DATE: December 21, 2016

TO: Michael O. Geisel, P.E.

City Administrator

James A. Eckrich, P.E. FROM:

Public Works Director / Lity Engineer

Public Works and Parks Policies 18, 23-29 RE:

Chesterrie internationally Accredite

As you have directed, the City Staff has begun the process of comprehensively reviewing all City Council policies to ensure those policies are current and followed. There are 53 policies in the Public Works and Parks portion of the City Policy Manual. City Council has reviewed and approved, deleted, or modified Policies 1 – 22 (excluding 18 – see below). I am hereby submitting my recommendations for Policies 18 and 23 – 29. A summary of the recommendations for each policy is as follows:

- 18) Maintenance of Storm Sewers, Detention Basins, and Open Channels: The existing policy was written prior to MSD having jurisdiction for storm water in the City of Chesterfield. The new policy clarifies that storm sewers are maintained by MSD, and that the City of Chesterfield does not maintain detention basins or open channels on private property. At the direction of the Planning and Public Works Committee the existing and proposed policies were reviewed by the City Attorney. The City Attorney does not believe the proposed policy would prevent the Public Works Department from addressing concerns caused by flooding or storm sewer blockages. He does recommend that the existing policy be replaced as soon as practical because it is clearly outdated and inaccurately indicates that the City, not MSD, is responsible for storm water.
- 23) Stop Signs: The existing policy conflicts with Public Health and Safety Policies #12 and #13 (attached). The existing Public Works Policy #23 allows trustees to request a stop sign on a subdivision street with a majority of support, while the Public Health and Safety Policies #12 and #13 require 90 percent support. After consulting with the Police Department, the City Staff recommends that the Public Health and Safety Policies be repealed, and that a new policy covering stop signs and yield signs be implemented in the Public Works section. That new policy will require that subdivision trustees obtain 75% support for the sign from area residents. Accordingly, I recommend the approval of a new policy which details how residents can request a stop or a yield sign. In conjunction with the approval of this policy, Public Health and Safety Policies #12 and #13 will be repealed.
- 24) Sprinkler Systems in Right of Way: Existing policy is appropriate, no change is recommended.
- 25) Stop Bars: Recommend expanding the existing policy to clarify that stop bars are only used in conjunction with crosswalks, where it is necessary (as defined by the City

Public Works and Parks Policies 18, 23-29 December 21, 2016 Page 2

Engineer) to define the point of stopping to ensure motorist / pedestrian safety, and where specifically required by the MUTCD.

- 26) Driveway Apron Replacement: Existing policy is appropriate, no change is recommended.
- 27) Stormwater Standards: The requirements of Policy #27 are now contained within Section 31-04-12 of the City of Chesterfield Municipal Code. Policy #27 can be repealed.
- 28) Street Grade: The existing policy is appropriate, except that a minor change has been made to more appropriately refer to Hydraulic Engineering Cirucular #22 instead of #12.
- 29) Parkland Criteria: Recommend no change at this time. Mr. McCarthy will be submitting this Policy to the Parks, Recreation, and Arts Committee for review.

Action Recommended

These eight policies should be presented to the Planning and Public Works Committee for consideration. Should PPW concur with Staff's recommendation, it should vote to authorize Staff to submit these policies to City Council for approval. The next set of policies will be submitted to PPW in the near future for a similar review.

PUBLIC WORKS

NO.

18

SUBJECT

Maintenance of Storm Sewers, Detention Basins, & Open Channels

INDEX

PW

DATE

7/19/1993

DATE

ISSUED

REVISED

POLICY

Storm Sewers

The City maintains those underground, improved storm sewers, which convey water from a public way, and maintains those sewers only to the point of discharge. In such cases, the City is not required to restore properties, e.g. driveways, landscaping, sprinklers systems, and/or fences. In no event will the City be responsible for reparation of structures or trees placed within recorded easements.

The City will repair underground, improved storm sewers, which do not convey water from a public way only if all of the following criteria are met:

- 1. They connect to the improved public storm sewer system.
- 2. They are within existing, or newly dedicated public easements.
- 3. Sufficient budgetary resources remain for the proposed repair.
- 4. They are not part of an internal stormwater drainage system within a commercial, industrial, or multi-family development. An internal storm sewer system refers to that portion of a system which collects and transports water solely from within the development. Those sewers which convey water from adjacent properties or continue through a development are not considered to be internal.
- 5. The sewer benefits more than one property owner. For example, the sewer receives stormwater from two or more properties or the storm sewer crosses a property line.

