<u>City Roadway Notes</u>

- 1. All paving (public and private) to be in accordance with St. Louis County Standards and Specifications except as modified by the City of O'Fallon
- 2. If the intersecting road does not have a curb, then the curb on the new entrance shall begin 10' from the edge of the existing road. Provide 6" of concrete over 5" of aggregate base rock or asphalt equivalent for minor residential streets per City Code 405.370.
- 3.1. Rock to meet the all the requirements of MoDOT type 5 rock with a tighter restriction on the fines being that no more than ten percent (10%) fines shall pass a no. 200 sieve. (City Code 405.210.B.1) The gradation of this rock needs to be submitted to the City for approval. Any deliveries made without the proper delivery ticket, including signature, will not be accepted. The delivery ticket must list the project name or jobsite location. A separate certification sheet may be provided attached to the delivery ticket with a signature of the company's quality control manager. The quality control certification must be current and dated within 4 weeks of the delivery. (City Code 405.210.A.2.k)
- 4. Multi-use trail (when required) Shall have a minimum of 3" Type "C" Asphalt over 4" aggregate base per City requirements. Type C (BP-1) Compaction requirements shall be 92-96% minimum density according to St. Louis Co. Standard Specifications.
- Provide pavement striping at any point where the multi-use trail crosses existing or proposed pavement
- 7. All street stub—outs over 250' in length will require a temporary turnaround.
- 8. All sub grade in cut or fill will need to conform to the City of O'Fallon Compaction requirements 9. Material Testing And Frequency. Materials for construction shall be tested and inspected per the appropriate ASTM code or at the City Engineer's
- discretion. The developer's engineer shall perform quality control quidelines, in accordance with St. Louis County requirements 501.3.1. 10. Approval Of Sub grade And Base (Sub base). The City Engineer or representative shall approve the sub grade before any base is placed thereon and shall approve the base before concrete or surface course is placed. The sub grade and base shall be so constructed that it will be uniform in density
- throughout. 11. In all fill areas in the roadways, soil tests shall be submitted and approved by the City Engineer for each foot of fill and at least one (1) test and an average of one (1) test within every two hundred fifty (250) feet
- 12. No traffic will be allowed on new concrete pavement until it has cured for seven (7) days and it reaches three thousand five hundred (3,500) psi within 28 days. 12.1. Concrete pavements shall not be approved unless it reaches a strength of four thousand (4,000) psi. Cylinders/compressive strength. One (1) set
- of five (5) 4" cylinders within the first fifty (50) cubic yards and one (1) set per one hundred (100) cubic yards thereafter. One (1) cylinder must be tested at seven (7) days, three (3) at twenty-eight (28) days, and one (1) held in reserve. 13. Prior to placement of aggregate base material on sub grade and prior to placement of pavement on base material, the sub grade and base must be proof—rolled with a fully loaded (ten (10) ton load) tandem truck or equivalent tire vehicle with one (1) pass down each driving lane no faster than
- three (3) miles per hour. If soft spots are detected, or pumping, rutting or heaving occurs greater than one (1) inch at the sub grade, the roadbed shall be considered unsatisfactory and the soil in these areas shall be remediated to the depth indicated by the contractor's testing firm and approved by a representative of the City Engineer. 14. Sub grade and base beneath pavements shall be compacted to St. Louis County Highway Department specifications. The moisture range shall be

15. The entire width and length will conform to line, grade and cross section shown on the plans or as established by the engineer. If any settling or

washing occurs, or where hauling results in ruts or other objectionable irregularities, the contractor shall improve the sub grade or base to the satisfaction of the City before the pavement is placed. Additional rolling or methods to verify compaction shall be at the discretion of the City Engineer. Tolerance allowed on all lines, grades and cross sections shall be plus or minus four-hundredths (+0.04) feet.

determined by the Standard or Modified Proctor Density Method AASHTO T-99 and within -2/+4 percentage points of the optimum moisture content.

