

MULTIMODAL ACCESS CLOSURE EXCEPTION APPLICATION FORM AND CHECKLIST

Submittal Date: _____ New Submittal Re-Submittal No: _____

Related Building Permit No: _____

Project Name: _____

Street Name Location: _____

Between: _____ And: _____

Applicant Name: _____

Address: _____

Phone: _____ Fax: _____ Contact: _____

Email: _____

Project Description: _____

Start Date: _____ End Date: _____ Project Length: _____

Describe Type of Closure: _____

Provide Reasons why Project cannot be completed without closures and what other options were considered (attach documents as needed): _____

PROJECT INFORMATION CHECKLIST:

Included Not Applicable

- | | | |
|-------------------------------------|-------------------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Project Vicinity Map with Project Area shown, street names, property information, existing pavement and striping, gutter and building locations, north arrow, and scale. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Planned work hours included. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Exact location and dimensions of the construction work zone shown. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | If multiple phases are necessary, include perimeter impact of each phase, phase number, anticipated work hours and phase duration. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Details on construction activity and equipment being used as part of construction included for each phase. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Specify if any on-street parking, and/or metered parking, is to be restricted and if bus zone will need to be relocated. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Specify if trash pickup will be impacted. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Provide information on all utility work and utility connections. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | List all affected residents, businesses, agencies, and schools and any conversations/agreements taken place. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Show ongoing construction projects within vicinity of proposed project impact. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Provide plan to address conflicts with other nearby projects. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Provide traffic control plan for each phase of construction (see traffic control checklist for more information). |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Provide information on work vehicle parking locations. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Show construction trucks ingress/egress to project location. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Provide information on any traffic signals, traffic signal loops, and traffic signal cabinets in close proximity to project. |

TRAFFIC CONTROL PLAN CHECKLIST:

Included Not Applicable

- All temporary traffic control plans shall be designed in accordance with the most recent ADA regulations and requirements of the Manual of Uniform Traffic Control Devices.
- Clearly show the locations of all existing signs (including speed limit) as well as the proposed signs for each construction phase.
- Show the location of all existing pedestrian paths and pedestrian detour route of each stage of construction.
- Show dimensions of travel lane width, shoulder width, sidewalk of each phase, and overall roadway width along the length of affected area.
- Show all existing striping and markings to remain, to be removed, and all proposed striping and markings for each construction stage.
- Provide detour plan clearly showing detour route for any roadway or pedestrian/bike path closures.
- Specify placement of all temporary traffic control devices.
- Specify spacing of all temporary traffic control devices.
- Show all existing traffic signals and streetlights in the work zone location.
- Lighting provided for all pedestrian detour routes.
- Provide minimum eleven (11) foot travel lanes at all times.
- Show size, height, and location of all channelizing devices, warning lights, flag trees, barriers, etc.
- Label all taper lengths and widths.
- Provide locations of police officers for each phase as needed.
- Temporary Traffic Control Plan has been stamped and signed by a TN licensed Civil Engineer.

Project Information Checklist

Tennyson Townhomes

400 Hume St.
Nashville, TN 37208

- Project Map
 - Attached
- Planned Work Hours
 - 7am – 7pm
 - Monday – Saturday
 - Subcontractors working on this project, have the above days and hours to work on this project, however they are not required to work all those days and hours
- Location and Dimensions
 - See attached Civil Plans of the Project
- Details on construction activity and equipment being used.
 - Common Residential scopes of work and equipment.
 - Wood framing, roofing, CMU/Brick installation, Concrete slabs/footers, excavation work, waterproofing.
 - Manlifts, scaffolds, excavators, forklifts, skid steers.
- Utility Work and Utility Connections
 - See attached Civil Plans of the Project
- One Phase Construction
- Work Vehicle Parking Locations
 - Any Public Street Parking
- Sidewalks have a 5-foot width
- Sign, Routing, Existing signs, entrances are all label in the Project Map



existing Stop Signs

FINAL SP

TENNYSON GERMANTOWN

400 HUME STREET
 NASHVILLE, DAVIDSON COUNTY, TENNESSEE
 CASE NO. 2017SP-008-003

PURPOSE NOTE:
 THE PURPOSE OF THIS SPECIFIC PLAN IS TO PERMIT UP TO 16 TOWNHOME UNITS

NOTE:
 THE PRELIMINARY SP WAS APPROVED FOR 18 RESIDENTIAL UNITS. BASED ON SP ENTITLEMENTS, STRPS, NOT OWNER OCCUPIED, SHALL BE PROHIBITED AS THESE ARE CONSIDERED A COMMERCIAL USE. STRP, OWNER OCCUPIED, MAY BE PERMITTED AS A RESIDENTIAL ACCESSORY USE

PROJECT CONTACTS

OWNER | DEVELOPER

FFN4H, LLC

CONTACT: DEREK B. LISLE
 PO BOX 150204
 NASHVILLE, TN 37215
 PH: 615.390.5535
 E-MAIL: derek.lisle@placedevelopment.com

PLANNER | ENGINEER

CSDG

CONTACT: KATE MCDONALD, PE
 2305 KLINE AVE, STE 300
 NASHVILLE, TN 37211
 PH: 615.248.9999
 E-MAIL: katem@csdgt.com

LANDSCAPE ARCHITECT

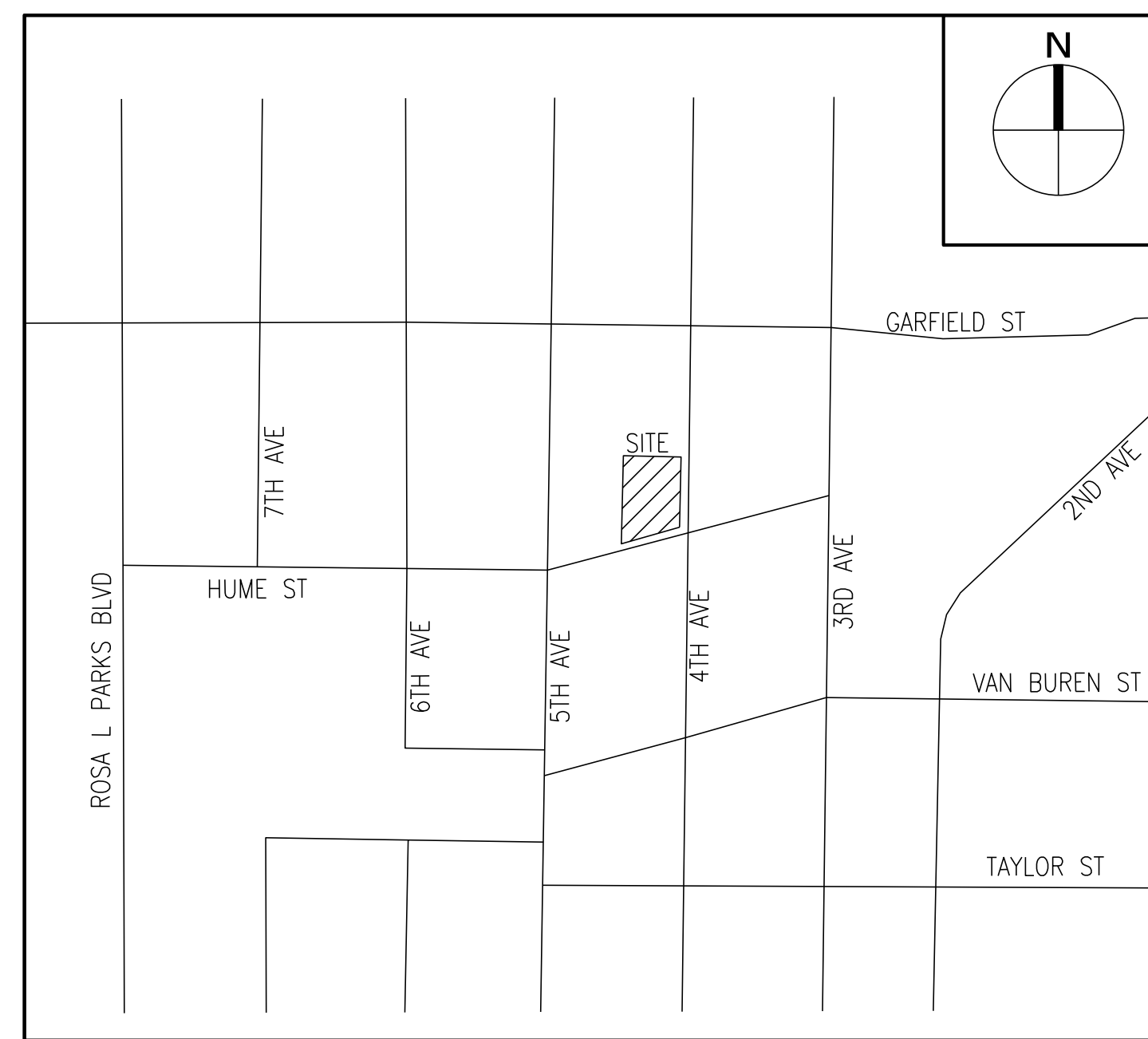
CSDG

CONTACT: KYLE JACOBSON, PLA
 2305 KLINE AVE, STE 300
 NASHVILLE, TN 37211
 PH: 615.248.9999
 E-MAIL: kylej@csdgt.com

ARCHITECT

ROOTARCH, PLLC

CONTACT: JEFF GOFF
 753 ALLOWAY STREET
 NASHVILLE, TN 37203
 PH: 615.292.2142
 E-MAIL: jeff@rootarch.com



VICINITY MAP
 N.T.S.

PARCEL: 08205017900
 JACOB KUPLIN - DISTRICT 19
 FEMA #47037C0241H - 4/5/2017 - ZONE X
 TOTAL SITE ACREAGE = 0.79 AC.
 DISTURBED AREA = 0.94 AC.

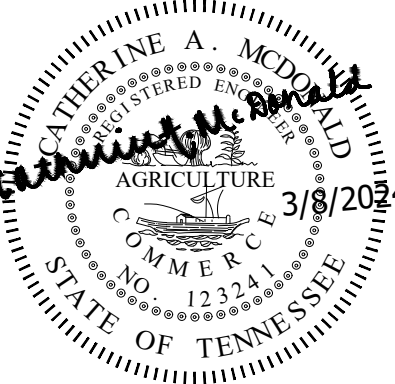


CSDG

Planning | Engineering
 Landscape Architecture

2305 Kline Ave, Ste 300
 Nashville, TN 37211
 615.248.9999
 csdgt.com

SEAL



TENNYSON GERMANTOWN
 FINAL SP

400 Hume Street
 Nashville, Davidson County, Tennessee
 Parcel 08205017900
 Case No. 2017SP-008-003

ISSUE SET:

FINAL SP

ISSUE DATE: 6/7/2023

REVISION HISTORY:

| Rev. | Description | Date |
|------|-----------------------|----------|
| | FINAL SP RESUBMITTAL | 07.10.23 |
| | MWS RESUBMITTAL | 10.09.23 |
| | MWS RESUBMITTAL | 12.14.23 |
| | NDOT MASTER PERMIT | 02.08.24 |
| 1 | FIRE MARSHAL COMMENTS | 02.12.24 |
| | NDOT COMMENTS | 03.06.24 |

DRAWN BY: LEB
 CHECKED BY: SKD

COVER

C0.00

PROJECT NO.: 22-053-01

Stormwater Grading Permit: **SWGR#2023078517**
 Stormwater Variance: **SWMC#**
 Metro Sewer Project: **2023078518, 17-SL-248**
 Metro Water Project: _____
 Building Permit: _____
 SUP: 2023078526





CSDG

Planning | Engineering
Landscape Architecture
2305 Kline Ave, Ste 300
Nashville, TN 37211
615.248.9999
csdgn.com

SEAL



TENNYSON GERMANTOWN
FINAL SP
400 Hume Street
Nashville, Davidson County, Tennessee
Parcel No. 2017SP-008-003

ISSUE SET:
FINAL SP

ISSUE DATE: 6/7/2023

REVISION HISTORY:

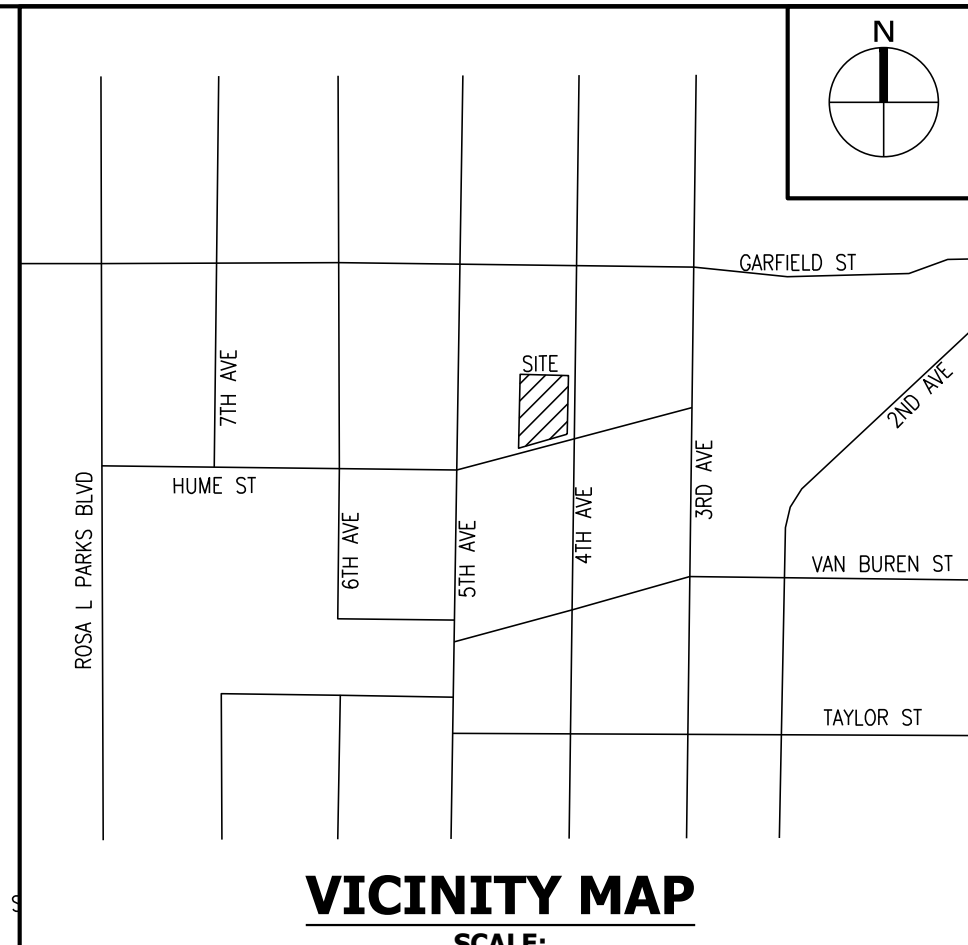
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CHECKED BY: SKD

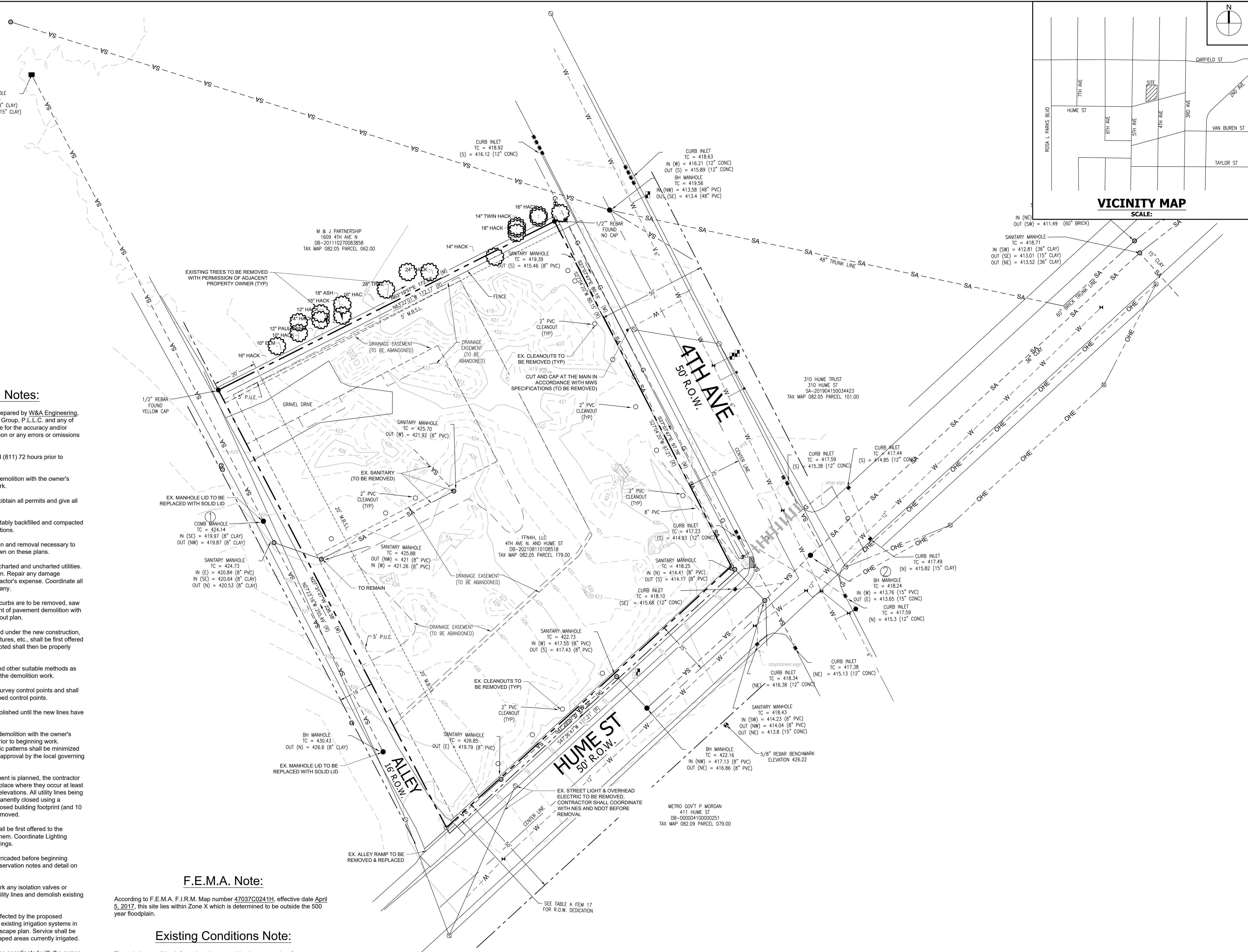
EXISTING
CONDITIONS AND
DEMOLITION PLAN

C1.00

PROJECT NO.: 22-053-01



VICINITY MAP
SCALE:



Site Demolition Notes:

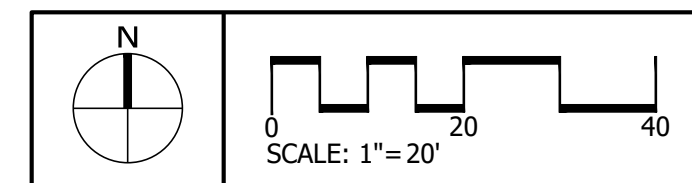
- Base Information was taken from a survey prepared by W&A Engineering, dated September 21, 2022. Civil Site Design Group, P.L.L.C. and any of their consultants shall not be held responsible for the accuracy and/or completeness of that information shown hereon or any errors or omissions resulting from such.
- The contractor shall call Tennessee One Call (811) 72 hours prior to proceeding with any excavation.
- The contractor shall field verify the limits of demolition with the owner's representative prior to commencement of work.
- The contractor shall conform to local codes, obtain all permits and give all notices required for execution of the work.
- Cavities left by structure removal shall be suitably backfilled and compacted in accordance with these plans and specifications.
- The contractor is responsible for all demolition and removal necessary to accomplish the proposed improvements shown on these plans.
- The contractor is responsible for locating all charted and uncharted utilities. Take care to protect utilities that are to remain. Repair any damage according to local standards and at the contractor's expense. Coordinate all construction with the appropriate utility company.
- In areas where existing pavement, walks, or curbs are to be removed, saw cut to provide a clean edge. Coordinate extent of pavement demolition with the limit of new improvements on the site layout plan.
- All materials being removed and not relocated under the new construction, including trees and shrubs, signs, utility structures, etc., shall be first offered to the owner's representative and if not accepted shall then be properly disposed of by the contractor.
- The contractor shall use water sprinkling and other suitable methods as necessary to control dust and dirt caused by the demolition work.
- The contractor shall preserve and protect survey control points and shall be responsible for replacement of any disturbed control points.
- No utility or storm sewer lines shall be demolished until the new lines have been installed and are placed into operation.
- Contractor shall coordinate phasing of the demolition with the owner's representative and local governing agency prior to beginning work. Disruption of existing utility services and traffic patterns shall be minimized to the extent possible and initiated only after approval by the local governing agency and the utility companies.
- Where water line and sewer line abandonment is planned, the contractor may abandon water lines and sewer lines in place where they occur at least 24" (to top of the pipe) below final subgrade elevations. All utility lines being abandoned in place shall have all ends permanently closed using a conformed plug. Existing lines within the proposed building footprint (and 10 feet beyond the building footprint) shall be removed.
- Existing lights and poles being removed shall be first offered to the owner's representative prior to disposing of them. Coordinate Lighting demolition and layout with the electrical drawings.
- Existing trees to be preserved are to be barricaded before beginning construction. In accordance with the tree preservation notes and detail on the landscape plan.
- The contractor shall incorporate into his work any isolation valves or temporary plugs required to construct new utility lines and demolish existing utility lines.
- Existing irrigation lines lie within the area affected by the proposed construction. The contractor shall rework the existing irrigation systems in accordance with directives noted on the landscape plan. Service shall be maintained during construction to the landscaped areas currently irrigated.
- Relocation of existing plant materials shall be coordinated with the owner and relocated to a designated area on the site.
- Selective clearing consisting of removal of vines, saplings under 1" diameter and underbrush shall be performed in tree preservation areas internal to the project and noted on plans.

F.E.M.A. Note:

According to F.E.M.A. F.I.R.M. Map number 47037C0241H, effective date April 5, 2017, this site lies within Zone X which is determined to be outside the 500 year floodplain.

Existing Conditions Note:

The existing condition information shown on this sheet was taken from a survey prepared by W&A Engineering, dated September 21, 2022. Civil Site Design Group takes no responsibility for the correctness, accuracy, or completeness of this survey information.

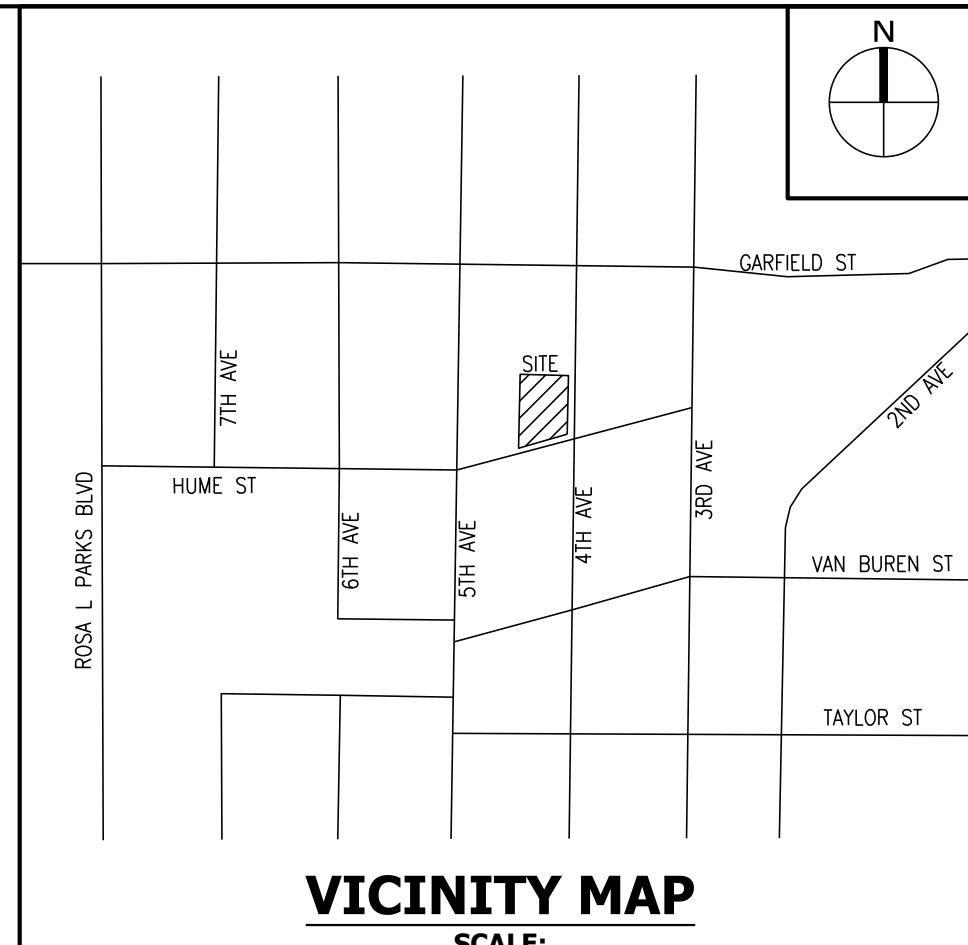
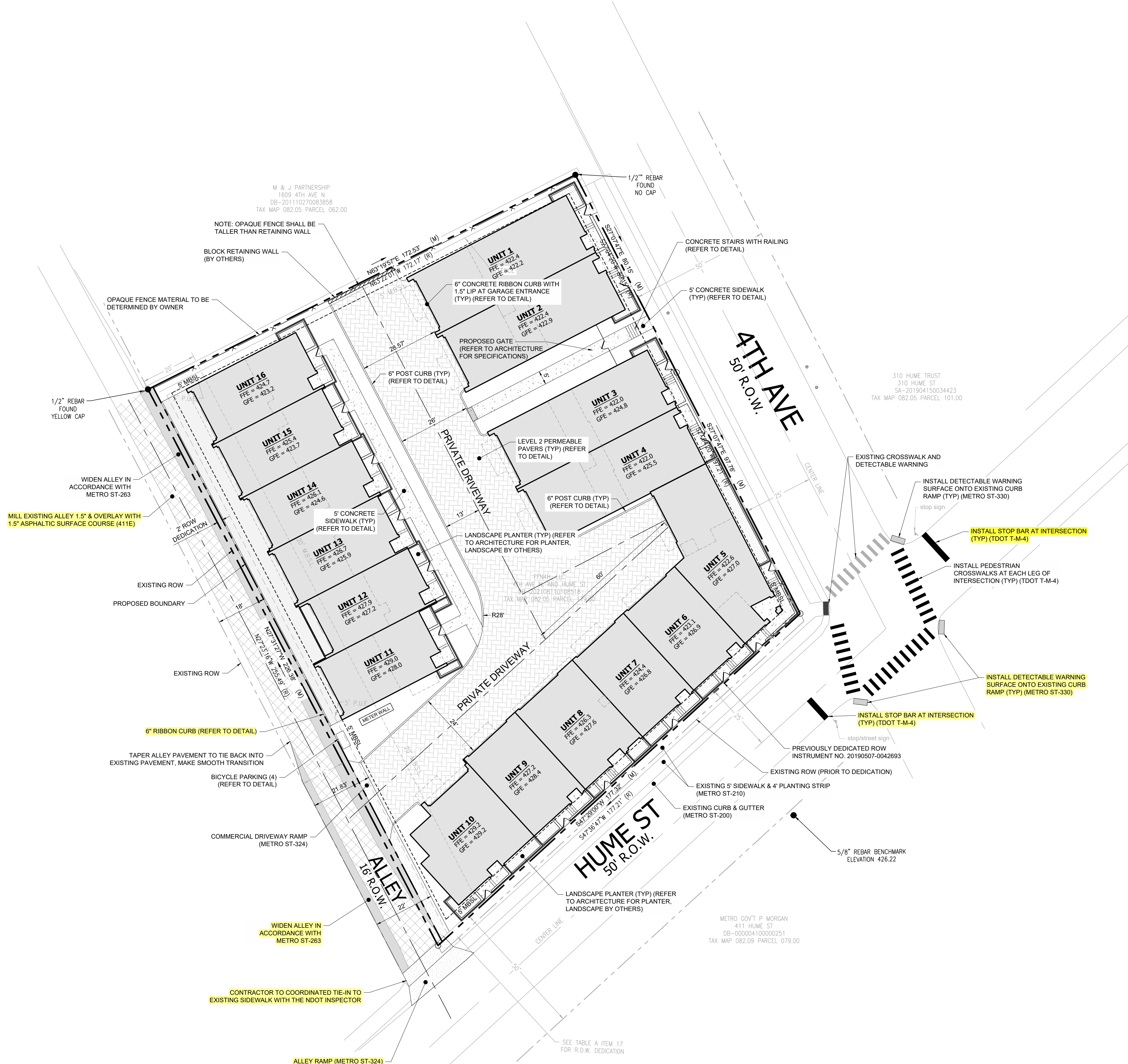


