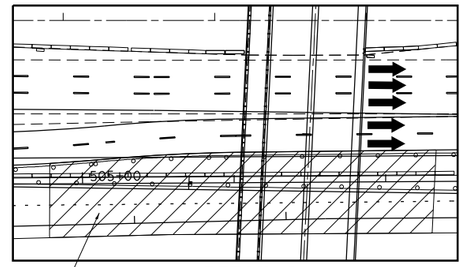
NOTES:

1) RECONSTRUCT THE GORE AND INSTALL PROPOSED SLOTTED DRAIN IN THE GORE AREA AS SHOWN ON THE PLANS. TEMPORARY LANE CLOSURES ALONG EB I-90 AND EB I-190 IS ALLOWED DURING THE HOURS AS SPECIFIED IN SPECIAL PROVISION.
2) CONTRACTOR SHALL VERIFY THE DIFFERENCE IN GRADE BETWEEN THE PAVEMENT AND DROP-OFF IS LESS THAN 12" PRIOR TO OPENING ADJACENT LANE TO TRAFFIC.
3) CONTRACTOR SHALL CONSTRUCT THE GAP ALONG EB C-D ROAD UNDER THE EAST RIVER ROAD BRIDGE AS SHOWN IN DETAIL A PRIOR TO SHIFTING SB CUMBERLAND RAMP TRAFFIC ONTO NEW C-D ROAD AS SHOWN IN STAGE 3.
4) COORDINATE CONSTRUCTION WORK UNDER EAST RIVER ROAD BRIDGE AND MAINTENANCE OF TRAFFIC STAGING WITH ADJACENT CONTRACT 62A64. IT IS ANTICIPATED THAT THE CONTRACT 62A64 WILL BE COMPLETED BY OCTOBER 31, 2016.



DETAIL A
(SEE NOTE 3)

MAINTENANCE OF TRAFFIC LEGEND

- WORK AREA
- TEMPORARY PAVEMENT
- EX. TRAFFIC DIRECTION
- PR. TRAFFIC DIRECTION
- BARRICADE, TYPE III, W/ TYPE A BI-DIRECTIONAL FLASHING LIGHT
- TYPE II BARRICADES OR DRUMS W/ TYPE C STEADY BURN MNO-DIRECTIONAL LIGHT
- TYPE B MONO-DIRECTIONAL FLASHING LIGHT
- ARROW BOARD
- VERTICAL PANEL
- PROPOSED SIGN
- TEMPORARY CONCRETE BARRIER
- (1) PVT MK - LINE 5" WHITE
- (2) PVT MK - LINE 4" YELLOW
- (3) PVT MK - LINE 4" WHITE
- (4) PVT MK - LINE 6" WHITE
- (5) PVT MK - LINE 12"
- (6) PVT MK - LTRS & SYMB
- (7) PVT MK - LINE 24" WHITE
- (8) PVT MK - LINE 8" WHITE
- (T) TEMP PVT MK (SEE SHT G-03)
- (W) WET REF TEM TAPE T3 (SEE SHT G-03)

FILE NAME = D1B056-sht-MOT-3-02.dgn

exp U.S. Services Inc.
Chicago, IL
BUILDINGS EARTH & ENVIRONMENT ENERGY INDUSTRIAL INFRASTRUCTURE SUSTAINABILITY

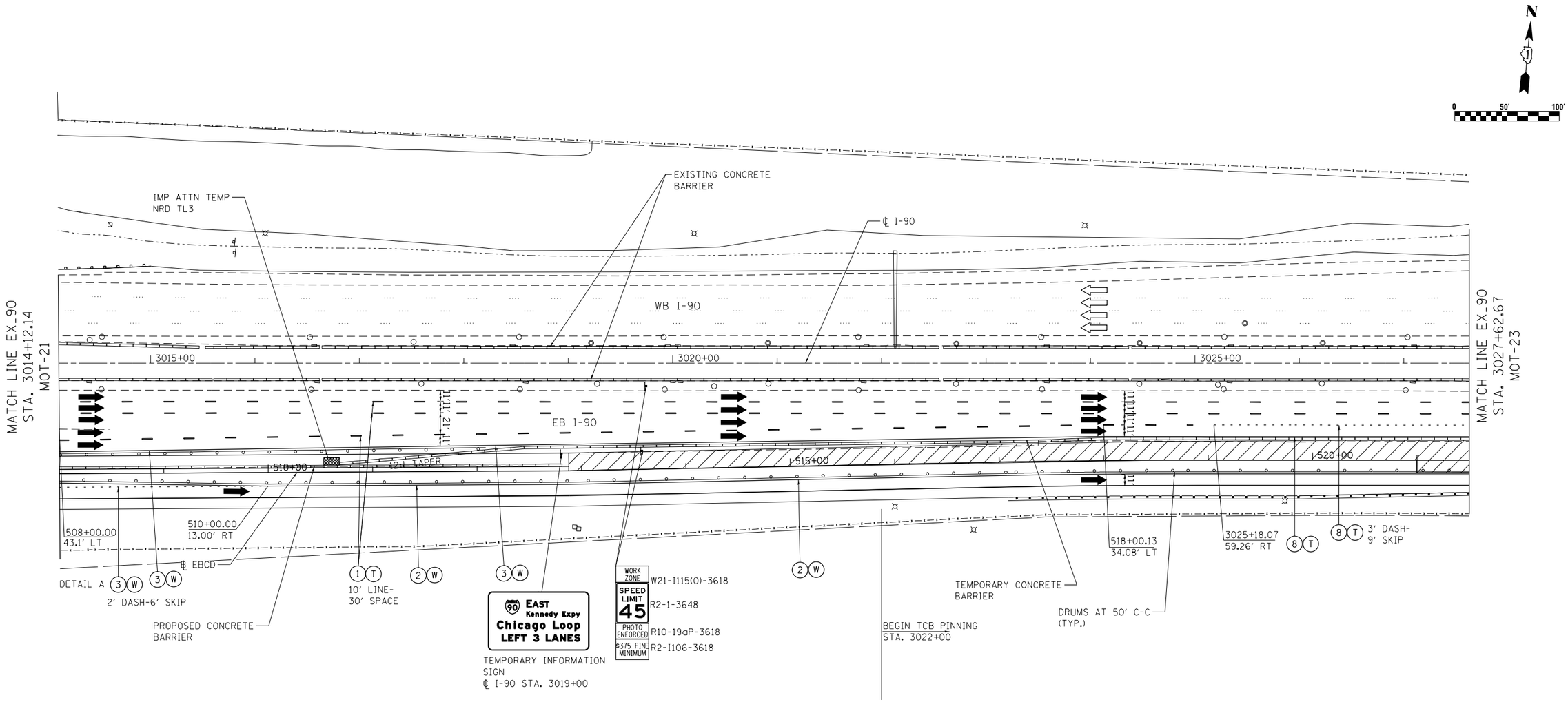
USER NAME = mohammma	DESIGNED - MM	REVISED -
	DRAWN - MM	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED - KA	REVISED -
PLOT DATE = 4/28/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL
STAGE 3 EB

SCALE: | SHEET OF SHEETS | STA. 3003+38.74 TO STA. 3014+12.14

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	101
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			



MAINTENANCE OF TRAFFIC LEGEND

- WORK AREA
- TEMPORARY PAVEMENT
- EX. TRAFFIC DIRECTION
- PR. TRAFFIC DIRECTION
- BARRICADE, TYPE III, W/ TYPE A BI-DIRECTIONAL FLASHING LIGHT
- TYPE II BARRICADES OR DRUMS W/ TYPE C STEADY BURN MONO-DIRECTIONAL LIGHT
- TYPE B MONO-DIRECTIONAL FLASHING LIGHT
- ARROW BOARD
- VERTICAL PANEL
- PROPOSED SIGN
- TEMPORARY CONCRETE BARRIER
- (1) PVT MK - LINE 5" WHITE
- (2) PVT MK - LINE 4" YELLOW
- (3) PVT MK - LINE 4" WHITE
- (4) PVT MK - LINE 6" WHITE
- (5) PVT MK - LINE 12"
- (6) PVT MK - LTRS & SYMB
- (7) PVT MK - LINE 24" WHITE
- (8) PVT MK - LINE 8" WHITE
- (T) TEMP PVT MK (SEE SHT G-03)
- (W) WET REF TEM TAPE T3 (SEE SHT G-03)

NOTE:

1) INSTALL TEMPORARY CONCRETE BARRIER AND SECURE IT TO THE PAVEMENT USING THREE ANCHORING PINS ON TRAFFIC SIDE OF BARRIER ACCORDING TO ILLINOIS HIGHWAY STANDARD 704001.

FILE NAME = D160X56-sht-MOT-3-03.dgn

exp U.S. Services Inc.
Chicago, IL
BUILDINGS. EARTH & ENVIRONMENT. ENERGY. INDUSTRIAL INFRASTRUCTURE. SUSTAINABILITY

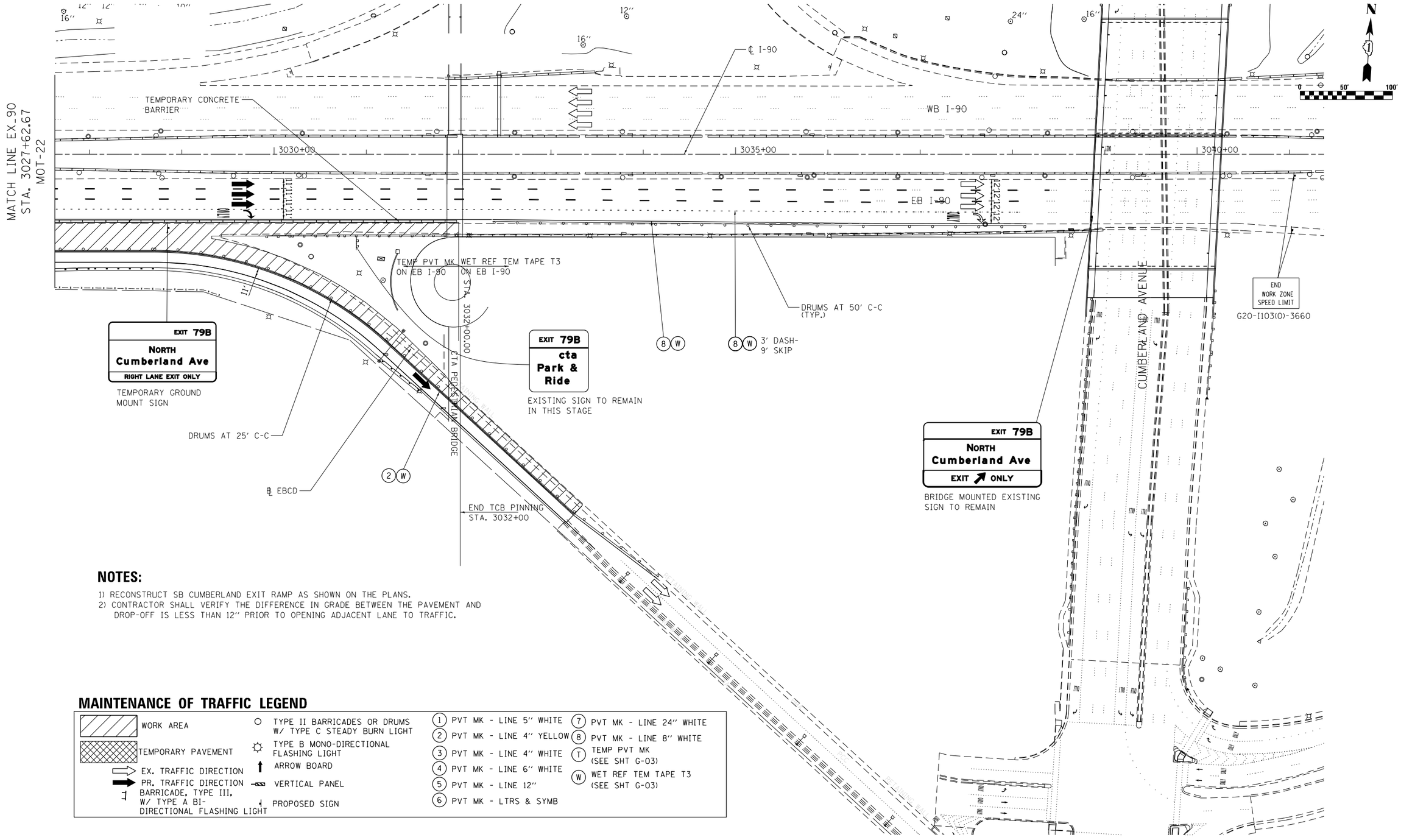
USER NAME = mohammma	DESIGNED - MM	REVISED -
	DRAWN - MM	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED - KA	REVISED -
PLOT DATE = 4/28/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL
STAGE 3 EB

SCALE: | SHEET OF SHEETS | STA. 3014+12.14 TO STA. 3027+62.67

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	102
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			



NOTES:

1) RECONSTRUCT SB CUMBERLAND EXIT RAMP AS SHOWN ON THE PLANS.
2) CONTRACTOR SHALL VERIFY THE DIFFERENCE IN GRADE BETWEEN THE PAVEMENT AND DROP-OFF IS LESS THAN 12" PRIOR TO OPENING ADJACENT LANE TO TRAFFIC.

MAINTENANCE OF TRAFFIC LEGEND

- WORK AREA
- TEMPORARY PAVEMENT
- EX. TRAFFIC DIRECTION
- PR. TRAFFIC DIRECTION
- BARRICADE, TYPE III, W/ TYPE A BI-DIRECTIONAL FLASHING LIGHT
- TYPE II BARRICADES OR DRUMS W/ TYPE C STEADY BURN LIGHT
- TYPE B MONO-DIRECTIONAL FLASHING LIGHT
- ARROW BOARD
- VERTICAL PANEL
- PROPOSED SIGN

(1) PVT MK - LINE 5" WHITE
(2) PVT MK - LINE 4" YELLOW
(3) PVT MK - LINE 4" WHITE
(4) PVT MK - LINE 6" WHITE
(5) PVT MK - LINE 12"
(6) PVT MK - LTRS & SYMB
(7) PVT MK - LINE 24" WHITE
(8) PVT MK - LINE 8" WHITE
(T) TEMP PVT MK (SEE SHT G-03)
(W) WET REF TEM TAPE T3 (SEE SHT G-03)

FILE NAME = D:\80256-sht-MOT-3-04.dgn

exp U.S. Services Inc.
Chicago, IL
BUILDINGS EARTH & ENVIRONMENT ENERGY INDUSTRIAL INFRASTRUCTURE SUSTAINABILITY

USER NAME = mohammma	DESIGNED - MM	REVISED -
	DRAWN - MM	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED - KA	REVISED -
PLOT DATE = 4/28/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

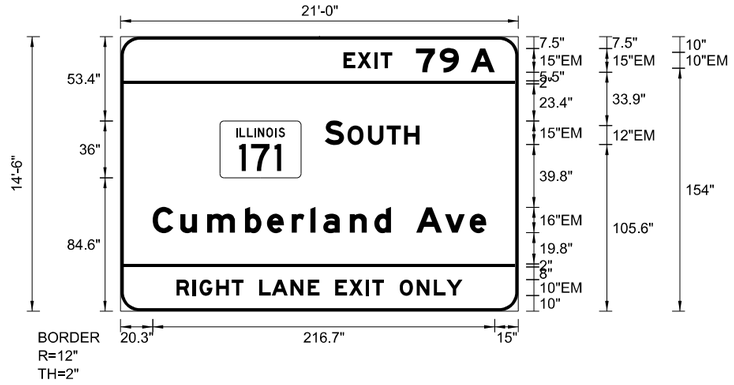
SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL
STAGE 3 EB

SCALE: | SHEET OF SHEETS | STA. 3027+62.67 TO STA. 3041+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	103
		CONTRACT NO. 60X56		
		ILLINOIS FED. AID PROJECT		

SIGN DETAIL

1:100



Panel Style: guide_exp_overhead.ssi
M.U.T.C.D.: 2009 Edition

Panel Style: guide_exp_overhead.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

SIGN NUMBER	TEMP SIGN 1
WIDTH x HGHT.	21'–0" x 14'–6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green/White
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White/Black

SYMBOL	ROT	X	Y	WID	HT
M1–I100A–3–42–20D		62.9	84.6	48	36
	0	0	0	252	30

LETTER POSITIONS (X)

																					LENGTH	SERIES-SIZE
E	X	I	T	7	9	A																EM 2000
141.3	150.1	160.9	164.7	187.1	202.2	221.9															95.8	10,15
S	O	U	T	H																		EM 2000
129.3	143.8	156.7	168.6	179.7																	60.1	15,12
C	u	m	b	e	r	l	a	n	d		A	v	e									EM 2000
20.3	37.8	54.7	78.7	92.8	108.3	120.2	128.3	145.3	160.8	171.4	187.4	205.6	221.1								211.4	16,12
R	I	G	H	T		L	A	N	E		E	X	I	T		O	N	L	Y			EM 2000
35.4	45.6	50	60.5	70.4	77.8	87.8	95.8	107.7	118.6	126	136	144.8	155.6	159.4	166.8	176.8	187.6	198.5	206.5		181.2	10

FILE NAME = ...\D16X056-sht-MOT-sign-panel-01.dgn

MOT–SGN–01

HNTB	USER NAME = mkosir	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 1.00 ' / in.	CHECKED - LLS	REVISED -
	PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

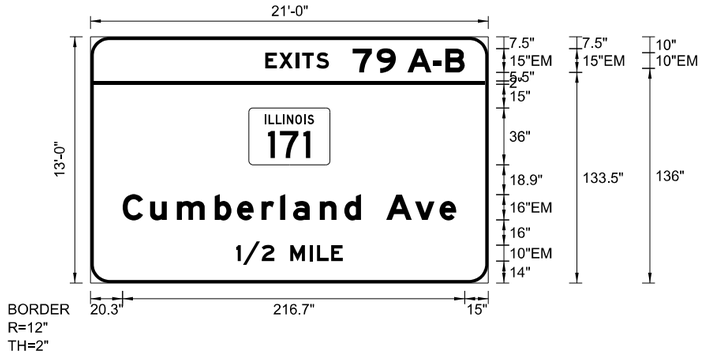
TEMPORARY INFORMATION SIGNS

SCALE: 1" = NTS | SHEET 1 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	104
		CONTRACT NO. 60X56		
		ILLINOIS	FED. AID PROJECT	

SIGN DETAIL

1:100



Panel Style: guide_exp_advance_a.ssi
M.U.T.C.D.: 2009 Edition

Panel Style: guide_exp_advance_a.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

SIGN NUMBER	TEMP SIGN 2
WIDTH x HGHT.	21'–0" x 13'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
M1–I100A–3–42–20D		100.3	74.9	48	36

LETTER POSITIONS (X)

																					LENGTH	SERIES/SIZE
E	X	I	T	S	7	9	A	–	B													EM 2000
110.7	119.5	130.3	134.1	143	166.1	181.2	200.9	217.1	224.9												126.4	10,15
C	u	m	b	e	r	I	a	n	d		A	v	e									EM 2000
20.3	37.8	54.7	78.7	92.8	108.3	120.2	128.3	145.3	160.8	171.4	187.4	205.6	221.1								211.4	16/12
1	/	2		M	I	L	E															EM 2000
92.2	96.6	108.4	116.5	126.5	138.6	143.4	152.4														67.6	10

MOT–SGN–02

USER NAME = mkosir	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 1.00 ' / in.	CHECKED - LLS	REVISED -	
PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -	

HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY INFORMATION SIGNS

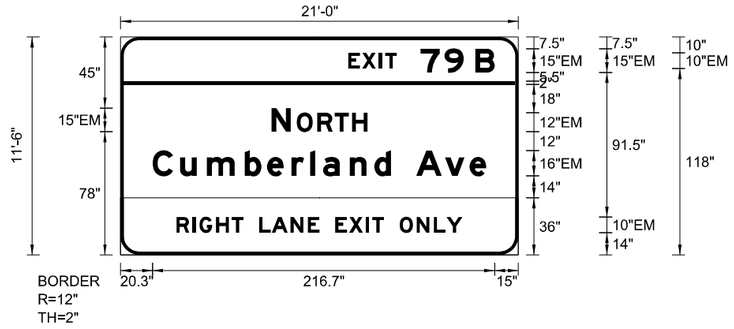
SCALE: 1" = NTS | SHEET 2 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	105
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

FILE NAME = ...\D160X56-sht-MOT-sign-panel-02.dgn

SIGN DETAIL

1:100



Panel Style: guide_fwy_advance_a.ssi
M.U.T.C.D.: 2009 Edition

Panel Style: guide_fwy_advance_a.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

SIGN NUMBER	TEMP SIGN 3
WIDTH x HGHT.	21'–0" x 11'–6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: RGB[64,64,64]/White/White

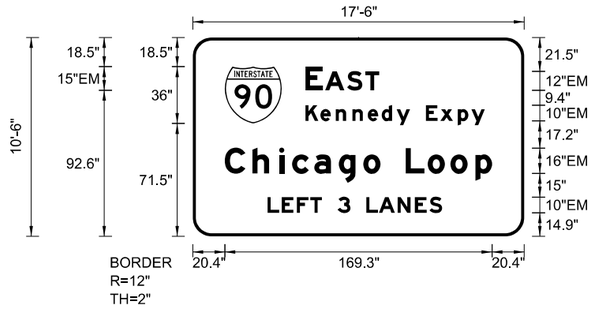
SYMBOL	ROT	X	Y	WID	HT

LETTER POSITIONS (X)

																					LENGTH	SERIES/SIZE
E	X	I	T	7	9	B																EM 2000
144.3	153.1	163.9	167.7	190.1	205.2	224.9															92.7	10,15
N	O	R	T	H																		EM 2000
95.6	111.7	124.6	135.7	146.7																	60.8	15,12
C	u	m	b	e	r	I	a	n	d		A	v	e									EM 2000
20.3	37.8	54.7	78.7	92.8	108.3	120.2	128.3	145.3	160.8	171.4	187.4	205.6	221.1								211.4	16,12
R	I	G	H	T		L	A	N	E		E	X	I	T		O	N	L	Y			EM 2000
35.4	45.6	50	60.5	70.4	77.8	87.8	95.8	107.7	118.6	126	136	144.8	155.6	159.4	166.8	176.8	187.6	198.5	206.5		181.2	10

SIGN DETAIL

1:100



Panel Style: guide_exp_advance_b.ssi
M.U.T.C.D.: 2009 Edition

Panel Style: guide_exp_advance_b.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

SIGN NUMBER	TEMP SIGN 4
WIDTH x HGHT.	17'–6" x 10'–6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
M1_1	0	20.4	71.5	36	36

LETTER POSITIONS (X)

																					LENGTH	SERIES/SIZE
E	A	S	T																			EM 2000
71.4	83.9	97.8	109.3																		46.8	15,12
K	e	n	n	e	d	y		E	x	p	y											EM 2000
71.4	80.9	90.6	101.2	110.9	119.7	129.2	137.7	147.7	156.9	168	176.6										113.7	10/7.5
C	h	i	c	a	g	o		L	o	o	p											EM 2000
20.4	37.8	54.8	62.9	77	92.5	108	118.9	134.9	148.8	163.2	179.1										169.3	16/12
L	E	F	T		3		L	A	N	E	S											EM 2000
47.4	56.4	65.9	74.4	81.8	91.8	99.9	109.9	117.9	129.8	140.7	149.9										110.6	10

MOT–SGN–04

HNTB	USER NAME = mkosir	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 1.00 ' / in.	CHECKED - LLS	REVISED -
	PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY INFORMATION SIGNS

SCALE: 1" = NTS | SHEET 4 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	107
		CONTRACT NO. 60X56		
	ILLINOIS	FED. AID PROJECT		

FILE NAME = ...\D1660X56-sht-MOT-sign-panel-04.dgn

EROSION AND SEDIMENT CONTROL GENERAL NOTES

1. THE WORK DESCRIBED ON THESE DRAWINGS IS AN INTEGRAL PART OF THE STORM WATER POLLUTION PREVENTION PLAN USED TO OBTAIN A NPDES PERMIT FROM IEPA FOR THE CONSTRUCTION OF THIS PROJECT. FULL COMPLIANCE WITH ALL TERMS OF THE NPDES PERMIT MUST BE STRICTLY ADHERED TO.

2. THE PURPOSE OF THE EROSION AND SEDIMENT CONTROL MEASURES INCLUDED FOR THIS PROJECT IS TO LIMIT THE SEDIMENT POLLUTION IMPACT OF ANY STORM WATER DISCHARGES THAT ORIGINATE ON THIS SITE OR OFF-SITE FLOWS THAT FLOW OVER THE DISTURBED AREAS ON DOWNSTREAM AREAS.

3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT SEDIMENT TRANSPORT OFF THE SITE IS REDUCED BY A COMBINATION OF MINIMIZATION OF EROSION AT THE SOURCE AND INSTALLATION OF SPECIFIC MEASURES TO CONTROL OR REDUCE THE TRANSPORT OF SEDIMENT. A COPY OF THE EROSION AND SEDIMENT CONTROL SCHEDULE BEING IMPLEMENTED BY THE CONTRACTOR WILL BE ON THE CONSTRUCTION SITE AT ALL TIMES.

4. TO THE MAXIMUM EXTENT POSSIBLE, ALL FLOWS ORIGINATING OFF THE CONSTRUCTION SITE WILL BE DIVERTED AROUND DISTURBED AREAS OR WILL NOT BE CONVEYED THROUGH THE SITE IN A MANNER THAT UNTREATED ON-SITE RUNOFF DOES NOT MIX WITH THE OFF-SITE RUNOFF.

5. ALL RUNOFF ORIGINATING ON DISTURBED AREAS ASSOCIATED WITH THIS PROJECT WILL PASS THROUGH ONE OR MORE MEASURES THAT WILL REDUCE OVERLAND FLOW RATES AS WELL AS CURTAIL ON AND OFF-SITE SEDIMENT IMPACTS OF THE CONSTRUCTION ACTIVITY.

6. ALL PERMANENT SEDIMENT BASINS, PERMANENT STORM WATER CONTROL MEASURES, AND RUNOFF CONTROL MEASURES REQUIRED TO KEEP OFF-SITE RUNOFF FROM FLOWING OVER THE CONSTRUCTION AREA WILL BE INSTALLED BEFORE CLEARING AND STRIPPING OF THE SITE PROCEEDS. PRIOR TO PROCEEDING WITH GENERAL EARTHWORK ON A PROJECT THE CONTRACTOR WILL OBTAIN APPROVAL OF HIS PROPOSED EARTHWORK AND STABILIZATION SCHEDULE.

7. A MAXIMUM OF 10 ACRES MAY BE IN SOME STAGE OF GRADING AT A SINGLE TIME. ADDITIONAL AREAS (UP TO 10 ACRES) MAY BE CLEARED BUT WILL NOT BE STRIPPED OF VEGETATION UNTIL THE GRADED AREAS HAVE BEEN PROTECTED FROM EROSION THROUGH INSTALLATION OF EITHER TEMPORARY OR PERMANENT MEASURES. WHENEVER POSSIBLE, THE GRADING WILL BE COMPLETED TO THE DESIGN GRADE AND THE PERMANENT VEGETATION PLAN IMPLEMENTED PRIOR TO STARTING GRADING ACTIVITIES ON THE NEXT SITE.

   (A) WHEN BALANCING EARTHWORK (BORROW FROM A CUT USED AS FILL AT A LOCATION DISTANT FROM THE CUT) THE ENGINEER WILL CONSIDER ALLOWING MORE THAN 10 ACRES OF GRADING AT A TIME. THE 10 ACRE LIMITATION DOES NOT INCLUDE HAUL ROADS, BRIDGE CONSTRUCTION WORK AREAS NOR STORAGE AREAS.

   (B) VARIATIONS TO THE ABOVE MAY BE CONSIDERED BY THE ENGINEER UNDER ALL THE FOLLOWING CONDITIONS:

   - IF THE CONTRACTOR FALLS BEHIND SCHEDULE THROUGH NO FAULT OF HIS OWN.
   - THE CONTRACTOR MUST PRESENT A SCHEDULE DEMONSTRATING THE NEED FOR SUCH VARIATION IN ORDER TO COMPLETE WORK ON TIME.

8. DISTURBED AREAS ARE TO BE PROTECTED FROM EROSION IN A TIMELY MANNER. UPON COMPLETION OF GRADING OR CONSTRUCTION, THE AREA WILL BE STABILIZED (USING PERMANENT MEASURES WHEN POSSIBLE) WITHIN 1 CALENDAR DAY. TEMPORARY STABILIZATION THROUGH USE OF GROUND COVER, MULCHING, OR OTHER APPROVED MEASURES WILL BE INSTALLED WHENEVER SITE DEVELOPMENT WORK, GRADING OR OTHER EARTH DISTURBING ACTIVITIES CEASE TO BE CONTINUOUS FOR A PERIOD EXCEEDING 14 CALENDAR DAYS. THE 7/14 DAY REQUIREMENT IS TAKEN TO MEAN THAT THE STABILIZATION OPERATION IS COMPLETE OR NEARING COMPLETION IN THE DEFINED TIME.

9. STABILIZATION OF CUT OR FILL SLOPES WITH PERMANENT EROSION CONTROL MEASURES IS REQUIRED WHENEVER THE CUT OR FILL ACTIVITY REACHES 10 FEET VERTICALLY OR THE FINISHED SLOPE HEIGHT EQUALS 30 FEET, WHICHEVER IS MORE RESTRICTIVE. ONCE THE STABILIZATION MEASURES ARE INSTALLED, THE PLACEMENT OF FILL EXCAVATION ACTIVITIES ARE ALLOWED TO PROCEED. TEMPORARY STABILIZATION OF THE CUT OR FILL SLOPES USING MULCH METHOD 2 WILL BE INSTALLED WITHIN 1 CALENDAR DAY WHEN ACTIVITY ON THE CUT OR FILL SLOPE CEASE TO BE CONTINUOUS FOR A PERIOD EXCEEDING 14 CALENDAR DAYS.

10. THE CONTRACTOR SHALL DESIGNATE ONE OF HIS EMPLOYEES AS RESPONSIBLE FOR IMPLEMENTATION OF THE EROSION AND SEDIMENT CONTROL PLAN ON ALL DISTURBED AREAS. THIS PERSON IS TO BE KNOWLEDGEABLE ABOUT INSTALLATION AND MAINTENANCE OF THE REQUIRED MEASURES. THIS EMPLOYEE IS TO HAVE THE AUTHORITY TO CARRY OUT THE IMPLEMENTATION OF ANY INSTRUCTIONS CONCERNING THE EROSION AND SEDIMENT CONTROL PLAN GIVEN BY THE ENGINEER. ALL MEASURES WILL BE INSPECTED BY THIS INDIVIDUAL AND THE ENGINEER ON A REGULAR BASIS (AT LEAST ONCE EVERY 7 DAYS) AND AFTER RAINFALL EVENTS GREATER THAN 0.5 IN. OR EQUIVALENT SNOWFALL. DURING THE WINTER MONTHS, EROSION CONTROL MEASURES WILL ALSO BE INSPECTED AFTER SIGNIFICANT SNOW MELT EVENTS. INSPECTION MAY BE REDUCED TO ONCE PER MONTH WHEN CONSTRUCTION ACTIVITIES HAVE CEASED DUE TO FROZEN CONDITIONS.

11. SEDIMENT TRAPS, SEDIMENT BASINS, DITCHES, SEDIMENT CONTROL, SILT FENCE, STONE OUTLET STRUCTURES, EARTH BERMS, ETC. SHALL BE INSPECTED REGULARLY AND MAINTAINED DURING THE CONSTRUCTION SEASON AS WELL AS THE WINTER MONTHS AND OTHER TIMES WHEN THE PROJECT IS CLOSED DOWN. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO ONE- HALF THE DESIGN DEPTH OF THE TRAP. ALL SEDIMENTS SHALL BE REMOVED TO AN APPROVED SITE. STONE OUTLET STRUCTURES SHALL HAVE SEDIMENT REMOVED WHEN IT REACHED 50% THE HEIGHT OF THE CONTROL DEVICE. THESE SPOILS WILL BE REMOVED TO AN APPROVED SITE.

12. SALVAGED TOPSOIL SHALL BE PLACED ON WELL DRAINED LAND AWAY FROM INTERMITTENT AND LIVE STREAMS OR WETLANDS WITH THE APPROPRIATE RUNOFF CONTROL AND SEDIMENT CONTROL MEASURES INSTALLED AROUND THE STORAGE SITE, AND STABILIZED IMMEDIATELY AFTER FINAL SHAPING OF THE PILE IN ACCORDANCE WITH MULCH, METHOD 2. THE CONTRACTOR WILL PROVIDE AN ADEQUATE QUANTITY OF SILT FENCE TO CONTROL THE PERIMETER OF THE STOCKPILE.

13. MATERIAL EXCAVATED FOR THE CONSTRUCTION OR CLEANOUT OF SEDIMENT TRAPS OR SEDIMENT BASINS SHALL NOT BE STOCKPILED IN (THE VICINITY OF) THE TRAP OR BASIN. IT WILL EITHER BE PLACED IN AN EMBANKMENT OR WASTED AS DIRECTED BY THE ENGINEER.

14. EXCAVATION TO BE USED FOR EMBANKMENTS SHALL NOT BE STOCKPILED UNLESS PERIMETER CONTROLS ARE UTILIZED. WHEN THIS MATERIAL IS STOCKPILED FOR THE CONVENIENCE OF THE CONTRACTOR THE COST OF THE CONTROLS ARE BORNE BY THE CONTRACTOR. IF THE MATERIAL IS STOCKPILED AT THE DIRECTION OF THE ENGINEER THE DEPARTMENT WILL ASSUME THE COST OF THE CONTROLS.

15. SEDIMENT LADEN DEWATERING DISCHARGE MUST BE DIRECTED TO AN APPROVED SEDIMENT TRAPPING MEASURE PRIOR TO RELEASE FROM THE SITE.

16. WHEN THE CONTRACTOR REQUESTS A CHANGE TO POSTPONE COMPLETION OF THE EXCAVATION OF A SPECIFIC AREA AS A CONTINUOUS OPERATION AND PLACING THE TOPSOIL AS DEFINED IN THE STANDARD SPECIFICATIONS, THE ENGINEER MAY ALLOW THE CONTRACTOR TO STABILIZE THE AREA USING TEMPORARY STABILIZATION WITH STRAW MULCH PROVIDING THE FOLLOWING CONDITIONS ARE MET:

   (A) ALL AREAS BEING STABILIZED ARE 3:1 SLOPES OR FLATTER.

   (B) THE CONTRACTOR BEARS THE COST OF PREPARING THE SEED BED AND STABILIZING THE AREA WITH TEMPORARY STABILIZATION STRAW MULCH.

   (C) ALL REQUIRED SEDIMENT CONTROL MEASURES FOR THE SECTION OF ROAD IN QUESTION HAVE BEEN INSTALLED AND ARE BEING MAINTAINED.

17. SEEDING USAGE

   CLASS 2A SALT TOLERANT ROADSIDE MIX USED FOR NEW CONSTRUCTION OF LIMITED ACCESS ROUTES INTENDED TO BE MOWED BY IDOT.

   SODDING SALT TOLERANT, USED IN AREAS ADJACENT TO OTHER AREAS REQUIRING A HIGH ORDER OF APPEARANCE INTENDED TO BE MOWED BY SOMEONE OTHER THAN IDOT.

   TEMPORARY EROSION CONTROL SEEDING USED ON SHORT TERM TEMPORARY SEEDING.

18. TOP SOIL PLACEMENT:
   TOPSOIL WILL NOT BE PLACED AT AREAS COMPLETED WHERE FURTHER CONSTRUCTION WILL BE DONE AS PART OF THIS CONTRACT.

19. SEDIMENT CONTROL DRAINAGE STRUCTURE INLET FILTER SHALL BE INSTALLED AND MAINTAINED AT EACH EXISTING AND PROPOSED INLET WITHIN THE PROJECT LIMITS.

20. INLET AND PIPE PROTECTION: INSPECT REGULARLY AND AFTER EVERY STORM. MAKE REPAIRS AS NECESSARY TO ENSURE THAT THE MEASURE IS IN GOOD WORKING ORDER. CLEAN OR REMOVE AND REPLACE THE FILTER FABRIC IF IT BECOMES CLOGGED. WORK IS INCLUDED IN COST OF INLET AND PIPE PROTECTION. INLET AND PIPE PROTECTION SHALL BE COMPRISED OF DITCH CHECKS, TEMPORARY SEEDING AND TEMPORARY EROSION CONTROL BLANKET. STRAW BALES AND SILT FENCE SHALL NOT BE USED AS INLET AND PIPE PROTECTION.

21. SILT FENCE IS NOT REQUIRED WHERE THE PERIMETER IS HIGHER THAN THE WORK ZONE, AND SILT FENCE SHALL NOT BE INSTALLED ACROSS CONCENTRATED FLOW, OR ACROSS CONTOURS WITHOUT J-HOOKS (HIGHWAY STANDARD SHEET 280001). IN AREAS OF CONCENTRATED FLOW, TEMPORARY DITCH CHECKS ARE A SUITABLE ALTERNATIVE IN PLACE OF SILT FENCE.

22. PORTABLE TOILETS SHALL BE PLACED AWAY FROM INLETS AND WATER COURSES.

23. THE DEPARTMENT HAS NOT OBTAINED ANY PERMITS FOR OFFSITE BORROW, WASTE, USE (BWU) AREAS. PRIOR TO WORKING IN BWU AREAS, IF THE CONTRACTOR CHOOSES TO USE ACTIVITIES REQUIRING PERMITS IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE THE PROPER PERMITS. IN ADDITION TO THE BORROW REVIEW (BDE 2289) AND USE/WASTE REVIEW (BDE 2290) SUBMITTALS, THE CONTRACTOR SHALL SUBMIT AN EROSION AND SEDIMENT CONTROL (ESC) PLAN FOR EVERY BWU SITE TO THE DEPARTMENT FOR ACCEPTANCE. GUIDELINES FOR ACCEPTABLE BWU PRACTICES CAN BE FOUND IN SECTION II.G.1 AND 2 OF THE SWPPP. THE COST OF ALL MATERIALS AND LABOR NECESSARY TO COMPLY WITH THE ABOVE PROVISIONS TO PREPARE AND IMPLEMENT ESC PLANS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

24. TREE PROTECTION FENCING SHALL BE ERECTED AT THE LOCATIONS AS SPECIFIED ON THE APPROVED PLANS PRIOR TO ANY LAND CLEARING, GRUBBING, GRADING OR EARTH MOVING ACTIVITIES.

25. THE CONTRACTOR SHOULD PROVIDE TO THE RESIDENT ENGINEER A PLAN TO ENSURE THAT A STABILIZED FLOW LINE WILL BE PROVIDED DURING STORM SEWER CONSTRUCTION. THIS IS IMPORTANT WHERE NEW STORM SEWER CONNECTS TO EXISTING CULVERTS. THE USE OF A STABILIZED FLOW LINE BETWEEN INSTALLED STORM SEWER AND OPEN DISTURBANCE WILL REDUCE THE POTENTIAL FOR THE OFFSITE DISCHARGE OF SEDIMENT-BEARING WATERS, ESPECIALLY WHEN RAIN IS FORECASTED, SO THAT FLOW WILL NOT ERODE. LACK OF APPROVED PLAN OR FAILURE TO COMPLY WILL RESULT IN AN ESC DEFICIENCY DEDUCTION.

26. ANY LOOSE MATERIAL DEPOSITED IN THE FLOW LINE OF DRAINAGE STRUCTURES, WHICH OBSTRUCTS THE NATURAL FLOW OF WATER, SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. PRIOR TO ACCEPTANCE OF THE IMPROVEMENT, ALL DRAINAGE STRUCTURES SHALL BE FREE OF DIRT AND DEBRIS. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED AS INCIDENTAL.

27. EROSION CONTROL ITEMS ARE CONSIDERED TO BE A HIGH PRIORITY ON THIS CONTRACT. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE RESIDENT ENGINEER.

28. ALL WORK ASSOCIATED WITH INSTALLATION AND MAINTENANCE OF STABILIZED CONSTRUCTION ENTRANCES, AND CONCRETE WASHOUTS SHALL BE INCLUDED WITH PAY ITEM STABILIZED CONSTRUCTION ENTRANCE. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

FILE NAME = p:\hntbw256.hntb.org\PWGreatLakes\Documents\Chicago Projects\30120 I-190 Cumberland\Design\CADD_Contract_60X56\CADD_Sheets\[60X56-sht-eros-01.dgn

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PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

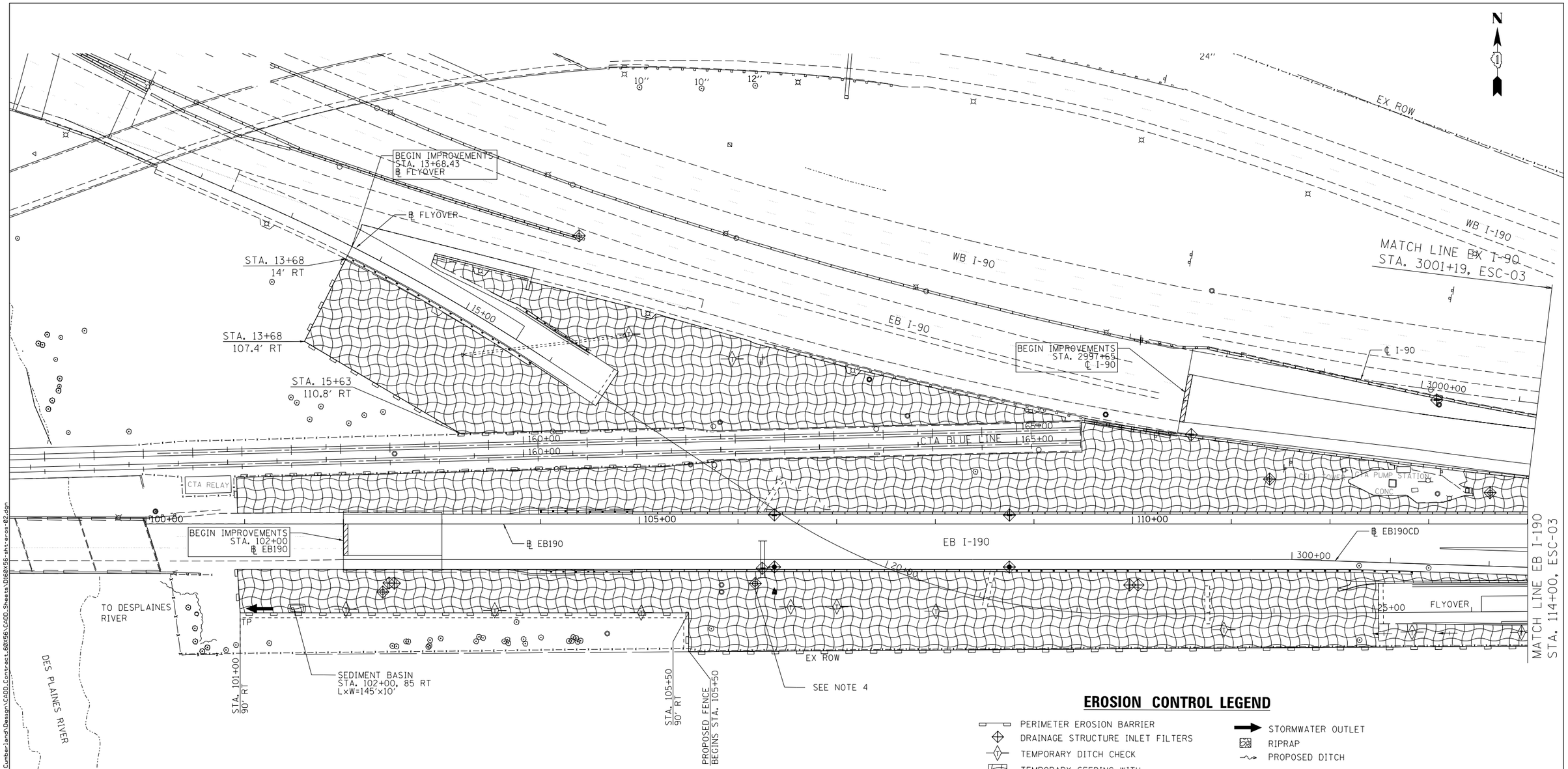
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL GENERAL NOTES

SCALE: | SHEET OF SHEETS | STA. | TO STA.

ESC-01

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	108
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			



EROSION CONTROL LEGEND

- PERIMETER EROSION BARRIER
- DRAINAGE STRUCTURE INLET FILTERS
- TEMPORARY DITCH CHECK
- TEMPORARY SEEDING WITH EROSION CONTROL BLANKET
- TEMPORARY SEDIMENT BASIN
- TP — TEMPORARY FENCE FOR TREE TRUNK PROTECTION
- STORMWATER OUTLET
- RIPRAP
- PROPOSED DITCH

NOTES:

1. TEMPORARY SEEDING SHALL BE CLASS 7, ACCORDING TO ARTICLE 250.07.
2. THE CONTRACTOR SHALL SUBMIT STABILIZED CONSTRUCTION ENTRANCE LOCATIONS TO THE ENGINEER FOR APPROVAL.
3. FOR CLARITY, THE FLYOVER RAMP BRIDGE SUPER STRUCTURE IS NOT SHOWN.
4. EXISTING DRAINAGE STRUCTURE TO BE REMOVED DURING STAGE I.

0 50' 100'

ESC-02

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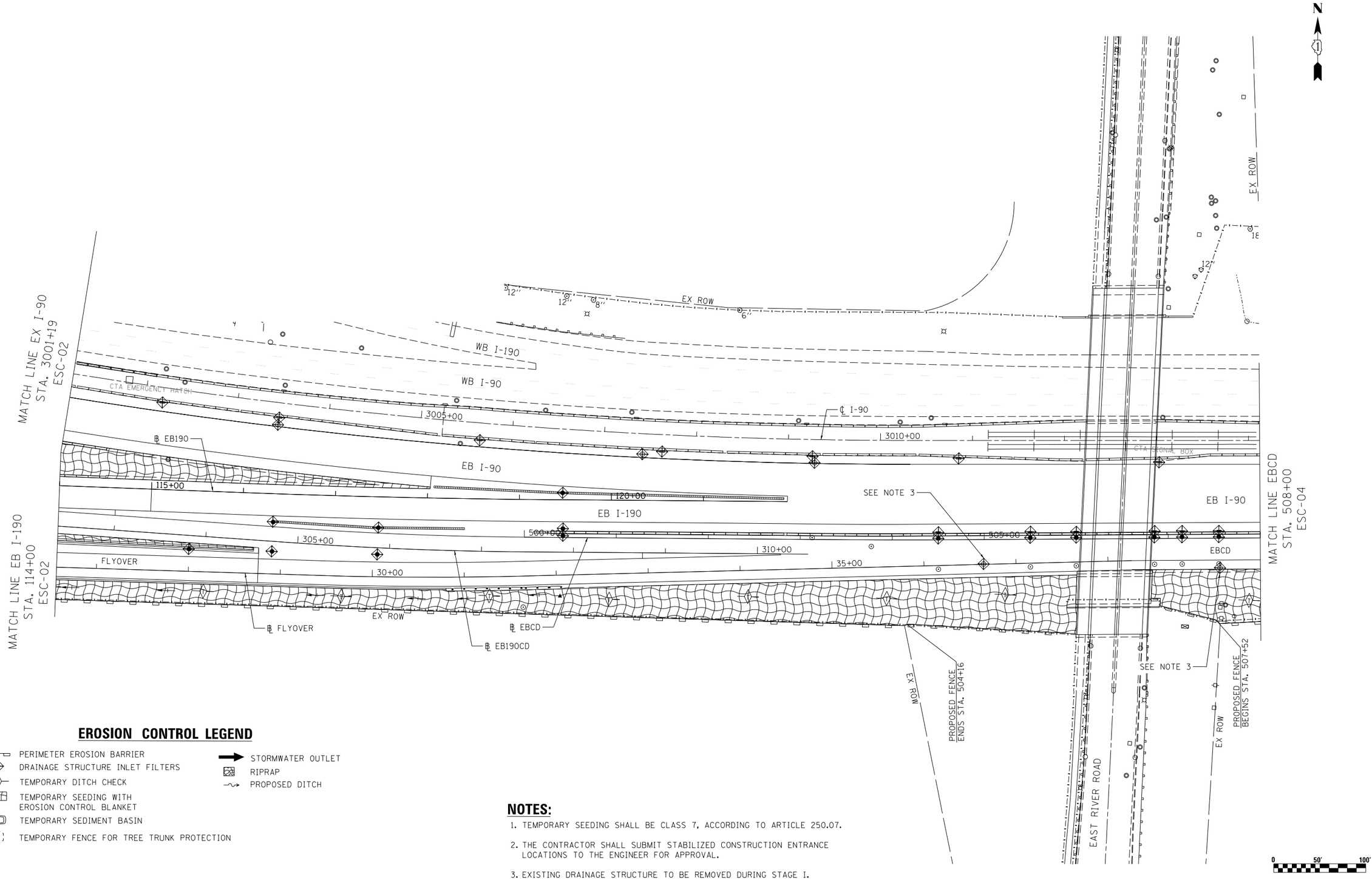
PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PLAN
CUMBERLAND FLYOVER PROJECT

SCALE: 1" = 50' | SHEET 1 OF 4 SHEETS | STA. 100+00.00 TO STA. 114+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	109
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			



EROSION CONTROL LEGEND

- PERIMETER EROSION BARRIER
- DRAINAGE STRUCTURE INLET FILTERS
- TEMPORARY DITCH CHECK
- TEMPORARY SEEDING WITH EROSION CONTROL BLANKET
- TEMPORARY SEDIMENT BASIN
- TP — TEMPORARY FENCE FOR TREE TRUNK PROTECTION
- STORMWATER OUTLET
- RIPRAP
- PROPOSED DITCH

NOTES:

1. TEMPORARY SEEDING SHALL BE CLASS 7, ACCORDING TO ARTICLE 250.07.
2. THE CONTRACTOR SHALL SUBMIT STABILIZED CONSTRUCTION ENTRANCE LOCATIONS TO THE ENGINEER FOR APPROVAL.
3. EXISTING DRAINAGE STRUCTURE TO BE REMOVED DURING STAGE I.

ESC-03

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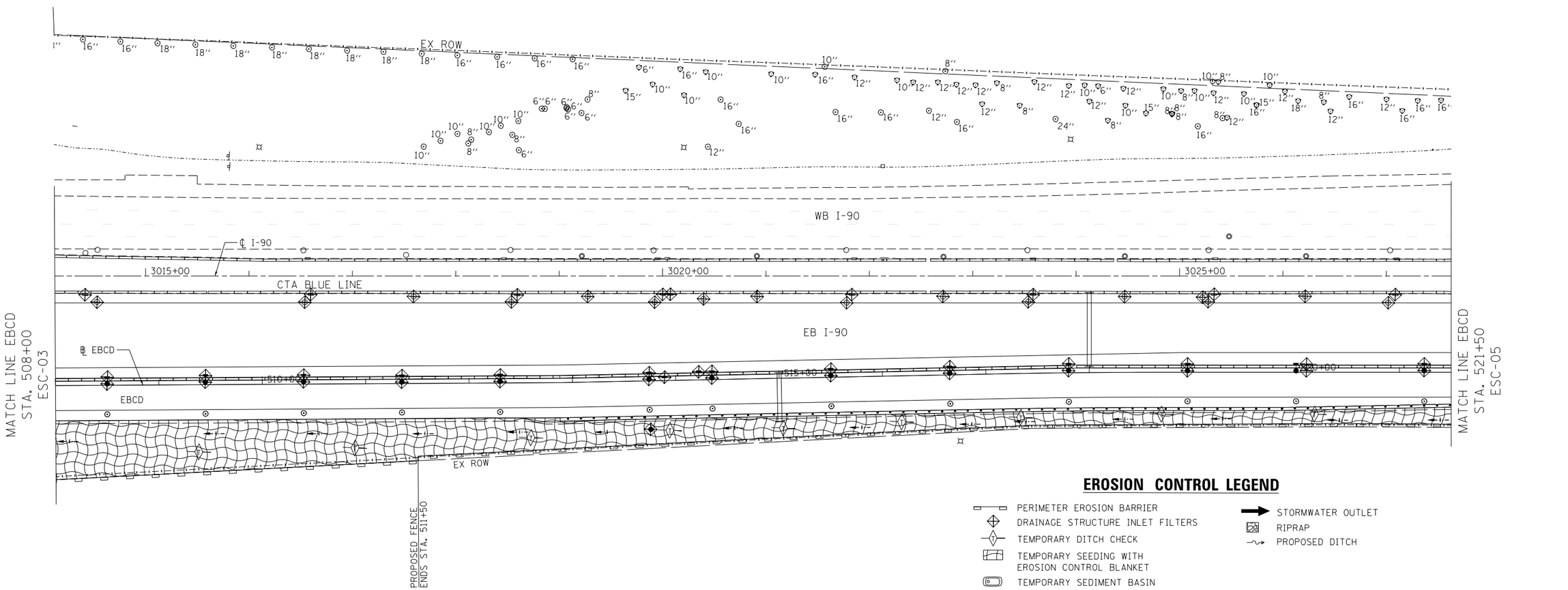
PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PLAN
CUMBERLAND FLYOVER PROJECT

SCALE: 1" = 50' | SHEET 2 OF 4 SHEETS | STA. 114+00.00 | TO STA. 508+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	110
		CONTRACT NO. 60X56		
		ILLINOIS FED. AID PROJECT		



EROSION CONTROL LEGEND

- PERIMETER EROSION BARRIER
- DRAINAGE STRUCTURE INLET FILTERS
- TEMPORARY DITCH CHECK
- TEMPORARY SEEDING WITH EROSION CONTROL BLANKET
- TEMPORARY SEDIMENT BASIN
- TP — TEMPORARY FENCE FOR TREE TRUNK PROTECTION
- STORMWATER OUTLET
- RIPRAP
- PROPOSED DITCH

NOTES:

1. TEMPORARY SEEDING SHALL BE CLASS 7, ACCORDING TO ARTICLE 250.07.
2. THE CONTRACTOR SHALL SUBMIT STABILIZED CONSTRUCTION ENTRANCE LOCATIONS TO THE ENGINEER FOR APPROVAL.

0 50' 100'

ESC-04

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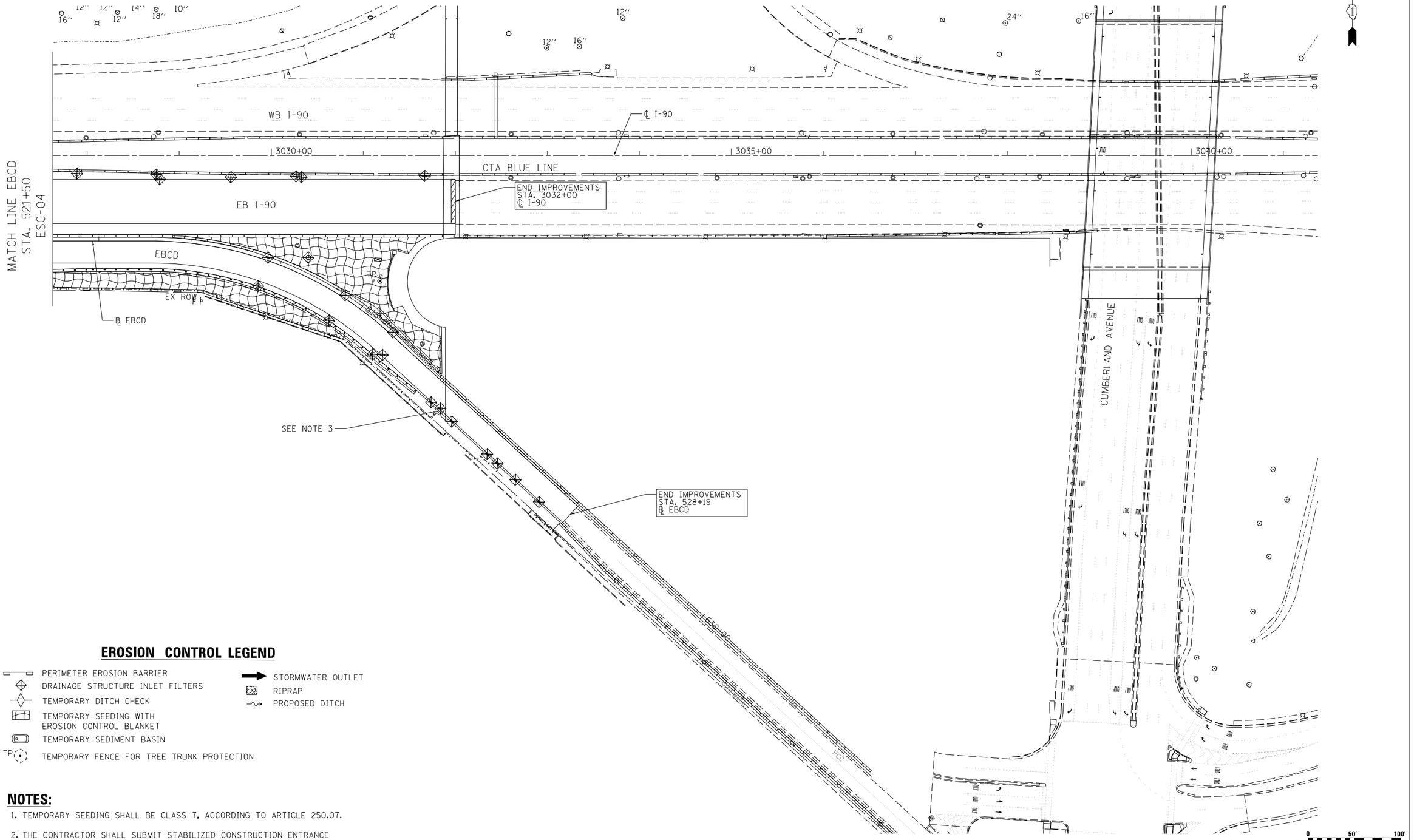
PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PLAN
CUMBERLAND FLYOVER PROJECT

SCALE: 1" = 50' | SHEET 3 OF 4 SHEETS | STA. 508+00.00 TO STA. 521+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	111
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			



EROSION CONTROL LEGEND

- PERIMETER EROSION BARRIER
- DRAINAGE STRUCTURE INLET FILTERS
- TEMPORARY DITCH CHECK
- TEMPORARY SEEDING WITH EROSION CONTROL BLANKET
- TEMPORARY SEDIMENT BASIN
- TP — TEMPORARY FENCE FOR TREE TRUNK PROTECTION
- STORMWATER OUTLET
- RIPRAP
- PROPOSED DITCH

NOTES:

1. TEMPORARY SEEDING SHALL BE CLASS 7, ACCORDING TO ARTICLE 250.07.
2. THE CONTRACTOR SHALL SUBMIT STABILIZED CONSTRUCTION ENTRANCE LOCATIONS TO THE ENGINEER FOR APPROVAL.
3. EXISTING DRAINAGE STRUCTURE TO BE REMOVED DURING STAGE 2.

ESC–05

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PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PLAN
CUMBERLAND FLYOVER PROJECT

SCALE: 1'' = 50' | SHEET 4 OF 4 SHEETS | STA. 521+50.00 TO STA. 528+19.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	112
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

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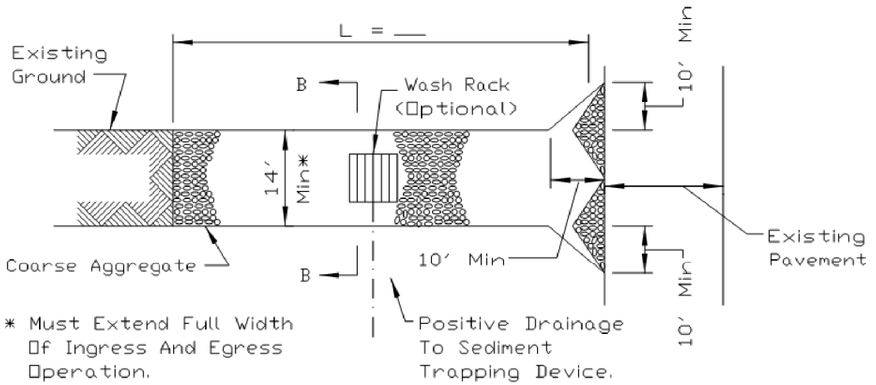
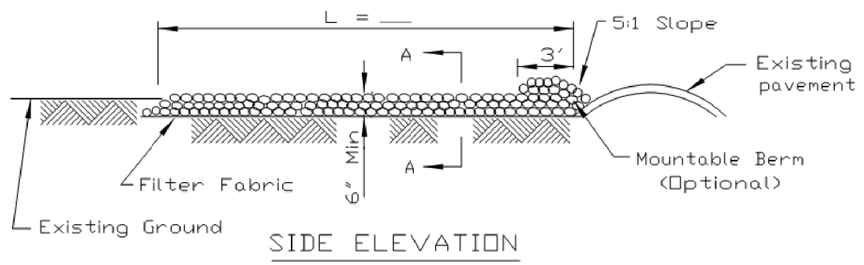
STABILIZED CONSTRUCTION ENTRANCE PLAN



PLAN VIEW



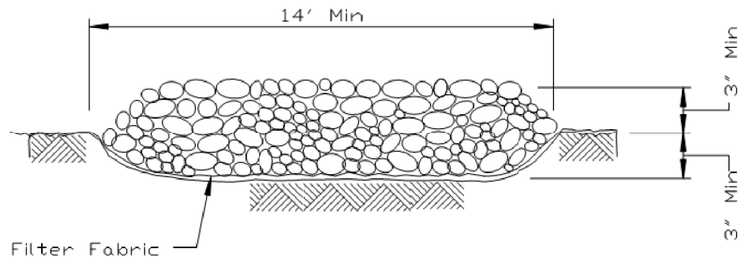
SIDE ELEVATION

NOTES:

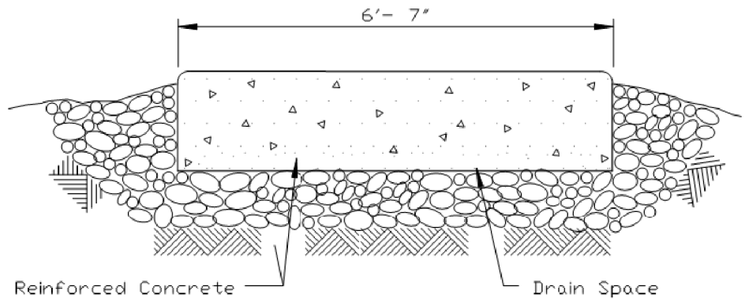
1. Filter fabric shall meet the requirements of material specification 592 GEOTEXTILE, Table I or 2, Class I, II or IV and shall be placed over the cleared area prior to the placing of rock.
2. Rock or reclaimed concrete shall meet one of the following IDOT coarse aggregate gradation, CA-1, CA-2, CA-3 or CA-4 and be placed according to construction specification 25 ROCKFILL using placement Method 1 and Class III compaction.
3. Any drainage facilities required because of washing shall be constructed according to manufacturers specifications.
4. If wash racks are used they shall be installed according to the manufacturer's specifications.

REFERENCE		STANDARD DWG. NO.
Project ___	NRCS Natural Resources Conservation Service	IL-630
Designed ___ Date ___		SHEET 1 OF 2
Checked ___ Date ___		DATE 8-18-94
Approved ___ Date ___		

STABILIZED CONSTRUCTION ENTRANCE PLAN



SECTION A-A



SECTION B-B

REFERENCE		STANDARD DWG. NO.
Project ___	NRCS Natural Resources Conservation Service	IL-630
Designed ___ Date ___		SHEET 2 OF 2
Checked ___ Date ___		DATE 8-18-94
Approved ___ Date ___		

HNTB

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	DRAWN - RM	REVISED -
PLOT SCALE = 1.0000 ' / in.	CHECKED - LLS	REVISED -
PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

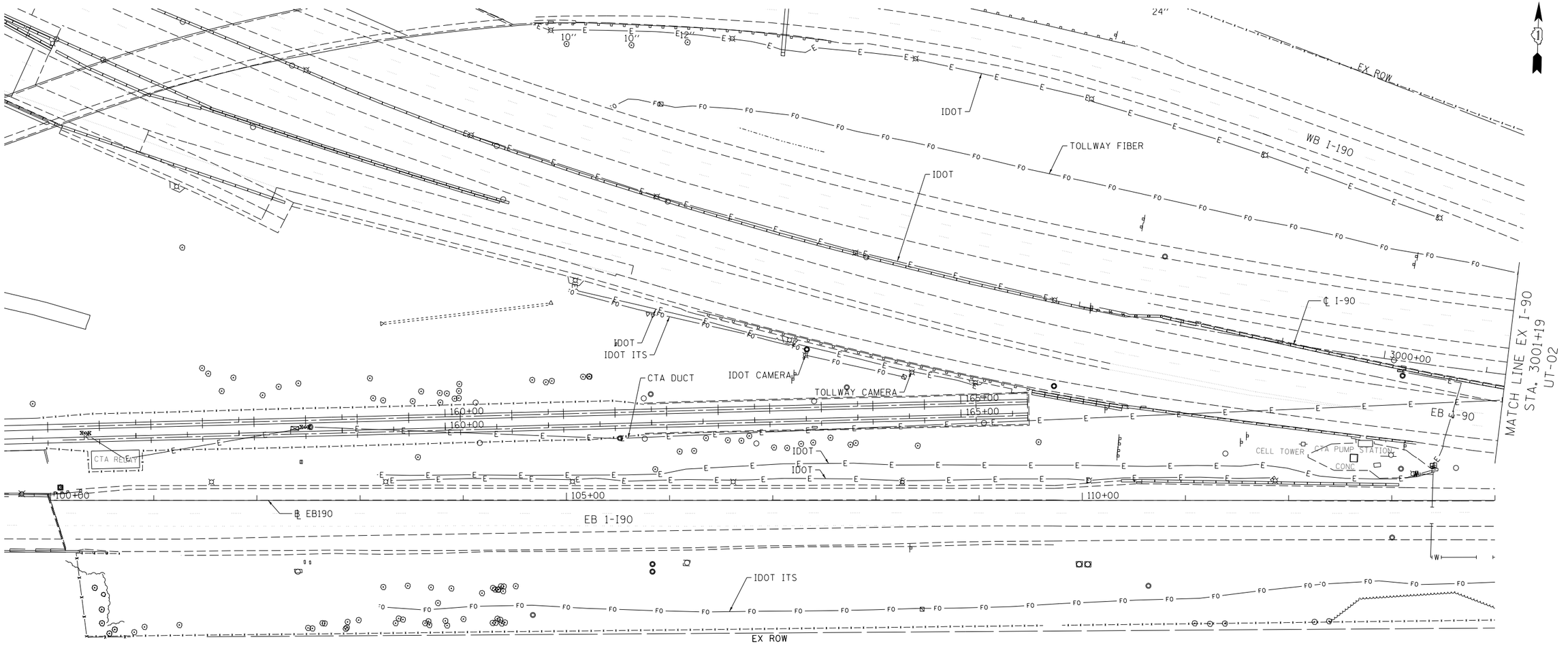
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL DETAILS

SCALE: | SHEET OF SHEETS | STA. | TO STA.

ESC-06

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	113
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			



NOTES:

1. SEVENTY-TWO (72) HOURS BEFORE STARTING EXCAVATION, THE CONTRACTOR SHALL CALL DIGGER (CHICAGO UTILITY ALERT NETWORK) AT (312) 744-7000 TO HAVE THE LOCATION OF EXISTING UNDERGROUND UTILITIES MARKED IN THE FIELD.

2. EXCEPT WHERE DESIGNATED OTHERWISE, THE LOCATIONS AND/OR DEPTHS OF UNDERGROUND UTILITIES SHOWN HAVE BEEN TAKEN FROM OFFICE RECORD INFORMATION FURNISHED BY THE UTILITY OWNERS. ALL UNDERGROUND UTILITIES MUST BE CONSIDERED APPROXIMATE.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN IN THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER. THIS WORK WILL BE AT THE CONTRACTORS EXPENSE.

UT-01

HNTB

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PLOT DATE = 5/31/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING UTILITIES

SCALE: 1" = 50' | SHEET 1 OF 4 SHEETS | STA. BOP TO STA. 3001+19

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	114
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

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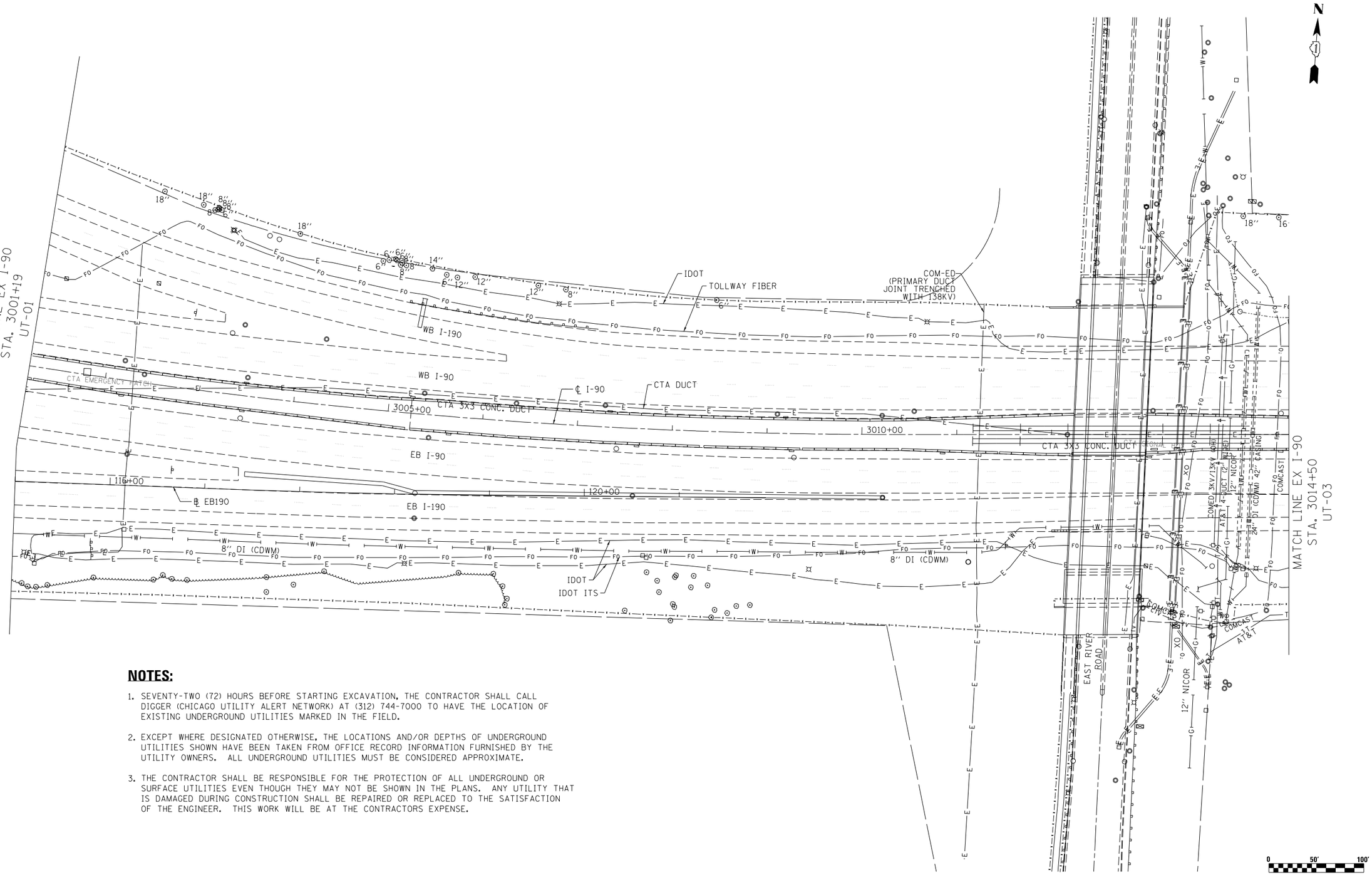

NOTES:

1. SEVENTY-TWO (72) HOURS BEFORE STARTING EXCAVATION, THE CONTRACTOR SHALL CALL DIGGER (CHICAGO UTILITY ALERT NETWORK) AT (312) 744-7000 TO HAVE THE LOCATION OF EXISTING UNDERGROUND UTILITIES MARKED IN THE FIELD.

