

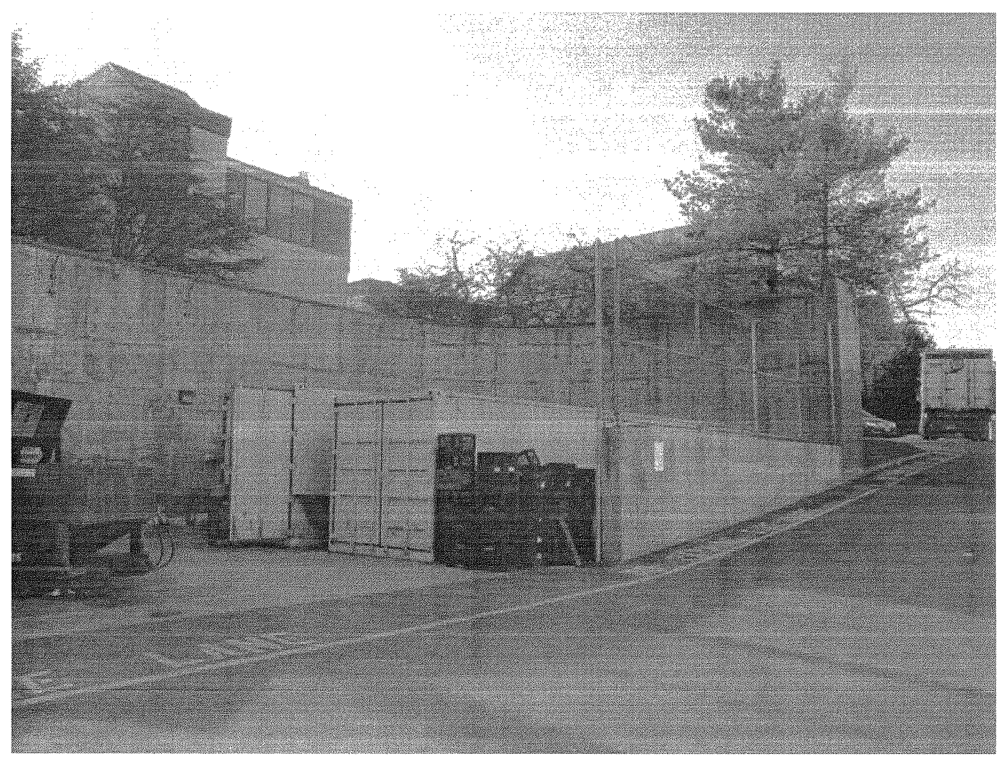
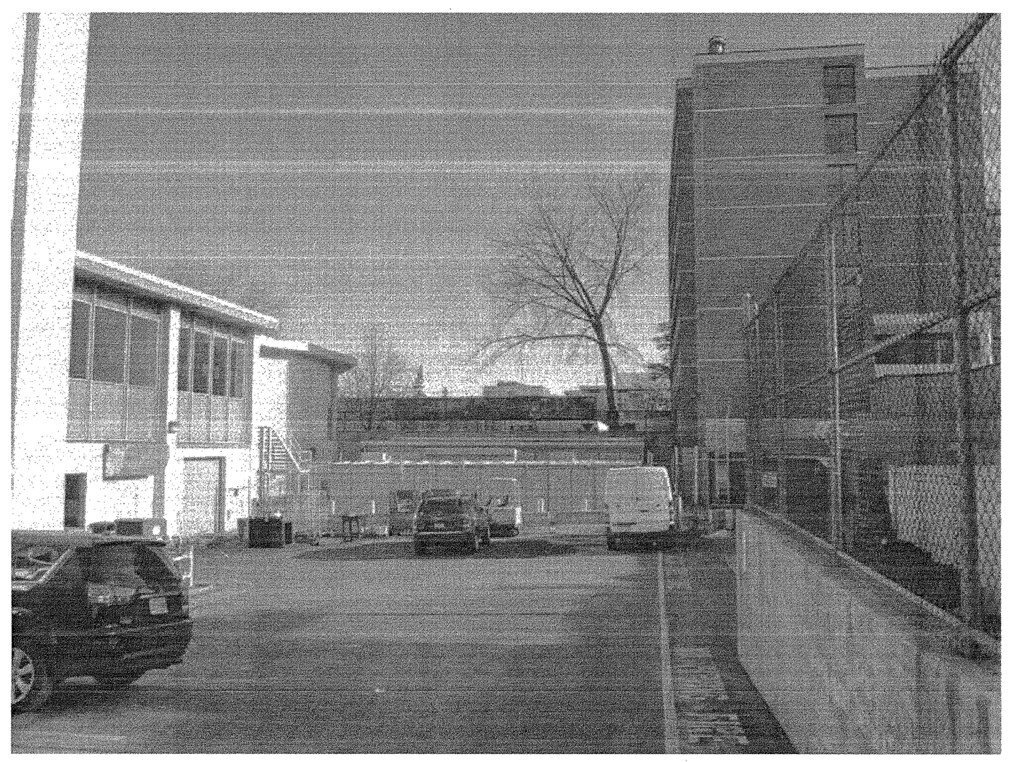
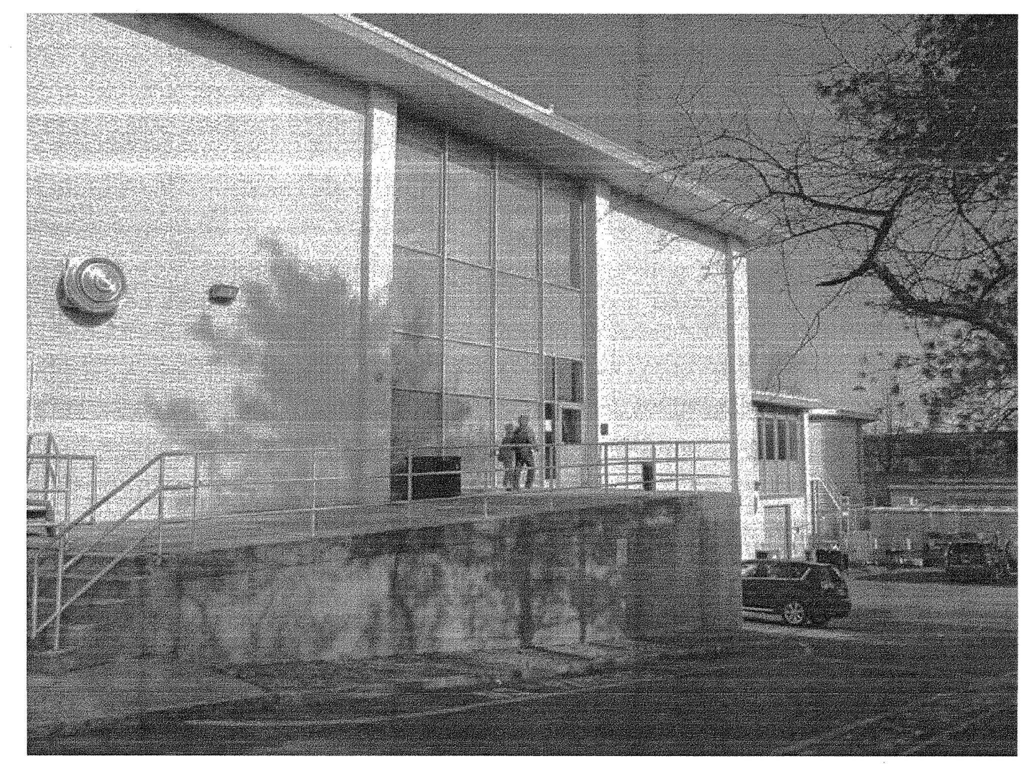
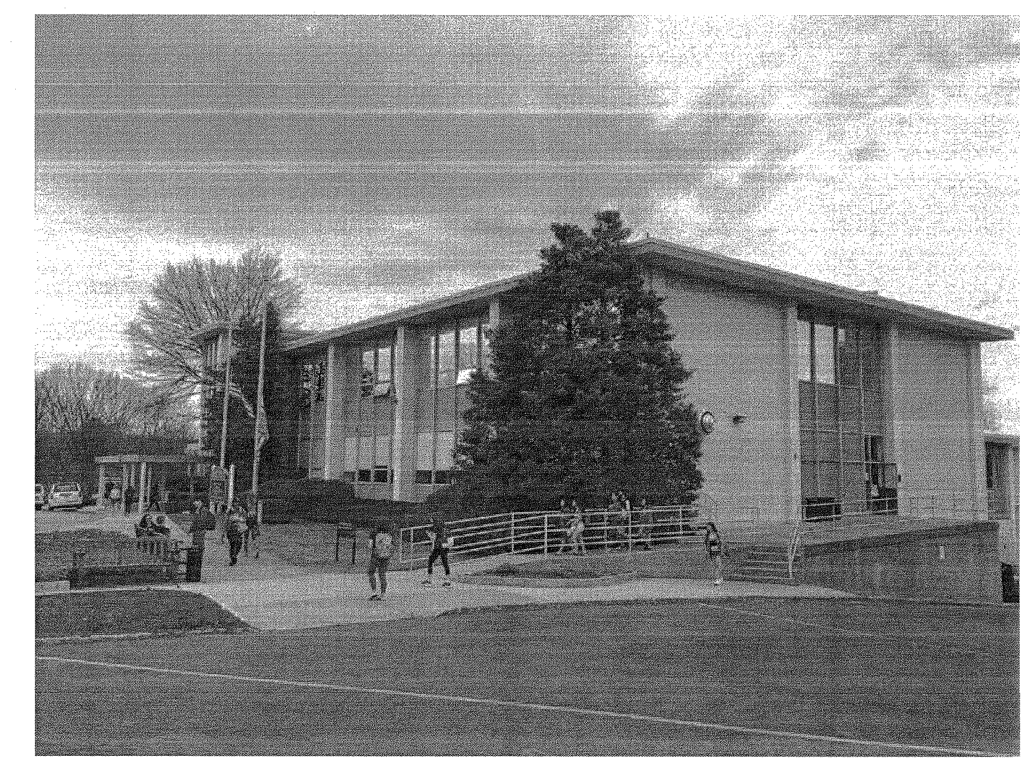

VIEW OF UNIVERSITY CENTER FROM WEST (UNIVERSITY GREEN)



VIEW OF UNIVERSITY CENTER FROM NORTH WEST (UNIVERSITY GREEN)

VIEW OF UNIVERSITY CENTER FROM SOUTH (FROM ROOF)

VIEW OF UNIVERSITY CENTER FROM NORTH (FROM ROOF)

VIEW OF UNIVERSITY CENTER FROM SOUTH (MADISON /LOADING DOCK)




VIEW OF UNIVERSITY CENTER FROM EAST

APPROVED BY THE PLANNING BOARD
TOWNSHIP OF SOUTH ORANGE VILLAGE

PLANNING BOARD CHAIRPERSON	DATE
PLANNING BOARD SECRETARY	DATE
TOWNSHIP ENGINEER	DATE

APPROVED BY THE COUNTY PLANNING BOARD
COUNTY OF ESSEX, NEW JERSEY

PLANNING BOARD CHAIRPERSON	DATE

Clarke Caton Hintz

Architecture
Planning
Landscape Architecture

100 Barrack Street
Trenton, NJ 08608
Tel: 609 883 8383
Fax: 609 883 4044
www.clarkecatonhintz.com

CLIENT:
SETON HALL UNIVERSITY
400 SOUTH ORANGE AVE.
SOUTH ORANGE, NJ 07079

SUBMISSIONS

NO.	DATE	DESCRIPTION
1	12/18/2020	PLANNING BOARD SUBMISSION

REVISIONS

ARCHITECT
NJ LICENSE NO 21AI01300200
GEORGE M. HIBBS, AIA
DATE 12/18/2020

UNIVERSITY CENTER ADDITION AND RENOVATIONS SETON HALL UNIVERSITY

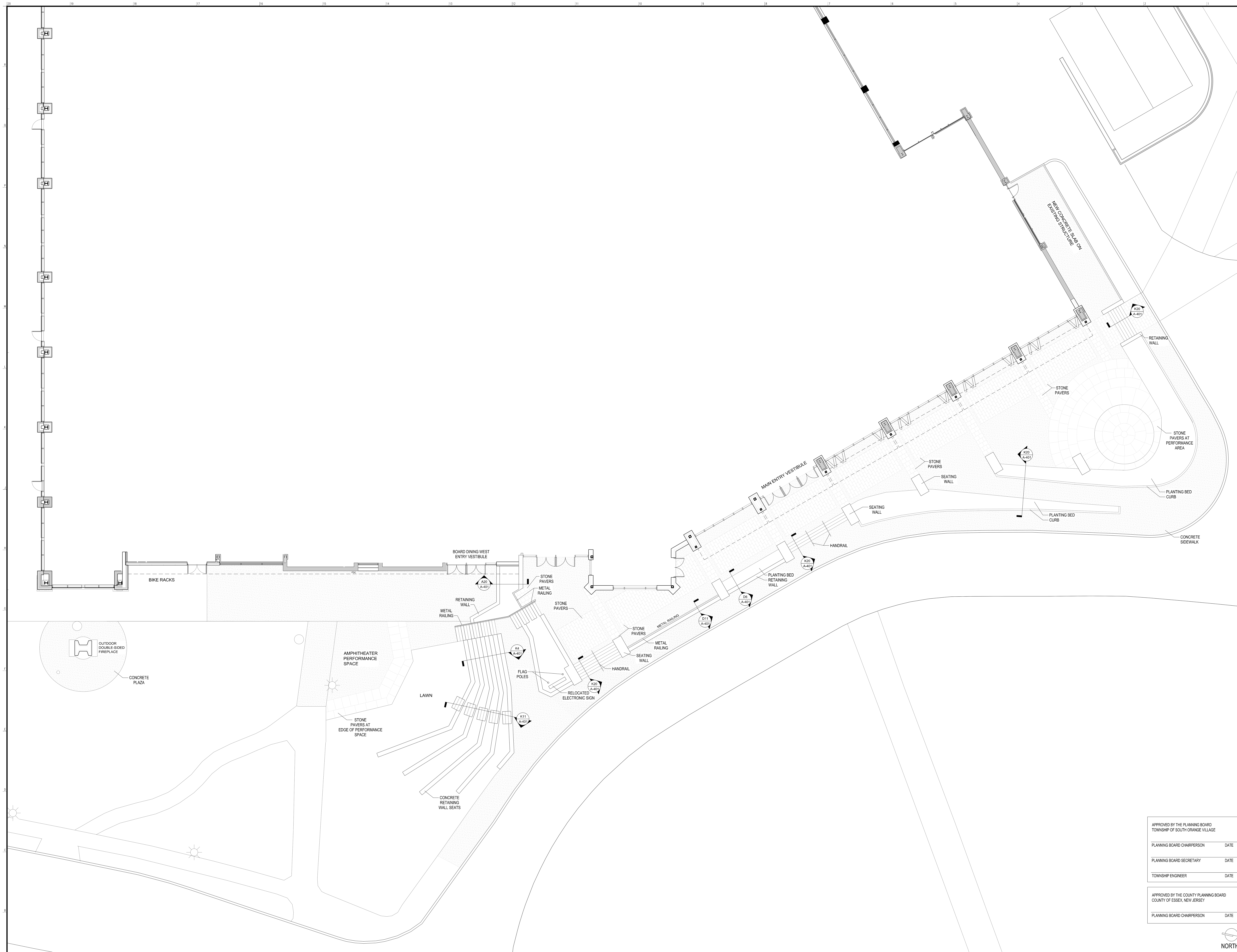
400 SOUTH ORANGE AVE.
BLOCK 901 LOT 3
SOUTH ORANGE, NJ 07079

DATE:	12/18/2020
SCALE:	AS NOTED
DRAWN BY:	SD, MG, GV, MM
CHECKED BY:	GH

SHEET TITLE:
SITE PHOTOS

DRAWING NO.:
G-001

CCH PROJECT NO: 2174



APPROVED BY THE PLANNING BOARD
TOWNSHIP OF SOUTH ORANGE VILLAGE

PLANNING BOARD CHAIRPERSON DATE

PLANNING BOARD SECRETARY DATE

TOWNSHIP ENGINEER DATE

APPROVED BY THE COUNTY PLANNING BOARD
COUNTY OF ESSEX, NEW JERSEY

PLANNING BOARD CHAIRPERSON DATE

A20 PAVING PLAN: WEST ENTRY PLAZA

3/32" = 1'-0"

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ARCHITECT
DATE 12/18/2020

UNIVERSITY CENTER
ADDITION AND RENOVATIONS
SETON HALL UNIVERSITY
400 SOUTH ORANGE AVE.
BLOCK 901 LOT 3
SOUTH ORANGE, NJ 07079

DATE:	12/18/2020
SCALE:	AS NOTED
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CHECKED BY:	GH

SHEET TITLE:
PAVING PLAN

DRAWING NO.:
A-001

CCH PROJECT NO: 2174

J14 PAVING PLAN: EAST ENTRY PLAZA

3/32" = 1'-0"

APPROVED BY THE PLANNING BOARD
TOWNSHIP OF SOUTH ORANGE VILLAGE

PLANNING BOARD CHAIRPERSON DATE

PLANNING BOARD SECRETARY DATE

TOWNSHIP ENGINEER DATE

APPROVED BY THE COUNTY PLANNING BOARD
COUNTY OF ESSEX, NEW JERSEY

PLANNING BOARD CHAIRPERSON DATE

NORTH

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UNIVERSITY CENTER
ADDITION AND RENOVATIONS
SETON HALL UNIVERSITY

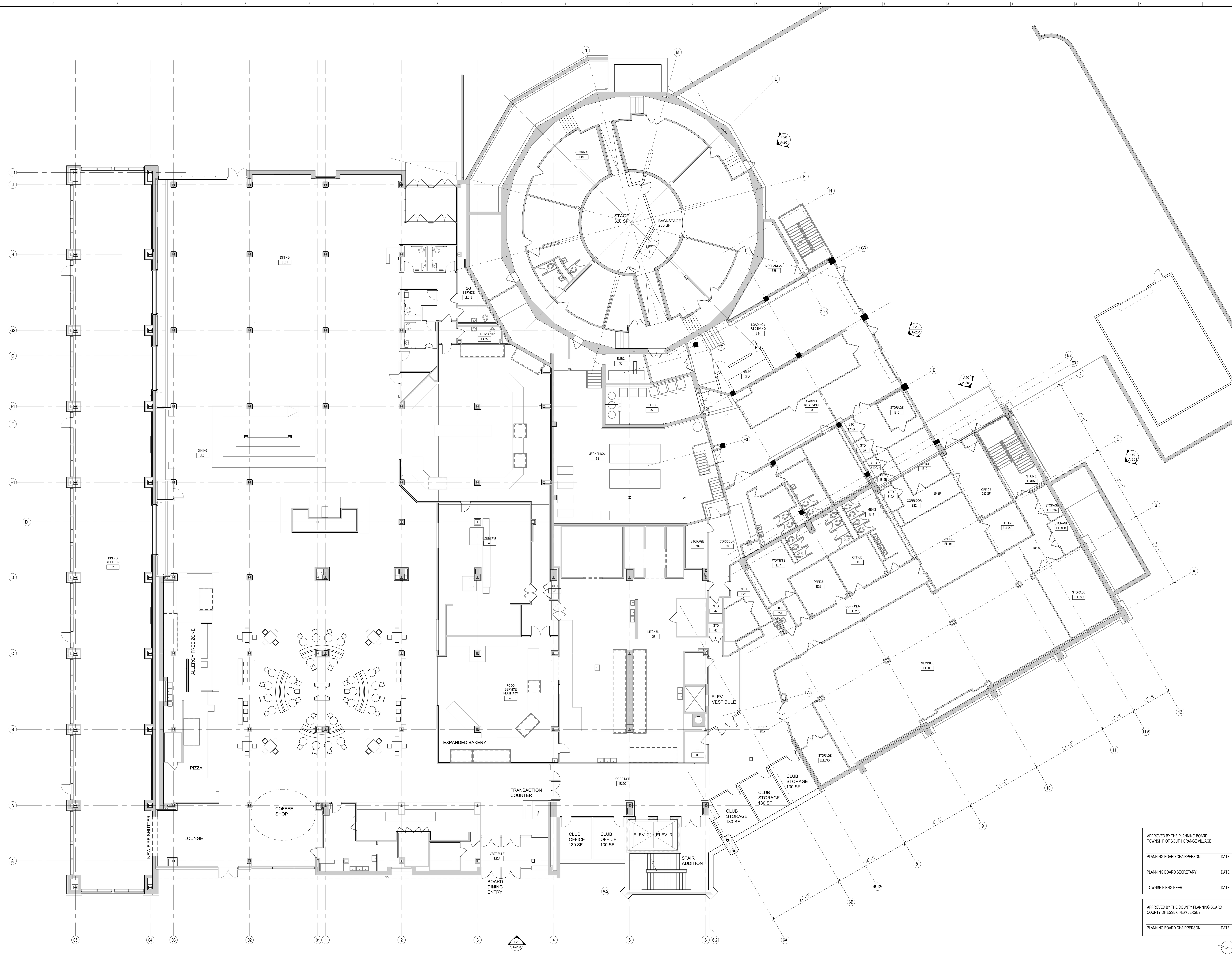
400 SOUTH ORANGE AVE.
BLOCK 901 LOT 3
SOUTH ORANGE, NJ 07079

DATE:	12/18/2020
SCALE:	AS NOTED
DRAWN BY:	SD, MG, GV, MM
CHECKED BY:	GH

SHEET TITLE:
PAVING PLAN

DRAWING NO.:
A-002

CCH PROJECT NO: 2174



APPROVED BY THE PLANNING BOARD
TOWNSHIP OF SOUTH ORANGE VILLAGE

PLANNING BOARD CHAIRPERSON	DATE
PLANNING BOARD SECRETARY	DATE
TOWNSHIP ENGINEER	DATE

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COUNTY OF ESSEX, NEW JERSEY

PLANNING BOARD CHAIRPERSON	DATE

A20 GROUND FLOOR PLAN

3/32" = 1'-0"

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GEORGE M. HIBBS, AIA
DATE 12/18/2020

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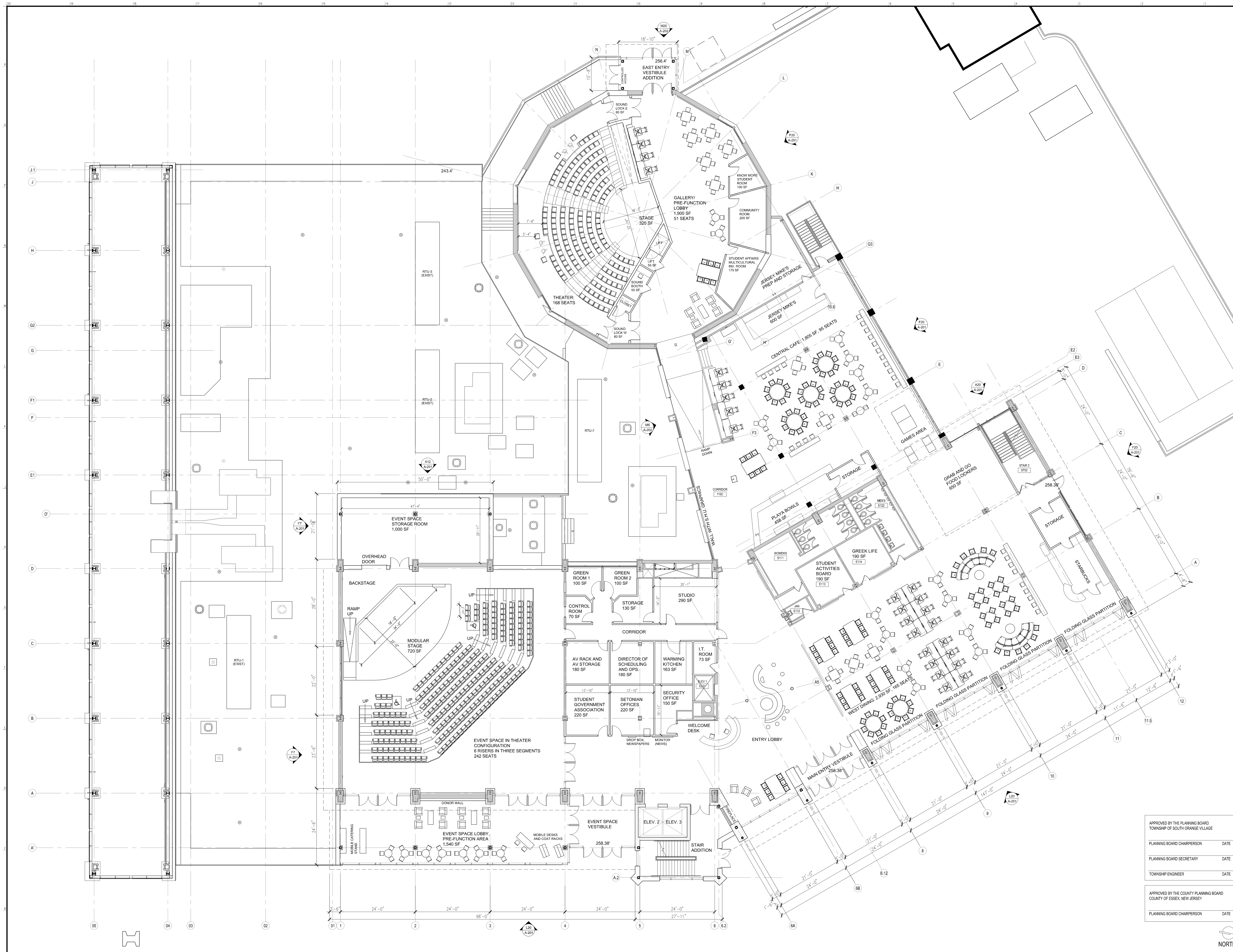
SETON HALL UNIVERSITY
400 SOUTH ORANGE AVE.
BLOCK 901 LOT 3
SOUTH ORANGE, NJ 07079

DATE:	12/18/2020
SCALE:	AS NOTED
DRAWN BY:	SD, MG, GV, MM
CHECKED BY:	GH

SHEET TITLE:
GROUND FLOOR PLAN

DRAWING NO.:
A-101

CCH PROJECT NO: 2174



APPROVED BY THE PLANNING BOARD
TOWNSHIP OF SOUTH ORANGE VILLAGE

PLANNING BOARD CHAIRPERSON	DATE
PLANNING BOARD SECRETARY	DATE
TOWNSHIP ENGINEER	DATE

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PLANNING BOARD CHAIRPERSON	DATE

A20 FIRST FLOOR PLAN

3/32" = 1'-0"

