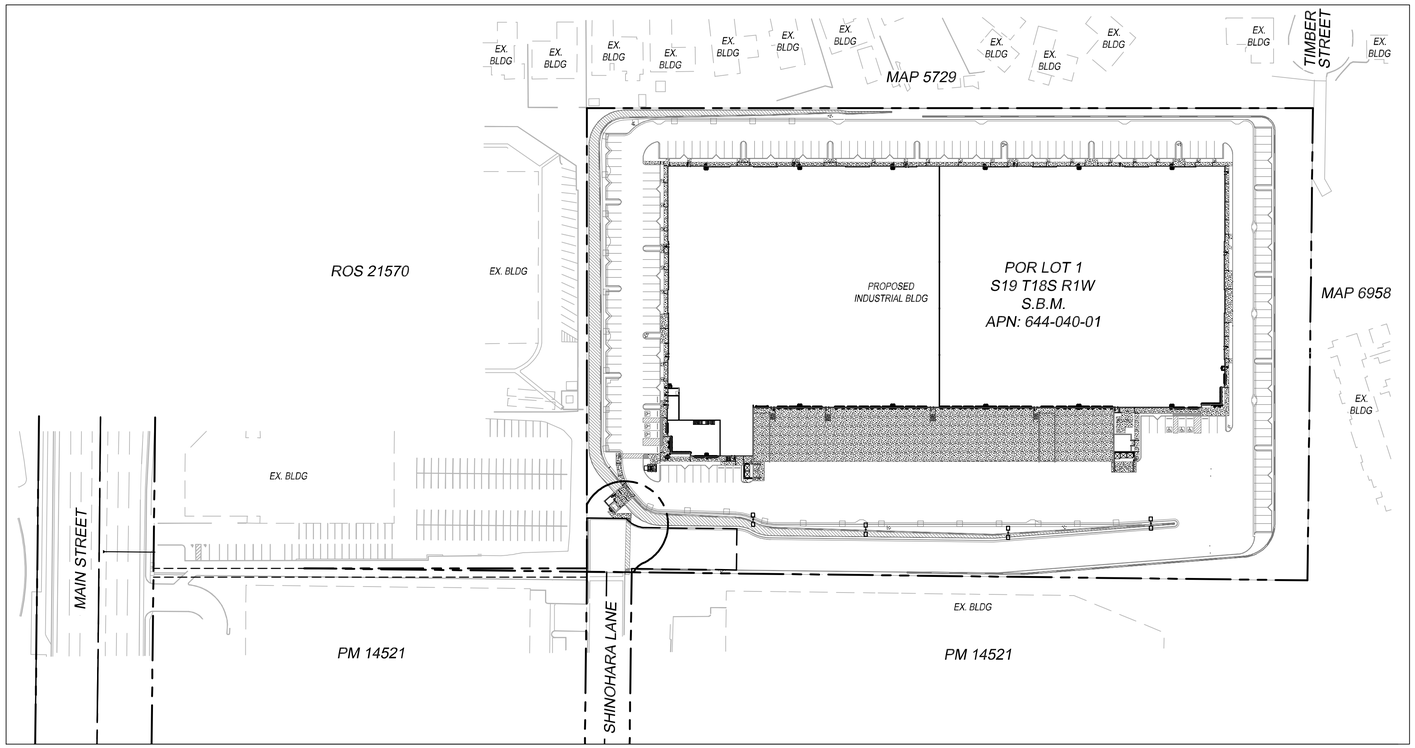
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DESIGN REVIEW FOR PROJECT SHINOHARA

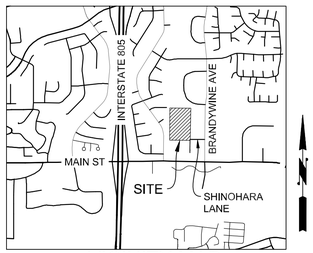
DR21-0032

LEGEND

- RIGHT OF WAY
- PROPERTY LINE
- EXISTING EASEMENT LINE
- PROPOSED EASEMENT LINE
- 685 EXISTING CONTOURS
- 685 PROPOSED CONTOURS
- PROPOSED SLOPE (2:1 MAX)
- C / F PROPOSED CUT/FILL LINE
- PROPOSED LIMIT OF GRADING
- PROPOSED AC PAVEMENT
- PROPOSED CONCRETE PAVEMENT
- PROPOSED 6" CURB (PER SDRSD G-01)
- PROPOSED 6" CURB & GUTTER (PER SDRSD G-02)
- PROPOSED 3' RIBBON GUTTER
- PROPOSED RETAINING WALL
- PROPOSED SCREEN WALL
- PROPOSED DEEPENED FOOTING
- PROPOSED BROW DITCH
- PROPOSED FENCE
- S EXISTING SEWER LINE
- S PROPOSED PRIVATE SEWER (PER C.O.C.V. SWR-05) & CLEANOUT (PER SDRSD SC-01)
- EXISTING STORM DRAIN
- PROPOSED STORM DRAIN (SIZE PER PLAN)
- W EXISTING WATER LINE
- W PROPOSED 2" PRIVATE WATER LINE
- F PROPOSED 8" PRIVATE FIRE LINE
- W PROPOSED 2" WATER METER, 2" WATER SERVICE & BACKFLOW (PER C.O.E. W-2-E & W-10-E)
- I PROPOSED 2" IRRIGATION SERVICE
- PROPOSED FIRE HYDRANT (PER W.A.S. WF-02)
- PROPOSED FIRE DEPARTMENT CONNECTION
- PROPOSED POST INDICATOR VALVE
- PROPOSED GATE VALVE
- PROPOSED THRUST BLOCK
- PROPOSED BACKFLOW PREVENTION ASSEMBLY (PER W.A.S. WR-02)
- F PROPOSED BUILDING FIRE POINT OF CONNECTION
- S PROPOSED BUILDING SEWER POINT OF CONNECTION
- W PROPOSED BUILDING WATER POINT OF CONNECTION
- RD PROPOSED ROOF DRAIN
- P PROPOSED PUMP
- T PROPOSED TRANSFORMER
- PROPOSED TYPE F CATCH BASIN
- PROPOSED TYPE A STORM DRAIN CLEANOUT (PER SDRSD D-09)
- PROPOSED TYPE G CATCH BASIN (TYPE PER PLAN, PER SDRSD D-08)
- PROPOSED LIGHT
- EXISTING STREET LIGHT
- TRUNCATED DOMES (SDRSD G-30)
- PROPOSED BIOCLEAN MODULAR WETLAND SYSTEM
- PROPOSED STORMCAPTURE DETENTION SYSTEM
- PROPOSED TREE WELL



KEY MAP
SCALE 1"=80'



VICINITY MAP
NOT TO SCALE

OWNER

VWP-OP SHINOHARA OWNER, LLC
2390 E. CAMELBACK ROAD, SUITE 305
PHOENIX, AZ 85016

CIVIL ENGINEER

PASCO LARET SUITER & ASSOCIATES
119 ABERDEEN DRIVE
CARDIFF, CA 92007
(858) 259-8212

GEOTECHNICAL ENGINEER

GEOCON INCORPORATED
6960 FLANDERS DRIVE
SAN DIEGO, CA 92121
(858) 558-6900

ARCHITECT

WARE MALCOMB
3911 SORRENTO VALLEY BOULEVARD
SAN DIEGO, CA 92121
(858) 638-7277

SITE ADDRESS

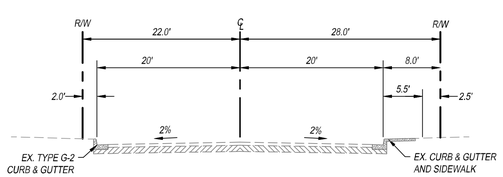
517 SHINOHARA LANE
CHULA VISTA, CA 91911

APN

644-040-01

SHEET INDEX

C1.0 - TITLE SHEET
C2.0 - EXISTING CONDITIONS
C3.0 - SECTIONS
C4.0 - SECTIONS
C5.0 - SITE PLAN
C6.0 - PRELIMINARY GRADING PLAN
C7.0 - PRELIMINARY UTILITY PLAN
C8.0 - PRELIMINARY FIRE PLAN
C9.0 - PRELIMINARY FIRE TRUCK TURN PLAN



