



CITY OF SANTA MARIA

GRADING & DRAINAGE PLAN STANDARDS

Grading and drainage plans shall be submitted for review and approval to the City of Santa Maria Building Division for all apartment, condominium, residential subdivisions, commercial and industrial developments or other project where a grading permit is required by Appendix Chapter J of the California Building Code. Residential projects with sites less than 10,000 square feet and which do not require more than 50 cubic yards of cut or fill earth to be moved need not comply with the retardation basin requirements described within these standards.

1) GRADING PLAN FORMAT

Size of drawings shall be:

- a) 18" x 26"
- b) 24" x 36"
- c) 30" x 42"

In all cases, grading plans shall be the same blueprint size as the submitted architectural plans if grading is in conjunction with a building permit. Grading plans shall be drawn to the same scale as the architectural site and landscape plans.

Grading plans shall contain a grading symbols legend.

2) GRADING PLAN FEES

Grading Plan Check and Grading Permit fees are determined based on the largest volume of cut, fill, import or export earth to be moved within, to or from the site. Plan Review fees are due at the time of grading plan submittal. Grading Permit fees are due at the time of Grading Permit issuance

3) GRADING PLAN SUBMITTAL

The applicant may submit drawings and request permits for rough, stockpile, remedial, or fine/finish grading plans. Five (5)-completed sets of grading plans shall be submitted for review and approval if a stockpile, remediation or rough grading permit is requested.

Rough Grading Plan: includes retardation basin. Approval requires submittal of the Notice of Intent Package (one acre or more), including the completed NOI and check sent to RWQCB, and the site plan showing storm water pollution prevention measures. Certificates F (Rough Grading) and I (Erosion Control) must be signed and made a part of the plans. Plans must include complete measures for storm water runoff prevention and dust control. Show total cut and total fill yards.

Stockpile Plan: Includes same basic requirements as Rough Grading Plan. Measures must be shown which will leave the site in compliance with City of Santa Maria Standard Erosion and Dust Control Standards. Show total fill (stockpile) yards.

Remedial Plan: Similar to Stockpile Plan requirements. Total cut/fill yards must be shown. For Oil

Sump Remediation, please include a cross-section drawing of the sump. Note on plans that high visibility construction safety fencing must be installed around the excavation site. Include a draft copy of the "Remedial Action Plan" which was submitted to the Santa Barbara County Petroleum Office at 624 W. Foster Road, Bldg. B, Santa Maria 93455 (805) 934-6128, for distribution to the Santa Barbara County Fire Prevention Division (SBCFPD) at 2125 Centerpointe Parkway #333, Santa Maria 93455 (805) 346-8477.

Fine/Finish Grading Plan: Include all finished floor elevations, parking lot details, location and sizes of all water meters, sewer lines, storm drains, electric services, property lines, and all retention basin details. Show all walls including summary of heights and lengths, and provide engineering for walls over 6' high. Certificates A, B, C, D, G, H, and I must be made a part of the plans, and Certificates A, D, and I must be signed for issuance.

If the grading proposed is in conjunction with a building permit, each set of architectural plans shall contain a site, landscape and grading plan. Additionally, two (2) sets of site, landscape and grading plans shall be submitted independently of the architectural plans at the time of building plan review.

Applicants requesting a fine or finish grading plan approval prior to submittal or approval of building plan approval shall submit five (5) completed sets of the architectural site plans, utility plans and landscape plans with the finish grading plan submittal. The architectural site plan and fine grading plans shall be approved prior to issuance of the fine grading permit.

Grading and architectural site plans must be designed by and bear the signature, registration number, license expiration date and seal of a California registered Civil Engineer, Land Surveyor or Architect responsible for the design prior to approval of plans.

Two (2) copies of the site soils report identifying soil type, grading and foundation recommendations shall be submitted with all grading permit applications.

Two (2) copies of structural design calculations shall be submitted for all retaining walls higher than (4) feet, masonry walls higher than (6) feet or combination retaining wall-fences of any height.

4) GRADING PLAN CERTIFICATES

The City of Santa Maria does not employ a Grading Inspector and thus requires that the owner or developer's Civil Engineer, Land Surveyor or Architect provide the following certifications on the Grading Plans. These Certificates must be completed for each phase of work:

A. OWNER/DEVELOPER CERTIFICATE: {Sign prior to approval of grading plans}

I, _____, Owner/Developer of the
__project, will have a licensed civil engineer, land surveyor or architect certify:

- 1) That prior to the construction of any building foundation, the lot boundaries have been clearly identified on the site; the graded pad elevations are as shown on the approved Grading Plan; and the proposed building/s are located in conformance with the approved City Site Plan; and the finish floor elevations are in

conformance with the approved City Site and Grading Plans.

