HERCULES SELF STORAGE

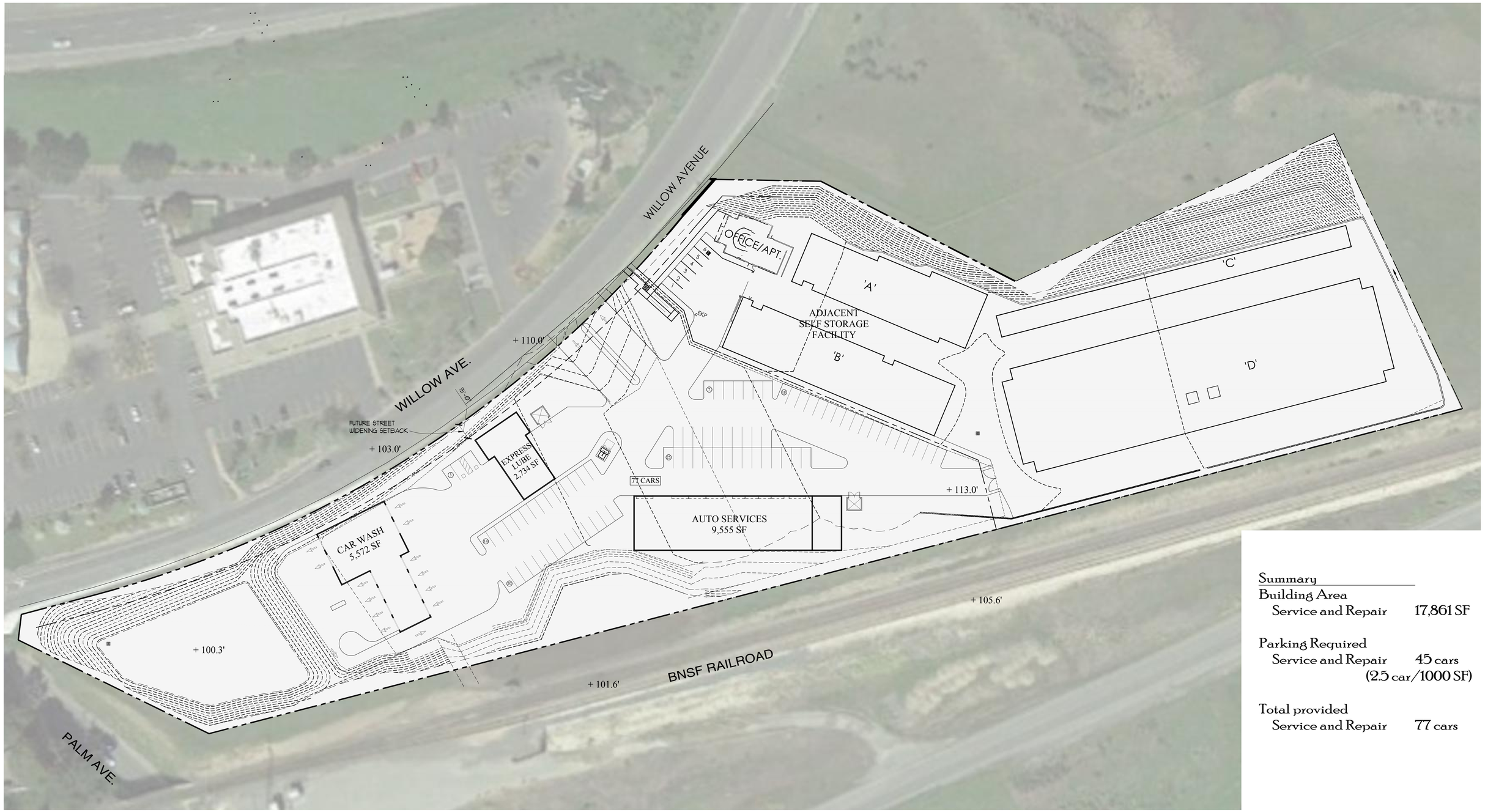
HERCULES, CA

STREET ELEVATION

02/19/18

SCALE : 3/16" = 1'-0"

VALLI
ARCHITECTURAL
GROUP
27405 PUERTA REAL, SUITE 235 PH: 949/ 813-4191
MISSION VIEJO, CA 92691 ariel@valliarch.com



Summary

Building Area
Service and Repair 17,861 SF

Parking Required
Service and Repair 45 cars
(2.5 car/1000 SF)

Total provided
Service and Repair 77 cars

JOHNSON
LYMAN
ARCHITECTS

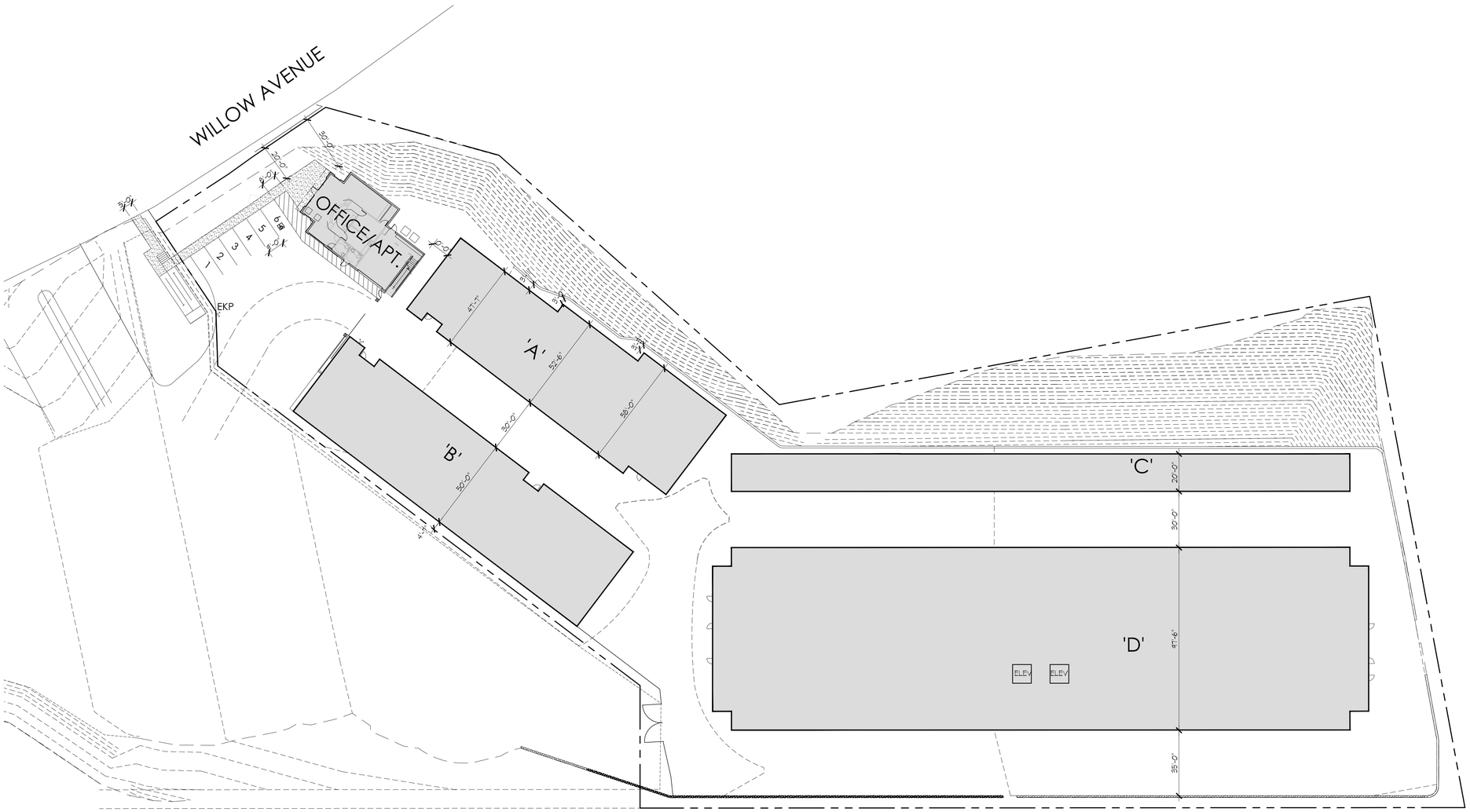
1375 LOCUST ST #202, WALNUT CREEK, CA 94596
PHONE: 925.930.9690 FAX: 925.930.9039
WEB PAGE: WWW.JOHNSONLYMAN.COM
EMAIL: STAFF@JOHNSONLYMAN.COM

Site Plan ~ Willow Avenue

Hercules California

Scale: 1"=50'

February 13, 2018



OWNER/DEVELOPER

CLAREMONT HOMES, INC.
380 CIVIC DRIVE STE 200-C
PLEASANT HILL, CA 94523
PHONE: 510-821-0112
E-MAIL: mconley@claremonthomes.net

ARCHITECT

ARIEL L. VALLI
VALLI ARCHITECTURAL GROUP
27405 PUERTA REAL - SUITE 235
MISSION VIEJO, CA 92691
PHONE: 949-813-4191
E-MAIL: ariel@valliarch.com

CIVIL ENGINEER

FRANK BELLECCI
BELLECCI & ASSOCIATES
2290 DIAMOND BLVD., SUITE 100
CONCORD, CA 94520
PHONE: 925-585-4569 x 107
E-MAIL: frank@bellecci.com

BUILDING AREAS

BUILDING 'A'	8,732	SQ. FT.
BUILDING 'B'	9,384	SQ. FT.
BUILDING 'C'	6,598	SQ. FT.
BUILDING 'D' (3 STORY)	101,151	SQ. FT.
S.S. SUBTOTAL	125,865	SQ. FT.
OFFICE / APT.	3,867	SQ. FT.
TOTAL	129,732	SQ. FT.

HERCULES SELF STORAGE

HERCULES, CA

SITE PLAN

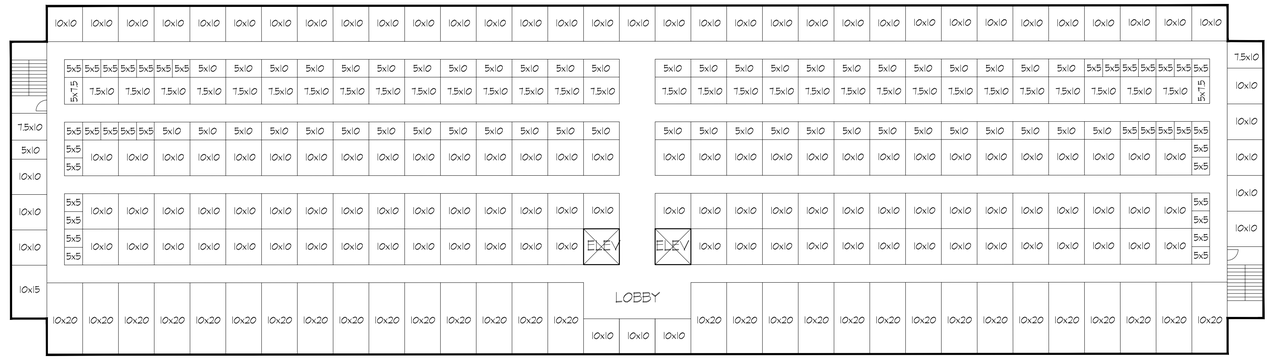
1/04/2018

SCALE : 1" = 30'-0"

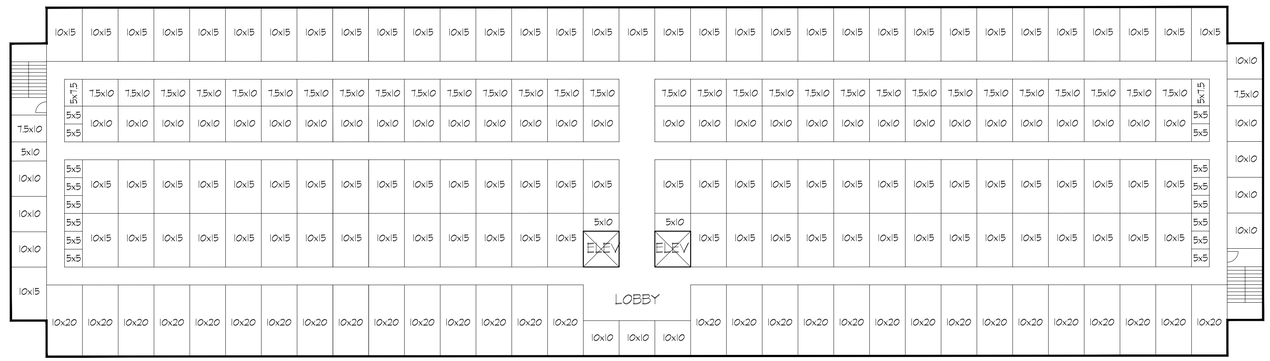
2016-170

PLAN NORTH

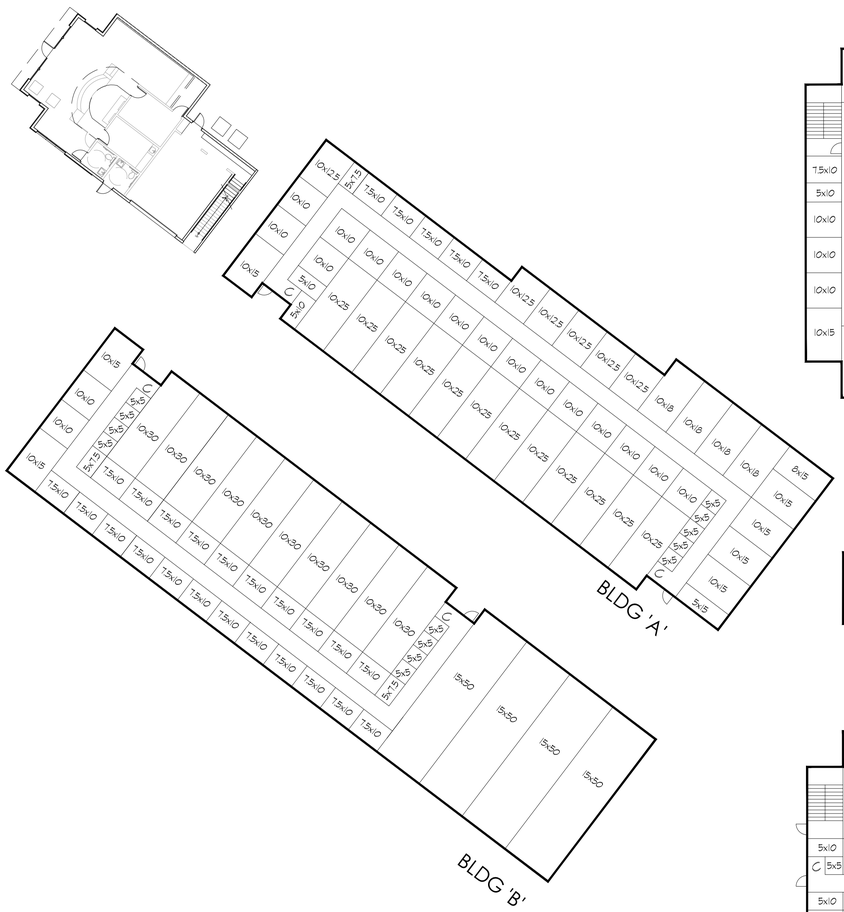
VALLI ARCHITECTURAL GROUP
27405 Puerta Real - Suite 235 PH: 949-813-4191
Mission Viejo, CA 92691 ariel@valliarch.com