Repairs are limited to storm sewer structures and underground conduits. No repairs will be considered to improve or restore grading, flow, or erosion adjacent to a storm sewer.

City staff will determine which projects shall be completed by in-house personnel and designate those projects which require the expertise of outside contractors.

Page 1 of 2

Expenditures for an individual project shall be limited to \$20,000 of Chesterfield funding. Any project exceeding \$5,000 in cost, which is to be performed by outside contractors, must be bid in conjunction with City purchasing requirements. Any project, for which outside contractors are to be used, will be submitted to MSD for possible funding support, assuming such funds are available and the timing of said project will not be negatively impacted by such application. Project prioritization and scheduling for all projects shall be determined by City Staff, but shall be reviewable, at any time, by the Public Works/Parks Committee. All projects shall be subject to the availability of current funding.

Project exceeding \$20,000 are to be considered in conjunction with the annual capital improvement budget.

Detention Basins

The City does not maintain detention or retention basins. Maintenance of storm sewers flowing into a detention/retention basin shall cease one structure above the discharge into the basin and shall recommence at the first structure downstream of the basin.

Open Channels

The City does not maintain open channels or overland flow. City crews will remove those obstructions and blockages, which endanger public facilities. In an effort to provide for uniform flow and protection of properties, the City will attempt to clear obstruction/blockages of major drainage channels as funds are available and if adjacent residents provide reasonable access.

e e op
3/10/99
Date
3-10-99
Date
Date

PUBLIC WORKS

NO. 18

SUBJECT Maintenance of Storm Sewers, Detention INDEX

Basins, & Open Channels

DATE 7/19/1993

Told PW

DATE 11/9/2016

REVISED

POLICY

Storm Sewers

Public storm sewers are maintained by the Metropolitan St. Louis Sewer District (MSD), formed by Charter in 1954, which was later amended in 2000 and 2012. When the City of Chesterfield becomes aware of a deficiency with a public sewer it shall report the deficiency to MSD and temporarily place cones, barrels, barricades, or other traffic control / protection devices around the deficiency to protect the public.

To the extent that there are any private storm sewers or facilities located in the public right of way, those storm sewers and facilities are maintained by the agency responsible for the public right of way. Private storm facilities on private property are the responsibility of the property owner.

Road culverts open on both sides are maintained by the agency responsible for the road.

Detention Basins

The City of Chesterfield does not maintain detention or retention basins. Generally the maintenance of public storm sewers flowing into a detention/retention basin ceases one structure above the discharge into the basin and resumes at the first structure downstream of the basin. The exact location of MSD / private ownership can be ascertained by reviewing property records or contacting MSD.

Open Channels

The City of Chesterfield does not maintain open channels or overland flow. The City of Chesterfield will not correct erosion problems on private property. If debris is blocking a creek the City will contact MSD and request that the debris is removed. City crews will only remove those obstructions and blockages which endanger life or public facilities.

Nothing within this Policy shall prevent the City of Chesterfield from addressing any storm water problem or blockage which threatens life or property.

RECOMMENDED BY:		
Department Head/Council Committee (if applicable)	Date	
APPROVED BY:		
City Administrator	Date	
City Council (if applicable)	Date	<u> </u>

PUBLIC WORKS

NO.

23

SUBJECT Stop signs INDEX

PW

DATE

9/5/1995

DATE

ISSUED

REVISED

POLICY

Federal, State and County roadways

City's role is to request that the appropriate level of government conduct an analysis to determine if national warrants have been met.

Non-through streets (residential subdivisions/side streets)

Requires notification of Subdivision Trustees by City Administrator for any request received. Trustees must "survey" residents to determine if the majority supports the request. If so, a letter must be returned to the City Administrator, indicating that the request has the required support and that they, as Trustees, support the request. An ordinance is then prepared and forwarded directly to City Council for consideration for approval.

