

**Drawing Index:**

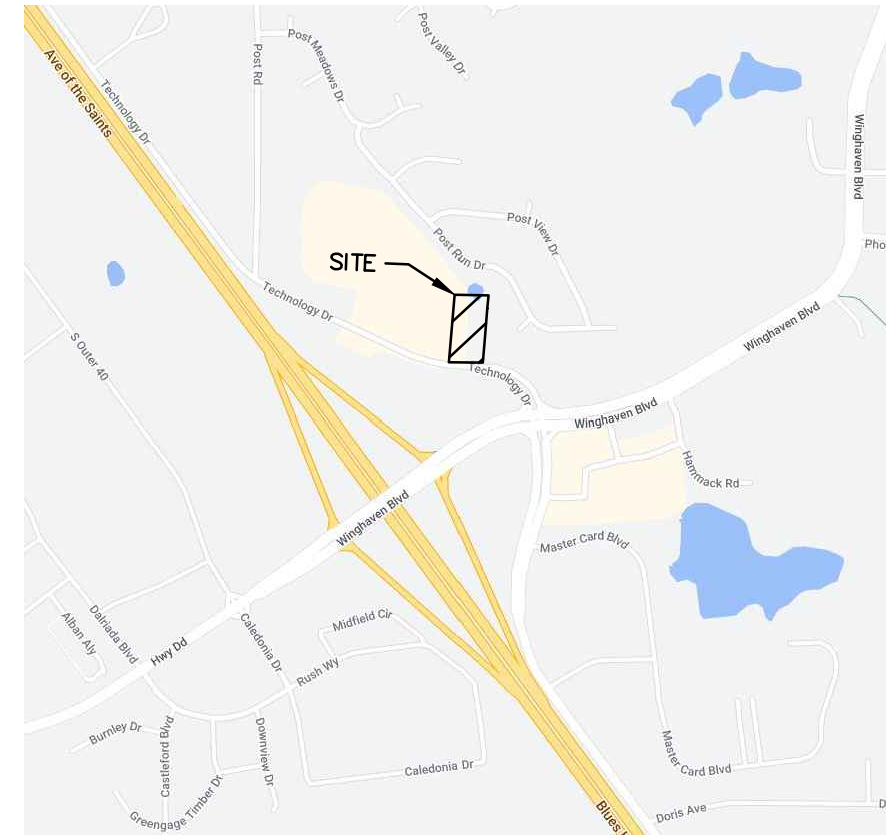
Cover Sheet.....	C0
City of O'Fallon Development Notes.....	C1
General Notes.....	C1A
Existing Conditions.....	C2
Site Plan.....	C3
Utility Plan.....	C4
Grading Plan.....	C5
Erosion and Sediment Control Plan.....	C6
S.W.P.P.P. General Notes and Details.....	C7
Storm Plan and Profile.....	C8
Existing Drainage Area Map.....	C9
Proposed Drainage Area Map.....	C10
Existing Tributary Drainage Area Map.....	C11
Proposed Tributary Drainage Area Map.....	C12
Water Quality Drainage Area Map.....	C13
Detention Basin Cross Sections.....	C14
Details.....	C15
Details.....	C16
Details.....	C17
Photometric Plan.....	C18
Landscape Plan.....	C19

**Benchmarks**

**Project**  
 ELEV.=631.23 (SC-37)  
 THE PROJECT BENCHMARK IS A MISSOURI DNR GRS ALUMINUM DISKS STAMPED "SC-37 2000" AND "SC-37A 2000", EACH SET IN A 12 INCH DIAMETER CONCRETE MONUMENT ABOUT 30 INCHES LONG AND FLUSH WITH THE GROUND.

**Site**  
 ELEV. = 584.23 (NAVD 1988)  
 THE SITE BENCHMARK IS AN IRON PIPE AT THE SOUTHWEST CORNER OF THE PARCEL LOCATED SOUTH OF SUBJECT PARCEL. IT IS APPROXIMATELY 22.1 FEET NORTH OF THE BACK OF CURB OF TECHNOLOGY DRIVE AND APPROXIMATELY 29.8 FEET WEST OF THE CONCRETE DRIVE.

# A SET OF CONSTRUCTION PLANS FOR SOLACE HOSPICE CENTER (PHASE 2) 2290 TECHNOLOGY DRIVE O'FALLON, MO 63368



Locator Map

**Legal Description**

A TRACT OF LAND BEING PART OF THE FORMER HODGEN BATES ESTATE, IN SECTION 12, TOWNSHIP 46 NORTH, RANGE 2 EAST OF THE FIFTH PRINCIPAL MERIDIAN, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:  
 COMMENCING AT THE SOUTHWEST CORNER OF LOT 26 OF POST MEADOWS-PLAT 3, A SUBDIVISION ACCORDING TO PLAT BOOK 35, PAGE 183 OF THE ST. CHARLES, MISSOURI COUNTY RECORDS, SAID POINT BEING DISTANT NORTH 82 DEGREES 29 MINUTES 04 SECONDS WEST 0.38 FEET FROM AN IRON PIPE; THENCE SOUTH 02 DEGREES 31 MINUTES 24 SECONDS WEST 250.15 FEET ALONG THE EAST LINE OF HILTON AT WINGHAVEN A SUBDIVISION ACCORDING TO PLAT BOOK 41, PAGE 313 OF THE ST. CHARLES, MISSOURI COUNTY RECORDS TO A POINT; SAID POINT BEING THE POINT OF BEGINNING; THENCE SOUTH 87 DEGREES 24 MINUTES 35 SECONDS EAST 208.06 FEET TO A POINT ON THE WEST LINE OF LOT 31 OF THE AFOREMENTIONED POST MEADOWS-PLAT 3 SUBDIVISION; THENCE FOLLOWING SAID WEST LINE SOUTH 02 DEGREES 35 MINUTES 25 SECONDS WEST 153.60 FEET TO AN IRON ROD ON THE NORTH RIGHT OF WAY LINE OF TECHNOLOGY DRIVE, A PUBLIC ROADWAY OF VARIABLE WIDTH; THENCE ALONG SAID RIGHT OF WAY LINE SOUTH 88 DEGREES 11 MINUTES 36 SECONDS WEST 208.48 FEET TO AN IRON PIPE; THEN DEPARTING SAID RIGHT OF WAY LINE NORTH 02 DEGREES 31 MINUTES 24 SECONDS EAST 169.58 FEET TO THE POINT OF BEGINNING AND CONTAINING 1.228 ACRES MORE OR LESS ACCORDING TO CALCULATIONS MADE BY COCHRAN ENGINEERING DURING NOVEMBER, 2023.

**Legend**

EXISTING	
RIGHT-OF-WAY	R/W
PROPERTY LINE	---
EXISTING MAJOR CONTOUR	---XXX---
EXISTING MINOR CONTOUR	---
EXISTING EASEMENT	---
EXISTING FENCE	---
EXISTING WATER LINE	---W---
EXISTING STORM SEWER	---SS---
EXISTING SANITARY LINE	---SAN---
EXISTING UNDERGROUND ELECTRIC	---UGE---
EXISTING UNDERGROUND CABLE	---UGC---
EXISTING DOWNSPOUT	---DS---
EXISTING SANITARY MANHOLE	⊙
EXISTING SANITARY/STORM CLEAN-OUT	⊙
EXISTING CABLE PEDESTAL	⊙
EXISTING CURB INLET	⊙
EXISTING GRATED INLET	⊙
EXISTING AREA INLET	⊙
EXISTING STORM MANHOLE	⊙
EXISTING SIGN	⊙
EXISTING WATER VALVE	⊙
EXISTING FIRE HYDRANT	⊙
EXISTING WATER METER	⊙
EXISTING UTILITY POLE	⊙
EXISTING MAILBOX	⊙
BENCHMARK	⊙
EXISTING TREE	⊙
EXISTING TREELINE	⊙
EXISTING BUILDING	⊙
EXISTING CONCRETE PAVEMENT	⊙

NEW	
NEW MAJOR CONTOUR	---XXX---
NEW MINOR CONTOUR	---
NEW SETBACK LINE	---
NEW EASEMENT LINE	---
NEW FENCE	---
NEW STORM SEWER PIPE	---SS---
NEW WATER LINE	---W---
NEW SANITARY LATERAL	---LAT---
NEW DOWNSPOUT	---DS---
NEW SANITARY CLEAN OUT	⊙
NEW STORM INLET	⊙
NEW FLARED END SECTION	⊙
NEW GRATED INLET WITH SIDE INTAKE	⊙
NEW STORM MANHOLE	⊙
NEW SIGN	⊙
NEW WATER METER	⊙
NEW LIGHT	⊙
SPOT ELEVATION	⊙
ACCESSIBLE PARKING SYMBOL	⊙
NEW TREELINE	⊙
NEW STANDARD DUTY ASPHALT	⊙
NEW CONCRETE PAVEMENT/SIDEWALK	⊙
NEW BUILDING	⊙
NEW HEAVY DUTY ASPHALT	⊙

**Conditions of Approval From  
 Planning and Zoning**

- CONDITIONS OF SITE PLAN:
- THIS APPROVAL IS CONDITIONAL UPON ALL APPLICABLE REQUIREMENTS PROVIDED WITH TITLE IV OF THE CITY'S MUNICIPAL CODE BEING ADDRESSED ON THE CONSTRUCTION SITE PLAN.
  - UPDATE THE UTILITY PROVIDERS TO REFLECT THE WENTZVILLE FIRE PROTECTION DISTRICT.
  - PROVIDE TOP AND BOTTOM OF RETAINING WALL ELEVATIONS.
  - PROVIDE APPROVAL LETTERS FROM RELEVANT NON-CITY PERMITTING AGENCIES.
- \* 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
- \* The area of this phase of development is 1.23 AC.  
 The area of land disturbance is 1.05 AC.  
 Number of proposed lots is 1  
 Building setback information. Front 25'  
 Side 10' abutting residential  
 Rear 6' abutting residential
- \* The estimated sanitary flow in gallons per day is 2,094 GPD
- \* Tree preservation calculations: N/A

CITY OF O'FALLON  
 ENGINEERING DEPARTMENT  
 ACCEPTED FOR CONSTRUCTION  
 BY: Ryan Rockwell DATE 06/04/2025  
 PROFESSIONAL ENGINEER'S SEAL  
 INDICATES RESPONSIBILITY FOR DESIGN

All OSHA rules & regulations established for the type of construction required by these plans shall be strictly followed (i.e. Trenching, Blasting, etc.)  
**CALL OR CLICK 3 DAYS BEFORE YOU DIG!**  
**1-800-DIG-RITE or 811**  
 MISSOURI ONECALL.ORG www.mo1call.com  
 City of O'Fallon Standard Notes and Details - July 2019

**Utility Contacts**

**Sanitary Sewers**  
 Duckett Creek Sanitary District  
 3550 State Hwy K  
 O'Fallon, MO. 63368  
 636-441-1244

**Water**  
 Public Water Supply District No. 2  
 P.O. Box 967  
 O'Fallon, MO. 63366  
 636-561-3737

**Storm Sewer**  
 City of O'Fallon  
 100 N. Main St.  
 O'Fallon, MO. 63366  
 636-240-2000

**Electric**  
 Ameren Missouri  
 200 Callahan Road  
 Wentzville, MO. 63385  
 636-639-8312

**Gas**  
 Spire Gas  
 6400 Graham Road  
 St. Louis, MO. 63134  
 314-522-2297

**Telephone**  
 AT&T  
 800-288-2020

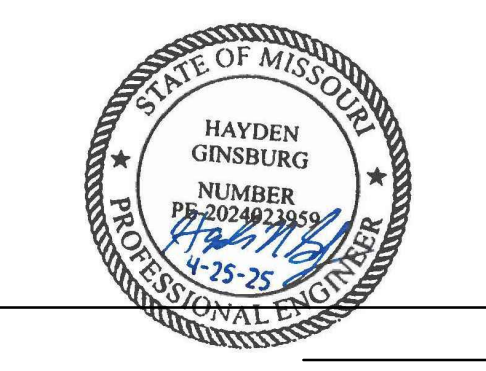
**Fire District**  
 Wentzville Fire Protection District  
 502 Leutkenhaus Blvd  
 Wentzville, MO. 63385  
 636-332-9869



636-332-4574 (tel.)  
 636-327-0760 (fax)  
 636-332-4574 (cell)  
 636-332-4574 (text)  
 636-332-4574 (email)  
 636-332-4574 (web)  
 636-332-4574 (fax)  
 636-332-4574 (cell)  
 636-332-4574 (text)  
 636-332-4574 (email)  
 636-332-4574 (web)

**COCHRAN**  
 North Office  
 8 East Main Street  
 Wentzville, Missouri 63385

Missouri State Certificate of Authority Number: 2010000046  
 Cochran Project No. M22-8498C



DATE  
 Hayden N. Ginsburg No. PE-2024023959  
 Registered Professional Engineer  
 State of Missouri  
 for Cochran Engineering & Surveying

**Developer Information**  
 HV PROPERTY MANAGEMENT, LLC  
 14010 MANCHESTER RD., MANCHESTER, MO 63011

**Owner Information**  
 HV PROPERTY MANAGEMENT, LLC  
 14010 MANCHESTER RD., MANCHESTER, MO 63011

**City of O'Fallon Cover Sheet**

P+Z No. 24-012821  
 Approval Date: FEB. 6, 2025  
 Permit No.  
 Page No.  
**C0**

# CITY OF O'FALLON NOTES

## GENERAL NOTES

- Driveway locations shall not interfere with the sidewalk handicap ramps, or curb inlet sumps
- Sidewalks, curb ramps, ramps and accessible parking spaces shall be constructed in accordance with the current approved "American with Disabilities Act Accessibility Guidelines" (ADAAG) along with the required grades, construction materials, specifications and signage. If any conflict occurs between the above information and the plans, the ADAAG guidelines shall take precedence and the contractor prior to any construction shall notify the Project Engineer.
  - Truncated domes for curb ramps located in public right of way shall meet PROWAG requirements and shall be constructed using red pre-cast truncated domes per pavement details.
- Any proposed pavilions or playground areas will need a separate permit from the Building Division.
- The Contractor is responsible to call Missouri One Call and The City of O'Fallon for the location of utilities. Contact the City of O'Fallon (636) 379-3814 for the location of City maintained cable for street lights and traffic signals, all other utilities call Missouri One Call 1-800-DIG-RITE 1-800-344-7483
- All proposed utilities and/or utility relocations shall be located underground.
- Proposed fencing requires a separate permit through the Building Safety Division.
- All construction operations and work zone traffic control within the right of way will follow MoDOT or M.U.T.C.D. standards whichever is more stringent.
- (INTENTIONALLY OMITTED)
- All subdivision identification or directional sign(s) must have the locations and sizes approved and permitted separately through the Planning and Development Division.
- Materials such as trees, organic debris, rubble, foundations, and other deleterious material shall be removed from the site and disposed of in compliance with all applicable laws and regulations. If the material listed previously are reused, a letter from a soil Engineer must clarify amount, location, depth, etc. and be approved with the construction plans. Landfill tickets for such disposal shall be maintained on file by the developer. Burning on site shall be allowed only by permit from the local fire district. If a burn pit is proposed the location and mitigation shall be shown on the grading plan and documented by the soils engineer.
- Twenty-four (24) hours prior to starting any of the work covered by the above plans and after approval thereof, the developer shall make arrangements with the Construction Inspection Office to provide for inspection of the work, sufficient in the opinion of the City Engineer, to assure compliance with the plans and specifications as approved.
- The City Engineer, or their duly authorized representative shall make all necessary inspections of City infrastructure, escrow items or infrastructure located on the approved plans.
- 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, 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 Inspectors.
- 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.

## Grading Notes

- Developer must supply City Construction Inspectors with an Engineer's soil reports prior to and during site grading. The soil report will be required to contain the following information on soil test curves (Proctor reports) for projects within the City:
  - Maximum dry density
  - Optimum moisture content
  - Maximum and minimum allowable moisture content
  - Curve must be plotted to show density from a minimum of 90% Compaction and above as determined by the "Modified AASHTO T-180 Compaction Test" (A.S.T.M.-D-1157) or from a minimum of 95% as determined by the "Standard Proctor Test ASSHTO T-99, Method C" (A.S.T.M.-D-698). Proctor type must be designated on document.
  - Curve must have at least 5 density points with moisture content and sample locations listed on document
  - Specific gravity
  - Natural moisture content
  - Liquid limit
  - Plastic limitBe advised that if this information is not provided to the City's Construction Inspector the City will not allow grading or construction activities to proceed on any project site.
- All fill placed in areas other than proposed storm sewers, sanitary sewers, proposed roads, and paved areas shall be compacted from the bottom of the fill up in 8" lifts and compacted to 90% maximum density as determined by Modified AASHTO T-180 compaction test or 95% of maximum density as determined by the Standard Proctor Test AASHTO T-99. Ensure the moisture content of the soil in fill areas corresponds to the compactive effort as defined by the Standard or Modified Proctor Test. Optimum moisture content shall be determined using the same test that was used for compaction. Soil compaction curves shall be submitted to the City of O'Fallon prior to the placement of fill.
- The surface of the fill shall be finished so it will not impound water. If at the end of a days work it would appear that there may be rain prior to the next working day, the surface shall be finished smooth. If the surface has been finished smooth for any reason, it shall be scarified before proceeding with the placement of succeeding lifts. 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.
- All sediment and detention basins are to be constructed during the initial phase of the grading operation or in accordance with the approved SWPPP.
- When grading operations are complete or suspended for more than 14 days, permanent grass must be established at sufficient density to provide erosion control on site. Between permanent grass seeding periods, temporary cover shall be provided according to Missouri Department of Natural Resources Protecting Water Quality - a field guide to erosion, sediment and stormwater best management practices for development sites in Missouri and Kansas. All finished grades (areas not to be disturbed by improvements) in excess of 20% slopes (5:1) shall be mulched and tacked at a rate of 100 pounds per 1000 square feet when seeded.
- No slopes shall exceed 3 (horizontal): 1 (vertical) unless otherwise approved by the soils report and specifically located on the plans and approved by the City Engineer.
- All low places whether on site or off shall be graded to provide drainage with temporary ditches.
- Any existing wells and/or springs which may exist on the property must be sealed in a manner acceptable to the City of O'Fallon Construction Inspection Department and following Missouri Department of Natural Resources standards and specifications.
- (INTENTIONALLY OMITTED)
- All trench back fills under paved areas shall be granular back fill, and compacted mechanically. All other trench back fills may be earth material (free of large clods, or stones) and compacted using either mechanical tamping or water jetting. Granular material and earth material associated with new construction outside of pavements may be jetted, taking care to avoid damage to newly laid sewers. The jetting shall be performed with a probe route on not greater than 7.5 foot centers with the jetting probe centered over and parallel with the direction of the pipe. Trench widths greater than 10 feet will require multiple probes every 7.5 foot centers.
  - Depth. Trench back fills less than 8 feet deep shall be probed to a depth extending half the depth of the trench back fill, but not less than 3 feet. Trench back fill greater than 8 feet in depth shall be probed to half the depth of the trench back fill but not greater than 8 feet.
  - Equipment. The jetting probe shall be a metal pipe with an interior diameter of 1.5 to 2 inches.
  - Method. Jetting shall be performed from the lowest surface topographic point and proceed toward the highest point, and from the bottom of the trench back fill toward the surface. The flooding of each jetting probe shall be started slowly allowing slow saturation of the soil. Water is not allowed to flow away from the trench without first saturating the trench.
  - Surface Bridging. The contractor shall identify the locations of the surface bridging (the tendency for the upper surface to crust and arch over the trench rather than collapse and consolidate during the jetting process). The contractor shall break down the bridged areas using an appropriate method such as wheels or bucket of a backhoe. When surface crust is collapsed, the void shall be back filled with the same material used as trench back fill and re-jetted. Compaction of the materials within the sunken/jetted area shall be compacted such that no further surface subsidence occurs.
- Site grading.
  - Within City right-of-way. Material is to be placed in eight (8) inch to twelve (12) inch loose lifts and compacted per the approved compaction requirements. One (1) compaction test will be performed every two hundred fifty (250) feet along the centerline for each lift.
  - Outside of City right-of-way. Material is to be placed in eight (8) inch to twelve (12) inch loose lifts and compacted per the approved compaction requirements. One (1) compaction test will be performed at two (2) foot vertical intervals and approximately every one thousand (1,000) cubic yards.
- Access to the site from any other location other than the proposed construction entrance is strictly prohibited!

## Erosion Control Notes

- 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 guide to erosion, sediment and stormwater best management practices for development sites in Missouri and Kansas.
- 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 per square foot) Ord. 6496, Section 405.095

## Sanitary Sewer Notes

- All sanitary sewer installation is to be in accordance with M.S.D. standards and specifications except as modified by the City of O'Fallon Ordinances.
- Brick shall not be used in the construction of sanitary sewer structures. Pre cast concrete structures are to be used unless otherwise approved by the City of O'Fallon.
- Connections at all sanitary structures are to be made with A-Lock joint or equal
- All sanitary laterals shall be a minimum of 4" residential, 6" commercial diameter pipe.
- All sanitary mains shall be a minimum of 8" diameter pipe.
- All sanitary sewer line with a slope greater than 20% will require concrete cradle or concrete collar at each pipe joint. Sanitary line with a slope greater than 50% will require a special approved design as shown on detail sheet.
- All manholes built within the 100 year flood plain must have lock type watertight manhole covers.
- All sanitary sewer mains must have a minimum of 42" cover.
- When sanitary mains cross over storm line the sanitary main must be ductile iron pipe for 10 feet on each side of the crossing.
- Encase with concrete both sanitary and storm sewer at crossing when storm sewer is within 18 inches above sanitary sewer. Add concrete cradle to only RCP storm sewer and encase flexible storm sewer when it is more than 18 inches above sanitary line. Show on profile sheet.
- The sanitary sewers should run diagonally through the side yards to minimize any additional utility easements required.
- All sanitary sewer structures shall be waterproofed on the exterior in accordance to Missouri DNR specifications 10CSR-8.120 (7)(E).
- All sanitary sewer pipe shall be SDR35 or equal. All sanitary sewer laterals shall be Schedule 40.
- All sanitary sewer manholes and pipes will be tested to the following specifications. ASTM C1244, Standard testing method for Concrete Sewer Manhole by Negative Air Pressure (Vacuum), Latest revision ASTM F1417, Standard testing method for Installation Acceptance of Plastic Gravity Sewer Lines Using Low Pressure Air, Latest revision.
- Add 1" minus rock back fill to all sanitary sewer and all other utilities that lie within the 1:1 shear plane of the road.

## Storm Sewer Notes

- 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.
- Brick shall not be used in the construction of storm sewer structures. Pre cast concrete structures are to be used unless otherwise approved by the City of O'Fallon.
- A 5/8" trash bar shall be installed horizontally in the center of the opening(s) in all curb inlets and area inlets.
- (INTENTIONALLY OMITTED)
- Encase with concrete both sanitary and storm sewer at crossing when storm sewer is within 18 inches above sanitary sewer. Add concrete cradle to only RCP storm sewer and encase flexible storm sewer when it is more than 18 inches above sanitary line. Show on profile sheet.
- The storm sewers should run diagonally through the side yards to minimize any additional utility easements required.
- All concrete pipes will be installed with O-ring rubber type gaskets.
- Connections at all storm structures are to be made with A-lock joint or equal.
- Pre cast concrete inlet covers are not to be used.
- The swale in the detention basins shall have a minimum 2% longitudinal slope and be lined with a permanent erosion control blanket that will allow infiltration of storm water.
- All structures and flared end sections must be concrete. H.D.P.E. pipe will not be allowed for detention basin outflows, final pipe run to detention basins, creek discharge or other approved means.
- (INTENTIONALLY OMITTED)
- Rip rap shown at flared end sections will be evaluated in the field by the Engineer, Contractor, and City Inspectors after installation for effectiveness and field modified, if necessary to reduce erosion on and off site.
- Add 1" minus rock back fill to all storm sewer that lie within the 1:1 shear plane of the road.
- (INTENTIONALLY OMITTED)

## Flood plain Information

- Refer to Section 415 for Floodplain Development Information

## Retaining Walls: Terraced and Vertical

- 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.
- 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.
- Retaining walls that alter the channelized 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.
- See section 405.275 of the City code for additional design requirements.

## Water Notes

- All water main installations shall follow the current city of o'fallon water main specifications.
- Fire hydrants shall be a maximum of 600' apart. Local fire district approval is required.
- Coordinate with the water company on the location of water meters. For meters in the City's district, meters shall be in the right-of-way, otherwise an access easement from the right-of-way shall be provided.
- All water main must have a minimum of 42" of cover. (City water mains)
- Provide water valves to isolate the system.
- All water mains shall be C900 PVC pressure pipe or equal with locator/tracer wires.
- 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 psd concrete mix.
- DISINFECTING: Disinfecting shall be accomplished by placing sufficient hypo chlorite granule (HTH) in each section of pipe to achieve a chlorine residual in the pipeline, upon initial filling, of 50 mg/L (PPM). HT tablets will not be allowed. Following completion of the pipeline, it shall be slowly filled with water and a sample will be taken immediately and the chlorine residual must be 50 mg/L or greater. The solution shall be allowed to stand for 24 hours and a sample shall then be taken. The chlorine residual after 24 hours shall be 30 mg/L or greater. If the piping shows insufficient chlorine residuals in either test, the piping shall be re-chlorinated by the injection of hypo chlorite solution until satisfactory results are achieved. All disinfecting shall be done by the contractor. Only the testing to determine the chlorine residual will be done by the City.
- PRESSURE TESTING: Immediately following disinfection, the piping shall be pumped to a pressure (at the HIGHEST point in the project) of 150 psi or higher where the working pressure is higher than 150 PSI as determined by the City. In such cases, the pressure shall be as specified by the City and two pressure tests shall be conducted. The first test shall be with the fire hydrant auxiliary valve open and be to 50 PSI. The second test shall be with the fire hydrant auxiliary valve closed and be to the higher pressure as directed by the City. All pumping equipment and pressure gauges shall be provided by the contractor. After achieving the test pressure, the piping shall be left closed for a period of two (2) hours. At the end of this time the pressure drop shall not exceed 2 psi. In addition, if the pressure appears, in judgment of the City's representative, to be continuing to drop, the test shall be continued for another two (2) hours and if any further drops occur, the test shall be considered a failure. If the pressure test fails, the contractor will be required to find and correct the source of the leakage. If this requires draining of the pipeline, when the leakage is corrected, the pipeline must be re-disinfected and the pressure tested again until satisfactory result are achieved. Any MDNR required dechlorination will be performed by the contractor.
- All tops for valves, meters, and manholes are to be constructed to within 1 inch (0.08') of finish grade. Grading around structure tops on slopes need to be accounted for.
- BACTERIOLOGICAL TESTING: After satisfactory disinfection and pressure testing, a sample shall be taken by the contractor in the presence of a City representative and submitted to a laboratory approved by the Missouri Department of Natural Resources and the City for bacteriological analysis. After 24 hours, a second sample shall be taken in a like manner and submitted for analysis. The two samples taken on consecutive days a minimum of 24 hours apart, must be found to be "safe" by the testing laboratory, and copies of the test results must be supplied to the City. If the samples are not found to be "safe" further flushing and/or disinfection as directed by the City shall be conducted by the contractor until "safe" samples on two consecutive test days are achieved. Following successful bacteriological testing and a determination by the City that the samples are "safe", the mains may be placed into service.

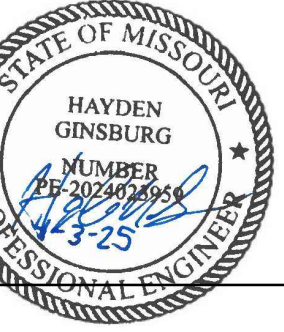
## Roadway Notes

- 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 ordinances.
- 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.
  - 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)
- 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 98% 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
- All street stub-outs over 250' in length will require a temporary turnaround.
- All sub grade in cut or fill will need to conform to the City of O'Fallon Compaction requirements
- 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 guidelines, in accordance with St. Louis County requirements 501.3.1.
- 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.
- 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.
- 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.
  - Concrete pavements shall not be approved unless it reaches a strength of four thousand (4,000) psi. Cylinders/compressive strength. One (1) set of four (5) 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.
- 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.
- Sub grade and base beneath pavements shall be compacted to St. Louis County Highway Department specifications. The moisture range shall be determined by the Standard or Modified Proctor Density Method AASHTO T-99 and within -2/+4 percentage points of the optimum moisture content.
- 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.
- 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.
- Equipment calibration. The developer's contractors and subcontractors must have their equipment calibrated by the following minimum standards.
  - Air meter--weekly.
  - Cylinder compression--annually by independent calibration service.
  - Batch scales--monthly.
  - Nuclear testing devices--every six (6) months.
  - Proctor equipment--every six (6) months.
  - Slump cone--monthly.
- 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 either w16-9p, or w16-7p signs.
- 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)
- 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.

SOLACE HOSPICE CARE



Missouri State Certificate of Authority Number: 2010000046  
Cochran Project No. M22-8498C



DATE  
Hayden N. Ginsburg No. PE-2024023959  
Registered Professional Engineer  
State of Missouri  
for Cochran Engineering & Surveying

Developer Information  
HV PROPERTY MANAGEMENT, LLC  
14010 MANCHESTER RD., MANCHESTER, MO 63011

Owner Information  
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City of O'Fallon Development Notes

P+Z No. 24-012821

Approval Date: FEB 6, 2025

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C1

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MANCHESTER, MO 63011

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City of O'Fallon Standard Notes and Details - July 2019

# GENERAL NOTES AND LEGEND

## SITE NOTES

- PROJECT BENCHMARK:  
ELEV.=631.23 (SC-37)  
THE PROJECT BENCHMARK IS A MISSOURI DNR GRS ALUMINUM DISK STAMPED "SC-37 2000" AND "SC-37A 2000" EACH SET IN A 12 INCH DIAMETER CONCRETE MONUMENT ABOUT 30 INCHES LONG AND FLUSH WITH THE GROUND.  
SITE BENCHMARK:  
ELEV.=584.23 (NAVD1988)  
THE SITE BENCHMARK IS AN IRON PIPE AT THE SOUTHWEST CORNER OF THE PARCEL SOUTH OF SUBJECT PARCEL. IT IS APPROXIMATELY 22.1 FEET NORTH OF THE BACK OF CURB OF TECHNOLOGY DRIVE AND APPROXIMATELY 29.8 FEET WEST OF THE CONCRETE DRIVE.
- ZONED: C-2 / GENERAL BUSINESS DISTRICT  
FRONT YARD 25 FT.  
SIDE YARD 10 FT. ABUTTING RESIDENTIAL  
REAR YARD 6 FT. ABUTTING RESIDENTIAL
- FLOODZONE:  
THIS SITE FALLS WITHIN UNSHADED "ZONE X", AREAS TO BE DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL FLOOD PLAIN, PER FIRM, FLOOD INSURANCE RATE MAP, FOR ST. CHARLES COUNTY, AND INCORPORATED AREAS, MAP NUMBER 291830220G, EFFECTIVE DATE OF JANUARY 20, 2016. FLOOD ZONES ARE DETERMINED BY SCALING.
- EFFORTS WILL BE MADE TO DIRECT DRAINAGE TO EXISTING DISCHARGE POINTS.
- ALL STORM WATER RUNOFF SHALL MEET GOVERNING AUTHORITY CURRENT STANDARDS.
- THE SITE SHALL CONFORM TO CITY OF O'FALLON CURRENT STANDARDS.
- THE TOPOGRAPHIC INFORMATION AS SHOWN HEREON PER FIELDWORK PERFORMED BY COCHRAN.
- TOTAL SITE ACREAGE 2.00 AC (87,111 SF.)
- THIS SITE IS SERVED BY:  
WATER - PUBLIC WATER SUPPLY DISTRICT #2  
SANITARY SEWER - DUCKETT CREEK SANITARY DISTRICT  
FIRE - WENTZVILLE FIRE PROTECTION DISTRICT  
TELEPHONE - AT&T  
ELECTRIC - AMEREN  
GAS - SPIRE MO EAST
- THE DEVELOPMENT SHALL BE SERVED BY UNDERGROUND ELECTRIC.
- BOUNDARY INFORMATION IS PER SURVEY PERFORMED BY COCHRAN.
- THIS SITE WILL DEVELOP IN ONE PHASE.
- ALL UTILITIES ARE TO BE LOCATED UNDERGROUND.
- THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY THE SURVEYOR.
- NO INVESTIGATION WAS PERFORMED BY COCHRAN REGARDING HAZARDOUS WASTE, UNDERGROUND CONDITIONS OR UTILITIES AFFECTING THE TRACT.
- ALL GREEN SPACE AREAS SHALL BE SEED AND STRAW.
- SIGNAGE FOR THIS SITE WILL REQUIRE A SEPARATE APPROVAL AND PERMIT.
- ALL ASPHALT PARKING IS TO BE STRIPED WITH 4" WIDE PAINTED WHITE LINES AS INDICATED. ADA STRIPING SHALL BE BLUE.
- CONTRACTOR SHALL SAW CUT ALL CURB AND GUTTER SECTIONS, CONCRETE MEDIANS, AND ALONG PAVEMENT WHERE PROPOSED CONSTRUCTION TIES INTO EXISTING AREAS. CONTRACTOR SHALL MAINTAIN TRAFFIC FLOW AND PROVIDE TRAFFIC CONTROL THROUGHOUT CONSTRUCTION. ALL PCC PAVEMENT/CURB REMOVAL SHALL BE TO THE NEAREST JOINT BEYOND THE AREA TO BE CONSTRUCTED.

## UTILITY NOTES

- 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.
- 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 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 PROPOSED IMPROVEMENTS SHOWN ON PLANS.
- CONTRACTOR TO CONTACT TELEPHONE, ELECTRIC, GAS, WATER AND CABLE COMPANIES TO HAVE UNDERGROUND UTILITIES LOCATED ON THIS SITE AND ADJACENT TO THIS SITE PRIOR TO DOING ANY EXCAVATING.
- ALL TRENCHES UNDER PAVED AREAS SHALL BE BACKFILLED WITH GRANULAR MATERIAL AND COMPACTED TO 95% STANDARD PROCTOR.
- ALL SURVEY MONUMENTS DISTURBED DURING CONSTRUCTION SHALL BE REPLACED BY A LICENSED LAND SURVEYOR LICENSED IN THE STATE OF MISSOURI AT THE CONTRACTOR'S EXPENSE.
- UTILITY CONTRACTOR WILL BE RESPONSIBLE FOR ALL TAPPING AND TIE-IN FEES REQUIRED, AS WELL AS COST OF UNDERGROUND SERVICE CONNECTIONS AND METERS TO THE BUILDING.
- NEW WATER LINES SHALL BE SDR 21 PVC OR C900. ALL WATERLINES CONSTRUCTED SHALL HAVE A MINIMUM OF 42 INCHES OF COVER BELOW FINISHED GRADE, UNLESS OTHERWISE INDICATED ON PLANS.
- CONTRACTOR SHALL COORDINATE ADJUSTMENTS TO EXISTING UTILITIES WITH APPROPRIATE UTILITY COMPANY AS WORK PROGRESSES.
- 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.
- ALL UNDERGROUND ELECTRIC AND TELEPHONE WIRE THAT LIE BENEATH PAVED AREAS SHALL BE INSTALLED IN CONDUIT. CONTRACTOR SHALL COORDINATE WITH EACH UTILITY SERVICE PROVIDER FOR SIZE AND TYPE OF CONDUIT REQUIRED. CONDUIT SHALL BE PROVIDED AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL PROVIDE A MINIMUM OF 18" OF VERTICAL CLEARANCE BETWEEN SANITARY SEWER AND WATERLINES AND A MINIMUM OF 18" VERTICAL OF CLEARANCE BETWEEN STORM SEWERS AND WATERLINES. THIS MAY MEAN THAT LOWERING OF WATERLINES MAY BE NECESSARY.
- LOCATION OF SITE UTILITIES SHALL BE VERIFIED BY CONTRACTOR FROM THE PROPER UTILITY COMPANY PROVIDING SERVICE.
- ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.
- UTILITY CONTRACTOR SHALL HAVE APPROVAL OF ALL GOVERNING AGENCIES HAVING JURISDICTION OVER THIS SYSTEM PRIOR TO INSTALLATION.
- ALL NECESSARY INSPECTIONS, TESTING, AND/OR CERTIFICATIONS REQUIRED BY CODES, THE CITY, AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICES.
- ALL DRAINAGE STRUCTURES, STORM SEWER PIPES, AND THE WATER METER LID SHALL MEET HEAVY DUTY TRAFFIC (H20) LOADING REQUIREMENTS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UNDERGROUND UTILITIES THAT ARE REQUIRED TO BE REMOVED OR RELOCATED.
- 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.
- UTILITY CONNECTIONS SHALL BE COORDINATED WITH THE ARCHITECT/MEP.
- ALL SEWERS AND STRUCTURES SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARD CONSTRUCTION SPECIFICATIONS OF THE GOVERNING AGENCY.
- ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUDED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT AT A MINIMUM. THE GOVERNING AUTHORITY REQUIRES MORE STRINGENT CONNECTIONS THEN THEIR REQUIREMENTS WILL GOVERN.
- CONTRACTOR SHALL OBTAIN AND FOLLOW INSTALLATION REQUIREMENTS FOR STORM SEWER, SANITARY SEWER, & WATER MAIN FROM PIPE MANUFACTURER FOR EACH TYPE OF PIPE MATERIAL.
- CONTRACTOR SHALL INSTALL A FACTORY CAP EQUAL TO THE SIZE OF UTILITY STUB TO BE SEALED OFF, AND BLOCK THE CAP WITH CONCRETE AT UTILITIES NOTES TO BE "CAPPED AND MARKED."
- CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES HAVING UNDERGROUND UTILITIES ON SITE, OR IN RIGHT-OF-WAY, 30 DAYS PRIOR TO EXCAVATION. CONTRACTOR SHALL CONTACT UTILITY LOCATING COMPANY AND LOCATE ALL UTILITIES PRIOR TO START OF GRADING.

## GRADING NOTES

- DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
- RUBBISH, TRASH, GARBAGE, LITTER OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORMWATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
- ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.
- DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 7 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. REFER TO THE GRADING PLAN.
- IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.
- ALL MATERIALS SPILLED, DROPPED, DRAINED OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM WATERS MUST BE REMOVED IMMEDIATELY.
- CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT THAT MAY HAVE COLLECTED IN ANY STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.
- ON-SITE & OFF-SITE STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.
- SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
- DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES TO PREVENT EROSION.
- ALL CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY. THIS INCLUDES BACKFILLING OF TRENCHES FOR UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS PAVING FOR ROAD.
- ALL GRADING AND MATERIAL PLACEMENT ON THE SITE SHALL BE COMPACTED TO 95% STANDARD PROCTOR UNLESS A GEOTECHNICAL REPORT FOR THE SITE HAS DIFFERING REQUIREMENTS. IF A GEOTECHNICAL REPORT IS AVAILABLE THEN THE REPORT SHALL GOVERN.

## PAD PREPARATION NOTE

MIDWEST TESTING PREPARED A GEOTECHNICAL INVESTIGATION FOR THIS PROJECT SITE AND THE REPORT IS DATED JUNE 14, 2023. THE CONTRACTOR SHALL REVIEW THIS REPORT AND FOLLOW THE RECOMMENDATIONS INCLUDED IN THE REPORT.

## PWSD #2 NOTES

- THE WATER DISTRICT REQUIRES ONE (1) WEEK NOTICE BEFORE THE START OF CONSTRUCTION.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN CITY OR MODOT 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 PWSD#2 OF ST. CHARLES COUNTY GUIDELINES AND SPECIFICATIONS AS APPROVED BY MODNR REVIEW NO. 6050805-13.
- ALL METER PITS/VAULTS MUST BE INSTALLED IN "GREEN SPACE" PER THE WATER DISTRICT'S SPECIFICATIONS.
- ANY NEW WATER MAIN OR SERVICE LINE CONNECTION TO AN EXISTING PUBLIC WATER MAIN MUST BE MADE PER THE WATER DISTRICT'S SPECIFICATIONS.
- ALL WATER SERVICE LINES, FIRE LINES, AND PRIVATE WATER MAINS MUST BE INSTALLED PER PWSD NO. 2'S SPECIFICATIONS.
- AT THE CONNECTION POINT TO THE EXISTING "PUBLIC" WATER MAIN THAT WILL SERVE THE SITE, THE CONNECTION WILL BE MADE PER PWSD NO. 2'S SPECIFICATIONS.
- ALL PRIVATE FIRE HYDRANTS ARE TO BE PAINTED RED PER PWSD NO. 2'S SPECIFICATIONS

Revised October 2016

## LANDSCAPE NOTES

- ALL AREAS ON SITE THAT ARE DISTURBED SHALL BE SEEDED AND STRAWED.
- ALL LANDSCAPE BEDS TO HAVE SHREDDED OAK BARK MULCH UNLESS OTHERWISE NOTED.
- ANY LANDSCAPE BED NOT EGED BY CONCRETE CURBING SHALL HAVE A SPADE-CUT EDGE.

