



## Requirements for Mausoleums and Columbariums

The following list will be used for plan review and construction of Mausoleums and Columbariums within the City of Sonoma.

The Structural and Material Requirements for Mausoleums and Columbariums are found in CA Health and Safety Code (HSC) 9625 – 9647. There is no provision in the Mausoleum and Columbarium Law that would permit a deviation from or a modification of these requirements.

Please provide, illustrate and/or note all of the following applicable submittal requirements on the project plans. All items circled in red are missing from the permit submittal documents and must be provided.

Item	Submittal Requirement
1	<b>Title Page.</b> A title page identifying the plot owner's name and the name, address and phone number of the person responsible for preparing the plans. The title page may be combined with the site plan. <i>[Sonoma Municipal Code (SMC) 14.20.035.A.]</i>
2	<b>Site Plan.</b> A site plan showing the location and dimensions of the cemetery plot, the proposed structure and dimensional setbacks from adjoining plots shall be provided. The site plan must be drawn to scale, include a north arrow and show the location of any newly proposed and existing buildings, structures, roads, drainage devices, drainage courses, channels and creeks located on the plot or adjacent to the plot for the proposed work. <i>[Sonoma Municipal Code (SMC) 14.20.035.A.]</i>
3	<b>Contour Plan.</b> A contour plan shall provide accurate elevation contours, shown at intervals of not greater than two feet in elevation, showing the topography of the existing and proposed ground for the site and at least 20 feet beyond its boundary when any of the following conditions exist: <ul style="list-style-type: none"><li>a) when any proposed grading cuts or fills of existing grade exceeding one foot except excavations needed for footings for the structure; or</li><li>b) when any existing slope of the plot exceeds a five horizontal to one vertical (5:1); or</li><li>c) when a retaining wall or structure is proposed or required to retain soil from the structure or plot.</li></ul> <p style="text-align: center;"><b><u>OR</u></b></p> If no contours are required or otherwise shown on the site plan, specify the existing and proposed grade elevations at each corner of the plot. For the purposes of specifying grade elevations, an elevation of zero may be used at the lowest corner of the plot. <i>[Sonoma Municipal Code (SMC) 14.20.035.A.]</i>
4	<b>Site Drainage.</b> Details of all surface and subsurface drainage devices, walls or other protective devices if proposed or otherwise required to be constructed in connection with the proposed work. <i>[Sonoma Municipal Code (SMC) 14.20.035.A.]</i>

Item	Submittal Requirement
5	<p><b>Erosion and Sediment Control.</b> Non-Site-Specific and Typical Erosion and Sediment Control Best Management Practices (BMP's) shall be noted and shown on the plans (see the minimum BMPs at the end of this handout).</p> <p>Additional erosion and sediment control plan requirements may apply if applicable pursuant to the Erosion and Sediment Control Plan Requirements Checklist/Flowchart (Handout #46), available on the City's web site. <i>[Sonoma Municipal Code (SMC) 14.20.035.A.]</i></p>
6	<p><b>Building Elevations.</b> Provide building elevations to show the exterior of all four sides of the structure. Specify all exterior finish materials.</p>
7	<p><b>Structural Plans and Calculations.</b> Structural plans, details and calculations prepared, stamped and signed by a registered CA engineer or architect shall be provided. The structural plans shall include, but not be limited to, a foundation plan, wall, floor and roof plans, a cross section and longitudinal section along with construction and reinforcement details for the structure. <i>[Section 107.2 of the Administrative Provisions of the CA Building Code as amended by Sonoma Municipal Code Section 14.10.010]</i></p>
8	<p><b>Seismic Requirements.</b> Every mausoleum or columbarium shall be designed and constructed to conform to the earthquake provisions of the <i>1991 Uniform Building Code. [HSC 9625]</i></p> <p><i>[NOTE: As an equivalent or better alternative, when the 1991 Uniform Building Code is referenced herein, the earthquake provisions of the currently adopted California Building Code may be used.]</i></p>
9	<p><b>Incombustible Materials.</b> Except as otherwise provided in this chapter, all materials used in the construction, ornamentation, or embellishment of mausoleums or columbariums shall be incombustible. This section shall not apply to crypt vents, temporary openings or partitions, interior doors, fixtures, furniture, or furnishings. <i>[HSC 9625]</i></p>
10	<p><b>Structural Framework.</b> All structural framework shall be of cast-in-place reinforced concrete, or of structural steel sections, or of concrete over metal decking; provided, however, all footings, bearing walls, floor slabs and roofs shall be of cast-in- place reinforced concrete or of concrete over metal decking only. All structural framework shall be designed and constructed in accordance with the <i>1991 Uniform Building Code. [HSC 9627]</i></p>
11	<p><b>Floor Slabs.</b> All floors shall be designed and constructed for a live load of not less than 100 pounds per square foot. <i>[HSC 9628]</i></p>
12	<p><b>Footings.</b> Footings shall be designed and constructed to conform to the requirements of the <i>1991 Uniform Building Code</i> or specifications of a licensed geotechnical engineer. <i>[HSC 9629]</i></p>

