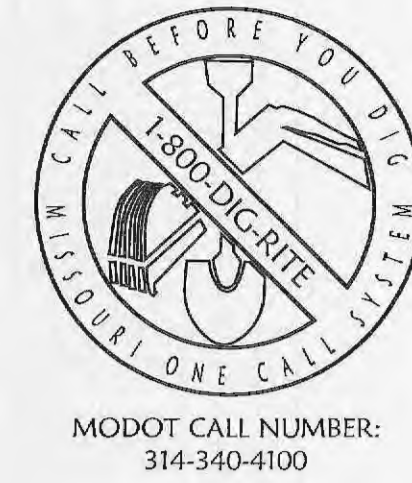


McDONALDS OF: O'FALLON, MISSOURI

101 MCDONALDS ROAD



MODOT CALL NUMBER:
314-340-4100



STATE LOCATION MAP

DATE	REV	DESCRIPTION
12/15/06	2	RESUBMITTAL WITH REVISIONS TO MCDONALDS DRIVE
01/16/07	3	CITY COMMENT
02/13/07	4	REMOVED LEFT TURN LANE ON MCDONALDS DRIVE
5/30/07	5	REMOVED LEFT TURN LANE ON MCDONALDS DRIVE
5/19/07	6	SUBMITTAL FOR PLANNING COMMISSION
6/15/07	7	RESUBMITTAL FOR PLANNING COMMISSION
8/16/07	8	CITY SUBMITTAL
10/1/07	9	CITY COMMENTS 9-10-07
10/9/07	10	MODOT COMMENTS
12/18/07	11	CITY COMMENTS 11-06-07
03/12/08	12	RELOCATED POWER POLE
4/4/08	13	REVISED PAVEMENT SPEC. FIRE LINE ADDED
4/10/08	14	REVISED CURB FL. SIDE

DRAWING INDEX:

		DATE	REV/BID/CO/ADD
C-1	COVER SHEET	12/1/08	AS BUILT
C-2	SITE PLAN	12/16/07	CITY COMMENTS 11/06/07
C-2.1	ISLAND DETAIL	12/16/07	MODOT COMMENTS 10/02/07
C-3	SURVEY	12/19/05	
C-4	DEMOLITION PLAN	12/16/07	CITY COMMENTS 11/06/07
C-5	EROSION AND SEDIMENT CONTROL PLAN	12/16/07	CITY COMMENTS 11/06/07
C-6.1	GRADING PLAN	12/1/08	AS BUILT
C-6.2	ENTRANCE SPOT GRADES	12/16/07	CITY COMMENTS 11/06/07
C-6.3	DRAINAGE AREAS	12/16/07	CITY COMMENTS 11/06/07
C-6.4	STORM SEWER PLAN AND PROFILES	12/1/08	AS BUILT
C-7	UTILITY PLAN	12/1/08	AS BUILT
C-8	LANDSCAPE PLAN	12/16/07	CITY COMMENTS 11/06/07
8D1	MCDONALDS DETAIL SHEET	12/16/07	CITY COMMENTS 11/06/07
8D2	MCDONALDS DETAIL SHEET	12/16/07	CITY COMMENTS 11/06/07
8D3	MCDONALDS DETAIL SHEET	12/16/07	CITY COMMENTS 11/06/07
8D4	MCDONALDS DETAIL SHEET	12/16/07	CITY COMMENTS 11/06/07
8D5	MCDONALDS DETAIL SHEET	12/16/07	CITY COMMENTS 11/06/07
8D6	MCDONALDS DETAIL SHEET	12/16/07	CITY COMMENTS 11/06/07

COVER GENERAL NOTES:

INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS AND EXISTING FIELD CONDITIONS WHEN POSSIBLE. THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF ALL EXISTING UTILITIES BY HAND DIGGING TEST PITS AT ALL UTILITY CROSSINGS IN ADVANCE OF TRENCHING WITH ANY MECHANICAL DEVICE. CLEARANCES LESS THAN SPECIFIED ON THESE PLANS OR 18", WHICHEVER IS LESS, CONTRACTOR SHALL CONTACT OZARK CIVIL ENGINEERING, INC. @ 913-310-0470 PRIOR TO ANY FURTHER CONSTRUCTION.

CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATION OR REMOVAL OF EXISTING UNDERGROUND UTILITIES SHOWN OR NOT SHOWN AT NO ADDITIONAL COST TO THE OWNER.

CONTRACTOR SHALL INCLUDE IN CONTRACT THE PRICE FOR THE REMOVAL AND DISPOSAL OF ANY EXCESS TOPSOIL THE DETERMINES IS NOT NEEDED TO ESTABLISH THE FINAL GRADES AND LANDSCAPING.

CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND USE OF ANY AND ALL REQUIRED OR NECESSARY SHORING, SHEETING, BRACING AND SPECIAL EXCAVATION MEASURES REQUIRED ON THIS PROJECT THAT WILL MEET OR EXCEED OSHA, FEDERAL, STATE AND LOCAL REGULATIONS DURING CONSTRUCTION. OZARK CIVIL ENGINEERING, INC. AND THE DEVELOPER/OWNER ACCEPTS NO RESPONSIBILITY FOR THE CONTRACTORS FAILURE TO COMPLY WITH THESE REGULATIONS.

ALL UTILITIES, INCLUDING STORM SEWER, SHOWN WITHIN PUBLIC EASEMENTS OR RIGHT OF WAYS SHALL BE CONSTRUCTED TO THE GOVERNING AGENCY'S SPECIFICATIONS. ALL OTHER UTILITIES SHALL BE CONSTRUCTED TO THE CLIENT'S OR THE GOVERNING AGENCY'S SPECIFICATIONS, WHICHEVER IS MORE STRINGENT. IF THERE IS A QUESTION AS TO WHICH SPECIFICATIONS SHOULD APPLY THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FOLLOW ALL RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL STUDY. WHERE A CONFLICT EXISTS BETWEEN THE HIGHWAY DEPARTMENT / CITY STANDARDS, OR THE GEOTECH STUDY, THE MOST STRINGENT SHALL APPLY.

FURTHERMORE IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN THE EROSION CONTROL MEASURES AS SHOWN ON THESE PLANS. CONTRACTOR SHALL KEEP THESE MAINTAINED THROUGHOUT ALL PHASES OF CONSTRUCTION. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR IMPLEMENTING THE SWPPP.

ALL PHASES OF CONSTRUCTION SHALL MEET OR EXCEED THE OWNER / DEVELOPER SITE WORK SPECIFICATIONS.

SEE ARCHITECTURAL PLANS FOR THE EXACT DIMENSIONS AND LOCATIONS OF ANY RAMPS, VESTIBULE, PORCHES, SLOPED PAVING, BUILDING UTILITY ENTRANCE LOCATIONS, TRUCK DOCKS OR WELLS, AND PRECISE BUILDING DIMENSIONS.

CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM PREVIOUS AND CURRENT DEMOLITION PROCEDURES. DISPOSAL SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE AND/OR FEDERAL REGULATIONS GOVERNING SUCH OPERATIONS.

OZARK CIVIL ENGINEERING INC. AND ITS ASSOCIATES WILL NOT BE HELD RESPONSIBLE FOR THE ACCURACY OF THE SURVEY OR FOR DESIGN ERRORS OR OMISSIONS RESULTING FROM SURVEY INACCURACIES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY ALL EXISTING FEATURES AS SHOWN ON THE SURVEY AND NOTIFY THE SURVEYOR AND THE ENGINEER OF RECORD OF ANY INACCURACIES FOUND ON THE SURVEY PRIOR TO BEGINNING CONSTRUCTION.

THE GENERAL CONTRACTOR SHALL BE HELD SOLELY RESPONSIBLE FOR AND SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT.

ALL CONSTRUCTION IN THE STATE RIGHT-OF-WAY SHALL BE COORDINATED WITH THE HIGHWAY DEPARTMENT.

