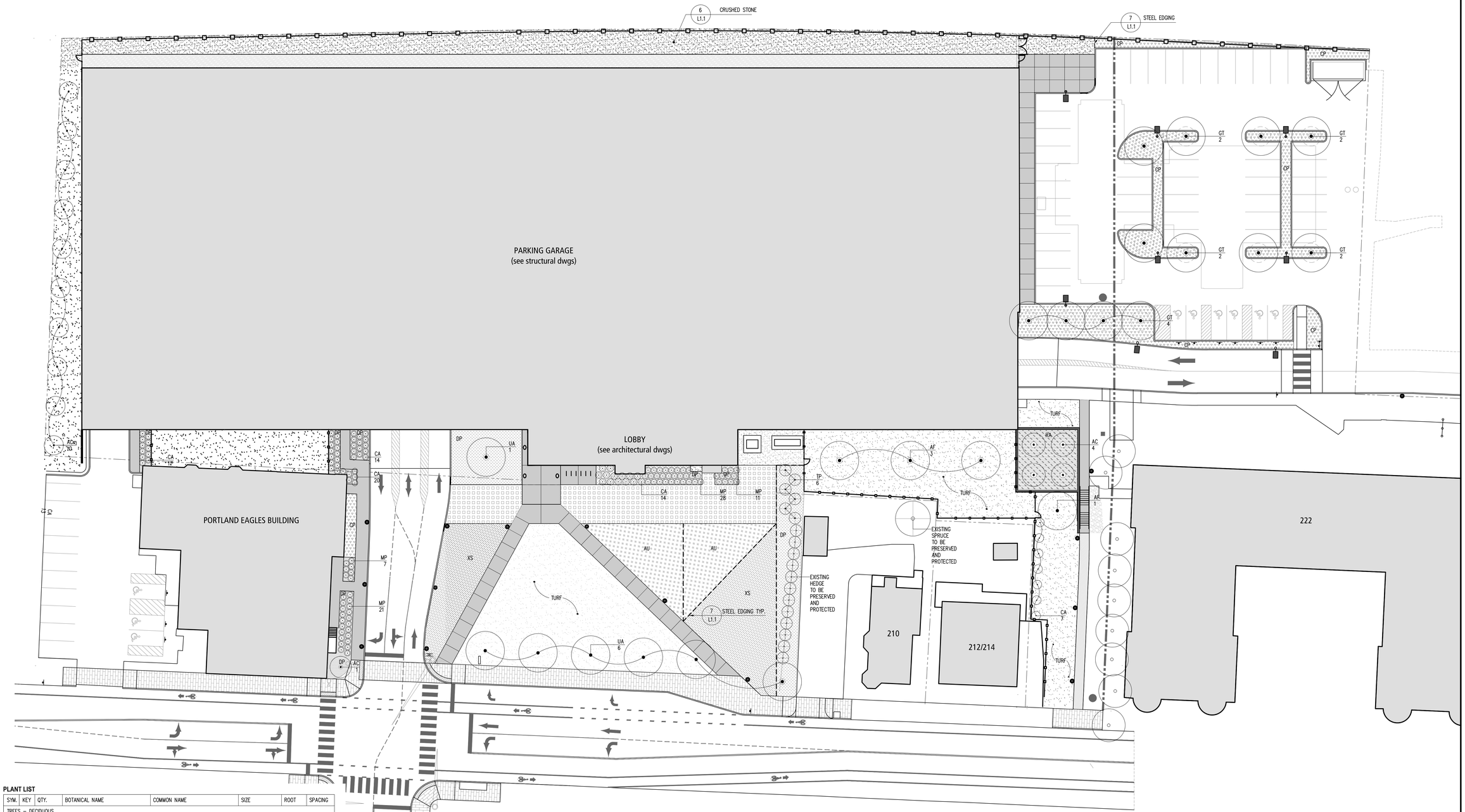


PLANT LIST

SYM.	KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPACING
TREES – DECIDUOUS							
	ACm	10	ACER CAMPESTRE	HEDGE MAPLE	2.5" CAL.	B+B	PER PLAN
	AC	5	AMELANCHIER CANADENSIS	SHAD	8–10' HT.	B+B	PER PLAN
	AF	4	ACER x 'FREEMANII' Jeffersred	FREEMAN MAPLE	4" CAL.	B+B	PER PLAN
	AR	2	ACER RUBRUM 'Karpick'	'Karpick' RED MAPLE	1.75–2" CAL.	B+B	PER PLAN
	GT	12	GLEDITSIA TRICANTHOS var. inermis	HONEY LOCUST	2" CAL.	B+B	PER PLAN
	UA	7	ULMUS AMERICANA 'Princeton'	PRINCETON ELM	5" CAL.	B+B	PER PLAN
TREES – EVERGREEN							
	TP	6	THUJA PLICATA x STANDISHII	THUJA 'Green Giant'	10–12' HT.	B+B	PER PLAN
SHRUBS							
	CA	59	CLETHRA ALNIFOLIA	SUMMERSWEET	#3	CONT.	PER PLAN
	MP	82	MYRICA PENSYLVANICA	NORTHERN BAYBERRY	#3	CONT.	PER PLAN
GROUNDCOVERS							
	AU	684	ARCTOSTAPHYLOS UVA–URSI	BEARBERRY	#3	CONT.	24" O.C.
	CP	1094	COMPTONIA PEREGRINA	SWEETFERN	#3	CONT.	24" O.C.
	DP	3564	DENNSTAEDTIA PUNCTILOBA	HAY–SCENTED FERN	SOD	--	--
	RA	252	RHUS AROMATICA 'GRO–LOW'	FRAGRANT SUMAC	#3	CONT.	24" O.C.
	XS	1015	XANTHORHIZA SIMPLICISSIMA	YELLOWROOT	#1	CONT.	18" O.C.

NOT FOR CONSTRUCTION
LEVEL III SITE PLAN APPLICATION
08/23/2018

BECKER STRUCTURAL ENGINEERS
79 York Street, Portland, Maine 04101
207.879.1838 • beckerstructural.com

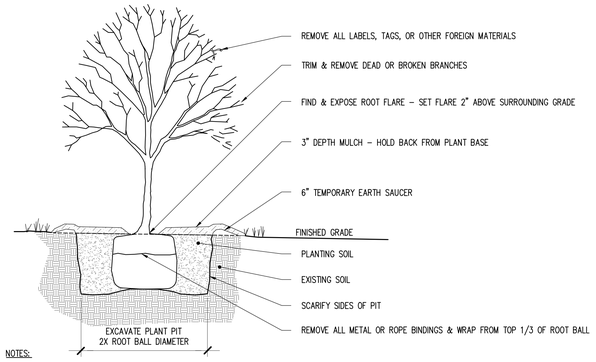
mbla inc
michael boucher landscape architecture
457 US Route 1 Suite 2
Freeport, ME 04032
t 207.865.1080
f 207.865.4555
www.boucherlandscape.com

Rev. No	Date	Issued For
1	07/24/2018	RESPONSE TO COMMENTS SUBMISSION
2	08/23/2018	RESPONSE TO COMMENTS SUBMISSION
3	09/05/2018	RESPONSE TO COMMENTS SUBMISSION

222 ST. JOHN ST PG
PORTLAND ME

Designed GG	Scale 1" = 20'-0"
Drawn GG	Date 09.05.2018
Checked JP	Becker Job Number 4070

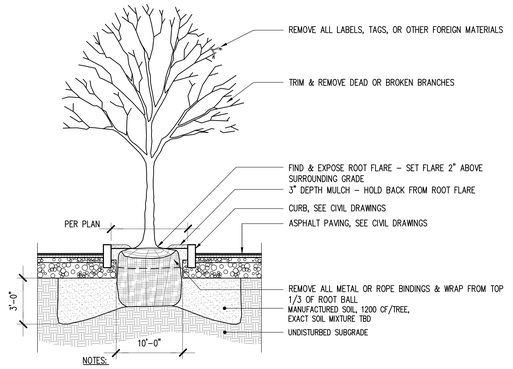
L1.0



NOTES:

1. TREE TO BE SET PLUMB.
2. SECURE TREE AS MAY BE REQUIRED ACCORDING TO TREE SIZE, LOCATION, & WIND/WEATHER CONDITIONS.
3. IF USING ROOTBALL STABILIZATION, FOLLOW MANUFACTURER'S RECOMMENDATIONS.

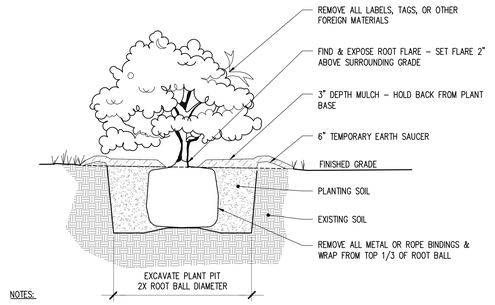
1 TREE PLANTING DETAIL
1/4"=1'-0"



NOTES:

1. TREE PITS TO INCLUDE ROOT IRRIGATION AND AERATION SYSTEM, TBD.
2. TREE TO BE SET PLUMB.
3. SECURE TREE AS MAY BE REQUIRED ACCORDING TO TREE SIZE, LOCATION, & WIND/WEATHER CONDITIONS.
4. IF USING ROOTBALL STABILIZATION, FOLLOW MANUFACTURER'S RECOMMENDATIONS.

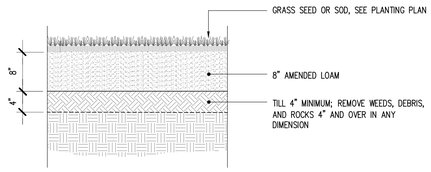
2 TREE PLANTING IN ASPHALT DETAIL
1/4"=1'-0"



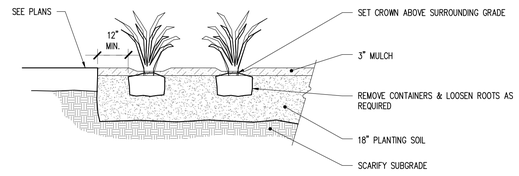
NOTES:

1. SHRUB TO BE SET PLUMB.
2. SECURE SHRUB AS MAY BE REQUIRED ACCORDING TO SIZE, LOCATION, & WIND/WEATHER CONDITIONS.
3. IF USING ROOTBALL STABILIZATION, FOLLOW MANUFACTURER'S RECOMMENDATIONS.

