



GRADING PERMIT CHECKLIST

PROJECT: _____

Note: The "ADD/REVISE" column must be blank, or issues resolved, in order for a Grading Permit to be issued

GENERAL REQUIREMENTS

	MEETS STD.	ADD/ REVISE	N/A	COMMENTS
1. Application filled out and signed by applicant	_____	_____	_____	_____
2. Insurance certificate for work on City R/W (see Pg. 9)	_____	_____	_____	_____
3. Inspection fees paid	_____	_____	_____	_____
4. Deposit Agreement and Surety (\$1,500 min.) If \$10,000 or less then surety must be in cash/check.	_____	_____	_____	_____
5. Downstream Impoundment Preconstruction Survey	_____	_____	_____	_____
6. Downstream Impoundment Preconstruction Bond	_____	_____	_____	_____
7. General conformance with approved SP/SDP/PP	_____	_____	_____	_____
8. Dept. of PPWP approval RE: Tree Preservation Ord.	_____	_____	_____	_____
NOTE: APPROVED TREE PRESERVATION PLAN TO BE INCLUDED IN SET OF GRADING PLANS				
9. Tree Preservation Surety	_____	_____	_____	_____
10. Geotechnical report	_____	_____	_____	_____
11. Special Inspector req'd for SWPPP inspections	_____	_____	_____	_____
A. Special Inspector certified by St. Louis County	_____	_____	_____	_____
12. Floodplain Development Permit/Application	_____	_____	_____	_____
A. Engineer signed, sealed & dated application	_____	_____	_____	_____
B. COE 404 permit or waiver	_____	_____	_____	_____
C. MoDNR 401 permit	_____	_____	_____	_____
D. LOMR submitted	_____	_____	_____	_____
E. Lowest floor 1' above 100-yr flood	_____	_____	_____	_____
Elevation Certificate required after construction of structure(s) [] YES [] NO (check one)				
13. Estimated start date for the work	_____	_____	_____	_____
14. Location of borrow or fill site	_____	_____	_____	_____
15. Grading permit for borrow or fill site	_____	_____	_____	_____
16. Haul route	_____	_____	_____	_____
A. Pavement repair bond for City streets	_____	_____	_____	_____
B. Video record of City streets along haul route	_____	_____	_____	_____

Additional Comments

For office use only:

Submittal Date: _____ Reviewed by: _____ Date: _____
 Submittal Date: _____ Reviewed by: _____ Date: _____
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GENERAL PRINCIPLES OF STORMWATER POLLUTION PREVENTION

Be advised, these are not general notes to be included on the plans; these are the guidelines used to determine the adequacy of the proposed Stormwater Pollution Prevention Plan (SWPPP).

1. Protect the Land Surface (minimize erosion) and Protect Existing Facilities
Clearing minimized. Clearing/Grubbing/grading scheduled/phased to minimize bare soil areas and time of exposure. Stormwater diverted away from the bare soil and steep slopes. Drainage ways stabilized. Existing stormwater facilities and water ways protected.
2. Sequence of Work
Key sediment control measures installed prior to clearing/grading. Clearing/Grading sequence coordinated with the installation of erosion/sediment control measures to most effectively control **erosion**. Exposed areas protected ASAP.
3. Keep Runoff Velocities Low
Natural vegetation preserved where possible. BMPs that shorten or "break" flows utilized to reduce flow velocities.
4. Capture Sediment on the Site as Final Measure
Stormwater conveyed to stable outlet and water detained in intermediate sediment traps and sediment basin before leaving site. Silt barriers installed at borders of disturbed area and where water flows onto streets. Secondary levels of protection by utilizing multiple devices are more desirable than single large sediment basins.
5. Non-Sediment Pollution Prevention
Construction site wastes managed, plans for spill prevention and control, personnel aware of requirements.

NOTE: All requirements of the SWPPP, including details, should be addressed on separate plan sheet(s) within the set of Grading Plans, unless a separate SWPPP document is provided. A separate SWPPP may be required for complex or large sites.

