EROSION & SEDIMENT CONTROL PLAN FOR 3801 PASEO DEL NORTE NE

TRACT "F-2", LANDS OF SPRINGER SITUATE WITHIN SECTION 14, TOWNSHIP 11 NORTH, RANGE 3 EAST, N.M.P.M., ZONE MAP C-17 CITY OF ALBUQUERQUE BERNALILLO COUNTY, NEW MEXICO

SCHEDULE/SEQUENCING OF CONSTRUCTION:

SITE/GRUB CLEARANCE 5 DAYS SEDIMENT POND CONSTRUCTION 5 DAYS 10 DAYS EARTHWORK FOR SITE CONSTRUCTION OF PAVEMENT STRUCTURES 45 DAYS CONSTRUCTION OF DRAINAGE COMPONENTS 10 DAYS INSTALLATION OF LIGHT POLES 5 DAYS

4.5 AC

4.2 AC

NR-LM

NR-LM

GENERAL NOTES:

SITE DATA GROSS SITE AREA:

DISTURBED AREA:

EXISTING ZONING:

PROPOSED ZONING:

1. KEEP DIRT AND DEBRIS ON THE SITE.

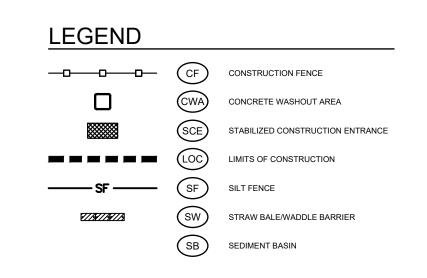
7. INSTALL FINAL LANDSCAPING AND IRRIGATION

- 2. CLEAN FUGITIVE DIRT/DEBRIS FROM STREET AT END OF EACH DAY.
- MAINTAIN GOOD HOUSEKEEPING.
- 4. SEE BMP DETAILS FOR INSPECTION AND MAINTENANCE DETAILS.

