

surface for this work shall be established by a topographic ground survey (conducted by the County) at the completion of the Final Cover. Payment for the placement of engineered fill shall be made based on the unit price per cubic yard for engineered fill, as stated in the Contractor's Proposal, Bid Items No. 4 and No. 5. **Payment** shall constitute full compensation for all labor, material, equipment, and all other items necessary and incidental to completion of this item of work.

END OF SECTION

Section 6 - DRAINAGE STRUCTURES

6.1. GENERAL

The work covered by this section shall consist of furnishing all necessary labor, materials, equipment, tools and supervision for the construction of Drainage Structures. The work shall include but not be limited to grading, excavation, subgrade preparation, and construction of the Drainage Structures to the elevations, lines and grades and at the locations shown on the Project Drawings or as directed by the County. This work shall also include any cut or backfill necessary to achieve finished elevations adjacent to the structures once construction of the Drainage Structures is complete.

6.2. MATERIALS

Portland Cement Concrete material used to construct the trapezoidal and v-ditch drains shall be 650-D3250P with a 4-inch maximum slump in accordance with Section 201-1.1.2. of the Standard Specifications for Public Works Construction (Greenbook) 2012 Edition. Fiber reinforcement shall conform to Section 201-2.3 Type III of the Greenbook. Type 2 white pigmented curing compound shall conform to Section 201-4.1.1 of the Greenbook.

Concrete block masonry units (CMU) for the splash wall of the Storm Drain Structure shall be six-inch by eight-inch by eighteen-inch (6" x 8" x 18") CMU and shall conform to subsection 202-2.2 of the Greenbook. Reinforced concrete for the wall footing shall be Class 560-C-3250 in conformance with Section 201-1 of the Greenbook. Reinforcing steel (rebar for wall footing shall be grade 60 and shall conform to sub-section 201-2.2.1 of the Greenbook. Mortar, grout, and water used in construction of the CMU shall conform to subsection 202-2.1 and Section 202-3 of the Greenbook. Mortar shall attain a minimum compressive strength of 1,800 psi and grout shall attain a minimum compressive strength of 2,000 psi in 28 days when tested in accordance with ASTM C109.

6.3. EXECUTION

Contractor shall provide written documentation certified by the shotcrete supplier and acceptable to the County that aggregates and cement conform to Section 201-1.1.2. of the Greenbook, and fiber reinforcement conforms to Section 201-2.3 Type III of the Greenbook. Contractor shall prepare subgrade for air-placed concrete that shall be neatly trimmed to line and grade and shall be free of all loose material. Where the structures are in native cut, the upper six-inches (6") of subgrade shall be compacted to a minimum of 90% of the maximum density as determined per ASTM D1557. This shall be achieved by scarifying the exposed surface to a depth of six-inches (6") and re-compacting it. For areas requiring engineered fill, the finished subgrade shall be compacted to a minimum 90% of the maximum density as determined per ASTM D1557. Clearing, grubbing, and excavation for the structures shall comply with the provisions of Section 300-7 of the Greenbook.

Contractor shall notify County site personnel at least one day prior to delivery of shotcrete materials for each day of delivery. Contractor shall supply a copy of each and every shotcrete delivery ticket to the County. Delivery tickets shall be provided by the weigh master from the concrete plant indicating the net volume in cubic yards of shotcrete material and inclusion of fiber reinforcement additive.

Placement of shotcrete shall be performed in accordance with Section 302-2 – Method B (Shotcrete) of the Greenbook. Weakened plane joints for Drainage Structures shall be installed perpendicular to the water flow direction at ten foot intervals along the water flow direction and as directed by the County. Depth of joints shall be one-half inch.

Type 2 – white-pigmented curing compound shall be applied to all shotcrete structures in accordance with the requirements of Section 201-4.1.1. and 201-4.1.2. of the Greenbook.

Contractor shall install keyways at upstream and downstream limits of shotcrete drainage structures as directed by the County.

6.4. MEASUREMENT AND PAYMENT

The measurement of the final quantity for Bid Item No. 6 “Construct Drainage V-Ditch”, Bid Item No. 7 “Construct Drainage V-Ditch along Road”, and Bid Item No. 8 “Construct Drainage Trap Channel” shall be determined by the County based on field measurements of the axial length (linear feet) of the structures as shown on the Project Drawings; and shall be paid for (less retention) at the contract unit price per linear foot as stated in the Contractor’s Proposal, Bid Items No. 6 – No. 8. Payment shall constitute full compensation for all labor, material, equipment, and all other items necessary and incidental to completion of these items of work.

The Payment for Bid Item No. 9 “Construct Storm Drain Structure” shall be paid as a lump sum at the completion of the construction of the Storm Drain Structure. Payment shall constitute full compensation for all labor, material, equipment, and all other items necessary and incidental to completion of this item of work.

END OF SECTION

APPENDIX “A”

SCAQMD Form 403-N & Rule 1150 Excavation Permit Standard Conditions

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RULE 403 - LARGE OPERATION NOTIFICATION

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

21865 Copley Drive, Diamond Bar, CA 91765

Is this plan being submitted to comply with the requirements of a Notice to Comply or Notice of Violation? **YES/NO**

Notice Number _____ Please attach copy

Qualifying Criteria:

1. Does this operation contain more than 50 acres of disturbed surface area as of the date of submittal? **YES/NO**
Please indicate the size of the project _____.
2. Will the earth moving operation exceed a daily earth moving or throughput volume of 5,000 cubic yards three times during the most recent 365-day period from the date grading begins? **YES/NO**

Please Print or Type

Contractor/ Consultant/ Owner: (Circle one of the above)		Phone Number:	
Address:	City:	State:	Zip:
Project Name:			
Nature of Business: <input type="checkbox"/> Construction/Demolition <input type="checkbox"/> Sand & Gravel/Mining Operations <input type="checkbox"/> Cement Manufacturing			
Name of Responsible Person of Organization:			
Title:		Phone Number:	
Environmental Observer:		Phone Number:	
Date Attended Dust Class:		ID Number:	
Project Address: (Attach location map)	City:	State:	Zip:
Name of Property Owner: (If different than above)			
Anticipated Start Date:		Anticipated Completion Date:	
Telephone Number:			
Emergency Phone Number:			
In accordance with paragraph (e)(1) of Rule 403, I will ensure that the actions specified in Tables 2 and 3 will be implemented on-site for each applicable fugitive dust source type within the property lines and that records are maintained in accordance with Rule 403, subparagraph (e)(1)(c) . Further, I hereby certify that all information contained herein is true and correct.			
SIGNATURE OF RESPONSIBLE MEMBER OF ORGANIZATION	TITLE	DATE	

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SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

RULE 1150 EXCAVATION OF LANDFILL SITES PERMIT APPLICATION INSTRUCTIONS

GENERAL INFORMATION:

This document contains instructions for providing information necessary for the AQMD to process permit applications for Rule 1150 Excavation Permits.

One Application for Plans (Form 400-P) is generally required for each excavation project. If the project consists of treatment or processing of the excavated materials using equipment which requires a permit to construct/operate, a separate application (Form 400-A) should be filed for each equipment. Examples of these equipment include crushers, screens, mixers, conveyers, vapor extraction systems, incinerators, internal combustion engines (>50 HP), etc.

APPLICABILITY:

Except otherwise exempt by Rule 1150(c), a Rule 1150 Excavation Permit is required for all excavation activities involving a landfill. A landfill by definition of the Rule is a place, location, tract of land, area, or premises in use, or which has been used for the disposal of waste. In addition to excavations at a typical landfill being subject to this Rule, excavations of contaminated soil at any location will be subject to this Rule if the contamination occurred from the disposal of unwanted material at the site.

APPLICABLE RULES & REGULATIONS:

Reg III

Rule 306 Plan Fees, including filing fee per Rule 306(c) and initial payment of evaluation fees per Rule 306(h)(1).

Reg. IV

Rule 402 Nuisance
Rule 403 Fugitive Dust

Reg. XI

Rule 1150 Excavation of Landfill Sites
Rule 1166 VOC Emissions from Decontamination of Soil

(Copies of Rules & Regulations of AQMD can be obtained through our Public Information Center at (909) 396-3600, or at the AQMD internet home page, www.aqmd.gov.)

EMISSIONS:

ROG and particulate emissions are expected from the excavation activities. These emissions shall be mitigated using the measures identified in Item 10 under Requirements.

REQUIREMENTS:

An Excavation Management Plan must be submitted to and approved by the AQMD. The Plan shall include the following information:

1. Identification (including company name, address, contact person and phone number) of project owner, excavation contractor, on-site safety coordinator, and the firm or individuals preparing the excavation management plan.
2. A description of the background of the project site and the purpose of the excavation.
3. A contour map showing the location of the excavation site, the proposed excavation area, and the surrounding area up to 2,500 feet away from the perimeter of the proposed excavation area. The map should identify all land uses in the area and highlight areas of high population such as schools, hospitals, residential areas, restaurants, and shopping centers.
4. A list of materials buried or suspected materials buried in the site based on all available records.
5. Results of any boring tests done to characterize the disposal site including the identification of any EPA priority pollutants.
6. Results of landfill gas analyses or soil vapor phase analyses including the concentrations of methane, sulfur compounds, and any speciated non-methane hydrocarbons such as benzene and vinyl chloride, etc.
7. The total amount of material to be excavated and the landfill to which the excavated material will be hauled.
8. Scheduled excavation starting and completion dates, and number of working days required for the excavation.
9. A detailed description of how the excavation will be conducted including:
 - excavation equipment
 - surface area of excavation workface
 - surface area of refuse or contaminated soil to be exposed to the atmosphere at any one time
 - excavated material handling method
 - vehicles hauling the excavated material
 - a site layout showing the excavation area, vehicle route, equipment/vehicle cleaning area, etc.

10. A detailed description of the mitigation measures to be implemented during excavation and transportation to minimize potential emissions. The mitigation measures in general includes, but not be limited to:
 - limited excavation workface
 - minimized soil disturbance/transfer
 - minimized refuse/contaminated soil exposure
 - limited working hours
 - use of long duration foams, plastic sheeting, and/or clean dirt to cover refuse/contaminated soil during non-working hours and/or when excessive emissions are detected
 - water spraying
 - cleaning and covering of the trucks
 - good housekeeping
11. A detailed description of monitoring to be conducted during the excavation. This includes:
 - continuous monitoring for organic vapors with OVA's (FID, PID, etc.) at the work face and property line (or other downwind locations within the property line)
 - ambient air sampling for particulates, heavy metals, asbestos, and/or specific organic air toxics
 - monitoring for odors at and beyond the property line
 - monitoring for wind speed and direction
12. A contingency plan for actions to be taken when odors or elevated concentrations (specify the concentrations) of air emissions are detected, or when complaints are received from any public member.
13. A provision that the excavation activities will cease immediately when the operator is notified by a District staff that a public nuisance has occurred as required by Rule 1150 (b)(3).

RULE 1150 STANDARD CONDITIONS:

The following is a list of standard conditions that are used for Rule 1150 Permits. Conditions for an actual Permit may be a combination of the following conditions and specific restrictions applicable to the excavation under evaluation. However, all of the following conditions may not be appropriate for every excavation. The conditions for each Permit should be tailored to fit the needs of the individual excavation under review.

