GENERAL NOTES

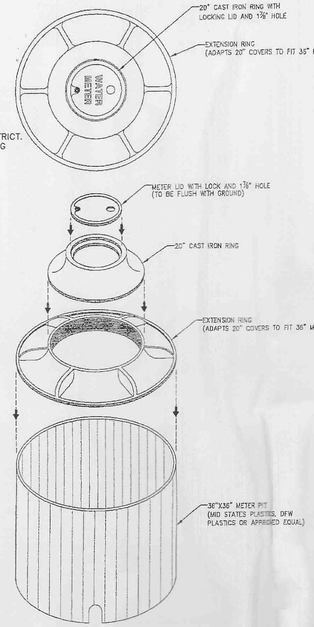
1. TOPOGRAPHIC SURVEY AND BOUNDARY INFORMATION PROVIDED BY STOCK AND ASSOCIATES.
2. ALL UTILITIES SHOWN HAVE BEEN LOCATED BY THE ENGINEER FROM AVAILABLE RECORDS. THEIR LOCATION SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR HAS THE RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES, PRIOR TO CONSTRUCTION, TO HAVE EXISTING UTILITIES FIELD LOCATED.
3. NO GRADE SHALL EXCEED 3:1 SLOPE.
4. ALL SLOPES TO BE STABILIZED IMMEDIATELY AFTER GRADING.
5. ALL UTILITIES SERVING SITE ARE UNDERGROUND.
6. ALL OUTSIDE TRASH CONTAINERS, HVAC UNITS, ELECTRIC, TELEPHONE AND GAS METERS, SATELLITE DISHES, AND ROOFTOP MECHANICAL APPARATUS SHALL BE THOROUGHLY SCREENED WITH MATERIALS AND/OR LANDSCAPING TO CONCEAL THE VISIBILITY OF SUCH ITEMS FROM THE VIEW OF RIGHTS-OF-WAY AND/OR ADJACENT PROPERTIES AS REVIEWED AND APPROVED BY THE PLANNING DIVISION.
7. ALL CONSTRUCTION AND MATERIALS USED SHALL CONFORM TO CURRENT CITY OF O'FALLON STANDARDS.
8. SEE ARCHITECTURAL DRAWINGS FOR ALL BUILDING DIMENSIONS AND DETAILS.
9. BUILDING HEIGHT = 24'-0"
10. SITE CALCULATIONS:

BUILDING	4,139 S.F.	9.3 %	(0.09 ACRES)
LANDSCAPING	9,817 S.F.	21.9%	(0.23 ACRES)
PAVEMENT	30,798 S.F.	68.8%	(0.71 ACRES)
TOTAL	44,754 S.F.	100.0%	(1.027 +/- ACRES)

