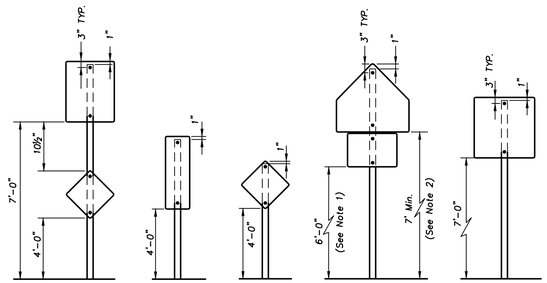
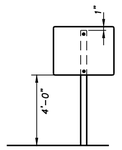
Permanent Signing General Notes

1. All permanent signing shall be provided and installed by the contractor as indicated in the plans and specifications, and according to the City of Overland Park Standard Details.
2. All letter, number and symbol sizes, spacing and sign colors shall conform to the current Manual on Uniform Traffic Control Devices (MUTCD).
3. All school signing shall have a fluorescent yellow–green background with a black legend and border. All other warning signs shall have a standard yellow background.
4. The locations of existing utilities, if shown, are approximate only and have not been independently verified. The Contractor shall be responsible for contacting all utility companies for locations of all underground lines prior to excavation and be fully responsible for any and all damages, which might occur as a result of the Contractors failure to exactly locate and preserve any and all underground utilities.
5. The City of Overland Park is on the KS One Call System. The Contractor shall call 811 to obtain locates for streetlighting, traffic signal, and fiber optic conduits/cables.
6. All new signs shall be located within public right–of–way.
7. All retro–reflective micro–encapsulated prismatic sheeting shall be ASTM Type XI. All signs shall be made from a combination retro–reflective sheeting background with electronic cuttable film applied to the surface. (Unless otherwise indicated in the plans or specifications). Process color inks or silk screening signs are not allowed.
8. All sign blank material shall be made of 0.08" aluminum except all overhead street name signs shall be made of 0.125" aluminum.
9. Existing street name signs in the way of construction:
   The street name signs shall be relocated out of the way of construction but in a conspicuous location for the driving public and emergency providers. The street name signs shall be reinstalled in their proper location as soon as possible unless otherwise indicated. The removal and re–installation of existing signs will be considered subsidiary to other bid items.
10. Signs shown to be installed on the side of poles shall be mounted by stainless steel mounting bands as detailed in the plans. All R10 series signs installed on a traffic signal mast arm shall be mounted with approved mounting brackets as specified.
11. All post mounted signs shall be mounted on break–away sign posts according to the standard details.
12. All signs and posts shown in the plans shall be new unless otherwise indicated in the plans or by the Traffic Service Inspector.
13. All existing regulatory signs, warning signs, and street name signs shall be used in place during construction and protected from damage unless otherwise indicated in the plans. If the contractor damages any existing sign or posts during construction, he shall be required to reinstall new signs and posts of the same type to replace the damaged equipment.
14. Any existing permanent signs shown to be removed by the contractor for construction purposes other than stop signs, yield signs or street name signs shall be salvaged. See Instructions for Disassembly and Return of Traffic Sign Equipment.
15. All stop, yield, warning signs, and street name signs shall be maintained in a conspicuous location for the driving public. All stop and yield signs removed for construction purposes can be temporarily erected (no less than 7 feet vertical from grade) until they can be permanently re–installed. Any temporary stop or yield sign installation to be left in place overnight will require prior approval from the Traffic Services Inspector.
16. All existing signs, other than stop, yield, warning signs, or street name signs, shown to be used in place shall be protected from damage by the contractor. The contractor may temporarily remove the sign and post to prevent damage at the approval of the inspector. Storage of the signs & posts is the responsibility of the contractor.
17. All sign posts installed in concrete, asphalt or brick paver islands or medians shall have a 6" PVC sleeve or 6" core drilled hole completely through the full depth of pavement to the top of subgrade. See Median Nose Details
18. The contractor shall be required to install inventory stickers on the back of all signs installed on the project and record each respective bar code number on the plan sheet adjacent to the corresponding sign, for delivery to the project inspector. Inventory stickers will be provided by the City.
19. Minor adjustments in the location of sign posts should be made in the field during construction in order to maintain 4"–0" clearance from the centerline of any fire hydrant to the face of the sign post.
20. In the event of utility conflicts with sign post locations and the sign post cannot be relocated, the contractor shall be required to hand dig the sign post and backfill with concrete to provide a sturdy post installation. The cost shall be subsidiary to other sign bid items.
21. The contractor shall flag sign locations for installation and shall not install signs until final location has been approved by the Engineer or Inspector.
22. Break–away sign post anchors should be used for any sign installation requiring more than one post.

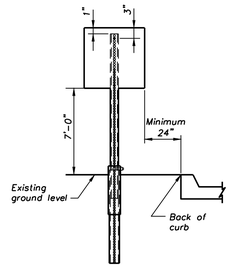


Typical Mounting for R4–7 W/OM1–3 | Typical OM3 Mounting | Typical OM1–3 & OM4–3 Mounting | Typical Mounting for Primary & Supplemental Plaques | Typical Mounting for Primary Signs

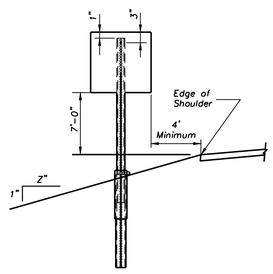


Typical R6–4 & R6–4a Mounting

Notes:
1. The height to the bottom of a supplemental plaque mounted below another sign when it is located in a pedestrian walkway, or extends more than 4" into a pedestrian walkway, shall be a minimum of 80" in compliance with the Americans with Disability Act (ADA).
2. If the supplemental plaque is less than 12" high, the height to the bottom of the primary sign should be a minimum of 7'–0".
3. All vertical installation dimensions are from the bottom of the sign to the top of curb or edge travel way as applicable.
4. Z = side slope, e.g. 4 for 4:1 side slope



Curb Traffic Sign Installation Detail



Shoulder Traffic Sign Installation Detail

Sign Mounting Details

Instructions for Disassembly and Return of Traffic Sign Equipment

For Use on Federal Funded Projects

The following is a list of permanent signing equipment which shall be salvaged and stored on site for pickup by the City of Overland Park, unless otherwise instructed by the inspector. All salvaged equipment shall be carefully disassembled and stored. The condition at the time of City pickup shall be the same as prior to removal. The contractor shall notify the City of Overland Park Department of Public Works, Inventory Control Specialist (913) 327–6603 to arrange for the City pickup of the salvaged equipment. Provide 48–hours advance notice.

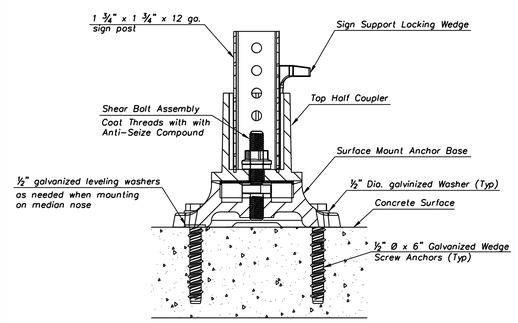
DELETE WHICHEVER NOTE DOES NOT APPLY TO THIS PROJECT

For Use on Non–Federally Funded Projects

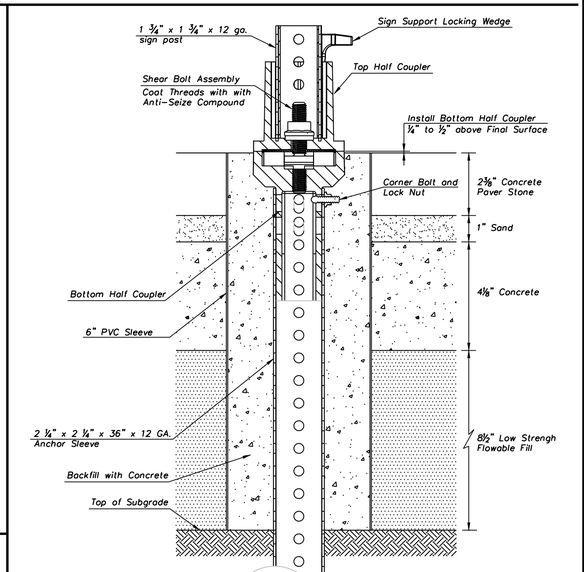
The following is a list of permanent signing equipment which shall be salvaged and returned to the City of Overland Park, unless otherwise instructed by the inspector. The condition at the time of delivery shall be the same as prior to removal. Disassembly of equipment shall be done prior to to returning the equipment to the Blue Valley Public Works Maintenance Facility (Traffic Services Maintenance Office and Shop) 6869 W. 153rd Street. The contractor shall notify the City of Overland Park Department of Public Works, Inventory Control Specialist (913) 327–6603 to arrange for the delivery of the salvaged equipment. Provide 48–hours advance notice.

The City maintains the first right of refusal of any equipment listed. The project inspector will make an on–site assessment to determine if the equipment should be salvaged or disposed. Any equipment that will not be salvaged shall become the property of the contractor.

