Section 5. DESIGN GRADING AND EROSION CONTROL

A. Slope Criteria

Earth slopes shall confirm to the following criteria:

1. For slopes 3.0 feet high or less, maximum slope should not exceed 2:1 (horizontal to vertical)
2. For slopes greater than 3.0 feet high, maximum slope should not exceed 3:1 (horizontal to vertical) unless protected from erosion and slope failure through City Engineer approved means.

B. Grading near the Property Line

Particular attention must be given to grading (either cut or fill) near property lines. Care should be taken to ensure that existing foundations, retaining walls, stable slopes or other structures are not endangered and that the adjacent property is not damaged or its use constrained due to grading at or near the property line.

C. Grading In and Adjacent to Major Facilities

No grading, excavation, or fill may take place in or adjacent to any watercourse defined as a major facility without express written approval from the City Engineer. Construction activities within major facilities shall provide for the safe passage of the 10-year design flow during the months of July, August and September.

D. Grading in a Floodplain

No grading will be permitted within a FEMA Special Flood Hazard Area (A or V zone designations) without an approved drainage report and financial guarantees for the permanent improvements.

E. Erosion and Stormwater Pollution Control

All grading within the City of Albuquerque must be performed in a manner which prevents the movement of significant and damaging amounts of sediment onto adjacent property and public facilities by both water and wind, and minimizes the impacts to stormwater runoff quality. Every project involving the grading of more than 1.0 acres or the importation or excavation of more than 500 cubic yards of soil must be accompanied by an approved erosion control plan. To conform with EPA stormwater regulations, a Stormwater Pollution Prevention Plan shall also be provided for all grading of 1.0 acre or more. See Chapter 22, Section 7 of the DPM for detailed information on the Stormwater Pollution Prevention Plan.

1. **Construction Phase:**
   It is the responsibility of the contractor to implement the erosion and stormwater pollution control plans during the construction phase. Repair of damaged facilities and clean-up of sediment accumulations on adjacent property and in public facilities is the responsibility of the contractor. Failure to do so promptly may result in a "stop-work order" being issued and maintained until repair and clean-up is completed to City Engineer satisfaction. All exposed earth surfaces must be protected from wind and water erosion prior to final City acceptance of

any project. The continued maintenance of these protective measures is the responsibility of the owner or his assigns.

2. **Phased Construction:**
   Areas graded in conjunction with phased projects, but not left in their permanent condition must be protected during the interim from wind and water erosion and must not increase stormwater pollution from the existing pre-project conditions.

F. Means of Erosion Control

There are numerous mechanical and vegetative methods for preventing soil erosion. The U.S. Environmental Protection Agency Publication EPA-R2-72-OIS **Guidelines for Erosion and Sediment Control Planning and Implementation** and the local U.S.D.A. Soil Conservation Service Office can provide numerous, inexpensive and effective erosion management techniques.

G. Flat Grading Scheme

A flat grading scheme will be allowed only in the Valley region (within the Conservancy District) of the City and under the following conditions:

1. The site must be flat or can be graded flat.
2. The maximum percent impervious of the lot and the contributing area may not be greater than 45%.
3. Pad elevation shall be a minimum of one (1) foot above the 100 year 10-day storm water surface elevation.
4. The flow between the front yard and back yard cannot be obstructed. The storm water must be allowed to equalize to the same level between the front yard and back yard.
5. A permanent perimeter wall or barrier around the development is required to contain the 100 year 24 hour storm developed runoff.
6. The high point of the street should be four inches above the 100 year 10-day storm water surface elevation.
7. There are no accessible storm drains near the proposed development.

H. Pond Design (City Maintained Facilities)

1. ACCESS: Access into a facility shall be opposite outlet if possible with a minimum width of 12 feet. Maximum access slope shall be 10:1 or flatter (6:1 if hard surfaced with soil cement or concrete treated base). Standard design tube or pipe gates shall be installed to restrict vehicle access. Gates shall be set back 50 feet from arterial or collector streets so equipment does not have to park in the street.

2. SPILLWAYS: Emergency spillways shall always be provided, be erosion resistant, and discharge to a public right-of-way, drainage easement and/or historic flow path.