Through/collector streets

Stop signs will be considered for approval if:

- 1. National warrants are met; or,
- 2. When accident history at the intersection in question for the current year and the year just past reflects 3 or more reported accidents of the type susceptible to correction by installation of a stop sign, including right and left turn collisions as well as right angle collisions shall be indicative of accident problem; or,
- 3. When the volume of traffic on the lesser, or cross street, exceeds 50% of the traffic volume on the through street, traffic volumes shall be considered in the determination for approval; or,
- 4. Where the less important road intersects with the collector or through street and application of the normal right-of-way yield is unduly hazardous due to a sight distance problem; or,

- 5. Where other concerns are expressed by the City Engineering Division following an engineering study of the location in question, and where installation of a stop sign is determined to be the appropriate corrective action, or,
- 6. The members of a regional Traffic Task Force vote at least 67% in favor.

Note: Should a regional Traffic Task Force be established to consider placement of a stop sign or signs on a "through/collector" street, it will include representatives from those areas of the City whose residents regularly use the street in question. Ward Council members will determine subdivisions to be represented and total representation from each. The proposed list of representatives will be forwarded, along with the Task Force's mission statement, to City Council for approval, before any work is initiated. The City Administrator will assign Staff support and administrative (copying, postage, etc.) support to the Task Force.

RECOMMENDED BY:		3/10/99
Department Head/Council C	Committee (if applicable)	Date
APPROVED BY:	Jenny	3-10-99
City Administrator		Date
City Council (if applicable)		Date
	Page 2 of 2	

Exuns Policy

CITY OF CHESTERFIELD POLICY STATEMENT

PUBLIC HEALTH & SAFETY

NO.

12

SUBJECT Stop Signs

INDEX

PD

DATE

9/5/95

DATE

10/9/01

ISSUED

REVISED

POLICY

I. PURPOSE

This policy establishes warrants for the installation of stop signs throughout the City of Chesterfield.

II. GENERAL

All requests for stop signs shall be submitted in writing to the City Administrator. The City Engineering Department/Public Works Department will determine the classification of the street and, with the assistance of the Police Department, shall determine whether or not the specific location meets the warrant requirements as specified herein.

All streets within the City of Chesterfield shall be classified into one of the three categories as follows:

- A. Federal, State and County Roadway: Arterials and expressways identified and maintained by the County and State Highway Departments.
- B. Through/Collector City Street: Residential collector, secondary and service streets that move traffic from the major streets which distribute traffic regionally, to residential or residential minor streets which distribute traffic to individual lots, parcels and uses within the subdivision, area, or neighborhood. Collector streets also may serve individual lots, parcels, and uses as a secondary or additional function.
- C. Non-Through City Street (residential subdivision/side street): Residential streets that serve a local neighborhood and may be in the form of a cul-de-sac or loop street.

A list of all roadways within the City of Chesterfield and their classifications will be maintained in the office of the City Engineer.

III PROCEDURE

A. Federal, State and County Roadways:

All requests for stop signs on Federal, State and County Roadways will be forwarded to the appropriate agency for their consideration and final determination.

B. Through/Collector City Streets:

All stop sign requests on Through/Collector City Streets must be submitted in writing to the City Administrator. The City Engineering Department and the Police Department shall review all requests for stop signs: Stop signs shall be approved only under the following conditions:

- 1. When the warrants for stop signs as outlined in the <u>Uniform Manual On Traffic Control Devices</u> have been met; or
- 2. The past twelve (12) month accident history at the intersection in question reflects three or more reported accidents of the type susceptible to correction by the installation of a stop sign, including right and left turn collisions as well as right angle collisions; or
- 3. Where the lesser or cross street intersects with a Through/Collector Street and application of the normal right-of-way yield is unduly hazardous due to a sight distance problem; or
- 4. Where other concerns are expressed by the City Engineering Division following an engineering study of the location in question and where installation of a stop sign is determined to be the appropriate corrective action.

C. Non-Through City Streets

All requests for stop signs on Non-Through City Streets must be submitted to the City Administrator in writing. Requests will then be forwarded to the appropriate subdivision trustees who must survey, obtain signatures, or otherwise verify to the City Administrator that there exists among the residents a 90% support for the stop sign. An ordinance calling for the installation of the stop sign will then be prepared and submitted to the Public Health & Safety Committee for review and then forwarded to City Council for consideration and approval.

