

Preliminary

Drainage Report

For

Perris Gateway Phase II Commercial
NWC of Ramona and Webster
DPR ___ - _____

Perris, CA

July 2023

Revised
November 2023

United Engineering Group - California
8885 Haven Avenue
Suite 195
Rancho Cucamonga, CA 91730

Tel: (909) 466-9240

Provided for:

Optimus Building Corp.
c/o MNA
445 S D Street
Perris, CA 92570
Contact: Mike Naggar

This report has been prepared by or under the direction of the following registered civil engineer who attests to the technical information contained herein. The registered civil engineer has also judged the qualifications of any employees that have provided data and calculations upon which the recommendations, conclusions, and decisions are based.



Christopher F. Lenz, PE 63001

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- APPENDIX C: Perris Valley MDP Excerpt
- APPENDIX D: Infiltration Testing Results
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1 INTRODUCTION

1.1. SITE DESCRIPTION

1.1.1. LOCATION

The project is located at the northwest corner of Ramona Expressway and Wester Avenue in the City of Perris. Legally, it is parcel 314-170-020.

1.1.2. EXISTING FEATURES

The site consists of 12.23 gross acres of unsubdivided vacant land. The site drains gradually southwest to northeast with varying terrain with a flow slope of 0.7 percent. The site is bordered by developed properties to the north and east, and the highway to the west. It has been graded in the past and shows evidence of continued disturbance and compaction. Some seasonal grasses are present. There are no defined flow paths through the site. The site is within the Perris Valley MDP, with the proposed Line E regional storm drain system.

1.1.3. PROPOSED CONDITION

It is proposed that the subject property be developed to permit development of eight (8) buildings, including a Gas Station, fast food restaurants, sit down restaurants, and a car wash per the request of the client. Access to the site will be from the shared driveway along the western property line, three (3) driveways along Ramona, and two (2) driveways along Webster. The buildings will be surrounded by parking and drive aisles. The site will be primarily impervious surface, with some open space and landscape areas (some used as buffers and water quality features).

1.2. PURPOSE OF REPORT

The purpose of this report is to review the regional studies prepared for this area (Perris Valley Master Drainage Plan), analyze the proposed conditions hydrology and hydraulics, and ensure design compatibility with the master plan and city code. This report will analyze the hydrology of the landscape and assess the hydraulic conditions of the subject parcel to verify consistency with the previously listed reports.

1.3. FEMA INFORMATION

The Flood Insurance Rate Maps (Panel 06065C1430 G & H) for this subject property shows that the site falls within Zone X. Zone X denotes areas determined to be outside the 1% annual chance floodplain. Refer to Appendix E for detail.

2. EXISTING DRAINAGE PATTERNS

2.1. OFFSITE

There are two concentrations of offsite flow impacting the subject property. A sheet flow condition enters the site along the western property line from the undeveloped land to the west (Perris Gateway Phase I). At the southwest corner of the site, there is an existing earthen channel that conveys runoff from the onramp easterly along the north side of Ramona Expressway. Flows continue easterly in the earthen channel before entering an existing crossing of Webster. See Figure 3 Offsite Exhibit - Optimus Logistics Center. No regional flows impact the site.

2.2. ONSITE

The site is un-subdivided vacant land. The site drains gradually southwest to northeast with varying terrain with a flow slope of 0.7 percent. The site is infill and is bordered by developed properties. It has been graded in the past shows evidence of continued disturbance and compaction. Some seasonal grasses are present. The runoff from the site is primarily sheet flow. The ultimate outfall is the northeast corner of the site. The site is within the Perris Valley MDP, Line E regional storm drain system.

3. PROPOSED DRAINAGE PATTERNS

3.1. OFFSITE

As the project is within the area of the ADP, it will participate in regional fees. The project will accept the existing 32.6cfs at the southwest corner and route it through a 36" RCP easterly and connect to the existing crossing of Webster. The project will remove the existing headwall and install a storm drain manhole connection at that outlet. This 36" RCP will also function as the ultimate outfall of the onsite storm drain. There are no further regional or offsite drainage facilities proposed.

3.2. ONSITE

The project has been designed with underground storage to offset the difference in runoff hydrograph volume between the developed and pre-developed condition for the 24 hour duration, 10 year return frequency design storm. The site soils do not have suitable infiltration potential to meet the required 1.6in/hr (Appendix D), so bio swales will provide water quality treatment. De-watering of the underground storage will be provided by a pumping system. In addition to the underground storage a system of storm drain is proposed to collect and route the site runoff (refer to section 5 and Figure 3 for detail).

4. HYDROLOGIC CONDITIONS

The Synthetic Unit Hydrograph and Rationale Methods have been employed to determine peak runoff amounts and volumes. The Riverside County Flood Control and Water Conservation District (RCFCD & WCD) Hydrology Manual (reference 1) was used to develop the hydrological parameters for the 1, 3, 6, and 24 hr 2, 5, and 10 year storm event. Refer to appendix A for detail.

In the existing condition, the proposed development envelope is relatively flat with an average flowline slope of 0.7 percent and is in relatively poor condition. It is proposed to be developed into a commercial center. The onsite runoff potential has been analyzed with the Synthetic Unit Hydrograph Method per the Riverside County Flood Control and Water Conservation District (RCFCD & WCD) Hydrology Manual (reference 1). The Following Data is used in the calculations;

Soils Group - B

Pre-development Runoff Index - 78, with 20% impervious (streets)

Post-development Runoff Index - 56 with 95% impervious

Rainfall Data - NOAA 14

2yr - 1hr = 0.457"

100yr - 1hr = 1.35"

2yr - 3hr = 0.799"

100yr - 3hr = 2.01"

2yr - 6hr = 1.11"

100yr - 6hr = 2.70"

2yr - 24hr = 1.94"

100yr - 24hr = 4.91"

The results of that analysis are as follows, with detailed output in Appendix A;

Perris Gateway Phase II - Pre Development								
	Storm Duration							
	1 hour		3 hour		6 hour		24 hour	
Frequency	Q Peak	Volume	Q Peak	Volume	Q Peak	Volume	Q Peak	Volume
2 year	8.0	0.16	3.8	0.16	3.0	0.18	0.3	0.20
5 year	15.5	0.46	8.6	0.49	7.2	0.53	2.1	0.52
10 year	19.8	0.62	10.9	0.68	9.1	0.72	2.9	0.78

Perris Gateway Phase II - Post Development								
	Storm Duration							
	1 hour		3 hour		6 hour		24 hour	
Frequency	Q Peak	Volume	Q Peak	Volume	Q Peak	Volume	Q Peak	Volume
2 year	11.4	0.41	7.6	0.70	7.0	0.97	2.8	1.70
5 year	17.4	0.61	11.0	0.97	10.0	1.31	3.8	2.31
10 year	21.8	0.77	13.4	1.17	12.1	1.57	4.6	2.77

To mitigate the increased runoff from the development, four underground storage facilities have been provided to offset the difference in runoff hydrograph volume between the developed and pre-developed condition for the 24 hour duration, 10 year return frequency design storm per the below table.