SHINOHARA LANE TYPICAL SECTION

ABREVIATIONS

AC	ACRE / ACREAGE
APN	ASSESOR PARCEL NO.
BMP	BEST MANAGEMENT PRACTICE
BO	BLOW-OFF
CAV	COMBINATION AIR VALVE
CB	CATCH BASIN
CL	CENTERLINE
CO	CLEANOUT
CSP	CORRUGATED STEEL PIPE
CY	CUBIC YARDS
C&G	CURB AND GUTTER
DIA	DIAMETER
DWY	DRIVEWAY
ESMT	EASEMENT
EX	EXISTING
FF	FINISHED FLOOR
FG	FINISHED GRADE
FH	FIRE HYDRANT
FL	FLOW LINE
FS	FINISHED SURFACE
GB	GRADE BREAK
GV	GATE VALVE
H	HEIGHT
IE	INVERT ELEVATION
MAX	MAXIMUM
MIN	MINIMUM
MH	MANHOLE
MWS	MODULAR WETLAND SYSTEM
PL	PROPERTY LINE
POC	POINT OF CONNECTION
PROP	PROPOSED
RCP	REINFORCED CONCRETE PIPE
ROW	RIGHT OF WAY
RW	RETAINING WALL
SD	STORM DRAIN
SF	SQUARE FEET
SFM	SEWER FORCE MAIN
SSMH	SANITARY SEWER MANHOLE
SS	SANTIARY SEWER
TC	TOP OF CURB
TSW	TOP OF SCREEN WALL
TW	TOP OF WALL
TYP	TYPICAL
W	WATER
WM	WATER METER

OWNER'S CERTIFICATE

WE HEREBY CERTIFY THAT WE ARE THE RECORD OWNERS OF THE PROPERTY SHOWN ON THE TENTATIVE MAP AND THAT SAID MAP SHOWS ALL OUR CONTIGUOUS OWNERSHIP IN WHICH WE HAVE ANY DEED OR TRUST INTEREST, WE UNDERSTAND THAT OUR PROPERTY IS CONSIDERED CONTIGUOUS EVEN IF IT IS SEPARATED BY ROADS, STREETS, UTILITY EASEMENTS, OR RAILROAD RIGHTS-OF-WAY.

BY: _____ DATE: _____

DEVELOPER

BY: _____ DATE: _____

ENGINEER OF WORK

REGISTERED PROFESSIONAL ENGINEER · GREGORY W. LANG · No. RCE 68075 · EXP. 06-30-23 · Civil · STATE OF CALIFORNIA

GREGORY W. LANG, RCE NO. 68075 DATE

PROJECT INFORMATION

PROPOSED LAND USE:	INDUSTRIAL
GENERAL PLAN DESIGNATION:	IL - LIMITED INDUSTRIAL
EXISTING ZONING:	ILP (LIMITED INDUSTRIAL PRECISE PLAN)
PROPOSED ZONING:	ILP (LIMITED INDUSTRIAL PRECISE PLAN)
PARCEL AREA:	9.72 ACRES (423,779 SF)
AREA OF DISTURBANCE:	9.67 ACRES (421,173 SF)
EXISTING TOTAL NUMBER OF LOTS:	1
PROPOSED NUMBER OF LOTS:	1
WATER DISTRICT:	OTAY WATER DISTRICT
SEWER DISTRICT:	CITY OF CHULA VISTA
FIRE DISTRICT:	CITY OF CHULA VISTA FIRE DEPARTMENT
SCHOOL DISTRICT:	SWEETWATER UNION HIGH SCHOOL DISTRICT
TOPOGRAPHIC SOURCE:	TOPOGRAPHIC SURVEY DATED JUNE 20, 2021 (BY RANCHO LAND COMPANY)

LEGAL DESCRIPTION

THAT PORTION OF LOT 1, SECTION 19, TOWNSHIP 18 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, IN THE CITY OF CHULA VISTA, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT THEREOF, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF SAID SECTION 19; THENCE SOUTH ALONG THE WEST LINE OF SAID SECTION, 812 FEET; THENCE EASTERLY AT RIGHT ANGLES TO SAID WEST LINE, 515 FEET; THENCE SOUTHERLY PARALLEL WITH SAID WEST LINE 508 FEET; THENCE EASTERLY AT RIGHT ANGLES 13 FEET; THENCE NORTHERLY PARALLEL WITH THE WEST LINE OF SAID SECTION, 1320 FEET TO THE NORTH LINE OF SAID SECTION; THENCE WEST ALONG SAID NORTH LINE, 528 FEET TO THE POINT OF BEGINNING.

PRELIMINARY GRADING QUANTITIES

GRADED AREA . . . . . 9.67 [ACRES]

CUT QUANTITIES . . . . . 133,000 [CYD] MAX. CUT DEPTH 52 [FT]

FILL QUANTITIES . . . . . 132,000 [CYD] MAX CUT SLOPE RATIO 2:1

ANTICIPATED SPOILS . . . 4,000 [CYD] MAX. FILL DEPTH 48 [FT]

EXPORT . . . . . 5,000 [CYD] MAX FILL SLOPE RATIO 2:1

NOTE:
THE GRADING QUANTITIES ABOVE ARE AN ESTIMATE FOR PERMITTING PURPOSES ONLY. THE QUANTITIES ABOVE DO NOT REFLECT SPOILS DUE TO LOSS FROM CLEARING AND GRUBBING, STRIPPING, SHRINKAGE, SWELL, BULKING, UNSUITABLE MATERIALS, REMEDIAL GRADING, UTILITY TRENCH SPOILS, UNDERGROUND STORM WATER VAULTS, RETAINING WALL BACKFILL, BUILDING FOUNDATIONS/FOOTINGS, ETC. SUBGRADE IS ASSUMED TO BE 1-FOOT BELOW PROPOSED FINISH GRADE, TO ACCOUNT FOR PAVEMENT AND SLAB THICKNESSES.

STANDARD DRAWINGS

CITY OF CHULA VISTA DESIGN AND CONSTRUCTION STANDARDS - 2017 (C.O.C.V.)
SAN DIEGO REGIONAL STANDARD DRAWINGS - 2018 (SDRSD)
WATER AGENCIES' STANDARDS (W.A.S.)

NOTES

GRADING AND IMPROVEMENTS SHALL BE IN ACCORDANCE WITH CITY OF CHULA VISTA DESIGN AND CONSTRUCTION STANDARDS.

EASEMENTS OF RECORD NOT SHOWN HEREON SHALL BE HONORED, ABANDONED AND/OR RELOCATED TO THE SATISFACTION OF ALL INTERESTED PARTIES, AND PUBLIC UTILITY EASEMENT NECESSARY TO SERVE THIS PROJECT WILL BE COORDINATED WITH SERVING UTILITY COMPANIES.

ALL EXISTING UTILITIES ARE SHOWN PER AVAILABLE RECORDS. ACTUAL FIELD CONDITIONS MAY VARY.

THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY AND COPYRIGHT OF WARE MALCOMB AND SHALL NOT BE USED ON ANY OTHER WORK EXCEPT BY AGREEMENT WITH WARE MALCOMB. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS AND SHALL BE VERIFIED ON THE JOB SITE. ANY DISCREPANCY SHALL BE BROUGHT TO THE NOTICE OF WARE MALCOMB PRIOR TO THE COMMENCEMENT OF ANY WORK.

