LEGAL DESCRIPTION

TRACTS 1-A, 1-B-1 AND 1-B-2 ALVARADO GARDENS, UNIT 1, WITHIN TOWN OF ALBUQUERQUE GRANT, PROJECTED SECTION 6, TOWNSHIP 10 NORTH, RANGE 3 EAST, N.M.P.M., CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, SEPTEMBER 2017

BASIS OF ELEVATIONS

ELEVATIONS ARE BASED ON ACS MONUMENT "8_H13" NMSPCC/NAD83/NAVD88 HAVING AN ELEVATION OF 4963.168

DESIGN NARRATIVE

THE SUBJECT PROJECT IS A 1.01 ACRE DEVELOPED SITE THAT HAD PREVIOUSLY BEEN THE LOCATION OF A RESIDENCE WITH SEVERAL RANDOM OUT BUILDINGS. THESE BUILDINGS AND THE CURRENT RESIDENCE WILL BE DEMOLISHED AND OR REMOVED FROM THE SITE FOR THIS NEW DEVELOPMENT WHICH WILL INCLUDE 2 INDIVIDUAL RESIDENCES AND SIX COMMON WALL TOWNHOUSES. AN ASPHALT PAVED ACCESS DRIVE WILL BE CONSTRUCTED TO PROVIDE CONNECTION FROM MATTHEW AVE NW TO EACH RESIDENTIAL UNIT. THE DEVELOPMENT WILL INCLUDE A SMALL CONCRETE DRIVE CONNECTING THE ACCESS ROAD TO EACH RESIDENCE. THE CURRENT SITE IS UNAFFECTED BY OFFSITE DRAINAGE AND THE NEW DEVELOPMENT WILL BE UNAFFECTED AS WELL AND THE NEW GRADING WILL NOT ADVERSELY AFFECT ADJACENT PROPERTIES EITHER, EACH SITE RESIDENCE WILL BE GRADED TO PROVIDE 100-YR, 10 DAY PONDING OF NEWLY DEVELOPED RUNOFF IN ORDER TO ACHIEVE 100% STORAGE OF DRAINAGE VOLUME FOR THE SITE, THE POND VOLUME PROVIDED CAPTURES ALL RUNOFF DEVELOPED ON THIS SITE.

