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Benchmarks

Project

PROJECT ELEVATIONS UTILIZE THE NAVD 88 VERTICAL DATUM AND WERE GENERATED BY GPS OBSERVATIONS USING A CELLULAR EQUIPPED TRIMBLE R12 GNSS ROVER AND TRIMBLE TSC5 DATA COLLECTOR AND ARE BASED ON THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION GLOBAL NAVIGATION SATELLITE REAL TIME NETWORK FOR CONTINUOUS OPERATING REFERENCE STATIONS.

REFERENCE BENCHMARK: THE ELEVATIONS SHOWN ON THIS DRAWING ARE REFERENCED FROM "THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION GLOBAL NAVIGATION SATELLITE REAL TIME NETWORK FOR CONTINUOUS OPERATING REFERENCE STATIONS", COMMONLY KNOWN AS "MODOT VRS". MODOT VRS UTILIZES A NETWORK OF REFERENCE SENSOR STATIONS FOUND THROUGHOUT THE STATE OF MISSOURI AND IS ADMINISTERED BY THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION (MHTC). MODOT VRS MOUNT POINTS PROVIDE CORRECTIONS CONSISTENT WITH NGS'S NAD83(2011) EPOCH 2010.00 ADJUSTMENT. MODOT VRS UTILIZES THE NAVD 88 AS A VERTICAL DATUM.

Site

SITE BENCHMARK (NAVD 88) - "O" IN "OPEN" ON FIRE HYDRANT LOCATED ON THE EAST SIDE OF WELKER PARKWAY (ELEVATION=624.90) AND IS LOCATED AS SHOWN HEREON.

* City of O'Fallon Construction work hours per City Ordinance 3429 as shown in Section 500.420 of the Municipal Code of the City of O'Fallon are as follows:

October 1 through May 31
7:00 A.M. To 7:00 P.M. Monday Through Sunday
June 1 Through September 30
6:00 A.M. To 8:00 P.M. Monday Through Friday
7:00 A.M. To 8:00 P.M. Saturday and Sunday

Construction work to be done outside of these hours requires prior written approval from the City Administrator or City Engineer.

* The area of this phase of development is 1.55 ACRES.
The area of land disturbance is 1.26 ACRES.
Number of proposed lots is 1.
Building setback information: Front: 25 FEET
Side: 0 FEET
Rear: 10 FEET

* The estimated sanitary flow in gallons per day is 2,625 G.P.D.
-15 GPD PER PERSON - 175 PEOPLE x 15 GPD = 2,625 GPD

* Tree Preservation: 20% of existing trees or 15 trees per acre (whichever is greater) shall be preserved.
-Existing canopy 10,601 sq.ft.
-Proposed possible removal of 1,320 sq.ft.
1,320/10,601 = 12.5% existing tree canopy removed
87.5% of existing tree canopy to remain



CALL BEFORE
YOU DIG!
1-800-DIG-RITE

*FIBER OPTICS ARE PRESENT

GRADING QUANTITIES:

2,428 C.Y. CUT (INCLUDES SUBGRADES)
3,185 C.Y. FILL (INCLUDES 8% SHRINKAGE)
757 C.Y. SHORT/HAUL IN

THE ABOVE GRADING QUANTITY IS APPROXIMATE ONLY, NOT FOR BIDDING PURPOSES. CONTRACTOR SHALL VERIFY QUANTITIES PRIOR TO CONSTRUCTION.