PASCO LARET SUITER & ASSOCIATES
San Diego | Solana Beach | Orange County
Phone 858.259.8212 | www.plsaengineering.com

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SHINOHARA BUSINESS CENTER

517 SHINOHARA LANE
CHULA VISTA, CA 91911

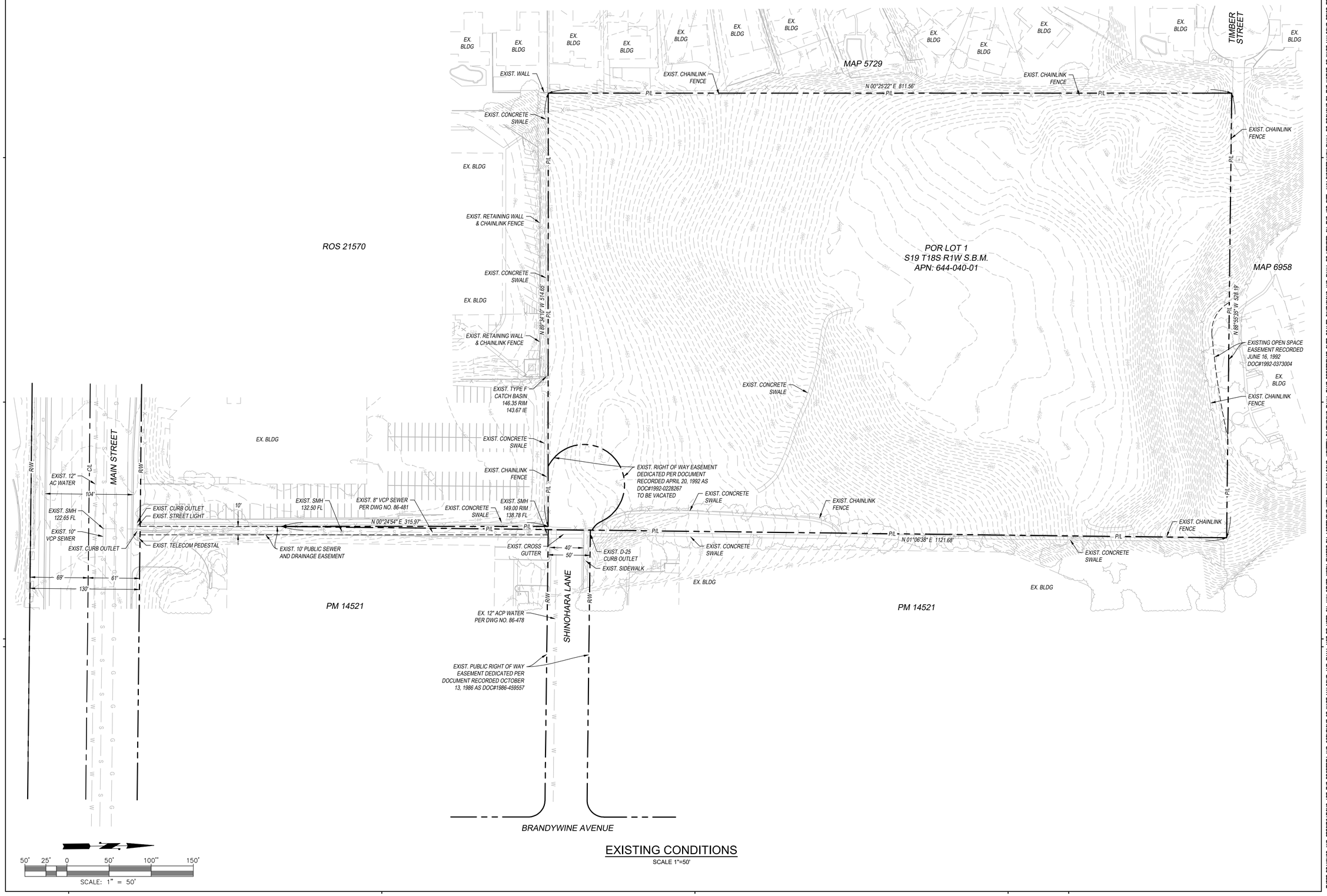
TITLE SHEET

DATE	REMARKS
11/22/2021	DESIGN REVIEW SUBMITTAL
02/14/2022	DESIGN REVIEW RESUBMITTAL
05/20/2022	DESIGN REVIEW RESUBMITTAL

PA/PM:	GL
DRAWN BY.:	MM
JOB NO.:	3690

SHEET
C1.0

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EXISTING CONDITIONS

SCALE 1"=50'

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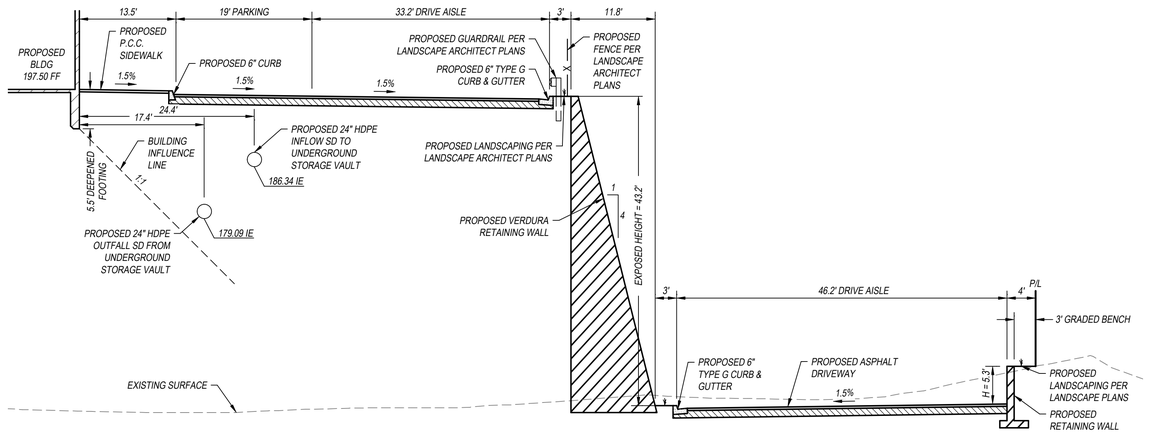
EXISTING CONDITIONS

DATE	REMARKS
11/22/2021	DESIGN REVIEW SUBMITTAL
02/14/2022	DESIGN REVIEW RESUBMITTAL
05/20/2022	DESIGN REVIEW RESUBMITTAL

PA/PM:	GL
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JOB NO.:	3690

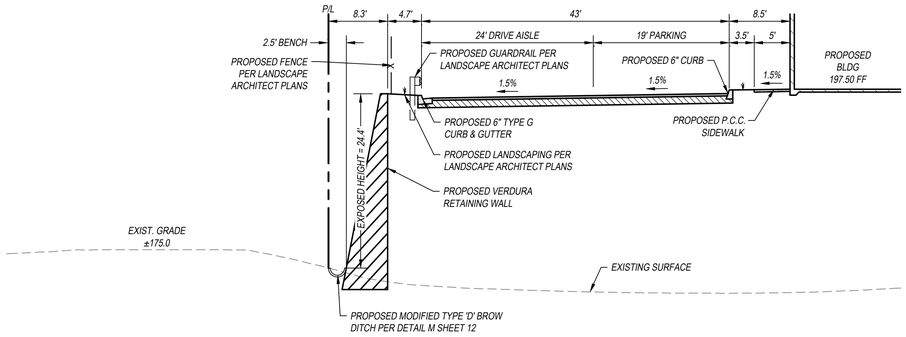
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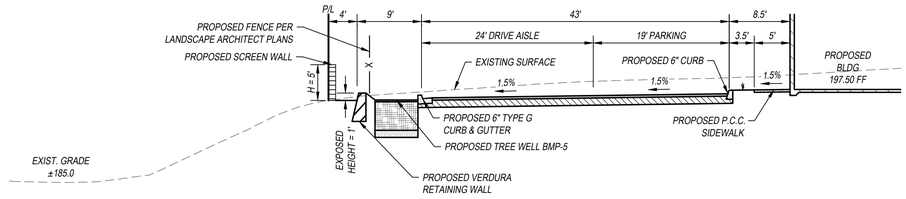
A SITE SECTION

SCALE 1" = 10'



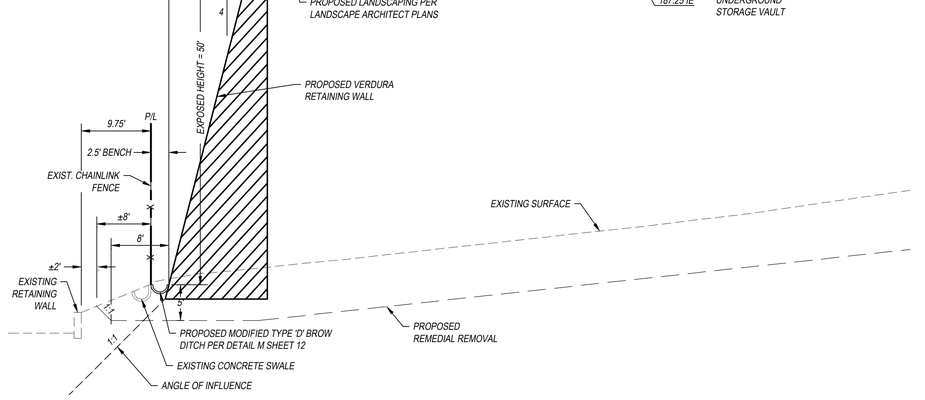
C SITE SECTION

SCALE 1" = 10'