1. THIS EXCAVATION SHALL BE CONDUCTED IN COMPLIANCE WITH ALL PLANS AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
2. THE EXCAVATION SHALL BE COMPLETED BY _____, _____, OR WITHIN _____ CALENDAR DAYS AFTER THE EXCAVATION COMMENCES, WHICHEVER OCCURS FIRST, UNLESS AN EXTENSION IS OTHERWISE APPROVED IN WRITING BY THE SCAQMD. ANY EXTENSION REQUEST SHALL BE SUBMITTED IN WRITING TO THE SCAQMD AND SHALL INCLUDE THE REASONS THE EXTENSION IS REQUIRED, THE LENGTH OF THE EXTENSION, AND THE STATUS OF THE EXCAVATION TO DATE.

3. THE SCAQMD SHALL BE NOTIFIED IN WRITING AT LEAST TWO (2) DAYS PRIOR TO THE EXCAVATION COMMENCES AND WITHIN FIVE (5) DAYS AFTER IT IS COMPLETED.
4. THIS EXCAVATION PERMIT IS VALID ONLY FOR THE REMOVAL OF APPROXIMATELY _____ CUBIC YARDS OF (EXCAVATED MATERIAL AND REFUSE) (SOIL CONTAMINATED WITH _____).
5. EXCAVATION SHALL NOT BE CONDUCTED BETWEEN THE HOURS OF _____ AND _____ OR ON SATURDAYS, SUNDAYS AND LEGAL HOLIDAYS.
6. EXCAVATION SHALL NOT BE CONDUCTED ON DAYS WHEN THE SCAQMD FORECASTS FIRST, SECOND OR THIRD STAGE EPISODES FOR AREA NUMBER ___, OR WHEN THE SCAQMD REQUIRES COMPANIES IN AREA NUMBER ___ TO IMPLEMENT THEIR FIRST, SECOND OR THIRD STAGE EPISODE PLANS. EPISODE FORECASTS FOR THE FOLLOWING DAY CAN BE OBTAINED BY CALLING (800) 445-3826 OR (800) 242-4666.
7. EXCAVATION SHALL NOT BE CONDUCTED WHEN THE WIND SPEED IS GREATER THAN 15 M.P.H. (AVERAGED OVER 15 MINUTES) OR THE WIND SPEED INSTANTANEOUSLY EXCEEDS 25 M.P.H.

or

EXCAVATION SHALL NOT BE CONDUCTED WHEN THE WIND SPEED IS GREATER THAN ___ M.P.H. (AVERAGED OVER 15 CONSECUTIVE MINUTES) AND THE WIND DIRECTION IS FROM THE ARC DEFINED BY _____ THROUGH _____ TO _____.

8. DURING EXCAVATION, ALL WORKING AREAS, EXCAVATED MATERIAL AND UNPAVED ROADWAYS SHALL BE WATERED DOWN UNTIL THE SURFACE IS MOIST AND THEN MAINTAINED IN A MOIST CONDITION TO MINIMIZE DUST AND EMISSIONS.
9. WHEN LOADING IS COMPLETED AND DURING TRANSPORT, NO MATERIAL SHALL EXTEND ABOVE THE SIDES OR REAR OF THE TRUCK OR TRAILER WHICH WILL HAUL THE EXCAVATED MATERIAL.
10. (for inactive landfills)

EXCAVATED REFUSE SHALL NOT BE STOCKPILED ON-SITE. ALL EXCAVATED REFUSE SHALL BE DEPOSITED DIRECTLY INTO THE TRUCKS OR TRAILERS WHICH WILL HAUL IT. THE TRUCK BEDS OR TRAILERS SHALL BE COMPLETELY COVERED WITH AN IMPERMEABLE COVER, WITH SUCH COVERS TIED DOWN. ALL SEAMS SHALL BE SEALED TO PREVENT ANY MATERIALS FROM ESCAPING DURING TRANSPORT.

(for active landfills)

EXCAVATED REFUSE SHALL BE TRANSPORTED TO THE ACTIVE WORKING FACE OF THE LANDFILL WITHIN ONE HOUR OF GENERATION OR AS DEEMED NECESSARY BY THE SCAQMD PERSONNEL.

11. THE EXTERIOR OF TRUCKS OR CARS (INCLUDING THE TIRES) SHALL BE CLEANED OFF PRIOR TO LEAVING THE EXCAVATION SITE.
12. THE EXCAVATION WORK FACE EXPOSED TO THE ATMOSPHERE SHALL NOT EXCEED (____ SQUARE FEET)(____FT X ____FT).

or

THE EXCAVATION WORK FACE WHICH EXPOSES REFUSE OR OTHER EMISSION GENERATING MATERIALS TO THE ATMOSPHERE SHALL NOT EXCEED ____ SQUARE FEET.

13. ALL EXCAVATED REFUSE SHALL BE COVERED WITH EITHER A MINIMUM OF 6 INCHES OF CLEAN SOIL, APPROVED FOAM OR HEAVY-DUTY PLASTIC SHEETING WHENEVER THE EXCAVATION IS NOT ACTIVELY IN PROGRESS, AND AT THE END OF EACH WORKING DAY. FOAM BY ITSELF SHALL NOT BE USED AS A NIGHT COVER IF IT IS RAINING OR RAIN IS PREDICTED BY THE NATIONAL WEATHER SERVICE PRIOR TO THE NEXT SCHEDULED DAY OF EXCAVATION.
14. VOC CONTAMINATED SOIL (AS DEFINED BY RULE 1166) SHALL NOT BE SPREAD ONSITE OR OFFSITE IF IT RESULTS IN UNCONTROLLED EVAPORATION OF VOC TO THE ATMOSPHERE.
15. DURING EXCAVATION, IF A CONSIDERABLE NUMBER OF COMPLAINTS ARE RECEIVED, ALL WORK SHALL CEASE AND THE APPROVED MITIGATION MEASURES SHALL BE IMPLEMENTED IMMEDIATELY. OTHER MITIGATION MEASURES WHICH ARE DEEMED APPROPRIATE BY SCAQMD PERSONNEL TO ABATE A NUISANCE CONDITION SHALL BE IMPLEMENTED UPON REQUEST.
16. ALL EXCAVATED MATERIAL SHALL BE TRANSPORTED IN SUCH A MANNER AS TO PREVENT ANY EMISSIONS OF HAZARDOUS MATERIALS.
17. ALL HAZARDOUS MATERIALS SHALL BE TRANSPORTED IN CONTAINERS CLEARLY MARKED AS TO THE TYPES OF MATERIAL CONTAINED AND WHAT PROCEDURES SHOULD BE FOLLOWED IN CASE OF ACCIDENTAL SPILLS.
18. EXCAVATED LIQUID HAZARDOUS MATERIALS WITH THE POTENTIAL TO CAUSE AIR EMISSIONS SHALL BE ENCAPSULATED OR ENCLOSED IN CONTAINERS WITH SEALED LIDS BEFORE LOADING INTO THE TRANSPORT VEHICLES.
19. ALL MATERIALS THAT ARE LISTED AS HAZARDOUS BY A FEDERAL OR STATE AGENCY SHALL BE CONSIDERED "HAZARDOUS MATERIALS" FOR THE PURPOSE OF THIS PERMIT.

20. DURING EXCAVATION, MONITORING FOR THE FOLLOWING HAZARDOUS MATERIALS SHALL BE CONDUCTED IN A MANNER APPROVED BY THE SCAQMD. SAMPLES MUST BE ANALYZED AND RESULTS REPORTED TO THE SCAQMD WITHIN __ DAYS OF TAKING THE SAMPLE. OTHER HAZARDOUS MATERIALS MAY BE ADDED TO THIS LIST IF THEIR PRESENCE BECOMES KNOWN IN THE EXCAVATED MATERIALS:
- | | | | |
|----|------------------|----|-----------------------|
| A. | VINYL CHLORIDE | E. | HEAVY METALS-Pb,Cr,Hg |
| B. | HYDROGEN CYANIDE | F. | BENZENE |
| C. | DDT | G. | ETC. |
| D. | ASBESTOS | | |
21. DURING EXCAVATION, CONTINUOUS MONITORING AND RECORDING OF THE WIND SPEED AND DIRECTION SHALL BE CONDUCTED AT A SITE APPROVED BY THE SCAQMD.
22. DURING EXCAVATION, MONITORING FOR ORGANICS AS METHANE USING AN ORGANIC VAPOR ANALYZER (OVA) OR OTHER MONITOR APPROVED BY THE SCAQMD SHALL BE CONDUCTED CONTINUOUSLY AT THE WORKING FACE AND AT THE PROPERTY LINE (OR OTHER APPROVED LOCATIONS) DIRECTLY DOWNWIND OF THE EXCAVATION. THE MAXIMUM SUSTAINED READINGS SHALL BE RECORDED EVERY 15 MINUTES.
23. IF THE OVA OR OTHER APPROVED ORGANIC MONITOR SHOWS A SUSTAINED (GREATER THAN 15 SECONDS) READING OF 2,000 PPM OR GREATER AT THE WORKING FACE, THE EXCAVATION SHALL CEASE AND THE APPROVED MITIGATION MEASURES IMPLEMENTED IMMEDIATELY. EXCAVATION SHALL NOT RESUME UNTIL THE READINGS RETURN TO THE BACKGROUND LEVEL.
24. IF THE OVA OR OTHER APPROVED ORGANIC MONITOR SHOWS A SUSTAINED (GREATER THAN 15 SECONDS) READING OF 200 PPM OR GREATER DOWNWIND FROM THE SITE AT THE PROPERTY LINE (OR OTHER APPROVED LOCATIONS), THE EXCAVATION SHALL CEASE AND THE APPROVED MITIGATION MEASURES IMPLEMENTED IMMEDIATELY. EXCAVATION SHALL NOT RESUME UNTIL THE READINGS RETURN TO THE BACKGROUND LEVEL.
25. DURING EXCAVATION, HIGH VOLUME SAMPLING FOR SUSPENDED PARTICULATES SHALL BE CONDUCTED UPWIND AND DOWNWIND OF THE EXCAVATION SITE AT LOCATIONS APPROVED BY THE SCAQMD. SAMPLES SHALL BE TAKEN DURING THE FOLLOWING PERIODS:
- A. ACTIVE WORK PERIOD - FROM START OF EXCAVATION (time) UNTIL ACTIVITY IS CEASED FOR THE DAY, BUT NOT LESS THAN 5 HOURS OF SAMPLING TIME.
- B. INACTIVE WORK PERIOD - IMMEDIATELY FOLLOWING THE ACTIVE WORK PERIOD AND ENDING AT 6 A.M., AND A 24 HOUR SAMPLE FOR EACH NON-WORKING DAY.

