

## INTERMENT AREA LAYOUT

1. **REASON FOR ISSUE:** To establish new Administration-wide procedures that implement the policies contained in the National Cemetery Administration (NCA) Directive 3120, Interment Area Layout.
2. **SUMMARY OF CONTENTS/MAJOR CHANGES:** This handbook introduces new procedures that implement the policies and responsibilities governing interment area layout, gravesite sizes, accommodation of cremated remains, memorial sections, easements in national cemeteries and related issues set forth in NCA Directive 3120, Interment Area Layout.
3. **RESPONSIBLE OFFICE:** NCA, Office of Construction Management (401B), 810 Vermont Avenue, N.W., Washington, DC 20420, is responsible for the material contained in this handbook.
4. **RELATED DIRECTIVE:** NCA Directive 3120, Interment Area Layout.
5. **RESCISSIONS:**
  - a. DMA Circular 40-82-01, Gravesite Size Policy, dated March 1, 1982;
  - b. Department of Memorial Affairs Manual M40-2, National Cemeteries - Administration, Operation and Maintenance, Chapter 12, Cemetery Layout, dated June 1, 1987;
  - c. DMA Circular 40-88-02, Cremation Site Size and Marker Policy, dated September 23, 1988;
  - d. DMA Circular 40-88-04, Gravesite Size and Marker Policy, dated October 5, 1988;
  - e. NCS Office of Field Operations Policy Letter, 12" x 18" Flat Granite Marker, dated October 23, 1992;
  - f. NCS Office of Field Operations Policy Letter, 12" x 18" Flat Granite Marker, dated February 3, 1993;
  - g. NCS Office of Field Operations Policy Letter, Cremation Gardens, dated February 24, 1998; and
  - h. NCA Directive 3130, Interments in VA National Cemeteries, Verification of Burial Site Location and Headstone or Marker Placement, dated March 30, 2000.

/Signed/

Roger R. Rapp  
Acting Under Secretary for Memorial Affairs

Distribution: RPC  
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## INTERMENT AREA LAYOUT

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**INTERMENT AREA LAYOUT****SECTION I – PROCEDURES****1. PURPOSE AND SCOPE**

This handbook contains mandatory National Cemetery Administration-wide procedures governing interment area layout, gravesite sizes, accommodation of cremated remains, memorial sections, easements in national cemeteries and related issues. The responsibilities of the Cemetery Directors, Memorial Service Network (MSNs) Directors and Central Office staff regarding maintenance and updating of cemetery site plans, gravesite layout plans and various related issues are contained in the companion policy to this handbook, NCA Directive 3120, Interment Area Layout.

**2. INTERMENT AREA LAYOUT****a. Cemetery Site Plan**

(1) Each national cemetery will have a Cemetery Site Plan showing the location and extent of the real estate comprising the cemetery, including: property lines, easements and rights-of-way, limits of burial sections, building numbers, location of buildings, structures, utilities, drives, flagpoles, gates, and other significant cemetery features. This Cemetery Site Plan drawing will serve as a cover sheet for the set of gravesite layout plans. It is drawn at the largest conventional engineering scale (i.e., 1 inch = 100 feet [1:1200] or 1 inch = 200 feet [1:2400], etc.), that allows the entire cemetery site to appear on a single standard VA drawing sheet, 30 inches x 42 inches (841 mm x 1189 mm). This cover sheet also contains a small key plan for referencing all gravesite layout plans to the overall cemetery site. The Cemetery Site Plan will also have a standard "Capacity in Gravesites" summary indicating for each section, the size of gravesites, the quantity of gravesites and totals for the entire cemetery. Appendix A shows a typical Cemetery Site Plan.

(2) Physical changes and any discrepancies between the Cemetery Site Plan and actual field conditions will be reported by the Cemetery Director to the appropriate MSN Director. Such reports will be accompanied by dimensioned sketches or overlays of the affected area to clearly describe the change. The MSN Director will make the necessary modifications to the master drawing and provide a corrected plan to the cemetery, for operational use, and to the Director, Office of Construction Management, who will keep drawings that reflect current conditions of each facility for reference and planning purposes.

(3) Cemetery Site Plans are created utilizing Computer Aided Design and Drafting (CADD) equipment.

**b. Gravesite Layout Plans**

(1) Each cemetery will have plans (drawings) that show the layout of individual gravesites within burial sections, for all authorized burial acreage in the cemetery. Gravesite layout plans for a particular cemetery consist of one or more sheets delineating the developed area. Gravesite layout plans will be drawn or plotted on standard VA drawing sheets, 30 inches x 42 inches (841 mm x 1189 mm). The plans are drawn to scale, normally 1 inch = 30 feet (1:400), and show such information as location of buildings, structures, aisles and walkways, utility and drainage lines, layout grid with the direction and number of gravesites, gravesite control monuments, appropriate dimensions and any other data needed to facilitate the accurate layout of gravesites. Appendix B shows a typical Gravesite Layout Plan.

(2) Gravesite layout drawings are prepared and updated at the MSN. MSN Directors furnish copies of those plans to Cemetery Directors for their operational use, and to the Director, Office of Construction Management, as needed.

(3) Cemetery Directors will ensure that a mechanism is in place to physically review the accuracy of working layout maps against the active burial sections. This review will be done routinely and updates will be sent at least annually. Cemetery Directors will retain a backup copy on station. The MSN Director will make the necessary additions to the master drawings.

- (4) Gravesite layout plans are created utilizing CADD equipment.

