MORGAN-FRANCIS
FLAGPOLES & ACCESSORIES
A Division of AGS Capitol, LLC

9850 E. 30th Street, Indianapolis, IN 46229 · Ph 800-814-9568 · Fax 877-637-6537

Installation Instructions

(Commercial Internal Halyard Flagpoles)

Please read all instructions before starting installation. If you have any questions please call.

ASSEMBLY & INSTALLATION INSTRUCTIONS FOR GROUND SET FLAGPOLES

FOUNDATION

1. See the 'FOUNDATION INSTRUCTIONS FOR GROUNDSET FLAGPOLES' instruction sheet.

ASSEMBLY OF TWO AND THREE PIECE POLES

2. See the 'ASSEMBLY OF TWO AND THREE PIECE POLES' instruction sheet.

FLAGPOLE COMPONENTS ASSEMBLY

3. See the 'INTERNAL HALYARD & TRUCK ATTACHMENT INSTRUCTIONS'

4. Screw the Finial (ball, etc.) into the truck assembly and tighten with an open end wrench or an adjustable wrench.

CAUTION: The truck assembly is provided with a setscrew for the ball. Make sure, prior to screwing the ball into the truck assembly, that the set crew is backed out so that it does not interfere with the threaded rod of the ball as it is being screwed into the truck assembly.

5. Lift the pole by an appropriate method, using care not to mark the pole surface.

6. Slip the collar up from the bottom and secure it temporary to the pole up and out of the way.

CAUTION: Protect the pole with shipping paper underneath the collar to prevent scratching the pole.

1. Place the pole butt into the foundation tube and lower it to the bottom. BE SURE THE DOOR OPENING IS FACING IN THE DESIRED DIRECTION before doing any back filling of sand.

2. Make (4) wooden wedges per drawing provided, plumb the pole in (2) directions with a plumb bob, level or transit.

3. Fill the tube with loose dry sand. Make sure all the corrugations of the tube are filled. This is done by driving a stake to the bottom and moving it until the sand stops settling. The sand should come to within 2-1/2" - 3" from the top of the tube.

4. Remove the wooden wedges and pack the top of the tube around the pole with tar or silicone sealant to insure that moisture does not go into the foundation tube from the outside or that the sand can work it's way out of the tube.

5. Untie the collar and place it into position.

6. Pole erection is now complete. **CAUTION: Do not fly a flag for at least (4) days.**

ASSEMBLY OF TWO AND THREE PIECE POLES

CAUTION: Prior to performing these steps, make sure the halyard assembly is not attached to the pole or that any internal cable or rope is not in the shaft. The cable or rope may get caught in the joint while assembling the shaft and prevent the shaft from going together. This will damage the cable or rope and may also damage the joint.

1. Lay the sections of the flagpoles on sturdy horses or blocks of wood so the ground will not damage the finish of the shafts.

2. Position the two sections of the flagpoles so that the lower field joint is aligned and ready to go into the top section of the flagpole.

CAUTION: The field joint has been marked with identifying pole numbers, arrows or twin dots. Orient the pole with the pole numbers, arrows or dots so they line up together and be sure the pole numbers match.

CAUTION: If numbers do not match * STOP *** call factory at once!**

3. Clean any dirt, rock, metal shavings and burrs from the inside of the bottom portion of the upper female section of the flagpole shaft and the outside of the top portion of the male section of the flagpole shaft.

4. Ram the two sections together as far as possible by hand, making sure the pole numbers, arrows or dots stay lined-up with each other.

5. This operation may require a sledgehammer to drive the two sections together to within 1/16" of the joint. Always use a wooden protector between the hammer and the ends of the pole. The pole being aluminum can be damaged easily.

CAUTION: Never drive the sections tight together.

6. You are now ready to attach the flagpole components to your assembled shaft. See the instructions sheet for the assembly of your flagpole.

FOUNDATION INSTRUCTIONS FOR GROUNDSET FLAGPOLES

FOUNDATION

Dig a hole for the foundation tube approximately (5) times the butt diameter of the pole at the top and taper it down to (4) times the butt diameter at the bottom. The depth should be approximately the corrugated tube length plus (1) foot. (see drawing)

Force the foundation tube spike into the ground until the small (6 x 6) rest plate reaches the bottom of the hole. Plumb the tube in both directions with a level.