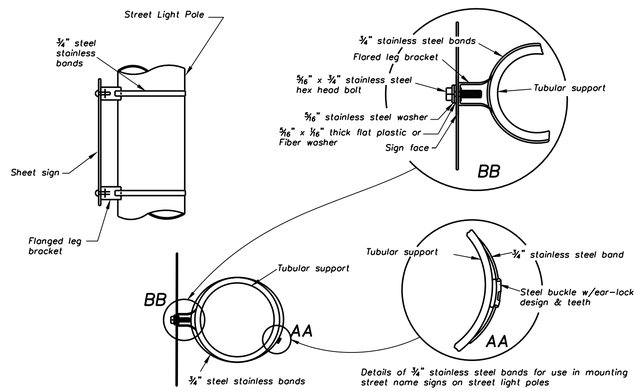
1. All traffic signs shall be removed from sign posts, signal poles or street light poles and be salvaged.
2. All Astro–Brackets shall be removed from the tubular support. Do not cut the Astro–Bracket cable.
3. All traffic sign posts, shall be removed and salvaged unless bent. If the sign post or pole was mounted in concrete, the post or pole shall be discarded upon removal.
4. Any hardware (i.e. bolts, bandit material, etc.) involved in mounting the sign must be discarded.
5. All flashing beacon assemblies shall be salvaged, including solar panels, poles, cabinet and internal components. Solar panels and signs shall be removed removed prior to salvaging. Screw–in foundations shall be cleaned of dirt and debris and salvaged with bolt and anchor studs.



Break–Away Sign Post Anchor Detail
(Concrete Surface Mount)



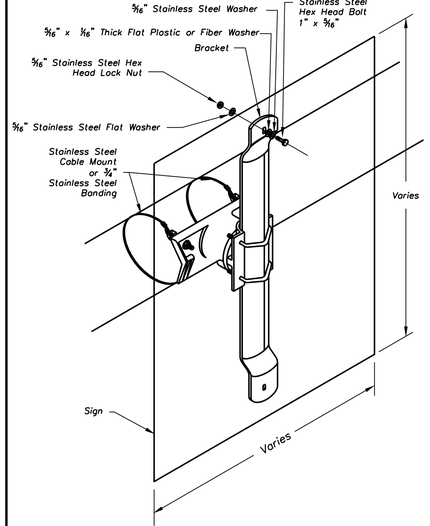
Break–Away Sign Post Anchor Detail
(Concrete Paver Stone Median/Island Mount)



Sign Mounting Detail (Vertical Pole)

Notes:

1. Signs on tubular supports shall be attached with two (2) brackets and stainless steel bands.
2. Holes in sign for attachment to the mounting brackets shall be offset a minimum of 2" from the edge of sign.
3. Holes in sign shall be located such that the sign is level.



Sign Mounting Detail (Mast Arm)
(Does not apply to overhead street name signs)

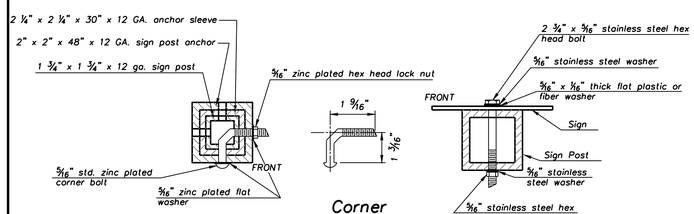
Sign Post Installation Sequence

1. Sign post anchor driven partially into subgrade using a drive cap with sledge or power equipment.
2. Anchor sleeve slipped over anchor and driven into subgrade together with the sign post anchor.
3. Insert sign post into the post anchor and bolt in place.

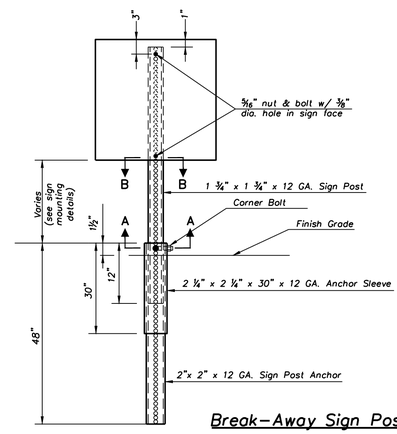
Note: For in–pavement installation, complete steps 1 & 2 prior to the placement of the pavement.

The first hole above the finished grade level in all three units must be in line for insertion of the corner bolt.

All corner bolts and nuts for fastening the signs and sign post assembly and all washers shall comply with appropriate sections of the standard specifications (latest edition) and shall be a subsidiary item.



Section A–A | Corner Bolt Detail | Section B–B



Break–Away Sign Post Detail

CITY OF OVERLAND PARK
DEPARTMENT OF PUBLIC WORKS

NO.	DATE	REVISIONS	BY
1	09/01/2021	2021 Standard Details	LJK
2			
3			

SIGNING DETAILS
GENERAL NOTES

SHEET NO. 35 | TOTAL SHEETS 53

March 10, 2023 - 1:33 PM
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Notes:

(1) Sample Post Length Calculation: $\frac{(H1-S) + (H2+1) + (H3+1) + \ldots + 10.5}{12} + MH + \frac{4}{Z} + 0.02 \times W$ (Round to nearest 0.1 foot)

Where: H = Sign Height (inches)
H1, H2, H3, ... = Sign Height(s) (inches)
9'–7" for posts with street name signs only
7'–0" for single mounted signs
6'–0" for signs with supplemental plaque < 12"
6'–8" for multiple mounted signs located in, or overhanging walking areas
Z = side slope, e.g. 4 for 4:1 side slope
W = shoulder width
S = 0 if the top sign is a street name sign, otherwise S=1

($\frac{4}{Z} + 0.02 \times W$:) Add only for a rural cross section with shoulder and side slope

(2) Post anchors shall be 4' long
(3) Anchor sleeves shall be 2.5' long
(4) MEP – Micro-Encapsulated Prismatic

Permanent Signing Summary

Station	Street Reference	Offset from ℄ (Lt or Rt)	MUTCD Designation	Sign Size	Area (S.F.) MEP Signs	(1) Post Length 1¾"x1¾" (LF)	(2) Post Anchor 2"x2" (LF)	(3) Anchor Sleeve 2¼"x2¼" (LF)	Conc. Surface Anchor (Ea)	Paver Anchor and Sleeve (Ea)	Comments
Totals											

CITY OF OVERLAND PARK
DEPARTMENT OF PUBLIC WORKS

NO.	DATE	REVISIONS	BY
1	09/01/2021	2021 Standard Details	LJJK
2			
3			

SIGNING DETAILS
QUANTITY SHEET

SHEET NO.	TOTAL SHEETS
36	53

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MUTCD Designation	Designation	Sign Sizes (W x H) (1), (2), (3), (4)		Sign Area
		Facing Traffic on Single Lane St or Approach	Facing Traffic on Multi-Lane St or Approach	Small/Large
	Object Marker Signs	20 mph ≤ V ≤ 55 mph	20 mph ≤ V ≤ 55 mph	(S.F.)
OM1-3	Object Marker (Type 1)	18" x 18"	18" x 18"	2.25
OM-3 (L or R)	Object Marker (Type 3) (Left or Right)	12" x 36"	12" x 36"	3.00
OM4-3	End of Road Marker	18" x 18"	18" x 18"	2.25