Mar 08, 2024 - 2:13pm T:\CADD\2022\22-053-01\CADD\Civil\Final SP\22-053-01 - C1.00 - Existing Conditions and Demolition Plan.dwg

General Notes:

- Base information was taken from a survey prepared by W&A Engineering dated September 21, 2022.
- Provide a smooth transition between existing pavement and new pavement. Slight field adjustment of final grades may be necessary.
- All roadway, driveway, sidewalk, and curb construction shall conform to the requirements and specifications of the local municipality codes and requirements.
- Concrete for curbs and sidewalks shall be 3500 PSI concrete unless required otherwise by local codes.
- The site layout is based on control points as noted.
- The contractor shall conform to all local codes and receive approval where necessary before commencement of any construction.
- All site related construction materials and installation shall conform to local governing agency regulations and specifications.
- Handicap ramps shall have a maximum slope of 1:12.
- All pavement materials and construction shall conform to the local governing agency and state D.O.T. standards and specifications.
- The contractor shall check all existing conditions, (i.e. inverts, utility routings, utility crossings, and dimensions) in the field prior to commencement of any utility work. Report any discrepancies to the owner's representative. The contractor shall repair any damage caused during construction to existing features (i.e. pavement, sidewalks, curbs, utilities, etc.), at his own expense, to the standards of the preconstruction condition or better.
- Dimensions are to face of curb and/or exterior face of building unless otherwise noted.
- Curbs shall be parallel to the centerline of drives. The curb shall be placed only after having all break points (PC & PT of curves) located at the face of curb or at a consistent offset by a land surveyor.
- Any work unacceptable to the owner's representative or to the local governing authority shall be repaired or replaced by the contractor at no additional expense to the owner.
- Existing pavement of private or public roadways/drives shall be patched in accordance with the local governing authority's standards wherever utility installation requires removal of the existing pavement. Coordinate pavement trenching locations with site civil, plumbing and electrical plans.
- The contractor shall comply with all pertinent provisions of the "manual of accident prevention in construction" issued by AGC of America, Inc. and the "Safety and Health Regulations for Construction" issued by the U.S. Department of Public Works.
- Contractor shall give all necessary notices and obtain all permits prior to commencement of any construction.
- In the event of any discrepancies and/or errors found in these site drawings, or if problems are encountered during construction, the contractor shall be required to notify the engineer before proceeding with the work.
- The general contractor is particularly cautioned that the location and/or elevation of the existing utilities shown hereon is based on utility company records, and where possible, field measurements. The contractor shall not rely on this information as being exact or complete. The contractor shall call the appropriate utility company at least 72 hours prior to any excavation and request field verification of utility locations. It shall be the contractor's responsibility to relocated existing utilities conflicting with improvements shown hereon in accordance with all local, state, and federal regulations governing such operations.
- Contractor shall exercise extreme caution in the use of equipment in and around overhead and underground electrical wires and services. If at any time in the pursuit of this work the contractor must work in the close proximity of the above-noted wires, the electric company shall be contacted prior to such work and the proper safety measures taken. A thorough examination of the overhead and underground wires in the project area should be made by the contractor prior to the initiation of construction.
- The owner and engineer do not assume responsibility for the possibility that, during construction, utilities other than those shown may be encountered or that actual locations of those shown may be different from locations designated on the contract drawings. In areas where it is necessary that exact locations be known of underground utilities, the contractor shall, at his own expense, furnish all labor and tools necessary to either verify and substantiate or definitely establish the position of underground utility lines.
- Do not scale this drawing as it is a reproduction and subject to distortion.
- These plans, prepared by Civil Site Design Group, do not extend to or include systems pertaining to the safety of the construction contractor or its employees, agents or representatives in the performance of the work. The seal of the engineering services registered professional engineer hereon does not extend to any such safety systems that may now or hereafter be incorporated into these plans. The construction contractor shall prepare or obtain the appropriate safety systems which may be required by U.S. Occupational Safety and Health Administration (OSHA) and/or local regulations.
- In the case of conflict between this drawing and any other drawing and/or the specifications, the engineer shall be immediately notified for clarification.

Mar 08, 2024 - 2:13pm T:\CADD\2022\22-053-01\CAD\Civil\Final SP22-053-01 - C2.00 - Site Layout Plan.dwg



Development Summary

Council District Number: 19
 Council Member Name: Jacob Kuplin
 Developer: FFN4H, LLC
 PO BOX 150204
 Nashville, TN 37215
 Phone: (615) 390-5535
 Contact: Derek B. Lisle
 derek.lisle@placedevelopment.com

Owner of Record: FFN4H, LLC
 Map/Parcel 082-050-17900
 PO BOX 150204
 Nashville, TN 37215

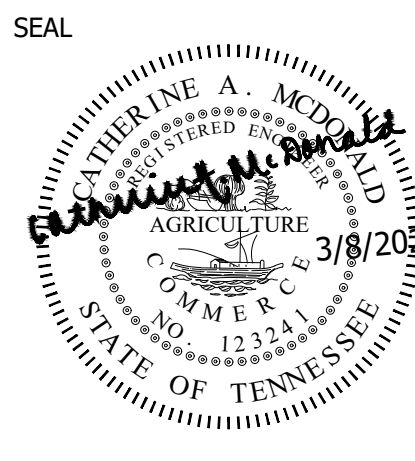
SP Name: Tennyson Germantown - Final SP
 Previous SP Name: 4th & Hume - Final SP
 SP Number: 2017SP-008-002
 Engineer: Civil Site Design Group
 2305 Kline Avenue, Suite 300
 Nashville, TN 37211
 Phone: (615) 248-9999
 Contact: Kate McDonald, P.E.
 katem@csdgt.com

Plan Preparation Date: June 7, 2023
 Plan Scale: 1" = 20'
 U.S. FEMA FIRM: 47037C0241H (dated April 5, 2017)

SITE DATA TABLE

| | |
|--------------------------|-------------------------------------|
| TOTAL SITE AREA (S.F.) | 34,412 |
| TOTAL SITE AREA (Ac.) | 0.79 |
| ZONING | SP |
| ALLOWED LOTS | 1 |
| PROPOSED LOTS | 1 |
| EXISTING USES | VACANT RESIDENTIAL LAND |
| PROPOSED USE | MULTI-FAMILY RESIDENTIAL |
| ALLOWED DENSITY | 22.22 / ACRE |
| PROPOSED DENSITY | 20.25 / ACRE |
| ALLOWED ISR | N/A |
| PROPOSED ISR | 0.88 |
| ALLOWED FAR | 1.14 |
| PROPOSED FAR | NOT APPLICABLE PER UZO |
| ALLOWED MAX HEIGHT | 4 STORIES, 45' MEASURED TO ROOFLINE |
| PROPOSED HEIGHT | 4 STORIES (REFER TO ARCHITECTURE) |
| REQUIRED SETBACKS | FRONT, SIDE, REAR: 5 |
| PROPOSED SETBACKS | FRONT, SIDE, REAR: 5 |
| REQUIRED PARKING | 0 |
| PROPOSED PARKING | 32 |
| BICYCLE PARKING REQUIRED | 4 |
| BICYCLE PARKING PROVIDED | 4 |

- NOTES:**
- INTERNAL DRIVEWAYS ARE PRIVATE AND SHALL BE MAINTAINED BY THE HOMEOWNER'S ASSOCIATION.
 - TRASH/RECYCLE PICKUP TO BE PROVIDED BY PRIVATE TRASH/RECYCLE CANS AND PRIVATE HAULER.
 - IF A DEVELOPMENT STANDARD, NOT INCLUDING PERMITTED USES, IS ABSENT FROM THE SP PLAN AND/OR COUNCIL APPROVAL, THE PROPERTY SHALL BE SUBJECT TO THE STANDARDS, REGULATIONS AND REQUIREMENTS OF THE RM40-A ZONING DISTRICT AS OF THE DATE OF THE APPLICABLE REQUEST OR APPLICATION.
 - LANDSCAPING AND TREE DENSITY REQUIREMENTS PER 400 HUME STREET SPECIFIC PLAN.
 - ADDITIONAL 1-1/2" MILL AND OVERLAY MAY BE REQUIRED TO COVER FULL EXTENTS OF UTILITY WORK IN PUBLIC ROW AND ALLEY WIDENING. EXTENTS TO BE COORDINATED IN FIELD WITH NDOT INSPECTOR.



TENNYSON GERMANTOWN
FINAL SP
 400 Hume Street
 Nashville, Davidson County, Tennessee
 Parcel 08205017900
 Case No. 2017SP-008-003

ISSUE SET:
FINAL SP

ISSUE DATE: 6/7/2023

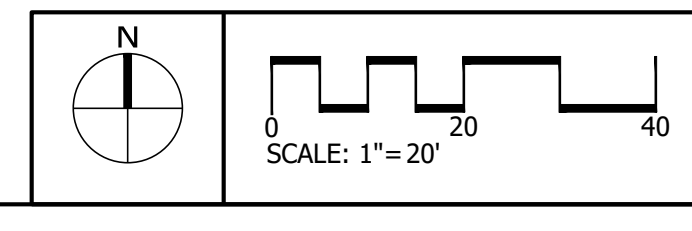
REVISION HISTORY:

| Rev | Description | Date |
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| | FINAL SP RESUBMITTAL | 07.10.23 |
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| 1 | FIRE MARSHAL COMMENTS | 02.12.24 |
| | NDOT COMMENTS | 03.06.24 |

DRAWN BY: LEB
 CHECKED BY: SKD

SITE LAYOUT PLAN

C2.00
 PROJECT NO.: 22-053-01



Site Grading, Drainage & Erosion Control Notes:

- The disturbed area for this project is approximately 0.94 acres.
- The contractor shall comply with all pertinent provisions of the manual of accident prevention and construction issued by AGC of America, Inc. and the safety and health regulations of construction issued by the U.S. Department of Labor.
- The contractor shall call "Tennessee One Call" (811) 72 hours prior to proceeding with any excavation.
- If any springs or underground streams are exposed during construction, permanent French drains may be required. The drains shall be specified and located during construction as required by the conditions which are encountered, and shall be approved by the engineer.
- Stockpiled topsoil or fill material shall be treated so no sediment run-off will contaminate surrounding areas or enter nearby streams.
- Clean silt barriers when they are approximately 50% filled with sediment or as directed by the owner's representative. Silt barriers shall be replaced as effectiveness is significantly reduced, or as directed by the owner's representative.
- All new pipes under existing paved areas shall be backfilled to the top of subgrade with # 57 crushed stone.
- Sediment removed from sediment control structures is to be placed at a site approved by the local governing authority. It shall be treated in a manner so that the area around the disposal site will not be contaminated or damaged by the sediment in the run-off. Cost for this treatment is to be included in the bid price for earthwork. The contractor shall obtain the disposal site as part of his work.
- Reinforced concrete storm drainage pipe shall be Class III. Corrugated metal pipe shall be 14 gauge unless otherwise noted.
- Minimum grade on asphalt or concrete paving shall be 1.0%.
- Construct silt barriers before beginning any grading operations.
- This grading & drainage plan is not a determination or guarantee of the suitability of the subsurface conditions for the work indicated. Determination of the subsurface conditions for the work indicated is solely the responsibility of the contractor.
- Do not disturb vegetation or remove trees except when necessary for grading purposes.
- Top of grate elevations and location of coordinates for drainage structures shall be installed as shown on the plan unless otherwise noted. The grates shall slope longitudinally with the pavement grades. Coordinates provided are for the center of the grate (at the face of curb where applicable).
- Any site used for disposal and/or stockpile of any material shall be properly permitted for such activity. It is the responsibility of the contractor to see that all required permits are secured for each property utilized. A copy of the approved permit must be provided to the inspector prior to commencement of work on any property. Failure to do so may result in the contractor removing any illegally placed material at his own expense.
- Re-spread topsoil (6 inch minimum thickness), seed, and straw all disturbed areas as soon as possible after final grading is completed, unless otherwise indicated. Contractor shall take whatever means necessary to establish permanent soil stabilization.
- Proposed contour lines and spot elevations are the result of an engineered grading design and reflect a planned intent with regard to drainage and movement of materials. Should the contractor have any question of the intent or any problem with the continuity of grades, the engineer shall be contacted immediately.
- All cut and fill slopes shall be 3 horizontal to 1 vertical or flatter unless otherwise indicated on plans.
- Positive drainage shall be established as the first order of work and shall be maintained at all times during and after construction. Soil softened by perched water in foundation and pavement areas must be undercut and replaced with suitable fill materials.
- Remove sediment from all drainage structures before acceptance by local governing agency, or as directed by the owner's representative.
- Contractor shall conform to all applicable codes and obtain approval as necessary before beginning construction.
- Remove the temporary erosion and water pollution control devices only after a solid stand of grass has been established on graded areas and when in the opinion of the owner's representative, they are no longer needed.
- Provide temporary construction access(es) at the point(s) where construction vehicles exit the construction area. Maintain public roadways free of tracked mud and dirt.
- All earthwork, including the excavated subgrade and each layer of fill, shall be monitored and approved by a qualified geotechnical engineer, or his representative.
- All fill material on this project shall be approved by the geotechnical engineer prior to placement. This material shall be placed in lifts and compacted as directed by the geotechnical engineer. The contractor shall be responsible for employing a geotechnical engineer if one is not provided by the owner.
- All drainage construction materials and installation shall conform to the requirements and specifications of the local governing agency.
- It shall be the contractor's responsibility to waste excess earth material off site at no additional cost to the owner. The contractor shall first offer the excess material to the owner. If not accepted by the owner, the contractor shall dispose of earth material off site. It shall also be the contractor's responsibility to import suitable material (at no additional cost to the owner) for earthwork operations if sufficient amounts of earth material are not available on site.
- The contractor shall check all existing grades and dimensions in the field prior to beginning work and report any discrepancies to the engineer. Commencement of any grading work constitutes the contractor's acceptance of the existing grade as matching those shown on the plans.
- Strip topsoil from all cut and fill areas and stockpile. Upon completion of general grading re-spread the topsoil over all disturbed areas, to a minimum depth of 6". Contractor shall supply additional topsoil if insufficient quantities exist on site. Remove any excess topsoil from site.
- The contractor shall take special care to compact fill sufficiently around and over all pipes, structures, valve stems, etc., inside the proposed paved areas to avoid settlement. Any settlement during the warranty period shall be restored by the contractor at no additional cost to the owner.
- In no case shall slope height, slope inclination, or excavation depth, including trench construction, exceed those specified in local, state and federal regulations, specifically the current OSHA Health and Safety Standards for Excavations (29 CFR Part 1926) shall be followed.
- All fill slopes and cut slopes on this project shall be reviewed by the owner's geotechnical engineer during construction to confirm that the slopes are (will be) stable. It is the contractor's responsibility to have this confirmation in writing from the geotechnical engineer.
- All fill on this project shall be installed and compacted in accordance with the owner's geotechnical engineer's recommendation. The owner's geotechnical engineer shall review all filling operations to confirm the earthwork is properly installed and compacted. It is the contractor's responsibility to have this conformation in writing from the geotechnical engineer.
- Relocation of existing plant materials shall be coordinated with the owner and relocated to a designated area on site.

- All horizontal and vertical information of proposed culverts shown hereon which accept/discharge flows to/from existing channels are approximate utilizing topographic drawings. The final horizontal and vertical alignments shall be field located by the contractor prior to the ordering of materials or commencement of construction and shall notify the engineer of any discrepancies to what was designed.
- The contractor shall coordinate the exact location of the storm drain connections at the building with the plumbing plans.
- The location of all diversion swales and ditches shall be field adjusted to avoid trees as possible. The contractor shall walk the alignment of these swales and ditches in the field to verify avoidance of trees.
- The depth of foundations and/or footings for buildings and walls adjacent to bio-retention areas shall be based on the excavated depth of the bio-retention area and not the planting surface elevation.

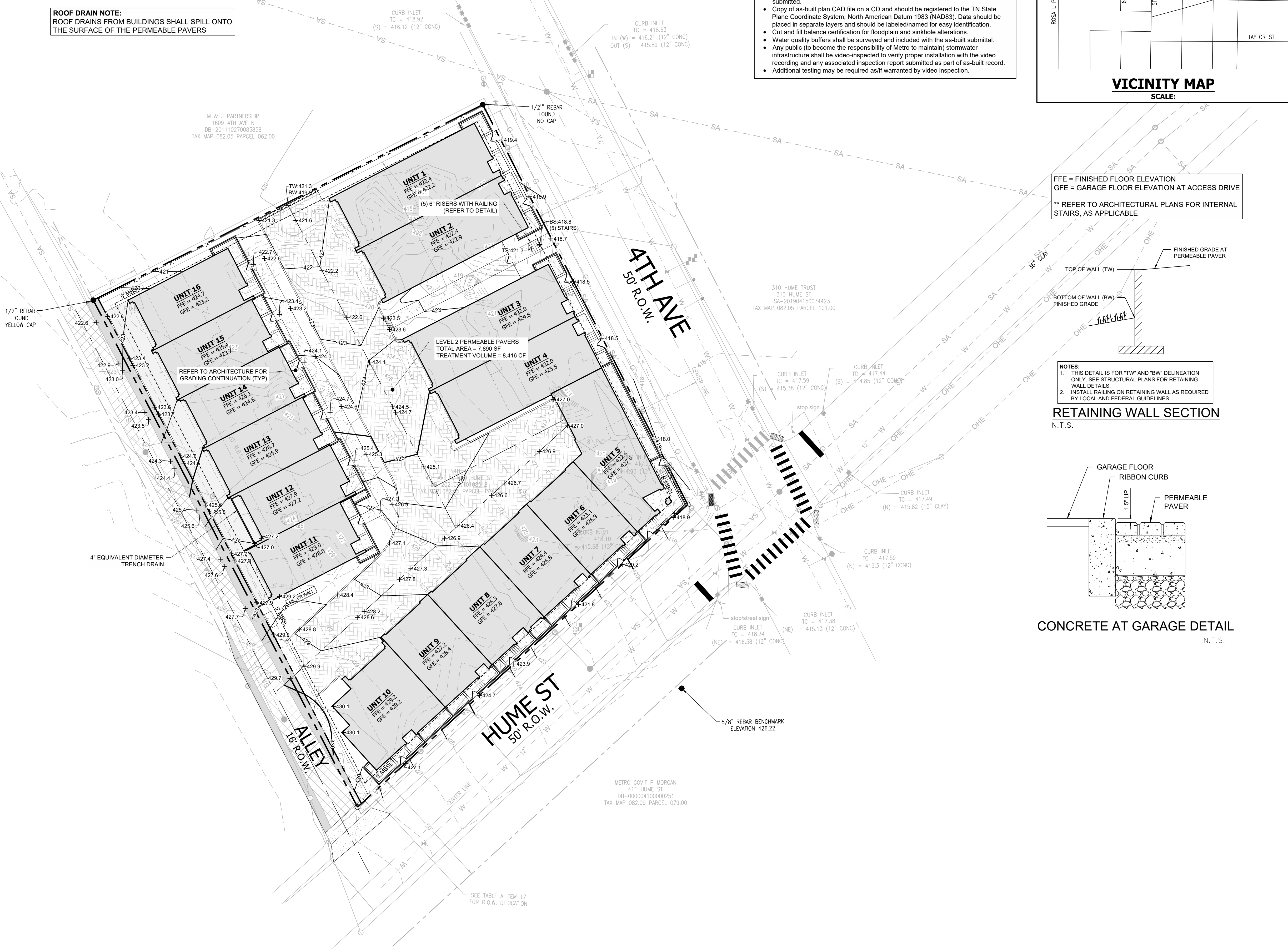
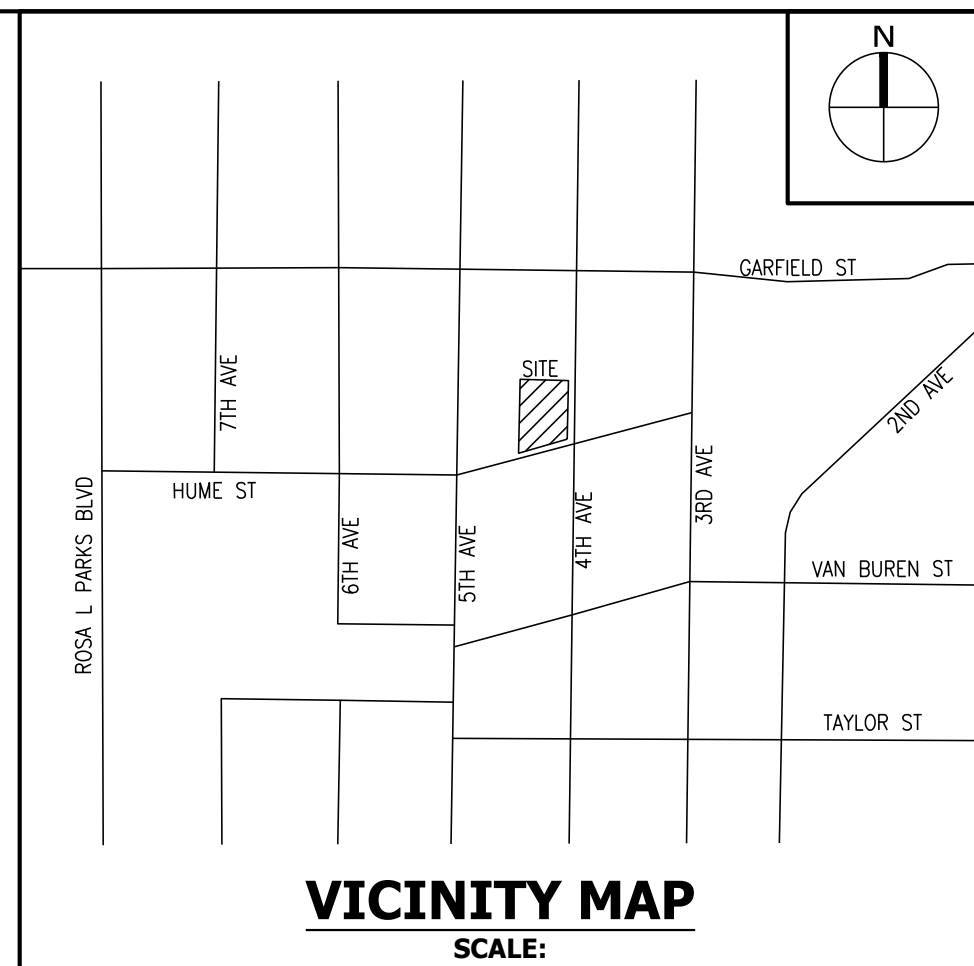
ROOF DRAIN NOTE:
ROOF DRAINS FROM BUILDINGS SHALL SPILL ONTO THE SURFACE OF THE PERMEABLE PAVERS

| Permeable Pavement | Design | As-Built |
|--------------------------------|-----------|----------|
| Treatment Volume (Tv), CF | 8,416 | |
| Surface Area, SF | 7,890 | |
| Overflow (TOC) Elevation* | VARIABLES | |
| Reservoir Depth (in.) | 32.0 | |
| Underdrain Invert Depth* (ft.) | N/A | |
| Outlet Elevation* | N/A | |
| Sump Depth (in.) | N/A | |
| * N/A if not required | | |
| All elevations shall be NAVD88 | | |

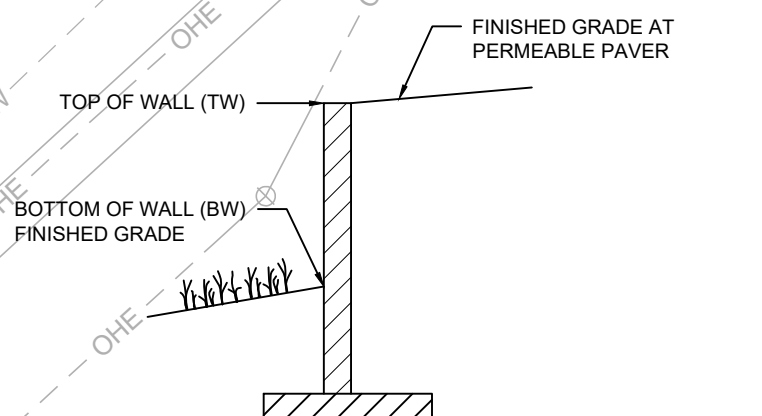
Metro As-Built Note:

In accordance with the Metro Stormwater Management Manual, Volume 1, Section 3.9, As-Built Certifications, MWS Stormwater Division must approve the following as-built prior to issuance of the Use and Occupancy Permit:

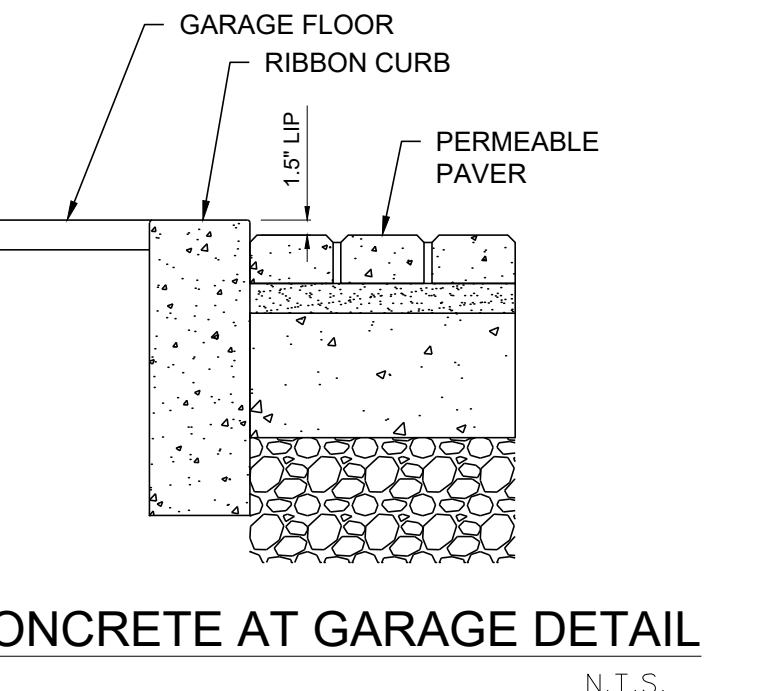
- A certification letter from TN registered P.E. stating that the site has been inspected and that the stormwater management system and stormwater control measures (both structural and non-structural) are complete and functional in accordance with the plans approved by MWS.
- An as-built LID spreadsheet.
- Hydrologic and hydraulic calculations for as-built conditions, as required.
- As-built drawings showing final topographic features of all these facilities. This shall include invert elevations of outlet control structures.
- Any deviations from the approved plans shall be noted on as-built drawings submitted.
- Copy of as-built plan CAD file on a CD and should be registered to the TN State Plane Coordinate System, North American Datum 1983 (NAD83). Data should be placed in separate layers and should be labeled/named for easy identification.
- Cut and fill balance certification for floodplain and sinkhole alterations.
- Water quality buffers shall be surveyed and included with the as-built submittal.
- Any public (to become the responsibility of Metro to maintain) stormwater infrastructure shall be video-inspected to verify proper installation with the video recording and any associated inspection report submitted as part of as-built record.
- Additional testing may be required as/warranted by video inspection.