	Volume	
	[cf]	[ac-ft]
SWC Ramona & Perris		
Pre Development 10yr 24hr	34,007	0.78
Post Development 10yr 24hr	120,718	2.77
Total Vol Required	86,711	1.99
Total Vol Required/Acre	7090	0.16
Total Vol Provided	87,522	2.01

The project is proposing 4 parcels, and each areas drainage mitigation is designed to stand alone if need be. As such the design storage for each is prorated per acre. See The proposed condition exhibit Appendix A for additional detail. Area A will provide 23,241 cf of storage. Area B will provide 19,953 cf of storage. Area C will provide 28,003 cf of storage. And Area D will provide 16,325 cf of storage. In total the 4 facilities mitigate the difference in 10 year 24 hour runoff volume from development. The footprint of the proposed underground systems is indicated on the proposed condition exhibit, and the grading and drainage plan, with additional detail in Appendix B. At time of final design additional storage, basin, and outlet details will be required.

5. HYDRAULIC CONDITIONS

5.1. Existing Conditions

There are no existing storm facilities affecting the subject site.

1.1 Proposed Conditions

The proposed condition for this site will be to construct a network of paved access within the site to convey storm runoff into a system of storm drain. Storm drain will be used to collect and route the runoff from the paved areas and into the surface basins or underground systems. The underground systems will infiltrate storm water for treatment. Preliminary storm drain lines have been shown on the proposed condition exhibit, and the grading and drainage plan. For maintenance considerations a minimum 18" line size will be used, with sizing required at time of final design.

6. WATER QUALITY

The project will comply with Water Quality rules, with treatment provided by pre-treatment systems and bio-swale surface treatment. Refer to the Project Preliminary WQMP for details.

7. MAINTENANCE

It is proposed that the 36" RCP storm drain, discussed above to handle offsite flows, will not be required to be placed in flood control easements (Max line size 36"). It will be placed within City of Perris Right of way and will become the maintenance responsibility of the City. Maintenance and ownership of the onsite facilities will be the responsibility of the property owner. At the Cities request, storm drain easements can be provided.

Internal to the site, it is assumed that the underground systems will be the responsibility of the tenant, a property association, or the Owner, with easements being placed to allow for city access and emergency maintenance.

