

**GRADING NOTES:**

- 1. DEVELOPER MUST SUPPLY CITY CONSTRUCTION INSPECTORS WITH AN ENGINEER'S SOIL REPORTS PRIOR TO AND DURING SITE GRADING... 1.1. MAXIMUM DRY DENSITY... 1.2. OPTIMUM MOISTURE CONTENT... 1.3. MAXIMUM AND MINIMUM ALLOWABLE MOISTURE CONTENT... 1.4. CURVE MUST BE PLOTTED TO SHOW DENSITY FROM A MINIMUM OF 90% COMPACTION AND ABOVE AS DETERMINED BY THE "MODIFIED HASHTO T-180 COMPACTION TEST"... 1.5. CURVE MUST HAVE AT LEAST 5 DENSITY POINTS WITH MOISTURE CONTENT AND SAMPLE LOCATIONS LISTED ON DOCUMENT... 1.6. SPECIFIC GRAVITY... 1.7. NATURAL MOISTURE CONTENT... 1.8. LIQUID LIMIT... 1.9. PLASTIC LIMIT... 2. ALL FILL PLACED IN AREAS OTHER THAN PROPOSED STORM SEWERS, SANITARY SEWERS, PROPOSED ROADS, AND PAVED AREAS... 3. THE SURFACE OF THE FILL SHALL BE FINISHED SO IT WILL NOT IMPOUND WATER... 4. ALL SEDIMENT AND DETENTION BASINS ARE TO BE CONSTRUCTED DURING THE INITIAL PHASE OF THE GRADING OPERATION... 5. WHEN GRADING OPERATIONS ARE COMPLETE OR SUSPENDED FOR MORE THAN 14 DAYS, PERMANENT GRASS MUST BE ESTABLISHED... 6. NO SLOPES SHALL EXCEED 3 (HORIZONTAL): 1 (VERTICAL) UNLESS OTHERWISE APPROVED... 7. ALL LOW PLACES WHETHER ON SITE OR OFF SHALL BE GRADED TO PROVIDE DRAINAGE WITH TEMPORARY DITCHES... 8. ANY EXISTING WELLS AND/OR SPRINGS WHICH MAY EXIST ON THE PROPERTY MUST BE SEALED... 9. (INTENTIONALLY OMITTED)... 10. ALL TRENCH BACK FILLS UNDER PAVED AREAS SHALL BE GRANULAR BACK FILL, AND COMPACTED MECHANICALLY... 10.1. DEPTH, TRENCH BACK FILLS LESS THAN 8 FEET DEEP SHALL BE PROBED TO A DEPTH EXTENDING HALF THE DEPTH OF THE TRENCH BACK FILL... 10.2. EQUIPMENT, THE JETTING PROBE SHALL BE A METAL PIPE WITH AN INTERIOR DIAMETER OF 1.5 TO 2 INCHES... 10.3. METHOD, JETTING SHALL BE PERFORMED FROM THE LOWEST SURFACE TOPOGRAPHIC POINT... 10.4. SURFACE BRIDGING, THE CONTRACTOR SHALL IDENTIFY THE LOCATIONS OF THE SURFACE BRIDGING... 11. SITE GRADING... 11.1. WITHIN CITY RIGHT-OF-WAY, MATERIAL IS TO BE PLACED IN EIGHT (8) INCH TO TWELVE (12) INCH LOOSE LIFTS... 11.2. OUTSIDE OF CITY RIGHT-OF-WAY, MATERIAL IS TO BE PLACED IN EIGHT (8) INCH TO TWELVE (12) INCH LOOSE LIFTS... 12. ACCESS TO THE SITE FROM ANY OTHER LOCATION OTHER THAN THE PROPOSED CONSTRUCTION ENTRANCE IS STRICTLY PROHIBITED!

**EARTHWORK COMPUTATIONS**

BULK EXCAVATION (TO SUBGRADE) 382 CUBIC YARDS
BULK EMBANKMENT (TO SUBGRADE) 13,221 CUBIC YARDS

INCLUDES ASSUMED SHRINKAGE FACTOR OF 15%.

IMPORT OF 12,839 CUBIC YARDS.

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

THESE QUANTITIES ESTIMATED FOR EARTHWORK ARE BASED UPON THE HORIZONTAL AND VERTICAL LOCATION OF THE IMPROVEMENTS AS PROPOSED ON THE SITE ENGINEERING PLANS, TO SUBGRADE.