EROSION CONTROL PLAN

1 CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.

2 CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT OUT OF EXISTING RIGHT-OF-WAY.

3 CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL STORM RUN OFF ON SITE.

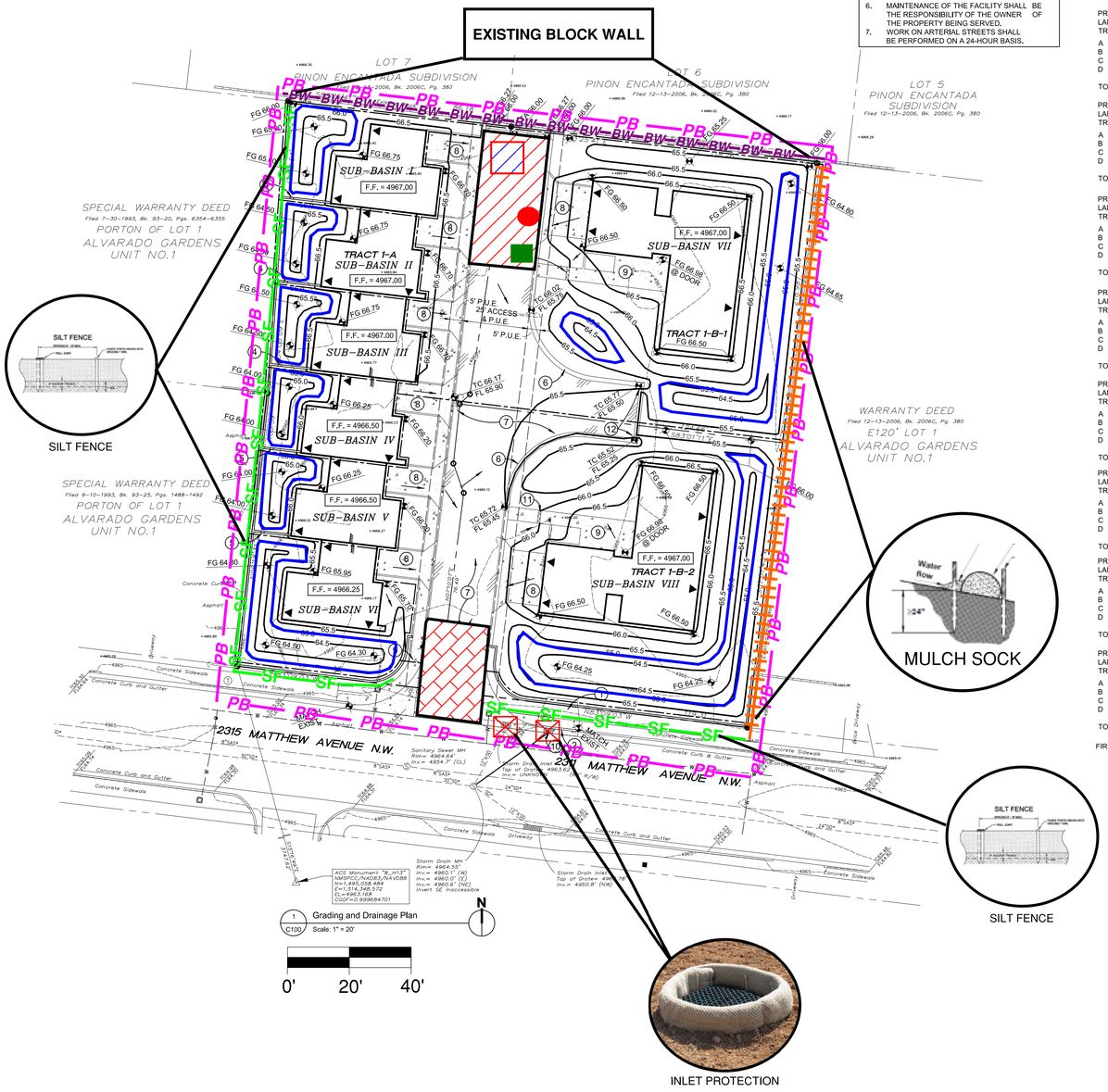
4 REPAIR OF DAMAGED FACILITIES AND CLEAN-UP OF SEDIMENT ACCUMULATION ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.

5 ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL ACCEPTANCE OF ANY PROJECT.

6 CONTRACTOR IS RESPONSIBLE FOR OBTAINING NPDES PERMIT FOR THE SITE, IF NECESSARY.

DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY NOTICE TO CONTRACTOR

1. AN EXCAVATION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
2. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT THE LINE LOCATING SERVICE, NEW MEXICO ONE CALL 260-1990, (NM ONE CALL "811") FOR THE LOCATION OF EXISTING UTILITIES.
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
5. BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
6. MAINTENANCE OF THE FACILITY SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY BEING SERVED.
7. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.



