

PROJECT NARRATIVE

ANN ARBOR GALLERIA

CITY OF ANN ARBOR REQUIRED SITE PLAN INFORMATION

UDC Required Site Plan Information

A. Required Site Plan Information
1. Cover Sheet - The following general project information should be provided on the cover sheet of the plan set and all subsequent sheets as appropriate.

a. Project name, address or location, and type of site plan.
Ann Arbor Galleria 1208 South University, Ann Arbor, MI 48104; Site Plan for City Planning Commission.

b. Petitioner and agent information, including name, address and contact information.
Petitioner: LCD Acquisitions, LLC, 315 Oconee St, Athens, GA, 230601. Tucker Snipes, 706-537-4720
Agent: Midwestern Consulting LLC, 3815 Plaza Drive, Ann Arbor, MI 48108; Ph. (734) 995-0200; Attn: Scott W. Betzoldt.

c. Statement of interest in the land, including conditions for sale or purchases of parcels such as deed restrictions, reservation of land for other uses, or other conditions which may have bearing on the total land development.

d. Vicinity map identifying the location of the Site within the City, including nearest major roads and significant features such as schools, shopping centers and parks. See Cover Sheet.

e. North indicator (pointing up or to the left) and drawing scale in bar graph form. Shown on all relevant sheets.

f. Legal description of the Site, including total acreage of the parcel(s) and total acreage of public or private roads contained in the legal description. See Existing Conditions and Survey Plan.

g. Sheet index and date of plan set. See Cover Sheet.
h. Required Statements - A brief written statement addressing the following concerns:
i) Identification of associated applications such as annexation petition, rezoning petition, PUD Zoning District petition, Special Exception Use petition, planned project modification request, landscape modification request, or variance application. Identification of special circumstances associated with the application that require additional procedures or specific approvals such as Natural Features buffer area. The Site Plan application is under the D1 zoning and the project address to the D1 requirements.

ii) Proposed development program, including proposed land use, improvements, Floor Area or number of Dwelling Units and bedrooms, access and circulation, off-street parking, preliminary construction phasing and estimated construction costs. The proposed development is located in the D1 zoning district. The site has frontage on South University Avenue. The project includes removal of a single story brick building and current use as retail/commercial/residential development.

iii) Proposed Development Summary:
One Building: a 11 story apartment building, 186 dwelling units/76 bedrooms, 324,590 sq ft of floor area. Building height: 195 feet. Storm water management: an underground tank is designed for full infiltration with an overflow discharge to City storm sewer in the City's private driveway south of the proposed building.

Resident parking is available on a limited basis as well as parking for commercial employees on the ground and second floors. Access is available from the ally on the south side of the building. Storm water will be collected primarily through roof drains with limited surface collection. The roof conductors and surface drains will be routed to a detention chamber located in under the building in the southern part of the site.

Proposed Phasing and Probable Construction Cost: The development will be constructed in one phase, beginning on or before 6/1/2026, with completion on or before 8/1/2028. The estimated construction cost is \$68,000,000.

ii) Comparison Chart of Requirements and Existing and Proposed Conditions
j. Zoning Classification: Existing D1, Proposed D1
k. Lot Area: 0.88 acres, 26,300 square feet.

l. Total area of all Floors (measured from exterior faces of the exterior walls or from the center line of walls separating two Buildings). Floor Area and Density: 324,590 sq gross including residential, leasing and amenity area.

m. Open Space and Active Open Space: Not required.
n. Required Setbacks and Yards (Front, Side and Rear): Front (South University): 0 feet(N), Side, Ex, Side-0' Rear, S-0'

o. Height and stories: 195.0 feet, 17 stories.
p. Off-street vehicle parking, including accessible and barrier free spaces. None Required. Parking provided in 2 floors, 77 space total incl. 4 barrier free.

q. Bicycle parking, including class. Class A: 110 spaces provided in bike room + 15 provided in units = 125 total Class C: 0 spaces provided. Total Bicycle Parking: 125 spaces provided.

r. Notation of variances granted or proposed, planned project modifications approved or proposed. N/A

2. Existing Conditions Plan - Drawings and written descriptions of the existing conditions of the Site must be included on the plans, including the following:
a. ALTA Land Survey. See Existing Conditions and Survey Plan.

b. Existing and proposed contours extending 50 feet beyond the Site at a minimum interval of two feet. See Existing Conditions and Survey Plan, and Grading Plan.

c. If new City public utility sewer, water mains, Storm Water Management System, or streets are proposed in conjunction with a site plan, the plans must be referenced to the Ann Arbor Geodetic Reference System. The survey is referenced to the AGRS (State Plane Coordinates, Michigan South Zone (2113)).

3. Dimensional Layout Plan - Drawings and written descriptions of the proposed Development must be provided on plans, demonstrating compliance with all applicable Development Standards such as building area, height and placement, off-street parking, streets and access, including the following: See Dimensional Site Plan.

a. Existing and proposed Lot Lines. Shown.
b. Minimum and maximum Required Setback Lines, including Established Front Building Line and required increases to the normal minimum side and rear setbacks, if applicable; existing and proposed Front, Side and Rear Yards. Shown.

c. Existing and proposed Buildings. See Existing Conditions and Survey Plan for existing buildings. See Dimensional Site Plan for proposed building.

d. Vehicle Parking Signage. Identify any "no parking" areas or fire lanes and indicate any proposed signage. See Architectural Plan.

e. Bicycle parking, including detail of facilities. See Dimensional Site Plan and Architectural Plans, and Miscellaneous Notes and Details sheet.

f. Curb Cuts, drive Approaches and curb radii dimensions, including all Curb Cuts on the opposite side of the street from the Site. Dimension of all Fire Department access roads or lanes, if applicable, including width of driveway, lead and curb location, turning radii, etc. See Dimensional Site Plan, Utility Plan and Fire Protection Plan.

g. Open Space and Active Open Space. None required.
h. Natural Features Buffer. N/A
i. Conflicting land use buffer. N/A
j. Soil waste enclosures, including dimensioned detail. See Architectural Plans.

k. Perspective sketch of building showing Streetwall Height and Offset, if applicable. See Architectural Plans.

4. Natural Features Plan - Drawings and written descriptions identifying all Natural Features on the Site, proposed protection measures for avoiding disturbance to existing Natural Features, alternatives analysis, and proposed mitigation for any disturbed or removed Natural Features to determine compliance with applicable Development standards must be included on the plans, including the following: See Natural Features Impact Statement on Existing Conditions and Survey Plan.

a. Accurate location and description of all Natural Features within the Limits of Soil Disturbance and in an area extending 50 feet beyond the Limits of Soil Disturbance.
i) Limits of Soil Disturbance. See Grading Plan.
ii) Boundary and description of any Endangered Species Habitat. N/A.

iii) Boundary and elevation of any 100-year floodplain. N/A.
iv) Location, species and Critical Root Zone and condition of Landmark Trees. N/A.
v) Location of all Steep Slopes and cross section through the Site showing the proposed activity in relationship to the topography. N/A.

vi) Existing and proposed Watercourses showing depths, normal water levels, shore gradients, type of bank retention and shore vegetation. N/A.
vii) Boundary and character of all Wetlands. N/A.

b. Boundary and basal area of any Woodland, with location, species and DBH of all trees six inches DBH or greater within the Woodland area. N/A.
c. Location and extent of required Natural Features Buffer. Identification of all temporary or permanent activity (i.e. impacts or disturbance) within the Natural Features buffer. N/A.

d. When any activity within the Natural Features buffer is proposed, a written justification responding to each general criteria for determining a proposed activity in the Natural Features buffer is in the public interest. N/A.

e. Protection measures for those existing Natural Features proposed to be protected as part of the Development, including protections from the construction of the Development. N/A.

f. Identification of all Natural Features proposed to be improved, disturbed, or removed by the Development, including the construction of the Development. N/A.

g. Alternatives Analysis: When any Natural Features are proposed to be removed or disturbed, drawings and descriptions of at least two alternative plans that were prepared and considered but are not proposed which demonstrate and justify that the proposed Development limits the disturbance or removal of Natural Features on and adjacent to the Site to the minimum necessary to reasonably accomplish the permitted use. N/A.

h. Proposed mitigation measures: When any Natural Features are proposed to be removed or disturbed, proposed mitigation measures must be provided including: N/A.

i. Written description of the mitigation program, identifying the type and appropriate quantity (i.e. basal area, square feet, caliper inches) of Natural Features removed or disturbed and the appropriate quantity of the mitigation proposed. N/A.

j. Replacement calculations: N/A.
k. Location of proposed mitigation plantings: N/A.

l. Chart listing the proposed plantings, including botanical and common names, caliper sizes, root type and height. N/A.
m. Timing schedule for implementation of mitigation measures. N/A.

n. Notation and description of any proposed alternative mitigation measures. N/A.

5. Natural Features Overlay Plan - A drawing including the dimensional layout and the existing Natural Features on Site. N/A.

6. Landscape Plan - Drawings and written descriptions of proposed landscaping, screening and buffers demonstrating compliance with applicable Development standards such as interior landscaping of Vehicular Use Areas, Right-of-Way screening, conflicting land use buffers, and Natural Features mitigation in order to determine compliance with applicable Development standards must be provided on the plans, including the following:
a. Location, size and species of existing trees and vegetation, and Natural Features. See Existing Conditions and Survey Plan.

b. Location of light poles, refuse containers and enclosures, mechanical equipment and hydrants. See Dimensional Site Plan, Landscape Plan, and Architectural Plans.

c. Limits of Vehicular Use Area and notation of its size in square feet. None.
d. Proposed locations of required landscaping, screening and buffers, street trees and plantings. See Landscape Plan. No buffer or screening is required. Proposed street trees are shown on the plan.

e. Table identifying Vehicular Use Area, interior landscape islands, Right-of-Way screening, conflicting land use buffer, and street tree planting requirements and proposed plantings and areas to satisfy requirements. N/A except Street Trees.

f. Proposed plant list, including caliper sizes, root type, height of material, botanical and common name, type and amount of mulch, ground cover and grasses. See Landscape Plan, number 2.

g. Notation of requested modifications if any. N/A.
h. Planting and staking details in accordance with the standards established by the PSA Administrator. See Miscellaneous Notes and Details sheet.

i. Specification for treatment of compacted soil on the entire Site. See Sheet 5 Notes, number 9.
j. Specification for planting media in landscape areas. See Sheet 5 Notes, number 12.

k. Irrigation plan or water outlets (hose bibs). See Sheet 5 Notes, number 1. See also Architectural Plans.

l. Landscape maintenance program, including a statement that all diseased, damaged, or dead material shall be replaced in accordance with this Code by the end of the following planting season as a continuing obligation for the duration of the site plan. See Sheet Notes, number 2.

m. Identification of snow storage areas, including a statement that snow shall not be pushed onto interior landscape islands unless designed for snow storage. N/A.

n. Berms, retaining walls, screen walls, fences, tree wells to preserve existing trees, culverts to maintain natural drainage patterns, or any other construction details necessary to resolve specific Site conditions. See Architectural Plans.

7. Utility Plan - Drawings and written descriptions of the existing and proposed public utilities serving the Site must be provided on the plans, including the following:
a. Location and size of existing and proposed public water, sanitary sewer, storm sewer mains and leads. Note invert elevations of storm and sanitary mains. See Existing Conditions and Survey Plan, and Utility Plan.

b. Location of existing and proposed fire hydrants. Indicate a 250-foot or 350-foot radius, as appropriate for the type of proposed Development, around each hydrant. Show and dimension hose lay to any external portion of a Structure via an approved fire route from any hydrant or combination of hydrants. Location of fire department connections (FDC) to Buildings. Dimension distance of the hose lay from the FDC to the nearest hydrant via an approved fire route (provide drawing following an actual hose lay). Location of Knox Box, if applicable. Include a separate Fire Protection and Access Plan sheet if necessary for clarity. See Existing Conditions and Survey Plan, Utility Plan, and Fire Protection Plan.

c. Location of existing Public Utility easements, including letter and page number. N/A.
d. Location and dimension of proposed Public Easements. Notation that legal descriptions of proposed easements will be provided with construction drawings and engineering plan submittals as required. N/A.

e. Sanitary and storm flow mitigation calculations. See Utility Plan.
f. Location and notation of firewalls within existing or proposed Buildings, or notation that none are existing or proposed. There are no firewalls in the proposed building. The building is fully fire suppressed.

8. Grading and Soil Erosion Control and Storm Water Management Plan - Drawings and written descriptions demonstrating compliance with the applicable Development standards for Grading and soil Erosion controls must be provided on the plans, including the following:
a. Vicinity map showing location of Site and all adjacent properties within 500 feet of the Site boundaries showing relationship to any Watercourses. See Vicinity Map on the Cover Sheet. There are no Watercourses within 500 feet of the Site.

b. Soil investigation report, survey or profile of data regarding the nature, soil type, distribution, erodibility, and supporting ability of existing soils or rock on the Site in accordance with the United States Department of Agriculture soil survey standards. Soils Report has been submitted separately.

c. Existing and proposed topography at a maximum of two-foot contour intervals, elevations or similar slope descriptions, extending at least 50 feet beyond Site boundary. See Existing Conditions and Survey Plan and Grading Plan.

d. Location of any existing Structure or Natural Feature on the Site and on land extending at least 50 feet beyond the Site boundary lines. See Existing Conditions and Survey Plan and Grading Plan.

e. Location of proposed Structures or Development on the Site including physical limits of each proposed Earth Change and all proposed temporary and permanent soil Erosion and Sedimentation Control Measures. See Existing Conditions and Survey Plan, Grading Plan and Soil Erosion Control Plan.

f. Plans, section and construction - quality details of all soil Erosion and Sedimentation Control Measures, existing and proposed on-site drainage and dewatering facilities, retaining walls, cribbing, planting, anti-Erosion devices or other protective devices to be constructed in connection with, or as part of, the proposed work. See Soil Erosion Control Plan details. Dewatering of the site is not required.

g. Estimated total cost of the required controls during construction, including dust emission control. See Soil Erosion Control Plan, Soil Erosion Control Notes, number 11.

h. Estimated total cost of protecting all exposed surfaces from Erosion should construction discontinue. See Soil Erosion Control Plan, Soil Erosion Control Notes, number 12.

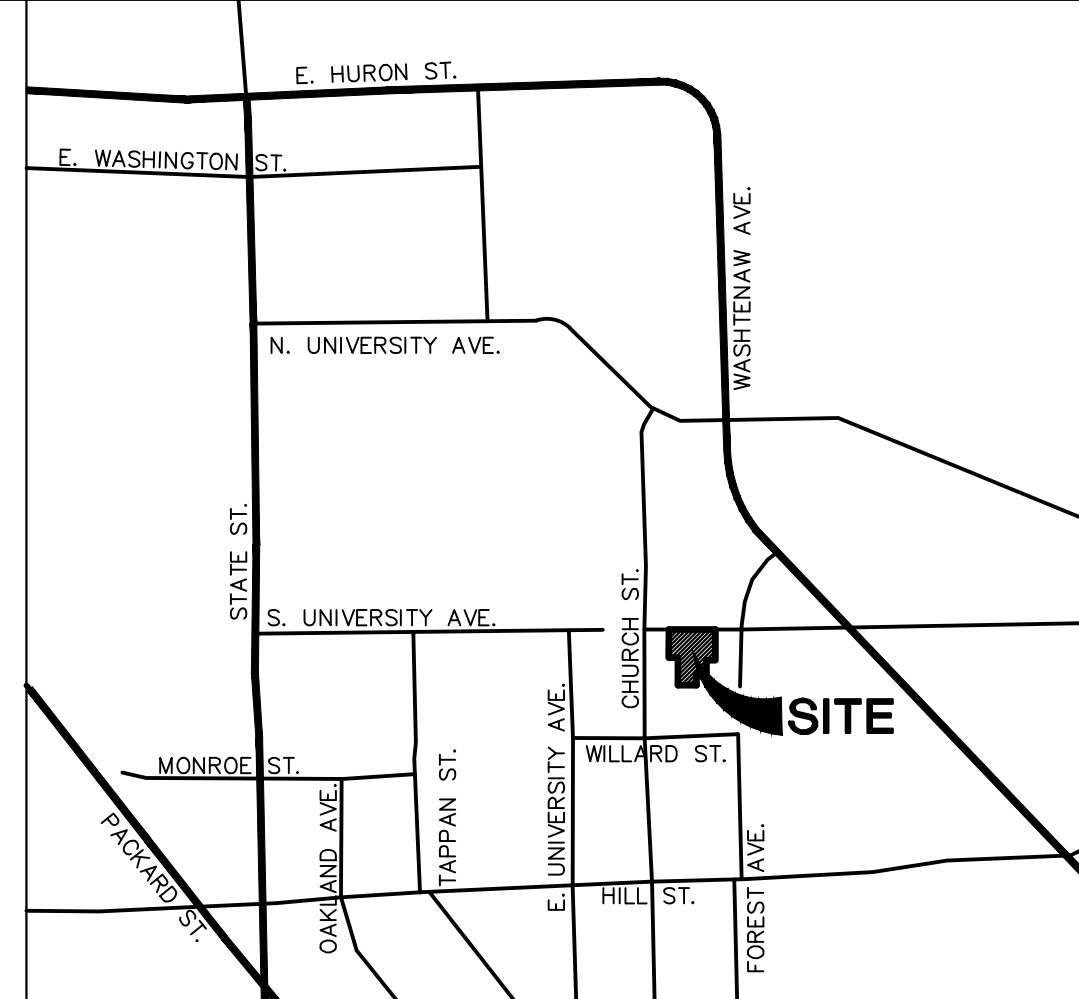
i. Estimate of the quantity of excavation and fill involved. See Soil Erosion Control Plan, Soil Erosion Control Notes, number 14.

j. Amount of impervious area existing and proposed, and square footage of impervious area reconfigured to accommodate new improvements. Existing: 24,800 sf / 98.0%; proposed: 24,900 sf / 98.4%. If a Storm Water Management System is required, computations and design of the Storm Water Management System, such as: See Storm Water Management Calculations for the proposed Development.

k. Calculations used to derive the run-off coefficients. See Basin Storm Water Calculations, W1.

l. Map showing the drainage area and land tributary to the Site and estimated runoff of the area served by any drain. See Stormwater Management Plan.

ANN ARBOR - GALLERIA
SITE PLAN FOR PLANNING COMMISSION
CITY OF ANN ARBOR, MICHIGAN



PROJECT NARRATIVE (CONT.)

h. Proposed Site access Driveways with a determination if a deceleration lane or taper is necessary based on current City warrant analysis standards, a determination if a left-turn by-pass lane is necessary based on a warrant analysis, and a sight distance study at the Site access Driveway.

i. A pedestrian circulation plan showing all possible points of conflict between motorized traffic and pedestrian/bicycle traffic on public streets and sidewalks within 200 feet of the proposed Development, or those intersections that may be impacted by the proposed Development.

j. A gap study for pedestrian or vehicular traffic may be required at non-signalized locations that may be impacted by the proposed Development. The traffic and/or parking impact analysis shall be reviewed by the Department of Transportation for completeness and accuracy. The analysis shall include a determination of the service volume and capacity of adjacent streets including the traffic from the new development. The methodology to be employed in determining street capacities shall conform to the 1995 edition of the Highway Capacity Manual, Special Report Number 209, or the latest revision thereof. Provisions that will mitigate traffic to streets or intersections that are or will be as a result of this proposal at a level of Service D, E, or F as defined in the Highway Capacity Manual may be deemed by Commission and Council until such time as necessary street or traffic improvements are scheduled for construction.