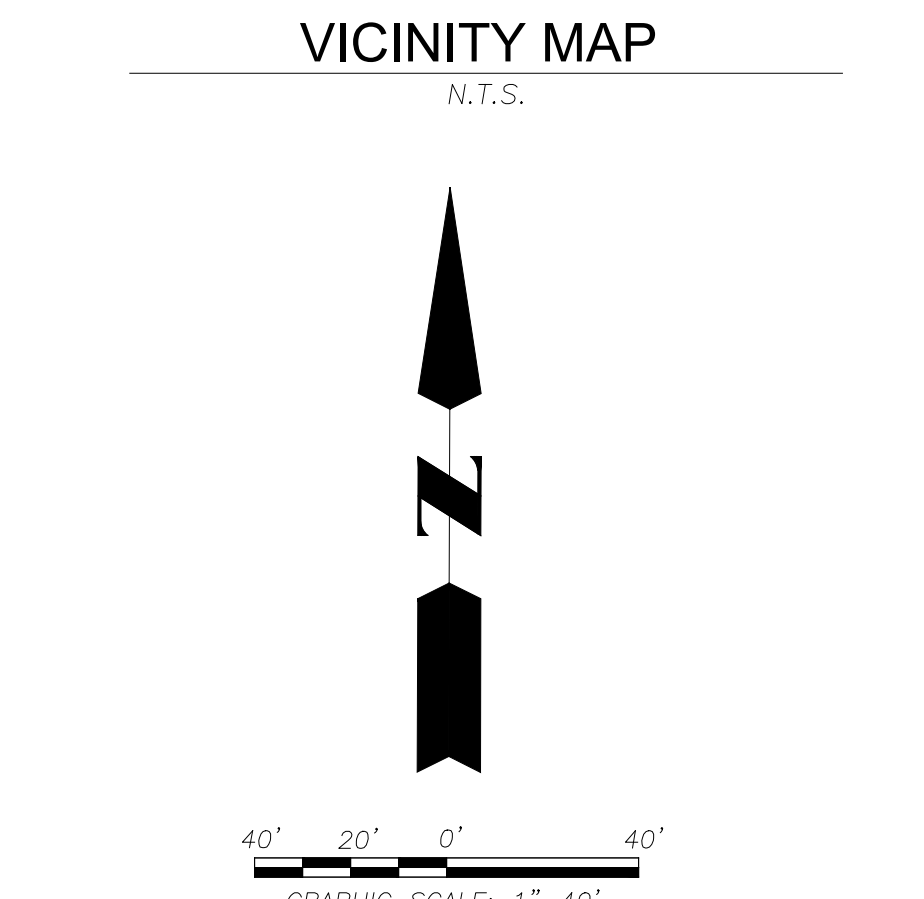
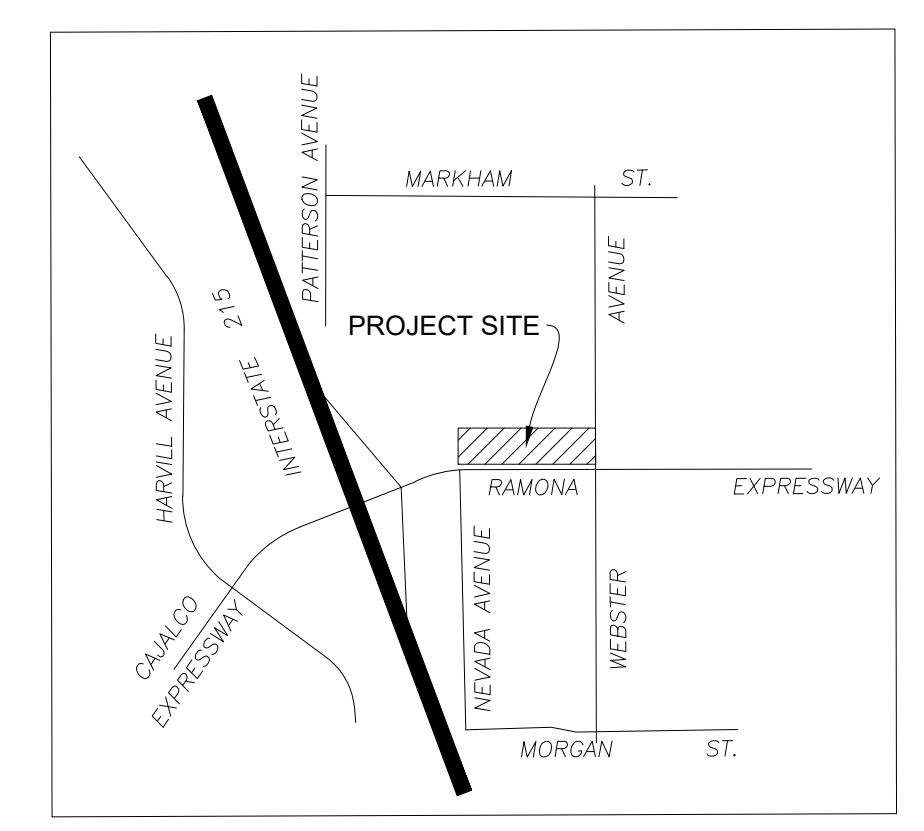
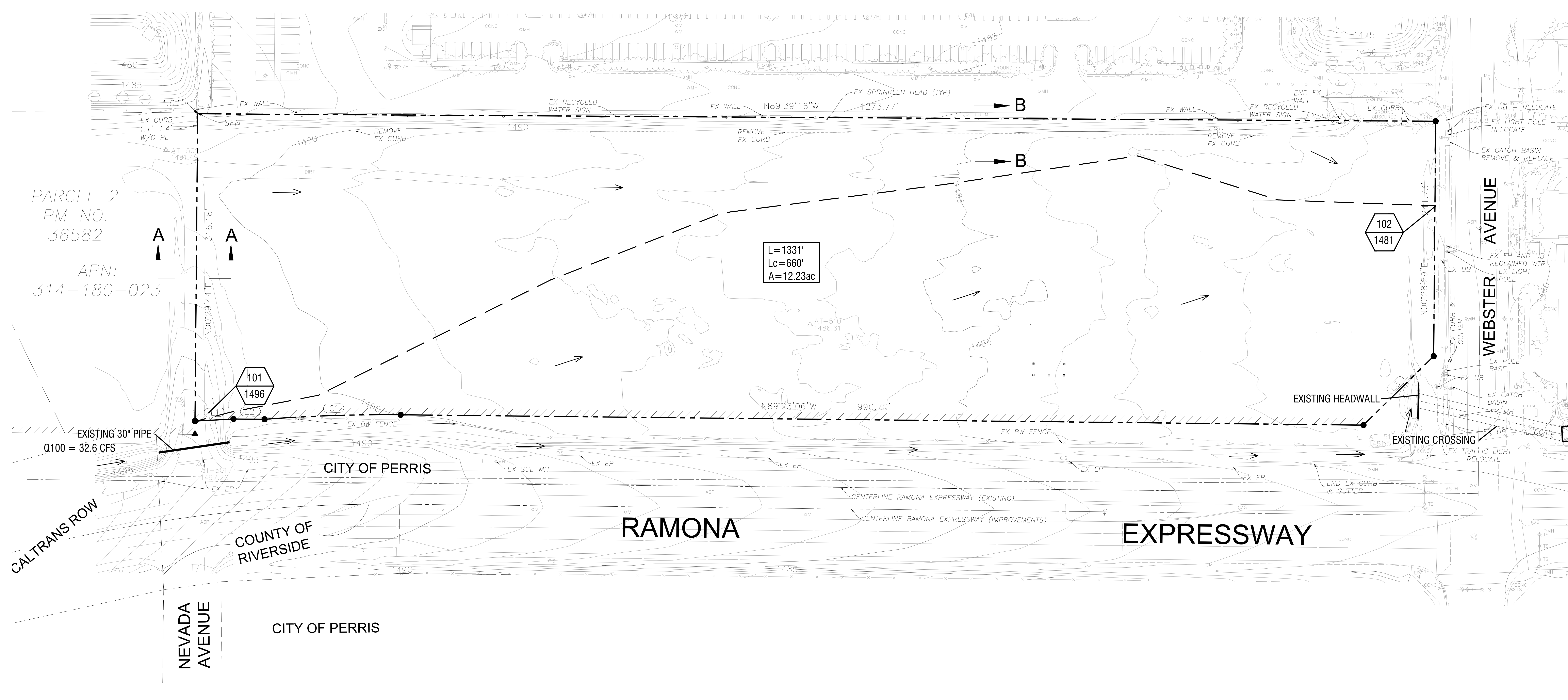
There are other smaller inlets, control structures, channels, and pipes will be the responsibility of the tenant, a property association, or the Owner.

REFERENCES

1. Riverside County Flood Control and Water Conservation District Hydrology Manual, April 1978.

Figure 1

Drainage Map Existing



SURVEYOR'S NOTES:

- INDICATES FOUND 1" I.P., NAIL & TAG, L.S. 8012, PER PM NO. 36512, P.M.B. 242/33-37
- ▲ INDICATES FOUND 1" I.P., NAIL & TAG, L.S. 8012, PER PM NO. 36582, P.M.B. 242/30-32
- PROJECT BOUNDARY
- INDICATES ABUTTER'S RIGHTS RELINQUISHED
- SFN SEARCHED, FOUND NOTHING

BASIS OF BEARINGS:

THE BASIS OF BEARINGS FOR THIS SURVEY IS N 89°26'31" W, SHOWN AS THE SOUTH LINE OF PARCELS 2 AND 3 ON PARCEL MAP NO. 36582, AS PER MAP FILED IN BOOK 242, PAGES 30 THROUGH 32, INCLUSIVE, OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF RIVERSIDE COUNTY.