3. OUTLETS:

a. Facility outlets shall always be gravity flow whenever feasible and located in a corner or accessible edge of facility, opposite of facility access point if possible. Outlet pipe shall be a minimum of 12 inches in diameter with a slope such that when flowing at 1/4 full, velocity is 3 fps or greater.

b. The outlet should be surrounded by a stabilized grade pad appropriately sized for maintenance.

4. POND BOTTOMS:

a. Facility bottoms shall be designed to convey nuisance flows from the inlet to a storm water pollution prevention feature (such as a pervious bottom area for infiltration) prior to discharging to the outlet. Ease of maintenance shall be a consideration in all dams/detention basins. A feature (such as a hardened pad [having minimum dimensions of 3' by 6" thick with a 1" invert], low flow channel, etc.) shall be considered to allow maintenance crews a non-saturated, hardened surface to perform maintenance and provide a grade check in the bottom of the basin. Each dam/detention basin should be evaluated with regard to such features as ease of maintenance, water quality, desirability of vegetation and habitat, effect on neighborhoods (odors, mosquitoes, vectors), stability/safety of the foundation and embankment, well wash water and possible recharge.

b. The minimum pond bottom slope is 0.5%. Pond designs with bottom slopes greater than 1.0% may not require a hardened pad subject to final design review at the Design Review Committee (D.R.C.).

5. SIDE SLOPE AND BOTTOM TREATMENTS:

a. Vegetation will be accepted if seeded per the City of Albuquerque Standard Specifications for Public Works Construction.
b. Aggregate or riprap may be used as an erosion control mulch for 3:1 and steeper slopes.
c. A geotechnical investigation and report may be required at the discretion of the City Engineer.

6. MINIMUM POND SIZE:

In order for a pond to be publicly maintained, it must be a minimum of two (2) acre-feet.

7. FENCING:

a. Detention ponds 18 inches or greater in depth will require fencing unless side slopes are 3:1 or flatter and the pond drains in 96 hours or less.
b. If fencing is required, the minimum height is 42 inches. All fencing shall conform with the City of Albuquerque Standard Specifications for Public Works Construction.
c. Fencing as required above and as deemed appropiate based upon the circumstances (size, configuration, nature of flows entering, location, etc.) by the City Engineer.

8. All detention ponds must be evacuated in twenty four (24) hours or less, unless discharge is limited by downstream constraints. In any event, all ponds should be evacuated within 96

hours. Ponds that take more than six (6) hours to drain will be designed for a design storm equal to or exceeding the evacuation time. No percolation credit for volume reduction will be given.

I. Temporary Ponds

1. Interim or temporary facilities shall be protected by a public drainage easement. These public drainage easements may cover a tract of land larger than that needed for the final permanent facility in lieu of financial guarantees. An agreement and covenant by the developer will be required due to the temporary nature of the facility.
2. Retention pond volume will be based on a 100 year 10-day storm with no percolation credit given for volume reduction.
3. An emergency spillway must be provided that will safely convey the 100 year design flow entering the pond.

J. Private Storm Drain Improvements Within City Rights-of-Way and/or Easements.

Frequently a drainage plan developed for a particular property involves either discharge directly into a public facility or across a portion of a public right-of-way to a public facility. Examples include connections to the back of an existing storm inlet, construction of sidewalk culverts or a connection to a storm drain manhole or a channel. When such solutions are employed the construction of private storm drain improvements within the City's R/W must comply with the following requirements:

1. The proposed improvement must be incorporated on the grading and drainage plan. This plan must include the design or City standards to be used and the location of the proposed construction in the City R/W.
2. An excavation/construction permit will be required before beginning any work within the City's R/W. An approved copy of the grading and drainage plan must accompany the excavation/construction permit request.
3. All work to be performed within the public R/W or easement shall be constructed in accordance with City of Albuquerque Standard Specifications for Public Works Construction.
4. Prior to construction, the contractor shall excavate and verify the horizontal and vertical locations of all constructions. Should a conflict exist, the contractor shall notify the engineer so that the conflict can be resolved with a minimum of delay.
5. Backfill compaction shall be according to City of Albuquerque Standard Specifications for Public Works Construction.
6. Maintenance of these facilities shall be the responsibility of the owner of the property served.
7. A signature block should be placed on the grading and drainage plan for approval by the Hydrology Review Engineer and approval by the Storm Drain Maintenance Supervisor.