SUSTAINABILITY NARRATIVE

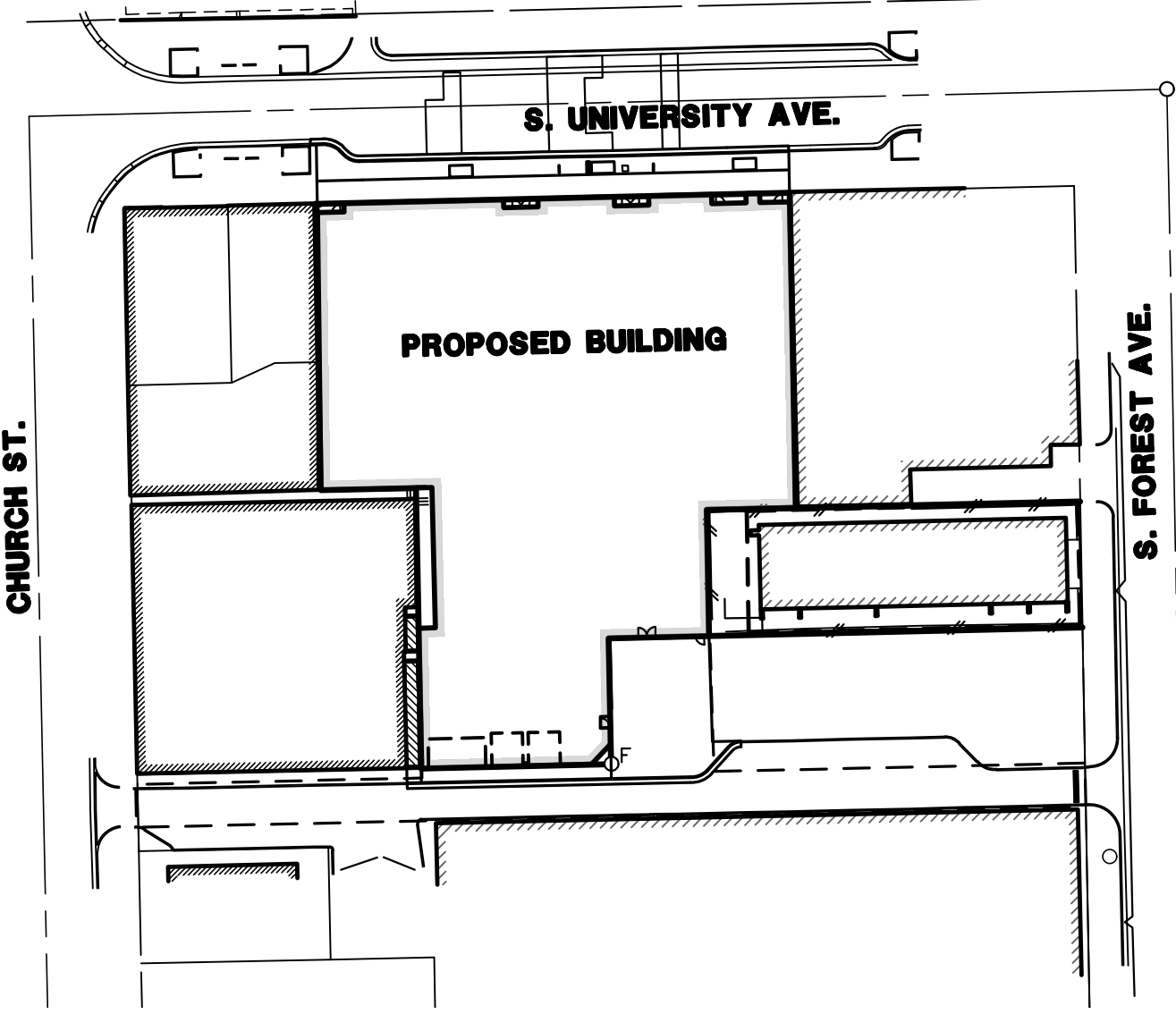
As part of the project's sustainability goals, solar panels will be set above the rooftop mechanical on the uppermost roof to maximize their coverage area and provide optimal exposure to sunlight.

The combination of LEED Gold equivalent design and rooftop solar panels serve as the zoning-related sustainability components applicable to housing developments. These integrations allow the project to secure a thirty percent (30%) height increase over the baseline height limit.

The solar panels planned for the uppermost roof and above the 17th floor amenity space optimize sunlight exposure, limit the impact on views from neighboring buildings, and minimize shading onto adjacent properties.

POWER SUPPLY

The building will be all electric with a natural gas connection for the emergency generator only.



DEVELOPMENT SUMMARY

Table with columns: DEVELOPMENT SUMMARY AND COMPARISON CHART, Site Area, Lot Width, Zoning, Land Use, Building Area, Floor Area, Floor Area Ratio, Building Units, Bedrooms, Building Height, Unit Types/No., Vehicular Parking, Bicycle Parking, Setbacks, Character Overlay District, Streetwall Height, Offset Above Streetwall, Max. Building Module Length. It compares 'Existing/Required' and 'Proposed' values for various metrics.

- NOTES:
1. All sidewalks within the City shall be kept and maintained in good repair by the owner of the land adjacent to and abutting upon the same. Prior to the issuance of the Certificate of Occupancy for this site, all existing sidewalks in need of repair must be repaired in accordance with City standards.
2. All work within the City of Ann Arbor covered by these plans shall be performed in complete conformance with the current City of Ann Arbor Public Services Department Standard Specifications and Details.
3. The omission of any current standard detail does not relieve the contractor from this requirement. The work shall be performed in complete conformance with the current public services standard specifications and details.
4. Sidewalk construction in the public right-of-way shall meet all requirements and guidelines as set forth in the A.D.A. standards for accessible design. Sidewalk and curb ramp grades will be reviewed during construction plan submittals.
5. Pavement markings disturbed due to pavement cuts or construction related activities shall be replaced as directed by Engineering. Replacement during construction of the project may be considered temporary, with final pavement restoration to occur at the end of the project.
6. The contractor shall take all necessary precautions to protect the existing public road pavement. Damage to the public road pavement during the course of construction may necessitate milling and resurfacing of the damaged areas prior to issuance of the Certificate of Occupancy.

LEGAL DESCRIPTION

(Per Fidelity National Title Commitment No. 811196570NTS, Dated: January 6, 2023)

Land Situated in the State of Michigan, County of Washtenaw, City of Ann Arbor.

Parcel 1: The North 120 feet of the West 1/2 of Lot 69 and the North 120 feet of the East 16 feet of Lot 68, R.S. Smith's Addition to the City of Ann Arbor, as recorded in Liber 42 of Deeds, Pages 446 and 447, Washtenaw County Records, also 50 feet in width off from the West side of Lot 68, except 33 feet x 32 feet in the Southwest corner thereof. Also the South 12 feet of the East 16 feet of Lot 68 and the South 12 feet of the West 1/2 of Lot 69, according to the recorded plat of R.S. Smith's Addition to the City of Ann Arbor. Also the East 1/2 of fractional Lot 3 and the West 1/2 of Fractional Lot 4 in Block 1 of R.

S. Smith's Second Addition to the City of Ann Arbor, as recorded in Liber 48 of Deeds, Page 40, Washtenaw County Records, together with right of way as described in the Warranty Deed recorded in Liber 232 of Deeds, Page 351, and instrument recorded in Liber 650 of Deeds, Page 326, as amended in instrument recorded in Liber 1155 of Deeds, Page 212, Washtenaw County Records.

Parcel 2: The East 33 feet of Lot 69, the West 2 feet of the South 22 feet of Lot 70, and the North 110 feet of the West 1/2 of Lot 70, R.S. Smith's Addition to the City of Ann Arbor, as recorded in Liber 42 of Deeds, Pages 446 and 447, Washtenaw County Records, and the North 22 feet of the East 33 feet of Fractional Lot 4 and the West 2 feet of the North 22 feet of Fractional Lot 5, Block 1, R. S. Smith's Second Addition to the City of Ann Arbor, as recorded in Liber 48 of Deeds Page 40, Washtenaw County Records, together with those certain easement right created by instrument recorded in Liber 1155 of Deeds, Page 212, Washtenaw County Records.

ANN ARBOR - GALLERIA

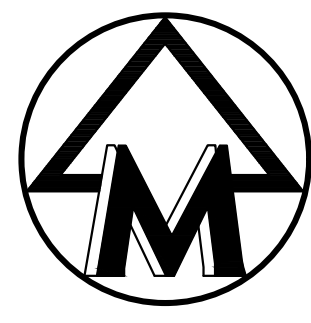
Job No. 23047. Includes revision table with columns for REV. DATE, REV. DATE, SHEET 01 OF 13, and a large '01' graphic. Also includes fields for DATE: 2/2/24, CADD: KJV, ENG: JCA, PM: SWB, TECH: 7/30/24, and drawing number 23047CV01.

MIDWESTERN CONSULTING logo and address: 3815 Plaza Drive Ann Arbor, Michigan 48108. Phone: (734) 995-0200. Website: www.midwesternconsulting.com. Services: Land Development • Land Survey • Institutional • Municipal Wireless Communications • Transportation • Landfill Services.

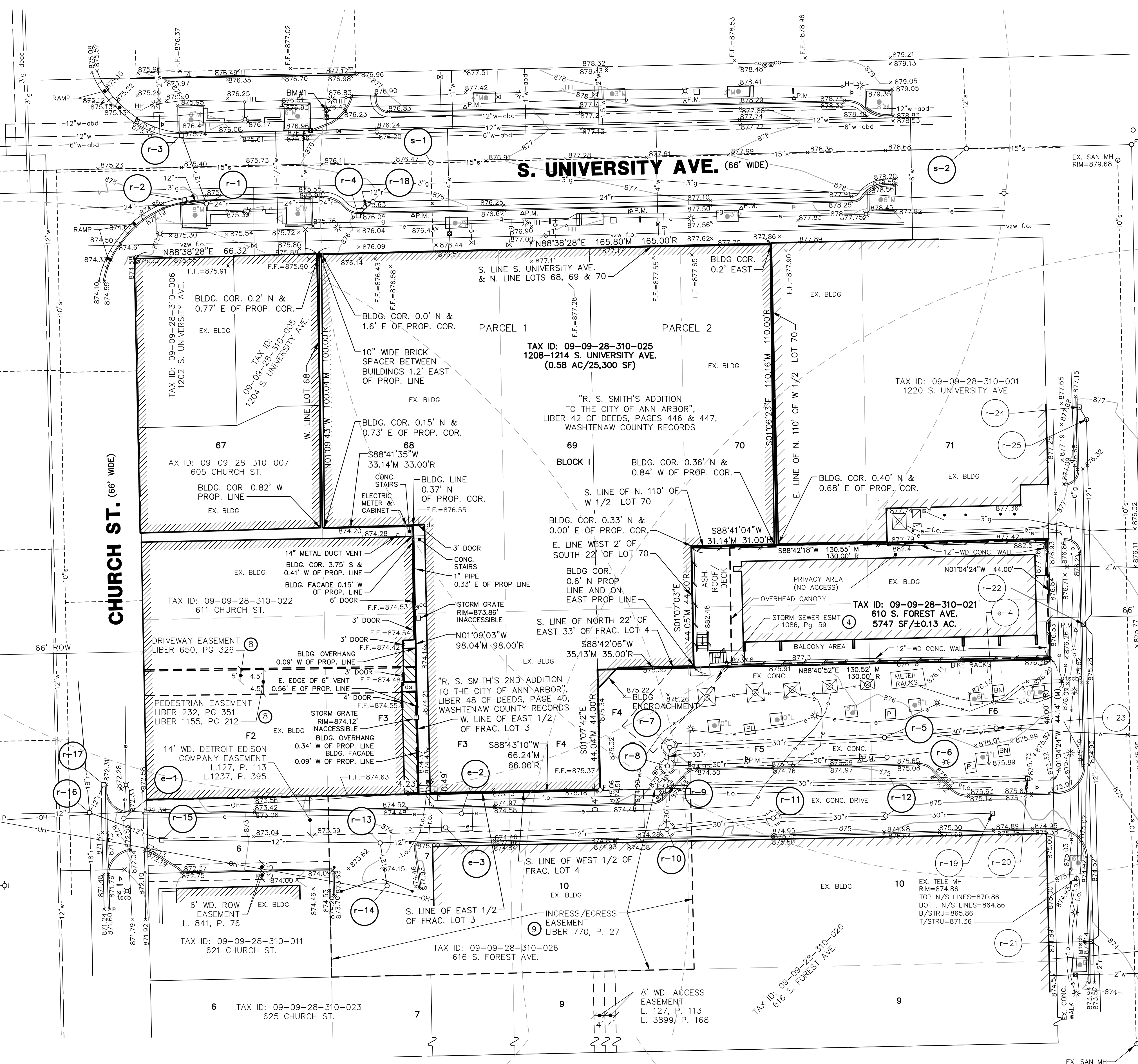
RELEASED FOR and DATE fields. Includes a professional engineer seal for James G. Ahnert, No. 43208, State of Michigan, and a P.E. # field.

Vertical text on the left margin: M:\Civil\13d\_Pe\01\_2023\33047\Site Plan\33047CV01.dwg, 7/30/2024, 11:46 AM, Jim Ahnert, 01 COVER SHEET, MCLLC PDF, ps3 Copyright © 2016 Midwestern Consulting L.L.C. All rights reserved. No part of this drawing may be used or reproduced in any form or by any means, or stored in a database or retrieval system, without prior permission of Midwestern Consulting L.L.C.





SCALE: 1" = 20'



**LEGEND**

838	EXIST. CONTOUR
x836.2	EXIST. SPOT ELEVATION
x U.P.	EXIST. UTILITY POLE
OH	ELEC. TRANSFORMER
OH	EXIST. OVERHEAD UTILITY LINE
t	EXIST. TELEPHONE LINE
e	EXIST. ELECTRIC LINE
g	EXIST. GAS LINE
f.o.	EXIST. FIBER OPTIC LINE
w	EXIST. WATER MAIN
h	EXIST. HYDRANT
g	EXIST. GATE VALVE IN BOX
x	EXIST. GATE VALVE IN WELL
x	EXIST. CURB STOP & BOX
□	EXIST. STORM SEWER
□	EXIST. CATCH BASIN OR INLET
□	EXIST. DOWNSPOUT
□	EXIST. SANITARY SEWER
□	EXIST. CLEANOUT
□	SIGN
Δ pm	PARKING METER
Δ m	ELECTRIC METER
Δ m	GAS METER
Δ scb	TRAFFIC SIGNAL CONTROL BOX
□	POST
○	SINGLE TREE
○	FOUND IRON PIPE
○	FOUND MONUMENT



**STORM SEWER SCHEDULE**

r-1	STORM MH RIM=875.58 24" clay E. INV=867.08 24" conc. W. INV=866.98 12" conc. NW INV=872.38 24" conc. NW INV=872.48
r-2	2" INLET RIM=874.81 12" conc. SE INV=872.91
r-3	2" INLET RIM=875.25 12" conc. SE INV=873.05
r-4	STORM MH GRATE IN CURB LINE RIM=876.08 12" conc. NE INV=872.98
r-5	STORM MH RIM=875.64 30" conc. E. INV=870.34 30" conc. W. INV=870.24
r-6	STORM MH RIM=875.45 30" conc. W. INV=870.20
r-7	STORM MH RIM=875.02 30" conc. E. INV=870.12 30" conc. S. INV=870.22
r-8	STORM MH RIM=875.02 30" conc. N. INV=870.12 30" conc. E. INV=870.02 30" conc. S. INV=870.12
r-9	STORM MH RIM=874.91 30" conc. N. INV=870.01 30" conc. E. INV=870.11 30" conc. S. INV=869.96
r-10	STORM MH RIM=874.16 30" conc. N. INV=870.01 30" conc. E. INV=870.06 12" conc. NW INV=869.86
r-11	STORM MH RIM=874.58 30" conc. W. INV=869.98 30" conc. E. INV=870.08
r-12	STORM MH RIM=874.71 30" conc. W. INV=870.21 30" conc. E. INV=870.51
r-13	STORM MH RIM=873.73 12" conc. W. INV=869.68 12" clay E. INV=869.58 12" S. INV=869.68
r-14	STORM MH RIM=873.98 UNABLE TO OPEN
r-15	EX. CB RIM=872.03 12" conc. E INV=869.13 12" conc. WNW INV=869.03
r-16	EX. CB RIM=871.89 12" SE INV=866.59 12" conc. NE INV=867.99 18" N&S clay INV=864.89 12" clay W. INV=865.69
r-17	EX. 2" INLET RIM=871.80 12" conc. SW INV=868.90
r-18	STORM MH RIM=875.83 24" conc. E&W INV=867.53 12" conc. SW INV=872.93

**SANITARY SEWER SCHEDULE**

s-1	SANITARY MH RIM=876.58 15" E&W INV=864.53 8" steel S. INV=869.78
s-2	SANITARY MH RIM=878.91 15" E&W INV=864.81 12" N. INV=869.91

**DTE SCHEDULE**

e-1	DTE MH RIM=872.32 N-S LINES? BOTTOM/VAULT=861.32
e-2	DTE MH RIM=874.60 TOP OF E-W LINES=870.6 TOP OF E-W LINES=867.6 TOP VAULT=873.1 BOTTOM VAULT=865.7
e-3	DTE MH RIM=874.60 TOP OF E-W LINES=870.6 TOP OF E-W LINES=867.6 TOP VAULT=873.1 BOTTOM VAULT=865.7

**BENCHMARKS**

- #1 - TOP/ARROW ON HYDRANT, N. SIDE OF S. UNIVERSITY AT ADDRESS #1207. ELEV.=878.51 NAVD 88.
- #2 - FOUND SPIKE IN POWER POLE, E. SIDE CHURCH ST., AT HSE#621. ELEV.=872.67 NAVD 88.
- #3 - TOP/ARROW ON HYDRANT AT SE COR. OF S. UNIVERSITY & FOREST AVE. ELEV.=881.96 NAVD 88.

**LEGAL DESCRIPTION**

(Per Fidelity National Title Commitment No. 811196570NTS, Dated: January 6, 2023)

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Parcel 1:  
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Parcel 2:  
The East 33 feet of Lot 69, the West 2 feet of the South 22 feet of Lot 70, and the North 110 feet of the West 1/2 of Lot 70, Smith's Addition to the City of Ann Arbor, as recorded in Liber 42 of Deeds, Pages 446 and 447, Washtenaw County Records, and the North 22 feet of the East 33 feet of Fractional Lot 4 and the West 2 feet of the North 22 feet of Fractional Lot 5, Block 1, R. S. Smith's Second Addition to the City of Ann Arbor, as recorded in Liber 48 of Deeds Page 40, Washtenaw County Records, together with those certain easement right created by Instrument recorded in Liber 1155 of Deeds, Page 212, Washtenaw County Records.

**EXCEPTIONS**

- 8. Rights of others in and to the use of the Easement(s) described in Schedule A and in Liber 232, Page 351, Liber 650, Page 326, as amended in Liber 1155, Page 212. (PLOTTED)
- 9. Easements, Terms, Covenants, and Conditions of Warranty Deed as set forth below: Recording No: Liber 770, Page 27. (PLOTTED)
- 10. Terms, Covenants, and Conditions of Easement as set forth below: Recording No: Liber 1155, page 214. (PLOTTED)
- 11. Terms, Covenants, and Conditions of South University Galleria Site Development Agreement as set forth below: Recording No: Liber 2236, Page 540. (NOT PLOTTED)
- 14. Rights of the public to any portion of the Land lying within the bounds of any street, road, alley or highway. (NOT PLOTTED)

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**ANN ARBOR - GALLERIA**  
SITE PLAN FOR PLANNING COMMISSION  
EXISTING CONDITIONS AND ALTA SURVEY

**02**

**23047**

DATE: 2/27/24  
SHEET 02 OF 13  
REV. DATE: 2/25/24  
CAD: KAV  
ENG: JCA  
PLN: SWB  
TECH: JES

MARK VANDER VEEN  
PROFESSIONAL SURVEYOR  
No. 4001066788  
STATE OF MICHIGAN

CLIENT: LMP GALLERIA PROPERTY OWNER, LLC  
315 OCONNOR STREET  
ATHENS, GA 30601  
ATTN: TUCKER SNIPES  
706-537-4720

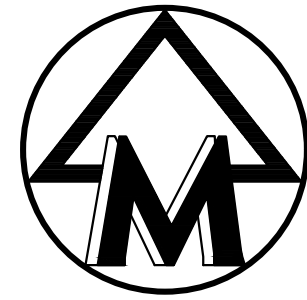
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The underground utilities shown have been located from field survey information and existing records. The surveyor makes no guarantee that the underground utilities shown comprise all such utilities in the area, either in-service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated. Although the surveyor does certify that they are located as accurately as possible from the information available.