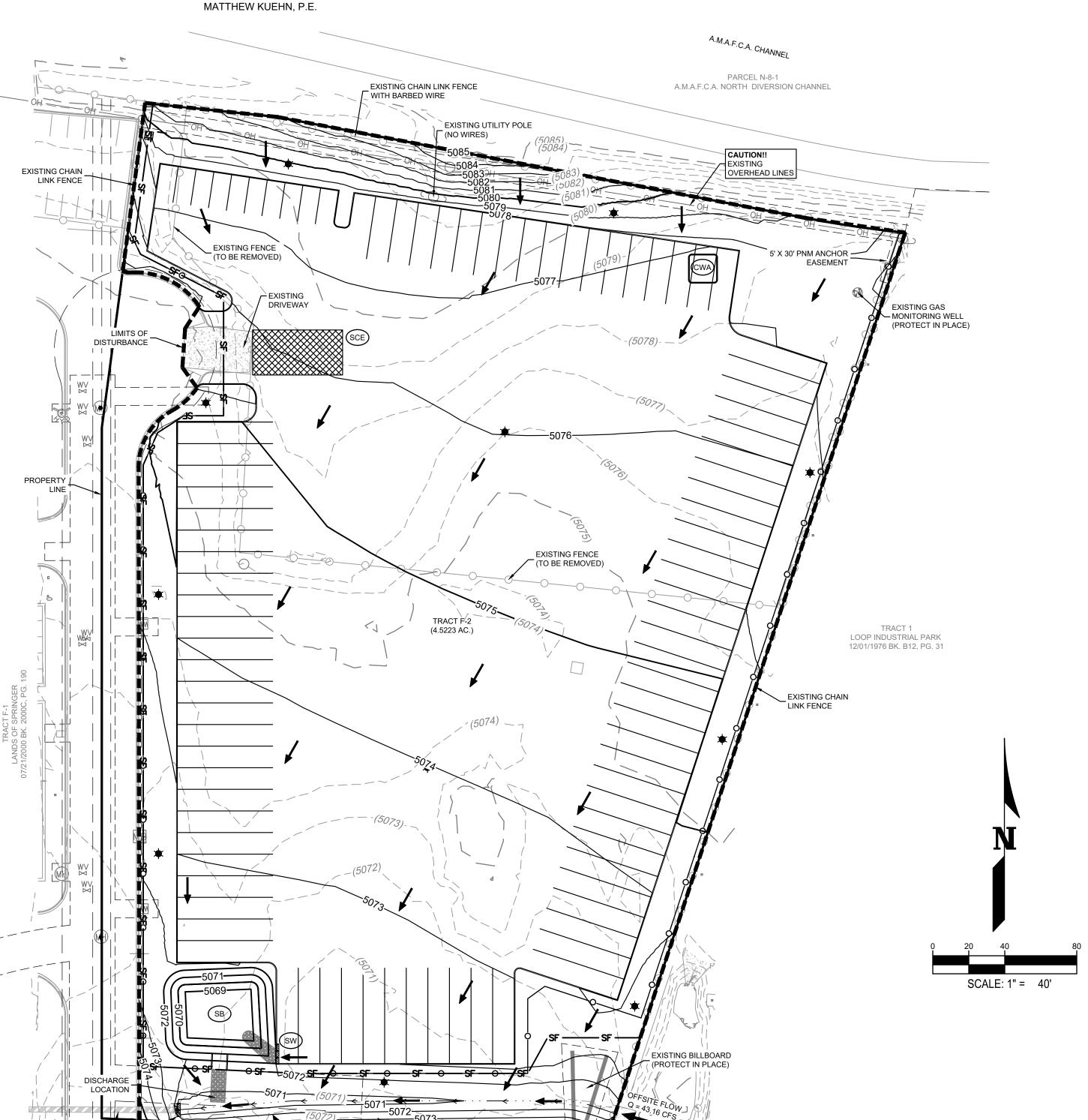
ESC PLAN STANDARD NOTES:

- 1. ALL EROSION AND SEDIMENT CONTROL (ESC) WORK ON THESE PLANS, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON SHALL BE PERMITTED, CONSTRUCTED, INSPECTED, AND MAINTAINED IN ACCORDANCE WITH:
- a. THE CITY ORDINANCE § 14-5-2-11, THE ESC ORDINANCE, b. THE EPA'S 2017 CONSTRUCTION GENERAL PERMIT (CGP), AND c. THE CITY OF ALBUQUERQUE CONSTRUCTION BMP MANUAL.
- 2. ALL BMP'S MUST BE INSTALLED PRIOR TO BEGINNING ANY EARTH MOVING ACTIVITIES EXCEPT AS SPECIFIED HEREON IN THE PHASING PLAN. CONSTRUCTION OF EARTHEN BMP'S SUCH AS SEDIMENT TRAPS, SEDIMENT BASINS, AND DIVERSION BERMS SHALL BE COMPLETED AND INSPECTED PRIOR TO ANY OTHER CONSTRUCTION OR EARTHWORK. SELF-INSPECTION IS REQUIRED AFTER INSTALLATION OF THE BMPS AND PRIOR TO BEGINNING CONSTRUCTION.
- 3. SELF-INSPECTIONS AT A MINIMUM A ROUTINE COMPLIANCE SELF-INSPECTION IS REQUIRED TO REVIEW THE PROJECT FOR COMPLIANCE WITH THE CONSTRUCTION GENERAL PERMIT ONCE EVERY 14 DAYS AND AFTER ANY PRECIPITATION EVENT OF 1/4 INCH OR GREATER UNTIL THE SITE CONSTRUCTION HAS BEEN COMPLETED AND THE SITE DETERMINED AS STABILIZED BY THE CITY. REPORTS OF THESE INSPECTIONS SHALL BE KEPT BY THE PERSON OR ENTITY AUTHORIZED TO DIRECT THE CONSTRUCTION ACTIVITIES ON THE SITE.
- 4. BMPS SHALL BE INSPECTED AND MAINTAINED UNTIL ALL DISTURBED AREAS ARE STABILIZED IN ACCORDANCE WITH THE FINAL STABILIZATION CRITERIA (CGP 2.2.14.B). GENERALLY, ALL DISTURBED AREAS, OTHER THAN STRUCTURES, MUST HAVE UNIFORM PERENNIAL VEGETATION THAT PROVIDES 70 PERCENT OR MORE OF THE COVER PROVIDED BY NATIVE VEGETATION OR SEED THE DISTURBED AREA AND PROVIDE NON-VEGETATIVE MULCH THAT PROVIDES COVER FOR AT LEAST THREE YEARS WITHOUT ACTIVE MAINTENANCE. FINAL STABILIZATION MUST BE DOCUMENTED ON SELF-INSPECTION REPORTS AND APPROVED BY THE CITY OF ALBUQUERQUE PRIOR TO REMOVAL OF BMPS AND DISCONTINUATION OF INSPECTIONS.

