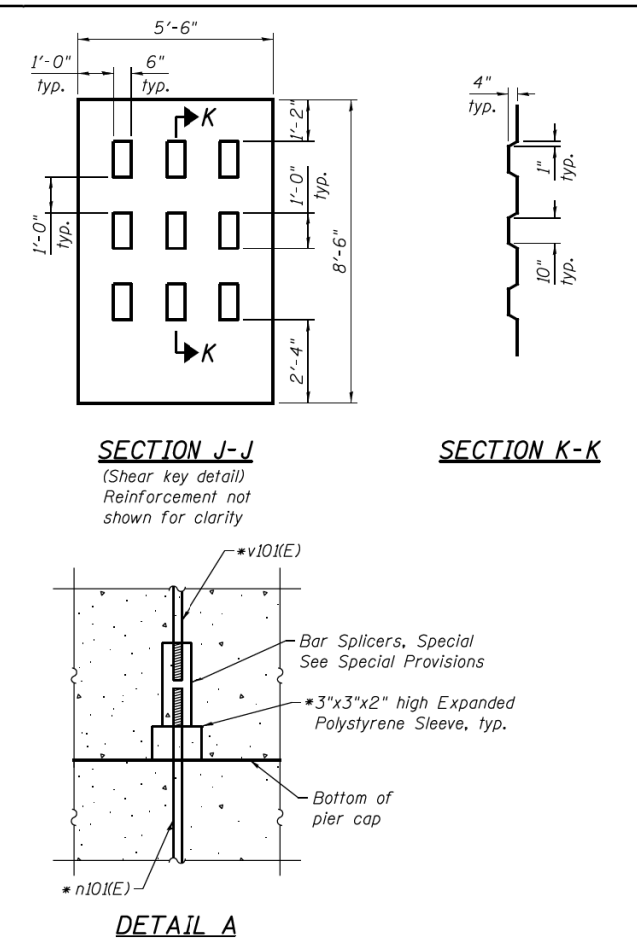
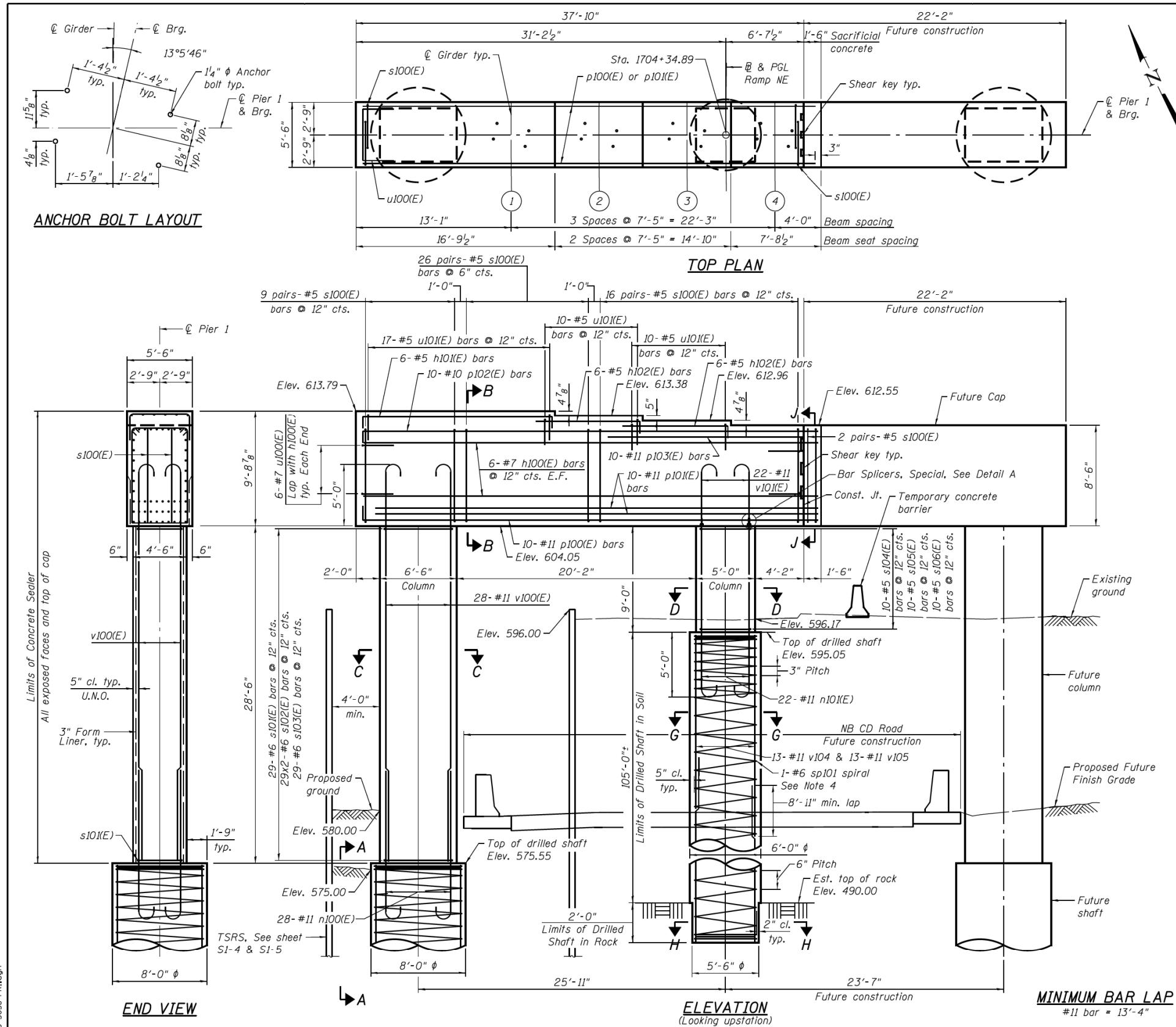
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EXISTING RECORD DRAWINGS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	781
CONTRACT NO. 60X79				
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- Notes:
- See sheet S1-39 for section A-A, B-B, C-C, D-D, G-G, and H-H.
  - Space reinforcement in cap to miss anchor bolts.
  - Pour steps monolithically with cap.
  - #6 sp100 & #6 sp101 spiral
    - Provide 1/2 extra turns top and bottom. Provide 4-#4 spacers or equivalent.
    - When splicing spiral reinforcement is necessary, the spiral shall be provided with 1/2 extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4 or shall both terminate with a 135° standard hook.
  - Due to closely spaced spirals in the top 5'-0" of Drilled Shafts, special attention shall be given during concrete pour to avoid any voids between steel cage and side walls of shafts.
  - End of bars n10(E) and v10(E) shall be threaded to receive the bar splicer coupler.
  - Drilled Shafts shall be tested in accordance with Special Provisions for Crosshole Sonic Logging.
  - Bars equally spaced, unless otherwise noted.
  - All edges shall have standard 3/4" chamfer.
  - The quantities and reinforcement detailing are based on the top of shaft and the estimated top of rock elevations shown and may change based on the actual top of rock elevations encountered at each shaft and the final top of shaft elevation.
  - Bottom portion of North column will be embedded in the ground that shall be protected from damage. The protection system shall be approved by the Engineer and shall remain in place until the future contract. The cost is included in the cost of Concrete Structures.

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**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**PIER 1 STRUCTURE NO. 016-1710**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	177
CONTRACT NO. 62B76				

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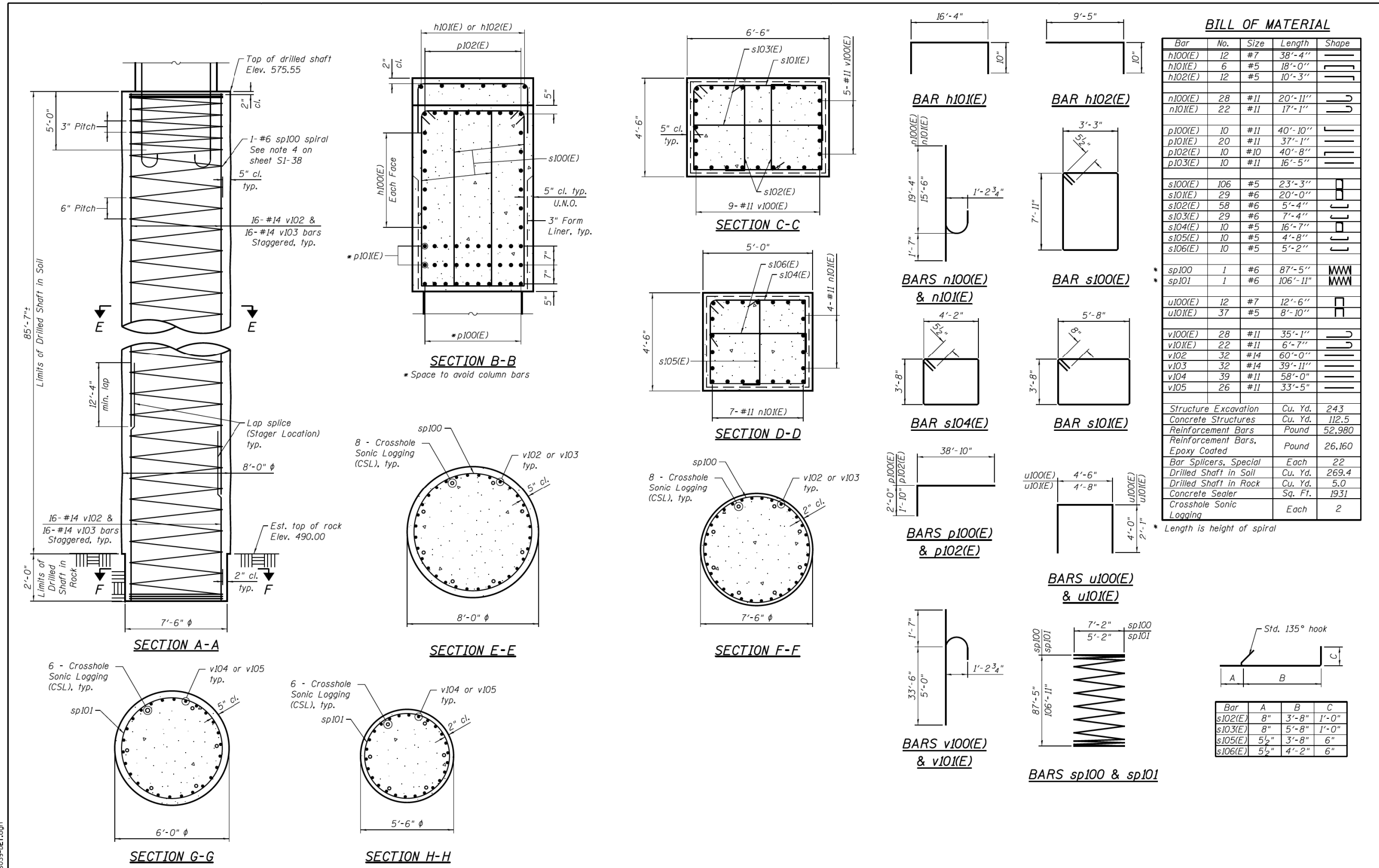
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**EXISTING RECORD DRAWINGS**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	782
CONTRACT NO. 60X79				

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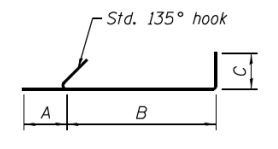
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### BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h100(E)	12	#7	38'-4"	—
h101(E)	6	#5	18'-0"	—
h102(E)	12	#5	10'-3"	—
n100(E)	28	#11	20'-11"	—
n101(E)	22	#11	17'-1"	—
p100(E)	10	#11	40'-10"	—
p101(E)	20	#11	37'-1"	—
p102(E)	10	#10	40'-8"	—
p103(E)	10	#11	16'-5"	—
s100(E)	106	#5	23'-3"	—
s101(E)	29	#6	20'-0"	—
s102(E)	58	#6	5'-4"	—
s103(E)	29	#6	7'-4"	—
s104(E)	10	#5	16'-7"	—
s105(E)	10	#5	4'-8"	—
s106(E)	10	#5	5'-2"	—
sp100	1	#6	87'-5"	—
sp101	1	#6	106'-11"	—
u100(E)	12	#7	12'-6"	—
u101(E)	37	#5	8'-10"	—
v100(E)	28	#11	35'-1"	—
v101(E)	22	#11	6'-7"	—
v102	32	#14	60'-0"	—
v103	32	#14	39'-11"	—
v104	39	#11	58'-0"	—
v105	26	#11	33'-5"	—
Structure Excavation		Cu. Yd.	243	
Concrete Structures		Cu. Yd.	112.5	
Reinforcement Bars		Pound	52,980	
Reinforcement Bars, Epoxy Coated		Pound	26,160	
Bar Splicers, Special		Each	22	
Drilled Shaft in Soil		Cu. Yd.	269.4	
Drilled Shaft in Rock		Cu. Yd.	5.0	
Concrete Sealer		Sq. Ft.	1931	
Crosshole Sonic Logging		Each	2	

\* Length is height of spiral



Bar	A	B	C
s102(E)	8"	3'-8"	1'-0"
s103(E)	8"	5'-8"	1'-0"
s105(E)	5 1/2"	3'-8"	6"
s106(E)	5 1/2"	4'-2"	6"

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		CHECKED - JIG	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PIER 1 DETAILS  
STRUCTURE NO. 016-1710

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	178
CONTRACT NO. 62B76				

<b>HBM ENGINEERING GROUP, LLC</b>	USER NAME = ahmad,issa	DESIGNED -	REVISED -
	PLOT SCALE = N.T.S.	DRAWN -	REVISED -
	PLOT DATE = 7/26/2018	CHECKED - MI, MAI	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

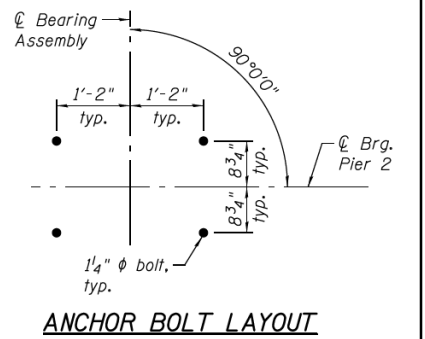
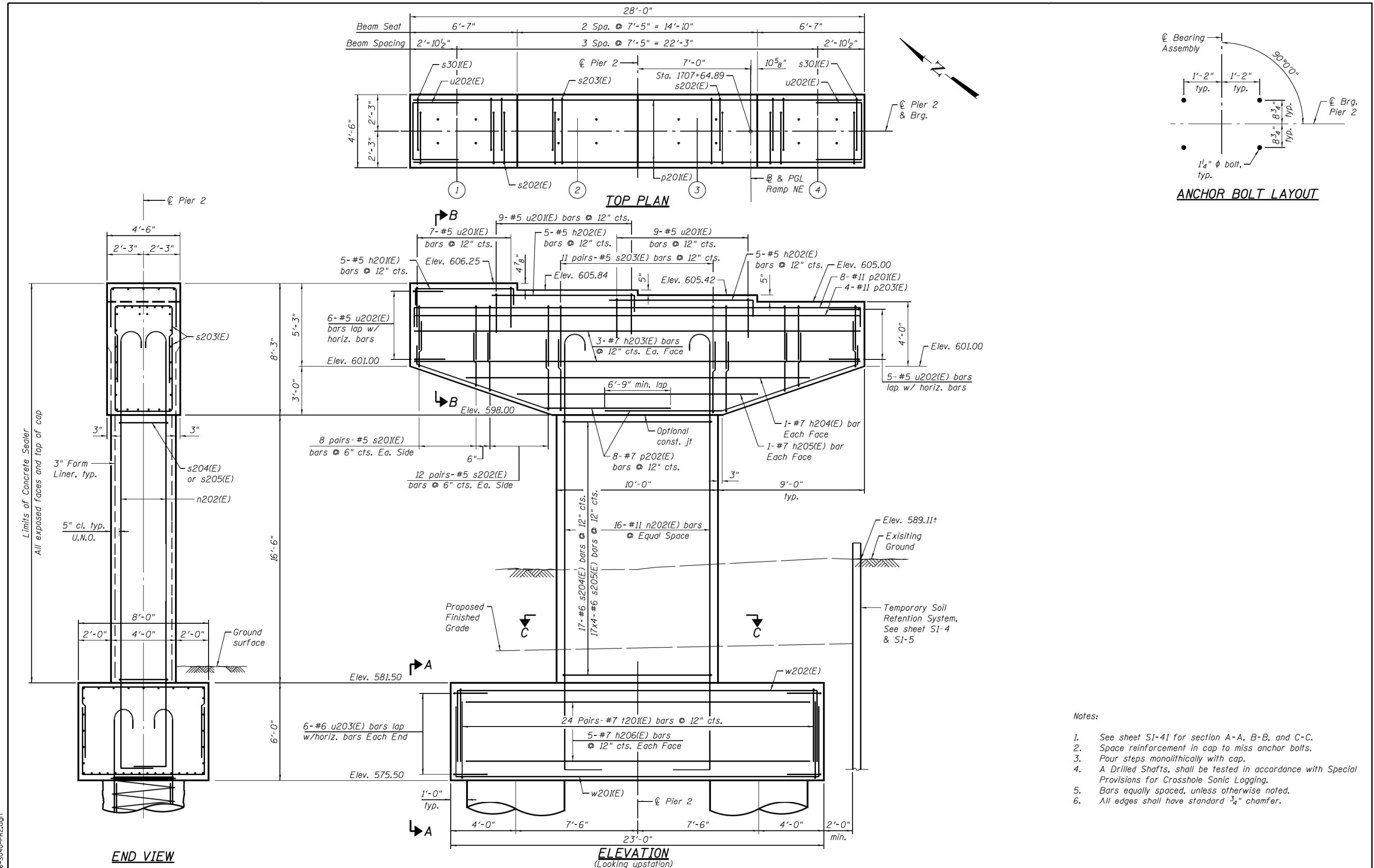
EXISTING RECORD DRAWINGS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	783
CONTRACT NO. 60X79				