2. EXCEPT WHERE DESIGNATED OTHERWISE, THE LOCATIONS AND/OR DEPTHS OF UNDERGROUND UTILITIES SHOWN HAVE BEEN TAKEN FROM OFFICE RECORD INFORMATION FURNISHED BY THE UTILITY OWNERS. ALL UNDERGROUND UTILITIES MUST BE CONSIDERED APPROXIMATE.

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PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

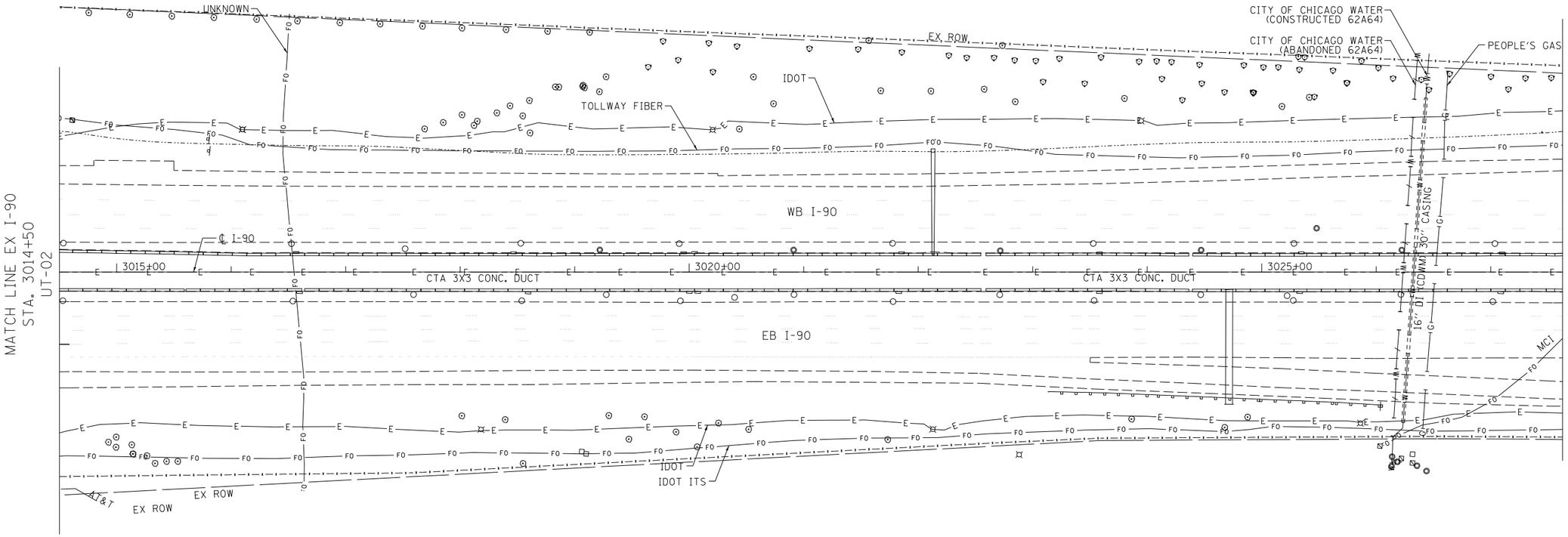
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING UTILITIES

SCALE: 1" = 50' | SHEET 2 OF 4 SHEETS | STA. 3001+19 TO STA. 3014+50

UT-02

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	115
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			



NOTES:

1. SEVENTY-TWO (72) HOURS BEFORE STARTING EXCAVATION, THE CONTRACTOR SHALL CALL DIGGER (CHICAGO UTILITY ALERT NETWORK) AT (312) 744-7000 TO HAVE THE LOCATION OF EXISTING UNDERGROUND UTILITIES MARKED IN THE FIELD.

2. EXCEPT WHERE DESIGNATED OTHERWISE, THE LOCATIONS AND/OR DEPTHS OF UNDERGROUND UTILITIES SHOWN HAVE BEEN TAKEN FROM OFFICE RECORD INFORMATION FURNISHED BY THE UTILITY OWNERS. ALL UNDERGROUND UTILITIES MUST BE CONSIDERED APPROXIMATE.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN IN THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER. THIS WORK WILL BE AT THE CONTRACTORS EXPENSE.

0 50' 100'

UT-03

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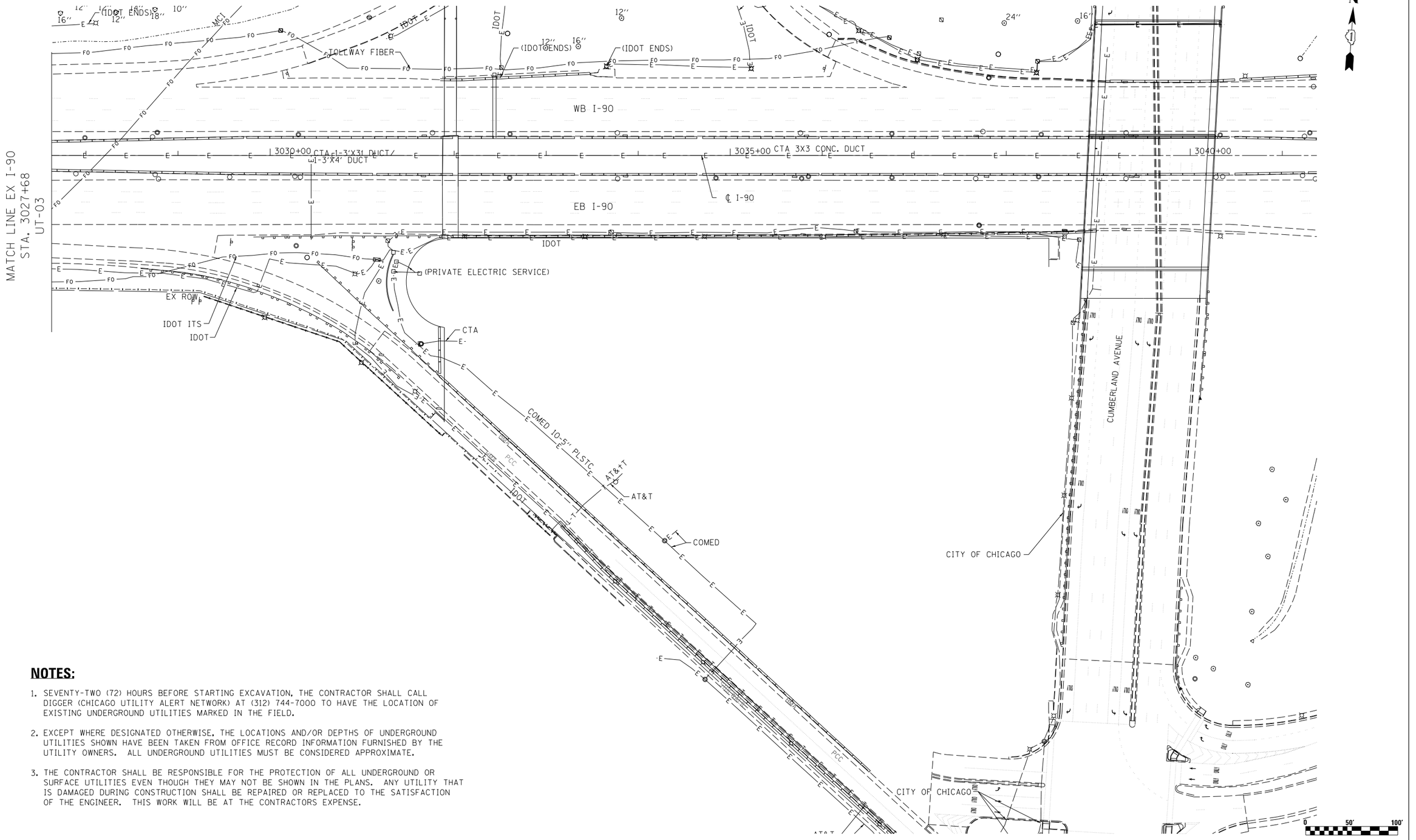
		DRAWN - LLS/MMK	REVISED -			190	1517R-1(13)	COOK	580	116
	PLOT SCALE = 1.0000 ' / in.	CHECKED - LLS	REVISED -						CONTRACT NO. 60X56	
	PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -		SCALE: 1" = 50' SHEET 3 OF 4 SHEETS STA. 3014+50 TO STA. 3027+68			ILLINOIS	FED. AID PROJECT	



NOTES:

1. SEVENTY-TWO (72) HOURS BEFORE STARTING EXCAVATION, THE CONTRACTOR SHALL CALL DIGGER (CHICAGO UTILITY ALERT NETWORK) AT (312) 744-7000 TO HAVE THE LOCATION OF EXISTING UNDERGROUND UTILITIES MARKED IN THE FIELD.

2. EXCEPT WHERE DESIGNATED OTHERWISE, THE LOCATIONS AND/OR DEPTHS OF UNDERGROUND UTILITIES SHOWN HAVE BEEN TAKEN FROM OFFICE RECORD INFORMATION FURNISHED BY THE UTILITY OWNERS. ALL UNDERGROUND UTILITIES MUST BE CONSIDERED APPROXIMATE.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN IN THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER. THIS WORK WILL BE AT THE CONTRACTORS EXPENSE.

FILE NAME = p:\tntbs256.hntb.org\pw\Great_Lakes\Documents\Chicago Projects\30120 I-90 Cumberland\Design\CADD_Contract_60X56\CADD_Sheets\D160X56-sht-exutl-04.dgn

HNTB

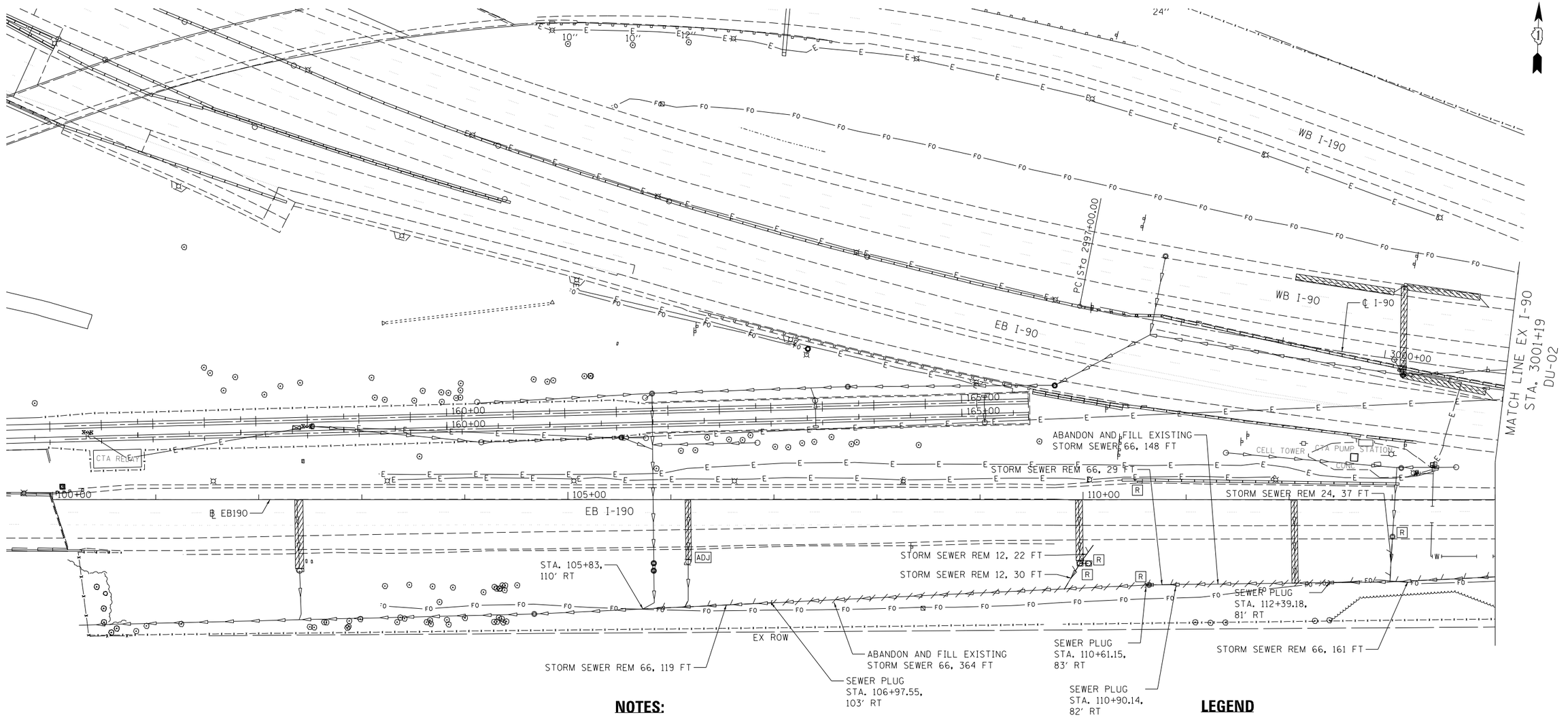
USER NAME = mkosir	DESIGNED -	REVISED -
	DRAWN - MMK/LLS	REVISED -
PLOT SCALE = 1.0000 ' / in.	CHECKED - LLS	REVISED -
PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING UTILITIES

SCALE: 1" = 50' | SHEET 4 OF 4 SHEETS | STA. 3027+68 | TO STA.EOP

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	117
		CONTRACT NO. 60X56		
	ILLINOIS	FED. AID PROJECT		



DRAINAGE REMOVALS

MANHOLES TO BE REMOVED
STA. 110+64.18, 82.79' RT
STA. 113+00.40, 35.96' RT

STORM SEWER REMOVAL 12"
STA. 109+81 TO STA. 109+97, 30'
STA. 109+97 TO STA. 110+10, 22'

STORM SEWER REMOVAL 24"
STA. 112+98 TO STA. 113+00, 37' TBF 71 CY

STORM SEWER REMOVAL 66"
STA. 105+83 TO STA. 106+97, 119' TBF 633 CY
STA. 110+61 TO STA. 110+90, 29' TBF 145 CY
STA. 112+39 TO STA. 114+00, 161' TBF 830 CY

ABANDON AND FILL EXISTING STORM SEWER
STA. 106+97.55 TO STA. 110+61.15, 364'
STA. 110+90.14 TO STA. 112+39.18, 148'

CATCH BASINS TO BE ADJUSTED
STA. 106+16.51, 60.70 RT

CATCH BASINS TO BE REMOVED
STA. 109+96.97, 61.84 RT
STA. 110+05.40, 61.92 RT

INLET TO BE REMOVED
STA. 110+55.26, 17.00 LT

NOTES:

1. STORM SEWER REMOVALS SHALL BE COORDINATED WITH PROPOSED STORM SEWERS.
2. SEVENTY-TWO (72) HOURS BEFORE STARTING EXCAVATION, THE CONTRACTOR SHALL CALL DIGGER (CHICAGO UTILITY ALERT NETWORK) AT (312) 744-7000 TO HAVE THE LOCATION OF EXISTING UNDERGROUND UTILITIES MARKED IN THE FIELD.
3. EXCEPT WHERE DESIGNATED OTHERWISE, THE LOCATIONS AND/OR DEPTHS OF UNDERGROUND UTILITIES SHOWN HAVE BEEN TAKEN FROM OFFICE RECORD INFORMATION FURNISHED BY THE UTILITY OWNERS. ALL UNDERGROUND UTILITIES MUST BE CONSIDERED APPROXIMATE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN IN THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER. THIS WORK WILL BE AT THE CONTRACTORS EXPENSE.
5. ABANDONED SEWERS MUST BE PLUGGED ON BOTH ENDS WITH 2 ROWS OF CONCRETE BLOCK OR BRICK AND SUITABLE MORTAR. COST FOR PLUGS TO BE PAID FOR UNDER FILL EXISTING SEWER ITEM COST.
6. TRENCH BACKFILL IS PLACED UNDER PROPOSED ROADWAY WHERE STORM SEWER IS BEING REMOVED.

LEGEND

- ADJ — DRAINAGE STRUCTURE ADJUSTMENT
- R — DRAINAGE STRUCTURE REMOVAL
- F — STRUCTURE TO FILLED
- DRAINAGE PIPE REMOVAL
- PREVIOUSLY ABANDONED PIPE
- ABANDON AND FILL EXISTING STORM SEWER
-] SEWER PLUG

0 50' 100'

DU-01

HNTB	USER NAME = mkosir	DESIGNED - MMK	REVISED -
		DRAWN - MMK	REVISED -
	PLOT SCALE = 1.0000 ' / in.	CHECKED - MAM	REVISED -
	PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAINAGE PLAN AND REMOVALS

SCALE: 1" = 50' | SHEET 1 OF 4 SHEETS | STA. BOP | TO STA. 3001+19

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	118
		CONTRACT NO. 60X56		
		ILLINOIS FED. AID PROJECT		

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NOTES:

1. STORM SEWER REMOVALS SHALL BE COORDINATED WITH PROPOSED STORM SEWERS.
2. SEVENTY-TWO (72) HOURS BEFORE STARTING EXCAVATION, THE CONTRACTOR SHALL CALL DIGGER (CHICAGO UTILITY ALERT NETWORK) AT (312) 744-7000 TO HAVE THE LOCATION OF EXISTING UNDERGROUND UTILITIES MARKED IN THE FIELD.
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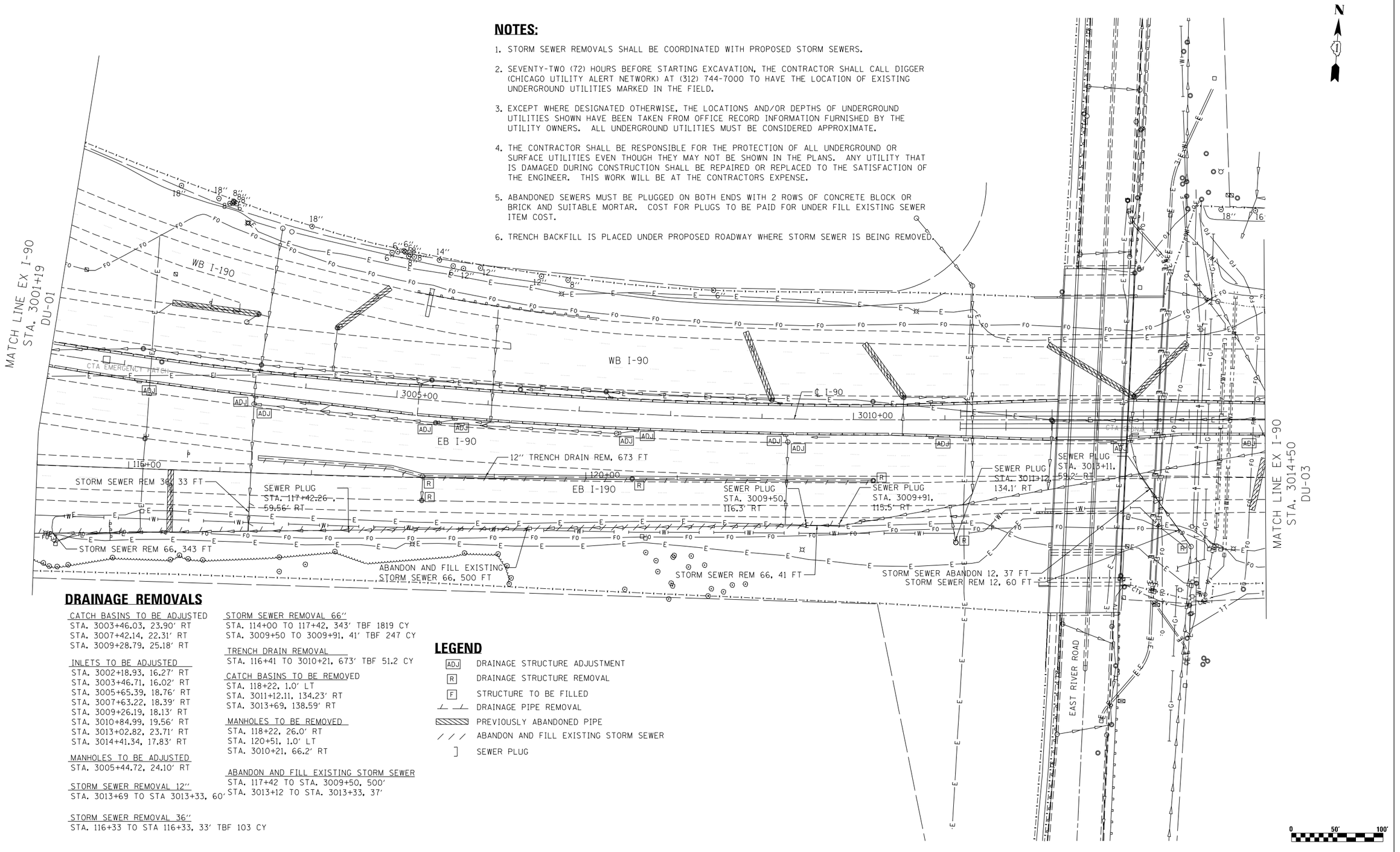
6. TRENCH BACKFILL IS PLACED UNDER PROPOSED ROADWAY WHERE STORM SEWER IS BEING REMOVED.



DRAINAGE REMOVALS

CATCH BASINS TO BE ADJUSTED
STA. 3003+46.03, 23.90' RT
STA. 3007+42.14, 22.31' RT
STA. 3009+28.79, 25.18' RT

INLETS TO BE ADJUSTED
STA. 3002+18.93, 16.27' RT
STA. 3003+46.71, 16.02' RT
STA. 3005+65.39, 18.76' RT
STA. 3007+63.22, 18.39' RT
STA. 3009+26.19, 18.13' RT
STA. 3010+84.99, 19.56' RT
STA. 3013+02.82, 23.71' RT
STA. 3014+41.34, 17.83' RT

MANHOLES TO BE ADJUSTED
STA. 3005+44.72, 24.10' RT

STORM SEWER REMOVAL 12"
STA. 3013+69 TO STA 3013+33, 60'

STORM SEWER REMOVAL 36"
STA. 116+33 TO STA 116+33, 33' TBF 103 CY

STORM SEWER REMOVAL 66"
STA. 114+00 TO 117+42, 343' TBF 1819 CY
STA. 3009+50 TO 3009+91, 41' TBF 247 CY

TRENCH DRAIN REMOVAL
STA. 116+41 TO 3010+21, 673' TBF 51.2 CY

CATCH BASINS TO BE REMOVED
STA. 118+22, 1.0' LT
STA. 3011+12.11, 134.23' RT
STA. 3013+69, 138.59' RT

MANHOLES TO BE REMOVED
STA. 118+22, 26.0' RT
STA. 120+51, 1.0' LT
STA. 3010+21, 66.2' RT

ABANDON AND FILL EXISTING STORM SEWER
STA. 117+42 TO STA. 3009+50, 500'
STA. 3013+12 TO STA. 3013+33, 37'

LEGEND

- [ADJ] DRAINAGE STRUCTURE ADJUSTMENT
- [R] DRAINAGE STRUCTURE REMOVAL
- [F] STRUCTURE TO BE FILLED
- DRAINAGE PIPE REMOVAL
- PREVIOUSLY ABANDONED PIPE
- ABANDON AND FILL EXISTING STORM SEWER
-] SEWER PLUG

DU-02

HNTB	USER NAME = mkosir	DESIGNED - MMK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING DRAINAGE PLAN AND REMOVALS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
		DRAWN - MMK	REVISED -			190	1517R-1(13)	COOK	580 / 119
	PLOT SCALE = 1.0000 ' / in.	CHECKED - MAM	REVISED -					CONTRACT NO. 60X56	
	PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -		SCALE: SHEET 2 OF 4 SHEETS STA. 3001+19 TO STA. 3014+50			ILLINOIS FED. AID PROJECT	

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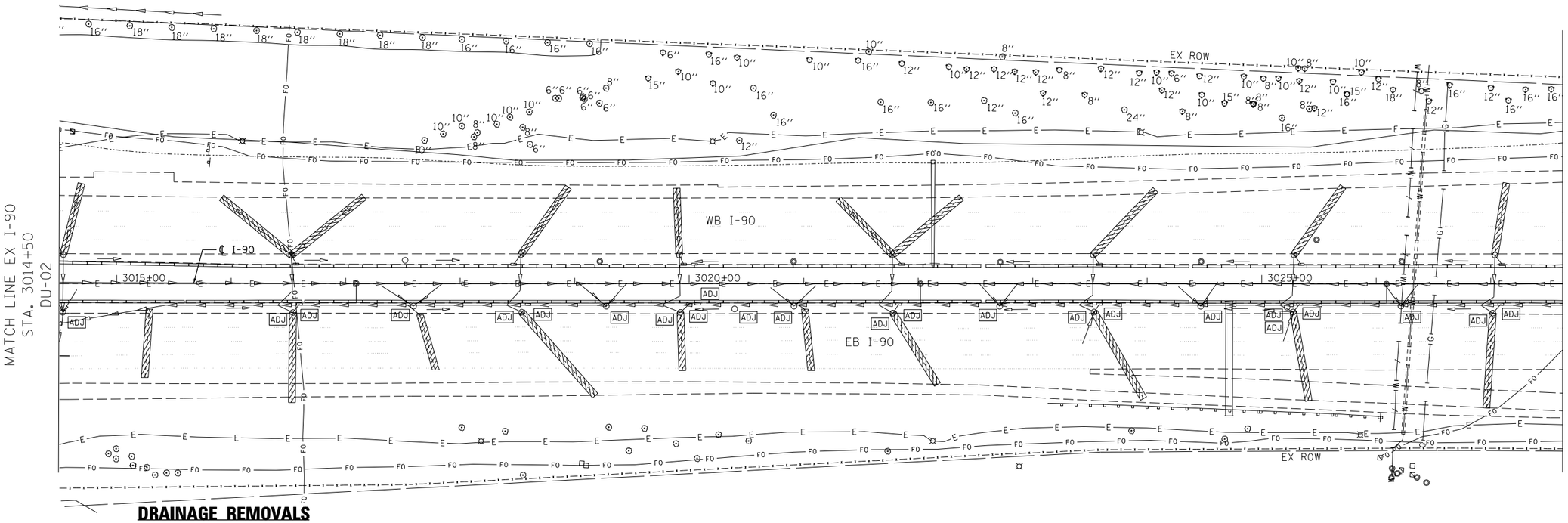

DRAINAGE REMOVALS

CATCH BASINS TO BE ADJUSTED
STA. 3014+52.96, 25.01' RT
STA. 3016+53.92, 25.31' RT
STA. 3017+59.26, 19.72' RT
STA. 3018+53.74, 25.05' RT
STA. 3019+27.58, 19.77' RT
STA. 3019+92.36, 25.16' RT
STA. 3020+39.64, 22.10' RT
STA. 3020+91.56, 19.68' RT
STA. 3021+78.04, 25.76' RT
STA. 3022+71.19, 19.82' RT
STA. 3023+53.62, 24.87' RT
STA. 3024+46.74, 19.80' RT
STA. 3025+22.09, 20.65' RT
STA. 3025+27.56, 24.82' RT
STA. 3026+21.48, 19.56' RT
STA. 3027+01.84, 25.79' RT

INLETS TO BE ADJUSTED
STA. 3016+59.68, 17.85' RT
STA. 3018+59.34, 18.10' RT
STA. 3020+00.11, 17.72' RT
STA. 3020+07.41, 17.68' RT
STA. 3021+82.84, 17.85' RT
STA. 3023+58.23, 17.83' RT
STA. 3025+33.12, 17.89' RT
STA. 3027+08.70, 18.04' RT

NOTES:

1. STORM SEWER REMOVALS SHALL BE COORDINATED WITH PROPOSED STORM SEWERS.
2. SEVENTY-TWO (72) HOURS BEFORE STARTING EXCAVATION, THE CONTRACTOR SHALL CALL DIGGER (CHICAGO UTILITY ALERT NETWORK) AT (312) 744-7000 TO HAVE THE LOCATION OF EXISTING UNDERGROUND UTILITIES MARKED IN THE FIELD.
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5. TRENCH BACKFILL IS PLACED UNDER PROPOSED ROADWAY WHERE STORM SEWER IS BEING REMOVED.

LEGEND

- ADJ — DRAINAGE STRUCTURE ADJUSTMENT
- R — DRAINAGE STRUCTURE REMOVAL
- DRAINAGE PIPE REMOVAL
- PREVIOUSLY ABANDONED PIPE

0 50' 100'

DU–03

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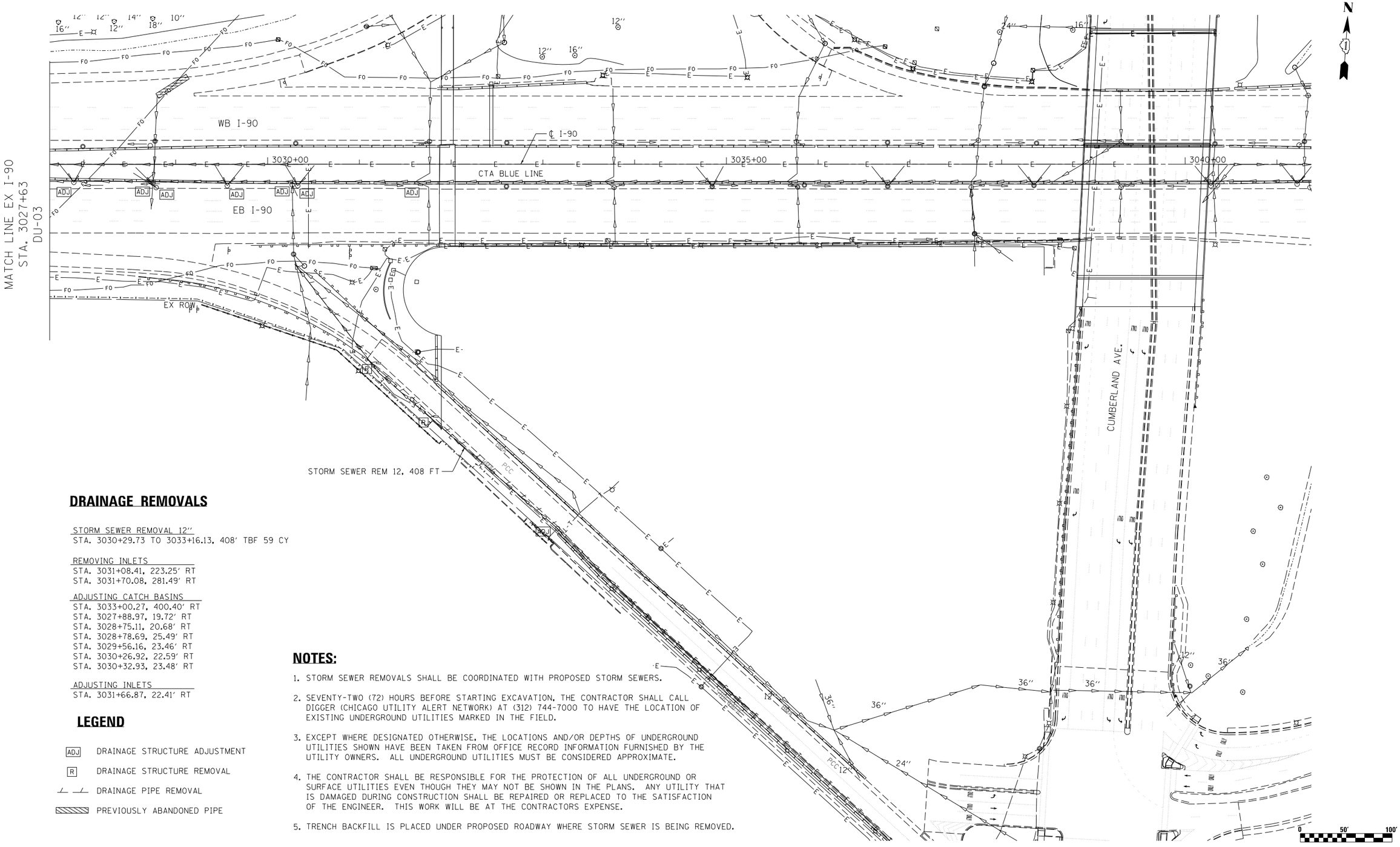
PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAINAGE PLAN AND REMOVALS

SCALE: | SHEET 3 OF 4 SHEETS | STA. 3014+50 | TO STA. 3027+63

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	120
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			



DRAINAGE REMOVALS

STORM SEWER REMOVAL 12"
STA. 3030+29.73 TO 3033+16.13, 408' TBF 59 CY

REMOVING INLETS
STA. 3031+08.41, 223.25' RT
STA. 3031+70.08, 281.49' RT

ADJUSTING CATCH BASINS
STA. 3033+00.27, 400.40' RT
STA. 3027+88.97, 19.72' RT
STA. 3028+75.11, 20.68' RT
STA. 3028+78.69, 25.49' RT
STA. 3029+56.16, 23.46' RT
STA. 3030+26.92, 22.59' RT
STA. 3030+32.93, 23.48' RT

ADJUSTING INLETS
STA. 3031+66.87, 22.41' RT

LEGEND

- ADJ — DRAINAGE STRUCTURE ADJUSTMENT
- R — DRAINAGE STRUCTURE REMOVAL
- DRAINAGE PIPE REMOVAL
- PREVIOUSLY ABANDONED PIPE

NOTES:

1. STORM SEWER REMOVALS SHALL BE COORDINATED WITH PROPOSED STORM SEWERS.
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5. TRENCH BACKFILL IS PLACED UNDER PROPOSED ROADWAY WHERE STORM SEWER IS BEING REMOVED.

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	DRAWN - MMK	REVISED -
PLOT SCALE = 1.0000 ' / in.	CHECKED - MAM	REVISED -
PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAINAGE PLAN AND REMOVALS

SCALE: | SHEET 4 OF 4 SHEETS | STA. 3027+63 | TO STA.EOP

DU-04

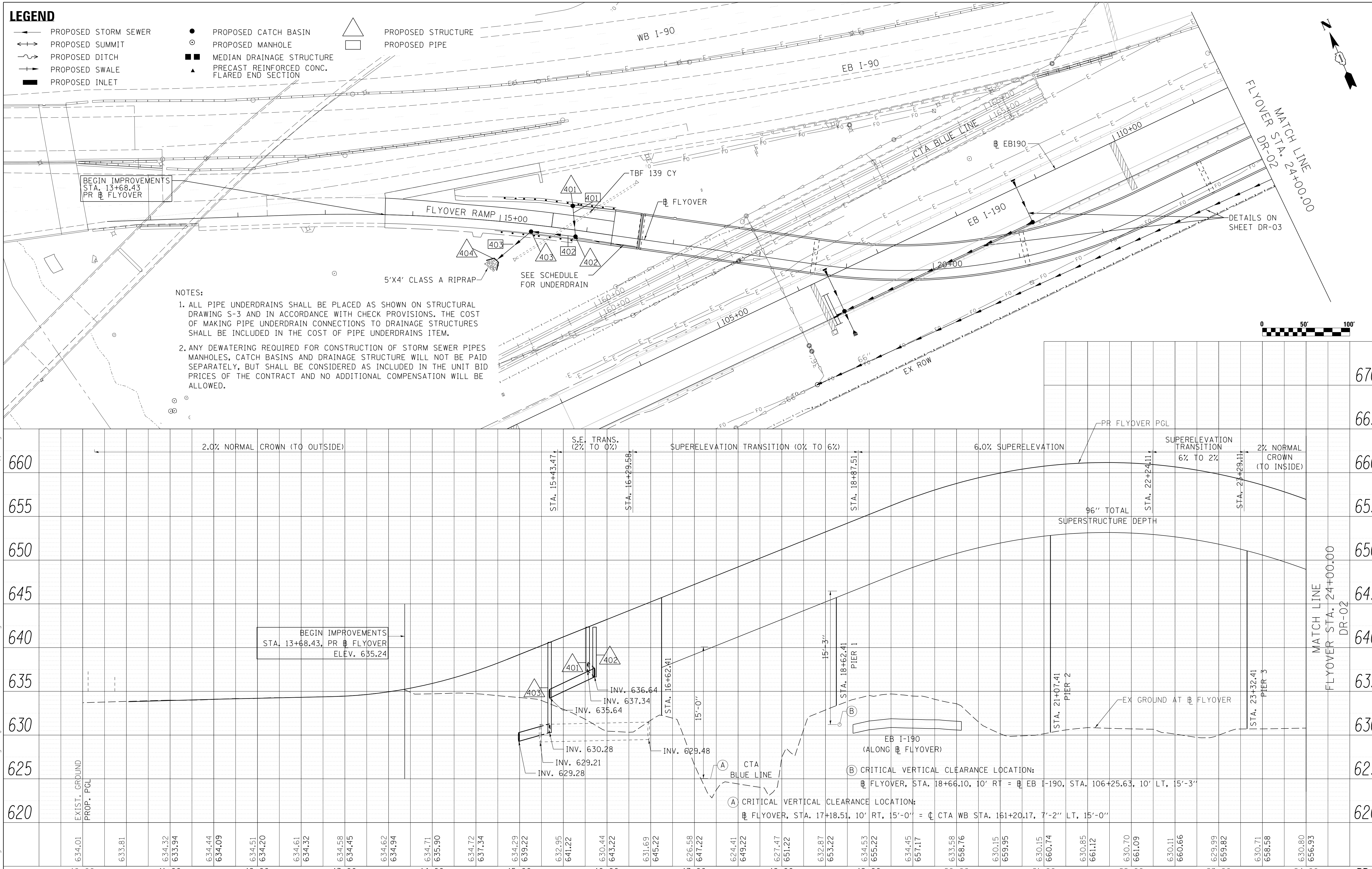
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	121
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

LEGEND

- PROPOSED STORM SEWER
- PROPOSED SUMMIT
- PROPOSED DITCH
- PROPOSED SWALE
- PROPOSED INLET
- PROPOSED CATCH BASIN
- PROPOSED MANHOLE
- MEDIAN DRAINAGE STRUCTURE
- PRECAST REINFORCED CONC. FLARED END SECTION
- PROPOSED STRUCTURE
- PROPOSED PIPE

NOTES:

1. ALL PIPE UNDERDRAINS SHALL BE PLACED AS SHOWN ON STRUCTURAL DRAWING S-3 AND IN ACCORDANCE WITH CHECK PROVISIONS. THE COST OF MAKING PIPE UNDERDRAIN CONNECTIONS TO DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE COST OF PIPE UNDERDRAINS ITEM.
2. ANY DEWATERING REQUIRED FOR CONSTRUCTION OF STORM SEWER PIPES MANHOLES, CATCH BASINS AND DRAINAGE STRUCTURE WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.



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PROFILE: SURVEYED, PLOTTED, GRADES CHECKED, B.M. NOTED, STRUCTURE NOTAT'NS CH'KD, NOTE BOOK, NO.

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DR-01

HNTB	USER NAME = mkosir	DESIGNED - MMK	REVISED -
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	PLOT DATE = 7/28/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED DRAINAGE PLAN AND PROFILE
CUMBERLAND FLYOVER RAMP

SCALE: 1" = 50' | SHEET 1 OF 6 SHEETS | STA. 10+00.00 TO STA. 24+00.00

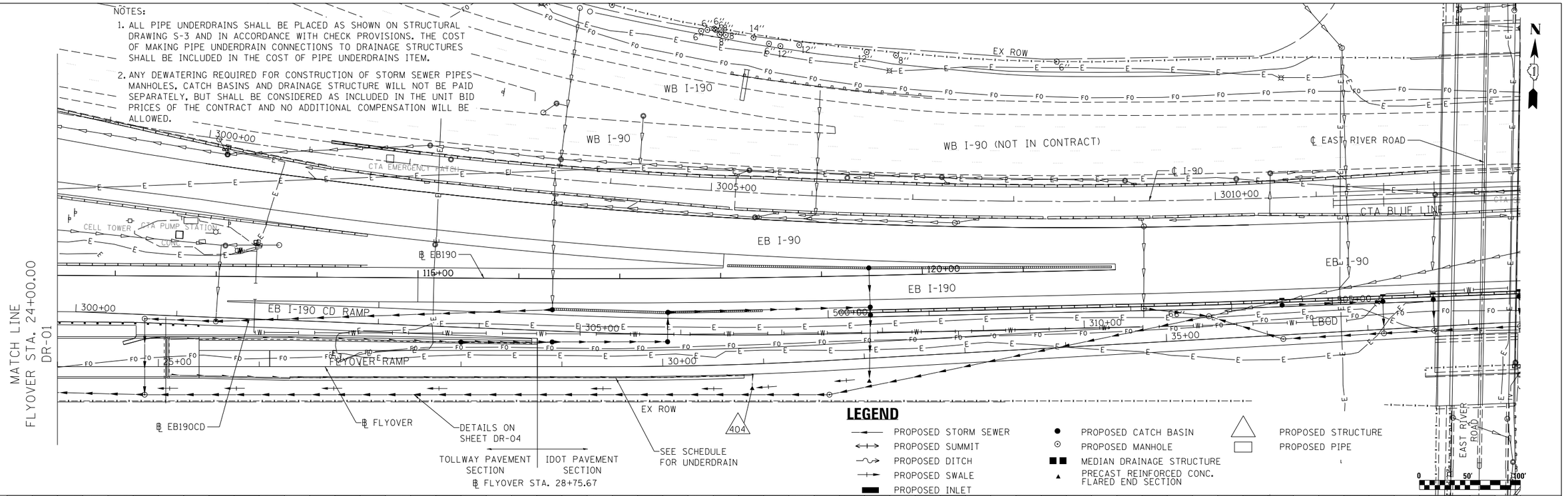
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	122

CONTRACT NO. 60X56

ILLINOIS FED. AID PROJECT

NOTES:

1. ALL PIPE UNDERDRAINS SHALL BE PLACED AS SHOWN ON STRUCTURAL DRAWING S-3 AND IN ACCORDANCE WITH CHECK PROVISIONS. THE COST OF MAKING PIPE UNDERDRAIN CONNECTIONS TO DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE COST OF PIPE UNDERDRAINS ITEM.
2. ANY DEWATERING REQUIRED FOR CONSTRUCTION OF STORM SEWER PIPES MANHOLES, CATCH BASINS AND DRAINAGE STRUCTURE WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

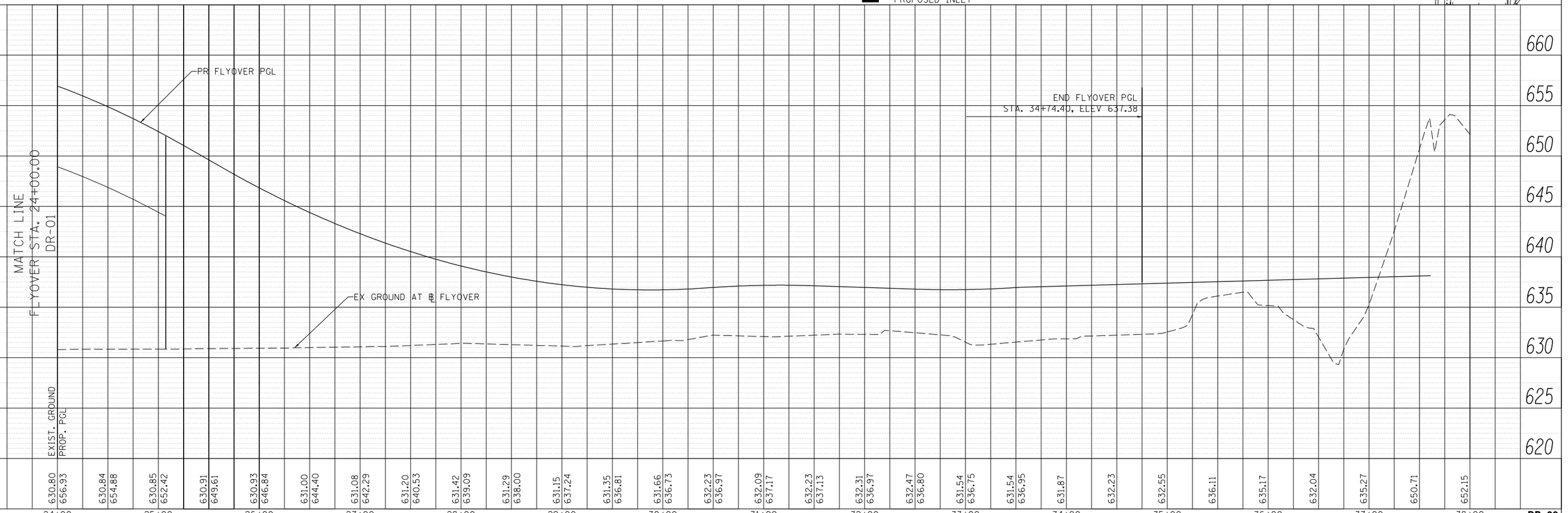


LEGEND

- PROPOSED STORM SEWER
- PROPOSED SUMMIT
- PROPOSED DITCH
- PROPOSED SWALE
- PROPOSED INLET
- PROPOSED CATCH BASIN
- PROPOSED MANHOLE
- MEDIAN DRAINAGE STRUCTURE
- PRECAST REINFORCED CONC. FLARED END SECTION
- PROPOSED STRUCTURE
- PROPOSED PIPE

PLAN: SURVEYED; PLOTTED; BASES CHECKED; R/T. OF WAY CHECKED; CADD FILE NAME; NOTE BOOK; NO.; BY; DATE

PROFILE: SURVEYED; PLOTTED; BASES CHECKED; B.M. NOTED; STRUCTURE NOTATNS CHKD; NOTE BOOK; NO.; BY; DATE



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USER NAME = mkosir	DESIGNED - MMK	REVISED -
	DRAWN - MMK	REVISED -
PLOT SCALE = 1.0000 ' / in.	CHECKED - MAM	REVISED -
PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

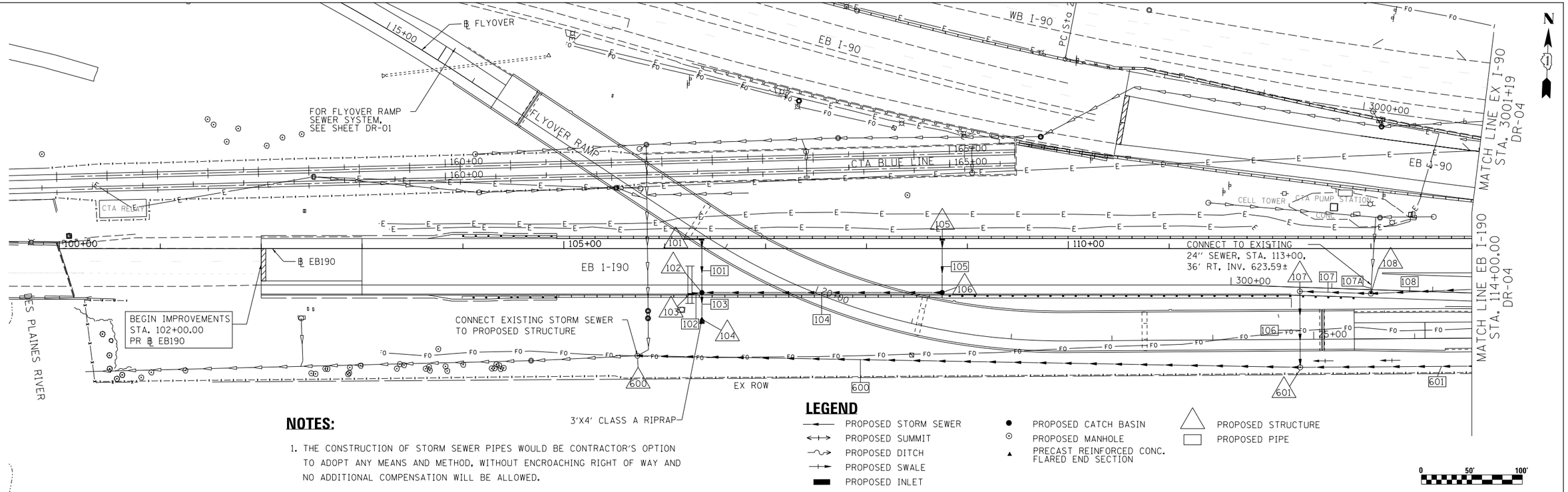
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED DRAINAGE PLAN AND PROFILE
CUMBERLAND FLYOVER RAMP

SCALE: 1" = 50' | SHEET 2 OF 6 SHEETS | STA. 24+00.00 | TO STA. 35+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	123
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

DR-02



NOTES:

1. THE CONSTRUCTION OF STORM SEWER PIPES WOULD BE CONTRACTOR'S OPTION TO ADOPT ANY MEANS AND METHOD, WITHOUT ENCROACHING RIGHT OF WAY AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

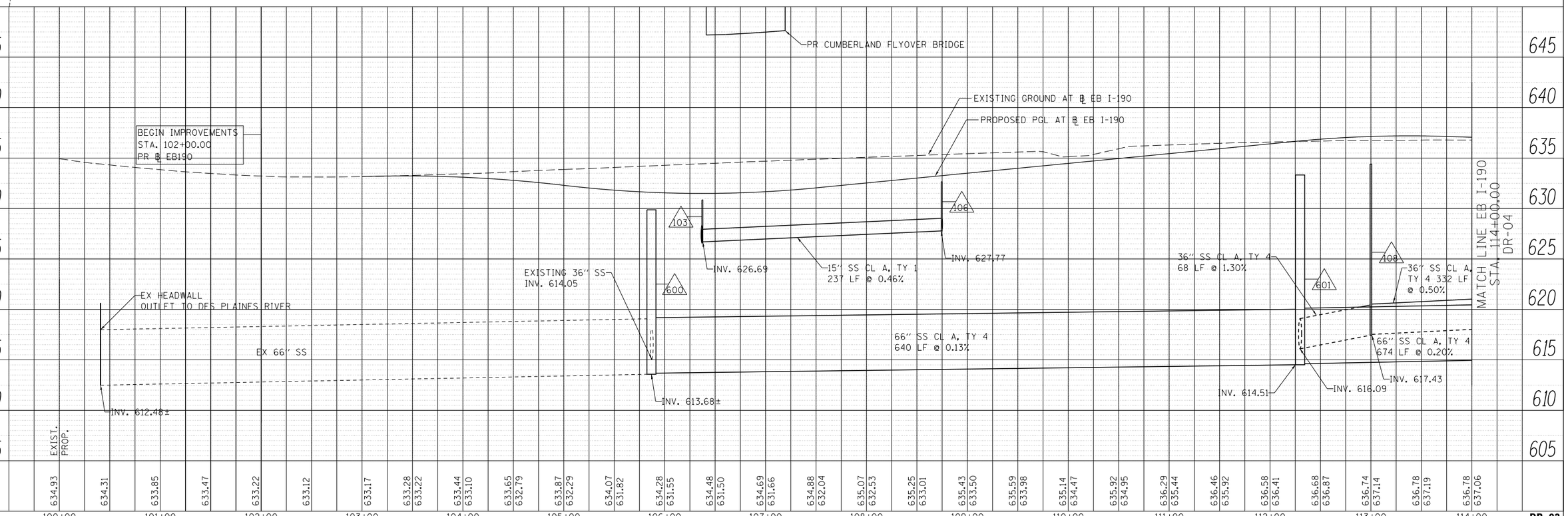
LEGEND

- PROPOSED STORM SEWER
- PROPOSED SUMMIT
- PROPOSED DITCH
- PROPOSED SWALE
- PROPOSED INLET
- PROPOSED CATCH BASIN
- PROPOSED MANHOLE
- PRECAST REINFORCED CONC. FLARED END SECTION
- PROPOSED STRUCTURE
- PROPOSED PIPE

0 50' 100'

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

PROFILE — SURVEYED, PLOTTED, GRADES CHECKED, B.M. NOTED, STRUCTURE NOTATNS CHKD — BY, DATE



DR–03

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PLOT SCALE = 1.0000 ' / in.	CHECKED - MAM	REVISED -	
PLOT DATE = 6/2/2016	DATE - 05/06/2016	REVISED -	

HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED DRAINAGE PLAN AND PROFILE
EASTBOUND I–190

SCALE: 1" = 50' | SHEET 3 OF 7 SHEETS | STA. 100+00.00 TO STA. 114+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	124
		CONTRACT NO. 60X56		
		ILLINOIS FED. AID PROJECT		

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NOTE: CONTRACTOR TO LOCATE EXISTING COMED LINE PRIOR TO PLACEMENT OF PROPOSED DRAINAGE STRUCTURES 305, 505, 555, AND PIPES 154 AND 155. EACH STRUCTURE/PIPE TO BE SHIFTED IF FOUND TO BE IN CONFLICT WITH COMED LINE. ONLY MOVE THE DISTANCE REQUIRED TO CLEAR THE COMED LINE.

LEGEND

- PROPOSED STORM SEWER
- PROPOSED SUMMIT
- PROPOSED DITCH
- PROPOSED SWALE
- PROPOSED INLET
- PROPOSED CATCH BASIN
- PROPOSED MANHOLE
- PROPOSED TRENCH DRAIN
- PRECAST REINFORCED CONC. FLARED END SECTION
- PROPOSED STRUCTURE
- PROPOSED PIPE

WB I-190
WB I-90
WB I-90 (NOT IN CONTRACT)
EB I-90
EB I-190
EB I-190 CD RAMP
FLYOVERERAMP
MATCH LINE EX I-90 STA. 3001+19 DR-03
MATCH LINE EB I-190 STA. 114+00 DR-03
MATCH LINE EBCD STA. 508+25 DR-05
CTA EMERGENCY MATCH
CTA BLUE LINE
℄ I-90
Sta 3010+32.37
3005+00
3010+00
115+00
120+00
305+00
310+00
500+00
505+00
30+00
35+00
℄ EB190
℄ FLYOVER
℄ EBCD
℄ EB190CD
EX ROW
CONNECT EXISTING STORM SEWER TO PROPOSED STRUCTURE
CONNECT TO EXISTING 18" SEWER, STA. 34+79, 31' LT, INV. 627.88±
FOR FLYOVER RAMP SEWER SYSTEM, SEE SHEET DR-02
SEE SCHEDULE ON DPS-03 FOR UNDERDRAIN
CONNECT EXISTING STORM SEWER TO PROPOSED STRUCTURE 556
TOLLWAY PAVEMENT SECTION | IDOT PAVEMENT SECTION
℄ FLYOVER STA. 28+75.67
5'X4' CLASS A RIPRAP
N
0 50' 100'

EB I-190 EBCD
STA. 121+91.34 STA. 503+77.26

EXISTING GROUND AT ℄ EB I-190
PROPOSED PGL AT ℄ EB I-190
EX GROUND AT ℄ PR EBCD
PR EBCD PGL

24" SS CL A, TY 1 89 LF @ 0.28%
24" SS CL A, TY 1 113 LF @ 0.30%
36" SS CL A, TY 2 199 LF @ 0.30%
35" SS CL A, TY 4 332 LF @ 0.50%
66" SS CL A, TY 4 674 LF @ 0.20%
66" SS CL A, TY 4 379 LF @ 0.20%
18" SS CL A, TY 3 INV. 620.71
36" SS CL A, TY 4 75 LF @ 0.10%
54" SS CL A, TY 4 45 LF @ 0.18%
54" SS CL A, TY 4 25 LF @ 0.49%
54" SS CL A, TY 4 35 LF @ 0.35%
54" SS CL A, TY 4 95 LF @ 0.10%
54" SS CL A, TY 4 80 LF @ 0.08%

INV. 632.99
INV. 632.74
INV. 632.30
INV. 630.96
INV. 630.37
INV. 619.18
INV. 616.06
INV. 617.33
INV. 617.44
INV. 617.63
INV. 617.82
INV. 617.98
INV. 618.20
INV. 618.42

	636.78 637.06	EXIST. 636.76 PROP. 636.90	636.70 636.74	636.60 636.58	636.41 636.42	636.16 636.26	636.11 636.15	636.08 636.15	636.20 636.24	636.31 636.39	636.50 636.54	636.70 636.69	636.89 636.84	637.09 636.99	637.19 637.14	637.33 637.29	636.80 637.36	636.95 637.39	637.02 637.29	636.79 637.07	638.74 636.84	638.65 636.62	638.58 636.44	638.21 636.30	636.83 636.22	635.32 636.12	634.43 636.00
	114+00		115+00		116+00		117+00		118+00		119+00		120+00		121+00		503+00		504+00		505+00		506+00		507+00		508+00	

645 640 635 630 625 620 615 610 605

PLAN: SURVEYED | PLOTTED | DESIGN CHECKED | R/T. OF WAY CHECKED | CADD FILE NAME | NOTE BOOK | NO. | BY | DATE

PROFILE: SURVEYED | PLOTTED | DESIGN CHECKED | BM. NOTED | STRUCTURE NOTATNS CHKD | NOTE BOOK | NO. | BY | DATE

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USER NAME = mkosir	DESIGNED - MMK	REVISED -	
	DRAWN - MMK	REVISED -	
PLOT SCALE = 1.0000 ' / in.	CHECKED - MAM	REVISED -	
PLOT DATE = 6/2/2016	DATE - 05/06/2016	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

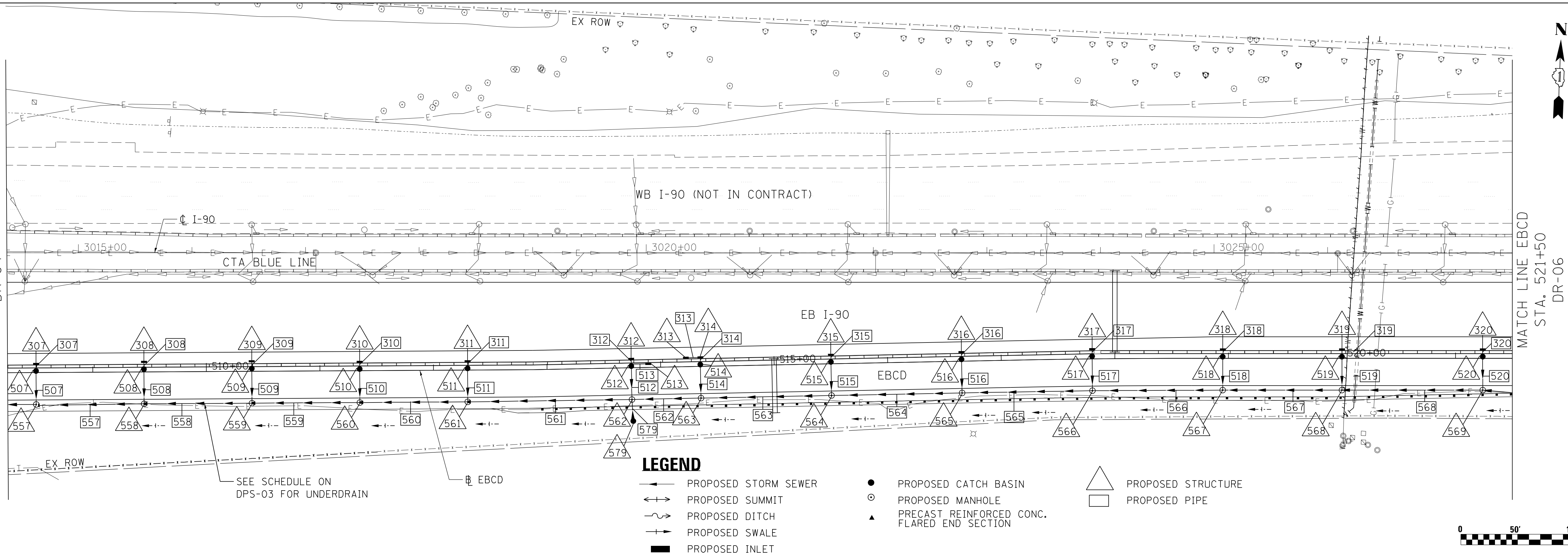
PROPOSED DRAINAGE PLAN AND PROFILE
EB I–190 AND EBCD ROAD

SCALE: 1" = 50' | SHEET 4 OF 6 SHEETS | STA. 114+00.00 | TO STA. 508+25.00

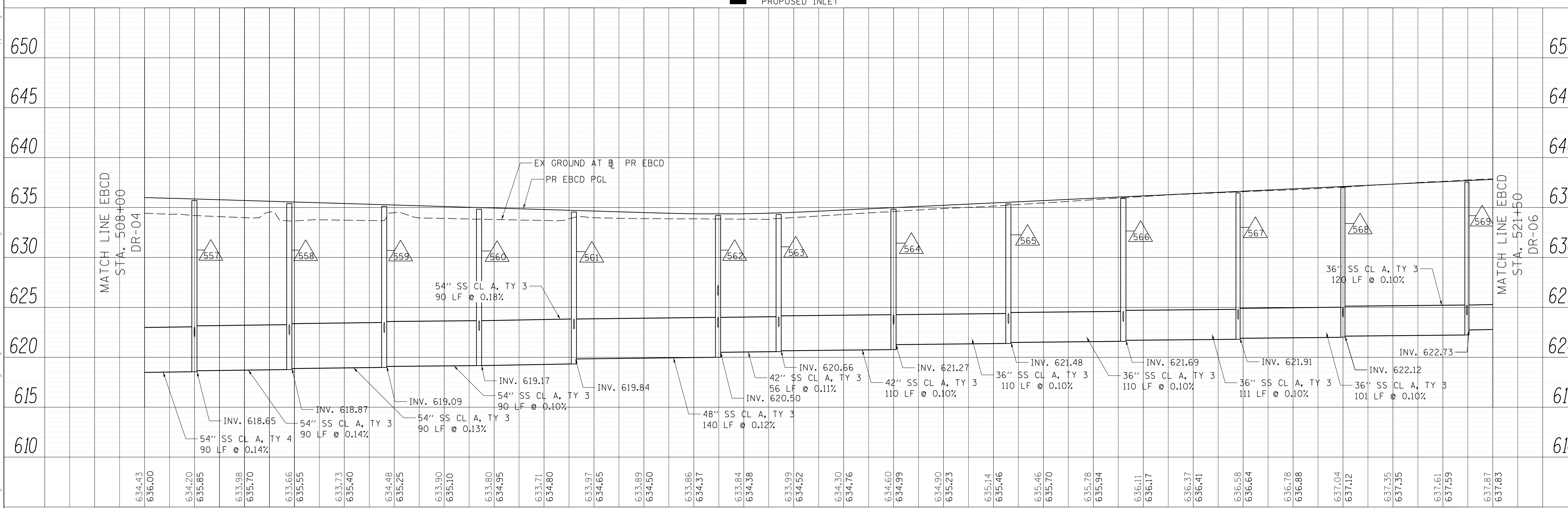
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	125
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

DR–04

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



PROFILE
NOTE BOOK
NO.
SURVEYED
PLOTTED
GRADES CHECKED
B.M. NOTED
STRUCTURE NOTAT'NS CH'KD
BY
DATE



DR–05

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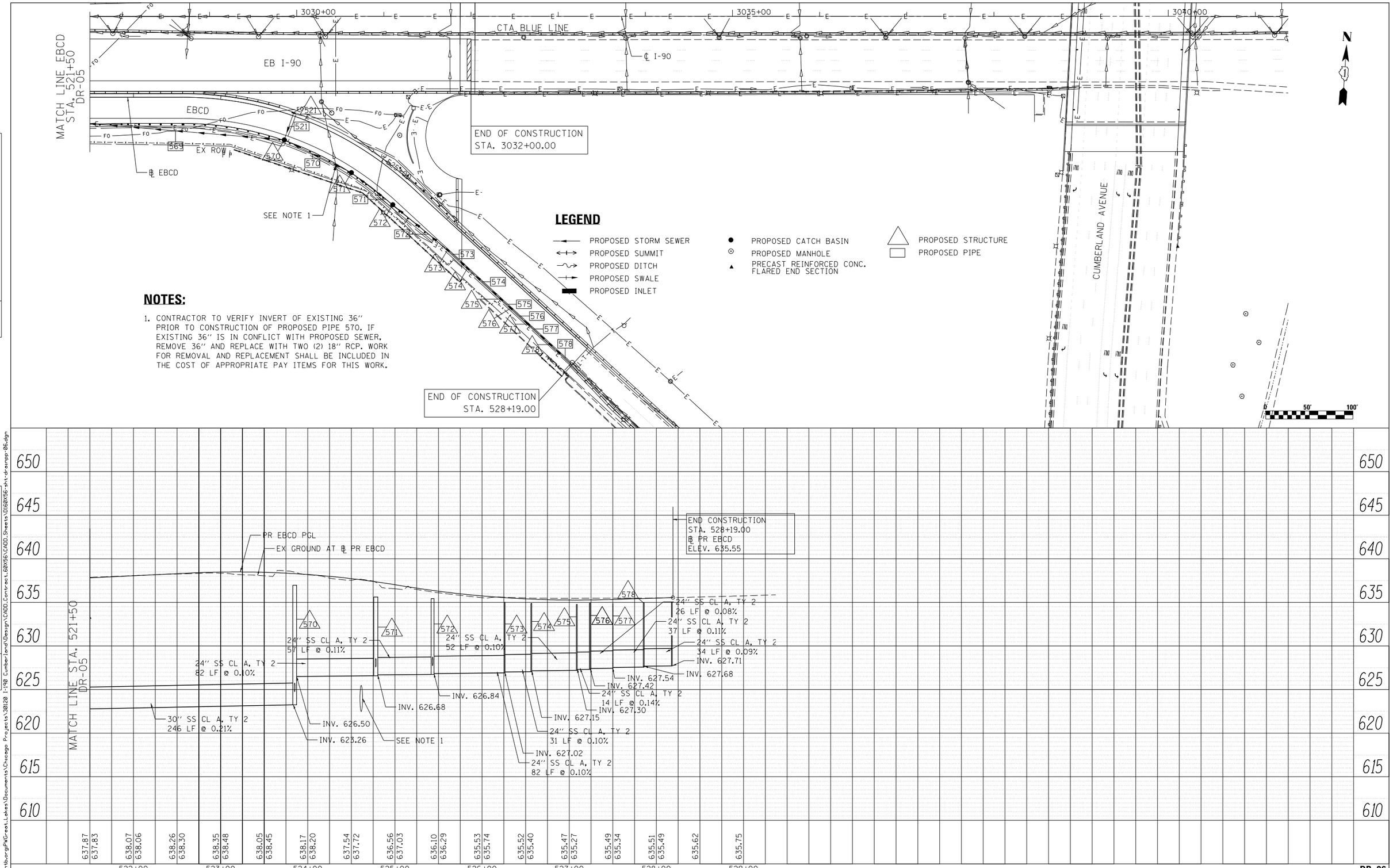
	PLOT SCALE = 1.0000 ' / in.	CHECKED - MAM	REVISED -
	PLOT DATE = 4/5/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED DRAINAGE PLAN AND PROFILE
EASTBOUND CD ROAD

SCALE: 1'' = 50' | SHEET 5 OF 7 SHEETS | STA. 508+25.00 TO STA. 521+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	126
		CONTRACT NO. 60X56		
	ILLINOIS	FED. AID PROJECT		



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

PROFILE
SURVEYED
PLOTTED
DRAWN
CHECKED
NOTE BOOK
NO.
BM. NOTED
STRUCTURE NO(S) CHKD

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HNTB

USER NAME = mkosir	DESIGNED - MMK	REVISED -
	DRAWN - MMK	REVISED -
PLOT SCALE = 1.0000 ' / in.	CHECKED - MAM	REVISED -
PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED DRAINAGE PLAN AND PROFILE
EASTBOUND CD ROAD

SCALE: 1" = 50' | SHEET 6 OF 7 SHEETS | STA. 521+50.00 TO STA. 528+19.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	127
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

