

# STORMWATER CONTROL MEASURE 'B' CONSTRUCTION SPECIFICATIONS

## GENERAL NOTES

- PRIOR TO CONSTRUCTION, ANY DISCREPANCIES IN THE PLANS AND NOTES SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION.
- PRIOR TO ANY CONSTRUCTION OR PLACEMENT OF ANY BACKFILL, THE ONSITE GEOTECHNICAL ENGINEER SHALL INSPECT THE EXCAVATION AREA FOR THE UNDERGROUND SCM WITHIN THIS AREA TO ASSESS WHETHER SUITABLE SOILS EXIST AT THE SUBGRADE LEVEL. IF THE CONTRACTOR CONSTRUCTS AND COVERS UP THE UNDERGROUND SCM PRIOR TO INSPECTION, THEN THIS AREA SHALL BE UNCOVERED AND TESTED (TO THE ENGINEER'S AND OWNER'S APPROVAL) AT THE CONTRACTOR'S EXPENSE.
- THE FACILITY SHALL NOT BE USED AS A TEMPORARY EROSION CONTROL DEVICE (I.E. SEDIMENT TRAP OR SEDIMENT BASIN) DURING CONSTRUCTION.
- PRIOR TO PLACING STORMFILTER CARTRIDGES WITHIN THE UNDERGROUND SYSTEM, THE CONTRACTOR SHALL REQUEST AN ONSITE MEETING WITH THE DESIGN ENGINEER AND THE EROSION CONTROL INSPECTOR TO ENSURE THE UPSTREAM DRAINAGE AREA IS COMPLETELY STABILIZED (I.E. GOOD VEGETATIVE COVER). IF THE CONTRACTOR DECIDES TO PLACE THE STORMFILTER CARTRIDGES PRIOR TO APPROVAL FROM THE DESIGN ENGINEER AND THE EROSION CONTROL INSPECTOR, THEN THE CONTRACTOR SHALL EXCAVATE/REPLACE, AS NECESSARY, THE COMPONENTS NEEDED FOR THE SYSTEM TO FUNCTION PROPERLY AT HIS / HER EXPENSE SHOULD THE STORMFILTER CARTRIDGES NOT FUNCTION PROPERLY (I.E. WILL NOT DRAIN DUE TO SEDIMENT DEPOSITION) DUE TO AN UNSTABILIZED UPSTREAM DRAINAGE AREA.
- ONCE CONSTRUCTED, THE STORMFILTER CARTRIDGES SHALL NOT RECEIVE STORMWATER RUNOFF UNTIL THE ENTIRE CONTRIBUTING DRAINAGE AREA TO THE UNDERGROUND SYSTEM HAS BEEN COMPLETELY STABILIZED AND SITE CONSTRUCTION IS COMPLETE.
- ALL COMPONENTS OF THE UNDERGROUND SCM SYSTEM (STORMFILTER MANHOLE, CONCRETE VAULT, JOINT / RISER CONNECTIONS, ENDCAPS, ACCESS MANHOLES, ETC.) SHALL BE DESIGNED BY OTHERS. ANY VARIATIONS OR CHANGES MADE FROM THESE SPECIFICATIONS AND DRAWINGS DURING THE ORDERING AND/OR INSTALLATION OF ALL COMPONENTS MUST BE APPROVED BY THE DESIGN ENGINEER. THE STRUCTURAL DESIGN OF THE UNDERGROUND SCM, ALONG WITH ITS ASSUMPTIONS, IS ALSO BY OTHERS. THE JOHN R. McADAMS COMPANY, INC. AND ITS EMPLOYEES ASSUME NO LIABILITY WITH RESPECT TO ANY ASPECT OF THE STRUCTURAL DESIGN FOR THE UNDERGROUND SCM SYSTEM.
- ALL PIPE / RISER CONNECTIONS AND JOINTS ASSOCIATED WITH THE UNDERGROUND SCM SYSTEM SHALL BE WATER TIGHT. THE MECHANISM FOR ACHIEVING THIS SHALL BE SUBMITTED TO THE DESIGN ENGINEER FOR REVIEW.
- THE CONTRACTOR SHALL FURNISH, INSTALL, OPERATE, AND MAINTAIN ANY PUMPING EQUIPMENT, ETC. NEEDED FOR REMOVAL OF WATER FROM VARIOUS PARTS OF THE UNDERGROUND SCM SYSTEM SITE. IT IS ANTICIPATED THAT PUMPING WILL BE NECESSARY IN THE EXCAVATION AREAS. DURING PLACEMENT OF FILL WITHIN THIS AREA (OR OTHER AREAS AS NECESSARY), THE CONTRACTOR SHALL KEEP THE WATER LEVEL BELOW THE BOTTOM OF THE EXCAVATION. THE MANNER IN WHICH THE WATER IS REMOVED SHALL BE SUCH THAT THE EXCAVATION BOTTOM AND SIDE SLOPES ARE STABLE.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ADHERE TO ALL CURRENT OSHA REGULATIONS FOR CONFINED SPACE ENTRY AND PROVIDE SUCH DURING ENGINEER WALK-THROUGH/INSPECTION.
- ALL PIPE PENETRATIONS THROUGH A CONCRETE STRUCTURE (I.E. STORMFILTER CARTRIDGE / DETENTION SYSTEM, STORM DRAINAGE MANHOLES, ETC.) SHALL BE MADE WATERTIGHT USING NON-SHRINK CEMENTITIOUS GROUT.
- EXISTING UTILITIES AND STRUCTURES SHOWN, BOTH UNDERGROUND AND ABOVE GROUND, ARE BASED ON A FIELD SURVEY AND THE BEST AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY FIELD CONDITIONS PRIOR TO BEGINNING RELATED CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.

## STORMWATER MANAGEMENT SYSTEM MATERIAL SPECIFICATIONS

- THE UNDERGROUND STORMWATER MANAGEMENT SYSTEM IS TO BE DESIGNED BY OTHERS. ANY CHANGES TO THE PLANS SHALL BE PROVIDED TO THE DESIGN ENGINEER FOR REVIEW. PRIOR TO INSTALLATION, SHOP DRAWINGS OF THE STORMWATER MANAGEMENT SYSTEM SHALL BE PROVIDED TO THE DESIGN ENGINEER AND TO THE TOWN OF CHAPEL HILL FOR REVIEW.
- FILTER CARTRIDGES SHALL BE CONTECH STORMFILTERS WITH PHOSPHOSORB MEDIA. INSTALLATION OF THE STORMWATER DEVICE SHALL BE PER THE MANUFACTURER'S INSTALLATION GUIDELINES AND SPECIFICATIONS.
- ACCESS RISERS SHALL BE INSTALLED PER STRUCTURAL SPECIFICATIONS. ACCESS STEPS / LADDERS SHALL BE ATTACHED TO THE RISERS TO ALLOW FOR ACCESS INTO THE STORMWATER MANAGEMENT SYSTEM.
- THE 24" DIP OUTLET BARREL OF THE DETENTION SYSTEM SHALL BE CLASS 500 DIP, MEETING THE REQUIREMENTS OF ASTM A716. THE PIPE JOINTS SHALL BE LOCKING JOINTS PER ANSI/AWWA C110/A21.10 OR ANSI/AWWA C153/A21.53 STANDARDS.
- THE CONTRACTOR SHALL INSTALL THE STORMFILTER SYSTEM PER MANUFACTURER'S SPECIFICATIONS. CONTRACTOR TO PROVIDE A LETTER FROM MATERIAL SUPPLIER(S) STATING MATERIALS MEET THE SPECIFIED STANDARDS PRIOR TO INSTALLATION.
- COVER AND REVIEW OF SITE CONDITIONS TO MAINTAIN THE STRUCTURAL INTEGRITY OF THE SYSTEM TO BE THE RESPONSIBILITY OF THE MANUFACTURER.

## STATEMENT OF RESPONSIBILITY

- ALL REQUIRED MAINTENANCE AND INSPECTIONS OF THIS FACILITY SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER, PER THE EXECUTED OPERATION AND MAINTENANCE AGREEMENT FOR THIS FACILITY.

## FOUNDATION NOTES

- ONCE THE EXCAVATION IS COMPLETE AND PRIOR TO INSTALLATION OF THE UNDERGROUND STORMWATER MANAGEMENT SYSTEM, THE ONSITE GEOTECHNICAL ENGINEER SHALL VERIFY THE BEARING CAPACITY OF THE UNDERLYING SOILS TO SERVE AS A FOUNDATION FOR THE UNDERGROUND STORMWATER MANAGEMENT SYSTEM. IF THE ONSITE GEOTECHNICAL ENGINEER DEEMS THE FOUNDATION SOILS AS UNSUITABLE, THEN THE UNSUITABLE MATERIAL SHOULD BE REMOVED DOWN TO A SUITABLE DEPTH AND THEN BUILT BACK UP TO THE CORRECT ELEVATION WITH A COMPACTED BACKFILL MATERIAL THAT IS APPROVED BY THE ONSITE GEOTECHNICAL ENGINEER. THE APPROVED BACKFILL MATERIAL SHOULD HAVE A GRADATION THAT WILL NOT ALLOW THE MIGRATION OF FINES, WHICH COULD CAUSE SETTLEMENT OF THE UNDERGROUND STORMWATER MANAGEMENT SYSTEM. IF NECESSARY, A GEOTEXTILE FABRIC CAN BE USED TO SEPARATE THE UNDERLYING SOILS AND THE BACKFILL MATERIAL. THIS GEOTEXTILE FABRIC (IF USED) IS TO BE SPECIFIED BY THE ON-SITE GEOTECHNICAL ENGINEER.
- PLEASE NOTE THAT IF THE CONTRACTOR CONSTRUCTS AND COVERS UP THE EXCAVATION FOR THE UNDERGROUND STORMWATER MANAGEMENT SYSTEM PRIOR TO INSPECTION, THEN THIS AREA SHALL BE UNCOVERED AND TESTED (TO THE ENGINEER'S AND OWNER'S APPROVAL) AT THE CONTRACTOR'S EXPENSE.
- THE FOUNDATION SUBGRADE SHALL BE GRADED TO A UNIFORM OR SLIGHTLY SLOPING GRADE PRIOR TO PLACEMENT OF THE BEDDING MATERIAL. IF THE FOUNDATION SUBGRADE WILL BE EXPOSED FOR AN EXTENDED PERIOD OF TIME DURING CONSTRUCTION, THEN IT SHOULD BE GRADED TO A SLIGHT SLOPE SUCH THAT SATURATION OF THE SUBGRADE DOES NOT OCCUR.
- THE BEDDING MATERIAL FOR THE UNDERGROUND STORMWATER MANAGEMENT SYSTEM SHALL BE SPECIFIED BY THE ON-SITE GEOTECHNICAL ENGINEER. TYPICALLY, A WELL-GRADED GRANULAR MATERIAL WILL BE USED FOR THE BEDDING. PLEASE NOTE THAT IF CONSTRUCTION EQUIPMENT WILL BE OPERATING FOR AN EXTENDED PERIOD OF TIME ON THE BEDDING, THEN THE APPROPRIATE MEASURES (E.G. ENGINEERED FABRIC, STIFF GEOGRID, ETC.) SHALL BE TAKEN TO ENSURE THE INTEGRITY OF THE BEDDING IS NOT COMPROMISED.
- THE CONTRACTOR SHALL FURNISH, INSTALL, OPERATE, AND MAINTAIN ANY PUMPING EQUIPMENT, ETC. NEEDED FOR REMOVAL OF WATER FROM THE EXCAVATION. IT IS BEST TO BEGIN THE CONSTRUCTION OF THE DETENTION SYSTEMS AT THE DOWNSTREAM END WITH THE OUTLET ALREADY CONSTRUCTED TO ALLOW A ROUTE FOR WATER TO ESCAPE.
- THE ONSITE GEOTECHNICAL ENGINEER SHALL DETERMINE IF FOUNDATION DRAINS ARE REQUIRED FOR THE UNDERGROUND SCM SYSTEM. THE DESIGN ENGINEER SHALL BE NOTIFIED FOLLOWING THIS DETERMINATION. IF REQUIRED, THE FOUNDATION DRAINS ARE TO BE DESIGNED ENTIRELY BY THE ONSITE GEOTECHNICAL ENGINEER. THE FOUNDATION DRAIN SYSTEMS SHALL TIE TO THE NEAREST STORM SEWER INLET / JUNCTION BOX WITH INVERT LOWER THAN THE INVERT OF THE FOUNDATION DRAIN. FOUNDATION DRAIN SYSTEM SHALL NOT TIE INTO THE UNDERGROUND SCM AT ANY POINT.

## BEDDING NOTES

- THE EXCAVATION SUB GRADE MUST BE TRANSIT LEVEL.
- THE EXCAVATION PIT SHALL BE LINED (ON THE BOTTOM AND ALL FOUR SIDES) WITH A NON-WOVEN GEO-TEXTILE (GEOTEX 401 OR APPROVED EQUIVALENT). THE ONSITE GEOTECHNICAL ENGINEER SHALL APPROVE FABRIC FOR USE.
- THE SUBGRADE FOR THE DETENTION SYSTEM CAN BE A CONCRETE SLAB, OR CLEAN GRANULAR MATERIAL WITH A MAXIMUM AGGREGATE SIZE OF 3/4". THE BEDDING SHALL BE FREE FROM ROCK FORMATIONS, PROTRUDING STONES, FROZEN LUMPS, ROOTS, AND OTHER FOREIGN MATERIAL.
- PREPARE THE SUBGRADE PER THE ONSITE GEOTECHNICAL ENGINEER'S DIRECTION (APPROXIMATELY 5'-6" BELOW GRADE ON WHICH SLAB WILL SET). THE BEDDING MATERIAL SHOULD BE GRADED SUCH THAT A SMOOTH UNIFORM GRADE IS ESTABLISHED TO ALLOW FOR OPTIMUM PLACEMENT OF THE SAND FILTER.
- THE SUBGRADE MUST SUPPORT THE DETENTION SYSTEM WITHOUT DIFFERENTIAL SETTLEMENT BETWEEN PIECES.
- IF CONSTRUCTION EQUIPMENT WILL BE OPERATING FOR AN EXTENDED PERIOD OF TIME ON THE BEDDING, THEN THE APPROPRIATE MEASURES (E.G. STIFF GEOGRID, ETC.) SHALL BE TAKEN TO ENSURE THE INTEGRITY OF THE BEDDING IS NOT COMPROMISED.