11. PARKING CALCULATIONS (BASED ON CLASSIFICATION "OFFICE/BANK")
    3.0 SPACES PER 1,000 S.F.
    ONE SPACE FOR EVERY TWO EMPLOYEES
    REQUIRED: 3.0 X 4,139/1000 = 14
    : 16 EMPLOYEES/2 = 8
    : 22 SPACES REQUIRED
    PROVIDED: 23
12. FEMA MAP 29183C0239 E DATED 8/2/96 ZONE "X" (OUTSIDE 500 YR. FLOODPLAIN).
13. ALL SIGN LOCATIONS & SIZES SHALL BE APPROVED SEPARATELY THROUGH THE PLANNING DIVISION.
14. BICYCLE PARKING RACKS SHALL BE SECURELY ANCHORED TO THE GROUND AND BE OF VANDAL-RESISTANT CONSTRUCTION (4 SPACE MINIMUM).
    1 BIKE SPACE PER 15 PARKING SPACES:
    28 / 15 = 4 REQ'D. ; 4 PROVIDED
15. TREE PRESERVATION CALCULATIONS: NO EXISTING TREES ON THE SITE
16. PARKING LOT LANDSCAPE CALCULATIONS:
    23 SPACES (x) 270 s.f. = 6,210 s.f.
    6,210 (x) 6% = 372.6 s.f. REQ.
    PROVIDED = 2,682 s.f.
17. OWNER: FIFTH THIRD BANK
    38 FOUNTAIN SQUARE PLAZA
    CINCINNATI, OHIO 45263
    PHONE: (513) 534-0693
    MR. BEN EDDIE
18. NO OUTDOOR DISPLAY OF MATERIALS OR PRODUCTS, TEMPORARY OR OTHERWISE, SHALL OCCUR BEYOND THE AREA BETWEEN THE FRONT OF THE BUILDING AND THE DRIVEWAY AISLE. NO SUCH MATERIALS SHALL BE ATTACHED OR AFFIXED TO ANY EXTERIOR WALL.
19. ALL SIDEWALK, CURB RAMPS, RAMP AND ACCESSIBLE PARKING SPACES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT APPROVED "AMERICAN WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES" (ADAAG) ALONG WITH THE REQUIRED GRADES, CONSTRUCTION MATERIALS, SPECIFICATIONS AND SIGNAGE. IF ANY CONFLICT EXISTS BETWEEN THE ABOVE INFORMATION AND THE PLANS, THE ADAAG GUIDELINES SHALL TAKE PRECEDENCE AND THE CONTRACTOR PRIOR TO ANY CONSTRUCTION SHALL NOTIFY THE PROJECT ENGINEER.
20. CONSTRUCTION WITHIN THE CITY OF O'FALLON RIGHT OF WAY SHALL COMPLY WITH ST. CHARLES COUNTY PAVING SPECIFICATIONS EXCEPT AS MODIFIED BY CITY OF O'FALLON ORDINANCES.
21. REINFORCED CONCRETE PIPE SHALL BE CLASS III. ALL STORM DRAIN PIPE SHALL HAVE GASKETED JOINTS CONFORMING TO ASTM F-477.
22. EXISTING STORMWATER DETENTION IS PROVIDED AT THE SOUTHWEST CORNER OF THE DEVELOPMENT.
23. MINIMUM SETBACKS PER C2-ZONING ARE AS FOLLOWS:
    FRONT YARD (EAST-HWY K)=25 FEET SIDE YARD (NORTH-WOOD CREST) = 25 FEET
    SIDE YARD (SOUTH) = NO SETBACK REAR YARD (WEST) = NO SETBACK
24. DEVELOPER MUST SUPPLY CITY CONSTRUCTION INSPECTORS WITH SOIL REPORTS PRIOR TO OR DURING SITE SOIL TESTING. THE SOILS REPORT WILL BE REQUIRED TO CONTAIN THE FOLLOWING INFORMATION ON SOIL TEST CURVES (PROCTOR REPORTS) FOR PROJECTS WITHIN THE CITY:
    a) MAXIMUM DRY DENSITY
    b) OPTIMAL MOISTURE CONTENT
    c) MAXIMUM AND MINIMUM ALLOWABLE MOISTURE CONTENT
    d) CURVE MUST BE PLOTTED TO SHOW DENSITY FROM A MINIMUM OF 90% COMPACTION AND ABOVE AS DETERMINED BY THE "MODIFIED AASHTO T-18 COMPACTION TEST" (A.S.T.M.-D-1157) OR FROM A MINIMUM OF 95% AS DETERMINED BY THE "STANDARD PROCTOR TEST AASHTO T-99, METHOD C" (A.S.T.M.-D-698). PROCTOR TYPE MUST BE DESIGNATED ON DOCUMENT.