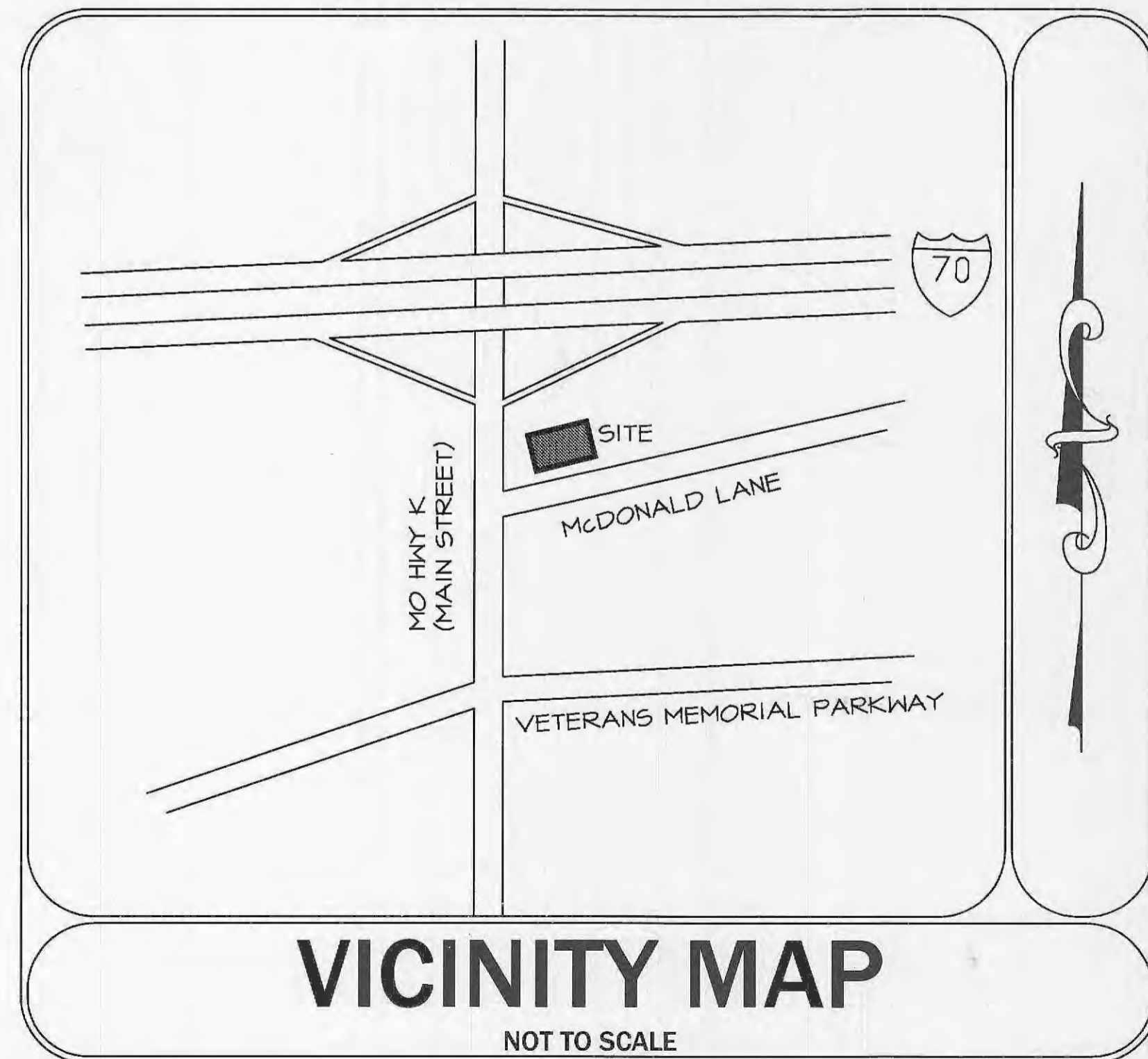
THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING ALL PHASES OF CONSTRUCTION OF THIS SITE. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND SHALL NOT BE LIMITED TO CONSTRUCTION WORKING HOURS.

WARRANTY / DISCLAIMER
THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR DESIGN FUNCTION AND USE INTENDED BY THE OWNER AT THIS TIME. HOWEVER, NEITHER THE ENGINEER NOR HIS PERSONNEL CAN OR DO WARRANT THESE DESIGNS OR PLANS AS CONSTRUCTED EXCEPT IN THE SPECIFIC CASES WHERE THE ENGINEER INSPECTS AND CONTROLS THE PHYSICAL CONSTRUCTION AT THE SITE.

SITE UTILITY CONTACTS CITY OF O'FALLON, MO

CITY OF O'FALLON, MO DAVID WOODS 100 N. MAIN STREET O'FALLON, MO 63366 636-379-5541 (V) 636-978-4144 (F)	SEWER O'FALLON WATER & SEWER 410 E. ELM O'FALLON, MO 63366 636-272-6818 (V)	GAS LACLEDE GAS MIKE LANGAN 1999 TRADE CENTER DRIVE EAST ST. PETERS, MO 63376 314-342-0681
CITY ENGINEER AL KIRKPATRICK 100 N. MAIN STREET O'FALLON, MO 63366 636-240-2000 (V) 636-978-4144 (F)	TELEPHONE CENTURY TELEPHONE CARL OWENS 1151 CENTURY TEL DRIVE WENTZVILLE, MO 63385 636-332-7392 (V) 636-332-7199 (F)	MODOT TERRY SMITH 1590 WOODLAKE DRIVE CHESTERFIELD, MO 63017 314-340-4334
WATER O'FALLON WATER & SEWER ALLIANCE WATER RESOURCES 410 E. ELM O'FALLON, MO 63366 636-272-6818 (V)	ELECTRIC AMEREN, UE JEFF BUTLER P.O. BOX 66301 ST. LOUIS, MO 63166 636-639-8256 636-639-8256	SIGNAGE BRANDY WILLIAMS 100 N. MAIN STREET O'FALLON, MO 63366 636-379-5542 (V)
FIRE O'FALLON FIRE PREVENTION DISTRICT MARK MORRISON 100 N. MAIN STREET O'FALLON, MO 63366 636-272-3493 (V)		OWNER/DEVELOPER MCDONALDS CORP. C/O JEFF PRUETER 10801 MASTIN BLVD STE 400 OVERLAND PARK, KS 66210 913-217-3800 (V)

*THE CITY OF O'FALLON SHALL ALSO BE CONTACTED FOR UTILITY LOCATES UNDER MAINTENANCE AGREEMENT



AS BUILT PLANS

CITY OF O'FALLON
COMMUNITY DEVELOPMENT DEPARTMENT
ACCEPTED FOR CONSTRUCTION
BY: gls DATE: 12-12-08
PROFESSIONAL ENGINEER'S SEAL
INDICATES RESPONSIBILITY FOR DESIGN

PLANNING AND DEVELOPMENT FILE #2306
APPROVED AUGUST 2, 2007

RECEIVED Dec - 4 2008

STREET ADDRESS 101 MCDONALDS LANE		STATUS	DATE	BY
CITY O'FALLON	STATE MISSOURI	PRELIMINARY	-/-/-	-
COUNTY ST. CHARLES		PLAN CHECKED	-/-/-	-
		AS-BUILT	-/-/-	-
REGIONAL DWG. NO. 24/0130		PROJECT NO.	06-0620	
COVER SHEET		C-1		

AC Clark
Civil Engineering Inc.
Corp. Office: 1008 N.W. 37th St., Suite C, Bentonville, AR 72712
(479) 664-8850 (V) / (479) 444-6340 (F)
Regional Office: 12825 Strong Line, Rd., Lawrence, KS 66215
(913) 310-0970 (V) / (913) 310-0681 (F)

McDonald's
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KANSAS CITY
10801 MASTIN BLVD. STE. 400, OVERLAND PARK, KS 66210

Developer must supply City construction inspectors with soil reports prior to or during site 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 90% Compaction and above as determined by the "Modified AASHTO T-180 Compaction Test" (A.S.T.M.-D-157) 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.
- Curve must have at least 3 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.

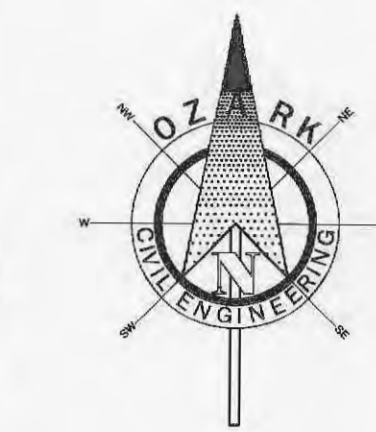
SITE BENCHMARK:
X CUT IN CONCRETE APPROX. 37.5' NORTH OF
SOUTHWEST CORNER OF PROPERTY.
ELEVATION: 550.17

*NOTE:
ALL STORM WATER DRAINAGE FROM SITE
LEAVES SITE THROUGH TWO EXISTING CURB
INLETS ON NORTH SIDE OF LOT ONTO
MISSOURI RIGHT-OF-WAY.
NO INCREASE IN FLOW ADDED TO OFFSITE
DRAINAGE.

INTERSTATE HIGHWAY 70
(R/W VARIES & CENTERLINE
CANNOT BE DETERMINED)



MODOT CALL NUMBER:
314-340-4100



GRADING NOTES & DETAILS

Refer labels for the following symbols as shown on this sheet.

- XXX MATCH EXISTING PAVING
- GO1 CURB DRAINAGE CATCH BASIN

GRADING AND DRAINAGE NOTES:

INFORMATION PERTAINING TO UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS AND FIELD LOCATIONS WHEN POSSIBLE. BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF ALL EXISTING UTILITIES BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS IN ADVANCE OF EACH MAJOR TRENCHING. IF CLEARANCES ARE LESS THAN SPECIFIED ON THESE PLANS OR, WHENEVER LESS, CONTACT THE ENGINEER AND THE OWNER/DEVELOPER PRIOR TO PROCEEDING WITH CONSTRUCTION.

ALL STRUCTURES LOCATED WITHIN R.O.W. OR OTHERWISE NOTED ON THESE PLANS SHALL BE CONSTRUCTED PER THE HIGHWAY DEPARTMENT STANDARDS. IF STRUCTURES ARE NOT PHOTOGRAPHICAL OR CONSTRUCTION CANNOT BE ACHIEVED CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO OZARK CIVIL ENGINEERING, INC. FOR REVIEW AND APPROVAL.

WHERE THE WORD PIPE IS USED ON THESE PLANS, THE CONTRACTOR HAS THE OPTION TO BID MATERIAL WITH $n=0.012$ OR LESS.

CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATION OR REMOVAL OF EXISTING UNDERGROUND UTILITIES SHOWN OR NOT SHOWN AT NO ADDITIONAL COST TO THE OWNER.

CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES ON ADJUSTING EXISTING UTILITY LINE AS REQUIRED BY CUT AND FILL AT NO ADDITIONAL COST TO THE OWNER.

CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF SHEETING, SHORING, BRACING AND SPECIAL EXCAVATION MEASURES REQUIRED TO MEET OSHA, FEDERAL, STATE AND LOCAL REGULATIONS PERTAINING TO THE INSTALLATION OF THE WORK INDICATED ON THESE DRAWINGS.

ALL STORM DRAIN PIPES ARE MEASURED FROM CENTER OF STRUCTURES AND END OF FLARED END SECTIONS.