FILE NAME: D:\V161749-PWINT-aecomonline.local\AECOM\_DS02\_NAYDocuments\01\_Americas\Transportation\016-1712\Existing Plans\016-1712-60X79-Sxx-Existing.dgn

0161710-62B76-5039-DET.dgn

# FOR INFORMATION ONLY

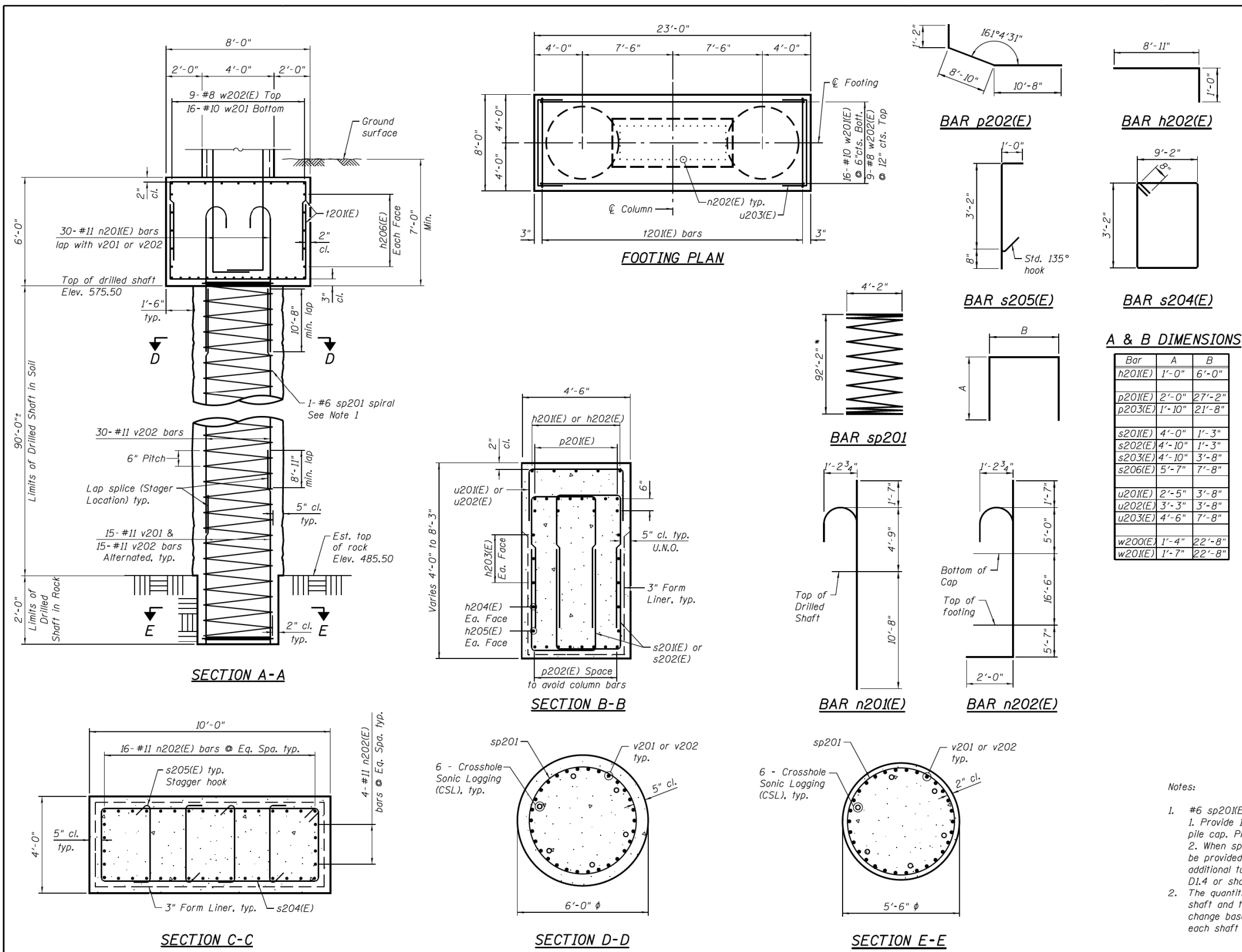


- Notes:
1. See sheet S1-41 for section A-A, B-B, and C-C.
  2. Space reinforcement in cap to miss anchor bolts.
  3. Pour steps monolithically with cap.
  4. A Drilled Shafts, shall be tested in accordance with Special Provisions for Crosshole Sonic Logging.
  5. Bars equally spaced, unless otherwise noted.
  6. All edges shall have standard 3/4" chamfer.

<b>PARSONS BRINCKERHOFF</b> USER NAME = lopezgonzalez DESIGNED - MS CHECKED - JZ PLOT SCALE = N.T.S. PLOT DATE = 5/6/2016	DESIGNED - MS CHECKED - JZ DRAWN - JZ/DCP CHECKED - JIG	REVISED - REVISED - REVISED - REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b> PIER 2 STRUCTURE NO. 016-1710 SHEET NO. S1-40 OF S1-53 SHEETS	F.A.I. RTE. 90/94/290 SECTION 2015-080R&B COUNTY COOK TOTAL SHEETS 250 SHEET NO. 179 CONTRACT NO. 62B76

FILE NAME: D:\V161749-PWINT-aecomonline.local\AECOM\_DS02\_NAY\Documents\01\_Americas\Transportation\016-1712\Existing Plans\016-1712-60X79-Sxx-Existing\_43.dgn  
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# FOR INFORMATION ONLY



### BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h201(E)	5	#5	8'-0"	[Shape]
h202(E)	10	#5	9'-11"	[Shape]
h203(E)	6	#7	27'-2"	[Shape]
h204(E)	2	#7	21'-4"	[Shape]
h205(E)	2	#7	15'-6"	[Shape]
h206(E)	10	#7	22'-8"	[Shape]
n201(E)	60	#11	17'-0"	[Shape]
n202(E)	40	#11	30'-8"	[Shape]
p201(E)	8	#11	31'-2"	[Shape]
p202(E)	16	#7	20'-8"	[Shape]
p203(E)	4	#11	26'-10"	[Shape]
s201(E)	64	#5	9'-3"	[Shape]
s202(E)	96	#5	10'-11"	[Shape]
s203(E)	22	#5	13'-4"	[Shape]
s204(E)	17	#6	26'-0"	[Shape]
s205(E)	68	#6	4'-10"	[Shape]
sp201	2	#6	92'-2"	[Shape]
t201(E)	48	#8	18'-10"	[Shape]
u201(E)	25	#5	8'-6"	[Shape]
u202(E)	11	#5	10'-2"	[Shape]
u203(E)	12	#6	16'-8"	[Shape]
v201	60	#11	42'-0"	[Shape]
v202	120	#11	34'-0"	[Shape]
w201(E)	16	#10	26'-4"	[Shape]
w202(E)	9	#8	25'-4"	[Shape]
Structure Excavation		Cu. Yd.	165	
Concrete Structures		Cu. Yd.	92.2	
Reinforcement Bars		Pound	44,210	
Reinforcement Bars, Epoxy Coated		Pound	24,250	
Drilled Shaft in Soil		Cu. Yd.	188.5	
Drilled Shaft in Rock		Cu. Yd.	3.5	
Concrete Sealer		Sq. Ft.	1065	
Crosshole Sonic Logging		Each	1	

### A & B DIMENSIONS

Bar	A	B
h201(E)	1'-0"	6'-0"
p201(E)	2'-0"	27'-2"
p203(E)	1'-10"	21'-8"
s201(E)	4'-0"	1'-3"
s202(E)	4'-10"	1'-3"
s203(E)	4'-10"	3'-8"
s206(E)	5'-7"	7'-8"
u201(E)	2'-5"	3'-8"
u202(E)	3'-3"	3'-8"
u203(E)	4'-6"	7'-8"
w200(E)	1'-4"	22'-8"
w201(E)	1'-7"	22'-8"

\* Length is height of spiral

### Notes:

- #6 sp201(E) spiral, each drilled shaft  
1. Provide 1/2 extra turns, top and bottom. Extend spiral 2" into pile cap. Provide 4-#4 spacers or equivalent.  
2. When splicing spiral reinforcement is necessary, the spiral shall be provided with 1/2 extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4 or shall both terminate with a 135° standard hook.
- The quantities and reinforcement detailing are based on the top of shaft and the estimated top of rock elevations shown and may change based on the actual top of rock elevations encountered at each shaft and the final top of shaft elevation.

**PARSONS BRINCKERHOFF**

USER NAME = lopezgonzalez	DESIGNED - MS	REVISED -
PLOT SCALE = N.T.S.	CHECKED - JZ	REVISED -
PLOT DATE = 5/6/2016	DRAWN - JZ/DCP	REVISED -
	CHECKED - JIG	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

PIER 2 DETAILS  
STRUCTURE NO. 016-1710

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-08R&B	COOK	250	180
CONTRACT NO. 62B76				
ILLINOIS FED. AID PROJECT				

**HBM**  
ENGINEERING GROUP, LLC

USER NAME = ahmad,issa	DESIGNED -	REVISED -
PLOT SCALE = N.T.S.	CHECKED -	REVISED -
PLOT DATE = 7/26/2018	DRAWN -	REVISED -
	CHECKED - MI, MAI	REVISED -

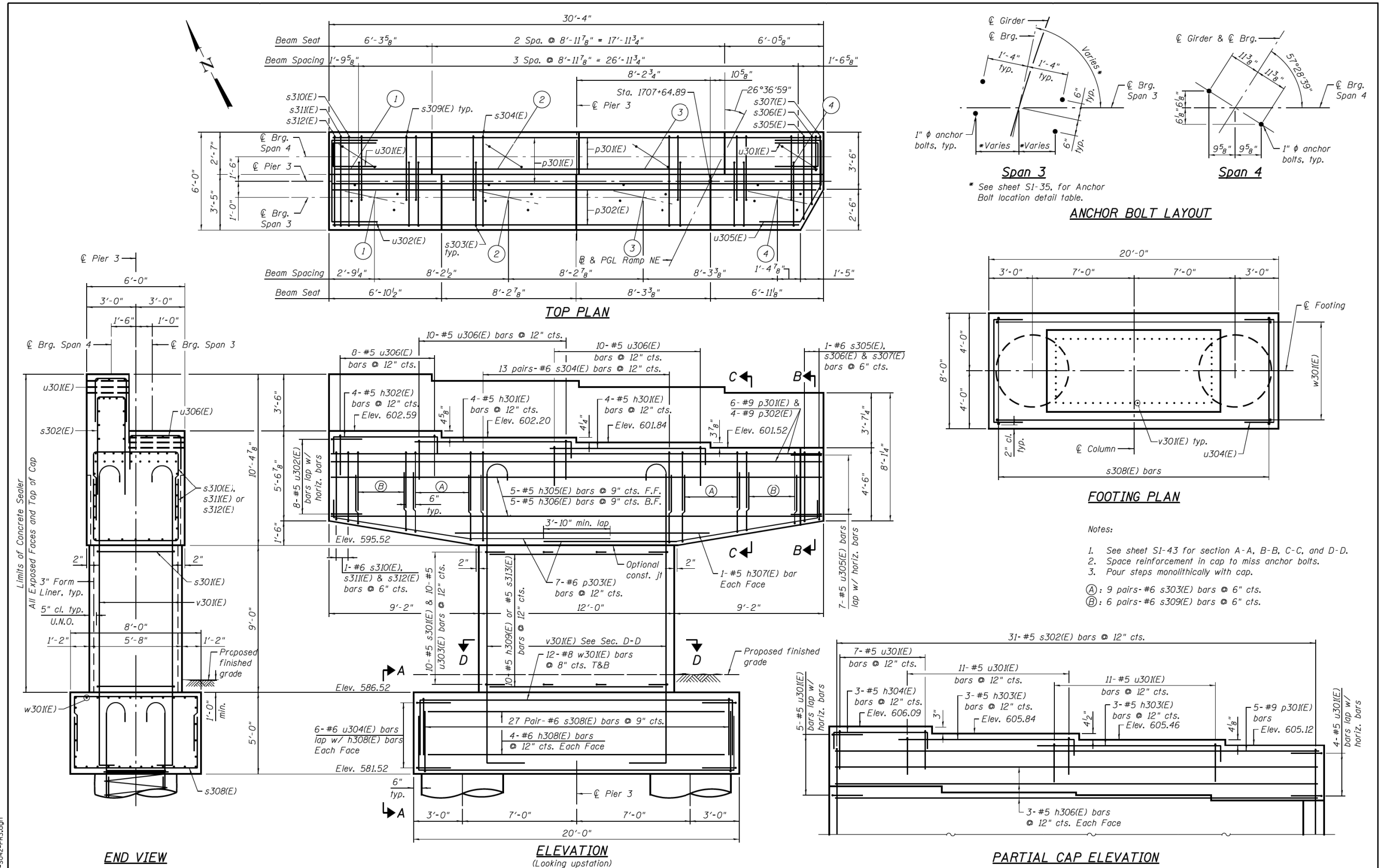
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

EXISTING RECORD DRAWINGS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	785
CONTRACT NO. 60X79				
ILLINOIS FED. AID PROJECT				

FILE NAME: D:\V16\1749-PWINT-aecomonline.local\AECOM\_DS02\_NAYDocuments\01\_Americas\Transportation\016-1712\Existing Plans\016-1712-60X79-5xx-Existing\_44

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**PARSONS BRINCKERHOFF**

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PLLOT SCALE = N.T.S.	CHECKED - MS	REVISIONS
PLLOT DATE = 5/6/2016	DRAWN - JZ	REVISIONS
	CHECKED - JIG	REVISIONS

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**PIER 3 STRUCTURE NO. 016-1710**

SHEET NO. S1-42 OF S1-53 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	181
CONTRACT NO. 62B76				

**HBM ENGINEERING GROUP, LLC**

USER NAME = ahmad,issa	DESIGNED -	REVISIONS
PLLOT SCALE = N.T.S.	CHECKED -	REVISIONS
PLLOT DATE = 7/26/2018	DRAWN -	REVISIONS
	CHECKED - MI, MAI	REVISIONS

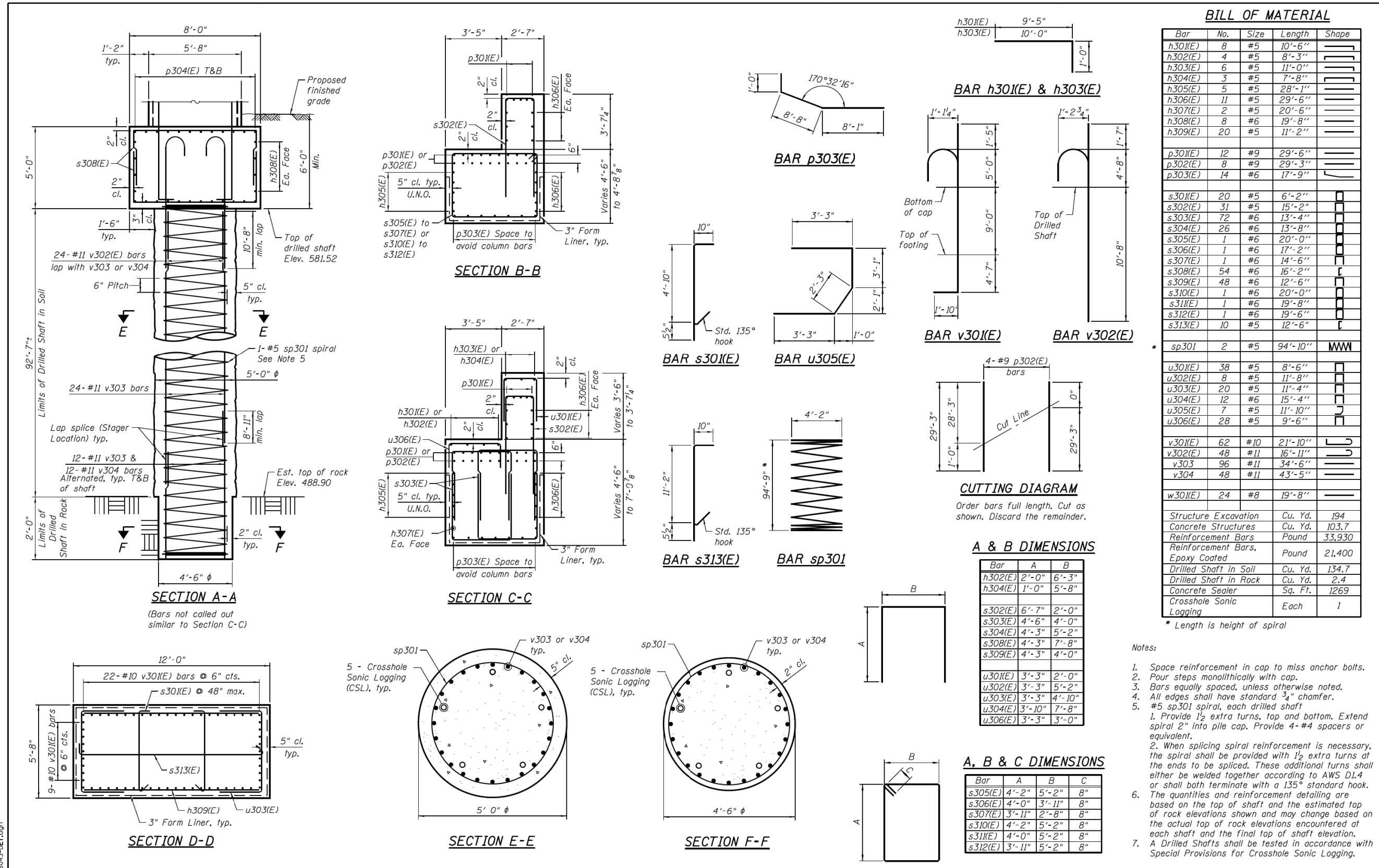
**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**EXISTING RECORD DRAWINGS**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	786
CONTRACT NO. 60X79				