DR-06

DRAINAGE STRUCTURE DATA

STRUCURE NO.	DESCRIPTION		ALIGNMENT	STATION	OFFSET	DIR.	PROPOSED RIM ELEV.	NORTH	SOUTH	EAST	WEST	PIPE ID-PIPE SIZE NORTH	PIPE ID-PIPE SIZE SOUTH	PIE ID-PIPE SIZE EAST	PIPE ID-PIPE SIZE WEST	IDOT SHEET NO.	NOTES:
101	INLET TYP B	T20	EX I-190	106+36.8	9.0	L	631.36		627.00				101 15			DR-03	
102	4' DIA CB TY A	T20	EX I-190	106+25.0	45.0	R	630.90	626.75	626.59	626.69	626.69	101 15	103 21	104 15	102 12	DR-03	
103	INLET TYP B	T20	EX I-190	106+36.8	45.0	R	630.91			626.71				102 12		DR-03	
104	FES 12"		EX I-190	106+36.8	67.2	R		626.50				103 21				DR-03	
105	INLET TYP B	T20	EX I-190	108+75.1	9.0	L	633.12		628.14				105 12			DR-03	
106	4' DIA CB TY A	T20	EX I-190	108+75.0	45.0	R	632.66	627.97			627.77	105 12			104 15	DR-03	FLAT SLAB TOP REQUIRED
107	4' DIA MH TY A	T1F, CL	EX I-190	112+29.5	42.3	R	636.23		616.45	616.55			106 36	107 36		DR-03	
108	5' DIA MH TY A	T1F, CL	EX I-190	112+99.9	44.6	R	636.65	623.50		617.53	617.43	107A 24		108 36	107 36	DR-04	
109	4' DIA CB TY A	T20	EX I-190	116+33.3	30.8	R	636.21	619.18			619.18	EX 36			108 36	DR-04	FLAT SLAB TOP REQUIRED: EXISTING 36" FROM NORTH
110	CATCH BASIN TYPE G-2	G-2	FLYOVER	28+00.0	24.2	L	636.84			632.99				109 24		DR-04	FLAT SLAB TOP REQUIRED: TOLLWAY STRUCTURE
111	4' DIA CB TY A	T20	FLYOVER	28+90.3	24.4	L	636.51			632.64	632.74			110 24	109 24	DR-04	FLAT SLAB TOP REQUIRED
112	4' DIA CB TY A	T20	FLYOVER	30+05.1	24.3	L	636.20	632.20			632.30	111 36			110 24	DR-04	
113	4' DIA CB TY A	T20	EX I-190	117+47.5	33.5	R	635.85		632.06	630.96			111 36	112 36		DR-04	FLAT SLAB TOP REQUIRED
114	4' DIA CB TY A	T20	EX I-190	119+47.0	7.5	L	636.81		630.50				113 12			DR-04	
115	5' DIA CB TY A	T20	EX I-190	119+47.6	31.3	R	636.39	630.37	630.27		630.37	113 12	114 36		112 36	DR-04	
116	4' DIA CB TY A	T20	EX I-190	119+47.67	39.2	R	636.64	630.24	630.14			114 36	115 36			DR-04	
117	FES 36"		EX I-190	119+45.0	114.2	R		631.30				115 36				DR-04	
301	INLET TYP A	T20	EX I-90	3010+62.7	100.0	R	637.02		630.77				301 15			DR-04	
302	INLET TYP A	T20	EX I-90	3011+62.7	99.4	R	636.53		630.53				302 12			DR-04	
303	INLET TYP A	T20	EX I-90	3012+12.7	99.1	R	636.29		630.29				303 12			DR-04	
304	INLET TYP A	T20	EX I-90	3012+97.7	98.6	R	636.09		630.09				304 18			DR-04	
305	INLET TYP A	T20	EX I-90	3013+27.7	98.4	R	636.04		630.04				305 12			DR-04	
306	INLET TYP A	T20	EX I-90	3013+67.7	98.2	R	635.98		629.98				306 12			DR-04	
307	INLET TYP A	T20	EX I-90	3014+62.73	97.6	R	635.60		629.60				307 12			DR-05	
308	INLET TYP A	T20	EX I-90	3015+57.7	97.1	R	635.21		629.21				308 12			DR-05	
309	INLET TYP A	T20	EX I-90	3016+52.7	96.5	R	635.16		629.16				309 12			DR-05	
310	INLET TYP A	T20	EX I-90	3017+47.7	95.9	R	634.95		628.95				310 12			DR-05	
311	INLET TYP A	T20	EX I-90	3018+42.7	95.4	R	634.69		628.69				311 12			DR-05	
312	INLET TYP A	T20	EX I-90	3019+86.8	93.3	R	634.39		628.39				312 12			DR-05	
313	INLET TYP A	T20	EX I-90	3020+35.0	92.5	R	634.39			630.35				313 12		DR-05	
314	INLET TYP B	T20	EX I-90	3020+47.6	92.1	R	634.44		628.44		630.23		314 12		313 12	DR-05	
315	INLET TYP A	T20	EX I-90	3021+62.6	89.8	R	635.00		629.00				315 12			DR-05	
316	INLET TYP A	T20	EX I-90	3022+77.5	87.5	R	635.53		629.53				316 12			DR-05	
317	INLET TYP A	T20	EX I-90	3023+92.6	85.2	R	636.20		630.20				317 12			DR-05	
318	INLET TYP A	T20	EX I-90	3025+07.7	85.0	R	636.76		630.76				318 12			DR-05	
319	INLET TYP A	T20	EX I-90	3016+22.7	85.0	R	637.20		631.25				319 12			DR-05	
320	INLET TYP A	T20	EX I-90	3027+36.7	85.0	R	637.89		631.89				320 12			DR-05	
401	CATCH BASIN TYPE G-2	G-2	PR FLYOVER	15+80.4	27.0	L	642.34		637.34				401 12			DR-01	TOLLWAY STRUCTURE
402	CATCH BASIN TYPE G-2	G-2	PR FLYOVER	15+88.2	8.0	R	642.56	636.64			635.64	401 12			402 12	DR-01	TOLLWAY STRUCTURE
403	4' DIA MH TY A	T1F, CL	PR FLYOVER	15+36.8	8.0	R	640.37		630.28	635.64			403 12	402 12		DR-01	TOLLWAY STRUCTURE
404	SLOPED HEADWALL TYPE III, 12", 1:4		PR FLYOVER	15+00.3	44.5	R		629.28				403 12				DR-01	TOLLWAY STRUCTURE
405	SLOPED HEADWALL TYPE III, 6", 1:3		PR FLYOVER	30+87.6	24.6	R		631.73								DR-02	TOLLWAY STRUCTURE
500	4' DIA MH TY A	T1F, CL	PR EBCD	503+12.9	3.0	L	637.20	627.88		627.86		EX 18		500 18		DR-04	
501	4' DIA CB TY A	T20	PR EBCD	504+50.0	3.0	L	636.91	630.74		630.64		301 15		501 15		DR-04	
502	4' DIA CB TY A	T20	PR EBCD	505+50.0	3.0	L	636.46	630.50	630.40		630.38	302 12	502 12		501 15	DR-04	
503	4' DIA CB TY A	T20	PR EBCD	506+00.0	3.0	L	636.28	630.26	630.26			303 12	503 12			DR-04	
504	4' DIA CB TY A	T20	PR EBCD	506+85.0	3.0	L	636.12	630.06	629.96			304 18	504 12			DR-04	
505	4' DIA CB TY A	T20	PR EBCD	507+15.0	3.0	L	636.03	630.01	629.91			305 12	505 12			DR-04	
506	4' DIA CB TY A	T20	PR EBCD	507+55.0	3.0	L	635.95	629.95	629.85			306 12	506 12			DR-04	
507	4' DIA CB TY A	T20	PR EBCD	508+50.0	3.0	L	635.69	629.57	629.47			307 12	507 12			DR-05	
508	4' DIA CB TY A	T20	PR EBCD	509+45.0	3.0	L	635.41	629.18	629.08			308 12	508 12			DR-05	
509	4' DIA CB TY A	T20	PR EBCD	510+40.0	3.0	L	635.12	629.13	629.03			309 12	509 12			DR-05	
510	4' DIA CB TY A	T20	PR EBCD	511+35.0	3.0	L	634.84	628.92	628.88			310 12	510 12			DR-05	
511	4' DIA CB TY A	T20	PR EBCD	512+30.0	3.0	L	634.55	628.66	628.56			311 12	511 12			DR-05	
512	4' DIA CB TY A	T20	PR EBCD	513+74.2	3.0	L	634.20	628.36	628.26	631.73		312 12	512 12	513 512		DR-05	
513	INLET TYP A	T20	PR EBCD	513+89.1	3.0	L	634.28				631.88				513 12	DR-05	
514	4' DIA CB TY A	T20	PR EBCD	514+35.0	3.0	L	634.30	628.41	628.31			314 12	514 12			DR-05	
515	4' DIA CB TY A	T20	PR EBCD	515+50.0	3.0	L	634.83	628.97	628.87			315 12	515 12			DR-05	
516	4' DIA CB TY A	T20	PR EBCD	516+65.0	3.0	L	635.37	629.50	629.40			316 12	516 12			DR-05	
517	4' DIA CB TY A	T20	PR EBCD	517+80.0	3.0	L	635.92	630.17	630.07			317 12	517 12			DR-05	
518	4' DIA CB TY A	T20	PR EBCD	518+95.0	3.0	L	636.46	630.73	630.63			318 12	518 12			DR-05	
519	4' DIA CB TY A	T20	PR EBCD	520+00.0	3.0	L	637.00	631.22	631.12			319 12	519 12			DR-05	
520	4' DIA CB TY A	T20	PR EBCD	521+24.0	3.0	L	637.54	631.86	631.76			320 12	520 12			DR-05	
521	INLET TYP A	T20	PR EBCD	523+85.0	3.0	L	638.14		632.14				521 12			DR-06	
550	9' DIA MH TY A	T1F, CL	PR EBCD	503+82.0	33.6	R	637.41	617.39	617.00	626.56	616.82	EX 66	550 36	500 18	602 66	DR-04	CONNECT TO EXISTING 66" MAINLINE INV. 617.34
551	6' DIA MH TY A	T1F, CL	PR EBCD	504+50.0	32.1	R	636.91			617.44	617.33			551 60	550 36	DR-04	MANHOLE WITH RESTRICTOR. SEE DPD-04
552	7' DIA MH TY A	T1F, CL	PR EBCD	505+50.0	30.1	R	636.46	630.17		617.63	617.53	502 12		552 54	551 60	DR-04	
553	7' DIA MH TY A	T1F, CL	PR EBCD	506+00.0	29.2	R	636.27	628.99		617.82	617.72	503 12		553 54	552 54	DR-04	
554	7' DIA MH TY A	T1F, CL	PR EBCD	506+85.0	28.0	R	636.08	628.29		617.98	617.88	504 12		554 54	553 54	DR-04	
555	7' DIA MH TY A	T1F, CL	PR EBCD	507+15.0	28.0	R	636.03	628.75		618.20	618.10	505 12		555 54	554 54	DR-04	
556	7' DIA MH TY A	T1F, CL	PR EBCD	507+55.0	28.0	R	635.95	628.68	622.67	618.43	618.33	506 12	EX 12	556 54	555 54	DR-04	EXISTING 12" RCP FROM SOUTH
557	7' DIA MH TY A	T1F, CL	PR EBCD	508+50.0	28.0	R	635.69	627.81		618.65	618.55	507 12		557 54	556 54	DR-05	
558	7' DIA MH TY A	T1F, CL	PR EBCD	509+45.0	28.0	R	635.40	627.41		618.87	618.77	508 12		558 54	557 54	DR-05	
559	7' DIA MH TY A	T1F, CL	PR EBCD	510+40.0	28.0	R	635.12	627.86		619.09	618.99	509 12		559 54	558 54	DR-05	
560	7' DIA MH TY A	T1F, CL	PR EBCD	511+35.0	28.0	R	634.84	627.57		619.17	619.17	511 12		560 54	559 54	DR-05	

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HNTB

USER NAME = mkosir	DESIGNED - MMK	REVISED -	
	DRAWN - MMK	REVISED -	
PLOT SCALE = 1.0000 ' / in.	CHECKED - MAM	REVISED -	
PLOT DATE = 6/3/2016	DATE - 05/06/2016	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE STRUCTURE SCHEDULE

SCALE: | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	128
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

DRAINAGE STRUCTURE DATA

STRUCURE NO.	DESCRIPTION	ALIGNMENT	STATION	OFFSET	DIR.	PROPOSED RIM ELEV.	NORTH	SOUTH	EAST	WEST	PIPE ID-PIPE SIZE NORTH	PIPE ID-PIPE SIZE SOUTH	PIE ID-PIPE SIZE EAST	PIPE ID-PIPE SIZE WEST	IDOT SHEET NO.	NOTES:
561	6' DIA MH TY A T1F, CL	PR EBCD	512+30.0	28.0	R	634.55	627.29		619.84	619.34	512 12		561 48	560 54	DR-05	
562	6' DIA MH TY A T1F, CL	PR EBCD	513+74.2	28.0	R	634.20	626.93	626.19	620.50	620.00	513 12	579 12	562 42	561 48	DR-05	
563	5' DIA MH TY A T1F, CL	PR EBCD	514+35.0	28.0	R	634.30	627.04		620.66	620.56	514 12		563 42	562 42	DR-05	
564	5' DIA MH TY A T1F, CL	PR EBCD	515+50.0	28.0	R	634.83	627.57		621.27	620.77	515 12		564 36	563 42	DR-05	
565	5' DIA MH TY A T1F, CL	PR EBCD	516+65.0	28.0	R	635.38	628.11		621.48	621.38	516 12		565 36	564 36	DR-05	
566	5' DIA MH TY A T1F, CL	PR EBCD	517+80.0	28.0	R	635.92	628.65		621.69	621.59	517 12		566 36	565 36	DR-05	
567	5' DIA MH TY A T1F, CL	PR EBCD	518+95.0	28.0	R	636.46	629.19		621.91	621.81	518 12		567 36	566 36	DR-05	
568	5' DIA MH TY A T1F, CL	PR EBCD	520+00.0	28.0	R	637.00	629.74		622.12	622.02	519 12		568 30	567 36	DR-05	
569	4' DIA MH TY A T1F, CL	PR EBCD	521+24.0	28.0	R	637.54	630.27		622.73	622.23	520 12		569 24	568 30	DR-05	
570	4' DIA CB TY A T2O	PR EBCD	523+85.0	29.0	R	636.97	631.85		626.50	623.26	521 12		570 24	569 24	DR-06	
571	4' DIA CB TY A T2O	PR EBCD	524+78.0	29.0	R	635.62			626.68	626.58			571 24	570 24	DR-06	
572	4' DIA CB TY A T2O	PR EBCD	525+43.2	29.0	R	635.44			626.84	626.74			572 24	571 24	DR-06	
573	INLET TYP B T2O	PR EBCD	526+25.0	25.0	R	635.05			627.02	626.92			573 24	572 24	DR-06	
574	INLET TYP B T2O	PR EBCD	526+56.0	25.0	R	634.88			627.15	627.05			574 24	573 24	DR-06	
575	INLET TYP B T2O	PR EBCD	527+08.2	25.0	R	634.77			627.30	627.20			575 24	574 24	DR-06	
576	INLET TYP B T2O	PR EBCD	527+23.1	25.0	R	634.91			627.42	627.32			576 24	575 24	DR-06	
577	INLET TYP B T2O	PR EBCD	527+50.0	25.0	R	634.87			627.54	627.44			577 24	576 24	DR-06	
578	INLET TYP B T2O	PR EBCD	527+85.0	25.0	R	634.97			627.68	627.58			578 24	577 24	DR-06	
579	4' DIA CB TYP A T8G	PR EBCD	513+75.0	47.0	R	631.82	626.35				579 12				DR-05	
600	9' DIA MH TY A T1F, CL	EX I-190	105+73.0	109.5	R	629.82	614.05		614.51	613.68	EX 36		600 66	EX 66	DR-03	EXISTING 36" FROM NORTH
601	9' DIA MH TY A T1F, CL	EX I-190	112+29.9	117.6	R	631.25	616.09		615.96	614.51	106 36		601 66	600 66	DR-03	
602	7' DIA MH TY A T1F, CL	EX I-190	119+05.5	117.2	R	631.57			616.06	615.96			602 66	601 66	DR-04	

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DPS-02

HNTB	USER NAME = mkosir	DESIGNED - MMK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		DRAWN - MMK	REVISED -	
	PLOT SCALE = 1.0000 ' / in.	CHECKED - MAM	REVISED -	
	PLOT DATE = 6/2/2016	DATE - 05/06/2016	REVISED -	

DRAINAGE STRUCTURE SCHEDULE

SCALE: | SHEET 2 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	129
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

DRAINAGE PIPE DATA

PIPE NO.	DESCRIPTION	SIZE (IN)	LENGTH	SLOPE	TRENCH BACKFILL	IDOT SHEET NO.	FROM NODE	TO NODE	NOTES
101	STORM SEWERS, CLASS A, TYPE 1	15	52	0.48	13.1	DR-03	101	102	
102	STORM SEWERS, CLASS A, TYPE 1	12	10	0.01	0.0	DR-03	102	104	
103	STORM SEWERS, CLASS A TYPE 1	21	21	0.48	0.0	DR-03	103	102	
104	STORM SEWERS, CLASS A TYPE 1	15	237	0.46	72.1	DR-03	106	102	
105	STORM SEWERS, CLASS A, TYPE 1	12	52	0.33	17.9	DR-03	105	106	
106	STORM SEWERS, CLASS A, TYPE 3	36	72	0.50	0.0	DR-03	107	601	
107	STORM SEWERS, CLASS A, TYPE 4	36	68	1.30	0.0	DR-03	108	107	
107A	STORM SEWERS, CLASS A, TYPE 1	24	8	1.00	15.2	DR-03	EX	108	CONNECT TO EXISITNG PIPE PER D-1 STD BD-07, MATCH EXISTING SLOPE
108	STORM SEWERS, CLASS A, TYPE 4	36	332	0.50	1140.1	DR-04	109	108	
109	STORM SEWERS, CLASS A TYPE 1	24	89	0.28	8.2	DR-04	110	111	
110	STORM SEWERS, CLASS.A TYPE 1	24	113	0.30	12.7	DR-04	111	112	
111	STORM SEWERS, WMQP, TYPE 1	36	28	0.52	1.0	DR-04	112	113	WATER MAIN QUALITY PIPE
112	STORM SEWERS, CLASS A, TYPE 2	36	199	0.30	74.1	DR-04	113	114	
113	STORM SEWERS, CLASS A, TYPE 2	12	37	0.37	21.0	DR-04	114	115	
114	STORM SEWERS, CLASS A, TYPE 2	36	6	0.50	3.0	DR-04	115	116	
115	STORM SEWERS, CLASS A, TYPE 2	36	75	0.30	19.7	DR-04	116	117	
301	STORM SEWERS, CLASS A, TYPE 2	15	3	1.00	1.7	DR-04	301	501	
302	STORM SEWERS, CLASS A, TYPE 2	12	3	1.00	1.6	DR-04	302	502	
303	STORM SEWERS, CLASS A, TYPE 2	12	3	1.00	1.6	DR-04	303	503	
304	STORM SEWERS, CLASS A, TYPE 2	18	3	1.00	1.6	DR-04	304	504	
305	STORM SEWERS, CLASS A, TYPE 2	12	3	1.00	1.6	DR-04	305	505	
306	STORM SEWERS, CLASS A, TYPE 2	12	3	1.00	1.6	DR-04	306	506	
307	STORM SEWERS, CLASS A, TYPE 2	12	3	1.00	1.6	DR-05	307	507	
308	STORM SEWERS, CLASS A, TYPE 2	12	3	1.00	1.7	DR-05	308	508	
309	STORM SEWERS, CLASS A, TYPE 2	12	3	1.00	1.6	DR-05	309	509	
310	STORM SEWERS, CLASS A, TYPE 2	12	3	1.00	1.6	DR-05	310	510	
311	STORM SEWERS, CLASS A, TYPE 2	12	3	1.00	1.6	DR-05	311	511	
312	STORM SEWERS, CLASS A, TYPE 2	12	3	1.00	1.6	DR-05	312	512	
313	STORM SEWERS, CLASS A, TYPE 1	12	12	1.00	3.3	DR-05	313	312	
314	STORM SEWERS, CLASS A, TYPE 2	12	3	1.00	1.6	DR-05	314	514	
315	STORM SEWERS, CLASS A, TYPE 2	12	3	1.00	1.6	DR-05	315	515	
316	STORM SEWERS, CLASS A, TYPE 2	12	3	1.00	1.4	DR-05	316	516	
317	STORM SEWERS, CLASS A, TYPE 2	12	3	1.00	1.5	DR-05	317	517	
318	STORM SEWERS, CLASS A TYPE 2	12	3	1.00	1.8	DR-05	318	518	
319	STORM SEWERS, CLASS A TYPE 2	12	3	1.00	1.8	DR-05	319	519	
320	STORM SEWERS, CLASS A, TYPE 2	12	3	1.00	2.1	DR-05	320	520	
401	STORM SEWERS, CLASS A, TYPE 2	12	35	2.00	14.8	DR-01	401	402	
402	STORM SEWERS, CLASS A, TYPE 2	12	51	2.00	20.8	DR-01	402	403	
403	STORM SEWERS, CLASS A, TYPE 2	12	50	2.00	2.5	DR-01	403	404	
500	STORM SEWERS, CLASS A, TYPE 2	18	65	2.00	85.3	DR-04	500	550	
501	STORM SEWERS, CLASS A, TYPE 2	15	32	0.84	20.7	DR-04	501	551	
502	STORM SEWERS, CLASS A, TYPE 2	12	30	0.76	19.9	DR-04	502	552	
503	STORM SEWERS, CLASS A, TYPE 2	12	29	4.46	21.1	DR-04	503	553	
504	STORM SEWERS, CLASS A, TYPE 2	12	28	6.09	18.6	DR-04	504	554	
505	STORM SEWERS, CLASS A, TYPE 2	12	28	4.25	18.6	DR-04	505	555	
506	STORM SEWERS, CLASS A, TYPE 2	12	28	4.25	21.3	DR-04	506	556	
507	STORM SEWERS, CLASS A, TYPE 2	12	28	6.07	21.7	DR-05	507	557	
508	STORM SEWERS, CLASS A, TYPE 2	12	28	6.07	19.9	DR-05	508	558	
509	STORM SEWERS, CLASS A, TYPE 2	12	28	4.29	19.5	DR-05	509	559	
510	STORM SEWERS, CLASS A, TYPE 2	12	28	4.56	19.5	DR-05	510	560	
511	STORM SEWERS, CLASS A, TYPE 2	12	28	4.66	19.5	DR-05	511	561	
512	STORM SEWERS, CLASS A, TYPE 2	12	28	4.84	17.3	DR-05	512	562	
513	STORM SEWERS, CLASS A, TYPE 1	12	15	1.00	4.7	DR-05	513	512	
514	STORM SEWERS, CLASS A, TYPE 2	12	28	4.65	14.6	DR-05	514	563	
515	STORM SEWERS, CLASS A, TYPE 2	12	28	4.76	14.1	DR-05	515	564	
516	STORM SEWERS, CLASS A, TYPE 2	12	28	4.71	13.7	DR-05	516	565	
517	STORM SEWERS, CLASS A, TYPE 2	12	28	5.15	13.7	DR-05	517	566	
518	STORM SEWERS, CLASS A, TYPE 2	12	28	5.17	14.1	DR-05	518	567	
519	STORM SEWERS, CLASS A, TYPE 2	12	28	4.94	11.4	DR-05	519	568	
520	STORM SEWERS, CLASS A, TYPE 2	12	28	5.33	17.3	DR-05	520	569	
521	STORM SEWERS, CLASS A, TYPE 2	12	29	1.00	28.1	DR-06	521	570	
550	STORM SEWERS, CLASS A, TYPE 4	36	75	0.10	283.5	DR-04	551	550	
551	STORM SEWERS, CLASS A, TYPE 4	54	95	0.10	397.8	DR-04	552	551	
552	STORM SEWERS, CLASS A, TYPE 4	54	45	0.18	181.4	DR-04	553	552	
553	STORM SEWERS, CLASS A, TYPE 4	54	80	0.08	312.5	DR-04	554	553	
554	STORM SEWERS, CLASS A, TYPE 4	54	25	0.49	94.5	DR-04	555	554	
555	STORM SEWERS, CLASS A, TYPE 4	54	35	0.35	129.1	DR-04	556	555	
556	STORM SEWERS, CLASS A, TYPE 4	54	90	0.14	320.7	DR-04	557	556	50' OF PIPE TO BE JACKED UNDER WATERMAIN
557	STORM SEWERS, CLASS A, TYPE 3	54	90	0.14	309.5	DR-05	558	557	
558	STORM SEWERS, CLASS A, TYPE 3	54	90	0.13	295.5	DR-05	559	558	
559	STORM SEWERS, CLASS A, TYPE 3	54	90	0.10	275.8	DR-05	560	559	
560	STORM SEWERS, CLASS A, TYPE 3	54	90	0.18	250.6	DR-05	561	560	
561	STORM SEWERS, CLASS A, TYPE 3	48	140	0.12	354.5	DR-05	562	561	
562	STORM SEWERS, CLASS A, TYPE 3	42	56	0.11	141.7	DR-05	563	562	
563	STORM SEWERS, CLASS A, TYPE 3	42	110	0.10	275.3	DR-05	564	563	
564	STORM SEWERS, CLASS A, TYPE 3	36	110	0.10	274.5	DR-05	565	564	

PIPE UNDERDRAIN

FROM	TO	SIZE (IN)	LENGTH (FT)	IDOT SHEET NO.
*16+58	15+78	6	52	DR-01
*15+78	402	6	12	DR-01
*25+12	28+00	6	290	DR-02
*28+00	28+90	6	90	DR-02
*25+12	30+88	6	595	DR-02
106+36.8		6	80	DR-03
503+82.0	504+50.0	6	73	DR-04
504+50.0	505+50.0	6	105	DR-04
505+50.0	506+00.0	6	55	DR-04
506+00.0	506+85.0	6	90	DR-04
506+85.0	507+15.0	6	35	DR-04
507+15.0	507+55.0	6	45	DR-04
507+55.0	508+50.0	6	100	DR-04
508+50.0	509+45.0	6	100	DR-05
509+45.0	510+40.0	6	100	DR-05
510+40.0	511+35.0	6	100	DR-05
511+35.0	512+30.0	6	100	DR-05
512+30.0	513+74.2	6	149	DR-05
513+74.2	514+35.0	6	66	DR-05
514+35.0	515+50.0	6	120	DR-05
515+50.0	516+65.0	6	120	DR-05
516+65.0	517+80.0	6	120	DR-05
517+80.0	518+95.0	6	120	DR-05
518+95.0	520+00.0	6	120	DR-05
520+00.0	521+24.0	6	119	DR-05
513+74.2	562	6	49	DR-05

* TOLLWAY UNDERDRAIN

SLOTTED DRAIN

FROM STATION	CONNECT TO STRUCTURE	OUTLET PIPE	LENGTH (FT)	SLOPE	IDOT SHEET NO.	UPSTREAM INV. EL.
118+41.0 32.8 R	113	8" DIA. SDR 35	94	0.60	DR-04	634.8
116+33.3 30.8 R	113	10" DIA. SDR 35	115	0.60	DR-04	634.3
121+87.6 4.0 L	114	10" DIA. SDR 35	241	0.60	DR-04	635.44
118+06.9 11.1 L	114	8" DIA. SDR 35	140	0.60	DR-04	634.24

HNTB

USER NAME = mkosir	DESIGNED - MMK	REVISED -	
	DRAWN - MMK	REVISED -	
PLOT SCALE = 1.0000 ' / in.	CHECKED - MAM	REVISED -	
PLOT DATE = 6/2/2016	DATE - 05/06/2016	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE PIPE SCHEDULE

SCALE: | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	130
		CONTRACT NO. 60X56		
		ILLINOIS FED. AID PROJECT		

DRAINAGE PIPE DATA

PIPE NO.	DESCRIPTION	SIZE (IN)	LENGTH	SLOPE	TRENCH BACKFILL	IDOT SHEET NO.	FROM NODE	TO NODE	NOTES
565	STORM SEWERS, CLASS A, TYPE 3	36	110	0.10	282.7	DR-05	566	565	
566	STORM SEWERS, CLASS A, TYPE 3	36	111	0.10	293.5	DR-05	567	566	
567	STORM SEWERS, CLASS A, TYPE 3	36	101	0.10	272.0	DR-05	568	567	
568	STORM SEWERS, CLASS A, TYPE 3	36	120	0.10	266.9	DR-05	569	568	50' OF PIPE TO BE JACKED UNDER WATERMAIN
569	STORM SEWERS, CLASS A, TYPE 2	30	246	0.21	426.0	DR-06	570	569	
570	STORM SEWERS, CLASS A, TYPE 2	24	82	0.10	116.2	DR-06	571	570	
571	STORM SEWERS, CLASS A, TYPE 2	24	57	0.11	70.3	DR-06	572	571	
572	STORM SEWERS, CLASS A, TYPE 2	24	82	0.10	81.1	DR-06	573	572	
573	STORM SEWERS, CLASS A, TYPE 2	24	31	0.10	27.5	DR-06	574	573	
574	STORM SEWERS, CLASS A, TYPE 2	24	52	0.10	44.0	DR-06	575	574	
575	STORM SEWERS, CLASS A, TYPE 2	24	14	0.14	11.6	DR-06	576	575	
576	STORM SEWERS, CLASS A, TYPE 2	24	26	0.08	13.5	DR-06	577	576	
577	STORM SEWERS, CLASS A, TYPE 2	24	37	0.11	22.3	DR-06	578	577	
578	STORM SEWERS, CLASS A, TYPE 2	24	34	0.09	29.5	DR-06	EX	578	
579	STORM SEWERS, CLASS A, TYPE 2	12	16	1.01	7.5	DR-05	579	562	
600	STORM SEWERS, CLASS A, TYPE 4	66	640	0.13	3344.7	DR-03	600	601	
601	STORM SEWERS, CLASS A, TYPE 4	66	674	0.20	3378.9	DR-03	601	602	
602	STORM SEWERS, CLASS A, TYPE 4	66	379	0.20	2169.0	DR-04	602	550	

DPS-04

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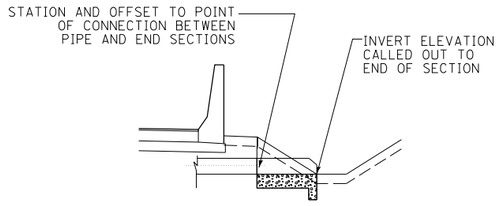
	DRAWN - MMK	REVISED -	
PLOT SCALE = 1.0000 ' / in.	CHECKED - LLS	REVISED -	
PLOT DATE = 6/2/2016	DATE - 05/06/2016	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

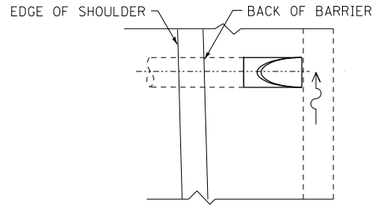
DRAINAGE PIPE SCHEDULE

SCALE: | SHEET 2 OF 2 SHEETS | STA. | TO STA.

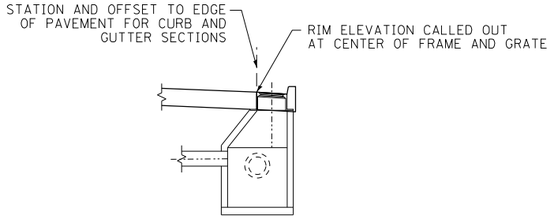
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	131
		CONTRACT NO. 60X56		
	ILLINOIS	FED. AID PROJECT		



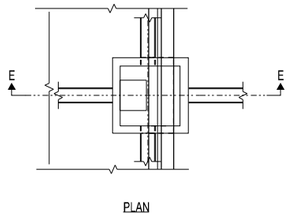
ELEVATION - FLARED END SECTION



PLAN VIEW - FLARED END SECTION

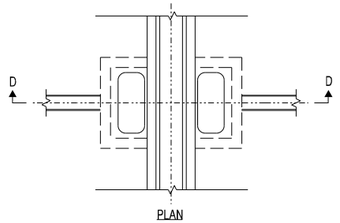


ELEVATION - CATCH BASIN W/CURB & GUTTER



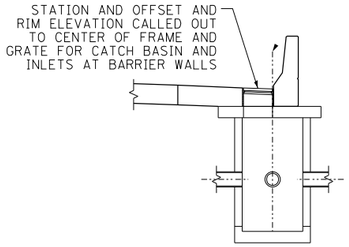
PLAN

PLAN VIEW - CATCH BASINS AT BARRIER WALLS



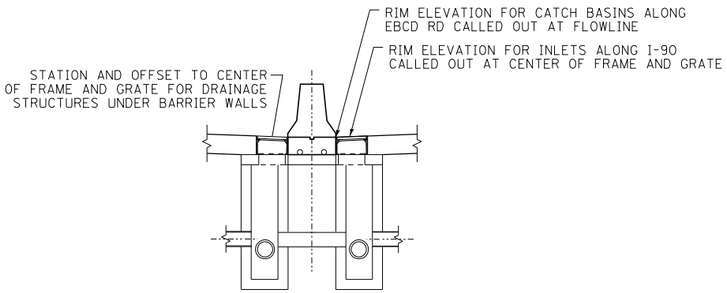
PLAN

PLAN VIEW - DRAINAGE STRUCTURES UNDER BARRIER WALLS



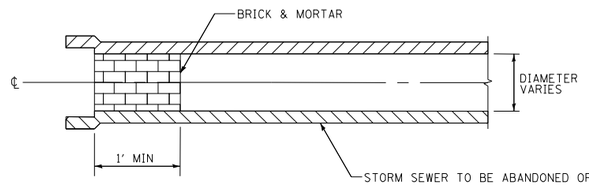
SECTION E-E

ELEVATION - CATCH BASINS AT BARRIERS WALLS



SECTION D-D

ELEVATION - DRAINAGE STRUCTURES UNDER BARRIER WALLS



NOTE:

THIS WORK SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICE BID FOR THE STORM SEWER ITEMS.

STORM SEWER PLUG

HNTB

USER NAME = mkosir	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED -	REVISED -
PLOT DATE = 5/4/2016	DATE - 05/06/2016	REVISED -

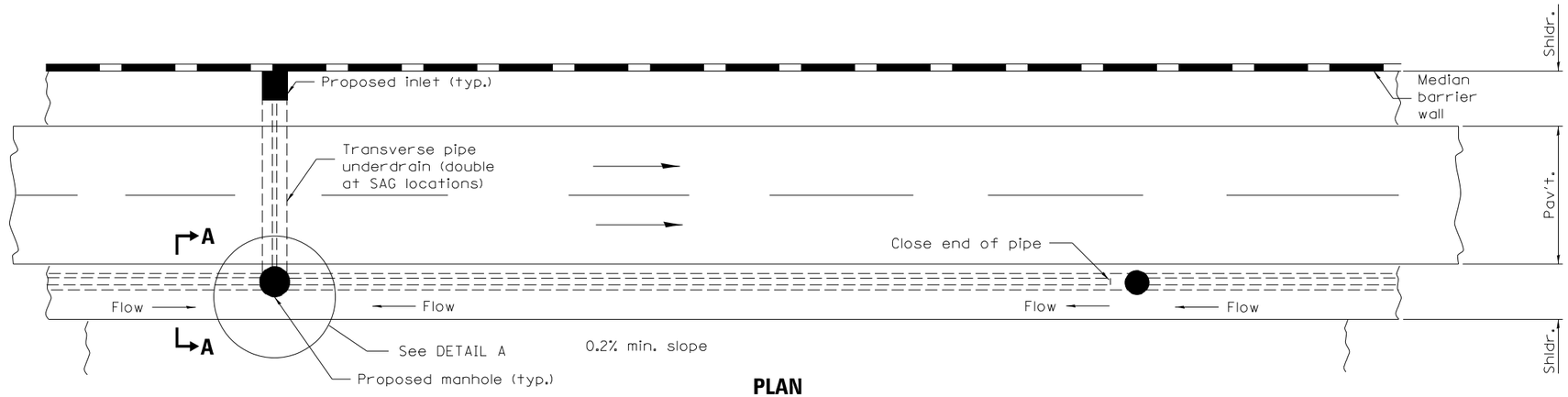
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE DETAILS

SCALE: NTS | SHEET | OF | SHEETS | STA. | TO STA.

DPD-01

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	132
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			



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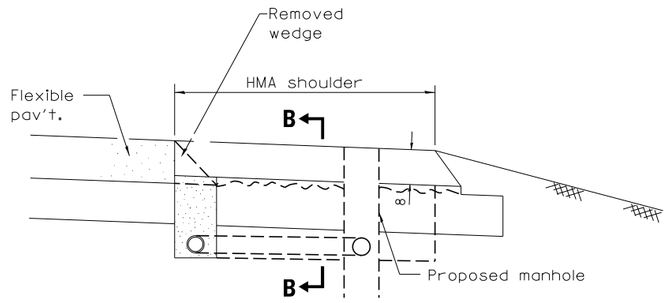
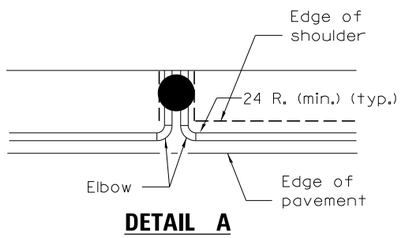
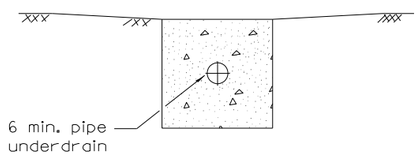


SECTION A–A
(HMA SHOULDER)

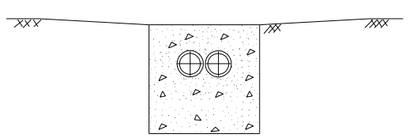
(Dimensions and notes not shown shall be as shown in the above Section A-A)



DETAIL A

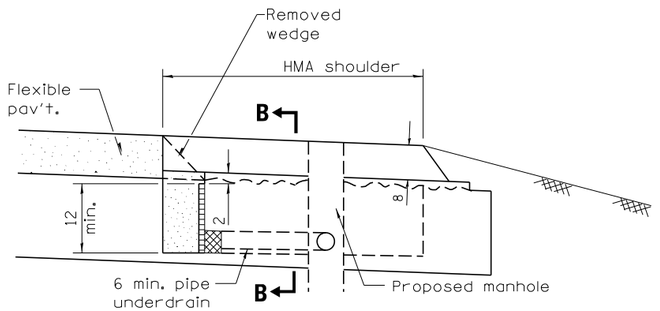


SECTION B–B



SECTION B–B

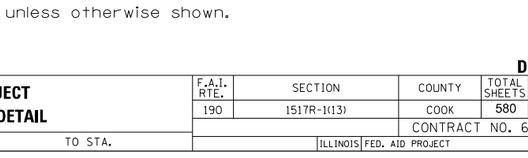
(Sag locations)



SECTION A–A
(HMA SHOULDER)

(Dimensions and notes not shown shall be as shown in the above Section A-A)

NEW CONSTRUCTION
(TRENCH FOR DRAINAGE MAT UNDERDRAIN OPTION)



TRENCH FOR CORRUGATED POLYETHYLENE TUBING ALTERNATE

GENERAL NOTES

See Standards 482001, 482006 and 483001 for details of shoulders not shown.

The 24 radius on the drainage fitting is only a minimum. Larger radii meeting the approval of the Engineer may be substituted.

All dimensions are in inches unless otherwise shown.

DPD-02

HNTB	USER NAME = mkosir	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 1.00 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

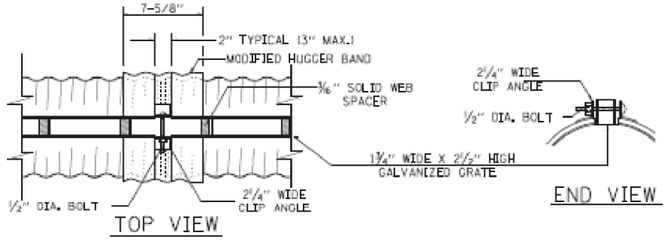
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

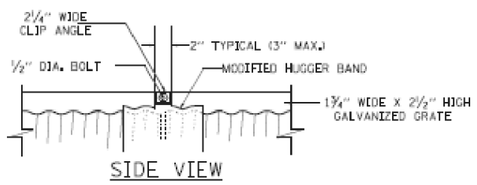
CUMBERLAND FLYOVER PROJECT
DRAINAGE PIPE UNDERDRAIN DETAIL

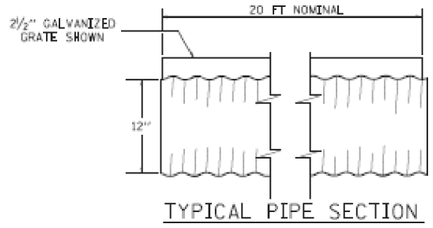
SCALE: NTS | SHEET OF SHEETS | STA. | TO STA.

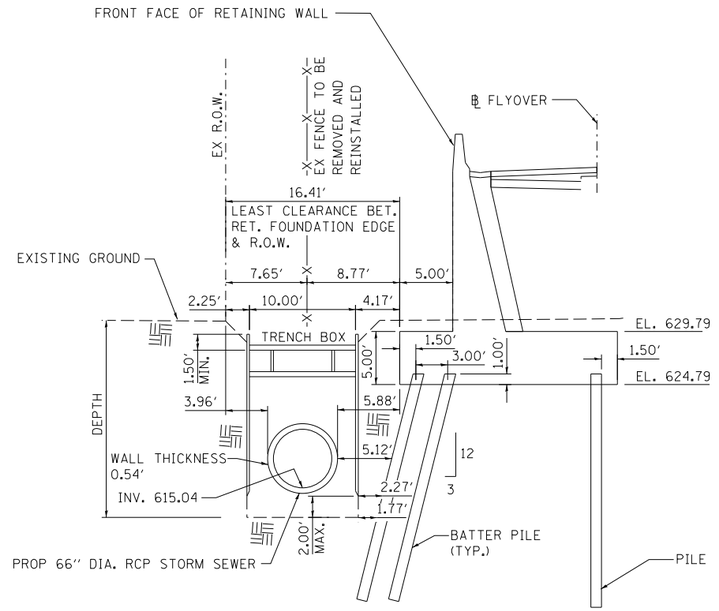
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	133
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

FILE NAME = p:\hntbs256\hntbs\orgs\PW\Great_Lakes\Documents\Chicago Projects\30120 I-190 Cumberland\Design\CADD_Contracts_60X56\CADD_Sheets\D160X56-sht-drandet-02.dgn





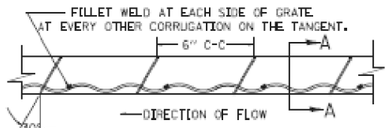


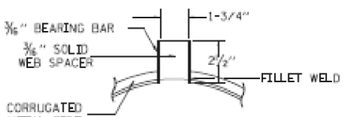


66" DIA. RCP SEWER ADJACENT TO RETAINING WALL 4 @ STA. 26+30.24

SCALE: N.T.S.

PILE TYPE: 12" METAL SHELL CAST-IN-PLACE
CONCRETE PILES WITH WALL THICKNESS = ¼"
ESTIMATED PILE LENGTH = 22'





NOTES

CLASS SI CONCRETE SHALL BE USED THROUGHOUT.

THE SLOTTED DRAIN SHALL BE CORRUGATED PIPE CULVERT WITH INTEGRAL SLOTTED DRAINS. BEFORE PLACING THE CONCRETE ADJACENT TO THE PIPE, THE SLOT SHALL BE COVERED BY EITHER THIN, FLAT METAL SHEETING OR BY A BOARD NOTCHED TO FIT OVER THE GRATE BARS. THIS COVERING MUST FIT CLOSELY IN THE SLOT TO PREVENT ENTRY OF CONCRETE INTO THE PIPE.

PAVING OVER THE SLOTTED DRAIN WILL THEN BE ONE CONTINUOUS OPERATION OVER THE PROTECTED DRAIN. THE PROTECTION FOR THE DRAIN SLOT SHALL THEN BE REMOVED. THE PIPE SHALL DRAIN INTO THE SIDE OF THE INLET.

THE OPENING WHERE THE SLOT IS REMOVED SHALL BE COVERED TO PREVENT CONCRETE FROM ENTERING THE PIPE.

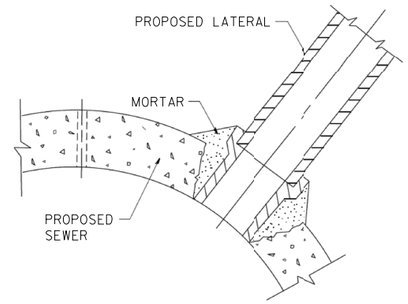
THE CORRUGATED STEEL PIPE USED IN THE SLOTTED DRAIN SHALL MEET THE REQUIREMENTS OF AASHTO M-36/ASTM A 760. THE CMP SHALL BE GALVANIZED OR ALUMINIZED STEEL TYPE 2. STEEL GRATING SHALL MEET THE GALVANIZING REQUIREMENTS OF AASHTO M-111. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR SLOTTED DRAIN PIPE, AND SHALL INCLUDE ELBOWS.

USE APPROVED END CAP TO PREVENT CONCRETE ENTRY INTO THE PIPE DURING GUTTER CONSTRUCTION ON THE UPSTREAM END OF PIPE.

DIMENSIONS ARE SUBJECT TO THE FOLLOWING MANUFACTURING TOLERANCES.

1. VERTICAL BOW ±⅜"
2. HORIZONTAL BOW ±⅝"
3. TWIST ± ½"

SLOTTED DRAIN DETAILS



LATERAL CONNECTION TO PROPOSED SEWER

SCALE: N.T.S.

DPD-03

USER NAME = mkosir	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 1.00 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -	

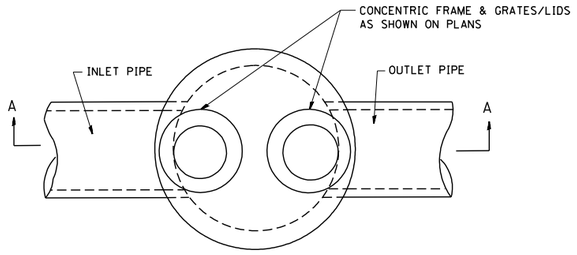
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE DETAILS

SCALE: 1" = X' | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	134
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

FILE NAME = pw:\\hntbw256.hntb.org:PWGreat_Lakes\Documents\Chicago Projects\30120 I-190 Cumberland\Design\CADD_Contract_60X56\CADD_Sheets\D160X56-sht-dr-and-t-03.dgn



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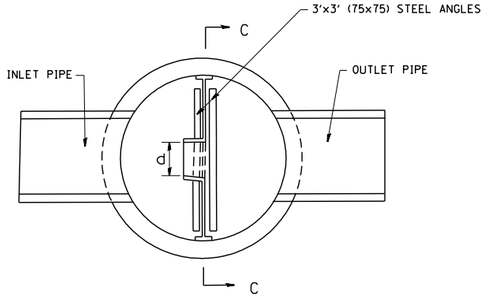
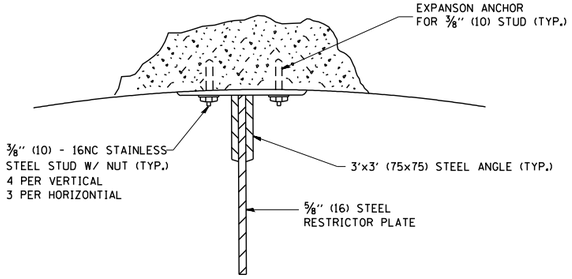
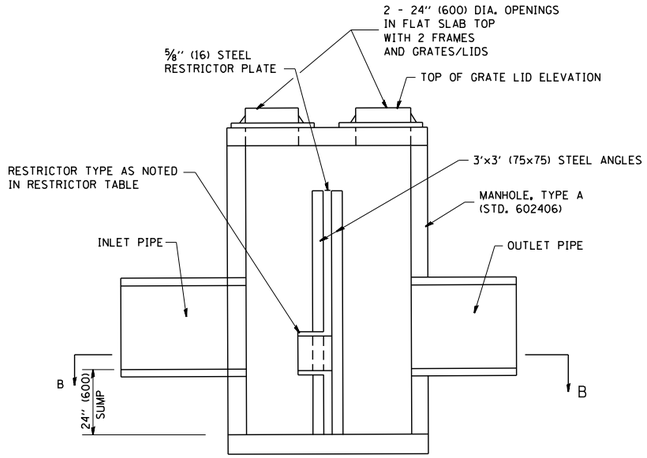


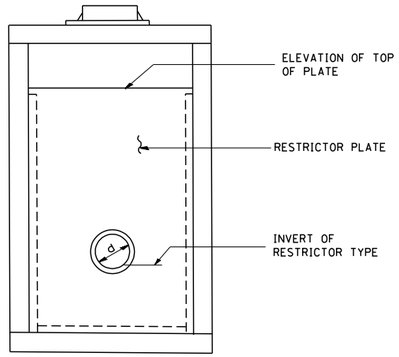
SECTION B-B



ANGLE FASTENER DETAIL



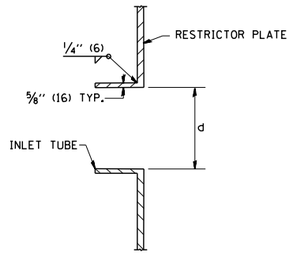
SECTION A-A



SECTION C-C

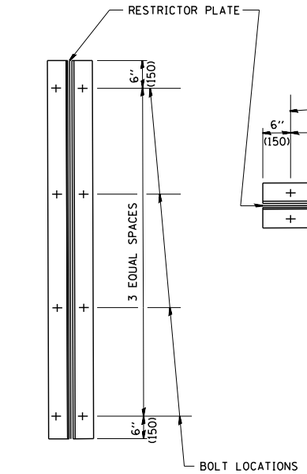
NOTES:

1. ALL STEEL ANGLES AND PLATES TO BE GALVANIZED AFTER FABRICATION.
2. ALL RESTRICTOR PLATES, ANGLES AND HARDWARE TO BE INCLUDED IN THE COST OF THE MANHOLE.
3. BASIS OF PAYMENT: "MANHOLES ,TYPE A, 6 FT. (1.8 m)-DIAMETER, TYPE 1 FRAME, CLOSED LID, RESTRICTOR PLATE" EACH

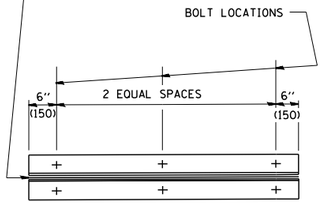


INLET TUBE DETAIL

STATION	MANHOLE DIAMETER	FRAME AND GRATE	RESTRICTOR TYPE	INSIDE RESTRICTOR TYPE DIAMETER in. (mm) (d)	INVERT OF RESTRICTOR TYPE	ELEVATION OF TOP OF PLATE OVERFLOW
504+50	6'	T1F, CL	2	18	616.80	617.76



TYPICAL VERTICAL ANGLES
LOOKING TOWARD MANHOLE WALL



TYPICAL HORIZONTIAL
ANGLES LOOKING TOWARD
BOTTOM OF MANHOLE

TOTAL BOLTS REQUIRED: 22

NOTE:

1. ANGLES SHOULD BE 3x3x⅜ (75x75x75)
2. VERTICAL ANGLES SHOULD EXTEND FROM THE BOTTOM OF THE RESTRICTOR PLATE TO THE TOP.
3. HORIZONTIAL ANGLES SHOULD EXTEND FROM VERTICAL ANGLE TO VERTICAL ANGLE.

STEEL ANGLE BOLTING DETAILS

RESTRICTOR TYPE					
1	2	3	4	5	6
RE-ENTRANT TUBE	SHARP EDGED	SQUARE EDGED	RE-ENTRANT TUBE	SQUARE EDGED	ROUNDED
LENGTH: ½ TO 1 DIA.		STREAM CLEARS SIDES	LENGTH: 2-½ DIA.	LENGTH: 2-½ DIA.	
C=.52	C=.61	C=.61	C=.73	C=.82	C=.98

VALUES OF "C" FOR CIRCULAR
AND SQUARE ORIFICES

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

DPD-04

FILE NAME = W:\diststd\22x34\bd12.dgn	USER NAME = gaglianobt	DESIGNED - R. SHAH	REVISED - R. SHAH 10-25-94
		DRAWN -	REVISED - E. GOMEZ 08-28-00
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - M. GOMEZ 01-08-01
	PLOT DATE = 1/4/2008	DATE - 09-09-94	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MANHOLE WITH RESTRICTOR PLATE

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	135
	BD600-04 (BD-12)	CONTRACT NO. 60X64		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

CHICAGO DEPARTMENT OF WATER (WATER MAIN INSTALLATION NOTES)

LOCATION OF UTILITIES AND PROPERTY LINES ARE FROM THE BEST INFORMATION AVAILABLE. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED.

THE CONTRACTOR MUST VERIFY THE LOCATION OF UNDERGROUND UTILITIES WITH THE UTILITY OWNERS PRIOR TO DOING ANY WORK IN THE VICINITY. THE CONTRACTOR MUST COMPLY WITH REQUIREMENTS OF UTILITY OWNERS REGARDING NOTICE OF WORK AND PROTECTION OF UTILITIES.

FITTINGS AND THEIR LOCATIONS INDICATED ON THE DRAWINGS ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR LAYING OUT ALL PROPOSED HORIZONTAL AND VERTICAL LOCATIONS OF PROPOSED WATER MAIN AND FITTINGS PRIOR TO INSTALLATION. THE CONTRACTOR MUST COMPLETE THE INSTALLATION WITH THE NECESSARY FITTINGS DICTATED BY FIELD CONDITIONS. NO ADDITIONAL PAYMENT WILL BE MADE FOR DEVIATIONS FROM THE INDICATED FITTINGS.

WORK INDICATED ON THE PLANS AND NOT REFERENCED TO A BID ITEM IS CONSIDERED INCIDENTAL TO THE WORK TO WHICH IT APPLIES AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

WATER MAIN AND FITTINGS LOCATIONS SHOWN ON THE DRAWINGS FOR THE NEW WATER MAINS AND APPURTENANCES MAY BE CHANGED BY THE COMMISSIONER (ENGINEER)

DUE TO FIELD CONDITIONS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR SUCH CHANGES. UNLESS PREVIOUSLY APPROVED BY THE COMMISSIONER (ENGINEER).

THE CONTRACTOR MUST PROVIDE THRUST RESTRAINTS IN ACCORDANCE WITH THE SPECIFICATIONS. THE CONTRACTOR MUST FURNISH AND INSTALL MECHANICAL JOINT THRUST RESTRAINT GLANDS ON ALL WATER MAINS.

THE OPERATION OF ALL VALVES MUST BE PERFORMED BY CITY FORCES PURSUANT TO A 72 HOUR ADVANCE NOTIFICATION TO THE DEPARTMENT.

ALL OPENINGS IN EXISTING WATER MAINS MUST BE PLUGGED OR CAPPED WITH DUCTILE IRON FITTINGS UNTIL THE MAIN IS ABANDONED.

ALL VALVE BASINS MUST BE CONSTRUCTED OF PRE-CAST REINFORCED CONCRETE UNLESS DIRECTED OTHERWISE BY THE COMMISSIONER (ENGINEER).

NOTES INDICATING S.N.L., E.W.L., ETC., MEAN SOUTH OF THE NORTH PROPERTY LINE, EAST OF THE WEST PROPERTY LINE, ETC. AND ARE MEASURED FROM THE NEAREST STREET.

IF A STANDARD MECHANICAL JOINT SLEEVE DOES NOT FIT TO MAKE CONNECTION OF THE NEW PIPE TO THE EXISTING PIPE. A TRANSITION SLEEVE MUST BE USED. NO GRINDING OF THE EXISTING PIPE IS PERMITTED.

THE CONTRACTOR MUST COMPLY WITH THE CITY OF CHICAGO, DEPARTMENT OF TRANSPORTATION DAMAGE PREVENTION PROTOCOL CITY INFRASTRUCTURE DEPARTMENTS. ALL UTILITIES MUST BE NOTIFIED AT LEAST 48 HOURS BEFORE CONSTRUCTION.(CALL DIGGER 312-744-7000).

TEST PITS MUST BE EXCAVATED IN ADVANCE OF PIPELINE CONSTRUCTION IN ORDER TO CONFIRM DEPTH AND LOCATION OF EXISTING UTILITIES AND WHEN DIRECTED BY THE DEPARTMENT MANAGER. NO ADDITIONAL PAYMENT WILL BE MADE FOR TEST PIT EXCAVATION. IF ANY PUBLIC OR PRIVATE UTILITIES CROSS THE WATER MAIN TRENCH, PROVIDE EROSION CONTROL IN ACCORDANCE WITH THE SPECIFICATIONS AND MUST REMAIN INPLACE. THE CONTRACTOR MUST PROTECT SAID UTILITY IN CONFORMANCE WITH THE SPECIFICATIONS OR AS DIRECTED BY THE COMMISSIONER (ENGINEER).

THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ADVANCED NOTICE OF WATER MAIN SHUT DOWN TO ALL AFFECTED CONSUMERS.

CHICAGO DEPARTMENT OF WATER (WATER MAIN INSTALLATION NOTES) (CONT.)

WORK WITHIN STATE ROUTES ARE NOTED ON THE DRAWINGS AND WILL REQUIRE IDOT, REGION 1, UTILITY PERMITS. THE CONTRACTOR IS RESPONSIBLE FOR SECURING ALL PERMITS, INITIATED BY THE DEPARTMENT AND OBTAINING PERFORMANCE BONDS. ALL WORK MUST BE IN ACCORDANCE WITH IDOT PERMIT REQUIREMENTS. QUESTIONS SHOULD BE DIRECTED TO IDOT REGION ONE UTILITIES COORDINATOR AT (847) 705-4258.

ABANDON EXISTING WATER MAINS IN ACCORDANCE WITH THE SPECIFICATIONS.

SWAB PIPE-FITTINGS THAT WILL NOT BE PRESSURE TESTED OR CHLORINATED WITH CHLORINE SOLUTION DURING INSTALLATION. USE EXTRA PRECAUTION TO PREVENT SOIL DEBRIS FROM ENTERING THE PIPE. INCORPORATE UNTESTED PIPE INTO THE FLUSHING ROUTINE WHEN POSSIBLE. WHEN CONNECTING NEW PIPE TO THE EXISTING WATER SYSTEM.

USE OPERATING PRESSURE TO VISUALLY INSPECT FOR LEAKS. PERFORM INSPECTION PRIOR TO BACKFILLING. COMPLY WITH ALL STANDARDS AND REQUIREMENTS OF THE BUREAU OF WATER QUALITY (312) 744-8190.

CONTACT JOHN BARBARO AT JOHN.BARBARO@CTRWATER.NET TWO (2) WEEKS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION DATE SUCH THAT A RESIDENT ENGINEER CAN BE ASSIGNED TO THIS PROJECT. FAILURE TO COMPLY WITH THIS REQUIREMENTS MAY RESULT IN ADDITIONAL EXPENSES TO THE PROPOSED PROJECT TO VERIFY THAT ALL WORK CONFORMS TO DWM'S STANDARDS.

THE CONTRACTOR MUST COORDINATE WITH THE DWM, PRIOR TO THE SUBMISSION OF THE SHOP DRAWINGS FOR ALL MATERIALS TO BE USED, TO ENSURE CURRENT REQUIREMENTS ARE BEING MET.

THE CONTRACTOR MUST OBTAIN A "B-PERMIT" PRIOR TO CONSTRUCTION FROM THE CITY OF CHICAGO, DEPARTMENT OF BUILDINGS, PLUMBING PERMIT & PLAN SECTION, CITY HALL, 121 N La SALLE STREET, ROOM 906. CONTACT THE CHIEF PLUMBING INSPECTOR AT (312) 744-7017 TO COORDINATE WORK AND SCHEDULE INSPECTION.

ALL VALVE OPERATIONS ARE TO BE COMPLETED BY THE DWM.

IF CONSTRUCTION REQUIRES THE USE OF WATER FROM A CITY FIRE HYDRANT, PERMITS MUST BE OBTAINED FROM THE CITY OF CHICAGO, DEPARTMENT OF BUILDINGS, PLUMBING PERMIT & PLAN SECTION, CITY HALL, 121 N La SALLE STREET, ROOM 906.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR STAKING-OUT ALL PROPOSED HORIZONTAL AND VERTICAL FACILITIES FOR THE DWM AS REQUIRED FOR CONSTRUCTION.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL APPLICABLE PERMITS, EXCAVATION/OSHA SHORING, BACKFILLING/COMPACTION, AND ALL RESTORATION TO CDOT STANDARDS AS REQUIRED FOR CONSTRUCTION PER THE DWM INVOLVEMENT LETTER FOR THIS PROJECT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING WATER SERVICES AND FIRE PROTECTION DURING CONSTRUCTION.

THE CONTRACTOR SHALL MAINTAIN DRAINAGE AT ALL TIMES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING EXACT LOCATIONS AND ELEVATIONS OF ALL THE UTILITIES FROM THE OWNERS OF THE RESPECTIVE UTILITIES.

THE CONTRACTOR IS RESPONSIBLE FOR RESOLVING ANY UTILITY CONFLICTS, AND/OR VERIFYING THAT ANY UTILITY IN CONFLICT WITH THE PROPOSED WATER MAIN HAS BEEN RELOCATED.

THE CONTRACTOR SHALL PROVIDE THE DWM AND WITH TWO COPIES OF A REDLINE MARKED-UP AS-BUILTDRAWING OF THE WATER MAIN INSTALLATION WITH ANY DESIGN CHANGES THAT HAVE BEEN MADE. THIS DRAWING SHALL NOTE EXACT LOCATIONS OF THE WATER MAINS, VALVES, FITTINGS, CONNECTIONS TO EXISTING WATER MAINS, SERVICES, AND ANY SPECIAL INSTALLATIONS. LOCATIONS SHALL BE REFERENCED TO STREET RIGHT-OF-WAYS, AND THE DEPTH OF COVER SHALL ALSO BE INDICATED. THE AS-BUILT SHALL BE SIGNED AND DATED BY THE CONTRACTORS PROJECT COORDINATOR, ALONG WITH THEIR CONTACT INFORMATION.

GENERAL NOTES

THE CONTRACTOR SHALL SUBMIT PROCESS PLANS FOR EXCAVATING OR INSTALLING TEMPORARY EARTH RETENTION STRUCTURES TO THE DWM AND CTA FOR REVIEW AND APPROVAL.

HAND EXCAVATION IS REQUIRED TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF THE EXISTING 24-INCH WATER MAIN PRIOR TO CONSTRUCTION. A REPRESENTATIVE OF THE DWM MUST BE ON SITE DURING EXCAVATION NEAR FEEDER MAINS. A TYPE II TEMPORARY SUPPORT FOR THE EXISTING 24-INCH WATER MAIN MUST BE INSTALLED PER DEPARTMENT OF WATER MANAGEMENT DETAIL A-1. CONTACT JOHN BARBARO AT JOHN.BARBARO@CTRWATER.NET TWO WEEKS PRIOR TO THE ANTICIPATED CONSTRUCTION DATE SO A DWM REPRESENTATIVE CAN BE ASSIGNED TO THE PROJECT. THE TRENCH MUST BE BACKFILLED TO THE SPRINGLINE OF THE WATER MAIN WITH CLSM BACKFILL (NON FLY ASH), AND CA-16 FROM THE SPRINGLINE OF THE WATER MAIN TO GRADE. USE OF POLYETHYLENE WRAP AS A BOND BREAKER BETWEEN THE WATER MAIN AND THE CLSM BACKFILL IS REQUIRED. ONCE CONSTRUCTION IS COMPLETE THE TEMPORARY SUPPORT STRUCTURE MUST BE DISMANTLED AND REMOVED PER DEPARTMENT OF WATER REQUIREMENTS, STANDARDS, AND SPECIFICATIONS. FAILURE TO COMPLY WITH THESE REQUIREMENTS MAY RESULT IN ADDITIONAL EXPENSES TO THE PROPOSED PROJECT TO VERIFY THAT ALL WORK CONFORMS TO DWM STANDARDS. EXTREME CAUTION MUST BE TAKEN TO AVOID DAMAGE TO ANY WATER FACILITIES. IF DAMAGE OCCURS TO THIS DEPARTMENT'S FACILITIES, THE CONTRACTOR AND/OR OWNER WILL BE RESPONSIBLE FOR THE COST OF REPAIRING OR REPLACING THE DAMAGED FACILITIES.

RYAN GALL
062-064397
LICENSED PROFESSIONAL ENGINEER OF ILLINOIS
3/18/16

COLLINS ENGINEERS, INC.
RYAN GALL
NO. 062-064397
EXPIRES 11-30-2017

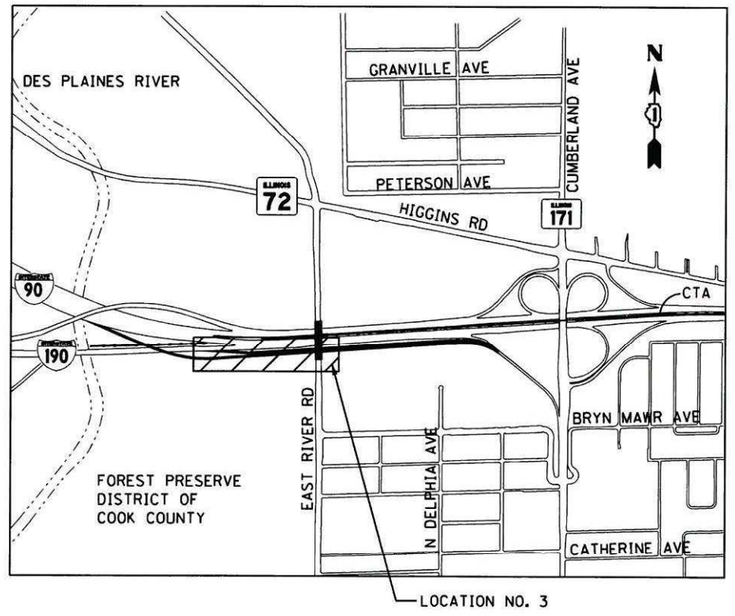
FOR WATER MAIN PLANS ONLY

SCHEDULE OF QUANTITIES

CODE	PAY ITEM	UNIT	LOCATION NO. 3
56103100	DUCTILE IRON WATER MAIN 8"	FOOT	1395
X5610651	ABANDON EXISTING WATER MAIN, FILL WITH CLSM	FOOT	1525
X0325003	REMOVE EXISTING VALVE AND VAULT	EACH	1
	STEEL CASING PIPE, BORED AND JACKED, 16"	FOOT	470
	WATER METER IN VAULT, 8 INCH	EACH	1

BILL OF MATERIALS

565" OF 8" DI RESTRAINED JOINT PIPE
830' OF 8" DI PIPE
470' OF 16" STEEL CASING PIPE
2-8" 2BMJ 1/4 BEND
4-8" 2BMJ 1/8 BENDS
5-8" 2BMJ 1/16 BENDS
2-8" MJ TRANSITION SLEEVE
1-8" COMPOUND METER WITH CHECK VALVE IN VAULT



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COLLINS ENGINEERS INC

USER NAME = rgall	DESIGNED -	REVISED -
PLOT SCALE = 100.0000 ' / in.	DRAWN -	REVISED -
PLOT DATE = 3/18/2016	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WATER MAIN RELOCATION
GENERAL NOTES

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	136
		CONTRACT NO. 60X56		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

WATERMAIN NOTES:

1. CHICAGO DEPARTMENT OF WATER MANAGEMENT (CDWM) SHALL BE PRESENT WHEN MAKING ALL FINAL CONNECTIONS TO EXISTING WATER MAINS.
2. EXISTING WATER MAINS TO BE ABANDONED SHALL BE FILLED WITH CONTROLLED LOW STRENGTH MATERIAL (CLSM).
3. SEPARATION BETWEEN WATER MAINS AND SEWERS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CDWM AND IEPA.
4. PROVIDE MIN. 5' COVER. TO TOP OF WATERMAIN
5. THRUST BLOCKING SHALL BE USED AT ALL BENDS AS PER DETAILS SHOWN IN PLANS.
6. THE TIE-IN INVERT OF THE EX. WATERMAIN IS OBTAINED FROM EXISTING PLANS AND IS APPROXIMATE. CONTRACTOR SHALL VERIFY PRIOR TO ORDERING MATERIALS AND MAKING FINAL CONNECTIONS.

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

PROFILE — SURVEYED / PLOTTED / PROFILE CHECKED / B.M. NOTED / STRUCTURE NOTATNS CHKD / NOTE BOOK / NO. / BY / DATE

CONSTRUCTION SEQUENCING NOTES:

A. INSTALL JACKING AND RECEIVING PITS,

B. INSTALL STEEL CASING PIPE AND 8" D.I.P. WITHIN CASING PIPE UNDER I-90 & EAST RIVER ROAD INCLUDING: 248' OF 16" STEEL CASING PIPE FROM STA. 115+93.44 (℄ EB190), OFFSET 16.96' LT TO STA. 30+75.89 (℄ FLYOVER), OFFSET 0.67' LT 300' OF 8" D.I.P.R.J.P. FROM STA. 115+88.88 (℄ EB190), OFFSET 19.01' LT TO STA. 31+18.22 (℄ FLYOVER), OFFSET 22.21' RT 222' OF 16" STEEL CASING PIPE FROM STA. 36+75.18 (℄ FLYOVER), OFFSET 16.69' RT TO STA. 3013+44.02 (EX I-90), OFFSET 169.10' RT 265' OF 8" D.I.P.R.J.P. FROM STA. 36+64.14 (℄ FLYOVER), OFFSET 15.63' RT TO STA. 3013+77.61 (EX I-90), OFFSET 172.14' RT RESTRAIN ALL JOINTS

C. INSTALL 8" D.I.P. ALL HORIZONTAL AND VERTICAL BENDS, PITOMETER IN BASIN WITH 2" TEST TAP, AND 8" COMPOUND METER VALVE AS SHOWN ON THE PLANS. FROM STA. 113+40.42 (℄ EB190), OFFSET 20.23' LT TO STA. 3013+77.52 (EX I-90), OFFSET 189.5' RT

D. TEMPORARILY PLUG OR CAP THE 8" PIPE AT EACH END.

E. FILL NEW WATER MAIN THROUGH 2" TEST TAP AND FLUSH ALL AIR FROM THE SYSTEM.

F. PRESSURE TEST WITH NEW 8" WATER MAIN SEGMENT TO 100 PSI IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

G. AFTER APPROVAL OF THE PRESSURE TEST, DEWATER THE NEW WATER MAIN IN PREPARATION FOR MAKING THE FINAL CONNECTIONS.

H. AT WEST CONNECTION, REMOVE THE TEMPORARY PLUG OR CAP FROM THE 8" PIPE AND CONNECT TO EXISTING 8" MAIN WITH 1-8" 1/4 2BMJ BEND, AND 1-8" TRANSITION SLEEVE

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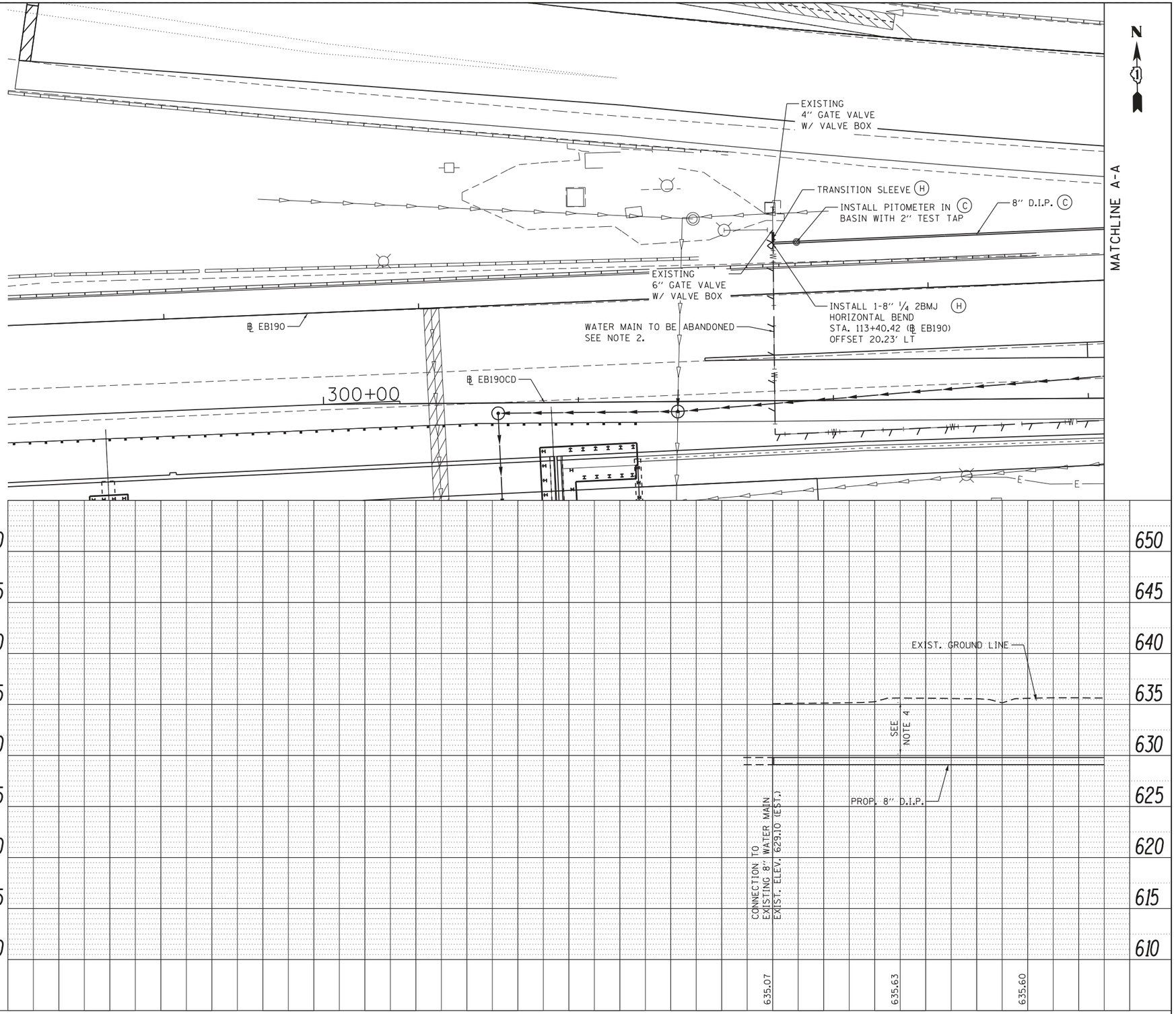

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COLLINS ENGINEERS INC

FILE NAME = $FILE$

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WATER MAIN RELOCATION
LOCATION NO. 3

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	137
		CONTRACT NO. 60X56		

FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT

WATERMAIN NOTES:

1. CHICAGO DEPARTMENT OF WATER MANAGEMENT (CDWM) SHALL BE PRESENT WHEN MAKING ALL FINAL CONNECTIONS TO EXISTING WATER MAINS.
2. EXISTING WATER MAINS TO BE ABANDONED SHALL BE FILLED WITH CONTROLLED LOW STRENGTH MATERIAL (CLSM).
3. SEPARATION BETWEEN WATER MAINS AND SEWERS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CDWM AND IEPA.
4. PROVIDE MIN. 5′ COVER. TO TOP OF WATERMAIN
5. THRUST BLOCKING SHALL BE USED AT ALL BENDS AS PER DETAILS SHOWN IN PLANS.
6. THE TIE-IN INVERT OF THE EX. WATERMAIN IS OBTAINED FROM EXISTING PLANS AND IS APPROXIMATE. CONTRACTOR SHALL VERIFY PRIOR TO ORDERING MATERIALS AND MAKING FINAL CONNECTIONS.