LEGAL DESCRIPTION:

PARCELS 2 OF PARCEL MAP NO. 36512, IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS PER MAP FILED IN BOOK 242, PAGES 33 THROUGH 37, INCLUSIVE OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

APN'S: 314-170-020

PROPERTY ADDRESS:
PROPERTY IS A VACANT SITE WITH NO ADDRESS

- GENERAL NOTES:**
- AS TO THE TITLE MATTERS SHOWN HEREON, UNITED ENGINEERING GROUP HAS RELIED SOLELY ON THE COMMITMENT FOR TITLE INSURANCE, COMMITMENT NO. UCS-1155844-001, DATED DECEMBER 6, 2022, AS PREPARED BY FIRST AMERICAN TITLE INSURANCE COMPANY NATIONAL COMMERCIAL SERVICES. UNITED ENGINEERING GROUP MAKES NO STATEMENT AS TO THE ACCURACY OR COMPLETENESS OF THE SUBJECT TITLE COMMITMENT.
 - GROSS SITE AREA: TOTAL = 9.036 ACRES.
 - ASSESSOR'S PARCEL NUMBERS: 314-170-020.
 - THERE ARE NO BUILDINGS ON THE SITE.
 - THERE WAS NO OBSERVED EVIDENCE OF CEMETERIES/BURIAL GROUNDS ON THE SUBJECT PROPERTY.
 - THERE WAS NO OBSERVED EVIDENCE OF EARTH MOVING WORK, BUILDING CONSTRUCTION, OR BUILDING ADDITIONS ON THE SUBJECT PROPERTY.
 - THERE WAS NO OBSERVED EVIDENCE OF SITES USED AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL.
 - PROPERTY HAS ACCESS TO WEBSTER AVENUE AND TO RAMONA EXPRESSWAY (DULY DEDICATED AND ACCEPTED PUBLIC STREET), HOWEVER, ABUTTER'S RIGHT HAVE BEEN RELINQUISHED ON RAMONA EXPRESSWAY.

FLOOD PLAIN NOTE:
THE SUBJECT PARCEL IS IN ZONE X PER THE FLOOD INSURANCE RATE MAP (FIRM).
MAP NO. 06065C1430H EFFECTIVE 8/18/14 AND MAP NO. 06065C1410G EFFECTIVE 8/28/08.