FILE NAME: D:\V161749-PWINT-aecom\online.local\AECOM\_DS02\_NAYDocuments\01\_Americas\Transportation\016-1712\Existing Plans\016-1712-60X79-Sxx-Existing\_45

# FOR INFORMATION ONLY



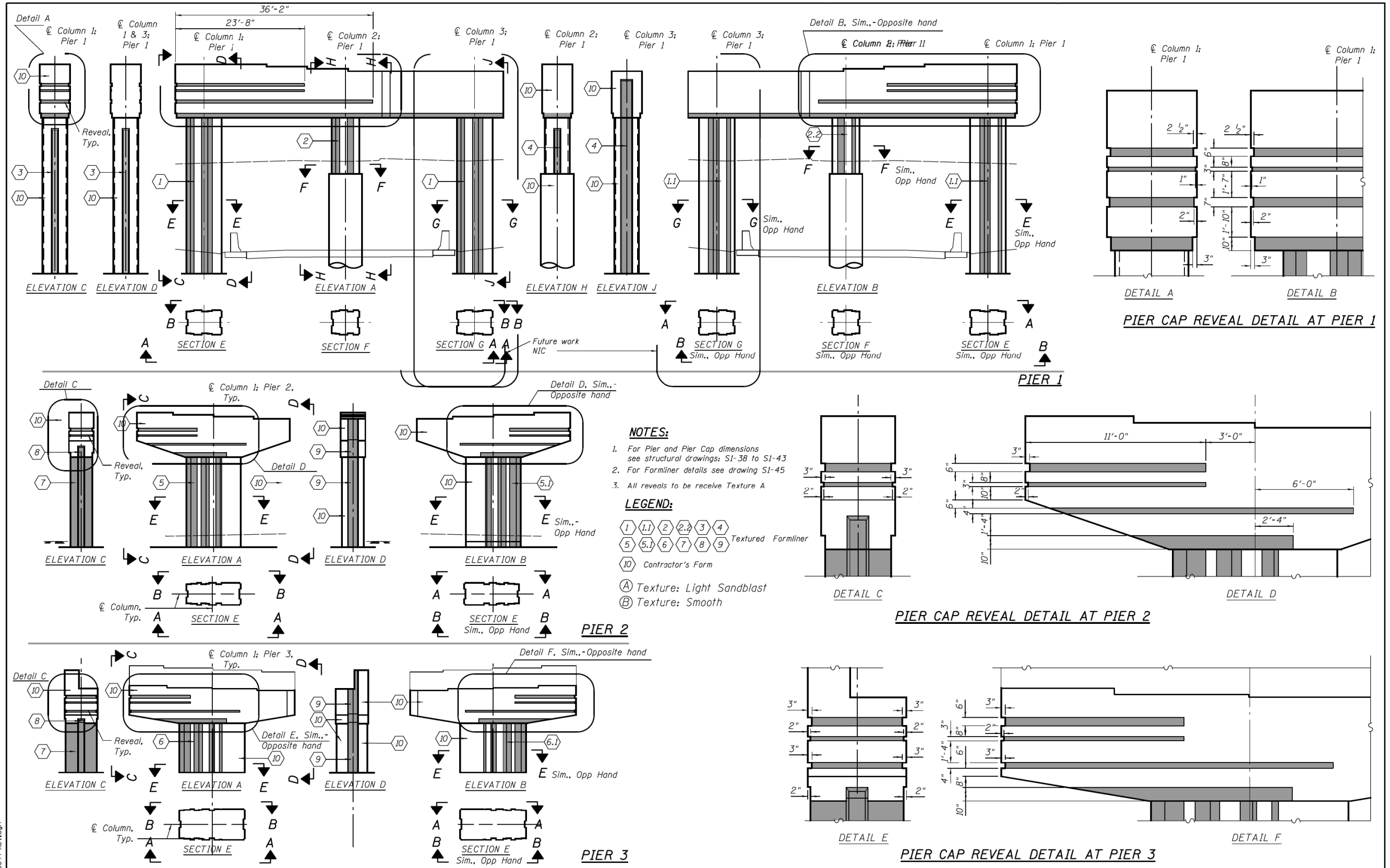
## BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h301(E)	8	#5	10'-6"	U
h302(E)	4	#5	8'-3"	U
h303(E)	6	#5	11'-0"	U
h304(E)	3	#5	7'-8"	U
h305(E)	5	#5	28'-1"	U
h306(E)	11	#5	29'-6"	U
h307(E)	2	#5	20'-6"	U
h308(E)	8	#6	19'-8"	U
h309(E)	20	#5	11'-2"	U
p301(E)	12	#9	29'-6"	U
p302(E)	8	#9	29'-3"	U
p303(E)	14	#6	17'-9"	U
s301(E)	20	#5	6'-2"	U
s302(E)	31	#5	15'-2"	U
s303(E)	72	#6	13'-4"	U
s304(E)	26	#6	13'-8"	U
s305(E)	1	#6	20'-0"	U
s306(E)	1	#6	17'-2"	U
s307(E)	1	#6	14'-6"	U
s308(E)	54	#6	16'-2"	U
s309(E)	48	#6	12'-6"	U
s310(E)	1	#6	20'-0"	U
s311(E)	1	#6	19'-8"	U
s312(E)	1	#6	19'-6"	U
s313(E)	10	#5	12'-6"	U
sp301	2	#5	94'-10"	W
u301(E)	38	#5	8'-6"	U
u302(E)	8	#5	11'-8"	U
u303(E)	20	#5	11'-4"	U
u304(E)	12	#6	15'-4"	U
u305(E)	7	#5	11'-10"	U
u306(E)	28	#5	9'-6"	U
v301(E)	62	#10	21'-10"	U
v302(E)	48	#11	16'-11"	U
v303	96	#11	34'-6"	U
v304	48	#11	43'-5"	U
w301(E)	24	#8	19'-8"	U

- Notes:
- Space reinforcement in cap to miss anchor bolts.
  - Pour steps monolithically with cap.
  - Bars equally spaced, unless otherwise noted.
  - All edges shall have standard 3/4" chamfer.
  - #5 sp301 spiral, each drilled shaft
    - Provide 1/2 extra turns, top and bottom. Extend spiral 2" into pile cap. Provide 4-#4 spacers or equivalent.
    - When splicing spiral reinforcement is necessary, the spiral shall be provided with 1/2 extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4 or shall both terminate with a 135° standard hook.
  - The quantities and reinforcement detailing are based on the top of shaft and the estimated top of rock elevations shown and may change based on the actual top of rock elevations encountered at each shaft and the final top of shaft elevation.
  - A Drilled Shafts shall be tested in accordance with Special Provisions for Crosshole Sonic Logging.

<b>PARSONS BRINCKERHOFF</b> USER NAME = lopezgonzalez DESIGNED - JZ CHECKED - MS REVISIONS - PLOT SCALE = N.T.S. DRAWN - JZ REVISIONS - PLOT DATE = 5/6/2016 CHECKED - JIG REVISIONS -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER 3 DETAILS STRUCTURE NO. 016-1710 SHEET NO. S1-43 OF S1-53 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			90/94/290	2015-08R&B	COOK	250	182
<b>HBM</b> ENGINEERING GROUP, LLC USER NAME = ahmad,issa DESIGNED - CHECKED - REVISIONS - PLOT SCALE = N.T.S. DRAWN - REVISIONS - PLOT DATE = 7/26/2018 CHECKED - MI, MAI REVISIONS -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING RECORD DRAWINGS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			90/94/290	2014-005R&B	COOK	888	787

# FOR INFORMATION ONLY



**NOTES:**

1. For Pier and Pier Cap dimensions see structural drawings: S1-38 to S1-43
2. For Formliner details see drawing S1-45
3. All reveals to be receive Texture A

**LEGEND:**

- ① ①.1 ② ②.2 ③ ④ Textured Formliner
- ⑤ ⑤.1 ⑥ ⑦ ⑧ ⑨
- ⑩ Contractor's Form
- Ⓐ Texture: Light Sandblast
- Ⓑ Texture: Smooth

<b>PARSONS BRINCKERHOFF</b>	USER NAME = lopezgonzalez	DESIGNED - HA	REVISED -
	PLOT SCALE = N.T.S.	CHECKED - JIG	REVISED -
	PLOT DATE = 5/6/2016	DRAWN - DCP	REVISED -
		CHECKED - JIG	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL DETAILS I  
STRUCTURE NO. 016-1710

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	183
CONTRACT NO. 62B76				

<b>HBM ENGINEERING GROUP, LLC</b>	USER NAME = ahmad,issa	DESIGNED -	REVISED -
	PLOT SCALE = N.T.S.	DRAWN -	REVISED -
	PLOT DATE = 7/26/2018	CHECKED - MI, MAI	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING RECORD DRAWINGS

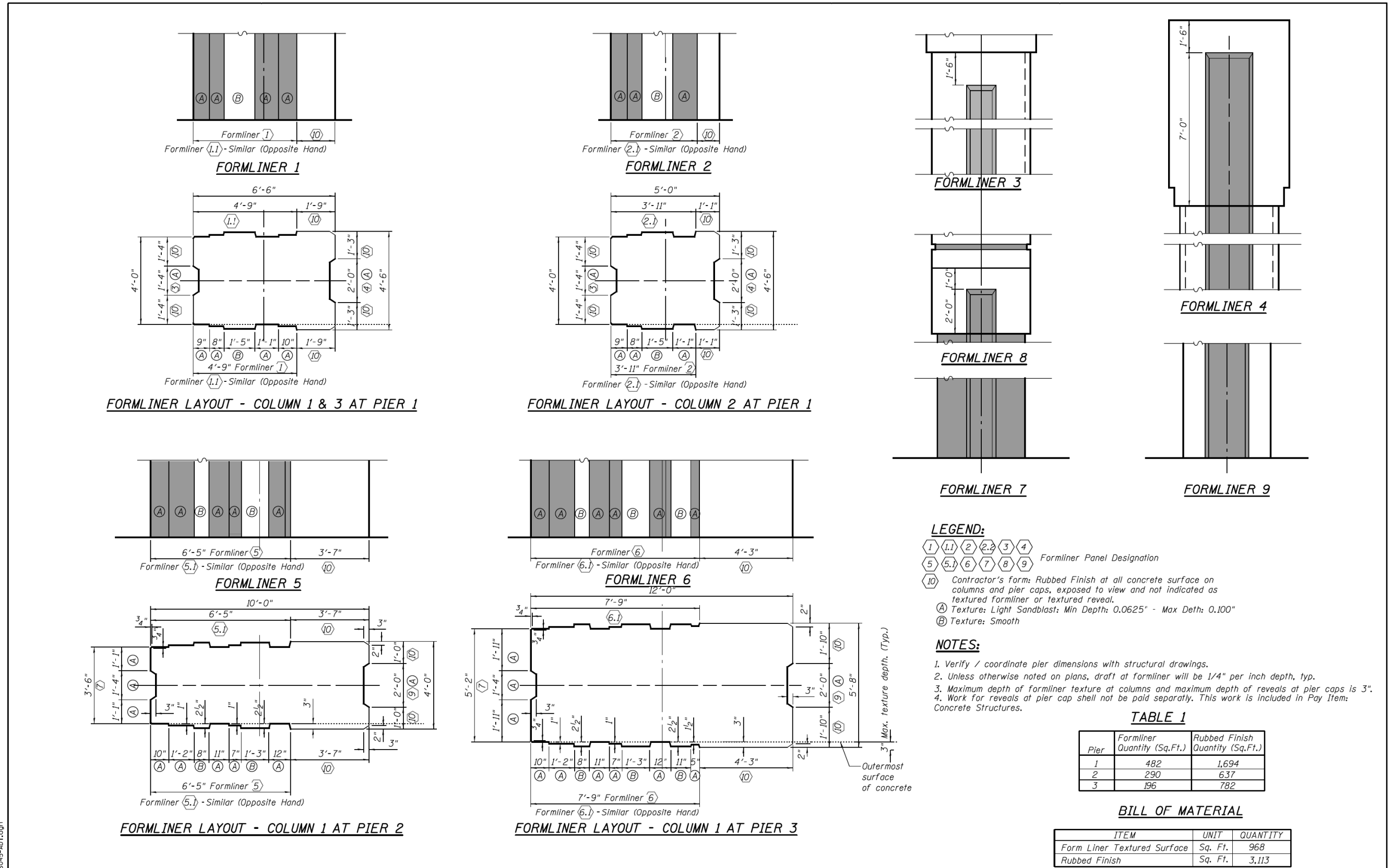
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90/94/290	2014-005R&B	COOK	888	788
CONTRACT NO. 60X79				

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0161710-62B76-5044-ADT.dgn



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0161710-62B76-S045-ADT.dgn

**PARSONS BRINCKERHOFF**

USER NAME = lopezgonzalez	DESIGNED - HA	REVISED -
PLOT SCALE = N.T.S.	CHECKED - JIG	REVISED -
PLOT DATE = 5/6/2016	DRAWN - DCP	REVISED -
	CHECKED - JIG	REVISED -

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**ARCHITECTURAL DETAILS II  
STRUCTURE NO. 016-1710**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	184
CONTRACT NO. 62B76				
ILLINOIS FED. AID PROJECT				

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**EXISTING RECORD DRAWINGS**