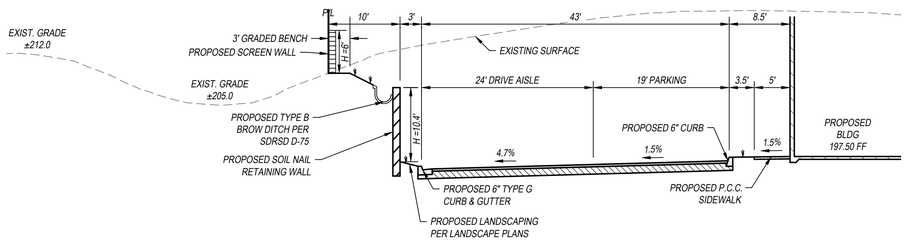
D SITE SECTION

SCALE 1" = 10'



B SITE SECTION

SCALE 1" = 10'



E SITE SECTION

SCALE 1" = 10'

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517 SHINOHARA LANE
CHULA VISTA, CA 91911

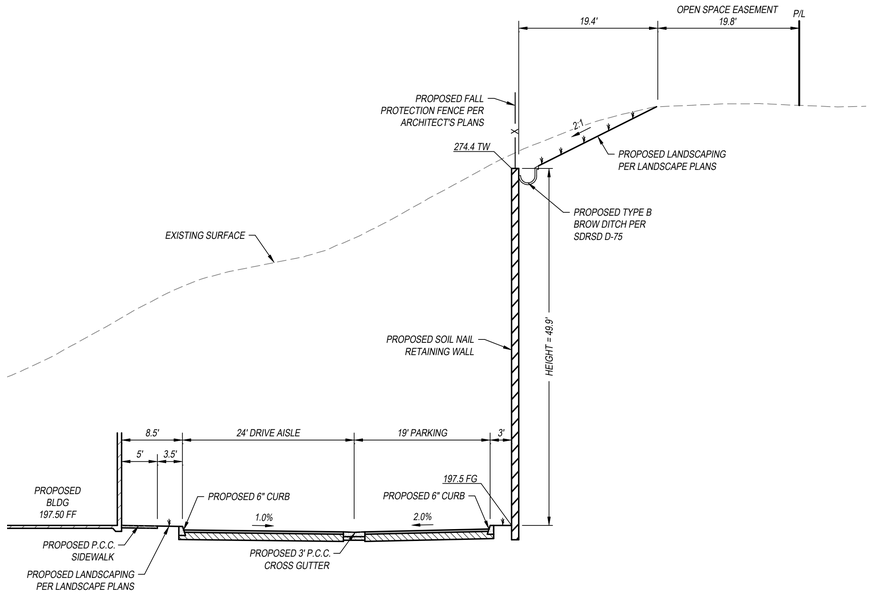
SECTIONS

DATE	REMARKS
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02/14/2022	DESIGN REVIEW RESUBMITTAL
05/20/2022	DESIGN REVIEW RESUBMITTAL

PA/PM:	GL
DRAWN BY.:	MM
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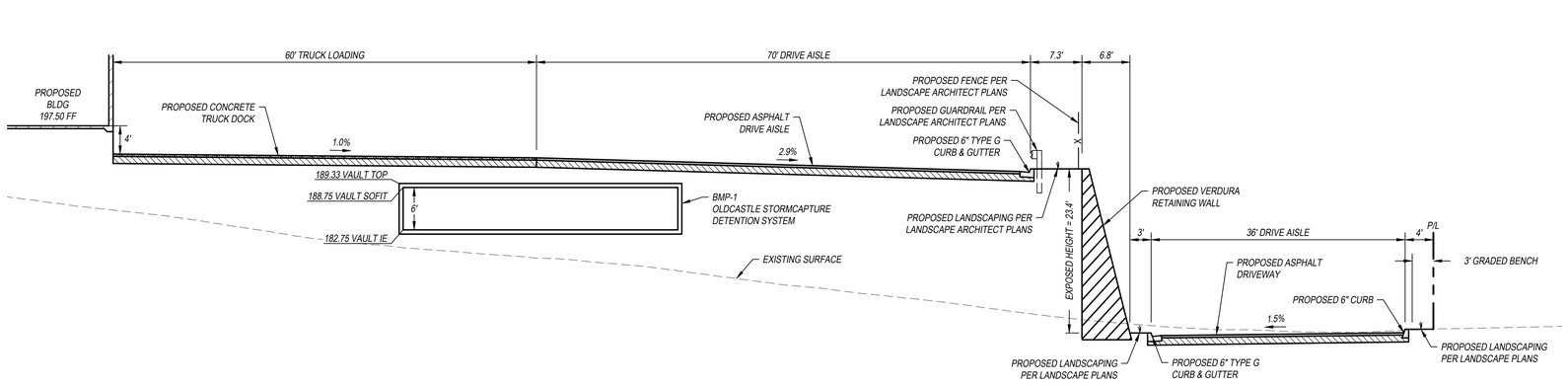
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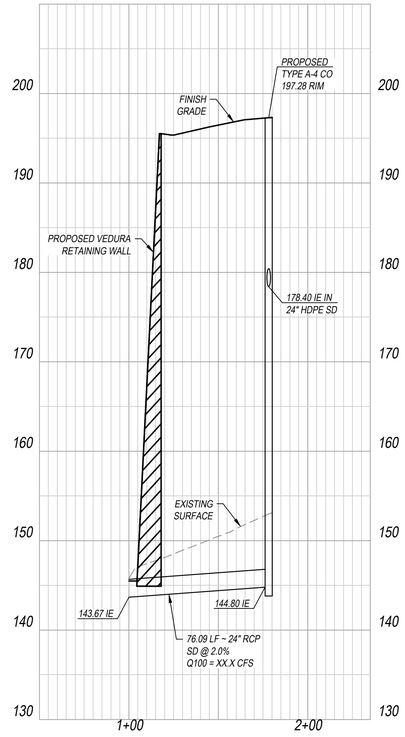
F SITE SECTION

SCALE 1" = 10'



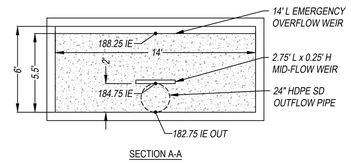
G SITE SECTION

SCALE 1" = 10'

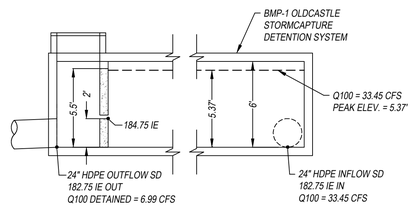


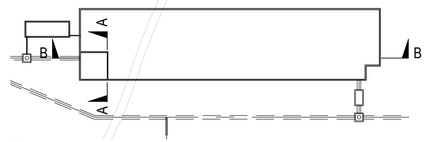
H STORM DRAIN 'A' PROFILE

HORZ. SCALE 1" = 40'
VERT. SCALE 1" = 8'