POND TO BE CONSTRUCTED AS THE FIRST ITEM OF EARTHWORK CONSTRUCTION AND TO BE MAINTAINED AS A SEDIMENT TRAP DURING CONSTRUCTION.



| LEGEND | | |
|---------------------|-----------------------|-------------|
| EXISTING | | PROPOSED |
| | PROPERTY LINE | |
| | EASEMENT | |
| | CURB & GUTTER | |
| — <i>— 5750</i> — — | CONTOURS | |
| | STORM SEWER | |
| • | SIGNAGE | • |
| DRIVEWAY | DESCRIPTIONS (VARIES) | DRIVEWAY |
| | FLOW ARROW | |



7)

PASEO DEL NORTE

OVERHEAD LINES

5. FINAL STABILIZATION OF ENTIRE SITE WILL BE BY PAVEMENT AND LANDSCAPING.

10 DAYS

DISTRICT

C-17-Z

- Easement Escarpment

)Petroglyph National Monument

Character Protection Overlay (CPO) Zone Historic Protection Overlay (HPO) Zone

View Protection Overlay (VPO) Zone

Areas Outside of City Limits Airport Protection Overlay (APO) Zone

BALLOON FIESTA IDO Zone Atlas May 2018

The Zone Districts and Overlay Zones Gray Shading

are established by the

ntegrated Development Ordinance (IDO).

CALL NM ONE-CALL

SYSTEM SEVEN (7) DAYS PRIOR TO ANY EXCAVATION

LANDSCAPE ARCHITECT WERNER ENTERPRISES COLLABORATIVE V DESIGN STUDIO 14507 FRONTIER ROAD 7116 E. FIRST AVENUE, SUITE 103 OMAHA, NEBRASKA 68138 SCOTTSDALE, AZ 85251 480.347.0590 MATT DRAGER DANNY JOHNSON

CIVIL ENGINEER WARE MALCOMB 2777 E. CAMELBACK ROAD, SUITE 325 PHOENIX, AZ 85016 480.767.1001

402.895.6640

SHEET INDEX: ES-2 - ES-3

EROSION & SEDIMENT CONTROL PLAN BMP DETAILS

FOR AND ON BEHALF OF WARE MALCOMB

380

PHX20-4023 DRAWN BY: WE 01/05/2021 PLOT DATE: 01/05/2021

WARE CIVIL ENGIN

FOR AND ON BEHALF

OF WARE MALCOMB

DIME

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380

Z

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National Pollutant Discharge Elimination System Manual Appendix A4 – Sediment Control

Straw Bale

DESCRIPTION

PRIMARY USE

APPLICATIONS

LIMITATIONS

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for structural integrity.

Dust Control

DESCRIPTION

storm water.

activities are:

APPLICATIONS

Drilling and blasting

complaints

can be used:

paved roads.

contribute dust.

applications suggested.

