SITE IMPROVEMENT PLANS FOR:
SUGARFIRE

A TRACT OF LAND BEING PART OF SECTION 25, TOWNSHIP 47 NORTH, RANGE 1 EAST, IN THE CITY OF WENTZVILLE, IN SAINT CHARLES COUNTY, MISSOURI

1101 LODORA DRIVE - WENTZVILLE, MO 63385
ZONING: PLANNED DEVELOPMENT MIXED "PD-MXD"
PARCEL ID# 4-018A-C486-00-0001-0000000

PROJECT DIRECTORY

OWNER/DEVELOPER:
MARCO PROPERTY, LLC
910 PERUQUE VIEW DRIVE
WENTZVILLE, MO 63385
(636) 591-6396
CONTACT: JIM COOK

CIVIL ENGINEER:
PREMIER CIVIL ENGINEERING, LLC
308 TCW CT.
LAKE SAINT LOUIS, MO 63367
(314) 925-7452 OR (314) 549-4007
CONTACT: MR. MATT FOGARTY, MR. JIM DUBOIS

SURVEYOR:
PREMIER SURVEYING, LLC
308 TCW CT.
LAKE SAINT LOUIS, MO 63367
(314) 925-7444
CONTACT: MR. DAVE MAXWELL, P.L.S.

ARCHITECT:
BAALMAN ARCHITECTS
2 DANIEL DRIVE
O'FALLON, MO 63366
(636) 294-9811
CONTACT: MR. MIKE BAALMAN

UTILITY PROVIDERS

CENTURY LINK
1151 CENTURY TEL DR.
WENTZVILLE, MO 63385
(636) 332-7299
CONTACT: MR. DAN KRUSE

CITY OF WENTZVILLE
310 WEST PEARCE BLVD.
WENTZVILLE, MO 63385
(636) 327-5101
CONTACT: DEVON DEZORT

WATER SERVICE
CITY OF WENTZVILLE
310 WEST PEARCE BLVD.
WENTZVILLE, MO 63385
(636) 639-2062 EXT. 4
CONTACT: MR. BILL RHODES

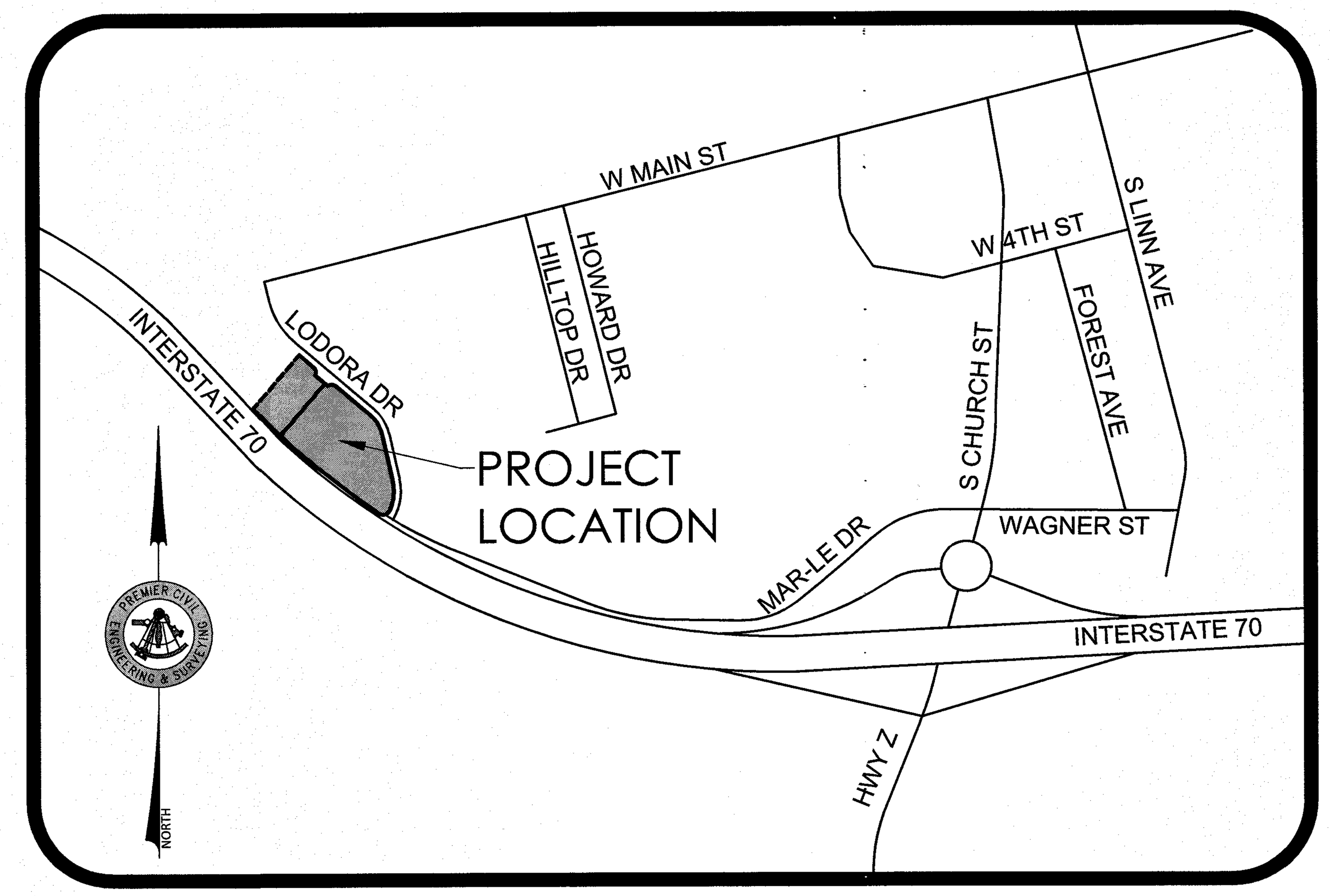
SANITARY SEWER SERVICE
CITY OF WENTZVILLE
310 WEST PEARCE BLVD.
WENTZVILLE, MO 63385
(636) 327-4174
CONTACT: MR. JOHN GRIPENTROG

AMEREN UE - NATURAL GAS
200 CALLAHAN ROAD
WENTZVILLE, MO 63385
(636) 639-8305
CONTACT: MR. MATT GREMINGER

AMEREN UE - ELECTRIC
200 CALLAHAN ROAD
WENTZVILLE, MO 63385
(636) 639-8336
CONTACT: MR. DAN GIESMANN

WENTZVILLE FIRE PROTECTION DISTRICT
209 WEST PEARCE BLVD.
WENTZVILLE, MO 63385
(636) 332-9869
CONTACT: MR. CHRIS CUDDIHEE

EXISTING LEGEND		PROPOSED LEGEND	
	FOUND IRON PIPE		UTILITY POLE
	SET IRON PIPE (2012007849)		FIRE HYDRANT
	FOUND STONE MONUMENT		WATER VALVE
	FIRE HYDRANT		WATER METER VAULT
	WATER VALVE		GAS METER
W	WATER METER VAULT		LIGHT STANDARD
ICV	IRRIGATION CONTROL VALVE		CLEAN OUT
	GAS VALVE		MONITORING WELL
G	GAS METER		SANITARY SEWER MANHOLE
	LIGHT STANDARD		STORM SEWER MANHOLE
	CLEAN OUT		GRATE INLET
S	SANITARY SEWER MANHOLE		DOUBLE CURB INLET
D	STORM SEWER MANHOLE		PIPE BOLLARD
	STORM SEWER INLET		SIGN
BLRD	PIPE BOLLARD		ELECTRIC METER
	SIGN	—UgE—	UNDERGROUND ELECTRIC
	BUSH	—UgT—	UNDERGROUND TELEPHONE
	TREE	—OHE—	OVERHEAD ELECTRIC/PHONE
TSB	TRAFFIC SIGNAL BOX		SIGN
MW	MONITORING WELL		WATER METER
TH	TEST HOLE	—2"W—	2" WATER MAIN
PS	PEDESTRIAN SIGNAL	—6"W—	6" WATER MAIN
E	ELECTRIC METER	—8"W—	8" WATER MAIN
	STORM CURB INLET	-X" GAS-	GAS LINE
	STORM DOUBLE CURB INLET	—507—	CONTOUR LINE
AC	AIR CONDITIONER		
DS	DOWN SPOUT		
TEL	TELEPHONE PEDESTAL		
B.O.C.	BACK OF CURB		



LOCATION MAP
NOT TO SCALE

DISTURBED AREA = 2.66 ACRES

Sheet Number	Sheet Title
C-000	COVER SHEET
C-001	GENERAL NOTES
C-100	SITE PLAN
C-200	GRADING PLAN
C-201	PATIO & SIDEWALK GRADING DETAIL
C-300	EROSION CONTROL PLAN
C-400	UTILITY PLAN
C-500	STORM SEWER PROFILES
C-600	POST-DEVELOPED DRAINAGE AREA MAP
C-700	CONSTRUCTION DETAILS
C-701	CONSTRUCTION DETAILS
C-702	UTILITY DETAILS
C-703	UTILITY DETAILS
C-704	EROSION CONTROL DETAILS
L-100	LANDSCAPE PLAN

CITY OF WENTZVILLE PROJECT NOTES:

1. PARCEL ID: 4-018A-C486-00-0001.0000000
2. AREA OF TRACT: TOTAL - ±1.85 AC
3. CURRENT ZONING: PLANNED DEVELOPMENT - MIXED WITH HIGHWAY FRONTAGE OVERLAY
4. REQUIRED BUILDING AND PARKING SETBACKS:
   FRONT 0' (PD-MXD AS PER HD-2 ZONING)
   SIDE 0' (PD-MXD AS PER HD-2 ZONING)
   REAR 0' (PD-MXD AS PER HD-2 ZONING)
5. PARKING AND LOADING REQUIREMENTS - SEC. 405.270

   REQUIRED PARKING SPACES

   2 PARKING SPACES REQUIRED FOR EACH 3 EMPLOYEES
   16 PARKING SPACES REQUIRED PER 1,000 SQ. FT. OF SEATING AREA
   30 PARKING SPACES REQUIRED PER ATHLETIC FIELD

   EMPLOYEES PER TYPICAL SHIFT = 12 EMPLOYEES = 8 PARKING SPACES
   450 SF OPEN OFFICE (MEETING ROOM) 450/50 = 9 PARKING SPACES
   3,006 SQ. FT. (SEATING AREA) / 1,000 SQ. FT. = 49 PARKING SPACES
   2 VOLLEYBALL COURTS = 60 PARKING SPACES
   ADA ACCESSIBLE REQUIRED PARKING FOR 101-150 PARKING SPACES = 5 ADA ACCESSIBLE SPACES
   TOTAL PARKING REQUIRED = 126 PARKING SPACES

   PROVIDED PARKING SPACES

   ADA ACCESSIBLE PARKING PROVIDED = 5 ADA ACCESSIBLE SPACES
   PARKING SPACES PROVIDED = 136 PARKING SPACES

   TOTAL PARKING SPACES PROVIDED = 141 PARKING SPACES

   (89 PARKING SPACES ON LOT #1)
   (52 PARKING SPACES ON PROPOSED OVERFLOW PARKING AREA)

   REQUIRED LOADING SPACES - SEC. 405.275

   1 - 10 FT. X 40 FT. LOADING SPACE REQUIRED UP TO 15,000 SQ. FT. OF BUILDING FLOOR AREA

   PROVIDED LOADING SPACES

   2 - 10 FT. X 40 FT. LOADING SPACE
5. FLOODPLAIN INFORMATION: BY GRAPHIC PLOTTING ONLY, THIS PROPERTY DOES NOT LIE WITHIN ANY SPECIAL FLOOD ZONE AREAS ACCORDING TO THE FLOOD INSURANCE RATE MAP NUMBER 29183C0215G, PANEL M215 OF 525, ST. CHARLES COUNTY, MISSOURI AND INCORPORATED AREA DATED JANUARY 20, 2016 - THE PROPERTY IS IN ZONE X (UNSHADED), AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.
6. SANITARY SEWER FLOW CALCULATION: DNR ASSUMES 15 GPD, 30 GPD AS WORST CASE IS USED FOR CALCULATIONS:

   RESTAURANT AREA = 2,180 SF FLOOR AREA / 15 (OCCUPANT LOAD) = 145.3 = 145 x 30 GPD = **4,350 GPD**

   BANQUET AREA = 1,447 SF FLOOR AREA / 15 (OCCUPANT LOAD) = 96.4 = 96 x 30 GPD = **2,880 GPD**

   KITCHEN AREA = 1,693 SF FLOOR AREA / 200 (OCCUPANT LOAD) = 8.46 = 9 x 30 GPD = **270 GPD**

   OFFICES = 677 SF FLOOR AREA / 100 (OCCUPANT LOAD) = 6.77 = 7 x 30 GPD = **210 GPD**

   TOTAL FOR SUGARFIRE SITE = 7,710 GPD

PROPERTY OWNER/DEVELOPER CERTIFIED PER CODE SECTION 515.040.A.1.1

THE PROPERTY OWNER/DEVELOPER HEREBY CERTIFIES THAT HE IS FAMILIAR WITH THE SWPPP AND ASSUMES FULL RESPONSIBILITY FOR THE PERFORMANCE AND MAINTENANCE OF THE SWPPP AS STATED ON THE APPROVED PLANS. HE WILL ENSURE THAT ALL CONTRACTORS UNDERSTAND AND ARE FAMILIAR WITH THE SWPPP FOR THE SITE AND THAT EACH CONTRACTOR AGREES TO IMPLEMENT AND PROTECT ELEMENTS OF THE SWPPP AS THEY RELATE TO HIS WORK. THE PROPERTY OWNER'S/DEVELOPER'S ONSITE REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE PERFORMANCE AND MAINTENANCE OF THE SWPPP. IN ADDITION, THE UNDERSIGNED OWNER/DEVELOPER ASSURES THAT ALL CITY PROPERTY OR ROADS WILL BE ADEQUATELY PROTECTED."

PRINTED NAME:____________________

TITLE:____________________

DATE:____________________

SIGNATURE:____________________

"Little MO" says CALL BEFORE YOU DIG! 1-800-DIG-RITE

UNDERGROUND UTILITIES AND OSHA SAFETY NOTE:

Underground utilities and structures have been plotted from available information and therefore, their location must be considered approximate only. It is the responsibility of the individual contractors to notify the utility companies before actual construction. All O.S.H.A rules and regulations established for the type of construction required by these plans shall be strictly followed (ie. trenching, blasting, etc.)

PROPOSED SITE AREA PERCENTAGES

OVERALL SITE AREA - 2.48 AC.
BUILDING AREA - 0.25 AC. - 10.10%
PAVEMENT AREA - 1.48 AC. - 59.67%
OPEN SPACE AREA - 0.75 AC. - 30.23%

SITE BENCHMARK:

"O" IN OPEN ON FIRE HYDRANT LOCATED ON NORTH SIDE OF MAIN STREET. ELEVATION = 634.87

REFERENCE BENCHMARK:

ELEVATION WAS ESTABLISHED USING THE MISSOURI DEPARTMENT OF TRANSPORTATION'S VRS, RTK SYSTEM, NAD 1983, EAST ZONE.

PREPARED BY:

PREMIER
ENGINEERING ARCHITECTURE SURVEYING
308 TCW COURT
LAKE SAINT LOUIS, MO 63367
PONE: (314) 925-7444
FAX: (314) 925-7457

PARCEL DESCRIPTION

A TRACT OF LAND BEING PART OF SECTION 25, TOWNSHIP 47 NORTH, RANGE 1 EAST, IN THE CITY OF WENTZVILLE, SAINT CHARLES COUNTY, MISSOURI AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE INTERSECTION OF THE NORTHEASTERN LINE OF INTERSTATE 70 AND THE SOUTH LINE OF THE WABASH RAILROAD (100 FEET WIDE) RIGHT OF WAY; THENCE ALONG THE SAID NORTHEASTERN LINE OF INTERSTATE 70 ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 1125.00 FEET, AN ARC DISTANCE OF 126.13 FEET, A CHORD BEARING OF SOUTH 45 DEGREES 11 MINUTES 52 SECONDS EAST, AND A CHORD DISTANCE OF 126.06 FEET; THENCE SOUTH 41 DEGREES 59 MINUTES 09 SECONDS EAST, A DISTANCE OF 385.00 FEET; THENCE ALONG A TANGENTIAL CURVE TO THE LEFT HAVING A RADIUS OF 1375.00 FEET AND AN ARC DISTANCE OF 107.96 FEET TO A POINT, SAID POINT BEING THE **POINT OF BEGINNING**; THENCE NORTH 40 DEGREES 24 MINUTES 21 SECONDS EAST, A DISTANCE OF 220.21 FEET; THENCE SOUTH 49 DEGREES 32 MINUTES 03 SECONDS EAST, A DISTANCE OF 11.61 FEET; THENCE ALONG A CURVE TO THE RIGHT, HAVING A RADIUS OF 19.50 FEET, AN ARC DISTANCE OF 26.86 FEET, A CHORD BEARING OF SOUTH 88 DEGREES 59 MINUTES 25 SECONDS EAST, AND A CHORD DISTANCE OF 24.78 FEET TO A POINT OF TANGENCY; THENCE SOUTH 49 DEGREES 32 MINUTES 03 SECONDS EAST A DISTANCE OF 143.98 FEET; THENCE ALONG A TANGENTIAL CURVE TO THE RIGHT, HAVING A RADIUS OF 120.00 FEET AND AN ARC DISTANCE OF 76.98 FEET TO A POINT; THENCE SOUTH 12 DEGREES 46 MINUTES 47 SECONDS EAST, A DISTANCE OF 146.72 FEET; THENCE ALONG A TANGENTIAL CURVE TO THE RIGHT HAVING A RADIUS OF 155.00 FEET, AN ARC DISTANCE OF 96.52 FEET, A CHORD BEARING OF SOUTH 05 DEGREES 03 MINUTES 37 SECONDS WEST, AND A CHORD DISTANCE OF 94.97 FEET; THENCE ALONG A TANGENTIAL CURVE TO THE RIGHT HAVING A RADIUS OF 25.00 FEET, AN ARC DISTANCE OF 44.18 FEET, A CHORD BEARING OF SOUTH 73 DEGREES 31 MINUTES 28 SECONDS WEST, AND A CHORD DISTANCE OF 38.65 FEET; THENCE ALONG A TANGENTIAL CURVE TO THE RIGHT HAVING A RADIUS OF 1675.00 FEET, AN ARC DISTANCE OF 112.99 FEET, A CHORD BEARING OF NORTH 53 DEGREES 55 MINUTES 08 SECONDS WEST, AND A CHORD DISTANCE OF 112.99 FEET; THENCE NORTH 51 DEGREES 59 MINUTES 09 SECONDS WEST, A DISTANCE OF 153.33 FEET THENCE ALONG A TANGENTIAL CURVE TO THE RIGHT HAVING A RADIUS OF 1375.00 FEET, AN ARC DISTANCE OF 132.02 FEET, A CHORD BEARING OF NORTH 49 DEGREES 14 MINUTES 07 SECONDS WEST, AND A CHORD DISTANCE OF 131.97 FEET TO A POINT, SAID POINT BEING ALSO THE POINT OF BEGINNING AND CONTAINING 1.85 ACRES MORE OR LESS.

PARCEL DESCRIPTION - CROSS-ACCESS/SHARED PARKING

A TRACT OF LAND BEING PART OF SECTION 25, TOWNSHIP 47 NORTH, RANGE 1 EAST, IN THE CITY OF WENTZVILLE, SAINT CHARLES COUNTY, MISSOURI AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE INTERSECTION OF THE NORTHEASTERN LINE OF INTERSTATE 70 AND THE SOUTH LINE OF THE WABASH RAILROAD (100 FEET WIDE) RIGHT OF WAY; THENCE ALONG THE SAID NORTHEASTERN LINE OF INTERSTATE 70 ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 1125.00 FEET, AN ARC DISTANCE OF 126.13 FEET, A CHORD BEARING OF SOUTH 45 DEGREES 11 MINUTES 52 SECONDS EAST, AND A CHORD DISTANCE OF 126.06 FEET; THENCE SOUTH 41 DEGREES 59 MINUTES 09 SECONDS EAST, A DISTANCE OF 371.12 FEET TO A POINT, SAID POINT BEING THE **POINT OF BEGINNING**; THENCE NORTH 40 DEGREES 27 MINUTES 57 SECONDS EAST, A DISTANCE OF 224.16 FEET; THENCE SOUTH 49 DEGREES 32 MINUTES 03 SECONDS EAST, A DISTANCE OF 61.25 FEET; THENCE ALONG A CURVE TO THE RIGHT, HAVING A RADIUS OF 19.50 FEET, AN ARC DISTANCE OF 26.86 FEET, A CHORD BEARING OF SOUTH 10 DEGREES 04 MINUTES 41 SECONDS EAST, AND A CHORD DISTANCE OF 24.78 FEET TO A POINT; THENCE SOUTH 49 DEGREES 32 MINUTES 03 SECONDS EAST A DISTANCE OF 40.61 FEET; THENCE SOUTH 40 DEGREES 24 MINUTES 23 SECONDS WEST A DISTANCE OF 220.21 FEET; THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 1375.00 FEET, AN ARC DISTANCE OF 107.96 FEET, A CHORD BEARING OF NORTH 44 DEGREES 14 MINUTES 07 SECONDS WEST, AND A CHORD DISTANCE OF 107.93 FEET; THENCE NORTH 41 DEGREES 59 MINUTES 09 SECONDS WEST, A DISTANCE OF 13.88 FEET TO A POINT, SAID POINT BEING ALSO THE POINT OF BEGINNING AND CONTAINING 27,252 SQUARE FEET MORE OR LESS.

CITY OF WENTZVILLE GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF WENTZVILLE STANDARD SPECIFICATIONS AND CONSTRUCTION DETAILS, CURRENT EDITION.
2. NO CONSTRUCTION ACTIVITY SHALL COMMENCE UNTIL ALL PERMITS HAVE BEEN OBTAINED FROM THE CITY OF WENTZVILLE ENGINEERING DIVISION AND A PRE-CONSTRUCTION MEETING HAS BEEN COORDINATED WITH ENGINEERING DIVISION PERSONNEL.
3. A COPY OF THE CITY OF WENTZVILLE STANDARD SPECIFICATIONS AND CONSTRUCTION DETAILS, MOST CURRENT EDITION, AND A COPY OF THE APPROVED IMPROVEMENT PLANS SHALL BE ON SITE AT ALL TIMES WHILE CONSTRUCTION ACTIVITY IS OCCURRING.
4. CARE SHALL BE TAKEN BY THE CONTRACTOR NOT TO CAUSE ANY SOIL, MUD, EARTH, SAND, GRAVEL, ROCK, STONE, CONCRETE, OR OTHER MATERIALS OR LIQUIDS TO BE FLUNG OR DEPOSITED, DROPPED UPON OR TO ROLL, FLOW, STAND, OR WASH UPON OR OVER ANY PUBLIC STREET, STREET IMPROVEMENT, ROAD, SEWER, STORM DRAIN, WATERCOURSE OR RIGHT-OF-WAY OR ANY OTHER PUBLIC PROPERTY IN VIOLATION OF CITY ORDINANCE NUMBER 884.
5. ALL TRAFFIC CONTROL AND BARRICADING WITHIN CITY OF WENTZVILLE RIGHT-OF-WAY SHALL CONFORM TO PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION). STREET CLOSURES WILL NOT BE ALLOWED WITHOUT PRIOR APPROVAL OF THE CITY OF WENTZVILLE ENGINEERING DIVISION. ALL LANE CLOSURES SHALL BE COORDINATED WITH THE ENGINEERING DIVISION 24 HOURS IN ADVANCE
6. MODIFICATIONS TO THE APPROVED PLANS REQUIRE REVIEW AND APPROVAL BY THE CITY OF WENTZVILLE ENGINEERING DIVISION. WORK PERFORMED WITHOUT WRITTEN APPROVAL WILL REQUIRE REMOVAL AT THE OWNER'S/CONTRACTOR'S EXPENSE.
7. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK BY CONTACTING MISSOURI ONE-CALL SYSTEM, INC. OR OTHER NECESSARY ENTITIES. HOWEVER, CONTACTING MISSOURI ONE-CALL SYSTEM DOES NOT RELIEVE THE CONTRACTOR FROM THEIR RESPONSIBILITY OF CHECKING WITH THE RECORDER OF DEEDS FOR OWNER/OPERATORS OF ALL UNDERGROUND UTILITIES IN THE AREA. MODOT IS NOT A PART OF DIG-RITE. CALL MODOT @ 314-340-4100 BEFORE DIGGING.

   Call BEFORE you DIG
   TOLL FREE
   1-800-344-7483
   MISSOURI ONE-CALL SYSTEM, INC.

   MODOT IS NOT PART OF DIG-RITE. CALL MODOT @ 314-340-4100 BEFORE DIGGING.
8. ALL GRADING ACTIVITIES SHALL COMPLY WITH THE CITY OF WENTZVILLE STANDARD SPECIFICATIONS AND CONSTRUCTION DETAILS, MOST CURRENT EDITION. ALL SEDIMENT AND EROSION CONTROL BMPS SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE STORM WATER POLLUTION PREVENTION PERMIT AND THE APPROVED STORM WATER POLLUTION PREVENTION PLAN.
9. SUFFICIENT STAKING SHALL BE PROVIDED TO ENSURE PROPER LOCATION, ALIGNMENT AND GRADE OF ALL PROPOSED IMPROVEMENTS.
10. THE CONTRACTOR OR DEVELOPER SHALL NOT DISTURB ANY EXISTING SURVEY MONUMENTS OR BENCHMARKS NOTED ON THE PLANS OR FOUND DURING CONSTRUCTION. REMOVAL AND REPLACEMENT SHALL BE DONE BY A PROFESSIONAL LAND SURVEYOR LICENSED BY THE STATE OF MISSOURI ONLY.

SITE COVERAGE CALCULATIONS

FLOOR TO AREA RATIO
(7,555 SF + 266 SF) / 107,861 SF = 0.07 FAR

EXISTING IMPERVIOUS AREA
0.00 ACRES OF PAVEMENT AND 0.00 ACRES OF BUILDING
EXISTING GREEN SPACE
2.48 ACRES
EXISTING PERCENT OF IMPERVIOUS AREA COVERAGE = 0%

PROPOSED IMPERVIOUS AREA PAVEMENT AND BUILDING
1.48 ACRES OF PAVEMENT AREA AND 0.25 ACRES OF BUILDING
PROPOSED GREEN SPACE
0.75 ACRES

PROPOSED PERCENT OF IMPERVIOUS AREA COVERAGE = 70%
THIS SITE PLAN PROPOSES AN INCREASE OF 1.73 ACRES IN IMPERVIOUS AREA COVERAGE

PROPERTY DATA

OVERALL SITE ACREAGE	±1.85 ACRES AND ±0.63 ACRES SHARED ACCESS
ADDRESS	1101 LODORA DRIVE, WENTZVILLE, MO 63385
PARCEL ID#	4-018A-C486-00-0001.0000000
ZONING	PLANNED DEVELOPMENT MIXED - PD-MXD
CURRENT LAND USE	MANUFACTURING
PROPOSED LAND USE	COMMERCIAL DEVELOPMENT
OWNER/DEVELOPER OF TRACT	MARCO PROPERTY, LLC

ELECTRONIC DRAWING NOTE:
ELECTRONIC MEDIA OR DIGITAL DRAWINGS ARE INSTRUMENTS OF PROFESSIONAL SERVICES. OWNERSHIP OF SUCH WILL BE RETAINED BY THE CIVIL ENGINEER AND MAY NOT BE RELEASED TO CONTRACTORS. CONTRACTORS ARE ADVISED TO CREATE BIDS BASED ON THE USE OF PAPER COPIES OF THE PLANS.

