

DEVELOPMENT NOTES:

- Area of Tract: 13.08 Acres more or less
- Present Zoning: R-4 Apartment House District
- Proposed Zoning: R-4 Apartment House District
- Minimum R-4 Zoning Standards
 - Minimum Lot Area: One (1) acre
 - Minimum Lot Size: 1,800 SqFt per dwelling unit for Multi-family developments
 - Maximum Lot Coverage: Forty (40%) percent
 - Minimum Lot Width: Seventy (70) feet
 - Maximum Building Height: Fifty (50) Feet
- Minimum Front Yard: Thirty-five (35) feet
 - Side Yard: fifteen (15) feet
 - Rear Yard: Thirty (30) feet
- Distance between grouped buildings:
 - Front to Front: 60 feet
 - Front to Back: 60 feet
 - Front to Side: 45 feet
 - Side to Side: 30 feet
 - Back to Side: 35 feet
 - Back to Back: 60 feet
 - Corner to Corner: 20 feet
- Total Units Proposed:
 - 20 - 12 Unit Buildings
 - 240 Total Units
- Allowable Density:
 - 13.08 Acres x 24 Units/Acre = 314 Units
 - Proposed Density:
 - 240 units / 13.08 Acres = 18.3 Units/Acre
- Off street parking: One and one-half (1.5) spaces required per one bedroom dwelling unit, plus one (1) additional space for each additional bedroom. One (1) parking space per dwelling unit is required to be covered. One (1) space required per 10 units for pool amenity
 - Parking Required: 240 Two Bedroom Units = 240 * 2.5 = 600 Total Parking Spaces
 - 240 Units / 10 = 24 parking spaces for pool
 - 240 Required to be Covered
 - Parking Provided: 240 Covered Parking Spaces
 - 385 Un-Covered Parking Spaces
 - Handicap Spaces Provided: 20 Handicap Spaces
 - 4 Van Accessible Handicap spaces
- Storm Water Detention shall comply with City of O'Fallon Standards. Detention pond shall be a dry basin. Detention basin shall be sized to handle a 200 year storm. 2 year microdetention and stormwater filtration shall be provided for this site and detailed on the improvement plans. Detention basin shall be sodded up to the 200 year high water mark.
- Proposed development to be served by:
 - Water: City of O'Fallon 636-240-5555
 - Sewer: City of O'Fallon 636-240-5555
 - Telephone: Century Tel 636-332-3011
 - Gas: LoCede Gas 636-658-5417
 - Electric: Ameren UE 636-925-3216
 - O'Fallon Fire Protection District
 - Fort Zumwalt School District
- All streets to be constructed to City of O'Fallon Standards.
- All Proposed utilities to be located underground.
- This site will address the Soil and Water Conservation Service Comments with the improvement Plan set.
- According to the FIRM Flood Insurance Rate Map 29183C0237 E Dated August 2, 1996, part of this development is located within the 100 year flood plain. Flood plain issues will be dealt with as part of the improvement plan set.
- Sidewalks shall be installed as per City Ordinances as shown on this plan.
- Per Ordinance, public sanitary sewers and water service will be extended to this project.
- Developer:
 - Bramblett Development LLC
 - 913 Lafayette Landing Place
 - St. Charles, MO 63303
 - (314) 452-5000
- Property Owners:
 - 1 Carl Hoerman 725 Riverview Lane St. Charles, MO 63301
 - 2 Tarkington Trust, James A Preston 4 Roseanna Acres Wentville, MO 63385
 - 3 David L. Stewart 2092 S Lohman Rd Wright City, MO 63390
 - 4 Jack & Sandra Reynolds 1208 Bramblett Rd O'Fallon, MO 63366
 - 5 Gerald & Joyce Bathon 1100 Bramblett Road O'Fallon, MO 63366
 - 6 Harrison and Dixie Yeakey 1070 Bramblett Rd O'Fallon, MO 63366
- This plan complies with the City of O'Fallon Comprehensive Plan.
- Trees Preservation and Preservation shall be met on this plan.
- Stormwater Storage Area and creek realignment shall be submitted for review and approval to FEMA, MDNR, and the Army Corp of Engineers.
- All creek Crossings shall be permitted through the Army Corp of Engineers.
- Access to any structure on proposed Lot 4 would be via the new Loop Road. No access to the site will be provided off of the existing Bramblett Road.
- Photometric Lighting plans in accordance with the City's Exterior Lighting Standards shall be submitted for review and approval for all exterior lighting with improvement plans.
- Downcast lighting fixtures shall be used to reduce the light pollution in the rear of the commercial facilities.
- Mechanical installations shall be properly screened as per City Code.
- Landscaping shall be provided to meet or exceed the city of O'Fallon Tree Preservation Ordinances.