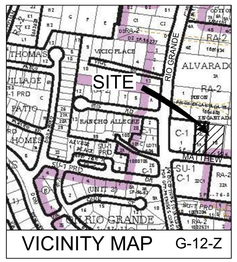
HYDROLOGY CALCULATIONS

PRECIPITATION ZONE 2

DESIGN STORM: (IN)					1hr 2,01	6hr 2,35	24hr 2,75	4day 3,30	10day 3,95
EXISTING CONDITIONS - OVERALL SITE									
LAND TRTMNT	AREA (ACRE)	AREA %	P6	Q (CFS/AC)	Q (CFS)	V6 (CF)	V24 (CF)	V4DAY (CF)	V10DAY (CF)
A	0,000	0%	0,53	1,56	0,00	0	0	0	0
B	0,766	76%	0,78	2,28	1,75	2,169	2,169	2,169	2,169
C	0,115	11%	1,13	3,14	0,36	472	472	472	472
D	0,129	13%	2,12	4,70	0,61	993	1,180	1,438	1,742
TOTALS	1,010	100%			2,71	3,633	3,821	4,078	4,383
PROPOSED CONDITIONS - OVERALL SITE									
LAND TRTMNT	AREA (ACRE)	AREA %	P6	Q (CFS/AC)	Q (CFS)	V6 (CF)	V24 (CF)	V4DAY (CF)	V10DAY (CF)
A	0,000	0%	0,53	1,56	0,00	0	0	0	0
B	0,508	50%	0,78	2,28	1,16	1,438	1,438	1,438	1,438
C	0,000	0%	1,13	3,14	0,00	0	0	0	0
D	0,502	50%	2,12	4,70	2,36	3,863	4,592	5,594	6,779
TOTALS	1,010	100%			3,52	5,301	6,030	7,032	8,217
PROPOSED CONDITIONS - SUB-BASIN I									
LAND TRTMNT	AREA (ACRE)	AREA %	P6	Q (CFS/AC)	Q (CFS)	V6 (CF)	V24 (CF)	V4DAY (CF)	V10DAY (CF)
A	0,000	0%	0,53	1,56	0,00	0	0	0	0
B	0,029	54%	0,78	2,28	0,07	82	82	82	82
C	0,000	0%	1,13	3,14	0,00	0	0	0	0
D	0,025	46%	2,12	4,70	0,12	192	229	279	338
TOTALS	0,054	100%			0,19	274	311	361	420
PROPOSED CONDITIONS - SUB-BASIN II									
LAND TRTMNT	AREA (ACRE)	AREA %	P6	Q (CFS/AC)	Q (CFS)	V6 (CF)	V24 (CF)	V4DAY (CF)	V10DAY (CF)
A	0,000	0%	0,53	1,56	0,00	0	0	0	0
B	0,017	42%	0,78	2,28	0,04	48	48	48	48
C	0,000	0%	1,13	3,14	0,00	0	0	0	0
D	0,023	58%	2,12	4,70	0,11	177	210	256	311
TOTALS	0,040	100%			0,15	225	259	304	359
PROPOSED CONDITIONS - SUB-BASIN III									
LAND TRTMNT	AREA (ACRE)	AREA %	P6	Q (CFS/AC)	Q (CFS)	V6 (CF)	V24 (CF)	V4DAY (CF)	V10DAY (CF)
A	0,000	0%	0,53	1,56	0,00	0	0	0	0
B	0,016	39%	0,78	2,28	0,04	45	45	45	45
C	0,000	0%	1,13	3,14	0,00	0	0	0	0
D	0,025	61%	2,12	4,70	0,12	192	229	279	338
TOTALS	0,041	100%			0,16	238	274	324	383
PROPOSED CONDITIONS - SUB-BASIN IV									
LAND TRTMNT	AREA (ACRE)	AREA %	P6	Q (CFS/AC)	Q (CFS)	V6 (CF)	V24 (CF)	V4DAY (CF)	V10DAY (CF)
A	0,000	0%	0,53	1,56	0,00	0	0	0	0
B	0,016	41%	0,78	2,28	0,04	45	45	45	45
C	0,000	0%	1,13	3,14	0,00	0	0	0	0
D	0,023	59%	2,12	4,70	0,11	177	210	256	311
TOTALS	0,039	100%			0,15	222	256	302	356
PROPOSED CONDITIONS - SUB-BASIN V									
LAND TRTMNT	AREA (ACRE)	AREA %	P6	Q (CFS/AC)	Q (CFS)	V6 (CF)	V24 (CF)	V4DAY (CF)	V10DAY (CF)
A	0,000	0%	0,53	1,56	0,00	0	0	0	0
B	0,015	38%	0,78	2,28	0,03	42	42	42	42
C	0,000	0%	1,13	3,14	0,00	0	0	0	0
D	0,025	62%	2,12	4,70	0,12	192	229	279	338
TOTALS	0,040	100%			0,15	229	271	321	380
PROPOSED CONDITIONS - SUB-BASIN VI									
LAND TRTMNT	AREA (ACRE)	AREA %	P6	Q (CFS/AC)	Q (CFS)	V6 (CF)	V24 (CF)	V4DAY (CF)	V10DAY (CF)
A	0,000	0%	0,53	1,56	0,00	0	0	0	0
B	0,059	72%	0,78	2,28	0,13	167	167	167	167
C	0,000	0%	1,13	3,14	0,00	0	0	0	0
D	0,023	28%	2,12	4,70	0,11	177	210	256	311
TOTALS	0,082	100%			0,24	344	377	423	478
PROPOSED CONDITIONS - SUB-BASIN VII									
LAND TRTMNT	AREA (ACRE)	AREA %	P6	Q (CFS/AC)	Q (CFS)	V6 (CF)	V24 (CF)	V4DAY (CF)	V10DAY (CF)
A	0,000	0%	0,53	1,56	0,00	0	0	0	0
B	0,180	49%	0,78	2,28	0,41	510	510	510	510
C	0,000	0%	1,13	3,14	0,00	0	0	0	0
D	0,189	51%	2,12	4,70	0,89	1,454	1,729	2,106	2,552
TOTALS	0,369	100%			1,30	1,964	2,239	2,616	3,062
PROPOSED CONDITIONS - SUB-BASIN VIII									
LAND TRTMNT	AREA (ACRE)	AREA %	P6	Q (CFS/AC)	Q (CFS)	V6 (CF)	V24 (CF)	V4DAY (CF)	V10DAY (CF)
A	0,000	0%	0,53	1,56	0,00	0	0	0	0
B	0,180	52%	0,78	2,28	0,41	510	510	510	510
C	0,000	0%	1,13	3,14	0,00	0	0	0	0
D	0,167	48%	2,12	4,70	0,78	1,285	1,528	1,861	2,255
TOTALS	0,347	100%			1,19	1,795	2,037	2,371	2,765