    e) CURVES MUST HAVE AT LEAST FIVE (5) DENSITY POINTS WITH MOISTURE CONTENT AND SAMPLE LOCATIONS LISTED ON DOCUMENT.
    f) SPECIFIC GRAVITY
    g) NATURAL MOISTURE CONTENT
    h) LIQUID AND PLASTIC LIMITS
    i) 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.
25. ALL FILL PLACED 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-99. ALL FILLED 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. ENSURE 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 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.
26. BRICK SHALL NOT BE USED IN THE CONSTRUCTION OF STORM OR SANITARY SEWER STRUCTURES.
27. A CONCRETE CRADLE FOR RCP AND ENCASEMENT FOR HDPE WILL BE REQUIRED FOR ALL STORM SEWER LINES WHEN CROSSING MORE THAN THREE FEET ABOVE SANITARY LINES.
28. LIGHTING VALUES WILL BE REVIEWED ON SITE PRIOR TO THE FINAL OCCUPANCY INSPECTION. CORRECTIONS WILL NEED TO BE MADE IF NOT IN COMPLIANCE WITH CITY STANDARDS.
29. ALL PROPOSED FENCING REQUIRES A SEPARATE PERMIT THROUGH THE PLANNING DIVISION.
30. ALL SIGN POSTS 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.
31. ALL HPDE STORM DRAIN PIPE SHALL BE N-12WT OR EQUAL AND TO MEET ASTM F1417 WATER TIGHT FIELD TEST.
32. INSTALLATION OF WATER SERVICE SHALL MEET THE SPECIFICATIONS OF THE ST. CHARLES WATER NO. 2 DISTRICT.
33. ALL UTILITIES CROSSING EXISTING STREETS OF COLLECTOR SIZE AND GREATER SHALL BE IN CONDUIT OR CASING PIPE.
34. ALL PROPOSED UTILITIES UNDER EXISTING CITY OF O'FALLON STREETS ARE TO BE BORED.
35. TRAFFIC CONTROL IS TO BE PER MODOT OR MUTCD STANDARDS, WHICHEVER IS MORE STRINGENT.
36. ESTIMATED SANITARY FLOW WILL BE 435 GALLONS PER DAY. THIS VALUE IS BASED ON A OCCUPANCY OF 7 PERSONS PER 1000 S.F. OF FLOOR SPACE AND 15 GALLONS PER DAY PER PERSON.
37. GRADES FOR ENTRANCES SHOULD NOT EXCEED 2% AT WALKS, 4% FROM STREET AND 10% OVERALL. TYPICALLY 2% FROM BACK OF CURB THROUGH THE RIGHT OF WAY IS DESIRED.
38. TREES, ORGANIC DEBRIS, RUBBLE, FOUNDATIONS, AND OTHER DELETRIOUS MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED IN COMPLIANCE WIH ALL APPLICABLE LAWS AND REGULATIONS. LANDFILL TICKETS FOR SUCH DISPOSAL SHALL BE MAINTAINED ON FILE BY THE DEVELOPER. BURNING ON SITE SHALL BE ALLOWED ONLY BY PERMIT FROM THE LOCAL FIRE DISTRICT. IF A BURN PIT IS PROPOSED, THE LOCATION AND MITIGATION SHALL BE SHOWN ON THE GRADING PLAN AND DOCUMENTED BY THE SOILS ENGINEER.
39. GRADES FOR ENTRANCES SHOULD NOT EXCEED 2% AT WALKS, 4% FROM STREET AND 10% OVERALL. TYPICALLY 2% FROM BACK OF CURB THROUGH THE RIGHT OF WAY IS DESIRED.
40. THE CITY OF O'FALLON SHALL BE CONTACTED FOR UTILITY LOCATES UNDER ITS MAINTENANCE RESPONSIBILITY. THIS MAY INCLUDE WATER, SANITARY, STORM, AND TRAFFIC LOCATES.