## BACKFILL MATERIAL NOTES

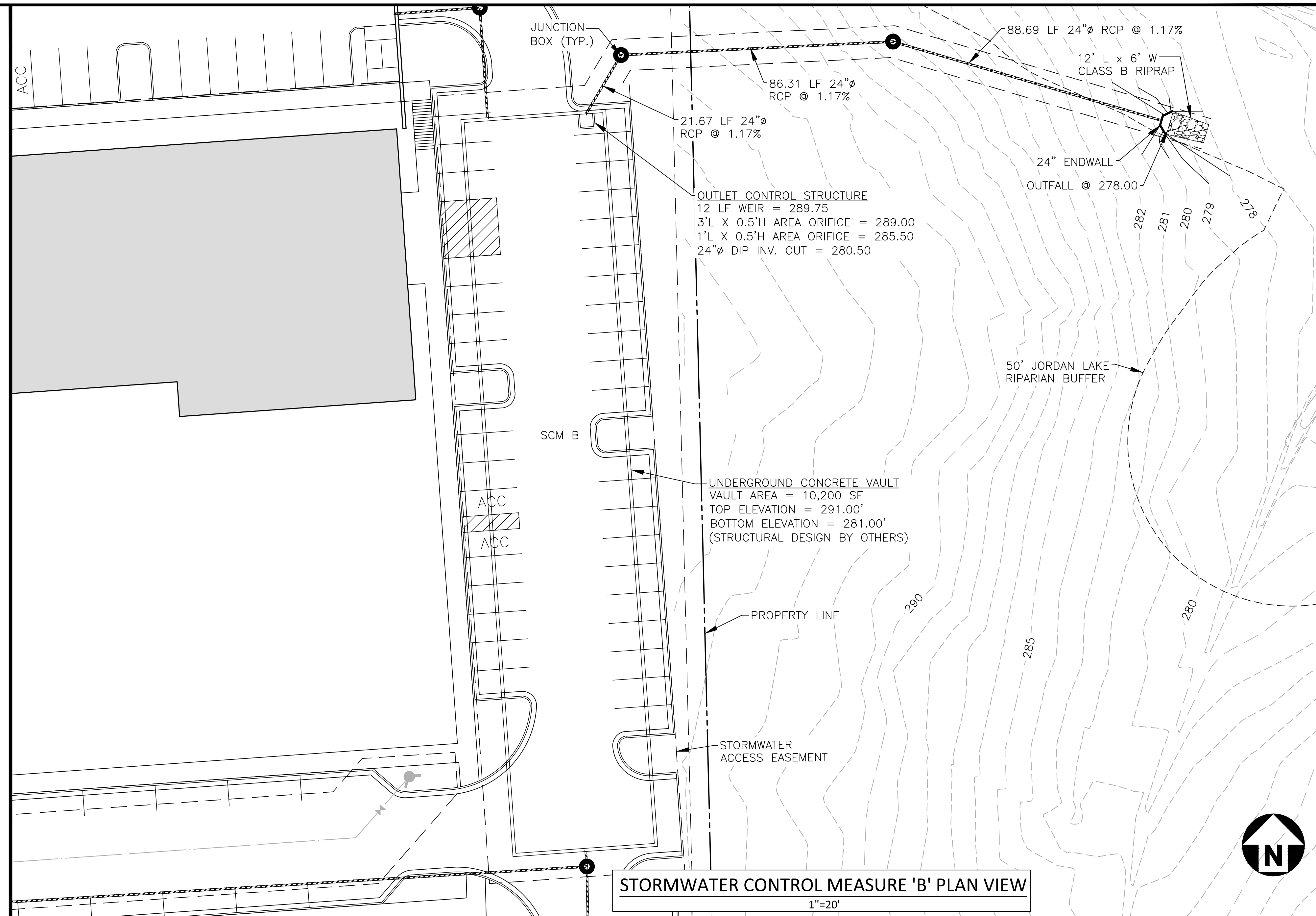
- THE ON-SITE GEOTECHNICAL ENGINEER SHALL SPECIFY THE BACKFILL MATERIAL FOR THE STORMWATER MANAGEMENT SYSTEM.
- THE BACKFILL MATERIAL SHOULD BE FREE OF ROCKS, FROZEN LUMPS, AND OTHER FOREIGN MATTER THAT COULD CAUSE HARD SPOTS WITHIN THE BACKFILL MATERIAL, OR THAT COULD DECOMPOSE AND CREATE VOIDS.
- HIGHLY PLASTIC SILTS, HIGHLY PLASTIC CLAYS, ORGANIC SILTS, ORGANIC CLAYS, AND PEATS SHOULD NOT BE USED AS A BACKFILL MATERIAL.
- THE BACKFILL MATERIAL SHOULD BE PLACED IN 6" LOOSE LIFTS AND COMPACTED TO 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM-D698). THE FILL SOILS SHALL BE COMPACTED AT A MOISTURE CONTENT WITHIN +/- TWO PERCENT OF ITS OPTIMUM MOISTURE CONTENT.
- ANY MATERIAL STOCKPILING ON TOP OF THE STORMWATER MANAGEMENT SYSTEM SHALL BE APPROVED BY THE STRUCTURAL DESIGN ENGINEER OR DETENTION SYSTEM MANUFACTURER.

## UNDERGROUND VAULT CONSTRUCTION NOTES

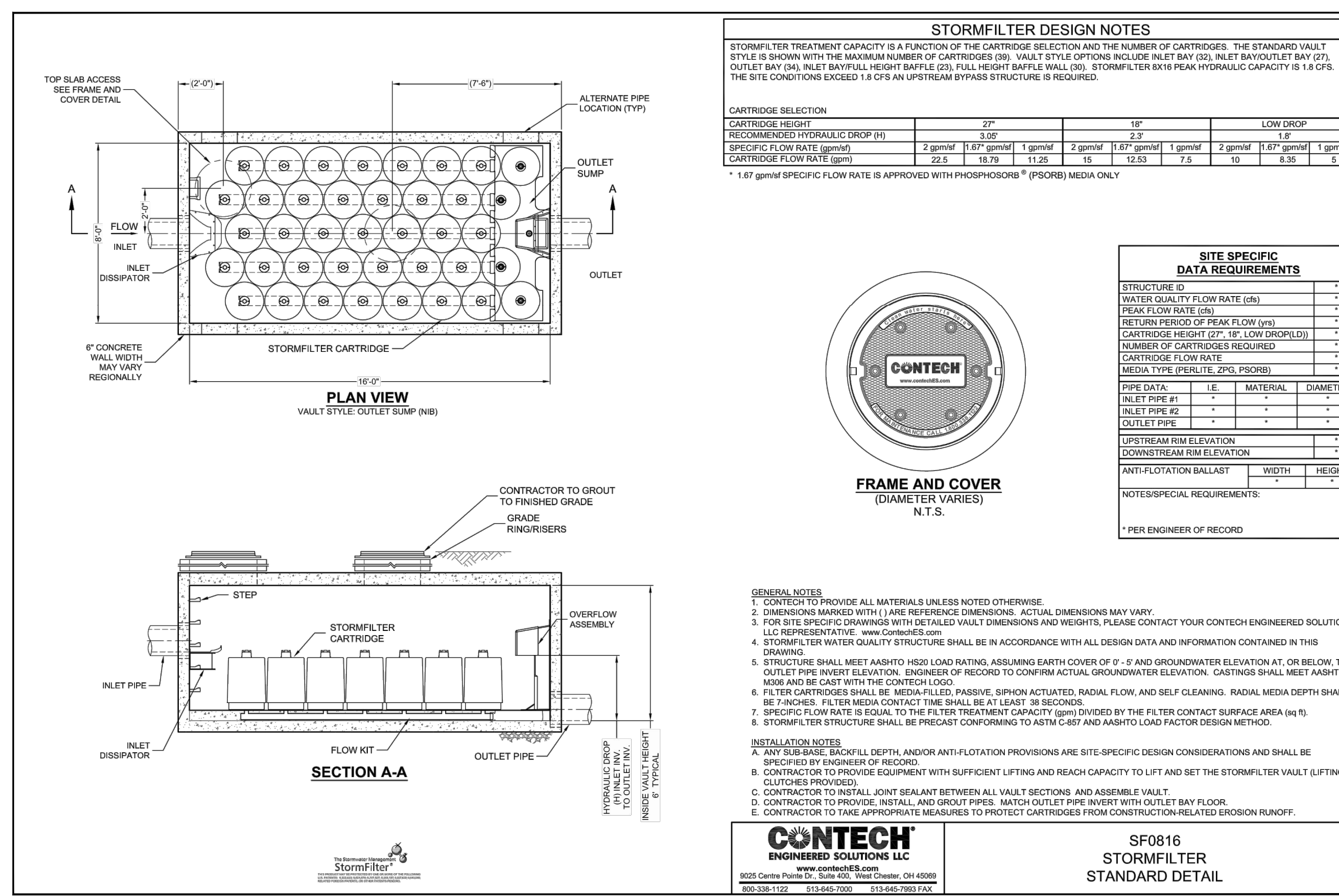
- UNDERGROUND VAULT CONFIGURATION IS TO BE DESIGNED AND PROVIDED BY OTHERS.
- ABSOLUTELY NO RUNOFF SHALL ENTER THE UNDERGROUND VAULT UNTIL ALL CONTRIBUTING DRAINAGE AREAS HAVE BEEN STABILIZED.
- MANHOLE ACCESS SHALL BE PROVIDED FOR THE UNDERGROUND VAULT. MANHOLES SHALL BE IN COMPLIANCE WITH TOWN OF CHAPEL HILL STANDARD DETAILS BUT SHALL BE A MINIMUM OF 24 INCHES IN DIAMETER TO COMPLY WITH OSHA CONFINED SPACE REQUIREMENTS (OR MINIMUM OSHA REQUIREMENTS APPLICABLE AT TIME OF CONSTRUCTION). CONTRACTOR SHALL PROVIDE ACCESS LADDERS FOR ACCESS BELOW ALL MANHOLES. MANHOLE COVERS SHALL ALLOW FOR PROPER VENTILATION.

## SYSTEM TESTING NOTES

- PRIOR TO PLACEMENT OF THE BACKFILL MATERIAL AND STORM FILTER CARTRIDGES, CONTRACTOR SHALL TEST FOR WATER TIGHTNESS. ENTRANCES AND EXITS SHALL BE PLUGGED AND THE SYSTEM COMPLETELY FILLED WITH WATER TO DEMONSTRATE WATER TIGHTNESS. WATER TIGHTNESS MEANS NO SIGNIFICANT FOR A PERIOD OF 24 HOURS. SIGNIFICANT LEAKAGE TO BE DETERMINED BY THE CERTIFYING ENGINEER. CONTRACTOR SHALL CALL AND SCHEDULE THE FIELD TESTING OF THE SYSTEM (WATER-TIGHTNESS) WITH THE ENGINEER AT LEAST 2 WORKING DAYS PRIOR TO THE TEST. THE CONTRACTOR SHALL PROVIDE REPORTS TO THE ENGINEER VERIFYING THE WATER TIGHTNESS OF THE STORMWATER VAULT.



STORMWATER CONTROL MEASURE 'B' PLAN VIEW  
1"=20'



STORMFILTER MANHOLE  
N.T.S.

SEE SHEET C0.00 FOR ALL PROJECT, SITE, GRADING, STORM DRAINAGE AND UTILITY NOTES

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENT TOWN OF CHAPEL HILL AND NCDOT ENGINEERING DESIGN AND CONSTRUCTION STANDARDS

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**BARBEE CHAPEL APARTMENTS**  
CONDITIONAL ZONING PERMIT  
DRAWINGS  
5101 BARBEE CHAPEL RD  
CHAPEL HILL, NC 27517



## REVISIONS

NO.	DATE

## PLAN INFORMATION

PROJECT NO.	TLA-22001
FILENAME	TLA22001-SCMB
CHECKED BY	MCT
DRAWN BY	OVL
SCALE	1" = 20'
DATE	09.29.2022

## SHEET

SCM B PLAN VIEW

**C9.01**



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**REVISIONS**

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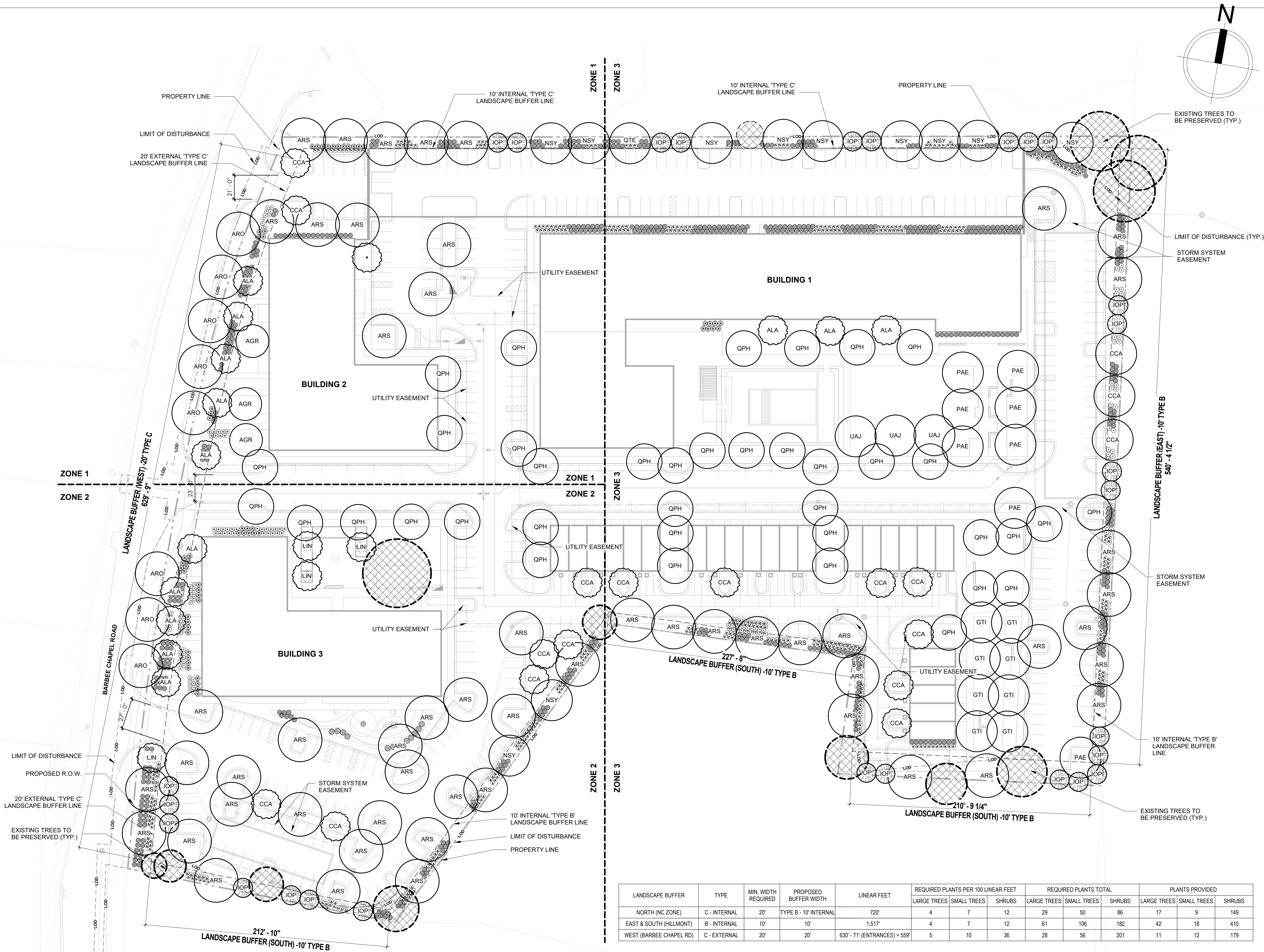
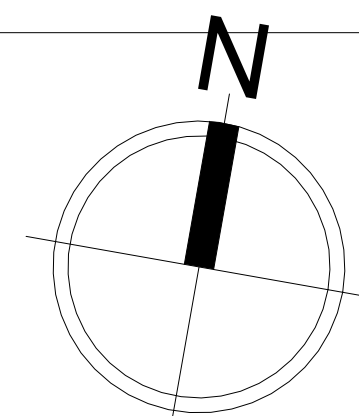
**PLAN INFORMATION**