(5) In compliance with Administration-wide standards for verification of burial location and headstone or marker placements, gravesites will be assigned and located, and interments made, in accordance with a cemetery's designated gravesite layout plan. This will be accomplished using the permanent gravesite control markers and corresponding gravesite layout plans.

**c. Interment Areas (In-ground casketed and cremated remains)**

(1) Interment areas are that portion of the cemetery acreage that has been developed for burials of either full casket or cremated remains. The size and configuration of the interment area(s) are often dictated by the terrain of the acreage as well as by the need for a planned network of roads, drives and walks within the cemetery. The need for various buildings and other structures within the cemetery also can affect the size and configuration of interment areas.

(2) Interment areas may be subdivided into burial sections of varying sizes and shapes. Burial sections are visually separate areas, broken by vegetated areas (woods), roads, walks and topography.

- (a) Burial sections for full casket gravesites shall be no larger than 3 acres (1.2 hectares).

(b) Burial sections for cremated remains should accommodate no more than 999 cremation sites (approximately 0.2 acre) (28 square meters).

- (3) The topography will be the primary factor in determining the direction graves face within a burial section. Where the topography is not significant, road layout and accessibility will determine the direction graves face.

- (a) A single burial section should have one predominant slope.

- (b) The head of a gravesite will not be lower than the foot of the gravesite.

(c) Headstones will be either parallel to or face in the direction of at least one road which accesses the particular burial section.

(4) Each burial section in the cemetery shall be identified, with the limits of the burial section clearly indicated by section markers. See paragraph (2) g., of this handbook for placement of section markers. Burial sections are designated by numerals or letters, or if necessary, both numerals and letters, for example: Section 14, Section G, Section AB, or Section 21A. New gravesites are designated by numbers only, no alpha-characters may be used.

- (5) There may be other features that distinguish one section from another. For example:

- (a) In some older burial sections, private monuments or memorials were permitted.

(b) In certain sections only one type of Government marker may be permitted; for example, a section may contain only flat granite markers or only upright marble markers.

(c) In some older national cemeteries, separate sections were developed for certain categories of veterans, such as nurses, officers, distinguished service, etc.

(6) The practice of establishing segregated sections for certain categories is no longer permitted. Gravesites that are available within any such existing section may be used only with the written permission of the Deputy Under Secretary for Operations.

**d. Casket Gravesites**

(1) The National Cemetery Administration (NCA) is committed to providing burial benefits to as many veterans as possible and to achieving the maximum development of gravesites within national cemeteries. The

standard gravesite size will be the smallest size practical to accommodate the type of marker being used, to ensure appropriate gravesite appearance and to provide for safety of employees. Each gravesite will be marked with one marker, consistent with the requirements of applicable law. A minimum of 18 inches (46 cm) of earth will be used to cover each casket interred in a national cemetery. Methods of interment are described and illustrated in NCA Handbook 3130, Interments in VA National Cemeteries. Uniform electronic inventory control of gravesites is prescribed in NCA Handbook 3140, Management and Decision Support System (MADSS).

(2) The following standard gravesite sizes will be used when conditions warrant:

(a) The **5 feet x 10 feet gravesite** (1.5 m x 3 m) will be used where double-depth interments in a 7 feet (2.1 m) excavation are possible. These sites are inventoried in MADSS as "full casket sites."

(b) The **6 feet x 10 feet gravesite** (1.8 m x 3 m) will be used for single depth side-by-side interments where excavation below 5 feet (1.5 m) is impractical due to soil conditions. These sites are inventoried in MADSS as "full casket sites."

(c) The **4 feet x 8 feet gravesite** (1.2 m x 2.4 m) may be used in those sections of national cemeteries that by law use flat markers. These sites are inventoried in MADSS as "full casket sites."

(d) The **3 feet x 8 feet gravesite** (0.9 m x 2.4 m) or **3 feet x 10 feet gravesite** (0.9 m x 3 m) may be used in those sections of national cemeteries that have been designated for the use of pre-placed lawn crypts. These sites are inventoried in MADSS as "full casket sites."

e. **Accommodation of Cremated Remains**

(1) As with full casket gravesites, NCA is committed to achieving the maximum development of cremains sites within national cemeteries. NCA will strive to provide cremains sites in all cemeteries including those closed to the interment of casketed remains. Cremated remains are accommodated in three ways: 1) in-ground burial, 2) columbarium interment, and 3) cremation garden scattering. The standard cremains site size will be the smallest size practical to accommodate the type of marker being used, to ensure that the cremains site appearance is appropriate and consistent with any adjacent gravesite section. Each cremains gravesite will be marked with one marker, consistent with the requirements of applicable law. A minimum of 12 inches (30 cm) of earth will be used to cover cremated remains interred in a national cemetery. Methods of interment are described and illustrated in NCA Handbook 3130, Interments in VA National Cemeteries. Uniform electronic inventory control of cremains sites is prescribed in NCA Handbook 3140, Management and Decision Support System (MADSS).

(2) The standard cremains site sizes will be used when conditions warrant:

(a) **Designated Cremains Section [In-ground].** A burial site for the interment of cremated remains in a separate cremains section is 3 feet x 3 feet  $\pm$  2 feet deep (91 cm x 91 cm x 61 cm), and is marked with a 12 inches x 18 inches flat granite marker. A minimum of 12 inches (30 cm) of earth will be used to cover cremated remains interred in a national cemetery designated cremains section. Burial sections for cremated remains shall have no more than 999 sites (approximately 0.2 acre) (28 square meters). These sites are inventoried in MADSS as "half-sites."

