Underground utilities have been plotted from available information and therefore locations shall be considered approximate only. The verifications 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 or construction improvements.

- 2. Gas, water and other underground utilities shall not conflict with the depth or horizontal location of existing or proposed sanitary and storm sewers, including building laterals.
- 3. All existing site improvements disturbed, damaged or destroyed shall be repaired or replaced to closely match pre construction conditions.
- 4. All filled places under proposed storm and sanitary sewer, proposed roads, and/or paved areas shall be compacted to 90% of maximum density as determined by the Modified AASHTO T-180 Compaction Test or 95% of maximum density as determined by the Standard Proctor Test AASHTO T-88. 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 back filling operations.
- 5. The contractor shall prevent all storm, surface water, mud and construction debris from entering the existing sonitory sewer system.
- 8. All sanitary sewer flowlines and tops built without elevations furnished by the engineer will be the responsibility of the sewer contractor.
- 7. Easements shall be provided for all public sanitary sewers, storm sewers and utilities on the record plat. See record plat (if required) for location and size of
- 8. All construction and materials shall conform to the current construction standards of the City of O'Fallon and Duckett Creek Sanitary District.
- 9. The City of O'Fallon and Duckett Creek Sanltary District shall be notified at least 48 hours prior to construction for coordination and inspection.
- 10. All sanitary sewer building connections have been designed so that the minimum vertical distances from the low point of the basement to the flow line of a sanitary sewer at the corresponding building connection is not less than the diameter of the pipe plus the vertical distance of 2-1/2 feet. (unless otherwise noted)
- 11. All sanitary sewer manholes shall be waterproofed on the exterior in accordance Missouri Dept. Of Natural Resources specifications 10 CSR-8.120(7)(E).
- 12. All PVC sanitary sewer pipe is to be SDR-35 or equal with "clean" 1/2 inch to 1 inch granular stone bedding uniformly graded. This bedding shall extend from 4 inches below the pipe to springline of pipe. Immediate back fill over pipe shall consist of some size "clean" or "minus" stone from springline of pipe to 6 inches above the
- 13. All sanitary and storm sewer trench back fills shall be water jetted. Granular back fill will be used under pavement areas.

top pipe. (Note: All P.V.C. Force Main shall be C-900, Class 200 P.V.C.)

- 14. All pipes shall have positive drainage through manholes. No flat base structures
- 15. Brick shall not be used on sanitary sewer manholes nor shall brick be used in the construction of storm sewer structures. 16. All PVC sanitary sewer pipe shall meet the following standards, A.S.T.M. D-3034
- SDR-35 with wall thickness compression joint A.S.T.M. D-3212. An appropriate rubber seal waterstop as approved by the sewer district shall be installed between P.V.C. pipe and masonry structures. (Note: All P.V.C. Force Main shall be C-900, Class
- 17. All sanitary and storm sewers shall meet all specifications and installation requirements of the local governing authority.
- 18. Storm sewers 18 inch diameter and smaller shall be A.S.T.M. C-14 unless otherwise shown on the plans.
- 19. Storm sewers 21 Inch diameter and larger shall be A.S.T.M. C-76, Class II minimum, unless otherwise shown on the plans.
- 20. All storm sewer pipe in the right-of-way shall be reinforced concrete pipe (A.S.T.M. C-76, Class III minimum).
- 21. All storm sewer pipe shall be "O-ring" pipe. Joints shall be gasketed O-ring type.
- 22. All water lines shall be laid at least 10 feet horizontally from any sanitary sewer, or manhole. Whenever water lines must cross sanitary sewers, laterals or storm drains the water line shall be laid at such an elevation that the battom of the water line is 18 Inches above the top of the drain or sewer. A full length of water pipe shall be centered over the sewer line to be crossed so that the joints will be equally distant from the sewer and as remote therefrom as possible. This vertical separation shall be maintained for that portion of the water line located within 10 feet, horizontally, af any sewer or drain it crosses.
- 23. All water lines shall be C-900 Class 200 P.V.C.,
- 24. Any permits, easements, or approvals to work on public or private properties or roadways are the responsibility of the developer.
- 25. All sanitary sewer laterals shall be a minimum of 6 inches in diameter.
- 26. Maintenance of the sewers designated as "public" shall be the responsibility of the Duckett Creek Sanitary Sewer District upon dedication of the sewers to the district.
- 27. All sign post and backs and bracket arms shall be painted black using Carboline Rustbond Penetrating Sealer SG and Carboline 133 HB paint (or equivalent as approved by City and MoDOT). Signs designating street name shall be on the opposite side of the street from traffic control signs.
- 28. Each fire hydrant shall not have less than two 2-1/2 inch outlets and one 4-1/2 inch outlet, a 5-1/4 inch valve, a 6 inch barrel and shall be of the breakaway design, frost free with chain, left hand open design and have national standard threads.
- 29. Fire hydrant shall be provided with a control valve in the hydrant connection such that the hydrant can be removed from service without shutting off water supply to other fire hydrants.
- There shall be no obstruction, i.e. planting, bushes, trees, signs, light standards, mailboxes, etc. within six (6) feet of any fire hydrant, and/or fire department connection to an automatic sprinkler system.
- 31. In setting hydrants, due regard shall be given to final gradeline. The center of a hose nozzle outlet hall not be less that 18 inches above grade and the outlets must face
- 32. All water mains proposed on this plan will be private. Private hydrants shall be pointed entirely red (Porter 4119 or equal).
- 33. All paving to be in accordance with St. Charles County standards and specifications except as modified by the City of O'Fallon ordinaces.
- 34. Lighting valves will be reviewed on site prior to the final occupancy inspection. Corrections will need to be made if not in compliance with city standards.
- 35. Existing sanitary sewer service shall not be interrupted.
- 36. Pre-manufactured adapters shall be used at all PVC to DIP connections. Rubber Boot/Mission-type couplings will not be allowed.
- 37. "Type N" Lock-Type Cover and Locking Divice (Lock-Lug) shall be used where lock-type covers