PROJECT NO.: P200798

SCALE: AS INDICATED  
DATE: 09/29/2022

**OVERALL SITE PLAN**

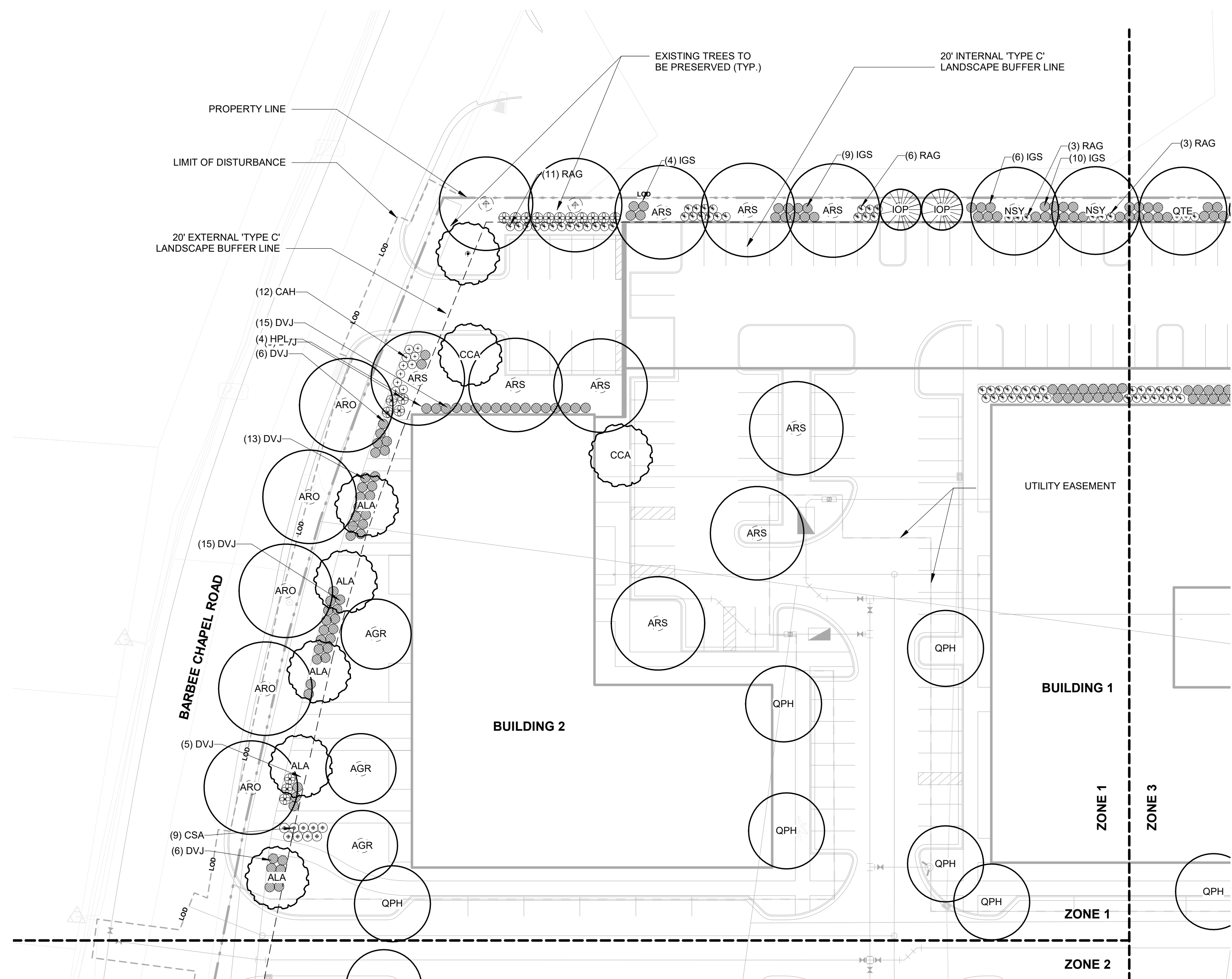
**L1.00**



LANDSCAPE BUFFER	TYPE	MIN. WIDTH REQUIRED	PROPOSED BUFFER WIDTH	LINEAR FEET	REQUIRED PLANTS PER 100 LINEAR FEET			REQUIRED PLANTS TOTAL			PLANTS PROVIDED		
					LARGE TREES	SMALL TREES	SHRUBS	LARGE TREES	SMALL TREES	SHRUBS	LARGE TREES	SMALL TREES	SHRUBS
NORTH (NC ZONE)	C - INTERNAL	20'	TYPE B - 10' INTERNAL	720'	4	7	12	29	50	86	17	9	149
EAST & SOUTH (HILLMONT)	B - INTERNAL	10'	10'	1,517'	4	7	12	61	106	182	42	18	410
WEST (BARBEE CHAPEL RD)	C - EXTERNAL	20'	20'	630' - 71' (ENTRANCES) = 559'	5	10	36	28	56	201	11	12	179

TREE SCHEDULE-KEY				
PLANT ID	SCIENTIFIC NAME	COMMON NAME	SIZE	ROOT
<b>EVERGREEN TREES</b>				
IOP	<i>Ilex opaca</i>	American Holly	2.5" Cal	B&B
<b>ORNAMENTAL TREES</b>				
ALA	<i>Amelanchier laevis</i>	Allegheny serviceberry	7'-8' Ht.	B&B
CCA	<i>Cercis canadensis</i>	Eastern Redbud	7'-8' Ht.	B&B
LIN	<i>Lagerstroemia indica x fauriei</i>	Natchez Crape Myrtle 'Natchez'	3" Cal	B&B
<b>SHADE TREES</b>				
AGR	<i>Acer griseum</i>	Paperbark Maple	2.5" Cal	B&B
ARO	<i>Acer rubrum</i>	October Glory Red Maple	3" cal.	B&B
ARS	<i>Acer rubrum</i>	Red Sunset Maple	3" Cal	B&B
CCA	<i>Carpinus caroliniana</i>	American Hornbeam	4" Cal	B&B
GTI	<i>Gleditsia triacanthos var. inermis</i>	Thornless Honeylocust 'Shademaster'	4" Cal	B&B
NSY	<i>Nyssa sylvatica</i>	Blackgum	3" Cal	B&B
PAE	<i>Platanus x acerifolia</i>	London Planetree	4" Cal	B&B
QPH	<i>Quercus phellos</i>	'Hightower' Willow Oak	3" cal.	B&B
QTE	<i>Quercus texana</i>	Nuttall's oak	4" Cal	B&B
UAJ	<i>Ulmus americana</i>	Jefferson American Elm	3" Cal	B&B
Grand total				

SHRUB & ORNAMENTAL GRASS SCHEDULE-KEY					
PLANT ID	SCIENTIFIC NAME	COMMON NAME	SIZE	ROOT	COMMENTS
<b>SHRUB</b>					
CAH	<i>Clethra alnifolia</i>	'Hummingbird'	Sweet Pepperbush	#3	Container 36" o.c.
CSA	<i>Cornus sericea</i>	'Arctic Fire'	Red Twig Dogwood	#3	Container 36" o.c.
DVJ	<i>Distylium x</i>	'Vintage Jade'	Vintage Jade Evergreen Witch Hazel	#3	Container 48" o.c.
HPL	<i>Hydrangea paniculata</i>	'Limelight'	Limelight Hydrangea	#3	Container 48" o.c.
IGS	<i>Ilex glabra</i>	'Shamrock'	Inkberry Holly	#3	Container 36" o.c.
IVE	<i>Ilex verticillata</i>		Winterberry Holly	#3	Container 48" o.c.
PLO	<i>Prunus laurocerasus</i>	'Otto Luyken'	Cherry laurel	#3	Container 48" o.c.
RAG	<i>Rhus aromatica</i>	'Grow-low'	Dwarf Sumac 'Grow-low'	#3	Container 48" o.c.
TBR	<i>Taxus baccata</i>	'Repandens'	Spreading English Yew	#3	Container 24"-30" spd.



**LEGEND**

- LOD --- LIMITS OF DISTURBANCE
- TP --- TREE PROTECTION FENCE
- SF --- SILT FENCE
- P.L. --- PROPERTY LINE
- SHADE TREES
- ORNAMENTAL TREES
- EVERGREEN TREES
- EXISTING TREES TO REMAIN



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**BARBEE CHAPEL APARTMENTS  
 CONDITIONAL ZONING PERMIT  
 DRAWINGS  
 5101 BARBEE CHAPEL RD  
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**REVISIONS**

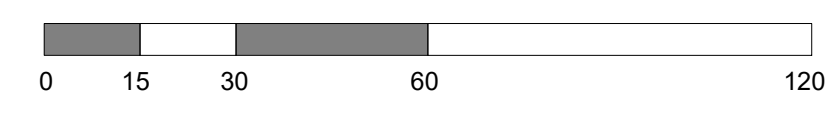
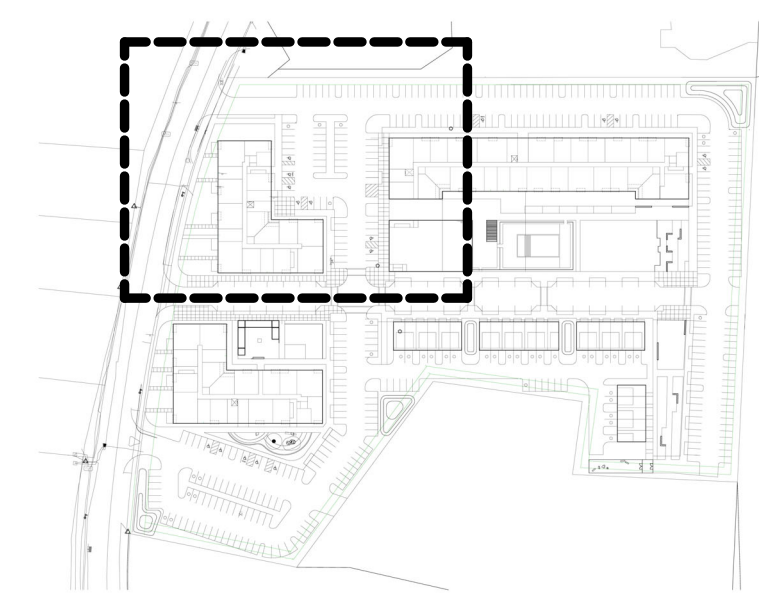
NO.	DATE	REVISION DESCRIPTION
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**PLAN INFORMATION**  
 PROJECT NO.: P200798

SCALE: AS INDICATED  
 DATE: 09/29/2022

**PLANTING PLAN ZONE 01**

**L1.01**



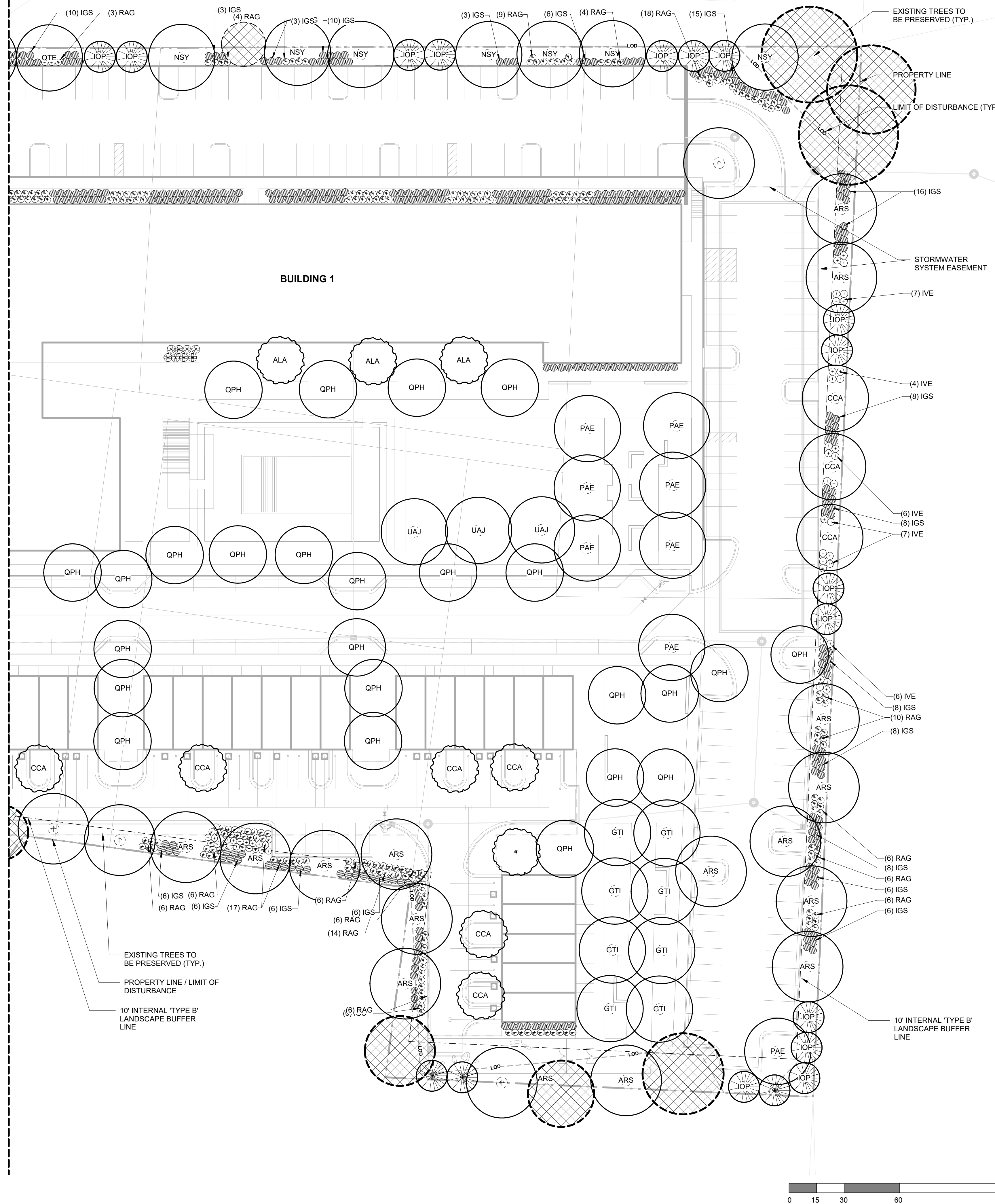
PLANTING PLAN ZONE 01  
 SCALE: 1" = 30'-0"