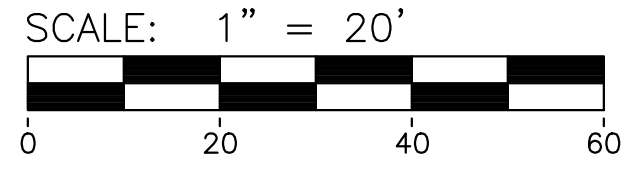
**WILLARD ST.**

MARK VANDER VEEN, PROFESSIONAL SURVEYOR #56788

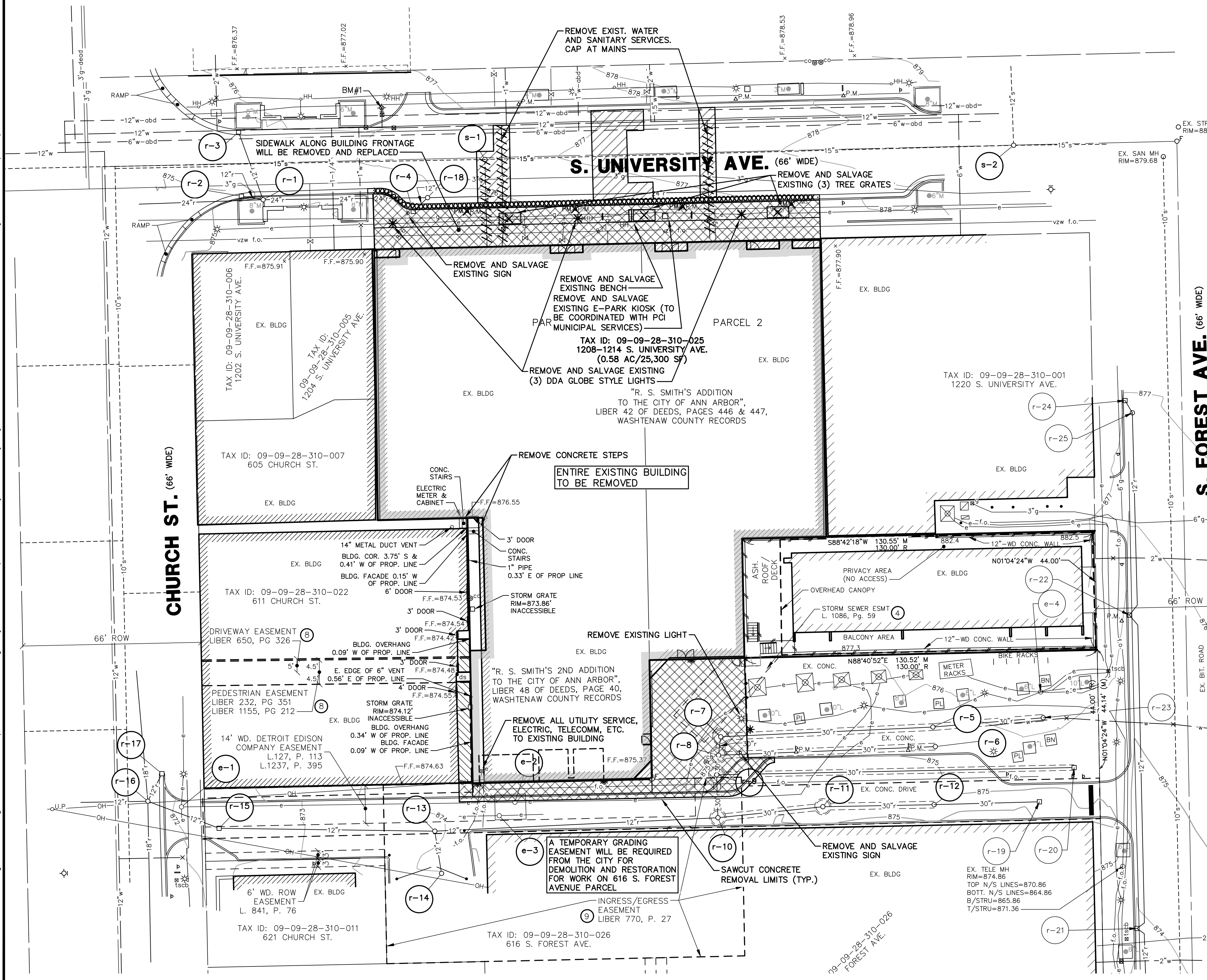




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Call before you dig.



M:\Civ\132\_Proj\2023\33047\Site Plan\33047RMO1.dwg, 7/30/2024, 11:46 AM, Jim Ahern, 03 REMOVAL PLAN, MLLC PDF.p3  
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### REMOVAL PLAN NOTES

- ASCE 38-02 quality level survey involves surveying visible above ground utility facilities such as manholes, valve boxes, posts, etc., and correlating this information with existing utility records. When using this information, it is not unusual to find that many underground utilities have been either omitted or erroneously plotted.
- S. University Ave. is under the jurisdiction of the City of Ann Arbor. All work within the right-of-way is subject to a permit from the City. The parcel to the south, 616 S. Forest Ave. is a City owned parcel and an easement from the City is being sought for access.
- Existing on-site easements of record are indicated on the plans.
- All franchise utilities are to be removed by or per the party having jurisdiction.
- Three street trees are to be removed and replaced across frontage on South University Ave.
- All site work is to comply with the City of Ann Arbor Standard Specifications available on line.
- www.a2gov.org/departments/engineering/Documents/Combined%20Standard%20Specifications.pdf
- All existing on-site improvements are to be removed unless otherwise noted.
- During demolition of the existing structures, the contractor will be responsible for identifying any existing footing drains that are connected to the sanitary sewer. These are to be verified on site by the City prior to removal. If footing drains for the existing buildings are connected to the sanitary sewer system, disconnection will be required in accordance with current City specifications. To schedule inspection, call the City of Ann Arbor Engineering Unit at (734) 794-6410. Disconnection of existing footing drains may be taken as a credit against required sanitary sewer flow mitigation.
- Any service lead that will not be reused shall be disconnected from their respective mains.

### BENCHMARKS:

- #1 - TOP/ARROW ON HYDRANT, N. SIDE OF S. UNIVERSITY AT ADDRESS #1207. ELEV.=878.51 NAVD 88.
- #2 - FOUND SPIKE IN POWER POLE, E. SIDE CHURCH ST., AT HSE#621. ELEV.=872.67 NAVD 88.
- #3 - TOP/ARROW ON HYDRANT AT SE COR. OF S. UNIVERSITY & FOREST AVE. ELEV.=881.96 NAVD 88.

### SOILS DESCRIPTION

### LEGEND

	EXIST. CONTOUR
	EXIST. SPOT ELEVATION
	EXIST. UTILITY POLE
	ELEC. TRANSFORMER
	EXIST. OVERHEAD UTILITY LINE
	EXIST. LIGHT POLE
	EXIST. TELEPHONE LINE
	EXIST. ELECTRIC LINE
	EXIST. GAS LINE
	EXIST. GAS VALVE
	EXIST. FIBER OPTIC LINE
	EXIST. WATER MAIN
	EXIST. HYDRANT
	EXIST. GATE VALVE IN BOX
	EXIST. GATE VALVE IN WELL
	EXIST. CURB STOP & BOX
	EXIST. STORM SEWER
	EXIST. CATCH BASIN OR INLET
	EXIST. DOWNSPOUT
	EXIST. SANITARY SEWER
	EXIST. CLEANOUT
	SIGN
	PARKING METER
	ELECTRIC METER
	GAS METER
	TRAFFIC SIGNAL CONTROL BOX
	POST
	SINGLE TREE
	FOUND IRON PIPE
	FOUND MONUMENT
	CONCRETE TO BE REMOVED
	BITUMINOUS TO BE REMOVED
	UTILITY TO BE ABANDONED
	CURB TO BE REMOVED
	TREE TO BE REMOVED
	ITEM TO BE RELOCATED
	ITEM TO BE REMOVED

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ANN ARBOR - GALLERIA

03

DATE: 2/2/24  
SHEET 03 OF 13  
REV. DATE: 3/25/24  
REV. DATE: 6/23/24  
REV. DATE: 6/27/24  
REV. DATE: 7/30/24

CADD: KAV  
ENG: JCA  
PER: SWB  
TECH: JRM  
JOB NO. 23047

CLIENT: LMP GALLERIA PROPERTY OWNER, LLC  
315 O'CONNOR STREET  
ATHENS, GA 30601  
ATTN: TUCKER SNIPES  
706-537-4720

SITE PLAN FOR PLANNING COMMISSION  
REMOVAL PLAN



**LANDSCAPE CALCULATIONS**

Street Trees	Mirror number of street trees across street	3 proposed trees
Street tree canopy loss fee	total dbh removed - calliper replacement trees x \$244 per inch (Sin - 7.5in) = -2.5in	No street tree canopy loss fee is due

**PLANT SCHEDULE**

Total	Street (-S)	Mitigation (-M)	Symbol	Botanical Name	Common Name	Size	Spacing	Root	Remarks
3	3	0	LS	Liquidambar styraciflua 'Slender Silhouette'	Slender Silhouette Sweetgum	2.5" cal.	25' o.c.	B&B	
3	3	0	Total						

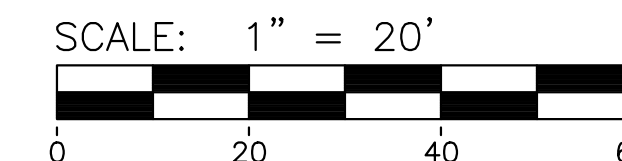
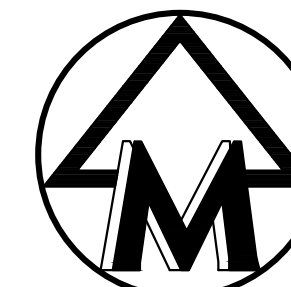
ALL SPECIES DEVIATIONS MUST BE APPROVED IN WRITING BY THE CITY OF ANN ARBOR PRIOR TO INSTALLATION

**UNIT MIX TABLE**

Level	Unit Matrix											Beds/Floor
	Studio	1/1	2/2	2/2 D.O.	3-BR	4-BR	4-907/3BA	5-BR	6-BR	Total		
Level 1	460	500	860	1030	1100	1255	1215	1540	1735			
Level 2	2	0	1	1		4		3	2	13	51	
Level 3	2	0	1	1		4		4	1	13	50	
Level 4	2	0	1	1		4		4	1	13	50	
Level 5	2	0	1	1		4		4	1	13	50	
Level 6	2	0	1	1		4		4	1	13	50	
Level 7	2	0	1	1		4		4	1	13	50	
Level 8	2	0	1	1		4		4	1	13	50	
Level 9	2	0	1	1		4		4	1	13	50	
Level 10	2	0	1	1		4		4	1	13	50	
Level 11	2	0	1	1		4		4	1	13	50	
Level 12	2	0	1	1		4		4	1	13	50	
Level 13	2	0	1	1		4		4	1	13	50	
Level 14	2	0	1	1		4		4	1	13	50	
Level 15	2	0	1	1		4		4	1	13	50	
Level 16	3	0	1	1		4	1	3	1	13	46	
Level 17						1		1	1	4	19	
Total Units	29	0	14	15	0	36	1	35	36	186		
Unit Mix	10%	0%	5%	5%	0%	13%	0%	15%	15%	80%		100%



Know what's below. Call before you dig.



**LEGEND**

- ⊙ NUMBER OF STANDARD PARKING SPACES IN ROW
- ⊠ NUMBER OF SMALL CAR PARKING SPACES IN ROW
- ⊕ NUMBER OF BARRIER FREE PARKING SPACES IN ROW
- Ⓟ BARRIER FREE PARKING SIGN
- Ⓡ VAN ACCESSIBLE BARRIER FREE PARKING SIGN
- Ⓡ BARRIER FREE SIDEWALK RAMP
- PROP. CURB & GUTTER
- ▒ PROP. BITUMINOUS PAVEMENT
- ▒ PROP. CONCRETE PAVEMENT
- ▒ PROP. HEAVY DUTY CONCRETE
- ▒ PROP. CONC. COLORED WITH SPECIAL SCORE PATTERN
- Ⓢ SIGN
- Ⓢ PROP. SINGLE LIGHT
- ⓈⓈ PROP. DOUBLE LIGHT
- Ⓢ PROP. WOODCHIP PATH
- Ⓢ PROP. VEHICLE CHARGING STATION
- Ⓢ PROP. BOLLARD

**NOTES**

- ALL CLASS A BIKE PARKING SPACES ARE LOCATED WITHIN THE BUILDING.
- ALL PAVEMENT REPLACEMENT TO MEET CITY STANDARD SPECIFICATIONS. SAWCUT ALL REMOVAL LIMITS.
- ALL CURB DIMENSIONS ARE TO BACK OF CURB.
- ALL RADI DIMENSIONS ARE TO FACE OF CURB.

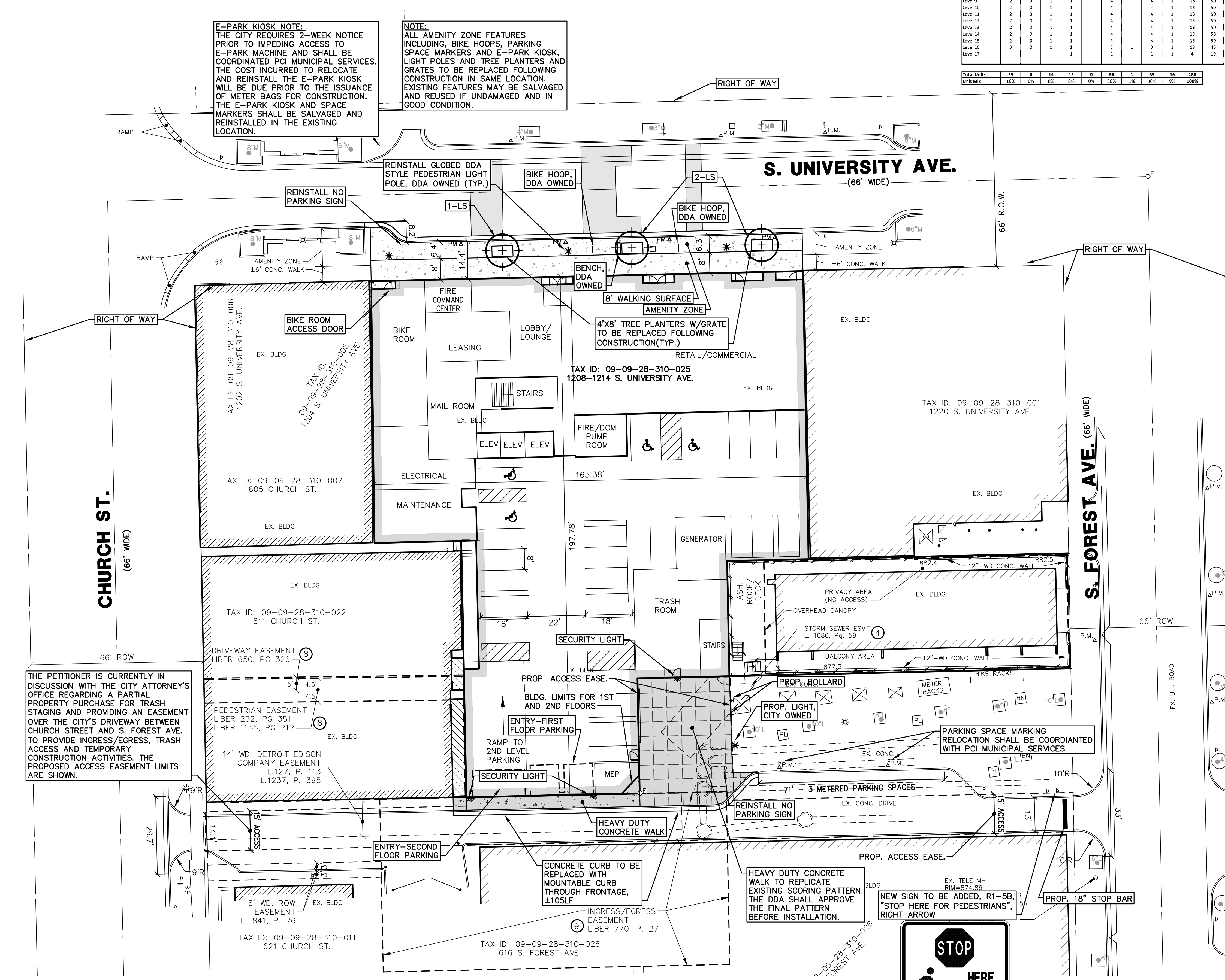
**CITY OF ANN ARBOR GENERAL NOTES**

- All sidewalks within the City shall be kept and maintained in good repair by the owner of the land adjacent to and abutting upon the same. Prior to the issuance of the final Certificate of Occupancy for this site, all existing sidewalks in need of repair must be repaired in accordance with City standards.
- All work within the City of Ann Arbor covered by these plans shall be performed in complete conformance with the current City of Ann Arbor Public Services Department Standard Specifications and Details.
- The omission of any current standard detail does not relieve the contractor from this requirement. The work shall be performed in complete conformance with the current public services standard specifications and details. Sidewalks constructed in the public right-of-way shall meet all requirements and guidelines as set forth in the ADA standards for accessible design. Sidewalk and curb ramp grades will be reviewed during construction plan submittals.
- Pavement markings disturbed due to pavement cuts or construction related activities shall be replaced as directed by Engineering. Replacement during construction of the project may be considered temporary, with final pavement marking restoration to occur at the end of the project.
- The contractor shall take all necessary precautions to protect the existing public road pavement. Damage to the public road pavement during the course of construction may necessitate milling and resurfacing of the damaged areas prior to issuance of the Certificate of Occupancy.

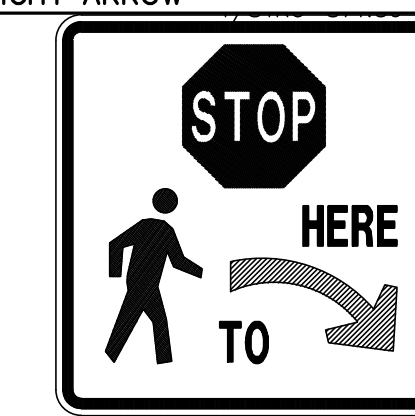
**DDA FIXTURES SPECIFICATIONS**

If any of the existing DDA fixtures noted and being salvaged and replaced following construction is damaged and require replacement the following equipment and models shall be used:

- Tree grate frame - Manufacturer: EJ Group, Product TF48862000, Description 48" x 96" Rectangular 2 Piece Tree Frame Standard Anchor Painted Black. Steel. Coating: Painted- flat black Rustoleum coating
- Tree grates - Manufacturer: EJ Group, Product 00867901, Description 8679 Boardwalk 48" x 96" Rectangular Tree Grate set with 18" square tree opening. Gray iron (CL358). Coating: None (undipped)
- Bench - Victor Stanley Model FBF-53, Length: 4 ft. Description: Skateboard guards included. Color: Titanium. Surface Mounted. Hot dipped galvanized, full emersion, prior to finishing. Anchoring bolts, nuts and washers and all other hardware for installation to be stainless steel.
- Bike Hoops - Manufacturer: Dero. Model Hoop Rack. Finish: Galvanized. Surface mount.
- Streetlights - Luminaire - Lumecon Thirty-Five West, 54 watt, Type V Distribution, 120V-277v, 3000k, Cut-Off Liteid, Black. Model L35W-1-1-OW-B-C. Equipped with a Phillips programmable drivers. See details on sheet 11 for pole and pole base details.



THE PETITIONER IS CURRENTLY IN DISCUSSION WITH THE CITY ATTORNEY'S OFFICE REGARDING A PARTIAL PROPERTY PURCHASE FOR TRASH STAGING AND PROVIDING AN EASEMENT OVER THE CITY'S DRIVEWAY BETWEEN CHURCH STREET AND S. FOREST AVE. TO PROVIDE INGRESS/EGRESS, TRASH ACCESS AND TEMPORARY CONSTRUCTION ACTIVITIES. THE PROPOSED ACCESS EASEMENT LIMITS ARE SHOWN.