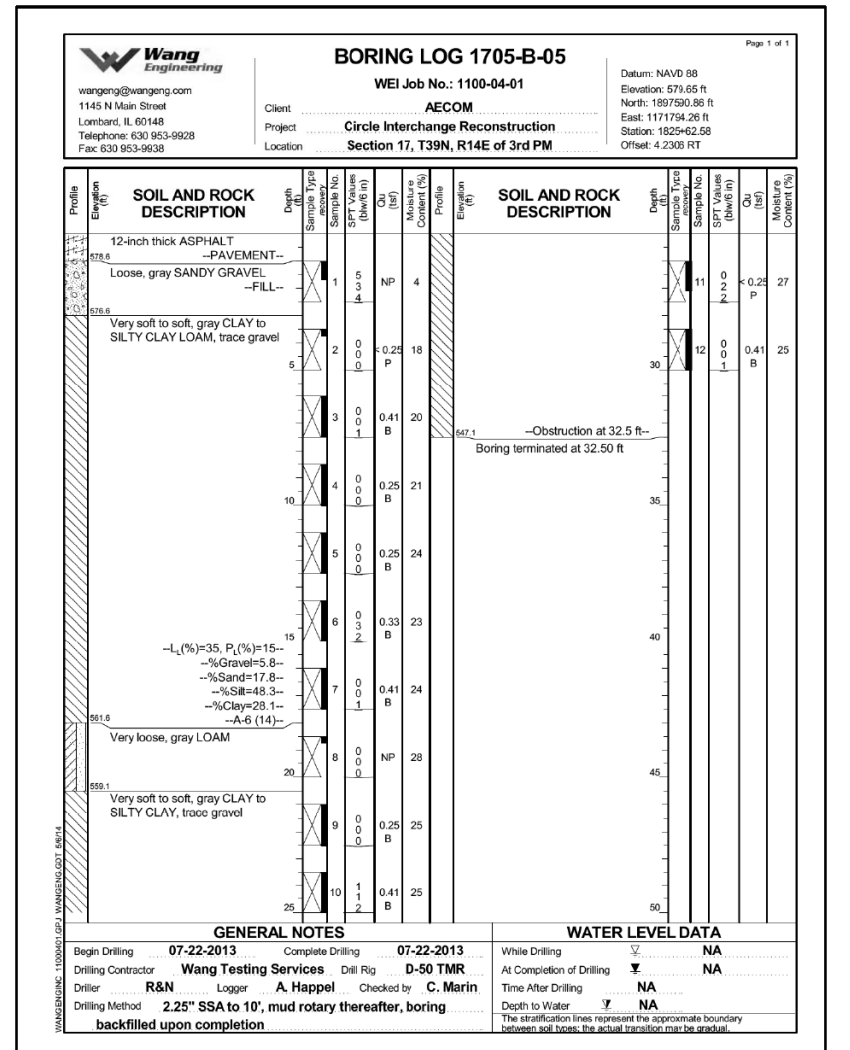
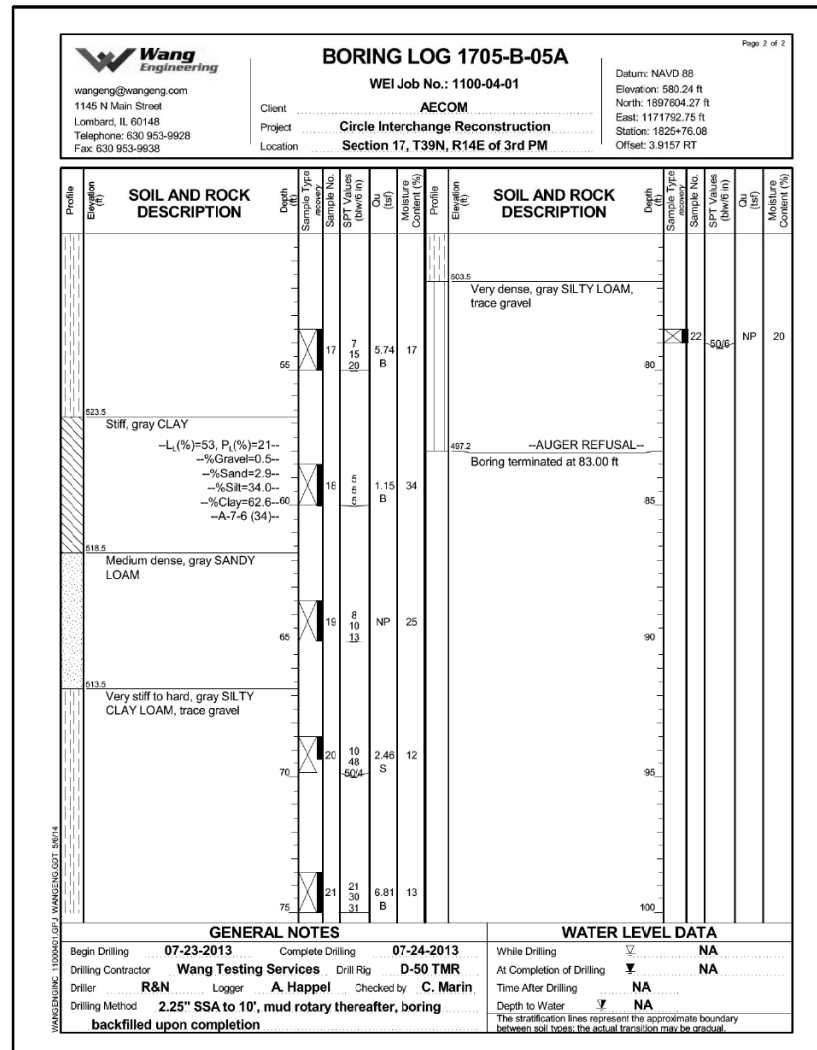
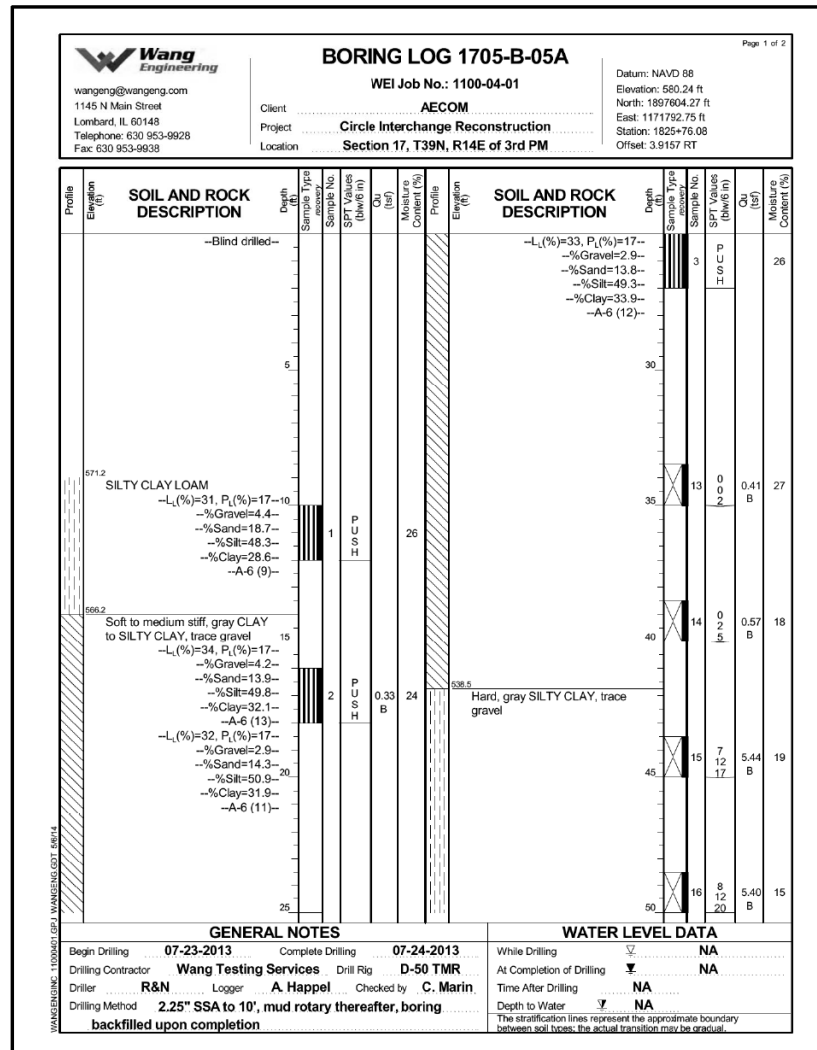
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90/94/290	2014-005R&B	COOK	888	789
CONTRACT NO. 60X79				
ILLINOIS FED. AID PROJECT				

**HBM**  
ENGINEERING GROUP, LLC

USER NAME = ahmad,issa	DESIGNED -	REVISED -
PLOT SCALE = N.T.S.	DRAWN -	REVISED -
PLOT DATE = 7/26/2018	CHECKED - MI, MAI	REVISED -

FILE NAME: D:\V61749-PWINT-aecom\line\local\AECOM\_DS02\_NAYDocuments\01\_Americas\Transportation\60269938\_Circle\Phase\_I\000\_CAD\008\_Structural\Structure\_016-1712\Existing Plans\016-1712-60X79-Sxx-Existing\_48

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**PARSONS BRINCKERHOFF**

USER NAME = lopezgonzalez	DESIGNED - IJL	REVISED -
PLOT SCALE = N.T.S.	CHECKED - PJL	REVISED -
PLOT DATE = 5/6/2016	DRAWN - IJL	REVISED -
	CHECKED - JIG	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BORING LOGS I  
STRUCTURE NO. 016-1710

SHEET NO. S1-46 OF S1-53 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	185
CONTRACT NO. 62B76				

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING RECORD DRAWINGS

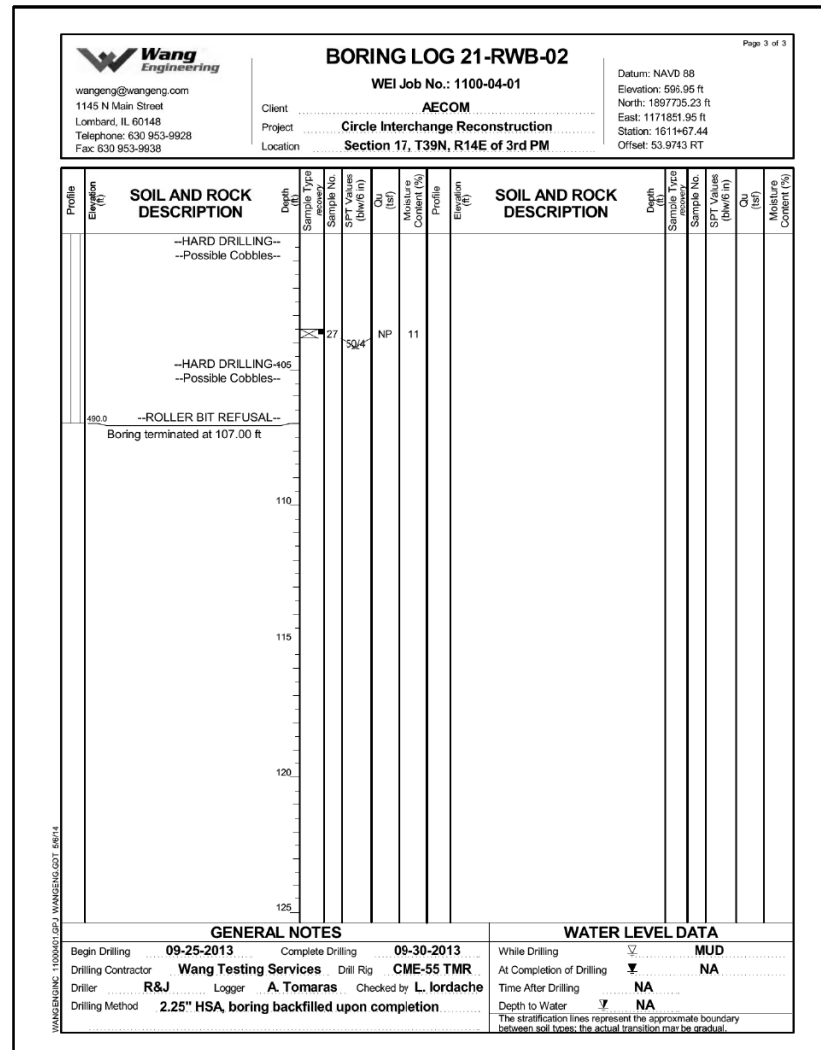
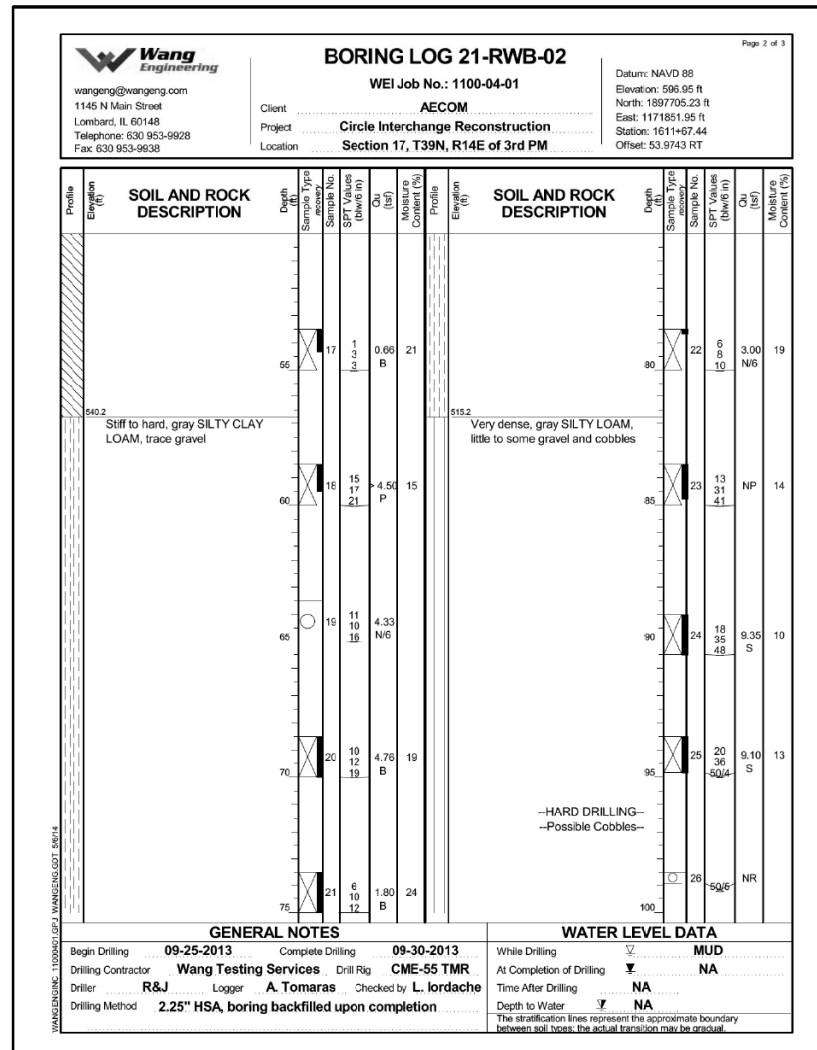
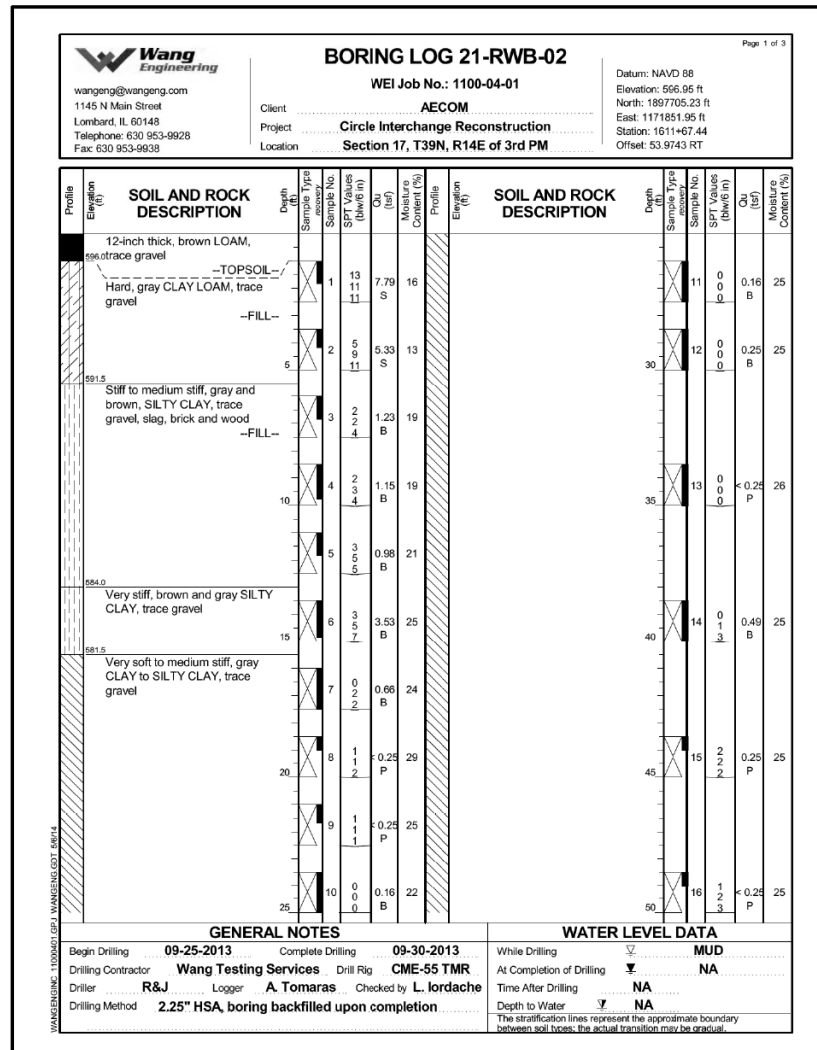
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	790
CONTRACT NO. 60X79				

**HBM**  
ENGINEERING GROUP, LLC

FILE NAME: D:\V161749-PWINT.aecom\line.local\AECOM\_DS02\_NAYDocuments\01\_Americas\Transportation\60269938\_CirclePhase\_I\000\_CAD\008\_Structural\Structure\_016-1712\Existing\_Plans\016-1712-60X79-Sxx-Existing\_49

0161710-62B76-5046-BOR.dgn

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**PARSONS BRINCKERHOFF**

USER NAME =	lopezgonzalez	DESIGNED -	IJL	REVISED -	
PLOT SCALE =	N.T.S.	CHECKED -	PJL	REVISED -	
PLOT DATE =	5/6/2016	DRAWN -	IJL	REVISED -	
		CHECKED -	JIG	REVISED -	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BORING LOGS II  
STRUCTURE NO. 016-1710

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	186
CONTRACT NO. 62B76				
ILLINOIS FED. AID PROJECT				