## 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 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 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 20-6.120(6)(F) 1.
- All PVC sanitary sewer pipe shall conform to the requirements of ASTM D-3034 Standard Specification for PSM Polyvinyl Chloride Sewer 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.
- 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 / 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.
- 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 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 8" of mercury at the end of the 1 minute test.

## ADA COMPLIANCE

ALL ADA PARKING SPACES SHALL HAVE A 2% OR LESS SLOPE IN ANY DIRECTION. ALL WALKS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2% (1.5% PREFERRED). ALL WALKS SHALL HAVE A 5% OR LESS LONGITUDINAL SLOPE WHERE POSSIBLE. WHERE WALKS REQUIRE A SLOPE MORE THAN 5% LONGITUDINALLY WITH MORE THAN 6" OF VERTICAL RISE, THE CONTRACTOR SHALL INSTALL HANDRAILS MEETING ADA GUIDELINES. THE LONGITUDINAL SLOPE OF ANY WALK SHALL NOT EXCEED 8.33%. ANY WALK WITH A SLOPE BETWEEN 5% AND 8.33% SHALL NOT EXCEED 30FT. HORIZONTALLY IN LENGTH WITHOUT A LANDING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ADA PARKING PAVEMENT, WALKS, ETC. MEETS CURRENT ADA AND MUNICIPALITY GUIDELINES.

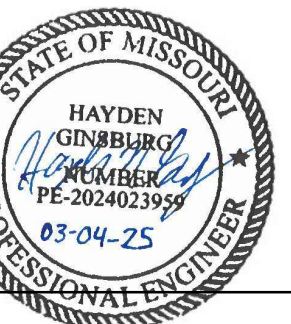
SOLACE HOSPICE CARE



636-332-4574 (tel.)  
636-327-0760 (fax)  
wenzville@cochran.com  
63685  
North Office  
8 East Main Street  
Wentzville, Missouri



Missouri State Certificate  
of Authority Number: 2010000046  
Cochran Project No. M22-8498C



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State of Missouri  
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General Notes

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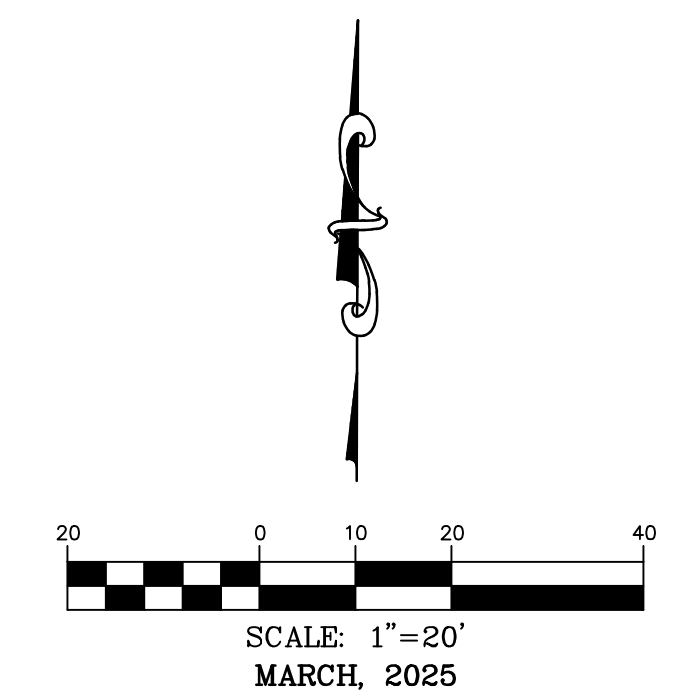
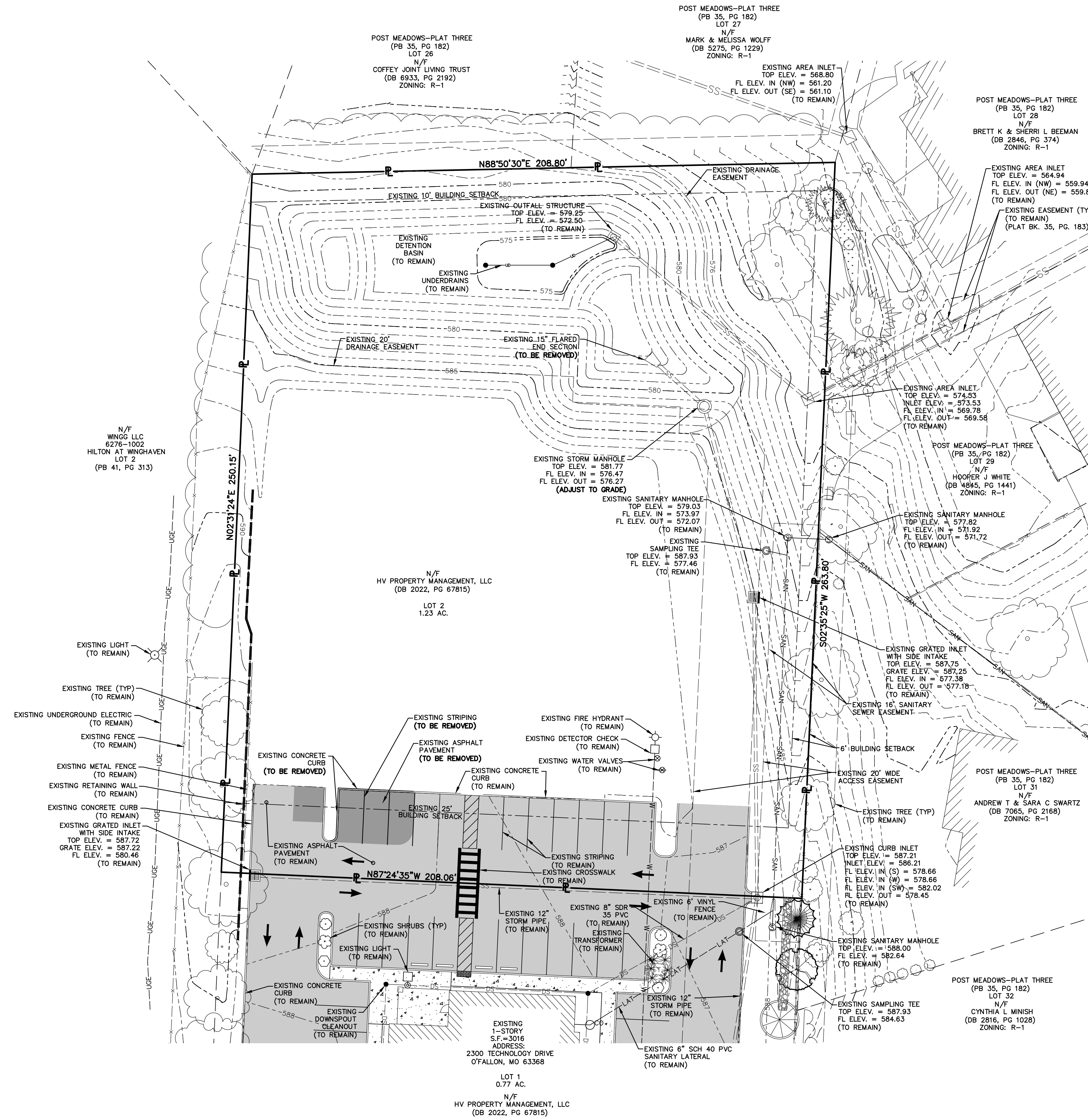
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City of O'Fallon Standard Notes and Details - July 2019

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MANCHESTER, MO 63011

# EXISTING CONDITIONS



NOTE:  
 ANY EXISTING WELLS AND/OR SPRINGS WHICH MAY EXIST ON THE PROPERTY MUST BE SEALED IN A MANNER ACCEPTABLE TO THE CITY OF O'FALLON CONSTRUCTION INSPECTION DEPARTMENT AND FOLLOWING MISSOURI DEPARTMENT OF NATURAL RESOURCES STANDARDS AND SPECIFICATIONS.

**SOLACE HOSPICE CARE**

636-332-4574 (tel.)  
 636-327-0760 (fax)  
 www.missouricochran.com

**COCHRAN**

North Office Street  
 8 East Main  
 Wentzville, Missouri 63385

- Civil Engineering
- Land Surveying
- Architecture
- Site Development
- Surveying
- Master Planning

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**C2**

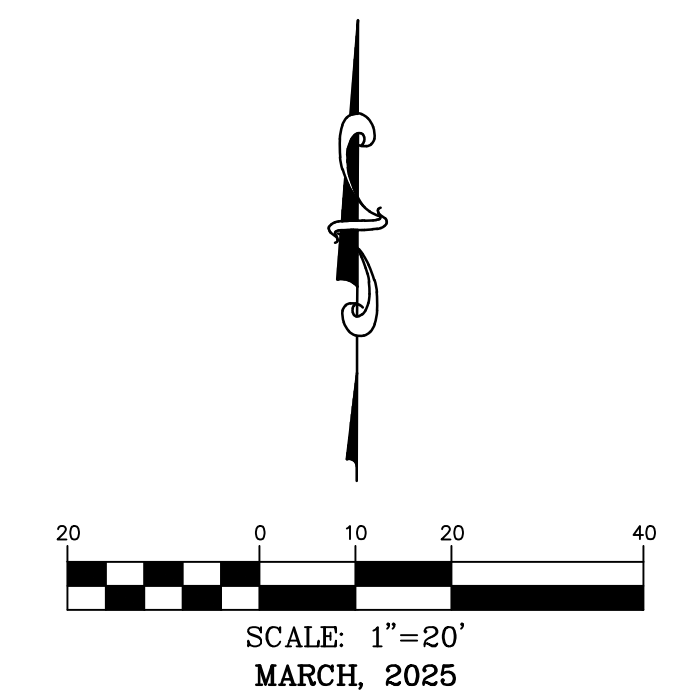
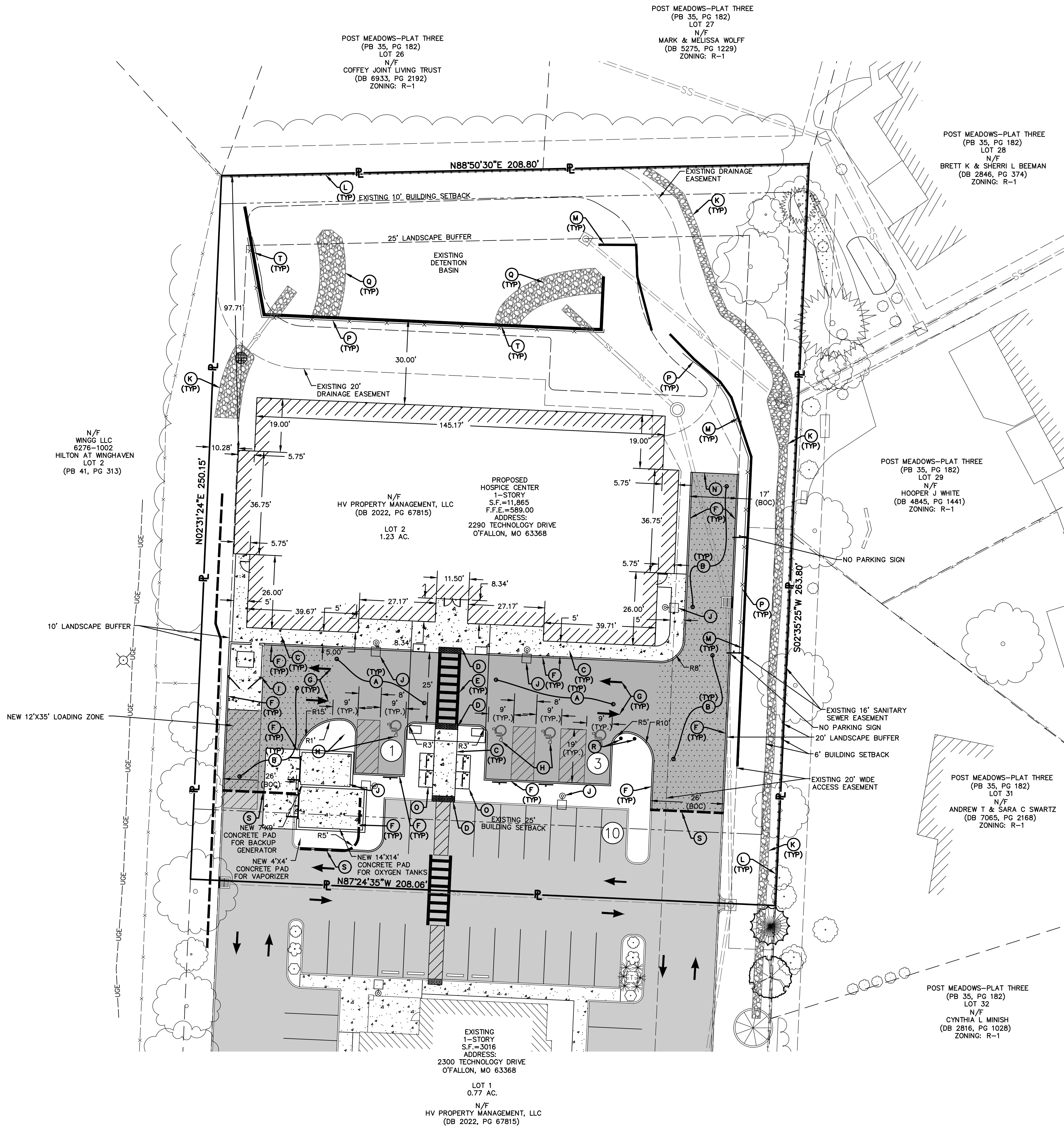
**OWNER/DEVELOPER:**  
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City of O'Fallon Standard Notes and Details - July 2019

# SITE PLAN



## SITE LEGEND

- (A) NEW STANDARD DUTY ASPHALT PAVEMENT. SEE DETAIL, SHEET C15.
- (B) NEW HEAVY DUTY ASPHALT PAVEMENT. SEE DETAIL, SHEET C15.
- (C) NEW CONCRETE SIDEWALK. SEE DETAIL, SHEET C15.
- (D) NEW ACCESSIBLE RAMP. SEE DETAIL, SHEET C15.
- (E) NEW CROSSWALK. SEE DETAIL, SHEET C15.
- (F) NEW 6" VERTICAL CONCRETE CURB. SEE DETAIL, SHEET C15.
- (G) NEW TRAFFIC FLOW ARROWS. SEE DETAIL, SHEET C15.
- (H) NEW ACCESSIBLE PARKING STALL WITH SIGNAGE AND STRIPING. SEE DETAIL, SHEET C15.
- (I) NEW TRASH ENCLOSURE. SEE DETAIL, SHEET C15.
- (J) NEW LIGHT STANDARD. SEE DETAIL, SHEET C17.
- (K) NEW RIP RAP SWALE. SEE DETAIL, SHEET C15.
- (L) NEW 6" VINYL FENCE. SEE DETAIL, SHEET C17.
- (M) NEW RETAINING WALL. SEE DETAIL, SHEET C15.
- (N) NEW MOUNTABLE 6" CURB. SEE DETAIL, SHEET C15.
- (O) NEW BIKE RACK. SEE DETAIL, SHEET C17.
- (P) NEW 4" METAL FENCE. SEE DETAIL, SHEET C17.
- (Q) NEW RIP RAP BERM. SEE DETAIL, SHEET C17.
- (R) NEW BOLLARD. SEE DETAIL, SHEET 17.
- (S) CONTRACTOR TO SAW CUT EXISTING PAVEMENT FULL DEPTH TO ENSURE A SMOOTH JOINT.
- (T) NEW RETAINING WALL WITH DRAINAGE GUTTER. SEE DETAIL, SHEET C17.

NOTE:  
SEE PLAN SHEET C17 FOR SITE LIGHTING PHOTOMETRICS.

NOTE:  
ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED. ALL RADIUS CALLOUTS ARE TO BACK OF CURB UNLESS OTHERWISE NOTED.

MINIMUM PARKING DIMENSIONS:  
REGULAR PARKING - 9'x19'  
ADA PARKING - 8'x19'  
ADA VAN PARKING - 8'x19'  
ADA ACCESSIBLE STRIPING - 5' OR 8' x 19'  
PARKING DRIVE AISLES (TWO-WAY) - 25'W MIN.  
PARKING DRIVE AISLES (ONE-WAY) - 16'W MIN.

PARKING REQUIREMENTS:  
HOSPICE - 1 SPACE PER 3 BEDS  
- 1 SPACE PER 2 EMPLOYEES  
14 BEDS / 3 = 5 SPACES  
6 EMPLOYEES / 2 = 3 SPACES

TOTAL SPACES REQUIRED: = 8 SPACES  
TOTAL SPACES PROVIDED: = 16 SPACES  
ADA TOTAL SPACES REQUIRED: = 1 SPACES  
ADA TOTAL SPACES PROVIDED: = 4 SPACES

LOADING SPACE REQUIREMENTS:  
1 PER BUILDING OVER 5,000 S.F.  
1 PER ADDITIONAL 20,000 S.F.  
BUILDING AREA = 11,865 S.F.  
1 LOADING SPACE (12'x35') REQUIRED  
1 LOADING SPACE PROVIDED

BICYCLE PARKING REQUIREMENTS:  
1 BIKE RACK PER 15 PARKING STALLS WITH  
MINIMUM OF 4 RACKS PER BUILDING  
18/15 = 1.2  
4 RACKS REQUIRED  
4 RACKS PROVIDED

LOT 2 COVERAGE PERCENTAGE:  
GREEN SPACE = 26,279 SF (49.11%)  
PAVEMENT = 15,362 SF (28.71%)  
BUILDING = 11,865 SF (22.18%)

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

NOTE:  
RETAINING WALL ANALYSIS AND PROFILE TO BE COMPLETED BY OTHERS UPON RETAINING WALL PERMIT APPLICATION.

SOLACE HOSPICE CARE

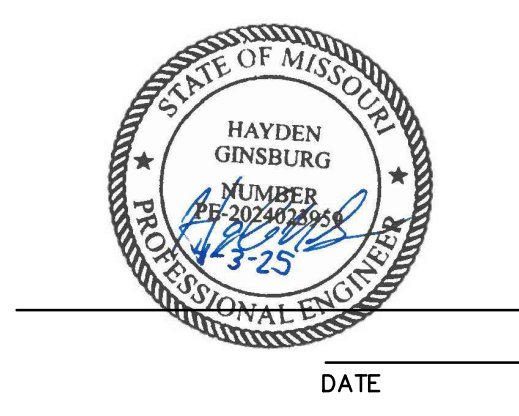
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636-327-0760 (fax)  
www.missouricochran.com

North Office  
8 East Main Street  
Wentzville, Missouri 63385

**COCHRAN**

- Civil Engineering
- Land Surveying
- Architecture
- Site Development
- Surveying
- Master Planning

Missouri State Certificate of Authority Number: 2010000046  
Cochran Project No. M22-8498C



DATE

Hayden N. Ginsburg No. PE-2024023959  
Registered Professional Engineer  
State of Missouri  
for Cochran Engineering & Surveying

Developer Information:  
HV PROPERTY MANAGEMENT, LLC  
14010 MANCHESTER RD., MANCHESTER, MO 63011

Owner Information:  
HV PROPERTY MANAGEMENT, LLC  
14010 MANCHESTER RD., MANCHESTER, MO 63011

**SITE PLAN**

P+Z No. 24-012821  
Approval Date: FEB. 6, 2025

Permit No.

Page No.

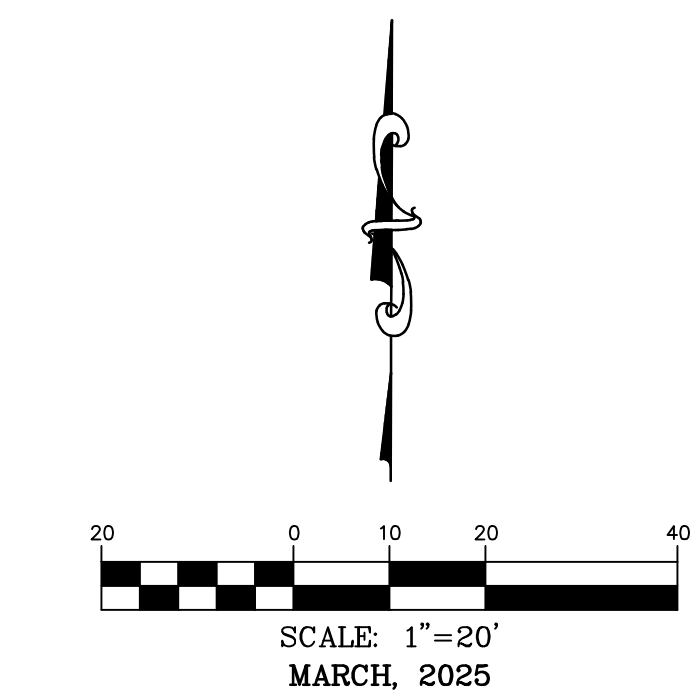
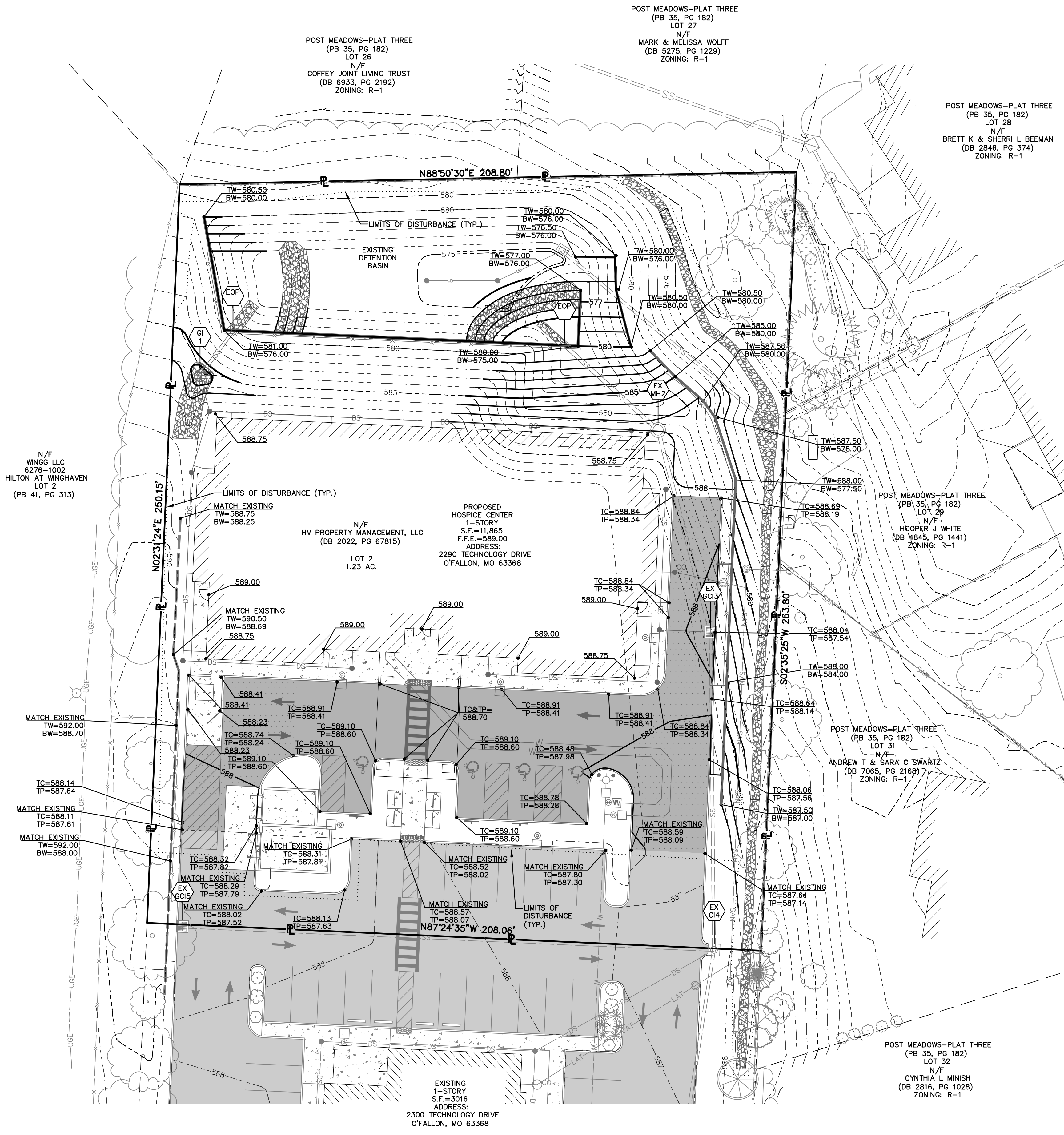


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# GRADING PLAN



**OWNER/DEVELOPER:**  
 HV PROPERTY MANAGEMENT, LLC  
 14010 MANCHESTER RD.  
 MANCHESTER, MO 63011

**SITE BENCHMARK**  
 ELEV. = 584.23  
 LOCATED AT THE  
 SOUTHWEST  
 CORNER OF LOT 1

**EXISTING**  
 1-STORY  
 S.F. = 3016  
 ADDRESS:  
 2300 TECHNOLOGY DRIVE  
 O'FALLON, MO 63368  
 LOT 1  
 0.77 AC.  
 N/F  
 HV PROPERTY MANAGEMENT, LLC  
 (DB 2022, PG 67815)

**NOTE:**  
 NO SLOPE SHALL EXCEED 3:1

**NOTE:**  
 PROVIDE CITY WITH A COPY OF  
 GRADING COMPACTION TEST  
 RESULTS.

**NOTE:**  
 ALL SPOT ELEVATIONS SHOWN ON  
 THIS PLAN ARE TOP OF PAVEMENT,  
 UNLESS OTHERWISE NOTED.

**SITE DISTURBANCE**  
 TOTAL SITE AREA = 1.23 AC.  
 DISTURBED AREA = 1.05 AC.

**GRADING QUANTITY:**  
 CUT - 51 CY.  
 FILL - 626 CY.

**NOTE:**  
 THESE QUANTITIES ARE RAW NUMBERS.  
 THE CONTRACTOR SHALL NOT USE THESE  
 NUMBERS AS THEIR BID QUANTITIES. THE  
 CONTRACTOR SHALL DETERMINE THEIR OWN  
 QUANTITIES.

**SOLACE HOSPICE CARE**



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 636-327-0760 (fax)  
 www.missouricochran.com  
 North Office Street  
 8 East Main  
 Wentzville, Missouri 63385

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**DATE**  
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 State of Missouri  
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 14010 MANCHESTER RD, MANCHESTER, MO 63011

**GRADING PLAN**

P+Z No. 24-012821  
 Approval Date: FEB. 6, 2025

Permit No.

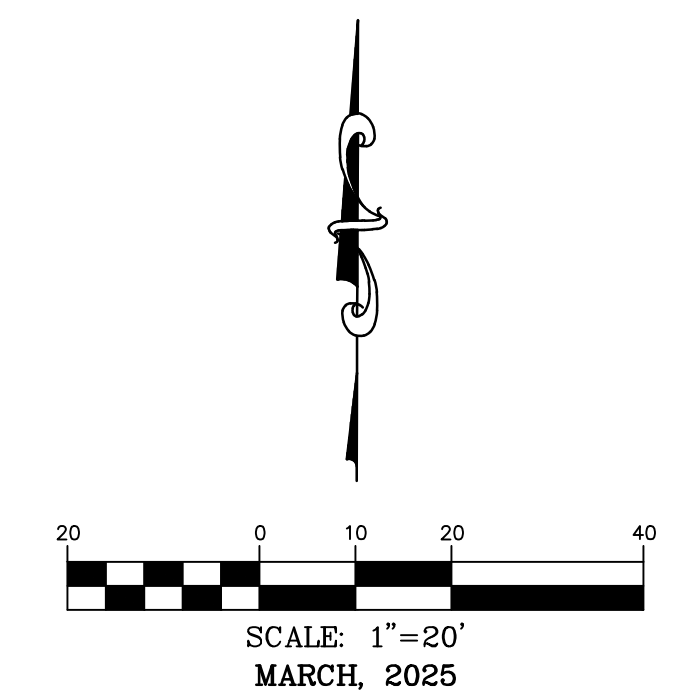
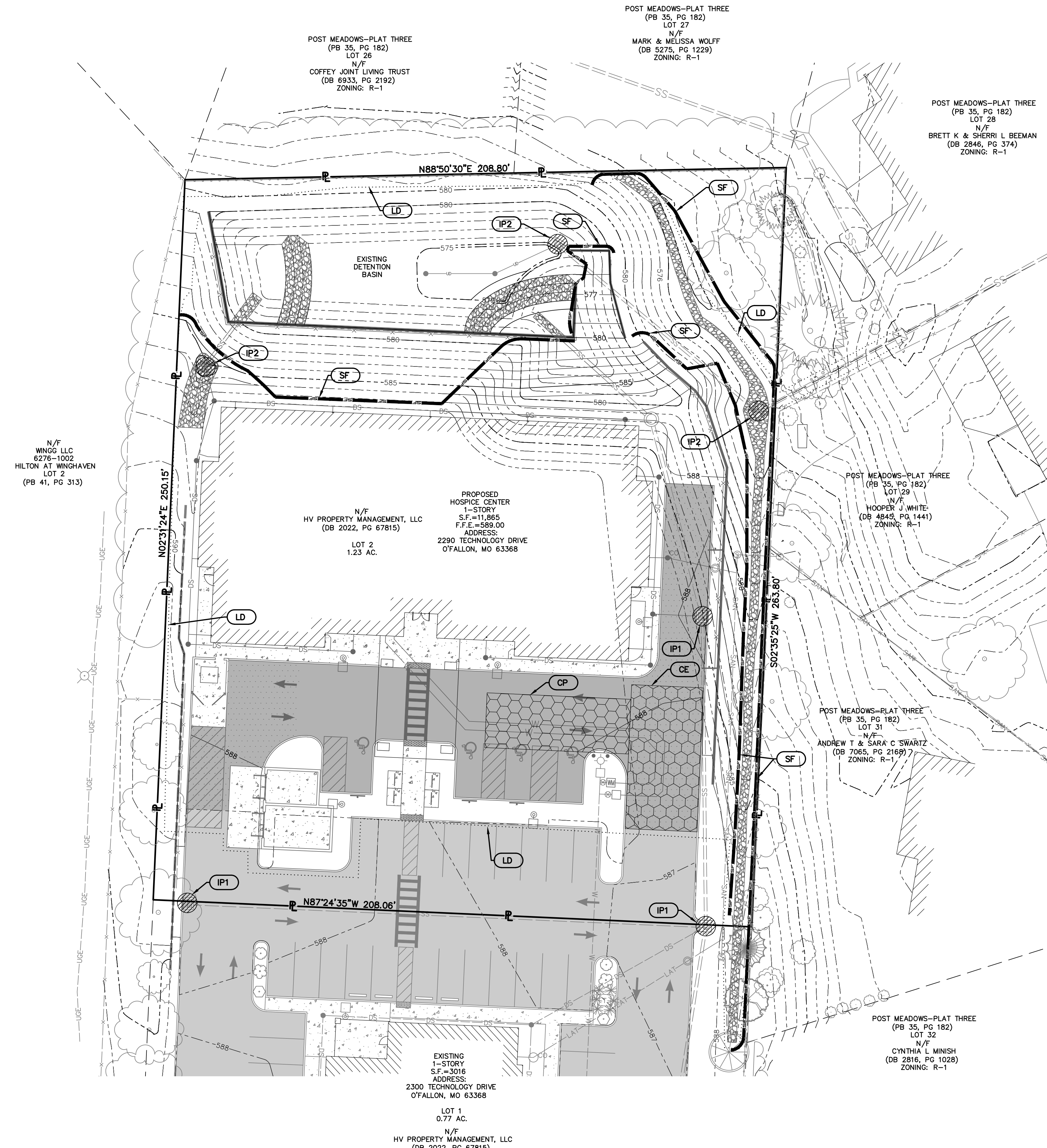
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**C5**

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City of O'Fallon Standard Notes and Details - July 2019

# EROSION AND SEDIMENT CONTROL PLAN



## SWPPP LEGEND

- SF** NEW SILT FENCE. SEE DETAIL, SHEET C7.
- IP1** NEW CURB INLET PROTECTION. SEE DETAIL, SHEET C7.
- IP2** NEW SILT FENCE INLET PROTECTION. SEE DETAIL, SHEET C7.
- CE** TEMPORARY CONSTRUCTION ENTRANCE. SEE DETAIL, SHEET C7.
- LD** LIMITS OF DISTURBANCE.
- CP** NEW CONSTRUCTION PARKING AREA 6" DEEP USING 2" CLEAN ROCK.

NOTE: ALL TRUCKS SHALL BE WASHED DOWN BEFORE LEAVING SITE.

NOTE: ALL INLETS ARE TO RECEIVE INLET SILT FENCE PROTECTION (SEE DETAIL, SHEET C7)

SOIL EROSION/SEDIMENTATION CONTROL OPERATION TIME SCHEDULE												
NOTE: GENERAL CONTRACTOR TO COMPLETE TABLE WITH THEIR SPECIFIC PROJECT SCHEDULE												
CONSTRUCTION SEQUENCE	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	JAN.	FEB.
TEMPORARY CONTROL MEASURES												
ROUGH GRADE / SEDIMENT CONTROL												
PERMANENT CONTROL MEASURES												
SEED AND FINAL STABILIZATION												

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**SOLACE HOSPICE CARE**

Missouri State Certificate of Authority Number: 2010000046  
 Cochran Project No. M22-8498C

DATE: \_\_\_\_\_  
 Hayden N. Ginsburg No. PE-2024023959  
 Registered Professional Engineer  
 State of Missouri  
 for Cochran Engineering & Surveying

**EROSION AND SEDIMENT CONTROL PLAN**

Developer Information:  
 HV PROPERTY MANAGEMENT, LLC  
 14010 MANCHESTER RD, MANCHESTER, MO 63011

Owner Information:  
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 Approval Date: FEB. 6, 2025

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Page No. **C6**

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**GENERAL EROSION NOTES:**

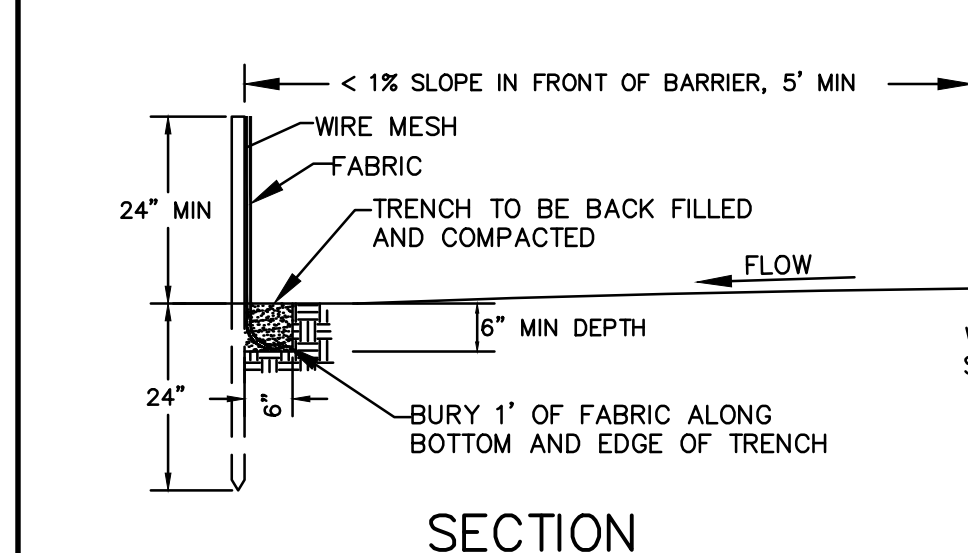
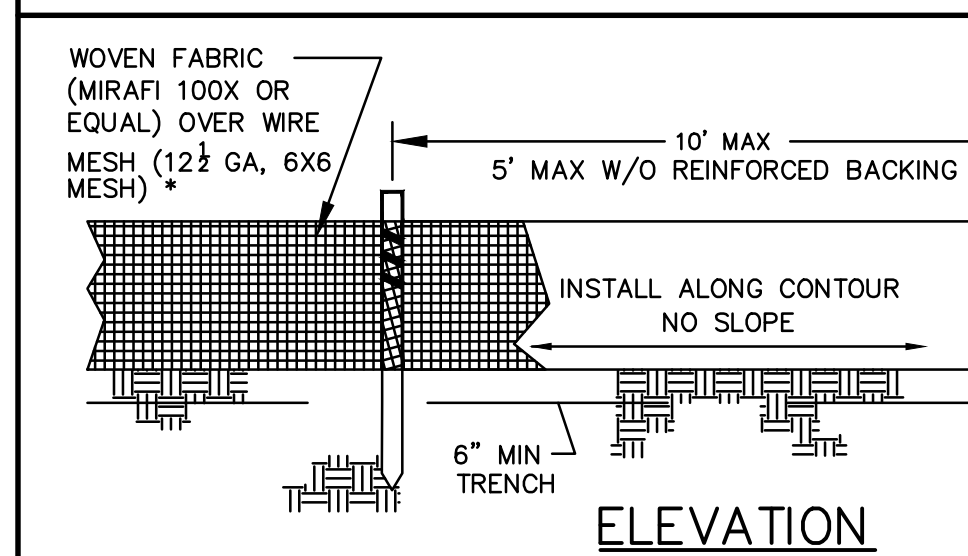
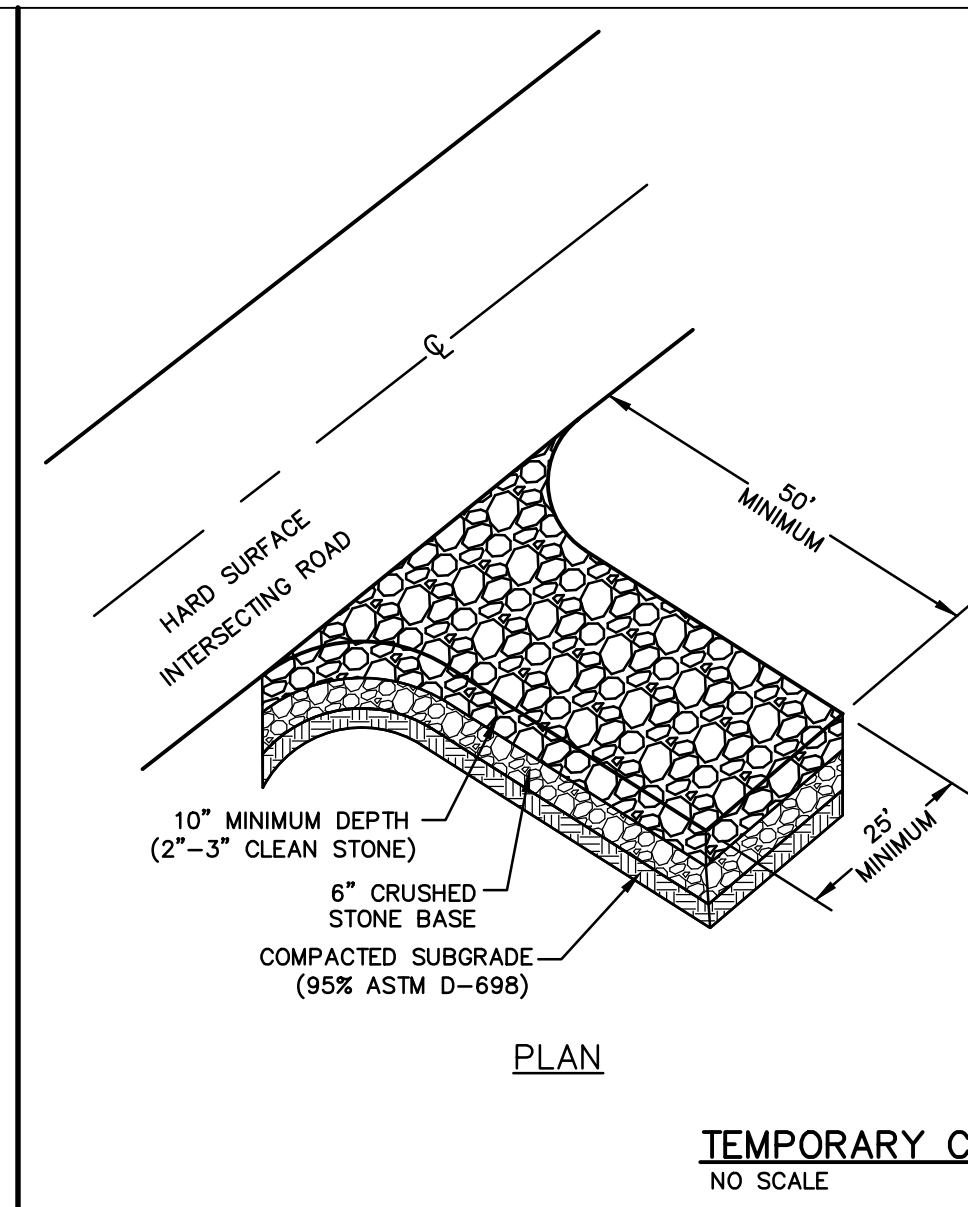
- ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OF MISSOURI NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.
- CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY SITE CONDITIONS AT NO ADDITIONAL COST OF OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
- BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.
- SITE MAP MUST CLEARLY DELINEATE ALL STATE WATERS.
- CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.
- GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.
- ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.
- SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CLEAN UP OIL AND GREASE SPILLS AND LEAKS.
- DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
- RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
- THE LOCAL AGENCY(IES) MUST BE NOTIFIED AT LEAST FORTY-EIGHT HOURS PRIOR TO THE COMMENCEMENT OF ANY GRADING OPERATIONS.
- NO GRADED AREA IS TO REMAIN WITHOUT VEGETATIVE GROUND COVER FOR MORE THAN THIRTY (30) DAYS WITHOUT BEING SEEDED AND MULCHED OR SODDED.
- DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS STOPPED FOR AT LEAST 14 DAYS, SHALL BE TEMPORARILY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS.
- IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.
- ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
- CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.
- SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
- DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES (SILT FENCES) TO PREVENT EROSION.
- ALL CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY. THIS INCLUDES BACKFILLING OF TRENCHES FOR UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS PAVING.
- 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 IN HIS BID.
- 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 AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. LOCATION, RELOCATION AND CONNECTION OF THE UTILITIES SHALL BE COORDINATED WITH THE UTILITY COMPANIES.
- 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.
- FLOOD ZONE: THIS SITE FALLS WITHIN UNSHADED "ZONE X", AREAS TO BE DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL FLOOD PLAIN, PER FIRM, FLOOD INSURANCE RATE MAP, FOR ST. CHARLES COUNTY, AND INCORPORATED AREAS, MAP NUMBER 29183002206, EFFECTIVE DATE OF JANUARY 20, 2016.
- THE BOUNDARY INFORMATION AND CONTOURS AS SHOWN IS FROM A TOPOGRAPHIC SURVEY PERFORMED BY COCHRAN.
- 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, AS DETERMINED BY THE CITY ENGINEER.
- WHERE NATURAL VEGETATION IS REMOVED DURING GRADING, VEGETATION SHALL BE REESTABLISHED VEGETATIVE COVER OF AREA DISTURBED AS TO PREVENT EROSION. PERMANENT TYPE GRASSES SHALL BE ESTABLISHED AS SOON AS POSSIBLE OR DURING THE NEXT SEEDING PERIOD AFTER GRADING HAS BEEN COMPLETED.
- WHEN GRADING OPERATIONS ARE COMPLETED OR SUSPENDED FOR MORE THAN THIRTY (30) DAYS, PERMANENT GRASS MUST BE ESTABLISHED TO VEGETATIVE COVER TO PROVIDE EROSION CONTROL ON THE SITE. BETWEEN PERMANENT GRASS SEEDING PERIODS, TEMPORARY COVER SHALL BE PROVIDED ACCORDING TO THE CITY ENGINEER'S RECOMMENDATIONS. ALL FINISHED GRADES (AREAS NOT TO BE DISTURBED BY FUTURE IMPROVEMENTS) IN TWENTY (20) PERCENT SLOPES (5 HORIZONTAL TO 1 VERTICAL) SHALL BE MULCHED.
- ALL EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE INSPECTED FOLLOWING EACH RAINSTORM CAUSING SIGNIFICANT RUNOFF, OR BEING OF SUFFICIENT INTENSITY OR DURATION AS TO STOP CONSTRUCTION OR GRADING PROGRESS. THE SEDIMENT CONTROL FACILITIES SHALL BE CLEANED OF SEDIMENT, REPAIRED IF DAMAGED AND RESTORED TO SERVICEABLE CONDITIONS IF:
  - EROSION SEDIMENT HAS ACCUMULATED IN SILT DEVICES.
  - SEDIMENT EROSION CONTROL DEVICES HAVE BEEN DAMAGED.
  - OBVIOUS GULLIES OR SEDIMENT DEPOSITS HAVE BEEN FORMED ON THE DOWNSTREAM SIDE OF CONTROL DEVICES, OR
  - SEDIMENT HAS BEEN CARRIED BEYOND THE WORKING SITE.
- THE DEVELOPER MUST SUPPLY CITY CONSTRUCTION INSPECTORS WITH ALL COPIES OF INTERIM SOIL TESTING REPORTS.
- ALL FILLED PLACES UNDER PROPOSED STORM AND SANITARY SEWER, PROPOSED ROADS, AND/OR PAVED OR FUTURE PAVED AREAS SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD COMPACTION TEST. ALL FILL PLACED IN PROPOSED ROADS SHALL BE COMPACTED FROM THE BOTTOM OF THE FILL UP. ALL TESTS SHALL BE VERIFIED BY A SOILS ENGINEER CONCURRENT WITH GRADING AND BACK FILLING OPERATIONS.
- AREA SHALL BE TEMPORARILY RESEEDED AT A RATE OF 6-8 LBS. OF RYE GRASS PER 1000 SQ. FT. FERTILIZER SHALL BE APPLIED AT A RATE OF 50 LBS. PER 10,000 SQ. FT.