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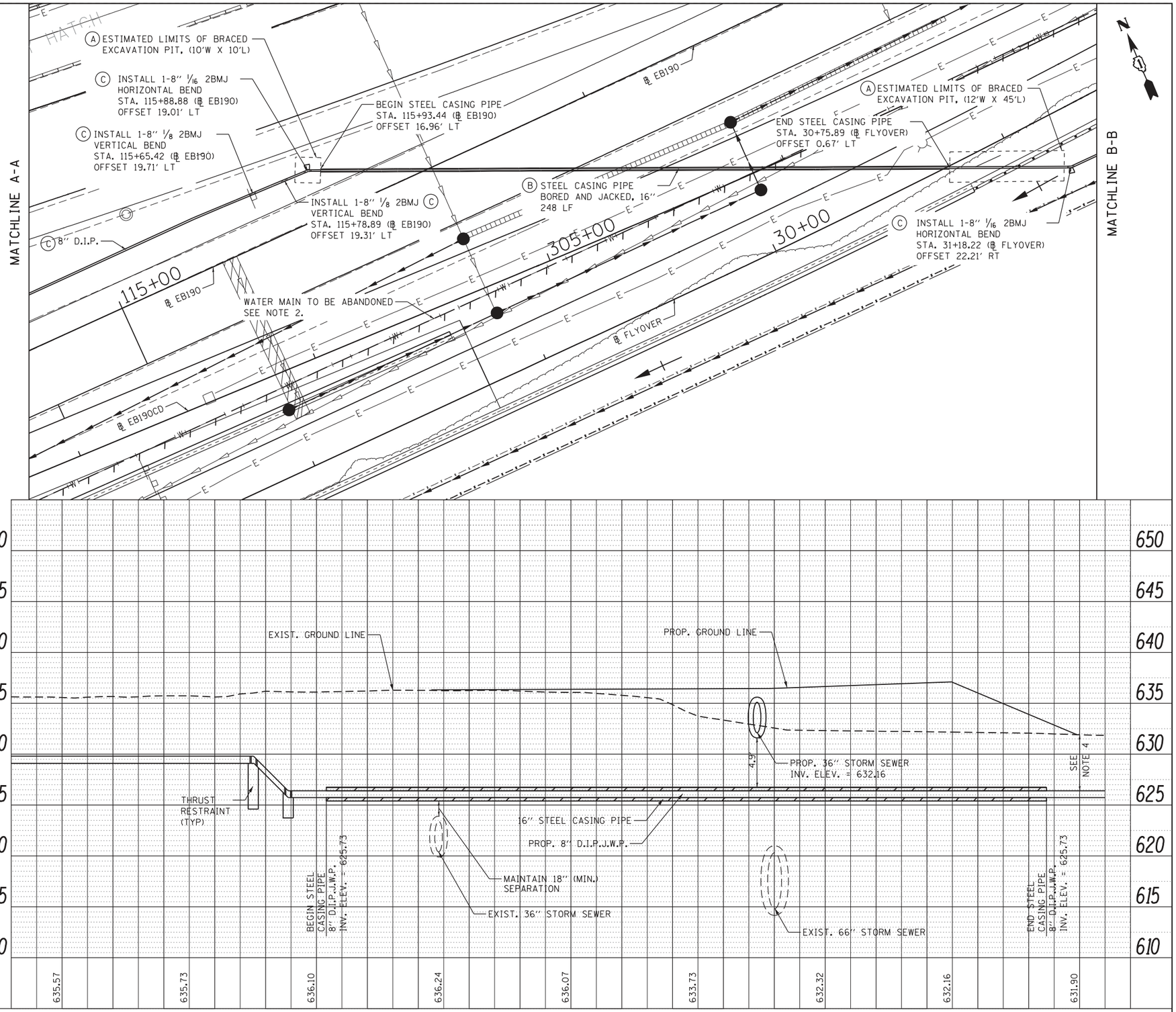

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WATER MAIN RELOCATION
LOCATION NO. 3

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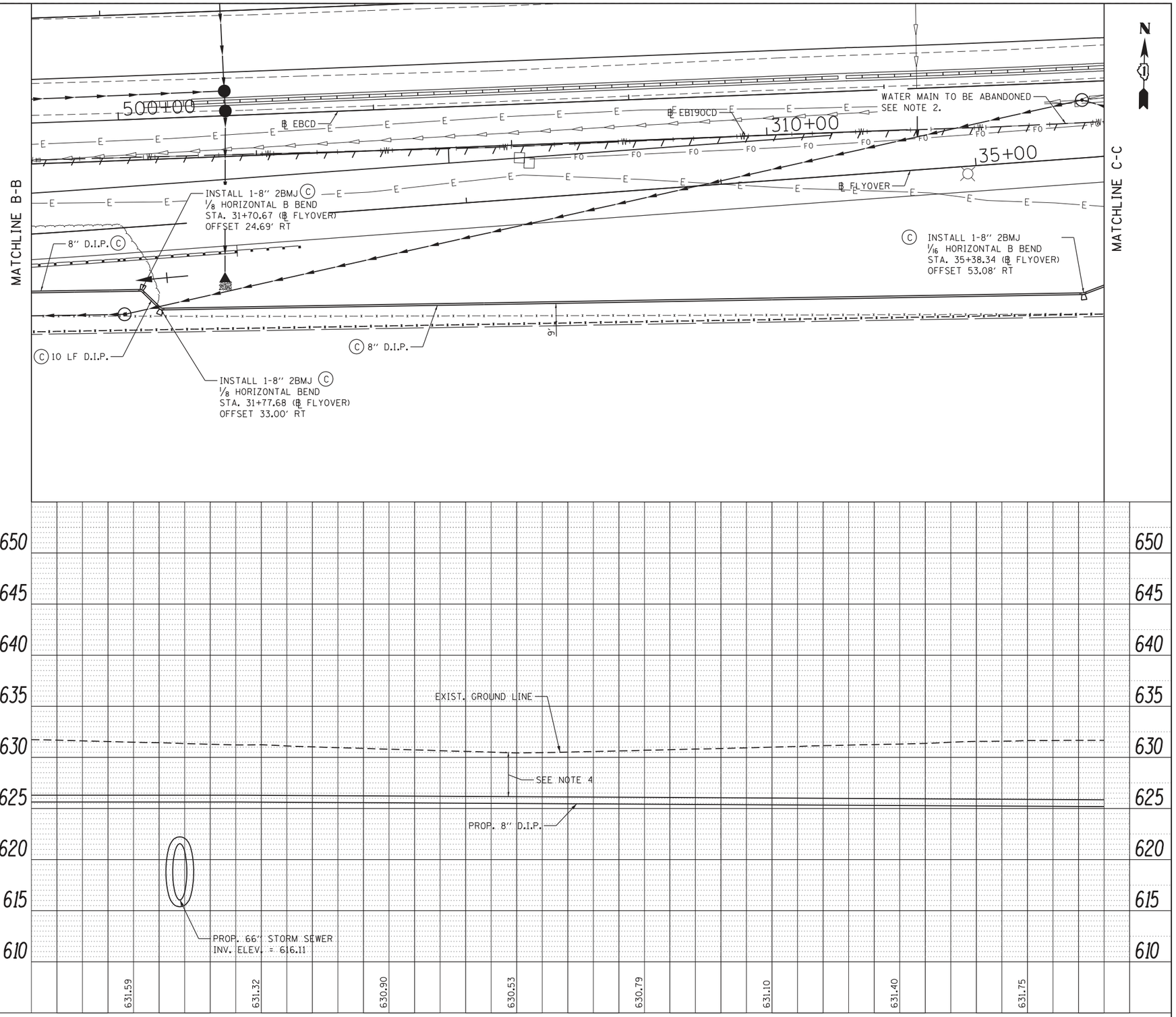

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WATER MAIN RELOCATION
LOCATION NO. 3

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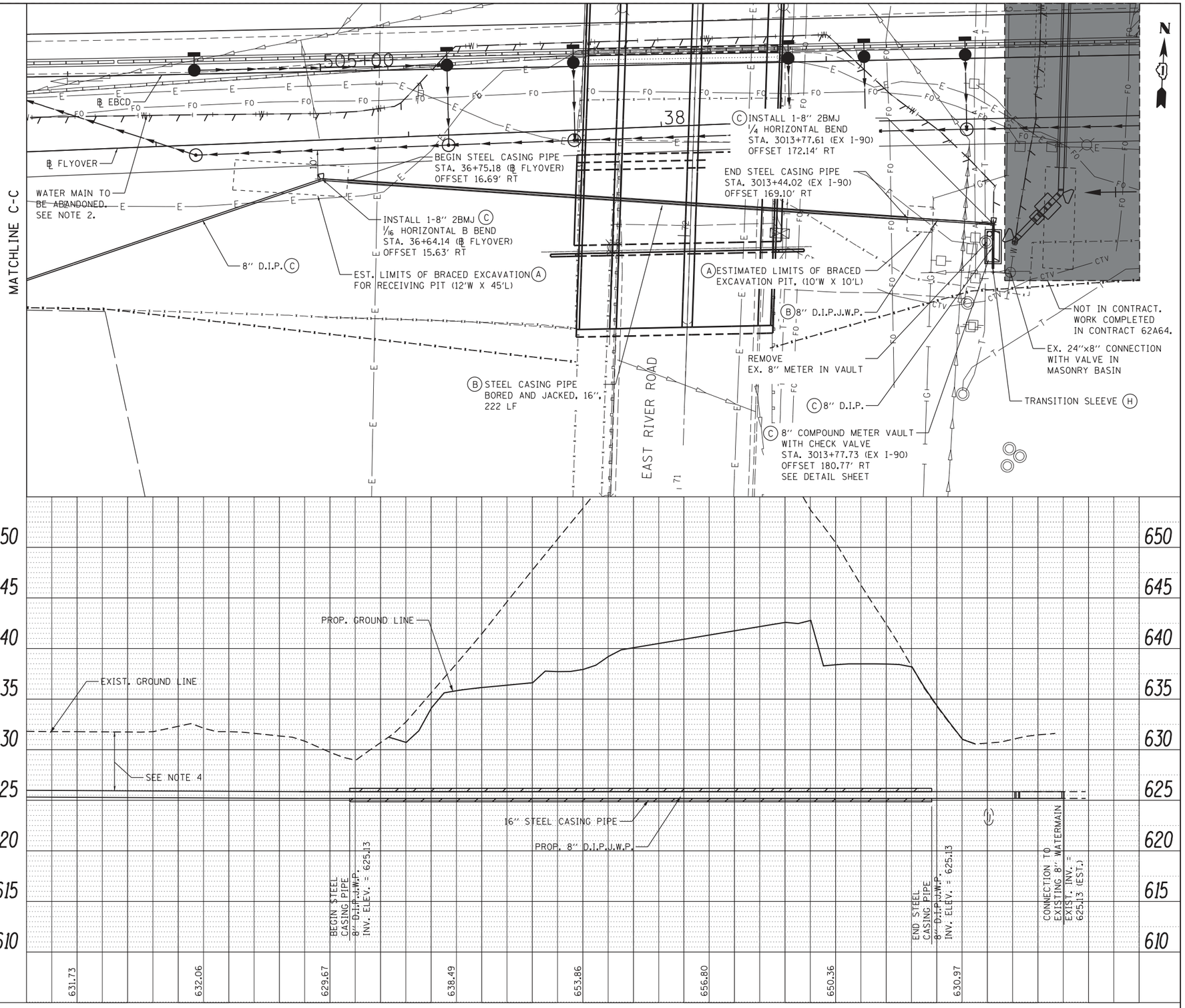

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WATER MAIN RELOCATION
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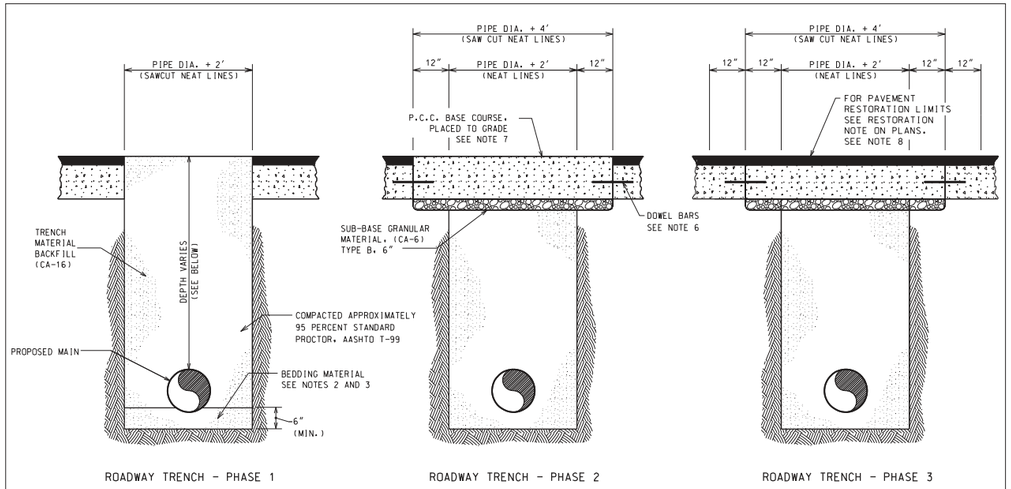


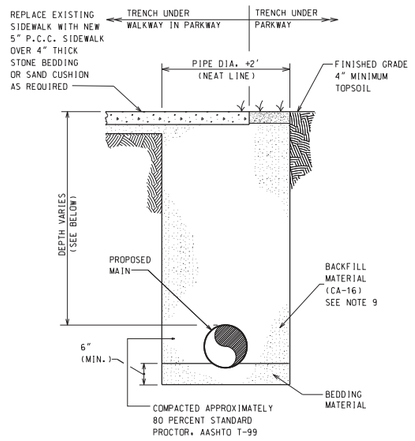
ROADWAY TRENCH - PHASE 1 | ROADWAY TRENCH - PHASE 2 | ROADWAY TRENCH - PHASE 3

PIPE DEPTH REQUIREMENTS	
MINIMUM DEPTH OF COVER FOR WATER MAINS	
SIZE OF PIPE	DEPTH OF COVER
3/4" TO 3"	5'-6" ± 3"
4"	5'-6" ± 3"
6"	5'-6" ± 3"
8"	5'-3" ± 3"
12"	5'-0" ± 2"
16"	4'-6" ± 2"
24"	4'-0" ± 1"
30" TO 42"	3'-6" MIN.(SEE PLAN)
48" & LARGER	3' MIN.(SEE PLAN)

PHASE 1: BACKFILL CA-16 TO GRADE FOLLOWING THE INSTALLATION OF PROPSED WATER MAIN.

PHASE 2: P.C.C. BASE COURSE TO GRADE FOLLOWING THE APPROVAL OF PROPOSED MAIN AND SUCCESSFUL COMPLETION OF SERVICE TRANSFERS AND CONNECTIONS.

PHASE 3: FINAL PAVEMENT RESTORATION. LIMITS AS INDICATED ON PLANS.



PARKWAY TRENCH

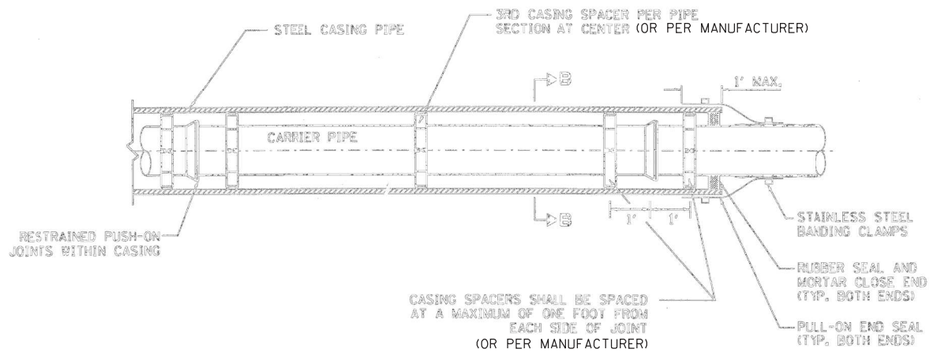
GENERAL NOTES:

1. PROVIDE PIPE BEDDING TO A DEPTH OF 1/8 OF PIPE DIAMETER OR 6" MINIMUM OF COMPACTED GRANULAR MATERIAL. GRAVEL. OR CRUSHED STONE.
2. USE CA-16 BEDDING MATERIAL FOR PIPE SIZES UP TO 16-INCH DIAMETER.
3. USE CA-11 BEDDING MATERIAL FOR PIPE SIZES LARGER THAN 16-INCH DIAMETER.
4. ALL EXCAVATIONS MUST BE PROPERLY SHORED. SHEETED AND BRACED TO PROVIDE SAFE WORKING CONDITIONS. ALL IN COMPLIANCE WITH THE U.S. DEPARTMENT OF LABOR SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION STIPULATED UNDER THE OCCUPATIONAL SAFETY AND HEALTH ACT. (O.S.H.A.).
5. PLATE ALL UNATTENDED EXCAVATIONS IN PAVEMENT AREAS AND SECURE PLATES TO PAVEMENT AND PROVIDE BARRIERS IN PARKWAY AREAS.
6. DOWEL BARS SHALL BE #5 EPOXY COATED BARS. 18" LONG DRILLED. WITH 9" EMBEDDMENT AND GROUTED AT 30" CENTERS. DOWEL BARS MAY BE OMITTED ON CDOT STREETS WHERE CLSM USED AS TRENCH BACKFILL.
7. FOLLOWING THE APPROVAL OF PROPOSED MAIN AND SUCCESSFUL COMPLETION OF SERVICE TRANSFERS AND CONNECTIONS. PLACE CONCRETE BASE COURSE FLUSH TO GRADE. THE ADDITIONAL THICKNESS IS TO BE REMOVED DURING PAVEMENT RESTORATION WORK. FINAL CONCRETE BASE THICKNESS MUST BE PER C.D.O.T. AND I.D.O.T. REQUIREMENTS. WHEN THE THICKNESS OF THE EXISTING ROADWAY BASE MATERIAL IS LESS THAN THE MINIMUM THICKNESS INDICATED IN THE PLANS. THE BOTTOM OF BASE MATERIAL WILL EXTEND BELOW THE BOTTOM OF THE BASE MATERIAL OF THE EXISTING PAVEMENT.
8. FINAL PAVEMENT RESTORATION SHALL BE COMPLETED AS INDICATED IN THE RESTORATION NOTE ON THE PLANS AND IN COMPLIANCE WITH C.D.O.T. AND STANDARDS. THE C.D.O.T. STREET PAVEMENT RESTORATION DETAIL HAS BEEN INCLUDED IN THESE DETAILS FOR REFERENCE.
9. EXCAVATED MATERIAL MAY BE USED IN PLACE OF (CA-16) IN PARKWAY TRENCHES. THE MATERIAL MUST BE PULVERIZED AND APPROVED BY THE COMMISSIONER.

REV:05.09

WATER MAIN TRENCH PHASE DETAILS

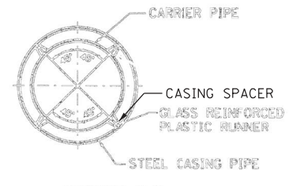
D-8



CASING PIPE DETAIL
NOT TO SCALE

NOTES:

1. ACCESS PITS SHALL BE LOCATED A MINIMUM OF 10 FEET FROM THE ROADWAY EDGE OF PAVEMENT.
2. SHORING SHALL BE INSTALLED IMMEDIATELY DURING THE EXCAVATION OF THE ACCESS PITS AND SHALL CONFORM TO OSHA STANDARDS FOR TRENCH PROTECTION.
3. SHORING SHALL BE DESIGNED, ERECTED, SUPPORTED, AND BRACED, AND MAINTAINED SUCH THAT IT WILL SAFELY SUPPORT ALL VERTICAL AND HORIZONTAL LOADS DURING CONSTRUCTION OPERATIONS.
4. OPEN ACCESS PITS SHALL BE CLEARLY MARKED AND REMAIN PROTECTED WITH TEMPORARY CONCRETE BARRIERS AT ALL TIMES.
5. BACKFILL PITS WITH CA-16 AND COMPACT.
6. ALL CASING PIPES MUST BE SMOOTH WELDED STEEL PIPE MEETING THE REQUIREEMENTS OF ASTM A139, GRADE B. THE EXTERIOR O FTHE CASING PIPE MUST HAVE COAL-TAR ENAMEL IN ACCORDANCE WITH AWWA C203 AND A THICKNESS AS SPECIFIED IN THE PLANS.
7. SPACERS FOR THE CARRIER PIPE MUST BE EITHER THE TWO-PIECE METAL BAND TYPE WITH 2-INCH WIDE NON-METALLIC RUNNERS OR UNITS MANUFACTURED ENTIRELY OUT OF HIGH-DENSITY POLYETHYLENE. ON TWO-PIECE METAL BAND TYPE SPACERS, BANDS AND FASTENERS MUST BE RATED FOR HEAVY DUTY SERVCE, MANUFACTURERED BY (PSI) PIPELINE SEAL AND INSULATOR, INCORPORATED; CASCADE WATERWORKS MANUFACTURING COMPANY, OR RACI SPACERS NORTH AMERICA.
8. PRIOR TO INSERTION OF CASING, EACH LENGTH OF PIPE MUST BE SUPPORTED ON CASING SPACERS IN SUCH A MANNER THAT AT NO TIME WILL THE WEIGHT OF THE PIPE BEAR ON THE BELL OR ANY PART OF THE PIPE TOUGH THE CASING.
9. ALL PIPES MUST BE JOINTED PRIOR TO BEING PUSHED OR PULLED THROUGH THE CASING PIPE. AFTER PLACEMENT OF THE CARRIER PIPE THROUGH THE CASING, THE ENDS OF THE CASING ARE TO BE SEALED WITH BRICK AND MORTOR, OR RUBBER END SEAL OR OTHER APPROVED METHOD AND MUST BE COMPLETELY LEAK-TIGHT.



SECTION B-B

FILE NAME = $FILE$

COLLINS ENGINEERS INC

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WATER MAIN RELOCATION DETAILS

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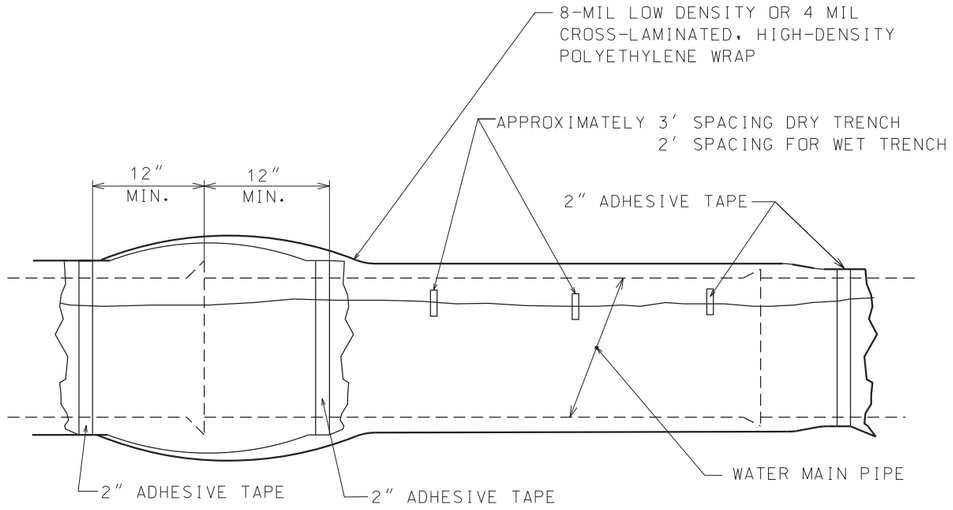


CHART "A" POLYWRAP FLAT TUBE WIDTHS		
PIPE DIAMETER (IN.)	D.I.P. WITH PUSH-ON JOINTS (IN.)	D.I.P. WITH MECHANICAL JOINTS (IN.)
4	14	16
6	17	20
8	21	24
12	29	30
16	37	37
24	53	53

NOTES:

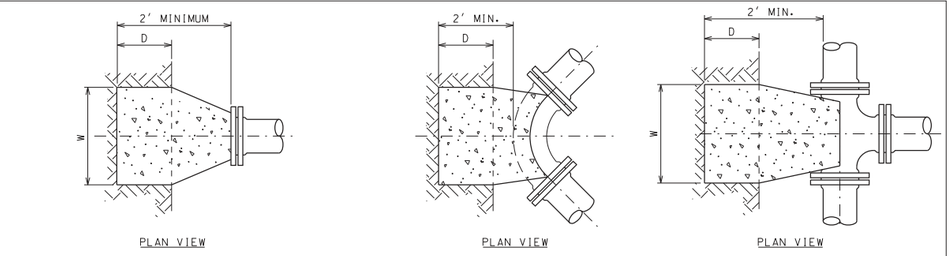
1. USE ONE LENGTH OF POLYETHYLENE TUBE WRAP FOR EACH LENGTH OF PIPE, OVERLAPPED AT PIPE JOINTS AND FOLD EXCESS OVER TOP OF TUBE FOR SLACK REDUCTION.

2. USE CHART "A" TO SELECT SIZE OF WRAP.

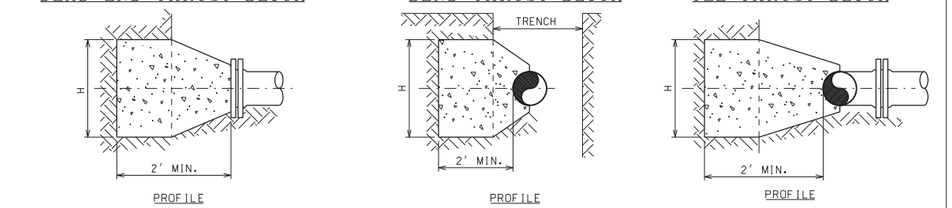
REV:06.10

WATER MAIN
POLYETHYLENE WRAP DETAIL

D-10



DEAD END THRUST BLOCK | BEND THRUST BLOCK | TEE THRUST BLOCK



DEAD END THRUST BLOCK | BEND THRUST BLOCK | TEE THRUST BLOCK

HORIZONTAL THRUST BLOCK DETAILS

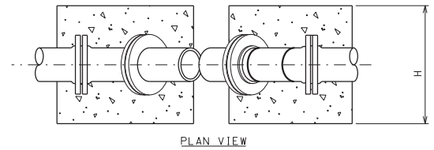
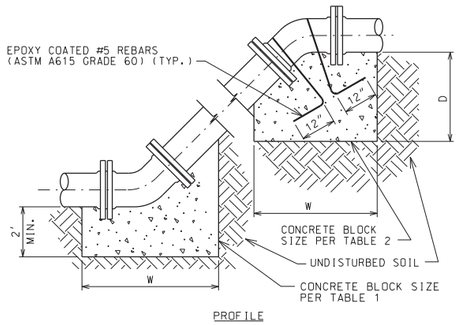


TABLE 1

PIPE SIZE	DEAD END & TEE				HORIZONTAL 1/4 BEND				HORIZONTAL 1/8 BEND			
INCH DIA.	D	H	W	CY	D	H	W	CY	D	H	W	CY
16	1	5.5	4.5	2	1	6.5	5	2.5	1	4.5	4	1.5
12	1	3.5	3.5	1	1	4	4	1.5	1	3	3	.75
8	.5	2.5	2.5	.5	.5	3	3	.5	.5	2	2	.3

PIPE SIZE	HORIZONTAL 1/16 BEND				HORIZONTAL 1/32 BEND			
INCH DIA.	D	H	W	CY	D	H	W	CY
16	1	3.5	3.5	1	1	2.5	2.5	.6
12	1	2.5	2.5	.5	1	2	2	.4
8	.5	1.5	1.5	.25	.5	1.5	1.5	.25



VERTICAL THRUST BLOCK DETAILS

TABLE 2

PIPE SIZE	VERTICAL 1/8 BEND				VERTICAL 1/8 BEND BOTTOM			
INCH DIA.	D	H	W	CY	D	H	W	CY
16	7	6	6	11	2	4.5	4	2.25
12	5	6	5	7	2	3	3	1
8	4.5	4	4	3.5	2	2	2	.5

D IS THE DIMENSION INTO UNDISTURBED GROUND IN FEET
H IS HEIGHT OF THRUST BLOCK IN FEET
W IS WIDTH OF THRUST BLOCK IN FEET
ALL DIMENSIONS ARE MINIMUM.
THRUST BLOCKS IN LOOSE FILL OR SAND AREAS ARE NOT INCLUDED IN THESE TABLES AND WILL REQUIRE ADDITIONAL ANALYSIS.

NOTES:

1. FULL CONCRETE THRUST BLOCKS AS SHOWN ARE REQUIRED WHEN THRUST RESTRAINT IS NOT PROVIDED BY OTHER MEANS SUCH AS RESTRAINED JOINT PIPE.
2. WHEN THRUST RESTRAINT GLANDS ARE INSTALLED FOR THE CONNECTIONS, CONCRETE THRUST BLOCKS SHALL BE PROVIDED UP TO THE THE DOTTED LINE AS SHOWN.
3. ALL BOLTS, NUTS, THRUST RESTRAINT GLANDS AND FITTINGS SHALL BE WRAPPED WITH POLYETHYLENE TUBING TO PREVENT CORROSION AND CONCRETE ADHESION.
4. CONCRETE FOR THRUST BLOCKS MUST NOT CONTAIN FLY ASH.

REV:04.07

THRUST RESTRAINT
CONCRETE THRUST BLOCK DETAILS

D-11

FILE NAME = $FILE$

COLLINS ENGINEERS INC.

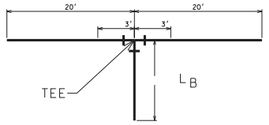
USER NAME = rgall	DESIGNED -	REVISED -
PLOT SCALE = 50.0000 ' / in.	DRAWN -	REVISED -
PLOT DATE = 4/4/2016	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WATER MAIN RELOCATION DETAILS

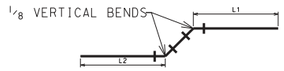
SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	142
		CONTRACT NO. 60X56		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



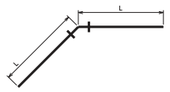
TEE SIZE	L_B
8" x 8" :(8", 12", 16" OR 24") x 12"	0
16" x 16"	42'
36" x 24"	277'

HORIZONTAL TEES - LENGTH OF RESTRAINED JOINTS



PIPE SIZE	L1	L2
8"	26'	26'
12"	37'	11'
16"	67'	20'
24"	67'	20'

1/8 VERTICAL BENDS - LENGTH OF RESTRAINED JOINTS



PIPE SIZE	DISTANCE OF RESTRAINED JOINTS REQUIRED EITHER SIDE OF BENDS L — BEND SIZES 1/32	1/16	1/8	1/4
8"	3'	6'	12'	29'
12"	4'	8'	17'	41'
16"	7'	15'	30'	73'
24"	7'	15'	30'	73'

HORIZONTAL BENDS - LENGTH OF RESTRAINED JOINTS

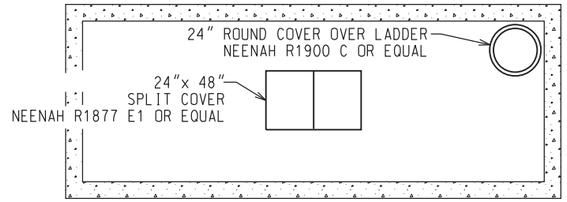
NOTE:
1. MINIMUM LENGTHS OF PIPE REQUIRED TO RESTRAIN FITTINGS SHOWN.

2. LENGTHS BASED ON POLY-WRAPPED PIPE.

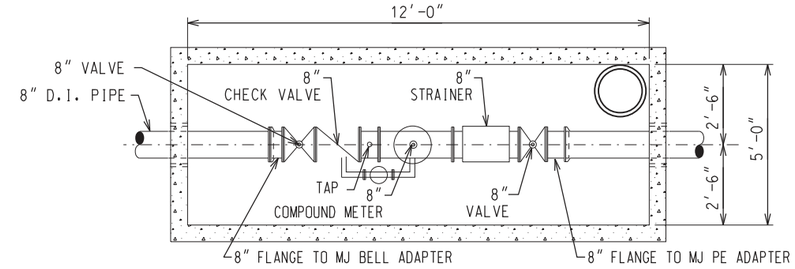
THRUST RESTRAINT
RESTRAINED JOINT PIPE DETAILS

REV:06.10

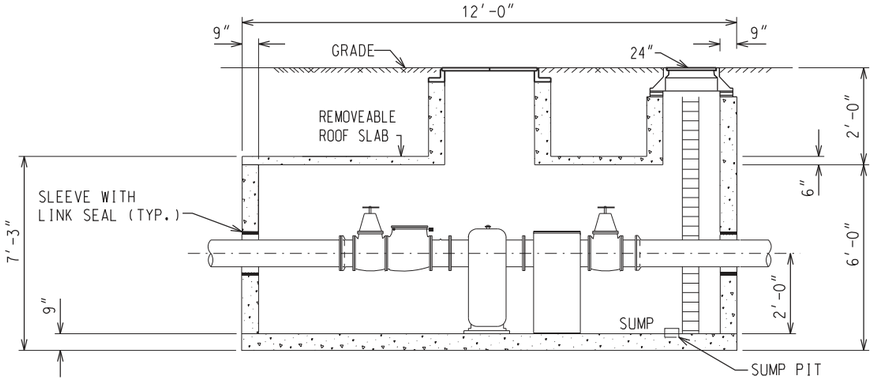
D-12



PLAN VIEW ABOVE SURFACE



PLAN VIEW IN GROUND



SECTION VIEW IN GROUND

NOTES:

1. ALL CONCRETE STRUCTURES SHALL BE WATER TIGHT, THE CONTRACTOR WILL BE REQUIRED TO TAKE SUCH MEANS NECESSARY TO CORRECT ANY AND ALL LEAKAGE THRU FLOORS OR WALLS OF STRUCTURE, WITHOUT ADDITIONAL COMPENSATION.
2. WALLS MAY BE CONSTRUCTED OF 8" CONCRETE BLOCK ON A CONCRETE FLOOR SLABS MAY BE PRECAST CONCRETE-OR THEY BE PRECAST CONCRETE REINFORCED AS REQUIRED.
3. METER AND PIPING TO BE SET BEFORE INSTALLING ROOF SLAB.
4. ALL METER VAULTS SHALL BE FURNISHED WITH GALVANIZED OR ALUMINUM LADDERS. ALL OPENINGS IN METER VAULTS SHALL BE SEALED WITH 'NO SHRINK' GROUT.

8" COMPOUND METER VAULT WITH CHECK VALVE

FILE NAME = $FILE$

COLLINS ENGINEERS INC

USER NAME = rgall	DESIGNED -	REVISED -
PLOT SCALE = 50.0000 '/ in.	DRAWN -	REVISED -
PLOT DATE = 4/4/2016	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

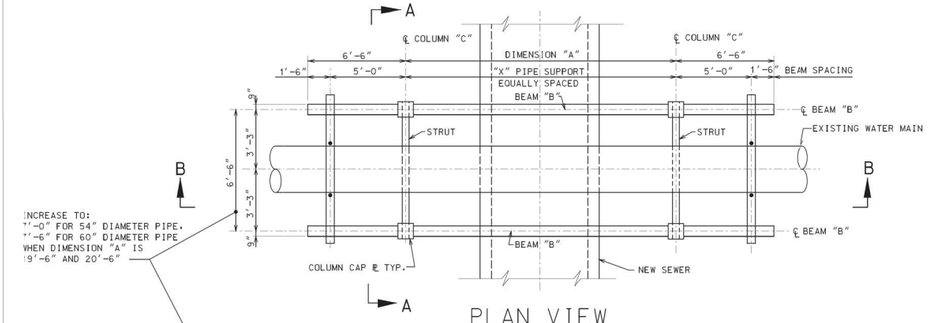
WATER MAIN RELOCATION DETAILS

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

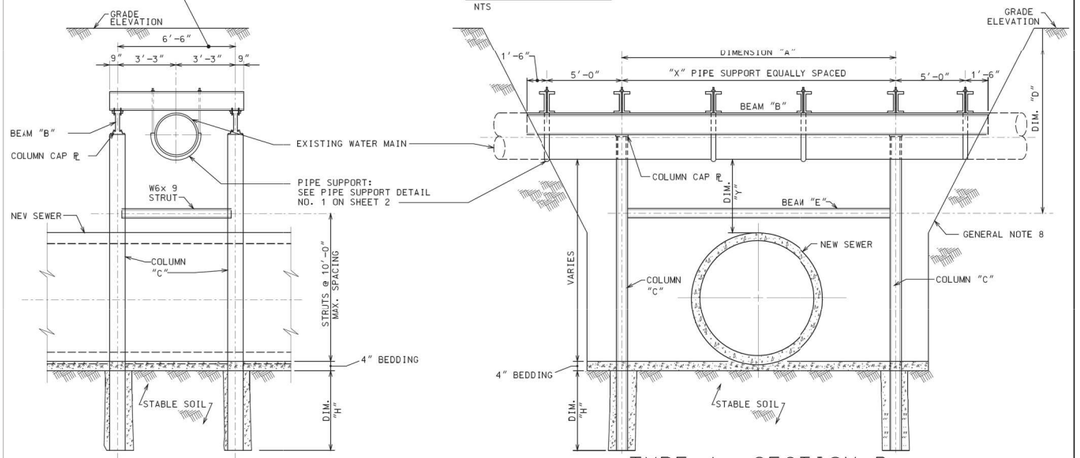
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	143
		CONTRACT NO. 60X56		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

TYPE I SUPPORT- TYPE A & B

TYPE I SUPPORT STRUCTURE REMAINS IN PLACE.
(USE WHEN SEWER WILL BE INSTALLED AT A FUTURE DATE OR JOB SITE CONDITIONS WILL NOT ACCOMMODATE TYPE II SUPPORT INSTALLATION)



PLAN VIEW
NTS

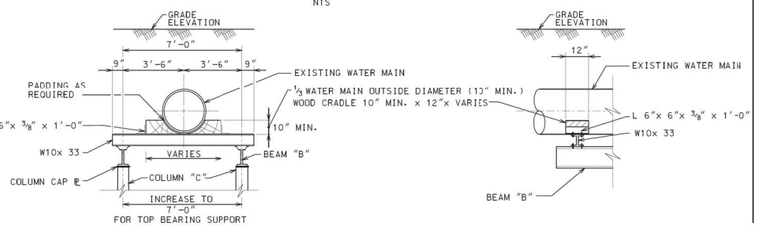


TYPE A- SECTION A
NTS

TYPE A- SECTION B
NTS

TYPE I SUPPORT NOTES- TYPE A & B:

1. SEE TYPE I SUPPORT TABLE ON SHEET 2 FOR BEAM MEMBER SIZES.
2. TYPE "A" SUPPORTS EXISTING WATER MAIN UNDERHUNG FROM CROSS BEAMS. TYPE "B" SUPPORTS EXISTING WATER MAIN BEARING ON TOP OF CROSS BEAMS. WHEN DIMENSION "Y" IS LESS THAN 2'-6" TYPE "A" SUPPORT MUST BE USED. MINIMUM DIMENSION "Y" FOLLOW IEPA REGULATIONS.
3. BACKFILL WITH CRUSHED STONE FILL MATERIAL OR CLSM AS REQUIRED.
4. AS DIRECTED BY THE COMMISSIONER. TYPE "A" SUPPORTS ABOVE THE COLUMN CAP PLATE MAY BE REMOVED. ONLY CLSM BACKFILL WILL BE ACCEPTED FOR THIS CONDITION.

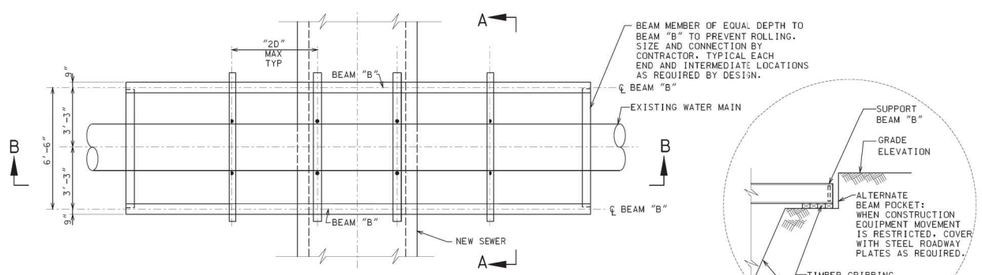


TYPE B- SECTION A
NTS

TYPE B- SECTION B
NTS

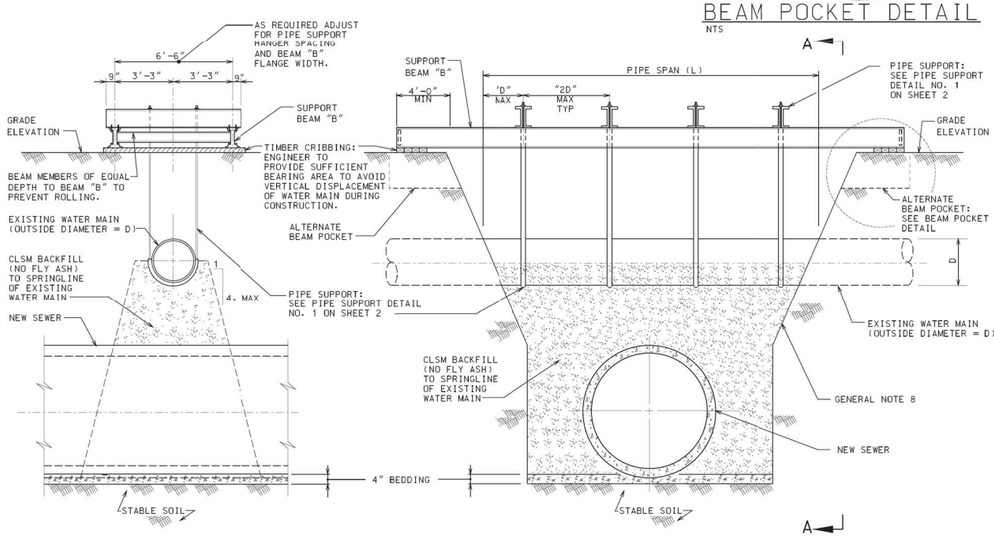
TYPE II SUPPORT

TYPE II SUPPORT STRUCTURE WILL BE REMOVED.
(USE WHEN SEWER WILL BE INSTALLED IMMEDIATELY)



PLAN VIEW
NTS

BEAM POCKET DETAIL
NTS



SECTION A
NTS

SECTION B
NTS

TYPE II SUPPORT NOTES:

1. THIS DETAIL APPLIES TO THE TEMPORARY SUPPORT OF EXISTING WATER MAINS UP TO 60 INCH INSIDE DIAMETER. SUPPORT BEAMS, CROSS BEAMS, PIPE SUPPORT, AND TIMBER CRIBBING MUST BE REMOVED AFTER CLSM BACKFILL HAS ATTAINED THE COMPRESSIVE STRENGTH THAT SATISFIES THE ENGINEER.
2. CONTRACTOR TO MONITOR CCP EXPOSED GROUTED JOINTS FOR SIGNS OF CRACKING WHILE THE PIPE IS SUPPORTED. IF SMALL CRACKS APPEAR, FILL WITH A FAST SETTING, PORTLAND CEMENT WATER STOP (SIKASET PLUG OR APPROVED EQUAL).

SUPPORT OF EXISTING WATER MAIN CAST IRON, DUCTILE IRON OR CONCRETE CYLINDER PIPE

GENERAL NOTES FOR TYPE I & II SUPPORTS:

1. TYPE II SUPPORT IS CDWM PREFERRED SUPPORT METHOD. USE TYPE I SUPPORT WHEN SEWER WILL BE INSTALLED AT A FUTURE DATE REQUIRING A SECOND EXCAVATION. TYPE I SUPPORT MUST ALSO BE INSTALLED WHEREVER JOB SITE CONDITIONS WILL NOT ACCOMMODATE TYPE II SUPPORT TO BE INSTALLED (SUCH AS LOCATIONS WHERE THE WIDTH OF EXCAVATION WOULD CREATE EXCESSIVE ROADWAY LANE CLOSURES). IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SELECT THE APPROPRIATE TYPE OF PIPE SUPPORT METHOD FOR CONDITIONS AT THE JOB SITE. OR AS DIRECTED BY THE COMMISSIONER.
2. THESE DETAILS ARE PROVIDED FOR REFERENCE ONLY AND DO NOT REPRESENT A COMPLETE DESIGN. THE CONTRACTOR MUST COMPLETE THE DESIGN FOR EACH LOCATION WHERE WATER MAIN SUPPORT IS TO BE IMPLEMENTED. THE COMPLETE DESIGN MUST INCLUDE (BUT NOT LIMITED TO) STRUCTURAL STEEL CONNECTION DETAILS. COLUMN BRACE SIZE AND SPACING. CONSIDERATION OF BEAM BEARING LOADS ON EXISTING ROADWAY SURFACES OR GRADE. EFFECTS OF BUOYANCY ON THE NEW SEWER DUE TO FLOWABLE CLSM. FOUNDATION DEPTH AND DIAMETER BASED ON BEST AVAILABLE SOIL DATA. AND DESIGN FOR SUPPORT OF EXCAVATIONS.
3. THESE DETAILS WERE DEVELOPED FOR SUPPORT OF WATER MAINS UP TO 60 INCHES IN DIAMETER. UP TO 6 FEET OF COVER AND AASHTO HS 20-44 WHEEL LOADS.
4. DUCTILE IRON PIPE MUST BE WRAPPED IN POLYETHYLENE PRIOR TO PLACEMENT OF BACKFILL.
5. THE CONTRACTOR MUST SUBMIT SHOP DRAWINGS AND CALCULATIONS FOR THE SUPPORT METHOD USED STAMPED BY A LICENSED STRUCTURAL ENGINEER IN THE STATE OF ILLINOIS. THE DESIGN MUST TAKE INTO ACCOUNT THE ACTUAL FIELD VERIFIED DIMENSIONS, SPANS, AND TRIBUTARY LOADING WHICH MAY EXCEED VALUES SHOWN. DWW MAINTAINS A RECORD OF BURIED TYPE I SUPPORT STRUCTURES AND THEIR LOCATIONS. THE CONTRACTOR MUST FURNISH AS - BUILT DRAWINGS FOR THIS RECORD.
6. THE DESIGN OF THE MAIN SUPPORT BEAM "B" MUST LIMIT TOTAL DEFLECTION OF THE PIPE TO L/480 OF THE PIPE SPAN (L).
7. MATERIAL PROPERTIES MUST MEET THE FOLLOWING CRITERIA:

W-SHAPES	ASTM A992 GRADE 50
CHANNELS	ASTM A36
PLATES & BARS	ASTM A36
THREADED RODS	ASTM A36
HSS SHAPES	ASTM A500 GRADE B
HIGH STRENGTH BOLTS	ASTM A325 N-BOLTS
CLSM	IDOT STANDARD SPECIFICATIONS SECTION 1019 MIX 2

8. THE CONTRACTOR MUST SLOPE TRENCH WALLS OR SHORE EXCAVATIONS FOR CONSTRUCTION SAFETY AND IN ACCORDANCE WITH CURRENT OSHA REQUIREMENTS. THE OVERALL WIDTH OF EXCAVATION, TRAFFIC CONTROL, AND PROTECTION MUST BE SUBMITTED TO CDWM FOR REVIEW PRIOR TO THE START OF CONSTRUCTION.
9. OPEN EXCAVATIONS AND IN PLACE FLOWABLE CLSM BACKFILL MUST BE CORDONED OFF OR COVERED TO PROVIDE PROTECTION AGAINST ACCIDENTAL FALLING.
10. REFER TO STANDARD SPECIFICATIONS FOR WATER MAIN CONSTRUCTION FOR ADDITIONAL INFORMATION.

REV:04.13

A-1
SHT. 1 OF 2

FILE NAME = $FILE$

COLLINS ENGINEERS INC.

USER NAME = rgall	DESIGNED -	REVISED -
PLOT SCALE = 50.0000 ' / in.	DRAWN -	REVISED -
PLOT DATE = 4/4/2016	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WATER MAIN RELOCATION DETAILS

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	144
		CONTRACT NO. 60X56		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

LEGEND:

1. THERMOPLASTIC PAVEMENT MARKING - LINE 4" WHITE EDGE LINE
2. THERMOPLASTIC PAVEMENT MARKING - LINE 4" YELLOW EDGE LINE
3. THERMOPLASTIC PAVEMENT MARKING - LINE 8" WHITE CHANNELIZING LINE
4. THERMOPLASTIC PAVEMENT MARKING - LINE 12" WHITE @45 DEGREE @30' C-C
5. THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS
6. PREFORMED PLASTIC PAVEMENT MARKING TYPE B-INLAID - LINE 5" WHITE 10' DASH, 30' SKIP
7. PREFORMED PLASTIC PAVEMENT MARKING TYPE B-INLAID - LINE 8" WHITE 3' DASH, 9' SKIP
- *8. MULTI-POLYMER PAVEMENT MARKING - LINE 4" WHITE EDGE LINE
- *9. MULTI-POLYMER PAVEMENT MARKING - LINE 4" YELLOW EDGE LINE
- *10. MULTI-POLYMER PAVEMENT MARKING - LINE 6" WHITE 3' DASH, 9' SKIP
- *11. MULTI-POLYMER PAVEMENT MARKING - LINE 10" WHITE EDGE LINE
12. MULTI-POLYMER PAVEMENT MARKING - LINE 12" WHITE @45 DEGREE @20' C-C
13. MODIFIED URETHANE PAVEMENT MARKING - LINE 4" YELLOW EDGE LINE
14. MODIFIED URETHANE PAVEMENT MARKING - LINE 5" WHITE 10' DASH, 30' SKIP
15. MODIFIED URETHANE PAVEMENT MARKING - LINE 8" WHITE 3' DASH, 9' SKIP
16. MODIFIED URETHANE PAVEMENT MARKING - LINE 8" WHITE CHANNELIZING LINE
17. RAISED REFLECTIVE PAVEMENT MARKER
18. RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)

* FOR LEGEND ITEMS 8 THRU 11, ALL LANE LINES AND EDGE LINES SHALL BE GROOVED IN CONFORMANCE WITH TOLLWAY STANDARD D5-05.

N

MATCH LINE FLYOVER STA. 111+00 PMK-02

MATCH LINE EB I-190 PMK-02

FLYOVER

CANOPY

RET WALL

WB I-190

EB I-190

CTA BLUE LINE

MATCH EXISTING

MATCH EXISTING

DES PLAINES RIVER

N RIVER ROAD

OVERHEAD SIGN

PLATFORM

WALL

OBSC.

CONC

SIGN

BUSHES

NOTE 1:
LENGTH OF 6" WHITE LINE SHALL BE 100' FROM END OF CONCRETE CURBS IN THE I-PASS LANES AND IN THE CASH LANES.

0 50' 100'

PMK-01

USER NAME = mkosir	DESIGNED - MA	REVISED -	
	DRAWN - MA	REVISED -	
PLOT SCALE = 1.00 ' / in.	CHECKED - RH	REVISED -	
PLOT DATE = 6/2/2016	DATE - 05/06/2016	REVISED -	

HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN
CUMBERLAND FLYOVER PROJECT

SCALE: 1" = 100' | SHEET 1 OF 5 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	145
		CONTRACT NO. 60X56		
		ILLINOIS FED. AID PROJECT		

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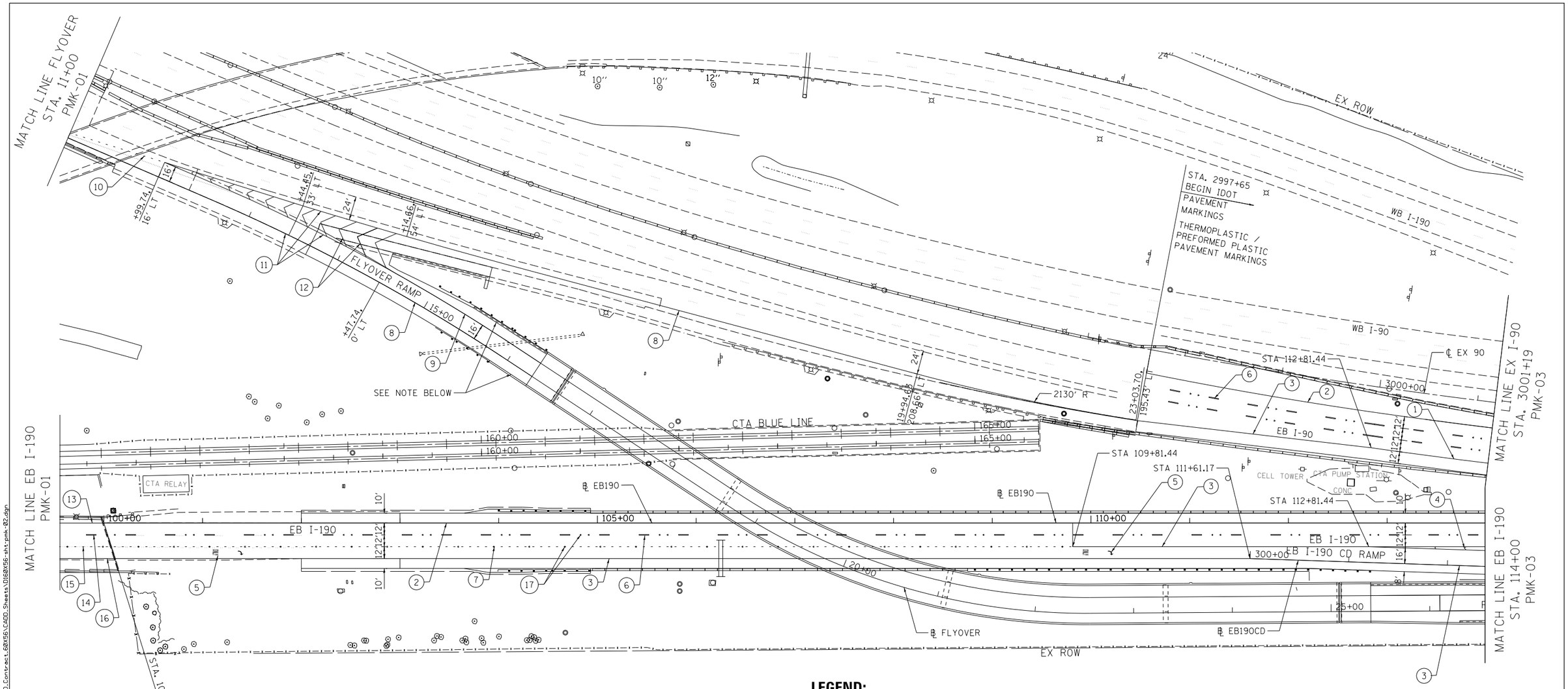

LEGEND:

1. THERMOPLASTIC PAVEMENT MARKING - LINE 4'' WHITE EDGE LINE
2. THERMOPLASTIC PAVEMENT MARKING - LINE 4'' YELLOW EDGE LINE
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* FOR LEGEND ITEMS 8 THRU 11, ALL LANE LINES AND EDGE LINES SHALL BE GROOVED IN CONFORMANCE WITH TOLLWAY STANDARD D5-05.

NOTE:

INSTALL DELINEATORS AS REQUIRED IN ISTHA'S STANDARD D4-03 ON THE BARRIER WALLS AND GUARDRAILS AND ALONG THE ROADWAY BETWEEN STATION 13+68.43 AND 35+00 ON THE FLYOVER.

N

0 50' 100'

PMK-02

USER NAME = mkosir	DESIGNED - MA	REVISED -	
	DRAWN - MA	REVISED -	
PLOT SCALE = 1.00 ' / in.	CHECKED - RH	REVISED -	
PLOT DATE = 5/27/2016	DATE - 05/06/2016	REVISED -	

HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN
CUMBERLAND FLYOVER PROJECT

SCALE: 1'' = 50' | SHEET 2 OF 5 SHEETS | STA. 100+00.00 TO STA. 114+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	146
		CONTRACT NO. 60X56		
		ILLINOIS FED. AID PROJECT		

FILE NAME = p:\hntb-356.nt\b.corp\PWGreat.Lakes\Documents\Chicago Projects\30120 I-190 Cumberland\Design\CADD_Contract_60X56\CADD_Sheets\D160X56-sht-pmk-02.dgn

LEGEND:

1. THERMOPLASTIC PAVEMENT MARKING - LINE 4" WHITE EDGE LINE
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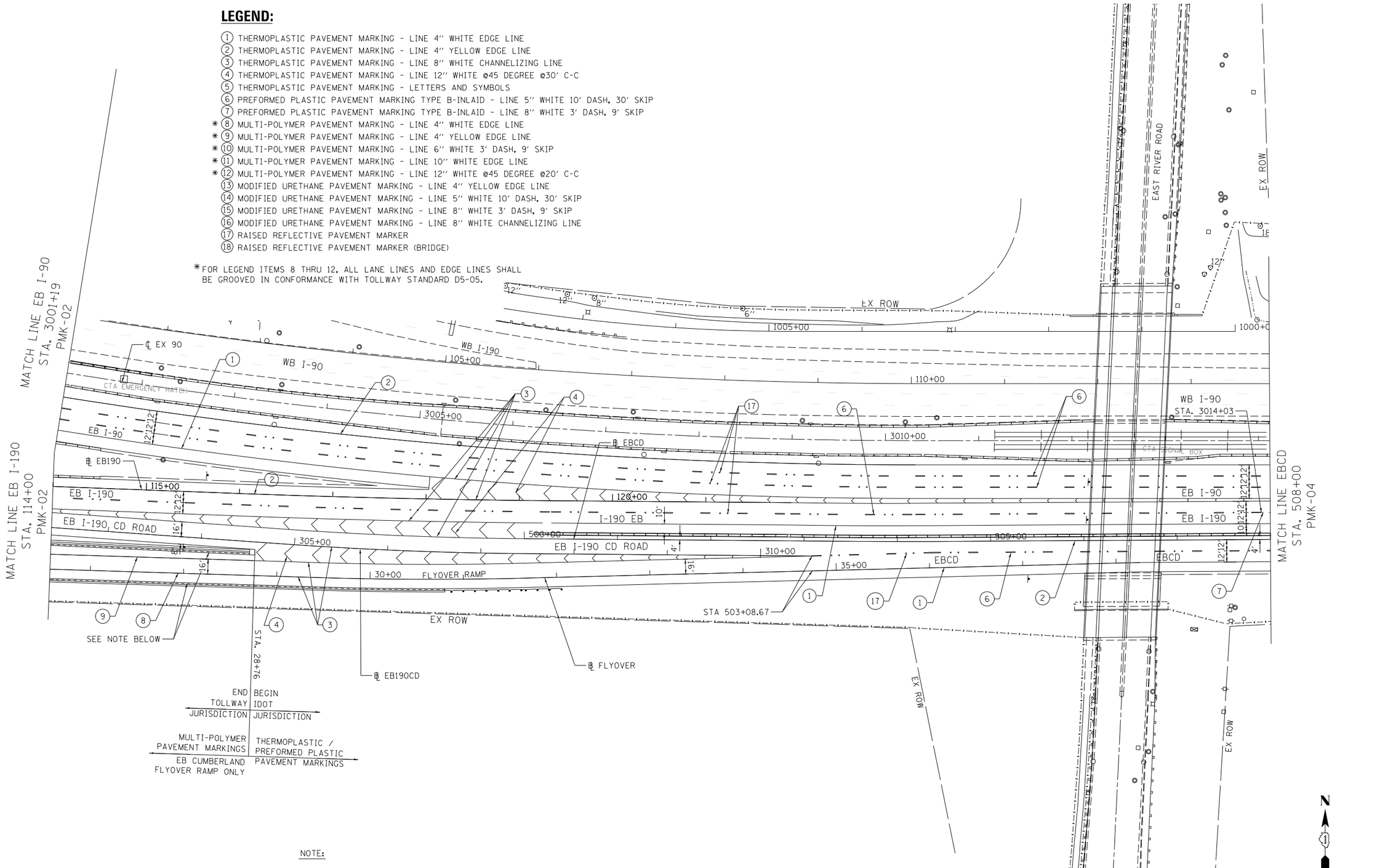
15. MODIFIED URETHANE PAVEMENT MARKING - LINE 8" WHITE 3' DASH, 9' SKIP
16. MODIFIED URETHANE PAVEMENT MARKING - LINE 8" WHITE CHANNELIZING LINE
17. RAISED REFLECTIVE PAVEMENT MARKER
18. RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)

*FOR LEGEND ITEMS 8 THRU 12, ALL LANE LINES AND EDGE LINES SHALL BE GROOVED IN CONFORMANCE WITH TOLLWAY STANDARD D5-05.



NOTE:

INSTALL DELINEATORS AS REQUIRED IN ISTHA'S STANDARDS D4-03 ON THE BARRIER WALLS AND GUARDRAILS AND ALONG THE ROADWAY BETWEEN STATION 10+00 AND 35+00 ON THE FLYOVER.

PMK-03

USER NAME = mkosir	DESIGNED - MA	REVISED -	
	DRAWN - MA	REVISED -	
PLOT SCALE = 1.0000 ' / in.	CHECKED - RH	REVISED -	
PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED 1 - 03/06/2015 CR 01	

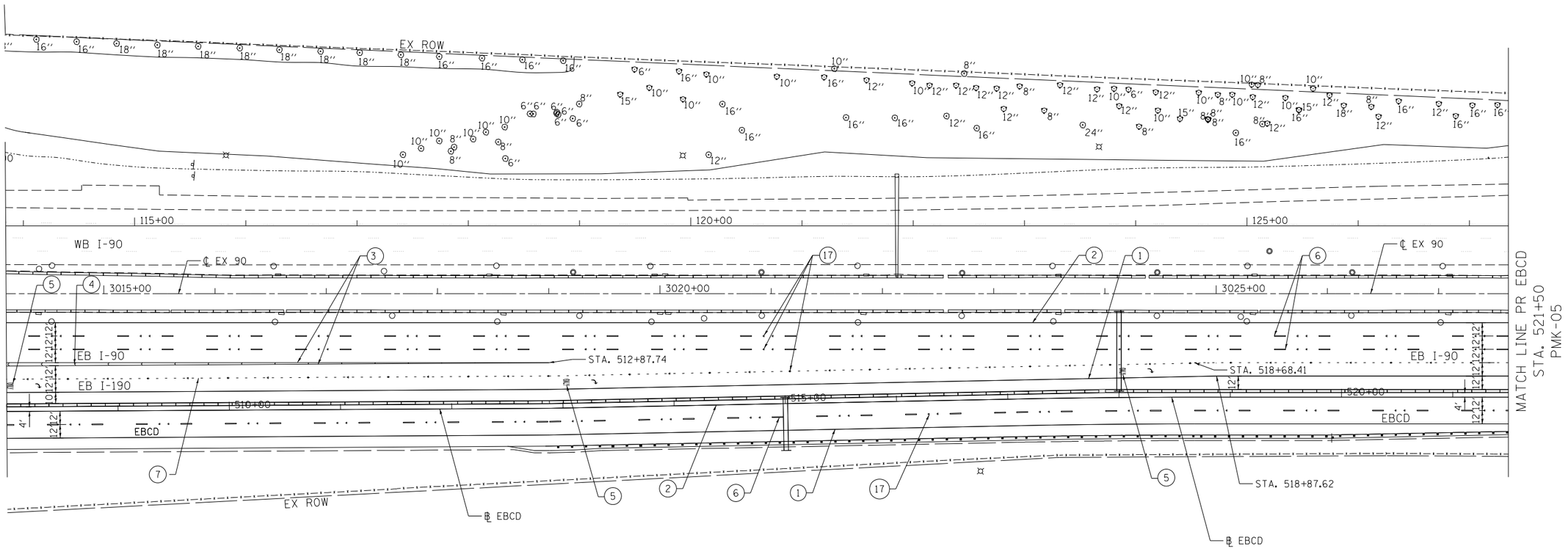
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN
CUMBERLAND FLYOVER PROJECT

SCALE: 1" = 50' | SHEET 3 OF 5 SHEETS | STA. 114+00.00 TO STA. 508+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	147
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

FILE NAME = p:\hntb256.hntb.org\PWGreat_Lakes\Documents\Chicago Projects\30120 I-190 Cumberland\Design\CADD\Contract_60X56\CADD_Sheets\D160X56-sht-pmk-03.dgn



LEGEND:

1. THERMOPLASTIC PAVEMENT MARKING - LINE 4" WHITE EDGE LINE
2. THERMOPLASTIC PAVEMENT MARKING - LINE 4" YELLOW EDGE LINE
3. THERMOPLASTIC PAVEMENT MARKING - LINE 8" WHITE CHANNELIZING LINE
4. THERMOPLASTIC PAVEMENT MARKING - LINE 12" WHITE @45 DEGREE @30' C-C
5. THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS
6. PREFORMED PLASTIC PAVEMENT MARKING TYPE B-INLAID - LINE 5" WHITE 10' DASH, 30' SKIP
7. PREFORMED PLASTIC PAVEMENT MARKING TYPE B-INLAID - LINE 8" WHITE 3' DASH, 9' SKIP
8. MULTI-POLYMER PAVEMENT MARKING - LINE 4" WHITE EDGE LINE
9. MULTI-POLYMER PAVEMENT MARKING - LINE 4" YELLOW EDGE LINE
10. MULTI-POLYMER PAVEMENT MARKING - LINE 6" WHITE 3' DASH, 9' SKIP
11. MULTI-POLYMER PAVEMENT MARKING - LINE 10" WHITE EDGE LINE
12. MULTI-POLYMER PAVEMENT MARKING - LINE 12" WHITE @45 DEGREE @20' C-C
13. MODIFIED URETHANE PAVEMENT MARKING - LINE 4" YELLOW EDGE LINE
14. MODIFIED URETHANE PAVEMENT MARKING - LINE 5" WHITE 10' DASH, 30' SKIP
15. MODIFIED URETHANE PAVEMENT MARKING - LINE 8" WHITE 3' DASH, 9' SKIP
16. MODIFIED URETHANE PAVEMENT MARKING - LINE 8" WHITE CHANNELIZING LINE
17. RAISED REFLECTIVE PAVEMENT MARKER
18. RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)

N

0 50' 100'

PMK-04

FILE NAME = p:\hntb-356.hntb.org\PWGreat_Lakes\Documents\Chicago Projects\30120 I-190 Cumberland\Design\CADD_Contract_60X56\CADD_Sheets\D160X56-sht-pmk-04.dgn

HNTB

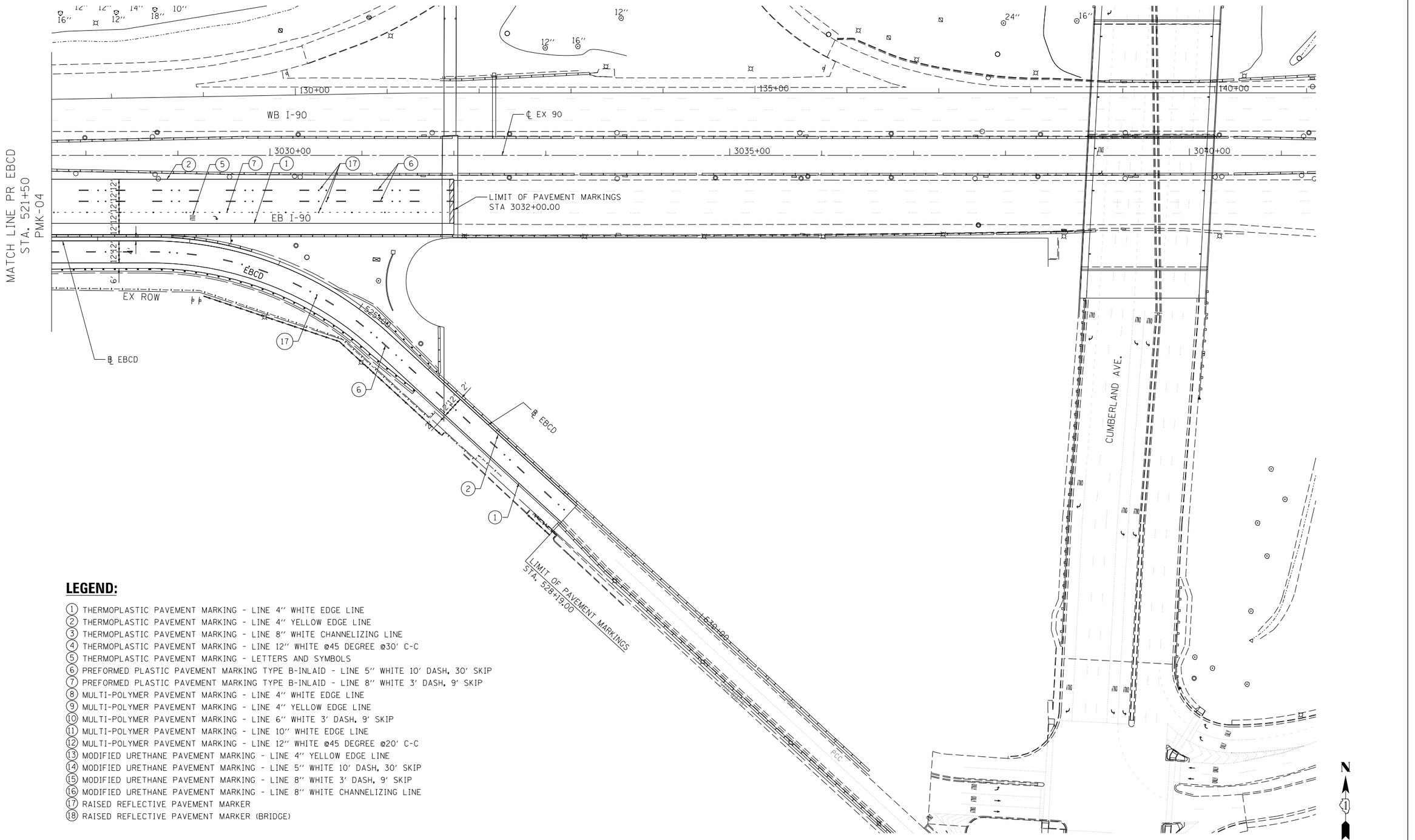
USER NAME = mkosir	DESIGNED - MA	REVISED -
	DRAWN - MA	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED - RH	REVISED -
PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN
CUMBERLAND FLYOVER PROJECT

SCALE: 1" = 50' | SHEET 4 OF 5 SHEETS | STA. 508+00.00 TO STA. 521+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	148
		CONTRACT NO. 60X56		
	ILLINOIS	FED. AID PROJECT		



LEGEND:

1. THERMOPLASTIC PAVEMENT MARKING - LINE 4'' WHITE EDGE LINE
2. THERMOPLASTIC PAVEMENT MARKING - LINE 4'' YELLOW EDGE LINE
3. THERMOPLASTIC PAVEMENT MARKING - LINE 8'' WHITE CHANNELIZING LINE
4. THERMOPLASTIC PAVEMENT MARKING - LINE 12'' WHITE @45 DEGREE @30' C-C
5. THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS
6. PREFORMED PLASTIC PAVEMENT MARKING TYPE B-INLAID - LINE 5'' WHITE 10' DASH, 30' SKIP
7. PREFORMED PLASTIC PAVEMENT MARKING TYPE B-INLAID - LINE 8'' WHITE 3' DASH, 9' SKIP
8. MULTI-POLYMER PAVEMENT MARKING - LINE 4'' WHITE EDGE LINE
9. MULTI-POLYMER PAVEMENT MARKING - LINE 4'' YELLOW EDGE LINE
10. MULTI-POLYMER PAVEMENT MARKING - LINE 6'' WHITE 3' DASH, 9' SKIP
11. MULTI-POLYMER PAVEMENT MARKING - LINE 10'' WHITE EDGE LINE
12. MULTI-POLYMER PAVEMENT MARKING - LINE 12'' WHITE @45 DEGREE @20' C-C
13. MODIFIED URETHANE PAVEMENT MARKING - LINE 4'' YELLOW EDGE LINE
14. MODIFIED URETHANE PAVEMENT MARKING - LINE 5'' WHITE 10' DASH, 30' SKIP
15. MODIFIED URETHANE PAVEMENT MARKING - LINE 8'' WHITE 3' DASH, 9' SKIP
16. MODIFIED URETHANE PAVEMENT MARKING - LINE 8'' WHITE CHANNELIZING LINE
17. RAISED REFLECTIVE PAVEMENT MARKER
18. RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)

PMK-05

HNTB	USER NAME = mkosir	DESIGNED - MA	REVISED -
		DRAWN - MA	REVISED -
	PLOT SCALE = 1.00 ' / in.	CHECKED - RH	REVISED -
	PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN
CUMBERLAND FLYOVER PROJECT

SCALE: 1'' = 50' | SHEET 5 OF 5 SHEETS | STA. 521+50.00 | TO STA. 528+19.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	149
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