(BLACK ON WHITE) R1-5B (RIGHT)

M:\Civil\134\_P\01\2023\3304751e\_Plan\330475901.dwg, 7/30/2024, 11:46 AM, Jim Ahern, None  
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**ANN ARBOR - GALLERIA**  
 SITE PLAN FOR PLANNING COMMISSION  
 DIMENSIONAL SITE AND LANDSCAPE PLAN

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**04**

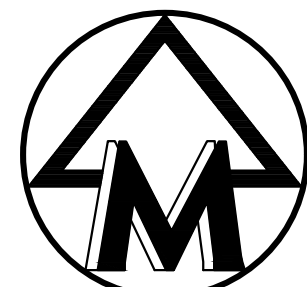
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DATE: 2/2/24  
 SHEET 04 OF 13  
 REV. DATE: 3/25/24  
 PER CITY REVIEW: 6/27/24  
 PER CIVIL REVIEW: 6/27/24  
 PER ELECTRICAL REVIEW: 6/27/24  
 PER MECHANICAL REVIEW: 6/27/24  
 PER PLUMBING REVIEW: 6/27/24  
 PER STRUCTURAL REVIEW: 6/27/24  
 PER TRAFFIC REVIEW: 6/27/24  
 PER UTILITIES REVIEW: 6/27/24

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**JOB No. 23047**

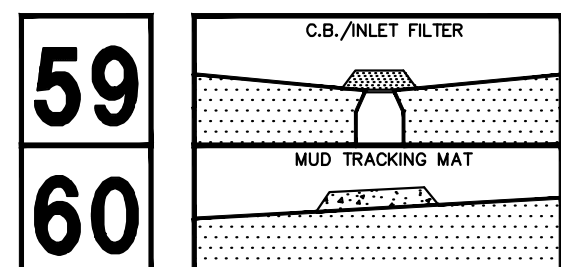
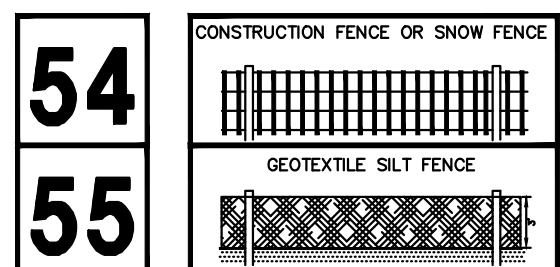




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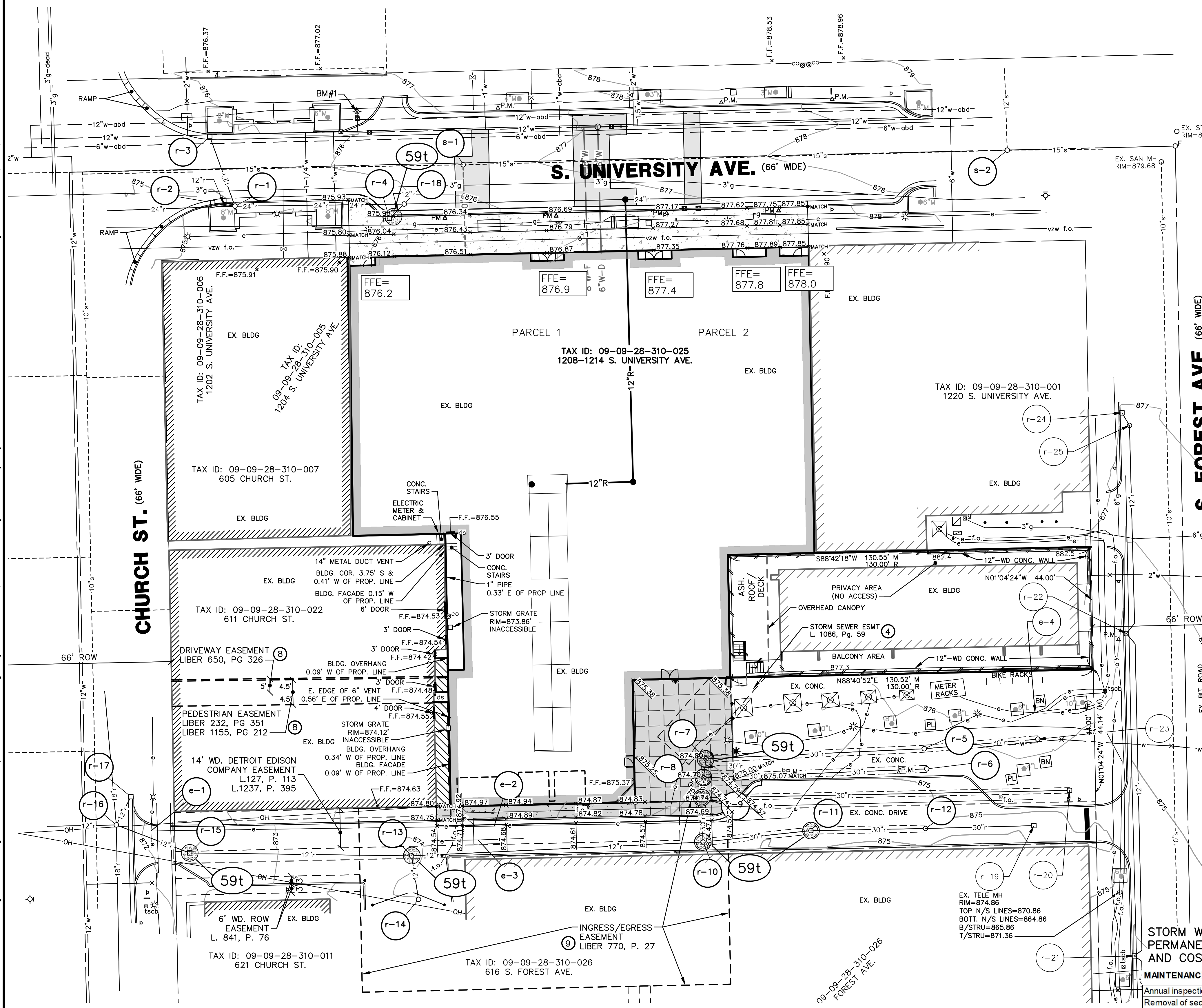
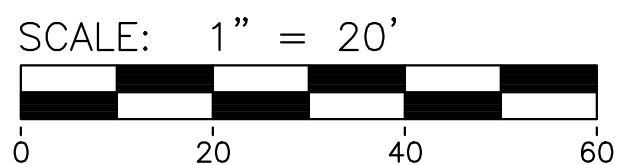
### SOIL EROSION CONTROL MEASURES

t = temporary p = permanent



### MAINTENANCE PROGRAM FOR SOIL EROSION CONTROLS

1. DURING CONSTRUCTION IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE SOIL EROSION CONTROL MEASURES. FOLLOWING CONSTRUCTION THE OWNER SHALL BE RESPONSIBLE FOR MAINTAINING THE PERMANENT SOIL EROSION CONTROL MEASURES. MAINTENANCE RESPONSIBILITIES SHALL BECOME PART OF ANY SALES OR EXCHANGE AGREEMENT FOR THE LAND ON WHICH THE PERMANENT SESC MEASURES ARE LOCATED.



### LEGEND

838	EXIST. CONTOUR
838	PROP. CONTOUR
x836.2	EXIST. SPOT ELEVATION
36.60x	PROP. SPOT ELEVATION
o-u.p.	EXIST. UTILITY POLE
o-u.p.	EXIST. UTILITY POLE W/ TRANS.
o	GUY WIRE
o	ELEC. TRANSFORMER
o	EXIST. AC UNIT
o	EXIST. GENERATOR
o	EXIST. OVERHEAD UTILITY LINE
o	EXIST. LIGHT POLE
o	PROP. LIGHT POLE
t	EXIST. TELEPHONE LINE
e	EXIST. ELECTRIC LINE
g	EXIST. GAS LINE
g	EXIST. GAS VALVE
f.o.	EXIST. FIBER OPTIC LINE
w	EXIST. WATER MAIN
w	PROP. WATER MAIN
o	EXIST. HYDRANT
o	PROP. HYDRANT
o	EXIST. GATE VALVE IN BOX
o	PROP. GATE VALVE IN BOX
o	EXIST. GATE VALVE IN WELL
o	PROP. GATE VALVE IN WELL
o	EXIST. CURB STOP & BOX
o	PROP. CURB STOP & BOX
o	REDUCER
o	EXIST. BLOW-OFF
o	PROP. BLOW-OFF
o	POST INDICATOR VALVE
o	POST INDICATOR VALVE
o	THRUST BLOCK
o	PROP. KNOXBOX
o	EXIST. FIRE DEPARTMENT CONNECTION
o	PROP. FIRE DEPARTMENT CONNECTION
o	EXIST. STORM SEWER
o	PROP. STORM SEWER
o	EXIST. CATCH BASIN OR INLET
o	PROP. CATCH BASIN OR INLET
o	EXIST. BEEHIVE INLET
o	PROP. BEEHIVE INLET
o	PROP. ROOF DRAIN
o	END SECTION
o	HEAD WALL
o	CULVERT
o	EXIST. DOWNSPOUT
o	PROP. DOWNSPOUT
o	EXIST. SANITARY SEWER
o	PROP. SANITARY SEWER
o	EXIST. CLEANOUT
o	PROP. CLEANOUT
o	C/L OF DITCH
o	DRAINAGE DIRECTION
o	SIGN
o	SINGLE TREE
o	TREE OR BRUSH LIMIT
o	FENCE
o	SILT FENCE
o	LIMITS OF DISTURBANCE
o	CONSTRUCTION FENCE
o	FF
o	GF
o	BFF
o	FINISH FLOOR ELEVATION
o	BASEMENT FINISH FLOOR ELEVATION

### SOIL EROSION CONTROL NOTES

- ALL SOIL EROSION CONTROL MEASURES SHALL COMPLY WITH THE CURRENT CITY OF ANN ARBOR ORDINANCES, WASHTENAW COUNTY STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENTATION CONTROL, AND STATE OF MICHIGAN 'SOIL EROSION AND SEDIMENTATION CONTROL ACT - P.A. 347'.
- PRIOR TO COMMENCING EARTHMOVING OPERATIONS, THE GRADING CONTRACTOR SHALL INSTALL THE TEMPORARY CATCH BASIN FILTER(S) SHOWN ON THE PLANS.
- THE REMOVAL OF TRAPPED SEDIMENT AND THE CLEANOUT OR REPLACEMENT OF CLOGGED STORM MAY BE NECESSARY AFTER EACH STORM EVENT DURING THE PROJECT.
- ONLY UPON STABILIZATION OF ALL DISTURBED AREAS MAY THE TEMPORARY GRAVEL FILTERS BE REMOVED. ALL STORM SEWERS MUST BE ALSO CLEANED OF ALL SEDIMENT.
- ALL INLETS AND CATCH BASINS WILL HAVE SEDIMENT FILTERS INSTALLED AFTER THEIR CONSTRUCTION. THESE FILTERS WILL BE MAINTAINED UNTIL ALL AREAS AROUND THE STRUCTURE HAVE BEEN STABILIZED.
- THE CONTRACTOR WILL MAINTAIN ALL NECESSARY SOIL EROSION CONTROL DEVICES UNTIL SOIL STABILIZATION HAS OCCURRED.
- APPROPRIATE EMERGENCY ACCESS WILL BE PROVIDED DURING CONSTRUCTION.
- THE ESTIMATED COST OF SOIL EROSION CONTROL MEASURES IS \$4000.
- THE ESTIMATED COST TO PROTECT ALL SOIL SURFACES FROM EROSION SHOULD CONSTRUCTION DISCONTINUE IS \$3000.
- EXTERNAL STREETS WILL BE IMMEDIATELY CLEANED OF ANY TRACKED MUD FOLLOWING EACH MUD-TRACKING OCCURRENCE.
- ESTIMATED PROJECT EARTHWORK IS 6,000 CYD EXCAVATION AND 1,000 CYD FILL. THIS NUMBER IS AN ESTIMATE ONLY AND SHOULD NOT BE USED FOR CONSTRUCTION OR ESTIMATING PURPOSES.
- DEWATERING OPERATIONS DURING CONSTRUCTION, IF NECESSARY, MUST BE DONE PER CITY REQUIREMENTS INCLUDING SEDIMENT CONTROL AND DISPOSAL.
- FINAL LOCATIONS AND DIMENSIONS OF THE MUD TRACKING MAT AND CONCRETE WASHOUT AREA ARE TO BE DETERMINED BY THE CONTRACTOR SUBJECT TO CITY APPROVAL.

### PERMANENT MAINTENANCE TASKS AND SCHEDULE

Components	Schedule				
	Drives and Walks	Storm Sewer System	Catch Basin Sumps	Catch Basin Inlet Castings	Detention Chambers
Annual inspection of system for sediment accumulation	X				
Removal of sediment accumulation every two (2) years, as needed	X	X	X	X	annually
Inspect for floatables and debris annually and after major storms	X	X	X	X	every 2 years, as needed
Removal of floatables and debris annually and after major storms	X	X	X	X	annually
Inspect system for erosion annually and after major storms	X	X	X	X	annually
Re-establish permanent vegetation on eroded slopes, as needed					\$200.00
Cleaning of floatables and debris	X	X	X	X	annually
Clean streets	X				semi-annually

### STORM WATER MANAGEMENT SYSTEM PERMANENT MAINTENANCE PLAN, SCHEDULE, AND COST ESTIMATE

#### MAINTENANCE PLAN BUDGET

Annual inspection of system for sediment accumulation	\$350.00
Removal of sediment accumulation every two (2) years, as needed	\$600.00
Inspect for floatables and debris annually and after major storms	\$300.00
Removal of floatables and debris annually and after major storms	\$600.00
Inspect system for erosion annually and after major storms	\$300.00
Re-establish permanent vegetation on eroded slopes, as needed	\$200.00
Cleaning of floatables and debris	\$250.00
Clean drives semiannually	\$250.00
<b>Total Annual Budget</b>	<b>\$2,600.00</b>

SEE SHEET 9 FOR SOIL EROSION CONTROL DETAILS AND SCHEDULE.

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**ANN ARBOR - GALLERIA**  
SITE PLAN FOR PLANNING COMMISSION  
GRADING AND SOIL EROSION CONTROL PLAN

**05**

DATE: 2/2/24  
SHEET 05 OF 13  
REV. DATE: 3/7/24  
REV. DATE: 6/7/24  
REV. DATE: 6/27/24

JOB No. **23047**

PER CITY REVIEW: 3/7/24  
PER CITY REVIEW: 6/7/24  
PER CITY REVIEW: 6/27/24

DESIGNER: JCA  
CHECKER: SWB  
TECH: SWB  
DATEPLOT: 2/24/24







**Basin Stormwater Calculations**

**W1 - Determining Post-Development Cover Types, Areas, Curve Numbers, and Runoff Coefficients**

**Rational Method Variables**

Cover Type	Soil Type	Area (sf)	Area (ac)	Runoff Coeff. (C)	(C) x (Area)
Building		25,200	0.58	0.95	0.55
Pavement		0	0.00	0.95	0.00
Grass	A	0	0.00	0.15	0.00
Grass	B	0	0.00	0.25	0.00
Grass	C	0	0.00	0.30	0.00
Grass	D	0	0.00	0.45	0.00
Water Surface		0	0.00	1.00	0.00
<b>Total</b>		<b>25,200</b>	<b>0.58</b>		<b>0.55</b>

Weighted C = (Sum(Ci x Areai)) / (Area Total) = 0.95

**NCRS Variables (Pervious)**

Cover Type	Soil Type	Area (sf)	Area (ac)	Curve Number (CN)	(CN) x (Area)
Grass	A	0	0.00	49	0.00
Grass	B	0	0.00	69	0.00
Grass	C	0	0.00	79	0.00
Grass	D	0	0.00	84	0.00
<b>Total</b>		<b>0</b>	<b>0.00</b>		<b>0.00</b>

Weighted CN = (Sum(CNi x Areai)) / (Area Total) = 49

**NCRS Variables (Impervious)**

Cover Type	Soil Type	Area (sf)	Area (ac)	Curve Number (CN)	(CN) x (Area)
Building		25,200	0.58	98	0.57
Pavement		0	0.00	98	0.00
Water Surface		0	0.00	98	0.00
<b>Total</b>		<b>25,200</b>	<b>0.58</b>		<b>0.57</b>

Weighted CN = (Sum(CNi x Areai)) / (Area Total) = 98

**B. Detention Volumes Provided**

StormTrap footprint of 1324 sf yields a net area of 87 % w/structure 1152 sf

Elevation	Area (sf)	Depth (ft)	Volume (cft)	Cum. Volume (cft)
870.1	1,152	0	0	0
871.0	1,152	0.9	1,037	1,037
872.0	1,152	1.8	2,169	2,169
873.0	1,152	2.7	3,340	3,340
873.1	1,152	0.1	115	3,456
			<b>Total Volume =</b>	<b>3,456</b>

**Storage Elevation Calculation**

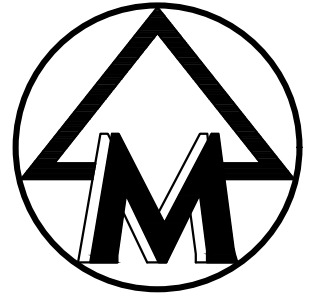
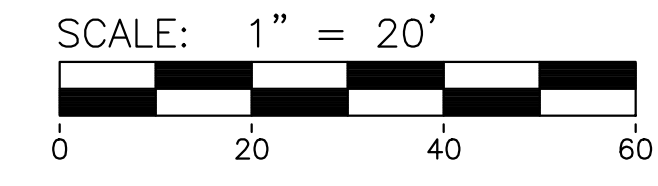
100-Year Elevation (X100) = 873.1 - 873.0 = X100 - 873.0 X100 = 873.03 ft

3,456 - 3,340 = 3,376 - 3,340

**C. Full Infiltration Design**

Total Storage Volume: 9,996 cft  
 Infiltration Area: 1324 sf  
 Infiltration Rate, Average: 10.00 in/hr  
 Infiltration Flow Rate: 1103.33 cft/hr  
 Time to Fully Drain: 9.1 hr

SEE SHEET 9 FOR OUTLET CONTROL STRUCTURE DETAIL



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**W2 - W2 - First Flush Runoff Calculations (Vff)**

A.  $V_{ff} = 1" \times 112" \times 43560 \text{ sft/ac} \times A \times C$  where  $A = 0.58$  and where  $C = 0.95$

$V_{ff} = 1" \times 112" \times 43560 \text{ sft/ac} \times 0.58 \times 0.95 = 1,995 \text{ cft}$

**W3 - W3 - Pre-Development Bankfull Runoff Calculations (Vbf-pre)**

A. 2 year / 24 hour storm event:  $P = 2.35 \text{ in}$   
 B. Pre-Development CN:  $CN = 32$   
 C.  $S = (1000 / CN) - 10 = 21,250 \text{ in}$   
 D.  $Q = [(P - 0.2S)^2] / [P + 0.8S] = 0.000 \text{ in}$   
 E. Total Site Area excluding "Self-Crediting" BMPs:  $25,200 \text{ sft}$   
 F.  $V_{bf-pre} = Q \times (1/12) \times \text{Area} = 0 \text{ cft}$

**W4 - W4 - Pervious Cover Post-Development Bankfull Runoff Calculations (Vbf-per-post)**

A. 2 year / 24 hour storm event:  $P = 2.35 \text{ in}$   
 B. Pervious Cover CN From Worksheet 1:  $CN = 49$   
 C.  $S = (1000 / CN) - 10 = 10,408 \text{ in}$   
 D.  $Q = [(P - 0.2S)^2] / [P + 0.8S] = 0.007 \text{ in}$   
 E. Pervious Cover Area from Worksheet 1:  $0 \text{ sft}$   
 F.  $V_{bf-per-post} = Q \times (1/12) \times \text{Area} = 0 \text{ cft}$

**W5 - W5 - Impervious Cover Post-Development Bankfull Runoff Calculations (Vbf-imp-post)**

A. 2 year / 24 hour storm event:  $P = 2.35 \text{ in}$   
 B. Impervious Cover CN From Worksheet 1:  $CN = 98$   
 C.  $S = (1000 / CN) - 10 = 0,204 \text{ in}$   
 D.  $Q = [(P - 0.2S)^2] / [P + 0.8S] = 4,873 \text{ in}$   
 E. Impervious Cover Area from Worksheet 1:  $25,200 \text{ sft}$   
 F.  $V_{bf-imp-post} = Q \times (1/12) \times \text{Area} = 4,456 \text{ cft}$