- 2) That the finished grades have been field checked and that the site finished grading work has been completed in substantial conformance with the approved Grading Plan.
- 3) That finished grades comply with the City of Santa Maria's Flood Plain Management ordinance and the National Flood Insurance Act, where these are applicable
- 4) That the masonry walls have been constructed as shown on the approved grading plan, including certification of the top of footing and top of wall elevations.

Signature: _____ Date:

{Owner/Developer}

B. BUILDING PAD ELEVATION CERTIFICATE: {Sign prior to inspection of foundation}

I have checked the on-site grading at the time the building pads have been graded in preparation for building foundations and prior to the commencement of any building foundation work on the pads. I hereby certify that the lot boundaries have been clearly identified on the site, and that the graded pad elevations are as shown on the approved Grading Plan.

Name: _____ License Number:

Signature: _____ Date:

{Licensed Professional}

C. FINISH FLOOR ELEVATION CERTIFICATE: {Sign prior to construction of foundation}

I certify that the foundation forms are set at the approved finish floor elevation/s and the building location/s is/are in conformance with the approved Site and Grading Plans.

Name: _____ License Number:

Signature: _____ Date:

{Licensed Professional}

D. FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) AND FLOOD INSURANCE RATE MAP (FIRM) CERTIFICATE: {Complete and sign prior to approval of grading plan}

Community Number: 060336 Panel Number:
Date of FIRM: July 15,1988 Date of FIRM Amendments:

FIRM Zone:
Base Flood Elevation: _____ NGVD '29 _____ Other {Reference
Datum System}

The lowest floor elevation in all A-Zones, where Base Flood Elevations are utilized, will be field checked, "as-built" and certified prior to occupancy of the structure(s) by a licensed civil engineer, land surveyor or architect as required to comply with the City of Santa Maria Flood Plain Management Ordinance and FEMA required information from the Flood Insurance Rate Map.

Elevation datum used on the FIRM for Base Flood Elevation {In AO Zones use depth} is the National Geodetic Vertical Datum (NGVD), 1929. {If the elevation datum system used is different than that used on the FIRM, convert the elevations to the datum system used on the FIRM and show the conversion equation below this Certificate.}

I certify that the information on this certificate represents my best efforts to interpret the data available. If the project is not in an A-Zone and not subject to Base Flood Elevation requirements, the applicable zone is noted. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S.Code, Section 1001.

Certifier's Name: _____ License Number:
Title: _____ Phone:
Address: _____ City: _____ State: _____ Zip:
Signature: _____ Date:
{Licensed Professional}

E. FINAL INSPECTION GRADING CERTIFICATE: {Sign for final or prior to occupancy.}

The drainage design and elevations shown on the approved grading plans dated have been field checked by a licensed civil engineer, land surveyor or architect and are found to be in substantial conformance with the design and elevations shown or "as-built" plans have been submitted to the City for approval. A copy of these City approved "as-builts" is attached herewith if applicable.

Name: _____ License Number:
Signature: _____ Date:
{Licensed Professional}

F. ROUGH GRADING PLAN CERTIFICATE: {Owner to sign prior to approval of permit}

This rough grading approval is based upon the following:

Preliminary Site Plan, dated: _____
Soils Report, dated: _____

It is not a final grading approval, and such final grading approval may be subject to change and revision from this rough grading approval.

Acknowledged by: _____ Date:

{Owner/Developer}

G. WALL FOOTING CERTIFICATION
{Sign prior to placing concrete in the footing}

I have checked the elevations of the wall footings and their location in reference to the approved plan and certify that the elevations conform to the top of footing elevations as shown on the approved Grading Plan.

Name: _____ License Number:

Signature: _____ Date:
{Licensed Professional}

H. WALL HEIGHT CERTIFICATION
{Sign after completion of walls}

I have checked the top of wall elevations and certify that the elevations conform to the top of wall elevations as shown on the approved Grading Plan.

Name: _____ License Number:

Signature: _____ Date:
{Licensed Professional}

I. EROSION CONTROL CERTIFICATION
{Sign to guarantee that erosion control measures will be installed}

I hereby certify that all erosion and siltation control measures will be installed per plans and also to my satisfaction to prevent the illegal discharge of storm water pollutants from the project site. The undersigned shall be the designated responsible person for the successful implementation of these methods. The undersigned shall also ensure that damages to the erosion and siltation control measures due to construction processes or severe storms and shall be

repaired immediately to fully functioning condition.