KEY PLAN



TREE SCHEDULE-KEY				
PLANT ID	SCIENTIFIC NAME	COMMON NAME	SIZE	ROOT
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QPH	<i>Quercus phellos</i> 'Hightower'	'Hightower' Willow Oak	3" cal.	B&B
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UAJ	<i>Ulmus americana</i> 'Jefferson'	Jefferson American Elm	3" Cal	B&B
<b>Grand total</b>				

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**BARBEE CHAPEL APARTMENTS  
CONDITIONAL ZONING PERMIT  
DRAWINGS  
5101 BARBEE CHAPEL RD  
CHAPEL HILL, NORTH CAROLINA, 27517**

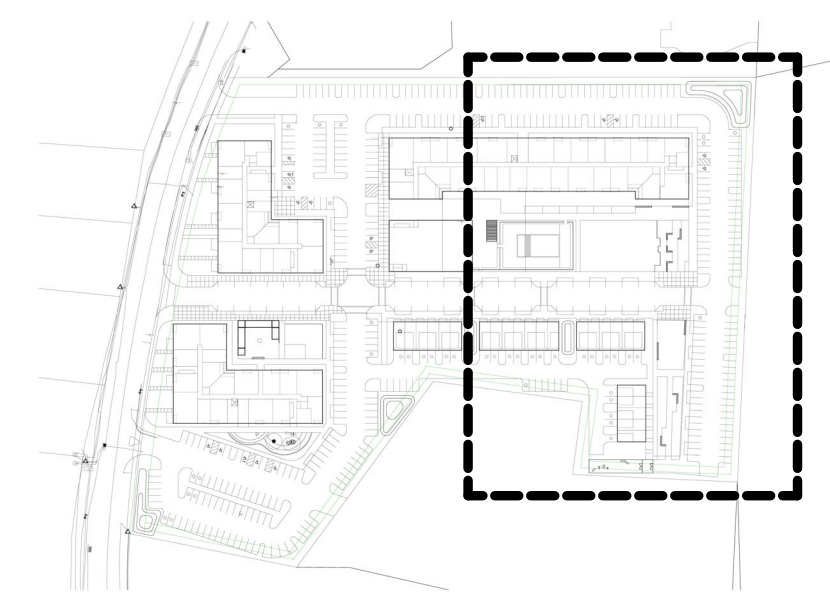
**REVISIONS**

NO.	DATE	REVISION DESCRIPTION

**PLAN INFORMATION**

PROJECT NO.: P200798

SCALE: AS INDICATED  
DATE: 09/29/2022





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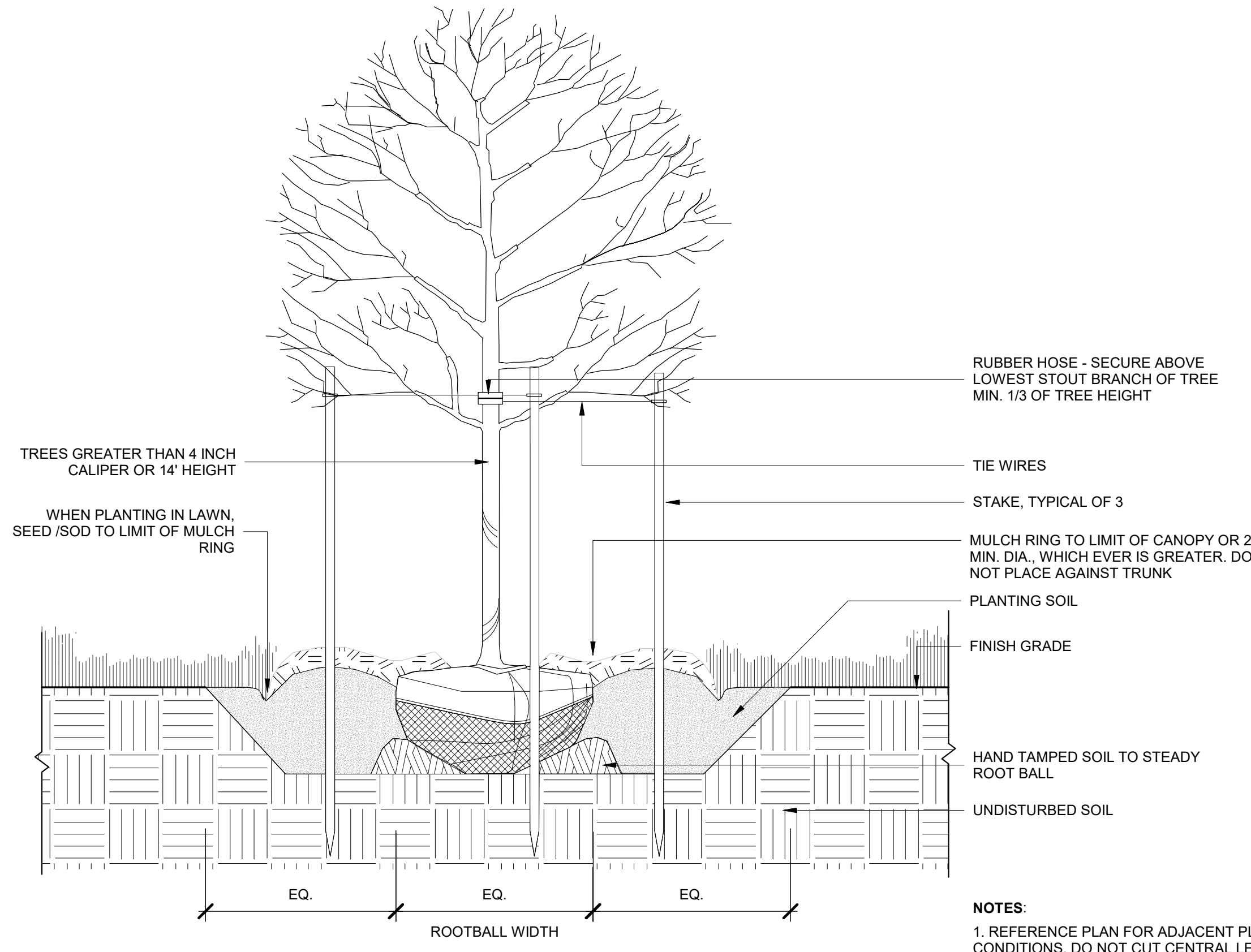
**TREE SCHEDULE**

PLANT ID	SCIENTIFIC NAME	COMMON NAME	SIZE	ROOT	COUNT	COMMENTS
<b>EVERGREEN TREES</b>						
IOP	Ilex opaca	American Holly	2.5" Cal	B&B	27	
<b>ORNAMENTAL TREES</b>						
ALA	Amelanchier laevis	Allegheny serviceberry	7'-8" Ht.	B&B	13	
CCA	Cercis canadensis	Eastern Redbud	7'-8" Ht.	B&B	16	
LIN	Lagerstroemia indica x fauriei 'Natchez'	Natchez Crape Myrtle	3" Cal	B&B	4	
<b>SHADE TREES</b>						
AGR	Acer griseum	Paperbark Maple	2.5" Cal	B&B	3	
ARO	Acer rubrum 'October Glory'	October Glory Red Maple	3" cal.	B&B	8	Limb lowest branch to 7'-0"
ARS	Acer rubrum 'Somerset'	Red Sunset Maple	3" Cal	B&B	54	Limb lowest branch to 7'-0"
CCA	Carpinus caroliniana	American Hornbeam	4" Cal	B&B	3	Limb lowest branch to 7'-0"
GTI	Gleditsia triacanthos var. inermis 'Shademaster'	Thornless Honeylocust	4" Cal	B&B	8	Limb lowest branch to 7'-0"
NSY	Nyssa sylvatica	Blackgum	3" Cal	B&B	11	Limb lowest branch to 7'-0"
PAE	Platanus x acerifolia 'Exclamation'	London Planetree	4" Cal	B&B	8	Limb lowest branch to 7'-0"
QPH	Quercus phellos 'Hightower'	'Hightower' Willow Oak	3" cal.	B&B	38	Limb lowest branch to 7'-0"
QTE	Quercus texana	Nuttall's oak	4" Cal	B&B	1	Limb lowest branch to 7'-0"
UAJ	Ulmus americana 'Jefferson'	Jefferson American Elm	3" Cal	B&B	3	Limb lowest branch to 7'-0"
<b>Grand total</b>					<b>197</b>	

**SHRUB & ORNAMENTAL GRASS SCHEDULE**

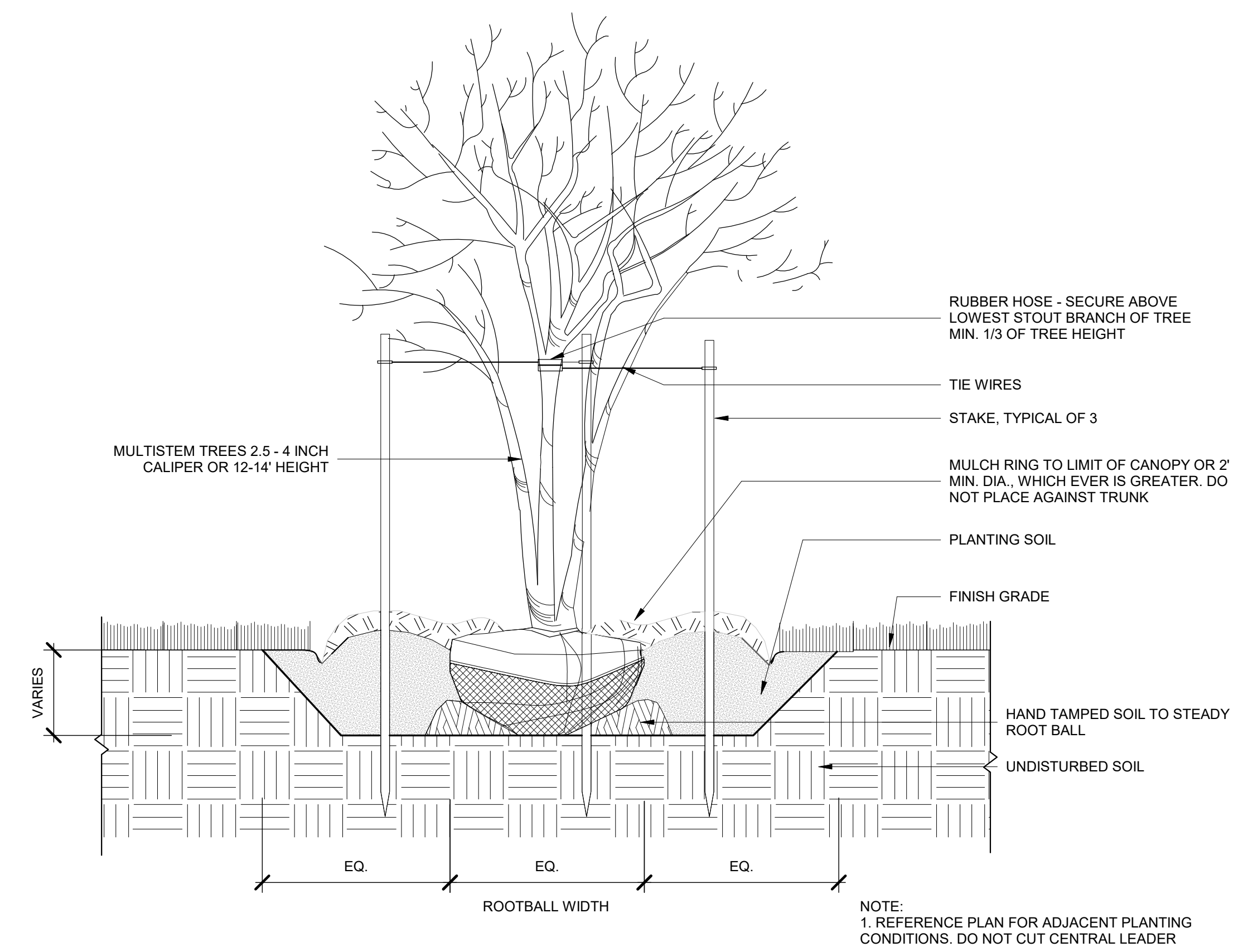
PLANT ID	SCIENTIFIC NAME	COMMON NAME	SIZE	COUNT	COMMENTS
<b>SHRUB</b>					
CAH	Clethra alnifolia 'Hummingbird'	Sweet Pepperbush	#3	78	36" o.c.
CSA	Cornus sericea 'Arctic Fire'	Red Twig Dogwood	#3	32	36" o.c.
DVJ	Distylium x 'Vintage Jade'	Vintage Jade Evergreen Witch Hazel	#3	161	48" o.c.
HPL	Hydrangea paniculata 'Limelight'	Limelight Hydrangea	#3	58	48" o.c.
IGS	Ilex glabra 'Shamrock'	Inkberry Holly	#3	373	36" o.c.
IVE	Ilex verticillata	Winterberry Holly	#3	30	48" o.c.
PLO	Prunus laurocerasus 'Otto Luyken'	Cherry laurel	#3	7	48" o.c.
RAG	Rhus aromatica 'Grow-low'	Dwarf Sumac 'Gro-low'	#3	391	48" o.c.
TBR	Taxus baccata 'Repandens'	Spreading English Yew	#3	11	24"-30" spd.

When selecting shrub species, a minimum of 50% of the total number of required shrubs should be evergreen.