- A twenty (20) foot wide no disturbance area shall be provided from the east to the west contiguous to the boundary line between Bramblett Hollow and Bramblett Crossing. The developer shall take reasonable efforts to preserve the mature trees in this corridor.
- Landscaping buffers shall be required along the North and East property lines.
 - A thirty (30) foot landscape buffer shall be provided along the North and East property lines with a two and one-half (2.5) foot berm and two and one-half (2.5) trees per 100 feet of length.
 - Trees required = 1,049/100 * 2.5 + 892/100 * 2.5 = 48.5 trees
- Landscaping on-site shall be submitted with the improvement plans and shall meet and/or exceed the City of O'Fallon Requirements.
- Gates shall be provided at both entrances to site per City Code. Knock boxes shall be located at gates.
- Mail boxes will be located on the wall in the common hall in each building.
- All Common Ground shall be maintained by Subdivision Association.
- Crosswalks, pedestrian crossing signals and Concrete Handicap ramps shall be provided where applicable. The Final design plans for the signalized intersection shall show all required pedestrian safety devices.
- A Flood plain development permit shall be obtained from the City of O'Fallon before any work is done within the special flood hazard zone. The lowest floor of any proposed structure will be at least one (1) foot above the Flood Plain Elevation. An equal volume of ground will be excavated within the Special Flood Hazard Zone to maintain the overall volume of flood storage. A detailed study and volumes will be submitted with the grading plans.
- A Detailed study will be submitted to FEMA for review and approval to more accurately show the existing flood plain and floodway limits. No Buildings shall be located within the revised floodway. Fill within the flood way shall be demonstrated that it is not causing an increase in the flood plain elevation.
- Bicycle parking requirements:
 - One (1) Bicycle parking space per every 15 car parking spaces.
 - Condo Building - 30 parking spaces required per building.
 - 30/15 = 2 bicycle parking spaces required.
 - Pool - 8 bicycle parking spaces provided.
- All HVAC and mechanical units on site shall be properly screened as required by City Code. Rooftop units shall be screened by a parapet wall that extends around the entire perimeter of the building; the parapet shall have a minimum height that is at least as tall as the tallest unit mounted on the roof; ground mounted HVAC and mechanical units shall be screened by fencing, vegetation or some other means (approved by the Planning and Zoning Commission) that has a minimum height that is at least as tall as the tallest unit on the ground.
- Prior to Construction Site plan approval, a photometric lighting plan in accordance with the City's Exterior Lighting Standards shall be submitted for review and approval for all proposed exterior lighting.
- The five (5) foot wide sidewalk along Mexico Road will be built when the Commercial Outlets develop in the future.
- This site will be in compliance with Phase II Illicit Storm Water Discharge guidelines per Ordinance 5082.
- All Sanitary laterals shall be 6" PVC at 2% slope minimum.
- All roadways and driveways, except Bramblett Road are to be Private.
- All improvements to Bramblett Road shall meet current City Standards.
- All utilities existing and proposed shall be covered by easements. The eight (8') foot trail easement shown shall be granted to the City for public use as a multi-purpose trail. Existing easements will be vacated where necessary.
- All sitation control devices (silt fences and sedimentation basins) shall follow "St. Charles County Soil and Water Conservation District Erosion and Sediment Control" guidelines.
- A flood plain development permit, a "no-rise" certification and a LOMR will be required for this development.
- Sanitary Calculations:
 - Existing: 5 single family homes
 - 5 Homes * 3.7 People/Home * 100 GPD/Person = 1,850 GPD
 - Proposed: 240 2 Bedroom Condos
 - 240 Condos * 300 GPD/Unit = 72,000 GPD
- per the AOE 404 Permit 10% slopes on outside bands in the creek channel will be monitored for erosion and stabilized with rip-rap or plantings.
- Construction of the retaining walls and associated Fabric Tie backs will need to co-ordinated with the construction of all utilities (storm sewer, sanitary sewer, water line, etc.).