(b) **Garden Niche or Terrace [In-ground].** A burial site for the interment of cremated remains in a distinct space using a system of paths, walls and/or terraces that creates a tranquil garden setting, is 3 feet x 3 feet  $\pm$  2 feet deep (91 cm x 91 cm x 61 cm), and is marked with a 12 inches x 18 inches VA standard flat granite marker or a wall-mounted bronze plaque. A minimum of 12 inches (30 cm) of earth will be used to cover cremated remains interred in a national cemetery garden niche or terrace. These sites are inventoried in MADSS as "half-sites."

(c) **Half-Site [In-ground].** A gravesite, usually located on the perimeter of an existing full-casket burial section, that is divided in half and designated "a" and "b," creating two cremains sites. Generally, this site is marked with a flat granite marker. These sites are inventoried in MADSS as "half-sites."

(d) **Obstructed Gravesite [In-ground].** A gravesite in a casket burial section that, due to some physical obstruction such as a tree, rock strata, etc., is usable only for cremated remains. This site is marked with

the same headstone or marker as the adjacent gravesites. These sites are inventoried in MADSS as "obstructed sites."

(e) **Columbarium** [Inurnment]. A niche in an above-ground structure designed for the inurnment of cremated remains is 10-1/2 inches x 15 inches x 20 inches deep (27 cm x 38 cm x 51 cm), measured at the face. Each niche is designed to accept an individual VA standard niche cover. Some columbaria developed earlier in national cemeteries utilized multiple-niche covers and various sizes of niches. Columbarium sites are inventoried in MADSS as "niches." Appendix C shows a Columbarium Niche Standard Detail.

(f) **Cremation Garden** [Scattering]. A designated garden-type area where cremated remains are scattered in the landscape. A cremation garden should be designed to take advantage of the natural landscape features and should be located in areas of a cemetery not suitable, because of terrain or landscape features, for conventional interments. A site used for the scattering of cremated remains is not individually marked, but the deceased is acknowledged on a communal bronze plaque in the garden area or by an individual bronze plaque mounted on a wall designated for that purpose or by an appropriate marker in the memorial section of the cemetery. Cremation Gardens are currently not inventoried sites in MADSS.

f. **Memorial Sites and Sections**

(1) Under the provisions of title 38, United States Code, Section 2403, the Secretary of Veterans Affairs shall set aside, when available, suitable areas in national cemeteries to honor the memory of members of the Armed Forces and veterans-

- (a) Who are missing in action;
- (b) Whose remains have not been recovered or identified;
- (c) Whose remains were buried at sea, whether by the member's or veteran's own choice or otherwise;
- (d) Whose remains were donated to science; or,
- (e) Whose remains were cremated and the ashes scattered without interment of any portion of the ashes.

(2) A memorial site and/or memorial section may be located in areas of a cemetery not suitable, because of terrain or landscape features, for casketed interments. The size and configuration of the memorial section will depend on the terrain, network of roads, walks, etc., the size of the individual memorial site and the demand at a particular cemetery for memorial sites.

- (3) A memorial site is 3 feet x 3 feet (91 cm x 91 cm), marked with a 12 inches x 18 inches (30 cm x 46 cm) flat granite marker, except that:

- (a) A memorial site in a cemetery with an established memorial section using upright headstones on 5 feet x 5 feet (1.5 m x 1.5 m), 5 feet x 6 feet (1.5 m x 1.8 m), or similar size sites, will be the same particular size and use an upright headstone to maintain consistency in appearance.

- (4) Bronze memorial plaques may be mounted on walls designated for that purpose, in lieu of placement of a marker in a memorial section.

g. **Section Markers**

(1) Each burial section is marked by one or more section markers bearing either the number and/or letter assigned to that section. Section markers are an element of the signage system for the cemetery.

(2) Section markers are positioned at the edge of the section, usually near a road, drive, or walk, where they are readily visible to the public.

(3) When two burial sections are contiguous and are not otherwise separated by a road, drive, or walk, a section marker will be placed at the dividing line between the two sections. This marker will indicate the numbers or letters of both sections indicating which section is which.

(4) Design details of the three standard section markers can be found in the NCA Program Guide, NCA Signage System Standards.

(5) Granite section markers are requested through the MSN who in turn requests them from the NCA Centralized Contracting Division. Section marker requirements of several cemeteries may be combined to make an order large enough to achieve an economical cost. Granite section markers are procured by the NCA Centralized Contracting Division.

(6) Section markers, other than granite, as detailed in NCA Program Guide, NCA Signage System Standards, may be constructed by cemetery personnel or procured by the cemetery through normal VA acquisition processes.

#### **h. Gravesite Control Markers**

(1) Permanent gravesite control markers will be installed prior to the use of any section (burial, cremains or memorial) for interment. The standard grid dimensions are 90 feet x 90 feet (27.4 m x 27.4 m). Other grid dimensions used are 80 feet x 80 feet (24.4 m x 24.4 m) and 100 feet x 100 feet (30.5 m x 30.5 m). Appendix D shows a typical Placement of Gravesite Control Markers.

(2) The standard gravesite control marker is a length of 3/4 inch diameter (1.9 cm) iron pipe driven flush with the grade, with an aluminum survey cap on top. Appendix E shows details of the standard Permanent Gravesite Control Marker. The standard gravesite control markers will be installed in each section at the intersections of all vertical and horizontal grid crossings except where extreme soil conditions warrant use of the alternate marker.