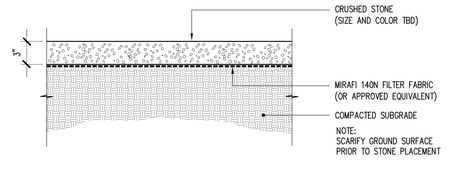
3 SHRUB PLANTING DETAIL
1/2"=1'-0"



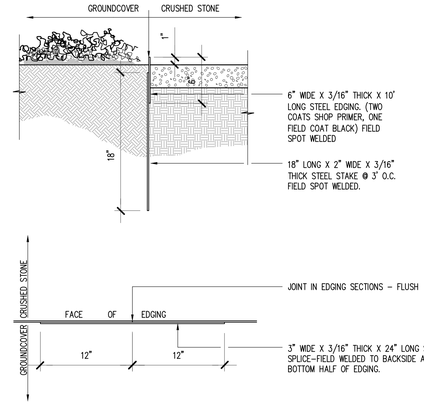
4 TURF PLANTING DETAIL
1"=1'-0"



5 GROUNDCOVER PLANTING DETAIL
1/2"=1'-0"

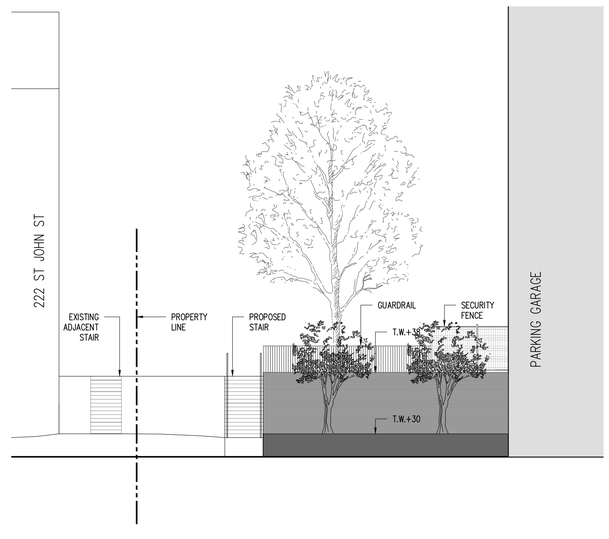


6 CRUSHED STONE PAVING DETAIL
1-1/2"=1'-0"



7 STEEL EDGE DETAIL
1-1/2"=1'-0"

8 E/W SECTION AT STAIR
1/8" = 1'-0"



9 N/S SECTION AT STAIR
1/8" = 1'-0"

NOT FOR CONSTRUCTION
LEVEL III SITE PLAN APPLICATION
06/22/2018

BECKER STRUCTURAL ENGINEERS
75 York Street, Portland, Maine 04101
207.879.1838 • beckerstructural.com

mbla inc
michael boucher landscape architecture
457 US Route 1 Suite 2
Freeport, ME 04032
t. 207.865.1080
f. 207.865.1515
www.boucherlandscape.com

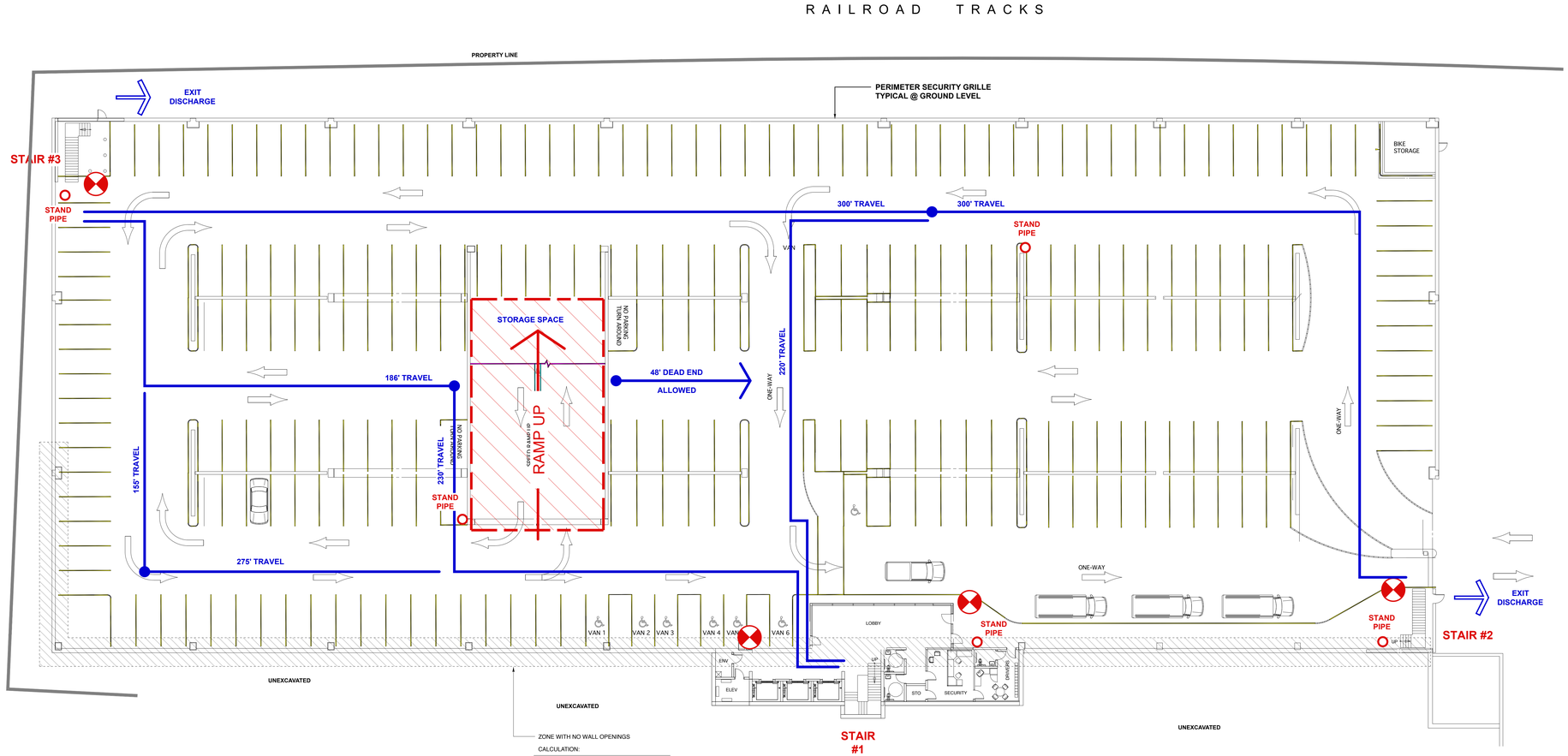
Rev. No	Date	Issued For
		Appvd

222 ST. JOHN ST PG
PORTLAND, ME

LEVEL III SITE PLAN SUBMITTAL

Designed GG	Scale 1" = 20'-0"
Drawn GG	Date 04.10.2018
Checked JP	Becker Job. Number 4070

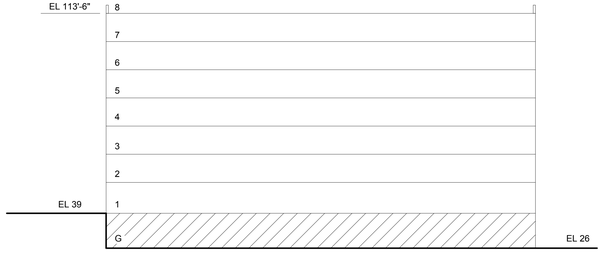
L2.0



ZONE WITH NO WALL OPENINGS

CALCULATION:

PERIMETER :	1,325 LF
NO OPENINGS ZONE:	577 LF
NO OPENINGS ZONE PERCENTAGE	43.6%
OPENINGS DISTRIBUTED OVER	56.4%



PARKING GARAGE SECTION DIAGRAM

GROUND FLOOR CODE INFORMATION PLAN

1" = 20' - 0"

BUILDING CODE SUMMARY

St. John Street Parking Garage
Building Address: Portland, ME

APPLICABLE CODES (Per MUBEC: Maine Uniform Building and Energy Code)

Building	IBC 2015 (International Building Code)
	IEBC 2009 (International Existing Building Code)
Electrical	National Electrical Code 2009
Fire Protection	NFPA Life Safety Code 2009 and NFPA 1 Uniform Fire Code 2003
Mechanical	International Mechanical Code 2009 (ASHRAE 62.1 2007 and 90.1 2007)
Plumbing	Maine State Internal Plumbing Code (UPC 2000)
Energy	IECC 2009 (International Energy Conservation Code)
Accessibility	ADA 2010 (Americans With Disabilities Act)

PROJECT DESCRIPTION:

New Construction - Open Parking Garage	Meets IBC 406.5 and NFPA 101: 3.3.254.6
Proposed Construction Type :	Type I B / NFPA II (222)
Gross Area Per Tier:	90,800 +/-
Height :	8 Tiers / 96'-3" (Top of Speed Ramp Roof Double Tees)
Use Group IBC :	Open Parking Garage Section 406
Use Group NFPA :	Open Parking Garage Chapter 42.8
High Rise Requirements	Exemptions for Parking Garages
	IBC 403.1
	NFPA 101 42.8.4
Automatic Suppression System	No
Dry Standpipe System	Yes

BUILDING CODE REQUIREMENTS (IBC 2015)

Height and Area Summary (Table 406.5.4)

Allowable Height :	12 Tiers
Allowable Area	Unlimited

REQUIRED FIRE RESISTANCE RATINGS

ELEMENT (IBC Table 601/NFPA 101 Table A8.2.1.2)	RATING (In Hours)
Primary Structural Frame	2
Bearing Walls:	
Exterior	2
Interior	2
Non-Bearing Walls & Partitions	
Exterior	0
Interior	0
Floor Construction & Secondary Members	2
Roof Construction & Secondary Members	2

SPECIFIC ROOM RATINGS	RATING (In Hours)
Stairs and Floor Openings	0
Parking Open Ramps	0
Offices + Break Room	0
Electrical	0
Mechanical Room	1
Elevator Shaftway	2

EXTERIOR WALL PROTECTION

Wall Fire Resistance Rating (Table 602)	0 (No rating for 10' or greater per Note c.)
Openings Rating (Table 705.8)	0 (No rating for 10' or greater per Note g.)

OCCUPANCY LOADS

NFPA Per Chapter 42.8.1.7 :	None
IBC Per Table 1004.1.2 :	1 Per 200 GSF / 454 Per Tier
Egress Width Required : Stairs @ 0.3" Per Person	137"
Egress Width Provided :	144" / (3) 48" Wide Stairs / 152 Persons Each
Stair Exit Door Width Required:	30.4"
Stair Exit Door Width Provided:	32" Clear Door @ Each Stair

OPENNESS CALCULATIONS:

GROUND FLOOR SUMMARY IBC

IBC 2015 SECTION 406.5

GROUND FLOOR WALL AREA:	13,536 SF
GROUND FLOOR NET OPEN AREA:	5,010 SF
OPENNESS RATIO [20% REQD]	37%

OPENINGS DISTRIBUTED AROUND 56% OF THE PERIMETER [40% REQD]

GROUND FLOOR SUMMARY NFPA

NFPA 101 3.3.254.6

GROUND FLOOR PERIMETER:	1,332 LF
GROUND FLOOR NET OPEN AREA:	5,010 SF
OPEN AREA PER LF [1.4 SF REQD]	3.7 SF/LF

OPENINGS DISTRIBUTED AROUND 56% OF THE PERIMETER [40% REQD]

BAR SCALE
1" = 16'
CHECK GRAPHIC SCALE BEFORE USING

NOT FOR CONSTRUCTION
LEVEL III SITE PLAN APPLICATION
6 / 22 / 18

BECKER STRUCTURAL ENGINEERS LLC
75 York Street, Portland, Maine 04101
207.221.1006 • www.beckerstructural.com

WSA
Winton Scott Architects
5 Milk Street
Portland, Maine 04101
207 774 4811
www.wintonscott.com