**W6 - W6 - Pervious Cover Post-Development 100-Year Runoff Calculations (V100-per-post)**

A. 100 year / 24 hour storm event:  $P = 5.11 \text{ in}$   
 B. Pervious Cover CN From Worksheet 1:  $CN = 49$   
 C.  $S = (1000 / CN) - 10 = 10,408 \text{ in}$   
 D.  $Q = [(P - 0.2S)^2] / [P + 0.8S] = 0.863 \text{ in}$   
 E. Pervious Cover Area from Worksheet 1:  $0 \text{ sft}$   
 F.  $V_{100-per-post} = Q \times (1/12) \times \text{Area} = 0 \text{ cft}$

**W7 - W7 - Impervious Cover Post-Development 100-Year Runoff Calculations (V100-imp-post)**

A. 100 year / 24 hour storm event:  $P = 5.11 \text{ in}$   
 B. Impervious Cover CN From Worksheet 1:  $CN = 98$   
 C.  $S = (1000 / CN) - 10 = 0,204 \text{ in}$   
 D.  $Q = [(P - 0.2S)^2] / [P + 0.8S] = 4,873 \text{ in}$   
 E. Impervious Cover Area from Worksheet 1:  $25,200 \text{ sft}$   
 F.  $V_{100-imp-post} = Q \times (1/12) \times \text{Area} = 10,233 \text{ cft}$

**W8 - W8 - Time of Concentration (Tc-hrs)**

A. Assume 15-minute minimum time of concentration:  $T_c = 0.25 \text{ hr}$

**W9 - Runoff Summary & On-Site Infiltration Requirement**

Item	Volume (cft)
Summary from Previous Worksheets	1,995
First Flush Volume (Vff)	0
Pre-Development Bankfull Runoff Volume (Vbf-pre)	0
Pervious Cover Post-Development Bankfull Volume (Vbf-per-post)	0
Impervious Cover Post-Development Bankfull Volume (Vbf-imp-post)	4,456
<b>Total BF Volume (Vbf-total)</b>	<b>4,456</b>
Pervious Cover Post-Development 100-Year Volume (V100-per-post)	0
Impervious Cover Post-Development 100-Year Volume (V100-imp-post)	10,233
<b>Total 100-Year Volume (V100)</b>	<b>10,233</b>

B. Determine On-site Infiltration Requirement

Subtract the Pre-Development Bankfull from the Post-Development Bankfull Volume

Total Post-Development Bankfull Volume (Vbf-post): 4,456 cft  
 Pre-Development Bankfull Runoff Volume (Vbf-pre): 0 cft  
 Bankfull Volume Difference: 4,456 cft

Infiltration Requirement (Vin): 4,456 cft

**W10 - Detention/Retention Requirement**

A.  $C_p = 238 \text{ Tc} + 0.82 = 743.63 \text{ cfs/(in x sq. mi)}$   
 B. Total Site Area excluding "Self-Crediting" BMPs:  $0.58 \text{ ac}$   
 C.  $Q_{100} = C_p \times \text{Area} = 5,596 \text{ cfs}$   
 (from W8 and W7, respectively)  
 D. Peak Flow (PF) =  $Q_p \times Q_{100} \times \text{Area} / 640 = 3.73 \text{ cfs}$   
 E. Delta =  $PF - 0.15 \times \text{Area (ac)} = 3.65 \text{ cfs}$   
 F.  $V_{det} = \text{Delta} \times PF \times T_{100} = 0.09 \text{ cfs}$   
 Required Detention not including infiltration credit or penalty: 9,996 cft  
 Sediment Forebay Volume Required (5% of V100): 512 cft

**W11 - Determine Applicable BMPs and Associated Volume Credits**

Preliminary soil testing has indicated the soils porous and will provide excellent infiltration capacity.

Proposed BMP	Area (sf)	Storage Volume (cft) Surface	In Soil	Design Infil. Rate (in/hr)	Infil. Volume in 6-hr Drawdown (cft)	Total Volume Reduction (cft)
Subsurface Infiltration Bed	1324			6.50	6,620	6,620
<b>Total Volume Reduction Credit by Proposed Structural BMPs (ct)</b>						<b>6,620</b>
<b>Runoff Volume Infiltration Requirement (Vinf) from W9 (ct)</b>						<b>4,456</b>
<b>Runoff Volume Credit (ct)</b>						<b>2,164</b>

**W13 - Site Summary of Infiltration & Detention**

**A. Stormwater Management Summary**

Item	Volume (cft)
Min Infiltration Requirement (Vinf)	4,456
Designed/Provided Infiltration Volume	6,620
% Minimum Required Infiltration Provided	149 %
Total Calculated Detention Volume, Vdet	9,996
Net Required Detention Volume (Vdet - Designed/Provided Infiltration Volume)	3,376

**B. Detention Volume Increase for sites where the required infiltration volume cannot be achieved.**

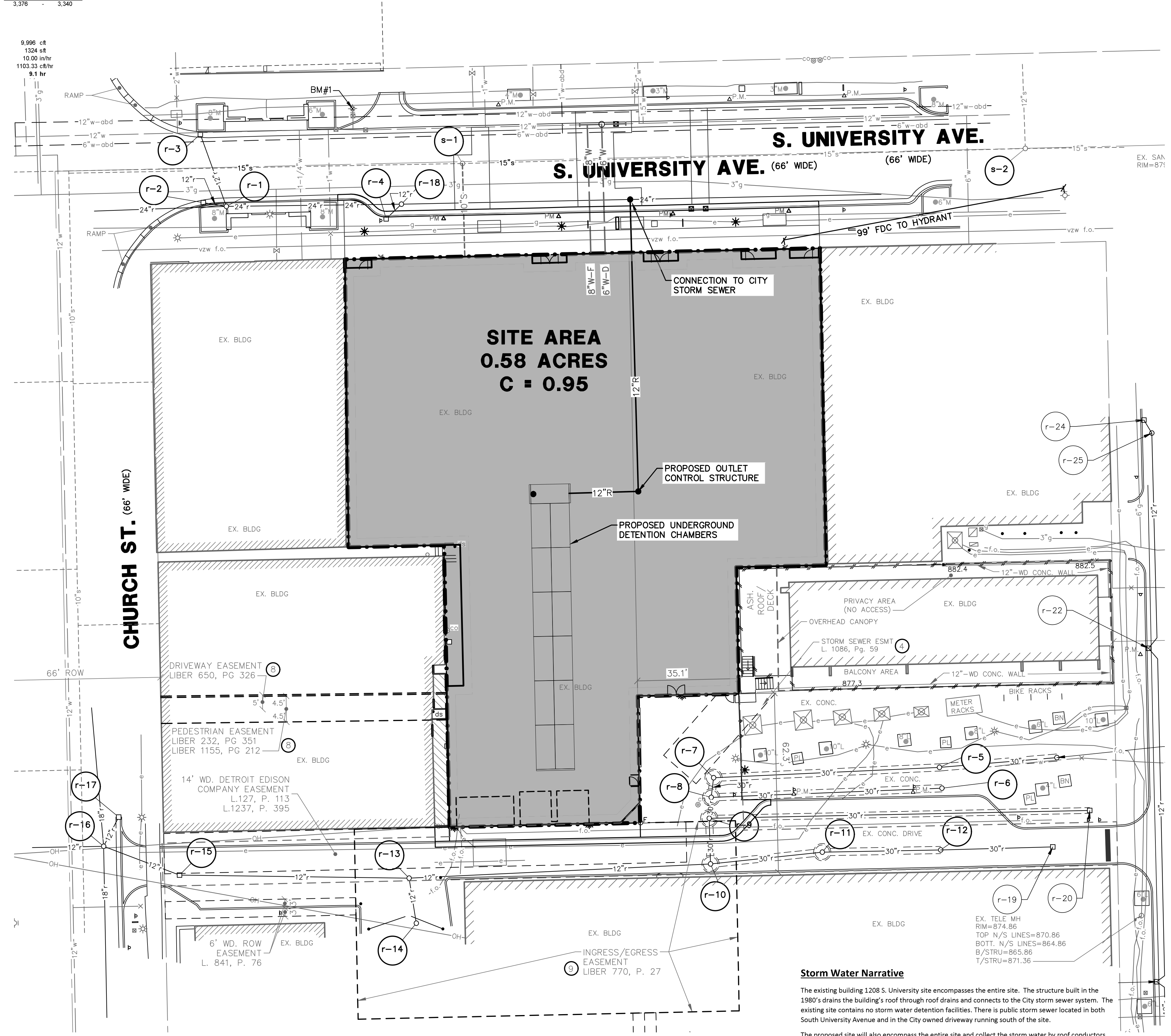
% Required Infiltration NOT Provided: 0.0 %  
 (100% - % Minimum Required Infiltration Provided)  
 Net % Penalty (20% x % Required Infiltration NOT Provided): 0.0 %  
**Total Required Detention Volume, including penalty**: 9,996 cft  
 [(100% + Net % Penalty) x Net Required Detention Volume]

**Detention Outlet Calculations**

**A. Required Detention Volumes (Reduced by 6-hour infiltration)**

Storm Event	Req'd Volume	Less	Infil. Credit	=	Final Volume
First Flush	1,996 cft	-	6,620 cft	=	(4,624) cft
Bankfull	4,456 cft	-	6,620 cft	=	(2,164) cft
100-year	9,996 cft	-	6,620 cft	=	3,376 cft
100-year + Req'd Penalty	9,996 cft	-	6,620 cft	=	3,376 cft
Forebay Volume Required (5% of 100-yr)				=	169 cft

The underground utilities shown have been located from field survey information and existing records. The surveyor makes no guarantees that the underground utilities shown comprise all such utilities in the area, either in-service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated. Although the surveyor does certify that they are located as accurately as possible from the information available.



**Storm Water Narrative**

The existing building 1208 S. University site encompasses the entire site. The structure built in the 1980's drains the building's roof through roof drains and connects to the City storm sewer system. The existing site contains no storm water detention facilities. There is public storm sewer located in both South University Avenue and in the City owned driveway running south of the site.

The proposed site will also encompass the entire site and collect the storm water by roof conductors which will drain to an underground detention system under the floor of the first level parking garage. The detention system will be open bottom allowing the storm water to infiltrate in the sandy soils. An emergency overflow connection is proposed to the City storm sewer located in South University. The proposed site improvements will reduce the storm water runoff.

Infiltration testing will be conducted following building demolition since the existing building covers the entire site. Soil investigations from surrounding site indicate there will be a high infiltration capacity for the site with sandy soils.

**CLIENT**  
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 ATHENS, GA 30601  
 ATTN: TUCKER SNIPES  
 706-537-4720

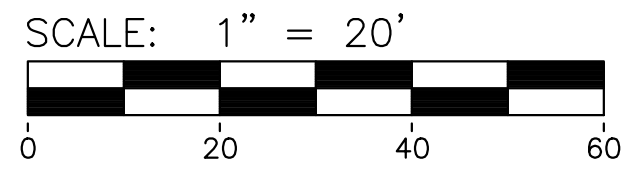
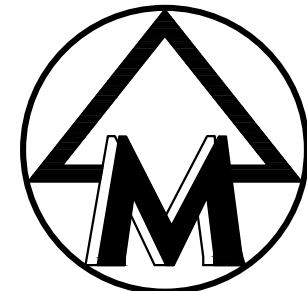
**ANN ARBOR - GALLERIA**  
 SITE PLAN FOR PLANNING COMMISSION  
 STORM WATER MANAGEMENT PLAN

**07**

JOB No.	23047
DATE:	2/2/24
SHEET	07 OF 13
REV. DATE	3/25/24
PER CITY REVIEW	ENG. JCA
PER CITY REVIEW	7/30/24
PER CITY REVIEW	TECH. SWB
PER CITY REVIEW	7/30/24
PER CITY REVIEW	7/30/24

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Trash Requirements					
Requirement	716 beds	(0.6 cubic yard per month per bed)			
Retail Requirement:	4598	SF	(1 cubic yard per 100 SF per month)		
	Residential	Retail	Building Total	Compacted 3:1	Pickups / Week (12 CY each)
Refuse 60%	59.3	6.3	65.7	21.9	2
Recyclables 40%	39.5	4.2	43.8	---	4
<b>Total Waste Volume</b>	<b>98.9</b>	<b>10.6</b>	<b>109.4</b>		

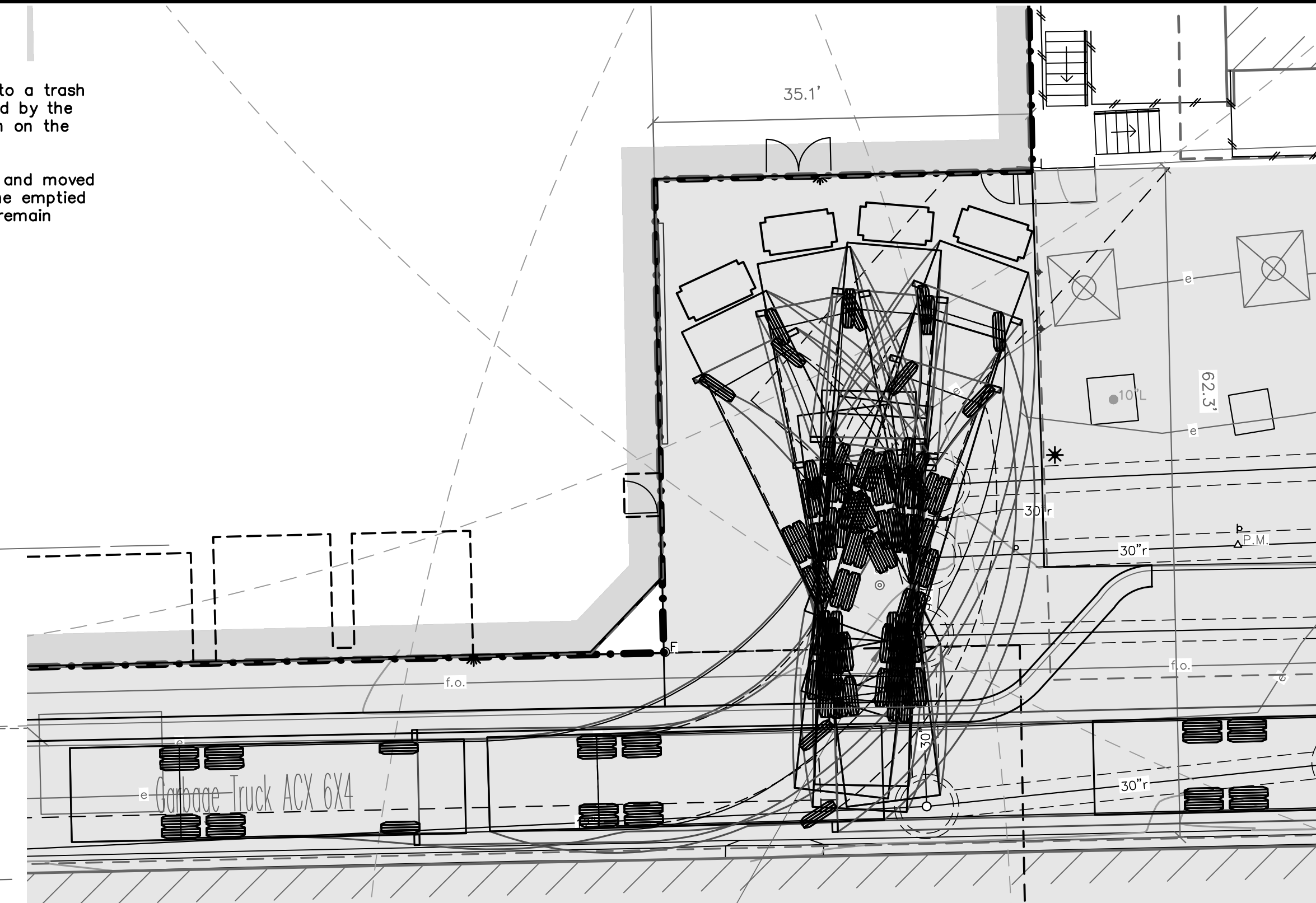
NOTE: BOTH TRASH AND RECYCLE DUMPSTERS ARE 3 CY

**Solid Waste Narrative:**

The 1208 South University project will have trash chutes serving all floors that will deposit solid waste into a trash room on the ground floor into rolling containers. Recyclables will be collected in 96-gallon totes provided by the owner on each floor in the trash chute room. Building staff will bring recyclables to the solid waste room on the ground floor and transfer to 3-yard containers for pick up.

The rolling trash and recycle containers will be brought out of the building by building maintenance staff and moved to the container pick-up staging area outside the trash room to be serviced by the collection trucks. The emptied containers will then be returned to the building by the maintenance staff. The rolling containers will not remain outside for more than an hour after being emptied.

Trash collection days will be coordinated with city staff and its franchise solid waste provider.



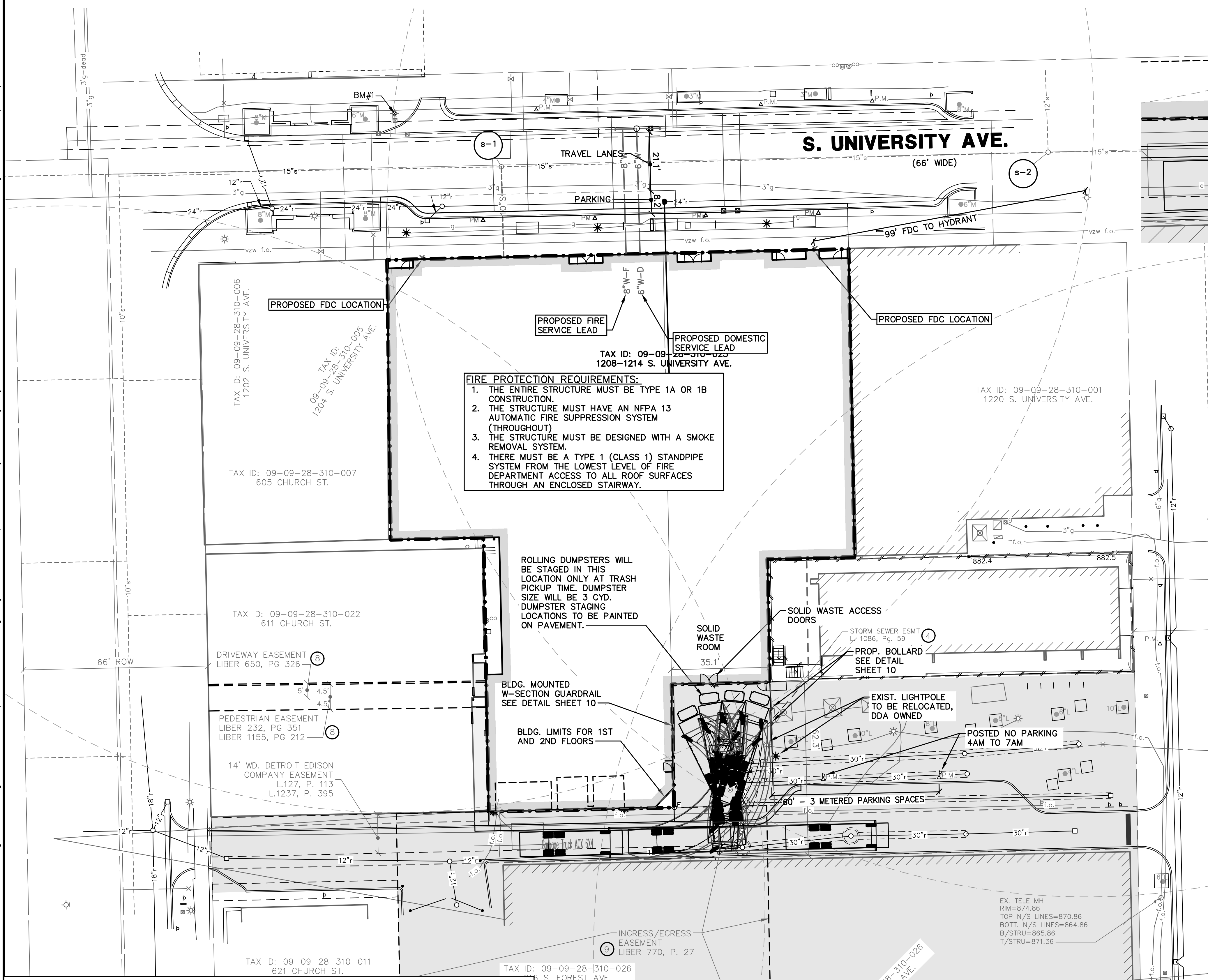
TRASH SERVICE BLOWUP  
SCALE: 1"=10'

**FIRE PROTECTION PLAN NOTES:**

- Water services are to be separate domestic and fire lines.
- Addressing numerics shall be a minimum of 4 inches in height and clearly visible when approaching the building.
- Flow requirements: flow shall comply with NFPA 13 standards and shall meet 2015 International Fire Code (IFC) standards found in Appendix B, Table B 105.1 of the code.
- Fire department connections (FDC's) shall be within 100 feet of a hydrant.
- Fire department connection (FDC): hook-up location is subject to Fire Marshal's approval.
- FDC's shall be 4 inch Storz connections or (2) 2 1/2 inch NST connections.
- FDC access shall comply with IFC 912.3.
- FDC signage shall be provided and shall comply with IFC 912.4.
- Fire protection alarm and detection system shall be in compliance with all applicable codes adopted by the City of Ann Arbor, including NFPA 72, 2007 edition and all other referenced standards.
  - A horn strobe device shall be installed above the FDC and shall activate upon sprinkler water flow.
  - Emergency responder radio coverage shall comply with 2015 IFC Section 510.
  - Emergency voice/alarm communications system shall comply with 2015 IFC Section 907.8.2.2.
  - Occupant notification appliances shall activate throughout the notification zones upon sprinkler water flow.
  - Place signage on Fire Suppression System Control Room door (IFC 2015 Section 509.1) if applicable.
- Knox Box emergency access system with keys to access the building, the Fire Suppression System Control Room (if applicable), an elevator key, and any other keys to areas that may be relevant during emergencies will be required. Knox Box with proper keys shall be in place prior to issuance of Certificates of Occupancy for the buildings.
- The Knox Box shall be mounted no higher than 6 feet from grade in an approved location on the exterior for emergency access to the building as well as access to the Fire Suppression System Control Rooms if applicable.
- Construction sequencing
  - Hydrants must be in service and approved during construction.
  - Hydrants providing protection coverage for the building must be in service and approved by both engineering and fire departments before the fire department will support permit issuance for new construction phase and before combustible materials are placed on the job site.
  - Storage areas for construction materials must be approved so as not to interfere with fire/emergency site access.
  - If site access is to be restricted during construction, Knox Box locks for gates are to be provided.
- No firewalls will be constructed within the building.
- Booster pumps will be provided on the domestic water service and the fire suppression water service leads. The pumps shall meet 2015 IFC standards, Section 914.3.1.2.
- No separate Fire Suppression System Control Room is required.