WENTZVILLE PROJECT NUMBER ENG-2018-XXXX

PREMIER ENGINEERING ARCHITECTURE SURVEYING 308 TCW COURT, LAKE SAINT LOUIS, MO 63367

STATE OF MISSOURI STEVE MARION NUMBER PE2006007195 PROFESSIONAL ENGINEER

ENGINEERS AUTHENTICATION
The responsibility for professional engineering liability on this project is hereby limited to the set of plans authenticated by the seal, signature, and date hereunder attached. Responsibility is disclaimed for all other engineering plans involved in this project and specifically excludes revisions after this date unless reauthenticated.
STEVEN D. MARION P.E.
PROFESSIONAL ENGINEER
PE2006007195

Project: MARCO PROPERTY, LLC
SUGARFIRE
1101 LODORA DRIVE
WENTZVILLE, MO 63385
JIM COOK
910 PERUQUE VIEW DRIVE
WENTZVILLE, MO 63385

Date: 07-10-18

#	Revision Date	Description of Changes

Sheet Title: COVER SHEET

Sheet Number: C-000

Project No.	170501
Drawn By	J. DUBOIS
Checked By	M.FOGARTY

NOT RELEASED FOR CONSTRUCTION

\\vault-pc\vault\CIVIL 3D PROJECTS\2017\170501 600 W MAIN ST - WENTZVILLE MO\COMMERCIAL\CONSTRUCTION DRAWINGS\CONSTRUCTION DOCUMENTS - SUGARFIRE\C-000 COVER SHEET.dwg

GENERAL NOTES:

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF WENTZVILLE SPECIFICATIONS, CITY OF WENTZVILLE "STANDARD DETAILS", LATEST EDITION, THE PROJECT SPECIFICATIONS BOOK, AND THESE CONSTRUCTION PLANS. IN CASE OF CONFLICTING SPECIFICATIONS FOR DETAILS, THE CIVIL ENGINEER SHALL BE CONTACTED PRIOR TO CONSTRUCTION. GENERALLY, THE MOST STRINGENT SPECIFICATION SHALL APPLY.
2. DURING THE CONSTRUCTION OF THESE IMPROVEMENTS, ANY INTERPRETATION OF THE STANDARD SPECIFICATIONS, AND ANY MATTER WHICH REQUIRES THE APPROVAL OF THE OWNER, MUST BE APPROVED BY THE DIRECTOR OF PUBLIC WORKS AND TRANSPORTATION, THE DIRECTOR'S DESIGNEE, OR ST. LOUIS COUNTY HIGHWAYS AND TRANSPORTATION BEFORE ANY CONSTRUCTION INVOLVING THAT DECISION COMMENCES. ASSUMPTIONS ABOUT WHAT THESE DECISIONS MIGHT BE WHICH ARE MADE DURING THE BIDDING PHASE WILL HAVE NO BEARING ON THE DECISION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL MATERIAL AND LABOR TO CONSTRUCT THE FACILITY AS SHOWN AND DESCRIBED IN THE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH THE APPROPRIATE APPROVING AUTHORITIES, SPECIFICATIONS AND REQUIREMENTS. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING TO DETERMINE EXISTING CONDITIONS.
4. ALL EXISTING UTILITIES SHOWN ARE LOCATED ACCORDING TO THE INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME THE DRAWINGS WERE PREPARED AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR THE ENGINEER. GUARANTEE IS NOT MADE THAT ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN OR THAT THE LOCATION OF THOSE SHOWN ARE ACCURATE. THE LOCATIONS SHOWN ARE FOR BIDDING PURPOSES ONLY. FINDING THE ACTUAL LOCATION OF ANY EXISTING UTILITIES IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE DONE BEFORE HE COMMENCES ANY WORK (INCLUDING ORDERING OF MATERIALS) IN THE VICINITY. FURTHERMORE, THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES DUE TO THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE OWNER OR CEC WILL ASSUME NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES, NOR FOR TEMPORARY BRACING AND SHORING OF SAME. IF IT IS NECESSARY TO SHORE, BRACE, SWING OR RELOCATE A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED BY THE CONTRACTOR AND THEIR PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES WHICH MAY HAVE BURIED OR AERIAL UTILITIES WITHIN OR NEAR THE CONSTRUCTION AREA BEFORE COMMENCING WORK. THE CONTRACTOR SHALL PROVIDE 72 HOURS MINIMUM NOTICE TO ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION. A LIST OF THE UTILITY COMPANIES WHICH THE CONTRACTOR MUST CALL BEFORE COMMENCING WORK IS PROVIDED ON THE COVER SHEET OF THESE CONSTRUCTION PLANS. THIS LIST SERVES AS A GUIDE ONLY AND IS NOT INTENDED TO LIMIT THE UTILITY COMPANIES WHICH THE CONTRACTOR MAY WISH TO NOTIFY.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED CONSTRUCTION PERMITS, 3-WAY CONTRACTS, AND BONDS PRIOR TO CONSTRUCTIONS.
7. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES ONE COPY OF THE CONTRACT DOCUMENTS INCLUDING PLANS, SPECIFICATIONS AND SPECIAL CONDITIONS, COPIES OF ANY REQUIRED CONSTRUCTION PERMITS, AND EROSION CONTROL PLANS AND INSPECTION REPORTS (SWPPP).
8. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER & CIVIL ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL TO THE OWNER AND NOTIFICATION TO THE ENGINEER. NO CONSIDERATION WILL BE GIVEN TO CHANGE ORDERS FOR WHICH THE OWNER AND CIVIL ENGINEER WERE NOT CONTACTED PRIOR TO CONSTRUCTION OF THE AFFECTED ITEM.
9. ALL COPIES OF COMPACTION, CONCRETE AND OTHER REQUIRED TEST RESULTS ARE TO BE SENT TO THE CIVIL ENGINEER OF RECORD DIRECTLY FROM THE TESTING AGENCY.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING TO THE CIVIL ENGINEER AND TO CITY A CERTIFIED RECORD SURVEY SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF MISSOURI DEPICTING THE ACTUAL FILED LOCATION OF ALL CONSTRUCTED IMPROVEMENTS THAT ARE REQUIRED BY THE JURISDICTIONAL AGENCIES FOR THE CERTIFICATION PROCESS. ALL SURVEY COSTS WILL BE THE CONTRACTORS RESPONSIBILITY.
11. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES, JURISDICTIONAL AGENCIES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICES.
12. CONTRACTORS SHALL VERIFY BENCHMARKS AND DATUMS PRIOR TO COMMENCING CONSTRUCTION OR STAKING OF IMPROVEMENTS.
13. CONTRACTOR SHALL THOROUGHLY CHECK COORDINATION OF CIVIL, LANDSCAPE, MEP, ARCHITECTURAL, AND OTHER PLANS PRIOR TO COMMENCING CONSTRUCTION. OWNER AND CIVIL ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY PRIOR TO COMMENCING WITH CONSTRUCTION.
14. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF VESTIBULES, SLOPE PAVING, SIDEWALKS, EXIT PORCHES, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
15. ALL DIMENSIONS GIVEN ARE TO FACE OF CURB AND/OR BUILDING. DIMENSIONS FOR PIPES AND STRUCTURES ARE TO THE CENTERLINE, UNLESS OTHERWISE NOTED ON PLANS.
16. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING RELOCATIONS AND INSTALLATIONS OF FRANCHISE UTILITIES NECESSARY FOR ON- AND OFF-SITE CONSTRUCTION.
17. ON-SITE AND PERIMETER TRUCK ROUTE AND OTHER DIRECTIONAL SIGNAGE SHALL BE LOCATED OUT OF THE PEDESTRIAN, AUTOMOBILE, AND TRUCK ROUTES AND SHALL BE LOCATED BETWEEN THREE TO FIVE FEET BEHIND THE NEAREST BACK OF CURB UNLESS INDICATED OTHERWISE ON PLANS. SIGN HEIGHT, LOCATION, AND STRUCTURE SHALL BE SUCH THAT THE SIGNS POSE NO THREAT TO PUBLIC SAFETY.
18. ON-SITE AND PERIMETER TRUCK ROUTE AND OTHER DIRECTIONAL SIGNS SHALL BE ORIENTED SO THEY ARE READILY VISIBLE TO THE ONCOMING TRAFFIC FOR WHICH THEY ARE INTENDED. FIELD ADJUSTMENTS OF LOCATION AND ORIENTATION OF THE SIGNS ARE TO BE MADE TO ACCOMPLISH THIS.
19. CONTRACTOR SHALL REPLACE ANY FENCING, CURBING, ETC. THAT IS DESTROYED OR DAMAGED DUE TO THE CONSTRUCTION ACTIVITIES.
20. CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL DEVICES AND PLANS FOR ANY STREET WORK.
21. ALL CONTRACTORS MUST CONFINE THEIR ACTIVITIES TO THE WORK AREA. NO ENCROACHMENTS ONTO DEVELOPED OR UNDEVELOPED AREAS WILL BE ALLOWED. ANY DAMAGE RESULTING THEREFROM SHALL BE CONTRACTOR'S RESPONSIBILITY TO REPAIR.
22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING A TRENCH SAFETY PLAN TO THE CITY OF WENTZVILLE ENGINEERING DEPARTMENT AT THE TIME OF THE PRE-CONSTRUCTION MEETING, OR PRIOR TO BEGINNING CONSTRUCTION OF THESE IMPROVEMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRENCH SAFETY REQUIREMENTS IN ACCORDANCE WITH CITY OF WENTZVILLE STANDARDS, MISSOURI STATE LAW AND O.S.H.A. STANDARDS FOR ALL EXCAVATION IN EXCESS OF FIVE FEET IN DEPTH. NO OPEN TRENCHES WILL BE ALLOWED OVERNIGHT WITHOUT THE PRIOR SPECIFIC WRITTEN APPROVAL OF THE CITY OF WENTZVILLE PUBLIC WORKS DEPARTMENT. ONSITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
23. LIGHT POLES AND SIGNS SHALL NOT BE PLACED IN ADA ACCESSIBLE ROUTES, ACCESSIBLE ACCESS AISLES, AND/OR REINFORCED ZONES BEHIND RETAINING WALLS.
24. TO THE MAXIMUM EXTENT PRACTICAL, CONSTRUCTION STAGING, WORKER PARKING, AND ANY OTHER POTENTIALLY NOISY OR OFFENSIVE CONSTRUCTION ACTIVITY SHOULD BE LOCATED AS FAR FROM THE RESIDENTIAL NEIGHBORS AS POSSIBLE.
25. CONTRACTOR SHALL KEEP THE CONSTRUCTION SITE SECURE FROM TRESPASSERS AT ALL TIMES.
26. CONTRACTOR SHALL CONTACT CITY BUILDING OFFICIAL TO LEARN OF ANY UNUSUAL CONSTRUCTION SEQUENCING REQUIREMENTS THAT THE CITY MAY REQUIRE. THE CONTRACTOR IS CAUTIONED THAT THIS AND PERHAPS OTHER SUCH REQUIREMENTS MAY EXIST AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO INVESTIGATE AND COMPLY WITH THEM.
27. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY NECESSARY FENCE OR WALL PERMITS FROM THE CITY.
28. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ADEQUATE TRAFFIC CONTROL PER CITY OF WENTZVILLE STANDARDS.

UNDERGROUND UTILITIES AND OSHA SAFETY NOTE:

Underground utilities and structures have been plotted from available information and therefore, their location must be considered approximate only. It is the responsibility of the individual contractors to notify the utility companies before actual construction. All O.S.H.A rules and regulations established for the type of construction required by these plans shall be strictly followed (ie. trenching, blasting, etc.)

\\Vault-pc\vault\CIVIL 3D PROJECTS\2017\170501 600 W MAIN ST - WENTZVILLE MO\COMMERCIAL\CONSTRUCTION DRAWINGS\CONSTRUCTION DOCUMENTS\CONSTRUCTION DOCUMENTS - SUGARFIRE\C-001 GENERAL NOTES.dwg

PAVING, GRADING, AND DRAINAGE NOTES:

1. ALL PAVING, CONSTRUCTION MATERIALS, AND WORKMANSHIP WITHIN CITY OR COUNTY RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE CITY OF WENTZVILLE AND ST. CHARLES COUNTY.
2. ALL AREAS IN EXISTING RIGHTS-OF-WAY DISTURBED BY SITE CONSTRUCTION SHALL BE RE-GRADED AND LANDSCAPED OR PAVED, (WHATEVER WAS THERE BEFORE DISTURBANCE). ALL DISTURBED AREAS SHALL BE REPAIRED TO THE PREVIOUS CONDITION OR BETTER THAN BEFORE AREA WAS DISTURBED.
3. TRAFFIC CONTROL ON ALL STATE, CITY AND COUNTY RIGHTS-OF-WAY SHALL MEET THE REQUIREMENTS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (U.S. DOT/FHA) AND THE REQUIREMENTS OF THE STATE AND ANY LOCAL AGENCY HAVING JURISDICTION . IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
4. THE CONTRACTOR SHALL GRADE THE SITE TO THE ELEVATIONS INDICATED AND SHALL RE-GRADE ANY WASHOUTS WHERE THEY OCCUR AFTER EVERY RAINFALL EVENT UNTIL SOIL IS STABILIZED.
5. ALL AREAS INDICATED AS PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TYPICAL PAVEMENT SECTIONS AS INDICATED ON THE DRAWINGS AND THE PROJECT SPECIFICATIONS.
6. WHERE EXISTING PAVEMENT IS INDICATED TO BE REMOVED AND REPLACED, THE CONTRACTOR SHALL SAW CUT TO FULL DEPTH OF EXISTING PAVEMENT. CONTRACTOR SHALL PREPARE A SMOOTH, SOUND, VERTICAL FACE AND MATCH THE EXISTING PAVEMENT ELEVATION UNLESS OTHERWISE NOTED. CONTRACTOR SHALL INSTALL LONGITUDINAL BUTT JOINTS WHEN CONNECTING TO EXISTING CONCRETE PAVEMENT.
7. THE CONTRACTOR SHALL ENSURE THAT ALL PLANTING AREAS ARE NOT OVERLY COMPACTED AND DO NOT CONTAIN LIMEROCK. THE CONTRACTOR SHALL EXCAVATE AND REMOVE ALL UNDESIRABLE MATERIAL FROM ALL AREAS ON THE SITE TO BE PLANTED.
8. ALL DRAINAGE STRUCTURES SHALL BE DE-SILTED AS REQUIRED DURING AND AT THE END OF CONSTRUCTION TO PROVIDE POSITIVE DRAINAGE FLOWS.
9. STRIP TOPSOIL AND ORGANIC MATTER AND PAVING MATERIAL FROM ALL AREAS UNDER BUILDING. TOPSOIL MAY BE STOCKPILED ON SITE FOR REPLACEMENT IN GREEN AREAS.
10. FIELD DENSITY TESTS SHALL BE TAKEN AT A FREQUENCY AS REQUIRED IN THE PROJECT SPECIFICATIONS.
11. BEFORE PLACING PAVEMENT, CONTRACTOR SHALL VERIFY THAT SUITABLE HANDICAPPED ROUTES (PER A.D.A. REQUIREMENTS) EXIST TO AND FROM EVERY ACCESSIBLE DOOR. IN NO CASE SHALL HANDICAP RAMP SLOPES EXCEED 1 VERTICAL TO 12 HORIZONTAL. IN NO CASE SHALL SIDEWALK CROSS SLOPES EXCEED 2.0 PERCENT. IN NO CASE SHALL LONGITUDINAL SIDEWALK SLOPES EXCEED 5.0 PERCENT. CONTRACTOR SHALL CONTACT ARCHITECT AND CIVIL ENGINEER PRIOR TO PAVING IF ANY EXCESSIVE SLOPES ARE ENCOUNTERED. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR A.D.A. COMPLIANCE ISSUES.
12. CONTRACTOR ADJUSTMENT TO SPOT GRADES TO MAINTAIN POSITIVE DRAINAGE IS ALLOWED, ONLY WITH THE PRIOR APPROVAL OF THE CIVIL ENGINEER. CONTRACTOR SHALL CONTACT THE CIVIL ENGINEER PRIOR TO PAVING IF ANY AREAS OF POOR DRAINAGE ARE ENCOUNTERED.
13. SPOT ELEVATIONS SHOWN ARE TO TOP OF PAVING SURFACE OR FINISHED EARTH GRADE UNLESS NOTED OTHERWISE. WHERE APPLICABLE, ADD 0.50 FEET TO SPOT GRADES SHOWN FOR TOP OF CURB ELEVATIONS.
14. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED SMOOTH. THE AREAS SHALL THEN BE STABILIZED AS SPECIFIED IN THE PLANS AND MAINTAINED UNTIL SOIL IS STABILIZED IN ALL AREAS. ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE JOB SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING OR OTHER SUITABLE METHODS OF CONTROL. THE CONTRACTOR SHALL COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.
16. THE CONTRACTOR TAKE ALL MEASURES NECESSARY TO CONTROL TURBIDITY, INCLUDING BUT NOT LIMITED TO, THE INSTALLATION OF BMP'S AT ALL LOCATIONS WHERE THE POSSIBILITY OF TRANSFERRING SUSPENDED SOLIDS INTO THE RECEIVING WATER BODY EXISTS DUE TO THE PROPOSED WORK. BMP'S MUST BE MAINTAINED IN EFFECTIVE CONDITION AT ALL LOCATIONS UNTIL CONSTRUCTION IS COMPLETED AND DISTURBED SOIL AREAS ARE STABILIZED. THEREAFTER, THE CONTRACTOR MUST REMOVE THE TEMPORARY BARRIERS, AT NO TIME SHALL THERE BE ANY OFF-SITE DISCHARGE WHICH VIOLATES LOCAL, STATE, OR FEDERAL WATER QUALITY STANDARDS.
17. THE CONTRACTOR MUST REVIEW AND MAINTAIN A COPY OF THE STORM WATER PERMIT COMPLETE WITH ALL CONDITIONS, ATTACHMENTS, EXHIBITS, AND PERMIT MODIFICATIONS, IN GOOD CONDITION, AT THE CONSTRUCTION SITE. THE COMPLETE PERMIT MUST BE AVAILABLE FOR REVIEW UPON REQUEST BY JURISDICTIONAL AGENCIES.
18. IF ANY EXISTING STRUCTURES, FACILITIES, OR IMPROVEMENTS (PUBLIC OR PRIVATE) TO REMAIN ARE DAMAGED DURING CONSTRUCTION, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE, FACILITY, OR IMPROVEMENT AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
19. REFERENCE THE SWPPP INCLUDED IN THIS PLAN SET AND IN THE PROJECT SPECIFICATIONS FOR THIS PROJECT.
20. CONTRACTOR SHALL REFERENCE ARCHITECT AND ELECTRICAL PLANS AND PROVIDE CONDUIT NEEDED FOR LOT LIGHTING AND SIGNAGE PRIOR TO SITE PAVING.
21. PAVING LINE AND GRADE SHALL "FLUSHOUT" ALONG ALL CONNECTIONS TO EXISTING PAVING.
22. ALL BENDS LESS THAN 42" DIAMETER MUST BE FACTORY MANUFACTURED BENDS.
23. ALL WORK SHALL BE DONE IN COMPLIANCE WITH THE PROJECT GEOTECHNICAL SERVICE REPORT FOR THIS SITE.
24. PAVING CONTRACTOR IS RESPONSIBLE FOR ALL LAY DOWN CURBS AT INTERSECTIONS WHERE BARRIER FREE RAMPS ARE TO BE CONSTRUCTED.
25. REFERENCE DETAIL SHEETS FOR PAVEMENT JOINT SPACING AND REQUIREMENTS.
26. PRIVATE STORM PIPE MATERIAL SHALL BE PER MSD SPECIFICATIONS.
27. ALL ELEVATIONS SHOWN ON THE GRADING PLAN ARE TO TOP OF PAVEMENT OR FINISHED GROUND UNLESS NOTED OTHERWISE. ELEVATIONS TO POINTS OTHER THAN THE TOP OF PAVEMENT ARE NOTED AS FOLLOWS:

    TP=TOP OF PAVEMENT
    TC=TOP OF CURB
    TW=TOP OF WALL
    BW=FINISHED GROUND AT FACE OF WALL
    GRND=FINISHED GROUND AT YARD DRAINS

STORM SEWER NOTES:

1. ALL CONCRETE PIPE SHALL BE REINFORCED, AND CONFORM TO A.S.T.M. DESIGNATION C76-80 CLASS III UNLESS OTHERWISE NOTED.
2. ALL SEWER CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CITY OF WENTZVILLE STANDARD SPECIFICATIONS AND CONSTRUCTION DETAILS.
3. TYPE "C" BEDDING PER CITY OF WENTZVILLE STANDARDS IS REQUIRED FOR PIPES IN ROCK.
4. ALL TRENCHES UNDER AREAS TO BE PAVED AND UNDER EXISTING PAVING SHALL BE GRANULARLY FILLED WITH 3/4" MINUS CRUSHED LIMESTONE ONLY. BACKFILL SHALL BE PLACED IN ACCORDANCE WITH CITY OF WENTZVILLE STANDARDS.
5. ALL TRENCH BACKFILLS UNDER PAVEMENT WITHIN PUBLIC RIGHT-OF-WAY SHALL BE GRANULAR BACKFILLED. TRENCH BACKFILLS UNDER PAVED AREAS, OUTSIDE OF PUBLIC RIGHT-OF-WAY SHALL BE GRANULAR BACKFILL IN LIEU OF THE EARTH BACKFILL COMPACTED TO 95 PERCENT OF THE STANDARD AASHTO T-99 COMPACTION TEST A.S.T.M. D-698.
6. ALL DIMENSIONS ARE TO THE CENTERLINE OF STRUCTURE EXCEPT FOR END OF PIPES OR FLARED ENDS. FLARED END DIMENSIONS VARY. CONTRACTOR SHALL VERIFY LENGTHS FOR FLARED END SECTIONS PER PROPOSED TYPE OF FLARED END SUBMITTED.
7. PLUMBING CONTRACTOR AND SURVEYOR SHALL CONFIRM STRUCTURES PROPOSED ON THESE PLANS MATCH THE PROPOSED STRUCTURES THAT ARE ONSITE. DUE TO CHANGE OF ELEVATIONS, AND LOCATIONS DEPENDING ON THE STRUCTURE AND TYPE, THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ISSUES FOR PROPOSING A DIFFERENT TYPE OF STRUCTURE OR PIPE THAN WHAT IS ON THESE PLANS. GENERAL CONTRACTOR SHALL REIMBURSE CIVIL ENGINEER FOR ANY TIME AND MATERIALS TO ADDRESS CHANGES TO STRUCTURES TO REDUCE OVERALL CONSTRUCTION COSTS.

SANITARY SEWER NOTES:

1. ALL SEWER CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CITY OF WENTZVILLE STANDARD SPECIFICATIONS AND CONSTRUCTION DETAILS.
2. ALL LATERAL SEWER CONSTRUCTION METHODS TO CONFORM TO LATEST STANDARDS AND SPECIFICATIONS FOR THE CITY OF WENTZVILLE PLUMBING CODE.
3. ALL TRENCHES UNDER AREAS TO BE PAVED AND UNDER EXISTING PAVING SHALL BE GRANULARLY FILLED WITH 3/4" MINUS CRUSHED LIMESTONE ONLY. BACKFILL SHALL BE PLACED IN ACCORDANCE WITH CITY OF WENTZVILLESTANDARDS.
4. TYPE "C" BEDDING PER CITY OF WENTZVILLE STANDARDS REQUIRED FOR PIPES IN ROCK.
5. ALL TRENCH BACKFILLS UNDER PAVEMENT WITHIN PUBLIC RIGHT-OF-WAY SHALL BE GRANULAR BACKFILLED. TRENCH BACKFILLS UNDER PAVED AREAS, OUTSIDE OF PUBLIC RIGHT-OF-WAY SHALL BE GRANULAR BACKFILL IN LIEU OF THE EARTH BACKFILL COMPACTED TO 90 PERCENT OF THE STANDARD AASHTO T-180 COMPACTION TEST A.S.T.M. D-1557.

UTILITY NOTES

1. ALL FILL MATERIAL IS TO BE IN PLACE AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
2. CONTRACTOR SHALL NOTIFY THE UTILITY AUTHORITIES INSPECTORS 72 HOURS BEFORE CONNECTING TO ANY EXISTING LINE.
3. CONTRACTOR SHALL MAINTAIN A MINIMUM OF 3'-6' COVER ON ALL WATERLINES AND 3'-6' ON ALL SANITARY SEWER LINES.
4. CONNECTION FROM THE METER TO SITE UTILITY LINES SHALL BE MADE BY BUILDING CONTRACTOR.
5. EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW LINES.
6. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
7. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO THE FINAL CONNECTION OF SERVICE.
8. ALL UTILITY SEWER TRENCH BACKFILL SHALL HAVE GRANULAR BACKFILL AND BE MECHANICALLY COMPACTED.
9. THE CONTRACTOR SHALL VERIFY THE LOCATION, CONDITION AND ELEVATION OF ALL PROPOSED SEWER CONNECTION POINTS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES THAT WOULD INTERFERE WITH THE PROPOSED SEWER DESIGN SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
10. ALL PERMIT FEES AND COSTS ASSOCIATED WITH BRINGING UTILITY, SEWER AND WATER SERVICES TO THE BUILDING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL FEES AND COSTS SHALL BE INCLUDED IN THE CONTRACTORS BID.
11. G.C. IS TO PROVIDE TRENCH, WIRE, AND CONDUIT FOR TELEPHONE AND ELECTRICAL SERVICES, BACKFILL AND GRADE SMOOTH FOR A COMPLETE TELEPHONE AND ELECTRIC INSTALLATION.
12. G.C. SHALL BE RESPONSIBLE FOR ANY TAPS TO BE MADE UNDER THE SUPERVISION OF THE CITY WATER DIVISION. NO TAPS ARE WITHIN THIS PROJECT.
13. ANY DISTURBED SIDEWALK SHALL BE FULL SLAB REPLACEMENT.
14. EXISTING SANITARY SEWER AND WATER SERVICE SHALL NOT BE INTERRUPTED.
15. THE CONTRACTOR SHALL INCLUDE THE COST ESTIMATE PROVIDED BY CITY OF WENTZVILLE AND/OR AMEREN UE IN HIS/HER BID FOR THE RELOCATION/REMOVAL OF ANY OVERHEAD ELECTRIC OR GUY WIRES.
16. THE REMOVAL AND REPLACEMENT, OR REHABILITATION OF THE EXISTING STRUCTURE(S) WILL BE DETERMINED BY THE CITY OF WENTZVILLE FIELD INSPECTOR. IF THE STRUCTURE IS DETERMINED TO REMAIN IN PLACE, THEN THE TOP SHALL BE ADJUSTED TO GRADE, IF NEEDED.
17. ALL SANITARY LATERAL PIPING SHALL BE A MINIMUM OF SCHEDULE 40 PVC OR SDR 35 PER CITY OF WENTZVILLE SPECIFICATIONS. SDR 35 PIPE WILL NOT BE ALLOWED WHEN THE EXISTING SEWER FOR CONNECTION IS PVC.

ABBREVIATIONS:

AI...........	AREA INLET (OPEN 4 SIDES UNLESS NOTED OTHERWISE)
DAI.........	DOUBLE AREA INLET (OPEN 6 SIDES UNLESS NOTED OTHERWISE.)
MH..........	MANHOLE
2GI..........	2 GRATE INLET
4GI..........	4 GRATE INLET
GSI..........	2 GRATE INLET WITH SIDE INTAKE. (ELEVATION OF INLET TOP IS TO THE TOP OF GRATE, ADD 0.50' FOR TOP OF SIDE INTAKE.)
EP...........	END OF PIPE
FE...........	FLARED END SECTION
IMH.........	INTERCEPTOR MANHOLE
TD...........	TRENCH DRAIN
ATG.........	ADJUST TO GRADE
*.............	DENOTES HYDRAULIC GRADE JUMP
TBR..........	TO BE REMOVED
TBR&R.....	TO BE REMOVED & REPLACED/RELOCATED

DEVELOPMENT NOTES

1. ALL PUBLIC IMPROVEMENTS SHALL BE REQUIRED TO MEET ADAAG 2010 AND CITY OF WENTZVILLE DESIGN STANDARDS.
2. DIMENSIONS SHOWN FOR PROPOSED IMPROVEMENTS ARE FROM BACK OF CURB OR FACE OF BUILDING UNLESS SPECIFICALLY NOTED.
3. BASIS OF BEARINGS FOR THIS SURVEY WAS ADOPTED FROM THE MISSOURI STATE PLANE COORDINATE SYSTEM, NAD 1983, EAST ZONE. ROTATE SURVEY BEARINGS COUNTER-CLOCKWISE 4° 59' 59" TO MATCH THE RECORD BEARING.
4. BENCHMARK: ELEVATION WAS ESTABLISHED USING THE MISSOURI DEPARTMENT OF TRANSPORTATION'S VRS, RTK SYSTEM, AND IS REFERENCED TO THE NAVD 88 DATUM.
5. FLOOD AREA: PER FEMA FIRM 29183C0215G, PANEL 215 OF 525, ST. CHARLES COUNTY, MISSOURI AND INCORPORATED AREAS DATED JANUARY 20, 2016 - THE PROPERTY IS ZONE X WHICH IS DESCRIBED AS "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN".
6. ALL PROPOSED PUBLIC UTILITIES SHALL BE INSTALLED WITHIN THE PUBLIC RIGHT-OF-WAY OR WITHIN THE BOUNDARIES OF THE PROPOSED EASEMENTS. THE CITY OF WENTZVILLE ENGINEERING DESIGN CRITERIA SHALL BE IN EFFECT FOR THIS DEVELOPMENT.
7. ANY FUTURE RETAINING WALLS ARE THAT ARE OVER 3.5 FEET IN HEIGHT SHALL BE DESIGNED BY A RETAINING WALL ENGINEER AND GEOTECHNICAL SERVICES SHALL BE OBTAINED TO DETERMINE A GLOBAL STABILITY ANALYSIS OF THE PROPOSED RETAINING WALL.
8. PROPOSED STREET SIGNS WILL BE MAINTAINED BY THE CITY OF WENTZVILLE. THE DEVELOPER SHALL BE REQUIRED TO INSTALL PUBLIC UTILITIES UNDERGROUND AND PROVIDE ADEQUATE FIRE SERVICE.

A.	CITY OF WENTZVILLE WATER SERVICE	MR. BILL RHODES	PHONE:	(636) 639-2062 EXT. 4
B.	CITY OF WENTZVILLE SANITARY SEWER SERVICE	MR. JOHN GRIPENTROG	PHONE:	(636) 327-4174
C.	AMEREN UE - NATURAL GAS GAS SERVICE	MR. MATT GREMINGER	PHONE:	(636) 639-8305
D.	AMEREN UE - ELECTRIC ELECTRIC SERVICE	MR. DAN GIESMANN	PHONE:	(636) 639-8336
E.	CHARTER COMMUNICATIONS CABLE AND INTERNET SERVICE	MR. JIM HEARTWIG	PHONE:	636-387-6645
F.	CENTURY LINK PHONE AND INTERNET SERVICE	MR. DAN KRUSE	PHONE:	(636) 332-7299
G.	WENTZVILLE FIRE PROTECTION DISTRICT	MR. CHRIS CUDDIHEE	PHONE:	(636) 332-9869

15. SEEDING, SODDING, MULCHING, AND PLANTINGS FOR ALL DISTURBED AREAS SHALL BE SPECIFIED ON THE LANDSCAPE PLAN.
16. SIDEWALKS ALONG THE ACCESSIBLE ROUTE SHALL NOT HAVE A SLOPE EXCEEDING 1'V:20'H. SLOPES GREATER THAN 1'V:20'H MUST BE DESIGNED AS A RAMP UNLESS PARALLEL WITH THE PROPOSED ROAD GRADE.
17. SIDEWALKS, CURB RAMPS, RAMPS AND ACCESSIBLE PARKING SPACES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT APPROVED "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES" (ADAAG) ALONG WITH THE REQUIRED GRADES, CONSTRUCTION MATERIALS, SPECIFICATIONS AND SIGNAGE.
18. A DRAINLAYER PERMIT IS REQUIRED BY THE CITY OF WENTZVILLE FOR ALL STORM SEWERS.
19. NO GRADE SHALL EXCEED 3:1 SLOPE.
20. STORMWATER SHALL BE DISCHARGED AT ADEQUATE NATURAL DISCHARGE POINT. SINKHOLES ARE NOT ADEQUATE NATURAL DISCHARGE POINTS.
21. ALL LANDSCAPING SHALL BE PROVIDED AS REQUIRED BY THE CITY OF WENTZVILLE. REFERENCE LANDSCAPE PLAN.
22. COMMON GROUND AREAS SHALL ALSO BE USED AS GENERAL UTILITY AND DRAINAGE EASEMENTS FOR THE USE BY THE UTILITIES SERVED IN THE CITY OF WENTZVILLE AND BY THE EXISTING PIPELINE THAT IS IN PLACE.

CITY OF WENTZVILLE GRADING NOTES

1. CONSTRUCTION ACCESS TO SITE SHALL CONSIST OF A MINIMUM 25' x 50' TEMPORARY GRAVEL WASH DOWN AREA, LOCATED ADJACENT TO PAVEMENT. ALL TRUCKS SHALL BE WASHED DOWN PRIOR TO LEAVING SITE.
2. ALL SOFT SOILS SHOULD BE REMOVED, DOWN TO FIRM MATERIAL, PRIOR TO THE PLACEMENT OF FILL MATERIAL. THE SOFT SOILS MAY BE UTILIZED AS FILL, PROVIDED THAT THE MATERIAL IS SPREAD OUT TO DRY SUFFICIENTLY AND CAN BE COMPACTED TO THE REQUIREMENTS OF THE PROJECT SPECIFICATIONS.
3. NO SLOPE SHALL BE STEEPER THAN 3(HORIZONTAL): 1(VERTICAL). ALL SLOPES SHALL BE SODDED OR SEEDED AND MULCHED.
4. CITY SHALL BE PROVIDED WITH A COPY OF GRADING COMPACTION TESTS RESULTS. IN AREAS OF PROPOSED PAVEMENT, A MINIMUM COMPACTION TO AT LEAST 90% OF MAXIMUM DRY DENSITY, AS DETERMINED BY THE MODIFIED PROCTOR TEST, OR 95% OF MAXIMUM DRY DENSITY, AS DETERMINED BY THE STANDARD PROCTOR TEST WILL BE REQUIRED, OR AS OTHERWISE RECOMMENDED BY THE GEOTECHNICAL SOILS REPORT.
5. ANY TRASH, DEBRIS, PAVEMENT OR FOUNDATION MATERIALS FROM ANY EXISTING OR PREVIOUS ON-SITE BUILDING, STRUCTURE, OR IMPROVEMENT MUST BE REMOVED FOR PROPER DISPOSAL OFF SITE, OR AS RECOMMENDED BY THE OWNERS LICENSED PROFESSIONAL ENGINEER.
6. ANY WELLS OR SPRINGS WHICH MAY EXIST ON THE PROPERTY SHOULD BE LOCATED. WELLS SHALL BE CAPPED AND SEALED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MISSOURI DEPARTMENT OF NATURAL RESOURCES, AND IN A MANNER ACCEPTABLE TO THE CITY OF WENTZVILLE. SPRINGS SHALL BE HANDLED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE OWNERS LICENSED PROFESSIONAL ENGINEER.
7. ANY CONTAMINATED SOILS ENCOUNTERED DURING GRADING OPERATIONS SHALL BE HANDLED IN ACCORDANCE WITH THE OWNERS LICENSED PROFESSIONAL ENVIRONMENTAL ENGINEERING REPRESENTATIVE.