PRINCIPALS & STANDARDS

- 1. All excavations, grading, or filling shall have a finished grade not to exceed a 3:1 slope (33%). Steeper grades may be approved by the designated official if the excavation is through rock or the excavation or the fill is adequately protected (a designed head wall or toe wall may be required). Retaining walls that exceed a height of four (4) feet shall require the construction of safety guards as identified in the appropriate section(s) of the adopted BOCA Codes and must be approved by the City Building Department. Permanent safety guards will be constructed in accordance with the appropriate section(s) of the adopted BOCA Codes.
- 2. Sediment and erosion control plans for sites that exceed 20,000 square feet of grading shall provide for sediment or debris basins, silt traps or filters, staked straw bales or other approved measures to remove sediment from run-off waters. Temporary siltation control measures shall be maintained until vegetative cover is established at a sufficient density to provide erosion control on the site.
- 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 during the next seeding period after grading has
- 4. When grading operations are completed or suspended for more than 30 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
- 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.
- 5. Provisions shall be made to accommodate the increased runoff caused by changed soils and surface conditions during and after grading. Unvegetated open channels shall be designed so that gradients result in velocities of 2 fps (feet per second) or less. Open channels with velocities more than 2 fps and less that 5 fps shall be established in permanent vegetation by use of commercial erosion control blankets or lined with rock riprap or concrete or other suitable materials. Detention basins, diversions or any other appropriate structures shall be constructed to prevent velocities above 5 fps.
- 6. The adjoining ground to development sites (lots) shall be provided with protection from accelerated and increased surface water, silt from erosion, and any other consequence of erosion. Run-off water from developed areas (parking lots, paved sites and buildings) above the area to be developed shall be directed to diversions, detention basins, concrete gutters and/or underground outlet systems. Sufficiently anchored straw bales may be temporarily substituted.
- 7. Development along natural watercourses shall have residential lot lines, commercial or industrial improvements, parking areas or driveways set back a minimum of 25 feet from the top of the existing stream bank. The watercourse shall be maintained and made the responsibility of the subdivision trustees or in the case of a site plan by the property owner. Permanent vegetation should be left intact. Variances will include designed stream bank erosion control measures. FEMA and U.S. Army Corps of Engineers guidelines shall be followed where applicable regarding site development areas designated as flood plains and wetlands.
- 8. 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 Building Department in cases of undue hardship because of unfavorable ground

VEGETATIVE ESTABLISHMENT For Urban Development Sites APPENDIX A

Seeding Rates: Permanent: Tall Fescue - 30 lbs./ac. Smooth Brome - 20 lbs./ac.

Combined Fescue @ 15 lbs./ac. and Brome @ 10 lbs./ac.