**FIRE PROTECTION REQUIREMENTS:**

- THE ENTIRE STRUCTURE MUST BE TYPE 1A OR 1B CONSTRUCTION.
- THE STRUCTURE MUST HAVE AN NFPA 13 AUTOMATIC FIRE SUPPRESSION SYSTEM (THROUGHOUT)
- THE STRUCTURE MUST BE DESIGNED WITH A SMOKE REMOVAL SYSTEM.
- THERE MUST BE A TYPE 1 (CLASS 1) STANDPIPE SYSTEM FROM THE LOWEST LEVEL OF FIRE DEPARTMENT ACCESS TO ALL ROOF SURFACES THROUGH AN ENCLOSED STAIRWAY.



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**SOLID WASTE GENERAL NOTES**

- MANTAIN A CLEAR SPACE DIRECTLY IN FRONT OF THE SOLID WASTE ENCLOSURE. THE CLEAR SPACE SHALL BE A MINIMUM OF FIFTY (50) FEET LONG BY THE WIDTH OF THE INSIDE DIMENSION (I.D.) OF THE ENCLOSURE WALLS PLUS FOUR FEET ON EACH SIDE. A MINIMUM VERTICAL CLEARANCE OF AT LEAST TWENTY-FIVE (25) FEET MUST BE PROVIDED ABOVE THIS AREA.
- INGRESS AND EGRESS ROUTES MUST BE DEVELOPED BASED ON SOLID WASTE SWEEP PATH REQUIREMENTS PER SD-SW-4. A MINIMUM HORIZONTAL CLEARANCE OF FOUR (4) FEET FROM THE EDGE OF THE SWEEP PATH AND A MINIMUM VERTICAL CLEARANCE OF AT LEAST FIFTEEN (15) FEET MUST BE PROVIDED ALONG THE ENTIRE SOLID WASTE COLLECTION ROUTE.
- PROVIDE TEN (10) FEET MINIMUM HORIZONTAL CLEARANCE FROM SOLID WASTE ENCLOSURE TO MAJOR ELECTRICAL EQUIPMENT, ABOVE GROUND UTILITY SERVICES, AND EDGE OF OVERHEAD OBSTRUCTIONS SUCH AS TREE BRANCHES, SIGNAGES, AND OVERHEADS.
- IF FORWARD ACCESS TO THE PUBLIC STREET IS NOT AVAILABLE FOR THE SOLID WASTE VEHICLE, THE SITE DEVELOPMENT LAYOUT MUST ACCOMMODATE A TURN-AROUND LOCATION MEETING REQUIREMENTS WITHIN SOLID WASTE REFERENCE SPECIFIC TURN-AROUND DETAIL (SD-SW-5) AND ACCEPTABLE TO THE PS&A.
- FOR SITES THAT CANNOT ACCOMMODATE A TURN-AROUND, THE FOLLOWING ADDITIONAL REQUIREMENTS MUST BE MET:
  - SOLID WASTE VEHICLES MUST BE ABLE TO SERVICE DUMPSTERS WITHOUT IMPEDING THE PUBLIC STREET OR SIDEWALK.
  - THE COLLECTION LOCATION SHALL BE CLEARLY DELINEATED AND NOT HAVE A SLOPE GREATER THAN 2% IN ANY DIRECTION.
  - BOLLARDS OR ADEQUATE CLEAR SPACES MUST BE PROVIDED BEHIND THE LIFT POINT SO THE DUMPSTERS ARE NOT PUSHED INTO ANY BUILDING OR ACCESS ROUTE.
  - ALL SWEEP-PATH CLEARANCE AND VERTICAL CLEARANCE REQUIREMENTS PREVIOUSLY IDENTIFIED SHALL BE PROVIDED.
  - SOLID WASTE VEHICLE BACK-UP DISTANCES MUST BE LESS THAN 30' ALONG SERVING ROUTE.
  - GATES ON BIN ENCLOSURES SHALL OPEN A MINIMUM OF 120 DEGREES FROM THE CLOSED POSITION. THE GATES SHALL NOT IMPEDIC ON THE REQUIRED BIN ENCLOSURE OPENING WIDTH. SHALL NOT BLOCK ADJACENT PARKING SPOTS, AND NOT BE IMPEDIC BY ADJACENT CURBS OR LANDSCAPING.
  - GATES SHALL BE DESIGNED TO BE FREE STANDING WITHOUT CENTER POLE DESIGN. IF CENTER POLE DESIGN IS NECESSARY, 12 INCHES SHALL BE ADDED TO THE MINIMUM INTERIOR WIDTH OF THE ENCLOSURE.
  - GATE DESIGN SHALL INCLUDE A RELIABLE MEANS TO SECURE THE DOOR IN BOTH THE OPEN AND CLOSED POSITIONS.
- THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF NO PARKING SIGNS ALONG THE SOLID WASTE INGRESS/EGRESS ROUTE TO ENSURE THE ROUTE REMAINS FREE OF VEHICLES.
- REFER TO ASSOCIATED STANDARD DETAILS SD-SW-1 AND SD-SW-2 FOR REQUIREMENTS ON SINGLE AND DOUBLE WIDE SOLID WASTE BIN ENCLOSURE LAYOUT AND DESIGN CRITERIA. THE CITY SHALL HAVE THE ABILITY TO MODIFY OR INTERPRET THESE DETAILS AS NECESSARY TO ACCOMMODATE THE CITY OR CITY CONTRACTOR'S NEEDS FOR SOLID WASTE PICK-UP.
- SOLID WASTE EQUIPMENT ACCESS ROADS AND SERVICE AREA SURFACES SHALL BE DESIGNED AND MAINTAINED TO SUPPORT THE WHEELED LOADS OF COLLECTION VEHICLES WEIGHING UP TO 45,000 LBS GROSS VEHICLE WEIGHT (GVW) AND SHALL BE PROVIDED WITH AN APPROVED SURFACE SO AS TO PROVIDE ALL WEATHER DRIVING CAPABILITIES. PROPERTY OWNER SHALL BE RESPONSIBLE FOR ALL SNOW AND ICE REMOVAL REQUIRED FOR SAFE ACCESS.
- FOR SITES THAT CANNOT ACCOMMODATE A STANDARD DUMPSTER ENCLOSURE, THE DUMPSTERS MAY BE ROLLED OUT OF A BUILDING OR ALTERNATE ENCLOSURE BY THE PROPERTY OWNER TO AN APPROVED COLLECTION LOCATION.
- SOLID WASTE COLLECTION LOCATIONS MUST BE LOCATED WITHIN THE BOUNDARIES OF THE PROPERTY UNLESS AN APPROPRIATE EASEMENT IS OBTAINED.

**SOLID WASTE GENERAL NOTES**

SD-SW-4

SCALE: N.T.S. DATE: 12/01/2022 DRAWING NO: SD-SW-4

ALL SOLID WASTE VEHICLES SHALL BE 30.00 FT. LONG, 8.00 FT. WIDE, 8.00 FT. HIGH, 8.00 FT. WHEELBASE, 8.00 FT. FRONT OVERHANG, 8.00 FT. REAR OVERHANG, 8.00 FT. TURNING RADIUS, 8.00 FT. MINIMUM CLEARANCE UNDER CHASSIS.

**SOLID WASTE GENERAL NOTES**

SD-SW-6B

SCALE: N.T.S. DATE: 12/01/2022 DRAWING NO: SD-SW-6B

ALL SOLID WASTE VEHICLES SHALL BE 30.00 FT. LONG, 8.00 FT. WIDE, 8.00 FT. HIGH, 8.00 FT. WHEELBASE, 8.00 FT. FRONT OVERHANG, 8.00 FT. REAR OVERHANG, 8.00 FT. TURNING RADIUS, 8.00 FT. MINIMUM CLEARANCE UNDER CHASSIS.

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**ANN ARBOR - GALLERIA**  
SITE PLAN FOR PLANNING COMMISSION  
FIRE PROTECTION AND SOLID WASTE PLAN

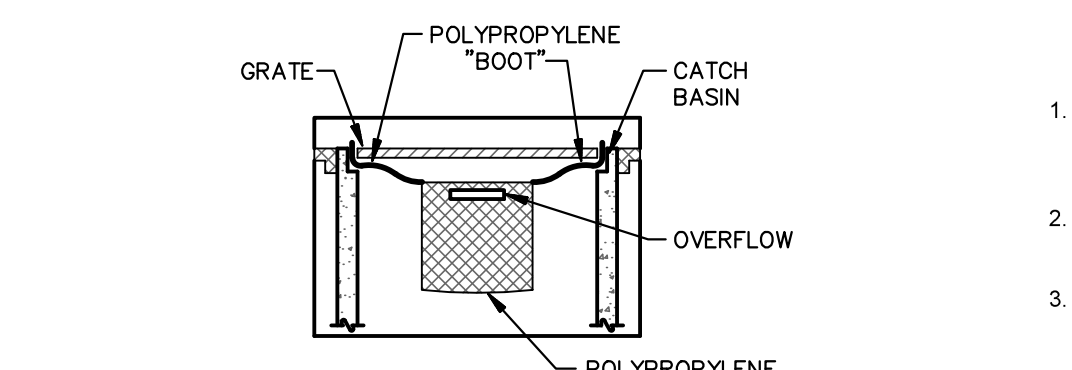
**08**

JOB NO: 23047  
DATE: 2/2/24  
SHEET 08 OF 13  
REV. DATE: 3/7/23/24  
ADD: JAV  
PER CITY REVIEW: 6/7/23/24  
ENG: JCA  
PER CITY REVIEW: 7/30/24  
JMW  
TECH: JMW  
DATE: 04/24/2021  
FJB

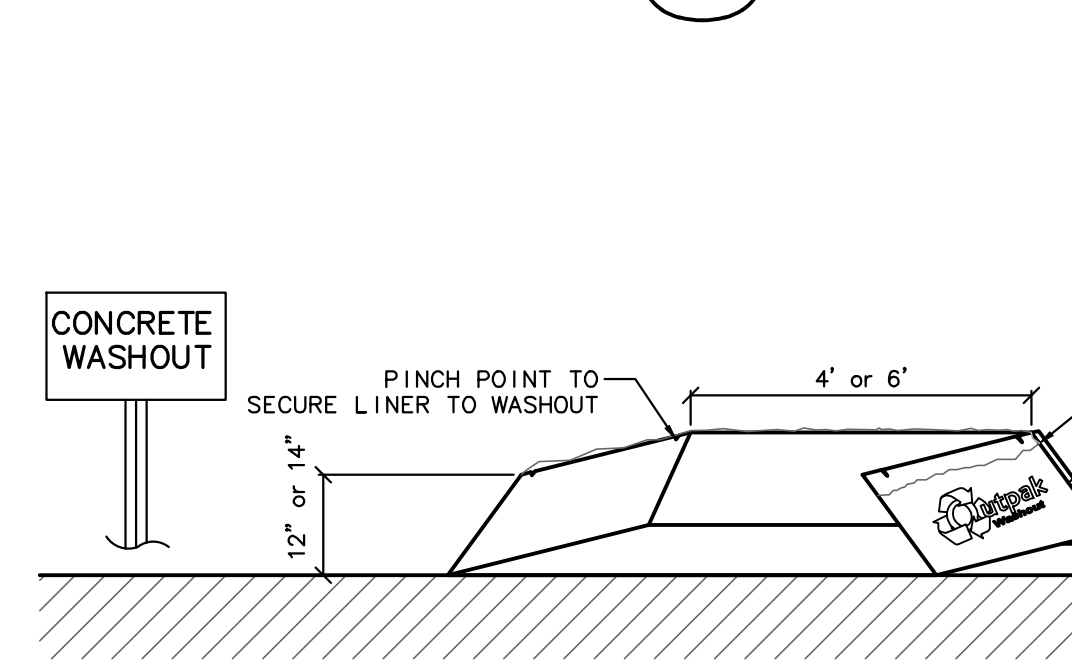
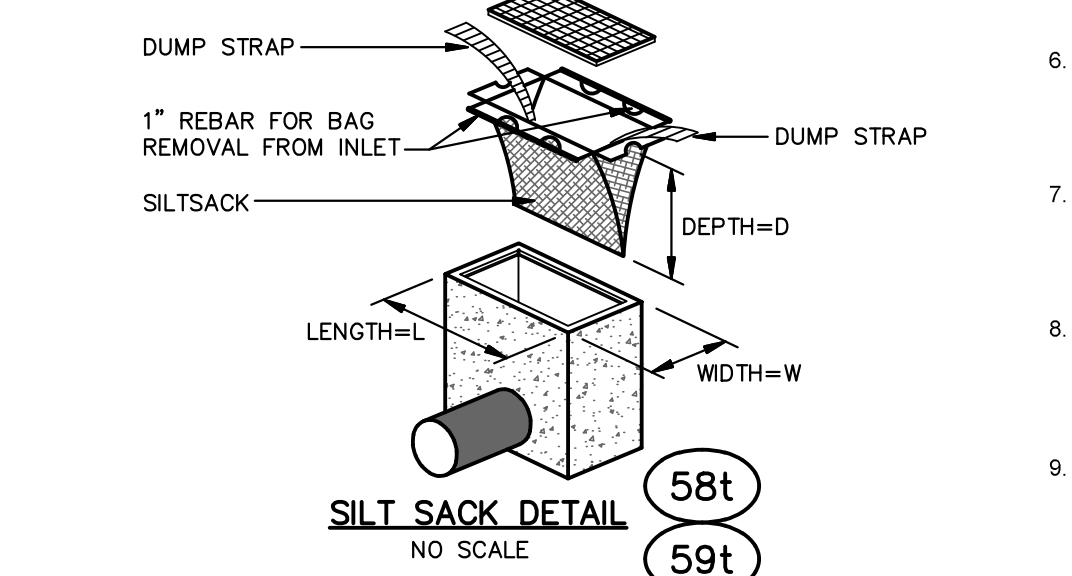
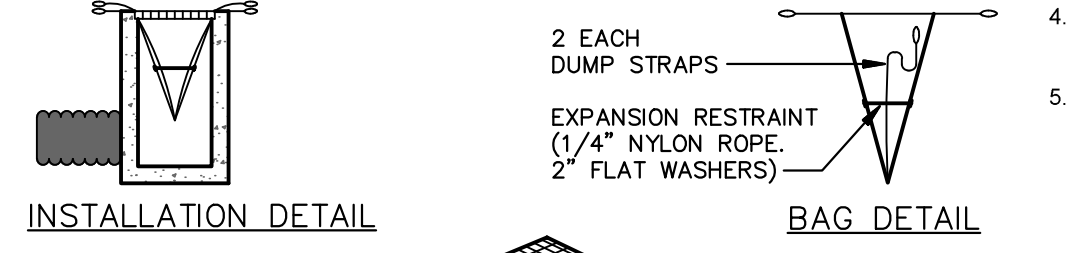
CLIENT: MIDWESTERN CONSULTING  
LMP GALLERIA PROPERTY OWNER, LLC  
315 O'CONNOR STREET  
ATHENS, GA 30601  
ATTN: TUCKER SNIPES  
706-537-4720



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**NOTE:**  
TEMPORARY INLET SEDIMENT FILTER TO BE INSTALLED ON ALL PAVED CATCH BASINS OR STORM INLETS. INLET FILTER TO BE SIMILAR TO "STREAMGUARD" AS MANUFACTURED BY STORMWATER SERVICES CORPORATION (208-767-0441) OR "SILT-SACK" AS MANUFACTURED BY ATLANTIC CONSTRUCTION FABRICS, INC.; (800-448-3636). CLEAN FILTER AS NEEDED.



**NOTES:**

1. THE CONCRETE WASHOUT AREA SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT ON THIS PROJECT.
2. SIGNS SHALL BE PLACED AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT.
3. THE CONCRETE WASHOUT AREA WILL BE REPLACED AS NECESSARY TO MAINTAIN CAPACITY FOR WASTE CONCRETE AND OTHER LIQUID WASTE.
4. WASHOUT RESIDUE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT AN APPROVED WASTE SITE.
5. DO NOT MIX EXCESS AMOUNTS OF FRESH CONCRETE OR CEMENT ON-SITE.
6. DO NOT WASH OUT CONCRETE TRUCKS INTO STORM DRAINS, OPEN DITCHES, STREETS, OR STREAMS.
7. AVOID DUMPING EXCESS CONCRETE IN NON-DESIGNATED DUMPING AREAS.
8. LOCATE WASHOUT AREA AT LEAST 50' (15 METERS) FROM STORM DRAINS, OPEN DITCHES, OR WATERBODIES.
9. WASH OUT WASTES INTO THE OUTPACK WASHOUT AS SHOWN WHERE THE CONCRETE CAN SET, BE BROKEN UP, AND THEN DISPOSED OF PROPERLY.