LEGEND			
	CURB/AREA INLET		BENCHMARK
	DOUBLE CURB/AREA INLET		OLD STONE
	GRATED INLET		CROSS
	DOUBLE GRATED INLET		FOUND MONUMENT
	SANITARY SEWER MANHOLE		SET MONUMENT
	IRRIGATION CONTROL VALVE		CONCRETE
	SIGN		GAS BURIED GAS
	TREE		BURIED WATER
	SURVEYED MEASUREMENT		SAN- SANITARY SEWER
	RECORD MEASUREMENT		FENCE LINE
			TREE LINE

PUBLIC WATER SUPPLY DISTRICT NO. 2

- ALL WATER SERVICE LINES, FIRE LINES, AND PRIVATE WATER MAINS MUST BE INSTALLED PER PWSH NO. 2 SPECIFICATIONS.
- PWSH NO. 2 REQUIRES ONE (1) WEEK NOTICE PRIOR TO THE START OF CONSTRUCTION.
- ALL METER PITS/VAULTS ARE TO BE INSTALLED IN GREEN SPACE PER PWSH NO. 2 SPECIFICATIONS.
- ALL PRIVATE FIRE HYDRANTS MUST BE PAINTED RED PER PWSH NO. 2 SPECIFICATIONS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL MODOT AND CITY PERMITS REQUIRED TO WORK ALONG THE ROADWAYS.
- ALL WATER MAINS, VALVES, FITTINGS, HYDRANTS, AND RELATED ITEMS ARE TO BE INSTALLED IN ACCORDANCE WITH THE CURRENT PWSH#2 OF ST. CHARLES COUNTY GUIDELINES AND SPECIFICATIONS AS APPROVED BY MODNR REVIEW NO. 6050805-13.

SEE SHEET 17 FOR PWSH NO. 2 WATER DETAILS

City approval of any construction site plan does not mean that any building can be constructed on the lots without meeting the building setbacks as required by the zoning codes.

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, they shall make such changes at their own risk, without any assurance that the City Engineer will approve the completed installation or construction. It shall be the responsibility of the developer to notify the City Engineer of any changes from the approved drawings. The developer may be required to correct the installed improvements so as to conform to the approved engineering drawings. The developer may request a letter from the Construction Inspection Division regarding any field changes approved by the City Inspector.

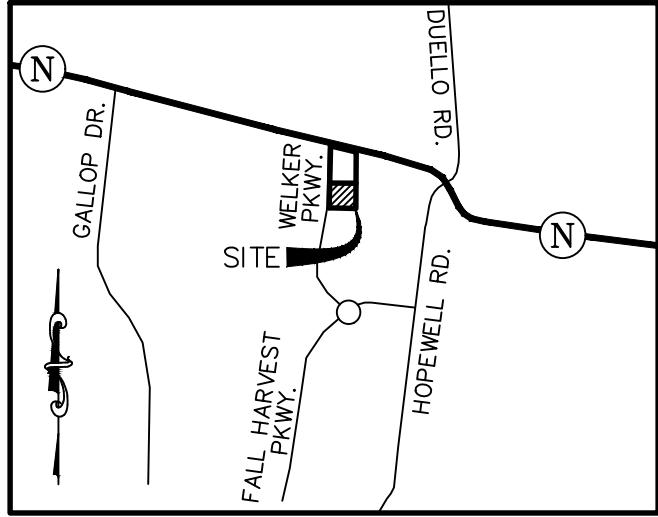
Lighting values will be reviewed on site prior to the final occupancy inspection.

CONSTRUCTION PLANS FOR
ASPEN ACADEMY

A TRACT OF LAND LOCATED IN
FRACTIONAL SECTION 8, TOWNSHIP 47 NORTH, RANGE 2 EAST
CITY OF O'FALLON, ST. CHARLES COUNTY, MISSOURI

Conditions of Approval From
Planning and Zoning

- THIS APPROVAL IS CONDITIONAL UPON ALL APPLICABLE REQUIREMENTS PROVIDED WITHIN TITLE IV OF THE CITY'S MUNICIPAL CODE BEING ADDRESSED ON THE CONSTRUCTION SITE PLAN.
- PROVIDE ONE ADDITIONAL ADA PARKING SPACE.
- EXTEND THE LANDSCAPE BUFFER TO THE WESTERN PROPERTY LINE.
- PROVIDE A PHOTOMETRIC PLAN
- OCCUPANCY PERMITS WILL NOT BE ISSUED FOR THIS SITE UNTIL THE NEW SANITARY SEWER PLANT IS OPERATIONAL.
- PROVIDE FIRE DISTRICT, MODOT, CORPS OF ENGINEERS, MDNR, SANTIARY AND WATER DISTRICT AND SCHOOL DISTRICT APPROVAL.