NOTE:

Should a "regional traffic task force" be established to consider placement of a stop sign or signs on a Through/Collector City Street, it shall include representatives from those areas of the City whose residents regularly use the street or streets in question. Ward Councilmembers will meet to determine subdivisions to be represented and total representation from each. The proposed list of representatives will then be forwarded along with the task force mission statement to City Council for approval prior to any work being initiated. The City Administrator will assign staff and administrative support to the task force.

RECOMMENDED BY:	
Department Head/Council Committee (if applicable) APPROVED BY:	Date
City Administrator Thichael Sta	Date 10/3/01
City Council (if applicable)	Date

PUBLIC HEALTH & SAFETY

NO.

13

SUBJECT Yield Signs

INDEX

PD

DATE

4/15/96

DATE

10/9/01

ISSUED

REVISED

POLICY

I. PURPOSE

This policy establishes guidelines for the placement of yield signs throughout the City.

II. PROCEDURE

Requests for Yield Signs on non-through streets must be submitted in writing to the City Administrator. Requests will then be forwarded to the appropriate subdivision trustees who must survey, obtain signatures, or otherwise verify to the City Administrator that there exists among the residents, a 90% support for the Yield Sign.

An informal procedure will be used by staff regarding the evaluation of the placement of yield signs when so requested. Ordinances for signs will be forwarded to the Public Health & Safety Committee and then to full City Council for approval.

PUBLIC WORKS NO. 23

SUBJECT Stop and Yield Signs INDEX PW

DATE 9/5/1995 **DATE** 12/20/16

ISSUED REVISED

POLICY

A resident desirous of the installation of a stop or yield sign should make a request, in writing, to the City Engineer. The City Engineer shall first determine whether the stop or yield sign would be located on a public or private street. If the street is private, the City Engineer shall communicate to the resident that the street is private and that the petitioner should contact the street owner or subdivision trustee. If the street is public, the City Engineer should next verify that the roadway is not a State or County roadway. If it is a State or County roadway, the City should forward the request to the appropriate governmental agency and request that an analysis be conducted to determine whether warrants have been met for the installation of a stop or yield sign, and that those results are communicated to any resident who has requested a stop or yield sign.

If the request is for a stop or yield sign on a public street under the jurisdiction of the City of Chesterfield, the City Engineer shall determine if the street is a Subdivision Street or a Through Street as detailed within the City's Comprehensive Plan and Schedule V of the Model Traffic Ordinance.

Non-through streets (residential subdivisions/side streets)

The City Engineer shall review the request to ensure that the installation of a stop or yield sign would not violate traffic principles and sound engineering judgement. If that is the case and the sign should not be installed, the City Engineer shall notify petitioner in writing with a courtesy copy to the Subdivision Trustees. If the sign would not violate traffic principles, the City Engineer shall notify the Subdivision Trustees of the request and ask that they survey the area residents to determine whether 75% of the area residents support the installation of a stop or yield sign. If 75% of the area residents do support the stop or yield sign, a letter must be returned to the City Administrator, indicating that the subdivision supports the installation of a stop or yield sign. An ordinance will then be prepared and forwarded directly to City Council for consideration for approval.

Through/collector streets

The City Engineer shall review the request, conduct a traffic study (if necessary), request an accident history, and determine whether any of the following criteria have been met:

- 1. The intersection meets the warrants for a stop or yield sign as detailed within the Manual on Uniform Traffic Control Devices (MUTCD); or,
- 2. The secondary road intersects with the through street in such a manner that the application of the normal right-of-way yield is unduly hazardous due to a sight distance or other problem; or,
- 3. The City Engineer believes that there is some characteristic of the intersection which causes a safety concern that would be addressed through the installation of a stop or yield sign on the through street.

If any of the above criteria are met an ordinance will be prepared and forwarded directly to City Council. Otherwise, the petitioner will be notified that the intersection does not meet the warrants for a stop or yield sign.

RECOMMENDED BY:	
Department Head/Council Committee (if applicable)	Date
APPROVED BY:	
City Administrator	Date
City Council (if applicable)	Date

Eximos Policy Recomment No Change

CITY OF CHESTERFIELD POLICY STATEMENT

PUBLIC WORKS

NO.