- 16. Utility Work Prior To Base Construction. No base course work may proceed on any street until all utility excavations (storm and sanitary sewers, water, gas, electric, etc.) have been properly back filled with granular material, crushed stone or gravel mechanically tamped in ten (10) inch lifts. Utilities installed after sub grade preparation shall be bored. Compaction requirements shall follow St. Louis County standards. 17. Equipment calibration. The developer's contractors and subcontractors must have their equipment calibrated by the following minimum standards.
- 17.2. Cylinder compression—annually by independent calibration service. 17.3. Batch scales—monthly.
- 17.4. Nuclear testing devices—every six (6) months. 17.5. Proctor equipment—every six (6) months.
- 17.6. Slump cone—monthly.
- 18. All permanent traffic control will be per M.U.T.C.D. or MoDot standards. S1-1 from the M.U.T.C.D. manual will be used at all crosswalk locations accompanied with ether w16-9p or w16-7p signs.
- 19. All traffic signals, street signs, sign post, backs and bracket arms shall be painted black using Carboline Rust Bond Penetrating Sealer SG and Carboline 133 HB paint (or equivalent as approved by City of O'Fallon and MoDOT)
- 20. If the excavations are made in the improved portion of the right-of-way, twelve inches of granular backfill will be placed over exposed facilities and controlled low strength material (CLSM) aka flowable fill will fill the hole with eight inches of the finished surface for concrete pavement. There will be a plastic membrane placed between the rock base and the CLSM to prevent the material from bleeding into the rock base. The remaining eight inches will be restored by placing a 28 day, 4,000 psi concrete mix.

<u>Duckett Creek Sanitary District Construction Notes</u>

manhole constructed when connecting into existing sewers.

- 1. Underground utilities have been plotted from available information and therefore location shall be considered approximate only. The verification of the location of all underground utilities, either shown or not shown on these plans, shall be the responsibility of the contractor and shall be located prior to any grading or construction of improvements. 2. Gas, water and other underground utilities shall not conflict with the depth or horizontal location of existing or proposed
- sanitary and storm sewers, including house laterals. 3. All existing site improvements disturbed, damaged or destroyed shall be repaired or replaced to closely match
- preconstruction conditions. 4. All fill including places under proposed storm and sanitary sewer lines and paved areas including trench backfills within and off the road right-of-way shall be compacted to 90 percent of maximum density as determined by the "Modified AASHTO T-180 Compaction Test (ASTM D1557)". All tests shall be verified by a Soils Engineer concurrent with grading and backfilling operations. The compacted fill shall be free of rutting and shall be non—yielding and non—pumping during
- 5. The contractor shall prevent all storm, surface water, mud and construction debris from entering the existing sanitary sewer system. The contractor will be required to install a brick bulkhead on the downstream side of the first new
- 6. All sanitary sewer flowlines and tops built without elevations furnished by the engineer will be the responsibility of the sewer contractor.
- 7. It is the responsibility of the contractor to adjust all sanitary sewer manholes (that are affected by the development) to
- 8. Easements shall be provided for all sanitary sewers, storm sewers and all utilities on the record plat.
- 9. All sanitary sewer construction and materials shall conform to the current construction standards of the Duckett Creek
- 10. The Duckett Creek Sanitary District shall be notified at least 48 hours prior to construction for coordination of
- 11. All sanitary sewer building connections shall be designed so that the minimum vertical distance from the low point of the basement to the flowline of a sanitary sewer at the corresponding building connection shall not be less than the diameter of the pipe plus the vertical distance of 2½ feet.
- 12. All sanitary sewer manholes shall be watertight in accordance with Missouri Dept. of Natural Resources specification 10 CSR 20-8.120(6)(F) 1
- 13. All PVC sanitary sewer pipe shall conform to the requirements of ASTM D-3034 Standard Specification for PSM Polyvinyl Chloride Sewer Pipe, SDR-35 or equal, with "clean" 1/2 inch to 1 inch granular stone bedding uniformly graded. This bedding shall extend from 4 inches below the pipe to springline of pipe. Immediate backfill over pipe shall consist of same size "clean" or "minus" stone from springline of pipe to 6 inches above the top of pipe. Final backfill material shall be of suitable material removed from excavation except as other material is specified. Debris, frozen material, large rocks or stones, or other unstable materials shall not be used within 2 feet from top of pipe. 14. All sanitary laterals shall be constructed of Schedule 40 PVC.
- 15. All sanitary and storm sewer trench backfills shall be water jetted. Granular backfill will be used under pavement areas.
- 16. All pipes shall have positive drainage through manholes. Flat invert structures not allowed. 17. Epoxy Coating shall be used on all sanitary sewer manholes that receive pressurized mains.
- 18. All creek crossings shall be lined with rip—rap as directed by District inspectors.
- 19. Brick shall not be used on sanitary sewer manholes.
- 20. Existing sanitary sewer service shall not be interrupted.
- 21. Maintain access to existing residential driveways and streets.
- 22. Pre-manufactured adapters shall be used at all PVC to DIP connections. Rubber boot I Mission-type couplings will not be allowed.
- 23. Any permits, licenses, easements, or approvals required to work on public or private properties or roadways are the responsibility of the developer.
- 24. 'Type N' Lock—Type Cover and Locking Device (Lock—Lug) shall be used where lock—type covers are required.
- 25. All sanitary sewer system work shall be conducted under the inspection of a representative of the District. All work may not require inspection but the District's representative may designate specific areas that must be inspected before the work is backfilled. All testing must be witnessed by the District's Inspector and the Contractor shall furnish all testing equipment as approved by the District. Testing shall include:
- •A mandrel test of all gravity sewers using a mandrel with a diameter that has a diameter 95% of the inside pipe diameter. If the mandrel test fails on any section of pipe, that section of pipe shall be uncovered and replaced. No expansion devices will be allowed to be used to "force" the pipe that is deformed back into round. Any string lines used in mandrel testing shall be removed after testing is completed. Deflection testing cannot be conducted prior to 30 days after final backfill •An air pressure test of all gravity sewers to a pressure of 5 PSI with no observed drop in pressure during a test
- •À vacuum test of all manholes for a period of 1 minute and the vacuum shall be 10" of mercury and may not drop below 9" of mercury at the end of the 1 minute test.