RETAINING WALLS SHALL BE CONSTRUCTED TO EXTEND A MINIMUM OF 6 INCHES ABOVE THE TOP OF FINISHED GRADE. CONTRACTOR SHALL REFER TO THE RETAINING WALL PLANS FOR CONSTRUCTION AND DESIGN SPECIFICATIONS. CONTRACTOR SHALL NOTIFY OZARK CIVIL ENGINEERING, INC. IF RETAINING WALL PLANS DIFFER FROM THIS.

ALL DISTURBED AREAS AND SLOPES SHALL BE GRADED SMOOTH AND 1/2" OF TOP SOIL APPLIED. THE AREA SHALL BE SEED AND WATERED UNTIL HARDY GRASS GROWTH HAS BEEN ESTABLISHED. (SEE LANDSCAPING GENERAL NOTES FOR SEEDING SPECIFICATIONS)

CONTRACTOR SHALL CONSTRUCT AND MAINTAIN ALL EROSION AND SEDIMENTATION CONTROL PRACTICES IN ACCORDANCE WITH THE EROSION CONTROL PLAN AND CONSTRUCTION SCHEDULE. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR IMPLEMENTING THE SUPPLY.

REMOVE GOOD TOPSOIL FROM AREAS TO BE GRADED AND FILLED, AND RESERVE IT FOR USE IN FINISHING THE GRADING OF ALL CRITICAL AREAS.

SCAFFRY AREAS TO RECEIVE TOPSOIL TO A MINIMUM DEPTH OF 3 INCHES BEFORE PLACING TOPSOIL PER OWNER/DEVELOPER, CITY AND/OR HIGHWAY DEPARTMENT STANDARDS AND SPECIFICATIONS.

CLEAR AND CROWN AREAS TO BE FILLED. REMOVE TREES, VEGETATION, ROOTS, OR OTHER DEBRIS, AND OTHER MATERIALS WHICH WOULD AFFECT THE STABILITY OF THE FILL.

ENSURE THAT FILL MATERIAL IS FREE OF BRUSH, RUBBER, ROCKS, LOGS, STUMPS, BUILDING DEBRIS, AND OTHER MATERIALS INAPPROPRIATE FOR GRADE AND PROPOSED STRUCTURE TO BE CONSTRUCTED. FILL SHALL NOT INCORPORATE FROZEN MATERIAL OR SOFT, MUCK, OR HIGHLY COMPRESSIBLE MATERIALS INTO FILL SLOPES.

KEEP DIVERSIONS AND OTHER WATER CONVEYANCE MEASURES FREE OF SEDIMENT DURING ALL PHASES OF DEVELOPMENT.

PERMANENTLY STABILIZE ALL GRADED AREAS AFTER FINAL GRADING IS COMPLETED ON EACH AREA OF THE GRADING PLAN. APPLY TEMPORARY STABILIZATION MEASURES ON ALL GRADED AREAS WORK TO BE INTERRUPTED OR DELAYED (SEE EROSION CONTROL PLANS).

CONTRACTOR SHALL MATCH TOP OF PROPOSED DRAINAGE STRUCTURES WITH PROPOSED GRADES. IF A DISCREPANCY OCCURS BETWEEN PROPOSED GRADES AND PROPOSED STRUCTURE TO BE CONSTRUCTED, IF THE DISCREPANCY IS MORE THAN 4 INCHES THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD.

ALL UTILITIES, INCLUDING STORM SEWER, SHOWN WITHIN PUBLIC EASEMENTS OR RIGHT OF WAYS SHALL BE CONSTRUCTED TO THE GOVERNING AGENCY'S SPECIFICATIONS. ALL OTHER UTILITIES SHALL BE CONSTRUCTED TO THE GOVERNING AGENCY'S SPECIFICATIONS, UNLESS OTHERWISE NOTED. ANY DISCREPANCY SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER OF RECORD. IF THERE IS A QUESTION AS TO WHICH SPECIFICATIONS SHOULD APPLY THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD.

ALL EXISTING STRUCTURES, UNLESS OTHERWISE NOTED TO REMAIN, ALL FENCING, TREES, ETC., WITHIN RIGHT-OF-WAY PRIOR TO DEMOLITION, CONTRACTOR SHALL CONTACT UTILITY LOCATING COMPANY (STATE ONE CALL SYSTEM) AND LOCATE ALL UTILITIES PRIOR TO GRADING START.

ALL DRAINAGE STRUCTURES SHALL BE PRECAST.

ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC (R20) LOADS AND BE INSTALLED ACCORDINGLY.

CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES HAVING UNDERGROUND UTILITIES ON SITE OR IN RIGHT-OF-WAY PRIOR TO DEMOLITION. CONTRACTOR SHALL CONTACT UTILITY LOCATING COMPANY (STATE ONE CALL SYSTEM) AND LOCATE ALL UTILITIES PRIOR TO GRADING START.

SITE GRADING SHALL NOT BE OBTAINED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.

AFTER PERMITS HAVE BEEN PROCURED & EROSION CONTROL MEASURES INSTALLED, THE CONTRACTOR SHALL GRAD BUILDING PAD & APRONS TO 0' TO 1/2" OF SUBGRADE.

IMMEDIATELY APPLY & COMPACT STONE BASE FOR BUILDING PAD TO 1/2" MINOR TO EXCAVATING INTERIOR & PERIMETER FOOTINGS.

GENERAL CONTRACTOR SHALL PROVIDE 2' x 2' x 4" THICK CONCRETE APRON AT ALL CLEANOUTS OUTSIDE OF BUILDING AND IN PAVED AREAS.

CITY NOTES:

CONNECTIONS AT ALL STORM STRUCTURES TO BE MADE WITH LOCK JOINT OR EQUAL.

HIDE PIPE IS TO BE 18" MIN OR EQUAL AND TO MEET ASTM F141 WATER TIGHT FIELD JOINT.

ALL FILL PLACED UNDER PROPOSED STORM AND SANITARY SEWER, PROPOSED ROAD, AND/OR PAVED AREAS SHALL BE COMPACTED TO 90% OF MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED AASHTO T-99 CONSTRUCTION TEST OR 95% OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST. ALL FILL PLACED IN PROPOSED ROADS SHALL BE COMPACTED FROM THE BOTTOM OF THE FILL OPERATIONS. THE CONTRACTOR SHALL MEET THE WORK REQUIREMENTS AS SET FORTH BY THE CITY OR ADHERE TO THE GEOTECHNICAL RECOMMENDATIONS, WHICH EVER IS MORE STRINGENT.

CONTRACTOR SHALL PROVIDE 3/8" DIAMETER TRASH BAR FOR ALL INLETS.

NO SLOPES SHALL BE STEEPER THAN 3 (HORIZONTAL) TO 1 (VERTICAL).

BRICK SHALL NOT BE USED IN THE CONSTRUCTION OF PROPOSED STORM SEWER STRUCTURES. PRECAST CONCRETE STRUCTURES ARE TO BE USED UNLESS OTHERWISE APPROVED BY THE CITY OF OZARK.

*ASPHALT PAVEMENT SECTION FOR SITE TO BE 3" ASPHALT COURSE COMPACTED TO 95% DENSITY AND 8" COMPACTED STONE BASE COMPACTED TO 98% MODIFIED PROCTOR (PER GEOTECH SPECIFICATIONS).

(REFER TO McDONALDS PROJECT MANAGER FOR FURTHER DETAILS)

McClark
Civil Engineering Inc.
Office: 1008 N.W. J. R. Ave. 'C', Bentonville, AR 72712
(479) 464-8850 (M) / (479) 464-9040 (F)
Bentonville Office: 11285 Strong Line, Rd. Linnemore, MS 66215
(931) 310-0470 (M) / (931) 310-0261 (F)

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10801 MASTIN BLVD., STE. 400, OVERLAND PARK, KS 66210