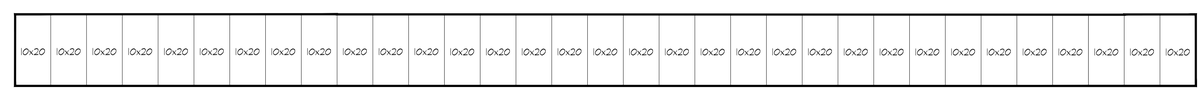


BLDG 'D' THIRD FLOOR

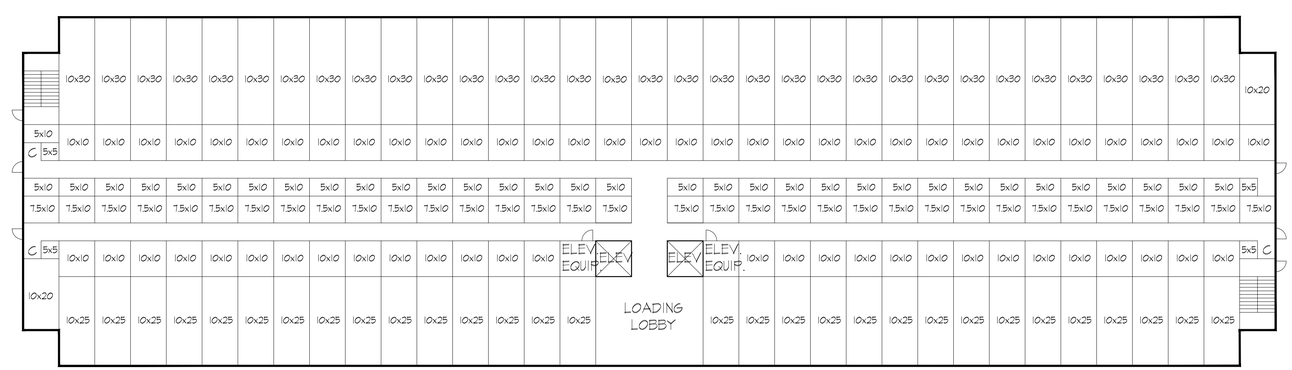


BLDG 'D' SECOND FLOOR





BLDG 'C'



BLDG 'D' FIRST FLOOR

UNITMIX TABULATION

SIZE OF UNIT	SQ.FT.UNIT	No. OF REG. UNITS	TOTAL SQ.FT.
5 x 5	25	69	1725
5 x 7.5	37.5	7	262.5
5 x 10	50	90	4500
5 x 15	75	1	75
7.5 x 10	75	125	9375
8 x 15	120	1	120
10 x 10	100	253	25300
10 x 12.5	125	6	750
10 x 15	150	100	15000
10 x 18	180	4	720
10 x 20	200	95	19000
10 x 25	250	42	10500
10 x 30	300	43	12900
15 x 50	750	4	3000
TOTAL		840	103,228
AVERAGE UNIT SIZE			122.89
GROSS BUILDING AREA			125,865
EFFICIENCY			82.01%

HERCULES SELF STORAGE

HERCULES, CA

UNITMIX PLAN

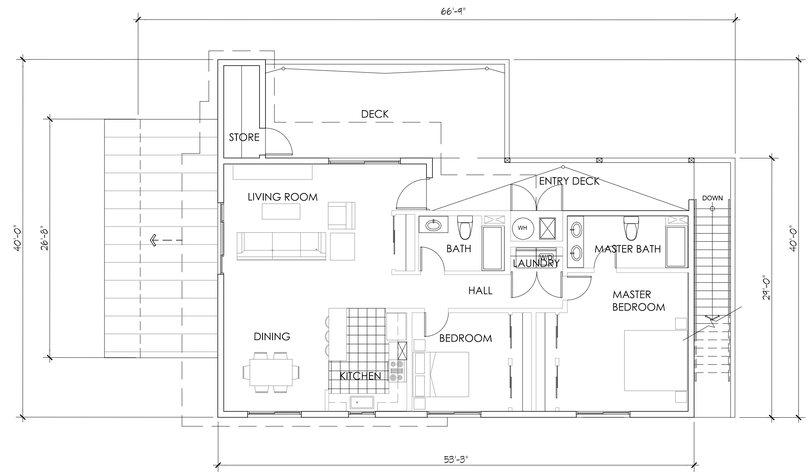
1/4/2018

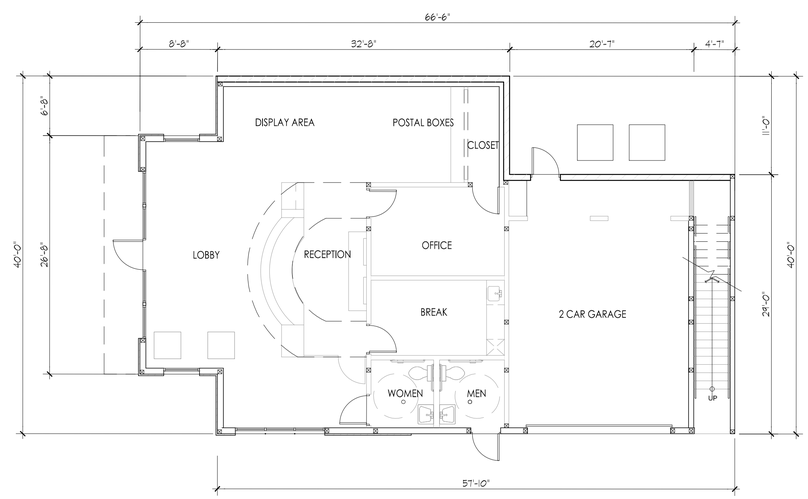
SCALE : 1" = 20'-0"

2016-170

PLAN NORTH

VALLI ARCHITECTURAL GROUP
27405 Puerta Real - Suite 235 PH: 949-813-4191
Mission Viejo, CA 92691 ariel@valliarch.com





HERCULES SELF STORAGE

HERCULES, CA

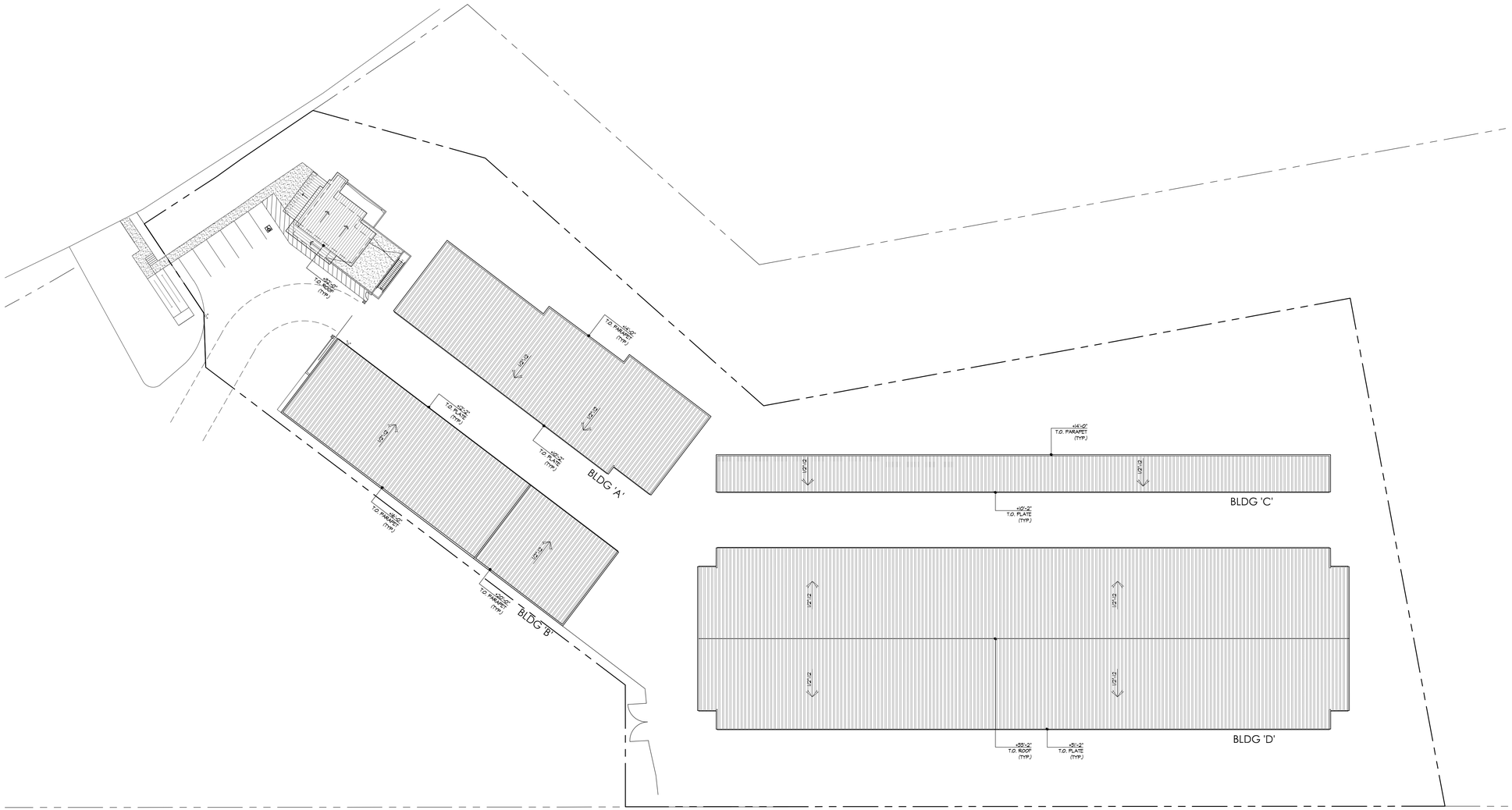
OFFICE & APARTMENT

12/18/2017

SCALE : 1/8" = 1'-0"

2016-170

VALLI ARCHITECTURAL GROUP
27405 Puerta Real - Suite 235 PH: 949-813-4191
Mission Viejo, CA 92691 ariel@valliarch.com



HERCULES SELF STORAGE

HERCULES, CA

ROOF PLAN

4/1/2018

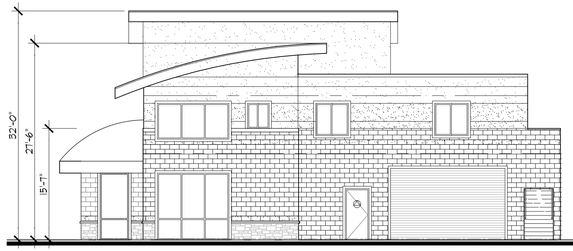
SCALE : 1" = 30'-0"

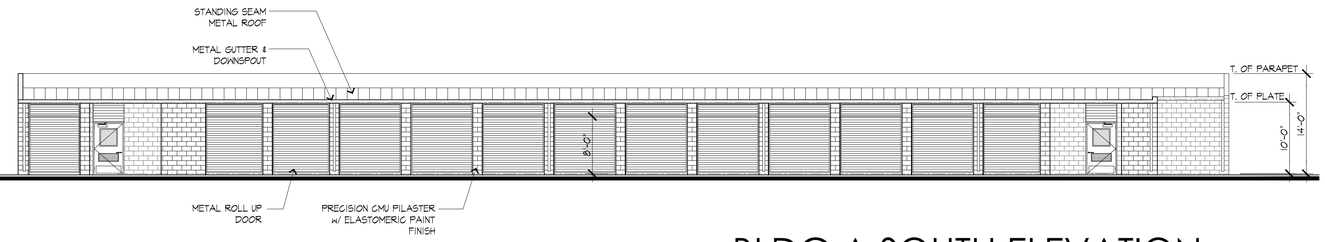
2016-170

PLAN NORTH

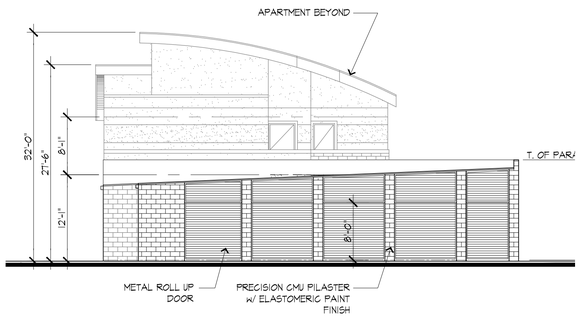
VALLI ARCHITECTURAL GROUP
27405 Puerta Real - Suite 235 PH: 949-813-4191
Mission Viejo, CA 92691 ariel@valliarch.com

