NEW 6-STORY (72'-4") FULLY SPRINKLERED SELF-STORAGE (S-1) FACILITY W/ OFFICE TYPE 1-B CONSTRUCTION 18,474 SF FOOTPRINT 110,844 GROSS SF AT

2390 MARINER SQUARE DRIVE

ALAMEDA, CALIFORNIA 94501

OWNER:

BANNER STORAGE GROUP, LLC

ARCHITECT:

SULLIVAN GOULETTE & WILSON ARCHITECTS

ARCHITECT:
SULLIVAN GOULETTE WILSON, LTD.
444 N. MICHIGAN AVENUE - SUITE 1850
CHICAGO, IL 60611
TEL. (312) 988-7412
FAX. (312) 988-7409
www.sgwarch.com

CIVIL ENGINEER:
BLUE PEAK ENGINEERING, INC.
18543 YORBA LINDA BLVD.
SUITE #235
YORBA LINDA, CA 92886
TEL: (714) 749-3077

CONTRACTOR:
ARCO MURRAY
900 N. ROCK HILL ROAD
ST. LOUIS, MISSOURI 63119
TEL: (314) 963-0715
FAX: (314) 963-7114

LANDSCAPE ARCHITECT:
WILSON DESIGN STUDIO
1631 ALHAMBRA BLVD
SUITE 100
SACRAMENTO, CA 95816
TEL: (916) 524-5614

STRUCTURAL ENGINEER:
MARTIN/ MARTIN
700 LARKSPUR LANDING CIR.
SUITE #155
LARKSPUR, CA 94939
TEL: (415) 814-0030

ABBREVIATIONS

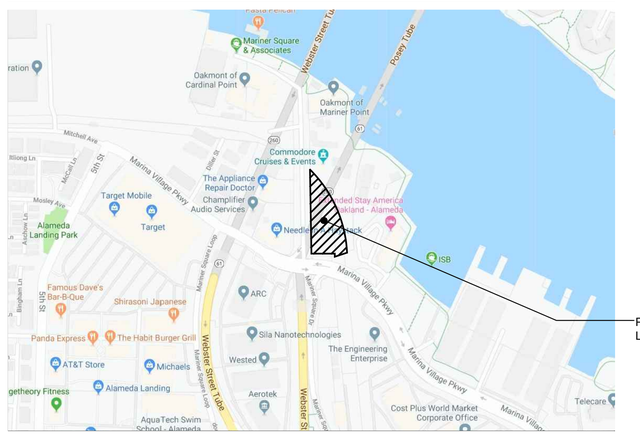
ALT	ALTERNATE	ELECT	ELECTRICAL	MULL	MULLION
A/C	AIR CONDITIONING	EL	ELEVATION	NIC	NOT IN CONTRACT
AFF	ABOVE FINISHED FLOOR	EJ	EXPANSION JOINT	NTS	NOT TO SCALE
AL	ALUMINUM	EP	EPOXY PAINT	OC	ON CENTER
ARF	ABOVE RAISED FLOOR	EQ	EQUAL	OFCI	OWNER FURNISHED, CONTRACTOR TO INSTALL
AT	ACOUSTIC TILE	EXIST	EXISTING		
BD	BOARD	EXP	EXPOSED	OPP	OPPOSITE
BLD	BUILDING	EXT	EXTERIOR	PNT	PAINT
BLKG	BLOCKING	EWC	ELECTRIC WATER COOLER	PR	PAIR
BO	BOTTOM OF	FEC	FIRE EXTINGUISHER CABINET	PLAM	PLASTIC LAMINATE
BR	BRUSHED	FHC	FIRE HOSE CABINET	PL	PLATE
BRG	BEARING	FIN	FINISH	QT	QUARRY TILE
CA	CLEAR ANODIZED	FD	FLOOR DRAIN	RAD	RADIUS
CAB	CABINET	FLR	FLOOR	R	RISER
CPT	CARPET	FOM	FACE OF MASONRY TO FACE OF MASONRY	RH	RIGHT HAND
CL	CENTERLINE			REQ'D	REQUIRED
CLG	CEILING	FTG	FOOTING	RO	ROUGH OPENING
CJ	CONTROL JOINT	GA	GAUGE	SB	SANDBLAST
CMU	CONC. MASONRY UNIT	GALV	GALVANIZED	SC	SOLID CORE
CONC	CONCRETE	GB	GYPSUM BOARD	SCHED	SCHEDULE
CONT	CONTINUOUS	GL	GLASS	SM	SHEET METAL
CI	CAST IRON	HDWD	HARDWOOD	SHT	SHEET
CO	CLEAN OUT	HDWR	HARDWARE	SIM	SIMILAR
CW	COLD WATER	HM	HOLLOW METAL	SS	STAINLESS STEEL
CP	CEMENT PLASTER	HR	HOUR	STD	STANDARD
CT	CERAMIC TILE	HT	HEIGHT	THK	THICK
DF	DRINKING FOUNTAIN	HW	HOT WATER	TRANS	TRANSPARENT
DIA	DIAMETER	INT	INTERIOR	T	TREAD
DIM	DIMENSION	INSUL	INSULATION	TO	TOP OF
DN	DOWN	JT	JOINT	T & G	TONGUE AND GROOVE
DS	DOWNSPOUT	LC	LIGHTWEIGHT CONC.	TYP	TYPICAL
DET	DETAIL	LAM	LAMINATED	UNO	UNLESS NOTED OTHERWISE
DW	DRY WALL	LAV	LAVATORY	VCT	VINYL COMPOSITION TILE
DWG	DRAWING	LH	LEFT HAND	VIF	VERIFY IN FIELD
EA	EACH	MFR	MANUFACTURER	WD	WOOD
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM	MO	MASONRY OPENING	WP	WALL PHONE
		MWK	MILLWORK	WWF	WELDED WIRE FABRIC
		MTL	METAL		

LEGEND

- ROOM NAME/NUMBER TAG (ROOM #)
- ELEVATION TAG/ MARK (FLOOR EL-XX'-X")
- DRAWING REVISION TAG
- NOTE TAG
- DOOR TAG (See A5-# series dwgs) (###)
- WINDOW TAG (See A5-# series dwgs) (XX)
- WALL TYPE (See A4-# series dwgs) (X)
- DETAIL TAG (DETAIL # / DWG #)
- INTERIOR ELEVATION TAG (ELEVATION # / SHEET #)
- EXTERIOR ELEVATION TAG (ELEVATION # / SHEET #)
- SECTION TAG (SECTION # / SHEET #)
- RCP ELEVATION TAG (0'-0")
- SMOKE DETECTOR (SD)
- CARBON MONOXIDE DETECTOR (CO)
- NEW PARTITION- SEE PLANS FOR TYPE
- EXISTING CONSTRUCTION TO BE REMOVED
- EXISTING N.I.C.
- EXISTING CONSTRUCTION TO REMAIN
- ACOUSTIC TILE
- ALUMINUM
- BATT. INSUL. OR SOUND ATTN. BLANKET
- BRICK (PLAN & SECTION)
- BRICK (ELEV.)
- CONCRETE
- CONCRETE MASONRY UNIT (C.M.U.)
- EXISTING DOOR TO REMAIN
- GLASS (ELEV.)
- GLASS (SECT.)
- MORTAR, GROUT, THINSET OR CEMENT
- GYPSUM BOARD
- METAL LATH & PLASTER
- PLYWOOD
- QUARRY TILE OR CERAMIC TILE
- RIGID INSULATION
- STEEL
- TERRAZZO
- WOOD STYLE
- WOOD-ROUGH OR FRAMING
- 2 x 2 LAY-IN ACOUSTICAL TILE CEILING
- GYP. BD. CLG./SOFFIT

Exhibit 1
Item 7-B, March 9, 2020
Planning Board Meeting

LOCATION MAP



DRAWING INDEX

DWG #	DESCRIPTION	ISSUED FOR REVIEW : 10/09/19	ISSUED FOR REVIEW : 01/03/20	ISSUED FOR REVIEW : 02/07/20
GENERAL - SULLIVAN GOULETTE WILSON LTD.				
G0-0	TITLE SHEET, PROJECT DESCRIPTION, LOCATION MAP, DRAWING INDEX, ABBREVIATIONS & SYMBOLS LEGEND	●	●	●
CIVIL				
C-01	TITLE SHEET	●	●	●
C-02	PRELIMINARY GRADING PLAN	●	●	●
C-03	PRELIMINARY GRADING PLAN-2	●	●	●
C-04	PRELIMINARY SECTIONS	●	●	●
C-05	PRELIMINARY WQMP EXHIBIT	●	●	●
C-06	PRELIMINARY WQMP DETAILS	●	●	●
C-07	PRELIMINARY WQMP CALCS	●	●	●
C-08	PRELIMINARY WET UTILITY PLAN	●	●	●
C-09	FIRE TRUCK TURN EXHIBIT	●	●	●
C-10	FIRE TRUCK TURN EXHIBIT	●	●	●
LANDSCAPE				
L1	PRELIMINARY PLANTING PLAN	●	●	●
L2	PLANT PALETTE IMAGERY	●	●	●
L3	PRELIMINARY IRRIGATION PLAN	●	●	●
ARCHITECTURAL - SULLIVAN GOULETTE WILSON LTD.				
A0-0	SURVEY	●	●	●
A0-1	SITE PLAN	●	●	●
A0-2	ZONING MAP & ZONING DATA	●	●	●
A0-3	STREET PHOTOGRAPHS	●	●	●
A1-1	FIRST FLOOR PLAN	●	●	●
A1-2	SECOND FLOOR PLAN	●	●	●
A1-3	THIRD & FOURTH FLOOR PLAN	●	●	●
A1-4	FIFTH FLOOR PLAN	●	●	●
A1-5	SIXTH FLOOR PLAN	●	●	●
A1-6	ROOF PLAN	●	●	●
A2-1	BUILDING ELEVATIONS	●	●	●
A2-2	BUILDING ELEVATIONS	●	●	●
A2-3	PERSPECTIVE	●	●	●
A2-4	SHADOW STUDY	●	●	●
A3-1	BUILDING SECTIONS	●	●	●
A4-1	WINDOW SCHEDULE & DETAILS	●	●	●
A4-2	PHOTOMETRIC PLAN & PRODUCT SPECIFICATIONS		●	●
A5-1	PERSPECTIVE			●
A5-2	PERSPECTIVE			●
A5-3	PERSPECTIVE			●
A5-4	PERSPECTIVE			●
A5-5	PERSPECTIVE			●
STRUCTURAL				
MECHANICAL				
PLUMBING				
ELECTRICAL				

THE DRAWINGS COMPLY WITH THE FOLLOWING CITY OF ALAMEDA MUNICIPAL CODES, ALL CODES BELOW HAVE BEEN ADOPTED FROM THE CALIFORNIA BUILDING CODE, CURRENT EDITION:

City of Alameda Building Code
City of Alameda Electric Code
City of Alameda Mechanical Code
City of Alameda Plumbing Code
City of Alameda Energy Code
California Fire Code, Current Edition
California Accessibility Code, Current Edition

NO	DATE	ISSUE DESCRIPTION
3	02/07/20	CITY OF ALAMEDA REVIEW
2	01/03/20	CITY OF ALAMEDA REVIEW
1	10/09/19	CITY OF ALAMEDA REVIEW

THESE DRAWINGS MAY HAVE BEEN REPRODUCED AT A SIZE DIFFERENTLY THAN ORIGINALLY DRAWN. OWNER AND ARCHITECT ASSUME NO RESPONSIBILITY FOR USE OF INCORRECT SCALE.

CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO PROCEEDING WITH CONSTRUCTION AND NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR CONFLICTS.

PRINCIPAL: MS
QC BY: DC
P.M.: CM & MA
DRAWN BY: JW

SULLIVAN GOULETTE & WILSON ARCHITECTS
444 N MICHIGAN AVE
SUITE 1850
CHICAGO, IL 60611
Ph 312.988.7412
Fx 312.988.7409
www.sgwarch.com

PROFESSIONAL DESIGN FIRM
License Number: 184-001505
Expiration Date: April 30, 2021

2390 MARINER SQUARE DRIVE

ALAMEDA, CALIFORNIA 94501

TITLE SHEET & DRAWING INDEX

G0-0

PRELIMINARY GRADING PLANS FOR:

SELF STORAGE FACILITY

AT 2390 MARINER SQUARE DRIVE

CITY OF ALAMEDA

LEGAL DESCRIPTION:

THE LAND REFERRED TO HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF ALAMEDA, CITY OF ALAMEDA, AND DESCRIBED AS FOLLOWS:

BEING A PORTION OF TRACTS 31 AND 32, AS SAID TRACTS ARE SHOWN ON THAT CERTAIN MAP ENTITLED "MAP OF ALAMEDA MARSH LANDS, AS PARTIONED AMOUNT THE OWNERS THEREOF IN SUITE NO. 8932," FILED JULY 30, 1990, IN THE BOOK 25 OF MAPS AT PAGES 74, 76, AND 7, IN THE OFFICE OF THE COUNTY RECORDER OF ALAMEDA COUNTY, DESCRIBED AS FOLLOWS:

BEING ALSO THE LANDS DESCRIBED AS THE SOUTHWESTERLY LOT OF THAT CERTAIN CERTIFICATE OF COMPLIANCE, RECORDED JUNE 7, 2001, AS INSTRUMENT NO. 2001194211, OFFICIAL RECORDS OF ALAMEDA COUNTY, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE MOST NORTHERLY CORNER OF SAID SOUTHERWESTERLY LOT, SAID CORNER BEING ALSO A POINT OF THE EASTERLY LINE OF MARINER SQUARE DRIVE, FORMERLY WEBSTER STREET AND TRACT 33 OF THE SAID MAP OF ALAMEDA MARSH LANDS, SAID POINT BEING ALSO THE BEGINNING OF A NON-TANGENT CURVE, CONCAVE TO THE SOUTHWEST, HAVING A RADIUS OF 740.00 FEET, WITH A RADIAL LINE THAT BEARS NORTH 47°45'34"EAST;

THENCE LEAVING SAID POINT AND ALONG THE NORTHEASTERLY LINE OF SAID SOUTHERWESTERLY LOT, SOUTHEASTERLY ALOGN SAID CURVE, THROUGH A CENTRAL ANGLE OF 37°58'08", FOR AN ARC LENGTH OF 490.38 FEET TO THE SOUTHEASTERLY LINE OF THAT CERTAIN PARCEL OF LAND DESCRIBED IN THE DEED FROM CENTRAL PACIFIC RAILROAD COMPANY, A CORPORATION TO CITY OF ALAMEDA, DATED AUGUST 10, 1910 AND RECORDED MAY 6, 1922 IN BOOK 1925 OF DEEDS AT PAGE 93, RECORDS OF ALAMEDA COUNTY;

THENCE ALONG SAID SOUTHEASTERLY LINE, SOUTH 71°30'00" WEST, 60.44 FEET TO THE WESTERLY LINE OF SAID TRACT 31;

THENCE ALONG SAID WESTERLY LINE, NORTH 05°56'00" WEST, 20.49 FEET TO A POINT, SAID POINT BEING MARKED AT "C" ON SAID MAP OF ALAMEDA MARSH LANDS;

THENCE LEAVING SAID POINT "C" AND ALONG THE SOUTHERLY LINE OF TEH PARCEL DESCRIBED IN THAT CERTAIN DEED FROM THE OAKLAND WATER FRONT COMPANY, A CORPORATION TO SOUTH PACIFIC COAST RAILWAY COMPANY, A CORPORATION, DATED SEPTEMBER 14, 1905 AND RECORDED OCTOBER 31, 1905 IN BOOK 1037 OF DEEDS AT PAGE 329, RECORDS OF SAID COUNTY, SOUTH 89°10'00"WEST.
124.24 FEET TO SAID EASTERLY LINE OF MARINER SQUARE DRIVE.

THENCE ALONG EASTERLY LINE, NORTH 00°50'00" WEST 442.99 FEET TO THE POINT OF BEGINNING.

APN: 074-1363-004; 074-1363-005, 074-1363-007

EASEMENTS:

4. COVENANT AND AGREEMENT,
EXECUTED BY: CENTRAL PACIFIC RAILWAY COMPANY, ET AL
IN FAVOR OF: COUNTY OF ALAMEDA
RECORDED: FEBRUARY 17, 1965 IN BOOK 948, PAGE 39 OF OFFICIAL RECORDS UNDER RECORDER'S SERIAL NUMBER U-13080.

AMOUNT OTHER THINGS, SAID DOCUMENT PROVIDES A TUNNEL OR SUBWAY.

AN EASEMENT AFFECTING THAT PORTION OF SAID LAND AND FOR THE PURPOSES STATED HEREIN AND INCIDENTAL PURPOSES AS PROVIDED IN THE ABOVE MENTIONED SUBWAY AGREEMENT.

FOR: TUNNEL OR SUBWAY.

5. AN EASEMENT FOR POWER LINES AND RIGHTS INCIDENTAL THERETO IN FAVOR OF CITY OF ALAMEDA, A MUNICIPAL CORPORATION AS SET FORTH IN A DOCUMENT RECORDED APRIL 23, 1942 IN BOOK 4191, PAGE 400, OFFICIAL RECORDS, AFFECTS A SIX FOOT STRIP OF LAND IN THE WESTERLY PORTION OF PREMISES.

6. AN EASEMENT OF CONSTRUCTION, MAINTENANCE, AND OPERATION OF A SEWER PIPE AND RIGHTS INCIDENTAL THERETO IN FAVOR OF EAST MAY MUNICIPAL UTILITY DISTRICT, A PUBLIC CORPORATION AS SET FORTH IN A DOCUMENT RECORDED JANUARY 17, 1951 IN BOOK 6336 PAGE 351, OF OFFICIAL RECORDS.

9. THE MATTERS CONTAINED IN AN INSTRUMENT ENTITLED CERTIFICATE OF COMPLIANCE BY CITY OF ALAMEDA UPON THE TERMS THEREIN PROVIDED JUNE 7, 2001 AS INSTRUMENT NO. 2001194211, OF OFFICIAL RECORDS.

REFERENCE IS MADE TO SAID DOCUMENT FOR FULL PARTICULARS.

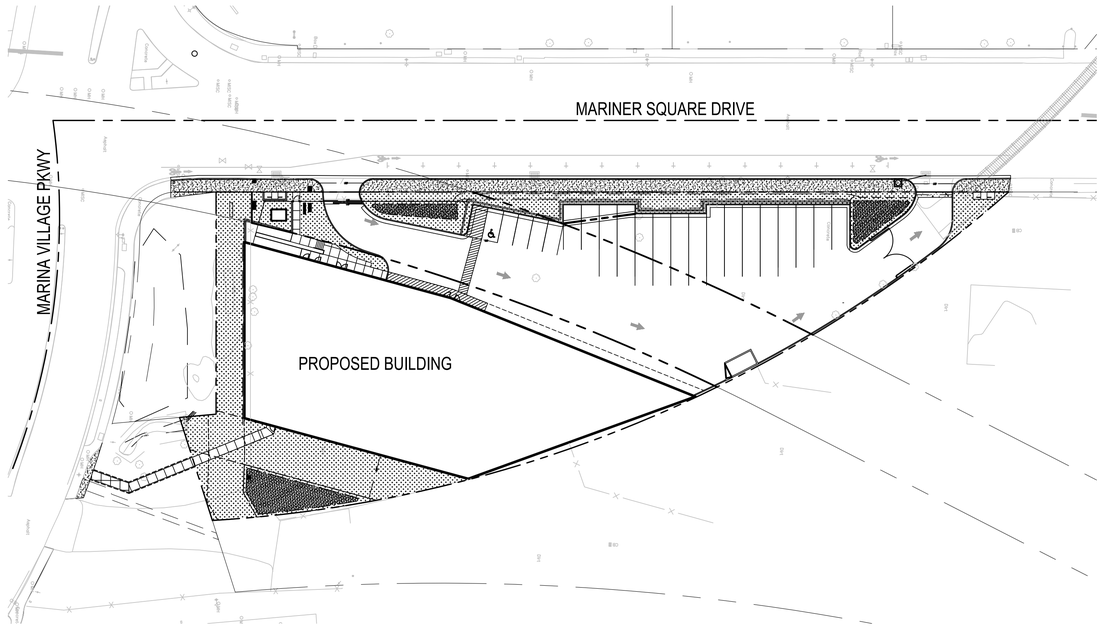
11. THE MATTERS CONTAINED IN AN INSTRUMENT ENTITLED QUITCLAIM DEED DATED NO SHOWN, BY AND BETWEEN UNION PACIFIC RAILROAD COMPANY, A DELWARE CORPORATION (FORMERLY KNOWN AS SOUTHERN PACIFIC TRANSPORTATION COMPANY, A DELAWARE CORPORATION) AND MFK INTERNATIONAL, LLC, A CALIFORNIA LIMITED LIABILITY COMPANY UPON THE TERMS THEREIN PROVIDED RECORDED APRIL 14, 2017 AS INSTRUMENT NO. 2017084941 OF OFFICIAL RECORDS.

PROJECT ADDRESS:

2390 MARINER SQUARE DRIVE, ALAMEDA CA

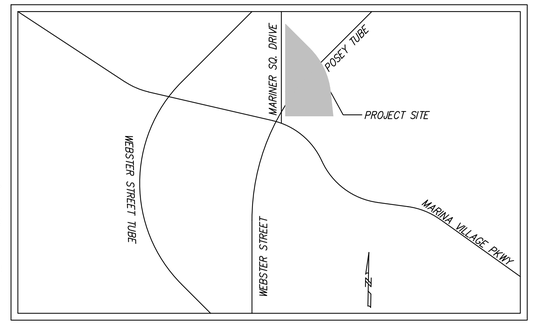
SITE AREA:

1.24 ACRES



INDEX MAP

1"=20'



VICINITY MAP

NTS

SHEET INDEX

LEGEND:

- PROPERTY LINE
- XX — EXISTING CONTOUR
- XX — PROPOSED CONTOUR
- LANDSCAPE
- BOTTOM OF FLOW THROUGH PLANTER

BASIS OF BEARINGS:

THE BEARING NORTH 00°48'16" EAST OF THE EASTERLY LINE OF MARINER SQUARE DRIVE, FORMERLY WEBSTER STREET, AS SAID BEARING IS SHOWN ON RECORD OF SURVEY NO. 2094, FILED FOR RECORD ON MARCH 7, 2007 IN BOOK 31 OF RECORDS OF SURVEY AT PAGES 74-78, RECORDS OF ALAMEDA COUNTY, WAS TAKEN AS THE BASIS OF BEARINGS FOR THIS SURVEY.

FEMA FLOOD ZONE:

SAID SURVEYED PROPERTY IS LOCATED WITHIN AN AREA HAVING A ZONE DESIGNATION SPECIAL FLOOD HAZARD AREA WITH BFE OR DEPTH, ZONE AE (EL 10), ON FLOOD INSURANCE RATE MAP NO. 06001C0067H, WITH A DATE OF IDENTIFICATION OF DECEMBER 21, 2018, IN ALAMEDA COUNTY, STATE OF CALIFORNIA, WHICH IS THE CURRENT FLOOD INSURANCE RATE MAP FOR THE COMMUNITY IN WHICH SAID SURVEYED PROPERTY IS SITUATED.

ABBREVIATIONS

℄	PROPERTY LINE
FF	FINISHED FLOOR
TC	TOP OF CURB
FS	FINISHED SURFACE
FL	FLOW LINE
FG	FINISHED GRADE
GB	GRADE BREAK
℄	CENTERLINE
R	RIDGE LINE
R/W	RIGHT OF WAY LINE
WV	WATER VALVE
W'LY	WESTERLY
N'LY	NORTHERLY
E'LY	EASTERLY
PROP.	PROPOSED
NAP	NOT A PART
FT	FEET
EV	ELECTRIC VEHICLE
CAV	CLEAN AIR VEHICLE
FEV	FUTURE ELECTRIC VEHICLE
STD.	STANDARD
R	RADIUS
AC	ACRES
CUP	CONDITIONAL USE PERMIT
AUP	ADMINISTRATIVE USE PERMIT
TPM	TENTATIVE PARCEL MAP
EX	EXISTING
WDS	WATER DEPARTMENT STANDARD
AWWA	AMERICAN WATER WORKS ASSOCIATION
VCP	VITRIFIED CLAY PIPE
SCH	SCHEDULE
PVC	POLYVINYL CHLORIDE
SDR	SPECIAL DRAWING RIGHT
PSI	POUNDS PER SQUARE INCH
NFPA	NATIONAL FIRE PREVENTION ASSOCIATION
HP PETRO	HIGH PRESSURE PETROLEUM
CB	CATCH BASIN
D	DIAMETER
N	NORTH
E	EAST
S	SOUTH
SCE	SOUTHERN CALIFORNIA EDISON
SF	SQUARE FOOT
PA	PLANTER
TYP.	TYPICAL
PROP.	PROPOSED
MIN.	MINIMUM
NO.	NUMBER
LL	LOT LINE
P/L	PROPERTY LINE
CF	CURB FACE
SS	SANITARY SEWER
SD	STORM DRAIN
W	WATER
WM	WATER METER
G	GAS
FDC	FIRE DEPARTMENT CONNECTION
PIV	POST INDICATOR VALVE
FW	FIRE WATER
MSL	MEDIAN SEA LEVEL
NGVD	NATIONAL GEODETIC VERTICAL DATUM
NAVD	NORTH AMERICAN VERTICAL DATUM
F.I.R.M	FEMA INSURANCE RATE MAP
LID	LOW IMPACT DEVELOPMENT
AVE	AVENUE
BLVD	BOULEVARD
APN	ACCESSOR'S PARCEL MAP
SQ.FT	SQUARE FEET
INV.	INVERT
BF	BACKFLOW
DW	DOMESTIC WATER
E	ELECTRIC
S=	SLOPE EQUALS
TAD	TOP OF AREA DRAIN
T	TELEPHONE
CFS	CUBIC FEET PER SECOND

UTILITY PURVEYORS:

WATER:

EAST BAY MUNICIPAL UTILITY DISTRICT
PIPELINE INFRASTRUCTURE DIVISION
375 11TH STREET, MS 504
OAKLAND, CA 94607
ROBERTS MCMULLIN, P.E
510-287-1296
RMCMULLIN@EBMUD.COM

SEWER:
EAST BAY MUNICIPAL UTILITY DISTRICT
375 11TH STREET
OAKLAND, CA. 94607
MATTHEW HOEFT
510-287-0214
MATTHEW.HOEFT@EBMUD.COM

STORM DRAIN:
CITY OF ALAMEDA
PUBLIC WORKS-ENGINEERING
950 W. MALL SQUARE
ALAMEDA, CA. 94501
SCOTT WIKSTROM
510-747-7930
SWIKSTROM@ALAMEDACA.GOV

ELECTRIC:
ALAMEDA MUNICIPAL POWER (AMP)
2000 GRAND STREET
ALAMEDA, CA. 94501
GARY SPENIK
SPENIK@ALAMEDAAMP.COM
510.814.6406

NATURAL GAS:
PG&E
RENOVATION SERVICE CENTER
5555 FLORIN PERKINS ROAD
SACRAMENTO, CA. 95826
877-743-7782

TELEPHONE & CABLE:
COMCAST
3055 COMCAST PLACE
LIVERMORE, CA. 94551
MARTINA GOMEZ
925-371-3519
COMCAST_CALIFORNIAINTENT@COMCAST.COM

AT&T
5005 EXECUTIVE PKWY, 3N650N
SAN RAMON, CA. 94583
DOUGLAS YAMSHITA
925-328-6818
DY5184@ATT.COM

FIRE:
CITY OF ALAMEDA
FIRE DEPARTMENT
1300 PARK ST.
ALAMEDA, CA. 94501
KEN JEFFREY-FIRE INSPECTOR

CALTRANS
DEPARTMENT OF TRANSPORTATION
111 GRAND AVE. RM #10-900
OAKLAND, CA. 94612-3717
XUEMEI (JULIA) ZHOU
510-826-6388
ZUEMEI.ZHOU@DOT.CA.GOVE

EARTHWORK:

STATEMENT OF QUANTITIES:

RAW CUT:	1000 CY
RAW FILL:	5500 CY

*NUMBERS ABOVE ASSUME ANY REMOVAL AND OVEREXCAVATED SOILS WILL BE RECYCLED FOR THE SITE, PER GEOTECHNICAL REPORT GUIDELINES. THESE ARE RAW NUMBERS AND DO NOT CONSIDER PAVEMENT/BUILDING SECTIONS, STORMWATER UNITS, TRENCHES, ETC.