CITY OF O'FALLON SEWER CONSTRUCTION NOTES

1. Underground utilities have been plotted from available information and therefore location 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 or construction of 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 house laterals.
3. All existing site improvements disturbed, damaged or destroyed shall be repaired or replaced to closely match preconstruction conditions.
4. All fill including places under proposed storm and sanitary sewer lines and paved areas including trench backfills within and off the road right-of-way shall be compacted to 90 percent of maximum density as determined by the "Modified AASHTO T-180 Compaction Test (ASTM D1557)". All tests shall be verified by a Soils Engineer concurrent with grading and backfilling operations. The compacted fill shall be free of rutting and shall be non-yielding and non-pumping during profiling and compaction.
5. The contractor shall prevent all storm, surface water, mud and construction debris from entering the existing sanitary sewer system
6. 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 sanitary sewers, storm sewers and all utilities on the record plat.
8. All construction and materials shall conform to the current construction standards of the City of O'Fallon.
9. The City of O'Fallon shall be notified at least 48 hours prior to construction for coordination of inspection.
10. All sanitary sewer building connections shall be designed so that the minimum vertical distance from the low point of the basement to the flowline of a sanitary sewer at the corresponding building connection shall not be less than the diameter of the pipe plus the vertical distance of 2-1/2 feet.
11. All sanitary sewer manholes shall be waterproofed on the exterior in accordance with Missouri Dept. of Natural Resources specification 10 CSR-8.120(7)(E).
12. All PVC sanitary sewer pipe shall conform to the requirements of ASTM D-3034 Standard Specification for PSM Polyvinyl Chloride Sewer Pipe, 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 backfill over pipe shall consist of same size "clean" or "minus" stone from springline of pipe to 6 inches above the top of pipe.
13. All sanitary and storm sewer trench backfills shall be per ASTM D2321, except jetting will not be permitted. Granular backfill will be used under pavement areas.
14. All pipes shall have positive drainage through manholes. No flat invert structures are allowed.
15. Brick shall not be used on sanitary sewer manholes.
16. Existing sanitary sewer service shall not be interrupted.
17. Maintain access to existing residential driveways and streets.
18. Pre-manufactured adapters shall be used at all PVC to DIP connections. Rubber boot/Mission-type couplings will not be allowed.
19. Any permits, licenses, easements, or approvals required to work on public or private properties or roadways are the responsibility of the developer.
20. 'Type N' Lock-Type Cover and Locking Device (Lock-Lug) shall be used where lock-type covers are required.
21. All sanitary laterals and sanitary main crossings under roadways must have the proper rock backfill and to required compaction.



TYPICAL 1½" OR 2" WATER SERVICE METER PIT DETAIL "F"
NOT TO SCALE

SEE SHEET C7 FOR PLAN VIEW OF SERVICE CONNECTION

VEGETATION ESTABLISHMENT

TILLAGE PREPARATIONS
*TILL TOP 4" OF SOIL

FERTILIZER
* PER SOIL TEST OR FOLLOWING TABLE:

	LBS./1,000 S.F. N	P	K	LIME
TEMPORARY SEEDING	0.7	0.7	0.7	14 ENM+
PERMANENT	1.0	1.4	1.4	14 ENM+

+ SOIL TEST RESULTS TAKE PRECEDENCE, DUE TO HIGHLY VARIBALE SOIL

SEEDING RATES

TEMPORARY	
WHEAT OR RYE	150 LBS. / ACRE
PERMANENT	
FESCUES	150 LBS. / ACRE
KENTUCKY BLUEGRASS/	6 LBS. / 1000 S.F.
PERENNIAL RYEGRASS	8 LBS / 1000 S.F.
FINE FESCUE	
SEEDING PERIODS	MARCH 1 – JUNE 1
LISTED LEGUMES/GRASSES	AUGUST 1 – OCTOBER 1
WHEAT/RYE	MARCH 15 – NOVEMBER 1

1. Graded areas that are to remain bare for over 2 weeks are to be seeded and mulched.

BULK CUT= XXX ± CUBIC YARDS

BULK FILL= XXX ± CUBIC YARDS (INCLUDES 15% SHRINKAGE)

10" BUILDING SUBGRADE
11" FOR ALL PVMT. AREAS
15% SHRINKAGE FACTOR FOR FILL

THE ABOVE QUANTITIES DO NOT INCLUDE TOPSOIL MATERIAL

THE ENGINEER HAS CALCULATED THE ABOVE QUANTITIES OF EARTHWORK TO BE REGARDED AS AN ESTIMATE OF THE BULK MOVEMENT OR REDISTRIBUTION OF SOILS ON THIS PROJECT. AS AN ESTIMATE, THESE QUANTITIES ARE INTENDED FOR GENERAL USE, AND THE ENGINEER ASSUMES NO LIABILITY FOR COST OVERRUNS DUE TO EXCESS EXCAVATED MATERIALS OR SHORTAGES OF FILL.