The sidewalk inspector can be used in lieu of the City's Field Engineer for connection to the back of existing catch basins and the construction of sidewalk culverts.

K. On-lot ponding for private flows only.

The use of individual on-lot ponding for private flows shall be allowed provided that the following can be demonstrated to the satisfaction of the City Engineer:

1. If percolation rate credit is to be used, it must be supported by percolation test results to the satisfaction of the City Engineer and such rate shall not exceed 12-inches per hour. The approved percolation rate must be sustained throughout the life of the pond.
2. If an outlet is utilized for the pond, the minimum outfall size shall be 4 inches in diameter, width or depth. An outlet less than 4 inches in diameter, width or depth may be utilized if accompanied by a maintenance schedule on the City approved drainage submittal.

L. Stormwater Management

All new development projects shall, where practicable, manage the stormwater runoff from the 90th percentile storm events (first 0.44-inches) utilizing appropriate techniques.

Section 7. SUPPLEMENTARY MATERIALS FOR DRAINAGE SUBMITTALS

DRAINAGE SUBMITTAL FORMAT

INTRODUCTION

A Drainage Submittal is generally in the form of a Conceptual Grading and Drainage Plan, Drainage Report or Drainage Plan. Quite often, the terms are used interchangeably. The following are definitions of these three types of submittals:

Conceptual Grading and Drainage Plan. Conceptual Grading and Drainage Plan is a graphic representation of existing and proposed grading, drainage, flood control, erosion control and stormwater pollution prevention information. The information should be of sufficient detail to determine project feasibility. The purposes of this plan are to check the compatibility of the proposed development within grading, drainage, floodplain, erosion control and stormwater pollution prevention constraints as dictated by on-site physical features as well as adjacent properties, streets, alleys and channels. Modifications to the Comprehensive Plan and the development of area plans, sector plans, site development plans and landscaping plans on tracts of five (5) acres or more are appropriate applications of conceptual grading and drainage plans.

Drainage Report. A Drainage Report is a comprehensive analysis of the drainage management, flood control, erosion control and stormwater pollution prevention constraints on and impacts resulting from the proposed platting, development or construction of a particular project. Drainage Reports are required for subdivisions containing more than 10 lots or comprising more than 5 acres, platting or construction proposed within a designated flood hazard area, and for platting or development proposed adjacent to a major arroyo.

Drainage Plan. A Drainage Plan is a comparatively short, yet comprehensive, presentation for small, non-complex development submittals. Drainage Plans are often combined with or accompany the detailed Grading Plan, and address both onsite and offsite drainage management, flood control, erosion control and stormwater pollution prevention. Drainage Plans are required for the approval of Building Permits, Site Development Plans, and Landscape Plans for the development of projects 5 acres or less in size.

The Format presented below provides for a logical and comprehensive treatment of the topics relevant to the review and analysis of a complete Drainage Submittal. The Format is presented in outline form for simplicity. Following this format will not only facilitate the review of each submittal, but will also serve as a "checklist" so that the content of each submittal can be more complete. In addition, each submittal shall include the following information:

1. Project Name
2. Name of Engineering Firm
3. Engineer's Seal (signed and dated)
4. Completed Drainage Information Sheet

Chapter 22 – Drainage, Flood Control and Erosion Control

NOTE: The following Outline is intended as a guide for the preparation of Drainage Submittals. It is merely a GUIDE. Some items may not be applicable, while other items may require a more in-depth treatment or may have been overlooked in the preparation of the Outline.

A Pre-design Conference is recommended for projects where the scope may be difficult to define, the constraints and conditions somewhat unique, or the drainage solution non-traditional.

The allowable discharge from a particular project shall be determined based upon available downstream capacity as defined by the Drainage Ordinance. In certain cases, the allowable discharge shall be based upon the value(s) set forth in previously approved and/or adopted Drainage Management Plans, Drainage Plans reports or studies.