Rev No	Date	Issued For
1	7/ 24 / 18	RESPONSE TO COMMENTS SUBMISSION

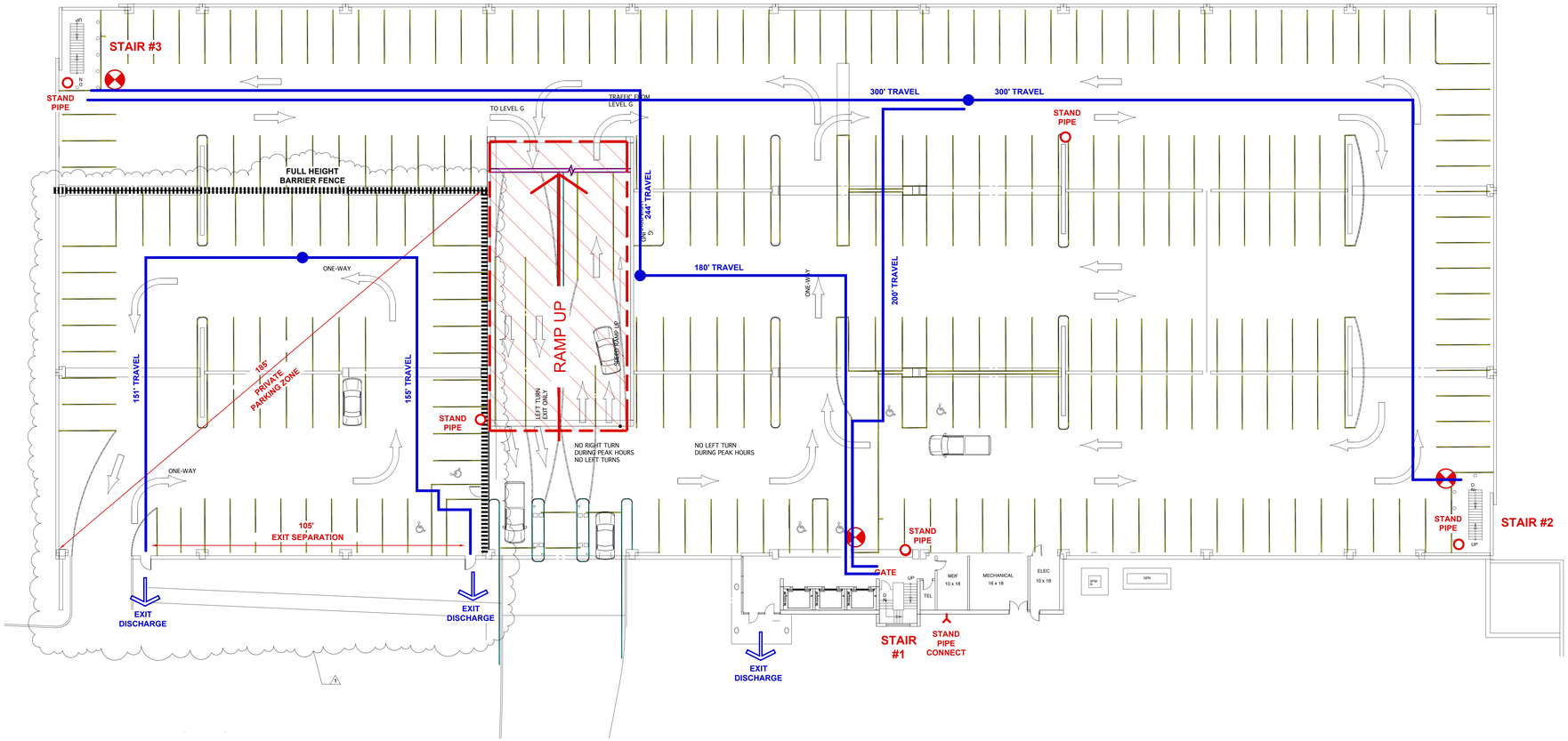
Appvd

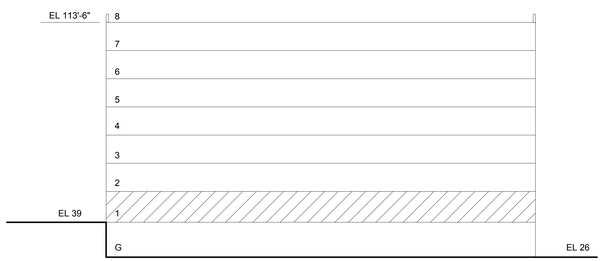
MMC ST. JOHN ST PG
PORTLAND, ME

CODE INFORMATION PLANS

Designed	Scale
MMW	AS NOTED
Drawn	Date
MMW	6/22/18
Checked	Becker Job Number
MMW	4070.1

G 101





PARKING GARAGE SECTION DIAGRAM

FIRST FLOOR CODE INFORMATION PLAN

1" = 20' - 0"

BUILDING CODE SUMMARY

St. John Street Parking Garage
Building Address: Portland, ME

APPLICABLE CODES (Per MUBEC: Maine Uniform Building and Energy Code)

Building	IBC 2015 (International Building Code)
	IEBC 2009 (International Existing Building Code)
Electrical	National Electrical Code 2009
Fire Protection	NFPA Life Safety Code 2009 and NFPA 1 Uniform Fire Code 2003
Mechanical	International Mechanical Code 2009 (ASHRAE 62.1 2007 and 90.1 2007)
Plumbing	Maine State Internal Plumbing Code (UPC 2000)
Energy	IECC 2009 (International Energy Conservation Code)
Accessibility	ADA 2010 (Americans With Disabilities Act)

PROJECT DESCRIPTION:

New Construction - Open Parking Garage	Meets IBC 406.5 and NFPA 101: 3.3.254.6
Proposed Construction Type :	Type I B / NFPA II (222)
Gross Area Per Tier:	90,800 +/-
Height :	8 Tiers / 96'-3" (Top of Speed Ramp Roof Double Tees)
Use Group IBC :	Open Parking Garage Section 406
Use Group NFPA :	Open Parking Garage Chapter 42.8
High Rise Requirements	Exemptions for Parking Garages IBC 403.1 NFPA 101 42.8.4
Automatic Suppression System	No
Dry Standpipe System	Yes

BUILDING CODE REQUIREMENTS (IBC 2015)

Height and Area Summary (Table 406.5.4)

Allowable Height :	12 Tiers
Allowable Area	Unlimited

REQUIRED FIRE RESISTANCE RATINGS

ELEMENT (IBC Table 601/NFPA 101 Table A8.2.1.2)	RATING (In Hours)
Primary Structural Frame	**2**
Bearing Walls:	
Exterior	**2**
Interior	**2**
Non-Bearing Walls & Partitions	
Exterior	**0**
Interior	**0**
Floor Construction & Secondary Members	**2**
Roof Construction & Secondary Members	**2**
SPECIFIC ROOM RATINGS	RATING (In Hours)
Stairs and Floor Openings	**0**
Parking Open Ramps	**0**
Offices + Break Room	**0**
Electrical	**0**
Mechanical Room	**1**
Elevator Shaftway	**2**

EXTERIOR WALL PROTECTION

Wall Fire Resistance Rating (Table 602)	**0** (No rating for 10' or greater per Note c.)
Openings Rating (Table 705.8)	**0** (No rating for 10' or greater per Note g.)

OCCUPANCY LOADS

NFPA Per Chapter 42.8.1.7 :	None
IBC Per Table 1004.1.2 :	1 Per 200 GSF / 454 Per Tier
Egress Width Required : Stairs @ 0.3" Per Person	137"
Egress Width Provided :	144" / (3) 48" Wide Stairs / 152 Persons Each
Stair Exit Door Width Required:	30.4"
Stair Exit Door Width Provided:	32" Clear Door @ Each Stair

OPENNESS CALCULATIONS:

FIRST FLOOR SUMMARY IBC

IBC 2015 SECTION 406.5

GROUND FLOOR WALL AREA:	13,536 SF
GROUND FLOOR NET OPEN AREA:	7,014 SF
OPENNESS RATIO [20% REQD]	51%

OPENINGS DISTRIBUTED AROUND 92% OF THE PERIMETER [40% REQD]

FIRST FLOOR SUMMARY NFPA

NFPA 101 3.3.254.6

GROUND FLOOR PERIMETER:	1,332 LF
GROUND FLOOR NET OPEN AREA:	7,014 SF
OPEN AREA PER LF [1.4 SF REQD]	5.2 SF/LF

OPENINGS DISTRIBUTED AROUND 92% OF THE PERIMETER [40% REQD]

BAR SCALE
1" = 16'
CHECK GRAPHIC SCALE BEFORE USING

NOT FOR CONSTRUCTION
LEVEL III SITE PLAN APPLICATION
6 / 22 / 18

BECKER
STRUCTURAL ENGINEERS
75 York Street, Portland, Maine 04101
207.761.1808 • beckerstructural.com

WSA
Winton Scott Architects
5 Milk Street
Portland, Maine 04101
207 774 4811
www.wintonscott.com

Rev No	Date	Issued For
1	7/ 24 / 18	RESPONSE TO COMMENTS SUBMISSION

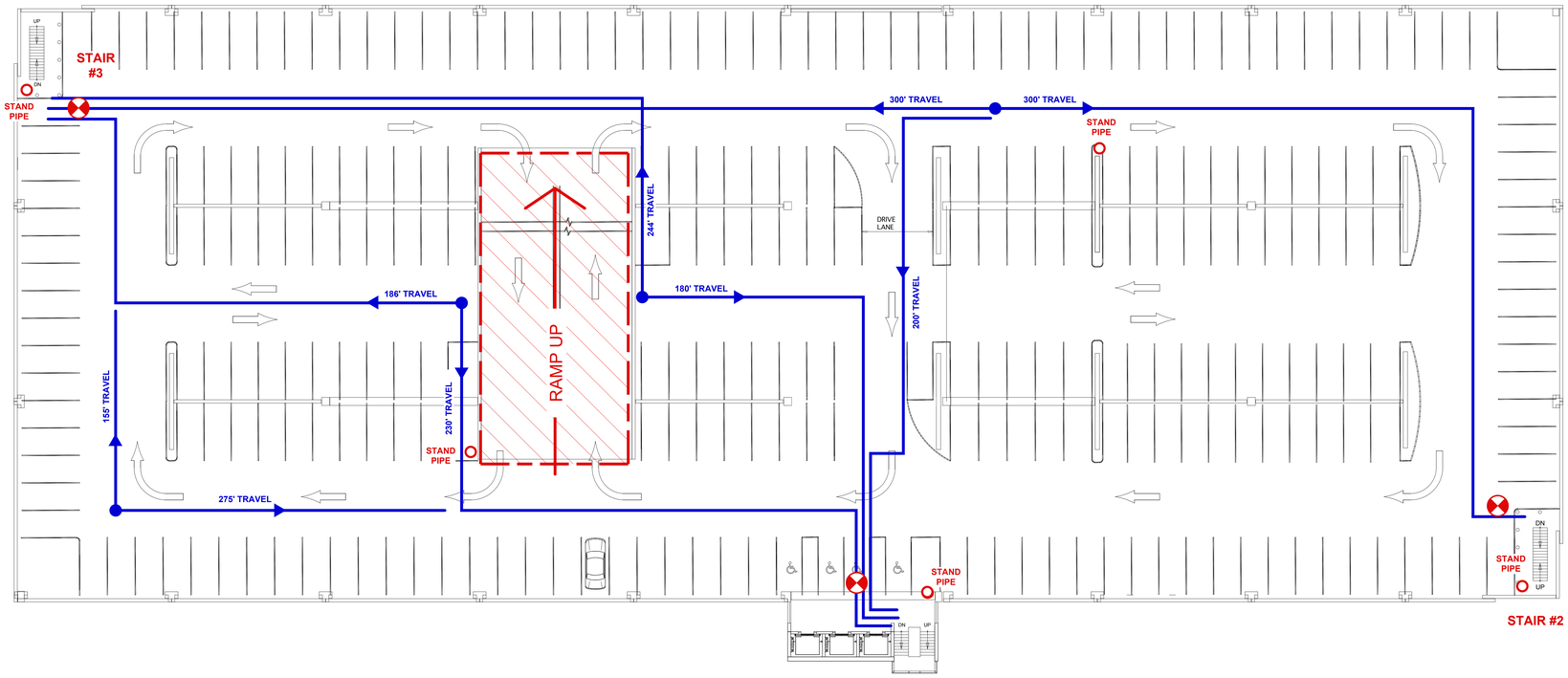
Appvd

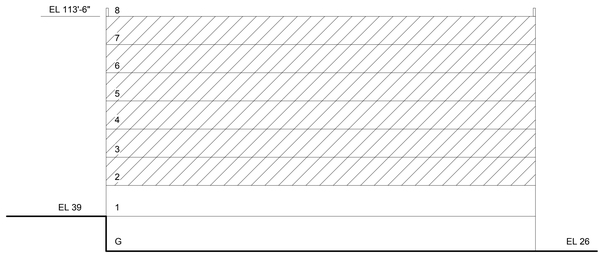
MMC ST. JOHN ST PG
PORTLAND, ME

CODE INFORMATION PLANS

Designed	Scale
MMW	AS NOTED
Drawn	Date
MMW	6/22/18
Checked	Becker Job Number
MMW	4070.1