FILE NAME = p:\hntbw256.hntb.org\pwgreatlakes\Documents\Chicago Projects\30120 I-190 Cumberland\Design\CADD_Contract_60X56\CADD_Sheets\D160X56-sht-pmk-05.dgn

GUIDE SIGN SEQUENCE NUMBERING CODE

EB - TR - NW - 04

DIRECTION OF TRAFFIC
EB - EASTBOUND
WB - WESTBOUND

MOUNTING TYPE
TR - TRUSS
CL - CANTILEVER
BM - BRIDGE MOUNTED
WP - WOOD POST
BS - BREAKAWAY STEEL
LP - LIGHTPOLE
MP - METAL POST

SIGN PANEL TYPE
NW - NEW
ER - EXISTING TO REMAIN
EM - EXISTING TO BE REMOVED
EL - EXISTING TO BE RELOCATED

SIGN PANEL NUMBER

INSTALLED ON EXISTING TRUSS, EXIT 1D, MP 1.5
REMOVE EXISTING SIGN LIGHTING UNIT, NO SALVAGE

EB-TR-EM-01

EXIT 1C, MP 1.5

EB-TR-EM-02

EXIT 1C, MP 1.5

EB-TR-EM-03

EXIT 1A, MP 0.8
1S016I190L000.8

EB-TR-EM-04

EXIT 1A, MP 0.8
1S016I190L000.8

MATCH LINE
SEE SGN-EX-02

0 200' 400'

SGN-EX-01

FILE NAME = p:\hntb356.hntb.org\PW\Great_Lakes\Documents\Chicago Projects\30120 I-190 Cumberland\Design\CADD_Contract_60X56\CADD_Sheets\D160X56-sht-sign-exis-01.dgn

HNTB	USER NAME = mkosir	DESIGNED - MA	REVISED -
		DRAWN - MA	REVISED -
	PLOT SCALE = 1.00 ' / in.	CHECKED - RH	REVISED -
	PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING SIGNING PLAN

SCALE: 1" = 200' | SHEET 1 OF 5 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	150
		CONTRACT NO. 60X56		
		ILLINOIS FED. AID PROJECT		

NO SHOULDER RIDING ALLOWED
EB-LP-ER-07
STA. 14+72

NO SHOULDER RIDING ALLOWED
EB-LP-ER-08
STA. 16+61

NO SHOULDER RIDING ALLOWED
EB-LP-ER-09
STA. 18+50

NO SHOULDER RIDING
EB-MP-ER-10
STA. 2997+44

THANK YOU FOR USING THE ILLINOIS TOLLWAY
EB-BS-ER-11
STA. 2998+76

NO SHOULDER RIDING
EB-MP-ER-12
STA. 3000+31

EB-LP-EM-05
STA. 12+03
W4-2R

EB-MP-ER-06
STA. 17+78

TOLL PAID
IPASS CARS $0.75
CASH CARS $1.50

℄ EB TOLL

℄ EX 90

℄ EB190

EB I-90

EB I-190

CTA RELAY

CELL TOWER

CTA PUMP STATION
CONC

LIMIT OF IMPROVEMENTS
STA. 102+00.00

MATCH LINE EX I-90
STA. 3001+18.88
SGN-EX-03

MATCH LINE EB I-190
STA. 114+00
SGN-EX-03

NO SHOULDER RIDING
EB-MP-EM-02
STA. 108+33
REMOVED
STAGE 1EB

END
INTERSTATE 190
EB-LP-ER-03
STA. 111+87
M4-6
M1-1

EXIT 79A-B
ILLINOIS 171
Cumberland Ave
1/2 MILE
EB-BS-EM-04
STA. 110+35
REMOVED
STAGE 3EB

GUIDE SIGN SEQUENCE NUMBERING CODE

EB - TR - NW - 04

DIRECTION OF TRAFFIC
EB - EASTBOUND
WB - WESTBOUND

MOUNTING TYPE
TR - TRUSS
CL - CANTILEVER
BM - BRIDGE MOUNTED
WP - WOOD POST
BS - BREAKAWAY STEEL
LP - LIGHTPOLE
MP - METAL POST

SIGN PANEL TYPE
NW - NEW
ER - EXISTING TO REMAIN
EM - EXISTING TO BE REMOVED
EL - EXISTING TO BE RELOCATED

SIGN PANEL NUMBER

N

0 50' 100'

SGN-EX-02

FILE NAME = pat\\hntb256.hntb.org@PWGreat.Lakes\Documents\Chicago Projects\30120 I-190 Cumberland\Design\CADD\Contract_60X56\CADD\Sheets\D160X56-sht-sign-exis-02.dgn

HNTB

USER NAME = mkosir	DESIGNED - MA	REVISED -
	DRAWN - MA	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED - RH	REVISED -
PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING SIGNING PLAN
CUMBERLAND FLYOVER PROJECT

SCALE: | SHEET 2 OF 5 SHEETS | STA. 100+00.00 TO STA. 114+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	151
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

GUIDE SIGN SEQUENCE NUMBERING CODE

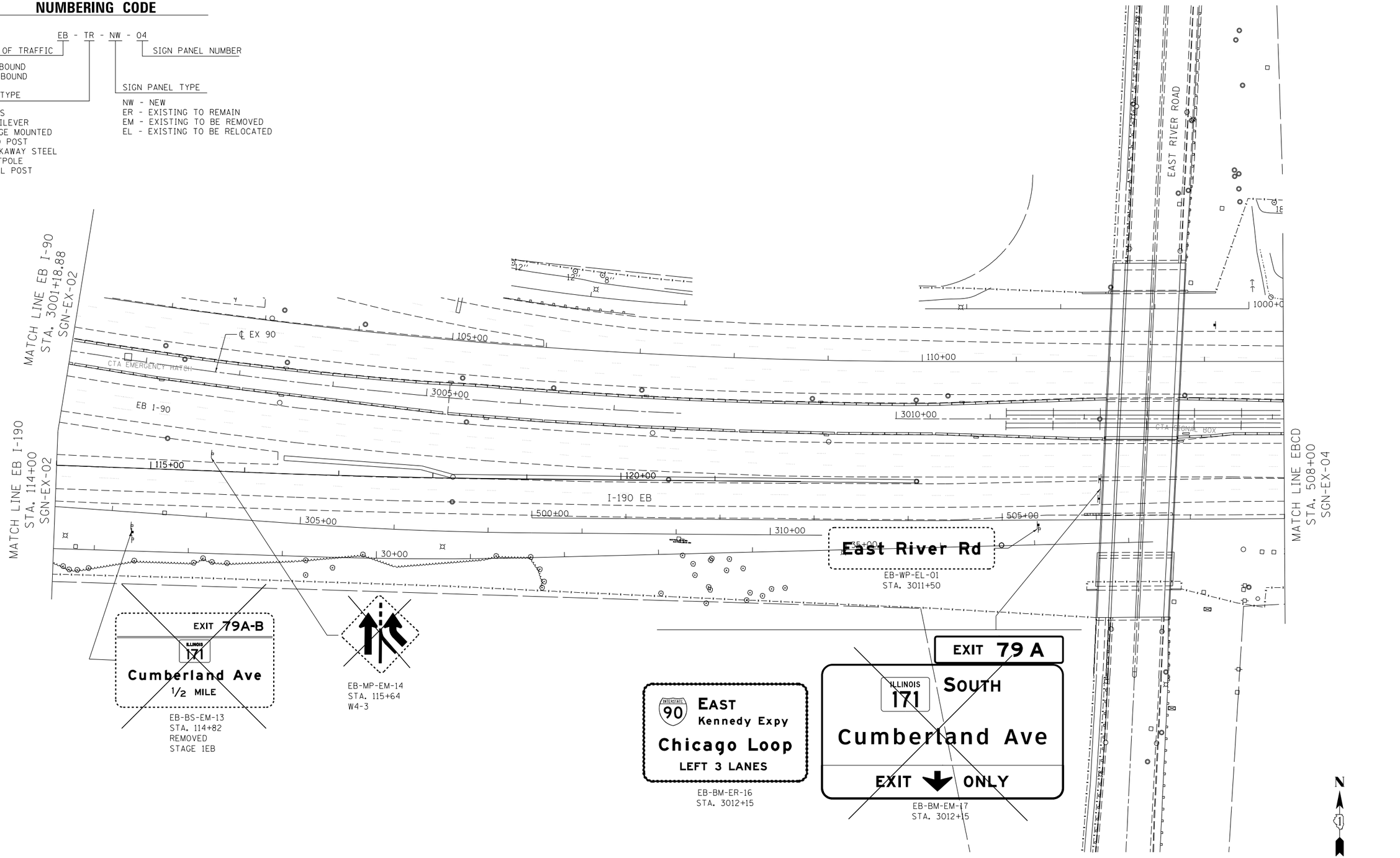
EB - TR - NW - 04

DIRECTION OF TRAFFIC
EB - EASTBOUND
WB - WESTBOUND

MOUNTING TYPE
TR - TRUSS
CL - CANTILEVER
BM - BRIDGE MOUNTED
WP - WOOD POST
BS - BREAKAWAY STEEL
LP - LIGHTPOLE
MP - METAL POST

SIGN PANEL TYPE
NW - NEW
ER - EXISTING TO REMAIN
EM - EXISTING TO BE REMOVED
EL - EXISTING TO BE RELOCATED

SIGN PANEL NUMBER



SGN-EX-03

USER NAME = mkosir	DESIGNED - MA	REVISED -	
	DRAWN - MA	REVISED -	
PLOT SCALE = 1.0000 ' / in.	CHECKED - RH	REVISED -	
PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -	

HNTB

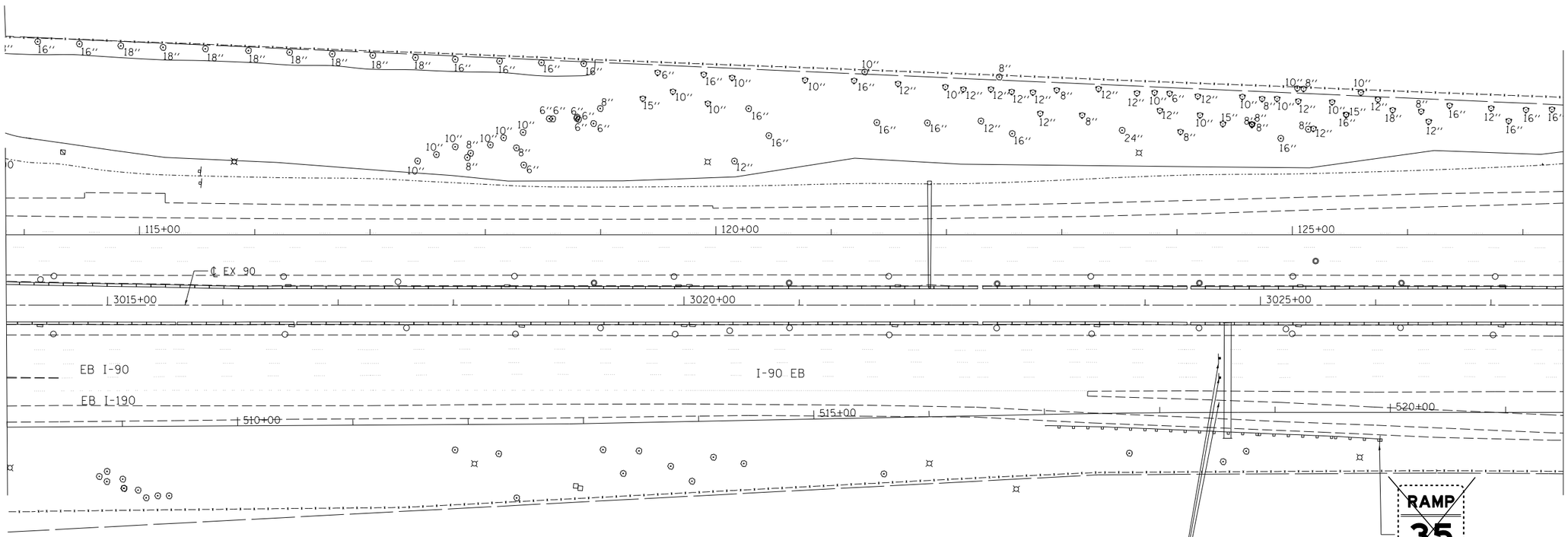
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING SIGNING PLAN
CUMBERLAND FLYOVER PROJECT

SCALE: 1" = 50' | SHEET 3 OF 5 SHEETS | STA. 114+00.00 | TO STA. 508+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	152
		CONTRACT NO. 60X56		
		ILLINOIS FED. AID PROJECT		

FILE NAME = p:\hntb-366.hntb.org@MyGreat_Lakes\Documents\Chicago Projects\30120 I-190 Cumberland\Design\CADD_Contract_60X56\CADD_Sheets\D160X56-sht-sign-exis-03.dgn



GUIDE SIGN SEQUENCE NUMBERING CODE

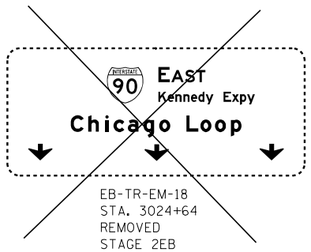
EB - TR - NW - 04

DIRECTION OF TRAFFIC
EB - EASTBOUND
WB - WESTBOUND

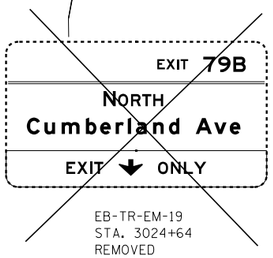
MOUNTING TYPE
TR - TRUSS
CL - CANTILEVER
BM - BRIDGE MOUNTED
WP - WOOD POST
BS - BREAKAWAY STEEL
LP - LIGHTPOLE
MP - METAL POST

SIGN PANEL TYPE
NW - NEW
ER - EXISTING TO REMAIN
EM - EXISTING TO BE REMOVED
EL - EXISTING TO BE RELOCATED

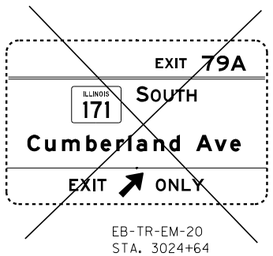
SIGN PANEL NUMBER



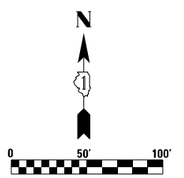
EB-TR-EM-18
STA. 3024+64
REMOVED
STAGE 2EB



EB-TR-EM-19
STA. 3024+64
REMOVED
STAGE 2EB



EB-TR-EM-20
STA. 3024+64
REMOVED STAGE 2EB



SGN-EX-04

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HNTB

USER NAME = mkosir	DESIGNED - MA	REVISED -
	DRAWN - MA	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED - RH	REVISED -
PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING SIGNING PLAN
CUMBERLAND FLYOVER PROJECT

SCALE: 1" = 50' | SHEET 4 OF 5 SHEETS | STA. 508+00.00 TO STA. 521+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	153
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

MATCH LINE PR EBCD
STA. 521+50
SGN-EX-04

EB I-90

3030+00 | 3035+00 | 3040+00

LIMIT OF REMOVALS
STA 3032+00.00

EXIT 79B
cta
Park & Ride

EB-BS-EM-23
STA. 3030+89
REMOVED
STAGE 3EB

EXIT
79 A

EB-BS-EM-22
STA. 3029+57
E5-1a
REMOVED
STAGE 2EB

3050+00

PCC

LIMIT OF IMPROVEMENTS
STA. 528+19.00

3130+00

CUMBERLAND AVE.

N

0 50' 100'

GUIDE SIGN SEQUENCE NUMBERING CODE

EB - TR - NW - 04

DIRECTION OF TRAFFIC
EB - EASTBOUND
WB - WESTBOUND

MOUNTING TYPE
TR - TRUSS
CL - CANTILEVER
BM - BRIDGE MOUNTED
WP - WOOD POST
BS - BREAKAWAY STEEL
LP - LIGHTPOLE
MP - METAL POST

SIGN PANEL TYPE
NW - NEW
ER - EXISTING TO REMAIN
EM - EXISTING TO BE REMOVED
EL - EXISTING TO BE RELOCATED

SIGN PANEL NUMBER

SGN-EX-05

FILE NAME = p:\hntb356\hntb.org\Great_Lakes\Documents\Chicago Projects\30120 I-190 Cumberland\Design\CADD_Contract_60X56\CADD_Sheets\D160X56-sht-sign-exis-05.dgn

HNTB

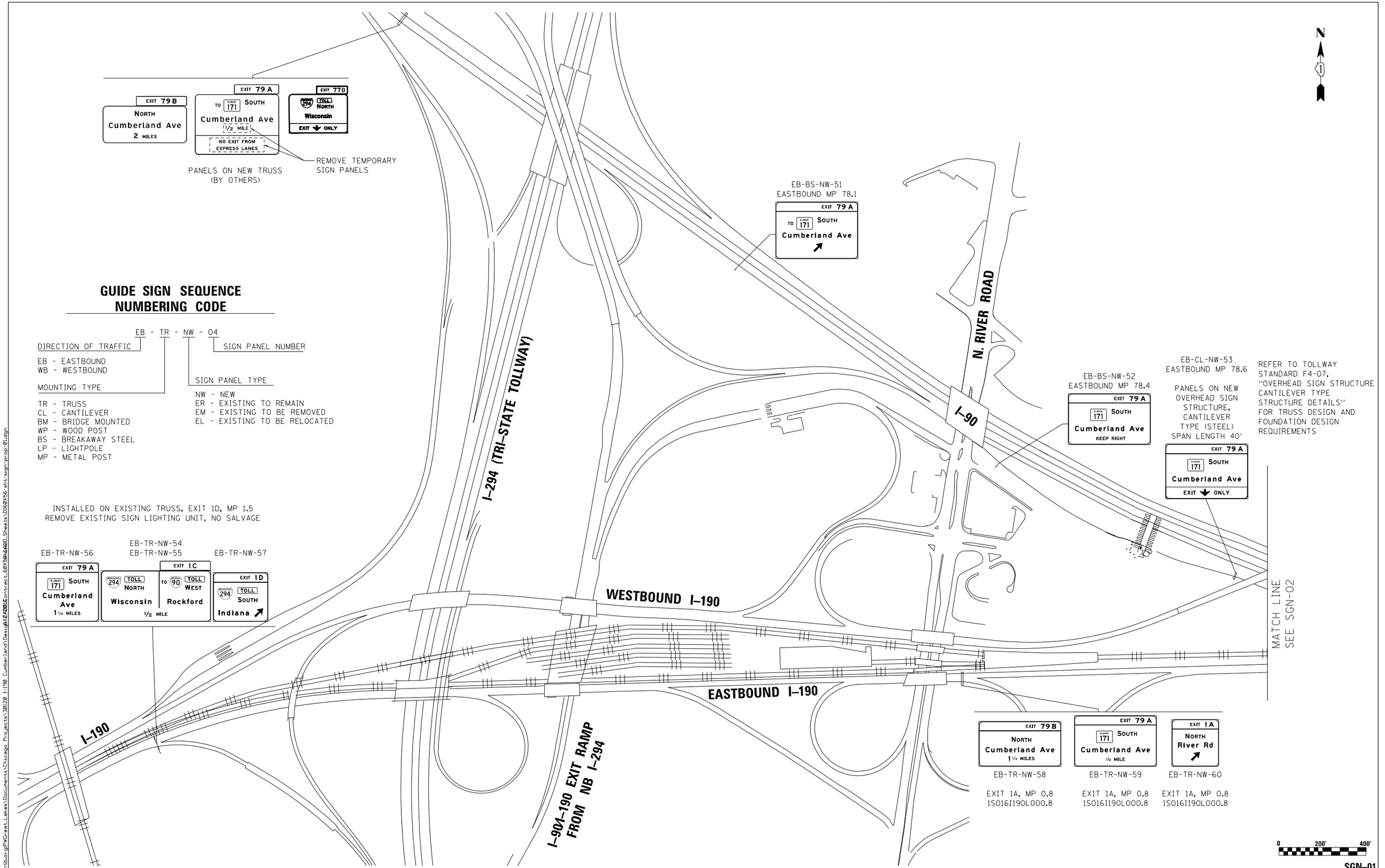
USER NAME = mkosir	DESIGNED - MA	REVISED -
	DRAWN - MA	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED - RH	REVISED -
PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING SIGNING PLAN
CUMBERLAND FLYOVER PROJECT

SCALE: | SHEET 5 OF 5 SHEETS | STA. 521+50.00 | TO STA. 528+19.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	154
		CONTRACT NO. 60X56		
		ILLINOIS	FED. AID PROJECT	



SGN-01

FILE NAME = p:\hntbw-356_hntb_org_PW_Great_Lakes\Documents\Chicago Projects\30120 I-190 Cumberland\Design\60X56\60X56-sht-sign-prop-01.dgn

USER NAME = mkosir	DESIGNED - MT	REVISED -	
	DRAWN - MT	REVISED -	
PLOT SCALE = 1.00 ' / in.	CHECKED - RH	REVISED -	
PLOT DATE = 6/2/2016	DATE - 05/06/2016	REVISED -	

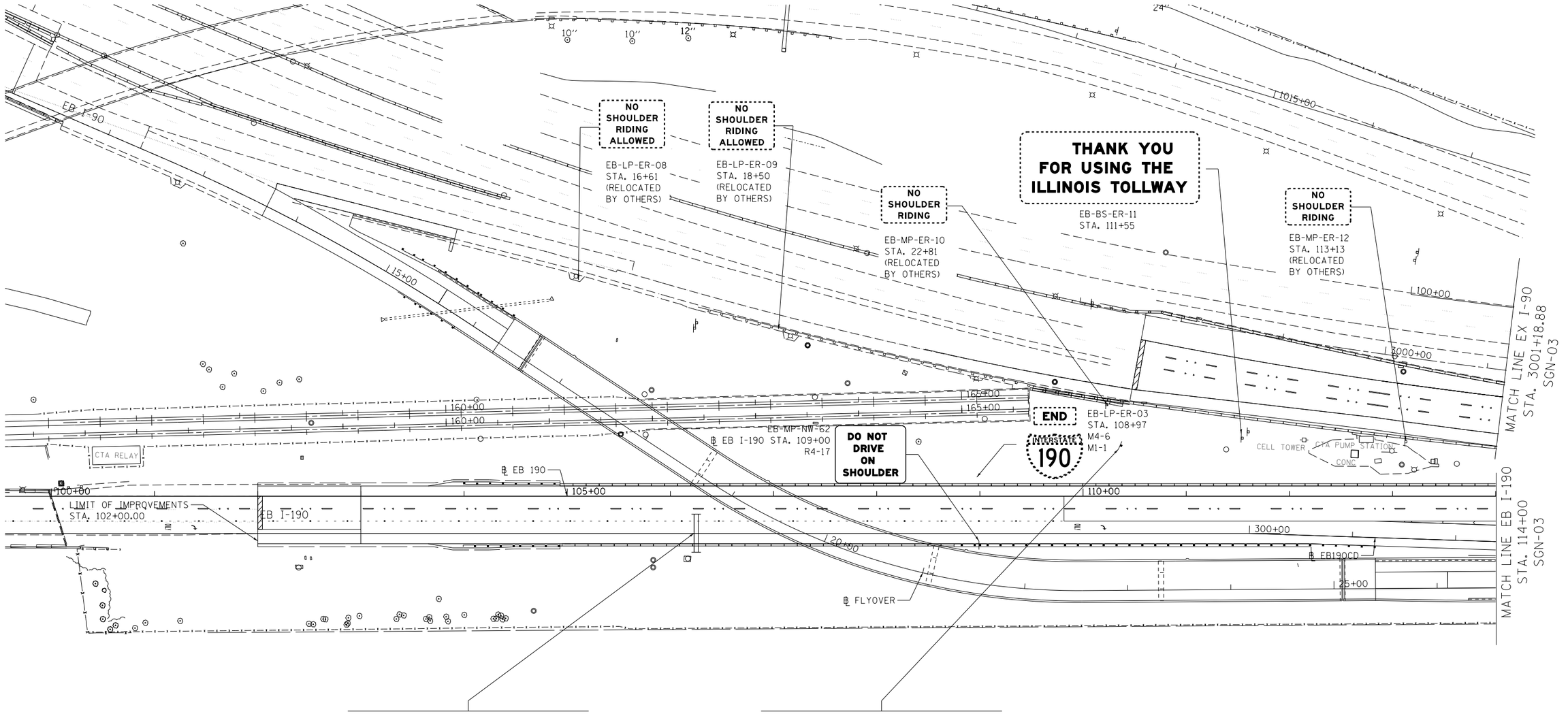
HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED SIGNING PLAN

SCALE: 1" = 200' | SHEET 1 OF 5 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	155
		CONTRACT NO. 60X56		
		ILLINOIS FED. AID PROJECT		



GUIDE SIGN SEQUENCE NUMBERING CODE

EB - TR - NW - 04

DIRECTION OF TRAFFIC
EB - EASTBOUND
WB - WESTBOUND

MOUNTING TYPE
TR - TRUSS
CL - CANTILEVER
BM - BRIDGE MOUNTED
WP - WOOD POST
BS - BREAKAWAY STEEL
LP - LIGHTPOLE
MP - METAL POST

SIGN PANEL TYPE
NW - NEW
ER - EXISTING TO REMAIN
EM - EXISTING TO BE REMOVED
EL - EXISTING TO BE RELOCATED

SIGN PANEL NUMBER

EXIT 79 A
ILLINOIS 171 SOUTH
Cumberland Ave
EXIT ONLY

EB-CL-NW-61
℄ EB I-190 STA. 106+25

SIGN STRUCTURE 1CO16I190L000.5

EXIT 79 B
NORTH
Cumberland Ave
3/4 MILE

EB-BS-NW-63
℄ EB I-190 STA. 110+35

N

0 50' 100'

SGN-02

FILE NAME = pw:\\hntbw256.hntb.org:PWGreat_Lakes\Documents\Chicago Projects\30120 I-190 Cumberland\Design\CADD_Contract_60X56\CADD_Sheets\D160X56-sht-sign-prop-02.dgn

HNTB

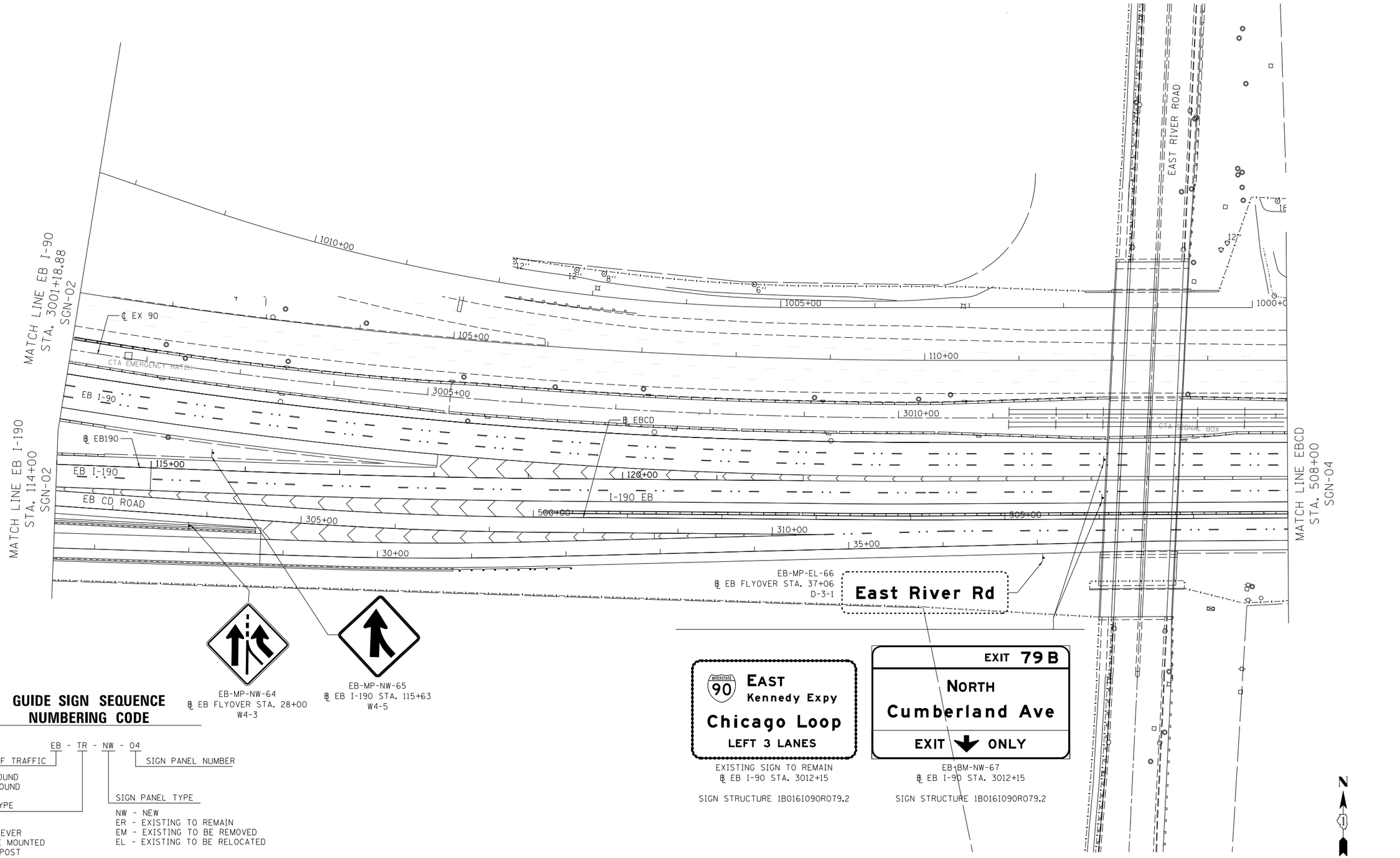
USER NAME = mkosir	DESIGNED - MA	REVISED -
	DRAWN - MA	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED - RH	REVISED -
PLOT DATE = 5/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED SIGNING PLAN
CUMBERLAND FLYOVER PROJECT

SCALE: | SHEET 2 OF 5 SHEETS | STA. 100+00.00 TO STA. 114+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	156
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			



GUIDE SIGN SEQUENCE NUMBERING CODE

EB - TR - NW - 04

- DIRECTION OF TRAFFIC
  - EB - EASTBOUND
  - WB - WESTBOUND
- MOUNTING TYPE
  - TR - TRUSS
  - CL - CANTILEVER
  - BM - BRIDGE MOUNTED
  - WP - WOOD POST
  - BS - BREAKAWAY STEEL
  - LP - LIGHTPOLE
  - MP - METAL POST
- SIGN PANEL TYPE
  - NW - NEW
  - ER - EXISTING TO REMAIN
  - EM - EXISTING TO BE REMOVED
  - EL - EXISTING TO BE RELOCATED
- SIGN PANEL NUMBER

FILE NAME = pw:\hntbx256.hntb.org:PWGreat_Lakes\Documents\Chicago Projects\30120 I-190 Cumberland\Design\CADD_Contract_60X56\CADD_Sheets\D160X56-sht-sign-prop-03.dgn

HNTB

USER NAME = mkosir	DESIGNED - MA	REVISED -
	DRAWN - MA	REVISED -
PLOT SCALE = 1.0000 ' / in.	CHECKED - RH	REVISED -
PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

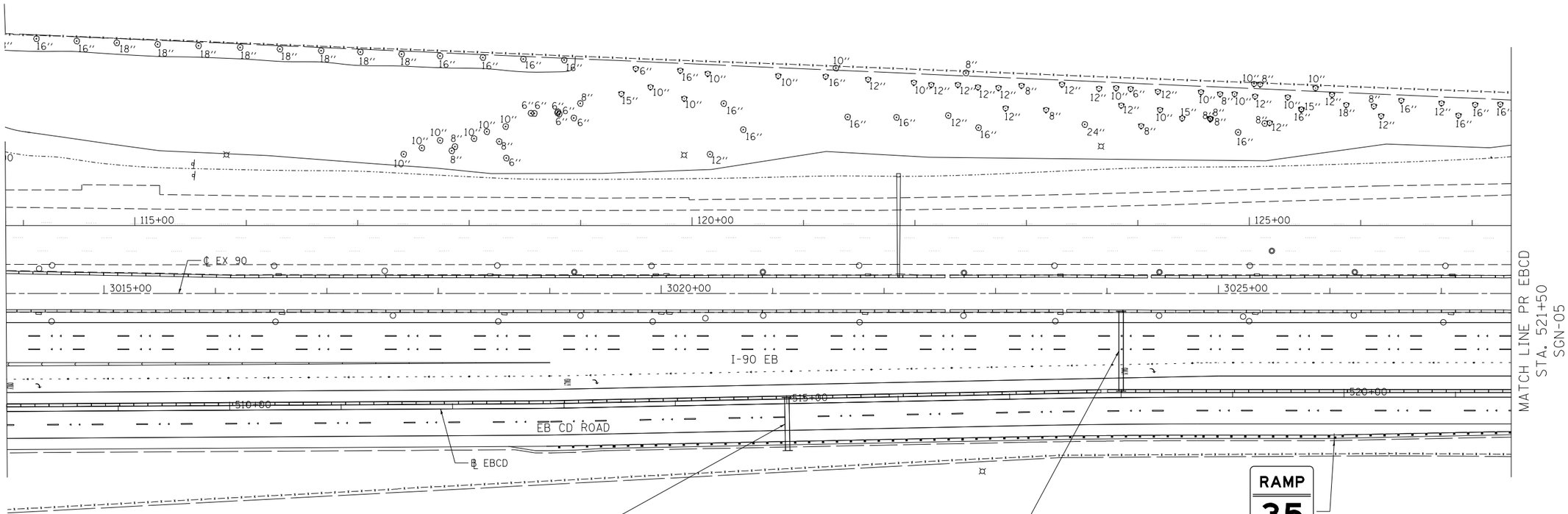
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED SIGNING PLAN
CUMBERLAND FLYOVER PROJECT

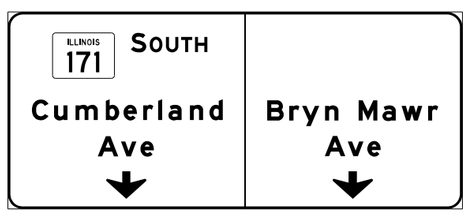
SCALE: | SHEET 3 OF 5 SHEETS | STA. 114+00.00 | TO STA. 508+00.00

SGN-03

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	157
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			



EB-MP-NW-71
℄ EB CD STA. 519+91
W13-3

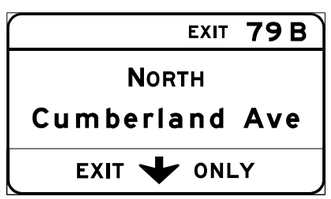


EB-TR-NW-68
℄ EB CD STA. 515+00

SIGN STRUCTURE 1SO16I090R079.3

EB-TR-NW-69
℄ EB CD STA. 518+00

SIGN STRUCTURE 1SO16I090R079.4



EB-TR-NW-70
℄ EB CD STA. 518+00

SIGN STRUCTURE 1SO16I090R079.4

GUIDE SIGN SEQUENCE NUMBERING CODE

EB - TR - NW - 04

DIRECTION OF TRAFFIC
EB - EASTBOUND
WB - WESTBOUND

MOUNTING TYPE
TR - TRUSS
CL - CANTILEVER
BM - BRIDGE MOUNTED
WP - WOOD POST
BS - BREAKAWAY STEEL
LP - LIGHTPOLE
MP - METAL POST

SIGN PANEL TYPE
NW - NEW
ER - EXISTING TO REMAIN
EM - EXISTING TO BE REMOVED
EL - EXISTING TO BE RELOCATED

SIGN PANEL NUMBER

N

0 50' 100'

SGN–04

FILE NAME = p:\hntbw256.hntb.org\PWGreat.Lakes\Documents\Chicago Projects\30120 I-190 Cumberland\Design\CADD_Contract_60X56\CADD_Sheets\D160X56-sht-sign-prop-04.dgn

HNTB

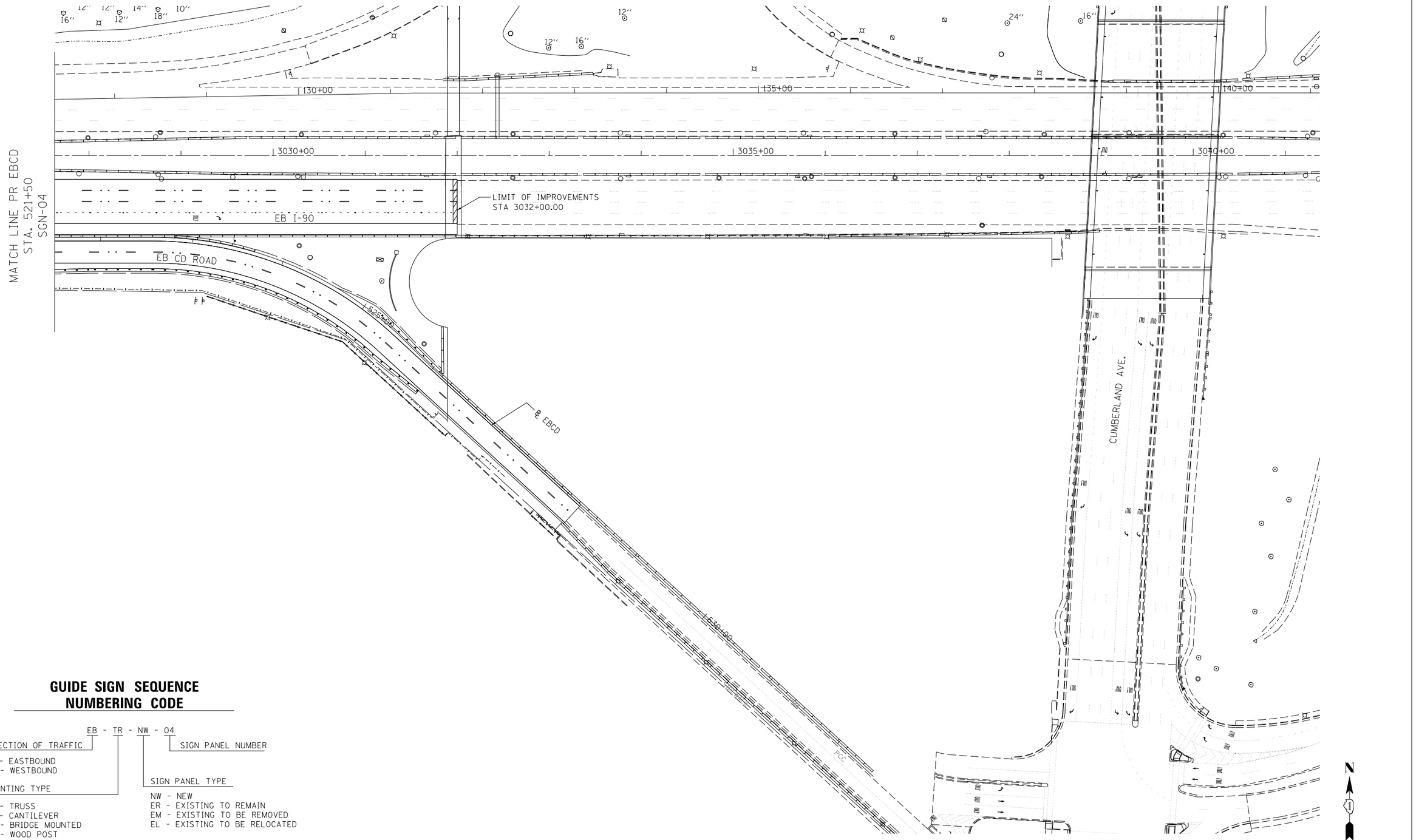
USER NAME = mkosir	DESIGNED - MA	REVISED -
	DRAWN - MA	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED - RH	REVISED -
PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED SIGNING PLAN
CUMBERLAND FLYOVER PROJECT

SCALE: | SHEET 4 OF 5 SHEETS | STA. 508+00.00 | TO STA. 521+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	158
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			



GUIDE SIGN SEQUENCE NUMBERING CODE

EB - TR - NW - 04

DIRECTION OF TRAFFIC
EB - EASTBOUND
WB - WESTBOUND

MOUNTING TYPE
TR - TRUSS
CL - CANTILEVER
BM - BRIDGE MOUNTED
WP - WOOD POST
BS - BREAKAWAY STEEL
LP - LIGHTPOLE
MP - METAL POST

SIGN PANEL TYPE
NW - NEW
ER - EXISTING TO REMAIN
EM - EXISTING TO BE REMOVED
EL - EXISTING TO BE RELOCATED

SIGN PANEL NUMBER

SGN-05

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HNTB

USER NAME = mkosir	DESIGNED - MA	REVISED -
	DRAWN - MA	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED - RH	REVISED -
PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED SIGNING PLAN
CUMBERLAND FLYOVER PROJECT

SCALE: | SHEET 5 OF 5 SHEETS | STA. 521+50.00 | TO STA. 528+19.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	159
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

CONTRACT 60X56
EXISTING SIGNING SCHEDULE

SIGN NO.	STATION	OFFSET	BASELINE	LEGEND / DESCRIPTION	MUTCD	EXISTING PANEL DIMENSIONS WIDTH (FT)	EXISTING PANEL DIMENSIONS HEIGHT (FT)	REMOVE SIGN PANEL - TYPE B ASSEMBLY (EACH) 72400200	REMOVE SIGN PANEL - TYPE 1 (SQ FT) 72400310	REMOVE SIGN PANEL - TYPE 2 (SQ FT) 72400320	REMOVE SIGN PANEL - TYPE 3 (SQ FT) 72400330	RELOCATE SIGN PANEL ASSEMBLY - TYPE B (EACH) 72400600	REMOVE OVH SIGN STRUCT. - SPAN (EACH) 73600100	REMOVE GROUND MOUNTED SIGN SUPPORT (EACH) 73700100	REMOVE CONC. FOUND. - GROUND MOUNT (EACH) 73700200	REMOVE CONC. FOUND. - OVERHEAD (EACH) 73700300	REMOVAL OF EXIST. SIGN LIGHTING UNIT, NO SALVAGE (EACH) X0327303
EB -TR-EM-01	MP 1.5		EB I-190	EXIT 1C, 294 NORTH TOLL, MILWAUKEE, TO 90 WEST TOLL		26	12				312						1
EB-TR-EM-02	MP 1.5		EB I-190	EXIT 1D, 294 SOUTH TOLL, INDIANA		15	12				180						
EB -TR-EM-03	MP 0.8		EB I-190	EXIT 79A-B, IL 171, CUMBERLAND AVE., 1 MILE		20	12						1			1	
EB-TR-EM-04	MP 0.8		EB I-190	EXIT 1A, NORTH, RIVER ROAD		15	12										
EB-MP-EM-02	108+33	50' RT	EB I-190	NO SHOULDER RIDING	R4-17	4.0	3.0	1		12				1	1		
EB-LP-ER-03	111+87	19' LT	EB I-190	END 190 INTERSTATE ROUTE	M1-1	3.5	3.0										
EB-BS-EM-04	110+35	51' LT	EB I-190	EXIT 79A-B, IL 171, CUMBERLAND AVE., 1/2 MILE		20.0	9.0	1			180			4	4		
EB-LP-EM-05	2987+69	142' RT	EX 90	LANE ENDS	W4-2R	3.0	3.0		9.0								
EB-MP-ER-06	2993+42	105' RT	EX 90	TOLL PAID, I PASS CARS 0.75, CASH CARS 1.50		6.5	3.5										
EB-LP-ER-07	2990+37	106'RT	EX 90	NO SHOULDER RIDING ALLOWED	*R4-17	4.0	5.0										
EB-LP-ER-08	2992+23	100'RT	EX 90	NO SHOULDER RIDING ALLOWED	*R4-17	4.0	5.0										
EB-LP-ER-09	2994+16	95'RT	EX 90	NO SHOULDER RIDING ALLOWED	R4-17	4.0	5.0										
EB-MP-ER-10	2997+41	95' RT	EX 90	NO SHOULDER RIDING	R4-17	3.0	3.0										
EB-BS-ER-11	2998+73	100' RT	EX 90	THANK YOU FOR USING THE ILLINOIS TOLLWAY		15.0	8.0										
EB-MP-ER-12	3000+28	79' RT	EX 90	NO SHOULDER RIDING	R4-17	3.0	4.0										
EB-BS-EM-13	27+40	20' LT	EB FLYOVER	EXIT 79A-B, IL 171, CUMBERLAND AVE., 1/2 MILE		20.0	9.0	1			180.0			3	3		
EB-MP-EM-14	115+64	19' LT	EB I-190	ADDED LANE	W4-3R	4.0	4.0	1		16				1	1		
EB-WP-EL-15	37+06	15' RT	EB FLYOVER	EAST RIVER RD	D3-1	9.5	2.5					1					
EB-BM-ER-16	3012+15		EX 90	I 90, EAST, KENNEDY EXPY, CHICAGO LOOP		12.0	8.5										
EB-BM-EM-17	3012+15		EX 90	EXIT 97A, IL 171 SOUTH, CUMBERLAND AVE, EXIT ONLY		21.5	14.5				311.75						
EB-TR-EM-18	3024+64	50' RT	EX 90	I 90, EAST, KENNEDY EXPY, CHICAGO LOOP		26.0	9.0										
EB-TR-EM-19	3024+64	63' RT	EX 90	EXIT 79B, NORTH, CUMBERLAND AVE, EXIT ONLY		20.0	9.5						1			1	
EB-TR-EM-20	3024+64	84' RT	EX 90	EXIT 79A, IL 171 SOUTH, CUMBERLAND AVE, EXIT ONLY		20.0	12.0										
EB-MP-EM-21	519+91	24' RT	EB CD ROAD	RAMP, 35 MPH	W13-3	4.0	5.0	1		20				1	1		
EB-BS-EM-22	3029+57	94' RT	EB CD ROAD	EXIT 79A	E5-1a	5.5	3.5	1		19.25				1	1		
EB-BS-EM-23	3030+89	104' RT	EB CD ROAD	EXIT 79B, CTA PARK & RIDE		10.0	11.0	1			110			2	2		
					TOTALS			7	9.00	67.25	1273.75	1	2	13	13	2	1

GUIDE SIGN SEQUENCE NUMBERING CODE

EB - TR - NW - 04

DIRECTION OF TRAFFIC
EB - EASTBOUND
WB - WESTBOUND

MOUNTING TYPE
TR - TRUSS
CL - CANTILEVER
BM - BRIDGE MOUNTED
WP - WOOD POST
BS - BREAKAWAY STEEL
LP - LIGHTPOLE
MP - METAL POST

SIGN PANEL TYPE
NW - NEW
ER - EXISTING TO REMAIN
EM - EXISTING TO BE REMOVED
EL - EXISTING TO BE RELOCATED

SIGN PANEL NUMBER

SGN-SCH-01

FILE NAME = p:\hntb356.hntb.org\PW\Great_Lakes\Documents\Chicago Projects\30120 I-190 Cumberland\Design\CADD_Contract_60X56\CADD_Sheets\D160X56-sht-sign-sched-01.dgn

HNTB

USER NAME = mkosir	DESIGNED - MA	REVISED -
	DRAWN - MA	REVISED -
PLOT SCALE = 1.0000 ' / in.	CHECKED - RH	REVISED -
PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES
EXISTING SIGNS

SCALE: | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	160
		CONTRACT NO. 60X56		
	ILLINOIS	FED. AID PROJECT		

CONTRACT 60X56
PROPOSED SIGNING SCHEDULE

SIGN NO.	STATION	OFFSET	BASELINE	LEGEND / DESCRIPTION	MUTCD	PROPOSED PANEL DIMENSIONS WIDTH (FT)	PROPOSED PANEL DIMENSIONS HEIGHT (FT)	SIGN PANEL TYPE 1 (SQ FT)	SIGN PANEL TYPE 2 (SQ FT)	SIGN PANEL TYPE 3 (SQ FT)	RELOCATE SIGN PANEL TYPE 1 (SQ FT)	RELOCATE SIGN PANEL TYPE 2 (SQ FT)	RELOCATE SIGN PANEL TYPE 3 (SQ FT)	METAL POST TYPE A (FOOT)	METAL POST TYPE B (FOOT)	WOOD SIGN POST (FOOT)	STRUCTURAL STEEL SIGN SUPPORT - BREAKAWAY (POUND)	CONCRETE FOUNDATIONS (CU YD)
								72000100	72000200	72000300	72400710	72400720	72400730	72900100	72900200	73000100	72700100	73400100
EB-BS-NW-51	MP 78.1		EX 90	TO IL 171, SOUTH, CUMBERLAND AVE		21.0	14.5			304.50							3000	5.7
EB-BS-NW-52	MP 78.4		EX 90	EXIT 79A, IL 171, SOUTH, CUMBERLAND AVE, KEEP RIGHT		21.0	13.0			273.00							3971	6.3
EB-CL-NW-53	MP 78.6		EX 90	EXIT 79A, IL 171, SOUTH, CUMBERLAND AVE, EXIT ONLY		21.0	14.0			294.00								
EB-TR-NW-54	MP 1.5		EB I-190	I-294, TOLL, NORTH, WISCONSIN, TO I-90, TOLL, WEST, ROCKFORD, 1/2 MILE		28.0	13.0			364.00								
EB-TR-NW-55	MP 1.5		EB I-190	EXIT 1C		13.0	2.5			32.50								
EB-TR-NW-56	MP 1.5		EB I-190	EXIT 79A, IL 171, SOUTH, CUMBERLAND AVE, 1 1/4 MILES		16.0	15.0			240.00								
EB-TR-NW-57	MP 1.5		EB I-190	EXIT 1D, I-294, TOLL, SOUTH, INDIANA		14.0	12.5			175.00								
EB-TR-NW-58	MP 0.8		EB I-190	EXIT 79B, NORTH, CUMBERLAND AVE, 1 1/2 MILES		21.0	11.5			241.50								
EB-TR-NW-59	MP 0.8		EB I-190	EXIT 79A, IL 171, SOUTH, CUMBERLAND AVE, 1/2 MILE		21.0	13.0			273.00								
EB-TR-NW-60	MP 0.8		EB I-190	EXIT 1A, NORTH, RIVER RD		12.0	12.0			144.00								
EB-CL-NW-61	106+25		EB I-190	EXIT 79A, IL 171, SOUTH, CUMBERLAND AVE, EXIT ONLY		21.0	14.0			294.00								
EB-MP-NW-62	109+00		EB I-190	DO NOT DRIVE ON SHOULDER	R4-17	4.0	5.0		20.00						32			
EB-BS-NW-63	110+35		EB I-190	EXIT 79B, NORTH, CUMBERLAND AVE, 3/4 MILE		21.0	12.0			252.00							3036	3.8
EB-MP-NW-64	28+00		EB FLYOVER	ADDED LANE	W4-3	4.0	4.0		16.00						34			
EB-BM-NW-65	115+63		EB I-190	MERGE	W4-5	4.0	4.0		16.00						34			
EB-MP-EL-66	37+06		EB FLYOVER	EAST RIVER ROAD	D-3-1	9.5	2.5					23.75				26		
EB-BM-NW-67	3012+15		EX 90	EXIT 79B, NORTH, CUMBERLAND AVE, EXIT ONLY		21.0	12.0			252.00								
EB-TR-NW-68	515+00		EB CD	IL 171, SOUTH, CUMBERLAND AVE, BRYN MAWR AVE		30.0	13.0			390.00								
EB-TR-NW-69	518+00		EB CD	I-90, EAST, KENNEDY EXPY, CHICAGO LOOP, LEFT 3 LANES		17.5	10.5			183.75								
EB-TR-NW-70	518+00		EB CD	EXIT 79B, NORTH, CUMBERLAND AVE, EXIT ONLY		21.0	12.0			252.00								
EB-MP-NW-71	519+91		EB CD	RAMP 35 MPH	W13-3	3.0	4.0		12.00						32			
					TOTALS			0.00	64.00	3965.25	0.00	23.75	0.00	0	132	26	10007	15.8

GUIDE SIGN SEQUENCE NUMBERING CODE

EB - TR - NW - 04

DIRECTION OF TRAFFIC
EB - EASTBOUND
WB - WESTBOUND

MOUNTING TYPE
TR - TRUSS
CL - CANTILEVER
BM - BRIDGE MOUNTED
WP - WOOD POST
BS - BREAKAWAY STEEL
LP - LIGHTPOLE
MP - METAL POST

SIGN PANEL TYPE
NW - NEW
ER - EXISTING TO REMAIN
EM - EXISTING TO BE REMOVED
EL - EXISTING TO BE RELOCATED

SIGN PANEL NUMBER

SGN-SCH-02

FILE NAME = p:\hntb356\hntb.org#WGreat.Lakes\Documents\Chicago Projects\30120 I-190 Cumberland\Design\CADD_Contract_60X56\CADD_Sheets\D160X56-sht-sign-sched-02.dgn

HNTB

USER NAME = mkosir	DESIGNED - MA	REVISED -	
	DRAWN - MA	REVISED -	
PLOT SCALE = 1.0000 ' / in.	CHECKED - RH	REVISED -	
PLOT DATE = 5/27/2016	DATE - 05/06/2016	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

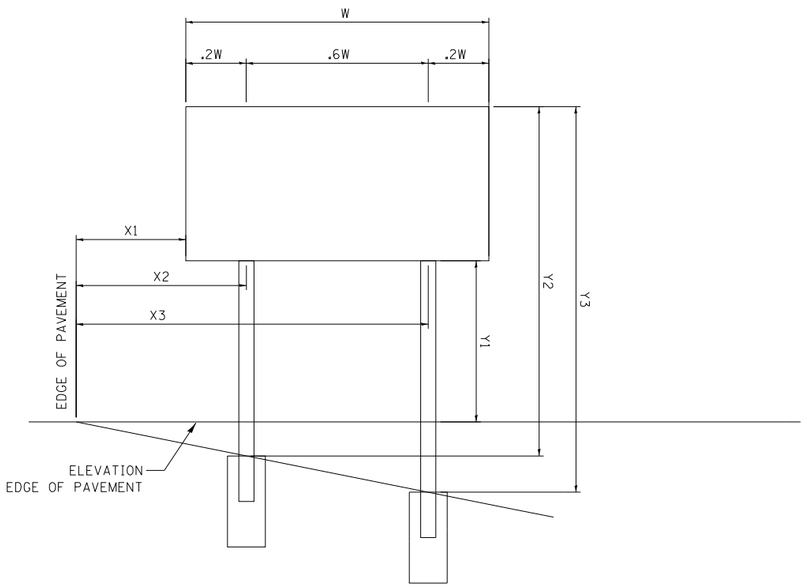
SCHEDULE OF QUANTITIES
PROPOSED SIGNS

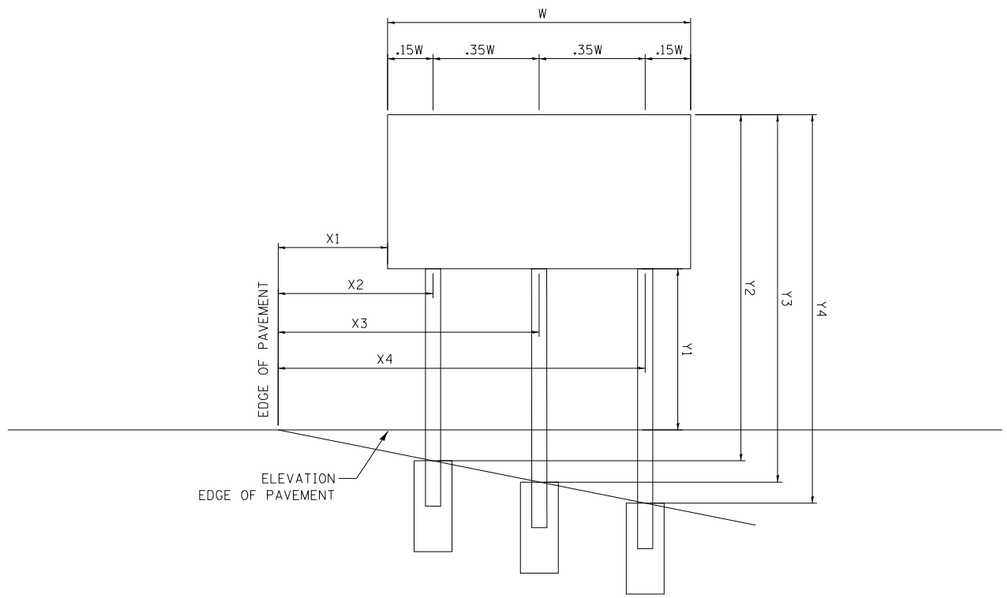
SCALE: | SHEET 2 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	161
		CONTRACT NO. 60X56		
	ILLINOIS	FED. AID PROJECT		

SIGN INSTALLATION SCHEDULE

PROPOSED LOCATION	SIGN NUMBER	SIZE		SIGN PANEL			SUPPORT												FOUNDATION	
		WIDTH FT.	HEIGHT FT.	TYPE-1 SF	TYPE-2 SF	TYPE-3 SF	X1	X2	X3	X4	Y1	Y2	Y3	Y4	NO.	POST	LENGTH FT.	WEIGHT LB	MIN. DEPTH FT	CONCRETE CY
110+35 I-90 LT	EB-BS-NW-69 & 70	21.5	11.5			236.8	**39.0**	**42.2**	**49.7**	**57.2**	**7.0**	**19.0**	**19.0**	**19.0**	**3.0**	**W10x18**	**66.0**	**3036**	**7.0**	**3.8**
MP 78.4 TOLLWAY	EB-BS-NW-60 & 61	21.5	12.5			293.5	**16.0**	**19.2**	**26.7**	**34.2**	**7.0**	**28.9**	**31.2**	**33.9**	**3.0**	**W14X38**	**104.5**	**3971**	**8.0**	**6.3**
MP 78.1 TOLLWAY	EB-BS-NW-63 & 64	21.5	14.5			291.8	**16.0**	**19.2**	**26.7**	**34.2**	**7.0**	**27.9**	**30.2**	**32.9**	**3.0**	**W14X30**	**100.0**	**3000**	**7.3**	**5.7**





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HNTB

USER NAME = mkosir	DESIGNED - RH	REVISED -
	DRAWN - MA	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED - VT	REVISED -
PLOT DATE = 4/28/2016	DATE - 05/06/2016	REVISED -

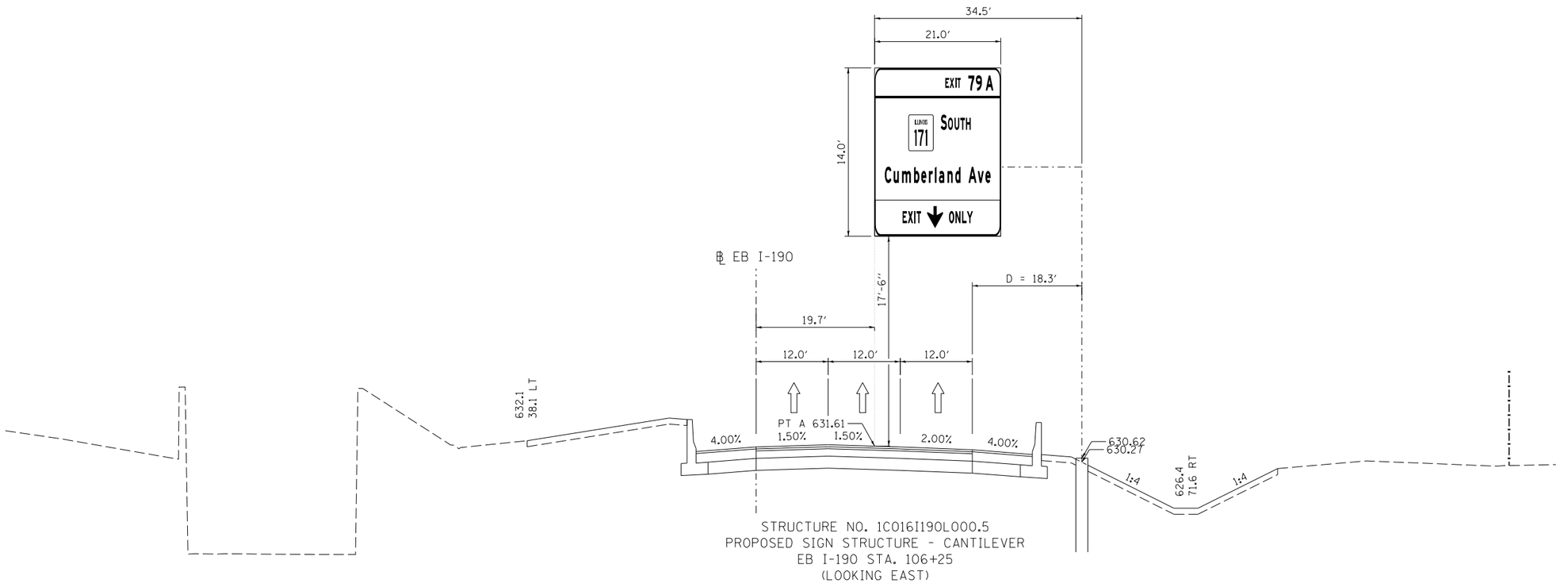
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GROUND MOUNTED SIGNS
CUMBERLAND FLYOVER PROJECT

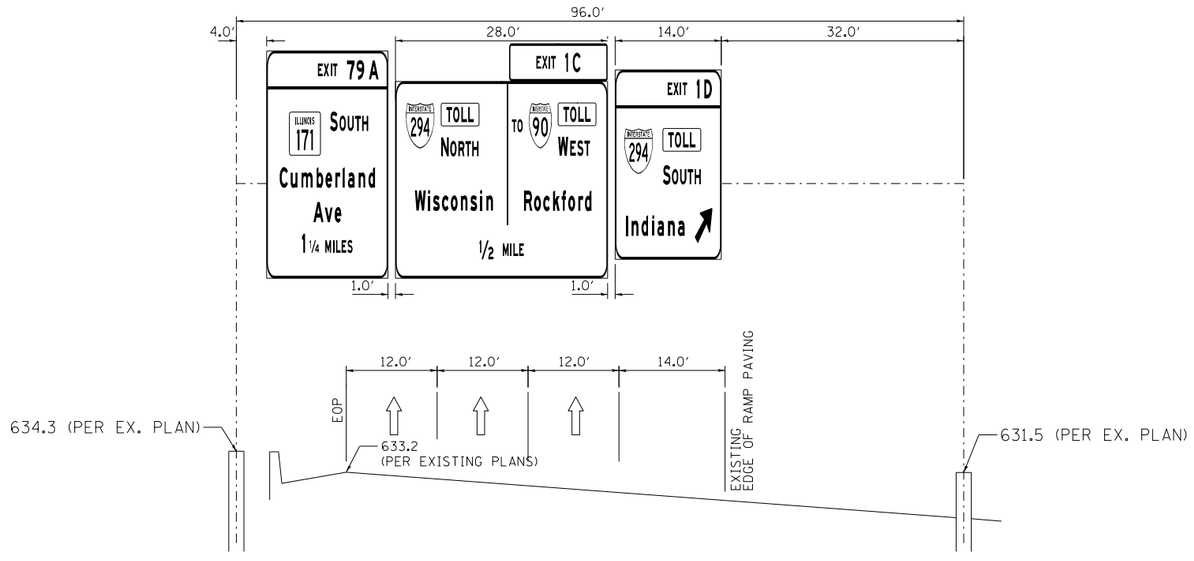
SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

SGN DET-01

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	162
		CONTRACT NO. 60X56		
	ILLINOIS	FED. AID PROJECT		



STRUCTURE NO. 1C016I190L000.5
PROPOSED SIGN STRUCTURE - CANTILEVER
EB I-190 STA. 106+25
(LOOKING EAST)



EXISTING SIGN STRUCTURE
EB I-190 EXIT 1D
MILE POST 1.5
(LOOKING EAST)

SGN-DET-01

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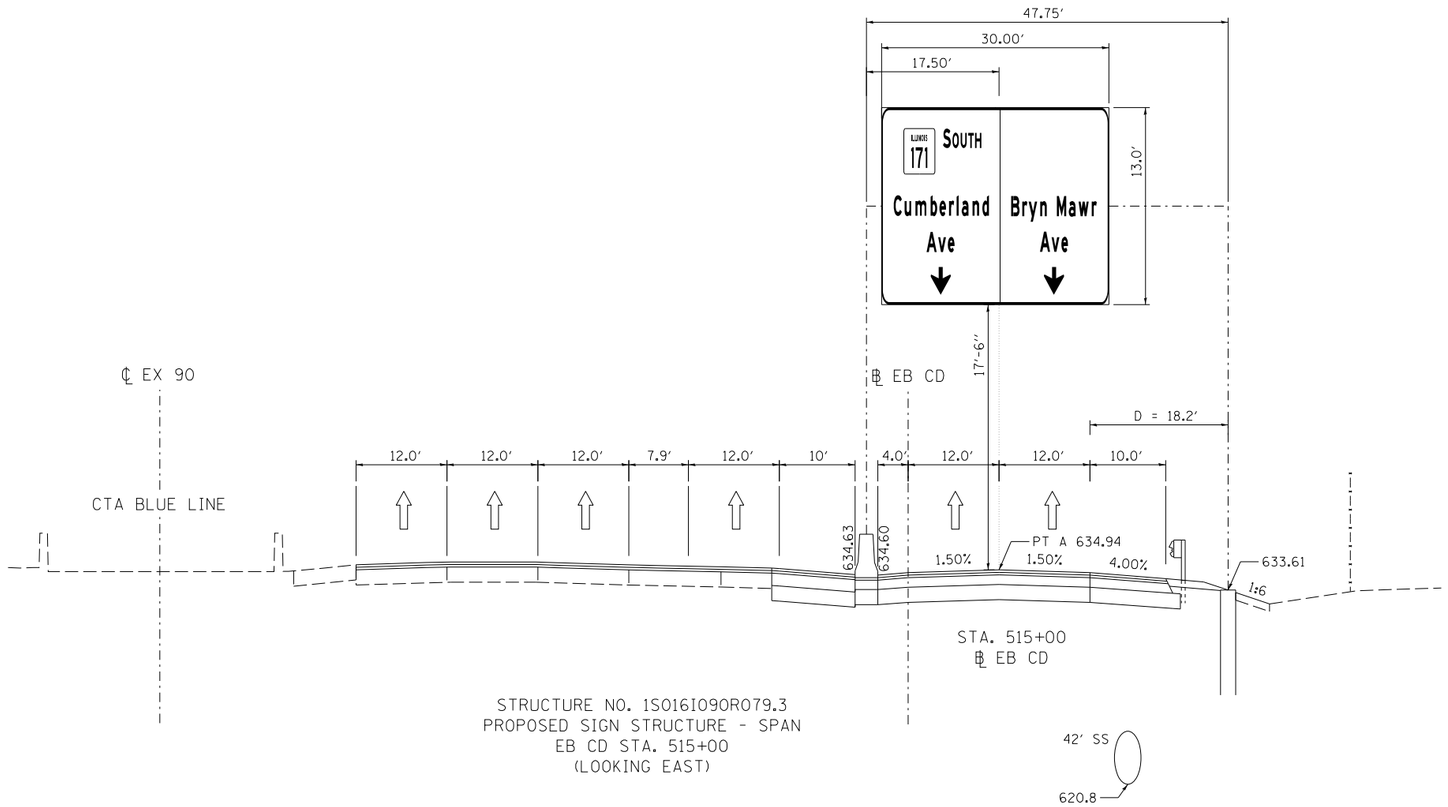
HNTB	USER NAME = mkosir	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 1.00 ′ / in.	CHECKED -	REVISED -
	PLOT DATE = 4/28/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN LAYOUT

SCALE: 1″ = 10′ | SHEET 1 OF 3 SHEETS | STA. 106+25 TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	163
		CONTRACT NO. 60X56		
		ILLINOIS FED. AID PROJECT		



STRUCTURE NO. 1S016I090R079.3
PROPOSED SIGN STRUCTURE - SPAN
EB CD STA. 515+00
(LOOKING EAST)

SGN-DET-02

HNTB	USER NAME = mkosir	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 1.00 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 4/28/2016	DATE - 05/06/2016	REVISED -

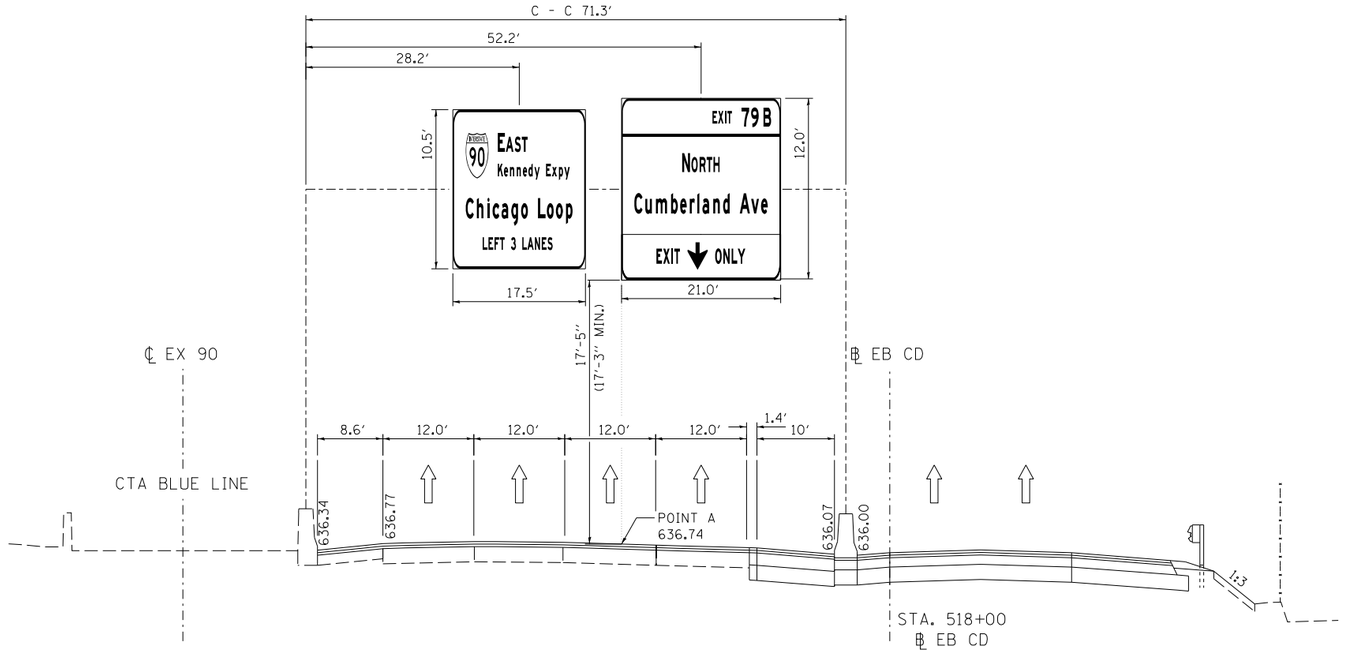
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN LAYOUT

SCALE: 1" = 10' | SHEET 2 OF 3 SHEETS | STA. 515+00 TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	164
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

FILE NAME = p:\hntb256.hntb.org\PWGreat_Lakes\Documents\Chicago Projects\30120 I-190 Cumberland\Design\CADD_Contract_60X56\CADD_Sheets\D160X56-sht-sgn-ovhdet-02.dgn



STRUCTURE NO. 1S016I090R079.4
PROPOSED SIGN STRUCTURE - SPAN
EB CD STA. 518+00
(LOOKING EAST)

FILE NAME = p:\1trntbx256;hntb.orgPWGreat_Lakes\Documents\Chicago Projects\30120 I-190 Cumberland\Design\CADD_Contract_60X56\CADD_Sheets\D160X56-sht-sgn-ovhdet-03.dgn

SGN-DET-03

HNTB

USER NAME = mkosir	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/28/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN LAYOUT

SCALE: 1" = 10' | SHEET 3 OF 3 SHEETS | STA. 518+00 TO STA.