NOTE: THE QUANTITIES AS SHOWN HEREON ARE FOR PERMIT AND/OR BONDING PURPOSES ONLY. THE GRADING CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF QUANTITIES PRIOR TO THE START OF GRADING AND ACCOUNT FOR DISTURBING ANY EXCESS MATERIAL OR SUPPLYING ANY DEFICIENCIES TO BRING SITE TO DESIGN GRADE. THE ABOVE CUT AND FILL FIGURES REPRESENT PURE VOLUME FIGURES ONLY. THERE IS NO CONSIDERATION TAKEN FOR SHRINKAGE, SUBSIDENCE, OR ANY OTHER LOSS FACTOR. THE CONTRACTOR'S BID WILL BE THE SOLE BASIS FOR ALL PAYMENTS FOR WORK DONE. PRIOR TO START OF CONSTRUCTION, CONTRACTOR/OWNER SHALL LOCATE TOE AND TOP OF SLOPES BY FIELD MEASUREMENTS AND VERIFY PAD ELEVATIONS.

ARCHITECT

SULLIVAN COULETTE & WILSON, LTD.
444 N. MICHIGAN AVE., SUITE 1850
CHICAGO, ILLINOIS 60611
P: 312.561.5334
MAUFDERHEIDE@SCWARCH.COM
CONTACT: MIKE AUFDERHEIDE

SURVEY:

THE ALTA WAS PROVIDED BY HMH SURVEYORS ON SEPTEMBER 2019 AND TOPOGRAPHIC SURVEY BY BKF ON MARCH 1, 2019

CONTRACTOR

ARCO NATIONAL CONSTRUCTION
900 N. ROCK HILL RD.
ST. LOUIS, MO 63119
314.963.0715
JFORBY@ARCO1.COM
CONTACT: JAKE FORBY

DEVELOPER

BANNER REAL ESTATE GROUP
3455 OCEAN PARK BLVD. #107-6
SANTA MONICA, CA 90405
614.226.3970
MCONLEY@BANNERREG.COM
CONTACT: MARGO CONELY

CIVIL ENGINEER

BLUE PEAK ENGINEERING, INC.
18543 YORBA LINDA BLVD., #235
YORBA LINDA, CA 92886
(971)343-3003
CONTACT: KIMBERLY JOHNSON, P.E.

PRIVATE ENGINEER'S NOTICE TO CONTRACTOR

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES SHOWN IN THESE PLANS ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS, AND TO THE BEST OF OUR KNOWLEDGE, THERE ARE NOT EXISTING UTILITIES EXCEPT THOSE SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE ALL PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES SHOWN, AND ANY OTHER LINES OR STRUCTURES NOT SHOWN ON THESE PLANS, AND IS RESPONSIBLE FOR THE PROTECTION OF AND ANY DAMAGE TO THESE LINES OR STRUCTURES.

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY, AND HOLD HARMLESS THE CITY, ITS EMPLOYEES, AND AGENTS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT.

THE CONTRACTOR SHALL BE RESPONSIBLE TO REPORT DISCREPANCIES IN PLANS AND/OR FIELD CONDITIONS IMMEDIATELY TO THE DESIGN ENGINEER FOR RESOLUTION PRIOR TO CONSTRUCTION, AND SHALL BE RESPONSIBLE FOR DISCREPANCIES NOT SO REPORTED AND RESOLVED.

DIGALERT

CALL BEFORE YOU DIG
1-800-227-2600
AT LEAST
2 WORKING DAY
NOTICE REQUIRED

PRELIMINARY-NOT FOR CONSTRUCTION

BLUE PEAK ENGINEERING, INC.
18543 YORBA LINDA BL. #235
YORBA LINDA, CA 92886
714.749.3077
714.281.1640 FAX

DRAWING ISSUE RECORD

DATE	DESCRIPTION

REVISION RECORD

NO.	DATE	DESCRIPTION

PROJECT NAME

BANNER SELF STORAGE
2390 MARINER SQUARE DRIVE
ALAMEDA, CA.

PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER
KIMBERLY A. JOHNSON
No. 81370
Exp. 03/31/2020
CIVIL
STATE OF CALIFORNIA

SHEET TITLE

TITLE SHEET

SHEET NUMBER

C-01

DATE: 01/30/2019

MARINER SQUARE DRIVE

MARINA VILLAGE PKWY

PROPOSED SELF STORAGE FACILITY
FF=11.00

B-B

A-A

SEE SHEET C-03

REFER TO SHEET C-04 FOR SECTIONS

SCALE: 1"=10'

FEMA FLOOD ZONE:

SAID SURVEYED PROPERTY IS LOCATED WITHIN AN AREA HAVING A ZONE DESIGNATION SPECIAL FLOOD HAZARD AREA WITH BFE OR DEPTH, ZONE AE (EL 10). ON FLOOD INSURANCE RATE MAP NO. 06001C0067H, WITH A DATE OF IDENTIFICATION OF DECEMBER 21, 2018, IN ALAMEDA COUNTY, STATE OF CALIFORNIA, WHICH IS THE CURRENT FLOOD INSURANCE RATE MAP FOR THE COMMUNITY IN WHICH SAID SURVEYED PROPERTY IS SITUATED.

BASE FLOOD ELEVATION (BFE)=10.00'
PER CITY REQUIREMENTS, BUILDING FINISH FLOOR MUST BE 1' ABOVE BFE=11.00'.

DIGALERT
CALL BEFORE YOU DIG
1-800-227-2600
AT LEAST
2 WORKING DAY
NOTICE REQUIRED

BLUE PEAK ENGINEERING, INC.
18543 YORBA LINDA BL. #235
YORBA LINDA, CA 92886
714.749.3077
714.281.1640 FAX

DRAWING ISSUE RECORD
DATE DESCRIPTION

REVISION RECORD
NO. DATE DESCRIPTION

PROJECT NAME

BANNER SELF STORAGE
2390 MARINER SQUARE DRIVE
ALAMEDA, CA.

PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER
KIMBERLY A. JANSEN
No. 81911
03/31/2020
CIVIL
STATE OF CALIFORNIA

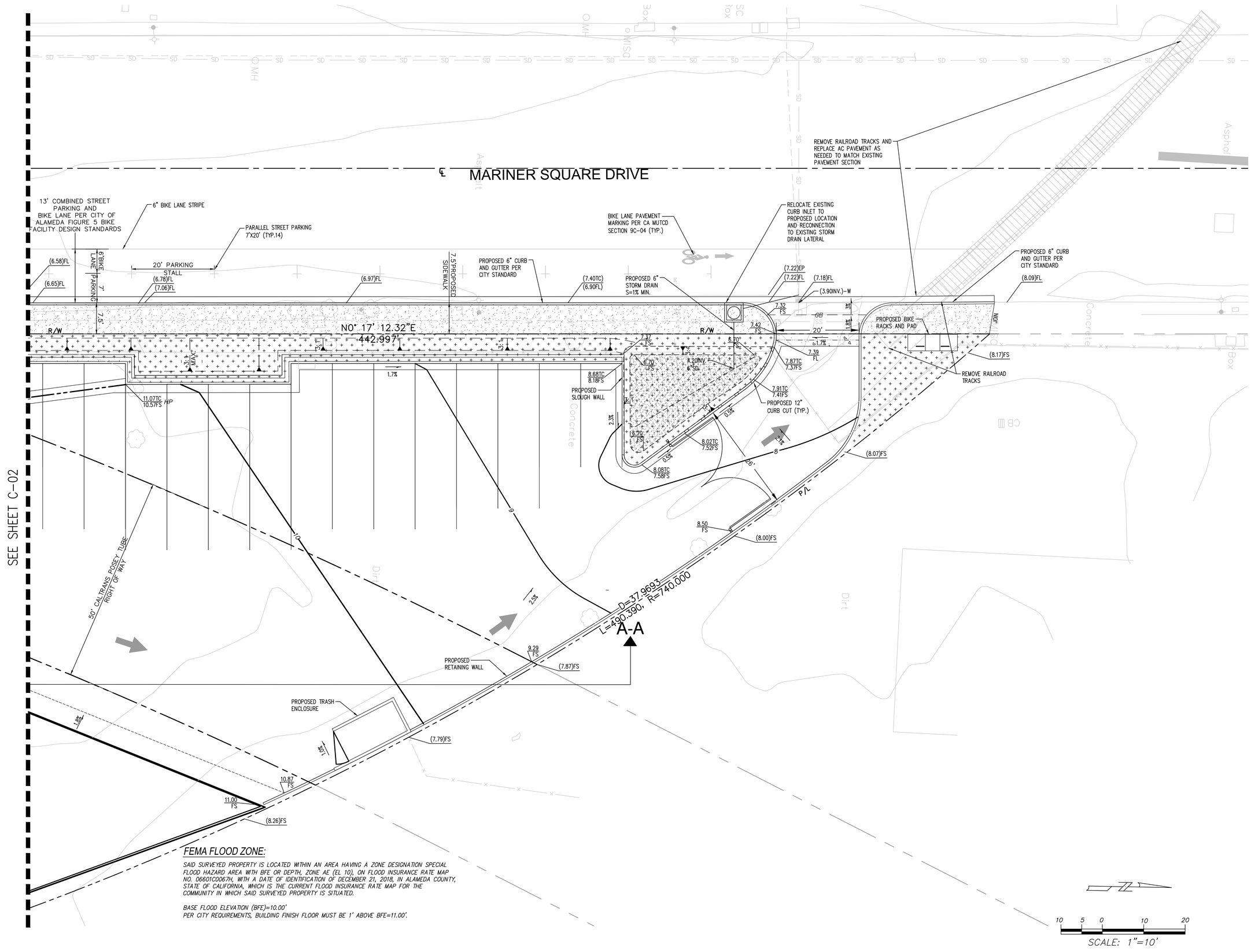
SHEET TITLE

PRELIMINARY GRADING PLAN

SHEET NUMBER

C-02

DATE: 01/30/2019



DIGALERT

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714.281.1640 FAX

DRAWING ISSUE RECORD

DATE	DESCRIPTION

REVISION RECORD

NO.	DATE	DESCRIPTION

PROJECT NAME

BANNER SELF STORAGE
2390 MARINER SQUARE DRIVE
ALAMEDA, CA.

PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER
KIMBERLY A. JOHNSON
No. 81979
Exp. 03/31/2020
CIVIL
STATE OF CALIFORNIA

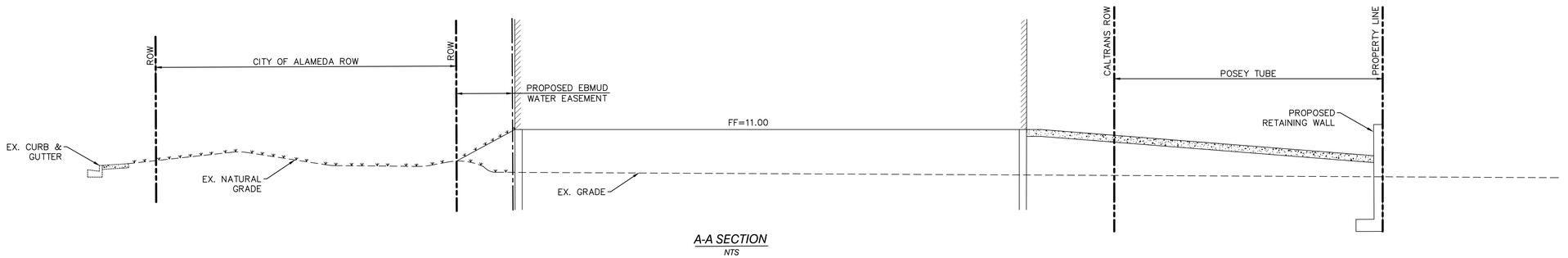
SHEET TITLE

PRELIMINARY GRADING PLAN-2

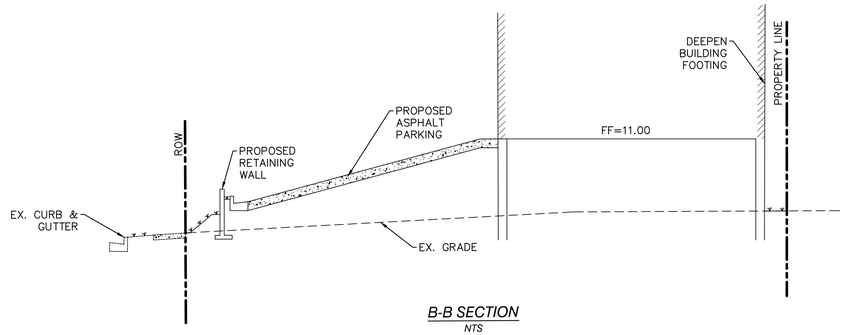
SHEET NUMBER

C-03

DATE: 01/30/2019



A-A SECTION
NTS



B-B SECTION
NTS

DIGALERT

CALL BEFORE YOU DIG
1-800-227-2600
AT LEAST
2 WORKING DAY
NOTICE REQUIRED

BLUE PEAK ENGINEERING, INC.
18543 YORBA LINDA BL. #235
YORBA LINDA, CA 92886
714.749.3077
714.281.1640 FAX

DRAWING ISSUE RECORD

DATE	DESCRIPTION

REVISION RECORD

NO.	DATE	DESCRIPTION

PROJECT NAME

BANNER SELF STORAGE
2390 MARINER SQUARE DRIVE
ALAMEDA, CA.

PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER
LAWRENCE A. JOHNSON
No. 81929
EXP. 03/31/2020
CIVIL
STATE OF CALIFORNIA

SHEET TITLE

PRELIMINARY
SECTIONS

SHEET NUMBER

C-04

DATE: 01/30/2019

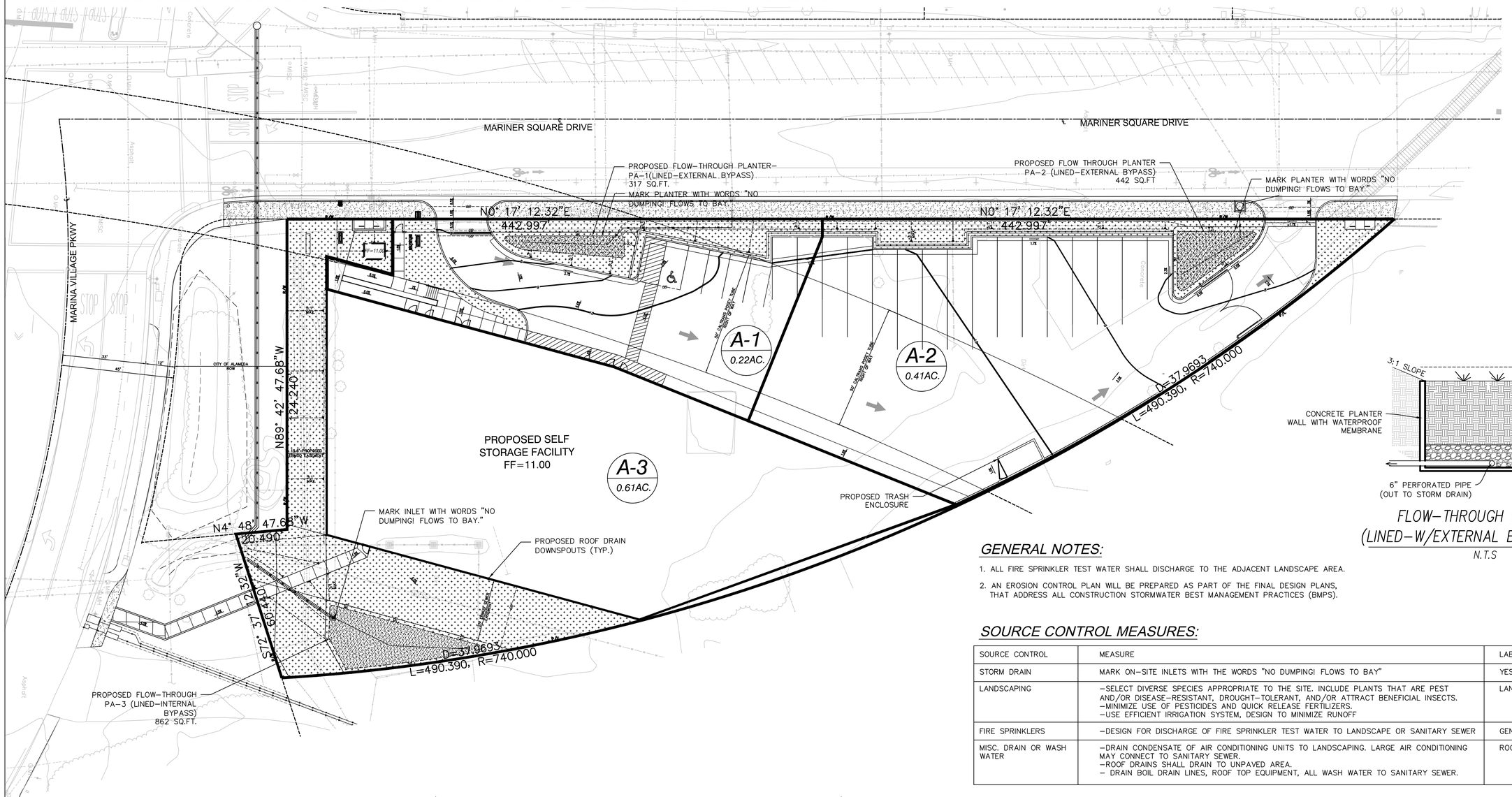
WQMP SUMMARY:

AREA (ID)	AREA (SQ.FT)	IMPERVIOUS AREA	PERVIOUS AREA	C-3 BMP	PRELIMINARY TREATMENT SURFACE AREA (SQ.FT)	ACTUAL TREATMENT SURFACE AREA IMPLEMENTED (SQ.FT)	PONDING DEPTH REQUIRED (IN)	PONDING DEPTH IMPLEMENTED (IN)	COMPLIANT
A-1	9,587	7,631	1,956	FLOW THROUGH PLANTER	235	317	-0.22	6	YES
A-2	17,916	15,846	2,070	FLOW THROUGH PLANTER	482	442	8	8	YES
A-3	26,643	18,431	8,212	FLOW THROUGH PLANTER	578	862	-1.90	6	YES

ALAMEDA COUNTY WORKSHEET FOR CALCULATING THE COMBINATION FLOW AND VOLUME METHOD FOR FLOW THROUGH PLANTERS WAS UTILIZED. PLEASE REFER TO SHEET C-07 FOR FURTHER CALCULATIONS

WQMP CALCULATIONS:

REFER TO SHEET C-07 FOR WQMP CALCULATIONS



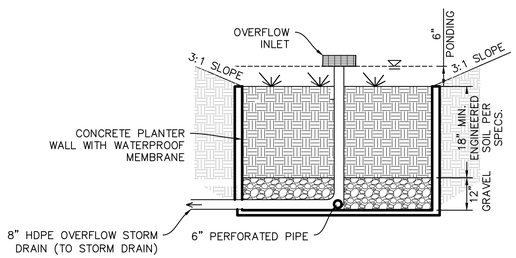
FLOW-THROUGH PLANTER (LINED-W/EXTERNAL BYPASS) PA-1
N.T.S

GENERAL NOTES:

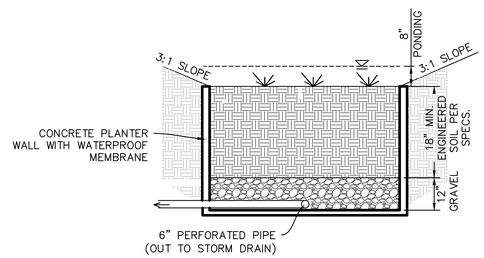
1. ALL FIRE SPRINKLER TEST WATER SHALL DISCHARGE TO THE ADJACENT LANDSCAPE AREA.
2. AN EROSION CONTROL PLAN WILL BE PREPARED AS PART OF THE FINAL DESIGN PLANS, THAT ADDRESS ALL CONSTRUCTION STORMWATER BEST MANAGEMENT PRACTICES (BMPS).

SOURCE CONTROL MEASURES:

SOURCE CONTROL	MEASURE	LABELED HEREON
STORM DRAIN	MARK ON-SITE INLETS WITH THE WORDS "NO DUMPING! FLOWS TO BAY"	YES
LANDSCAPING	-SELECT DIVERSE SPECIES APPROPRIATE TO THE SITE. INCLUDE PLANTS THAT ARE PEST AND/OR DISEASE-RESISTANT, DROUGHT-TOLERANT, AND/OR ATTRACT BENEFICIAL INSECTS. -MINIMIZE USE OF PESTICIDES AND QUICK RELEASE FERTILIZERS. -USE EFFICIENT IRRIGATION SYSTEM, DESIGN TO MINIMIZE RUNOFF	LANDSCAPE LABELED PER LEGEND
FIRE SPRINKLERS	-DESIGN FOR DISCHARGE OF FIRE SPRINKLER TEST WATER TO LANDSCAPE OR SANITARY SEWER	GENERAL NOTE ADDED HEREON
MISC. DRAIN OR WASH WATER	-DRAIN CONDENSATE OF AIR CONDITIONING UNITS TO LANDSCAPING. LARGE AIR CONDITIONING MAY CONNECT TO SANITARY SEWER. -ROOF DRAINS SHALL DRAIN TO UNPAVED AREA. - DRAIN BOIL DRAIN LINES, ROOF TOP EQUIPMENT, ALL WASH WATER TO SANITARY SEWER.	ROOF DRAINS LABELED HEREON.



FLOW-THROUGH PLANTER (LINED-W/INTERNAL BYPASS)PA-3
N.T.S



FLOW-THROUGH PLANTER (LINED-W/EXTERNAL BYPASS) PA-2
N.T.S

LEGEND

- FLOW-THROUGH PLANTER PER DETAIL HEREON
- LANDSCAPE
- DRAINAGE AREA
- AREA / ACRE — DRAINAGE CALLOUT

SOIL GROUP D
GROUNDWATER DEPTH: 2' @ HIGH TIDE

20 10 0 20 40
SCALE: 1"=20'

DIGALERT
CALL BEFORE YOU DIG
1-800-227-2600
AT LEAST 2 WORKING DAY NOTICE REQUIRED

BLUE PEAK ENGINEERING, INC.
18543 YORBA LINDA BL. #235
YORBA LINDA, CA 92886
714.749.3077
714.281.1640 FAX

DRAWING ISSUE RECORD
DATE DESCRIPTION

REVISION RECORD
NO. DATE DESCRIPTION

PROJECT NAME

BANNER SELF STORAGE
2390 MARINER SQUARE DRIVE
ALAMEDA, CA.

PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER — KIMBERLY A. JOHNSON — No. 61719 — Exp. 03/31/2020 — CIVIL — STATE OF CALIFORNIA

SHEET TITLE

PRELIMINARY WQMP EXHIBIT

SHEET NUMBER

C-05

DATE: 01/30/2019

Specification of soils for Biotreatment or Bioretention Facilities

Soils for biotreatment or bioretention areas shall meet two objectives:

- Be sufficiently permeable to infiltrate runoff at a minimum rate of 5" per hour during the life of the facility, and
- Have sufficient moisture retention to support healthy vegetation.

Achieving both objectives with an engineered soil mix requires careful specification of soil gradations and a substantial component of organic material (typically compost).

Local soil products suppliers have expressed interest in developing 'brand-name' mixes that meet these specifications. At their sole discretion, municipal construction inspectors may choose to accept test results and certification for a 'brand-name' mix from a soil supplier.

Tests must be conducted within 120 days prior to the delivery date of the bioretention soil to the project site.

Batch-specific test results and certification shall be required for projects installing more than 100 cubic yards of bioretention soil.

SOIL SPECIFICATIONS

Bioretention soils shall meet the following criteria. "Applicant" refers to the entity proposing the soil mixture for approval by a Permittee.

1. General Requirements – Bioretention soil shall:
   a. Achieve a long-term, in-place infiltration rate of at least 5 inches per hour.
   b. Support vigorous plant growth.
   c. Consist of the following mixture of fine sand and compost, measured on a volume basis:
      60%-70% Sand
      30%-40% Compost
2. Submittal Requirements – The applicant shall submit to the Permittee for approval:
   a. A minimum one-gallon size sample of mixed bioretention soil.
   b. Certification from the soil supplier or an accredited laboratory that the Bioretention Soil meets the requirements of this guideline specification.
   c. Grain size analysis results of the fine sand component performed in accordance with ASTM D 422, Standard Test Method for Particle Size Analysis of Soils or Caltrans Test Method (CTM) C202.
   d. Quality analysis results for compost performed in accordance with Seal of Testing Assurance (STA) standards, as specified in 4.
   e. Organic content test results of mixed Bioretention Soil. Organic content test shall be performed in accordance with by Testing Methods for the Examination of Compost and Composting (TMECC) 05.07A, "Loss-On-Ignition Organic Matter Method".
   f. Grain size analysis results of compost component performed in accordance with ASTM D 422, Standard Test Method for Particle Size Analysis of Soils.
   g. A description of the equipment and methods used to mix the sand and compost to produce Bioretention Soil.

1 inch	99	100
1/2 inch	90	100
1/4 inch	40	90
No. 200	1	10

   d. Bulk density shall be between 500 and 1100 dry lbs/cubic yard
   e. Moisture content shall be between 30% - 55% of dry solids.
   f. Inerts – compost shall be relatively free of inert ingredients, including glass, plastic and paper, < 1 % by weight or volume.
   g. Select Pathogens – Salmonella <3 MPN/4grams of TS, or Coliform Bacteria <10000 MPN/gram.
   h. Trace Contaminants Metals (Lead, Mercury, Etc.) – Product must meet US EPA, 40 CFR 503 regulations.
   i. Compost Testing – The compost supplier will test all compost products within 120 calendar days prior to application. Samples will be taken using the STA sample collection protocol. (The sample collection protocol can be obtained from the U.S. Composting Council, 4250 Veterans Memorial Highway, Suite 275, Holbrook, NY 11741 Phone: 631-737-4931, www.compostingcouncil.org). The sample shall be sent to an independent STA Program approved lab. The compost supplier will pay for the test.

VERIFICATION OF ALTERNATIVE BIORETENTION SOIL MIXES

Bioretention soils not meeting the above criteria shall be evaluated on a case by case basis. Alternative bioretention soil shall meet the following specification: "Soils for bioretention facilities shall be sufficiently permeable to infiltrate runoff at a minimum rate of 5 inches per hour during the life of the facility, and provide sufficient retention of moisture and nutrients to support healthy vegetation."

The following steps shall be followed by municipalities to verify that alternative soil mixes meet the specification:

1. General Requirements – Bioretention soil shall achieve a long-term, in-place infiltration rate of at least 5 inches per hour. Bioretention soil shall also support vigorous plant growth. The applicant refers to the entity proposing the soil mixture for approval.
   a. Submittals – The applicant must submit to the municipality for approval:
      (1) A minimum one-gallon size sample of mixed bioretention soil.
      (2) Certification from the soil supplier or an accredited laboratory that the Bioretention Soil meets the requirements of this guideline specification.

   h. Provide the name of the testing laboratory(s) and the following information:
      (1) Contact person(s)
      (2) Address(s)
      (3) Phone contact(s)
      (4) E-mail address(s)
      (5) Qualifications of laboratory(s), and personnel including date of current certification by USCC, ASTM, Caltrans, or approved equal
3. Sand for Bioretention Soil
   a. Sand shall be free of wood, waste, coating such as clay, stone dust, carbonate, etc., or any other deleterious material. All aggregate passing the No. 200 sieve size shall be nonplastic.
   b. Sand for Bioretention Soils shall be analyzed by an accredited lab using #200, #100, #40 or #50, #30, #16. #8, #4, and 3/8 inch sieves (ASTM D 422, CTM 202 or as approved by municipality), and meet the following gradation:

Sieve Size	Percent Passing (by weight)	
	Min	*Max*
3/8 inch	100	100
No. 4	90	100
No. 8	70	100
No. 16	40	95
No. 30	15	70
No. 40 or No.50	5	55
No. 100	0	15
No. 200	0	5

Note: all sands complying with ASTM C33 for fine aggregate comply with the above gradation requirements.