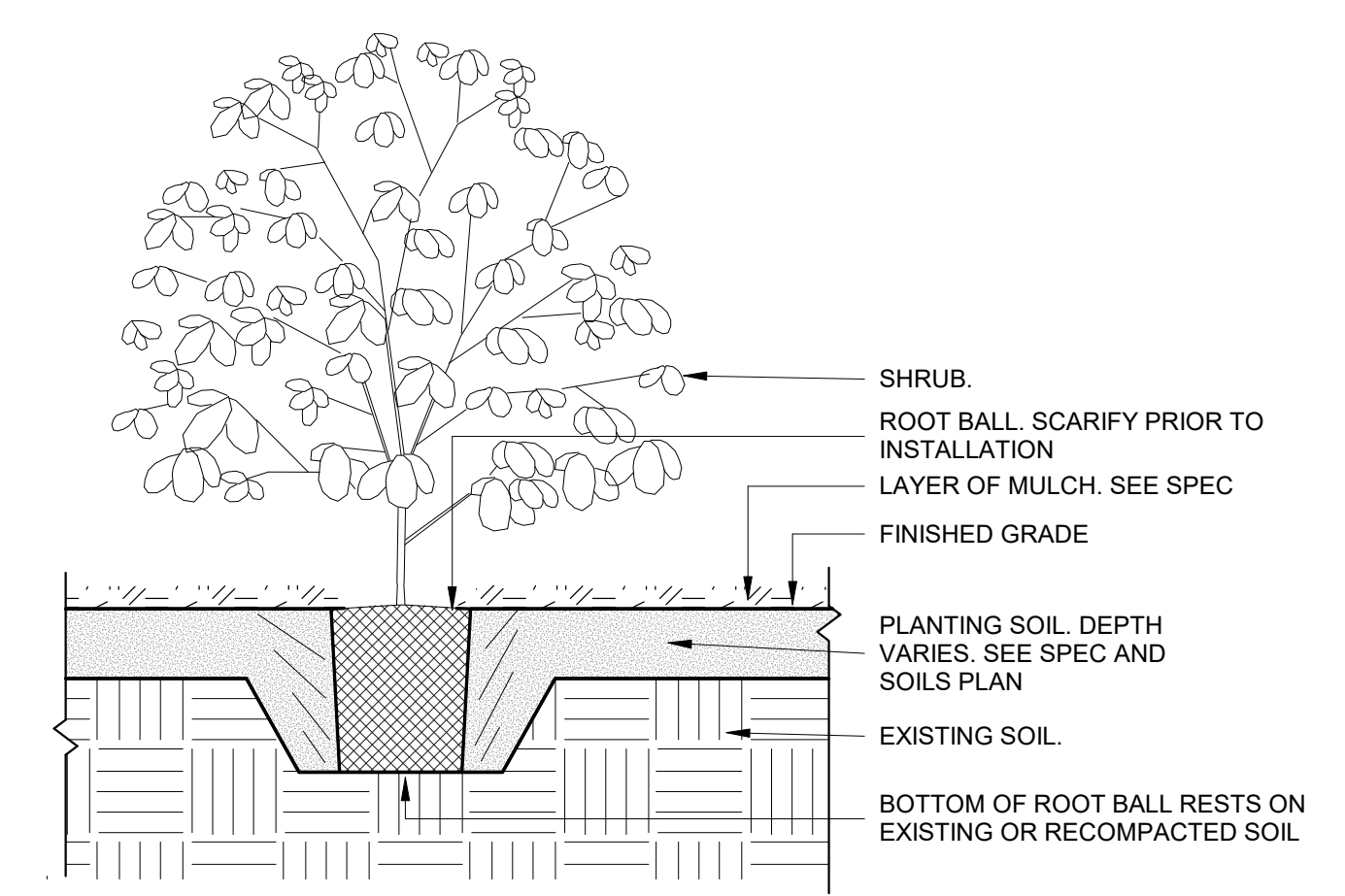
**SHADE TREE PLANTING**  
SCALE: 3/4" = 1'-0"

**3**



**ORNAMENTAL TREE PLANTING**  
SCALE: 3/4" = 1'-0"

**1**



**SHRUB PLANTING DETAIL**  
SCALE: 3/4" = 1'-0"

**2**

**REVISIONS**

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**PLAN INFORMATION**

PROJECT NO.: P200798

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**PLANTING DETAILS AND  
PLANTING SCHEDULE  
L1.04**



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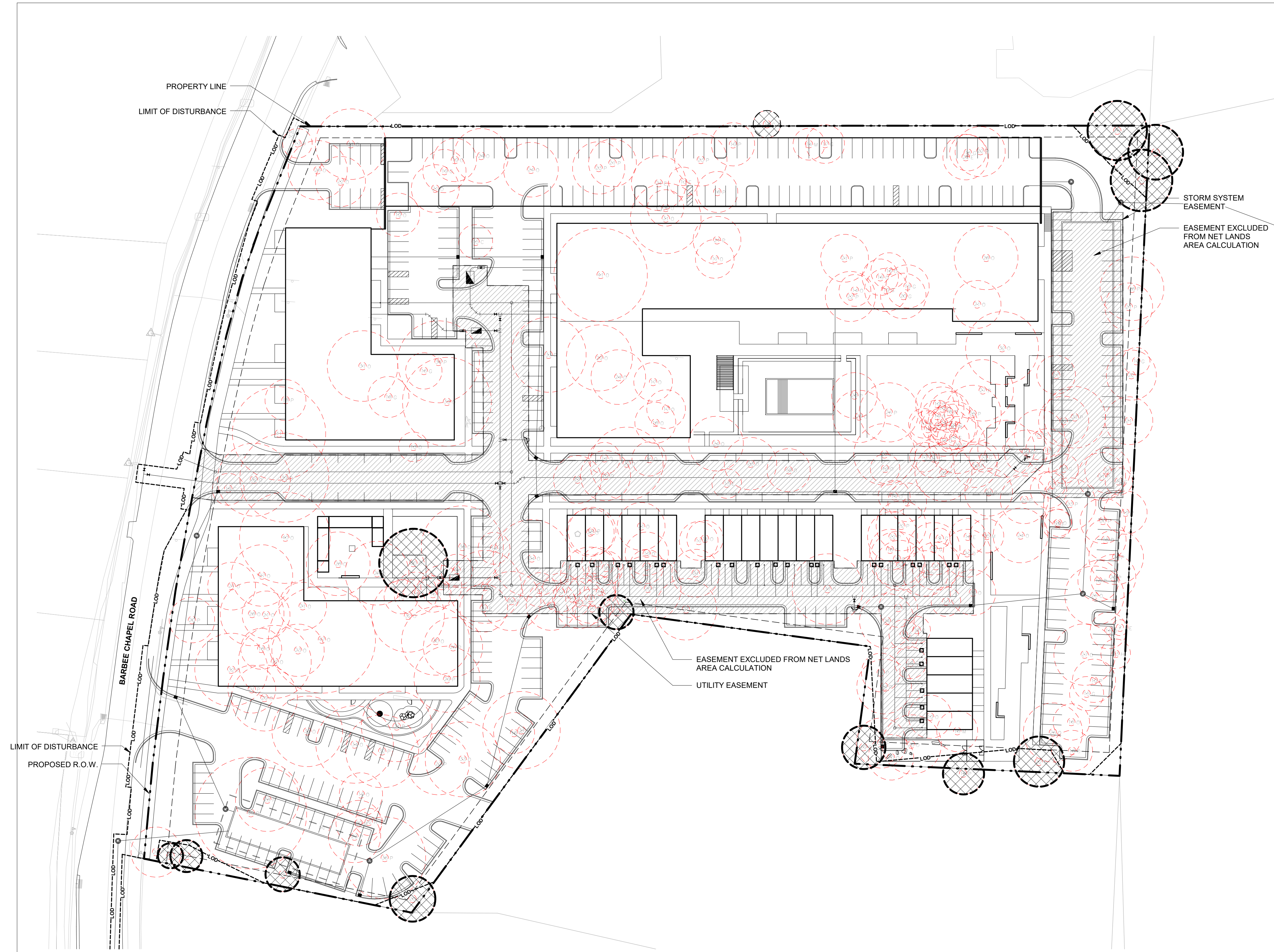
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**LEGEND**

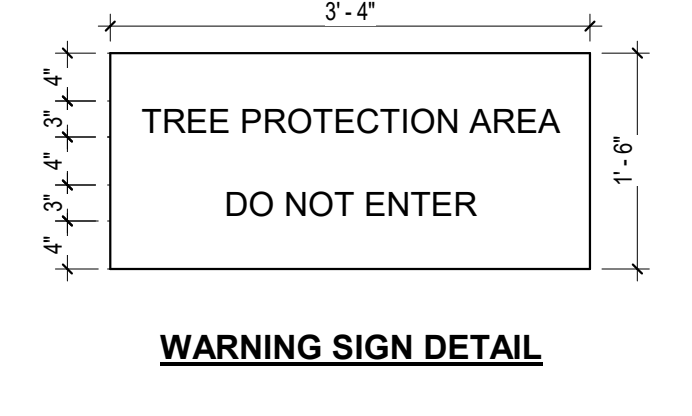
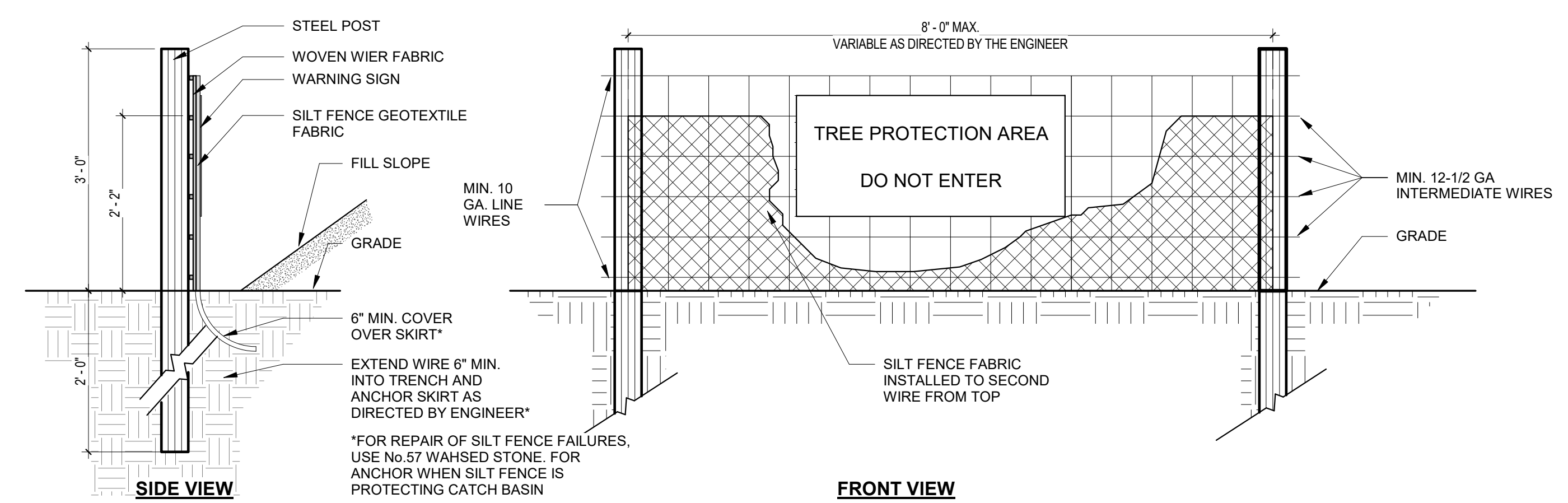
- PRESERVED EX. TREES CRITICAL ROOT ZONE
- TREES TO BE REMOVED
- LOD- LIMITS OF DISTURBANCE
- TP/SP- COMBINATION SILT/TREE PROTECTION FENCE. SEE CIVIL PLANS FOR DETAILS
- - - - - PROPERTY LINE
- - - - - UTILITY EASEMENT
- EASEMENT AREA EXCLUDED FROM NET LANDS AREA CALCULATION

- RARE TREES - 0
- SIGNIFICANT TREE STANDS - NONE (refer to Tree Evaluation Report)
- SPECIMEN TREES - 240
- TREES TO BE PROTECTED - 12
- TREES TO BE REMOVED - 228
  
- LOT SIZE - 455,841 SQF
- NET LOT SIZE (excl. easements and ROWs) - 380,454 SQF
- 30% REQUIRED TREE CANOPY COVERAGE (MIXED USE) - 114,136 SQF
- AREA OF EXISTING TREE CANOPY PROTECTED - 16,389 SQF
- CANOPY DEFICIT - 97,747 SQF
  
- REPLACEMENT TREES REQUIRED (as per Section 5.7.2) - 196
- REPLACEMENT TREES PROPOSED -  
Proposed Trees: 197  
Credit on Trees over 4" Cal: 20  
Total: 217

**NOTES:**

1. Prior to the commencement of any activities requiring a zoning compliance permit, a **pre-construction conference** with the town's urban forester or landscape architect shall take place to review procedures for protection and management of all protected landscape elements identified on the landscape protection plan.
2. **On-site supervision:** The owner will designate landscape protection supervisors one or more persons who have completed instruction in landscape protection procedures with the town.
  - a. It is the duty of the landscape protection supervisor to ensure the protection of new or existing landscape elements, as defined in the landscape protection plan. The approved landscape protection supervisor shall supervise all site work to assure that development activity conforms to provisions of the approved landscape protection plan. At least one (1) identified landscape protection supervisor shall be present on the development site at all times when activity that could damage or disturb soil and adjacent landscape elements occurs such as:
    - Clearing and grubbing;
    - Any excavation, grading, trenching or moving of soil;
    - Removal, installation, or maintenance of all landscape elements and landscape protection devices; or
    - Delivery, transporting, and placement of construction materials and equipment on site.

**TREE PROTECTION PLAN**  
SCALE: 1" = 50'-0" **1**



- WARNING SIGN DETAIL**
- NOTES:**
1. WARNING SIGNS TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL.
  2. LETTERS TO BE 1" HIGH MINIMUM, CLEARLY LEGIBLE AND SPACED AS DETAILED.
  3. SIGNS SHALL BE PLACED AT 50' MAXIMUM INTERVALS.
  4. PLACE A SIGN AT EACH END OF LINEAR TREE PROTECTION AND 50' ON CENTER THEREAFTER.
  5. FOR TREE PROTECTION AREAS LESS THAN 200' IN PERIMETER, PROVIDE NO LESS THAN ONE SIGN PER PROTECTION AREA.
  6. ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC.
  7. MAINTAIN TREE PROTECTION FENCE THROUGHOUT DURATION OF PROJECT.
  8. ADDITIONAL SIGNS MAY BE REQUIRED BY CITY OF RALEIGH INSPECTIONS DEPARTMENT BASED ON ACTUAL FIELD CONDITIONS.
  9. PLACE A SIGN AT EACH END OF LINEAR TREE PROTECTION AND 50' ON CENTER THEREAFTER.
  10. FOR CONDITIONS WHERE PRACTICE APPLIES: PLANNING CONSIDERATIONS (HOWEVER FLOW SHALL NOT RUN PARALLEL WITH THE FENCE) AND DESIGN CRITERIA.
  11. END OF SILT FENCE NEEDS TO BE TURNED UPHILL.
  12. SEE NC STATE DENR PRACTICE & SPECIFICATION SEDIMENTS FENCE SECTION FOR CONDITIONS WHERE PRACTICE APPLIES: PLANNING CONSIDERATIONS.
  13. SEE NC STATE DENR PRACTICE & SPECIFICATION SEDIMENTS FENCE SECTION (HOWEVER FLOW SHALL NOT RUN PARALLEL WITH THE FENCE).