- EROSION CONTROL NOTES:**
- CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE FROM BUILDINGS FOR ALL NATURAL & PAVED AREAS.
  - ALL UNSURFACED AREAS ARE TO RECEIVE FOUR INCHES OF TOPSOIL. CONTRACTOR TO SEED, MULCH, AND FERTILIZE ALL AREAS OUTSIDE OF PAVED AREAS THAT WERE DISTURBED DURING CONSTRUCTION UNTIL AN ACCEPTABLE STAND OF GRASS IS ESTABLISHED.
  - NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
  - SHOULD CONSTRUCTION STOP FOR LONGER THAN 15 DAYS, THE SITE SHALL BE SEEDED AS SPECIFIED BY TEMPORARY SEEDING MIX.
  - MAINTAIN EROSION CONTROL MEASURES AFTER EACH RAIN AND AT LEAST ONCE A WEEK.
  - THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE AS THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SOIL SEDIMENT FROM LEAVING THE SITE.
  - CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY.
  - ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY ON SITE INSPECTION.
  - LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY GOVERNING AUTHORITIES.
  - CONTRACTOR SHALL BE RESPONSIBLE TO TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION.
  - ALL CUT OR FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.
  - EFFORTS WILL BE MADE TO DIRECT DRAINAGE TO EXISTING DISCHARGE POINTS.
  - ALL STORM WATER RUNOFF SHALL MEET LOCAL AGENCY(IES) STANDARDS.
  - IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO KEEP ALL MUD AND SILT ON SITE AND OFF OF STREETS.
  - THE CONTRACTOR IS RESPONSIBLE FOR KEEPING STORM WATER RUN-OFF AND SILTATION UNDER CONTROL DURING CONSTRUCTION.
  - 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.

- MAINTENANCE:**
- ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND AFTER A 0.5" RAINFALL EVENT, AND CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:
- INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION.
  - ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED.
  - SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.
  - THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.
  - OUTLET STRUCTURES IN THE SEDIMENTATION BASINS SHALL BE MAINTAINED IN OPERATIONAL CONDITIONS AT ALL TIMES. SEDIMENT SHALL BE REMOVED FROM SEDIMENT BASINS OR TRAPS WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY 50%.
  - ALL CURB AND AREA INLETS SHALL HAVE INLET PROTECTION SUFFICIENT TO PREVENT TRANSPORTED SOIL FROM BEING DEPOSITED IN THE FORM OF SILT IN THE STORM DRAINAGE SYSTEMS ON-SITE OR OFF-SITE.
  - ALL FINISHED GRADES THAT EXCEED 20% (5 HORIZONTAL TO 1 VERTICAL) SHALL BE MULCHED.

- SEQUENCE OF CONSTRUCTION**
- INSTALL EROSION CONTROL ITEMS.
- INSTALL TEMPORARY CONTROL MEASURES
  - PERFORM GRADING ACTIVITIES.
  - TEMPORARY SEED DENUEED AREAS.
  - PAVE SITE.
  - FINAL SEEDING/SOD.
  - REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES (ONLY IF SITE IS STABILIZED).

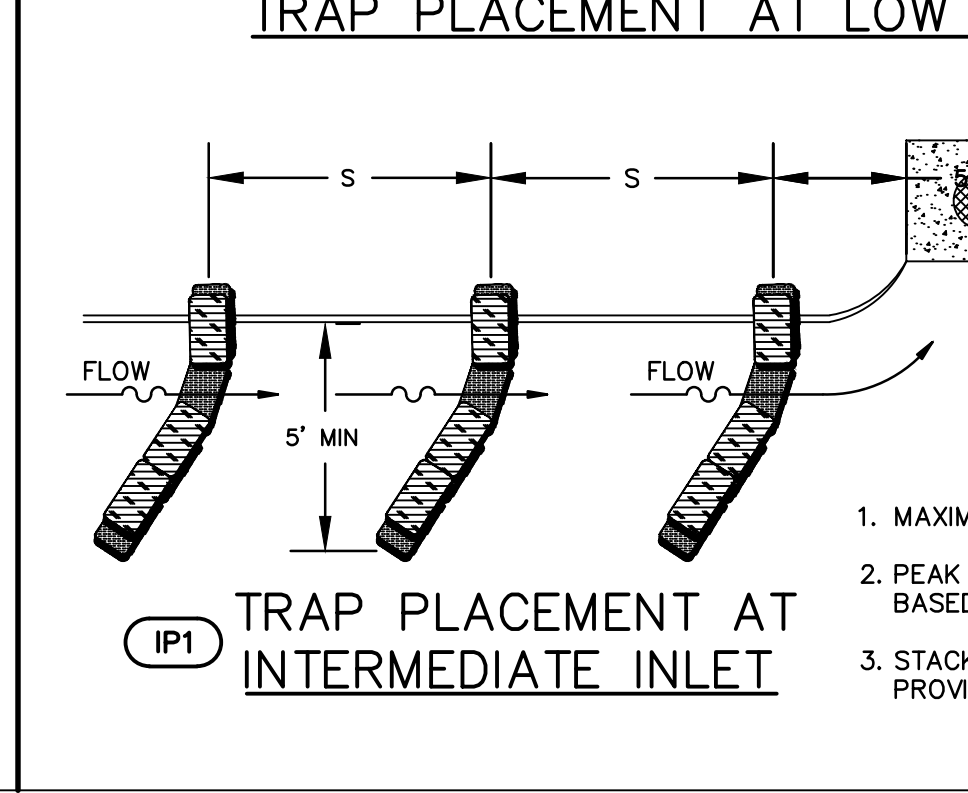
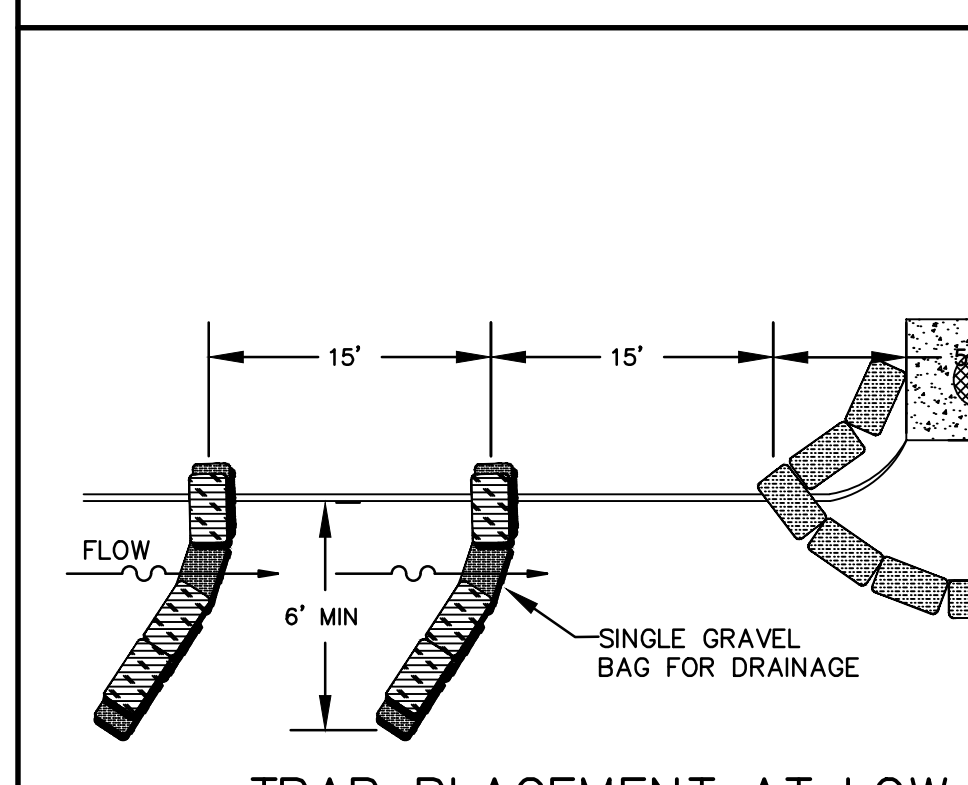
**OWNER/DEVELOPER:**  
 HV PROPERTY MANAGEMENT, LLC  
 14010 MANCHESTER RD.  
 MANCHESTER, MO 63011



**CRITERIA**

- SILT FENCE SHALL BE 24 INCHES HIGH.
- SILT FENCE SHALL NOT BE USED FOR CONCENTRATED FLOWS.
- GEOSYNTHETIC REINFORCED SILT FENCE BACKING MAY BE USED IN LIEU OF WIRE MESH.
- WIRE MESH WILL BE USED AT LOCATIONS SHOWN ON THE APPROVED SWPPP.

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

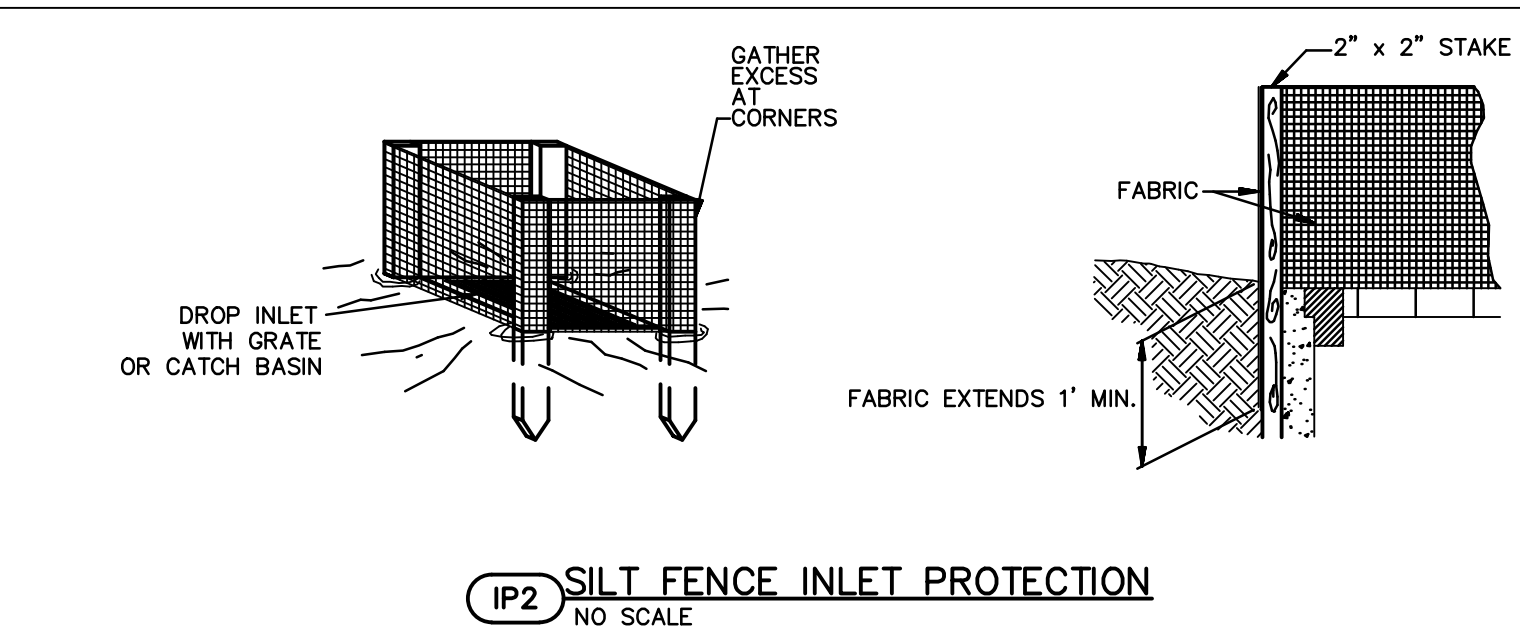


**PERFORMANCE STANDARDS:**

- ALL SITE ACCESS MUST BE CONFINED TO THE CONSTRUCTION EXIT(S). BARRICADE TO PREVENT USE OF ANY LOCATIONS OTHER THAN THE CONSTRUCTION EXIT(S) WHERE VEHICLES OR EQUIPMENT MAY ACCESS THE SITE.
- CONTRACTOR TO LOCATE TEMPORARY CONSTRUCTION FENCING, JERSEY BARRIERS, OR BOTH ALONG THE SIDES OF THE CONSTRUCTION EXIT TO PREVENT CONSTRUCTION TRAFFIC FROM SHORT CIRCUITING/BYPASSING THE EXIT.
- IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION EXIT(S) IS NOT SUFFICIENT TO PREVENT TRACKING OF DIRT, DUST OR MUD, THEN TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. ALL WASH WATER MUST BE SEED TO A SEDIMENT TRAP OR OTHER TREATMENT AREA AND SHALL NOT BE DIRECTLY DISCHARGED OFF-SITE.
- LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE MUST BE INSPECTED FOR EVIDENCE OF SEDIMENT TRACKING BEYOND THE PERMITTED PROJECT AREA. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
- ANY SEDIMENT DEPOSITED ON THE ROADWAY SHALL BE SWEEP AS NECESSARY (AND WITHIN THE SAME DAY AS DISCOVERY) AND DISPOSED OF IN AN APPROPRIATE MANNER. SEDIMENT SHALL NOT BE WASHED INTO STORM SEWER SYSTEMS.
- EXIT(S) SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD BEYOND THE EXIT(S). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION EXIT(S) AS CONDITIONS DEMAND.
- CONTRACTOR SHALL BE PERMITTED TO TURN THE STONE WHEN THE SURFACE BECOMES SMOOTH AND SURFACE VOIDS ARE FILLED TO MAINTAIN EFFECTIVENESS OF CONSTRUCTION EXIT UNTIL SUCH TIME THAT VOIDS BELOW THE SURFACE BECOME FILLED AND THE CONSTRUCTION EXIT IS NO LONGER EFFECTIVE. AT SUCH A TIME THE CONTRACTOR SHALL REMOVE THE INEFFECTIVE STONE AND REPLACE PER DETAIL.
- IF EXIT BMP IS STILL INEFFECTIVE, GC MUST CONTACT THE ENGINEER AND SUBMIT AN RFI AS NECESSARY.

**NOTE TO GC:** THE GOAL OF A CONSTRUCTION EXIT AND ASSOCIATED WHEEL WASH AREAS IS TO ELIMINATE TRACK OUT. SIMPLY MANAGING TRACK OUT THROUGH DESIGNATED OR CONTINUAL STREET SWEEPING IS NOT AN ACCEPTABLE PRACTICE. WHILE STREET SWEEPING IS AN ACCEPTABLE PRACTICE FOR REMOVING DUST AND MINIMAL AMOUNTS OF FINE SEDIMENT, OBSERVABLE TRACK OUT FROM THE PROJECT SHOULD TRIGGER THE USE OF ADDITIONAL MEASURES (WHEEL WASH), CONSIDERATION OF ALTERNATE EXITS, OR DISCONTINUING VEHICLE TRAFFIC UNTIL CONDITIONS ON-SITE HAVE IMPROVED. TRACK OUT IS A SEDIMENT RELEASE. ALL SEDIMENT RELEASES MUST BE REPORTED TO THE SWCT VIA THE ONLINE CRITICAL INCIDENT REPORT.

**TEMPORARY CONSTRUCTION ENTRANCE**  
NO SCALE



**IP2 SILT FENCE INLET PROTECTION**  
NO SCALE

**TABLE 60-5 SOIL STABILIZATION SCHEDULE**

SOIL DISTURBANCE ACTIVITY OR CONDITION	REQUIRED STABILIZATION TIME
SOIL DISTURBANCE HAS CEASED IN AREAS GREATER THAN 2,000 SQUARE FEET	14 DAYS
AFTER CONSTRUCTION OF DIKES, BERMS, DIVERSIONS, AND OTHER CONCENTRATED FLOW AREAS	5 DAYS
WHEN SLOPES ARE STEEPER THEN 3 HORIZONTAL TO 1 VERTICAL	7 DAYS
WHEN SLOPES ARE GREATER THAN 3% AND LONGER THAN 150 FEET	14 DAYS
PERIMETER CONTROLS AROUND SOIL STOCKPILES	END OF WORKDAY
STABILIZATION OR COVERING OF INACTIVE STOCKPILES	30 DAYS
WHEN LAND DISTURBANCE IS COMPLETED, PERMANENT SOIL STABILIZATION MUST BE INSTALLED	30 DAYS

**Table 60-6 Soil Amendment Rates**

Soil Amendment Material	Application Rate (Lb per Acre)
Fertilizer Nitrogen (N)	50 <sup>1</sup>
Phosphate (P <sub>2</sub> O <sub>5</sub> )	90 <sup>1</sup>
Potash (K <sub>2</sub> O)	90 <sup>1</sup>
Time	1,000 <sup>2</sup>

<sup>1</sup>Increase the rate by 25% for slopes steeper than 5:1.  
<sup>2</sup>Rate is in effective neutralizing material (ENM) units.

**Table 60-7 Temporary Fall Seeding**

Plant Species	Rate <sup>1</sup> (lb/acre)	Seeding Times
Side-Oats	65	8/16 - 9/30
Winter Rye	50	8/01 - 10/15
Winter Wheat	60	8/01 - 10/15
Orchard Grass	120	8/01 - 10/15
Perennial Ryegrass	80	8/01 - 10/15
Fall fescue	80	8/01 - 10/15
Smooth Brome	80	8/01 - 10/15
K-31 Fescue	120	9/01 - 11/15
Ladino Clover	2 <sup>2</sup>	8/15 - 9/15
Crimson Clover	6 <sup>2</sup>	8/15 - 9/15
Orchard Grass and Oats or Rye	15 <sup>2</sup> / 40 <sup>2</sup>	8/15 - 9/15

<sup>1</sup>If using aerial seeding or other broadcast method to apply seed without rolling or culti-packing, increase seeding rates by 50 percent.  
<sup>2</sup>Pure live seed (PLS)

**Table 60-8 Temporary Spring Seeding**

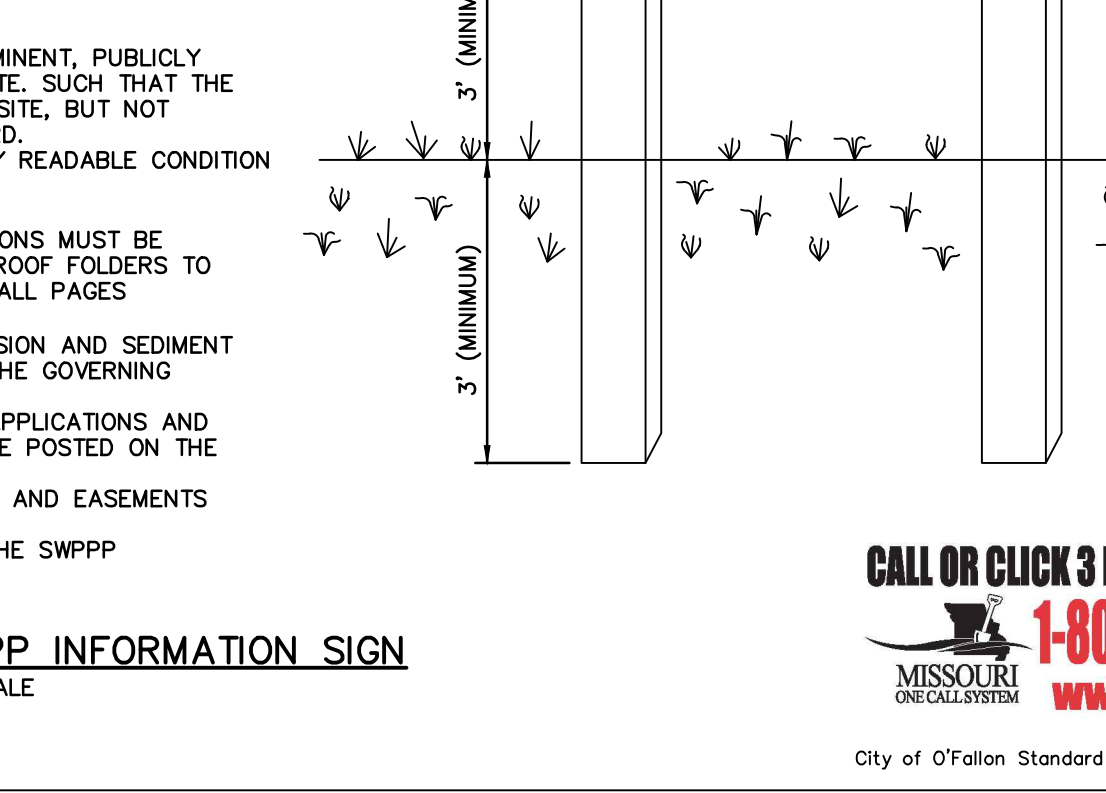
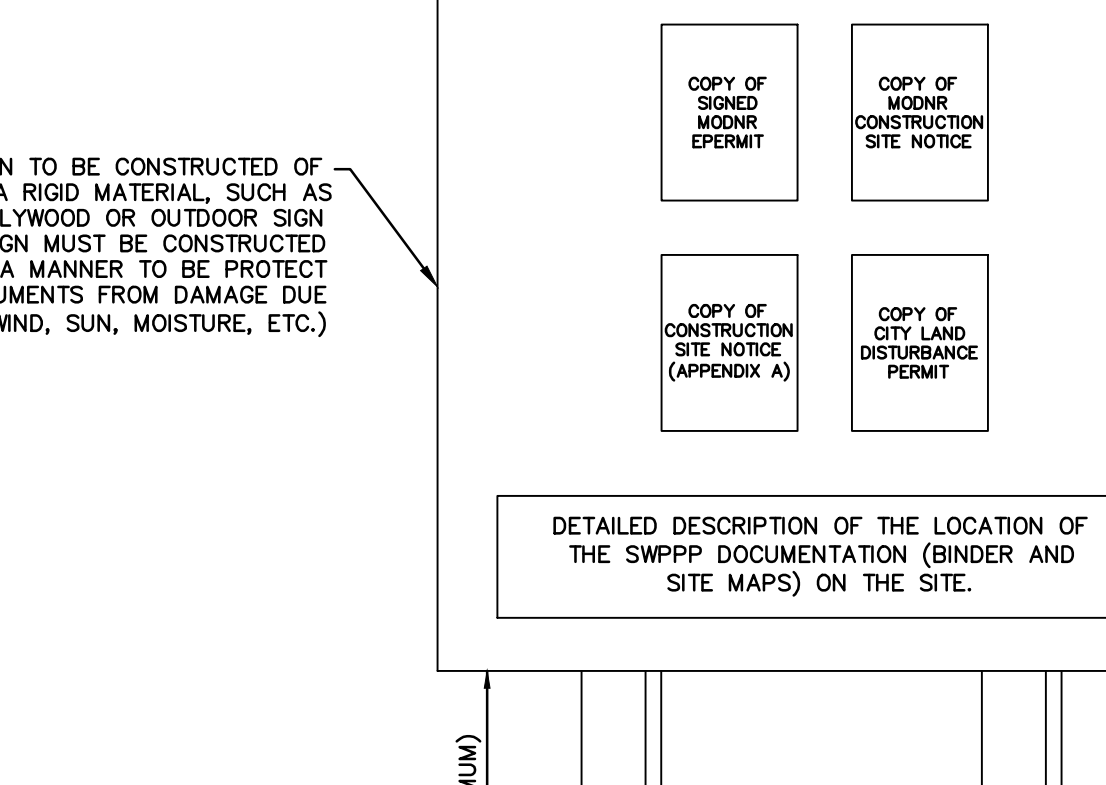
Plant Species	Rate <sup>1</sup> (lb/acre)	Seeding Dates
Winter Rye	50	3/15 - 5/31
Spring Oats	65	3/15 - 5/31
Annual Ryegrass	4 <sup>2</sup>	3/15 - 6/15
Stalgrass	16 <sup>2</sup>	4/15 - 6/15
K-31 Fescue	30 <sup>2</sup>	3/15 - 5/31
Red Clover & Oats	2 <sup>2</sup> / 30 <sup>2</sup>	3/15 - 5/31

<sup>1</sup>If using aerial seeding or other broadcast method to apply seed without rolling or culti-packing, increase seeding rates by 50 percent.  
<sup>2</sup>Pure live seed (PLS)

**Table 60-9 Mulching Materials**

Material	Rate	Requirements	Installation/Uses
Straw	1.5-2.5 tons/acre (3-4 tons, if roller punched)	Dry, unchopped, unweathered, free of weed seeds & rot.	Spread by machine 1.5-2.5 inches deep; must be tacked or tied down.
Compost Blanket	1" thick	Double the application rate for embankments.	Follow manufacturer's application method.
Wood fiber, cellulose, paper	1-2 tons/acre	Double the application rate in critical areas.	Use with power mulcher or hydroseeder; may be used to tack straw on steep slopes. Cannot be used in hot dry weather.

**"SWPPP INFORMATION" MUST BE DISPLAYED PROMINENTLY ACROSS THE TOP OF THE SIGN, AS SHOWN IN THE DETAIL.**



**SWPPP INFORMATION SIGN**  
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 Cochran Project No. M22-8498C

STATE OF MISSOURI  
 HAYDEN N. GINSBURG  
 REGISTERED PROFESSIONAL ENGINEER  
 PE-2024023959  
 87-04-25

DATE: \_\_\_\_\_  
 Hayden N. Ginsburg, Mo. PE-2024023959  
 Registered Professional Engineer  
 State of Missouri  
 for Cochran Engineering & Surveying

**SWPPP GENERAL NOTES AND DETAILS**

Developer Information:  
 HV PROPERTY MANAGEMENT, LLC  
 14010 MANCHESTER RD., MANCHESTER, MO 63011

Owner Information:  
 HV PROPERTY MANAGEMENT, LLC  
 14010 MANCHESTER RD., MANCHESTER, MO 63011

P+Z No. 24-012821  
 Approval Date: FEB. 6, 2025

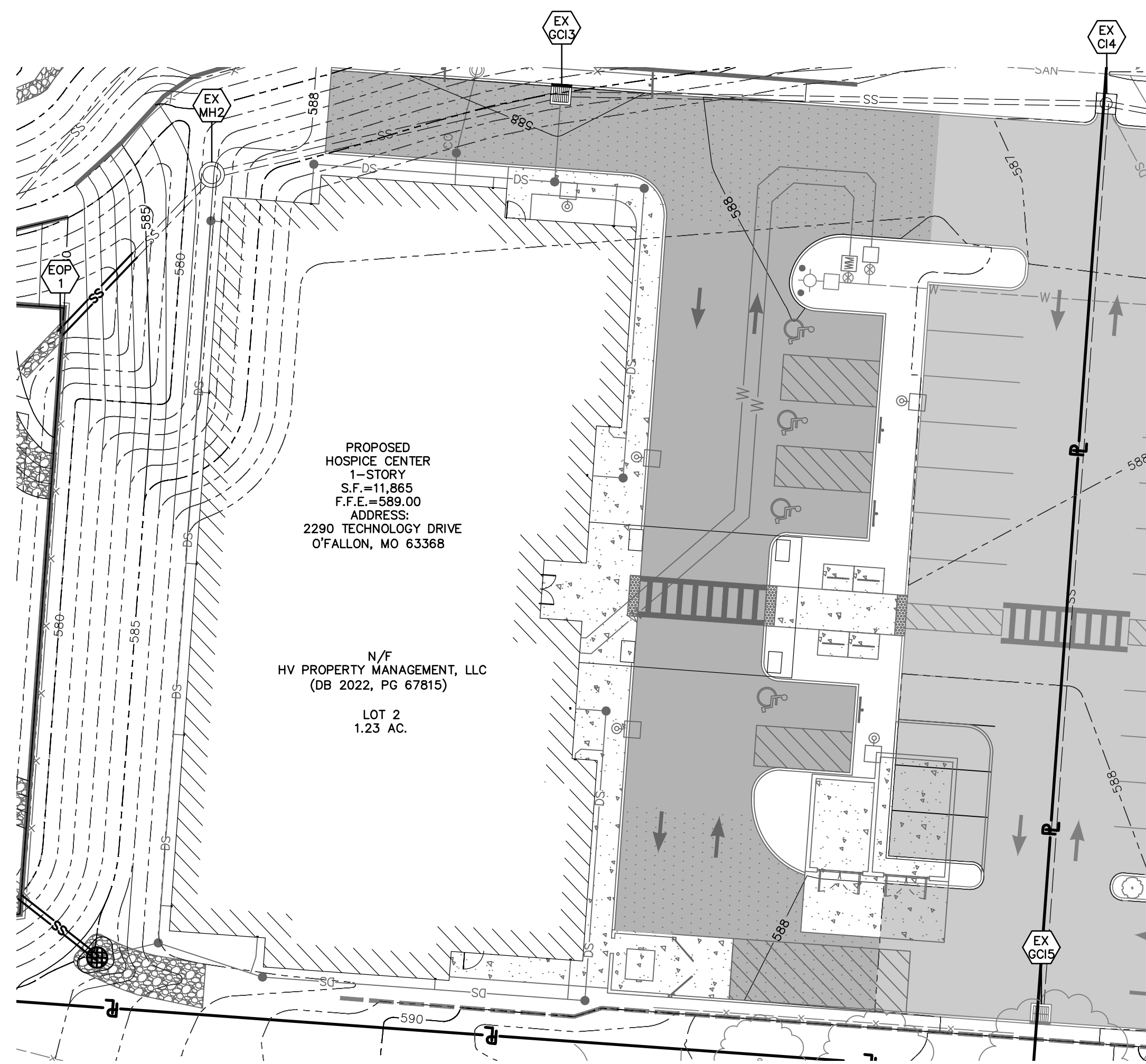
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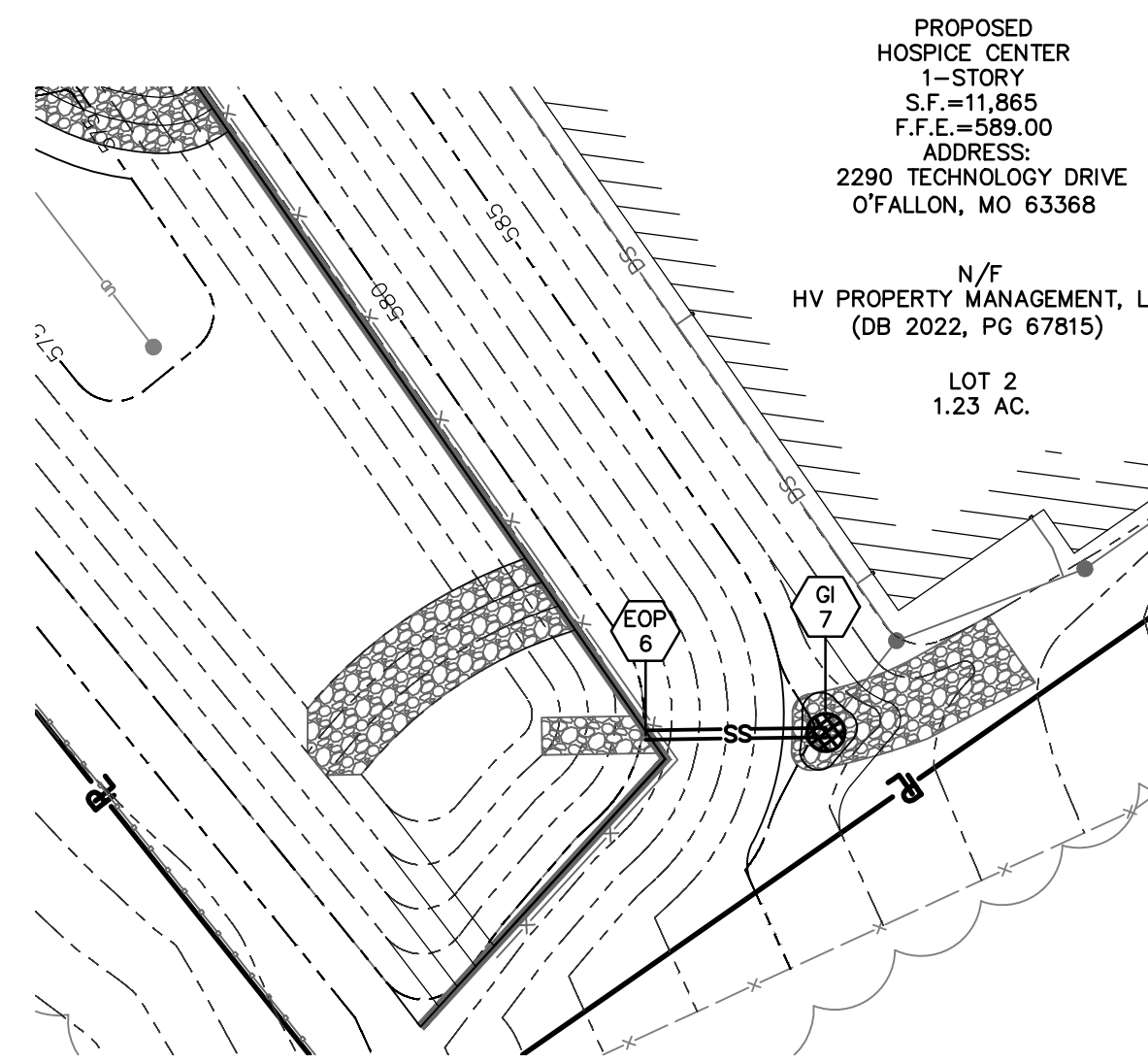
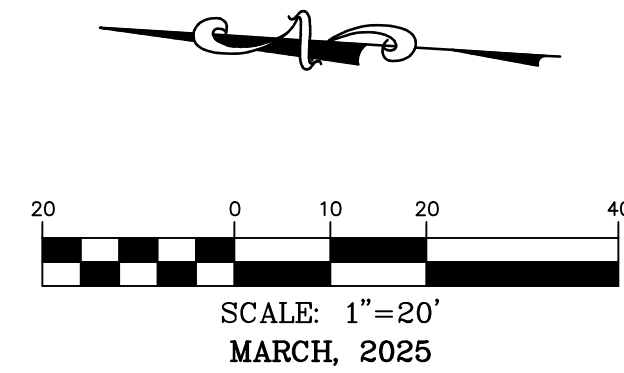
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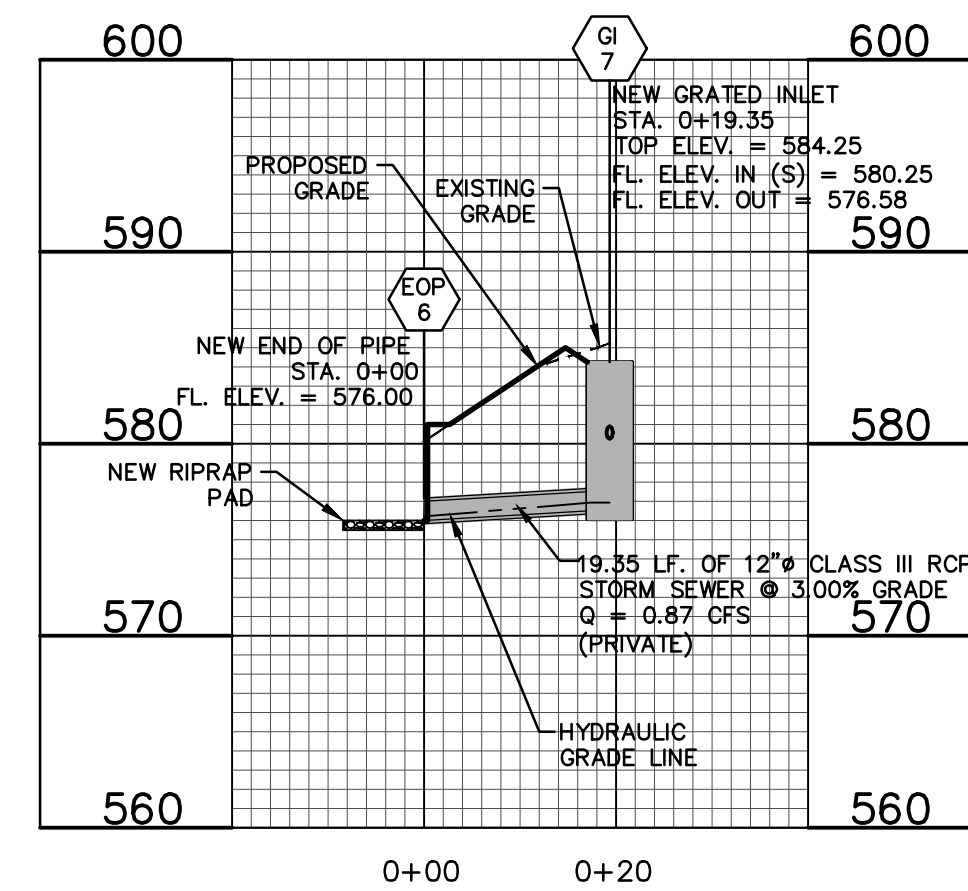
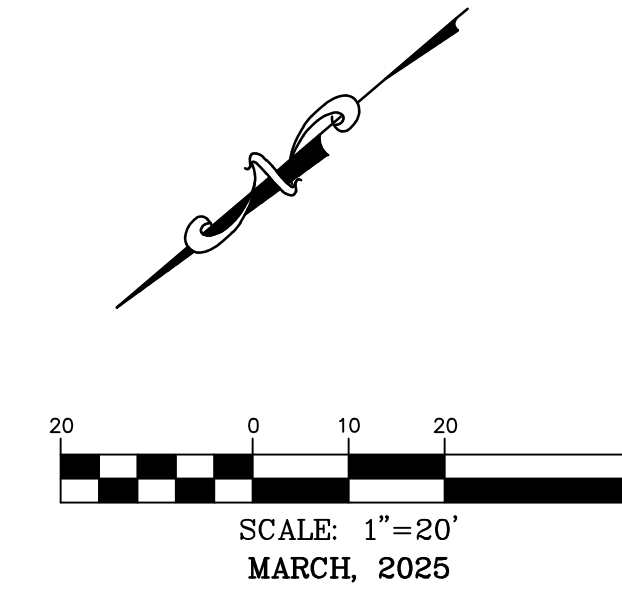
# STORM SEWER PLAN AND PROFILE



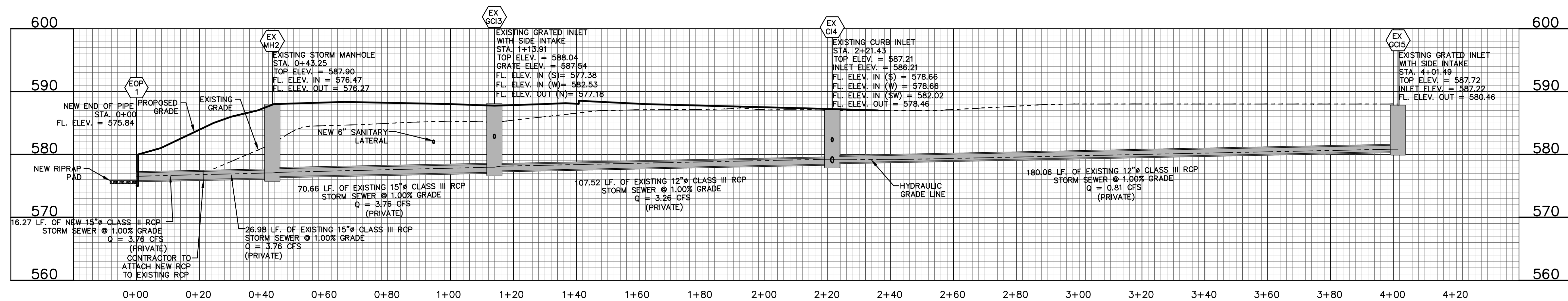
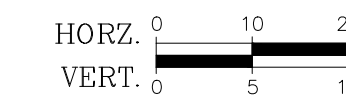
PLAN VIEW



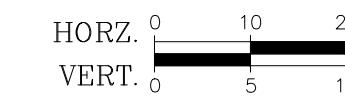
PLAN VIEW



PROFILE VIEW



PROFILE VIEW



NOTE:  
HP STORM POLYPROPYLENE PIPE MEETING ASTM F2881 MAY BE USED AS AN ALTERNATE TO RCP PIPE ON STORM SEWERS. CONTRACTOR SHALL VERIFY WITH GOVERNING AUTHORITY THAT THIS IS AN ACCEPTABLE ALTERNATE. IF HP STORM PIPE IS UTILIZED IT SHALL BE INSTALLED ACCORDING TO MANUFACTURERS SPECIFICATIONS.