FIRST FLUSH VOLUME REQUIRED : 0.44" x 21,876 SF = 802 CF
PROVIDING PROVIDED : 100-YR STORM, 10-DAY VOLUME REQUIRED

SUB-BASIN I =	430 CF
SUB-BASIN II =	371 CF
SUB-BASIN III =	371 CF
SUB-BASIN VI =	371 CF
SUB-BASIN V =	371 CF
SUB-BASIN VI =	621 CF
SUB-BASIN VII =	3152 CF
SUB-BASIN VIII =	2840 CF
TOTAL =	8527 CF



LEGEND

EROSION AND SEDIMENT CONTROL PLAN

- PROJECT PERIMETER & DISTURBED AREA
- SILT FENCE
- MULCH SOCKS
- FLOW DIRECTION
- STAGING AREA
- STABILIZED CONSTRUCTION ENTRANCE
- TRASH RECEPTACLE
- CHEMICAL TOILET
- CONCRETE WASHOUT
- RETENTION POND
- EXISTING BLOCK WALL
- CHECK DAM
- DROP INLET PROTECTION
- OUTFALL
- POSTING SIGN
- PRESERVED VEGETATION

RECEIVING WATERS: **RIO GRANDE RIVER 2105_50 TIER II AND IMPAIRED**

CRITICAL HABITAT: **CRITERION "C"; RIO GRANDE SILVERY MINNOW AND YELLOW BILLED CUCKOO HABITATS ARE 3.0 MILES TO THE SOUTHWEST OF THE PROJECT.**

GPS LOCATION: **35.1187, -106.6745**

DAVID SOULE NEW MEXICO 14522 REGISTERED PROFESSIONAL ENGINEER

2/13/18

Engineer Stamp

FILE/GUL DEVELOPMENT

PROJECT TITLE

ALBUQUERQUE, BERNALILLO COUNTY, NM

CITY, COUNTY, STATE

02/13/18 DATE

C. DURKIN DRAWN BY

Inspections Plus, Inc.