**COMBINATION SILT / TREE PROTECTION FENCE**  
SCALE: 3/4" = 1'-0" **2**

**REVISIONS**

NO.	DATE	REVISION DESCRIPTION

**PLAN INFORMATION**

PROJECT NO.: P200798

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**TREE PROTECTION PLAN**  
**L2.00**



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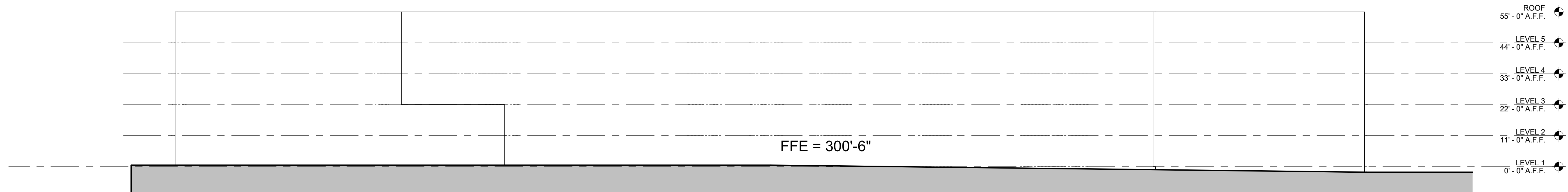
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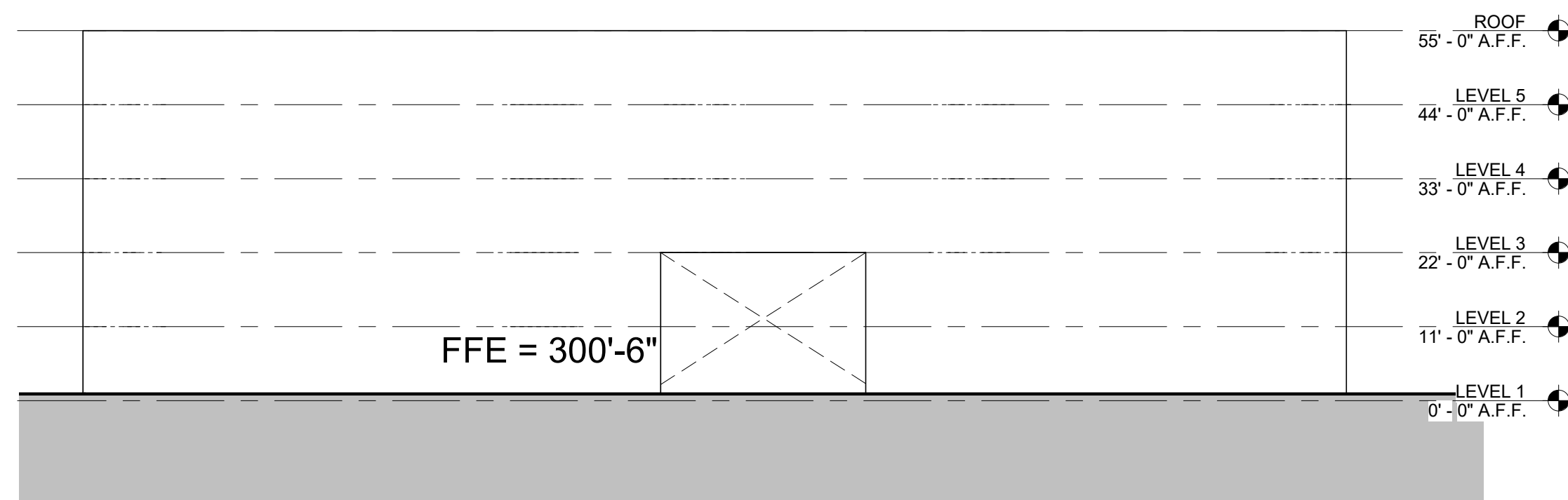
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1



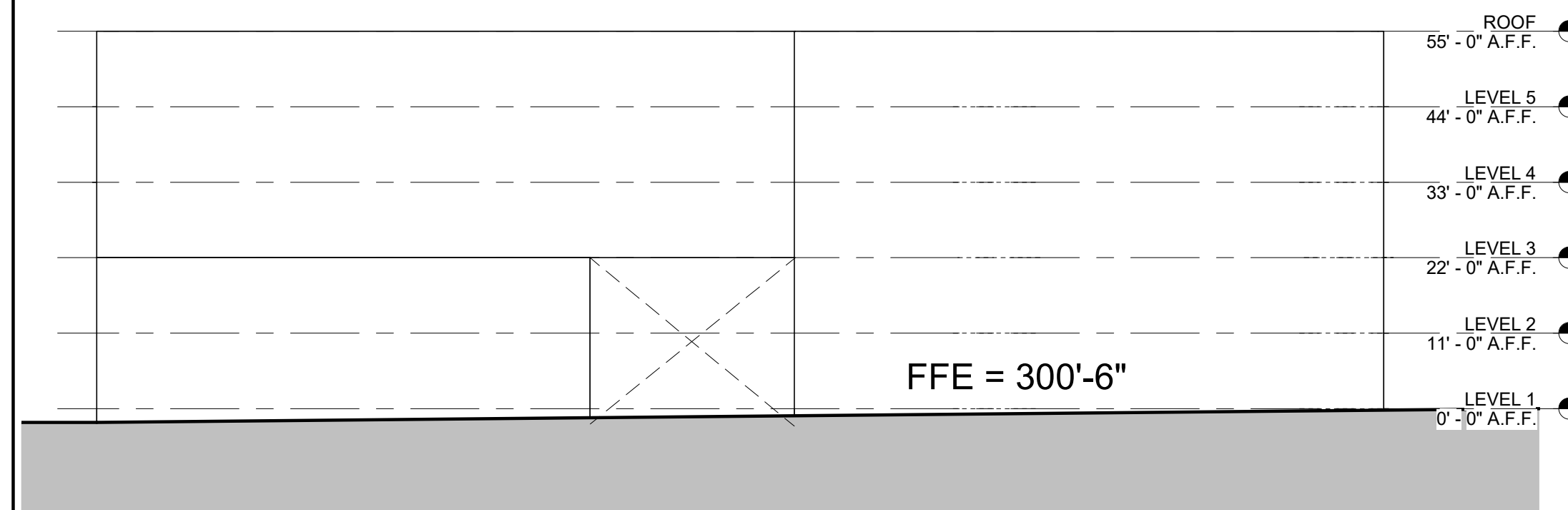
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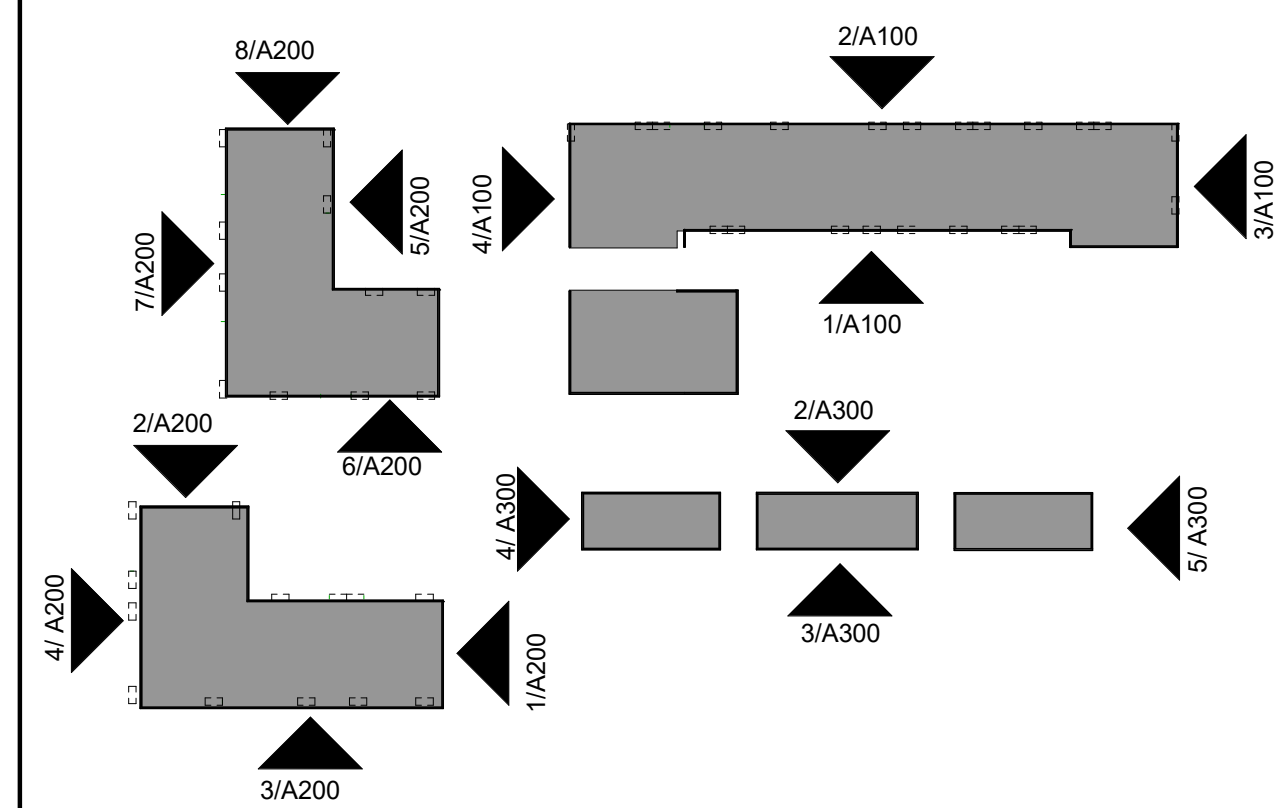
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4



BLDG 100 - EAST ELEV  
 REF DRAWING: 1 / A0.00 SCALE: 1" = 20'-0"

3



KEY PLAN  
 REF DRAWING: 1 / A1.00 SCALE: 1" = 15'96"

0

REVISIONS

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BUILDING 100 ELEVATIONS

**A1.00**





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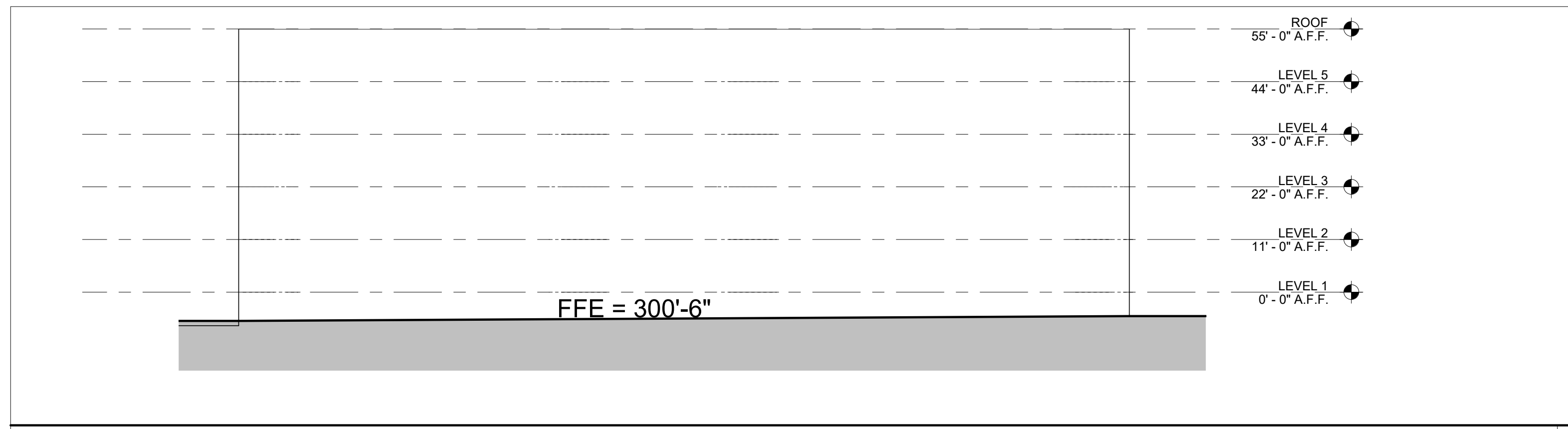
PLAN INFORMATION