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13	<p><b>Floor Slab Vapor and Moisture Barrier.</b> Floor slabs placed on earth shall be constructed of reinforced concrete designed by a licensed structural or civil engineer to include control joints at appropriate intervals to minimize cracks as well as appropriate vapor and moisture barriers as specified by a licensed geotechnical engineer. <i>[HSC 9630]</i></p> <p><i>[NOTE: In lieu of a floor slab vapor and moisture barrier specified by a licensed geotechnical engineer, the contractor may install a 6-mil polyethylene vapor retarder with joints lapped not less than 6 inches placed between the base course or subgrade and the concrete floor slab, or some other equivalent floor slab vapor and moisture barrier, as approved by the building official, pursuant to Section 1907 of the 2017 CA Building Code.]</i></p>
14	<p><b>Wall Waterproofing.</b> Where any wall is constructed against a bank of earth, rock, or other porous material, or where crypts are adjacent to an outside building wall below grade, the wall shall be adequately waterproofed. Before backfilling, a waterproofed wall shall have a protection board placed against it to prevent damage to the waterproofing during backfilling. <i>[HSC 9631]</i></p>
15	<p><b>Crypt Walls and Crypt Floor Slabs.</b> Except as provided in HSC Section 9633 (below), all crypt walls and crypt floor slabs shall be constructed of cast-in-place, reinforced concrete; crypt walls shall conform to structural design but shall be not less than three and one-half inches in thickness, and crypt floor slabs shall be not less than three inches in thickness. <i>[HSC 9632]</i></p>
16	<p><b>Crypt Separations and Venting.</b> Horizontal and vertical partitions separating crypts comprising companion crypts or a nest of crypts entered through a single crypt opening may be constructed of precast reinforced concrete; provided, the horizontal partitions are not less than one and one-half inches in thickness and the vertical nonbearing partitions are not less than one inch in thickness, and vertical partitions bearing any load are not less than three inches in thickness, and provided the crypt walls enclosing the nest of crypts are constructed as required in Section 9632. Crypts shall be vented at roof level of the structure, and vents shall continue to a gravel filled trench below the floor of the bottom crypt to provide adequate circulation of air. Nonstructural horizontal and vertical partitions separating columbarium niches may be constructed of precast reinforced concrete or other incombustible material. <i>[HSC 9633]</i></p>
17	<p><b>Crypt Live Load.</b> Each crypt, including each crypt in a companion crypt or in a nest of crypts referred to in Section 9633, shall be designed for a total live load of 600 pounds. <i>[HSC 9634]</i></p>

