PRELIMINARY SP

1400 ARTHUR ROW HOMES

1400 & 1400A ARTHUR AVE.
NASHVILLE, DAVIDSON COUNTY, TN
PARCELS 08116017300 & 08116017400
CASE NO.: 2019SP-065-001

Specific Plan Notes

Purpose and Intent
The purpose of this specific plan is to permit up to six (6) residential units.

Development Plan
The developer of this project intends to develop a six (6) unit residential project with a mix of unit sizes.

Existing Conditions
The existing site currently includes two (2) residential buildings, concrete sidewalks and driveways, and low grasses and trees.

Applicability to the General Plan
This property is within the North Nashville Community Planning area adopted June 22, 2015. The structure plan for this property identifies this area as Urban Neighborhood Evolving.

Permitted Uses
Uses permitted in this development shall include residential multi-family and all uses allowed within the RM40 zoning district.

Development Standards
1. Minor modifications to the SP plan may be approved by the Planning Commission or its designee based upon final architectural, engineering or site design and actual site conditions. All modifications shall be consistent with the principles and further the objectives of the approved plan. Modifications shall not be permitted, except through an ordinance approved by Metro Council that increase the permitted density or floor area, add uses not otherwise permitted, eliminate specific conditions or requirements contained in the plan as adopted through this enacting ordinance, or add vehicular access points not currently present or approved.
2. The required fire flow, emergency vehicle access and adequate water supply for fire protection must be met prior to the issuance of any building permits.
3. Approval of any specific plan does not exempt any parcel shown on the plan or any development within the SP from compliance with all provisions of the Metro Zoning Code with respect to floodplain, steep slopes, unstable soils, sinkholes, rock outcroppings, streams, springs and critical lots.
4. Any excavation, fill or disturbance of the existing ground must be done in accordance with stormwater management ordinance 78-840 and approved by the Metro Department of Water Services.
5. The developer of this project shall comply with the requirements of the SP adopted tree ordinance 2008-328 (Metro Code Chapter 17.24)
6. Bicycle parking shall be provided in accordance with Section 17.20.135 of the Metro Zoning Code.
7. All surface parking areas must meet the "parking area screening and landscaping" requirements specified in the Metro Zoning Code.
8. According to FEMA's current flood maps (47037C0241H, dated April 5, 2017), as well as Metro's GIS information, there is no 100-year floodplain within the SP boundary.
9. According to the NRCS Soils Map, the soils on the property are McB (Maury Urban Land Complex, 2-7% slopes) . These soils are/are not "problem soils" as noted in section 17.28.050 of the Metro Zoning Code.
10. Site slopes range from 1-12%.
11. There are no known existing wetlands within the SP boundary.
12. Signage shall meet Metro design standards. A detailed signage plan will be submitted with the Final SP documents, if required.
13. All development with the boundaries of this plan shall be based on the requirements of the Americans with Disabilities Act and the Fair Housing Act.
14. All proposed public utilities and services shall be installed underground.
15. For development standards, regulations and requirements not specifically shown on the SP plan and /or included as a condition of Commission or Council approval, the property shall be subject to the standards, regulations and requirements of the RM40 zoning district and UZO Overlay as of the date of the applicable request or application.
16. The owner/developer agrees to maintain private trash & recycling service for the development as long as the development remains in place. The responsibility shall be transferred to the property owner's association for the development upon its establishment.
17. The parking requirements shall be based on the lesser of the current zoning code at the time that building permits are applied for or the zoning code in affect at the time of the Preliminary SP approval.
18. The final site plan / building permit site plan shall depict the required public sidewalks, any required grass strip or frontage zone and the location of all existing and proposed vertical obstructions within the required sidewalk and grass strip or frontage zone. Prior to the issuance of use and occupancy permits, existing vertical obstructions shall be relocated outside of the required sidewalk. Vertical obstructions are only permitted within the required grass strip or frontage zone.
19. Drawing is for illustration purposes to indicate the basic premise of the development, as it pertains to Stormwater approval/comments only. The final lot count and details of the plan shall be governed by the appropriate stormwater regulations at the time of final application.
20. Metro Water Services shall be provided sufficient and unencumbered access in order to maintain and repair utilities in this site.
21. Size driveway culverts per the design criteria set forth by the Metro Stormwater Management Manual (minimum driveway culvert in Metro ROW is 15" CMP).
22. Landscape: The development of this project shall comply with and exceed the requirements of metro zoning code 17.24 tree protection and replacement and with chapter 17.40, article x. Tree protection and replacement procedures.

Public Works Construction Notes
1. Proof rolling of all public street sub-grades is required in the presence of the Public Works' inspector. This request is to be made 24 hours in advance.
2. Stop signs to be 30 inch x 30 inch.
3. Street signs to have six inch white letters on a nine inch green aluminum blade.
4. All signs to have 3M reflective coating.
5. All utility boxes located in the right of way or in the sidewalk shall be approved by the MPW inspector prior to installation.
6. All of the public sidewalk along the roadway shall follow the grade of the roadway and shall not be adjusted to meet private sidewalk connections. The adjustments shall be made out of the right of way.
7. Drainage shall not flow over the sidewalk.
8. Curb ramps shall have detectable warning strips.
9. Driveway width can be sight adjusted at the discretion of the MPW inspector.
10. Elevation of the curb and gutter is the responsibility of the contractor but once in place shall function as designed.
11. Curb and gutter installed may be tested to verify flow to the storm drain system. Drainage shall not pool in roadways.
12. Replace stormwater grates within public right of way with bike friendly grates

MWS Standard Private Utility Plan Notes
1. All water and/or sewer services, along with appurtenances, shall be installed in accordance with specifications and standard details of the Metro Water Services.
2. All connection to existing manholes shall be by coring and resilient connector method.
3. Vertical Double Check Valve Assemblies, that are located in interior rooms, can only be used for fire services.
4. All water meters shall be a minimum of 24" not to exceed a maximum of 28" below finished grade.
5. Irrigation line shall be copper from the meter to the backflow preventer.
6. The minimum fees outlined in the capacity letter must be paid before commercial construction plans can be approved.
7. All sewer services shall be 6 inches in diameter, from the connection at the main until the first clean out assembly.
8. Backflow device to remain accessible at all times.
9. Plan size shall be 24"x36", and shall show contours around meter boxes.