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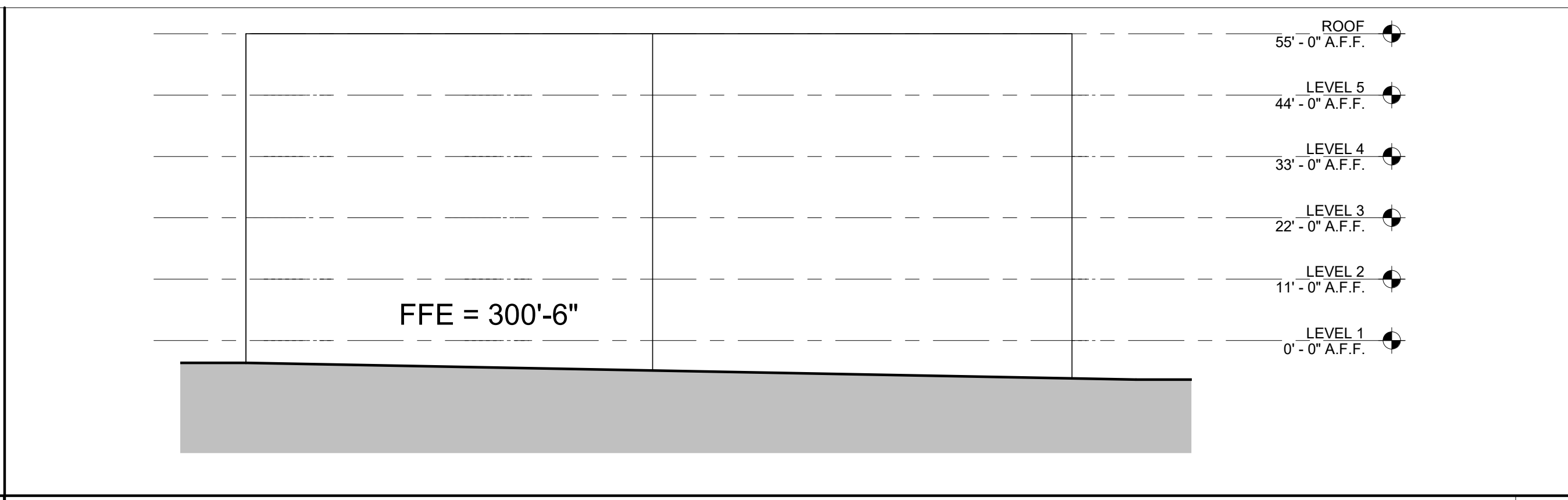
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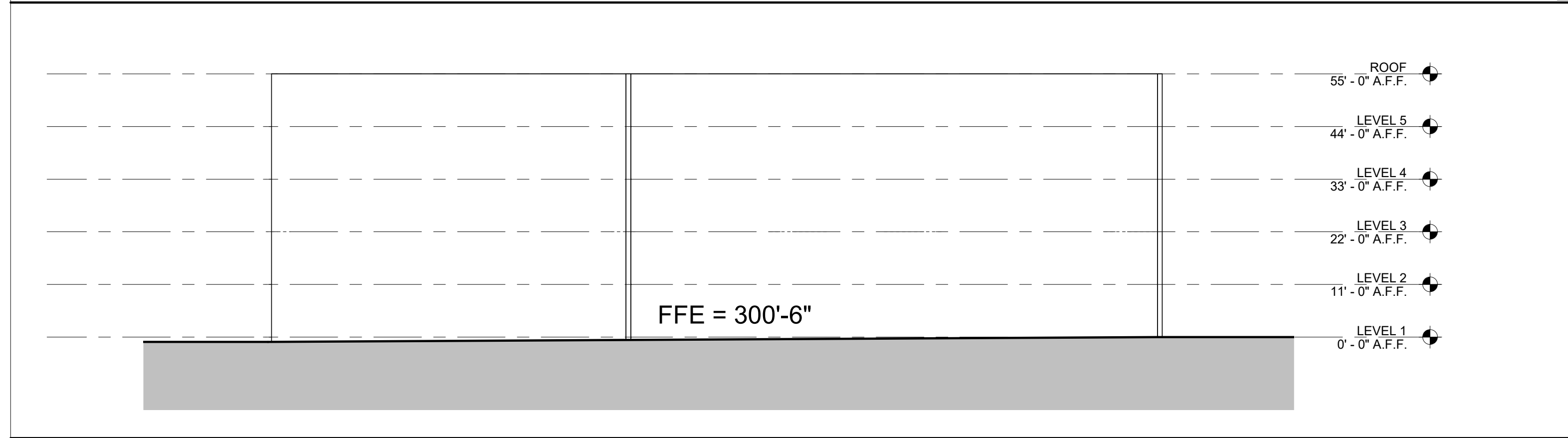
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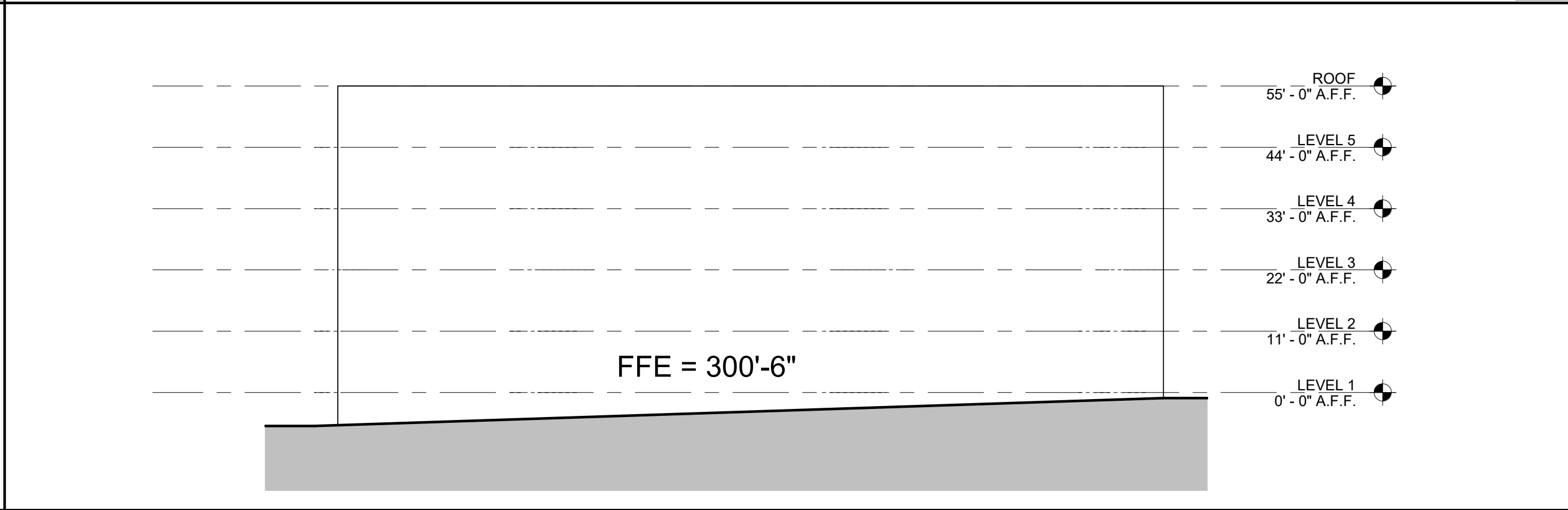
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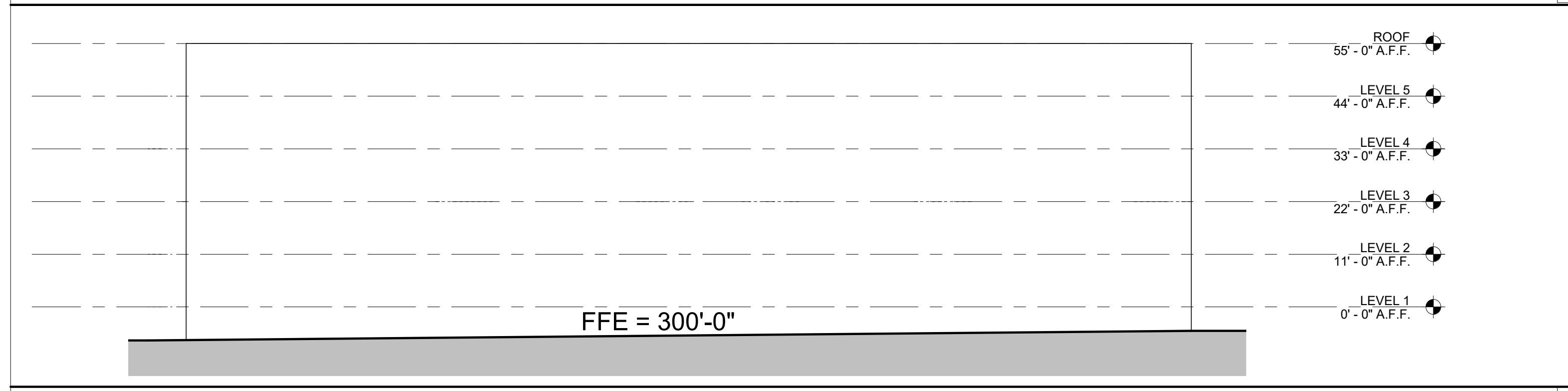
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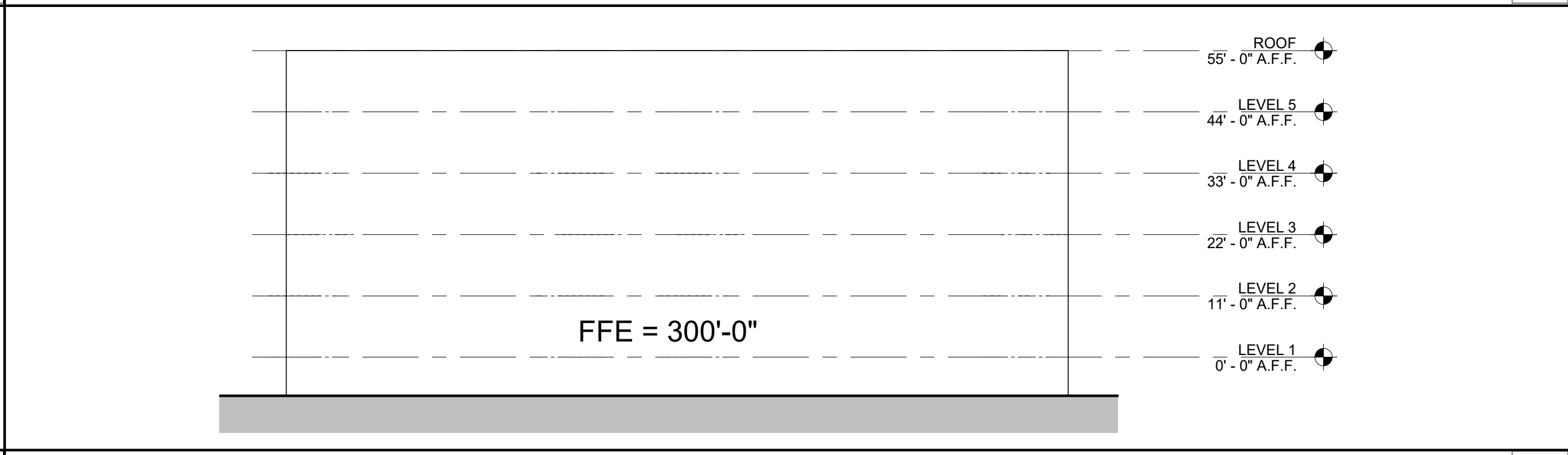
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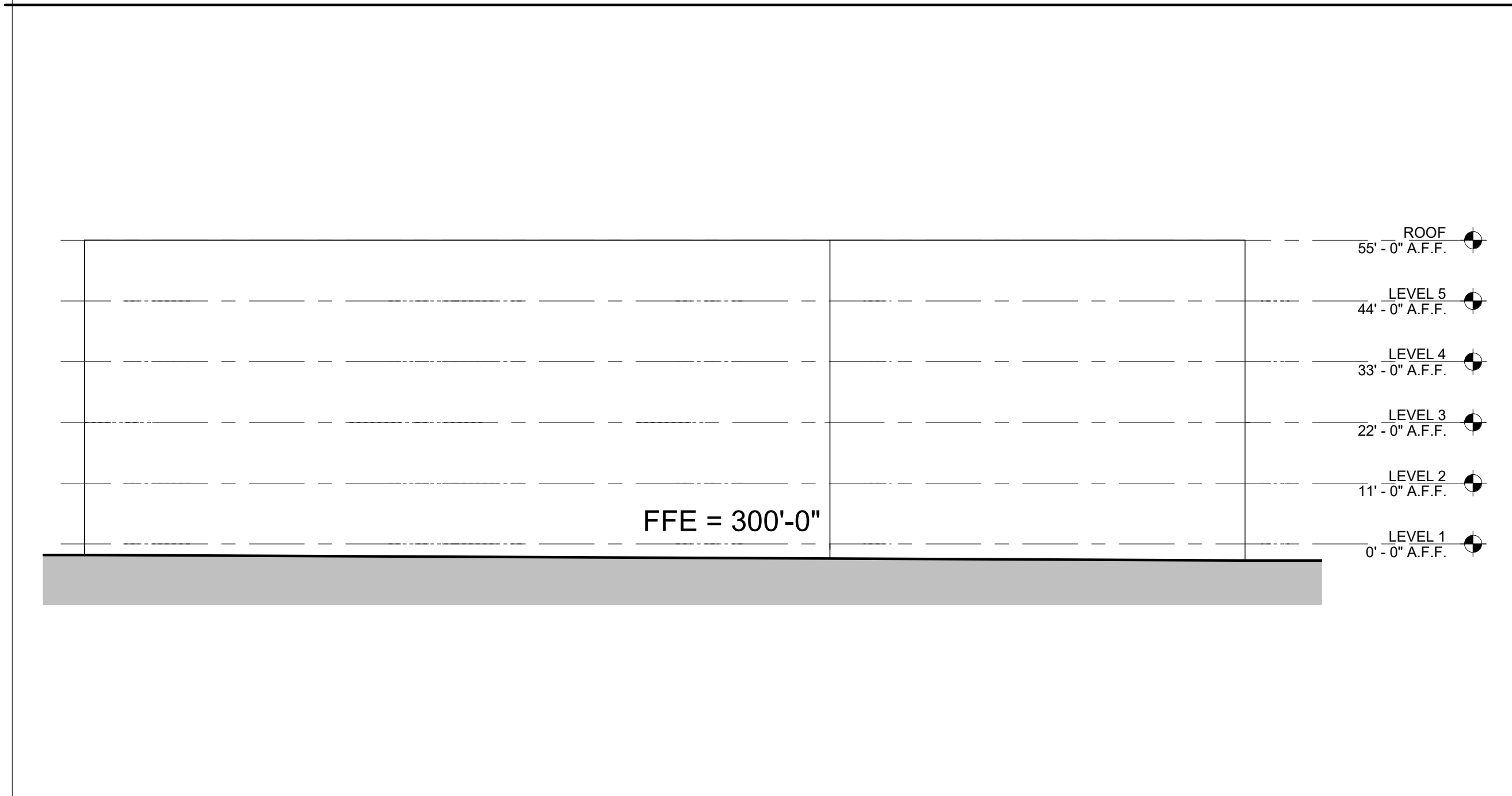
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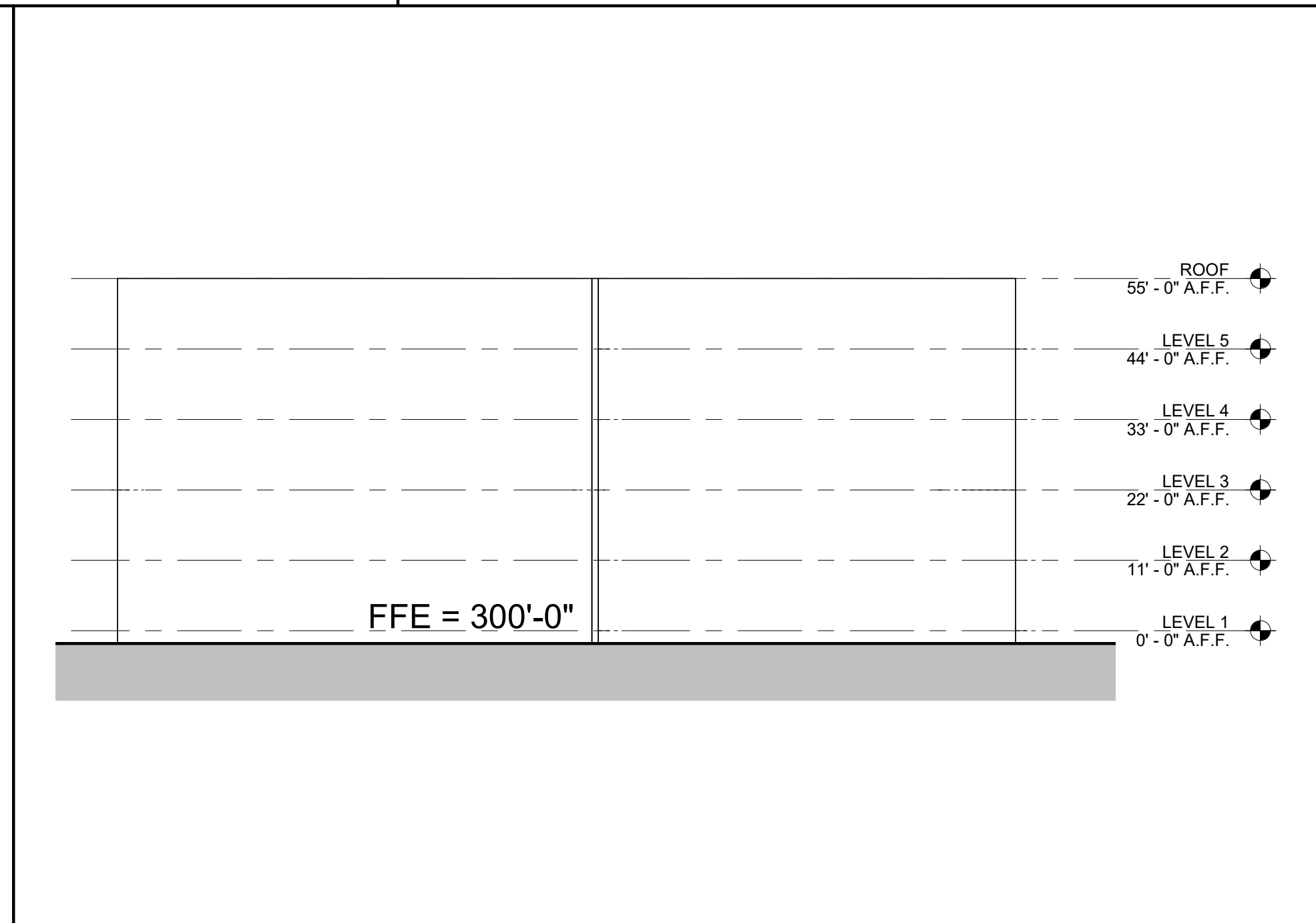
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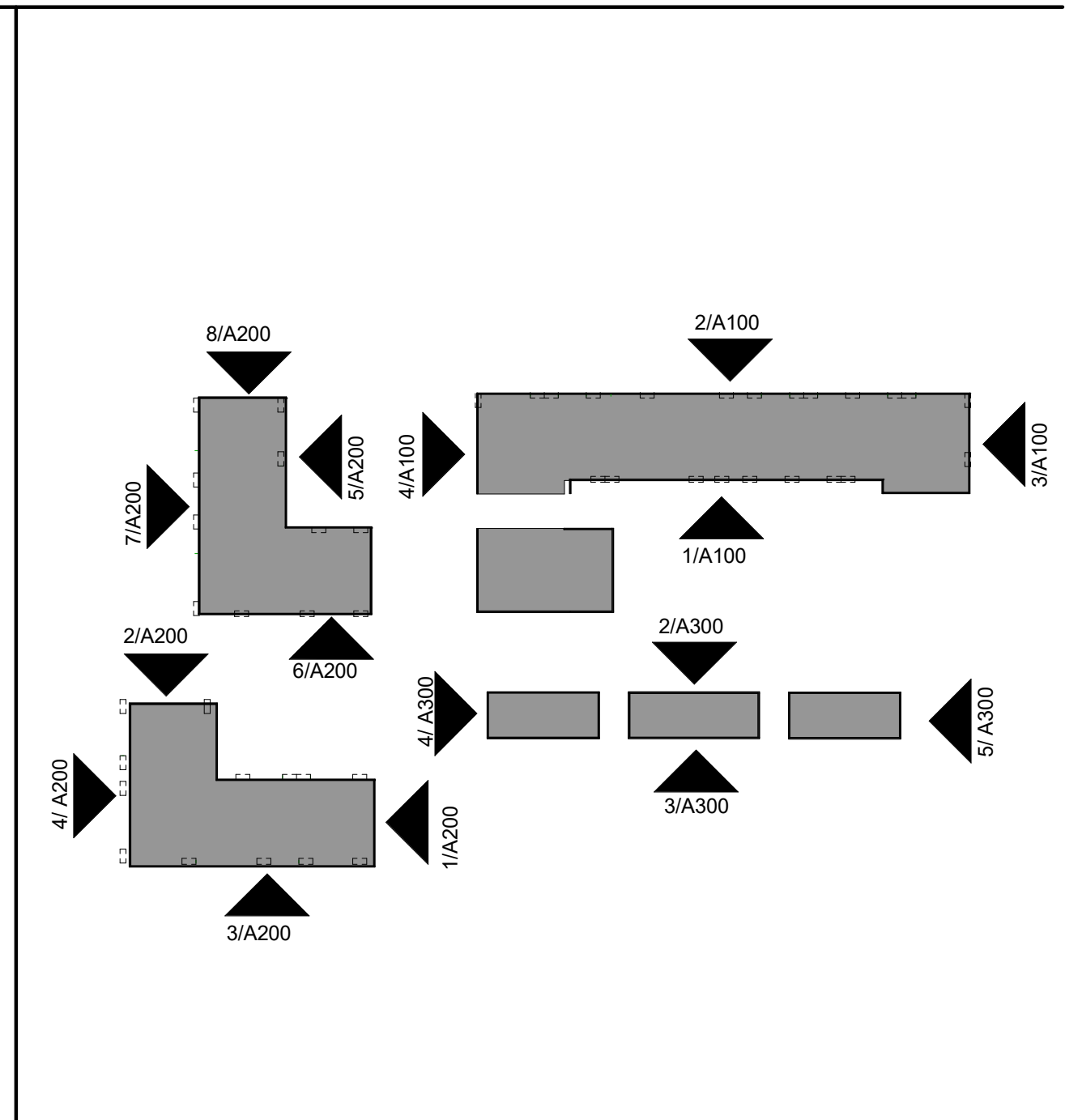
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 REF DRAWING: 1 / A0.00 SCALE: 1" = 20'-0"