WENTZVILLE PROJECT NUMBER ENG-2018-XXXX

PREMIER
ENGINEERING ARCHITECTURE SURVEYING
308 TCW COURT, LAKE SAINT LOUIS, MO 63367

STATE OF MISSOURI
STEVE MARION
NUMBER PE2006007195
PROFESSIONAL ENGINEER

ENGINEERS AUTHENTICATION
The responsibility for professional engineering liability on this project is hereby limited to the set of plans authenticated by the seal, signature, and date hereunder attached. Responsibility is disclaimed for all other engineering plans involved in this project and specifically excludes revisions after this date unless reauthenticated.
STEVEN D. MARION P.E.
PROFESSIONAL ENGINEER
PE2006007195

Project
MARCO PROPERTY, LLC
SUGARFIRE
1101 LODORA DRIVE
WENTZVILLE, MO 63385
JIM COOK
910 PERUQUE VIEW DRIVE
WENTZVILLE, MO 63385

Date: 07-10-18

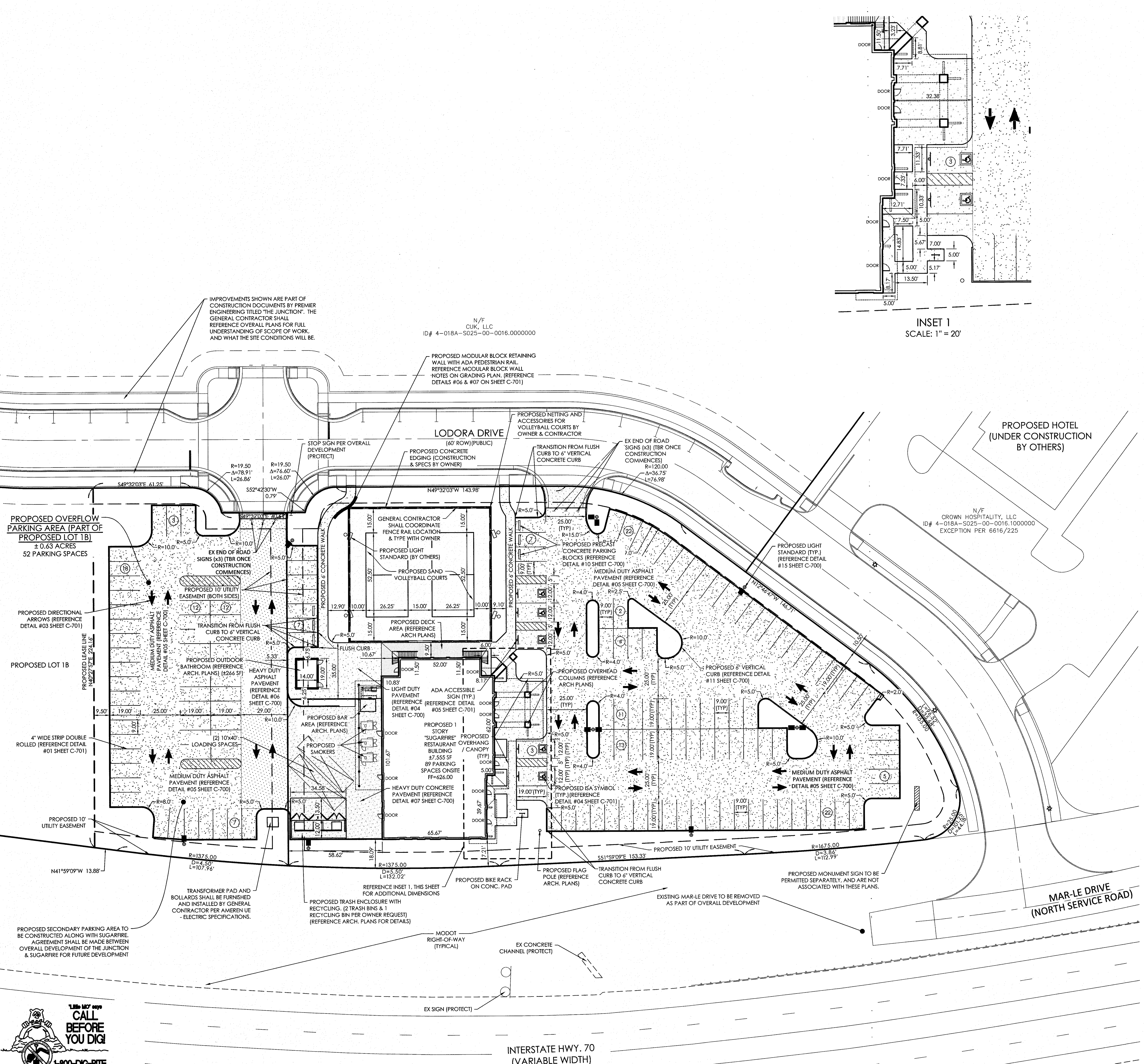
#	Revision Date	Description of Changes

Sheet Title: GENERAL NOTES

Sheet Number: C-001

Project No.	170501
Drawn By	J. DUBOIS
Checked By	M.FOGARTY

NOT RELEASED FOR CONSTRUCTION



UNDERGROUND UTILITIES AND OSHA SAFETY NOTE:

Underground utilities and structures have been plotted from available information and therefore, their location must be considered approximate only. It is the responsibility of the individual contractors to notify the utility companies before actual construction. All O.S.H.A rules and regulations established for the type of construction required by these plans shall be strictly followed (ie. trenching, blasting, etc.)

\\Vault-pc\vault\CIVIL 3D PROJECTS\2017\170501 600 W MAIN ST - WENTZVILLE MO\COMMERCIAL\CONSTRUCTION DRAWINGS\CONSTRUCTION DOCUMENTS - SUGARFIRE\C-100 SITE PLAN.dwg

SITE PLAN NOTES:

1. BASIS OF BEARING: ADOPTED FROM THE MISSOURI COORDINATE SYSTEM NAD 1983-EAST ZONE.
2. REFERENCE BENCHMARK: MISSOURI DEPARTMENT OF TRANSPORTATION VRS NETWORK, NAVD 88.
3. CURRENT ZONING: PD-MXD PLANNED DEVELOPMENT MIXED USE WITH HF HIGHWAY FRONTAGES OVERLAY DISTRICT
4. UNDERLYING PROPOSED DISTRICT: HD-2 HISTORIC DOWNTOWN CORRIDOR DISTRICT WITH HF HIGHWAY FRONTAGES OVERLAY DISTRICT
5. PROPOSED BUILDING HEIGHT - 26 FEET-3 INCHES
6. FRONT YARD - 0' (PD-MXD AS PER HD-2 ZONING)
7. SIDE YARD - 0' (PD-MXD AS PER HD-2 ZONING)
8. REAR YARD - 0' (PD-MXD AS PER HD-2 ZONING)
9. FLOOR AREA RATIO - SITE = 0.10 FAR
   IMPERVIOUS COVERAGE - SITE = 68%
10. BY GRAPHIC PLOTTING ONLY, THIS PROPERTY DOES NOT LIE WITHIN ANY SPECIAL FLOOD ZONE AREAS ACCORDING TO THE FLOOD INSURANCE RATE MAP NUMBER 29183C0215G, PANEL M215 OF 525, ST. CHARLES COUNTY, MISSOURI AND INCORPORATED AREA DATED JANUARY 20, 2016 - THE PROPERTY IS IN ZONE X (UNSHADED), AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.
11. BUILDING HEIGHT, SITE LIGHTING AND SIGNAGE SHALL BE IN ACCORDANCE WITH THE CITY OF WENTZVILLE REQUIREMENTS.
12. ALL DIMENSIONS ARE TO FACE OF CURB OR FACE OF BUILDING UNLESS NOTED OTHERWISE.
13. REFER TO ARCHITECTURAL PLANS FOR BUILDING DIMENSIONS AND DETAILS.
14. NO ON-SITE ILLUMINATION SOURCE SHALL BE SO SITUATED THAT LIGHT IS CAST DIRECTLY ON ADJOINING PROPERTIES OR PUBLIC ROADWAYS. ILLUMINATION LEVELS SHALL COMPLY WITH THE PROVISIONS OF THE LIGHTING SECTION, CITY OF WENTZVILLE SECTION 410.320. THEREBY LIGHTING INTENSITY SHALL NOT EXCEED 0.5 FOOT CANDLES AT ALL EXTERIOR PROPERTY LINES AND 8.0 F.C. AT THE BASE OF LIGHT STANDARDS.
15. SIDEWALKS ALONG ACCESSIBLE ROUTE SHALL NOT HAVE A SLOPE EXCEEDING 1:20. SLOPES GREATER THAN 1:20 MUST BE DESIGNED AS A RAMP.
16. SIDEWALKS, CURB RAMPS, RAMPS AND ACCESSIBLE PARKING SPACES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT APPROVED "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES" (ADAAG) ALONG WITH THE REQUIRED GRADES, CONSTRUCTION MATERIALS, SPECIFICATIONS AND SIGNAGE. IF ANY CONFLICT OCCURS BETWEEN THE ADAAG GUIDELINES AND THE INFORMATION ON THE PLANS, THE ADAAG GUIDELINES SHALL TAKE PRECEDENCE AND THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER PRIOR TO ANY CONSTRUCTION.
17. 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. THE CONTRACTOR SHALL BE ON RECORD WITH THE MISSOURI ONE CALL SYSTEM. ALL PROPOSED UTILITIES TO BE UNDERGROUND.
18. ALL PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED TO MEET THE CITY OF WENTZVILLE SPECIFICATIONS.
19. SEEDING, SODDING, MULCHING, AND PLANTINGS FOR ALL DISTURBED AREAS SHALL BE SPECIFIED ON THE LANDSCAPE PLAN.
20. ANY LAND DISTURBANCE ACTIVITY INVOLVING MORE THAN ONE (1) ACRE OR MORE OF LAND IS A MAJOR LAND DISTURBANCE AND THE APPROPRIATE PERMITS MUST BE OBTAINED FROM THE MISSOURI DEPARTMENT OF NATURAL RESOURCES.
21. ELECTRIC SERVICE SHALL BE LOCATED UNDERGROUND.
22. ALL OFFSITE AREAS DISTURBED BY UTILITY REMOVALS, SITE PROPERTY (BUSHES, FENCES, MAILBOXES, ETC., ABANDONMENT OF UTILITIES OR OTHER WORK SHALL BE RESTORED TO A STABILIZED CONDITION. THE GENERAL CONTRACTOR SHALL PROVIDE NOTICE AT LEAST 72 HOURS IN ADVANCE FOR ANY WORK THAT IS COMPLETED ON OFFSITE PROPERTY.
23. THE G.C. WILL BE REQUIRED TO OBTAIN THE BUILDING PERMIT FROM THE CITY PRIOR TO COMMENCING ANY WORK. THERE MAY BE SOME TIMES WHEN THE CITY WILL REQUIRE THAT ALL THE SUBCONTRACTORS BE KNOWN IN ORDER TO COMPLETE THE PERMIT APPLICATION. WHEN ASKED, THE G.C. WILL PROVIDE A LIST TO THE DEVELOPER WITH COMPANY NAMES, ADDRESSES, PHONE/FAX NUMBERS, CONTACT NAMES AND STATE LICENSE NUMBERS.
24. SEPARATE SITE PLAN APPROVAL WILL BE REQUIRED FOR ANY FUTURE BUILDINGS OR IMPROVEMENTS NOT SHOWN ON THIS PLAN.
25. ALL OFFSITE WORK WILL BE COORDINATED WITH THE ADJACENT PROPERTY OWNERS AND WILL NOT COMMENCE WITHOUT THEIR WRITTEN AUTHORIZATION.
26. THE G.C. IS TO FILE A "NOTICE OF COMMENCEMENT" AS REQUIRED BY THE LAWS GOVERNING THE STATE THAT THE PROJECT FALLS IN AND SUBMIT ALL PAPERWORK TO THE DEVELOPER.

ADA NOTES:

1. CONTRACTOR SHALL CONFIRM ALL EXISTING SLOPES FOR ACCESSIBLE ROUTES AS WELL AS THE ACCESSIBLE PARKING STALLS AND ACCESSIBLE AISLES WITH A SLOPE METER TO CONFIRM MAXIMUM SLOPES ARE NOT EXCEEDED.
2. CONTRACTOR IS REQUIRED TO PROVIDE AS-BUILT SPOT ELEVATIONS ALONG THE ACCESSIBLE ROUTES SHOWN ON THIS PLAN EVERY 10 FEET IN ORDER TO CONFIRM MAXIMUM (2%) CROSS-SLOPE AND MAXIMUM (5%) SLOPES IN THE DIRECTION OF TRAVEL. IN ADDITION, SPOT ELEVATIONS ARE REQUIRED ON ALL CORNERS AND MIDPOINTS OF ACCESSIBLE PARKING STALLS AND ACCESSIBLE AISLES TO CONFIRM MAXIMUM 2% SLOPES ARE NOT EXCEEDED IN ALL DIRECTIONS. THIS INFORMATION SHALL BE PROVIDED, A MINIMUM OF 2 WEEKS BEFORE STORE TURNOVER.
3. THE GENERAL AND CONCRETE CONTRACTOR SHALL FIELD VERIFY ADA SLOPES DURING CONCRETE POUR. A 2' SMART LEVEL WITH AN ACCURACY TO .029 PERCENT SHALL BE USED FOR VERIFYING SLOPES. ANY SLOPES IN THE ADA AREAS THAT EXCEED A 2% CROSS SLOPE ALONG THE BUILDING, ADA STALLS AND/OR SIDEWALK, 5% RUNNING SLOPE FOR SIDEWALKS AWAY FROM THE PROPOSED CVS BUILDING, AND EXCEED 8.3% ON RAMPS SHALL BE REMOVED AND REPLACED AT THE CONCRETE CONTRACTOR'S EXPENSE. THE SURVEYOR FOR STAKING CAN PROVIDE A REFERENCE FOR ELEVATION HOWEVER CONFIRMATION IS REQUIRED BY SLOPE LEVEL DURING CONSTRUCTION.

NOTE:

1. SIGNAGE IS SHOWN FOR INFORMATIONAL PURPOSES ONLY. REFER TO THE SIGNAGE PLANS BY OTHERS FOR SIGN DETAILS AND LOCATIONS.
2. THE CONTRACTOR SHALL REFERENCE ALL DETAIL SHEETS TO CALLOUTS REFERRING TO "SEE DETAIL".

PAVEMENT NOTES

1. CONCRETE PAVEMENT THICKNESS SHALL BE AS FOLLOWS:
   (UNLESS NOTED OTHERWISE ON PLAN)

   MEDIUM DUTY ASPHALT PAVEMENT
   1.5" ASPHALT BP1 SURFACE MIX OVER TACK COAT
   1.5" ASPHALT TYPE X BASE MIX OVER PRIME COAT
   8" AGGREGATE BASE COURSE
   (REFERENCE DETAIL)
   SEE PAVING SECTIONS FOR FULL INFORMATION ON SHEET C-700

   LIGHT DUTY CONCRETE PAVEMENT (SIDEWALKS)
   4" PORTLAND CEMENT CONCRETE
   4" AGGREGATE BASE COURSE
   (REFERENCE DETAIL)
   SEE PAVING SECTIONS FOR FULL INFORMATION ON SHEET C-700

   HEAVY DUTY CONCRETE PAVEMENT (ENTRANCES, & TRASH ENCLOSURE)
   8" PORTLAND CEMENT CONCRETE
   4" AGGREGATE BASE COURSE
   (REFERENCE DETAIL)
   SEE PAVING SECTIONS FOR FULL INFORMATION ON SHEET C-700

   HEAVY DUTY ASPHALT PAVEMENT (DRIVE AISLE)
   1.5" FINE AGGREGATE ASPHALTIC CONCRETE
   1.5" COURSE AGGREGATE ASPHALTIC CONCRETE
   10" AGGREGATE BASE COURSE
   (REFERENCE DETAIL)
   SEE PAVING SECTIONS FOR FULL INFORMATION ON SHEET C-700
2. G.C. SHALL SUBMIT A PLAN SHOWING THE PROPOSED JOINTING PATTERN TO THE ENGINEER FOR REVIEW PRIOR TO CONCRETE PAVEMENT CONSTRUCTION. MAXIMUM JOINT SPACING SHALL BE PER GEOTECHNICAL REPORT.

CONSTRUCTION OF ADA ACCESSIBLE ROUTES NOT IN COMPLIANCE WITH THE PLANS AND ADA GUIDELINES SHALL BE REMOVED AND CORRECTED AT THE EXPENSE OF THE CONTRACTOR. A VERIFICATION SURVEY SHALL BE COMPLETED BY THE ENGINEER FOR CERTIFICATION TO THE OWNER AFTER CONSTRUCTION HAS BEEN COMPLETED.

WENTZVILLE PROJECT NUMBER ENG-2018-XXXX

PREMIER
ENGINEERING ARCHITECTURE SURVEYING
308 TCW COURT, LAKE SAINT LOUIS, MO 63367

STATE OF MISSOURI
STEVE MARION
NUMBER PE2006007195
PROFESSIONAL ENGINEER

ENGINEERS AUTHENTICATION
The responsibility for professional engineering liability on this project is hereby limited to the set of plans authenticated by the seal, signature, and date hereunder attached. Responsibility is disclaimed for all other engineering plans involved in this project and specifically excludes revisions after this date unless reauthenticated.
STEVEN D. MARION P.E.
PROFESSIONAL ENGINEER
PE2006007195

Project
MARCO PROPERTY, LLC
SUGARFIRE
1101 LODORA DRIVE
WENTZVILLE, MO 63385
JIM COOK
910 PERUQUE VIEW DRIVE
WENTZVILLE, MO 63385

#	Revision Date	Description of Changes

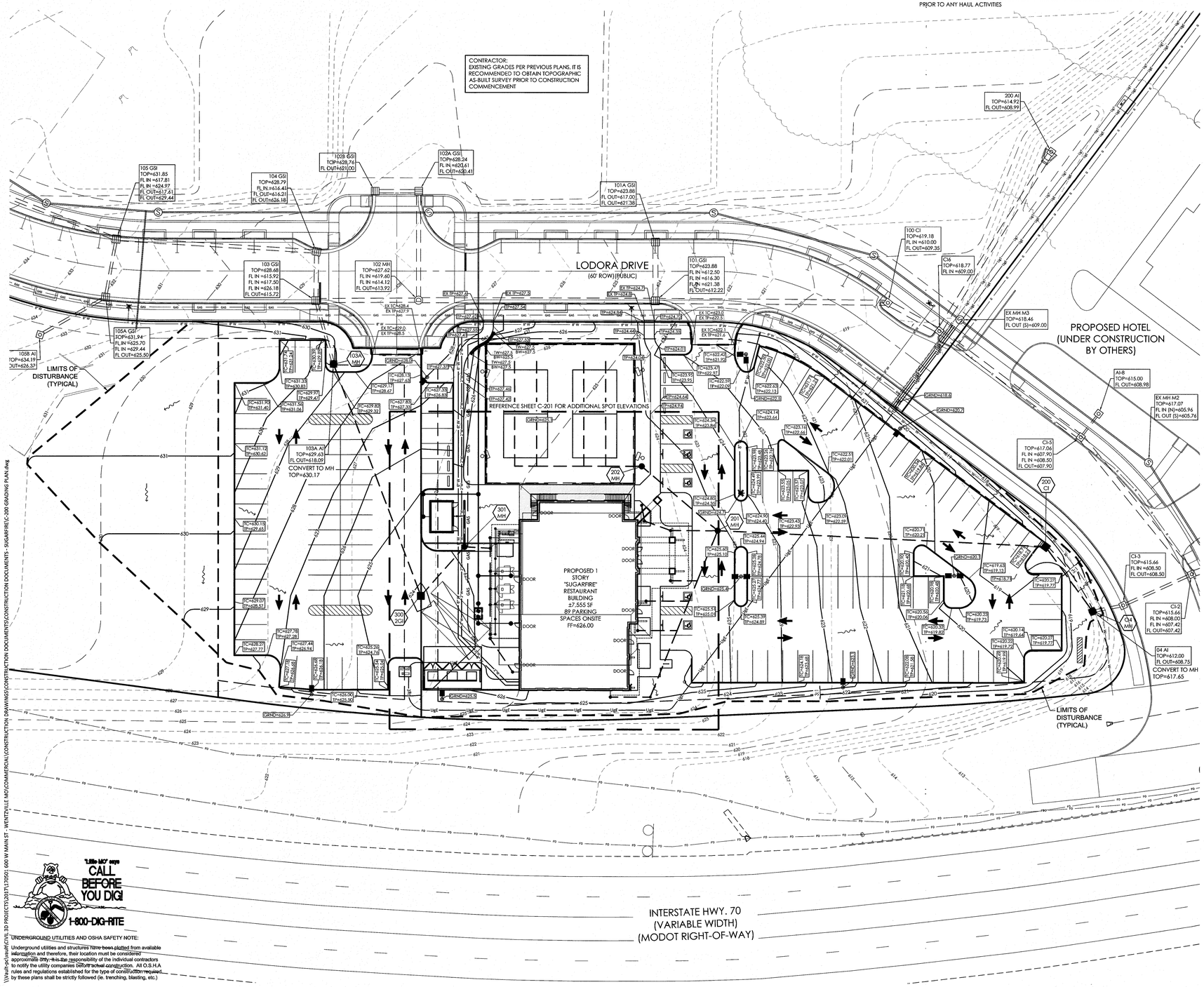
Date 07-10-18

Sheet Title SITE PLAN

Sheet Number C-100

Project No.	170501
Drawn By	J. DUBOIS
Checked By	M.FOGARTY

NOT RELEASED FOR CONSTRUCTION



EARTHWORK QUANTITY NOTES:

1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO READ ALL APPLICABLE REPORTS IN ORDER TO UNDERSTAND THE SOIL AND GROUNDWATER CONDITIONS OF THE SITE.
2. THE CUT AND FILL QUANTITIES SHOWN ON THIS PLAN ARE FOR PERMITTING PURPOSES ONLY. THE GRADING CONTRACTOR IS CAUTIONED THAT THE QUANTITIES SHOWN ARE THE ENGINEER'S ESTIMATE FOR PERMITTING PURPOSES ONLY. THE GRADING CONTRACTOR SHALL COMPLETE HIS/HER OWN ESTIMATE WHEN BIDDING. NO ADDITIONAL COSTS WILL BE ALLOWED FOR GRADING WITHOUT JUSTIFICATION DUE TO PLAN CHANGES OR REVISIONS.
3. TRUCKS SHALL NOT EXCEED POSTED WEIGHT LIMITS FOR THE CITY OF WENTZVILLE AND MODOT BRIDGES DURING HAUL OPERATIONS.

ESTIMATED EARTHWORK QUANTITIES:

CUT = 2,267 CUBIC YARDS
FILL = 1,023 CUBIC YARDS X 1.15 (SHRINKAGE) = 1,176 CUBIC YARDS
= 1,091 CUBIC YARDS HAUL OFF-SITE

GENERAL CONTRACTOR SHALL PROVIDE A PROPOSED HAUL ROUTE FOR APPROVAL PRIOR TO ANY HAUL ACTIVITIES

GRADING PLAN NOTES:

1. THE CONTRACTOR SHALL RESTORE OFFSITE CONSTRUCTION AREAS TO AN EQUAL OR BETTER CONDITION THAN EXISTED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. ALL GRADES SHALL BE WITHIN 0.1 FEET MORE OR LESS OF THOSE SHOWN ON THE GRADING PLAN.
3. NO SLOPE SHALL BE GREATER THAN 3:1 AND SHALL BE EITHER SODDED OR SEEDED AND MULCHED UNLESS OTHERWISE NOTED OR DETAILED.
4. THE CONTRACTOR SHALL FIELD INVESTIGATE THE ENTIRE SITE PRIOR TO HIS BID SUBMITTAL NOTING THE EXISTING VEGETATION AND TREES AND INCLUDING THE REMOVAL AND DISPOSAL OF SAME IN HIS BID.
5. NO AREA SHALL BE CLEARED WITHOUT PERMISSION OF THE OWNER.
6. SILTATION CONTROL WILL BE PROVIDED AS REQUIRED TO PREVENT RUN-OFF. SEE EROSION CONTROL PLAN AND DETAILS.
7. ALL TRASH, DEBRIS, ORGANIC MATERIAL, REFUSE, FROZEN EARTH, ETC., SHALL BE REMOVED FROM FILL AREAS PRIOR TO THE PLACEMENT OF CONTROLLED FILL. ALL FILLS AND BACKFILLS SHALL BE MADE OF SELECTED EARTH MATERIALS, FREE FROM BROKEN MASONRY, ROCK, FROZEN EARTH, RUBBISH, ORGANIC MATERIAL AND DEBRIS.
8. THE CONTRACTOR SHALL PROVIDE EROSION CONTROL PER THE EROSION CONTROL PLAN AND MAY BE REQUIRED TO PROVIDE ADDITIONAL MEASURES AS REQUESTED BY THE CITY OF WENTZVILLE. SHOULD EROSION CONTROL PLAN PROVE TO BE INSUFFICIENT.
9. CARE SHALL BE EXERCISED IN COMPACTION OF BACKFILL MATERIALS OVER THE TOP OF STRUCTURES OR PIPES IN ORDER TO PREVENT DAMAGE TO THE WATERPROOFING MEMBRANES, JOINTS, SEALS AND/OR THE PIPES AND STRUCTURES THEMSELVES. COMPACTION AND PLACING OF BACKFILL AND FILL MATERIALS SHALL BE PERFORMED UNDER THE CONTINUOUS SUPERVISION OF AN APPROVED TESTING LABORATORY. FILL SHALL NOT BE PLACED ON FROZEN GROUND, NOR SHALL FILLING OPERATIONS CONTINUE WHEN THE TEMPERATURE IS SUCH AS TO PERMIT THE LAYER UNDER PLACEMENT TO FREEZE.
10. ALL CITY, COUNTY, AND STATE ROADS SHALL BE KEPT FREE OF DIRT DAILY.
11. FINAL GRADES AT THE PROJECT BOUNDARY SHALL MATCH EXISTING ELEVATIONS UNLESS OTHERWISE SHOWN.
12. THE DEVELOPER IS REQUIRED TO PROVIDE ADEQUATE STORM WATER SYSTEMS IN ACCORDANCE WITH THE CITY OF WENTZVILLE STANDARDS.
13. ALL GRADING AND DRAINAGE TO BE IN CONFORMANCE WITH THE CITY OF WENTZVILLE STANDARDS.
14. INTERIM STORM WATER DRAINAGE CONTROL IN THE FORM OF SILTATION CONTROL MEASURES ARE REQUIRED.
15. G.C. TO BE AWARE THAT A LAND DISTURBANCE PERMIT WILL BE REQUIRED. SITE PLAN/PLAT APPROVAL IS NOT TO BE CONSTRUED AS APPROVAL OF A LAND DISTURBANCE PERMIT.
16. ALL WORK SHALL BE IN COMPLIANCE WITH THE PROJECT GEOTECHNICAL SERVICES REPORT FOR THIS PROJECT.
17. ANY DISTURBED SIDEWALK AREAS SHALL BE REPLACED WITH FULL SLABS.
18. ANY RETAINING WALL OVER THREE (3) FEET IN HEIGHT WILL REQUIRE A SEPARATE PERMIT THROUGH THE CITY OF WENTZVILLE BUILDING DIVISION.