Back fill with concrete mix (3000 psi min) to the top of the foundation tube in one pour without getting any concrete into the culvert tube. Dress the top of the surface of the slab using a form if required.

CAULKING: For a moisture seal, waterproof type caulking is applied approximately 2" deep around pole and between base or collar.
FLASH COLLAR: Often used for appearance and added weather protection. MF335 Std. spun aluminum flash collar. (See page 11 of catalog for selection of decorative bases at additional cost.)
PITCH FOR BASE: 1/2" to 1".
GROUT CAP: 1-2 mix, added for fine top finish.
WOOD WEDGES: Temporary, 4 used around pole for centering. Remove later.
CONCRETE MIX: 1-2-4 formula, complete in one pour.
SAND: SCREENED and dry. Tamp in.
CENTERING WEDGES: Steel, welded to inside of foundation tube.
TUBE: 18ga. to 16 ga. galvanized corrugated steel.
GROUNDING SPIKE: 3/4" dia. x 18" to 24" Long total, welded to center and bottom of support plate.

FOUNDATION SPECIFICATIONS

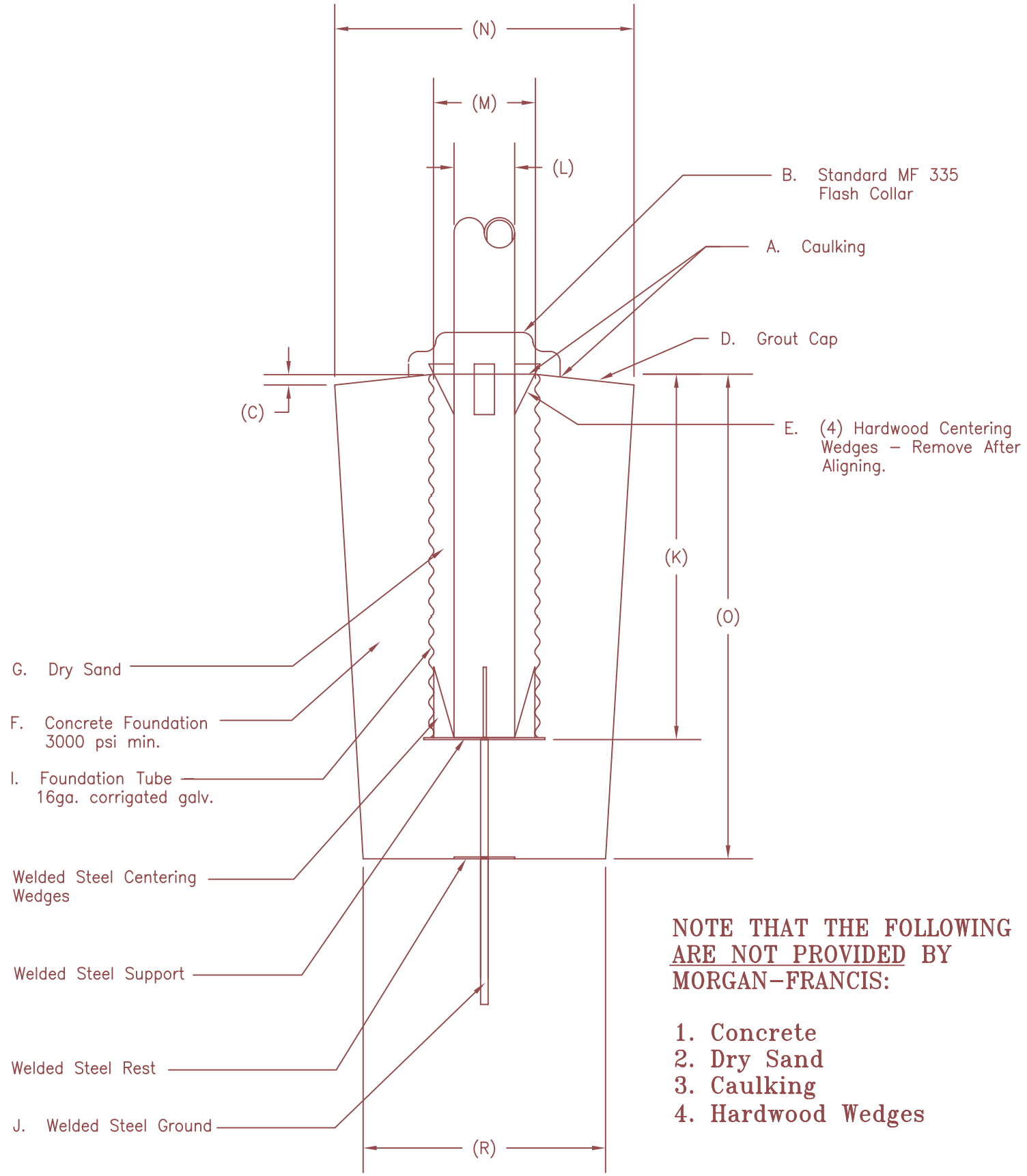
OVERALL LENGTH	EXPOSED HEIGHT	TUBE LENGTH (K)	BUTT DIA. (L)	SLEEVE I.D. (M)	HOLE WIDTH (N)	EXCAVATE TOTAL (O)	SUPPORT PLATE (P)	REST PLATE (O)	BOTTOM HOLE WIDTH (R)
23'	20'	36"	5"	8"	25"	48"	10" X 10"	6" X 6"	20"
28'	25'	36"	5"/5.5"	8"	25"	48"	10" X 10"	6" X 6"	20"
28'	25'	36"	5"	8"	25"	48"	10" X 10"	6" X 6"	20"
33'	30'	36"	5"	8"	25"	48"	10" X 10"	6" X 6"	20"
33'	30'	36"	6"	10"	30"	48"	12" X 12"	6" X 6"	24"
38.5'	35'	42"	5"	8"	25"	52"	10" X 10"	6" X 6"	20"
38.5'	35'	42"	6"	10"	30"	52"	12" X 12"	6" X 6"	24"
38.5'	35'	42"	7"	10"	35"	52"	12" X 12"	6" X 6"	28"
44'	40'	48"	7"	10"	35"	60"	12" X 12"	6" X 6"	28"
44'	40'	48"	8"	12"	40"	60"	14" X 14"	6" X 6"	32"
49.5'	45'	54"	8"	12"	40"	66"	14" X 14"	6" X 6"	32"
55'	50'	60"	8"	12"	40"	72"	14" X 14"	6" X 6"	32"
55'	50'	60"	10"	15"	50"	72"	18" X 18"	6" X 6"	40"
66'	60'	72"	10"	15"	50"	84"	18" X 18"	6" X 6"	40"
66'	60'	72"	12"	15"	60"	84"	18" X 18"	6" X 6"	48"
77'	70'	84"	10"	15"	50"	96"	18" X 18"	6" X 6"	40"
77'	70'	84"	12"	15"	60"	96"	18" X 18"	6" X 6"	48"
88'	80'	96"	12"	15"	60"	108"	18" X 18"	6" X 6"	48"