YES NO

SWPPP required as a formal document separate from the Grading Plans

____ _

Additional Comments



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GENERAL REQUIREMENTS OF THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

	MEETS STD.	ADD/ REVISE	N/A	COMMENTS
<i>Item 1 only required if SWPPP is stand alone document</i>				
1. Site Description	_____	_____	_____	_____
A. Owner's name, address & phone #	_____	_____	_____	_____
B. Developer's name, address & phone #	_____	_____	_____	_____
C. Engineer's name, address & phone #	_____	_____	_____	_____
D. Engineer's seal, signature & date (ALL PAGES)	_____	_____	_____	_____
E. Property address	_____	_____	_____	_____
F. Location map	_____	_____	_____	_____
G. Site area (Acres)	_____	_____	_____	_____
H. Site benchmark based on USGS datum	_____	_____	_____	_____
2. Description of Best Management Practices (BMPs)	_____	_____	_____	_____
<i>(Sample details are available for reference. Straw bales are not to be used in the City of Chesterfield.)</i>				
A. Location of BMP installation	_____	_____	_____	_____
B. Physical description/detail of BMP	_____	_____	_____	_____
C. BMP installation/construction procedures	_____	_____	_____	_____
D. O&M procedures for each BMP	_____	_____	_____	_____
3. Erosion and sediment control plans	_____	_____	_____	_____
A. Property Owner/Developer's certification				
1. Executed certification stating the following:	_____	_____	_____	_____
<p><i>"The Property Owner/Developer hereby certifies that he is familiar with the SWPPP and assumes full responsibility for the performance and maintenance of the SWPPP as stated on the approved plans. He will ensure that all contractors understand and are familiar with the SWPPP for the site and that each contractor agrees to implement and protect elements of the SWPPP as they relate to his work. The Property Owner's/Developer's onsite representative shall be responsible for the performance and maintenance of the SWPPP. In addition, the undersigned Owner/Developer assures that all City property or roads will be adequately protected."</i></p>				
2. Developer's contact person and phone #	_____	_____	_____	_____
3. Emergency contact and phone #	_____	_____	_____	_____

Additional Comments



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GENERAL REQUIREMENTS OF THE SWPPP (CONT.)

	MEETS STD.	ADD/ REVISE	N/A	COMMENTS
B. Key map dividing site into labeled Work Areas	_____	_____	_____	_____
C. Overall sequencing of the work by Work Area Including estimated duration	_____	_____	_____	_____
1. Clearing	_____	_____	_____	_____
2. Rough grading	_____	_____	_____	_____
3. Construction of public improvements - Roads, sewers, retaining walls, & utilities	_____	_____	_____	_____
4. Final grading	_____	_____	_____	_____
5. Landscaping	_____	_____	_____	_____
D. Individual Work Area plan(s)	_____	_____	_____	_____
1. Delineation of area to be disturbed	_____	_____	_____	_____
2. Estimated grading quantity per Work Area	_____	_____	_____	_____
3. Itemized list construction activities per Work Area	_____	_____	_____	_____
4. Sequence of BMPs to be installed or removed	_____	_____	_____	_____
5. Drainage plan designed to safely handle surface water, during the 15-yr, 20-min. storm including drainage area listing an A, P.I., Q for each area	_____	_____	_____	_____
6. Location utilities within 50' of area to be disturbed	_____	_____	_____	_____
7. Contours (2' interval max.)	_____	_____	_____	_____
i. Existing grades	_____	_____	_____	_____
ii. Interim grades	_____	_____	_____	_____
iii. Final grades	_____	_____	_____	_____
8. 100 year floodplain and floodway delineated	_____	_____	_____	_____
9. Note describing soil preparation and revegetation of finished grade	_____	_____	_____	_____
10. Plan for handling sediment removed during maintenance of BMPs	_____	_____	_____	_____

Additional Comments



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GENERAL REQUIREMENTS OF THE SWPPP (CONT.)

	MEETS STD.	ADD/ REVISE	N/A	COMMENTS
D. Individual Work Area plan(s) (cont.)				
11. Unvegetated open channels, runoff velocity ≤ 2 fps	_____	_____	_____	_____
12. Stabilized channels, runoff velocity 2–5 fps.	_____	_____	_____	_____
13. Adjoining sites protected	_____	_____	_____	_____
14. Runoff from upstream sites diverted appropriately	_____	_____	_____	_____
15. Improvements located 25' from natural watercourse	_____	_____	_____	_____
E. Overall drainage plan incorporating overflows etc. to safely handle a 25% increase in peak flow from the 15-yr, 20-min. storm. No adverse impact to downstream properties.	_____	_____	_____	_____
F. Work plan for typical lot during residential construction	_____	_____	_____	_____
G. Surplus erosion & siltation control devices for emergency repair – required quantities summarized by phase (Minimum of 10% of concurrent phase quantities)	_____	_____	_____	_____
H. Location and present status of any previously permitted grading operations on the property	_____	_____	_____	_____
I. Construction entrances depicted	_____	_____	_____	_____
J. Construction parking depicted & minimum number of parking spaces provided (based on development; see BMP detail)	_____	_____	_____	_____
K. Construction washdown areas depicted	_____	_____	_____	_____
L. Proposed truck and equipment access ways to/within the work site	_____	_____	_____	_____
M. Location of any downstream impoundments which could be affected by the proposed grading	_____	_____	_____	_____
N. Plan for responding to any loss of sediment off-site	_____	_____	_____	_____
O. Non-sediment pollution control				
1. Waste Management BMPs	_____	_____	_____	_____
2. Hazmat BMPs	_____	_____	_____	_____
3. Spill prevention and control BMPs	_____	_____	_____	_____
4. Temporary Sanitary Facilities	_____	_____	_____	_____

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GENERAL NOTES TO BE ADDRESSED BY THE SWPPP

The following notes present requirements that should be included as part of the SWPPP. However, the requirements given for the BMPs may exceed the requirements below. Duplicate or conflicting notes shall be avoided.