G 102





PARKING GARAGE SECTION DIAGRAM

SECOND FLOOR CODE INFORMATION PLAN

1" = 20' - 0" LEVELS 3 - 8 SIMILAR

BUILDING CODE SUMMARY

St. John Street Parking Garage
Building Address: Portland, ME

APPLICABLE CODES (Per MUBEC: Maine Uniform Building and Energy Code)

Building	IBC 2015 (International Building Code)
	IEBC 2009 (International Existing Building Code)
Electrical	National Electrical Code 2009
Fire Protection	NFPA Life Safety Code 2009 and NFPA 1 Uniform Fire Code 2003
Mechanical	International Mechanical Code 2009 (ASHRAE 62.1 2007 and 90.1 2007)
Plumbing	Maine State Internal Plumbing Code (UPC 2000)
Energy	IECC 2009 (International Energy Conservation Code)
Accessibility	ADA 2010 (Americans With Disabilities Act)

PROJECT DESCRIPTION:

New Construction - Open Parking Garage	Meets IBC 406.5 and NFPA 101: 3.3.254.6
Proposed Construction Type :	Type I B / NFPA II (222)
Gross Area Per Tier:	90,800 +/-
Height :	8 Tiers / 96'-3" (Top of Speed Ramp Roof Double Tees)
Use Group IBC :	Open Parking Garage Section 406
Use Group NFPA :	Open Parking Garage Chapter 42.8
High Rise Requirements	Exemptions for Parking Garages
	IBC 403.1
	NFPA 101 42.8.4
Automatic Suppression System	No
Dry Standpipe System	Yes

BUILDING CODE REQUIREMENTS (IBC 2015)

Height and Area Summary (Table 406.5.4)

Allowable Height :	12 Tiers
Allowable Area	Unlimited

REQUIRED FIRE RESISTANCE RATINGS

ELEMENT (IBC Table 601/NFPA 101 Table A8.2.1.2)	RATING (In Hours)
Primary Structural Frame	**2**
Bearing Walls:	
Exterior	**2**
Interior	**2**
Non-Bearing Walls & Partitions	
Exterior	**0**
Interior	**0**
Floor Construction & Secondary Members	**2**
Roof Construction & Secondary Members	**2**

SPECIFIC ROOM RATINGS	RATING (In Hours)
Stairs and Floor Openings	**0**
Parking Open Ramps	**0**
Offices + Break Room	**0**
Electrical	**0**
Mechanical Room	**1**
Elevator Shaftway	**2**

EXTERIOR WALL PROTECTION

Wall Fire Resistance Rating (Table 602)	**0** (No rating for 10' or greater per Note c.)
Openings Rating (Table 705.8)	**0** (No rating for 10' or greater per Note g.)

OCCUPANCY LOADS

NFPA Per Chapter 42.8.1.7 :	None
IBC Per Table 1004.1.2 :	1 Per 200 GSF / 454 Per Tier
Egress Width Required : Stairs @ 0.3" Per Person	137"
Egress Width Provided :	144" / (3) 48" Wide Stairs / 152 Persons Each
Stair Exit Door Width Required:	30.4"
Stair Exit Door Width Provided:	32" Clear Door @ Each Stair

OPENNESS CALCULATIONS:

SECOND FLOOR SUMMARY IBC

IBC 2015 SECTION 406.5

SECOND FLOOR WALL AREA:	12,538 SF
SECOND FLOOR NET OPEN AREA:	6,582 SF
OPENNESS RATIO [20% REQD]	52%

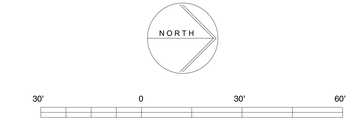
OPENINGS DISTRIBUTED AROUND 96% OF THE PERIMETER [40% REQD]

SECOND FLOOR SUMMARY NFPA

NFPA 101 3.3.254.6

SECOND FLOOR PERIMETER:	1,332 LF
SECOND FLOOR NET OPEN AREA:	6,582 SF
OPEN AREA PER LF [1.4 SF REQD]	4.9 SF/LF

OPENINGS DISTRIBUTED AROUND 96% OF THE PERIMETER [40% REQD]



BAR SCALE
1" = 16'
CHECK GRAPHIC SCALE BEFORE USING

NOT FOR CONSTRUCTION
LEVEL III SITE PLAN APPLICATION
6 / 22 / 18

BECKER
STRUCTURAL ENGINEERS LLC
75 York Street, Portland, Maine 04101
207.874.1008 • beckerstructural.com

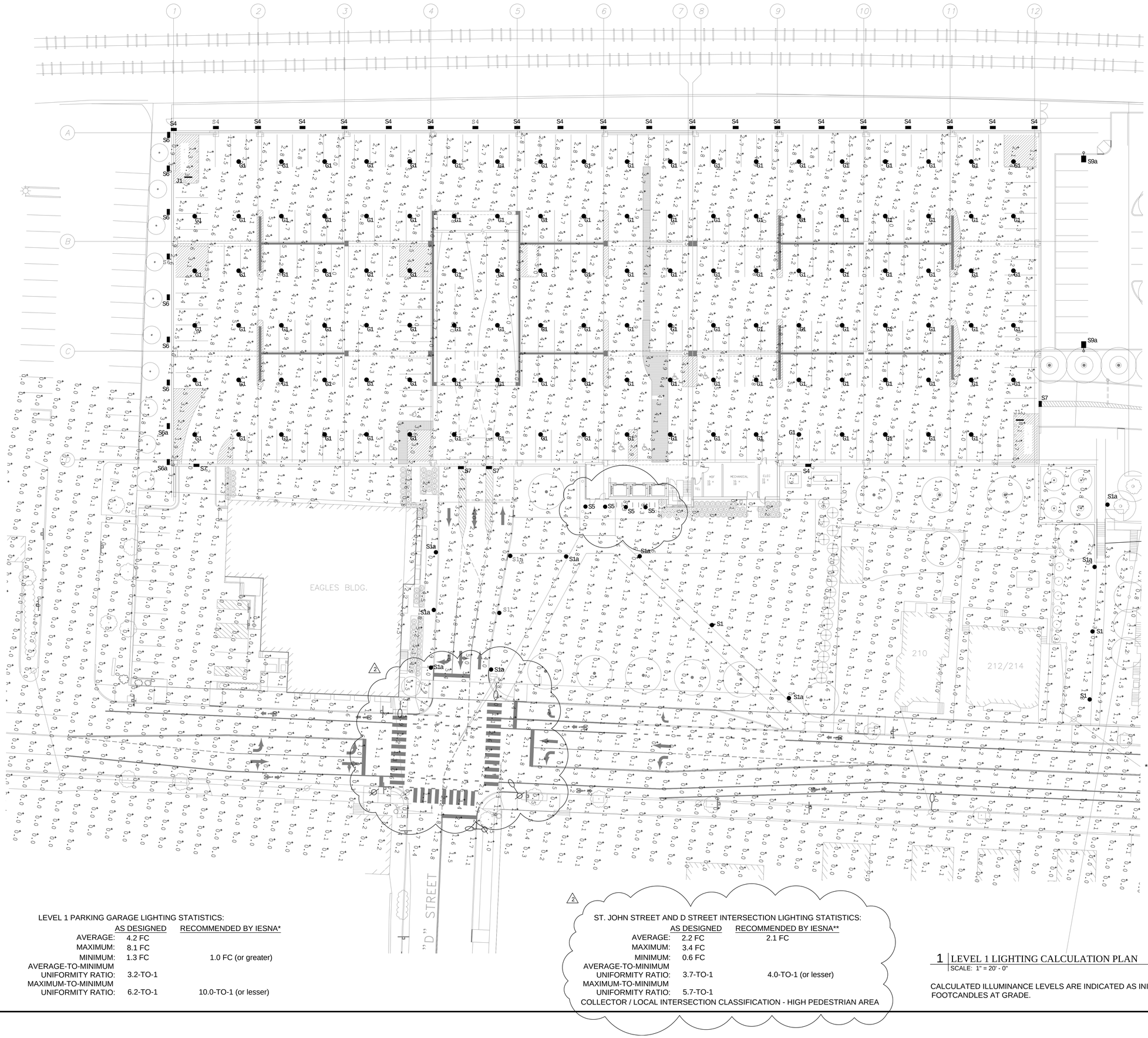
WSA
Winton Scott Architects
5 Milk Street
Portland, Maine 04101
207 774 4811
www.wintonscott.com

Rev No	Date	Issued For
1	7/24 / 18	RESPONSE TO COMMENTS SUBMISSION
Appd		

MMC ST. JOHN ST PG
PORTLAND, ME
CODE INFORMATION PLANS

Designed MMW	Scale AS NOTED
Drawn MMW	Date 6/22/18
Checked MMW	Becker Job Number 4070.1

G 103



LEVEL 1 GARAGE PLAN SHOWN

* RECOMMENDED ILLUMINANCE LEVELS ARE PUBLISHED BY THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA IN RP-20-14 LIGHTING FOR PARKING FACILITIES.

** RECOMMENDED ILLUMINANCE LEVELS ARE PUBLISHED BY THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA IN RP-8-14 ROADWAY LIGHTING.

LEVEL 1 PARKING GARAGE LIGHTING STATISTICS:

	AS DESIGNED	RECOMMENDED BY IESNA*
AVERAGE:	4.2 FC	
MAXIMUM:	8.1 FC	
MINIMUM:	1.3 FC	1.0 FC (or greater)
AVERAGE-TO-MINIMUM UNIFORMITY RATIO:	3.2-TO-1	
MAXIMUM-TO-MINIMUM UNIFORMITY RATIO:	6.2-TO-1	10.0-TO-1 (or lesser)

ST. JOHN STREET AND D STREET INTERSECTION LIGHTING STATISTICS:

	AS DESIGNED	RECOMMENDED BY IESNA**
AVERAGE:	2.2 FC	2.1 FC
MAXIMUM:	3.4 FC	
MINIMUM:	0.6 FC	
AVERAGE-TO-MINIMUM UNIFORMITY RATIO:	3.7-TO-1	4.0-TO-1 (or lesser)
MAXIMUM-TO-MINIMUM UNIFORMITY RATIO:	5.7-TO-1	

COLLECTOR / LOCAL INTERSECTION CLASSIFICATION - HIGH PEDESTRIAN AREA

1 LEVEL 1 LIGHTING CALCULATION PLAN
SCALE: 1" = 20' - 0"

CALCULATED ILLUMINANCE LEVELS ARE INDICATED AS INITIAL FOOTCANDLES AT GRADE.