PRECAST MODULAR BLOCK WALL NOTES:

1. THE PRECAST MODULAR BLOCK WALL IS SHOWN ON THESE PLANS FOR HORIZONTAL AND VERTICAL LOCATION PURPOSES ONLY.
2. THE DESIGN OF THE MODULAR BLOCK WALL SHALL BE PROVIDED BY THE WALL CONTRACTOR. THE MODULAR BLOCK WALL PLANS SHALL BE SEALED BY AN ENGINEER REGISTERED IN THE STATE OF MISSOURI AND SUBMITTED TO ENGINEER AND THE CITY OF ARNOLD FOR APPROVAL.
3. THE MODULAR BLOCK WALL DESIGN SHALL BE SUBMITTED TO THE PROJECT'S GEOTECHNICAL ENGINEER FOR APPROVAL BY THE WALL CONTRACTOR PRIOR TO CONSTRUCTION.
4. THE MODULAR BLOCK WALL BLOCK TYPE, AND SIZE SHALL BE SELECTED BY THE OWNER AND THE ARCHITECT PRIOR TO CONSTRUCTION. THE COLOR OF THE WALL SHALL BE BETHANY LEDGE OR AN APPROVAL EQUAL.
5. THE ELEVATIONS SHOWN FOR THE MODULAR BLOCK WALL MAY VARY ACCORDING TO THE WALL SYSTEM SELECTED. THE ABBREVIATION "TW" XXX.XX AS INDICATED ON THE GRADING PLANS INDICATES THE PROPOSED ELEVATION AT THE TOP OF THE FINISHED WALL. THE ABBREVIATION "BW" XXX.XX INDICATES THE FINISHED GROUND ELEVATION AT THE FACE OF THE COMPLETED WALL. THE ACTUAL ELEVATION OF THE BOTTOM OF THE MODULAR BLOCKS OR FOUNDATION WILL BE DIFFERENT AND SHALL BE BASED ON THE WALL DESIGN. THE "GRND" ELEVATION MAY REFERENCE THE GROUND ELEVATION AT THE TOP OF THE WALL IF THE WALL IS FREESTANDING.
6. THE PROJECT GEOTECHNICAL ENGINEER IN CONJUNCTION WITH THE WALL ENGINEERING SHALL REVIEW GLOBAL STABILITY, FOUNDATION STABILITY AND WALL STABILITY AND ISSUE A REPORT TO THE OWNER AND ENGINEER OF RECORD PRIOR TO CONSTRUCTION. THE WALL CONTRACTOR/INSTALLER SHALL PROVIDE BE RESPONSIBLE FOR THIS REPORT AND ANY COSTS ASSOCIATED SHALL BE INCLUDED IN HIS/HER BID.
7. INTERNAL STABILITY ANALYSES SHOULD CONFORM TO THE LATEST DESIGN METHODOLOGY ACCEPTED FOR USE BY THE FEDERAL HIGHWAY ADMINISTRATION (FHWA), AASHTO, OR THE NATIONAL CONCRETE MASONRY ASSOCIATION (NCMA). SINCE THESE ANALYSIS PROCEDURES ARE BASED ON THE USE OF DRAINED STRENGTH PARAMETERS, THE BACKFILL USED FOR THE GEOGRID REINFORCED BACKFILL SECTIONS SHOULD BE A PERMEABLE GRANULAR MATERIAL CONFORMING TO THE ASSUMPTIONS OF THE ANALYSIS. COHESIVE SOIL OR GRANULAR MATERIAL CONTAINING HIGH AMOUNTS OF FINES ARE NOT CONSIDERED PERMEABLE AND SHOULD NOT BE ALLOWED IN THE GEOGRID REINFORCED BACKFILL ZONES. UNLESS PROVISIONS ARE MADE TO PROVIDE BACK SLOPE AND SURFACE DRAINAGE THAT WOULD PREVENT WATER FROM ENTERING THE BACKFILL, BOTH THE AASHTO AND FHWA DESIGN METHODS SPECIFY THAT REINFORCED BACKFILL MATERIALS CONTAIN LESS THAN 15 PERCENT PASSING THE NO. 200 SIEVE. THE DESIGNER SHOULD STATE IN THE CONSTRUCTION SPECIFICATIONS THE BACKFILL MATERIAL DESCRIPTION AND DESIGN STRENGTH PARAMETERS SO THAT UNSUITABLE MATERIALS ARE NOT ALLOWED IN THE BACKFILL ZONES DURING CONSTRUCTION.
8. GLOBAL STABILITY OF THE WALL SYSTEMS SHOULD BE ANALYZED USING BOTH DRAINED AND IMPERMEABLE STRENGTH PARAMETERS. PARAMETERS USED IN THE ANALYSIS SHOULD NOT EXCEED THOSE GIVEN IN THE FOLLOWING TABLE FOR THE NATIVE AND FILL MATERIALS ENCOUNTERED, OR ANTICIPATED TO THE BE PLACED BEHIND THE REINFORCING ZONES OF THE PROJECT. THESE PARAMETERS ARE BASED ON LIMITED LABORATORY TESTING PERFORMED AS PART OF THIS STUDY AND OUR EXPERIENCE WITH SIMILAR MATERIALS. CONFIRMATORY TESTING IS RECOMMENDED. WE RECOMMEND THAT THE WALL CONTRACTOR/DESIGNER BE REQUIRED TO PROVIDE THE GLOBAL STABILITY ANALYSES BASED ON THE PLANNED FINAL CROSS-SECTIONS, INCLUDING THE TOPOGRAPHY ABOVE AND BELOW THE WALLS, USING THE GENERALIZED SUBSURFACE STRATIGRAPHY DISCUSSED IN GEOTECHNICAL REPORT.
9. THE WALL ENGINEER AND WALL CONTRACTOR SHALL PROVIDE THE OWNER, THE GENERAL CONTRACTOR AND THE DEVELOPER A THIRTY (30) YEAR WARRANTY.
10. ALL WALL COLORS SHALL BE INCLUDED IN THE ORIGINAL BID. NO CHANGE ORDERS WILL BE ACCEPTED BASED ON WALL COLOR SELECTION FROM ARCHITECT. COLOR SHALL BE DETERMINED 2 WEEKS PRIOR TO MANUFACTURING BLOCK.
11. VERIFICATION OF ELEVATIONS BY THE WALL ENGINEER IS REQUIRED PRIOR TO SUBMITTING SHOP DRAWINGS. IF ANY DISCREPANCIES ARE FOUND WITH THIS GRADING PLAN AND THE WALL DESIGN, THE WALL ENGINEER SHALL NOTIFY THE ENGINEER OF RECORD PRIOR TO CONSTRUCTION.

NOTES REGARDING EXISTING UNDOCUMENTED FILL AND BID ALLOWANCES:

1. REMOVE ALL UNDOCUMENTED FILLS AS DIRECTED BY THE PROJECT'S GEOTECHNICAL REPORT, GEOTECHNICAL ENGINEER OR OWNER'S REPRESENTATIVE AND REPLACE WITH CONTROLLED FILL.
2. UNDOCUMENTED FILLS INCLUDE PAVEMENTS, BUILDING RELATED DEBRIS, FOUNDATIONS, VEGETATION, ROOTS, SOFT, ORGANIC, FROZEN AND UNSUITABLE SOILS.
3. MATERIALS THAT ARE DETERMINED TO BE UNSUITABLE FOR REUSE SHALL BE HAULED OFF TO A LICENSED LANDFILL. MATERIALS THAT ARE DETERMINED TO BE SUITABLE FOR REUSE SHALL BE STOCKPILED FOR REUSE AS CONTROLLED FILL AS DIRECTED BY THE PROJECT'S GEOTECHNICAL ENGINEER.

THE CONTRACTOR SHALL READ AND BECOME FAMILIAR WITH THE FOLLOWING REPORT:

GEOTECHNICAL REPORT, 600 W. MAIN STREET, WENTZVILLE, MISSOURI DATED JUNE, 2017.
SCI ENGINEERING, INC. SCI NO. 2016-0695.12 TASK 100.

NOTE:

ALL ELEVATIONS SHOWN ON THE GRADING PLAN ARE TO TOP OF PAVEMENT OR FINISHED GROUND UNLESS NOTED OTHERWISE. ELEVATIONS TO POINTS OTHER THAN THE TOP OF PAVEMENT ARE NOTED AS FOLLOWS:

TP=TOP OF PAVEMENT
TC=TOP OF CURB
TW=TOP OF WALL
BW=FINISHED GROUND AT FACE OF WALL
GRND=FINISHED GROUND

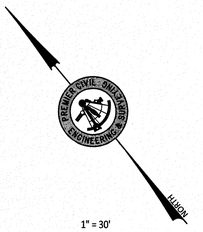
LIMITS OF DISTURBANCE:
THE GRADING CONTRACTOR SHALL STAY WITHIN THE LIMITS OF DISTURBANCE AS SHOWN ON THE PLANS AND MINIMIZE DISTURBANCE WITHIN THE WORK AREA WHEREVER POSSIBLE.

SITE BENCHMARK:

"O" IN OPEN ON FIRE HYDRANT LOCATED ON NORTH SIDE OF MAIN STREET.
ELEVATION = 634.87

REFERENCE BENCHMARK:

ELEVATION WAS ESTABLISHED USING THE MISSOURI DEPARTMENT OF TRANSPORTATION'S VRS, RTK SYSTEM, NAD 1983, EAST ZONE.



1" = 30'

30 15 0 30 60

SCALE IN FEET

WENTZVILLE PROJECT NUMBER ENG-2018-XXXX

"Little MO" says
CALL BEFORE YOU DIG!
1-800-DIG-RITE

UNDERGROUND UTILITIES AND OSHA SAFETY NOTE:

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PREMIER
ENGINEERING ARCHITECTURE SURVEYING
308 TCW COURT, LAKE SAINT LOUIS, MO 63367

STATE OF MISSOURI
STEVEN D. MARION
NUMBER PE2006008185
PROFESSIONAL ENGINEER

ENGINEERS AUTHENTICATION
The responsibility for professional engineering liability on this project is hereby limited to the set of plans authenticated by the seal, signature, and date hereunder attached. Responsibility is disclaimed for all other engineering plans involved in this project and specifically excludes revisions after this date unless reauthenticated.
STEVEN D. MARION P.E.
PROFESSIONAL ENGINEER
PE2006008185

Project
MARCO PROPERTY, LLC
SUGARFIRE
1101 LODORA DRIVE
WENTZVILLE, MO 63385
JIM COOK
910 PERUQUE VIEW DRIVE
WENTZVILLE, MO 63385

Date 07-10-18

Revision Date | Description of Changes

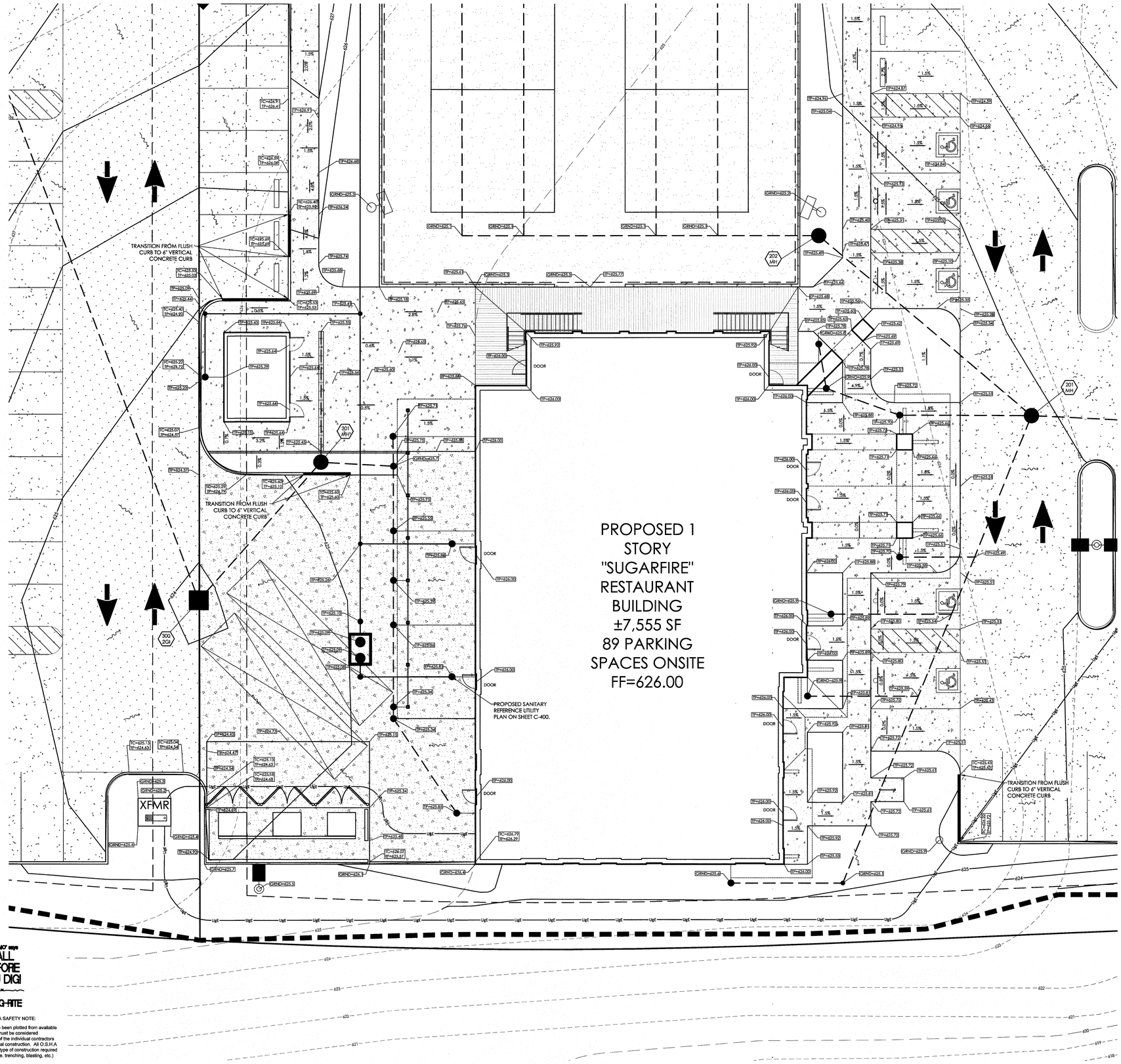
Sheet Title: GRADING PLAN

Sheet Number
C-200

Project No.	170501
Drawn By	J. DUBOIS
Checked By	M.FOGARTY

NOT RELEASED FOR CONSTRUCTION

\\Vault-pw\vault\CIVIL 3D PROJECTS\2017\170501 600 W MAIN ST - WENTZVILLE MO\COMMERCIAL\CONSTRUCTION DRAWINGS\CONSTRUCTION DOCUMENTS\CONSTRUCTION DOCUMENTS - SUGARFIRE\C-200 GRADING PLAN.dwg



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THE CONTRACTOR SHALL READ AND BECOME FAMILIAR WITH THE FOLLOWING REPORT:

GEOTECHNICAL REPORT, 600 W. MAIN STREET, WENTZVILLE, MISSOURI DATED JUNE, 2017. SCI ENGINEERING, INC. SCI NO. 2016-0695.12 TASK 100.

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LIMITS OF DISTURBANCE:
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1" = 10'
10 5 0 10 20
SCALE IN FEET

WENTZVILLE PROJECT NUMBER ENG-2018-XXXX

PREMIER
ENGINEERING ARCHITECTURE SURVEYING
308 TCW COURT, LAKE SAINT LOUIS, MO 63367

STATE OF MISSOURI
STEVEN D. MARION
NUMBER PE-2006007195
PROFESSIONAL ENGINEER

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JIM COOK
910 PERIQUE VIEW DRIVE
WENTZVILLE, MO 63385

Date 07-10-18

#	Revision Date	Description of Changes

Sheet Title
PATIO & SIDEWALK GRADING DETAIL

Sheet Number
C-201

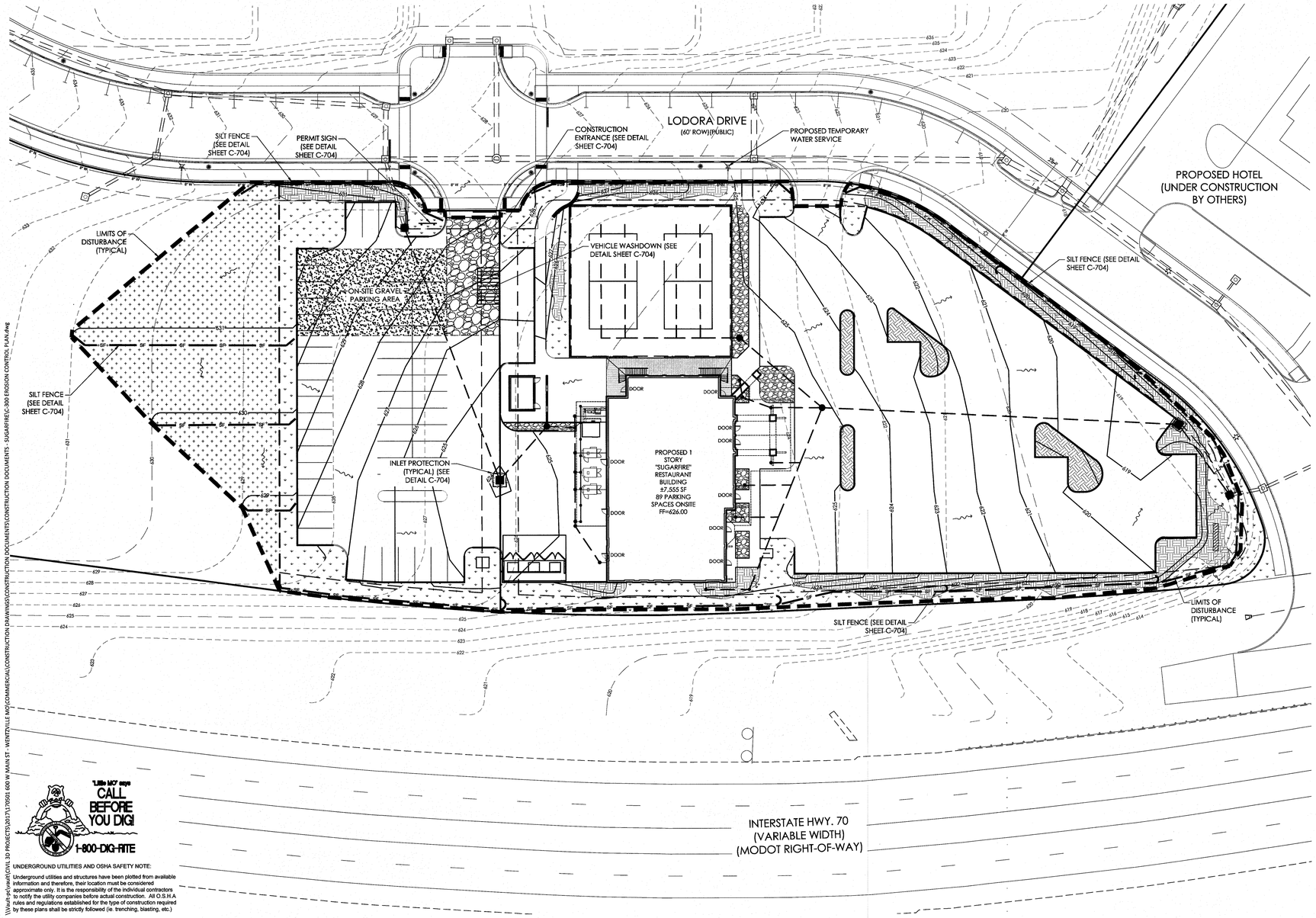
Project No.	170501
Drawn By	J. DUBOIS
Checked By	M.FOGARTY

NOT RELEASED FOR CONSTRUCTION

\\Vault-pc\vault\Civil 3D PROJECTS\2017\170501 600 W MAIN ST - WENTZVILLE MO\COMMERCIAL\CONSTRUCTION DRAWINGS\CONSTRUCTION DOCUMENTS\CONSTRUCTION DOCUMENTS - SUGARFIRE\C-201 PATIO & SIDEWALK GRADING DETAIL.dwg

SILTATION CONTROL PLAN LEGEND

SYMBOL		SYMBOL			
	LIMITS OF DISTURBED AREA		RECP		SEED & STRAW
SF	SYNTHETIC FILTER BARRIER (SEE DETAIL SHEET C-704)		SOD		WASHDOWN AREA (SEE DETAIL SHEET C-704)
	VEHICLE WASHDOWN AREA & CONSTRUCTION ENTRANCE (SEE DETAIL SHEET C-704)		DECORATIVE ROCK		INLET PROTECTION (SEE DETAIL SHEET C-704)
	OFF STREET GRAVEL PARKING		SHREDDED MULCH		DIRECTION OF STORMWATER RUNOFF



"Little MO" stops
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UNDERGROUND UTILITIES AND OSHA SAFETY NOTE:

Underground utilities and structures have been plotted from available information and therefore, their location must be considered approximate only. It is the responsibility of the individual contractors to notify the utility companies before actual construction. All O.S.H.A rules and regulations established for the type of construction required by these plans shall be strictly followed (ie. trenching, blasting, etc.)

\\Vault-p4\Vault\CIVIL 3D PROJECTS\2017\170501 600 W MAIN ST - WENTZVILLE MO\COMMERCIAL\CONSTRUCTION DRAWINGS\CONSTRUCTION DOCUMENTS\CONSTRUCTION DOCUMENTS - SUGARFIRE\C-300 EROSION CONTROL PLAN.dwg

EROSION CONTROL PLAN NOTES:

1. REFER TO THE EROSION CONTROL DETAILS FOR THE CONSTRUCTION METHODS OF THESE DEVICES.
2. CONTRACTOR MUST WASH DOWN ALL VEHICLES DURING CONSTRUCTION. CONTRACTOR SHALL KEEP ALL MUD AND DEBRIS OFF OF ALL CITY, COUNTY AND STATE ROADS.
3. LOCATION AND FINAL DIMENSIONS OF ALL WASHDOWN AND STAGING AREAS SHALL BE BY THE GENERAL CONTRACTOR, AND SHALL BE IN COMPLIANCE WITH BEST MANAGEMENT PRACTICES FOR STORMWATER POLLUTION PREVENTION.
4. THE BMP's SHOWN ON THESE PLANS ARE THE MINIMAL REQUIRED FOR THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAIN BMP's THROUGHOUT CONSTRUCTION. THE CONTRACTOR IS ALSO RESPONSIBLE FOR INSTALLING AND MAINTAINING ANY ADDITIONAL BMP's IF NECESSARY TO CONFORM TO PERMIT REQUIREMENTS. ALL COSTS FOR BMP INSTALLATION AND MAINTENANCE SHALL BE INCLUDED IN THE CONTRACTOR'S BID.
5. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY LAND DISTURBANCE PERMITS REQUIRED FOR THIS PROJECT. IN THE EVENT THIS PROJECT DISTURBS MORE THAN 1.00 ACRES, LAND DISTURBANCE PERMITS WILL BE REQUIRED, AT THE MINIMUM, FROM THE MISSOURI DEPARTMENT OF NATURAL RESOURCES AND THE CITY OF WENTZVILLE.
6. ANY LAND CLEARING, CONSTRUCTION, OR DEVELOPMENT INVOLVING THE MOVEMENT OF EARTH SHALL BE IN ACCORDANCE WITH THE STORM WATER POLLUTION PREVENTION PLAN, AND THE PERSON ISSUED A LAND DISTURBANCE PERMIT ASSUMES AND ACKNOWLEDGES RESPONSIBILITY FOR COMPLIANCE WITH THE APPROVED STORM WATER POLLUTION PLAN AT THE SITE OF THE PERMITTED ACTIVITY.
7. SOD SHALL BE PLACED IN THE R.O.W., AS REQUIRED. IF SIGN COMPANY DISTURBS NEW SOD, THE CONTRACTOR SHALL REPLACE THE SOD PER THE CITY OF WENTZVILLE AND MODOT SPECIFICATIONS.
8. EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED PRIOR TO OR DURING THE CONSTRUCTION PHASE DURING WHICH THEY ARE NEEDED. THE CITY OF WENTZVILLE CITY ENGINEER SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF THE GRADING TO VERIFY SILT CONTROL INSTALLATION (GRADING PERMIT REQUIRED).
9. WHEN GRADING OPERATIONS ARE SUSPENDED FOR MORE THAN 30 DAYS, PERMANENT GRASS MUST BE ESTABLISHED TO CONTROL EROSION.
10. SILT FENCE TO BE ADJUSTED AS NECESSARY FOR CONSTRUCTION ACTIVITY.
11. SOD SHALL BE DROUGHT RESISTANT FESCUE. TEMPORARY IRRIGATION SHALL BE INSTALLED AS NEEDED TO ENSURE SODDED AREAS ARE ESTABLISHED.
12. ALL DISTURBED AREAS TO BE SODDED AND/OR LANDSCAPED SHALL HAVE A MINIMUM OF 6" OF TOPSOIL PLACED PRIOR TO THE INSTALLATION OF SOD.
13. REFER TO THE EROSION CONTROL DETAIL SHEET & STORMWATER POLLUTION PREVENTION NARRATIVE FOR ADDITIONAL NOTES AND REQUIREMENTS.
14. THE GENERAL CONTRACTOR SHALL OBTAIN A COPY OF THE NPDES PERMIT ISSUED FOR THE SITE AND POST IT AT THE PROJECT SITE PRIOR TO ANY LAND DISTURBANCE ACTIVITIES. REFER TO SITE SIGN DETAIL ON THE EROSION CONTROL DETAIL SHEET.
15. CONTRACTOR SHALL INSTALL BMP'S NOTED ON THIS PLAN PRIOR TO BEGINNING ANY LAND DISTURBING, DEMOLITION, OR TREE REMOVAL ACTIVITIES.
16. THE CONTRACTOR SHALL INSTALL CONSTRUCTION ENTRANCE/EXIT AND MAINTAIN THESE ENTRANCES DURING CONSTRUCTION.
17. THE JOB SITE TRAILER, DUMPSTER, FUELING AREA, STORAGE LAY-DOWN AREA SHALL BE LOCATED BY THE GENERAL CONTRACTOR AT THE START OF CONSTRUCTION. THESE ITEMS MUST BE NOTED BY THE CONTRACTOR ON THE SWPPP DRAWINGS.
18. ANY SOIL STOCKPILES AND DEMOLITION DEBRIS STOCKPILES SHALL HAVE SILT FENCES INSTALLED IF LEFT ON SITE AND UNDISTURBED FOR MORE THAN 13 DAYS.

SILTATION CONTROL NOTES:

1. INSTALLATION OF ALL SEDIMENT AND EROSION CONTROL SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING AND WITHIN TWO (2) DAYS OF ANY REMOVAL OF EXISTING VEGETATION OR IMPROVEMENTS.
2. INSPECTION OF SILTATION CONTROL SHALL TAKE PLACE AT LEAST ONCE EVERY SEVEN (7) DAYS AND WITHIN 24 HOURS OF ANY RAIN EVENT. ANY REPAIRS REQUIRED SHALL BEGIN IMMEDIATELY OF THE ROOT ZONE. A WRITTEN REPORT SHALL BE SUBMITTED TO THE CITY OF WENTZVILLE WITHIN SEVENTY TWO (72) HOURS OF STORM EVENT.
3. THE CONTRACTOR SHALL KEEP AND MAINTAIN RECORDS OF ALL SILTATION CONTROL INSPECTIONS, REPAIRS, INSTALLATION OR RELEVANT ACTIVITIES ON THE JOBSITE OR MAIN OFFICE FOR A PERIOD OF THREE YEARS. THESE RECORDS SHALL BE AVAILABLE FOR INSPECTION BY MISSOURI DEPARTMENT OF NATURAL RESOURCES OR LOCAL AUTHORITIES HAVING JURISDICTION.
4. ALL DISTURBED AREAS WHICH REMAIN UNWORKED FOR 30 DAYS OR MORE SHALL BE STABILIZED WITH SEEDING AND MULCHING PER APPENDIX A OR PER THE PROJECT SPECIFICATIONS WHICHEVER IS MORE STRINGENT. IF SEASONAL CONDITIONS PROHIBIT SEEDING OR MULCHING, MATTING SHALL BE INSTALLED
5. ALL SLOPES OR DRAINAGE CHANNELS, ONCE CONSTRUCTED TO FINAL GRADE SHALL BE SEEDED AND MULCHED OR OTHERWISE STABILIZED WITHIN 7 DAYS. EVERY EFFORT SHALL BE MADE TO PREVENT EROSION IN THESE AREAS.
6. SILT FENCE INLET PROTECTION DEVICES SHALL BE INSTALLED IMMEDIATELY AROUND EACH INLET ONCE INLET CONSTRUCTION IS COMPLETED.
7. ALL SILTATION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED.

SYNTHETIC FILTER BARRIER SPECIFICATIONS (SILT FENCE):

1. SILT FENCE SHALL BE WOVEN GEOTEXTILE FABRIC MIRAFI 100X OR EQUAL.
2. 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 MATERIAL SHALL BE BACKFILLED AGAINST THE FENCE.
3. FENCE HEIGHT SHALL BE A MINIMUM OF 3 FEET ABOVE GRADE, WITH FABRIC INSTALLED ALONG THE CONTOUR AND ON THE UPSLOPE SIDE OF THE STAKES.
4. SILT FENCE SHALL BE USED ONLY ON SHEET FLOW CONDITIONS.
5. SILT FENCES SHALL BE INSTALLED AROUND ALL STORM SEWER STRUCTURES, UNLESS NOTED OTHERWISE.

SILT FENCE MAINTENANCE:

1. SILT FENCE 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 SILT FENCE BARRIERS, END RUNS AND BARRIER UNDERCUTTING.
3. SHOULD SILT FENCE BECOME INEFFECTIVE PRIOR TO THE END OF CONSTRUCTION AND ARE STILL NECESSARY, THE SILT FENCE SHALL BE PROMPTLY REPLACED.
4. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE - HALF OF THE HEIGHT OF THE FENCE.
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.

THE CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL SEDIMENT AND DEBRIS FROM LEAVING THE SITE BY UTILIZING EROSION AND SEDIMENT CONTROLS THROUGHOUT CONSTRUCTION. WITHIN 24 HOURS AFTER EVERY RAINFALL EVENT, EROSION AND SEDIMENT CONTROL BMP's SHALL BE INSPECTED. ANY SEDIMENT DISCHARGED FROM THE PROJECT SITE SHALL BE CLEANED IMMEDIATELY. ANY BMP's NEEDING MAINTENANCE SHALL BE PROMPTLY ADDRESSED. THE CONTRACTOR SHALL INSTALL ADDITIONAL BMP's NECESSARY TO KEEP SEDIMENT FROM LEAVING THE PROJECT SITE. ALL INSPECTIONS AND MAINTENANCE ACTIONS SHALL ARE TO BE DOCUMENTED IN A PROJECT LOG.

LIMITS OF DISTURBANCE:
THE GRADING CONTRACTOR SHALL STAY WITHIN THE LIMITS OF DISTURBANCE AS SHOWN ON THE PLANS AND MINIMIZE DISTURBANCE WITHIN THE WORK AREA WHEREVER POSSIBLE.