(Responsible Person)

(Date)

(24-hour Contact Telephone Number)

5) RETARDATION BASIN CAPACITY

With the exception of a single family residence or sites less than 10,000 square feet, all lots or subdivisions shall have a storm drainage retardation basin, or other in lieu improvements, approved by Santa Barbara County Flood Control District and the City Public Works Department which will assist in restricting the flow of storm water into the public streets or available drainage facilities. This water must be capable of being stored entirely on private property before overflowing onto/into the public street or drainage facility when the retardation basin becomes full.

The volume, in cubic feet, required on-site is computed as follows:

- a) All sites less than 1/2 acre:
Residential: (0.051)*(area of site in sq. ft.)
Commercial/Industrial: (0.070)*(area of site in sq. ft.)

- b) All sites greater than 1/2 acre but less than 1 acre:
Residential: Interpolate between (0.051) and (0.07)
Commercial/Industrial: Interpolate between (0.07) and (0.10)
{Multiply times area of site in square feet.}

- c) All sites greater than 1 acre but less than 2 acres:
Residential: (0.07)*(area of site in sq. ft.)
Commercial/ Industrial: (0.10)*(area of site in sq. ft.)

- d) All sites greater than 2 acres shall conform to Santa Barbara County Flood Control District's (S.B.C.F.C.D.) Urban Hydrograph (SBUH) requirements utilizing formulas and procedures as defined therein.

Contact: Santa Barbara County Flood Control District
Development Engineer
123 Anapamu Street
Santa Barbara, California 93101

6) RETARDATION BASIN DRAINAGE

The retardation basin(s) shall drain completely by means of a bleeder line, to a public drainage facility or street. Gravity is the preferred means of drainage, however if the site is in an extreme sump condition, alternative designs may be submitted to the City for review and discussion. Acceptance of an alternative design will require additional capacity to facilitate a 100 year storm event.

The rate of discharge, in cubic feet per second, shall not exceed the following:
{Multiply times area of site in acres}

- a) All sites less than 1/2 acre: $(0.045)(\text{area of site in acres})$
- b) All sites greater than 1/2 acre but less than 1 acre: Interpolate between (0.045) and (0.07) then multiply times area of site in acres.
- c) All sites greater than 1 acre but less 2 acres: $(0.07)(\text{area of site in acres})$
- d) All sites greater than 2 acres shall conform to Santa Barbara County Flood Control Districts (S.B.C.F.C.D.) Urban Hydrograph (SBUH) requirements utilizing formulas and procedures as defined therein.

Contact: Santa Barbara County Flood Control District
Development Engineer
123 Anapamu Street
Santa Barbara, California 93101

7) RETARDATION BASIN HYDRAULIC DESIGN

First determine the retardation basin minimum volume capacity and maximum drainage flow rate as required. The retardation basin is to drain at the required bleeder rate until the water within the basin reaches the basin high water limit. Provide a catch basin or "Christy box" type structure, with the top of grate set at the basin high water elevation for full flow at a 25-year event. The drainage structure is to have an inlet bleeder orifice sized using standard hydraulic principles knowing the depth of the basin and the allowable bleeder flow rate. Locate the inlet bleeder orifice at the bottom of the drainage structure with a concrete apron prior to the inlet. Provide an outlet pipe from the bottom of the drainage structure with sufficient capacity for full flow at a 25-year event, which is thus drained to a public drainage facility or street. Keep in mind that the bottom of the basin drainage structure is to be at a higher elevation than the flow line of the discharge point.

The design is such that water is let into the drainage structure at the required bleeder rate. The basin fills to the top of the basin drainage structure and then overflows into the grate or weir. Water is then transported via a pipe, sized for a 25-year event to an approved location. If the basin is full and the pipe drainage is flowing at a 25-year event capacity the basin is to be provided with an overland escape route or overflow to an approved location which is generally to the street or route of historical flow.

All basins shall slope to drain towards the drainage structure. Landscaped basins should drain at a minimum 0.5% gradient or approved alternative. All basins shall provide low flow nuisance water bypass by means of a maximum 1-1/2 foot wide valley gutter, underground pipe system or within the drainage structure.

The maximum basin drainpipe size permitted through a 6-inch curb face is 3 inches or 50% of the curb height. Drainage pipes located within the City right-of-way are to be ductile iron pipe or RCP.