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Missouri State Certificate  
of Authority Number: 2010000046  
Cochran Project No. M22-8498C



DATE  
Hayden N. Ginsburg No. PE-2024023959  
Registered Professional Engineer  
State of Missouri  
for Cochran Engineering & Surveying

Developer Information  
HV PROPERTY MANAGEMENT, LLC  
14010 MANCHESTER RD, MANCHESTER, MO 63011

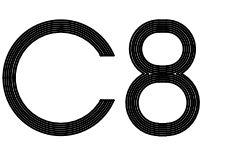
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STORM SEWER PLAN AND PROFILE

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Approval Date: FEB. 6, 2025

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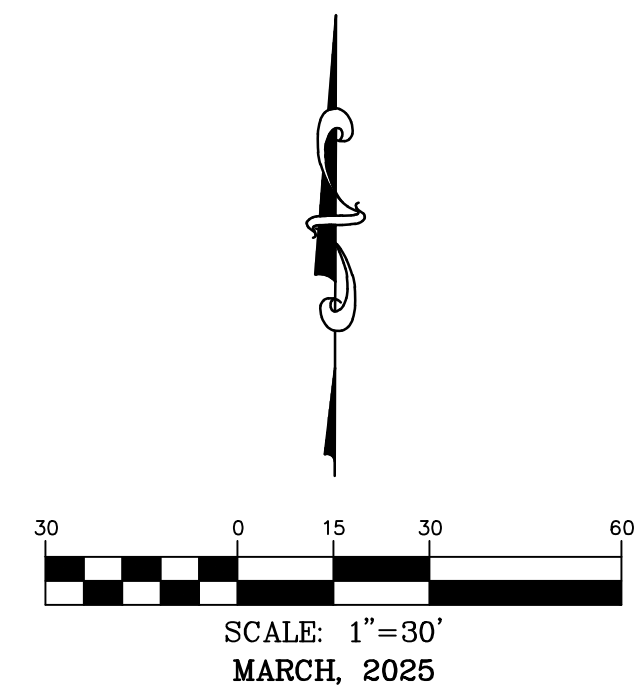
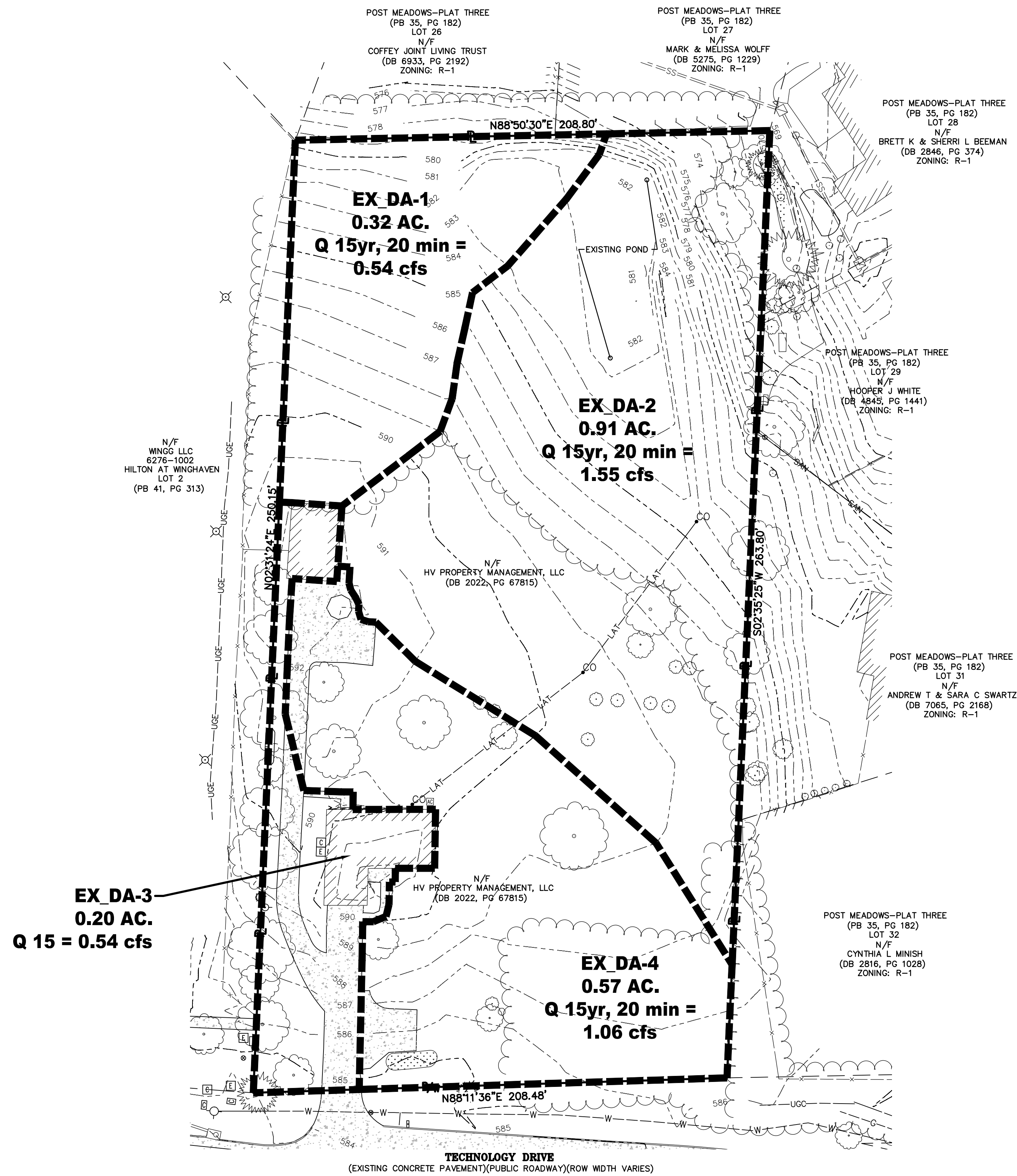
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# EXISTING DRAINAGE AREA MAP



<b>ALL AREAS</b> PI VALUE OPEN = 1.70 PI VALUE GRAVEL = 3.36 PI VALUE PAVEMENT/BUILDING = 3.54 PI VALUE BUILDING WITH COLLECTOR = 4.20	
<b>DA-01</b> OPEN = 0.32 ACRES GRAVEL = 0.00 ACRES PAVEMENT/BUILDING = 0.00 ACRES $PI = \frac{(0.32 \times 1.70) + (0.00 \times 3.36) + (0.00 \times 3.54)}{0.32} = 1.70$ $Q(15YR, 20MIN) = API = (0.32)(1.70) = 0.54$	<b>DA-02</b> OPEN = 0.91 ACRES GRAVEL = 0.00 ACRES PAVEMENT/BUILDING = 0.00 ACRES $PI = \frac{(0.91 \times 1.70) + (0.00 \times 3.36) + (0.00 \times 3.54)}{0.91} = 1.70$ $Q(15YR, 20MIN) = API = (0.91)(1.70) = 1.55$
<b>DA-03</b> OPEN = 0.09 ACRES GRAVEL = 0.00 ACRES PAVEMENT/BUILDING = 0.11 ACRES $PI = \frac{(0.09 \times 1.70) + (0.00 \times 3.36) + (0.11 \times 3.54)}{0.20} = 2.71$ $Q(15YR, 20MIN) = API = (0.20)(2.71) = 0.54$	<b>DA-04</b> OPEN = 0.52 ACRES GRAVEL = 0.00 ACRES PAVEMENT/BUILDING = 0.05 ACRES $PI = \frac{(0.52 \times 1.70) + (0.00 \times 3.36) + (0.05 \times 3.54)}{0.57} = 1.86$ $Q(15YR, 20MIN) = API = (0.57)(1.86) = 1.06$
<b>TOTAL EXISTING DRAINAGE AREA = 3.69 cfs</b>	

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Cochran Project No. M22-8498C

DATE

Hayden N. Ginsburg No. PE-2024023959  
Registered Professional Engineer  
State of Missouri  
for Cochran Engineering & Surveying

Developer Information  
HV PROPERTY MANAGEMENT, LLC  
14010 MANCHESTER RD, MANCHESTER, MO 63011

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**EXISTING DRAINAGE AREA MAP**

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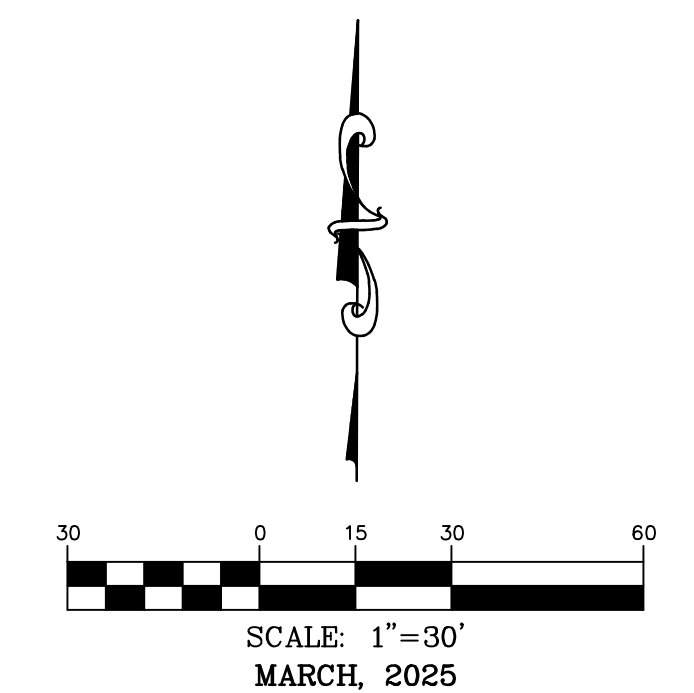
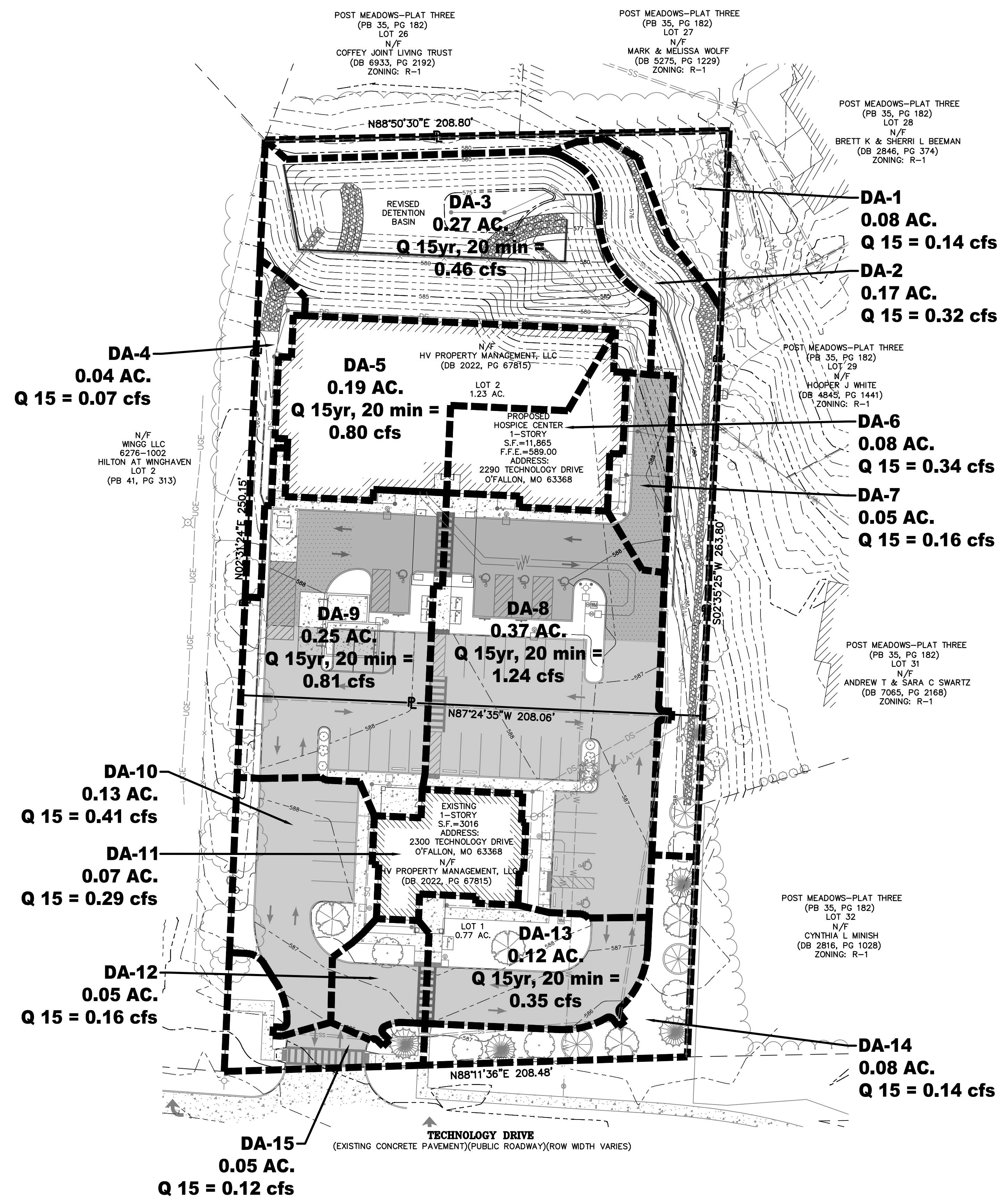
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# PROPOSED DRAINAGE AREA PLAN



ALL AREAS	
PI VALUE OPEN = 1.70	
PI VALUE GRAVEL = 3.36	
PI VALUE PAVEMENT/BUILDING = 3.54	
PI VALUE BUILDING WITH COLLECTOR = 4.20	
DA-01 OPEN = 0.06 ACRES GRAVEL = 0.00 ACRES PAVEMENT/BUILDING = 0.00 ACRES PI = $(\frac{0.06}{1.70}) + (\frac{0.00}{3.36}) + (\frac{0.00}{3.54}) = 0.035$ Q(15YR, 20MIN) = API = (0.08)(1.70) = 0.14	DA-02 OPEN = 0.15 ACRES GRAVEL = 0.00 ACRES PAVEMENT/BUILDING = 0.00 ACRES PI = $(\frac{0.15}{1.70}) + (\frac{0.00}{3.36}) + (\frac{0.00}{3.54}) = 0.088$ Q(15YR, 20MIN) = API = (0.17)(1.90) = 0.32
DA-03 OPEN = 0.27 ACRES GRAVEL = 0.00 ACRES PAVEMENT/BUILDING = 0.00 ACRES PI = $(\frac{0.27}{1.70}) + (\frac{0.00}{3.36}) + (\frac{0.00}{3.54}) = 0.159$ Q(15YR, 20MIN) = API = (0.27)(1.70) = 0.46	DA-04 OPEN = 0.04 ACRES GRAVEL = 0.00 ACRES PAVEMENT/BUILDING = 0.00 ACRES PI = $(\frac{0.04}{1.70}) + (\frac{0.00}{3.36}) + (\frac{0.00}{3.54}) = 0.024$ Q(15YR, 20MIN) = API = (0.04)(1.70) = 0.07
DA-05 OPEN = 0.19 ACRES GRAVEL = 0.00 ACRES PAVEMENT/BUILDING = 0.00 ACRES PI = $(\frac{0.19}{1.70}) + (\frac{0.00}{3.36}) + (\frac{0.00}{3.54}) = 0.112$ Q(15YR, 20MIN) = API = (0.27)(1.70) = 0.46	DA-06 OPEN = 0.08 ACRES GRAVEL = 0.00 ACRES PAVEMENT/BUILDING = 0.00 ACRES PI = $(\frac{0.08}{1.70}) + (\frac{0.00}{3.36}) + (\frac{0.00}{3.54}) = 0.047$ Q(15YR, 20MIN) = API = (0.08)(1.70) = 0.14
DA-07 OPEN = 0.08 ACRES GRAVEL = 0.00 ACRES PAVEMENT/BUILDING = 0.00 ACRES PI = $(\frac{0.08}{1.70}) + (\frac{0.00}{3.36}) + (\frac{0.00}{3.54}) = 0.047$ Q(15YR, 20MIN) = API = (0.19)(4.20) = 0.80	DA-08 OPEN = 0.05 ACRES GRAVEL = 0.00 ACRES PAVEMENT/BUILDING = 0.00 ACRES PI = $(\frac{0.05}{1.70}) + (\frac{0.00}{3.36}) + (\frac{0.00}{3.54}) = 0.029$ Q(15YR, 20MIN) = API = (0.05)(1.70) = 0.09
DA-09 OPEN = 0.25 ACRES GRAVEL = 0.00 ACRES PAVEMENT/BUILDING = 0.00 ACRES PI = $(\frac{0.25}{1.70}) + (\frac{0.00}{3.36}) + (\frac{0.00}{3.54}) = 0.147$ Q(15YR, 20MIN) = API = (0.25)(1.70) = 0.43	DA-10 OPEN = 0.37 ACRES GRAVEL = 0.00 ACRES PAVEMENT/BUILDING = 0.00 ACRES PI = $(\frac{0.37}{1.70}) + (\frac{0.00}{3.36}) + (\frac{0.00}{3.54}) = 0.218$ Q(15YR, 20MIN) = API = (0.37)(1.70) = 0.63
DA-11 OPEN = 0.04 ACRES GRAVEL = 0.00 ACRES PAVEMENT/BUILDING = 0.00 ACRES PI = $(\frac{0.04}{1.70}) + (\frac{0.00}{3.36}) + (\frac{0.00}{3.54}) = 0.024$ Q(15YR, 20MIN) = API = (0.04)(1.70) = 0.07	DA-12 OPEN = 0.03 ACRES GRAVEL = 0.00 ACRES PAVEMENT/BUILDING = 0.00 ACRES PI = $(\frac{0.03}{1.70}) + (\frac{0.00}{3.36}) + (\frac{0.00}{3.54}) = 0.018$ Q(15YR, 20MIN) = API = (0.03)(1.70) = 0.05
DA-13 OPEN = 0.02 ACRES GRAVEL = 0.00 ACRES PAVEMENT/BUILDING = 0.00 ACRES PI = $(\frac{0.02}{1.70}) + (\frac{0.00}{3.36}) + (\frac{0.00}{3.54}) = 0.012$ Q(15YR, 20MIN) = API = (0.02)(1.70) = 0.03	DA-14 OPEN = 0.05 ACRES GRAVEL = 0.00 ACRES PAVEMENT/BUILDING = 0.00 ACRES PI = $(\frac{0.05}{1.70}) + (\frac{0.00}{3.36}) + (\frac{0.00}{3.54}) = 0.029$ Q(15YR, 20MIN) = API = (0.05)(1.70) = 0.09
DA-15 OPEN = 0.05 ACRES GRAVEL = 0.00 ACRES PAVEMENT/BUILDING = 0.00 ACRES PI = $(\frac{0.05}{1.70}) + (\frac{0.00}{3.36}) + (\frac{0.00}{3.54}) = 0.029$ Q(15YR, 20MIN) = API = (0.05)(1.70) = 0.09	
TOTAL PROPOSED DRAINAGE AREA = 5.81 cfs	
RUNOFF DIFFERENCE = 5.81 - 3.69 = 2.12 cfs	

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Cochran Project No. M22-8498C

DATE  
Hayden N. Ginsburg No. PE-2024023959  
Registered Professional Engineer  
State of Missouri  
for Cochran Engineering & Surveying

Developer Information  
HV PROPERTY MANAGEMENT, LLC  
14010 MANCHESTER RD., MANCHESTER, MO 63011

Owner Information  
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**PROPOSED DRAINAGE AREA MAP**

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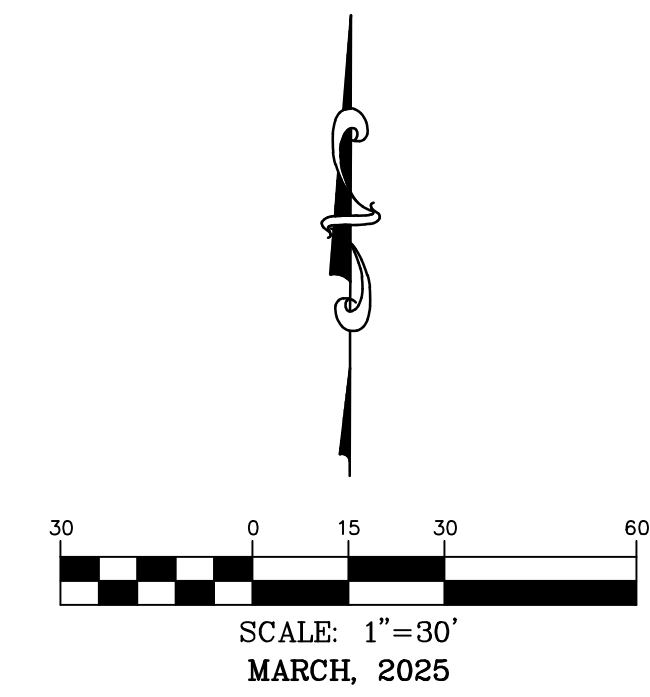
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# EXISTING TRIBUTARY DRAINAGE AREA MAP

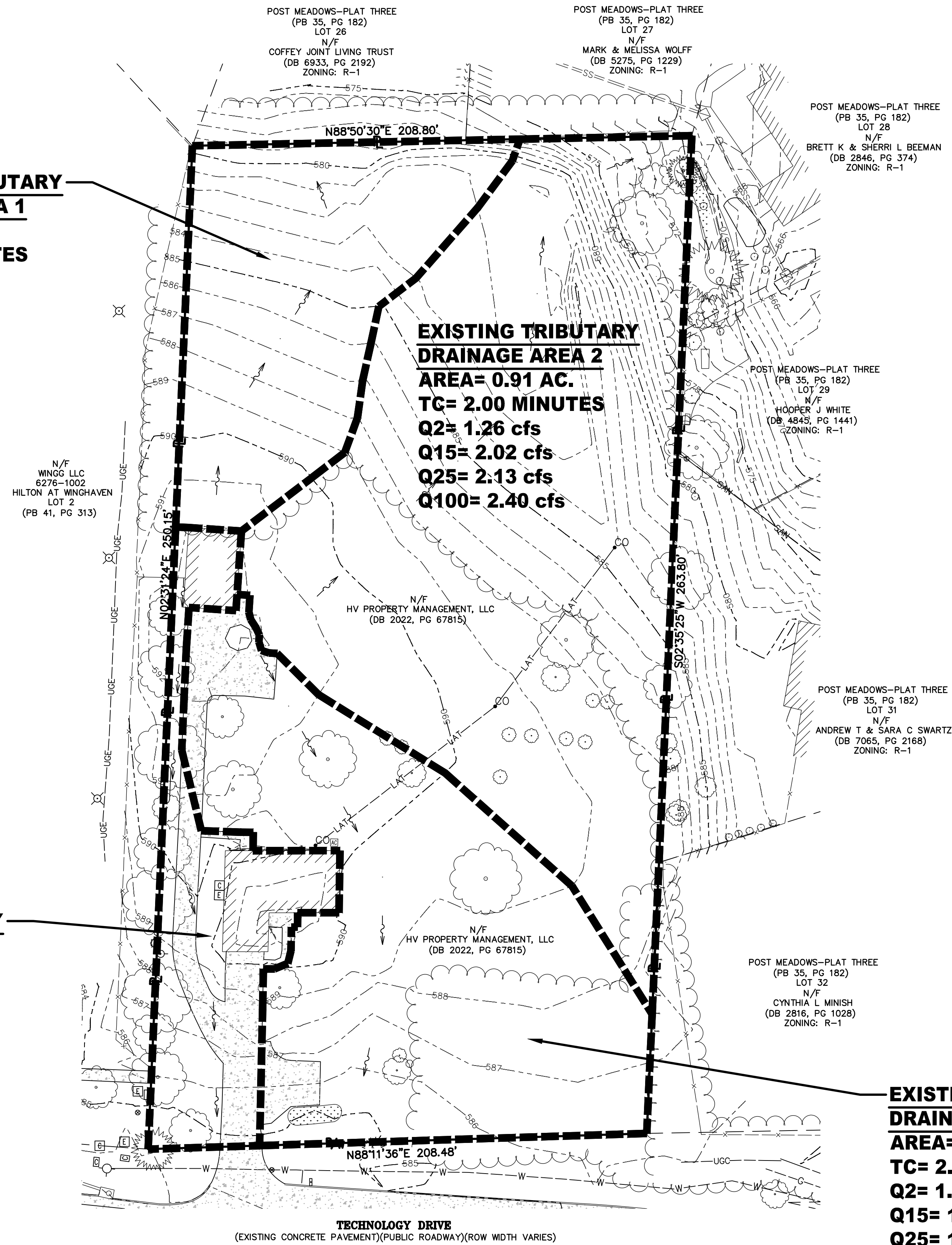


**EXISTING TRIBUTARY  
DRAINAGE AREA 1**  
**AREA= 0.32 AC.**  
**TC= 1.00 MINUTES**  
**Q2= 0.48 cfs**  
**Q15= 0.81 cfs**  
**Q25= 0.86 cfs**  
**Q100= 0.91 cfs**

**EXISTING TRIBUTARY  
DRAINAGE AREA 2**  
**AREA= 0.91 AC.**  
**TC= 2.00 MINUTES**  
**Q2= 1.26 cfs**  
**Q15= 2.02 cfs**  
**Q25= 2.13 cfs**  
**Q100= 2.40 cfs**

**EXISTING TRIBUTARY  
DRAINAGE AREA 3**  
**AREA= 0.20 AC.**  
**TC= 2.00 MINUTES**  
**Q2= 0.83 cfs**  
**Q15= 1.33 cfs**  
**Q25= 1.40 cfs**  
**Q100= 1.58 cfs**

**EXISTING TRIBUTARY  
DRAINAGE AREA 4**  
**AREA= 0.57 AC.**  
**TC= 2.00 MINUTES**  
**Q2= 1.03 cfs**  
**Q15= 1.64 cfs**  
**Q25= 1.73 cfs**  
**Q100= 1.96 cfs**



**TECHNOLOGY DRIVE**  
 (EXISTING CONCRETE PAVEMENT)(PUBLIC ROADWAY)(ROW WIDTH VARIES)

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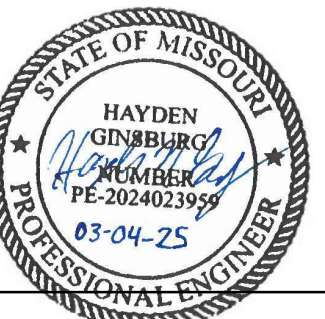


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 Hayden N. Ginsburg No. PE-2024023959  
 Registered Professional Engineer  
 State of Missouri  
 for Cochran Engineering & Surveying

Developer Information  
 HV PROPERTY MANAGEMENT, LLC  
 14010 MANCHESTER RD, MANCHESTER, MO 63011

Owner Information  
 HV PROPERTY MANAGEMENT, LLC  
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EXISTING TRIBUTARY DRAINAGE AREA MAP

P+Z No. 24-012821  
 Approval Date: FEB. 6, 2025

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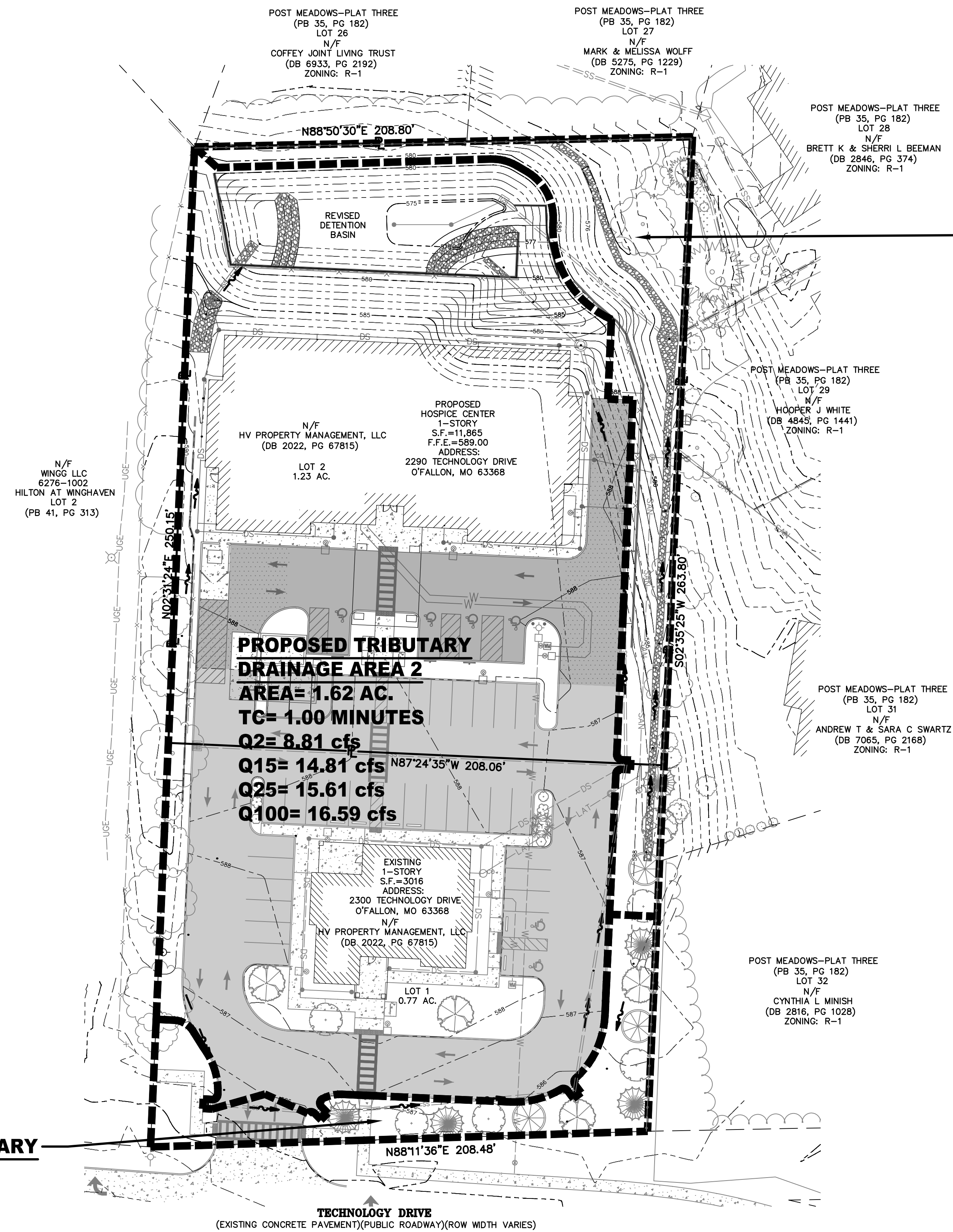
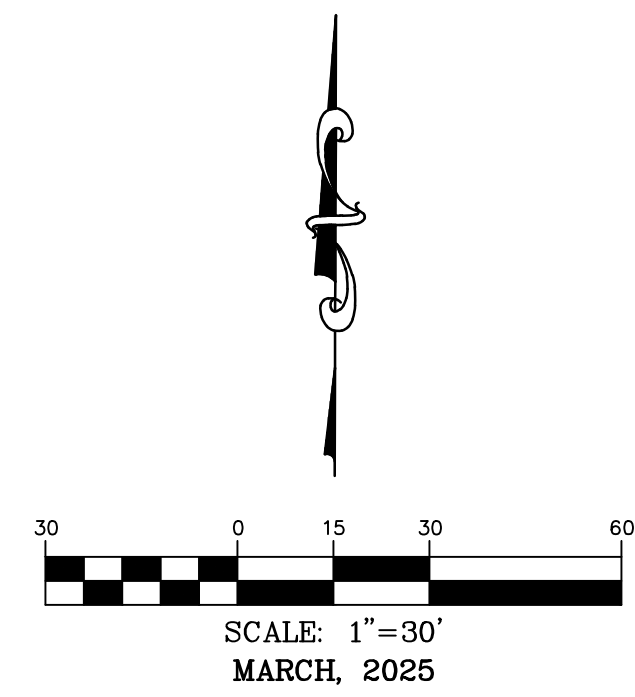
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# PROPOSED TRIBUTARY DRAINAGE AREA PLAN



**PROPOSED TRIBUTARY DRAINAGE AREA 1**  
**AREA= 0.24 AC.**  
**TC= 2.0 MINUTES**  
**Q2= 0.57 cfs**  
**Q15= 0.91 cfs**  
**Q25= 0.96 cfs**  
**Q100= 1.08 cfs**

**PROPOSED TRIBUTARY DRAINAGE AREA 2**  
**AREA= 1.62 AC.**  
**TC= 1.00 MINUTES**  
**Q2= 8.81 cfs**  
**Q15= 14.81 cfs**  
**Q25= 15.61 cfs**  
**Q100= 16.59 cfs**

**PROPOSED TRIBUTARY DRAINAGE AREA 3**  
**AREA= 0.14 AC.**  
**TC= 1.00 MINUTES**  
**Q2= 0.46 cfs**  
**Q15= 0.77 cfs**  
**Q25= 0.81 cfs**  
**Q100= 0.86 cfs**

**TECHNOLOGY DRIVE**  
 (EXISTING CONCRETE PAVEMENT)(PUBLIC ROADWAY)(ROW WIDTH VARIES)

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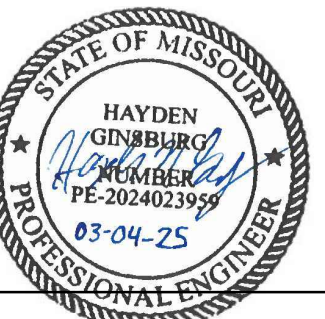
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**PROPOSED TRIB. DRAINAGE AREA MAP**

P+Z No. 24-012821  
 Approval Date: FEB. 6, 2025

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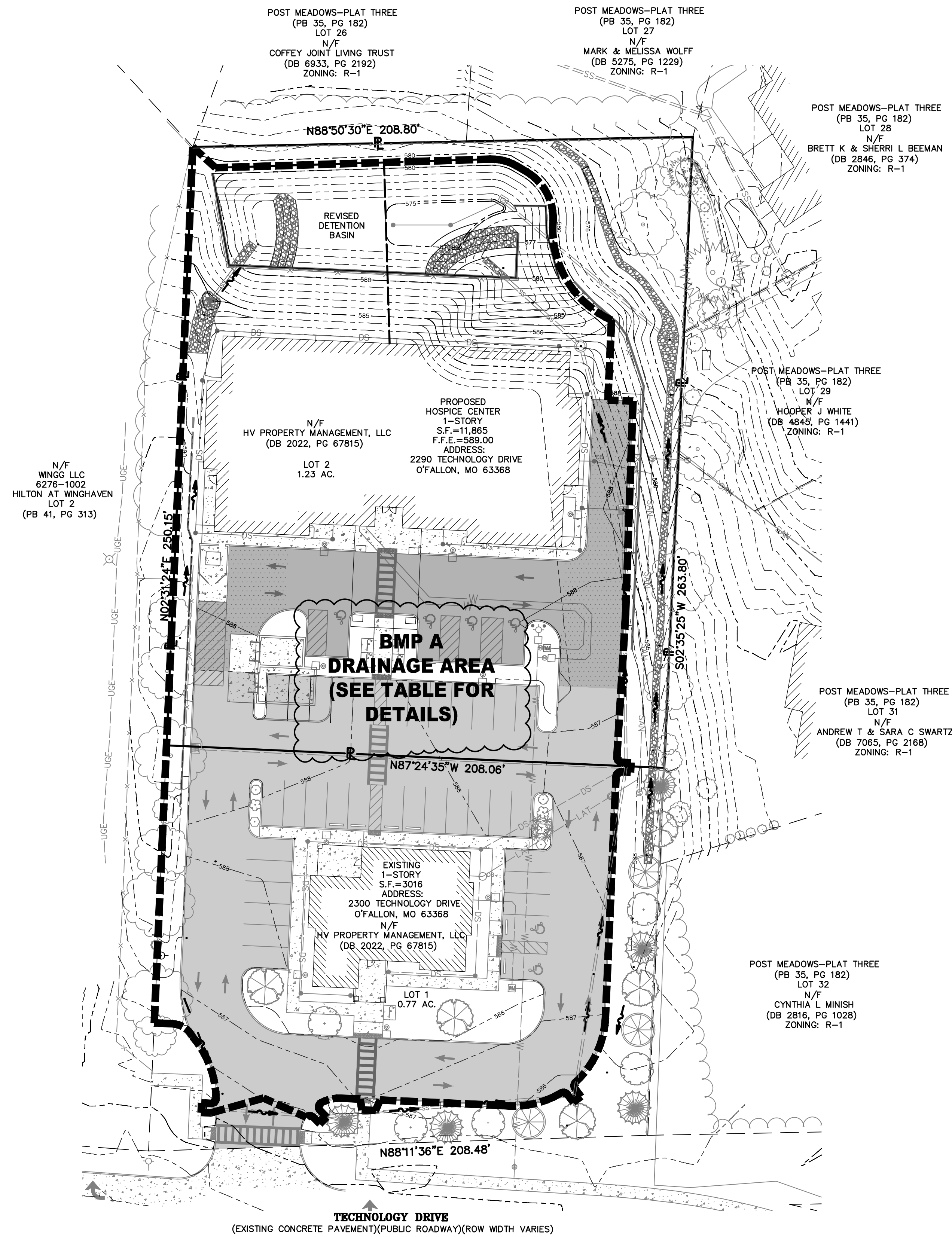
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# WATER QUALITY DRAINAGE AREA MAP