MORGAN-FRANCIS

DIV. OF ORIGINAL TRACTOR CAB CO., INC.

DATE: 5/10/01		DRAWING NO. INSTR1.
REV B	DATE 12/99	
DRAWN BY: PCH		MODEL NO. FOUNDATION

FOUNDATION – INSTALLATION INSTRUCTIONS



NOTE THAT THE FOLLOWING ARE NOT PROVIDED BY MORGAN–FRANCIS:

1. Concrete
2. Dry Sand
3. Caulking
4. Hardwood Wedges

INTERNAL HALYARD & TRUCK ATTACHMENT INSTRUCTIONS

NOTE: TWO AND THREE SECTION POLES MUST BE ASSEMBLED PRIOR TO PERFORMING THE FOLLOWING.

1. Using the key (HL-302) remove the door assembly. Located behind the door is the stainless steel winch that is used to raise and lower the flag.

2. In order to facilitate putting the stainless steel cable in the pole, use a snake inserted into the pole from the top and push down to the door opening. Tie a long string to the end of the snake and pull the string through the pole. Now tie the end of the string that is attached to the snake, to the stainless steel cable with the copper ferrule. See steps 3 & 4.

3. Locate the pole truck assembly. The pole TRUCK (see drawing on back) comes all assembled with stainless steel cable ready to attach to the winch in the pole.