Metro Water & Sewer Notes
1. All water and sewer construction shall be in accordance with specifications and standard details of the Metro Water Services.
2. The contractor is responsible for reimbursing the Metro Water Services the cost of inspection.
3. The contractor is to provide and maintain the construction identification sign for private development approved.
4. 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.
5. All connections to existing manholes shall be by coring and resilient connector method.
6. 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.
7. All water meters shall be a minimum of 24" not to exceed a maximum of 28" below finished grade.
8. 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.
9. Pressure regulating devices will be required on the customer side of the meter when pressures exceed 100 psi.
10. Pressure regulating devices will be required on the street side of the meter when pressures exceed 150 psi.
11. All water mains must be located within the paved area including all blow-off assemblies.
12. The contractor shall provide the record drawing information noted above to the engineer.

N
VICINITY MAP
SCALE: NTS

SHEET INDEX

	COVER SHEET
C1.00	EXISTING CONDITIONS & DEMOLITION PLAN
C2.00	SITE LAYOUT PLAN
C3.00	UTILITY PLAN
C4.00	GRADING AND DRAINAGE PLAN

Development Summary

Council District Number:	19
Council Member Name:	Freddie O'Connell
Owner of Record:	1400 Arthur, LLC PO Box 150204 Nashville, TN 37215
Case No.:	2019SP-065-001
Designer:	CSDG, PLLC 2305 Kline Avenue, Suite 300 Nashville, TN 37211 Phone: (615) 248-9999 Contact: Sean DeCoster seand@civil-site.com
U.S. FEMA FIRM:	47037C0241H (dated April 5, 2017)

Survey
Base information was taken from a surveys prepared by Clint T. Elliott, dated, January 25, 2019. 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.

Flood Plain
By graphic plotting, this property is in Zone X of the Flood Insurance Rate Map, Community Panel No. **47037C0241H** effective date of April 5, 2017. Zone X is defined as areas determined to be outside of the 500-year floodplain.

SEAL
SEAN K. DECOSTER
REGISTERED
ENGINEER
No. 2016-060
11/01/19
COMMERCE
No. 00106240
STATE OF TENNESSEE

Stormwater Grading Permit Number: **SWGR#**_____
Stormwater Variance Number: **SWMC#**_____
Metro Sewer Project Number: _____
Metro Water Project Number: _____
Building Permit Number: _____

Tennessee811
Know what's below. Call before you dig.

CSDG
Planning | Engineering
Landscape Architecture

PLANNER | ENGINEER
CSDG
2305 KLINE AVE, STE 300
NASHVILLE, TN 37211
PH: 615.248.9999
CONTACT: SEAN K. DECOSTER
E-MAIL: seand@csdgtn.com

OWNER | DEVELOPER
1400 ARTHUR, LLC
PO BOX 150204
NASHVILLE, TN 37215
PH: 615.543.5535
CONTACT: DEREK B. LISLE
E-MAIL: derek.lisle@peacedevelopment.com

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

LANDSCAPE ARCHITECT
HEIBERT & BALL, LAND DESIGN
1894 GEN. GEO. PATTON DR., SUITE 400
FRANKLIN, TN 37067
PH: 615.376.2421
CONTACT: CONNOR BALL, PLA
E-MAIL: connor@hblanddesign.com

SURVEYOR
CLINT T. ELLIOTT, RLS
1700 HAYES STREET, SUITE 301
NASHVILLE, TN 37203
PH: 615.490.3236
CONTACT: CLINT T. ELLIOTT, RLS
E-MAIL: clint@clintelliottsurvey.com

ISSUE SET:
PRELIMINARY SP
ISSUE DATE: 07/31/19

REVISION SCHEDULE:

No.	Description	Date
	Preliminary SP Resubmittal	11/01/19

REVISION:	DRAWN:	CHECKED:
	LEB	SKD

PROJECT NO.: 19-009-01

Site Demolition Notes:

1. Base Information was taken from a survey prepared by Clint T. Elliott, dated January 25, 2019. CSDG, 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.
2. The contractor shall call Tennessee One Call (811) 72 hours prior to proceeding with any excavation.
3. The contractor shall field verify the limits of demolition with the owner's representative prior to commencement of work.
4. The contractor shall conform to local codes, obtain all permits and give all notices required for execution of the work.
5. Cavities left by structure removal shall be suitably backfilled and compacted in accordance with these plans and specifications.
6. The contractor is responsible for all demolition and removal necessary to accomplish the proposed improvements shown on these plans.
7. 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.
8. 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.
9. 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.
10. The contractor shall use water sprinkling and other suitable methods as necessary to control dust and dirt caused by the demolition work.
11. The contractor shall preserve and protect survey control points and shall be responsible for replacement of any disturbed control points.
12. No utility or storm sewer lines shall be demolished until the new lines have been installed and are placed into operation.
13. 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.
14. 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 concreted plug. Existing lines within the proposed building footprint (and 10 feet beyond the building footprint) shall be removed.
15. 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.
16. 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.
17. The contractor shall incorporate into his work any isolation valves or temporary plugs required to construct new utility lines and demolish existing utility lines.
18. 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.
19. Relocation of existing plant materials shall be coordinated with the owner and relocated to a designated area on the site.
20. 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.