**HBM**  
ENGINEERING GROUP, LLC

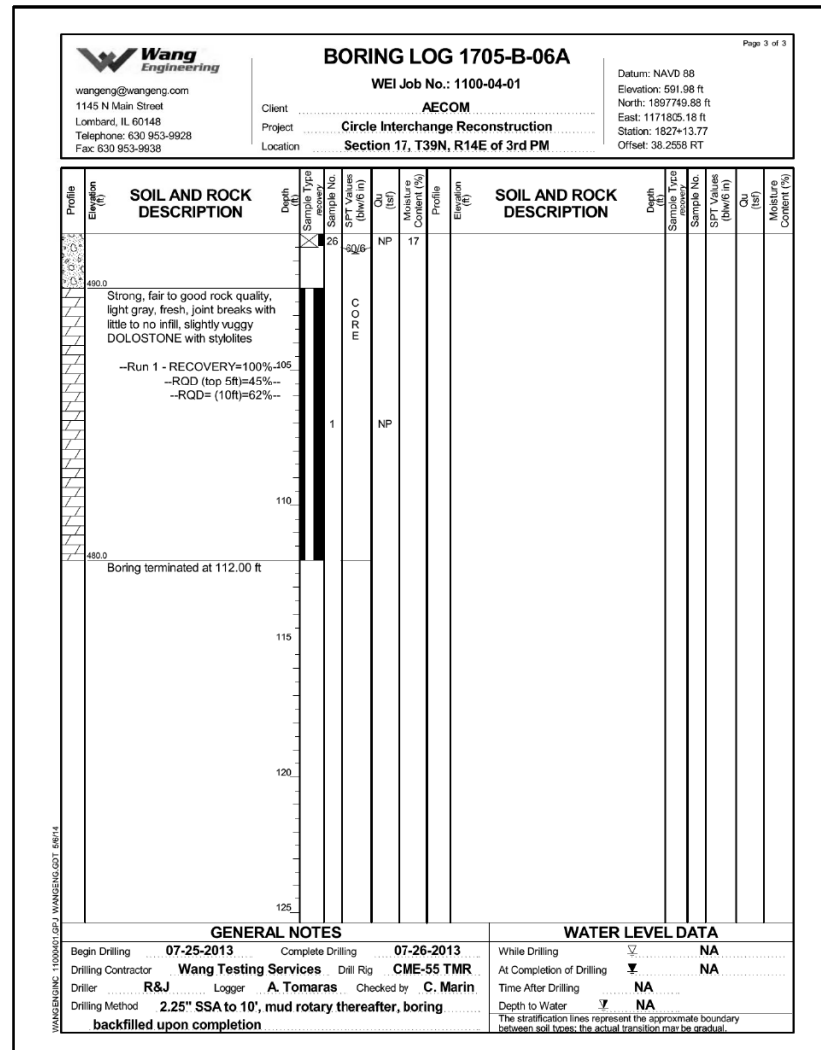
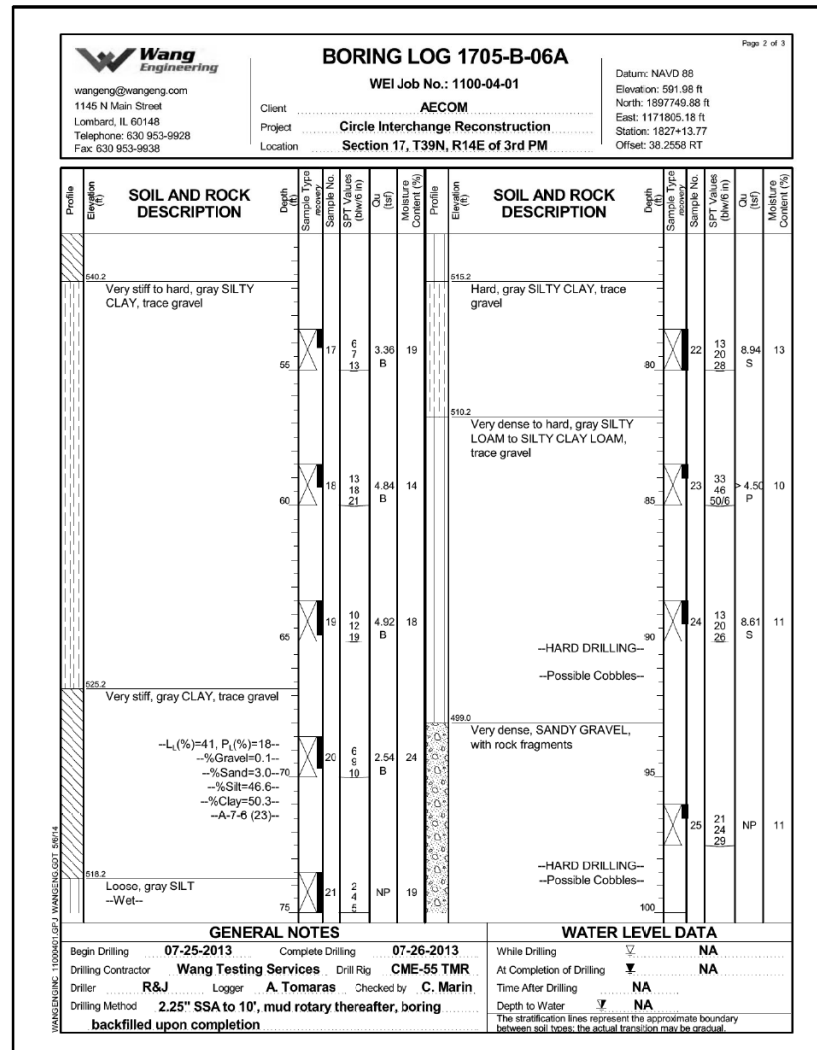
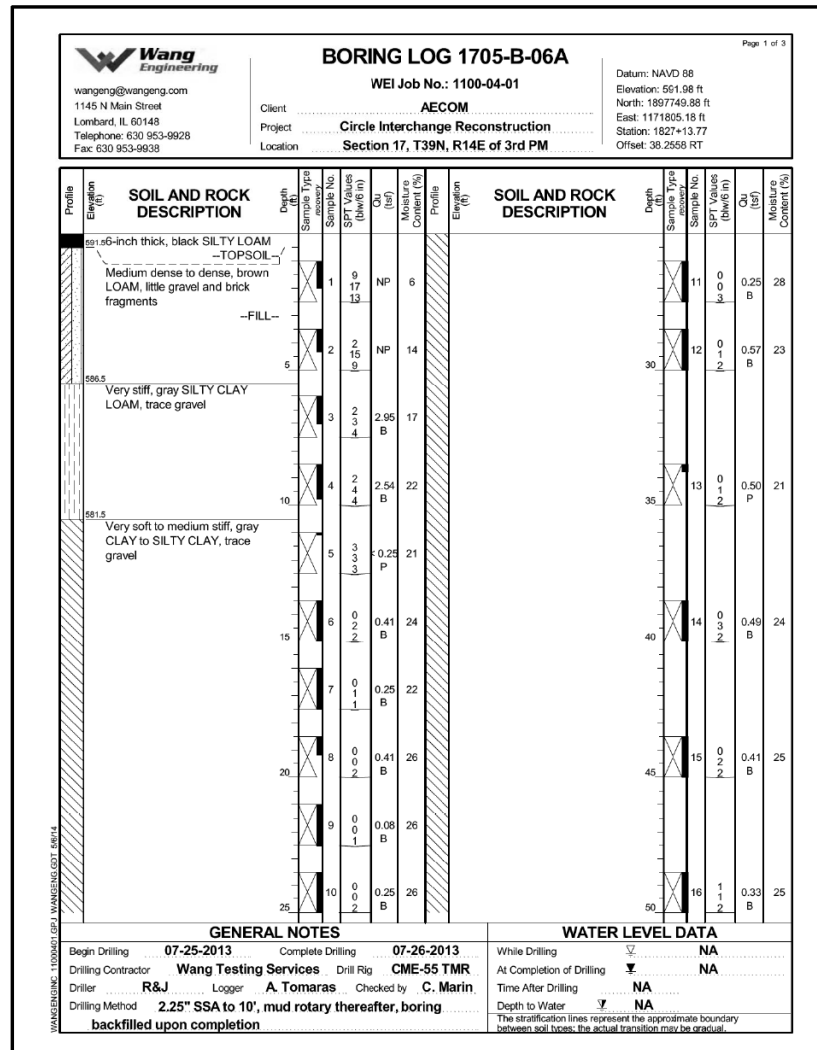
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PLOT SCALE =	N.T.S.	CHECKED -		REVISED -	
PLOT DATE =	7/26/2018	DRAWN -		REVISED -	
		CHECKED -	MI, MAI	REVISED -	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING RECORD DRAWINGS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	791
CONTRACT NO. 60X79				
ILLINOIS FED. AID PROJECT				

# FOR INFORMATION ONLY



**PARSONS BRINCKERHOFF**

USER NAME =	lopezgonzalez	DESIGNED -	IJL	REVISED -	
PLOT SCALE =	N.T.S.	CHECKED -	PJL	REVISED -	
PLOT DATE =	5/6/2016	DRAWN -	IJL	REVISED -	
		CHECKED -	JIG	REVISED -	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BORING LOGS III  
STRUCTURE NO. 016-1710

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	187
CONTRACT NO. 62B76				

**HBM**  
ENGINEERING GROUP, LLC

USER NAME =	ahmad,issa	DESIGNED -	REVISED -
		CHECKED -	REVISED -
PLOT SCALE =	N.T.S.	DRAWN -	REVISED -
PLOT DATE =	7/26/2018	CHECKED -	MI, MAI
		REVISED -	

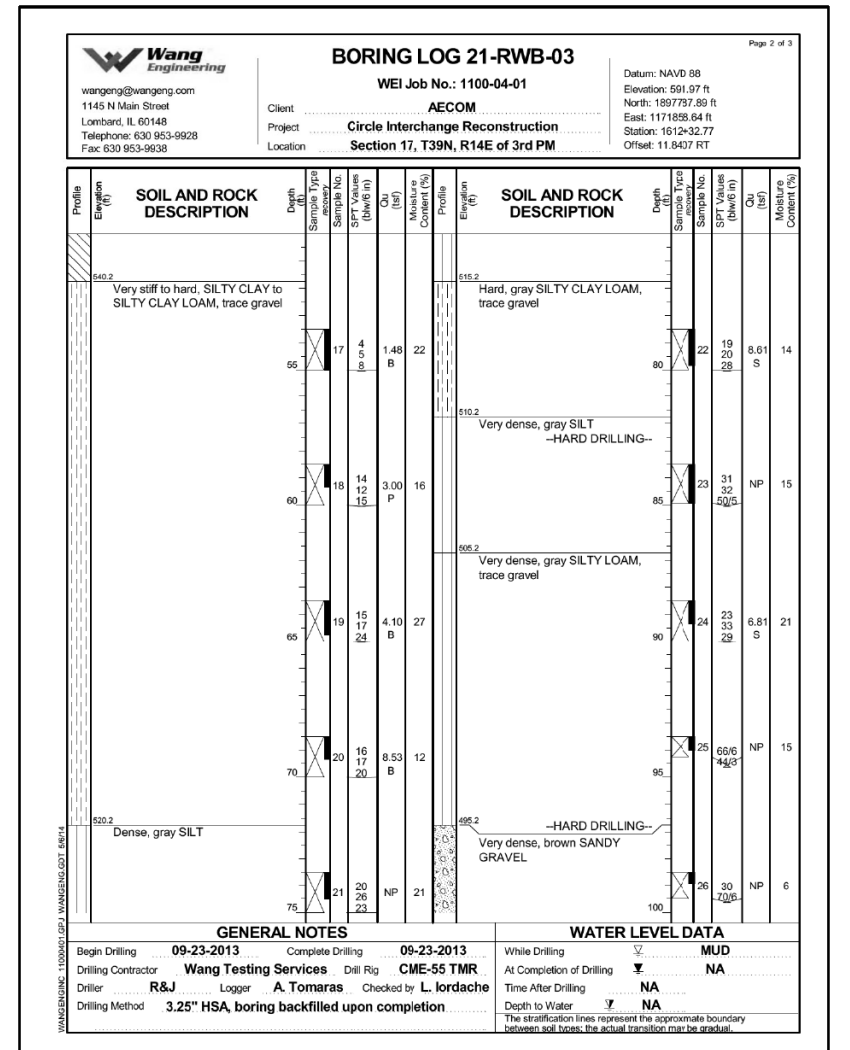
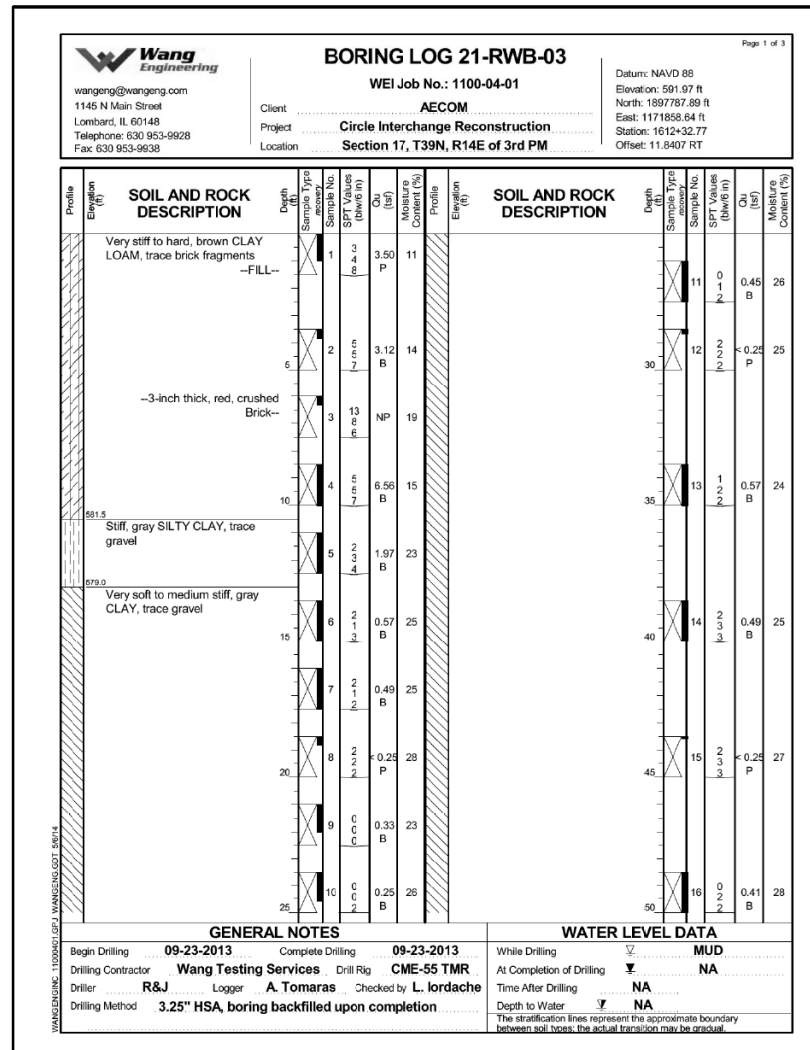
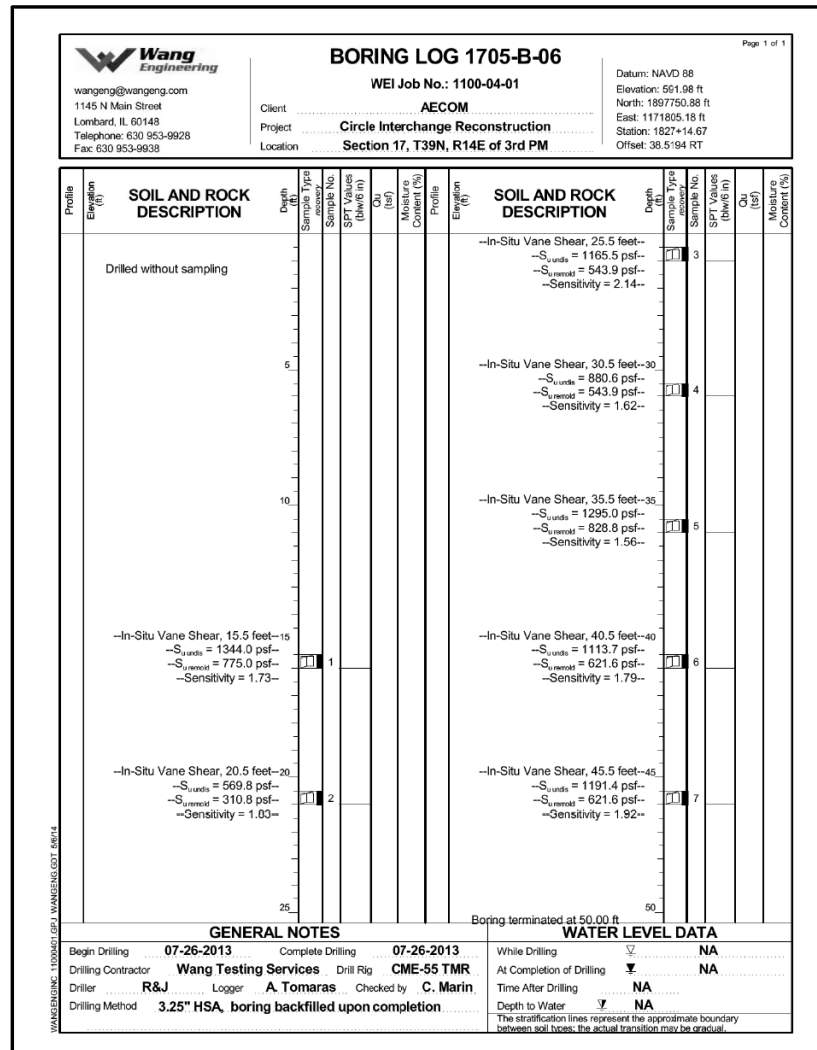
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING RECORD DRAWINGS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	792
CONTRACT NO. 60X79				

ILLINOIS FED. AID PROJECT

# FOR INFORMATION ONLY



**PARSONS BRINCKERHOFF**

USER NAME = lopezgonzalez	DESIGNED - IJL	REVISED -
CHECKED - PJL	REVISIONS -	
PLOT SCALE = N.T.S.	DRAWN - IJL	REVISED -
PLOT DATE = 5/6/2016	CHECKED - JIG	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BORING LOGS IV  
STRUCTURE NO. 016-1710

SHEET NO. S1-49 OF S1-53 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	188
CONTRACT NO. 62B76				

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING RECORD DRAWINGS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	793
CONTRACT NO. 60X79				