Flood plain Information

1. Refer to Section 415 for Floodplain Development Information

Retaining Walls: Terraced and Vertical

- 1. A permit is required for all retaining walls that are 48 inches or taller in height, measured from the top of the footing to the top of the
- wall or for walls that support a surcharge load or that alters the channelized drainage of any lot or drainage area. 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
- auard on the retaining wall. 4. Retaining walls that alter the channeled drainage of any lot or drainage area shall not be constructed without prior approval and
- permitting from the City of O'Fallon Engineering Department regardless of the height of the wall. 5. See section 405.275 of the City code for additional design requirements.

EXISTING CONDITIONS NOTES

- 1. BEARING SYSTEM ADOPTED ALONG THE SOUTHWEST RIGHT OF WAY LINE OF I-64 (ROUTE 40) PER MODOT PLANS, JOB J6P0672H DATED 6-2-02. (S36°11'38"E)
- 2. THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY THE LAND SURVEYOR.
- 3. NO INVESTIGATION HAS BEEN PERFORMED BY COCHRAN REGARDING HAZARDOUS WASTE, UNDERGROUND CONDITIONS OR UTILITIES AFFECTING THE TRACT SHOWN HEREON.
- 4. THIS PROPERTY LIES WITHIN "ZONE X"(UNSHADED) AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD, "ZONE X"(SHADED) AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE AND "ZONE AE" SPECIAL FLOOD HAZARDS AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD, BASE FLOOD FIFVATIONS DETERMINED, PER FLOOD INSURANCE RATE MAP FOR ST. CHARLES COUNTY, MISSOURI, PANEL 220 OF 525, COMMUNITY PANEL NUMBER 29183C0220G, EFFECTIVE DATE JANUARY 20, 2016 AND PANEL 410 OF 525, COMMUNITY PANEL NUMBER 29183C0410G, EFFECTIVE DATE JANUARY 20, 2016.
- 5. UNDERGROUND STRUCTURES, FACILITIES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE PLANS AND OBSERVED EVIDENCE. ALONG WITH LOCATES FROM LOCAL UTILITY COMPANIES, AND MISSOURI ONE CALL. THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY AND MAY BE OTHERS, THE EXISTENCE OF WHICH IS
- 6. MISSOURI ONE CALL TICKET NO.: 1724311131 THROUGH 172431140
- 7. PROJECT BENCHMARK IS MISSOURI GEOGRAPHIC REFERENCE SYSTEM STATION SC-37 PUBLISHED ELEVATION
- 8. TOPOGRAPHIC INFORMATION IS PER SURVEY BY COCHRAN IN NOVEMBER, 2017.