8) RETARDATION BASIN LOCATION

Retardation basins should be located within landscaped areas, however they may be provided in impervious areas such as parking lots provided they do not encumber more than 50 percent of an individual parking stall and no inundation of handicapped parking stalls. Impervious surfaces are recommended to be concrete. Asphalt is not recommended, as this material when subjected to standing water becomes a maintenance problem after a few years. Landscaped basins shall have slopes no steeper than 4:1 (4 feet of horizontal distance for each 1 foot of depth) and retardation basins may not encumber more than 50% of any landscaped area adjacent to the street frontage.

9) EROSION CONTROL MEASURES

The standard erosion control measures to be shown as notes within the grading plans are as follows:

Project construction shall be in conformance with the City of Santa Maria Storm Water Management Plan. The Grading Permit holder and the Owner/Developer shall install erosion control and pollution control measures as outlined in the project Storm Water Pollution Prevention Plan (SWPPP) approved by the City of Santa Maria. Best Management Practices (BMPs) capable of preventing the migration of storm water and associated pollutants off site shall be implemented and maintained during all construction, earth moving and grading phases of a project. Failure to do so will result in the issuance of a "Stop Work" order, which will not be released until such time as an adequate

program is implemented.

During the clearing, earth moving and grading phases of the project water trucks or sprinkler systems shall be used in sufficient quantities to prevent dust from leaving the site. In addition, the entire area of disturbed soils shall be wetted down during the early morning hours and at the end of each day in such a manner as to create a crust.

During the construction phase of the project, water trucks or sprinkler systems shall be used to keep all areas of vehicular movement damp enough to prevent dust raised from leaving the site. As a minimum, this will include the wetting down of such areas in the late morning hours and at the close of each day's activities. Increased watering frequency will be required whenever wind speeds exceed 20 miles per hour.

All trucks hauling soil materials to and from the site shall be covered with a tarp to prevent dust from blowing off the truck.

All alleyways, circulation routes, haul routes, streets and sidewalks shall be kept clean and clear of dirt, dust and debris in a manner acceptable to the City of Santa Maria. As a minimum, said areas shall be cleaned at the end of each working day or more often if directed by City personnel. The flushing of dirt or debris to storm drain or sanitary sewer facilities shall not be permitted. Failure to keep these areas clean will result in the issuance of a "Stop Work" order, which will not be released until such time as the area is cleaned in a manner acceptable to the City. Earth moving and grading activities shall be limited to the hours between 7:00 A.M. and 6:00 P.M.

After the completion of the clearing, grading, or excavation phase, the entire area of disturbed soil shall be treated to prevent wind pick up of the soil. Any one of the following methods may accomplish this:

- a) The seeding and or watering of the site until such time as the ground cover has taken root.
- b) The spreading of soil binders.
- c) The wetting down of the area in such a manner as to create a crust on the surface and the repeated soaking of the area, as necessary, to maintain the crust and prevent soil blowing.

The contractor or builder shall designate a person or persons to monitor the storm water pollution prevention and dust control programs, and to order increased watering as necessary to prevent the transport of dust off-site, and additional BMPs to prevent storm water pollutants from entering public right-of-way. This person's duty shall include holiday and weekend periods when work may not be in progress. The name and telephone number of such person or persons shall be provided to the City of Santa Maria Community Development Department and Public Works Department and be placed on the plans.

The Developer shall provide a cash deposit for storm water pollution prevention purposes. If additional BMPs become necessary for any reason to prevent storm water pollutants from entering public right-of-way, the City of Santa Maria may utilize this cash deposit to furnish and install appropriate BMPs as determined by the City Engineer. Any unused portion of the cash deposit shall be returned to the Developer at Certificate of Occupancy.

10) GENERAL NOTES

The following general notes are to be incorporated into the grading plan:

- a) All tract boundary walls shall be staked and verified for height and location by the Civil Engineer or Land Surveyor.
- b) All areas under Public and Private streets, curbs and gutters shall be compacted to 95% relative density.
- c) If any oil sumps or contaminated soils are found during the grading of the site, all grading in these areas shall cease. Soils chemical test shall be taken with results provided to the City of Santa Maria Building Division and the County of Santa Barbara Environmental Health Department. Grading may re-commence after approval from the Santa Barbara County Environmental Health Department and the City of Santa Maria Building Division has been obtained. All contaminated earth shall be removed from the site and/or disposed of in an approved manner.
- d) All work performed in the City right-of-way requires an encroachment permit from the Santa Maria Public Works Engineering Division located at 110 S. Pine St. Permits are to be obtained prior to beginning work.