	MEETS STD.	ADD/ REVISE	N/A
1. Erosion and siltation control shall be installed prior to any grading and be maintained throughout the project until adequate vegetative growth insures no further erosion of the soil and work is acceptable to the owner and/or controlling regulatory agency.	_____	_____	_____
2. At least once every week and after every rainfall event of 0.25 inches or more, erosion and siltation control devices shall be inspected for damage and amount of sedimentation accumulated and corrective actions taken. Reports of these inspections and corrective actions shall be prepared on the forms provided by the City and submitted to the Department of Planning, Public Works and Parks within 5 days of the date of the inspection.	_____	_____	_____
3. Temporary siltation control measures (structural) shall be maintained until vegetative cover is established at a sufficient density to provide erosion control on the site.	_____	_____	_____
4. Where natural vegetation is removed during grading, vegetation shall be reestablished as soon as possible in such a density as to prevent erosion.	_____	_____	_____
5. When grading operations are completed or will be suspended for more than 5 days in any area, the disturbed area shall be seeded or otherwise stabilized to significantly reduce the erodibility of the soil. Protective measures may include a combination of seeding, sodding, mulching or other suitable means to protect the ground surface from erosion.	_____	_____	_____
6. If cut and fill operations occur during a season not favorable for immediate establishment of permanent ground cover, a fast germinating annual such as rye grasses or sudan grasses shall be utilized to retard erosion, if adequate stormwater detention and erosion control devices have not been established.	_____	_____	_____
7. All finished grades (areas not to be disturbed by future improvement) in excess of 20% slopes (5:1) shall be mulched and tacked at the rate of 100 pounds per 1,000 square feet when seeded as soon as possible after final placement.	_____	_____	_____
8. Storm water pipes, outlets and channels shall be protected by silt barriers and kept free of waste and silt at all times prior to final surface stabilization and/or paving.	_____	_____	_____

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CLEARING/GRADING PLAN REQUIREMENTS

	MEETS STD.	ADD/ REVISE	N/A	COMMENTS
1. Topographic plan showing existing and proposed contours of the site and adjoining off-site strips based on U.S.G.S. datum.	_____	_____	_____	_____
2. Plan showing the location of the clearing/grading, structures, retaining walls, etc.	_____	_____	_____	_____
3. Site address	_____	_____	_____	_____
4. Vicinity map	_____	_____	_____	_____
5. Registered P.E.'s seal, signature & date	_____	_____	_____	_____
6. Owner's name, address & phone #	_____	_____	_____	_____
7. Developer's name, address & phone #	_____	_____	_____	_____
8. Engineer's name, address & phone #	_____	_____	_____	_____
9. Geotechnical engineer's Statement of Compliance with seal, signature and date	_____	_____	_____	_____
10. North arrow and graphic scale	_____	_____	_____	_____
11. Benchmarks				
A. Based on U.S.G.S. datum	_____	_____	_____	_____
B. Temporary 'Site' benchmark	_____	_____	_____	_____
12. Existing trees to be saved and/or removed indicated	_____	_____	_____	_____
A. Limits from approved Tree Preservation Plan shown	_____	_____	_____	_____
B. Corresponds w/ Site Development Plan/Prelim. Plat	_____	_____	_____	_____
13. Natural Watercourse Protection	_____	_____	_____	_____
A. Top of Bank delineated	_____	_____	_____	_____
B. Buffer Area Delineated	_____	_____	_____	_____
50' from Top of Bank for Bonhomme, Caulks and Creve Coeur Creeks - 25' for all others (blue line on USGS Quad Map)	_____	_____	_____	_____
14. Total area of site (acres)	_____	_____	_____	_____
15. Estimated area to be disturbed (acres)	_____	_____	_____	_____
16. Estimated tree area to be cleared (acres)	_____	_____	_____	_____
17. Grading quantities	_____	_____	_____	_____
18. Finish floor elevations of existing buildings	_____	_____	_____	_____
19. 100 Year floodplain and floodway delineated	_____	_____	_____	_____
20. Slopes to be no steeper than 3:1	_____	_____	_____	_____
21. Off-site grading easement (show on plan and provide actual agreement) (NOTIFY PROPERTY OWNER PRIOR TO STARTING WORK)	_____	_____	_____	_____
22. Positive drainage provided (2% min. slope in grassed swales, 1% min. slope other grassed areas)	_____	_____	_____	_____
23. Call out swales on top of retaining walls.	_____	_____	_____	_____

NO IMPLIED APPROVAL OF WALL CONSTRUCTION. ZONING AUTHORIZATION REQUIRED FROM DEPARTMENT



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CLEARING/GRADING PLAN REQUIREMENTS (CONT.)