24

SUBJECT

Sprinkler Systems in Right-of-Way

INDEX

PW

DATE ISSUED

6/3/1996

DATE REVISED

POLICY

Per City ordinance number 725, property owners are required to obtain a special-use permit for the installation of sprinkler systems. The City will not require the normal proof of insurance, bonds, or site drawings for the special-use permit. However, the property owner must execute a hold harmless agreement acknowledging that the sprinkler system is being placed within public right-of-way and that the City is not responsible for any damages to the system.

If a sprinkler system is damaged during construction and there is not a hold harmless agreement on file at the City, the property owner will be required to execute a hold harmless agreement prior to the City initiating any sprinkler related repairs. Refusal to execute the agreement will cause the City to cut and cap the system within the right-of-way. Sprinkler repairs will be completed, with the execution of a hold harmless agreement, one time, with the City having no responsibility for future events. All future repairs will be the responsibility of the property owner.

RECOMMENDED BY:	
Department Head/Council Committee (if applicable)	
APPROVED BY:	3-10-99
City Administrator	Date
City Council (if applicable)	Date

Eximy Policy

CITY OF CHESTERFIELD POLICY STATEMENT

PUBLIC WORKSNO.25SUBJECTStop BarsINDEXPWDATE ISSUED6/3/1996DATE REVISED

POLICY

Stop Bars will be painted at intersections with Crosswalks and where it is necessary to define the point of stopping to ensure motorists and pedestrian safety.

RECOMMENDED BY:	2/10/00
Department Head/Council Committee (if applicable)	<u> </u>
APPROVED BY:	3-10-99
City Administrator	Date
City Council (if applicable)	Date

PUBLIC WORKSNO.25SUBJECTStop BarsINDEXPWDATE ISSUED6/3/1996DATE REVISED12/21/16

POLICY

Stop bars are generally not used within the City of Chesterfield. Stop bars will only be painted in conjunction with crosswalks, where it is necessary (as determined by the City Engineer) to define the point of stopping to ensure motorist/pedestrian safety, or where specifically required by the Manual of Uniform Traffic Control Devices (MUTCD).

RECOMMENDED BY:	
Department Head/Council Committee (if applicable)	Date
APPROVED BY:	
City Administrator	Date
City Council (if applicable)	Date

Recommend No change

CITY OF CHESTERFIELD POLICY STATEMENT

PUBLIC WORKS

NO. 26

SUBJECT Driveway Apron Replacement

INDEX PW

DATE ISSUED

6/3/1996

DATE REVISED

POLICY

Driveway aprons will only be replaced as a result of damage by City maintenance operations; or if it is necessary to remove and replace the driveway apron in conjunction with an adjacent sidewalk or street project due to grades or damage caused by City construction efforts.

RECOMMENDED BY:	
motech)	3/10/99
Department Head/Council Committee (if applicable)	Date
APPROVED BY:	3-10-99
City Administrator	Date
City Council (if applicable)	Date

Existing Policy Recommend Delaye

CITY OF CHESTERFIELD POLICY STATEMENT

PUBLIC WORKS

NO.

27

SUBJECT

Stormwater Standards

INDEX

PW

DATE ISSUED 5/19/1997

3/13/13

DATE

REVISED

POLICY

The City of Chesterfield has adopted the Metropolitan St. Louis Sewer District (MSD), Rules and Regulations and Engineering Design Requirements for Sanitary Sewage and Stormwater Drainage Facilities, dated February, 1997. The City will adopt any changes made by MSD to the standards, unless otherwise acted upon.

In addition, the following items supplement and supersede the MSD standards:

A. General

As-built plans are to be submitted to the City.

Granular backfill is required within trenches located in the right of way and adjacent areas. (This includes sidewalks that are installed on easements adjacent to right-of-way).

Minimum 1% slope is required on any grassed area; 2% minimum slope in grassed swales.

Siltation control measures are to be designed, constructed and maintained until adequate vegetation established.

The adequacy of any existing downstream storm sewer is to be verified and upgraded if necessary. Undersized downstream storm sewers are to be replaced until overflow(s) can be accommodated on right of way.

Storm sewer outlets within 10 feet of a sanitary sewer crossing to be extended past the sanitary sewer crossing.

B. <u>Design Criteria</u>.

40% blockage factor to be used in sizing inlets at low points. Inlet capacities are to be determined by the HEC (hydraulic engineering circulars).

Concentrated flow directed across sidewalks is limited to 1 cfs (as in unincorporated County).