- e) Soils compaction reports are required and the reports shall be provided to the City of Santa Maria Building Division at completion of grading and prior to foundation placement.
- f) All grading is to comply with Chapter 18 and Appendix Chapter J of the most current adopted version of the California Building Code.
- g) Section 4216/4217 of the Government Code requires a Dig Alert Identification Number is issued before a "Permit to Excavate" will be valid. For your Dig Alert I.D. Number call Underground Service Alert TOLL FREE 1-800-422-4133 two working days before you dig.
- h) All proposed and/or existing slope or drainage easements are shown on this grading plan.
- i) All proposed grading, except for off-site import earth, shall be maintained within the boundaries of the site for which the grading permit is issued.
- j) The project Storm Water Pollution Prevention Plan (SWPPP) outlines site storm water pollution issues and Best Management Practices (BMPs) to prevent illegal discharges of storm water pollutants from the construction site. Contractor shall maintain an approved copy of the SWPPP on-site at all times during construction, and shall implement adequate BMPs to comply with City of Santa Maria Storm Water Management Plan. Failure to do so will result in the issuance of a Stop Work Notice until the illegal discharge is adequately ended, cleaned up, and prevented from further occurrence.

11) GRADING PLAN REQUIRED INFORMATION

Information provided on the grading plan shall include:

- a) Assessor's Parcel Number or site address.
- b) Vicinity map, north arrow, and graphic scale.
- c) Grading plan designer's name, address, phone, signature, seal, registration number and expiration date of license.
- d) Grading plan legend identifying all symbols and abbreviations.
- e) Rough grading, stockpile or remediation plans shall dimension distance between property lines and any structures. Fine grading plans shall not be approved without architectural site plans, which show all building setbacks to pads or structures.
- f) Building pads and finish floor elevations.
- g) Flow line elevations along all drainage courses.
- h) Flow line elevations where on-site drainage meets the public drainage system.
- i) Existing and proposed grades at adjoining lot lines and at all property line corners/intersections.
- j) Retardation basin high water limits.
- k) Earth quantities of cut and fill in cubic yards.
- l) Sufficient contours or grade points to show that the retardation basin is capable of retaining the required amount.
- m) Overland escape location and elevation from retardation basin.
- n) Calculation documenting minimum required volumetric capacity of the retardation basin as per standards.
- o) Total proposed retardation basin volume.
- p) Calculations documenting maximum bleeder discharge rate permitted from the basin as per standards.
- q) Hydraulic orifice sizing calculation justifying the bleeder opening using the allowed flow rate and depth of basin.
- r) Design retardation basin such that all on-site drainage flows to the basin before exiting the site.
- s) Location of all roof drain termination points.
- t) Detailed cross section of the concrete swale when proposed.
- u) Identify all streets which are private and which are public.
- v) A completed wall/fence table for each type of retaining wall, block wall, fence identifying type of wall, height of wall, linear footage of each wall proposed.
- w) Note all hydroseeding or soil binder requirements.
- x) Show all handicap curb cuts and ramps proposed.
- y) Show section view through private streets/parking areas showing street construction and curb construction.
- z) Show all existing and/or proposed slope or drainage easement boundaries.
- aa) Drive approaches and their locations.
- bb) Compaction requirements for pads and roads.
- cc) Proposed on-site property line grades at 50 foot on center.

- dd) Existing off-site contours starting at the property lines and extending to 10 feet beyond property lines within adjacent parcels.
- ee) Identify height and location of all existing walls and/or fences at property lines.
- ff) Flow arrows showing direction and percent fall of drainage to an approved location.
- gg) Show property line corner elevations and grade break elevations.
- hh) Show top of footing, top of retaining, top of wall elevations for all walls or provide wall profile elevation plans.
- ii) Grading Certificate A (Owner/Developer Certificate) shall be completed and signed.
- jj) Identify Base Flood Elevation (BFE) for each structure in the Special Flood Hazard Area (SFHA). For AO Zones, the applicable BFE is the depth number added to the highest adjacent grade.
- kk) Identify the highest adjacent grade for each proposed structure in an AO Zone.