Rock Preparation and Compaction:

Prior to fill placement, vegetation should be stripped and sloped areas should be benched. The fill materials placed at the site will consist primarily of a rock/soil mixture and blasted rock generated from the site. The shot rock fill materials should be well graded with particle sizes ranging from sand and silt to boulders less that 18 inches in diameter. Boulders larger than 18 inches in diameter should be separated and broke using a track hoe with a breaker or by other means or the boulders should be placed in non-critical fill areas, as approved by a soil technician. We recommend that boulders larger than 18 inches not be placed in areas where they will be encountered when excavating to install utilities or construct basements, or within 2 or 3 feet of the street subgrade level. Where the larger boulders are placed, care should be taken to ensure that voids are not present around them. It may be necessary to place gravel to in fill or "choke off" voids around the larger boulders.

Ripped rock and shot rock should be placed in horizontal lifts not exceeding 18 inches in loose thickness and compacted by a minimum of five passes of a vibratory roller weighing at least 10 tons. Proper compaction may not be achieved without vibratory roller. Due to the varying graduation of fill materials, density tests will generally be considered inappropriate to determine the quality of the fill. Therefore, performance criteria will be used to evaluate the fill. This involves observing the placement of each lift of fill and the effects of the compaction equipment prior to placing additional fill.

Soil Preparation and Compaction:

Remove all stumps, bushes, trees, weeds, roots and other surface obstructions from the site. Contractor to strip all topsoil from the entire area to be graded. After the removal of all foreign organic matter, and after stripping of topsoil, the entire surface to be filled, or areas that are cut to subgrade shall be scarified to a minimum depth of 12 inches and the compacted by proof rolling with suitable compaction equipment weighing not less than 400 psi based on the contact area of one row of feet, or pneumatic—tired roller of equivalent compaction characteristics.

The maximum thickness of fill shall be in lifts not to exceed 8 inches. The proof rolling and the fill compaction operations under the building and paved areas shall produce at least 95% of the Standard Proctor Maximum Dry Density Test (ASTM D-698). Any soft areas encountered during proof rolling shall be undercut and replaced with a properly compacted fill. The compaction of the fill shall be tested during placement by a qualified soil technician to determine if the proper densification is taking place. All fill used on the site should consist of low plasticity soils as approved by the soils engineer. After proof rolling, no water should be allowed to pond on the surface. The earthwork for all building foundations and slabs shall be in accordance with architectural building plans and specifications. Compaction equipment shall be operating of the site at all times during filling operations.

City Erosion Control Notes

per square foot) Ord. 6496, Section 405.095

- 1. The Permittee shall assume complete responsibility for controlling all siltation and erosion of the project area. The Permittee shall use whatever means necessary to control erosion and siltation including, but not limited to, staked straw bales and/or siltation fabric fences (possible methods of control are detailed in the plan). Control shall commence with the clearing operations and be maintained throughout the project until acceptance of the work by City of O'Fallon and as needed by MoDOT. The Permittee's responsibilities include all design and implementation as required to prevent erosion and the depositing of silt. The City of O'Fallon and as required by MoDOT may at their option direct the Permittee in his methods as deemed fit to protect property and improvements. Any depositing of silt or mud on new or existing pavement shall be removed immediately. Any depositing of silts or mud in new or existing storm sewers and/or swales shall be removed after each rain and affected areas cleaned to the satisfaction of the City of O'Fallon and as required by MoDOT.
- All erosion control systems are to be inspected and corrected weekly, especially within 48 hours of any rain storm resulting in one-quarter inch of rain or more. Any silt or debris leaving the site and affecting public right of way or storm water drainage facilities shall be cleaned up within 24 hours after the end of the storm.
- Erosion control devices (silt fence, sediment basin, etc.) shall be in accordance with Missouri Department of Natural Resources Protecting Water Quality — a field quide to erosion, sediment and stormwater best management practices for development sites in Missouri and Kansas. 4. This development is required to provide long term post construction BMP's such as; low impact design, source control and treatment controls that protects water quality and controls run off to maximum extent practical in compliance with Phase II Illicit Storm Water Discharge Guidelines.
- (Ord. 5082, section 405.245) Graded areas shall be seeded and mulched (strawed) within 14 days of stopping land disturbance activities. Unless it can be shown to the City Engineer that weather conditions are not favorable, vegetative growth is to be established within 6 weeks of stopping grading work on the project. The vegetative growth established shall be sufficient to prevent erosion and the standard shall be as required by EPA and DNR. (70% coverage