Sheet-Flow Applications

serve as a dam/device to direct flow.

A temporary barrier can be constructed of straw bales anchored

with posts or stakes, which intercepts sediment-laden runoff from

Straw bales barriers trap sediment-laden runoff from small.

relatively level areas; velocity reduction causes sediment to settle

Straw bales barriers treat flow from small sites for short-duration

Problems with uniformity, degradation and installation; residential

Place the bales in a single row, lengthwise on the contour,

Due to a short effective life caused by biological decomposition,

months. During the wet and warm seasons, however, they must be

Straw bale dikes are not recommended for use with concentrated

The effectiveness of straw bales in reducing sediment is very

impact on the water quality of the runoff.

National Pollutant Discharge Elimination System Manual

Appendix A1 – Construction Site Planning and Management

A comprehensive dust control plan is used to limit offsite

airborne fugitive dust and track-out of sediments.

sedimentation by controlling the sites potential for producing

Sediments that are transported from construction sites by storm

water runoff, wind, erosion and vehicle trackout are often re-

dispersed to the air by subsequent vehicular traffic and high

winds. Likewise, these sediments may be transported by the

control measures to minimize the generation of fugitive dust

Primary sources of dust from development and construction

Grading Operations (land clearing and earthmoving)

The contractor is responsible for complying with the requirements

of the air pollution control permit, if required. The approach to

• Dust control plans for construction or land-clearing projects

Many of the reasonably available control measures for controlling

fugitive dust from construction sites can also be implemented as

BMPs for storm water pollution prevention. The following BMPs

• Pave, vegetate, or chemically stabilize access points to

Provide covers for trucks transporting materials that

reduce air pollution from construction sites should require.

Enforcement activities with priority given to citizen

• Batch drop operations (loader operation)

Vehicle traffic on unpaved surfaces

Sediment tracking on paved surfaces

Blasting and wrecking ball operations

Maintenance of records by contactors

Soil and debris storage piles

• Exposed areas, cleared unstabilized areas

next rainfall into public storm sewer systems. Implementation of

from construction sites will also limit the quantity of sediments in

limited. Improperly maintained, straw bales can have a negative

replaced more frequently as is determined by periodic inspections

straw bales must be replaced after a period of no more than 3

with ends of adjacent bales tightly abutting.

projects. Can be used as check dams on small watercourses.

small, disturbed areas. Straw-bales barriers can provide filtration or

August 2012 **Applications**

Perimeter Control

Slope Protection

Sediment Trapping

Channel Protection

Temporary Stabilization

Permanent Stabilization

Housekeeping Practices

Waste Management

Targeted Constituents

Sediment

Nutrients

Significant

✓ Medium

Toxic Materials

Oil and Grease

✓ Floatable Materials

Construction Wastes

Unknown or Questionable

August 2012

Applications

Perimeter Control

Slope Protection

Sediment Trapping

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✓ Sediment

Nutrients

Toxic Materials

Oil and Grease

Floatable Materials

Construction Wastes

Impact

Unknown or Questionable

Significant

✓ Medium

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MAINTENANCE REQUIREMENTS

Straw Bale (continued)

Appendix A4 – Sediment Control

National Pollutant Discharge Elimination System Manual

Straw bales shall be replaced if there are signs of degradation such as straw located downstream from the bales, structural deficiencies due to rotting straw in the bale, or other signs of deterioration. Sediment should be removed from behind the bales when it reaches a depth of approximately 6 inches.

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Dust Control

DESCRIPTION

storm water.

activities are:

APPLICATIONS

Drilling and blasting

complaints

paved roads.

contribute dust.

can be used:

• The straw bale barrier must be entrenched, anchored, and backfilled. A trench should be excavated the width of a bale and the length of the proposed barrier to a minimum depth of 4 inches. After the bales are staked, the excavated soil must be backfilled against the barrier. Backfill soil should conform to the ground level on the downhill side and should be built up to 4 inches against the uphill side of the barrier.