OUTLINE

I. EXECUTIVE SUMMARY

A. Provide a brief yet comprehensive discussion of the following:

1. General project location
2. Development concept for the site
3. Drainage concept for the site (include relevant #'s as appropriate)
4. How offsite flows will be handled
5. How onsite flows will be handled and discharged
6. Downstream capacity and how determined
7. Impacts on or requirements of other jurisdictions

B. Identify all approvals being requested in conjunction with this submittal, such as:

1. Zone Change
2. Subdivision Plat
3. Site Plan for Subdivision
4. Site Development Plan for Building Permit
5. Building Permit
6. S.O. #19
7. Grading Permit
8. Paving Permit
9. DPM Design Variance
10. CLOMR, LOMR or LOMA

II. INTRODUCTION

A. Narrative description of project scope

1. Provide more detail than presented in the Executive Summary (combine with Executive Summary for non-complex projects)

B. Project requirements

1. Discuss and reference required infrastructure and associated infrastructure list
2. Platting and/or easements
3. Approvals by and/or coordination with other Agencies and/or entities

C. Attachments (when applicable)

1. Infrastructure List (draft, preliminary, amended or approved)
2. Preliminary or Final Plat
3. Easement Documents
4. Drainage Covenants
5. Approval Letters
6.

III. PROJECT DESCRIPTION

A. Location

1. Discuss relationship of the site to the following:

    a. Well known landmarks
    b. Municipal limits
    c. City Zone Atlas page and reference
    d. Other jurisdictional boundaries
    e. Previously approved Drainage Management Plans, Drainage Reports, Plans or studies including watersheds, basins, drainageways, etc. as defeined therein

2. Provide copy of Zone Atlas page, or equivalent, with the site location superimposed

B. Legal Description

1. Identify the current legal description(s) of the land which comprises the site
2. Identify the proposed legal description(s), when applicable, of the land which comprises the site
3. Include a copy of existing and/or proposed platting as an attachment in cases where its inclusion will lend clarity or facilitate the review

C. Flood Hazard Zone (A Zones only)

1. Identify proximity of site to a designated Flood Hazard Zone.
2. Provide reference to the above referenced Flood Hazard Zone.
3. Identify whether or not the site drains to or has an adverse impact upon a designated Flood Hazard Zone.
4. Include a copy of the relevant FEMA Flood Insurance Rate Map (FIRM) or Flood Boundary and Floodway Map with the site clearly identified along with all affected Flood Zones.
5. Identify portion of designated Flood Hazard Zone to be revised or amended when CLOMR, LOMR or LOMA approval requested

IV. BACKGROUND DOCUMENTS

A. Planning History

1. Reference and discuss relevant Planning and Zoning actions, plans or studies
2. Verify and/or demonstrate compatibility with the above actions, plans and studies

B. Drainage History and Related Documents

1. Reference and discuss relevant Drainage Management Plans, Drainage Plans, Reports and Studies
2. Reference applicable Hydrology File, PWD (DRC) Project and DRB Project numbers
3. Discuss status of above referenced Plans, Reports and Studies
4. Describe compatibility with or deviation from the above referenced Plans, Reports and Studies
5. Describe the location of site with respect to previously defined watersheds or drainage basins
6. Provide copies of pertinent data from above referenced Plans, Reports and/or Studies when applicable

V. EXISTING CONDITIONS

A. Site Investigation

1. Describe by text or clearly show graphically the following:

   a. onsite drainage patterns
   b. onsite drainage facilities
   c. point(s) of discharge
   d. drainage basin(s) boundaries
   e. offsite drainage facilities
   f. offsite drainage patterns including offsite flow conditions
   g. condition and status of adjacent properties (e.g. developed, undeveloped, under construction, etc.)
   h. condition and status of adjacent right-of-way (e.g. developed, undeveloped, under construction, etc.)
   i. presence of any other relevant features

B. Site Evaluation

1. Discuss the significance and impacts of the following:

   a. onsite drainage facilities
   b. offsite drainage facilities
   c. point(s) of discharge
   d. drainage basin(s) boundaries
   e. offsite flow conditions
   f. proximity to designated flood hazard zone(s) (A Zones only)
   g. presence of any other relevant features or conditions which may impact or be impacted by the development of the property or project

2. Form of Analysis

   a. Most situations - most submittals require both qualitative and quantitative analyses
   b. Unique situations - for some cases, such as infill sites, a qualitative analysis by itself may be appropriate. Examples of appropriate qualitative analysis criteria are

      (1.) a comparison of the runoff generated by the proposed development to that generated by the overall drainage basin with respect to the impacts of the anticipated increase
      (2.) impacts on downstream flood plains
      (3.) potential offsite problems which may or may not be attributed to this development
      (4.) anticipated impact(s) and/or precedent to be set on the development of the remaining infill sites by following the same drainage concept