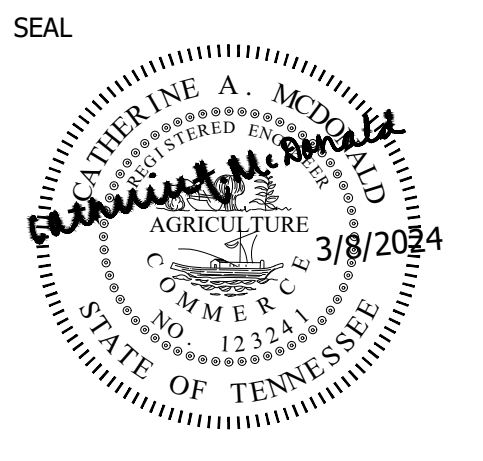
FFE = FINISHED FLOOR ELEVATION
GFE = GARAGE FLOOR ELEVATION AT ACCESS DRIVE
** REFER TO ARCHITECTURAL PLANS FOR INTERNAL STAIRS, AS APPLICABLE



NOTES:
1. THIS DETAIL IS FOR "TW" AND "BW" DELINEATION ONLY. SEE STRUCTURAL PLANS FOR RETAINING WALL DETAILS.
2. INSTALL RAILING ON RETAINING WALL AS REQUIRED BY LOCAL AND FEDERAL GUIDELINES



CSDG
Planning | Engineering
Landscape Architecture
2305 Kline Ave, Ste 300
Nashville, TN 37211
615.248.9999
csdgn.com



TENNYSON GERMANTOWN
FINAL SP
400 Hume Street
Nashville, Davidson County, Tennessee
Parcel 08205017900
Case No. 2017SP-008-003

ISSUE SET:
FINAL SP

ISSUE DATE: 6/7/2023

REVISION HISTORY:

| Rev | Description | Date |
|-----|-----------------------|----------|
| | FINAL SP RESUBMITTAL | 07.10.23 |
| | MWS RESUBMITTAL | 10.09.23 |
| | MWS RESUBMITTAL | 12.14.23 |
| | NDOT MASTER PERMIT | 02.08.24 |
| 1 | FIRE MARSHAL COMMENTS | 02.12.24 |
| | NDOT COMMENTS | 03.06.24 |

DRAWN BY: LEB
CHECKED BY: SKD

GRADING & DRAINAGE PLAN

C3.00
PROJECT NO.: 22-053-01

Mar 08, 2024 - 2:13pm T:\CAD\2022\22-053-01\CAD\Civil\Final SP\22-053-01_C3.00_Grading & Drainage Plan.dwg

Mar 08, 2024 - 2:13pm T:\CADD\2022\22-053-01\CAD\Civil\Final SP22-053-01 - SWPPP Stage 1 Plan.dwg

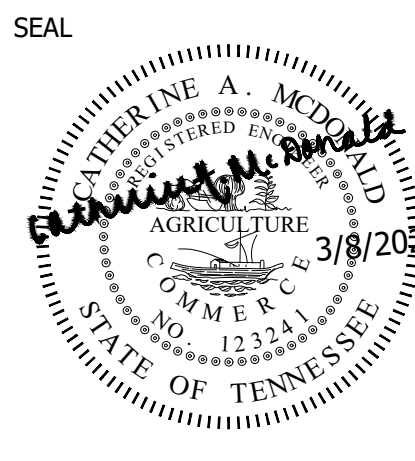
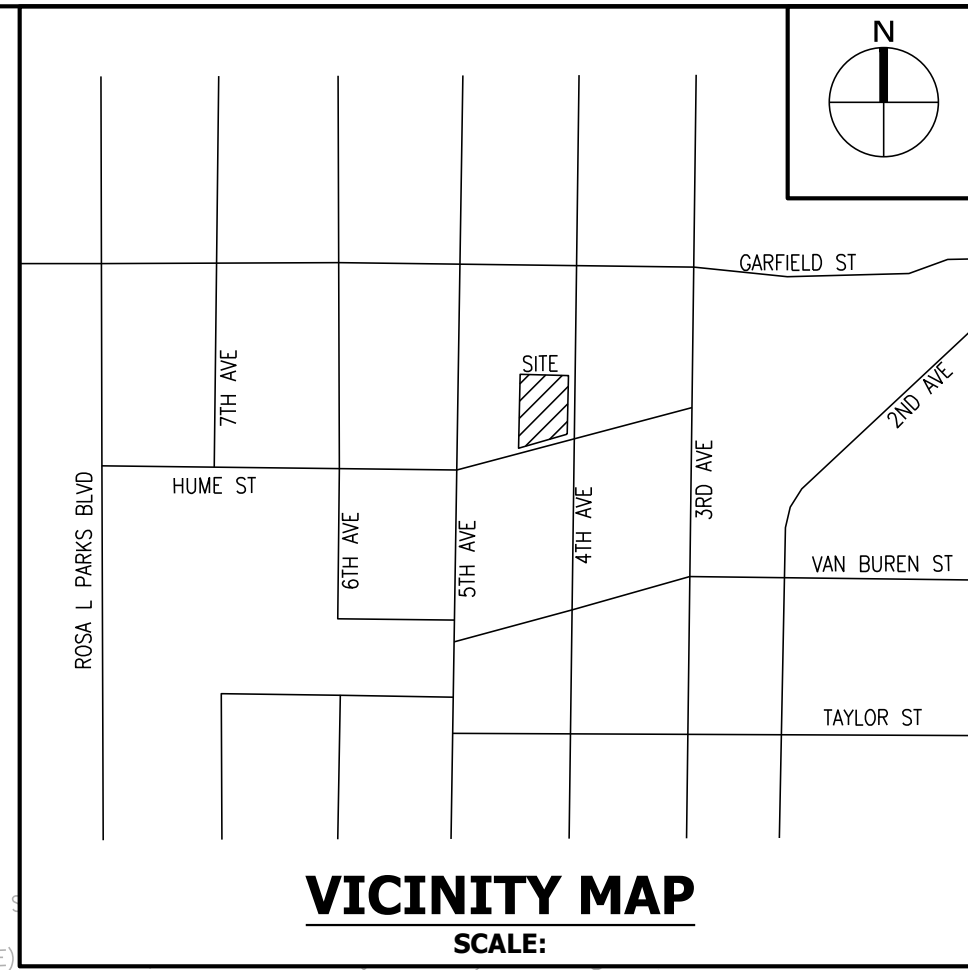
SWPPP LEGEND

- CW** CONCRETE WASHOUT
- CE** CONSTRUCTION ENTRANCE
- SF** SILT FENCE
(EROSION FEL TO BE USED WHERE SILT FENCE CAN NOT BE TRENCHED IN)

Metro As-Built Note:

In accordance with the Metro Stormwater Management Manual, Volume 1, Section 3.9, As-Built Certifications, MWS Stormwater Division must approve the following as-built prior to issuance of the Use and Occupancy Permit:

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- As-built drawings showing final topographic features of all these facilities. This shall include invert elevations of outlet control structures.
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- Additional testing may be required as/warranted by video inspection.



**Tennessee Construction General Permit
Notice of Coverage (NOC) Certification:**

Please fill out and sign/date one of the following two statements:

1. The project associated with these submitted plans is covered under Tennessee Construction General Permit TN _____. The Total Disturbed Area is: _____ acres.

Check all that apply. This site discharges into waters identified by TDEC as:
 Impaired for siltation Impaired for habitat alteration Exceptional

Signature _____ Date _____
 Circle one: Developer Project Engineer Other _____

Please attach a copy of the Notice of Coverage under the Construction General Permit.

NOTE: A project will not be scheduled for a Pre-Construction Meeting until the State Construction General Permit NOC letter is submitted.

2. I hereby certify that this project does not require coverage under a Tennessee Construction General Permit. The Total Disturbed Area is: **0.94** acres.

Check all that apply. This site discharges into waters identified by TDEC as:
 Impaired for siltation Impaired for habitat alteration Exceptional

Matthew A. McDonald 03/04/2024
 Signature _____ Date _____
 Circle one: Developer Project Engineer Other _____

Note: Projects of one (1) or more acres require State permit coverage, while projects of less than one (1) acre do not require State permit coverage. Also, projects of less than one (1) acre that are part of a total development project of one (1) or more acres require State permit coverage.

(If you are unsure whether your particular project requires coverage under a Tennessee General Storm Water permit, please call the TDEC Field Office @ (615) 687-7000).

DISTURBED AREA: 0.94± ACRES

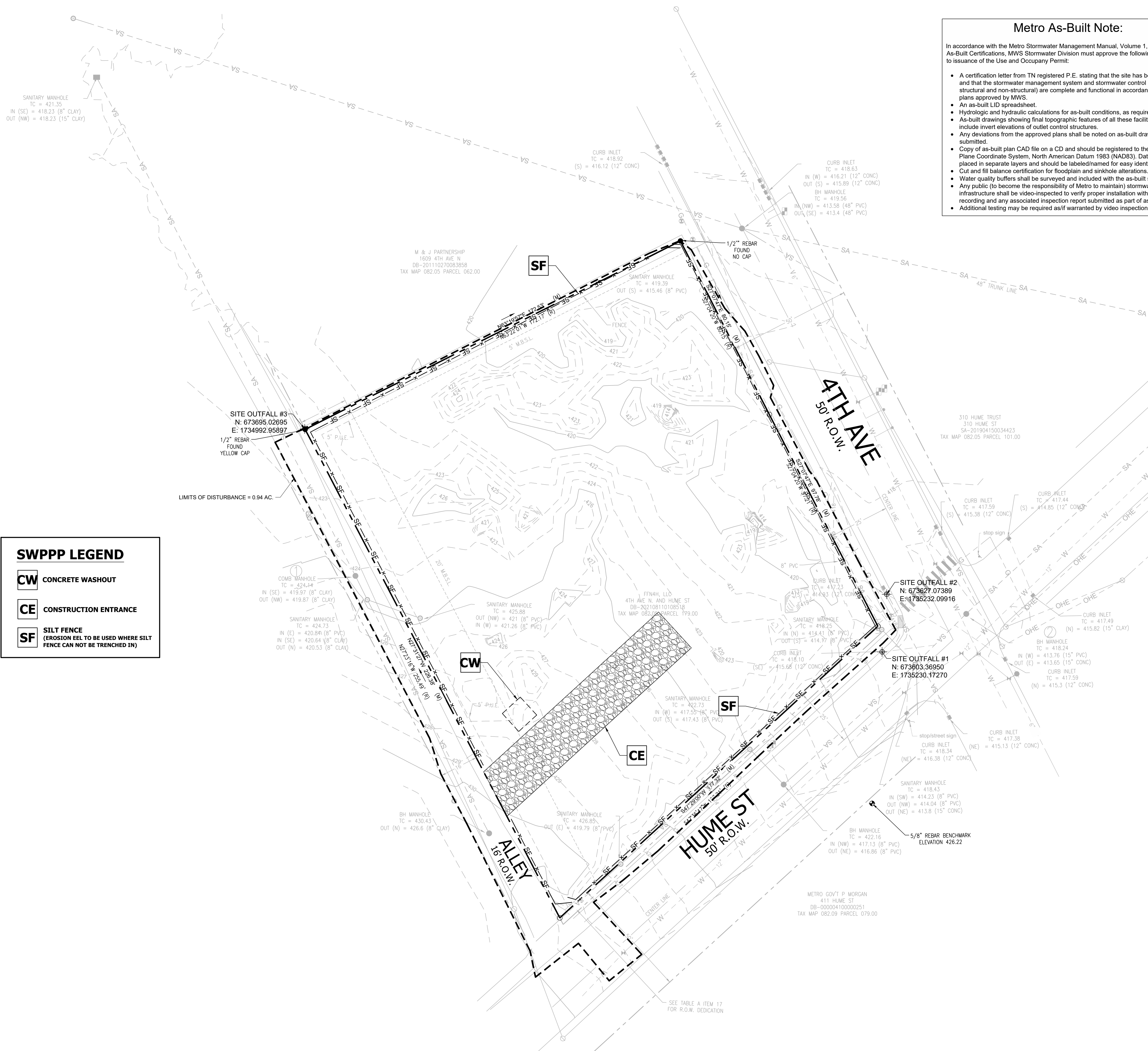
Stabilization Note:

Temporary or permanent soil stabilization at the construction site (or a phase of the project) must be completed no later than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Steep slopes (35% grade or greater) shall be temporarily stabilized not later than 7 days after construction activity on the slope has temporarily or permanently ceased.

Slopes 3:1 or steeper shall be stabilized with North American Green SC150 matting or approved equal.

Concrete Washdown Note:

Contractor to provide an area for concrete wash down and equipment fueling in accordance with metro CP-10 & CP-13, respectively. Contractor to coordinate exact location with N.P.D.E.S. department during pre-construction meeting. Grading Permittee to include BMPs designed to control site wastes such as discarded building materials, chemicals, litter, and sanitary wastes that may cause adverse impacts to water quality. The location of and / or notes referring to said BMPs shall be shown on the EPSC Plan.



TENNYSON GERMANTOWN
FINAL SP
400 Hume Street
Nashville, Davidson County, Tennessee
Parcel 08205017900
Case No. 2017SP-008-003

ISSUE SET:
FINAL SP

ISSUE DATE: 6/7/2023

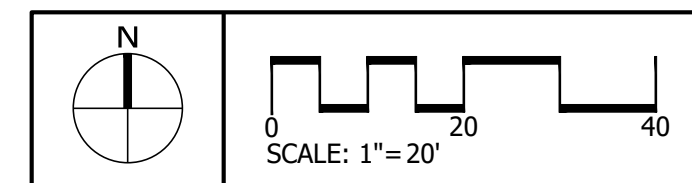
REVISION HISTORY:

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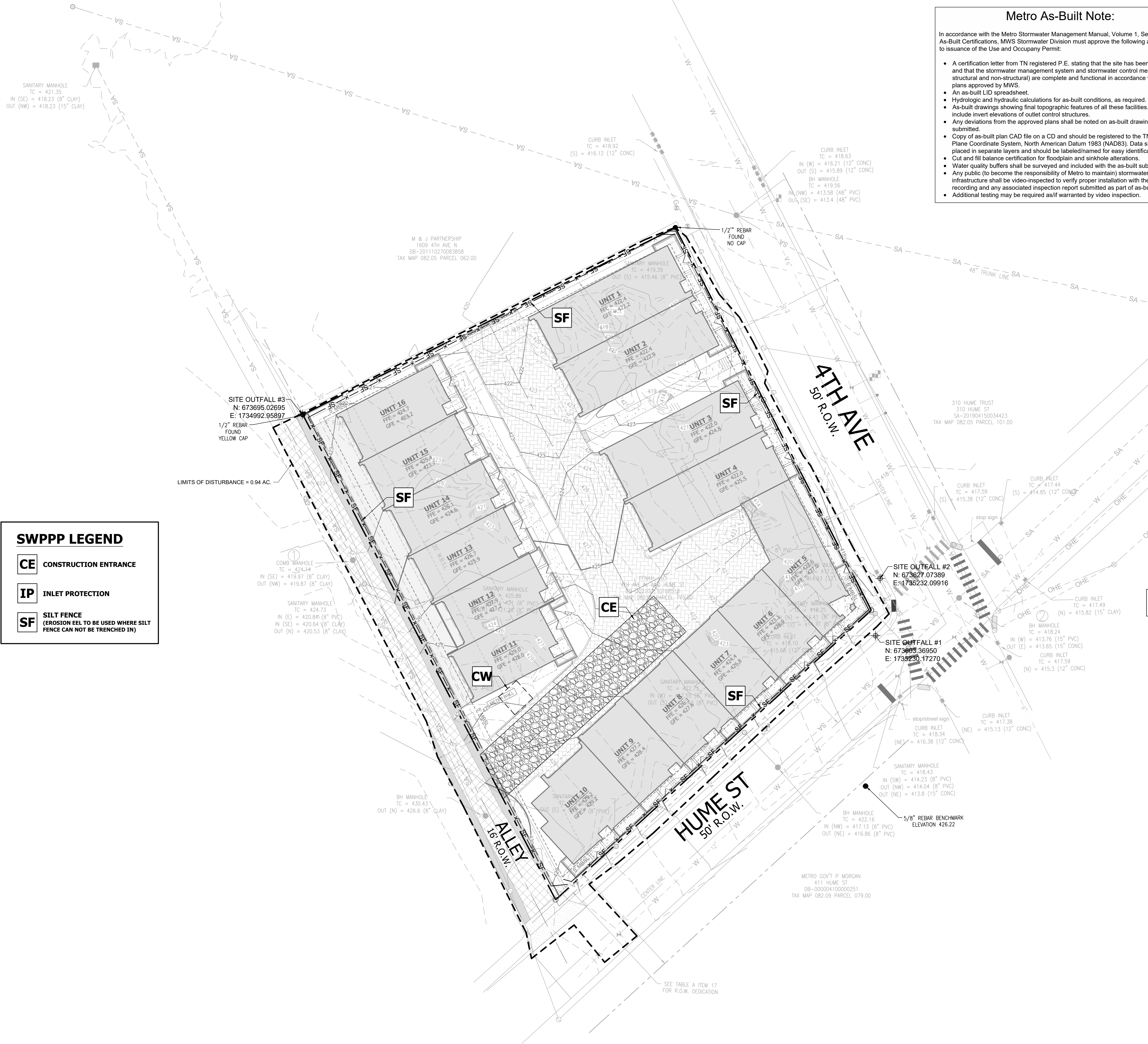
DRAWN BY: LEB
CHECKED BY: SKD

SWPPP STAGE 1
PLAN

C3.01
PROJECT NO.: 22-053-01



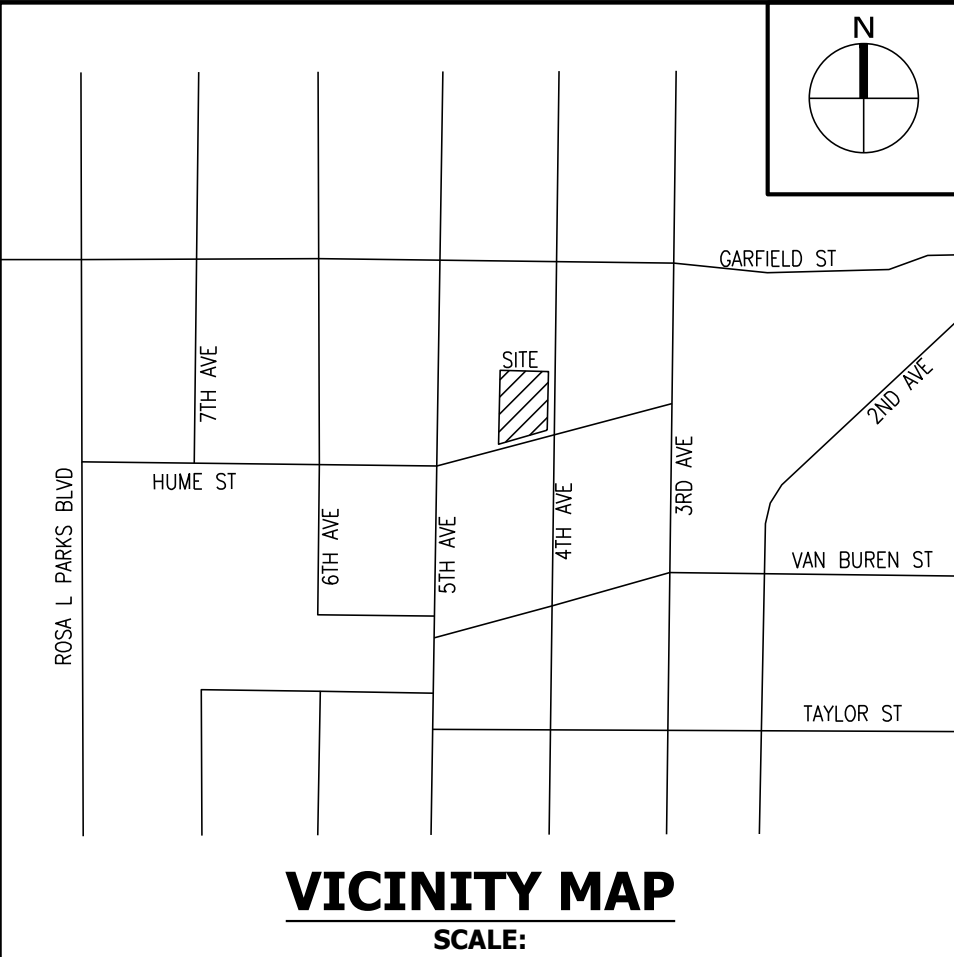
Mar 08, 2024 - 2:13pm T:\CADD\2022\22-053-01\CAD\Civil\Final SP22-053-01 - C3.02 - SWPPP Stage 2 Plan.dwg



Metro As-Built Note:

In accordance with the Metro Stormwater Management Manual, Volume 1, Section 3.9, As-Built Certifications, MWS Stormwater Division must approve the following as-built prior to issuance of the Use and Occupancy Permit:

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 Impaired for siltation Impaired for habitat alteration Exceptional
 Signature _____ Date _____
 Circle one: Developer Project Engineer Other _____
 Please attach a copy of the Notice of Coverage under the Construction General Permit.
NOTE: A project will not be scheduled for a Pre-Construction Meeting until the State Construction General Permit NOC letter is submitted.
- I hereby certify that this project does not require coverage under a Tennessee Construction General Permit. The Total Disturbed Area is: **0.94** acres.
 Check all that apply: This site discharges into waters identified by TDEC as:
 Impaired for siltation Impaired for habitat alteration Exceptional
Carla M. McDonald 03/04/2024
 Signature _____ Date _____
 Circle one: Developer Project Engineer Other _____
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 (If you are unsure whether your particular project requires coverage under a Tennessee General Storm Water permit, please call the TDEC Field Office @ (615) 687-7000).

DISTURBED AREA: 0.94± ACRES

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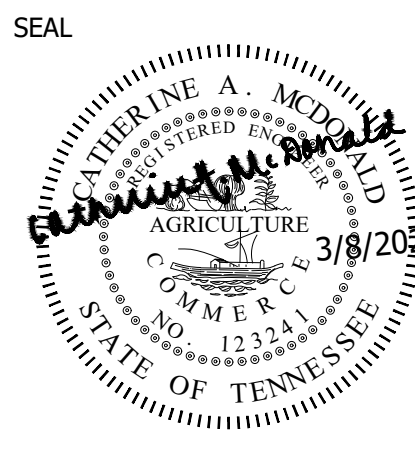
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Concrete Washdown Note:

Contractor to provide an area for concrete wash down and equipment fueling in accordance with metro CP-10 & CP-13, respectively. Contractor to coordinate exact location with N.P.D.E.S. department during pre-construction meeting. Grading Permittee to include BMP's designed to control site wastes such as discarded building materials, chemicals, litter, and sanitary wastes that may cause adverse impacts to water quality. The location of and / or notes referring to said BMP's shall be shown on the EPSC Plan.