Each bale must be securely anchored by at least two wooden stakes driven toward the previously laid bale to force the bales together. Stakes should be driven 6–12 inches into the ground. Stakes should have a minimum diameter or cross section of 2 inches.

• All bales must be either wire-bound or string-tied.

• Fill gaps between bales by wedging with straw.

Along toe of fills, install the straw bales along a level contour and leave enough area behind the barrier for runoff to pond and sediment to settle. A minimum of 5 feet away from the fill toe is recommended.

Inspect frequently during construction. Repair or replacement should be made as promptly as

Remove sediment accumulated against the straw bale barrier when it reaches half the exposed barrier height.

· Remove bales after they have served their usefulness.

Appendix A1 – Construction Site Planning and Management

A comprehensive dust control plan is used to limit offsite

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winds. Likewise, these sediments may be transported by the

control measures to minimize the generation of fugitive dust

Primary sources of dust from development and construction

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The contractor is responsible for complying with the requirements

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fugitive dust from construction sites can also be implemented as

BMPs for storm water pollution prevention. The following BMPs

• Pave, vegetate, or chemically stabilize access points to

Provide covers for trucks transporting materials that

reduce air pollution from construction sites should require:

Enforcement activities with priority given to citizen

• Batch drop operations (loader operation)

Vehicle traffic on unpaved surfaces

Soil and debris storage piles

Sediment tracking on paved surfaces

Blasting and wrecking ball operations

Maintenance of records by contactors

Exposed areas, cleared unstabilized areas

next rainfall into public storm sewer systems. Implementation of

from construction sites will also limit the quantity of sediments in

• Trenches where straw bales were located should be graded and stabilized.

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Appendix A4 – Sediment Control

Straw Bale (continued)

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Applications

Perimeter Control

Slope Protection

✓ Sediment Trapping

Channel Protection

✓ Temporary Stabilization

Waste Management

Targeted Constituents

✓ Sediment

Nutrients

Significant

✓ Medium

Toxic Materials

Oil and Grease

Floatable Materials

Construction Wastes

Unknown or Questionable

Permanent Stabilization

Housekeeping Practices

Appendix A4 – Sediment Control

Silt Fence

National Pollutant Discharge Elimination System Manual

Applications ✓ Perimeter Control

Targeted Constituents

Sediment

Nutrients

✓ Significant

Toxic Materials

Oil and Grease

Floatable Materials

Construction Wastes

✓ Slope Protection ✓ Sediment Trapping Channel Protection Temporary Stabilization Permanent Stabilization Waste Management Housekeeping Practices

STRAW BALE

SECTION B-B

A silt fence consists of geotextile fabric supported by backing stretched between posts, with the lower edge securely embedded in soil downstream of disturbed areas. Intercepts runoff in the form

of sheet flow and provides filtration, sedimentation, and velocity **PRIMARY USE** Silt fences are used as perimeter control downstream of disturbed areas, and for non-concentrated sheet-flow conditions.

APPLICATIONS Silt fences provide an economical way to mitigate overflow, non-concentrated flows, and as a perimeter control device. Best

with coarse to silty soil types and to control wind erosion on sandy LIMITATIONS

Minor ponding will likely occur at the upstream side of the silt fence, resulting in minor localized flooding. Fences that are constructed in swales or low areas subject to concentrated flow may be overtopped, resulting in failure of the filter fence. Silt fences subject to areas of concentrated flow (waterways with flows >1 cfs) are not acceptable.

Silt fence can interfere with construction operations; therefore, planning of access routes onto the site is critical. Silt fence can fail structurally under heavy storm flows, creating maintenance problems and reducing the effectiveness of the

✓ Medium Unknown or Questionable

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DESCRIPTION

employees and subcontractors.