26. ALL HIGH VOLUME SAMPLES TAKEN DURING ACTIVE WORK PERIODS SHALL BE ANALYZED FOR TOTAL SUSPENDED PARTICULATES AND (other contaminants). RESULTS OF THESE ANALYSES SHALL BE SUBMITTED TO THE SCAQMD WITHIN 5 DAYS OF SAMPLING. ADDITIONAL SAMPLING AND ANALYSES SHALL BE CONDUCTED UPON REQUEST BY THE SCAQMD.
27. IF ANY ANALYTICAL RESULTS SHOW THE UPWIND AND DOWNWIND DIFFERENTIAL CONCENTRATIONS OF CONTAMINANTS EXCEEDING THE FOLLOWING LIMITS, EXCAVATION ACTIVITIES SHALL CEASE UNTIL ADDITIONAL MITIGATION MEASURES ARE SUBMITTED TO AND APPROVED BY THE SCAQMD. THESE ADDITIONAL MITIGATION MEASURES SHALL BE IMPLEMENTED WHEN THE ACTIVITIES RESUME.

CONTAMINANT

CONDITION

PM10
contaminants

50 ug/m³
ug/m³

28. ALL SAMPLES TAKEN BY THE HIGH VOLUME SAMPLERS SHALL BE PROPERLY STORED FOR AT LEAST 10 DAYS AFTER THE EXCAVATION IS COMPLETED.
29. ALL MONITORS SHALL BE CALIBRATED DAILY USING A METHOD APPROVED BY THE SCAQMD.
30. IF A DISTINCT ODOR (LEVEL III OR GREATER) RESULTING FROM THE EXCAVATION IS DETECTED AT OR BEYOND THE PROPERTY LINE, THE EXCAVATION SHALL CEASE AND THE APPROVED MITIGATION MEASURES IMPLEMENTED IMMEDIATELY. ODOR LEVELS WILL BE DETERMINED BY SCAQMD PERSONNEL OR ON-SITE SAFETY COORDINATOR IN THE ABSENCE OF SCAQMD PERSONNEL.
31. ALL RECORDS OF EXCAVATION WORKING HOURS, ANALYTICAL RESULTS, DAILY AMOUNTS OF MATERIALS EXCAVATED AND HAULED OFFSITE, AND OTHER RECORDS REQUIRED BY THIS PERMIT SHALL BE KEPT ON FILE FOR AT LEAST TWO YEARS AND MADE AVAILABLE TO THE SCAQMD UPON REQUEST.
32. MITIGATION MEASURES, OTHER THAN THOSE INDICATED IN THESE CONDITIONS, WHICH ARE DEEMED APPROPRIATE BY SCAQMD PERSONNEL AS NECESSARY TO PROTECT THE COMFORT, REPOSE, HEALTH OR SAFETY OF THE PUBLIC, SHALL BE IMPLEMENTED UPON REQUEST.
33. THIS PERMIT OR A COPY OF THIS PERMIT SHALL BE PRESENT AT THE EXCAVATION SITE.

Other governmental agencies may require approval before any excavation begins. It shall be the responsibility of the applicant to obtain that approval. The South Coast Air Quality Management District shall not be responsible or liable for any losses because of measures required or taken pursuant to the requirements of this approved Excavation Management Plan.



South Coast Air Quality Management District
P. O. BOX 4944
Diamond Bar, CA 91765
(909) 396- 2000

APPLICATION FOR PLANS FORM 400 - P

Section I - Company Information

LEGAL NAME OF APPLICANT

☐ IRS OR ☐ S.S.NUMBER

PERMIT TO BE ISSUED TO (SEE INSTRUCTIONS)

BUSINESS MAILING ADDRESS

Section II - Facility Information

EQUIPMENT ADDRESS/LOCATION (ENTER VARIOUS LOCATIONS, IF APPLICABLE)

FACILITY NAME (N/A FOR VARIOUS LOCATIONS)

NUMBER/STREET

CA

FACILITY ID NUMBER

CITY OR COMMUNITY

ZIP CODE

NAME OF CONTACT PERSON

TITLE

CONTACT TELEPHONE NUMBER

() -

TYPE OF BUSINESS AT THIS FACILITY

BUSINESS TYPE CODE (SEE INSTRUCTIONS)

Section III - Equipment Information

APPLICATION HEREBY SUBMITTED FOR: Rule 1150 Excavation Plan

RULE NUMBER WHICH THIS APPLICATION APPLIES TO: Rule 1150

TYPE OF PLAN APPLICATION: ☐ Compliance Plan
☒ **Excavation Plan**
☐ Other

☐ Alternative Emission Control Plan (AECp)
☐ Extreme Performance Coating Classification

IF THIS APPLICATION IS ASSOCIATED WITH CERTAIN DISTRICT APPLICATION(S)/PERMIT(S), ENTER APPLICATION/PERMIT NUMBER(S):

FOR THIS PROJECT HAS A CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) DOCUMENT BEEN REQUIRED BY ANOTHER GOVERNMENTAL AGENCY?
☐ No ☐ Yes, IF YES, ENTER NAME OF AGENCY AND SUBMIT A COPY IF APPROVED.

DO YOU CLAIM CONFIDENTIALITY OF DATA? (SEE INSTRUCTIONS) ☐ Yes ☐ No

OPERATING SCHEDULE (N/A FOR VARIOUS LOCATIONS)

FOR AECp PLEASE FILL IN THE TABLE BELOW:

	HOURS/DAY	DAYS/WEEK	WEEKS/YEAR		LBS/YEAR	DAYS/YEAR
MAXIMUM				ACTUAL USAGE TWO YEARS AGO		
AVERAGE				ACTUAL USAGE LAST YEAR		
				PROPOSED AVERAGE USE		

Section IV - Signature

I HEREBY CERTIFY THAT ALL INFORMATION CONTAINED HEREIN AND INFORMATION SUBMITTED WITH THIS APPLICATION IS TRUE AND CORRECT.

SIGNATURE OF RESPONSIBLE OFFICIAL OF FIRM:

TITLE OF RESPONSIBLE OFFICIAL OF FIRM:

TYPE OR PRINT NAME OF RESPONSIBLE OFFICIAL OF FIRM:

RESPONSIBLE OFFICIAL'S TELEPHONE NUMBER

DATE SIGNED:

() -

/ /

I HEREBY CERTIFY THAT ALL INFORMATION CONTAINED HEREIN AND INFORMATION SUBMITTED WITH THIS APPLICATION IS TRUE AND CORRECT.

SIGNATURE OF PREPARER:

TITLE OF PREPARER:

TYPE OR PRINT NAME OF PREPARER:

PREPARER'S TELEPHONE NUMBER

DATE SIGNED:

() -

/ /

AQMD USE ONLY	APPLICATION/TRACKING #	PROJECT #	TYPE B C D	EQUIPMENT CATEGORY CODE: /	FEE SCHEDULE: \$	VALIDATION
	ENG. A R DATE	ENG. A R DATE	CLASS I III IV	ASSIGNMENT UNIT ENGINEER	ENF. SECT.	CHECK/MONEY ORDER AMOUNT # \$

FORM 400P APPLICATION INSTRUCTIONS

COMPANY INFORMATION

LEGAL NAME OF APPLICANT:

Please identify the legal entity that operates the equipment.

I.R.S. OR S.S. NO.:

This information is used for identification purposes. Please enter the Internal Revenue Service (I.R.S.) or Social Security (S.S.) number of the applicant and check the appropriate box.

PLAN TO BE ISSUED TO:

Special format is used to identify both the legal entity and the business name. Please pattern your entry after one of the following examples:

Personal Name:	John C. King
Personal Name with DBA:	ABC Store, John C. King DBA
Partnership:	John C. King, Jim Day, and Ann Smith
Partnership	ABC Store, J. King J. Day A. Smith DBA
Corporation	ABC Corporation
Corporation with Division:	ABC Corporation, Office Products Division
Corporation with DBA:	ABC Corporation, ABC Trucking Co. DBA
Governmental Agency:	Any City, Public Works Dept.
School:	John Muir High School
Colleges and Universities:	University of California, Los Angeles, Biochemistry Dept.

BUSINESS MAILING ADDRESS:

Please identify the address where all business correspondence is to be mailed.

FACILITY INFORMATION

FACILITY NAME:

For identification purposes, please enter the name of the subject facility if you have more than one facility.

FACILITY I.D. NO.:

If your facility has been issued an I.D. number by the District, please enter it in the space provided. Otherwise, leave this blank. An I.D. number will be assigned when the application is submitted.

EQUIPMENT/FACILITY LOCATION:

Please identify the address where the equipment or facility will be located. If no street address is available, please provide a location description and zip code. For equipment to be operated at *various locations*, state "various locations in SCAQMD" and the initial operating location.

TYPE OF BUSINESS:

This information is used by the District for planning and statistical purposes. Please state the type of business you conduct in this facility (e.g. refinery, paint manufacturing, dry cleaner, restaurant, etc.).

BUSINESS TYPE CODE AT THIS FACILITY:

This information is used by the District for planning and statistical purposes. Using the provided list of business codes, please enter the code which best describes your business activity at this facility.

CONTACT PERSON, TITLE, AND PHONE NUMBER:

Please identify the person name and title whom would be contacted regarding this application; also include the contact telephone number for this person.

EQUIPMENT INFORMATION

CALIFORNIA ENVIRONMENTAL QUALITY ACT:

A California Environmental Quality Act (CEQA) document (e.g., environmental impact report, negative declaration) is required for any project which results in significant effect on the environment. If such a document has been required by another governmental agency, please enter the name of that agency. A copy of this document is also required before the application can be deemed complete. Therefore, please submit a copy of the approved document.

CONFIDENTIALITY:

District records are subject to the California Public Records Act. To claim confidentiality of information submitted with this application, check "yes." Please be sure that all submitted information which you wish to be kept confidential is clearly marked as such. Please also state the reason(s) for claiming confidentiality. Examples of acceptable reasons are trade secrets and production data. Please note that state law prevents emissions data and permit documents from being kept secret.

SUPPLEMENTAL INFORMATION

In addition to this application form, please submit supporting documents containing information required by the specific rule under which the application is filed. For Rule 1146, please complete Form 1146ALT.