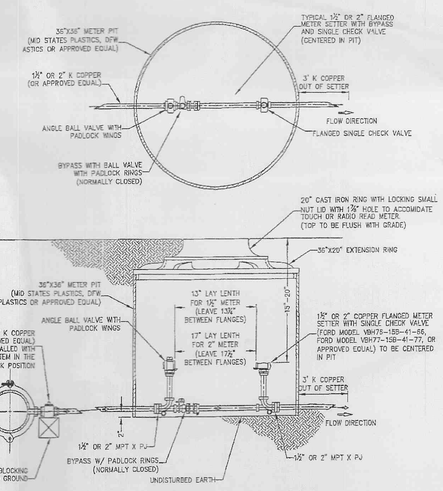
THE QUANTITIES ESTIMATED FOR EACH OF THE IMPROVEMENT ITEMS LISTED ABOVE ARE BASED UPON THE HORIZONTAL AND VERTICAL LOCATION OF THE IMPROVEMENTS AS PROPOSED ON THE SITE ENGINEERING PLANS PREPARED BY STOCK AND ASSOCIATES CONSULTING ENGINEERS.

THE ENGINEER'S EARTHWORK ESTIMATE DOES NOT INCLUDE ANY OF THE FOLLOWING ITEMS REQUIRING EARTHWORK THAT MAY BE NECESSARY FOR COMPLETION OF THE PROJECT: MISCELLANEOUS UNDERGROUND CONDUITS, INCLUDING SEWER LINES AND WATER MAINS; STANDARD MANHOLES, PROCESS OR TRANSFER PIPING; ELECTRICAL OR TELEPHONE CONDUITS; BASES FOR LIGHT STANDARDS; BUILDING FOOTINGS AND FOUNDATIONS, ETC.

THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACTUAL SIZE OF THE FIELD EXCAVATIONS MADE FOR THE INSTALLATION OF UNDERGROUND STRUCTURES, AND AS SUCH, THE ACTUAL QUANTITIES OF EARTHWORK FROM SUCH ITEMS MAY VARY FROM THE ESTIMATE SHOWN ABOVE.

THE ENGINEER ASSUMES NO RESPONSIBILITY FOR COSTS INCURRED DUE TO UNSUITABLE MATERIAL WHICH MUST BE REMOVED FROM SITE.

THE ABOVE QUANTITIES ARE AN ESTIMATE AND SHOULD BE CONSIDERED AS SUCH. IT IS THE GRADING CONTRACTOR'S RESPONSIBILITY TO PREPARE A QUANTITY TAKEOFF AND NOTE ANY DISCREPANCIES TO THE ENGINEER.



DETAIL E (NOT TO SCALE)

1 1/2" & 2" WATER SERVICE DETAIL

(PUBLIC WATER SUPPLY DISTRICT NO. 2 OF ST. CHARLES COUNTY

A = CONTACT BEARING AREA OF BLOCK WITH EARTH IN SQUARE FEET

PIPE DIA. IN.	PLUG	△ 45° WYE	TEE CONNECTION	△ UP TO 22.5°	△ UP TO 45°	△ UP TO 90°
	A (SQ. FT.)	A (SQ.FT.)	A (SQ.FT.)	A (SQ.FT.)	A (SQ.FT.)	A (SQ.FT.)
4" and smaller	0.5	1.4	2.6	1.8	2.2	2.0
6"	1.5	3.0	6.0	4.0	4.5	4.5
8"	2.5	5.0	9.5	6.5	9.5	8.0
10"	4.1	8.0	13.0	9.5	12.5	12.5
12"	5.5	11.5	19.0	13.5	18.0	18.0
16"	9.0	18.0	33.0	23.0	27.0	32.0
20"	14.0	28.0	51.0	36.0	42.0	50.5