SWPPP LEGEND

- CE** CONSTRUCTION ENTRANCE
- IP** INLET PROTECTION
- SF** SILT FENCE (EROSION EEL TO BE USED WHERE SILT FENCE CAN NOT BE TRENCHED IN)



TENNYSON GERMANTOWN
FINAL SP
400 Hume Street
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Parcel 08205017900
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ISSUE SET:
FINAL SP

ISSUE DATE: 6/7/2023

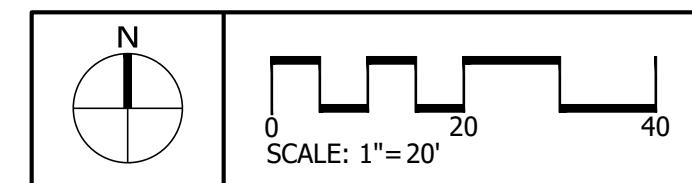
REVISION HISTORY:

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| 4 | NDOT MASTER PERMIT | 02.08.24 |
| 5 | FIRE MARSHAL COMMENTS | 02.12.24 |
| 6 | NDOT COMMENTS | 03.06.24 |

DRAWN BY: LEB
CHECKED BY: SKD

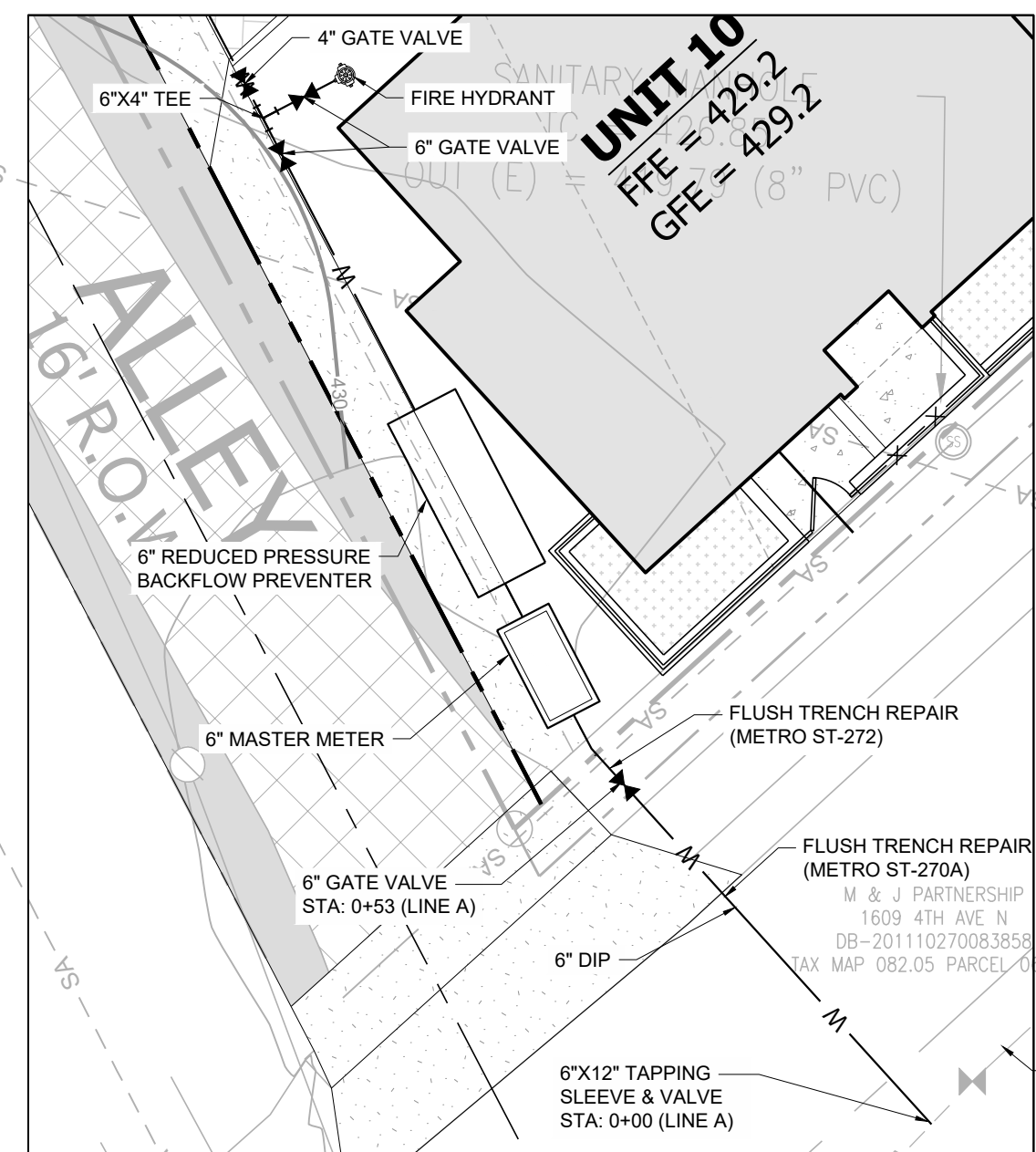
SWPPP STAGE 2 PLAN

C3.02
PROJECT NO.: 22-053-01



Site Utility Notes:

- Prior to the commencement of any construction or ordering any materials, the contractor shall field verify the exact horizontal and vertical location of all existing utilities at the point of all proposed connections. Report any discrepancies to the design engineer immediately.
- The sanitary sewer line shall be PVC-SDR 35. The domestic water line shall be Type K copper. The public water line and the fire service line shall be class 52 ductile iron pipe.
- Water meters shall be no deeper than 24" from the top of meter to proposed finished grade unless otherwise required by the local water department.
- Prior to submitting his bid, the contractor will be solely responsible for contacting owners of all affected utilities in order to determine the extent to which utility relocations and/or adjustments will have upon the schedule of work for the project. While some work may be required around utility facilities that will remain in place, other utility facilities may need to be adjusted concurrently with the contractor's operations.
- The contractor shall comply with all pertinent provisions of the manual of Accident Prevention and Construction issued by AGC of America.
- Provide a minimum 36" of cover over all water lines unless required otherwise by the local water department.
- All water lines, sewer lines, and appurtenances shall be of materials and construction that conform to the local water department/district's requirements and specifications.
- Coordinate the exact location of all utilities entering the building with the plumbing plans.
- Safeguard existing utilities from damage during construction of this project. In the event that special equipment is required to work over and around the utilities, the contractor will be required to furnish such equipment at no additional cost to the owner.
- Reduced Pressure Backflow Preventer (RPBP) or dual check valves will be required on all test and fill lines (jumper) needed for water main construction and must be approved by the local water department/district.
- All connections to existing manholes shall be by the coring and resilient seal method.
- Before connections are made into existing utilities, the new lines are to be flushed and tested by the contractor in accordance with the local water department/district specifications.
- The contractor shall adjust the alignment of the water lines (horizontally and/or vertically) to allow the required bracing at bends and tees.
- The contractor shall provide all horizontal and vertical bends to attain the alignment indicated on the plans. Provide vertical bends where necessary to allow water lines to pass under or over other utility lines. (All bends and braces needed may not be actually shown). Provide bracing and/or rodding at all bends and tees as required by local utility department/district.
- Contractor shall mark the location of all new PVC lines with #8 wire.
- The location of existing utilities shown on these plans are approximate only. The contractor shall notify each individual utility owner of his plan of operation in the area of the utilities. Prior to commencing work, the contractor shall contact the utility owners and request them to properly locate their respective utility on the ground in the area of private utility lines. The contractor shall have an underground locator mark the location of the existing lines. This notification shall be given at least three (3) business days prior to commencement of operations around the utility.
- Fire hydrant assemblies include the appropriate sized tee (with kicker), 6" line to hydrant, 6" gate valve (with valve box), and fire hydrant (with kicker). Hydrants shall be installed at locations within 7 feet of the curb, (minimum of 2 feet behind curb).
- Where drainage or utility lines occur in proposed fill areas, the fill material shall be placed and compacted in accordance with the specifications and the Geotechnical Engineer recommendations prior to installation of drainage or utility lines. Fill is to be inspected by a professional Geotechnical Engineer testing firm employed by the owner. Results of the test shall be furnished to the owner's representative. Contractor shall pay for any retesting.
- The contractor shall field verify the exact horizontal and vertical location of existing manholes, sanitary sewer lines, and water lines at the point of connection prior to the commencement of construction or ordering materials, report any discrepancies to the engineer immediately.
- Repair existing pavement, curbs, walks, landscaping, etc. that are damaged by construction activities to a like new condition at no additional cost to the owner.
- Sanitary sewer services shall be 6" diameter PVC (SDR 35) at a minimum slope of 1.0% unless shown otherwise on the drawings. Lines shall start 5' beyond the buildings. Coordinate connection points with the building plumbing drawings. Provide a minimum 30" of cover over all sewer services in grass areas and 48" of cover in paved areas.
- Some utilities can be located by call the "Tennessee One Call" System, Inc. The contractor shall call "Tennessee One Call" (1-800-351-1111) 72 hours prior to proceeding with any excavation.
- The concrete caps and encasements on water and sewer lines shall be a minimum of 6" thick. Use 3000 PSI concrete.
- The contractor shall be responsible for coordinating the sequencing of construction for all utility lines so that water lines do not conflict with sanitary sewers, sanitary sewer services, storm sewers, or any other utility or structure, existing or proposed.
- All trenches cut in existing roads or drives shall utilize a clean saw cut and shall be backfilled (100%) to final sub grade with #57 stone. Repair pavement in accordance with the local governing agency requirements.
- Existing manholes located in fillcut areas shall be adjusted to ensure that the top of casting is flush with the finished grade.
- The contractor shall maintain 10 feet horizontal separation between sanitary sewer lines and water lines. Where these criteria cannot be met, the contractor shall maintain 18" vertical separation between water and sewer lines.
- The fire line shall be installed by a sprinkler contractor licensed in the State of Tennessee. The fire line shall be flushed and tested in accordance with NFPA requirements.
- The proposed gas line construction and installation shall be coordinated with the local gas by the contractor.
- The proposed electric line construction and installation shall be coordinated with the local electric company by the contractor.
- The proposed telephone line construction and installation shall be coordinated with the local telephone company by the contractor.
- Siamese stand pipe to be galvanized steel.



**WATER INSET
1"=10'**

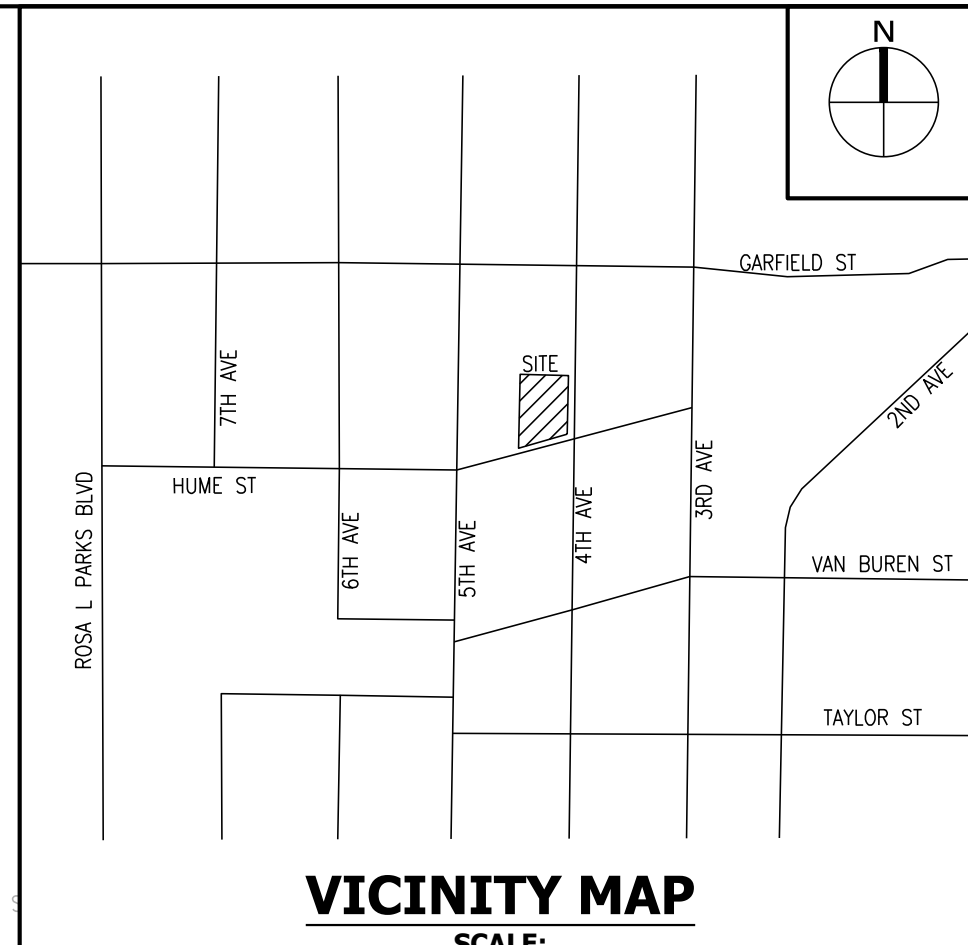


| SANITARY STRUCTURE TABLE | | |
|--------------------------|--------------|-------------|
| STRUCTURE | TYPE | CASTING EL. |
| A0 (EX) | MANHOLE (EX) | 422.00 |
| A1 (EX) | MANHOLE (EX) | 424.46 |
| A2 | DOGHOUSE | 422.82 |
| A3 | CLEANOUT | 423.17 |
| A4 | CLEANOUT | 423.98 |
| B0 (EX) | MANHOLE (EX) | 425.88 |
| B1 | CLEANOUT | 427.74 |
| C1 | CLEANOUT | 421.55 |
| D1 | CLEANOUT | 419.63 |

| SANITARY PIPE TABLE | | | | | | |
|---------------------|--------|---------|--------|---------|-------|-----------------|
| FROM | INV | TO | INV | LENGTH | SLOPE | SIZE |
| D1 | 415.63 | EX. | 415.50 | 6.39' | 1.10% | 6" PVC (SDR-35) |
| C1 | 416.88 | EX. | 414.27 | 59.14' | 4.41% | 6" PVC (SDR-35) |
| B1 | 423.07 | B0 (EX) | 421.21 | 39.86' | 4.67% | 6" PVC (SDR-35) |
| A4 | 420.27 | A3 | 419.94 | 32.69' | 1.00% | 6" CLASS 52 DIP |
| A3 | 419.94 | A2 | 419.78 | 15.52' | 1.00% | 8" CLASS 52 DIP |
| A2 | 419.58 | A0 (EX) | 418.23 | 189.59' | 0.71% | 8" EX. 8" CLAY |
| A1 (EX) | 419.87 | A2 | 419.58 | 41.24' | 0.71% | 8" EX. 8" CLAY |

MWS Private Utility Plan Notes:

- All water and/or sewer services, along with appurtenances, shall be installed in accordance with specifications and standard details of the Metro Water Services.
- All connection to existing manholes shall be by coring and resilient connector method.
- Vertical Double Check Valve Assemblies, that are located in interior rooms, can only be used for fire services.
- All water meters shall be a minimum of 24" not to exceed a maximum of 28" below finished grade.
- Irrigation line shall be copper from the meter to the backflow preventer.
- The minimum fees outlined in the capacity letter must be paid before commercial construction plans can be approved.
- All sewer services shall be 6 inches in diameter, from the connection at the main until the first clean out assembly.
- Backflow device to remain accessible at all times.
- Plan size shall be 24"x36", and shall show contours around meter boxes.
- Any unused existing water meters must be cut and capped at the public main.
- All lead or galvanized water service lines encountered with this project shall be reinstated with copper of like size from the water main to the meter box.



Metro Water & Sewer Notes:

- All water and sewer construction shall be in accordance with specifications and standard details of the Metro Water Services.
- The contractor is responsible for reimbursing the Metro Water Services the cost of inspection.
- The contractor is to provide and maintain the construction identification sign for private development approved.
- After completion of the sanitary sewer, the developer is responsible for the televising of the lines prior to final acceptance. The televising must be coordinated with the Metro Water Services Inspection Section. All costs will be borne by the developer.
- All connections to existing manholes shall be by coring and resilient connector method.
- Reduced Pressure Backflow Prevention Devices (RPBP) or dual check valve will be required on all test and fill lines (jumper) needed for water main construction and must be approved by the Metro Water Services.
- All water meters shall be a minimum of 24" not to exceed a maximum of 28" below finished grade.
- Upon completion of construction of water and/or sewer, the engineer shall provide the department with a complete set of as-built plans on moist erasable mylar in reverse and in digital (.dwg) format. Sewer plans shall be sealed by a licensed professional engineer or a registered land surveyor and shall include actual field angles between lines, all actual service lines and tee locations, the distance of the end of the service line to property corners and lines and/or station and offset from sewer centerline to end of service line, the depth to the top of the end of the service line, and shall reflect all alignment and grade changes. Water line plans shall be sealed by a licensed professional engineer or a registered land surveyor and shall include offset distance from the roadway centerline, or property line right of way, line depth, locations of hydrants, valves, reducers, tees and pressure reducing devices where applicable. All drawings must be completed and submitted prior to acceptance of the sewers or water mains into the public system and any connections being made.
- Pressure regulating devices will be required on the customer side of the meter when pressures exceed 100 psi.
- Pressure regulating devices will be required on the street side of the meter when pressures exceed 150 psi.
- All water mains must be located within the paved area including all blow-off assemblies.

Metro Water Services

Business Unit: 6556610 Work Order # 4503022

Two Hydrant Test Results Summary
System Services Division (SSD)

Date of Test: 5/4/23 Request Date: 4/17/2023
Property Location: 400 HUME STREET
Cross Street: 5TH AVE N

Hydrant # 1 - Flowing Hydrant

| | |
|-----------------------|---------|
| MWS ID | 00145 |
| Static Pressure | 91 psi |
| Flow Pressure (Pitot) | 80 psi |
| Time ON | 4:00 PM |
| Time OFF | 4:30 PM |

Hydrant Outlet Coefficient: 0.9
Hydrant Outlet Diameter: 2.5 inches
This corresponds to a flowrate of 1,501 gpm Using the Orifice Eqn. (4.7.3 of NFPA 291)

Hydrant # 2 - Monitoring Hydrant

| | |
|-------------------|---------|
| MWS ID | 00086 |
| Static Pressure | 99 psi |
| Residual Pressure | 93 psi |
| Time ON | 4:00 PM |
| Time OFF | 4:30 PM |

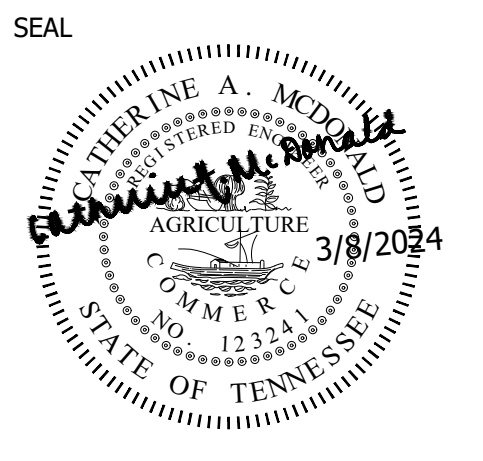
Calculation of available fire flow at 20 psi as required by Table H.5.1 of the NFPA 1 Uniform Fire Code 2005 Edition (Using the pressure residual equation - 4.10.1.2 of NFPA 1)

With a 20 psi residual pressure at Hydrant #2, the available flow in the main at Hydrant #2 is: **SEE PAGE 3 gpm**

MWS is providing these instantaneous readings for informational purposes only and cannot ensure that it represents actual hydraulic flow conditions over any period of time.

Metro As-Built Note:

- In accordance with the Metro Stormwater Management Manual, Volume 1, Section 3.9, As-Built Certifications, MWS Stormwater Division must approve the following as-built prior to issuance of the Use and Occupancy Permit:
- A certification letter from TN registered P.E. stating that the site has been inspected and that the stormwater management system and stormwater control measures (both structural and non-structural) are complete and functional in accordance with the plans approved by MWS.
 - An as-built LID spreadsheet.
 - Hydrologic and hydraulic calculations for as-built conditions, as required.
 - As-built drawings showing final topographic features of all these facilities. This shall include invert elevations of outlet control structures.
 - Any deviations from the approved plans shall be noted on as-built drawings submitted.
 - Copy of as-built plan CAD file on a CD and should be registered to the TN State Plane Coordinate System, North American Datum 1983 (NAD83). Data should be placed in separate layers and should be labeled/named for easy identification.
 - Cut and fill balance certification for floodplain and sinkhole alterations.
 - Water quality buffers shall be surveyed and included with the as-built submittal.
 - Any public (to become the responsibility of Metro to maintain) stormwater infrastructure shall be video-inspected to verify proper installation with the video recording and any associated inspection report submitted as part of as-built record.
 - Additional testing may be required as/it warranted by video inspection.



TENNYSON GERMANTOWN
FINAL SP
400 Hume Street
Nashville, Davidson County, Tennessee
Parcel 08205017900
Case No. 2017SP-008-003

ISSUE SET:
FINAL SP

ISSUE DATE: 6/7/2023

REVISION HISTORY:

| Rev. | Description | Date |
|------|-----------------------|----------|
| 1 | FINAL SP RESUBMITTAL | 07.10.23 |
| 2 | MWS RESUBMITTAL | 10.09.23 |
| 3 | MWS RESUBMITTAL | 12.14.23 |
| 4 | NDOT MASTER PERMIT | 02.08.24 |
| 5 | FIRE MARSHAL COMMENTS | 02.12.24 |
| 6 | NDOT COMMENTS | 03.06.24 |

DRAWN BY: LEB
CHECKED BY: SKD

UTILITY PLAN

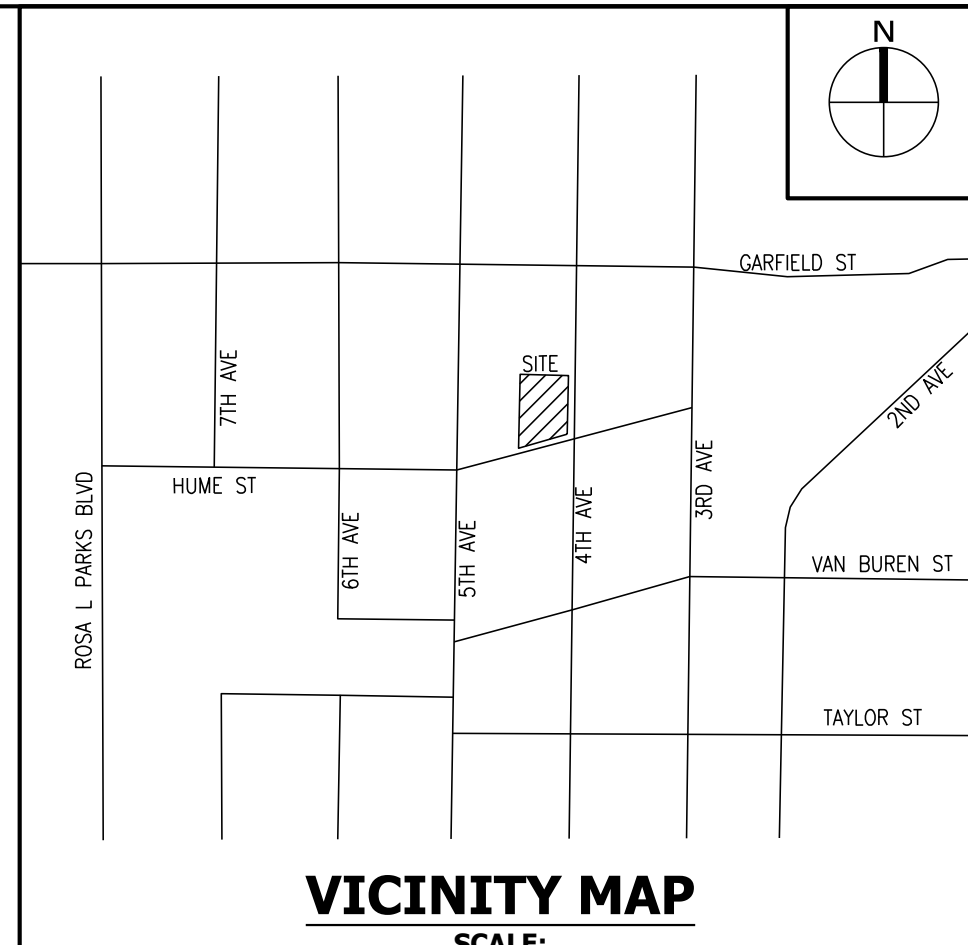
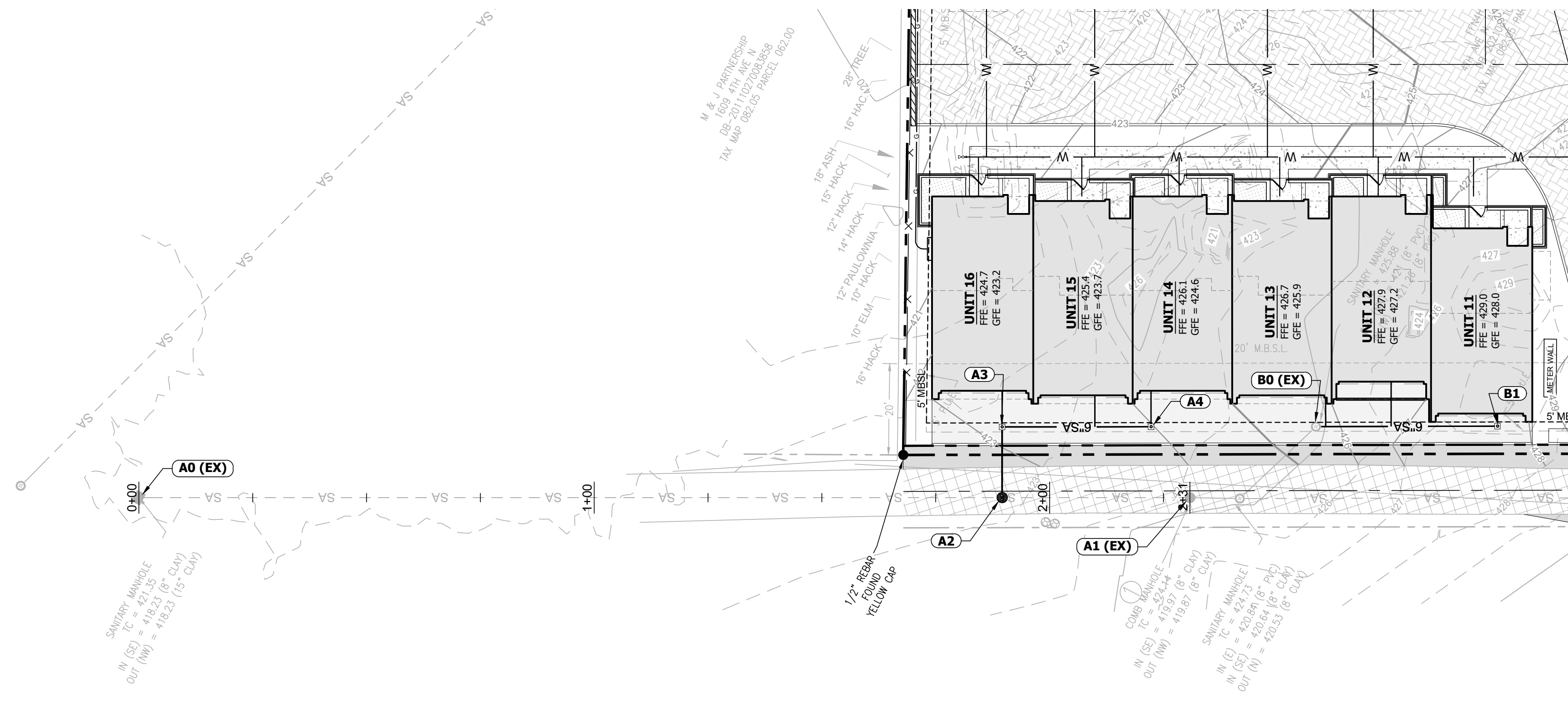
C4.00