BUSINESS TYPE CODES

Standard Industrial Classification (SIC) Codes

A AGRICULTURE, FORESTRY, AND FISHING

0100 AGRICULTURAL PRODUCTION-CROPS
0200 AGRICULTURAL PRODUCTION-LIVESTOCK
0700 AGRICULTURAL SERVICES
0800 FORESTRY
0900 FISHING, HUNTING, AND TRAPPING
4300 U.S. POSTAL SERVICE
9900 NONCLASSIFIABLE ESTABLISHMENTS

B MINING

1000 METAL MINING
1010 Iron Ores
1020 Copper Ores
1030 Lead and Zinc Ores
1040 Gold and Silver Ores
1060 Ferroalloy Ores, Except Vanadium
1080 Metal Mining Services
1090 Miscellaneous Metal Ores
1200 COAL MINING
1220 Bituminous Coal and Lignite Mining
1230 Anthracite Mining
1240 Coal Mining Services
1300 OIL AND GAS EXTRACTION
1310 Crude Petroleum and Natural Gas
1320 Natural Gas Liquids
1380 Oil and Gas Field Services
1400 NONMETALLIC MINERALS, EXCEPT FUELS
1410 Dimension Stone
1420 Crushed and Broken Stone
1440 Sand and Gravel
1450 Clay, Ceramic, & Refractory Minerals
1470 Chemical and Fertilizer Minerals
1474 Potash, soda, and borate minerals
1475 Phosphate rock
1479 Chemical and fertilizer mining, nec
1480 Nonmetallic Minerals Services
1490 Miscellaneous Nonmetallic Minerals

C CONSTRUCTION

1500 GENERAL BUILDING CONTRACTORS
1520 Residential Building Construction
1530 Operative Builders
1540 Nonresidential Building Construction
1600 HEAVY CONSTRUCTION, EX. BUILDING
1610 Highway and Street Construction
1620 Heavy Construction, Except Highway
1700 SPECIAL TRADE CONTRACTORS
1710 Plumbing, Heating, air-conditioning
1720 Painting and Paper Hanging
1730 Electrical Work
1740 Masonry, Stonework, and Plastering
1750 Carpentry and Floor Work
1760 Roofing, Siding, and Sheet Metal Work
1770 Concrete Work
1780 Water Well Drilling
1790 Misc. Special Trade Contractors
1793 Glass and glazing work
1794 Excavation work
1795 Wrecking and demolition work
1799 Special trade contractors, nec

D MANUFACTURING

2000 FOOD AND KINDRED PRODUCTS
2010 Meat Products
2011 Meat packing plants
2013 Sausages and other prepared meats
2015 Poultry slaughtering and processing
2020 Dairy Products
2030 Preserved Fruits and Vegetables
2040 Grain Mill Products
2041 Flour and other grain mill products
2044 Rice milling
2045 Prepared flour mixes and dough's
2046 Wet corn milling
2047 Dog and cat food
2048 Prepared feeds, nec
2050 Bakery Products
2051 Bread, cake, and related products
2052 Cookies and crackers
2060 Sugar and Confectionery Products
2070 Fats and Oils
2080 Beverages
2084 Wines, brandy, and brandy spirits
2085 Distilled and blended liquors
2086 Bottled and canned soft drinks
2087 Flavoring extracts and syrups, nec
2090 Misc. Food and Kindred Products
2100 TOBACCO PRODUCTS
2200 TEXTILE MILL PRODUCTS
2210 Broadwoven Fabric Mills, Cotton
2220 Broadwoven Fabric Mills, Manmade
2230 Broadwoven Fabric Mills, Wool
2240 Narrow Fabric Mills
2250 Knitting Mills
2260 Textile Finishing, Except Wool
2270 Carpets and Rugs
2280 Yarn and Thread Mills
2290 Miscellaneous Textile Goods
2300 APPAREL AND OTHER TEXTILE PRODUCTS
2400 LUMBER AND WOOD PRODUCTS
2420 Sawmills and Planing Mills

2430 Millwork, Plywood & Structural Members
2434 Wood kitchen cabinets
2435 Hardwood veneer and plywood
2436 Softwood veneer and plywood
2439 Structural wood members, nec
2440 Wood Containers
2450 Wood Buildings and Mobile Homes
2490 Miscellaneous Wood Products
2500 FURNITURE AND FIXTURES
2510 Household Furniture
2520 Office Furniture
2521 Wood office furniture
2522 Office furniture, except wood
2530 Public Building & Related Furniture
2540 Partitions and Fixtures
2541 Wood partitions and fixtures
2542 Partitions and fixtures, except wood
2590 Miscellaneous Furniture and Fixtures
2600 PAPER AND ALLIED PRODUCTS
2610 Pulp Mills
2620 Paper Mills
2630 Paperboard Mills
2650 Paperboard Containers and Boxes
2670 Misc. Converted Paper Products
2700 PRINTING AND PUBLISHING
2710 Newspapers
2720 Periodicals
2730 Books
2731 Book publishing
2732 Book printing
2740 Miscellaneous Publishing
2750 Commercial Printing
2752 Commercial printing, lithographic
2754 Commercial printing, gravure
2759 Commercial printing, nec
2760 Manifold Business Forms
2770 Greeting Cards
2780 Blankbooks and Bookbinding
2790 Printing Trade Services
2800 CHEMICALS AND ALLIED PRODUCTS
2810 Industrial Inorganic Chemicals
2812 Alkalies and chlorine
2813 Industrial gases
2816 Inorganic pigments
2819 Industrial inorganic chemicals, nec
2820 Plastics Materials and Synthetics
2821 Plastics materials and resins
2822 Synthetic rubber
2823 Cellulosic manmade fibers
2824 Organic fibers, noncellulosic
2830 Drugs
2833 Medicinals and botanicals
2834 Pharmaceutical preparations
2835 Diagnostic substances
2836 Biological products exc. diagnostic
2840 Soap, Cleaners, and Toilet Goods
2841 Soap and other detergents
2842 Polishes and sanitation goods
2843 Surface active agents
2844 Toilet preparations
2850 Paints and Allied Products
2860 Industrial Organic Chemicals
2861 Gum and wood chemicals
2865 Cyclic crudes and intermediates
2869 Industrial organic chemicals, nec
2870 Agricultural Chemicals
2890 Miscellaneous Chemical Products
2891 Adhesives and sealants
2892 Explosives
2893 Printing ink
2895 Carbon black
2899 Chemical preparations, nec
2900 PETROLEUM AND COAL PRODUCTS
2910 Petroleum Refining
2950 Asphalt Paving and Roofing Materials
2951 Asphalt paving mixtures and blocks
2952 Asphalt felts and coatings
2990 Misc. Petroleum and Coal Products
2992 Lubricating oils and greases
2999 Petroleum and coal products, nec
3000 RUBBER AND MISC. PLASTICS PRODUCTS
3010 Tires and Inner Tubes
3020 Rubber and Plastics Footwear
3050 Hose & Belting & Gaskets & Packing
3052 Rubber & plastics hose & belting
3053 Gaskets, packing and sealing devices
3060 Fabricated Rubber Products, NEC
3061 Mechanical rubber goods
3069 Fabricated rubber products, nec
3080 Miscellaneous Plastics Products, NEC
3081 Unsupported plastics film & sheet
3082 Unsupported plastics profile shapes
3083 Laminated plastics plate & sheet
3084 Plastics pipe
3085 Plastics bottles
3086 Plastics foam products
3087 Custom compound purchased resins
3088 Plastics plumbing fixtures
3089 Plastics products, nec
3200 STONE, CLAY, AND GLASS PRODUCTS
3210 Flat Glass
3220 Glass and Glassware, Pressed or Blown
3221 Glass containers

3229 Pressed and blown glass, nec
3230 Products of Purchased Glass
3240 Cement, Hydraulic
3250 Structural Clay Products
3251 Brick and structural clay tile
3253 Ceramic wall and floor tile
3255 Clay refractories
3259 Structural clay products, nec
3260 Pottery and Related Products
3261 Vitreous plumbing fixtures
3262 Vitreous china table & kitchenware
3263 Semivitreous table & kitchenware
3264 Porcelain electrical supplies
3269 Pottery products, nec
3270 Concrete, Gypsum, and Plaster Products
3271 Concrete block and brick
3272 Concrete products, nec
3273 Ready-mixed concrete
3274 Lime
3275 Gypsum products
3280 Cut Stone and Stone Products
3290 Misc. Nonmetallic Mineral Products
3291 Abrasive products
3292 Asbestos products
3295 Minerals, ground or treated
3296 Mineral wool
3297 Nonclay refractories
3299 Nonmetallic mineral products, nec
3300 PRIMARY METAL INDUSTRIES
3310 Blast Furnace and Basic Steel Products
3312 Blast furnaces and steel mills
3313 Electrometallurgical products
3315 Steel wire and related products
3316 Cold finishing of steel shapes
3317 Steel pipe and tubes
3320 Iron and Steel Foundries
3321 Gray and ductile iron foundries
3322 Malleable iron foundries
3324 Steel investment foundries
3325 Steel foundries, nec
3330 Primary Nonferrous Metals
3331 Primary copper
3334 Primary aluminum
3339 Primary nonferrous metals, nec
3340 Secondary Nonferrous Metals
3350 Nonferrous Rolling and Drawing
3351 Copper rolling and drawing
3353 Aluminum sheet, plate, and foil
3354 Aluminum extruded products
3355 Aluminum rolling and drawing, nec
3356 Nonferrous rolling and drawing, nec
3357 Nonferrous wiredrawing & insulating
3360 Nonferrous Foundries (Castings)
3363 Aluminum die-castings
3364 Nonferrous die-casting exc. aluminum
3365 Aluminum foundries
3366 Copper foundries
3369 Nonferrous foundries, nec
3390 Miscellaneous Primary Metal Products
3398 Metal heat treating
3399 Primary metal products, nec
3400 FABRICATED METAL PRODUCTS
3410 Metal Cans and Shipping Containers
3411 Metal cans
3412 Metal barrels, drums, and pails
3420 Cutlery, Handtools, and Hardware
3430 Plumbing and Heating, Except Electric
3440 Fabricated Structural Metal Products
3441 Fabricated structural metal
3442 Metal doors, sash, and trim
3443 Fabricated plate work (boiler shops)
3444 Sheet metalwork
3446 Architectural metal work
3448 Prefabricated metal buildings
3449 Miscellaneous metal work
3450 Screw Machine Products, Bolts, Etc.
3460 Metal Forgings and Stampings
3462 Iron and steel forgings
3463 Nonferrous forgings
3465 Automotive stampings
3466 Crowns and closures
3469 Metal stampings, nec
3470 Metal Services, NEC
3471 Plating and polishing
3479 Metal coating and allied services
3480 Ordnance and Accessories, NEC
3482 Small arms ammunition
3483 Ammunition, exc. for small arms, nec
3484 Small arms
3489 Ordnance and accessories, nec
3490 Misc. Fabricated Metal Products
3491 Industrial valves
3492 Fluid power valves & hose fittings
3493 Steel springs, except wire
3494 Valves and pipe fittings, nec
3495 Wire springs
3496 Misc. fabricated wire products
3497 Metal foil and leaf
3498 Fabricated pipe and fittings
3499 Fabricated metal products, nec
3500 INDUSTRIAL MACHINERY AND EQUIPMENT
3510 Engines and Turbines
3520 Farm and Garden Machinery

