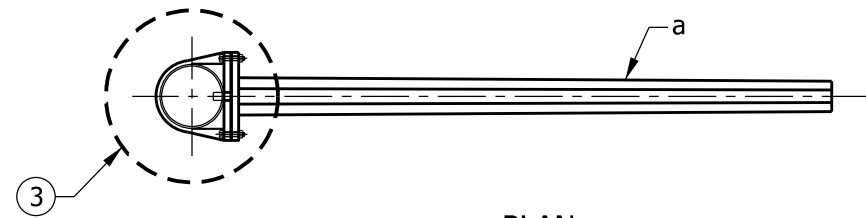
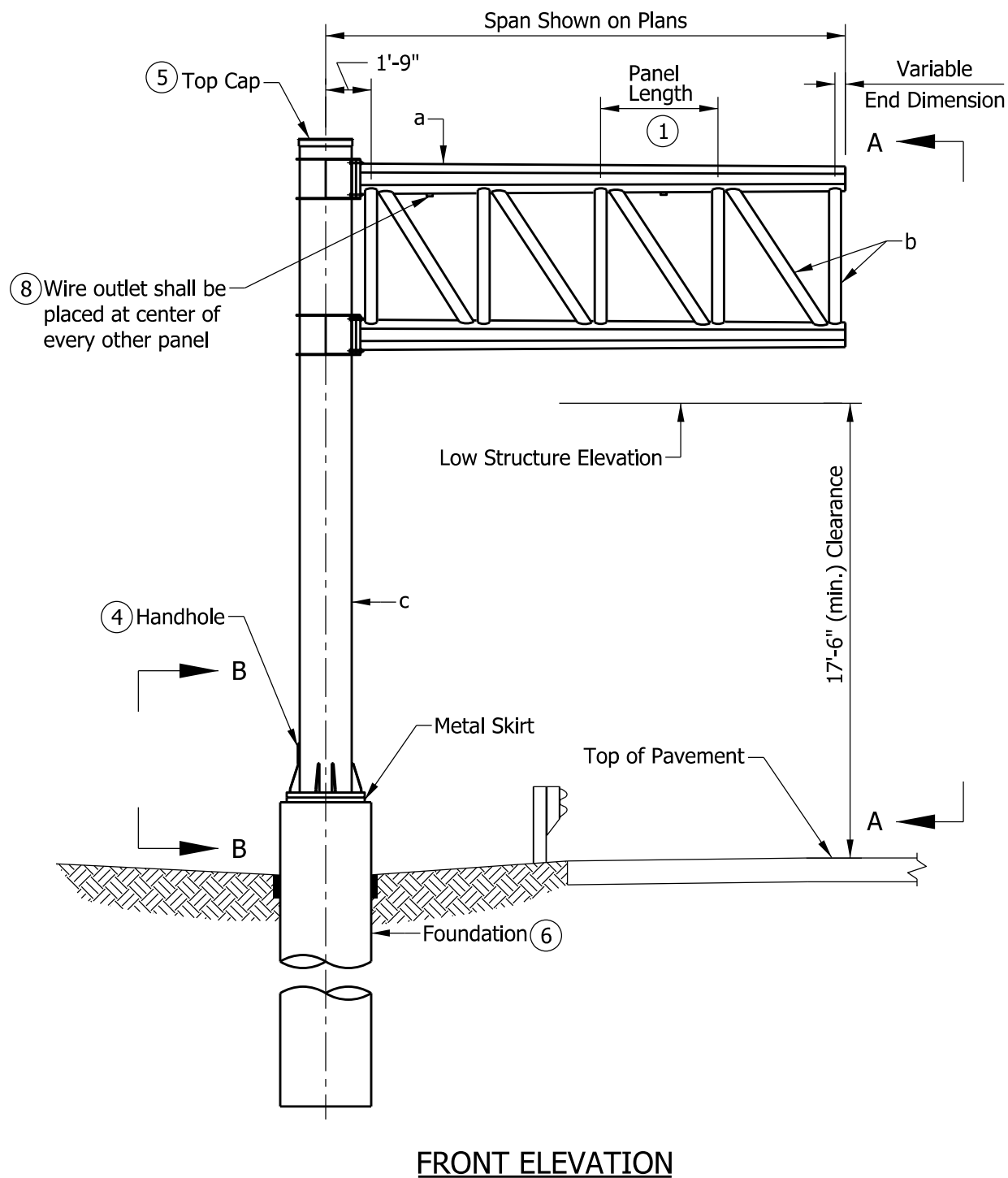
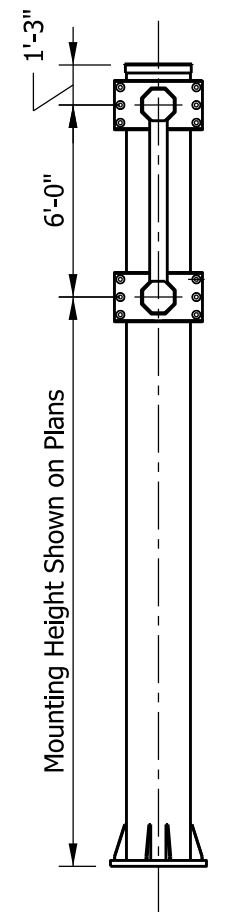


INDEX	
SHEET NO.	SUBJECT
1	Index
2	Double Arm Plan and Elevation
3	Double Arm Panel Dimensions and Member Sizes
4	Double Arm Connections, Weld Details, Chord End Plate Details, and Camber
5	Double Arm Connection to Column Details
6	Double Arm Column Top Cap and Cable J-Hook
7	Quadri-Chord Plan and Elevation
8	Quadri-Chord Panel Dimensions and Member Sizes
9	Quadri-Chord Connections, Weld Details, Chord End Plate Details, and Camber
10	Quadri-Chord Lower Arm Connection to Column and Wire Outlet Detail
11	Quadri-Chord Upper Arm Connection to Column
12	Double Arm and Quadri-Chord Base Plate, Anchor Bolt, and Metal Skirt Details
13	Double Arm and Quadri-Chord Column Handhole and I.D. Plate Details
14	Structure Type A & B Foundation at 33" Concrete Barrier
15	Structure Type C, D, & E Foundation at 33" Concrete Barrier
16	Structure Type F, G, H, I, & J Foundation at 33" Concrete Barrier
17	Structure Type K Foundation at 33" Concrete Barrier
18	Structure Type A & B Foundation at 45" Concrete Barrier
19	Structure Type C, D, & E Foundation at 45" Concrete Barrier
20	Structure Type F, G, H, ,I & J Foundation at 45" Concrete Barrier
21	Structure Type K Foundation at 45" Concrete Barrier
22	Structure Type A & B Foundation, 36" Height
23	Structure Type C, D, & E Foundation, 36" Height
24	Structure Type F, G, H, I, & J Foundation, 36" Height
25	Structure Type K Foundation, 36" Height

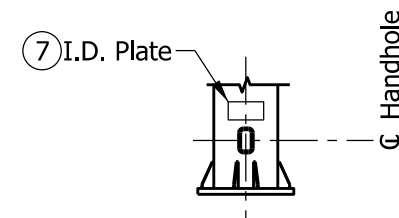
INDIANA DEPARTMENT OF TRANSPORTATION
SIGN CANTILEVER STRUCTURE INDEX



PLAN



ELEVATION
A-A



ELEVATION
B-B

NOTES:

- ① See sheet 03 for panel dimensions and member sizes.
2. Maximum deviation of a chord from a straight line shall be $\frac{1}{8}$ in.
- ③ See sheet 05 for connection to column details.
- ④ See sheet 13 for handhole detail.
- ⑤ See sheet 06 for top cap and cable J-hook detail.
- ⑥ See sheets 14, 18, and 22 for foundation details.
- ⑦ See sheet 13 for I.D. Plate detail.
- ⑧ See sheet 10 for wire outlet detail.

LEGEND:

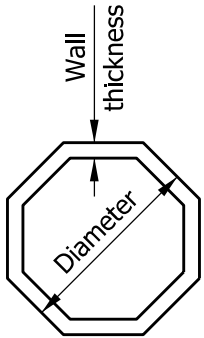
- a - Chord
- b - Vertical and Vertical Diagonal
- c - Column

INDIANA DEPARTMENT OF TRANSPORTATION

SIGN CANTILEVER STRUCTURE
DOUBLE ARM
PLAN AND ELEVATION

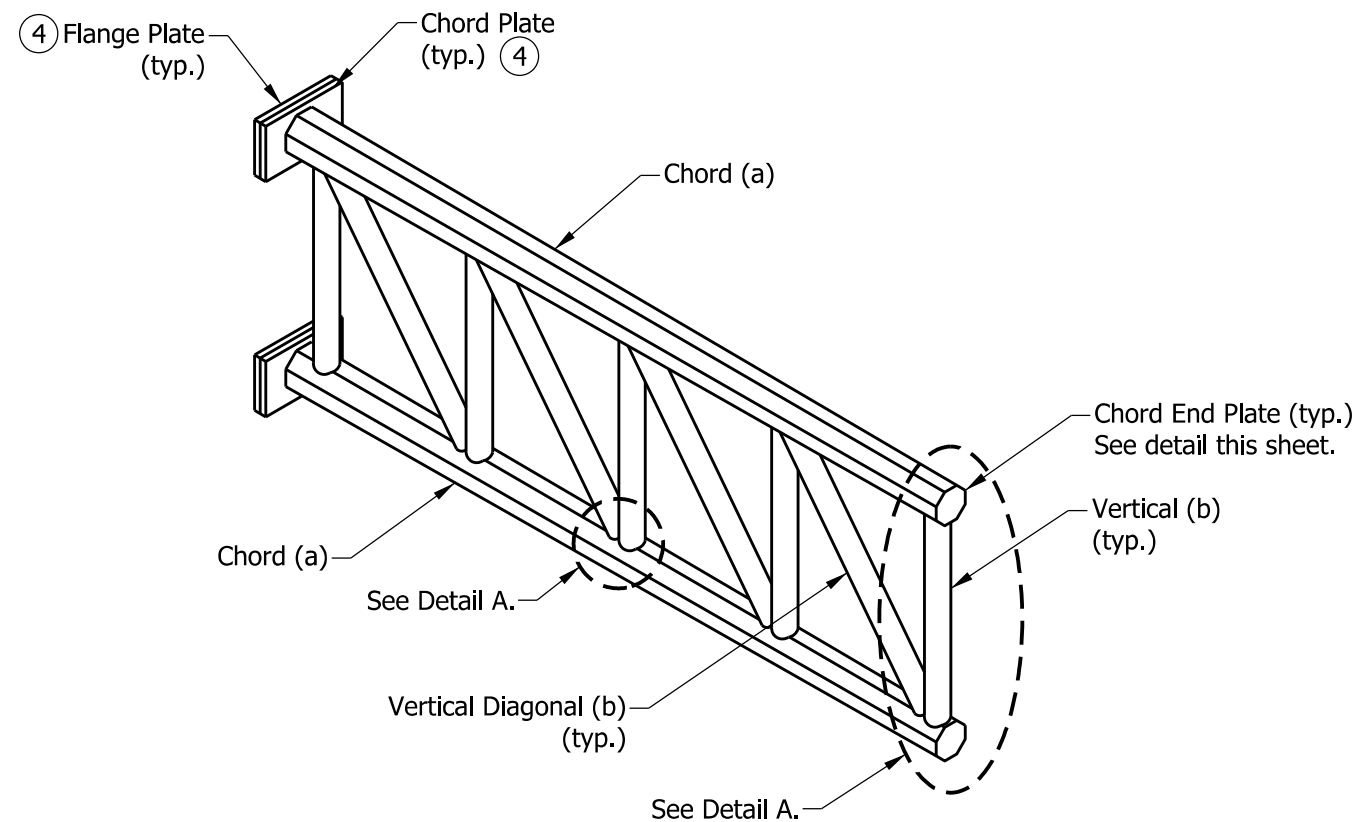
DOUBLE ARM PANEL DIMENSIONS			
SPAN	NO. OF PANELS	PANEL LENGTH	VARIABLE END DIMENSION
10'	2	4'-0"	0'-3"
11'	3	3'-0"	0'-3"
12'	3	3'-3"	0'-6"
13'	3	3'-6"	0'-9"
14'	3	4'-0"	0'-3"
15'	3	4'-3"	0'-6"
16'	4	3'-6"	0'-3"
17'	4	3'-9"	0'-3"
18'	4	4'-0"	0'-3"
19'	4	4'-3"	0'-3"
20'	4	4'-6"	0'-3"

- NOTES:**
1. All panels on the double arm shall be the same length. The minimum panel length is 3 ft - 0 in. and the maximum is 4 ft - 6 in.
 2. See sheet 04 for connections, weld details, and required camber.
 3. For base plate and anchor bolt details see sheet 12.
 4. See sheets 14, 18, and 22 for foundation details.
 5. All member diameters shown are outside diameters.
 - ⑥ Double arm chord shape shall be octagonal tubular with 0.14 in./ft taper, maximum diameter shown in table.

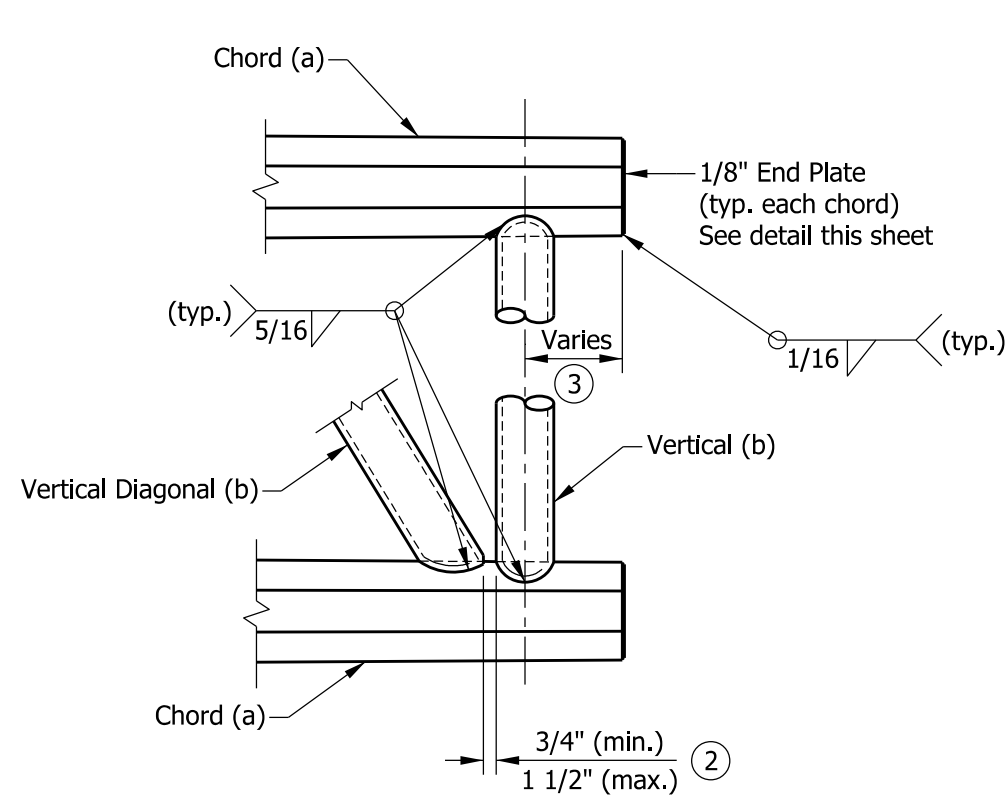


OCTAGON TUBULAR SHAPE

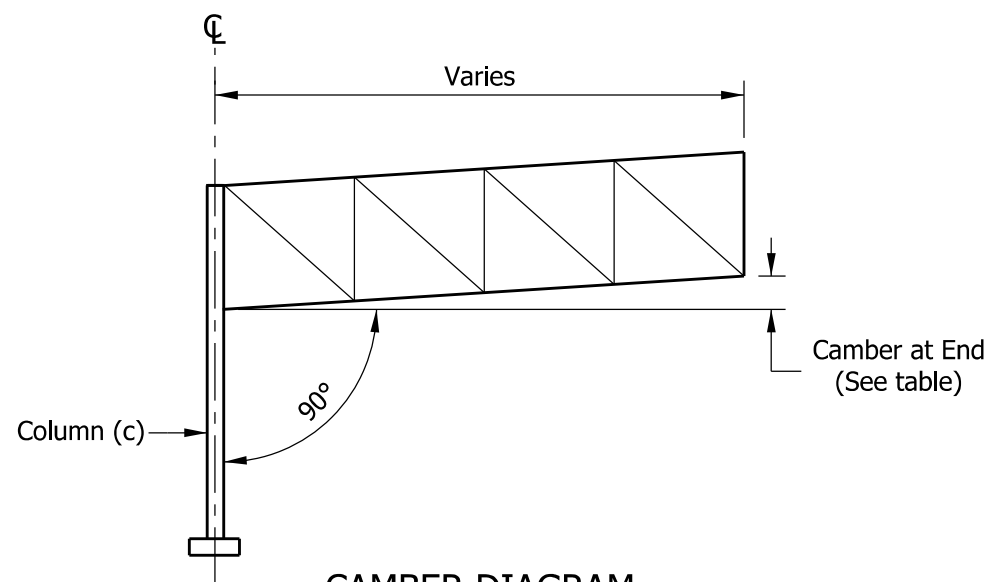
DOUBLE ARM MEMBER SIZES									
STR. TYPE	MAX SPAN (FT.)	MAX SIGN AREA (FT.)	MAX MOUNTING HEIGHT (FT.)	⑥ CHORD a		VERTICAL/VERTICAL DIAGONAL b		COLUMN c	
				DIAMETER (IN.)	WALL THICK. (IN.)	DIAMETER (IN.)	WALL THICK. (IN.)	DIAMETER (IN.)	WALL THICK. (IN.)
A	10	180	24	7 5/8	0.500	5 9/16	0.375	18	0.750
B	15	280	24	10 3/4	0.593	5 9/16	0.500	20	0.812
C	20	380	24	14	0.593	6 5/8	0.719	24	0.968



DOUBLE ARM



DETAIL A

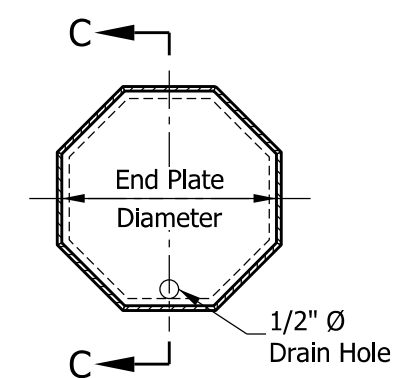


CAMBER DIAGRAM

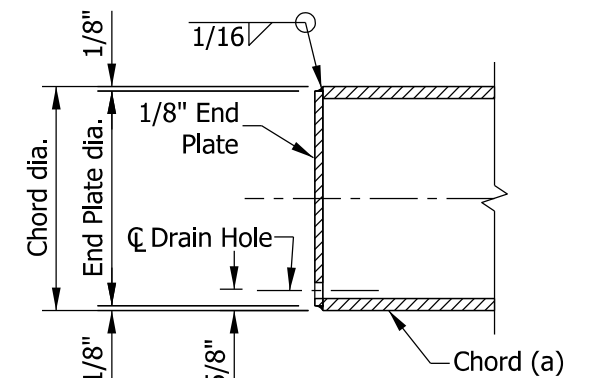
DOUBLE ARM		
STR. TYPE	LENGTH	CAMBER AT END (IN.)
A	10'-0"	0.375
B	15'-0"	0.750
C	20'-0"	1.000

NOTES:

1. See sheet 03 for panel dimensions and member sizes.
- 2 Vertical diagonals shall be placed for minimum offset from the panel point such that the offset shall provide a $\frac{3}{4}$ in. minimum to $1 \frac{1}{2}$ in. maximum clearance between each diagonal and vertical member, and to provide clearance for U-bolt connections to signs.
- 3 For variable end dimension, see table of panel dimensions on sheet 03.
- 4 See sheet 05 for flange plate and chord plate details.