OFFICE & APT WEST ELEVATION

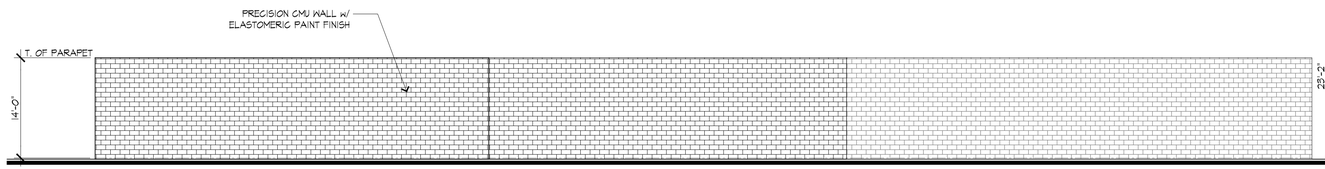




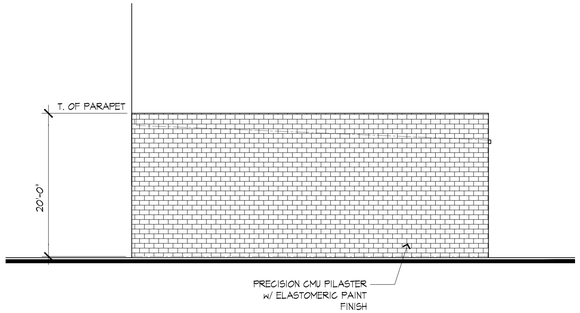
BLDG A SOUTH ELEVATION



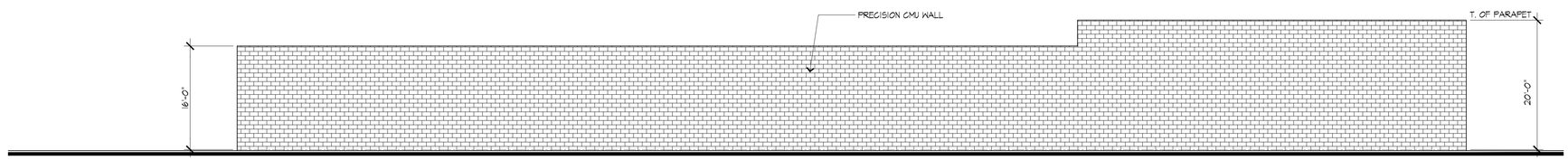
BLDG A EAST ELEVATION



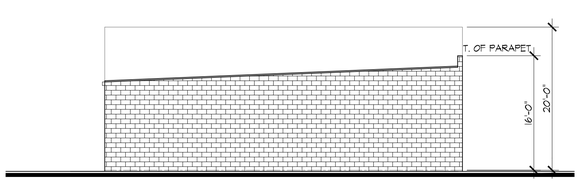
BLDG A NORTH ELEVATION



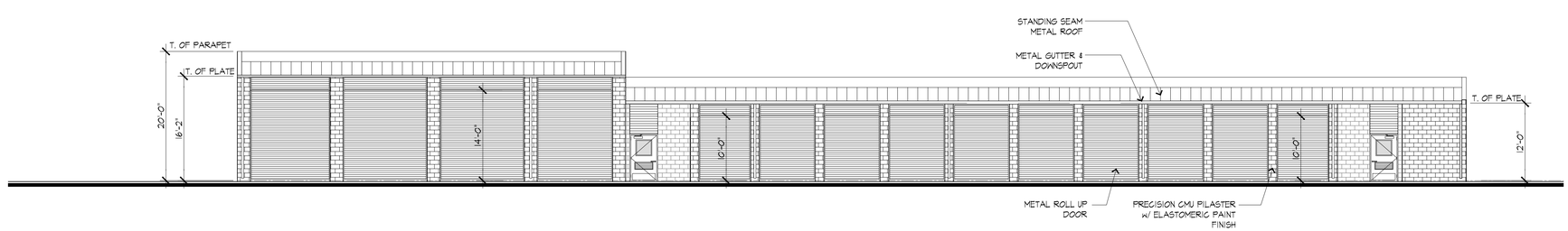
BLDG B EAST ELEVATION



BLDG B SOUTH ELEVATION



BLDG B WEST ELEVATION



BLDG B NORTH ELEVATION

HERCULES SELF STORAGE

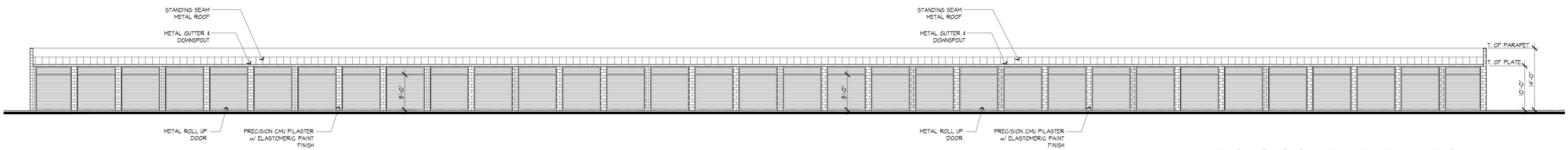
HERCULES, CA

ELEVATIONS

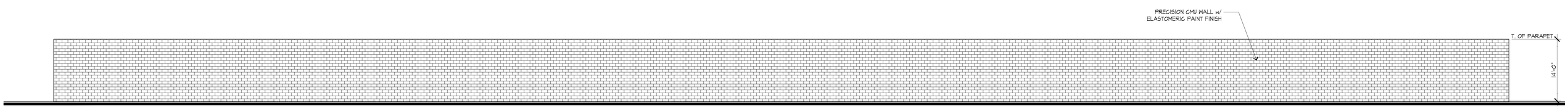
1/4/18

SCALE : 1" = 30'-0"

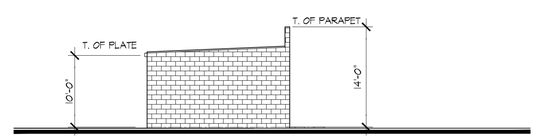
VALLI ARCHITECTURAL GROUP
27405 PUERTA REAL, SUITE 235 PH: 949/ 813-4191
MISSION VIEJO, CA 92691 ariel@valliarch.com



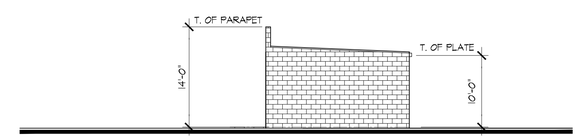
BLDG C SOUTH ELEVATION



BLDG C NORTH ELEVATION



BLDG C EAST ELEVATION



BLDG C WEST ELEVATION

HERCULES SELF STORAGE

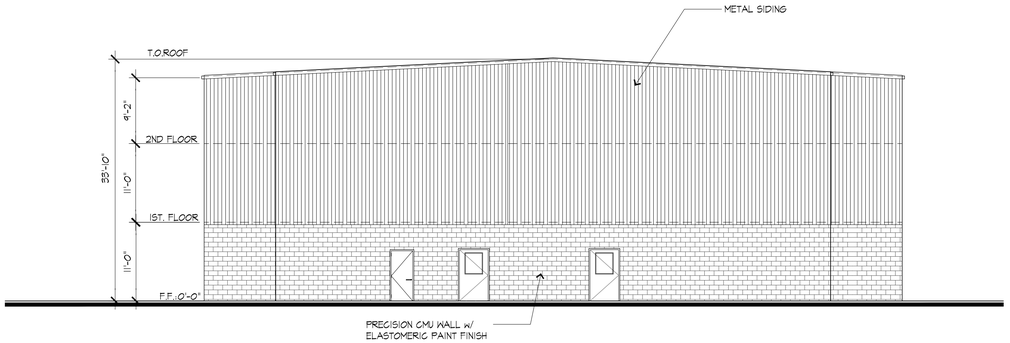
HERCULES, CA

ELEVATIONS

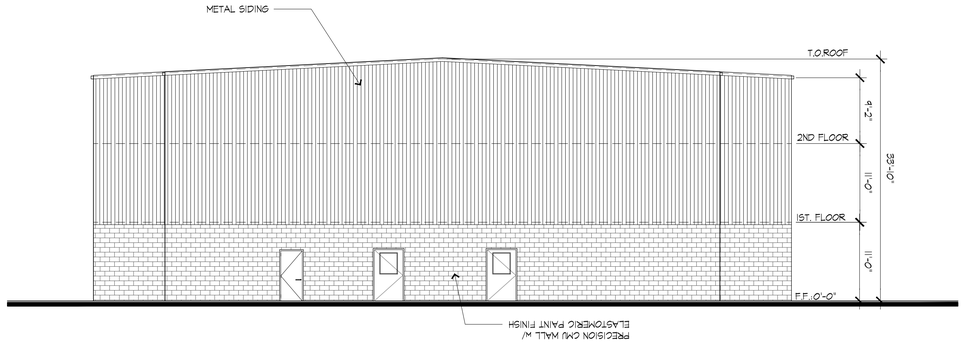
1/4/18

SCALE : 1" = 30'-0"

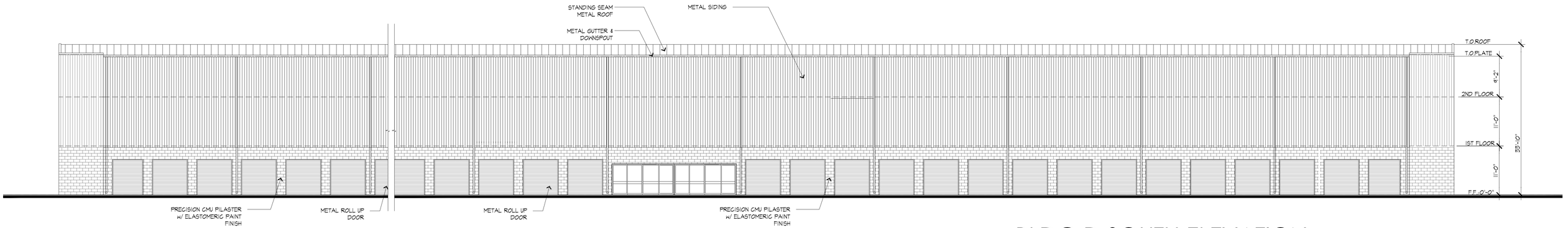
VALLI ARCHITECTURAL GROUP
27405 PUERTA REAL, SUITE 235 PH: 949/ 813-4191
MISSION VIEJO, CA 92691 ariel@valliarch.com



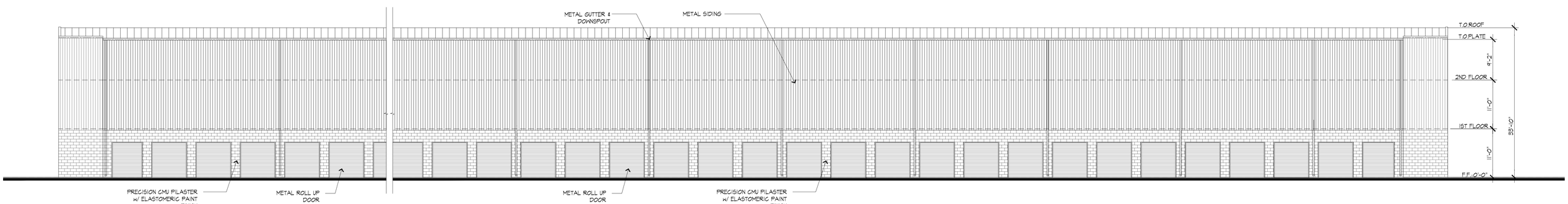
BLDG D EAST ELEVATION



BLDG D WEST ELEVATION



BLDG D SOUTH ELEVATION



BLDG D NORTH ELEVATION

HERCULES SELF STORAGE

HERCULES, CA

ELEVATIONS

1/4/18

SCALE : 1" = 30'-0"

VALLI ARCHITECTURAL GROUP
27405 PUERTA REAL, SUITE 235 PH: 949/ 813-4191
MISSION VIEJO, CA 92691 ariel@valliarch.com

Water calculation worksheet for the Model Water Efficienct Landscape Ordinance AB 1881

Total Landscape Area (sf)	23,805			KL	Landscape Coefficient				Eto	Referenced Evapotranspiration Rate	
Special Landscape Area (SLA)	0			Ks	Species Factor				0.7	ET Adjustment factor	
Historical Eto for Hercules	41.8			Kd	Density Factor				LA	Total Landscape area	
Turf Rotor Efficiency	0.70			Kmc	Microclimate Factor				0.62	Conversion factor to gallons	
Flood bubbler Irrigation Efficiency	0.90			IE	Irrigation Efficiency				SLA	Special Landscape Area	
Spray irrigation Efficiency	0.71								PR	Precipitation rate	
Drip Irrigation Efficiency	0.90			MAWA = (ETo)(0.62)[0.7 x LA + 0.3 x SLA]					H	High water use plants	
Stream Spray Efficiency	0.75								M	Medium water use plants	
				ETWU = (ETo)(0.62) [(PFxHA / IE) + SLA]					L	Low water use plants	
Maximum Applied Water Use (MAWA)									VL	Very low water use plants	
	Eto			Conversion	ET	LA	0.3	SLA			Gallons per year
Total landscape area	41.8			0.62	0.7	23,805	0.3	0			431,851
MAXIMUM APPLIED WATER ALLOWANCE											**431,851**

Estimated Total Water Use (ETWU)

Plant type	Irrigation method	Area (sf)	% of LA	PR	Eto	Ks	Kd	Kmc	KL	IE	Conversion	Gallons per year
Shrubs - Low	Drip	12,150	51.0%	0.73	41.8	0.3	1	1	0.3	0.81	0.62	116,622
Shrubs - Mod	Drip	10,785	45.3%	0.73	41.8	0.5	1	1	0.5	0.81	0.62	172,533
Trees - Mod	Drip	870	3.7%	6.00	41.8	0.3	1	1	0.3	0.75	0.62	9,019
		23,805										
Total area												298,174
TOTAL WATER APPLIED												**133677**
Difference between MAWA & ETWU												31%