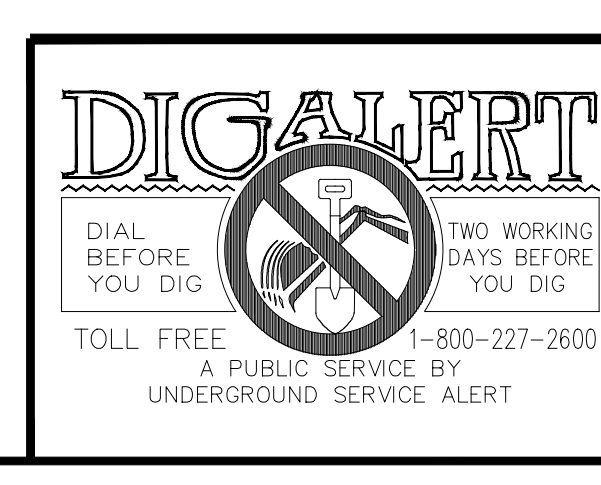
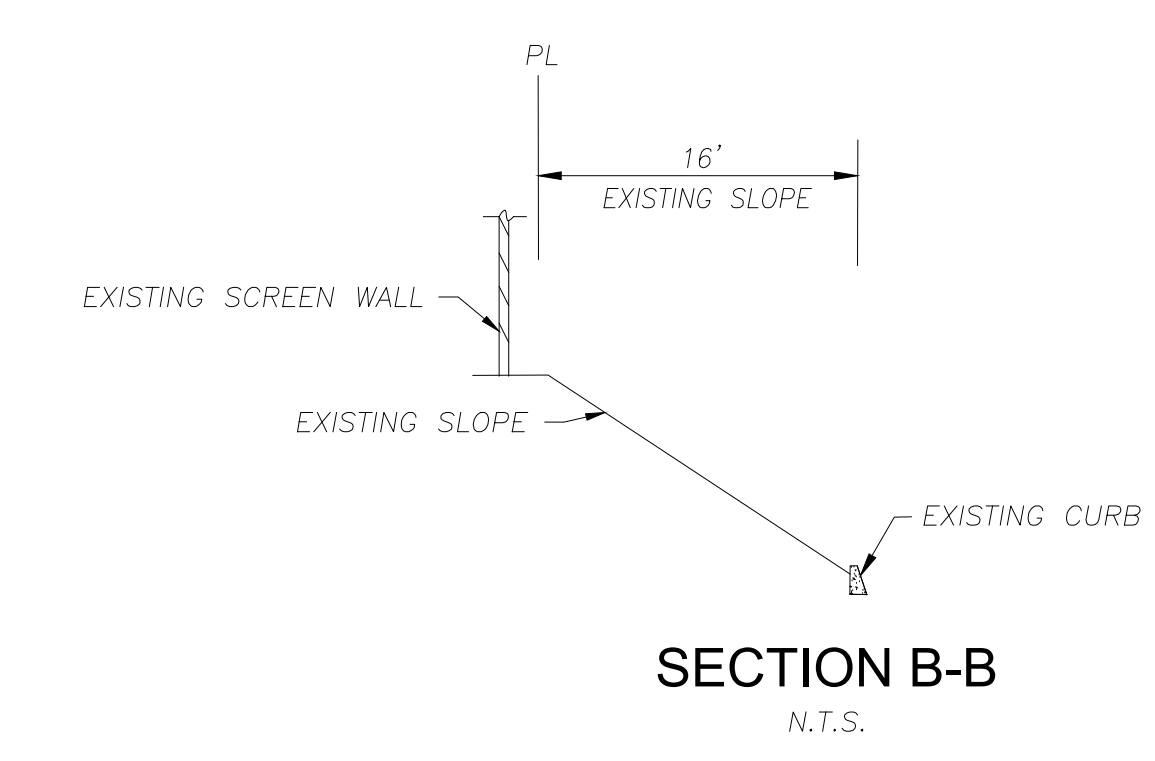
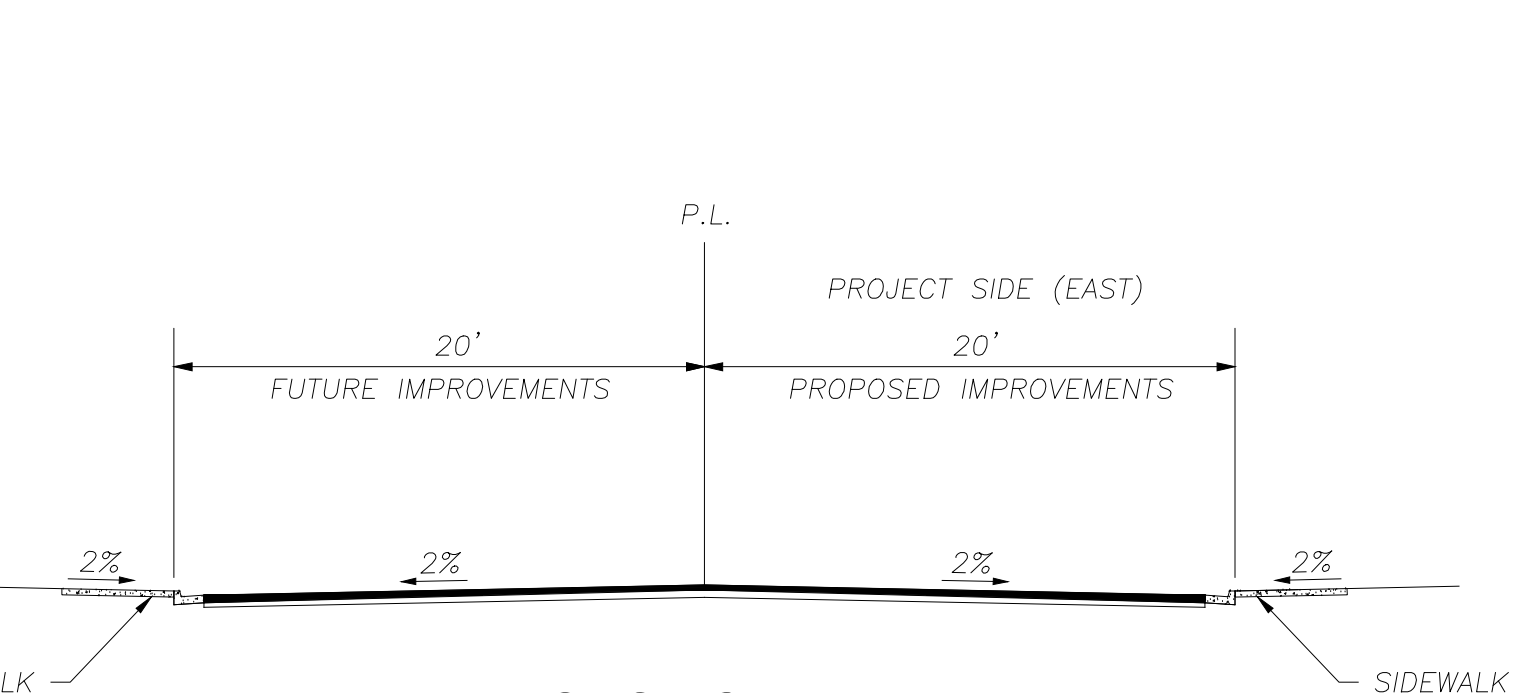
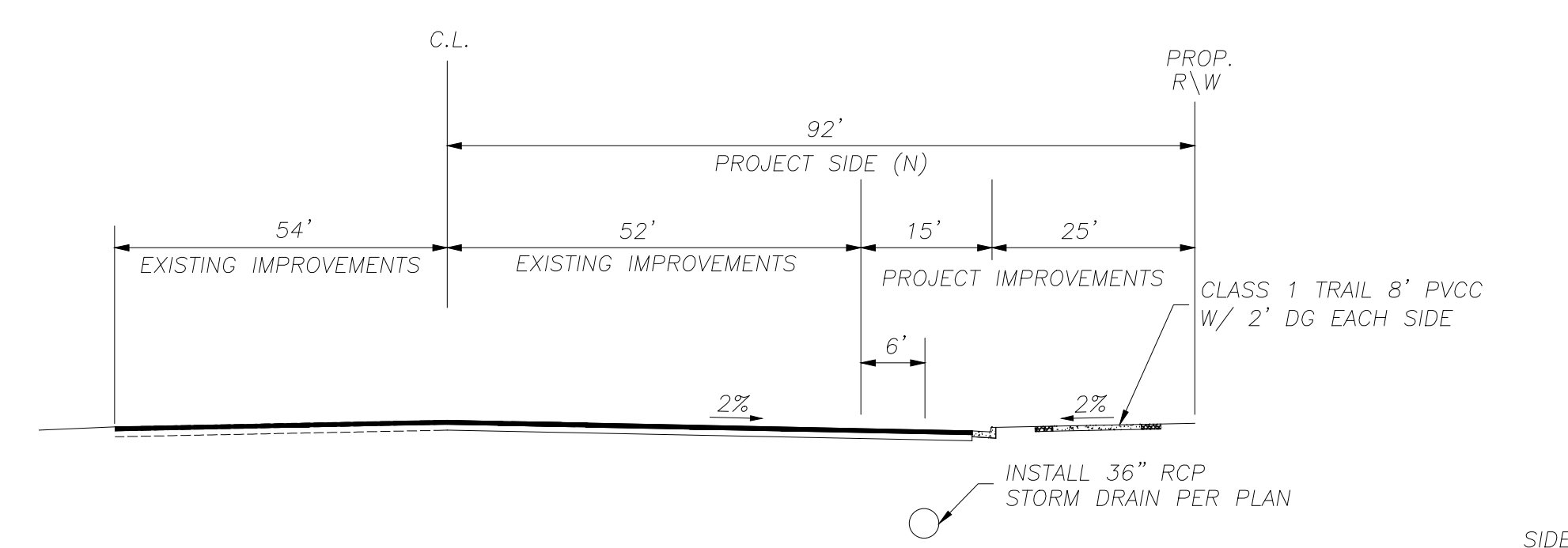
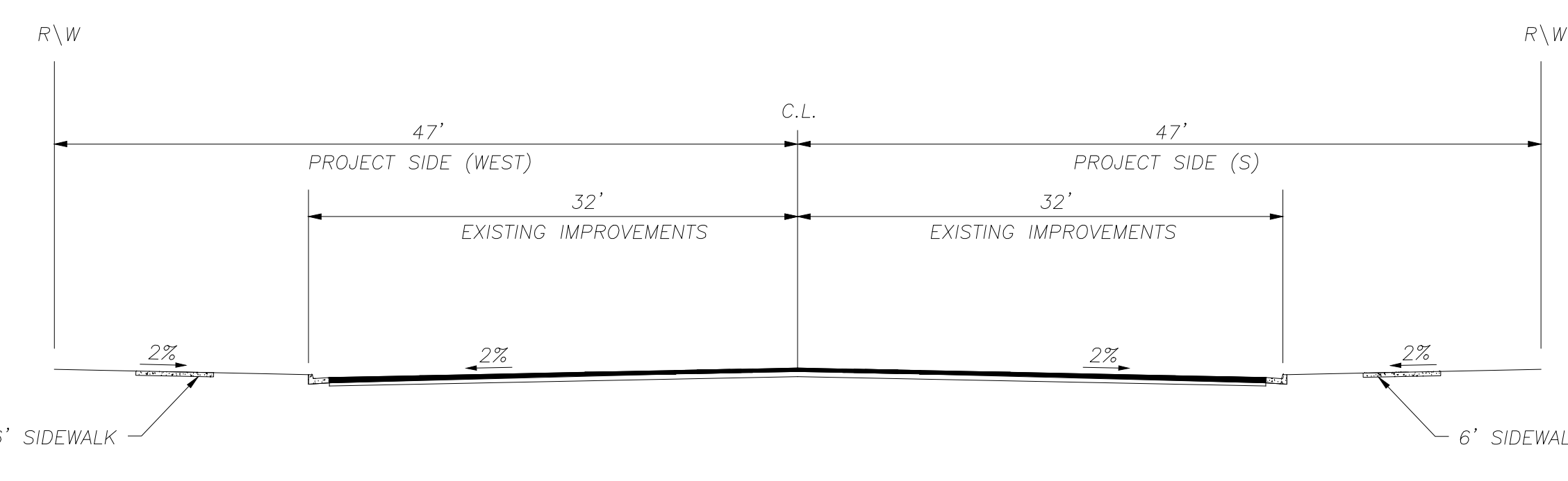
LINE TABLE		
LINE #	LENGTH	BEARING
L1	39.71'	N86°54'01"E
L2	31.91'	N89°26'31"W
L3	101.23'	N45°32'41"E