END VIEW

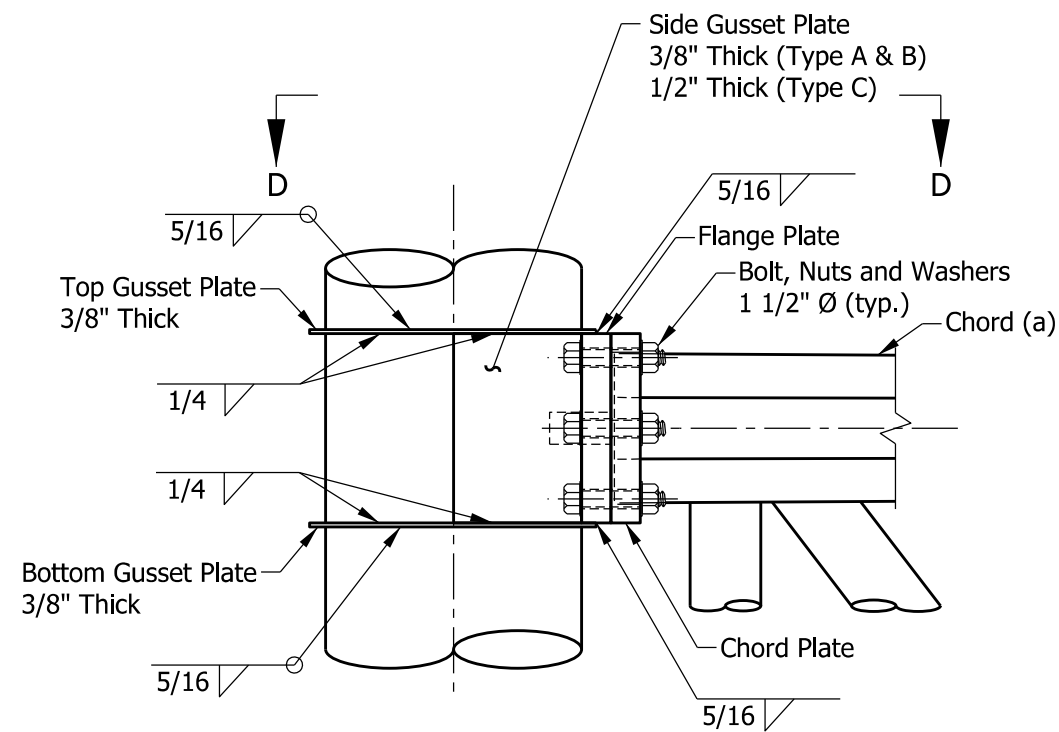


SECTION C-C

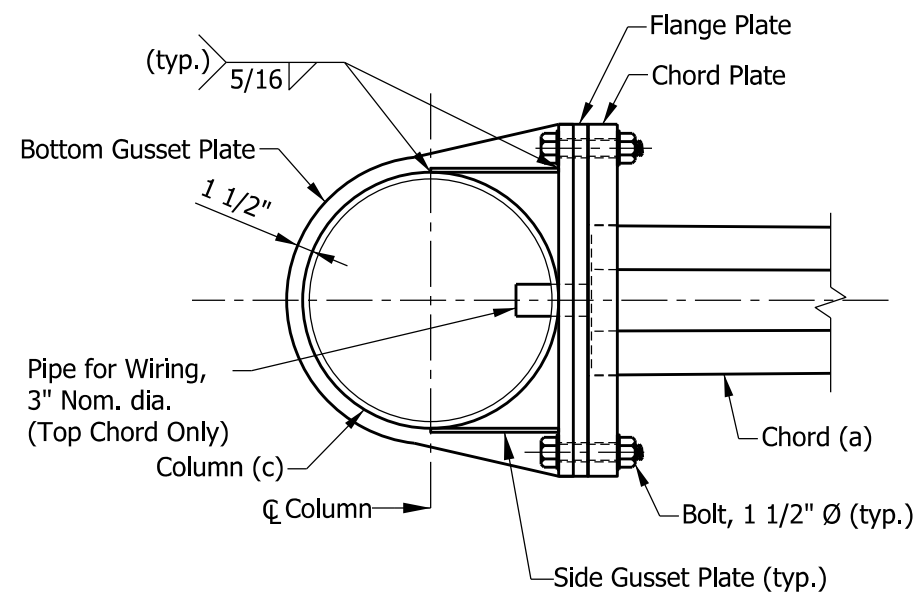
CHORD END PLATE DETAILS

INDIANA DEPARTMENT OF TRANSPORTATION

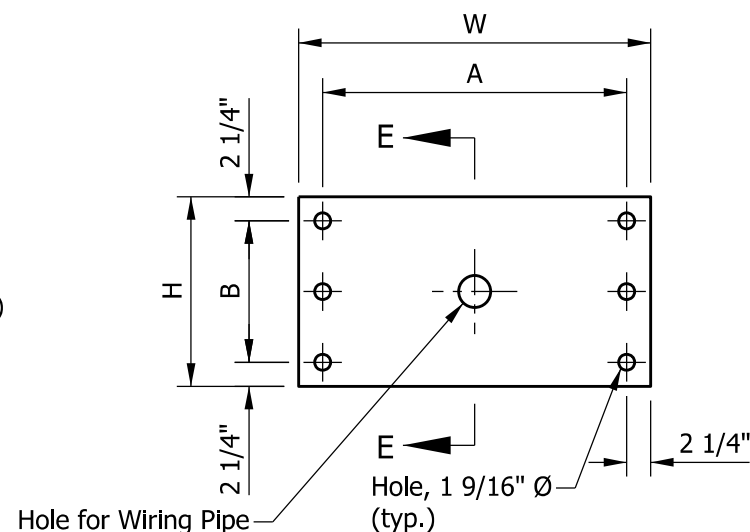
SIGN CANTILEVER STRUCTURE
DOUBLE ARM CONNECTIONS, WELD DETAILS,
CHORD END PLATE DETAILS, AND CAMBER



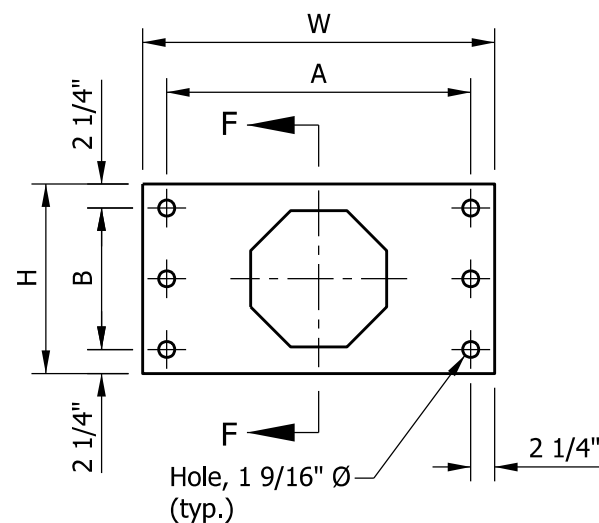
**DOUBLE ARM TRUSS CONNECTION
ELEVATION**



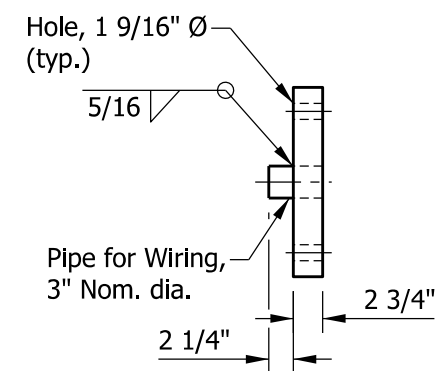
SECTION D-D



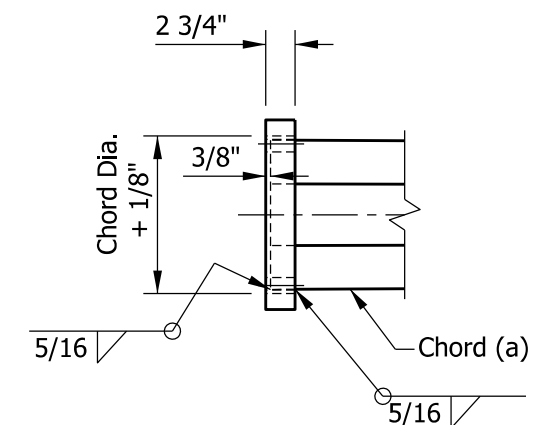
FLANGE PLATE



CHORD PLATE



SECTION E-E

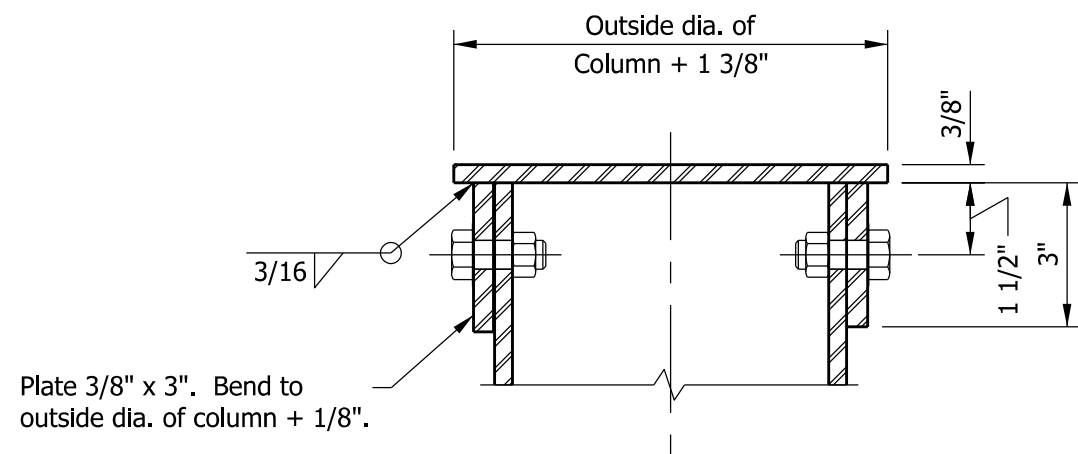


SECTION F-F

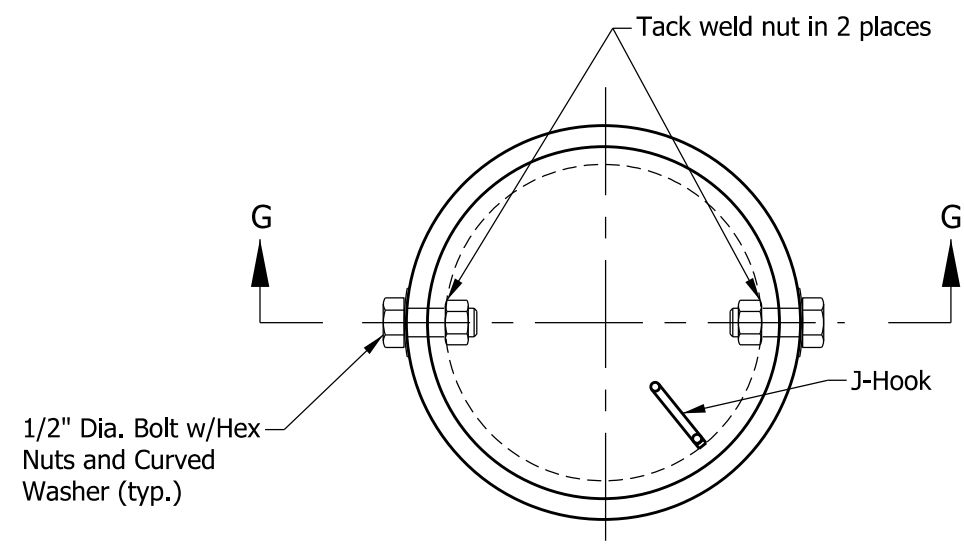
PLATE DIMENSIONS					
COLUMN DIAMETER	CHORD DIAMETER	W	H	A	B
18"	7 5/8"	2'-3"	1'-2"	1'-10 1/2"	9 1/2"
20"	10 3/4"	2'-5"	1'-5"	2'-0 1/2"	1'-0 1/2"
24"	14"	2'-9"	1'-6"	2'-4 1/2"	1'-1 1/2"

INDIANA DEPARTMENT OF TRANSPORTATION

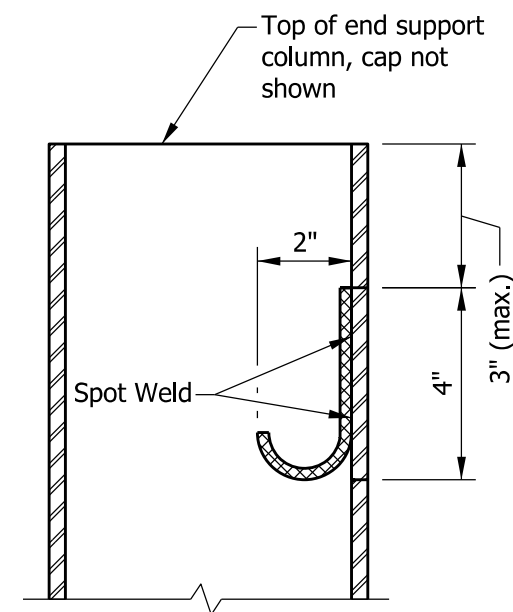
SIGN CANTILEVER STRUCTURE
DOUBLE ARM
CONNECTION TO COLUMN DETAILS



SECTION G-G



**PLAN
TOP CAP - STEEL COLUMN**



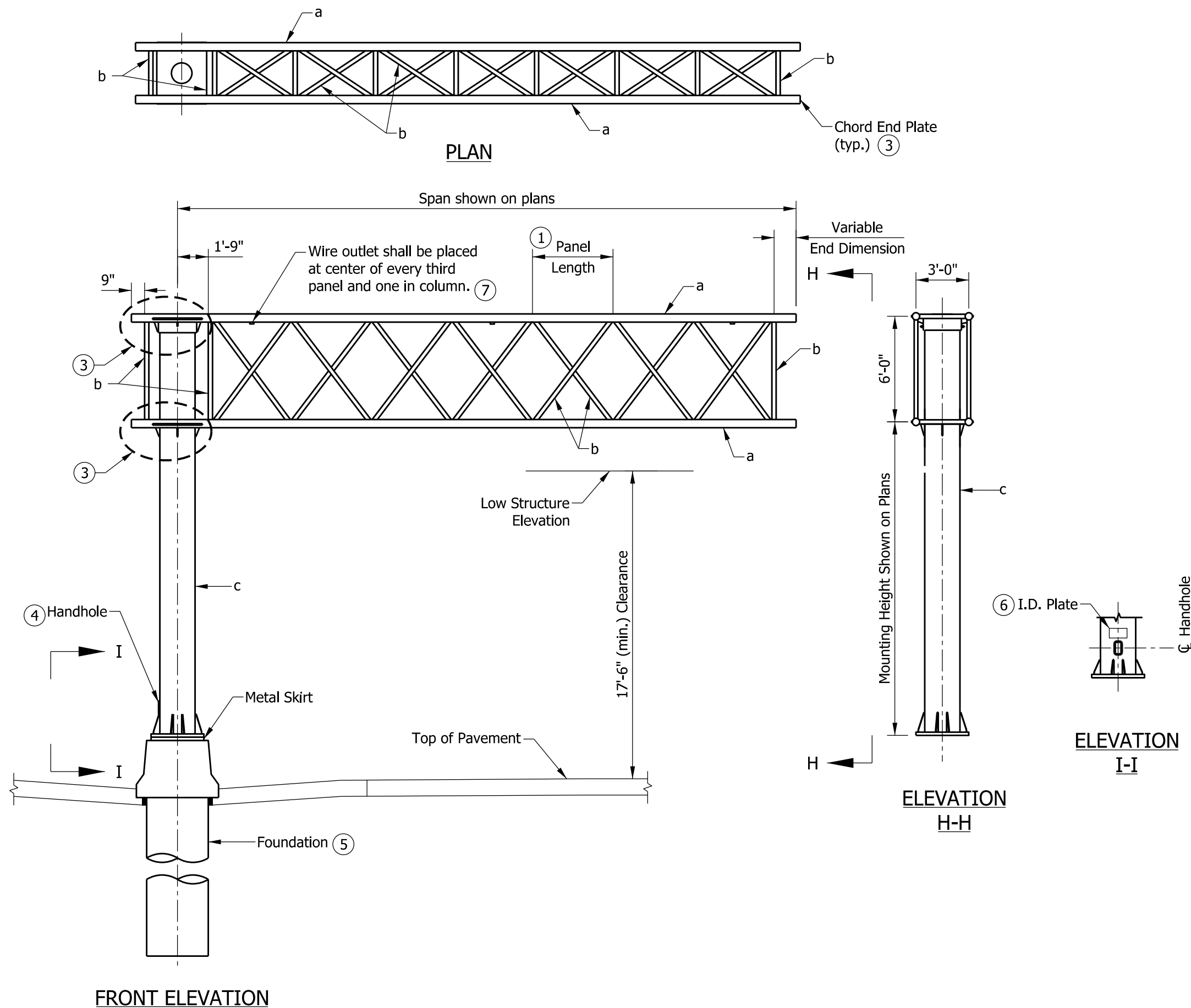
CABLE J-HOOK

NOTES:

1. J-hook shall consist of $\frac{3}{8}$ in. dia. bars constructed as shown, and spot-welded to inside of the columns.
2. Cap bolts used to attach top cap of columns shall be located to miss J-hook.

INDIANA DEPARTMENT OF TRANSPORTATION

SIGN CANTILEVER STRUCTURE
DOUBLE ARM COLUMN TOP CAP
AND CABLE J-HOOK



NOTES:

- (1) See sheet 08 for panel dimensions and member sizes.
2. Maximum deviation of a chord from a straight line shall be $\frac{1}{8}$ in.
- (3) See sheets 09 through 11 for quadri-chord arm connection, weld details, chord end plate details, and camber.
- (4) See sheet 13 for handhole detail.
- (5) See sheets 15, 16, 17, 19, 20, 21, 23, 24, and 25 for foundation details.
- (6) See sheet 13 for I.D. Plate detail.
- (7) See sheet 10 for wire outlet detail.

LEGEND:

- a - Chord
- b - Interior members:
Verticals and vertical diagonals in front and back faces, and
horizontals and horizontal diagonals in top and bottom faces of arm.
- c - Column

INDIANA DEPARTMENT OF TRANSPORTATION

SIGN CANTILEVER STRUCTURE
QUADRI-CHORD
PLAN AND ELEVATION

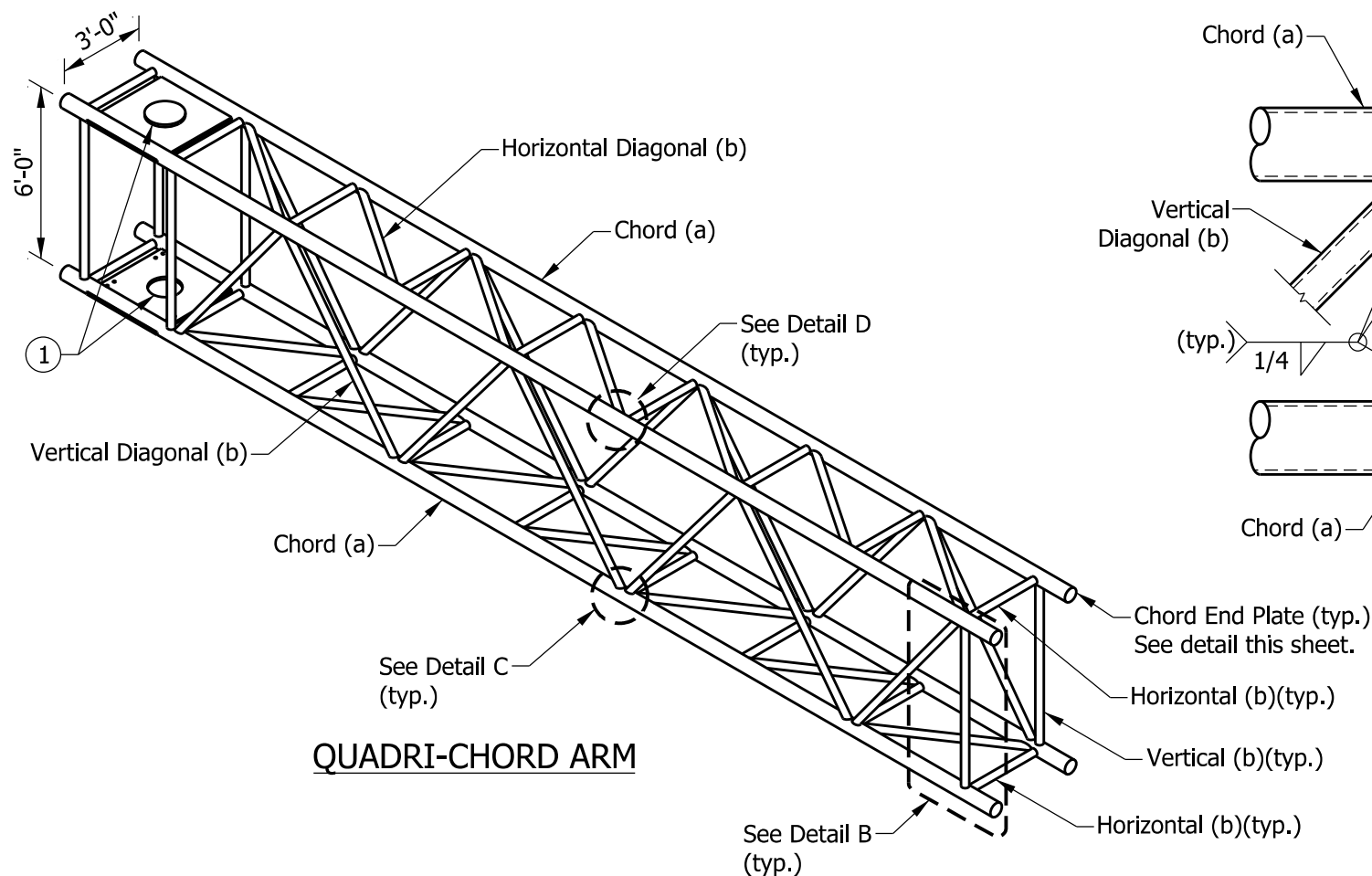
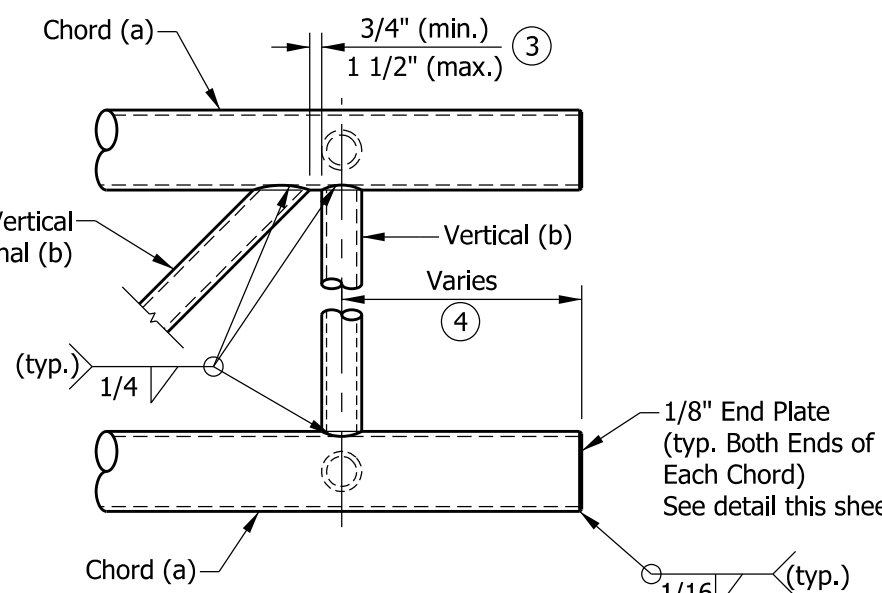
PANEL DIMENSIONS			
SPAN	NO. OF PANELS	PANEL LENGTH	VARIABLE END DIMENSION
21'	5	3'-9"	0'-6"
22'	5	3'-9"	1'-6"
23'	5	4'-0"	1'-3"
24'	5	4'-3"	1'-0"
25'	5	4'-6"	0'-9"
26'	6	3'-9"	1'-9"
27'	6	4'-0"	1'-3"
28'	6	4'-3"	0'-9"
29'	6	4'-3"	1'-9"
30'	6	4'-6"	1'-3"
31'	7	4'-0"	1'-3"
32'	7	4'-3"	0'-6"
33'	7	4'-3"	1'-6"
34'	7	4'-6"	0'-9"
35'	7	4'-6"	1'-9"
36'	8	4'-2"	0'-11"
37'	8	4'-3"	1'-3"
38'	8	4'-5"	0'-11"
39'	8	4'-6"	1'-3"
40'	8	4'-8"	0'-11"
41'	9	4'-3"	1'-0"
42'	9	4'-4"	1'-3"
43'	9	4'-6"	0'-9"
44'	9	4'-6"	1'-9"
45'	9	4'-9"	0'-6"

- NOTES:**
1. All panels in a structure shall be the same length. The minimum panel length is 3 ft - 9 in. and the maximum is 4 ft - 6 in.
 2. See sheet 09 for connections, weld details, and required camber.
 3. For base plate, anchor bolt, and metal skirt details see sheet 12.
 4. All member diameters shown are outside diameters.
 5. Quadri-chord arm chord shape shall be circular with constant diameter.