Wheat or Rye - 150 lbs./ac. (3.5 lbs. per square foot)

 120 lbs./ac. (2.75 lbs. per square foot) Seeding Periods:

Fescue or Brome - March 1 to June 1 August 1 to October 1 Wheat or Rye - March 15 to November 1 March 15 to September 15

Lime

Mulch Rates: 100 lbs. per 1,000 sq. feet (4,356 lbs. per acre)

Fertilizer Rates: Nitrogen Phosphate Potassium

30 lbs./ac. 30 lbs./ac. 30 lbs./ac. 600 lbs./ac. ENM*

* ENM = effective neutralizing material as per State evaluation of quarried rock.

GRADING NOTES:

- 1. A Geotechnical Engineer shall be employed by the owner and be on site during grading operations. All soils tests shall be verified by the Geotechnical Engineer concurrent with the grading and back filling operations.
- 2. The grading contractor shall perform a complete grading and compaction operation as shown on the plans, stated in these notes, or reasonably implied there from, all in accordance with the plans and nates as interpreted by the
- 3. The Contractor shall notify the Solls Engineer at least two days in advance of the start of the grading operation.
- 4. All areas shall be allowed to drain. All low points shall be provided with temporary
- 5. A sediment control plan that includes manitored and maintained sediment control basins and/or straw bales should be implemented as soon as possible. No graded area is to be allowed to remain bare over the winter without being seeded and mulched. Care should be exercised to prevent soil from damaging adjacent property and silting up existing downstream storm drainage system.
- 6. Any existing trash and debris currently on this property must be removed and
- 7. Saft soil in the bottom and banks of any existing or former pand sites or tributaries 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 an starm sewer locations.
- 8. 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.
- 9. Compaction equipment shall consist of tamping rollers, pneumatic-tired rollers, vibratory roller, or high speed impact type drum rollers acceptable to the Solls Engineer. The roller shall be designed so as to avoid the creation of a layered fill without proper blending of successive fill layers.
- 10. The Sails Engineer shall observe and test the placement of the fill to verify that pecifications 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
- 11. The Soils Engineer shall notify the Contractor of rejection 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
- 12. All areas to receive fill shall be scarified to a depth of not less than 6 inches and then compacted in accordance with the specifications given below. 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 harizontal 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.
- 13. The sequence of operation in the fill areas will be fill, compact, verify contents during the filling operation are those at which satisfactory dry densities can be obtained. The acceptable moisture contents during the filling operation in the remaining areas are from 2 to 8 percent above the optimum moisture control.
- 14. 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.
- 15. All siltation control devices shall be inspected by the contractor after any rain of 1/2" or more with any appreciable occumulation of mud to be removed and siltation measures repaired where necessary.
- 16. No slope shall be steeper than 3(Horizontal): 1(Vertical). All slopes shall be sadded or seeded and mulched.
- 17. Fill and back fill shall be compacted to the criteria specified in the following table:

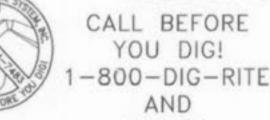
ATEGORY If in building areas below footings If under slabs, walks, and pavement If other than building areas atural sub grade overnent sub grade	MINIMUM PERCENT COMPACTION % 95 % 95 % 90 % 90 %
ovement base course	90 %

- Measured as a percent of the maximum dry density as determined by Standard Proctor Test (ASTM-D-698). Moisture content must be within 2 percent below or 4 percent above optimum maisture content if fill is deeper than 10 feet.
- 18. Any contaminated soil encountered during excavation shall be hauled and placed as directed by the owners environmental engineering representative.
- 19. Developer must supply City construction inspectors with soil reports prior to or during site soil testing.
- 20. 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 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 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 silts or mud on new or existing pavement or in new or existing storm sewers or swales 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.

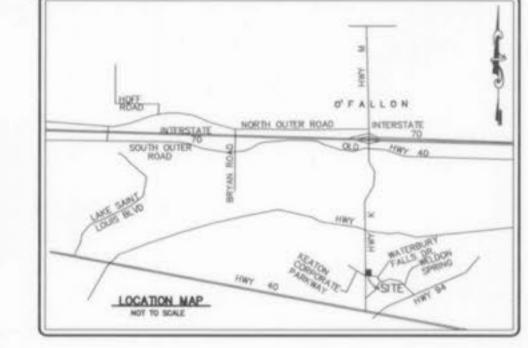
U.S.G.S. BENCHMARK

REFERENCE BENCHMARK: RM58 487.55' CHISELED SQUARE ON NORTHWEST WINGWALL OF COUNTY HWY. K BRIDGE OVER DARDENNE CREEK.