4. Composted Material

Compost shall be a well decomposed, stable, weed free organic matter source derived from waste materials including yard debris, wood wastes or other organic materials not including manure or biosolids meeting the standards developed by the US Composting Council (USCC). The product shall be certified through the USCC Seal of Testing Assurance (STA) Program (a compost testing and information disclosure program).

   a. Compost Quality Analysis by Laboratory – Before delivery of the soil, the supplier shall submit a copy of lab analysis performed by a laboratory that is enrolled in the US Composting Council's Compost Analysis Proficiency (CAP) program and using approved Test Methods for the Examination of Composting and Compost (TMECC). The lab report shall verify:
      (1) Organic Matter Content: 35% - 75% by dry wt.
      (2) Carbon and Nitrogen Ratio: C:N < 25:1 and C:N >15:1
      (3) Maturity/Stability: Any one of the following is required to indicate stability:
         (i) Oxygen Test < 1.3 O2 /unit TS /hr
         (ii) Specific oxy. Test < 1.5 O2 / unit BVS /hr
         (iii) Respiration test < 8 mg CO_2-C /g OM / day
         (iv) Dewar test < 20 Temp. rise (°C) e.
         (v) Solvita® > 5 Index value
      (4) Toxicity: Any one of the following measures is sufficient to indicate non-toxicity.
         (i) NH_4^+ : NO_3 -N < 3
         (ii) Ammonium < 500 ppm, dry basis
         (iii) Seed Germination > 80 % of control
         (iv) Plant Trials > 80% of control
         (v) Solvita® = 5 Index value
      (5) Nutrient Content: provide analysis detailing nutrient content including N-P-K, Ca, Na, Mg, S, and B.
         (i) Total Nitrogen content 0.9% or above preferred.
         (ii) Boron: Total shall be <80 ppm;
      (6) Salinity: Must be reported; < 6.0 mmhos/cm
      (7) pH shall be between 6.2 and 8.2 May vary with plant species.
   b. Compost Quality Analysis by Compost Supplier – Before delivery of the compost to the soil supplier the Compost Supplier shall verify the following:
      (1) Feedstock materials shall be specified and include one or more of the following: landscaping/yard trimmings, grass clippings, food scraps, and agricultural crop residues.
      (2) Maturity/Stability: shall have a dark brown color and a soil-like odor. Compost exhibiting a sour or putrid smell or containing recognizable grass or leaves, or is hot (120F) upon delivery or rewetting is not acceptable.
      (3) Weed seed/pathogen destruction: provide proof of process to further reduce pathogens (PFRP). For example, turned windrows must reach min. 55C for 15 days with at least 5 turnings during that period.
   c. Compost for Bioretention Soil Texture – Compost for bioretention soils shall be analyzed by an accredited lab using #200, 1/4 inch, 1/2 inch, and 1 inch sieves (ASTM D 422 or as approved by municipality), and meet the following gradation:

Sieve Size	Percent Passing (by weight)	
	Min	*Max*

1 inch	99	100
1/2 inch	90	100
1/4 inch	40	90
No. 200	1	10

   d. Bulk density shall be between 500 and 1100 dry lbs/cubic yard
   e. Moisture content shall be between 30% - 55% of dry solids.
   f. Inerts – compost shall be relatively free of inert ingredients, including glass, plastic and paper, < 1 % by weight or volume.
   g. Select Pathogens – Salmonella <3 MPN/4grams of TS, or Coliform Bacteria <10000 MPN/gram.
   h. Trace Contaminants Metals (Lead, Mercury, Etc.) – Product must meet US EPA, 40 CFR 503 regulations.
   i. Compost Testing – The compost supplier will test all compost products within 120 calendar days prior to application. Samples will be taken using the STA sample collection protocol. (The sample collection protocol can be obtained from the U.S. Composting Council, 4250 Veterans Memorial Highway, Suite 275, Holbrook, NY 11741 Phone: 631-737-4931, www.compostingcouncil.org). The sample shall be sent to an independent STA Program approved lab. The compost supplier will pay for the test.

VERIFICATION OF ALTERNATIVE BIORETENTION SOIL MIXES

Bioretention soils not meeting the above criteria shall be evaluated on a case by case basis. Alternative bioretention soil shall meet the following specification: "Soils for bioretention facilities shall be sufficiently permeable to infiltrate runoff at a minimum rate of 5 inches per hour during the life of the facility, and provide sufficient retention of moisture and nutrients to support healthy vegetation."

The following steps shall be followed by municipalities to verify that alternative soil mixes meet the specification:

1. General Requirements – Bioretention soil shall achieve a long-term, in-place infiltration rate of at least 5 inches per hour. Bioretention soil shall also support vigorous plant growth. The applicant refers to the entity proposing the soil mixture for approval.
   a. Submittals – The applicant must submit to the municipality for approval:
      (1) A minimum one-gallon size sample of mixed bioretention soil.
      (2) Certification from the soil supplier or an accredited laboratory that the Bioretention Soil meets the requirements of this guideline specification.

   (3) Certification from an accredited geotechnical testing laboratory that the Bioretention Soil has an infiltration rate between 5 and 12 inches per hour as tested according to Section 1.b.(2)(ii).
   (4) Organic content test results of mixed Bioretention Soil. Organic content test shall be performed in accordance with by Testing Methods for the Examination of Compost and Composting (TMECC) 05.07A, "Loss-On-Ignition Organic Matter Method".
   (5) Grain size analysis results of mixed bioretention soil performed in accordance with ASTM D 422, Standard Test Method for Particle Size Analysis of Soils.
   (6) A description of the equipment and methods used to mix the sand and compost to produce Bioretention Soil.
   (7) The name of the testing laboratory(s) and the following information:
      (i) Contact person(s)
      (ii) Address(s)
      (iii) Phone contact(s)
      (iv) E-mail address(s)
      (v) Qualifications of laboratory(s), and personnel including date of current certification by STA, ASTM, or approved equal.
   b. Bioretention Soil
      (1) Bioretention Soil Texture: Bioretention Soils shall be analyzed by an accredited lab using #200, and 1/2" inch sieves (ASTM D 422 or as approved by municipality), and meet the following gradation:

Sieve Size	Percent Passing (by weight)	
	Min	*Max*
1/2 inch	97	100
No. 200	2	5

      (2) Bioretention Soil Permeability testing: Bioretention Soils shall be analyzed by an accredited geotechnical lab for the following tests:
         (i) Moisture – density relationships (compaction tests) shall be conducted on bioretention soil. Bioretention soil for the permeability test shall be compacted to 85 to 90 percent of the maximum dry density (ASTM D1557).
         (ii) Constant head permeability testing in accordance with ASTM D2434 shall be conducted on a minimum of two samples with a 6-inch mold and vacuum saturation.

MULCH FOR BIORETENTION FACILITIES

Three inches of mulch is recommended for the purpose of retaining moisture, preventing erosion and minimizing weed growth. Projects subject to the State's Model Water Efficiency Landscaping Ordinance (or comparable local ordinance) will be required to provide at least three inches of mulch. Aged mulch, also called compost mulch, reduces the ability of weeds to establish, keeps soil moist, and replenishes soil nutrients. Aged mulch can be obtained through soil suppliers or directly from commercial recycling yards. It is recommended to apply 1" to 2" of composted mulch, once a year, preferably in June following weeding.

INTRODUCTION

Recently the San Francisco Bay Regional Water Quality Control Board issued the Municipal Regional Stormwater Permit. The Bay Area Stormwater Management Agencies Association (BASMAA) engaged WRA to provide guidance and specification for bioretention soils to assist stormwater agencies at the associated municipalities in meeting the requirements of the permit.

This report provides guidance for the installation of bioretention soils with the goal of preserving the integrity of the soil media to support a long-term infiltration rate of 5 to 10 inches per hour, provide stormwater treatment and support plant health.

INSTALLATION OF BIORETENTION SOILS

The following section provides considerations for proper bioretention soil installation.

Prior to Installing Bioretention Soil:

- Is the contractor familiar with constructing bioretention systems?
- Plan how inspections will be handled as part of the construction process.
- Verify soil meets specification prior to delivering and or placing in the facility.
- Prevent over-compaction of native soils in the area of the basin. Delineate the facility area and keep construction traffic off. Protect soils with fencing, plywood, etc.
- Provide erosion control in the contributing drainage areas of the facility. Stabilize upslope areas.
- Facilities should not be used as sediment control facilities.
- Drainage should be directed away from bioretention facilities until upslope areas are stabilized, if possible. The concentration of fines could prevent post-construction infiltration.
- If drainage is to be allowed through the facility during construction, leave or backfill at least 6" above the final grade. Temporarily cover the underdrain with plastic or fabric. Line or mulch the facility.
- Ideally, bioretention facilities should remain outside the limit of disturbance until construction of the bioretention begins to prevent soil compaction by heavy equipment. Protect bioretention areas with silt fence or construction fencing.
- Verify installation of underdrain is correct prior to placing soil.

Soil Mixing and Placement:

- Do not excavate, place soils, or amend soils during wet or saturated conditions.
- Operate equipment adjacent to (not in) the facility.
- If machinery must operate in the facility, use light weight, low ground-contact pressure equipment.

- It may be necessary to rip or scarify the bottom soils to promote greater infiltration or excavate any sediment that may have built up during construction.
- Consider the time of year and site working area when determining whether to mix bioretention soil on-site or to import pre-mixed soil.
- If mixing bioretention media onsite, use an adjacent impervious area or on plastic sheeting.
- Place soil in 12" lifts with machinery adjacent to the facility. If working within the facility, to avoid over-compacting, place first lifts at far end from entrance and place backwards toward entrance.
- Do not place or work bioretention soil if it is saturated or raining
- Allow bioretention soil lifts to settle naturally, boot pack (walk around to firm) lifts to achieve 85% compaction effort. After all lifts are placed, wait a few days to check for settlement, and add additional media as needed.
- An alternative to boot compaction is to settle bioretention soils by lightly watering until soils are just saturated. Allow soil to dry between lifts. It may take a day or more to dry adequately between lifts. Soil cannot be worked when saturated so this method should be used with caution. Allow for extra time to let soils dry between each lift. After all lifts are placed, wait a few days to check for settlement, and add additional media as needed.
- Verify bioretention soil elevations before applying mulch or installing plants.

Other Considerations:

- Protect adjacent trees.
- Protect adjacent infiltration systems including swales, soils and porous pavement from sediment.

FLOW–THROUGH PLANTER SOIL MIX
SPECIFICATIONS AND INSTALLATION GUIDELINES
N.T.S

BLUE PEAK ENGINEERING, INC.
18543 YORBA LINDA BL. #235
YORBA LINDA, CA 92886
714.749.3077
714.281.1640 FAX

DRAWING ISSUE RECORD

DATE	DESCRIPTION

REVISION RECORD

NO.	DATE	DESCRIPTION

PROJECT NAME

BANNER SELF STORAGE
2390 MARINER SQUARE DRIVE
ALAMEDA, CA.

PROFESSIONAL SEAL

SHEET TITLE

PRELIMINARY
WQMP DETAILS

SHEET NUMBER

C-06

DATE: 01/30/2019

AREA A-1

Worksheet for Calculating the Combination Flow and Volume Method

Instructions: After completing Section 1, make a copy of this Excel file for each Drainage Management Area within the project. Enter information specific to the project and DMA in the cells shaded in yellow. Cells shaded in light blue contain formulas and values that will be automatically calculated.

1.0 Project Information

1-1	Project Name:	Banner Self Storage-Alameda	
1-2	City application ID:		
1-3	Site Address or APN:	2390 Mariner Square Drive	
1-4	Tract or Parcel Map No:	074-1363-004` -005, -007	
1-5	Site Mean Annual Precip. (MAP)[1]	19.5	**Inches**
	Refer to the Mean Annual Precipitation Map in Appendix D of the C.3 Technical Guidance to determine the MAP, in inches, for the site.		Click here for map
1-6	Applicable Rain Gauge[2]	Oakland	
	Enter "Oakland Airport" if the site MAP is 16.4 inches or greater. Enter "San Jose" if the site MAP is less than 16.4 inches.		
	MAP adjustment factor is automatically calculated as:	1.06	
	(The "Site Mean Annual Precipitation (MAP)" is divided by the MAP for the applicable rain gauge, shown in Table 5.2, below.)		

The calculations presented here are based on the **combination flow and volume hydraulic sizing method** provided in the Clean Water Program Alameda County C.3 Technical Guidance, Version 4.0. The steps presented below are explained in Chapter 5, Section 5.1 of the guidance manual, applicable portions of which are included in this file, in the tab called "Guidance from Chapter 5".

2.0 Calculate Percentage of Impervious Surface for Drainage Management Area (DMA)

2-1 Name of DMA: A-1

For items 2-2 and 2-3, enter the areas in square feet for each type of surface within the DMA.

	Type of Surface	Area of surface type within DMA (Sq. Ft)	Adjust Pervious Surface	Effective Impervious Area
2-2	Impervious surface	7,631	1.0	7,631
2-3	Pervious service	1,956	0.1	196
	Total DMA Area (square feet) =	9,587		
2-4	***Total Effective Impervious Area (EIA)***			7,827 **Square feet**

3.0 Calculate Unit Basin Storage Volume in Inches

Table 5-2: Unit Basin Storage Volumes (in inches) for 80 Percent Capture Using 48-Hour Drawdowns

Applicable Rain Gauge	Mean Annual Precipitation (in)	Unit Basin Storage Volume (in) for Applicable Runoff Coefficients: Coefficient of 1.00
Oakland Airport	18.35	0.67
San Jose	14.4	0.56

3-1 ***Unit basin storage volume from Table 5.2:*** 0.67 **Inches**
(The coefficient for this method is 1.00, due to the conversion of any landscaping to effective impervious area)

3-2 ***Adjusted unit basin storage volume:*** 0.71 **Inches**
(The unit basin storage volume is adjusted by applying the MAP adjustment factor.)

3-3 ***Required Capture Volume (in cubic feet):*** 464 **Cubic feet**
(The adjusted unit basin sizing volume [inches] is multiplied by the size of the DMA and converted to feet)

4.0 Calculate the Duration of the Rain Event

4-1 Rainfall Intensity: 0.2 **Inches per hour**

4-2 Divide Item 3-2 by Item 4-1: 3.56 **Hours of Rain Event Duration**

5.0 Preliminary Estimate of Surface Area of Treatment Measure

5-1 4% of DMA impervious surface: 313 **Square feet**

5-2 Area 25% smaller than Item 5-1: 235 **Square feet**

5-3 Volume of treated runoff for area in Item 5-2: 348 **Cubic feet** (Item 5-2 * 5 inches per hour * 1/12 * Item 4-2)

6.0 Initial Adjustment of Depth of Surface Ponding Area

6-1 Subtract Item 5-3 from Item 3-3: 116 **Cubic feet** (Amount of runoff to be stored in ponding area)

6-2 Divide Item 6-1 by Item 5-2: 0.5 **Feet** (Depth of stored runoff in surface ponding area)

6-3 Convert Item 6-2 from ft to inches: 5.9 **Inches** (Depth of stored runoff in surface ponding area)

6-4 If ponding depth in Item 6-3 meets your target depth, skip to Item 8-1. If not, continue to Step 7-1.

7.0 Optimize Size of Treatment Measure

7-1 Enter an area larger or smaller than Item 5-2: 317 **Sq.ft.** (enter larger area if you need less ponding depth; smaller for more depth.)

7-2 Volume of treated runoff for area in Item 7-1: 470 **Cubic feet** (Item 7-1 * 5 inches per hour * 1/12 * Item 4-2)

7-3 Subtract Item 7-2 from Item 3-3: (6) **Cubic feet** (Amount of runoff to be stored in ponding area)

7-4 Divide Item 7-3 by Item 7-1: -0.02 **Feet** (Depth of stored runoff in surface ponding area)

7-5 Convert Item 7-4 from feet to inches: -0.22 **Inches** (Depth of stored runoff in surface ponding area)

7-6 If the ponding depth in Item 7-5 meets target, stop here. If not, repeat Steps 7-1 through 7-5 until you obtain target depth

8.0 Surface Area of Treatment Measure for DMA

8-1 Final surface area of treatment*: 317 **Square feet** (Either Item 5-2 or final amount in Item 7-1)

**Note: Check with the local jurisdiction as to its policy regarding the minimum biotreatment surface area allowed.*

AS DEMONSTRATED ABOVE, A LARGER BIOFILTRATION PLANTER AREA IS PROVIDED THAN WHAT IS REQUIRED GIVEN 6" PONDING DEPTH.

AREA A-2

Worksheet for Calculating the Combination Flow and Volume Method

Instructions: After completing Section 1, make a copy of this Excel file for each Drainage Management Area within the project. Enter information specific to the project and DMA in the cells shaded in yellow. Cells shaded in light blue contain formulas and values that will be automatically calculated.

1.0 Project Information

1-1	Project Name:	Banner Self Storage-Alameda	
1-2	City application ID:		
1-3	Site Address or APN:	2390 Mariner Square Drive	
1-4	Tract or Parcel Map No:	074-1363-004` -005, -007	
1-5	Site Mean Annual Precip. (MAP)[1]	19.5	**Inches**
	Refer to the Mean Annual Precipitation Map in Appendix D of the C.3 Technical Guidance to determine the MAP, in inches, for the site.		Click here for map
1-6	Applicable Rain Gauge[2]	Oakland	
	Enter "Oakland Airport" if the site MAP is 16.4 inches or greater. Enter "San Jose" if the site MAP is less than 16.4 inches.		
	MAP adjustment factor is automatically calculated as:	1.06	
	(The "Site Mean Annual Precipitation (MAP)" is divided by the MAP for the applicable rain gauge, shown in Table 5.2, below.)		

The calculations presented here are based on the **combination flow and volume hydraulic sizing method** provided in the Clean Water Program Alameda County C.3 Technical Guidance, Version 4.0. The steps presented below are explained in Chapter 5, Section 5.1 of the guidance manual, applicable portions of which are included in this file, in the tab called "Guidance from Chapter 5".

2.0 Calculate Percentage of Impervious Surface for Drainage Management Area (DMA)

2-1 Name of DMA: A-2

For items 2-2 and 2-3, enter the areas in square feet for each type of surface within the DMA.

	Type of Surface	Area of surface type within DMA (Sq. Ft)	Adjust Pervious Surface	Effective Impervious Area
2-2	Impervious surface	15,846	1.0	15,846
2-3	Pervious service	2,070	0.1	207
	Total DMA Area (square feet) =	17,916		
2-4	***Total Effective Impervious Area (EIA)***			16,053 **Square feet**

3.0 Calculate Unit Basin Storage Volume in Inches

Table 5-2: Unit Basin Storage Volumes (in inches) for 80 Percent Capture Using 48-Hour Drawdowns

Applicable Rain Gauge	Mean Annual Precipitation (in)	Unit Basin Storage Volume (in) for Applicable Runoff Coefficients: Coefficient of 1.00
Oakland Airport	18.35	0.67
San Jose	14.4	0.56

3-1 ***Unit basin storage volume from Table 5.2:*** 0.67 **Inches**
(The coefficient for this method is 1.00, due to the conversion of any landscaping to effective impervious area)

3-2 ***Adjusted unit basin storage volume:*** 0.71 **Inches**
(The unit basin storage volume is adjusted by applying the MAP adjustment factor.)

3-3 ***Required Capture Volume (in cubic feet):*** 952 **Cubic feet**
(The adjusted unit basin sizing volume [inches] is multiplied by the size of the DMA and converted to feet)

4.0 Calculate the Duration of the Rain Event

4-1 Rainfall Intensity: 0.2 **Inches per hour**

4-2 Divide Item 3-2 by Item 4-1: 3.56 **Hours of Rain Event Duration**

5.0 Preliminary Estimate of Surface Area of Treatment Measure

5-1 4% of DMA impervious surface: 642 **Square feet**

5-2 Area 25% smaller than Item 5-1: 482 **Square feet**

5-3 Volume of treated runoff for area in Item 5-2: 714 **Cubic feet** (Item 5-2 * 5 inches per hour * 1/12 * Item 4-2)

6.0 Initial Adjustment of Depth of Surface Ponding Area

6-1 Subtract Item 5-3 from Item 3-3: 238 **Cubic feet** (Amount of runoff to be stored in ponding area)

6-2 Divide Item 6-1 by Item 5-2: 0.5 **Feet** (Depth of stored runoff in surface ponding area)

6-3 Convert Item 6-2 from ft to inches: 5.9 **Inches** (Depth of stored runoff in surface ponding area)

6-4 If ponding depth in Item 6-3 meets your target depth, skip to Item 8-1. If not, continue to Step 7-1.

7.0 Optimize Size of Treatment Measure

7-1 Enter an area larger or smaller than Item 5-2: 442 **Sq.ft.** (enter larger area if you need less ponding depth; smaller for more depth.)

7-2 Volume of treated runoff for area in Item 7-1: 656 **Cubic feet** (Item 7-1 * 5 inches per hour * 1/12 * Item 4-2)

7-3 Subtract Item 7-2 from Item 3-3: 297 **Cubic feet** (Amount of runoff to be stored in ponding area)

7-4 Divide Item 7-3 by Item 7-1: 0.67 **Feet** (Depth of stored runoff in surface ponding area)

7-5 Convert Item 7-4 from feet to inches: 8.06 **Inches** (Depth of stored runoff in surface ponding area)

7-6 If the ponding depth in Item 7-5 meets target, stop here. If not, repeat Steps 7-1 through 7-5 until you obtain target depth

8.0 Surface Area of Treatment Measure for DMA

8-1 Final surface area of treatment*: 442 **Square feet** (Either Item 5-2 or final amount in Item 7-1)

**Note: Check with the local jurisdiction as to its policy regarding the minimum biotreatment surface area allowed.*

AREA A-3

Worksheet for Calculating the Combination Flow and Volume Method

Instructions: After completing Section 1, make a copy of this Excel file for each Drainage Management Area within the project. Enter information specific to the project and DMA in the cells shaded in yellow. Cells shaded in light blue contain formulas and values that will be automatically calculated.

1.0 Project Information

1-1	Project Name:	Banner Self Storage-Alameda	
1-2	City application ID:		
1-3	Site Address or APN:	2390 Mariner Square Drive	
1-4	Tract or Parcel Map No:	074-1363-004` -005, -007	
1-5	Site Mean Annual Precip. (MAP)[1]	19.5	**Inches**
	Refer to the Mean Annual Precipitation Map in Appendix D of the C.3 Technical Guidance to determine the MAP, in inches, for the site.		Click here for map
1-6	Applicable Rain Gauge[2]	Oakland	
	Enter "Oakland Airport" if the site MAP is 16.4 inches or greater. Enter "San Jose" if the site MAP is less than 16.4 inches.		
	MAP adjustment factor is automatically calculated as:	1.06	
	(The "Site Mean Annual Precipitation (MAP)" is divided by the MAP for the applicable rain gauge, shown in Table 5.2, below.)		

The calculations presented here are based on the **combination flow and volume hydraulic sizing method** provided in the Clean Water Program Alameda County C.3 Technical Guidance, Version 4.0. The steps presented below are explained in Chapter 5, Section 5.1 of the guidance manual, applicable portions of which are included in this file, in the tab called "Guidance from Chapter 5".

2.0 Calculate Percentage of Impervious Surface for Drainage Management Area (DMA)

2-1 Name of DMA: A-3

For items 2-2 and 2-3, enter the areas in square feet for each type of surface within the DMA.

	Type of Surface	Area of surface type within DMA (Sq. Ft)	Adjust Pervious Surface	Effective Impervious Area
2-2	Impervious surface	18,431	1.0	18,431
2-3	Pervious service	8,212	0.1	821
	Total DMA Area (square feet) =	26,643		
2-4	***Total Effective Impervious Area (EIA)***			19,252 **Square feet**

3.0 Calculate Unit Basin Storage Volume in Inches

Table 5-2: Unit Basin Storage Volumes (in inches) for 80 Percent Capture Using 48-Hour Drawdowns

Applicable Rain Gauge	Mean Annual Precipitation (in)	Unit Basin Storage Volume (in) for Applicable Runoff Coefficients: Coefficient of 1.00
Oakland Airport	18.35	0.67
San Jose	14.4	0.56

3-1 ***Unit basin storage volume from Table 5.2:*** 0.67 **Inches**
(The coefficient for this method is 1.00, due to the conversion of any landscaping to effective impervious area)

3-2 ***Adjusted unit basin storage volume:*** 0.71 **Inches**
(The unit basin storage volume is adjusted by applying the MAP adjustment factor.)

3-3 ***Required Capture Volume (in cubic feet):*** 1,142 **Cubic feet**
(The adjusted unit basin sizing volume [inches] is multiplied by the size of the DMA and converted to feet)

4.0 Calculate the Duration of the Rain Event

4-1 Rainfall Intensity: 0.2 **Inches per hour**

4-2 Divide Item 3-2 by Item 4-1: 3.56 **Hours of Rain Event Duration**

5.0 Preliminary Estimate of Surface Area of Treatment Measure

5-1 4% of DMA impervious surface: 770 **Square feet**

5-2 Area 25% smaller than Item 5-1: 578 **Square feet**

5-3 Volume of treated runoff for area in Item 5-2: 857 **Cubic feet** (Item 5-2 * 5 inches per hour * 1/12 * Item 4-2)

6.0 Initial Adjustment of Depth of Surface Ponding Area

6-1 Subtract Item 5-3 from Item 3-3: 286 **Cubic feet** (Amount of runoff to be stored in ponding area)

6-2 Divide Item 6-1 by Item 5-2: 0.5 **Feet** (Depth of stored runoff in surface ponding area)

6-3 Convert Item 6-2 from ft to inches: 5.9 **Inches** (Depth of stored runoff in surface ponding area)

6-4 If ponding depth in Item 6-3 meets your target depth, skip to Item 8-1. If not, continue to Step 7-1.

7.0 Optimize Size of Treatment Measure

7-1 Enter an area larger or smaller than Item 5-2: 862 **Sq.ft.** (enter larger area if you need less ponding depth; smaller for more depth.)

7-2 Volume of treated runoff for area in Item 7-1: 1,279 **Cubic feet** (Item 7-1 * 5 inches per hour * 1/12 * Item 4-2)

7-3 Subtract Item 7-2 from Item 3-3: (136) **Cubic feet** (Amount of runoff to be stored in ponding area)

7-4 Divide Item 7-3 by Item 7-1: -0.16 **Feet** (Depth of stored runoff in surface ponding area)

7-5 Convert Item 7-4 from feet to inches: -1.90 **Inches** (Depth of stored runoff in surface ponding area)

7-6 If the ponding depth in Item 7-5 meets target, stop here. If not, repeat Steps 7-1 through 7-5 until you obtain target depth

8.0 Surface Area of Treatment Measure for DMA

8-1 Final surface area of treatment*: 862 **Square feet** (Either Item 5-2 or final amount in Item 7-1)

**Note: Check with the local jurisdiction as to its policy regarding the minimum biotreatment surface area allowed.*

AS DEMONSTRATED ABOVE, A LARGER BIOFILTRATION PLANTER AREA IS PROVIDED THAN WHAT IS REQUIRED GIVEN 6" PONDING DEPTH.

DIGALERT

CALL BEFORE YOU DIG
1-800-227-2600
AT LEAST
2 WORKING DAY
NOTICE REQUIRED

WQMP CALCULATIONS

BLUE PEAK ENGINEERING, INC.
18543 YORBA LINDA BL. #235
YORBA LINDA, CA 92886
714.749.3077
714.281.1640 FAX

DRAWING ISSUE RECORD

DATE	DESCRIPTION

REVISION RECORD

NO.	DATE	DESCRIPTION

PROJECT NAME

BANNER SELF STORAGE
2390 MARINER SQUARE DRIVE
ALAMEDA, CA.

PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER
KIMBERLY A. JOHNSON
No. 81982
03/31/2020
CIVIL
STATE OF CALIFORNIA

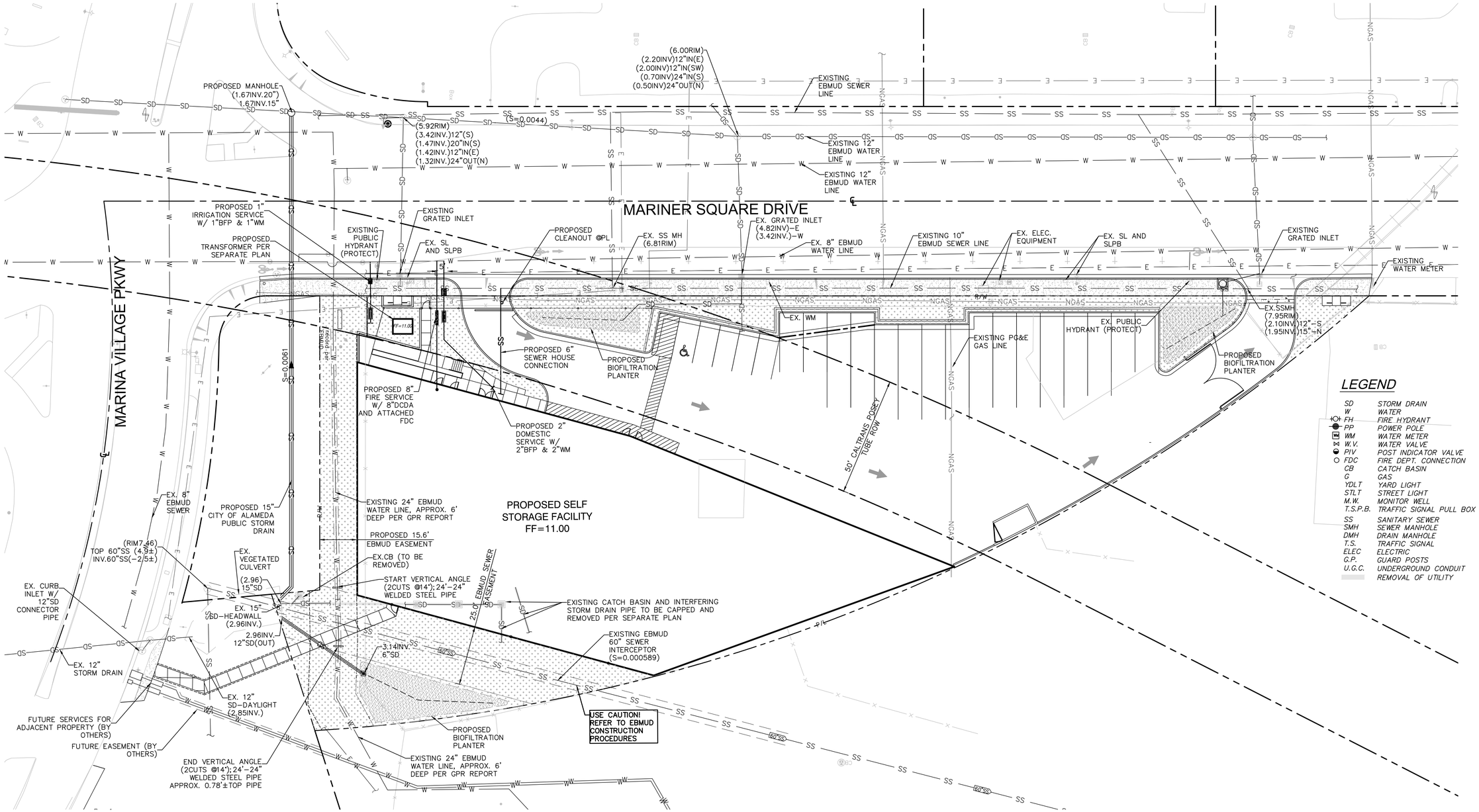
SHEET TITLE

PRELIMINARY WQMP CALCS

SHEET NUMBER

C-06

DATE: 01/30/2019



LEGEND

SD	STORM DRAIN
W	WATER
FH	FIRE HYDRANT
PP	POWER POLE
WM	WATER METER
W.V.	WATER VALVE
PIV	POST INDICATOR VALVE
FDC	FIRE DEPT. CONNECTION
CB	CATCH BASIN
G	GAS
YDLT	YARD LIGHT
STLT	STREET LIGHT
M.W.	MONITOR WELL
T.S.P.B.	TRAFFIC SIGNAL PULL BOX
SS	SANITARY SEWER
SMH	SEWER MANHOLE
DMH	DRAIN MANHOLE
T.S.	TRAFFIC SIGNAL
ELEC	ELECTRIC
G.P.	GUARD POSTS
U.G.C.	UNDERGROUND CONDUIT
	REMOVAL OF UTILITY

GENERAL PRELIMINARY UTILITY NOTES

1. DRY UTILITIES (GAS, ELECTRIC, DATA, ETC.) SHOWN HEREON ARE FOR REFERENCE ONLY DRY UTILITIES SHALL BE DESIGNED PER SEPARATE DRY UTILITY CONSULTANT AND COORDINATED WITH THE UTILITY PURVEYOR.

REFER TO PRELIMINARY GRADING PLAN FOR ONSITE STORM DRAIN

DIGALERT

CALL BEFORE YOU DIG

1-800-227-2600
AT LEAST
2 WORKING DAY
NOTICE REQUIRED

20 10 0 20 40

SCALE: 1"=20'

BLUE PEAK ENGINEERING, INC.
18543 YORBA LINDA BL. #235
YORBA LINDA, CA 92886
714.749.3077
714.281.1640 FAX

DRAWING ISSUE RECORD

DATE	DESCRIPTION

REVISION RECORD

NO.	DATE	DESCRIPTION

PROJECT NAME

BANNER SELF STORAGE
2390 MARINER SQUARE DRIVE
ALAMEDA, CA.

PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER
ROBERT A. JOHNSON
No. 80676
Exp. 03/31/2020
CIVIL
STATE OF CALIFORNIA

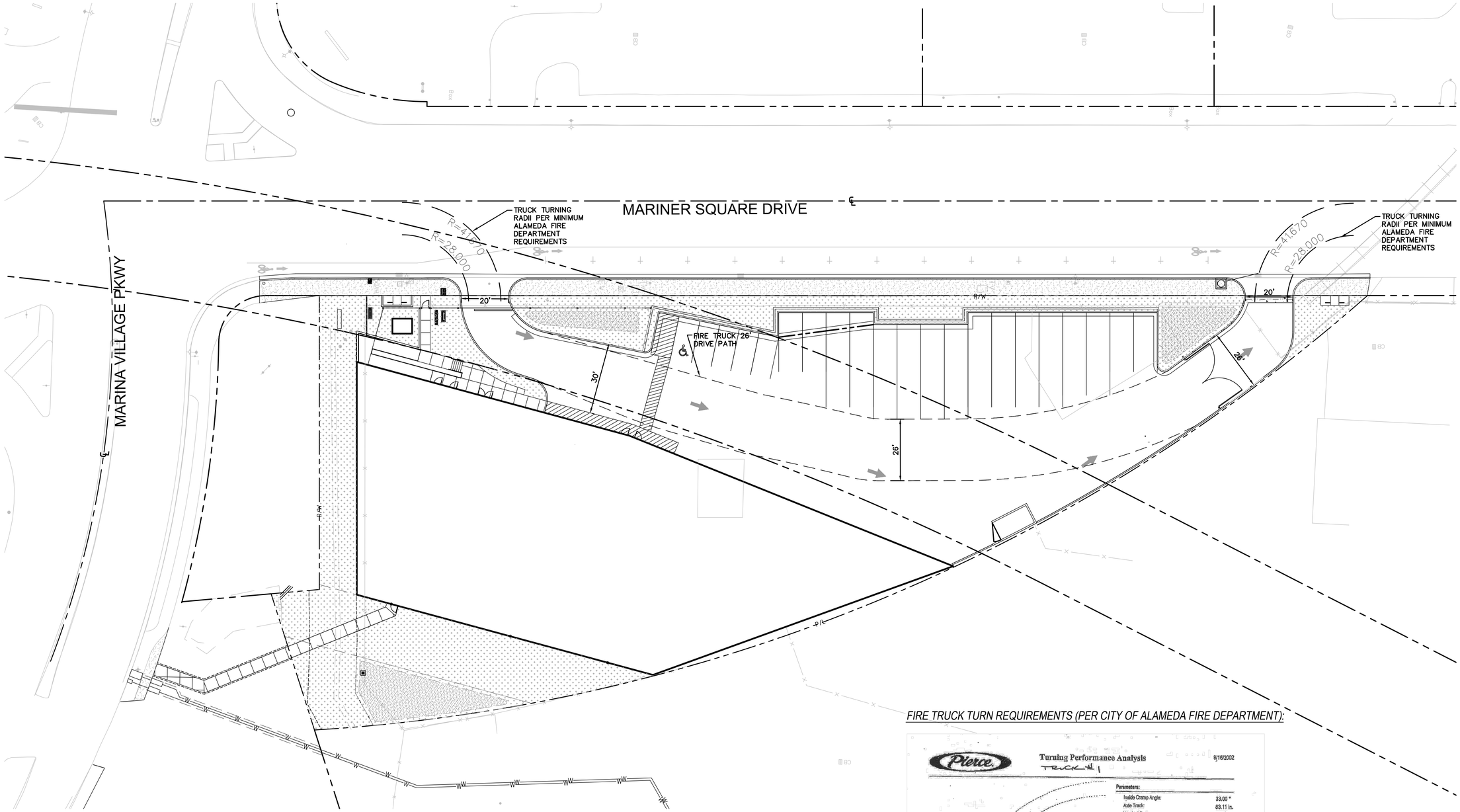
SHEET TITLE

PRELIMINARY WET UTILITY PLAN

SHEET NUMBER

C-08

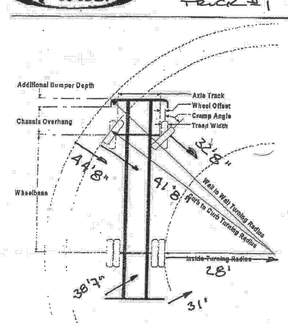
DATE: 01/30/2019



FIRE TRUCK TURN REQUIREMENTS (PER CITY OF ALAMEDA FIRE DEPARTMENT):

Pierce

Turning Performance Analysis — TRUCK #1 — 9/16/2002



Parameters:

Inside Cramp Angle:	33.00 °
Axle Track:	83.11 in.
Wheel Offset:	8.02 in.
Tread Width:	13.89 in.
Chassis Overhang:	65.99 in.
Additional Bumper Depth:	18.00 in.
Wheelbase:	228.00 in.

Calculated Turning Radii:

Inside Turn:	28 ft. 2 in.
Curb to Curb:	41 ft. 11 in.
Wall to Wall:	45 ft. 1 in.

Comments:

Aerial Application

EB837 Note: This report is an approximation, as the program did not have Pierce Arrow available for cab option. Lance was chosen, as it is the closest to an Arrow.

Components	PRIDE #	Description
Front Axle	0000296	Axle, Front, Meritor FL-941, 21,000#
Front Wheels	0019575	Wheels, Frt, Alum, Alcoa, 22.50" x 9.00"
Front Tires	0001636	Tires, Goodyear, 315/80R 22.50 20 ply G288
Chassis	0080024	Lance-2000 Chassis, Aerials/Tandems/HDR Tandem 48K
Front Bumper	0012244	Bumper, 16" extended - all chassis'
Aerial Device	0026001	Aerial, 105' HDL, 750# Tip Load w/Waterway

Notes:

Actual Inside Cramp Angle may be less due to highly specialized options.
Curb to Curb turning radius calculated for a 9.00 inch curb.
Reduce turning radius by 33% if vehicle is equipped with all-wheel steer.

20 10 0 20 40

SCALE: 1"=20'

DIGALERT

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1-800-227-2600
AT LEAST
2 WORKING DAY
NOTICE REQUIRED

BLUE PEAK ENGINEERING, INC.
18543 YORBA LINDA BL. #235
YORBA LINDA, CA 92886
714.749.3077
714.281.1640 FAX

DRAWING ISSUE RECORD

DATE	DESCRIPTION

REVISION RECORD

NO.	DATE	DESCRIPTION

PROJECT NAME

BANNER SELF STORAGE
2390 MARINER SQUARE DRIVE
ALAMEDA, CA.

PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER — LAMBERT A. JANSEN — No. 81977 — Exp. 03/31/2020 — CIVIL — STATE OF CALIFORNIA

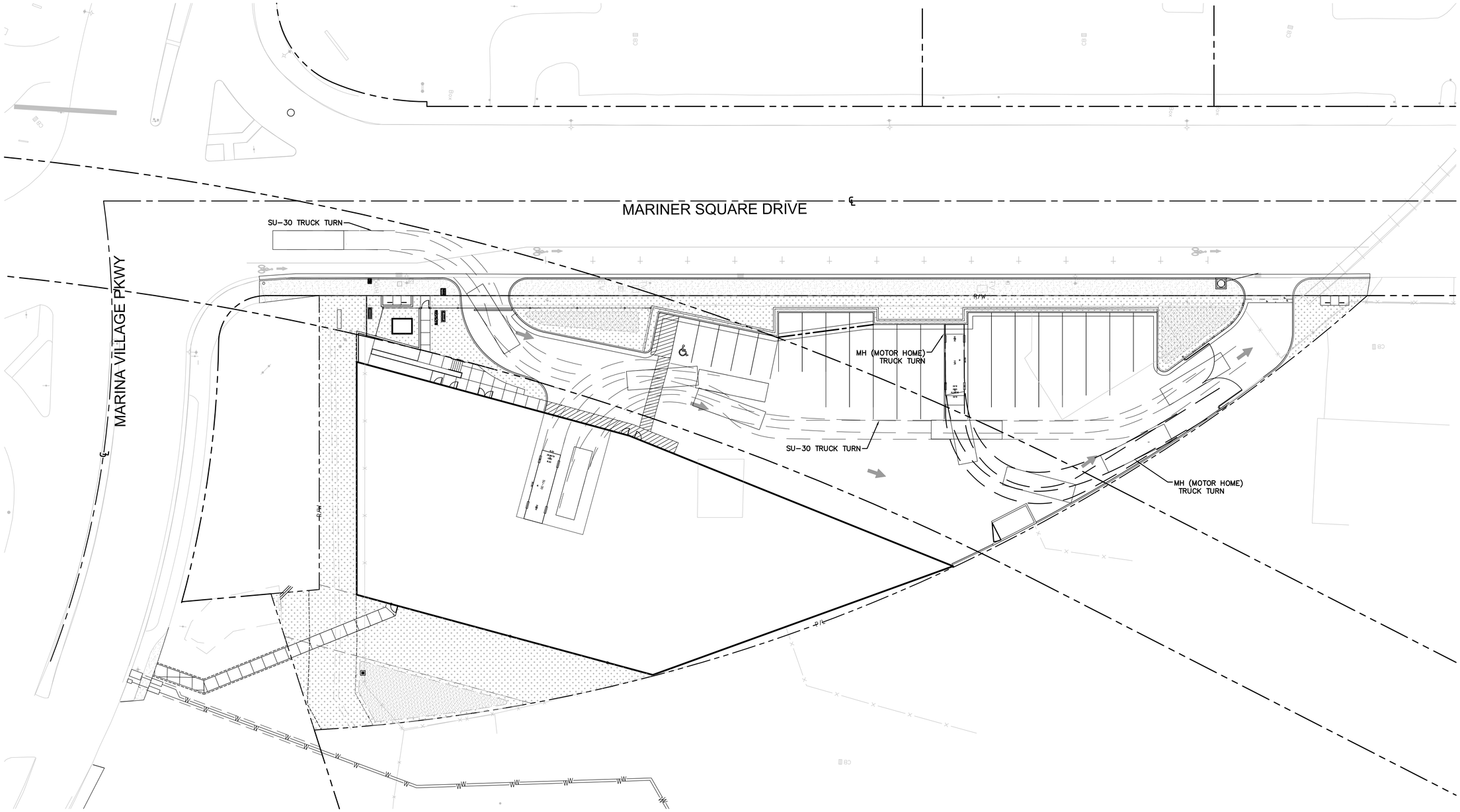
SHEET TITLE

FIRE TRUCK TURN EXHIBIT

SHEET NUMBER

C-09

DATE: 01/30/2019



AASHTO TRUCK MODELING:

VEHICLE TYPE	MIN. TURN RADIUS (CLOCKWISE ARC)	CALCULATED COUNTERCLOCKWISE ARC RADII	TOTAL LENGTH OF VEHICLE
SINGLE-UNIT TRUCK (SU-30)	41.8'	33.8'	30'
MOTOR HOME (MH)	39.7'	31.7'	30'

DIGALERT

CALL BEFORE YOU DIG
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AT LEAST
2 WORKING DAY
NOTICE REQUIRED

20 10 0 20 40
SCALE: 1"=20'

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18543 YORBA LINDA BL. #235
YORBA LINDA, CA 92886
714.749.3077
714.281.1640 FAX

DRAWING ISSUE RECORD

DATE	DESCRIPTION

REVISION RECORD

NO.	DATE	DESCRIPTION

PROJECT NAME

BANNER SELF STORAGE
2390 MARINER SQUARE DRIVE
ALAMEDA, CA.

PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER
KIMBERLY A. JOHNSON
No.81979
Exp.03/31/2020
CIVIL
STATE OF CALIFORNIA

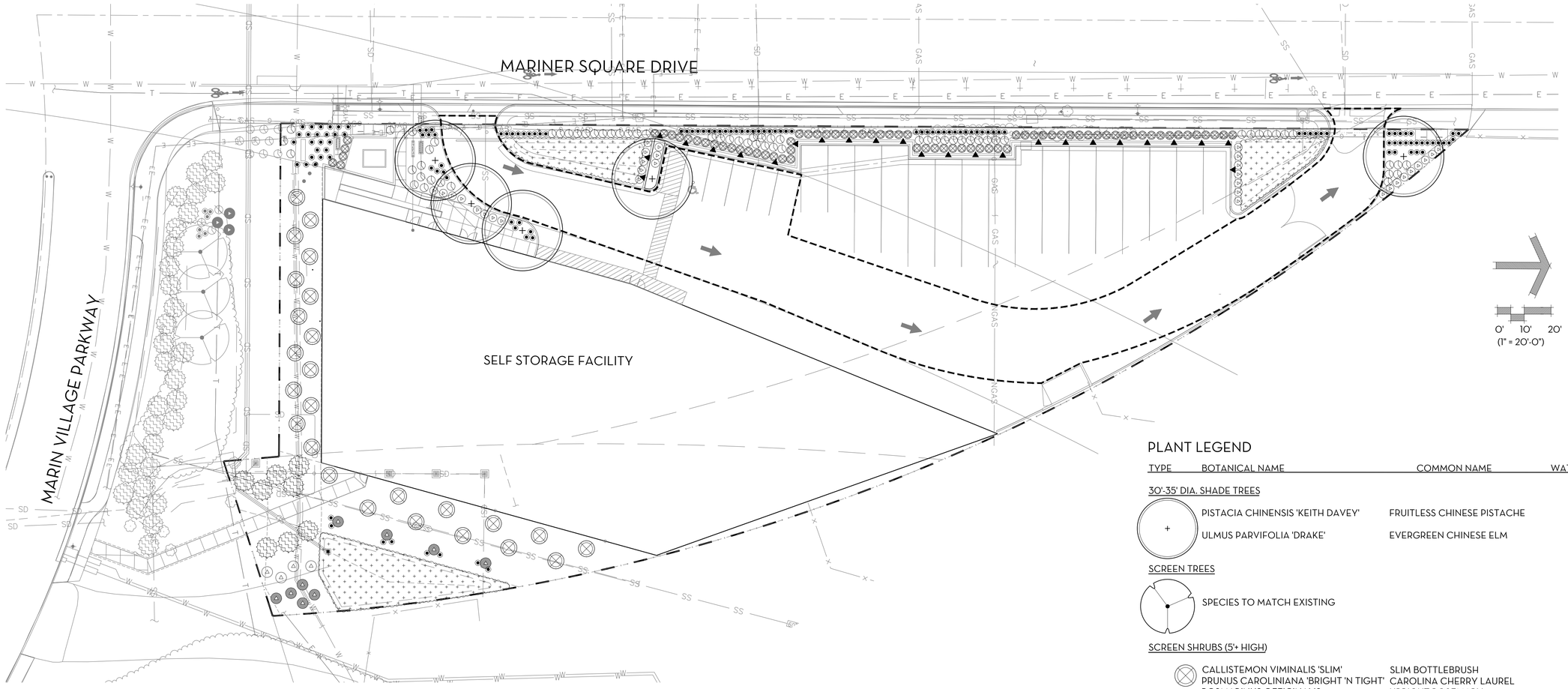
SHEET TITLE

TRUCK TURN EXHIBIT

SHEET NUMBER

C-10

DATE: 01/30/2019



PLANT LEGEND

TYPE	BOTANICAL NAME	COMMON NAME	WATER USE	SIZE	HEIGHT/WIDTH
30'-35' DIA. SHADE TREES					
+	PISTACIA CHINENSIS 'KEITH DAVEY'	FRUITLESS CHINESE PISTACHE	L	15 GAL.	30'x30'
+	ULMUS PARVIFOLIA 'DRAKE'	EVERGREEN CHINESE ELM	L	15 GAL.	30'x40'
SCREEN TREES					
	SPECIES TO MATCH EXISTING		M		
SCREEN SHRUBS (5'+ HIGH)					
⊗	CALLISTEMON VIMINALIS 'SLIM'	SLIM BOTTLEBRUSH	L	5 GAL.	8' x 3'
⊗	PRUNUS CAROLINIANA 'BRIGHT 'N TIGHT'	CAROLINA CHERRY LAUREL	L	5 GAL.	8' x 6'
⊗	ROSMARINUS OFFICINALIS 'TUSCAN BLUE'	UPRIGHT ROSEMARY	L	5 GAL.	6' x 3'
FOUNDATION SHRUBS					
△	DIETES IRIDIOIDES	AFRICAN IRIS	L	5 GAL.	3.5'x3.5'
◬	LOMANDRA 'PLATINUM BEAUTY'	VARIEGATED DWARF MAT RUSH	L	1 GAL.	2' x 2'
◬	SALVIA LEUCANTHA 'SANTA BARBARA'	COMPACT MEXICAN BUSH SAGE	L	5 GAL.	2.5'x3.5'
◬	WESTRINGIA R. 'MORNING LIGHT'	VARIEGATED COAST ROSEMARY	L	5 GAL.	3' x 3'
ACCENT SHRUBS					
◒	ANIGOZANTHOS HYBRID 'ORANGE'	ORANGE KANGAROO PAW	L	1 GAL.	3.5' x 2.5'
◉	DIANELLA REVOLUTA 'LITTLE REV'	LITTLE REV FLAX LILY	L	1 GAL.	2.5' x 1.5'
	MUHLENBERGIA CAPILLARIS	PINK MUHLY	L	5 GAL.	3' x 6'
	PHORMIUM 'YELLOW WAVE'	NEW ZEALAND FLAX	L	5 GAL.	4' x 4'
VINES					
▼	GELSEMIUM SEMPERVIRENS	CAROLINA JESSAMINE	L	5 GAL.	10' O.C.
GROUNDCOVERS					
⊛	CISTUS 'SUNSET'	MAGENTA ROCKROSE	L	5 GAL.	1.5' x 6', 5' O.C.
⊛	MYOPORUM PARVIFOLIUM 'WHITE'	CREEPING MYOPORUM	L	5 GAL.	0.5' x 6', 5' O.C.
BIOFILTRATION AREA					
⊞	CHONDROPETALUM TECTORUM	CAPE RUSH	L	1 GAL.	3' O.C.
⊞	JUNCUS PATENS	CALIFORNIA GREY RUSH	L	1 GAL.	30" O.C.
MULCH					
	WALK-ON BARK MULCH ONLY				

PRELIMINARY LANDSCAPE COVERAGE

TOTAL SITE SQ. FOOTAGE: 54,106 SF

REQUIRED LANDSCAPE: 30% = 16,231 SF

PROVIDED LANDSCAPE: 22% = 11,817 SF

PRELIMINARY TREE CALCULATIONS

TOTAL PARKING STALLS: 5
1 TREE PER 4 STALLS

REQUIRED QTY. OF TREES: 2

PROVIDED: 5 SHADE TREES

SHADE CALCULATIONS (FOR BAY-FRIENDLY SCORECARD)

CANOPY DIA.	F	TQ	H	Q	TOTAL
35' DIA. TREES	0@962	1@721	3@481	1@123	2,287 SF

TOTAL TREE SHADE:	2,287 SF
TOTAL PARKING LOT AREA:	10,890 SF
50% REQUIRED:	5,445 SF
% SHADE PROVIDED:	21%

NOTE:
ALL DOCUMENTS REQUIRED BY THE CITY OF ALAMEDA'S LANDSCAPE DOCUMENT PACKAGE WILL BE PROVIDED DURING THE CONSTRUCTION DOCUMENTATION PHASE OF THE PROJECT. THE PLANS WILL MEET ALL MWELO REQUIREMENTS.