PROJECT NO.: 22-053-01

Site Utility Notes:

- Prior to the commencement of any construction or ordering any materials, the contractor shall field verify the exact horizontal and vertical location of all existing utilities at the point of all proposed connections. Report any discrepancies to the design engineer immediately.
- The sanitary sewer line shall be PVC-SDR 35. The domestic water line shall be Type K copper. The public water line and the fire service line shall be class 52 ductile iron pipe.
- Water meters shall be no deeper than 24" from the top of meter to proposed finished grade unless otherwise required by the local water department.
- Prior to submitting his bid, the contractor will be solely responsible for contacting owners of all affected utilities in order to determine the extent to which utility relocations and/or adjustments will have upon the schedule of work for the project. While some work may be required around utility facilities that will remain in place, other utility facilities may need to be adjusted concurrently with the contractor's operations.
- The contractor shall comply with all pertinent provisions of the manual of Accident Prevention and Construction issued by AGC of America.
- Provide a minimum 36" of cover over all water lines unless required otherwise by the local water department.
- All water lines, sewer lines, and appurtenances shall be of materials and construction that conform to the local water department/district's requirements and specifications.
- Coordinate the exact location of all utilities entering the building with the plumbing plans.
- Safeguard existing utilities from damage during construction of this project. In the event that special equipment is required to work over and around the utilities, the contractor will be required to furnish such equipment at no additional cost to the owner.
- Reduced Pressure Backflow Preventer (RPBP) or dual check valves will be required on all test and fill lines (jumper) needed for water main construction and must be approved by the local water department/district.
- All connections to existing manholes shall be by the coring and resilient seal method.
- Before connections are made into existing utilities, the new lines are to be flushed and tested by the contractor in accordance with the local water department/district specifications.
- The contractor shall adjust the alignment of the water lines (horizontally and/or vertically) to allow the required bracing at bends and tees.
- The contractor shall provide all horizontal and vertical bends to attain the alignment indicated on the plans. Provide vertical bends where necessary to allow water lines to pass under or over other utility lines. (All bends and braces needed may not be actually shown). Provide bracing and/or rodding at all bends and tees as required by local utility department/district.
- Contractor shall mark the location of all new PVC lines with #8 wire.
- The location of existing utilities shown on these plans are approximate only. The contractor shall notify each individual utility owner of his plan of operation in the area of the utilities. Prior to commencing work, the contractor shall contact the utility owners and request them to properly locate their respective utility on the ground in the area of private utility lines. The contractor shall have an underground locator mark the location of the existing lines. This notification shall be given at least three (3) business days prior to commencement of operations around the utility.

- Fire hydrant assemblies include the appropriate sized tee (with kicker), 6" line to hydrant, 8" gate valve (with valve box), and fire hydrant (with kicker). Hydrants shall be installed at locations within 7 feet of the curb, (minimum of 2 feet behind curb).
- Where drainage or utility lines occur in proposed fill areas, the fill material shall be placed and compacted in accordance with the specifications and the Geotechnical Engineer recommendations prior to installation of drainage or utility lines. Fill is to be inspected by a professional Geotechnical Engineer testing firm employed by the owner. Results of the test shall be furnished to the owner's representative. Contractor shall pay for any retesting.
- The contractor shall field verify the exact horizontal and vertical location of existing manholes, sanitary sewer lines, and water lines at the point of connection prior to the commencement of construction or ordering materials, report any discrepancies to the engineer immediately.
- Repair existing pavement, curbs, walks, landscaping, etc. that are damaged by construction activities to a like new condition at no additional cost to the owner.
- Sanitary sewer services shall be 6" diameter PVC (SDR 35) at a minimum slope of 1.0% unless shown otherwise on the drawings. Lines shall start 5' beyond the buildings. Coordinate connection points with the building plumbing drawings. Provide a minimum 30" of cover over all sewer services in grass areas and 48" of cover in paved areas.
- Some utilities can be located by call the "Tennessee One Call" System, Inc. The contractor shall call "Tennessee One Call" (1-800-351-1111) 72 hours prior to proceeding with any excavation.
- The concrete caps and encasements on water and sewer lines shall be a minimum of 6" thick. Use 3000 PSI concrete.
- The contractor shall be responsible for coordinating the sequencing of construction for all utility lines so that water lines do not conflict with sanitary sewers, sanitary sewer services, storm sewers, or any other utility or structure, existing or proposed.
- All trenches cut in existing roads or drives shall utilize a clean saw cut and shall be backfilled (100%) to final sub grade with #57 stone. Repair pavement in accordance with the local governing agency requirements.
- Existing manholes located in fill/cut areas shall be adjusted to ensure that the top of casting is flush with the finished grade.
- The contractor shall maintain 10 feet horizontal separation between sanitary sewer lines and water lines. Where these criteria cannot be met, the contractor shall maintain 18" vertical separation between water and sewer lines.
- The fire line shall be installed by a sprinkler contractor licensed in the State of Tennessee. The fire line shall be flushed and tested in accordance with NFPA requirements.
- The proposed gas line construction and installation shall be coordinated with the local gas by the contractor.
- The proposed electric line construction and installation shall be coordinated with the local electric company by the contractor.
- The proposed telephone line construction and installation shall be coordinated with the local telephone company by the contractor.
- Siamese stand pipe to be galvanized steel.



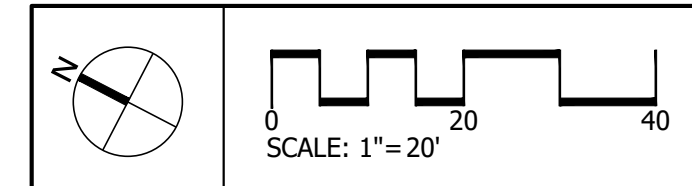
SANITARY STRUCTURE TABLE

| STRUCTURE | TYPE | CASTING EL. |
|-----------|--------------|-------------|
| A0 (EX) | MANHOLE (EX) | 422.00 |
| A1 (EX) | MANHOLE (EX) | 424.46 |
| A2 | DOGHOUSE | 422.82 |
| A3 | CLEANOUT | 423.17 |
| A4 | CLEANOUT | 423.98 |
| B0 (EX) | MANHOLE (EX) | 425.88 |
| B1 | CLEANOUT | 427.74 |
| C1 | CLEANOUT | 421.55 |
| D1 | CLEANOUT | 419.63 |

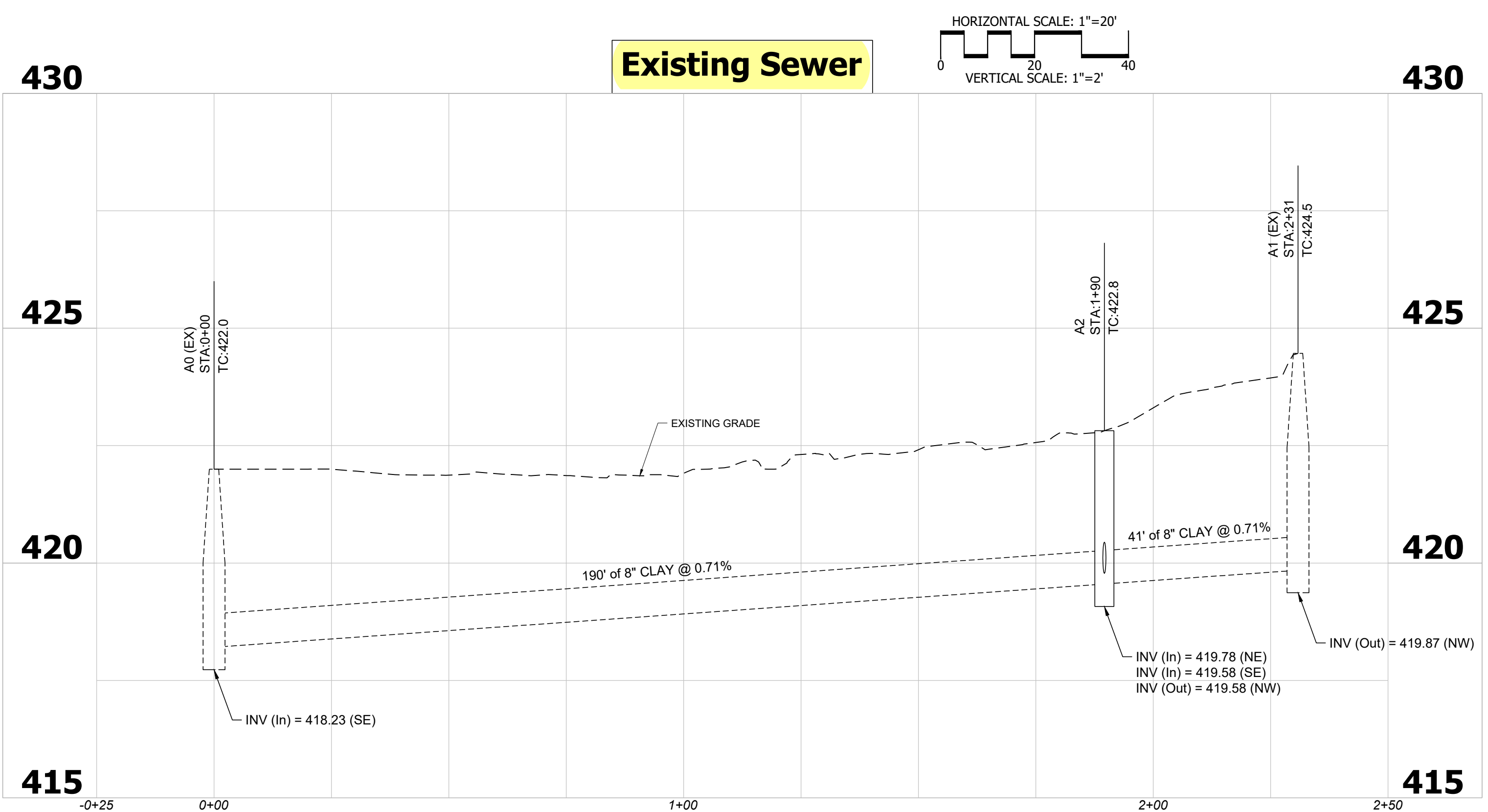
** ALL CLEANOUTS IN PAVEMENT SHALL BE TRAFFIC RATED

SANITARY PIPE TABLE

| FROM | INV | TO | INV | LENGTH | SLOPE | SIZE | TYPE |
|---------|--------|---------|--------|---------|-------|------|-------------|
| D1 | 415.63 | EX. | 415.56 | 6.39' | 1.10% | 6" | PVC (SDR-3) |
| C1 | 416.88 | EX. | 414.27 | 59.14' | 4.41% | 6" | PVC (SDR-3) |
| B1 | 423.07 | B0 (EX) | 421.21 | 39.86' | 4.67% | 6" | PVC (SDR-3) |
| A4 | 420.27 | A3 | 419.94 | 32.69' | 1.00% | 6" | CLASS 52 DI |
| A3 | 419.94 | A2 | 419.78 | 15.52' | 1.00% | 8" | CLASS 52 DI |
| A2 | 419.58 | A0 (EX) | 418.23 | 189.59' | 0.71% | 8" | EX. 8" CLAY |
| A1 (EX) | 419.87 | A2 | 419.58 | 41.24' | 0.71% | 8" | EX. 8" CLAY |

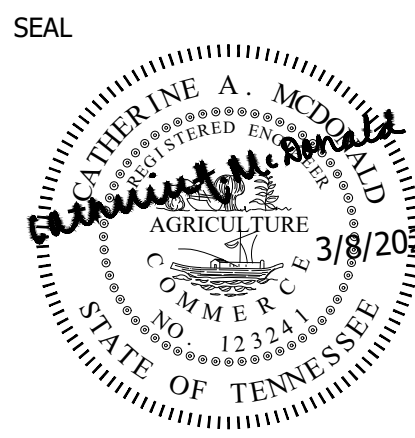


Existing Sewer



Metro Water & Sewer Notes:

- All water and sewer construction shall be in accordance with specifications and standard details of the Metro Water Services.
- The contractor is responsible for reimbursing the Metro Water Services the cost of inspection.
- The contractor is to provide and maintain the construction identification sign for private development approved.
- After completion of the sanitary sewer, the developer is responsible for the televising of the lines prior to final acceptance. The videotaping must be coordinated with the Metro Water Services Inspection Section. All costs will be borne by the developer.
- All connections to existing manholes shall be by coring and resilient connector method.
- Reduced Pressure Backflow Prevention Devices (RPBP) or dual check valve will be required on all test and fill lines (jumper) needed for water main construction and must be approved by the Metro Water Services.
- All water meters shall be a minimum of 24" not to exceed a maximum of 28" below finished grade.
- Upon completion of construction of water and/or sewer, the engineer shall provide the department with a complete set of as-built plans on moist erasable mylars in reverse and in digital (*.dwg) format. Sewer plans shall be sealed by a licensed professional engineer or a registered land surveyor and shall include actual field angles between lines, all actual service lines and tee locations, the distance of the end of the service line to property corners and lines and/or station and offset from sewer centerline to end of service line, the depth to the top of the end of the service line, and shall reflect all alignment and grade changes. Water line plans shall be sealed by a licensed professional engineer or a registered land surveyor and shall include offset distance from the roadway centerline, or property line right of way, line depth, locations of hydrants, valves, reducers, tees and pressure reducing devices where applicable. All drawings must be completed and submitted prior to acceptance of the sewers or water mains into the public system and any connections being made.
- Pressure regulating devices will be required on the customer side of the meter when pressures exceed 100 psi.
- Pressure regulating devices will be required on the street side of the meter when pressures exceed 150 psi.
- All water mains must be located within the paved area including all blow-off assemblies.



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FINAL SP
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Parcel 08205017900
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FINAL SP

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REVISION HISTORY:

| Rev. | Description | Date |
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| | FINAL SP SUBMITTAL | 07.10.23 |
| | MWS RESUBMITTAL | 10.09.23 |
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| | NDOT MASTER PERMIT | 02.08.24 |
| 1 | FIRE MARSHAL COMMENTS | 02.12.24 |
| | NDOT COMMENTS | 03.06.24 |