SITE BENCHMARK: ELEV.=551.58': OLD CROSS AT CENTERLINE P.C. OF WATERBURY FALLS DRIVE. SAID CROSS BEING 376.8' EAST (ALONG CENTERLINE OF WATERBURTY FALLS DRIVE) OF CENTERLINE HWY. K AND CENTERLINE OF WATERBURY FALLS DRIVE.



ALL DISTANCE AND SLOPE CALCULATIONS ARE FROM (314) 340-4100 CENTER OF STRUCTURE TO CENTER OF STRUCTURE.



DEVELOPMENT NOTES

1. Area of Tract: 1,330 Acres Existing Zoning: C-2 General Business Proposed Use: Banking Facility

4. Area of Building: 6,800 sq.ft. 5. The required height and building setbacks are as follows: Minimum Front Yard: 25 feet Minimum Side Yard: None Minimum Rear Yard: Maximum Height of Building: Not to exceed 50'

Site is served by: Duckett Creek Sanitary Sewer District (636)441-1244 Ameren Union Electric (636)639-8312 Laciede Gas Company (314)658-5417 Public Water Supply #2 (636)561-3737 SBC Telephone Company (636)949-1321

7. According to the Flood Insurance Rate Map of the City of O'Fallon, (Community Panel number 290316 0430 E dated August 2, 1996) this property lies within zone X. Zone X is an area determined to be outside the 500-year floodplain.

 Parking Required: Total building area = 6,800 sq.ft. 1 spaces per 300 sq. ft. of floor area plus 1 space for every 2 employees 6,800/300=22.67 ~ 23 spaces required 18 employees/2=9 required 23+9=32 spaces required Total Parking Provided: 34 spaces (including 2 handicap spaces)

10. Site Coverage Calculations: Building = 6,800 sq.ft. = 11.7% Povement = 31,700 sq.ft. = 54.7% Green Space = 16,250 sq.ft. = 33.6%

- 11. Existing detention basin provided for with the overall Waterbury
- 12. Lighting and landscape plan is being provided by the architect by
- 13. Owner: Taylor Morley, Inc. 224 Fern Ridge Parkway St. Louis, MO 63141 314-434-9000
- All new utilities shall be located underground.
- 15. All mechanical units shall be screened from public view.
- 16. All sign locations and sizes are reviewed and approved under
- 17. All construction methods and practices to conform with OSHA
- 18. All proposed storm sewers on this site shall be private.
- 19. Agreement for construction and maintenance of offsite utilities is included in the covenants of the record plat.
- 20. When electric service is established all transformers shall be screened from view except for access point on transformers.

LEGEND

CL	CURB INLET	Ø.	STREET LIGHT
AL.	DOUBLE CURB INLET AREA INLET	-582-	EXISTING CONTIQUE
M.H. F.E.	MANHOLE FLARED END SECTION	-582	PROPOSED CONTO
E.P.	END PIPE	S _{×e}	STREET SIGN
R.C.P.	CONCRETE PIPE REINFORCED CONCRETE PIPE	-	NO PARKING SION
C.M.P.	CORRUGATED METAL PIPE CAST IRON PIPE	w DO	WATER VALVE
P.V.C.	POLY WINYL CHLORIDE (PLASTIC) CLEAN OUT	8.0.	BLOW OFF ASSEM

FIRE HYDRANT - STORM SEWER SANTARY SEWER

SHEET INDEX

SHEET C-101 COVER SHEET SHEET C-102 SITE PLAN SHEET C-103 PROFILES & DETAILS O'FALLON FILE #9950.04

SEWER MEASUREMENTS

THE EXISTING SEWER LENGTHS, SIZES, FLOWLINES, DEPTHS OF STRUCTURES AND SEWERS AND LOCATIONS WITH RESPECT TO EXISTING OR PROPOSED EASEMENTS HAVE BEEN MEASURED. THE RESULTS OF THOSE MEASUREMENTS ARE SHOWN ON THIS SET OF FINAL MEASUREMENT PLANS.

SIGNED P.E/L.S.

Tefferson Bank as builts

a separate permit through the planning department. Copyright 2004 Box Engineering Company, Inc. All Rights Reserved REVISIONS

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DISCLAMER OF RESPONSIBILITY

engineering project or survey.