(3) In extreme soil conditions, where the alternate marker may be necessary to maintain stability, a minimum of three alternate gravesite control markers will be installed in each section (burial, cremains or memorial). These will be placed one near each end of greater rectilinear dimension and one at a right angle to this line. At all other intersections of the gravesite layout grid, the standard control marker shall be used. Appendix F shows details of the alternate Permanent Gravesite Control Marker for use in extreme soil conditions.

(4) All permanent gravesite control markers will be maintained and protected by cemetery personnel. The Cemetery Director is responsible for repair, accurate repositioning or replacement of gravesite control markers that are damaged or disturbed.

#### **i. Easements**

(1) For purposes of this handbook, an easement is defined as a written legal document whereby the U.S. Government, holding title to a national cemetery, grants authority to a second party to use a part of the land or the airspace above that land as a matter of convenience to the second party, for a non-profit purpose, when such usage of the land or airspace in no way precludes or impairs the U.S. Government from properly administering, operating, and maintaining the cemetery for the purpose for which intended.

(2) The second party may be, but is not limited to, a private citizen, a public utility, a State, county or municipal government.

(3) Cemetery Directors should be aware of all easements in effect at their assigned cemetery and should familiarize themselves with the specific provisions of the easement(s). The Cemetery Director should thus be able to properly safeguard the U.S. Government's interest therein and honor the rights of the second party. Interments may not be performed on easement property.

(4) In some cases, the U.S. Government is the second party to an easement on land held by another entity. Cemetery Directors should be aware of the rights of the U.S. Government under easement agreements with other parties.

(5) Inquiries from potential second parties in regard to negotiating easements must be made in writing. The Cemetery Director should forward written requests or inquiries to the Under Secretary for Memorial Affairs, through the appropriate MSN.

**3. REFERENCES:**

- a. NCA Directive 3120, Interment Area Layout.
- b. NCA Directive 3130, Interments in VA National Cemeteries.
- c. Title 38, United States Code, Section 2403.
- d. NCA Program Guide, NCA Signage System Standards.
- e. NCA Handbook 3140, Management and Decision Support System (MADSS).
- f. The Burial Operations Support System (BOSS) Users Guide, Current edition.