CURVE TABLE			
CURVE #	RADIUS	LENGTH	DELTA
C1	1592.00'	140.15'	5'02"38"

PREPARED FOR:
OPTIMUS BUILDING CORPORATION (OBC)
c/o MIKE NAGGAR
445 S. D STREET
PERRIS, CA 92570

LEGEND/ABBREVIATION

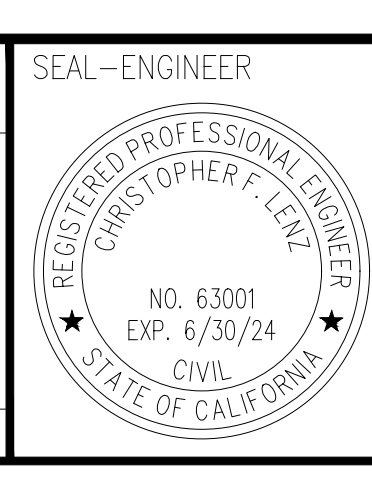
CF	CURB FACE	TC	TOP OF CURB
FG	FINISH GRADE	TG	TOP OF GRATE
FF	FINISHED FLOOR	SD	STORM DRAIN
FL	FLOW LINE	PL	PROPERTY LINE
GB	GRADE BREAK	PE	PEDESTRIAN TYPICAL
HP	HIGH POINT	EF	EXISTING FIRE HYDRANT
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P=XX.X	PAD ELEVATION	SD	PROPOSED STORM DRAIN LINE
FF=XX.X	FINISH FLOOR ELEVATION	OC	EXISTING CONTOUR
2%	DIRECTION OF DRAINAGE/GRADE		



NOTE:
WORK CONTAINED WITHIN THESE PLANS SHALL NOT COMMENCE UNTIL ENCROACHMENT PERMIT AND/OR GRADING PERMIT HAS BEEN ISSUED.
THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY OF DESIGN AND ACCEPTABILITY OF THE WORK HEREON. IN THE EVENT OF DISCREPANCIES ARISING AFTER CITY APPROVAL OR DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY CITY.

MARK	BY	DATE	REVISIONS	APPR.	DATE
ENGINEER				CITY	

CITY OF PERRIS
APPROVED BY: _____
CITY ENGINEER



ueg
united engineering group
8885 Haven Avenue • Suite 195
Rancho Cucamonga, CA 91730
Phone: 909.466.9240
www.unitedeng.com

BENCH MARK:
NCS DATA POINT
DESIGNATION: 432-PID-DX5439
3" ALUMINUM DISC STAMPED "BM432"
SW CORNER PERRIS BLVD AND RIDER STREET
BASE OF STEEL SIGNAL LIGHT,
3.5' X 2.7' CONC. BASE ON EAST SIDE
SET FLUSH
ELEVATION = 1455.11' NAVD 88