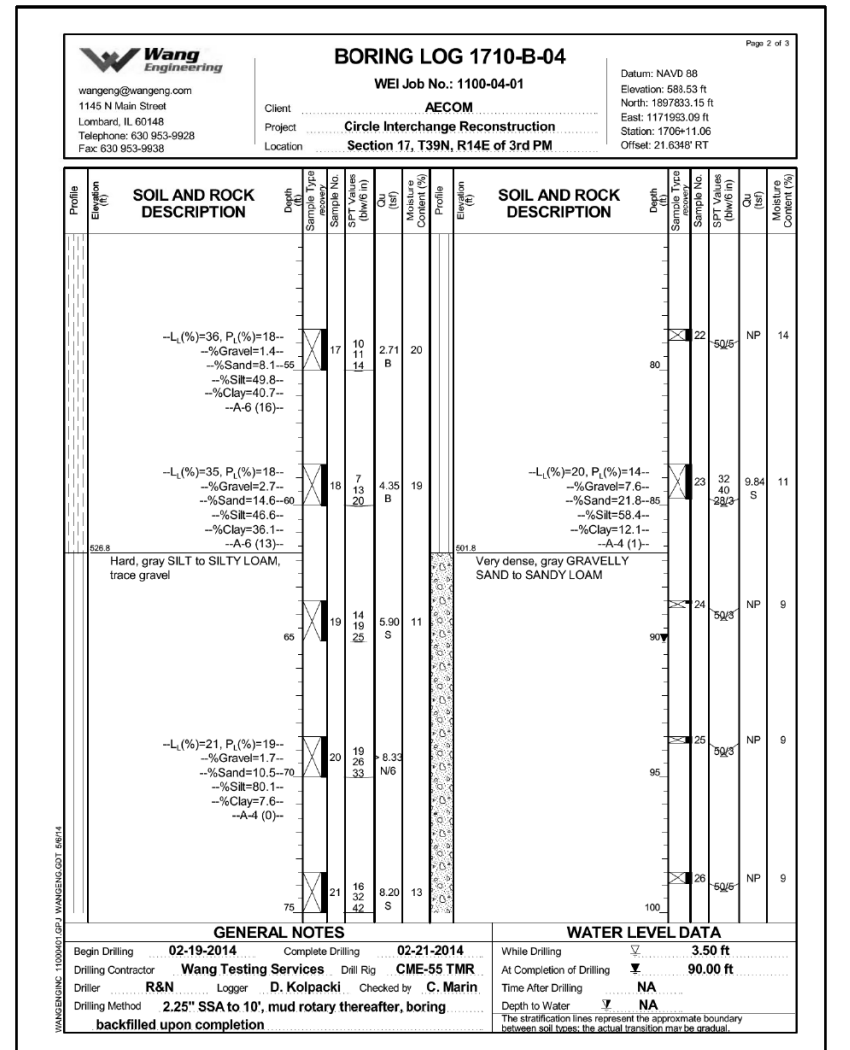
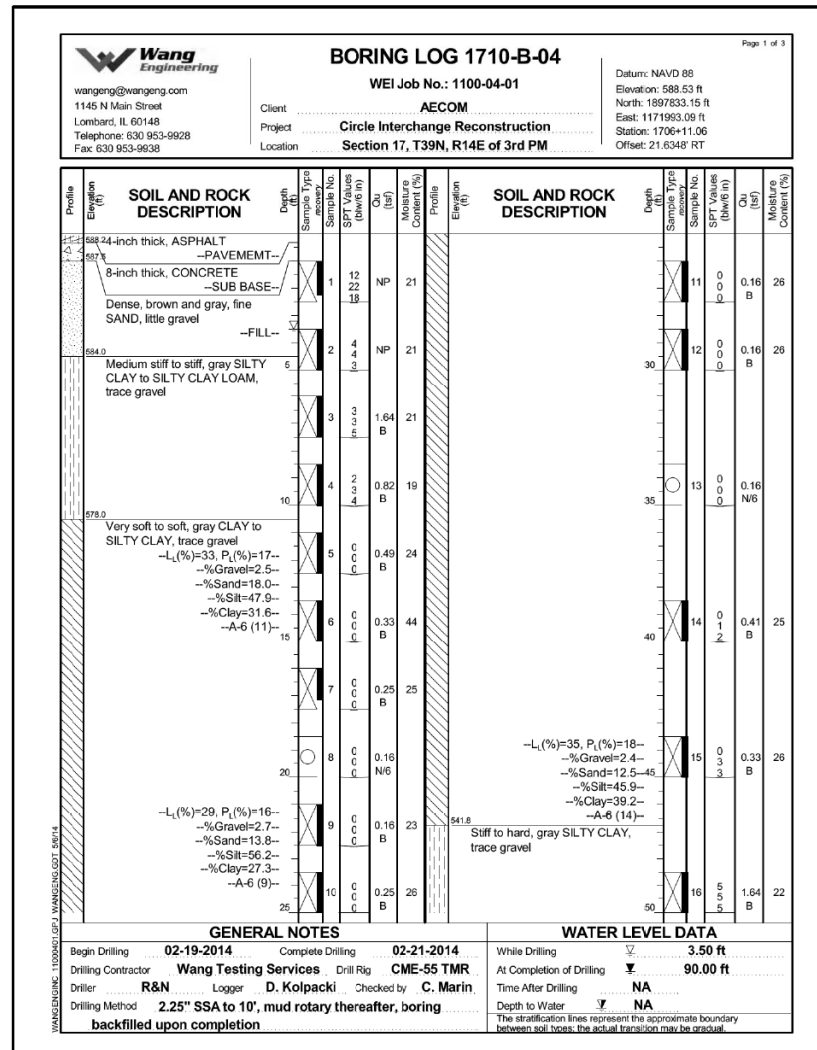
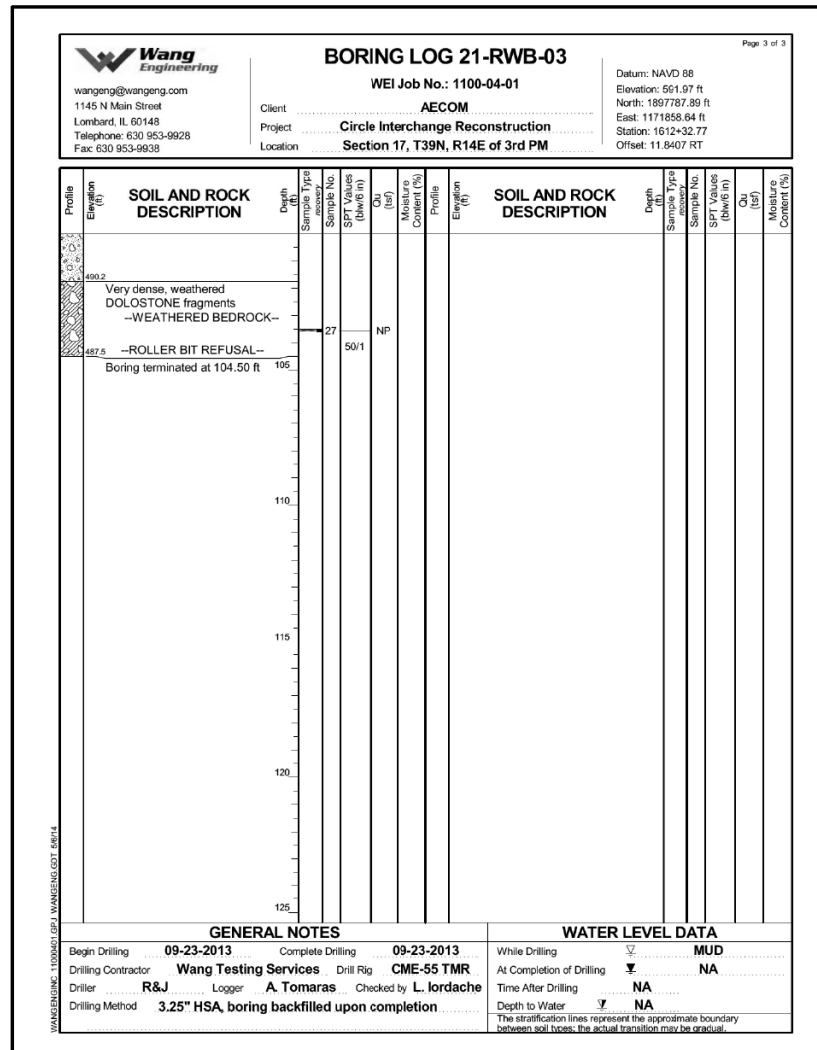
**HBM**  
ENGINEERING GROUP, LLC

USER NAME = ahmad,issa	DESIGNED -	REVISED -
CHECKED -	REVISIONS -	
PLOT SCALE = N.T.S.	DRAWN -	REVISED -
PLOT DATE = 7/26/2018	CHECKED - MI, MAI	REVISED -

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0161710-62B76-5049-BOR.dgn

# FOR INFORMATION ONLY



**PARSONS BRINCKERHOFF**

USER NAME =	lopezgonzalez	DESIGNED -	IJL	REVISED -	
PLOT SCALE =	N.T.S.	CHECKED -	PJL	REVISED -	
PLOT DATE =	5/6/2016	DRAWN -	IJL	REVISED -	
		CHECKED -	JIG	REVISED -	

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

BORING LOGS V  
 STRUCTURE NO. 016-1710

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	189
CONTRACT NO. 62B76				

**HBM**  
 ENGINEERING GROUP, LLC

USER NAME =	ahmad,issa	DESIGNED -	REVISED -
PLOT SCALE =	N.T.S.	CHECKED -	REVISED -
PLOT DATE =	7/26/2018	DRAWN -	REVISED -
		CHECKED -	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

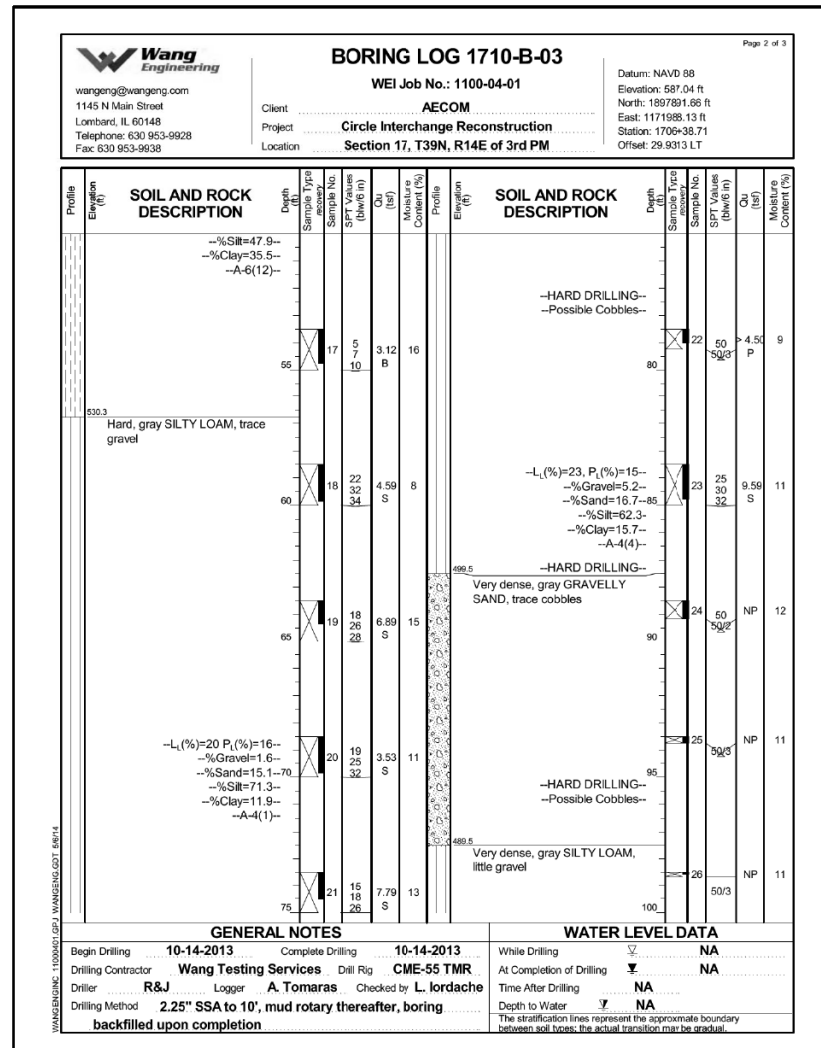
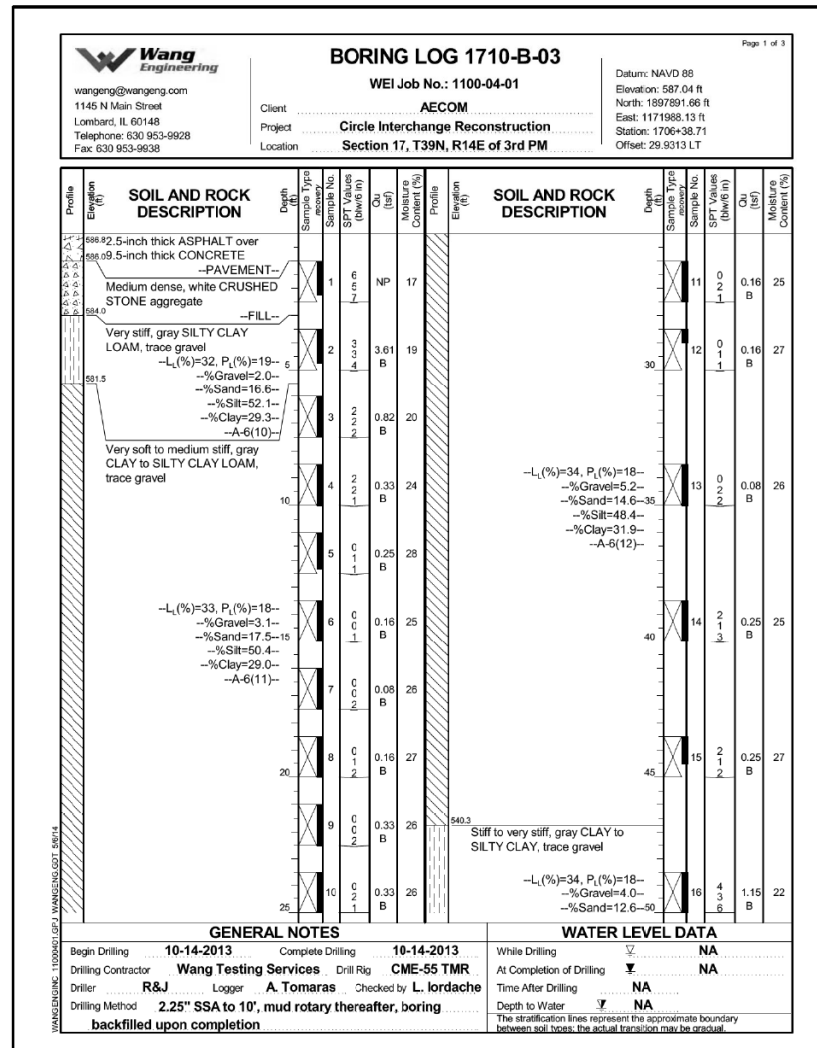
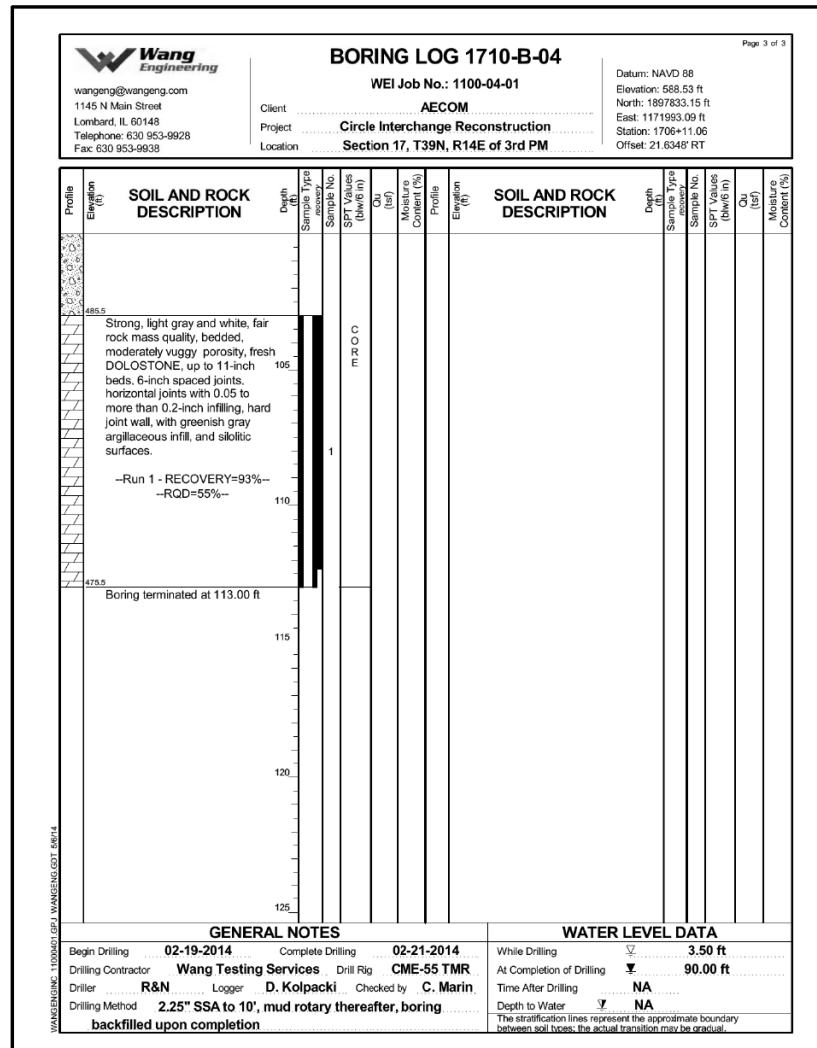
EXISTING RECORD DRAWINGS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	794
CONTRACT NO. 60X79				