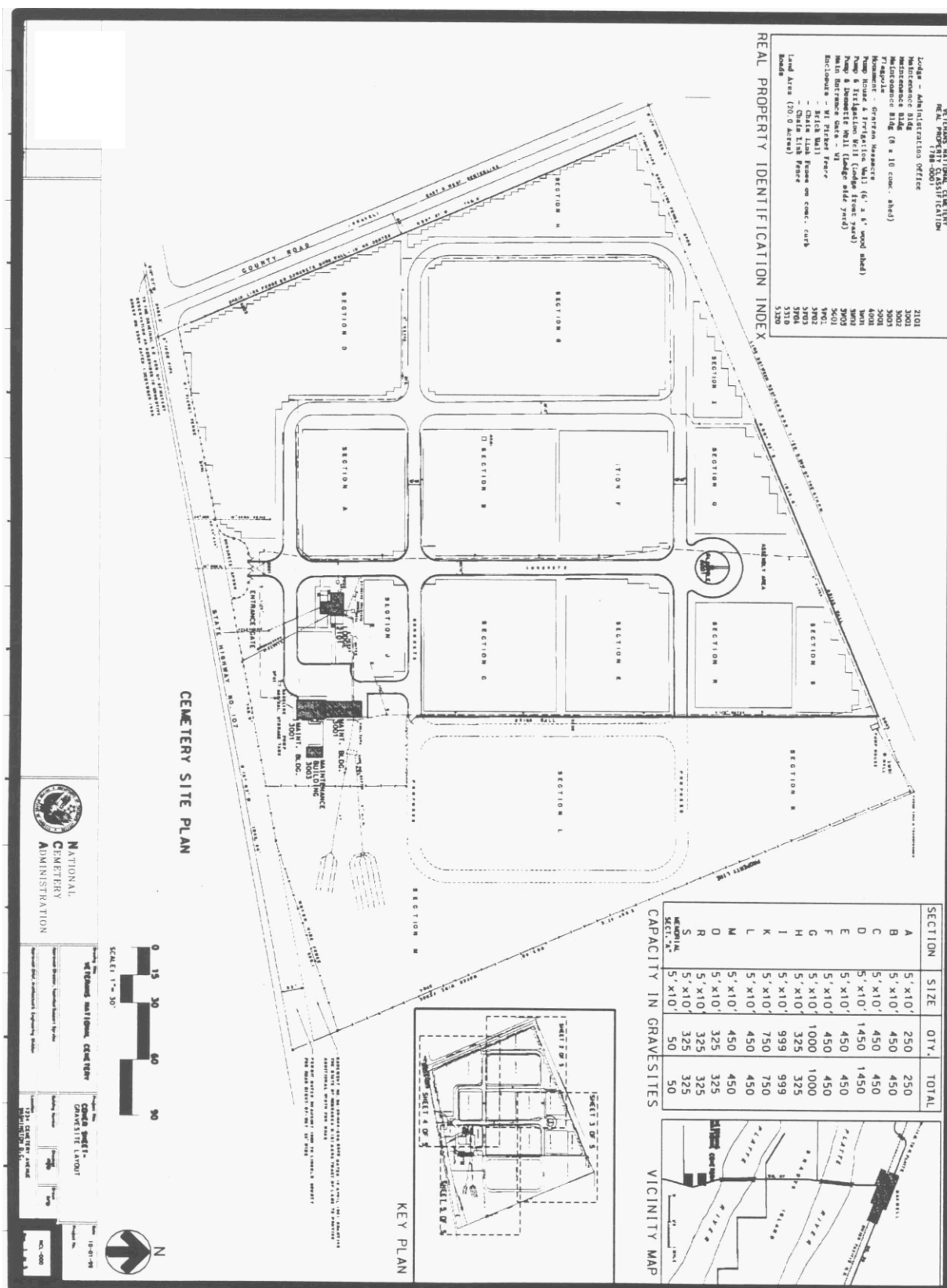


**March 8, 2001**

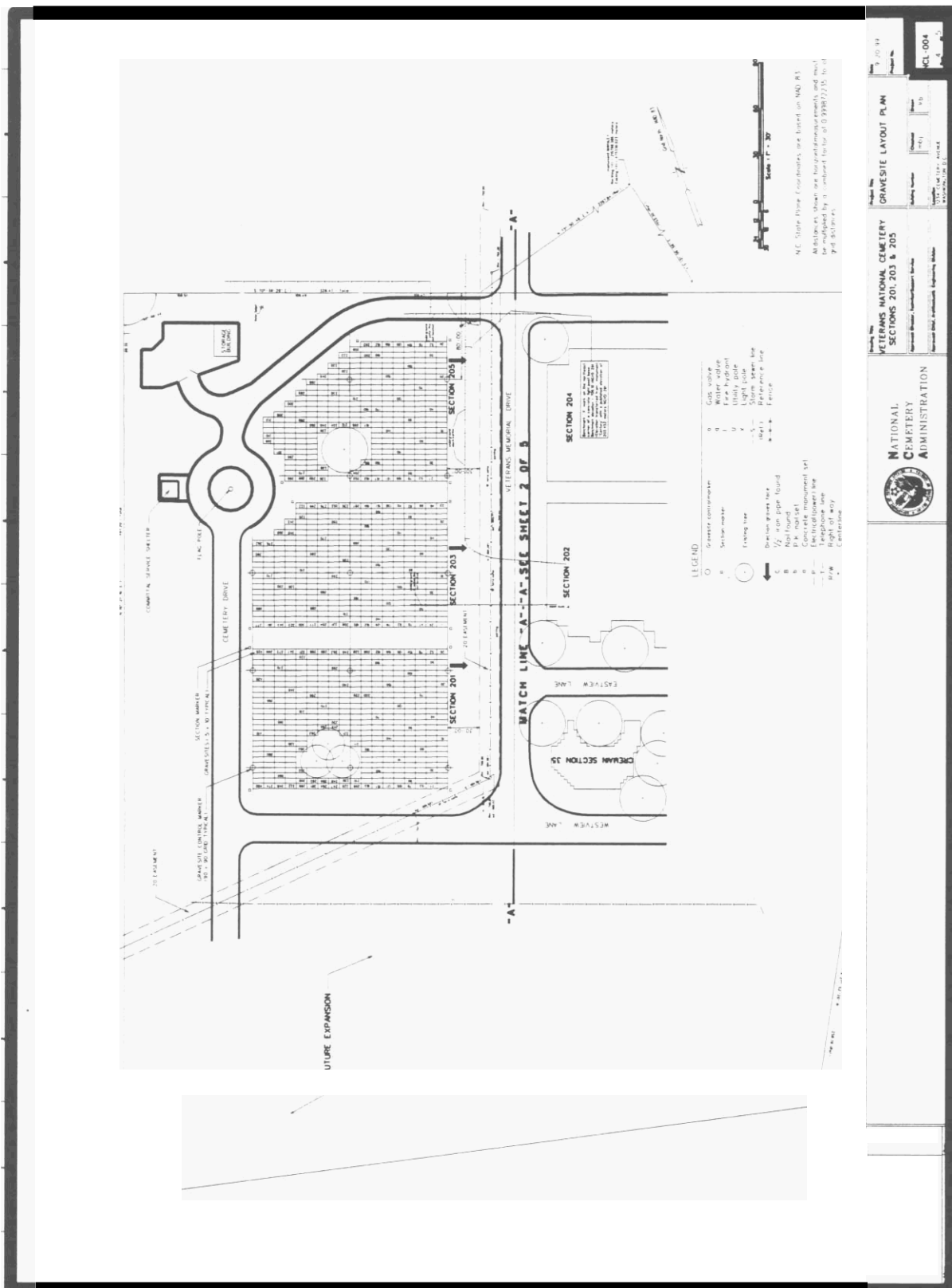
**NCA HANDBOOK 3120  
APPENDIX**

SECTION II -- APPENDIX

## TYPICAL CEMETERY SITE PLAN



## TYPICAL GRAVESITE LAYOUT PLAN



NCA HANDBOOK 3120  
APPENDIX II-C

7"

5" ± 2"

1 1/2"

CAP STONE

NICHE COVER

HEIGHT VARIES 12-15 NICHES

6" MIN. COVER OVER DRAIN PIPE

4" - 6" WALK (MIN.)

5" - 6" WALK (PREFERRED)

MIN. TO 15" MAX.