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SOUTH ORANGE, NJ 07079

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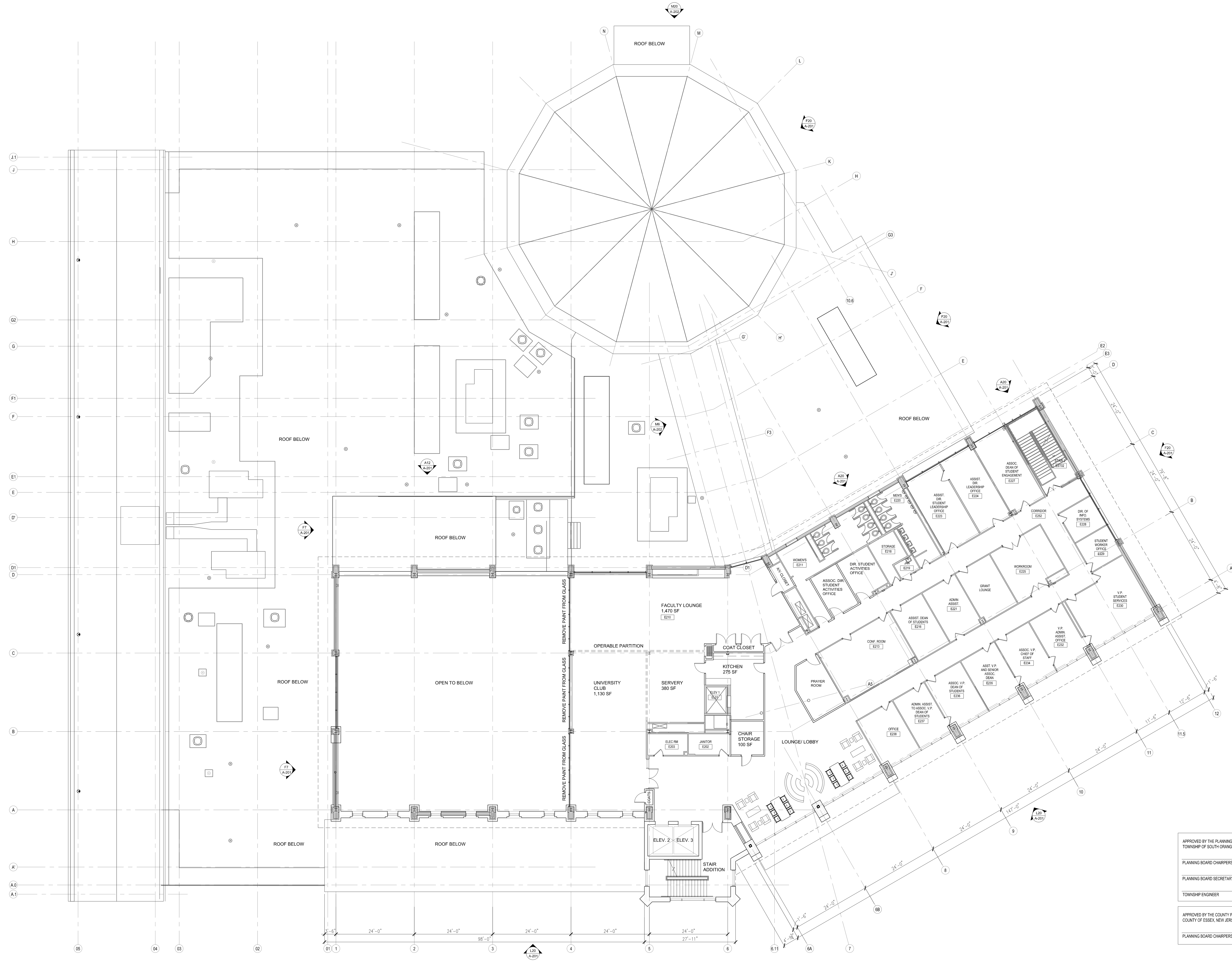
CHECKED BY:	GH

SHEET TITLE:
FIRST FLOOR PLAN

DRAWING NO.:
A-102

CCH PROJECT NO: 2174



A20 SECOND FLOOR PLAN

APPROVED BY THE PLANNING BOARD
TOWNSHIP OF SOUTH ORANGE VILLAGE

PLANNING BOARD CHAIRPERSON	DATE
PLANNING BOARD SECRETARY	DATE
TOWNSHIP ENGINEER	DATE

APPROVED BY THE COUNTY PLANNING BOARD
COUNTY OF ESSEX, NEW JERSEY

PLANNING BOARD CHAIRPERSON	DATE

3/32" = 1'-0"

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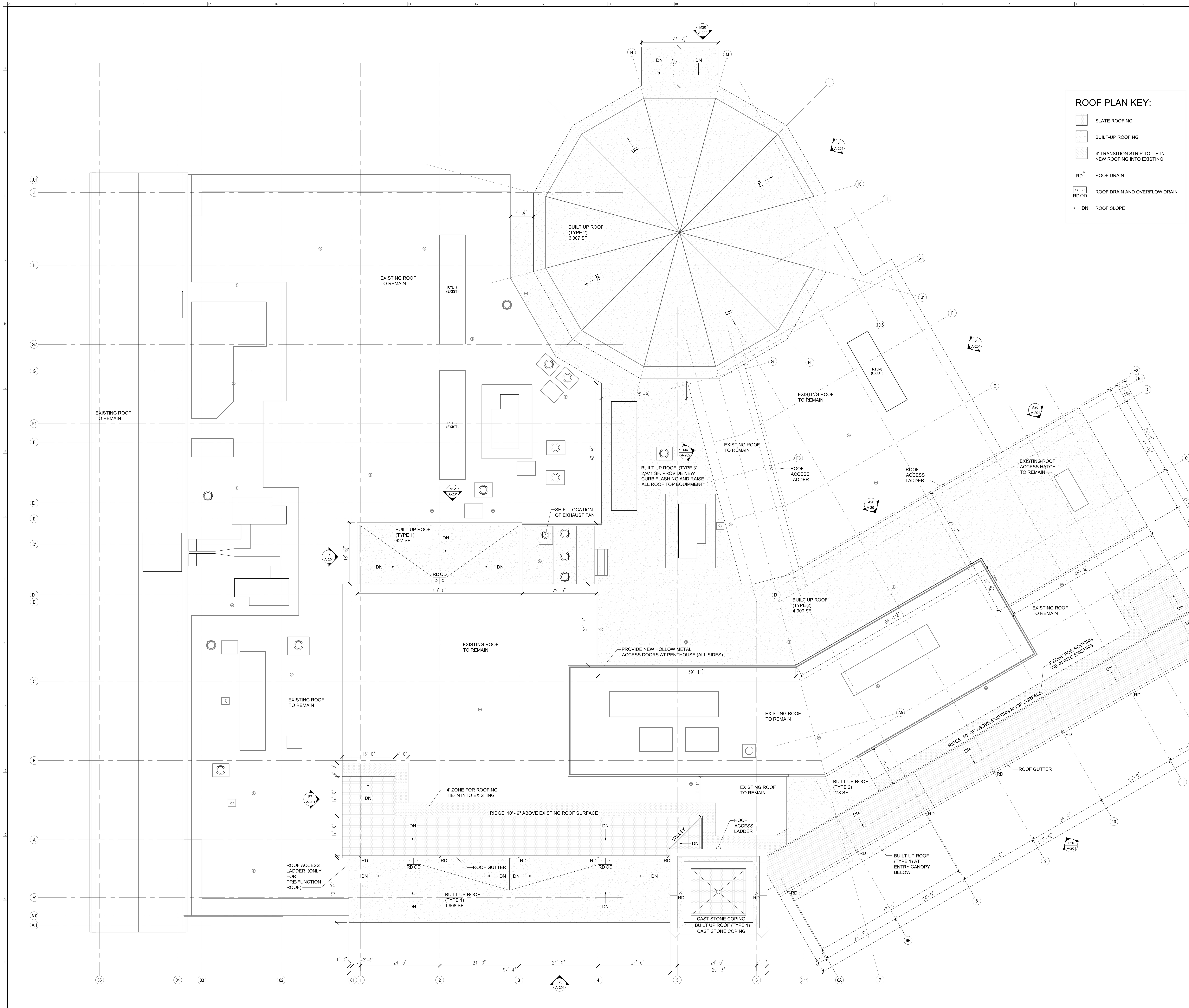
CHECKED BY:	GH

SHEET TITLE:
SECOND FLOOR PLAN

DRAWING NO.:
A-103

CCH PROJECT NO: 2174



APPROVED BY THE PLANNING BOARD
TOWNSHIP OF SOUTH ORANGE VILLAGE

PLANNING BOARD CHAIRPERSON	DATE
PLANNING BOARD SECRETARY	DATE
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A20 ROOF PLAN

3/32" = 1'-0"

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SETON HALL UNIVERSITY
400 SOUTH ORANGE AVE.
BLOCK 901 LOT 3
SOUTH ORANGE, NJ 07079

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SCALE:	AS NOTED
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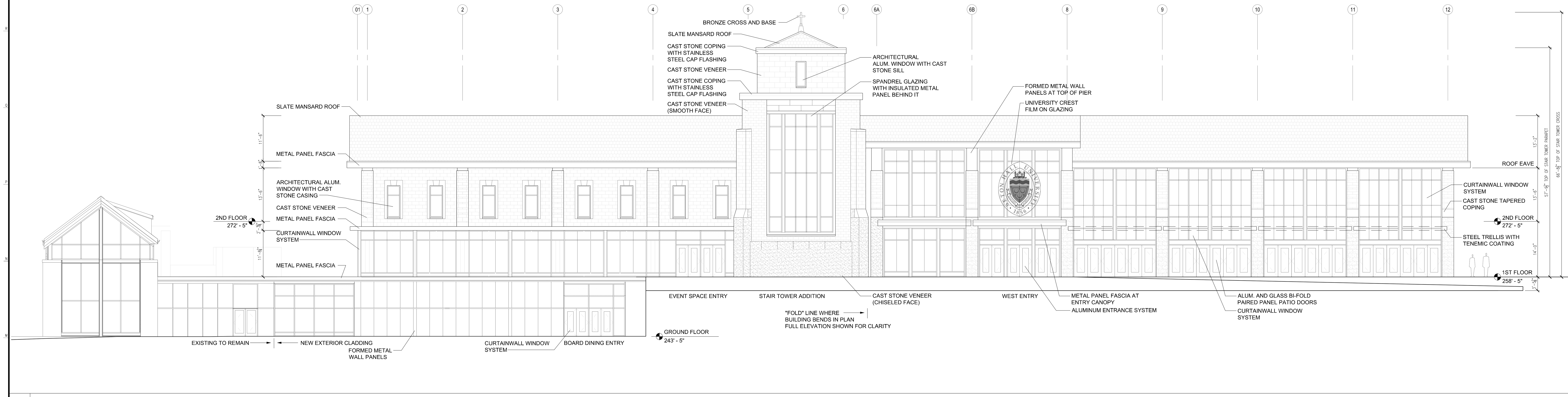
SHEET TITLE:
ROOF PLANS

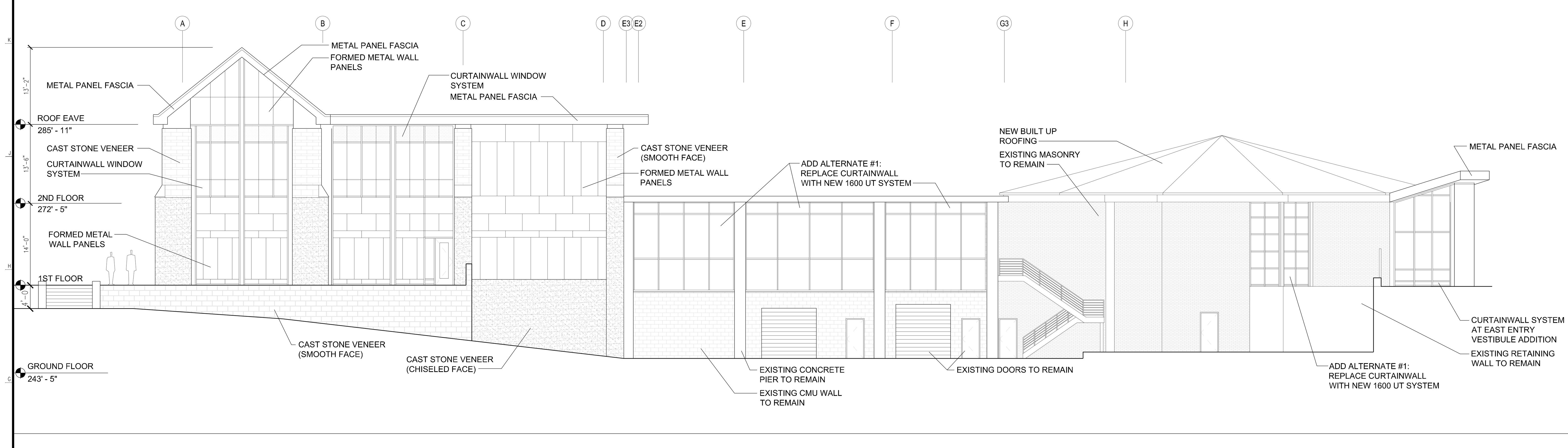
DRAWING NO.:
A-104

CCH PROJECT NO: 2174



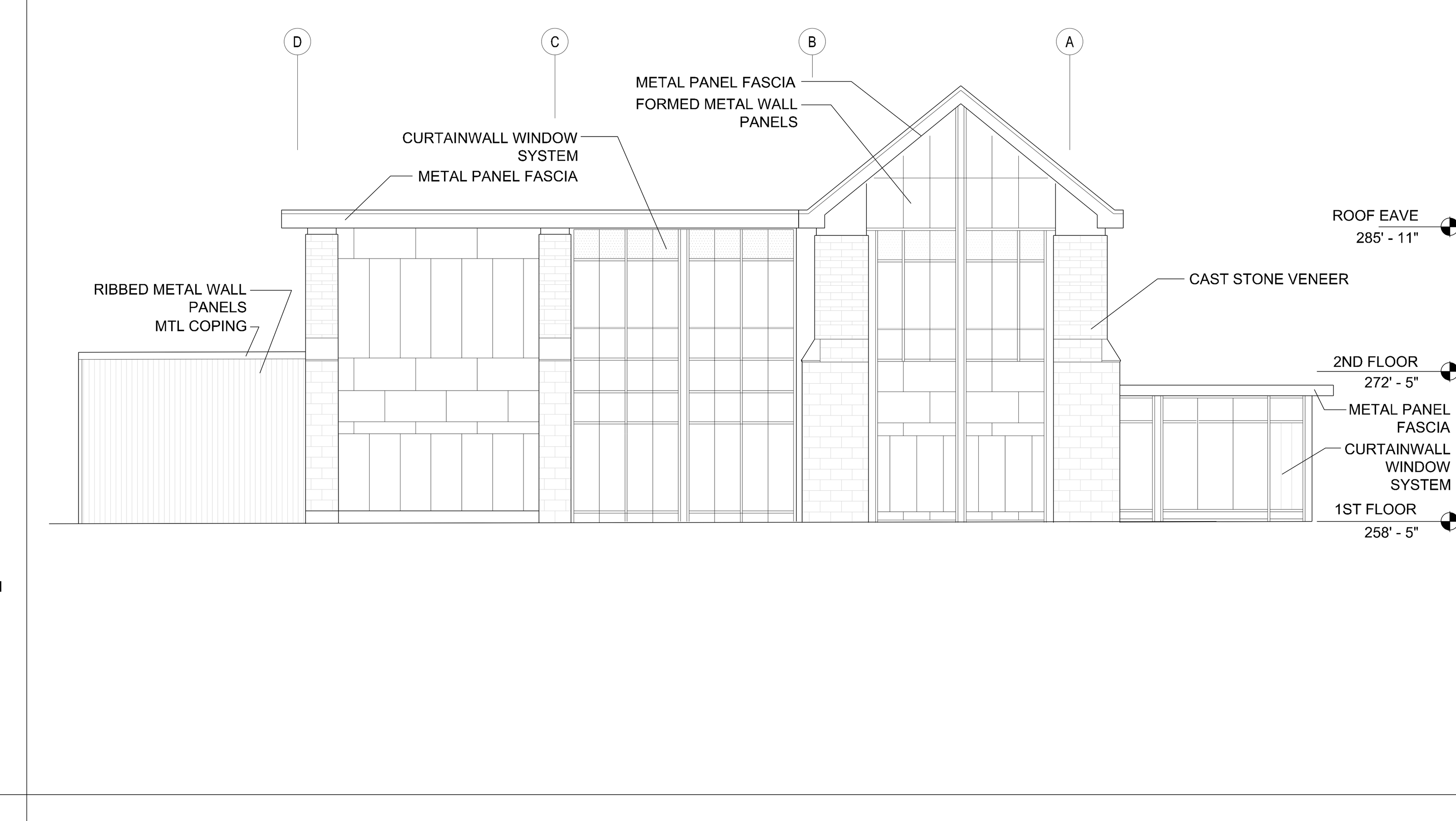
L20 WEST BUILDING ELEVATION

3/32" = 1'-0"



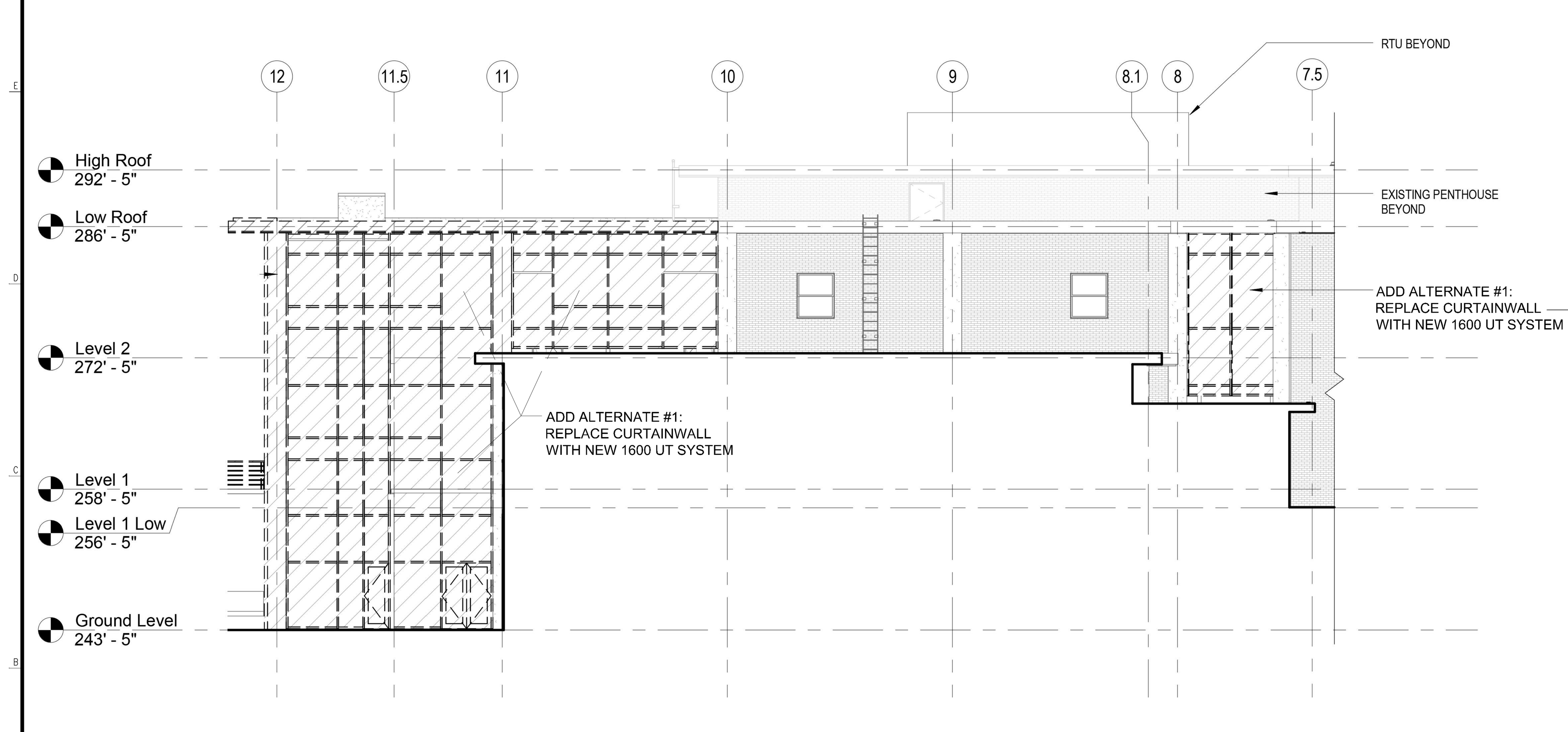
F20 SOUTH BUILDING ELEVATION

3/32" = 1'-0"



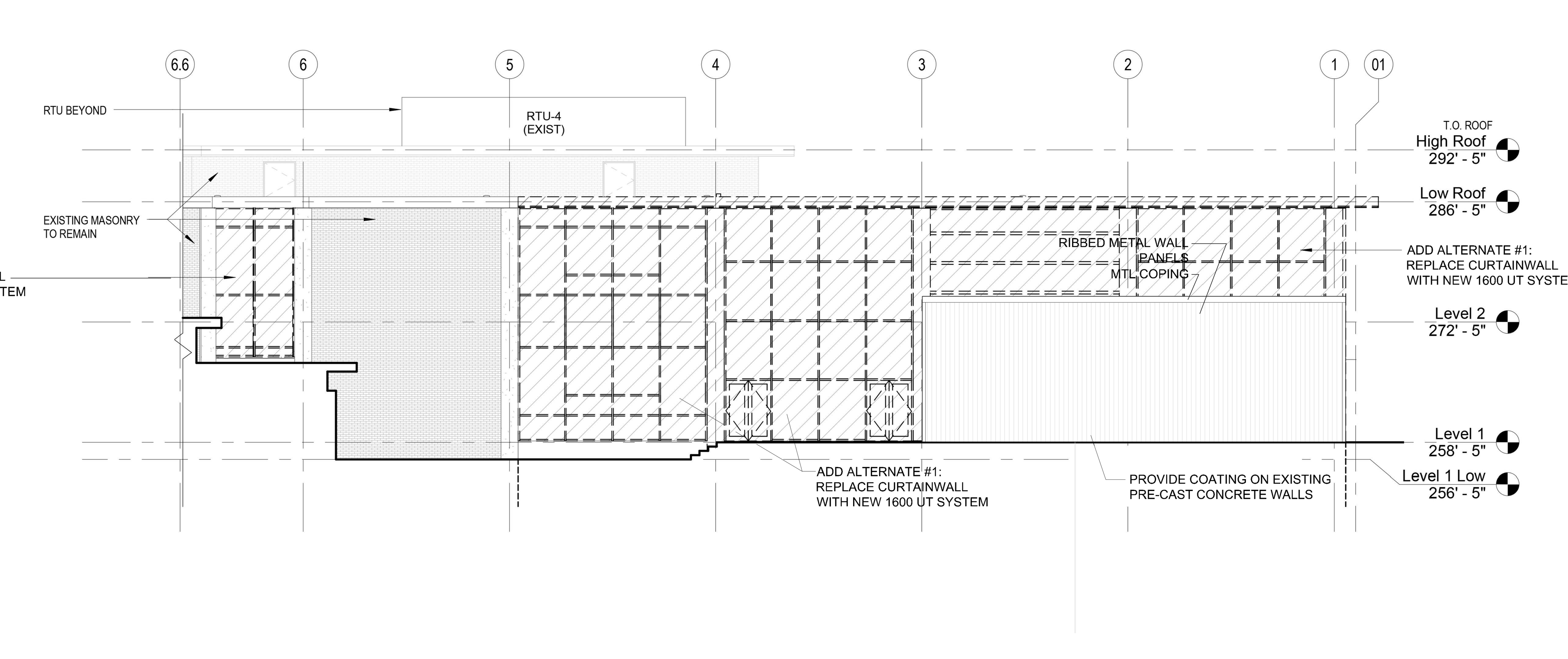
F7 NORTH BUILDING ELEVATION

3/32" = 1'-0"



A20 EAST BUILDING ELEVATION

3/32" = 1'-0"



A12 EAST BUILDING ELEVATION

3/32" = 1'-0"

APPROVED BY THE PLANNING BOARD TOWNSHIP OF SOUTH ORANGE VILLAGE	
PLANNING BOARD CHAIRPERSON	DATE
PLANNING BOARD SECRETARY	DATE
TOWNSHIP ENGINEER	DATE

APPROVED BY THE COUNTY PLANNING BOARD COUNTY OF ESSEX, NEW JERSEY	
PLANNING BOARD CHAIRPERSON	DATE

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SOUTH ORANGE, NJ 07079

SUBMISSIONS

NO.	DATE	DESCRIPTION
1	12/18/2020	PLANNING BOARD SUBMISSION

REVISIONS

ARCHITECT
NJ LICENSE NO. 21AI01300200
DATE: 12/18/2020

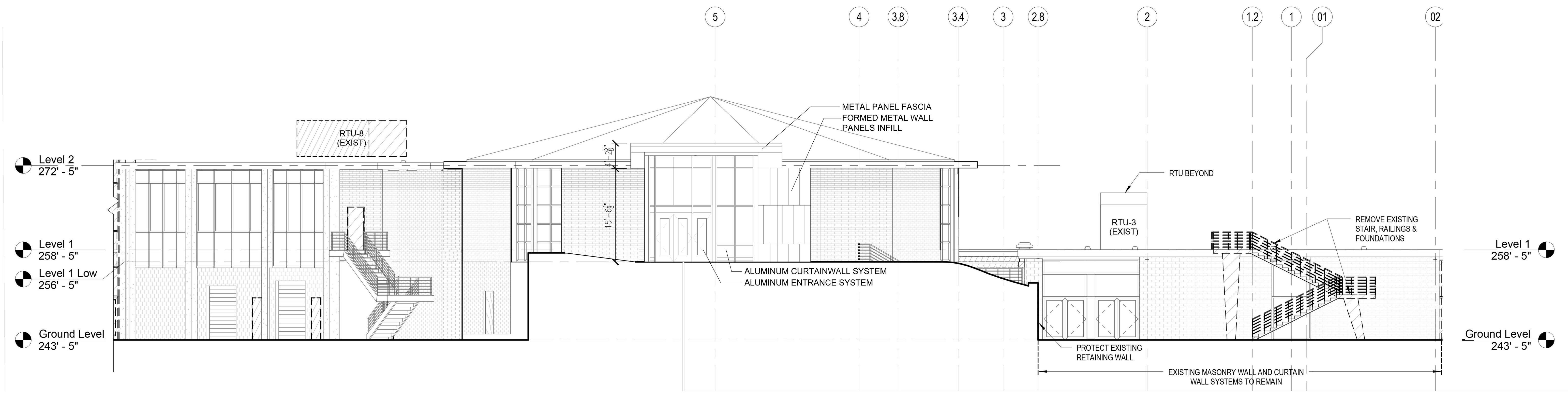
UNIVERSITY CENTER ADDITION AND RENOVATIONS
SETON HALL UNIVERSITY
400 SOUTH ORANGE AVE.
BLOCK 901 LOT 3
SOUTH ORANGE, NJ 07079

DATE:	12/18/2020
SCALE:	AS NOTED
DRAWN BY:	SD, MG, GV, MM
CHECKED BY:	GH

SHEET TITLE:
BUILDING ELEVATIONS

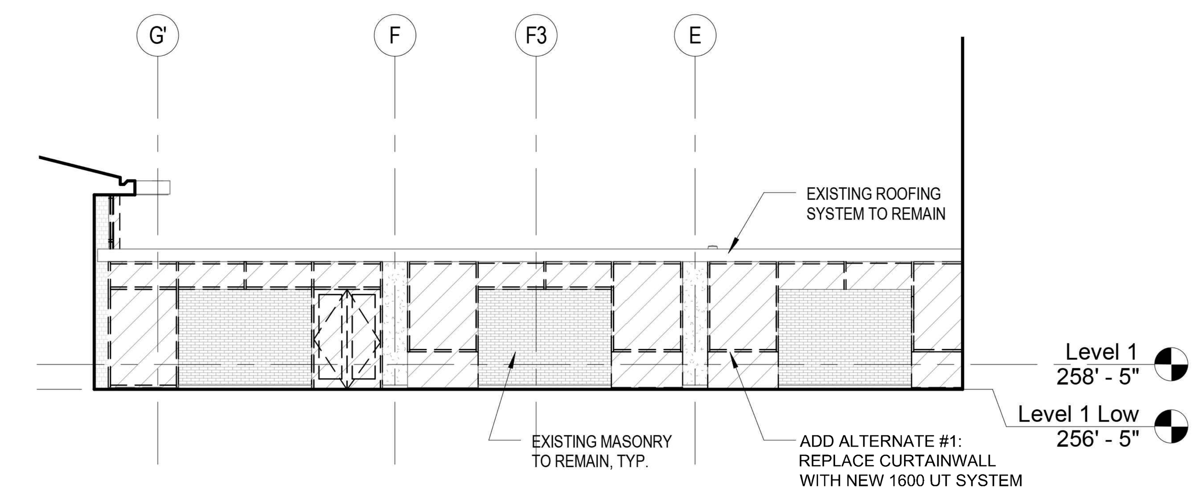
DRAWING NO.:
A-201

CCH PROJECT NO: 2174



M20 EAST BUILDING ELEVATION

3/32" = 1'-0"