N

FEET
20 0 20 40

CHECK GRAPHIC SCALE BEFORE USING

NOT FOR CONSTRUCTION
LEVEL III SITE PLAN APPLICATION
8/23/18

BECKER STRUCTURAL ENGINEERS
75 York Street, Portland, Maine 04101
207.879.1838 • beckerstructural.com

Bartlett Design
LIGHTING & ELECTRICAL ENGINEERING
5 PALMER STREET, SUITE 1, PORTLAND, ME 04550
TEL. (207) 443-5447

STATE OF MAINE · LAWRENCE E. BARTLETT · No. 7928 · REGISTERED PROFESSIONAL ENGINEER
Lawrence E. Bartlett 8/22/18

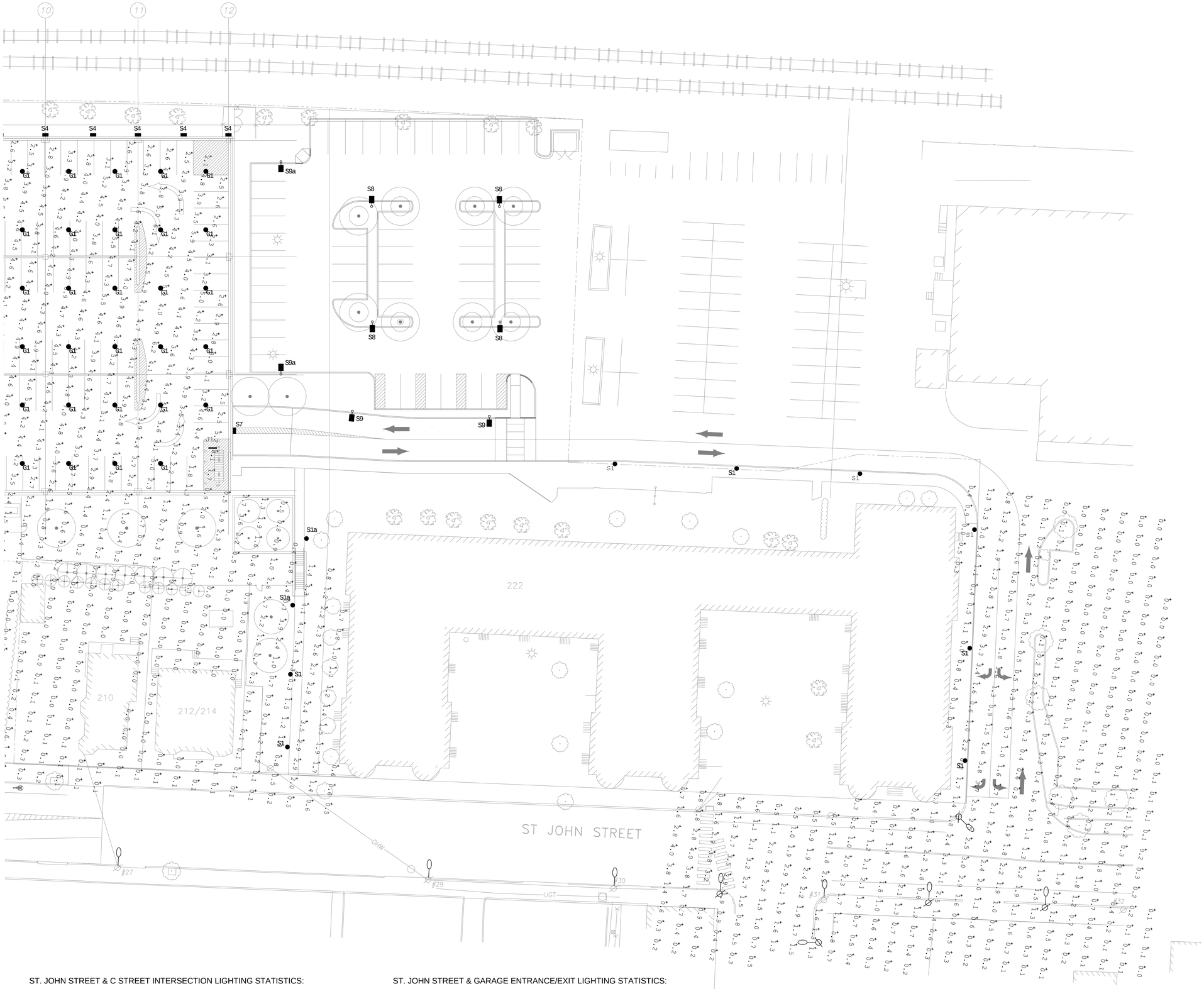
Rev No	Date	Issued For
1	7/24/18	Response to Comments
2	8/23/18	Response to Comments

222 ST. JOHN ST PG
PORTLAND, ME

SITE LTG. CALCULATION PLAN – 1

Designed LEB	Scale 1"=20'-0"
Drawn LEB	Date 08/23/18
Checked LEB	Becker Job Number 4070

E0.1



ST. JOHN STREET & C STREET INTERSECTION LIGHTING STATISTICS:

	AS DESIGNED	RECOMMENDED BY IESNA*
AVERAGE:	2.1 FC	2.1 FC
MAXIMUM:	3.3 FC	
MINIMUM:	0.9 FC	
AVERAGE-TO-MINIMUM UNIFORMITY RATIO:	2.4-TO-1	4.0-TO-1 (or lesser)
MAXIMUM-TO-MINIMUM UNIFORMITY RATIO:	4.2-TO-1	

COLLECTOR / LOCAL INTERSECTION CLASSIFICATION - HIGH PEDESTRIAN AREA

ST. JOHN STREET & GARAGE ENTRANCE/EXIT LIGHTING STATISTICS:

	AS DESIGNED	RECOMMENDED BY IESNA*
AVERAGE:	2.0 FC	2.1 FC
MAXIMUM:	3.3 FC	
MINIMUM:	0.8 FC	
AVERAGE-TO-MINIMUM UNIFORMITY RATIO:	2.5-TO-1	4.0-TO-1 (or lesser)
MAXIMUM-TO-MINIMUM UNIFORMITY RATIO:	4.1-TO-1	

COLLECTOR / LOCAL INTERSECTION CLASSIFICATION - HIGH PEDESTRIAN AREA

1 LEVEL 1 LIGHTING CALCULATION PLAN
SCALE: 1" = 20' - 0"

CALCULATED ILLUMINANCE LEVELS ARE INDICATED AS INITIAL FOOTCANDLES AT GRADE.

LEVEL 1 GARAGE PLAN SHOWN

* RECOMMENDED ILLUMINANCE LEVELS ARE PUBLISHED BY THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA IN RP-8-14 ROADWAY LIGHTING.

** RECOMMENDED ILLUMINANCE LEVELS ARE PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORATION OFFICIALS IN ROADWAY LIGHTING DESIGN GUIDE 1984.

N
FEET
20 0 20 40
CHECK GRAPHIC SCALE BEFORE USING

NOT FOR CONSTRUCTION
LEVEL III SITE PLAN APPLICATION
7/24/18

BECKER STRUCTURAL ENGINEERS
79 York Street, Portland, Maine 04101
207.879.1838 • beckerstructural.com

Bartlett Design
LIGHTING & ELECTRICAL ENGINEERING
5 PALMER STREET, SUITE 1 SOUTH PORTLAND, ME 04530
TEL: (207) 445-5447

STATE OF MAINE · LAWRENCE E. BARTLETT · No. 7928 · REGISTERED PROFESSIONAL ENGINEER
Lawrence E. Bartlett 7/24/18

Rev No.	Date	Issued For

222 ST. JOHN ST PG
PORTLAND, ME

SITE LTG. CALCULATION PLAN - 2

Designed LEB	Scale 1"=20'-0"
Drawn LEB	Date 07/16/18
Checked LEB	Becker Job Number 4070

E0.2

GRADE LEVEL PARKING GARAGE LIGHTING STATISTICS:

	AS DESIGNED	RECOMMENDED BY THE IESNA*
AVERAGE:	3.9 FC	
MAXIMUM:	8.6 FC	
MINIMUM:	1.1 FC	1.0 FC (or greater)
AVERAGE-TO-MINIMUM UNIFORMITY RATIO:	3.5-TO-1	
MAXIMUM-TO-MINIMUM UNIFORMITY RATIO:	7.8-TO-1	10.0 -TO-1 (or lesser)

NORTH PARKING LIGHTING STATISTICS:

	AS DESIGNED	RECOMMENDED BY THE IESNA*
AVERAGE:	1.9 FC	
MAXIMUM:	2.6 FC	
MINIMUM:	0.6 FC	0.5 FC (or greater)
AVERAGE-TO-MINIMUM UNIFORMITY RATIO:	3.1-TO-1	4.0-TO-1 (or lesser)
MAXIMUM-TO-MINIMUM UNIFORMITY RATIO:	4.3-TO-1	15.0 -TO-1 (or lesser)

GRADE LEVEL GARAGE PLAN SHOWN

* RECOMMENDED ILLUMINANCE LEVELS ARE PUBLISHED BY THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA IN RP-20-14 LIGHTING FOR PARKING FACILITIES.

1 GRADE LEVEL LIGHTING CALCULATION PLAN
SCALE: 1" = 20' - 0"

CALCULATED ILLUMINANCE LEVELS ARE INDICATED AS INITIAL FOOTCANDLES AT GRADE.