MUTCD Designation	Designation	Sign Sizes (W x H) (1), (2), (3), (4)			Sign Area
		Facing Traffic on Single Lane St or Approach	Facing Traffic on Multi-Lane St or Approach		Small / Large
	Regulatory Marker Signs	20 mph ≤ V < 55 mph	V ≤ 35 mph	35 mph < V < 55 mph	(S.F.)
R1-1	Stop	30" x 30" (6)	36" x 36"	36" x 36"	5.18 / 7.46
R1-2	Yield	36" x 36" x 36"	36" x 36" x 36"	48" x 48" x 48"	3.90 / 6.93
R1-3P	All Way (Plaque)	18" x 6"	18" x 6"	18" x 6"	0.75
R1-5	Yield Here to Pedestrians	36" x 36"	36" x 36"	36" x 36"	9.00
R2-1	Speed Limit	24" x 30"	30" x 36"	30" x 36"	5.00 / 7.50
R3-1	No Right Turn (Symbol)	24" x 24"	24" x 24"	36" x 36"	4.00 / 9.00
R3-2	No Left Turn (Symbol)	24" x 24"	24" x 24"	36" x 36"	4.00 / 9.00
R3-4	No U-Turn (Symbol)	24" x 24"	24" x 24"	36" x 36"	4.00 / 9.00
R3-5 (L or R)	Overhead Lane Control Left (Right) Arrow	30" x 36"	30" x 36"	30" x 36"	7.50
R3-7 (L or R)	Left (Right) Lane Must Turn Left (Right)	30" x 30"	30" x 30"	36" x 36"	6.25 / 9.00
R3-8 (2-Lane)	Intersection Lane Control	30" x 30"	30" x 30"	30" x 30"	6.25
R3-8 (3-Lane)	Intersection Lane Control	48" x 30"	48" x 30"	48" x 30"	10.00
R3-8 (4-Lane)	Intersection Lane Control	66" x 30"	66" x 30"	66" x 30"	13.75
R3-9b	Two-Way Left Turn Only	24" x 36"	24" x 36"	24" x 36"	6.00
R4-7	Keep Right (Symbol)	24" x 30"	24" x 30"	24" x 30"	5.00
R5-7	Do Not Enter	30" x 30"	30" x 30"	36" x 36"	6.25 / 9.00
R5-1a	Wrong Way	36" x 24"	36" x 24"	42" x 30"	6.00 / 8.75
R5-2	No Trucks (Symbol)	24" x 24"	24" x 24"	24" x 24"	4.00
R6-1 (L or R)	One Way (Left or Right)	36" x 12"	36" x 12"	54" x 18"	3.00 / 6.75
R6-2 (L or R)	One Way (Left or Right)	24" x 30"	24" x 30"	30" x 36"	5.00 / 7.50
R6-4	Roundabout Directional (Single Lane)	30" x 24"	30" x 24"	30" x 24"	5.00
R6-4a	Roundabout Directional (Multi-Lane)	48" x 24"	48" x 24"	48" x 24"	8.00
R6-5P	Roundabout Circulation (Plaque)	30" x 30"	30" x 30"	30" x 30"	6.25
R7-108	No Parking (time)	12" x 18"	12" x 18"	12" x 18"	1.50
R7-8	Parking (handicap)	12" x 18"	12" x 18"	12" x 18"	1.50
R7-8P	Van Accesible Plaque	12" x 6"	12" x 6"	12" x 6"	0.50
R8-3 (B,R or L)	No Parking (Symbol) with Arrow	12" x 18"	12" x 18"	12" x 18"	1.50
R8-3bP	No Parking Plaque	6" x 12"	6" x 12"	6" x 12"	0.50
R10-3e	Countdown Pedestriam Pushbutton	9" x 15"	9" x 15"	9" x 15"	0.94
R10-11	No Turn on Red (Red Ball Symbol)	24" x 30"	24" x 30"	36" x 48"	5.00 / 12.00
R10-12	Left Turn on Green (Green Ball Symbol)	30" x 36"	30" x 36"	30" x 36"	7.50
R10-FYA	Left Turn Yield on Flashing Yellow Arrow	30" x 36"	30" x 36"	30" x 36"	7.50
R10-30	Right Turn on Red Must Yield to U-Turn	30" x 36"	30" x 36"	30" x 36"	7.50
R14-1	Truck Route	24" x 18"	24" x 18"	24" x 18"	3.00

Signing Notes:

1. *All retro-reflective micro-encapsulated prismatic (MEP) background sheeting shall be ASTM Type XI.*
2. *All signs shall be made from a combination retroreflective sheeting background with electronic cuttable film applied to the surface.*
3. *Process color inks or silk screening signs are not allowed.*
4. *Sign sizes on roadways with posted speed limits 55 mph or greater shall be in accordance with the MUTCD sign tables for "Expressways" or "Oversized" in the case of School Zone signs.*
5. *All school warning signs and plaques shall have a fluorescent yellow-green background with a black legend and border.*
6. *If a side street intersects a multi-lane street with a speed limit of 45 mph or higher, use a 36" x 36" R1-1.*

MUTCD Designation		Sign Sizes (W x H) (1), (2), (3), (4)			Sign Area
		Facing Traffic on Single Lane St or Approach	Facing Traffic on Multi-Lane St or Approach		Small / Large
	Warning Signs	20 mph ≤ V ≤ 55 mph	V ≤ 35 mph	35 mph < V < 55 mph	(S.F.)
W1-1 (L or R)	Turn (Left or Right)	30" x 30"	30" x 30"	36" x 36"	6.25 / 9.00
W1-1a (L or R)	Advance Turn (Left or Right)	36" x 36"	36" x 36"	36" x 36"	9.00
W1-2 (L or R)	Curve (Left or Right)	30" x 30"	30" x 30"	36" x 36"	6.25 / 9.00
W1-2a (L or R)	Advance Curve (Left or Right)	36" x 36"	36" x 36"	36" x 36"	9.00
W1-6 (L or R)	One Direction Arrow (Left or Right)	48" x 24"	48" x 24"	48" x 24"	8.00
W1-7	Two Direction Large Arrow	48" x 24"	48" x 24"	48" x 24"	8.00
W1-8 (L or R)	Chevron (Left or Right)	18" x 24"	18" x 24"	18" x 24"	3.00
W2-6	Circular Intersection	30" x 30"	30" x 30"	36" x 36"	6.25 / 9.00
W3-1	Stop Ahead	30" x 30"	30" x 30"	36" x 36"	6.25 / 9.00
W3-2	Yield Ahead	30" x 30"	30" x 30"	36" x 36"	6.25 / 9.00
W3-3	Signal Ahead	30" x 30"	30" x 30"	36" x 36"	6.25 / 9.00
W3-5	Speed Reduction	36" x 36"	36" x 36"	36" x 36"	9.00
W4-2 (L or R)	Lane Ends (Left or Right)	36" x 36"	36" x 36"	36" x 36"	9.00
W4-4P	Cross Traffic Does Not Stop Plaque	24" x 12"	24" x 12"	24" x 12"	2.00
W6-1	Divided Highway	36" x 36"	36" x 36"	36" x 36"	9.00
W6-2	Divided Highway Ends	36" x 36"	36" x 36"	36" x 36"	9.00
W6-3	Two-Way Traffic	36" x 36"	36" x 36"	36" x 36"	9.00
W9-1 (L or R)	Left (Right) Lane Ends	36" x 36"	36" x 36"	36" x 36"	9.00
W10-1	R.R. Advance Warning	36" Dia.	36" Dia.	36" Dia.	7.07
W9-2 (L or R)	Lane Ends Merge Left (Right)	36" x 36"	36" x 36"	36" x 36"	9.00
W11-2 (L or R)	Pedestrian Crossing (Left or Right)	30" x 30"	30" x 30"	36" x 36"	6.25 / 9.00
W11-8	Emergency Vehicle	30" x 30"	30" x 30"	36" x 36"	6.25 / 9.00
W11-12P	Emergency Signal Ahead Plaque	36" x 30"	36" x 30"	36" x 30"	7.50
W11-15 (L or R)	Pedestrian/Bicycle Crossing (Left or Right)	30" x 30"	30" x 30"	36" x 36"	6.25 / 9.00
W12-1	Double Down Arrow	30" x 30"	30" x 30"	36" x 36"	6.25 / 9.00
W12-2	Low Clearance	36" x 36"	36" x 36"	36" x 36"	9.00
W13-1P	Advisory Speed Plaque	18" x 18"	18" x 18"	18" x 18"	2.25
W14-2	No Outlet	30" x 30"	30" x 30"	36" x 36"	6.25 / 9.00
W14-2a (L or R)	No Outlet Plaque (Left or Right)	36" x 12"	36" x 12"	36" x 12"	3.00
W14-3	No Passing Zone	48" x 48" x 36"	48" x 48" x 36"	48" x 48" x 36"	5.56
W16-7P (L or R)	Diagonal Arrow Plaque (Left or Right)	24" x 12"	24" x 12"	24" x 12"	2.00
W16-9P	Ahead Plaque	24" x 12"	24" x 12"	24" x 12"	2.00
W16-12P	Traffic Circle Plaque	24" x 18"	24" x 18"	24" x 18"	3.00
W16-17P	Roundabout Plaque	24" x 12"	24" x 12"	24" x 12"	2.00

MUTCD Designation		Sign Sizes (W x H) (1), (2), (3), (4)			Sign Area
		Facing Traffic on Single Lane St or Approach		Facing Traffic on Multi-Lane St or Approach	Small / Large
	School Zone Signs (5)	V ≤ 30 mph	30 mph < V < 55 mph	20 mph ≤ V < 55 mph	(S.F.)
S1-1 (L or R)	School (Left or Right)	30" x 30"	36" x 36"	36" x 36"	4.69 / 6.75
S3-1	School Bus Stop Ahead	30" x 30"	36" x 36"	36" x 36"	6.25 / 9.00
S4-5	Reduced School Speed limit Ahead	30" x 30"	36" x 36"	36" x 36"	6.25 / 9.00
S4-1P	Time Plaque	24" x 10"	24" x 10"	24" x 10"	1.67
S4-3P	School Plaque	24" x 8"	24" x 8"	24" x 8"	1.33
S4-4P	When Flashing	24" x 10"	24" x 10"	24" x 10"	1.67
S5-1	School Speed Limit XX When Flashing	24" x 48"	24" x 48"	24" x 48"	8.00
S5-2	End School Zone	24" x 30"	24" x 30"	24" x 30"	5.00
S5-3	End School Speed Limit	24" x 30"	24" x 30"	24" x 30"	5.00
W16-5P (L or R)	Turn Arrow (Left or Right)	24" x 12"	24" x 12"	24" x 12"	2.00
W16-6P (L or R)	Advance Turn Arrow (Left or Right)	24" x 12"	24" x 12"	24" x 12"	2.00
W16-7P (L or R)	Diagonal Arrow Plaque (Left or Right)	24" x 12"	24" x 12"	24" x 12"	2.00
W16-9P	Ahead Plaque	24" x 12"	24" x 12"	24" x 12"	2.00