3. Downstream Capacity
   (The evaluation of downstream capacity shall include, but not be limited to, the following:)

   a. Assumptions
      (1.) fully developed watershed
      (2.) ability to accept and safely convey runoff generated from the 100-year design storm

   b. Hydraulic capacity
      (1.) channel
      (2.) crossing structure
      (3.) storm inlet and/or entrance conditions
      (4.) storm drain
      (5.) street and/or alley

   c. Storage capacity
      (1.) Detention pond/reservoir
      (2.) Retention pond
      (3.) Flood zone

   d. Stability
      (1.) Channel/arroyo
      (2.) Natural slope
      (3.) Cut/fill slope

VI. DEVELOPED CONDITIONS

A. Onsite

1. Discuss the following as applicable:
   a. proposed development/construction
   b. impacts on existing drainage patterns
   c. impacts on existing drainage basins
   d. impacts on existing onsite facilities
   e. identification of offsite flow conditions
   f. compatibility/compliance with previously approved and/or adopted Plans, Reports and Studies

g. sediment bulking
h. aggradation and/or degradation potential
i. impacts on designated flood hazard zones (A Zones only)
j. required private drainage improvements
k. required infrastructure
l. required easements
m. phasing and future improvements
n. ownership, operation and maintenance responsibilities
o. stormwater pollution potential during construction
p. manage stormwater runoff in accordance with Section 5, paragraph L

2. Evaluate and/or quantify the following:
   a. capacity and freeboard of existing onsite facilities
   b. capacity and freeboard of proposed onsite facilities
   c. impacts on designated flood hazard zones (A Zones only)
   d. impacts on existing drainage patterns and drainage basin boundaries
   e. impact of offsite flows on the proposed development
   f. erosion potential and erosion setback requirements
   g. phased system capacities and ability to function as a standalone system
   h. emergency overflow spillway conditions
   i. required volume of stormwater runoff to be managed in accordance with Section 5, paragraph L

B. Offsite

1. Discuss the following:
   a. impacts on existing drainage basins and/or watersheds
   b. impacts on existing offsite facilities and downstream capacity
   c. compatibility/compliance with previously approved and/or adopted Plans, Reports and Studies
   d. impacts on designated flood hazard zones (A Zones only)
   e. required improvements
   f. required easements
   g. right-of way dedications
   h. phasing and future improvements
   i. ownership, operation and maintenance responsibilities
   j. concurrence and/or approval from affected property owners for offsite grading or construction activities

2. Evaluate and/or quantify the following:
   a. capacity of existing offsite facilities
   b. capacity of proposed offsite facilities
   c. impacts on downstream designated flood hazard zones
   d. impacts on downstream drainage basins and/or watersheds
   e. downstream capacity

VII. GRADING PLAN

A. Description

1. Reference the Grading Plan when included as an attachment to the Drainage Submittal

2. Describe elements of the Plan and how those elements relate to the Existing and Developed Conditions sections of the submittal discussed above
3. Discuss and reference all other supporting drawings provided in support of the Drainage Submittal

B. Content

1. Refer to Grading Plan Checklist that follows

VIII. CALCULATIONS

A. Description

1. Provide narrative description of the calculations performed to support the analyses and evaluations discussed above
2. Discuss and reference calculations for Existing, Developed and Future hydrology
3. Discuss and reference hydraulic calculations demonstrating capacity and/or adequacy of existing and proposed facilities
4. Provide sample calculations, tables, charts, etc. as necessary to support the calculations and results discussed above
5. Reference computer software, documents, circulars, manuals, etc. used to produce the calculations and results discussed above

IX. CONCLUSION

A. Summary of proposed drainage management strategy
B. Justification of rationale for discharge of developed runoff from site
C. Summary of proposed drainage improvements
D. Identification of DPM design variances being requested
E. Identification of required Drainage Covenants
F. Identification of ownership, operation and maintenance responsibilities

GRADING PLAN CHECKLIST

The following checklist is intended as a guide for preparing a Grading Plan to accompany a drainage report or plan. It is only a guide. Some items may not be applicable to your particular project; some items may require more detail. A pre-design conference is recommended to define scope and project specific requirements.