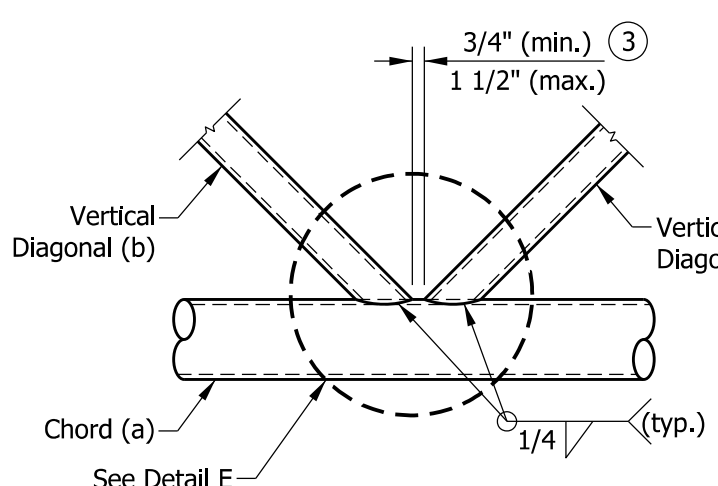
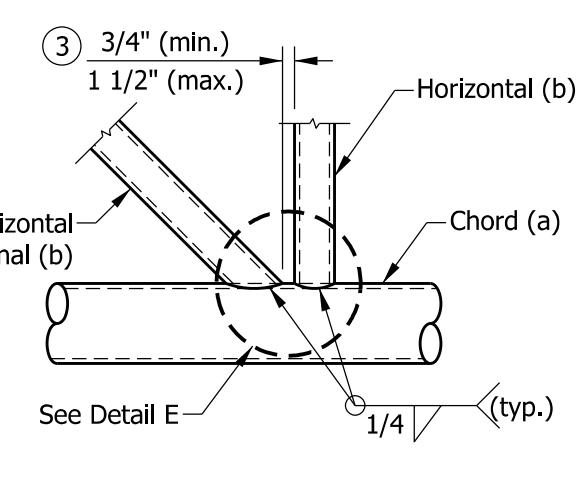
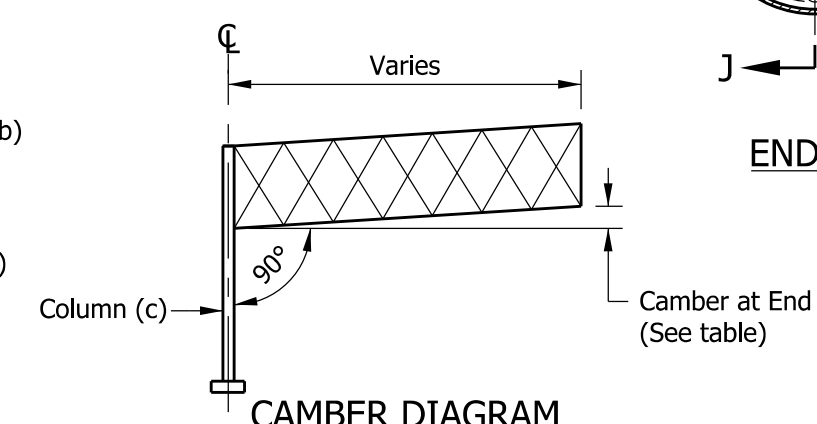
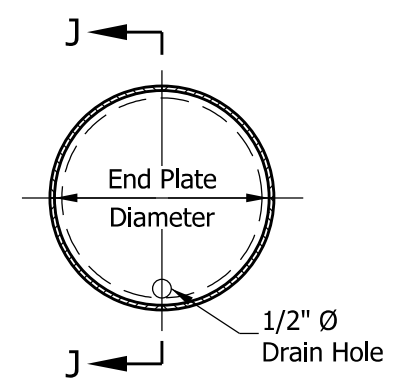
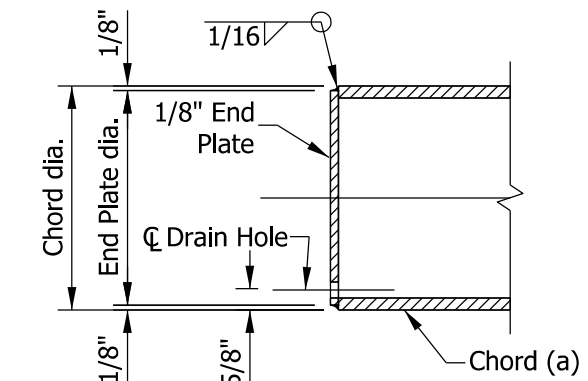
QUADRI-CHORD MEMBER SIZES									
STR. TYPE	MAX SPAN (FT.)	MAX SIGN AREA (FT.)	MAX MOUNTING HEIGHT (FT.)	CHORD (a)		VERT./HORIZ./DIAG. (b)		COLUMN (c)	
				DIAMETER (IN.)	WALL THICK. (IN.)	DIAMETER (IN.)	WALL THICK. (IN.)	DIAMETER (IN.)	WALL THICK. (IN.)
D	25	300	24	5 9/16	0.258	2 7/8	0.276	24	0.562
E	30	300	24	5 9/16	0.258	3 1/2	0.300	24	0.562
F	35	300	24	5 9/16	0.375	3 1/2	0.300	24	0.688
G	25	400	24	5 9/16	0.375	3 1/2	0.300	24	0.968
H	30	400	24	5 9/16	0.375	3 1/2	0.300	24	0.968
I	35	400	24	5 9/16	0.375	4	0.318	24	0.968
J	40	310	24	5 9/16	0.375	4	0.318	24	0.968
K	45	400	24	6 5/8	0.432	4.5	0.337	24	0.968

INDIANA DEPARTMENT OF TRANSPORTATION

SIGN CANTILEVER STRUCTURE
QUADRI-CHORD
PANEL DIMENSIONS AND MEMBER SIZES

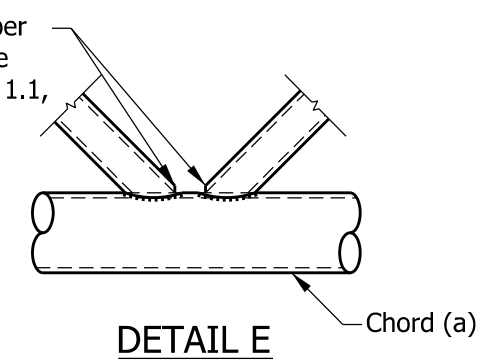


- NOTES:**
- See sheets 10 and 11 for quadri-chord arm connection to column details.
 - See sheet 08 for panel dimensions and member sizes.
 - Vertical diagonals shall be placed for minimum offset from the panel point such that the offset shall provide a $\frac{3}{4}$ in. minimum to $1\frac{1}{2}$ in. maximum clearance between each diagonal and vertical member, and to provide clearance for U-bolt connections to signs.
 - For variable end dimension, see table on sheet 08.



CHORD END PLATE DETAILS

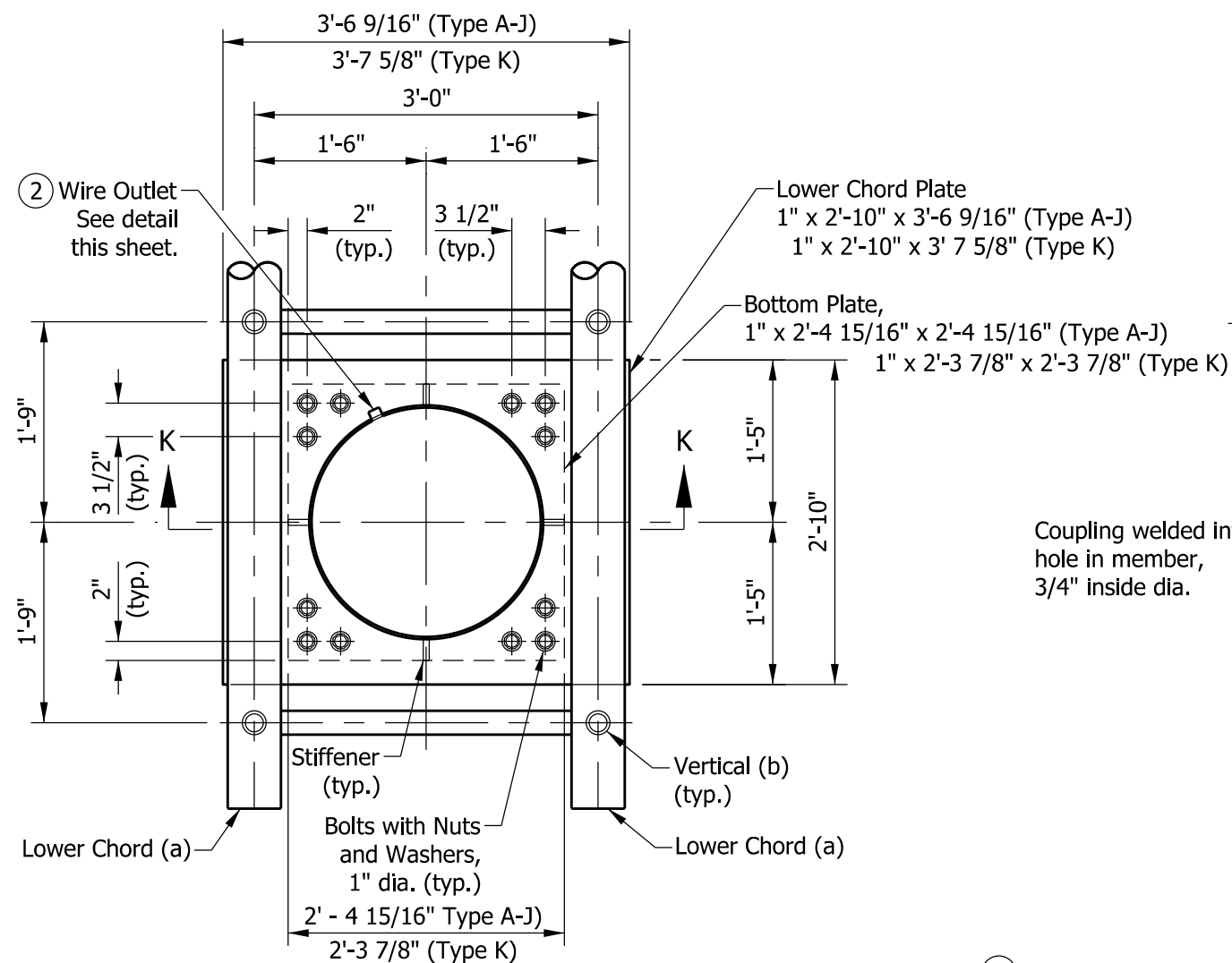
Top edge of diagonal member shall be cut back to facilitate throat thickness per AWS D 1.1, Figure 10.5



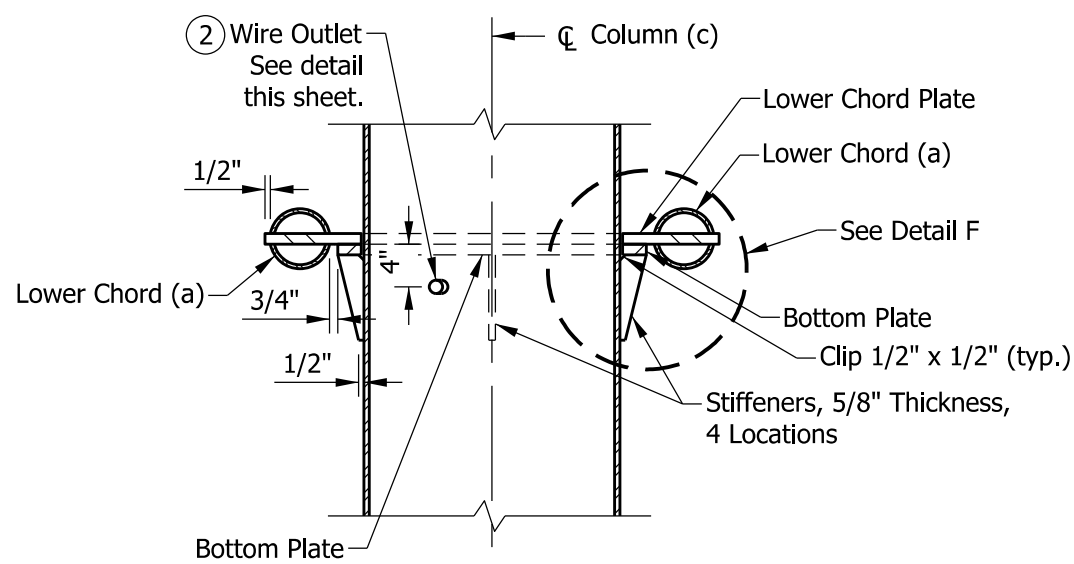
QUADRI-CHORD ARM		
STR. TYPE	LENGTH	CAMBER AT END (IN.)
D	25'-0"	1.750
E	30'-0"	2.625
F	35'-0"	3.500
G	25'-0"	1.250
H	30'-0"	2.000
I	35'-0"	3.000
J	40'-0"	3.500
K	45'-0"	5.000

INDIANA DEPARTMENT OF TRANSPORTATION

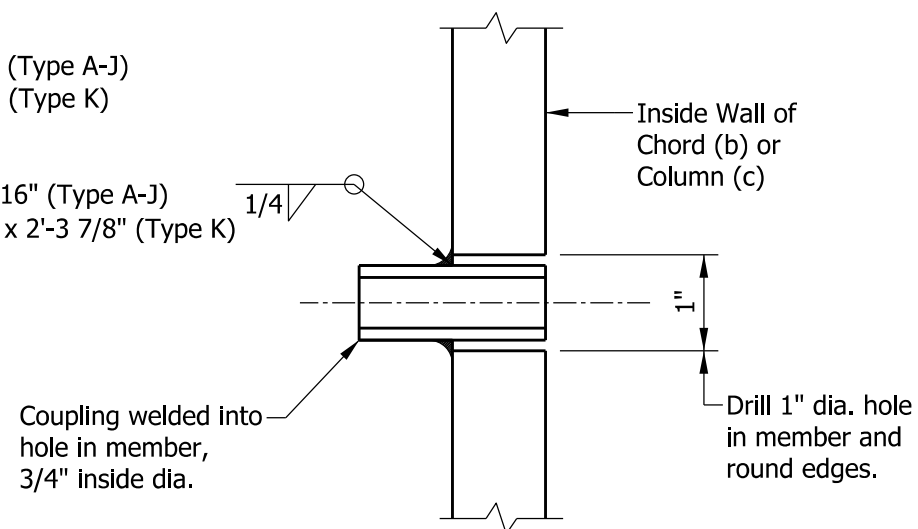
SIGN CANTILEVER STRUCTURE
QUADRI-CHORD CONNECTIONS, WELD DETAILS,
CHORD END PLATE DETAILS, AND CAMBER



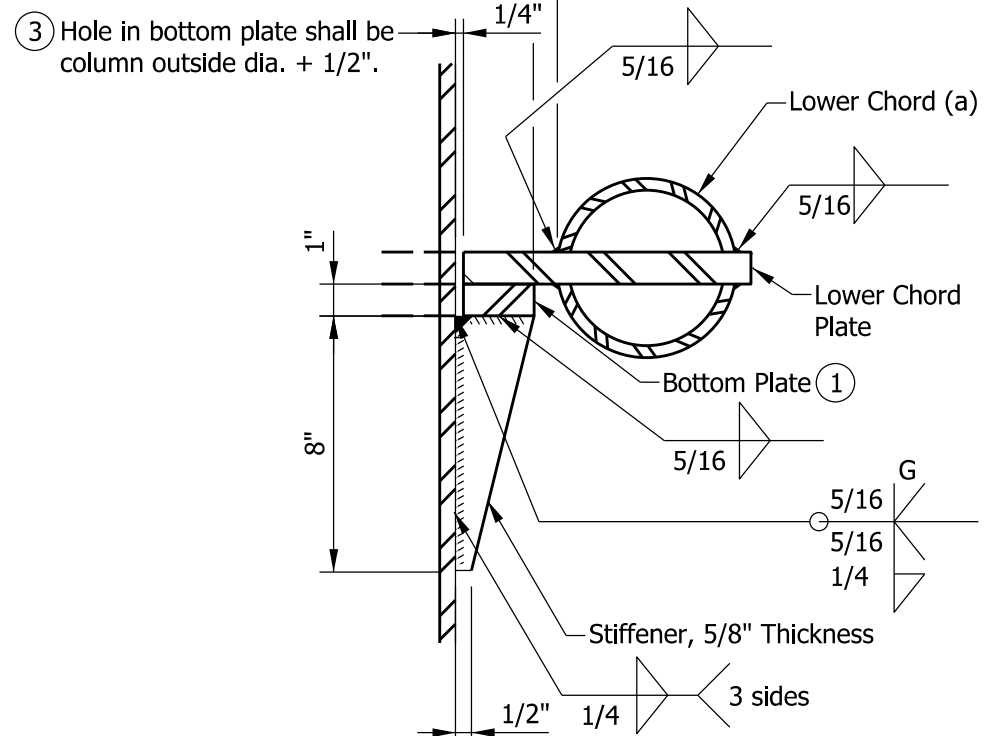
PLAN VIEW THROUGH COLUMN ABOVE LOWER CHORDS



SECTION K-K



TYPICAL WIRE OUTLET



DETAIL F

NOTES:

- ① If necessary, the top bottom plate shall be ground to fully seat lower chord plate. Any damages galvanizing shall be repaired before assembly.
- ② Pipe shall be oriented towards sign. Hole diameter in column shall equal outside pipe diameter + $\frac{1}{8}$ in.
- ③ After tightening lower connection bolts, gap shall be filled with non-hardening silicone caulk suitable for exterior exposure.