FILE NAME: DWG:\61749-PWINT-aecomonline.local\AECOM\_DS02\_NAYDocuments\01\_Americas\Transportation\60269938\_CirclePhase\_I\000\_CAD\008\_Structural\Structure\_016-1712-60X79-Sxx-Existing\_53

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# FOR INFORMATION ONLY



**PARSONS BRINCKERHOFF**

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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

BORING LOGS VI  
 STRUCTURE NO. 016-1710

EXISTING RECORD DRAWINGS

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

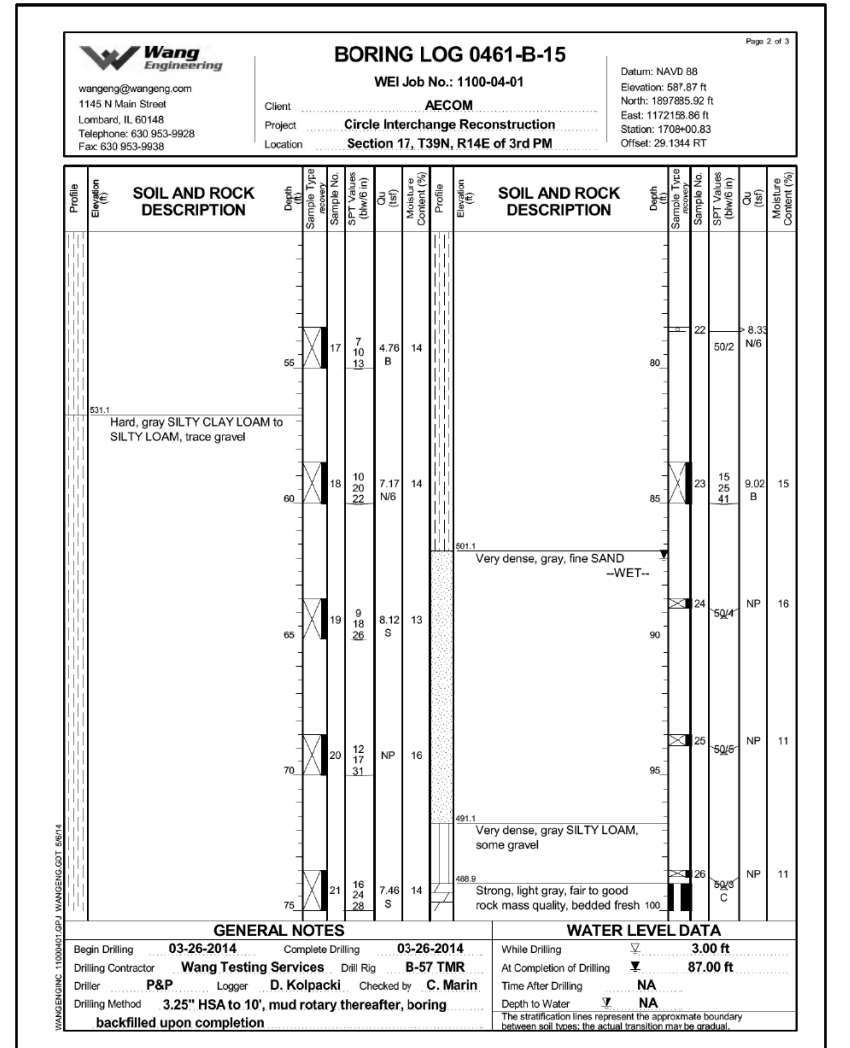
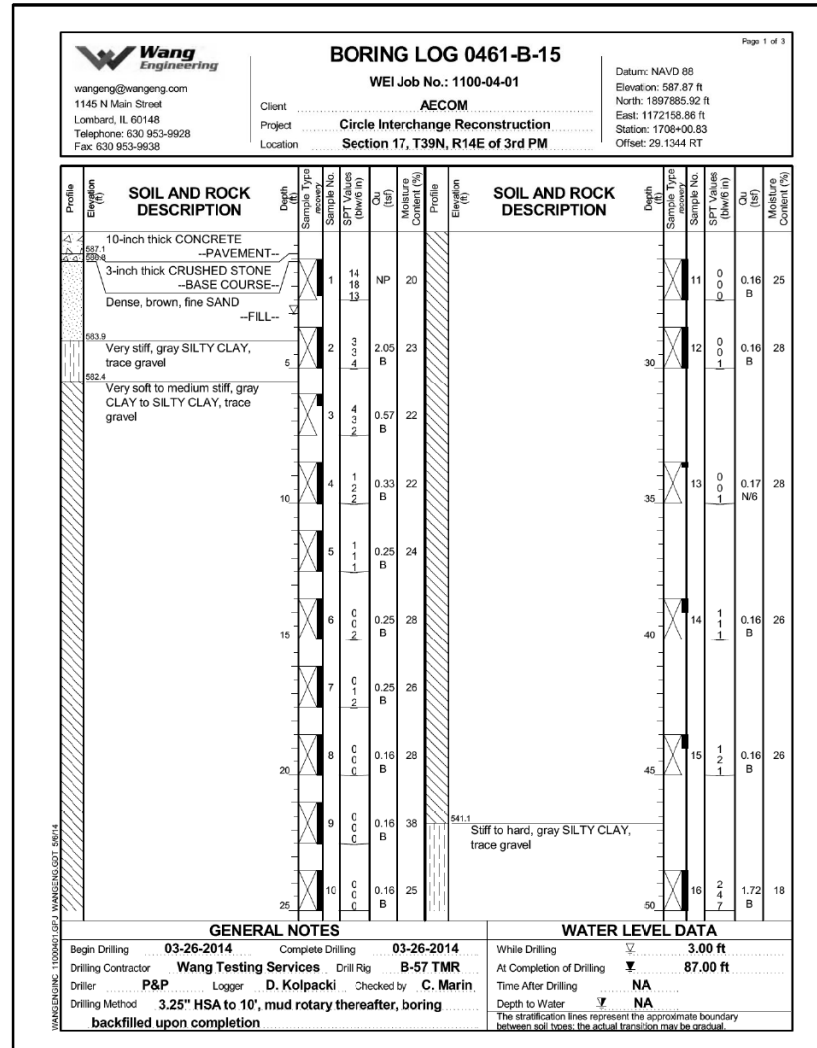
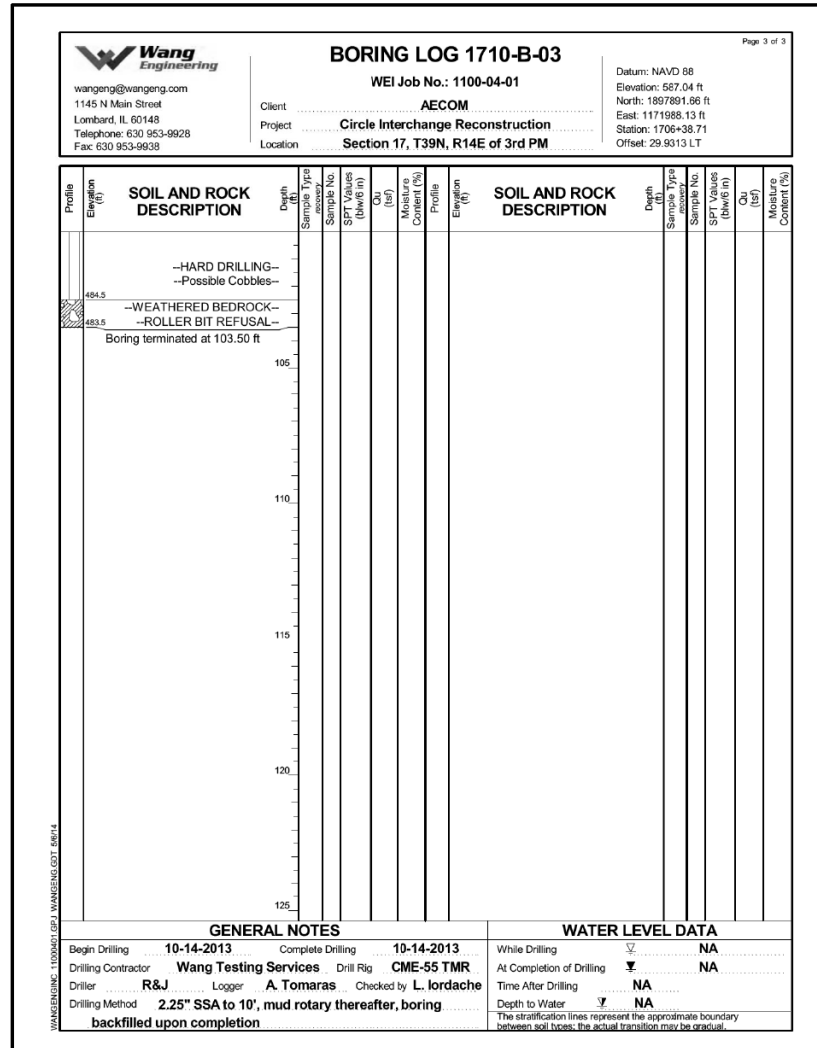
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	190
CONTRACT NO. 62B76				
ILLINOIS FED. AID PROJECT				

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	795
CONTRACT NO. 60X79				
ILLINOIS FED. AID PROJECT				

**HBM**  
 ENGINEERING GROUP, LLC

FILE NAME: D:\V161749-PWINT-aecomonline.local\AECOM\_DS02\_NAYDocuments\01\_Americas\Transportation\60269938\_CirclePhase\_I\000\_CAD\008\_Structural\Plans\016-1712-Existing\Structure\_016-1712-Existing\Structure\_016-1712-Existing\_Skx-Existing\_54.dgn  
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# FOR INFORMATION ONLY



**PARSONS BRINCKERHOFF**

USER NAME =	lopezgonzalez	DESIGNED -	IJL	REVISED -	
PLOT SCALE =	N.T.S.	CHECKED -	PJL	REVISED -	
PLOT DATE =	5/6/2016	DRAWN -	IJL	REVISED -	
		CHECKED -	JIG	REVISED -	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BORING LOGS VII  
STRUCTURE NO. 016-1710

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	191
CONTRACT NO. 62B76				

**HBM**  
ENGINEERING GROUP, LLC

USER NAME =	ahmad,issa	DESIGNED -		REVISED -	
PLOT SCALE =	N.T.S.	CHECKED -		REVISED -	
PLOT DATE =	7/26/2018	DRAWN -		REVISED -	
		CHECKED -	MI, MAI	REVISED -	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING RECORD DRAWINGS

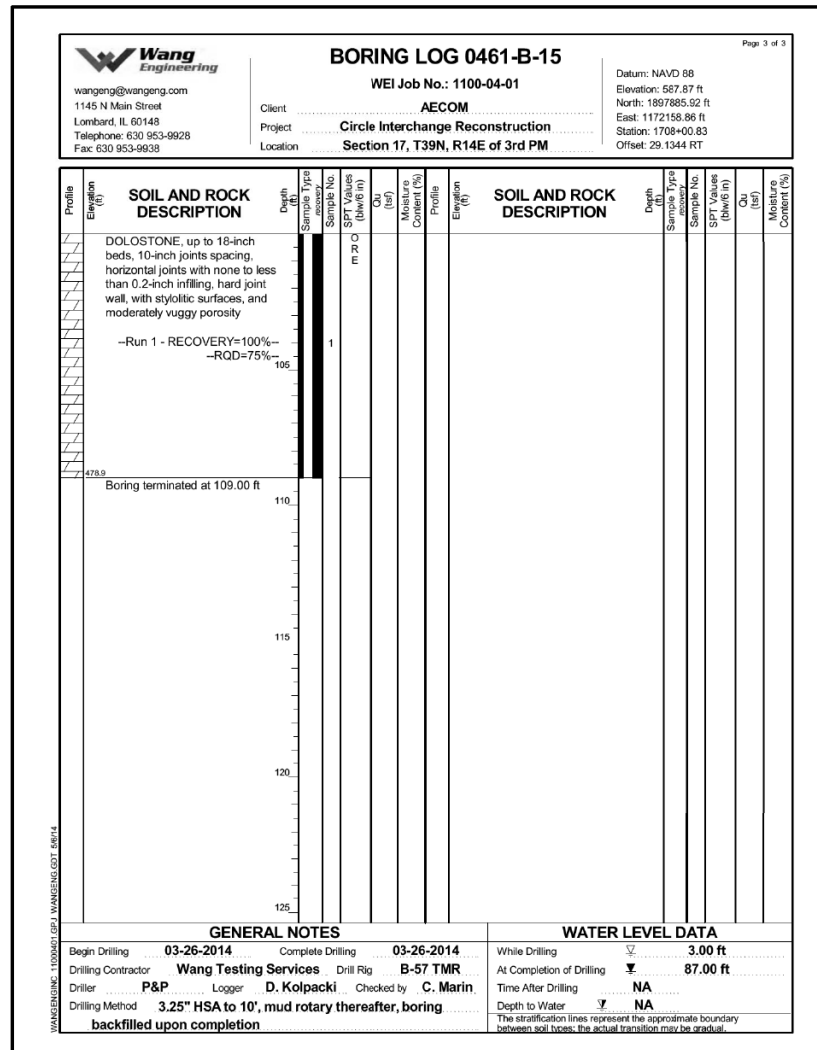
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90/94/290	2014-005R&B	COOK	888	796
CONTRACT NO. 60X79				

FILE NAME: D:\V161749-PWINT-aecomonline.local\AECOM\_DS02\_NAYDocuments\01\_Americas\Transportation\60269938\_Circle\Phase\_I\000\_CAD\008\_Structural\Structure\_016-1712\Existing\_Plans\016-1712-60X79-Sxx-Existing\_55

0161710-62B76-5052-BOR.dgn



# FOR INFORMATION ONLY



0161710-62B76-5053-BOR.dgn



USER NAME =	lopezgonzalez	DESIGNED -	IJL	REVISED -	
PLOT SCALE =	N.T.S.	CHECKED -	PJL	REVISED -	
PLOT DATE =	5/6/2016	DRAWN -	IJL	REVISED -	
		CHECKED -	JIG	REVISED -	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BORING LOGS VIII  
STRUCTURE NO. 016-1710

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-080R&B	COOK	250	192
CONTRACT NO. 62B76				

SHEET NO. S1-53 OF S1-53 SHEETS

ILLINOIS FED. AID PROJECT



USER NAME =	ahmad,issa	DESIGNED -		REVISED -	
PLOT SCALE =	N.T.S.	CHECKED -		REVISED -	
PLOT DATE =	7/26/2018	DRAWN -		REVISED -	
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

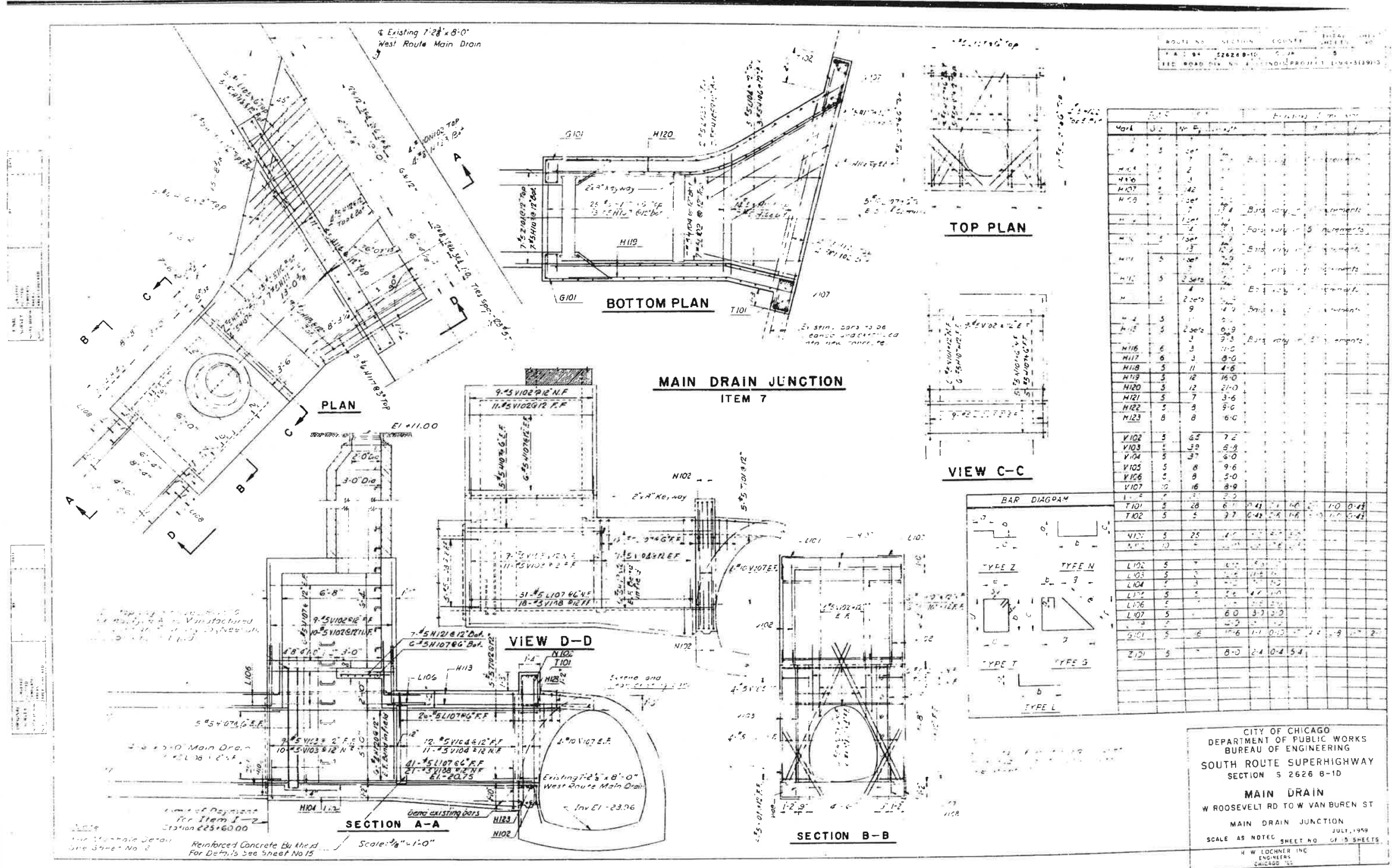
EXISTING RECORD DRAWINGS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	797
CONTRACT NO. 60X79				

ILLINOIS FED. AID PROJECT

FILE NAME: D:\161710-62B76-PWINT.aecomonline.local\AECOM\_DS02\_NAYDocuments\01\_Americas\Transportation\60269938\_Circle\Phase\_II\000\_CAD\008\_Structural\Structure\_016-1712\Existing\_Plans\016-1712-60X79-Sxx-Existing\_56

# FOR INFORMATION ONLY



CITY OF CHICAGO  
 DEPARTMENT OF PUBLIC WORKS  
 BUREAU OF ENGINEERING  
 SOUTH ROUTE SUPERHIGHWAY  
 SECTION 5 2626 B-1D  
**MAIN DRAIN**  
 W ROOSEVELT RD TO W VAN BUREN ST  
 MAIN DRAIN JUNCTION  
 SCALE AS NOTED SHEET NO. OF 3 SHEETS  
 JULY, 1959  
 H W LOCHNER INC  
 ENGINEERS  
 CHICAGO, ILL.