AREA	TOTAL ACRES	IMPERVIOUS ACRES	DESCRIPTION	BMP	STORMWATER CREDIT	WQV REDUCTION TYPE	WQV REQUIRED	WQV PROVIDED
"A"	1.62	1.17	TRIBUTARY ONSITE DRAINAGE AREA	NESTED SAND FILTER	-	-	2,347 CF	2,986 CF
TOTAL	1.62	1.17					2,347 CF	2,986 CF

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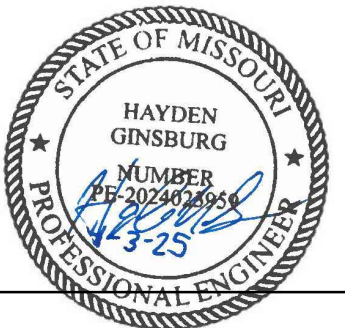


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WATER QUALITY DRAINAGE AREA MAP

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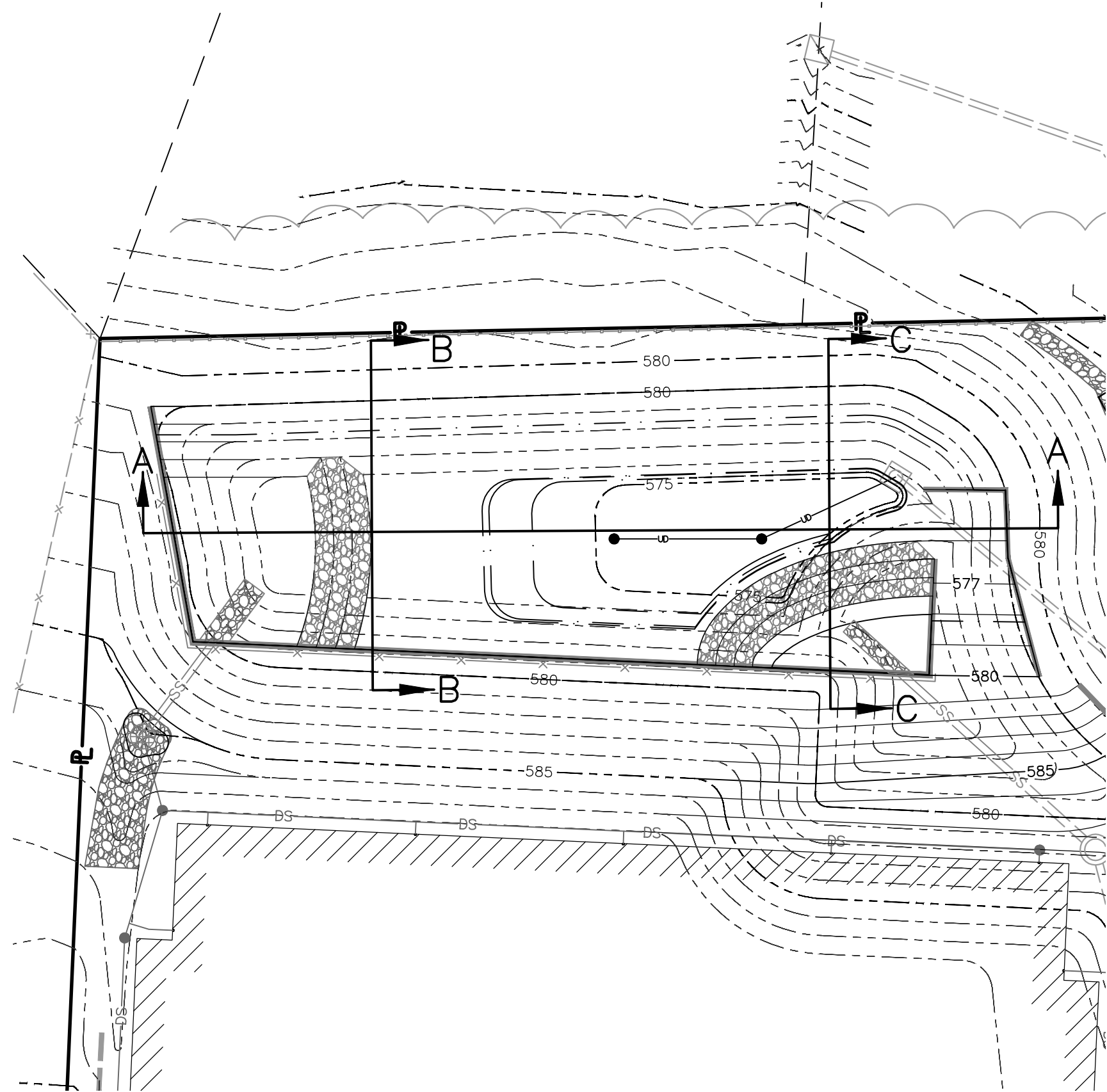
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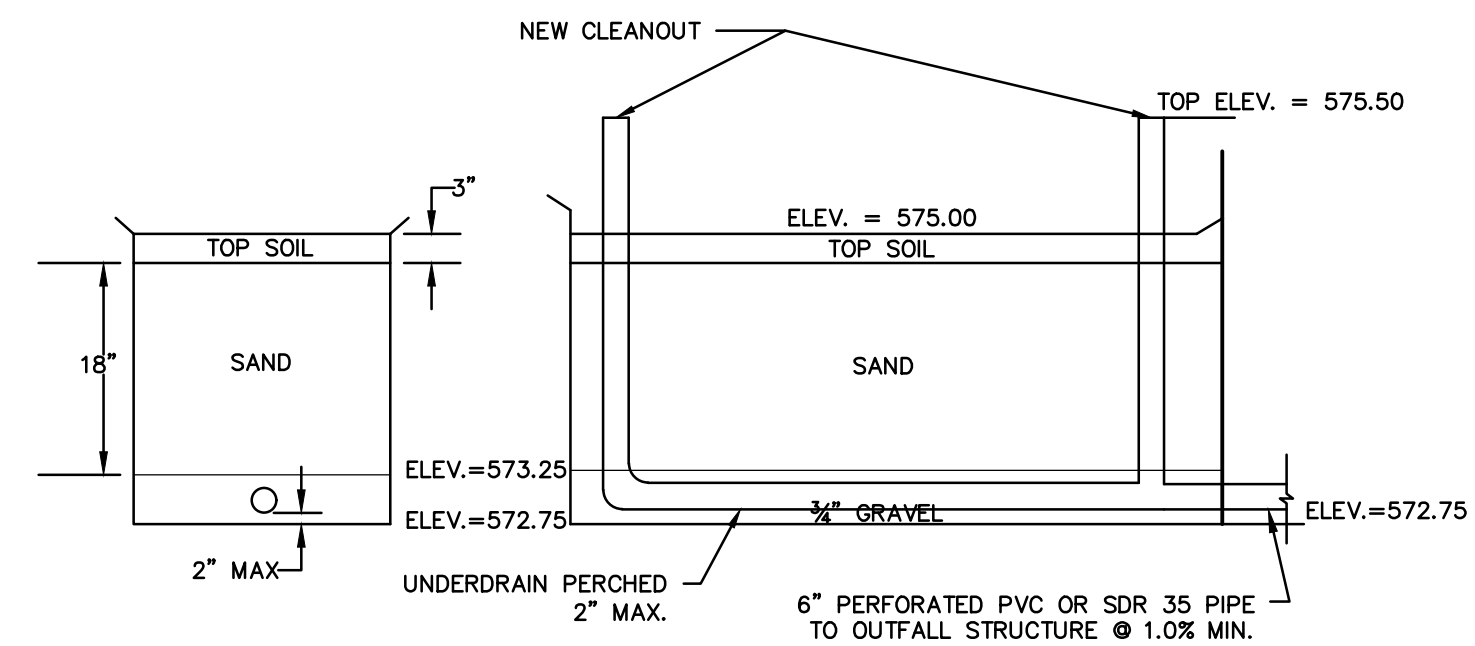
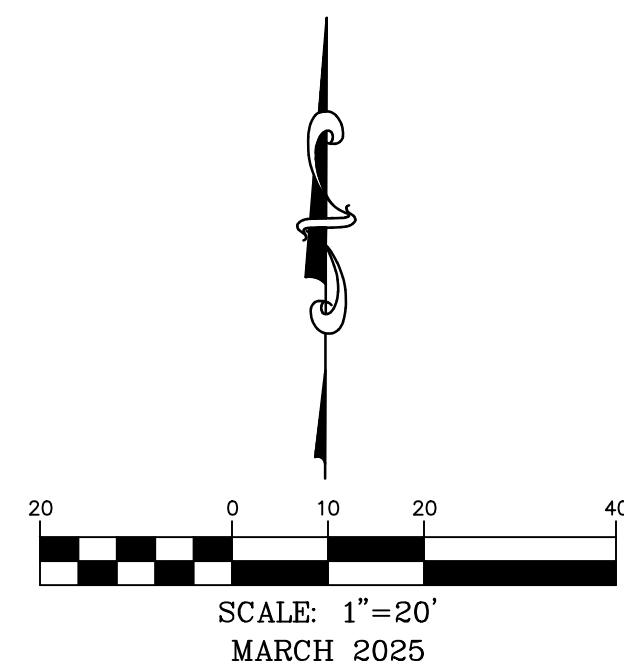
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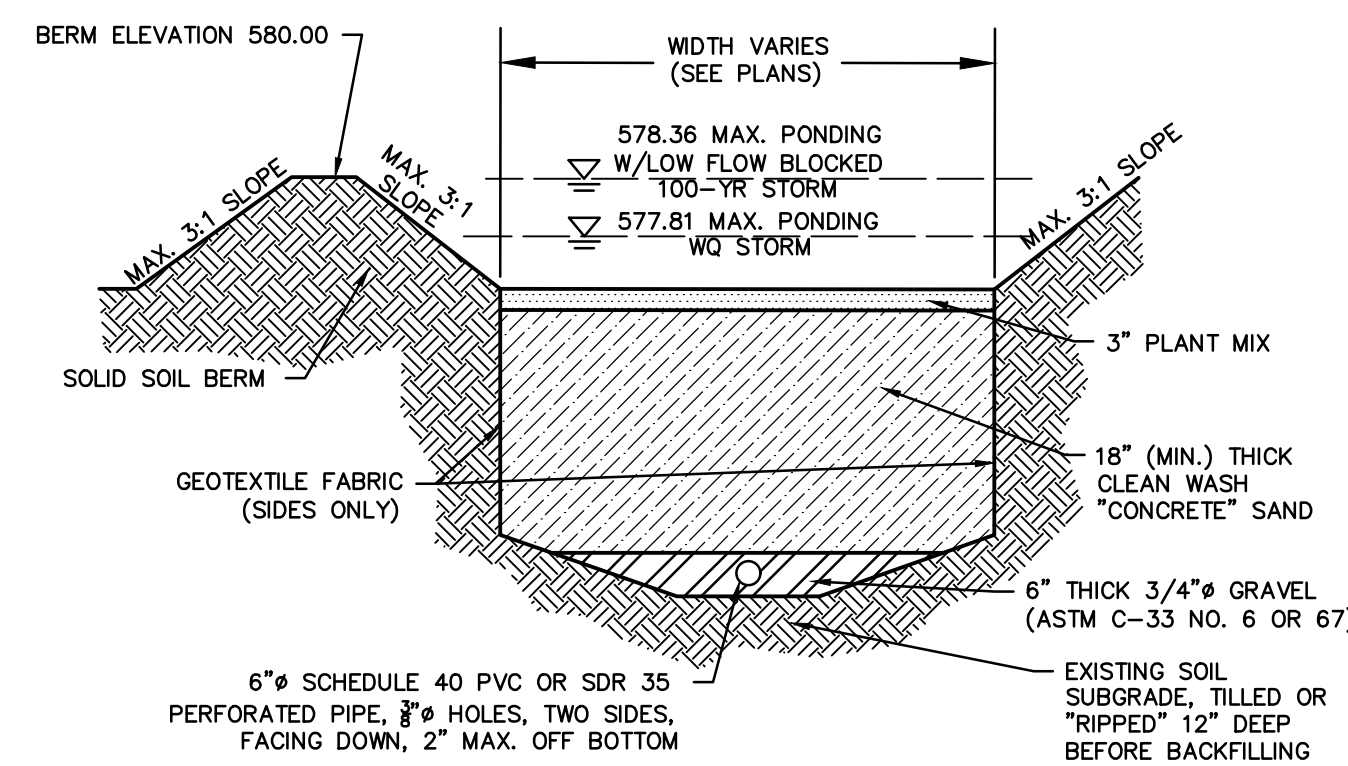
# DETENTION BASIN CROSS SECTIONS



PLAN VIEW



SURFACE SAND FILTER TRAP DETAIL  
NO SCALE

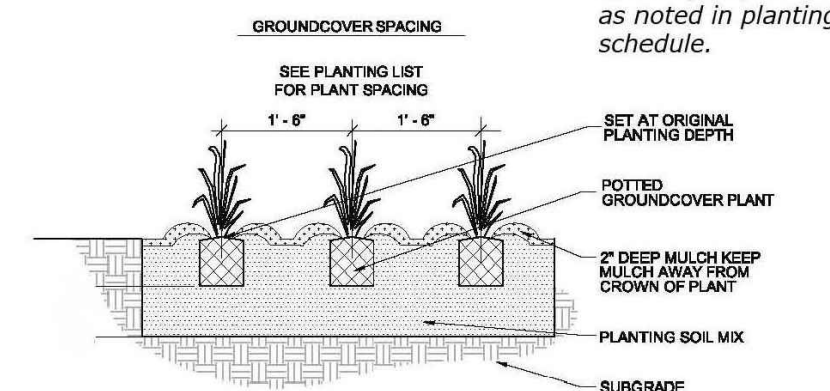
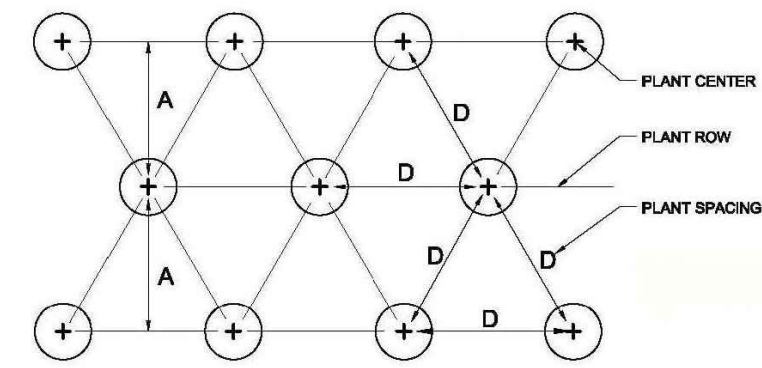


NOTES:  
1. SEE MSD LANDSCAPE PLAN FOR PLANTING SOIL SPECIFICATIONS.  
2. ALL SAND & GRAVEL TO BE NATURAL, UNCRUSHED.

SURFACE SAND FILTER DETAIL  
NO SCALE

SPACING 12"	ROW 12"	NUMBER OF PLANTS/ROW, FT.
30'	20'	180
24'	20'	144
18'	12.0'	840
12'	10.4'	1,008
10'	8.80'	1,144
8'	6.90'	2,220

NOTE: PLANT QUANTITIES WERE DETERMINED BY MULTIPLYING AREA BY FT. BY NUMBER OF PLANTS/ROW FOR REQUIRED SPACING.



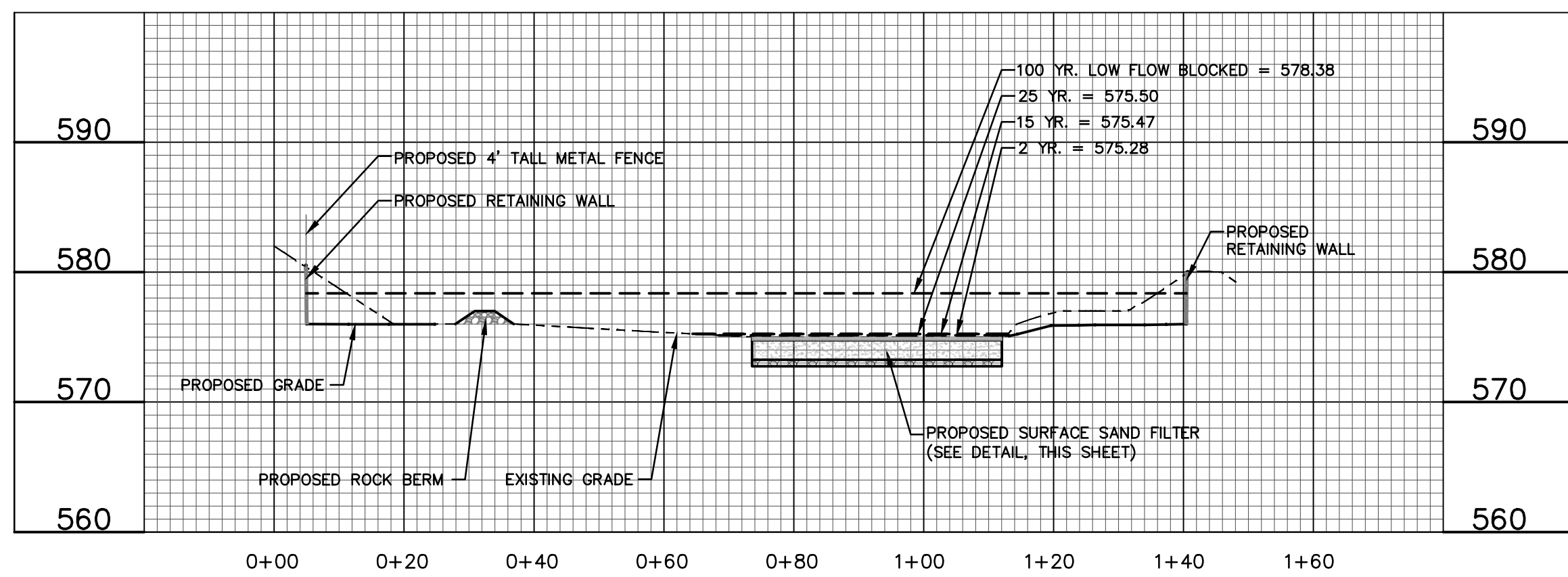
NOTES:  
1. REMOVE SPENT FLOWERS PRIOR TO PLANTING.  
2. LOCATE ROOT MARKS AT BOTTOM OF ROOTBALL.  
3. TOP OF FOOTBALL STRIPPED OF 1" SURFACE GROWING MEDIA AND COVERED WITH 1" LANDSCAPE BEDDING PLUS SURFACE MULCH.  
7" DEEP MULCH KEEP MULCH AWAY FROM CROWN OF PLANT.

Plant Spacing Plan  
Figure 9 Planting Detail Courtesy of Ted Spaid  
SWT Design, St. Louis, MO

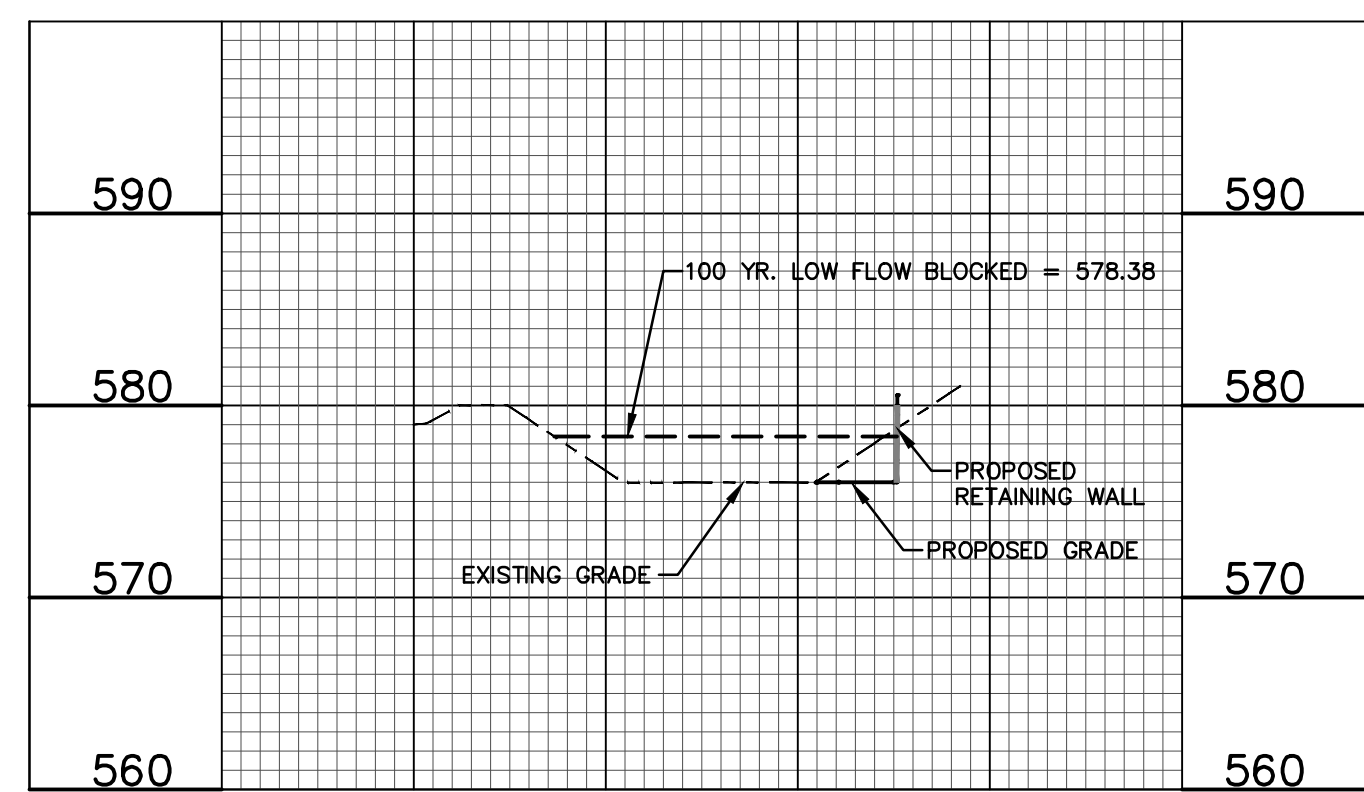
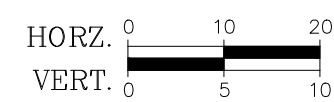
## PLANT SCHEDULE

QTY.	I.D.	COMMON NAME	BOTANICAL NAME	SPACING
SAND FILTER PLANTINGS				
38		Switchgrass	<i>Panicum virgatum</i>	2.5'
37		Shining bluestar	<i>Amsonia illustris</i>	2.5'
37		Slender bush clover	<i>Lespedeza virginica</i>	2.5'

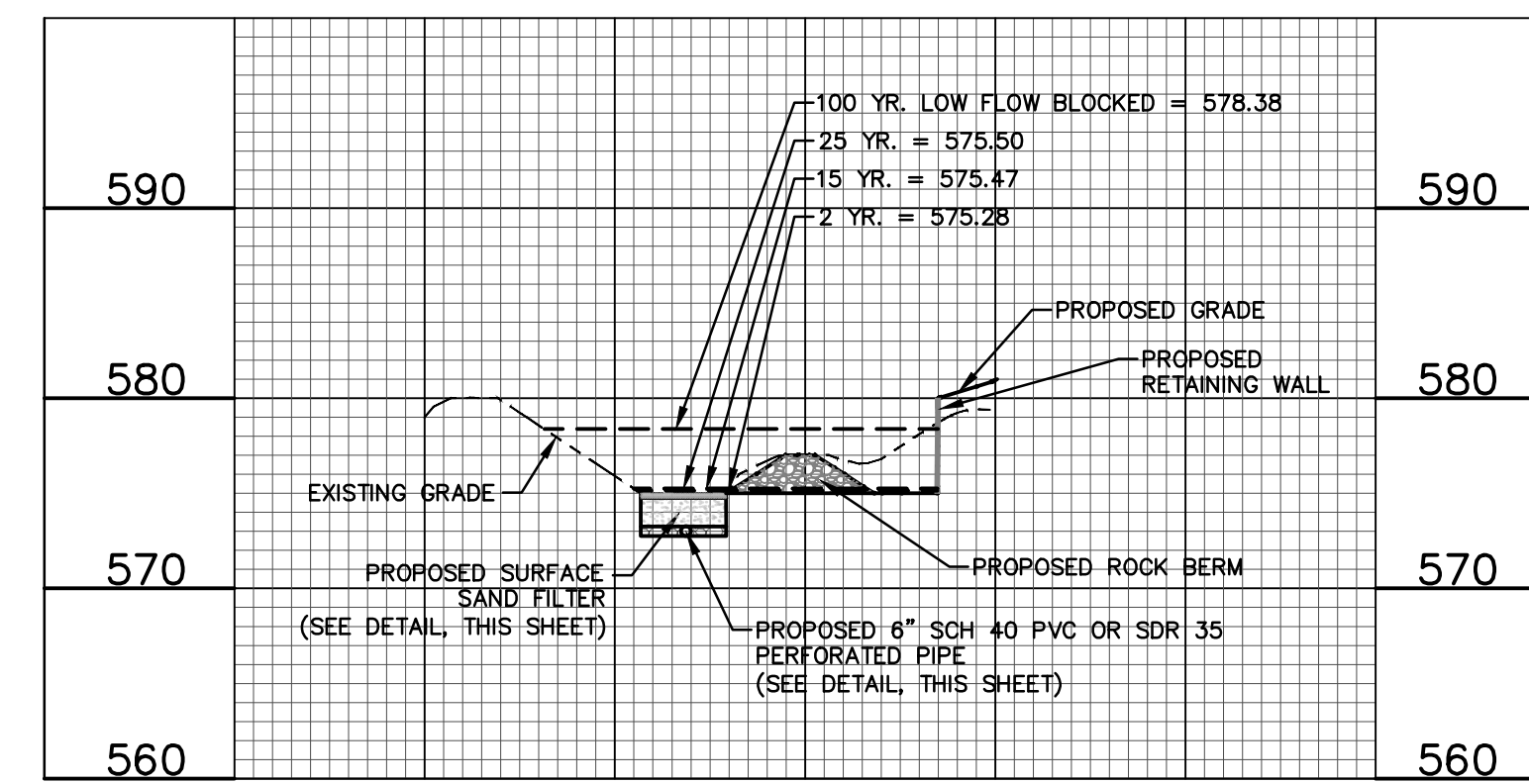
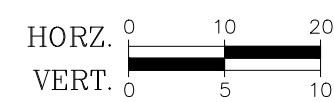
Note: Contractor responsible for quantity of plants and materials based upon the plan. Quantities in plant schedule are estimates only.



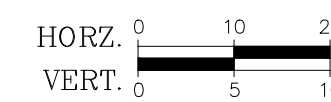
PROFILE VIEW A-A



PROFILE VIEW B-B



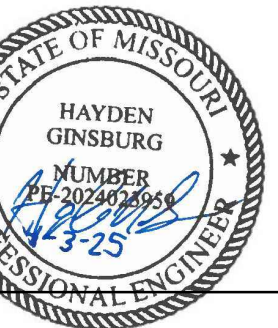
PROFILE VIEW C-C



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Hayden N. Ginsburg No. PE-2024023959  
Registered Professional Engineer  
State of Missouri  
for Cochran Engineering & Surveying