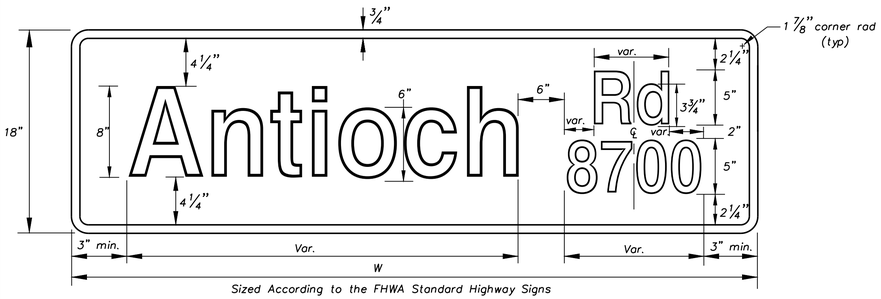
MUTCD Designation		Sign Sizes (W x H) (1), (2), (3)			Sign Area
		Facing Traffic on Single Lane St or Approach		Facing Traffic on Multi-Lane St or Approach	Small / Large
	Bicycle Facility Signs	V ≤ 30 mph	30 mph < V < 55 mph	20 mph ≤ V < 55 mph	(S.F.)
R3-17	Bike Lane	24" x 18"	24" x 18"	24" x 18"	3.00
R3-17aP	Ahead Plaque	24" x 8"	24" x 8"	24" x 8"	1.33
R3-17bP	Ends Plaque	24" x 8"	24" x 8"	24" x 8"	1.33
R3-17cP	Begins Plaque	24" x 8"	24" x 8"	24" x 8"	1.33

CITY OF OVERLAND PARK
DEPARTMENT OF PUBLIC WORKS

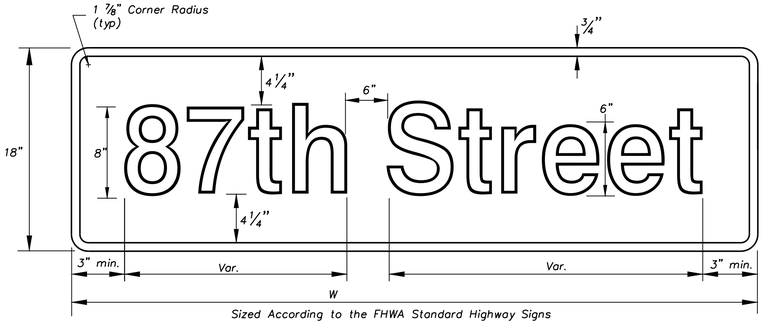
NO.	DATE	REVISIONS	BY
1	09/01/2021	2021 Standard Details	LJK
2			
3			

SIGN DETAILS
SIGN INFORMATION TABLE

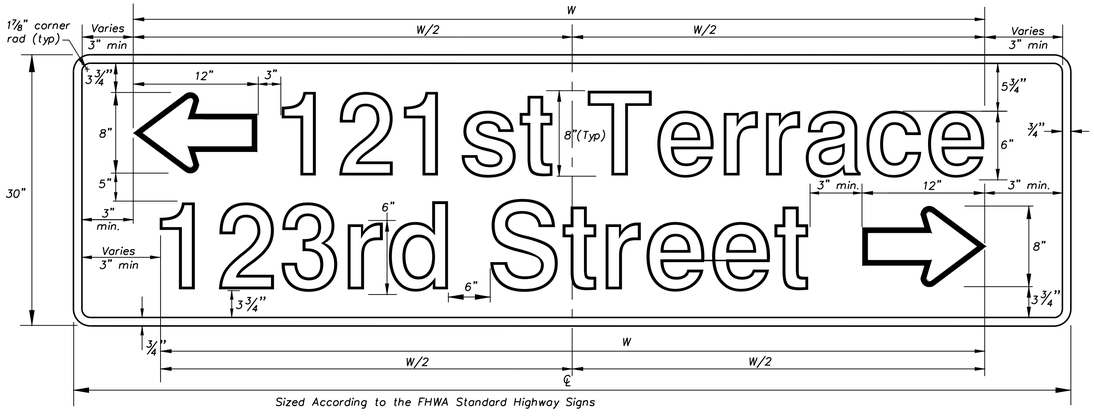
SHEET NO. 37 | TOTAL SHEETS 53



Sized According to the FHWA Standard Highway Signs



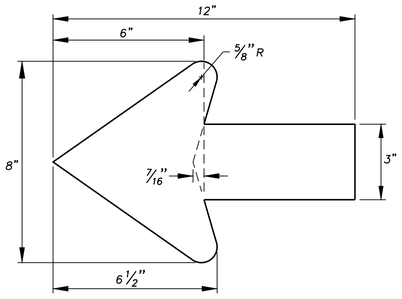
Sized According to the FHWA Standard Highway Signs



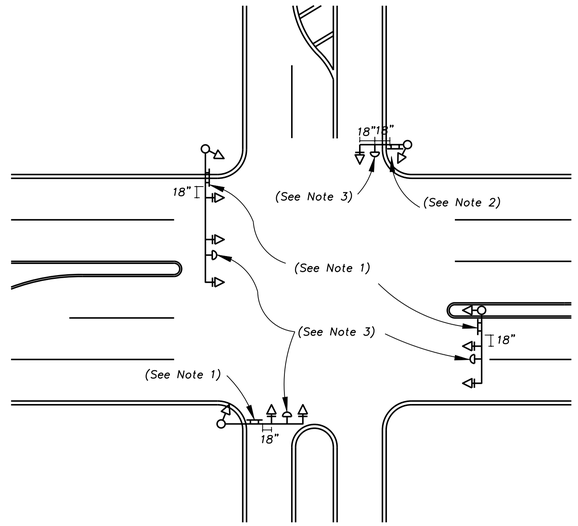
Sized According to the FHWA Standard Highway Signs

Table 1 (Alpha Streets)	
Standard Abbreviation List	
Avenue	Ave
Boulevard	Blvd
Circle	Cir
Court	Ct
Creek	Crk
Drive	Dr
Highway	Hwy
Lane	Ln
Parkway	Pkwy
Place	Pl
Plaza	Plz
Road	Rd
Street	St
Terrace	Ter
Trail	Tr
Way	Way

Table 2 (Numbered Streets)	
Standard Abbreviation List	
First	st
Second	nd
Third	rd
Fourth to Ninth	th



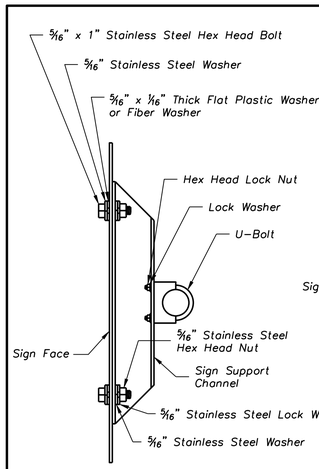
Arrow Dimensions (Inches)

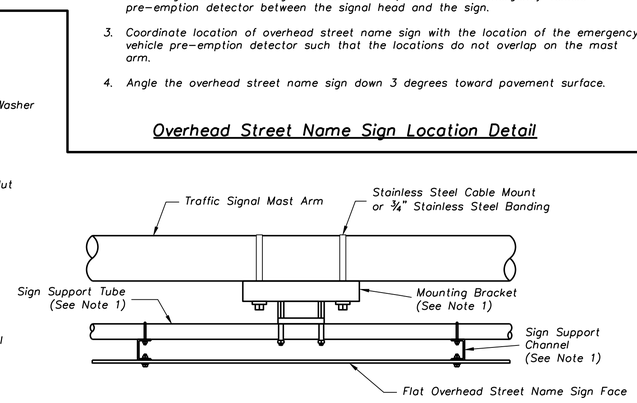


Overhead Street Name Sign Location Notes:

1. Mount overhead street name signs on mast arm between the first signal head mounted on the mast arm, and the pole.
2. Where only one signal head is mounted on the mast arm, mount the overhead street name sign between the signal head and the pole with the emergency vehicle pre-emption detector between the signal head and the sign.
3. Coordinate location of overhead street name sign with the location of the emergency vehicle pre-emption detector such that the locations do not overlap on the mast arm.
4. Angle the overhead street name sign down 3 degrees toward pavement surface.

Overhead Street Name Sign Location Detail





Overhead Street Name Sign Support & Bracket Detail

Overhead Street Name Sign Support & Bracket Detail Notes:

1. The number of mounting brackets, sign support channels and clamps, and sign support tubes vary based on sign length and manufacturer.
2. Holes in sign for attachment to the mounting brackets shall be offset a minimum of 3" from the edge of the sign and spaced uniformly across the length based on manufacturer's recommendation.
3. Sign shall be level taking into consideration the rake of the mastarm.