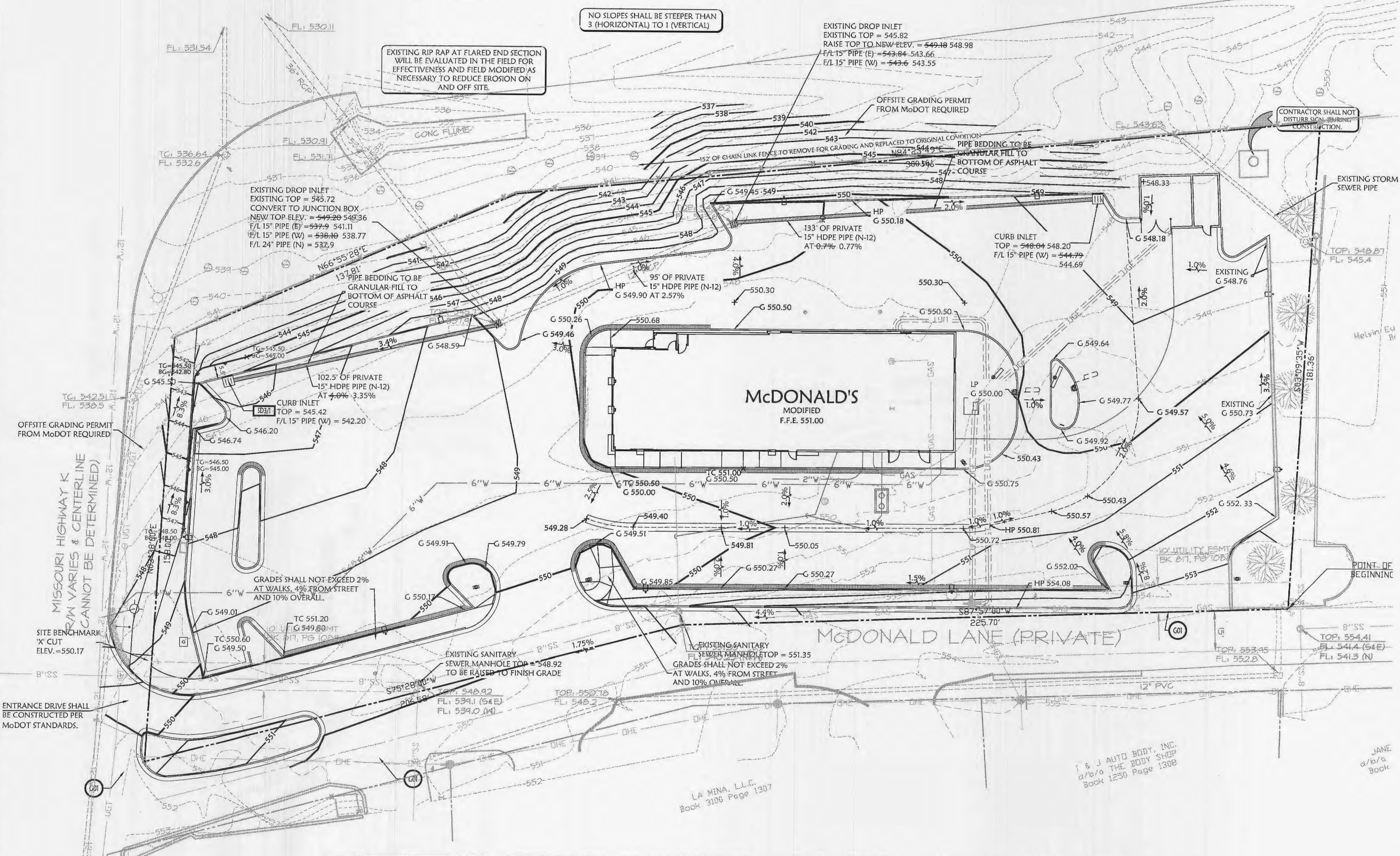
KANSAS CITY OFFICE ADDRESS

GRADING PROPOSED FEATURES

---	BOUNDARY LINE
---	RIGHT OF WAY LINE
---	EASEMENT LINE
---	CONCRETE CURB AND GUTTER
---	FENCE
---	GUARD RAIL
---	RETAINING WALL
---	SANITARY SEWER SERVICE
---	WATER SERVICE
---	UNDERGROUND ELECTRIC SERVICE
---	UNDERGROUND TELEPHONE SERVICE
---	OVERHEAD ELECTRIC SERVICE
---	OVERHEAD TELEPHONE SERVICE
---	FIBER OPTIC CABLE SERVICE
---	GAS SERVICE
---	SPOT ELEVATIONS:
---	TC=TOP OF CURB
---	G=HEIGHT OF CURB
---	TC=TOP OF GRADE (BEHIND TOP OF WALL)
---	BE=BOTTOM OF GRADE (AT FRONT OF WALL)
---	HP=HIGH POINT
---	FL=LOW POINT
---	EF=EDGE OF PAVEMENT
---	FE=FLARED END SECTION
---	RI=RAP PAD (SEE EROSION PLANS FOR SIZE)
---	SM=SANITARY SEWER MANHOLE
---	FH=HYDRANT WITH GUARD POSTS
---	UP=UTILITY POLE
---	WL=WATER LINE TEE, BEND, VALVE, AND PLUG

REGIONAL DWG. NO. 24/0130	
APPROVED AUGUST 2, 2007	
PLANNING AND DEVELOPMENT FILE #2306	

NOTE: AS-BUILT ELEVATIONS AND LOCATIONS AS SHOWN ON THIS PLAN ARE BASED UPON INFORMATION PROVIDED BY FARNSWORTH GROUP, 20 ALLEN AVE., SUITE 200, ST. LOUIS, MO.



CONTRACTOR TO PROVIDE A MARKING ON ALL STORM SEWER INLETS. THE CITY WILL ALLOW THE FOLLOWING MARKERS AND ADHESIVE PROCEDURES ONLY AS SHOWN IN THE TABLE BELOW OR AN APPROVED EQUAL BY ALMETER INDUSTRIES. 'PEEL AND STICK' PADS WILL NOT BE ALLOWED.

MANUFACTURER	SIZE	ADHESIVE	STYLE	MESSAGE (PART #)	WEBSITE
ACP INTERNATIONAL	3 1/2"	EPOXY	CRYSTAL CAP	NO DUMPING DRAINS TO WATERWAYS (SD-W-C)	www.acpinternational.com
DAS MANUFACTURING	4"	EPOXY	STANDARD STYLE	NO DUMPING DRAINS TO STREAM (#SDS)	www.dasmanufacturing.com

I CERTIFY THAT THE AS-BUILT LOCATIONS AND ELEVATIONS SHOWN ON THIS PLAN ARE ACCURATE TO THE BEST OF MY KNOWLEDGE.

Richard L. Dayton
RICHARD L. DAYTON, MO 15-002413



PLANNING AND DEVELOPMENT FILE #2306
APPROVED AUGUST 2, 2007

STORM SEWER HYDROLOGY CALCULATIONS:

Q=CIA
(SEE SHEET C-6.3 FOR DRAINAGE AREA)
AREA 1:
Q(15)=P^{1.49}A
= 3.85*0.09
= 0.35 CFS
AREA 2:
Q(15)=P^{1.49}A
= 3.85*0.04
= 0.15 CFS

CAPACITY OF EXISTING 12" RCP AT 6.00% = 15 YEAR STORM FLOW
Input Data:
Shape Circular
Solving for Depth of Flow
Diameter 1.00 ft
Flowrate 2.20 cfs
Slope 0.06 ft/ft
Manning's n 0.010
Computed Results:
Depth 0.316 ft
Area 0.78 f2
Wetted Area 0.21 f2
Wetted Perimeter 1.18 ft
Perimeter 3.14 ft
Velocity 10.44 fps
Hydraulic Radius 0.22 ft
Percent Full 31.35 %
Full flow Flowrate 10.31 cfs
Full flow velocity 13.13 fps

CAPACITY OF EXISTING 24" RCP AT 7.73% = 15 YEAR STORM FLOW
Input Data:
Shape Circular
Solving for Depth of Flow
Diameter 2.00 ft
Flowrate 5.70 cfs
Slope 0.0773 ft/ft
Manning's n 0.010
Computed Results:
Depth 0.37 ft
Area 3.14 f2
Wetted Area 0.40 f2
Wetted Perimeter 1.79 ft
Perimeter 6.28 ft
Velocity 13.99 fps
Hydraulic Radius 0.23 ft
Percent Full 18.73%
Full flow Flowrate 74.33 cfs
Full flow velocity 23.66 fps

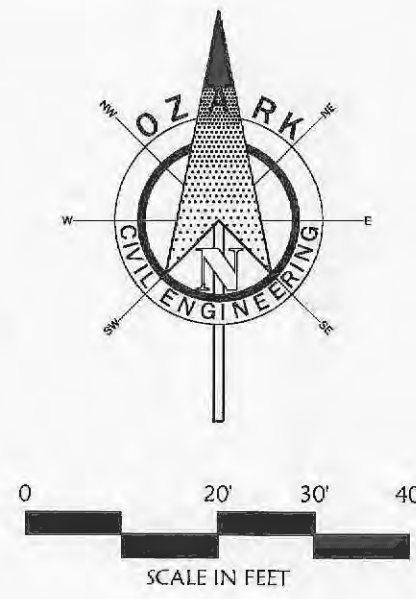
CAPACITY OF 15" PIPE (WEST STORM) AT 4.00% = 15 YEAR STORM FLOW
Input Data:
Shape Circular
Solving for Depth of Flow
Diameter 1.25 ft
Flowrate 3.50 cfs
Slope 0.04 ft/ft
Manning's n 0.011
Computed Results:
Depth 0.40 ft
Area 1.22 f2
Wetted Area 0.34 f2
Wetted Perimeter 1.5181 ft
Perimeter 3.92 ft
Velocity 10.10 fps
Hydraulic Radius 0.23 ft
Percent Full 32.55 %
Full flow Flowrate 15.26 cfs
Full flow velocity 12.44 fps

CAPACITY OF 15" PIPE (EAST STORM) AT 0.70% = 15 YEAR STORM FLOW
Input Data:
Shape Circular
Solving for Depth of Flow
Diameter 1.25 ft
Flowrate 2.20 cfs
Slope 0.0070 ft/ft
Manning's n 0.011
Computed Results:
Depth 0.50 ft
Area 1.22 f2
Wetted Area 0.46 f2
Wetted Perimeter 1.72 ft
Perimeter 3.92 ft
Velocity 4.72 fps
Hydraulic Radius 0.27 ft
Percent Full 40.48 %
Full flow Flowrate 6.38 cfs
Full flow velocity 5.20 fps

SITE BENCHMARK:
X CUT IN CONCRETE APPROX. 37.5' NORTH OF
SOUTHWEST CORNER OF PROPERTY.
ELEVATION: 550.17

*NOTE:
ALL STORM WATER DRAINAGE FROM SITE
LEAVES SITE THROUGH TWO EXISTING CURB
INLETS ON NORTH SIDE OF LOT ONTO
MISSOURI RIGHT-OF-WAY.
NO INCREASE IN FLOW ADDED TO OFFSITE
DRAINAGE.