SELF STORAGE FACILITY - PRELIMINARY LANDSCAPE PLAN

2390 MARINER SQUARE DRIVE, ALAMEDA, CA

PRELIMINARY PLANTING PLAN L1

FEBRUARY 04, 2020

wilsondesignstudio
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sacramento, ca. 95816 916.524.5614

TREES

PISTACIA CHINENSIS 'KEITH DAVEY'
FRUITLESS CHINESE PISTACHE

ULMUS PARVIFOLIA 'DRAKE'
EVERGREEN CHINESE ELM

SCREEN SHRUBS

CALLISTEMON 'SLIM'
SLIM BOTTLEBRUSH

PRUNUS 'BRIGHT N' TIGHT'
CAROLINA CHERRY LAUREL

ROSMARINUS 'TUSCAN BLUE'
UPRIGHT ROSEMARY

FOUNDATION SHRUBS

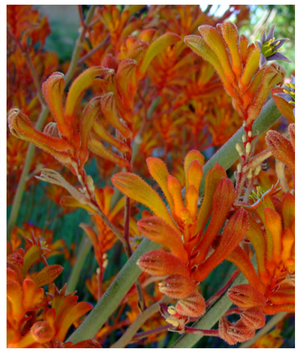
DIETES IRIDIOIDES
AFRICAN IRIS

LOMANDRA 'PLATINUM BEAUTY'
VARIEGATED DWARF MAT RUSH

SALVIA LEUCANTHA 'SANTA BARBARA'
COMPACT MEXICAN BUSH SAGE

WESTRINGIA 'MORNING LIGHT'
VARIEGATED COAST ROSEMARY

ACCENT SHRUBS



ANIGOZANTHOS HYBRID 'ORANGE'
ORANGE KANGAROO PAW

DIANELLA REV. 'LITTLE REV'
LITTLE REV FLAX LILY

MUHLENBERGIA CAPILLARIS
PINK MUHLY

PHORMIUM 'YELLOW WAVE'
NEW ZEALAND FLAX

VINES

GELSEMIUM SEMPERVIRENS
CAROLINA JESSAMINE

GROUNDCOVERS

CISTUS 'SUNSET'
MAGENTA ROCKROSE

MYOPORUM PARVIFOLIUM 'WHITE'
CREEPING MYOPORUM

BIOFILTRATION AREA

CHONDROPETALUM TECTORUM
CAPE RUSH

JUNCUS PATENS
CALIFORNIA GREY RUSH

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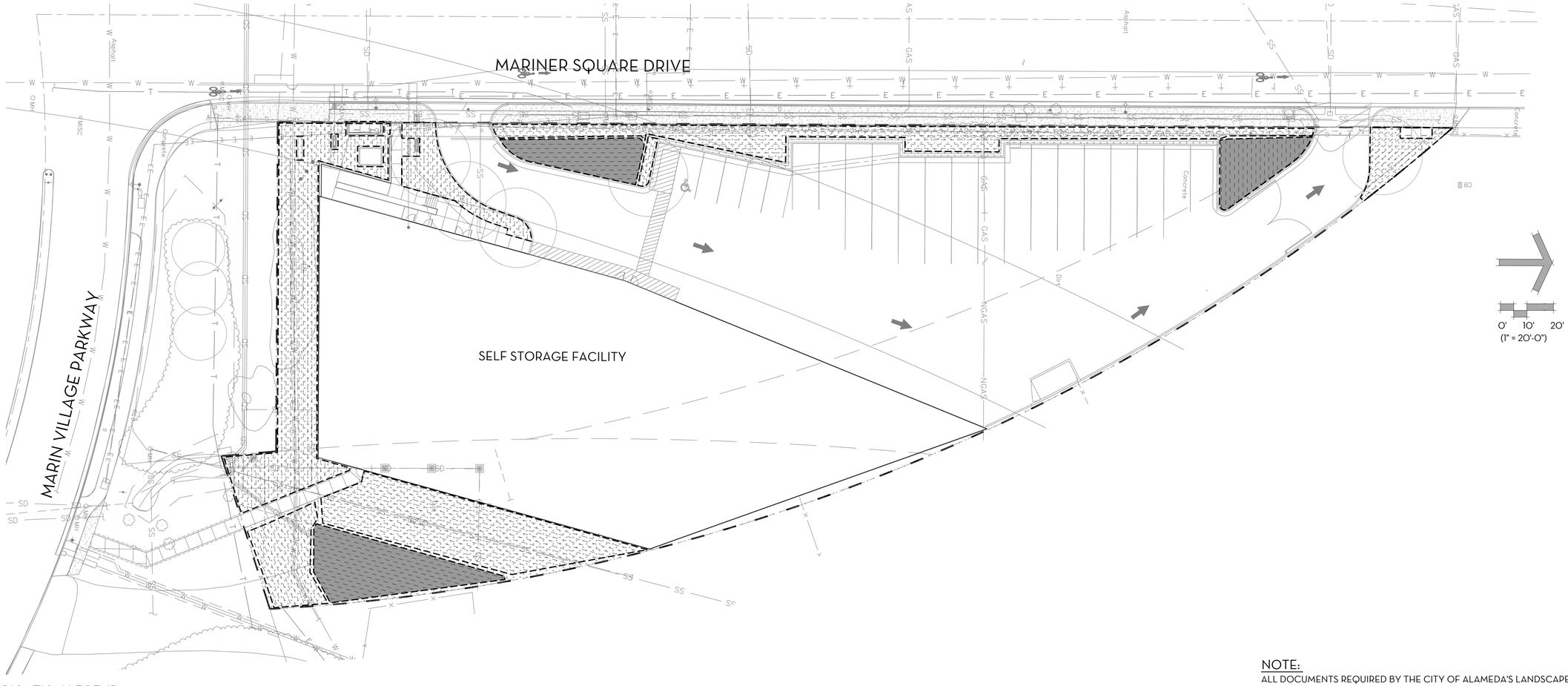

IRRIGATION LEGEND

SYMBOL	MAN. / MODEL NO.	DESCRIPTION	RADIUS	PSI.	GPM.	PRECIP. RATE
	HUNTER/ ECO-MAT	ECO-MAT FLEECE IRRIGATION MAT WITH FLEECE WRAPPED HDL TUBING/ 0.60 GPH EMITTERS SPACED AT 12" WITH ROW SPACING AT 14". INSTALL 8"-9" BELOW FINISH GRADE WHERE SHOWN. SEE IRRIGATION NOTE X, SHEET LX.X.	N/A	30	0.69/100'	0.43
	HUNTER HDL-O6-18	HDL DRIP TUBING /0.60 GPH EMITTERS SPACED AT 18" O.C. INSTALL TUBING ON-GRADE, PER MANUFACTURERS INSTRUCTIONS, IN 18" SPACED ROWS WHERE SHOWN. SEE DETAIL X, SHEET LX.X.	N/A	30	0.69/100'	0.43
Ⓕ	HUNTER PLD-BV	PLD MANUAL FLUSH VALVE. INSTALL AT GRADE IN 10" ROUND VALVE BOX IN PLANTER AREA LOCATED AT FARTHEST POINT FROM DRIP ZONE CONTROL KIT, TYP. SEE DETAIL X, SHEET LX.X.				
	HUNTER ECO-ID	HUNTER ECO-INDICATOR FOR SUB-SURFACE IRRIGATION. INSTALL IN A VISIBLE LOCATION AT FARTHEST POINT FROM DRIP ZONE CONTROL KIT.				
Ⓐ	HUNTER PLD-AVR	AIR RELIEF VALVE. INSTALL AT GRADE AT HIGHEST POINT IN 6" ROUND VALVE BOX IN PLANTER AREA LOCATED AT HIGHEST POINT FROM DRIP ZONE CONTROL KIT, TYP. SEE DETAIL X, SHEET LX.X.				
NOT SHOWN	HUNTER VARIES	PLD CONNECTION FITTINGS, AS REQUIRED.				
	HUNTER RZWS-36-25-CV	ROOT ZONE WATERING SYSTEM TWO (2) PER TREE* SEE DETAIL X, SHEET LX.X.	N/A	30	0.25 *0.50	0.86 *1.72
	HUNTER ICV	HUNTER ICV CONTROL VALVE, SIZE AS NOTED, SEE DETAIL X, SHEET LX.X.				
	HUNTER ICZ	HUNTER DRIP ZONE CONTROL KIT, SIZE AS NOTED SEE DETAIL X, SHEET LX.X.				
	NIBCO T-113	BRASS GATE VALVE, LINE SIZE. SEE DETAIL X, SHEET LX.X.				
	HUNTER HQ44-LRC	1" BRASS QUICK COUPLING VALVE W/ LOCKING COVER SEE DETAIL X, SHEET LX.X.				
MV	HUNTER ICV-101G	1" NORMALLY CLOSED MASTER VALVE. INSTALL PER MANUFACTURER'S SPECIFICATIONS. SEE DETAIL X, SHEET LX.X.				
FS	CST FSI-T10-001	1" FLOW SENSOR FOR USE WITH CONTROLLER. INSTALL PER MANUFACTURER'S SPECIFICATIONS. SEE DETAIL X, SHEET LX.X.				
C	HUNTER IC-600 /ICM-600/ WSS-SEN /PED-SS	6 STATION I-CORE CONTROLLER AND 6 STATION PLUG-IN EXPANSION MODULE (12 STATIONS TOTAL) WITH SOLAR SYNC WIRELESS WEATHER SENSOR MOUNTED IN STAINLESS STEEL PEDESTAL ENCLOSURE. COORDINATE WEATHER STATION PLACEMENT AND ELECTRICAL CONNECTION. INSTALL PER MANUFACTURER'S SPECIFICATIONS. CONTACT DON FRANKLIN AT (916) 899-9437 FOR PRICING, PRE-CONSTRUCTION MEETING AND INSTALLATION.				

(E) MAINLINE, FIELD VERIFY LOCATION.

MAINLINE: PVC SCHEDULE 40 FOR SIZES 2" OR SMALLER, PVC CLASS 315 FOR SIZES 2" OR ABOVE. SOLVENT WELD FITTINGS AT 24" DEPTH, SIZE AS NOTED.

ELECTRICAL SERVICE CONDUIT WITH WIRES, RUN ALONG MAINLINE TO VALVE CONNECTIONS.

IRRIGATION LATERAL LINE: CLASS 200 PVC UP TO 2"; SCHEDULE 40 PVC PIPE FOR 2.5" OR ABOVE. SOLVENT WELD FITTINGS AT 18" DEPTH, SIZE AS NOTED.

IRRIGATION SLEEVE: SCHEDULE 40 PVC, SIZE TO BE 2X THE TOTAL OF PIPE DIAMETER. INSTALL UNDER ALL NEW PAVING AND EXTEND 12" BEYOND HARDSCAPE EDGES.

HYDROZONE AREA DELINEATION.

CONTROLLER/ HYDROZONE # - -GPM (IRRIGATION PRODUCT TYPE)
VALVE SIZE - -PRECIP.RATE/PSI/HYDROZONE AREA (SF)
VALVE WATER USE TYPE

NOTE:
ALL DOCUMENTS REQUIRED BY THE CITY OF ALAMEDA'S LANDSCAPE DOCUMENT PACKAGE WILL BE PROVIDED DURING THE CONSTRUCTION DOCUMENTATION PHASE OF THE PROJECT. THE PLANS WILL MEET ALL MWELO REQUIREMENTS.

SELF STORAGE FACILITY, 2390 MARINER SQUARE DRIVE, ALAMEDA, CA
WATER EFFICIENT LANDSCAPE WORKSHEET

REGULAR LANDSCAPE AREAS

VALVE NUMBER	IRRIGATION METHOD	PLANT WATER USE	PLANT FACTOR (PF)	IRRIGATION EFFICIENCY (IE)	LANDSCAPE AREA (SF)	ETAF (PF/IE)	ETAF x AREA	ETWU
A1	DRIP	LOW	0.2	0.81	8,208	0.25	2,026.67	44,304
A2	DRIP	MODERATE	0.5	0.81	2,284	0.62	1,409.88	30,662
A3	TREE BUBBLER	MODERATE	0.5	0.81	140	0.62	86.42	1,881
TOTALS:					10,632	(B)	3,522.96	76,667

SPECIAL LANDSCAPE AREAS

VALVE NUMBER	IRRIGATION METHOD	PLANT WATER USE	PLANT FACTOR (PF)	IRRIGATION EFFICIENCY (IE)	LANDSCAPE AREA (SF)	ETAF (PF/IE)	ETAF x AREA	ETWU
N/A	N/A	N/A	0	0.00	0	1.00	0.00	0
TOTALS:				(C)	0	(D)	0.00	0

TOTAL AREA:	10,632

ETO:	35.10
ETAF:	0.45

ETWU = (ETO x 0.62 x ETAF x AREA)
MAWA = ((ETO x 0.62 ((ETAF x LA) + (1- ETAF) x SLA))

ETWU TOTAL:	76,667
MAWA TOTAL:	104,118

ETWU < MAWA

*ETAF IS 0.55 FOR RESIDENTIAL APPLICATIONS AND 0.45 FOR COMMERCIAL APPLICATIONS.
*TREE AREA IS CALCULATED BY THE AREA COVERED BY ROOT BALL IRRIGATION (28 SF EA.)

ETAF CALCULATIONS

REGULAR LANDSCAPE AREAS

TOTAL ETAF x AREA	(B)	3,522.96
TOTAL AREA	(A)	10,632
AVAERAGE ETAF	(B) / (A) =	0.33

ALL LANDSCAPE AREAS

TOTAL ETAF x AREA	(B + D)	3,522.96
TOTAL AREA	(A + C)	10,632
SITEWIDE ETAF	(B + D) / (A + C) =	0.33

A WATER EFFICIENT LANDSCAPE WORKSHEET
NO SCALE

SELF STORAGE FACILITY - PRELIMINARY LANDSCAPE PLAN
2390 MARINER SQUARE DRIVE, ALAMEDA, CA

PRELIMINARY IRRIGATION PLAN L3
FEBRUARY 04, 2020

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VICINITY MAP
NOT TO SCALE

LEGEND

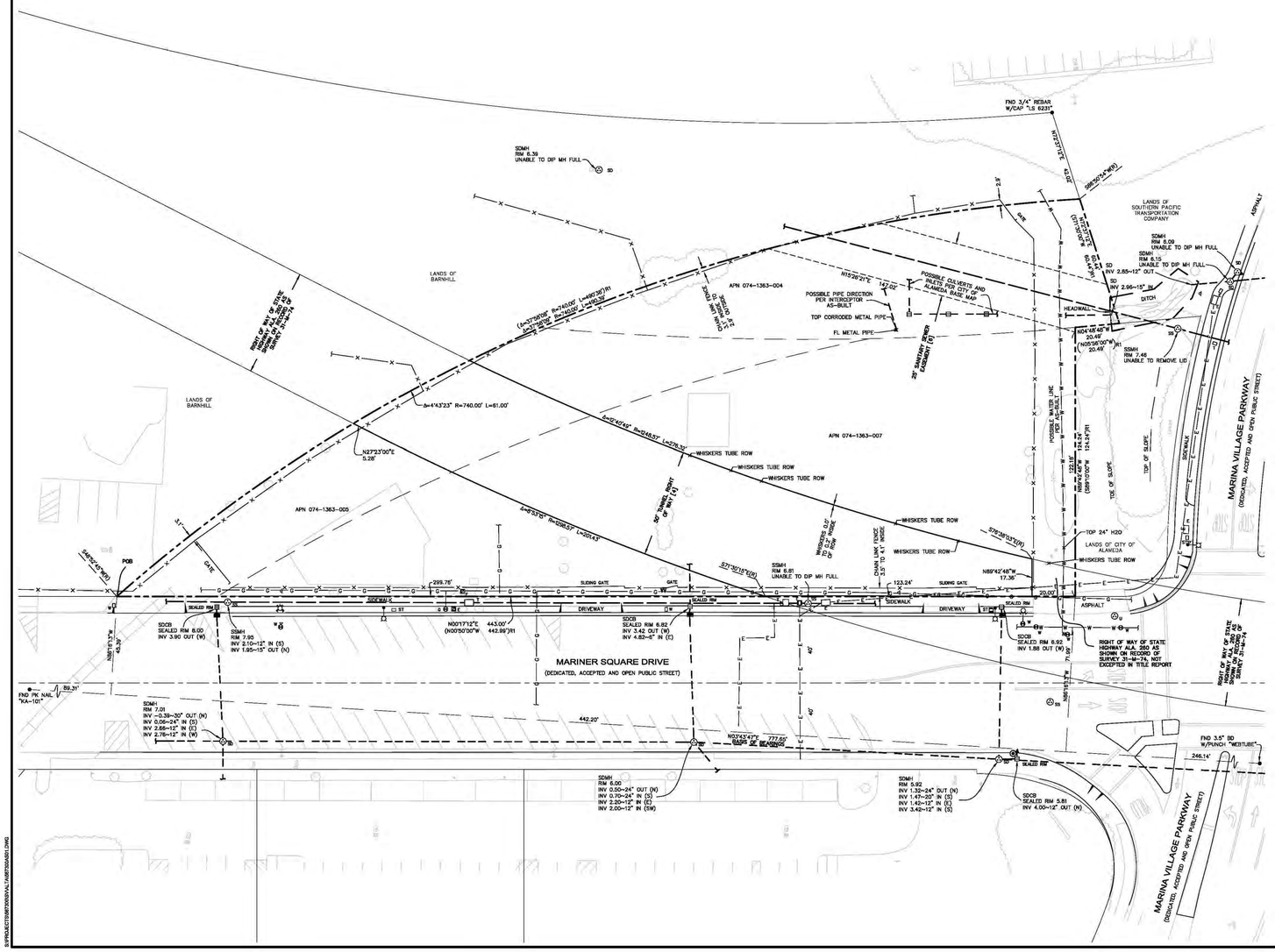
- EXTERNAL BOUNDARY OF PROPERTY IN LEGAL DESCRIPTION
- ASSESSOR PARCEL LINE
- E — UNDERGROUND ELECTRIC LINE
- G — GAS LINE
- SD — SANITARY SEWER LINE
- STORM DRAIN LINE
- [#] / 0 — REFERENCE TO EXCEPTION ITEM # OF THE TITLE REPORT / DECK OUTSIDE OF BLDG PERIMETER
- (...)R# — RECORD DOCUMENT REFERENCE: R1:DOC 2017-84941
- (N) — RADIAL BEARING
- FOUND MONUMENT
- FENCES, TYPE AS NOTED
- GATE

UTILITY TYPES

E	ELECTRIC	ST	STREET LIGHTING
G	GAS	T	COMMUNICATION
SD	STORM DRAINAGE	TV	TELEVISION
SS	SANITARY SEWER	U	UNIDENTIFIED
		W	WATER

- DRAINAGE INLET
- CURB INLET
- MANHOLE
- VALVE BOX
- SUBSURFACE UTILITY VAULT
- SUBSURFACE UTILITY BOX
- FREE STANDING UTILITY CABINET OR PEDESTAL
- STREET LIGHT W/WO BOX
- FIRE HYDRANT
- CURB CUT FOR DRIVE OR HC RAMP
- SIGNS
- * UTILITY AS NOTED

20 0 10 20
1 INCH = 20 FEET



LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF ALAMEDA, CITY OF ALAMEDA, AND DESCRIBED AS FOLLOWS:

BEING A PORTION OF TRACTS 31 AND 32, AS SAID TRACTS ARE SHOWN ON THAT CERTAIN MAP ENTITLED "MAP OF ALAMEDA MARSH LANDS, AS PARTITIONED AMONG THE OWNERS THEREOF IN SUIT NO. 8932", FILED JULY 30, 1900, IN BOOK 25 OF MAPS AT PAGES 74, 75 AND 7, IN THE OFFICE OF THE COUNTY RECORDER OF ALAMEDA COUNTY, DESCRIBED AS FOLLOWS:

BEING ALSO THE LANDS DESCRIBED AS THE SOUTHWESTERLY LOT OF THAT CERTAIN CERTIFICATE OF COMPLIANCE, RECORDED JUNE 7, 2001 AS INSTRUMENT NO. 2001194211, OFFICIAL RECORDS OF ALAMEDA COUNTY, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE MOST NORTHERLY CORNER OF SAID SOUTHWESTERLY LOT, SAID CORNER BEING ALSO A POINT ON THE EASTERLY LINE OF MARINER SQUARE DRIVE, FORMERLY WEBSTER STREET AND TRACT 33 OF THE SAID MAP OF ALAMEDA MARSH LANDS, SAID POINT BEING ALSO THE BEGINNING OF A NON-TANGENT CURVE, CONCAVE TO THE SOUTHWEST, HAVING A RADIUS OF 740.00 FEET, WITH A RADIAL LINE THAT BEARS NORTH 47°49'34" EAST;

THENCE LEAVING SAID POINT AND ALONG THE NORTHEASTERLY LINE OF SAID SOUTHWESTERLY LOT, SOUTHEASTERLY ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 37°56'08", FOR AN ARC LENGTH OF 490.38 FEET TO THE SOUTHEASTERLY LINE OF THAT CERTAIN PARCEL OF LAND DESCRIBED IN THE DEED FROM CENTRAL PACIFIC RAILROAD COMPANY, A CORPORATION TO CITY OF ALAMEDA, DATED AUGUST 10, 1910 AND RECORDED MAY 8, 1911 IN BOOK 1935 OF DEEDS AT PAGE 93, RECORDS OF ALAMEDA COUNTY;

THENCE ALONG SAID SOUTHEASTERLY LINE, SOUTH 71°30'00" WEST, 60.44 FEET TO THE WESTERLY LINE OF SAID TRACT 31;

THENCE ALONG SAID WESTERLY LINE, NORTH 05°56'00" WEST, 20.49 FEET TO A POINT, SAID POINT BEING MARKED AS "C" ON SAID MAP OF ALAMEDA MARSH LANDS;

THENCE LEAVING SAID POINT "C" AND ALONG THE SOUTHERLY LINE OF THE PARCEL DESCRIBED IN THAT CERTAIN DEED FROM THE OAKLAND WATER FRONT COMPANY, A CORPORATION TO SOUTH PACIFIC COAST RAILWAY COMPANY, A CORPORATION, DATED SEPTEMBER 16, 1905 AND RECORDED OCTOBER 31, 1905 IN BOOK 1037 OF DEEDS AT PAGE 329, RECORDS OF SAID COUNTY, SOUTH 89°10'00" WEST, 124.24 FEET TO SAID EASTERLY LINE OF MARINER SQUARE DRIVE;

THENCE ALONG SAID EASTERLY LINE, NORTH 00°50'00" WEST 442.99 FEET TO THE POINT OF BEGINNING.

APN: 074-1363-004, 074-1363-005 & 074-1363-007

EXCEPTIONS FROM COVERAGE

- THE ITEM NUMBERS BELOW CORRESPOND TO THE EXCEPTIONS FROM COVERAGE IN THE TITLE REPORT REFERRED TO IN THE NOTES, WHICH ARE IN ADDITION TO THE STANDARD EXCEPTIONS AND EXCLUSIONS IN SAID POLICY FORM. REGARDING THESE ITEMS: (a) THE LOCATION OF ITEM 5 CAN NOT BE DETERMINED FROM THE RECORD DOCUMENT; (b) ITEMS 4, 6 AFFECT PORTIONS OF THE SUBJECT PROPERTY, AND THESE ITEMS ARE SHOWN ON THE MAP AND LABELED WITH CORRESPONDING NUMBERS IN BRACKETS, [#], EXCEPT AS NOTED ABOVE.
  1. -3. INTENTIONALLY DELETED
  4. BOOK 946-OR-39, SUBWAY TUNNEL RIGHT OF WAY
  5. BOOK 4191-OR-400, POWER LINE EASEMENT
  6. BOOK 6336-OR-351, SANITARY SEWER EASEMENT
  7. -8. INTENTIONALLY DELETED
  9. DOC 2001194211, MATTERS CONTAINED IN CERTIFICATE OF COMPLIANCE
  10. INTENTIONALLY DELETED
  11. DOC 2017084941, MATTERS CONTAINED IN QUITCLAIM DEED
  12. -13. INTENTIONALLY DELETED
  14. MATTERS DISCLOSED IN BKF ALTA

NOTES REGARDING TABLE A OPTIONAL ALTA/NSPS SURVEY RESPONSIBILITIES: -INFORMATION FOR ITEMS 6 AND 18 WAS PROVIDED BY RAYMOND T. HASHIMOTO, A.L.C.P. HMH

2. PROPERTY ADDRESS IN TITLE REPORT: 2388 MARINER SQUARE, ALAMEDA, CA
3. PARCELS DESCRIBED HEREON LIE WITHIN ZONE AE AS SHOWN UPON THE FLOOD INSURANCE RATE MAP (F.I.R.M.), MAP NUMBER 06001C0067H DATED DECEMBER 21, 2018, ISSUED BY FEDERAL EMERGENCY MANAGEMENT AGENCY (F.E.M.A.) OF WHICH ZONE IS DESCRIBED ON SAID MAP AS AE: SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD; BASE FLOOD ELEVATIONS DETERMINED.
4. THE AREA OF THE SUBJECT PROPERTY IS 1.24 ACRES.
6. ZONING CLASSIFICATION, SETBACK AND BULK RESTRICTIONS WERE NOT PROVIDED BY THE INSURER. THE ZONING CLASSIFICATION PER CITY OF ALAMEDA, CALIFORNIA MUNICIPAL CODE: 30-4 DISTRICT USES AND REGULATIONS; 30-4.12-M-2 GENERAL INDUSTRIAL (MANUFACTURING) DISTRICT; 30-7 OFF STREET PARKING AND LOADING SPACE REGULATIONS; 30-7.6 SCHEDULE OF REQUIRED MINIMUM AND MAXIMUM OFF-STREET PARKING SPACE
MINIMUM SETBACKS FROM PROPERTY LINES: 0' FRONT, 12' SIDE, NONE FOR REAR UNLESS USE IS ADJACENT TO AN R DISTRICT THEN THE SETBACK IS 12'.
MAXIMUM BUILDING HEIGHT: 100'; MAXIMUM TOTAL BUILDING COVERAGE IS 80% INCLUDING ACCESSORY STRUCTURES.
PARKING REQUIREMENTS: USE: WAREHOUSE STORAGE: 0.67 SPACES PER 1,000 SQ. FT. OF SPACE; MAJOR MANUFACTURING: 1.25 SPACES PER 1,000 SQ FT OF SPACE.
11. ALL INFORMATION SHOWN HEREON CONCERNING UTILITIES IS BASED ON ABOVE GROUND OBSERVABLE SURFACE FEATURES, TOGETHER WITH EVIDENCE FROM PLANS OBTAINED FROM UTILITY COMPANIES OR PROVIDED BY THE CLIENT AND MARKINGS BY UTILITY COMPANIES OR UTILITY LOCATION SERVICES. LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY AND RELIABLE DEPICTED.
16. THERE WAS NO EVIDENCE OF RECENT EARTHWORK OR BUILDING CONSTRUCTION.
18. THERE ARE NO IDENTIFIED WETLANDS ON SITE.

NOTES

A. THE WORDS "CERTIFY" AND "CERTIFICATION" AS USED BELOW ARE AS DEFINED IN THE STATE OF CALIFORNIA, BUSINESS AND PROFESSIONS CODE, SECTION 8770.6: THE USE OF THE WORD "CERTIFY" OR "CERTIFICATION BY A LICENSED LAND SURVEYOR OR REGISTERED CIVIL ENGINEER IN THE PRACTICE OF PROFESSIONAL ENGINEERING OR LAND SURVEYING OR THE PREPARATION OF MAPS, PLATS, REPORTS, DESCRIPTIONS, OR OTHER SURVEYING DOCUMENTS ONLY CONSTITUTES AN EXPRESSION OF PROFESSIONAL OPINION REGARDING THOSE FACTS OR FINDINGS WHICH ARE THE SUBJECT OF THE CERTIFICATION, AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE, EITHER EXPRESSED OR IMPLIED.
B. THE PLAT IS BASED UPON A FIELD SITE INSPECTION AND AN INSTRUMENT SURVEY MADE UPON THE GROUND AND WAS BASED ON GENERALLY ACCEPTED STANDARDS OF PRACTICE FOR LAND SURVEYING IN THE COUNTY OF ALAMEDA, STATE OF CALIFORNIA.
C. THIS SURVEY MAKES NO EVALUATION AS TO COMPLIANCE WITH THE ZONING CODES AND/OR ORDINANCES; OR AS TO THE IDENTITY OF THE PERSONS IN ACTUAL POSSESSION OF THE PROPERTY.
D. BOUNDARY AND TITLE INFORMATION SHOWN HEREON IS BASED ON PRELIMINARY TITLE REPORT NO. 1800035674 DATED APRIL 2, 2019 ISSUED BY STEWART TITLE GUARANTY COMPANY.
E. BASIS OF BEARINGS: THE DIRECT BEARING OF SOUTH 09° 45' 20" WEST BETWEEN THOSE PROJECT CONTROL MONUMENTS, "WEB-TUBE" AND "KA-101", CALCULATED FROM THAT CERTAIN RECORD OF SURVEY FILED FOR RECORD IN BOOK 31, PAGE 74, ALAMEDA COUNTY RECORDS, AS FOUND MONUMENTED AND ROTATED CLOCKWISE 00° 01' 33" FOR THE PURPOSE OF THIS MAP, WAS ADOPTED AS THE BASIS OF BEARINGS.
F. EXCEPT AS SHOWN, INDICATED OR NOTED ON THE PRINT OF SAID SURVEY, THERE ARE NO VISIBLE EASEMENTS OR RIGHTS OF WAY ON SAID LAND, OF WHICH THE UNDERSIGNED HAS KNOWLEDGE, OR OTHER EASEMENTS OR RIGHTS OF WAY OF WHICH THE UNDERSIGNED HAS BEEN ADVISED OR WHICH ARE OF RECORD AND ARE DOCUMENTED IN THE REFERENCED PRELIMINARY TITLE REPORT.
NOR, EXCEPT AS SHOWN, INDICATED OR NOTED ON THE PRINT OF SAID SURVEY, ARE THERE ANY PARTY WALLS, VISIBLE EVIDENCE OF ENCROACHMENTS OR OVERHANGS OF ABOVE GROUND IMPROVEMENTS UPON ANY SUCH EASEMENTS, RIGHTS OF WAY OR ADJACENT LAND, OR SUCH EVIDENCE OF ENCROACHMENTS BY ABOVE GROUND IMPROVEMENTS LOCATED ON ADJACENT LAND UPON THE DESCRIBED LAND.
G. THERE ARE NO BUILDINGS EXISTING ON THE SURVEYED PROPERTY.
H. NO CEMETERIES, GRAVE SITES OR BURIAL GROUNDS WERE OBSERVED DURING THIS SURVEY.
I. THERE ARE NO SPRINGS, PONDS, LAKES, OR STREAMS ON THE SURVEYED PROPERTY.

ALTA SURVEY STATEMENT
2388 MARINER SQUARE DRIVE, ALAMEDA, CALIFORNIA

TO BANNER REAL ESTATE GROUP, MFK INTERNATIONAL LLC & STEWART TITLE GUARANTY COMPANY:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2, 3, 4, 6(A), 6(B), 8, 11, 13, 16 & 18 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON SEPTEMBER 4, 2019.