DRAWN BY: LEB
CHECKED BY: SKD

SANITARY PLAN AND PROFILE

C4.01
PROJECT NO.: 22-053-01

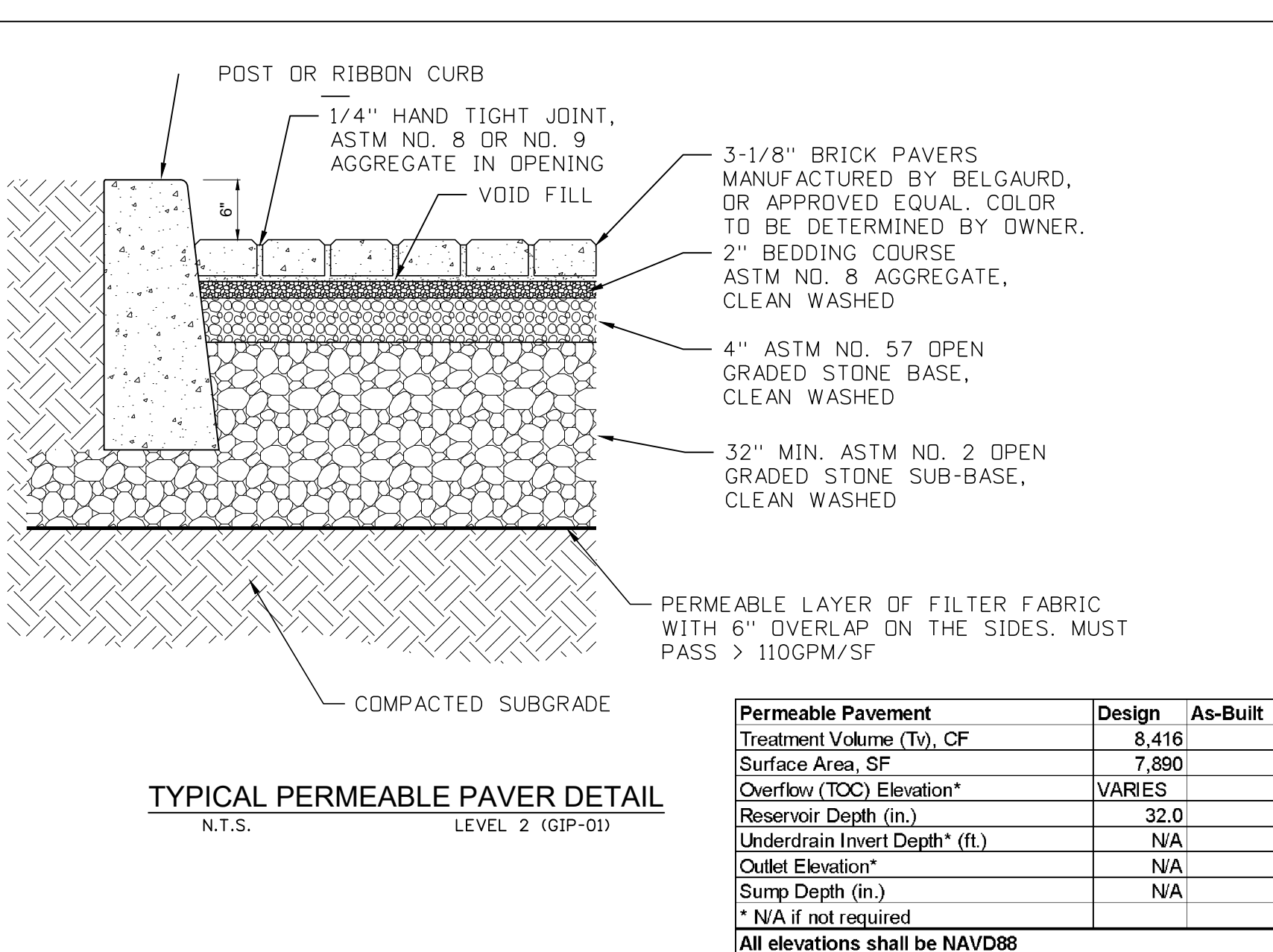
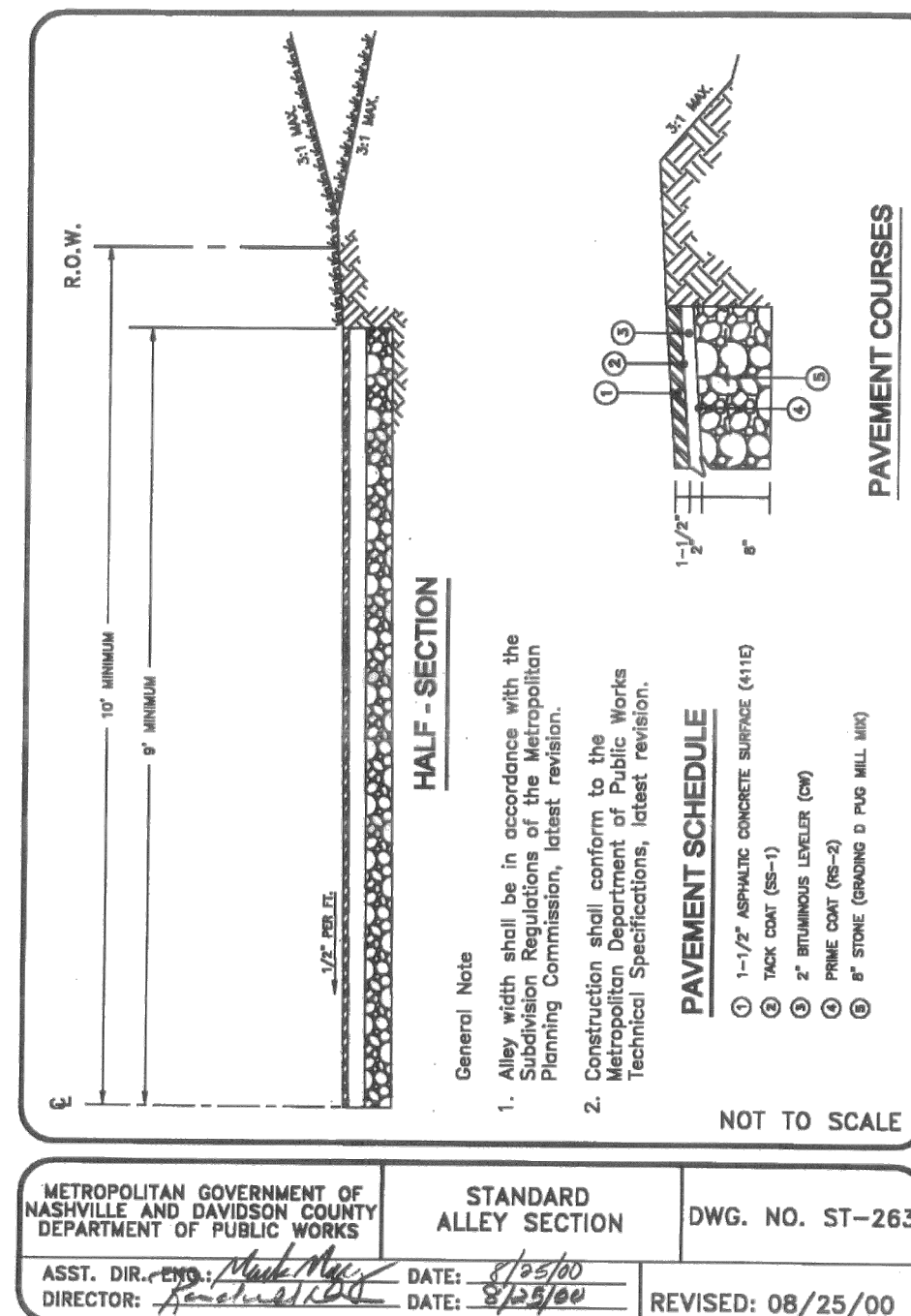
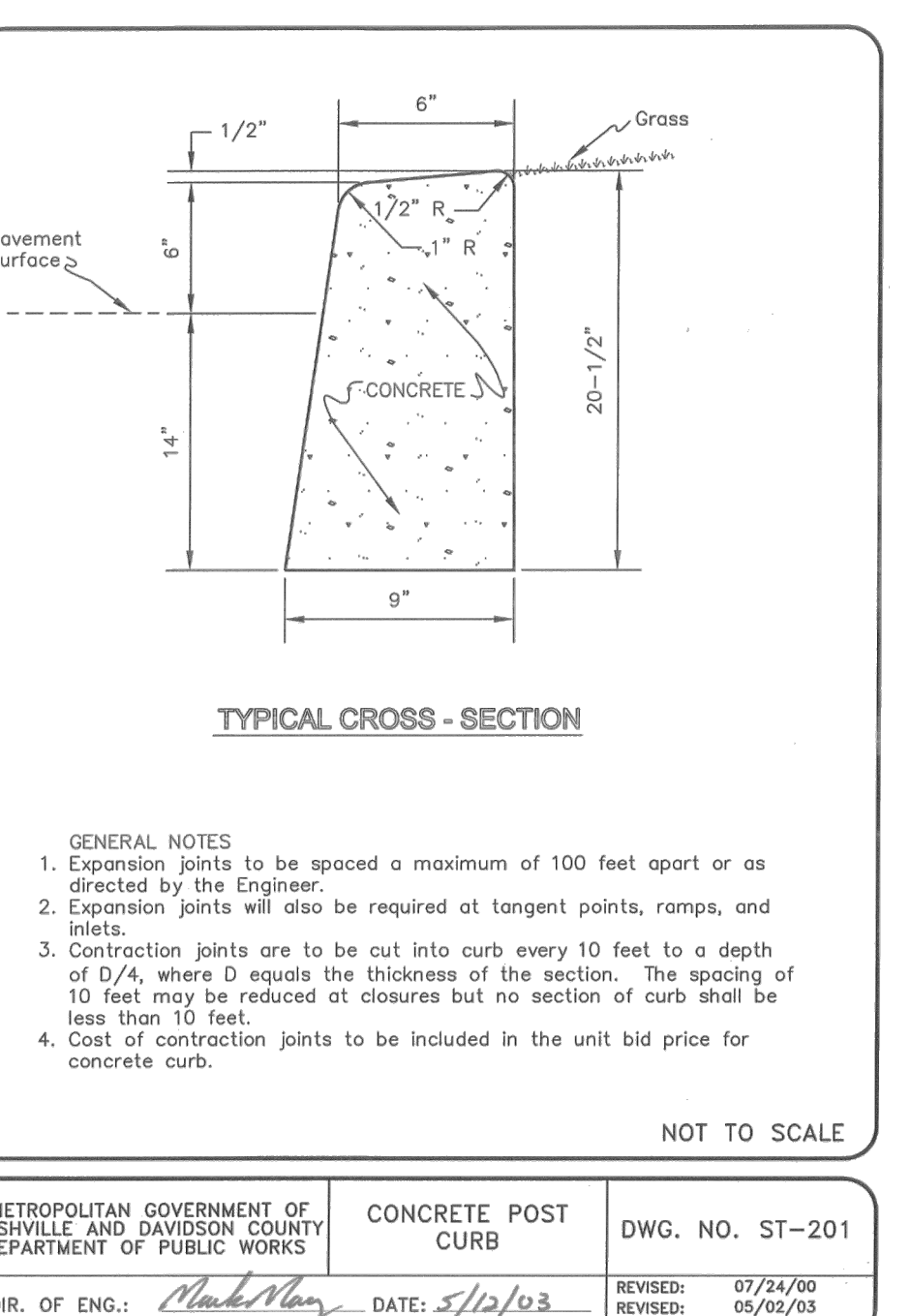
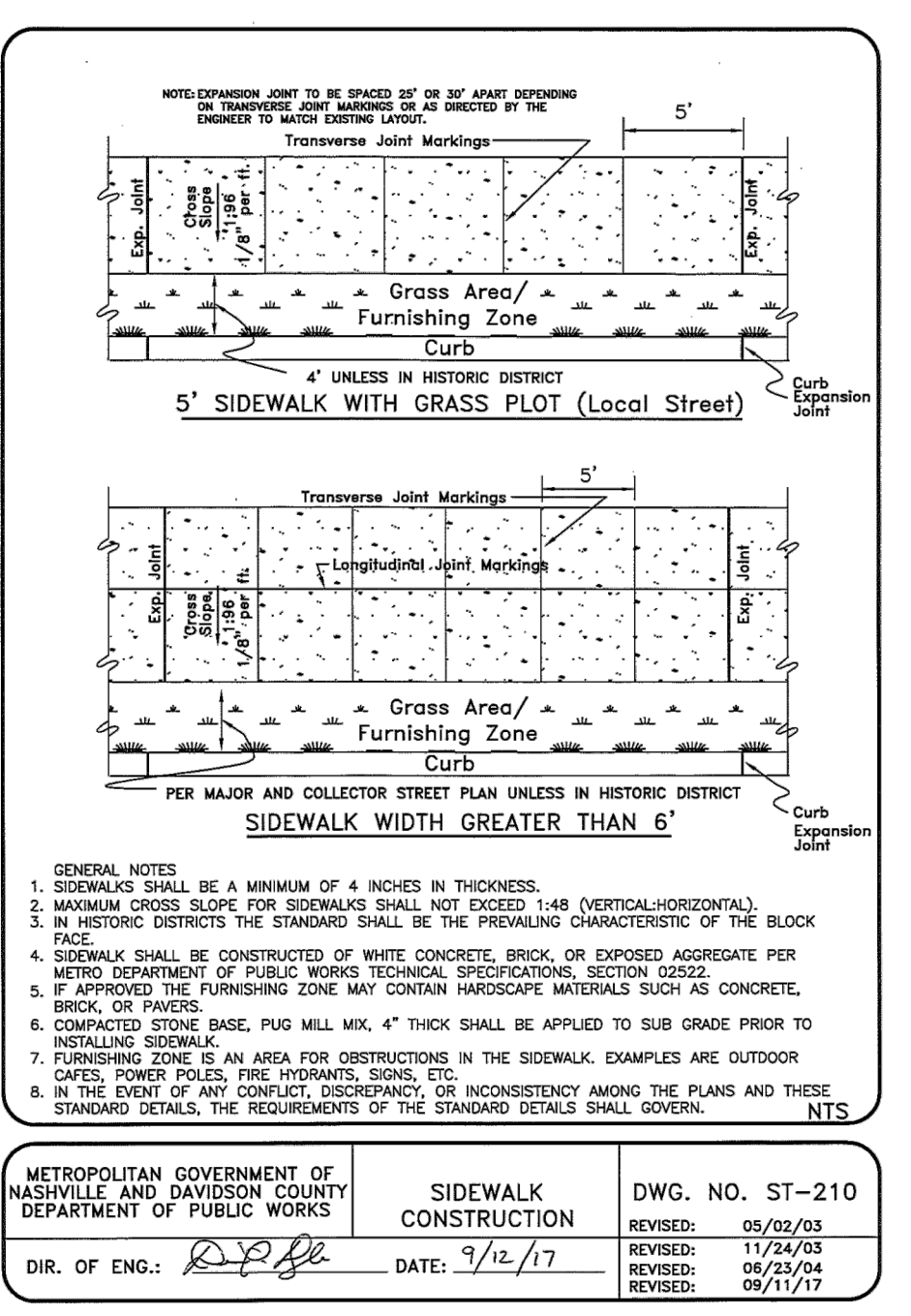
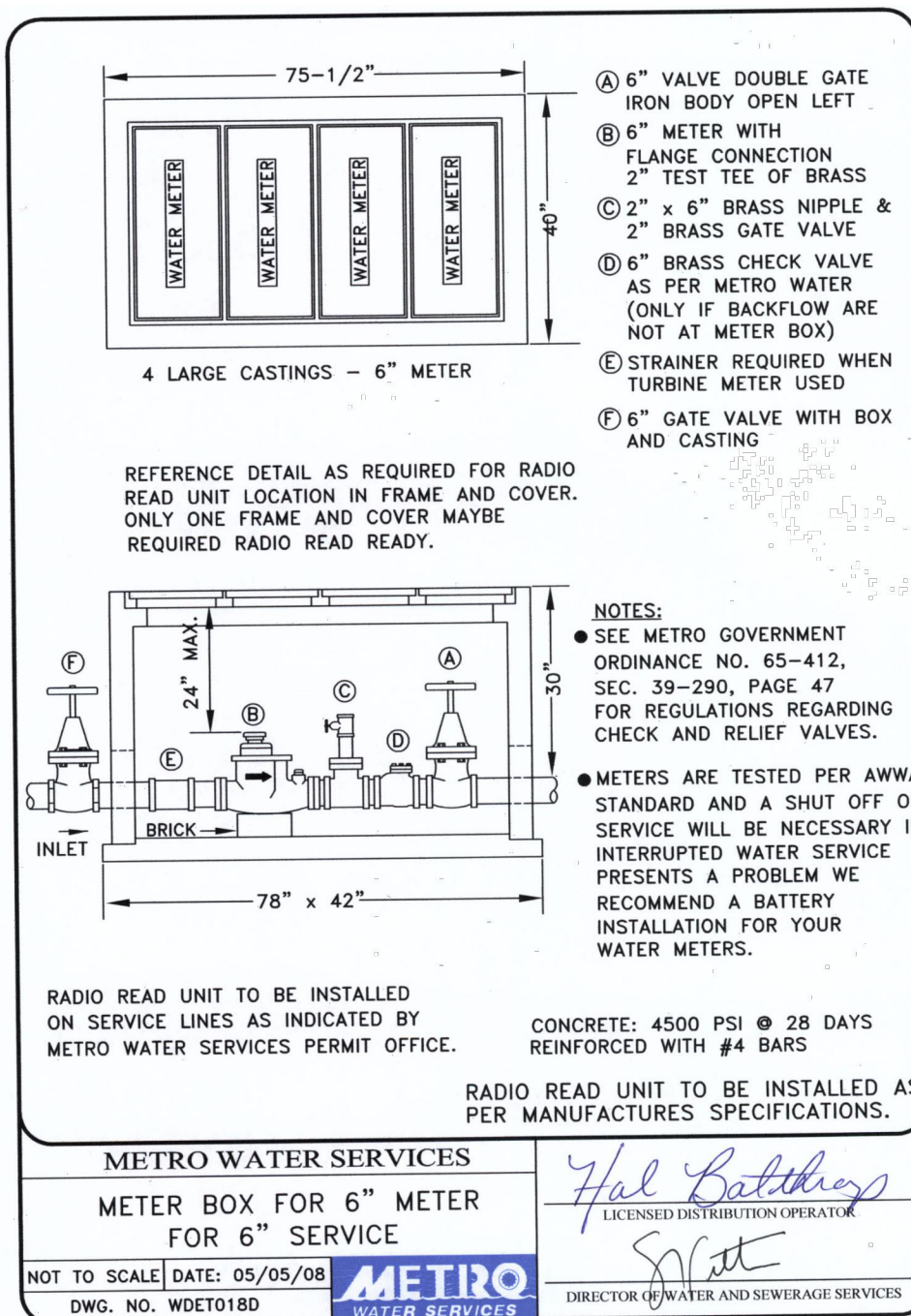
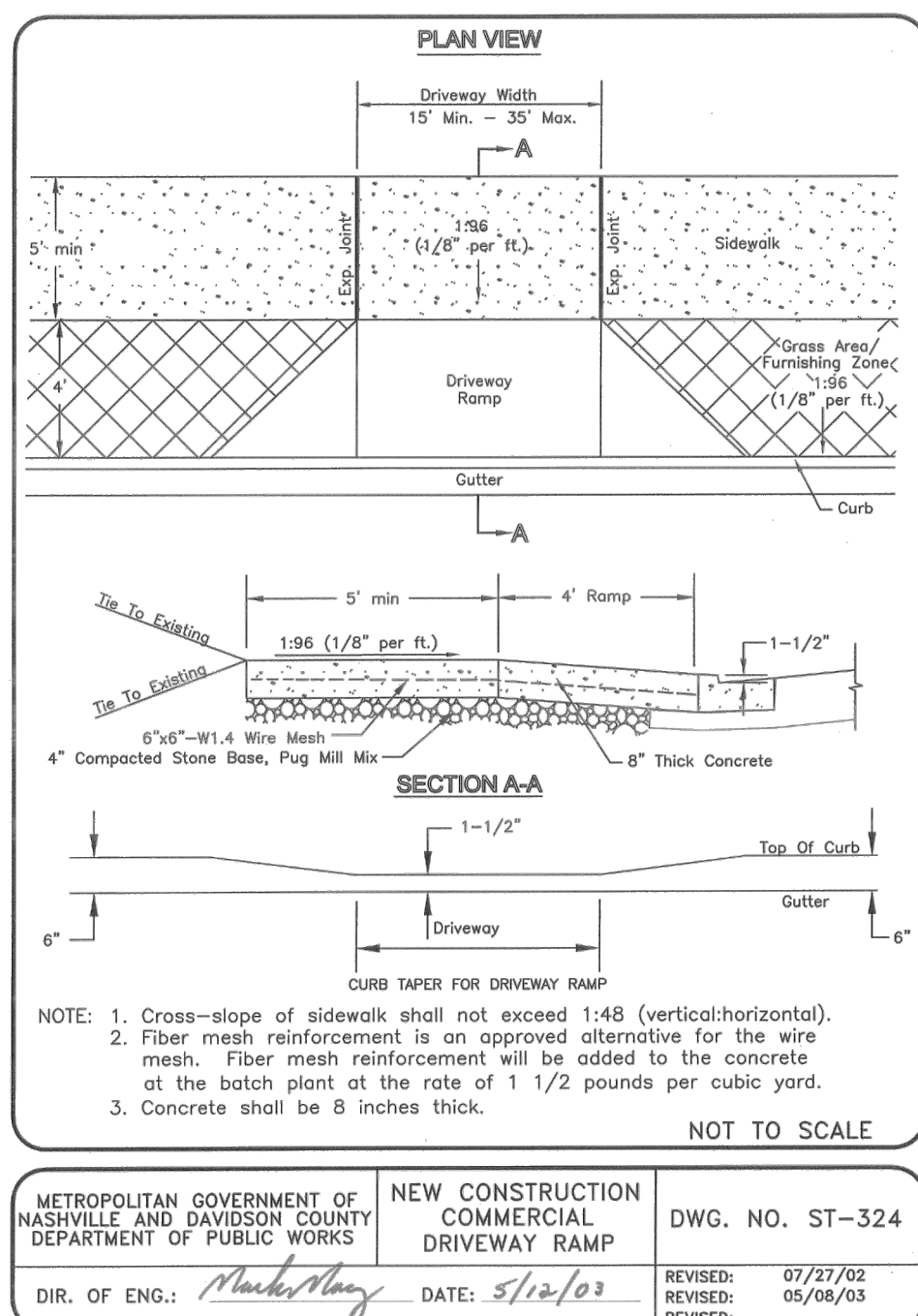
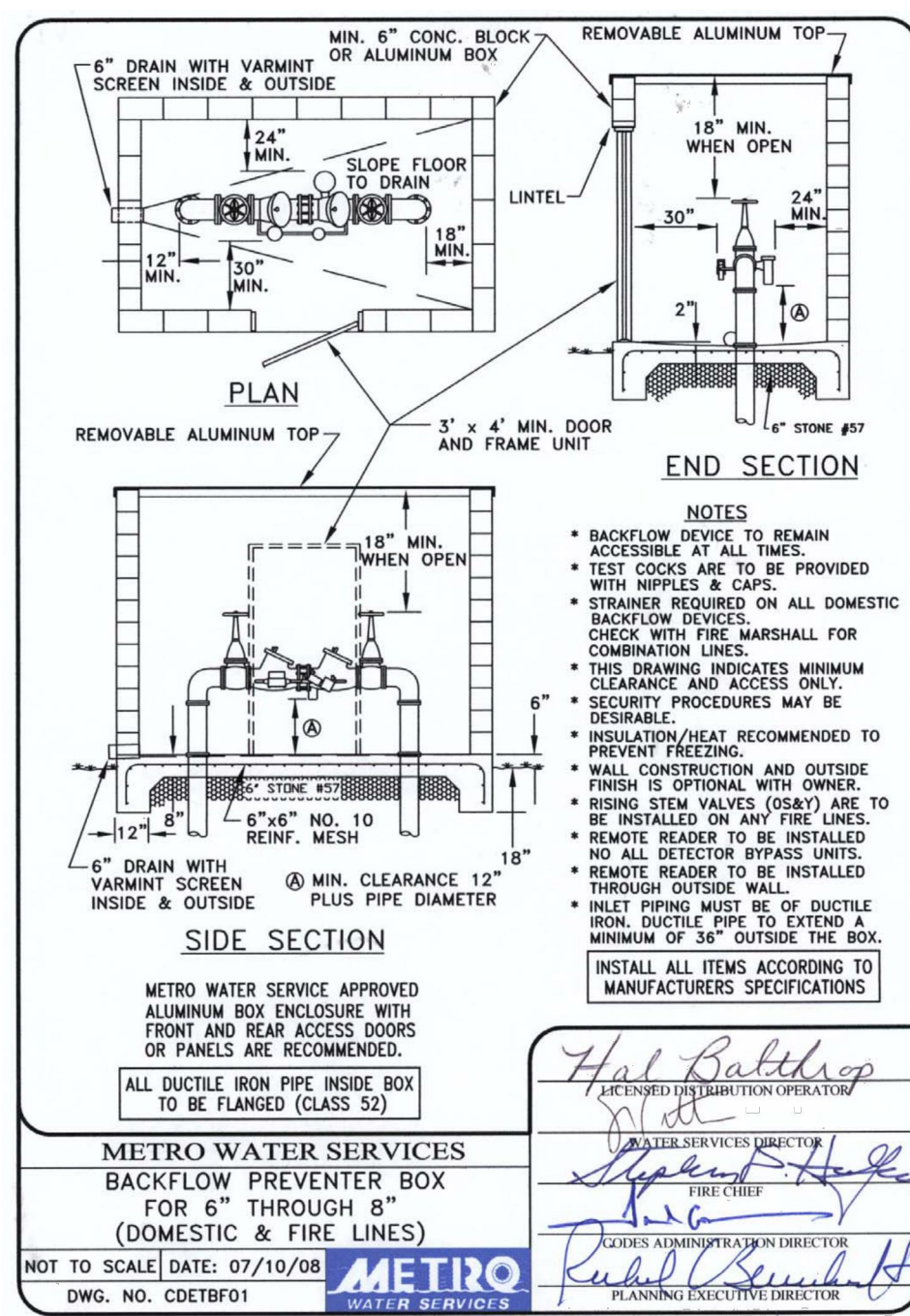
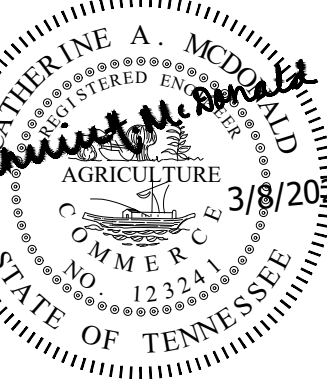
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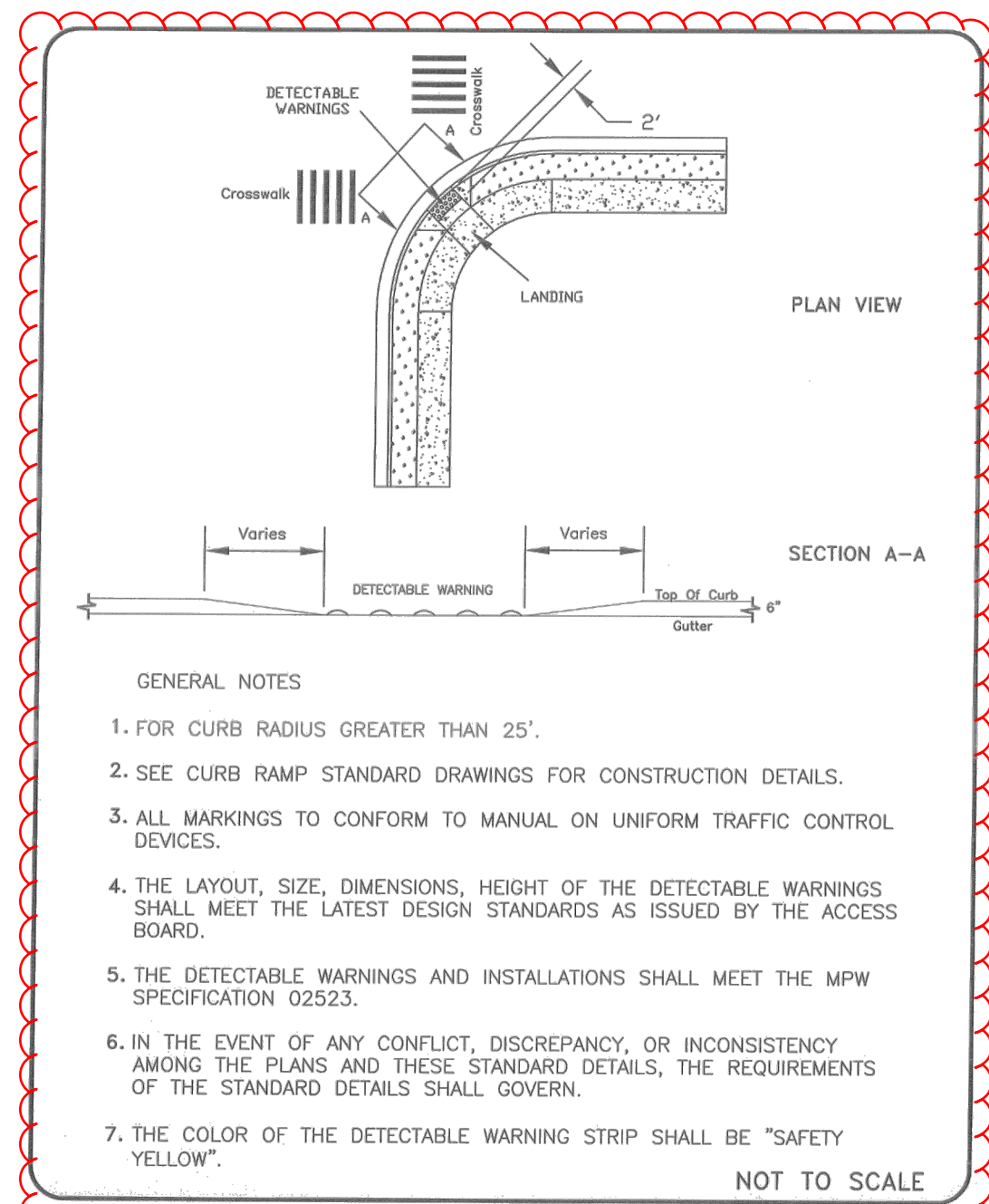
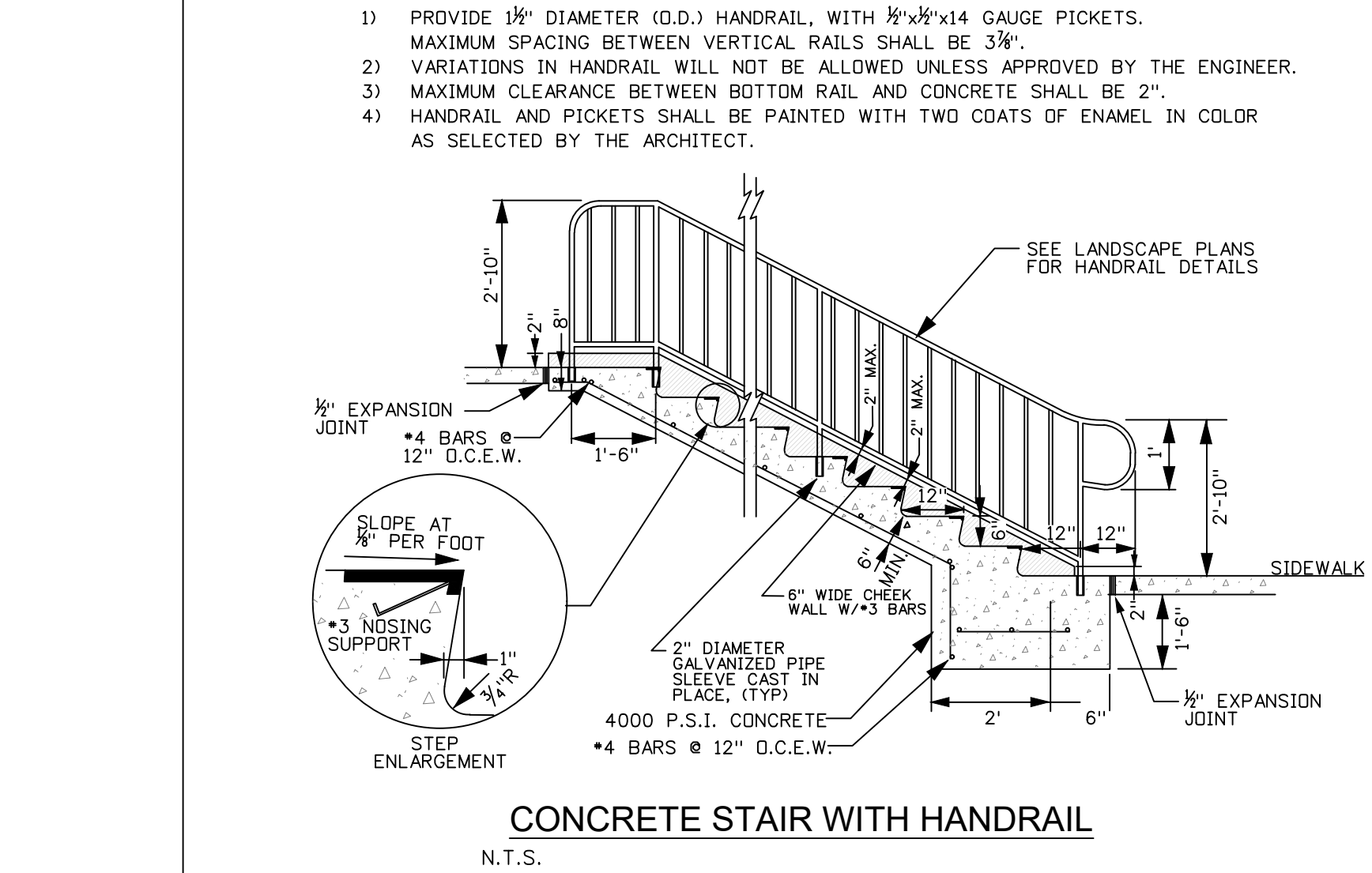
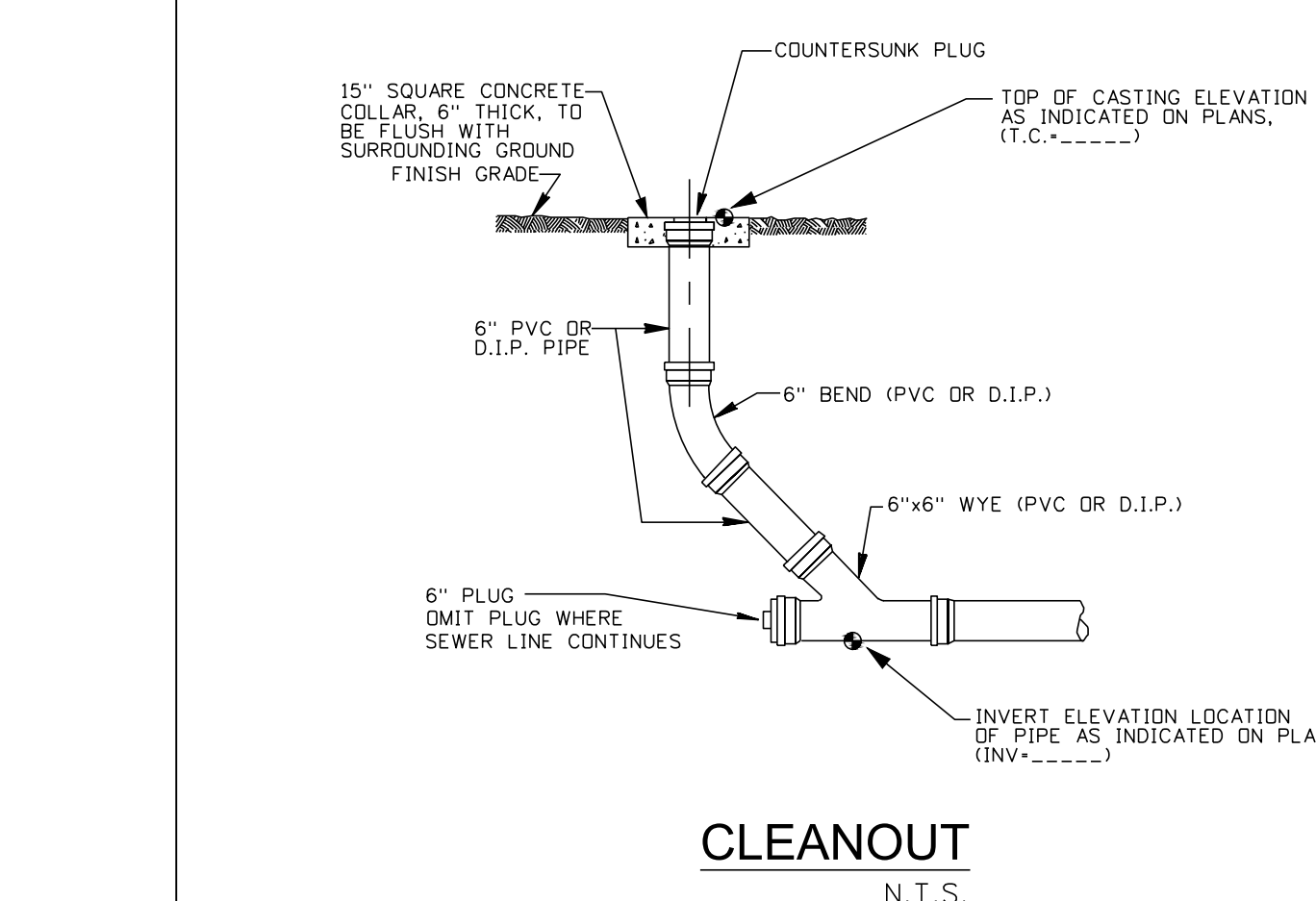
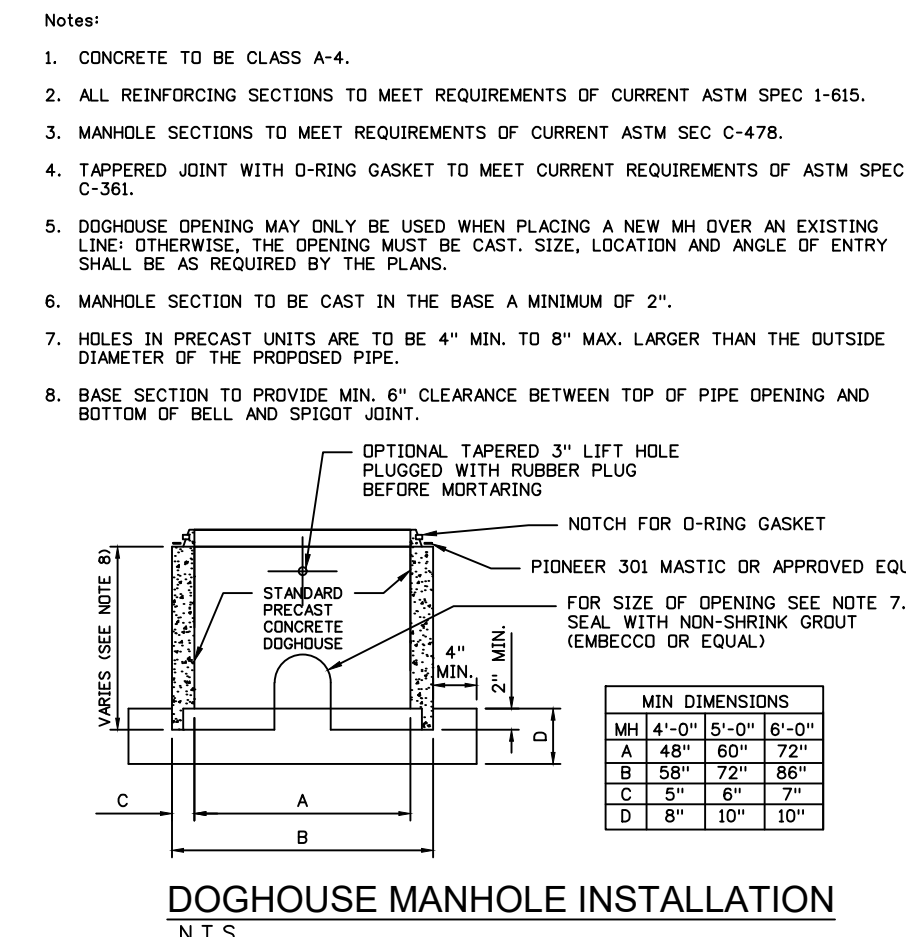
CSDG