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Applications

✓ Housekeeping Practices

Targeted Constituents

Sediment

Nutrients

Toxic Materials

Oil and Grease

Floatable Materials

Impact

Unknown or Questionable

✓ Construction Wastes

Significant

✓ Medium

Concrete Waste Management

Perimeter Control Slope Protection Concrete waste management prevents or reduces the discharge of pollutants to storm water by conducting washout offsite, Sediment Trapping performing onsite washout in a designated area, and training **Channel Protection**

Temporary Stabilization **APPLICATIONS** Permanent Stabilization The following low-cost measures will help reduce storm water pollution from concrete wastes: ✓ Waste Management

 Store dry and wet materials under cover, away from drainage areas. Avoid mixing excess amounts of fresh concrete or cement

Perform washout of concrete trucks offsite or in designated

areas only. Do not wash out concrete trucks into storm drains, open ditches, streets, or streams.

Do not allow excess concrete to be dumped onsite except in designated areas.

[±] Locate washout area at least 50 feet from storm drains, open ditches, or water bodies. Prevent runoff from this area by constructing a temporary pit or bermed area large enough for liquid and solid waste.

concrete can set, be broken up, and then disposed of

When washing concrete to remove fine particles and expose the aggregate, avoid creating runoff by draining the water to a bermed or level area.

Do not wash sweepings from exposed aggregate concrete into the street or storm drain. Collect and return sweepings to aggregate base stock pile, or dispose in the trash. Train employees and subcontractors in proper concrete

waste management. LIMITATIONS

For onsite washout:

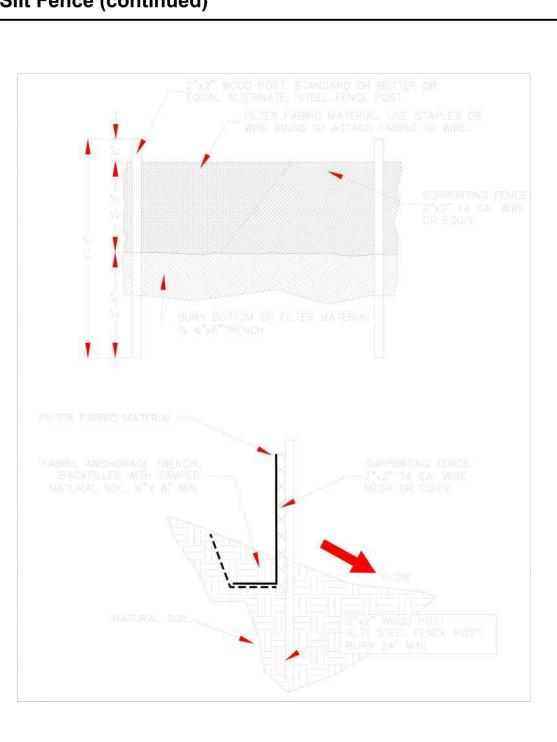
Offsite washout of concrete wastes may not always be possible. MAINTENANCE REQUIREMENTS

Inspect subcontractors to ensure that concrete wastes are being properly managed.

If using a temporary pit, dispose of hardened concrete on a regular basis.

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Silt Fence (continued)



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MAINTENANCE REQUIREMENTS

Inspections should be made on a weekly basis, especially after large storm events. If the fabric becomes clogged, it should be

half the height of the fence.

cleaned or, if necessary, replaced. Sediment should be removed when it reaches approximately one-