BUSINESS TYPE CODES
Standard Industrial Classification (SIC) Codes

3530	Construction and Related Machinery	4800	COMMUNICATION	6700	HOLDING AND OTHER INVESTMENT OFFICES
3531	Construction machinery	4810	Telephone Communication		OFFICES
3532	Mining machinery	4820	Telegraph & Other Communications	7000	HOTELS AND OTHER LODGING PLACES
3533	Oil and gas field machinery	4830	Radio and Television Broadcasting	7600	MISCELLANEOUS REPAIR SERVICES
3534	Elevators and moving stairways	4840	Cable and Other Pay TV Services	7800	MOTION PICTURES
3535	Conveyors and conveying equipment	4890	Communication Services, NEC	7819	Services allied to motion pictures
3536	Hoists, cranes, and monorails	4900	ELECTRIC, GAS, AND SANITARY SERVICES	7900	AMUSEMENT & RECREATION SERVICES
3537	Industrial trucks and tractors	4910	Electric Services	8100	LEGAL SERVICES
3540	Metalworking Machinery	4920	Gas Production and Distribution	8300	SOCIAL SERVICES
3541	Machine tools, metal cutting types	4922	Natural gas transmission	8400	MUSEUMS, BOTANICAL, ZOOLOGICAL
3542	Machine tools, metal forming types	4923	Gas transmission and distribution		GARDENS
3543	Industrial patterns	4924	Natural gas distribution	8600	MEMBERSHIP ORGANIZATIONS
3544	Special dies, tools, jigs & fixtures	4925	Gas production and/or distribution	8700	ENGINEERING & MANAGEMENT SERVICES
3545	Machine tool accessories	4930	Combination Utility Services		
3546	Power-driven handtools	4931	Electric and other services combined	I	SERVICES
3547	Rolling mill machinery	4932	Gas and other services combined	7200	PERSONAL SERVICES
3548	Welding apparatus	4939	Combination utilities, nec	7210	Laundry, Cleaning, & Garment Services
3549	Metalworking machinery, nec	4940	Water Supply	7211	Power laundries, family & commercial
3550	Special Industry Machinery	4950	Sanitary Services	7212	Garment pressing & cleaners' agents
3560	General Industrial Machinery	4952	Sewerage systems	7213	Linen supply
3561	Pumps and pumping equipment	4953	Refuse systems	7215	Coin-operated laundries and cleaning
3562	Ball and roller bearings	4959	Sanitary services, nec	7216	Drycleaning plants, except rug
3563	Air and gas compressors	4960	Steam and Air-Conditioning Supply	7217	Carpet and upholstery cleaning
3564	Blowers and fans	4970	Irrigation Systems	7218	Industrial launderers
3565	Packaging machinery			7219	Laundry and garment services, nec
3566	Speed changers, drives, and gears	F	WHOLESALE TRADE	7230	Beauty Shops
3567	Industrial furnaces and ovens	5000	WHOLESALE TRADE-DURABLE GOODS	7240	Barber Shops
3568	Power transmission equipment, nec	5010	Motor Vehicles, Parts, and Supplies	7250	Shoe Repair and Shoeshine Parlors
3569	General industrial machinery, nec	5020	Furniture and Homefurnishings	7260	Funeral Service and Crematories
3570	Computer and Office Equipment	5030	Lumber and Construction Materials	7290	Miscellaneous Personal Services
3580	Refrigeration and Service Machinery	5040	Professional & Commercial Equipment	7299	Miscellaneous personal services, nec
3590	Industrial Machinery, NEC	5050	Metals and Minerals, Except Petroleum	7300	BUSINESS SERVICES
3600	ELECTRONIC & OTHER ELECTRIC EQUIPMENT	5060	Electrical Goods	7310	Advertising
3610	Electric Distribution Equipment	5070	Hardware, Plumbing & Heating Equipment	7320	Credit Reporting and Collection
3620	Electrical Industrial Apparatus	5080	Machinery, Equipment, and Supplies	7330	Mailing, Reproduction, Stenographic
3630	Household Appliances	5090	Miscellaneous Durable Goods	7334	Photocopying & duplicating services
3640	Electric Lighting and Wiring Equipment	5093	Scrap and waste materials	7336	Commercial art and graphic design
3650	Household Audio and Video Equipment	5100	WHOLESALE TRADE-NONDURABLE GOODS	7340	Services to Buildings
3660	Communications Equipment	5110	Paper and Paper Products	7342	Disinfecting & pest control services
3661	Telephone and telegraph apparatus	5120	Drugs, Proprietarys, and Sundries	7349	Building maintenance services, nec
3663	Radio & TV communications equipment	5130	Apparel, Piece Goods, and Notions	7350	Misc. Equipment Rental & Leasing
3669	Communications equipment, nec	5140	Groceries and Related Products	7352	Medical equipment rental
3670	Electronic Components and Accessories	5150	Farm-Product Raw Materials	7353	Heavy construction equipment rental
3690	Misc. Electrical Equipment & Supplies	5160	Chemicals and Allied Products	7359	Equipment rental & leasing, nec
3700	TRANSPORTATION EQUIPMENT	5170	Petroleum and Petroleum Products	7360	Personnel Supply Services
3710	Motor Vehicles and Equipment	5171	Petroleum bulk stations & terminals	7380	Miscellaneous Business Services
3711	Motor vehicles and car bodies	5172	Petroleum products, nec	7384	Photofinishing laboratories
3713	Truck and bus bodies	5180	Beer, Wine, and Distilled Beverages	7500	AUTO REPAIR, SERVICES, AND PARKING
3714	Motor vehicle parts and accessories	5190	Misc. Nondurable Goods	7510	Automotive Rentals, No Drivers
3715	Truck trailers	G	RETAIL TRADE	7513	Truck rental and leasing, no drivers
3716	Motor homes	5200	BUILDING MATERIALS & GARDEN SUPPLIES	7514	Passenger car rental
3720	Aircraft and Parts	5300	GENERAL MERCHANDISE STORES	7515	Passenger car leasing
3730	Ship and Boat Building and Repairing	5400	FOOD STORES	7519	Utility trailer rental
3740	Railroad Equipment	5450	Dairy Products Stores	7520	Automobile Parking
3750	Motorcycles, Bicycles, and Parts	5460	Retail Bakeries	7530	Automotive Repair Shops
3760	Guided Missiles, Space Vehicles, Parts	5490	Miscellaneous Food Stores	7532	Top & body repair & paint shops
3790	Miscellaneous Transportation Equipment	5500	AUTOMOTIVE DEALERS & SERVICE STATIONS	7533	Auto exhaust system repair shops
3800	INSTRUMENTS AND RELATED PRODUCTS			7534	Tire retreading and repair shops
3810	Search and Navigation Equipment	5510	New and Used Car Dealers	7536	Automotive glass replacement shops
3820	Measuring and Controlling Devices	5520	Used Car Dealers	7537	Automotive transmission repair shops
3840	Medical Instruments and Supplies	5530	Auto and Home Supply Stores	7538	General automotive repair shops
3850	Ophthalmic Goods	5540	Gasoline Service Stations	7539	Automotive repair shops, nec
3860	Photographic Equipment and Supplies	5550	Boat Dealers	7540	Automotive Services, Except Repair
3870	Watches, Clocks, Watchcases & Parts	5560	Recreational Vehicle Dealers	7542	Carwashes
3900	MISCELLANEOUS MANUFACTURING INDUSTRIES	5570	Motorcycle Dealers	7549	Automotive services, nec
		5590	Automotive Dealers, NEC	8000	HEALTH SERVICES
3100	LEATHER AND LEATHER PRODUCTS	5600	APPAREL AND ACCESSORY STORES	8060	Hospitals
3910	Jewelry, Silverware, and Plated Ware	5700	FURNITURE AND HOMEFURNISHINGS STORES	8070	Medical and Dental Laboratories
3930	Musical Instruments			8080	Home Health Care Services
3940	Toys and Sporting Goods	5800	EATING AND DRINKING PLACES	8090	Health and Allied Services, NEC
3950	Pens, Pencils, Office, & Art Supplies	5900	MISCELLANEOUS RETAIL	8200	EDUCATIONAL SERVICES
3960	Costume Jewelry and Notions	5910	Drug Stores and Proprietary Stores	8210	Elementary and Secondary Schools
3990	Miscellaneous Manufactures	5920	Liquor Stores	8220	Colleges and Universities
		5930	Used Merchandise Stores	8230	Libraries
E	TRANSPORTATION AND PUBLIC UTILITIES	5940	Miscellaneous Shopping Goods Stores	8240	Vocational Schools
		5960	Nonstore Retailers	8290	Schools & Educational Services, NEC
4000	RAILROAD TRANSPORTATION	5980	Fuel Dealers	J	PUBLIC ADMINISTRATION
4010	Railroads	5983	Fuel oil dealers	9100	EXECUTIVE, LEGISLATIVE, AND GENERAL
4100	LOCAL AND INTERURBAN PASSENGER TRANSIT	5984	Liquefied petroleum gas dealers	9200	JUSTICE, PUBLIC ORDER, AND SAFETY
		5989	Fuel dealers, nec	9220	Public Order and Safety
4200	TRUCKING AND WAREHOUSING	5990	Retail Stores, NEC	9221	Police protection
4400	WATER TRANSPORTATION	6000	DEPOSITORY INSTITUTIONS	9223	Correctional institutions
4410	Deep Sea Foreign Trans. of Freight	6300	INSURANCE CARRIERS	9224	Fire protection
4420	Deep Sea Domestic Trans. of Freight	6400	REAL ESTATE	9300	FINANCE, TAXATION, & MONETARY POLICY
4430	Freight Trans. on the Great Lakes			9400	ADMINISTRATION OF HUMAN RESOURCES
4440	Water Transportation of Freight, NEC	H	FINANCE, INSURANCE, AND REAL ESTATE	9500	ENVIRONMENTAL QUALITY AND HOUSING
4480	Water Transportation of Passengers			9510	Environmental Quality
4490	Water Transportation Services	4700	TRANSPORTATION SERVICES	9530	Housing and Urban Development
4500	TRANSPORTATION BY AIR	4720	Passenger Transportation Arrangement	9600	ADMINISTRATION OF ECONOMIC PROGRAMS
4510	Air Transportation, Scheduled	4730	Freight Transportation Arrangement		
4520	Air Transportation, Nonscheduled	4740	Rental of Railroad Cars	9621	Administration of Transportation
4580	Airports, Flying Fields, & Services	4780	Miscellaneous Transportation Services	9660	Space Research and Technology
4600	PIPELINES, EXCEPT NATURAL GAS	6100	NONDEPOSITORY INSTITUTIONS	9700	NATIONAL SECURITY AND INTL. AFFAIRS
4610	Pipelines, Except Natural Gas	6200	SECURITY AND COMMODITY BROKERS		
4612	Crude petroleum pipelines	6400	INSURANCE AGENTS, BROKERS, & SERVICE	K	NONCLASSIFIABLE ESTABLISHMENTS
4613	Refined petroleum pipelines				
4619	Pipelines, nec				

Ref.: Standard Industrial Classification Manual, Executive Office of the President, Office of Management and Budget, 1987, p. 423443.

