GENERAL NOTES

1. TOPOGRAPHIC SURVEY AND BOUNDARY INFORMATION PROVIDED BY STOCK AND ASSOCIATES AND RECORD INFORMATION.
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. ROOF PARAPET WALLS SHALL BE AT LEAST AS TALL AS THE TALLEST ROOFTOP UNIT.
7. ALL PAVING TO BE IN ACCORDANCE WITH ST. CHARLES COUNTY STANDARDS AND SPECIFICATIONS, EXCEPT WHERE MODIFIED BY THE CITY OF O'FALLON ORDINANCES
8. SEE ARCHITECTURAL DRAWINGS FOR ALL BUILDING DIMENSIONS AND DETAILS.
9. BUILDING HEIGHT – SEE ARCHITECTURAL DRAWINGS
10. SITE COVERAGE CALCULATIONS:

BUILDINGS:	83,072 s.f.	13.1%	(1.90 ACRES)
LANDSCAPE:	309,961 s.f.	48.7%	(7.12 ACRES)
PAVEMENT:	242,943 s.f.	38.2%	(5.58 ACRES)
TOTAL:	635,976 s.f.	100.0%	(14.60 +/– ACRES)

11. PARKING CALCULATIONS (PHASE I & II):

    REQUIRED PARKING BASED ON CLASSIFICATION "OFFICE" (PHASE I)
    1 SPACE PER 300 s.f.
    REQUIRED: 1 x 100,000/300 = 334
    334 SPACES REQUIRED

    REQUIRED PARKING BASED ON CLASSIFICATION "RESEARCH LABRATORIES" (PHASE II)
    1 SPACE FOR EVERY 2 EMPLOYEES
    REQUIRED: 25 EMPLOYEES / 2 = 13
    13 SPACES REQUIRED
    1 SPACE FOR EVERY VISITOR
    REQUIRED: 30 VISITORS / 1 = 30
    30 SPACES REQUIRED

    TOTAL SPACES REQUIRED: 377 (PHASE I & II)
    TOTAL SPACES PROVIDED: 386 (PHASE I & II)

    ACCESSIBLE SPACES:
    2% OF TOTAL PARKING SPACES PROVIDED
    REQUIRED: 386 x 0.02 = 8
    8 SPACES REQUIRED
    PROVIDED: 20 (6 VAN ACCESSIBLE)