Curb Storm Inlet Protection with Wattles

Inlet Filter Installation Instructions:

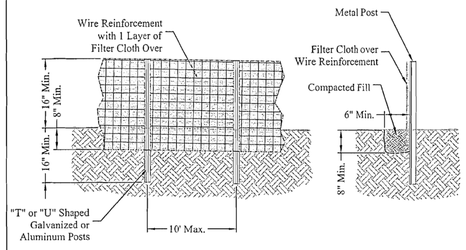
1. Remove sediment, debris, ice and snow from the inlet grate surface and surrounding area.

2. Verify fit by placing filter over inlet grate to ensure that Inlet Filter extends at least one inch beyond the front and both curb ends. The overlap slows water flow and starts filtering sediment and debris before water drops into the inlet.

3. Position the mat. Place Inlet Filter on grate with the net side down, flush to the back edge and extending beyond the grate opening on the front and both sides. The zip ties attach Inlet Filter to the inlet grate cover WITHOUT LIFTING THE GRATE COVER.

4. The filter material covering the inlet can be any material that will prevent the sediment and other foreign matter from entering the storm drain system.

Reinforced Silt Fence



Definition

A temporary barrier of Geotextile Class "F" over wire reinforcement used to intercept sediment laden runoff from small drainage areas.

Purpose

The purpose of silt fence is to reduce runoff where velocity and allow the deposition of transported sediment to occur. Limits imposed by ultraviolet light on the stability of the fabric will dictate the maximum period that the silt fence may be used.

1. Silt fence provides a barrier that can collect and hold debris and soil, preventing the material from entering critical areas, streams, streets, etc.
2. Silt fence can be used where the installation of a dike would destroy sensitive areas; woods, wetlands, etc.

Conditions where the Practice Applies

Silt Fence is limited to intercepting sheet flow runoff from limited distances according to slope. It provides filtering and velocity dissipation to promote gravity settling of sediment.

Design Criteria

Steel posts must be used. Silt fence should be placed as close to the contour as possible. No section of silt fence should exceed a grade of 5 percent for a distance more than 50 feet. Where ends of the geotextile fabric come together, the ends shall be overlapped, folded, and stapled to prevent sediment bypass. The length of the flow contributing to silt fence shall conform to the following limitations.

Slope (%)	Slope Steepness	Slope Length (Ft.) (Maximum)	Silt Fence Length (Ft.) (Maximum)
0-10	0-10:1	Unlimited	Unlimited
10-20	10:1-5:1	200	1,500
20-33	5:1-3:1	100	1,000
33-50	3:1-2:1	100	500
50 +	2:1 +	50	250

3

Erosion Control Notes

1. All perimeter erosion and sediment control measures shall be installed prior to the execution of any grading work and maintained by the grading contractor for the duration of the grading project. Failure to install and maintain erosion control is a violation of State Law and subject to fine.

2. The appropriate erosion control devise(s) shall be installed prior to the inception of any land disturbing activity and shall be properly maintained for construction activities.

3. All Erosion Control devices and their installation shall meet the standards prescribed in the current guidelines for storm water management for construction activities.

4. Sediment collected behind the sediment filters and silt fences shall be removed when sediment reaches on third the height of the barrier.

5. Inspection of erosion and sediment control and other protective measures are required once every 7 days from July 1st to October 31st and once every 14 days from November 1st to June 30th and after a precipitation event of ¼ inch or greater until the site is considered stabilized by the City. Inspection reports are to be kept by the person or entity authorized to direct construction activities on the site

6. Construction Site Entrance: The contractor shall construct as a minimum one stabilized construction entrance at the location shown on the plans. If additional ingress and egress to the construction site is required, the contractor shall coordinate with the construction manager the location of these additional stabilized construction entrances. Usage of non-stabilized for ingress and egress will not be permitted. The stabilized entrances shall be maintained in a condition which will prevent tracking or flowing of sediment onto public right-of-way and paved driving lanes. This may require periodic top dressing with additional stone as conditions warrant. Repair of the entrances or cleaning of the right-of-way and paved driving lanes that have been soiled shall be performed by the contractor at his own expense satisfactory to the construction manager. When necessary, vehicle wheels and tires shall be cleaned to remove sediment prior to entering onto public right-of-way and public streets. When washing is required, it shall be done on an area stabilized with crushed stone.