THE ENGINEER'S EARTHWORK ESTIMATE DOES NOT INCLUDE ANY OF THE FOLLOWING EARTHWORK THAT MAY BE NECESSARY FOR COMPLETION OF THE PROJECT: MISCELLANEOUS UNDERGROUND CONDUITS, INCLUDING SEWER LINES AND WATER MAINS, STANDARD MANHOLES, ELECTRICAL OR TELEPHONE CONDUITS, BASES FOR LIGHT STANDARDS, BUILDING FOOTINGS OR PIERS, BACKFILL OF EXISTING BLDG. FOUNDATIONS, RETAINING WALLS, REMEDIATION WORK INSIDE THE BUILDING AREA, OR ISOLATED AREAS LACKING GEOTECHNICAL INVESTIGATION AND REPORTS AT TIME OF PLAN PREPARATION.

IT IS NOT INTENDED FOR THE ENGINEERS QUANTITIES TO BE UTILIZED BY THE CONTRACTOR FOR BIDDING PURPOSES. IT IS THE CONTRACTORS SOLE RESPONSIBILITY TO CALCULATE BULK MOVEMENT AND REDISTRIBUTION OF SOILS FOR THIS PROJECT AND BADE HIS BID ACCORDINLY. LDC INC. WILL BE HELD HARMLESS.

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

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

SHRINKAGE FACTORS USED TO DETERMINE THE BULK FILL WILL VARY ON EACH PROJECT DUE TO SPECIFIC SOIL CHARACTERISTICS. THE SHRINKAGE FACTOR USED FOR THIS PROJECT AS INDICATED ABOVE, IS AN ASSUMED VALUE.

IF EXCESS OR IMPORT MATERIAL IS TO BE TRUCKED, IT SHALL BE TO OR FROM AN APPROVED SITE IN ACCORDANCE WITH ALL GOVERNING AUTHORITIES.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ACQUIRE A PERMIT FOR HAULING FROM THE APPROPRIATE GOVERNING AUTHORITY.

**EROSION CONTROL NOTES**

- 1. THE PERMITTEE SHALL ASSUME COMPLETE RESPONSIBILITY FOR CONTROLLING ALL SILTATION AND EROSION OF THE PROJECT AREA... 2. ALL EROSION CONTROL SYSTEMS ARE TO BE INSPECTED AND CORRECTED WEEKLY, ESPECIALLY WITHIN 48 HOURS OF ANY RAIN STORM... 3. EROSION CONTROL DEVICES (SILT FENCE, SEDIMENT BASIN, ETC.) SHALL BE IN ACCORDANCE WITH MISSOURI DEPARTMENT OF NATURAL RESOURCES... 4. THIS DEVELOPMENT IS REQUIRED TO PROVIDE LONG TERM POST CONSTRUCTION BMP'S SUCH AS; LOW IMPACT DESIGN, SOURCE CONTROL AND TREATMENT CONTROLS... 5. GRADED AREAS SHALL BE SEEDED AND MULCHED (STRAWED) WITHIN 14 DAYS OF STOPPING LAND DISTURBANCE ACTIVITIES.

**SITE INFORMATION:**

OWNER: GREATER MISSOURI BUILDERS LTD
SITE ADDRESS: VETERANS MEMORIAL PKWY.
CURRENT SITE ZONING: C-3 (HIGHWAY COMMERCIAL DISTRICT)
LOCATOR NO.: 2-0141-0055-00-0021.0000000
AREA OF TRACT: 3.30 ACRES
FEMA FLOOD MAP: 29183C0266G DATED 1/20/2016
DISTURBED AREA: 2.91 AC.
SET BACK AND YARD REQUIREMENTS:
OWNER: 30' MIN.
SIDE: 20' MIN.
REAR: 25' MIN.
MINIMUM PARKING SETBACKS:
FRONT: 4' MIN.
SIDE: 4' MIN. (20' ADJACENT TO RESIDENTIAL)
REAR: 4' MIN. (20' ADJACENT TO RESIDENTIAL)

**SEEDING NOTE:**

- THE FOLLOWING SUBMITTALS ARE REQUIRED PRIOR TO TEMPORARY AND PERMANENT SEEDING:
1. SOIL TEST REPORT
2. SEEDING DATE
3. FERTILIZATION MIXTURE AND RATE
4. SEED MIXTURE(S) AND RATE(S), SUPPLIER, PURITY PERCENTAGE
5. MULCHING MATERIAL(S) AND APPLICATION RATE(S)
6. MOWING HEIGHT AND SCHEDULE SEEDED AREAS SHALL BE RE-FERTILIZED 4 WEEKS AFTER INITIAL SEEDING. ALL AREAS IDENTIFIED AS BARE AND SPARSE (LESS THAN 30% GROUND COVER) DURING THE INSPECTION SHALL BE RE-SEEDED AND MULCHED. GRASS SHALL NOT BE CUT UNTIL 4 INCHES OF GROWTH OCCURS

**FALL SEEDING**

Table with columns: PLANT SPECIES, RATE (lb/acre), SEEDING TIMES. Rows include SIDE-OATS, WINTER RYE, WINTER WHEAT, ORCHARD GRASS, PERENNIAL RYEGRASS, TALL FESCUE, K-31 FESCUE, LADINO CLOVER, CRIMSON CLOVER, ORCHARD GRASS +OATS.