I hereby specify that the documents intended to be authenticated by my sed are limited to this sheet, and I hereby disoloin any responsibility for all other Drawings, Specifications, Extended, Reports or other documents or least-uments relating to or intended to be used for one order or each of the exhibitations.

for any part or parts of the architectural or

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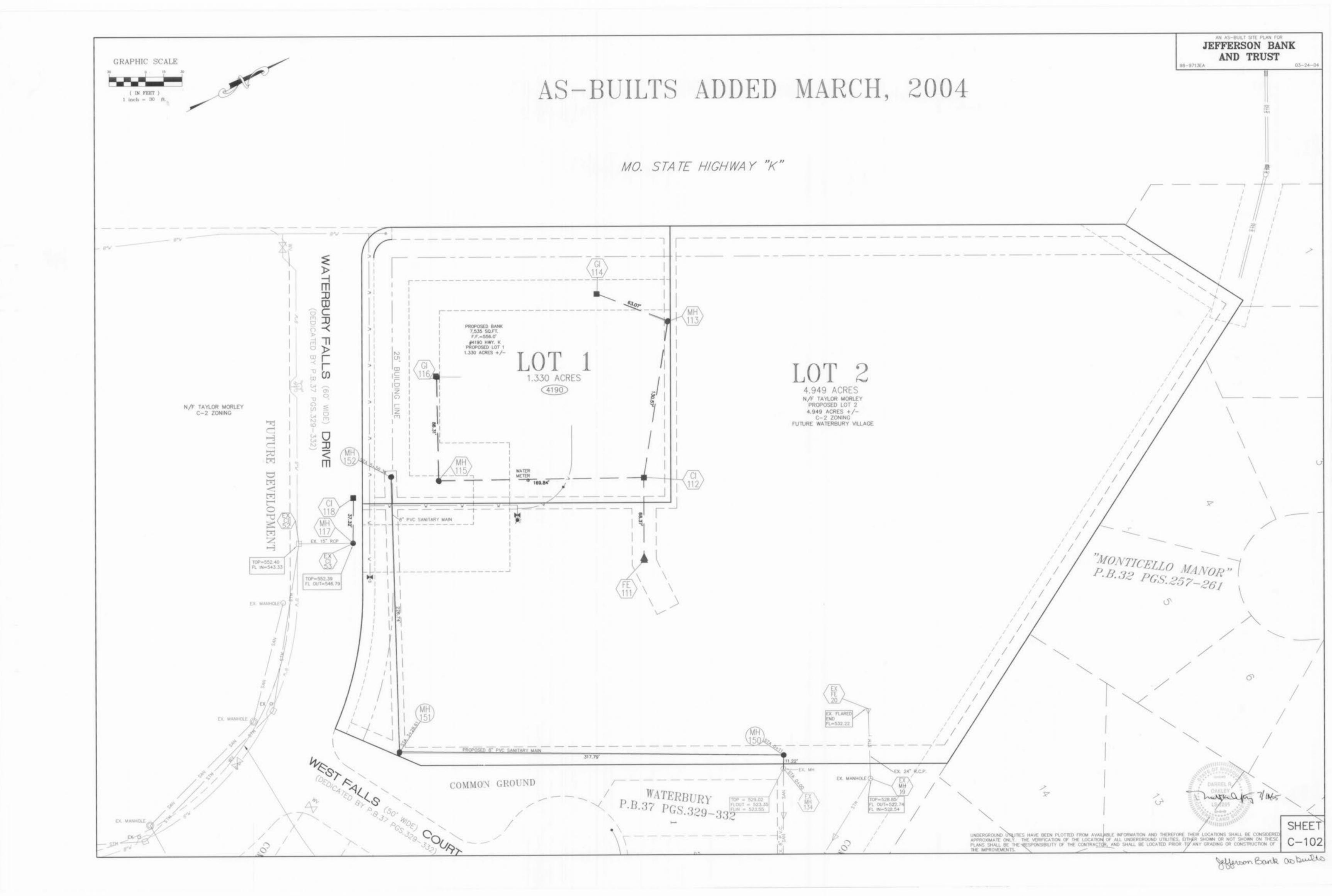
PLANNING SURVEYING