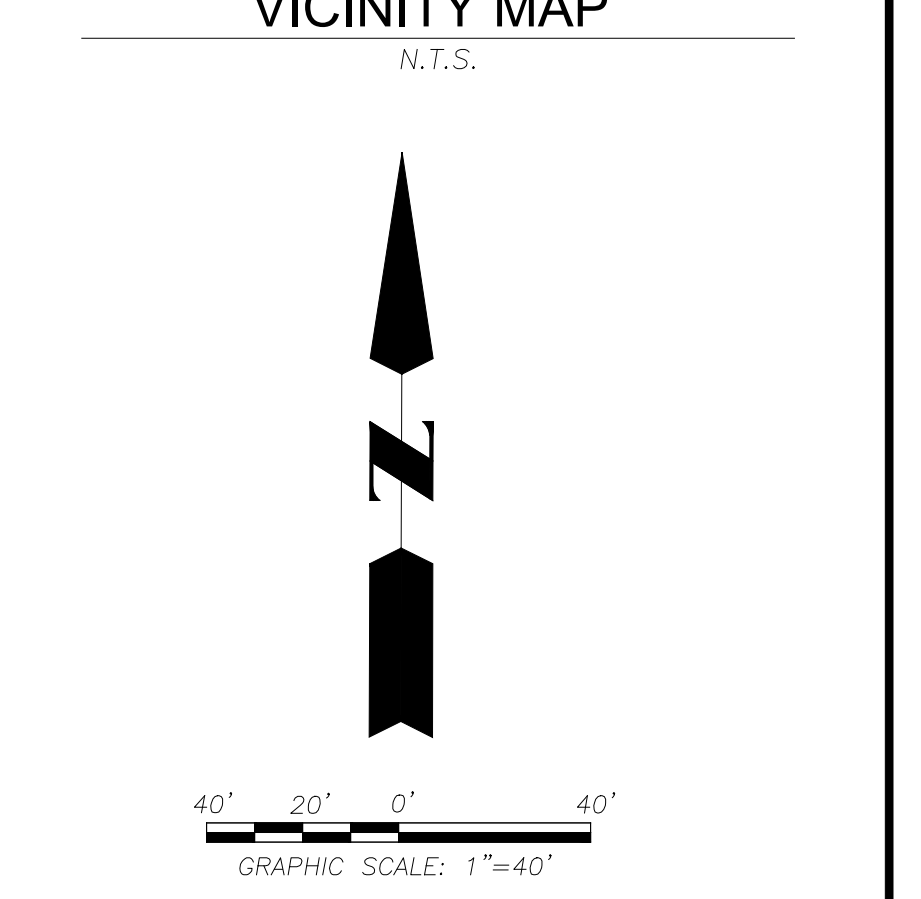
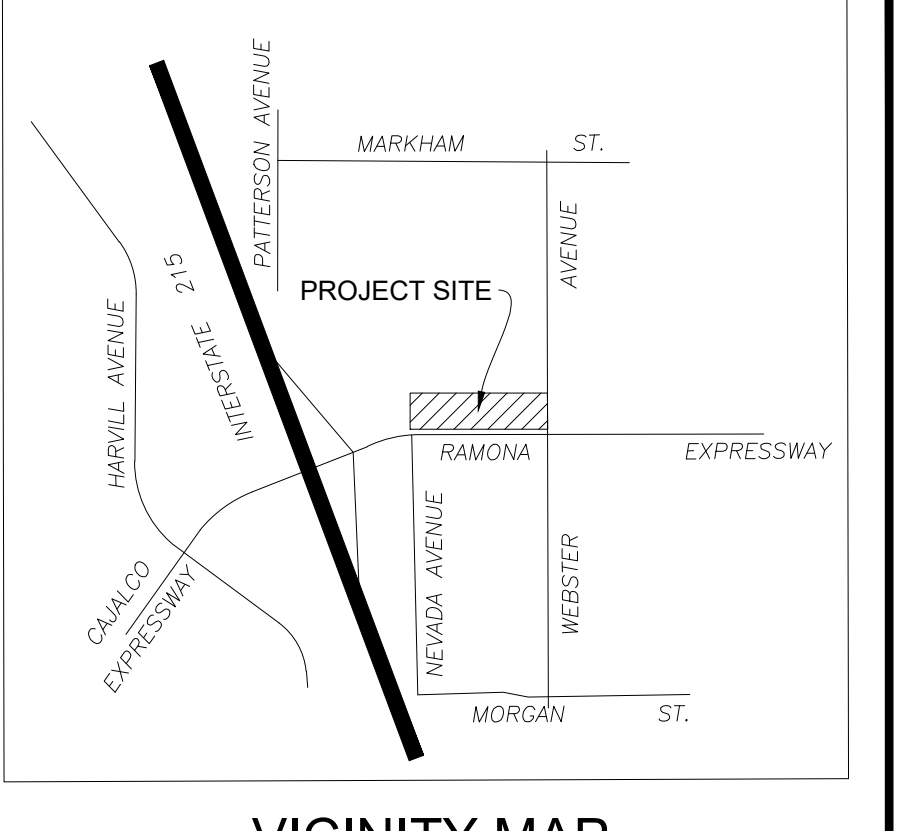
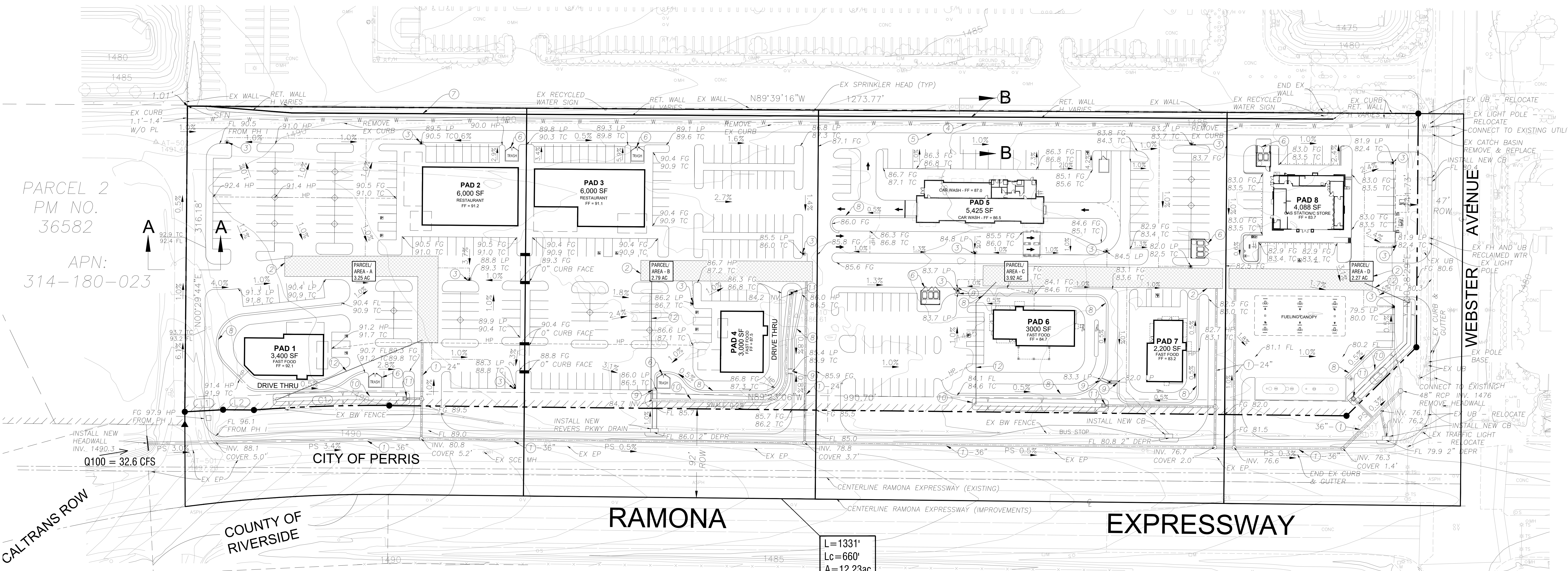
SCALE:
FIELD BOOK
DESIGN
DRAWN
CHECKED

ZONING CASE #DPR: _____
PERRIS, CA 92571
SPA _____
SHEET NO. _____
COUNTY OF RIVERSIDE
PRELIMINARY GRADING & DRAINAGE PLAN
PERRIS GATEWAY - PHASE II
DRAINAGE - EXISTING CONDITION
FOR: OPTIMUS BUILDING CORP. | W.G. | CITY FILE NO. DPR _____