Sign Notes:

Sign Blank: 0.125 Gauge 6061-T6 or 5052-H38 Aluminum

Legend & Border: White

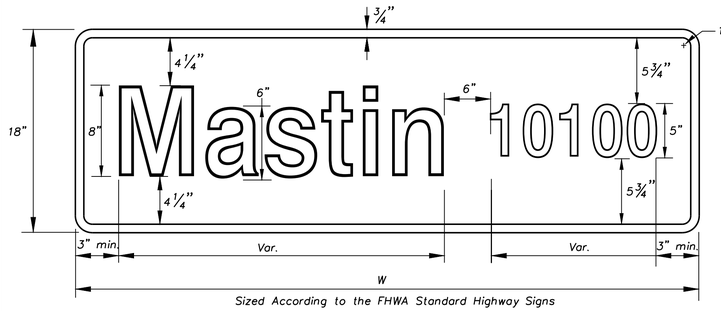
Background: Green (Federal Color STDS 595A, Color No. 14109)

Sheeting: Micro-Encapsulated Retro-Reflective Prismatic Sheeting (Type XI)

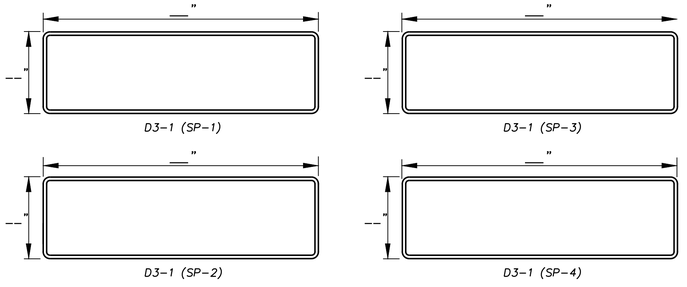
Process: Electro Cutable Film

Text Series: Emod 2000 sized as indicated in the examples.

Note:
Prior to fabrication, the contractor shall submit a detailed shop drawing indicating legend and dimensions for approval.



Sized According to the FHWA Standard Highway Signs



Project Sign Details

Overhead Street Name Sign Quantity Table				
Sign Designation	Size (WxH)	Area (S.F.)	Number	Quantity (S.F.)
D3-1 (SP-1)	x		__ Each	
D3-1 (SP-2)	x		__ Each	
D3-1 (SP-3)	x		__ Each	
D3-1 (SP-4)	x		__ Each	
Total				

CITY OF OVERLAND PARK
DEPARTMENT OF PUBLIC WORKS

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1	09/01/2021	2021 Standard Details	LJK
2			
3			

SIGN DETAILS
OVERHEAD STREET NAME SIGN DETAILS

SHEET NO. 38 | TOTAL SHEETS 53

March 10, 2023 - 3:17 PM
jllussie
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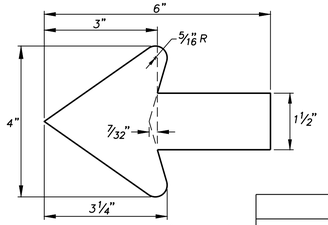
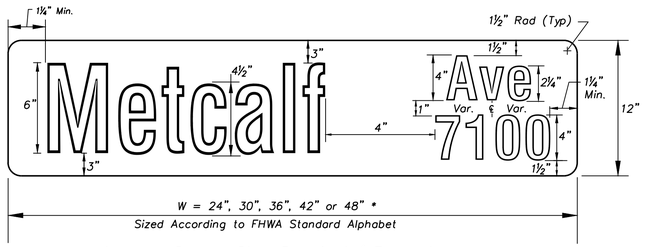
Table 1 (Alpha Streets)	
Standard Abbreviation List	
Avenue	Ave
Boulevard	Blvd
Circle	Cir
Court	Ct
Creek	Crk
Drive	Dr
Highway	Hwy
Lane	Ln
Parkway	Pkwy
Place	Pl
Plaza	Plz
Road	Rd
Street	St
Terrace	Ter
Trail	Tr
Way	Way

Table 2 (Numbered Streets)	
Standard Abbreviation List	
First	st
Second	nd
Third	rd
Fourth to Ninth	th

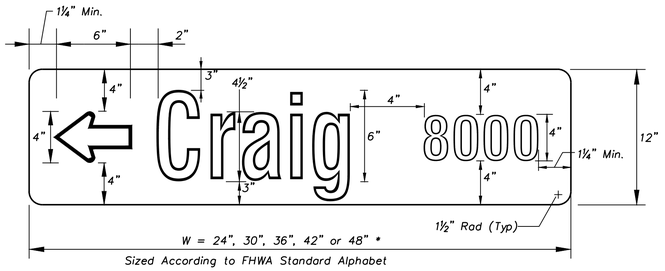
*Note: Series B 2000 letters shall be used in lieu of Highway Series C to avoid exceeding a 48" sign blank.



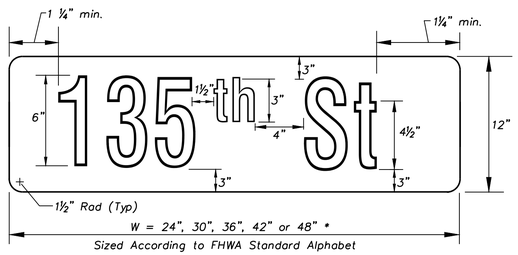
Arrow Dimensions (Inches)



Named Street Sign Detail W/ Block Number



Named Street Sign Detail / Directional



Numbered Street Sign Detail

Sign Material Notes:

Sign Blank: 0.080 Gauge, Alodized 6061-T6 or 5052-H38

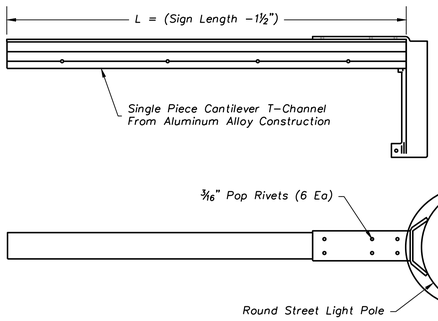
Legend: White (No Border)

Background: Green (Federal Color STDS 595A, Color No.14109

Text Series: Series C 2000 as indicated in the examples

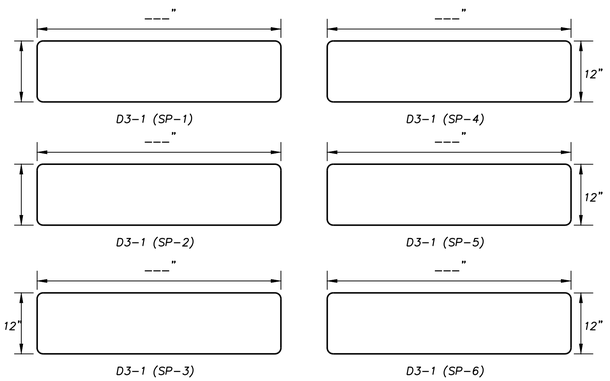
Sheeting: Micro-Encapsulated, Retro-Reflective Prismatic Sheeting (Type XI)

Process: Electro-Cutable Film

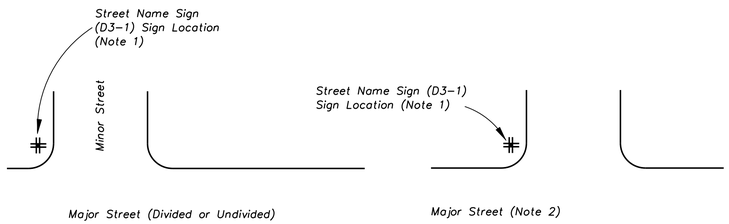


Street Name Sign Wing Bracket Detail for Round Tubular Supports

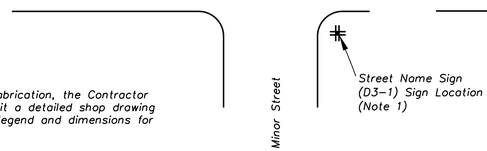
Street Name Sign Quantity Table				
Sign Designation	Size (W x H)	Area (S.F.)	Number	Quantity (S.F.)
D3-1 (SP-1)	x 12"			
D3-1 (SP-2)	x 12"			
D3-1 (SP-3)	x 12"			
D3-1 (SP-4)	x 12"			
D3-1 (SP-5)	x 12"			
D3-1 (SP-6)	x 12"			
Total				



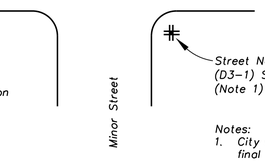
Project Sign Details



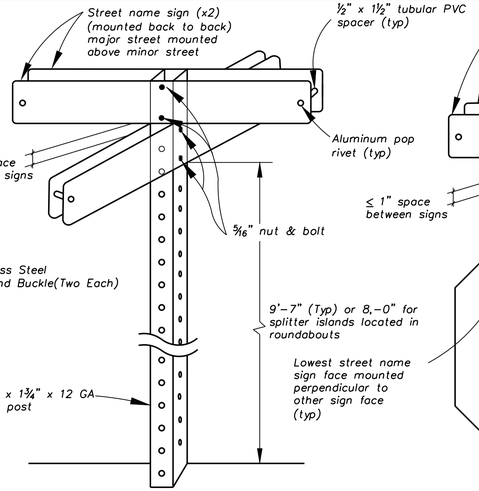
Note:
Prior to fabrication, the Contractor shall submit a detailed shop drawing indicating legend and dimensions for approval.