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18	<p><b>Sealing Individual Crypt Openings.</b> All individual crypt openings shall be sealed with a solid panel of precast concrete, not less than 1 1/2 inches thick, fiber reinforced cement board not less than 7/16 inch thick, or other incombustible material that meets all of the following requirements: <i>[HSC 9635]</i></p> <ul style="list-style-type: none"> <li>a) A minimum density of 80 pounds per cubic foot.</li> <li>b) A minimum modulus of rupture of 270 pounds per square inch.</li> <li>c) A minimum compressive strength of 2500 pounds per square inch.</li> <li>d) A rating that conforms to Underwriters Laboratories fire hazard class 1.</li> </ul> <p>All panels shall be securely set in with a high quality, nonflammable, resilient, and non-hardening urethane, silicone base, or other appropriate sealant for permanent sealing after interment is made in the crypt. Seal panels shall be set independent of crypt fronts. <i>[HSC 9635]</i></p>
19	<p><b>Marble Floors.</b> All marble floors shall be constructed on a bed of mortar or mastic placed on the floor subslab, with an approved additive to retard efflorescence. <i>[HSC 9636]</i></p>
20	<p><b>Interior or Exterior Veneers and Trim.</b> All interior or exterior veneers shall be of stone, cast stone, granite, travertine, or marble or other material allowed in the <i>1991 Uniform Building Code</i> for Type I construction. Cast stone shall meet all requirements for cast stone set forth in the <i>1991 Uniform Building Code</i>. <i>[HSC 9637]</i></p> <p>Material for exterior trim, including exterior crypt and niche fronts, shall be travertine, serpentine marble, or Grade A exterior type marble or granite, only. <i>[HSC 9638]</i></p> <p>Masonry veneer shall be attached to the supporting wall in accordance with the requirements of the <i>1991 Uniform Building Code</i>. <i>[HSC 9641]</i></p> <p>Show and specify the method of attaching Interior or exterior veneers and trim.</p>
21	<p><b>Mortar Joints.</b> Joints shall be of uniform thickness and when mortar is used it shall be raked out as work progresses and on completion of installation joints shall be brushed, thoroughly cleaned, wet and carefully filled and pointed. <i>[HSC 9639]</i></p> <p>Grout used for joints and pointing shall conform with the requirements of the <i>1991 Uniform Building Code</i>. <i>[HSC 9640]</i></p>
22	<p><b>Vertical Work.</b> All base, architraves, wainscoting and all other vertical work other than crypt fronts shall be securely anchored in place with rods, clips, or other suitable anchoring devices of materials as specified in Section 9643. All clips shall be countersunk into the joint surface and set in non-staining cement or epoxy. <i>[HSC 9642]</i></p>
23	<p><b>Fastenings.</b> All interior and exterior fastenings for hangers, clips, doors, and other objects shall be of copper base alloy, aluminum, copper or stainless steel of adequate gauges and shall be installed to meet or exceed the seismic requirements of the <i>1991 Uniform Building Code</i>. <i>[HSC 9643]</i></p>
24	<p><b>Corrosion Resistant Material.</b> All exterior materials used for doors, window frames, skylights, gutters, downspouts, flashings or embellishment shall be of copper, copper base alloy, aluminum, stainless steel, or other corrosion resistant material of gauges structurally determined. <i>[HSC 9644]</i></p>

Item	Submittal Requirement
25	<b>Roof Construction.</b> Roofs shall be constructed of cast-in-place reinforced concrete, and any roof covering shall be "Fire Retardant" in conformity with the requirements of type I construction. <i>[HSC 9646]</i>
26	<b>Skylights.</b> All skylight frames shall be fabricated in conformance with structural requirements, and shall contain wire glass, tempered glass, or plastic of comparable strength and durability. <i>[HSC 9647]</i>

The following definitions apply to these submittal requirements in accordance with the CA Health & Safety Code:

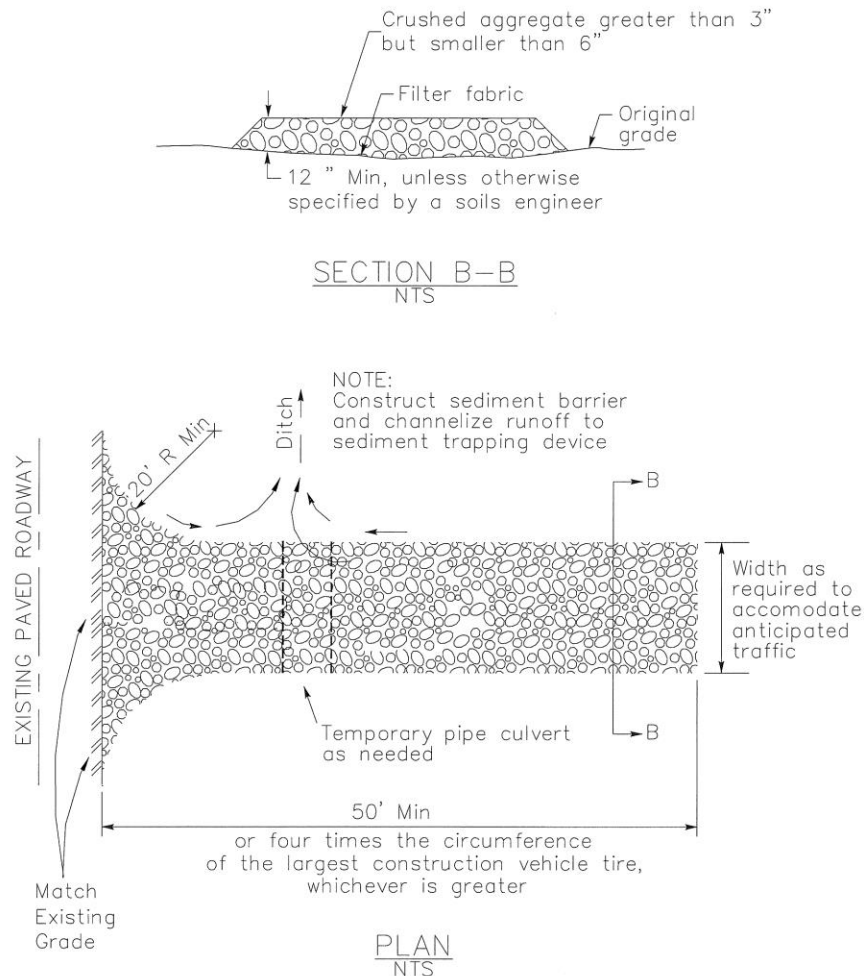
- **“Columbarium”** includes any building or structure, used or intended to be used, for the interment of cremated human remains. *[HSC 9506]*
- **“Companion Crypts”** or **“Nest Of Crypts”** means two or more crypts entered through a single opening. *[HSC 9505]*
- **“Crypt”** or **“vault”** means a space in a mausoleum of sufficient size, used or intended to be used, to entomb uncremated human remains. *[HSC 7015]*
- **“Incombustible Material”** means and includes any material having an ignition temperature higher than 1,000 degrees Fahrenheit. *[HSC 9510]*
- **“Mausoleum”** includes any building or structure, used or intended to be used, for the interment of human remains. A columbarium may be built within a mausoleum. *[HSC 9504]*
- **“Niche”** means a space in a columbarium used, or intended to be used, for the placement of cremated human remains. *[HSC 7016]*
- **“Private mausoleum or columbarium”** shall be a freestanding structure which:
  - (a) Is constructed for use by the members of any one group, and not for the sale of space therein to any other person.
  - (b) Does not contain crypts for the interment of more than 12 uncremated human remains, and a columbarium, niches for the interment of not more than 20 cremated human remains.
  - (c) Is not constructed for occupancy by any person except in the course of making an interment. *[HSC 9504]*
- **“Type I Construction”** includes the type of construction designated and specified as Type I Building Construction in the *1991 Uniform Building Code*. *[HSC 9511]*

# Non-Site-Specific and Typical Erosion and Sediment Control Best Management Practices (BMP's)

As applicable, the following non-site-specific and typical erosion and sediment control Best Management Practices (BMPs) will be implemented to the maximum extent practicable for the duration of the project:

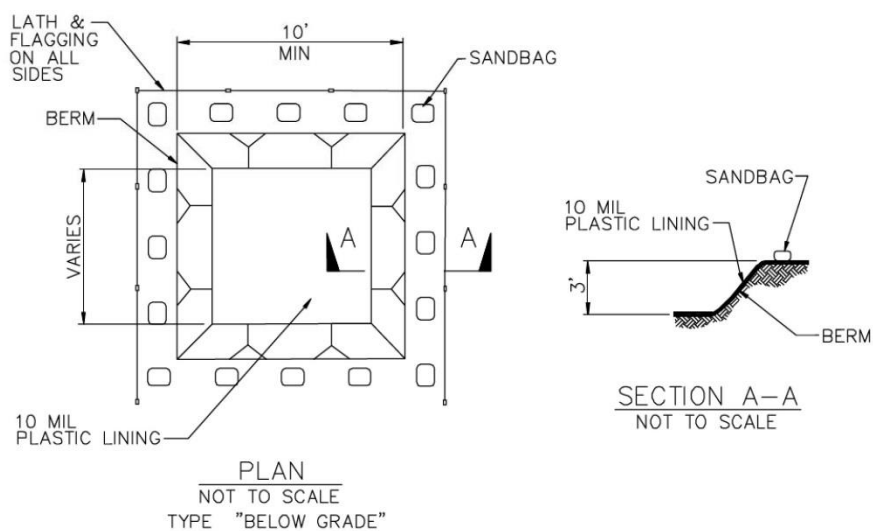
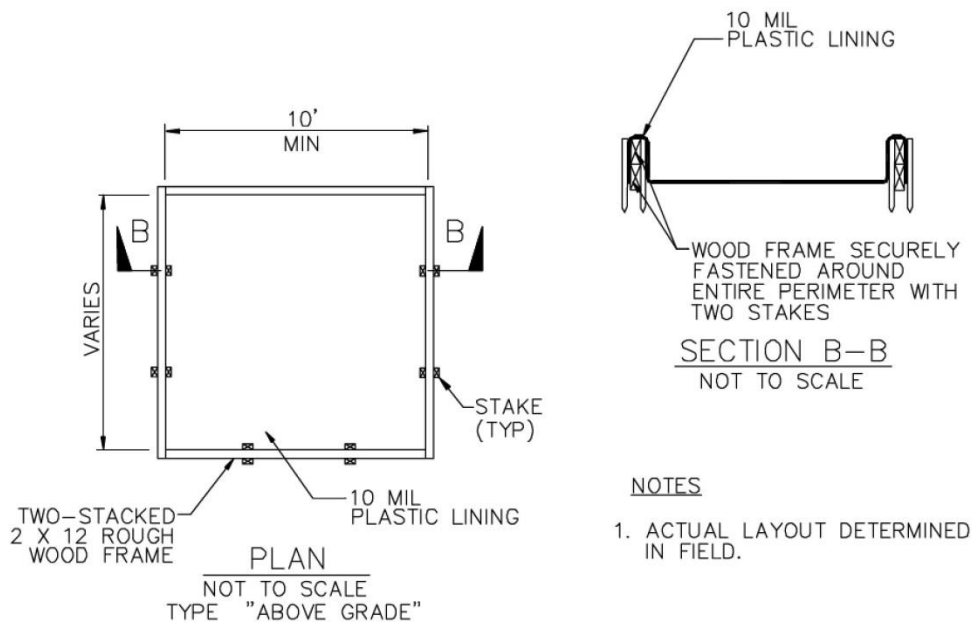
- A. Vehicle and heavy equipment ingress and egress to the construction site shall be limited to paved or reinforced entrances. Reinforced entrances shall be designed, built, and maintained so as to prevent sediment from "tracking-out" into the public right-of-way on vehicle and heavy equipment tires.

An **example** specification for a typical reinforced construction entrance is shown below:



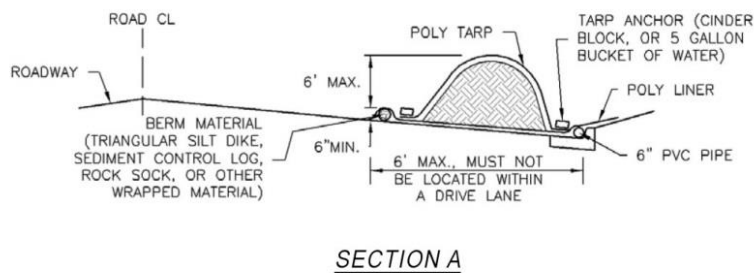
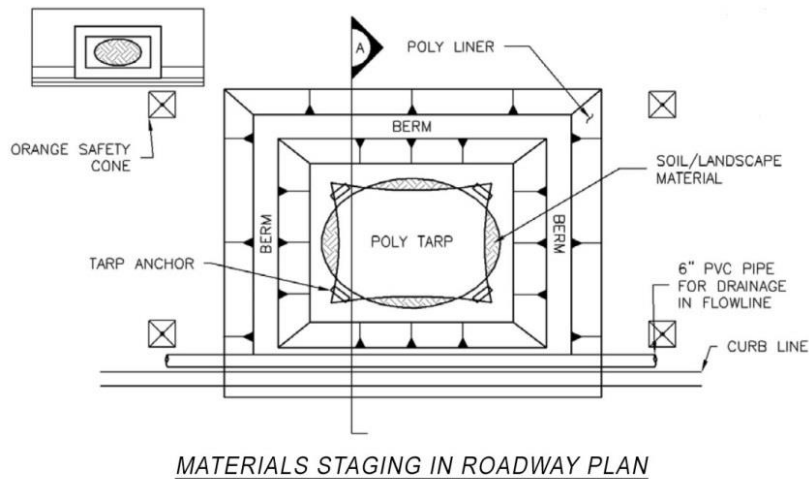
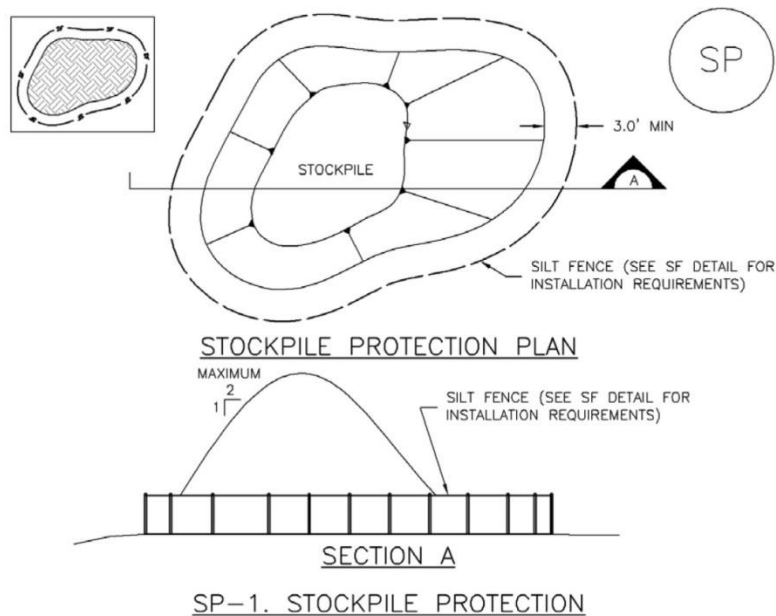
- B. All dirt or sediment tracked into the public right-of-way shall be promptly removed as soon as feasible and no less frequently than at the end of each working day. Dry sweeping methods are to be used for sweeping.
- C. Existing vegetation shall be preserved wherever feasible to minimize disturbed soil area and associated erosion.
- D. All construction products including uncured paint, concrete, stucco, drywall mud, and mortar shall be protected from run-on during precipitation and wastes disposed of properly in a designated washout.