SECTION A-A





I BMP-1 STORMCAPTURE DETENTION SYSTEM DETAIL

NOT TO SCALE

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SECTIONS

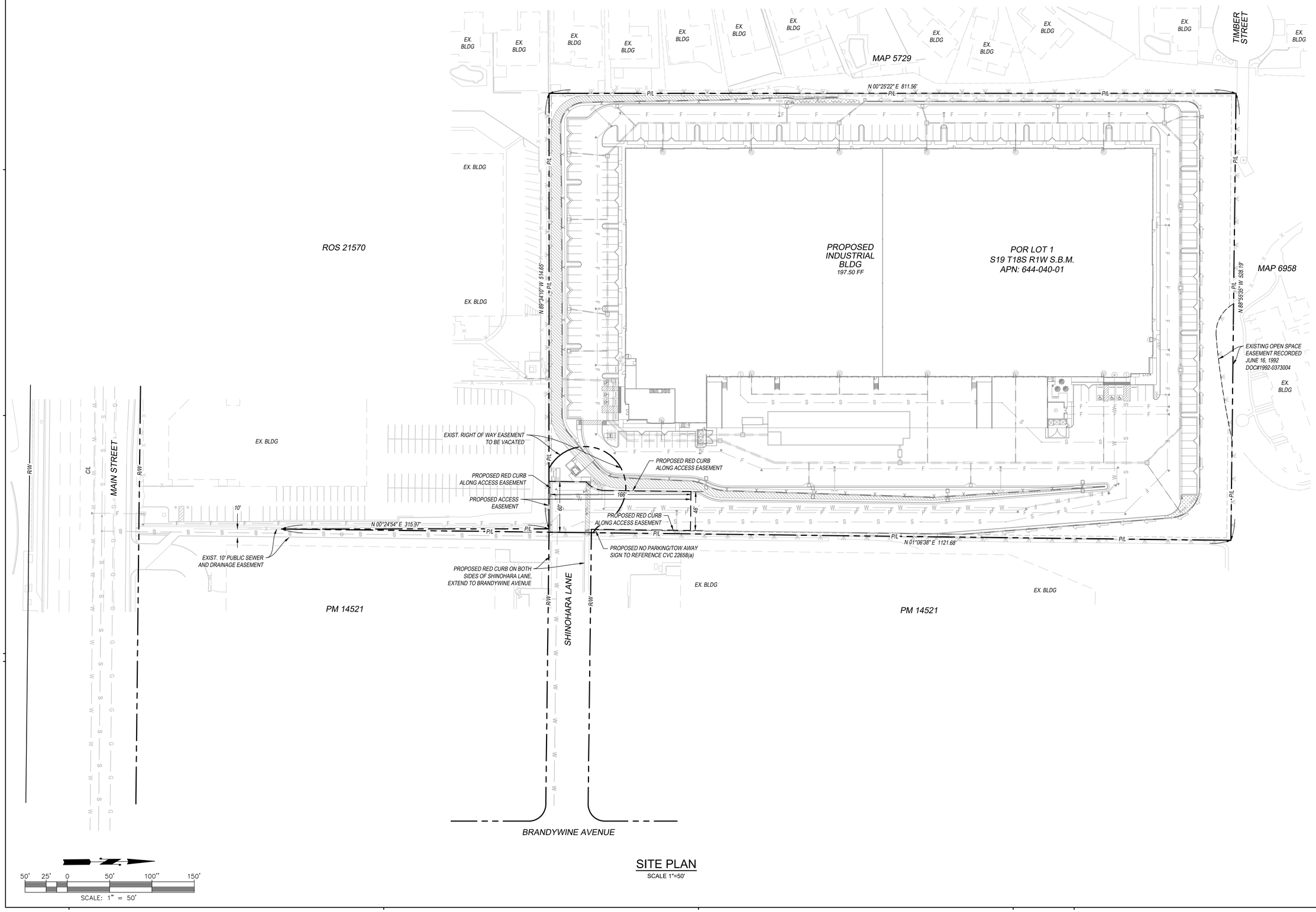
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05/20/2022	DESIGN REVIEW RESUBMITTAL

PA/PM:	GL
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JOB NO.:	3690

SHEET

C4.0

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50' 25' 0 50' 100'' 150'

SCALE: 1" = 50'

SITE PLAN

SCALE 1"=50'

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SITE PLAN

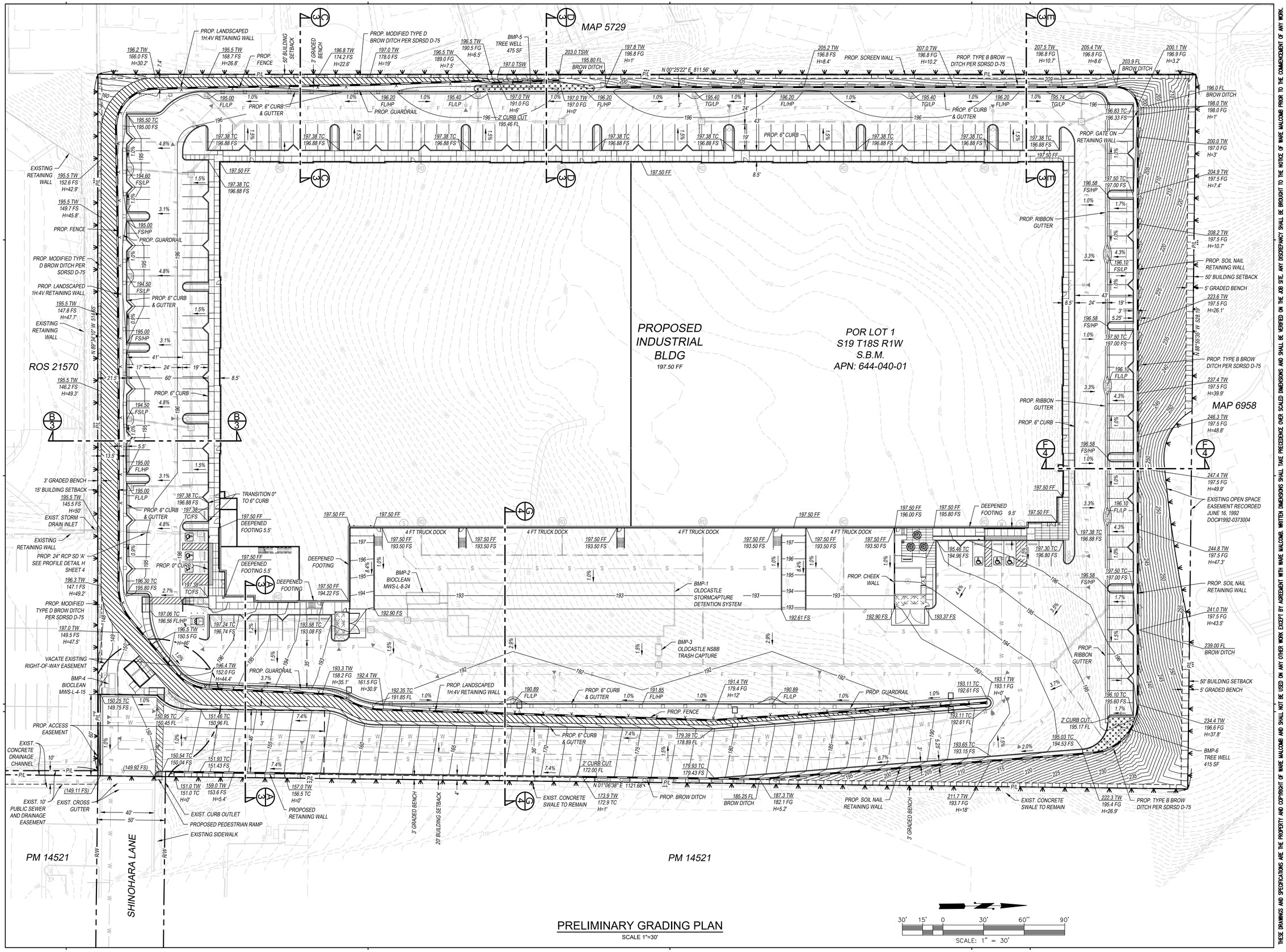
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PA/PM:	GL
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SHEET

C5.0

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PRELIMINARY GRADING PLAN

SCALE 1"=30'

30' 15' 0 30' 60" 90'

SCALE: 1" = 30'

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EXP. 06-30-23
Civil
STATE OF CALIFORNIA

SHINOHARA BUSINESS CENTER

517 SHINOHARA LANE
CHULA VISTA, CA 91911

PRELIMINARY GRADING PLAN

DATE	REMARKS
11/22/2021	DESIGN REVIEW 1 SUBMITTAL
05/19/2022	DESIGN REVIEW 2 RESUBMITTAL
06/20/2022	DESIGN REVIEW RESUBMITTAL

PA/PM:	GL
DRAWN BY.:	MM
JOB NO.:	3690

SHEET
C6.0

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PRELIMINARY UTILITY PLAN

SCALE 1"=30'

SCALE: 1" = 30'