Note: NEC - Not Elsewhere Classified

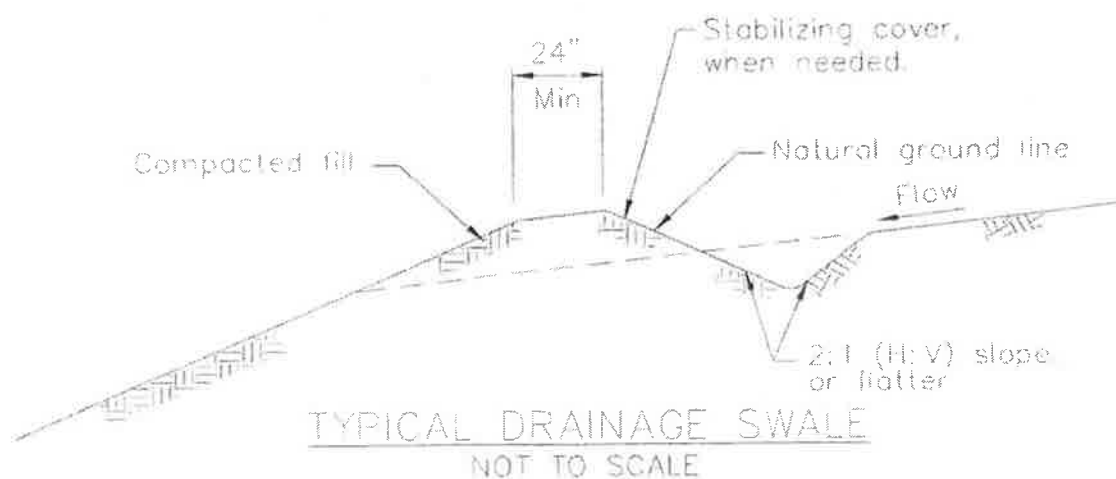
MISC - Miscellaneous

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APPENDIX “B”

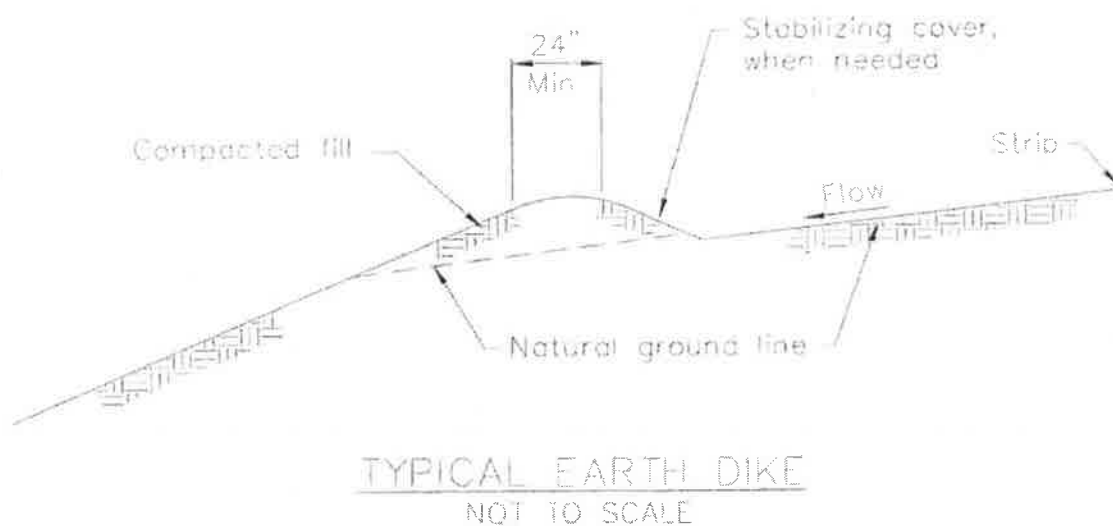
BMP Installation Details from the CASQA Stormwater BMP Handbook

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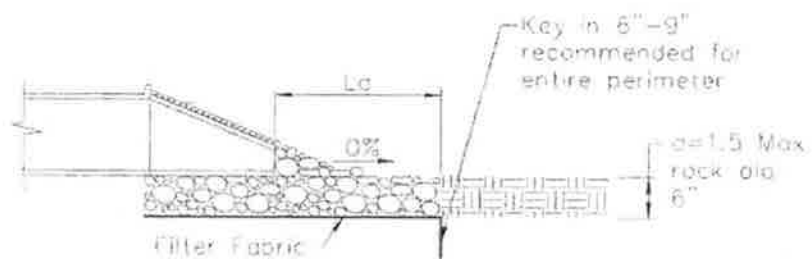
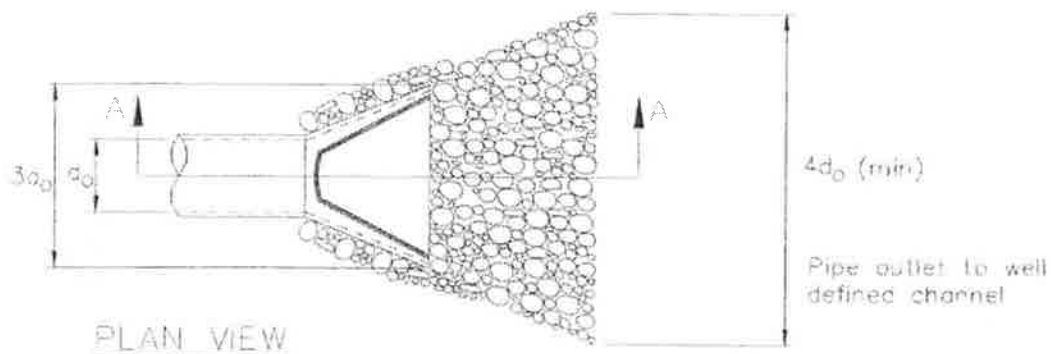


NOTES:

1. Stabilize inlet, outlets and slopes.
2. Properly compact the subgrade.



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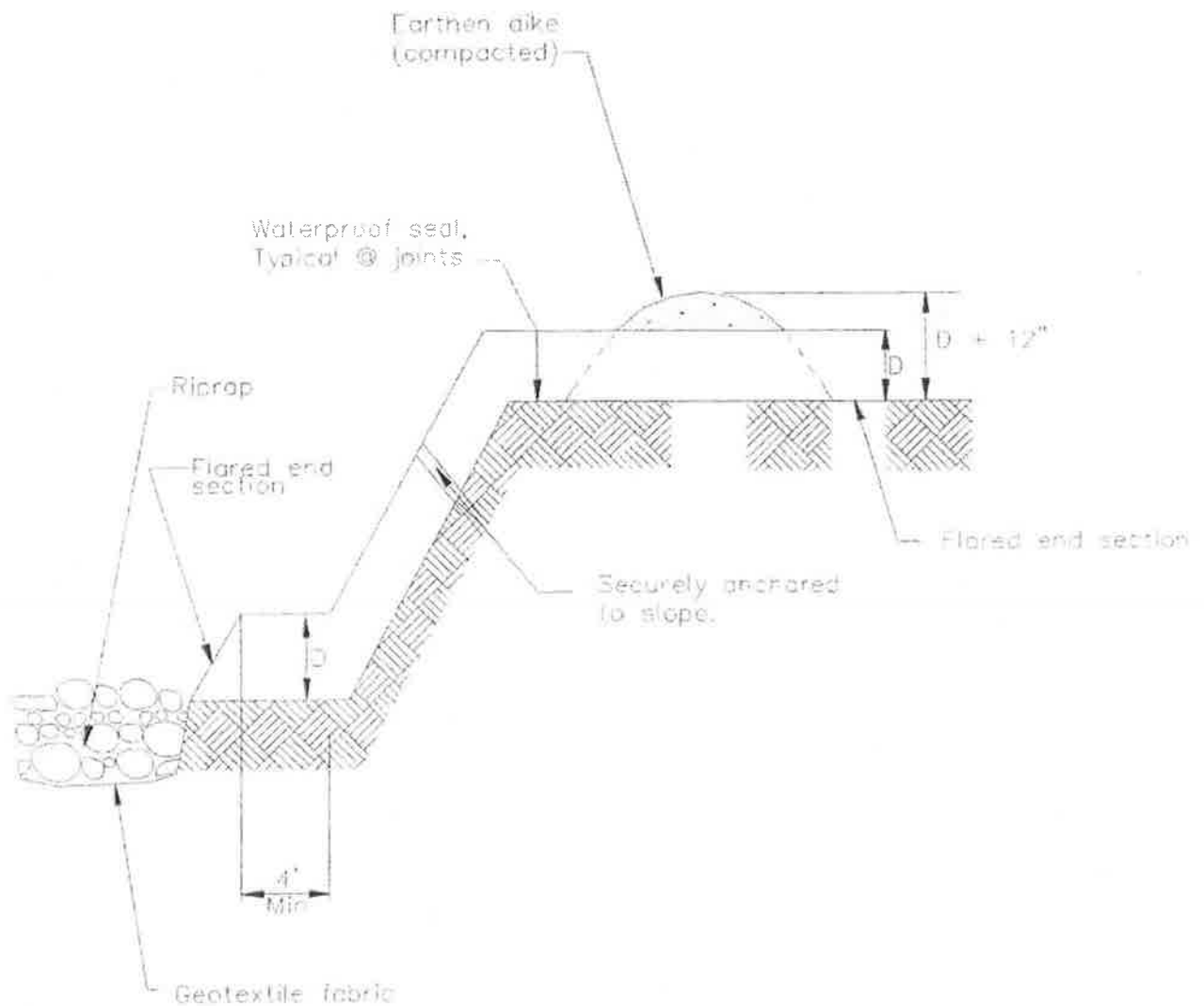


SECTION A-A

Pipe Diameter inches	Discharge ft ³ /s	Apron Length, La ft	Rip Rap D ₅₀ Diameter Min inches
12	5	10	4
	10	13	6
18	10	10	6
	20	16	8
	30	23	12
	40	26	16
24	30	16	8
	40	26	8
	50	26	12
	60	30	16

For larger or higher flows consult a Registered Civil Engineer
Source: USDA - SCS

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TYPICAL SLOPE DRAIN
NOT TO SCALE

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Description

Drain inserts are manufactured filters or fabric placed in a drop inlet to remove sediment and debris. There are a multitude of inserts of various shapes and configurations, typically falling into one of three different groups: socks, boxes, and trays. The sock consists of a fabric, usually constructed of polypropylene. The fabric may be attached to a frame or the grate of the inlet holds the sock. Socks are meant for vertical (drop) inlets. Boxes are constructed of plastic or wire mesh. Typically a polypropylene "bag" is placed in the wire mesh box. The bag takes the form of the box. Most box products are one box; that is, the setting area and filtration through media occur in the same box. Some products consist of one or more trays or mesh grates. The trays may hold different types of media. Filtration media vary by manufacturer. Types include polypropylene, porous polymer, treated cellulose, and activated carbon.

California Experience

The number of installations is unknown but likely exceeds a thousand. Some users have reported that these systems require considerable maintenance to prevent plugging and bypass.

Advantages

- Does not require additional space as inserts as the drain inlets are already a component of the standard drainage systems.
- Easy access for inspection and maintenance.
- As there is no standing water, there is little concern for mosquito breeding.
- A relatively inexpensive retrofit option.

Limitations

Performance is likely significantly less than treatment systems that are located at the end of the drainage system such as ponds and vaults. Usually not suitable for large areas or areas with trash or leaves than can plug the insert.

Design and Sizing Guidelines

Refer to manufacturer's guidelines. Drain inserts come in many configurations but can be placed into three general groups: socks, boxes, and trays. The sock consists of a fabric, usually constructed of polypropylene. The fabric may be attached to a frame or the grate of the inlet holds the sock. Socks are meant for vertical (drop) inlets. Boxes are constructed of plastic or wire mesh. Typically a polypropylene "bag" is placed in the wire mesh box. The bag takes the form of the box. Most box products are

Design Considerations

- Use with other BMPs
- Fit and Seal Capacity within Inlet

Targeted Constituents

- ✓ Sediment
- ✓ Nutrients
- ✓ Trash
- ✓ Metals
- ✓ Bacteria
- ✓ Oil and Grease
- ✓ Organics

Removal Effectiveness

See New Development and Redevelopment Handbook-Section 5.



one box; that is, the setting area and filtration through media occurs in the same box. One manufacturer has a double-box. Stormwater enters the first box where setting occurs. The stormwater flows into the second box where the filter media is located. Some products consist of one or more trays or mesh grates. The trays can hold different types of media. Filtration media vary with the manufacturer: types include polypropylene, porous polymer, treated cellulose, and activated carbon.