12. SITE IS LOCATED OUTSIDE THE 100 YEAR FLOODPLAIN AS INDICATED IN THE FLOOD INSURANCE RATE MAP (FIRM), OF ST. CHARLES COUNTY, MISSOURI, AND INCORPORATED AREAS, PANEL 430 OF 525, MAP NO. 29183 C 0430 E WITH AN EFFECTIVE DATE OF AUGUST 2, 1996
13. ALL SIGN LOCATIONS & SIZES SHALL BE APPROVED SEPARATELY THROUGH THE PLANNING DIVISION.
14. ALL TRASH ENCLOSURES SHALL CONSIST OF 6' HIGH SOLID WALL W/ SIGHT PROOF VINYL GATE. WALLS SHALL BE CONSISTENT W/ ARCHITECTURAL THEME OF BUILDING. GATE COLOR SHALL MATCH BUILDING.
15. BICYCLE PARKING RACKS SHALL BE SECURELY ANCHORED TO THE GROUND AND BE OF VANDAL-RESISTANT CONSTRUCTION.
    1 BIKE SPACE PER 15 PARKING SPACES:
    386 / 15 = 26 REQ'D. ; 28 PROVIDED (PHASE I & II)
16. TREE PRESERVATION CALCULATIONS: SEE LANDSCAPE PLAN
17. PARKING LOT LANDSCAPE CALCULATIONS:
    749 SPACES (x) 270 s.f.
    202,230 (x) 6% = 12,134 s.f. REQUIRED,
    20,579 s.f. PROVIDED
18. OWNER/DEVELOPER:
    AMERICAN POWER CONVERSION (APC)
    801 CORPORATE CENTRE DRIVE
    O'FALLON, MO 63304
    PHONE: (636) 300–2300, EXT. 11233
    FAX: (636) 300–2333
19. 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.
20. 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, ADAAG GUIDELINES SHALL TAKE PRECEDENCE AND THE CONTRACTOR PRIOR TO ANY CONSTRUCTION SHALL NOTIFY THE PROJECT ENGINEER. (AT LEAST ONE 8' WIDE HANDICAP ACCESS AISLE IS PROVIDED AND CURB RAMPS DO NOT PROJECT INTO HANDICAP ACESS AISLE.)
21. 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.
22. REINFORCED CONCRETE PIPE SHALL BE CLASS III. ALL STORM DRAIN PIPE SHALL HAVE GASKETED JOINTS CONFORMING TO ASTM F–477.
23. MINIMUM SETBACKS PER HTCD-ZONING ARE AS FOLLOWS:
    FRONT YARD = 30 FEET
    SIDE YARD = 20 FEET
    REAR YARD = 35 FEET
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:
    * MAXIMUM DRY DENSITY.
    * OPTIMUM MOISTURE CONTENT.
    * MAXIMUM AND MINIMUM ALLOWABLE MOISTURE CONTENT.
    * CURVE MUST BE PLOTTED TO SHOW DENSITY FROM A MINIMUM OF 90% COMPACTION AND ABOVE AS DETERMINED BY THE "MODIFIED AASHTO T–180 COMPACTION TEST" (A.S.T.M. D–1157) OR FROM A MINIMUM 95% AS DETERMINED BY THE "STANDARD PROCTOR TEST ASSHTO T–99, METHOD C" (A.S.T.M. D–698). PROCTOR TYPE MUST BE DESIGNATED ON DOCUMENT.
    * CURVE MUST HAVE AT LEAST 5 DENSITY POINTS WITH MOISTURE CONTENT AND SAMPLE LOCATIONS LISTED ON DOCUMENT.
    * 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.
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. PRECAST CONCRETE STRUCTURES ARE TO BE USED UNLESS OTHERWISE APPROVED BY THE CITY.
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 LIGHT POLES SHALL BE LOCATED WITHIN LANDSCAPED ISLANDS.
30. ALL PROPOSED FENCING REQUIRES A SEPARATE PERMIT THROUGH THE PLANNING DIVISION.
31. 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.
32. HDPE PIPE IS TO BE N–12WT OR EQUAL AND TO MEET ASTM F14117 WATER TIGHT FIELD TEST.
33. INSTALLATION OF WATER SERVICE SHALL MEET THE SPECIFICATIONS OF THE ST. CHARLES COUNTY WATER SUPPLY DISTRICT NO. 2 .

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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 NECCESSARY 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 CRADE 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 WATTER FROM ESCAPING BETWEEN THE BALES. (LOOSE STRAW SCATTERED OWER 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.

MAINTEINANCE

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 5' 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 BARIRIERS 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, PREPAIRED AND SEEDED.

TRAFFIC CONTROL

TRAFFIC CONTROL IS TO BE PER MoDOT OR MUTCD WHICHEVER IS MOST STRINGENT.

COTTLEVILLE FIRE PROTECTION DISTRICT NOTES

1.) A FIRE HYDRANT IS REQUIRED TO BE WITHIN 150 FEET OF A FIRE DEPARTMENT CONNECTION TO AN AUTOMATIC FIRE SPRINKLER SYSTEM.

2.) EACH FIRE HYDRANT SHALL HAVE NOT 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, FFROST FREE, WITH CHAIN, LEFT HAND OPEN DESIGN AND HAVE NATIONAL STANDARD THREADS.

3.) THE CENTER OF A HOSE NOZZLE OUTLET SHALL NOT BE LESS THAN EIGHTEEN (18) INCHES ABOVE GRADE AND THE OUTLETS MUST FACE THE STREET OR ACCESS DRIVE.

4.) THERE SHALL BE NO OBSTRUCTIONS, I.E., PLANTINGS, BUSHES, TREES, SIGNS, LIGHT STANDARDS, MAILBOXES, ETC. WITHIN SIX (6) FEET OF ANY FIRE HYDRANT AND/OR FIRE DEPAARTMENT CONNECTION TO AN AUTOMATIC SPRINKLER SYSTEM.

5.) FIRE HYDRANTS WILL BE PRIVATE. PRIVATE HYDRANTS SHALL BE PAINTED ENTIREELY RED (PORTER 4119 OR EQUAL).