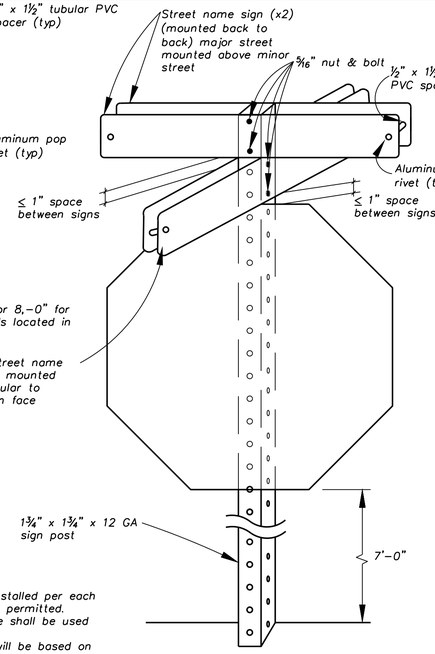
Street Name Sign Location Detail ("T" Intersection)



Street Name Sign Location Detail (4-Leg Intersection)

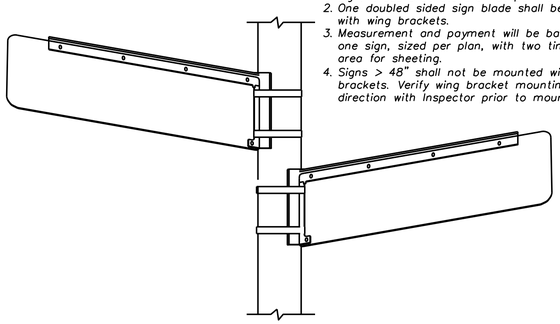


Street Name Sign Assembly (Mounted Separately)

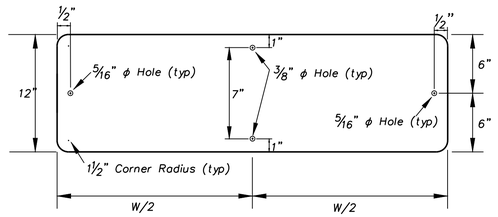


Street Name Sign Assembly (Mounted with Other Sign)

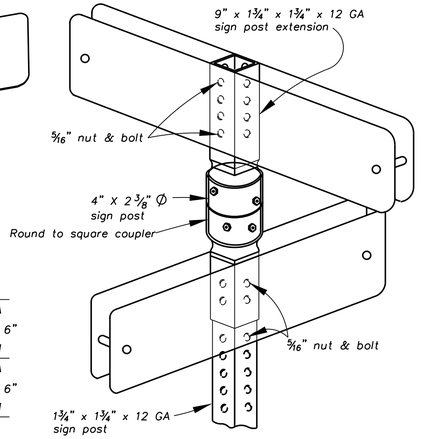
Note:
1. One wing bracket shall be installed per each sign. Cross brackets are not permitted.
2. One doubled sided sign blade shall be used with wing brackets.
3. Measurement and payment will be based on one sign, sized per plan, with two times the area for sheeting.
4. Signs > 48" shall not be mounted with wing brackets. Verify wing bracket mounting direction with Inspector prior to mounting.



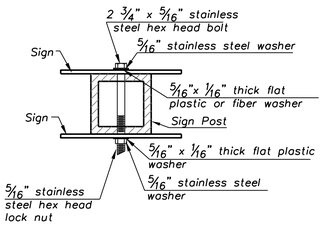
Tubular Support Mounting Detail



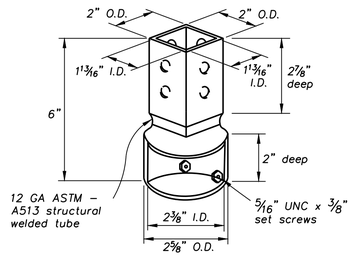
Sign Mounting Hole Detail (For Mounting on Square Tubular Supports)



Street Name Sign Bracket Square Tubular Supports (Skewed Intersections Only)



Double Sign Face Mounting Detail



Round to Square Coupler Detail

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SIGN DETAILS
GROUND MOUNT STREET NAME SIGN DETAILS

SHEET NO. 39 | TOTAL SHEETS 53

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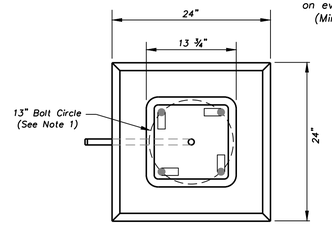
jllueske

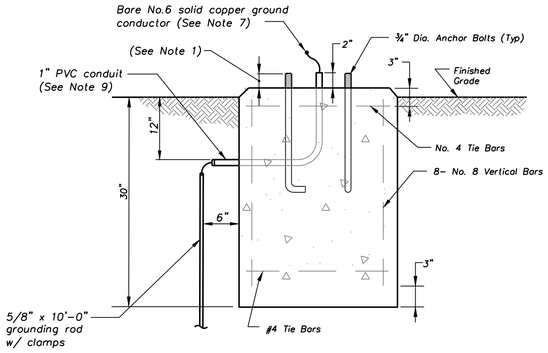
Solar School Zone Flasher Requirements

- Unbreakable, vandal resistant solar panel, 55 Watt minimum
- GEL–CEL Type Battery (12 Volt, 100 AMP)
- DCF2 modular 2–circuit solid state flasher (12VDC) rated at 6.0 AMPS per circuit
- Surge protector poly phaser
- Master radio assembly with Ethernet LAN Assembly Serial Port server with 6dB Omni Antenna
- Remote Radio
- Automatic sequencing charger (ASC)
- 0.125 Inch aluminum sheeting w/ natural aluminum finish w/ standard No. 2 key lock
- Two circuit, calendar programmable 2–way radio solid state time switch

FLASHING BEACON QUANTITY TABLE			
STATION	OFFSET	STREET	QUANTITY

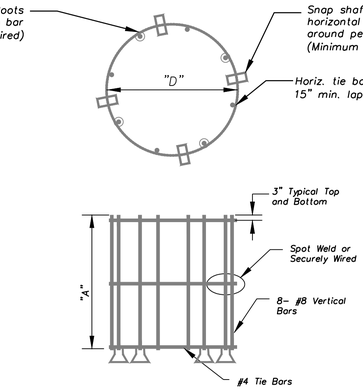


Plan



Section

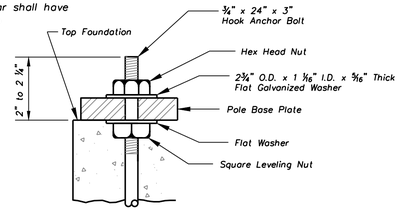
Pedestal Pole Base



HORIZONTAL REBAR		
POLE FND. DIA.	REBAR CIR. "D"	SPACING
24"	18"	12" MAX.

VERTICAL REBAR		
POLE FND. DEPTH	LENGTH "A"	Number of Shaft Wheels
30"	24"	4

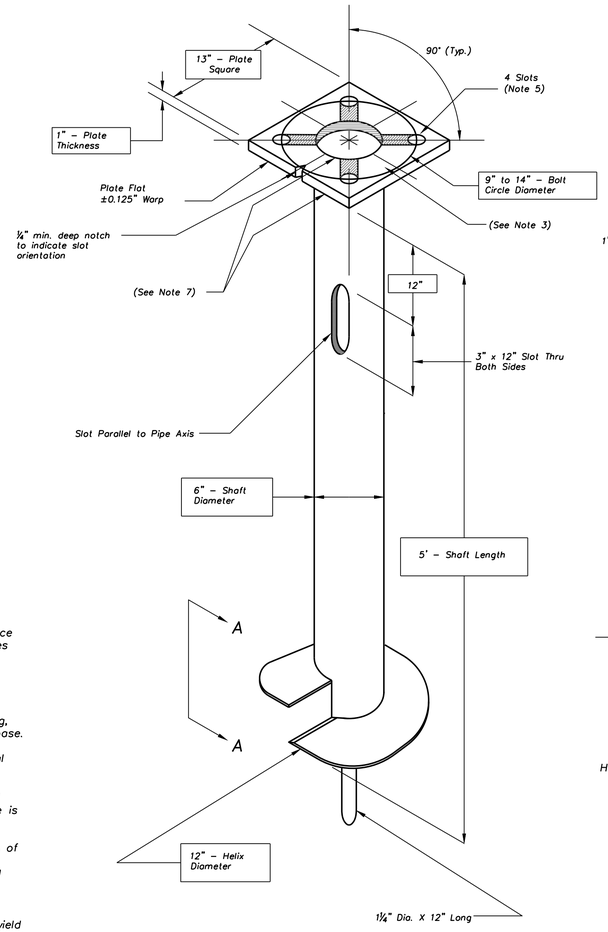
Rebar Cage Detail



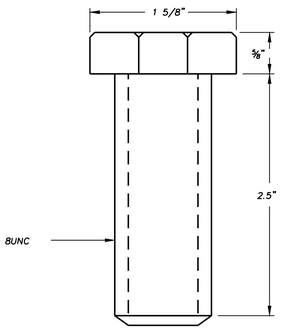
Anchor Bolt Detail

Pole Base Notes:

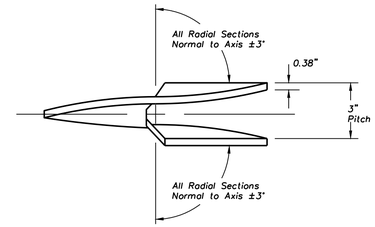
1. Final anchor bolt projection, and bolt circle shall be as indicated. Rotate anchor bolt to maintain minimum clearance from edge of hole. All anchor bolt threads and nut surfaces shall be lubricated prior to tightening with stick wax or approved alternative.
2. All anchor bolts for all the new pole bases shall be rigidly installed before concrete is placed. Anchor bolts shall be spaced by means of a factory certified template or drawing, the center of which shall coincide with the center of the base.
3. All concrete pole bases shall be consolidated by an internal type vibrator.
4. Final 6" of concrete foundation (pole cap) shall be formed square. The cap shall be formed and poured after the pole is plumb.
5. All concrete used in this work shall meet the requirements of the Overland Park Municipal Code and shall be KCMMB5K concrete (F'c = 5000 psi). Poles shall not be erected until concrete has reached 3500 psi, or seven days in lieu of concrete tests.
6. Reinforcing steel shall be ASTM A615 GR60 with a 60 ksi yield strength. Maintain 3" minimum clearance from reinforcing steel to edge of hole or form.
7. Bare No. 6 solid copper ground conductor shall be connected from the internal pole grounding nut, with a ring terminal, to the clamp on ground rod.
8. PVC conduit elbows in concrete foundations, ground rod, and ground cabling shall be considered subsidiary to the other items.
9. All concrete surfaces should be brushed and sealed with curing compound.