**RETAINING WALLS: TERRACED AND VERTICAL**

- 1. A PERMIT IS REQUIRED FOR ALL RETAINING WALLS THAT ARE 48 INCHES OR TALLER IN HEIGHT... 2. RETAINING WALLS WILL NOT BE ALLOWED IN PUBLIC RIGHT-OF-WAY WITHOUT WRITTEN APPROVAL FROM THE CITY ENGINEER... 3. ANY RETAINING WALL MORE THAN THIRTY (30) INCHES TALL WHICH SUPPORTS A WALKING SURFACE THAT IS WITHIN TWO (2) FEET OF THE WALL WILL REQUIRE A GUARD ON THE RETAINING WALL... 5. SEE SECTION 405.275 OF THE CITY CODE FOR ADDITIONAL DESIGN REQUIREMENTS.

**STORM SEWER NOTES**

- 1. ALL STORM SEWER INSTALLATION IS TO BE IN ACCORDANCE WITH M.S.D. STANDARDS AND SPECIFICATIONS EXCEPT AS MODIFIED BY THE CITY OF O'FALLON ORDINANCES... 2. BRICK SHALL NOT BE USED IN THE CONSTRUCTION OF STORM SEWER STRUCTURES... 3. A 5/8" TRASH BAR SHALL BE INSTALLED HORIZONTALLY IN THE CENTER OF THE OPENING(S) IN ALL CURB INLETS AND AREA INLETS... 4. INCREASE WITH CONCRETE BOTH SANITARY AND STORM SEWER AT CROSSING WHEN STORM SEWER IS WITHIN 18 INCHES ABOVE SANITARY SEWER... 5. THE STORM SEWERS SHOULD RUN DIAGONALLY THROUGH THE SIDE YARDS TO MINIMIZE ANY ADDITIONAL UTILITY EASEMENTS REQUIRED... 12. ADD 1" MINUS ROCK BACK FILL TO ALL STORM SEWER THAT LIE WITHIN THE 1:1 SHEAR PLANE OF THE ROAD.

**SWPPP NOTES:**

- 1. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN... 2. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP... 3. BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS... 4. CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL... 5. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA... 6. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED... 7. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOATATION BOOM SHALL BE MAINTAINED ON SITE... 8. DUST ON THE SITE SHALL BE CONTROLLED... 9. RIBBONS OF DIRT OR CARBON LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS... 10. THE LOCAL AGENCY(IES) MUST BE NOTIFIED AT LEAST FORTY-EIGHT HOURS PRIOR TO THE COMMENCEMENT OF ANY GRADING OPERATIONS... 11. NO GRADED AREA IS TO REMAIN WITHOUT VEGETATIVE GROUND COVER FOR MORE THAN THIRTY (30) DAYS WITHOUT BEING SEEDED AND MULCHED OR SODDED... 12. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS STOPPED FOR AT LEAST 14 DAYS, SHALL BE TEMPORARILY SEEDED... 13. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE ACCUMULATION OF DIRT OR MUD... 14. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY... 15. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS... 16. SLOPES SHALL BE LEFT IN ROUGHENED CONDITION DURING THE GRADING PHASE... 17. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES... 18. ALL CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY... 19. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES... 20. UNDERGROUND STRUCTURES, FACILITIES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS... 21. TEMPORARY SILTATION CONTROL STRUCTURES SHALL BE MAINTAINED UNTIL A VEGETATIVE COVER OF AREA DISTURBED IS ESTABLISHED AT A SUFFICIENT DENSITY TO PROVIDE EROSION CONTROL ON THE SITE... 22. WHERE NATURAL VEGETATION IS REMOVED DURING GRADING, VEGETATION SHALL BE REESTABLISHED... 23. WHEN GRADING OPERATION ARE COMPLETED OR SUSPENDED FOR MORE THAN THIRTY (30) DAYS... 24. ALL EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE INSPECTED FOLLOWING EACH RAINSTORM... 25. THE CONTRACTOR MUST SUPPLY CITY ENGINEER WITH ALL COPIES OF INTERIM SOIL TESTING REPORTS... 26. ALL FILLED PLACES UNDER PROPOSED STORM AND SANITARY SEWER, PROPOSED ROADS, AND/OF PAVED OR FUTURE PAVED AREAS SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY... 27. AREA SHALL BE TEMPORARILY RE-SEEDED AT A RATE OF 6-8 LBS. OF RYE GRASS BE 1,000 SQ.FT. FERTILIZER SHALL BE APPLIED AT A RATE OF 50 LBS. PER 10,000 SQ.FT.