Planning | Engineering
Landscape Architecture
2305 Kline Ave, Ste 300
Nashville, TN 37211
615.248.9999
csdgt.com

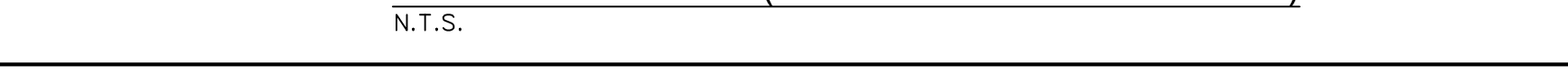
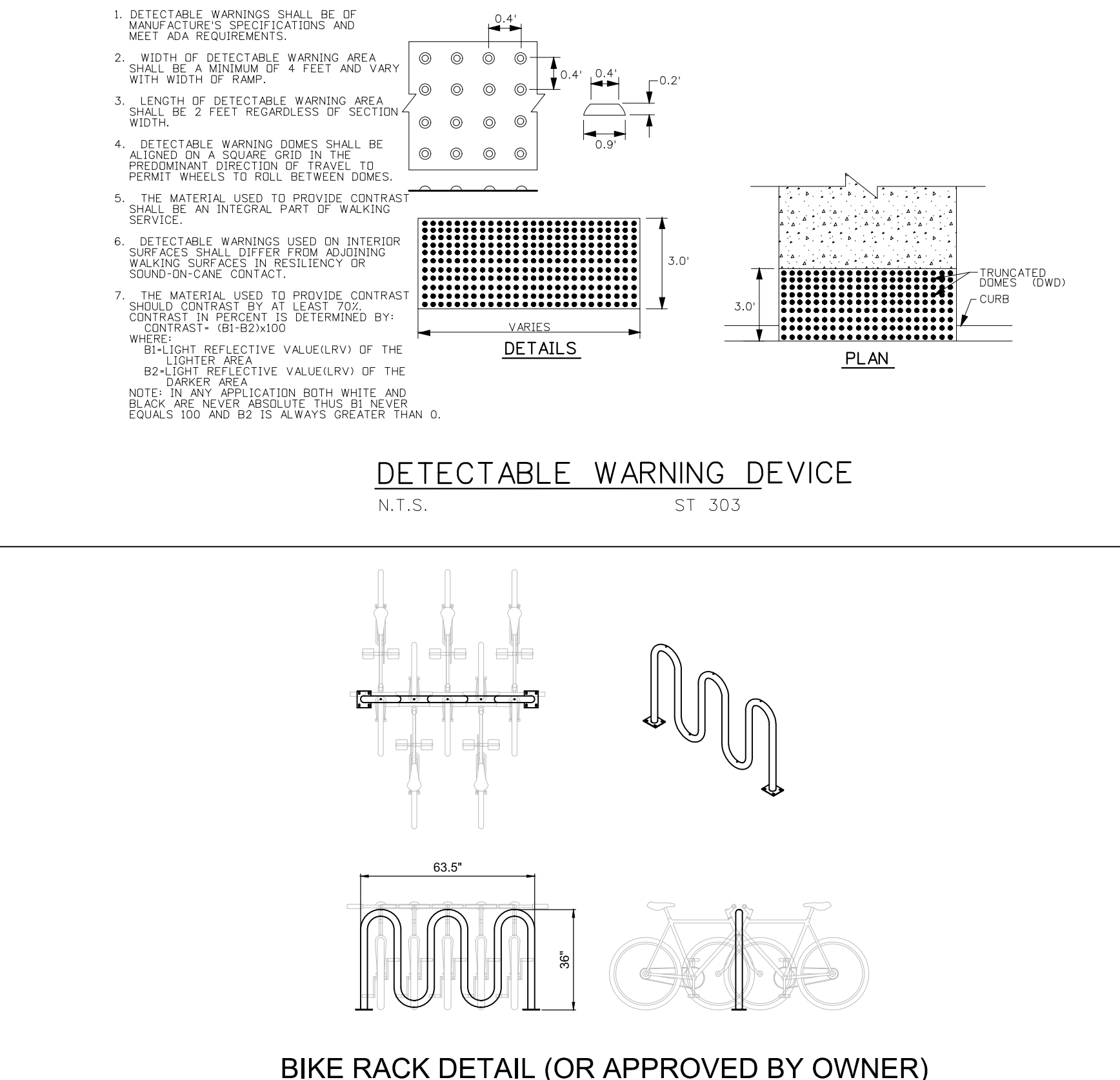
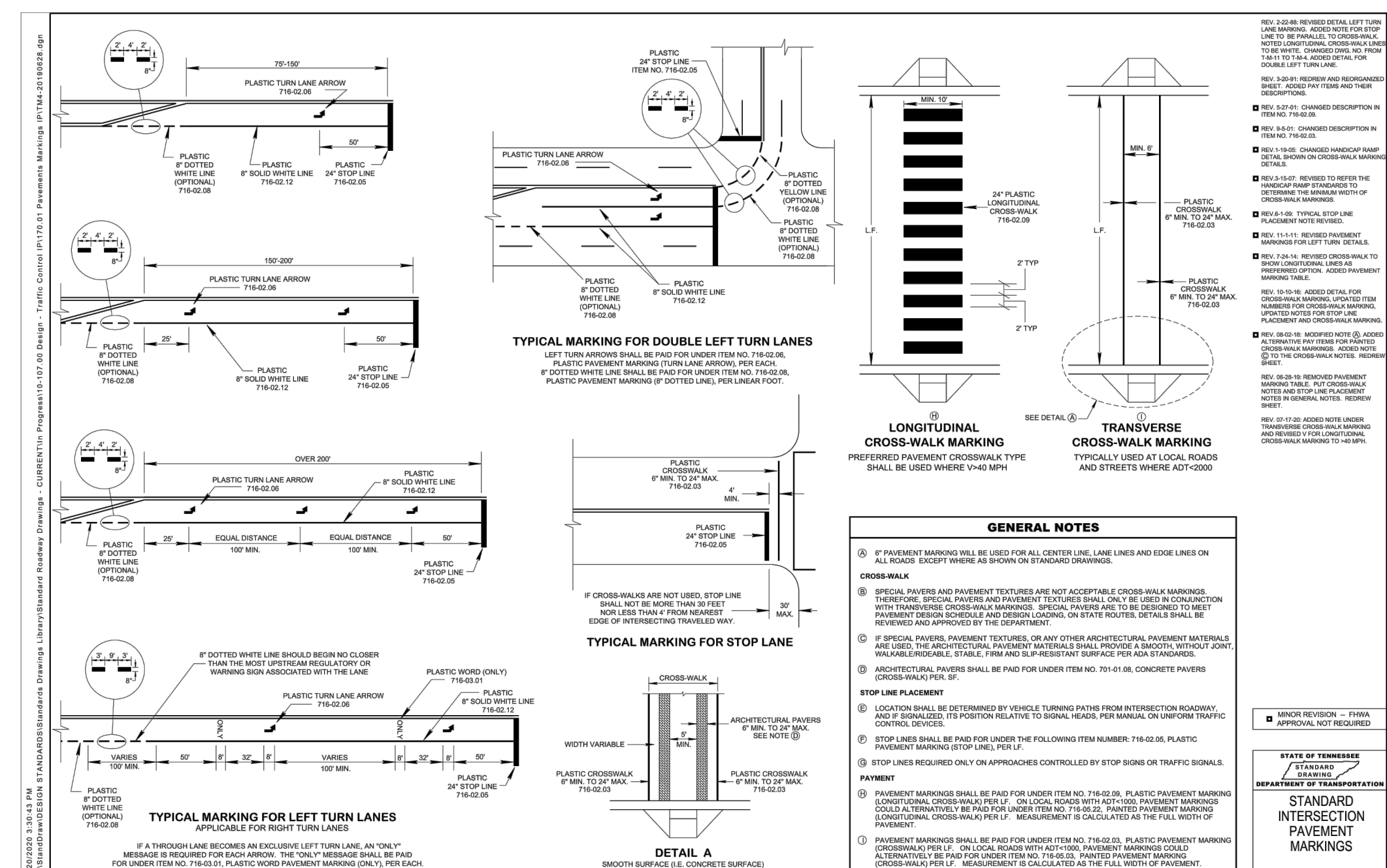
SEAL



| Permeable Pavement | Design | As-Built |
|--|----------|----------|
| Treatment Volume (T _v), CF | 8,416 | |
| Surface Area, SF | 7,890 | |
| Overflow (TOC) Elevation* | VARIABLE | |
| Reservoir Depth (in.) | 32.0 | |
| Underdrain Invert Depth* (ft.) | N/A | |
| Outlet Elevation* | N/A | |
| Sump Depth (in.) | N/A | |
| * N/A if not required | | |
| All elevations shall be NAVD88 | | |



METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY DEPARTMENT OF PUBLIC WORKS
DWG. NO. ST-330
DIR. OF ENG.: Mark May DATE: 6/17/05
REVISED: 06/17/05
REVISED: 08/13/04
REVISED:



TENNYSON GERMANTOWN
FINAL SP
400 Hume Street
Nashville, Davidson County, Tennessee
Parcel 08205017900
Case No. 2017SP-008-003

ISSUE SET:
FINAL SP

ISSUE DATE: 6/7/2023

REVISION HISTORY:

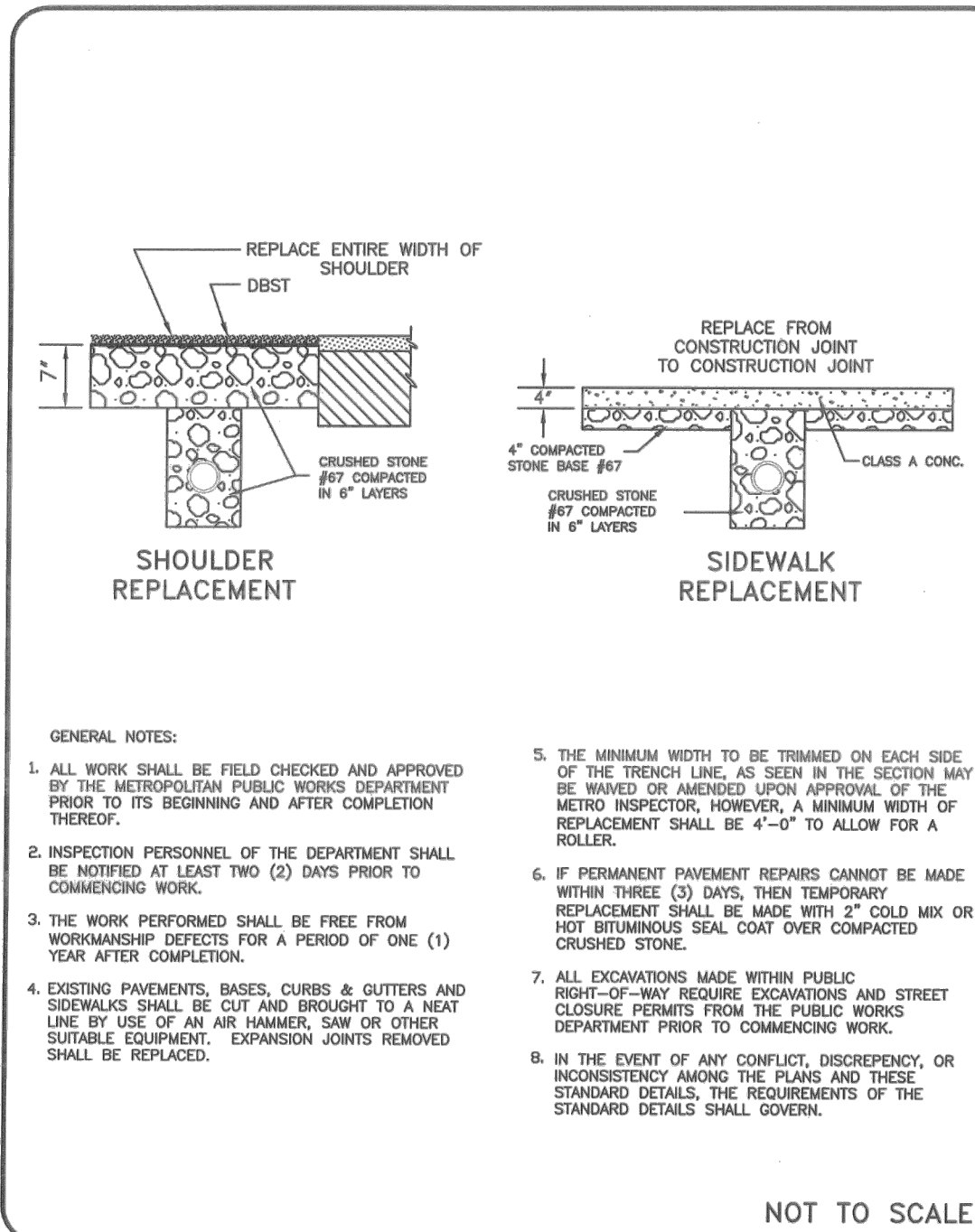
| Rev. | Description | Date |
|------|-----------------------|----------|
| 1 | FINAL SP SUBMITTAL | 07/10/23 |
| 2 | MVS RESUBMITTAL | 10/09/23 |
| 3 | MVS RESUBMITTAL | 12/14/23 |
| 4 | NDOT MASTER PERMIT | 02/08/24 |
| 5 | FIRE MARSHAL COMMENTS | 02/12/24 |
| 6 | NDOT COMMENTS | 03/06/24 |

DRAWN BY: LEB
CHECKED BY: SKD

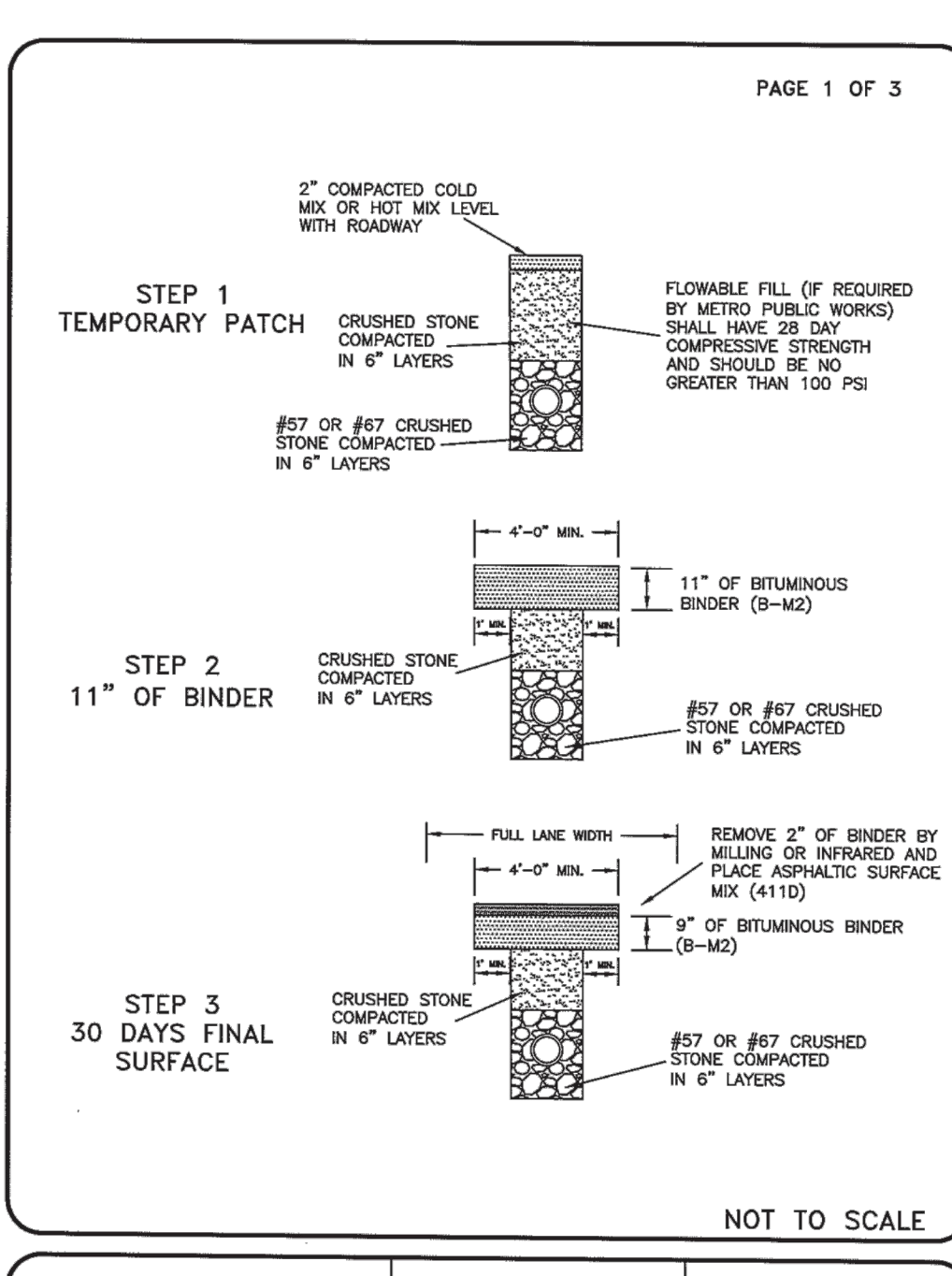
CIVIL DETAILS

C5.00

PROJECT NO.: 22-053-01



| | | |
|---|-------------------------------|--|
| METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY DEPARTMENT OF PUBLIC WORKS | TRENCH REPAIR OUTSIDE ROADWAY | DWG. NO. ST-272 |
| DIR. OF ENG.: <i>Mark Alley</i> | DATE: <i>9/10/08</i> | REVISIONS: 12/01/00 06/23/04 09/10/04 |



| | | |
|---|--------------------------------|--|
| METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY DEPARTMENT OF PUBLIC WORKS | FLUSH TRENCH REPAIR WITH STONE | DWG. NO. ST-270a |
| DIR. OF ENG.: <i>Mark Alley</i> | DATE: <i>7/15/15</i> | REVISIONS: 04/01/08 11/17/08 03/24/10 07/15/15 |

GENERAL NOTES

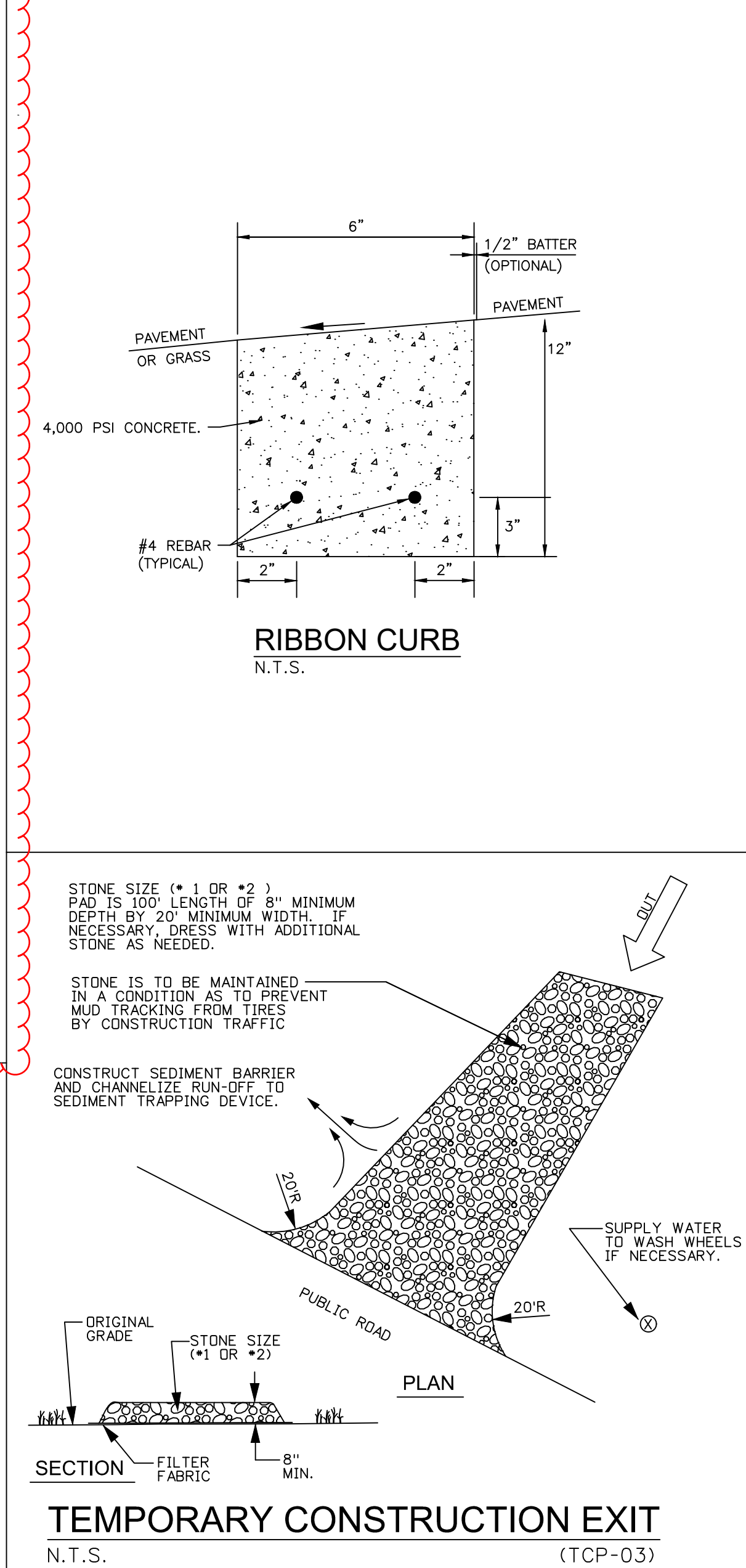
- PRIOR TO PLACEMENT OF CRUSHED STONE OR FLOWABLE FILL, THE DEPARTMENT OF PUBLIC WORKS PERMITS OFFICE WILL BE NOTIFIED AND AN INSPECTION OF THE TRENCH WILL BE MADE BY A REPRESENTATIVE OF THE DEPARTMENT OF PUBLIC WORKS PERMITS OFFICE. AT THE COMPLETION OF THE INSTALLATION OF THE CRUSHED STONE OR FLOWABLE FILL, THE DEPARTMENT OF PUBLIC WORKS PERMITS OFFICE WILL BE NOTIFIED AND AN INSPECTION OF THE BACKFILL WILL BE MADE BY A REPRESENTATIVE OF THE DEPARTMENT OF PUBLIC WORKS. AFTER ACCEPTANCE OF THE BACKFILL BY THE REPRESENTATIVE OF THE DEPARTMENT OF PUBLIC WORKS PERMITS OFFICE, THE ASPHALT PAVEMENT CAN BE APPLIED.
- INSPECTION PERSONNEL OF THE DEPARTMENT OF PUBLIC WORKS SHALL BE NOTIFIED BY CONTRACTOR/PERMITEE AT LEAST TWO (2) DAYS PRIOR TO REQUEST FOR INSPECTION.
- THE WORK PERFORMED SHALL BE FREE FROM WORKMANSHIP DEFECTS FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF ACCEPTANCE BY THE DEPARTMENT OF PUBLIC WORKS PERMITS OFFICE.
- EXISTING PAVEMENTS, BASES, CURBS & GUTTERS AND SIDEWALKS SHALL BE CUT AND BROUGHT TO A NEAT LINE BY USE OF AN AIR HAMMER, SAW OR OTHER SUITABLE EQUIPMENT. EXPANSION JOINTS REMOVED SHALL BE REPLACED.
- THE MINIMUM WIDTH TO BE TRIMMED ON EACH SIDE OF THE TRENCH LINE, AS SEEN IN THE SECTION MAY BE WAIVED OR AMENDED UPON APPROVAL OF THE METRO DEPARTMENT OF PUBLIC WORKS, HOWEVER, A MINIMUM WIDTH OF REPLACEMENT SHALL BE 4'-0" TO ALLOW FOR A ROLLER.
- IF PERMANENT PAVEMENT REPAIRS CANNOT BE MADE WITHIN THREE (3) DAYS, THEN TEMPORARY REPLACEMENT SHALL BE MADE WITH 2" COLD MIX. PERMANENT PAVEMENT REPAIR TO BE COMPLETED WITHIN THE REQUIRED TIME PERIOD AS PER METRO CODE 13.20.
- ALL EXCAVATIONS MADE WITHIN PUBLIC RIGHT-OF-WAY REQUIRE EXCAVATIONS AND STREET CLOSURE PERMITS FROM THE DEPARTMENT OF PUBLIC WORKS PRIOR TO COMMENCING WORK AS PER METRO CODE 13.20.
- FLOWABLE FILL WILL BE REQUIRED ON ALL ARTERIALS, COLLECTORS AND DOWNTOWN STREETS. FLOWABLE FILL SHALL MEET THE REQUIREMENTS IN TENNESSEE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 204, EXCEPT AS MODIFIED BY PUBLIC WORKS TECHNICAL SPECIFICATIONS 02225, LATEST REVISION.
- IN THE EVENT OF ANY CONFLICT, DISCREPANCY, OR INCONSISTENCY AMONG THE PLANS AND THESE STANDARD DETAILS, THE REQUIREMENTS OF THE STANDARD DETAILS SHALL GOVERN.
- ALL REPAIRS SHALL INCLUDE FULL LANE WIDTH RESURFACING EXCEPT WHEN UTILIZING INFRARED TECHNOLOGY. SEE INFRARED SPECIFICATIONS ATTACHED. THERE WILL BE A MAXIMUM OF 40 FT LONGITUDINAL REPAIR WHEN USING INFRARED TECHNOLOGY ON AN EXCAVATED PATCH.
- ALL REPAIRS SHALL UTILIZE A 1-FOOT CUTBACK ON ALL SIDES EXCEPT THE EDGE OF PAVEMENT.