3/4" - 1" WASHED ROUND GRAVEL FOR FLOWER VASES

4" PVC (PERFORATED) DRAIN PIPE

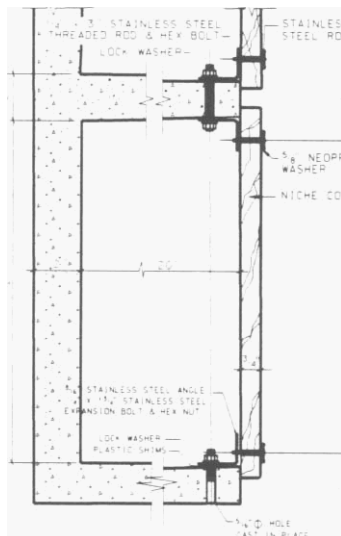
CONCRETE FOOTING AS REQ'D.

CAP DETAIL MAY VARY BY END  
 NICHES NUMBERED SEQUENTIALLY FROM LEFT TO RIGHT EVERY TENTH NICHE LABELED  
 40  
 C  
 ALPHA ROWS BEGIN WITH FIRST ROW FROM THE BOTTOM EACH ROW LABELED  
 B  
 END  
 A  
 FINISH GRADE (GRAVEL)  
 4" MIN. TO 16" MAX.  
 CONCRETE FOOTING AS REQ'D.

NOTE:  
STEEL REINFORCING IS NOT SHOWN.  
MANUFACTURER SHALL SUBMIT  
SHCP DRAWINGS FOR APPROVAL.

PLAN

The plan view shows the mounting bracket assembly from above. It includes a central mounting bracket with a circular hole in the middle, a shim (a flat rectangular plate) positioned between the bracket and the wall, and a rosette (a circular decorative plate) mounted on the wall. The wall is represented by a hatched area. The bracket is secured to the wall with screws. The shim is positioned between the bracket and the wall to ensure a proper fit. The rosette is mounted on the wall, centered over the bracket. The entire assembly is shown in a cross-section view, with the wall, shim, and bracket clearly visible. The bracket is labeled 'MOUNTING BRACKET', the shim is labeled 'SHIM', and the rosette is labeled 'ROSETTE'.



Technical drawing of a wall-mounted device, showing front and side views with dimensions and labels.

**Front View (Left):**

- Overall width: 14 1/2"
- Overall height: 14 1/2"
- Top section height: 1 1/2"
- Bottom section height: 1 1/2"
- Left side height: 1 1/2"
- Right side height: 1 1/2"
- Top section label: "PRIOR U.S. PAT. 2,411,111"
- Bottom section label: "ROCKET & CO. CORNER PAT. 2,411,111"
- Central black rectangle: 10" x 10"

**Side View (Right):**

- Overall width: 14 1/2"
- Overall height: 14 1/2"
- Top section height: 1 1/2"
- Bottom section height: 1 1/2"
- Left side height: 1 1/2"
- Right side height: 1 1/2"
- Top section label: "INSIDE NICHE - FRONT"
- Bottom section label: "INSIDE NICHE - BACK"
- Central black rectangle: 10" x 10"
- Attachment device mounting hole: 1 1/2" x 1 1/2"