4. It is necessary to find the cable with the small copper ferrule attached to the end of one of the coils. Unbind this section of cable; this end gets fed down through the top of the pole.

5. Uncoil the cable as you feed it through the top of the pole to the door opening. Keep the cable as clean as possible, without kinks, and in an organized state so it can be fed through the pole.

6. Pull the string that is at the door until the copper ferrule reaches the winch. Feed the end of the cable between the two top winch support rods.

7. Attach the truck assembly to the pole by applying ample grease to the threads of the truck spindle. Carefully screw the truck spindle into the pole. If the truck spindle is not properly aligned, cross threading of the assembly can occur and the truck will not be straight on the pole. Tighten the spindle with a pipe wrench or similar wrench when you are sure everything is correct.

8. At The winch, place the copper ferrule in the slot under the tab, orienting the narrow side of the ferrule into the slot in the winch spindle, forcing it into place with a screwdriver. Put the removed screw back into its hole and tighten.

9. Remove the ties and uncoil the remaining stainless steel cable. Lay the cable along the outside of the flagpole so that the very end of the cable is down at the door. If the end of the cable does not make it to within 1 to 2 feet from the door opening call the factory at once.

10. While cranking the winch, use the free hand to organize the cable on the spindle. If this is not done, in some cases, the winch will get packed with cable without the benefit of all the cable.

11. Stop cranking when the very end of the outside cable is at the top of the pole. If the end does not make it to the top of the pole call factory at once.

12. Attach the flag halyard to the end of the cable and tighten the quick link.

13. Attach the weight to the end of the flag halyard and tighten the quick link.

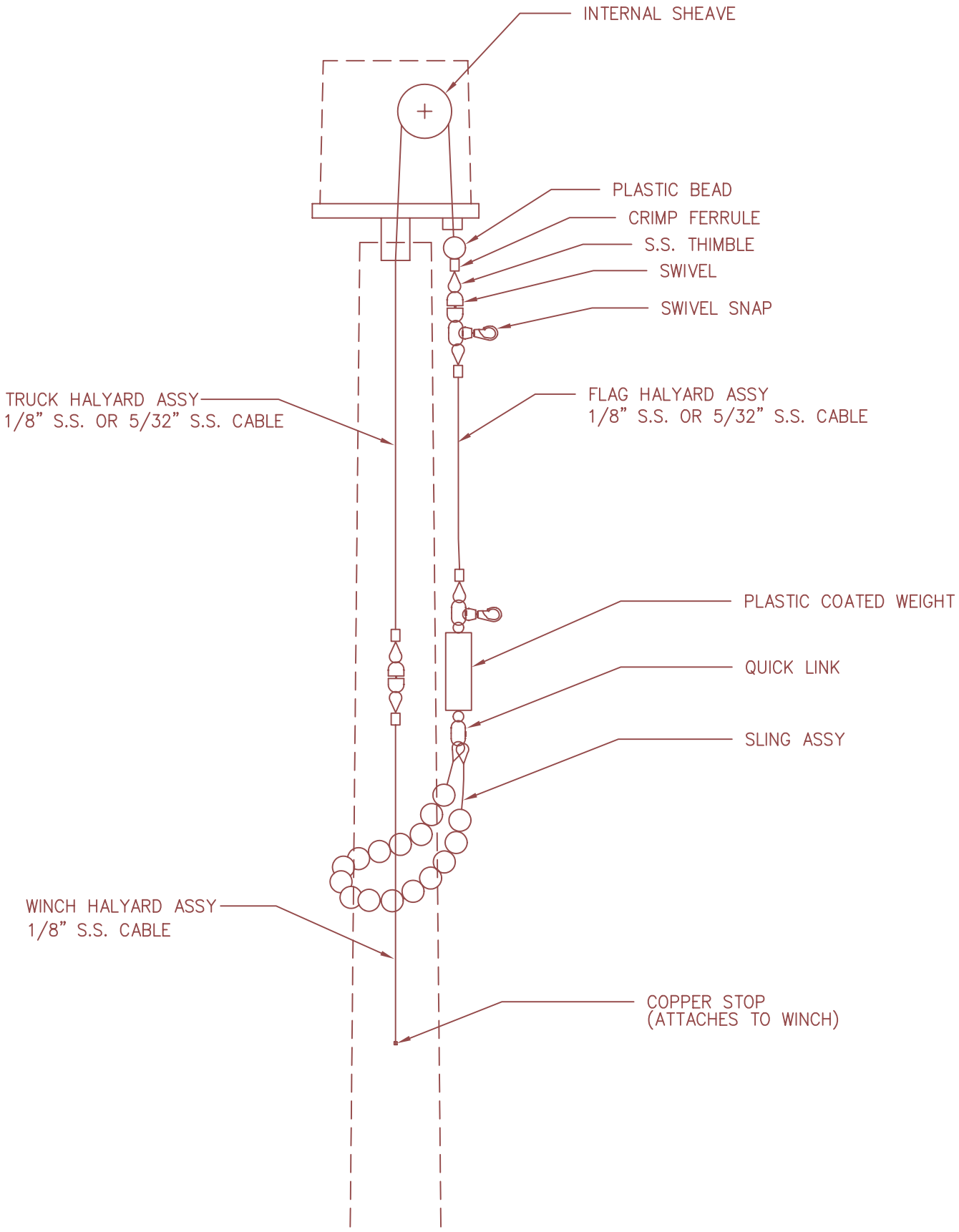
14. Wrap the sling assembly around the pole and attach the two ends to the weight and tighten the quick link.