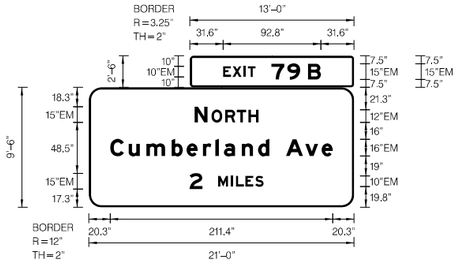
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	165
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

EB I–90
PANELS MOUNTED ON NEW TOLLWAY TRUSS (BY OTHERS)

SIGN DETAIL

1:100

Panel Style: tab1.bsi
M.U.T.C.D.: 2009 Edition



SIGN NUMBER	
WIDTH x HGHT.	21'–0" x 9'–6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective (TYPE ZZ)
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective (TYPE ZZ)
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT

Panel Style: guide_fwy_advance_a.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)

																					LENGTH	SERIES-SIZE
E	X	I	T	7	9	B																EM 2000
31.6	40.4	51.2	55	77.4	92.6	112.2															92.8	10,15
N	O	R	T	H																		EM 2000
100.5	116.5	129.5	140.5	151.6																	60.8	15,12
C	u	m	b	e	r	l	a	n	d		A	v	e									EM 2000
20.3	37.8	54.7	78.7	92.8	108.3	120.2	128.3	145.3	160.8	171.4	187.4	205.6	221.1								211.4	16\12
2	M	I	L	E	S																	EM 2000
95.7	122.9	135	139.8	148.8	158																70.4	15,10

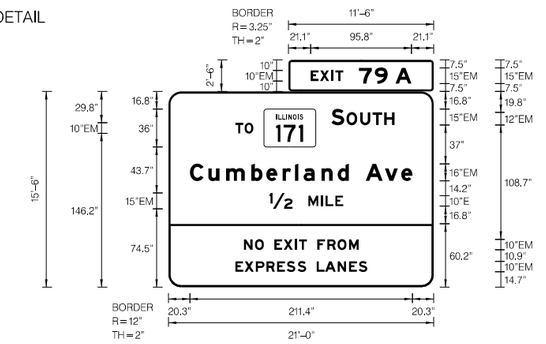
FOR INFORMATION ONLY
TO BE INSTALLED AS PART OF TOLLWAY CONTRACT I–14–4212

EB I–90
PANELS MOUNTED ON NEW TOLLWAY TRUSS (BY OTHERS)

Panel Style: tab1.bsi
M.U.T.C.D.: 2009 Edition

SIGN DETAIL

1:100



SIGN NUMBER	
WIDTH x HGHT.	21'–0" x 15'–6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective (TYPE ZZ)
	COLOR: Green/ White
LEGEND/BORDER	TYPE: Reflective (TYPE ZZ)
	COLOR: White,Black /White,Black

SYMBOL	ROT	X	Y	WID	HT
M1-4100A–3–22–10D	0	90.6	133.2	49.1	36

Panel Style: guide_fwy_advance_b.ssi
Dimensions are in inches.tenths

Letter spacings are to start of next letter

LETTER POSITIONS (X)

																					LENGTH	SERIES-SIZE
	E	X	I	T		7	9		A													EM 2000
21.1	8.8	10.8	3.8	7.4	15	15.1	12.2	7.5	15.2	21.1											95.8	10,15
	S		O	U	T	H																EM 2000
154.7	12.2	2.2	13	11.9	11	9.7	37.3														60	15,12
	T	O																				EM 2000
63.4	8.8	8.4	171.4																		17.2	10
	C	u	m	b	e	r	l	a	n	d		A	v	e								EM 2000
20.3	17.4	17	24	14.1	15.5	11.8	8.2	17	15.5	10.6	16	18.2	15.5	10.6	20.3						211.4	16\12
	12		M	I	L	E																EM 2000.E 2000
95.9	22	15	12	4.4	9.2	7.5	86.1														70.1	15,10
	N	O		E	X	I	T		F	R	O	M										EM 2000
71.6	10.5	8.4	10	8.8	10.8	3.8	7.4	10	9.5	9.8	10.8	9.3	71.3								109.1	10
	E	X	P	R	E	S	S		L	A	N	E	S									EM 2000
63.4	8.8	10.8	9.9	10.2	9.2	10.3	8.1	10	8	11.9	10.9	9.2	8.1	63.2							125.4	10

FOR INFORMATION ONLY
TO BE INSTALLED AS PART OF TOLLWAY CONTRACT I–14–4212

SGN–TOLL–01

FILE NAME = ...\D160X56-sht-sign-panel-TOLL-01.dgn

HNTB

USER NAME = mkosir	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED - LLS	REVISED -
PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY SIGN PANEL DETAILS

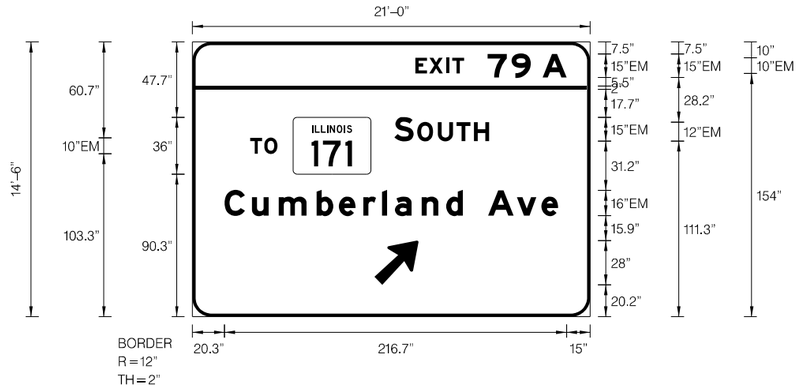
SCALE: 1" = NTS | SHEET 1 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	166
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

EB I–90 MILE POST 78.1
GROUND MOUNTED

SIGN DETAIL

1:100



Panel Style: guide_fwy_advance_b.ssi
M.U.T.C.D.: 2009 Edition

Panel Style: guide_fwy_advance_b.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

SIGN NUMBER	EB–BS–NW–51
WIDTH x HGHT.	21'–0" x 14'–6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Ground
BACKGROUND	TYPE: TYPE ZZ
	COLOR: Green
LEGEND/BORDER	TYPE: TYPE ZZ
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
M1–I100A–3–22–10D	0	63.9	90.3	49.1	36
AR_Type A	315	115.3	20.2	22.2	35.6

LETTER POSITIONS (X)

																					LENGTH	SERIES/SIZE
E	X	I	T	7	9	A																EM 2000
141.3	150.1	160.9	164.7	187.1	202.2	221.9															95.8	10,15
S	O	U	T	H																		EM 2000
128	142.5	155.4	167.3	178.3																	60.1	15,12
T	O																					EM 2000
36.7	45.5																				17.2	10
C	u	m	b	e	r	l	a	n	d		A	v	e									EM 2000
20.3	37.8	54.7	78.7	92.8	108.3	120.2	128.3	145.3	160.8	171.4	187.4	205.6	221.1								211.4	16/12

SGN–TOLL–02

HNTB

USER NAME = mkosir	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED - LLS	REVISED -
PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY SIGN PANEL DETAILS

SCALE: 1" = NTS | SHEET 2 OF 4 SHEETS | STA. | TO STA.

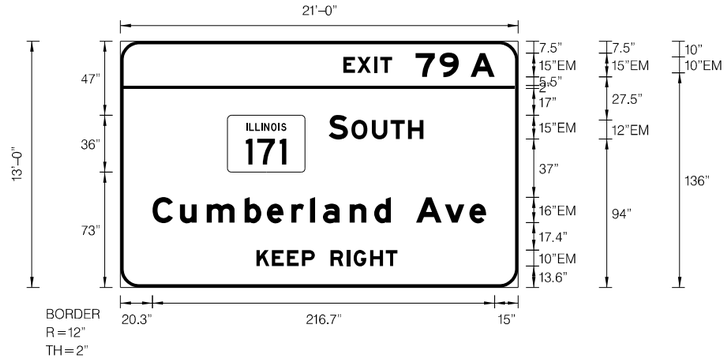
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	167
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

FILE NAME = ...\D1\60X56-ent-sign-panel-TOLL-02.dgn

EB I–90 MILE POST 78.4
GROUND MOUNTED

SIGN DETAIL

1:100



Panel Style: guide_fwy_advance_b.ssi
M.U.T.C.D.: 2009 Edition

Panel Style: guide_fwy_advance_b.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

SIGN NUMBER	EB–BS–NW–52
WIDTH x HGHT.	21'–0" x 13'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Ground
BACKGROUND	TYPE: TYPE ZZ
	COLOR: Green
LEGEND/BORDER	TYPE: TYPE ZZ
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
M1–1100A–3–22–10DD	0	67.9	73	49.1	36

LETTER POSITIONS (X)

																				LENGTH	SERIES/SIZE
E	X	I	T	7	9	A															EM 2000
141.3	150.1	160.9	164.7	187.1	202.2	221.9														95.8	10,15
S	O	U	T	H																	EM 2000
132	146.4	159.4	171.2	182.3																60	15,12
C	u	m	b	e	r	l	a	n	d		A	v	e								EM 2000
20.3	37.8	54.7	78.7	92.8	108.3	120.2	128.3	145.3	160.8	171.4	187.4	205.6	221.1							211.4	16/12
K	E	E	P		R	I	G	H	T												EM 2000
86.3	96.1	105.6	115.1	123.2	133.2	143.4	147.8	158.3	168.2											89.3	10

FILE NAME = ...\D1\60X56-ent-sign-panel-TOLL-03.dgn

HNTB

USER NAME = mkosir	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED - LLS	REVISED -
PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY SIGN PANEL DETAILS

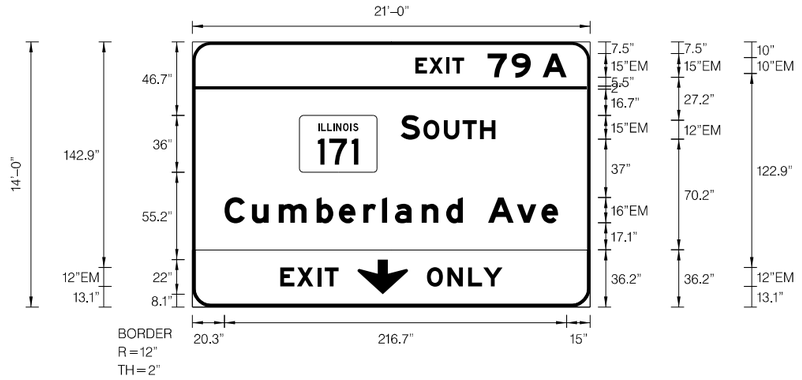
SCALE: 1" = NTS | SHEET 3 OF 4 SHEETS | STA. | TO STA.

SGN–TOLL–03

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	168
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

EB I–90 MILE POST 78.4
OVERHEAD SIGN STRUCTURE, CANTILEVER TYPE (STEEL)

SIGN DETAIL
1:100



Panel Style: guide_fwy_advance_b.ssi
M.U.T.C.D.: 2009 Edition

Panel Style: guide_fwy_advance_b.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

SIGN NUMBER	EB–CL–NW–53
WIDTH x HGHT.	21'–0" x 14'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: TYPE ZZ
	COLOR: Green
LEGEND/BORDER	TYPE: TYPE ZZ
	COLOR: Black/White/White

SYMBOL	ROT	X	Y	WID	HT
M1–I100A–3–22–10D	0	67.9	85.3	49.1	36
ARDOWN	0	104.6	8.1	32	22

LETTER POSITIONS (X)

																				LENGTH	SERIES/SIZE
E	X	I	T	7	9	A															EM 2000
141.3	150.1	160.9	164.7	187.1	202.2	221.9														95.8	10,15
S	O	U	T	H																	EM 2000
132	146.4	159.4	171.2	182.3																60	15,12
C	u	m	b	e	r	l	a	n	d		A	v	e								EM 2000
20.3	37.8	54.7	78.7	92.8	108.3	120.2	128.3	145.3	160.8	171.4	187.4	205.6	221.1							211.4	16/12
E	X	I	T																		EM 2000
55.7	66.3	79.2	83.8																	37	12
O	N	L	Y																		EM 2000
148.6	161.6	174.7	184.3																	47.8	12

SGN–TOLL–04

HNTB	USER NAME = mkosir	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 1.00 ' / in.	CHECKED - LLS	REVISED -
	PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY SIGN PANEL DETAILS

SCALE: 1" = NTS | SHEET 4 OF 4 SHEETS | STA. | TO STA.

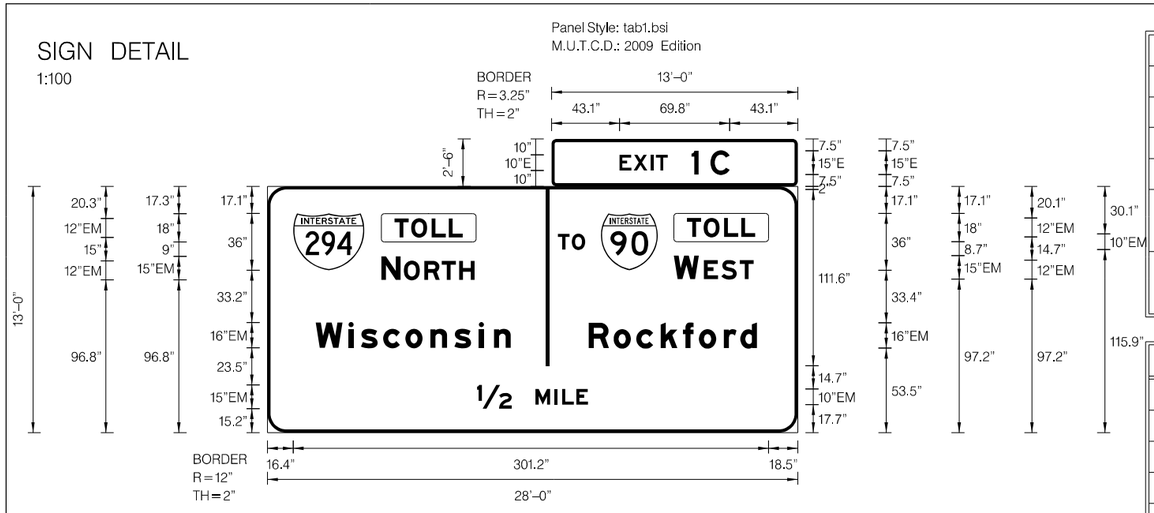
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	169
		CONTRACT NO. 60X56		
	ILLINOIS	FED. AID PROJECT		

FILE NAME = ...\D1\60X56-ent-sign-panel-TOLL-04.dgn

EB I–190 MILE POST 1.5
EXIT 1D, EXISTING SIGN TRUSS

SIGN DETAIL

1:100



Panel Style: guide_fwy_OH_APL.ssi
Dimensions are in inches.tenths

Panel Style: guide_fwy_OH_APL.ssi
M.U.T.C.D.: 2009 Edition

Letter locations are panel edge to lower left corner

SIGN NUMBER	EB–TR–NW–54,55
WIDTH x HGHT.	28'–0" x 13'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: TYPE ZZ
	COLOR: Green
LEGEND/BORDER	TYPE: TYPE ZZ
	COLOR: White/Black/White

SYMBOL	ROT	X	Y	WID	HT
M1_1	0	16.4	102.9	45	36
M1_1	0	211.3	102.9	36	36

LETTER POSITIONS (X)

																					LENGTH	SERIES-SIZE
E	X	I	T	1	C																	E 2000
43.1	56	66.7	70.2	92.7	100.7																65.7	10,15
T	O	L	L																			EM 2000
80.6	91.2	104.1	114.9																		43.2	12
T	O	L	L																			EM 2000
265.9	276.5	289.4	300.2																		43.2	12
T	O																					EM 2000
184.1	192.9																				17.2	10
N	O	R	T	H																		EM 2000
72.2	86.5	99.5	110.5	121.6																	59.1	15,12
W	E	S	T																			EM 2000
257.5	276.6	287.7	299.2																		50.5	15,12
W	i	s	c	o	n	s	i	n														EM 2000
30.6	51.4	59.3	73.4	87.4	103.3	118.5	134	143.6													123.5	16/12
R	o	c	k	f	o	r	d															EM 2000
203.5	219.4	233.8	249.3	263.2	273.5	289.3	299.7														106.7	16/12
1/2	M	I	L	E																		EM 2000
132.9	169.9	182	186.8	195.8																	70.3	15,10

SGN–PD–01

FILE NAME = ...\D160X56-sht-sign-panel-01.dgn

HNTB

USER NAME = mkosir	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED - LLS	REVISED -
PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIGN PANEL DETAILS

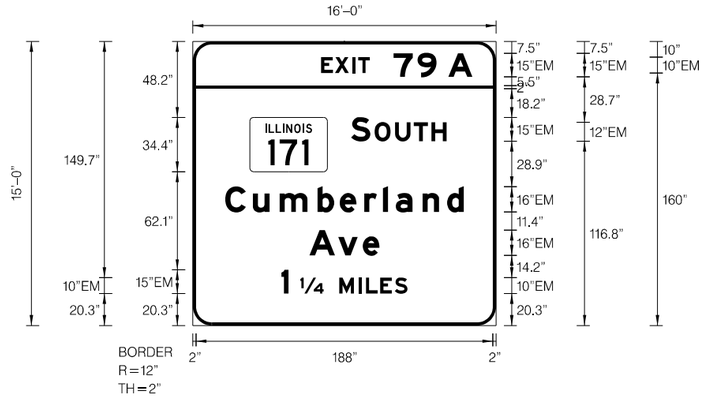
SCALE: 1" = NTS | SHEET 1 OF 13 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	170
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

EB I–190 MILE POST 1.5
EXIT 1D, EXISTING SIGN TRUSS

SIGN DETAIL

1:100



Panel Style: guide_fwy_advance_a.ssi
M.U.T.C.D.: 2009 Edition

Panel Style: guide_fwy_advance_a.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

SIGN NUMBER	EB–TR–NW–56
WIDTH x HGHT.	16'–0" x 15'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: TYPE ZZ
	COLOR: Green
LEGEND/BORDER	TYPE: TYPE ZZ
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
M1–1100A–3–42–20D	0	36.1	97.4	49.1	34.4

LETTER POSITIONS (X)

																					LENGTH	SERIES-SIZE
E	X	I	T	7	9	A																EM 2000
81.3	90.1	100.9	104.7	127.1	142.2	161.9															95.8	10,15
S	O	U	T	H																		EM 2000
100.2	115.2	128.1	140	151																	60.6	15,12
C	u	m	b	e	r	I	a	n	d													EM 2000
20.5	37.9	54.9	78.9	93	108.5	120.3	128.5	145.5	161												151	16/12
A	v	e																				EM 2000
73.9	92.1	107.6																			44.3	16/12
1	1/4	M	I	L	E	S																EM 2000
56.1	68.1	92.8	104.9	109.7	118.7	127.9															79.9	15,10

FILE NAME = ...\D\60X56-sht-sign-panel-02.dgn

SGN–PD–02

HNTB	USER NAME = mkosir	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 1.00 ' / in.	CHECKED - LLS	REVISED -
	PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIGN PANEL DETAILS

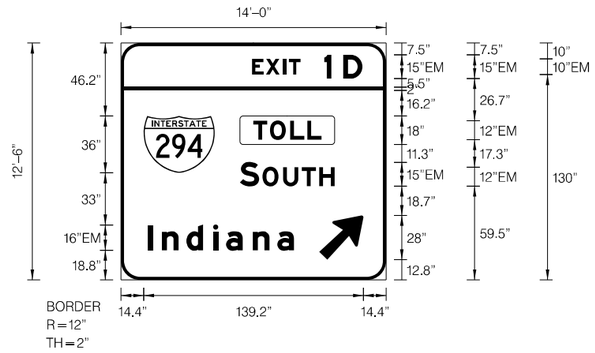
SCALE: 1" = NTS | SHEET 2 OF 12 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	171
		CONTRACT NO. 60X56		
		ILLINOIS FED. AID PROJECT		

EB I–190 MILE POST 1.5
EXIT 1D, EXISTING SIGN TRUSS

SIGN DETAIL

1:100



Panel Style: guide_fwy_OH_APL.ssi
M.U.T.C.D.: 2009 Edition

Panel Style: guide_fwy_OH_APL.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

SIGN NUMBER	EB–TR–NW–57
WIDTH x HGHT.	14'–0" x 12'–6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: TYPE ZZ
	COLOR: Green
LEGEND/BORDER	TYPE: TYPE ZZ
	COLOR: White/Black/White

SYMBOL	ROT	X	Y	WID	HT
M1_1	0	14.4	67.8	45	36
AR_Type A	315	125.7	12.8	22.1	35.6

LETTER POSITIONS (X)																					LENGTH	SERIES-SIZE
E	X	I	T	1	D																	EM 2000
83.1	91.9	102.7	106.5	128.9	140.9																70	10,15
T	O	L	L																			EM 2000
83.8	94.4	107.3	118.1																		43.2	12
S	O	U	T	H																		EM 2000
75.4	89.8	102.7	114.6	125.6																	60	15,12
I	n	d	i	a	n	a																EM 2000
17.3	26	41.5	58.5	66.6	83.6	99.1															92.3	16/12

SGN–PD–03

FILE NAME = ...\D160X56-sht-sign-panel-03.dgn

HNTB

USER NAME = mkosir	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED - LLS	REVISED -
PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIGN PANEL DETAILS

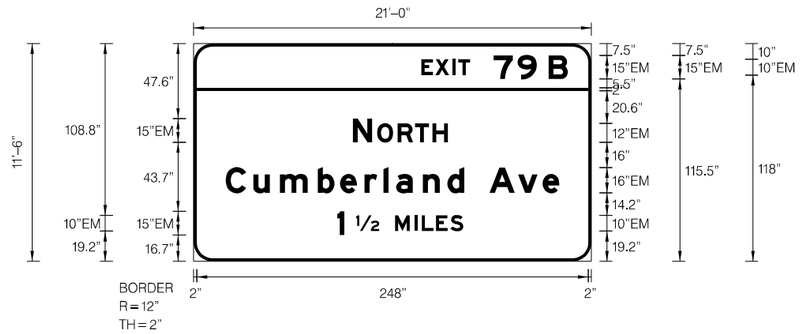
SCALE: 1" = NTS | SHEET 3 OF 12 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	172
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

EB I–190 MILE POST 0.8
EXIT 1A, NEW SIGN TRUSS (1S016I190L000.8)

SIGN DETAIL

1:100



Panel Style: guide_fwy_advance_b.ssi
M.U.T.C.D.: 2009 Edition

SIGN NUMBER	EB–TR–NW–58	
WIDTH x HGHT.	21'–0" x 11'–6"	
BORDER WIDTH	2"	
CORNER RADIUS	12"	
MOUNTING	Overhead	
BACKGROUND	TYPE:	TYPE ZZ
	COLOR:	Green
LEGEND/BORDER	TYPE:	TYPE ZZ
	COLOR:	White/White

SYMBOL	ROT	X	Y	WID	HT

Panel Style: guide_fwy_advance_b.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)

																					LENGTH	SERIES-SIZE
E	X	I	T	7	9	B																EM 2000
144.3	153.1	163.9	167.7	190.1	205.2	224.9															92.8	10,15
N	O	R	T	H																		EM 2000
100.9	116.3	129.2	140.3	151.3																	60.1	15,12
C	u	m	b	e	r	l	a	n	d		A	v	e									EM 2000
20.3	37.8	54.7	78.7	92.8	108.3	120.2	128.3	145.3	160.8	171.4	187.4	205.6	221.1								211.4	16/12
1	12	M	I	L	E	S																EM 2000
91	103	127.6	139.7	144.5	153.5	162.7															79.9	15,10

SGN–PD–04

FILE NAME = ...\D16X056-ent-sign-panel-04.dgn

HNTB

USER NAME = mkosir	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED - LLS	REVISED -
PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED 1 - 03/06/2015 CR 01

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIGN PANEL DETAILS

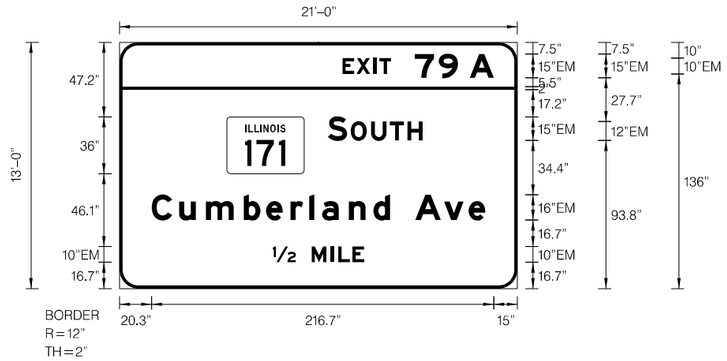
SCALE: 1" = NTS | SHEET 4 OF 12 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	173
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

EB I–190 MILE POST 0.8
EXIT 1A, NEW SIGN TRUSS (1S016I190L000.8)

SIGN DETAIL

1:100



Panel Style: guide_exp_advance_b.ssi
M.U.T.C.D.: 2009 Edition

Panel Style: guide_exp_advance_b.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

SIGN NUMBER	EB–TR–NW–59
WIDTH x HGHT.	21'–0" x 13'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: TYPE ZZ
	COLOR: Green
LEGEND/BORDER	TYPE: TYPE ZZ
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
M1–1100A–3–42–20D	0	67.9	72.8	49.1	36

LETTER POSITIONS (X)

																					LENGTH	SERIES-SIZE
E	X	I	T	7	9	A																EM 2000
141.3	150.1	160.9	164.7	187.1	202.2	221.9															95.7	10,15
S	O	U	T	H																		EM 2000
132	146.4	159.4	171.3	182.3																	60.1	15,12
C	u	m	b	e	r	l	a	n	d		A	v	e									EM 2000
20.3	37.8	54.7	78.7	92.8	108.3	120.2	128.3	145.3	160.8	171.4	187.4	205.6	221.1								211.4	16/12
½	M	I	L	E																		EM 2000
97	121.7	133.8	138.6	147.6																	58	10

SGN–PD–05

HNTB	USER NAME = mkosir	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 1.00 ' / in.	CHECKED - LLS	REVISED -
	PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIGN PANEL DETAILS

SCALE: 1" = NTS | SHEET 5 OF 12 SHEETS | STA. | TO STA.

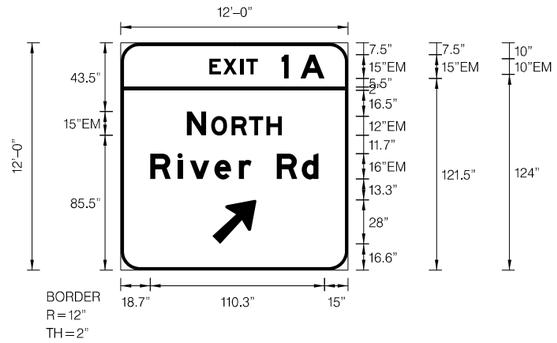
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	174
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

FILE NAME = ..\D1\60X56-ahts-sign-panel-05.dgn

EB I–190 MILE POST 0.8
EXIT 1A, NEW SIGN TRUSS (1S016I190L000.8)

SIGN DETAIL

1:100



Panel Style: guide_exp_overhead.ssi
M.U.T.C.D.: 2009 Edition

SIGN NUMBER	EB–TR–NW–60
WIDTH x HGHT.	12'–0" x 12'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: TYPE ZZ
	COLOR: Green
LEGEND/BORDER	TYPE: TYPE ZZ
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
AR_Type A	315	58	16.6	22.2	35.6

Panel Style: guide_exp_overhead.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)

																					LENGTH	SERIES/SIZE
E	X	I	T	1	A																	EM 2000
56.1	64.9	75.7	79.5	101.9	113.9																73	10,15
N	O	R	T	H																		EM 2000
42	57.3	70.3	81.3	92.3																	60.1	15,12
R	i	v	e	r		R	d															EM 2000
18.7	36	43.9	59.4	74.9	82.9	98.9	114.7														106.6	16/12

FILE NAME = ...\D16X056-sht-sign-panel-06.dgn

HNTB

USER NAME = mkosir	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED - LLS	REVISED -
PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIGN PANEL DETAILS

SCALE: 1" = NTS | SHEET 6 OF 12 SHEETS | STA. | TO STA.

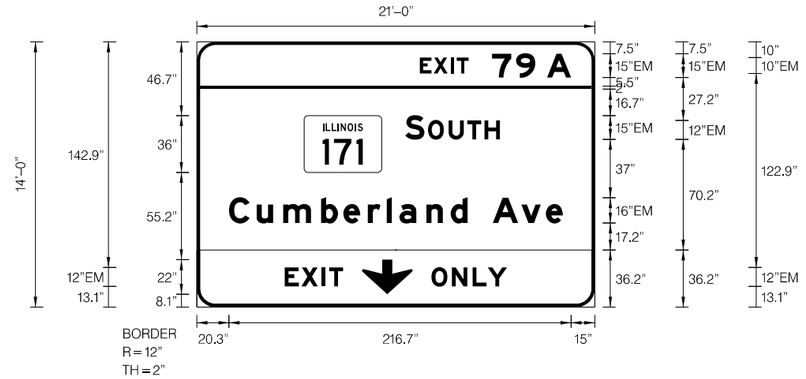
SGN–PD–06

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	175
		CONTRACT NO. 60X56		
	ILLINOIS	FED. AID PROJECT		

EB I–190 STA. 106 + 25
SIGN STRUCTURE 1C016I190L000.5 (CANTILEVER OVER I–190)

SIGN DETAIL

1:100



Panel Style: guide_fwy_advance_b.ssi
M.U.T.C.D.: 2009 Edition

Panel Style: guide_fwy_advance_b.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

SIGN NUMBER	EB–CL–NW–61
WIDTH x HGHT.	21'–0" x 14'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: TYPE ZZ
	COLOR: Green
LEGEND/BORDER	TYPE: TYPE ZZ
	COLOR: Black/White/White

SYMBOL	ROT	X	Y	WID	HT
M1–I100A–3–42–20D	0	67.9	85.3	49.1	36
ARDOWN	0	104.6	8.1	32	22

LETTER POSITIONS (X)

																					LENGTH	SERIES-SIZE
E	X	I	T	7	9	A																EM 2000
141.3	150.1	160.9	164.7	187.1	202.2	221.9															95.7	10,15
S	O	U	T	H																		EM 2000
132	146.4	159.4	171.2	182.3																	60	15,12
C	u	m	b	e	r	l	a	n	d		A	v	e									EM 2000
20.3	37.8	54.7	78.7	92.8	108.3	120.2	128.3	145.3	160.8	171.4	187.4	205.6	221.1								211.4	16\12
E	X	I	T																			EM 2000
55.7	66.2	79.2	83.7																		37	12
O	N	L	Y																			EM 2000
148.6	161.6	174.7	184.3																		47.8	12

FILE NAME = ...\D1601756-sht-sign-panel-07.dgn

HNTB

USER NAME = mkosir	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED - LLS	REVISED -
PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIGN PANEL DETAILS

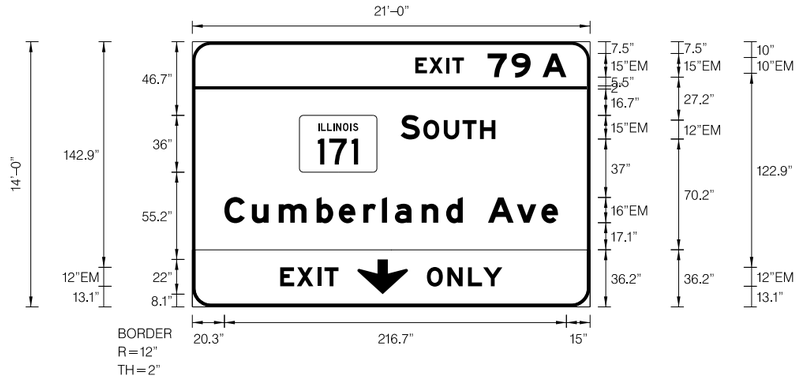
SCALE: 1" = NTS | SHEET 7 OF 12 SHEETS | STA. | TO STA.

SGN–PD–07

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	176
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

EB I–90 MILE POST 78.6
OVERHEAD SIGN STRUCTURE, CANTILEVER TYPE (STEEL)

SIGN DETAIL
1:100



Panel Style: guide_fwy_advance_b.ssi
M.U.T.C.D.: 2009 Edition

Panel Style: guide_fwy_advance_b.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

SIGN NUMBER	EB–CL–NW–53
WIDTH x HGHT.	21'–0" x 14'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: TYPE ZZ
	COLOR: Green
LEGEND/BORDER	TYPE: TYPE ZZ
	COLOR: Black/White/White

SYMBOL	ROT	X	Y	WID	HT
M1–1100A–3–22–10D	0	67.9	85.3	49.1	36
ARDOWN	0	104.6	8.1	32	22

LETTER POSITIONS (X)

																					LENGTH	SERIES/SIZE
E	X	I	T	7	9	A																EM 2000
141.3	150.1	160.9	164.7	187.1	202.2	221.9															95.8	10,15
S	O	U	T	H																		EM 2000
132	146.4	159.4	171.2	182.3																	60	15,12
C	u	m	b	e	r	l	a	n	d		A	v	e									EM 2000
20.3	37.8	54.7	78.7	92.8	108.3	120.2	128.3	145.3	160.8	171.4	187.4	205.6	221.1								211.4	16/12
E	X	I	T																			EM 2000
55.7	66.3	79.2	83.8																		37	12
O	N	L	Y																			EM 2000
148.6	161.6	174.7	184.3																		47.8	12

FILE NAME = p:\hntb356x\hntb.org#WGreat_Lakes\Documents\Chicago Projects\30120 I-190 Cumberland\Design\CADD_Contract_60X56\CADD_Sheets\D160X56-sht-sign-panel-TOLL-04.dgn

SGN–TOLL–04

HNTB	USER NAME = mkosir	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 1.00 ' / in.	CHECKED - LLS	REVISED -
	PLOT DATE = 5/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

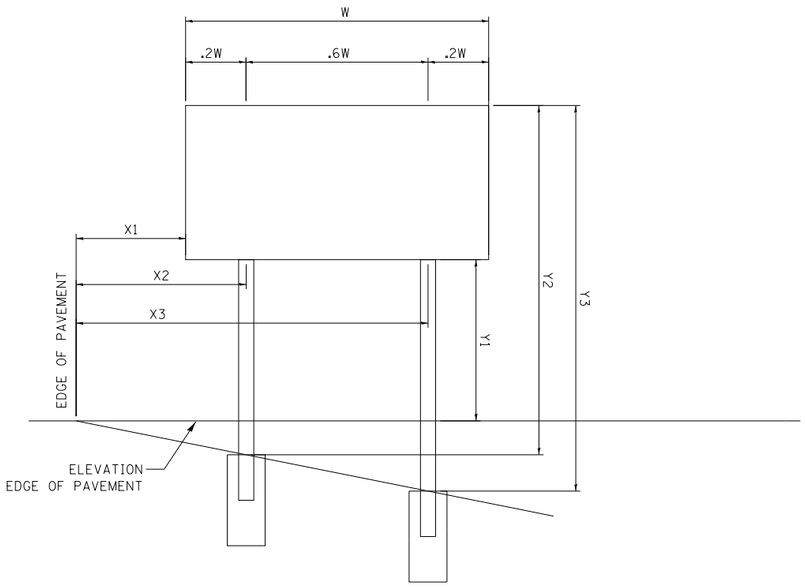
TOLLWAY SIGN PANEL DETAILS

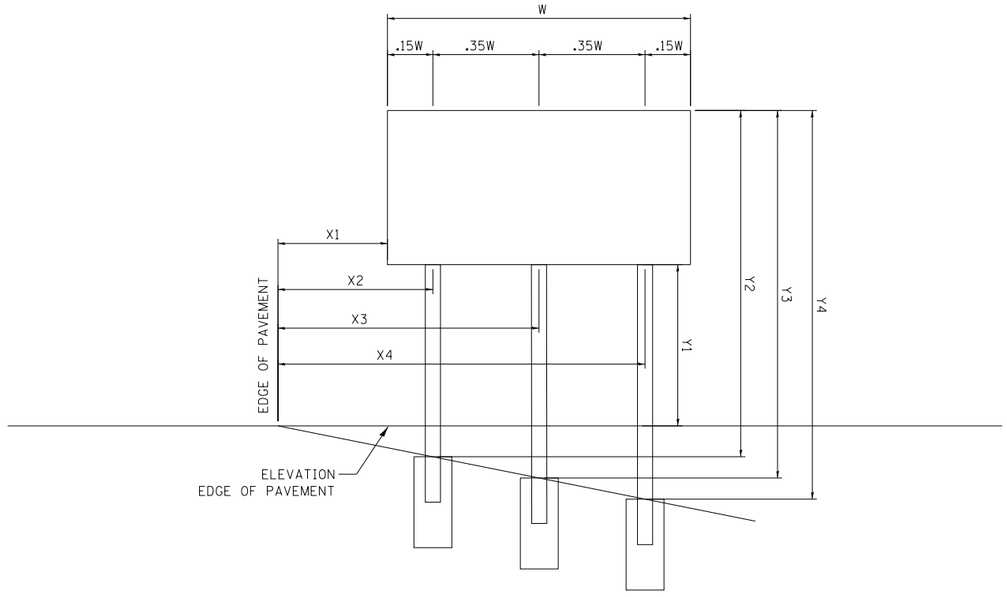
SCALE: 1" = NTS | SHEET 4 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	177
		CONTRACT NO. 60X56		
		ILLINOIS FED. AID PROJECT		

SIGN INSTALLATION SCHEDULE

PROPOSED LOCATION	SIGN NUMBER	SIZE		SIGN PANEL			SUPPORT												FOUNDATION	
		WIDTH FT.	HEIGHT FT.	TYPE-1 SF	TYPE-2 SF	TYPE-3 SF	X1	X2	X3	X4	Y1	Y2	Y3	Y4	NO.	POST	LENGTH FT.	WEIGHT LB	MIN. DEPTH FT	CONCRETE CY
110+35 I-90 LT	EB-BS-NW-63	21.5	11.5			236.8	**39.0**	**42.2**	**49.7**	**57.2**	**7.0**	**19.0**	**19.0**	**19.0**	**3.0**	**W10x18**	**66.0**	**3036**	**7.0**	**3.8**
MP 78.4 TOLLWAY	EB-BS-NW-52	21.5	12.5			293.5	**16.0**	**19.2**	**26.7**	**34.2**	**7.0**	**28.9**	**31.2**	**33.9**	**3.0**	**W14X38**	**104.5**	**3971**	**8.0**	**6.3**
MP 78.1 TOLLWAY	EB-BS-NW-51	21.5	14.5			291.8	**16.0**	**19.2**	**26.7**	**34.2**	**7.0**	**27.9**	**30.2**	**32.9**	**3.0**	**W14X30**	**100.0**	**3000**	**7.3**	**5.7**





SGN DET–01

HNTB	USER NAME = mkosir	DESIGNED - RH	REVISED -
		DRAWN - MA	REVISED -
	PLOT SCALE = 1.00 ' / in.	CHECKED - VT	REVISED -
	PLOT DATE = 5/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GROUND MOUNTED SIGNS
CUMBERLAND FLYOVER PROJECT

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

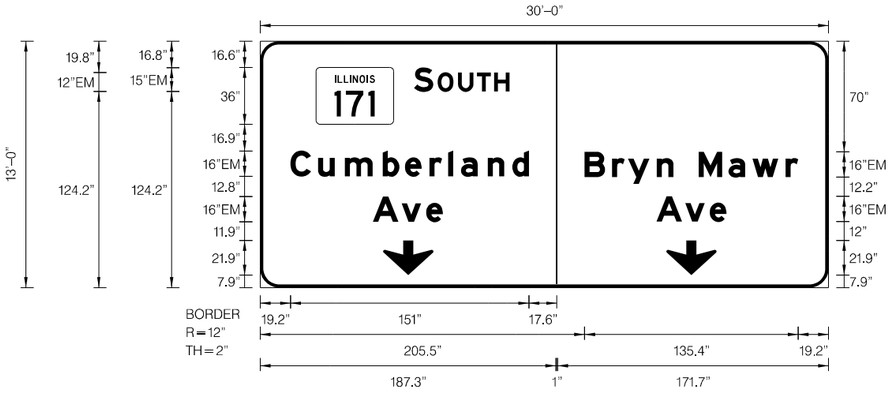
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	178
		CONTRACT NO. 60X56		
		ILLINOIS FED. AID PROJECT		

FILE NAME = p:\\hntb356\hntb.org#WGreat_Lakes\Documents\Chicago Projects\30120 I-190 Cumberland\Design\CADD_Contract_60X56\CADD_Sheets\D160X56-sht-sign-det-01.dgn

EBCD STA. 515 + 00
SIGN STRUCTURE 1S016I090R079.3 (SPAN OVER EBCD)

SIGN DETAIL

1:100



Panel Style: guide_fwy_advance_a.ssi
Dimensions are in inches.tenths

Panel Style: guide_fwy_advance_a.ssi
M.U.T.C.D.: 2009 Edition

Letter locations are panel edge to lower left corner

SIGN NUMBER	EB–TR–NW–68
WIDTH x HGHT.	30'–0" x 13'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: TYPE ZZ
	COLOR: Green /Green
LEGEND/BORDER	TYPE: TYPE ZZ
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
M1–1100A–3–42–20D	0	35.4	103.5	49.1	36
ARDOWN	0	77.9	7.9	31.9	21.9
ARDOWN	0	257.2	7.9	31.9	21.9

LETTER POSITIONS (X)

																					LENGTH	SERIES/SIZE
S	O	U	T	H																		EM 2000
97.4	112.4	125.3	137.2	148.3																	60.6	15,12
C	u	m	b	e	r	l	a	n	d													EM 2000
19.2	36.6	53.6	77.6	91.6	107.2	119	127.2	144.1	159.6												151	16/12
B	r	y	n		M	a	w	r														EM 2000
205.5	222.9	233	251.2	261.8	277.8	296.7	311.9	332.8													135.4	16/12
A	v	e																				EM 2000
71.3	89.6	105.1																			44.3	16/12
A	v	e																				EM 2000
251	269.3	284.8																			44.3	16/12

SGN–PD–10

FILE NAME = ...\D16X056-ant-sign-panel-10.dgn

HNTB

USER NAME = mkosir	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED - LLS	REVISED -
PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIGN PANEL DETAILS

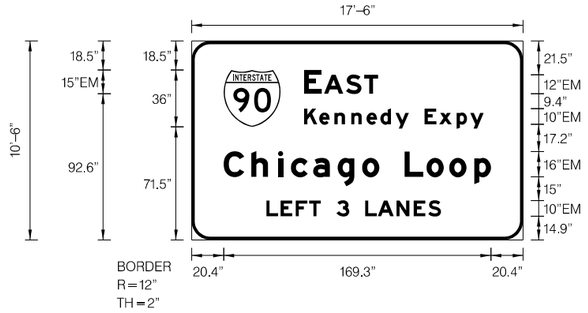
SCALE: 1" = NTS | SHEET 10 OF 12 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	179
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

EBCD STA. 518 + 00
SIGN STRUCTURE 1S016I090R079.4 (SPAN OVER I–90)

SIGN DETAIL

1:100



Panel Style: guide_exp_advance_b.ssi
M.U.T.C.D.: 2009 Edition

SIGN NUMBER	EB–TR–NW–69
WIDTH x HGHT.	17'–6" x 10'–6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: TYPE ZZ
	COLOR: Green
LEGEND/BORDER	TYPE: TYPE ZZ
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
M1_1	0	20.4	71.5	36	36

Panel Style: guide_exp_advance_b.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)

																					LENGTH	SERIES/SIZE
E	A	S	T																			EM 2000
71.4	83.9	97.8	109.3																		46.8	15,12
K	e	n	n	e	d	y		E	x	p	y											EM 2000
71.4	80.9	90.6	101.2	110.9	119.7	129.2	137.7	147.7	156.9	168	176.6										113.7	10/7.5
C	h	i	c	a	g	o		L	o	o	p											EM 2000
20.4	37.8	54.8	62.9	77	92.5	108	118.9	134.9	148.8	163.2	179.1										169.3	16/12
L	E	F	T		3		L	A	N	E	S											EM 2000
47.4	56.4	65.9	74.4	81.8	91.8	99.9	109.9	117.9	129.8	140.7	149.9										110.6	10

FILE NAME = ...\D160X56-sht-sign-panel-11.dgn

HNTB

USER NAME = mkosir	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED - LLS	REVISED -
PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIGN PANEL DETAILS

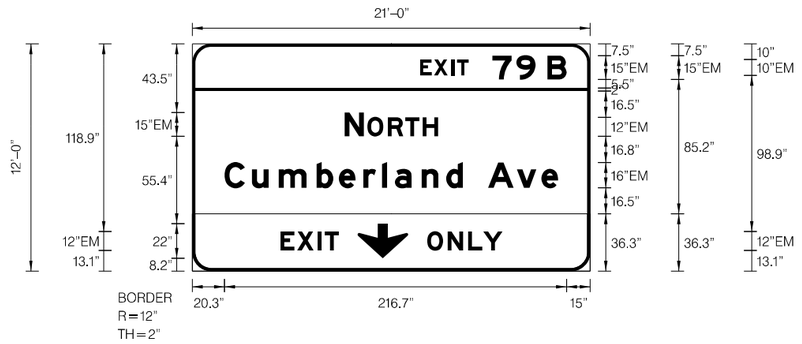
SCALE: 1" = NTS | SHEET 11 OF 12 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	180
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

EBCD STA. 518 + 00
SIGN STRUCTURE 1S016I090R079.4 (SPAN OVER I–90)

SIGN DETAIL

1:100



Panel Style: guide_fwy_advance_b.ssi
M.U.T.C.D.: 2009 Edition

Panel Style: guide_fwy_advance_b.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

SIGN NUMBER	EB–TR–NW–70
WIDTH x HGHT.	21'–0" x 12'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: TYPE ZZ
	COLOR: Green
LEGEND/BORDER	TYPE: TYPE ZZ
	COLOR: Black/White/White

SYMBOL	ROT	X	Y	WID	HT
ARDOWN	0	104.7	8.2	32	22

LETTER POSITIONS (X)

																					LENGTH	SERIES/SIZE
E	X	I	T	7	9	B																EM 2000
144.3	153.1	163.9	167.7	190.1	205.2	224.9															92.8	10,15
N	O	R	T	H																		EM 2000
96.4	110.9	123.8	134.9	145.9																	59.2	15,12
C	u	m	b	e	r	l	a	n	d		A	v	e									EM 2000
20.3	37.8	54.7	78.7	92.8	108.3	120.2	128.3	145.3	160.8	171.4	187.4	205.6	221.1								211.4	16/12
E	X	I	T																			EM 2000
55.8	66.4	79.4	83.9																		37	12
O	N	L	Y																			EM 2000
148.8	161.7	174.8	184.4																		47.8	12

FILE NAME = ...\D16X056-ant-sign-panel-12.dgn

SGN–PD–12

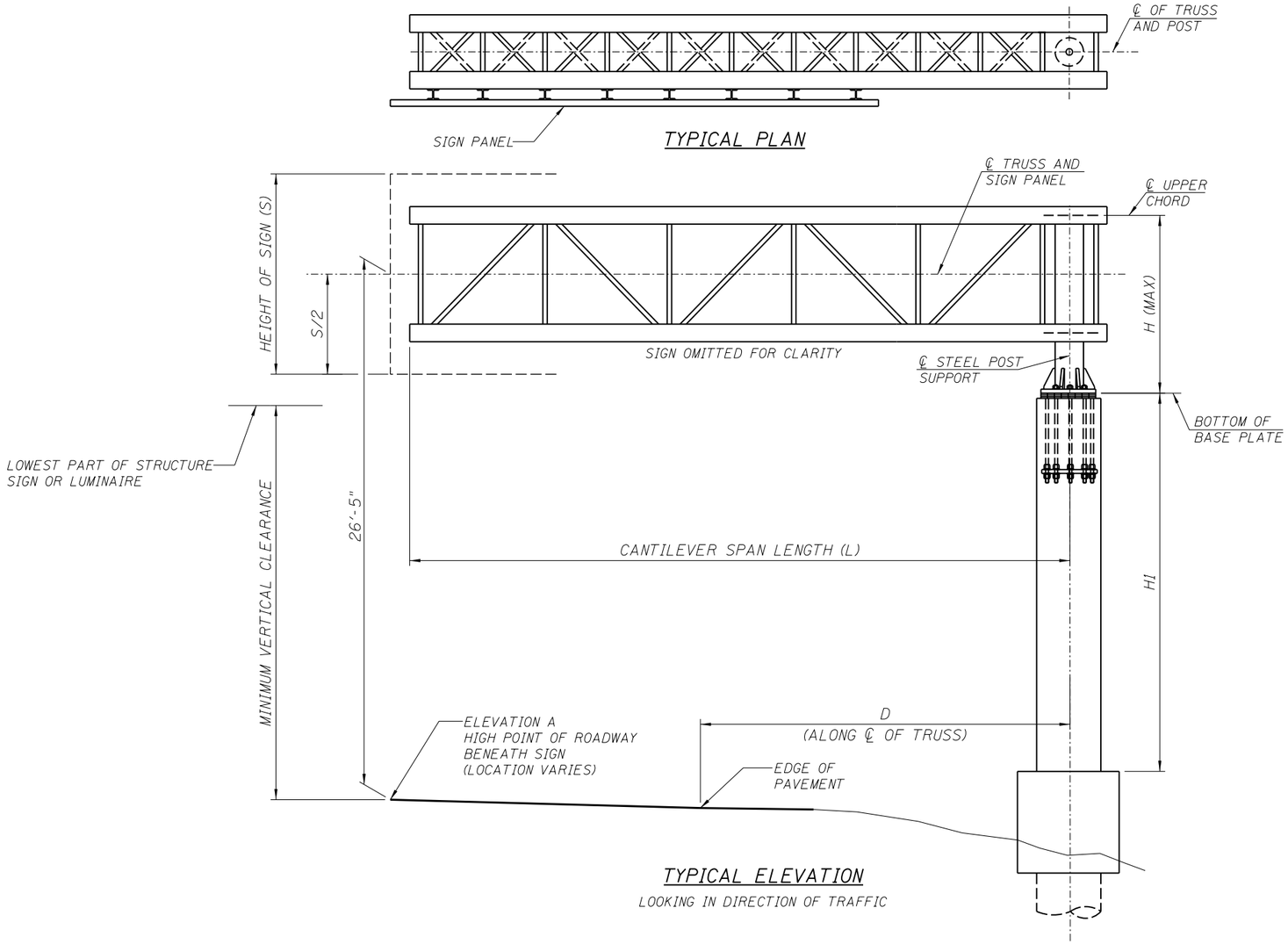
HNTB	USER NAME = mkosir	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 1.00 ' / in.	CHECKED - LLS	REVISED -
	PLOT DATE = 4/27/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIGN PANEL DETAILS

SCALE: 1" = NTS | SHEET 12 OF 12 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	181
		CONTRACT NO. 60X56		
	ILLINOIS	FED. AID PROJECT		



SUMMARY

STRUCTURE NUMBER	STATION	DESIGN TRUSS TYPE	L	ELEV. A	MINIMUM VERTICAL CLEARANCE	D	H	H1	HEIGHT OF TALLEST SIGN	TOTAL SIGN AREA (SQ FT)	CLASS SI CONCRETE (CU YD)	CLASS DS CONCTRETE (CU YD)	REINFORCEMENT BARS, EPOXY COATED (POUND)	PROTECTIVE COAT (SQ. YD.)
NW0.45C, EB	MP 78.6	40-D	40	631.57	17'-5"	18'-3½"	8'-6"	15'	14'-0"	294	7.0	37.3	11,318	20.9
										TOTAL				

TOTAL BILL OF MATERIAL

PAY ITEM	DESCRIPTION	UNIT	TOTAL
JS733B40	OVERHEAD SIGN STRUCTURE, CANTILEVER TYPE (STEEL)	FOOT	40
JS734B10	FOUNDATION FOR OVERHEAD SIGN STRUCTURE, CANTILEVER TYPE, CLASS SI CONC.	CU YD	9.0
JS734B10	FOUNDATION FOR OVERHEAD SIGN STRUCTURE, CANTILEVER TYPE, CLASS DS CONC.	CU YD	37.3
JI420027	PROTECTIVE COAT	SQ YD	27.9
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	11,698

NOTE:
WORK THIS SHEET WITH STANDARD F4

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6/3/2016 boris.shkolnik

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Chicago, Illinois 60606

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	DRAWN - BS	REVISED -
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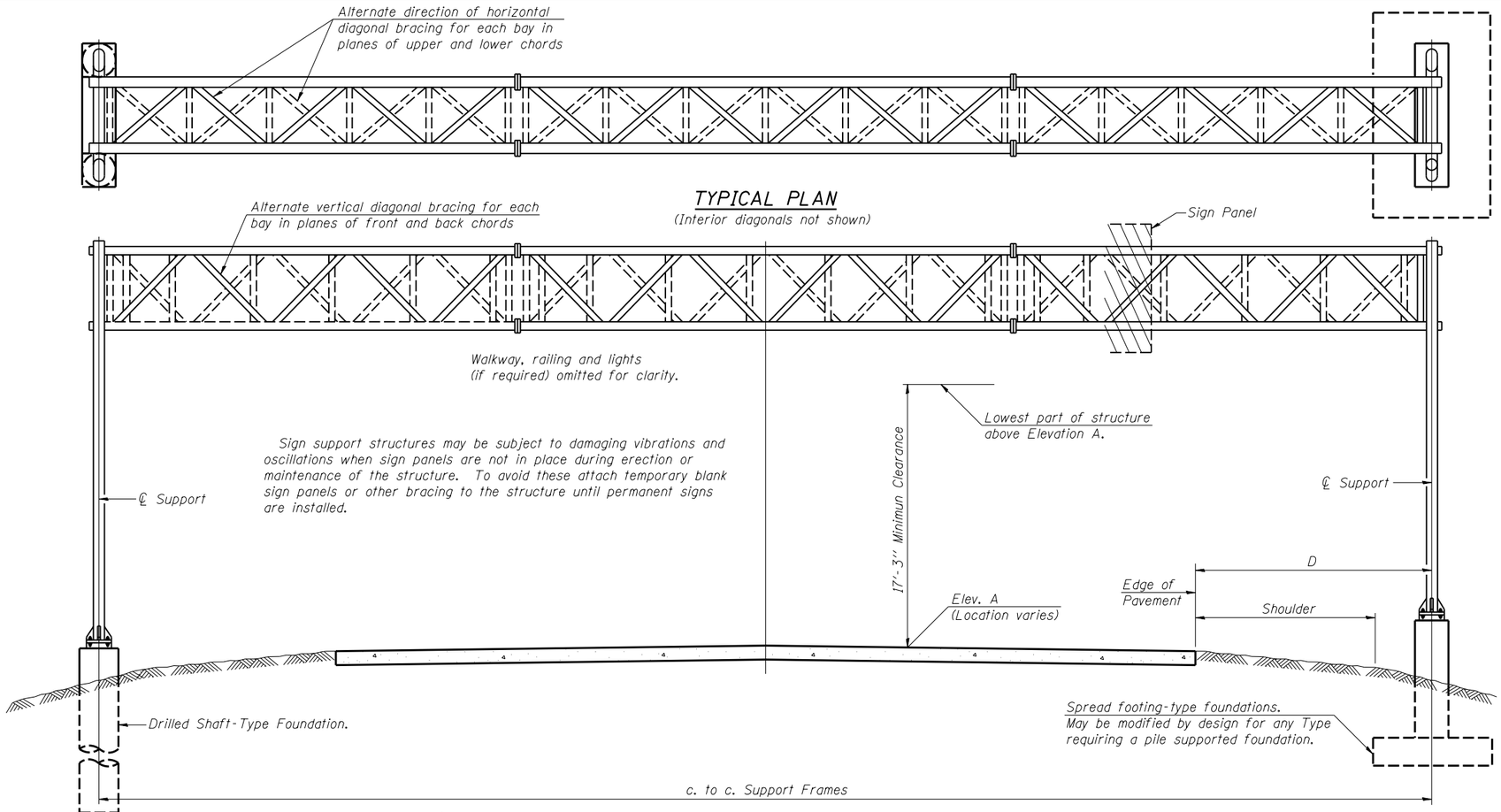
PLOT DATE = 6/3/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

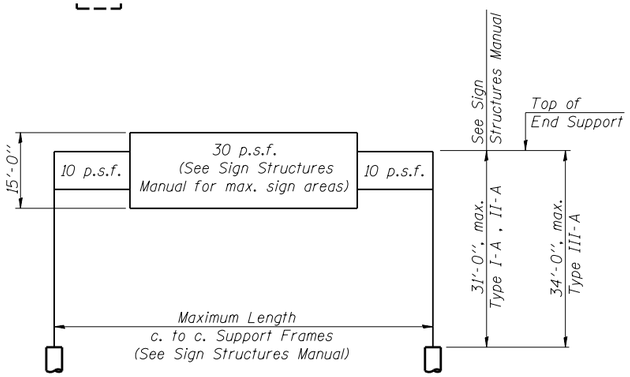
OVERHEAD SIGN STRUCTURE PLANS
TOLLWAY

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	182
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			



TYPICAL PLAN
(Interior diagonals not shown)



DESIGN WIND LOADING DIAGRAM

Parameters shown are basis for I.D.O.T. Standards and Sign Manual Tables. Installations not within dimensional limits shown require special analysis for all components.

TYPICAL ELEVATION
(Looking at Face of Signs**)

Elev. A = Elevation at point of minimum clearance to sign, walkway support or truss.

Structure Number	Station	Design Truss Type	c. to c. Supports	Elev. A	Dim. D	Height of Tallest Sign	Total Sign Area
1 S 016 1090 R 079.3	515+00	I-A	47'-9"	634.94	18'-2 3/8"	13'-0"	403
1 S 016 1090 R 079.4	518+00	I-A	71'-4"	636.73	0	12'-0"	388.75

**Looking upstation for structures with signs both sides.

* If M270 Gr. 50W (M222) steel is proposed, chemistry for plate to be used shall first be approved by the Engineer as suitable for galvanizing and welding.

GENERAL NOTES

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications")

CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

LOADING: 90 M.P.H. WIND VELOCITY

WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load.

DESIGN STRESSES:
Field Units
f'_c = 3,500 p.s.i.
fy = 60,000 p.s.i. (reinforcement)

WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 and D1.2 Structural Welding Codes (Steel and Aluminum) and the Standard Specificiations.

MATERIALS: Aluminum Alloys as shown throughout plans. All Structural Steel Pipe shall be ASTM A53 Grade B or A500 Grade B or C. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53. All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 or Gr. 50W*. Stainless steel for shims, sleeves and handhole covers shall be ASTM A240, Type 302 or 304, or another alloy suitable for exterior exposure and acceptable to the Engineer.
The steel pipe and stiffening ribs at the base plate for the column shall have a minimum longitudinal Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F. (Zone 2) before galvanizing.

FASTENERS FOR ALUMINUM TRUSSES: All bolts noted as "high strength" must satisfy the requirements of AASHTO M164 (ASTM A325), or approved alternate, and must have matching lock nuts. Threaded studs for splices (if Members interfere) must satisfy the requirements of ASTM A449, ASTM A193, Grade B7, or approved alternate, and must have matching lock nuts. Bolts and lock nuts not required to be high strength must satisfy the requirements of ASTM A307. All bolts and lock nuts must be hot dip galvanized per AASHTO M232. The lock nuts must have nylon or steel inserts. A stainless steel flat washer conforming to ASTM A240 Type 302 or 304, is required under both head and nut or under both nuts where threaded studs are used. High strength bolt installation shall conform to Article 505.04 (f) (2)d of the IDOT Standard Specifications for Road and Bridge Construction. Rotational capacity ("ROCAP") testing of bolts will not be required.

U-BOLTS AND EYEBOLTS: U-Bolts and Eyebolts must be produced from ASTM A276 Type 304, 304L, 316 or 316L, Condition A, cold finished stainless steel, or an equivalent material acceptable to the Engineer. All nuts for U-Bolts and Eyebolts must be lock nuts equivalent to ASTM A307 with nylon or steel inserts and hot dip galvanized per AASHTO M232. A stainless steel flat washer conforming to ASTM A240, Type 302 or 304, is required under each U-Bolt and Eyebolt lock nut.

GALVANIZING: All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111. Painting is not permitted.

ANCHOR RODS: Shall conform to ASTM F1554 Gr. 105.

CONCRETE SURFACES: All concrete surfaces above an elevation 6" below the lowest final ground line at each foundation shall be cleaned and coated with Concrete Sealer in accordance with the Standard Specifications.

REINFORCEMENT BARS: Reinforcement Bars designated (E) shall be epoxy coated in accordance with the Standard Specifications.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
OVERHEAD SIGN STRUCTURE SPAN TYPE I-A	Foot	119.00
OVERHEAD SIGN STRUCTURE SPAN TYPE II-A	Foot	
OVERHEAD SIGN STRUCTURE SPAN TYPE III-A	Foot	
OVERHEAD SIGN STRUCTURE WALKWAY TYPE A	Foot	
PROTECTIVE COAT	Sq. Yds.	12
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	23
REINFORCEMENT BARS (EPOXY COATED)	Lbs	2435

OS-A-1 8-21-13

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES – GENERAL PLAN & ELEVATION – ALUMINUM TRUSS & STEEL SUPPORTS

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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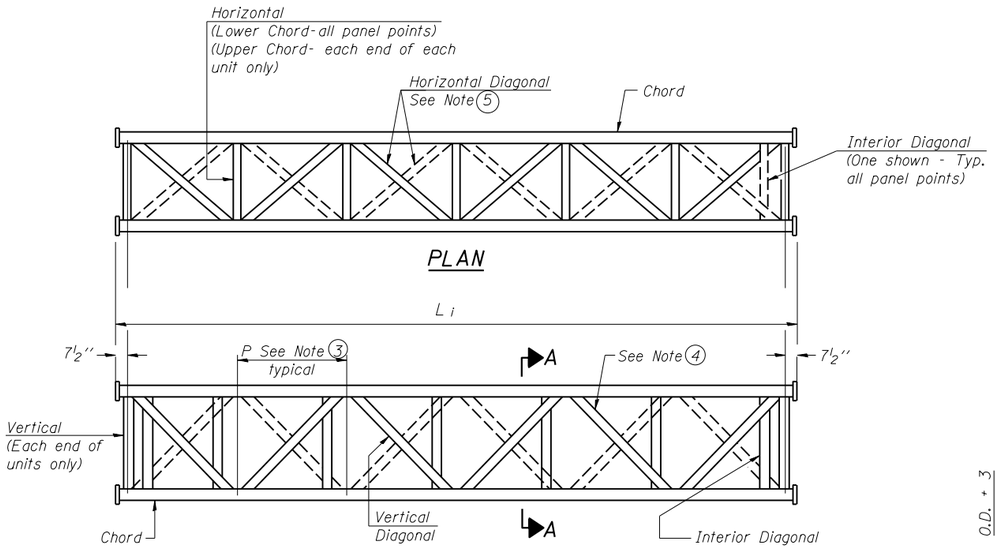
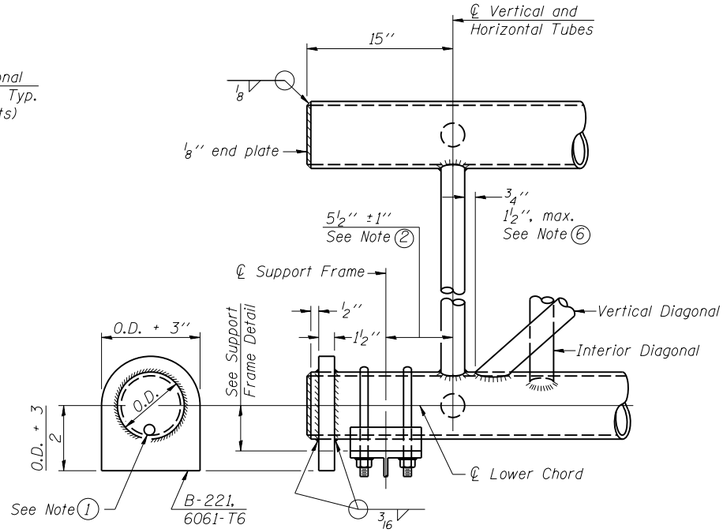
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

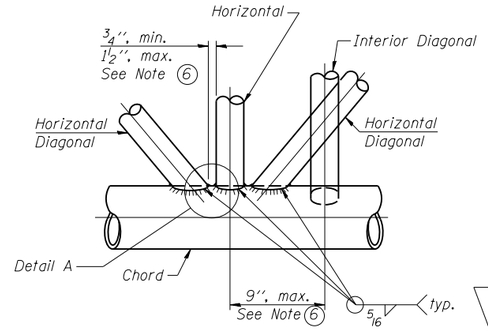


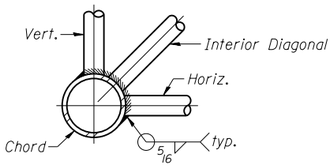
ELEVATION
TYPICAL INTERIOR UNIT

Even number of panels/interior unit required.

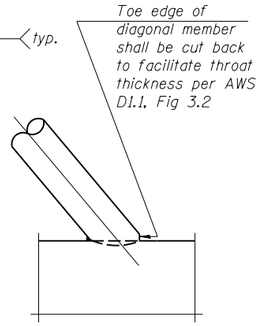


SUPPORT END DETAIL FOR EXTERIOR UNIT

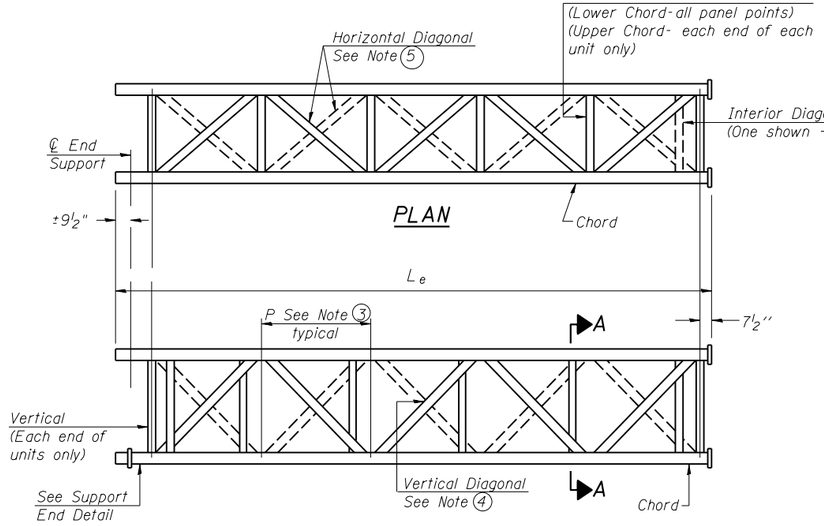




TYPICAL JOINT DETAILS

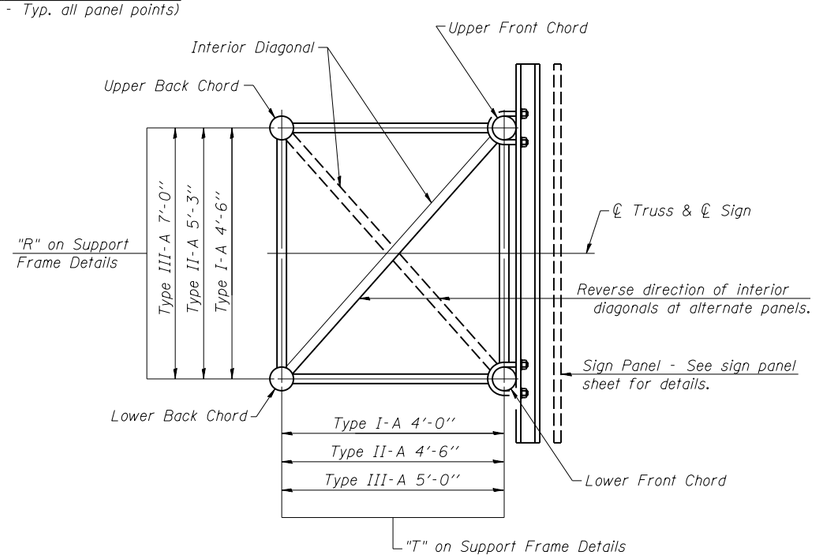


DETAIL A



ELEVATION
TYPICAL EXTERIOR UNIT

Even or odd number of panels/exterior units allowed.



SECTION A-A

1. Contractor may alternatively use standard aluminum drive-fit cap to close end. ½'' ϕ drain hole in end plate/drive-fit cap. (Typ. at ends of all chords)
2. 5½'' end dimension may vary by ±1'' to provide uniform panel spacing (P).
3. Panel spacing (P) shall be uniform for entire truss and between 4'-0'' and 5'-0'' for Type I-A or 4'-0'' and 5'-6'' for Types II-A and III-A.
4. Vertical Diagonals in front and back face shall alternate.
5. Hidden lines show wind bracing alternates direction between planes of top and bottom chords.
6. All diagonals shall be detailed for minimum offset from the panel point based on the following: Offset shall be such as to provide a ¾'' minimum to 1½'' maximum clearance between any diagonal and any horizontal or vertical member, and to provide clearance for U-bolt connections of signs or walkway brackets.

OS-A-2

6-1-12

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PLOT DATE = 7/28/2016	DATE - 05/06/2016	REVISED -

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DEPARTMENT OF TRANSPORTATION

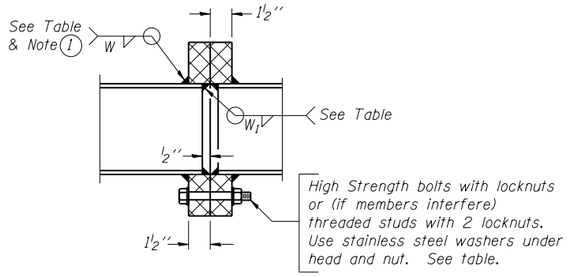
OVERHEAD SIGN STRUCTURES – ALUMINUM TRUSS
DETAILS FOR TRUSS TYPES I–A, II–A AND III–A

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	184
		CONTRACT NO. 60X56		
		ILLINOIS FED. AID PROJECT		

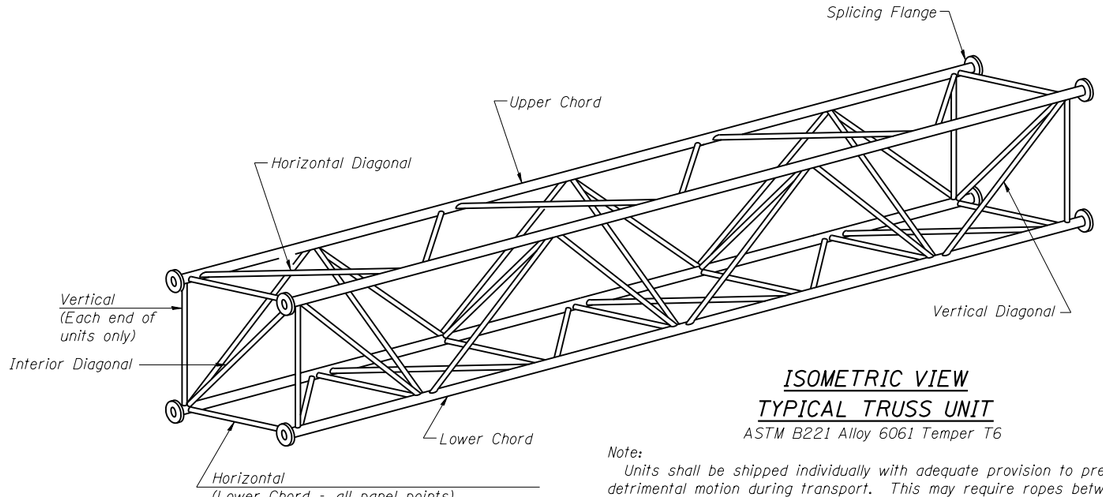
TRUSS UNIT TABLE

Structure Number	Station	Design Truss Type	Exterior Units (2)			Interior Unit				Upper & Lower Chord		Verticals; Horizontals; Vertical, Horizontal, and Interior Diagonals		Camber at Midspan	Splicing Flange					
			No. Panels per Unit	Unit Lgth.(L_e)	Panel Lgth.(P)	No. Req'd.	No. Panels per Unit	Unit Lgth.(L_I)	Panel Lgth.(P)	O.D.	Wall	O.D.	Wall		Bolts		Weld Sizes		A	B
															No./Splice	Dia.	W	W_1		
1 S 016 I090 R 079.3	515+00	I-A	5	24'-7"	4'-6 1/2"					5"	1/4"	2 1/2"	1/4"	1/2"	6	7/8"	5/16"	1/4"	8 3/4"	11 3/4"
1 S 016 I090 R 079.4	518+00	I-A	7	36'-5 1/4"	4'-11 1/4"					5"	5/16"	2 1/2"	5/16"	1 13/16"	6	7/8"	5/16"	1/4"	8 3/4"	11 3/4"



SECTION B-B

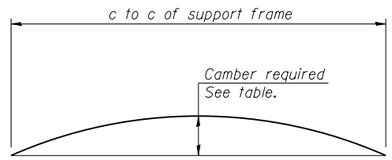
(1) Splicing Flanges shall be attached to each truss unit with the truss shop assembled to camber shown. Truss units shall be in proper alignment and flange surfaces shall be shop bolted into full contact before welding. Sufficient external welds or tacks shall be made to secure flanges until remaining welds are made after disassembly. Adjacent flanges shall be "match marked" to insure proper field assembly.