NORTH

1" = 30'

30 15 0 30 60

SCALE IN FEET

WENTZVILLE PROJECT NUMBER ENG-2018-XXXX

PREMIER
ENGINEERING ARCHITECTURE SURVEYING
308 TCW COURT, LAKE SAINT LOUIS, MO 63367

STATE OF MISSOURI
STEVEN
MARION
NUMBER
PE2006007195
PROFESSIONAL ENGINEER

ENGINEERS AUTHENTICATION
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STEVEN D. MARION P.E.
PROFESSIONAL ENGINEER
PE2006007195

Project: MARCO PROPERTY, LLC
SUGARFIRE
1101 LODORA DRIVE
WENTZVILLE, MO 63385
JIM COOK
910 PERUQUE VIEW DRIVE
WENTZVILLE, MO 63385

Date: 07-10-18

#	Revision Date	Description of Changes

Sheet Title: EROSION CONTROL PLAN

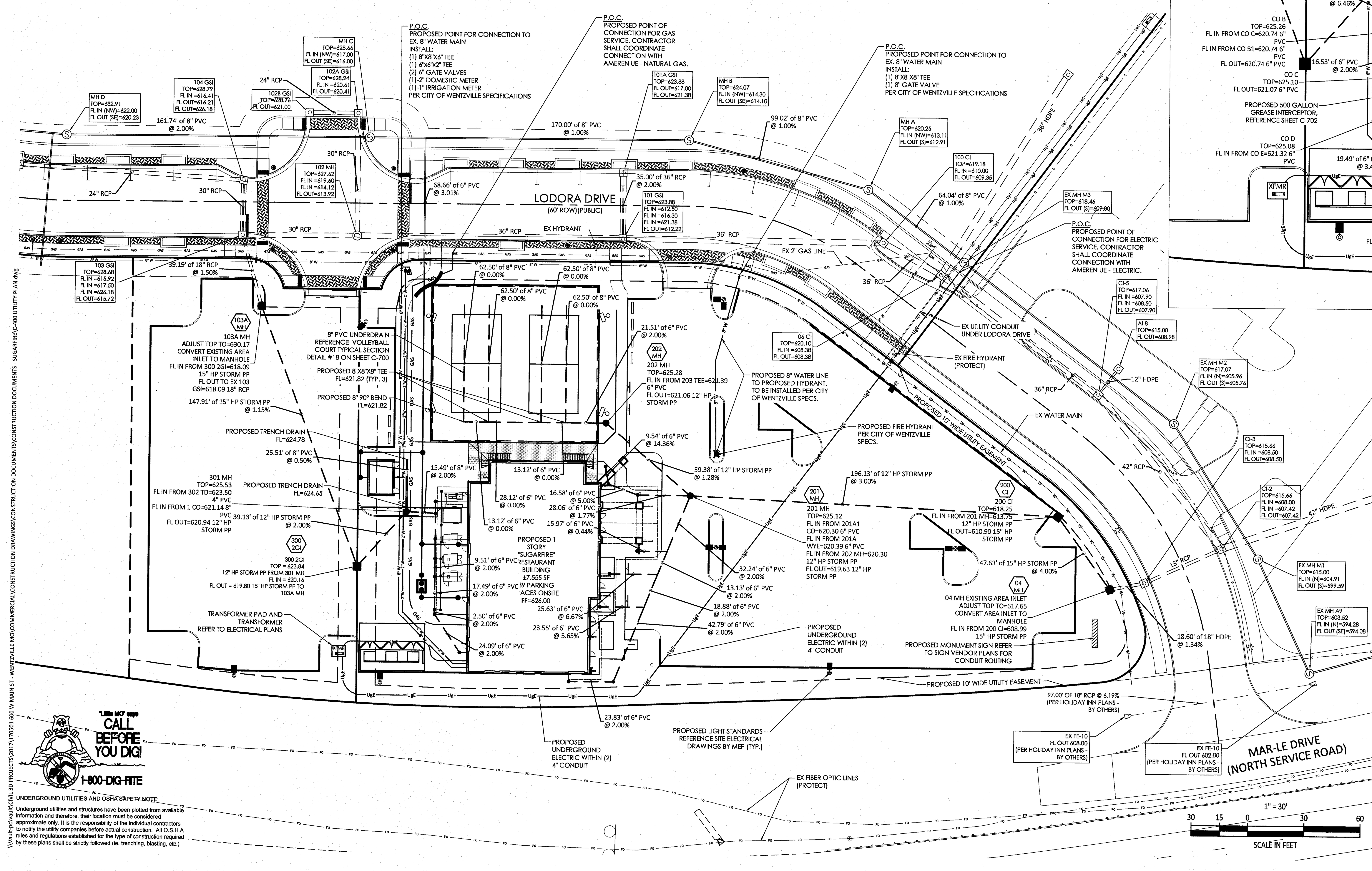
Sheet Number: C-300

Project No.	170501
Drawn By	J. DUBOIS
Checked By	M.FOGARTY

NOT RELEASED FOR CONSTRUCTION

UTILITY PLAN NOTES:

1. ALL FILL MATERIAL IS TO BE IN PLACE AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
2. CONTRACTOR SHALL NOTIFY THE UTILITY AUTHORITIES INSPECTORS 72 HOURS BEFORE CONNECTING TO ANY EXISTING LINE.
3. CONTRACTOR SHALL MAINTAIN A MINIMUM OF 3'-6' COVER ON ALL WATERLINES AND 3'-6' ON ALL SANITARY SEWER LINES.
4. CONTRACTOR SHALL COORDINATE WITH BUILDING ARCHITECT AND TELEPHONE COMPANY FOR EXACT LOCATIONS OF TELEPHONE ENTRY TO THE BUILDING. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CONDUITS, PULL-WIRES, TRENCHING, BACKFILL, ETC. REQUIRED BY TELEPHONE COMPANY.
5. CONNECTION FROM THE METER TO SITE UTILITY LINES SHALL BE MADE BY BUILDING CONTRACTOR.
6. EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW LINES.
7. REFER TO INTERIOR MECHANICAL, ELECTRIC AND PLUMBING DRAWINGS FOR TIE-IN OF ALL UTILITIES.
8. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
9. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICE.
10. CONTRACTOR SHALL COORDINATE WITH BUILDING ARCHITECT AND ELECTRIC COMPANY FOR EXACT LOCATION OF ELECTRIC ENTRY. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CONDUITS, TRENCHING, BACKFILLING, CABLES, ETC. REQUIRED BY ELECTRIC COMPANY.
11. ALL UTILITY SEWER TRENCH BACKFILL SHALL HAVE GRANULAR BACKFILL AND BE MECHANICALLY COMPACTED.
12. THE CONTRACTOR SHALL VERIFY THE LOCATION, CONDITION AND ELEVATION OF ALL PROPOSED SEWER CONNECTION POINTS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES THAT WOULD INTERFERE WITH THE PROPOSED SEWER DESIGN SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
13. ALL PERMIT FEES AND COSTS ASSOCIATED WITH BRINGING UTILITY, SEWER AND WATER SERVICES TO THE BUILDING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL FEES AND COSTS SHALL BE INCLUDED IN THE CONTRACTORS BID.
14. G.C. IS TO PROVIDE TRENCH, WIRE, AND CONDUIT FOR TELEPHONE AND ELECTRICAL SERVICES, BACKFILL AND GRADE SMOOTH FOR A COMPLETE TELEPHONE AND ELECTRIC INSTALLATION.
15. G.C. TO PROVIDE OPENING FOR CITY OF WENTZVILLE WATER DEPARTMENT TO MAKE TAP. G.C. IS ALSO TO PROVIDE TRENCH, BACKFILL AND GRADE SMOOTH FOR A COMPLETE WATER LINE INSTALLATION.
16. ALL LANDSCAPE ISLANDS AND GREEN SPACE IN THE RIGHT-OF-WAY SHALL BE IRRIGATED.
17. ANY DISTURBED SIDEWALK SHALL BE FULL SLAB REPLACEMENT.
18. EXISTING SANITARY SEWER SERVICE SHALL NOT BE INTERRUPTED.
19. IRRIGATION PLAN WILL BE BY OTHERS. ALL REQUIRED CONDUIT UNDERNEATH THE PAVEMENT SHALL BE COORDINATED BY THE GENERAL CONTRACTOR AND INSTALLED PRIOR TO CURB AND PAVEMENT INSTALLATION.
20. THE CONTRACTOR SHALL INCLUDE THE COST ESTIMATE PROVIDED BY CITY OF WENTZVILLE AND/OR AMEREN UE IN HIS/HER BID FOR THE RELOCATION/REMOVAL OF ANY OVERHEAD ELECTRIC OR GUY WIRES.
21. THE CONTRACTOR SHALL INCLUDE FOR TELEPHONE INSTALLATION COSTS BY THE LOCAL PHONE COMPANY IN HIS/HER BID.
22. THE REMOVAL AND REPLACEMENT, OR REHABILITATION OF THE EXISTING STRUCTURE(S) WILL BE DETERMINED BY THE CITY OF WENTZVILLE FIELD INSPECTOR. IF THE STRUCTURE IS DETERMINED TO REMAIN IN PLACE, THEN THE TOP SHALL BE ADJUSTED TO GRADE, IF NEEDED.
23. ALL SANITARY LATERAL PIPING SHALL BE A MINIMUM OF SCHEDULE 40 PVC PER CITY OF WENTZVILLE SPECIFICATIONS. SDR 35 PIPE WILL NOT BE ALLOWED.
24. SEE MEP PLANS FOR GAS SERVICE SIZING.



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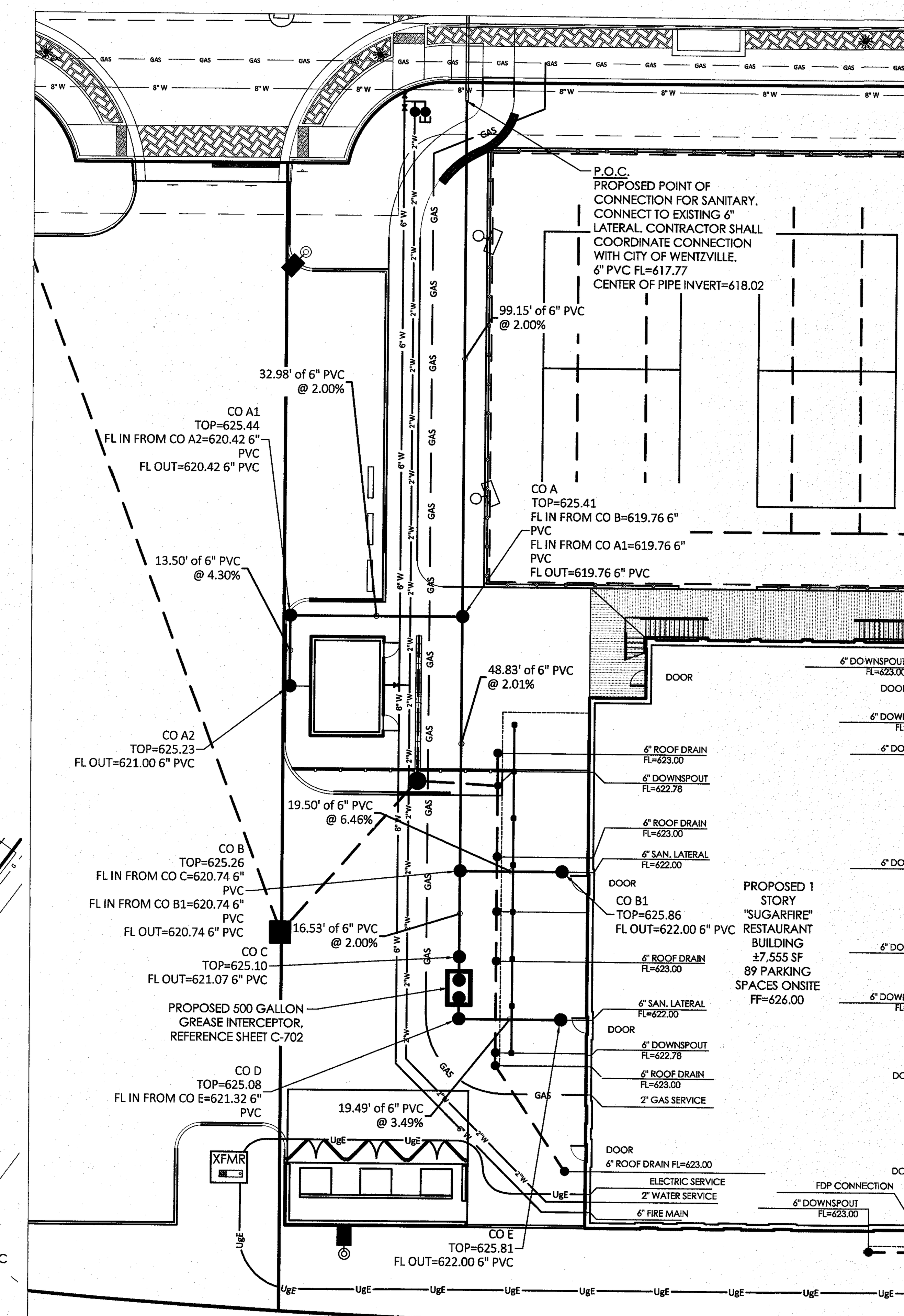

BUILDING UTILITY CONNECTION INSET PLAN
1"=20'

PREMIER
ENGINEERING ARCHITECTURE SURVEYING
308 TCW COURT, LAKE SAINT LOUIS, MO 63367

STATE OF MISSOURI STEVE MARION NUMBER PE2006007195 PROFESSIONAL ENGINEER

ENGINEERS AUTHENTICATION
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STEVEN D. MARION P.E.
PROFESSIONAL ENGINEER
PE2006007195

ELECTRIC, TELEPHONE AND CATV NOTES:

1. COORDINATION WITH THE ELECTRIC, TELEPHONE AND CATV COMPANIES SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR AND SHALL BE CONDUCTED IN A MANNER THAT RESULTS IN A EFFICIENT AND TIMELY RELOCATION AND REMOVAL OF THE EXISTING FACILITIES.
2. GROUND ELEVATIONS SHALL BE WITHIN 6" OF THE FINAL PROPOSED ELEVATIONS PRIOR THE START OF ELECTRIC, TELEPHONE AND CATV RELOCATIONS OR INSTALLATIONS OF NEW SERVICE.
3. SEE MEP FOR CONDUIT ROUTING.

THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTAL OF HIS/HER BIDS TO CONFIRM THAT THE SITE CONDITIONS ARE AS SHOWN ON THESE PLANS. ANY CONDITION THAT IS DIFFERENT THAN WHAT IS SHOWN ON THESE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO SUBMITTAL OF BIDS.

NORTH

WENTZVILLE PROJECT NUMBER ENG-2018-XXXX

Project: MARCO PROPERTY, LLC
SUGARFIRE
1101 LODORA DRIVE
WENTZVILLE, MO 63385
JIM COOK
910 PERUQUE VIEW DRIVE
O'FALLON, MO 63366

Date: 07-10-18

#	Revision Date	Description of Changes

Sheet Title: UTILITY PLAN

Sheet Number: C-400

Project No.	170501
Drawn By	J. DUBOIS
Checked By	M.FOGARTY

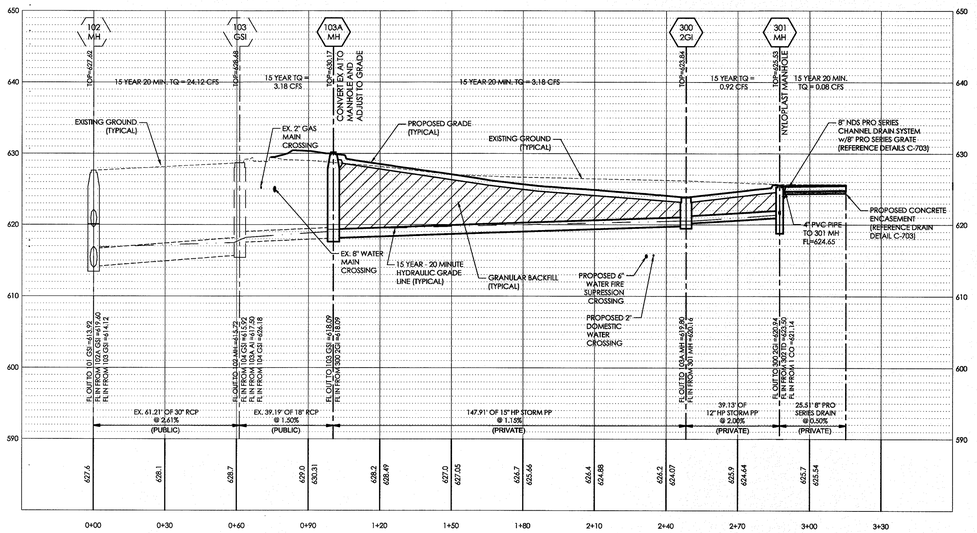
NOT RELEASED FOR CONSTRUCTION

STORM SEWER PROFILE NOTES

1. AI..... DENOTES AREA INLET (OPEN 4 SIDES UNLESS NOTED OTHERWISE)
   MH..... DENOTES MANHOLE
   GSI..... DENOTES 2 GRATE INLET WITH SIDE INTAKE. (ELEVATION OF INLET TOP IS TO THE TOP OF GRATE, ADD 0.50' FOR TOP OF SIDE INTAKE.)
   CI ..... DENOTES CURB INLET
   2GI ..... DENOTES GRATE INLET
   EP..... DENOTES END OF PIPE
   FE..... DENOTES FLARED END SECTION
   TD..... DENOTES TRENCH DRAIN
   A1G..... ADJUST TO GRADE
   *..... DENOTES HYDRAULIC GRADE JUMP

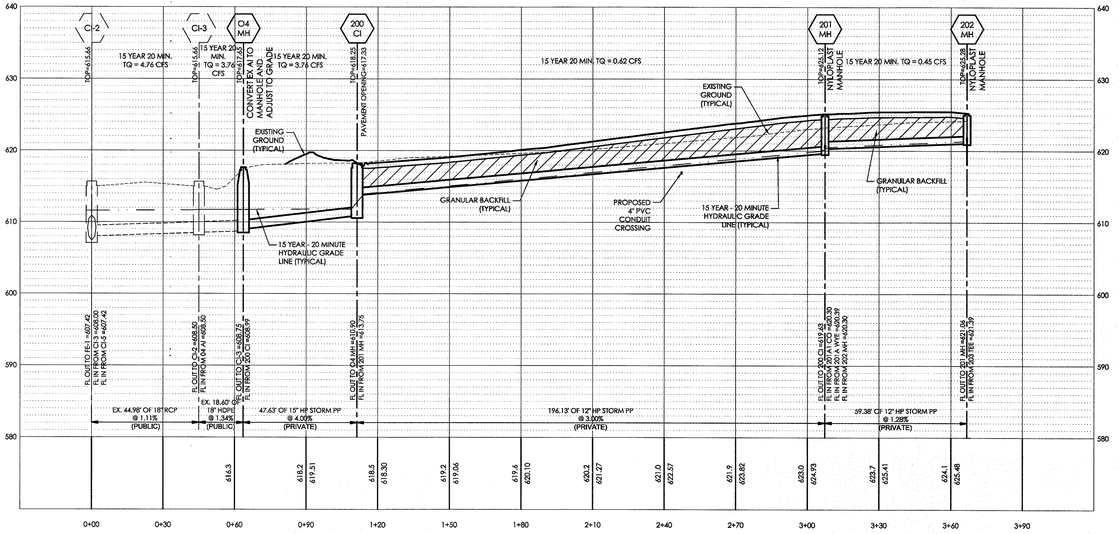
2. ALL DIMENSIONS ARE TO THE CENTERLINE OF STRUCTURE EXCEPT FOR END OF PIPES OR FLARED ENDS. FLARED END DIMENSIONS VARY. CONTRACTOR SHALL VERIFY LENGTHS FOR FLARED END SECTIONS PER PROPOSED TYPE OF FLARED END SUBMITTED.

3. PLUMBING CONTRACTOR AND SURVEYOR SHALL CONFIRM STRUCTURES PROPOSED ON THESE PLANS MATCH THE PROPOSED STRUCTURES THAT ARE ONSITE. DUE TO CHANGE OF ELEVATIONS, AND LOCATIONS DEPENDING ON THE STRUCTURE AND TYPE, THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ISSUES FOR PROPOSING A DIFFERENT TYPE OF STRUCTURE OR PIPE THAN WHAT IS ON THESE PLANS. GENERAL CONTRACTOR SHALL REIMBURSE CIVIL ENGINEER FOR ANY TIME AND MATERIALS TO ADDRESS CHANGES TO STRUCTURES TO REDUCE OVERALL CONSTRUCTION COSTS.



STORM SEWER PROFILE

1"=30' HORIZONTAL
1"=10' VERTICAL



STORM SEWER PROFILE

1"=30' HORIZONTAL
1"=10' VERTICAL

15 YEAR 20 MINUTE STORM																															
LineNo.	LineID	InletID	LineLength	LineSize	InvertUp	InvertDn	LineSlope	Grnd/RimElev Up	Grnd/RimElev Dn	DepthUp	HGLUp	HGLDn	Rim-Hw	Defl.Angle	VelDn	VelHd Dn	J-LossCoeff	EnergyLoss	MinorLoss	CrossSlope, Sx	CapacityFull	DrainageArea	KnownQ	FlowRate	BypassLine No.	InletEff	QCaptured	QBypass	QCarryover	BypassDepth	BypassSpread	n-valuePipe	n-valueGutter
			(ft)	(in)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(Deg)	(ft/s)	(ft)		(ft)	(ft)	(ft/ft)	(cfs)	(ac)	(cfs)	(cfs)		(%)	(cfs)	(cfs)	(cfs)	(ft)	(ft)		
1	103 GSI-102 MH	103 GSI	61.21	30	615.72	614.12	2.61	628.68	627.62	2.5	619.52	619.34	8.61	0	4.91	0.38	1.46	0.18	0.55	0.02	71.83	0	20.94	24.12	Offsite	31	6.41	14.53	0	0.33	16.47	0.012	0.013
2	103A-103	103A MH	39.19	18	618.09	617.5	1.51	630.17	628.68	1.5	620.1	620.07	10.06	-74.58	1.8	0.05	0.15	0.031	0.01	....	13.96	0	0	3.18	1	....	....	....	....	....	....	0.012	....
3	300-103A	300 GI	147.91	15	619.8	618.09	1.16	623.84	630.17	0.72**	620.52 j	620.11	3.32	4.99	2.59	0.1	1.50 z	0.541	n/a	0.02	7.52	0	2.26	3.18	2	100	2.26	0	0	n/a	n/a	0.012	....
4	301-300	301 MH	39.13	12	620.94	620.16	1.99	625.53	623.84	0.40**	621.34	620.52	4.19	-117.8	3.65	0.15	1.00 z	0	n/a	....	5.45	0	0.92	0.92	n/a	....	....	....	....	....	....	0.012	....
5	CI 3-CI 2	CI 3	44.98	18	608.5	608	1.11	615.66	615.66	1.5	620.6	620.52	-5	0	2.69	0.11	0.5	0.079	0.06	0.02	11.99	0	1	4.76	Sag	100	1	0	0	n/a	n/a	0.012	....
6	04 MH-CI 3	04 MH	18.6	18	608.75	608.5	1.34	617.65	615.66	1.5	620.68	620.66	-3.09	13.42	2.13	0.07	0.92	0.02	0.06	....	13.19	0	0	3.76	n/a	....	....	....	....	....	....	0.012	....
7	200-04 MH	200 CI	47.63	15	610.9	608.99	4.01	618.25	617.65	1.25	620.88	620.74	-2.81	64.98	3.06	0.15	1.22	0.138	0.18	0.02	14.01	0	3.14	3.76	6	100	3.14	0	0	n/a	n/a	0.012	....
8	201-200	201 MH	196.13	12	619.63	613.75	3	625.12	618.25	1	621.11	621.06	4.01	-51.26	0.79	0.01	0.66	0.051	0.01	....	6.68	0	0.17	0.62	n/a	....	....	....	....	....	....	0.012	....
9	202-201	202 MH	59.38	12	621.06	620.3	1.28	625.28	625.12	0.28**	621.34 j	621.11	3.94	37.6	0.66	0.1	1.00 z	0	n/a	....	4.36	0	0.45	0.45	n/a	....	....	....	....	....	....	0.012	....
Notes: j-Line contains hyd. jump; z-Zero Junction Loss																																	

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1101 LODORA DRIVE
WENTZVILLE, MO 63385
JIM COOK
910 PERUQUE VIEW DRIVE
WENTZVILLE, MO 63385

Date: 07-10-18

#	Revision Date	Description of Changes

Sheet Title: STORM SEWER PROFILES

Sheet Number: C-500

Project No.	170501
Drawn By	J. DUBOIS
Checked By	M.FOGARTY

NOT RELEASED FOR CONSTRUCTION

\\Vault-pc\vault\CIVIL 3D PROJECTS\2017\170501 600 W MAIN ST - WENTZVILLE MO\COMMERCIAL\CONSTRUCTION DRAWINGS\CONSTRUCTION DOCUMENTS\CONSTRUCTION DOCUMENTS - SUGARFIRE\C-500 SEWER PROFILES.dwg

105 GSI
TOP=631.85
FL IN =617.61
FL IN =624.97
FL OUT=617.61
FL OUT=629.44

102B GSI
TOP=628.76
FL OUT=621.00

102A GSI
TOP=628.24
FL IN =620.61
FL OUT=620.41

104 GSI
TOP=626.79
FL IN =616.41
FL OUT=616.21
FL OUT=626.16

101A GSI
TOP=623.88
FL OUT=617.00
FL OUT=617.38

200 AI
TOP=614.92
FL OUT=606.99

100 CI
TOP=619.18
FL IN =610.00
FL OUT=609.35

CI6
TOP=618.77
FL IN =609.09

AREA B
TO 103 GSI
0.03 AC @ 1.70
15 YR. 20 MIN. Q = 0.05 CFS
100 YR. 20 MIN. Q = 0.07 CFS

TQ = 20.57 CFS

103 GSI
TOP=628.68
FL IN =615.92
FL IN =617.50
FL IN =626.18
FL OUT=615.72

AREA D
TO 101 GSI
0.03 AC @ 1.70
15 YR. 20 MIN. Q = 0.05 CFS
100 YR. 20 MIN. Q = 0.07 CFS

TQ = 24.12 CFS

102 MH
TOP=627.6
FL IN =619.90
FL IN =614.12
FL OUT=613.92

LODORA DRIVE
(60' ROW) (PUBLIC)

101 GSI
TOP=623.88
FL IN =612.50
FL IN =616.30
FL IN =621.38
FL OUT=612.22

TQ = 3.18 CFS

105A GSI
TOP=631.94
FL IN =625.70
FL IN =629.44
FL OUT=625.50

105B AI
TOP=634.19
FL OUT=626.37

LIMITS OF
DISTURBANCE
(TYPICAL)

103A
MH

PROPOSED HOTEL
(UNDER CONSTRUCTION
BY OTHERS)

AI-8
TOP=615.00
FL OUT=608.98

AREA I
TO CI-3
0.09 AC @ 1.70
15 YR. 20 MIN. Q = 0.15 CFS
100 YR. 20 MIN. Q = 0.21CFS

CI-5
TOP=617.06
FL IN =607.90
FL IN =608.50
FL OUT=607.90

CI-3
TOP=615.66
FL IN =608.50
FL OUT=608.50

200
CI

CI-2
TOP=615.66
FL IN =608.00
FL IN =607.42
FL OUT=607.42

AREA F
TO 202 MH
0.22 AC @ 1.70
0.02 AC @ 3.54
15 YR. 20 MIN. Q = 0.45 CFS
100 YR. 20 MIN. Q = 0.62 CFS

202
MH

TQ = 0.45 CFS

TQ = 0.62 CFS

AREA A
ONSITE TO OFFSITE
0.56 AC @ 1.70
15 YR. 20 MIN. Q = 0.95 CFS
100 YR. 20 MIN. Q = 1.31 CFS

AREA C
TO 300 GI
0.01 AC @ 1.70
0.63 AC @ 3.54
0.003 AC @ 4.20
15 YR. 20 MIN. Q = 2.26 CFS
100 YR. 20 MIN. Q = 3.04 CFS

TQ = 0.08 CFS

AREA G
TO 201 MH
0.04 AC @ 4.20
15 YR. 20 MIN. Q = 0.17 CFS
100 YR. 20 MIN. Q = 0.23 CFS

201
MH

TQ = 0.84 CFS

PROPOSED 1
STORY
"SUGARFIRE"
RESTAURANT
BUILDING
±7,555 SF
89 PARKING
SPACES ONSITE
FF=626.00

AREA H
TO 200 CI
0.06 AC @ 1.70
0.86 AC @ 3.54
15 YR. 20 MIN. Q = 3.14 CFS
100 YR. 20 MIN. Q = 4.22 CFS

04
MH

TQ = 3.76 CFS

TQ = 4.76 CFS

TQ = 3.76 CFS

TQ = 0.92 CFS

300
2GI

AREA E
TO 301 MH
0.02 AC @ 3.54
0.21 AC @ 4.20
15 YR. 20 MIN. Q =
0.92 CFS
100 YR. 20 MIN.Q =
1.24 CFS

301
MH

LIMITS OF
DISTURBANCE
(TYPICAL)

MAR-LE DI
(NORTH SERVI

INTERSTATE HWY. 70
(VARIABLE WIDTH)
(MODOT RIGHT-OF-WAY)

"Little MO" says
CALL
BEFORE
YOU DIG!
1-800-DIG-RITE

UNDERGROUND UTILITIES AND OSHA SAFETY NOTE:

Underground utilities and structures have been plotted from available information and therefore, their location must be considered approximate only. It is the responsibility of the individual contractors to notify the utility companies before actual construction. All O.S.H.A. rules and regulations established for the type of construction required by these plans shall be strictly followed (ie. trenching, blasting, etc.)

THIS SHEET IS FOR DRAINAGE AREA PURPOSES ONLY.
DO NOT USE THIS PLAN FOR CONSTRUCTION.
CALCULATIONS SHOWN BASED ON
15 YEAR, 20 MINUTE STORM

1" = 30'

30 15 0 30 60

SCALE IN FEET

WENTZVILLE PROJECT NUMBER
ENG-2018-XXXX

PREMIER
ENGINEERING ARCHITECTURE SURVEYING
308 TCW COURT, LAKE SAINT LOUIS, MO 63367

STATE OF MISSOURI
STEVEN C. MARION
NUMBER
PE2006007195
PROFESSIONAL ENGINEER

ENGINEERS AUTHENTICATION

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

STEVEN C. MARION P.E.
PROFESSIONAL ENGINEER
PE2006007195

Project
MARCO PROPERTY, LLC
SUGARFIRE
1101 LODORA DRIVE
WENTZVILLE, MO 63385
JIM COOK
910 PERIGUE VIEW DRIVE
WENTZVILLE, MO 63385

Date 07-10-18

#	Revision Date	Description of Changes

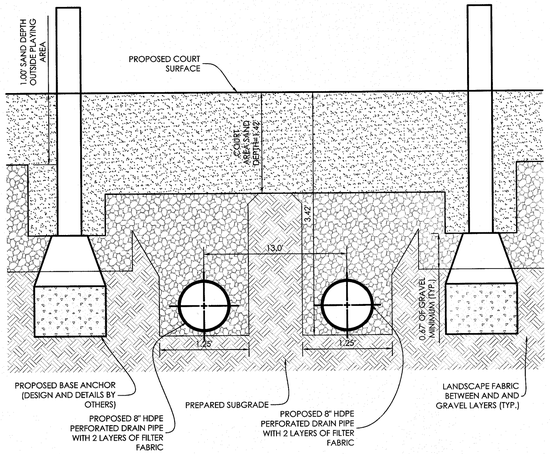
Sheet Title
POST-DEVELOPED DRAINAGE AREA MAP

Sheet Number
C-600

Project No.	170501
Drawn By	J. DUBOIS
Checked By	M.FOGARTY

NOT RELEASED FOR CONSTRUCTION

\\Vault-pc\Vault\CIVIL 3D PROJECTS\170501 600 W MAIN ST - WENTZVILLE MO\COMMERCIAL\CONSTRUCTION DRAWINGS\CONSTRUCTION DOCUMENTS\CONSTRUCTION DOCUMENTS - SUGARFIRE\C-600 POST-DAM.dwg



18 VOLLEYBALL COURT TYPICAL SECTION

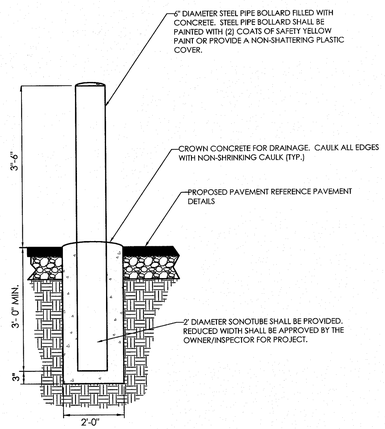
NOT TO SCALE

USAV RECOMMENDATIONS FOR SAND VOLLEYBALL COURT SPECIFICATIONS

MATERIAL SIZES (PERCENT RETAINED)	GRADE	GRAVEL	VERY COURSE	COURSE	MEDIUM	FINE	VERY FINE	PAN (CLAY+SILT) = LESS THAN 0.05
	MILLIMETER	2.00	1.00	0.50	0.25	0.15	0.05	
	SCREEN	#10	#18	#35	#60	#100	#270	
USAV STANDARDS	BENCHMARK	0	5	46	41.80	3.90	2.40	0.70
	USAV CONFIDENCE INTERVAL	50%	50%	10%	10%	10%	30	25
	ACCEPTABLE VARIANCE	0	2.6-7.7	41.4-50.6	37.6-45.9	3.3-4.5	1.7-3.1	0.5-0.9
% RECOMMENDED		LESS THAN 2 PERCENT	LESS THAN 15 PERCENT	COMBINED 78% TO 100%			LESS THAN 5 PERCENT	LESS THAN 3 PERCENT
PENETROMETER VALUE (KG/CM^2)		CRUSTING	CRUSTING	COLOR (DRY)		INFILTRATION RATE (IN/HR)		SPHERICITY/ANGULARITY
ACCEPTABLE: 1.8 TO 2.4; SUPERIOR EQUALS GREATER THAN 24		LIGHT TO NONE		PERSONAL PREFERNCE		LESS THAN 20 INCHES PER HOUR		ANGULAR TO SUBANGULAR

17 VOLLEYBALL COURT SAND SPECIFICATIONS

NOT TO SCALE



16 BOLLARD DETAIL

NOT TO SCALE

"Little MO" says
CALL BEFORE YOU DIG!
1-800-DIG-RITE

UNDERGROUND UTILITIES AND OSHA SAFETY NOTE:

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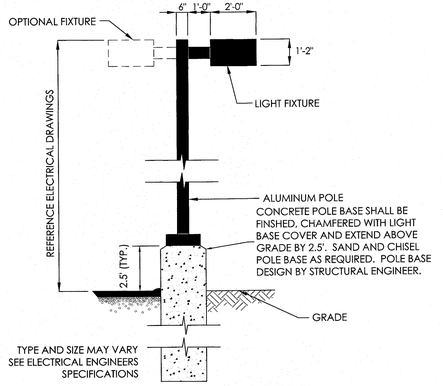
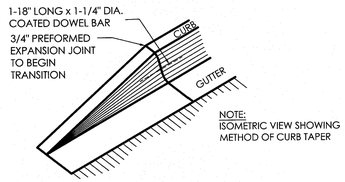


COORDINATE EXACT POLE BASE REQUIREMENTS WITH LIGHTING MANUFACTURER'S REPRESENTATIVE AND VERIFY DIAMETER OF POLE BASE WITH STRUCTURAL ENGINEER PRIOR TO INSTALLATION.