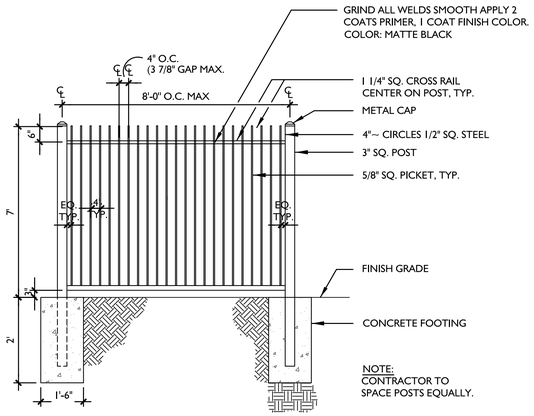
***NOTE: SEE SHEET L3 FOR PLANT LIST**

Parking Lot Light Pole

GATES ASSOCIATES | Bellecci | VALLI ARCHITECTURAL GROUP 27405 PUERTA REAL, SUITE 235 MISSION VIEJO, CA 92691 PH: 949/813-4191 ariel@vallarch.com | MILLER STARR REGALIA | THE CLAREMONT COMPANIES, LLC Working to Build a Better World

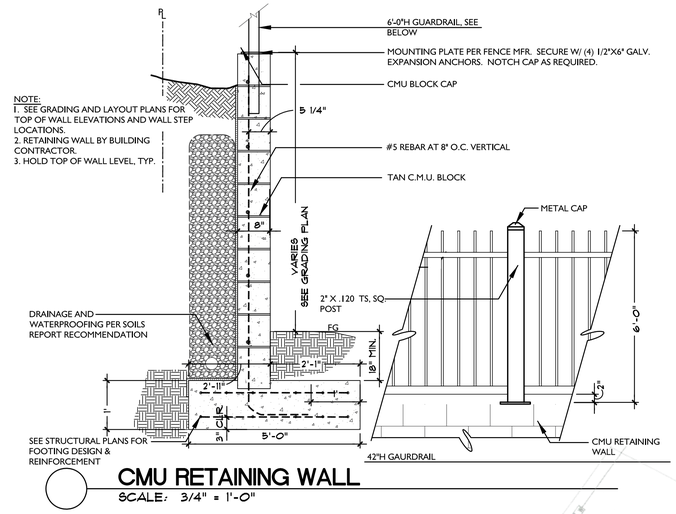
HERCULES SELF STORAGE
HERCULES, CALIFORNIA

PRELIMINARY LANDSCAPE PLAN L1
05/25/2018



7'H ORNAMENTAL METAL FENCE

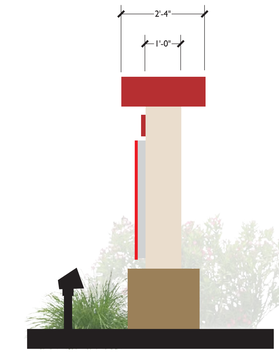
SCALE: 3/8" = 1'-0"



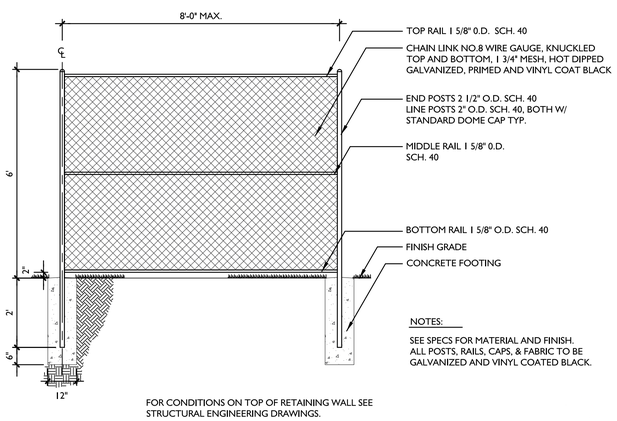
CMU RETAINING WALL

SCALE: 3/4" = 1'-0"

Front View
Scale: 1/2"=1'-0"
Colors and materials to match architecture



Side View
Scale: 1/2"=1'-0"
External lighting - type and distance TBD



FOR CONDITIONS ON TOP OF RETAINING WALL SEE STRUCTURAL ENGINEERING DRAWINGS.

6' CHAIN LINK FENCE

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

GATES ASSOCIATES | Bellecci | VALLI ARCHITECTURAL GROUP 27405 PUERTA REAL, SUITE 235 MISSION VIEJO, CA 92691 PH: 949/ 813-4191 arell@vallarch.com | MILLER STARR REGALIA | THE CLAREMONT COMPANIES, LLC Working to Build a Better World

HERCULES SELF STORAGE
HERCULES, CALIFORNIA

FENCE & WALL EXHIBIT L2
05/25/2018

PLANT IMAGES

TREES


Acer rubrum 'Armstrong'
Armstrong Red Maple


Arbutus x marina
Arbutus Standard


Cercis occidentalis
Western Redbud


Geijera parviflora
Australian Willow


Lagerstroemia i. 'Muskogee'
Muskogee Crape Myrtle


Photinia x fraseri
Photinia


Pistacia chinensis
Chinese Pistache Multi-Trunk
(Street Tree)


Quercus agrifolia
Coast Live Oak


Robinia x ambigua
Pink Flowering Locust
(Street Tree)


Tilia cordata
Littleleaf Linden
(Street Tree)


Ulmus parvifolia
Chinese Elm
(Street Tree)


Zelkova serrata
City Sprite Zelkova
(Street Tree)

SHRUBS/VINE/GROUNDCOVERS


Carex phyllocephala
Sedge


Dietes vegeta
African Iris


Erica x darleyensis
Darley Heath


Euonymus fortunei
Emerald Gaiety Euonymus


Hemerocallis x bitsy
Yellow Daylily


Juncus patens
California Gray Rush


Lavandula angustifolia
English Lavender


Leymus triticoides
Wild Rye


Liriope muscari
Lily Turf


Lomandra longifolia 'Breeze'
Dwarf Mat Rush


Phormium tenax 'Yellow Wave'
New Zeland Flax


Rosmarinus officinalis
Rosemary


Salvia officinalis
Garden Sage


Thymus vulgaris
Common Thyme


Wisteria frutescens
American Wisteria

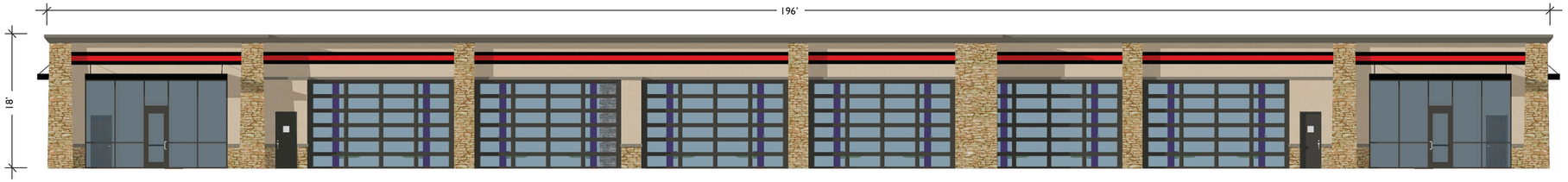

Cistus salvifolius
Sageleaf Rockrose


Myoporum parvifolium
Putah Creek Myoporum

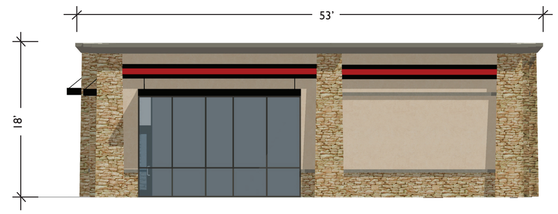

Osteospermum fruticosum
Freeway Daisy

PLANT LIST

BOTANICAL NAME	COMMON NAME	WATER USE
STREET TREES		
Pistacia chinensis	Chinese Pistache (Multi-Trunk)	L
Robinia x ambigua	Pink Flowering Locust	L
Tilia cordata	Littleleaf Linden	M
Ulmus parvifolia	Chinese Elm	L
Zelkova serrata	City Sprite Zelkova	M
ACCENT TREES		
Acer rubrum 'Armstrong'	Armstrong Red Maple	M
Arbutus x 'Marina	Strawberry Tree	L
Cercis Occidentalis	Western Redbud	VL
Geijera parvifolia	Australian Willow	M
Lagerstroemia 'Muskogee'	Muskogee Crape Myrtle	L
Photinia x fraseri	Photinia	M
Quercus agrifolia	Coast Live Oak	VL
SHRUBS/VINE/GROUNDCOVERS		
Carex phyllocephala	Sedge	M
Cistus salvifolius	Sageleaf Rockrose	L
Dietes vegeta	African Iris	L
Erica x darleyensis	Darley Heath	L
Euonymus fortunei	Emerald Gaeity Euonymus	M
Hemerocallis 'Bitsy'	Yellow Daylily	M
Juncus patens	California Grey Rush	L
Lavandula angustifolia	English Lavender	L
Leymus triticoides	Wild Rye	L
Liriope muscari	Lily Turf	M
Lomandra 'Breeze'	Dwarf Mat Rush	L
Myoporum parvifolium	putah Creek Myoporum	L
Osteospermum fruticosum	Freeway Daisy	L
Phormium 'Yellow Wave'	New Zealand Flax	L
Rosmarinus officinalis	Rosemary	L
Salvia officinalis	Garden Sage	L
Thmus vulgaris	Common Thyme	L
Westringia frutescens	American Westringia	L