OR APPROVED EQUAL  
**CONCRETE WASHOUT SYSTEM**  
NOT TO SCALE

- Estimated Construction Sequence**  
4/1/2025 thru 7/31/2026
1. Inventory Site: 4/1/2025 (2 weeks)
    - SESC pre-grading meeting
    - Identify construction limits and define site access
    - Install construction fencing as required to secure site
  2. Building Demolition: 4/15/2025 (6 weeks)
    - Install silt fence
    - Demolish buildings and associated utilities
  3. Utility Installation and Site Demolition: 5/26/2025 (4 weeks)
    - Install all soil erosion control measures
    - Demolish site amenities, including interior site curb and gutter and pavement as required
    - Install water main and water main leads
    - Install sanitary sewer lead
    - Install storm sewer leads from ROW onto site
    - A wet or dry standpipe shall be installed per 3311.1 of the Michigan Building Code. The standpipe can be permanent or temporary with a permanent or temporary FDC provided. Connections for hose operations shall be 2 1/2" NST.
  4. Mass Excavation: 7/23/2025 (4 weeks)
    - Maintain existing controls
    - Excavate for foundation/basement
  5. Foundation Construction: 8/21/2025 (8 weeks)
    - Four footings and foundation walls
    - Install underground detention chambers
    - Install site storm sewer and inlets, sack all active inlets
    - Maintain existing controls, install permanent controls within five (5) days after final grading or final grade change
    - Driveway curb and first course asphalt to be installed prior to issuance of vertical building permit
  6. Building Construction: 10/16/2025 (60 weeks)
    - Maintain existing controls, install permanent controls within five (5) days after final grading or final grade change
    - Construct building above grade
    - Complete roof and plumb roof drains to detention chambers
  7. Fine Grade the Site, Install Sidewalk, Curb and Gutter, Final Street Paving and continue Building Construction: 12/12/2026 (8 weeks)
    - Maintain existing controls
    - Install Sidewalk, Curb and Gutter and Final Street Paving
    - Plant trees and landscape items
  8. Follow-Up After the Site is Stabilized: 5/7/2027 (1 week)
    - Remove construction fence and install new fencing
    - Remove catch basin silt sacks
    - Remove sediment from detention chambers and storm sewer system
    - Clean up debris
  9. Finalize Building Construction: 5/14/2027 (1 week)
    - Maintain permanent soil erosion control measures
    - Remove construction fencing
    - Prior to the first Certificate of Occupancy, all Life Safety Systems shall be completed, tested and approved.
    - A "Knox Box" emergency responder access system shall be installed prior to the first Certificate of Occupancy. Forms for the Knox Box are available thru Fire Prevention.
    - Provide as-built certification of the storm water detention system.

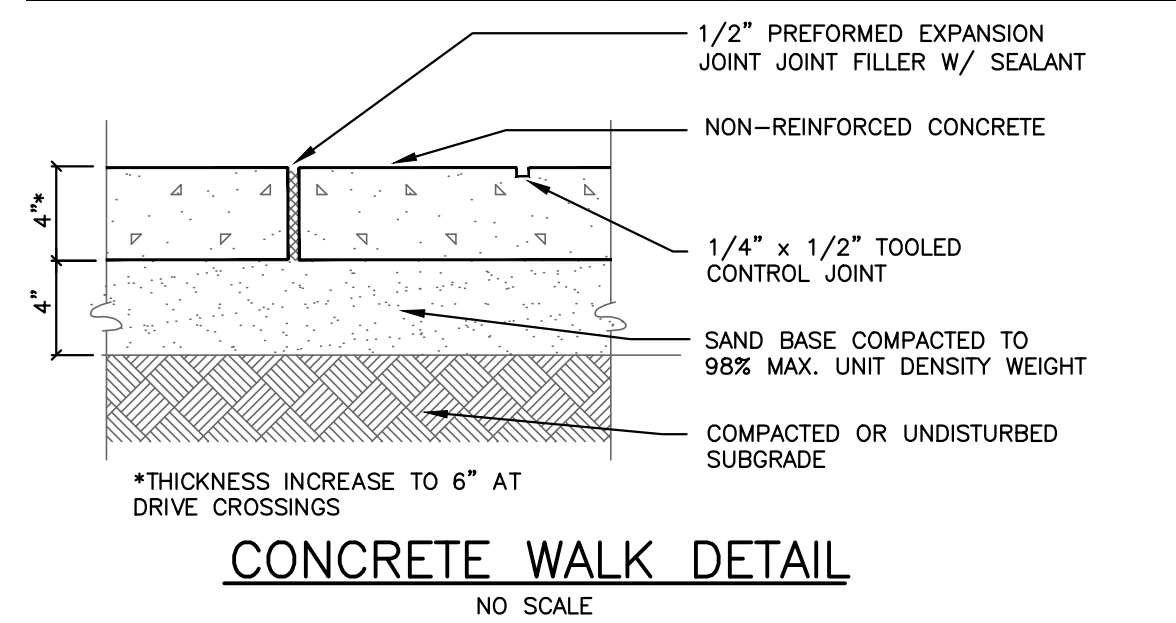
**STORM WATER MANAGEMENT SYSTEM  
PERMANENT MAINTENANCE PLAN, SCHEDULE,  
AND COST ESTIMATE**

**MAINTENANCE PLAN BUDGET**

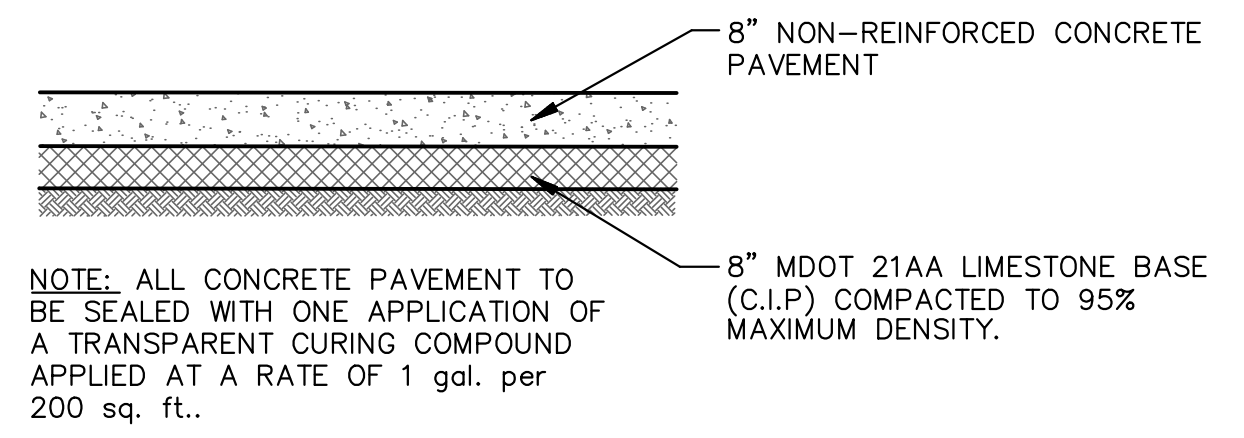
Annual inspection of system for sediment accumulation	\$350.00
Removal of sediment accumulation every two (2) years, as needed	\$600.00
Inspect for floatables and debris annually and after major storms	\$300.00
Removal of floatables and debris annually and after major storms	\$600.00
Inspect system for erosion annually and after major storms	\$300.00
Re-establish permanent vegetation on eroded slopes, as needed	\$200.00
Clean drives semiannually	\$250.00
<b>Total Annual Budget</b>	<b>\$2,600.00</b>

**PERMANENT MAINTENANCE TASKS AND SCHEDULE**

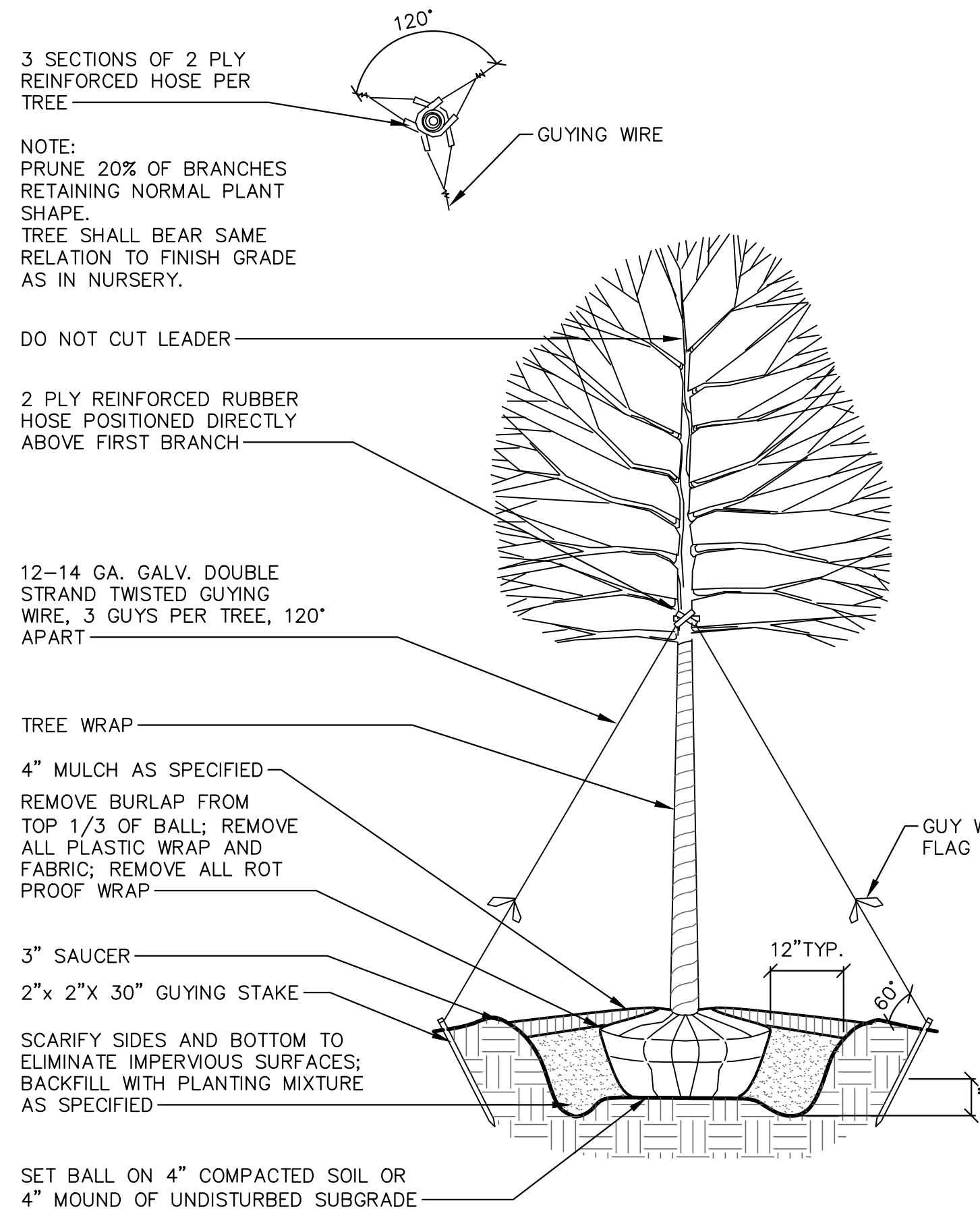
Components	Components					Schedule
	Drives and Walks	Storm Sewer System	Catch Basin Sumps	Catch Basin Inlet Castings	Detention Chambers	
Inspect for sediment accumulation	X	X	X		X	annually
Removal of sediment accumulation		X	X		X	every 2 years, as needed
Inspect for floatables and debris		X	X	X	X	annually
Cleaning of floatables and debris		X	X	X	X	annually
Clean streets	X					semi-annually



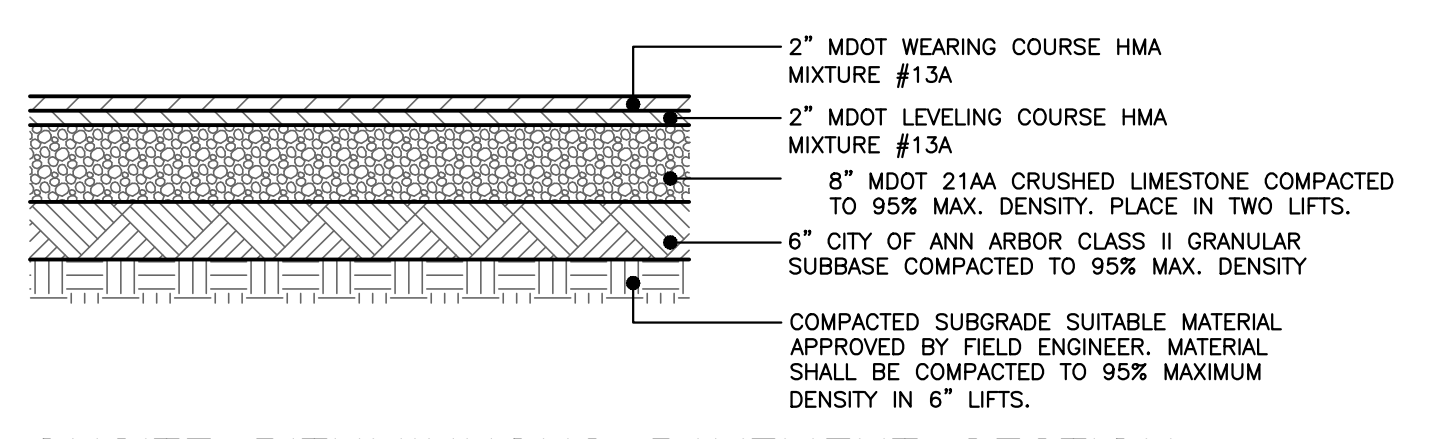
**CONCRETE WALK DETAIL**  
NO SCALE



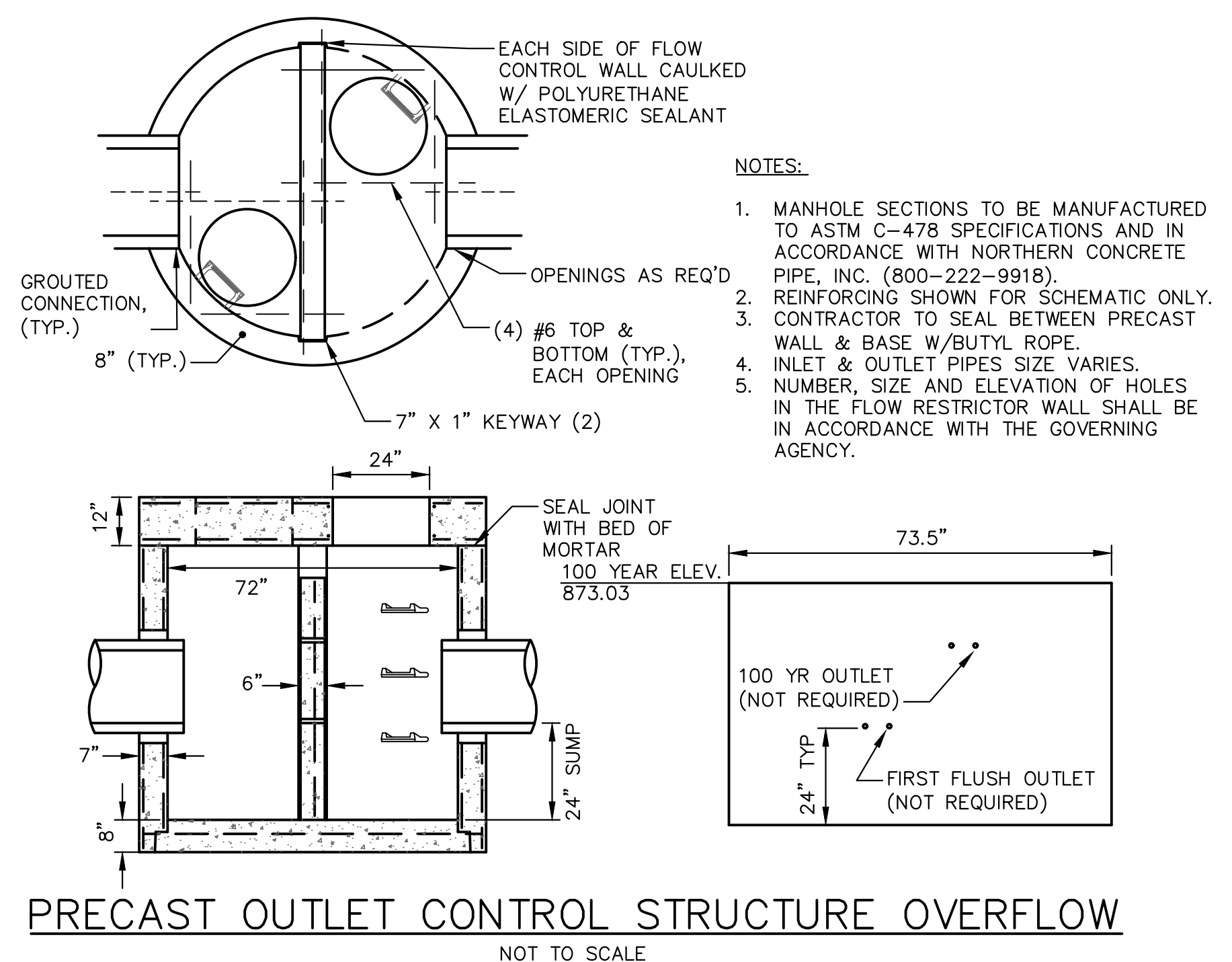
**PROP. HEAVY DUTY CONCRETE DETAIL**  
NOT TO SCALE



**DECIDUOUS TREE - PLANTING DETAIL**  
SCALE: NTS



**ONSITE BITUMINOUS PAVEMENT SECTION**  
BITUMINOUS REPAIR IN THE ROW SHALL MATCH EXIST. SECTION  
NOT TO SCALE



**PRECAST OUTLET CONTROL STRUCTURE OVERFLOW**  
NOT TO SCALE

**LANDSCAPE NOTES**

1. For any plant quantity discrepancies between the plan view and the plant schedules, the plant schedule shall take precedence.
2. Plant materials shall be selected and installed in accordance with standards established by the City of Ann Arbor.
3. In-ground automatic irrigation shall be provided for all landscaped planting or water outlets shall be provided within 150 feet of all required plantings.
4. All diseased, damaged or dead material shown on the site plan as proposed plantings shall be replaced by the end of the following growing season.
5. Restore disturbed areas with a minimum of four (4) inches of topsoil and then seed/fertilize/mulch.
6. All disturbed areas not to be seeded with seed mixes identified on the Landscape Plan shall be lawn areas. Fertilizer for the initial installation of lawns shall provide not less than one (1) pound of actual nitrogen per 1,000 sq ft of lawn area and shall contain not less than two percent (2%) potassium and four percent (4%) phosphoric acid.  
Lawn (turfgrass) seed mix shall consist of:  
15% Rugby Kentucky Bluegrass  
10% Park Kentucky Bluegrass  
40% Ruby Creeping Red Fescue  
15% Pennington Perennial Ryegrass  
20% Scaldus Hard Fescue  
Seed shall be applied at a rate of five pounds (5 lbs) per 1000 sq ft. Mulch within 24 hours with two (2) tons of straw per acre, or 71 bales of excelsior mulch per acre. Anchor straw mulch with spray coating of adhesive material applied at the rate of 150 gals. / acre.
7. After the first growing season, only fertilizers that contain NO phosphorus shall be used on the site.
8. All seeded areas with slopes less than 1:3 (one vertical foot for every 3 horizontal feet) shall be mulched with straw mulch at the rate of two (2) bales per 1,000 square feet. All seeded areas with slopes greater than 1:3 shall be seeded and biodegradable erosion control blanket North American Green SCL150, or equivalent, shall be applied with biodegradable stakes.
9. Deciduous plants shall be planted between March 1 and May 15 and from October 1 until the prepared soil becomes frozen. Evergreen plants shall be planted between March 1 and June 1 and from August 15 to September 15.
10. All planting beds are to receive four (4) inches of shredded hardwood bark mulch.
11. All trees to be located a minimum of 10 feet from public utilities.
12. All single trunk, deciduous trees shall have a straight and a symmetrical crown with a central leader. One sided trees or those with thin or open crowns shall not be accepted.
13. All evergreen trees shall be branched fully to the ground, symmetrical in shape and have not been sheared in the last three (3) growing seasons.
14. All compacted subgrade soils in proposed landscape areas shall be tilled to a minimum 12-inch depth prior to placement of topsoil, geotextile fabric, or other planting media as specified.
15. Proposed trees will be planted a minimum of 15 feet apart.  
Planting Soil: Existing, in-place or stockpiled topsoil. Supplement with imported topsoil as needed. Verify suitability of existing surface soil to produce viable planting soil. Final approval of soil composition shall be provided by the landscape contractor. Remove stones, roots, plants, soil clods, clay lumps, pockets of coarse sand, concrete slurry, concrete layers or chunks, cement, plaster, building debris, and other extraneous materials harmful to plant growth. Mix surface soil with the following soil amendments to produce planting soil:  
a. Ratio of Loose Compost to Topsoil by Volume: 1:4.  
b. Weight of Lime per 1000 Sq. Ft.: Amend with lime only on recommendation of soil test to adjust soil pH.  
c. Weight of Sulfur or Aluminum Sulfate per 1,000 Sq. Ft.: Amend with sulfur or aluminum sulfate only on recommendation of soil test to adjust soil pH.  
d. Volume of Sand: Amend with sand only on recommendation of Landscape Architect to adjust soil texture.  
e. Weight of Slow-Release Fertilizer per 1,000 Sq. Ft.: Amend with fertilizer only on recommendation of soil test to adjust soil fertility.
17. Snow storage areas are located along the edges and corners of parking areas as shown on the plan.
18. During the establishment period for the installed deciduous mitigation trees (1-2 years as to be determined by certified arborist):  
a. The trunk of young trees shall be wrapped in late autumn and wrap shall be removed in early spring  
b. Burlap screening or wrapping shall be installed on the southwest and windward sides from late autumn to early spring.  
c. Trees shall be watered in spring and autumn and during dry conditions at a frequency determined by certified arborist.  
d. Mulching around trees shall be maintained at a depth of 2 to 3 inches.
19. All landscaping or other screening material within a sight triangle shall be no greater than 30 inches tall, and all trees within a sight triangle shall have all branches trimmed to provide clear vision for a vertical height of 8 feet above the roadway surface. Evergreen trees shall not be permitted within sight triangles.
20. All species deviations must be approved in writing by the City of Ann Arbor prior to installation.
21. The City of Ann Arbor has adopted an ordinance limiting phosphorus in fertilizer. To assist in compliance with the State mandated TMDL for phosphorus within the Middle Huron River basin. Applications of fertilizer beyond the initial topsoil and seeding shall be a fertilizer with no phosphorus.