| | | |
|---|--------------------------------------|--|
| METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY DEPARTMENT OF PUBLIC WORKS | FLUSH TRENCH REPAIR WITH STONE NOTES | DWG. NO. ST-270a |
| DIR. OF ENG.: <i>Mark Alley</i> | DATE: <i>7/15/15</i> | REVISIONS: 04/01/08 11/17/08 03/24/10 07/15/15 |

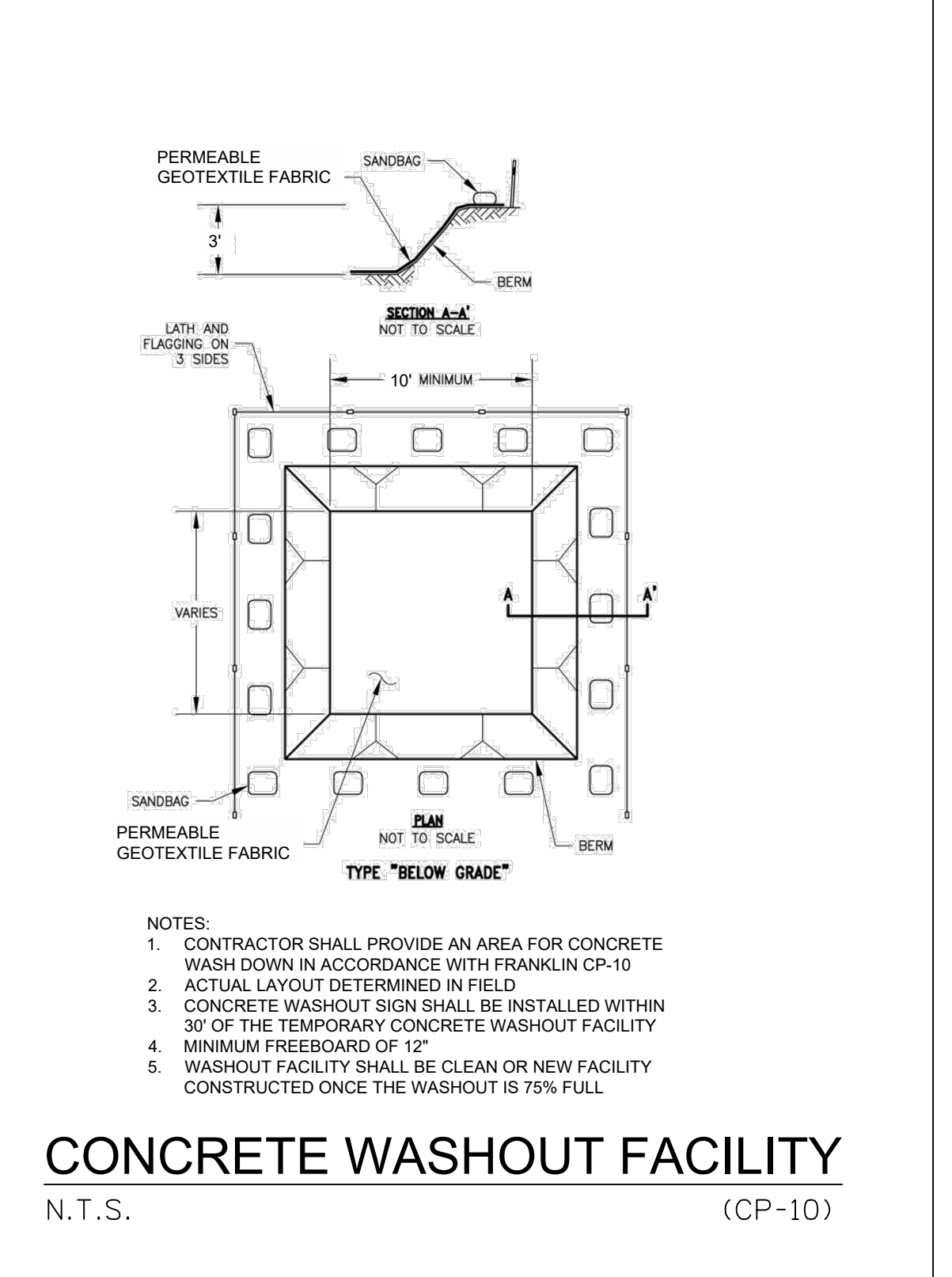
GENERAL NOTES CONTINUED:

- NEW UTILITY CUTS WILL BE MILLED AND PAVED TO ANY EXISTING UTILITY CUT OR DAMAGED PAVEMENT WITHIN 10'-FEET. IF EXISTING CUT OR DAMAGED PAVEMENT IS LESS THAN 10'-FEET IN LENGTH, THE EXISTING CUT OR DAMAGED PAVEMENT SHALL ALSO BE MILLED AND PAVED.
- ASPHALT REPAIR ADJACENT TO CURB AND GUTTER ALONG A ROADWAY GREATER THAN 24-INCHES SHALL HAVE FULL LANE WIDTH PAVING.
- WHEN GRADED STONE (I.E. #57, #67, #78 STONE) IS USED THERE IS GENERALLY NO COMPACTION EQUIPMENT REQUIRED. THE MATERIAL DOES, HOWEVER, NEED TO BE PUT IN THE TRENCH IN APPROXIMATELY 12-INCH LIFTS.
- GRADED STONE PLACED IN TRENCH SHOULD BE CAPPED WITH 8 TO 12-INCHES OF PUG MIX (PUG MIX IS ESSENTIALLY TYPE A BASE, GRADE D, OR MORE COMMONLY KNOWN AS "CRUSHER RUN"). SEE TDOT STANDARD SPECIFICATION 303.07.
- TYPE "A" BASE, GRADE "D" CAN BE USED FOR THE ENTIRE BACKFILL AND COMPACTION BY MECHANICAL METHODS IN NO MORE THAN 6-INCH LIFTS AS PROVIDED IN SECTION 204.11 OF TDOT STANDARD SPECIFICATIONS.
- THE PUG MIX SHOULD BE COMPACTION IN 6-INCH LIFTS WITH A STEEL SHELL ROLLER OR OTHER MECHANICAL VIBRATORY COMPACTION EQUIPMENT. SEE TDOT STANDARD SPECIFICATIONS 303.08 AND 303.09. MATERIAL SHOULD BE ALLOWED TO CURE UNTIL ALL THE MOISTURE IS GONE FROM STONE (USUALLY 24-48 HOURS).
- THE TRENCH SHOULD THEN HAVE 11-INCHES OF BINDER PLACED LEVEL WITH THE ROADWAY IN A MINIMUM OF TWO (2) LIFTS AND COMPACTION WITH MECHANICAL COMPACTION EQUIPMENT.
- THE BINDER SURFACE SHALL BE MILLED OR HEATED USING INFRARED TECHNOLOGY WITH TWO 2-INCHES IN DEPTH AND REPLACED WITH TWO (2) INCHES OF SURFACE MIX AND COMPACTION WITH MECHANICAL COMPACTION EQUIPMENT.
- INTERSECTION REPAIRS WILL ONLY REQUIRE FULL LANE WIDTH PAVING.
- ANY DISTURBED PAVEMENT MARKINGS MUST BE RESTORED TO CURRENT METRO STANDARDS.
- DIAGONAL REPAIRS WILL BE REQUIRED TO BE SQUARED OFF AND MILLED AND PAVED. NO INFRARED TECHNOLOGY ALLOWED ON THIS TYPE OF REPAIR.
- ALL LONGITUDINAL REPAIRS MORE THAN 40 FT IN LENGTH WILL BE REQUIRED TO BE MILLED AND PAVED.
- FOR ANY DISCREPANCIES OR VARIATIONS FROM SPECIFICATIONS, OBTAIN APPROVAL FROM THE DEPARTMENT OF PUBLIC WORKS.
- ALL FILL SHALL MEET MANUFACTURING SPECIFICATIONS, IF APPLICABLE.

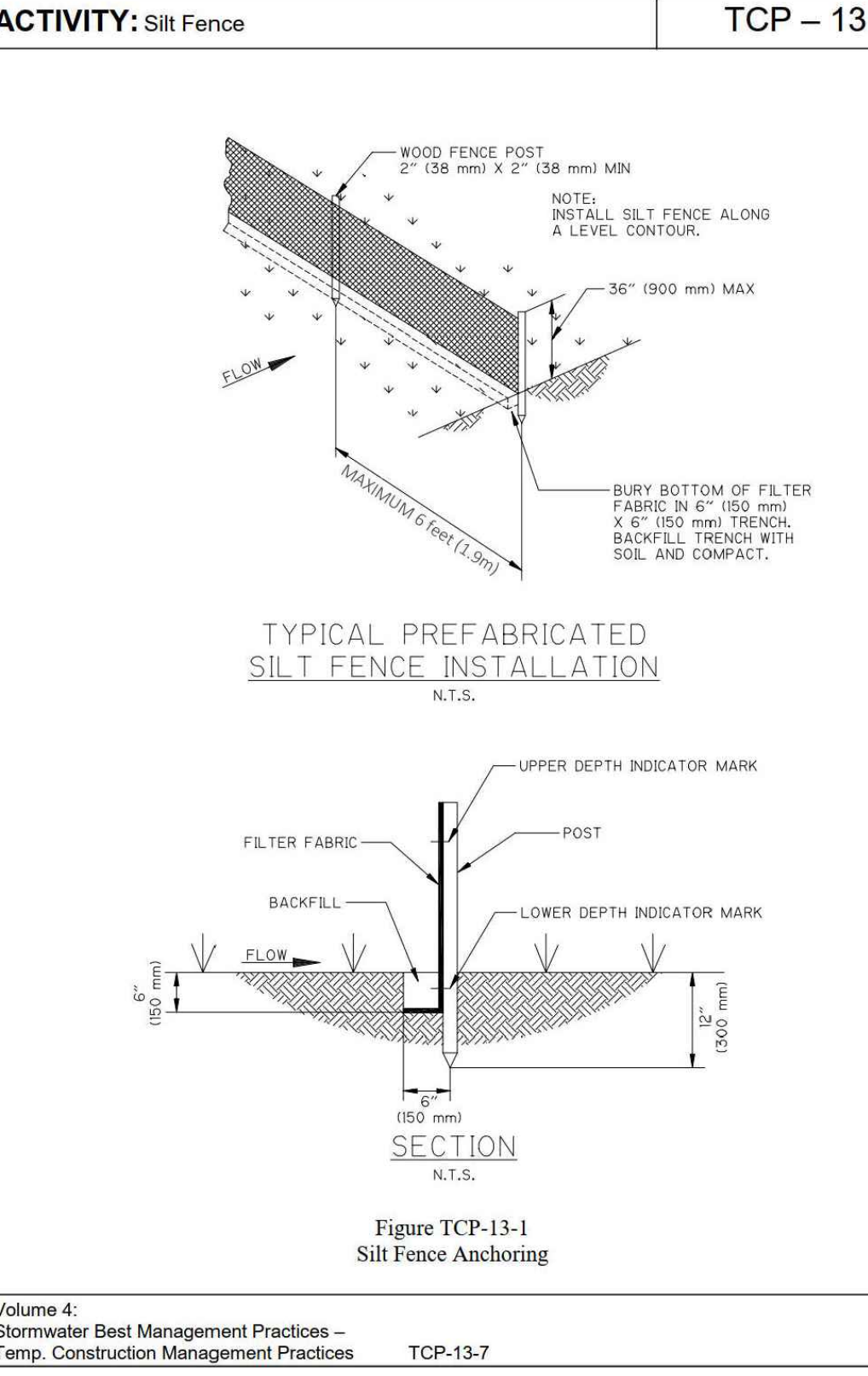
| | | |
|---|--------------------------------------|--|
| METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY DEPARTMENT OF PUBLIC WORKS | FLUSH TRENCH REPAIR WITH STONE NOTES | DWG. NO. ST-270a |
| DIR. OF ENG.: <i>Mark Alley</i> | DATE: <i>7/15/15</i> | REVISIONS: 04/01/08 11/17/08 03/24/10 07/15/15 |



TEMPORARY CONSTRUCTION EXIT (TCP-03)



CONCRETE WASHOUT FACILITY N.T.S. (CP-10)

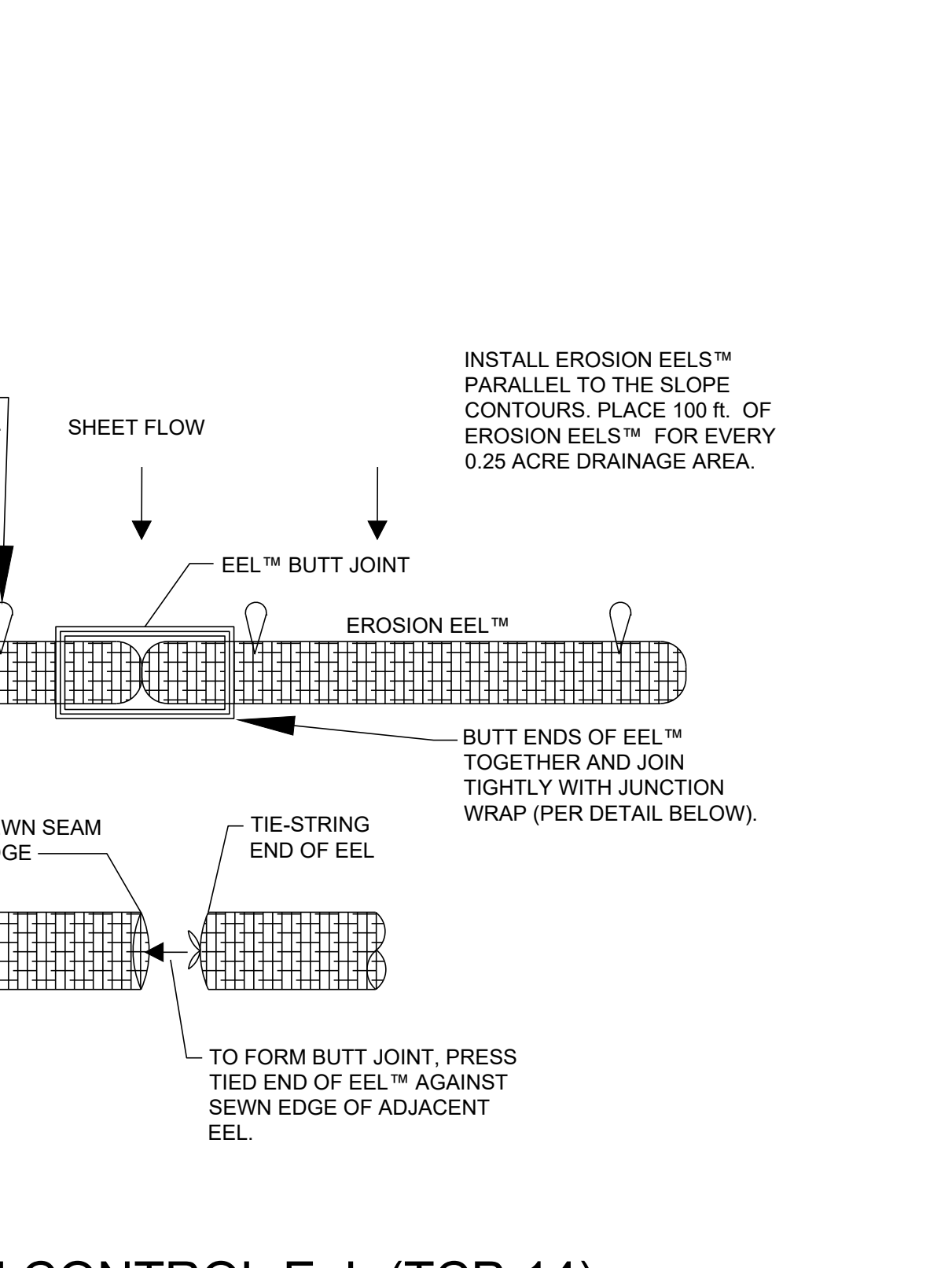


TEMPORARY SILT FENCE N.T.S. (TCP-13)

GENERAL EEL™ NOTES:

- EROSION EELS™ USED IN PERIMETER CONTROL APPLICATIONS SHALL HAVE A SPECIFICATION MIXTURE 1.1 OR 1.2.
 - MIXTURE SPECIFICATION 1.1: A FILTER MIXTURE COMPRISED OF 50% SHREDDED RUBBER AND 50% WOOD CHIP PARTICLES BY VOLUME. THE SHREDDED RUBBER SHALL BE WASHED AND PROCESSED TO REMOVE MOST, IF NOT ALL, METAL COMPONENTS. THE RUBBER SHALL BE DERIVED FROM RECYCLED TIRES AND SHALL BE SHREDDED TO PRODUCE A MAXIMUM PARTICLE SIZE OF +/- .34 INCH. THE WOOD CHIPS SHALL BE PRODUCED FROM HARDWOOD TREES AND SHALL CONFIRM TO AASHTO CERTIFICATION SPECIFICATION MP 9-03.
 - MIXTURE SPECIFICATION 1.2: A FILTER MIXTURE COMPRISED OF 1/3 SHREDDED RUBBER, 1/3 WOOD CHIPS, AND 1/3 RECYCLED SYNTHETIC FIBERS. THE SHREDDED RUBBER SHALL BE WASHED AND PROCESSED TO REMOVE MOST, IF NOT ALL, METAL COMPONENTS. THE RUBBER SHALL BE DERIVED FROM RECYCLED TIRES AND SHALL BE SHREDDED TO PRODUCE A MAXIMUM PARTICLE SIZE OF +/- .34 INCH. THE WOOD CHIPS SHALL BE PRODUCED FROM HARDWOOD TREES AND SHALL CONFIRM TO AASHTO CERTIFICATION SPECIFICATION MP 9-03. THE SYNTHETIC FIBERS SHALL BE PRODUCED FROM RECYCLED MANUFACTURED MATERIALS, SUCH AS, BUT NOT LIMITED TO, PRE-CONSUMER SCRAP CARPET, TIRE CHORD, AND TIRE FIBER MATERIALS.
- EROSION EELS™ SHALL BE MANUFACTURED FROM A WOVEN GEOTEXTILE COVERING WITH INTERIOR FILTER MATERIALS SUCH AS 100% SHREDDED RUBBER (MIXTURE SPECIFICATION 1.0, 50% SHREDDED RUBBER/50% AASHTO-CERTIFIED WOOD CHIPS (MIXTURE SPECIFICATION 1.1)).
- LENGTHS OF EROSION EELS™ SHALL BE EITHER A NOMINAL +/-10 FT. OR +/- 4.5 FT. NOMINAL DIAMETER SHALL BE +/-5 INCHES.
- EROSION EELS™ CAN BE PLACED AT THE TOP, ON THE FACE, OR AT THE TOE OF SLOPES TO INTERCEPT RUNOFF, REDUCE FLOW VELOCITY, RELEASE THE RUNOFF AS SHEET FLOW AND PROVIDE REMOVAL OF SEDIMENT FROM THE RUNOFF.
- EROSION EELS™ SHALL BE INSTALLED ALONG THE GROUND CONTOUR, AT THE TOE OF SLOPES, AT AN ANGLE TO THE CONTOUR TO DIRECT FLOW AS A DIVERSION BERM, AROUND INLET STRUCTURES, IN A DITCH AS A CHECK DAM TO HELP REDUCE SUSPENDED SOLIDS LOADING AND RETAIN SEDIMENT, OR AS A GENERAL FILTER FOR ANY DISTURBED SOIL AREA.
- NO TRENCHING IS REQUIRED FOR INSTALLATION OF EROSION EELS™
- PREPARE BED FOR EEL™ INSTALLATION BY REMOVING ANY LARGE DEBRIS INCLUDING ROCKS, SOIL CLODS, AND WOODY VEGETATION. EROSION EELS™ CAN ALSO BE PLACED OVER PAVED SURFACES INCLUDING CONCRETE AND ASPHALT WITH NO SURFACE PREPARATION REQUIRED.
- RAKE BED AREA WITH A HAND RAKE OR BY DRAG HARROW.
- DO NOT PLACE EEL™ DIRECTLY OVER RILL AND GULLIES UNTIL AREA HAS BEEN HAND-EXCAVATED AND RAKED TO PROVIDE A LEVEL BEDDING SURFACE. ALL SURFACES SHALL BE UNIFORMLY COMPACTION FOR MAXIMUM SEATING OF EELS™ IN PLACE.
- FOR LOCATIONS WHERE EELS™ WILL BE PLACED IN CONCENTRATED FLOWS (SUCH AS CHECK DAMS, INLET PROTECTION) AND FOR PERIMETER CONTROLS AT PRIMARY DISCHARGE LOCATIONS, BED THE EELS™ IN A FLOCMAT CRADLE PER THE DETAILED DRAWINGS.
- FOR DITCH APPLICATIONS, THE MAXIMUM DRAINAGE AREA SHALL BE 10 ACRES.
- IF MORE THAN ONE EROSION EEL™ IS PLACED IN A ROW, THE EELS™ SHALL BE OVERLAPPED A MINIMUM OF 12 INCHES TO PREVENT FLOW AND SEDIMENT FROM PASSING THROUGH THE FIELD JOINT. COMPRESS THE TWO EELS™ OF THE OVERLAP TIGHTLY TOGETHER EITHER BY HAND OR MANUFACTURER-APPROVED MECHANIZED MEANS.
- WHEN USED IN DITCHES AS A CHECK DAM, EROSION EELS™ SHALL BE INSTALLED PER MANUFACTURER'S DETAILS.
- ANCHORING POSTS FOR CHECK DAM APPLICATIONS SHALL HAVE A MINIMUM WEIGHT OF 1.25 LBS/FT STEEL T-POSTS (5 TO 7 FT LENGTHS) ROLLED FROM HIGH CARBON STEEL. POSTS SHOULD BE HOT-DIP GALVANIZED OR COATED WITH A WEATHER-RESISTANT PAINT FOR STEEL APPLICATION. POSTS SHOULD BE EQUIPPED WITH A METAL ANCHOR PLATE. INSTALL PER DETAILS ON THIS SHEET.
- PLACE T-POSTS THROUGH HANDLE OF BAGS. DO NOT DRIVE POSTS THROUGH EROSION EELS™. T-POSTS ARE TO BE EMBEDDED A MINIMUM OF 2 FT INTO GROUND.

EROSION CONTROL Eel (TCP-14)



EROSION CONTROL Eel (TCP-14)

CSDG
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TENNYSON GERMANTOWN
FINAL SP
400 Hume Street
Nashville, Davidson County, Tennessee
Parcel 08205017900
Case No. 2017SP-008-003

ISSUE SET:
FINAL SP

ISSUE DATE: 6/7/2023

REVISION HISTORY:

| Rev | Description | Date |
|-----|-----------------------|----------|
| 1 | FINAL SP RESUBMITTAL | 07/10/23 |
| 2 | MVS RESUBMITTAL | 10/09/23 |
| 3 | MVS RESUBMITTAL | 12/14/23 |
| 4 | NDOT MASTER PERMIT | 02/08/24 |
| 5 | FIRE MARSHAL COMMENTS | 02/12/24 |
| 6 | NDOT COMMENTS | 03/06/24 |

DRAWN BY: LEB
CHECKED BY: SKD

CIVIL DETAILS

C5.01
PROJECT NO.: 22-053-01