IMPROVEMENT PLAN'S FOR: BELLEAU CROSSING

Several Tracts being part of US Survey 1766 and Section 33,
Township 47 North, Range 3 East
St. Charles County Missouri

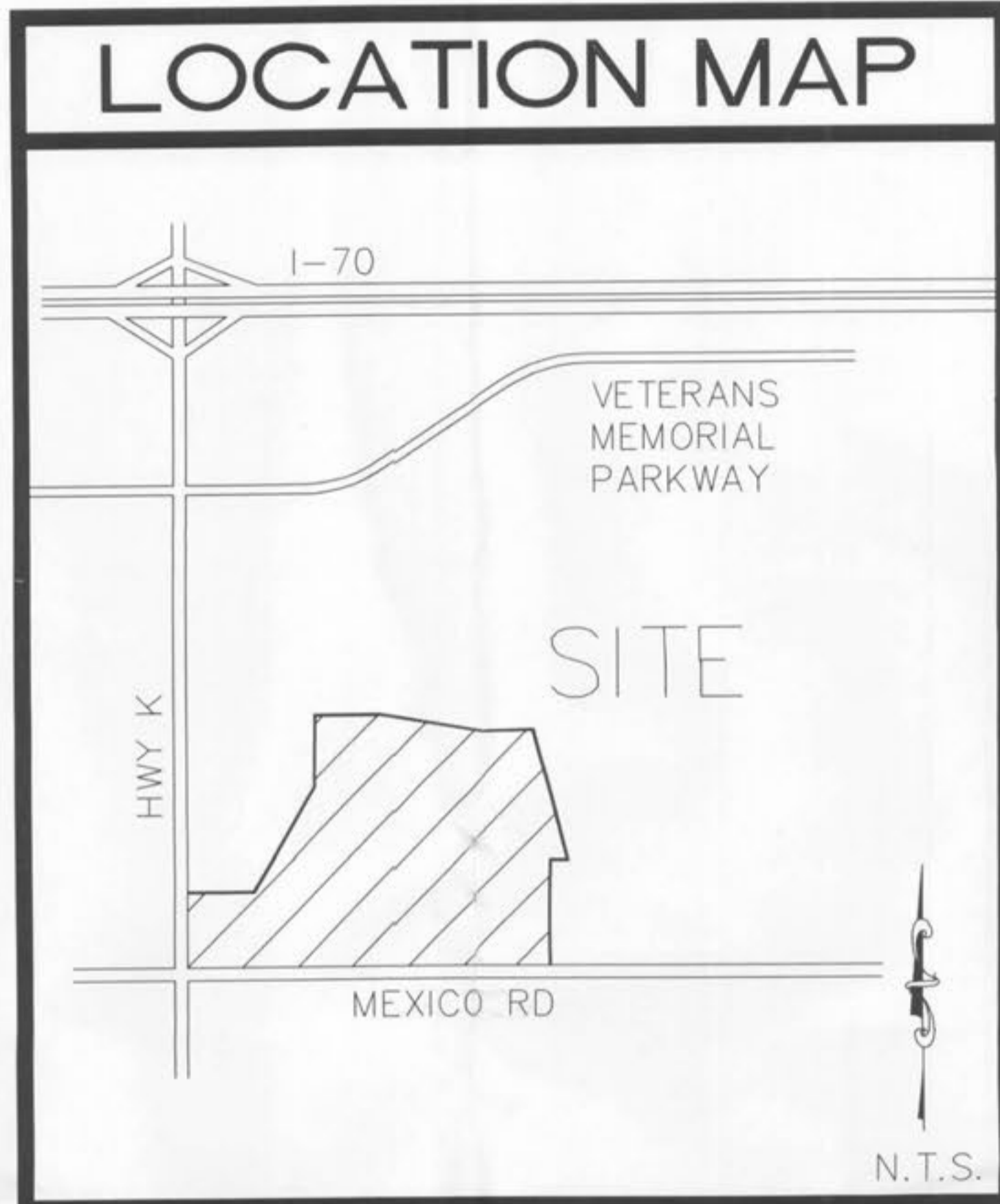
Tree Preservation:
Extensive grading requirements make twenty-five (25%) percent tree retention impossible.
Trees cover 18.61 Acres of the site
3.34 Acres of wooded area to remain.
Trees to be replaced at a rate of 15.27 Ac. * 15 trees per ac. = 229 trees.