ISOMETRIC VIEW
TYPICAL TRUSS UNIT

ASTM B221 Alloy 6061 Temper T6

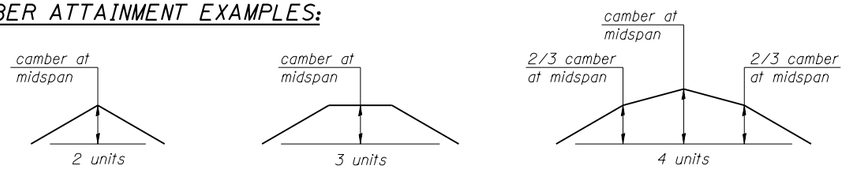
Note:
Units shall be shipped individually with adequate provision to prevent detrimental motion during transport. This may require ropes between horizontals and diagonals or energy dissipating (elastic) ties to the vehicle. The Contractor is responsible for maintaining the configuration and protection of the units.



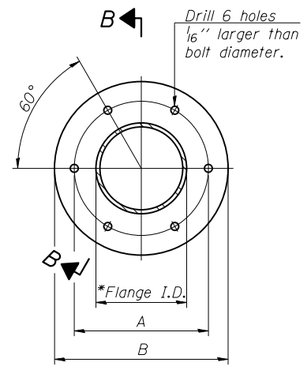
CAMBER DIAGRAM

Camber curve shown is theoretical. Actual camber attained by slope changes at splices between units.

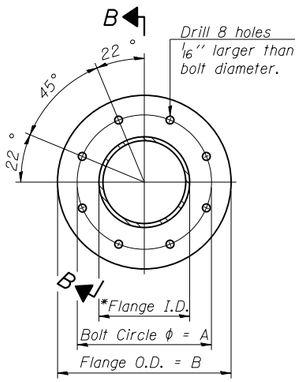
CAMBER ATTAINMENT EXAMPLES:



Camber shown is for fabrication only, measured with truss fully supported. (No-load condition)



TRUSS TYPES I-A, II-A, & III-A



TRUSS TYPES II-A & III-A

SPLICING FLANGES

ASTM B221, Alloy 6061-T6
or ASTM B209, Alloy 6061-T651
*To fit O.D. of Chord with maximum gap of 1/16".

OS4-A-2 6-1-12

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DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES – ALUMINUM TRUSS DETAILS FOR TRUSS TYPES I-A, II-A AND III-A

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	185
		CONTRACT NO. 60X56		
		ILLINOIS FED. AID PROJECT		

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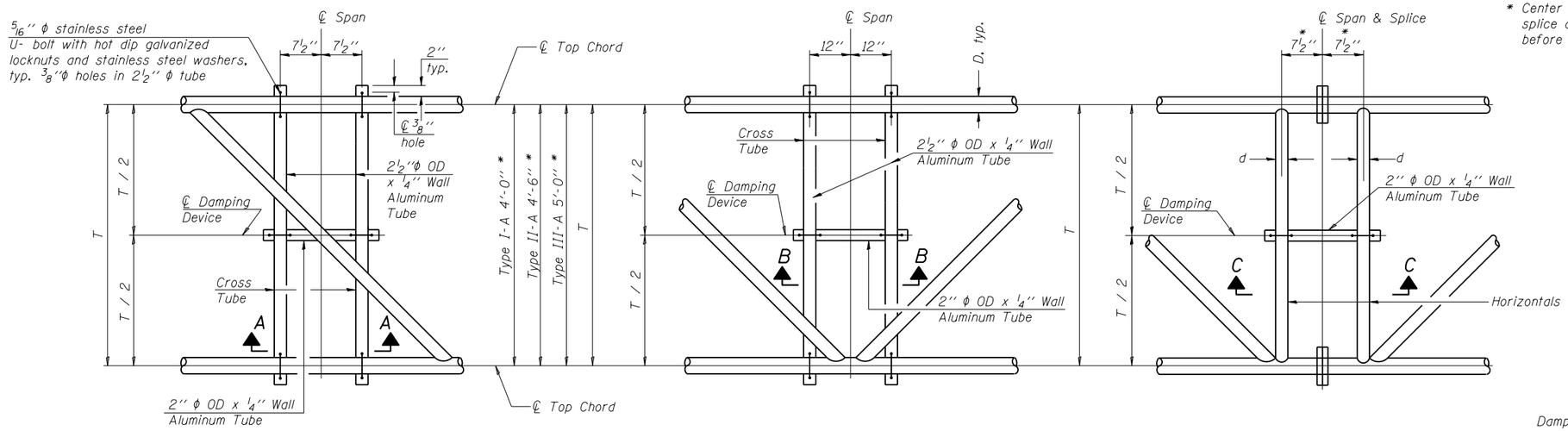


* Center of horizontal to center of splice dimension may vary. Verify before drilling holes in mounting tube.

PLAN DETAIL "A"
℄ Span between Panel Points

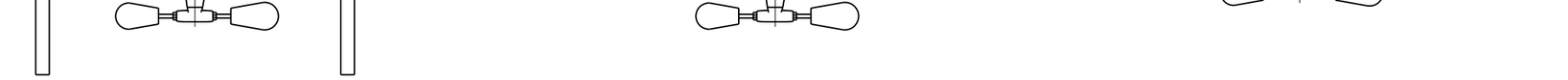
PLAN DETAIL "B"
℄ Span at Panel Point

PLAN DETAIL "C"
℄ Span at ℄ Chord Splice

NOTES

Damper: One damper per truss. (31 lbs. minimum Stockbridge-Type Aluminum - 29'' minimum between ends of weights) Cost included in Overhead Sign Structure...

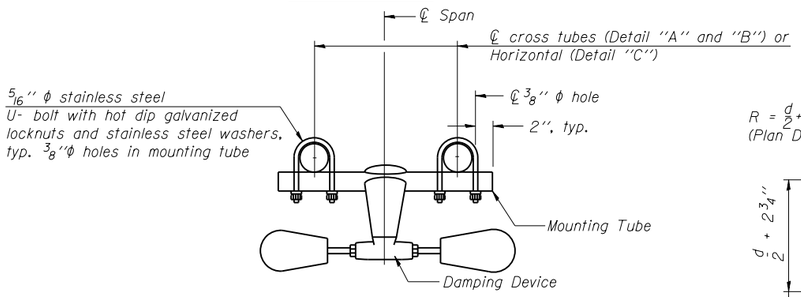
Materials: Materials: Aluminum tubes shall be ASTM B221 alloy 6061 temper T6. Cost included in Overhead Sign Structure...



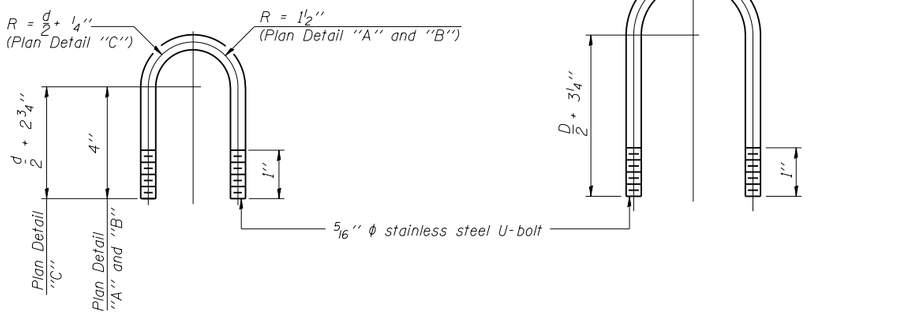
SECTION A-A

SECTION B-B

SECTION C-C

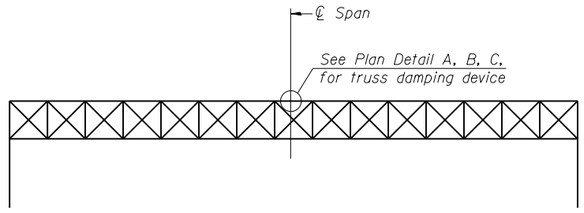


TRUSS DAMPING DEVICE CONNECTION DETAIL
(Typical)



DAMPING DEVICE MOUNTING TUBE U-BOLT DETAIL
(Typical)

TOP CHORD TO CROSS TUBE U-BOLT DETAIL
(Typical - Detail ''A'' and ''B'')



ELEVATION
Aluminum Overhead Sign Truss

OS-A-D 6-1-12

Globetrotters® Engineering Corporation ENGINEERS ARCHITECTS 330 South Wacker Drive Chicago, Illinois 60606	USER NAME = kenneth.lirette	DESIGNED - RD	REVISED -
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DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURE
DAMPING DEVICE

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	186
		CONTRACT NO. 60X56		
		ILLINOIS FED. AID PROJECT		

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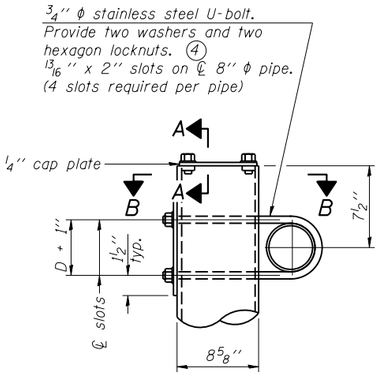
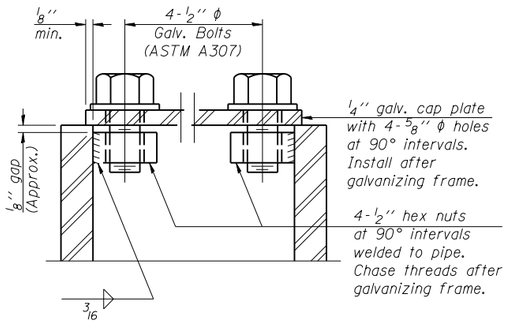
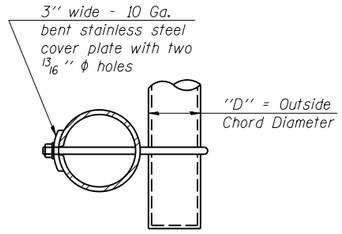


DETAIL A

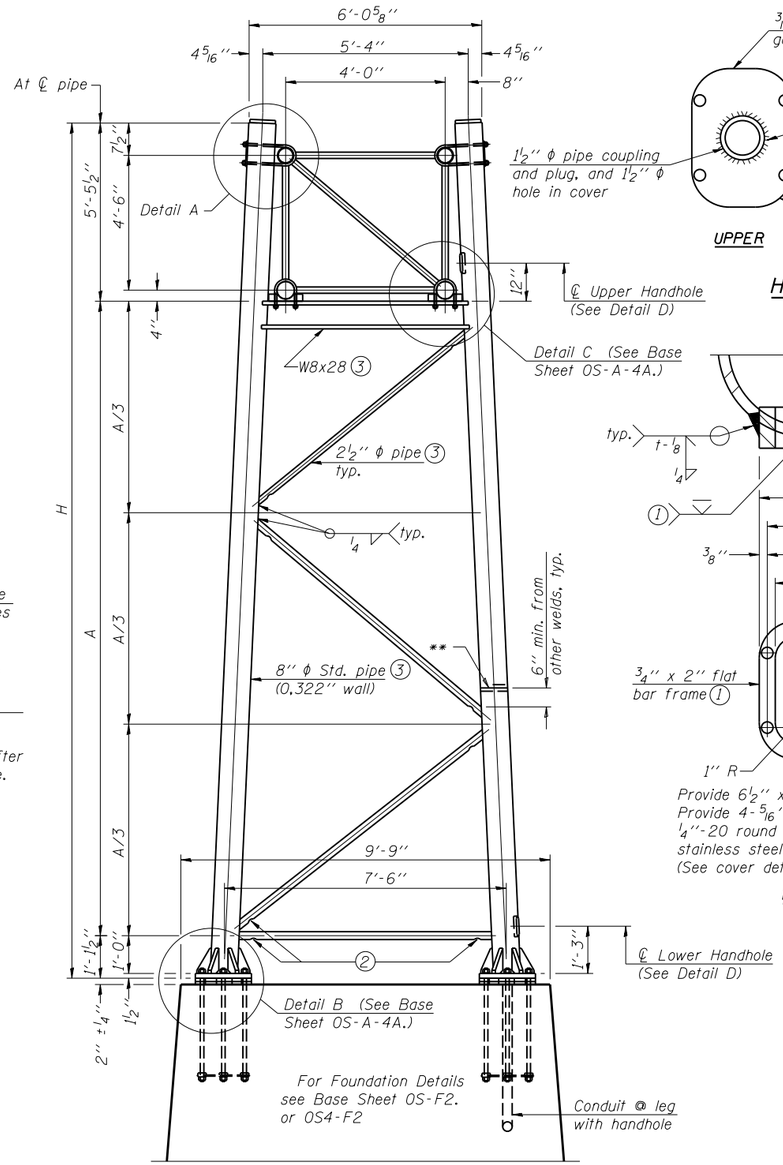


SECTION A-A

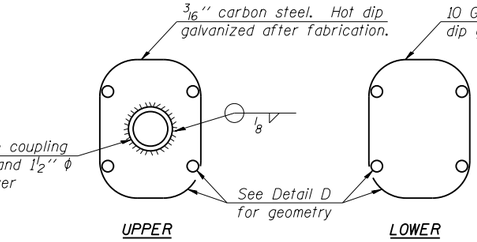
As an alternate to bolts, may use galvanized drive-fit caps installed after galvanizing frame.



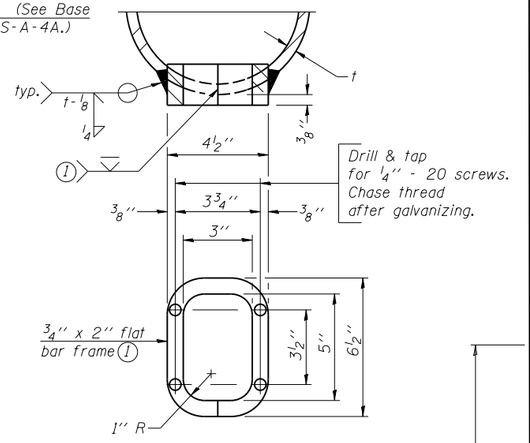
SECTION B-B



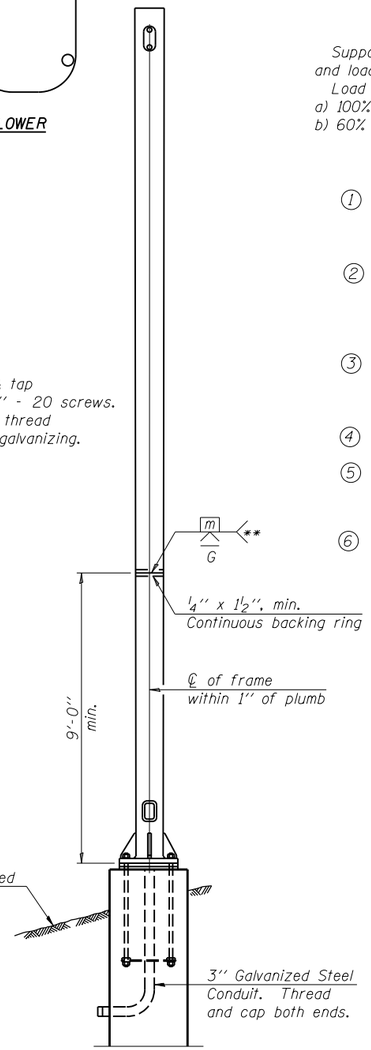
SIDE ELEVATION



HANDHOLE COVERS



DETAIL D



END ELEVATION

Support Design Loads: See Base Sheet OS-A-1 for design and loading criteria.
Load combinations checked include deadload plus:
a) 100% wind normal to sign, 20% parallel to sign
b) 60% wind normal to sign, 30% parallel to sign

(1) In lieu of fabricated handhole frame as shown, may cut from 2'' plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 500 μin or less.

(2) Galvanizing vent holes of adequate size shall be provided on underside at each end of bracing pipes. Alternately, holes may be provided in wall of pipe column. All vent holes shall be drilled and de-burred, typ.

(3) Steel pipe, plate, carbon steel handhole covers and rolled sections shall be hot dip galvanized after fabrication. Painting is not permitted. See Base Sheet OS-A-1.

(4) See General Notes for fasteners.

(5) Dimensions shown are based on selection criteria in the Sign Structures Manual. Nonstandard applications must have dimensions verified or amended as appropriate.

(6) "H" based on 15'-0'' or actual sign height, whichever is greater.

8'' ϕ PIPE TRUSS SUPPORT FRAME

** One butt welded joint is allowed only on one post per support frame. If used, weld procedure must be pre-approved by Engineer and joint shall receive 100% RT or UT (tension criteria) at Contractor's expense.

Structure Number	Station	Support Left	Support Right	H (6)	A
1 S 016 1090 R 079.3	515+00	Left		24'-4 1/2"	17'-9 1/2"
1 S 016 1090 R 079.3	515+00		Right	28'-0 1/2"	21'-5 1/2"
1 S 016 1090 R 079.4	518+00	Left		23'-11 1/4"	17'-4 1/2"
1 S 016 1090 R 079.4	518+00		Right	24'-2 7/8"	17'-8"

OS-A-4 6-1-12

FILE NAME = c:\Users\kenneth.lirette\Desktop\Great Lakes\Documents\Chicago Projects\30120 I-190 Cumberland\Design\OS-A-4.dgn

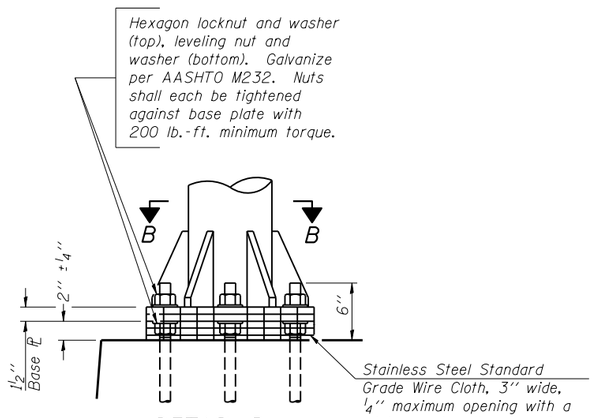
Globetrotters Engineering Corporation ENGINEERS ARCHITECTS 205 South Wacker Drive Chicago, Illinois 60606	USER NAME = kenneth.lirette	DESIGNED - RD	REVISED -
		DRAWN - RJ	REVISED -
	PLOT SCALE = 1.00000 ' / in.	CHECKED - RD	REVISED -
	PLOT DATE = 8/4/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SUPPORT FRAME FOR TYPE I-A ALUMINUM TRUSS

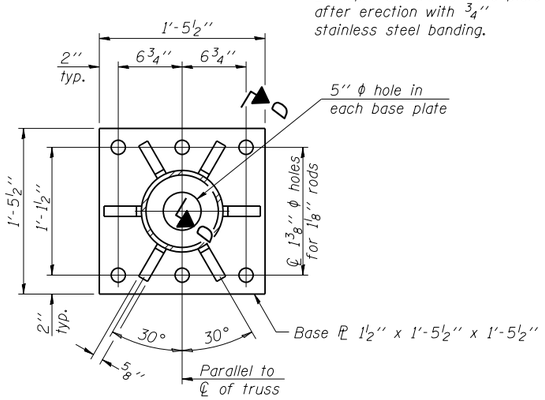
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	187
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

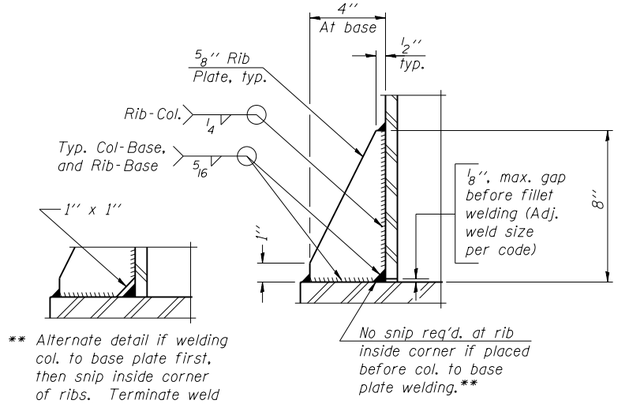


DETAIL B

Ribs shall be cut to fit slope of pipe.

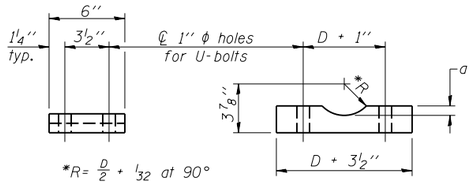


SECTION B-B



** Alternate detail if welding col. to base plate first, then snip inside corner of ribs. Terminate weld on rib 1/4'' from snip.

SECTION D-D



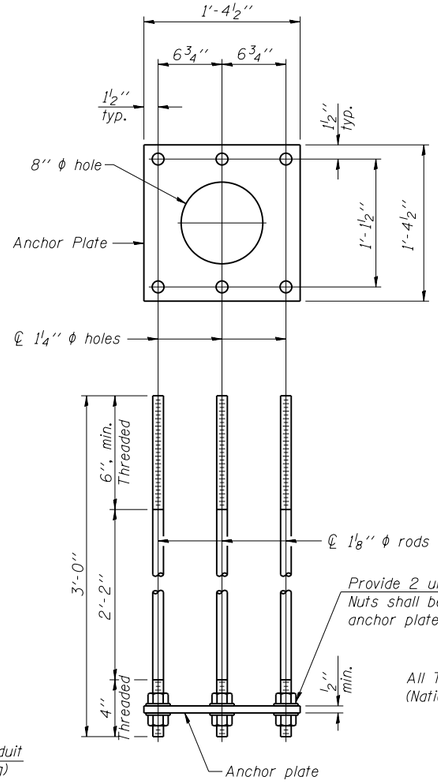
*R = D/2 + 1/32 at 90°

D = Outside Diameter of Chord.

SADDLE SHIM DETAIL

ASTM B26 Alloy 356-F
or
ASTM B209 Alloy 6061-T651
(4 required per sign truss)

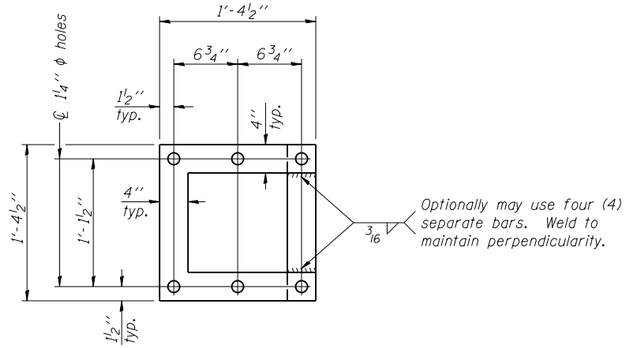
Truss Chord Nominal Dia.	a
5''	3/4''
5 1/2''	13/16''
6''	7/8''
6 1/2''	15/16''



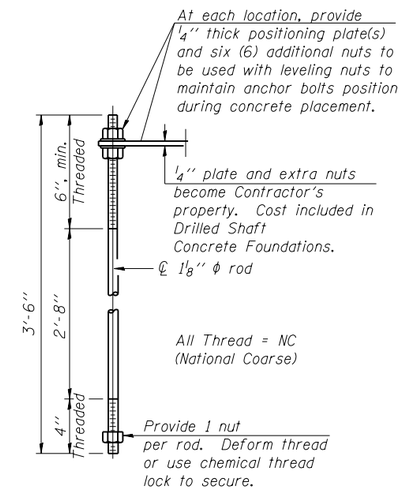
All Thread = NC
(National Coarse)

ANCHOR ROD DETAIL

Spread Footing Foundation



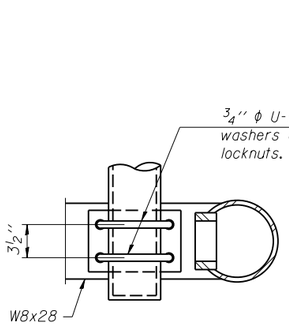
POSITIONING PLATE(S)



ANCHOR ROD DETAIL

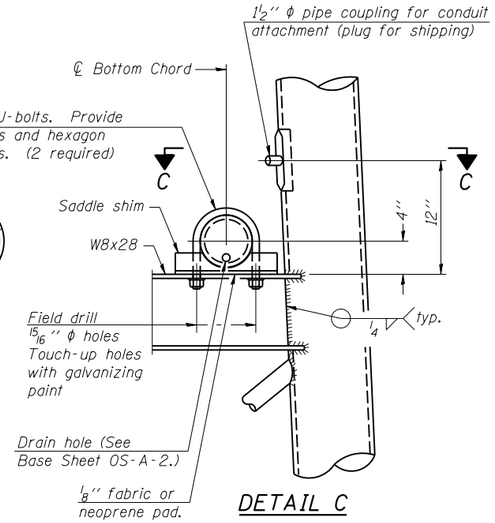
Drilled Shaft Foundation

Anchor rods shall conform to ASTM F1554 Grade 105. Galvanize upper 12'' minimum per AASHTO M232. No welding shall be permitted on rods.



SECTION C-C

(Handhole cover not shown)



DETAIL C

TYPE I-A TRUSS
8'' ϕ PIPE SUPPORT FRAME DETAILS

OS-A-4A 6-1-12

Globestreters® Engineering Corporation ENGINEERS ARCHITECTS 205 South Wacker Drive Chicago, Illinois 60606	USER NAME = kenneth.lirette	DESIGNED - RD	REVISED -
		DRAWN - RJ	REVISED -
	PLOT SCALE = 1.00000 ' / in.	CHECKED - RD	REVISED -
	PLOT DATE = 7/28/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SUPPORT FRAME DETAILS – ALUMINUM TRUSS

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	188
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

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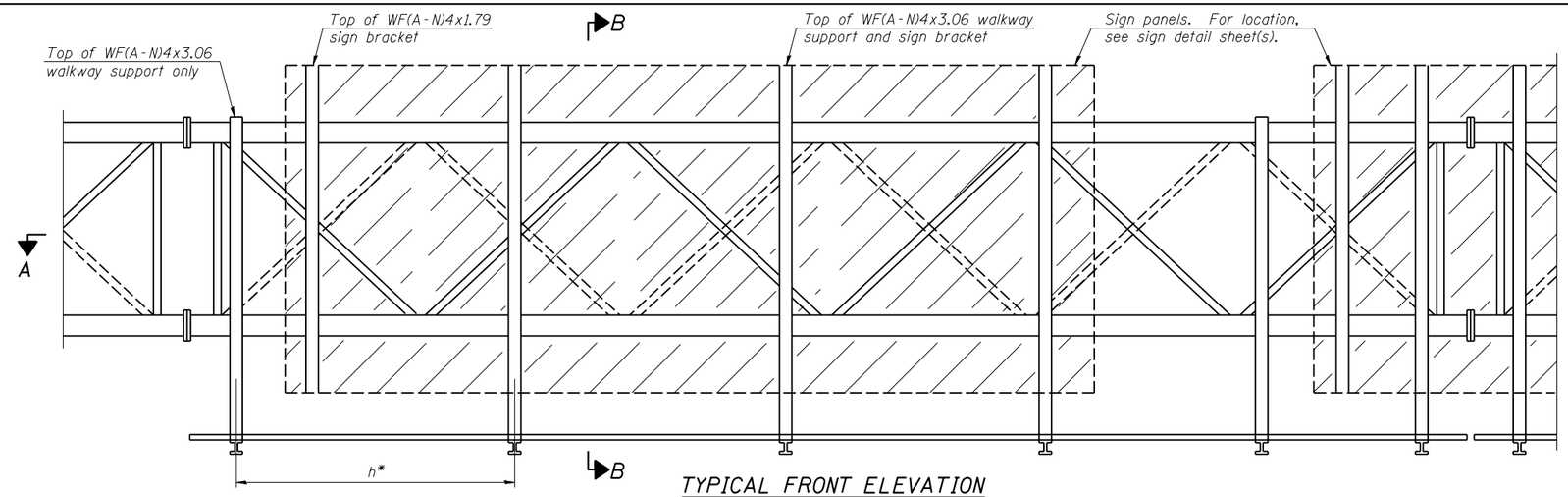
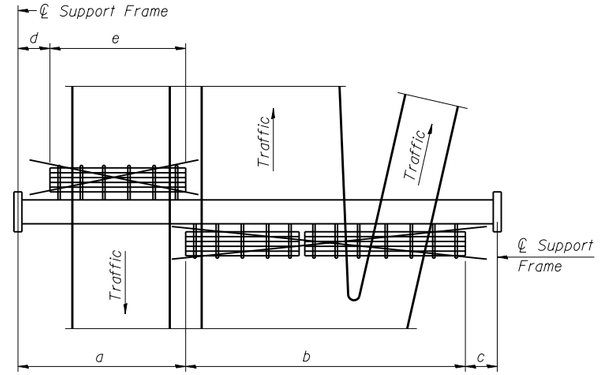


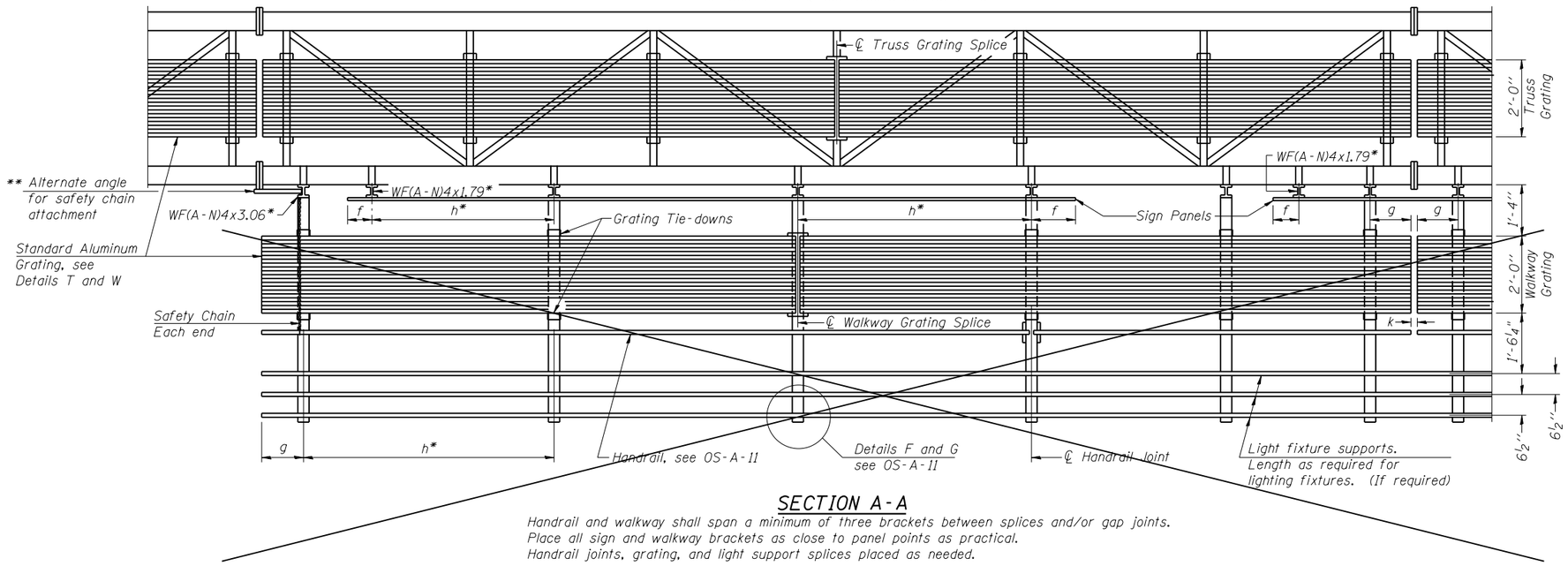
TYPICAL FRONT ELEVATION

With lights and handrail omitted for clarity.
For Section B-B, see Base Sheet OS-A-10.



PLAN
WALKWAY AND HANDRAIL SKETCH

(Road plan beneath truss varies)



SECTION A-A

Handrail and walkway shall span a minimum of three brackets between splices and/or gap joints.
Place all sign and walkway brackets as close to panel points as practical.
Handrail joints, grating, and light support splices placed as needed.

BRACKET TABLE

WF(A-N)4x1.79 or WF(A-N)4x3.06 ASTM B308, Alloy 6061-T6		
Sign Width		Number Brackets Required
Greater Than	Less Than or Equal To	
	8'-0"	2
8'-0"	14'-0"	3
14'-0"	20'-0"	4
20'-0"	26'-0"	5
26'-0"	32'-0"	6

Notes:

* Space walkway brackets WF(A-N)4x3.06 and sign brackets WF(A-N)4x1.79 for efficiency and within limits shown:

f = 12" maximum, 4" minimum (End of sign to ℄ of nearest bracket)
g = 12" maximum, 4" minimum (End of walkway grating to ℄ of nearest support bracket)
h = 6'-0" maximum (℄ to ℄ sign and/or walkway support brackets, WF(A-N)4x1.79 or WF(A-N)4x3.06)
k = 2" maximum gap between adjacent walkway grating sections and handrail ends

** If walkway bracket at safety chain location is behind sign, add angle to bracket, see Alternate Safety Chain Attachment on Base Sheet OS-A-11.

For Details T and W, Section B-B and Grating Splice Details see Base Sheet OS-A-10.
For Handrail Details see Base Sheet OS-A-11.

Structure Number	Station	a	b	c	d	e	Walkway Grating and Handrail Lengths
1 S 016 I090 R 079.3	515+00	—	30'-0"	17'-9"	—	—	
1 S 016 I090 R 079.4	518+00	19'-5 3/8"	43'-3"	8'-7 1/4"	—	—	

Truss grating to facilitate inspection shall run full length (center to center of support frames) ±12" on overhead trusses. Cost of truss grating is included in "Overhead Sign Structure".

Walkway and Truss Grating width dimensions are nominal and may vary ±½" based on available standard widths.

OS-A-9 6-1-12

Globestreiters® Engineering Corporation
ENGINEERS ARCHITECTS
200 South Wacker Drive
Chicago, Illinois 60606

USER NAME = kenneth.lirette	DESIGNED - RD	REVISED -
	DRAWN - RJ	REVISED -
PLOT SCALE = 1.0000 '/ in.	CHECKED - RD	REVISED -
PLOT DATE = 7/29/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
ALUMINUM WALKWAY DETAILS

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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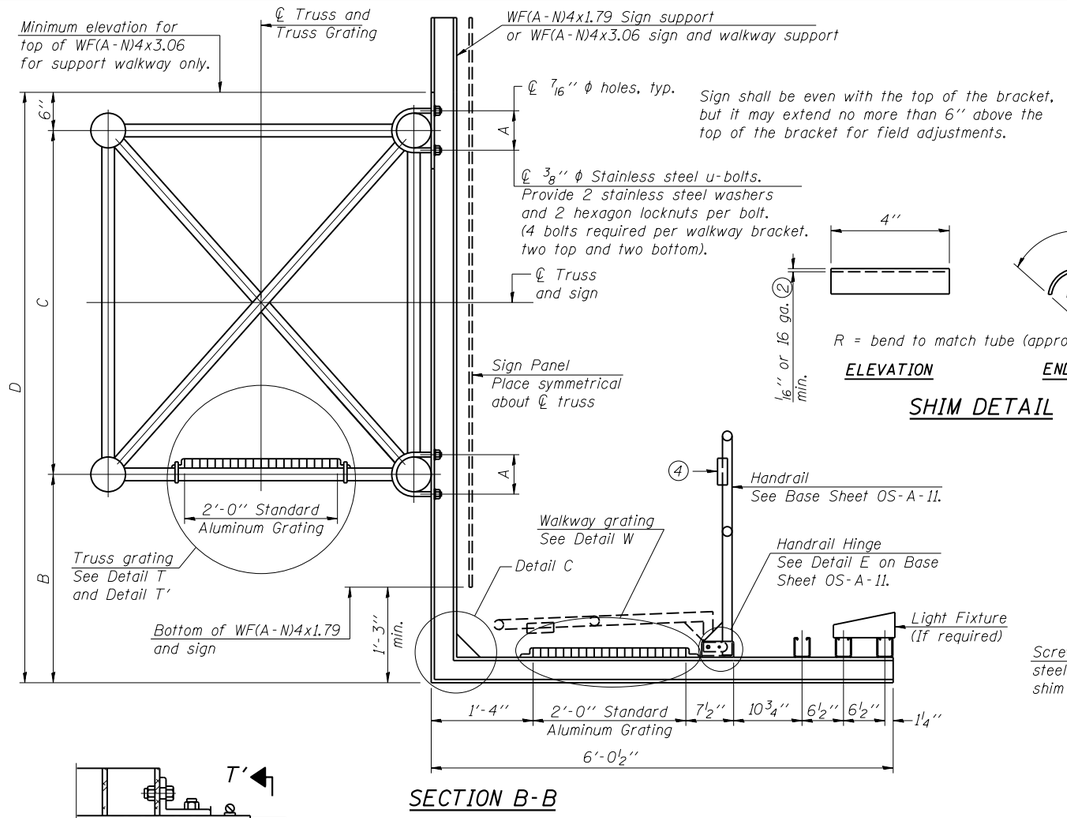
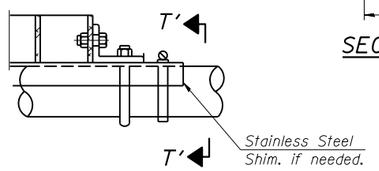
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			



SECTION B-B

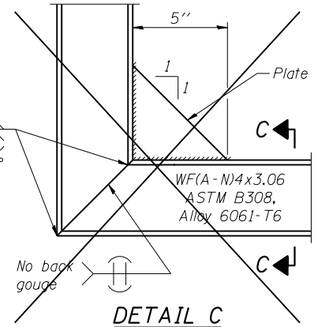


DETAIL T'

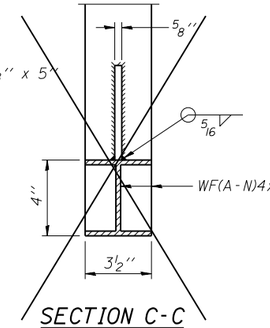
(Truss grating splice)

Details not shown same as Detail T. Alternate materials may be used subject to the Engineer's review and approval.

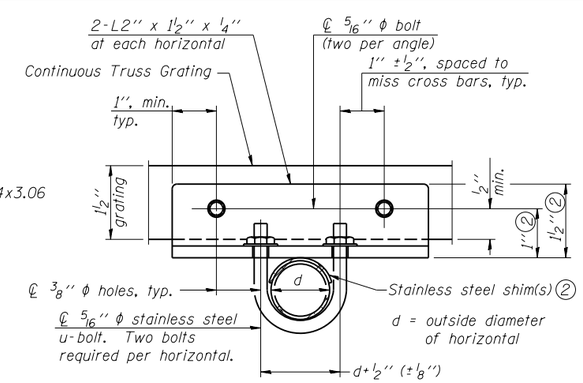
SHIM DETAIL



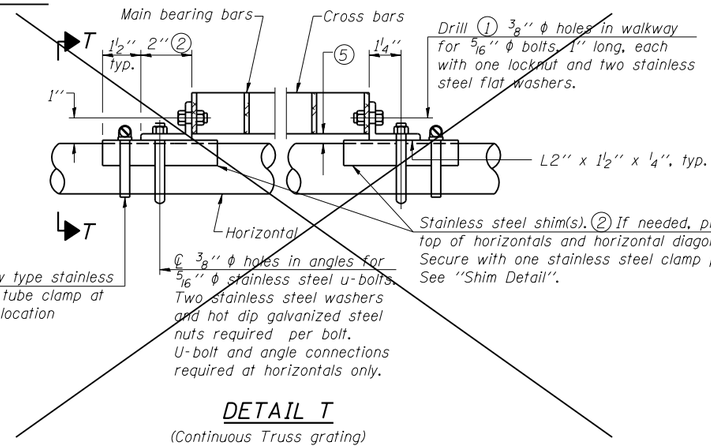
DETAIL C



SECTION C-C

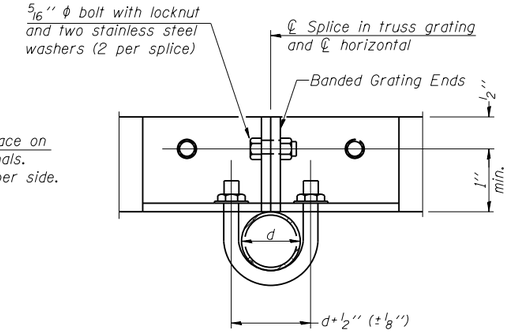


SECTION T-T

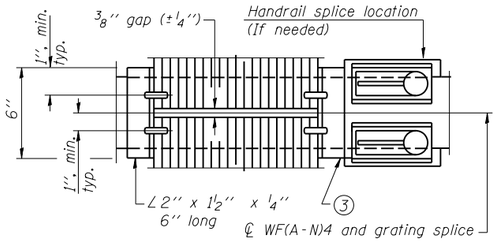


DETAIL T

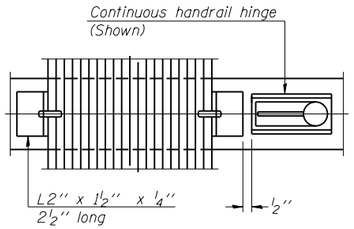
(Continuous Truss grating)



SECTION T'-T'

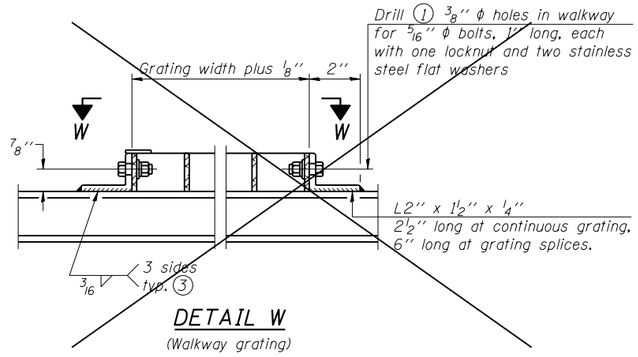


(AT WALKWAY GRATING SPLICE)



(CONTINUOUS WALKWAY GRATING)

SECTION W-W



DETAIL W

(Walkway grating)

SPECIFICATIONS FOR STANDARD ALUMINUM GRATING

Main Bearing Bars shall be 3/16" x 1 1/2" on 1 3/16" centers and conform to ASTM B221 Alloy 6061-T6.

Cross bars shall be 3/16" x 1 1/2" on 4" centers and conform to ASTM B221 Alloy 6063-T5 or 6061-T6.

OR

Aluminum Grating with modified "T" sections for main bearing bars shall meet the following requirements:

Main bars shall conform to ASTM B221 Alloy 6061-T6 and have a minimum section modulus equal to 0.0705 in.^{3} per bar, a depth of 1 1/2", spaced on 1 3/16" centers.

Cross bars shall conform to ASTM B221 Alloy 6063-T5 or T-42 and spaced on 4" centers.

Structure Number	Station	A	⑥ B	C	⑥ D
1 S 016 I090 R 079.3	515+00	6 1/2"	9'-3"	4'-6"	14'-3"
1 S 016 I090 R 079.4	518+00	6 1/2"	8'-3"	4'-6"	13'-3"

1. Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.
2. Stainless steel shims shall be placed as shown in Detail T if needed to compensate for alignment variations between horizontal and diagonal pipes beyond adjustment provided by angles. Thicker shims may be used subject to shims performing properly.
3. If Handrail Joint present, weld angle to WF(A-N)4 and 1/4" extension bars. (See Base Sheet OS-A-11.)
4. ℄ 1/8" x 1/2" x 2" welded to handrail posts to protect locations that contact grating.
5. Tube to grating gap may vary from 0 to 1/2", max. to align walkway, allow for camber, etc.
6. Based on actual height of tallest sign given on OS-A-1.

OS-A-10 6-1-12

FILE NAME = c:\projects\d160x56-ant-OH Sign-05B-OS-A-10.dgn

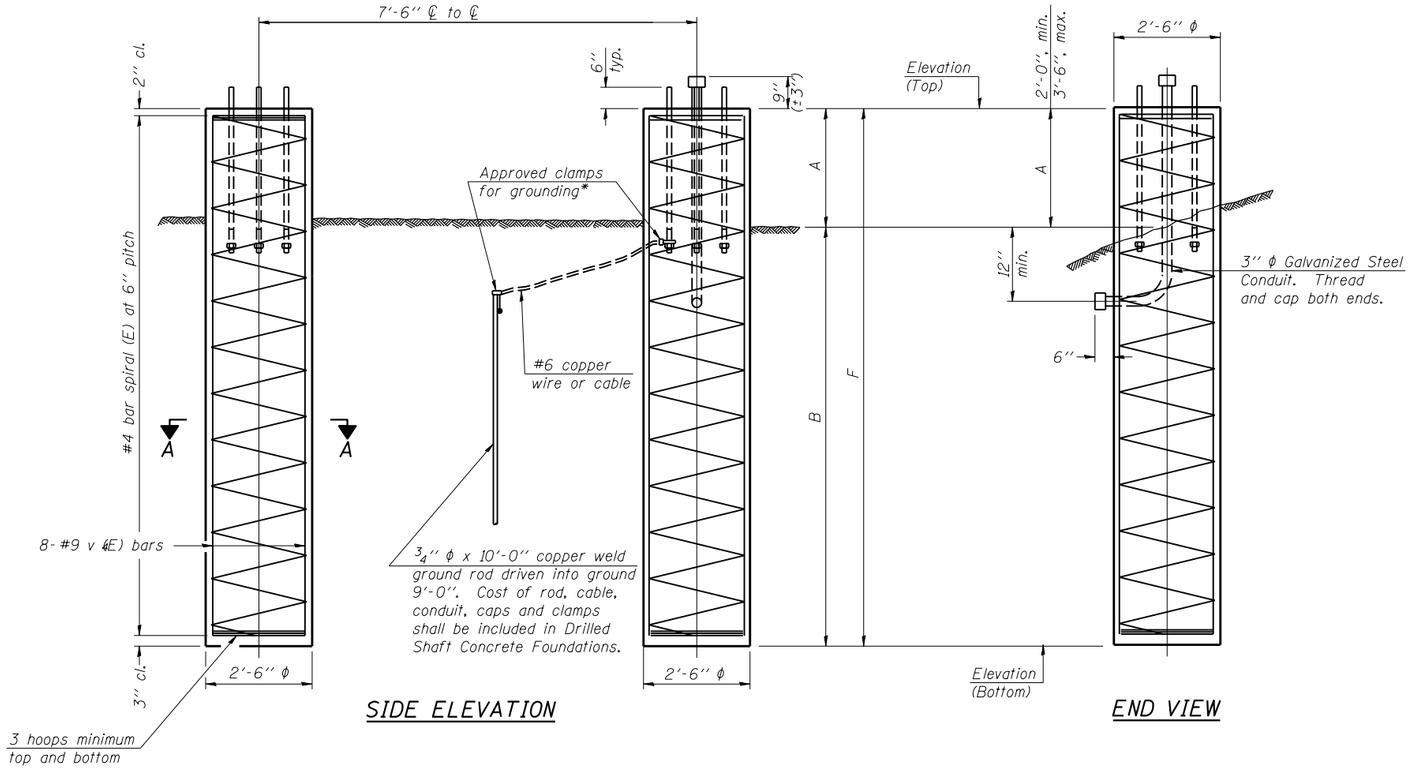
Globetrotters Engineering Corporation — ENGINEERS ARCHITECTS — 300 South Wacker Drive, Chicago, Illinois 60606	USER NAME = kenneth.lirette	DESIGNED - RD	REVISED -
		DRAWN - RJ	REVISED -
	PLOT SCALE = 1:0.0000 '' / in.	CHECKED - RD	REVISED -
	PLOT DATE = 7/29/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
ALUMINUM WALKWAY DETAILS

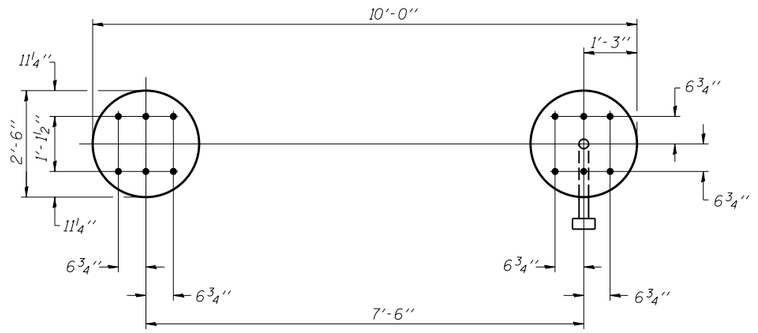
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	190
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			



SIDE ELEVATION

END VIEW



PLAN

For anchor rod size and placement, see Support Frame Detail Sheet.

* Anchor rod shall be ground or filed to bright metal at clamp and cable connection location.

BAR LIST - EACH FOUNDATION

Bar	Number	Size	Length	Shape
v4(E)	16	#9	F less 5"	——
#4 bar spiral (E) - see Side Elevation				

NOTES:

The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Qu) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown will be the result of site specific designs.

If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.

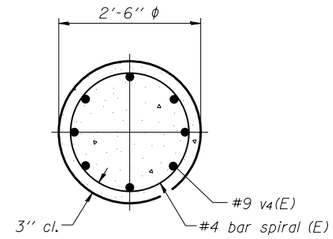
No sonotubes or decomposable forms shall be used below the lower conduit entrance.

Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.

Concrete shall be placed monolithically, without construction joints.

Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.

A normal surface finish followed by a Concrete Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in Drilled Shaft Concrete Foundation.



SECTION A-A

DETAILS FOR 8" ϕ SUPPORT FRAME TYPE I-A TRUSS

Structure Number	Station	Left Foundation					Right Foundation					Class DS Concrete (Cu. Yds.)
		Elevation Top	Elevation Bottom	A	B	F	Elevation Top	Elevation Bottom	A	B	F	
1 S 016 I090 R 079.3	515+00						637.11	615.61	3'-6"	18'-0"	21'-6"	3.91

OS4-F2 8-21-13

FILE NAME = p:\Ventbs256.ntb.orgPW:Great Lakes\Documents\Chicago Projects\30120 I-190 Cumberland\Design\Drilled Shafts\60X56-sht-OH Sign-2016\60X56-sht-OH Sign-2016.dgn

Globetrotters® Engineering Corporation ENGINEERS ARCHITECTS 205 South Wacker Drive Chicago, Illinois 60606	USER NAME = kenneth.lirette	DESIGNED - RD	REVISED -
		DRAWN - RJ	REVISED -
	PLOT SCALE = 1'' / in.	CHECKED - RD	REVISED -
	PLOT DATE = 7/28/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
DRILLED SHAFT DETAILS

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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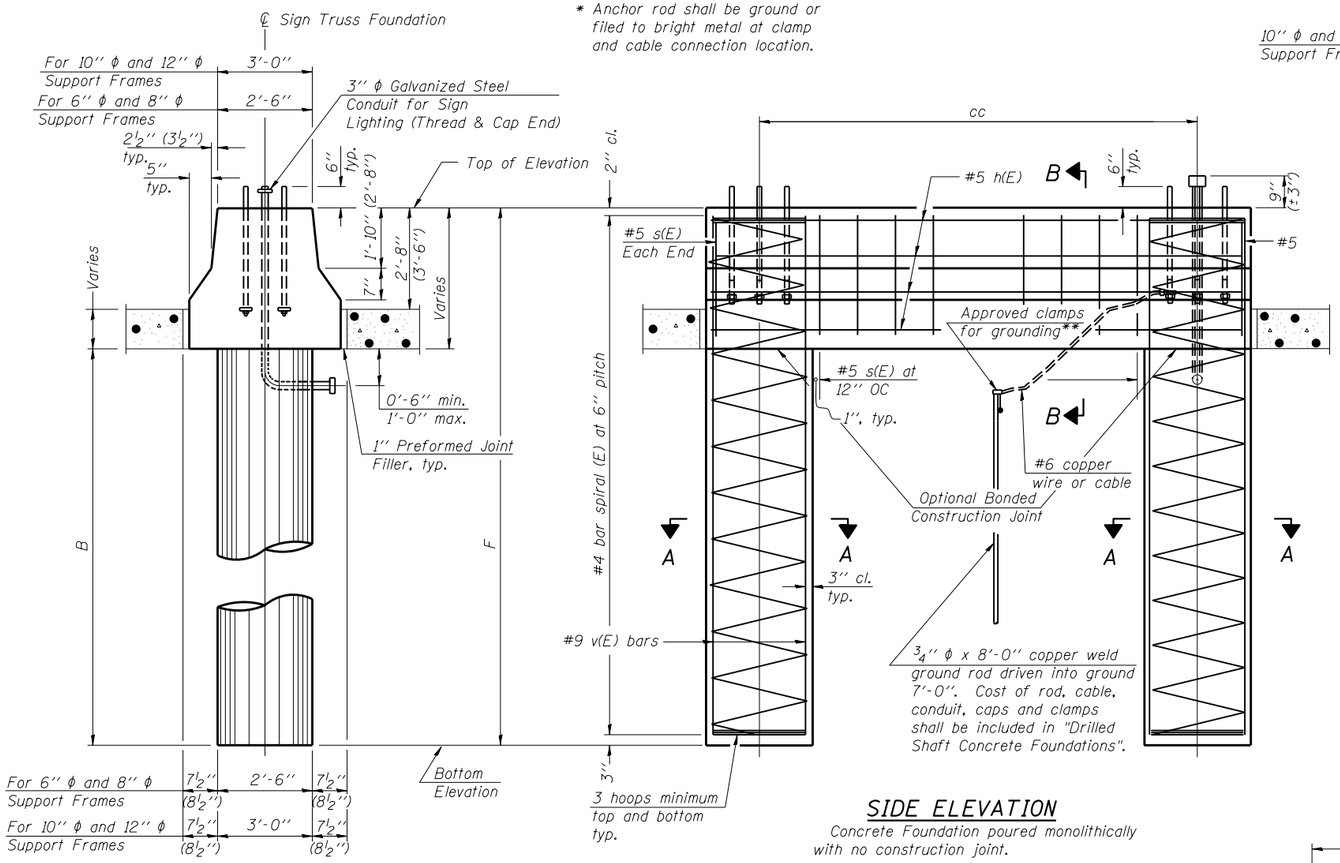
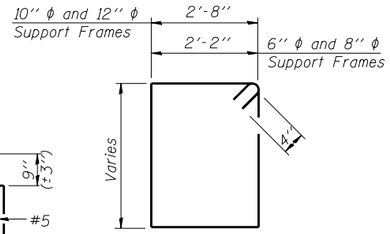
		CONTRACT NO. 60X56		
		ILLINOIS FED. AID PROJECT		



END VIEW

SIDE ELEVATION

Concrete Foundation poured monolithically with no construction joint.



BAR s(E)

NOTES:

The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Qu) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown will be the result of site specific designs.

If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12'' by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.

No sonotubes or decomposable forms shall be used below the lower conduit entrance.

Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.

Concrete shall be placed monolithically, without construction joints.

Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.

A normal surface finish followed by a Concrete Sealer application will be required on concrete surfaces above the lowest elevation 6'' below finished ground line. Cost included in Drilled Shaft Concrete Foundation.

BAR LIST - EACH FOUNDATION

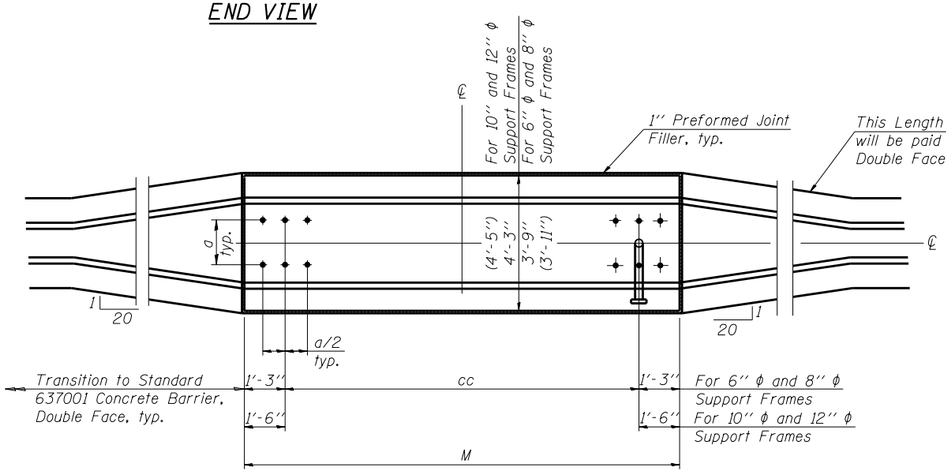
Bar	Number	Size	Length	Shape
h(E)	10	#5	M less 4''	——
s(E)	Varies	#5	Varies	□
v(E)	16	#9	F less 0'-5''	——
v(E)	24	#9	F less 0'-5''	——
#4(E) bar spiral _ see Side Elevation				

6'' ϕ and 8'' ϕ Support Frame

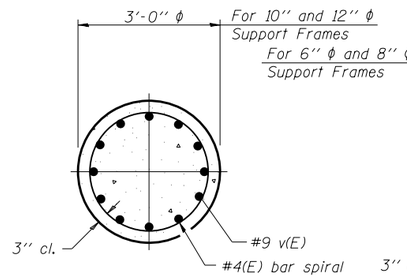
10'' ϕ and 12'' ϕ Support Frame

Pipe Support Frames	cc	M	a	a/2
6''ϕ	7'-0''	9'-6''	0'-11''	5½''
8''ϕ	7'-6''	10'-0''	1'-1½''	6¾''
10''ϕ	8'-3''	11'-3''	1'-3''	7½''
12''ϕ	9'-0''	12'-0''	1'-6''	9''

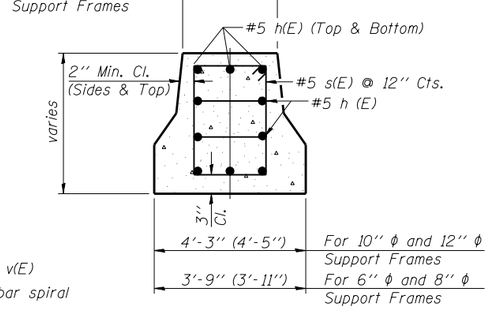
All dimensions in parenthesis are for 42'' high barrier.



PLAN



SECTION A-A



SECTION B-B

Structure Number	Station	Left Foundation				Right Foundation				Class DS Concrete (Cu. Yds.)
		Elevation Top	Elevation Bottom	B	F	Elevation Top	Elevation Bottom	B	F	
1 S 016 1090 R 079.3	515+00	638.40	616.90	18'-0"	21'-6"					13.3
1 S 016 1090 R 079.4	518+00	639.84	618.34	18'-0"	21'-6"	639.57	618.07	18'-0"	21'-6"	26.6

OS4-MED 8-21-13

FILE NAME = c:\Users\kenneth.lirette\Documents\Chicago Projects\30120 I-190 Cumberland\Design\X2820201\Contract 60X56\60X56-sht-OH Sign-007-054-Med.dgn

Globetrotters Engineering Corporation
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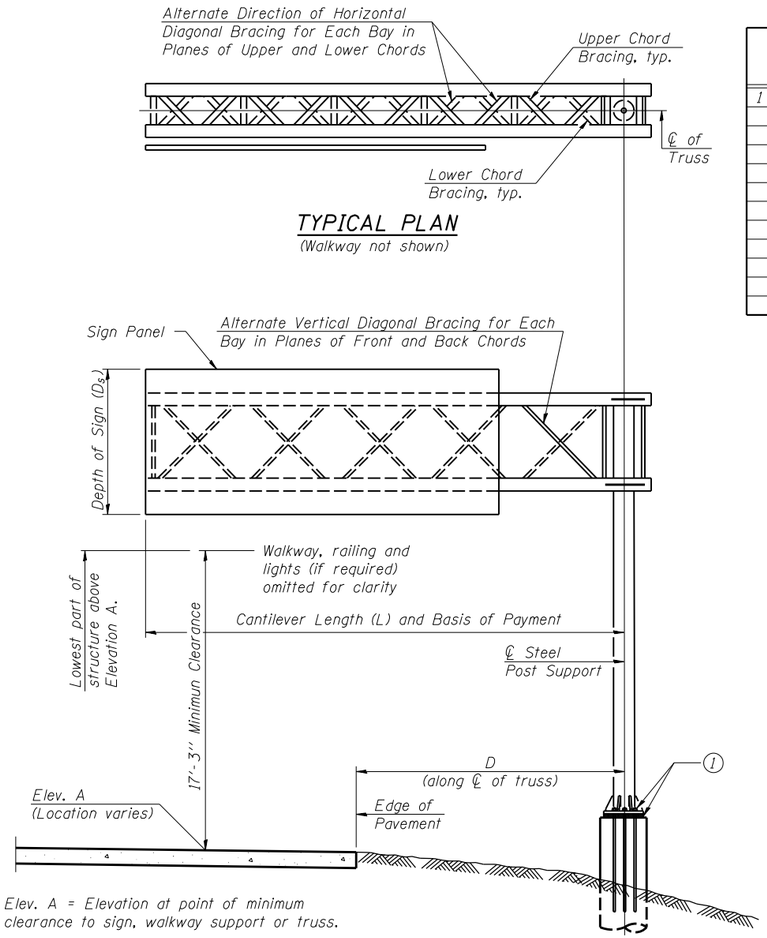
PLOT DATE = 7/28/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
MEDIAN SUPPORT FOUNDATION DETAILS

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	191A
		CONTRACT NO. 60X56		
		ILLINOIS FED. AID PROJECT		



Elev. A = Elevation at point of minimum clearance to sign, walkway support or truss.

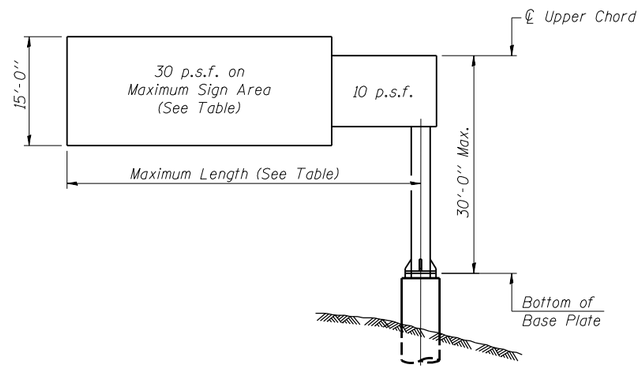
TYPICAL PLAN
(Walkway not shown)

TYPICAL ELEVATION
Looking in Direction of Traffic

Sign support structures may be subject to damaging vibrations and oscillations when sign panels are not in place during erection or maintenance of the structure. To avoid these vibrations and oscillations, consideration should be given to attaching temporary blank sign panels to the structure.

Structure Number	Station	Design Truss Type	Cantilever Length (L)	Elev. A	Dim. D	D_s	Total Sign Area
1 C 016 1190 L 000.5	106+25	III-C-A	35	631.57	18'-3½"	11'-6"	276

Truss Type	Maximum Sign Area	Maximum Length
I-C-A	170 Sq. Ft.	25 Ft.
II-C-A	340 Sq. Ft.	30 Ft.
III-C-A	400 Sq. Ft.	40 Ft.



DESIGN WIND LOADING DIAGRAM
Parameters shown are basis for I.D.O.T. Standards Installations not within dimensional limits shown require special analysis for all components.

Note:
Trusses shall be shipped individually with adequate provision to prevent detrimental motion during transport. This may require ropes between horizontals and diagonals or energy dissipating (elastic) ties to the vehicle. The contractor is responsible for maintaining the configuration and protection of the trusses.

(1) After adjustments to level truss and insure adequate vertical clearance, all top and leveling nuts shall be tightened against the base plate with a minimum torque of 200 lb.-ft. Stainless steel mesh shall then be placed around the perimeter of the base plate. Secure to base plate with stainless steel banding.

* If M270 Gr. 50W (M222) steel is proposed, chemistry for plate to be used shall first be approved by the Engineer as suitable for galvanizing and welding.

GENERAL NOTES

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications")

CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

LOADING: 90 M.P.H. WIND VELOCITY

WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load.

DESIGN STRESSES:
Field Units
f′ = 3,500 p.s.i.
fy = 60,000 p.s.i. (reinforcement)

WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 and D1.2 Structural Welding Codes (Steel and Aluminum) and the Standard Specificiations.

MATERIALS: Aluminum Alloys as shown throughout plans. All Structural Steel Pipe shall be ASTM A53 Grade B or A500 Grade B or C. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53.
All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 or Gr. 50W*. Stainless steel for shims, sleeves and handhole covers shall be ASTM A240, Type 302 or 304, or another alloy suitable for exterior exposure and acceptable to the Engineer.
The steel pipe and stiffening ribs at the base plate for the column shall have a minimum longitudinal Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F. (Zone 2) before galvanizing.

FASTENERS FOR ALUMINUM TRUSSES: All bolts noted as "high strength" must satisfy the requirements of AASHTO M164 (ASTM A325), or approved alternate, and must have matching lock nuts. Threaded studs for splices (if Members interfere) must satisfy the requirements of ASTM A449, ASTM A193, Grade B7, or approved alternate, and must have matching lock nuts. Bolts and lock nuts not required to be high strength must satisfy the requirements of ASTM A307. All bolts and lock nuts must be hot dip galvanized per AASHTO M232. The lock nuts must have nylon or steel inserts. A stainless steel flat washer conforming to ASTM A240 Type 302 or 304, is required under both head and nut or under both nuts where threaded studs are used. High strength bolt installation shall conform to Article 505.04 (f) (2)d of the IDOT Standard Specifications for Road and Bridge Construction. Rotational capacity ("ROCAP") testing of bolts will not be required.

U-BOLTS AND EYEBOLTS: U-Bolts and Eyebolts must be produced from ASTM A276 Type 304, 304L, 316 or 316L, Condition A, cold finished stainless steel, or an equivalent material acceptable to the Engineer. All nuts for U-Bolts and Eyebolts must be lock nuts equivalent to ASTM A307 with nylon or steel inserts and hot dip galvanized per AASHTO M232. A stainless steel flat washer conforming to ASTM A240, Type 302 or 304, is required under each U-Bolt and Eyebolt lock nut.

GALVANIZING: All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111. Painting is not permitted.

ANCHOR RODS: Shall conform to ASTM F1554 Gr. 105.

CONCRETE SURFACES: All concrete surfaces above an elevation 6" below the lowest final ground line at each foundation shall be cleaned and coated with Concrete Sealer in accordance with the Standard Specifications.

REINFORCEMENT BARS: Reinforcement Bars designated (E) shall be epoxy coated in accordance with the Standard Specifications.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
OVERHEAD SIGN STRUCTURE CANTILEVER TYPE I-C-A	Foot	
OVERHEAD SIGN STRUCTURE CANTILEVER TYPE II-C-A	Foot	
OVERHEAD SIGN STRUCTURE CANTILEVER TYPE III-C-A	Foot	35
OVERHEAD SIGN STRUCTURE WALKWAY, TYPE A	Foot	
REINFORCEMENT BARS (EPOXY COATED)	Lbs	1204
PROTECTIVE COAT	Sq Yds	3
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	13

OSC-A-1 8-21-13

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PLOT DATE = 4/6/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURES – GENERAL PLAN & ELEVATION
ALUMINUM TRUSS & STEEL POST

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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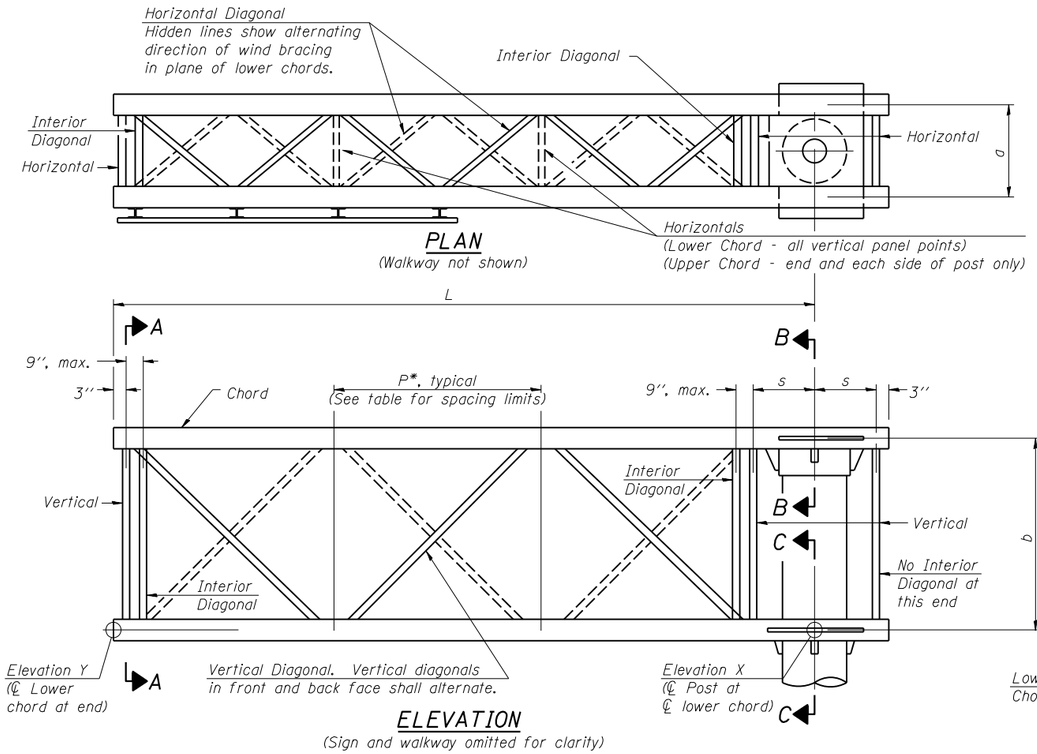
		CONTRACT NO. 60X56		
		ILLINOIS	FED. AID PROJECT	



TYPICAL TRUSS UNIT

For Section B-B and Section C-C, see Base Sheet OSC-A-3.

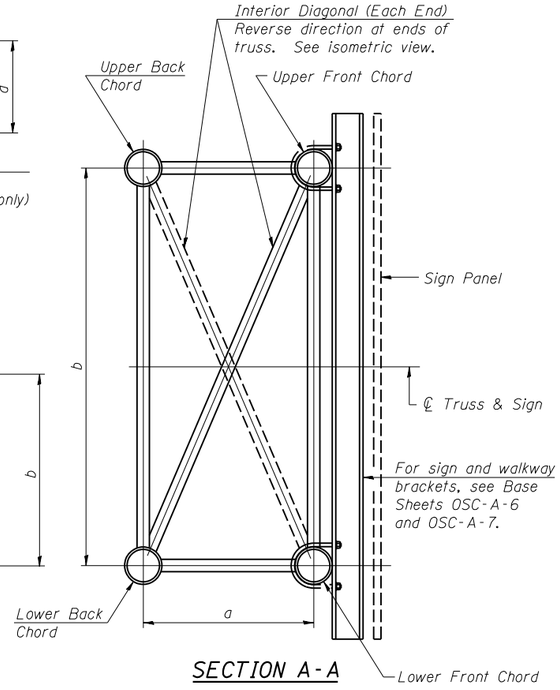
Note:
There are twice as many horizontal diagonals as there are vertical diagonals.