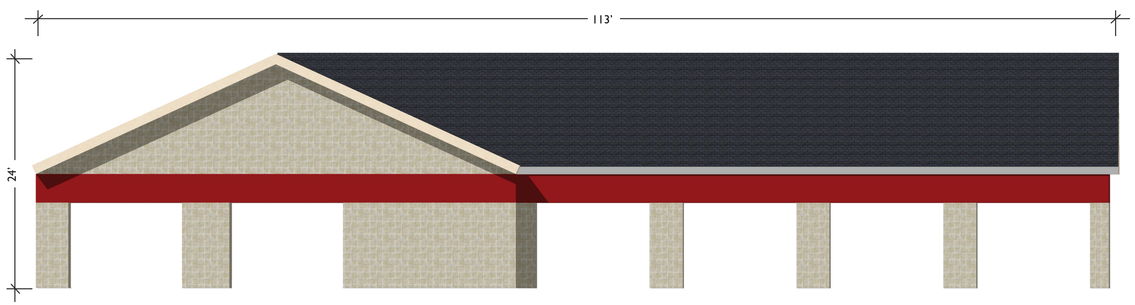
FRONT VIEW



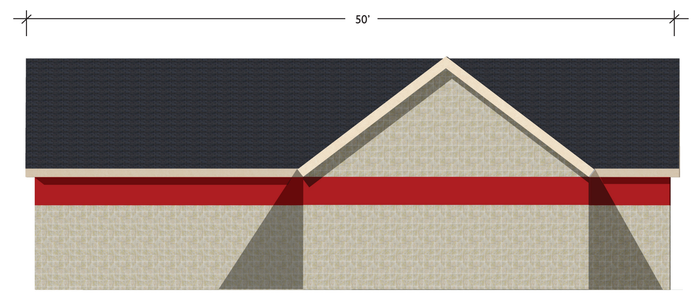
SIDE VIEW

COMPARABLE ARCHITECTURE

CONCEPTUAL AUTO-SERVICES ELEVATION



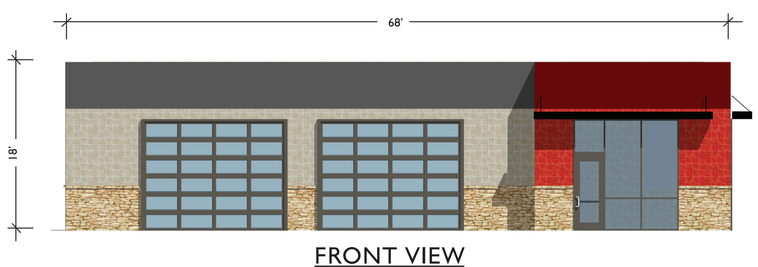
FRONT VIEW



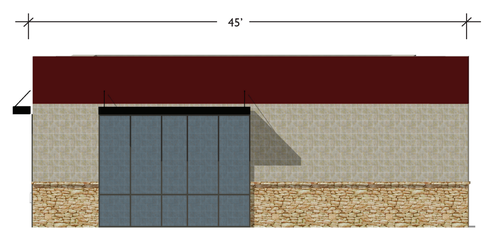
SIDE VIEW

COMPARABLE ARCHITECTURE

CONCEPTUAL CAR WASH ELEVATION



FRONT VIEW



SIDE VIEW

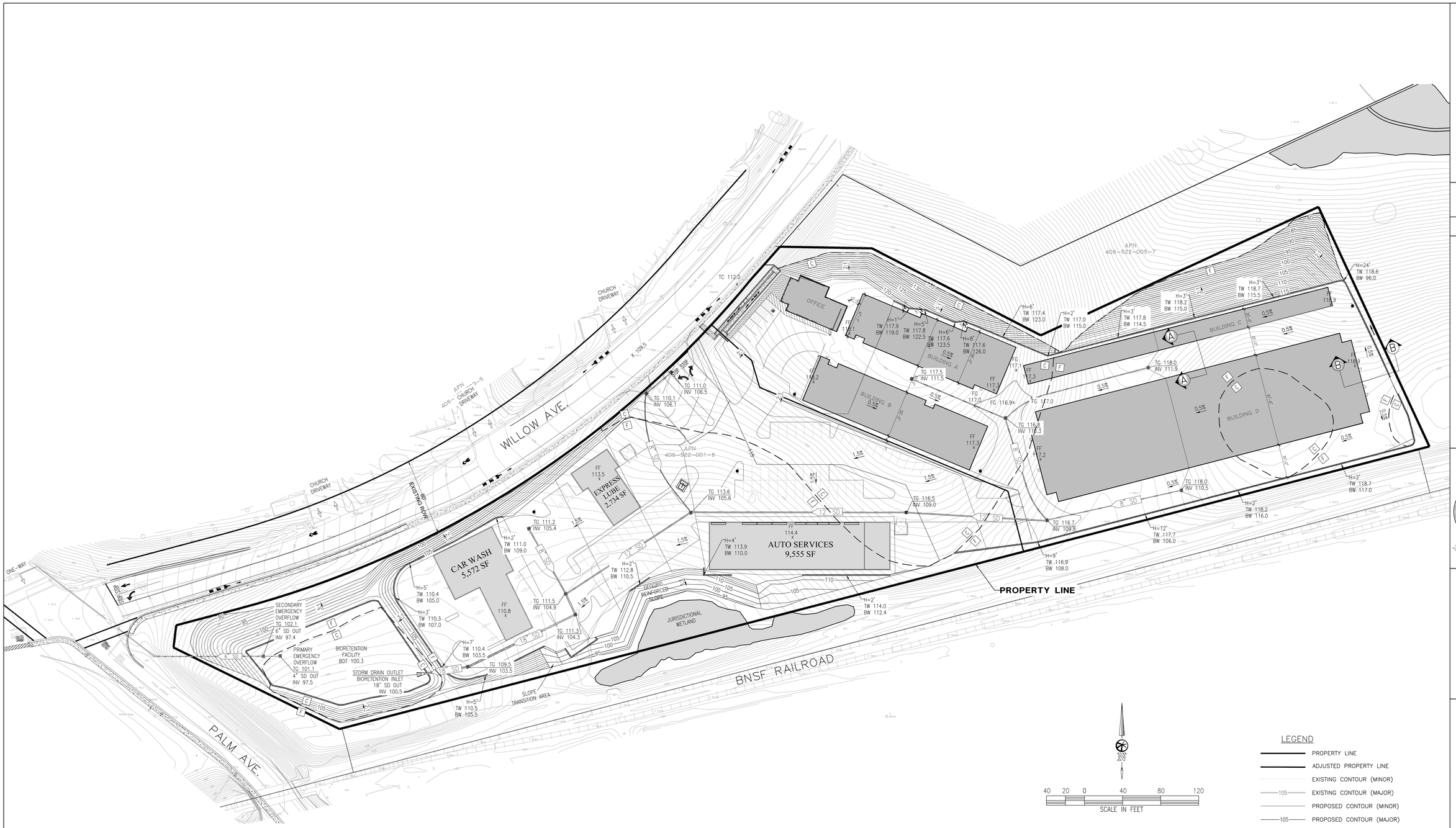
COMPARABLE ARCHITECTURE

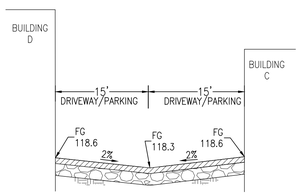
CONCEPTUAL EXPRESS LUBE ELEVATION

GATES ASSOCIATES | Bellecci | VALLI ARCHITECTURAL GROUP 27405 PUERTA REAL, SUITE 235 MISSION VIEJO, CA 92691 PH: 949/ 813-4191 | MILLER STARR REGALIA | THE CLAREMONT COMPANIES, LLC Working to Build a Better World

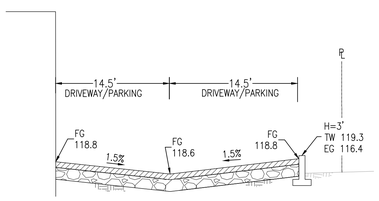
HERCULES SELF STORAGE
HERCULES, CALIFORNIA

CONCEPTUAL ARCHITECTURE ELEVATIONS L4
05/25/2018





SECTION A–A
NOT TO SACLE



SECTION B–B
NOT TO SACLE

LEGEND

- PROPERTY LINE
- ADJUSTED PROPERTY LINE
- EXISTING CONTOUR (MINOR)
- 105 EXISTING CONTOUR (MAJOR)
- PROPOSED CONTOUR (MINOR)
- 105 PROPOSED CONTOUR (MAJOR)
- SLOPE – TOP & TOE
- VALLEY GUTTER
- 18" SD PROPOSED STORM DRAIN LINE
- RETAINING WALL
- BUILDING OUTLINE
- VERIFIED WETLAND
- STORM DRAIN MANHOLE
- STORM DRAIN INLET
- C / F CUT–FILL LINE

Call Two Working Days Before You Dig!

USA NORTH

1-800-227-2600

MAY 30, 2018

PRELIMINARY
NOT FOR CONSTRUCTION

BY	DATE	REVISIONS

Bellecci & Associates, inc.
Civil Engineering • LandSurveying
2290 Diamond Boulevard, Suite 100 Concord, CA 94520
Phone (925) 685-4569 Fax: (925) 685-4938

REGISTERED PROFESSIONAL ENGINEER FRANK BELLECCI No. 14535 CIVIL ENGINEERING STATE OF CALIFORNIA

NOT FOR CONSTRUCTION

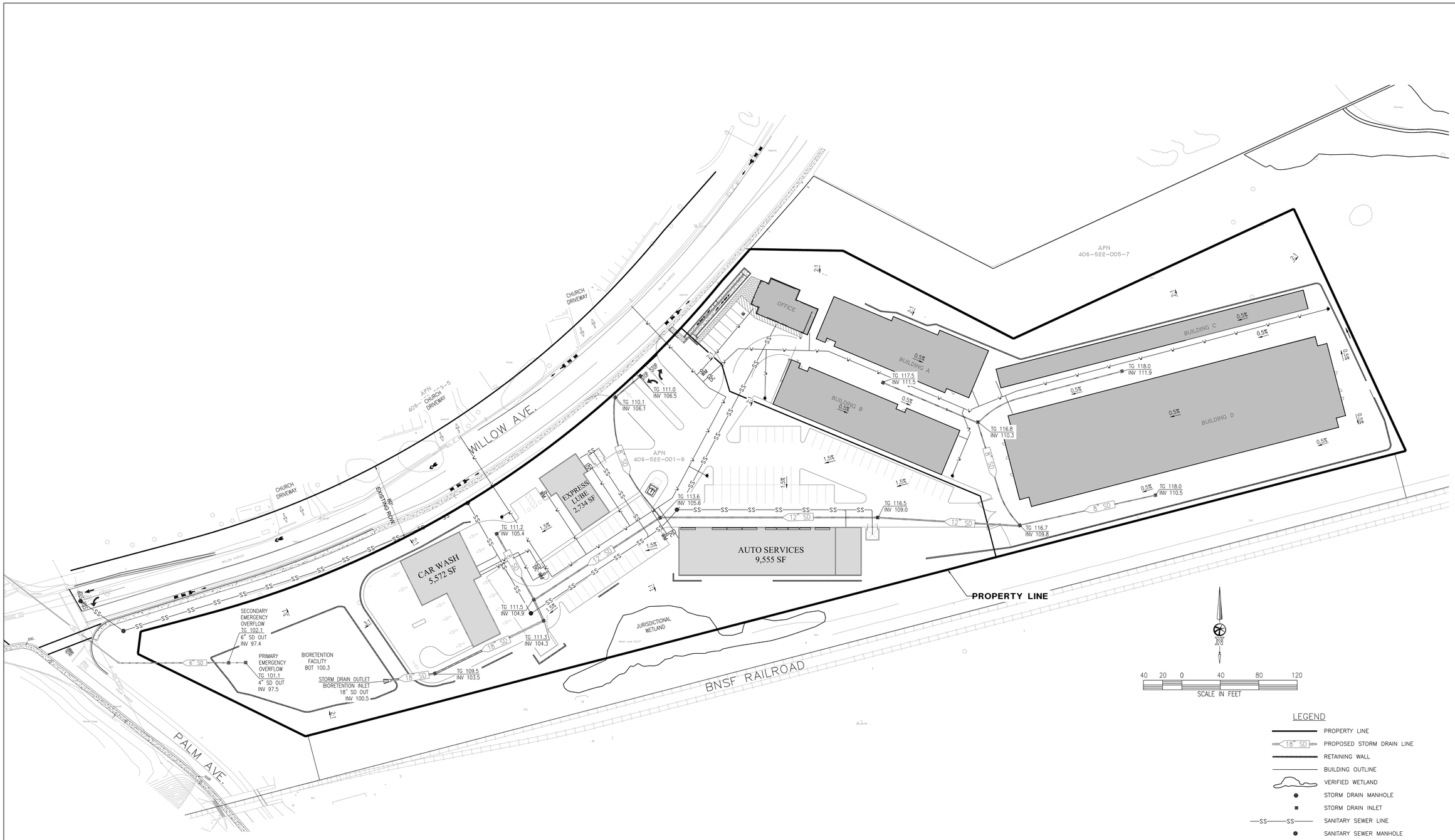
WILLOW AVENUE COMMERCIAL CENTER

PRELIMINARY GRADING & DRAINAGE PLAN

HERCULES CONTRA COSTA COUNTY CALIFORNIA

SHEET 1 OF 9

JOB NO. 17024



LEGEND

- PROPERTY LINE
- 18" SD — PROPOSED STORM DRAIN LINE
- RETAINING WALL
- BUILDING OUTLINE
- VERIFIED WETLAND
- STORM DRAIN MANHOLE
- STORM DRAIN INLET
- SS — SANITARY SEWER LINE
- SANITARY SEWER MANHOLE
- WATER MAIN
- DC — DETECTOR CHECK VALVE ASSEMBLY
- WM — WATER METER
- FIRE HYDRANT

Call Two Working Days Before You Dig!

1-800-227-2600

JUNE 6, 2018

PRELIMINARY

BY	DATE	REVISIONS

Bellecci & Associates, inc.
Civil Engineering • LandSurveying
2290 Diamond Boulevard, Suite 100 Concord, CA 94520
Phone (925) 685-4569 Fax: (925) 685-4838

REGISTERED PROFESSIONAL ENGINEER FRANK BELLECCI No. 34525 CIVIL STATE OF CALIFORNIA

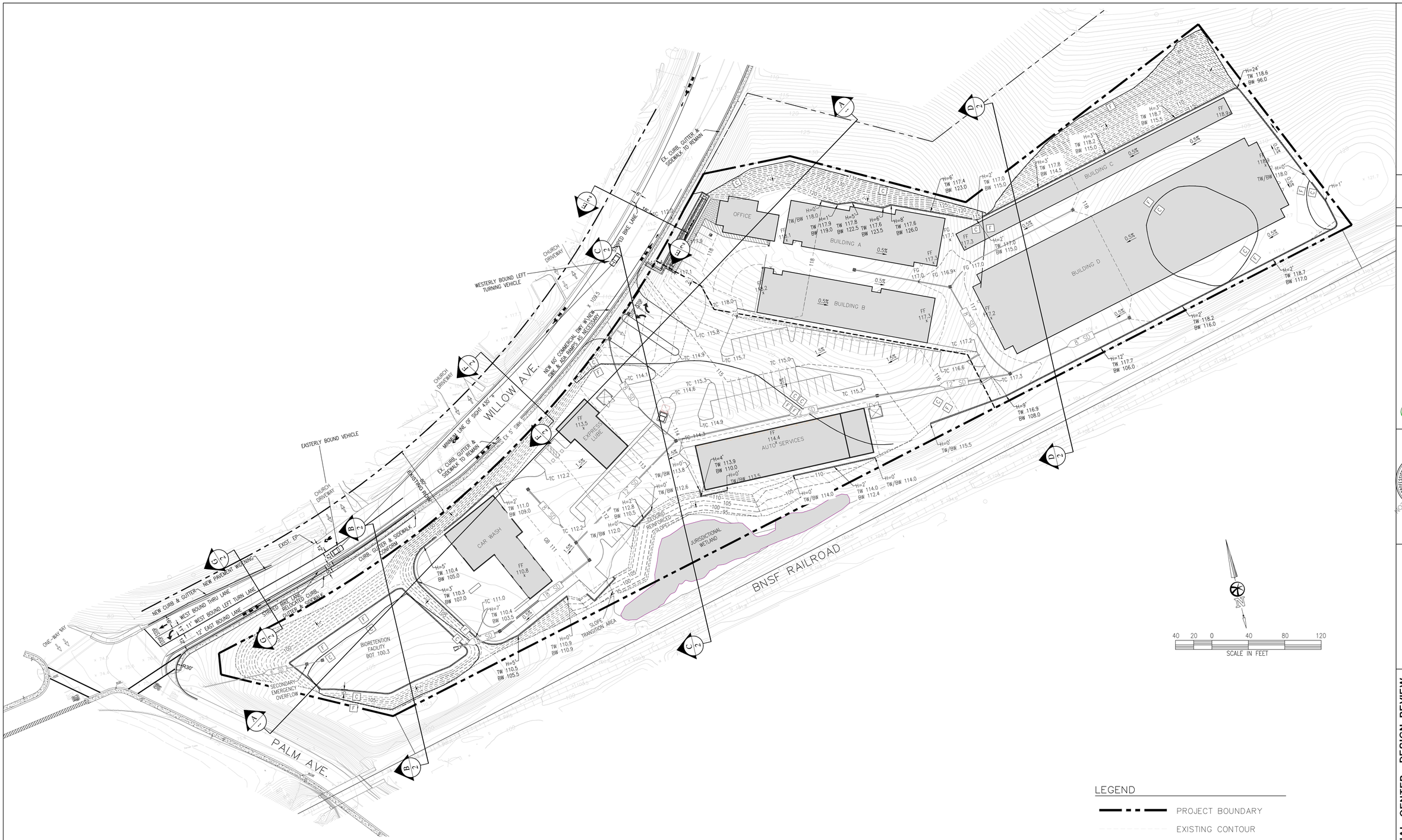
WILLOW AVENUE COMMERCIAL CENTER

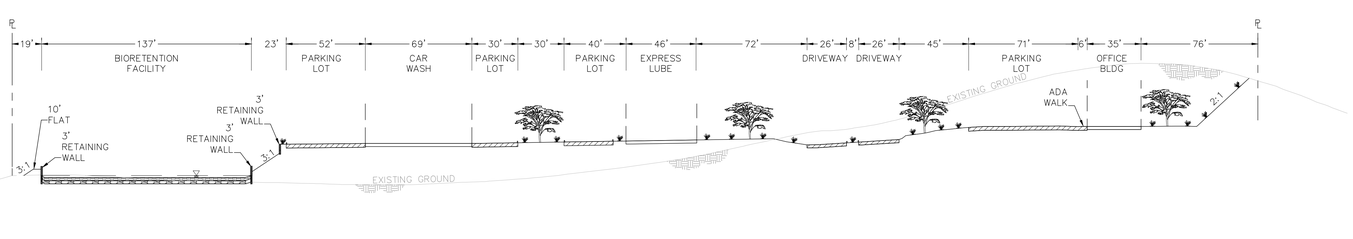
PRELIMINARY UTILITY PLAN

HERCULES CONTRA COSTA COUNTY CALIFORNIA

SHEET 2 OF 9

JOB NO. 17024





SECTION A–A
VERTICAL 1"=20'
HORIZONTAL 1"=40'

LEGEND

- PROJECT BOUNDARY
- EXISTING CONTOUR
- PROPOSED CONTOUR
- TOE–TOP OF SLOPE
- CUT–FILL LINE
- RETAINING WALL
- EDGE OF NEW PAVEMENT
- PROPOSED FOOTPRINT
- EXISTING WETLAND

Call Two Working Days Before You Dig!