Construction/Inspection Considerations

Be certain that installation is done in a manner that makes certain that the stormwater enters the unit and does not leak around the perimeter. Leakage between the frame of the insert and the frame of the drain inlet can easily occur with vertical (drop) inlets.

Performance

Few products have performance data collected under field conditions.

Siting Criteria

It is recommended that inserts be used only for retrofit situations or as pretreatment where other treatment BMPs presented in this section area used.

Additional Design Guidelines

Follow guidelines provided by individual manufacturers.

Maintenance

Likely require frequent maintenance, on the order of several times per year.

Cost

- The initial cost of individual inserts ranges from less than \$100 to about \$2,000. The cost of using multiple units in curb inlet drains varies with the size of the inlet.
- The low cost of inserts may tend to favor the use of these systems over other, more effective treatment BMPs. However, the low cost of each unit may be offset by the number of units that are required, more frequent maintenance, and the shorter structural life (and therefore replacement).

References and Sources of Additional Information

Hrachovec, R., and G. Minton, 2001, Field testing of a sock-type catch basin insert, Planet CPR, Seattle, Washington

Interagency Catch Basin Insert Committee, Evaluation of Commercially-Available Catch Basin Inserts for the Treatment of Stormwater Runoff from Developed Sites, 1995

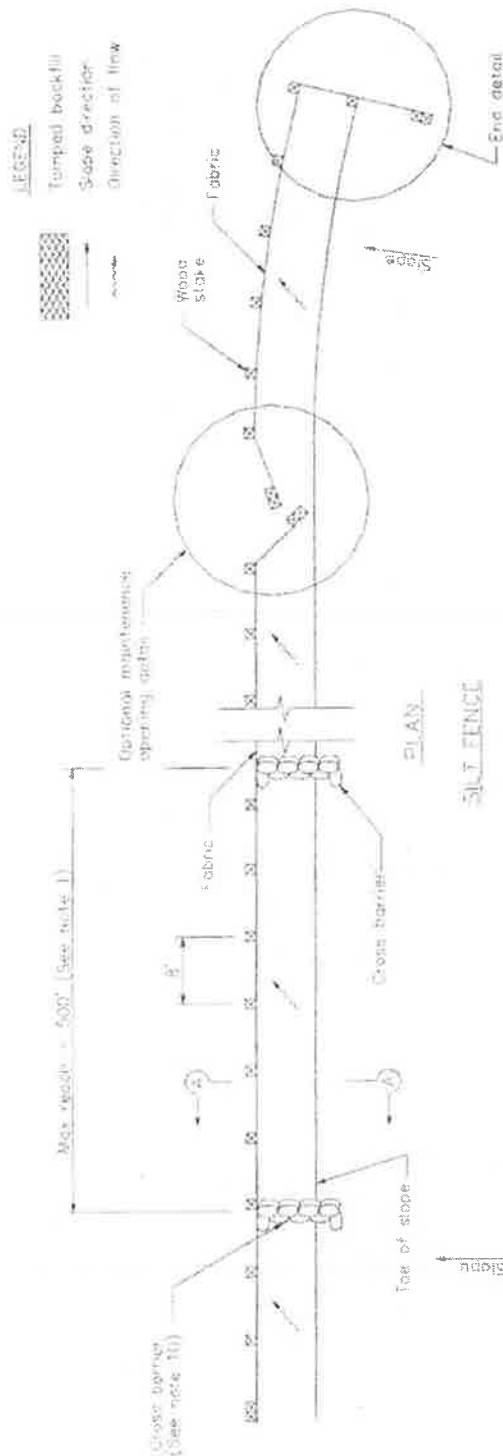
Larry Walker Associates, June 1998, NDMP Inlet/In-Line Control Measure Study Report

Manufacturers literature

Santa Monica (City), Santa Monica Bay Municipal Stormwater/Urban Runoff Project - Evaluation of Potential Catch basin Retrofits, Woodward Clyde, September 24, 1998

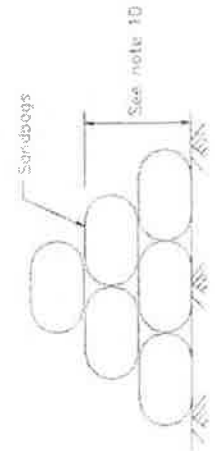
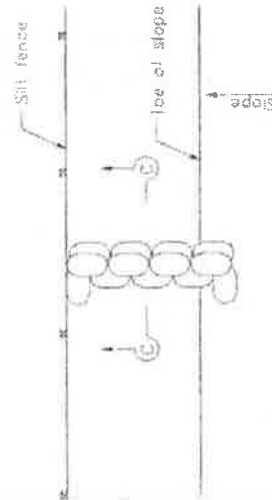
Woodward Clyde, June 11, 1996, Parking Lot Monitoring Report, Santa Clara Valley Nonpoint Source Pollution Control Program.

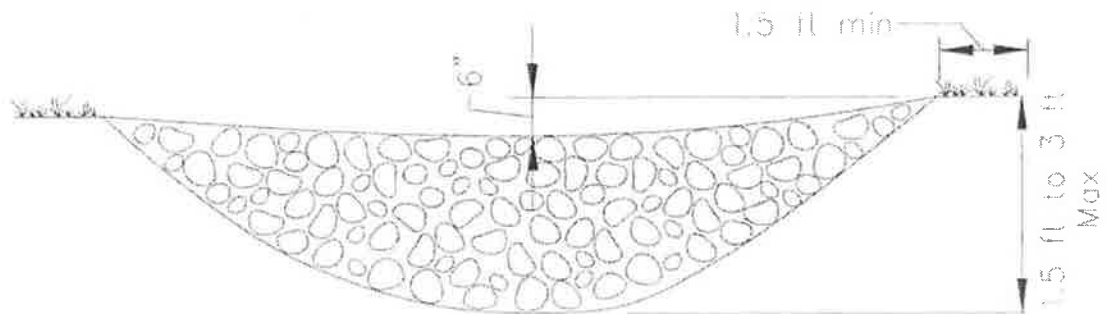
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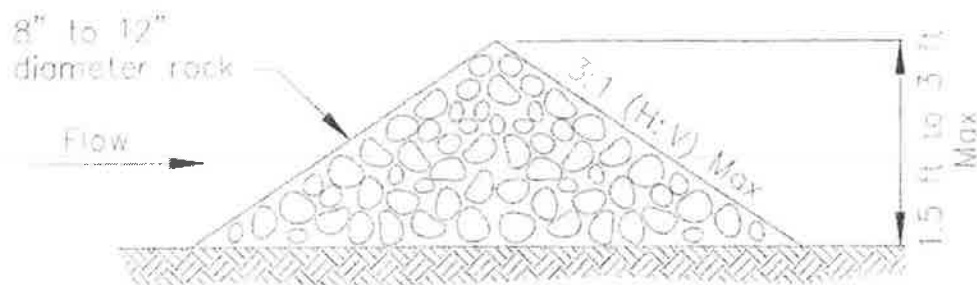
NOTES

- Construct the length of each reach so that the change in base elevation along the reach does not exceed 1/3 the height of the linear barrier, in no case shall the reach length exceed 500.
- The last 8'-0" of fence shall be turned up slope.
- Stake dimensions are nominal.
- Dimension may vary to fit field condition.
- Stakes shall be spaced at 8'-0" maximum and shall be positioned on downstream side of fence.
- Stakes to overlap and fence fabric to fold around each stake one full turn. Secure fabric to stake with 4 staples.
- Stakes shall be driven tightly together to prevent potential flow-through of sediment at joint. The tops of the stakes shall be secured with wire.
- For end stake, fence fabric shall be folded around two stakes one full turn and secured with 4 staples.
- Minimum 4 staples per stake. Dimensions shown are typical.
- Cross barriers shall be a minimum of 1/3 and a maximum of 1/2 the height of the linear barrier.
- Maintenance openings shall be constructed in a manner to ensure sediment remains behind silt fence.
- Joining sections shall not be placed of seam locations.
- Sandbag rows and layers shall be offset to eliminate gaps.



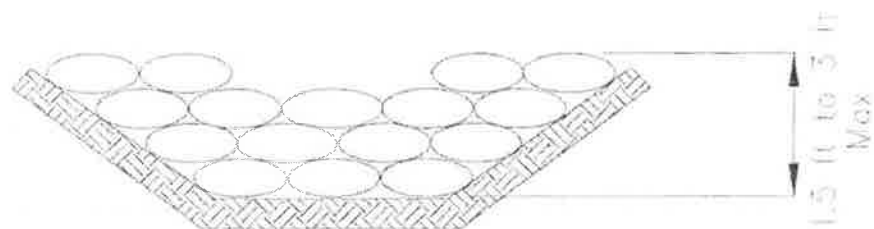


ELEVATION



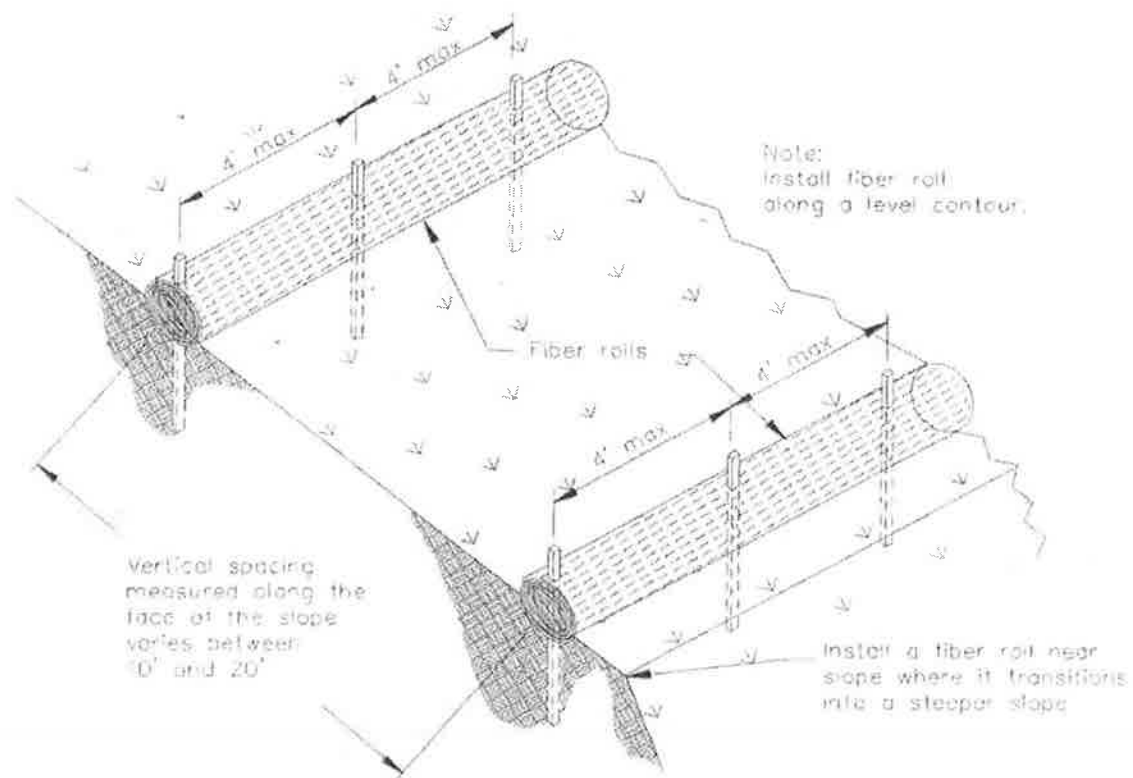
TYPICAL ROCK CHECK DAM SECTION

ROCK CHECK DAM
NOT TO SCALE



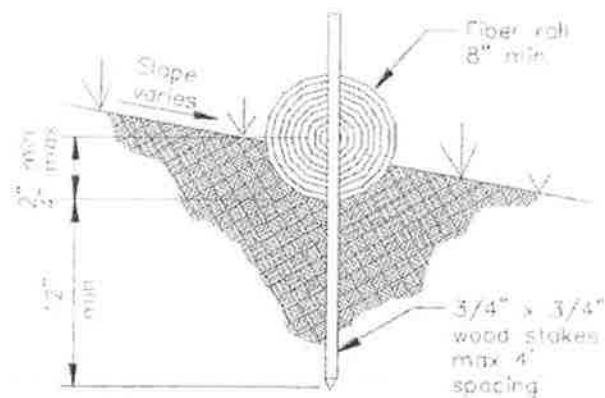
GRAVEL BAG CHECK DAM ELEVATION
NOT TO SCALE