TRUSS UNIT TABLE

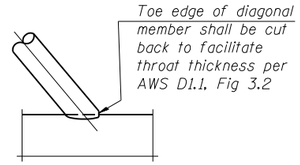
Truss Type	Dimension "a"	Dimension "b"	Dimension "s"	Limits for Panel Spacing (P)*	Up. & Low. Chord		Verticals; Horizontals; Vertical, Horizontal, and Interior Diagonals	
					O.D.	Wall	O.D.	Wall
I-C-A	24''	54''	16''	36'' min. to 48'' max.	5''	5/16''	2 1/2''	5/16''
II-C-A	36''	66''	21''	42'' min. to 54'' max.	6 1/2''	5/16''	3 1/4''	5/16''
III-C-A (35' Max.)	36''	84''	21''	48'' min. to 66'' max.	7''	3/8''	3 1/2''	3/8''
III-C-A (>35' to 40')	36''	84''	21''	48'' min. to 66'' max.	8''	3/8''	3 1/2''	3/8''

$$*P = \frac{L - s - 3''}{\#\ Panels}$$

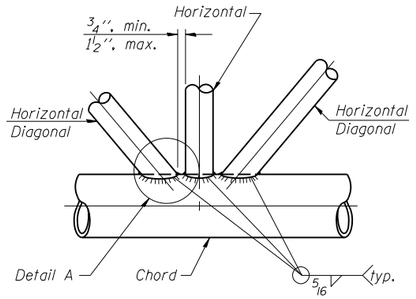
Structure Number	Station	Truss Type	Design Length (L)	Number of Panels Per Unit	Panel Length (P)*
1 C 016 1190 L 000.5	106+25	III-C-A	35	6	5'-6"



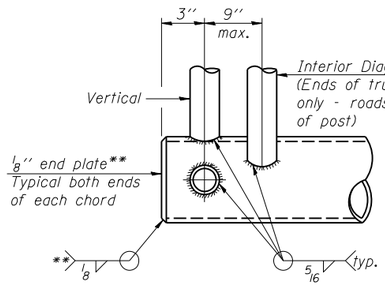
SECTION A-A



DETAIL A

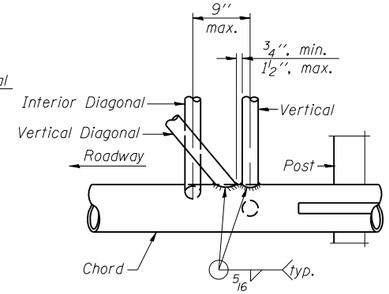


TRUSS INTERIOR JOINT DETAIL

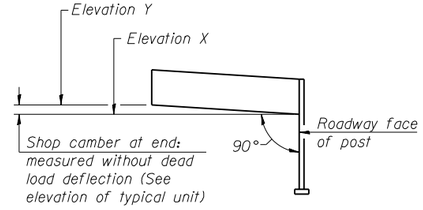


CANTILEVER END JOINT DETAIL

** Contractor may alternatively use standard aluminum drive-fit cap to close ends. 1/2'' ϕ Drain hole in end plate / drive-fit cap.



POST END JOINT DETAIL



CAMBER DIAGRAM

(For Fabrication Only)

SHOP CAMBER TABLE

Unit Length (L)	Shop Camber at End
15'	1 1/2''
16'-17'	1 3/4''
18'-20'	2''
21'-22'	2 1/4''
23'-25'	2 1/2''
26'-27'	2 3/4''
28'-30'	3''
31'-32'	3 1/4''
33'-35'	3 1/2''
36'-37'	4''
38'-40'	4 1/2''

ISOMETRIC VIEW
TYPICAL TRUSS UNIT

ASTM B221 Alloy 6061 Temper T6

OSC-A-2 6-1-12

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PLOT DATE = 4/5/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURES – TRUSS DETAILS
ALUMINUM TRUSS & STEEL POST

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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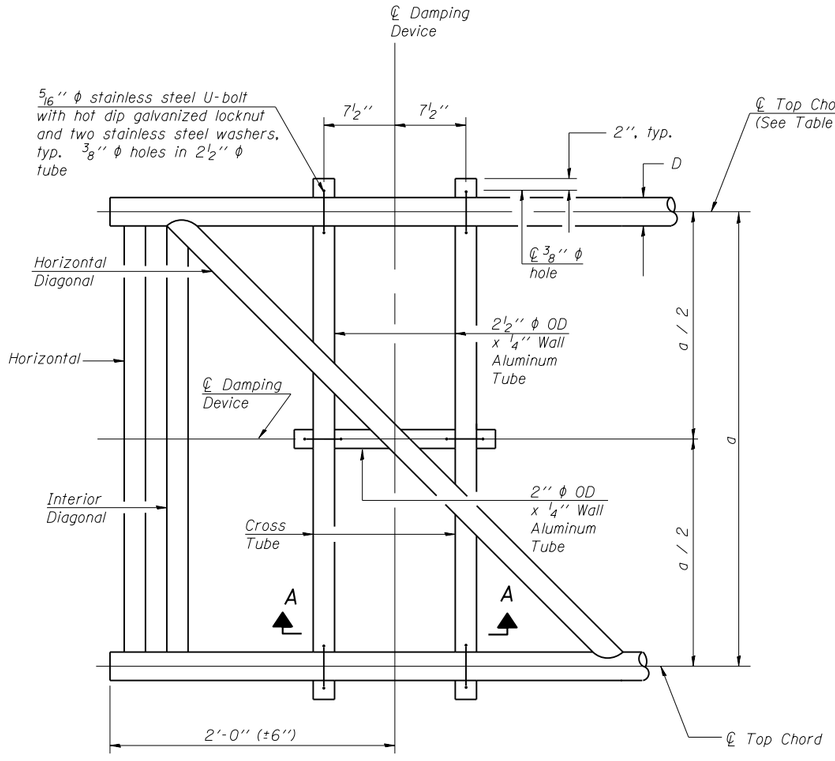
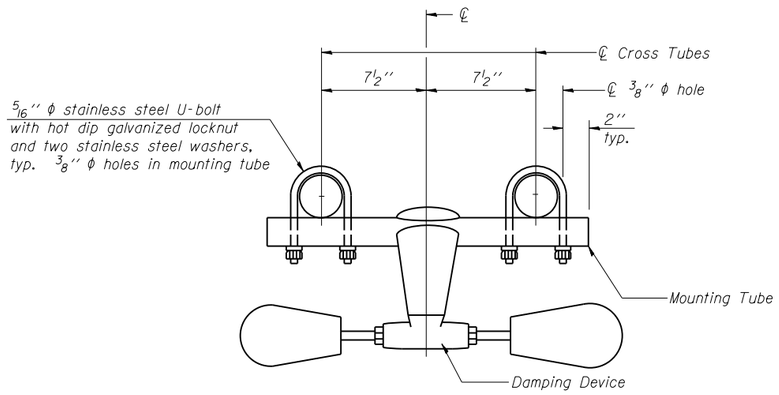
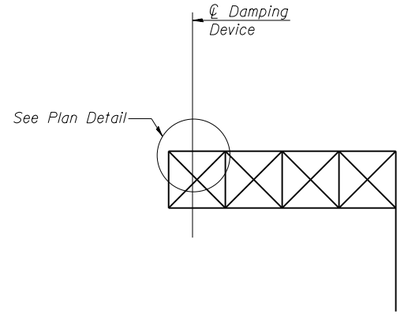
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			



PLAN DETAIL



TRUSS DAMPING DEVICE CONNECTION DETAIL



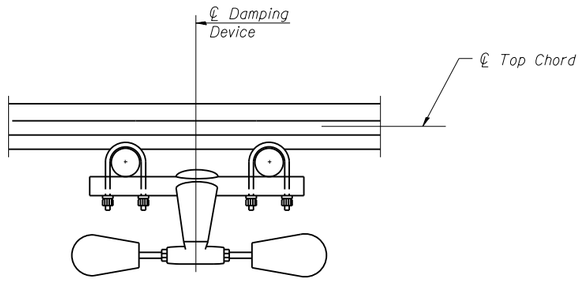
ELEVATION

Aluminum Cantilever Sign Structure

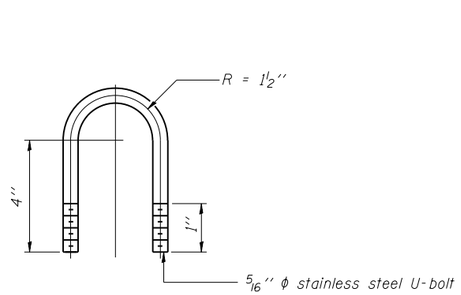
GENERAL NOTES

Damper: One damper per truss. (31 lbs. Stockbridge-Type Aluminum-29'' minimum between ends of weights)

Materials: Aluminum tubes shall be ASTM B221 alloy 6061 temper T6

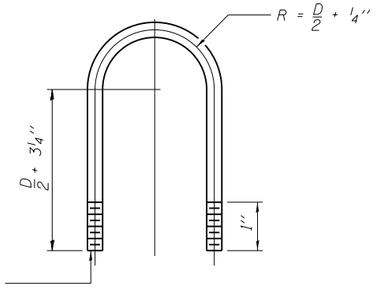


SECTION A-A



DAMPING DEVICE MOUNTING TUBE U-BOLT DETAIL

(Typical)



TOP CHORD TO CROSS TUBE U-BOLT DETAIL

(Typical)

OSC-A-D 6-1-12

Globetrotters® Engineering Corporation — ENGINEERS ARCHITECTS — 300 South Wacker Drive, Chicago, Illinois 60606	USER NAME = kenneth.lirette	DESIGNED - RD	REVISED -
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	PLOT DATE = 7/28/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURE
DAMPING DEVICE

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	193A
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

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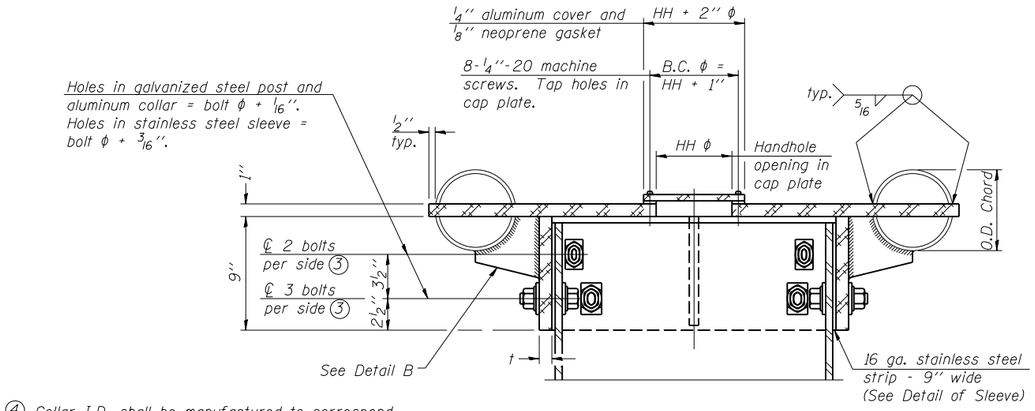
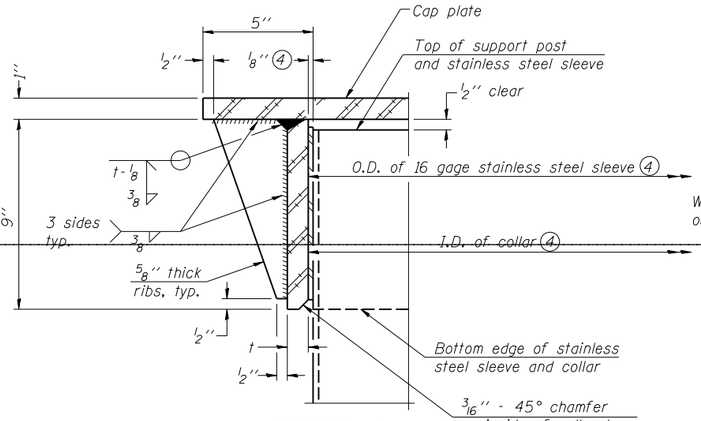


SECTION B-B

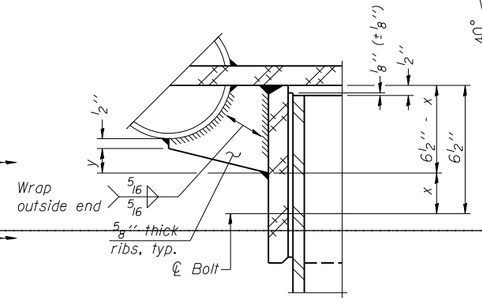
Bolts, washers (including contoured washers), and locknuts shall be stainless steel.

(4) Collar I.D. shall be manufactured to correspond to O.D. of actual galvanized post and stainless steel sleeve plus 1/8'' (±1/16''). Maximum gap between post and collar at any location equals 1/8'' before tightening bolts.



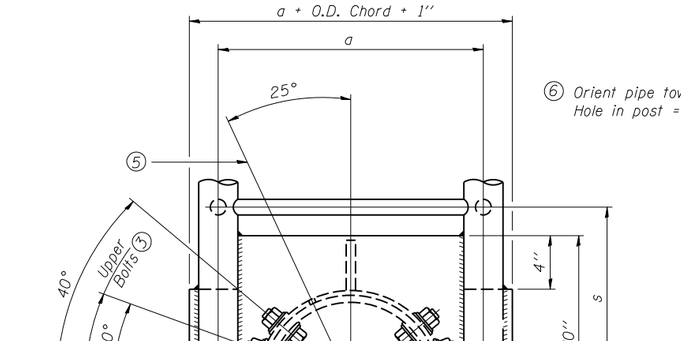
DETAIL A

(Two locations)



DETAIL B

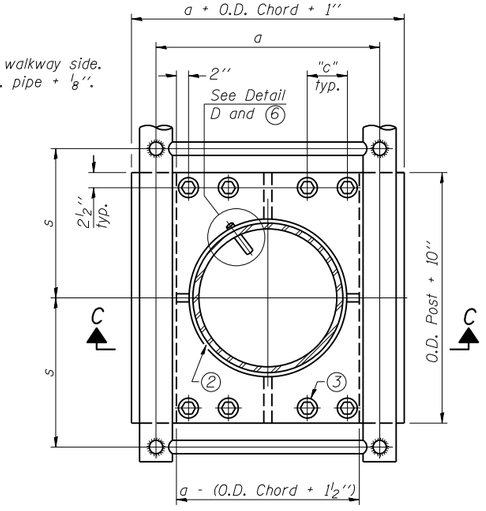
Two locations
(For details not shown, see Detail C)



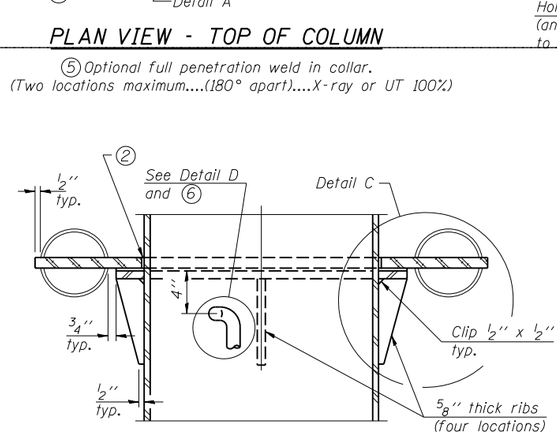
PLAN VIEW - TOP OF COLUMN

(5) Optional full penetration weld in collar.
(Two locations maximum....(180° apart)....X-ray or UT 100%)

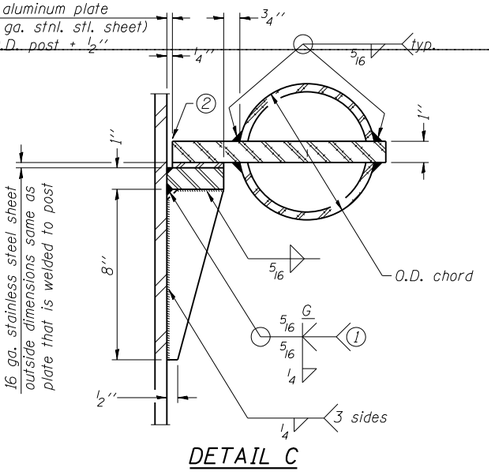
(6) Orient pipe toward walkway side. Hole in post = O.D. pipe + 1/8''.



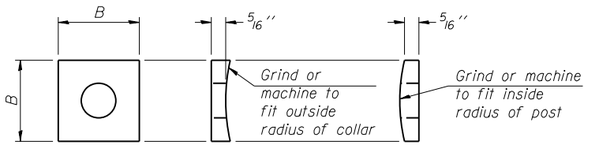
SECTION THRU POST ABOVE LOWER CHORDS



SECTION C-C

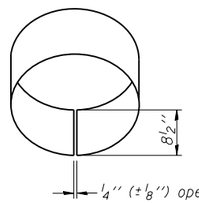


DETAIL C



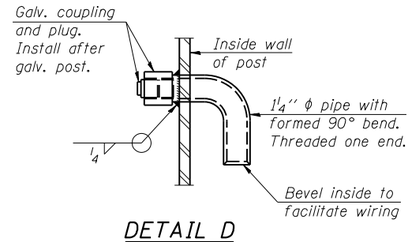
CONTOURED WASHERS

Bolt Size	Contoured Washers	
	Hole Dia.	B
7/8''	1''	2 1/2''
1''	1 1/8''	3''
1 1/4''	1 3/8''	3 1/4''



DETAIL OF STAINLESS STEEL SLEEVE

Weld to post after galvanizing.
(Prepare post surface to insure tight, uniform fit and allow welding.)
Welds to be 1 1/2'' long at 6'' cts. along top edge and at 1/4'' opening.



DETAIL D

Truss Type	Post Size	Upper & Lower Connection Bolt Diameter (3)	Lower Juncture Bolt Spacing Dimension "c" (3)	Opening in Cap Plate "HH"	Collar Thickness (t)	Side Ribs	
						x	y
I-C-A	16'' ϕ (83#/')	7/8''	3 1/4''	8''	5/8''	1 3/4''	2 1/4''
II-C-A	24'' ϕ (125#/')	1''	3 1/2''	12''	7/8''	2''	1 1/4''
III-C-A (35' max.)	24'' ϕ (125#/')	1 1/4''	3 1/2''	12''	7/8''	2''	1''
III-C-A (>35' to 40')	24'' ϕ (171#/')	1 1/4''	3 1/2''	12''	7/8''	2''	1''

(1) Grind top if required to fully seat aluminum plate and stainless steel sheet.

(2) After tightening lower connection bolts, fill gap with non-hardening, silicone caulk suitable for exterior exposure and acceptable to the Engineer. Cost is included in Overhead Sign Structure Cantilever.

(3) Upper and lower connection bolts in collar and bolts at lower chord connection shall be high strength with matching locknuts. Connection bolts shall have 2 stainless steel flat washers each.

OSC-A-3 6-1-12

FILE NAME = c:\Geddit\boris\boshkolnik\greatlakes\dms76166\D160X56-sht-OH Sign-010-OSC-A-3.dgn

Globetrotters® Engineering Corporation
ENGINEERS ARCHITECTS
200 South Wacker Drive
Chicago, Illinois 60606

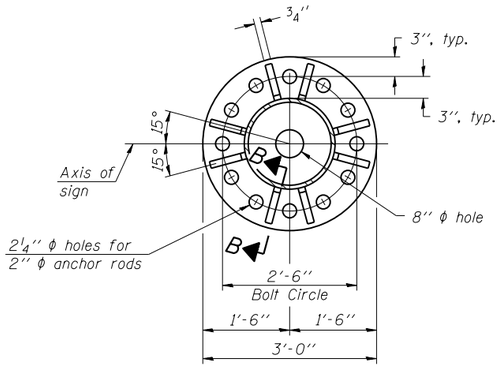
USER NAME = boris.shkolnik	DESIGNED - RD	REVISED -
	DRAWN - RJ	REVISED -
PLOT SCALE = 1.00000 ' / in.	CHECKED - RD	REVISED -
PLOT DATE = 4/5/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

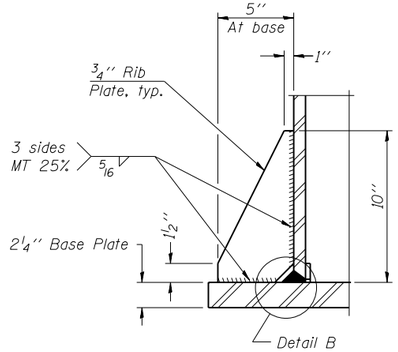
CANTILEVER SIGN STRUCTURES – JUNCTURE DETAILS
ALUMINUM TRUSS & STEEL POST

SCALE: | SHEET OF SHEETS | STA. TO STA.

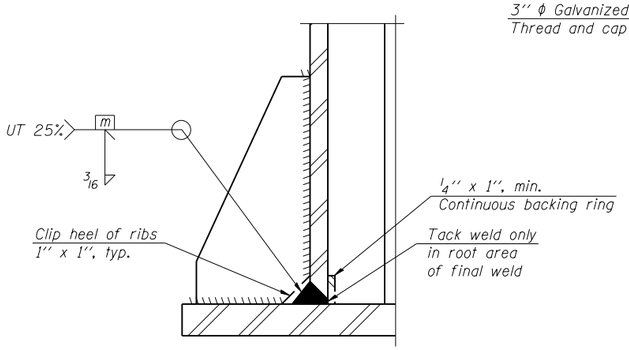
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	194
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			



SECTION A-A

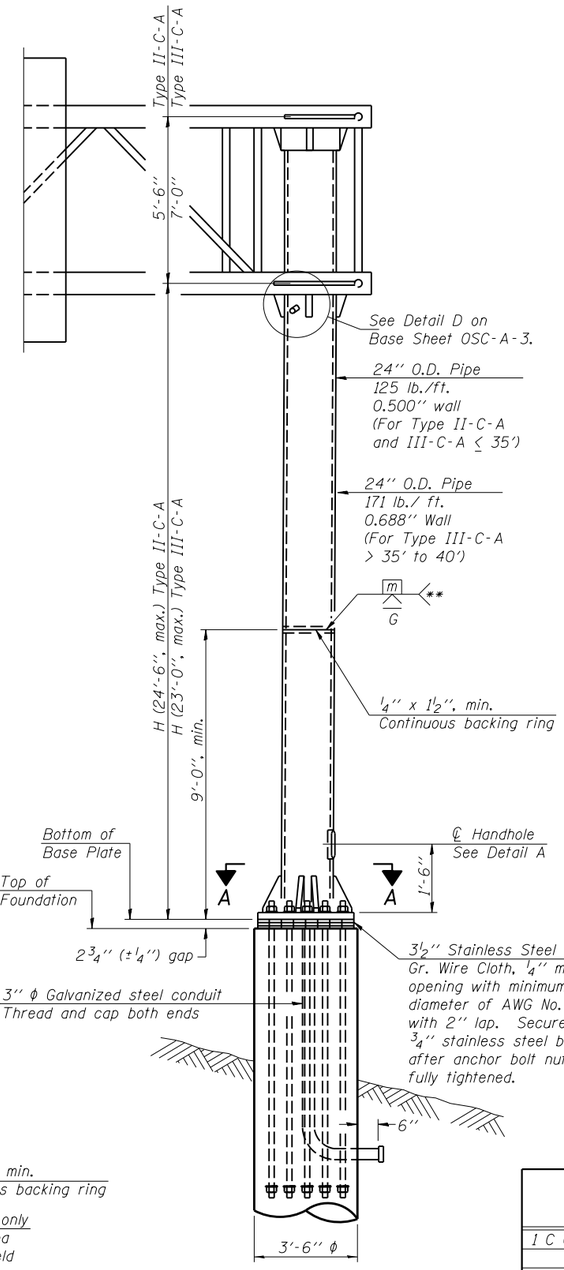


SECTION B-B



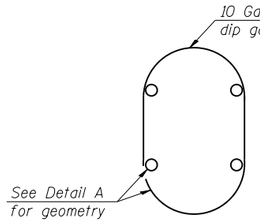
DETAIL B

(Typical rib)

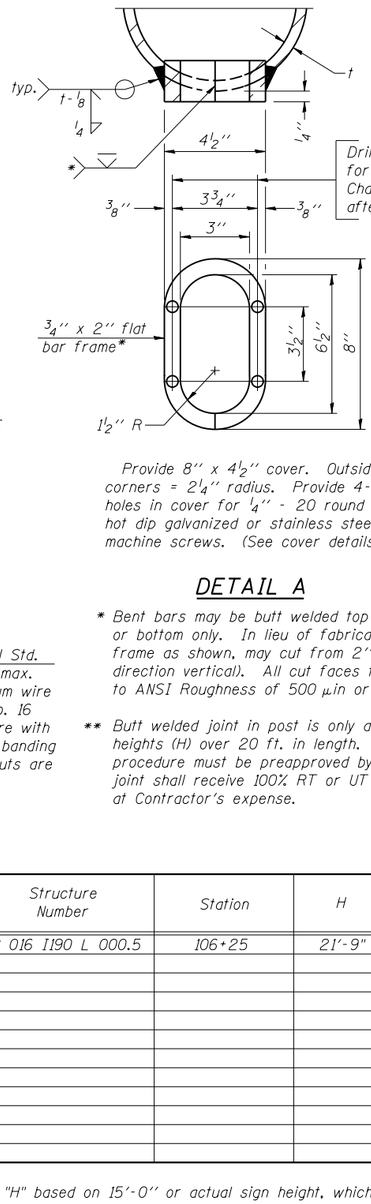


FRONT ELEVATION

For Foundation Details see Base Sheet OSC-A-9.



HANDHOLE COVER

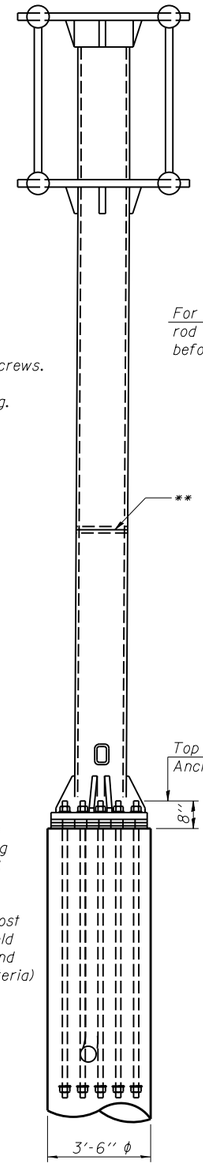


Provide 8'' x 4 1/2'' cover. Outside corners = 2 1/4'' radius. Provide 4 - 5/16'' ϕ holes in cover for 1/4'' - 20 round head hot dip galvanized or stainless steel machine screws. (See cover details.)

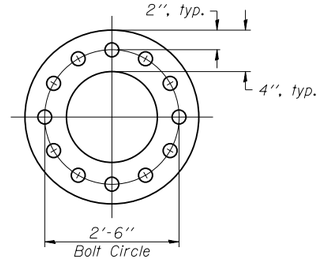
DETAIL A

* Bent bars may be butt welded top and bottom or bottom only. In lieu of fabricated handhole frame as shown, may cut from 2'' plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 500 μin or less.

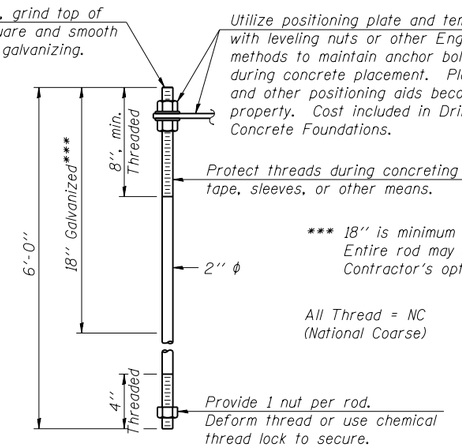
** Butt welded joint in post is only allowed for post heights (H) over 20 ft. in length. If used, weld procedure must be preapproved by Engineer and joint shall receive 100% RT or UT (tension criteria) at Contractor's expense.



SIDE ELEVATION



SUGGESTED POSITIONING PLATE



ANCHOR ROD DETAIL

Anchor rods shall conform to ASTM F1554 Grade 105. Galvanize the upper 18'' (minimum***) and associated AASHTO M291, Grade A, C or DH heavy hex nuts and hardened washers per AASHTO M232. No welding shall be permitted on rods. Provide a nut at bottom, a hexagon locknut and washer above base plate and a leveling nut and washer below base plate. Nuts shall each be tightened with 200 lb.-ft. minimum torque against base plate. Before or after threading, but before galvanizing, each anchor rod shall be ultrasonically tested (UT) by a Level II or III inspector, qualified in accord with ANSI guidelines, to insure no rejectable flaws exist in the upper 18'' (tension criteria). Cost of testing included in Drilled Shaft Concrete Foundations.

Structure Number	Station	H
1 C 016 1190 L 000.5	106+25	21'-9"

Note: "H" based on 15'-0'' or actual sign height, whichever is greater.

OSC-A-5 6-1-12

FILE NAME = c:\Users\kenneth.lirette\Desktop\Great Lakes\Documents\Chicago Projects\30128 I-190 Cumberland\Design\60X56\Contract 60X56\60X56-sht-OH Sign-012-OSC-A-5.dgn

Globetrotters® Engineering Corporation
ENGINEERS ARCHITECTS
300 South Wacker Drive
Chicago, Illinois 60606

USER NAME = kenneth.lirette
PLOT SCALE = 1.00 ' / in.
PLOT DATE = 8/2/2016

DESIGNED - RD
DRAWN - TB
CHECKED - RJ
DATE - 8/5/06/2016

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURES – TYPE II-C-A & III-C-A
TRUSS SUPPORT POST – ALUMINUM TRUSS & STEEL POST

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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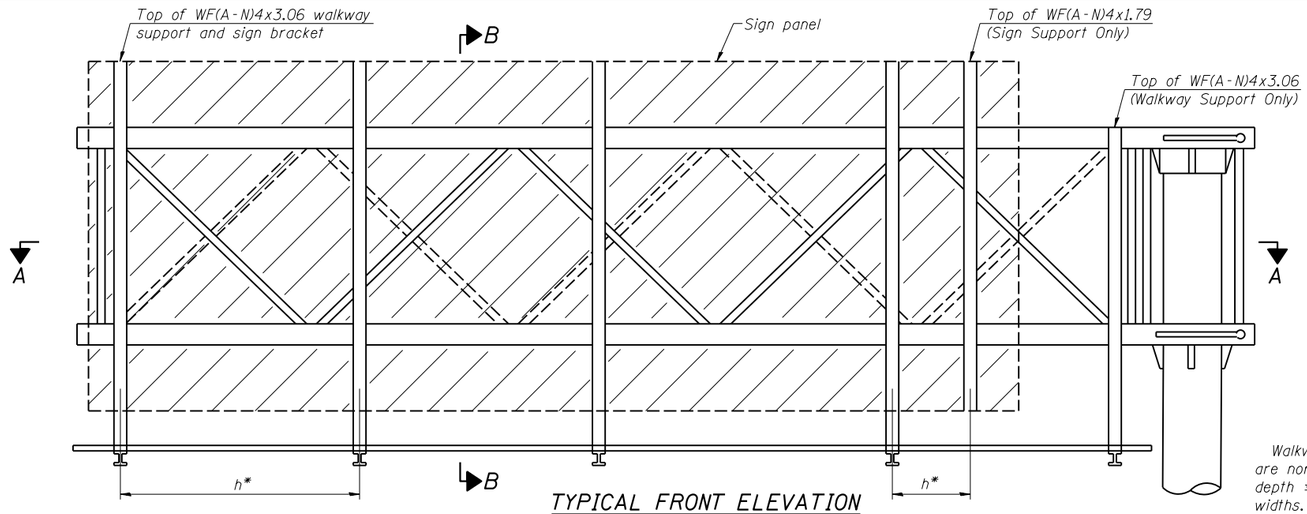
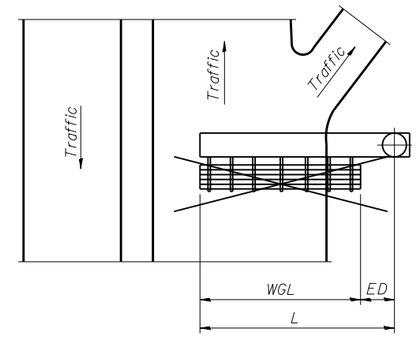
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			



TYPICAL FRONT ELEVATION

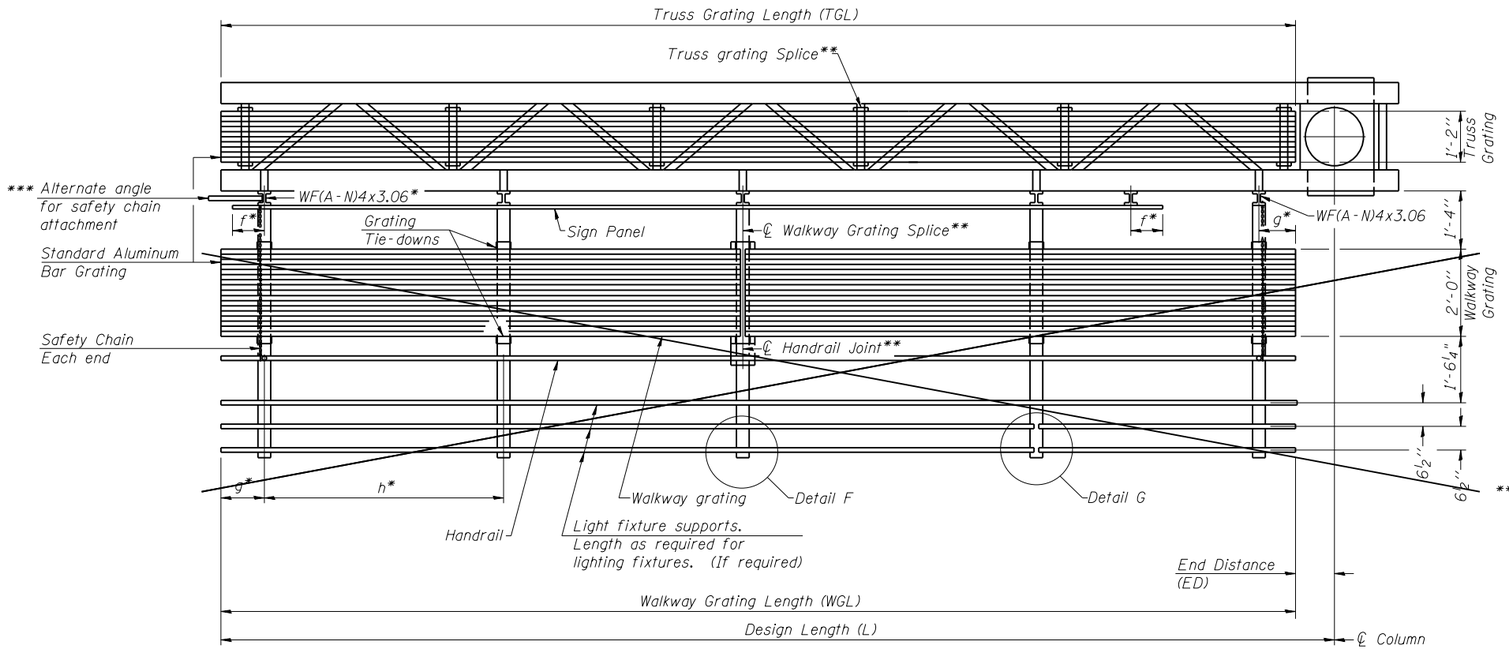
With lights and handrail omitted for clarity.

Walkway and truss grating dimensions are nominal and may vary (width ±½", depth ±½") based on available standard widths.



PLAN
WALKWAY AND HANDRAIL SKETCH

(Road plan beneath truss varies)



SECTION A-A

Truss grating to facilitate inspection shall run full length of cantilevers. Cost of truss grating is included in Overhead Sign Structure Cantilever.

Handrail and walkway grating shall span a minimum of three brackets between splices.

** Use and location of handrail joints or grating splices are optional, based on lengths needed and material availability.

$$TGL = L - \left(\frac{\text{Post O.D.}}{2} + 6''\right)$$

Structure Number	Station	WGL	ED	TGL
IC016I190L000.5	106+25	—	—	33'

Notes:

* Space walkway brackets WF(A-N)4x3.06 and sign brackets WF(A-N)4x1.79 for efficiency and within limits shown:

f = 12" maximum, 4" minimum (End of sign to ℄ of nearest bracket)
g = 12" maximum, 4" minimum (End of walkway to ℄ of nearest bracket)
h = 6'-0" maximum (℄ to ℄ sign and/or walkway support brackets, WF(A-N)4x1.79 or WF(A-N)4x3.06)

*** If walkway bracket at safety chain location is behind sign, add angle to bracket. See alternate safety chain attachment on base sheet OSC-A-8

For details of sign placement, sign/walkway brackets, truss and walkway gratings, grating splices and Section B-B, see Base Sheet OSC-A-7.

For details of handrail, handrail joint, safety chain and Details F and G, see Base Sheet OSC-A-8.

BRACKET TABLE

WF(A-N)4x1.79 or WF(A-N)4x3.06
ASTM B308, Alloy 6061-T6

Sign Width		Number Brackets Required
Greater Than	Less Than or Equal To	
	8'-0"	2
8'-0"	14'-0"	3
14'-0"	20'-0"	4
20'-0"	26'-0"	5
26'-0"	32'-0"	6

OSC-A-6 6-1-12

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Globetrotters® Engineering Corporation
ENGINEERS ARCHITECTS
200 South Wacker Drive
Chicago, Illinois 60606

USER NAME = kenneth.lirette	DESIGNED - RD	REVISED -
	DRAWN - RJ	REVISED -
PLOT SCALE = 1:0.0000 '' / in.	CHECKED - RD	REVISED -
PLOT DATE = 7/29/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURES – ALUMINUM WALKWAY
DETAILS – ALUMINUM TRUSS & STEEL POST

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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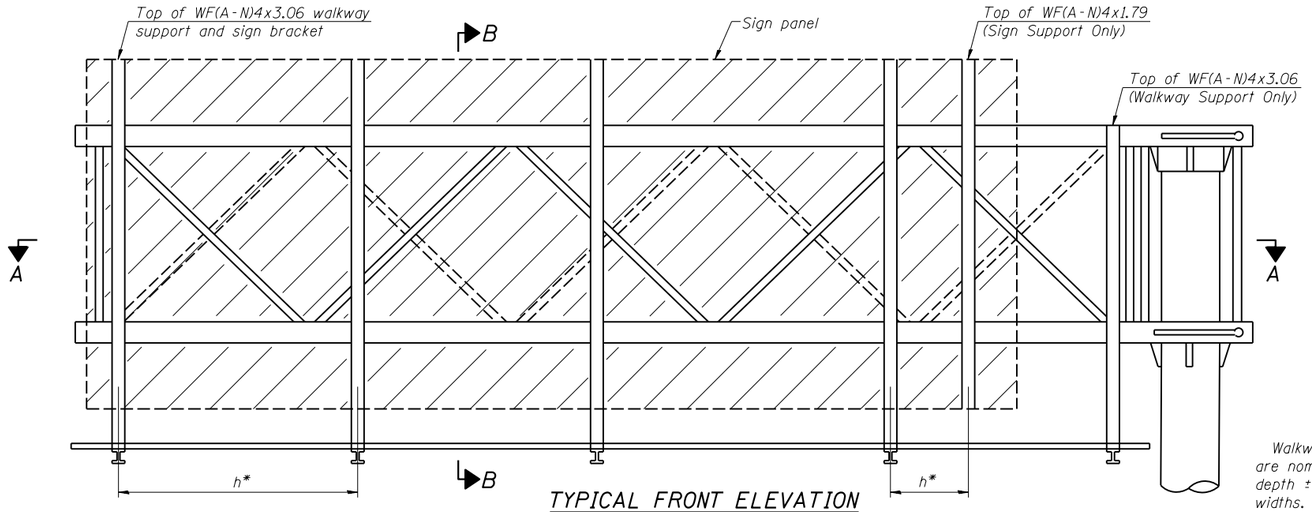
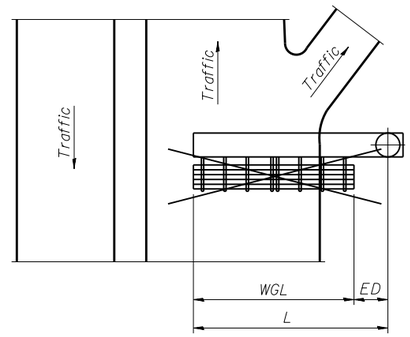
		CONTRACT NO. 60X56		
		ILLINOIS FED. AID PROJECT		



TYPICAL FRONT ELEVATION

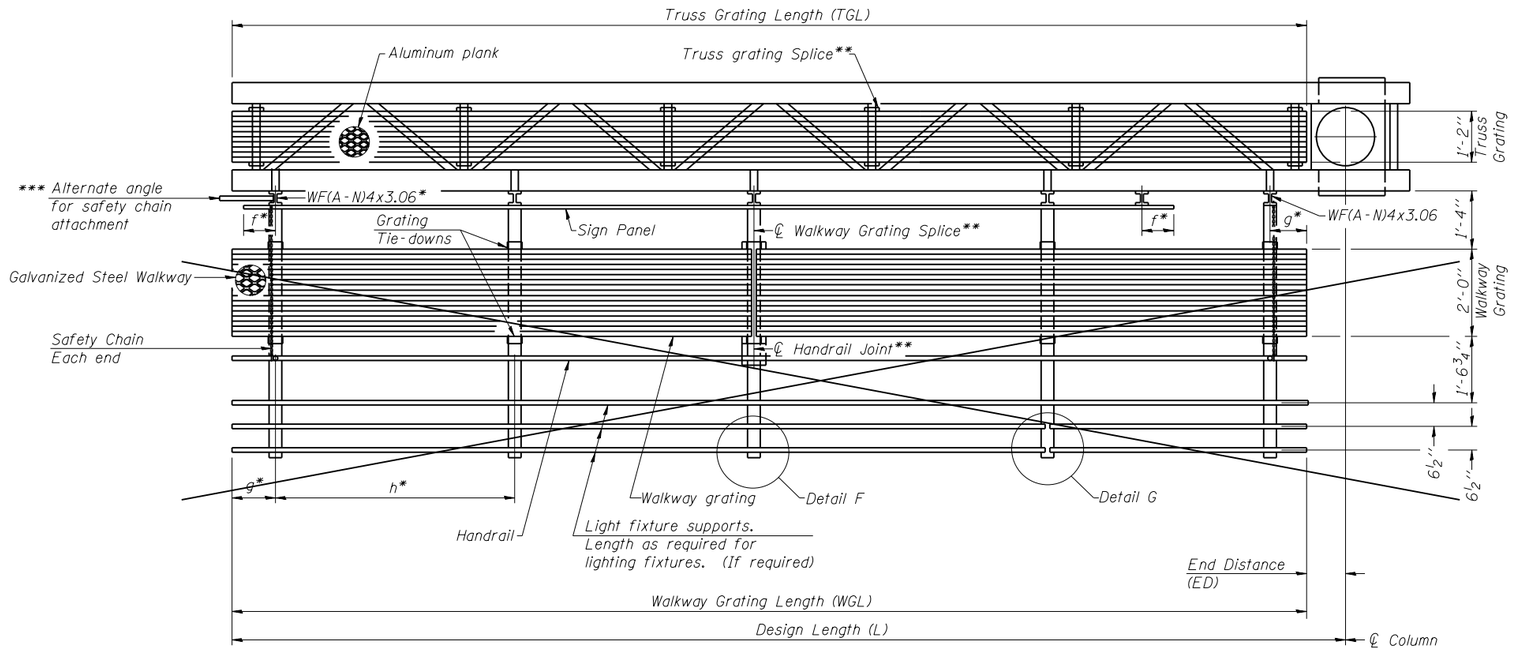
With lights and handrail omitted for clarity.

Walkway and truss grating dimensions are nominal and may vary (width ±½", depth ±½") based on available standard widths.



PLAN
WALKWAY AND HANDRAIL SKETCH

(Road plan beneath truss varies)



SECTION A-A

Truss grating to facilitate inspection shall run full length of cantilevers. Cost of truss grating is included in Overhead Sign Structure Cantilever.

Handrail and walkway grating shall span a minimum of three brackets between splices.

** Use and location of handrail joints or grating splices are optional, based on lengths needed and material availability.

$$TGL = L - \left(\frac{\text{Post O.D.}}{2} + 6''\right)$$

Structure Number	Station	WGL	ED	TGL
IC016I190L000.5	106+25	—	—	33'

Notes:

* Space walkway brackets WF(A-N)4x3.06 and sign brackets WF(A-N)4x1.79 for efficiency and within limits shown:

f = 12" maximum, 4" minimum (End of sign to ℄ of nearest bracket)
g = 12" maximum, 4" minimum (End of walkway to ℄ of nearest bracket)
h = 6'-0" maximum (℄ to ℄ sign and/or walkway support brackets. WF(A-N)4x1.79 or WF(A-N)4x3.06)

*** If walkway bracket at safety chain location is behind sign, add angle to bracket. See alternate safety chain attachment on base sheet OSC-A-8.

For details of sign placement, sign/walkway brackets, truss and walkway gratings, grating splices and Section B-B, see Base Sheet OSC-A-7S.
For details of handrail, handrail joint, safety chain and Details F and G, see Base Sheet OSC-A-8.

BRACKET TABLE

WF(A-N)4x1.79 or WF(A-N)4x3.06
ASTM B308, Alloy 6061-T6

Sign Width		Number Brackets Required
Greater Than	Less Than or Equal To	
	8'-0"	2
8'-0"	14'-0"	3
14'-0"	20'-0"	4
20'-0"	26'-0"	5
26'-0"	32'-0"	6

OSC-A-6S 6-1-12

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Globetrotters® Engineering Corporation
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	DRAWN - RJ	REVISED -
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PLOT DATE = 7/29/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURES – ALTERNATE STEEL
WALKWAY DETAILS – ALUMINUM TRUSS & STEEL POST

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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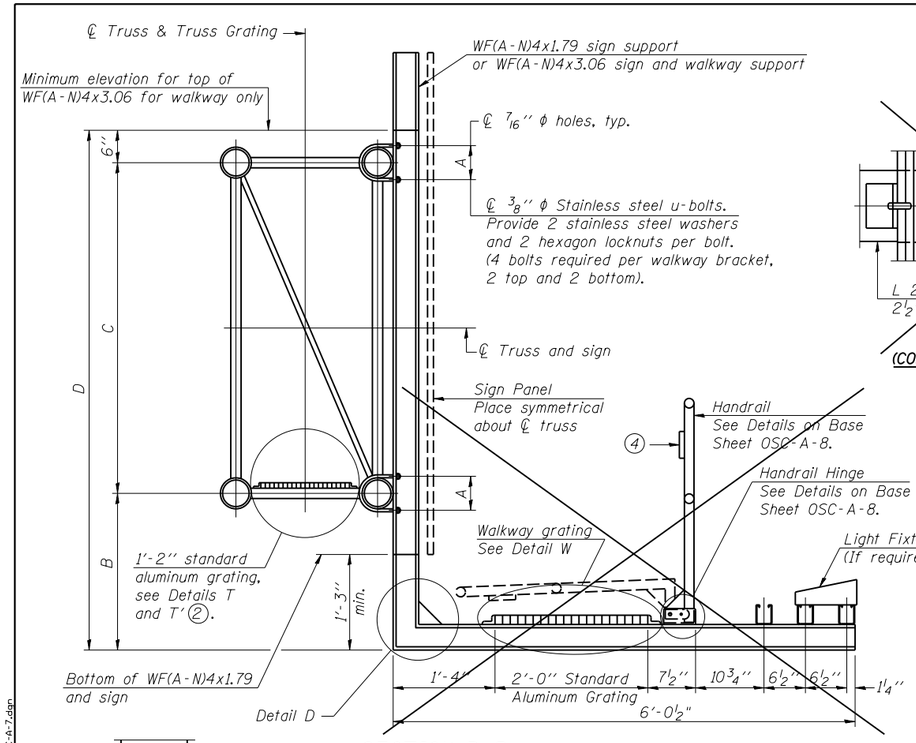
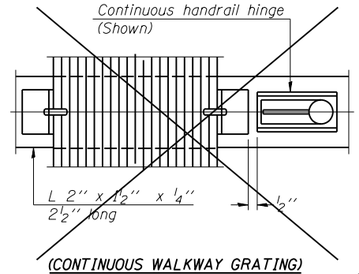
		CONTRACT NO. 60X56		
		ILLINOIS FED. AID PROJECT		

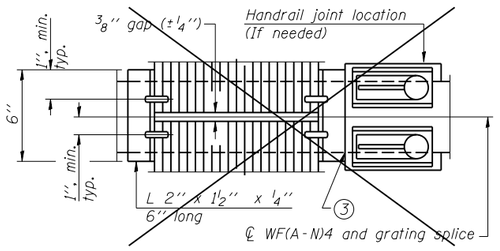


SECTION B-B

Sign shall be even with the top of the bracket, but it may extend no more than 6" above the top of the bracket for field adjustments.

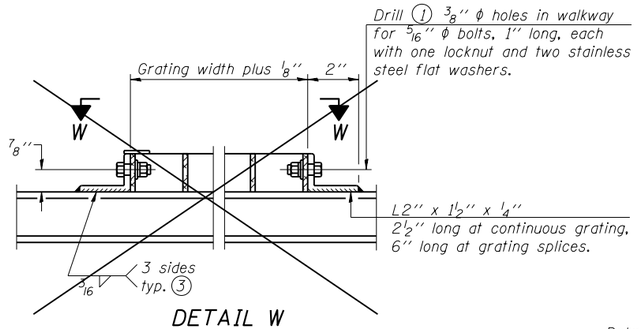


(CONTINUOUS WALKWAY GRATING)



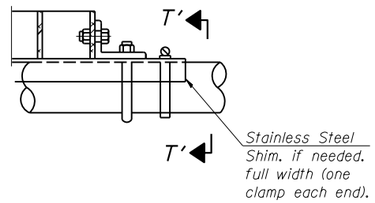
(AT WALKWAY GRATING SPLICE)

SECTION W-W



DETAIL W

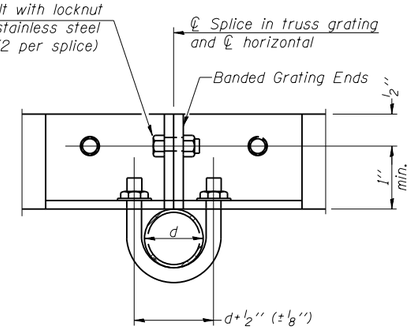
(Walkway grating)



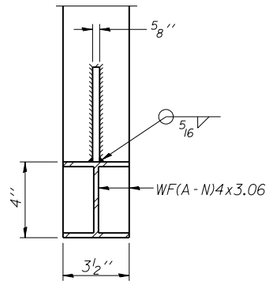
DETAIL T'

(Truss grating splice)

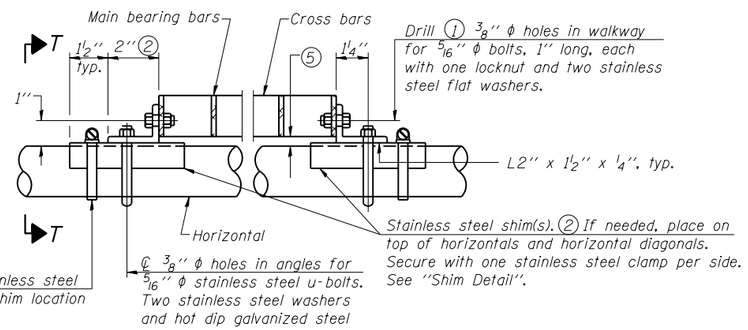
Details not shown same as Detail T. Alternate materials may be used subject to the Engineer's review and approval.



SECTION T'-T'

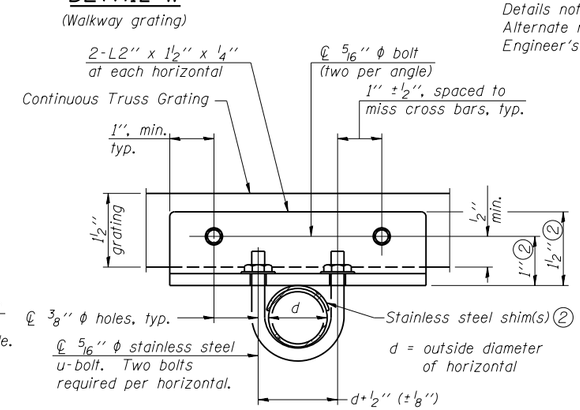


SECTION D-D

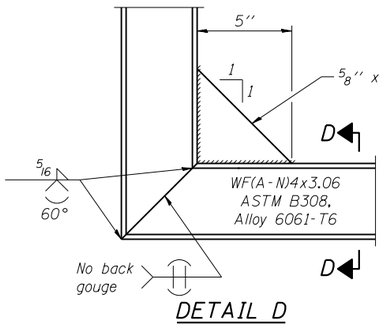


DETAIL T

(Continuous Truss grating)



SECTION T-T



DETAIL D

Structure Number	Station	WGL	ED	TGL
IC0161190L000.5	106+25	—	—	33'

SPECIFICATIONS FOR STANDARD ALUMINUM GRATING

Main Bearing Bars (MBB) shall be 3/16" x 1 1/2" on 1 3/16" centers and conform to ASTM B211 Alloy 6061-T6.

Cross bars (CB) shall be 3/16" x 1 1/2" on 4" centers and conform to ASTM B221 Alloy 6063-T5 or 6061-T6.

OR

Aluminum Grating with modified "T" sections for main bearing bars shall meet the following requirements:

Main bars shall conform to ASTM B221 Alloy 6061-T6 and have a minimum section modulus equal to 0.0705 in.³ per bar, a depth of 1 1/2", spaced on 1 3/16" centers.

Cross bars shall conform to ASTM B221 Alloy 6063-T5 or T-42 and spaced on 4" centers.

SHIM DETAIL

(1) Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.

(2) Stainless steel shims shall be placed as shown in Detail T if needed to compensate for alignment variations between horizontal and diagonal pipes beyond adjustment provided by angles. Thicker shims may be used subject to shims performing properly.

(3) If Handrail Joint present, weld angle to WF(A-N)4 and 1/4" extension bars. (See Base Sheet OSC-A-8.)

(4) PL 1/8" x 1/2" x 2" welded to handrail posts to protect locations that contact grating.

(5) Tube to grating gap may vary from 0 to 1/2", max. to align walkway, allow for camber, etc.

(6) Based on actual sign height, D_S, given on OSC-A-1.

OSC-A-7

6-1-12

Globetrotters Engineering Corporation
ENGINEERS ARCHITECTS
200 South Wacker Drive
Chicago, Illinois 60606

USER NAME = kenneth.lirette	DESIGNED - RD	REVISED -
	DRAWN - RJ	REVISED -
PLOT SCALE = 1:0.0000 '' / in.	CHECKED - RD	REVISED -
PLOT DATE = 7/29/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURES – WALKWAY DETAILS
ALUMINUM TRUSS & STEEL POST

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	198
		CONTRACT NO. 60X56		
	ILLINOIS	FED. AID PROJECT		

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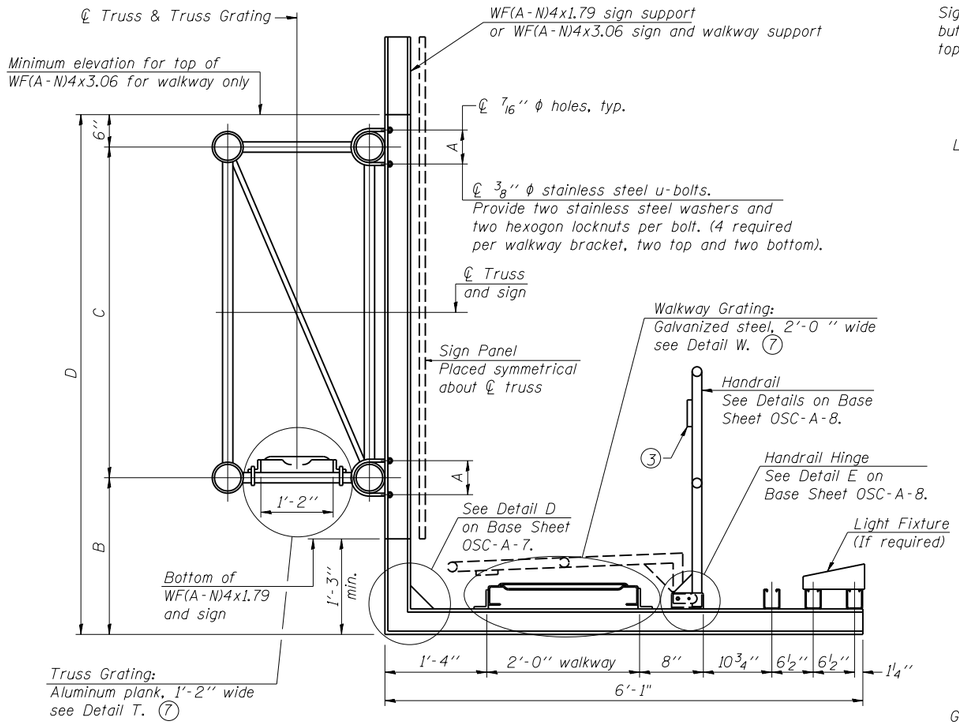
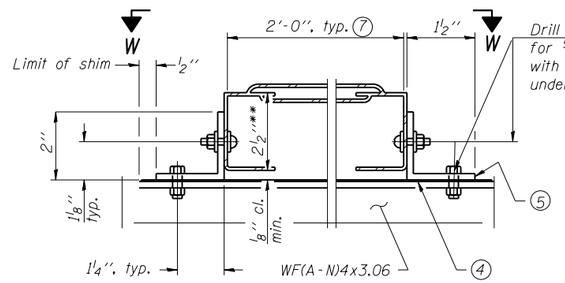
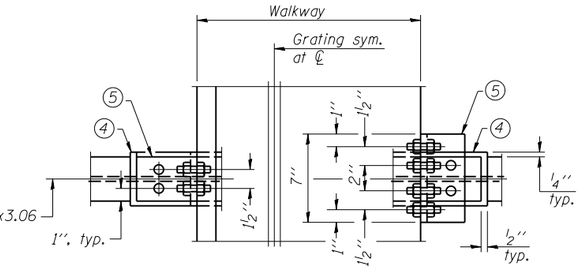


SECTION B-B

Sign shall be even with the top of the bracket, but it may extend no more than 6" above the top of the bracket for field adjustments.

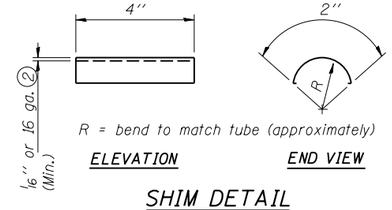


DETAIL W
GALVANIZED STEEL WALKWAY GRATING

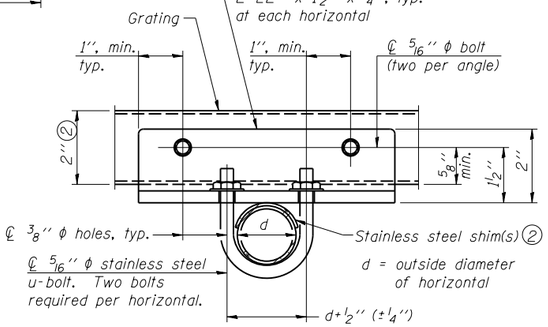


WALKWAY GRATING CONTINUOUS AT WALKWAY GRATING SPLICE

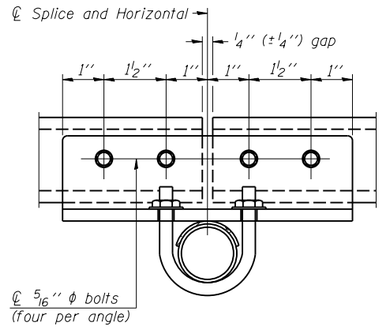
SECTION W-W



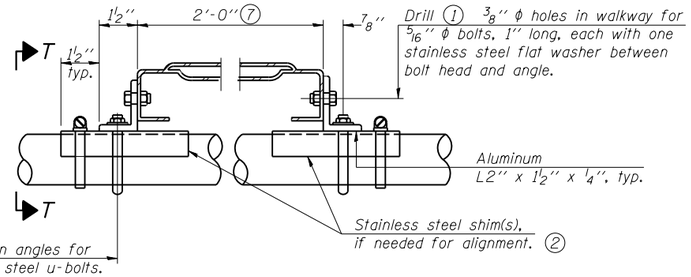
SHIM DETAIL



SECTION T-T
(Truss Grating Continuous)



SECTION T-T
(Truss Grating Splice)
Alternate splice details and locations may be used subject to the Engineer's review and approval.



DETAIL T
(Truss grating at horizontal)

ALUMINUM TRUSS GRATING

Structure Number	Station	A	(6) B	C	(6) D
1C016I190L000.5	106+25	8 3/8"	4'-9"	7'-0"	12'-3"

(1) Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.

(2) Stainless steel shims shall be placed under angles at horizontals and horizonal diagonals if needed to compensate for alignment variations and differences in horizontal diagonal pipe sizes beyond adjustment provided by angles. Secure with one stainless steel clamp per location, se "Shim Detail". Thicker shim plates may be used when needed subject to shims performing properly.

(3) PL 1/8" x 1/2" x 2" welded to handrail posts to protect locations that contact grating.

(4) 1/16" (or 16 ga.) x 2 1/2" x 4" stainless steel shim adhered to top of WF(A-N)4x3.06 beneath each galvanized angle, typ. Adhesives for shims shall be suitable for materials joined and full exposure conditions.

(5) Galvanized steel L2" x 2" x 1/4", 3 1/2" long with continuous grating 7" long at grating splice.

(6) Details shown are considered equal alternatives to Aluminum Walkway Details and may be substituted by Contractor at no charge in contract cost.

(7) Perforated or expanded metal grating providing a skid resistant (non-serrated) surface and capable of supporting a 500 pound concentrated load with a 6'-0" clear span. Walkway and truss grating dimensions are nominal and may vary (width ±1/2", depth 1/2") based on available standard sizes. Cut ends of grating shall be free of burrs or hazardous projections and coated with zinc-rich primer or equivalent.

(8) Based on actual sign height, Ds, given on OSC-A-1.

OSC-A-7S 6-1-12

Globestreiters® Engineering Corporation
ENGINEERS ARCHITECTS
200 South Wacker Drive
Chicago, Illinois 60606

USER NAME = kenneth.lirette	DESIGNED - RD	REVISED -
	DRAWN - RJ	REVISED -
PLOT SCALE = 1:0.0000 '' / in.	CHECKED - RD	REVISED -
PLOT DATE = 7/29/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

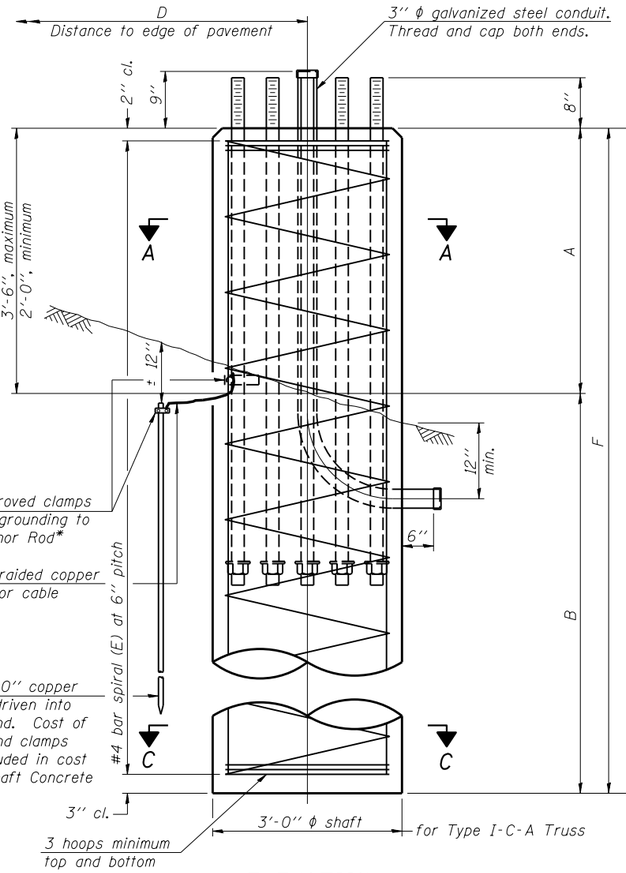
CANTILEVER SIGN STRUCTURES
ALTERNATE WALKWAY DETAILS

SCALE: SHEET OF SHEETS STA. TO STA.

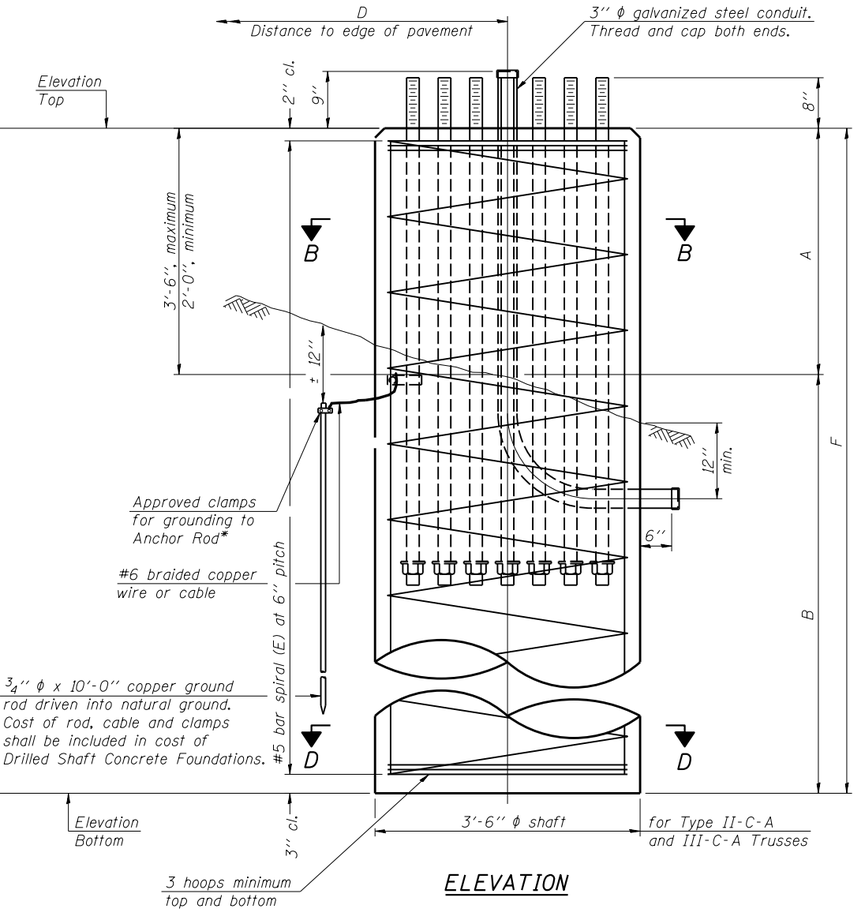
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	199
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			

FILE NAME = c:\projects\60x56_ontdb_orig\PWGreat_Lakes\Documents\Chicago Projects\30120 I-190 Cumberland\Design\2012020E\contract_60X56\OSC-A-7S.dgn

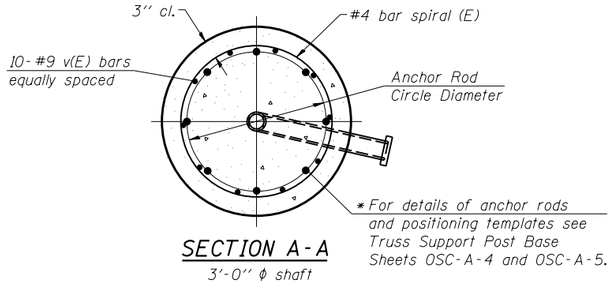
* Grind anchor rod to bright finish at ground clamp location before installing clamp.



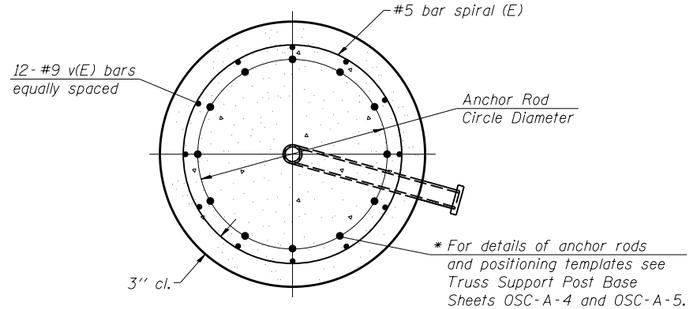
ELEVATION



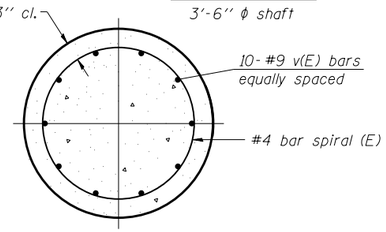
ELEVATION



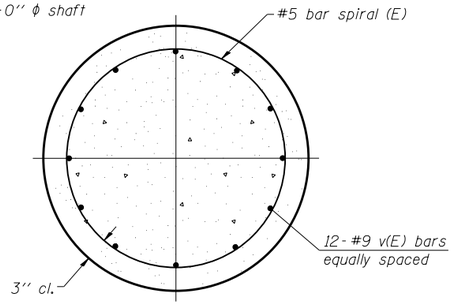
SECTION A-A
3'-0'' ϕ shaft



SECTION B-B
3'-6'' ϕ shaft



SECTION C-C
3'-0'' ϕ shaft



SECTION D-D
3'-6'' ϕ shaft

NOTES:

The foundation dimensions shown in the Foundation Design Table are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Qu) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown in the Foundation Data Table will be the result of site specific designs.

If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.

No sonotubes or decomposable forms shall be used below the lower conduit entrance. Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.

Concrete shall be placed monolithically, without construction joints.

Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.

A normal surface finish followed by a Concrete Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in "Drilled Shaft Concrete Foundation".

FOUNDATION DESIGN TABLE

Truss Type	Post Base Sheet	Maximum CantileverLength (ft)	Maximum Total Sign Area (sq ft)	Shaft Diameter (in)	"B" Depth (ft)	Anchor Rods No.	Anchor Rods Diameter (in)	Anchor Rod Circle Diameter (in)
I-C-A	OSC-A-4	25	170	3.0	16.0	8	2	22
II-C-A	OSC-A-5	30	170	3.5	17.0	12	2	30
II-C-A	OSC-A-5	30	340	3.5	21.5	12	2	30
III-C-A	OSC-A-5	35	170	3.5	19.0	12	2	30
III-C-A	OSC-A-5	35	250	3.5	22.5	12	2	30
III-C-A	OSC-A-5	35	400	3.5	26.5	12	2	30
III-C-A	OSC-A-5	40	400	3.5	32.0	12	2	30

FOUNDATION DATA TABLE

Structure Number	Station	Truss Type	Shaft Diameter	Elevation Top	Elevation Bottom	Qu	A	B	F	Class DS Concrete Cubic Yards
I C 016 I190 L 000.5	106+25	III-C-A	3'-6"	632.62	598.12	1.8 ksf	2'-6"	32'-0"	34'-6"	12.3

OSC-A-9 8-21-13

FILE NAME = c:\projects\D160X56-ant-DH Sheets\D160X56-ant-DH Sheets.dgn

Globetrotters Engineering Corporation
ENGINEERS ARCHITECTS
300 South Wacker Drive
Chicago, Illinois 60606

USER NAME = kenneth.lirette	DESIGNED - RD	REVISED -
	DRAWN - RJ	REVISED -
PLOT SCALE = 1'' / in.	CHECKED - RD	REVISED -
PLOT DATE = 7/28/2016	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURES – DRILLED SHAFT
ALUMINUM TRUSS & STEEL POST

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	200
		CONTRACT NO. 60X56		
	ILLINOIS FED. AID PROJECT			