NOTES:
1. BEARING AREAS ARE BASED ON UNDISTURBED SOIL WITH A BEARING CAPACITY OF 1,000 POUNDS PER SQUARE FOOT. FOR A LESSER SOIL BEARING CAPACITY THESE AREAS SHALL BE INCREASED ACCORDINGLY.
2. ALL CONCRETE THRUST BLOCKS SHALL BE 3000 p.s.i. CONCRETE.
3. THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED EARTH.
4. NO JOINT SHALL BE COVERED WITH CONCRETE.
5. JOINTS THAT LOCATED AGAINST THRUST BLOCKS ARE TO BE WRAPPED IN A CLOTH MATERIAL.
6. APPROVED MECHANICAL JOINT RESTRAINTS ARE REQUIRED AT ALL VERTICAL BENDS AND MAY BE USED IN LIEU OF THRUST BLOCKS AT HORIZONTAL BENDS AT THE OPTION OF THE ENGINEER, AT NO ADDITIONAL COST TO THE OWNER.

THRUST BLOCKING DETAILS

N.T.S.

SILTATION NOTES

1. Installation of perimeter sediment control shall be implemented as the first step of grading and within seven (7) days of grubbing the site.
2. Inspection of siltation control devices shall take place once every seven days and within 24 hours of any 0.5"/24 hour rain event. Any siltation control in need of repair shall occur immediately.
3. All unworked disturbed areas shall be stabilized with seeding and mulching per specifications within 14 days. If seasonal conditions prohibit seeding, mulching or matting shall be used.
4. All slopes or drainage channels, once constructed to final grade, shall be seeded and mulched per specifications within seven (7) days.
5. Silt fences shall be installed immediately around each storm sewer structure once final construction of each individual structure is complete.
6. All siltation control devices shall remain in place until upslope areas have been permanently stabilized.
7. 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 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."
8. Erosion control shall not be limited to what is shown on the plan. Whatever means necessary shall be taken to prevent siltation and erosion from entering natural streams and adjacent roadways, properties, and ditches.
9. When deemed necessary, positive steps should be exercised to prevent this soil from damaging adjacent property and silting up all storm drainage systems whether on or off site.
10. Rip rap shown at flared ends will be evaluated in the field after installation for effectiveness and field modified if necessary to reduce erosion on and off site.

Siltation Control Schedule Implementation

1. Perimeter siltation control and construction entrances to be installed.
2. Begin placing aggregate base in parking areas once area has reached final grade to prevent erosion.
3. Place silt fence around each storm sewer structure as it is completed.
4. Immediately seed areas upon reaching final grade that are to be permanently seeded.

Temporary Access Roads and Parking Areas Specifications

1. Temporary roads shall follow the contour of the natural terrain to the extent possible. Slopes should not exceed 10 percent.
2. Grades should be sufficient to provide drainage, but should not exceed 10 percent.
3. Roadbeds shall be at least 24 feet wide.
4. All cuts and fills shall be 3:1 or flatter to the extent possible.
5. Drainage ditches shall be provided as needed.
6. The roadbed or parking surface shall be cleared of all vegetation, roots and other objectionable material.
7. A 10-inch course of 2" MINUS aggregate shall be applied immediately after grading or the completion of utility installation within the right-of-way. Filter fabric may be applied to the roadbed for additional stability in accordance with fabric manufacturer's specifications.

Vegetation

All roadside ditches, cuts, fills and disturbed areas adjacent to parking areas and roads shall be stabilized with appropriate temporary or permanent vegetation according to the applicable standards and specifications.

Maintenance

Both temporary and permanent roads and parking areas may require periodic top dressing with new gravel. Seeded areas adjacent to the roads and parking areas should be checked periodically to ensure that a vigorous stand of vegetation is maintained. Roadside ditches and other drainage structures should be checked regularly to ensure that they do not become clogged with silt or other debris.

All erosion control systems shall be inspected and necessary corrections made within 24 hours of any rainstorm resulting in 1/2 inch of rain or more.