CITY OF O'FALLON, MISSOURI PLANNING AND ENGINEERING DEPT. FILE NO. 3105.02
APPROVED BY PLANNING & ZONING COMMISSION ON 03/26/2006

DUCKETT CREEK SANITARY DISTRICT 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 PROOFROLLING 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 DUCKETT CREEK SANITARY DISTRICT.
9. THE DUCKETT CREEK SANITARY DISTRICT 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 WATER JETTED. GRANULAR BACKFILL WILL BE USED UNDER PAVEMENT AREAS.
14. ALL PIPES SHALL HAVE POSITIVE DRAINAGE THROUGH MANHOLES. NO FLAT INVERT STRUCTURES ARE ALLOWED.
15. ALL CREEK CROSSINGS SHALL BE GROUTED RIP–RAP AS DIRECTED BY DISTRICT INSPECTORS. (ALL GROUT SHALL BE HIGH SLUMP READY–MIX CONCRETE).
16. BRICK SHALL NOT BE USED ON SANITARY SEWER MANHOLES.
17. EXISTING SANITARY SEWER SERVICE SHALL NOT BE INTERRUPTED.
18. MAINTAIN ACCESS TO EXISTING RESIDENTIAL DRIVEWAYS AND STREETS.
19. PRE–MANUFACTURED ADAPTERS SHALL BE USED AT ALL PVC TO DIP CONNECTIONS. RUBBER BOOT / MISSION–TYPE COUPLINGS WILL NOT BE ALLOWED.
20. ANY PERMITS, LICENSES, EASEMENTS, OR APPROVALS REQUIRED TO WORK ON PUBLIC OR PRIVATE PROPERTIES OR ROADWAYS ARE THE RESPONSIBILITY OF THE DEVELOPER.
21. 'TYPE N' LOCK–TYPE COVER AND LOCKING DEVICE (LOCK–LUG) SHALL BE USED WHERE LOCK–TYPE COVERS ARE REQUIRED.

STORM SEWER NOTES

1.) ALL CONCRETE SHALL BE REINFORCED, AND CONFORM TO A.S.T.M. DESIGNATION C76–80 CLASS III UNLESS NOTED.

2.) ALL STORM SEWER STRUCTURES WITHIN PROJECT SITE TO BE CONSTRUCTED IN ACCORDANCE WITH CITY OF O'FALLON, ST. CHARLES COUNTY, AND MISSOURI DEPT. OF TRANSPORTATION STANDARDS.

3.) TYPE "C" BEDDING IS REQUIRED FOR PIPES IN ROCK.

4.) ALL FILLED PLACES UNDER PROPOSED STORM AND SANITARY SEWER LINES AND/OR PAVED AREAS INCLUDING TRENCH BACKFILLS WITHIN AND OFF THE ROAD RIGHT–OF–WAY SHALL BE COMPACTED TO 90 PERCENT OF MAXIMUM DENSITY AS DETERMINED BY THE "MODIFIED AASHTO T–180 COMPACTION TEST" (ASTM D–1557). ALL TESTS SHALL BE VERIFIED BY A SOILS ENGINEER CONCURRENT WITH GRADING AND BACKFILLING OPERATIONS.

5.) ALL FILLED PLACES IN PROPOSED AND EXISTING ST. CHARLES COUNTY ROADS (HIGHWAYS) SHALL BE COMPACTED FROM THE BOTTOM OF THE FILL TO 93 PERCENT MAXIMUM DENSITY AS DETERMINED BY THE "MODIFIED AASHTO T–180 COMPACTION TEST" (ASTM D–1557). ALL TESTS SHALL BE VERIFIED BY A SOILS ENGINEER CONCURRENT WITH GRADING OPERATIONS.

6.) ALL CONNECTIONS TO PRE–CAST STRUCTURES SHALL HAVE MANUFACTURED OPENINGS.

7.) "O" RING PIPE TO BE USED ON ALL STORM SEWERS.

8.) PRECAST STRUCTURES ARE TO BE USED UNLESS OTHERWISE APPROVED BY THE CITY.

9.) CAST IRON COVERS ARE REQUIRED FOR ALL INLET TOPS IN THE CITY OF O'FALLON.

10.) PROVIDE 5/8" DIA. TRASH BAR FOR ALL INLETS.

11.) ALL STORM SEWER INLETS SHALL BE MARKER PER CITY STANDARDS. SEE SHEET C6 FOR TABLE OF ACCEPTABLE MARKINGS.

△3 – 05/03/06 REVISED PER CITY COMMENTS
△2 – 04/25/06 REVISED PER CITY, SEWER DISTRICT AND CLIENT COMMENTS
△1 – 03/22/06 REVISED PER CITY AND CLIENT COMMENTS

VEGETATION ESTABLISHMENT

TILLAGE PERPARATIONS
*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 pH.