*STORM SEWER PIPES HAVE BEEN SIZED TO ADEQUATELY PROVIDE FOR 10 YEAR STORM EVENT.
*MINIMUM 0.20 FEET DROP THROUGH ALL MANHOLES



GRADING NOTES & DETAILS

- XXX STORM LABELS BY THE FOLLOWING SYMBOLS ARE SHOWN ON THIS SHEET.
- CO MATCH EXISTING PAVING
- SD21 CURB DRAINAGE CATCH BASIN

GRADING AND DRAINAGE NOTES:

INFORMATION PERTAINING TO UNDER GROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS AND FIELD LOCATIONS WHEN POSSIBLE. BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF ALL EXISTING UTILITIES BY DIGGING TEST PITS BY HAND AT ALL UTILITIES OCCURRING IN ADVANCE OF MACHINE TRENCHING. IF CLEARANCES ARE LESS THAN SPECIFIED ON THESE PLANS OR IF WORK EVER ENCOUNTERS UNEXPECTED OBSTACLES, THE CONTRACTOR SHALL STOP WORK IMMEDIATELY AND NOTIFY THE ENGINEER.

ALL STRUCTURES LOCATED WITHIN R.O.W. OR OTHER NOTED AREAS ON THESE PLANS SHALL BE CONSTRUCTED PER THE HIGHWAY DEPARTMENT STANDARDS. IF STRUCTURES ARE NOT PROTOTYPICAL OR CONSTRUCTION CANNOT BE ACHIEVED BY CONTRACTOR STANDARDS, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO OZARK CIVIL ENGINEERING, INC. FOR REVIEW AND APPROVAL.

WHERE THE WORD PIPE IS USED ON THESE PLANS, THE CONTRACTOR HAS THE OPTION TO BID MATERIAL WITH A=602 OR LESS.

CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATION OR REMOVAL OF EXISTING UNDERGROUND UTILITIES SHOWN OR NOT SHOWN AT NO ADDITIONAL COST TO THE OWNER.

CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES ON ADJUSTING EXISTING UTILITY LINE AS REQUIRED BY CUT AND FILL AT NO ADDITIONAL COST TO THE OWNER.

CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF SHEETING, SHORING, BRACING AND SPECIAL EXCAVATION MEASURES REQUIRED TO MEET OSHA, FEDERAL, STATE AND LOCAL REGULATIONS PURSUANT TO THE INSTALLATION OF THE WORK INDICATED ON THESE DRAWINGS.

ALL STORM DRAIN PIPES ARE MEASURED FROM CENTER OF STRUCTURES AND END OF FLARED END SECTIONS.

RETAINING WALLS SHALL BE CONSTRUCTED TO EXTEND A MINIMUM OF 6 INCHES ABOVE THE TOP OF FINISHED GRADE. CONTRACTOR SHALL REFER TO RETAINING WALL PLANS FOR CONSTRUCTION AND DESIGN SPECIFICATIONS. CONTRACTOR SHALL NOTIFY OZARK CIVIL ENGINEERING, INC. IF RETAINING WALL PLANS DIFFER FROM THIS.

ALL DISTURBED AREAS AND SLOPES SHALL BE GRADED SMOOTH AND 1% OF TOP SOIL APPLIED. THE AREA SHALL BE SEEDED AND WATERED UNTIL A BARE SOIL COVER OF 80% HAS BEEN ESTABLISHED. (SEE LANDSCAPING GENERAL NOTES FOR SEEDING SPECIFICATIONS)

CONTRACTOR SHALL CONSTRUCT AND MAINTAIN ALL EROSION AND SEDIMENTATION CONTROL PRACTICES IN ACCORDANCE WITH THE EROSION CONTROL PLAN AND CONSTRUCTION SCHEDULE. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR MAINTAINING THE SWPP.

REMOVE GOOD TOPSOIL FROM AREAS TO BE GRADED AND FILLED, AND PRESERVE IT FOR USE IN FINISHING THE GRADING OF ALL CRITICAL AREAS.

SCAFFRY AREA TO RECEIVE TOPSOIL TO A MINIMUM DEPTH OF 3 INCHES BEFORE PLACING TOPSOIL PER CONTRACTOR. CITY AND/OR COUNTY DEPARTMENT OF PUBLIC WORKS AND INSPECTION SHALL VERIFY CLEAR AND GRASS AREAS TO BE FILLED. REMOVE TREES, VEGETATION, ROOTS OR OTHER DEBRIS, AND OTHER MATERIALS THAT WOULD AFFECT THE STABILITY OF THE FILL.

INSURE THAT FILL MATERIAL IS FREE OF BRUSH, RUBBISH, ROCKS, LOGS, STUMPS, BUILDING DEBRIS, AND OTHER MATERIALS INAPPROPRIATE FOR CONSTRUCTING STABLE FILLS.

DO NOT INCORPORATE FROZEN MATERIAL OR SOFT, MUCK, OR HIGHLY COMPRESSIBLE MATERIALS INTO FILL SLOPES.

KEEP DIVERSIONS AND OTHER WATER CONVEYANCE MEASURES FREE OF SEDIMENT DURING ALL PHASES OF DEVELOPMENT.

PERMANENTLY STABILIZE ALL GRADED AREAS AFTER FINAL GRADING IS COMPLETED ON EACH AREA OF THE GRADING PLAN. APPLY TEMPORARY STABILIZATION MEASURES ON ALL GRADED AREAS WHEN WORK IS TO BE INTERRUPTED OR DELAYED (SEE EROSION CONTROL PLANS).

CONTRACTOR SHALL MATCH TOP OF PROPOSED DRAINAGE STRUCTURES WITH PROPOSED GRADES. IF A DISCREPANCY OCCURS BETWEEN PROPOSED GRADES AND PROPOSED STRUCTURE TOPS, THE GRADING SHALL CORRECT. IF THE DISCREPANCY IS MORE THAN 4 INCHES THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD.

ALL UTILITIES INCLUDING STORM SEWER SHOWN WITHIN PUBLIC EASEMENTS OR RIGHT OF WAYS SHALL BE CONSTRUCTED TO THE GOVERNING AGENCY'S SPECIFICATIONS. ALL OTHER UTILITIES SHALL BE CONSTRUCTED TO THE CLIENT'S OR THE GOVERNING AGENCY'S SPECIFICATIONS, WHICHEVER IS MORE STRINGENT. IF THERE IS A QUESTION AS TO WHICH SPECIFICATIONS SHOULD APPLY THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD.

ALL EXISTING STRUCTURES, UNLESS OTHERWISE NOTED TO REMAIN, ALL FENCING, TREES & ETC. WITHIN CONSTRUCTION AREA SHALL BE REMOVED & DISPOSED OF OFF SITE. UNLESS OTHERWISE NOTED, ANY REMAINING UTILITIES SHALL BE SUBJECT TO LOCAL ORDINANCES AND/OR THE OWNER'S STANDARDS AND SPECIFICATIONS. (SEE DEMOLITION PLAN)

ALL DRAINAGE STRUCTURES SHALL BE PRE-CAST.

ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC (B-20) LOADING AND BE INSTALLED ACCORDINGLY.

CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES HAVING UNDERGROUND UTILITIES ON SITE OR IN RIGHT-OF-WAY PRIOR TO EXCAVATION. CONTRACTOR SHALL CONTACT UTILITY LOCATING COMPANY (STATE ONE CALL SYSTEM) AND LOCATE ALL UTILITIES PRIOR TO GRADING START.

SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.

AFTER PERMITS HAVE BEEN OBTAINED & EROSION CONTROL MEASURES INSTALLED, THE CONTRACTOR SHALL GRADE BUILDING PAD & APPROX. 10' TO 12' OF SUBGRADE.

IMMEDIATELY APPLY & COMPACT STONE BASE FOR BUILDING PAD TO +/- 1/2" PROX TO EXCAVATING, INTERIOR & PERIMETER FOOTINGS.

GENERAL CONTRACTOR SHALL PROVIDE 2' x 2' x 6" THICK CONCRETE AFFRON AT ALL CLEANOUTS OUTSIDE OF BUILDING AND IN PAVED AREAS.

CITY NOTES:

CONNECTIONS AT ALL STORM STRUCTURES TO BE MADE WITH A LOCK JOINT OR EQUAL.

HDPE PIPE IS TO BE 12-MT OR EQUAL AND TO MEET ASTM #1417 WATER TIGHT FIELD TEST.

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 SAND-TIME COMPACTION TEST OR 95% OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST. (ASSTO-T99). ALL FILL PLACED IN PROPOSED ROADS SHALL BE COMPACTED FROM THE BOTTOM OF THE FILL UP. ALL TEST SHALL BE VERIFIED BY A SOILS ENGINEER CONCURRENT WITH GRADING AND BACKFILLING OPERATIONS. THE CONTRACTOR SHALL MEET THE ABOVE REQUIREMENTS AS SET FORTH BY THE CITY, OR ADHERE TO THE GEOGRAPHICAL RECOMMENDATIONS, WHICH EVER IS MORE STRINGENT.

CONTRACTOR SHALL PROVIDE 5/8" DIAMETER TRASH BAR FOR ALL INLETS.

NO SLOPES SHALL BE STEEPER THAN 3 (HORIZONTAL) TO 1 (VERTICAL).

BRICK SHALL NOT BE USED IN THE CONSTRUCTION OF PROPOSED STORM SEWER STRUCTURES. PRECAST CONCRETE STRUCTURES ARE TO BE USED UNLESS OTHERWISE APPROVED BY THE CITY OF O'FALLON.