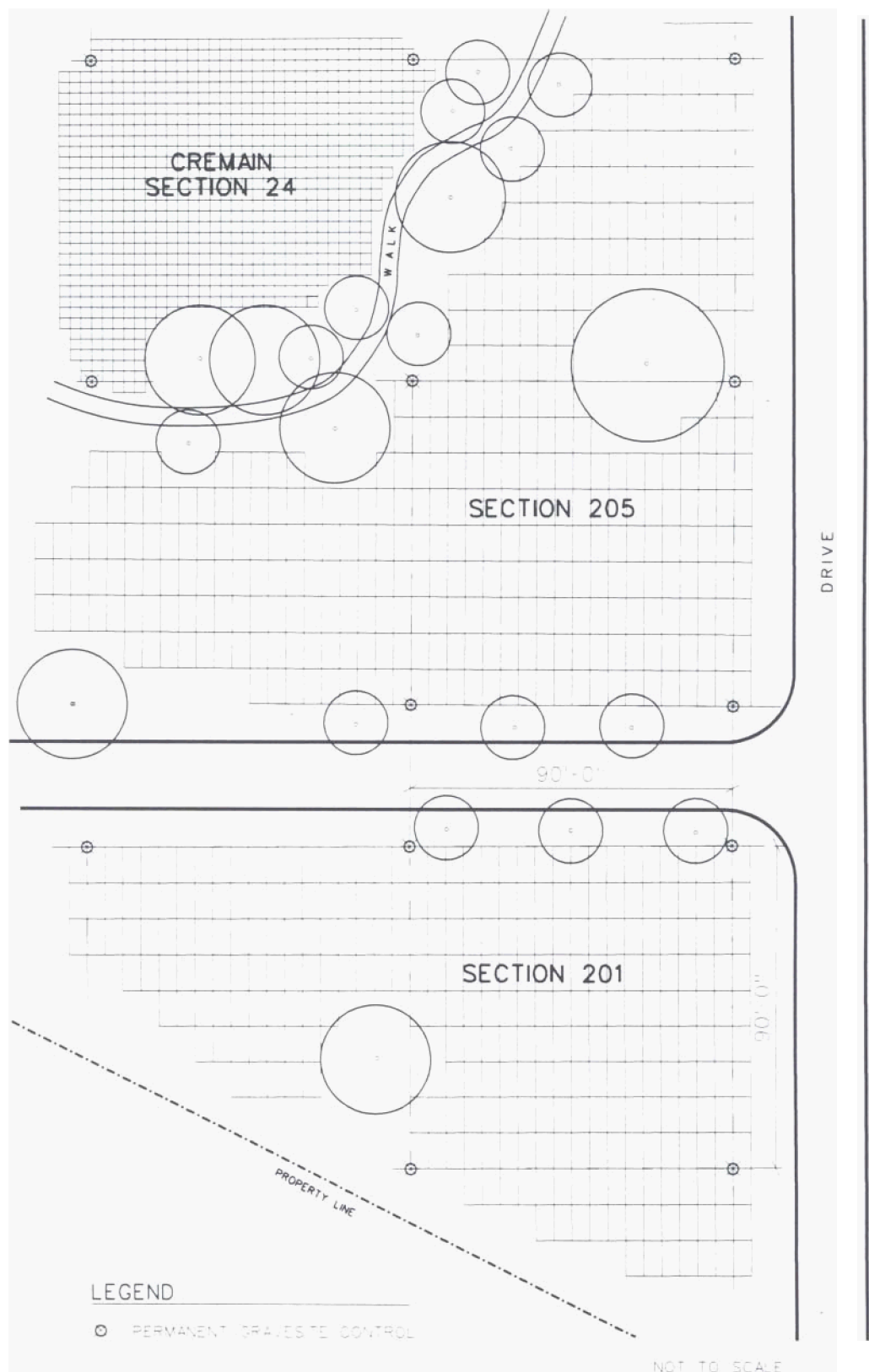
WITHOUT COVER

## MOUNTING BRACKETS

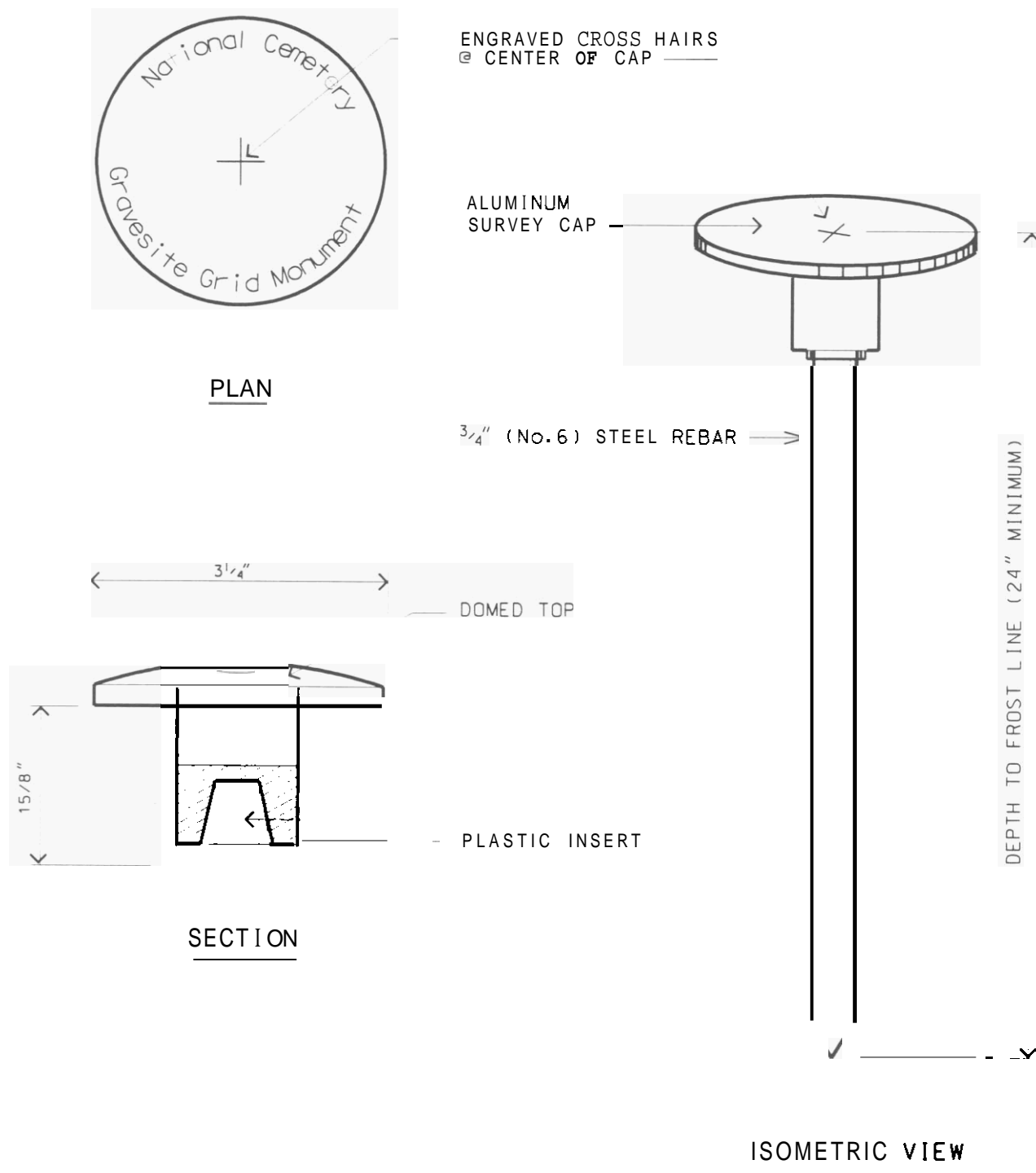
NOT TO SCALE

## APPENDIX II-D

## PLACEMENT OF GRAVESITE CONTROL MARKERS ON 90' GRID



PERMANENT GRAVESITE CONTROL MARKER (STANDARD)