Alternate Screw–in Foundation Anchor Details



Hex Head Bolt

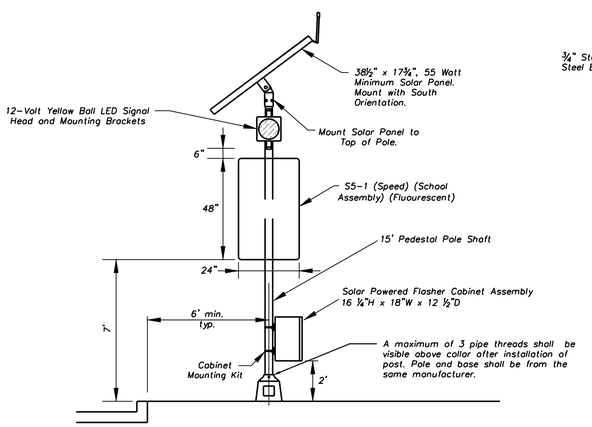


Helix must be formed by matching metal die
(Side View of True Helical Form)

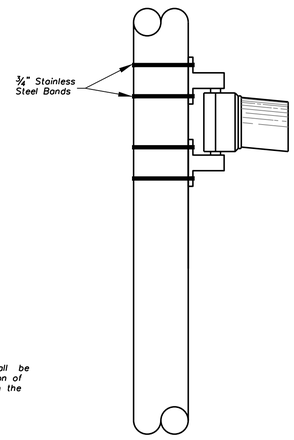
View A–A

Screw–in Foundation Notes:

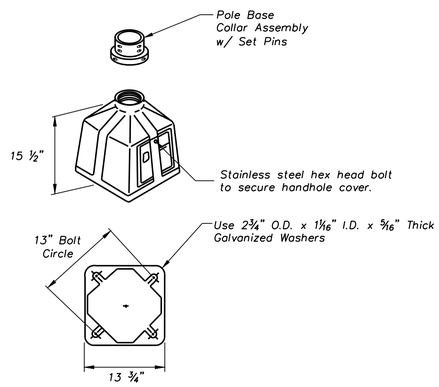
1. Hex head bolt shall be used with screw–in foundation. Contractor shall ensure bolt circle of pedestal pole base will match bolt circle of screw–in foundation.
2. Contractor shall ensure that earth around the base of the pole is thoroughly compacted prior to laying sod.



Aluminum Signal Pedestal Pole with Solar Panel



Pole Band and Clamp Mounting Detail



Pedestal Pole Base Detail

CITY OF OVERLAND PARK
DEPARTMENT OF PUBLIC WORKS

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3			

SIGN DETAILS
FLASHING SCHOOL BEACON DETAILS

SHEET NO. 40 | TOTAL SHEETS 53

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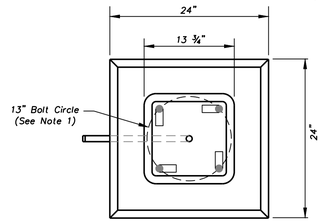
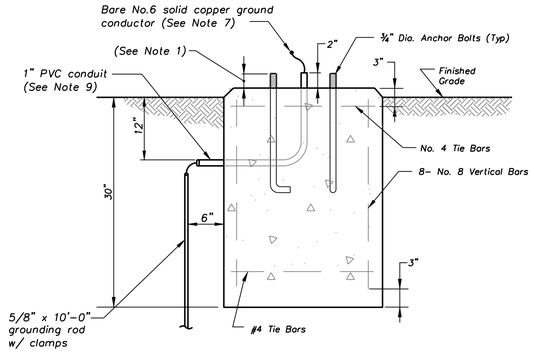
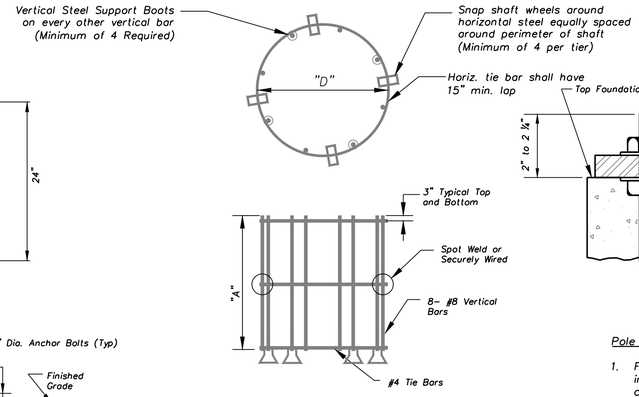


Plan



Section

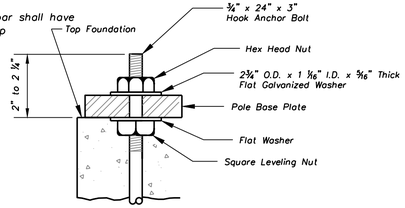
Pedestal Pole Base



HORIZONTAL REBAR		
POLE FND. DIA.	REBAR CIR. "D"	SPACING
24"	18"	12" MAX.

VERTICAL REBAR		
POLE FND. DEPTH	LENGTH "A"	Number of Shaft
30"	24"	4

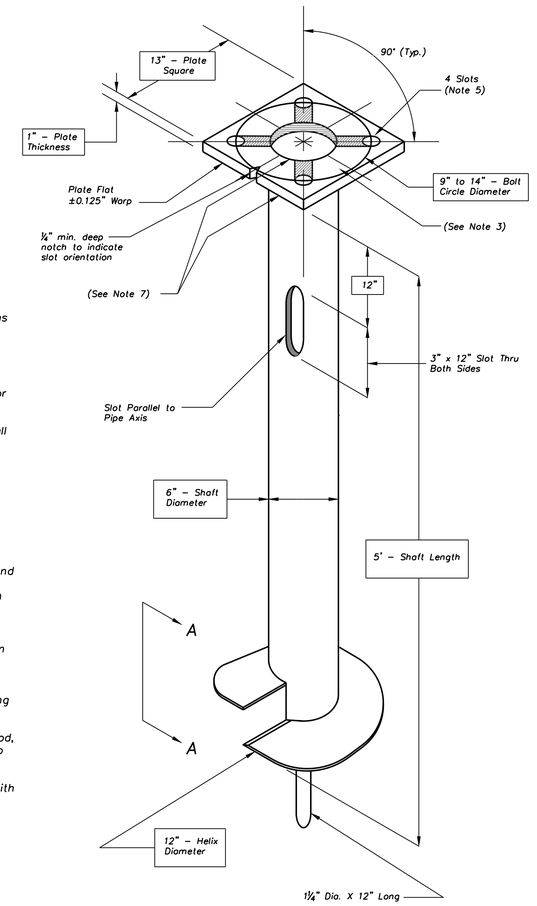
Rebar Cage Detail

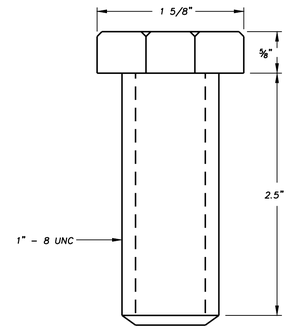


Anchor Bolt Detail

Pole Base Notes:

1. Final anchor bolt projection, and bolt circle shall be as indicated. Rotate anchor bolt to maintain minimum clearance from edge of hole.
2. All anchor bolts for all the new pole bases shall be rigidly installed before concrete is placed. All anchor bolt threads and nut surfaces shall be lubercated prior to tightening with stick wax or approved alternative. Anchor bolts shall be spaced by means of a factory certified template or drawing, the center of which shall coincide with the center of the base.
3. All concrete pole bases shall be consolidated by an internal type vibrator.
4. Final 6" of concrete foundation (pole cap) shall be formed squore. The cap shall be formed and poured after the pole is plumb.
5. All concrete used in this work shall meet the requirements of the Overland Park Municipal Code and shall be KCMMB5K concrete (f'_c = 5,000 psi). Poles shall not be erected until concrete has reached 3,500 psi, or seven days in lieu of concrete tests.
6. Reinforcing steel shall be ASTM A615 GR60 with a 60 ksi yield strength. Maintain 3" Minimum clearance from reinforcing steel to edge of hole or form.
7. Bare No. 6 solid copper ground conductor shall be connected from internal pole grounding nut, with a ring terminal, to the clamp on ground rod.
8. PVC conduit elbows in concrete foundations, ground rod, and ground cobling shall be considered subsidiary to other items.
9. All concrete surfaces should be brushed and sealed with curing compound.