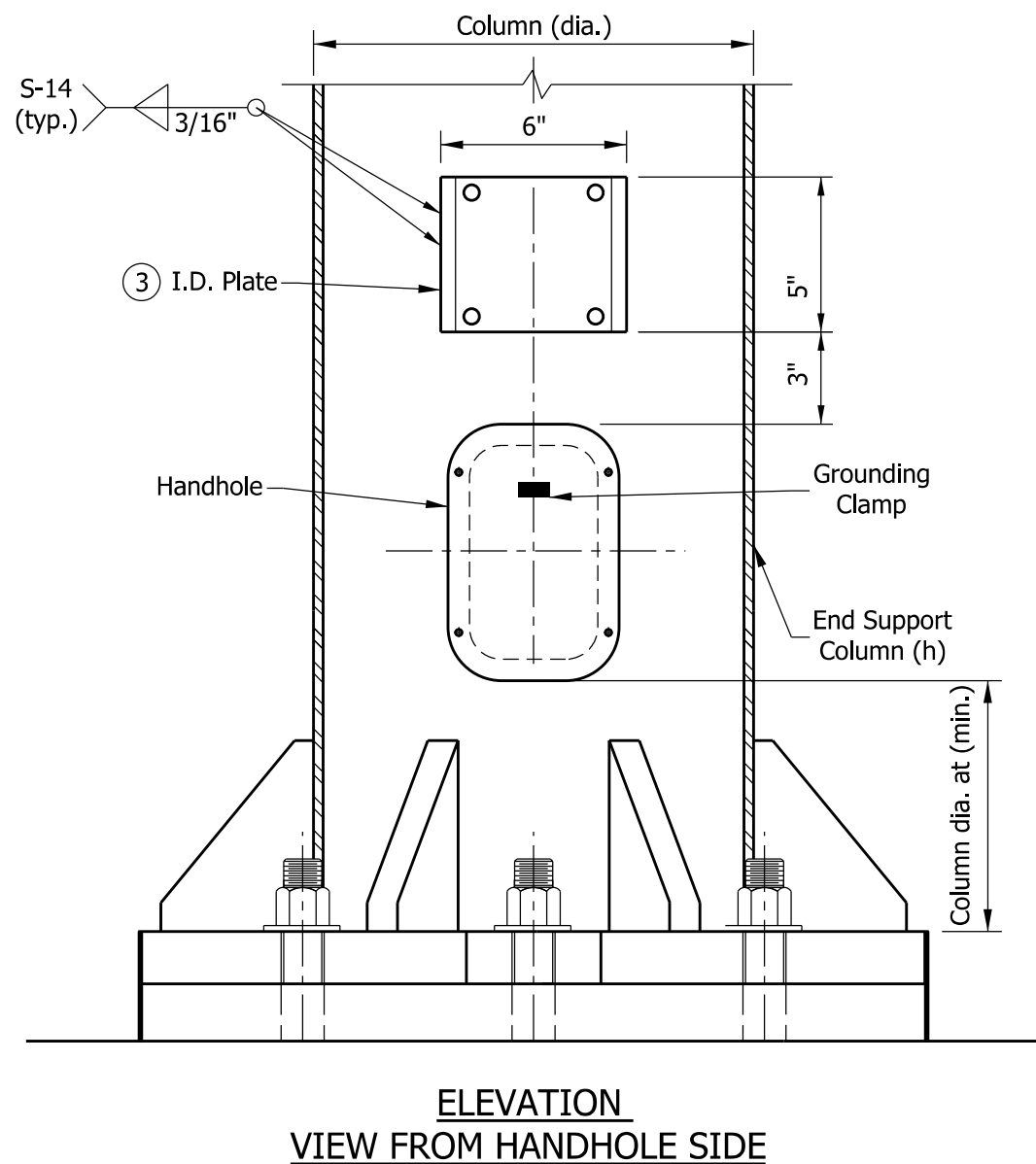
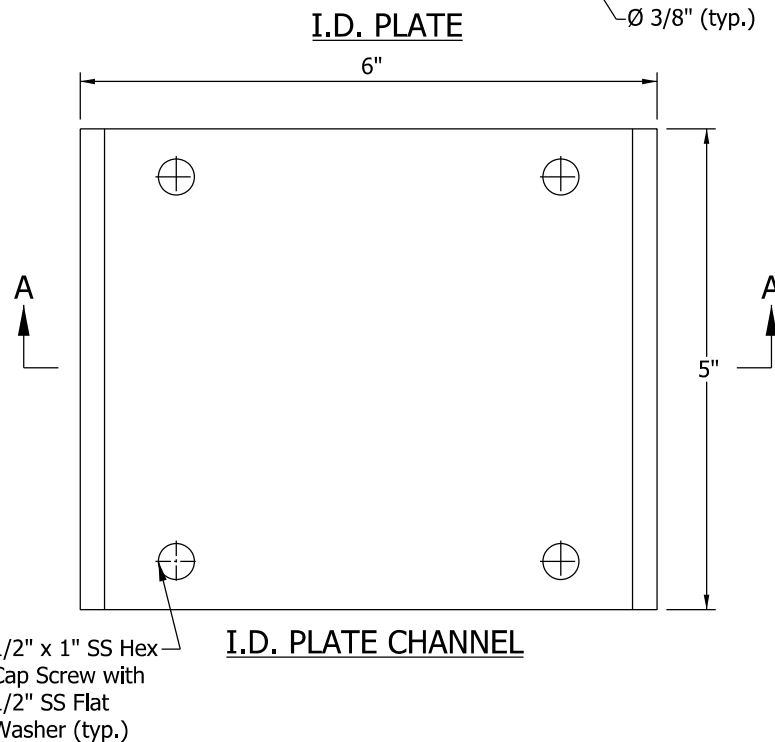
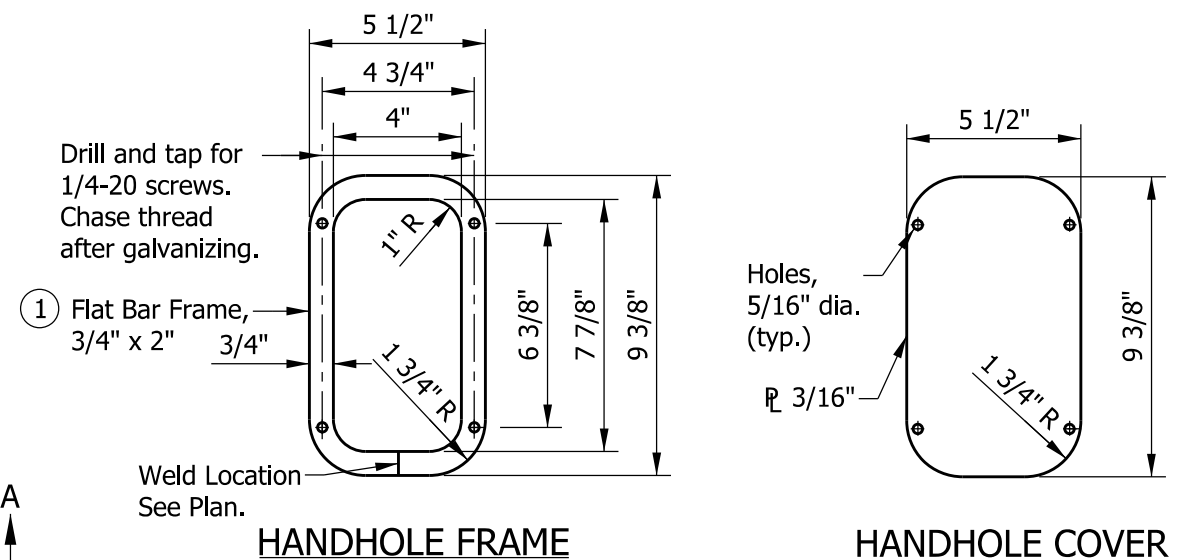
INDIANA DEPARTMENT OF TRANSPORTATION

SIGN CANTILEVER STRUCTURE
QUADRI-CHORD LOWER ARM CONNECTION
TO COLUMN AND WIRE OUTLET DETAIL



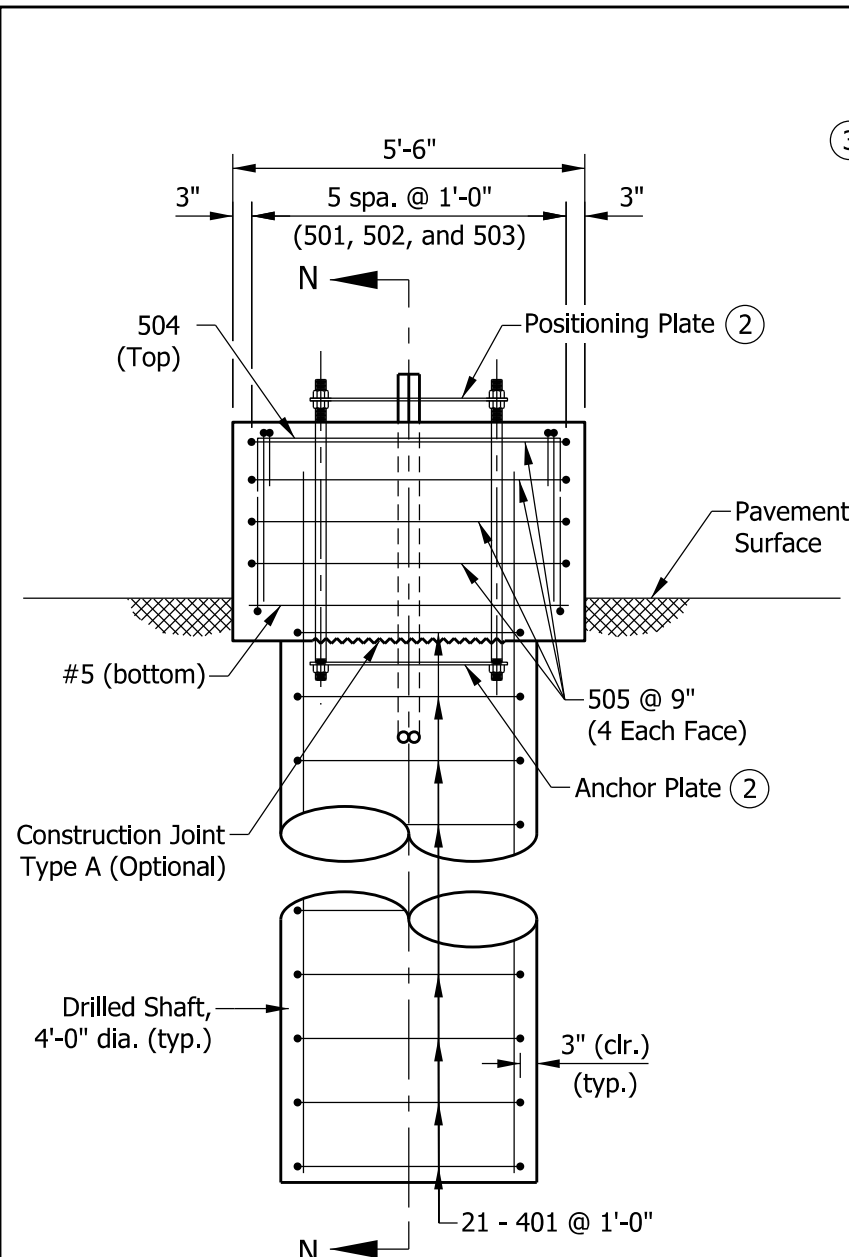
- ① After galvanizing, collar inside diameter shall equal outside diameter of galvanized column plus $\frac{1}{8}$ in. $\pm \frac{1}{16}$ in. Maximum gap between column and collar shall be $\frac{1}{8}$ in. before tightening bolts.
- ② Optional full penetration weld in collar may be made at two locations, 180° apart. X-ray or ultrasonic test (UT) 100%.
3. See sheet 08 for dimensions and member sizes.

SIGN CANTILEVER STRUCTURE QUADRI-CHORD UPPER ARM CONNECTION TO COLUMN

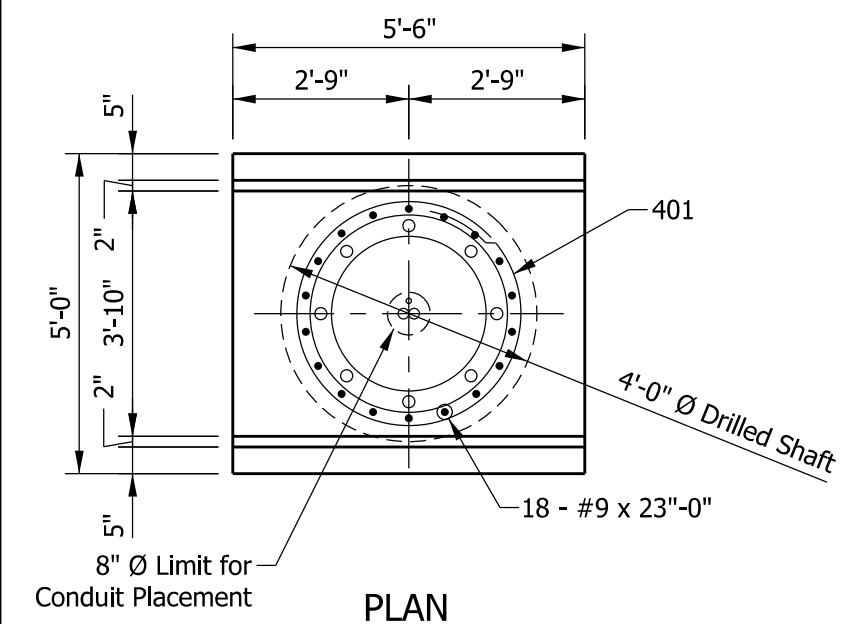


- ① In lieu of fabricated handhole frame as shown, frame may be cut from 2 in. plate with rolling direction vertical.
- ② See Standard Drawing E 802-SNWR-03 for grounding post details. Grounding post shall be placed on far side of support directly opposite center of handhole.
- ③ I.D. plate shall be a $\frac{1}{8}$ in. stainless steel plate with the information stamped in $\frac{3}{16}$ in. black letters:

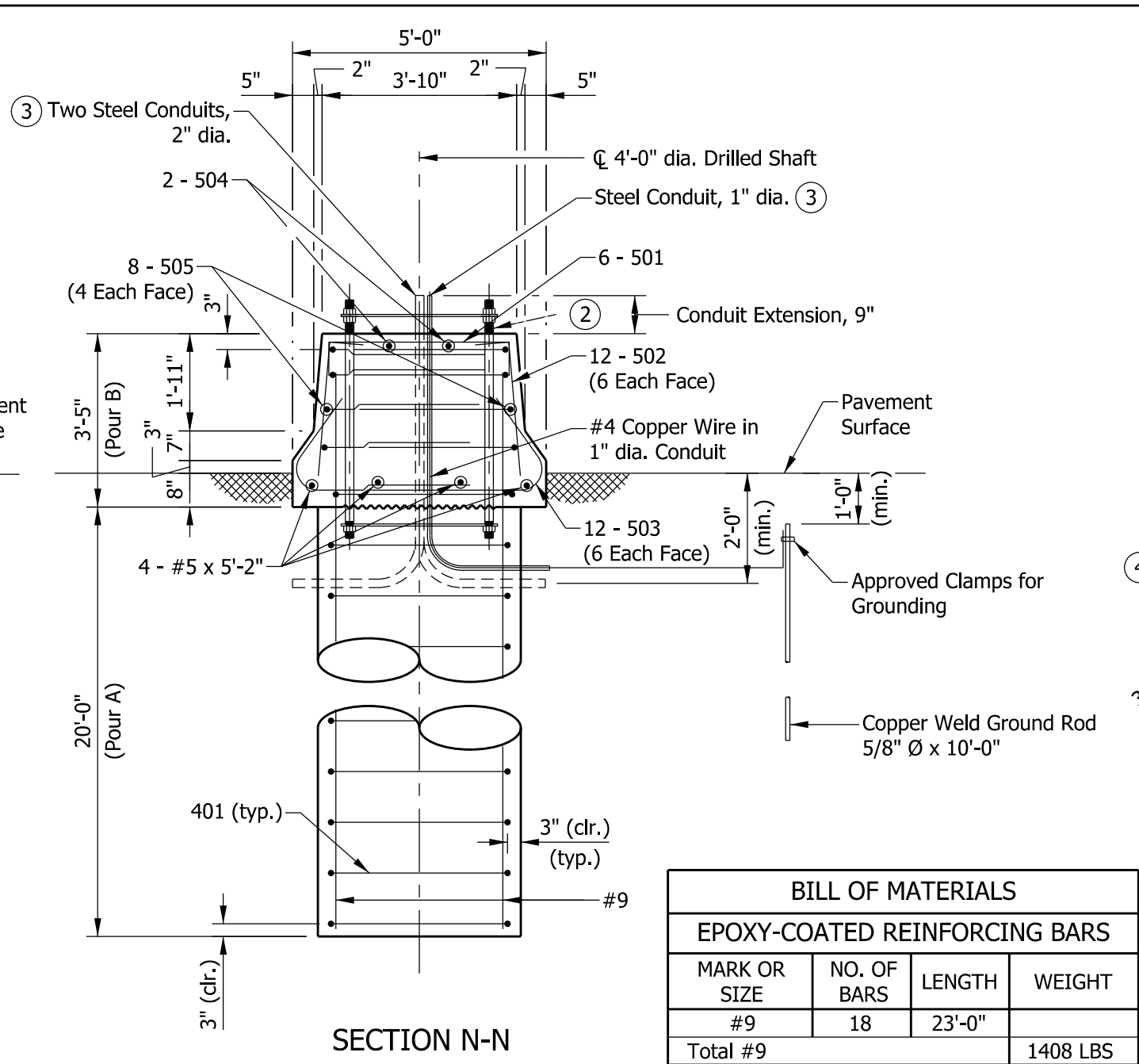
SIGN CANTILEVER STRUCTURE
DOUBLE ARM AND QUADRI-CHORD
COLUMN HANDHOLE AND I.D. PLATE DETAILS



ELEVATION



PLAN

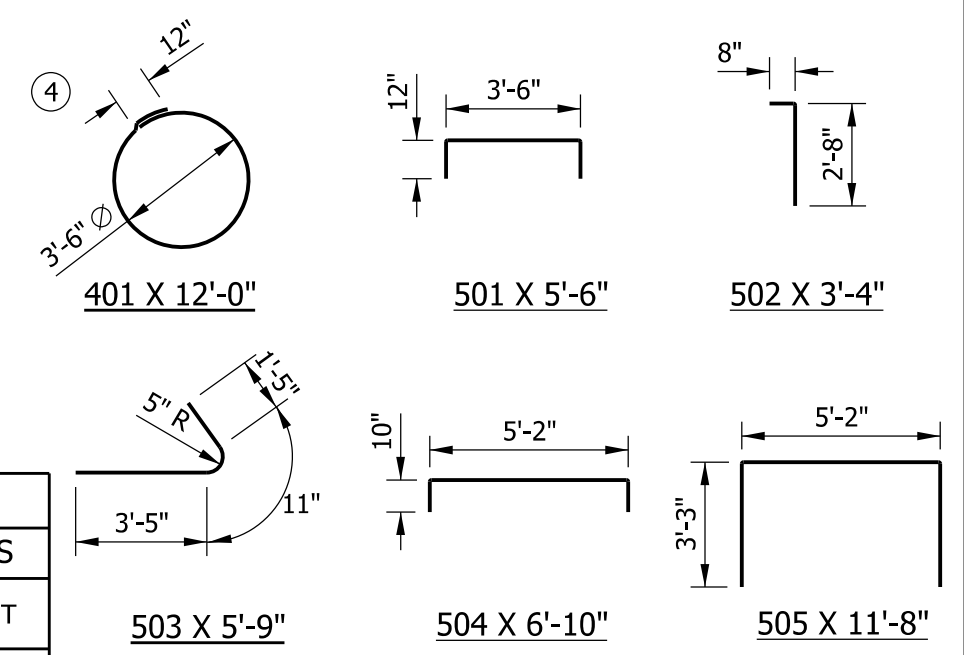


SECTION N-N

BILL OF MATERIALS			
EPOXY-COATED REINFORCING BARS			
MARK OR SIZE	NO. OF BARS	LENGTH	WEIGHT
#9	18	23'-0"	
Total #9			1408 LBS
501	6	5'-6"	
502	12	3'-4"	
503	12	5'-9"	
504	2	6'-10"	
505	8	11'-8"	
#5	4	5'-2"	
Total #5			281 LBS
401	21	12'-0"	
Total #4			169 LBS
Total Epoxy-Coated Reinforcing Bars			1858 LBS
CONCRETE, CLASS A			
Pour A			9.3 CYS
Pour B			3.0 CYS
Total Concrete, Class A			12.3 CYS
MISCELLANEOUS			
Surface Seal			5.9 SYS