M6 PARTIAL NORTH BUILDING ELEVATION

3/32" = 1'-0"

APPROVED BY THE PLANNING BOARD
TOWNSHIP OF SOUTH ORANGE VILLAGE

PLANNING BOARD CHAIRPERSON	DATE
PLANNING BOARD SECRETARY	DATE
TOWNSHIP ENGINEER	DATE

APPROVED BY THE COUNTY PLANNING BOARD
COUNTY OF ESSEX, NEW JERSEY

PLANNING BOARD CHAIRPERSON	DATE

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SUBMISSIONS

NO.	DATE	DESCRIPTION
1	12/18/2020	PLANNING BOARD SUBMISSION

REVISIONS

ARCHITECT
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GEORGE M. HIBBS, AIA
DATE 12/18/2020

UNIVERSITY CENTER
ADDITION AND RENOVATIONS
SETON HALL UNIVERSITY

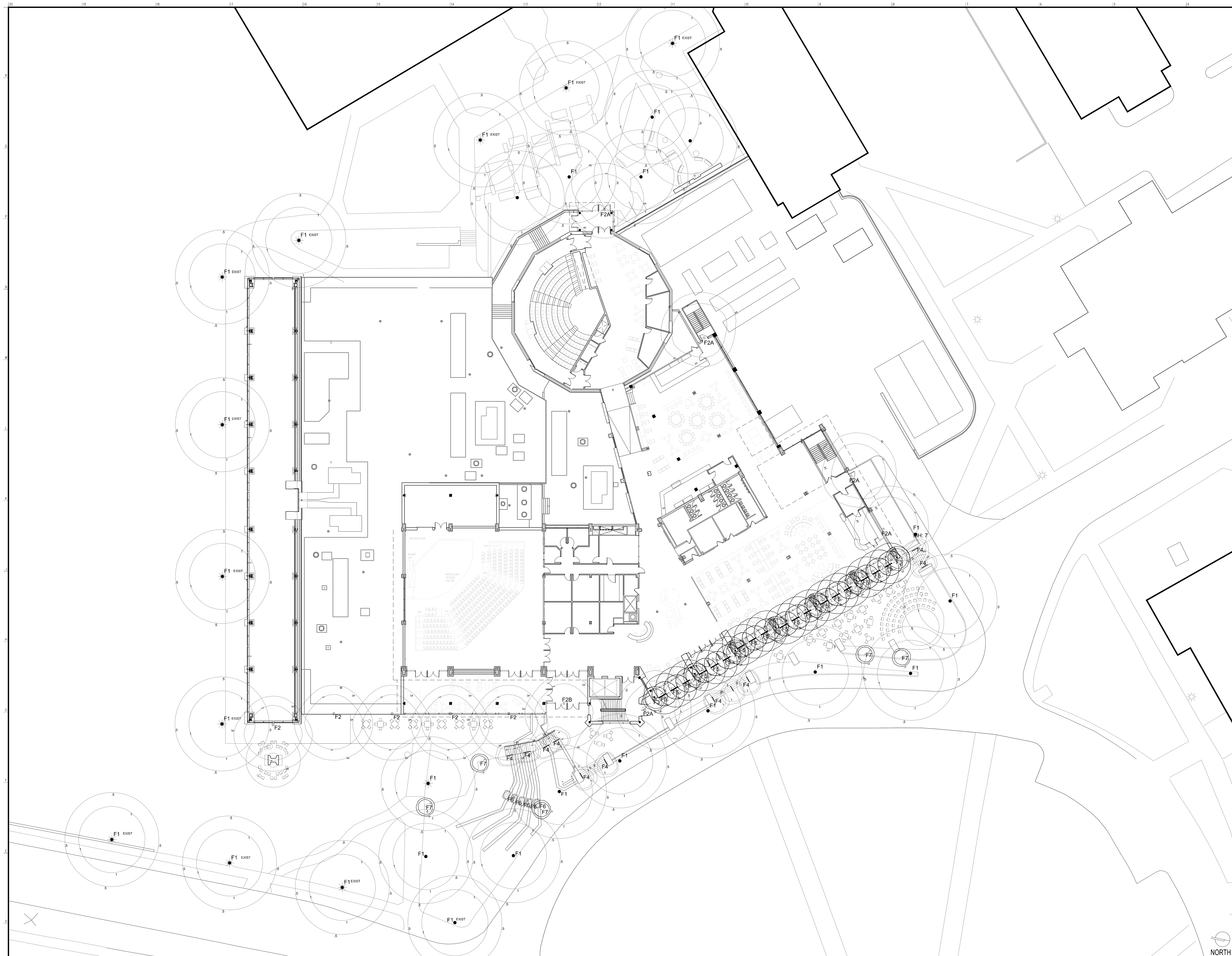
400 SOUTH ORANGE AVE.
BLOCK 901 LOT 3
SOUTH ORANGE, NJ 07079

DATE:	12/18/2020
SCALE:	AS NOTED
DRAWN BY:	SD, MG, GV, MM
CHECKED BY:	GH

SHEET TITLE:
BUILDING
ELEVATIONS

DRAWING NO.:
A-202

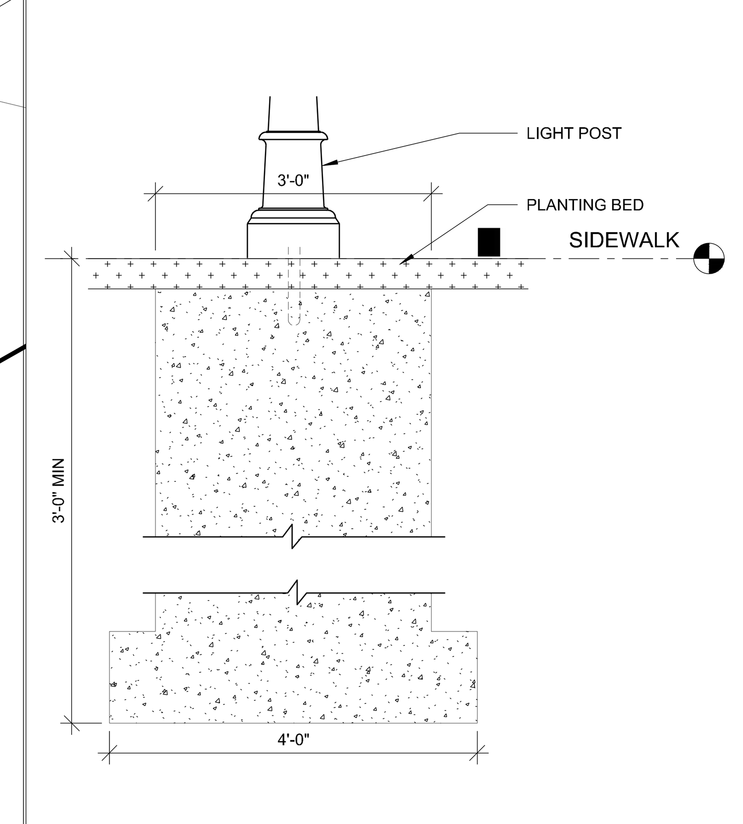
CCH PROJECT NO: 2174



C20 SITE LIGHTING PLAN

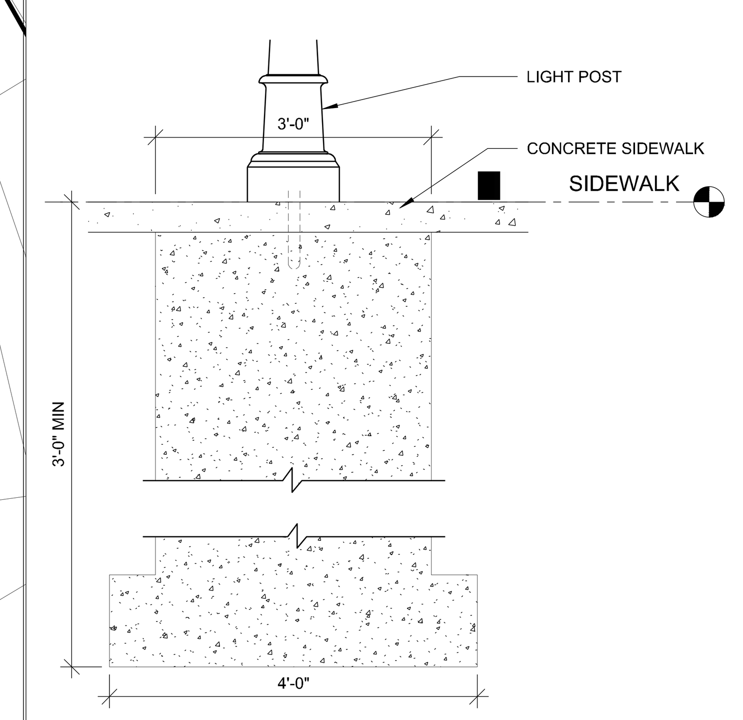
1" = 20'-0"

LUMINAIRE SCHEDULE (**REFER TO LUMINAIRE CUTSHEETS FOR COMPLETE CATALOG NUMBERS)			
Symbol	Fixture Type	Fixture Description	MOUNTING HEIGHT
	F1	DECORATIVE POST TOP LUMINAIRE EQUAL TO SETON HALL STANDARD, TYPE 5, 10FT DECORATIVE POLE	10'-0"
	F1A	DECORATIVE POST TOP LUMINAIRE EQUAL TO SETON HALL STANDARD, TYPE 3, 10FT DECORATIVE POLE	10'-0"
	F2	ARCHITECTURAL FULL CUTOFF WALLPACK, FORWARD THROW DISTRIBUTION WITH DIFFUSE LENS, MOUNTED 14FT ABOVE GRADE, , LLF USED FOR 80CRI	14'-0"
	F2A	ARCHITECTURAL FULL CUTOFF WALLPACK, WIDE THROW DISTRIBUTION WITH DIFFUSE LENS, MOUNTED 15FT ABOVE GRADE, LLF USED FOR 80CRI	14'-0"
	F2B	ARCHITECTURAL FULL CUTOFF WALLPACK, WIDE THROW DISTRIBUTION WITH DIFFUSE LENS, MOUNTED 12FT ABOVE GRADE, LLF USED FOR 80CRI	14'-0"
	F3	ARCHITECTURAL RGBW LINEAR ACCENT LIGHT, NARROW SPOT DISTRIBUTION, INTEGRAL VISOR SHIELD, COLOR MIXING LENS, BLUETOOTH ENABLED DMX CONTROLS, INTEGRAL DRIVER, LIGHTING UP AND DOWN COLUMN FROM TRELLIS	24'-0"
	F4	ILLUMINATED HANDRAIL, 42 INCH LONG SECTION OF 1.9IN DIAMETER LIT HANDRAIL, 42 INCH POSTS WITH INTEGRAL 120/277V DRIVERS	2'-10"
	F5	SURFACE MOUNTED LINEAR DIRECT VIEW, 12 INCH SECTION OF CONTINUOUS RUNS AS SHOWN, MOUNTED TO UNDERSIDE OF TRELLIS IN CHANNEL, REMOTE DRIVERS	12'-0"
	F6	RECESSED LED STEP LIGHT	0'-6"
	F7	LED BOLLARD	2'-10"



G3 LIGHT POST AT PLANTING BED/GRASS

3/4" = 1'-0"



C3 LIGHT POST AT SIDEWALK

3/4" = 1'-0"

APPROVED BY THE PLANNING BOARD
TOWNSHIP OF SOUTH ORANGE VILLAGE

PLANNING BOARD CHAIRPERSON DATE

PLANNING BOARD SECRETARY DATE

TOWNSHIP ENGINEER DATE

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PLANNING BOARD CHAIRPERSON DATE

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DATE:	12/18/2020
SCALE:	AS NOTED
DRAWN BY:	SD, MG, GV, MM
CHECKED BY:	GH

SHEET TITLE:
SITE DETAILS

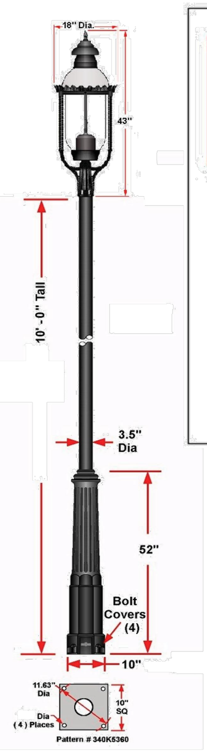
DRAWING NO.:
A-301

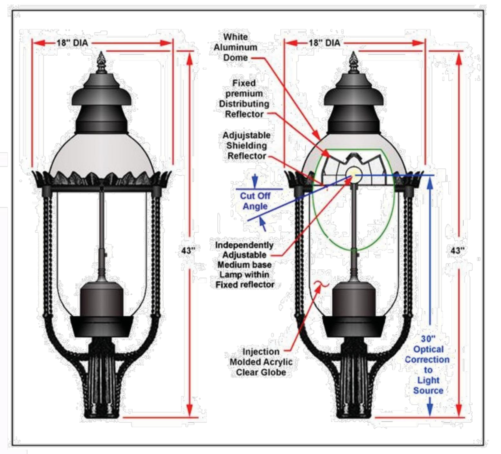
CCH PROJECT NO: 2174

Penn GLOBE
MANUFACTURING SMART LIGHTING SOLUTIONS

THE PENNSYLVANIA GLOBE GASLIGHT CO.
300 Shaw Road, North Branford, CT 06471
PH: 203-484-7749 ~ FX: 203-484-7758
www.PennGlobe.com
LEADERS IN SMART IoT™ LIGHTING SOLUTIONS
MADE IN CT

TYPE: F1





PRIMARY LIGHT SOURCE:
LED

GLOBE LENS:
CLEAR UV STABILIZED ACRYLIC

POLE HEIGHT:
10' - 0"
MATERIAL—DESCRIPTION:
ALUMINUM
ACCESS DOOR
GROUNDING LUG
STANDARD TENON

CONFIGURATION:
BOLT DOWN

NOTES:
> PER SETON HALL SPECIFICATIONS
> TYPE III DISTRIBUTION
> PREMIUM REFLECTOR
> BLACK SIDE ARMS

FINISH:
BLACK 1003X LT

STOCK NUMBER	DESCRIPTION
F360-GX919-SH989	BOULEVARD 1000 LUMINAIRE
P630-SH211-1000	BROADWAY POST

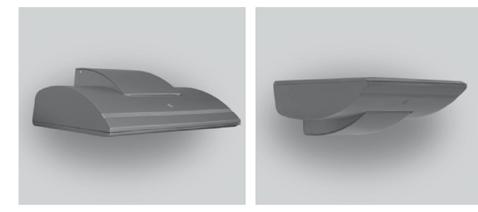
KIM LIGHTING®

WDS
WALL MOUNTED

DATE: | LOCATION:
TYPE: | PROJECT:
CATALOG #:

TYPE: F2 & F2A

Wall Director



Wall Director Medium

PHOTOMETRY | BROCHURE | Delivered LumensS | Dimensional Drawings

FEATURES
- -5° to +10° tilt adjustment
- High performance optics deliver up to 7,500 lumens
- up or down mountable without modification
- Programmable occupancy sensor (dimming)
- NX and SiteSync wireless controls
- 130+ lumens per watt
- UL/cUL listed for wet locations, IP66 Listed

c UL us LISTED | ida Downlight only, 3000K and warmer CCTs | DLC | IK07

RELATED PRODUCTS
Wall Director Medium

CONTROL TECHNOLOGY
NX DISTRIBUTED™ INTELLIGENCE

SPECIFICATIONS

CONSTRUCTION
- Optical housing is a one-piece, die-cast low copper (<0.6%) aluminum alloy with integral heat sink. The housing rotates against mounting arm housing to provide -5° to 10° of adjustment with degree markers label. At 0° adjustment, lens is totally concealed from view above horizontal with fixture mounted in the downward position.
- Mounting arm housing is one-piece die-cast, low copper (<0.6%) aluminum alloy with provisions for tilt mechanism. Mounting arm fastens to the mounting plate with keyhole slots freeing both hands for securing and wiring. One stainless steel socket-head screw on the tilt mechanism frees the optical housing to rotate for aiming. Tightening the screws locks the housing and lens frame together with sealing provided by a silicone gasket. For visual aiming, adjustment may be accomplished with the fixture on.
- Lens Frame is a one-piece, die-cast low copper (<0.6%) aluminum alloy with integral cooling fins to dissipate driver thermal.
- Bracketry and hardware shall be stainless steel.
- Finish: fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) polyester powdercoat

OPTICS
- LEDs mount to a metal printed circuit board assembly (MCPCB).
- Optical lenses are clear injection molded PMMA acrylic.
- Secondary lens is impact resistant 1/8" tempered glass with anti-reflective coating.

INSTALLATION
- Junction box (by others): Standard with steel, quick-mount junction box plate that mounts directly to 4" J-Box.
- Mounting plate is stainless steel and features a one-piece EPDM gasket on back side of plate to firmly seal fixture to wall surface, forbidding entry of moisture and particulates.
- Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

SERVICING
- Housing should hang freely in an open service position for inspection of primary wire connections. Once in service position, the housing can be removed for service by sliding the assembly to the left (for down mounting) or to the right (for up mounting) and disconnecting the wiring plugs.
- Driver assembly shall be mounted to a prewired internal tray with quick disconnects for removal.

ELECTRICAL
- Universal voltage, 120 through 277V with a ±10% tolerance. Driver is Underwriters Laboratories listed.
- High voltage configurations, 347/480. Driver has a 0-10V dimming interface for multi-level illumination options. Driver is Underwriters Laboratories listed.
- "Thermal Shield", secondary side, thermistor provides protection for the sustainable life of LED module and electronic components
- Drivers shall have greater than a 0.9 power factor, less than 20% harmonic distortion, and be suitable for operation in -40°C to 40°C ambient environments
- Luminaire shall be capable of operating at 100% brightness in a 40°C environment. Both driver and optical array have integral thermal protection that will dim the luminaire upon detection of temperatures in excess of 85°C
- Modular wiring harness in the service area provides user access to the dimming circuitry
- Optional factory programmed dimming profile
- Surge protection: 10,000k in parallel, 20,000k in series
- Wiring: No. 18AWM rated 90°C, wet rating.

(Specifications continued on page 3)

KEY DATA	
Lumen Range	2,855–8,567
Wattage Range	29–74
Efficacy Range (LPW)	89–129
Reported Life (Hours)	L70/60,000
Weight	20 lbs/9.07 kg

KIM LIGHTING®

INT RGBW
FLOODLIGHT LUMINAIRE

DATE: | LOCATION:
TYPE: | PROJECT:
CATALOG #:

TYPE: F3

intent

FEATURES
- Architectural linear product for wall and ground mounting applications such as sign lighting, wall washing, wall grazing, and building accent lighting
- IP66 rated product with linear run capabilities
- Lumen range from 657 to 3,271 lm
- UL/cUL listed for wet locations, IP65 and 3G vibration rated

Intent

RELATED PRODUCTS
KFL | LTV8 (RGBW) | INT (STATIC WHITE)

ETL US | IP66

CONTROL TECHNOLOGY
Bluetooth® | DMX 512

SPECIFICATIONS

CONSTRUCTION
- Extruded housing, low copper (<0.1% Cu) Aluminum Alloy 6063-T6 and .160" minimum wall thickness.
- Extrusion includes an integral visor.
- Die-cast driver compartment and end caps, low copper (<0.6% Cu) Aluminum Alloy 360 and .100" minimum wall thickness.
- Finish: fade and abrasion resistant, electro statically applied, thermally cured, triglyceride isocyanurate (TGIC) polyester powder coat.
- Lens is impact resistant 0.157" tempered glass with anti-reflective coating
- Lens is sealed in with Reactive Back Bedding Sealant.
- Driver compartment has a one-piece molded silicone gasket.
- All external fasteners are stainless steel

OPTICS
- LEDs mount to a metal printed circuit board assembly (MCPCB).
- Optical lenses are clear injection molded PMMA acrylic that allow for good color mixing.

INSTALLATION
- Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

ELECTRICAL
- Universal voltage, 120 through 277V with a ±10% tolerance. Driver is Underwriters Laboratories listed.
- High voltage configurations, 347/480.
- Drivers have greater than a 0.9 power factor, less than 20% harmonic distortion, and be suitable for operation in -20°C to 50°C ambient environments.
- Standard configuration has dimming leads pulled off the fixture.
- Luminaire capable of operating at 100% brightness in a 40°C environment.
- Surge protection: 20,000A in series and 10,000kA in parallel
- SF for 120, 277, 347 Line Volts, DF for 208, 240, 480 Line Volts.
- Wiring: No. 18AWM rated 150°C.
- External cable connections are IP68 rated.

CONTROL
- Each fixture comes equipment with a dual control driver that supports Bluetooth operation of individual fixtures or DMX control of an entire system of fixtures.

Bluetooth®:
- Free Bluetooth Apps are available for Apple iOS and Google Android mobile devices and are downloadable via the internet at Apple App Store or Google Play.
- Modular wiring harness in the service area provides user access to the dimming circuitry via DMX.

Bluetooth®

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ANDROID APP ON Google play | Available on the App Store

Continued on page 3

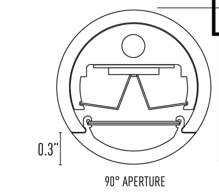
KEY DATA	
LUMEN RANGE	657-3,271
WATTAGE RANGE	16.4-40.5
EFFICACY RANGE (LPW)	37.1-85
REPORTED LIFE (HOURS)	L70/60,000

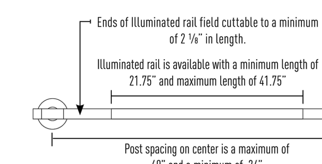
IVR15-SPI
1.5" Solid State Illuminated Rail
2" Post Integral Power Supply

JOB NAME		CATALOG NUMBER	
NOTES		TYPE	

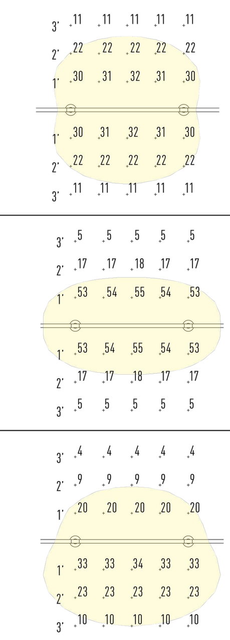
TYPE: F4

NGL'13 RECOGNIZED | 5 LIMITED LED WARRANTY | ETL Intertek | ida





PHOTOMETRIC DATA
- LED: 4.6W High Output
- CCT: 3500K
- Illuminated Rail Length: 41"
- Rail Height: 36"
- Post Spacing: 48"



CONSTRUCTION
Internal Rail Construction: Heavy duty extruded 6061-T6 Aluminum Alloy.
External Rail Jacket: Available in 304 or 316 stainless steel. Consult factory for custom powder coat finishes (AAMA 2604).

LED LIGHT SOURCE
Closely packed array of small LEDs allow for smooth seamless illumination with immediate overlap to avoid pixilation and provide a continuous flow of light. Color temperatures options include 2700K, 3000K, 3500K or 4000K.
- 85 CRI
- 50,000 hours of average rated life at 70% output
- LED components are easily accessible to allow for easy maintenance
- Maximum run length per driver: 8'

LED LIGHT ENGINE (PER FOOT)
- System Power Consumption: 4.6W
- Cool White 4000K: 219 lm
- Neutral White 3500K: 207 lm
- Warm White 3000K: 202 lm
- Warm White 2700K: 194 lm

OPTICAL SYSTEM
Innovative optical system includes integral reflector and light shaping diffuser. 92% Transmission efficiency provides precise shaping, control and distribution of light. High-impact acrylic lens is secured with (2) countersunk flush screws, (1) at each end. Distributions include flood, narrow and asymmetric.

MOUNTING / INSTALLATION
Each rail support is secured to the swivel mount on specified mounting system. Post or embedded mount is available. See mounting submittal sheets for detailed information.

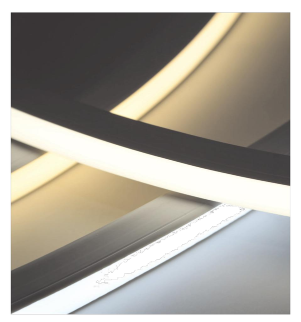
EMERGENCY
Remote emergency inverter available. Can be remote up to 1000 ft. available. See IB-IIS specification sheet.

WARRANTY / LISTINGS
- 5-Year Intense LED Limited Warranty (LED & Power Supply Only)
- ETL Wet Location Listed
- IDA Approved
- ADA Compliant

AWARD
- 2013 Next Generation Luminaires - "Recognized Winner"

Kurba Vertical | Flexible LED strip - 24 VDC
optic arts by luminii

TYPE: F5



Features
Kurba Vertical is a direct view, small profile, energy efficient and flexible LED strip suitable for wet locations capable of vertical bends up to 2.5" radius. Built with robust factory made power feeds or joiners, Kurba Vertical mounts to a specifically designed aluminum extruded channel.

Applications
Outdoor wet location

Operating Voltage
24VDC

Operating Temperature
-4°F to 113°F (-20°C to 45°C)

Average Life
50,000 hours

Dimming
Low voltage dimmer and class 2 dimming power supply required

Approvals
Class 2 wet listed, IP67

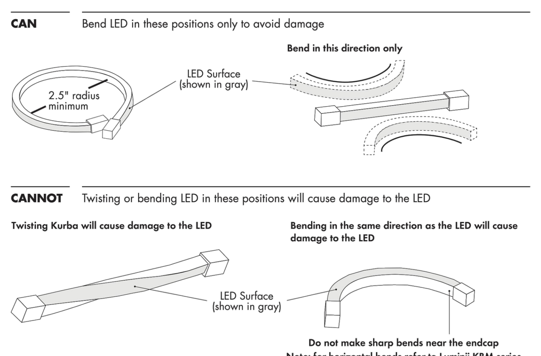
Warranty
3 years

c UL us LISTED | RoHS | DIM

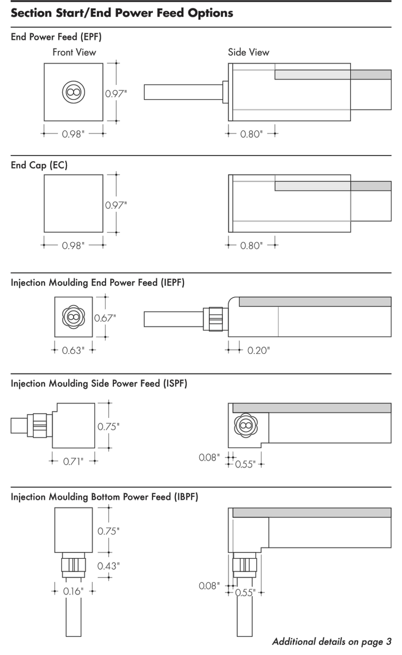
CAUTION! Reference diagram below on Can and Cannots when installing the Kurba Vertical

CAN Bend LED in these positions only to avoid damage

CANNOT Twisting or bending LED in these positions will cause damage to the LED



Section Start/End Power Feed Options



Additional details on page 3

Technical Information

Model	KBL-XX
LEDs/ft	32
Light Output at 3000K	178 lm/ft
Average Power Consumption at 4'	3.27 W/ft
Ordering Increment	2.19"
Maximum Run Length (In Series)	25'

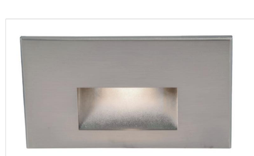
CCT INFO / LUMEN MULTIPLIER	
Color Temperature	Multiplier (reference-3000K)
2400K	1.00
2700K	1.01
3000K	1.00
3500K	1.08
4000K	1.04

Ordering Code

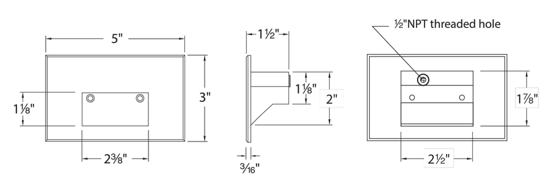
MODEL	CCT	SECTION START	SECTION END	LENGTH
KBL-F-V	24K	EPF	EC	
KBL-F-V - Kurba Large, flat vertical	24K - 2400K 27K - 2700K 30K - 3000K 35K - 3500K 40K - 4000K	EPF - End power feed (9' wire lead) EC - End cap IEPF - Injection Moulding End power feed (9' wire lead) IBPF - Injection Moulding Bottom power feed (9' wire lead) ISPF - Injection Moulding Side power feed (9' wire lead) IEC - Injection Moulding End cap	EPF - End power feed (9' wire lead) EC - End cap IEPF - Injection Moulding End power feed (9' wire lead) IBPF - Injection Moulding Bottom power feed (9' wire lead) ISPF - Injection Moulding Side power feed (9' wire lead) IEC - Injection Moulding End cap	view table above for ordering increment, for additional information reference page3

Model: WL-LED100
LEDme® Step Light

WAC LIGHTING
Responsible Lighting®



Fixture Type:
Catalog Number: TYPE: F6
Project:
Location:



PRODUCT DESCRIPTION
Horizontal rectangle LEDme® Step Light. Designed for safety and style on stairways, patios, decks, balcony areas, walkways and building perimeters.