Storm Water Pollution Prevention Plan Site Notes:

- 1. A Pre-Construction conference will be scheduled with the City prior to the start of construction activities, including installation of the temporary construction entrance. The permittee will be responsible for notifying all contractors and other entities including utility crews that will perform work at the site to be in attendance.
- 2. The contractor shall install perimeter siltation control (silt fencing) and install the construction entrance. 3. Site then shall be cleared and stripped.
- 4.Contractor shall install additional silt fencing and any other sediment control measures as needed in order to control siltation on site.
- 5.Contractor shall maintain all siltation control devices and provide inspection reports as outlined. 6.Contractor shall finish grade all areas as soon as practical and establish permanent vegetation and/or install erosion control matting as shown.,
- 7.During construction of site, the contractor shall maintain all drainage and erosion control structures as needed. 8.Contractor shall finish grade and install any final erosion control measures as project is completed as well as all
- permanent landscaping. 9. Contractor to notify City 2 days prior to start of any site work.

10. Refer to SWPPP Report for sediment controls construction, maintenance and inspection requirements.

A.PURPOSE:

- The purpose of the Storm Water Pollution Prevention Plan (SWPPP) shall meeting the following conditions: • Prevent erosion where construction activities shall occur.
- Prevent pollutants from mixing with storm water.
- Prevent pollutants from being discharged by trapping them on—site, before they can affect the receiving waters. B.PROJECT DESCRIPTION:
- The project is located on Caledonia Parkway near Highway DD in O'Fallon Missouri. This project area is approximately 7.5 Acres.
- The project activities consist of grading, utilities, and paving for a medical office building. This site will be protected with the various erosion protection measures noted below: 1. Perimeter Silt Control: The portion of the project perimeter that has the potential for storm water runoff shall have silt control installed. These silt controls shall be composed of straw bales, silt fence, silt rock or a wood
- chip barrier. These devices shall be built in accordance with the details as listed in the MoDNR Stormwater Quality Guide. 2. Sediment Basins: At all locations where storm water is being directed to a collection point, a sediment basin will
- be constructed. The sediment basin will be designed to filter the pollutants from the water prior to leaving the 3.Revegetation: The site will consist of varying ground slopes upon completion of the grading activities and the
- slope areas prone to erosion will be seeded and strawed to stabilize the slope and prevent erosion. All finish grades (areas not to be disturbed by future improvements) in excess of twenty (20) percent slopes (5 horizontal to 1 vertical) shall be mulched and tacked as required in the Grading Ordinances.
- 4.Storm Inlet Protection: All storm water inlet structures shall be protected with silt control. These controls will be constructed in accordance with the latest details from the O'Fallon Grading Ordinance.

C.MAINTENANCE AND INSPECTION:

Regular Maintenance: Weekly inspections of the project will be required and made available to the City of O'Fallon upon request.

Periodic Inspections: Following each rain of more than one quarter inch within 24 hours, the site will be inspected and any necessary repairs will be made. An inspection report is required to be completed also. The field inspections will be conducted in a systematic manner to minimize the possibility of any significant feature being overlooked. Particular attention will be given to detecting evidence of erosion, slope instability, undue settlement, displacement, and rifling. The field inspection will include appropriate features and items, including

potential hazards to human life or property. The condition of the slopes and vegetation cover will be evaluated and examined for erosion. The sediment basins will be examined for excessive sedimentation and increase in sediment loads, which would reduce the sediment

Measures will be taken to promote the growth of vegetation and repair of damage caused be erosion and sedimentation. The inspection will also provide any recommendations for measures that need to be undertaken immediately, based on the experience and judgement of the inspector. Necessary follow up inspections will be made as necessary to verify that any maintenance, alteration, or repair measures are accomplished by methods acceptable by standard engineering practice.

GENERAL NOTES

STANDARDS AND SPECIFICATIONS.