1-800-227-2600

DATE UPDATED: JUNE 6, 2018

PRELIMINARY

BY	DATE	REVISIONS

Bellecci & Associates, inc.
Civil Engineering • LandSurveying
2290 Diamond Boulevard, Suite 100 Concord, CA 94520
Phone (925) 685-4569 Fax (925) 685-4838

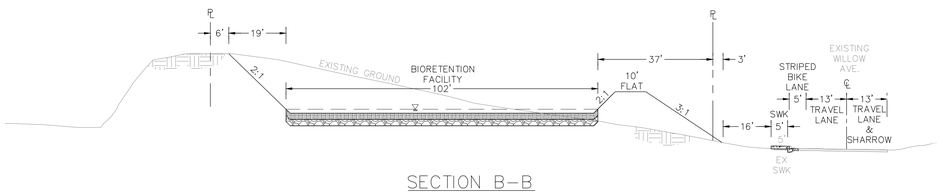
REGISTERED PROFESSIONAL ENGINEER FRANK BELLECCI No. 34595 CIVIL STATE OF CALIFORNIA
NOT FOR CONSTRUCTION

WILLOW AVENUE COMMERCIAL CENTER DESIGN REVIEW

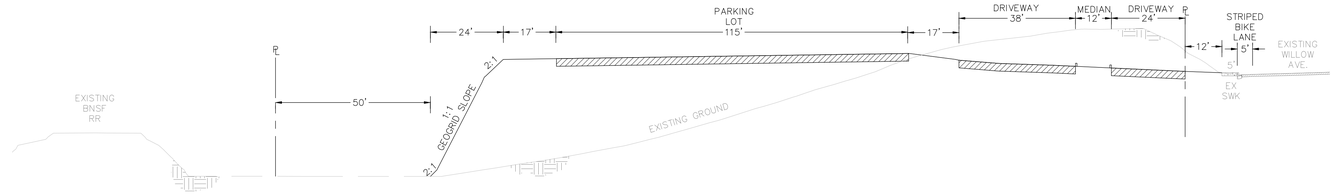
PROPOSED SITE SECTIONS & WILLOW AVE. SIGHT LINES

HERCULES CONTRA COSTA COUNTY CALIFORNIA

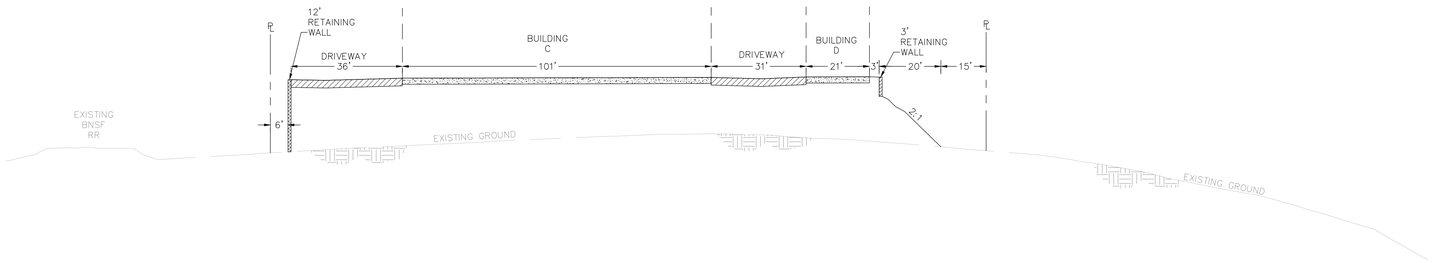
SHEET 3 OF 9
JOB NO. 17024



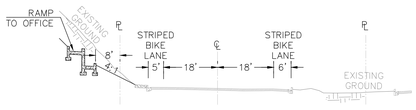
SECTION B–B
VERTICAL 1"=10'
HORIZONTAL 1"=20'



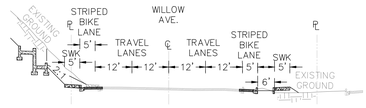
SECTION C–C
VERTICAL 1"=10'
HORIZONTAL 1"=20'



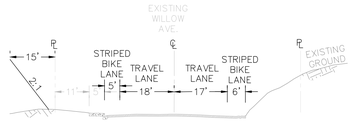
SECTION D–D
VERTICAL 1"=10'
HORIZONTAL 1"=20'



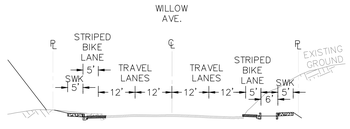
SECTION E–E
CURRENT + PROJECT
VERTICAL 1"=10'
HORIZONTAL 1"=20'



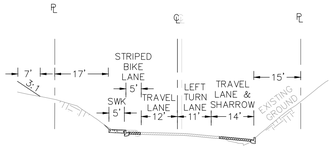
SECTION E–E
ULTIMATE
VERTICAL 1"=10'
HORIZONTAL 1"=20'



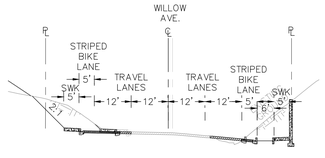
SECTION F–F
CURRENT + PROJECT
VERTICAL 1"=10'
HORIZONTAL 1"=20'



SECTION F–F
ULTIMATE
VERTICAL 1"=10'
HORIZONTAL 1"=20'



SECTION G–G
CURRENT + PROJECT
VERTICAL 1"=10'
HORIZONTAL 1"=20'



SECTION G–G
ULTIMATE
VERTICAL 1"=10'
HORIZONTAL 1"=20'

20 10 0 20 40 60
SCALE IN FEET

LEGEND

- PROJECT BOUNDARY
- EXISTING CONTOUR
- PROPOSED CONTOUR
- TOE–TOP OF SLOPE
- RETAINING WALL
- EDGE OF NEW PAVEMENT
- PROPOSED FOOTPRINT
- EXISTING WETLAND

Call Two Working Days Before You Dig!

1-800-227-2600

DATE UPDATED: JUNE 6, 2018

PRELIMINARY

BY	DATE	REVISIONS

Bellecci & Associates, inc.
Civil Engineering • LandSurveying
2290 Diamond Boulevard, Suite 100 Concord, CA 94520
Phone (925) 685-4569 Fax (925) 685-4838

REGISTERED PROFESSIONAL ENGINEER FRANK C. BELLECCI No. 34557 CIVIL STATE OF CALIFORNIA
NOT FOR CONSTRUCTION

WILLOW AVENUE COMMERCIAL CENTER DESIGN REVIEW

PROPOSED SITE SECTIONS

HERCULES CONTRA COSTA COUNTY CALIFORNIA

SHEET 4 OF 9
JOB NO. 17024

LEGEND

- PROPERTY LINE
- ADJUSTED PROPERTY LINE
- EXISTING CONTOUR (MINOR)
- 105 EXISTING CONTOUR (MAJOR)
- PROPOSED CONTOUR (MINOR)
- 105 PROPOSED CONTOUR (MAJOR)
- SLOPE – TOP & TOE
- VALLEY GUTTER
- 18" SD PROPOSED STORM DRAIN LINE
- RETAINING WALL
- BUILDING OUTLINE
- VERIFIED WETLAND
- STORM DRAIN MANHOLE
- STORM DRAIN INLET
- C F CUT–FILL LINE
- CUT AREA
- FILL AREA

Call Two Working Days Before You Dig!

1-800-227-2600

JULY 10, 2018

PRELIMINARY

BY	DATE	REVISIONS

Bellecci & Associates, inc.
Civil Engineering • LandSurveying
2290 Diamond Boulevard, Suite 100 Concord, CA 94520
Phone (925) 685-4569 Fax: (925) 685-4938

REGISTERED PROFESSIONAL ENGINEER CHARLES BELLECCI No. 34935 CIVIL STATE OF CALIFORNIA

NOT FOR CONSTRUCTION

WILLOW AVENUE COMMERCIAL CENTER

PRELIMINARY CUT-FILL PLAN

HERCULES CONTRA COSTA COUNTY CALIFORNIA

SHEET 5 OF 9

JOB NO. 17024

IMP SIZING SUMMARY

SELF-TREATING AREAS

DMA NAME	AREA (SF)
DMA 1	33,934
DMA 10	578
DMA 11	3,710
DMA 12	868
DMA 15	30,011
DMA 16	502
DMA 22	534
DMA 23	19,427

SELF-RETAINING AREAS

DMA NAME	AREA (SF)
DMA 17	1,124

AREAS DRAINING TO SELF-RETAINING AREAS

DMA NAME	AREA (SF)	POST-PROJ. SURFACE TYPE	DMA RUNOFF FACTOR	DMA AREA x RUNOFF FACTOR [A]	RECEIVING SELF-RETAINING DMA	RECEIVING SELF-RETAINING DMA AREA (SF) [B]	RATIO [A]/B
DMA 18	168	CONCRETE	1.0	168	DMA 17	1,124	0.15

IMP NAME: IMP 1
IMP TYPE: BIORETENTION FACILITY
SOIL TYPE: C

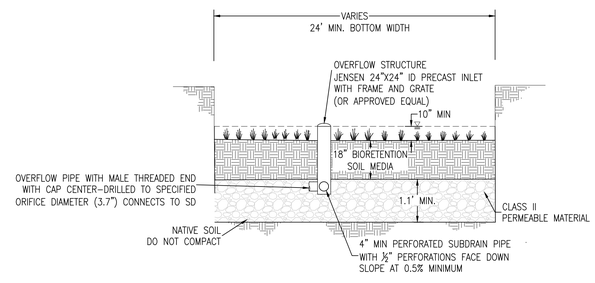
DMA NAME	AREA (SF)	POST-PROJ. SURFACE TYPE	DMA RUNOFF FACTOR	DMA AREA x RUNOFF FACTOR
DMA 2	2,283	CONV ROOF	1.0	2,283
DMA 3	8,736	CONV ROOF	1.0	8,736
DMA 4	6,604	CONV ROOF	1.0	6,604
DMA 5	46,902	ASPHALT	1.0	46,902
DMA 6	33,716	CONV ROOF	1.0	33,716
DMA 7	9,380	CONV ROOF	1.0	9,380
DMA 9	61,482	ASPHALT	1.0	61,482
DMA 13	168	CONV ROOF	1.0	168
DMA 14	9,556	CONV ROOF	1.0	9,556
DMA 19	168	CONV ROOF	1.0	168
DMA 20	2,734	CONV ROOF	1.0	2,734
DMA 21	5,573	CONV ROOF	1.0	5,573
DMA 24	7,617	LANDSCAPE	0.5	3,806
			TOTAL	191,111

IMP SIZING

	IMP SIZING FACTOR	RAIN ADJUSTMENT FACTOR	MINIMUM AREA OR VOLUME	PROPOSED AREA OR VOLUME
AREA	0.060	1.007	11,551	12,434
SURFACE VOLUME	0.050	1.007	9,626	10,362
SUBSURFACE VOLUME	0.066	1.007	12,706	13,470
MAXIMUM UNDERDRAIN FLOW (CFS)				0.27
ORIFICE DIAMETER (IN)				3.38

UNTREATED AREAS

DMA NAME	AREA (SF)
DMA 25	1,496
DMA 26	3,950



TYPICAL SECTION – C.3 BASIN
NOT TO SACLE

NOTE:
BIORETENTION FACILITY SHOULD BE CONSTRUCTED PER CITY STANDARD.