1052 South Cloverleaf Drive St. Peters, MO. 63376-6445 636-928-5552 FAX 928-1718

03-24-04 98-9713EA PROJECT NUMBER SHRET FILE NAME

DESIGNED CHECKED

AS-BUILTS ADDED MARCH, 2004



AN AS-BUILT PROFILE SHEET FOR JEFFERSON BANK AND TRUST 98-9713EA 03-24-04 GRATE INLET WITH SIDE INTAKE TQ=1.51 c.f.s. TQ=4.51 c.f.s. TQ=1.51 c.f.s TQ=2.13 c.f.s. TQ=2.13 c.f.s. 560 560 560 560 560 560 - EXISTING GROUND -EXISTING GROUND -PROPOSED GRADE -PROPOSED GRADE PROPOSED GRADE -EXISTING GROUND 550 550 550 550 550 550 RIP RAP GONCRETE GRANULAR FILL FL=546.79 QUT ENCASEMENT PROPOSED 12" R.C.P. GRANULAR FILL - PROPOSED 12" R.C.P. -GRANULAR FILL FL=545.35 -3' CUT OFF 540 540 FL=545.35 540 540 540 540 530 PRIVATE 63.07' ~ 12' R.C.P. 63.07' ~ 12' R.C.P. 62.58' ~ 12' R.C.P. 530 530 530 530 37.32' ~ 15" CLASS IV R.C.P. • 1.18% SLOPE 37.55' ~ 5" CLASS IV R.C.P. 169.84' ~ R.C.P. @ 1.06% SLOPE 169.52' ~ R.C.P. @ 1.05% SLOPE 0 1:00% SLOPE 520 520 520 520 STORM SEWER PROFILES STORM SEWER PROFILES STORM SEWER PROFILES AS-BUILTS ADDED MARCH, 2004 HORIZONTAL SCALE: 1" = 30' VERTICAL SCALE: 1" = 10' HORIZONTAL SCALE: 1" = 30' VERTICAL SCALE: 1" = 10' UPPER DEPTH UPPER ST EL HY GR HY EL LOWER HYDR FR VEL HY EL GRADE HEAD VEL HEAD TURN PIPE LOSS TO CAP STRAW BALES BARRIERS FOR URBAN DEVELOPMENT SITES 549.37 .00180 0.11 1.92 0.06 0.06 0.00 1.51 3.57 3 546.55 .00180 0.23 1.92 0.06 0.04 0.04 1.51 5.07 4 544.89 .00490 0.36 3.68 0.21 0.18 0.08 4.51 9.87 5 MW=544.89 MH 113 CI 112 130 12 548.17 545.55 2.02 555.25 6.71 548.55* CI 112 FE 111 73 15 545.35 543.64 2.33 552.50 6.56 545.94* 548.24 .00010 0.00 0.43 0.00 0.00 0.00 0.53 6.58 6 544.58 .00010 0.00 0.43 0.00 0.00 0.00 0.53 17.89 7 HW=544.58 560 PROPOSED GRADE 550 550 EXISTING GROUND 540 540 -GRANULAR FILL -STA 3+78.17 PROPOSED 530 -NEW STRAW BALE 530 6" SANITARY LATERAL TS=537.07 PLACEMENT AND CONSTRUCTION - BALE BINDING EX. 8" P.V.C.-OF STRAW BAIL BARRIER -EXISTING OR FINISH GRADE DIRECTION OF FLOW SANITARY MAIN 520 520 STA 0+05.50 PROPOSED 6" SANITARY LATERAL STRAW BALES, NOT HAY BALES SHALL BE USED 2. BUTT ENDS OF BALES TIGHTLY TOGETHER. 3. INSTALL BALES WITH BINDING AROUND SIDES, NOT TOP AND BOTTOM. 317.79' ~ 8" P.V.C. **©** 3.15% SLOPE 317.61' ~ 8" P.V.C. **©** 3.21% SLOPE 226.74" ~ 8" P.V.C. @ 4.65% SLOPE -227.73" ~ 8" P.V.C. @ 4.62% SLOPE 4/ FILL ANY GAP BETWEEN BALES BY WEDGING LOOSE STRAW BETWEEN THEM. 11' ~ 8" P.V.C. @ 3.18# SLOPE

11.22" ~ 8" P.V.C. @ 4.37% SLOPE

SANITARY SEWER PROFILES

HORIZONTAL SCALE: 1° = 30°
VERTICAL SCALE: 1° = 10°

AS-BUILTS ADDED MARCH, 2004

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 LITLITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND SHALL BE LOCATED PRIOR TO ANY GRADING OR CONSTRUCTION OF

SHEET