PM 14521

PROPOSED INDUSTRIAL BLDG
197.50 FF

POR LOT 1
S19 T18S R1W
S.B.M.
APN: 644-040-01

ROS 21570

MAP 5729

MAP 6958

MATCHLINE - SEE RIGHT

MATCHLINE - SEE LEFT

SHINOHARA LANE

MAIN STREET

PROP. TYPE G-1 CATCH BASIN PER SDRSD D-08 195.00 FL 191.00 IE OUT

APPROXIMATE LIMIT OF RETAINING WALL GRID ZONE

PROP. MODIFIED TYPE D BROW DITCH PER SDRSD D-75

6" PERFORATED PVC UNDERDRAIN PIPE @ 1.0% MIN

6" CLEANOUT 191.50 IE

BMP-5 TREE WELL, 195.25 FG AREA = 475 SF DEPTH = 4 FT VOLUME = 1,900 CF

6" CLEANOUT 192.30 IE

195.80 FL BROW DITCH

PROP. TYPE G-1 CATCH BASIN PER SDRSD D-08 195.40 FL 191.40 IE OUT

PROP. TYPE G-1 CATCH BASIN PER SDRSD D-08 195.40 FL 191.40 IE OUT

PROP. TYPE B BROW DITCH PER SDRSD D-75

PROP. TYPE G-1 CATCH BASIN PER SDRSD D-08 195.74 FL 191.70 IE OUT

203.50 FL BROW DITCH

196.00 FL BROW DITCH

PROP. TYPE F CATCH BASIN PER SDRSD D-07 197.13 RIM 196.00 FL 192.00 IE OUT

196.00 FL BROW DITCH

PROP. TYPE A C.O. PER SDRSD D-09 189.45 IE IN 189.12 IE OUT

PROP. TYPE G-1 CATCH BASIN PER SDRSD D-08 194.60 FL 190.60 IE OUT

PROP. FIRE HYDRANT

PROP. PRIVATE 8" FIRE

PROP. FIRE HYDRANT

2" CURB CUT 195.46 FL Q100=0.4 CFS

PROP. TYPE G-1 CATCH BASIN PER SDRSD D-08 195.40 FL 191.40 IE OUT

PROP. TYPE A C.O. PER SDRSD D-09 191.51 IE IN 191.18 IE OUT

PROP. TYPE A C.O. PER SDRSD D-09 191.30 IE IN 190.97 IE OUT

PROP. FIRE HYDRANT

PROP. TYPE A C.O. PER SDRSD D-09 189.30 IE IN 188.97 IE OUT

PROP. MODIFIED TYPE D BROW DITCH PER SDRSD D-75

PROP. TYPE G-1 CATCH BASIN PER SDRSD D-08 194.50 FL 190.50 IE OUT

APPROXIMATE LIMIT OF RETAINING WALL GRID ZONE

PROP. TYPE G-1 CATCH BASIN PER SDRSD D-08 196.10 FL 188.35 IE IN 188.02 IE OUT

PROP. FIRE HYDRANT

PROP. PRIVATE 8" FIRE

PROP. PRIVATE 8"FIRE

PROP. FIRE HYDRANT

PROP. TYPE B BROW DITCH PER SDRSD D-75

PROP. TYPE G-1 CATCH BASIN PER SDRSD D-08 196.10 FL 187.46 IE IN 187.13 IE OUT

PROP. TYPE G-1 CATCH BASIN PER SDRSD D-08 194.50 FL 190.50 IE OUT

PROP. TYPE A C.O. PER SDRSD D-09 188.02 IE IN 187.69 IE OUT

PROP. TYPE G-1 CATCH BASIN PER SDRSD D-08 195.00 FL 191.00 IE OUT

EXIST. TYPE F CATCH BASIN 146.35 RIM 143.67 IE

BMP-2 MWS-L-8-24 (UG) 4.7' OPERATING HEAD 180.55 IE IN 180.05 IE OUT

BMP-1 OLDCASTLE STORMCAPTURE DETENTION SYSTEM HEIGHT = 6 FT VOLUME = 35,824 CF VAULT IE = 182.75 VAULT SOFIT = 188.75 VAULT TOP = 189.33 SEE DETAIL 'I' SHEET 4

PROP. BUILDING SEWER P.O.C. 189.50 IE

PROP. BUILDING FIRE P.O.C.

PROP. BUILDING WATER P.O.C.

PROP. PIV & FDC

PROP. TYPE A C.O. PER SDRSD D-09 178.40 IE IN 144.80 IE OUT

PROP. SCO 189.29 IE

PROP. SCO 189.16 IE

PROP. SCO 188.16 IE

PROP. SCO 187.16 IE

PROP. 6" SEWER @ 1.0%

PROP. FIRE PUMP IN PUMP HOUSE

PROP. 24" RCP SD 'A' SEE PROFILE DETAIL 'H' SHEET 4

PROP. 24" HDPE @ 0.6%

4"-DIA LOW-FLOW ORIFICE 182.75 IE OUT

182.75 IE 24" OUT 184.75 MID-FLOW WEIR 188.25 EMERGENCY OVERFLOW WEIR

PROP. 24 HDPE @ 0.6%

PROP. SCO 186.16 IE

PROP. MODIFIED TYPE D BROW DITCH PER SDRSD D-75

VACATE EXISTING RIGHT-OF-WAY

PROP. 24" HDPE @ 0.6%

PROP. TYPE A C.O. PER SDRSD D-09 179.95 IE IN 179.62 IE OUT

182.75 IE IN

BMP-3 OLDCASTLE NSBB TRASH CAPTURE

PROP. 6" SEWER @ 2.5%

PROP. SCO 184.51 IE

PROP. SMH 182.02 IE

PROP. 24" HDPE @ 0.6%

239.00 FL BROW DITCH

PROP. TYPE A C.O. PER SDRSD D-09 186.50 IE IN (6") 185.50 IE IN (18") 185.17 IE OUT (24")

PROP. PUMP TO CURB OUTLET

PROP. PRIVATE BACKFLOW PREVENTOR

PROP. FIRE HYDRANT

APPROXIMATE LIMIT OF RETAINING WALL GRID ZONE

PROP. TYPE A C.O. PER SDRSD D-09 186.10 IE IN 185.77 IE OUT

PROP. TYPE G-1 CATCH BASIN PER SDRSD D-08 190.89 FL 186.80 IE OUT

PROP. TYPE A C.O. PER SDRSD D-09 183.44 IE IN (N) 184.49 IE IN (S) 183.11 IE OUT

PROP. TYPE G-1 CATCH BASIN PER SDRSD D-08 190.89 FL 186.80 IE OUT

PROP. FIRE HYDRANT

PROP. PRIVATE 8" FIRE

PROP. CURB OUTLET PER SDRSD D-25A

BMP-4 MWS L-4-15 (PLANTED) WITH 3' CURB INLET OPENING 3.9' OPERATING HEAD 149.70 FL

PROP. IRRIGATION METER

PROP. PRIVATE WATER METER & BACKFLOW

PROP. PRIVATE 2" WATER

2' CURB CUT 195.17 FL Q100=0.4 CFS

6" CLEANOUT 191.30 IE

6" CLEANOUT 191.05 IE

PROP. SMH 178.24 IE

BMP-6 TREE WELL 194.80 FG AREA = 415 SF DEPTH = 4 FT VOLUME = 1,660 CF

EX. SMH 149.00 RIM 138.78 FL

PROP. PRIVATE 8" FIRE

PROP. SCO 141.32 IE

PROP. SCO 147.04 IE

PROP. SCO 152.77 IE

PROP. SCO 158.49 IE

PROP. SCO 164.21 IE

PROP. SMH 169.81 IE

PROP. 6" SEWER @ 5.7%

PROP. FIRE HYDRANT

PROP. 6" SEWER @ 5.7%

6" PERFORATED PVC UNDERDRAIN PIPE @ 1.0% MIN

EXIST. 8" VCP SEWER PER DWG NO. 86-481

EXIST. CROSS GUTTER

PROPOSED ACCESS EASEMENT

EXIST. CONCRETE SWALE TO REMAIN

EXIST. CURB OUTLET

PROP. PRIVATE 8" FIRE

2' CURB CUT 172.00 FL

185.25 FL BROW DITCH

PROP. TYPE B BROW DITCH PER SDRSD D-75

40'

50'

EXIST. 12" ACP WATER PER DWG NO. 86-478

PROP. BUILDING SEWER P.O.C. 189.50 IE

PROP. BUILDING WATER P.O.C.

PROP. BUILDING FIRE P.O.C.