DATE	REV	DESCRIPTION
12/15/06	2	REVISIONS TO MCDONALDS DRIVE
01/16/07	3	CITY COMMENTS 01-10-07
02/13/07	4	REMOVED LEFT TURN LANE ON MCDONALDS DRIVE
5/30/07	5	REMOVED LEFT TURN LANE ON MCDONALDS DRIVE
5/19/07	6	SUBMITTAL FOR PLANNING COMMISSION
6/15/07	7	REVISIONS FOR PLANNING COMMISSION
8/16/07	8	CITY APPROVAL
10/1/07	9	CITY COMMENTS 9-18-07
10/9/07	10	CITY COMMENTS
12/18/07	11	CITY COMMENTS 11-06-07
03/12/08	12	RELOCATED POWER POLE
4/4/08	13	REVISED PAVEMENT SPEC (FIRE LINE ADDED)
4/10/08	14	REVISED CURB N. SIDE

*ASPHALT PAVEMENT SECTION FOR SITE TO BE 3" ASPHALT COURSE COMPACTED TO 95% DENSITY AND 8" COMPACTED STONE BASE COMPACTED TO 98% MODIFIED PROCTOR (PER GEOTECH SPECIFICATIONS).

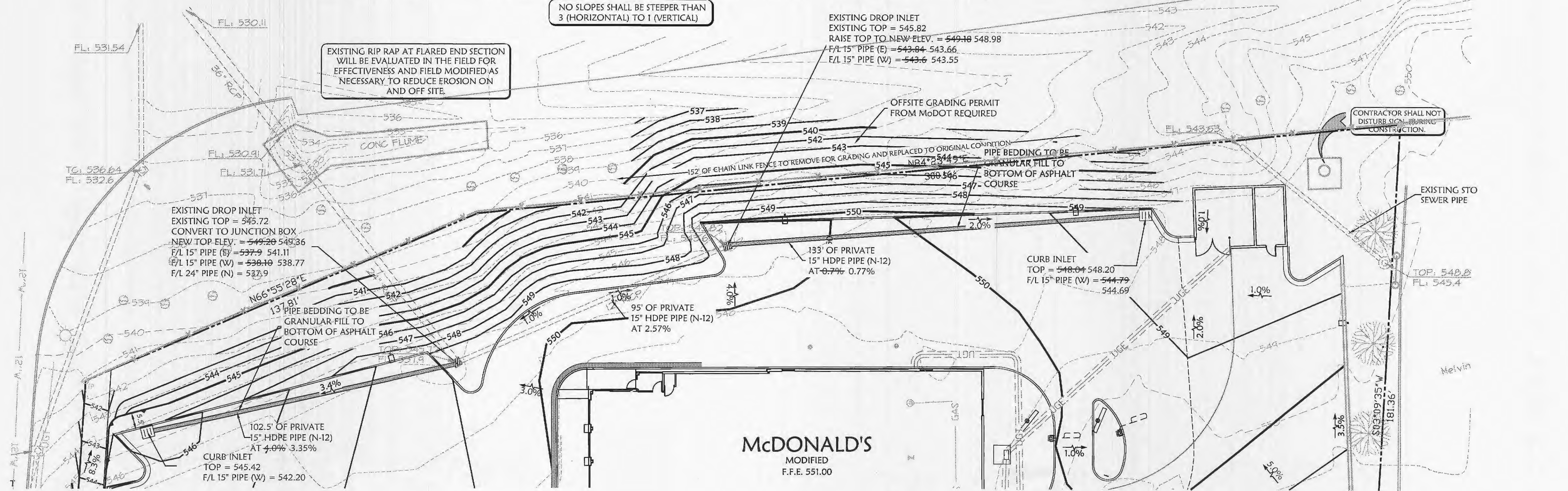
(REFER TO MCDONALDS PROJECT MANAGER FOR FURTHER DETAILS)

AC Clark
Civil Engineering Inc.
Cora, Office: 1038 N.W. 7th St., Ste. C, Fort Lauderdale, FL 33311
(954) 444-8850 / (978) 464-9040 (F)
Regional Office: 11285 Strong Line Rd., Lenexa, KS 66151
(913) 310-0470 / (816) 310-0261 (F)

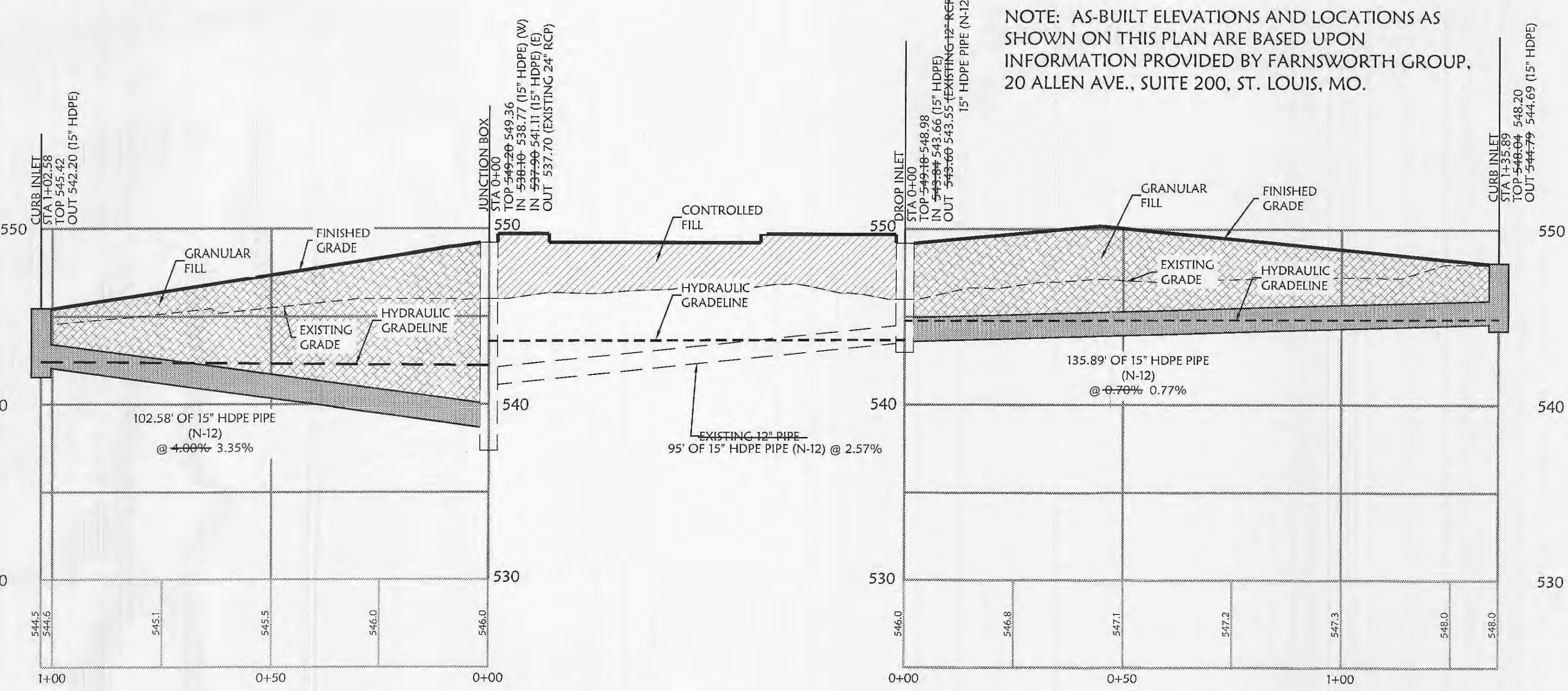
McDonald's
THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF MCDONALD'S CORPORATION AND SHALL NOT BE REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.
KANSAS CITY
10801 MASTIN BLVD., STE. 400, OVERLAND PARK, KS 66210

STATUS	DATE	BY
PRELIMINARY	-/-/-	-
PLAN CHECKED	-/-/-	-
AS-BUILT	-/-/-	-
PROJECT NO.	06-0620	

C-6.4



NOTE: AS-BUILT ELEVATIONS AND LOCATIONS AS SHOWN ON THIS PLAN ARE BASED UPON INFORMATION PROVIDED BY FARNSWORTH GROUP, 20 ALLEN AVE., SUITE 200, ST. LOUIS, MO.



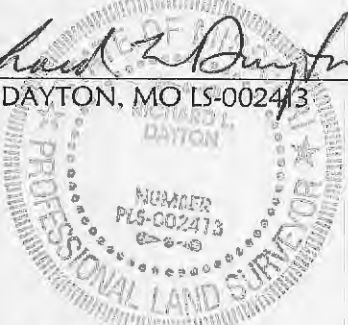
WEST PROPOSED STORM SEWER PROFILE
STA. 0+00 TO STA. 1+02.58
*PIPE BEDDING TO BE GRANULAR FILL TO BOTTOM OF ASPHALT COURSE

EAST PROPOSED STORM SEWER PROFILE
STA. 0+00 TO STA 1+35.89
*PIPE BEDDING TO BE GRANULAR FILL TO BOTTOM OF ASPHALT COURSE

CONTRACTOR TO PROVIDE A MARKING ON ALL STORM SEWER INLETS. THE CITY WILL ALLOW THE FOLLOWING MARKERS AND ADHESIVE PROCEDURES ONLY AS SHOWN IN THE TABLE BELOW OR AN APPROVED EQUAL BY ALMETER INDUSTRIES. 'PEEL AND STICK' PADS WILL NOT BE ALLOWED.