15 LIGHT STANDARD DETAIL

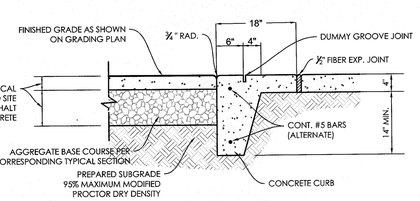
NOT TO SCALE



NOTE:
ISOMETRIC VIEW SHOWING METHOD OF CURB TAPER

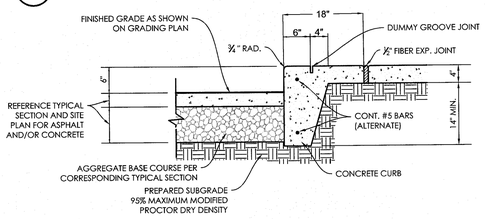
14 CURB TERMINATION DETAIL

NOT TO SCALE



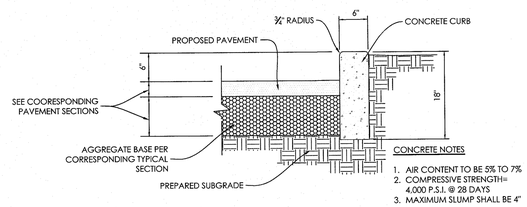
13 FLUSH PAVEMENT AT SIDEWALK DETAIL

NOT TO SCALE



12 6 IN. VERTICAL CONCRETE CURB WITH SIDEWALK DETAIL

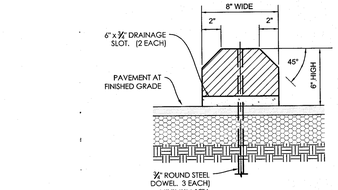
NOT TO SCALE



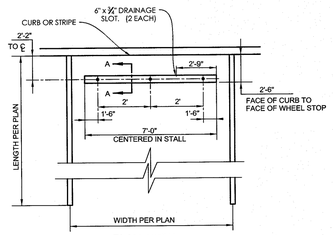
CONCRETE NOTES
1. AIR CONTENT TO BE 5% TO 7%
2. COMPRESSIVE STRENGTH= 4,000 P.S.I. @ 28 DAYS
3. MAXIMUM SLUMP SHALL BE 4"

11 6 IN. VERTICAL CURB DETAIL

NOT TO SCALE



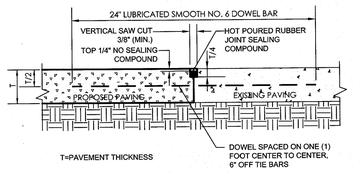
SECTION AA



PLAN VIEW

10 PRECAST CONCRETE PARKING BLOCK DETAIL

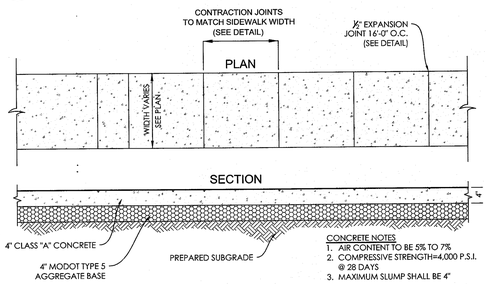
NOT TO SCALE



NOTES:
1. GENERAL CONTRACTOR SHALL REFERENCE GEOTECHNICAL REPORT FOR PAVEMENT SECTION REQUIREMENTS.
2. NO. 5 SMOOTH DOWEL BAR MAY BE USED IN 5 INCH AND 6 INCH PAVEMENT THICKNESS.
3. LONGITUDINAL BUTT CONSTRUCTION MAY BE UTILIZED IN PLACE OF LONGITUDINAL HINGED (KEYWAY) JOINT AT CONTRACTORS OPTION.
4. DOWEL BARS SHALL BE DRILLED INTO PAVEMENT HORIZONTALLY BY USE OF MECHANICAL RIG.
5. DRILLING BY HAND IS NOT ACCEPTABLE. PUSHING DOWEL BARS INTO GREEN CONCRETE NOT ACCEPTABLE.

09 LONGITUDINAL BUTT JOINT DETAIL

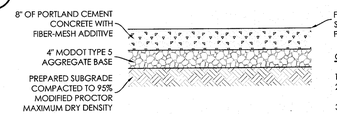
NOT TO SCALE



CONCRETE NOTES
1. AIR CONTENT TO BE 5% TO 7%
2. COMPRESSIVE STRENGTH=4,000 P.S.I. @ 28 DAYS
3. MAXIMUM SLUMP SHALL BE 4"

08 CONCRETE SIDEWALK DETAIL

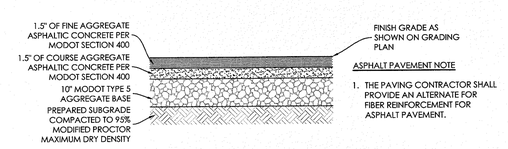
NOT TO SCALE



CONCRETE NOTES
1. AIR CONTENT TO BE 5% TO 7%
2. COMPRESSIVE STRENGTH= 4,000 P.S.I. @ 28 DAYS
3. MAXIMUM SLUMP SHALL BE 4"
4. MAX JOINT SPACING = 15 FEET

07 CONCRETE PAVEMENT DETAIL (HEAVY DUTY)

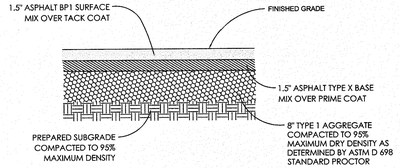
NOT TO SCALE



ASPHALT PAVEMENT NOTE
1. THE PAVING CONTRACTOR SHALL PROVIDE AN ALTERNATE FOR FIBER REINFORCEMENT FOR ASPHALT PAVEMENT.

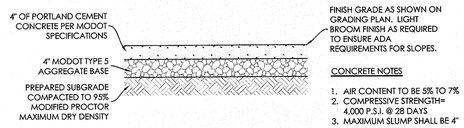
06 ASPHALT PAVEMENT DETAIL (HEAVY DUTY)

NOT TO SCALE



05 ASPHALT PAVEMENT DETAIL (MEDIUM DUTY)

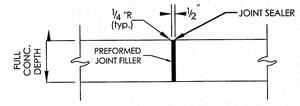
NOT TO SCALE



CONCRETE NOTES
1. AIR CONTENT TO BE 5% TO 7%
2. COMPRESSIVE STRENGTH= 4,000 P.S.I. @ 28 DAYS
3. MAXIMUM SLUMP SHALL BE 4"

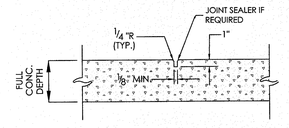
04 CONCRETE PAVEMENT DETAIL (LIGHT DUTY)

NOT TO SCALE



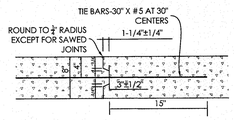
03 EXPANSION JOINT FOR SIDEWALK DETAIL

NOT TO SCALE



02 CONCRETE PAVEMENT CONSTRUCTION JOINT DETAIL

NOT TO SCALE



01 CONSTRUCTION JOINT FOR ACCESSIBLE PARKING AREAS DETAIL

NOT TO SCALE

PREMIER
ENGINEERING ARCHITECTURE SURVEYING
308 TCW COURT, LAKE SAINT LOUIS, MO 63367

STATE OF MISSOURI
STEVEN D. MARRON
NUMBER PE2006007195
PROFESSIONAL ENGINEER

ENGINEERS AUTHENTICATION
The responsibility for professional engineering liability on this project is hereby limited to the set of plans authenticated by the seal, signature, and date hereunder attached. Responsibility is disclaimed for all other engineering plans involved in this project and specifically excludes revisions after this date unless reauthenticated.
STEVEN D. MARRON P.E.
PROFESSIONAL ENGINEER
PE2006007195

Project
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SUGARFIRE
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910 PERUGUE VIEW DRIVE
WENTZVILLE, MO 63385

Date 07-10-18

Revision Date — Description of Changes

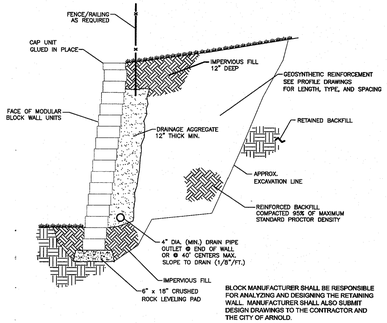
Sheet Title: CONSTRUCTION DETAILS

Sheet Number: C-700

Project No.	170501
Drawn By	J. DUBOIS
Checked By	M.FOGARTY

NOT RELEASED FOR CONSTRUCTION

\\Vault-sp\Vault\Civil_3D PROJECTS\2017\170501 600 W MAIN ST - WENTZVILLE MO\COMMERCIAL\CONSTRUCTION DRAWINGS\CONSTRUCTION DOCUMENTS\CONSTRUCTION DOCUMENTS - SUGARFIRE\C-700 CONSTRUCTION DETAILS.dwg

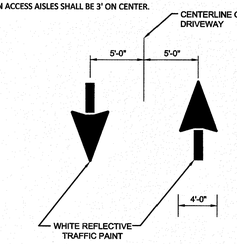


06 TYPICAL SECTION - REINFORCED RETAINING WALL

NOT TO SCALE

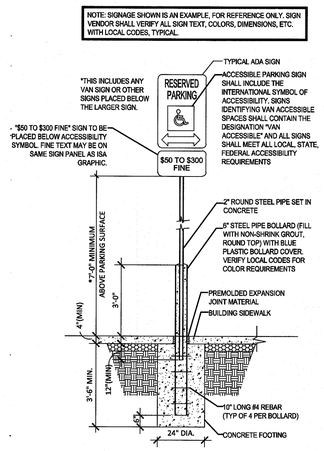
GENERAL NOTES

1. PAVEMENT-MARKING PAINT: ALKYD-RESIN TYPE, LEAD AND CHROMATE FREE, READY MIXED, COMPLYING WITH FS TT-P-115, TYPE I OR AASHTO M 248, TYPE N.
2. NEW ACCESSIBLE STRIPING FOR STALLS AND ACCESS AISLES SHALL BE OUTLINED IN BLUE PER LOCAL REQUIREMENTS. STRIPING VENDOR SHALL VERIFY LOCAL CODE. ALL OTHER NEW STRIPING SHOULD MATCH EXISTING SCHEME.
3. DO NOT APPLY PAVEMENT-MARKING PAINT UNTIL LAYOUT, COLORS, AND PLACEMENT HAVE BEEN VERIFIED WITH REGISTERED DESIGN PROFESSIONAL. A COLOR SAMPLE AND SKETCH IS TO BE PROVIDED TO DESIGN PROFESSIONAL.
4. SWEEP AND CLEAN SURFACE TO ELIMINATE LOOSE MATERIAL AND DUST DAILY.
5. APPLY PAINT WITH MECHANICAL EQUIPMENT TO PRODUCE PAVEMENT MARKINGS WITH UNIFORM STRAIGHT EDGES. APPLY AT MANUFACTURER'S RECOMMENDED RATES TO PROVIDE MINIMUM WET FILM THICKNESS OF 15 MILS (0.4 MM)
6. 4" WIDE STRIPES IN ACCESS AISLES SHALL BE 3' ON CENTER.



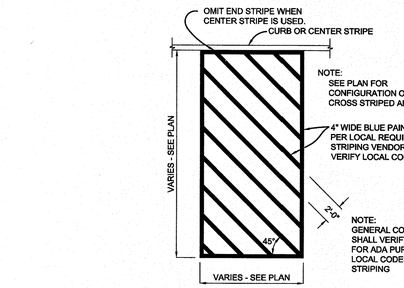
03 DIRECTIONAL ARROW DETAIL

NOT TO SCALE



05 ACCESSIBLE PARKING SIGN DETAIL

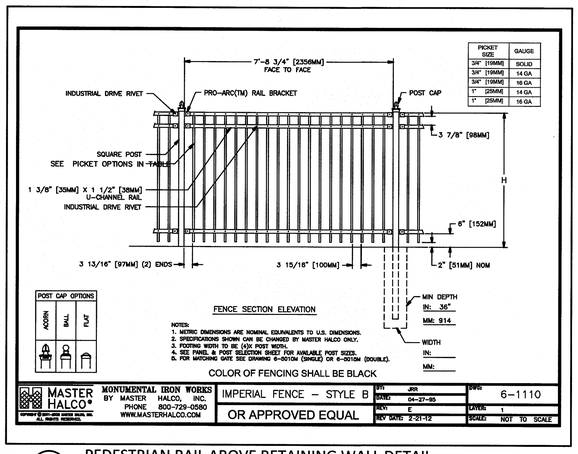
NOT TO SCALE



NOTE:
PAVEMENT-MARKING PAINT: ALKYD-RESIN TYPE, LEAD AND CHROMATE FREE, READY MIXED, COMPLYING WITH AASHTO M 248; COLORS COMPLYING WITH FS TT-P-1952.
COLOR: AS INDICATED.

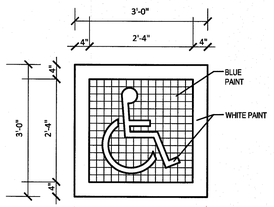
02 CROSS STRIPING DETAIL

NOT TO SCALE



07 PEDESTRIAN RAIL ABOVE RETAINING WALL DETAIL

NOT TO SCALE

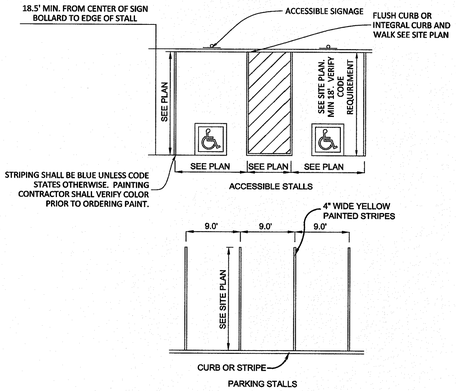


DETAIL NOTE:
GRID SQUARES ARE 2" RE: ANSI A117.1, FIG. 703.6.3.1

NOTE:
PAVEMENT-MARKING PAINT: ALKYD-RESIN TYPE, LEAD AND CHROMATE FREE, READY MIXED, COMPLYING WITH AASHTO M 248; COLORS COMPLYING WITH FS TT-P-1952.
COLOR: AS INDICATED.

04 ACCESSIBLE PARKING SYMBOL DETAIL

NOT TO SCALE



NOTE:
PAVEMENT-MARKING PAINT: ALKYD-RESIN TYPE, LEAD AND CHROMATE FREE, READY MIXED, COMPLYING WITH AASHTO M 248; COLORS COMPLYING WITH FS TT-P-1952.
COLOR: AS INDICATED.

01 TYPICAL PARKING STALL DIMENSIONS

NOT TO SCALE

PREMIER
ENGINEERING ARCHITECTURE
SURVEYING
308 TCW COURT ~ LAKE SAINT LOUIS, MO 63367
MISSOURI CERTIFICATE OF AUTHORITY # E-2018000331
MISSOURI CERTIFICATE OF AUTHORITY # LS-2012007849

STATE OF MISSOURI
STEVE MARION
NUMBER
PE2006007195
PROFESSIONAL ENGINEER

ENGINEERS AUTHENTICATION
The responsibility for professional engineering liability on this project is hereby limited to the set of plans authenticated by the seal, signature, and date hereunder attached. Responsibility is disclaimed for all other engineering plans involved in this project and specifically excludes revisions after this date unless reauthenticated.
STEVEN D. MARION P.E.
PROFESSIONAL ENGINEER
PE2006007195

Project
MARCO PROPERTY, LLC
SUGARFIRE
1101 LODORA DRIVE
WENTZVILLE, MO 63385
JIM COOK
910 PERUQUE VIEW DRIVE
WENTZVILLE, MO 63385

Date 07-10-18

Description of Changes

Revision Date

Sheet Title
CONSTRUCTION DETAILS

Sheet Number
C-701

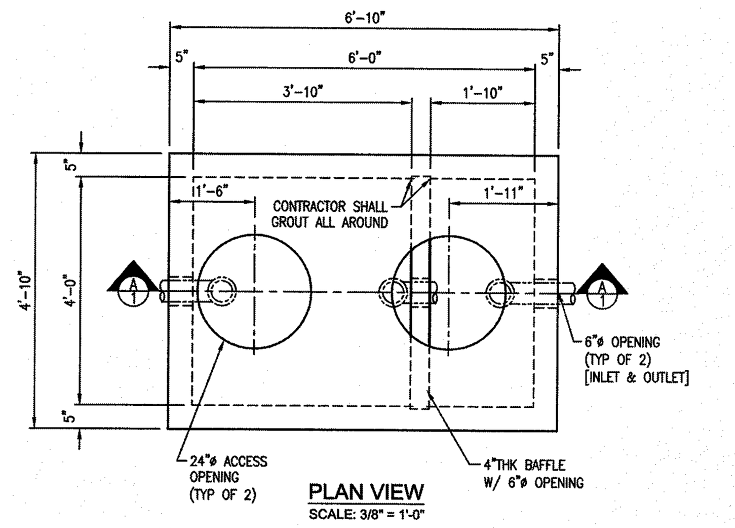
Project No.	170501
Drawn By	J. DUBOIS
Checked By	M.FOGARTY

NOT RELEASED FOR CONSTRUCTION

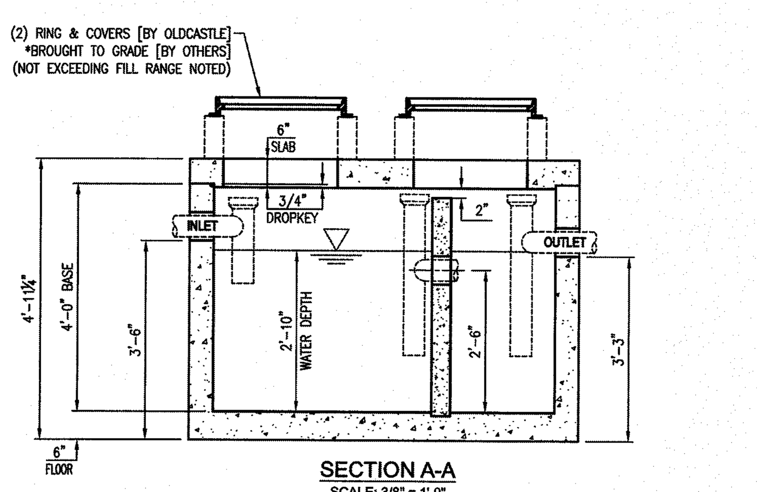
"Little MO" says
CALL BEFORE YOU DIG!
1-800-DIG-RITE

UNDERGROUND UTILITIES AND OSHA SAFETY NOTE:
Underground utilities and structures have been plotted from available information and therefore, their location must be considered approximate only. It is the responsibility of the individual contractors to notify the utility companies before actual construction. All O.S.H.A rules and regulations established for the type of construction required by these plans shall be strictly followed (ie, trenching, blasting, etc.)

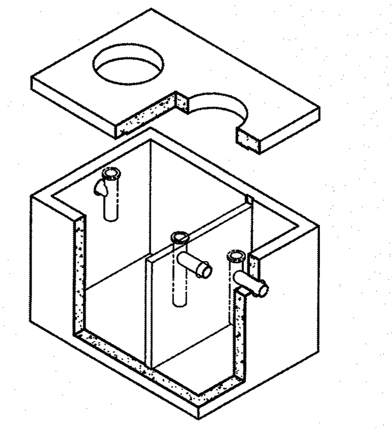
\\Swift-p2\vault\CIVIL 3D PROJECTS\2017\170501 600 W MAIN ST - WENTZVILLE MO\COMMERCIAL\CONSTRUCTION DRAWINGS\CONSTRUCTION DOCUMENTS\CONSTRUCTION DOCUMENTS - SUGARFIRE\C-701 CONSTRUCTION DETAILS.dwg



PLAN VIEW
SCALE: 3/8" = 1'-0"



SECTION A-A
SCALE: 3/8" = 1'-0"



GENERAL DESIGN NOTES:

1. STRENGTH DESIGN METHOD IN ACCORDANCE WITH (I.A.W.)ACI 318.
2. CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS = 5,000 PSI (MIN).
3. PRECAST RATED FOR HS20 LIVE LOAD W/ IMPACT I.A.W. AASHTO SPECIFICATION
4. DESIGN FILL RANGE = 0'(MIN) TO 2'(MAX)
5. GROUND WATER TABLE ASSUMED 5'-0" BELOW GRADE. IF DESIGN (OR ACTUAL) WATER TABLE IS LESS THAN ASSUMED, REVIEWING ENGINEER TO NOTIFY OLDCASTLE PRECAST UPON REVIEW OF THIS SUBMITTAL.
6. REINFORCEMENT:
   • CARBON-STEEL DEFORMED BARS: ASTM A615, fy = 60KSI (MIN).
7. JOINT SEALANT (AS DETAILED AND NOTED IN DRAWINGS HEREIN):
   • CS-102 CONSEAL BUTYL RUBBER SEALANT (OR EQUIV.) I.A.W. ASTM C990 FED. SPEC. SS-S-210.
8. PRECAST DESIGN DOES NOT INCLUDE ANY LATERAL OR SURCHARGE LOADS FROM OTHER BUILDINGS OR FOUNDATIONS ADJACENT TO THIS STRUCTURE. THIS STRUCTURE SHALL BE KEPT A MINIMUM OF 1:1 RATIO AWAY FROM OTHER FOOTINGS OR FOUNDATIONS.

NOTES TO CONTRACTOR:

1. PLEASE VERIFY ALL SIZES, LOCATIONS, AND ELEVATIONS OF OPENINGS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER COORDINATION TO ENSURE THAT AN ADEQUATE BEARING SURFACE IS PROVIDED (I.E. LEVEL AND COMPACTED) PER PROJECT SPECIFICATIONS AND DRAWINGS,.
3. AFTER PIPES ARE INSTALLED IN BLOCKOUTS, ALL ANNULAR SPACES SHALL BE FILLED WITH A MIN. OF 3,000 psi CONCRETE, TIGHT TO THE UNDERSIDE OF UPPER SECTION FOR FULL THICKNESS OF VAULT WALL.
4. CONTRACTOR TO RESPONSIBLE FOR THE FOLLOWING:
   • SUPPLY & INSTALL ALL PIPING & SAMPLING TEES, GROUT IN BAFFLE ON BOTH SIDES,
   • GRAY WATER ONLY, BLACK WATER SHALL BE CARRIED BY SEPARATE SIDE SEWER,
   • FILL WITH CLEAN WATER PRIOR TO "START-UP" OF SYSTEM.

APPROX. WEIGHTS

SECTION	WEIGHT (lbs)	Concrete(CY)
6" SLAB TOP	1,900	0.47
4' ID BASE	8,000	1.95
BAFFLE	800	0.19

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4905 STOUGH RD. CONCORD, NC
OFFICE 704-788-4050, FAX 704-788-4060

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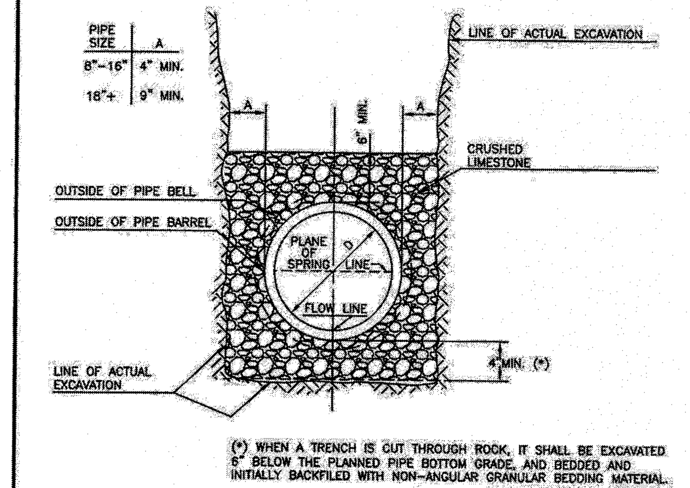
500 GALLON GREASE INTERCEPTOR
SUBMITTAL LAYOUT
4'X6'X4' ID VAULT

NPCA CERTIFIED PLANT

CUSTOMER					
DATE 10/31/17	SALES	DRAWN LD	ENGINEER	CHECKED	SALES ORDER
DRAWING NUMBER				REVISION / REV DATE	SHEET 1 OF 1

REVISIONS

REV	DATE	BY	SHEET	DESCRIPTION OF REVISION	REQUESTED BY
A					



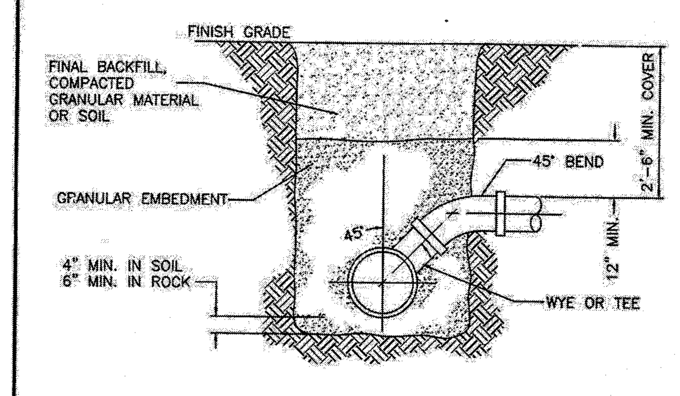
(*) WHEN A TRENCH IS CUT THROUGH ROCK, IT SHALL BE EXCAVATED 6" BELOW THE PLANNED PIPE BOTTOM GRADE, AND BEDDED AND INITIALLY BACKFILED WITH NON-ANGULAR GRANULAR BEDDING MATERIAL.

IN HIGHLY ORGANIC OR OPENLY FLOWING SOILS, THIS DEPTH SHALL BE INCREASED AS REQUIRED BY THE CITY.

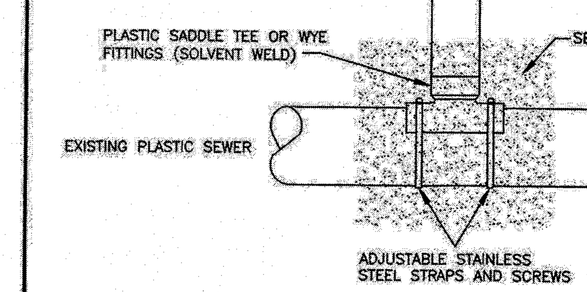
NOTES:

1. CHECK GRADE OF PIPE AFTER BACKFILL TO INSURE THE DESIRED FLOWLINE HAS NOT CHANGED
2. DURING JETTING PROCESS, NOZZLE SHALL NOT BE INSERTED CLOSER THAN TWO FEET FROM TOP OF PIPE.
3. ANY TRENCH BRACING USED BELOW THE TOP OF PIPE SHALL BE LEFT IN PLACE.
4. FOR INSTALLATIONS IN HIGHLY ORGANIC OR OPENLY FLOWING SOILS, THE ENTIRE PERIMETER OF THE PIPE BEDDING SHALL BE WRAPPED WITH AN APPROVED FILTER FABRIC OR THE "MINIMUM TRENCH WIDTH" SHALL BE EXPANDED BY INCREASING THE DISTANCE BETWEEN THE SIDE OF THE PIPE AND THE LINE OF ACTUAL EXCAVATION OR TRENCH BRACING TO A MINIMUM OF ONE PIPE DIAMETER.

City of Wentzville, Public Works Department, Engineering Division, 200 East Fourth Street, Wentzville, MO 63385 — STANDARD PIPE BEDDING FOR SANITARY SEWER — Approved: W.E.B. Date: June 10, 2009 — 300.01



City of Wentzville, Public Works Department, Engineering Division, 200 East Fourth Street, Wentzville, MO 63385 — STANDARD NEW SERVICE CONNECTION — Approved: W.E.B. Date: June 10, 2009 — 302.13a

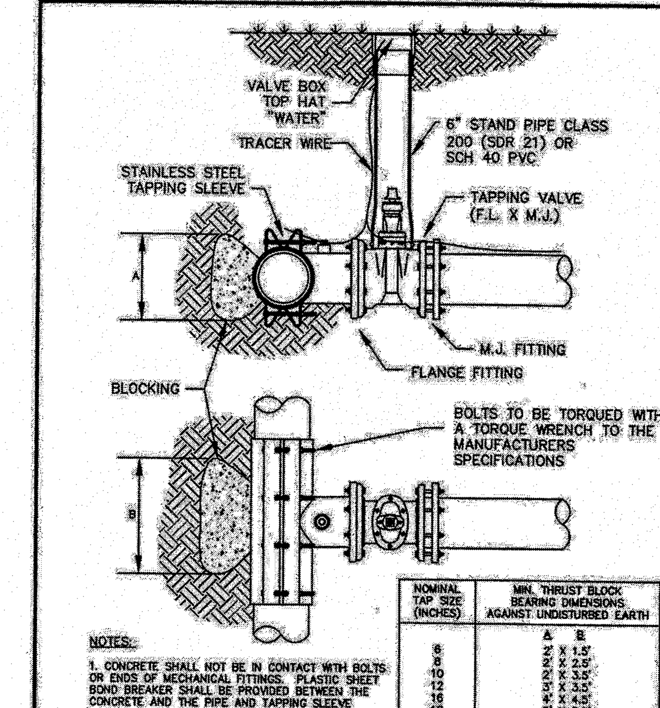


WHEN A CONNECTION TO AN EXISTING PLASTIC PIPE IS ALLOWED, A SOLVENT WELD SADDLE TEE OR WYE FITTING OF A SIMILAR MATERIAL MUST BE USED.