MoDOT UTILITIES
(314) 340-4100

LEGEND

| | | | |
|---|--------------------------|-----------|-----------------------------------|
| ● | SANITARY STRUCTURE | ● | CLEAN OUT |
| ○ | STORM STRUCTURE | T.B.R. | TO BE REMOVED |
| ○ | TEST HOLE | T.B.R.&R. | TO BE REMOVED & RELOCATED |
| ○ | POWER POLE | T.B.P. | TO BE PROTECTED |
| ○ | LIGHT STANDARD | T.B.A. | TO BE ABANDONED |
| ○ | CURB INLET | B.C. | BASE OF CURB |
| ○ | DOUBLE CURB INLET | T.C. | TOP OF CURB |
| ○ | GRATE INLET (EXISTING) | T.W. | TOP OF WALL |
| ○ | AREA INLET (EXISTING) | TYP. | TYPICAL |
| ○ | DOUBLE AREA INLET | U.N.O. | UNLESS NOTED OTHERWISE |
| ○ | FLARED END SECTION | U.L.P. | USE IN PLACE |
| ○ | END OF PIPE | --- | EXISTING CONTOUR |
| ○ | ENERGY DISSIPATOR | --- | PROPOSED CONTOUR |
| ○ | MANHOLE | --- | TREE LINE |
| ○ | REINFORCED CONCRETE PIPE | --- | SAN. SEWER (EXISTING) |
| ○ | CORRUGATED METAL PIPE | --- | SAN. SEWER (PROPOSED) |
| ○ | CAST IRON PIPE | --- | STORM DRAIN (EXISTING) |
| ○ | POLYVINYL CHLORIDE PIPE | --- | STORM DRAIN (PROPOSED) |
| ○ | VITRIFIED CLAY PIPE | ○ | PHONE BOX |
| ○ | GIUY WIRE | ○ | IRON PIPE |
| ○ | SIGN | ○ | WATER LINE |
| ○ | POST | ○ | HYDRANT |
| ○ | WATER METER | ○ | CONCRETE PAVEMENT |
| ○ | WATER VALVE | ○ | PLACED RIP-RAP W/UNDERLAIN FABRIC |
| ○ | WATER SHUT OFF | --- | GENERAL SURFACE DRAINAGE |
| ○ | GAS VALVE | N.T.S. | NOT TO SCALE |
| ○ | OVERHEAD ELECTRIC LINE | ROW | RIGHT-OF-WAY |
| ○ | CLEARING LIMITS | T.B.C. | TOP BACK CURB |
| ○ | E.O.A. | D.I.P. | DUCTILE IRON PIPE |
| ○ | E.O.C. | D.N.D. | DO NOT DISTURB |
| ○ | A.T.G. | T.P. | TOP OF PAVEMENT |
| ○ | FINISHED GRADE | TE | TRASH ENCLOSURE |
| ○ | COVERED PARKING SPACE | E.R.S. | EMERGENCY RELIEF SHALE |
| ○ | BICYCLE RACK | | |



SHEET INDEX

- C-1. TITLE SHEET
- C-2. OVERALL PLAN
- C-3-5. FLAT PLAN
- C-6-8. GRADING PLAN
- C-9-11. STREET PROFILES
- C-12-13. WARPINGS
- C-14. SANITARY PROFILES
- C-15-16. STORM PROFILES
- C-17. DETENTION
- C-18-20. WATER PLAN
- C-21. WALL PROFILES
- C-22-24. DRAINAGE AREA MAP
- D-1-9. DETAILS

GRADING NOTES:

- Underground utilities have been plotted from available information and therefore their locations shall be considered approximate only. The verification of the location of all underground utilities, either shown or not shown on these plans, shall be the responsibility of the contractor, and shall be located prior to any grading and/or construction of improvements.
- The contractor shall assume complete responsibility for controlling all siltation and erosion of the project area. The contractor shall use whatever means necessary to control erosion and siltation including, but not limited to, staked straw bales and/or siltation fabric fences (possible methods of control are detailed in the plan). Control shall commence with grading and be maintained throughout the project until acceptance of the work by the Owner and/or the City of O'Fallon and/or MoDOT. The Contractor's responsibilities include all design and implementation as required to prevent erosion and the depositing of silt. The Owner and/or the City of O'Fallon and/or MoDOT may at their option direct the Contractor in his methods as deemed fit to protect property and improvements. Any depositing of silt or mud on new or existing pavement shall be removed immediately. Any depositing of silt or mud in new or existing storm sewers shall be removed/after each rain and affected areas cleaned to the satisfaction of the Owner and/or the City of O'Fallon and/or MoDOT. Erosion control shall not be limited to what is shown on the plans.
- No area shall be cleared without permission of the developer.
- Owner/Developer assumes full responsibility as to the performance of the grading operation and assurance that all properties and City/County and State roads will be adequately protected.
- Soil preparation and re-vegetation shall be performed according to Appendix A of the Model Sediment and Erosion Control Regulations for Urban Development.
- Where natural vegetation is removed during grading, vegetation shall be re-established in such a density as to prevent erosion. Permanent type grasses shall be established as soon as possible or during the next seeding period after grading has been completed. Refer to Appendix A of St. Charles Soil and Water Conservation District - Model Sediment and Erosion Control Regulations.
- Site preparation includes the clearance of all stumps, trees, bushes, shrubs, and weeds; the grubbing and removal of roots and other surface obstructions from the site; and the demolition and removal of any man-made structures. The unsuitable material shall be properly disposed of off-site. Topsoil and grass in the fill areas shall be thoroughly disced prior to the placement of any fill. The Soils Engineer shall approve the discing operation.
- Compaction equipment shall consist of tamping rollers, pneumatic-tired rollers, vibratory rollers or high speed impact type drum rollers acceptable to the Soils Engineer. The rollers shall be designed so as to avoid the creation of a layered fill without proper blending of successive fill layers.
- The developer must supply the City construction inspectors with soil reports prior to or during soil testing. The soil report will be required to contain the following information on soil test curves (Proctor Reports) for projects within the City.
 - Maximum dry density
 - Optimum moisture content
 - Maximum and minimum allowable moisture content
 - Curve must be plotted to show density from a minimum of 95% Compaction and above as determined by the "Modified AASHTO T-180 Compaction Test"(A.S.T.M.-D-1557) or from a minimum of 100% as determined by the "Standard Proctor Test AASHTO T-99, Method C" (A.S.T.M.-D698). Proctor type must be designated on document.
 - Curve must have at least 5 density points with moisture content and sample locations listed.
 - Specific Gravity
 - Natural Moisture Content
 - Liquid Limit
 - Plastic Limit
- Be advised that if this information is not provided to the City's Construction Inspector the City will not allow grading or construction activities to proceed on any project site.
- The Soils Engineer shall observe and test the placement of the fill to verify that specifications are met. A series of fill density tests will be determined on each lift of fill. Interim reports showing fill quality will be made to the Owner at regular intervals.
- The Soils Engineer shall notify the Contractor of rejections of a lift of fill or portion thereof. The Contractor shall rework the rejected portion of fill and obtain notification from the Soils Engineer of its acceptance prior to the placement of additional fill.
- All Areas to receive fill shall be scarified to a depth of not less than 6 inches and then compacted to at least 90 percent of the maximum density as determined by the Modified AASHTO T-180 Compaction Test (ASTM-D1557). Natural slopes steeper than 1 vertical to 5 horizontal to receive fill shall have horizontal benches cut into the slopes before the placement of any fill. The width and height to be determined by the Soils Engineer. The fill shall be loosely placed in horizontal layers not exceeding 8 inches in thickness and compacted in accordance with the specifications given below. The Soils Engineer shall be responsible for determining the acceptability of soils placed. Any unacceptable soils placed shall be removed at the Contractor's expense.
- Traffic control is to be per MDDOT or MUTCD whichever is most stringent.