Survey

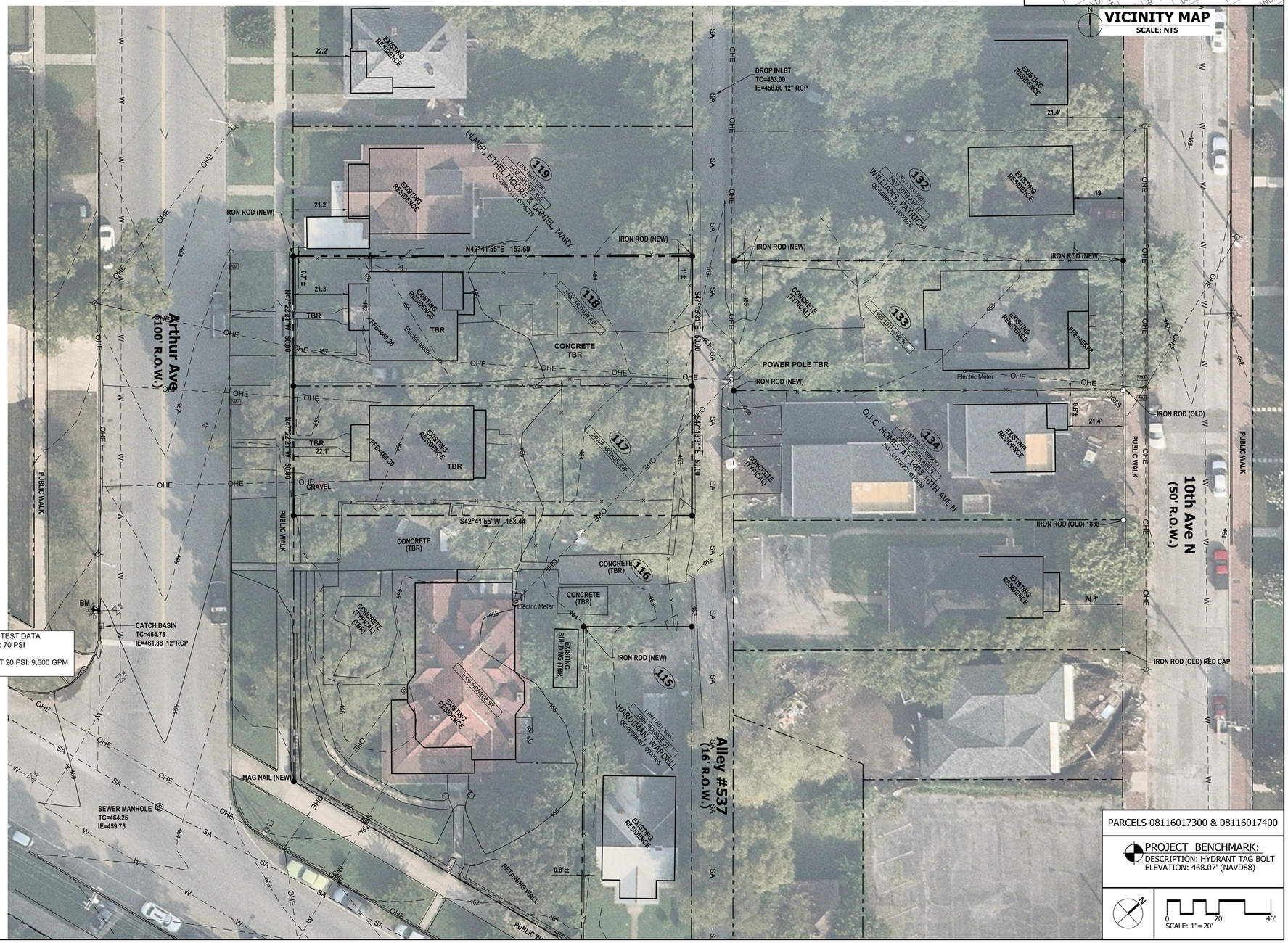
Base information was taken from a surveys prepared by Clint T. Elliott, dated, January 25, 2019. CSDG, P.L.L.C. and any of their consultants shall not be held responsible for the accuracy and/or completeness of that information shown hereon or any errors or omissions resulting from such.

Flood Plain

By graphic plotting, this property is in Zone X of the Flood Insurance Rate Map, Community Panel No. **47037C0241H** effective date of April 5, 2017. Zone X is defined as areas determined to be outside of the 500-year floodplain.

TBR = TO BE REMOVED

VICINITY MAP
SCALE: NTS



TWO HYDRANT FLOW TEST DATA
RESIDUAL PRESSURE: 70 PSI
FLOW: 1,353 GPM
CALCULATED FLOW AT 20 PSI: 9,600 GPM
DATE OF TEST: 7/2/19

PARCELS 08116017300 & 08116017400

PROJECT BENCHMARK:
DESCRIPTION: HYDRANT TAG BOLT
ELEVATION: 468.07' (NAVD88)

SCALE: 1"=20'

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

SEAL

1400 ARTHUR ROW HOMES

1400 & 1400A
Arthur Ave.
Nashville,
Davidson County,
Tennessee

ISSUE SET:
PRELIMINARY SP

ISSUE DATE: 07/31/19

REVISION SCHEDULE:

No.	Description	Date
	Preliminary SP Resubmittal	11/01/19

REVISION:	DRAWN:	CHECKED:
	LEB	SKD

EXISTING CONDITIONS AND DEMOLITION PLAN

C1.00

PROJECT NO.: 19-009-01

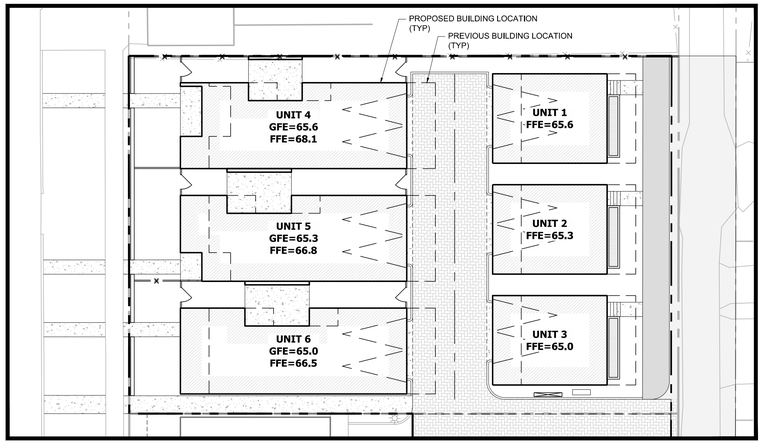
Oct 31, 2019 - 12:27pm T:\CADD\2019\19-009-01\CAD\Civil\Prelim SP\19-009-01_PSP_C1.00 - Existing Conditions and Demolition Plan.dwg

General Notes:

1. Base information was taken from a survey prepared by Clint T. Elliott, dated January 25, 2019.
2. Provide a smooth transition between existing pavement and new pavement. Slight field adjustment of final grades may be necessary.
3. All roadway, driveway, sidewalk, and curb construction shall conform to the requirements and specifications of the local municipality codes and requirements.
4. Concrete for curbs and sidewalks shall be 3500 PSI concrete unless required otherwise by local codes.
5. The site layout is based on control points as noted.
6. The contractor shall conform to all local codes and receive approval where necessary before commencement of any construction.
7. All site related construction materials and installation shall conform to local governing agency regulations and specifications.
8. Handicap ramps shall have a maximum slope of 1:12.
9. All pavement materials and construction shall conform to the local governing agency and state D.O.T. standards and specifications.
10. 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.
11. Dimensions are to face of curb and/or exterior face of building unless otherwise noted.
12. 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.
13. 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.
14. 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.
15. 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.
16. Contractor shall give all necessary notices and obtain all permits prior to commencement of any construction.
17. 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.
18. 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.
19. 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.
20. 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.
21. Do not scale this drawing as it is a reproduction and subject to distortion.
22. These plans, prepared by CSDG, 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.
23. In the case of conflict between this drawing and any other drawing and/or the specifications, the engineer shall be immediately notified for clarification.

ARCHITECTURAL NOTES:

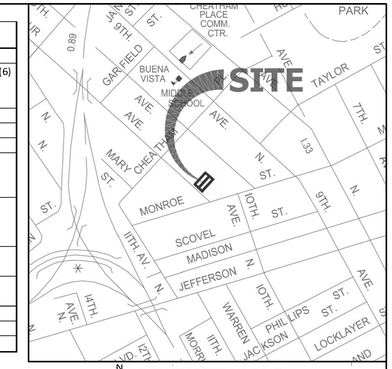
1. Building facades fronting a street shall provide a minimum of one principal entrance (doorway) and a minimum of 25% glazing.
2. Windows shall be vertically oriented at a ratio of 1.5:1 or greater, except for dormers.
3. EIFS, vinyl siding and untreated wood shall be prohibited.
4. Porches shall provide a minimum of six feet of depth.
5. A raised foundation of 18"-36" shall be provided for alley facing units.



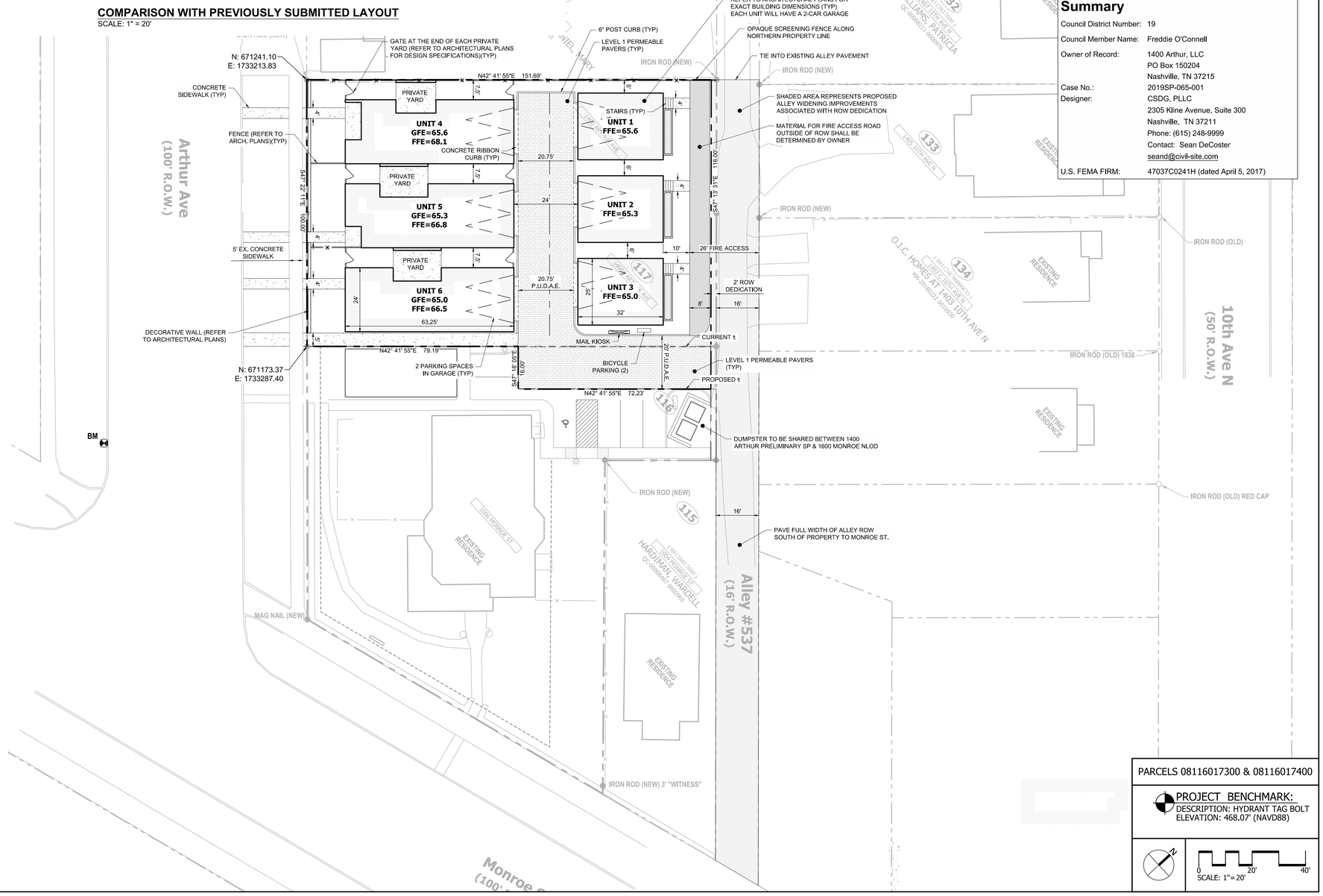
COMPARISON WITH PREVIOUSLY SUBMITTED LAYOUT
SCALE: 1" = 20'