- 1. THE SITEWORK ON THIS PROJECT SHALL MEET OR EXCEED THE CITY OF O'FALLON, MO
 - 2. PROJECT BENCHMARK: MISSOURI GEOGRAPHIC REFERENCE SYSTEM STATION SC-37.
 - PUBLISHED ELEVATION = 631.23 (NAVD 88) 3. SITE BENCHMARK: CROSS IN SIDEWALK ALONG CALEDONIA PARKWAY ADJACENT TO
 - OWNHOUSE LOTS 420-423 OF THE STREETS OF CALEDONIA-PLAT 8. ELEV. = 596.65 (NAVD 88)
 - 4. SITE IS ZONED: "C-2" GENERAL BUSINESS DISTRICT
 - 5. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL BARRICADES, WARNING SIGNS, FLASHING LIGHTS AND TRAFFIC CONTROL DEVICES DURING CONSTRUCTION. CONTRACTOR TO COMPLY WITH ALL OSHA REGULATION REQUIREMENTS AND SAFETY MEETING REQUIREMENT.
 - 6. UNDERGROUND STRUCTURES, FACILITIES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS. THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN
 - 7. NO INVESTIGATION HAS BEEN PERFORMED BY COCHRAN REGARDING HAZARDOUS WASTE, UNDERGROUND CONDITIONS OR UTILITIES AFFECTING THE TRACT SHOWN HEREON.
- 8. CONTRACTOR TO CONTACT TELEPHONE, ELECTRIC, GAS, WATER AND CABLE COMPANIES HAVE UNDERGROUND UTILITIES LOCATED ON THIS SITE AND ADJACENT TO THIS SITE PRIOR TO DOING ANY EXCAVATING
- 9. ALL UNSURFACED AREAS ARE TO RECEIVE 4 INCHES OF TOPSOIL. CONTRACTOR TO SEEI MULCH, FERTILIZE, AND MAINTAIN ALL AREAS OUTSIDE OF PAVED AREAS THAT WERE DISTURBED DURING CONSTRUCTION UNTIL AN ACCEPTABLE STAND OF GRASS IS THE CONTRACTOR SHALL BE RESPONSIBLE TO TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION
- 10. ALL GRADING, DRAINAGE, DETENTION, AND EROSION CONTROL SHALL BE IN CONFORMANCE WITH THE CITY OF O'FALLON, MO STANDARDS.
- 11. 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 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 COMPANY TO REQUEST EXACT
 FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO
 RELOCATE ALL EXISTING UTILITIES, WHICH CONFLICT WITH THE NEW IMPROVEMENTS
- 12. ALL TRENCHES UNDER PAVED AREAS SHALL BE BACKFILLED WITH GRANULAR MATERIAL AND COMPACTED TO MEET COMPACTION REQUIREMENTS FOR THE ROAD PARKING LOT.
- 13. ALL SURVEY MONUMENTS DISTURBED DURING CONSTRUCTION SHALL BE REPLACED BY A LICENSED LAND SURVEYOR LICENSED IN THE STATE IN WHICH THIS PROJECT IS LOCATED
- AT THE CONTRACTOR'S EXPENSE. 14. CONTRACTOR TO OBTAIN AND FOLLOW INSTALLATION REQUIREMENTS FOR STORM SEWER FROM PIPE MANUFACTURER FOR EACH TYPE OF PIPING MATERIAL. HDPE FLARED ENDS
- SHALL NOT BE ALLOWED 15. CONTRACTOR SHALL COORDINATE ADJUSTMENTS TO EXISTING UTILITIES WITH APPROPRIATE UTILITY COMPANY AS WORK PROGRESSES.
- 16. CONTRACTOR SHALL COORDINATE THE SCHEDULING AND LOCATION OF THE DEMOLITION AND INSTALLATION OF ALL UTILITIES, INCLUDING STAKEOUT, CONDUIT REQUIRED, TRENCHING REQUIRED, ETC. CONTRACTOR SHALL CONTACT EACH UTILITY PROVIDER WITH AT LEAST 30 DAYS ADVANCE NOTICE OF ANY WORK TO BE DONE.
- 17. CONTRACTOR SHALL PROVIDE A MINIMUM OF 18" OF CLEARANCE BETWEEN SANITARY SEWER AND WATERLINES AND A MINIMUM OF 18" OF CLEARANCE BETWEEN STORM SEWERS AND WATERLINES. THIS MAY MEAN THAT LOWERING OF WATERLINES MAY BE
- 18. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR SANITARY SEWER, WATER MAIN, AND STORM SEWER STRUCTURES TO COCHRAN FOR REVIEW AND APPROVAL PRIOR TO