Straw Bale Siltation Control Specifications

Sheet Flow Applications

1. Bales shall be placed in a single row, lengthwise on the contour, with both ends of adjacent bales tightly abutting one another.
2. All bales shall be either wire-bound or string-tied. Straw bales shall be installed so that buildings are oriented around the sides rather than along the tops and bottoms of the bales (in order to prevent deterioration of the bindings). See Detail this sheet.
3. The barrier shall be entrenched and backfilled. A trench shall be excavated the width of a bale and the length of the proposed barrier to a minimum depth of 4 inches. After the bales are staked and chinked, the excavated soil shall be backfilled against the barrier. Backfill soil shall conform to the ground level on the downhill and shall be built up to 4 inches against the uphill side of the barrier (See detail this sheet).
4. Each bale shall be securely anchored by at least two stakes or rebars driven through the bale. The first stake in each bale shall be driven toward the previously laid bale to force the bales together. Stakes or rebars shall be driven deep enough into the ground to securely anchor the bales.
5. The gaps between bales shall be chinked (filled by wedging) with straw to prevent water from escaping between the bales. (Loose straw scattered over the area immediately uphill from a straw bale barrier tends to increase barrier efficiency).
6. Inspection shall be frequent and repair or replacement shall be made promptly as needed.
7. Straw bale barriers shall be removed when they have served their usefulness, but not before the upslope areas have been permanently stabilized.

Channel Flow Applications

1. Bales shall be placed in a single row, lengthwise, oriented perpendicular to the contour, with ends of adjacent bales tightly abutting one another.
2. The remaining steps for installing a straw bale barrier for sheet flow applications apply here, with the following addition.
3. The barrier shall be extended to such a length that the bottoms of the end bales are higher in elevation than the top of the lowest middle bale (see detail) to assure that sediment-laden runoff will flow either through or over the barrier but not around it.

Maintenance

1. Straw bale barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall.
2. Close attention shall be paid to the repair of damaged fence, end runs and undercutting beneath fence.
3. Necessary repairs to barriers or replacement of silt fence shall be accomplished promptly.
4. Sediment deposits should be removed after each rainfall. They must be removed when the level of deposition reaches approximately one-half the height of the barrier.
5. Any sediment deposits remaining in place after the straw bale barrier is no longer required shall be dressed to conform to the existing grade, prepared and seeded.

Silt Fence Specifications

1. Silt Fence to be woven geotextile fabric Mirafi 100X or equal.
2. Fabric to be supported by metal tee post with spade base spaced on 8' centers with 6 x 6/10 x 10 gage welded wire fence. See detail this sheet.
3. Fabric shall be entrenched and backfilled. A trench shall be excavated a minimum of 6 inches deep for the length of the fence. The excavated soil shall be backfilled against the fence. See detail this sheet.
4. Fence height shall be a minimum of 4 feet in height, with the fabric installed on the fence on the upstream side.
5. Silt fences shall be used only on sheet flow conditions.
6. Silt fences shall be installed around all storm sewer structures.

Maintenance

1. Silt fence barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall.
2. Close attention shall be paid to the repair of damaged bales, end runs and undercutting beneath bales.
3. Necessary repairs to barriers or replacement of bales shall be accomplished promptly.
4. Sediment deposits should be removed after each rainfall. They must be removed when the level of deposition reaches approximately one-half the height of the barrier.
5. Any sediment deposits remaining in place after the silt fence barrier is no longer required shall be dressed to conform to the existing grade, prepared and seeded.

P&Z NOS: 0106
APPROVED ON 05/04/2006

06-16-06

STATE OF MISSOURI
GEORGE MICHAEL STOCK
NUMBER E-25116
REGISTERED PROFESSIONAL ENGINEER

GEORGE M. STOCK E-25116

△ 06-16-06 REVISED PER CITY COMMENTS

SPECIFICATIONS

FIFTH THIRD BANK – HIGHWAY K

STOCK & ASSOCIATES
Consulting Engineers, Inc.
257 Chesterfield Business Parkway
St. Louis, MO 63005
PH: (636) 530-9100
FAX (636) 530-9130
e-mail: general@stockassoc.com
Web: www.stockassoc.com

DRAWN BY:	DATE:	CHECKED BY:	DATE:	JOB NUMBER:	SHEET:
J.P.P.	05/08/06	G.M.S.	05/08/06	205-3665.1	C2 of 14