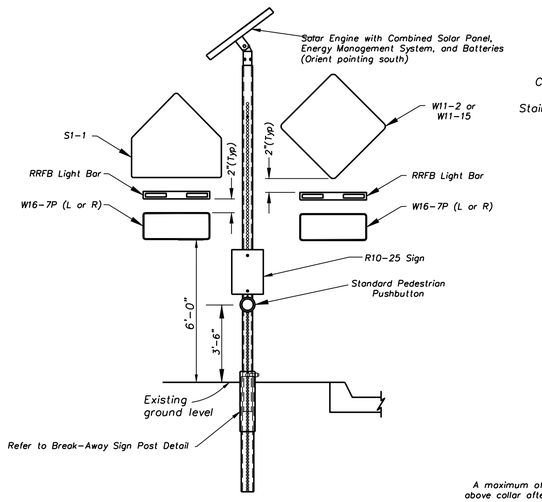




Hex Head Bolt

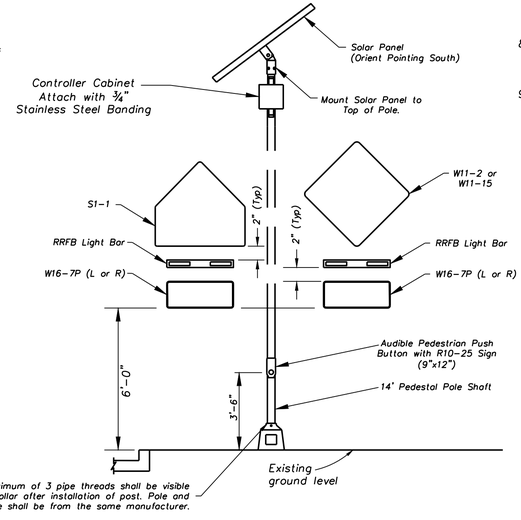
Screw–in Foundation Notes:

1. Hex head bolt shall be used with a screw–in foundation. Contractor shall ensure bolt circle of pedestal pole base will match bolt circle of screw–in foundation.
2. Contractor shall ensure that the earth around the base of the pole is thoroughly compacted prior to laying sod.



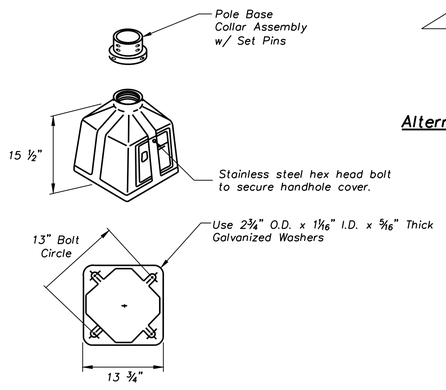
Sign Post with Rectangular Rapid Flashing Beacon (RRFB)

(For Standard Pedestrian Push Buttons)

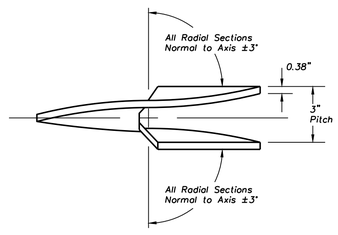


Aluminum Signal Pedestal Pole with Rectangular Rapid Flashing Beacon (RRFB)

(For Audible Pedestrian Push Buttons)



Pedestal Pole Base Detail



Helix must be formed by matching metal die
(Side View of True Helical Form)

View A–A

Alternate Screw–in Foundation Anchor Details

SIGN POST MOUNTED RRFB QUANTITY TABLE (3)				
STATION	OFFSET	STREET	DIRECTIONAL	
			UNI	BI
TOTAL				

POLE MOUNTED RRFB QUANTITY TABLE (1)(2)				
STATION	OFFSET	STREET	DIRECTIONAL	
			UNI	BI
TOTAL				

Bill of Material Notes:

1. Unless otherwise noted, the installation of Pole Mounted RRFB units shall be bid per Each for all necessary equipment including RRFB, control unit, controller cabinet, solar panel, 14' pedestal pole and base, foundation.
2. The RRFB cabinet shall be ordered with the audible pedestrian push button DC control unit pre–mounted.
3. Unless otherwise noted, the installation of Post mounted RRFB units shall be bid per Each for all necessary equipment including RRFB, solar engine with combined solar panel energy management system, batteries, sign post, anchor and sleeve.
4. Signs will be included in sign quantities.

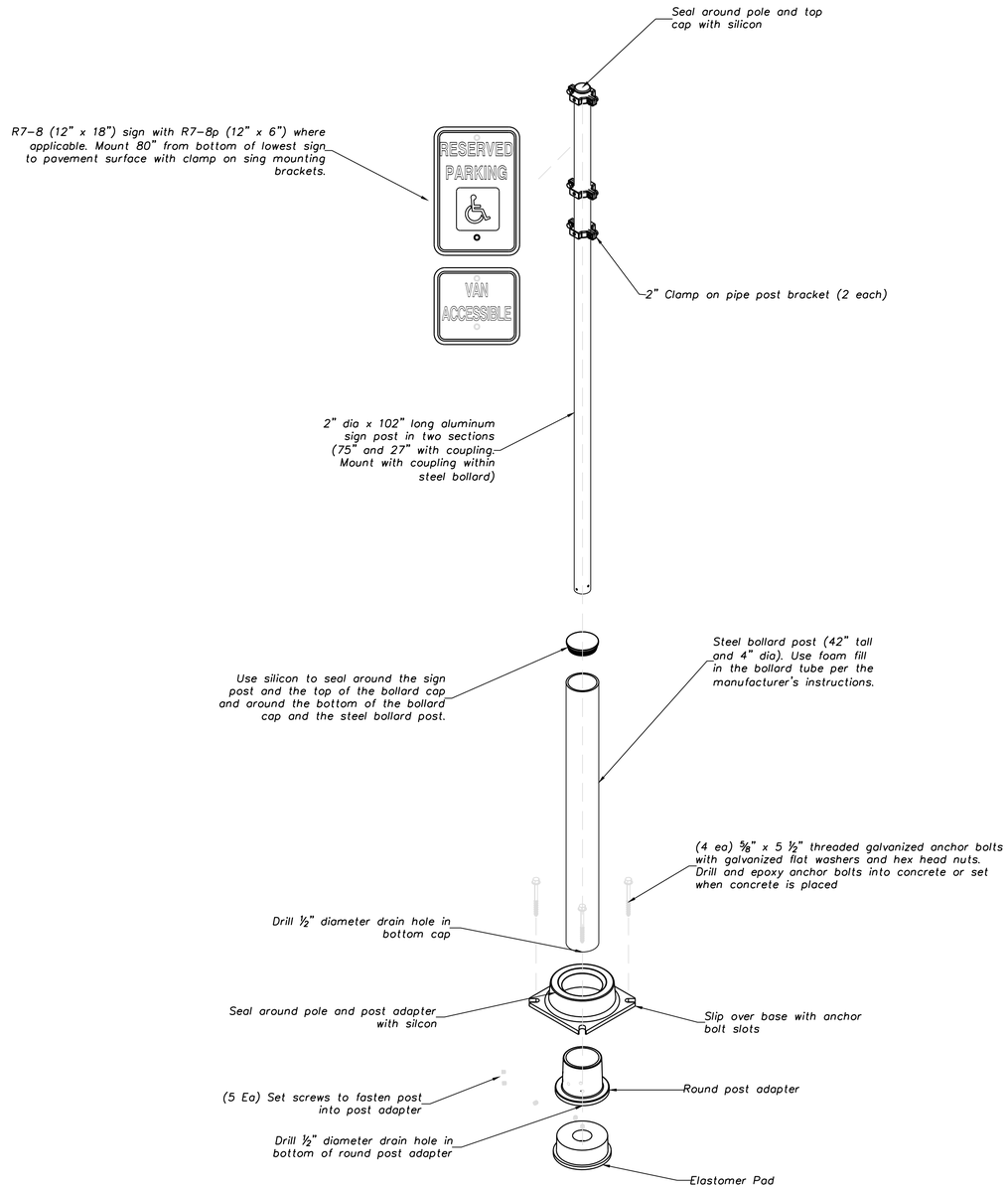
CITY OF OVERLAND PARK
DEPARTMENT OF PUBLIC WORKS

NO.	DATE	REVISIONS	BY
1	09/01/2021	2021 Standard Details	LJK
2			
3			

SIGN DETAILS
RECTANGULAR RAPID FLASHING SIGN DETAILS

SHEET NO. 41 | TOTAL SHEETS 53

March 10, 2023 - 3:17 PM
jlusse
F:\Auto\CAD\Details\2021 Traffic Signing Details - MASTER.dwg



PARKING LOT SIGN BOLLARD DETAIL

March 10, 2023 - 4:26 PM
jluesse
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CITY OF OVERLAND PARK
DEPARTMENT OF PUBLIC WORKS

NO.	DATE	REVISIONS	BY
1	09/01/2021	2021 Standard Details	LJK
2			
3			

SIGNING DETAILS
PARKING LOT SIGN BOLLARD

SHEET NO.	TOTAL SHEETS
42	53