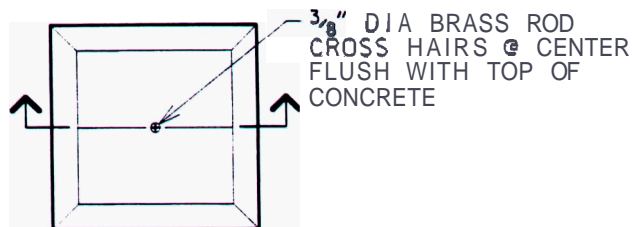
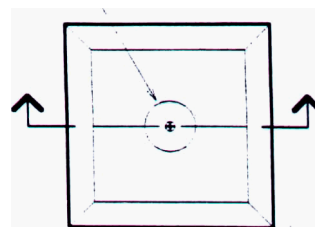
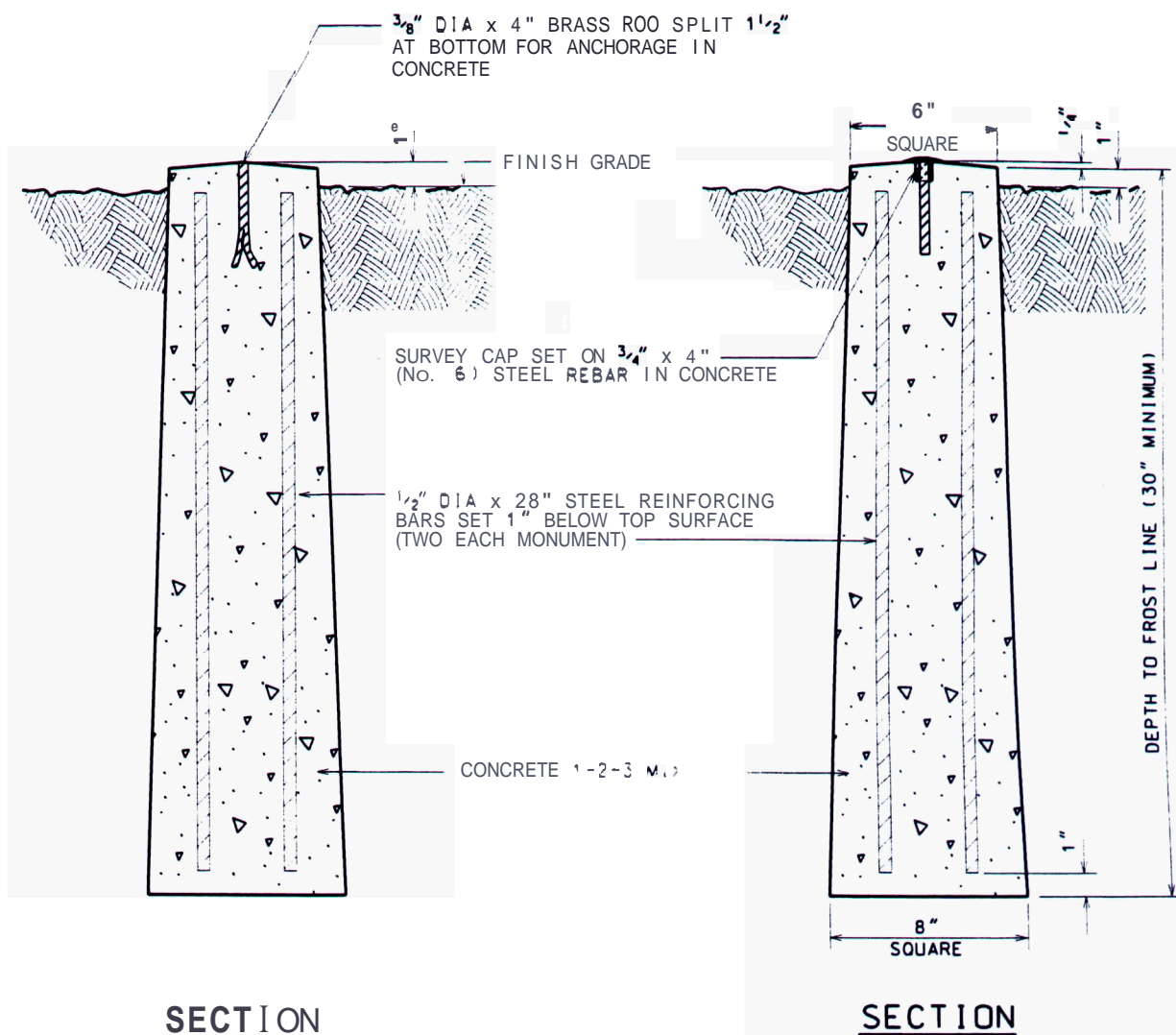
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Figure 5. PERMANENT GRAVESITE CONTROL MARKER (STANDARD)

## APPENDIX II-F

## PERMANENT GRAVESITE CONTROL MARKER (ALTERNATIVE)

ALUMINUM OR BRASS SURVEY  
CAP WITH CROSS HAIRS @ CENTER  
(SEE FIGURE 5 FOR DETAIL)

PLANPLAN

- NOTES:
- CROSS HAIRS OF ROD OR SURV CAP INDICATE INTERSECTION OF GRID FOR GRAVESITE MONUMENTATION.
  - TOP OF MONUMENT TO BE SET 1" ABOVE FINISH GRADE.

NOT TO SCALE

Figure 6. PERMANENT GRAVESITE CONTROL MARKER (ALTERNATE)

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