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Applications

Perimeter Control

Slope Protection

Sediment Trapping

Channel Protection

Temporary Stabilization

Permanent Stabilization

Housekeeping Practices

Targeted Constituents

Nutrients

Toxic Materials

Oil and Grease

Significant

Medium

Floatable Materials

Construction Wastes

Unknown or Questionable

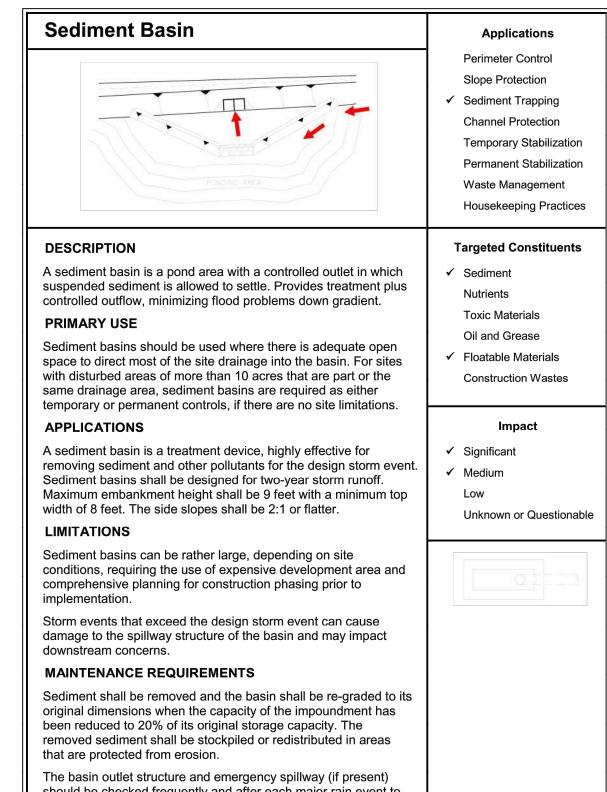
Waste Management

380

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should be checked frequently and after each major rain event to inspect for damage and to insure that obstructions are not diminishing the effectiveness of the structures.

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Sediment Basin (continued)

EMERGENCY SPILLWAY SHOULD NOT BE CONSTRUCTED OVER FILL MATERIAL.

CONTROL

Appendix A4 – Sediment Control

National Pollutant Discharge Elimination System Manual Appendix A4 – Sediment Control

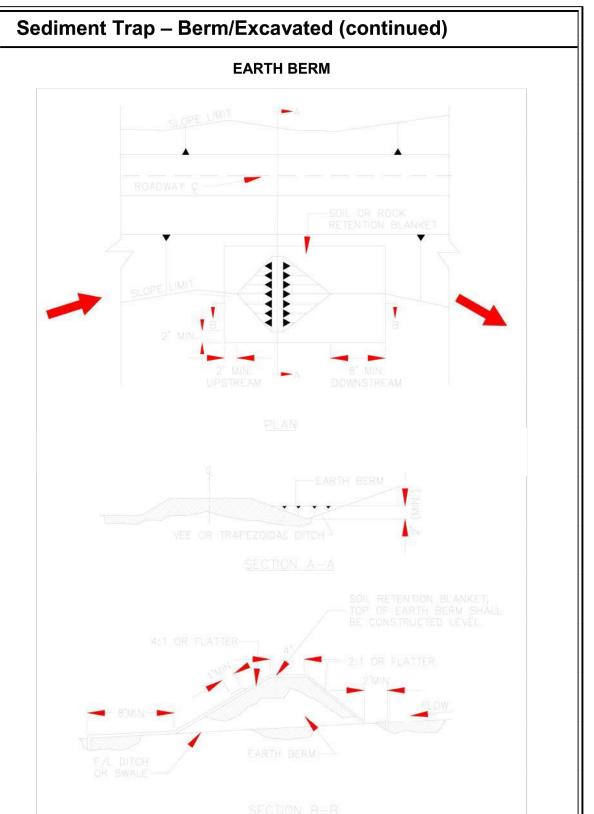
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OUTFALL



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Sediment Trap – Berm/Excavated

A sediment trap is a small temporary ponding area with a gravel

Sediment traps are used to collect and store sediment from small

sites cleaned or graded during construction. A temporary measure

Sediment traps are used where the site area is less than ten acres,

There are limited applications for sediment traps due to the cost of

Can cause minor flooding upstream of dam, impacting construction

This technique serves as a temporary measure during construction.