NOT FOR CONSTRUCTION
LEVEL III SITE PLAN APPLICATION
7/24/18

BECKER STRUCTURAL ENGINEERS
45 Exchange Street, Portland, Maine 04101
207.879.1838 • beckerstructural.com

Bartlett Design
LIGHTING & ELECTRICAL ENGINEERING
5 PALMER STREET PORTLAND, MAINE 04101
TEL: (207) 772-2447

STATE OF MAINE LAWRENCE E. BARTLETT No. 7528 REGISTERED PROFESSIONAL ENGINEER
7/24/18

Rev No	Date	Issued For

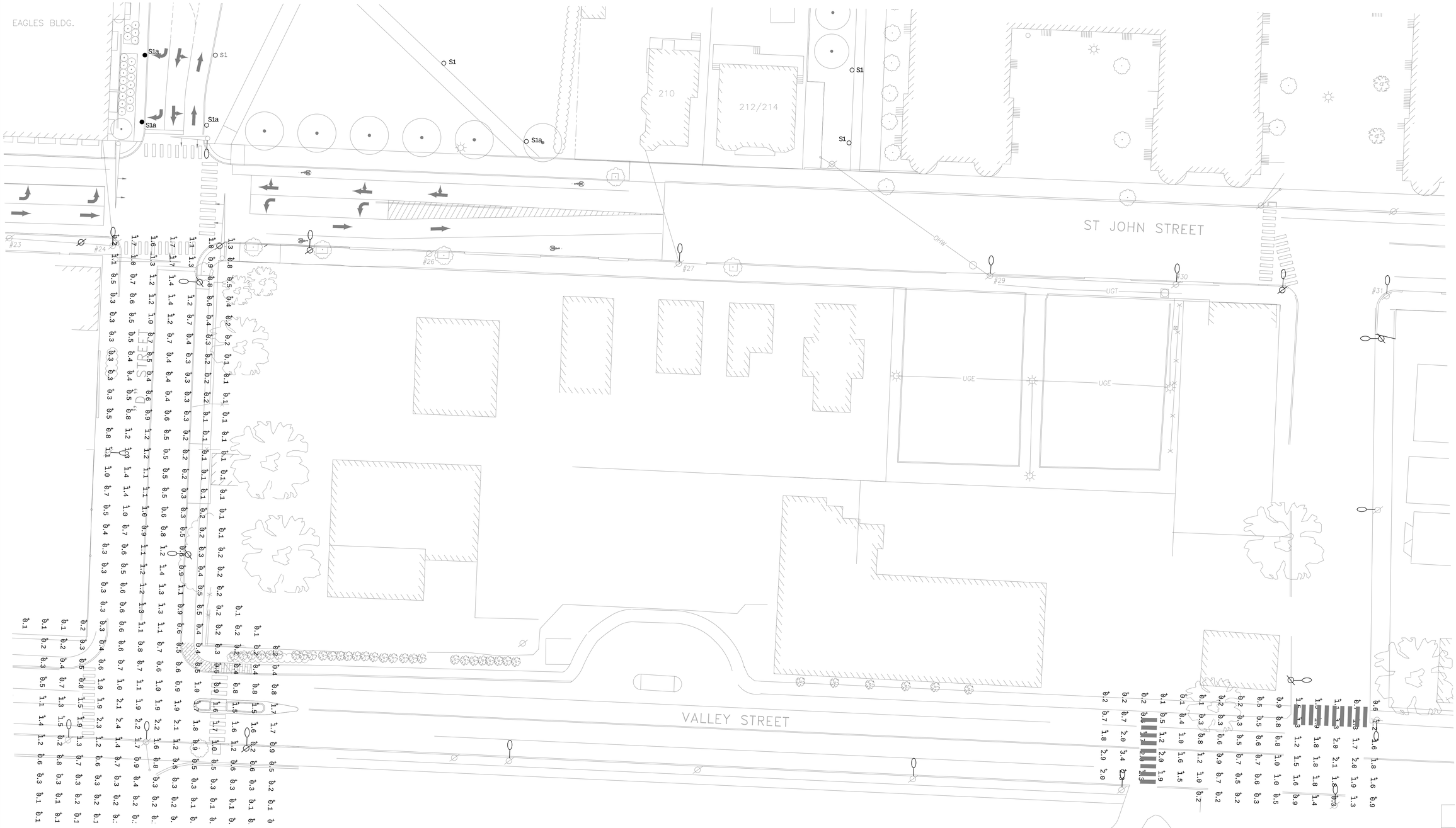
222 ST. JOHN ST PG
PORTLAND, ME

SITE LTG. CALCULATION PLAN – 3

Designed LEB	Scale 1"=20'-0"
Drawn LEB	Date 07/16/18
Checked LEB	Becker Job Number 4070

CHECK GRAPHIC SCALE BEFORE USING

E0.3



D STREET LIGHTING STATISTICS:

	AS DESIGNED	RECOMMENDED BY AASHTO***
AVERAGE:	0.9 FC	0.8 FC
MAXIMUM:	1.1 FC	
MINIMUM:	0.6 FC	
AVERAGE-TO-MINIMUM UNIFORMITY RATIO:	1.5-TO-1	6.0-TO-1 (or lesser)
MAXIMUM-TO-MINIMUM UNIFORMITY RATIO:	1.8-TO-1	

LOCAL COMMERCIAL ROADWAY CLASSIFICATION

C STREET / VALLEY STREET INTERSECTION LIGHTING STATISTICS:

	AS DESIGNED	RECOMMENDED BY IESNA**
AVERAGE:	1.6 FC	1.4 FC
MAXIMUM:	2.1 FC	
MINIMUM:	0.8 FC	
AVERAGE-TO-MINIMUM UNIFORMITY RATIO:	1.9-TO-1	6.0-TO-1 (or lesser)
MAXIMUM-TO-MINIMUM UNIFORMITY RATIO:	2.6-TO-1	

LOCAL / LOCAL INTERSECTION CLASSIFICATION

D STREET / VALLEY STREET INTERSECTION LIGHTING STATISTICS:

	AS DESIGNED	RECOMMENDED BY IESNA**
AVERAGE:	1.5 FC	1.4 FC
MAXIMUM:	2.4 FC	
MINIMUM:	0.6 FC	
AVERAGE-TO-MINIMUM UNIFORMITY RATIO:	2.4-TO-1	6.0-TO-1 (or lesser)
MAXIMUM-TO-MINIMUM UNIFORMITY RATIO:	4.0-TO-1	

LOCAL / LOCAL INTERSECTION CLASSIFICATION

** RECOMMENDED ILLUMINANCE LEVELS ARE PUBLISHED BY THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA IN RP-8-14 ROADWAY LIGHTING.

*** RECOMMENDED ILLUMINANCE LEVELS ARE PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORATION OFFICIALS IN ROADWAY LIGHTING DESIGN GUIDE 1984.

OFF-SITE PROJECT IMPROVEMENTS:

NEW SIDEWALK ALONG D STREET

NEW CROSSWALK AT THE INTERSECTION OF D STREET AND VALLEY STREET

NEW CROSSWALK AT THE INTERSECTION OF C STREET AND VALLEY STREET

1 "D" STREET & "C" STREET LIGHTING CALCULATION PLAN

SCALE: 1" = 20' - 0"

CALCULATED ILLUMINANCE LEVELS ARE INDICATED AS INITIAL FOOTCANDLES AT GRADE.

N

FEET 20 0 20 40

CHECK GRAPHIC SCALE BEFORE USING

NOT FOR CONSTRUCTION
LEVEL III SITE PLAN APPLICATION
07/24/18

BECKER STRUCTURAL ENGINEERS
75 York Street, Portland, Maine 04101
207.879.1838 • beckerstructural.com

Bartlett Design
LIGHTING & ELECTRICAL ENGINEERING
5 PALMER STREET, SUITE 3 SOUTH PORTLAND, ME 04530
TEL: (207) 445-1547

STATE OF MAINE LAWRENCE E. BARTLETT No. 7928 PROFESSIONAL ENGINEER
Lawrence E. Bartlett 7/24/18

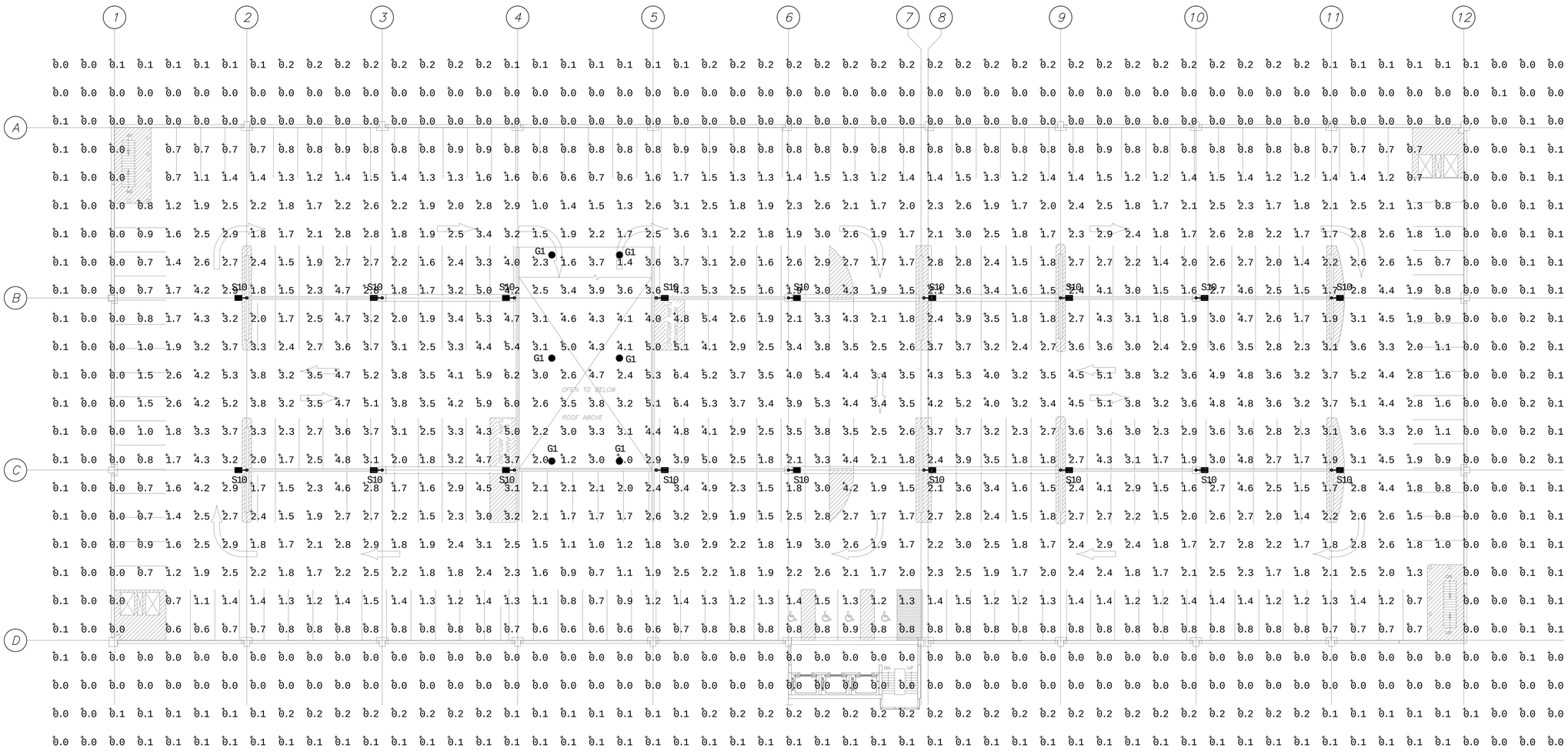
No.	Rev.	Date	By

222 ST. JOHN ST PG
PORTLAND, ME

SITE LIGHTING CALCULATION PLAN – 4

Designed LEB	Scale 1"=20'-0"
Drawn LEB	Date 7/16/18
Checked LEB	Becker Job Number 4070

E0.4



ROOF DECK PARKING LIGHTING STATISTICS:

	AS DESIGNED	RECOMMENDED BY IESNA*
AVERAGE:	2.4 FC	
MAXIMUM:	6.4 FC	
MINIMUM:	0.6 FC	0.5 FC (or greater)
AVERAGE-TO-MINIMUM UNIFORMITY RATIO:	4.0-TO-1	4.0-TO-1 (or lesser)
MAXIMUM-TO-MINIMUM UNIFORMITY RATIO:	10.7-TO-1	15.0-TO-1 (or lesser)

N

16 0 FEET 16 32

CHECK GRAPHIC SCALE BEFORE USING

1 ROOF DECK LIGHTING CALCULATION PLAN
SCALE: 1/16" = 1' - 0"

CALCULATED ILLUMINANCE LEVELS ARE INDICATED AS INITIAL FOOTCANDLES AT THE ROOF DECK.