Features an architectural design. Energy efficient for long-lasting indoor and outdoor lighting solutions. Creates an attractive, romantic impression at night.

FEATURES
- Solid diecast brass, corrosion resistant aluminum alloy, or cast stainless steel construction
- Direct wiring, no driver needed
- Low profile, flush to wall aesthetics with no visible hardware
- 54,000 hour rated life
- Balanced lighting, free of shadows with minimum glare
- IP66 rated, Protected against high-pressure water jets
- Up to 200 fixtures can be connected in parallel
- 5 year WAC Lighting product warranty

SPECIFICATIONS
Construction: Die-cast aluminum or 316 marine grade cast stainless steel
Power: Direct wiring, no remote driver needed. Input voltage: 120V or 277VAC 50/60Hz
Light Source: 3000K CCT Samsung HV-AC High Power LED, CRI: 90 Optional color lenses. Total power consumption of 3.5W
Mounting: Fits into 2" × 4" J-Box with minimum inside dimensions of 3"L × 2"W × 2"H Includes bracket for J-Box mount.
Dimming: Dim to 10% with electronic low voltage (ELV) dimmer Approved dimmers: Lutron Nova-T NTELV-300 & NTELV-600, Lutron Vietri VTELV-600, Lutron Diva DVELV-300P, Lutron Skylark SELV-300P, Lutron Maestro MAELV-600
Standards: IP66, UL & cUL Listed for wet locations, Title 24 JA8-2016 Compliant.

ORDER NUMBER

Model #	Light Color	Finish
WL-LED100 120V WL-LED100F 277V	C White 3000K AM Amber 610nm RD Red 640nm BL Blue 450nm	BK Black on Aluminum BN* Brushed Nickel on Aluminum BZ Bronze on Aluminum GH Graphite on Aluminum SS Stainless Steel WT White on Aluminum
WL-LED100 120V	C White 3000K AM Amber 610nm	BBR Bronze on brass

*Brushed Nickel Finish is for interior use only

____ – ____ – ____

Example: **WL-LED100F-BL-SS**

GATE LED BOLLARD/PATH
6651

WAC
LANDSCAPE LIGHTING

Shown without plate
Shown with plate

Fixture Type:
Catalog Number: TYPE: F7
Project:
Location:

PRODUCT DESCRIPTION
Sleek linear design blends seamlessly into pathways while providing soft, even illumination

SPECIFICATIONS
Input: 9-15VAC (Transformer is required)
Power: 7W / 7.5VA
Brightness: Up to 115 lm
CRI: 90
Rated Life: 60,000 hours

FEATURES
- IP66 rated, Protected against powerful water jets
- Factory sealed water tight fixtures
- Corrosion resistant aluminum alloy
- Recommended spacing for installation: Residential: 7 to 9ft; Commercial: 5 to 7ft
- Mounting stake, 6 foot lead wire, and detachable back plate included
- UL & cUL 1838 Listed

Mounting accessory included

ORDERING NUMBER

	Color Temp	Finish
6651 Canopy	27 2700K Warm White 30 3000K Pure White	BZ Bronze on Aluminum BK Black on Aluminum

6651-____BK

Example: **6651-30BK**

APPROVED BY THE PLANNING BOARD
TOWNSHIP OF SOUTH ORANGE VILLAGE

PLANNING BOARD CHAIRPERSON DATE

PLANNING BOARD SECRETARY DATE

TOWNSHIP ENGINEER DATE

APPROVED BY THE COUNTY PLANNING BOARD
COUNTY OF ESSEX, NEW JERSEY

PLANNING BOARD CHAIRPERSON DATE

Clarke Caton Hintz
Architecture
Planning
Landscape Architecture
100 Barrack Street
Trenton, NJ 08608
Tel: 609 883 8383
Fax: 609 883 4044
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CLIENT:
SETON HALL UNIVERSITY
400 SOUTH ORANGE AVE.
SOUTH ORANGE, NJ 07079

SUBMISSIONS

NO.	DATE	DESCRIPTION
1	12/18/2020	PLANNING BOARD SUBMISSION

REVISIONS

ARCHITECT
NJ LICENSE NO. 21AI01300200
GEORGE M. HIBBS, AIA
DATE 12/18/2020

UNIVERSITY CENTER
ADDITION AND RENOVATIONS
SETON HALL UNIVERSITY

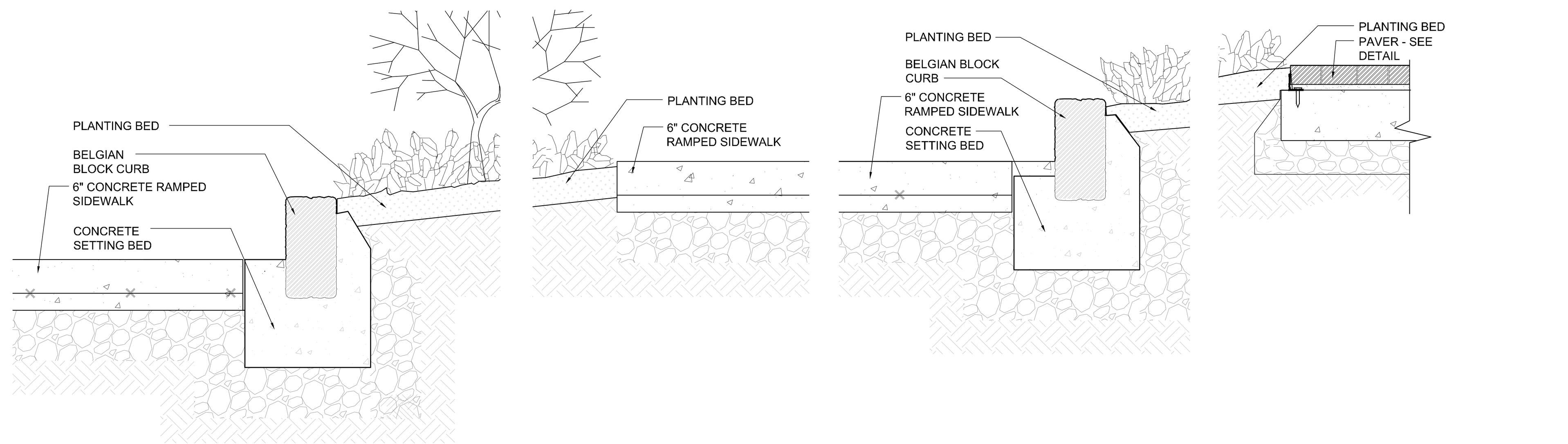
400 SOUTH ORANGE AVE.
BLOCK 901 LOT 3
SOUTH ORANGE, NJ 07079

DATE:	12/18/2020
SCALE:	AS NOTED
DRAWN BY:	SD, MG, GV, MM
CHECKED BY:	GH

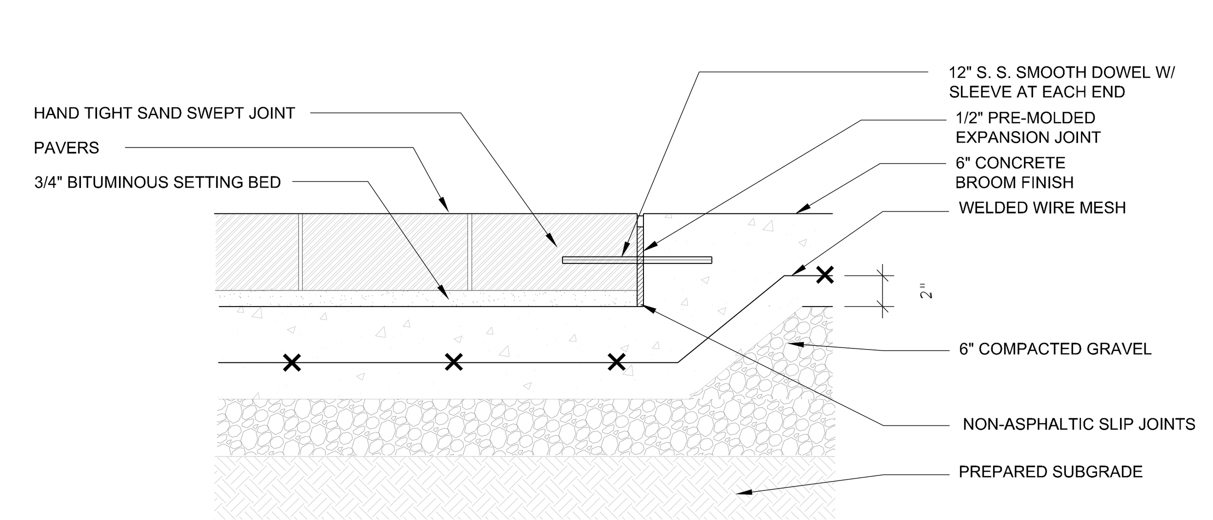
SHEET TITLE:
SITE LIGHTING

DRAWING NO.:
A-302

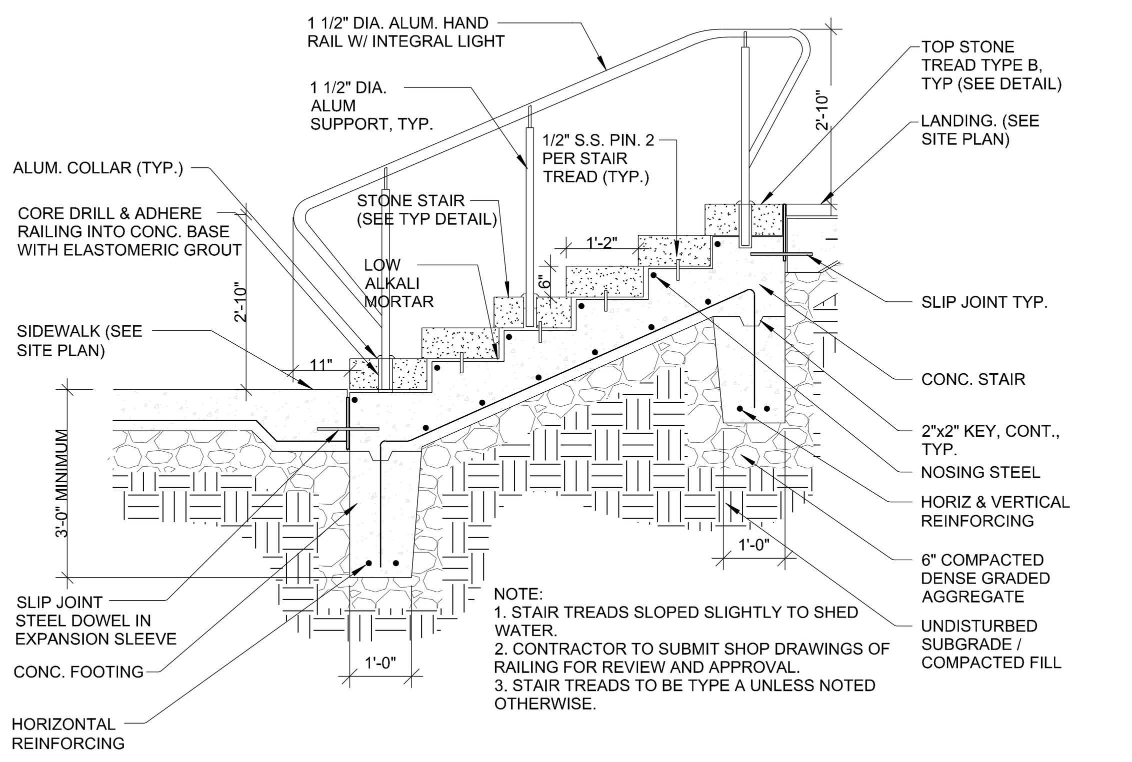
CCH PROJECT NO: 2174



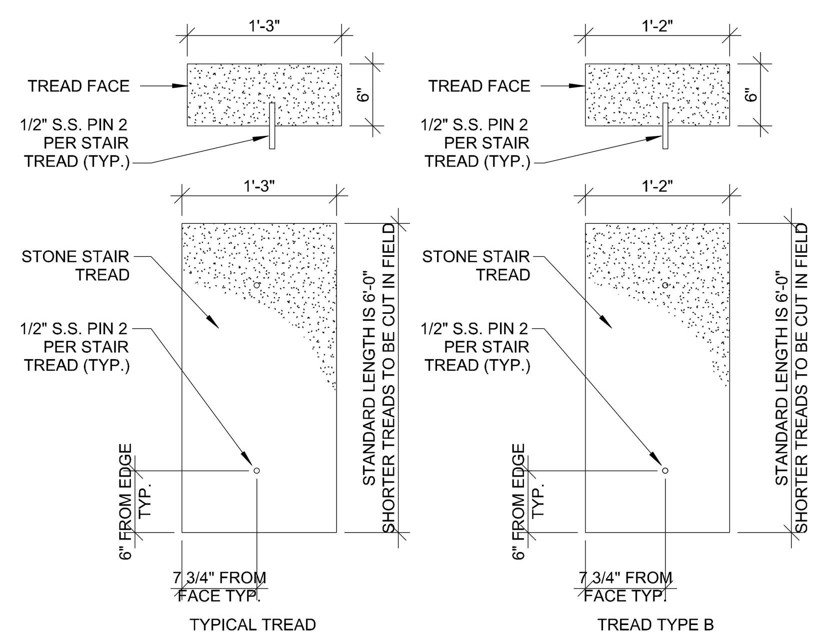
P20 CURB DETAIL
1" = 1'-0"



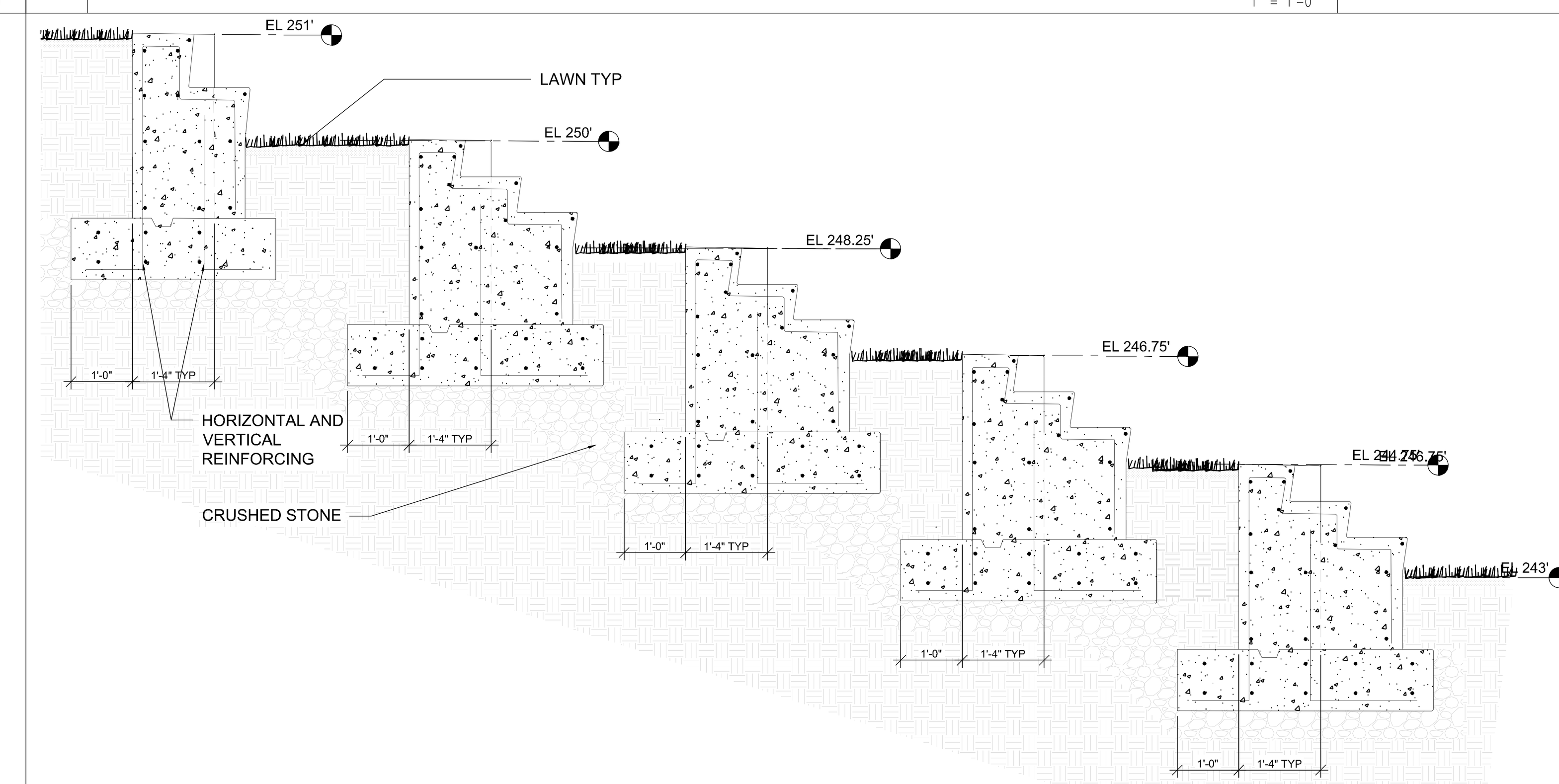
P11 PAVER/CONCRETE JOINT DETAIL
1" = 1'-0"



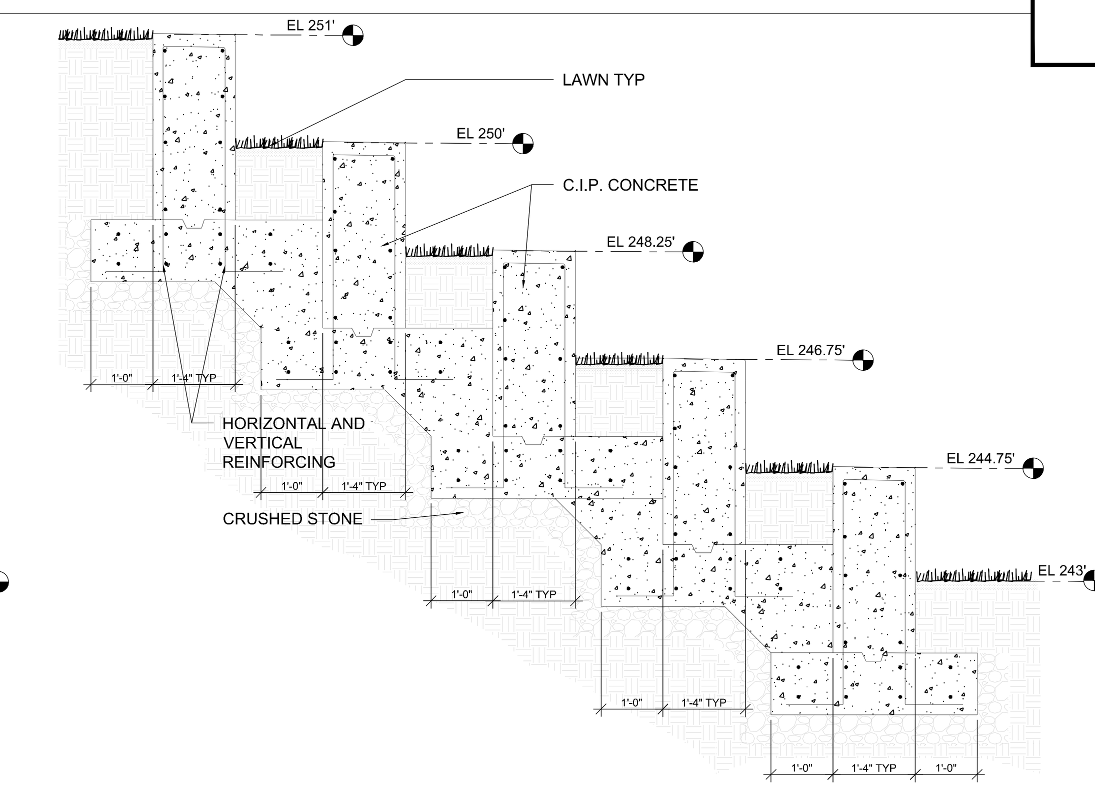
K20 TYPICAL STAIR DETAIL
1" = 1'-0"



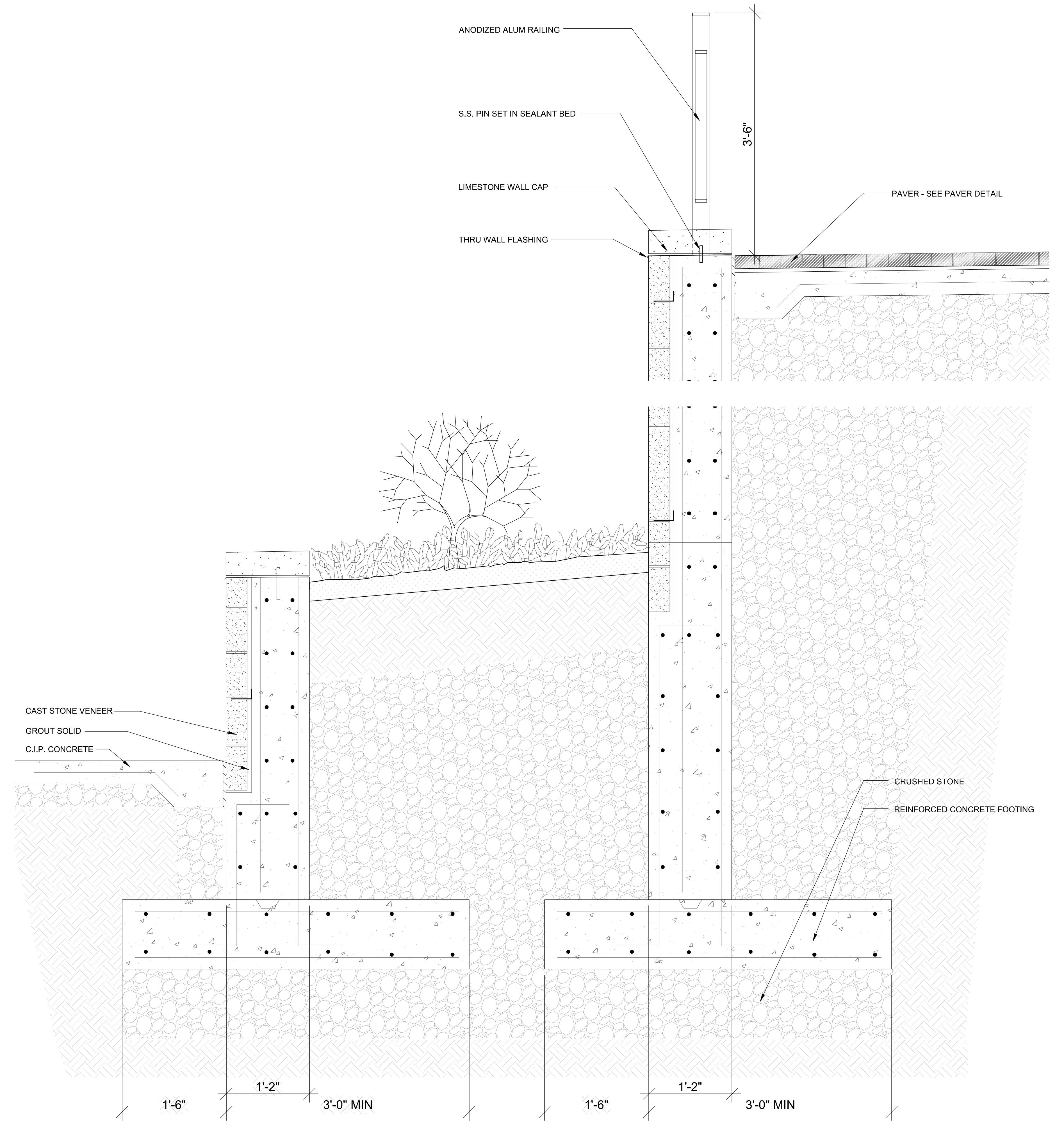
K15 STAIR TREAD DETAIL
1" = 1'-0"



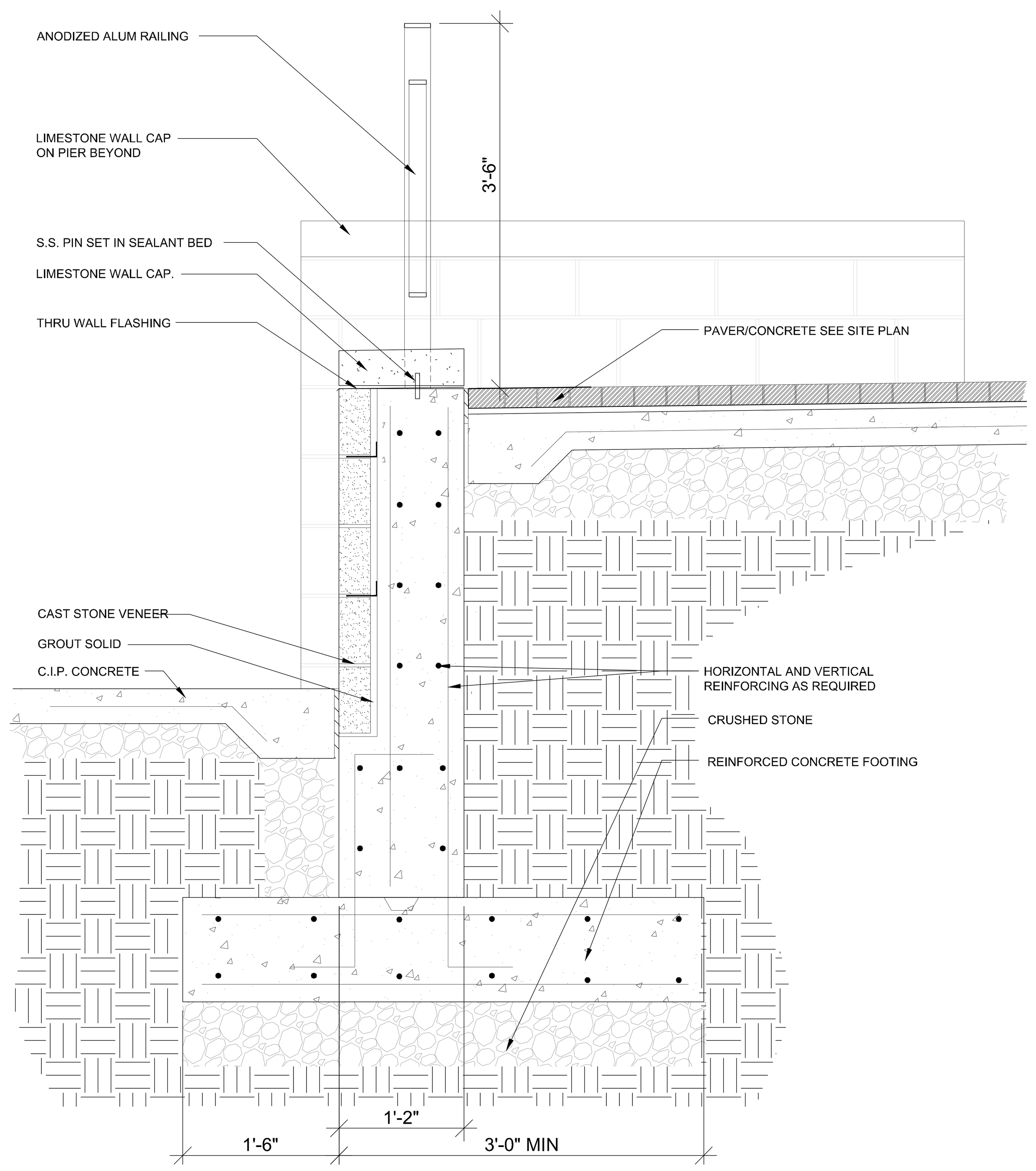
K11 AMPITHEATER STAIR DETAIL
1/2" = 1'-0"