Section 9. STORMWATER CONTROL PERMITTING FOR EROSION AND SEDIMENT CONTROL, INSPECTION, AND MAINTENANCE RESPONSIBILITY AND STORM WATER POLLUTION CONTROL

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A. General

As a requirement in the City of Albuquerque Municipal Storm Water Discharge Permit from the Environmental Protection Agency (EPA), the City must include post construction controls to minimize the discharge of storm water pollutants from areas of new development and significant redevelopment.

The following design standards were created in an effort to ensure that, to the maximum extent practicable, new development and projects that require drainage plans do not increase post-development pollutant loads from the project site.

B. Applicability

Priority Project categories have been developed to address the more serious development categories that historically have the potential to generate serious post-development storm water pollution problems. All new development and projects that require drainage plans and that fall into one of the following Priority Project categories are subject to Structural Treatment Control Best Management Practices (BMPs) requirements.

- Retail, Warehouse and Office Developments in excess of 0.5 acres site size.
- Automotive Repair Shops
- Restaurants
- Gas Stations/Fueling Facilities
- Dumpster, Compactor and Waste Collection and Storage Pads on all commercial and industrial sites
- Residential developments with more than 10 residential units, excluding single family housing subdivisions

C. Structural Treatment Control Best Management Practices

All Priority Projects shall consider, incorporate and implement storm water Structural Treatment Control BMPs into the project design to comply with the Minimum Storm Water Quality Control Measures shown in Table 1.

A Structural Treatment Control BMP is an engineered system designed, constructed and maintained to remove pollutants from urban runoff. Pollutant removal is achieved by simple gravity settling of particulate pollutants, filtration, screening, biological uptake, media adsorption or other physical, biological or chemical process. Examples of typical drawings and details for Structural Treatment Control BMPs are shown with the Storm Water Management Plan.

D. Definitions

BMP - Best Management Practice.

Gross Pollutants - litter, vegetation, coarse sediment and floatable debris. For the local Municipal Separate Storm Sewer System (MS4), the gross pollutant treatment size is defined as 1-3/4" and larger.

NPDES - National Pollutant Discharge Elimination System.

Storm Water Quality Constituents - dissolved and suspended nutrients, metals, oils, greases, biological agents, etc.

Storm Water Quality Treatment Rate (SWQR) - the peak rate of flow from the water quality storm event.

Storm Water Quality Treatment Volume (SWQV) - the treatment volume from the water quality storm event.

Water Quality Storm Event - 0.6 inches of precipitation within a six-hour period. This is approximately equivalent to the average annual precipitation event and the 80th percentile rainfall event (i.e., approximately 80% of the total annual rainfall occurs in storm events with 0.6" or smaller precipitation depth).

E. Criteria for Designing Structural Treatment Control BMPs

1. Treat the runoff from the "water quality storm event" (0.6 in. of precipitation within a six-hour period).

2. a. For sites 40 acres or smaller, the following approximate methods may be used:

   i. The Storm Water Quality Treatment Rate (SWQR) is the peak rate of flow from the water quality storm event as a function of the percentage of impervious land use (Land Use Category D) shown on Table 2. Treatment of the initial storm runoff at rates equal to or greater than the SWQR provides treatment of the SWQV.

   ii. The Storm Water Quality Treatment Volume (SWQV) is the treatment volume from the water quality storm event as a function of the percentage of impervious land use (Land Use Category D) shown on Table 2.

   b. For sites larger than 40 acres, site hydrology in accordance with the City of Albuquerque Development Process Manual (DPM), using the water quality storm event, is used to determine the runoff rate and volume.

3. Provide bypass or overflow capacity to convey the flood control design discharge, even if the BMP structures and components are completely full or plugged.

4. Gross Pollutant Control.

   a. Gross pollutant material consists of both surface floatables and submerged buoyant neutral items such as saturated paper, tumbleweeds, etc. Therefore, gross pollutant structural treatment control BMPs must address both surface and subsurface gross pollutants and floatable debris;
   b. To the extent practical, prevent trapped and collected pollutant materials being re-introduced into the runoff during subsequent runoff events, including events larger than the water quality design storm;
   c. To the extent practical, retain the trapped pollutants out of low flows and nuisance flows to prevent leaching of water quality constituents from the trapped debris;
   d. Design the facilities for ease of maintenance; and
   e. Identify the maintenance plan and responsible party to maintain adequate gross pollutant capacity. It is recommended that the facility be cleaned following each storm event.