PROP. PIV & FDC

EXISTING OPEN SPACE EASEMENT RECORDED JUNE 16, 1992 DOC#1992-0373004

PROP. FIRE HYDRANT

PROP. PRIVATE 8" FIRE

PROP. TYPE G-1 CATCH BASIN PER SDRSD D-08 196.10 FL 186.57 IE IN 186.24 IE OUT

PROP. TYPE G-1 CATCH BASIN PER SDRSD D-08 196.10 FL 188.35 IE IN 188.02 IE OUT

PROP. TYPE G-1 CATCH BASIN PER SDRSD D-08 196.10 FL 187.46 IE IN 187.13 IE OUT

PROP. TYPE G-1 CATCH BASIN PER SDRSD D-08 194.50 FL 190.50 IE OUT

PROP. TYPE A C.O. PER SDRSD D-09 188.02 IE IN 187.69 IE OUT

PROP. TYPE G-1 CATCH BASIN PER SDRSD D-08 195.00 FL 191.00 IE OUT

EXIST. TYPE F CATCH BASIN 146.35 RIM 143.67 IE

PROP. 24" RCP SD 'A' SEE PROFILE DETAIL 'H' SHEET 4

PROP. 24" HDPE @ 0.6%

PROP. MODIFIED TYPE D BROW DITCH PER SDRSD D-75

VACATE EXISTING RIGHT-OF-WAY

PROP. PUMP TO CURB OUTLET

PROP. CURB OUTLET PER SDRSD D-25A

BMP-4 MWS L-4-15 (PLANTED) WITH 3' CURB INLET OPENING 3.9' OPERATING HEAD 149.70 FL

EX. SMH 149.00 RIM 138.78 FL

PROP. PRIVATE 8" FIRE

PROP. SCO 141.32 IE

EXIST. 8" VCP SEWER PER DWG NO. 86-481

EXIST. CROSS GUTTER

EXIST. 12" ACP WATER PER DWG NO. 86-478

40'

50'

SHINOHARA LANE

RW

RW

PROP. 24 HDPE @ 0.6%

PROP. 24" HDPE @ 0.6%

PROP. FIRE HYDRANT

PROP. TYPE A C.O. PER SDRSD D-09 186.10 IE IN 185.77 IE OUT

APPROXIMATE LIMIT OF RETAINING WALL GRID ZONE

PROP. PRIVATE BACKFLOW PREVENTOR

PROP. IRRIGATION METER

PROP. PRIVATE WATER METER & BACKFLOW

PROP. PRIVATE 2" WATER

PROP. SCO 147.04 IE

PROP. SCO 152.77 IE

PROP. SCO 158.49 IE

PROP. SCO 164.21 IE

PROP. SMH 169.81 IE

PROP. 6" SEWER @ 5.7%

PROP. FIRE HYDRANT

PROP. 6" SEWER @ 5.7%

PROP. PRIVATE 8" FIRE

PROPOSED ACCESS EASEMENT

EXIST. CONCRETE SWALE TO REMAIN

EXIST. CURB OUTLET

2' CURB CUT 172.00 FL

185.25 FL BROW DITCH

PROP. TYPE B BROW DITCH PER SDRSD D-75

30' 15' 0 30' 60'' 90'

SCALE: 1" = 30'

ROS 21570

104'

RW

C/L

RW

MAIN STREET

EXIST. 12" AC WATER

EX. SMH 122.65 FL

EXIST. 10" VCP SEWER

EXIST. 6" HIGH PRESSURE GAS

EXIST. TELECOM PEDESTAL TO REMAIN

69'

61'

130'

PROPOSED BACKFLOW PREVENTOR

EXIST. CURB OUTLET TO REMAIN

EXIST. STREET LIGHT TO REMAIN

EXIST. CURB OUTLET TO REMAIN

OFFSITE EASEMENT AND LETTER OF PERMISSION TO GRADE FROM ADJACENT PROPERTY OWNER

PROP. PRIVATE 8" FIRE

EX. SMH 132.50 FL

10'

EXIST. 10' PUBLIC SEWER AND DRAINAGE EASEMENT

EXIST. 8" VCP SEWER PER DWG NO. 86-481

EXIST. CONCRETE DRAINAGE CHANNEL

PM 14521

MATCHLINE - SEE LEFT

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PASCO LARET SUITER & ASSOCIATES
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REGISTERED PROFESSIONAL ENGINEER
GREGORY W. LANG
No. RCE 68075
EXP. 06-30-23
Civil
STATE OF CALIFORNIA

SHINOHARA BUSINESS CENTER

517 SHINOHARA LANE
CHULA VISTA, CA 91911

PRELIMINARY UTILITY PLAN

DATE	REMARKS
11/22/2021	DESIGN REVIEW SUBMITTAL
01/14/2022	DESIGN REVIEW RESUBMITTAL
05/20/2022	DESIGN REVIEW RESUBMITTAL

PA/PM:	GL
DRAWN BY.:	MM
JOB NO.:	3690

SHEET
C7.0

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...Dedicated to Community Service
2554 SWEETWATER SPRINGS BOULEVARD, SPRING VALLEY, CALIFORNIA 91978-2004
TELEPHONE: 670-2222, AREA CODE 619 www.otaywater.gov

September 9, 2021

District Ref. No. FLW-21- 042
Project No. P1438-010000

GREG LANG
PLSA
535 N HIGHWAY 101, SUITE A
SOLANA BEACH, CA 92075

SUBJECT: Fire Flow Calculations for Fire Flow Request for OnPoint Development located at 517 Shinohara Ln., Chula Vista, CA 91911. APN: 644-040-01-00. (PZ: 458 / H-049-014 & H-049-008).

Dear Greg Lang,

Fire flow calculations for the subject site were performed by District Consultant using InfoWATER Version 12.1, under the following assumptions:

The water levels in storage facilities were performed by District Consultant using InfoWATER Version 12.1, under the following assumptions:

The water levels in the storage facilities at the time of a fire are approximate to the operating levels that typically occur during a maximum day.
The prescribed ***four-hour*** fire duration coincides with a maximum day demand condition.
The immediate area around the fire flow node maintains a minimum pressure of 20 psi.

The first set of results looked at providing service solely through the existing 12-inch water line in Shinohara Lane which is located on the 458-pressure zone (PZ). It was determined that fire flow to the site is limited to 3,535 GPM due to pipeline velocities.

F-049-014 (458 PZ)	STATIC PRESSURE: 122 PSI RESIDUAL PRESSURE: 45 PSI (System …of 3,525 GPM)

The potential extension of an 8-inch water line from the 340-pressure zone (located just south of the project site in Main Street and a short segment of Brandywine Ave.) to the property was run with a model and found that an additional 1,475 GPM of flow can be conveyed during a fire event to bring the total fire flow rate to 5,000GPM.

F049-041 (458 PZ)	STATIC PRESSURE: 122 PSI RESIDUAL PRESSURE: 45 PSI (System …of 3,525 GPM)
NJ-1740 (340 PZ)	**STATIC PRESSURE: 83 PSI** **RESIDUAL PRESSURE: 63 PSI (System…of 1,475 GPM)**