- FABRICATION OF ANY STRUCTURES. 19. STORM AND SANITARY SEWER PLAN INFORMATION DEPICTS PIPE LENGTHS AND GRADES
- CALCULATED FROM THE CENTER OF ALL STRUCTURES.
- 20. ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.
- 1. UTILITY CONTRACTOR SHALL HAVE APPROVAL OF ALL GOVERNING AGENCIES HAVING JURISDICTION OVER THIS SYSTEM PRIOR TO INSTALLATION.
- 22. ALL NECESSARY INSPECTIONS, TESTING, AND/OR CERTIFICATIONS REQUIRED BY CODES, THE COUNTY, AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICES.
- 23. CONTRACTOR IS ENCOURAGED TO VISIT THE SITE PRIOR TO SUBMITTING THEIR BID FOR
- 24. CONTRACTOR SHALL MAINTAIN THE SITE IN A WELL-DRAINED MANNER IN ORDER TO ASSUME THE SHORTEST POSSIBLE DRYING TIME AFTER EACH RAINFALL. THIS WILL MEAN THAT PUMPING OF STANDING WATER IN LOW AREAS ON THE SITE WILL MOST LIKELY BE REQUIRED DURING CONSTRUCTION.
- 25. CONTRACTOR SHALL SAW CUT ALL CURB AND GUTTER SECTIONS, CONCRETE MEDIANS AND ALONG PAVEMENT WHERE NEW CONSTRUCTION TIES INTO EXISTING AREAS. CONTRACTOR SHALL MAINTAIN TRAFFIC FLOW AND PROVIDE TRAFFIC CONTROL THROUGHOUT CONSTRUCTION.
- 26. ALL EXISTING STRUCTURES UNLESS OTHERWISE NOTED TO REMAIN, (I.E. FENCING, TREES CONCRETE, ASPHALT PAVEMENT, UTILITIES, ETC.) WITHIN THE CONSTRUCTION AREA SHAL BE REMOVED AND DISPOSED OFF—SITE IN A MANNER MEETING LOCAL AND STATE REGULATIONS. ANY BURNING ON SITE SHALL BE SUBJECT TO LOCAL AND STATE ORDINANCES AND THE OWNER'S SPECIFICATIONS.
- 27. ALL CUT OR FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED. 28. EXISTING GRADE CONTOURS SHOWN AT 1 FOOT INTERVALS. NEW GRADE CONTOURS
- SHOWN AT 1 FOOT INTERVALS. 29. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
- 30. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL GREEN SPACE AND PAVED AREAS.
- 31. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO KEEP ALL MUD AND SILT ON SITE AND OFF OF STREETS
- 32. LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY GOVERNING AGENCIES AND UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN TAKEN.

PIPE MATERIAL NOTES

- (A) Storm sewer pipe shall be reinforced concrete pipe, Class III per ASTM C-76, with flexible plastic bitumen gaskets at joints. Pipe shall be installed in accordance with pipe manufacturer's installation guidelines. (B) Polypropylene Pipe (PP) per ASTM F-2881 & F-2764; pipe shall be installed
- in accordance with pipe manufacturer's installation guidelines. 2. Sanitary sewer pipe shall be SDR 35 PVC.
- 3. Storm sewer downspout collector pipe shall be SDR 35 PVC pipe. Storm sewer downspout laterals shall be Schedule 40 PVC pipe.
- 4. Water main pipe type shall be per PWSD #2 specifications.

GEOTECHNICAL NOTES

1. Contractor shall reference Geotechnical Report prepared by Cochran Engineering on June 23, 2022.

Iissouri State Certificate of Authority Numbers: 000380 Survev Engineering: 001655 Architecture: 2002014240 ᅙᆂᇰ

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OF MISS TIMOTHY SCHOWE Tronothy School NUMBER PE-2018000268 10-21-22 ONALES

JMM ○ OCT. 21, 2022 NO SCALE 22-9120