**Example specifications of typical washout facilities are shown below:**



- E. All stockpiles of erodible materials shall be provided with erosion and sediment controls to prevent erosion and dust generation.

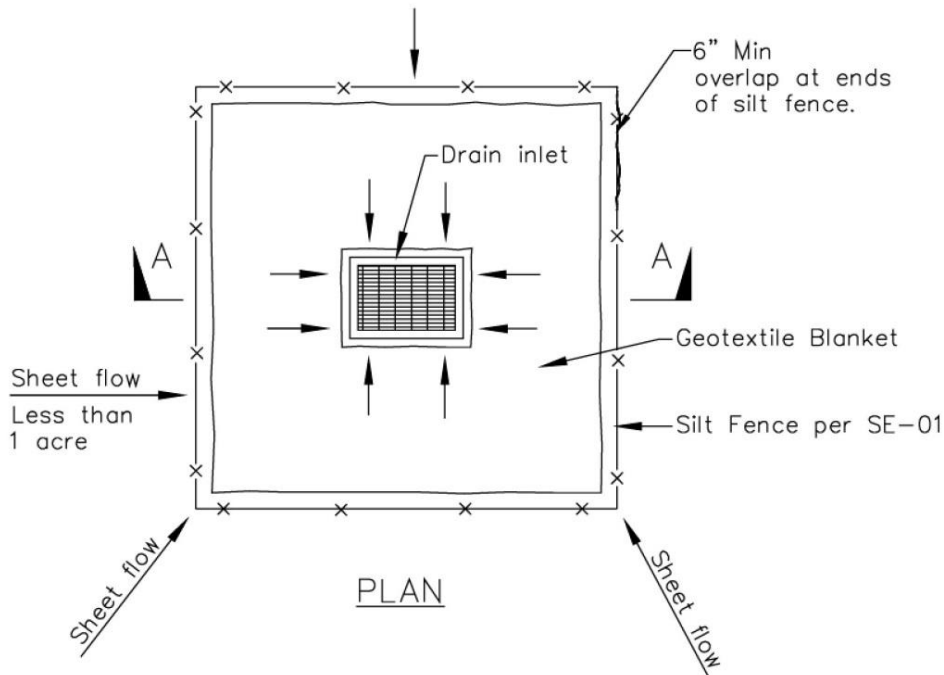
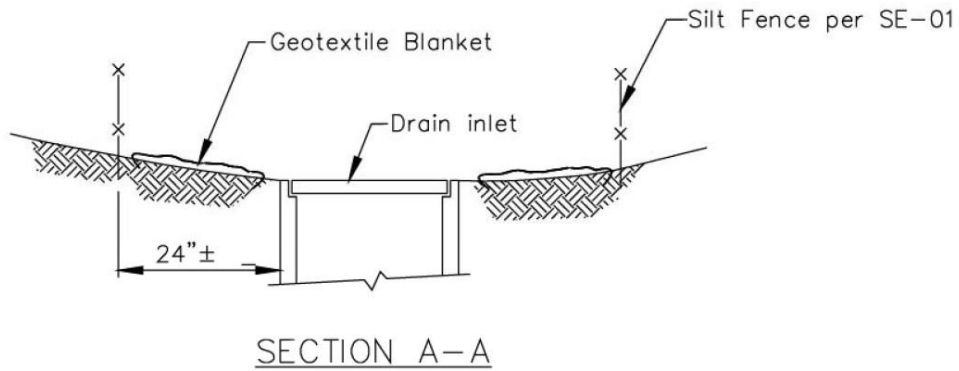
**Example** specifications of typical erosion and sediment controls for stockpiles of erodible materials are shown below:





F. All storm drain inlets on the site or receiving direct discharges of stormwater from the site shall be protected from sediment-laden discharges using appropriate Best Management Practices.

**Example** specifications of typical sediment controls for storm drain drop-inlets or area drains are below:

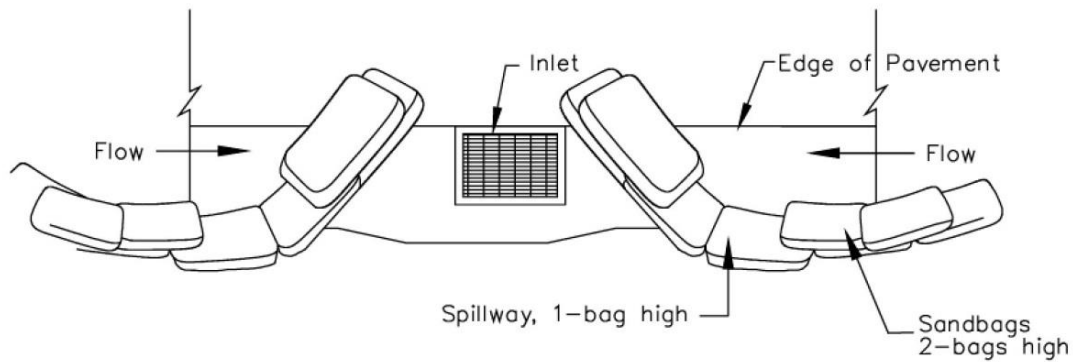


DI PROTECTION TYPE 1  
NOT TO SCALE

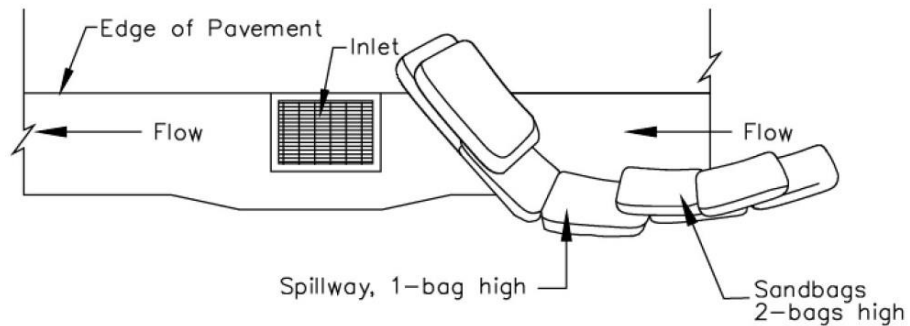
NOTES:

1. For use in areas where grading has been completed and final soil stabilization and seeding are pending.
2. Not applicable in paved areas.
3. Not applicable with concentrated flows.

**Example** specifications of typical sediment controls for storm drain curb-inlets are below:



TYPICAL PROTECTION FOR INLET ON SUMP



TYPICAL PROTECTION FOR INLET ON GRADE

NOTES:

1. Intended for short-term use.
2. Use to inhibit non-storm water flow.
3. Allow for proper maintenance and cleanup.
4. Bags must be removed after adjacent operation is completed
5. Not applicable in areas with high silts and clays without filter fabric.

DI PROTECTION TYPE 3  
NOT TO SCALE