Locator Map
NOT TO SCALE

DUCKETT CREEK SANITARY DISTRICT CONSTRUCTION NOTES

- 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.
- 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.
- All existing site improvements disturbed, damaged or destroyed shall be repaired or replaced to closely match preconstruction conditions.
- 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 01557)". All tests shall be verified by a Sole Engineer concurrent with grading and backfilling operations. The compacted fill shall be free of rutting and shall be non-yielding and non-pumping during proofrolling and compaction.
- 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 manhole constructed when connecting into existing sewers.
- All sanitary sewer flowlines and tops built without elevations furnished by the engineer will be the responsibility of the sewer contractor.
- It is the responsibility of the contractor to adjust all sanitary sewer manholes (that are affected by the development) to finish grade.
- Easements shall be provided for all sanitary sewers, storm sewers and all utilities on the record plat.
- All sanitary sewer construction and materials shall conform to the current construction standards of the Duckett Creek Sanitary District.
- The Duckett Creek Sanitary District shall be notified at least 48 hours prior to construction for coordination of inspection.
- All sanitary sewer building connections shall be designed so that the minimum vertical distance from the low point of the basement to the flowline of a sanitary sewer at the corresponding building connection shall not be less than the diameter of the pipe plus the vertical distance of 2 1/2 feet.
- All sanitary sewer manholes shall be watertight in accordance with Missouri Dept. of Natural Resources specification 10 CSR 20-8.120(6)(F) 1.
- All PVC sanitary sewer pipe shall conform to the requirements of ASTM D-3034 Standard Specification for PSM Polyvinyl Chloride Sewer Pipes, 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.
- All sanitary and storm sewer trench backfills shall be water jetted. Granular backfill will be used under pavement areas.
- All pipes shall have positive drainage through manholes. Flat invert structures not allowed.
- Epoxy Coating shall be used on all sanitary sewer manholes that receive pressurized mains.
- All creek crossings shall be lined with rip-rap as directed by District inspectors.
- Brick shall not be used on sanitary sewer manholes.
- Existing sanitary sewer service shall not be interrupted.
- Maintain access to existing residential driveways and streets.
- Pre-manufactured adapters shall be used at all PVC to DIP connections. Rubber boot 1 Mission-type couplings will not be allowed.
- Any permits, licenses, easements, or approvals required to work on public or private properties or roadways are the responsibility of the developer.
- "Type N" Lock-Type Cover and Locking Device (Lock-Lug) shall be used where lock-type covers are required.

- 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 period of 5 minutes.
- A 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.

Utility Contacts

Sanitary Sewer DUCKETT CREEK SEWER DISTRICT 3550 Highway K O'Fallon, MO. 63368 636-441-1244	Electric CUMVE RIVER ELECTRIC COOPERATIVE 8757 Highway K Lake Saint Louis, MO. 63367 636-695-4700
Water PUBLIC WATER SUPPLY DISTRICT No. 2 SPIRE 100 Water Drive O'Fallon, MO. 63368 636-561-3737	Gas 6400 Graham Road St. Louis, MO. 63134 314-522-2237
Fire Department Wentzville Fire Protection District 209 W. Pearce Blvd. O'Fallon, MO. 63395 636-327-6239	Telephone Century Tel 1151 Century Tel Dr. Wentzville, MO. 63395 636-332-7261
	Charter Communications 941 Charter Commons Town & Country, MO. 63017 1-888-438-2427
	O'Fallon Stormwater 100 N. Main St. O'Fallon, MO. 63366 636-240-2000