SITE DATA TABLE

SITE AREA	±0.37 AC / 16,312 SF
PERMITTED USES	THE USES PERMITTED IN THIS SP SHALL INLCUDE SIX (6) RESIDENTIAL, SINGLE FAMILY UNITS AND ALL USES PERMITTED IN THE RM40 ZONING DISTRICT
PROPOSED BUILDING TYPE	RESIDENTIAL
PROPOSED # OF UNITS	6
PROPOSED UNIT AREAS	±800 SF BUILDINGS & ±1,360 SF BUILDINGS
MINIMUM SETBACKS AT PROP. LINE	FRONT - 5' SIDE - 0' REAR - 5'
PARKING REQUIRED	RESIDENTIAL IN UZO - 2 OR 3 BEDROOM (1.5/UNIT) = 9 **TOTAL SPACES = 9**
PARKING PROVIDED	GARAGE PARKING = 12 **TOTAL PARKING PROVIDED = 12**
BICYCLE PARKING	REQUIRED = 2 PUBLICLY ACCESSIBLE = 2
MAX. IMPERVIOUS SURFACE RATIO (ISR)	90%
MAX. FLOOR AREA RATIO (FAR)	150%
MAX. HEIGHT	3 STORIES



VICINITY MAP
SCALE: NTS



Development Summary

Council District Number:	19
Council Member Name:	Freddie O'Connell
Owner of Record:	1400 Arthur, LLC PO Box 150204 Nashville, TN 37215
Case No.:	2019SP-065-001
Designer:	CSDG, PLLC 2305 Kline Avenue, Suite 300 Nashville, TN 37211 Phone: (615) 248-9999 Contact: Sean DeCoster seand@civil-site.com
U.S. FEMA FIRM:	47037C0241H (dated April 5, 2017)

PARCELS 08116017300 & 08116017400

PROJECT BENCHMARK:
DESCRIPTION: HYDRANT TAG BOLT
ELEVATION: 468.07' (NAVD88)

SCALE: 1"=20'

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

SEAL

1400 ARTHUR ROW HOMES

1400 & 1400A
Arthur Ave.
Nashville,
Davidson County,
Tennessee

ISSUE SET:
PRELIMINARY SP

ISSUE DATE: 07/31/19

REVISION SCHEDULE:

No.	Description	Date
	Preliminary SP Resubmittal	11/01/19

REVISION:	DRAWN:	CHECKED:
	LEB	SKD

SITE LAYOUT PLAN

C2.00

PROJECT NO.: 19-009-01

Oct 31, 2019 - 12:27pm T:\CAD\2019\19-009-01\CAD\Civil\Prelim SP\19-009-01_PSP_C2.00 - Site Layout Plan.dwg

Site Utility Notes:

1. 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.
2. 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.
3. 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.
4. The contractor shall comply with all pertinent provisions of the manual of Accident Prevention and Construction issued by AGC of America.
5. Provide a minimum 36" of cover over all water lines unless required otherwise by the local water department.
6. 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.
7. Coordinate the exact location of all utilities entering the building with the plumbing plans.
8. 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.
9. 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.
10. All connections to existing manholes shall be by the coring and resilient seal method.
11. 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.
12. The contractor shall adjust the alignment of the water lines (horizontally and/or vertically) to allow the required bracing at bends and tees.
13. 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.
14. Contractor shall mark the location of all new PVC lines with #8 wire.
15. 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.
16. 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).
17. 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.
18. 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.
19. 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.
20. 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.
21. 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.
22. The concrete caps and encasements on water and sewer lines shall be a minimum of 6" thick. Use 3000 PSI concrete.
23. 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.
24. 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.
25. Existing manholes located in fill/cut areas shall be adjusted to ensure that the top of casting is flush with the finished grade.
26. 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.
27. 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.
28. The proposed gas line construction and installation shall be coordinated with the local gas by the contractor.
29. The proposed electric line construction and installation shall be coordinated with the local electric company by the contractor.
30. The proposed telephone line construction and installation shall be coordinated with the local telephone company by the contractor.
31. Siamese stand pipe to be galvanized steel.