THIS IS ACCOMPLISHED BY CAREFULLY CUTTING A HOLE IN THE MAIN AT THE REQUIRED LOCATION. AFTER CUTTING AND SHAPING THE HOLE TO THE SIZE OF THE FITTING, THE FOLLOWING STEPS SHOULD BE TAKEN.

1. CLEAN AND DRY BOTH THE INSIDE SADDLE WYE AND PIPE SURFACE TO BE SOLVENT CEMENTED.
2. APPLY A LIBERAL COAT OF ONE-STEP SOLVENT CEMENT TO THE INSIDE SURFACE OF THE SADDLE WYE AND TO THE EXTERIOR SURFACE OF THE PIPE.
3. DO NOT USE OLD SOLVENT THAT HAS BECOME JELLED OR LUMPY.
3. WITHOUT DELAY, MATE THE SURFACES AND STRAP DOWN TIGHTLY. A BEAD OF SOLVENT SHOULD APPEAR AFTER THE SADDLE HAS BEEN STRAPPED DOWN TIGHTLY.
4. USING A RAG OR TOWEL, WIPE BEAD AND ANY EXCESS SOLVENT CEMENT OFF PIPE AND SADDLE.
5. ALLOW 30 – 60 MINUTES FOR SET-UP TIME BEFORE ENCASEMENT. CURE TIME DEPENDS ON SIZE AND FIT OF MATERIALS BEING INSTALLED AND WEATHER CONDITIONS.
6. THE COMPLETED CONNECTION SHALL BE COMPETELY ENCASED WITH 1 TO 3 CEMENT TO SAND MORTAR MIX OR "PRE-MIX" CONCRETE PRIOR TO BACKFILLING.
7. THE CEMENT SAND MORTAR MIX OR "PRE-MIX" CONCRETE SHALL BE ALLOWED SUFFICIENT TIME TO CURE BEFORE BACKFILLING.

City of Wentzville, Public Works Department, Engineering Division, 200 East Fourth Street, Wentzville, MO 63385 — SADDLE TEE CONNECTION TO EXISTING PLASTIC MAIN — Approved: W.E.B. Date: June 10, 2009 — 302.13b

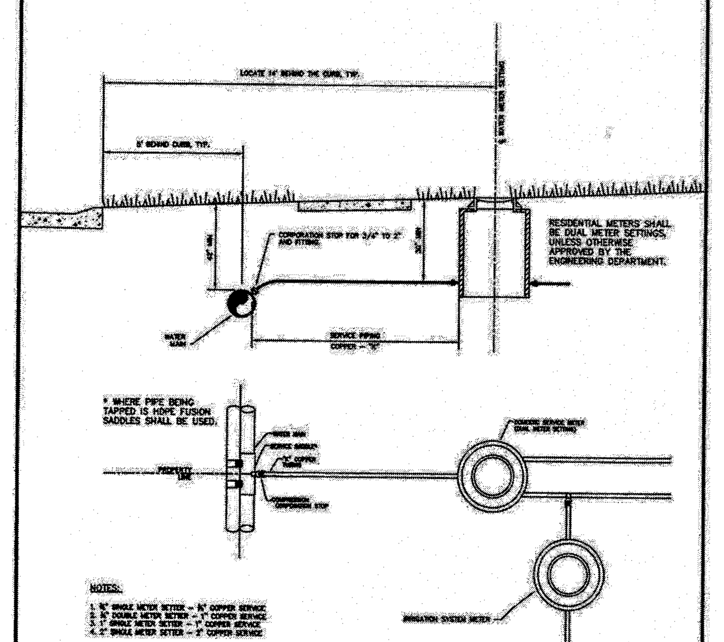


NOMINAL TAP SIZE (INCHES)	MIN. THRUST BLOCK BEARING DIMENSIONS AGAINST UNDISTURBED EARTH A X B
6	2' X 1.5'
8	2' X 2.5'
10	2' X 3.5'
12	3' X 3.5'
16	4' X 4.5'
18	5' X 5.5'

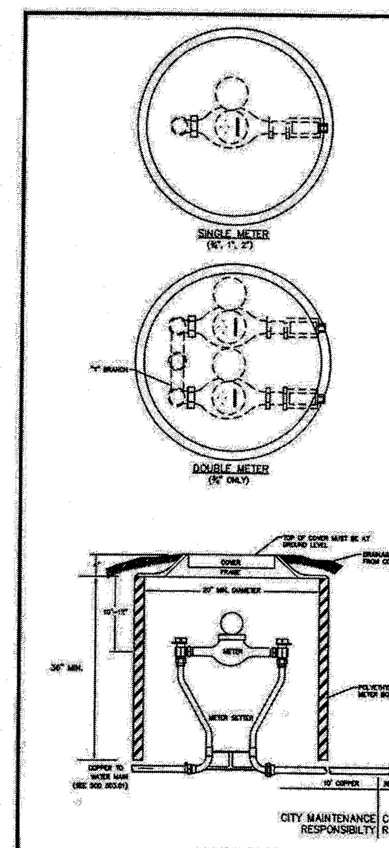
NOTES:

1. CONCRETE SHALL NOT BE IN CONTACT WITH BOLTS OR ENDS OF MECHANICAL FITTINGS. PLASTIC SHEET BOND BREAKER SHALL BE PROVIDED BETWEEN THE CONCRETE AND THE PIPE AND TAPPING SLEEVE
2. SEE TABLE FOR MINIMUM AREA OF CONCRETE BLOCKING.
3. REFER TO SCD 500.03, STANDARD TRACER WIRE TEST STATION AND ACCESS BOX FOR TRACER WIRE DETAILS
4. THE WET TAP SHALL BE PRESSURE TESTED AT 125 PSI AND HELD FOR 10 MINUTES IN THE PRESENCE OF A REPRESENTATIVE OF THE CITY BEFORE TAPPING.
5. THRUST BLOCK IS NOT REQUIRED FOR FULLY RESTRAINED PIPE.

City of Wentzville, Public Works Department, Engineering Division, 200 East Fourth Street, Wentzville, MO 63385 — TYPICAL WATER MAIN WET TAP - PVC PIPE — Approved: W.E.B. Date: June 10, 2009 — 502.08



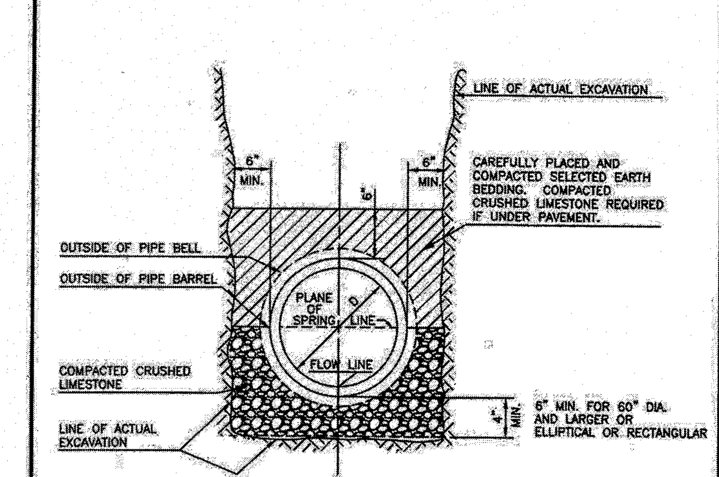
City of Wentzville, Public Works Department, Engineering Division, 200 East Fourth Street, Wentzville, MO 63385 — TYPICAL WATER SERVICE 3/4" THRU 2" — Approved: W.E.B. Date: June 10, 2009 — 503.01



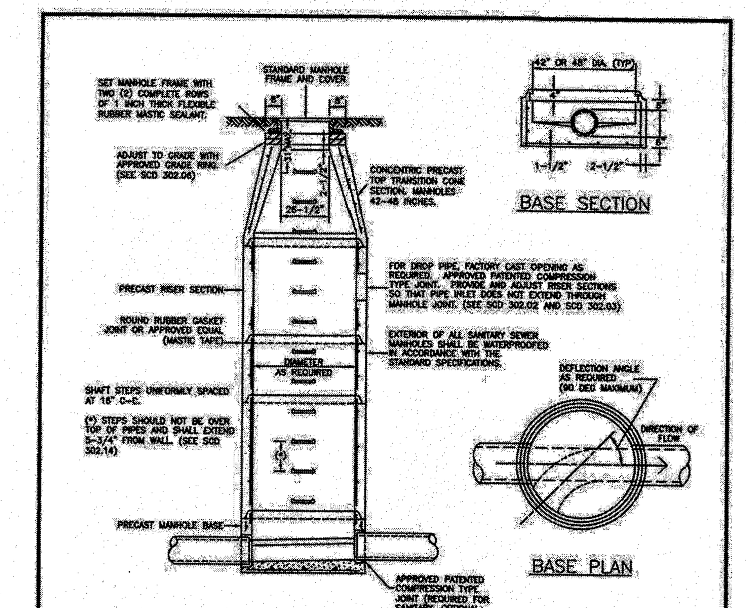
GENERAL NOTES:

1. ALL TAPS ARE TO BE MADE AT THE 10:00 OR 2:00 POSITION. NO BACKLOOPS WILL BE ALLOWED.
2. WATER METER BOX SHALL BE SET ON THE PROPERTY LINE (LOT LINE).
3. METER TILES SHALL BE SET 14' FROM THE BACK OF CURB AND SET TO THE PROPER FINISH GRADE.
4. WATER IS TO BE TURNED OFF AND ON BY CITY OF WENTZVILLE PERSONNEL ONLY. CALL 636-327-5102 FOR SERVICE.
5. METER BOX FRAME AND COVER GRADE ADJUSTMENT WITH APPROVED GRADE RING ONLY.
6. THE CITY OF WENTZVILLE WILL PROVIDE THE FOLLOWING SUPPLIES FOR ALL METER SETUPS:
   SADDLE (COMPATIBABLE WITH PIPE TO BE TAPPED.)
   CORPORATION STOP
   SETTER WITH COMPRESSION ENDS
   "Y" BRANCH (FOR DOUBLE METER SETTERS)
   METER BOX
   METER
   FRAME & COVER
   CALL 636-327-5102 FOR COORDINATION AND PICKUP OF SUPPLIES.
7. WHEN IN PAVEMENT, PYRAMID (PRECAST CONCRETE) METER BOX, FRAME, AND COVER SHALL BE FURNISHED BY THE CONTRACTOR.

City of Wentzville, Public Works Department, Engineering Division, 200 East Fourth Street, Wentzville, MO 63385 — STANDARD METER BOX 3/4" THRU 2" SERVICE — Approved: W.E.B. Date: June 10, 2009 — 503.02



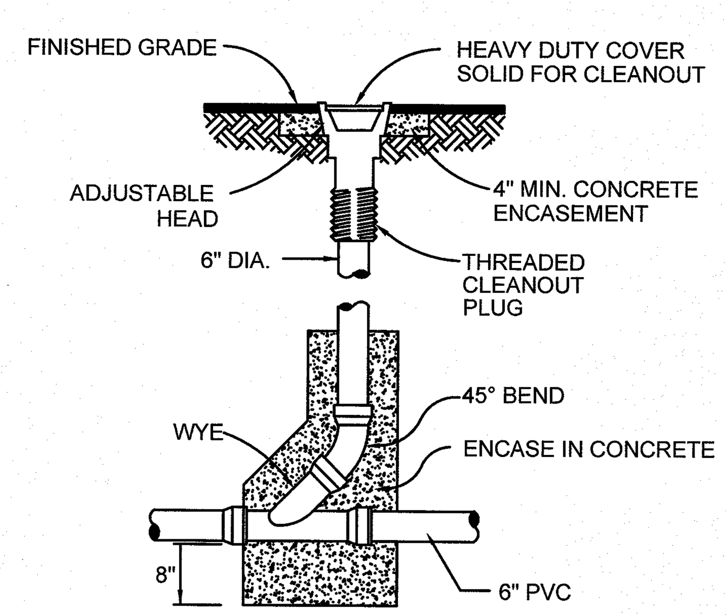
City of Wentzville, Public Works Department, Engineering Division, 200 East Fourth Street, Wentzville, MO 63385 — STANDARD PIPE BEDDING FOR REINFORCED CONCRETE PIPE — Approved: W.E.B. Date: June 10, 2009 — 600.01



NOTES:

1. THE MINIMUM INSIDE DIAMETER FOR THE BASE AND RISER SECTIONS SHALL BE 42 INCHES FOR 8 DIAMETER SEWERS. THE MINIMUM INSIDE DIAMETER FOR SEWERS LARGER THAN 8 INCH DIAMETER IS 48 INCHES. MANHOLE SHALL MEET ASTM C-478 REQUIREMENTS.
2. FLOWLINE ELEVATION OF INCOMING PIPES SHALL BE 0.2 FEET HIGHER THAN THAT OF OUTGOING PIPE (SANITARY SEWER ONLY).
3. PIPE SIZES 24 INCHES IN DIAMETER AND LARGER REQUIRE MANHOLE DIAMETERS OF 60 INCH MINIMUM AND MAY REQUIRE, 72 INCH, OR 96 INCH AS DETERMINED BY OUTSIDE DIAMETERS AND ORIENTATIONS OF CONNECTING PIPES.
4. ECCENTRIC CONES SHALL BE USED ON DIAMETERS 60 INCH AND LARGER. STEPS SHALL EXTEND DOWN VERTICAL WALL OF CONE.
5. PRIOR TO FABRICATION, SHOP DRAWINGS SHALL BE SUBMITTED TO THE CITY FOR APPROVAL OF MANHOLES ON PIPE DIAMETERS LARGER THAN 24 INCH AND ALSO FOR THOSE STRUCTURES WITH A DROP PIPE CONNECTION.
6. REINFORCEMENT IS REQUIRED IN ALL SECTIONS PER ASTM C 478M-06b
7. BRICK IS NOT ALLOWED IN SANITARY SEWER MANHOLES.

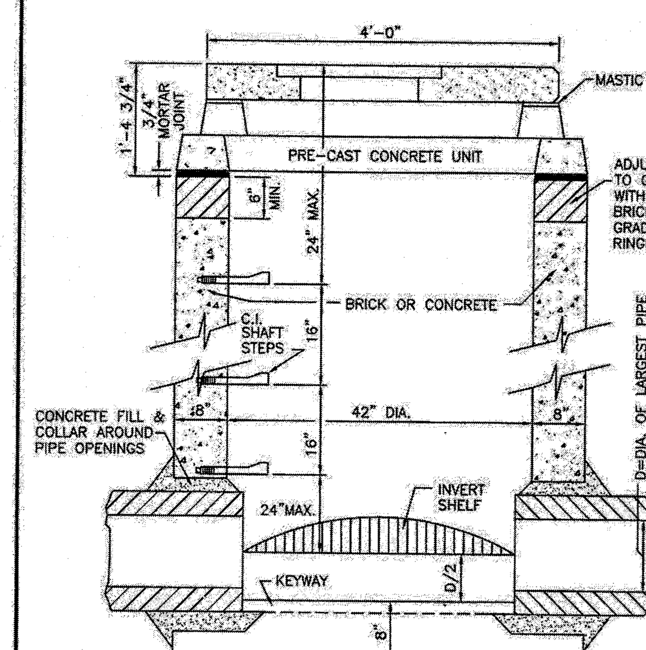
City of Wentzville, Public Works Department, Engineering Division, 200 East Fourth Street, Wentzville, MO 63385 — STANDARD MANHOLE — Approved: W.E.B. Date: June 10, 2009 — 302.01 / 602.01



CLEANOUT DETAIL
NOT TO SCALE

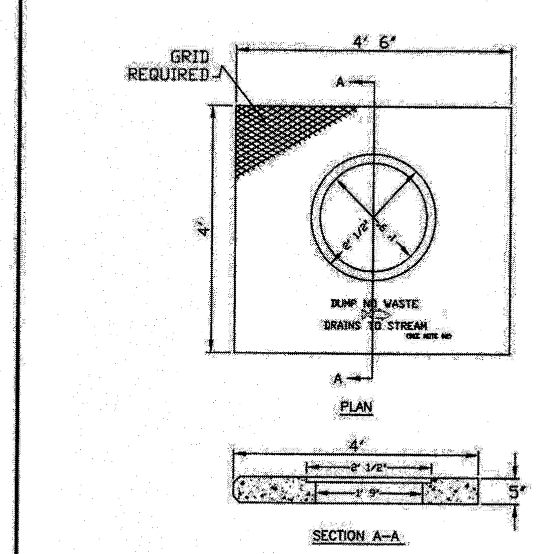
NOTE:

ALL WATER MAIN, STORM SEWER AND SANITARY SEWER CONSTRUCTION SHALL COMPLY WITH CURRENT MUNICIPAL CODES AND SPECIFICATIONS OF THE CITY OF WENTZVILLE, ST. CHARLES COUNTY AND MDNR.



NOTE: SEE SCD 302.04 FOR MANHOLE GASKET DETAIL. WHEN OPENINGS FOR PIPE ARE BOXED OUT, SPACE BETWEEN PIPE AND WALL TO BE COMPLETELY GROUTED WITH NON SHRINK GROUT.

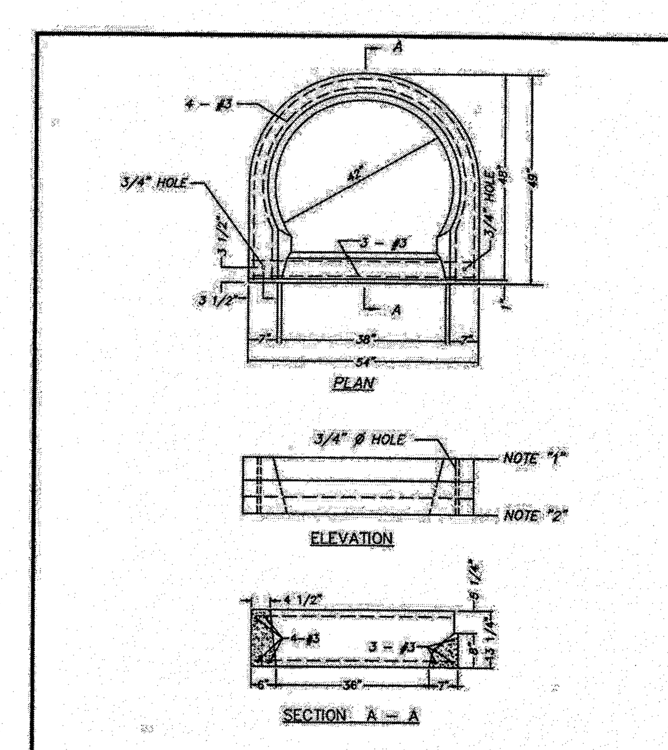
City of Wentzville, Public Works Department, Engineering Division, 200 East Fourth Street, Wentzville, MO 63385 — AREA INLET MANHOLE (12" THRU 24") — Approved: W.E.B. Date: June 10, 2009 — 602.02



NOTES:

1. REINFORCING BARS ARE REQUIRED IN ALL INLET STONES.
2. IT IS PREFERRED THAT ALL NEW STONES HAVE "DUMP NO WASTE...DRAINS TO STREAM" STAMPED ON THE INLET. AS AN ALTERNATIVE, 4" DIAMETER OR LARGER CIRCULAR METAL MARKERS THAT ARE 3-D EMBOSSED WITH THE SAME MESSAGE MAY BE INSTALLED WITH MASONRY ADHESIVE, RIVET FASTENERS, OR BOLTED ON THE INLET. METAL MARKERS SHALL BE ALMETEK ITEM SD-15 (MESSAGE AMENDED) OR EQUIVALENT AS APPROVED BY THE CITY OF WENTZVILLE STORMWATER COORDINATOR.

City of Wentzville, Public Works Department, Engineering Division, 200 East Fourth Street, Wentzville, MO 63385 — STANDARD INLET TOP STONE — Approved: W.E.B. Date: June 10, 2009 — 602.04



NOTES:

1. SET STANDARD INLET STONE IN 3/4" MORTAR BED AND DOWEL WITH 5/8" DIA. 1'-0" PINS AND GROUT
2. RAISE TO FINAL GRADE WITH COURSES OF BRICK AND 3/4" MORTAR BED/BITUMINOUS MASTIC TAPE.
3. THIS UNIT TO BE USED WITH 42" I.D. POURED IN PLACE CONCRETE OR BRICK BASE.
4. 4000 P.S.I. CONCRETE REQUIRED

City of Wentzville, Public Works Department, Engineering Division, 200 East Fourth Street, Wentzville, MO 63385 — PRECAST CONCRETE UNIT FOR SINGLE STREET INLET — Approved: W.E.B. Date: June 10, 2009 — 602.10

UNDERGROUND UTILITIES AND OSHA SAFETY NOTE:

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\\Vault-pc\vault\CIVIL 3D PROJECTS\2017\170501 600 W MAIN ST - WENTZVILLE MO\COMMERCIAL\CONSTRUCTION DRAWINGS\CONSTRUCTION DOCUMENTS\CONSTRUCTION DOCUMENTS - SUGARFIRE\C-702 UTILITY DETAILS.dwg

WENTZVILLE PROJECT NUMBER ENG-2018-XXXX

PREMIER
ENGINEERING ARCHITECTURE SURVEYING
308 TCW COURT, LAKE SAINT LOUIS, MO 63367

STATE OF MISSOURI — STEVE MARION — NUMBER PE2006007195 — PROFESSIONAL ENGINEER

ENGINEERS AUTHENTICATION
The responsibility for professional engineering liability on this project is hereby limited to the set of plans authenticated by the seal, signature, and date hereunder attached. Responsibility is disclaimed for all other engineering plans involved in this project and specifically excludes revisions after this date unless reauthenticated.
STEVEN D. MARION P.E.
PROFESSIONAL ENGINEER
PE2006007195

Project
MARCO PROPERTY, LLC
SUGARFIRE
1101 LODORA DRIVE
WENTZVILLE, MO 63385
JIM COOK
1415 ELBRIDGE PAYNE RD SUITE 200
CHESTERFIELD, MO 63017

Date 07-10-18

#	Revision Date	Description of Changes

Sheet Title: UTILITY DETAILS

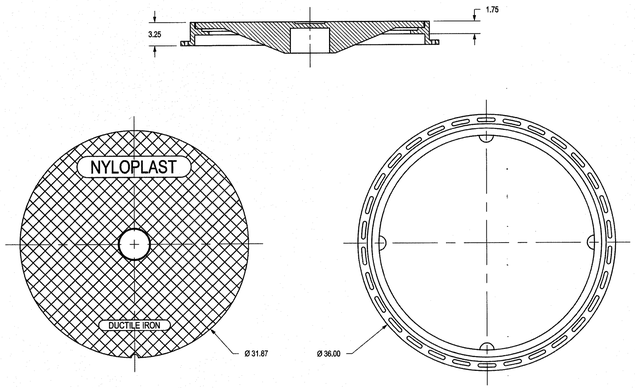
Sheet Number: C-702

Project No.	170501
Drawn By	J. DUBOIS
Checked By	M.FOGARTY

NOT RELEASED FOR CONSTRUCTION

3099CGC

APPROX. WEIGHT WITH FRAME = 262.50 LBS



DIMENSIONS ARE FOR REFERENCE ONLY
ACTUAL DIMENSIONS MAY VARY
DIMENSIONS ARE IN INCHES
GRATE MEETS H-20 LOAD RATING
QUALITY: MATERIALS SHALL CONFORM TO ASTM A536 GRADE 70-50-05
PAINT: CASTINGS ARE FURNISHED WITH A BLACK PAINT
LOCKING DEVICE AVAILABLE UPON REQUEST SEE DRAWING NO. 7001-110-026

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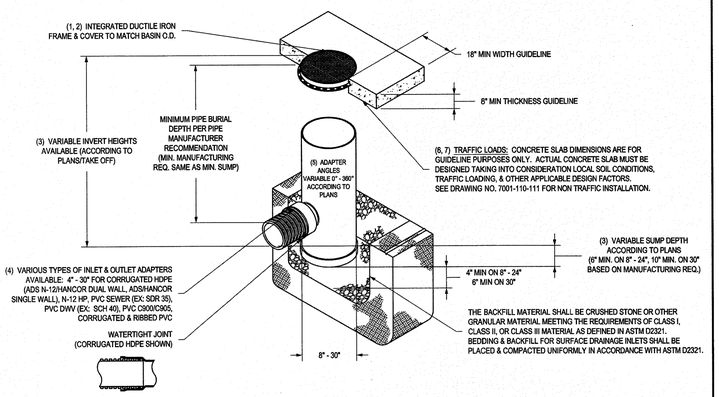
DRAWN BY	EBC	MATERIAL	DUCTILE IRON
DATE	3-8-06		
REVISED BY	EBC	PROJECT NO./NAME	
DATE	3-13-10		
DWG SIZE	A	SCALE 1:10	SHEET 1 OF 1

Nyloplast
3130 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-3443
FAX (770) 932-2490
www.nyloplast-us.com

TITLE: 30 IN SOLID COVER ASSEMBLY - TYPE B

DWG NO. 7001-110-222 REV C

NYLOPLAST DRAIN BASIN WITH SOLID COVER



1 - 8" - 30" SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - 12" - 30" FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05. 8" & 10" SOLID COVERS FIT DIRECTLY ONTO DRAIN BASINS WITH THE USE OF A PVC BODY TOP. SEE DRAWING NO. 7001-110-045.
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 64" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-005.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER (4" - 24").
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
6 - 12" - 30" SOLID COVERS SHALL MEET H-20 LOAD RATING.
7 - 8" & 10" SOLID COVERS ARE RATED FOR LIGHT DUTY APPLICATIONS ONLY; NO CONCRETE COLLAR NEEDED FOR LIGHT DUTY RATING.

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DRAWN BY	EBC	MATERIAL	
DATE	09-14-07		
REVISED BY	NMH	PROJECT NO./NAME	
DATE	03-11-15		
DWG SIZE	A	SCALE 1:40	SHEET 1 OF 1

Nyloplast
3130 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-3443
FAX (770) 932-2490
www.nyloplast-us.com

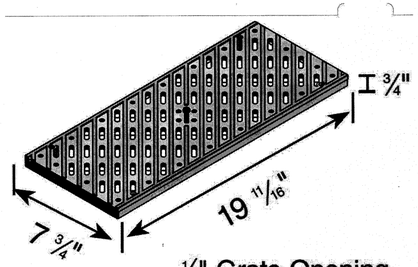
TITLE: DRAIN BASIN WITH SOLID COVER QUICK SPEC INSTALLATION DETAIL

DWG NO. 7001-110-298 REV D

NDS TECHNICAL SPECIFICATIONS

WE PUT WATER IN ITS PLACE

8" Pro Series Grate



¼" Grate Opening

Part #: 836
Material: Grate HDPE-High Density Polyethylene
Color: Light Gray
Use for 8" Pro Series Channel
Grate Opening: 1/4"
Open Surface Area: 13.82 Sq. Inches Per Foot.
Head Pressure / Flow rate:
1" = 59.79 GPM per Foot
0.5" = 42.28 GPM per Foot
Weight Per Each: 1.55 lbs.
UV inhibitor
Screw: #829 – per grate

Load Recommendation Guide

Class A
- Loads of 1-60 psi.
- Recommended for pedestrians, bicycles and wheel chair traffic.

ADA Compliant/Heel-proof

851 N. Harvard Avenue
Lindsay, CA 93247
800-726-1994

Visit ndspro.com for specs, detail drawings and how-to videos

NDS

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TOLL FREE: 1-800-726-1994
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FAX: (559) 562-4488
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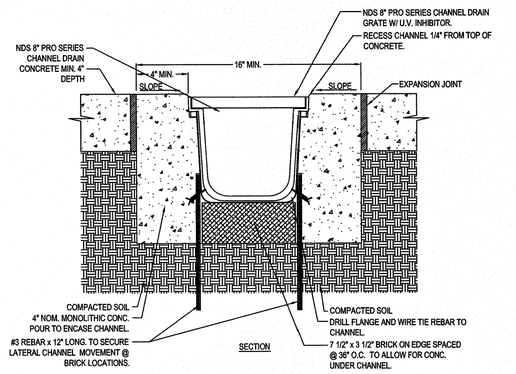

NOTES:
1. CHANNELS TO BE INSTALLED WITH GRATE. GRATE TO BE PROTECTED FROM CONCRETE POUR
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. DO NOT SCALE DRAWING.
4. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY.
5. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.

PRO SERIES CHANNEL DRAIN SYSTEM

8" PRO SERIES INSTALLATION DETAIL - LOAD CLASS 'A' & 'B' - 4" ENCASEMENT - BRICK/REBAR SUSPENSION

REVISION DATE 3-5-2015

WENTZVILLE PROJECT NUMBER ENG-2018-XXXX

PREMIER
ENGINEERING ARCHITECTURE SURVEYING
308 TCW COURT, LAKE SAINT LOUIS, MO 63367

STATE OF MISSOURI
STEVEN D. MARION
NUMBER PE2006007195
PROFESSIONAL ENGINEER

ENGINEERS AUTHENTICATION
The responsibility for professional engineering liability on this project is hereby limited to the set of plans authenticated by the seal, signature, and date hereunder attached. Responsibility is disclaimed for all other engineering plans involved in this project and specifically excludes revisions after this date unless reauthenticated.
STEVEN D. MARION P.E.
PROFESSIONAL ENGINEER
PE2006007195

Project: MARCO PROPERTY, LLC
SUGARFIRE
1101 LODORA DRIVE
WENTZVILLE, MO 63385
JIM COOK
910 PERUQUE VIEW DRIVE
WENTZVILLE, MO 63385

Date: 07-10-18

#	Revision/ Date	Description of Changes

Sheet Title: UTILITY DETIALS

Sheet Number: C-703

Project No.	170501
Drawn By	J. DUBOIS
Checked By	M.FOGARTY

NOT RELEASED FOR CONSTRUCTION

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UNDERGROUND UTILITIES AND OSHA SAFETY NOTE:
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\\Vault-pw\vaultCIVIL 3D PROJECTS\2017\170501 600 W MAIN ST - WENTZVILLE MO\COMMERCIAL\CONSTRUCTION DRAWINGS\CONSTRUCTION DOCUMENTS\CONSTRUCTION DOCUMENTS - SUGARFIRE\C-500 SEWER PROFILES.dwg

ROLLMAX™
ROLLED EROSION CONTROL

Specification Sheet – EroNet™ C125* Erosion Control Blanket

DESCRIPTION

The long-term double net erosion control blanket shall be a machine-produced mat of 100% coconut fiber with a functional longevity of up to 36 months. (NOTE: functional longevity may vary depending upon climatic conditions, soil, geographical location, and elevation). The blanket shall be of consistent thickness with the coconut evenly distributed over the entire area of the mat. The blanket shall be covered on the top and bottom sides with a heavyweight photodegradable polypropylene netting having ultraviolet additives to delay breakdown and an approximate 0.63 x 0.63 in (1.59 x 1.59 cm) mesh. The blanket shall be sewn together on 1.50 inch (3.81 cm) centers with degradable thread. The blanket shall be manufactured with a colored thread stitched along both outer edges (approximately 2-5 inches [5-12.5 cm] from the edge) as an overlap guide for adjacent mats.