DATE OF PLAT OR MAP: 10-3-2019

TRACY L. GIORGETTI
CALIFORNIA L. S. 8720

HMH
1570 OAKLAND ROAD
SAN JOSE, CA 95131

TGiorgetti@HMHca.com

LICENSED LAND SURVEYOR TRACY L. GIORGETTI No. 8720 STATE OF CALIFORNIA

1 PLAT OF SURVEY
SCALE: N.T.S.

HMH
Land Use Entitlements
Land Planning
Landscape Architecture
Civil Engineering
Utility Design
Land Surveying
Stormwater Compliance

1570 Oakland Road (408) 487-2200
San Jose, CA 95131 HMHca.com

NO	DATE	ISSUE DESCRIPTION
3	02/07/20	CITY OF ALAMEDA REVIEW
2	01/03/20	CITY OF ALAMEDA REVIEW
1	10/09/19	CITY OF ALAMEDA REVIEW

ALTA/NSPS LAND TITLE SURVEY

2388 MARINER SQUARE DRIVE
ALAMEDA CA

OCTOBER 2019

ALAMEDA CALIFORNIA

PRINCIPAL: MSXX P.M.: CM & MXX
QC BY: DC XX DRAWN BY: JWXX

SULLIVAN GOULETTE & WILSON
ARCHITECTS
444 N MICHIGAN AVE
SUITE 1850
CHICAGO, IL 60611
Ph 312.988.7412
Fx 312.988.7409
www.sgwarch.com

PROFESSIONAL DESIGN FIRM
License Number: 184-001505
Expiration Date: April 30, 2021

NO	DATE	DESCRIPTION
PROJECT NO:		9573.00.280
CAD DWG FILE:		9573000A001.DWG
SURVEYED BY:		JR
DRAWN BY:		RF
CHECKED BY:		TG
DATE:		10-03-2019
SCALE:		1" = 20'
© HMH		

2390 MARINER SQUARE DRIVE

ALAMEDA, CALIFORNIA 94501

PLAT OF SURVEY

1
OF 1

NORTH

A0-0

S:\PROJECTS\9573000\CAD\ALT\9573000A001.DWG

PLOTTED: 10/2/2019 8:31 AM

MARINER SQUARE DRIVE
TWO-WAY TRAFFIC

MARINA VILLAGE PARKWAY
TWO-WAY TRAFFIC

2390 MARINER SQUARE DR
NEW 6-STORY (72'-4") FULLY SPRINKLERED
SELF-STORAGE (S-1) FACILITY W/ OFFICE
TYPE 1-B CONSTRUCTION
18,474 SF FOOTPRINT
110,844 GROSS SF

LEFT TURN LANE
GATE AND FENCE
(2) BIKE PARKING SPACES
ELECTRIC TRANSFORMER
AT RETAINING WALL
EXISTING MODIFIED CURB CUT
SIGN
CONCRETE SIDEWALK & RAMP
ADA RAMP
SIDEWALK
14 PARALLEL PARKING SPACES (14 ANGLED PARKING SPACES EXISTING)
DECORATIVE SCREEN ON TOP OF RETAINING WALL
CONCRETE CURB
RETAINING WALL
PLANTING AREA
PAVED PARKING AREA
(4) PARKING SPACES +(1) ADA SPACE
ACCESSIBLE PATH TO OFFICE
26'-0" ONE-WAY DRIVE AISLE
WATER
ELEC
OFFICE
STAIR
(2) LOADING BERTHS
MACHINE ROOM
ELEVATORS
(4) BOAT SPACES +(10) RV SPACES +(2) SMALL RV SPACES
(11) DRIVE UP UNITS
GATE
RETAINING WALL WITH FENCE ON TOP
WALLED TRASH ENCLOSURE
POSEY TUBE EASEMENT
BIKE LANE
NEW SIDEWALK
20'-0" EBMUD EASEMENT
25'-0" EBMUD SEWER EASEMENT

1 SITE PLAN
SCALE: 1" = 20'-0"

NORTH

NO	DATE	ISSUE DESCRIPTION
3	02/07/20	CITY OF ALAMEDA REVIEW
2	01/03/20	CITY OF ALAMEDA REVIEW
1	10/09/19	CITY OF ALAMEDA REVIEW

PRINCIPAL: MS
QC BY: DC
P.M.: CM & MA
DRAWN BY: JW

SULLIVAN GOULETTE & WILSON
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www.sgwarch.com

PROFESSIONAL DESIGN FIRM
License Number: 184-001505
Expiration Date: April 30, 2021

2390 MARINER SQUARE DRIVE

ALAMEDA, CALIFORNIA 94501

SITE PLAN

A0-1

ZONING DATA

Project Address		**2390 Mariner Square Drive | Alameda, California 94501**				
Local Zoning Ordinance		City of Alameda Zoning Ordinance				
Last Updated		**2/7/2020**				
LOCATION		**Existing Zoning**	**Proposed Zoning**	**Variances**	**Proposed Project Scheme 1**	
Zoning District		M-2 General Industrial	M-2 General Industrial		M-2 General Industrial	
Use Group		Storage Yard	*Household Goods Storage and Moving, Warehouse and Storage Facilitates		*Household Goods Storage and Moving, Warehouse and Storage Facilitates	
Lot Area [SF]		54,141.6	54,141.6		54,141.6	
BULK & DENSITY						
Maximum Floor Area Ratio [F.A.R.]		N/A	N/A		Actual Ratio [F.A.R.]	2.0
Maximum Area Allowed by F.A.R.		N/A	N/A		Actual Area [F.A.R.]	110,844.0
Maximum Building Coverage [%]		80%	80%		Actual Lot Coverage [%]	34%
Maximum Building Coverage [SF]		43,313.3	43,313.3		Actual Lot Coverage [SF]	18,474.0
Required Setbacks [ft]	Front (@ ROW)	5'-0"	5'-0"		Proposed	Varies, 27'-11" min.
30-4.12 D	Side [@ ROW]	0'-0"	0'-0"		Proposed	15'-10"
	Side [@ Abutting Lot]	0'-0"	0'-0"		Proposed	Varies, 175'-1" min.
	Rear [@ Abutting Lot]	0'-0"	0'-0"		Proposed	Varies, 0'-0" min.
Maximum Building Height [ft]		100'-0"	100'-0"		Proposed	72'-4"
PARKING/LOADING						
Required Off Street Parking Spaces	30-7.6	.67 per 1,000 SF	.67 per 1,000 SF = 75 Spaces	X	Provided	5.0
Required Accessible Parking Spaces	CBC 2-11B	1 per 25 spaces	1 per 25 spaces	X	Provided	1.0
Required Off Street Loading	30-7.14	(1) 10' x 40' x 14' space	(1) 10' x 40' x 14' space		Provided	2.0
Required Bicycle Parking	30-7.15	1 per 8,000 SF Short Term - 2 Spaces	1 per 8,000 SF Short Term - 2 Spaces	X	Provided	2.0
Public Parking Spaces					Provided	14 Existing Spaces + 9 New Spaces = 23 Parking Spaces
LANDSCAPING						
Landscape Requirements	Street	5'-0" landscape buffer from public street and sidewalk	5'-0" landscape buffer from public street and sidewalk		Provided	5'-0"
	Site	1 tree per 4 parking spaces	1 tree per 4 parking spaces		Provided	4.0
	Parking Areas	1'-0" of landscaped separation is required from parking backup area, walls, fences, buildings and property lines	1'-0" of landscaped separation is required from parking backup area, walls, fences, buildings and property lines		Provided	1'-0"
Signs	Location	Wall Sign	Wall Sign		Provided	Wall & Monument Sign
	Quantity	1 per business frontage	1 per business frontage		Provided	5 - see sign package
	Size	Min. 25 SF Max. 150 SF	Min. 25 SF Max. 150 SF		Provided	Min 3.6 SF, Max 50 SF
	Height	Below parapet line	Below parapet line		Provided	64'-4"
Trash Area Screening Required		Required	Required		Provided	Trash Enclosure
ADDITIONAL						
Architectural Standards		Yes	Yes			
Flood Zone/Criteria		AE	AE			
Easements		Yes - see survey	Yes - see survey			

Notes:

***Household goods storage and moving, warehouses and storage facilitates are permitted uses in an CM, M1 and M2 Zones.**

2 ZONING DATA
SCALE: N.T.S.

1 ZONING MAP
SCALE: N.T.S.

NO	DATE	ISSUE DESCRIPTION
3	02/07/20	CITY OF ALAMEDA REVIEW
2	01/03/20	CITY OF ALAMEDA REVIEW
1	10/09/19	CITY OF ALAMEDA REVIEW

PRINCIPAL: MSX — P.M.: CM & MKX
QC BY: DC XX — DRAWN BY: JWX

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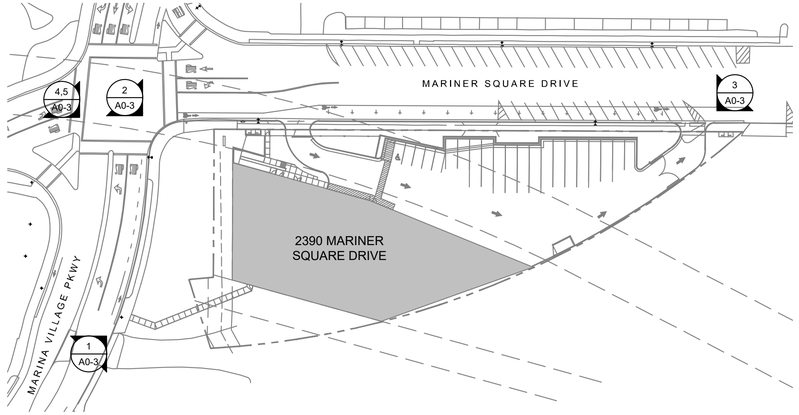
2390 MARINER SQUARE DRIVE

ALAMEDA, CALIFORNIA 94501

ZONING MAP & ZONING DATA

NORTH

A0-2

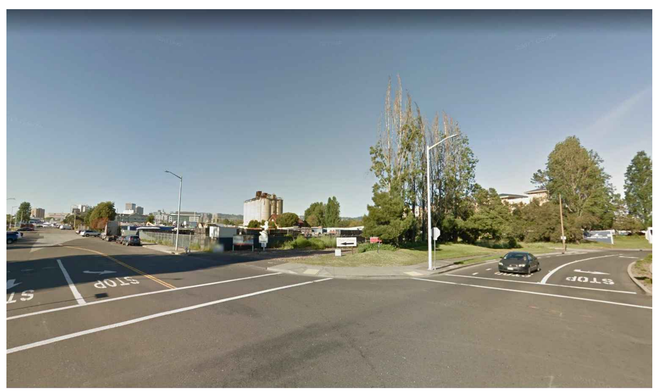


6 SITE KEY MAP
SCALE: 1" = 60'-0"

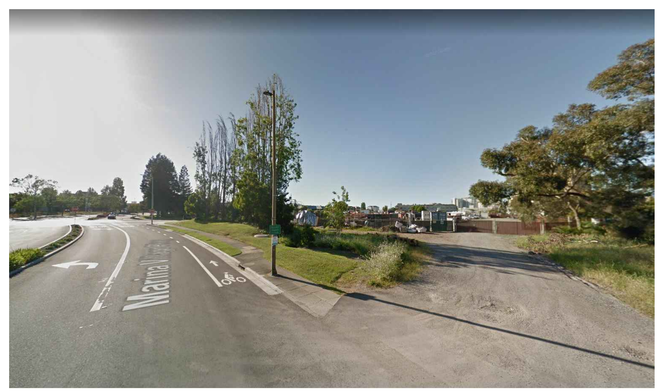
5 AFTER AERIAL IMAGE
SCALE: N.T.S.

4 BEFORE AERIAL IMAGE
SCALE: N.T.S.

3 LOOKING SOUTH EAST
ON MARINER SQUARE DR
SCALE: N.T.S.



2 LOOKING NORTH EAST
ON MARINA VILLAGE PKWY
SCALE: N.T.S.



1 LOOKING NORTH WEST
ON MARINA VILLAGE PKWY
SCALE: N.T.S.

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2390 MARINER SQUARE DRIVE

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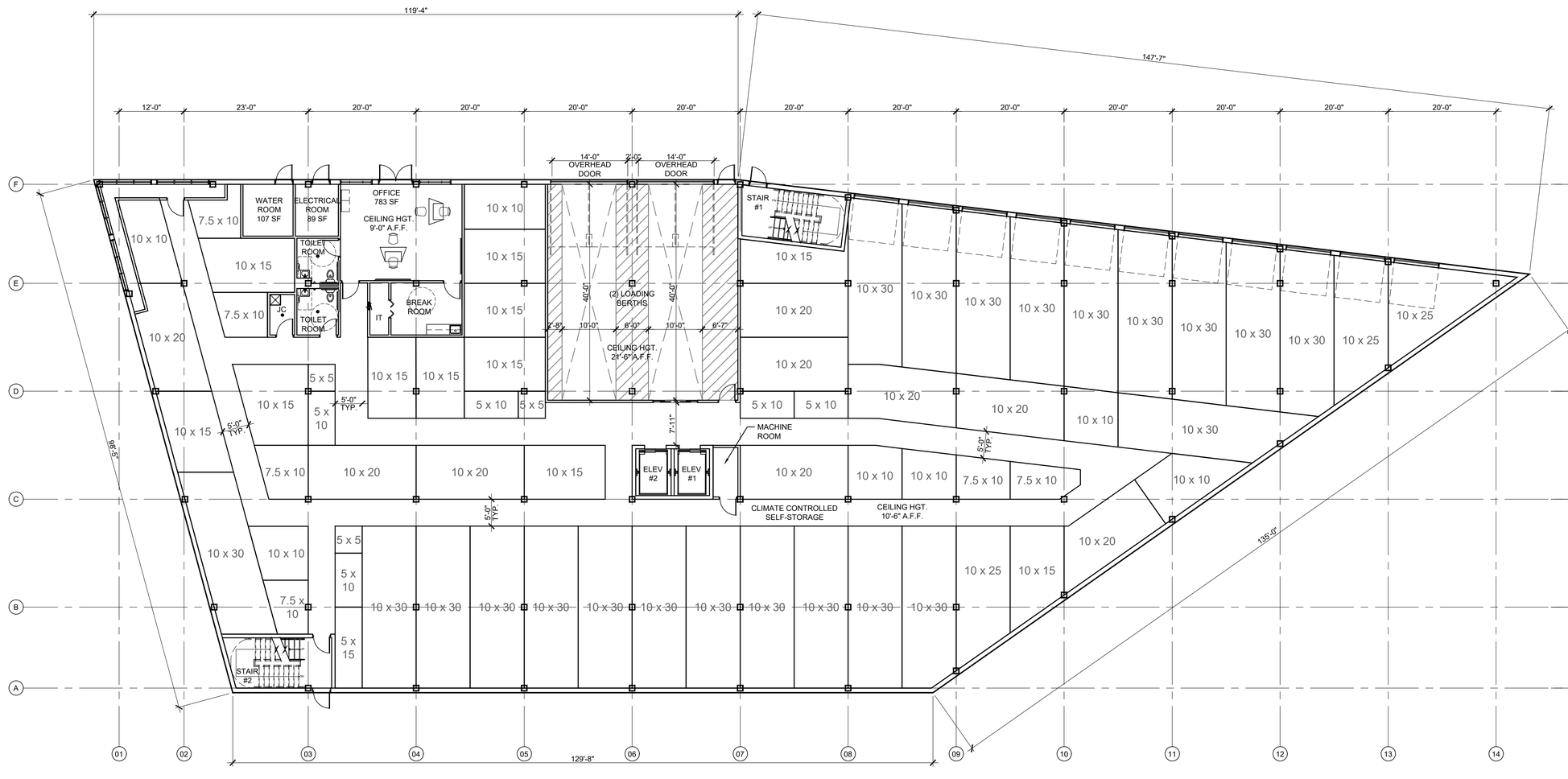
SITE PHOTOGRAPHS

NORTH

A0-3



1 FIRST FLOOR PLAN
SCALE: 3/32" = 1'-0"

0 4' 8' 16'
SCALE: 3/32" = 1'-0"

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2390 MARINER SQUARE DRIVE

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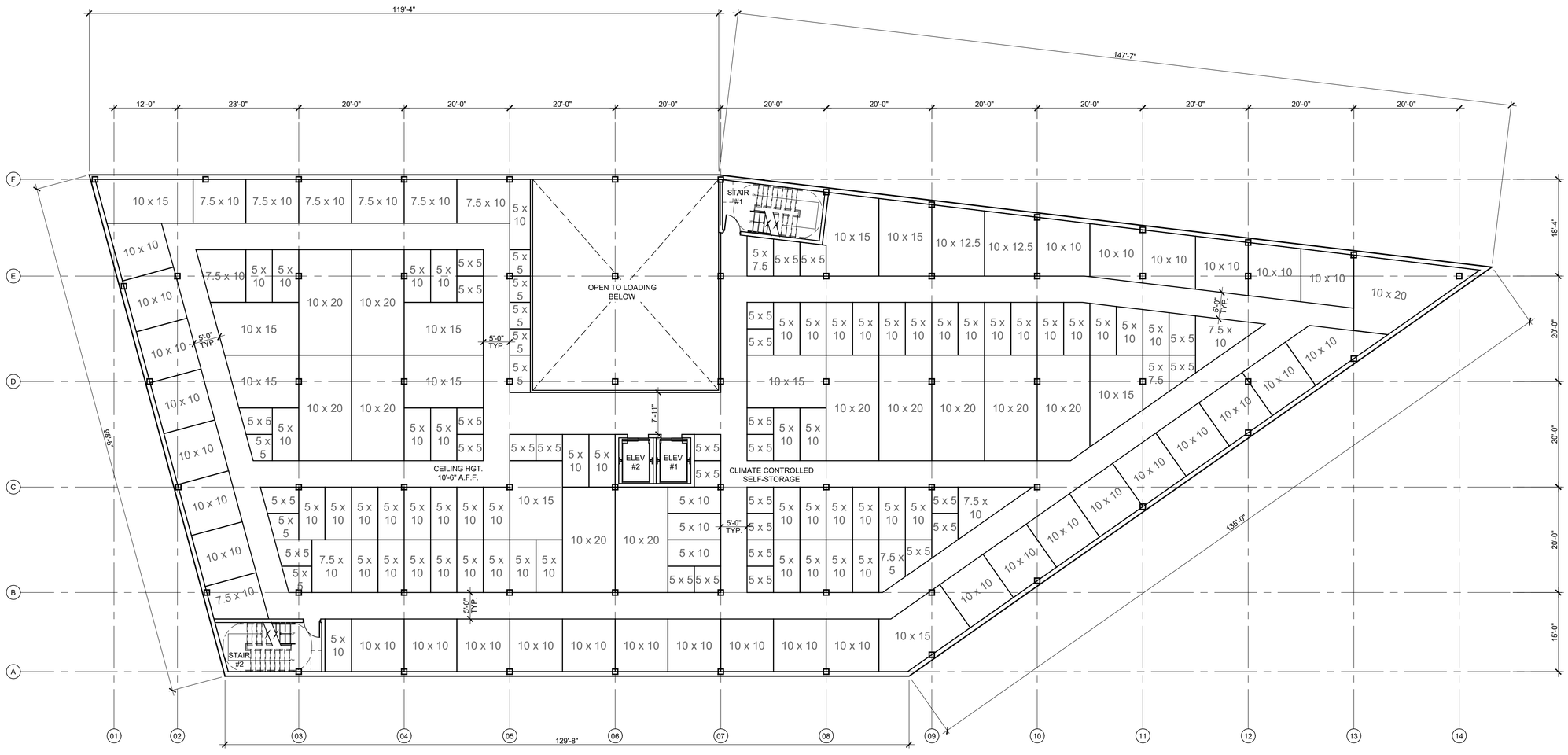
FLOOR PLAN

NORTH

A1-1



1 SECOND FLOOR PLAN

SCALE: 3/32" = 1'-0"

0 4' 8' 16'

SCALE: 3/32" = 1'-0"

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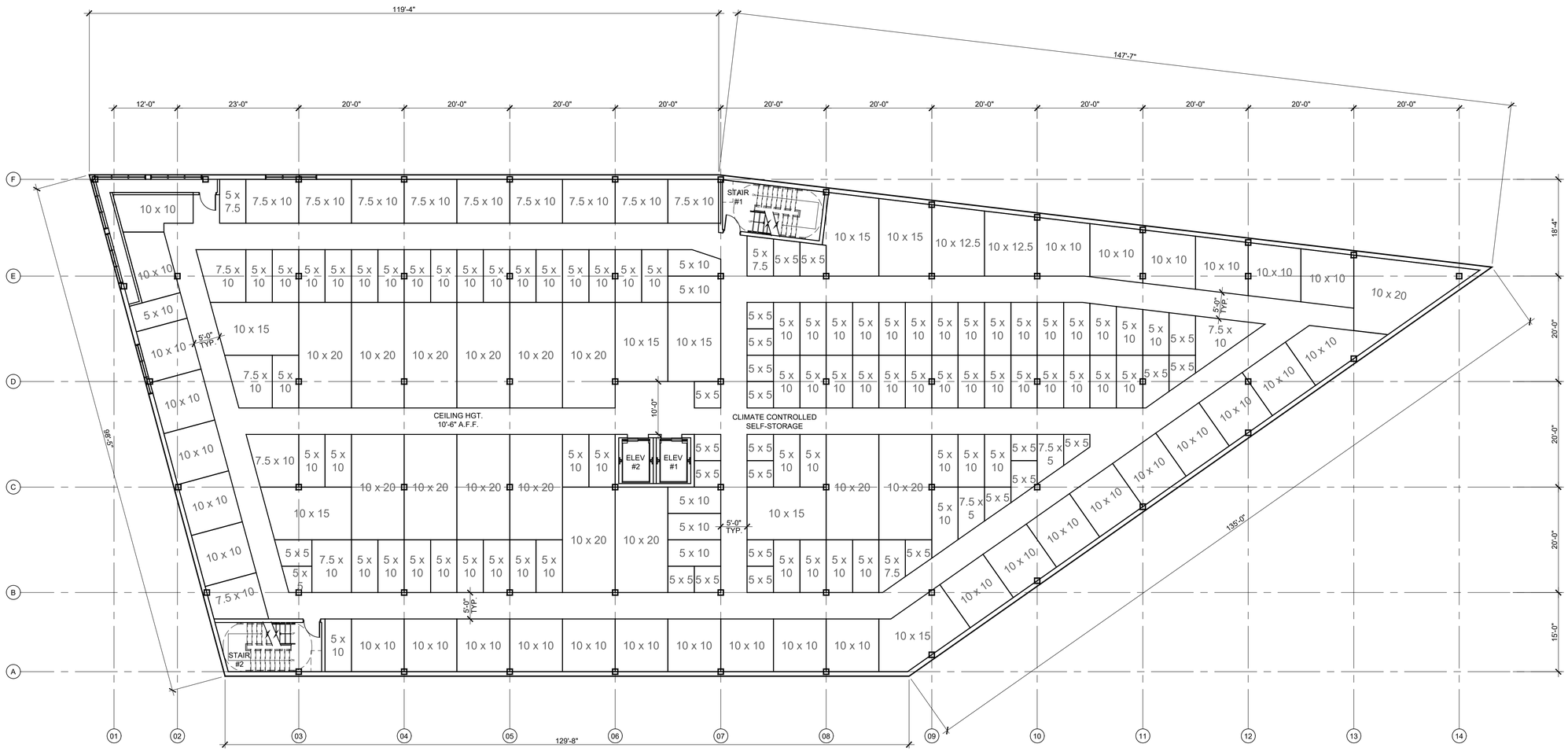
FLOOR PLAN

NORTH

A1-2



1 THIRD & FOURTH FLOOR PLAN
SCALE: 3/32" = 1'-0"

0 4' 8' 16'
SCALE: 3/32" = 1'-0"

NO	DATE	ISSUE DESCRIPTION
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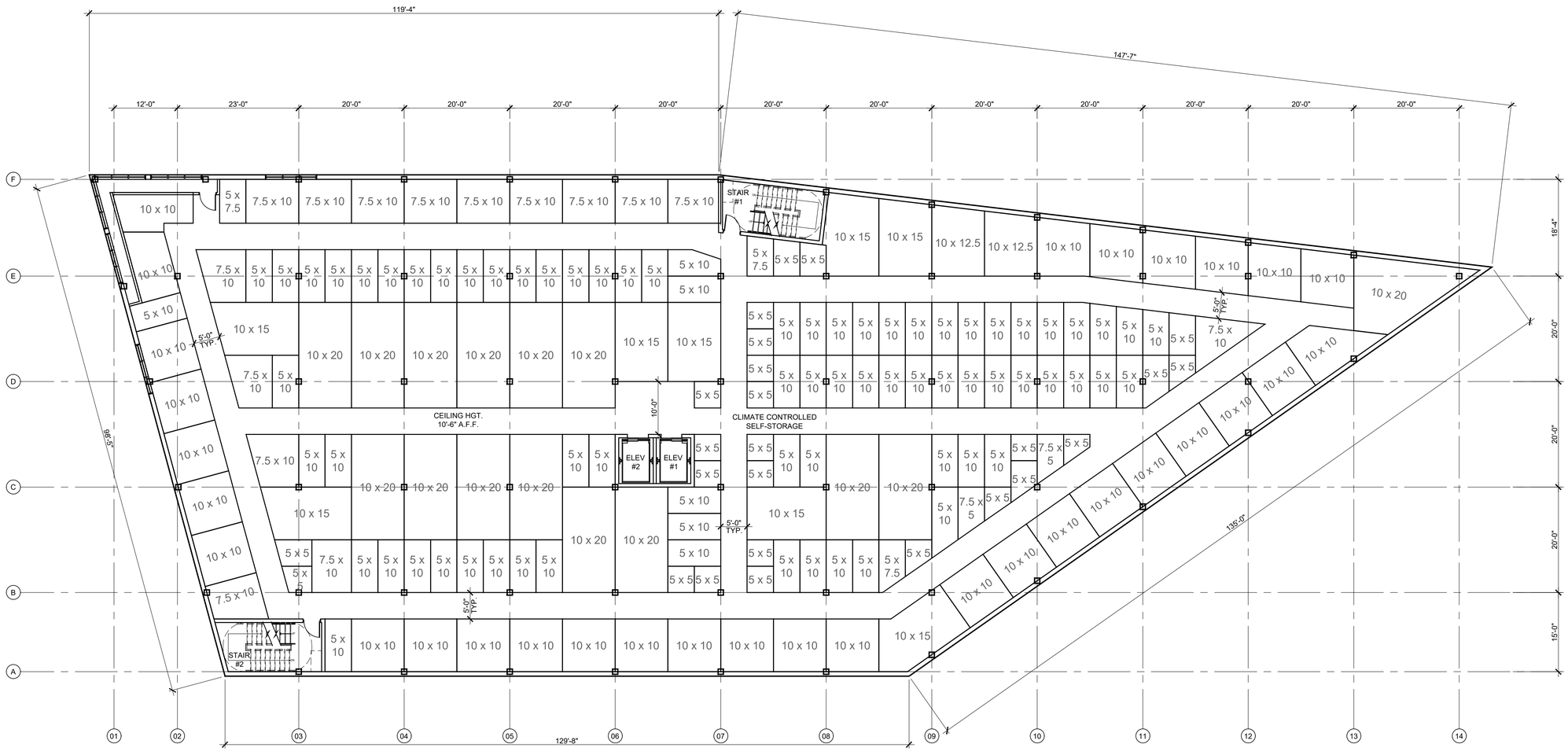
FLOOR PLAN

NORTH

A1-3



1 FIFTH FLOOR PLAN
SCALE: 3/32" = 1'-0"

0 4' 8' 16'
SCALE: 3/32" = 1'-0"