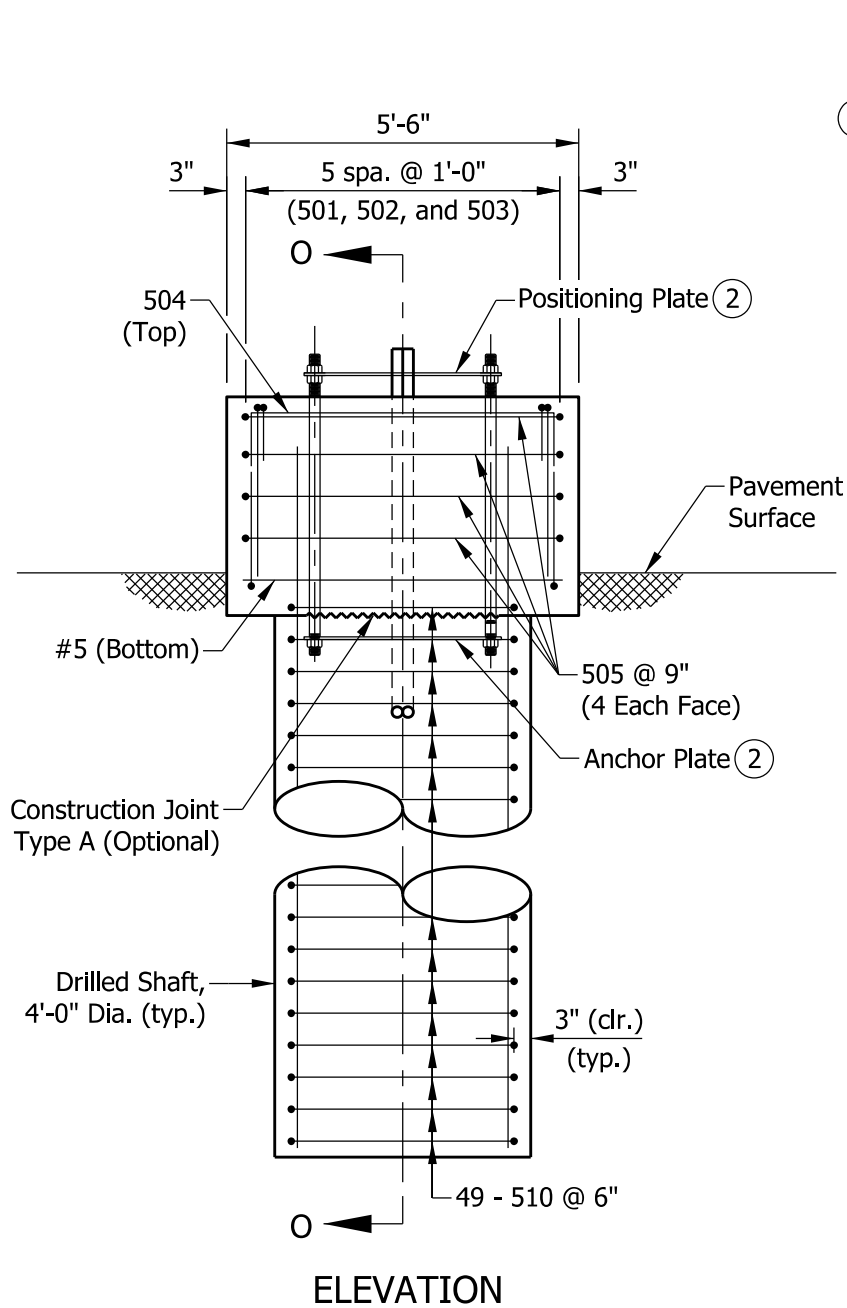
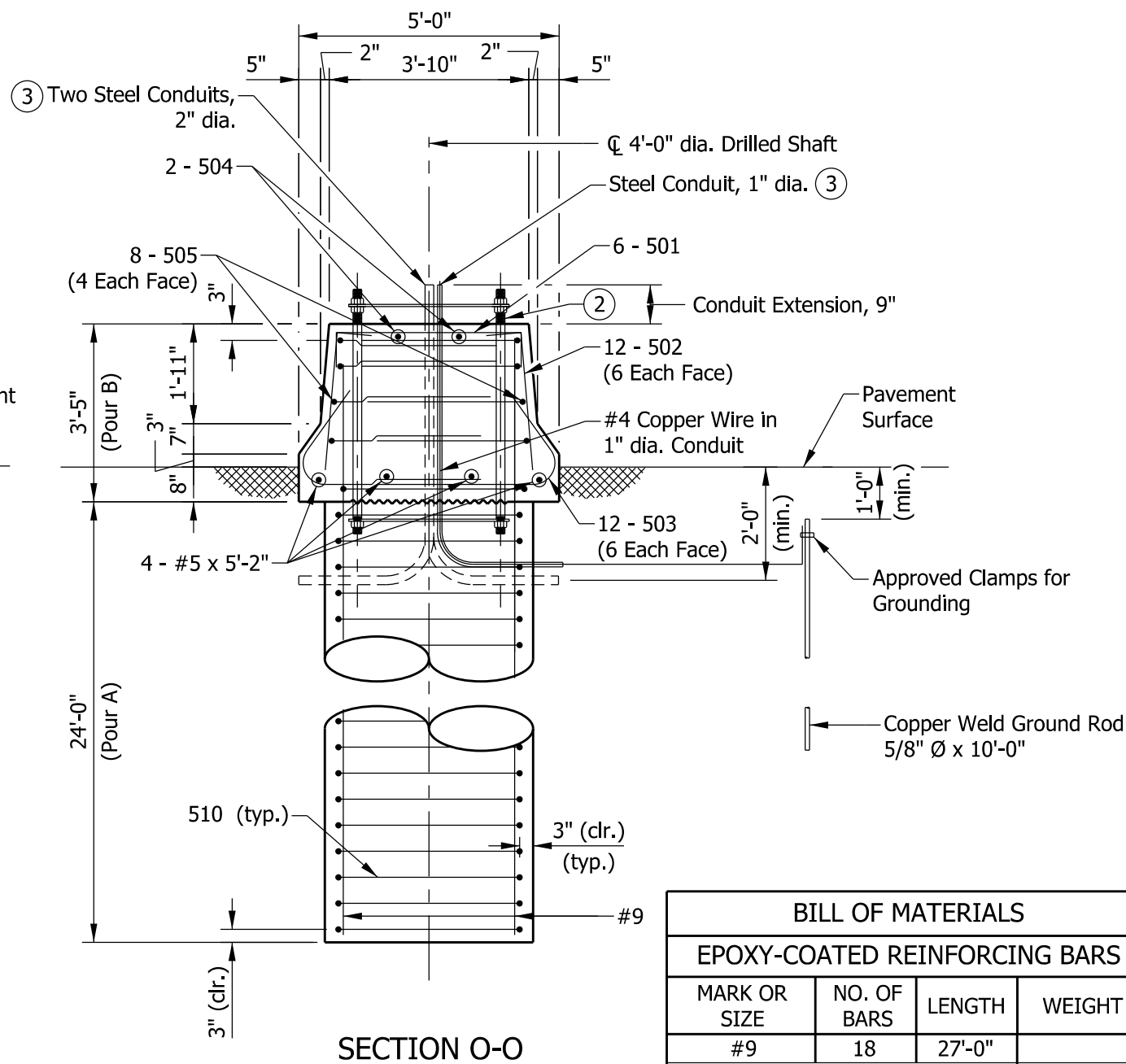
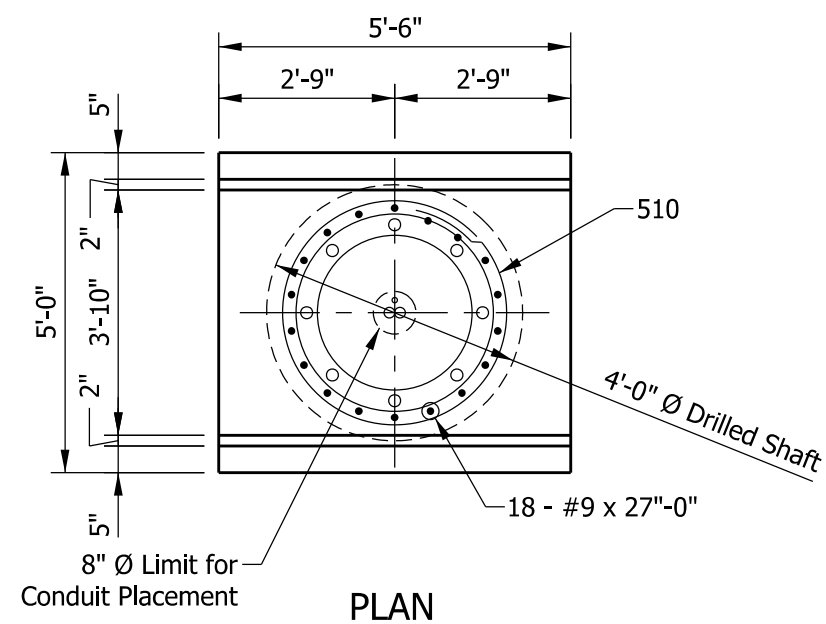
NOTES:

1. See Standard Drawing E 602-CCMB-03 for barrier wall width transition.
2. See sheet 12 for anchor and positioning plate and anchor bolt details.
3. Both ends of steel conduit shall be threaded and capped.
4. Each tie shall be rotated 90 degrees from previous tie to stagger lap locations.
5. Top and sides of barrier railing shall be surface sealed to the pavement surface.
6. Minimum concrete Strength $f'_c=3500$ psi.



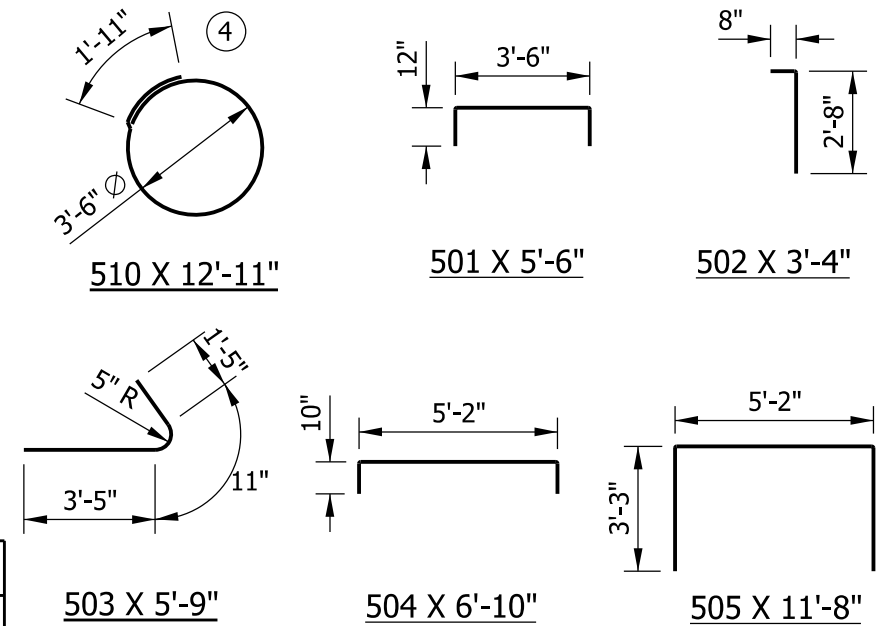
INDIANA DEPARTMENT OF TRANSPORTATION

SIGN CANTILEVER STRUCTURE TYPE A & B
FOUNDATION AT 33" CONCRETE BARRIER



NOTES:

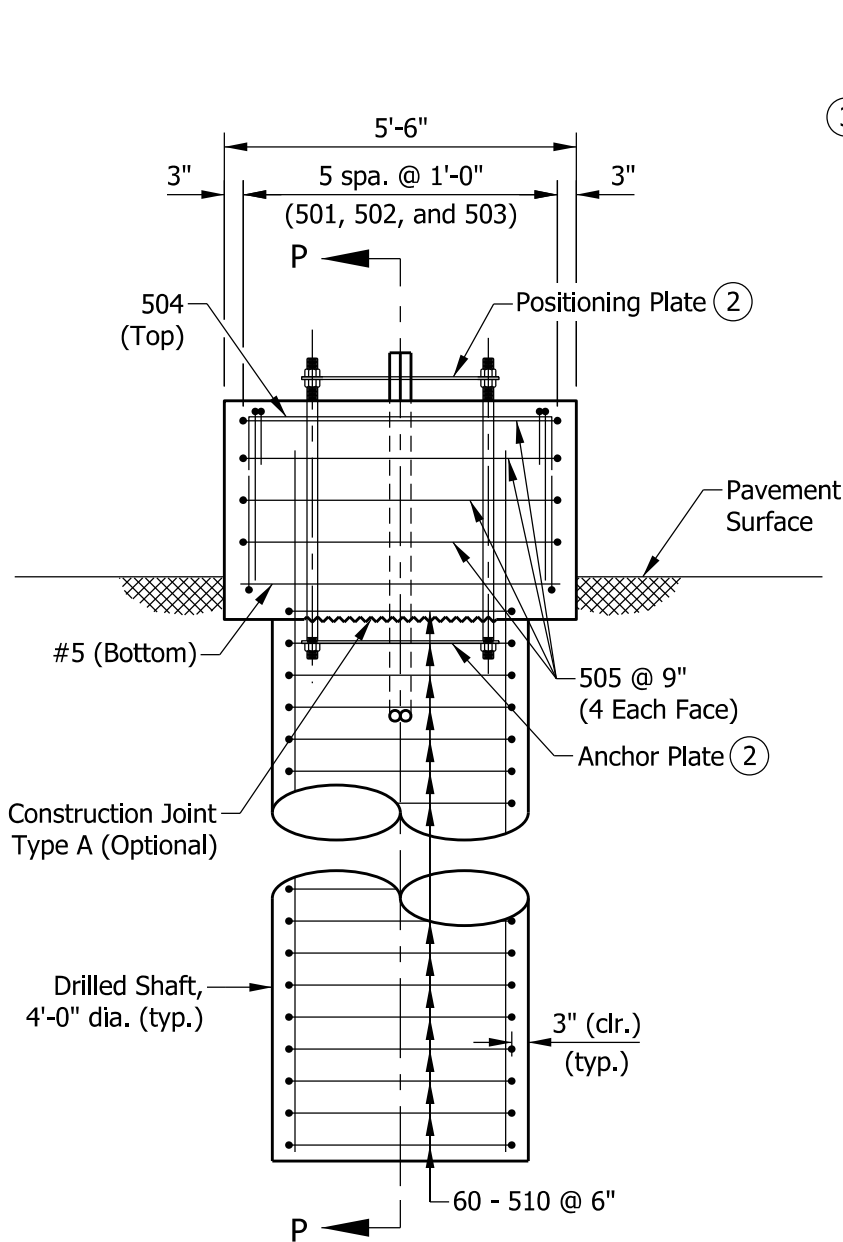
1. See Standard Drawing E 602-CCMB-03 for barrier wall width transition.
2. See sheet 12 for anchor and positioning plate and anchor bolt details.
3. Both ends of steel conduit shall be threaded and capped.
4. Each tie shall be rotated 90 degrees from previous tie to stagger lap locations.
5. Top and sides of barrier railing to the pavement surface shall be sealed.
6. Minimum concrete Strength $f'_c=3500$ psi.



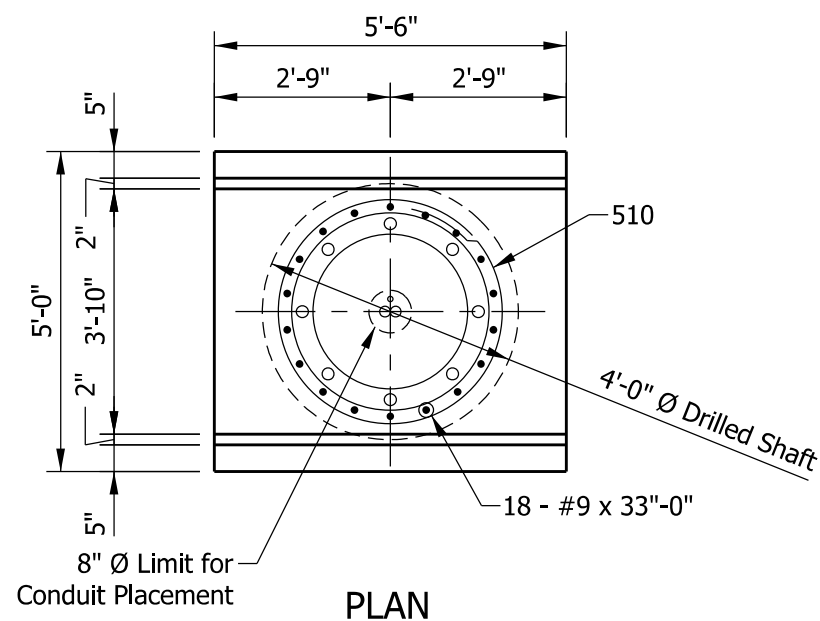
BILL OF MATERIALS			
EPOXY-COATED REINFORCING BARS			
MARK OR SIZE	NO. OF BARS	LENGTH	WEIGHT
#9	18	27'-0"	
Total #9			1652 LBS
501	6	5'-6"	
502	12	3'-4"	
503	12	5'-9"	
504	2	6'-10"	
505	8	11'-8"	
510	49	12'-11"	
#5	4	5'-2"	
Total #5			939 LBS
Total Epoxy-Coated Reinforcing Bars			2591 LBS
CONCRETE, CLASS A			
Pour A			11.2 CYS
Pour B			3.0 CYS
Total Concrete, Class A			14.2 CYS
MISCELLANEOUS			
Surface Seal			5.9 SYS

INDIANA DEPARTMENT OF TRANSPORTATION

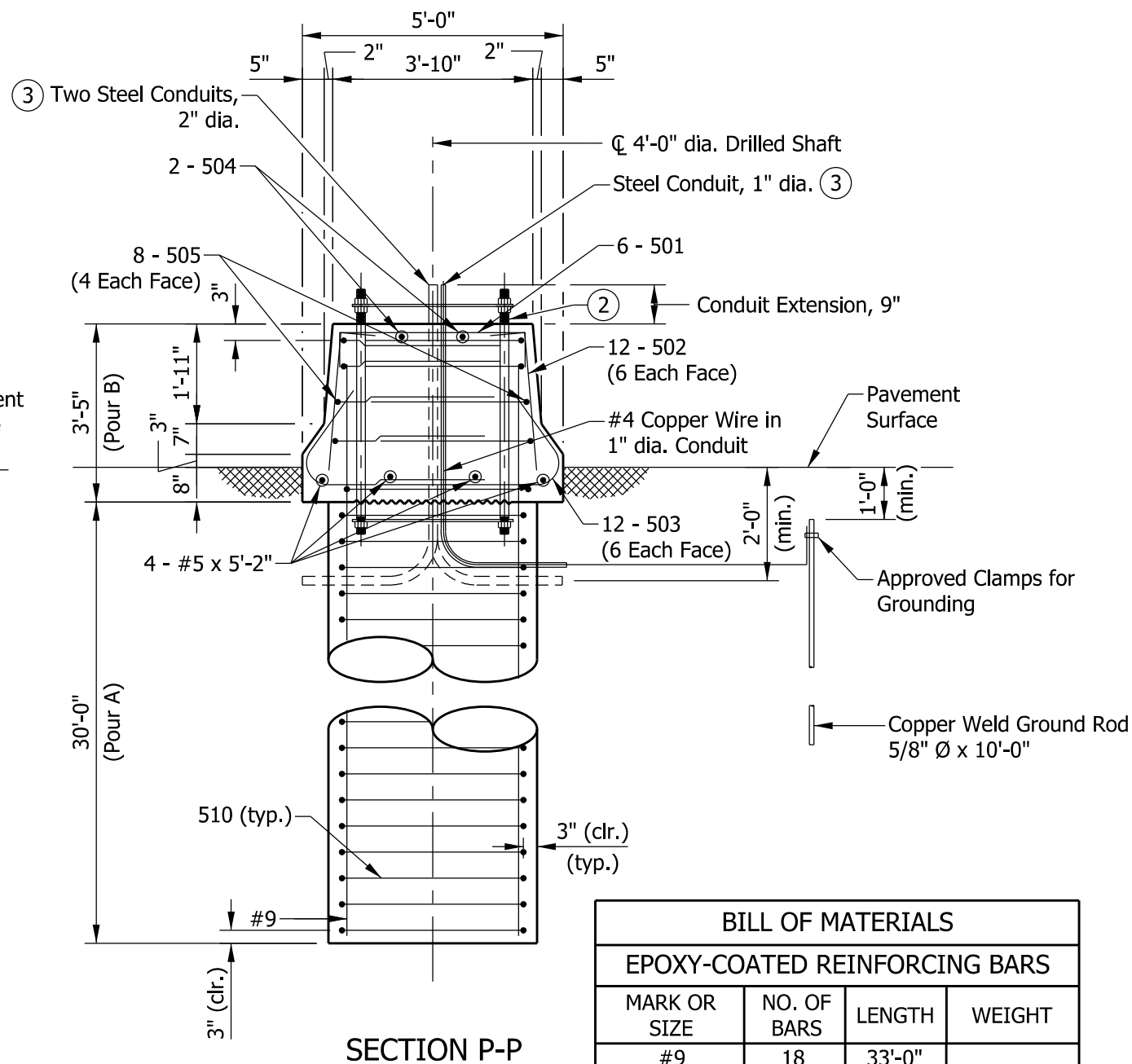
SIGN CANTILEVER STRUCTURE TYPE C, D, & E
FOUNDATION AT 33" CONCRETE BARRIER



ELEVATION



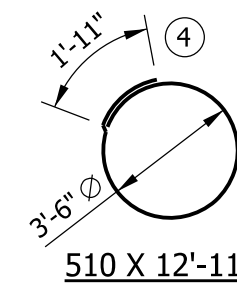
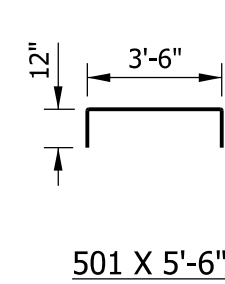
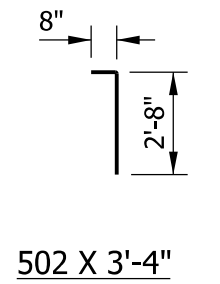
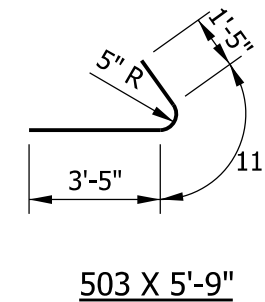
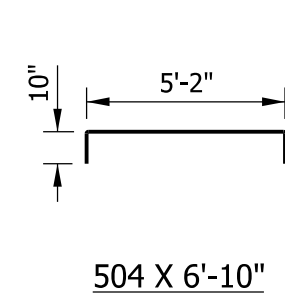
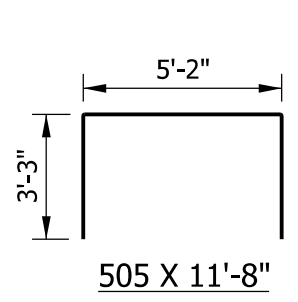
PLAN



BILL OF MATERIALS			
EPOXY-COATED REINFORCING BARS			
MARK OR SIZE	NO. OF BARS	LENGTH	WEIGHT
#9	18	33'-0"	
Total #9			2020 LBS
501	6	5'-6"	
502	12	3'-4"	
503	12	5'-9"	
504	2	6'-10"	
505	8	11'-8"	
510	60	12'-11"	
#5	4	5'-2"	
Total #5			1086 LBS
Total Epoxy-Coated Reinforcing Bars			3106 LBS
CONCRETE, CLASS A			
Pour A			14.0 CYS
Pour B			3.0 CYS
Total Concrete, Class A			17.0 CYS
MISCELLANEOUS			
Surface Seal			5.9 SYS

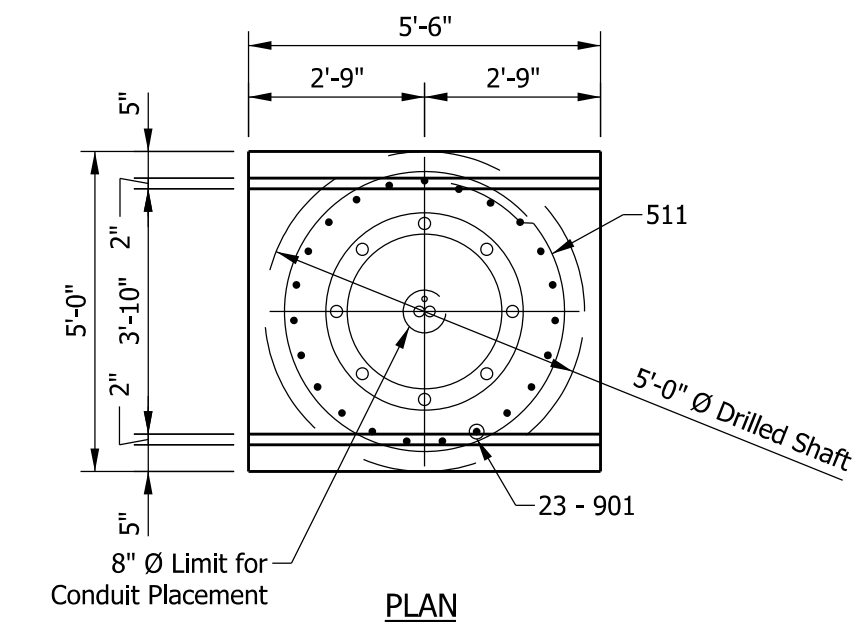
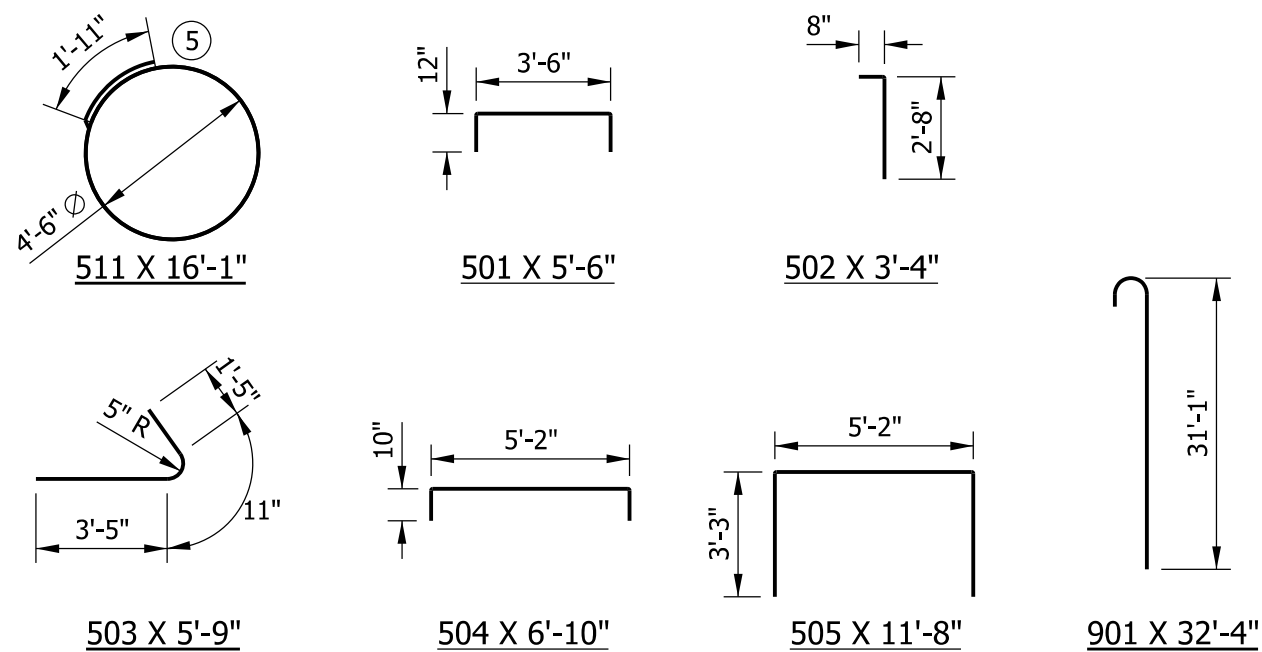
NOTES:

- See Standard Drawing E 602-CCMB-03 for barrier wall width transition.
- See sheet 12 for anchor and positioning plate and anchor bolt details.
- Both ends of steel conduit shall be capped.
- Each tie shall be rotated 90 degrees from previous tie to stagger lap locations.
- Top and sides of barrier railing to the pavement surface shall be sealed.
- Minimum concrete strength $f'_c=3500$ psi.