12) USEFUL GRADING INFORMATION

- a) The finish floor of buildings must be 12 inches plus 1 percent above the overflow water inundation level of the retardation basin (when required) or low point of lot. This distance is measured from the closest edge of the building to the overflow water inundation level of the retardation basin (when required) or low point of lot (CBC, Sec. 1805.3.4 as amended by SMMC Sec. 9-1.212)
- b) City of Santa Maria Building Division requires steel to be placed within concrete gutters located in areas of vehicle travel.
- c) Identify location of all existing underground gasoline tanks and indicate if they are to be removed at this time or if they have been previously removed. If previously removed, identify as such and state the permit number issued for their removal.
- d) For each drive approach shown on the grading plan specify the percent slope towards the street. No slope may exceed 10% as per City of Santa Maria Ordinance, Section 12-32.26 without providing transitions as required.
- e) All streets that are private require a permit from the Community Development Department. Provide complete "private improvement plans" for review and approval showing details of all curbs, gutters, fire hydrants, handicap ramps, and light poles. All references to City Standards shall be accompanied by the Standard Number.
- f) For all streets that are private, provide electrical plans for all streetlights. Provide light pole footing details, make and model of street lights, conduit sizes for feeders, feeder sizes, feeder wire insulation types, electrical meter location, and panel schedule for complete installation of private street lights. If proposed lights are not per City Standards or PG&E Standards and at City Standard spacing, provide signed, stamped, Electrical Engineers report identifying foot-candle lighting levels. Lighting levels shall comply with minimum City Standards for street type proposed.
- g) Without legal documentation, no water may flow over the property lines, or over interior lot lines. Also, interior lot lines are typically not approved with a common swale on the property line.
- h) Identify if any grading is to be performed on adjacent parcels or properties. Adjacent off-site grading requires approval from the Community Development Department, subject to documenting approval from adjacent affected parcel owners.
- i) If the subject property is land locked, provide written documentation how the applicant proposes to bring in the fill earth or grade the site. Copies of agreements from affected adjacent parcel(s) are to be submitted to the Community Development Department for file records prior to grading permit issuance.
- j) If no retardation is proposed, identify on the grading plan why no retardation is provided. If an off-site basin exists for the parcel, identify location and under what legal instrument this off-site basin was created. This information is needed so that the plans stand-alone and anyone unfamiliar with the original subdivision is informed as to the waiver of retardation on site.
- k) Grading in areas controlled by Santa Barbara County Flood Control District or drainage flowing directly into a District facility will require plan review by the Santa Barbara County Flood Control District. The applicant may be required to pay the District their regular plancheck fee.
- l) Existing easements must be abandoned as set out in the Streets and Highways Code, Section 8330 prior to issuance of building or foundation permits.
- m) If the site is presently partially or totally improved, only the unimproved portions to be

developed are subject to the retardation requirements. Any existing retardation volumes shall be maintained.

- n) Residential finish floor elevations shall be a minimum of 16 inches above the lowest top of curb. (SMMC Sec. 9-1.212)

13) CITY OF SANTA MARIA FLOOD DAMAGE PREVENTION

SANTA MARIA MUNICIPAL ORDINANCE CHAPTER 10 OF TITLE 9.

{A complete copy of this ordinance may be obtained from the Building Division. A portion of this ordinance is provided below for your information.}

SEC. 9-10.166 STANDARDS OF CONSTRUCTION.

In all areas of special flood hazards the following standards are required:

A) Anchoring

1. All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.
2. All manufactured homes shall meet the anchoring standards of Sec. 9-10.119.

B) Construction Materials and methods

1. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
2. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.
3. All new construction and substantial improvements shall be constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
4. Require within Zones AH or AO, adequate drainage paths around structures on slopes to guide flood waters around and away from proposed structures.

C) Elevation and Floodproofing

1. New construction and substantial improvement of any structure shall have the lowest floor, including basement, elevated to or above the base flood elevation. Nonresidential structures may meet the standards in Sec. 9-10.116C.3. Upon the completion of the structure, the elevation of the lowest floor including basement shall be certified by a registered professional engineer or surveyor, or verified by the community building inspector to be properly elevated. Such certification or verification shall be provided to the Floodplain Administrator.
2. New construction and substantial improvement of any structure in Zone AO shall have the lowest floor, including basement, elevated above the highest adjacent grade at least as high as the depth number specified in feet on the FIRM, or at least two feet if no depth number is specified. Nonresidential structures may meet the standards in Sec. 9-10.116C.3. Upon the completion of the structure, the elevation of the lowest floor including basement shall be certified by a registered professional engineer or surveyor, or verified by the community building inspector to be properly elevated. Such certification or verification shall be provided to the Floodplain Administrator.
3. Nonresidential construction shall either be elevated in conformance with Sec. 9-10.116C.1 or 2. or together with attendant utility and sanitary facilities:
 - a) be floodproofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water;
 - b) have structural components capable of resisting hydrostatic and hydrodynamic loads and effect of buoyancy; and
 - c) be certified by a registered professional engineer or architect that the standards of this

subsection are satisfied. Such certification shall be provided to the Floodplain Administrator.