DEVELOPMENT NOTES

- AREA OF PARCEL A: 4.21 ACRES
PROPOSED LOT 1 = 1.55 ACRES
PARCEL A REMAINDER = 2.66 ACRES
- ZONING: C-2 GENERAL BUSINESS DISTRICT
- SETBACKS FOR C-2 ZONING GENERAL BUSINESS DISTRICT:
MINIMUM FRONT YARD: 25 FEET
0 FEET (IF ABUTS RESIDENTIAL/OFFICE ZONING THEN SAME AS RESIDENTIAL/OFFICE SETBACK)
MINIMUM REAR YARD: 0 FEET (IF ABUTS RESIDENTIAL/OFFICE THEN 10 FEET)
MAXIMUM BUILDING HEIGHT: 50 FEET
- CURRENT LAND OWNER:
HARVEST HOPWELL LLC
5091 NEW BAUMGARTNER ROAD
ST. LOUIS, MO 63129
- SITE COVERAGES:
TOTAL SITE ACREAGE - 4.21 ACRES
PARCEL A REMAINDER - 2.66 ACRES
GREEN SPACE - 2.66 ACRES = 100%
LOT 1 - 1.55 ACRES
BUILDING - 0.27 ACRES = 17%
PAVEMENT - 0.41 ACRES = 27%
GREEN SPACE - 0.87 ACRES = 56%
- PARKING REQUIRED:
DAYCARE AND PRE-SCHOOLS
ONE (1) SPACE PER SIX (6) PUPILS, PLUS ONE (1) SPACE PER EMPLOYEE, BASED UPON THE MAXIMUM NUMBER OF PUPILS FOR WHICH THE FACILITY IS LICENSED BY THE STATE OF MISSOURI / 6 = 25.33 ~ 26 SPACES REQUIRED
23 EMPLOYEES = 23 SPACES REQUIRED
TOTAL PARKING REQUIRED = 49 SPACES
TOTAL PARKING PROVIDED = 54 SPACES INCLUDING 3 ADA
BICYCLE PARKING SPACES @ 1 PER 15 VEHICLE PARKING SPACES
54/15 = 3.6 ~ 4 BICYCLE PARKING SPACES REQUIRED AND PROVIDED
- ALL PAVING TO BE IN ACCORDANCE WITH THE CITY OF O'FALLON STANDARDS AND SPECIFICATIONS.
- SIDEWALKS, CURB RAMPS, RAMP 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, AND SPECIFICATIONS AND SIGNAGE.
- A PHOTOMETRIC PLAN WILL BE SUBMITTED WITH THE CONSTRUCTION PLANS. LIGHTING VALUES WILL BE REVIEWED ON SITE PRIOR TO THE FINAL OCCUPANCY INSPECTION. CORRECTIONS WILL NEED TO BE MADE IF NOT IN COMPLIANCE WITH CITY STANDARDS. ALL LIGHTING TO BE DOWNCAST.
- ALL NEW UTILITIES WILL BE LOCATED UNDERGROUND.
- LANDSCAPING REQUIREMENTS:
STREET TREES, 1 TREE FOR EVERY 40' OF FRONTAGE
WELKER PARKWAY 263.96'/40' = 6.59 ~ 7 TREES REQUIRED & PROVIDED
ONE TREE SHALL ALSO BE REQUIRED FOR EVERY 3,000 SQ.FT. OF LANDSCAPED OPEN SPACE
OPEN SPACE = 5,722 SQ.FT. / 3,000 = 1.90 ~ 2 TREES REQUIRED AND PROVIDED
INTERIOR LANDSCAPING, NOT LESS THAN 6% OF INTERIOR PARKING LOT SHALL BE LANDSCAPED
49 PARKING SPACES x 270 SQ.FT. = 13,230 x 6% = 793.8 ~ 794 SQ.FT. REQUIRED
879 SQ.FT. PROVIDED INCLUDING 2 TREES AND 20 SHRUBS
BUFFER REQUIREMENT SOUTH PROPERTY LINE - FOR EVERY 100' OF FRONTAGE
A TOTAL OF TWO PLANT UNITS AND A SIX FOOT HIGH SIGHT PROOF VINYL FENCE ARE REQUIRED WITH THE 25 FOOT BUFFERYARD AREA
- THE MAXIMUM SLOPE SHALL BE 3:1.
- ALL HVAC AND MECHANICAL UNITS ON SITE SHALL BE PROPERLY SCREENED AS REQUIRED BY CITY CODE 400.278. ROOFTOP UNITS SHALL BE SCREENED BY A PARAPET WALL THAT EXTENDS AROUND THE ENTIRE PERIMETER OF THE BUILDING; THE PARAPET SHALL HAVE A MINIMUM HEIGHT THAT IS AT LEAST AS TALL AS THE TALLEST UNIT MOUNTED ON THE ROOF; GROUND MOUNTED HVAC AND 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.
- ANY PROPOSED SIGNAGE SHALL BE REVIEWED UNDER A SEPARATE PERMIT PROCESS.
- ESTIMATED SANITARY FLOW.
15 GPD PER PERSON - 175 PEOPLE x 15 GPD = 2,625 GPD
- BASIS OF BEARINGS IS THE MISSOURI COORDINATE SYSTEM OF 1983, EAST ZONE (GRID NORTH).