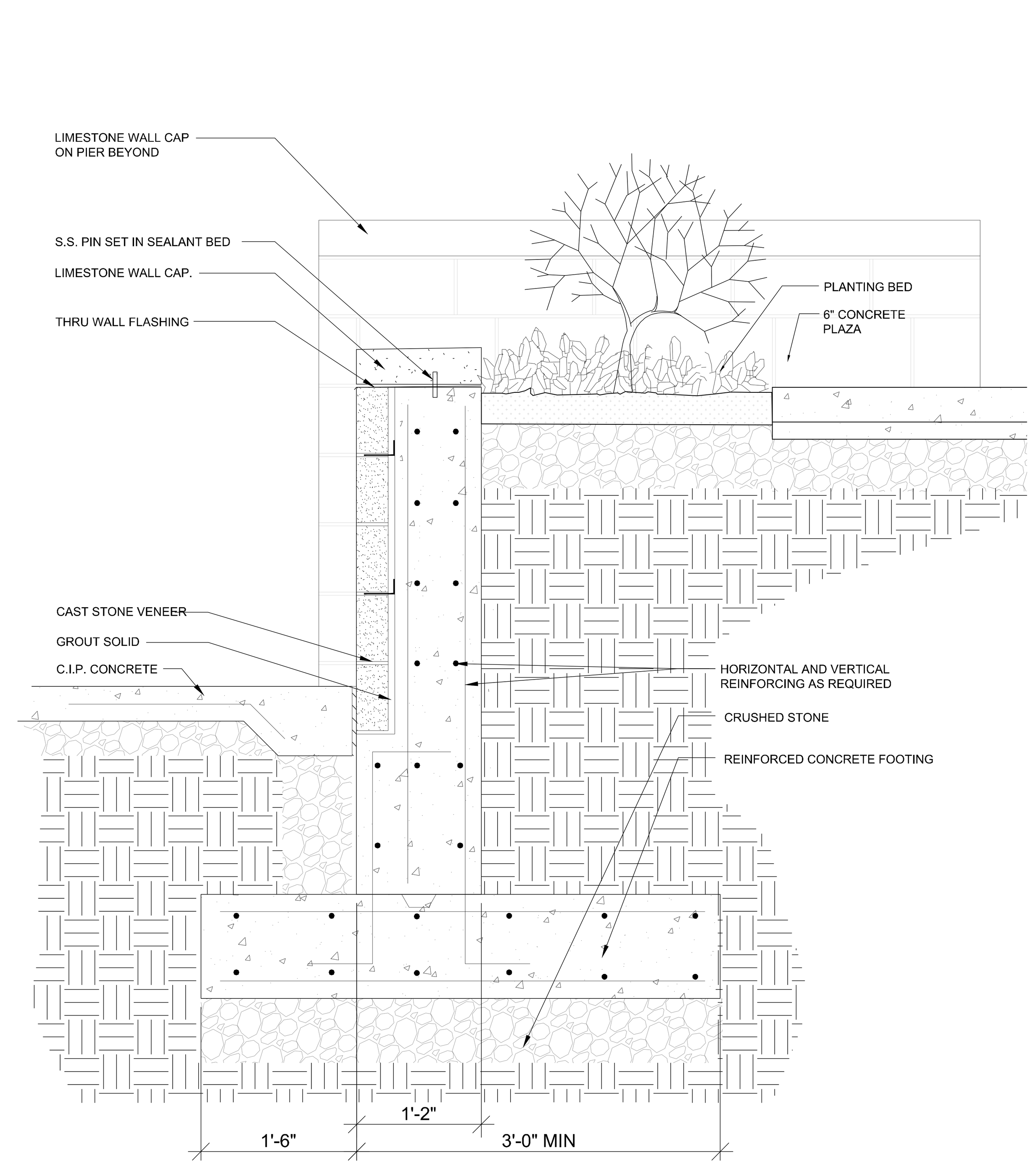
K4 AMPITHEATER DETAIL
1/2" = 1'-0"



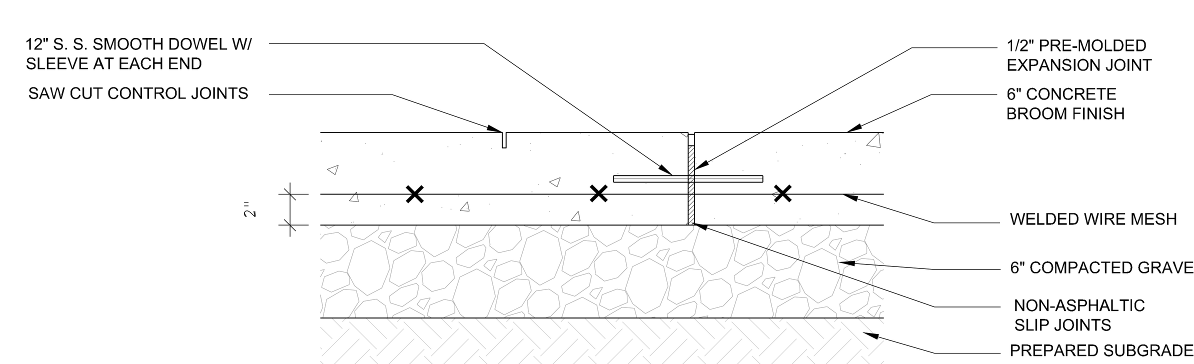
A20 RETAINING WALL DETAIL
1" = 1'-0"



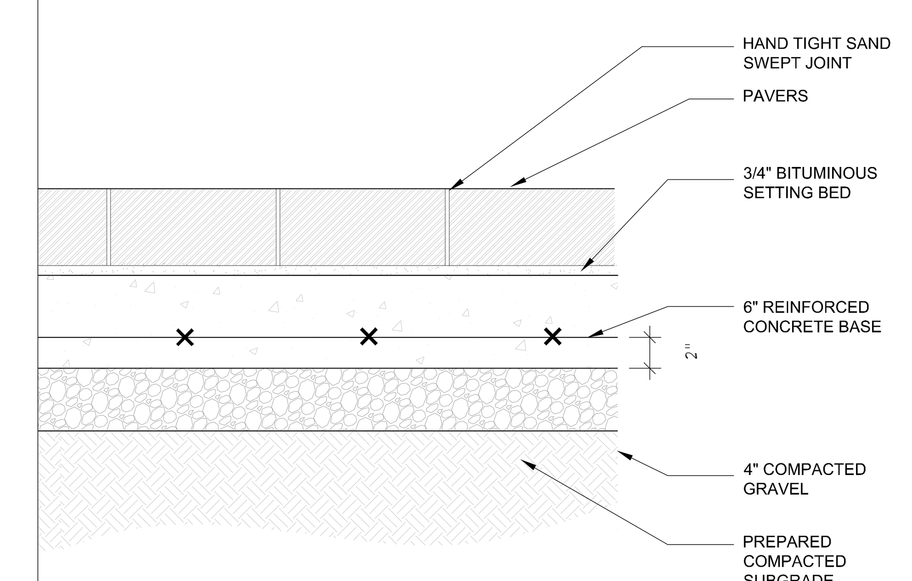
D11 SITE WALL DETAIL AT PAVING
1" = 1'-0"



D6 SITE WALL DETAIL AT PLANTER
1" = 1'-0"



A11 CONCRETE SIDEWALK DETAIL
1" = 1'-0"



A6 PAVER DETAIL
1" = 1'-0"

APPROVED BY THE PLANNING BOARD
TOWNSHIP OF SOUTH ORANGE VILLAGE

PLANNING BOARD CHAIRPERSON	DATE
PLANNING BOARD SECRETARY	DATE
TOWNSHIP ENGINEER	DATE

APPROVED BY THE COUNTY PLANNING BOARD
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NJ LICENSE NO 21AI01300200
GEORGE M. HIBBS, AIA
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UNIVERSITY CENTER ADDITION AND RENOVATIONS SETON HALL UNIVERSITY

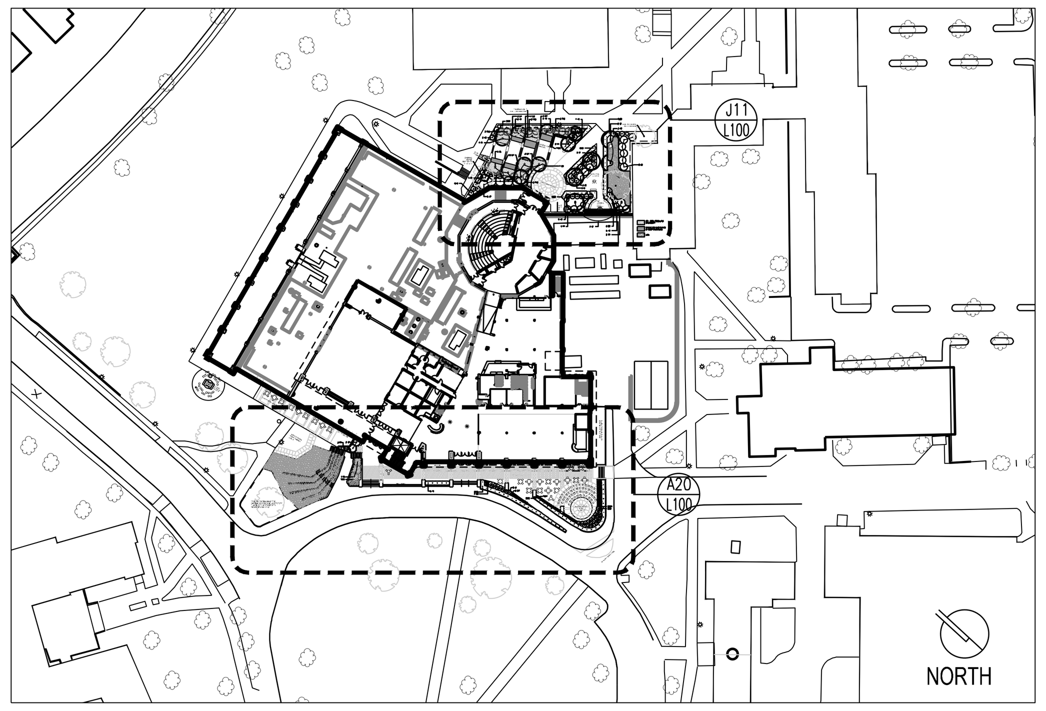
400 SOUTH ORANGE AVE.
BLOCK 901 LOT 3
SOUTH ORANGE, NJ 07079

DATE:	12/18/2020
SCALE:	AS NOTED
DRAWN BY:	SD, MG, GV, MM
CHECKED BY:	GH

SHEET TITLE:
SITE DETAILS

DRAWING NO.:
A-401

CCH PROJECT NO: 2174



1.0 GENERAL NOTES

1.1 EXISTING AND PROPOSED CONDITIONS SHOWN HEREON BASED ON DRAWINGS BY THE ENGINEER.

1.2 THESE DRAWING ARE TO BE USED FOR PLANTING PURPOSES ONLY. REFER TO APPROPRIATE DRAWINGS AND SPECS AS NOTED FOR ADDITIONAL PROJECT INFORMATION.

1.4 UTILITIES: THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS, WITH THE OWNER AND NOTIFY THE LOCAL UTILITY LOCATION COMPANY OF THE PROPOSED CONSTRUCTION. IN ADDITION, THE CONTRACTOR IS TO BE NOTIFIED WHICH UTILITIES, INCLUDING STORM AND SANITARY SEWERS ARE LOCATED IN THE VICINITY OF THE PROPOSED WORK. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING AND STAKING THE LOCATION OF ALL EXISTING UTILITIES AND PROTECTING THEM DURING THE WORK AND SHALL BEAR ANY COSTS TO REPAIR UTILITIES DAMAGED AS A CONSEQUENCE OF HIS WORK.

1.5 REQUIREMENTS: ALL WORK SHALL MEET OR EXCEED THE REQUIREMENTS OF ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS, ORDINANCES AND REQUIREMENTS.

1.6 PROTECTION OF EXISTING WORK: IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM ALL WORK IN A MANNER THAT PROTECTS COMPLETED WORK BY OTHERS, SUCH AS WALKS, CURBS, UTILITIES, STORM DRAINAGE, FENCES, DRIVEWAY APRONS, DRIVES, VEGETATION, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF SATISFACTORY REPAIR OF ALL DAMAGE IN KIND RESULTING FROM HIS FAILURE TO COMPLY.

1.7 SEE SHEETS L200 AND L201 FOR ADDITIONAL PLANTING REQUIREMENTS AND SPECIFICATIONS

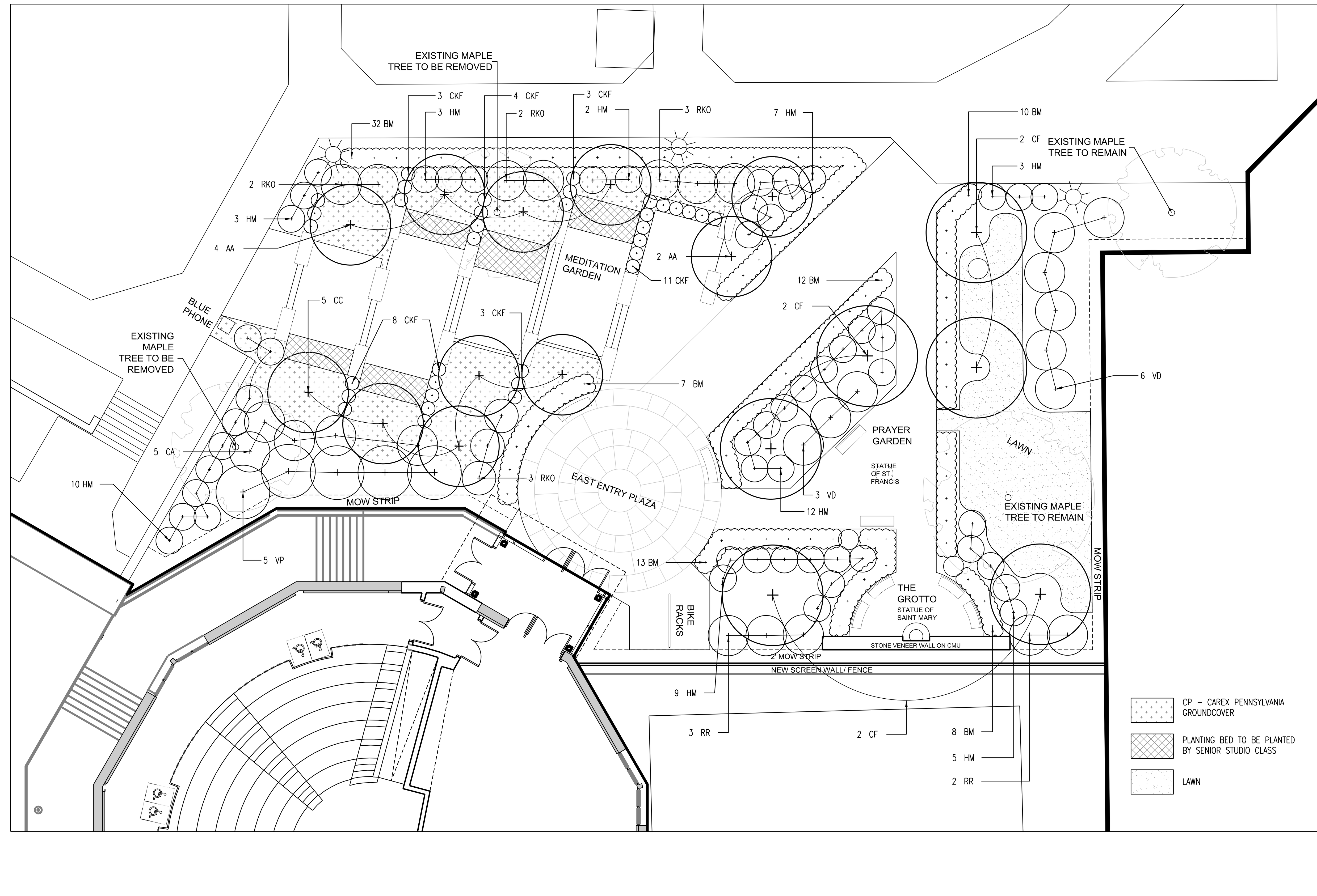
N20 PLANTING PLAN - KEY MAP & GENERAL NOTES

SCALE: 1" = 10'-0"

PLANT SCHEDULE

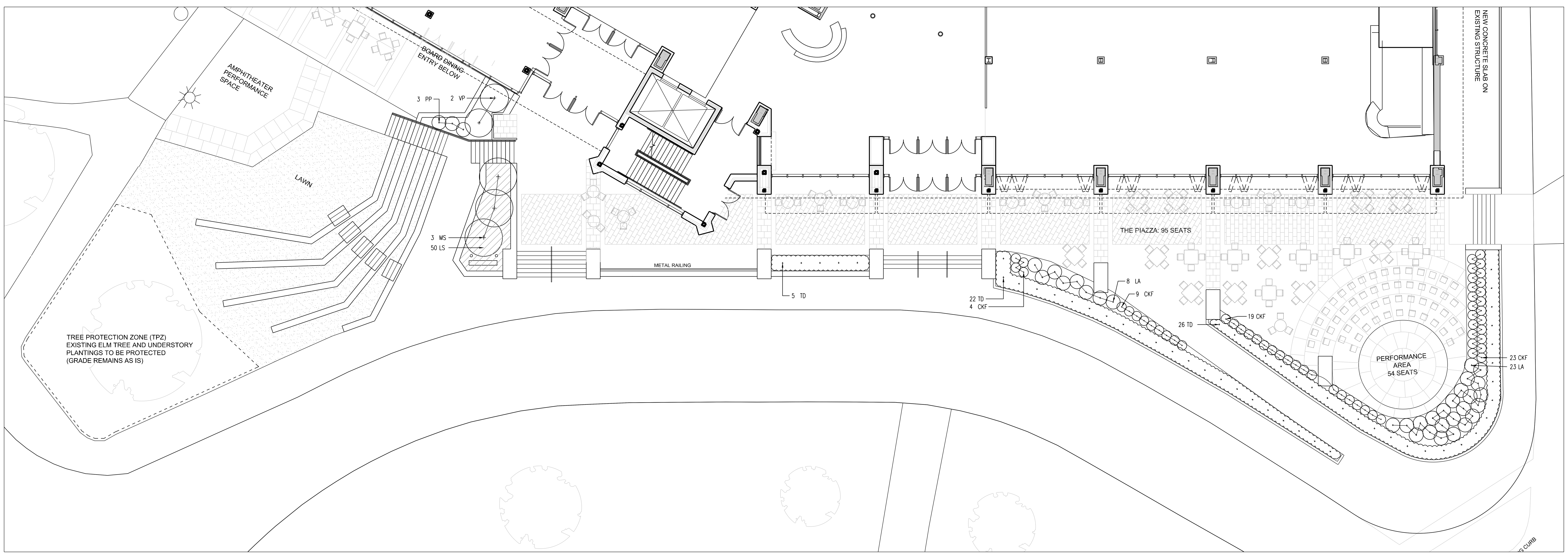
SYMB	QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	ROOT	COMMENTS	MATURE SIZE
Ornamental/Small Trees							
AA	6	Amelanchier 'Autumn Brilliance'	Apple Serviceberry	7'-8'	B&B	Clump form	15'-20' Spread, 20'-25' Height
CC	4	Cercis canadensis	Eastern Redbud	7'-8'	B&B	Clump form	20'- 30' Spread and Height
CF	6	Cornus florida	White Flowering Dogwood	2-2.5" CAL.	B&B	Tree form	15'-30' Spread and Height
MS	3	Magnolia stellata 'Royal Star'	Royal Star Magnolia	5'-6'	B&B	Clump form	8'-15' Spread, 10'-20; Height
Shrubs							
HM	44	Hydrangea macrophylla 'All Summer Beauty'	All Summer Beauty Hydrangea	24"-30"	CONT.	Full Plants	4'-5' Spread, 3-4' Height
CA	5	Clethera alnifolia	Sweet Pepperbush	5'-6'	B&B	Full Plants	4'-6' Spread, 5-8' Height
RKO	7	Rosa Knockout	Double Knockout Roses	24-30"	CONT.	Full Plants, Red Flowers	3'-4' Spread and Height
RR	5	Rhododendron roseum elegans	Roseum Elegans Rhododendron	24-30"	CONT.	Full Plants	6'-8' Spread and Height
VD	9	Viburnum dentatum 'Chicago Lustre'	Chicago Lustre Arrowwood Viburnum	4'-5'	B&B	Full Plants	10-12' Spread and Height
VP	7	Viburnum pragnese	Prague Viburnum	4'-5'	B&B	Full Plants	10-12' Spread and Height
Evergreen Shrubs							
BM	82	Buxus microphylla var. jap. 'Winter Green'	Winter Green Boxwood	22"-24"	CONT.	Full Plants	Maintain at 3' spread and height hedge
PM	3	Picea pungens 'Montgomery'	Montgomery Blue Spruce	18-24"	CONT.	Full Plants	2'-3' Height
TD	53	Taxus x media 'Densiformis'	Densiformis Yew	18-24"	CONT.	Full Plants	Maintain at 36" spread and height hedge
Herbaceous/Perennials/Grasses							
CKF	87	Calamagrostis x acutiflora 'Karl Foerster'	Karl Foerseter Feather Reed Grass	1 GAL.	CONT.	Full Plants	2' spread, 3'-4' Height
LA	31	Lavandula x intermedia 'Phenomenal'	Phenomenal Lavendar	12"-18"	CONT.	Full Plants	2'-3' Spread. 3'- 4' Height
LS	50	Liriope spicata	Varigated Lilyturf	1 GAL.	CONT.	12' O.C. SPACING, Full Plants	1'-2' Spread, 9"-18" Height
CP	1200	Carex pennsylvanica	Pennsylvania Sedge	PLUGS	CONT.	10" O.C. SPACING., Full Plants	12"-18" Spread, 8"-10" Height

J20 PLANTING SCHEDULE



J11 PLANTING PLAN - AREA 2

SCALE: 1" = 10'-0"



NORTH

A20 PLANTING PLAN - AREA 1

SCALE: 1" = 10'-0"

APPROVED BY THE PLANNING BOARD
TOWNSHIP OF SOUTH ORANGE VILLAGE

PLANNING BOARD CHAIRPERSON DATE

PLANNING BOARD SECRETARY DATE

TOWNSHIP ENGINEER DATE

APPROVED BY THE COUNTY PLANNING BOARD
COUNTY OF ESSEX, NEW JERSEY

PLANNING BOARD CHAIRPERSON DATE

Clarke Caton Hintz
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CLIENT:
SETON HALL UNIVERSITY
400 SOUTH ORANGE AVE.
SOUTH ORANGE, NJ 07079

SUBMISSIONS		
NO.	DATE	DESCRIPTION
1	12/18/2020	PLANNING BOARD SUBMISSION

REVISIONS

UNIVERSITY CENTER
ADDITION AND RENOVATIONS
SETON HALL UNIVERSITY
400 SOUTH ORANGE AVE.
BLOCK 901 LOT 3
SOUTH ORANGE, NJ 07079