4. Require, for all new construction and substantial improvements, that fully enclosed areas below the lowest floor that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria:
 - a) Either a minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves or other covering or devices provided that they permit the automatic entry and exit of floodwaters; or
 - b) Be certified to comply with a local floodproofing standard approved by the Federal Insurance Administration.
5. Manufactured homes shall also meet the standards in Sec. 9-10.119.

SEC. 9-10.117 STANDARDS FOR UTILITIES

- A. All new and replacement water supply and sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system and discharge from systems into flood waters.
- B. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

SEC. 9-10.118 STANDARDS FOR SUBDIVISIONS

- A. All preliminary subdivision proposals shall identify the flood hazard area and the elevation of the base flood.
- B. All final subdivision plans shall provide the elevation of proposed structure(s) and pads. If the site is filled above the base flood, the final pad elevation shall be certified by a registered professional engineer or surveyor and provided to the Floodplain Administrator.
- C. All subdivision proposals shall be consistent with the need to minimize flood damage.
- D. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage.
- E. All subdivisions shall provide adequate drainage to reduce exposure to flood hazards.

SEC. 9-10.119 STANDARDS FOR MANUFACTURED HOMES

All new and replacement manufactured homes and additions to manufactured homes shall:

- A. Be elevated so that the lowest floor is at or above the base flood elevation; and
- B. Be securely anchored to permanent foundation systems to resist flotation, collapse or lateral movement in accordance with the provisions of FEMA manual No. 85.

14) FEDERAL GRADING REQUIREMENTS

The Federal Government has passed new regulations pertaining to storm water runoff that may affect your operation. The California Regional Water Quality Control Board-Central Coast Region is the state pollution control agency, which has the authority to issue National Pollutant Discharge Elimination System (NPDES) permits. The following is a partial list of whom needs a Storm Water Discharge Permit:

- A. All manufacturing facilities.
- B. Oil and Gas operations.
- C. Recycling facilities.
- D. Salvage yards.
- E. Transportation facilities that have vehicle maintenance and cleaning equipment.
- F. Trucking and courier services.
- G. Construction activities which disturb an area equal to or greater than one (1) acre of total land.

All projects covered by the Federal Storm Water Regulations will be regulated by the City of Santa Maria under the National Pollutant Discharge Elimination System General Permit No. CAS000004 for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (General Permit). Compliance with the General

Permit is a condition of development within the City of Santa Maria.

If you would like additional information contact the California Regional Water Quality Control Board, 895 Aerovista Place, Suite 101, San Luis Obispo, California 93401, in writing. The regional board asks that you refrain from calling for detailed information. Information bulletins are available online at www.swrcb.ca.gov/rwqcb3.

THE GRADING PERMIT HOLDER, THE GENERAL CONTRACTOR AND THE OWNER/DEVELOPER SHALL COMPLY WITH DUST CONTROL MEASURES REQUIRED BY THE CITY OF SANTA MARIA.