7. The contractor shall at his own expense, periodically water the site to control dust.

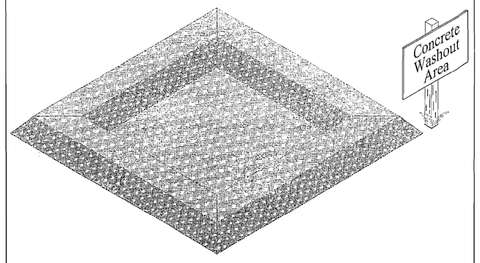
8. Sedimentation and erosion control measures shall be removed following construction or upon permanent stabilization of the disturbed and graded areas, whichever occurs last.

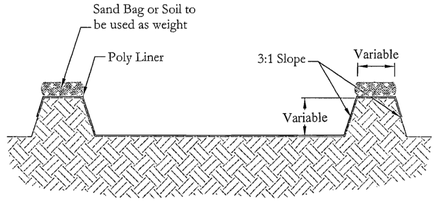
9. All disturbed areas that are not to be paved shall be re-seeded unless noted otherwise.

10. The contractor shall deep the site clean at all times and control dust resulting from the earthwork operation. The contractor shall not track mud onto the public streets.

Concrete Washout Area

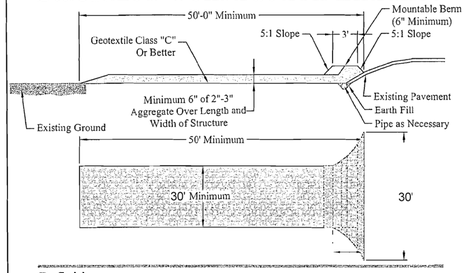
For use in High Water Table Areas





51

Stabilized Construction Entrance



Definition

A stabilized layer of aggregate that is underlain with Geotextile Class "C" (See Standards for Geotextile). Stabilized entrances are located at any point where traffic enters or leaves a construction site.

Purpose

The purpose of the stabilized construction entrance is to reduce tracking of sediment onto streets or public rights-of-way and provide a stable area for entrance or exit from the construction site.

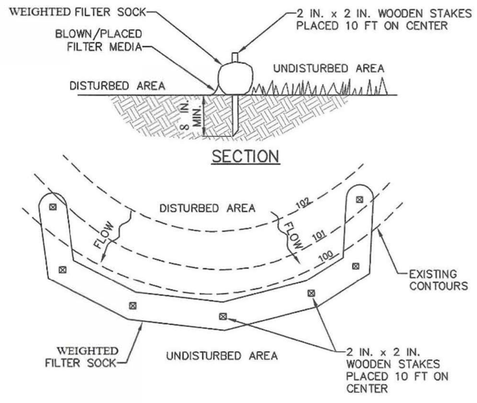
Conditions where the Practice Applies

1. Stabilized construction entrances shall be located at points of construction ingress and egress.
2. For single family residences, the entrance should be located at the permanent driveway.
3. Stabilized construction entrances should not be used on existing pavement.

Design Criteria

1. Length - Minimum of 50'-0"
2. Width - Minimum of 30'-0", should be flared at the existing road to provide a turning radius.
3. Geotextile Class "C" shall be placed over the exiting ground prior to placing stone. The Plan approval authority may not require geotextile fabric for single family residence.
4. Stone-crushed aggregate 2"-3" (See Standards for Geotextile and Rock). Recycled concrete equivalent may be used also. The rock should be placed at least 6" deep over the length and width of the entrance.
5. Surface Water - All the surface water flowing to or diverted toward construction entrances shall be piped under the entrance to maintain positive drainage. Pipe installed under the construction entrance shall be protected with a mountable berm. The pipe shall be sized according to the drainage, with the minimum diameter being 6".
6. Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

10



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