NOT FOR CONSTRUCTION
LEVEL III SITE PLAN APPLICATION
7/24/18

BECKER STRUCTURAL ENGINEERS
75 York Street, Portland, Maine 04101
207.879.1838 • beckerstructural.com

Bartlett Design
LIGHTING & ELECTRICAL ENGINEERING
5 PALMER STREET, PORTLAND, ME 04101
TEL (207) 443-5447

STATE OF MAINE LAWRENCE E. BARTLETT No. 7928 REGISTERED PROFESSIONAL ENGINEER
Lawrence E. Bartlett 7/24/18

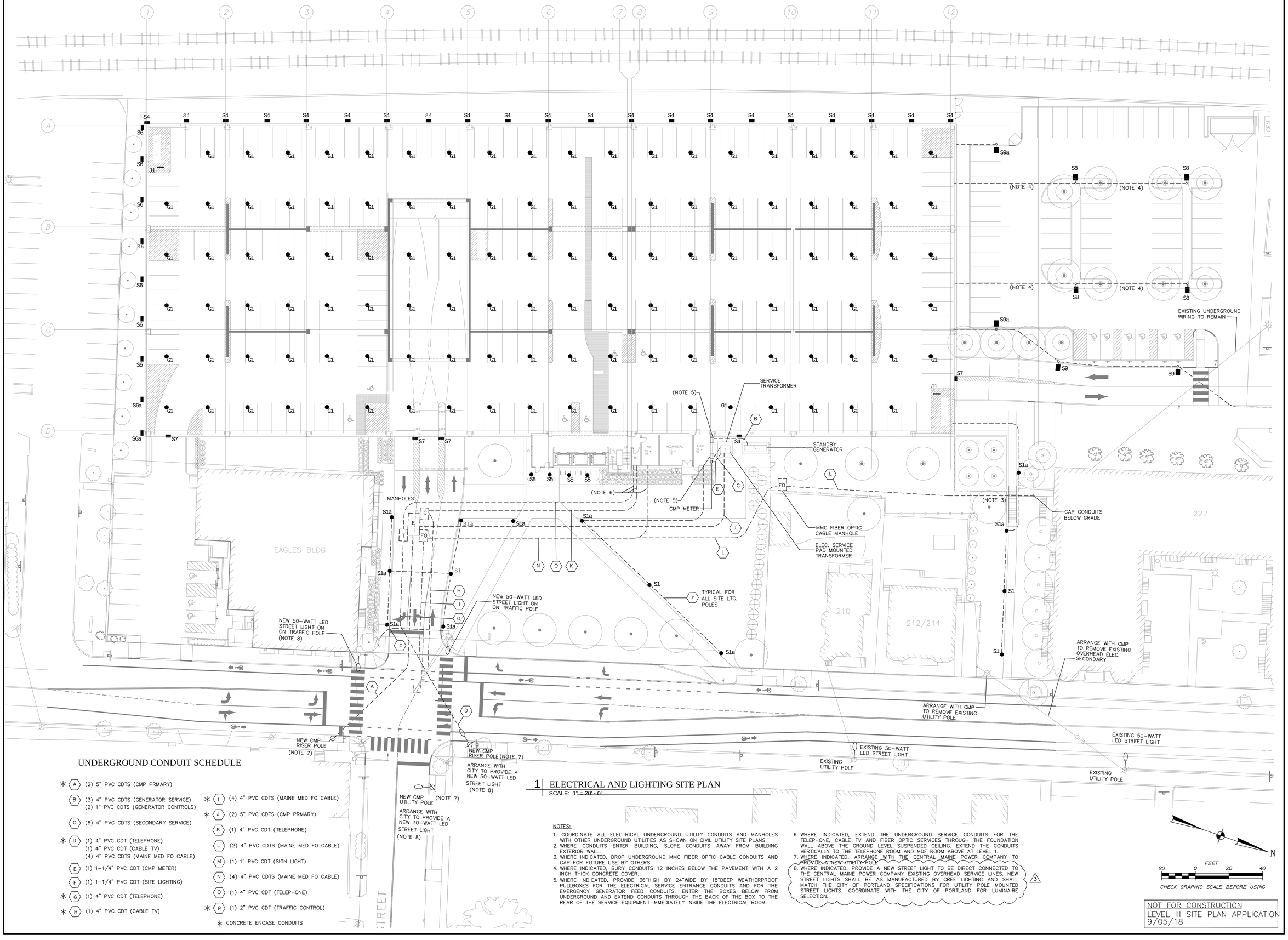
Rev No	Date	Issued For

222 ST. JOHN ST PG
PORTLAND, ME

ROOF DECK LIGHTING CALCULATION PLAN

Designed LEB	Scale 1"=16'-0"
Drawn LEB	Date 07/16/18
Checked LEB	Becker Job Number 4070

E0.5



UNDERGROUND CONDUIT SCHEDULE

- * (A) (2) 5" PVC CDTS (CMP PRMARY)
- (B) (3) 4" PVC CDTS (GENERATOR SERVICE)
  (2) 1" PVC CDTS (GENERATOR CONTROLS)
- (C) (6) 4" PVC CDTS (SECONDARY SERVICE)
- * (D) (1) 4" PVC CDT (TELEPHONE)
  (1) 4" PVC CDT (CABLE TV)
  (4) 4" PVC CDTS (MAINE MED FO CABLE)
- (E) (1) 1-1/4" PVC CDT (CMP METER)
- (F) (1) 1-1/4" PVC CDT (SITE LIGHTING)
- * (G) (1) 4" PVC CDT (TELEPHONE)
- * (H) (1) 4" PVC CDT (CABLE TV)
- * (I) (4) 4" PVC CDTS (MAINE MED FO CABLE)
- * (J) (2) 5" PVC CDTS (CMP PRMARY)
- (K) (1) 4" PVC CDT (TELEPHONE)
- (L) (2) 4" PVC CDTS (MAINE MED FO CABLE)
- (M) (1) 1" PVC CDT (SIGN LIGHT)
- (N) (4) 4" PVC CDTS (MAINE MED FO CABLE)
- (O) (1) 4" PVC CDT (TELEPHONE)
- * (P) (1) 2" PVC CDT (TRAFFIC CONTROL)

* CONCRETE ENCASE CONDUITS

1 ELECTRICAL AND LIGHTING SITE PLAN

SCALE: 1" = 20'-0"

NOTES:

1. COORDINATE ALL ELECTRICAL UNDERGROUND UTILITY CONDUITS AND MANHOLES WITH OTHER UNDERGROUND UTILITIES AS SHOWN ON CIVIL UTILITY SITE PLANS.
2. WHERE CONDUITS ENTER BUILDING, SLOPE CONDUITS AWAY FROM BUILDING EXTERIOR WALL.
3. WHERE INDICATED, DROP UNDERGROUND MMC FIBER OPTIC CABLE CONDUITS AND CAP FOR FUTURE USE BY OTHERS.
4. WHERE INDICATED, BURY CONDUITS 12 INCHES BELOW THE PAVEMENT WITH A 2 INCH THICK CONCRETE COVER.
5. WHERE INDICATED, PROVIDE 36"HIGH BY 24"WIDE BY 18"DEEP WEATHERPROOF PULLBOXES FOR THE ELECTRICAL SERVICE ENTRANCE CONDUITS AND FOR THE EMERGENCY GENERATOR FEED CONDUITS. ENTER THE BOXES BELOW FROM UNDERGROUND AND EXTEND CONDUITS THROUGH THE BACK OF THE BOX TO THE REAR OF THE SERVICE EQUIPMENT IMMEDIATELY INSIDE THE ELECTRICAL ROOM.
6. WHERE INDICATED, EXTEND THE UNDERGROUND SERVICE CONDUITS FOR THE TELEPHONE, CABLE TV AND FIBER OPTIC SERVICES THROUGH THE FOUNDATION WALL ABOVE THE GROUND LEVEL SUSPENDED CEILING. EXTEND THE CONDUITS VERTICALLY TO THE TELEPHONE ROOM AND MDF ROOM ABOVE AT LEVEL 1.
7. WHERE INDICATED, ARRANGE WITH THE CENTRAL MAINE POWER COMPANY TO PROVIDE A NEW UTILITY POLE.
8. WHERE INDICATED, PROVIDE A NEW STREET LIGHT TO BE DIRECT CONNECTED TO THE CENTRAL MAINE POWER COMPANY EXISTING OVERHEAD SERVICE LINES. NEW STREET LIGHTS SHALL BE AS MANUFACTURED BY CREE LIGHTING AND SHALL MATCH THE CITY OF PORTLAND SPECIFICATIONS FOR UTILITY POLE MOUNTED STREET LIGHTS. COORDINATE WITH THE CITY OF PORTLAND FOR LUMINAIRE SELECTION. (3)

CHECK GRAPHIC SCALE BEFORE USING

NOT FOR CONSTRUCTION
LEVEL III SITE PLAN APPLICATION
9/05/18

BECKER
STRUCTURAL ENGINEERS
79 York Street, Portland, Maine 04101
207.879.3358 • beckerstructural.com

Bartlett Design
LIGHTING & ELECTRICAL ENGINEERING
9 PALMER STREET PORTLAND, ME 04050
TEL: (207) 443-5447

STATE OF MAINE — LAWRENCE E. BARTLETT — 2549 — REGISTERED PROFESSIONAL ENGINEER
Lawrence E. Bartlett 9/5/18

Rev. No	Date	Issued For
1	7/24/18	Response to Comments
2	8/23/18	Response to Comments
3	9/05/18	Response to Comments

MMC ST. JOHN ST PG
PORTLAND, ME

ELECTRICAL SITE PLAN – 1

Designed LEB	Scale AS NOTED
Drawn LEB	Date 8/23/18
Checked LEB	Becker Job Number 4070

E1.1

10 11 12

S4 S4 S4 S4 S4

1 G1 G1 G1 G1

S9a

S8 S8

(NOTE 4) (NOTE 4)

(NOTE 4) (NOTE 4)

S8 S8

EXISTING UNDERGROUND WIRING TO REMAIN

S9a

S7 S9 S9

J1

S1 S1 S1

STANDBY GENERATOR

S1a

FO

L

(NOTE 3)

CAP CONDUITS BELOW GRADE

222

S1a

MMC FIBER OPTIC CABLE MANHOLE

ELEC. SERVICE PAD MOUNTED TRANSFORMER

S1

210

212/214

S1

S1

S1

S1

ARRANGE WITH CMP TO REMOVE EXISTING UTILITY POLE

ARRANGE WITH CMP TO REMOVE EXISTING OVERHEAD ELEC. SECONDARY

ST JOHN STREET

OHW

EXISTING UTILITY POLE

ARRANGE WITH CITY TO PROVIDE A NEW 50-WATT LED STREET LIGHT

NEW CMP UTILITY POLE

ARRANGE WITH CITY TO PROVIDE A NEW 50-WATT LED STREET LIGHT

EXISTING 30-WATT LED STREET LIGHT

EXISTING UTILITY POLE #27

EXISTING 50-WATT LED STREET LIGHT

EXISTING UTILITY POLE #29

UGT

EXISTING UTILITY POLE #30

ARRANGE WITH CITY TO PROVIDE A NEW 50-WATT LED STREET LIGHT

NEW CMP UTILITY POLE

ARRANGE WITH CITY TO PROVIDE A NEW 50-WATT LED STREET LIGHT

EXISTING 50-WATT LED STREET LIGHT

#31

EXISTING UTILITY POLE

NEW CMP UTILITY POLE

ARRANGE WITH CITY TO PROVIDE A NEW 50-WATT LED STREET LIGHT

ARRANGE WITH CITY TO PROVIDE A NEW 50-WATT LED STREET LIGHT

#32

NEW CMP UTILITY POLE

ARRANGE WITH CITY TO PROVIDE A NEW 30-WATT LED STREET LIGHT

NEW CMP UTILITY POLE

N

FEET

20 0 20 40

CHECK GRAPHIC SCALE BEFORE USING

1 ELECTRICAL AND LIGHTING SITE PLAN

SCALE: 1" = 20' - 0"