Lowest sill of structure(s) adjacent to 100 year overflow or ponding areas are to be at least 1 foot above the high water elevation.

Pavement under drains are to be installed the full width of pavement at curb inlets.

C. Detention.

For purposes of determination of detention calculation methods, and calculations to which differential calculations apply, undeveloped (instead of existing) vs. post-development conditions to be used.

Allowable release rates may be reduced due to downstream conditions.

Detention storage is to be provided for the current project phase, as applicable. Each successive phase may require basin modification as necessary to accommodate increases in runoff.

When developments are within sites served by local and regional detention facilities, the City will require an analysis of downstream effects and compliance with detention requirements at time of development for areas served by regional type detention basins, which were installed previously.

Minimum slope of 1% for paved swales.

Underground facilities generally to be reinforced rectangular vaults. Circular reinforced concrete pipe, minimum Class IV and 60" minimum diameter, with confined "O" ring joints permitted. Pipe and joints must meet requirements of ASTM C-361.

D. Flood Plain

All requirements of the flood damage prevention ordinance are incorporated herein as may be revised from time to time.

If floodplain is proposed to be altered, LOMR is to be obtained prior to the full release of subdivision escrows. Unless (2)CLOMR is obtained prior to the issuance of building permit for a lot that is to be removed from the Special Flood Hazard Area, the lot will have to conform to SFHA requirements.

B.	Easements
	MANDONINO

Ponding easements are required for the 100-year storm.

F. Ability to waive requirements

The Director of Public Works is empowered to grant exceptions to the requirements on a case by case basis when specific requirements are onerous and inappropriate for a particular development.

RECOMMENDED BY:	
moleis	3/10/99
Department Head/Council Committee (if applicable)	Date
APPROVED BY:	3-10-99
City Administrator	Date
City Council (if applicable)	Date

PUBLIC WORKS

NO.

28

SUBJECT Street Grade

INDEX

PW

DATE

10/6/1997

DATE

ISSUED

REVISED

POLICY

Minimum Grade

1. Two percent minimum grade centerline. Two percent must be maintained through cul-de-sac warpings.

Maximum Grade

1. Six percent maximum grade centerline, without justification. For street grades greater than 6%, justification is required.

Any justification submitted should include plans, profiles, boring logs, cross-sections, etc. Prepared by an engineer, clearly showing site conditions and alternatives considered.

Twelve (12%) percent maximum grade with justification.

Justifications for street grades in excess of 6% may take the form of one or more of the following, as may be required:

- A. Topography inordinate amount of earth fill or haul.
- B. Rock existence of subsurface rock strata.
- C. Tree Retention undue removal of desirable tree masses.
- 2. Submittal if grades exceeding 6% are proposed, a separate plan submittal is required. This plan submittal shall include, as a minimum, the following:
 - A. Plan and profile sheets showing the proposed grade, a 6% grade and giving the street names and stationing.
 - B. Existing ground line and rock line based on actual field borings and survey.

- C. Cross sections, including rock elevations, at critical locations to determine the grading of adjacent lots.
- D. Cost estimates of rock excavation required to obtain a 6% grade versus the proposed grade.
- E. Earthwork quantities and cost estimates required to obtain a 6% grade versus the proposed grade.
- F. Cost estimate of hauling operation if earthwork balance cannot be obtained by using 6% grades.
- G. Evaluation of tree masses disturbed to obtain a 6% grade versus proposed grade.

The following will not be considered as justification for steep grade approval:

- 1. Inability to obtain the total number of lots permitted by zoning.
- 2. Adhering to previously approved flood plain study.
- 3. Variance from standard typical sections.

Approval of steep grades exceeding 6% will be given by the Director of Public Works based on the data submitted.

3. Special Requirements

- A. When steep grades are approved, steep grade drainage shall include grated troughs and pavement lugs where required.
- B. Inlet capacities are so low at these steep grades that multiple inlets, skewed inlets, or trench drains are required. Inlet capacities are arrived at through the use of Hydraulic Engineering Circular #12.
- C. If public streets are permitted in excess of 6% slope, a disclaimer is required on the record plat, notifying all prospective lot owners that their street will not be given priority snow removal by the City.
- D. If public streets are permitted in excess of 6% slope, signage is required to be erected, immediately after construction of streets indicating that streets will not be given priority snow removal by the City.
- E. Maximum 4% grade entering and leaving a cul-de-sac.