DATE:	12/18/2020
SCALE:	AS NOTED
DRAWN BY:	SD, MG, GV, MM
CHECKED BY:	GH

SHEET TITLE:
PLANTING PLAN AND PLANT LIST

DRAWING NO.:
L-100

CCH PROJECT NO: 2174

1.0 GENERAL LANDSCAPE PLANTING NOTES

1. NAMES OF PLANTS AS DESCRIBED ON THIS PLAN CONFORM TO THOSE GIVEN IN "STANDARDIZED PLANT NAMES", 1942 EDITION, PREPARED BY THE AMERICAN JOINT COMMITTEE ON HORTICULTURAL NOMENCLATURE. NAMES OF PLANT VARIETIES NOT INCLUDED THEREIN CONFORM TO NAMES GENERALLY ACCEPTED IN NURSERY TRADE.
2. STANDARDS FOR TYPE, SPREAD, HEIGHT, ROOT BALL AND QUALITY OF NEW PLANT MATERIAL SHALL BE IN ACCORDANCE WITH GUIDELINES AS SET FORTH IN THE "AMERICAN STANDARD FOR NURSERY STOCK", PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION. PLANT MATERIAL SHALL HAVE NORMAL HABIT OF GROWTH AND BE HEALTHY, VIGOROUS, AND FREE FROM DISEASES AND INSECT INFESTATION.
3. NEW PLANT MATERIAL SHALL BE NURSERY GROWN UNLESS SPECIFIED OTHERWISE. ALL PLANTS SHALL BE SET PLUMB AND SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS THE PLANT'S ORIGINAL GRADE BEFORE DIGGING. PLANT MATERIAL OF THE SAME SPECIES AND SPECIFIED AS THE SAME SIZE SHOULD BE SIMILAR IN SHAPE, COLOR AND HABIT. THE LANDSCAPE ARCHITECT HAS THE RIGHT TO REJECT PLANT MATERIAL THAT DOES NOT CONFORM TO THE TYPICAL OR SPECIFIED HABIT OF THAT SPECIES. ALL TREES SHALL HAVE A STRAIGHT TRUNK AND FULL HEAD AND MEET ALL REQUIREMENTS SPECIFIED. ANY TREE THAT LOSES THE MAIN LEADER SHALL BE REPLACED.
4. THE BACKFILL MIXTURE AND SOIL MIXES TO BE INSTALLED PER THE SPECIFICATIONS.
5. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE SITE AND SUBGRADE DRAINAGE OR PERCOLATION CHARACTERISTICS, WHETHER THE SUBGRADE SOILS ARE EXISTING TO REMAIN OR IMPORTED AND PLACED. CONTRACTOR TO ENSURE POSITIVE VERTICAL DRAINAGE THROUGHOUT PLANTED AREAS. DISCREPANCIES SHALL BE ADDRESSED WITH THE PROJECT LANDSCAPE ARCHITECT PRIOR TO PURCHASING PLANT MATERIALS.
6. NO PLANT SHALL BE PUT INTO THE GROUND BEFORE FINISH GRADING HAS BEEN COMPLETED AND APPROVED BY THE PROJECT LANDSCAPE ARCHITECT OR PROJECT ENGINEER.
7. ALL PLANT INSTALLATIONS SHALL BE COMPLETED EITHER BETWEEN APRIL 1 – JUNE 15 OR AUGUST 15 – NOVEMBER 1, UNLESS OTHERWISE DIRECTED BY THE PROJECT LANDSCAPE ARCHITECT. SEE LAWN SEEDING DATES IN SEEDING NOTES.
8. ALL FENCE AND GUIDE RAIL INSTALLATIONS SHALL BE COMPLETED PRIOR TO COMMENCEMENT OF ANY LANDSCAPE PLANTING, LAWN AND GRASSES, OR IRRIGATION WORK.
9. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITY AND SEWER LINES AND SHALL AVOID DAMAGE TO ALL UTILITIES DURING THE COURSE OF CONSTRUCTION. NOTIFY THE PROJECT ENGINEER AND OWNER IMMEDIATELY OF ANY CONFLICTS WITH PROPOSED PLANTING LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE.
10. LOCATIONS OF EXISTING BURIED UTILITY LINES SHOWN ON THE PLANS ARE BASED UPON BEST AVAILABLE INFORMATION AND ARE TO BE CONSIDERED APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR 1) TO VERIFY THE LOCATIONS OF UTILITY LINES AND ADJACENT TO THE WORK AREA 2) TO PROTECT OF ALL UTILITY LINES DURING THE CONSTRUCTION PERIOD 3) TO REPAIR ANY AND ALL DAMAGE TO UTILITIES, STRUCTURES, SITE APPURTENANCES, ETC. WHICH OCCURS AS A RESULT OF THE CONSTRUCTION.
11. THE CONTRACTOR SHALL NOT MAKE SUBSTITUTIONS. IF THE SPECIFIED LANDSCAPE MATERIAL IS NOT OBTAINABLE, THE CONTRACTOR SHALL SUBMIT PROOF OF NON–AVAILABILITY TO THE LANDSCAPE ARCHITECT AND OWNER, TOGETHER WITH A WRITTEN PROPOSAL FOR USE OF AN EQUIVALENT MATERIAL.
12. LANDSCAPE CONTRACTOR TO STAKE OUT PLANTING LOCATIONS, FOR REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT AND/OR OWNER BEFORE PLANTING WORK BEGINS. THE LANDSCAPE ARCHITECT AND/OR OWNER SHALL DIRECT THE CONTRACTOR IN THE FINAL PLACEMENT OF ALL PLANT MATERIAL AND LOCATION OF PLANTING BEDS TO ENSURE COMPLIANCE WITH DESIGN INTENT UNLESS OTHERWISE INSTRUCTED.
13. ALL MATERIALS ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT BEFORE, DURING, AND AFTER INSTALLATION. THE LANDSCAPE ARCHITECT MAY REVIEW PLANT MATERIALS AT THE SITE FOR COMPLIANCE WITH REQUIREMENTS FOR GENUS, SPECIES, VARIETY, SIZE, AND QUALITY. THE LANDSCAPE ARCHITECT RETAINS THE RIGHT TO FURTHER REVIEW PLANT MATERIALS FOR SIZE AND CONDITION OF BALLS AND ROOT SYSTEM, INSECTS, INJURIES, AND LATENT DEFECTS, AND TO REJECT UNSATISFACTORY OR DEFECTIVE MATERIAL AT ANY TIME DURING PROGRESS OF WORK. THE CONTRACTOR SHALL REMOVE REJECTED PLANT MATERIALS IMMEDIATELY FROM PROJECT SITE AS DIRECTED BY THE LANDSCAPE ARCHITECT OR OWNER.
14. ALL PLANT MATERIAL SHALL BE HEALTHY, VIGOROUS, AND FREE OF PESTS AND DISEASE. ANY PLANT MATERIAL WHICH IS DISEASED, DISTRESSED, MISSING, 25% OR MORE DEAD, WHICH DO NOT DEVELOP FROM PLANTING STOCK, THAT APPEAR UNHEALTHY OR UNSIGHTLY AND/OR HAVE LOST THEIR NATURAL SHAPE DUE TO DEAD BRANCHES DEAD, OR REJECTED FOR ANY OTHER REASON (PRIOR TO SUBSTANTIAL COMPLETION) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE AND MEETING ALL PLANT LIST SPECIFICATIONS.
15. CONTRACTOR SHALL BE RESPONSIBLE FOR DELIVERY SCHEDULE AND PROTECTION BETWEEN DELIVERY AND PLANTING PER SPECIFICATIONS TO MAINTAIN HEALTHY PLANT CONDITIONS.
16. DELIVERY, STORAGE, AND HANDLING
    a. PACKAGED MATERIALS: PACKAGED MATERIALS SHALL BE DELIVERED IN CONTAINERS SHOWING WEIGHT, ANALYSIS, AND NAME OF MANUFACTURER. MATERIALS SHALL BE PROTECTED FROM DETERIORATION DURING DELIVERY, AND WHILE STORED AT SITE.
    b. TREES AND SHRUBS: THE CONTRACTOR SHALL PROVIDE TREES AND SHRUBS DUG FOR THE GROWING SEASON FOR WHICH THEY WILL BE PLANTED. DO NOT PRUNE PRIOR TO DELIVERY UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE ARCHITECT. DO NOT BEND OR BIND–TIE TREES OR SHRUBS IN SUCH A MANNER AS TO DAMAGE BARK, BREAK BRANCHES, OR DESTROY NATURAL SHAPE. PROVIDE PROTECTIVE COVERING DURING TRANSIT. DO NOT DROP BALLED AND BURLAPPED STOCK DURING DELIVERY OR HANDLING.
    c. ALL PLANTS SHALL BE BALLED AND BURLAPPED OR CONTAINER GROWN AS SPECIFIED. NO CONTAINER GROWN STOCK WILL BE ACCEPTED IF IT IS ROOT BOUND. ALL ROOTBALL WRAPPING AND BINDING MATERIAL MADE OF SYNTHETICS OR PLASTICS SHALL BE REMOVED FROM THE TOP OF THE BALL AT THE TIME OF PLANTING. IF THE PLANT IS SHIPPED WITH A WIRE BASKET AROUND THE ROOT BALL, THE WIRE BASKET SHALL BE CUT AND FOLDED DOWN 8 INCHES INTO THE PLANTING HOLE. WITH CONTAINER GROWN STOCK, THE CONTAINER SHALL BE REMOVED AND THE ROOT BALL SHALL BE CUT THROUGH THE SURFACE IN TWO LOCATIONS.
    d. THE CONTRACTOR SHALL HAVE TREES AND SHRUBS DELIVERED TO SITE AFTER PREPARATIONS FOR PLANTING HAVE BEEN COMPLETED AND PLANT IMMEDIATELY. IF PLANTING IS DELAYED MORE THAN 6 HOURS AFTER DELIVERY, THE CONTRACTOR SHALL SET TREES AND SHRUBS IN SHADE, PROTECT FROM WEATHER AND MECHANICAL DAMAGE AND KEEP ROOTS MOIST BY COVERING WITH MULCH, BURLAP OR OTHER ACCEPTABLE MEANS OF RETAINING MOISTURE.
17. ALL LANDSCAPED AREAS TO BE CLEARED OF ROCKS, STUMPS, TRASH AND OTHER UNSIGHTLY DEBRIS. ALL FINE GRADED AREAS SHOULD BE HAND RAKED SMOOTH ELIMINATING ANY CLUMPS AND UNEVEN SURFACES PRIOR TO PLANTING OR MULCHING.
18. ALL PLANT MATERIAL SHALL BE INSTALLED AS PER DETAILS, NOTES AND CONTRACT SPECIFICATIONS. THE LANDSCAPE ARCHITECT MAY REVIEW INSTALLATION AND MAINTENANCE PROCEDURES.
19. CONTRACTOR'S GUARANTEE: ALL PLANTINGS AND PLANTING AREAS SHALL BE PERMANENTLY MAINTAINED. NEW PLANT MATERIAL SHALL BE GUARANTEED TO BE ALIVE AND IN VIGOROUS GROWING CONDITION FOR A PERIOD OF TWO YEARS FOLLOWING ACCEPTANCE BY THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FULLY MAINTAINING (INCLUDING BUT NOT LIMITED TO: WATERING, PRUNING, SPRAYING, MULCHING, FERTILIZING, ETC.) ALL OF THE PLANT MATERIALS AND LAWN FOR THE DURATION OF THE GUARANTEED PERIOD. PLANT MATERIAL FOUND TO BE UNHEALTHY, DYING OR DEAD DURING THIS PERIOD, SHALL BE REMOVED AND REPLACED IN KIND BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.
20. THE CONTRACTOR SHALL KEEP AREA CLEAN DURING DELIVERY AND INSTALLATION OF PLANT MATERIALS. REMOVE AND DISPOSE OF OFF–SITE ANY ACCUMULATED DEBRIS OR UNUSED MATERIALS. REPAIR DAMAGE TO ADJACENT AREAS CAUSED BY LANDSCAPE INSTALLATION OPERATIONS.
21. ALL PLANTS SHALL BE WATERED THOROUGHLY TWICE DURING THE FIRST 24– HOUR PERIOD AFTER PLANTING. ALL PLANTS SHALL THEN BE WATERED WEEKLY OR AS REQUIRED BY SITE AND WEATHER CONDITIONS TO MAINTAIN VIGOROUS AND HEALTHY PLANT GROWTH.
22. AFTER PLANT IS PLACED IN TREE PIT LOCATION, ALL TWINE HOLDING ROOT BALL TOGETHER SHOULD BE COMPLETELY REMOVED AND THE BURLAP SHOULD BE PULLED DOWN SO 1/3 OF THE ROOT BALL IS EXPOSED. SYNTHETIC BURLAP SHOULD BE COMPLETELY REMOVED AFTER INSTALLATION.
23. ALL TREES MUST BE GUYED OR STAKED AS SHOWN IN THE DETAILS.
24. ALL EXPOSED GROUND SURFACES THAT ARE NOT PAVED WITHIN THE CONTRACT LIMIT LINE, AND THAT ARE NOT COVERED BY LANDSCAPE PLANTING OR SEEDING AS SPECIFIED, SHALL BE COVERED BY A NATURAL MULCH FROM A LOCAL SOURCE HARVESTED IN A SUSTAINABLE MANNER THAT WILL PREVENT SOIL EROSION AND THE EMANATION OF DUST. MULCH SHALL BE A FIBROUS SHREDDED HARDWOOD MULCH. MULCH SHOULD NOT BE PILED UP AROUND THE TRUNK OF ANY PLANT MATERIAL. NO MULCH OR TOPSOIL SHOULD BE TOUCHING THE BASE OF THE TRUNK ABOVE THE ROOT COLLAR.
25. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON THESE PLANS BEFORE PRICING THE WORK. FOR ANY DISCREPANCIES BETWEEN THE PLANT SCHEDULE AND PLANTING PLAN THE GRAPHIC QUANTITY SHOWN SHALL GOVERN.
26. LANDSCAPE PUNCH LIST SITE VISITS TO BE PERFORMED BY THE PROJECT LANDSCAPE ARCHITECT, IF UNDER CONTRACT FOR SUCH WORK, WILL NOT BE SCHEDULED UNTIL CONFIRMATION IS RECEIVED THAT ALL PROPOSED LANDSCAPE ITEMS HAVE BEEN INSTALLED, OR DEFICIENCIES NOTED IN THE PRIOR PUNCH LIST REPORT HAVE BEEN CORRECTED. THE PUNCH LIST SITE VISIT WILL THEN BE PERFORMED WITHIN 10 BUSINESS DAYS.

1.1 STANDARD ROOT BALL SIZES FOR NURSERY–GROWN SHADE TREES

DECIDUOUS TREES

CALIPER* (IN.)	HEIGHT RANGE	MAX. HEIGHT	MIN. BALL DIA. (IN.)	MIN. BALL DEPTH (IN.)
½"	5'–6'	8'	12"	9"
¾"	6'–8'	10'	14"	10 ½"
1"	8'–10'	11'	16"	12"
1 ¼"	8'–10'	12'	18"	13 ½"
1 ½"	10'–12'	14'	20"	13 ½"
1 ¾"	10'–12'	14'	22"	14 ½"
2"	12'–14'	16'	24"	16"
2 ½"	12'–14'	16'	28"	18 ½"
3"	14'–16'	18'	32"	19 ½"
3 ½"	14'–16'	18'	38"	23"
4"	16'–18'	22'	42"	25"
5"	18'–20'	26'	54"	32 ½"

MULTI–STEM TREES

HEIGHT	MIN. BALL DIA. (IN.)	MIN. BALL DEPTH (IN.)
4'	14"	10 ½"
5'	16"	12"
6'	18"	13 ½"
7'	20"	13 ½"
8'	22"	14 ½"
10'	24"	16"
12'	28"	18 ½"
14'	32"	21 ½"
16'	38"	25 ½"
18'	42"	28"
20'	48"	32"

CONIFEROUS TREES

HEIGHT	MIN. BALL DIA. (IN.)	MIN. BALL DEPTH (IN.)
4'	16"	12"
5'	20"	13 ½"
6'	22"	14 ½"
7'	24"	16"
8'	27"	18 ½"
10'	34"	21 ½"
12'	38"	25 ½"
14'	42"	28"
16'	46"	32"
18'	50"	33 ½ "

1. SEE AMERICAN STANDARD FOR NURSERY STOCK, ANSI Z60.1, FOR COMPLETE LIST OF NURSERY STANDARDS FOR OTHER TYPES AND SIZES OF TREES AND SHRUBS.

2. UP TO AND INCLUDING THE 4–IN. CALIPER SIZE, THE CALIPER MEASUREMENT INDICATES THE DIAMETER OF THE TRUNK 6 IN. ABOVE GROUND LEVEL. FOR LARGER SIZES, THE CALIPER MEASUREMENT IS TAKEN 12 IN. ABOVE GROUND LEVEL.

1.2 TREE ROOT FLARE DIAGRAM

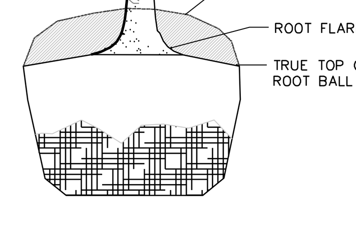
1. PRIOR TO DIGGING TREE AT NURSERY LOCATE THE ROOT FLARE. THIS WILL ALLOW FOR PROPER ROOT BALL SIZING BEFORE DIGGING.

2. PRIOR TO PLANTING, VERIFY THE TOP ELEVATION OF THE TRUE ROOT BALL BY REMOVING BURLAP. IF ALIEN SOIL IS PRESENT REMOVE UNTIL THE ROOT FLARE IS EXPOSED.

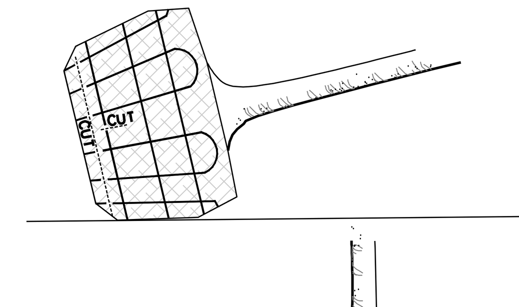
3. AT THIS TIME ANY GIRDLING OR CIRCLING ROOTS SHOULD BE REMOVED. EXCESSIVE GIRDLING OR CIRCLING ROOTS WILL CAUSE THE TREE TO BE REJECTED.

4. ONCE SOIL IS REMOVED RETIE DRUM LACING. IF BASKET IS PRESENT, RETIE TO BASKET.

5. IF TO MUCH SOIL IS REMOVE IN THE FIELD THE ROOT BALL IS EFFECTIVELY UNDERSIZED AND WILL BE REJECTED.



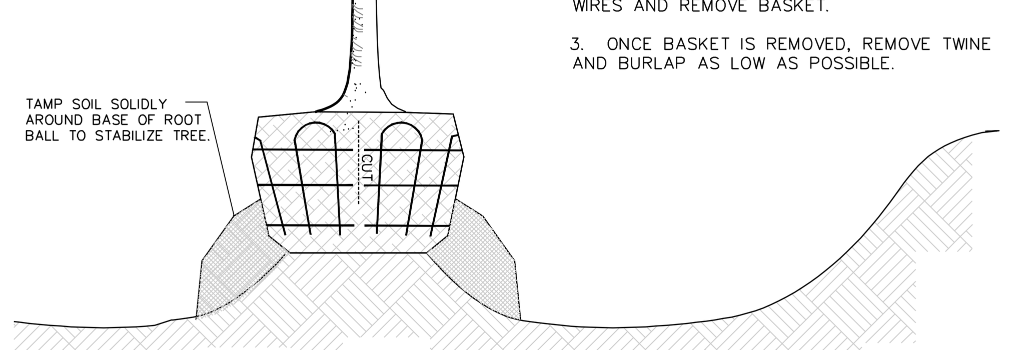
1.3 REMOVAL OF WIRE BASKETS (if present)



1. LAY TREE ON SIDE TO ACCESS BOTTOM OF TREE. CUT OFF THE BOTTOM OF THE BASKET AND REMOVE. CUT THE LOWEST HORIZONTAL WIRE OF BASKET <u>ONLY</u>. THIS MAY NOT BE ACCESSIBLE AFTER TREE IS IN THE PLANTING HOLE.

2. SIT TREE IN PLANTING HOLE ON UNDISTURBED SOIL, STRAIGHTEN AND STABILIZE. CUT THE REMAINING HORIZONTAL WIRES AND REMOVE BASKET.

3. ONCE BASKET IS REMOVED, REMOVE TWINE AND BURLAP AS LOW AS POSSIBLE.



1.4 PLANTING SOIL SPECIFICATIONS

1. PLANTING SOIL SHOULD BE FRIABLE, FERTILE, WELL DRAINED, FREE OF DEBRIS, TOXINS, TRASH AND STONES OVER 1/2" DIA., IT SHOULD HAVE A HIGH ORGANIC CONTENT SUITABLE TO SUSTAIN HEALTHY PLANT GROWTH AND SHOULD LOOK AESTHETICALLY PLEASING HAVING NO NOXIOUS ODORS.
2. <u>PLANTING SOIL:</u>
   CONTRACTOR SHALL TEST SOILS AND FURNISH SAMPLES UPON REQUEST. PACKAGED MATERIALS SHALL BE UNOPENED BAGS OR CONTAINERS, EACH BEARING A NAME, GUARANTEE, AND TRADEMARK OF THE PRODUCER, MATERIAL COMPOSITION, MANUFACTURER'S CERTIFIED ANALYSIS, AND THE WEIGHT OF THE MATERIALS. SOIL OR AMENDMENT MATERIALS SHALL BE STORED ON SITE TEMPORARILY IN STOCKPILES PRIOR TO PLACEMENT AND SHALL BE PROTECTED FROM INTRUSION OF CONTAMINANTS AND EROSION. AFTER MIXING, SOIL MATERIALS SHALL BE COVERED WITH A TARPAULIN UNTIL TIME OF ACTUAL USE.
   A. THE FOLLOWING TESTING SHOULD BE PERFORMED AND RESULTS GIVEN TO THE LANDSCAPE ARCHITECT FOR APPROVAL BEFORE INSTALLATION:
      a. PARTICLE SIZE ANALYSIS –LOAMY SAND: 70–85% SAND, 15–30% SILT AND CLAY
      b. FERTILITY ANALYSIS: PH (5.5–6.5), SOLUBLE SALTS (LESS THAN 2 MMHO/CM), NITRATE, PHOSPHATE, POTASSIUM, CALCIUM AND MAGNESIUM
      c. ORGANIC MATTER CONTENT: 7–10%
      d. TOXIC SUBSTANCE ANALYSIS
      e. MATERIAL DRAINAGE RATE: 60% PASSING IN 2 MINUTES, 40% RETAINED
3. <u>SOIL AMENDMENT FOR PLANT MATERIAL:</u>
   A. ORGANIC MATTER AS A SOIL AMENDMENT: LEAF MOLD WITH 60–90% ORGANIC CONTENT BY WEIGHT. SHREDDED LEAF LITTER, COMPOSTED FOR A MINIMUM OF 1 YR. SHOULD BE FREE OF DEBRIS, STONES OVER 1/2", WOOD CHIPS OVER 1".
   B. SOIL IN BEDS AND PLANTING ISLANDS OTHER THAN BACKFILL MATERIAL AND TOPSOIL, SHOULD BE FRIABLE, WELL DRAINED, AND FREE OF DEBRIS, INCLUDING STONES AND TRASH.
   C. AMENDMENTS FOR BACK FILL IN TREE AND SHRUB PITS:
      a. GROUND LIMESTONE (WITH A MIN. OF 88% OF CALCIUM AND MAGNESIUM CARBONATES) USED PENDING RESULTS OF SOIL ANALYSIS.
         1. BRING PH LEVELS TO 5.5 MIN. TO 6.5 FOR NON–ERICACEOUS PLANTS
         2. BRING PH LEVELS TO 4.5 MIN. TO 5.5 FOR ERICACEOUS PLANTS
      b. TERRA–SORB BY 'PLANT HEALTH CARE' 800–421–9051 (SEE MANUFACTURER RECOMMENDATIONS) USED IN PLANTER BACKFILL MIXTURE WITH TREES AND SHRUBS.
      c. MYCOR–ROOT SAVER BY 'PLANT HEALTH CARE' 800–421–9051 (SEE MANUFACTURER RECOMMENDATIONS) USED IN BACKFILL MIXTURE WITH TREES.
4. <u>CLEAN SOIL FILL IN LANDSCAPE AREAS:</u>
   LANDSCAPE FILL MATERIAL, BELOW PLANTING SOILS, SHALL HAVE THE PHYSICAL PROPERTIES OF A SANDY LOAM WITH AN ORGANIC CONTENT OF LESS THAN 2% AND A PH BETWEEN 5– 7.
5. <u>SOIL PLACEMENT:</u>
   A. CONTRACTOR TO PROVIDE SIX INCHES (6") MINIMUM DEPTH PLANTING SOIL LAYER IN LAWN AREAS, TWELVE INCHES (12") MINIMUM DEPTH PLANTING SOIL LAYER IN GROUNDCOVER AND PERENNIAL AREAS, EIGHTEEN INCHES (18") MINIMUM DEPTH PLANTING SOIL LAYER IN SHRUB AREAS, AND THIRTY–SIX INCHES (36") MINIMUM DEPTH PLANTING SOIL LAYER IN TREE PLANTING AREAS. PLANTING SOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN SIX INCH (6") LIFTS UNTIL FULL DEPTHS ARE ACHIEVED AS DESCRIBED ABOVE.
   B. PLANTING SOIL PRESENT AT THE SITE, IF ANY, MAY BE USED TO SUPPLEMENT TOTAL AMOUNT REQUIRED. CONTRACTOR TO FURNISH AN ANALYSIS OF ON–SITE PLANTING SOIL UTILIZED IN ALL PLANTING AREAS.
6. <u>SOIL CONDITIONING:</u>
   A. ADJUST PH AND NUTRIENT LEVELS AS REQUIRED TO ENSURE AN ACCEPTABLE GROWING MEDIUM. LOWER PH USING ELEMENTAL SULFUR ONLY. PEAT MOSS OR COPPER SULFATE MAY NOT BE USED. GROUND LIMESTONE AS A SOIL AMENDMENT MATERIAL WILL ONLY BE USED PENDING RESULTS OF SOIL ANALYSIS. PROVIDE WITH MINIMUM 88% CALCIUM AND MAGNESIUM CARBONATES AND SHALL HAVE TOTAL 100% PASSING THE 10 MESH SIEVE, MINIMUM 90% PASSING 20 MESH SIEVE, AND MINIMUM 60% PASSING 100 MESH SIEVE.
   B. ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF AT THE CONTRACTOR'S EXPENSE.
   C. SOIL MODIFICATIONS (PENDING RESULTS OF SOIL ANALYSIS):
      a. THOROUGHLY TILL ORGANIC MATTER (LEAF COMPOST) INTO THE TOP 6 TO 12 IN. OF MOST PLANTING SOILS TO IMPROVE THE SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A PH HIGHER THAN 7.0. PEAT MOSS MAY NOT BE USED AS ORGANIC MATTER AMENDMENT.
      b. MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR GYPSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX. IMPROVE DRAINAGE IN HEAVY SOILS BY PLANTING ON RAISED MOUNDS OR BEDS AND INCLUDING SUBSURFACE DRAINAGE LINES.
      c. MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.

1.5 LAWN SEED MIX

1. PRIOR TO SEEDING, AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED OF ALL DEBRIS LARGER THAN 1/2" DIAMETER.
2. PRIOR TO SEEDING, CONSULT MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.
3. SEEDING RATEAT220 POUNDS PER ACRE:
   a. 20% PERENNIAL RYEGRASS
   b. 20% SPREADING FESCUE
   c. 30% KENTUCKY BLUEGRASS
   d. 30% RED FESCUE
4. SEEDING DATES FOR THIS MIXTURE SHALL BE BETWEEN MARCH 15TH TO MAY 15TH OR AUGUST 15TH TO OCTOBER 30TH.
5. GERMINATION RATES WILL VARY AS TO TIME OF YEAR FOR SOWING. CONTRACTOR TO IRRIGATE SEEDED AREA UNTIL A STAND OF COVER IS ESTABLISHED AND FOUND ACCEPTABLE TO THE OWNER. SEE LAWN WATERING SCHEDULE NOTES.

1.6 LAWN WATERING SCHEDULE (SEED)

THE FOLLOWING WATERING SCHEDULE COVERS ROUGHLY 8 WEEKS TO ESTABLISH A HEALTHY STAND OF GRASS FROM SEED. THE CONTRACTOR SHALL BE OBLIGATED TO ENSURE A HEALTHY STAND OF GRASS AT THE END OF THE MAINTENANCE/BOND PERIOD. ANY BARE OR DEAD AREAS IN THE LAWN SHALL BE PREPARED, RESEEDED AND RE–ESTABLISHED PRIOR TO THE END OF THE MAINTENANCE/BOND PERIOD AND TO THE SATISFACTION OF THE PROJECT LANDSCAPE ARCHITECT AND THE OWNER.

IMPORTANT ASPECTS TO ATTAINING AND SUSTAINING A HEALTHY STAND OF GRASS ARE THE INSTALLATION OF TOPSOIL, SEED BED PREPARATION, ATTAINING OPTIMAL PH FOR THE INTENDED PLANT SPECIES, FERTILIZING, MULCH COVERING, AND SUFFICIENT WATERING PER THESE NOTES AND/OR PROJECT SPECIFICATIONS.

1. SEEDING SHALL BE DONE DURING THE SEASONS SPECIFIED IN THE LAWN SEED MIX NOTES AND/OR PROJECT SPECIFICATIONS.
2. AFTER THE SEEDBED IS PREPARED, SEED IS INSTALLED, AND MULCH IS APPLIED, WATER LIGHTLY TO KEEP THE TOP 2 INCHES OF SOIL CONSISTENTLY MOIST, NOT SATURATED. AT NO TIME SHOULD WATER BE APPLIED TO THE POINT OF RUNOFF OR THE DISPLACEMENT OF SEED.
3. DEPENDING ON SOIL TEMPERATURES, IT MAY TAKE SEVERAL WEEKS FOR GERMINATION TO OCCUR. DIFFERENT SPECIES WITHIN THE MIX GERMINATE AT DIFFERENT TIMES AND THEREFORE CONTRACTOR SHOULD CONTINUE THE LIGHT WATERING, AS DESCRIBED ABOVE, UNTIL THERE IS AT LEAST 2 INCHES OF GROWTH THROUGHOUT.
4. AT THIS POINT, WATERING FREQUENCY MAY BE REDUCED TO EVERY 3 TO 5 DAYS. WATER SHALL BE APPLIED TO WET A 6–INCH MINIMUM SOIL DEPTH TO PROMOTE HEALTHY DEEP ROOTS.

1.7 LAWN (SOD) SPECIFICATIONS (ALTERNATIVE)

1. SOD IS TO BE A FESCUE/BLUEGRASS BLEND APPROXIMATELY 70/30%. SOD IS TO BE INDIGENOUS TO THE AREA AND BE FURNISHED BY A REPUTABLE GROWER WITH A MINIMUM 5–YEARS–EXPERIENCE.
2. PRIOR TO SODDING ALL AREAS ARE TO BE TOPSOILED, FINE GRADED, RAKED, WATERED LIGHTLY, AND FERTILIZED WITH A STARTER FERTILIZER.
3. ALL STONES GREATER THAN 1/2" DIAMETER SHALL BE REMOVED.
4. SOD TO BE INSTALLED PERPENDICULAR TO ALL SLOPED AREAS. SOD STRIPS TO BELAYED OUT SO JOINTS ARE NOT CLOSER THAN ONE FOOT (1'–0") FROM EACH OTHER.
5. SOD IS TO BE WATERED AT A RATE OF AT LEAST ONE AND A HALF INCHES (1 ") PER WEEK UNTIL ROOT MASS MENDS WITH SOIL. AFTER THIS HAS OCCURRED NORMAL WATERING OF AT LEAST ONE INCH (1") PER WEEK IS TO COMMENCE.
6. ALL SOD AREAS ARE TO BE ROLLED IF ANY HEAVING OR DEPRESSIONS OCCUR.