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2390 MARINER SQUARE DRIVE

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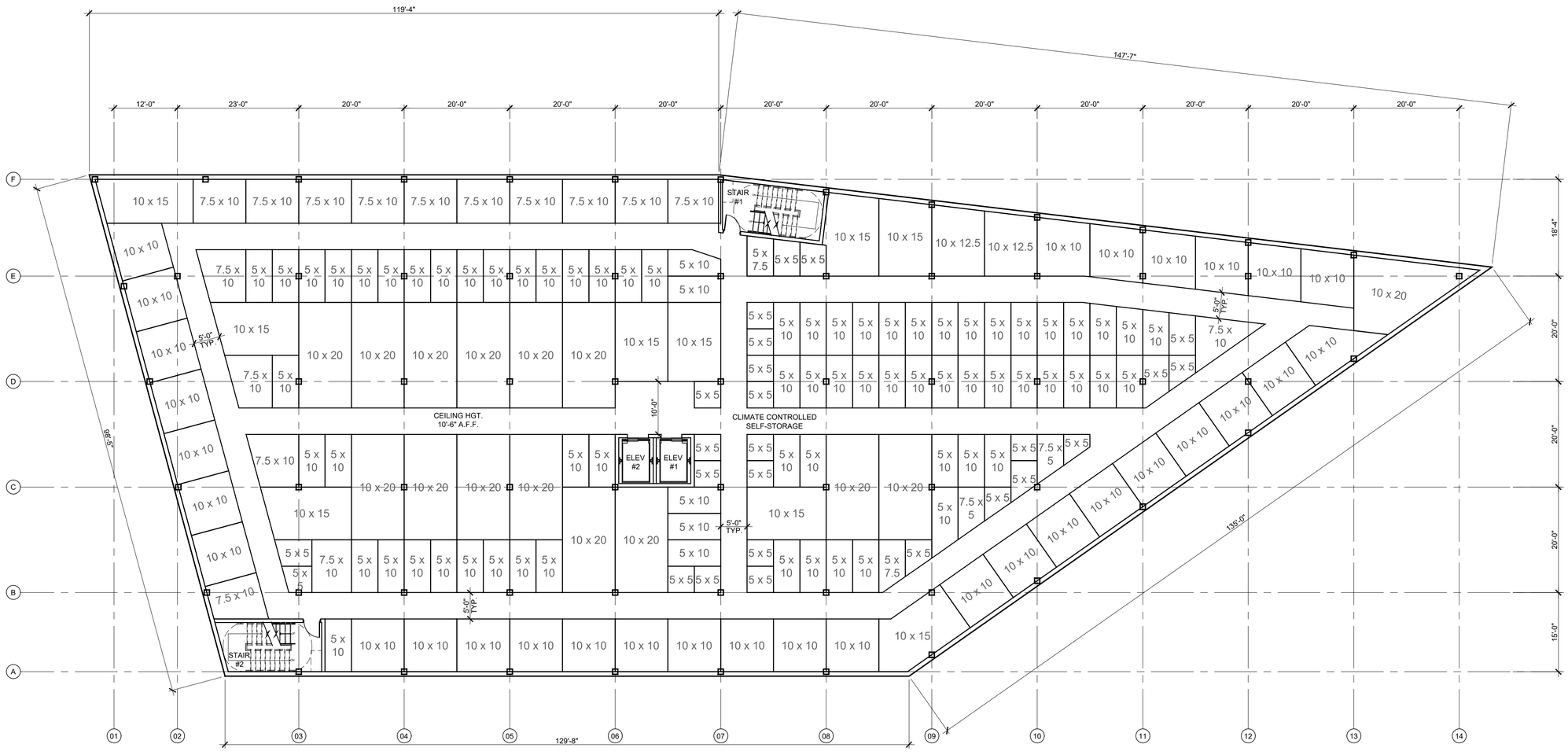
FLOOR PLAN

NORTH

A1-4



1 SIXTH FLOOR PLAN
SCALE: 3/32" = 1'-0"

0 4' 8' 16'
SCALE: 3/32" = 1'-0"

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2390 MARINER SQUARE DRIVE

ALAMEDA, CALIFORNIA 94501

FLOOR PLAN

NORTH

A1-5

Firestone Building Products

TECHNICAL INFORMATION SHEET

UltraPly™ TPO XR Membrane

Item Description	Item Number
UltraPly TPO XR 100 (45 mil)	
• White Membrane	W56TXR3099
• Tan Membrane	W56TXRT099
• Gray Membrane	W56TXRG099
UltraPly TPO XR 115 (60 mil)	
• White Membrane	W56TXR3699
• Tan Membrane	W56TXRT699
• Gray Membrane	W56TXRG699

Meets or exceeds ASTM D 6878

Product Information

Description:

Firestone UltraPly TPO XR Membrane is a flexible Thermoplastic Polyolefin (TPO) roofing membrane that is produced with polyester weft-inserted reinforcement and an 8-ounce polyester fleece backing. UltraPly TPO XR Membrane meets or exceeds all requirements for ASTM D 6878 Specification. This heat weldable UltraPly TPO membrane is available in 45 mil (1,14 mm) and 60 mil (1.52 mm) thicknesses. This membrane is ideal for a variety of new or re-roofing applications.

Method of Application:

1. Substrates must be clean, dry, smooth, and free of sharp edges, fins, loose or foreign materials, oil, grease, and other materials that may damage the membrane.
2. All rough surfaces that can damage the membrane shall be repaired as specified to offer a smooth substrate.
3. All surface voids greater than ¼" (6.3 mm) wide shall be properly filled with an acceptable fill material.
4. UltraPly TPO XR membrane may be fully adhered using Firestone XR Bonding Adhesive, I.S.O.Spray™ R Insulation Adhesive or hot asphalt; or adhered in adhesive beads using XR Stick™ Adhesive. UltraPly TPO XR Membrane can also be mechanically attached.

Storage:

- Store away from sources of punctures and physical damage.
- Assure that structural decking will support the loads incurred by material when stored on rooftop. The deck load limitations should be specified by the project designer.
- Store away from ignition sources as membrane will burn when exposed to open flame.

Precautions:

- Review Safety Data Sheets (SDS) for safety information.
- Exercise caution when lifting, moving, transporting, storing or handling membrane rolls to avoid sources of punctures and possible physical damage.
- Contact your Firestone Technical Services Advisor at 1-800-428-4511 for specific recommendations regarding chemical or waste product compatibility with Firestone UltraPly TPO XR Membrane.

LEED® Information:

Post-Consumer Recycled Content: 0%
Post Industrial Recycled Content: 15%
Manufacturing Location: Tuscumbia, AL
*NOTE: LEED® is a registered trademark of the U.S. Green Building Council.

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Firestone Building Products

TECHNICAL INFORMATION SHEET

UltraPly™ TPO XR Membrane

Typical Properties (Meets or exceeds ASTM D 6878 Specification)

Property	ASTM Standard	Performance Minimum	Typical Performance XR 100: 45 mil	Typical Performance XR 115: 60 mil
Overall Thickness	D 751	0.039" (1.0 mm)	0.045" (1.14 mm) ± 10%	0.060" (1.52 mm) ± 10%
Coating Over Scrim	D 7635	0.015" (0.38 mm)	0.017" (0.43 mm)	0.021" (0.53 mm)
Breaking Strength	D 751, Grab Method	220 lbf (979 N)	340 lbf (1,512 N)	390 lbf (1,735 N)
Elongation of Reinforcement Break	D 751, Grab Method	15%	25%	25%
Tearing Strength	D 751	55 lbf (245 N)	120 lbf (534 N)	120 lbf (534 N)
Brittleness Point	D 2137	-40 °F (-40 °C)	Pass	Pass
Ozone Resistance, No Cracks	D 1149	Pass (No Cracks)	Pass	Pass
Properties After Heat Aging (Retained Values) ASTM D 573-5376 h (224 days or 32 weeks) at 240 °F (116 °C)				
Breaking Strength	D 751, Grab Method	90% Minimum	> 90%	> 90%
Elongation at Break	D 751, Grab Method	90% minimum	> 90%	> 90%
Tearing Strength	D 751	60% minimum	> 60%	> 60%
Weight of Change	---	± 1% maximum	< 1%	< 1%
Linear Dimension Change	D 1204, 6 h at 158 °F (70 °C)	± 1% maximum	< 1%	< 1%
Water Absorption	D 471	± 3% maximum	< 3%	< 3%
Weather Resistance, 176 °F (80 °C) Black Panel, no cracking, crazing when wrapped around a 3" (76.2 mm) mandrel and inspected at 7X magnification	G 155	10,800 kJ/m² Minimum	> 60,000 kJ/m²	> 60,000 kJ/m²
Puncture Resistance	FTM 101C, Method 2031	---	---	---
Dynamic Puncture Resistance MD	D 5635	---	Pass (60 J)	Pass (65 J)
Dynamic Puncture Resistance CD	D 5635	---	Pass (55 J)	Pass (65 J)
Static Puncture Resistance	D 5602	---	Pass (25 kg)	Pass (25 kg)
Air Permeance (Material)	E 2178*	<0.004 ft³/ft²-min (0.02 L/(s·m²))	Pass	Pass

*1. The ASTM 2178 values listed above are for the air permeance of the UltraPly TPO Membrane component only.
2. When system design includes an air barrier, please consult your Firestone Technical Services Advisor for additional roof system securement enhancements.
3. Consult the Designer / Architect, Code Agency or Authority Having Jurisdiction (AHJ) for requirements regarding the selection and use of an appropriate air barrier material, and its installation into the building envelope.

Firestone Building Products

TECHNICAL INFORMATION SHEET

UltraPly™ TPO XR Membrane

Product Sizes

Membrane Thickness – TPO XR 100: 0.045" (1.14 mm)
Membrane Weight: 0.27 lb/ft² (1.3 kg/m²)

Available Sizes	Available Colors
10' x 100' (3.0 m x 30.5 m)	White, Tan, Gray

Membrane Thickness – TPO XR 115: 0.060" (1.52 mm)
Membrane Weight: 0.32 lb/ft² (1.6 kg/m²)

Available Sizes	Available Colors
10' x 100' (3.0 m x 30.5 m)	White, Tan, Gray

Radiative Properties

Cool Roof Rating Council (CRRC): Initial / 3 yr	White	Tan	Gray
Solar Reflectance	0.79 / 0.68	0.61 / 0.55	0.34 / 0.34
Thermal Emittance	0.85 / 0.83	0.81 / 0.84	0.89 / 0.88
Solar Reflectance Index (SRI)	98 / 83	71 / 63	37 / 36
Rated Product ID	0008	0015	0032
Licensed Manufacturer ID	0608	0608	0608
Classification	Production Line	Production Line	Production Line

ENERGY STAR®: Initial / 3 yr	White		
Solar Reflectance	0.79 / 0.68*	---	---
Thermal Emittance	0.85 / 0.83		

* White membrane sample cleaned prior to age test.

LEED®	White	Tan	Gray
Initial Solar Reflectance Index (SRI)	Pass (98)	---	---
3 yr Aged Solar Reflectance Index (SRI)	Pass (83)		

CRRC CHARTER MEMBER · ENERGY STAR · *ENERGY STAR is only valid in the United States* · FIRESTONE GUARD

Please contact Firestone Technical Services Department at 1-800-428-4511 for further information.

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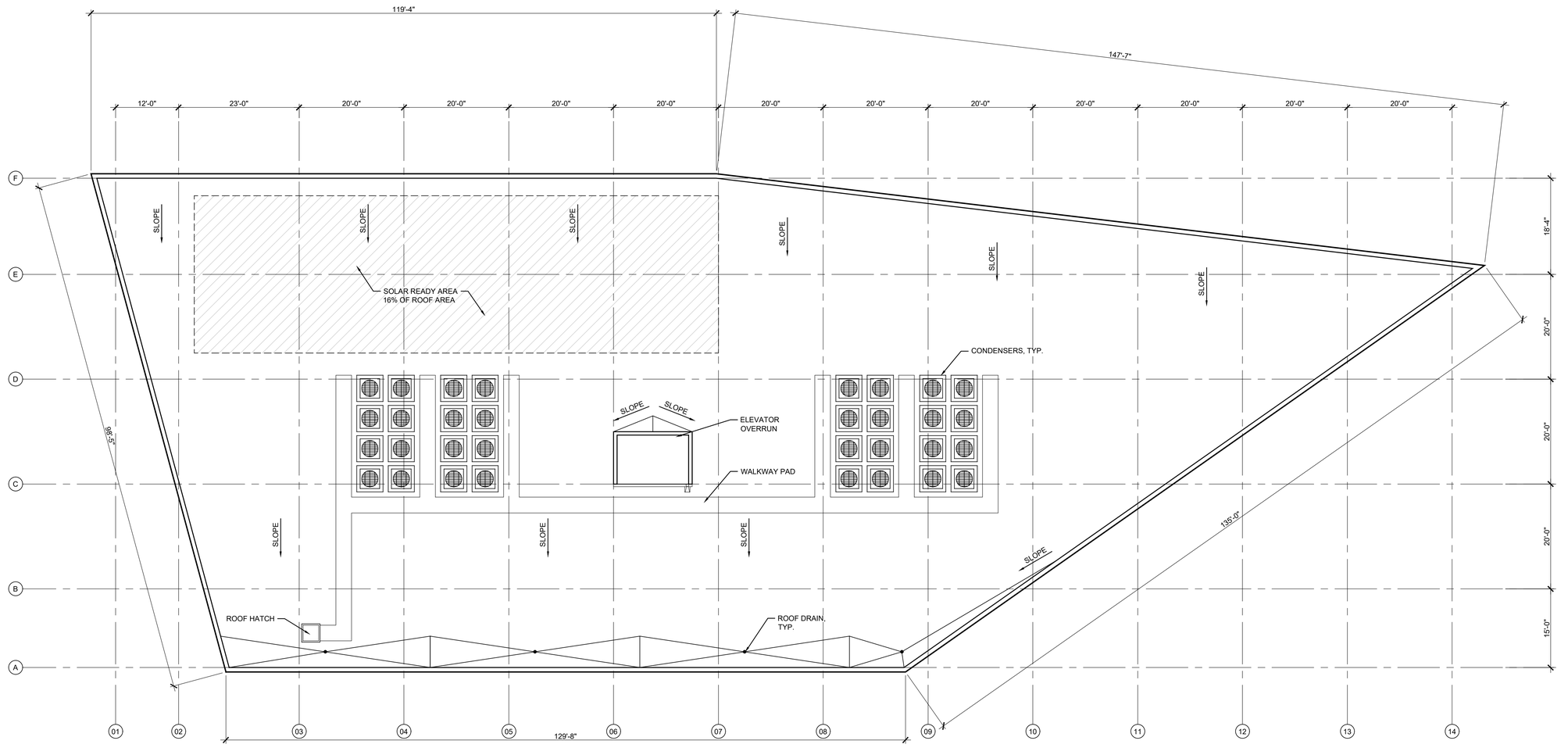

1 ROOF PLAN
SCALE: 3/32" = 1'-0"

0 4' 8' 16'
SCALE: 3/32" = 1'-0"

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ROOF PLAN

NORTH

A1-6

KEYNOTE LEGEND:

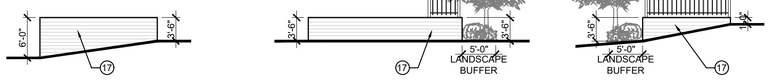
1. METAL PANEL - METAL SALES T10-D HORIZONTAL METAL PANEL COLOR - LINEN WHITE
2. METAL PANEL - METAL SALES IC72 VERTICAL METAL PANEL COLOR - LINEN WHITE
3. METAL PANEL - METAL SALES T1 VERTICAL METAL PANEL COLOR - LINEN WHITE
4. METAL PANEL - METAL SALES T1 VERTICAL METAL PANEL COLOR - ASH GRAY
5. METAL PANEL - METAL SALES T1 VERTICAL METAL PANEL COLOR - OLD TOWN GRAY
6. METAL PANEL - METAL SALES T1 VERTICAL METAL PANEL COLOR - SLATE GRAY
7. ALUMINUM COPING COLOR - SLATE GRAY
8. RYTEC SPIRAL VT HIGH SPEED DOORS BLACK ANODIZED PROVIDED BY DOOR MANUFACTURER
9. ALUMINUM STOREFRONT SYSTEM BLACK ANODIZED
10. ALUMINUM DISPLAY WINDOWS BLACK ANODIZED
11. FAUX ALUMINUM WINDOWS BLACK ANODIZED
12. ALUMINUM SERVICE DOOR PAINTED WASABI GREEN
13. OVERHEAD DRIVE-UP DOORS PAINTED WASABI GREEN
14. SIGNAGE
15. WROUGHT IRON FENCE
16. LIGHT FIXTURE - RAB WPLED20 SEE A4-2 FOR SPEC
17. DECORATIVE CONCRETE BLOCK RETAINING WALL
18. ALUMINUM TRIM COLOR - ASH GRAY
19. SHEET METAL ACCENT STRIP WITH 2" PROJECTION-PAINT TO MATCH METAL SALES LINEN WHITE

COLOR LEGEND:

LINEN WHITE | ASH GRAY | OLD TOWN GRAY | SLATE GRAY

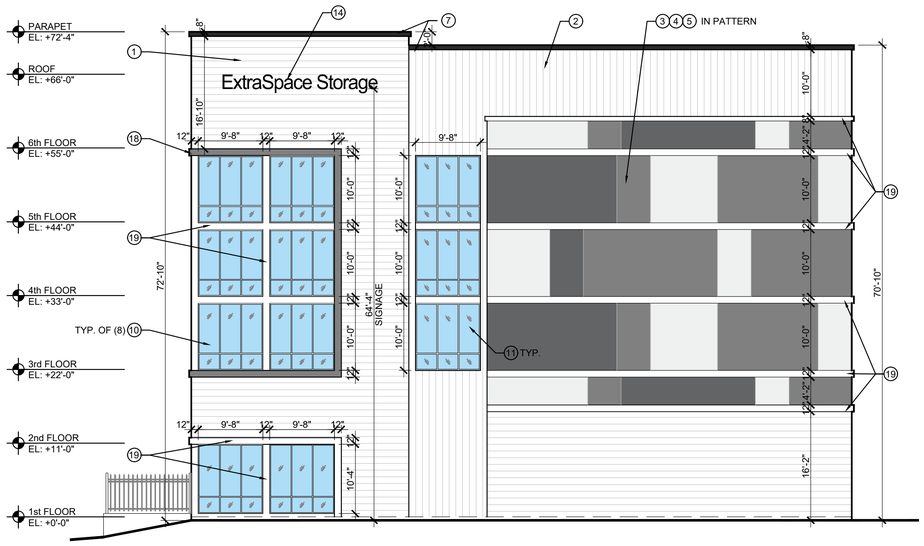
MATERIAL LEGEND:

METAL SALES IC72 | METAL SALES T10-D | METAL SALES T1



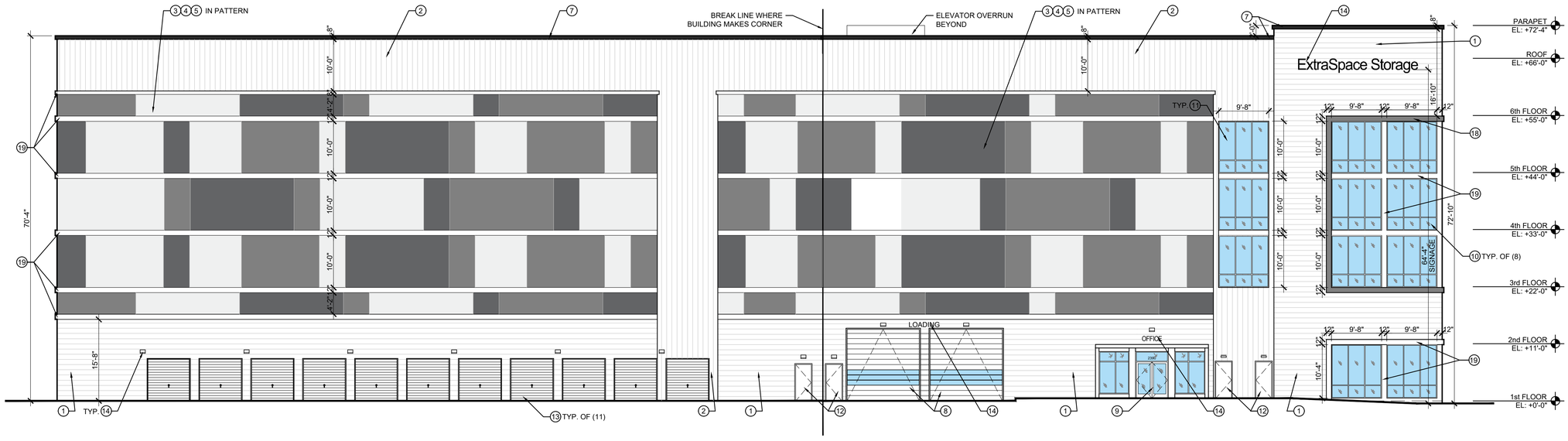
ACCESSIBLE RAMP RETAINING WALL

3 SCALE: 3/32" = 1'-0"



2 SOUTH ELEVATION

SCALE: 3/32" = 1'-0"



1 WEST ELEVATION

SCALE: 3/32" = 1'-0"

0 4' 8' 16'

SCALE: 3/32" = 1'-0"

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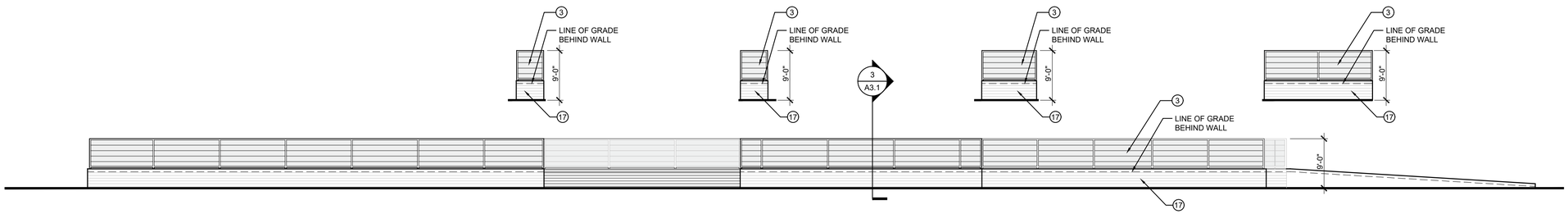
ELEVATIONS

A2-1



3 SCREEN RETAINING WALL
SCALE: 3/32" = 1'-0"

KEYNOTE LEGEND:

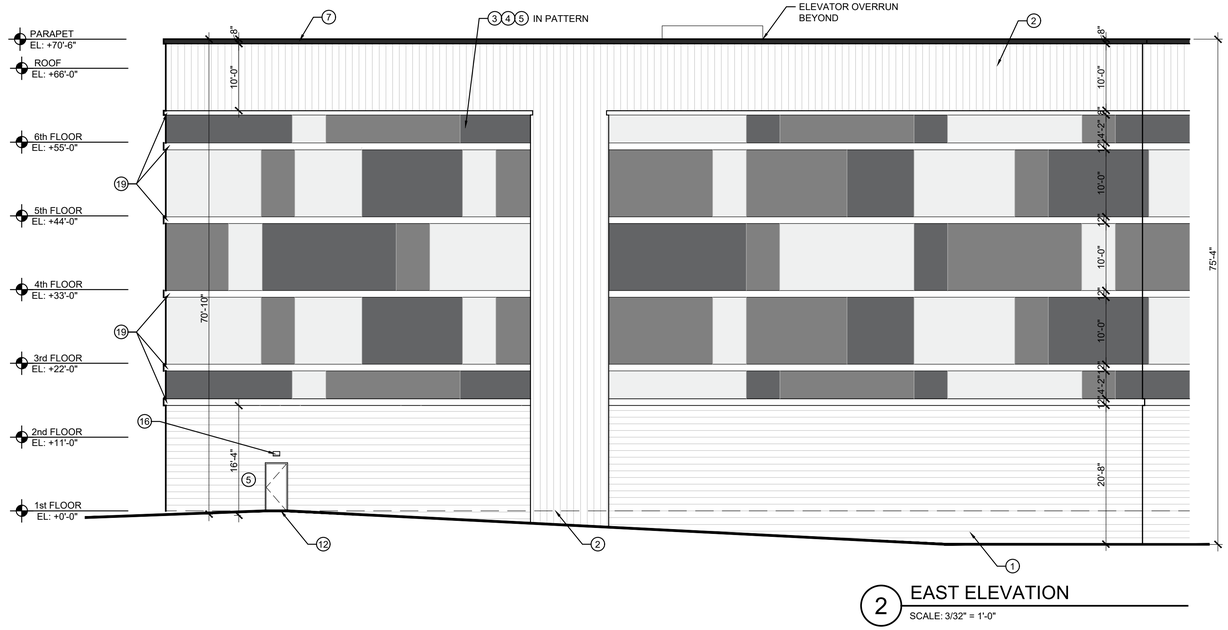
1. METAL PANEL - METAL SALES T10-D HORIZONTAL METAL PANEL COLOR - LINEN WHITE
2. METAL PANEL - METAL SALES IC72 VERTICAL METAL PANEL COLOR - LINEN WHITE
3. METAL PANEL - METAL SALES T1 VERTICAL METAL PANEL COLOR - LINEN WHITE
4. METAL PANEL - METAL SALES T1 VERTICAL METAL PANEL COLOR - ASH GRAY
5. METAL PANEL - METAL SALES T1 VERTICAL METAL PANEL COLOR - OLD TOWN GRAY
6. METAL PANEL - METAL SALES T1 VERTICAL METAL PANEL COLOR - SLATE GRAY
7. ALUMINUM COPING COLOR - SLATE GRAY
8. RYTEC SPIRAL VT HIGH SPEED DOORS BLACK ANODIZED PROVIDED BY DOOR MANUFACTURER
9. ALUMINUM STOREFRONT SYSTEM BLACK ANODIZED
10. ALUMINUM DISPLAY WINDOWS BLACK ANODIZED
11. FAUX ALUMINUM WINDOWS BLACK ANODIZED
12. ALUMINUM SERVICE DOOR PAINTED WASABI GREEN
13. OVERHEAD DRIVE-UP DOORS PAINTED WASABI GREEN
14. SIGNAGE
15. WROUGHT IRON FENCE
16. LIGHT FIXTURE - RAB WPLED20 SEE A4-2 FOR SPEC
17. DECORATIVE CONCRETE BLOCK RETAINING WALL
18. ALUMINUM TRIM COLOR - ASH GRAY
19. SHEET METAL ACCENT STRIP WITH 2" PROJECTION-PAINT TO MATCH METAL SALES LINEN WHITE

COLOR LEGEND:

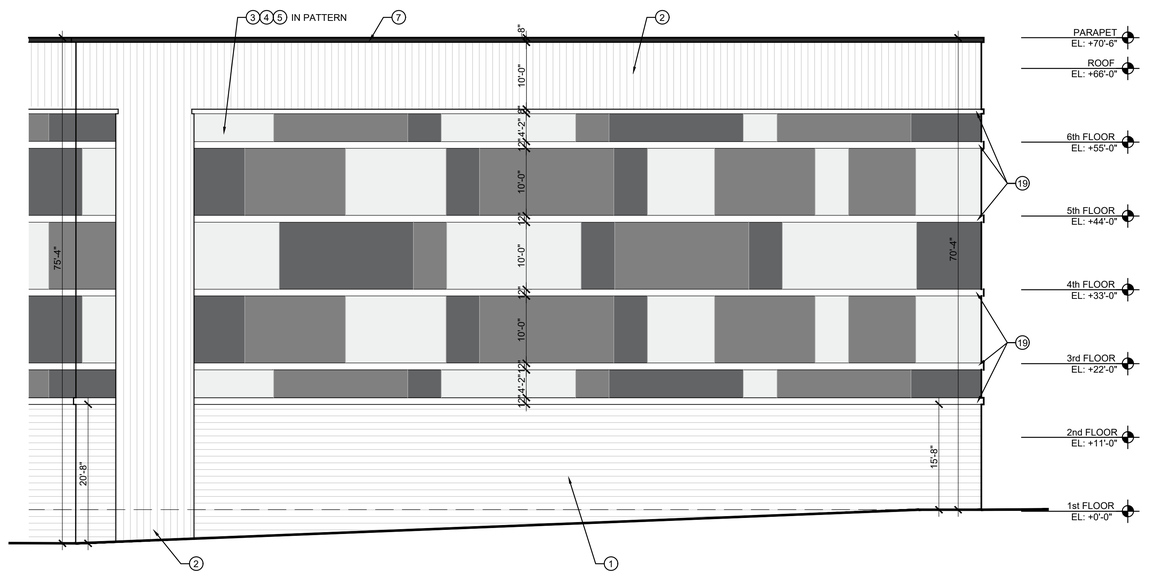
LINEN WHITE	ASH GRAY	OLD TOWN GRAY	SLATE GRAY