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

LEGAL DESCRIPTION

A tract of land being all of Lot 2 of O'Fallon Corporate Center, a subdivision according to the plat thereof recorded in Plat Book 33 Pages 28 through 32 of the Recorder of Deeds Office in St. Charles County, Missouri and being more particularly described as follows:

Beginning at the Southwesterly corner of above said Lot 2, said point also being located at the Point of Intersection of the Southeasterly line of Lloyd King Drive, 60 feet wide, with the Northeasterly line of Missouri State Highway 40; thence along last said Southeasterly line the following courses and distances; thence North 13 degrees 05 minutes 42 seconds West 111.53 feet to a point on a curve to the left for which the radius point bears North 76 degrees 27 minutes 59 seconds West 281.74 feet; thence along last said curve to the left an arc distance of 236.55 feet to a point of tangency; thence North 34 degrees 34 minutes 20 seconds West 59.56 feet to a point of curvature to the right, said curve having a radius of 223.24 feet; thence along last said curve to the right an arc distance of 277.85 feet to a point of compound curvature to the right, said curve having a radius of 33.00 feet; thence along last said curve an arc distance of 55.67 feet to a point of tangency, said point also being located on the Southwesterly line of Natoli Drive, 60 feet wide; thence along last said Southwesterly line the following courses and distances; thence South 46 degrees 36 minutes 29 seconds East 157.92 feet to a point of curvature to the left, said curve having a radius of 530.00 feet; thence along last said curve an arc distance of 186.83 feet to a point of tangency; thence South 66 degrees 48 minutes 20 seconds East 568.14 feet to a point of curvature to the right, said curve having a radius of 898.38 feet; thence along last said curve to the right an arc distance of 345.20 feet to a point of compound curvature to the right, said curve having a radius of 220.00 feet; thence along last said curve to the right an arc distance of 217.34 feet; thence departing last said curve North 78 degrees 05 minutes 56 seconds West 12.00 feet to a point of curvature to the right for which the radius point bears North 78 degrees 05 minutes 58 seconds West 208.00 feet; thence along last said curve an arc distance of 187.34 feet to a point of reverse curvature to the left, said curve having a radius of 292.00 feet; thence along last said curve to the left an arc distance of 144.80 feet; thence departing last said curve South 57 degrees 37 minutes 55 seconds West 51.21 feet to a point on the Northeasterly line of above said Missouri State Highway 40, said point also being located on a curve to the right for which the radius point bears North 26 degrees 53 minutes 48 seconds East 17,138.76 feet; thence along last said Northeasterly line the following courses and distances; thance along last said curve an arc distance of 145.55 feet; thence North 27 degrees 23 minutes 00 seconds East 10.00 feet to a point on a curve to the right for which the radius point bears North 27 degrees 23 minutes 00 seconds East 17,128.76 feet; thence along last said curve to the right an arc distance of 49.71 feet; thence South 27 degrees 32 minutes 58 seconds West 10.00 feet to a point on a curve to the right for which the radius point bears North 27 degrees 32 minutes 58 seconds East 17,138.76 feet; thence along last said curve an arc distance of 300.05 feet; thence North 28 degrees 33 minutes 08 seconds East 5.00 feet to a point on a curve to the right for which the radius point bears North 28 degrees 33 minutes 08 seconds East 17,133.76 feet; thence along last said curve an arc distance of 49.73 feet; thence South 28 degrees 43 minutes 08 seconds West 5.00 feet to a point on a curve to the right for which the radius point bears North 28 degrees 43 minutes 08 seconds East 17,138.76 feet; thence along last said curve an arc distance of 49.74 feet; thence North 28 degrees 53 minutes 08 seconds East 15.00 feet to a point on a curve to the right for which the radius point bears North 28 degrees 53 minutes 08 seconds East 17,123.76 feet; thence along last said curve an arc distance of 39.76 feet; thence South 29 degrees 01 minutes 06 seconds West 15.00 feet to a point on a curve to the right for which the radius point bears North 29 degrees 01 minutes 06 seconds East 17,138.76 feet; thence along last said curve an arc distance of 290.33 feet to the Point of Begining and containing 14.6 acres more or less according to calculations performed by Stock & Associates Consulting Engineers, Inc. during

GEORGE MICHAEL STOCK
NUMBER E-25116
5/3/06

GEORGE M. STOCK E–25116

APC LAB FACILITY

SPECIFICATION SHEET

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:
A.C.D.	01/23/06	D.P.B.	01/23/06	205–3635.1	C2 of C12