DETENTION BASIN CROSS SECTIONS

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Owner: Information Management, LLC  
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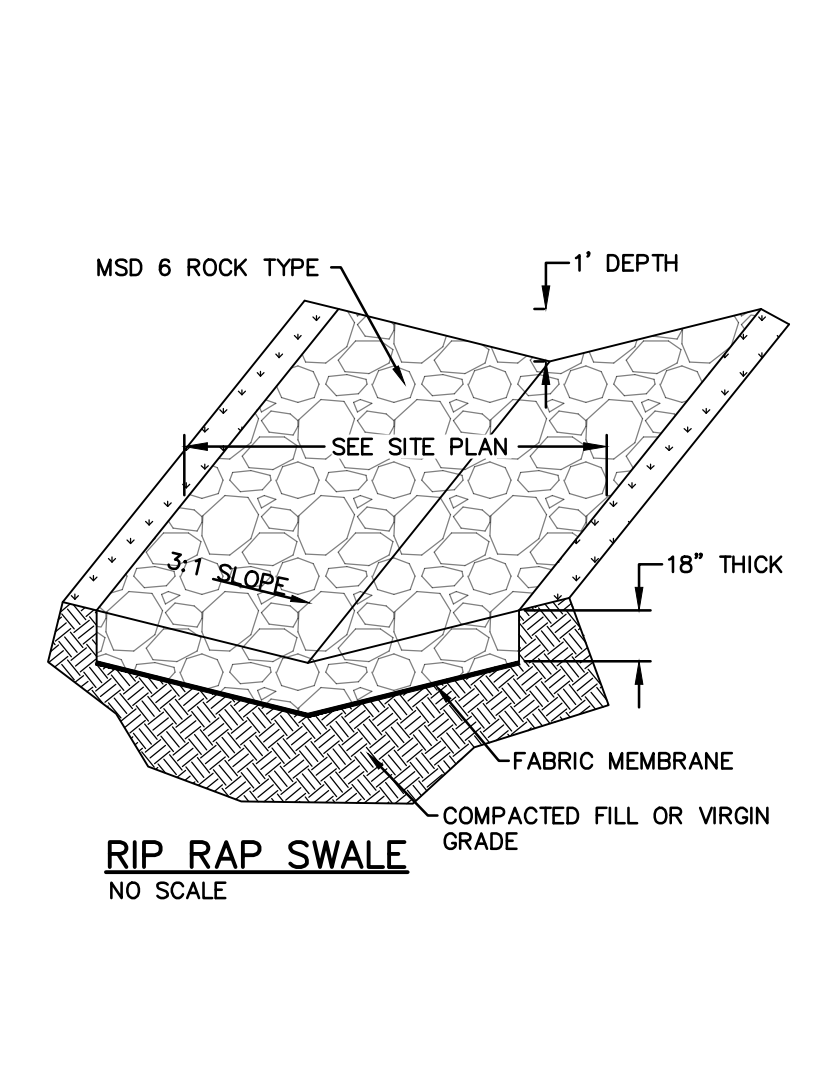
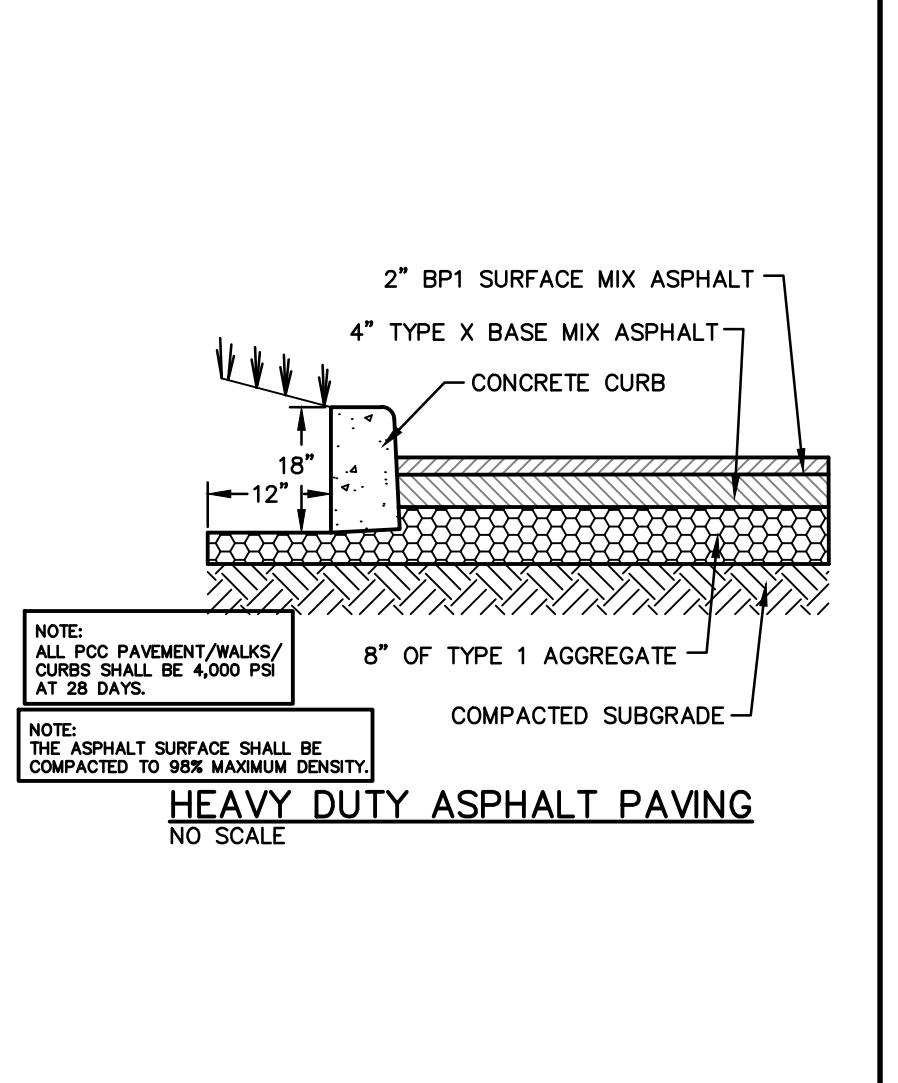
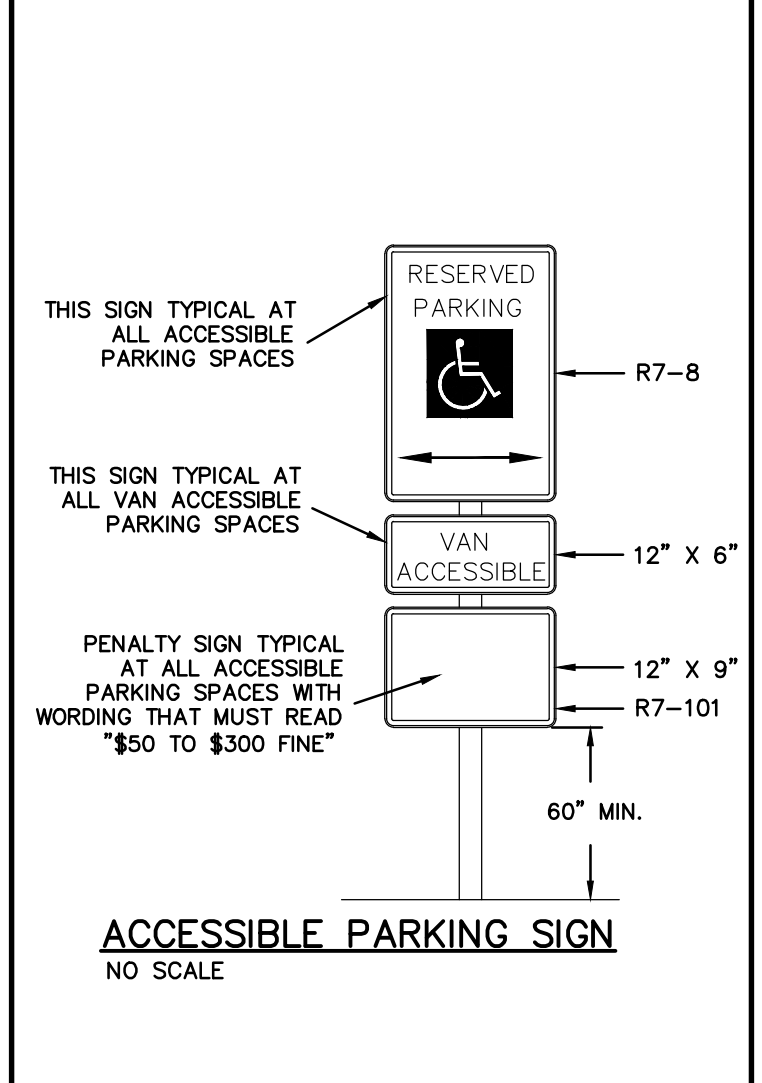
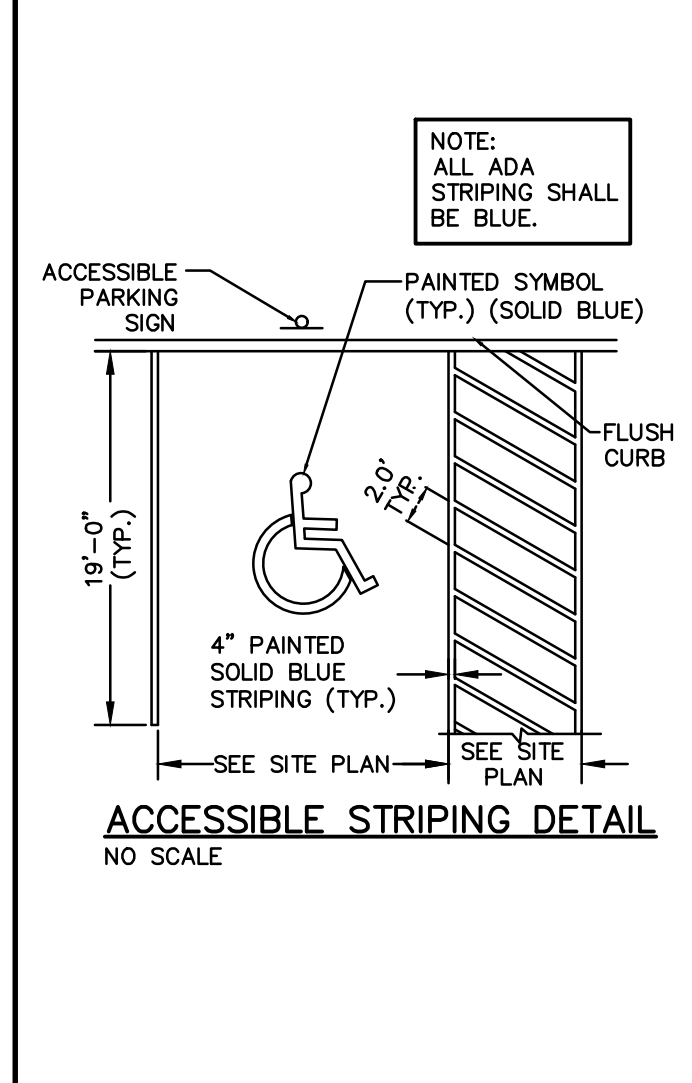
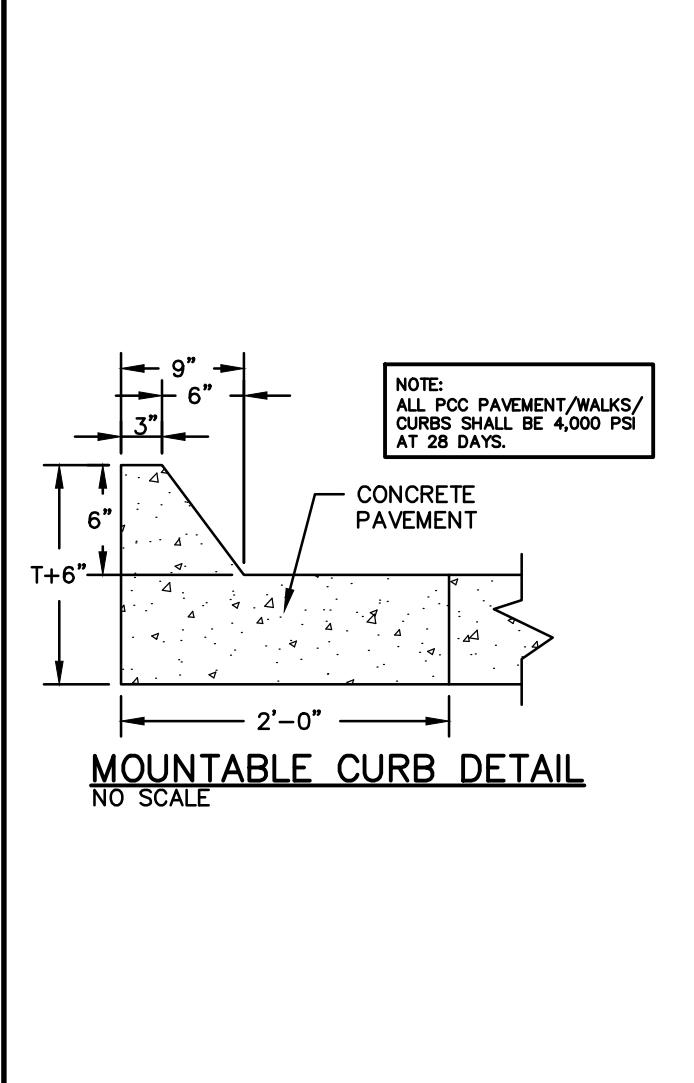
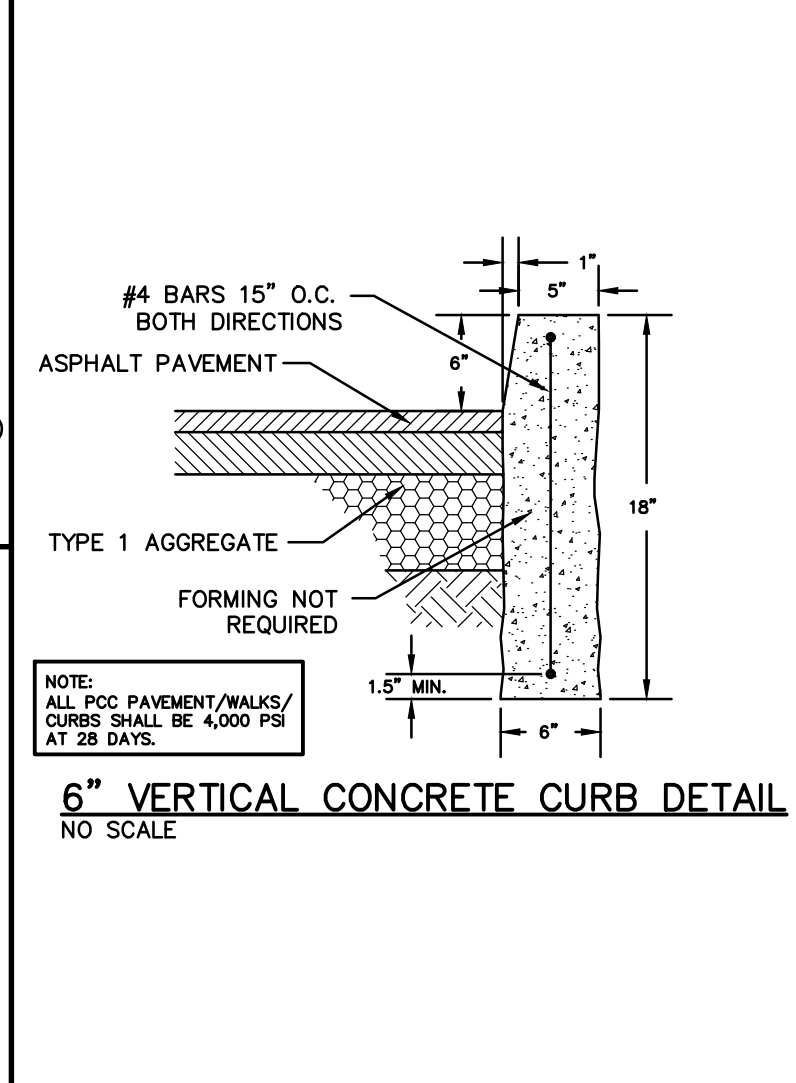
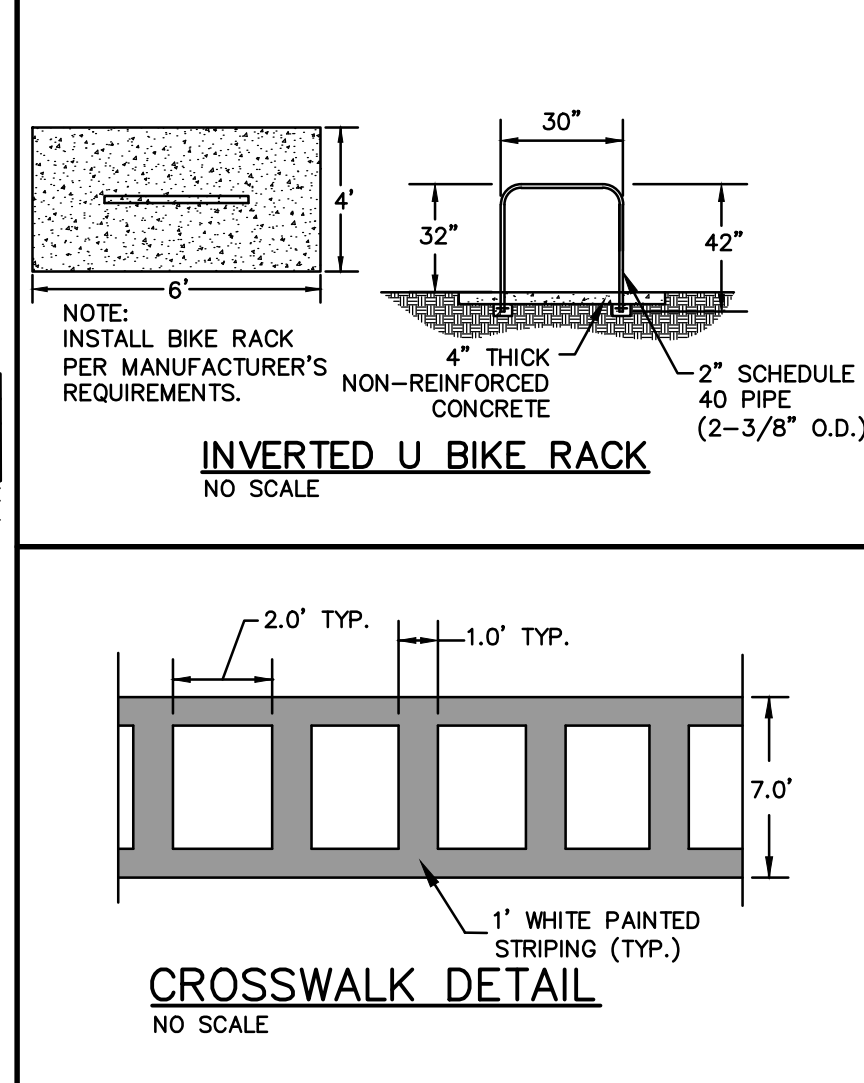
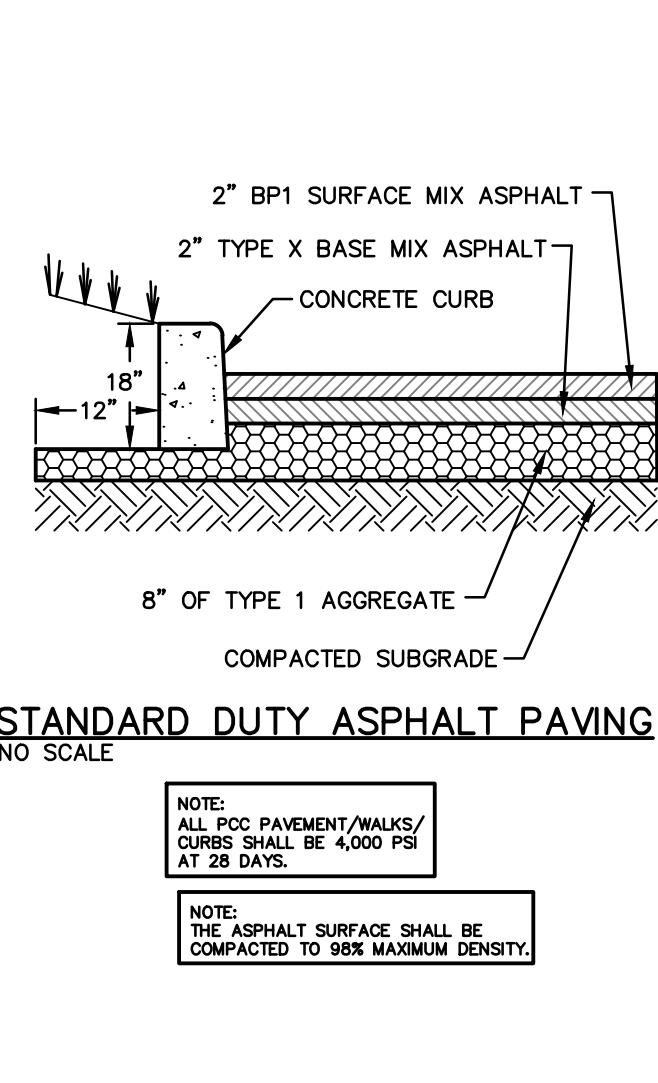
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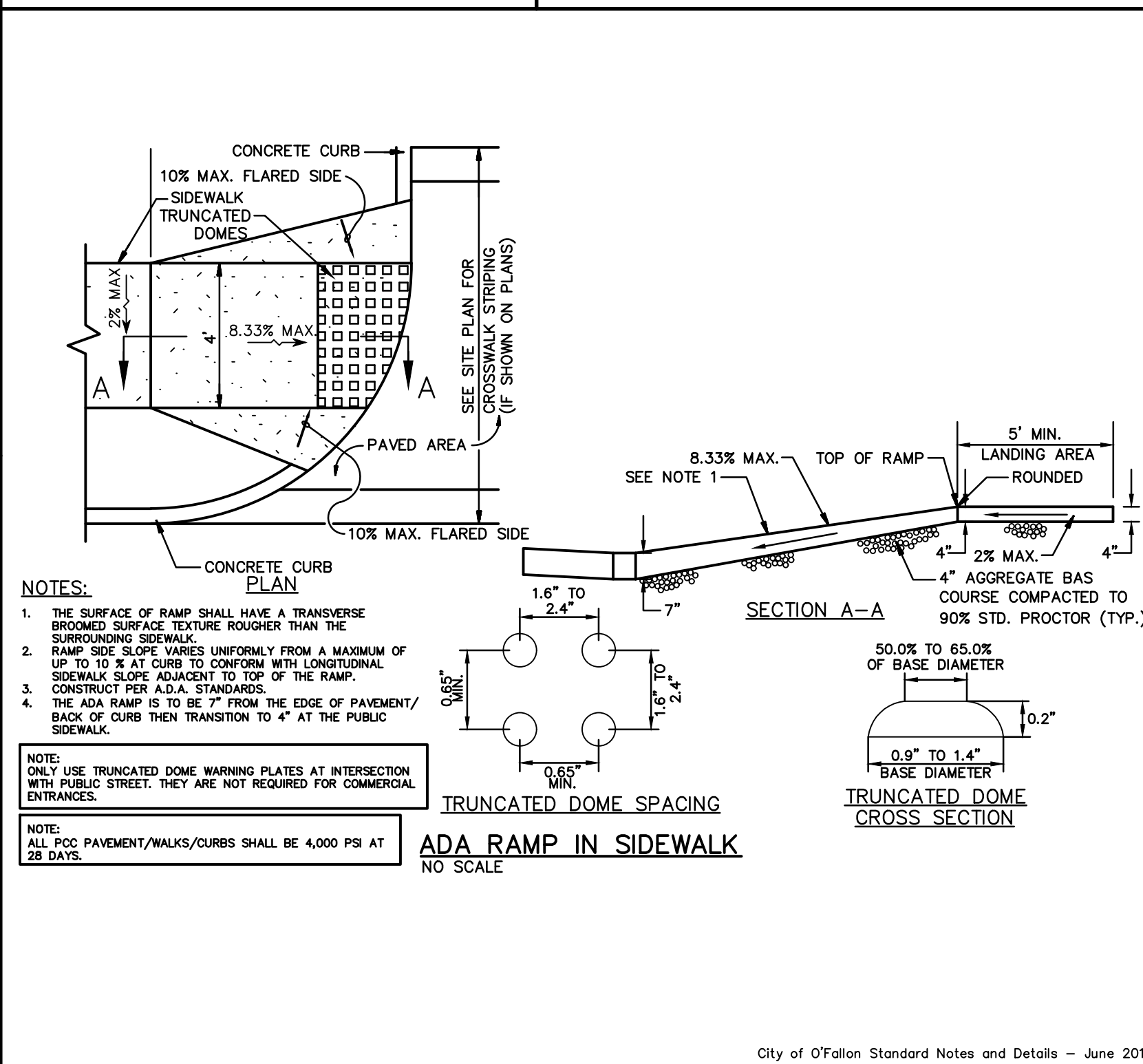
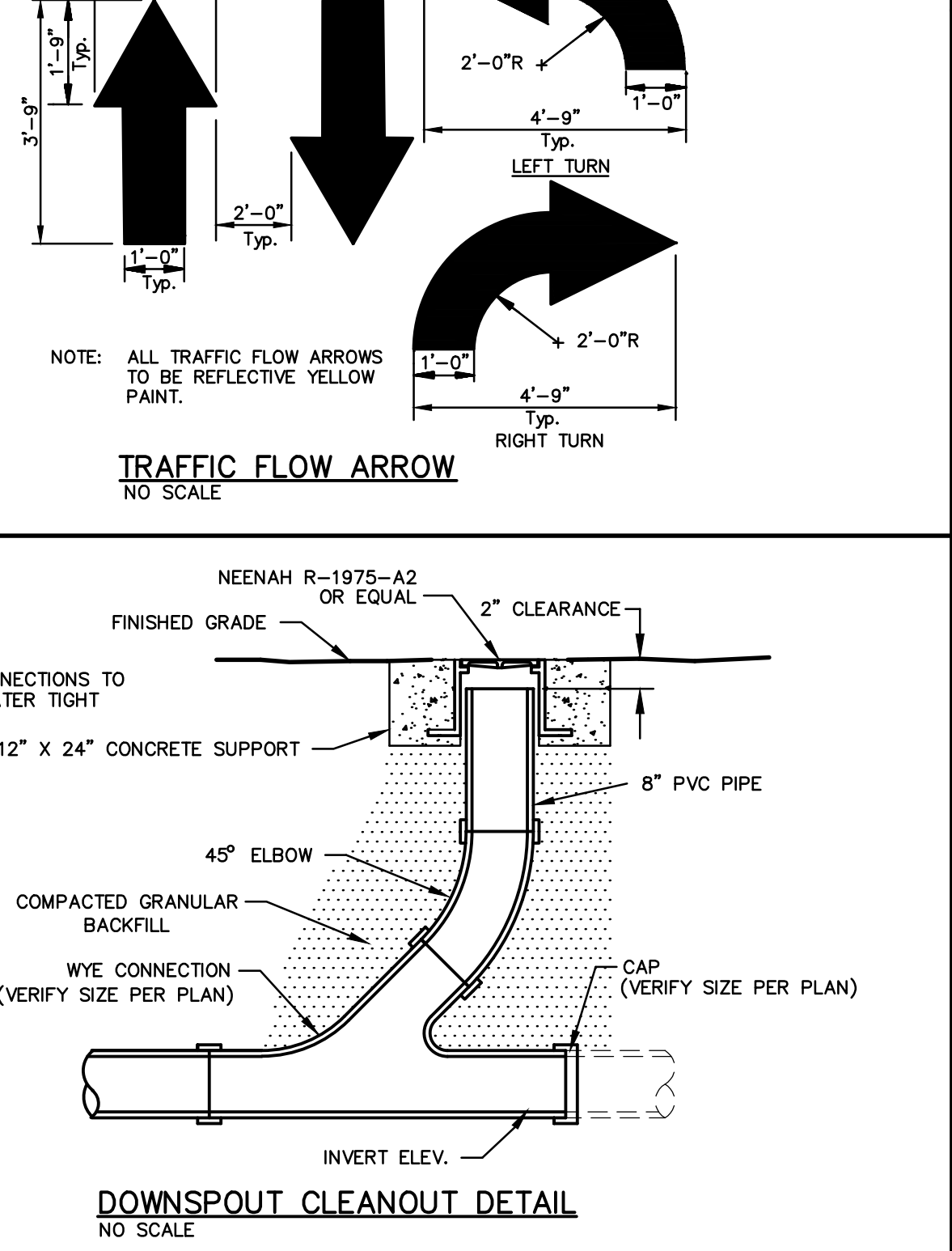
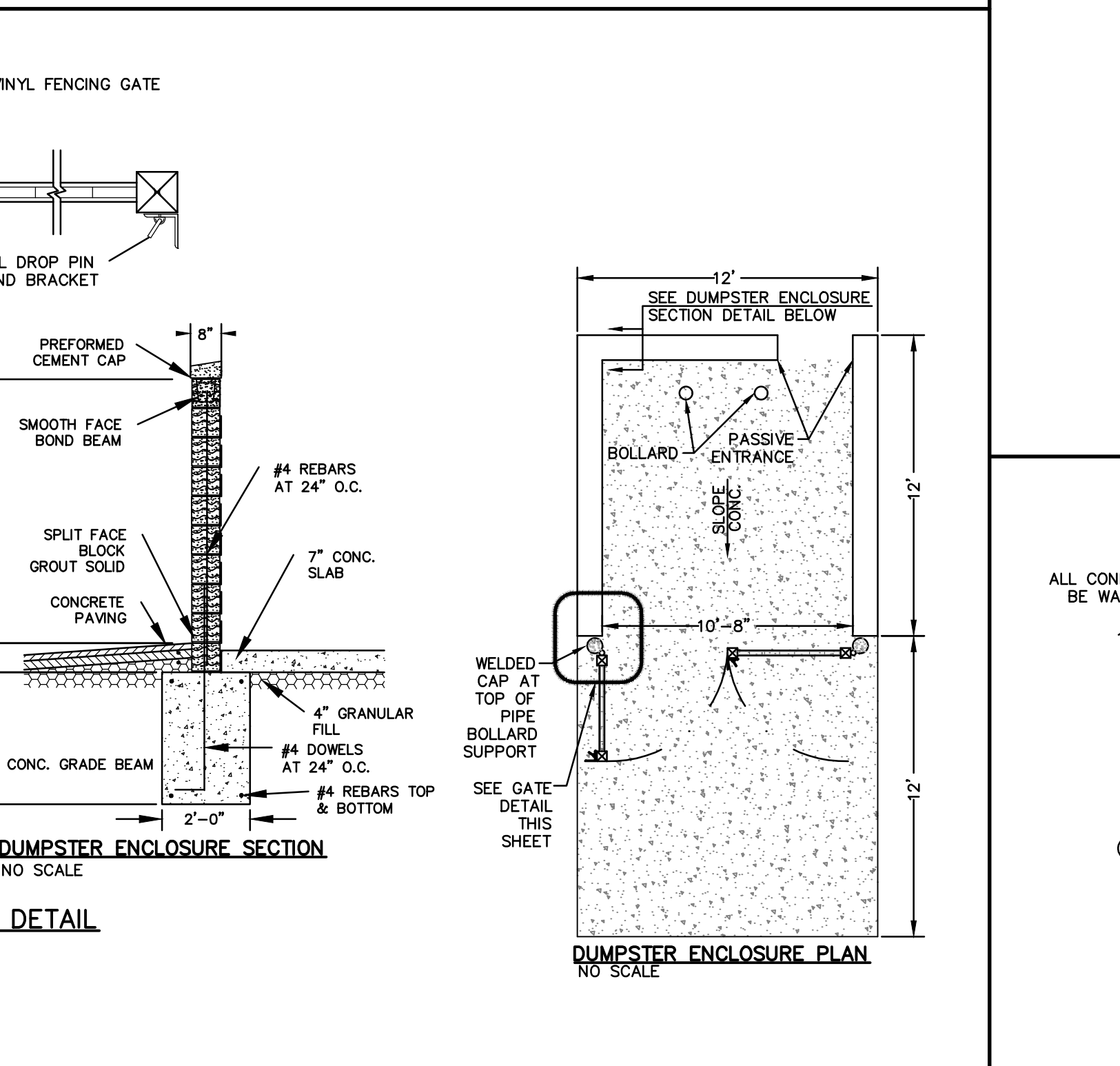
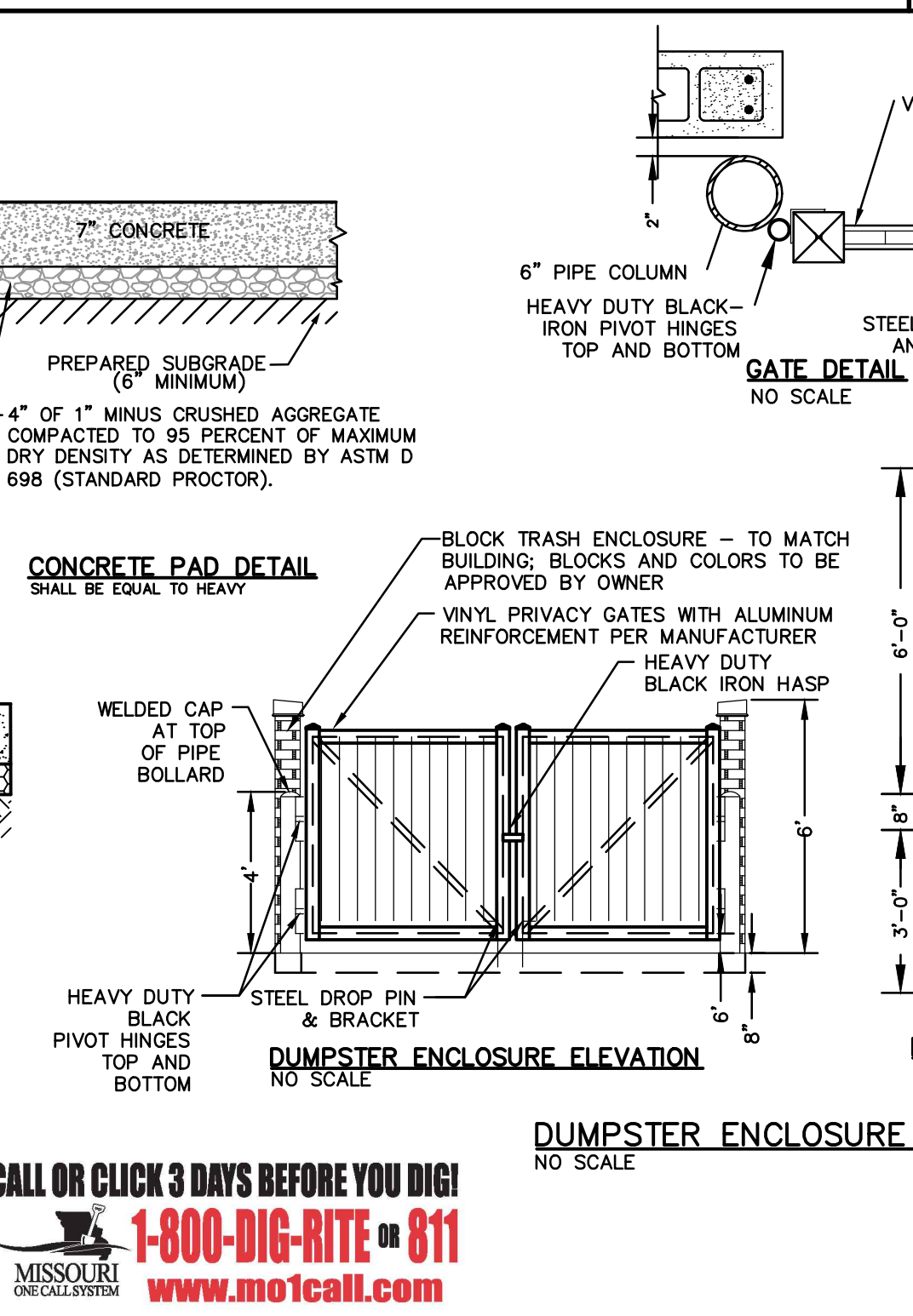
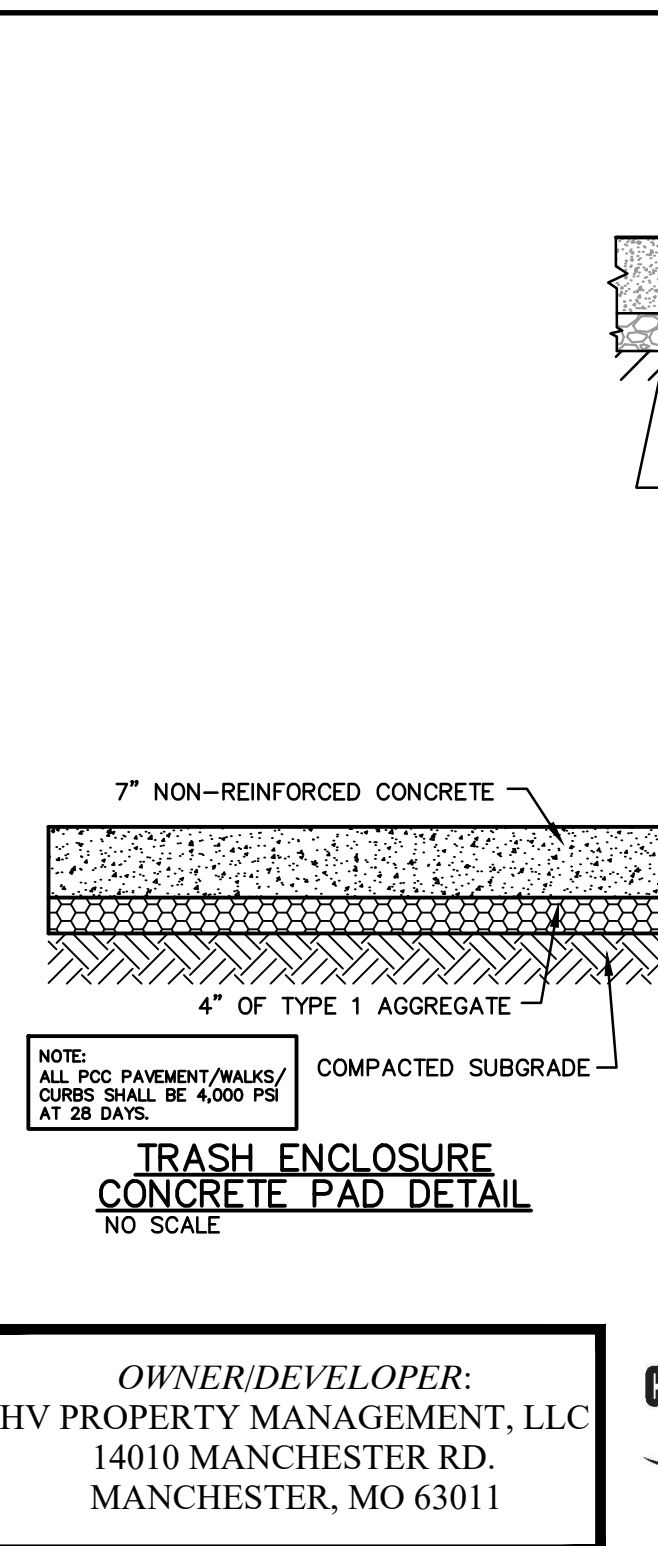
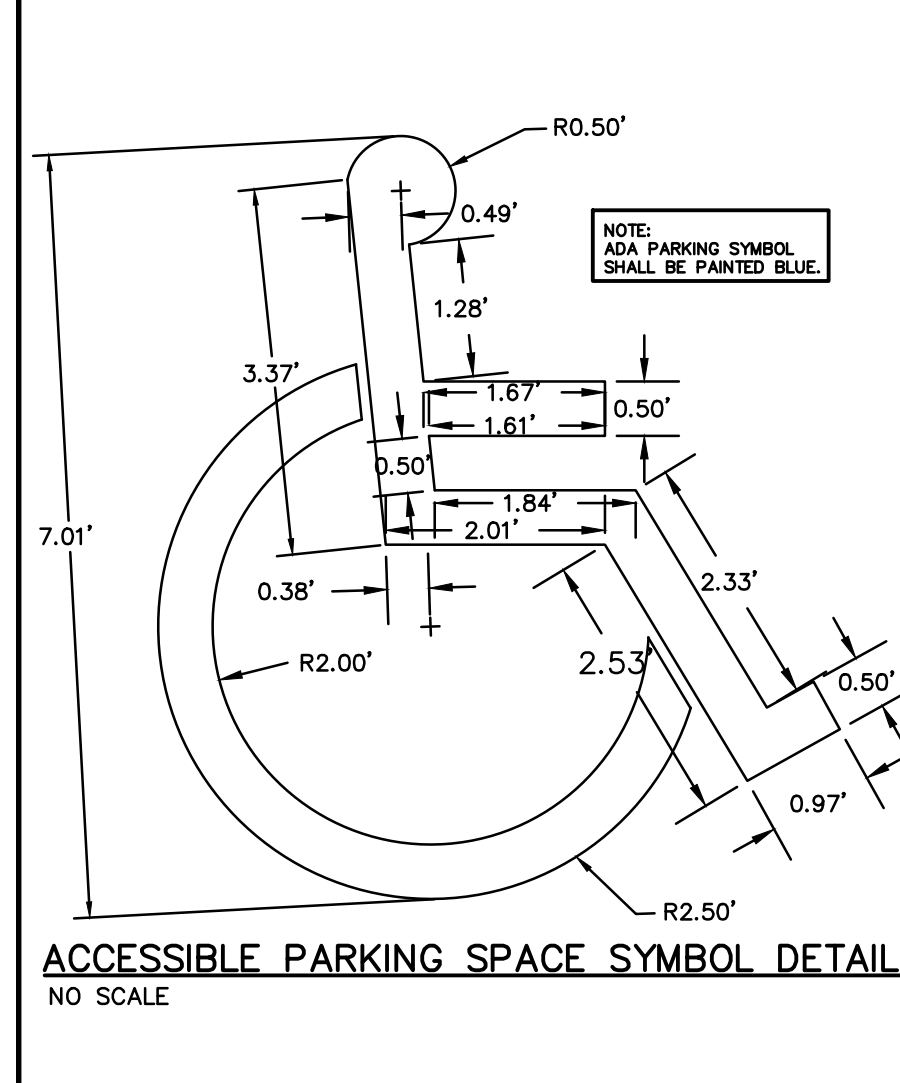
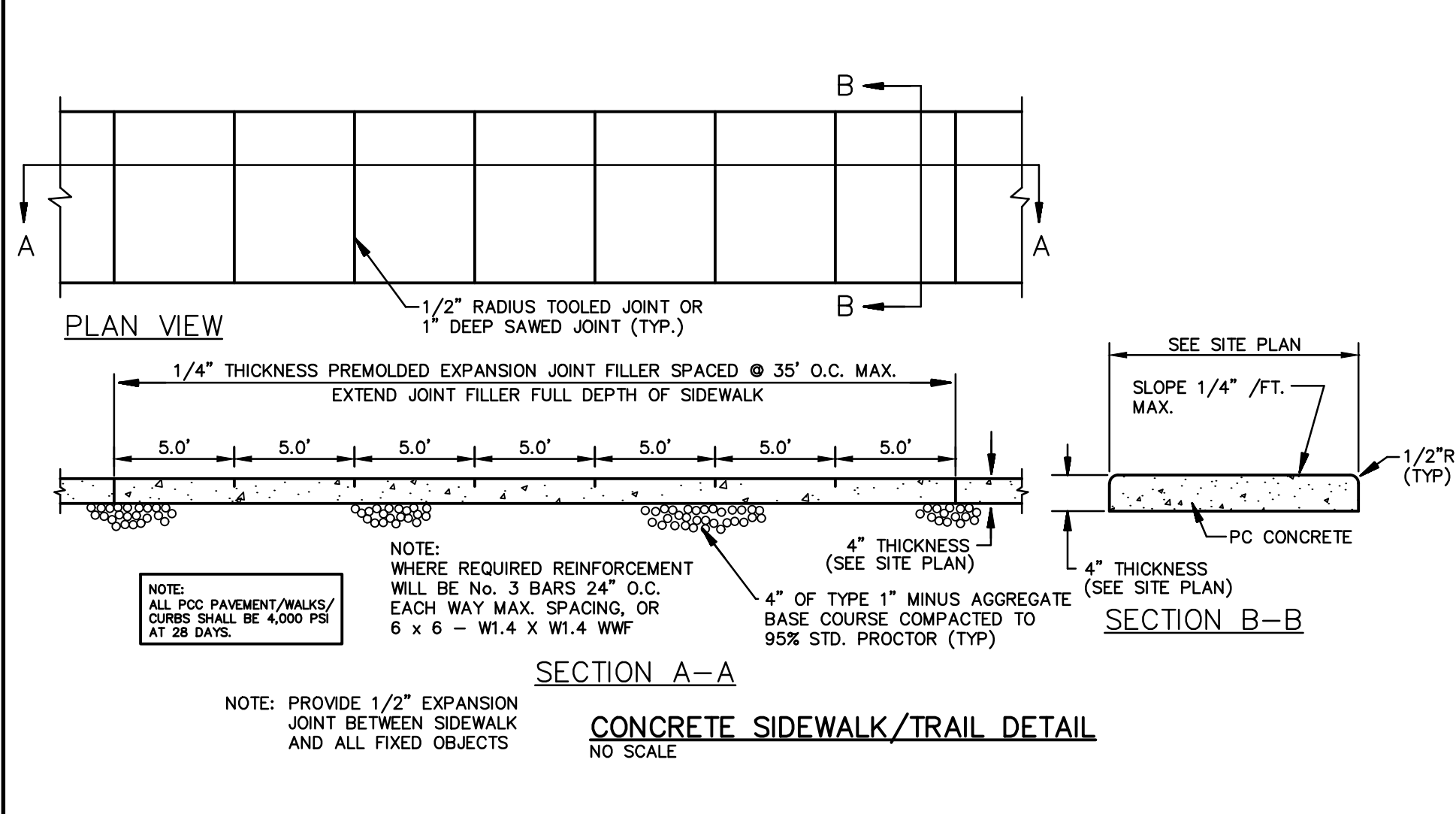
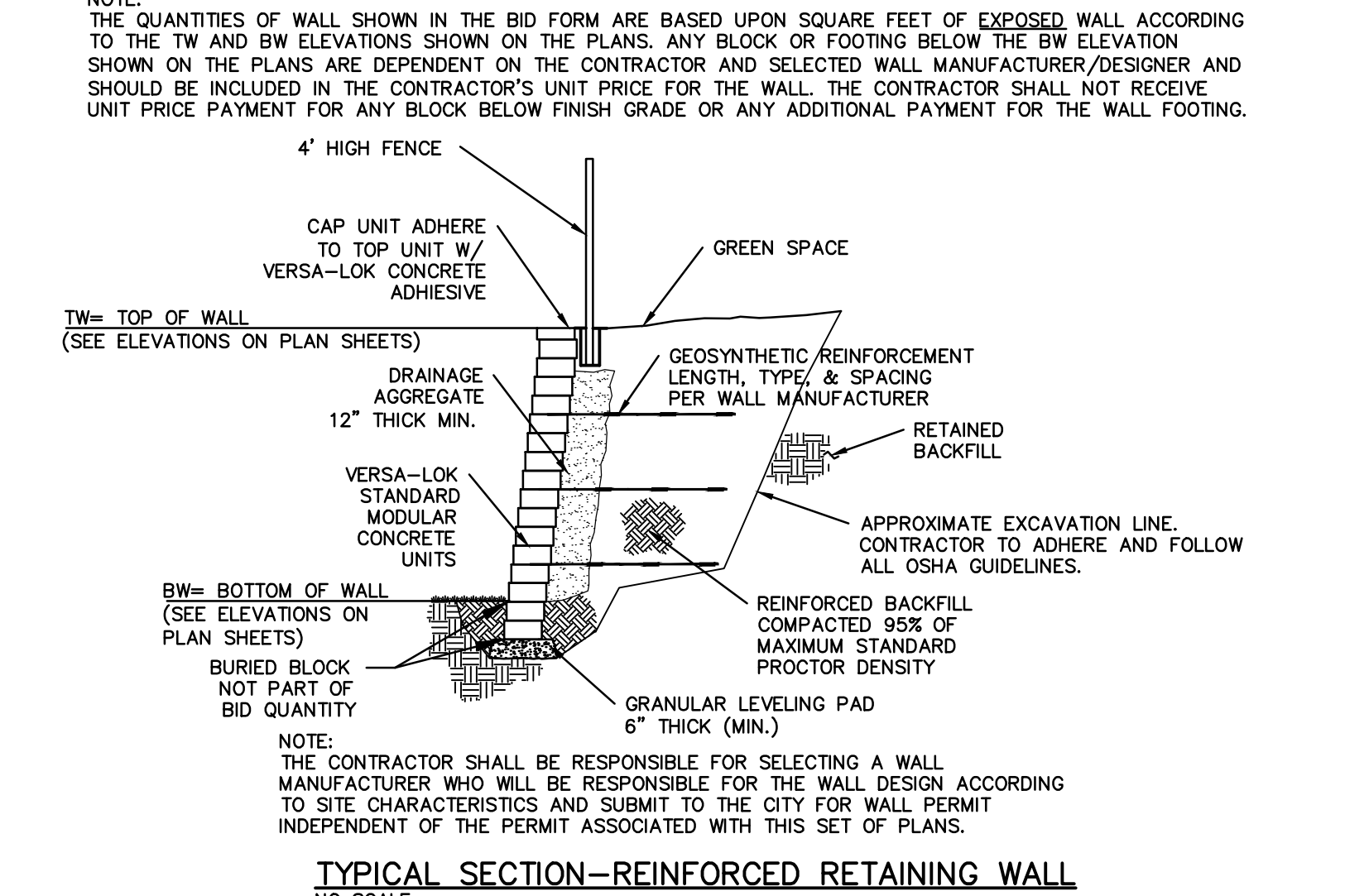
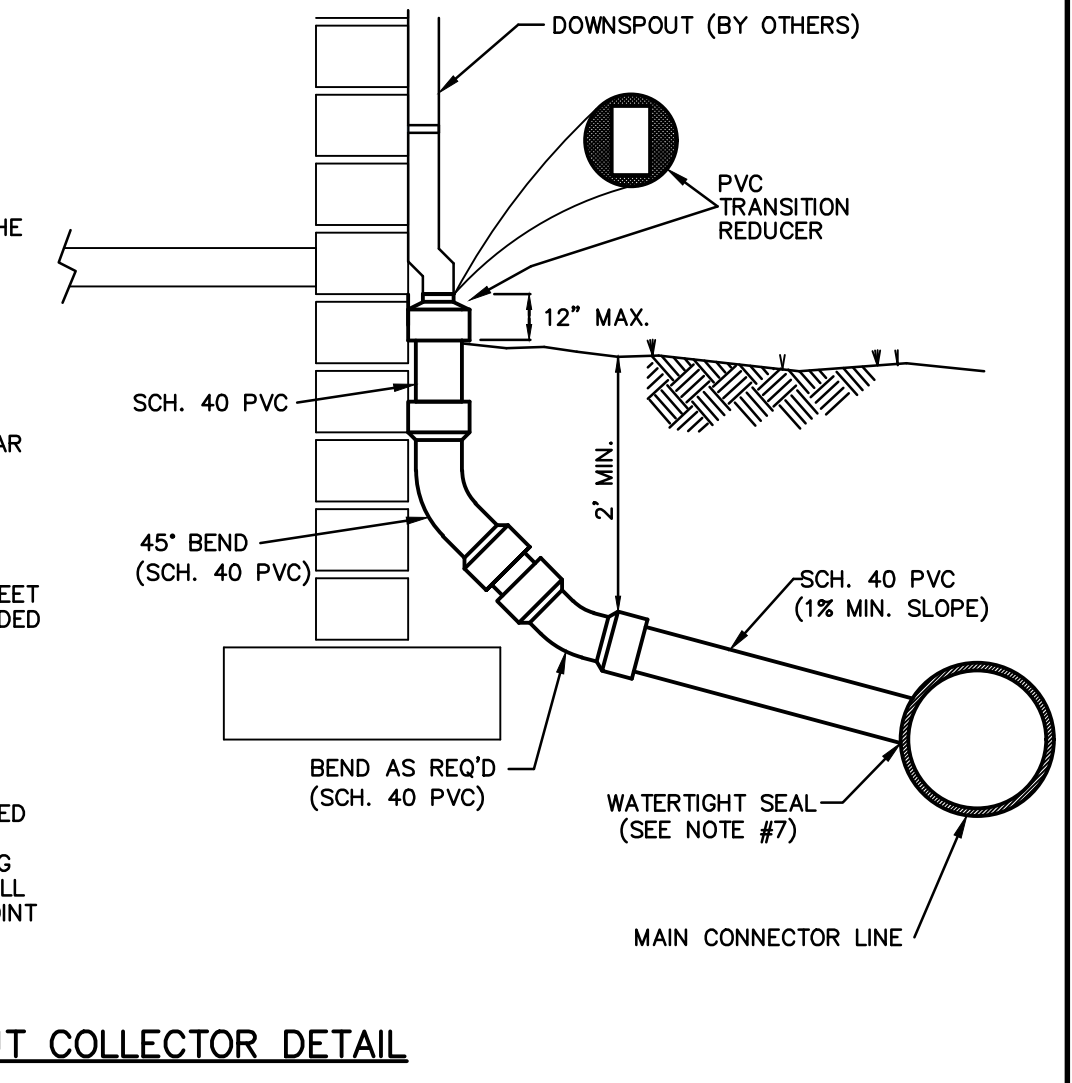
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1. ALL TRENCHES SHALL HAVE A BEDDING OF WELL GRADED, 1" MINUS, GRANULAR MATERIAL FROM 4" BELOW THE BOTTOM OF THE PIPE TO 1/2 THE DIAMETER OF THE PIPE COMPACTED TO 95% STANDARD PROCTOR DENSITY.
2. IN AREAS TO BE PAVED OVER, ENTIRE TRENCH TO BE BACKFILLED WITH WELL GRADED 1" MINUS GRANULAR MATERIAL & COMPACTED TO 95% OF THE STANDARD PROCTOR DENSITY.
3. IN AREAS OF CLEAN DIRT CUTS OUTSIDE OF PAVED AREAS, TRENCH MAY BE BACKFILLED WITH SAME MATERIAL AND COMPACTED TO 95% OF THE STANDARD PROCTOR DENSITY.
4. IN AREAS OF ROCK CUT, THE TRENCH SHALL BE BACKFILLED WITH WELL GRADED 1" MINUS GRANULAR MATERIAL TO 6" ABOVE TOP OF PIPE.
5. BACKFILL SHALL BE HOLLOWED OUT FOR PIPE JOINTS AND FITTINGS. PIPE JOINTS ARE TO BE UNSUPPORTED.
6. IN ALL CASES TRENCHING & BACKFILLING SHALL MEET OR EXCEED THE PIPE MANUFACTURER'S RECOMMENDED INSTALLATION METHODS
7. WATERTIGHT CONNECTION SHALL BE MAINTAINED WITH ANY TRANSITION FROM SCHEDULE 40 PVC PIPE TO ANY OTHER PIPE, TYPE.
8. THE DOWNSPOUT COLLECTOR DRAIN SHALL BE INSTALLED BEFORE THE DOWNSPOUTS ARE INSTALLED ON THE BUILDING. SITEWORK CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK TO AND INCLUDING THE RODENT SCREEN. BUILDING CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONNECTION AT THE POINT OF THE RODENT SCREEN.
9. DOWNSPOUT SIZE WILL CONTROL SCH 40 SIZE TO MAIN COLLECTOR LINE