NOT FOR CONSTRUCTION
LEVEL III SITE PLAN SUBMISSION
07/24/18

BECKER
STRUCTURAL ENGINEERS
75 York Street, Portland, Maine 04101
207.879.1838 • beckerstructural.com

Bartlett Design
LIGHTING & ELECTRICAL ENGINEERING
5 PALMER STREET, SUITE 1 PORTLAND, ME 04630
TEL: (207) 449-1544

STATE OF MAINE LAWRENCE E. BARTLETT No. 7928 PROFESSIONAL ENGINEER
Lawrence E. Bartlett 7/24/18

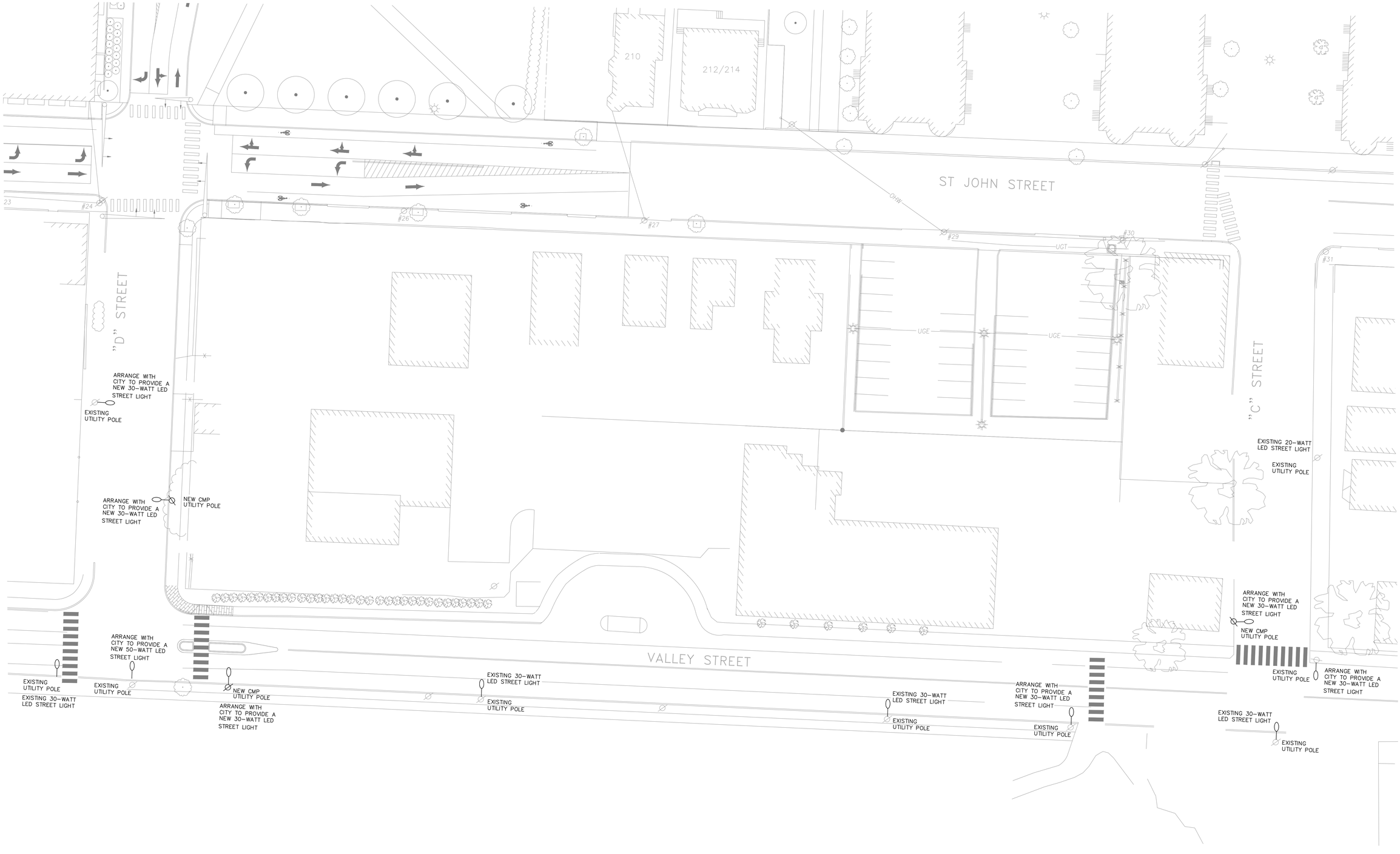
Rev No	Date	Issued For

222 ST. JOHN ST PG
PORTLAND, ME

ELECTRICAL SITE PLAN - 2

Designed LEB	Scale 1"=20'-0"
Drawn LEB	Date 7/16/18
Checked LEB	Becker Job Number 4070

E1.2



NOTES:

1. ALL WORK SHOWN SHALL BE QUOTED UNDER AN ALTERNATE BID. INFORMATION SHOWN IS FOR PRICING ONLY AND NOT FOR CONSTRUCTION.

OFF-SITE PROJECT IMPROVEMENTS:

NEW SIDEWALK ALONG D STREET

NEW CROSSWALK AT THE INTERSECTION OF D STREET AND VALLEY STREET

NEW CROSSWALK AT THE INTERSECTION OF C STREET AND VALLEY STREET

N

FEET

20 0 20 40

CHECK GRAPHIC SCALE BEFORE USING

1 ELECTRICAL AND LIGHTING SITE PLAN

SCALE: 1" = 20' - 0"

NOT FOR CONSTRUCTION
LEVEL III SITE PLAN SUBMISSION
07/24/18

BECKER
STRUCTURAL ENGINEERS
75 York Street, Portland, Maine 04101
207.879.1838 • beckerstructural.com

Bartlett Design
LIGHTING & ELECTRICAL ENGINEERING
5 PALMER STREET, PORTLAND, ME 04101
TEL. (207) 443-5447

STATE OF MAINE
LAWRENCE E. BARTLETT
No. 7928
REGISTERED PROFESSIONAL ENGINEER
Lawrence E. Bartlett
7/24/18

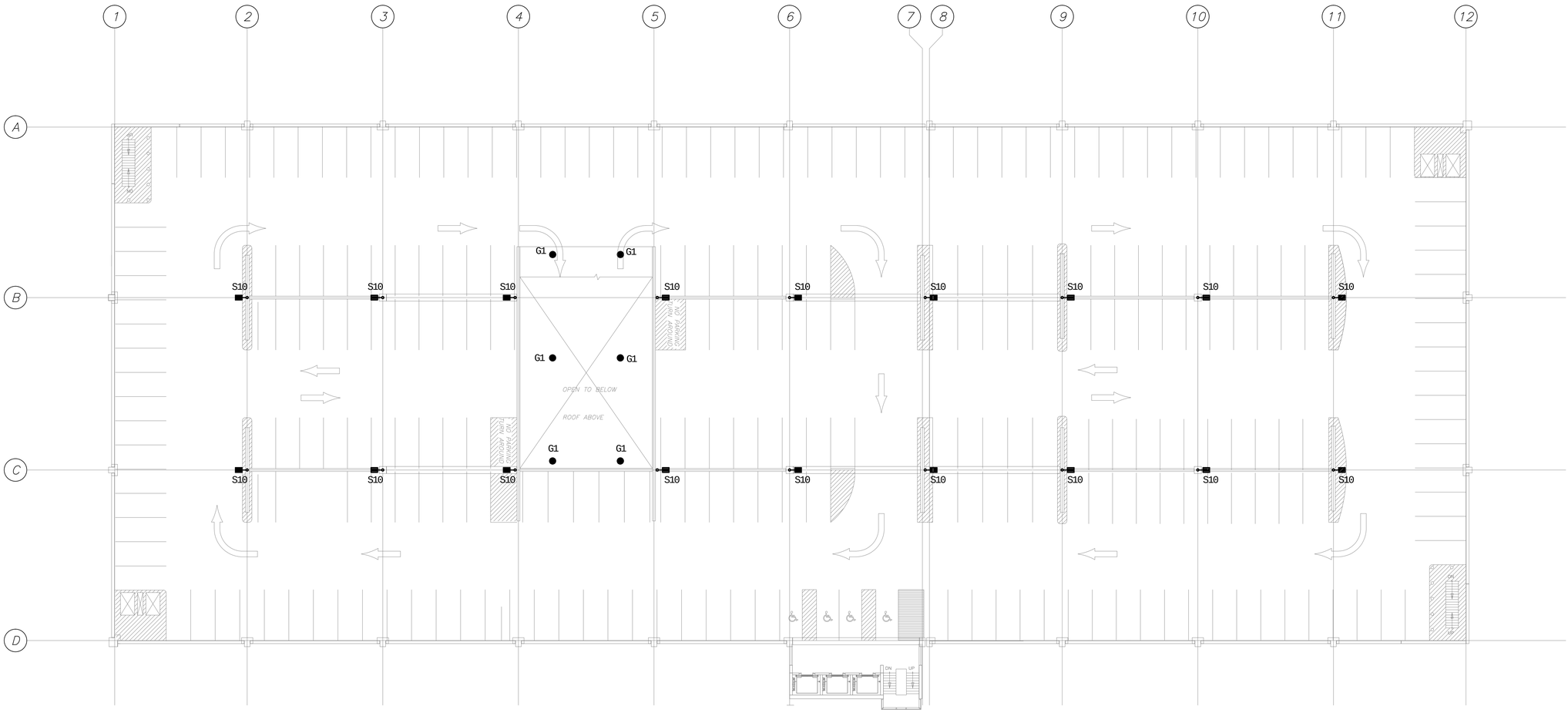
Rev No	Date	Issued For	Appvd

222 ST. JOHN ST PG
PORTLAND, ME

ELECTRICAL SITE PLAN - 3

Designed LEB	Scale 1"=20'-0"
Drawn LEB	Date 7/16/18
Checked LEB	Becker Job Number 4070

E1.3



1 ROOF DECK ELECTRICAL PLAN
SCALE: 1/16" = 1' - 0"

N

16 0 FEET 16 32

CHECK GRAPHIC SCALE BEFORE USING

NOT FOR CONSTRUCTION
LEVEL III SITE PLAN SUBMISSION
7/24/18

BECKER
STRUCTURAL ENGINEERS
75 York Street, Portland, Maine 04101
207.879.1838 • beckerstructural.com

Bartlett Design
LIGHTING & ELECTRICAL ENGINEERING
5 PALMER STREET PORTLAND, ME 04101
TEL. (207) 443-5447

STATE OF MAINE
LAWRENCE E. BARTLETT
No. 7928
REGISTERED PROFESSIONAL ENGINEER
Lawrence E. Bartlett 7/24/18

Rev No.	Date	Issued For
		Appvd

222 ST. JOHN ST PG
PORTLAND, ME

ROOF DECK ELECTRICAL PLAN

Designed LEB	Scale 1"=16'-0"
Drawn LEB	Date 07/16/18
Checked LEB	Becker Job Number 4070

E1.4