1.8 LAWN WATERING SCHEDULE FOR SOD (ALTERNATIVE)

THE FOLLOWING WATERING SCHEDULE COVERS ROUGHLY 8 WEEKS TO ESTABLISH A HEALTHY STAND OF GRASS FROM SOD. THE CONTRACTOR SHALL BE OBLIGATED TO ENSURE A HEALTHY STAND OF GRASS AT THE END OF THE MAINTENANCE/BOND PERIOD. ANY BARE OR DEAD AREAS IN THE LAWN SHALL BE PREPARED, RE–SODDED AND RE–ESTABLISHED PRIOR TO THE END OF THE MAINTENANCE/BOND PERIOD AND TO THE SATISFACTION OF THE PROJECT LANDSCAPE ARCHITECT AND THE OWNER.

IMPORTANT ASPECTS TO ATTAINING AND SUSTAINING A HEALTHY STAND OF GRASS ARE THE INSTALLATION OF TOPSOIL, SOIL BED PREPARATION, ATTAINING OPTIMAL PH FOR THE INTENDED PLANT SPECIES, FERTILIZING, AND SUFFICIENT WATERING PER THESE NOTES AND/OR PROJECT SPECIFICATIONS.

1. SODDING SHALL BE DONE BETWEEN MARCH 15TH TO MAY 15TH OR AUGUST 15TH TO OCTOBER 30TH.
2. AFTER THE TOPSOIL IS PREPARED, AND SOD IS INSTALLED, WATER LIGHTLY TO KEEP THE TOP 4 INCHES OF SOIL CONSISTENTLY MOIST, NOT SATURATED. AT NO TIME SHOULD WATER BE APPLIED TO THE POINT OF RUNOFF OR SHIFTING OF SOD.
3. AFTER THREE WEEKS, WATERING FREQUENCY MAY BE REDUCED TO EVERY 3 TO 5 DAYS. WATER SHALL BE APPLIED TO WET A 6–INCH MINIMUM SOIL DEPTH TO PROMOTE HEALTHY DEEP ROOTS.
4. BEGIN MOWING ONCE PER WEEK AFTER THE GRASS HAS REACHED 3–INCHES HEIGHT. MOW TO A HEIGHT OF NO LESS THAN 2–1/2 INCHES. AFTER 2 TO 3 WEEKS OF MOWING, CONTINUE TO WATER TO A 6–INCH MINIMUM SOIL DEPTH AS NECESSARY PER WEATHER CONDITIONS, AND SOIL MOISTURE SENSORS IF APPLICABLE.

1.9 STANDARD FOR PERMANENT STABILIZATION WITH SOD (ALTERNATIVE)

METHODS AND MATERIALS

1. CULTIVATED SOD IS PREFERRED OVER NATIVE OR PASTURE SOD. SPECIFY "CERTIFIED SOD", OR OTHER HIGH QUALITY CULTIVATED SOD.
2. SOD SHOULD BE FREE OF WEEDS AND UNDESIRABLE COARSE WEEDY GRASSES.
3. SOD SHOULD BE OF UNIFORM THICKNESS, APPROXIMATELY 5/8 INCH, PLUS OR MINUS 1/4 INCH, AT TIME OF CUTTING. (EXCLUDES TOP GROWTH).
4. SOD SHOULD BE VIGOROUS AND DENSE AND BE ABLE TO RETAIN ITS OWN SHAPE AND WEIGHT WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP FROM THE UPPER 10 PERCENT OF THE STRIP. BROKEN PADS OR TORN AND UNEVEN ENDS WILL NOT BE ACCEPTABLE.
5. FOR DROUGHT TOLERANCE AND UP TO 40% SHADY SITES, A SOD OF APPROXIMATELY 90% TURF–TYPE TALL FESCUE AND 10% BLUEGRASS, OR APPROVED EQUAL, IS PREFERRED OVER A BLUEGRASS–ONLY SOD.
6. ONLY MOIST, FRESH, UNHEATED SOD SHOULD BE USED. SOD SHOULD BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS.

I. <u>SITE PREPARATION</u>
A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR LIMING, FERTILIZING, AND SOIL PREPARATION. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARDS FOR LAND GRADING.
B. INSTALL NEEDED EROSION CONTROL PRACTICES AND FACILITIES, SUCH AS INTERCEPTOR DITCHES, DIKES AND TERRACES, EROSION STOPS, AND DE–SILTING BASINS.

II. <u>SITE PREPARATION</u>
A. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TESTS. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10–20–10 OR EQUIVALENT. IN ADDITION, 300 POUNDS 38–0–0 PER ACRE OR EQUIVALENT OF SLOW RELEASE NITROGEN MAY BE USED IN LIEU OF TOP DRESSING. APPLY LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDES) AS FOLLOWS:

SOIL TEXTURE	TONS/ACRE	LBS/1000 SQ. FT.
CLAY, CLAY LOAM, AND HIGH ORGANIC SOIL	4	180
SANDY LOAM, LOAM, SILT LOAM	3	135
LOAMY SAND, SAND	2	90

B. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE BED IS PREPARED.
C. REMOVE FROM THE SURFACE ALL OBJECTS THAT WOULD PREVENT GOOD SOD TO SOIL CONTACT AND REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS, OR OTHER UNSUITABLE MATERIAL.
D. INSPECT SITE JUST BEFORE INSTALLATION. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RE–TILLED AND FIRMED AS ABOVE.

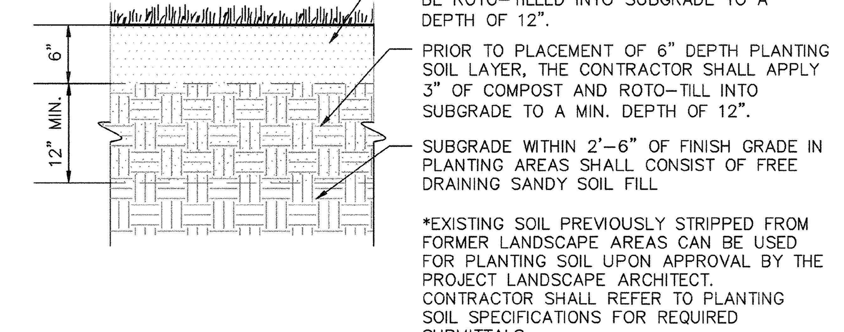
III. <u>SOD PLACEMENT</u>
A. SOD STRIPS SHOULD BE LAID ON THE CONTOUR, NEVER UP AND DOWN THE SLOPE, STARTING AT THE BOTTOM OF THE SLOPE AND WORKING UP. ON STEEP SLOPES, THE USE OF LADDERS WILL FACILITATE THE WORK AND PREVENT DAMAGE TO THE SOD. DURING PERIODS OF HIGH TEMPERATURE, LIGHTLY IRRIGATE THE SOIL IMMEDIATELY PRIOR TO LAYING THE SOD.
B. PLACE SOD STRIPS WITH SNUG, EVEN JOINTS THAT ARE STAGGERED. OPEN SPACES INVITE EROSION.
C. ROLL OR TAMP SOD IMMEDIATELY FOLLOWING PLACEMENT TO INSURE SOLID CONTACT OF ROOT MAT AND SOIL SURFACE. DO NOT OVERLAP SOD. ALL JOINTS SHOULD BE BUTTED TIGHTLY IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE DRYING OF THE ROOTS.
D. ON SLOPES GREATER THAN 3 TO 1, SECURE SOD TO SURFACE SOIL WITH WOOD PEGS, WIRE STAPLES, OR SPLIT SHINGLES (8 TO 10 INCHES LONG BY 3/4 INCH WIDE).
E. SURFACE WATER CANNOT ALWAYS BE DIVERTED FROM FLOWING OVER THE FACE OF THE SLOPE, BUT A CAPPING STRIP OF HEAVY JUTE OR PLASTIC NETTING, PROPERLY SECURED, ALONG THE CROWN OF THE SLOPE AND EDGES WILL PROVIDE EXTRA PROTECTION AGAINST LIFTING AND UNDERCUTTING OF SOD. THE SAME TECHNIQUE CAN BE USED TO ANCHOR SOD IN WATER CARRYING CHANNELS AND OTHER CRITICAL AREAS. WIRE STAPLES MUST BE USED TO ANCHOR NETTING IN CHANNEL WORK.
F. IMMEDIATELY FOLLOWING INSTALLATION, SOD SHOULD BE WATERED UNTIL MOISTURE PENETRATES THE SOIL LAYER BENEATH SOD TO A DEPTH OF 4 INCHES. MAINTAIN OPTIMUM MOISTURE FOR AT LEAST THREE WEEKS, AND CONTINUE IRRIGATION THROUGHOUT ENTIRE SEASON. SEE LAWN WATERING SCHEDULE FOR SOD.

IV. <u>TOP DRESSING</u>
IF SLOW RELEASE NITROGEN (300 POUNDS 38–0–0 PER ACRE OR EQUIVALENT) IS USED IN ADDITION TO SUGGESTED FERTILIZER, THEN A FOLLOW–UP OF TOP DRESSING IS NOT MANDATORY.
A. EARLY SPRING INSTALLATION OF SOD WILL REQUIRE AN APPLICATION OF FERTILIZER SUCH AS 10–20–10 OR EQUIVALENT AT 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET BETWEEN MARCH 15 AND APRIL 1.
B. FALL INSTALLATION OF SOD WILL REQUIRE THE ABOVE BETWEEN SEPTEMBER 1 AND OCTOBER 15.

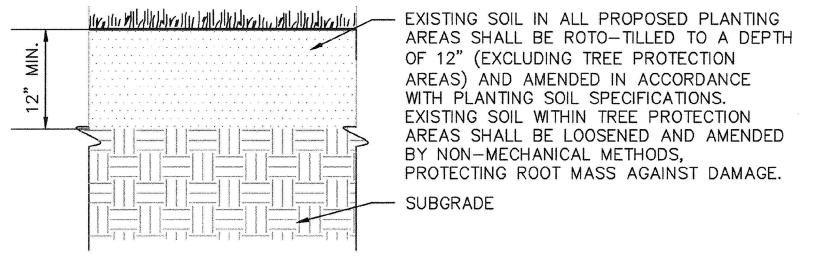
1.10 PLANTING SOIL

<u>GENERAL NOTE:</u>

DUE TO GENERAL CONSTRUCTION ACTIVITIES AND ADJACENT SITE COMPACTION REQUIREMENTS, SUBGRADE SOILS WITHIN PROPOSED PLANTING AREAS TEND TO BECOME HIGHLY COMPACTED. IN ORDER TO CREATE A HEALTHY GROWTH MEDIUM TO ALLOW PROPOSED PLANTINGS TO ESTABLISH A VIGOROUS ROOT MASS, THIS SUBGRADE SOIL MUST UNDERGO A RESTORATION PROCESS. IN ADDITION, IMPORTED OR AMMENDED EXISTING SOILS SHALL BE MIXED WITH SUBGRADE SOILS WHERE THEY MEET IN ORDER TO CREATE A TRANSITIONAL GRADIENT TO ALLOW FOR PROPER DRAINAGE.



IMPORTED OR AMENDED EXISTING PLANTING SOIL WITHIN AREAS OF RAISED GRADE



AMENDED EXISTING PLANTING SOIL WITHIN AREAS OF UNCHANGED OR CUT GRADE

<u>NOTES:</u>

1. CONTRACTOR IS RESPONSIBLE TO SEND SAMPLES OF EXISTING SOILS INTENDED FOR USE IN PLANTING AREAS (1 PER 500 CY.) TO TESTING LABORATORY OR UNIVERSITY COOPERATIVE EXTENSION FOR TESTING. ALL TESTING COSTS ARE AT THE CONTRACTOR'S EXPENSE.
2. RECYCLED CRUSHED CONCRETE AND ASPHALT MILLINGS SHALL NOT BE PLACED WITHIN 2'–6" OF FINISH GRADE IN PROPOSED LANDSCAPE AREAS.
3. IMPORTED FILL SHALL CONTAIN NO CONTAMINATION IN EXCEEDENCE OF THE PROJECT STATE ENVIRONMENTAL REVIEW AGENCY STANDARDS AND MEET THE ENVIRONMENTAL REQUIREMENTS FOR THE PROJECT. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION OF COMPLIANCE PRIOR TO DELIVERY OF ANY FILL TO THE SITE.
4. CONTRACTOR TO LIGHTLY COMPACT ALL PLACED PLANTING SOILS AND RAISE GRADES ACCORDINGLY TO ALLOW FOR FUTURE SETTLEMENT OF PLANTING SOILS (TYP.)
5. NO STONES, WOOD CHIPS, OR DEBRIS LARGER THAN 1/2" SHALL BE ACCEPTABLE WITHIN PLANTING AREAS.

APPROVED BY THE PLANNING BOARD
TOWNSHIP OF SOUTH ORANGE VILLAGE

PLANNING BOARD CHAIRPERSON	DATE
PLANNING BOARD SECRETARY	DATE
TOWNSHIP ENGINEER	DATE

APPROVED BY THE COUNTY PLANNING BOARD
COUNTY OF ESSEX, NEW JERSEY

PLANNING BOARD CHAIRPERSON	DATE

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SOUTH ORANGE, NJ 07079

SUBMISSIONS

NO.	DATE	DESCRIPTION
1	12/18/2020	PLANNING BOARD SUBMISSION

REVISIONS

ARCHITECT
NJ LICENSE NO 21AI01300200
GEORGE M. HIBBS, AIA
DATE 12/18/2020

UNIVERSITY CENTER
ADDITION AND RENOVATIONS
SETON HALL UNIVERSITY
400 SOUTH ORANGE AVE.
BLOCK 901 LOT 3
SOUTH ORANGE, NJ 07079

DATE:	12/18/2020
SCALE:	AS NOTED
DRAWN BY:	SD, MG, GV, MM
CHECKED BY:	GH

SHEET TITLE:
PLANTING DETAILS AND NOTES - 1

DRAWING NO.:
L-200

CCH PROJECT NO: 2174

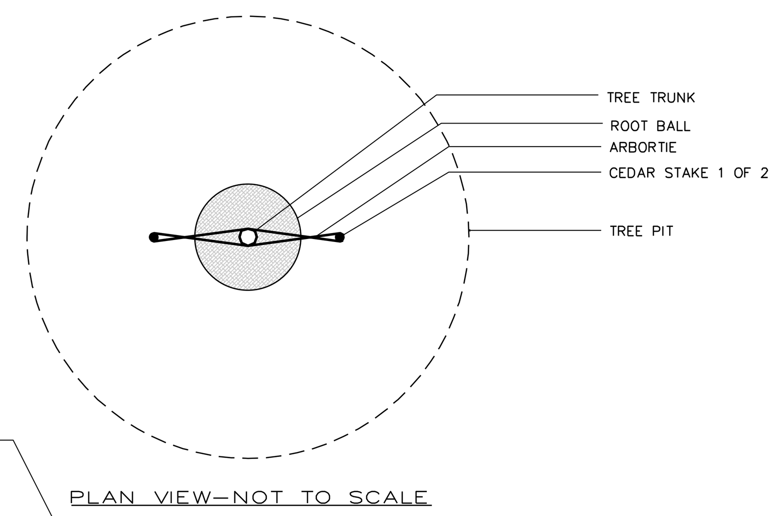
1.11 DECIDUOUS TREE PLANTING DETAIL

1. FOR CONTAINER GROWN TREES USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL, THEN CUT OR PULL APART ANY ROOT CIRCLING THE PERIMETER OF THE CONTAINER.

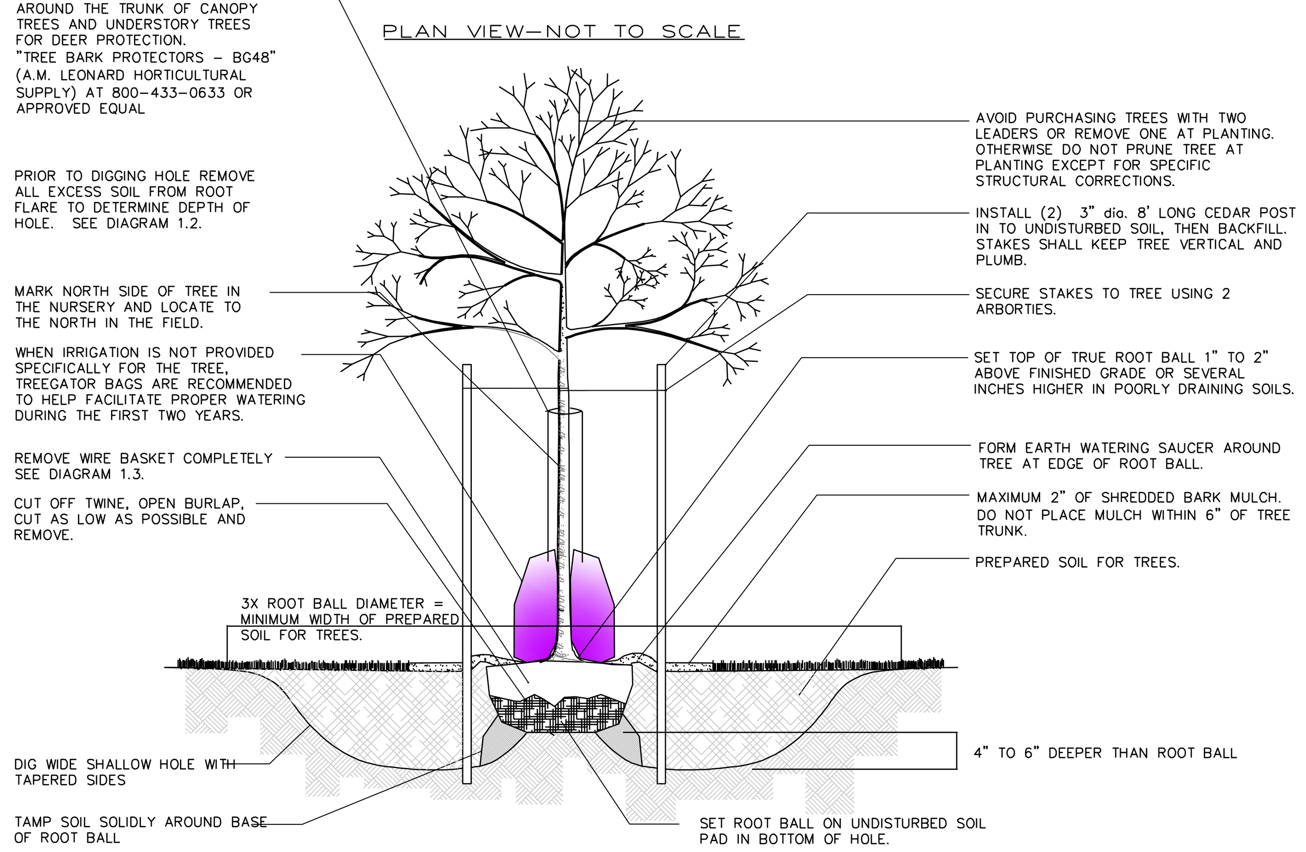
2. INCORPORATE COMMERCIALLY PREPARED MYCORRHIZAE SPORES AND FERTILIZER TABLETS IN THE SOIL IMMEDIATELY AROUND THE ROOT BALL AT RATE SPECIFIED BY THE MANUFACTURER.

3. PRIOR TO INSTALLATION CONFIRM THE SOILS WILL DRAIN PROPERLY. IF NECESSARY PROVIDE PROPER DRAINAGE.

4. THOROUGHLY SOAK THE ROOT BALL AND THE ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO GROWING SEASONS. WHEN IRRIGATION IS NOT PROVIDED SPECIFICALLY FOR THE TREE, IT IS RECOMMENDED THAT GATOR BAGS ARE USED TO HELP FACILITATE THE PROPER AMOUNT AND RATE OF WATER ARE ACHIEVED. GATOR BAGS SHALL BE INSTALLED AT THE BEGINNING OF EACH GROWING SEASON AND REMOVED EACH FALL. THIS WILL ALLOW FOR THE AREA BENEATH THE GATOR BAG TO DRY OUT REDUCING THE GROWTH OF FUNGUS AND REMOVE POSSIBLE HIDING SPOTS FOR RODENTS. THE GATOR BAGS WILL BE REMOVED AT THE END OF THE SECOND GROWING SEASON UNLESS OTHERWISE ADVISED.



PLAN VIEW-NOT TO SCALE



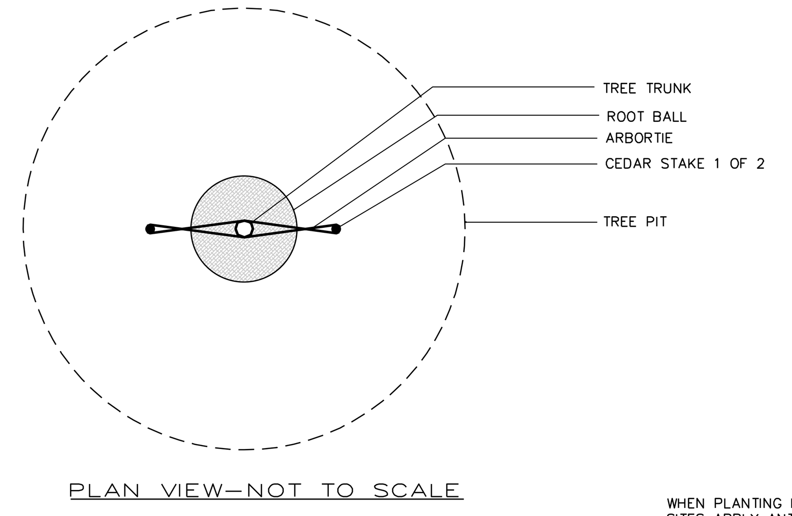
1.12 CONIFEROUS TREE PLANTING DETAIL

1. FOR CONTAINER GROWN TREES USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL, THEN CUT OR PULL APART ANY ROOT CIRCLING THE PERIMETER OF THE CONTAINER.

2. INCORPORATE COMMERCIALLY PREPARED MYCORRHIZAE SPORES AND FERTILIZER TABLETS IN THE SOIL IMMEDIATELY AROUND THE ROOT BALL AT RATE SPECIFIED BY THE MANUFACTURER.

3. PRIOR TO INSTALLATION CONFIRM THE SOILS WILL DRAIN PROPERLY. IF NECESSARY PROVIDE PROPER DRAINAGE.

4. THOROUGHLY SOAK THE ROOT BALL AND THE ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS. WHEN IRRIGATION IS NOT PROVIDED SPECIFICALLY FOR THE TREE, IT IS RECOMMENDED THAT GATOR BAGS ARE USED TO HELP FACILITATE THE PROPER AMOUNT AND RATE OF WATER ARE ACHIEVED. GATOR BAGS SHALL BE INSTALLED AT THE BEGINNING OF EACH GROWING SEASON AND REMOVED EACH FALL. THIS WILL ALLOW FOR THE AREA BENEATH THE GATOR BAG TO DRY OUT REDUCING THE GROWTH OF FUNGUS AND REMOVE POSSIBLE HIDING SPOTS FOR RODENTS.



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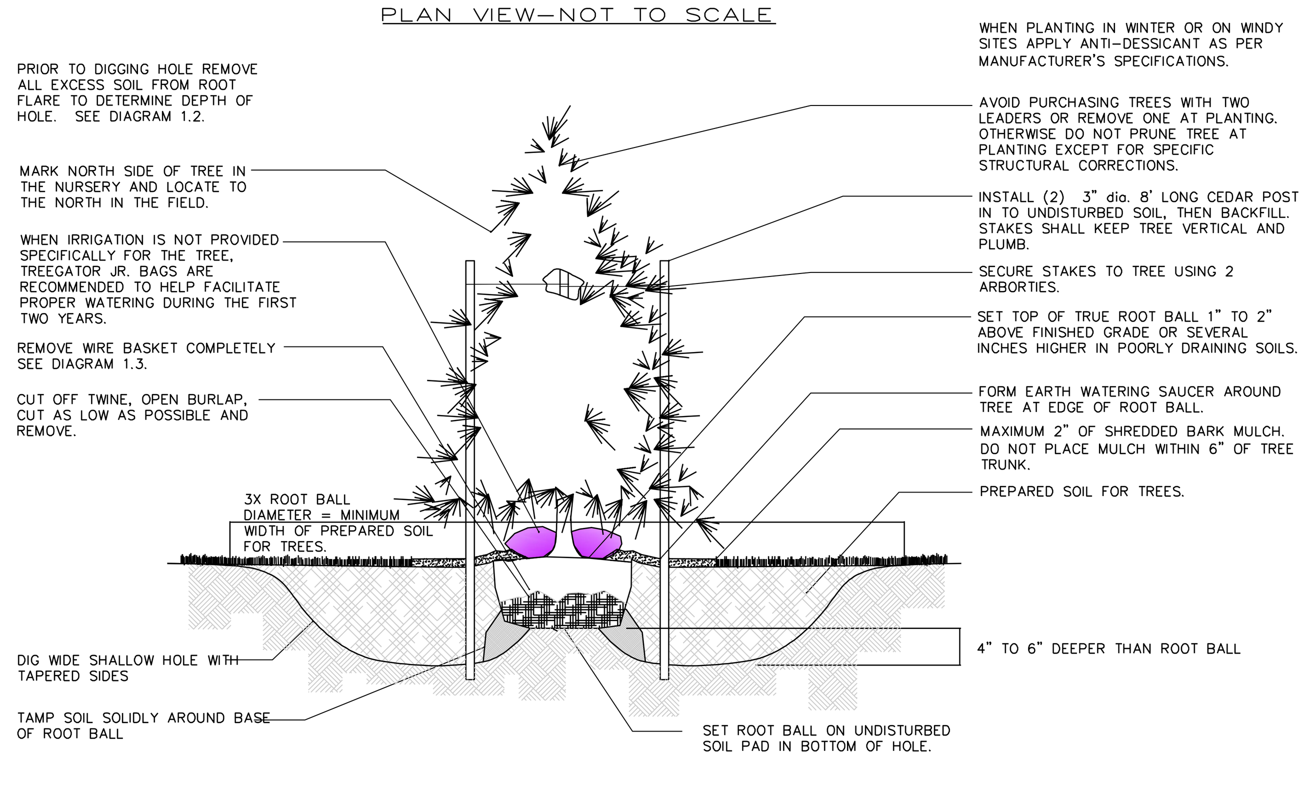


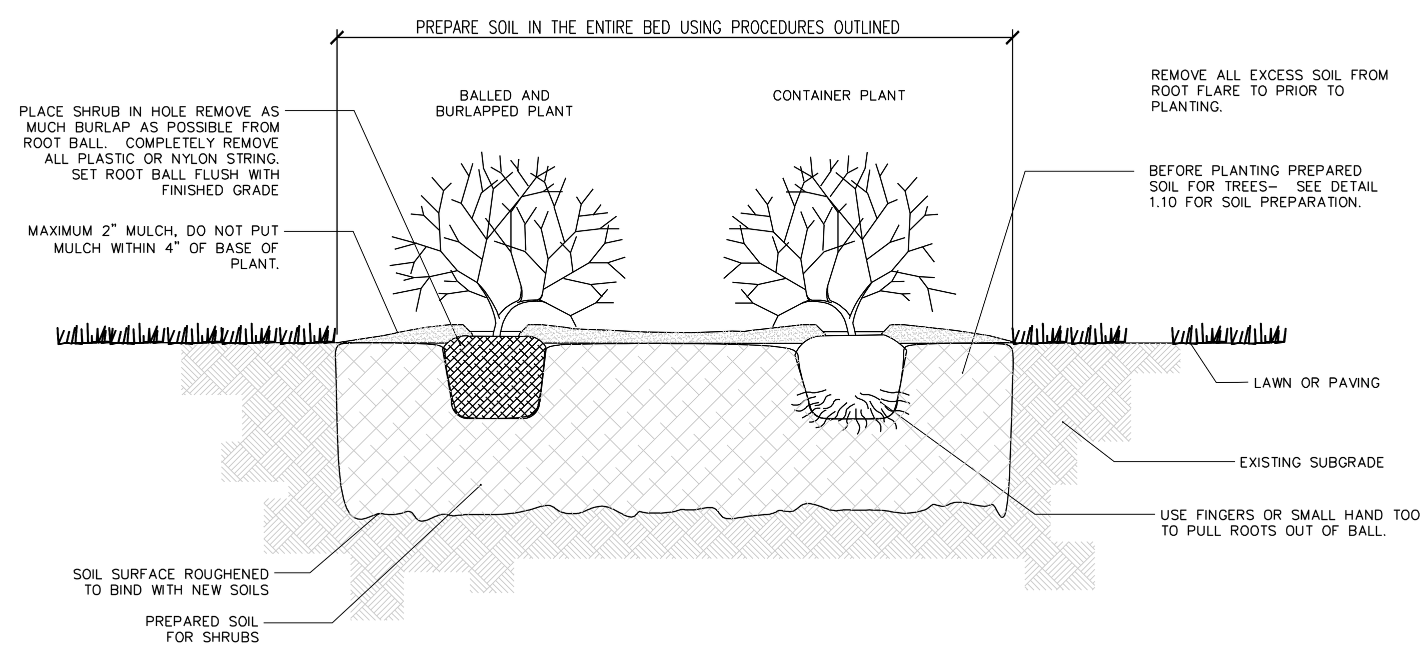
1.13 SHRUB PLANTING DETAIL

1. FOR CONTAINER GROWN SHRUBS USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL, THEN CUT OR PULL APART ANY ROOT CIRCLING THE PERIMETER OF THE CONTAINER.