Additional Comments (cont.)

MANDATORY NOTES

(The following notes are required regardless of the SWPPP)

**MEETS ADD/
STD. REVISE**

- | | | |
|--|-----|-----|
| 1. Notify the City of Chesterfield Department of Planning, Public Works & Parks (636-537-4761) 48 hours prior to the commencement of grading and/or prior to the commencement of construction. | ___ | ___ |
| 2. Parking on non-surfaced areas is prohibited in order to eliminate the condition whereby mud from construction and employee vehicles is tracked onto the pavement causing hazardous roadway and driving conditions. | ___ | ___ |
| 3. The streets surrounding this development and any street used for construction access thereto shall be kept free from mud and construction debris and shall be cleaned throughout the day. | ___ | ___ |
| 4. All fills placed under proposed storm and sanitary sewer lines and/or paved areas, including trench backfills within and off the road right-of-way, shall be compacted to 90% of maximum density as determined by the "Modified AASHTO T-180 Compaction Test" (ASTM D-1557) for the entire depth of the fill. Compacted granular backfill is required in all trench excavation within the street right-of-way and under all paved areas. All tests shall be performed under the direction of and verified by a soils engineer concurrent with grading and backfilling operations. | ___ | ___ |
| 5. Soft soils from the bottom and banks of any existing or former pond sites or tributaries or any sediment basins or traps shall not be placed in proposed public right-of-way locations or in any storm sewer location. | ___ | ___ |
| 6. All trash and debris on-site, either existing or from construction, must be removed and properly disposed of off-site. | ___ | ___ |
| 7. Debris and foundation material from any existing on-site building or structure which is scheduled to be razed for this development must be properly disposed of off-site. | ___ | ___ |
| 8. Any wells, cisterns and/or springs, which may exist on this property, should be located and sealed in a manner acceptable to the City of Chesterfield and the MoDNR. | ___ | ___ |
| 9. All excavations, grading or filling shall have a finished grade not to exceed a 3:1 slope (33%), unless specifically approved otherwise. | ___ | ___ |
| 10. No excavation shall be made so close to the property line as to endanger any adjoining property of any public or private street without supporting and protecting such public or private street or property from settling, cracking or other damage. | ___ | ___ |
| 11. All lots shall be seeded and mulched or sodded before an occupancy permit shall be issued except that a temporary occupancy permit may be issued by the City of Chesterfield Department of Planning, Public Works and Parks in cases of undue hardship because of unfavorable ground conditions. If the lot is to be seeded and mulched, it shall be done in a manner that meets or exceeds the requirements of the City's "Sediment & Erosion Control Guidelines." | ___ | ___ |



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INSURANCE REQUIREMENTS FOR WORK ON CITY RIGHT OF WAY

	MEETS STD.	ADD/ REVISE	N/A
<p>A certificate of insurance stating the "City of Chesterfield is an additional insured" is required for work on City right of way. Indication of the City of Chesterfield as a "certificate holder" will not suffice.</p>	_____	_____	_____
<p>The Contractor and his Subcontractors shall procure and maintain throughout the duration of work on City right of way, insurance of the types and minimum amounts as stated below:</p>			
<p>1. <u>Worker's Compensation</u> in full compliance with statutory requirements of Federal and State of Missouri Law and Employers' Liability coverage in the minimum amount of \$500,000.00</p>	_____	_____	
<p>2. <u>Comprehensive General Liability</u></p>	_____	_____	
<p>Bodily Injury, Including Death \$ 500,000 each person</p>	_____	_____	
<p>\$2,500,000 each occurrence</p>	_____	_____	
<p>Property Damage \$2,500,000 each occurrence</p>	_____	_____	
<p>\$2,500,000 aggregate</p>	_____	_____	
<p>3. <u>Comprehensive Automobile Liability</u></p>	_____	_____	
<p>Bodily Injury, Including Death \$ 500,000 each person</p>	_____	_____	
<p>\$2,500,000 each occurrence</p>	_____	_____	
<p>Property Damage \$2,500,000 each accident</p>	_____	_____	

Additional Comments