- Maintenance:**
1. Maintain plantings by pruning, cultivating, watering, weeding, fertilizing, mulching, restoring planting saucers, adjusting and repairing tree-stabilization devices, resetting to proper grades or vertical position, and performing other operations as required to establish healthy, viable plantings. Spray or treat as required to keep trees and shrubs free of insects and disease.
  2. Fill in as necessary soil subsidence that may occur because of settling or other processes. Replace mulch materials damaged or lost in areas of subsidence.
  3. Apply treatments as required to keep plant materials, planted areas, and soils free of pests and pathogens or disease. Use integrated pest management practices whenever possible to minimize the use of pesticides and reduce hazards. Treatments include physical controls such as hosing off foliage, mechanical controls such as traps, and biological control agents.
  4. Contractor shall warranty all plant material and trees to remain alive and be in healthy, vigorous and like new condition for the specified period from installation to Substantial Completion. The entire Landscaping Project, including but not limited to: plants (perennials), trees, shrubs, mulches, shrubs, etc. are to be under Warranty for One Year after Substantial Completion date of the Project. At the end of the specified One Year Warranty period the Owner's Representative will inspect plant material for compliance. Contractor shall replace, in accordance with the drawings and specifications, all plants, trees, shrubs, etc. or as determined by the Owner's Representative, are in an unhealthy or unsightly condition. Warranty shall not include damage or loss of plants, trees, and shrubs caused by fires, floods, freezing rains, lightning storms, or winds over 75 miles per hour, acts of vandalism or negligence on the part of the owner, or any other incident beyond landscape contractor's control.
  5. Watering: The contractor shall keep seed moist for optimum plant growth (1" of total water per week, including rainfall) until the grass and/or flowers are four (4) inches high typical.
  6. Protection from traffic and erosion in newly seeded areas is the responsibility of the contractor. Safety fences and/or silt fence with appropriate signage may be used at the contractor's expense until the grasses and flowers are fully established.
  7. Erosion shall be repaired by the contractor.
  8. Turf installations shall meet the following criteria as determined by Owner:  
a. Satisfactory Seeded Turf: At end of maintenance period, a healthy, uniform, close stand of grass has been established, free of weeds and surface irregularities, with coverage exceeding 90 percent over any 10 sq. ft. and bare spots not exceeding 5 by 5 inches.  
b. Satisfactory Sodded Turf: At end of maintenance period, a healthy, well-rooted, even-colored, viable turf has been established, free of weeds, open joints, bare areas, and surface irregularities.  
c. Use specified materials to reestablish turf that does not comply with requirements and continue maintenance until turf is satisfactory.

CONSTRUCTION SEQUENCE	OPERATION TIME SCHEDULE BEGINNING APRIL 2025													
	APRIL	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	2027	MARCH	APRIL	MAY	JUNE	JULY
SESC PRE-GRADING MEETING														
INSTALL AND MAINTAIN SOIL EROSION CONTROL MEASURES AS REQUIRED														
BUILDING DEMOLITION														
UTILITY INSTALLATION AND SITE DEMOLITION														
MASS EXCAVATION														
FOUNDATION CONSTRUCTION														
BUILDING CONSTRUCTION														
FINAL GRADE SITE														
PLACE MULCH AND SEEDING														
FINAL CLEAN-UP & REMOVAL OF SOIL EROSION CONTROLS														

The underground utilities shown have been located from field survey information and existing records. The surveyor makes no guarantees that the underground utilities shown comprise all such utilities in the area, either in-service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated. Although the surveyor does certify that they are located as accurately as possible from the information available.

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 Wireless Communications • Transportation • Landfill Services

**CLIENT**  
 GALLERIA PROPERTY OWNER, LLC  
 315 OCCONEE STREET  
 ATHENS, GA 30601  
 ATTN: TUCKER SNIPES  
 706-537-4720

**ANN ARBOR - GALLERIA**  
 SITE PLAN FOR PLANNING COMMISSION  
 MISCELLANEOUS DETAILS

**09**

DATE: 2/2/24  
 SHEET 09 OF 13  
 REV. DATE  
 ADD: KAV  
 ENG: JCA  
 PK: SWB  
 TECH: DZG  
 FIB

JOB No. **23047**  
 REVISIONS:



M:\CIVIL\2023\33047\Site Plans\33047D02.dwg, 7/30/2024, 11:47 AM, Jim Ahern, MISC DETAILS, MLLC PDF ps3  
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**STRUCTURAL DESIGN LOADING CRITERIA**

LIVE LOADING: AASHTO HS-20 HIGHWAY LOADING

GROUND WATER TABLE: BELOW INVERT OF SYSTEM

SOIL BEARING PRESSURE: 4000 PSF

SOIL DENSITY: 120 PCF

EQUIVALENT UNSATURATED LATERAL ACTIVE EARTH PRESSURE: 35 PSF / FT.

EQUIVALENT SATURATED LATERAL ACTIVE EARTH PRESSURE: 80 PSF / FT. (IF WATER TABLE PRESENT)

APPLICABLE CODES: ASTM C857 4C1-19.8

BACKFILL TYPE: SEE SHEET 4.0 FOR BACKFILL OPTIONS

**STORMTRAP SYSTEM INFORMATION**

**PRELIMINARY NOT FOR CONSTRUCTION**

**SITE SPECIFIC DESIGN CRITERIA**

- STORMTRAP UNITS SHALL BE MANUFACTURED AND INSTALLED ACCORDING TO SHOP DRAWINGS APPROVED BY THE INSTALLING CONTRACTOR AND ENGINEER OF RECORD. THE SHOP DRAWINGS SHALL INDICATE SIZE AND LOCATION OF ROOF OPENINGS AND INLET / OUTLET PIPE TYPES, SIZES, INVERT ELEVATIONS AND SIZE OF OPENINGS.
- COVER RANGE: MIN. 1.00' MAX. 2.23' CONSULT STORMTRAP FOR ADDITIONAL COVER OPTIONS.
- ALL DIMENSIONS AND SOIL CONDITIONS, INCLUDING BUT NOT LIMITED TO GROUNDWATER AND SOIL BEARING CAPACITY ARE REQUIRED TO BE VERIFIED IN THE FIELD BY OTHERS PRIOR TO STORMTRAP INSTALLATION.
- FOR STRUCTURAL CALCULATIONS THE GROUND WATER TABLE IS ASSUMED TO BE BELOW INVERT OF SYSTEM IF WATER TABLE IS DIFFERENT THAN ASSUMED, CONTACT STORMTRAP.

**StormTrap**

1227 WINDHAM PARKWAY  
EAST LANSING, MI 48046  
P815-941-6500 / F331-319-5347

**Midwestern Consulting**  
3815 PLAZA DR  
Ann Arbor, MI 734-995-0200

**PROJECT INFORMATION:**

**PRELIMINARY NOT FOR CONSTRUCTION**

**CURRENT ISSUE DATE:**

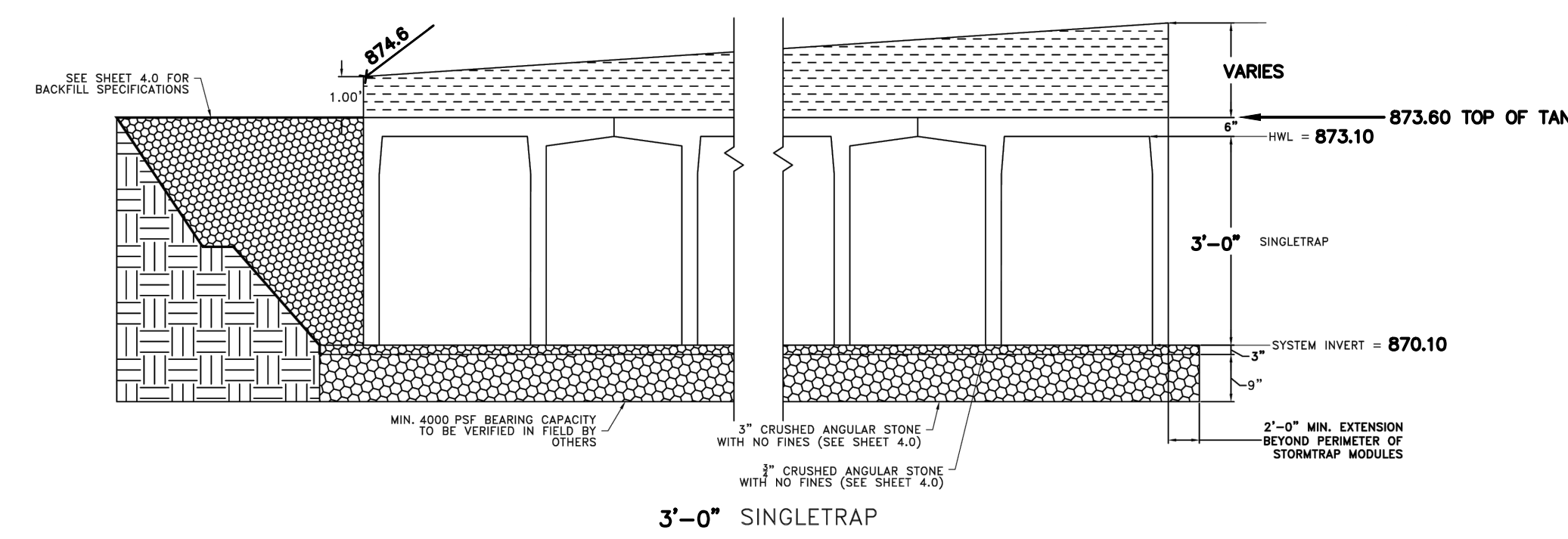
**ISSUED FOR:**

**REV. DATE: ISSUED FOR: BY:**

**SCALE:** NTS

**SHEET TITLE:** SINGLETRAP DESIGN CRITERIA

**SHEET NUMBER:** 1.0



**St. Joseph Photometric Abbreviation: W1**

DATE: \_\_\_\_\_ LOCATION: \_\_\_\_\_  
TYPE: \_\_\_\_\_ PROJECT: \_\_\_\_\_  
CATALOG #: \_\_\_\_\_

**BEACON**  
Geopak Series 1

SIZE 1 - TRP1/OSP/RD1

**FEATURES**

- Geopak Series consists of three compact Geometric wall-pack shapes in four popular finishes
- 24 mid-power LEDs create 3115 lumens in AC and 1628 lumens in emergency mode
- Environmentally friendly, long-life Lithium Ion Phosphate battery
- Standard Battery Temperature Range: 0°C to 40°C, Optional Heater: -30°C to 40°C
- Zero upright distributions

**GEOPAK**

**Specifications**

**CONSTRUCTION**

- Housing is made from die-cast aluminum with a hinged back-plate for ease of installation and maintenance
- Powder paint finish provides durability in outdoor environments. Tested to meet 1000 hour salt spray rating.
- Wet Location Listed to UL924 and UL1598 Standard

**ELECTRICAL**

- 120-277 and 347-480V operation, 50/60Hz
- 0-10V dimming driver standard. Dimming leads are extended from the product.
- 10kA surge protector
- Photocell and occupancy sensor options available for complete on/off and dimming control
- Integral Battery Backup provides emergency lighting for the required 90 minute path of egress
- Includes a long-life Lithium Ion Phosphate battery with optional battery heater for cold temperature application
- Ambient operating temperature -40°C to 40°C
- Button photocontrol is suitable for 120-277V operation

**CERTIFICATIONS**

- Drivers IP66 and RoHS compliant
- Listed to UL1598 and CSAC22.2#250.0-24 for wet location

**WARRANTY**

- 5 year warranty

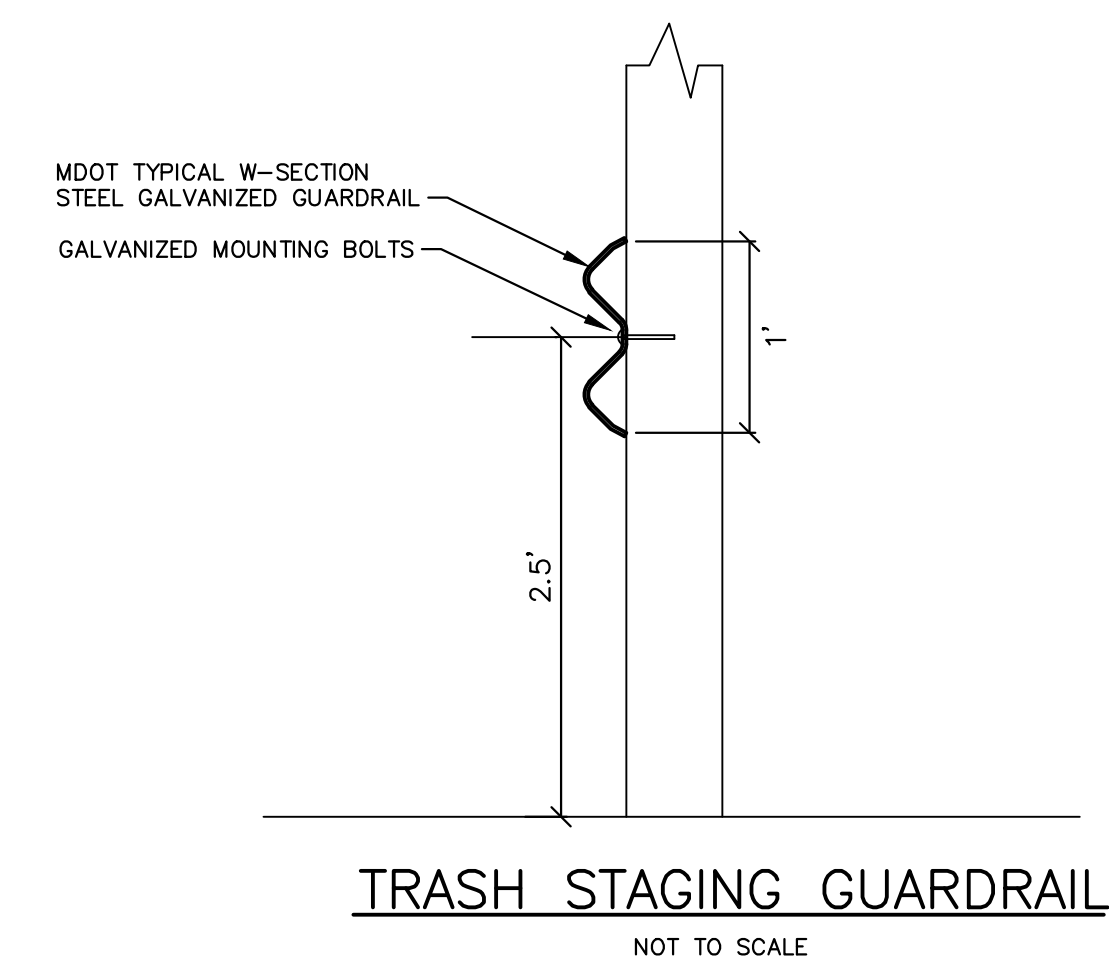
**KEY DATA**

Lumen Range	1720-2896
Wattage Range	15-25
Efficacy Range (LPW)	107-131
Weights lbs. (kg)	10.5-11.5 (4.8-5.2)

**INSTALLATION**

- Universal plate for mounting to standard 3/2" and 4" square electrical boxes. All connections are made from connections at the rear of the unit
- Optional back-box accessory available for surface conduit application.

**Current** [currentlighting.com/beacon](http://currentlighting.com/beacon) Page 1 of 6  
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**BEACON**  
Geopak Series 1

DATE: \_\_\_\_\_ LOCATION: \_\_\_\_\_  
TYPE: \_\_\_\_\_ PROJECT: \_\_\_\_\_  
CATALOG #: \_\_\_\_\_

**ORDERING GUIDE**

Example: TRP2-24L30-3K7-2-UNV-D8T

**ORDERING INFORMATION**

Series	# LEDs	Wattage	CCT/CRI	Distribution	Voltage
TRP1 Tepevoid	24L 24 LEDs	15 15 watts	3K7 3000K, 70 CR	3 TYPE III	UNV 120-277V
RD1 Radius	20 20 watts	20 20 watts	4K7 4000K, 70 CR	4W TYPE IV	120 120V
OSP1 Cr. sphere	25 25 watts	25 25 watts	3K8 3000K, 80 CR		208 208V
			4K8 4000K, 80 CR		240 240V
			5K8 5000K, 80 CR		277 277V
					347 347V
					480 480V

**Color**

BLT	Black Matte Textured
BLS	Black Gloss Smooth
DBT	Dark Bronze Matte Textured
DBS	Dark Bronze Gloss Smooth
GTT	Graphite Matte Textured
LGS	Light Grey Gloss Smooth
PSS	Platinum Silver Smooth
WHT	White Matte Textured
WHS	White Gloss Smooth
VGT	Verde Green Textured
CC	Custom Color

**Control Options Network**

PC	Button Photocontrol
SCP <sup>SM</sup>	Programmable occupancy sensor; factory default is 10% light output
Spec: SCP/SCD & SWPM	Mount Height
SP	Up to 8ft mount height
-20F	Up to 20ft mount height

**Options**

F <sup>1</sup>	Fusing (only available with 120-277V only)
E <sup>1</sup>	Battery pack (7°C)
EH <sup>1</sup>	Battery pack (30°C) with heater

**Accessories (ORDERED SEPARATELY)**

Catalog Number	Description
SCP-REMOTE <sup>1</sup>	Remote control for SCP option. Order at least one per
WP-BB-XXX	Accessory for conduit entry, replace "xxx" with color option

**Notes:**

- Voltage specific (220 or 277V only)
- Must order minimum of one remote control to program dimming settings, 0-10V fully adjustable dimming with automatic daylight calibration and different time delay settings, 120-277V only
- PCU option not applicable, included in warranty
- Must specify input voltage (208, 240 or 277)
- PCU and EH cannot be combined in the OSP1 because of space constraints

**Current** [currentlighting.com/beacon](http://currentlighting.com/beacon) Page 2 of 6  
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**STEEL PIPE BOLLARD**

DATE: \_\_\_\_\_ SHEET 10 OF 13

REV. DATE: 3/7/23/24  
ADD: JAV  
ENG: JCA  
PM: SWB  
TECH: JAV  
FBI

REV. NO.	DATE	DRAWN BY	CHECKED BY

**CITY OF ANN ARBOR**  
PUBLIC SERVICES  
301 EAST HURON STREET  
P.O. BOX 8647  
ANN ARBOR, MI 48107-8647  
734-794-6410  
www.a2gov.org

DR. ENG. CH. ENG. DRAWING NO. SD-M-3  
SCALE: N.T.S. DATE: 12/8/2023

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**CLIENT**  
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ATHENS, GA 30601  
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706-537-4720

**ANN ARBOR - GALLERIA**  
SITE PLAN FOR PLANNING COMMISSION  
MISCELLANEOUS DETAILS

**10**

JOB No. **23047**