BLDG 300 - EAST ELEV 1  
 REF DRAWING: 1 / A0.00 SCALE: 1" = 20'-0"



KEY PLAN 9  
 REF DRAWING: 1 / A1.00 SCALE: 1" = 15'96"



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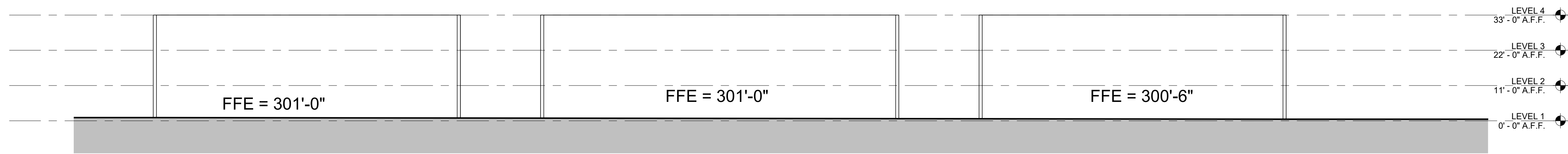
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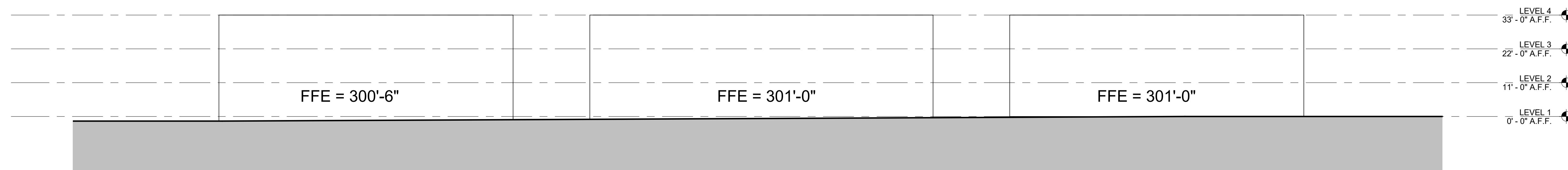


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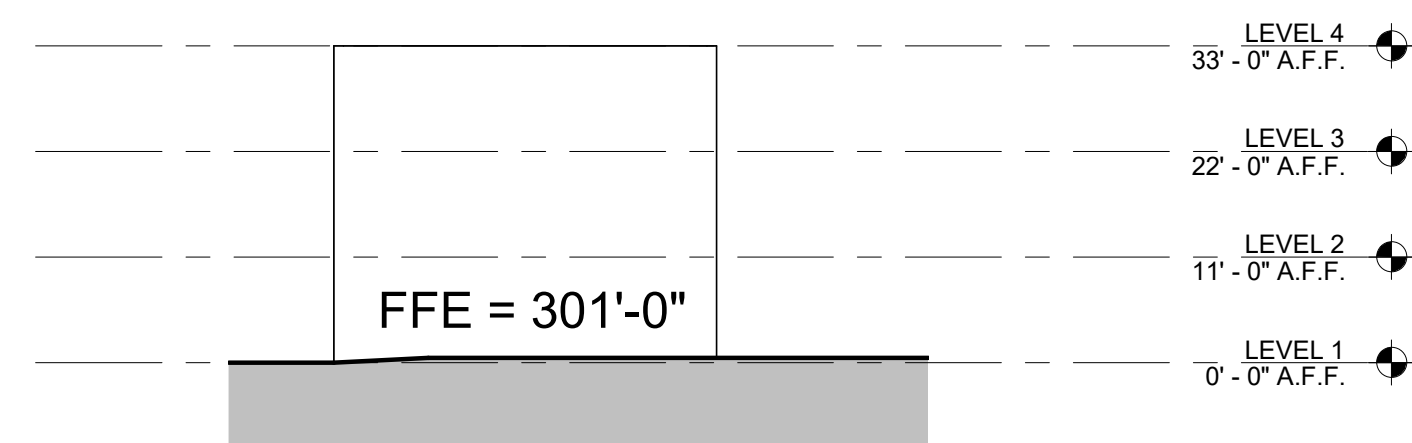
TOWNHOMES- NORTH ELEV  
 REF DRAWING: 1 / A0.00 SCALE: 1" = 20'-0"

2



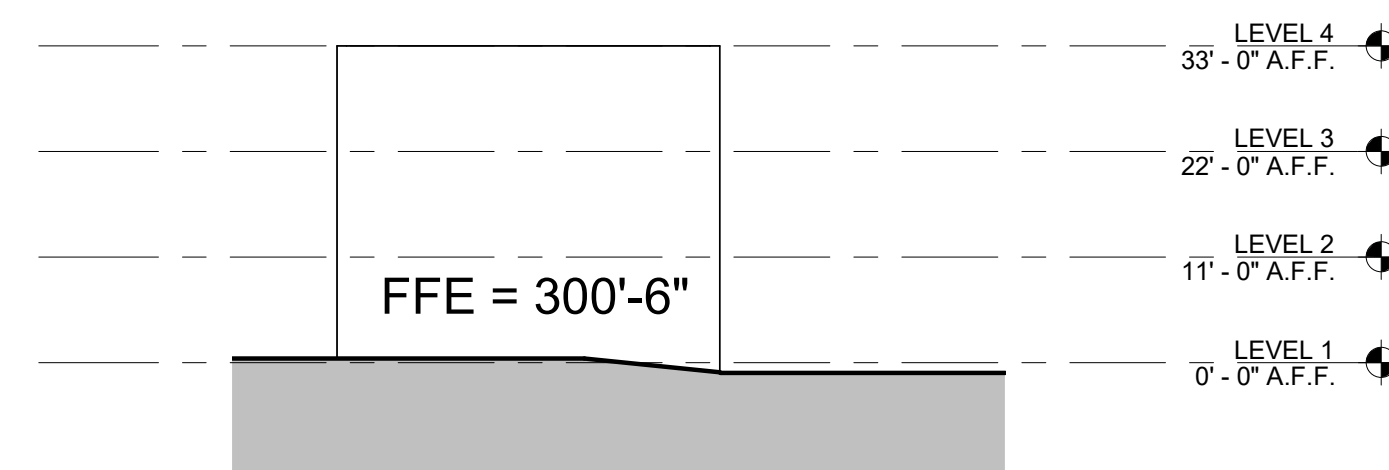
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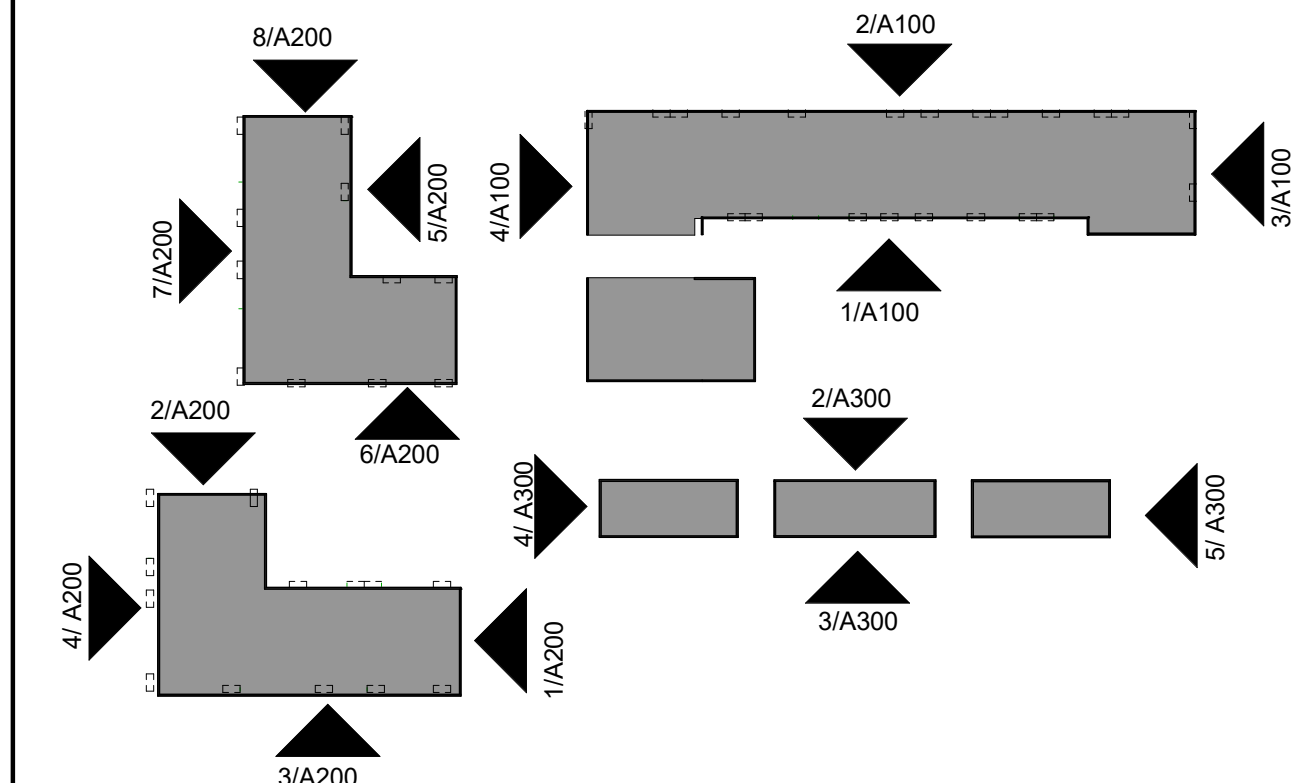
TOWNHOMES- EAST ELEV  
 REF DRAWING: 1 / A0.00 SCALE: 1" = 20'-0"

5



TOWNHOMES - WEST ELEV  
 REF DRAWING: 1 / A0.00 SCALE: 1" = 20'-0"

4



KEY PLAN  
 REF DRAWING: 1 / A1.00 SCALE: 1" = 15'96"

1

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**TOWNHOME ELEVATIONS**

**A3.00**