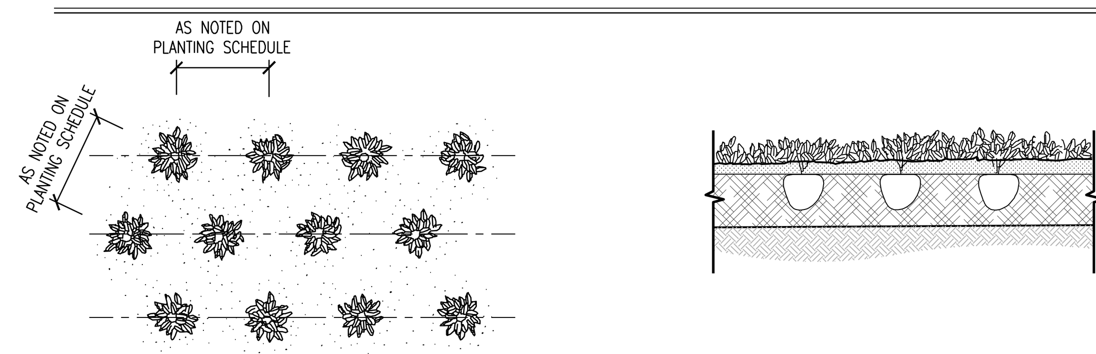
2. INCORPORATE COMMERCIALLY PREPARED MYCORRHIZAE SPORES AND FERTILIZER TABLETS IN THE SOIL IMMEDIATELY AROUND THE ROOT BALL AT RATE SPECIFIED BY THE MANUFACTURER.

3. PRIOR TO INSTALLATION CONFIRM THE SOILS WILL DRAIN PROPERLY. IF NECESSARY PROVIDE PROPER DRAINAGE.

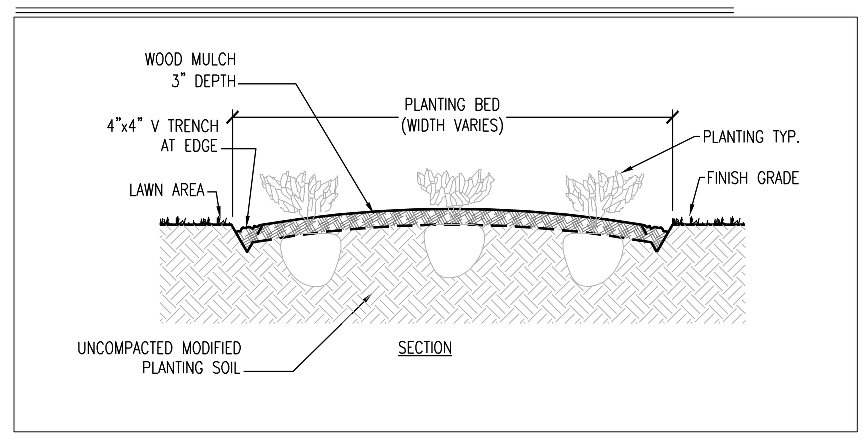
4. THOROUGHLY SOAK THE ROOT BALL AND THE ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.



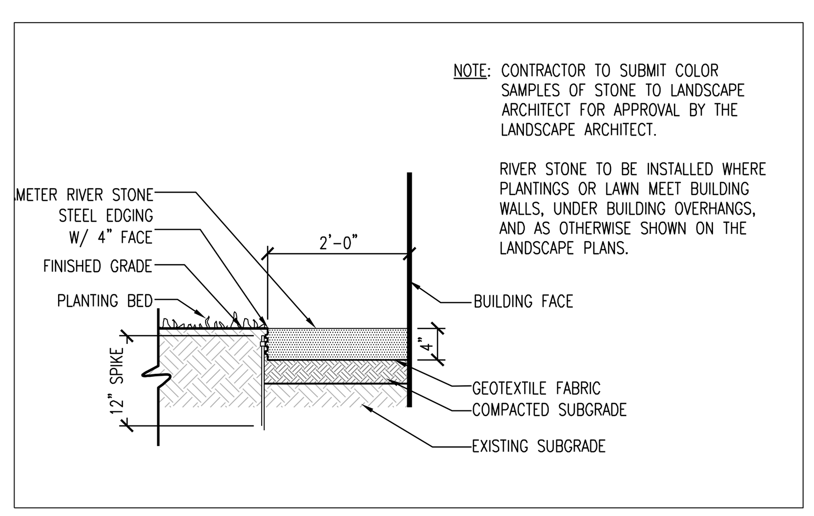
1.14 GROUNDCOVER AND PLUG PLANTING DETAIL



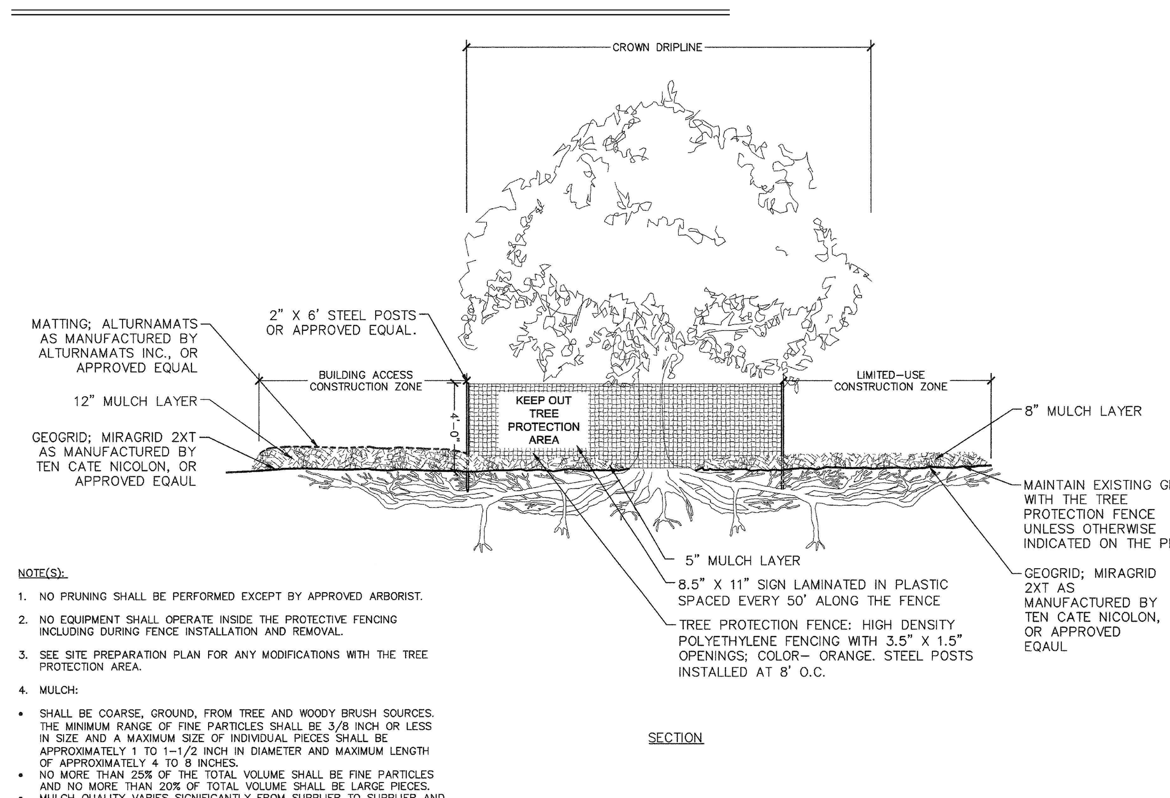
1.15 PLANTING BED EDGE



1.16 STONE AREA AND STEEL EDGE DETAIL



1.17 TREE PROTECTION ZONE



1.18 TREE PROTECTION NOTES

A. DEFINITIONS:

1. TREE PROTECTION ZONE (TPZ) -CRITICAL AREA AROUND INDIVIDUAL OR GROUPS OF TREES WHERE SPECIFIED PROTECTION MEASURES SHALL BE IMPLEMENTED TO AVOID IMPACTING HEALTH AND SURVIVAL OF TREES.
   - THE CONTRACTOR SHALL NOT ENGAGE IN ANY CONSTRUCTION ACTIVITY WITHIN TPZ WITHOUT APPROVAL FROM OWNER AND PROJECT LANDSCAPE ARCHITECT. SUCH CONSTRUCTION ACTIVITIES INCLUDE OPERATING, MOVING, OR STORING EQUIPMENT; STORING SUPPLIES OR MATERIALS; AND LOCATING TEMPORARY FACILITIES INCLUDING TRAILERS OR TOILETS.
   - ALL TREES WITHIN TPZ TO BE MONITORED AND MAINTAINED BY AN ISA CERTIFIED ARBORIST THROUGHOUT DEMOLITIONS AND CONSTRUCTION PERIOD.
   - LAYOUT EXTENT OF WORK FOR REVIEW BY OWNER AND PROJECT LANDSCAPE ARCHITECT BEFORE PROCEEDING.
   - NOXIOUS MATERIALS ARE NOT PERMITTED IN TPZ.
   - PROTECT AREA FROM PONDING, ERODING, OR EXCESSIVE WETTING.
   - TREE PROTECTION MEASURES SHALL BE INSPECTED AND REPAIRED AS NEEDED AFTER PRECIPITATION OR FLOODING EVENT.
   - UNLESS NOTED ON THE PLAN, DO NOT STORE CONSTRUCTION MATERIALS, DEBRIS, OR EXCAVATED MATERIAL IN TPZ. REFER TO SHEET TP-102.
   - KEEP TPZ FREE OF TRASH AND WEEDS.
   - REMOVE TREE PROTECTION FENCE AND ROOT PROTECTION SYSTEM AS SPECIFIED UPON COMPLETION OF BUILDING CONSTRUCTION ACTIVITIES TO AVOID DAMAGING ROOTS AND COMPACTING SOILS.
2. TREE PROTECTION FENCE BEYOND
   - EMPLOYEES ARE NOT PERMITTED TO ENTER AREA BEYOND TREE PROTECTION FENCE TO ACCESS ADJACENT AREAS OR TO USE FOR LUNCH OR ANY OTHER WORK BREAKS.
   - VEHICULAR ACCESS IS PROHIBITED BEYOND TREE PROTECTION FENCE.
3. LIMITED-USE CONSTRUCTION ZONE (LCZ) -AREA WITHIN TPZ WHERE CONSTRUCTION ACTIVITIES MAY OCCUR.
   - VEHICULAR ACCESS IS PROHIBITED IN LCZ.
   - EXCAVATION WORK AND ANY CONSTRUCTION ACTIVITIES REQUIRED WITHIN LCZ AND AREAS ADJACENT TO PROTECTED TREES SHALL BE PERFORMED BY NON-MECHANICAL METHODS. CONTRACTOR TO PROTECT ROOT MASS AGAINST DAMAGE DURING EXCAVATION. ANY TREE ROOTS THAT ARE DISTURBED, BROKEN, OR CUT SHALL BE PRUNED BACK WITH CLEAN SHARP TOOLS.
4. ROOTS EQUAL TO OR GREATER THAN TWO INCHES:
   - WHEN ENCOUNTERED, EXPOSED ROOTS TWO (2) INCHES AND LARGER IN DIAMETER SHALL BE WORKED AROUND IN A MANNER THAT DOES NOT BREAK THE OUTER LAYER OF THE ROOT SURFACE. EXPOSED ROOTS SHALL BE COVERED WITH WOOD CHIPS AND BE MAINTAINED ABOVE PERMANENT WILT POINT AT ALL TIMES.
5. ROOTS SHALL NOT BE CUT WITHOUT OWNER'S OR PROJECT LANDSCAPE ARCHITECT'S APPROVAL.
6. BUILDING CONSTRUCTION ACCESS ZONE (BCAZ) -AREA WITHIN TPZ WHERE CONSTRUCTION ACTIVITIES CANNOT BE AVOIDED. LIGHT VEHICULAR ACCESS IS ALLOWED IN THE AREA ONCE TREE PROTECTION FENCE AND ROOT PROTECTION SYSTEM ARE FULLY IN PLACE.

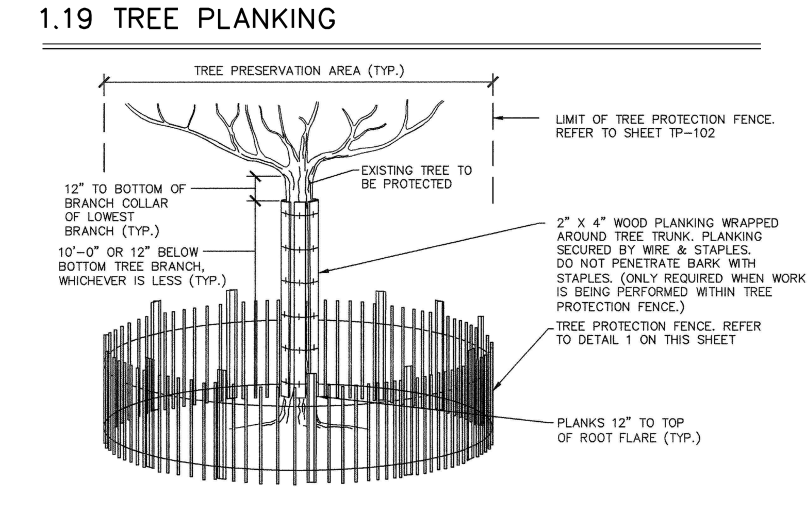
B. TREE PROTECTION STANDARDS:

1. PRE-CONSTRUCTION CONFERENCE IS REQUIRED TO REVIEW TREE PROTECTION AND PRUNING PROCEDURES AT LEAST SEVEN (7) DAY BEFORE BEGINNING WORK.
   - THE FOLLOWING CONTRACTORS SHALL ATTEND THE PRE-CONSTRUCTION CONFERENCE:
     I. GENERAL CONTRACTOR
     II. CONSULTING ARBORIST
     III. SUBCONTRACTOR ASSIGNED TO INSTALL TREE PROTECTION MEASURES.
     IV. EARTHWORK CONTRACTOR.
     V. LANDSCAPE SUBCONTRACTOR
     VI. IRRIGATION SUBCONTRACTOR
4. TREE PROTECTION MEASURES ARE TO BE IMPLEMENTED AND MAINTAINED IN GOOD CONDITION THROUGHOUT ALL DEMOLITION AND CONSTRUCTION PHASES.
5. DURING INSTALLATION OF TREE PROTECTION MEASURES, DEMOLITION, AND CONSTRUCTION PHASES, EXTREME CARE SHALL BE TAKEN TO PREVENT COMPACTING SOIL AND DAMAGING TREE ROOTS AND TRUNK.
6. ALL EXISTING SHADE TREES WITHIN LIMITS OF TREE PROTECTION FENCING AND AS DIRECTED BY THE LANDSCAPE ARCHITECT SHALL BE PROTECTED THROUGHOUT CONSTRUCTION PERIOD.
7. ALL EXISTING TREES TO BE PRESERVED SHALL BE PROTECTED WITH TREE PROTECTION FENCING. TREE PROTECTION FENCING SHALL BE INSTALLED AT THE DRIP-LINE OF THE PROTECTED TREE UNLESS CONDITIONS WARRANT THE FENCE TO BE LOCATED WITHIN THE LIMIT OF BRANCHING. PROJECT LANDSCAPE ARCHITECT TO APPROVE TREE PROTECTION MEASURES BEFORE CONSTRUCTION BEGINS.
8. DEMOLITION AND GRADING WORK ADJACENT TO PROTECTED TREES SHALL BE PERFORMED BY A QUALIFIED PERSON WITH A MINIMUM OF FIVE (5) YEARS OF EXPERIENCE IN WORKING WITH EXCAVATION EQUIPMENT. CONTRACTOR TO PROTECT ROOT MASS AGAINST DAMAGE DURING EXCAVATION. ANY TREE ROOTS THAT ARE DISTURBED, BROKEN OR CUT SHALL BE PRUNED BACK WITH CLEAN SHARP TOOLS.
9. ALL EXPOSED TREE ROOTS SHALL BE THOROUGHLY IRRIGATED ON A DAILY BASIS UNTIL BACKFILLING CAN OCCUR AS DIRECTED BY PROJECT LANDSCAPE ARCHITECT.
10. ALL WORK TO BE PERFORMED UNDER THE DIRECT SUPERVISION OF EITHER THE OWNER'S REPRESENTATIVE OR PROJECT LANDSCAPE ARCHITECT. NOTIFY OWNER AND PROJECT LANDSCAPE ARCHITECT A MINIMUM OF 48 HOURS PRIOR TO ANY EARTHWORK / EXCAVATION WORK.
11. ALL SITE ACTIVITIES SHALL CONFORM TO ADDITIONAL STANDARDS AS LISTED IN NEW HOPE BOROUGH SUBDIVISION AND LAND DEVELOPMENT ORDINANCE §5.25.
12. ROOT PRUNING
    - PRIOR TO CONSTRUCTION, PRUNE TREE ROOTS AS INDICATED ON THE PLAN. ROOT PRUNING SHALL BE IN CONFORMANCE WITH ANSI A300 (PART 8) LATEST EDITION.
    - CUT ROOTS VERTICALLY WITHIN 2 FEET OF THE LIMIT OF GRADING USING A ROCK SAW, CHAIN TRENCHER OR SIMILAR TRENCHING DEVICE.
    - PRUNE ROOTS WITH PRUNING SAW, LOPPER OR PRUNERS TO REMOVE ALL TORN ROOT ENDS ON THE TREE SIDE OF THE EXCAVATION.
    - BACKFILL THE TRENCH AND FILL ALL VOIDS IMMEDIATELY WITH EXISTING SOIL.
11. MAINTENANCE DURING CONSTRUCTION PERIOD:
    - WATERING
      a. CONTRACTOR SHALL BE FULLY RESPONSIBLE TO ENSURE THAT ADEQUATE WATER IS PROVIDED TO ALL PLANTS TO BE PRESERVED DURING THE ENTIRE CONSTRUCTION PERIOD. ADEQUATE WATER IS DEFINED TO BE MAINTAINING SOIL MOISTURE ABOVE THE PERMANENT WILT POINT TO A DEPTH OF 8 INCHES OR GREATER.
      b. CONTRACTOR SHALL ADJUST THE AUTOMATIC IRRIGATION SYSTEM, IF AVAILABLE, AND APPLY ADDITIONAL WATER, USING HOSES OR WATER TANKS AS REQUIRED.
      c. PERIODICALLY TEST THE MOISTURE CONTENT IN THE SOIL WITHIN THE ROOT ZONE TO DETERMINE THE WATER CONTENT.
    - WEED REMOVAL
      a. REMOVE ANY PLANTS THAT SEED IN AND AROUND THE FENCED TREE PROTECTION AREA AT LEAST THREE TIMES A YEAR AND AT END OF CONSTRUCTION PERIOD.
    - INSECT AND DISEASE CONTROL
      a. MONITOR ALL PLANTS TO REMAIN FOR DISEASE AND INSECT INFESTATIONS DURING THE ENTIRE CONSTRUCTION PERIOD.
      b. PROVIDE ALL DISEASE AND INSECT CONTROL REQUIRED TO KEEP THE PLANTS IN A HEALTHY STATE USING THE PRINCIPLES OF INTEGRATED PLANT MANAGEMENT (1PM). ALL PESTICIDES SHALL BE APPLIED BY A CERTIFIED PESTICIDE APPLICATOR
    - PRUNING:
      a. WITHIN SIX MONTHS OF THE ESTIMATED DATE OF SUBSTANTIAL COMPLETION, PRUNE ALL DEAD OR HAZARDOUS BRANCHES LARGER THAN 2 INCH IN DIAMETER FROM ALL TREES TO REMAIN.
      b. ALL PRUNING SHALL BE DONE IN ACCORDANCE WITH ANSI A300 (PART 1), ISA BMP TREE PRUNING (LATEST EDITION, AND THE "STRUCTURAL PRUNING: A GUIDE FOR THE GREEN INDUSTRY", EDWARD GILMAN, BRIAN KEMPF, NELDA MATHENY AND JIM CLARK, 2013 URBAN TREE FOUNDATION, VISALIA CA.
      c. PERFORM OTHER PRUNING TASKS AS INDICATED ON THE DRAWINGS OR REQUESTED BY OWNER OR PROJECT LANDSCAPE ARCHITECT.
      d. WHERE TREE SPECIFIC DISEASE VECTORS REQUIRE, STERILIZE ALL PRUNING TOOLS BETWEEN THE WORK IN INDIVIDUAL TREES.
12. CLEAN-UP
    - KEEP SITE FREE OF TRASH, PAVEMENTS REASONABLY CLEAN, AND WORK AREA IN AN ORDERLY CONDITION AT THE END OF EACH DAY. REMOVE TRASH AND DEBRIS IN CONTAINERS FROM THE SITE NO LESS THAN ONCE A WEEK.
    - IMMEDIATELY CLEAN UP ANY SPILLED OR TRACKED SOIL, FUEL, OIL, TRASH OR DEBRIS DEPOSITED BY THE CONTRACTOR FROM ALL SURFACES WITHIN THE PROJECT OR ON PUBLIC RIGHT OF WAYS AND NEIGHBORING PROPERTY.
    - ONCE TREE PROTECTION WORK IS COMPLETE, WASH ALL SOIL FROM PAVEMENTS AND OTHER STRUCTURES. ENSURE THAT MULCH IS CONFINED TO PLANTING BEDS.
    - MAKE ALL REPAIRS TO GRADES, RUTS, AND DAMAGE TO THE WORK OR OTHER WORK AT THE SITE.
    - REMOVE AND DISPOSE OF ALL EXCESS MULCH, WOOD CHIPS, PACKAGING, AND OTHER MATERIAL BROUGHT TO THE SITE BY THE CONTRACTOR.
    - REMOVE FENCING AND OTHER TREE PROTECTION MEASURES AT THE END OF THE CONSTRUCTION PERIOD OR WHEN REQUESTED BY THE OWNER OR PROJECT LANDSCAPE ARCHITECT. REMOVE ALL FENCING, WOOD CHIPS OR MULCH, GEOGRIDS AND FILTER FABRIC, TRUNK PROTECTION AND OR ANY OTHER TREE AND PLANT PROTECTION MATERIAL.
13. DAMAGE OR LOSS TO EXISTING PLANTS TO REMAIN
    - ANY TREES TO REMAIN THAT ARE DAMAGED BY THE CONTRACTOR SHALL BE REPLACED IN KIND BY THE CONTRACTOR AT HIS OWN EXPENSE. TREES SHALL BE REPLACED WITH A TREE OF SIMILAR SPECIES WITH A MINIMUM 6-INCH CALIPER.
    - DAMAGED PLANTS SHALL BE CONSIDERED AS REQUIRING REPLACEMENT OR APPRAISAL IN THE EVENT THAT THE DAMAGE AFFECTS MORE THAN 25 % OF THE CROWN, 25% OF THE TRUNK CIRCUMFERENCE, OR THE TREE IS DAMAGED IN SUCH A MANNER THAT THE TREE COULD DEVELOP INTO A POTENTIAL HAZARD. TREES TO BE REPLACED SHALL BE REMOVED BY THE CONTRACTOR AT HIS OWN EXPENSE.
    - THE OWNER OR PROJECT LANDSCAPE ARCHITECT MAY ENGAGE AN INDEPENDENT ARBORIST TO ASSESS HEALTH OR CONDITION OF ANY DAMAGED TREE.
    - ANY TREE THAT IS DETERMINED TO BE DEAD, DAMAGED OR POTENTIALLY HAZARDOUS BY THE OWNER'S ARBORIST AND UPON THE REQUEST OF THE OWNER'S REPRESENTATIVE SHALL BE IMMEDIATELY REMOVED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER. TREE REMOVAL SHALL
    - INCLUDE ALL CLEAN-UP OF ALL WOOD PARTS AND GRINDING OF THE STUMP TO A DEPTH SUFFICIENT TO PLANT THE REPLACEMENT TREE, REMOVAL OF ALL CHIPS FROM THE STUMP SITE AND FILLING THE RESULTING HOLE WITH TOPSOIL.
14. REMEDIAL WORK
    - ANY REMEDIAL WORK ON DAMAGED EXISTING PLANTS RECOMMENDED BY THE CONSULTING ARBORIST SHALL BE COMPLETED BY THE CONTRACTOR AT NO COST TO THE OWNER. REMEDIAL WORK SHALL INCLUDE BUT IS NOT LIMITED TO:

I. REMEDIATING COMPACTED SOIL
II. PRUNING OR CABLING
III. CONTROLLING DISEASE OR INSECT DAMAGE
IV. WATERING
V. MULCHING
VI. APPLYING TREE GROWTH REGULATORS (TGR).

15. REMEDIAL WORK MAY EXTEND UP TO TWO YEARS FOLLOWING THE COMPLETION OF CONSTRUCTION TO ALLOW FOR ANY REQUIREMENTS OF MULTIPLE APPLICATIONS OR THE NEED TO UNDERTAKE APPLICATIONS AT REQUIRED SEASONS OF THE YEAR.

1.19 TREE PLANKING



APPROVED BY THE PLANNING BOARD TOWNSHIP OF SOUTH ORANGE VILLAGE	
PLANNING BOARD CHAIRPERSON	DATE
PLANNING BOARD SECRETARY	DATE
TOWNSHIP ENGINEER	DATE

APPROVED BY THE COUNTY PLANNING BOARD COUNTY OF ESSEX, NEW JERSEY	
PLANNING BOARD CHAIRPERSON	DATE

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SOUTH ORANGE, NJ 07079

SUBMISSIONS

NO.	DATE	DESCRIPTION
1	12/18/2020	PLANNING BOARD SUBMISSION

REVISIONS

ARCHITECT
NJ LICENSE NO 21AI01300200
GEORGE M. HIBBS, AIA
DATE 12/18/2020

UNIVERSITY CENTER
ADDITION AND RENOVATIONS
SETON HALL UNIVERSITY
400 SOUTH ORANGE AVE.
BLOCK 901 LOT 3
SOUTH ORANGE, NJ 07079

DATE:	12/18/2020
SCALE:	AS NOTED
DRAWN BY:	SD, MG, GV, MM
CHECKED BY:	GH

SHEET TITLE:
PLANTING DETAILS AND NOTES - 2

DRAWING NO.:
L-201

CCH PROJECT NO: 2174