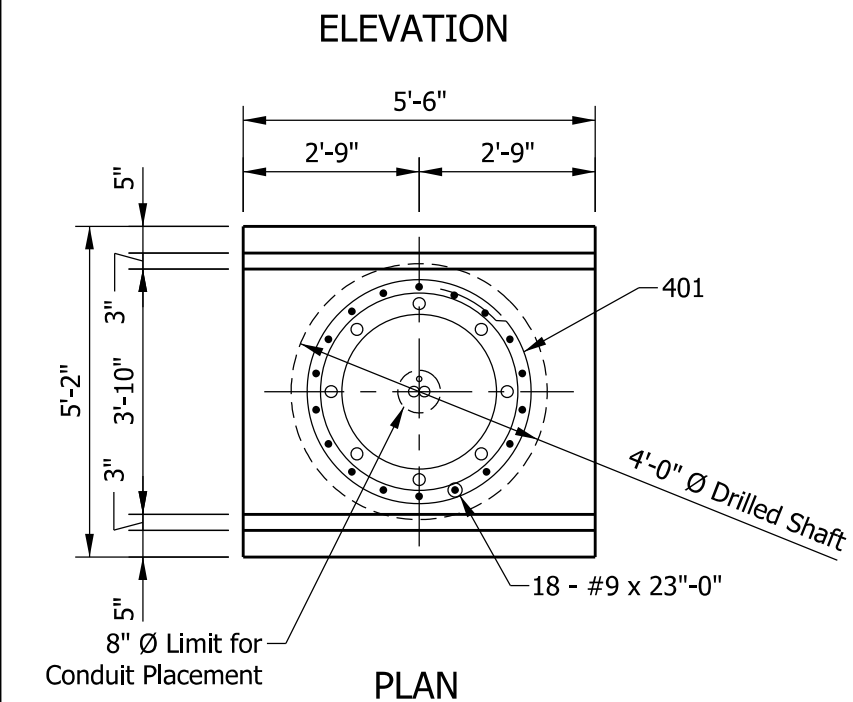
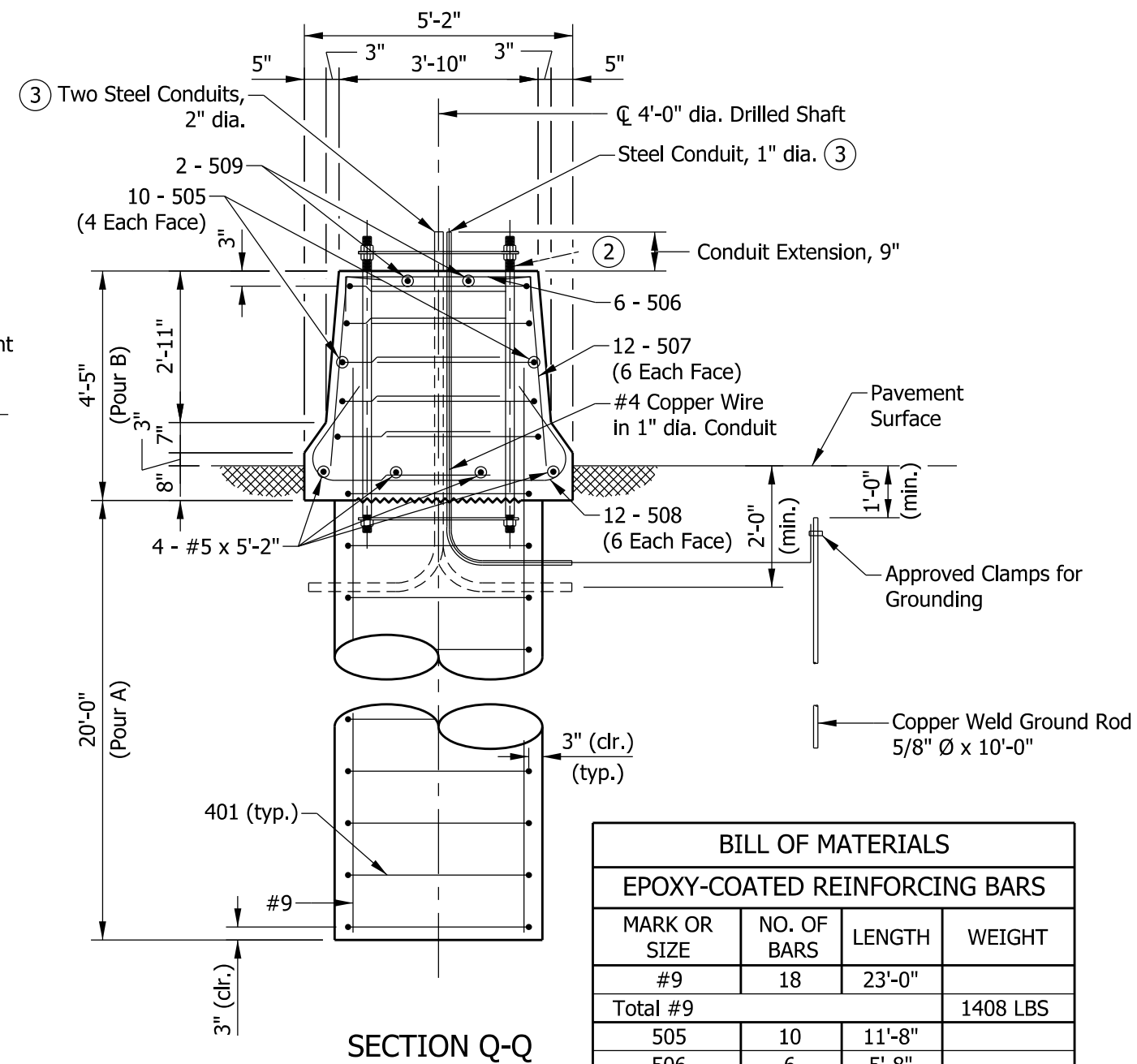
INDIANA DEPARTMENT OF TRANSPORTATION

SIGN CANTILEVER STRUCTURE TYPE F, G, H, I, J
FOUNDATION AT 33" CONCRETE BARRIER



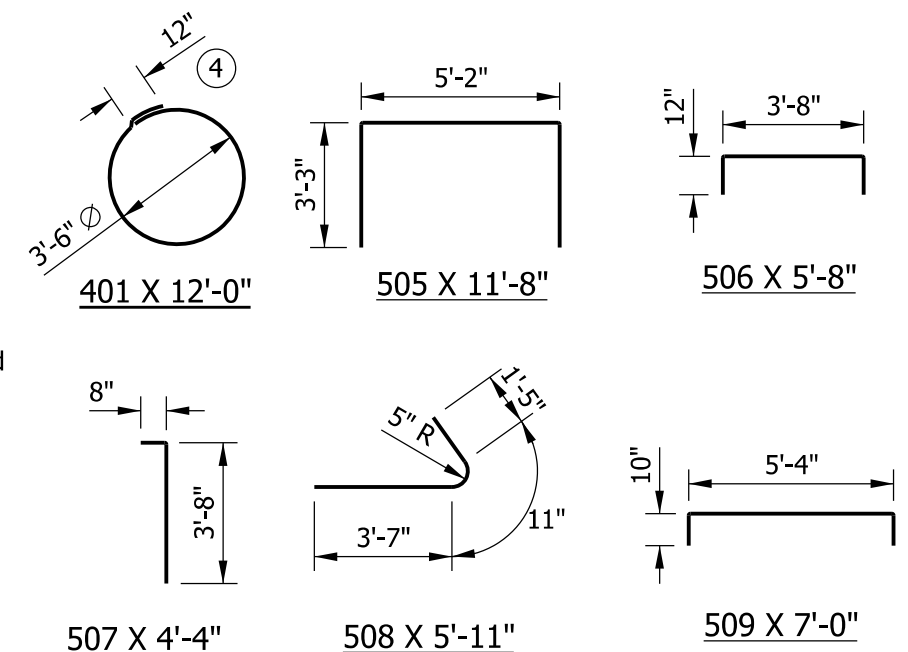
BILL OF MATERIALS			
EPOXY-COATED REINFORCING BARS			
MARK OR SIZE	NO. OF BARS	LENGTH	WEIGHT
901	23	32'-4"	
Total #9			2529 LBS
501	6	5'-6"	
502	12	3'-4"	
503	12	5'-9"	
504	2	6'-10"	
505	8	11'-8"	
511	60	16'-1"	
#5	4	5'-2"	
Total #5			1288 LBS
Total Epoxy-Coated Reinforcing Bars			3817 LBS
CONCRETE, CLASS A			
Pour A			21.9 CYS
Pour B			3.1 CYS
Total Concrete, Class A			25.0 CYS
MISCELLANEOUS			
Surface Seal			5.9 SYS

SIGN CANTILEVER STRUCTURE TYPE K FOUNDATION AT 33" CONCRETE BARRIER

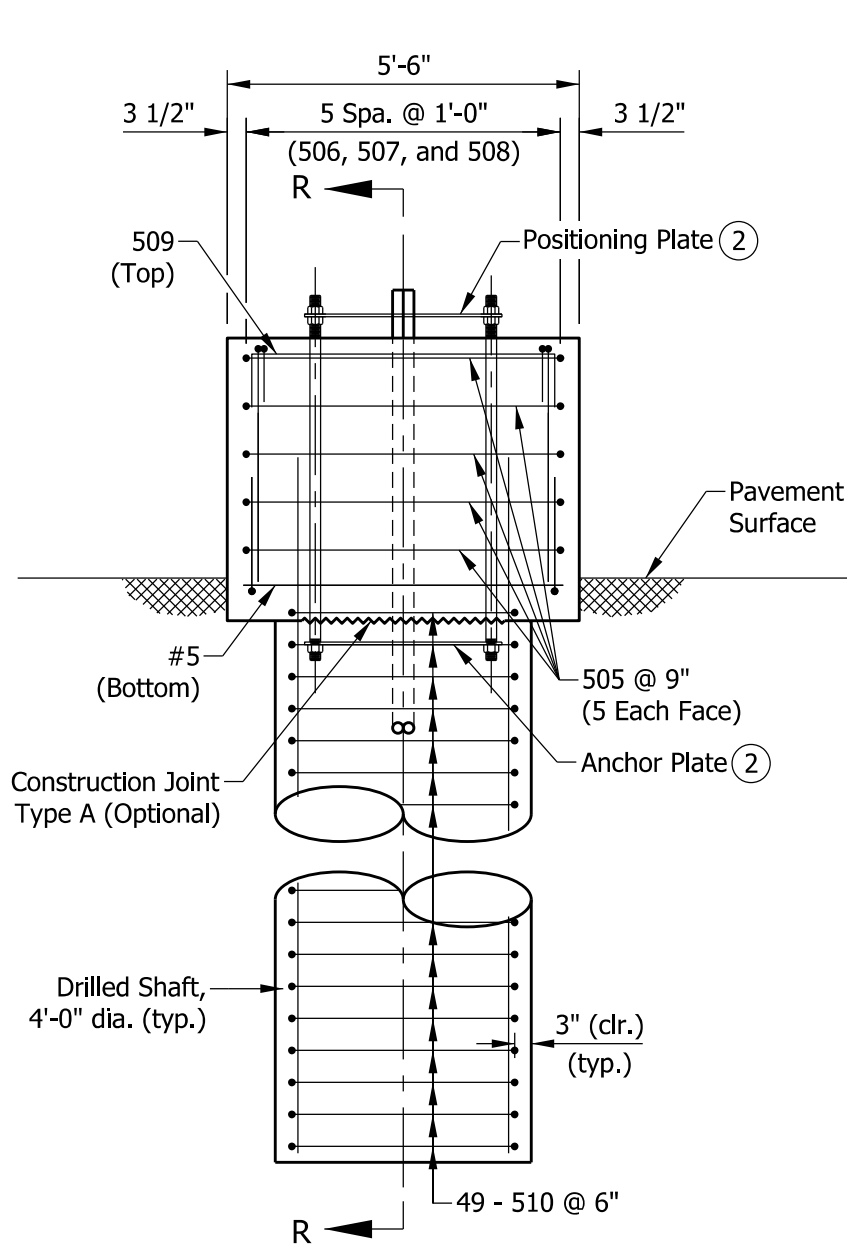


BILL OF MATERIALS			
EPOXY-COATED REINFORCING BARS			
MARK OR SIZE	NO. OF BARS	LENGTH	WEIGHT
#9	18	23'-0"	
Total #9			1408 LBS
505	10	11'-8"	
506	6	5'-8"	
507	12	4'-4"	
508	12	5'-11"	
509	2	7'-0"	
#5	4	5'-2"	
Total #5			321 LBS
401	21	12'-0"	
Total #4			169 LBS
Total Epoxy-Coated Reinforcing Bars			1898 LBS
CONCRETE, CLASS A			
Pour A			9.3 CYS
Pour B			4.0 CYS
Total Concrete, Class A			13.3 CYS
MISCELLANEOUS			
Surface Seal			7.1 SYS

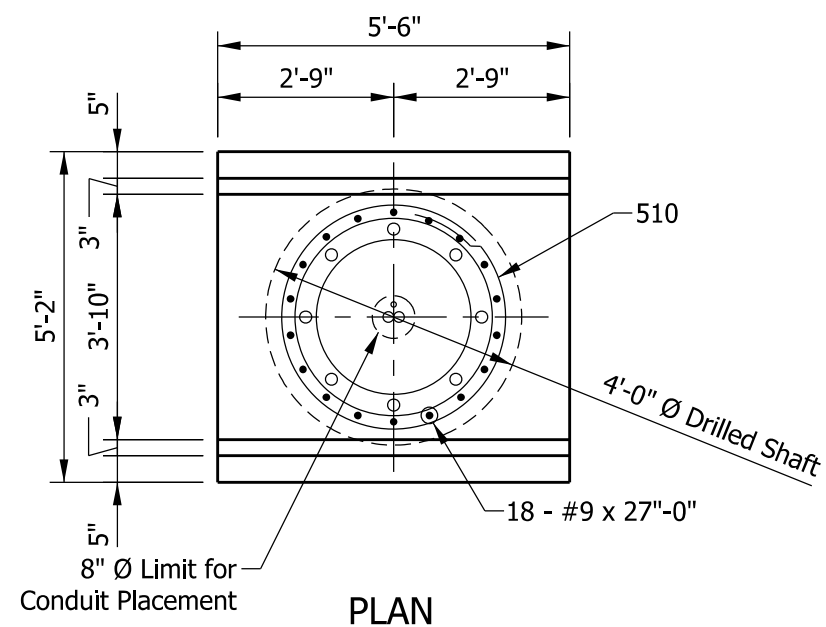
1. See Standard Drawing E 602-CCMB-03 for barrier wall width transition.
- ② See sheet 12 for anchor and positioning plate and anchor bolt details.
- ③ Both ends of steel conduit shall be threaded and capped.
- ④ Each tie shall be rotated 90 degrees from previous tie to stagger lap locations.
5. Top and sides of barrier railing to the pavement surface shall be sealed.
6. Minimum concrete Strength $f'_c=3500$ psi.



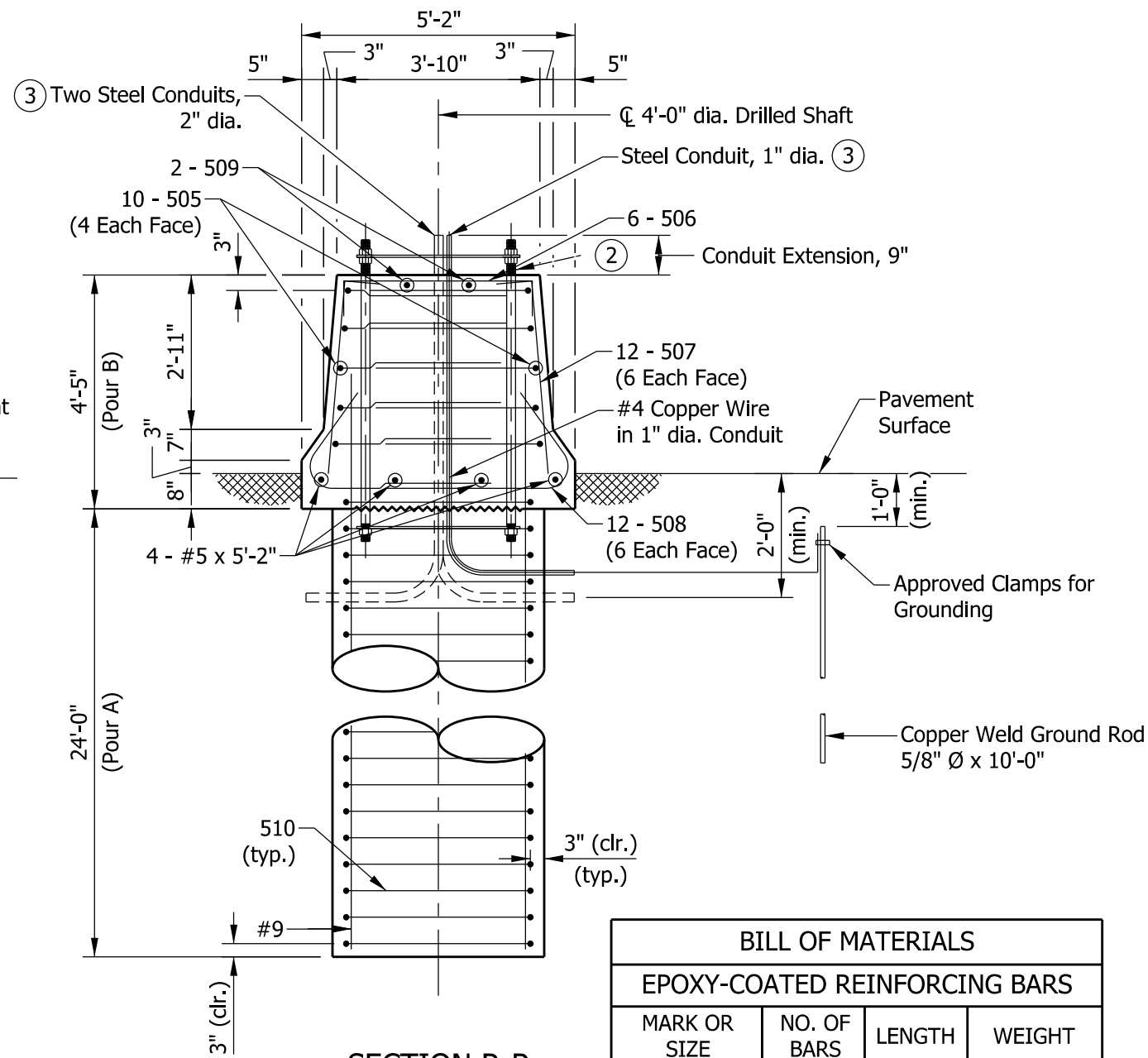
SIGN CANTILEVER STRUCTURE TYPE A & B FOUNDATION AT 45" CONCRETE BARRIER



ELEVATION



PLAN



SECTION R-R

BILL OF MATERIALS

EPOXY-COATED REINFORCING BARS

MARK OR SIZE	NO. OF BARS	LENGTH	WEIGHT
#9	18	27'-0"	
Total #9			1652 LBS
505	10	11'-8"	
506	6	5'-8"	
507	12	4'-4"	
508	12	5'-11"	
509	2	7'-0"	
510	49	12'-11"	
#5	4	5'-2"	
Total #5			979 LBS
Total Epoxy-Coated Reinforcing Bars			2631 LBS

CONCRETE, CLASS A

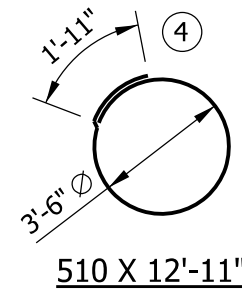
Pour A	11.2 CYS
Pour B	4.0 CYS
Total Concrete, Class A	15.2 CYS

MISCELLANEOUS

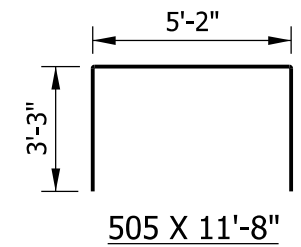
Surface Seal	7.1 SYS
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NOTES:

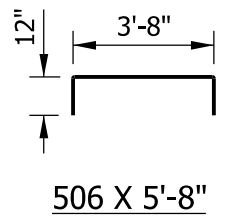
- See Standard Drawing E 602-CCMB-03 for barrier wall width transition.
- See sheet 12 for anchor and positioning plate and anchor bolt details.
- Both ends of steel conduit shall be threaded and capped.
- Each tie shall be rotated 90 degrees from previous tie to stagger lap locations.
- Top and sides of barrier railing to the pavement surface shall be sealed.
- Minimum concrete Strength $f'_c=3500$ psi.