Total Potential Fire Flow to Site: 5,000 GPM

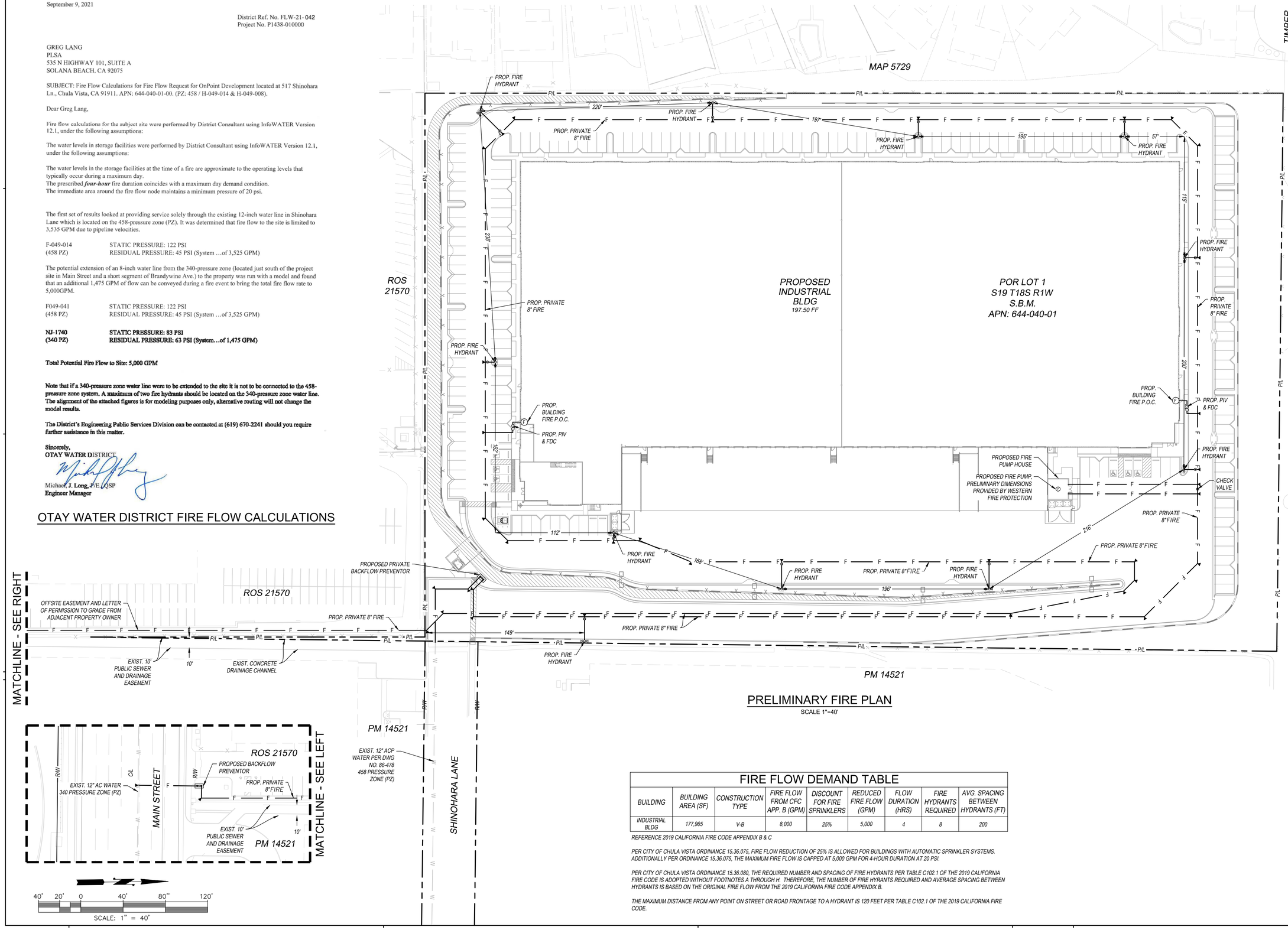
Note that if a 340-pressure zone water line were to be extended to the site it is not to be connected to the 458-preasure zone system. A maximum of two fire hydrants should be located on the 340-pressure zone water line. The alignment of the attached figures is for modeling purposes only, alternative routing will not change the model results.

The District's Engineering Public Services Division can be contacted at (619) 670-2241 should you require further assistance in this matter.

Sincerely,
OTAY WATER DISTRICT

Michael J. Long, P.E., LSP
Engineer Manager

OTAY WATER DISTRICT FIRE FLOW CALCULATIONS



PRELIMINARY FIRE PLAN
SCALE 1"=40'

FIRE FLOW DEMAND TABLE

BUILDING	BUILDING AREA (SF)	CONSTRUCTION TYPE	FIRE FLOW FROM CFC APP. B (GPM)	DISCOUNT FOR FIRE SPRINKLERS	REDUCED FIRE FLOW (GPM)	FLOW DURATION (HRS)	FIRE HYDRANTS REQUIRED	AVG. SPACING BETWEEN HYDRANTS (FT)
INDUSTRIAL BLDG	177,965	V-B	8,000	25%	5,000	4	8	200

REFERENCE 2019 CALIFORNIA FIRE CODE APPENDIX B & C

PER CITY OF CHULA VISTA ORDINANCE 15.36.075, FIRE FLOW REDUCTION OF 25% IS ALLOWED FOR BUILDINGS WITH AUTOMATIC SPRINKLER SYSTEMS. ADDITIONALLY PER ORDINANCE 15.36.075, THE MAXIMUM FIRE FLOW IS CAPPED AT 5,000 GPM FOR 4-HOUR DURATION AT 20 PSI.

PER CITY OF CHULA VISTA ORDINANCE 15.36.080, THE REQUIRED NUMBER AND SPACING OF FIRE HYDRANTS PER TABLE C102.1 OF THE 2019 CALIFORNIA FIRE CODE IS ADOPTED WITHOUT FOOTNOTES A THROUGH H. THEREFORE, THE NUMBER OF FIRE HYRANTS REQUIRED AND AVERAGE SPACING BETWEEN HYDRANTS IS BASED ON THE ORIGINAL FIRE FLOW FROM THE 2019 CALIFORNIA FIRE CODE APPENDIX B.

THE MAXIMUM DISTANCE FROM ANY POINT ON STREET OR ROAD FRONTAGE TO A HYDRANT IS 120 FEET PER TABLE C102.1 OF THE 2019 CALIFORNIA FIRE CODE.

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San Diego | Solana Beach | Orange County
Phone 858.259.8212 | www.plsaengineering.com

REGISTERED PROFESSIONAL ENGINEER
GREGORY W. LANG
No. RCE 68075
EXP. 06-30-23
Civil
STATE OF CALIFORNIA

SHINOHARA BUSINESS CENTER
517 SHINOHARA LANE
CHULA VISTA, CA 91911

PRELIMINARY FIRE PLAN

DATE	REMARKS
11/22/2021	DESIGN REVIEW SUBMITTAL
02/14/2022	DESIGN REVIEW RESUBMITTAL
05/20/2022	DESIGN REVIEW RESUBMITTAL

PA/PM:	GL
DRAWN BY.:	MM
JOB NO.:	3690

SHEET
C8.0

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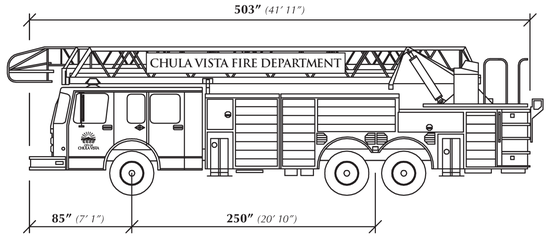
Rev: 2021

CHULA VISTA FIRE DEPARTMENT

FIRE PREVENTION DIVISION

AUTO TURN DATA: Ladder Truck

This design apparatus, along with data points, shall be used as the basis for roadway and parking lot geometrics.



- **Outside Track Width: 111″** *(9′ 3″)*
- **Inside Track: 82″** *(6′ 10″)*
- **Lock to Lock Time: 6.0 seconds**
- **Steering Angle: 45.00°**
- **Angle of Approach: 7° (max)**
- **Angle of Departure: 7° (max)**

Notes:

1. A Chula Vista Fire Department Maneuverability Analysis shall be performed by a licensed professional engineer to verify the turning capabilities of this design apparatus. Travel paths should begin outside the site illustrating the turn onto all entry roads/drives, maneuvering around the site, and completed with an illustration demonstrating exiting from the site.
2. Paths must illustrate the full vehicle swept path (including wheel tracks and wall-to-wall vehicle overhang sweep) and must indicate a clear, unobstructed travel around the site without impact/collisions to buildings, curbs, landscaping, parking spaces, vehicles, etc. Wheel tracks shall not come within 1 foot of curbs. Apparatus bumper overhang shall not extend over curbs and the like.
3. Design speed (no less than 5mph); if speed varies indicate points of change by notes/labels.
4. The Chula Vista Fire Department Maneuverability Analysis shall be used to create an exhibit, which shall be submitted for review and approval.
5. Maneuverability Analysis shall also be designed to and confirm that any angle of approach/departure does not exceed 7°.
6. This detail shall be reproduced on the submitted exhibit.

CHULA VISTA FIRE DEPARTMENT • Fire Prevention Division • 276 Fourth Avenue, Building C • Chula Vista, CA 91910
(619) 691-5029 • fax (619) 691-5204 • www.chulavistaca.gov/goto/FirePrevention

CITY OF CHULA VISTA LADDER TRUCK DIMENSIONS

PRELIMINARY FIRE TRUCK TURN PLAN

SCALE 1"=40'

PASCO LARET SUITER & ASSOCIATES
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Phone 858.259.8212 | www.plsaengineering.com

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Civil
STATE OF CALIFORNIA

SHINOHARA BUSINESS CENTER

517 SHINOHARA LANE
CHULA VISTA, CA 91911

PRELIMINARY FIRE TRUCK TURN PLAN

DATE	REMARKS
11/12/2021	DESIGN REVIEW RESUBMITTAL
02/14/2022	DESIGN REVIEW RESUBMITTAL
05/20/2022	DESIGN REVIEW RESUBMITTAL

PA/PM:	GL
DRAWN BY.:	MM
JOB NO.:	3690

SHEET

C9.0

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