1. DUST CONTROL MEASURES CAPABLE OF PREVENTING THE MIGRATION OF DIRT AND DUST OFF SITE, IN A MANNER ACCEPTABLE TO THE CITY OF SANTA MARIA SHALL BE IMPLEMENTED AND MAINTAINED DURING ALL CONSTRUCTION, EARTH MOVING AND GRADING PHASES OF A PROJECT. FAILURE TO DO SO WILL RESULT IN THE ISSUANCE OF A "STOP WORK" ORDER WHICH WILL NOT BE RELEASED UNTIL SUCH TIME AS AN ADEQUATE PROGRAM IS IMPLEMENTED.
2. DURING THE CLEARING, EARTH MOVING AND GRADING PHASES OF THE PROJECT, WATER TRUCKS OR SPRINKLER SYSTEMS SHALL BE USED IN SUFFICIENT QUANTITIES TO PREVENT DUST FROM LEAVING THE SITE. IN ADDITION, THE ENTIRE SITE AREA OF DISTURBED SOILS SHALL BE WETTED DOWN DURING THE EARLY MORNING HOURS AND AT THE END OF EACH DAY IN SUCH A MANNER AS TO CREATE A CRUST.
3. DURING THE CONSTRUCTION PHASE OF THE PROJECT, WATER TRUCKS OR SPRINKLER SYSTEMS SHALL BE USED TO KEEP ALL AREAS OF VEHICULAR MOVEMENT DAMP ENOUGH TO PREVENT DUST RAISED FROM LEAVING THE SITE. AS A MINIMUM, THIS WILL INCLUDE THE WETTING DOWN OF SUCH AREAS IN THE LATE MORNING HOURS AND AT THE CLOSE OF EACH DAY'S ACTIVITIES. INCREASED WATERING FREQUENCY WILL BE REQUIRED AS NECESSARY TO PREVENT DUST FROM LEAVING THE SITE.
4. ALL TRUCKS HAULING SOIL MATERIALS TO AND FROM THE SITE SHALL BE COVERED WITH A TARP TO PREVENT DUST FROM BLOWING OFF THE TRUCK.
5. ALL ALLEY WAYS, CIRCULATION ROUTES, HAUL ROUTES, STREET AND SIDEWALKS SHALL BE KEPT CLEAN AND CLEAR OF DIRT, DUST AND DEBRIS IN A MANNER ACCEPTABLE TO THE CITY OF SANTA MARIA. AS A MINIMUM, SAID AREAS SHALL BE CLEANED AT THE END OF EACH WORKING DAY OR MORE OFTEN IF DIRECTED BY CITY PERSONNEL. THE FLUSHING OF DIRT OR DEBRIS TO STORM DRAIN OR SANITARY SEWER FACILITIES SHALL NOT BE PERMITTED. FAILURE TO KEEP THESE AREAS CLEAN WILL RESULT IN THE ISSUANCE OF A "STOP WORK" ORDER WHICH WILL NOT BE RELEASED UNTIL SUCH TIME AS THE AREA IS CLEANED IN A MANNER ACCEPTABLE TO THE CITY.
6. EARTH MOVING AND GRADING ACITIVITIES SHALL BE LIMITED TO THE HOURS BETWEEN 7:00 A.M. AND 6:00 P.M. MONDAY THRU FRIDAY, 8:00 A.M. AND 5:00 P.M. SATURDAY, NO CONSTRUCTION SUNDAY AND DESIGNATED HOLIDAYS.
7. AFTER COMPLETION OF THE CLEARING, GRADING, OR EXCAVATION PHASE, THE ENTIRE AREA OF DISTURBED SOIL SHALL BE TREATED TO PREVENT DUST FROM LEAVING THE SITE. THIS MAY BE ACCOMPLISHED BY ANY ONE OF THE FOLLOWING METHODS:
 - A. THE SEEDING AND OR WATERING OF THE SITE UNTIL SUCH TIME AS THE GROUND COVER HAS TAKEN ROOT.
 - B. THE SPREADING OF SOIL BINDERS.
 - C. THE WETTING DOWN OF THE AREA IN SUCH A MANNER AS TO CREATE A CRUST ON THE SURFACE AND THE REPEATED SOAKING OF THE AREA, AS NECESSARY, TO MAINTAIN THE CRUST AND PREVENT SOIL BLOWING.
8. THE CONTRACTOR OR BUILDER SHALL DESIGNATE A PERSON OR PERSONS TO MONITOR THE DUST CONTROL PROGRAM AND TO ORDER INCREASED WATERING, AS NECESSARY TO PREVENT THE TRANSPORT OF DUST OFF-SITE. THIS PERSON'S DUTY SHALL INCLUDE HOLIDAY AND WEEKEND PERIODS WHEN WORK MAY NOT BE IN PROGRESS. THE NAME AND TELEPHONE NUMBER OF SUCH PERSON OR PERSONS IS PROVIDED IN #11 BELOW.
9. THE PROJECT OWNER, AS WELL AS THE PROJECT GENERAL CONTRACTOR ARE RESPONSIBLE FOR THE IMPLEMENTATION OF THE ABOVE NOTED DUST CONTROL MEASURES UNTIL THE TOTAL PROJECT HAS RECEIVED A FINAL INSPECTION.
11. NOTE: THE PERSON OR PERSONS RESPONSIBLE FOR MONITORING AND IMPLEMENTING ADEQUATE DUST CONTROL PROCEDURES IS:

NAME: _____ PHONE #: _____

NAME: _____ PHONE #: _____