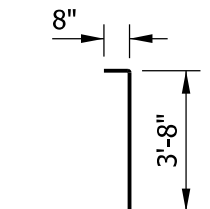
510 X 12'-11"



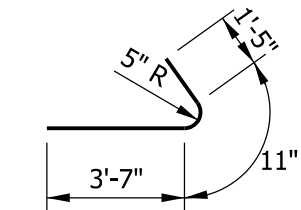
505 X 11'-8"



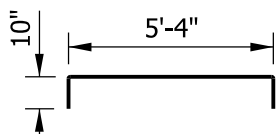
506 X 5'-8"



507 X 4'-4"



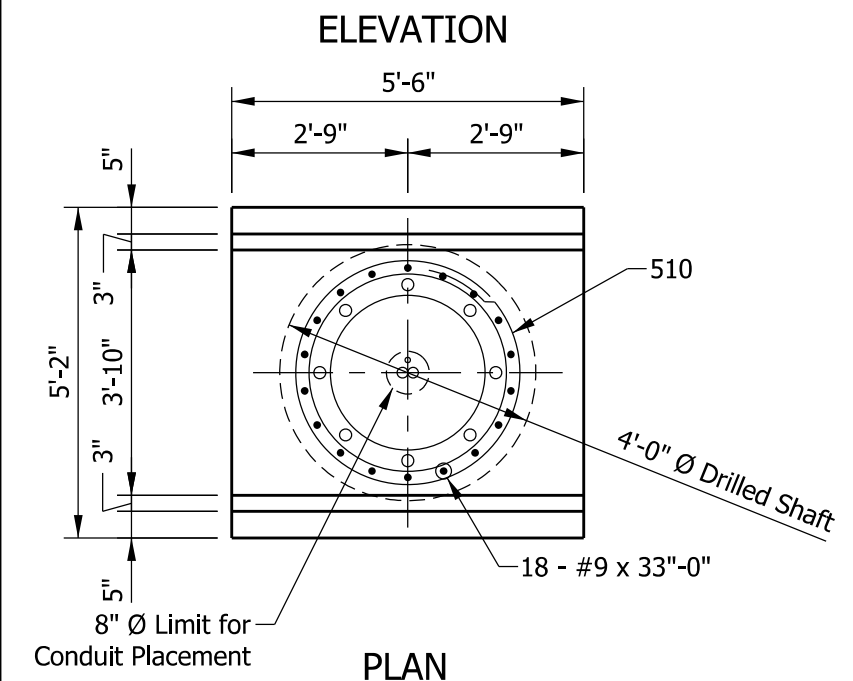
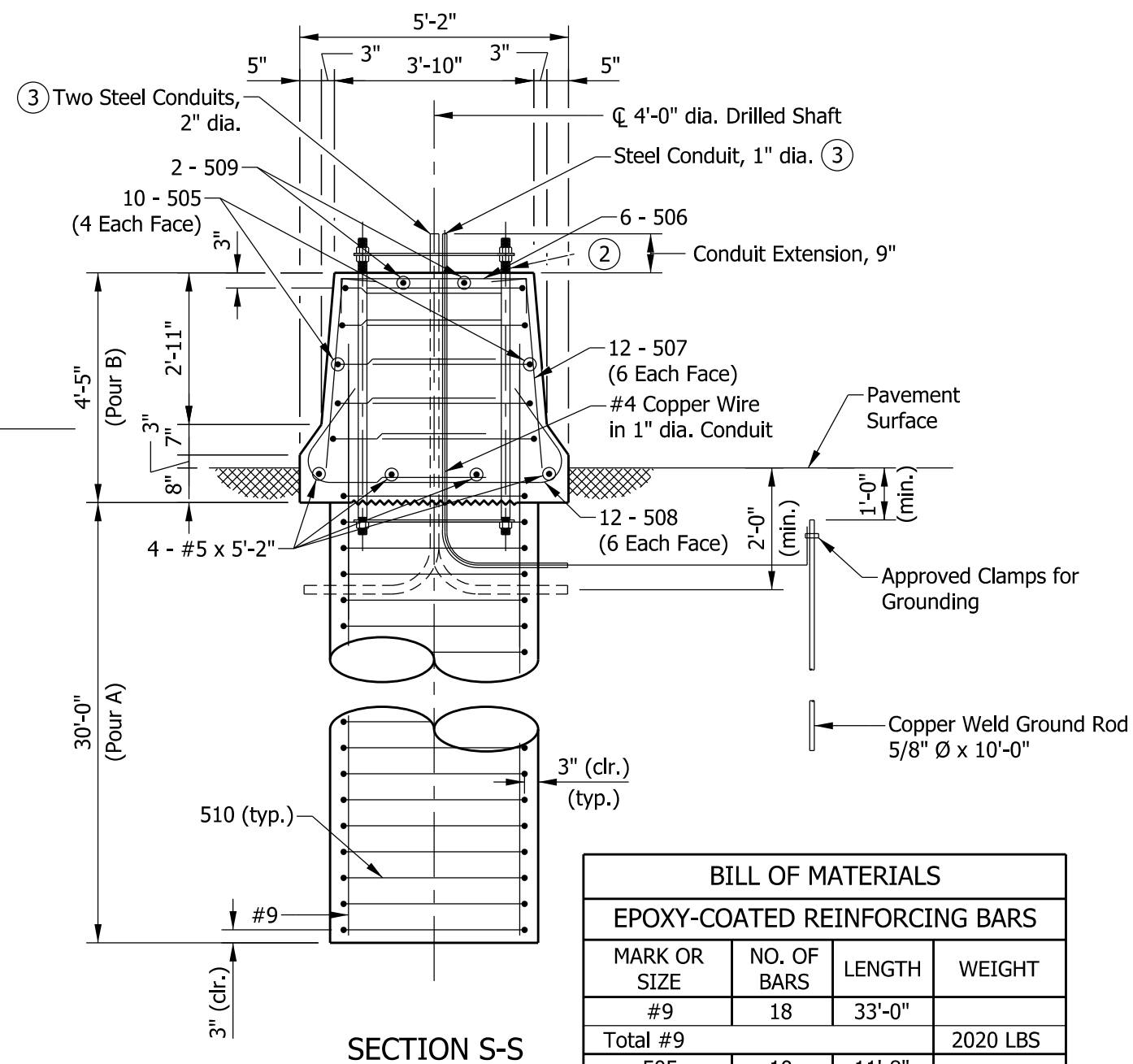
508 X 5'-11"



509 X 7'-0"

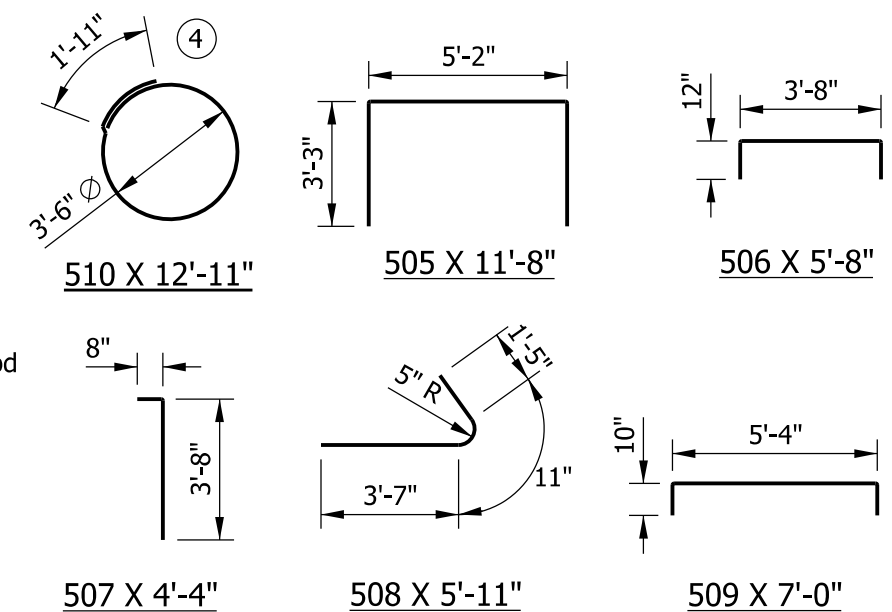
INDIANA DEPARTMENT OF TRANSPORTATION

SIGN CANTILEVER STRUCTURE TYPE C, D, & E
FOUNDATION AT 45" CONCRETE BARRIER

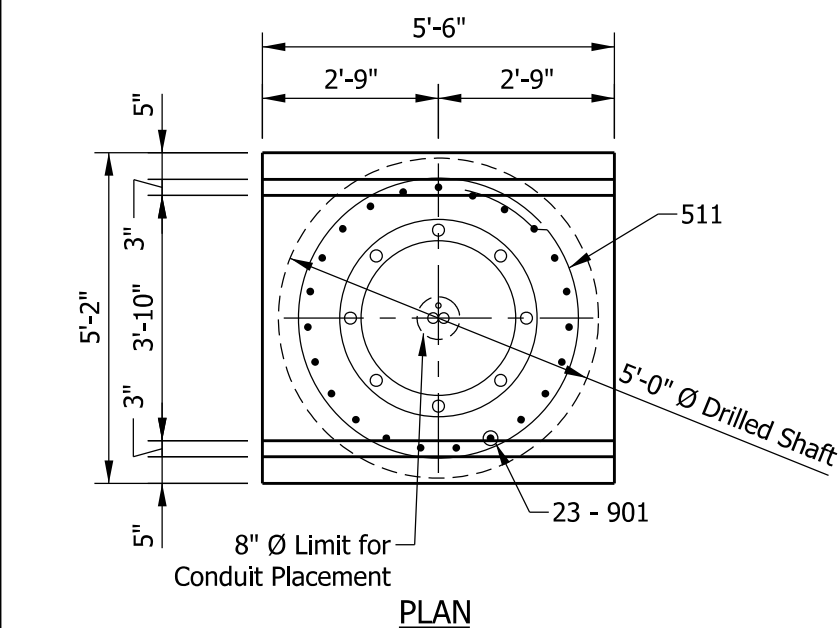
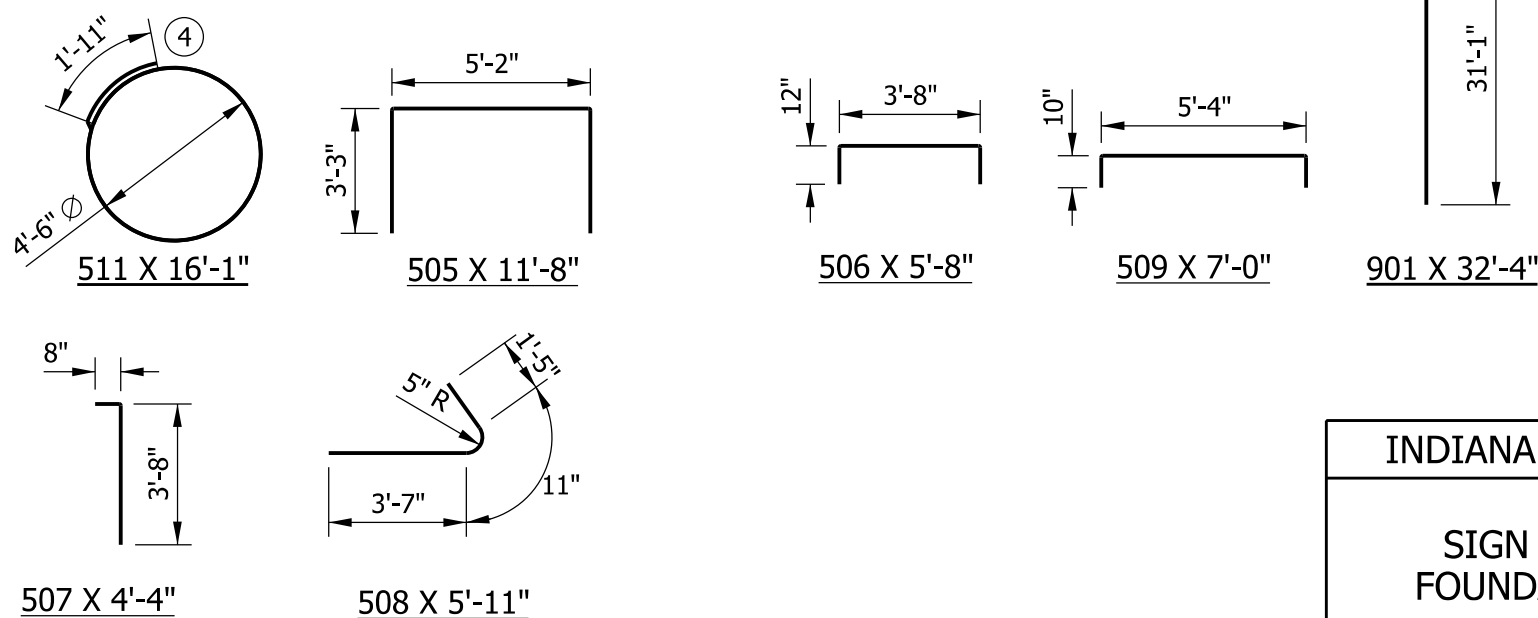


BILL OF MATERIALS			
EPOXY-COATED REINFORCING BARS			
MARK OR SIZE	NO. OF BARS	LENGTH	WEIGHT
#9	18	33'-0"	
Total #9			2020 LBS
505	10	11'-8"	
506	6	5'-8"	
507	12	4'-4"	
508	12	5'-11"	
509	2	7'-0"	
510	60	12'-11"	
#5	4	5'-2"	
Total #5			1127 LBS
Total Epoxy-Coated Reinforcing Bars			3147 LBS
CONCRETE, CLASS A			
Pour A			13.9 CYS
Pour B			4.0 CYS
Total Concrete, Class A			17.9 CYS
MISCELLANEOUS			
Surface Seal			7.1 SYS

1. See Standard Drawing E 602-CCMB-03 for barrier wall width transition.
- ② See sheet 12 for anchor and positioning plate and anchor bolt details.
- ③ Both ends of steel conduit shall be threaded and capped.
- ④ Each tie shall be rotated 90 degrees from previous tie to stagger lap locations.
5. Top and sides of barrier railing to the pavement surface shall be sealed.
6. Minimum concrete Strength $f'_c=3500$ psi.

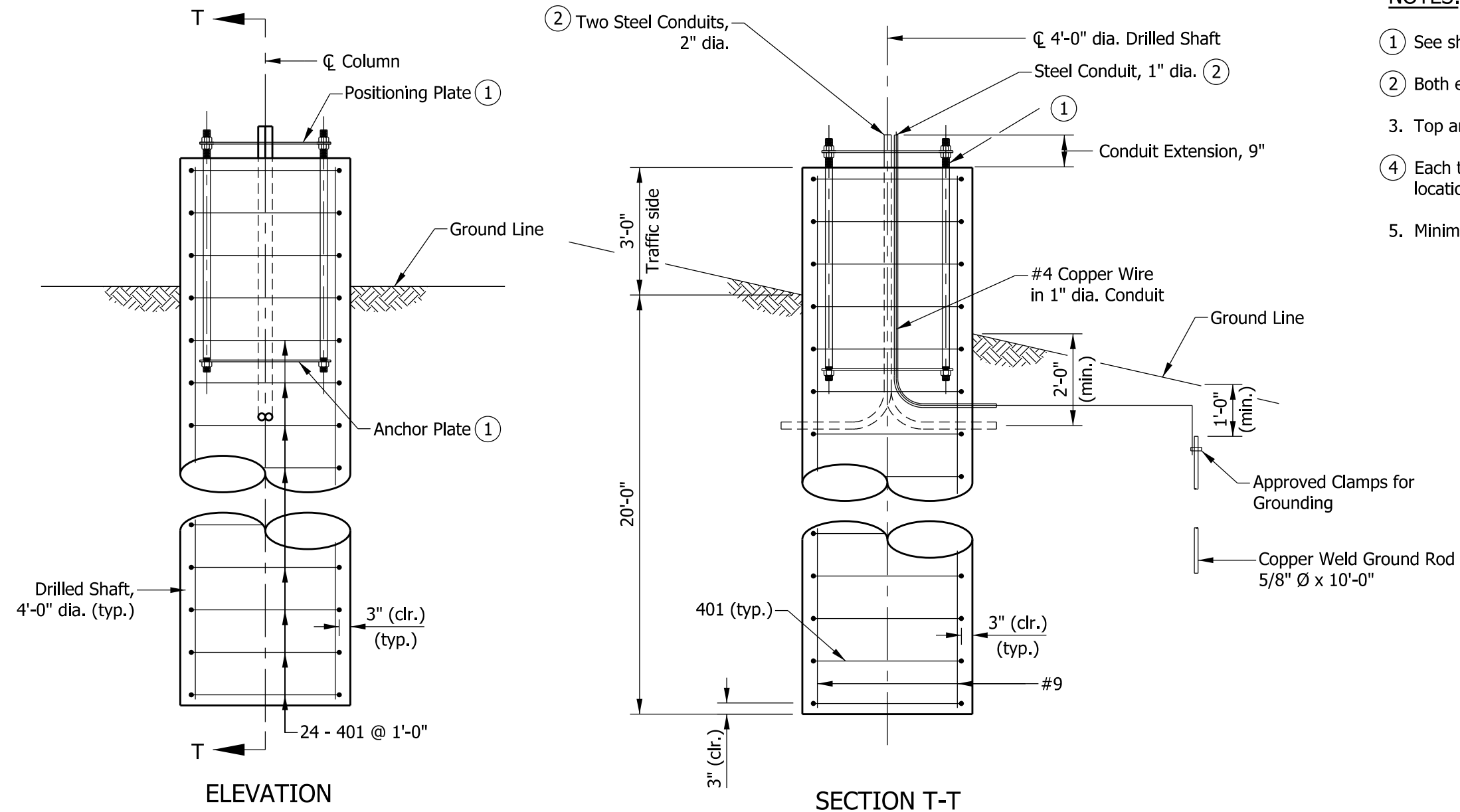


SIGN CANTILEVER STRUCTURE TYPE F, G, H, I, & J
FOUNDATION AT 45" CONCRETE BARRIER



- | BILL OF MATERIALS | | | |
|-------------------------------------|-------------|--------|----------|
| EPOXY-COATED REINFORCING BARS | | | |
| MARK OR SIZE | NO. OF BARS | LENGTH | WEIGHT |
| 901 | 23 | 32'-4" | |
| Total #9 | | | 2529 LBS |
| 505 | 10 | 11'-8" | |
| 506 | 6 | 5'-8" | |
| 507 | 12 | 4'-4" | |
| 508 | 12 | 5'-11" | |
| 509 | 2 | 7'-0" | |
| 511 | 60 | 16'-1" | |
| #5 | 4 | 5'-2" | |
| Total #5 | | | 1329 LBS |
| Total Epoxy-Coated Reinforcing Bars | | | 3858 LBS |
| CONCRETE, CLASS A | | | |
| Pour A | | | 21.9 CYS |
| Pour B | | | 4.0 CYS |
| Total Concrete, Class A | | | 25.9 CYS |
| MISCELLANEOUS | | | |
| Surface Seal | | | 7.1 SYS |

SIGN CANTILEVER STRUCTURE TYPE K FOUNDATION AT 45" CONCRETE BARRIER



NOTES:

- ① See sheet 12 for anchor and positioning plate and anchor bolt details.
- ② Both ends of steel conduit shall be threaded and capped.
3. Top and sides of foundation to the ground surface shall be sealed.
- ④ Each tie shall be rotated 90 degrees from previous tie to stagger lap locations.
5. Minimum concrete strength $f'_c=3500$ psi.