FILE NAME: D:\V1617479-PWINT-accomonline.local\AECOM\_DS02\_NAYDocuments\01\_Americas\Transportation\60269938\_Circle\Phase\_II\000\_CAD\008\_Structural\Plans\016-1712\Existing\_Plans\016-1712-60X79-Skx-Existing\_57



USER NAME =	ahmad,issa	DESIGNED -	REVISD -
PLOT SCALE =	N.T.S	CHECKED -	REVISD -
PLOT DATE =	7/26/2018	DRAWN -	REVISD -
		CHECKED -	REVISD -
		MI, MAI	

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

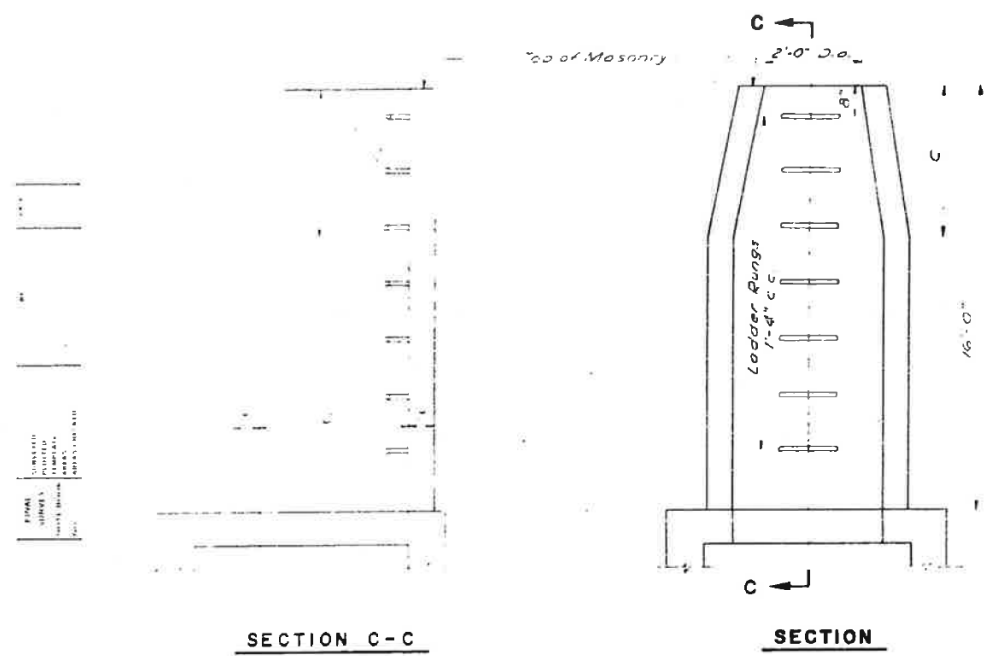
EXISTING RECORD DRAWINGS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	798
CONTRACT NO. 60X79				

ILLINOIS FED. AID PROJECT

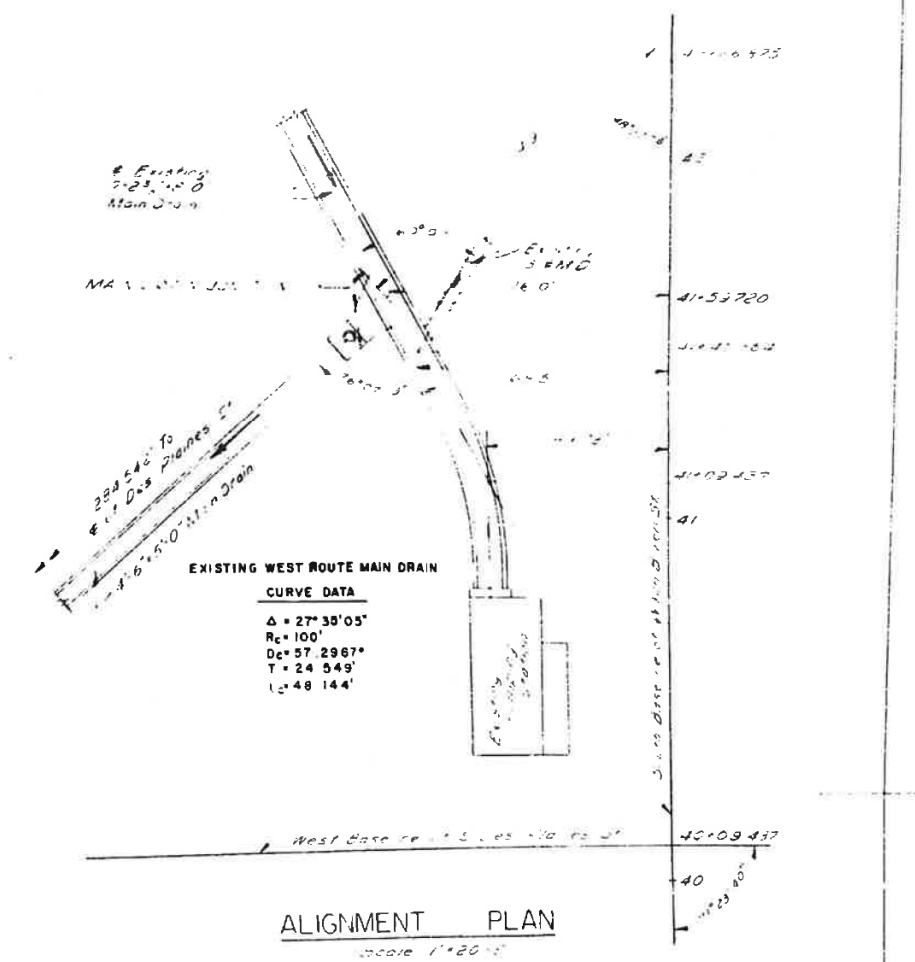
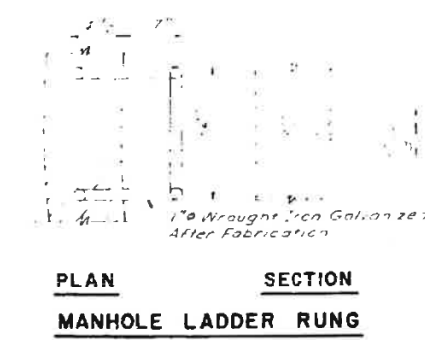
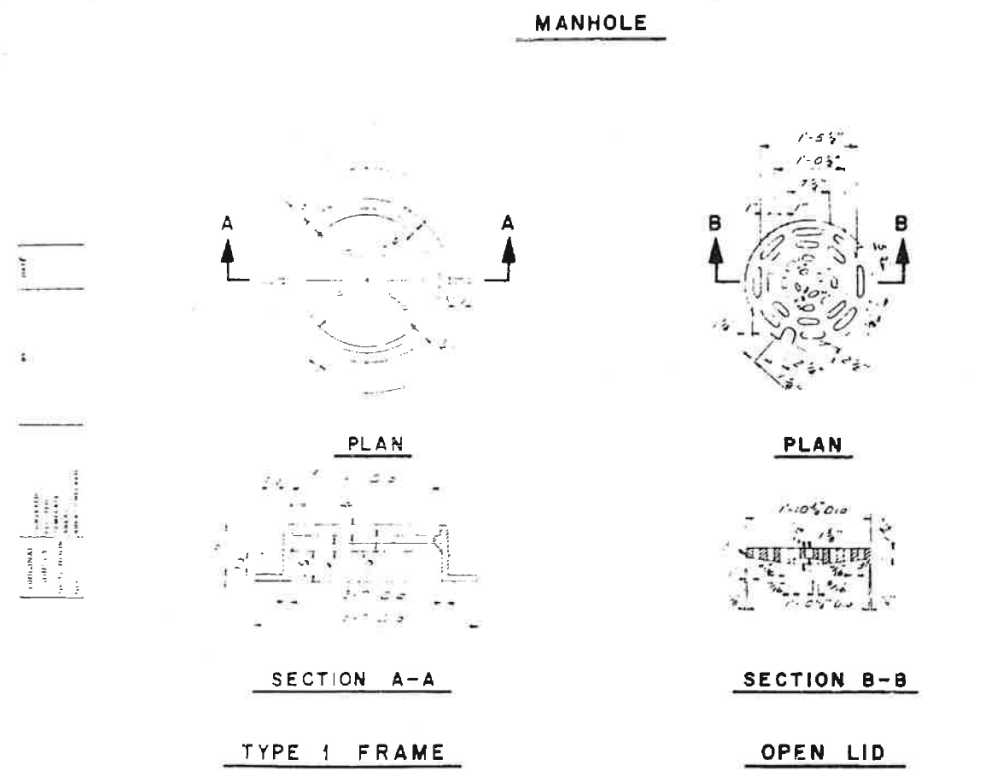
# FOR INFORMATION ONLY

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
141B4	52476 B 1 D	COOK	15	12
FED ROAD DIST NO 4 ILLINOIS PROJECT 1 94-3150-5				



ALTERNATE MATERIALS FOR WALLS	D	C	T
CONCRETE MASONRY UNITS	3'	1'-3"	6"
BUILDING BRICK OR S.W. OF CLAY OR SHALE	3'	1'-3"	6"
PRECAST REINFORCED CONCRETE RINGS #	3'	1'-3"	4"
MONOLITHIC CONCRETE	3'	1'-3"	6"
CONCRETE BUILDING BRICK GRADE "A"	3'	1'-3"	6"

**NOTES:**  
 BRICK AND CONCRETE MASONRY UNITS TO BE LAID IN FULL MORTAR BEDS WITH FLUSH JOINTS.  
 MANHOLE SHALL BE PROVIDED WITH TYPE 1 FRAME AND OPEN LID.  
 PRECAST R.C. RISERS SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR REINFORCED CONC. SEWER PIPE, A.S.T.M. DESIGNATION C-75, EXCEPT THAT ONE LINE OF REINFORCEMENT AMOUNTING TO AT LEAST 0.14 SQUARE INCH PER LINEAL FEET MAY BE USED AND THE STRENGTH REQUIREMENT WILL BE WAIVED. THE CONTRACT PRICE FOR MAIN DRAIN JUNCTION SHALL INCLUDE MANHOLE, FRAME AND LID.



CITY OF CHICAGO  
 DEPARTMENT OF PUBLIC WORKS  
 BUREAU OF ENGINEERING  
 SOUTH ROUTE SUPERHIGHWAY  
 SECTION 5 2626 B-1D  
**MAIN DRAIN**  
 W ROOSEVELT RD TO W VAN BUREN ST.  
 MANHOLE DETAIL, ALIGNMENT PLAN  
 JULY, 1959  
 SCALE AS NOTED SHEET NO. 12 OF 15 SHEETS  
 H. W. LOCHNER INC.  
 ENGINEERS  
 CHICAGO, ILL.

FILE NAME: D:\V61749-PWINT-aecom\online\local\AECOM\_DS02\_NAYDocuments\01\_Americas\Transportation\60269938\_Circle\Phase\_II\000\_CAD\008\_Structural\Structure\_016-1712-60X79-Skx-Existing\_58



USER NAME = ahmad,issa	DESIGNED -	REVISED -
PLOT SCALE = N.T.S	CHECKED -	REVISED -
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	CHECKED - MI, MAI	REVISED -

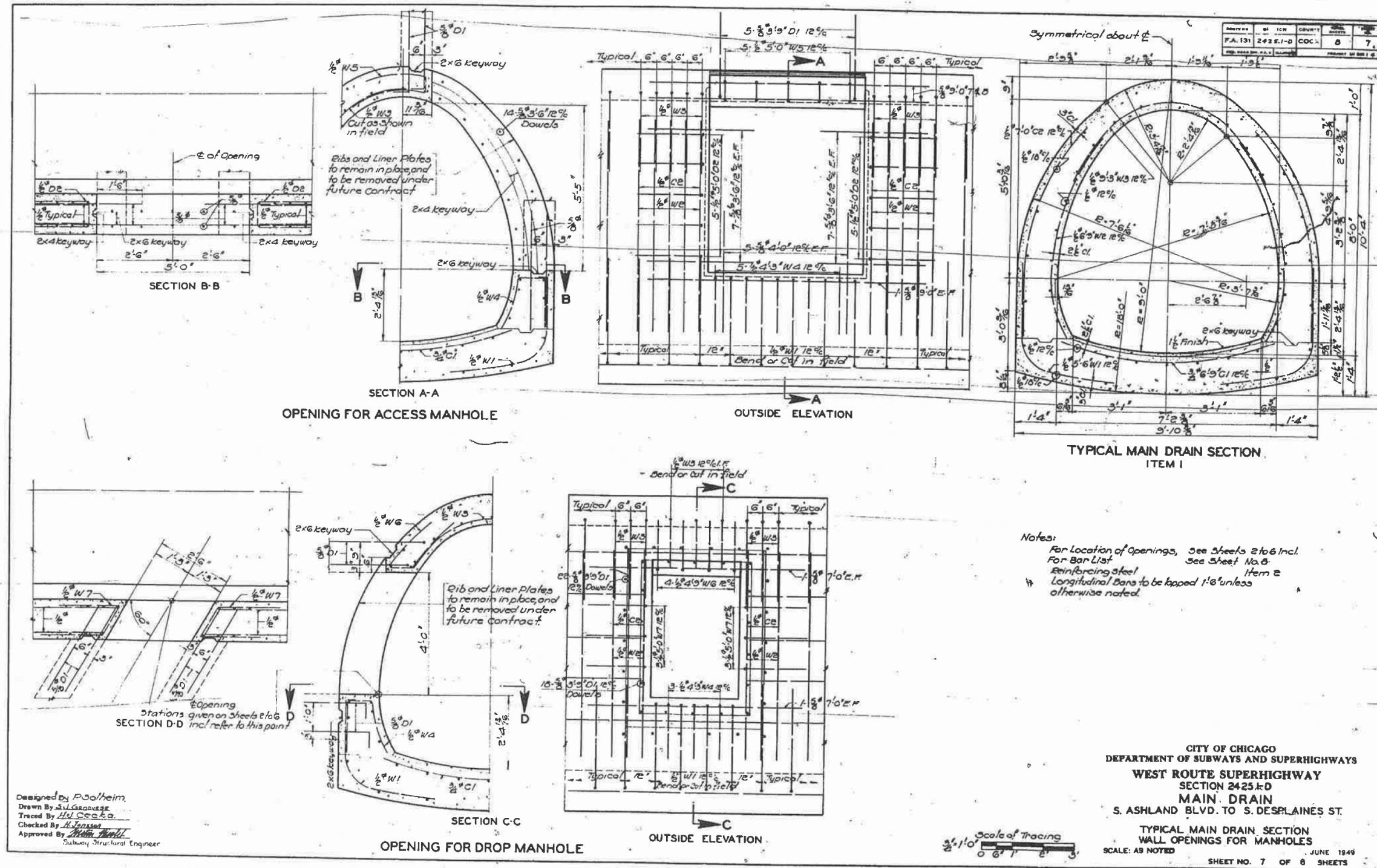
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

EXISTING RECORD DRAWINGS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	799
CONTRACT NO. 60X79				

ILLINOIS FED. AID PROJECT

# FOR INFORMATION ONLY



FILE NAME: DWG:\61749-PWINT-aecomonline.local\AECOM\_DS02\_NAYDocuments\01\_Americas\Transportation\60269938\_CirclePhase\_I\000\_CAD\008\_Structural\Structure\_016-1712\Existing\_Plans\016-1712-60X79-Skx-Existing\_58.1

USER NAME =	ahmad,issa	DESIGNED -	REVISD -
PLOT SCALE =	N.T.S	CHECKED -	REVISD -
PLOT DATE =	7/26/2018	DRAWN -	REVISD -
		CHECKED -	REVISD -
		MI, MAI	

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-005R&B	COOK	888	800
CONTRACT NO. 60X79				
ILLINOIS FED. AID PROJECT				