- F. Standard platforms ranging from 2% to 4% for sixty (60) feet will be required at all side street intersections regardless of steep grade approval.
- G. The design engineer will be required to indicate which lots are susceptible to pavement migration (street creep) on the improvement plan, and/or any required site development plans.

RECOMMENDED BY:	/ /
Department Head/Council Committee (if applicable)	3/10/99 Date
APPROVED BY:	3-10-99
City Administrator	Date
City Council (if applicable)	Date

PUBLIC WORKS

NO.

28

SUBJECT

Street Grade

INDEX

PW

DATE ISSUED

10/6/1997

DATE

12/21/16

REVISED

POLICY

Minimum Grade

1. Two percent minimum grade centerline. Two percent must be maintained through cul-de-sac warpings.

Maximum Grade

1. Six percent maximum grade centerline, without justification. For street grades greater than 6%, justification is required.

Any justification submitted should include plans, profiles, boring logs, cross-sections, etc. Prepared by an engineer, clearly showing site conditions and alternatives considered.

Twelve (12%) percent maximum grade with justification.

Justifications for street grades in excess of 6% may take the form of one or more of the following, as may be required:

- A. Topography inordinate amount of earth fill or haul.
- B. Rock existence of subsurface rock strata.
- C. Tree Retention undue removal of desirable tree masses.
- 2. Submittal if grades exceeding 6% are proposed, a separate plan submittal is required. This plan submittal shall include, as a minimum, the following:
 - A. Plan and profile sheets showing the proposed grade, a 6% grade and giving the street names and stationing.
 - B. Existing ground line and rock line based on actual field borings and survey.

- C. Cross sections, including rock elevations, at critical locations to determine the grading of adjacent lots.
- D. Cost estimates of rock excavation required to obtain a 6% grade versus the proposed grade.
- E. Earthwork quantities and cost estimates required to obtain a 6% grade versus the proposed grade.
- F. Cost estimate of hauling operation if earthwork balance cannot be obtained by using 6% grades.
- G. Evaluation of tree masses disturbed to obtain a 6% grade versus proposed grade.

The following will not be considered as justification for steep grade approval:

- 1. Inability to obtain the total number of lots permitted by zoning.
- 2. Adhering to previously approved flood plain study.
- 3. Variance from standard typical sections.

Approval of steep grades exceeding 6% will be given by the Director of Public Works based on the data submitted.

3. Special Requirements

- A. When steep grades are approved, steep grade drainage shall include grated troughs and pavement lugs where required.
- B. Inlet capacities are so low at these steep grades that multiple inlets, skewed inlets, or trench drains are required. Inlet capacities are arrived at through the use of Hydraulic Engineering Circular #22.
- C. If public streets are permitted in excess of 6% slope, a disclaimer is required on the record plat, notifying all prospective lot owners that their street will not be given priority snow removal by the City.
- D. If public streets are permitted in excess of 6% slope, signage is required to be erected, immediately after construction of streets indicating that streets will not be given priority snow removal by the City.
- E. Maximum 4% grade entering and leaving a cul-de-sac.

- F. Standard platforms ranging from 2% to 4% for sixty (60) feet will be required at all side street intersections regardless of steep grade approval.
- G. The design engineer will be required to indicate which lots are susceptible to pavement migration (street creep) on the improvement plan, and/or any required site development plans.

RECOMMENDED BY:		
Department Head/Council Committee (if applicable)	Date	
APPROVED BY:		
City Administrator	Date	
City Council (if applicable)	Date Date	

Existing Yollay

CITY OF CHESTERFIELD POLICY STATEMENT

To be renowed by Parks, Recreation + Arts Commissee.

PUBLIC WORKS

NO.

29

SUBJECT

Donations for Park Improvements

INDEX

 \mathbf{PW}

DATE ISSUED

9/9/1998

DATE

REVISED '

POLICY

Donations for park improvements can either be accepted through Friends or the Parks or directly by the City.

RECOMMENDED BY:	
material	3/10/99
Department Head/Council-Committee (if applicable)	Date
APPROVED BY:	
Thickard Soffermy	3-10-99
City Administrator	Date
City Council (if applicable)	Date