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STATE OF MISSOURI  
HAYDEN GINSBURG  
NUMBER 44325  
PROFESSIONAL ENGINEER

DATE

Hayden N. Ginsburg, No. PE-2024023959  
Registered Professional Engineer  
State of Missouri  
for Cochran Engineering & Surveying

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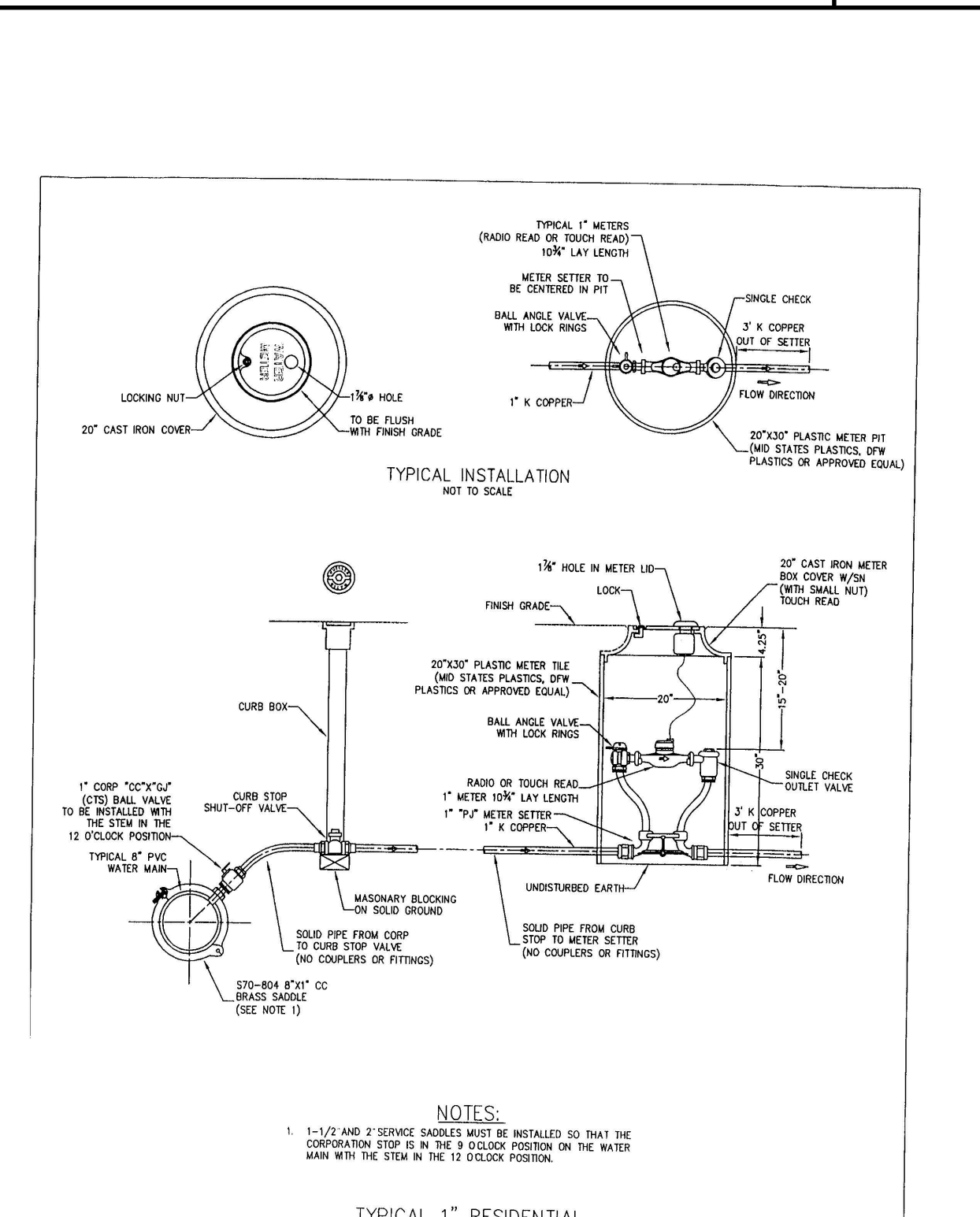
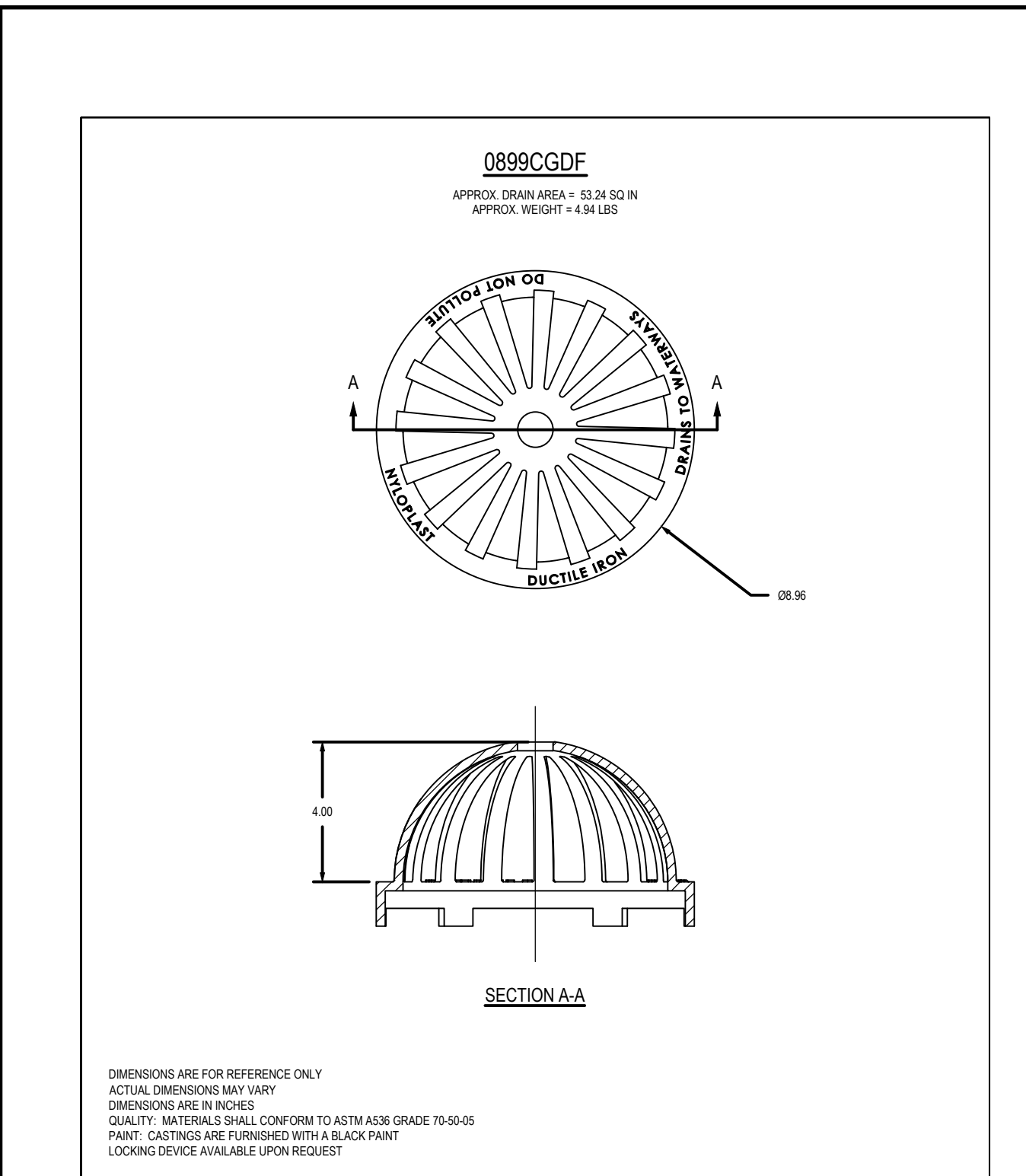
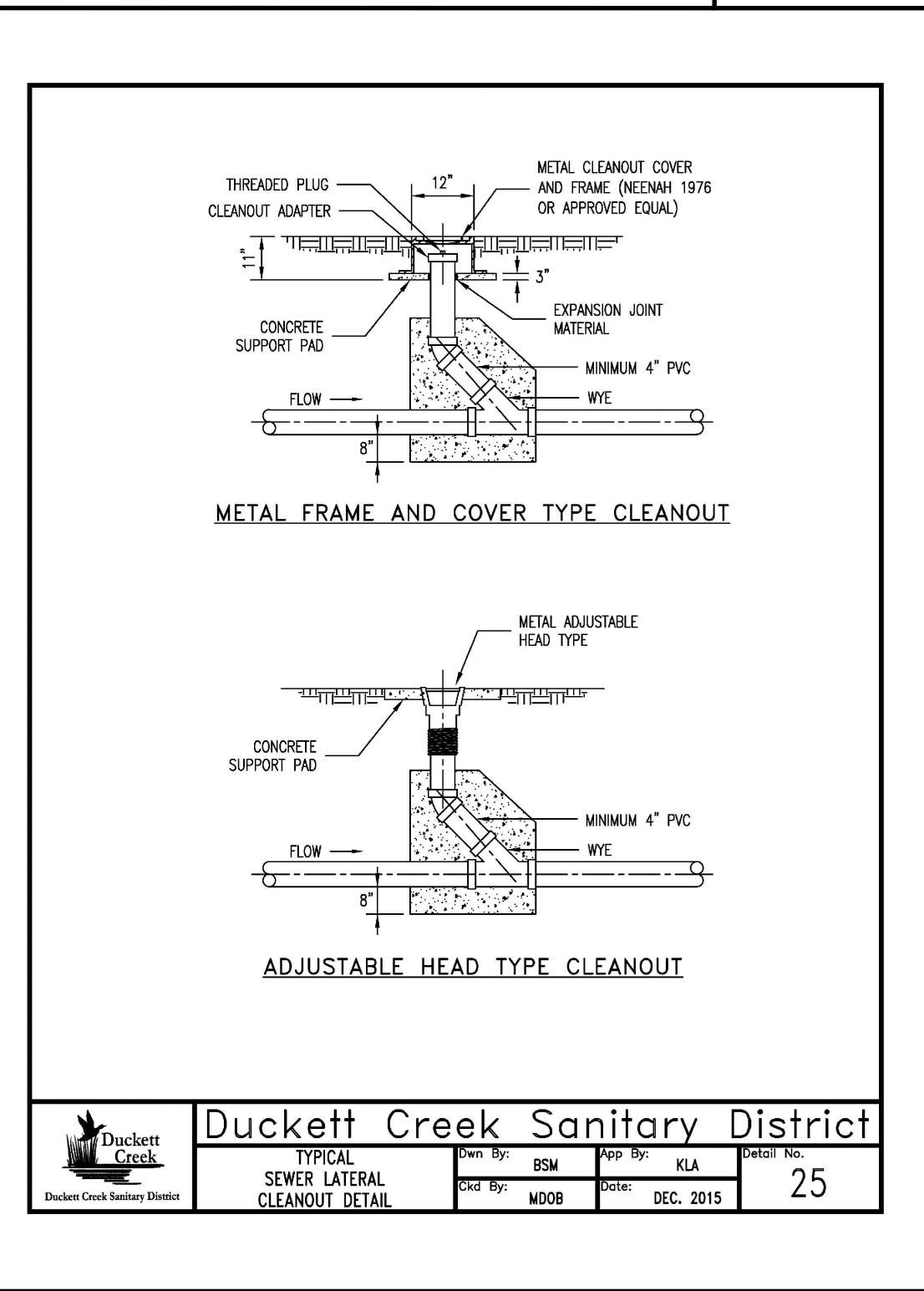
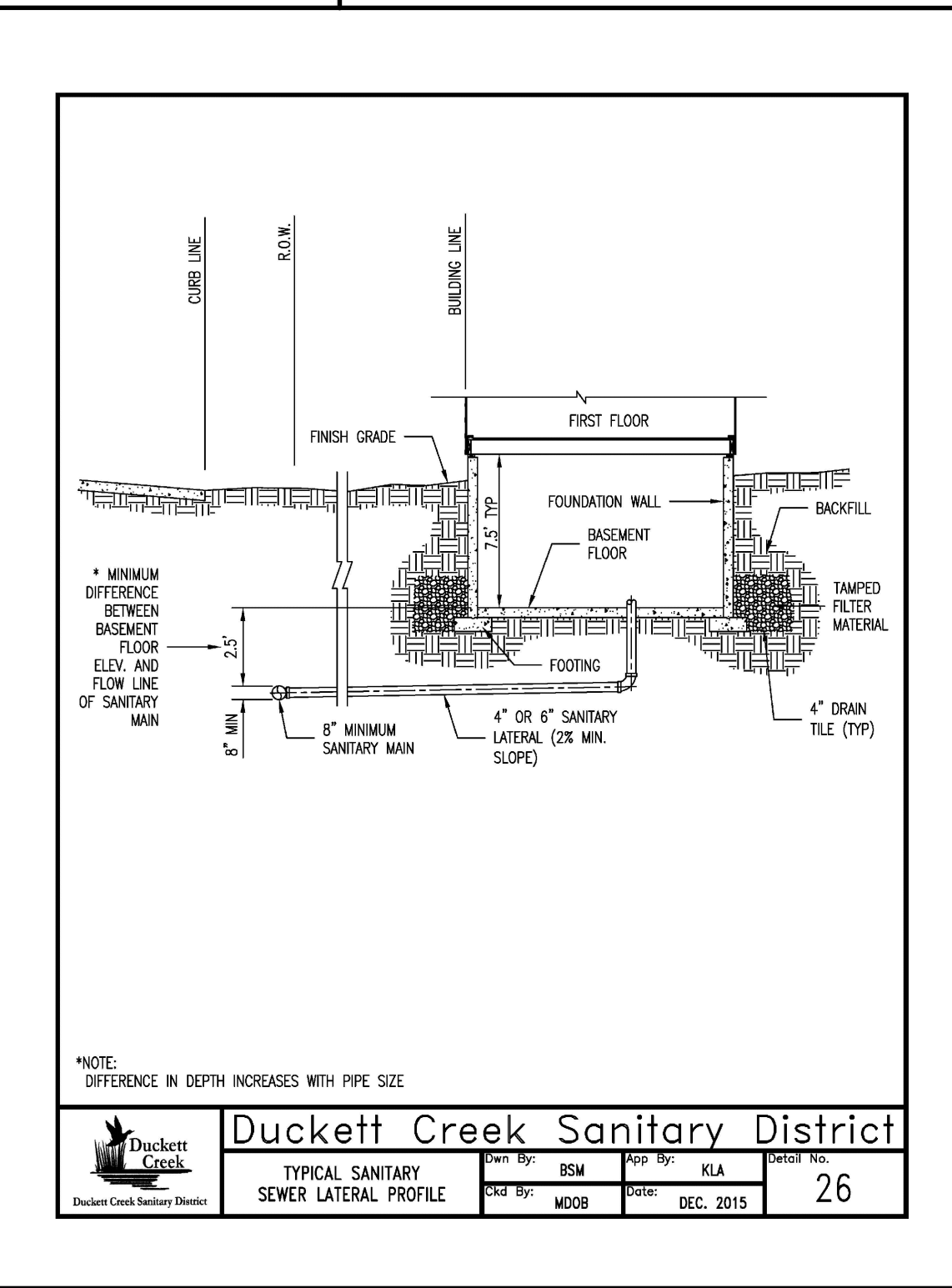
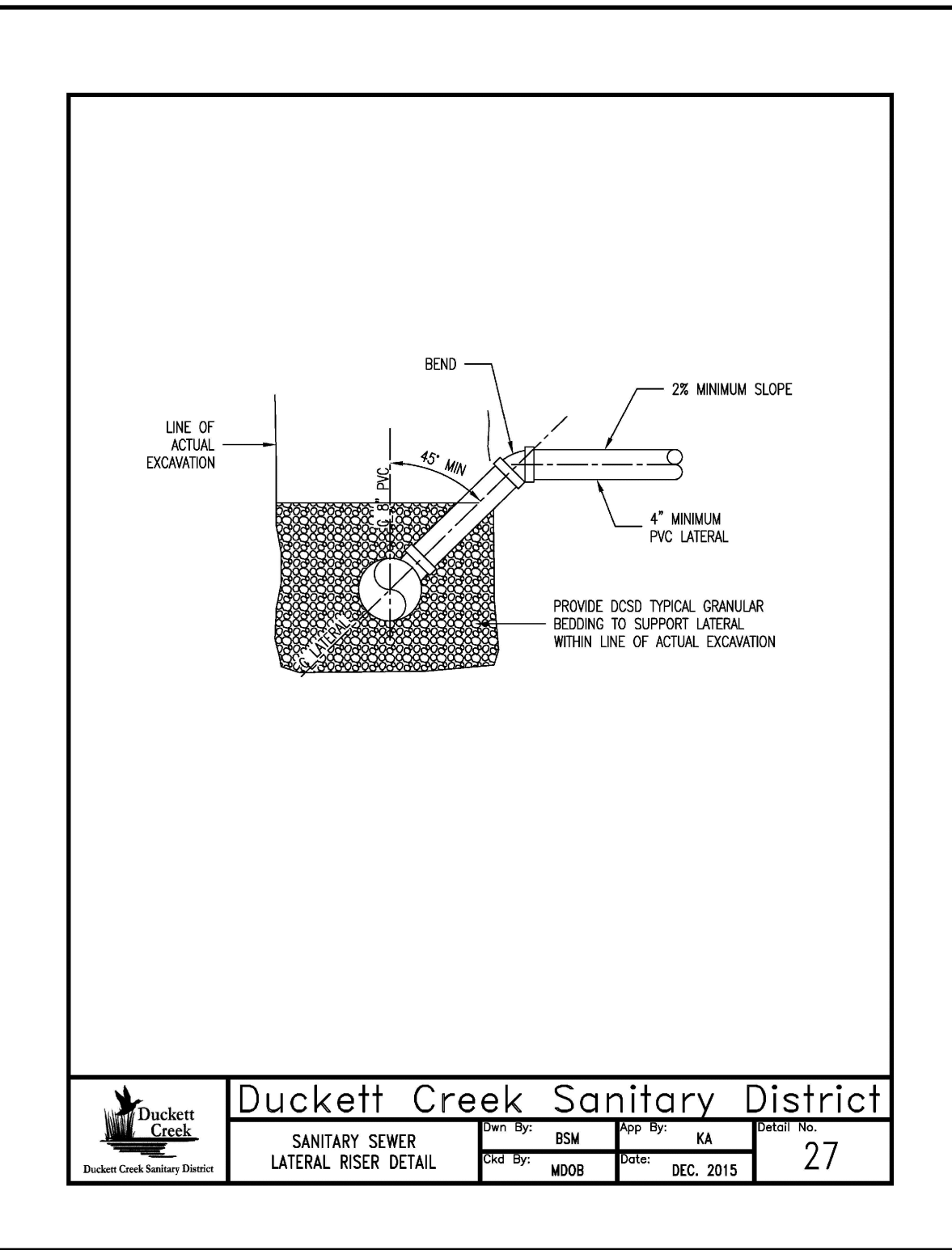
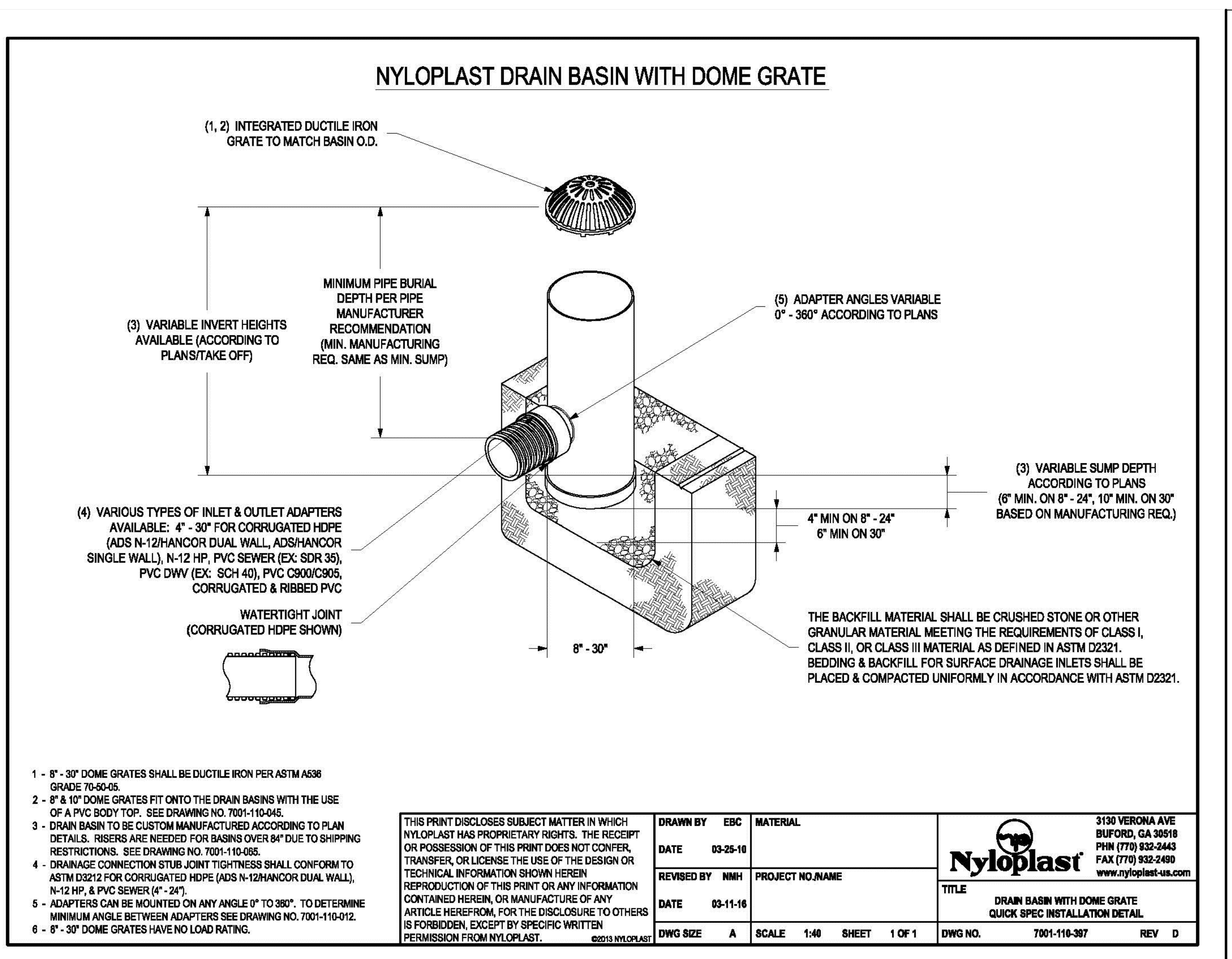
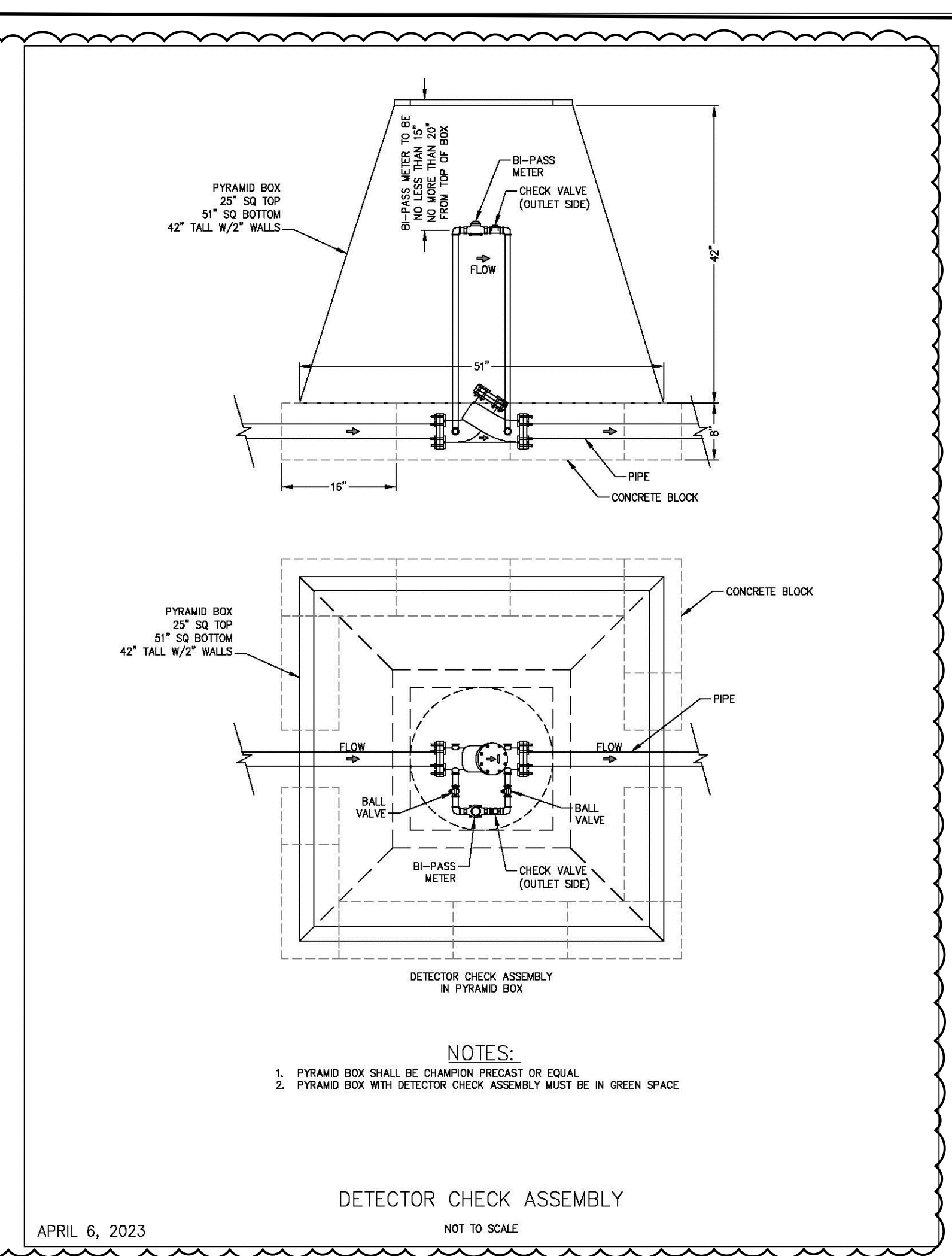
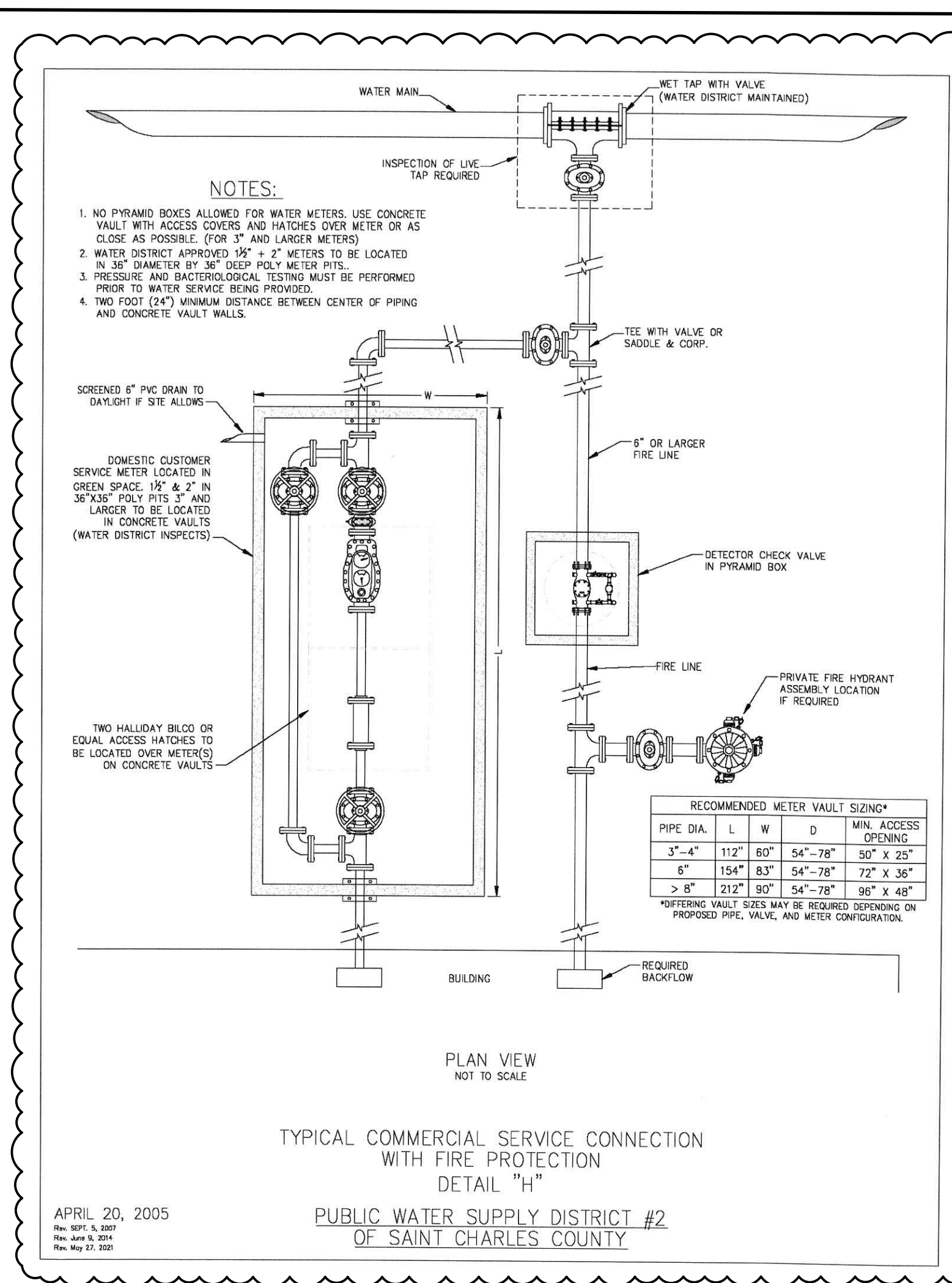
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City of O'Fallon Standard Notes and Details - June 2010



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**Duckett Creek Sanitary District**

**TYPICAL SANITARY SEWER LATERAL RISER DETAIL**

APRIL 20, 2005  
Rev. April 20, 2005

**Duckett Creek Sanitary District**

**TYPICAL SANITARY SEWER LATERAL PROFILE**

APRIL 20, 2005  
Rev. April 20, 2005

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<b>DATE</b> 02-16-16	<b>PROJECT NO./NAME</b>	<b>TITLE</b> 6 IN DOME GRATE - TYPE B	
<b>REVISED BY</b> NMH	<b>DWG NO.</b> 7001-110-038	<b>REV</b> A	
<b>DATE</b> 02-16-16	<b>SCALE</b> NTS	<b>SHEET</b> 1 OF 1	
<b>DWG SIZE</b> A	<b>SCALE</b> NTS	<b>SHEET</b> 1 OF 1	

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**TYPICAL 1" RESIDENTIAL WATER SERVICE DETAIL "C"**

APRIL 20, 2005  
Rev. April 20, 2005

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 Cochran Project No. M22-8498C

STATE OF MISSOURI  
 HAYDEN GINSBURG  
 NUMBER 79-10294889  
 4-25-25  
 PROFESSIONAL ENGINEER

DATE  
 Hayden N. Ginsburg No. PC-2024023959  
 Registered Professional Engineer  
 State of Missouri  
 for Cochran Engineering & Surveying

**Developer: Information Management, LLC**  
 HV PROPERTY MANAGEMENT, LLC  
 14010 MANCHESTER RD., MANCHESTER, MO 63011

**Owner: Information Management, LLC**  
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**DETAILS**

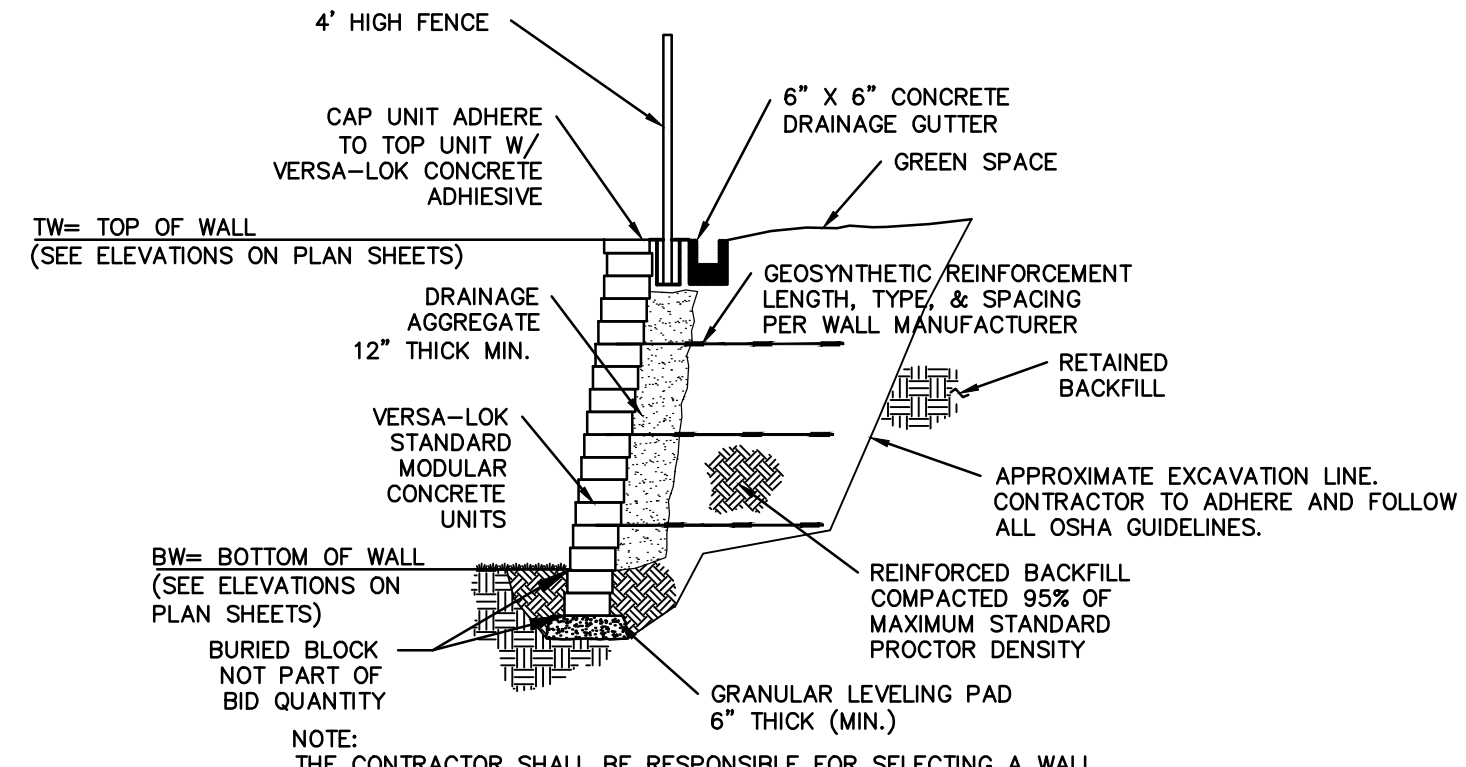
P+Z No. 24-012821  
 Approval Date: FEB. 6, 2025

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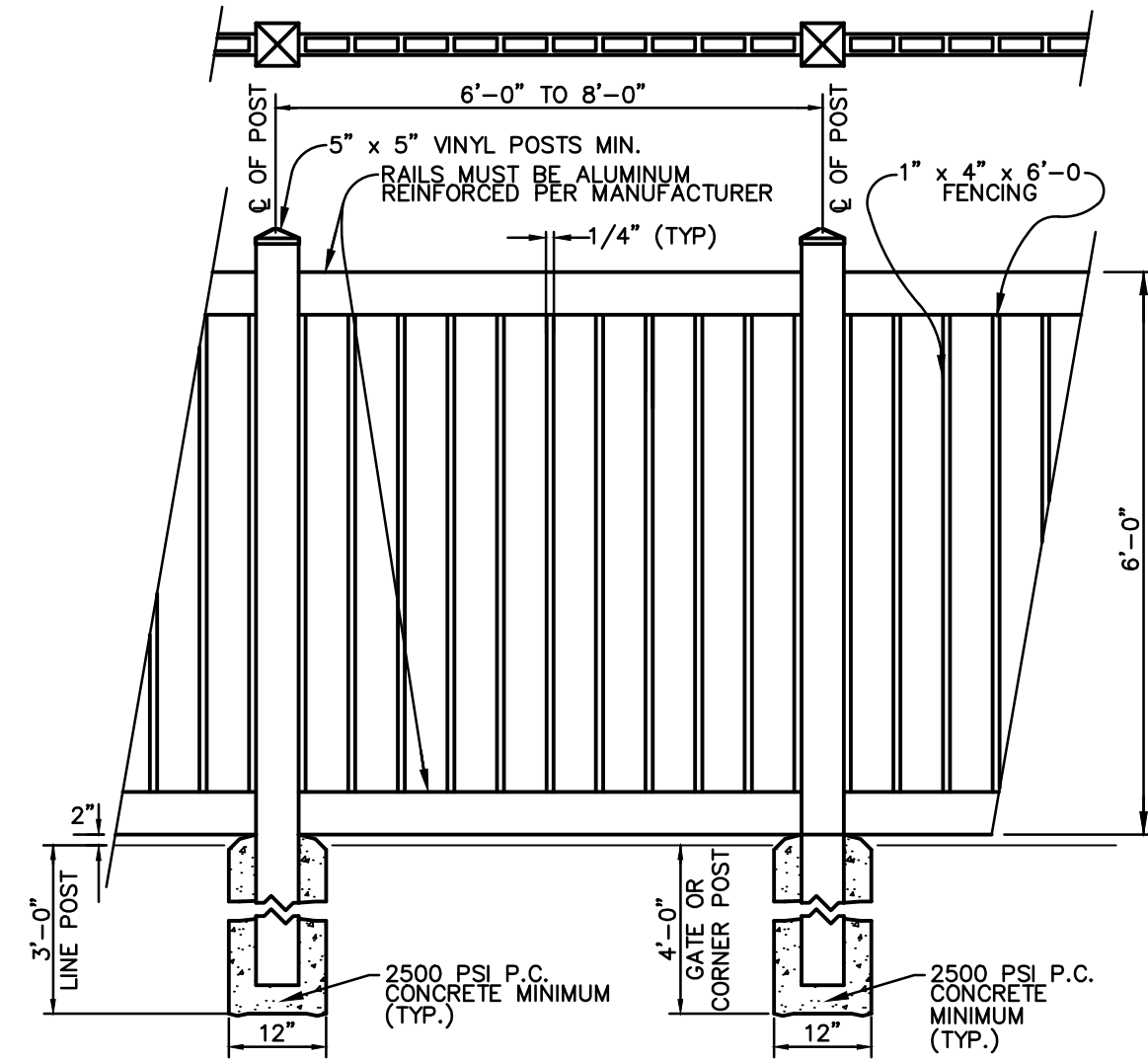
Page No.