TO DETERMINE THE LOCATION OF FLOOD DESIGNATIONS AND BOUNDARIES, WE DETERMINED THE HORIZONTAL LOCATION OF THIS TRACT OF LAND BY SCALING THE FOLLOWING FLOOD INSURANCE RATE MAP (FIRM): ST. CHARLES COUNTY, MISSOURI AND INCORPORATED AREAS, MAP NUMBER 29183C0215G, WITH AN EFFECTIVE DATE OF JANUARY 20, 2016.

COMMUNITY: ST. CHARLES COUNTY
NUMBER: 290315
PANEL: 0215
SUFFIX: C
BY EXPRESS REFERENCE TO THIS MAP AND ITS LEGEND, THIS TRACT OF LAND IS INDICATED TO BE WITHIN THE FOLLOWING ZONES:
ZONE X - AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.
ALL SIGNAGE SHALL BE APPROVED THROUGH PLANNING AND DEVELOPMENT VIA A SEPARATE PERMITTING PROCESS.
DETENTION AND WATER QUALITY ARE PROVIDED FOR BY HARVEST AT HOPWELL SUBDIVISION.
THIS SITE IS IN COMPLIANCE WITH ARTICLE XIII PERFORMANCE STANDARDS, AND THE COMPREHENSIVE PLAN.

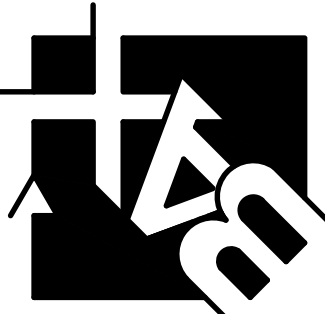
CITY OF O'FALLON
ENGINEERING DEPARTMENT
ACCEPTED FOR CONSTRUCTION
BY: Ryan Rockwell DATE 12/31/2024
PROFESSIONAL ENGINEER'S SEAL
INDICATES RESPONSIBILITY FOR DESIGN

UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THEREFORE THEIR LOCATIONS 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 THE IMPROVEMENTS.

PROJECT TITLE:

ASPEN ACADEMY
740 WELKER PARKWAY
O'FALLON, MISSOURI 63395

ENGINEERING
PLANNING
SURVEYING



DISCLAIMER OF RESPONSIBILITY
I hereby specify that the documents intended to be authorized by my seal are limited to this sheet, and I hereby disclaim any responsibility for all other drawings, specifications, estimates, reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey.



CLIFFORD L. HEITMANN
CIVIL ENGINEER
E29817

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REVISIONS

11-25-24	dcad & pwsd comments
12-18-24	city comments

Developer / Owner:
VM MUELLER PROPERTIES LLC - MADELINE MUELLER
3298 DYER ROAD
O'FALLON, MISSOURI 63366
636-544-4357 - madeline.bathe@yahoo.com

COVER SHEET

P+Z No. #24-0025299
Approval Date: Sept 5, 2024

City No. #

Page No.

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Issue Date: 11/7/2024
Box Project # 24-16168