- The surface of the fill shall be finished so that it will not impound water. If at the end of a days work it would appear that there may be rain prior to the next working day, the surface shall be finished smooth. If the surface has been finished smooth for any reason, it shall be scarified before proceeding with the placement of succeeding lifts. Fill shall not be placed on frozen ground, nor shall filling operations continue when the temperature is such as to permit the layer under placement to freeze.
- All cut and fill slopes should be a maximum of 33% slope (3:1) after grading. 2:1 slopes allowed with slope protection.
- All fill placed under proposed storm and sanitary sewer, proposed roads, and/or paved areas shall be compacted to 95% of maximum density as determined by the Modified AASHTO T-180 Compaction Test or 100% of maximum density as determined by Standard Proctor Test AASHTO T-99. All fill placed in proposed roads shall be compacted from the bottom of the fill up. All tests shall be verified by a soils engineer concurrent with grading and backfilling operations. Note that the moisture content of the soil in fill areas is to correspond to the compactive effort as defined by the Standard or Modified Proctor test. Optimum moisture content shall be determined using the same test that was used for the compaction. Soil compaction curves shall be submitted to the City of O'Fallon prior to the placement of fill. Proof rolling may be required to verify soil stability at the discretion of the City of O'Fallon.
- Soft soil in the bottom and banks of any existing or former pond site should be removed, spread out and permitted to dry sufficiently to be used as fill. None of this material should be placed in proposed right-of-way locations or on storm sewer locations.
- Temporary siltation control measures (structural) shall be maintained until vegetative cover is established at a sufficient density to provide erosion control on the site.
- If straw bales or silt fences are destroyed by heavy rains, vandalism, etc., they are to be replaced immediately by contractor.
- When grading operations are completed or suspended for more than fourteen (14) days, permanent grass must be established at sufficient density to provide erosion control on the site. Between permanent grass seeding periods, temporary cover shall be provided according to the Designated Official's recommendation. Refer to Appendix A of St. Charles Soil and Water Conservation District - Model Sediment and Erosion Control Regulations. All finished grades (areas not to be disturbed by improvement) in excess of 20% slopes (5:1) shall be mulched and locked at the rate of 100 pounds per 1000 square feet when seeded.
- All erosion control systems shall be inspected and necessary corrections made within 24 hours of any rainstorm resulting in one-half inch of rain or more.
- Debris and foundation material from any existing on-site building or structure which is scheduled to be razed for this development must be disposed of off-site.
- The total yardage of this project is based on a 15% ± shrinkage factor.
- The shrinkage factor is subject to change, due to soil conditions (types and moisture content), weather conditions, and the percentage of compaction actually achieved at the time of the year grading is performed. As a result, adjustments in final grade may be required. If adjustments need to be made, the contractor shall contact St. Charles Engineering and Surveying, Inc. prior to completion of the grading.
- The vertical grading tolerance shall be plus or minus 0.2 feet for all rough grading.
- The Contractor shall prevent all storm/surface water, mud or construction debris from entering the sanitary sewer system.
- All low places shall be graded to provide drainage with temporary ditches.
- Any cost to the City due to public notification or letters required by FEMA, to be sent by or published by the City shall be reimbursed by the developer.
- The existing sanitary manholes shall be adjusted to proposed grade with concrete grade rings.
- Grading shall not be started or continued on soils having more than 2-inches of frost. When such conditions exist, the surface must be thoroughly broken and mixed with non-frozen material to the satisfaction of the engineer. No frozen soils may be added to any fill material.
- Construction hours on this project will be during the following times.
 - October 1 - May 30 7:00 am to 7:00 pm Monday - Sunday
 - June 1 - September 30 6:00 am to 8:00 pm Monday - Friday
 - 7:00 am to 8:00 pm Saturday and Sunday
- The most stringent of the above requirements shall apply.

DEVELOPER

BRAMBLETT DEVELOPMENT LLC
913 LAFAYETTE LANDING PLACE
St. CHARLES, MO 63303
314-452-5000

FEMA BENCHMARK:
RM60 - ELEVATION (NGVD) 480.00
2-INCH CUT SQUARE IN CENTER OF NORTH END OF WALKWAY AT THE NORTHEAST CORNER OF BELLEAU CREEK ROAD BRIDGE OVER BELLEAU CREEK

SITE BENCHMARK:
ELEV.-498.07 TOP OF EXISTING MANHOLE ON EASTERN PROPERTY LINE

ENGINEERS AUTHENTICATION

The responsibility for the professional engineering liability on this project is hereby limited to the set of plans authenticated by the seal, signature and date hereunder attached. Responsibility is disclaimed for all other engineering plans involved in the project and specifically excludes revisions after this date unless reauthenticated.

ORDER NO.
04-1419-01
DATE
12/06/07
C-1

IMPROVEMENT PLAN'S FOR:
BELLEAU CROSSING

ST. CHARLES ENGINEERING & SURVEYING, INC.
801 S. FIFTH STREET, SUITE 202
ST. CHARLES, MO 63301
TEL: (636) 947-0607 FAX: (636) 947-2448



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