**C16**

NOTE:  
THE QUANTITIES OF WALL SHOWN IN THE BID FORM ARE BASED UPON SQUARE FEET OF EXPOSED WALL ACCORDING TO THE TW AND BW ELEVATIONS SHOWN ON THE PLANS. ANY BLOCK OR FOOTING BELOW THE BW ELEVATION SHOWN ON THE PLANS ARE DEPENDENT ON THE CONTRACTOR AND SELECTED WALL MANUFACTURER/DESIGNER AND SHOULD BE INCLUDED IN THE CONTRACTOR'S UNIT PRICE FOR THE WALL. THE CONTRACTOR SHALL NOT RECEIVE UNIT PRICE PAYMENT FOR ANY BLOCK BELOW FINISH GRADE OR ANY ADDITIONAL PAYMENT FOR THE WALL FOOTING.

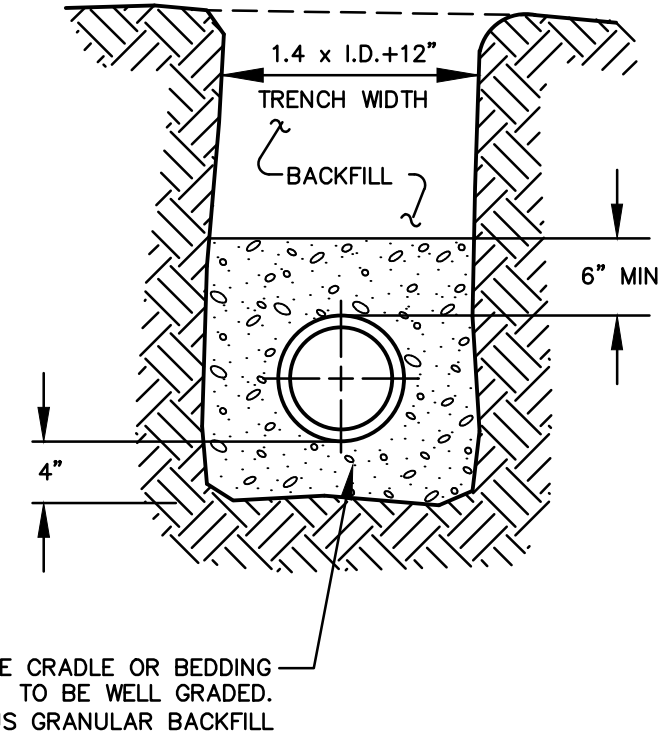


**TYPICAL SECTION—REINFORCED RETAINING WALL WITH DRAINAGE GUTTER**  
NO SCALE

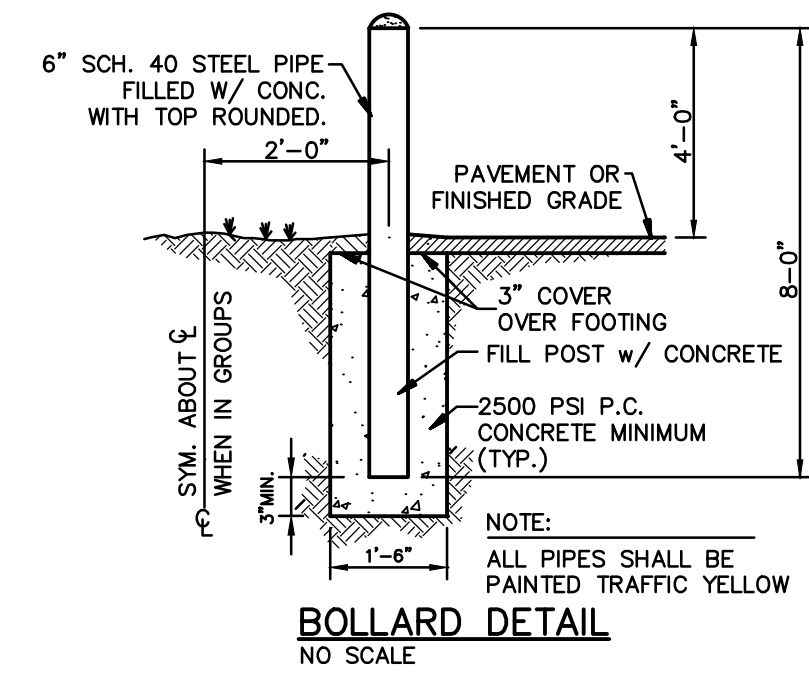


**6' VINYL PRIVACY FENCE**  
NO SCALE

1. ALL TRENCHES SHALL HAVE A BEDDING OF WELL GRADED, 1" MINUS, GRANULAR MATERIAL FROM 4" BELOW THE BOTTOM OF THE PIPE.
2. IN AREAS TO BE PAVED OVER, ENTIRE TRENCH TO BE BACKFILLED WITH WELL GRADED GRANULAR MATERIAL & COMPACTED TO 95% OF THE STANDARD PROCTOR DENSITY.
3. IN AREAS OF CLEAN DIRT CUTS OUTSIDE OF PAVED AREAS, TRENCH MAY BE BACKFILLED WITH SAME MATERIAL AND COMPACTED TO 95% OF THE STANDARD PROCTOR DENSITY.
4. IN AREAS OF ROCK CUT, THE TRENCH SHALL BE BACKFILLED WITH WELL GRADED GRANULAR MATERIAL TO 6" ABOVE TOP OF PIPE.
5. BACKFILL SHALL BE HOLLOWED OUT FOR PIPE JOINTS AND FITTINGS. PIPE JOINTS ARE UNSUPPORTED.
6. INSTALLATION OF STORM SEWER TO MEET WITH MANUFACTURER SPECIFICATIONS.
7. ALL STORM SEWER STRUCTURES TO MEET WITH THE JURISDICTIONAL SEWER SPECIFICATIONS.

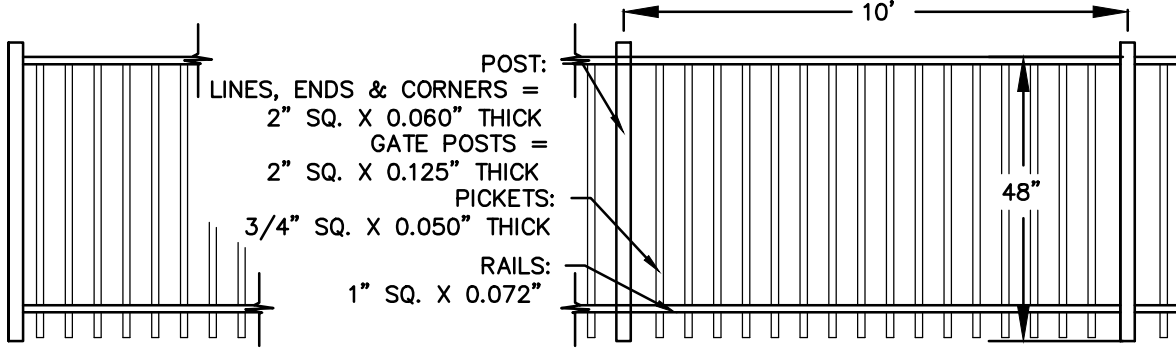


**STORM SEWER TRENCHING DETAIL**  
NO SCALE

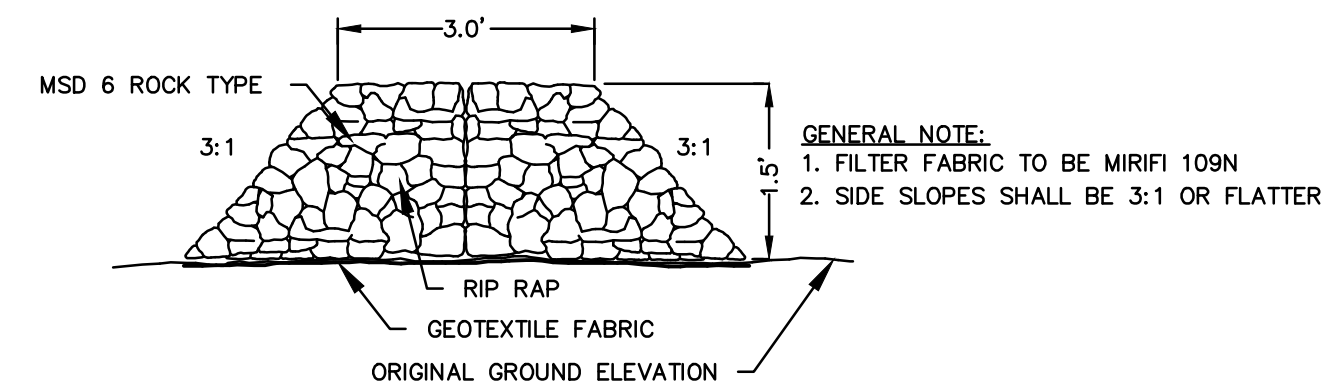


**BOLLARD DETAIL**  
NO SCALE

NOTE:  
FENCE SHALL BE PAINTED POWDER COATED ALUMINUM OR WROUGHT IRON. EITHER MATERIAL SHALL HAVE A FINISH PRODUCT WHICH IS BLACK IN COLOR.



**METAL FENCE**  
NO SCALE



**BASIN FOREBAY BERM**  
NO SCALE

SOLACE HOSPICE CARE



North Office Street  
8 East Main  
Warrensburg, Missouri 63385

636-332-4574 (tel.)  
636-327-0760 (fax)  
www.missouricochran.com

**COCHRAN**

- Civil Engineering
- Land Surveying
- Architecture
- Site Development
- Surveying
- Master Planning

Missouri State Certificate  
of Authority Number: 2010000046  
Cochran Project No. M22-8498C



DATE  
Hayden N. Ginsburg No. PE-2024023959  
Registered Professional Engineer  
State of Missouri  
for Cochran Engineering & Surveying

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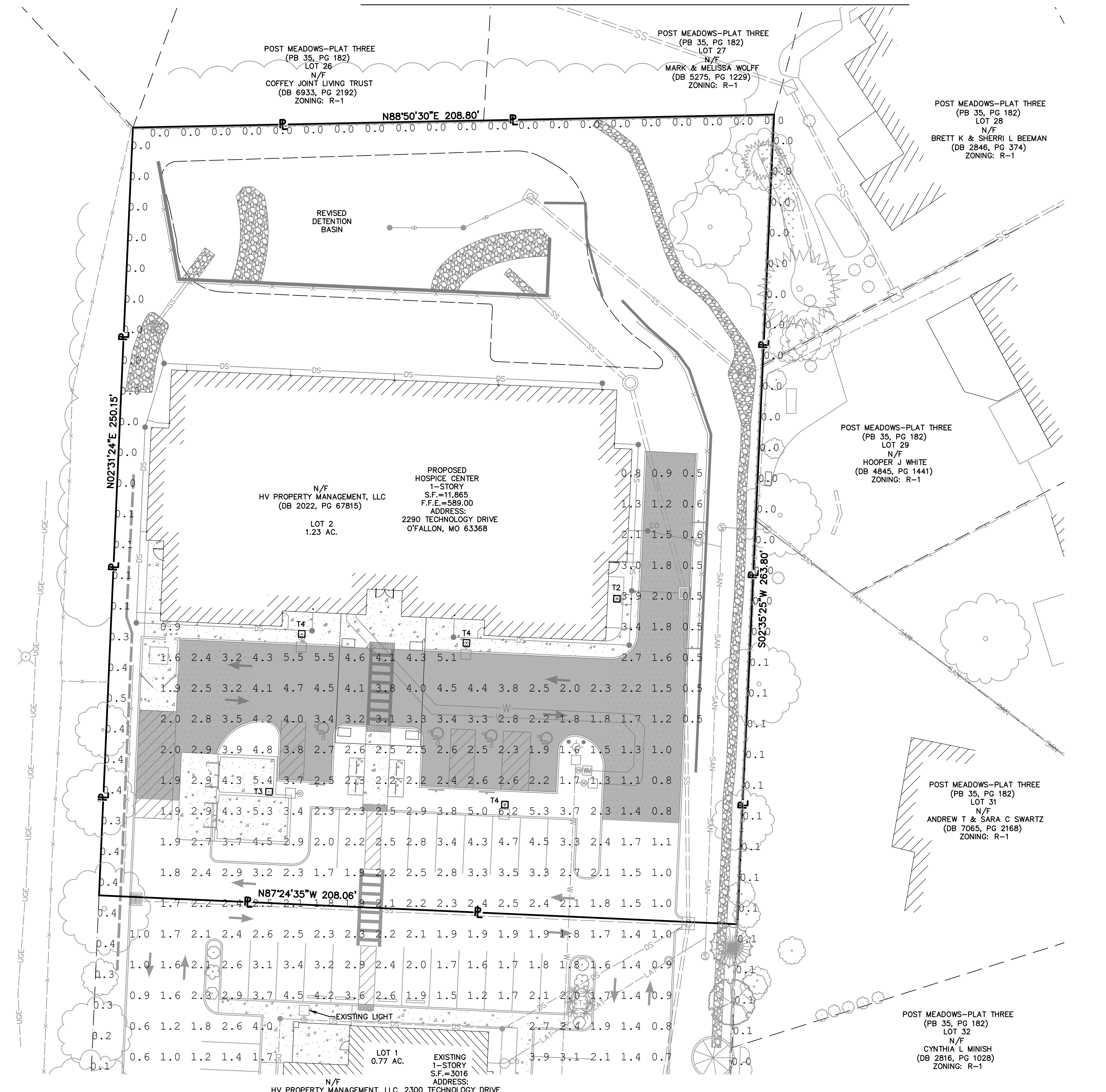
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C17

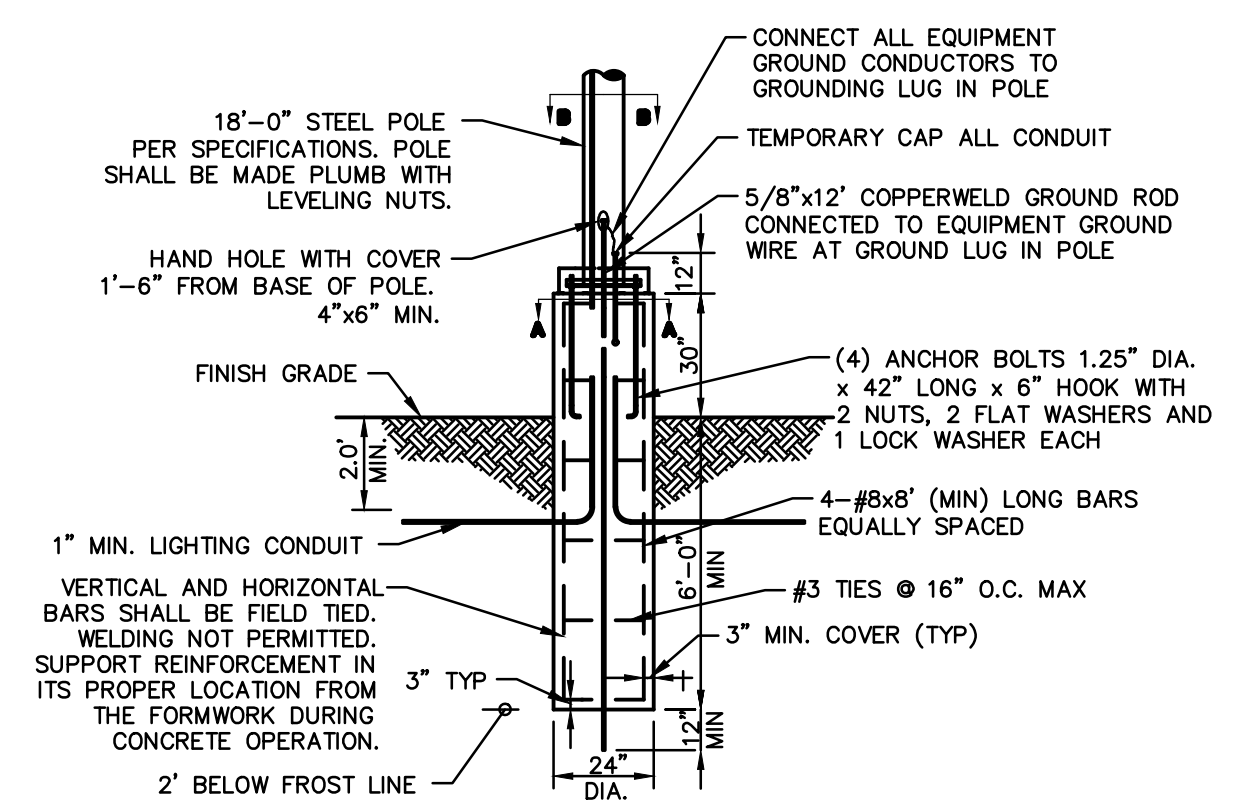
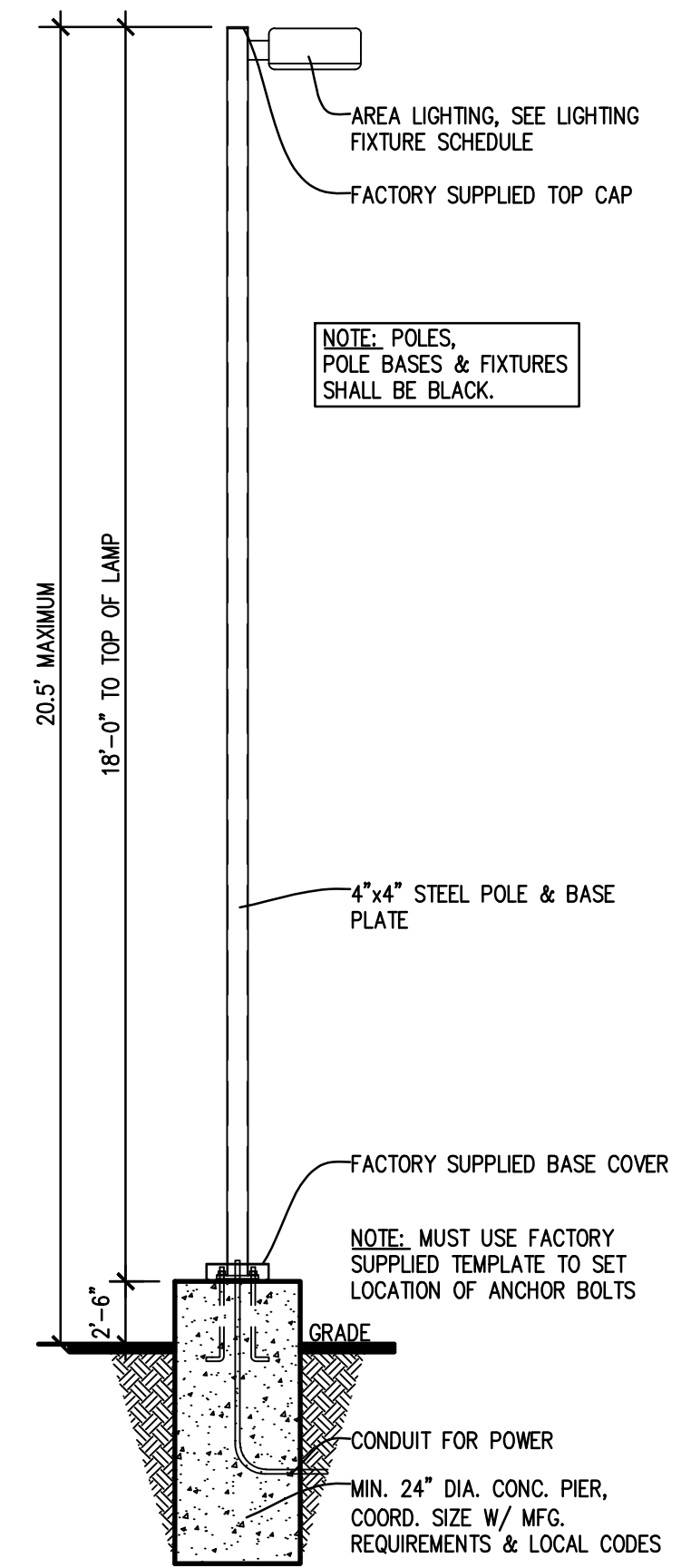
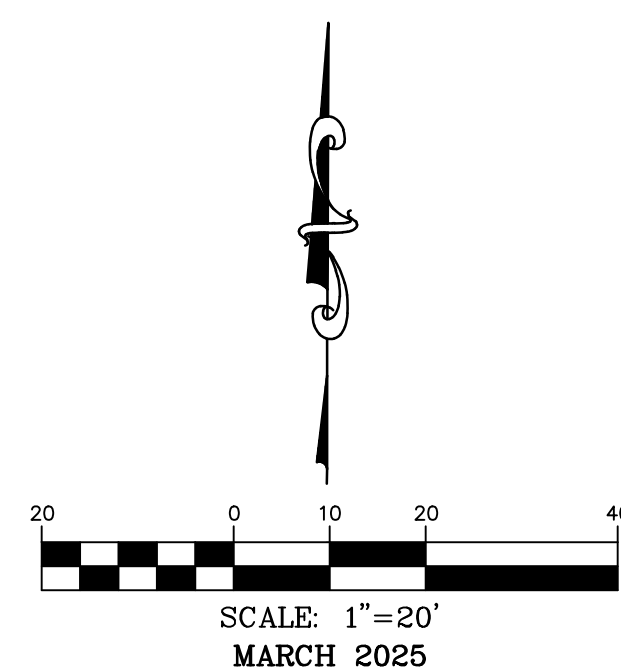
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# PHOTOMETRIC PLAN



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



- NOTES:
- 3500 PSI MIN. 28 DAY COMPRESSIVE STRENGTH CONCRETE WITH GRADE 60 REINFORCING STEEL.
  - IF WATER IS PRESENT IN HOLE, REMOVE BEFORE POURING CONCRETE.
  - FOUNDATION EXCAVATION SHALL BE BY 24" AUGER IN UNDISTURBED OR PROPERLY COMPACTED FILL PER SPECIFICATIONS.
  - FOUNDATION SHALL HAVE A MINIMUM ALLOWABLE END BEARING OF 2000 PSF.
  - FOUNDATION HAS BEEN DESIGNED FOR A COHESIVE SOIL BASED ON A MINIMUM COHESIVE VALUE OF 1000 PSF.
  - FOUNDATION HAS BEEN DESIGNED FOR A GRANULAR SOIL BASED ON A MINIMUM LATERAL SOIL PRESSURE OF 1000 PSF, UTILIZING AASHTO FIGURE 1.8.2C(4) OF "EMBEDMENT OF POSTS WITH OVERTURNING LOADS."
  - EXPOSED CONCRETE SHALL BE PAINTED TRAFFIC YELLOW.
  - DETAIL FOR 18'-0" POLE AND 20'-6" MOUNTING HEIGHT.

STANDARD LIGHT DETAIL  
NO SCALE

LUMINAIRE SCHEDULE						
SYMBOL	LABEL	QUANTITY	ARRANGEMENT	LLF	DESCRIPTION	LUM. WATTS
□	T2	1	SINGLE	0.900	GARDCO ECF-S-32L-530-NW-G2-AR-2-UNV-XX // LYTEPOLES 101-40-11-18-AB-D1-XX	56
□	T3	1	SINGLE	0.900	GARDCO ECF-S-32L-1A-NW-G2-AR-3-UNV-XX // LYTEPOLES 101-40-11-18-AB-D1-XX	106
□	T4	3	SINGLE	0.900	GARDCO ECF-S-32L-1A-NW-G2-AR-4-UNV-XX // LYTEPOLES 101-40-11-18-AB-D1-XX	106

CALCULATION SUMMARY					
DESCRIPTION	AVG	MAX	MIN	AVG/MIN	MAX/MIN
PARKING LOT	2.23	6.2	0.5	4.46	12.40
PROPERTY LINE	0.10	0.5	0.0	N/A	N/A

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Cochran Project No. M22-8498C

STATE OF MISSOURI  
HAYDEN GINSBURG  
NUMBER 0000000000  
EXPIRES 12-31-25  
REGISTERED PROFESSIONAL ENGINEER

DATE  
Hayden N. Ginsburg No. PE-2024023959  
Registered Professional Engineer  
State of Missouri  
for Cochran Engineering & Surveying

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PHOTOMETRIC PLAN

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**C18**

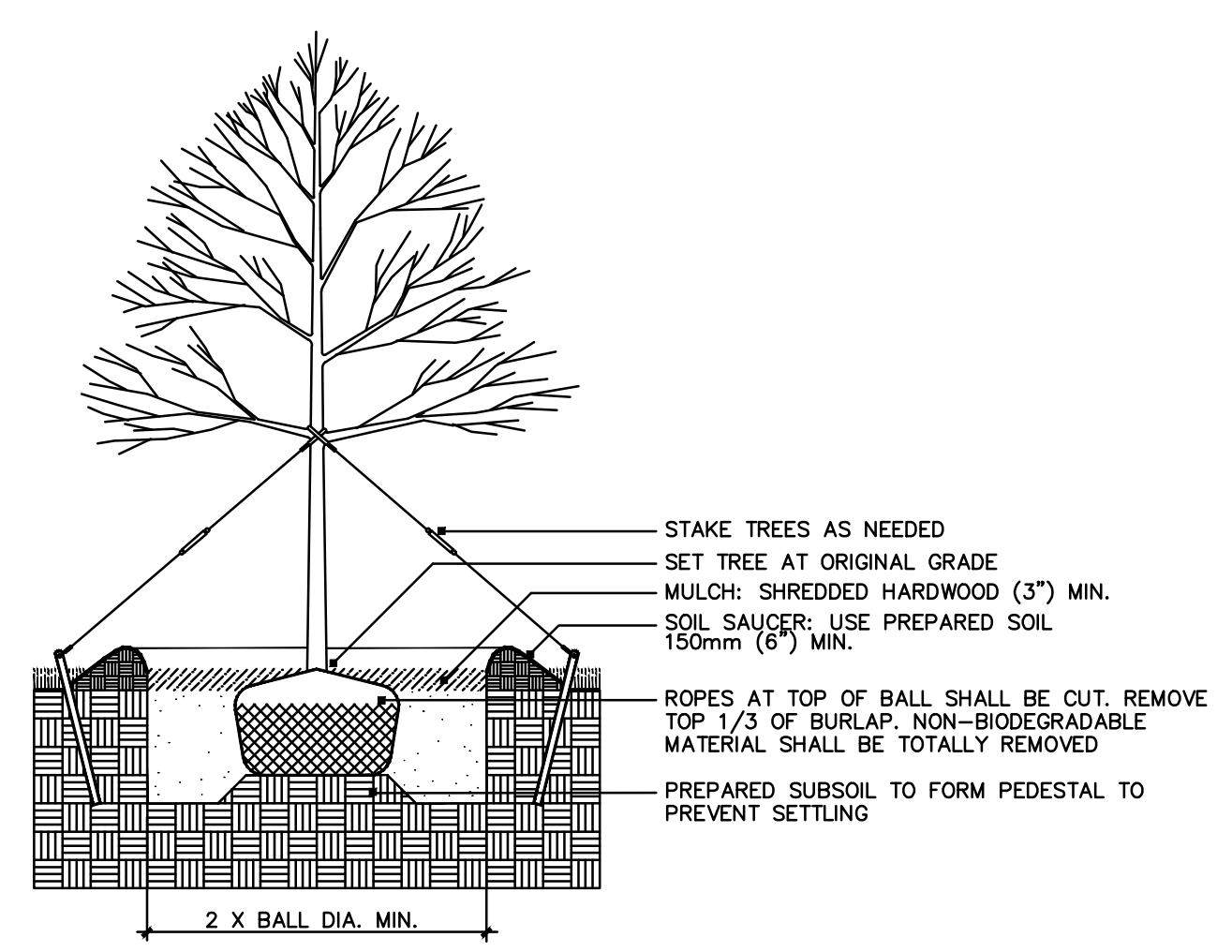
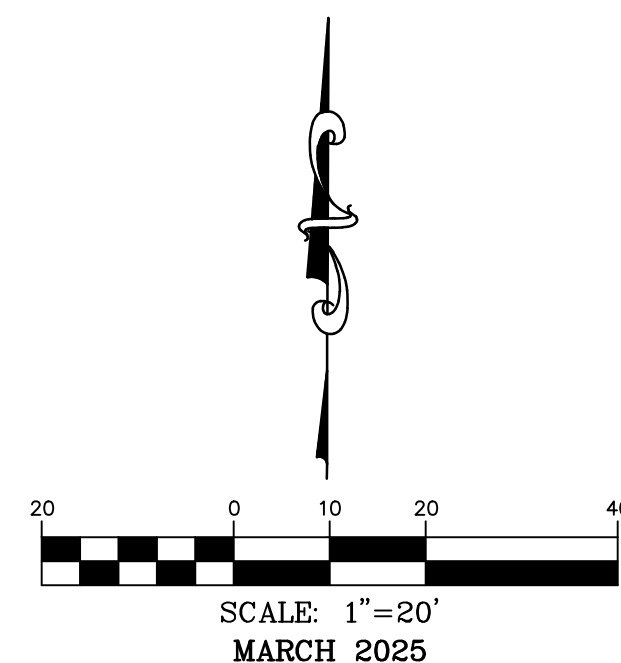
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MEGLIO AND ASSOCIATES  
MANUFACTURERS REPRESENTATIVE

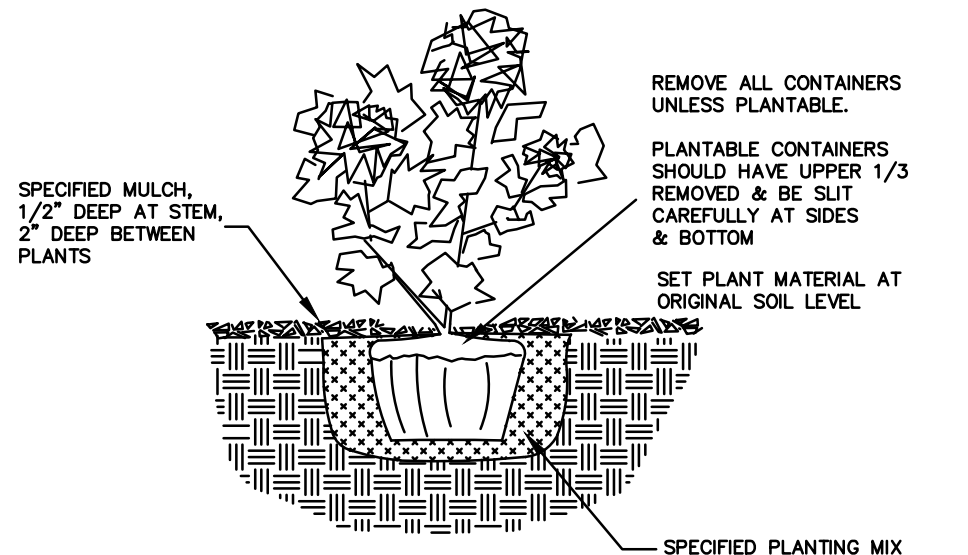
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City of O'Fallon Standard Notes and Details - July 2019

# LANDSCAPE PLAN



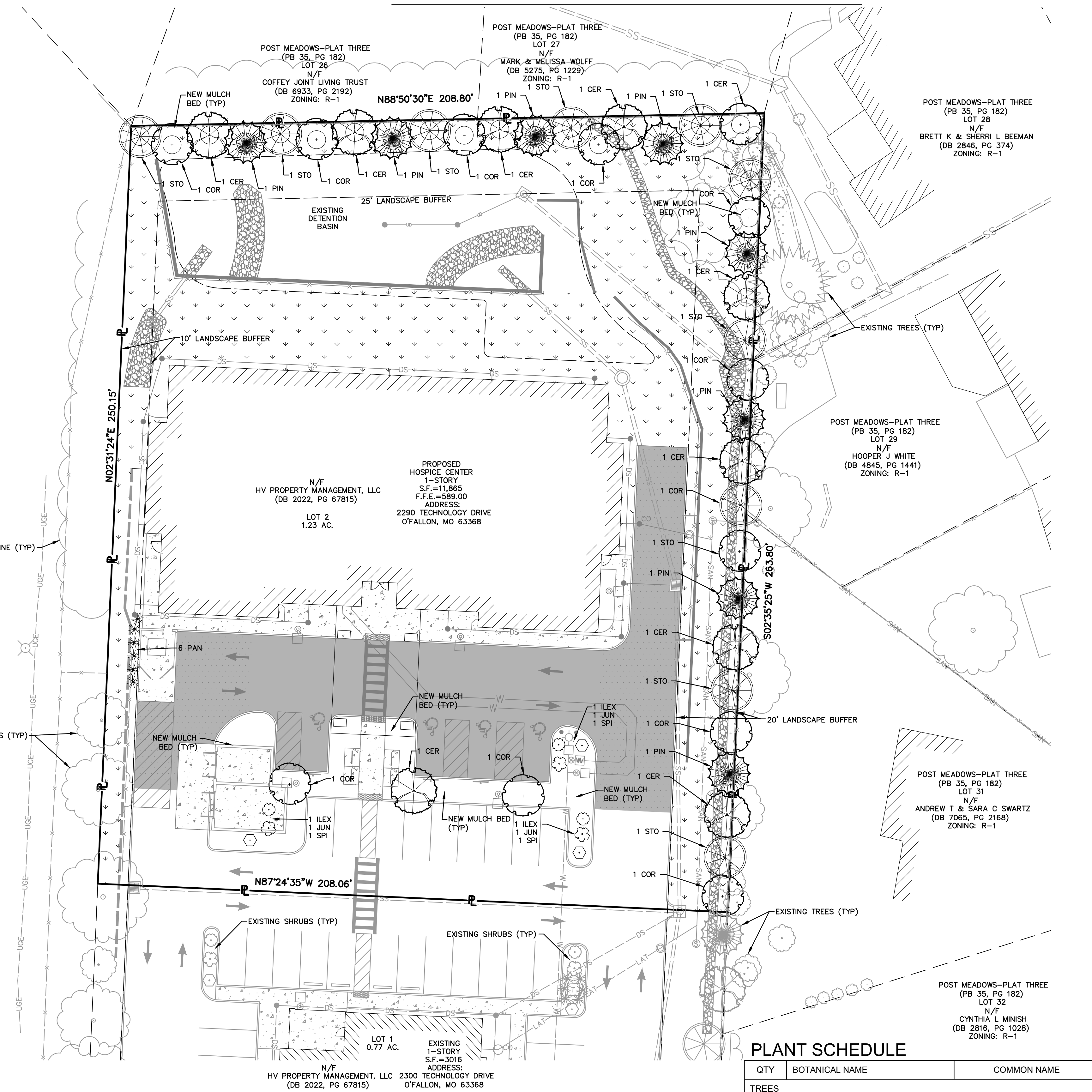
DECIDUOUS TREE PLANTING



- NOTES:
1. WATER THOROUGHLY FOLLOWING PLANTING.
  2. SIZE OF HOLE REQUIRED VARIES WITH CONTAINER SIZE, BUT MUST BE LARGER THAN CONTAINER ON ALL SIDES AND BOTTOM.
  3. AVOID DAMAGE TO ROOT STRUCTURE IN HANDLING & PLANTING.

- NOTES:
1. CONTRACTOR SHALL VERIFY ALL PLANT QUANTITIES. PLANT QUANTITIES ON PLANS PREVAIL OVER THOSE LISTED IN PLANT LIST.
  2. CONTRACTOR SHALL VERIFY SITE CONDITIONS, INCLUDING UNDERGROUND UTILITIES PRIOR TO START OF WORK. REPORT TO OWNER'S REPRESENTATIVE ANY CONDITION THAT MAY AFFECT CONTRACT. CONTRACTOR SHALL REPAIR ANY DAMAGE TO SITE ELEMENTS DUE TO CONTRACTOR'S ACTIVITY AT NO EXTRA COST TO OWNER.
  3. CONTRACTOR SHALL COORDINATE SCHEDULE AND INSTALLATION OF LANDSCAPING WITH THE OWNER'S REPRESENTATIVE.
  4. MULCH ENTIRE SHRUB PLANTING AREAS WITH 3" DEPTH OF SHREDDED BARK MULCH. ALL SHRUBS BEDS IN LAWN AREAS TO HAVE SPADE CUT EDGE. PROVIDE 4' DIA. MULCH RING AROUND ALL NEW TREES WITH MIN. 3" DEPTH OF SHREDDED BARK MULCH. GROUND COVER BEDS TO RECEIVE MIN. 2" DEPTH OF SHREDDED BARK MULCH.
  5. FORMAL LINES AND GROUPINGS OF A SPECIES OF TREE SHALL BE MATCHED FOR SIZE AND FORM.
  6. CONTRACTOR SHALL COORDINATE SCHEDULE AND STAKING/LOCATION OF BED EDGES WITH IRRIGATION CONTRACTOR.
  7. ALL DISTURBED AREAS SHALL BE SEED AND STRAW.
  8. ALL SEEDED AREAS ON SLOPES OF 3:1 OR GREATER SHALL HAVE EROSION CONTROL BLANKETS AS SPECIFIED.

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## LANDSCAPE LEGEND

- "PIN" AUSTRIAN PINE
- "STO" EASTERN WHITE PINE
- "COR" FLOWERING DOGWOOD
- "CER" EASTERN REDBUD
- "ILEX" HOLLY WINTERBERRY
- "JUN" ANDORRA JUNIPER
- "SPI" JAPANESE SPIREA
- "PAN" HEAVY METAL BLUE SWITCH GRASS
- AREAS TO BE SEED AND STRAW

## LANDSCAPE REQUIREMENTS

FRONT YARD (TECHNOLOGY DRIVE)  
FRONT YARD LANDSCAPING WAS COVERED ON SEPARATE PLAN SET

**BUFFERYARD**  
TWO (2) PLANT UNITS PER 100 LF  
1 PLANT UNIT EQUALS 30 POINTS

BUFFERYARD LENGTH (EAST PROPERTY):	300 LF
6 TREES PER 100 LF	18 REQUIRED 18 PROVIDED
BUFFERYARD LENGTH (NORTH PROPERTY):	300 LF
6 TREES PER 100 LF	18 REQUIRED 18 PROVIDED

**INTERIOR LANDSCAPED AREA**

18 PARKING SPACE X 270 SF PROVIDED	>6% REQUIRED 4,860 SF 1,940 (40%)
------------------------------------	---

**PARKING LOT PLANTING**

TREES PROVIDED	3
SHRUBS PROVIDED	9

NOTE: ALL DISTURBED AREAS TO BE SEED AND STRAW.

## PLANT SCHEDULE

QTY	BOTANICAL NAME	COMMON NAME	ABBREV.	SIZE	SPACING	TYPE
<b>TREES</b>						
7	Pinus Nigra	Austrian Pine	PIN	6' MIN.	AS SHOWN	B&B
8	Pinus Strobus	Eastern White Pine	STO	6' MIN.	AS SHOWN	B&B
9	Cornus Mas	Flowering Dogwood	COR	2.0 IN	AS SHOWN	B&B
8	Cercis Canadensis	Eastern Redbud	CER	2.0 IN	AS SHOWN	B&B
<b>SHRUBS</b>						
3	Ilex verticillata	Holly Winterberry	ILEX	1.5 FT	AS SHOWN	CONT
3	Juniperus Horizontalis	Andorra Juniper	JUN	1.5 FT	AS SHOWN	CONT
3	Spiraea Japonica	Japanese Spirea	SPI	1.5 FT	AS SHOWN	CONT
<b>PERENNIALS AND GRASSES</b>						
6	Panicum virgatum 'Heavy Metal'	Heavy Metal Blue Switch Grass	PAN	1.5 FT	AS SHOWN	CONT

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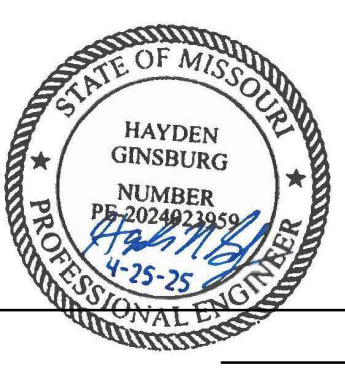


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**C19**