**GENERAL NOTES**

BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN WAS OBTAINED FROM PLAN PREPARED BY LAND DEVELOPMENT CONSULTANTS INC.,

ALL SIGNAGE AND FENCING WILL REQUIRE A SEPARATE PERMIT.

ALL UTILITIES WILL BE LOCATED UNDERGROUND.

DETENTION WILL BE PROVIDED FOR THE 100 YEAR STORM.

ALL HVAC AND MECHANICAL UNITS ON SITE SHALL BE PROPERLY SCREENED AS REQUIRED BY CITY CODE. ROOFTOP UNITS SHALL BE SCREENED BY A PARAPET WALL THAT EXTENDS AROUND THE ENTIRE PERIMETER OF THE BUILDING... MECHANICAL UNITS SHALL BE SCREENED BY FENCING, VEGETATION, OR SOME OTHER MEANS (APPROVED BY THE PLANNING AND ZONING COMMISSION) THAT HAS A MINIMUM HEIGHT THAT IS AT LEAST AS TALL AS THE TALLEST UNIT BEING SCREENED.

ALL FINAL SLOPES SHALL BE MAXIMUM OF 3:1

CITY OF O'FALLON CONSTRUCTION WORKING HOURS PER CITY ORDINANCE 3429. CONSTRUCTION WORK SHALL ONLY BE ALLOWED DURING THE FOLLOWING HOURS:
OCTOBER 1 - MAY 31
7:00 AM TO 7:00 PM MONDAY - SUNDAY

JUNE 1 - SEPTEMBER 30
6:00 AM TO 8:00 PM MONDAY - FRIDAY
7:00 AM - 8:00 PM SATURDAY AND SUNDAY.
CONSTRUCTION WORK TO BE DONE OUTSIDE OF THESE HOURS REQUIRED PRIOR WRITTEN APPROVAL FROM THE CITY ADMINISTRATOR OR CITY ENGINEER.

CITY APPROVAL OF THE CONSTRUCTION SITE PLANS DOES NOT MEAN THAT ANY BUILDING CAN BE CONSTRUCTED ON THE LOTS WITHOUT MEETING THE BUILDING SETBACKS AS REQUIRED BY THE ZONING CODE.

ALL PAVING TO BE IN ACCORDANCE WITH ST. CHARLES COUNTY STANDARDS AND SPECIFICATIONS EXCEPT AS MODIFIED BY THE CITY OF O'FALLON ORDINANCES.

SIDEWALKS, CURB RAMPS AND ACCESSIBLE PARKING SPACES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CURRENTLY APPROVED AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES ALONG WITH THE REQUIRED GRADES, SIGNAGE, SPECIFICATIONS AND CONSTRUCTION MATERIALS. IF ANY CONFLICT OCCURS BETWEEN THE ABOVE INFORMATION AND THE PLANS, THE DAAG GUIDELINES SHALL BE FOLLOWED AND THE CONTRACTOR, PRIOR TO ANY CONSTRUCTION, SHALL NOTIFY THE PROJECT ENGINEER.

ALL INSTALLATIONS AND CONSTRUCTION SHALL CONFORM TO THE APPROVED ENGINEERING DRAWINGS. HOWEVER, IF THE DEVELOPER CHOOSES TO MAKE MINOR MODIFICATIONS IN DESIGN AND/OR SPECIFICATIONS DURING CONSTRUCTION, HE/SHE SHALL MAKE SUCH CHANGES AT HIS/HER OWN RISK... THE DEVELOPER MAY REQUEST A LETTER FROM THE CONSTRUCTION INSPECTION DIVISION REGARDING ANY FIELD CHANGES APPROVED BY THE CITY INSPECTORS

ALL IDENTIFICATION OR DIRECTIONAL SIGN(S) MUST HAVE THE LOCATIONS AND SIZES APPROVED AND PERMITTED SEPARATELY THROUGH THE PLANNING AND DEVELOPMENT DIVISION.

TRAFFIC CONTROL IS TO BE PER MODOT OR MUTCD WHICHEVER IS MORE STRINGENT.

LIGHTING VALUES WILL BE REVIEWED ON SITE PRIOR TO THE FINAL OCCUPANCY INSPECTION.

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Approval Date
3-2-2023
Permit No.

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**NOTES**