UTILITY NOTES:

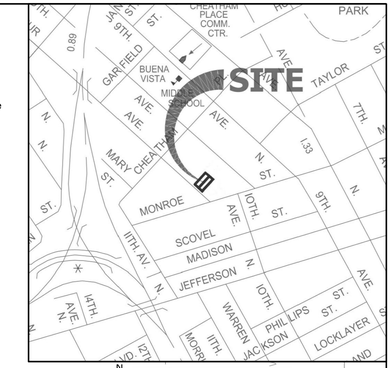
1. All water and sewer lines (including services) shall be a minimum of 18" below the bottom of the permeable pavement subgrade.
2. Contractor to verify size and location of all existing utilities prior to construction.

Metro Water & Sewer Notes:

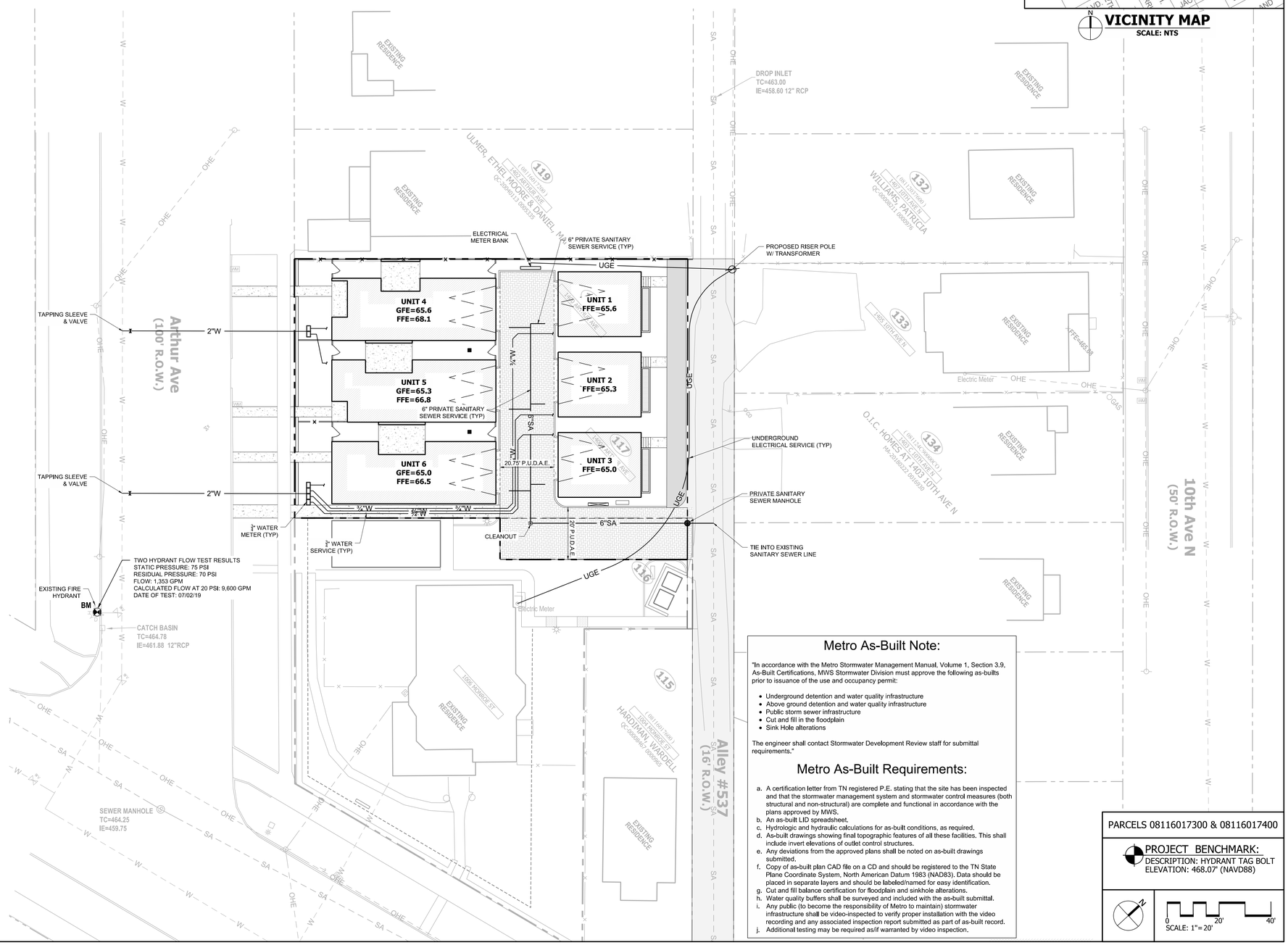
1. All water and sewer construction shall be in accordance with specifications and standard details of the Metro Water Services.
2. The contractor is responsible for reimbursing the Metro Water Services the cost of inspection.
3. The contractor is to provide and maintain the construction identification sign for private development approved.
4. 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.
5. All connections to existing manholes shall be by coring and resilient connector method.
6. 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.
7. All water meters shall be a minimum of 24" not to exceed a maximum of 28" below finished grade.
8. 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.
9. Pressure regulating devices will be required on the customer side of the meter when pressures exceed 100 psi.
10. Pressure regulating devices will be required on the street side of the meter when pressures exceed 150 psi.
11. All water mains must be located within the paved area including all blow-off assemblies.