LEGEND

- PROJECT BOUNDARY
- DMA BOUNDARY
- PROPOSED STORM DRAIN LINE
- 4" PERFORATED PIPE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- IMPERVIOUS DMA – CONVENTIONAL ROOF
- IMPERVIOUS DMA – ASPHALT CONCRETE
- IMPERVIOUS DMA – LANDSCAPE
- SELF-TREATING DMA – LANDSCAPE
- BIORETENTION – C.3 BASIN
- DIRECTION OF FLOW
- STORM DRAIN MANHOLE
- STORM DRAIN INLET
- WETLAND BOUNDARY

PRELIMINARY
NOT FOR CONSTRUCTION

MAY 02, 2018

Call Two Working Days Before You Dig!
1-800-227-2600

BY	DATE	REVISIONS

Bellecci & Associates, inc.
Civil Engineering • LandSurveying
2290 Diamond Boulevard, Suite 100 Concord, CA 94520
Phone (925) 685-4569 Fax (925) 685-4838

REGISTERED PROFESSIONAL ENGINEER FRANK CHARLES BELLECCI No. 34335 CIVIL STATE OF CALIFORNIA

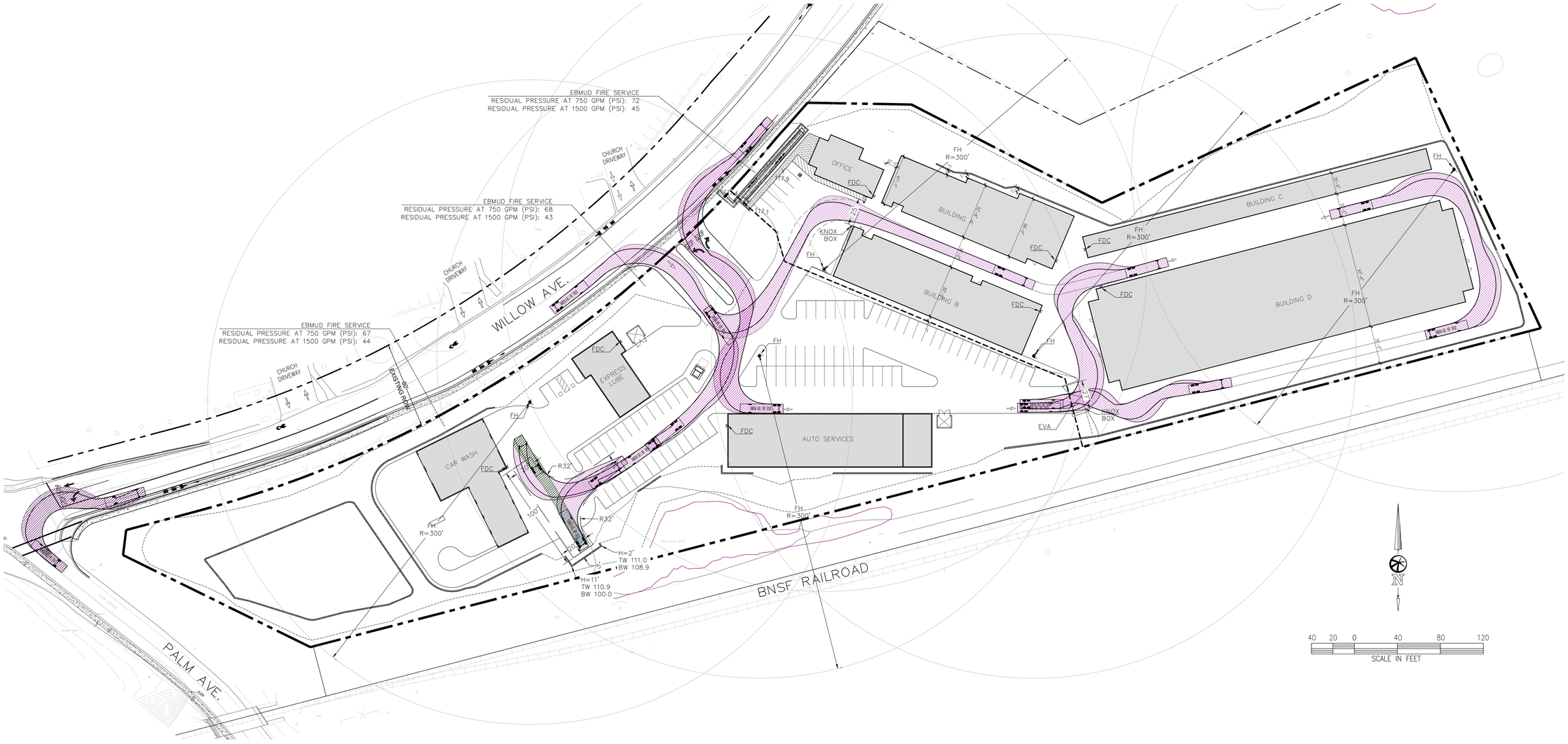
DESIGN REVIEW
WILLOW AVENUE COMMERCIAL CENTER
STORMWATER CONTROL PLAN EXHIBIT
HERCULES CONTRA COSTA COUNTY CALIFORNIA

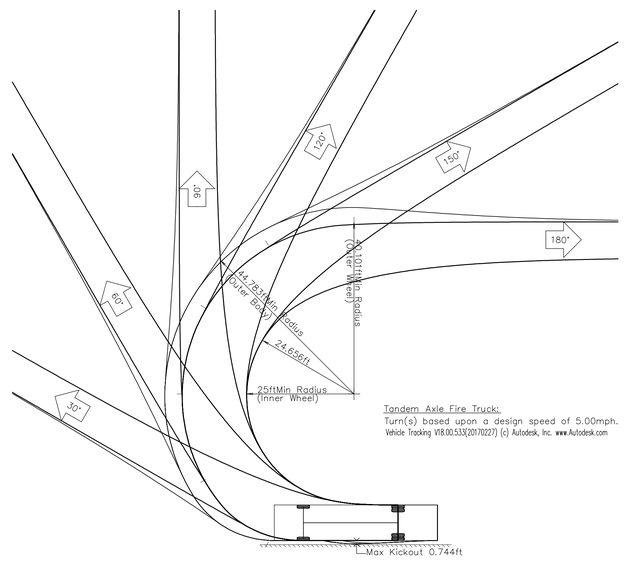
SHEET 6 OF 9
JOB NO. 13075

EBMUD FIRE SERVICE
RESIDUAL PRESSURE AT 750 GPM (PSI): 72
RESIDUAL PRESSURE AT 1500 GPM (PSI): 45

EBMUD FIRE SERVICE
RESIDUAL PRESSURE AT 750 GPM (PSI): 68
RESIDUAL PRESSURE AT 1500 GPM (PSI): 43

EBMUD FIRE SERVICE
RESIDUAL PRESSURE AT 750 GPM (PSI): 67
RESIDUAL PRESSURE AT 1500 GPM (PSI): 44





Tandem Axle Fire Truck:
Turn(s) based upon a design speed of 5.00mph.
Vehicle Tracking V18.00.533(20170227) (c) Autodesk, Inc. www.Autodesk.com

LEGEND

- PROJECT BOUNDARY
- EXISTING CONTOUR
- PROPOSED CONTOUR
- TOE–TOP OF SLOPE
- RETAINING WALL
- EDGE OF NEW PAVEMENT
- PROPOSED FOOTPRINT
- EXISTING WETLAND
- TURNING MOVEMENT PATH OF TRAVEL

PRELIMINARY

DATE UPDATED: JUNE 6, 2018

Call Two Working Days Before You Dig!
1-800-227-2600

BY	DATE	REVISIONS

Bellecci & Associates, inc.
Civil Engineering • LandSurveying
2290 Diamond Boulevard, Suite 100 Concord, CA 94520
Phone (925) 685-4569 Fax (925) 685-4838

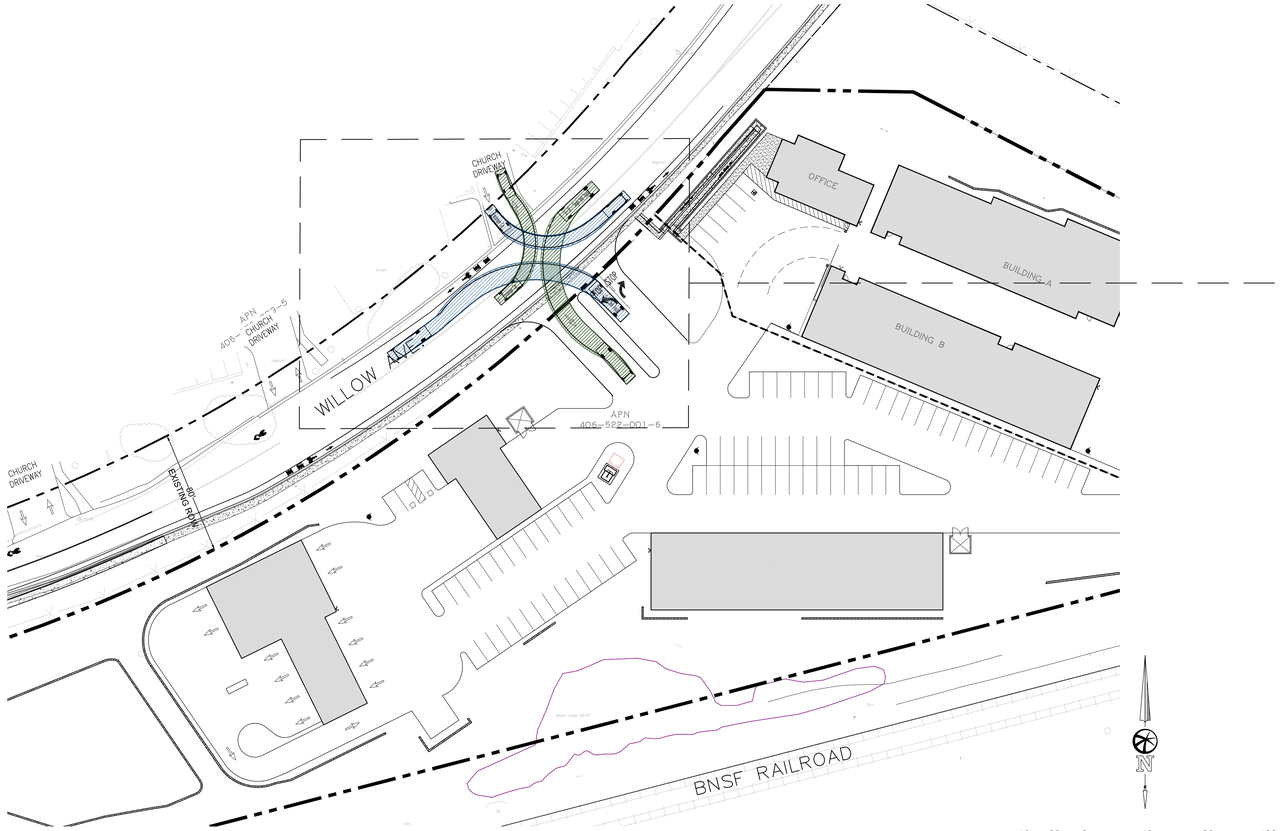
REGISTERED PROFESSIONAL ENGINEER FRANK GABRIELE BELLECCI No. 34867 CIVIL STATE OF CALIFORNIA
NOT VALID WITHOUT ORIGINAL SIGNATURE

WILLOW AVENUE COMMERCIAL CENTER DESIGN REVIEW

EVA/FIRE DESIGN

HERCULES CONTRA COSTA COUNTY CALIFORNIA

SHEET 7 OF 9
JOB NO. 17024



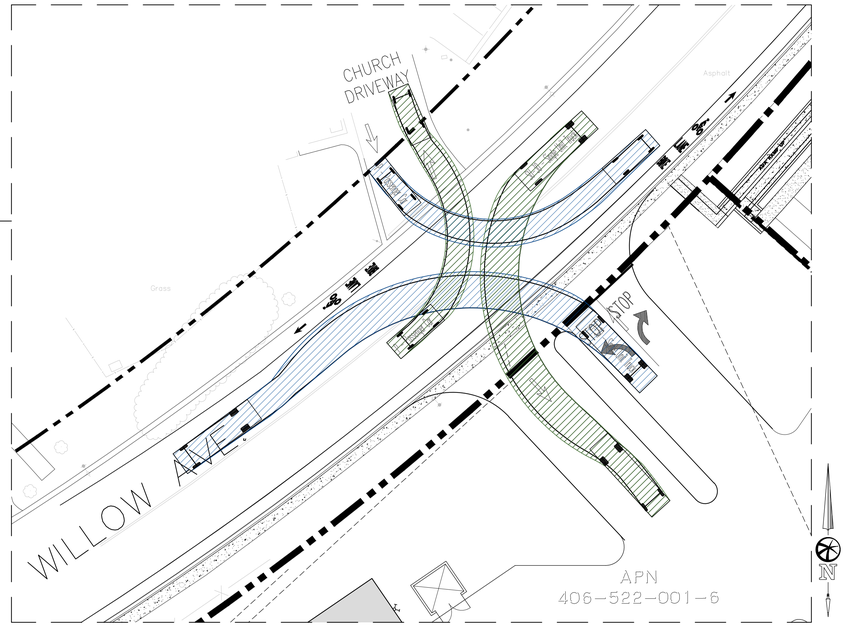
CALIFORNIA LEGAL DESIGN VEHICLE: SU-30 SINGLE UNIT TRUCK (SELF-STORAGE) & P-PASSENGER CAR (CHURCH)

TURNING MOVEMENT: INBOUND LEFT TURNS

TURNING MOVEMENT: OUTBOUND LEFT TURNS

40 20 0 40 80 120

SCALE IN FEET



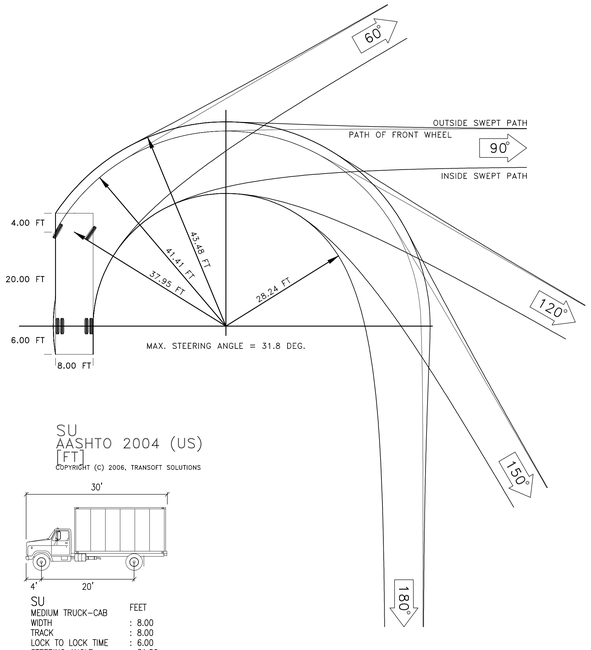
CALIFORNIA LEGAL DESIGN VEHICLE: SU-30 SINGLE UNIT TRUCK (SELF-STORAGE) & P-PASSENGER CAR (CHURCH)

TURNING MOVEMENT: INBOUND LEFT TURNS

TURNING MOVEMENT: OUTBOUND LEFT TURNS

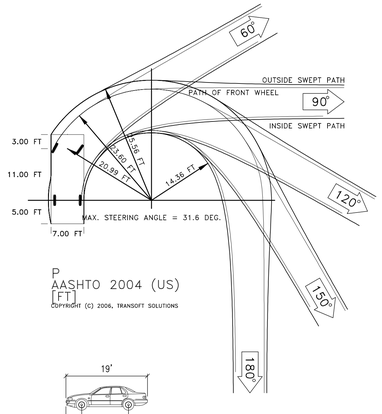
20 10 0 20 40 60

SCALE IN FEET

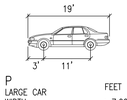


SU
AASHTO 2004 (US)
[FT]

SU MEDIUM TRUCK-CAB	FEET
WIDTH	: 8.00
TRACK	: 8.00
LOCK TO LOCK TIME	: 6.00
STEERING ANGLE	: 31.80



P
AASHTO 2004 (US)
[FT]



P LARGE CAR	FEET
WIDTH	: 7.00
TRACK	: 6.00
LOCK TO LOCK TIME	: 6.00
STEERING ANGLE	: 31.60

NOTE:
THIS EXHIBIT DEPICTS PASSENGER VEHICLES ENTERING AND EXITING THE CHURCH DRIVEWAY VIA LEFT TURNS; AND 30' SINGLE UNIT MOVING TRUCKS ENTERING AND EXITING THE SELF-STORAGE/COMMERIAL FACILITY DRIVEWAY VIA LEFT TURNS.