MORGAN-FRANCIS
DIV. OF ORIGINAL TRACTOR CAB CO., INC.

INSTRUCTIONS

DATE: 3/19/00

COMMERCIAL INTERNAL HALYARD SYSTEM



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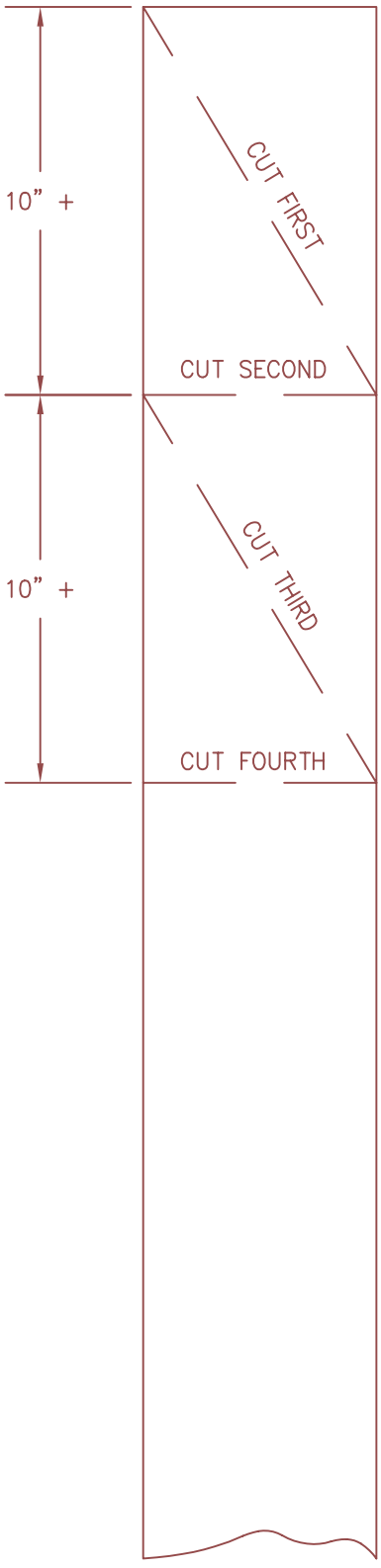
DATE: 5/10/01		DRAWING NO.	WEDGES
REV 0	QTY 4	MATERIAL	2 X 4 LUMBER
DRAWN BY: PCH			

WEDGES, FLAGPOLE CENTERING



TOOLS NEEDED:
1 – STD 2 X 4 LUMBER, STUD GRADE
2 – CIRCULAR SAW

INSTRUCTIONS:
1 – MARK WOOD FOR CUT LINES AS SHOWN
2 – CUT LINES IN ORDER AS SHOWN
3 – REPEAT PROCESS TO PRODUCE 4 WEDGES PER POLE