BILL OF MATERIALS			
EPOXY-COATED REINFORCING BARS			
MARK OR SIZE	NO. OF BARS	LENGTH	WEIGHT
#9	18	22'-9"	
Total #9			1392 LBS
401	24	12'-0"	
Total #4			193 LBS
Total Epoxy-Coated Reinforcing Bars			1585 LBS
MISCELLANEOUS			
Concrete, Class A			10.7 CYS
Surface Seal			4.3 SYS

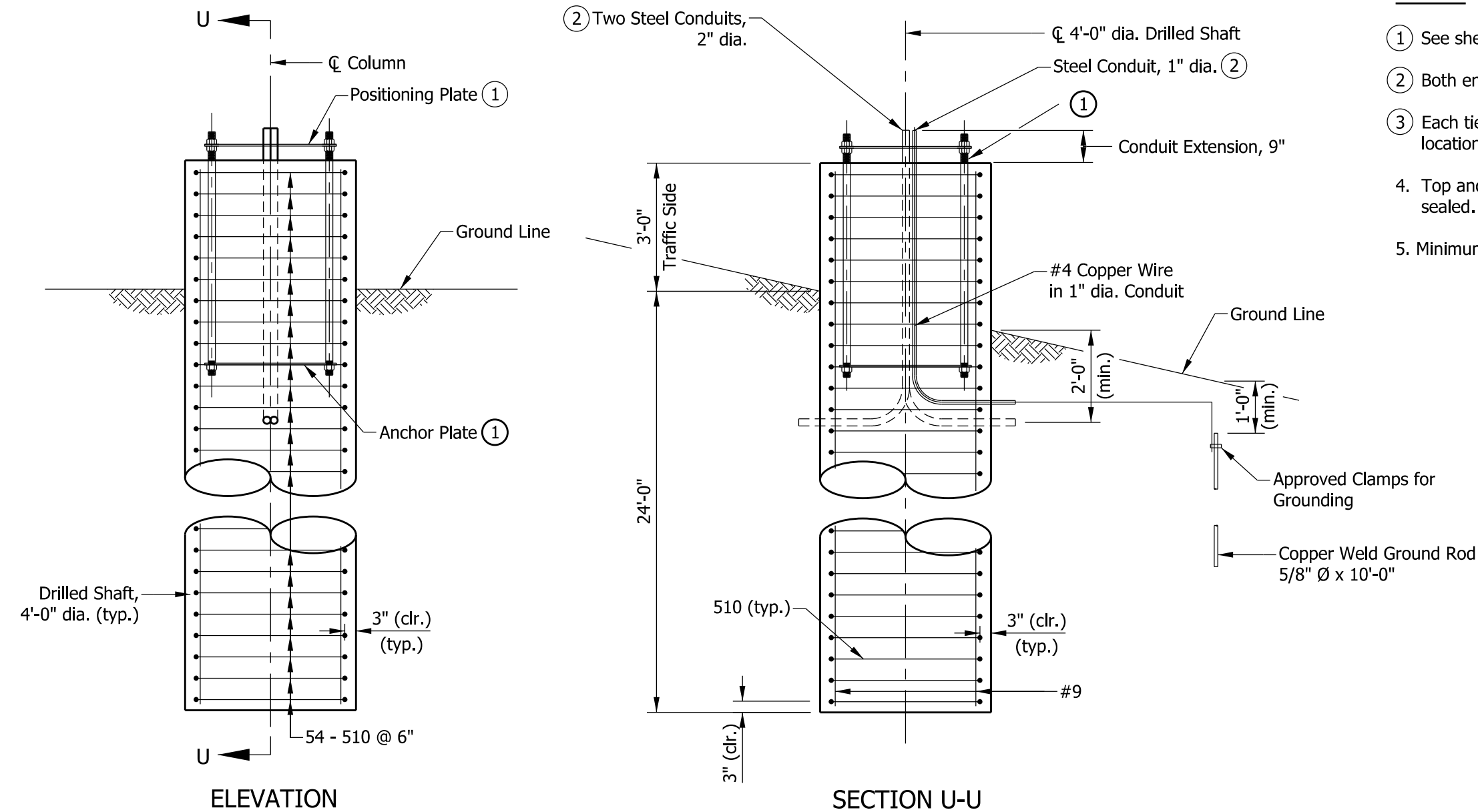
INDIANA DEPARTMENT OF TRANSPORTATION

SIGN CANTILEVER STRUCTURE TYPE A & B
FOUNDATION, 36" HEIGHT

NOTES:

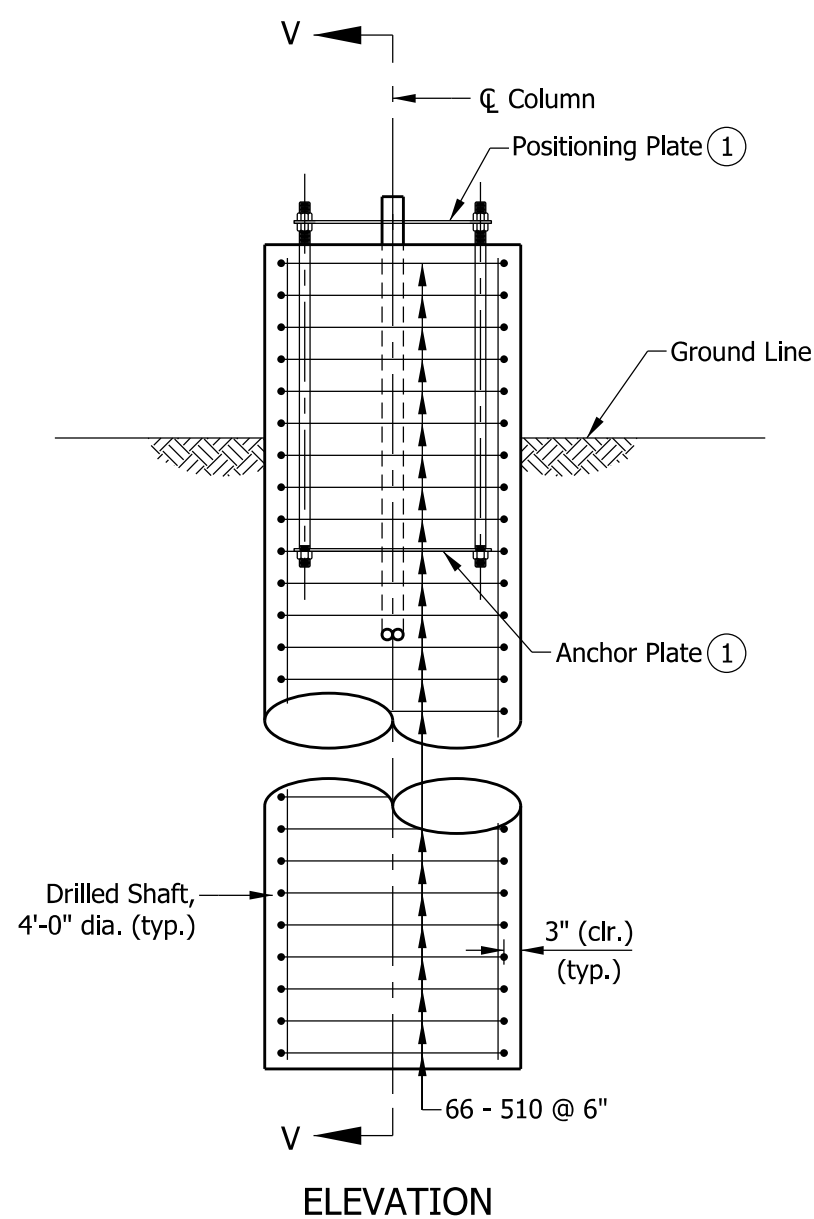
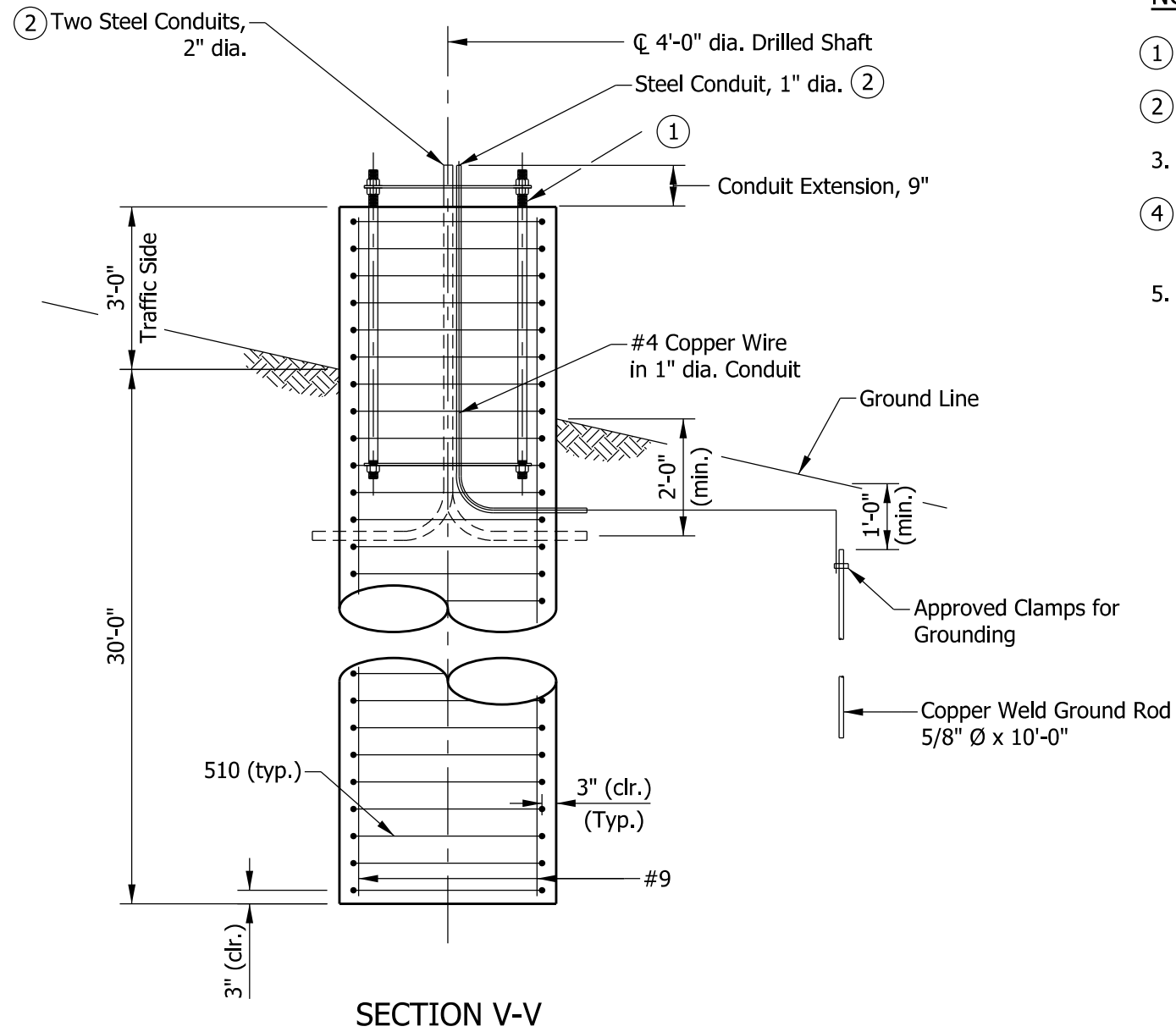
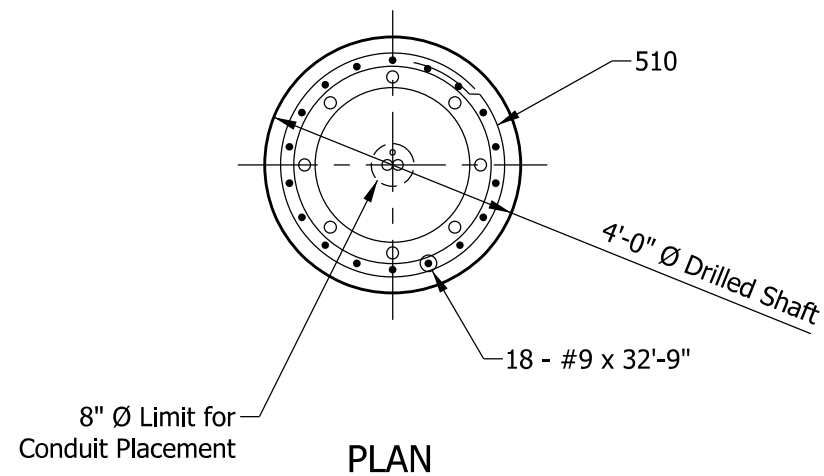
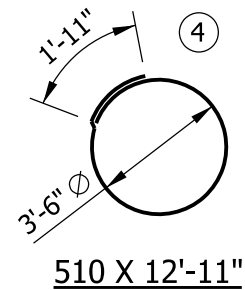
- 1 See sheet 12 for anchor and positioning plate and anchor bolt details.
- 2 Both ends of steel conduit shall be threaded and capped.
- 3 Each tie shall be rotated 90 degrees from previous tie to stagger lap locations.
- 4. Top and sides of barrier railing to the pavement surface shall be sealed.
- 5. Minimum concrete Strength f'c=3500 psi.

BILL OF MATERIALS			
EPOXY-COATED REINFORCING BARS			
MARK OR SIZE	NO. OF BARS	LENGTH	WEIGHT
#9	18	26'-9"	
Total #9			1637 LBS
510	54	12'-11"	
Total #5			725 LBS
Total Epoxy-Coated Reinforcing Bars			2362 LBS
MISCELLANEOUS			
Concrete, Class A			12.6 CYS
Surface Seal			4.3 SYS



INDIANA DEPARTMENT OF TRANSPORTATION

SIGN CANTILEVER STRUCTURE TYPE C, D, & E
FOUNDATION, 36" HEIGHT

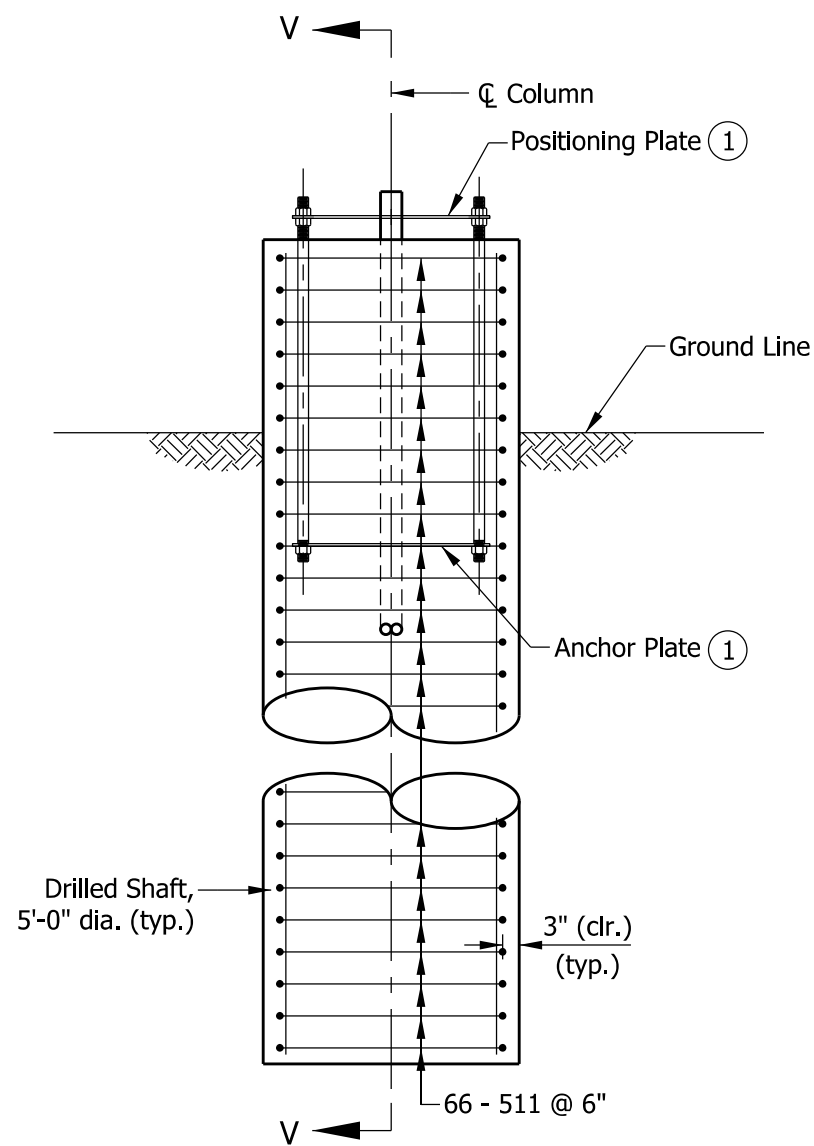


NOTES:

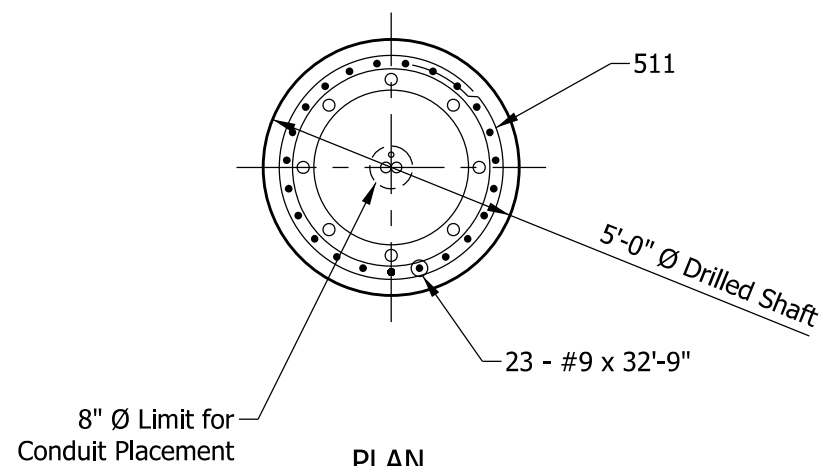
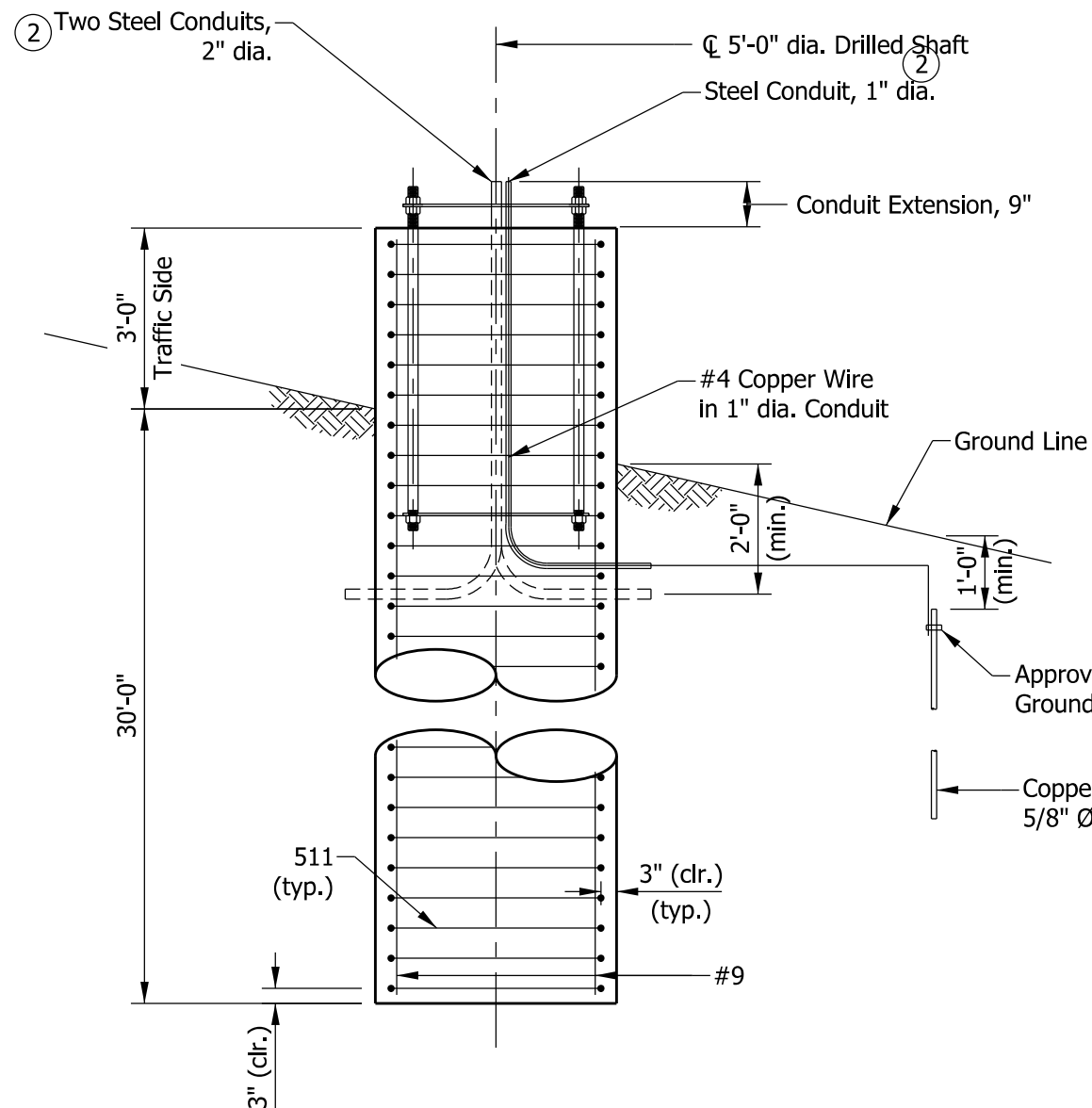
- ① See sheet 12 for anchor and positioning plate and anchor bolt details.
- ② Both ends of steel conduit shall be threaded and capped.
3. Top and sides of foundation to the ground surface shall be sealed.
- ④ Each tie shall be rotated 90 degrees from previous tie to stagger lap locations.
5. Minimum concrete Strength $f'_c=3500$ psi.

BILL OF MATERIALS			
EPOXY-COATED REINFORCING BARS			
MARK OR SIZE	NO. OF BARS	LENGTH	WEIGHT
#9	18	32'-9"	
Total #9			2004 LBS
510	66	12'-11"	
Total #5			887 LBS
Total Epoxy-Coated Reinforcing Bars			2891 LBS
MISCELLANEOUS			
Concrete, Class A			15.4 CYS
Surface Seal			4.3 SYS

INDIANA DEPARTMENT OF TRANSPORTATION
SIGN CANTILEVER STRUCTURE TYPE F, G, H, I, & J FOUNDATION, 36" HEIGHT



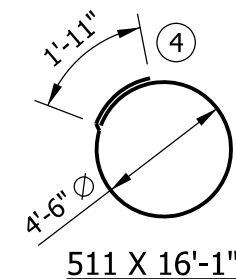
ELEVATION



BILL OF MATERIALS			
EPOXY-COATED REINFORCING BARS			
MARK OR SIZE	NO. OF BARS	LENGTH	WEIGHT
#9	23	32'-9"	
Total #9			2562 LBS
511	66	16'-1"	
Total #5			1108 LBS
Total Epoxy-Coated Reinforcing Bars			3670 LBS
MISCELLANEOUS			
Concrete, Class A			24.0 CYS
Surface Seal			6.7 SYS

NOTES:

- ① See sheet 12 for anchor and positioning plate and anchor bolt details.
- ② Both ends of steel conduit shall be threaded and capped.
3. Top and sides of foundation to the ground surface shall be sealed.
- ④ Each tie shall be rotated 90 degrees from previous tie to stagger lap locations.
5. Minimum concrete Strength $f'_c=3500$ psi.



INDIANA DEPARTMENT OF TRANSPORTATION

SIGN CANTILEVER STRUCTURE TYPE K
FOUNDATION, 36" HEIGHT