Sediment shall be removed and the area directly behind the berm

shall be re-graded to its original dimensions when the capacity of

The stone outlet structure should be inspected frequently and after

A4-19

the impoundment has been reduced to one-half of its original

redistributed in areas that are protected from erosion.

efficiency is diminished, the stone should be replaced.

storage capacity. The removed sediment shall be stockpiled or

each major rain event to check for clogging of the void spaces between stones. If the aggregate appears to be silted in such that

It should not be used for more than 18 months due to reduced

MAINTENANCE REQUIREMENTS

construction, the availability of materials, and the amount of land

usually installed in drainage way or point of discharge from

outlet, either excavated or formed by an embankment.

maintained until permanent measures are installed.

Appendix A4 – Sediment Control

DESCRIPTION

PRIMARY USE

APPLICATIONS

disturbed area.

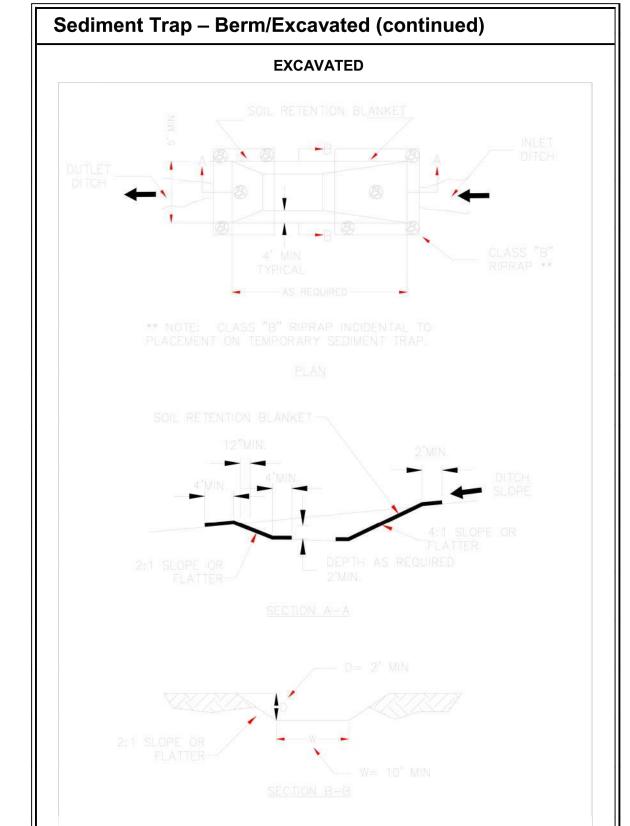
LIMITATIONS

required.

efficiency.

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National Pollutant Discharge Elimination System Manual Appendix A4 – Sediment Control

Sediment Trap – Berm/Excavated (continued)

NOTES

- Traps should be located at points of discharge from disturbed areas.
- A rectangular and shallow trap with a length-to-width ratio of 2:1 or greater is recommended.
- Maximum embankment height shall be 5 feet measured on the downstream side. The minimum top embankment width shall be 4 feet. Side slopes for the embankment and the excavated areas shall be 2:1 or flatter.
- The outlet structure shall consist of a stone section in the embankment formed by a combination coarse aggregate/riprap to provide for filtering/detention capability. Riprap shall be 4 inches to 8 inches of rock, while the coarse aggregate shall be ½ inch to ¾ inch.
- The outlet crest shall be at least 1 foot below the top of the embankment.
- The minimum outlet length in feet shall be 1.5 times the contributing drainage area to the trap.
- Sediment traps, along with other perimeter controls, shall be installed before any land disturbance takes place in the drainage area.
- A geotextile can be placed at the stone-soil interface to act as a separator.
- Sediment shall be removed from the trap when the wet storage volume is reduced by
- Outlet structure should be regularly inspected; rocks clogged with sediment shall be cleaned or replaced.

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SYSTEM SEVEN (7) DAYS PRIOR TO ANY EXCAVATION

CALL NM ONE-CALL