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TYPICAL FIBER ROLL INSTALLATION

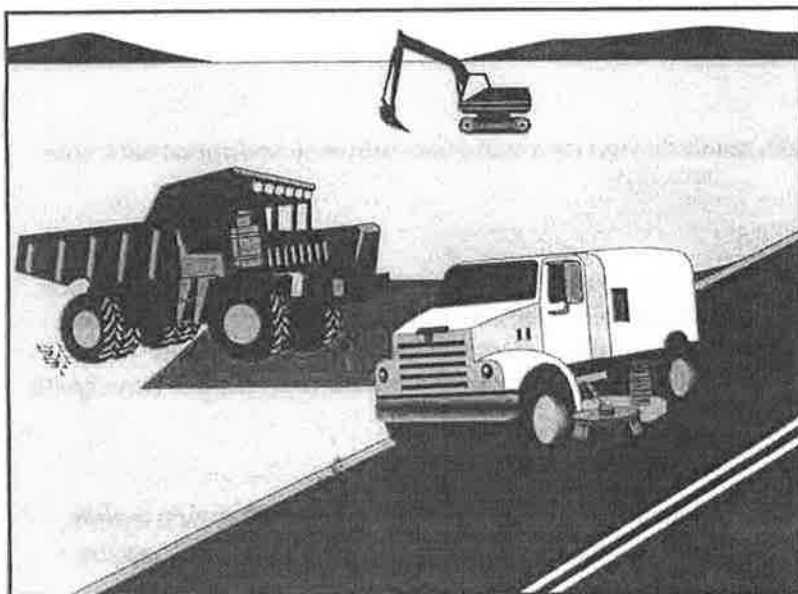
N.T.S.



ENTRENCHMENT DETAIL

N.T.S.

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Description and Purpose

Street sweeping and vacuuming includes use of self-propelled and walk-behind equipment to remove sediment from streets and roadways, and to clean paved surfaces in preparation for final paving. Sweeping and vacuuming prevents sediment from the project site from entering storm drains or receiving waters.

Suitable Applications

Sweeping and vacuuming are suitable anywhere sediment is tracked from the project site onto public or private paved streets and roads, typically at points of egress. Sweeping and vacuuming are also applicable during preparation of paved surfaces for final paving.

Limitations

Sweeping and vacuuming may not be effective when sediment is wet or when tracked soil is caked (caked soil may need to be scraped loose).

Implementation

- Controlling the number of points where vehicles can leave the site will allow sweeping and vacuuming efforts to be focused, and perhaps save money.
- Inspect potential sediment tracking locations daily.
- Visible sediment tracking should be swept or vacuumed on a daily basis.

Objectives

EC	Erosion Control	
SE	Sediment Control	✓
TC	Tracking Control	✓
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

- ✓ Primary Objective
- ✓ Secondary Objective

Targeted Constituents

Sediment	✓
Nutrients	
Trash	✓
Metals	
Bacteria	
Oil and Grease	✓
Organics	

Potential Alternatives

None



- Do not use kick brooms or sweeper attachments. These tend to spread the dirt rather than remove it.
- If not mixed with debris or trash, consider incorporating the removed sediment back into the project

Costs

Rental rates for self-propelled sweepers vary depending on hopper size and duration of rental. Expect rental rates from \$58/hour (3 yd³ hopper) to \$88/hour (9 yd³ hopper), plus operator costs. Hourly production rates vary with the amount of area to be swept and amount of sediment. Match the hopper size to the area and expect sediment load to minimize time spent dumping.

Inspection and Maintenance

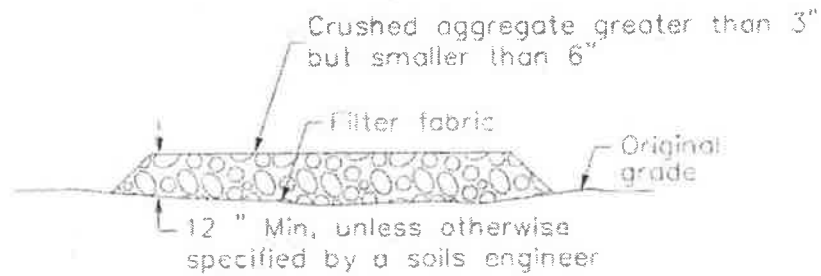
- Inspect BMPs prior to forecast rain, daily during extended rain events, after rain events, weekly during the rainy season, and at two-week intervals during the non-rainy season.
- When actively in use, points of ingress and egress must be inspected daily.
- When tracked or spilled sediment is observed outside the construction limits, it must be removed at least daily. More frequent removal, even continuous removal, may be required in some jurisdictions.
- Be careful not to sweep up any unknown substance or any object that may be potentially hazardous.
- Adjust brooms frequently; maximize efficiency of sweeping operations.
- After sweeping is finished, properly dispose of sweeper wastes at an approved dumpsite.

References

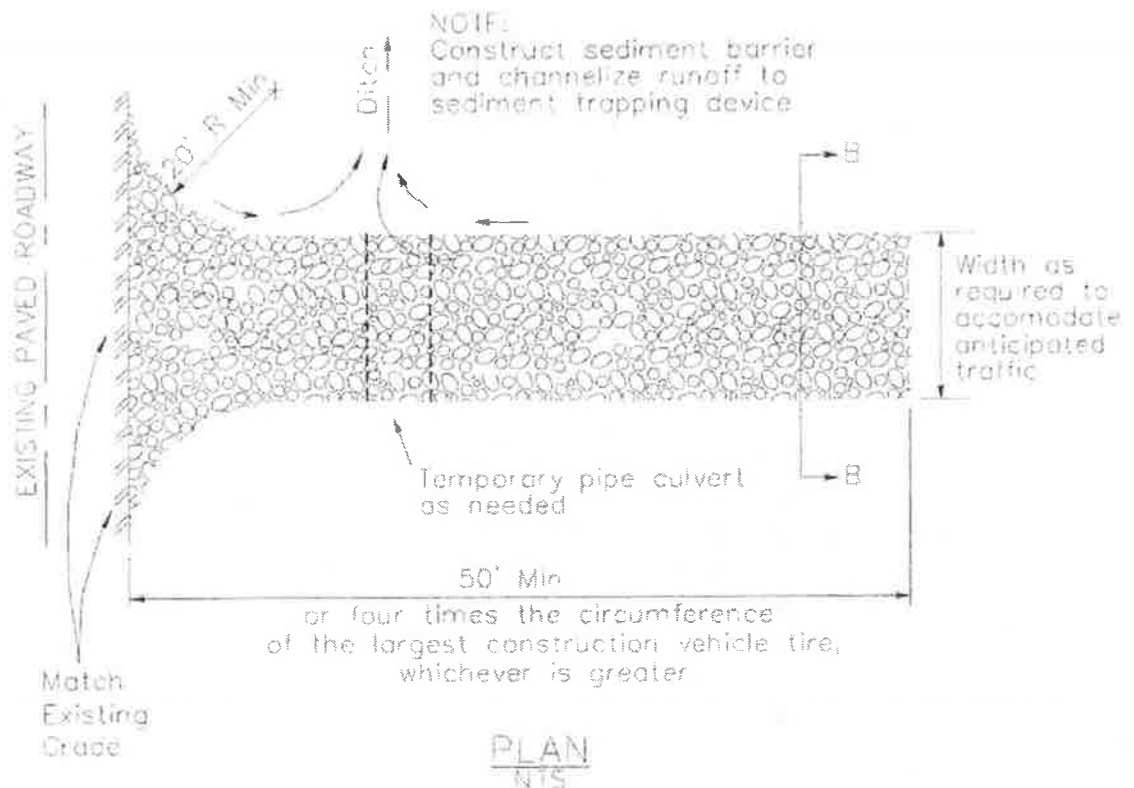
Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Labor Surcharge and Equipment Rental Rates, State of California Department of Transportation (Caltrans), April 1, 2002 – March 31, 2003.

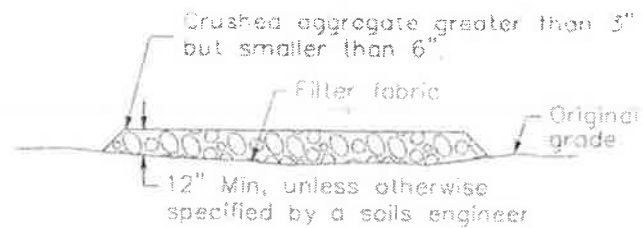
Stabilized Construction Entrance/Exit TC-1



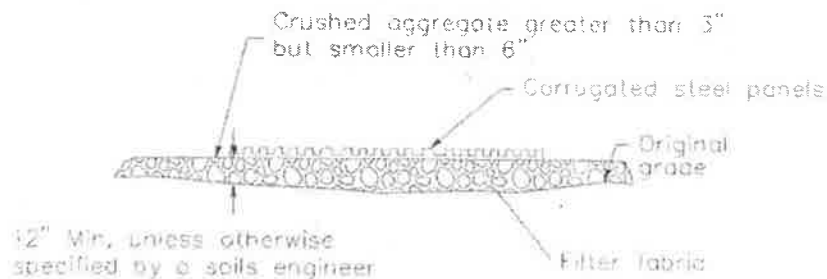
SECTION B-B
NTS



Stabilized Construction Entrance/Exit TC-1

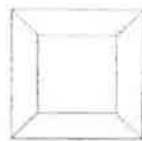


SECTION B-B
NTS



SECTION A-A
NOT TO SCALE

NOTE:
Construct sediment barrier and channelize runoff to sediment trapping device



Sediment trapping device