Reference: AMAFCA/Albuquerque MS4 Gross Pollutant Study, Draft dated August, 2004, prepared by ASCG for AMAFCA and the City of Albuquerque.

Deleted: 5. Examples of standard details for BMPs and guidance documents for storm water pollution control can be found on the COA Website at www.cabq.gov/flood.¶

TABLE 1. MINIMUM STORM WATER QUALITY CONTROL MEASURES FOR PRIORITY PROJECTS			
Priority Projects	*Control of Liquids from Dumpster Areas*[1]	*Control of Gross Pollutants and Floatable Trash*	*Control of Oil from Vehicle Parking Areas*
Residential developments with more than 10 residential units		x	
Automotive repair facilities		x	x
Gas stations/ fueling facilities		x	x
Restaurants	x	x	
Retail and office developments larger than 0.5 acres	x	x	
Dumpster and compactor pads[1]	x	x	

NOTES:

(1) Discharge to sanitary sewer

TABLE 2. WATER QUALITY STORM EVENT RUNOFF RATE AND VOLUME AS A PERCENT OF IMPERVIOUS AREA FOR 40-ACRE AND SMALLER SITES			
Percent Impervious (%D)	*Runoff Depth (inches)*	*Runoff Rate (cfs/ac)*	*Runoff Volume (cubic feet/ac)*
0	0	0	0
20	0.09	0.5	327
40	0.18	0.8	653
60	0.27	1.2	980
80	0.36	1.35	1037
100	0.46	1.5	1670

NOTES:

(1) Water Quality Storm Event – 0.6 inches precipitation, all zones.
(2) Assumes pervious area evenly divided between Land Uses B and C.
(3) Interpolate for site-specific impervious area.
(4) Calculated from DPM Chapter 22, Section 2, Part A.

F. Stormwater control permitting for erosion and sediment control, inspection and maintenance responsibility.

A Stormwater Control Permit for Erosion and Sediment Control is required for all construction, demolition clearing, and grading operations within the City of Albuquerque that disturbs the soil on one acre or more of land. (See plate 22.9.1 and 22.9.2) The following is required in order to obtain this permit:

The Stormwater Control Permit for Erosion and Sediment Control holder must be the owner of the property or an authorized agent of the owner and the operator in order for the permit to legally cover the activities occurring at the site. If the permit holder is other than the owner, evidence of delegation of authority acceptable to the City shall be provided prior to issuance of a permit by the City.

G. Construction Stormwater Control Permit Inspections and Quality Controls.

Every Stormwater Control Permittee shall comply with the following:

1. Self-inspections by permittee. At a minimum a routine compliance self-inspection is required to review vegetation, erosion and sediment control measures, and other protective measures identified in the Erosion and Sediment Control Plan and the associated Stormwater Permit for Erosion and Sediment Control, if any. Until the site construction has been completed and the Stormwater Control Permit for Erosion and Sediment Control closed out and the Notice of Termination approved under the General Construction Permit, the owner or his/her agent shall make a thorough inspection of the stormwater management system as established by the Erosion and Sediment Control Plan. These inspections' frequency shall be based on site conditions and project circumstances as noted in the site's Erosion and Sediment Control Plan. Regardless of the planned frequency, inspections shall occur after each precipitation event of .25 inch or greater. Reports of these inspections shall be kept by the person or entity authorized to direct the construction activities conducted during progress of the work, during work suspensions, and until the permit is closed.

2. The permit is closed upon the City receipt of the SWPPP Notice of Termination (NOT).

H. Post-Construction Maintenance and Responsibilities

The following Post-Construction Maintenance and Responsibilities shall be performed in perpetuity:

Private Stormwater Facilities shall be maintained per the City approved drainage submittal by the facilities' owner or responsible party. Critical maintenance and operation items shall be identified on the City approved drainage submittal. Periodic inspection and certifications of facilities are hereby required. Inspection and Certification shall be according to Certification note. established by the City (plate 22.9.3) in compliance with the City approved drainage submittal. Inspections and Certifications by a New Mexico Professional Engineer shall occur not less frequently than once every 3 years from the date of the SWPPP NOT for that respective site. Ongoing Stormwater Control Permit obligations may also be required for Stormwater Control Measures.

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