MWS Standard Private Utility Plan Notes

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



VICINITY MAP
SCALE: NTS



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-builts prior to issuance of the use and occupancy permit:

- Underground detention and water quality infrastructure
- Above ground detention and water quality infrastructure
- Public storm sewer infrastructure
- Cut and fill in the floodplain
- Sink Hole alterations

The engineer shall contact Stormwater Development Review staff for submittal requirements."

Metro As-Built Requirements:

a. 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.
b. An as-built LID spreadsheet.
c. Hydrologic and hydraulic calculations for as-built conditions, as required.
d. As-built drawings showing final topographic features of all these facilities. This shall include invert elevations of outlet control structures.
e. Any deviations from the approved plans shall be noted on as-built drawings submitted.
f. 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.
g. Cut and fill balance certification for floodplain and sinkhole alterations.
h. Water quality buffers shall be surveyed and included with the as-built submittal.
i. 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.
j. Additional testing may be required as/if warranted by video inspection.

PARCELS 08116017300 & 08116017400

PROJECT BENCHMARK:
DESCRIPTION: HYDRANT TAG BOLT
ELEVATION: 468.07' (NAVD88)

SCALE: 1"=20'

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

SEAL

SEAN K. DECOSTER
REGISTERED ENGINEER
NO. 00106250
COMMERCIAL
STATE OF TENNESSEE
11/01/19

1400 ARTHUR ROW HOMES

1400 & 1400A
Arthur Ave.
Nashville,
Davidson County,
Tennessee

ISSUE SET:
PRELIMINARY SP

ISSUE DATE: 07/31/19

REVISION SCHEDULE:

No.	Description	Date
	Preliminary SP Resubmittal	11/01/19

REVISION: | DRAWN: LEB | CHECKED: SKD

UTILITY PLAN

C3.00

PROJECT NO.: 19-009-01

Oct 31, 2019 - 12:28pm T:\CADD\2019\19-009-01\CAD\Civil\Prelim SP\19-009-01_PSP_C3.00 - Utility Plan.dwg

Site Grading, Drainage & Erosion Control Notes:

1. The disturbed area for this project is approximately 0.35 acres.

2. 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.

3. The contractor shall call "Tennessee One Call" (811) 72 hours prior to proceeding with any excavation.

4. 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.

5. Stockpiled topsoil or fill material shall be treated so no sediment run-off will contaminate surrounding areas or enter nearby streams.

6. 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.

7. All new pipes under existing paved areas shall be backfilled to the top of subgrade with # 57 crushed stone.

8. 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.

9. Reinforced concrete storm drainage pipe shall be Class III. Corrugated metal pipe shall be 14 gauge unless otherwise noted.

10. Minimum grade on asphalt or concrete paving shall be 1.0%.

11. Construct silt barriers before beginning any grading operations.

12. 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.

13. Do not disturb vegetation or remove trees except when necessary for grading purposes.

14. 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).

15. 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.

16. Respread 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.

17. 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.

18. All cut and fill slopes shall be 3 horizontal to 1 vertical or flatter unless otherwise indicated on plans.

19. 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.

20. Remove sediment from all drainage structures before acceptance by local governing agency, or as directed by the owner's representative.

21. Contractor shall conform to all applicable codes and obtain approval as necessary before beginning construction.

22. 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.

23. 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.

24. All earthwork, including the excavated subgrade and each layer of fill, shall be monitored and approved by a qualified geotechnical engineer, or his representative.

25. 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.

26. All drainage construction materials and installation shall conform to the requirements and specifications of the local governing agency.

27. 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.

28. 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.

29. Strip topsoil from all cut and fill areas and stockpile. Upon completion of general grading respread 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.

30. 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.

31. 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 CRF Part 1926) shall be followed.

32. 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.

33. 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.

34. Relocation of existing plant materials shall be coordinated with the owner and relocated to a designated area on site.

35. 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.

36. The contractor shall coordinate the exact location of the storm drain connections at the building with the plumbing plans.

37. 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.

38. 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.

39. Contractor shall install railings at top of wall as required by local and federal requirements.

ROOF DRAIN NOTES:

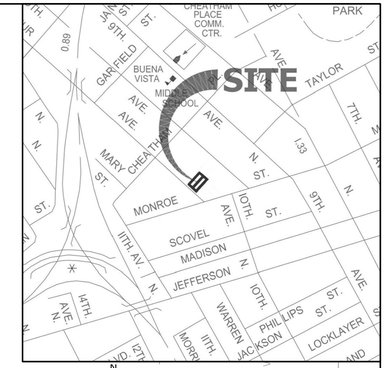
1. Roof drains from units 1-3 and the southern half of units 4-6 have been accounted for as bypass.
2. The northern roof drains from units 4-6 shall spill directly onto the surface of the permeable pavers.