LEGEND

- PROJECT BOUNDARY
- EXISTING CONTOUR
- PROPOSED CONTOUR
- TOE-TOP OF SLOPE
- RETAINING WALL
- EDGE OF NEW PAVEMENT
- PROPOSED FOOTPRINT
- EXISTING WETLAND
- TURNING MOVEMENT PATH OF TRAVEL

DATE UPDATED: JULY 11, 2018

Call Two Working Days Before You Dig!

1-800-227-2600

PRELIMINARY

BY	DATE	REVISIONS

Bellecci & Associates, inc.
Civil Engineering • LandSurveying
2290 Diamond Boulevard, Suite 100 Concord, CA 94520
Phone (925) 685-4569 Fax (925) 685-4938

REGISTERED PROFESSIONAL ENGINEER FRANK CHARLES BELLECCI No. 34867 CIVIL STATE OF CALIFORNIA

NOT VALID WITHOUT ORIGINAL SIGNATURE

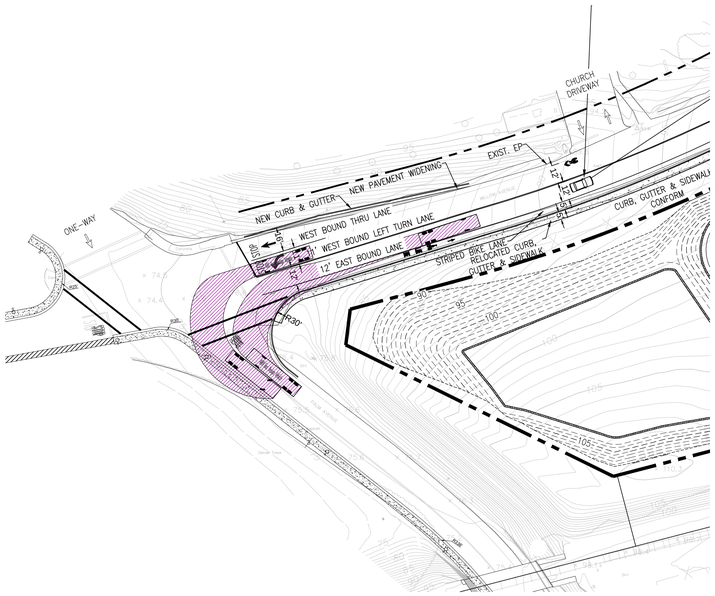
WILLOW AVENUE COMMERCIAL CENTER DESIGN REVIEW

VEHICLE TURNING MOVEMENTS

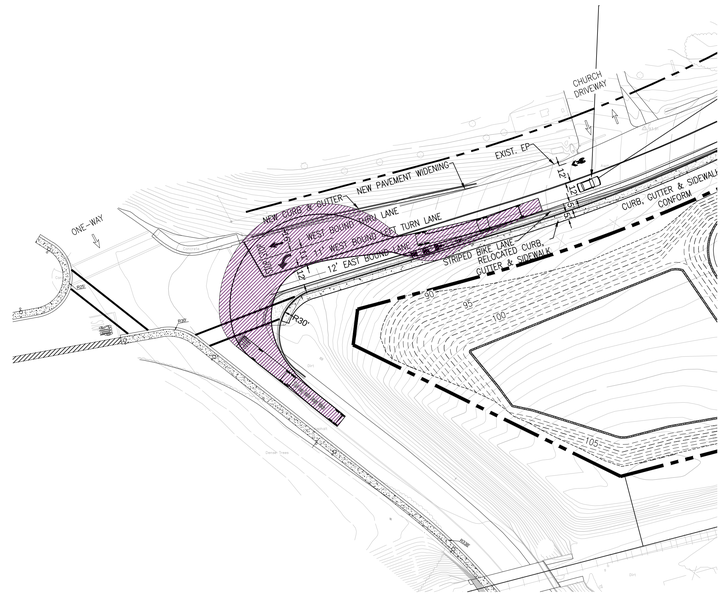
HERCULES CONTRA COSTA COUNTY CALIFORNIA

SHEET 8 OF 9

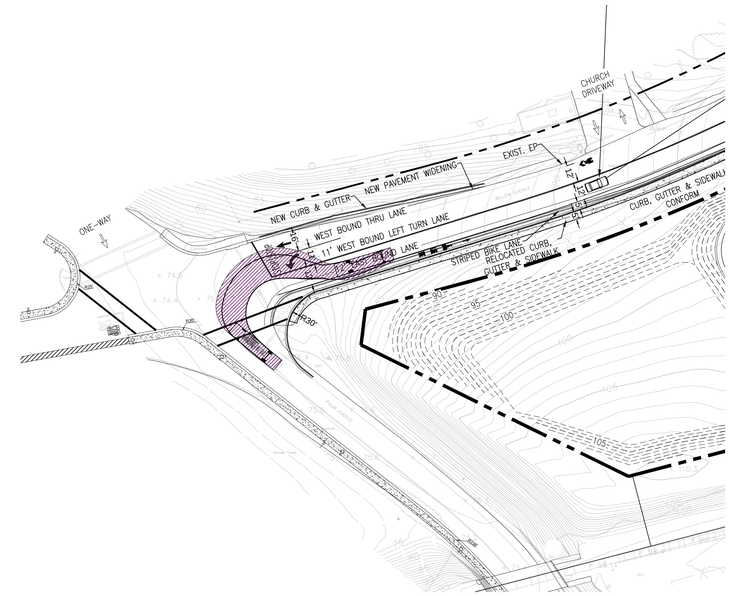
JOB NO. 17024



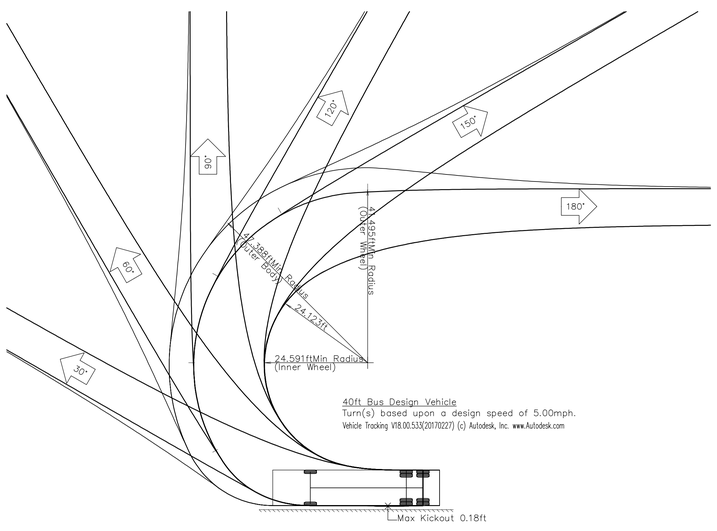
40FT BUS DESIGN VEHICLE
TURNING MOVEMENTS: WILLOW AVE & PALM AVE

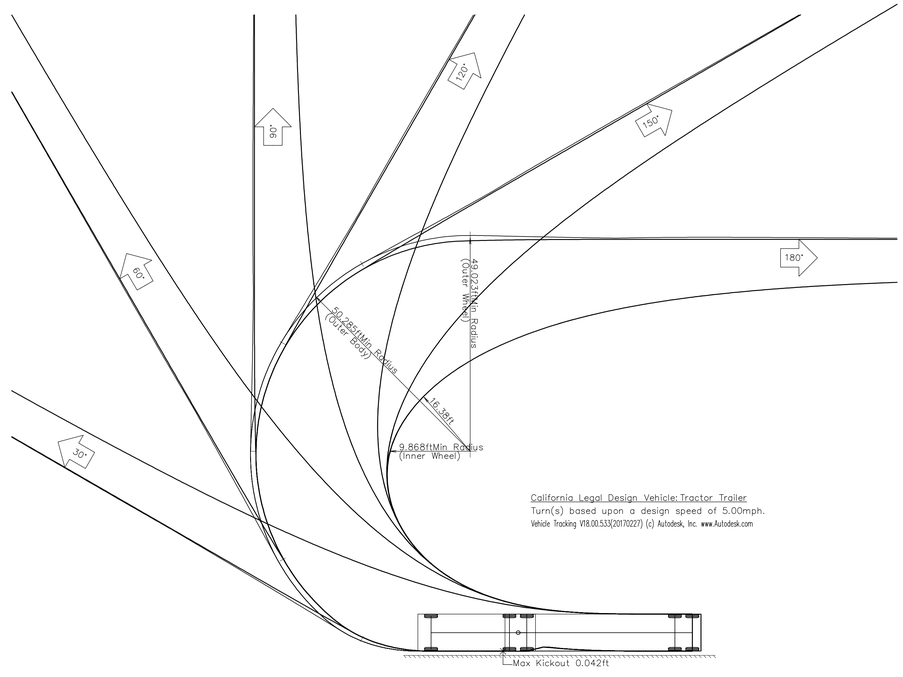


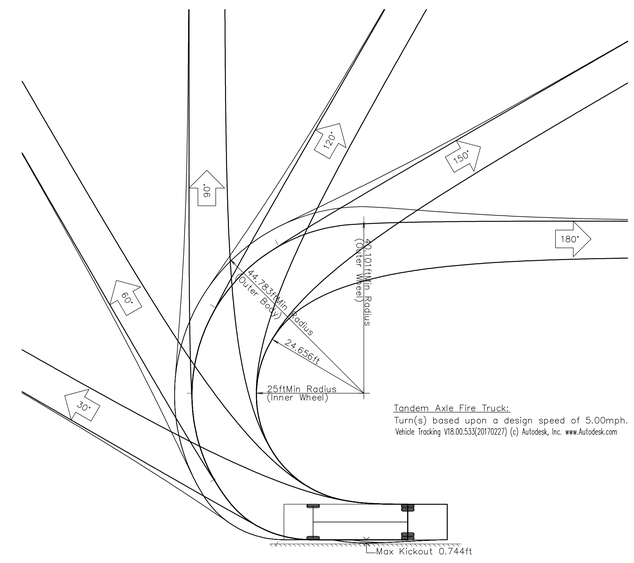
CALIFORNIA LEGAL DESIGN VEHICLE: TRACTOR TRAILER
TURNING MOVEMENT: RIGHT TURN, PALM AVE TO WILLOW AVE



TANDEM AXEL FIRE TRUCK, HERCULES RODEO FIRE DISTRICT
TURNING MOVEMENT: RIGHT TURN, PALM AVE TO WILLOW AVE







NOTE:
THE PALM AVE./WILLOW AVE. CURVE FRONTING THE PROJECT PROPOSES IMPROVEMENTS TO ACCOMMODATE A WESTBOUND LEFT TURN LANE FROM WILLOW AVE. TO PALM AVE., A STRIPED SHARROW LANE IN THE WESTBOUND DIRECTION OF WILLOW AVE., AND A STRIPED CLASS II BIKE LANE IN THE EASTBOUND DIRECTION OF WILLOW AVE.
IN ORDER FOR LARGE VEHICLES TO BE ACCOMMODATED ON PALM AVE., THE PALM/WILLOW INTERSECTION REQUIRES A REDESIGN, AS WELL AS THE EXISTING BNSF RAILROAD BRIDGE CROSSING PALM AVE. TO THE SOUTH OF THE INTERSECTION.

N

40 20 0 40 80 120
SCALE IN FEET

LEGEND

- PROJECT BOUNDARY
- EXISTING CONTOUR
- PROPOSED CONTOUR
- TOE–TOP OF SLOPE
- RETAINING WALL
- EDGE OF NEW PAVEMENT
- PROPOSED FOOTPRINT
- EXISTING WETLAND
- TURNING MOVEMENT PATH OF TRAVEL

DATE UPDATED: JUNE 4, 2018

Call Two Working Days Before You Dig!
USA NORTH
1-800-227-2600

PRELIMINARY

BY	DATE	REVISIONS

Bellecci & Associates, inc.
Civil Engineering • LandSurveying
2290 Diamond Boulevard, Suite 100 Concord, CA 94520
Phone (925) 685-4569 Fax (925) 685-4838

REGISTERED PROFESSIONAL ENGINEER FRANK GABRIELE BELLECCI No. 34355 CIVIL STATE OF CALIFORNIA

NOT FOR CONSTRUCTION

WILLOW AVENUE COMMERCIAL CENTER DESIGN REVIEW

VEHICLE TURNING MOVEMENTS

HERCULES CONTRA COSTA COUNTY CALIFORNIA

SHEET 9 OF 9
JOB NO. 17024