MANUFACTURER	SIZE	ADHESIVE	STYLE	MESSAGE (PART #)	WEBSITE
ACP INTERNATIONAL	3 3/8"	EPOXY	CRYSTAL CAP	NO DUMPING DRAINS TO WATERWAYS (SD-W-CC)	www.acpinternational.com
DAS MANUFACTURING	4"	EPOXY	STANDARD STYLE	NO DUMPING DRAINS TO STREAM (#5DS)	www.dasmanufacturing.com

I CERTIFY THAT THE AS-BUILT LOCATIONS AND ELEVATIONS SHOWN ON THIS PLAN ARE ACCURATE TO THE BEST OF MY KNOWLEDGE.
Richard L. Dayton
RICHARD L. DAYTON, MO 15-00243



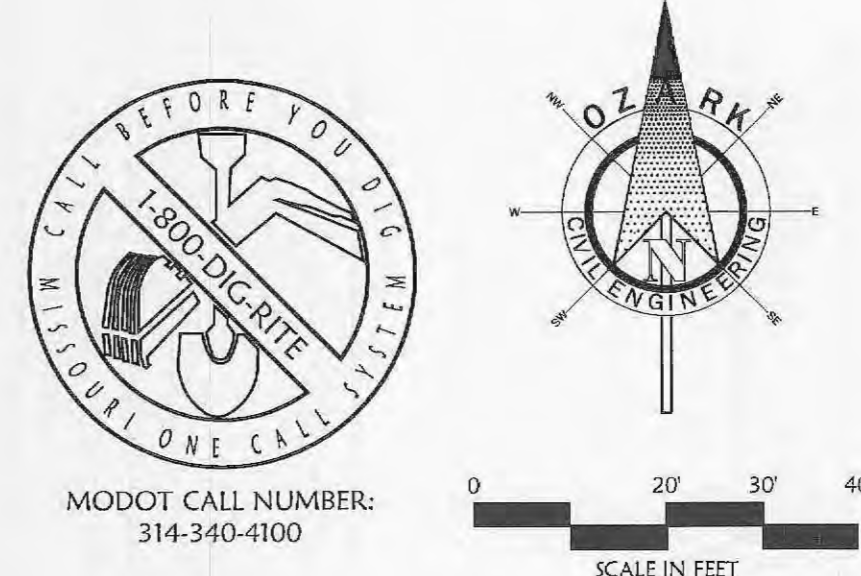
PLANNING AND DEVELOPMENT FILE #2306
APPROVED AUGUST 2, 2007

UTILITY GENERAL NOTES:

ALL WATER LINES SHALL HAVE A MINIMUM OF 3'-6" COVER ABOVE TOP OF PIPE.
 ALL SANITARY SEWER LINES SHALL HAVE A MINIMUM COVER OF 3'-0" COVER ABOVE TOP OF PIPE.
 PROPOSED UTILITIES TO BE BURIED IN THE SAME TRENCH INSTALLATION SHALL BE COORDINATED AND APPROVED BY LOCAL UTILITY COMPANIES.
 VERIFY LOCATION AND DEPTH OF EXISTING UTILITY BEFORE CONSTRUCTING PROPOSED UTILITY.
 CONTRACTOR SHALL COORDINATE ANY DISRUPTIONS TO EXISTING UTILITY SERVICES WITH ADJACENT PROPERTY OWNERS.
 ALL ELECTRIC, TELEPHONE AND GAS EXTENSIONS INCLUDING SERVICE LINES SHALL BE CONSTRUCTED TO THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS. ALL UTILITY DISCONNECTIONS SHALL BE COORDINATED WITH THE DESIGNATED UTILITY COMPANIES.
 CONSTRUCTION SHALL NOT START ON ANY PUBLIC UTILITY SYSTEM UNTIL WRITTEN APPROVAL HAS BEEN RECEIVED BY THE ENGINEER FROM THE APPROPRIATE GOVERNING AUTHORITY AND CONTRACTOR HAS BEEN NOTIFIED BY THE ENGINEER.
 THE MINIMUM HORIZONTAL SEPARATION BETWEEN THE CLOSEST TWO POINTS OF THE WATER AND SEWER LINE IS TEN FEET (10'). THE MINIMUM VERTICAL SEPARATION BETWEEN THE CLOSEST TWO POINTS OF THE WATER AND SEWER LINE IS EIGHTEEN INCHES (18').
 ALL TRENCHING, PIPE LAYING, AND BACK FILLING PROCEDURES SHALL BE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.
 PRIOR TO THE CONSTRUCTION OF OR CONNECTION TO ANY STORM DRAIN, SANITARY SEWER, WATER MAIN OR ANY OF THE DRY UTILITIES, THE CONTRACTOR SHALL LOCATE, VERIFY AND CALCULATE ALL POINTS OF CONNECTION AND ALL UTILITY CROSSINGS AND INFORM CIVIL ENGINEERING AND THE OWNER/DEVELOPER OF ANY CONFLICT OR REQUIRED DEVIATIONS FROM THE PLAN. NOTIFICATION SHALL BE MADE A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION. CIVIL ENGINEERING AND ITS CONSULTANTS SHALL BE HELD HARMLESS IN THE EVENT THAT THE CONTRACTOR FAILS TO MAKE SUCH NOTIFICATION.
 ALL WATER LINE PIPE BEDDING SHALL BE INSTALLED PER DETAIL S049 (SEE DETAIL SHEETS).
 ALL SANITARY SEWER PIPE BEDDING SHALL BE INSTALLED PER DETAIL S049 (SEE DETAIL SHEETS).
 CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE CITY CONSTRUCTION DIVISION TO SCHEDULE A PRE-CONSTRUCTION MEETING AT LEAST 48 HOURS PRIOR TO STARTING ANY WORK ON THIS PROJECT. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS.
 EXISTING UTILITIES ACROSS OR ALONG THE LINE OF THE PROPOSED WORK ARE SHOWN ONLY IN AN APPROXIMATE LOCATION ON THESE PLANS. CONTRACTOR SHALL CALL THE STATE ONE-CALL SYSTEM OR RESPECTIVE UTILITY COMPANY PRIOR TO CONSTRUCTION. CONTRACTOR SHALL OBTAIN HIS OWN INITIATIVE AND AT NO ADDITIONAL COST, LOCATE ALL UNDERGROUND LINES AND STRUCTURES AS NECESSARY. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO UNDERGROUND LINES OR STRUCTURES.
 CONTRACTOR SHALL NOT TOP OR OTHERWISE PENETRATE EXISTING WATER AND SEWER MAIN LINES WITHOUT PRIOR APPROVAL FROM THE CITY INSPECTOR. CONTRACTOR IS RESPONSIBLE FOR AVOIDING SPILLAGE OF RAW SEWAGE. CONTRACTOR SHALL PROVIDE ALL NECESSARY PLUMBING AND FINISHING EQUIPMENT NECESSARY TO AVOID SPILLAGE. CONTRACTOR SHALL NOT OPERATE VALVES ON EXISTING WATER MAINS.

THE EXISTING UTILITIES AND OBSTRUCTIONS SHOWN ARE FROM THE BEST AVAILABLE RECORDS AND SHALL BE VERIFIED BY THE CONTRACTOR TO HIS SATISFACTION PRIOR TO CONSTRUCTION. NECESSARY PRECAUTIONS SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT EXISTING SERVICES AND MAINS, AND ANY DAMAGE TO THEM SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
 IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO SPECIFICALLY MENTION WORK WHICH IS REQUIRED TO COMPLETE THE PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PERFORM SUCH WORK.
 CONTRACTOR SHALL MATCH TOP OF PROPOSED SANITARY SEWER MANHOLE TO PROPOSED GRADE. IF A DISCREPANCY OCCURS BETWEEN PROPOSED GRADS AND PROPOSED STRUCTURE TOPS, THE GRADING SHALL GOVERN. IF THE DISCREPANCY IS MORE THAN 4 INCHES THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD.
 ALL UTILITIES, INCLUDING STORM SEWER, SHOWN WITHIN PUBLIC EASEMENTS OR RIGHT-OF-WAYS SHALL BE CONSTRUCTED TO THE GOVERNING AGENCY'S SPECIFICATIONS. ALL OTHER UTILITIES SHALL BE CONSTRUCTED TO THE CLIENT OR THE GOVERNING AGENCY'S SPECIFICATIONS, WHICH ARE MORE STRINGENT. IF THERE IS A QUESTION AS TO WHICH SPECIFICATIONS SHOULD APPLY THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD.
 IF SANITARY SEWER MANHOLE IS LOCATED IN A GRADE AREA OR SLOPE, CONTRACTOR SHALL CONSTRUCT MANHOLE TOP TO AN ELEVATION 6 INCHES HIGHER THAN THE PROPOSED GRADE. IF THIS CANNOT BE ACHIEVED THEN CONTRACTOR SHALL USE A WATER TIGHT MANHOLE COVER THAT MEETS OR EXCEEDS THE COVER'S DEVELOPED STANDARD SPECIFICATIONS.
 ALL WATER MAINS SHALL BE HYDROSTATICALLY TESTED AND DISINFECTED BEFORE ACCEPTANCE. SEE SITE WORK SPECIFICATIONS.
 CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES ON ADJUSTING EXISTING UTILITY LINE AS REQUIRED BY CUT AND FILL AT NO ADDITIONAL COST TO THE OWNER.
 CONTRACTOR SHALL NOTIFY ENGINEERS OF RECORD AND ARCHITECT SHOULD ANY LIGHT POLE OR SIGN FOUNDATIONS CONFLICT WITH ANY UTILITY AND/OR STORM SEWER SYSTEM.
 GENERAL CONTRACTOR SHALL PROVIDE 2" x 2" x 6" THICK CONCRETE APRON AT ALL CLEANOUTS, GATE VALVES, AND METER BOXES ETC. OUTSIDE OF BUILDING AND PAVED AREAS.
 GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR ALL TAP AND THE ON FEES REQUIRED, AS WELL AS COST OF UNDERGROUND SERVICE CONNECTIONS TO THE BUILDING.
 ELECTRICAL SERVICE TO AND MOUNTED TRANSFORMERS SHALL BE RUN UNDERGROUND, FROM ROAD RIGHT-OF-WAY TO TRANSFORMER LOCATION. ASSOCIATED COST BY GENERAL CONTRACTOR.
 UTILITY CONTRACTOR SHALL FURNISH (2) - 4" TELEPHONE CONDUITS AS SHOWN ON PLAN, VERIFY LOCATION OF TIE IN TELEPHONE COMPANY'S SERVICE LINE. PROVIDE WYSON FULL CORD INSIDE CONDUIT.
 DIMENSIONS SHOWN ARE TO CENTERLINE OF PIPE OR FITTING UNLESS OTHERWISE NOTED.
 ALL FIRE HYDRANTS SHALL BE PROVIDED WITH AN APPROVED GATE VALVE A MINIMUM OF 5' FROM HYDRANT.
 REFER TO PLUMBING SHEETS FOR LOCATION OF SEWER, DOMESTIC, AND IRRIGATION CONNECTIONS.