NONUNIFORM HEIGHT RISERS NOTE

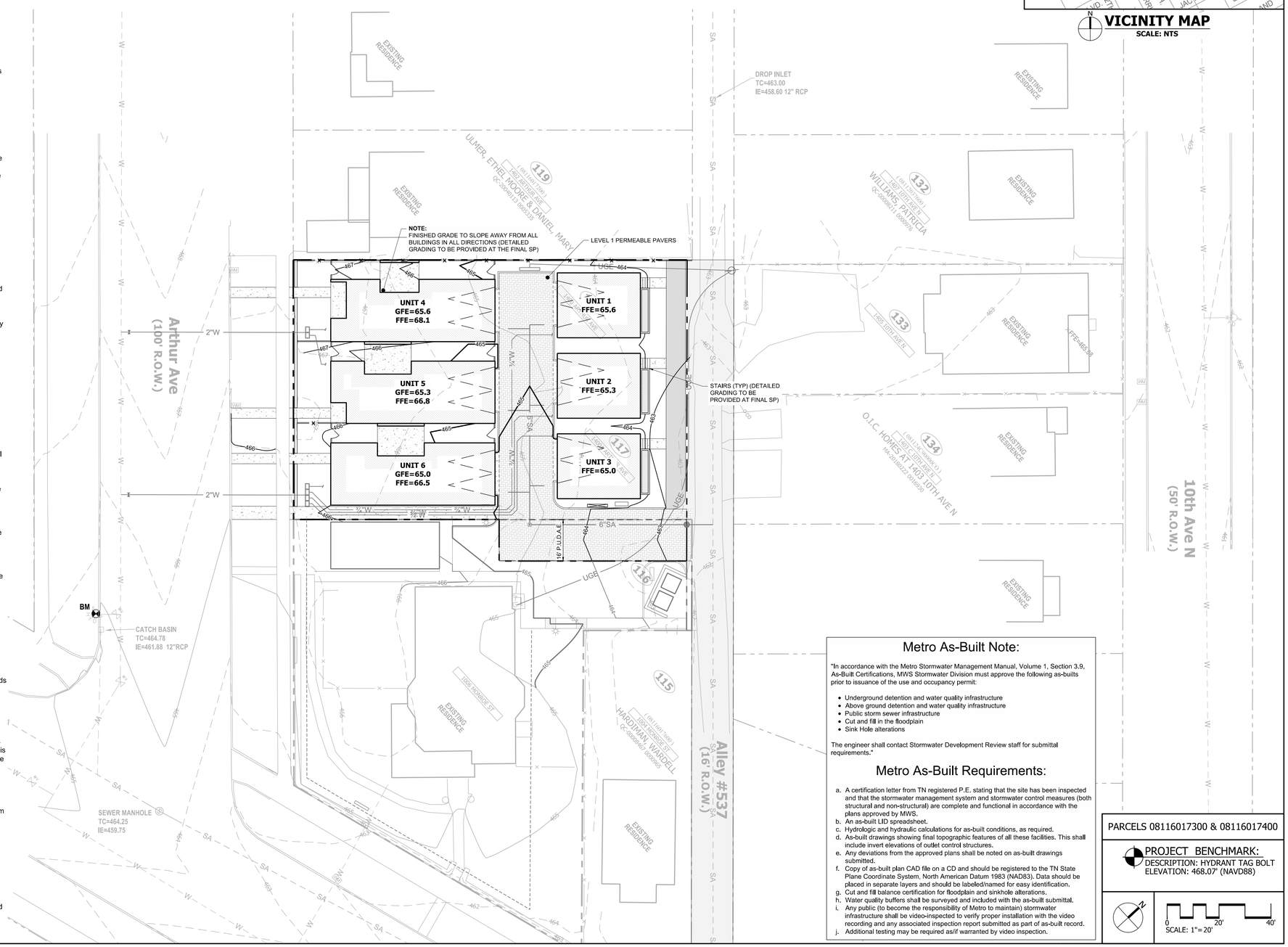
Where the bottom or top riser adjoins a sloping public way, walkway or driveway having an established grade and serving as a landing, the bottom or top riser is permitted to be reduced along the slope to less than 4 inches (102 mm) in height, with the variation in height of the bottom or top riser not to exceed one unit vertical in 12 units horizontal (8-percent slope) of stair width. The nosings or leading edges of treads at such nonuniform height risers shall have a distinctive marking stripe, different from any other nosing marking provided on the stair flight. The distinctive marking stripe shall be visible in descent of the stair and shall have a slip-resistant surface. Marking stripes shall have a width of not less than 1 inch (25 mm) but not more than 2 inches (51 mm).

NOTE:

This development is within the combined sewer system. Additional offsite improvements may be required at the time of the Final SP.



VICINITY MAP
SCALE: NTS



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-builts prior to issuance of the use and occupancy permit:

- Underground detention and water quality infrastructure
- Above ground detention and water quality infrastructure
- Public storm sewer infrastructure
- Cut and fill in the floodplain
- Sink Hole alterations

The engineer shall contact Stormwater Development Review staff for submittal requirements."

Metro As-Built Requirements:

a. 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.
b. An as-built LID spreadsheet.
c. Hydrologic and hydraulic calculations for as-built conditions, as required.
d. As-built drawings showing final topographic features of all these facilities. This shall include invert elevations of outlet control structures.
e. Any deviations from the approved plans shall be noted on as-built drawings submitted.
f. 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.
g. Cut and fill balance certification for floodplain and sinkhole alterations.
h. Water quality buffers shall be surveyed and included with the as-built submittal.
i. 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.
j. Additional testing may be required as/if warranted by video inspection.

PARCELS 08116017300 & 08116017400

PROJECT BENCHMARK:
DESCRIPTION: HYDRANT TAG BOLT
ELEVATION: 468.07' (NAVD88)

SCALE: 1"= 20'

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

SEAL

SEAN K. DECOSTER
REGISTERED ENGINEER
NO. 00106250
COMMERCIAL
STATE OF TENNESSEE
11/01/19

1400 ARTHUR ROW HOMES

1400 & 1400A
Arthur Ave.
Nashville,
Davidson County,
Tennessee

ISSUE SET:

PRELIMINARY SP

ISSUE DATE: 07/31/19

REVISION SCHEDULE:

No.	Description	Date
	Preliminary SP Resubmittal	11/01/19

REVISION:	DRAWN:	CHECKED:
	LEB	SKD

GRADING AND DRAINAGE PLAN

C4.00

PROJECT NO.: 19-009-01

Oct 31, 2019 - 12:28pm T:\CADD\2019\19-009-01\CAD\Civil\Prelim SP\19-009-01_PSP_C4.00 - Grading and Drainage Plan.dwg