MATERIAL LEGEND:

METAL SALES IC72	METAL SALES T10-D	METAL SALES T1



2 EAST ELEVATION
SCALE: 3/32" = 1'-0"



1 NORTHEAST ELEVATION
SCALE: 3/32" = 1'-0"

0 4' 8' 16'
SCALE: 3/32" = 1'-0"

NO	DATE	ISSUE DESCRIPTION
3	02/07/20	CITY OF ALAMEDA REVIEW
2	01/03/20	CITY OF ALAMEDA REVIEW
1	10/09/19	CITY OF ALAMEDA REVIEW

PRINCIPAL: MS
QC BY: DC
P.M.: CM & MA
DRAWN BY: JW

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PROFESSIONAL DESIGN FIRM
License Number: 184-001505
Expiration Date: April 30, 2021

2390 MARINER SQUARE DRIVE

ALAMEDA, CALIFORNIA 94501

ELEVATIONS

A2-2

1 LOOKING NORTH EAST PERSPECTIVE
SCALE: N.T.S.

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2390 MARINER SQUARE DRIVE

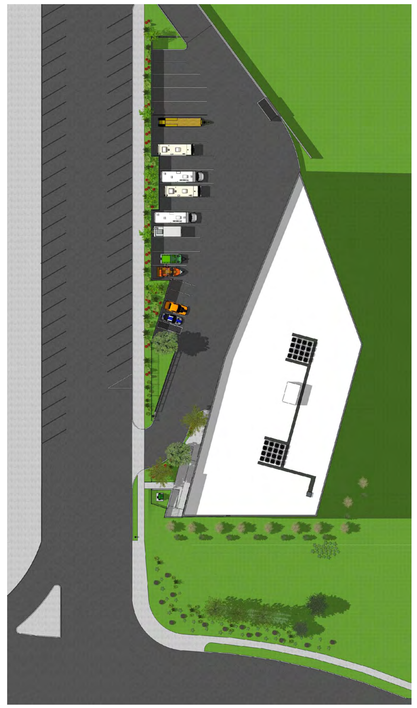
ALAMEDA, CALIFORNIA 94501

PERSPECTIVE

A2-3

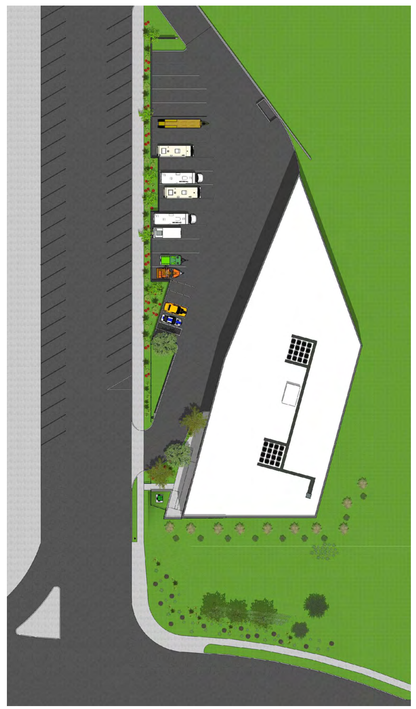
6 SHADOW PLAN: 8AM DEC 22
SCALE: 3/32" = 1'-0"

5 SHADOW PLAN: NOON DEC 22
SCALE: 3/32" = 1'-0"



4 SHADOW PLAN: 4PM DEC 22
SCALE: 3/32" = 1'-0"

3 SHADOW PLAN: 8AM JUNE 21
SCALE: 3/32" = 1'-0"



2 SHADOW PLAN: NOON JUNE 21
SCALE: 3/32" = 1'-0"

1 SHADOW PLAN: 4PM JUNE 21
SCALE: 3/32" = 1'-0"

0 4' 8' 16'

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THESE DRAWINGS MAY HAVE BEEN REPRODUCED AT A SIZE DIFFERENTLY THAN ORIGINALLY DRAWN. OWNER AND ARCHITECT ASSUME NO RESPONSIBILITY FOR USE OF INCORRECT SCALE.

CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO PROCEEDING WITH CONSTRUCTION AND NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR CONFLICTS.

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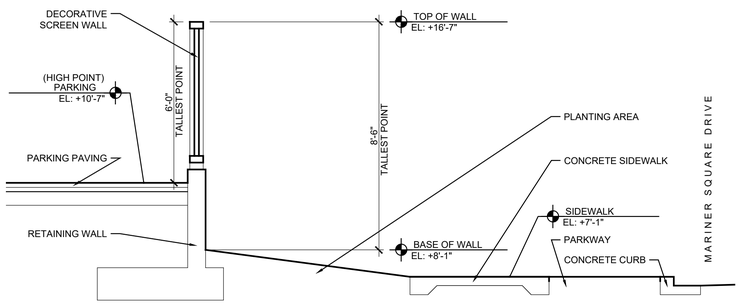
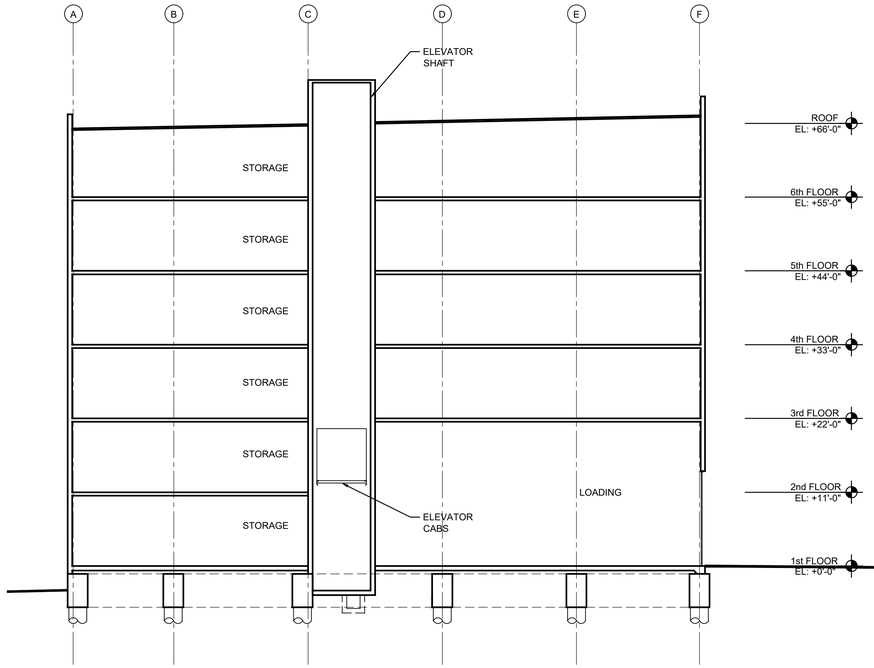
SHADOW STUDY

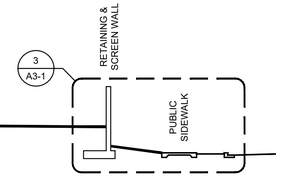
NORTH

A2-4

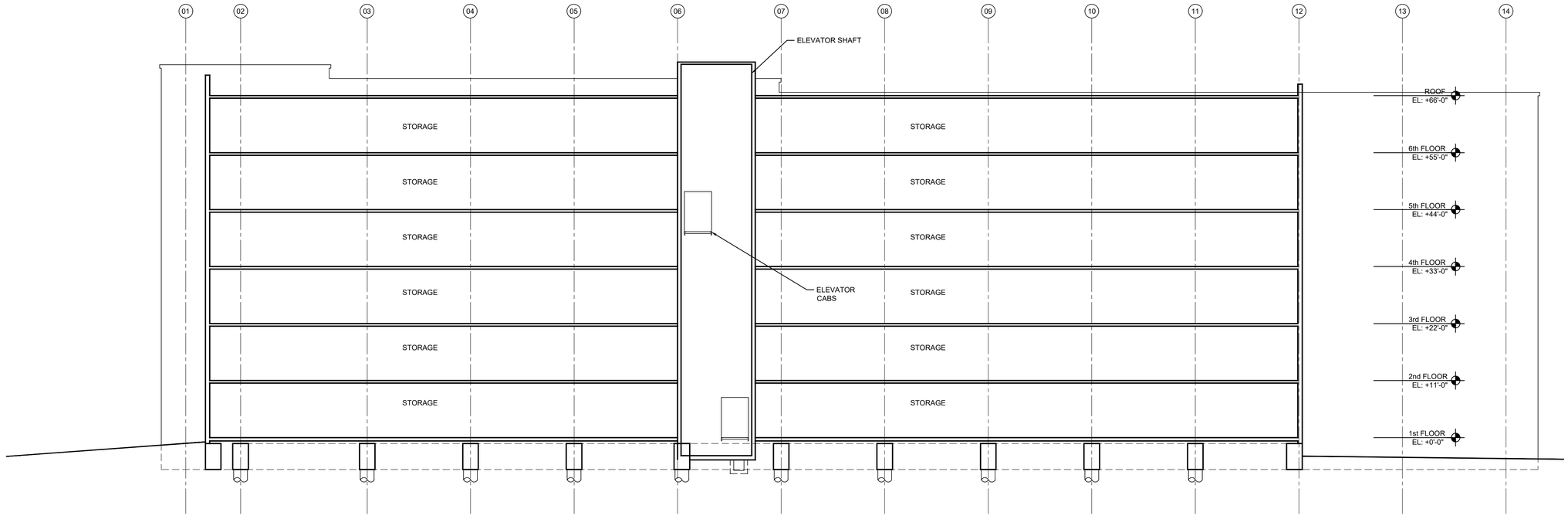


3 SCREEN WALL SECTION
SCALE: 3/8" = 1'-0"





2 BUILDING SECTION
SCALE: 3/32" = 1'-0"



1 BUILDING SECTION
SCALE: 3/32" = 1'-0"

0 4' 8' 16'

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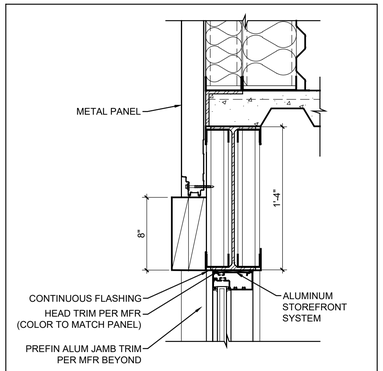
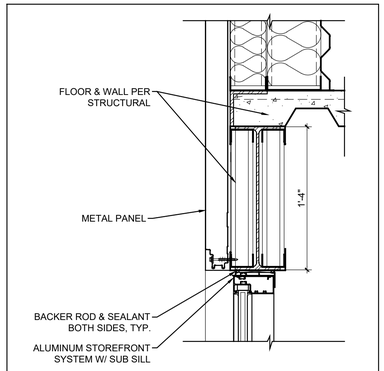
BUILDING SECTIONS

A3-1



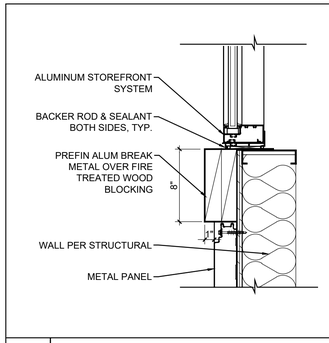
H2 HEAD DETAIL

SCALE : 1 1/2" = 1'-0"



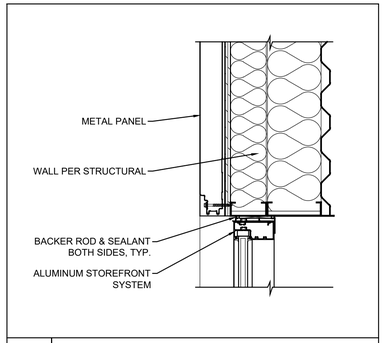
H1 HEAD DETAIL

SCALE : 1 1/2" = 1'-0"



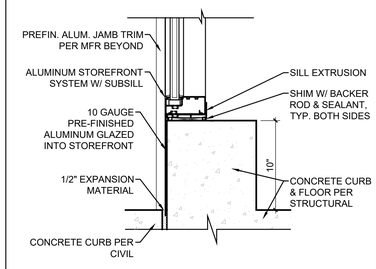
J2 JAMB DETAIL

SCALE : 1 1/2" = 1'-0"



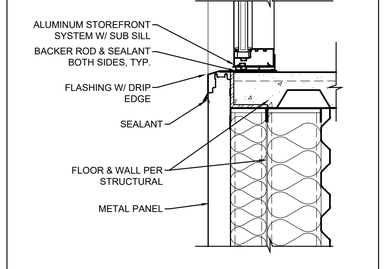
J1 JAMB DETAIL

SCALE : 1 1/2" = 1'-0"



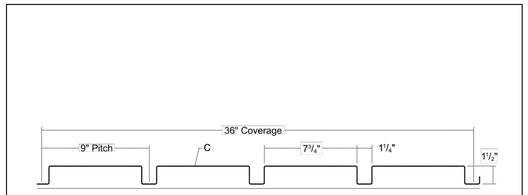
S2 SILL DETAIL

SCALE : 1 1/2" = 1'-0"

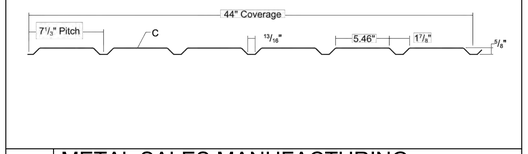


S1 SILL DETAIL

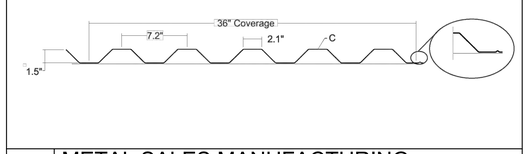
SCALE : 1 1/2" = 1'-0"



F METAL SALES MANUFACTURING CORPORATION T10-D



F METAL SALES MANUFACTURING CORPORATION T1



E METAL SALES MANUFACTURING CORPORATION IC72

WINDOW SCHEDULE

MARK	WINDOW				GLAZING				FRAME		DETAILS			QUANTITY	REMARKS
	Rough Opening (WxH)	Manufacturer	Model No.	Type	Manufacturer	Type	Color/Finish	U Factor	Material	Finish	Head	Jamb	Sill		
A	SEE ELEVATIONS	KAWNEER	TRI-FAB VG 451T OR EQ.	FIXED	OLDCASTLE	1" INSUL	CLEAR	0.7	ALUM	BLACK ANODIZED	H2 / A4-2	J2 / A4-2	S2 / A4-2	1	STOREFRONT
B	SEE ELEVATIONS	KAWNEER	TRI-FAB VG 451T OR EQ.	FIXED	OLDCASTLE	1" INSUL	CLEAR	0.7	ALUM	BLACK ANODIZED	H1 / A4-2	J1 / A4-2	S1 / A4-2	4	LOWER DISPLAY WINDOWS
C	SEE ELEVATIONS	KAWNEER	TRI-FAB VG 451T OR EQ.	FIXED	OLDCASTLE	1" INSUL	CLEAR	0.7	ALUM	BLACK ANODIZED	H1 / A4-2	J1 / A4-2	S1 / A4-2	12	UPPER DISPLAY WINDOWS
D	SEE ELEVATIONS	KAWNEER	TRI-FAB VG 451T OR EQ.	FIXED	OLDCASTLE	1" INSUL	CLEAR	0.7	ALUM	BLACK ANODIZED	H1 / A4-2	J1 / A4-2	S1 / A4-2	6	FAUX WINDOWS

GENERAL NOTES

General Contractor to:

1 Verify all openings prior to ordering all storefront systems.
2 T = Tempered Glass, S = Spandrel Glass, F = Fire-rated Glass
3 Exterior operable fenestrations (doors) are required to have a maximum U-Factor of 1.10.
4 Exterior fenestrations (fixed storefronts) are required to have a maximum U-Factor of 0.70.
5 Provide backer rod & sealant around all openings - verify color w / Owner.
6 Follow all manufacturer specifications for proper storefront & door insulation.
7 Notify Architect of any discrepencies contained within window schedule.

Window /Door Supplier or Manufacturer to:

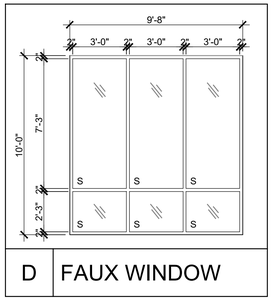
1 Verify with General Contractor if windows and doors require extended jambs and sills.
2 Verify all finishes, hardware, glazing type, tinting and colors with General Contractor or Owner.

Additional Code Requirements:

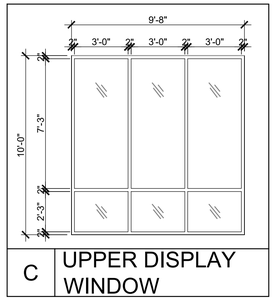
1 All windows with glass below 24" above finish floor, doors, transoms above door units, side-lites to be tempered glass (T).
2 Tempered glass (T) and other types of glass being used shall meet the test requirements for safety glazing where required by ANSI-Z-97.

REMARKS

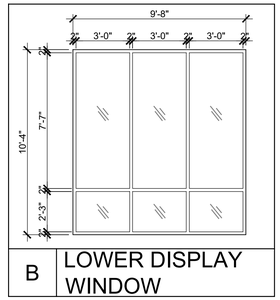
A
B



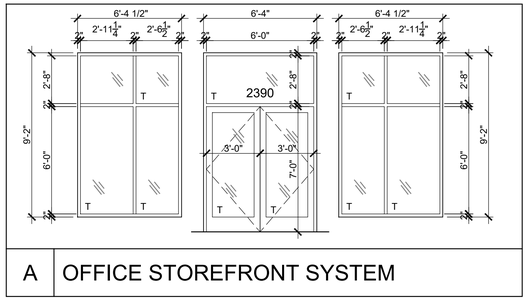
D FAUX WINDOW



C UPPER DISPLAY WINDOW



B LOWER DISPLAY WINDOW



A OFFICE STOREFRONT SYSTEM

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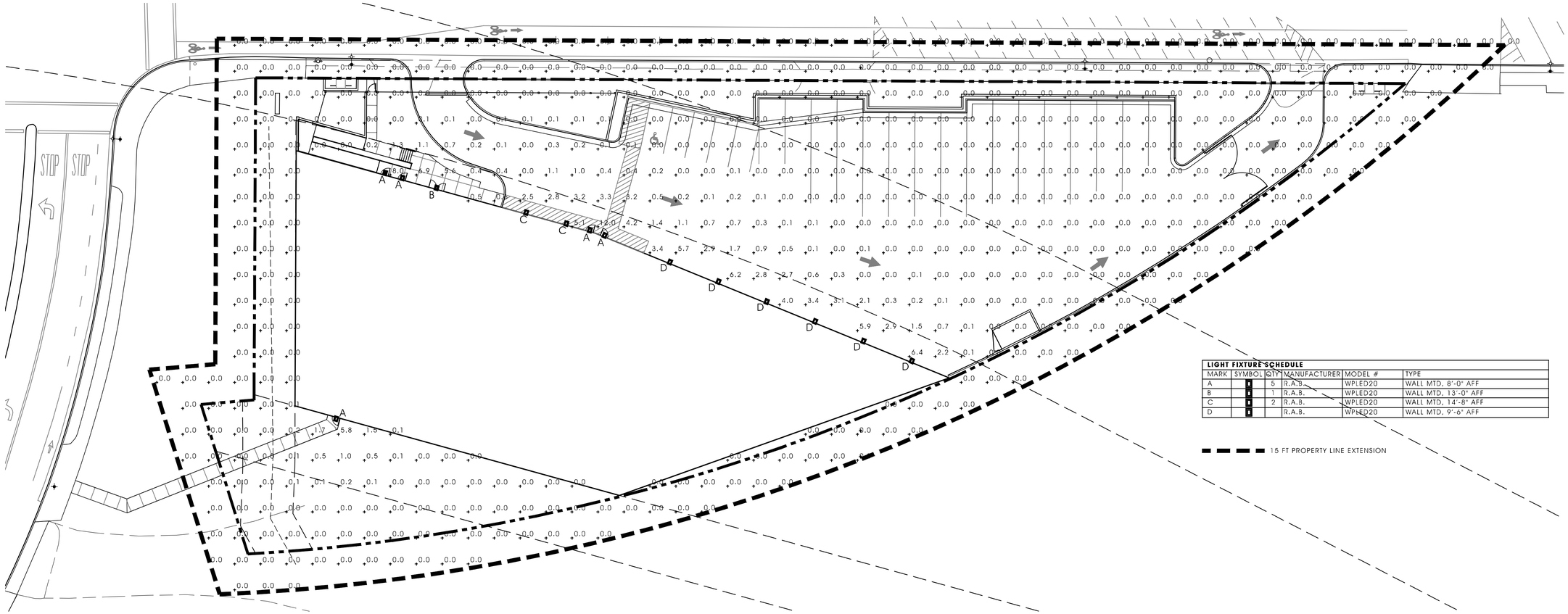
WINDOW SCHEDULE & DETAILS

A4-1

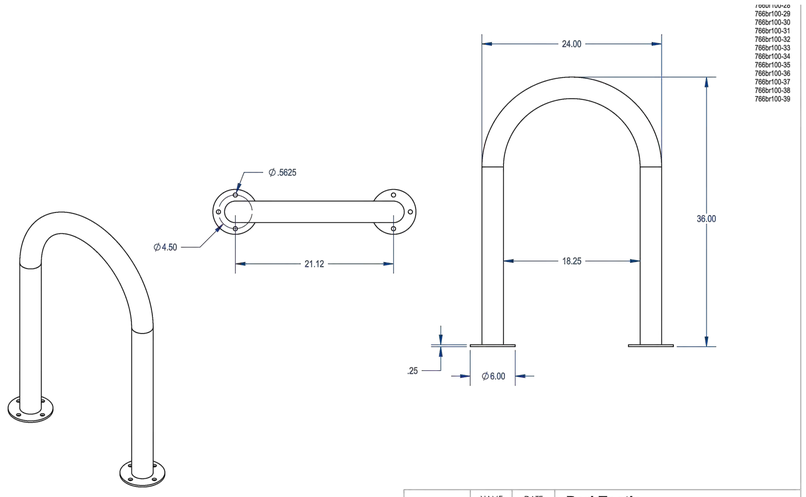


LIGHT FIXTURE SCHEDULE

MARK	SYMBOL	QTY	MANUFACTURER	MODEL #	TYPE
A		5	R.A.B.	WPLED20	WALL MTD, 8'-0" AFF
B		1	R.A.B.	WPLED20	WALL MTD, 13'-0" AFF
C		2	R.A.B.	WPLED20	WALL MTD, 14'-8" AFF
D			R.A.B.	WPLED20	WALL MTD, 9'-6" AFF

1 PHOTOMETRIC SITE PLAN

SCALE: 1" = 20'-0"



ParkTastic

Manufactured For: PARK WAREHOUSE

	NAME	DATE
DRAWN	GM	1/26/2017
SALES APPR.		
CLIENT APPR.		
MFG APPR.		
Q.A.		

Design By - CADWorksPro design studio

glm@cadworkspro.com

1147 Brook Forest Ave | Suite 228 | Shorewood, IL 60404

ParkTastic

TITLE:

Wide U-Bike Rack

2-7/8" OD - Surface Mount Version

SIZE	DWG. NO.	REV
A	766br100	

WEIGHT: SHEET 3 OF 6

2 BIKE RACK

SCALE: N.T.S.

WPLED20 — RAB LIGHTING

Project: | Type:

Prepared By: | Date:

Driver Info

Type:	Constant Current
120V:	0.19A
208V:	0.12A
240V:	0.10A
277V:	0.09A
Input Watts:	22W
Efficiency:	93%

LED Info

Watts:	20W
Color Temp:	5000K (Cool)
Color Accuracy:	70 CRI
L70-Lifespan:	100,000
Lumens:	1,451
Efficacy:	85 LPW

Ultra high efficiency 20 Watt wallpack. Patent Pending thermal management system: 100,000 hour L70 lifespan. 5 Year Warranty.

Color: Bronze — Weight: 6.1 lbs.

Technical Specifications

Listings

UL Listing: Suitable for wet locations. Suitable for mounting within 1.2m (4ft) of the ground.

Dark Sky Approved: The International Dark Sky Association has approved this product as a full cutoff, fully shielded luminaire.

IESNA LM-79 & IESNA LM-80 Testing: RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and 80, and have received the Department of Energy "Lighting Facts" label.

LED Characteristics

Lifespan: 100,000-hour LED lifespan based on IESNA LM-80 results and TM-21 calculations.

Color Consistency: 7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color.

Color Stability: LED color temperature is warranted to shift no more than 200K in CCT over a 5 year period.

Color Uniformity: RAB's range of CCT (Correlated color temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI/ NEMA C78.377-2008.

Construction

Cold Weather Starting: The minimum starting temperature is -40°F/-40°C.

Ambient Temperature: Suitable for use in 50°C (122°F) ambient temperatures.

Thermal Management: Integral cast aluminum mounting pad and external fins for optimal heat sinking to ensure cool operation with maximum LED life and light output.

Housing: Precision-die cast aluminum housing, lens frame and mounting plate.

Two Mounting Options: Junction Box with 5 Conduit Entry Points and Threaded Plugs for surface mounting plus Cover Plate for mounting over 4" recessed junction box included with WPLED20.

Finish: Our environmentally friendly polyester powder coatings are formulated for high durability and long lasting color and contains no VOC or toxic heavy metals.

Green Technology: RAB LEDs are Mercury, Arsenic and UV free.

For use on LEED Buildings: IDA Dark Sky Approval means that this fixture can be used to achieve LEED Credits for Light Pollution Reduction.

Gaskets: High Temperature Silicone.

Electrical

THD: 7.35% at 120V

Driver: Automatic Voltage Sensing Driver for 120-277 volts

Driver: Constant Current, Class2, 100-277V, 50/60 Hz, 100 - 240VAC 0.3 - 0.15A, 277VAC 0.15A

Surge Protection: 4KV

Other

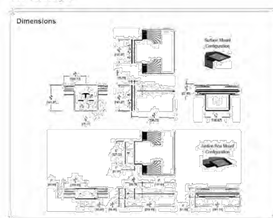
Patents: The LPACK design is protected under patents in the U.S. Pat. D634873, Canada Pat. 133202, China Pat. ZL201003129137, Taiwan Pat. D139540 and Mexico Pat. 32481

Warranty: RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish.

Equivalency: The WPLED20 is Equivalent in delivered lumens to a 150W Metal Halide Wallpack.

HID Replacement Range: The WPLED20 can be used to replace 100-175W Metal Halide Wallpacks based on delivered lumens.

WPLED20 — RAB LIGHTING



Features

Ultra high efficiency 20 Watt wallpack

Maintains 70% of initial lumens at 100,000 hours

Weatherproof high temperature silicone gaskets

Superior roof sealing with die cast aluminum housing and external fins

Replaces 400W MH

100-up to 277 Volts

5-year warranty

3 TYPICAL EXTERIOR LIGHT FIXTURE

SCALE: 1" = 20'-0"

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PHOTOMETRIC PLAN & PRODUCT SPECIFICATIONS

A4-2

1 PERSPECTIVE
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RENDERING

A5-1

1 PERSPECTIVE
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1	10/09/19	CITY OF ALAMEDA REVIEW

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QC BY: DC
P.M.: CM & MA
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RENDERING

A5-2

1 PERSPECTIVE
SCALE: N.T.S.

NO	DATE	ISSUE DESCRIPTION
3	02/07/20	CITY OF ALAMEDA REVIEW
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RENDERING

A5-3

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RENDERING

A5-4

1 PERSPECTIVE
SCALE: N.T.S.

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A5-5