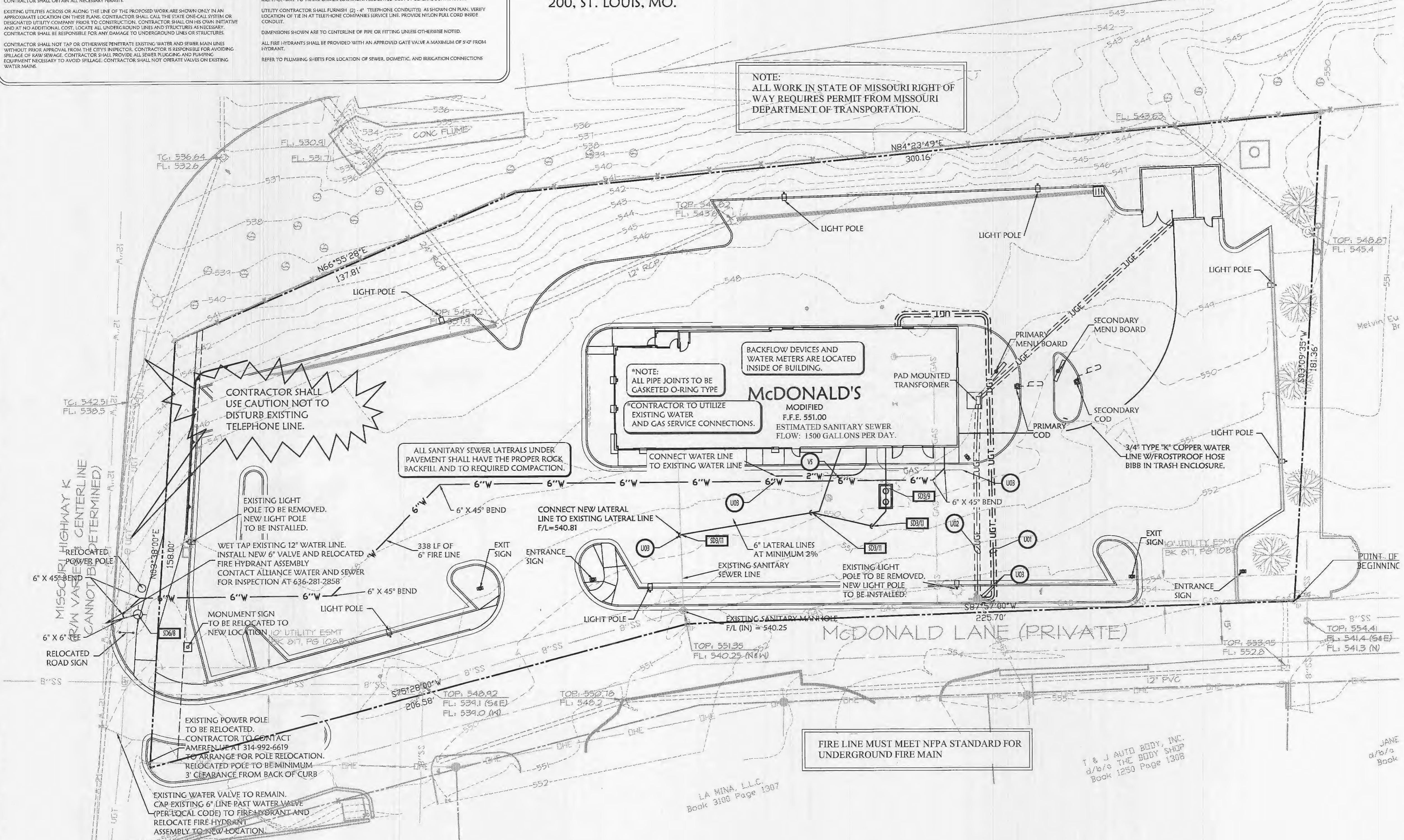
SITE BENCHMARK:
 X CUT IN CONCRETE APPROX. 37.5' NORTH OF
 SOUTHWEST CORNER OF PROPERTY.
 ELEVATION: 550.17



INTERSTATE HIGHWAY TO
 (R/W VARIES & CENTERLINE
 CANNOT BE DETERMINED)

NOTE: AS-BUILT ELEVATIONS AND LOCATIONS AS SHOWN ON THIS PLAN ARE BASED UPON INFORMATION PROVIDED BY FARNSWORTH GROUP, 20 ALLEN AVE., SUITE 200, ST. LOUIS, MO.

NOTE:
 ALL WORK IN STATE OF MISSOURI RIGHT OF
 WAY REQUIRES PERMIT FROM MISSOURI
 DEPARTMENT OF TRANSPORTATION.



UTILITY PROPOSED FEATURES

---	BOUNDARY LINE
---	RIGHT OF WAY LINE
---	EASEMENT LINE
---	CONCRETE CURB AND GUTTER
---	FENCE
---	GUARD RAIL
---	RETAINING WALL
---	STORM DRAIN (SEE GRADING PLAN FOR SIZE)
---	SANITARY SEWER SERVICE
---	WATER SERVICE
---	UNDERGROUND ELECTRIC SERVICE
---	UNDERGROUND TELEPHONE SERVICE
---	OVERHEAD ELECTRIC SERVICE
---	OVERHEAD TELEPHONE SERVICE
---	FIBER OPTIC CABLE SERVICE
---	GAS SERVICE
---	DROP INLETS (SEE GRADING PLAN FOR TYPE)

UTILITY NOTES

XXX	Items labeled by the following symbols are shown on this sheet.
VS	MAINTAIN MINIMUM 18" VERTICAL SEPARATION
U01	1.5" TELEPHONE CONDUIT (PVC SCHEDULE 40)
U02	4" SCHEDULE 40 PVC CONDUIT
U03	POINT OF CONNECTION (PER LOCAL CODES)

UTILITY DETAILS

DIFF	Items labeled by the following symbols are shown on this sheet and referenced on detail sheets, which are included as part of this set of plans.
S0301	CLEANOUT DETAIL
S0302	TYPICAL EXTERIOR GREASE TRAP
S0601	FIRE HYDRANT ASSEMBLY

DATE	REV	DESCRIPTION
12/15/06	2	REUBURNVILLE WITH REVISIONS TO MICROPLANS DRIVE
01/16/07	3	CITY COMMENTS 01-10-07
02/13/07	4	REMOVED LEFT TURN LANE ON MICROPLANS DRIVE
5/30/07	5	REMOVED LEFT TURN LANE ON MICROPLANS DRIVE
5/19/07	6	REUBURNVILLE FOR PLANNING COMMISSION
6/15/07	7	RE SUBMITTAL FOR PLANNING COMMISSION
8/16/07	8	CITY SUBMITTAL
10/1/07	9	CITY COMMENTS 9-18-07
10/9/07	10	REBOUT COMMENTS
12/18/07	11	CITY COMMENTS 11-16-07
03/12/08	12	RELOCATED POWER POLE
4/4/08	13	REVISED PAVEMENT SPEC. (SEE FIRE LINE ADDENDUM)
4/10/08	14	REVISED CURB & SIDE

*ASPHALT PAVEMENT SECTION FOR SITE TO BE 3" ASPHALT COURSE COMPACTED TO 95% DENSITY AND 8" COMPACTED STONE BASE COMPACTED TO 98% MODIFIED PROCTOR (PER GEOTECH SPECIFICATIONS).

(REFER TO McDONALDS PROJECT MANUAL FOR FURTHER DETAILS)

McClark
 Civil Engineering Inc.
 Corp. Office: 1008 N.W. 7th St. Ste. "C" Bentonville, AR 72712
 (479) 464-8850 (O) / (479) 464-9040 (F)
 Regional Office: 12855 Spring Line, Rd. Lee's Summit, MO 64063
 (913) 310-0470 (O) / (913) 310-0261 (F)

McDonald's
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 KANSAS CITY
 10801 MASTIN BLVD., STE. 400, OVERLAND PARK, KS 66210

NOTE:
 ALL UTILITY COMPANIES SERVING THE
 DEVELOPMENT AND THE CITY OF OFALLON
 SHALL BE CONTACTED FOR UTILITY LOCATES
 UNDER ITS MAINTENANCE RESPONSIBILITY.
 THIS MAY INCLUDE WATER, SANITARY,
 STORM AND TRAFFIC LOCATES

I CERTIFY THAT THE AS-BUILT LOCATIONS AND ELEVATIONS SHOWN ON THIS PLAN ARE ACCURATE TO THE BEST OF MY KNOWLEDGE.
 Richard L. Dayton
 RICHARD L. DAYTON, MO LS-002415

PLANNING AND DEVELOPMENT FILE #2306
 APPROVED AUGUST 2, 2007

STREET ADDRESS		
101 MCDONALDS LANE		
CITY	STATE	
OFALLON	MISSOURI	
COUNTY		
ST. CHARLES		
REGIONAL DWG. NO.	PROJECT NO.	
24/0130	06-0620	
UTILITY PLAN		