The C125 shall meet Type 4 specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration's (FHWA) FP-03 Section 713.17

Material Content		
Matrix	100% Coconut Fiber	0.5 lbs/sq yd (0.27 kg/sm)
Netting	Heavyweight photodegradable with UV additives	3 lbs/1000 sq ft (1.47 g/sm)
Thread	Black polypropylene	

Standard Roll Sizes		
Width	6.67 (2.03 m)	8 ft (2.44 m)
Length	108 ft (32.92 m)	112 ft (35.14 m)
Weight ± 10%	44 lbs (19.95 kg)	56.25 (25.5 kg)
Area	80 sq yd (66.9 sm)	100 sq yd (83.61 sm)

Index Property	Test Method	Typical
Thickness	ASTM D6525	0.22 in. (5.59 mm)
Resiliency	ECTC Guidelines	82%
Water Absorbency	ASTM D1117	167%
Mass/Unit Area	ASTM 6475	7.73 oz/sy (262.8 g/sm)
Swell	ECTC Guidelines	13%
Smolder Resistance	ECTC Guidelines	Yes
Stiffness	ASTM D1388	0.75 oz-in
Light Penetration	ASTM D6567	16.6%
Tensile Strength - MD	ASTM D6818	472.8 lbs/ft (7.01 kN/m)
Elongation - MD	ASTM D6818	25.6%
Tensile Strength - TD	ASTM D6818	225.6 lbs/ft (3.35 kN/m)
Elongation - TD	ASTM D6818	33.9%
Biomass Improvement	ASTM 7322	257%

Design Permissible Shear Stress	
Unvegetated Shear Stress	2.25 psf (108 Pa)
Unvegetated Velocity	10.0 fps (3.05 m/s)

Slope Design Data: C Factors			
	Slope Gradients (S)		
Slope Length (L)	≤ 3:1	3:1 – 2:1	≥ 2:1
≤ 20 ft (6 m)	0.001	0.023	0.082
20-50 ft	0.036	0.050	0.096
≥ 50 ft (15.2 m)	0.070	0.050	0.110

Roughness Coefficients – Unveg.	
Flow Depth	Manning's n
≤ 0.50 ft (0.15 m)	0.022
0.50 – 2.0 ft	0.022-0.014
≥ 2.0 ft (0.60 m)	0.014

NORTH AMERICAN GREEN

North American Green
5401 St. Wendel-Cynthiana Road
Poseyville, Indiana 47633

nagreen.com
800-772-2040

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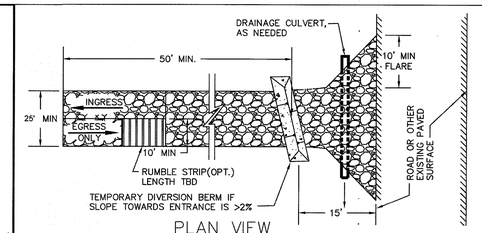
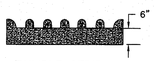
EC_RMX_MPDS_EC125_5.13

2:33

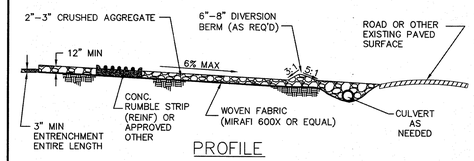


PLAN VIEW

NOTE:
A SPECIAL USE PERMIT IS REQ'D FOR THE ENTRANCE.



RUMBLE STRIP (OPTIONAL)



PROFILE

DESIGN NOTES

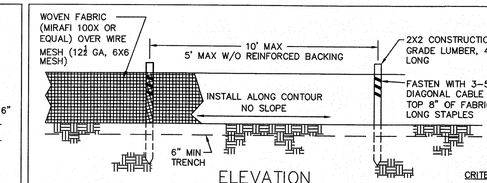
1. DIVERT ALL RUNOFF TO A SEDIMENTATION CONTROL DEVICE.
2. PROVIDE WATER SUPPLY FOR WASHDOWN.

2:34

St. Charles County
Erosion & Sediment Controls
Standard Drawings

CONSTRUCTION TRAFFIC WASH-OFF PAD

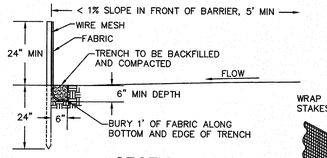
DATE:	DRAWING
APRIL 2008	**ESC-4**



ELEVATION

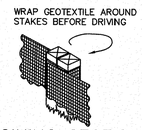
CRITERIA

1. SILT FENCE SHALL BE 30 INCHES HIGH.
2. SILT FENCE SHALL NOT BE USED FOR CONCENTRATED FLOWS.
3. GEOSYNTHETIC REINFORCED SILT FENCE BACKING MAY BE USED IN LIEU OF WIRE MESH.



SECTION

NOTE: IF FABRIC IS INSTALLED BY EQUIPMENT DESIGNED TO SLICE INTO THE GROUND, THE TRENCH IS NOT REQ'D.

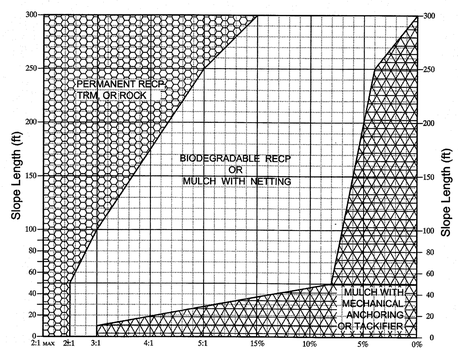


JOINING SECTIONS OF SILT FENCE

St. Charles County
Erosion & Sediment Controls
Standard Drawings

SILT FENCE INSTALLATION
SHEET FLOW (ONLY)

DATE:	DRAWING
MAY 2005	**ESC-5**



NOTES

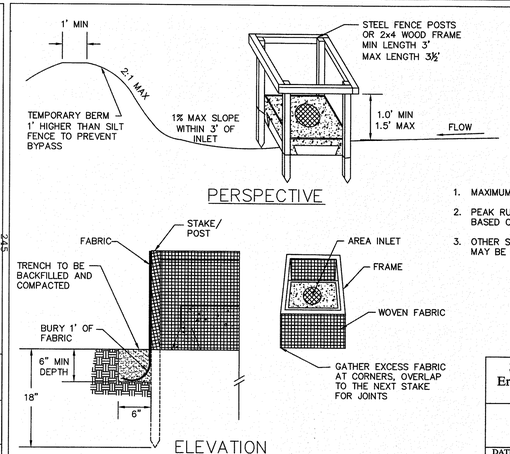
1. REFER TO DESIGN MANUAL FOR APPLICATION RATES.
2. DUE TO THE DIFFERENT PRODUCTS ON THE MARKET, CONTRACTOR MUST SUBMIT MANUFACTURER SPECIFICATIONS ON APPLICATION RATE AND PROCEDURES.

2:35

St. Charles County
Erosion & Sediment Controls
Standard Drawings

SURFACE STABILIZATION CHART FOR SHEET FLOW

DATE:	DRAWING
MAY 2005	**ESC-3**



PERSPECTIVE

DESIGN CRITERIA

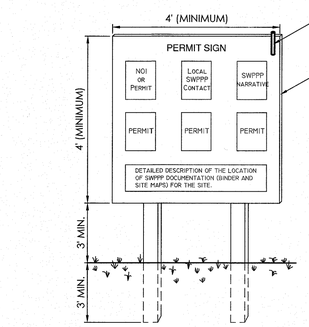
1. MAXIMUM DRAINAGE AREA – 1 ACRE.
2. PEAK RUNOFF SHALL NOT EXCEED 2 CFS BASED ON A 6–MONTH STORM EVENT.
3. OTHER SEDIMENT PROTECTION PRODUCTS MAY BE USED, SUCH AS Filtr FENCE™.

ELEVATION

St. Charles County
Erosion & Sediment Controls
Standard Drawings

AREA INLET PROTECTION FABRIC DROP

DATE:	DRAWING
MARCH 2008	**ESC-14**



PERMIT SIGN DETAIL

(NOT TO SCALE)

NOTES:

1. THE SWPPP INFORMATION SIGN MUST BE LOCATED NEAR THE CONSTRUCTION EXIT OF THE SITE, SUCH THAT IT IS ACCESSIBLE AND VIEWABLE BY THE GENERAL PUBLIC, BUT NOT OBSTRUCTING VIEWS AS TO CAUSE A SAFETY HAZARD.
2. ALL POSTED DOCUMENTS MUST BE MAINTAINED IN A CLEARLY READABLE CONDITION AT ALL TIMES THROUGHOUT CONSTRUCTION AND UNTIL THE PERMIT HAS BEEN TERMINATED.
3. CONTRACTOR SHALL POST OTHER STORMWATER AND/OR EROSION AND SEDIMENT CONTROL RELATED PERMITS ON THE SIGN AS REQUIRED BY THE GOVERNING AGENCY.
4. SIGN SHALL BE LOCATED OUTSIDE OF PUBLIC RIGHT-OF-WAY AND EASEMENTS UNLESS APPROVED BY THE GOVERNING AGENCY.
5. CONTRACTOR IS RESPONSIBLE FOR ENSURING STABILITY OF THE SWPPP INFORMATION SIGN.

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1-800-DIG-RITE

UNDERGROUND UTILITIES AND OSHA SAFETY NOTE:

Underground utilities and structures have been plotted from available information and therefore, their location must be considered approximate only. It is the responsibility of the individual contractors to notify the utility companies before actual construction. All O.S.H.A rules and regulations established for the type of construction required by these plans shall be strictly followed (ie. trenching, blasting, etc.)

SILTATION CONTROL NOTES:

1. INSTALLATION OF ALL SEDIMENT AND EROSION CONTROL SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING AND WITHIN TWO (2) DAYS OF ANY REMOVAL OF EXISTING VEGETATION OR IMPROVEMENTS.
2. INSPECTION OF SILTATION CONTROL SHALL TAKE PLACE AT LEAST ONCE EVERY SEVEN (7) DAYS AND WITHIN 24 HOURS OF ANY RAIN EVENT. ANY REPAIRS REQUIRED SHALL BEGIN IMMEDIATELY OF THE ROOT ZONE. A WRITTEN REPORT SHALL BE SUBMITTED TO ST. CHARLES COUNTY WITHIN SEVENTY TWO (72) HOURS OF STORM EVENT.
3. A MISSOURI STATE OPERATING PERMIT THAT SPECIFICALLY IDENTIFIES THE SITE MUST BE OBTAINED FROM THE MISSOURI DEPARTMENT OF NATURAL RESOURCES PRIOR TO ANY CLEARING, GRUBBING OR GRADING THAT RESULTS IN DESTRUCTION.
4. THE CONTRACTOR SHALL KEEP AND MAINTAIN RECORDS OF ALL SILTATION CONTROL INSPECTIONS, REPAIRS, INSTALLATION OR RELEVANT ACTIVITIES ON THE JOBSITE OR MAIN OFFICE FOR A PERIOD OF THREE YEARS. THESE RECORDS SHALL BE AVAILABLE FOR INSPECTION BY MISSOURI DEPARTMENT OF NATURAL RESOURCES OR LOCAL AUTHORITIES HAVING JURISDICTION.
5. ALL DISTURBED AREAS WHICH REMAIN UNWORKED FOR 30 DAYS OR MORE SHALL BE STABILIZED WITH SEEDING AND MULCHING PER APPENDIX A OR PER THE PROJECT SPECIFICATIONS WHICHEVER IS MORE STRINGENT. IF SEASONAL CONDITIONS PROHIBIT SEEDING OR MULCHING, MATTING SHALL BE INSTALLED.
6. ALL SLOPES OR DRAINAGE CHANNELS, ONCE CONSTRUCTED TO FINAL GRADE SHALL BE SEEDED AND MULCHED OR OTHERWISE STABILIZED WITHIN 7 DAYS. EVERY EFFORT SHALL BE MADE TO PREVENT EROSION IN THESE AREAS.
7. SILT FENCES INLET PROTECTION DEVICES SHALL BE INSTALLED IMMEDIATELY AROUND EACH INLET ONCE INLET CONSTRUCTION IS COMPLETED.
8. ALL SILTATION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED.

SILT FENCE MAINTENANCE:

1. SILT FENCE 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 SILT FENCE BARRIERS, END RUNS AND BARRIER UNDERCUTTING.
3. SHOULD SILT FENCE BECOME INEFFECTIVE PRIOR TO THE END OF CONSTRUCTION AND ARE STILL NECESSARY, THE STRAW BALES SHALL BE PROMPTLY REPLACED.
4. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE - HALF OF THE HEIGHT OF THE FENCE.
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.

EROSION AND SEDIMENT CONTROL

515 Attachment 1

City of Wentzville

APPENDIX A
Vegetative Establishment
For Urban Development Sites
[R.O. 2006 App. A]

Seeding rates:

Permanent:
Tall; Fescue — 30 lbs./ac.
Smooth Brome — 20 lbs./ac.
Combined: Fescue @15 lbs./ac. and Brome @10 lbs./ac.

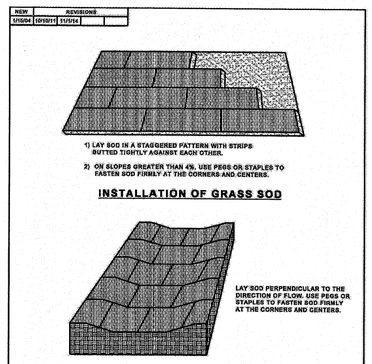
Temporary:
Wheat or Rye — 150 lbs./ac. (3.5 lbs. per square foot)
Oats — 120 lbs./ac. (2.75 lbs. per square foot)

Seeding periods:
Fescue or Brome — March 1 to June 1
August 1 to October 1
Wheat or Rye — March 15 to November 1
Oats — March 15 to September 15

Mulch rates: 100 lbs. per 1,000 square feet (4,356 lbs. per acre)

Fertilizer rates: Nitrogen 30 lbs./ac.
Phosphate 30 lbs./ac.
Potassium 30 lbs./ac.
Lime 600 lbs./ac. ENM*

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



11/1/2014 Page 114 Sediment and Erosion Control Manual Standard Drawings

WENTZVILLE PROJECT NUMBER ENG-2018-XXXX

PREMIER
ENGINEERING · ARCHITECTURE · SURVEYING
308 TCW COURT, LAKE SAINT LOUIS, MO 63367

STATE OF MISSOURI
STEVE D. MARION
NUMBER PE2006007195
PROFESSIONAL ENGINEER

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Project
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WENTZVILLE, MO 63385
JIM COOK
910 PERUQUE VIEW DRIVE
WENTZVILLE, MO 63385

Date 07-10-18

#	Revision Date	Description of Changes

Sheet Title: EROSION CONTROL DETAILS

Sheet Number
C-704

Project No.	170501
Drawn By	J. DUBOIS
Checked By	M.FOGARTY

NOT RELEASED FOR CONSTRUCTION

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PLANT SCHEDULE

TREES	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL	SIZE
	6	ACER RUBRUM RED ROCKET	RED ROCKET MAPLE	B & B	2.5"CAL	
	10	ACER RUBRUM `AUTUMN GLORY`	AUTUMN GLORY MAPLE	B & B	2.5"CAL	
	11	CARPINUS BETULUS `COLUMNARIS`	COLUMNAR EUROPEAN HORNBEAM	B & B	2.5"CAL	
	5	GLEDITSIA TRIACANTHOS INERMIS	THORNLESS COMMON HONEYLOCUST	B & B	2.5"CAL	
	7	THUJA OCCIDENTALIS `EMERALD`	EMERALD ARBORVITAE	B & B		4-6`

LARGE INDY ROLL DECORATIVE ROCK
3" DEPTH ON TOP OF MIRAFI FABRIC (TYP.)

SHREDDED OAK BARK MULCH
3" DEPTH AFTER COMPACTION (TYP.)

SOD (TYP.)

SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE
	19	ARONIA MELANOCARPA `IROQUOIS BEAUTY` TM	BLACK CHOKEBERRY	5 GAL
	10	BUXUS MICROPHYLLA KOREANA `GREEN MOUND`	KOREAN BOXWOOD	3 GAL
	41	CALAMAGROSTIS X ACUTIFLORA `KARL FOERSTER`	FEATHER REED GRASS	3 GAL
	32	EUONYMUS ALATUS `COMPACTUS`	COMPACT BURNING BUSH	3 GAL
	39	ILEX GLABRA `SHAMROCK`	INKBERRY	5 GAL
	23	ITEA VIRGINICA `HENRY`S GARNET`	HENRY`S GARNET SWEETSPIRE	3 GAL
	33	JUNIPERUS CHINENSIS PROCUMBENS `GREEN MOUND`	GREEN MOUND JUNIPER	5 GAL
	18	JUNIPERUS X MEDIA `SEA GREEN`	SEA GREEN JUNIPER	5 GAL
	15	PENNISETUM ALOPECUROIDES `LITTLE BUNNY`	LITTLE BUNNY FOUNTAIN GRASS	1 GAL
	17	SYRINGA MEYERI `PALIBIN`	DWARF KOREAN LILAC	3 GAL
	49	VIBURNUM CARLESII	KOREAN SPICE VIBURNUM	3 GAL
	10	WEIGELA FLORIDA `DARK HORSE`	WEIGELA	3 GAL

LANDSCAPE REQUIREMENTS

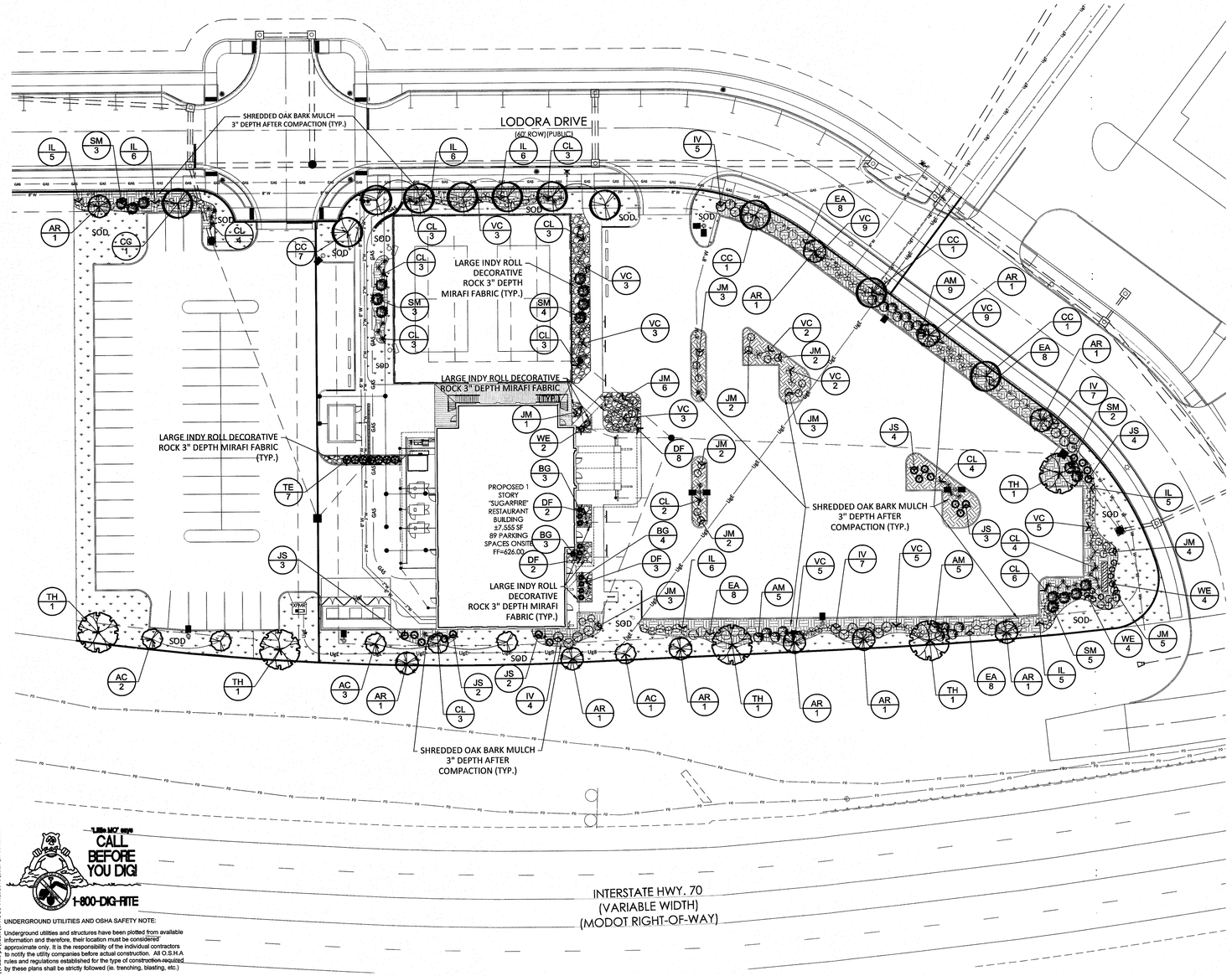
STREET TREES (HF OVERLAY &FRONTAGE ALONG PUBLIC AND PRIVATE)
1 tree for every 35 lineal feet frontage (excluding entrances)=
913'/ 35 lineal feet along 3 sides of property = 26.08
26 trees required
26 trees provided
Not all trees are spaced at 35' on center, clustering has been utilized because of utilities.

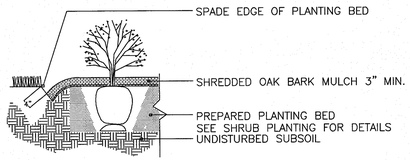
GREEN SPACE PLANTINGS (HF OVERLAY & FRONTAGE ALONG PUBLIC AND PRIVATE STREETS)
10 shrubs for every 40 lineal feet frontage =
717/ 40= 17.9 x 10= lineal feet along street frontages = 179
179 shrubs required
179 shrubs provided

FOUNDATION PLANTINGS
1shrub or tree for every five (5) feet of exterior publicly viewed wall =
285/ 5 lineal feet = 57
57 shrubs required
60 shrubs provided

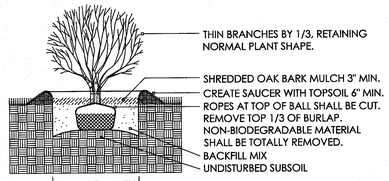
PARKING INTERIOR
10 s.f. per each parking space =
96 stalls x 10 s.f. = 960 s.f.
960 s.f. required
1,603 s.f. provided

MINIMUM GREENSPACE AND LANDSCAPING
25% required
34% provided

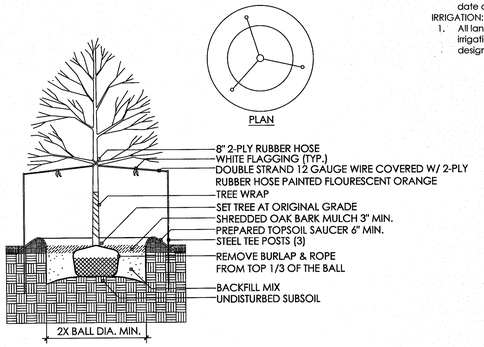




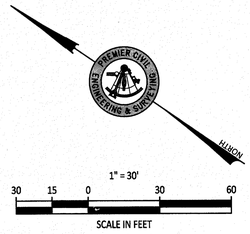
SPADE-CUT EDGE DETAIL
N.T.S.



SHRUB PLANTING DETAIL
N.T.S.



DECIDUOUS TREE PLANTING DETAIL
N.T.S.



LANDSCAPE GUIDELINE SPECS.

GENERAL:
1. All landscape material shall conform to the City of Wentzville standards.
2. All natural vegetation shall be maintained where it does not interfere with construction or the permanent plan of operation. Every effort possible shall be made to protect existing vegetation or structures from damage due to equipment usage. Contractor shall at all times protect all materials and work against injury to the public.
3. The landscape contractor shall be responsible for any coordination with other site related work being performed by other contractors. Refer to architectural drawings for further coordination of work to be done.
4. Underground facilities, structures and utilities must be considered approximate only. There may be others not presently shown or known. It shall be the landscape contractor's responsibility to determine or verify the existence of and exact location of all utilities. (Call 1-800-DIG-RITE)
5. Plant material are to be planted in the same relationship to grade as was grown in nursery conditions. All planting beds shall be cultivated to a depth of 6" minimum and graded smooth immediately before planting of plants. Plant groundcover to within 12" of trunk of trees or shrubs planted within the area.
6. It shall be the landscape contractor's responsibility to:
   A. Verify all existing and proposed features shown on the drawings prior to commencement.
   B. Report all discrepancies found with regard to existing conditions or proposed design to the landscape architect immediately for a decision.
   C. Stake the locations of all proposed plant material and obtain the approval of the owner's representative or landscape architect prior to installation.
6. Items shown on this drawing take precedence over the material list. It shall be the landscape contractor's responsibility to verify all quantities and conditions prior to implementation of this plan. No substitutions of types or size of plant materials will be accepted without written approval from the landscape architect.
7. Provide single-stem trees unless otherwise noted in plant schedule.
8. All plant material shall comply with the recommendations and requirements of ANSI Z60.1 "American Standards for Nursery Stock".
9. It shall be the contractor's responsibility to provide for inspection of the plant material by the landscape architect prior to acceptance. Plants not conforming exactly to the plant list will not be accepted and shall be replaced at the landscape contractor's expense.
10. All bids are to have unit prices listed. The owner has the option to delete any portion of the contract prior to signing the contract or beginning work. This will be a unit price contract.
11. All plant material to be transplanted shall be in accordance to guidelines set by AAN standards. Transplanted material will not be guaranteed by the landscape contractor.

INSURANCE:
1. The landscape contractor shall submit certificates of insurance for workman's compensation and general liability.

MULCH:
1. All mulch to be shredded oak bark mulch at 3" depth after compaction (unless otherwise noted). Mulch shall be clean and free of all foreign materials, including weeds, mold, deleterious materials, etc.
2. No plastic sheeting or filter fabric shall be placed beneath shredded oak bark mulch beds. Mirafi fabric shall be used beneath all gravel mulch beds.
3. Landscape beds not bordered by concrete curbing or walks shall be edged with spade-cut edge unless otherwise noted.

MAINTENANCE:
1. Landscape contractor shall provide a separate proposal to maintain all plants, shrubs, groundcover, perennials and annuals for a period of 12 months after acceptance.
2. Contractor shall ensure that only competent and trained personnel shall provide such services and that such services be provided in a timely manner.

TOPSOIL:
1. Topsoil mix for all proposed landscape plantings shall be five (5) parts well-drained screened organic topsoil to one (1) part Canadian sphagnum peat moss as per planting details. Roto-till topsoil mix to a depth of 6" minimum and grade smooth.
2. Provide a soil analysis, as requested, made by an independent soil-testing agency outlining the percentage (%) of organic matter, inorganic matter, deleterious material, pH and mineral content.
3. Any foreign topsoil used shall be free of roots, stumps, weeds, brush, stones (larger than 1"), litter or any other extraneous or toxic material.
4. Landscape contractor to apply pre-emergent herbicide to all planting beds upon completion of planting operations and before application of shredded oak bark mulch.

MISC. MATERIAL:
1. Provide stakes and deadman of sound, new hardwood, free of knotholes and defects.
2. Tree wrap tape shall be 4" minimum, designed to prevent borer damage and winter freezing. Additionally, only 3-ply tying material shall be used.

TURF:
1. All disturbed lawn areas sodded with a turf-type fescue, cut at a uniform thickness of ¾". No broken pieces, irregular pieces or torn pieces will be accepted. Lawn areas shall be unconditionally warranted for a period of 90 days from date of final acceptance.
2. Any points carrying concentrated water loads and all slopes of 15% or greater shall be sodded and stapled with sod staples to secure in place.
3. All sod shall be placed a maximum of 24 hours after harvesting.
4. Recondition existing lawn areas damaged by contractor's operations including equipment/ material storage and movement of vehicles.
5. Sod contractor to ensure sod is placed below sidewalk and all paved area elevations to allow for proper drainage.
6. Off-site land disturbed shall be sodded to the right of way. (See Sheet Site Plan for areas disturbed for sidewalk, curb and sewer construction).

WARRANTY:
1. All plant material (excluding ground cover, perennials and annuals) are to be warranted for a period of 12 months after installation at 100% of the installed price.
2. Any plant material found to be defective shall be removed and replaced within 30 days of notification or in growth season determined to be best for the plant.
3. Only one replacement per tree or shrub shall be required at the end of the warranty period, unless loss is due to failure to comply with warranty.
4. Lawn establishment period will be in effect once the lawn has been mowed three times. Plant establishment period shall commence on the date of acceptance and 100% completion.

IRRIGATION:
1. All landscaped areas shall have installed an automatic, permanent irrigation system - designed to cover all landscape areas. Irrigation shall be design/ build.

PREMIER
ENGINEERING ARCHITECTURE SURVEYING
308 TCW COURT, LAKE SAINT LOUIS, MO 63367

STATE OF MISSOURI
James E. DuBois
NUMBER PLA-2016004095
PROFESSIONAL LANDSCAPE ARCHITECT

LANDSCAPE ARCHITECT AUTHENTICATION
The responsibility for professional landscape architectural liability on this project is hereby limited to the set of plans authenticated by this seal, signature, and date hereunder attached. Responsibility is disclaimed for all other landscape architectural plans involved in this project and specifically excludes revisions after this date unless reauthenticated.
JAMES E. DUBOIS P.L.A.
PROFESSIONAL LANDSCAPE ARCHITECT
PLA-2016004095
PE2006007195

Project
MARCO PROPERTY, LLC
SUGARFIRE
1101 LODORA DRIVE
WENTZVILLE, MO 63385
JIM COOK
910 PETTIJOLE VIEW DRIVE
WENTZVILLE, MO 63385

Date 07-10-18

#	Revision Date	Description of Changes

Sheet Title: LANDSCAPE PLAN

Sheet Number: L-100

Project No.	170501
Drawn By	J. DUBOIS
Checked By	M.FOGARTY

NOT RELEASED FOR CONSTRUCTION

"Little MO" says
CALL BEFORE YOU DIG!
1-800-DIG-RITE

UNDERGROUND UTILITIES AND OSHA SAFETY NOTE:
Underground utilities and structures have been plotted from available information and therefore, their location must be considered approximate only. It is the responsibility of the individual contractors to notify the utility companies before actual construction. All O.S.H.A rules and regulations established for the type of construction required by these plans shall be strictly followed (ie. trenching, blasting, etc.)

WENTZVILLE PROJECT NUMBER ENG-2018-XXXX

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