BGR NO. _____ **WJD:** _____

FIGURE 2

Drainage Map Proposed



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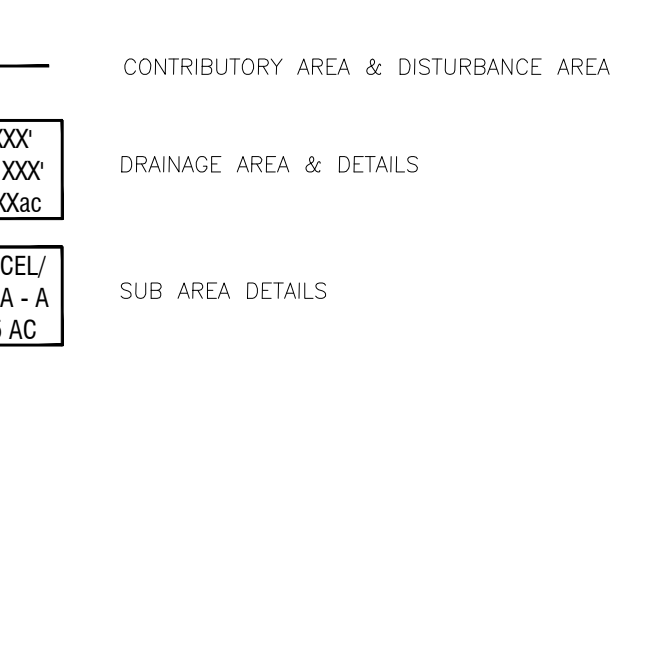
PARCEL 2
PM NO.
36582
APN:
314-180-023

CITY OF PERRIS
COUNTY OF RIVERSIDE
RAMONA EXPRESSWAY
WEBSTER AVENUE
NEVADA AVENUE
CALTRANS ROW

CONSTRUCTION NOTES:

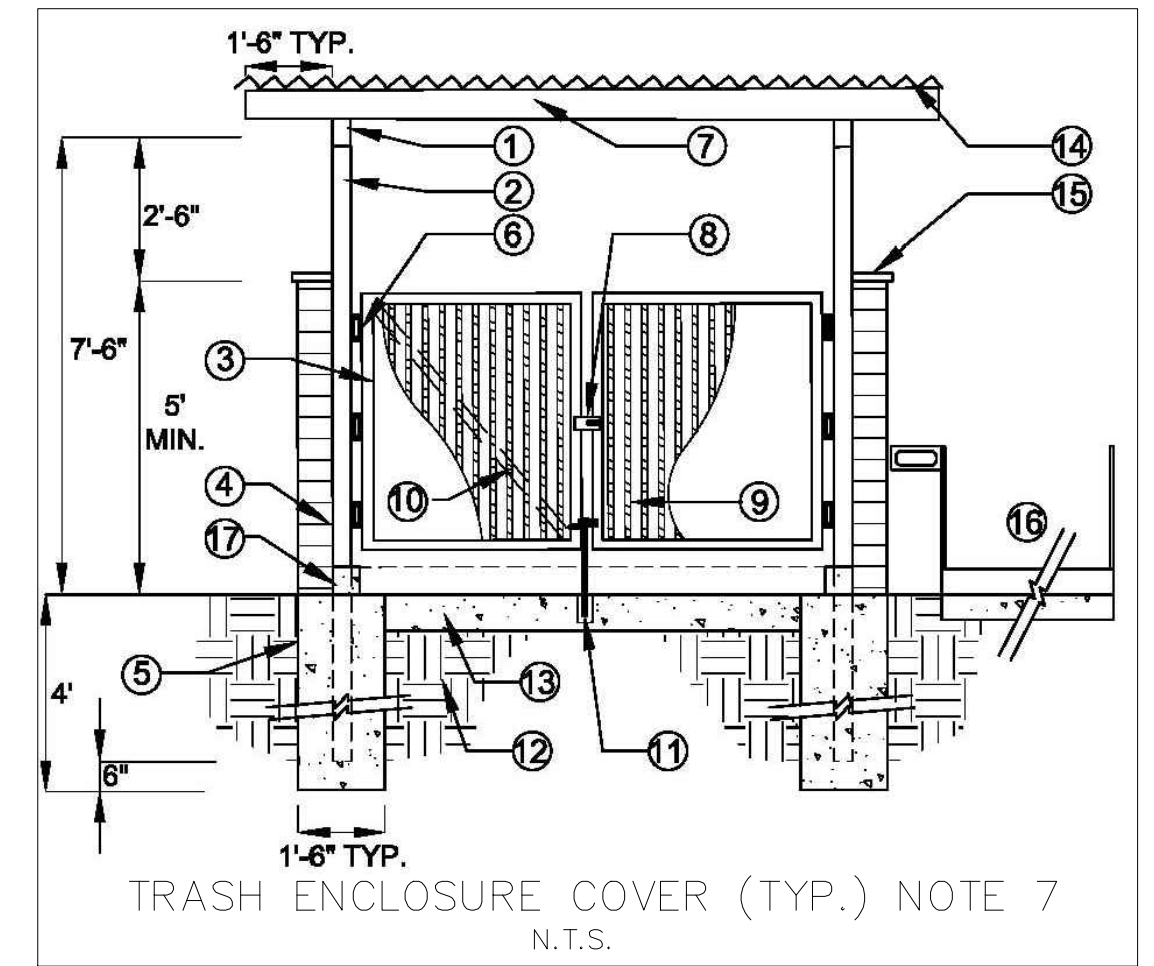
- CONSTRUCT STORM DRAIN AND FITTINGS AT LOCATIONS SHOWN
- CONSTRUCT CONTECH TYPE OR EQUIVALENT UNDERGROUND STORAGE SYSTEM PER PLAN
- CONSTRUCT GRATE INLET
- INSTALL 8" WATER LINE
- INSTALL 8" SEWER LINE
- INSTALL TRASH ENCLOSURE PER LANDSCAPE ARCHITECT PLAN
- INSTALL RETAINING WALL PER PLAN AND SECTION B
- INSTALL 6" CURB AND GUTTER PER PLAN
- 4" CURB OPENING WITH RIP RAP FOR DRAINAGE PATH
- CONSTRUCT WATER QUALITY SWALE PER PLAN AND DETAILS
- CONSTRUCT DROP INLET WITH GRATE FOR OVERFLOW.
- DISCHARGE PIPE FROM UNDERGROUND STORAGE PUMPING SYSTEM

LEGEND:



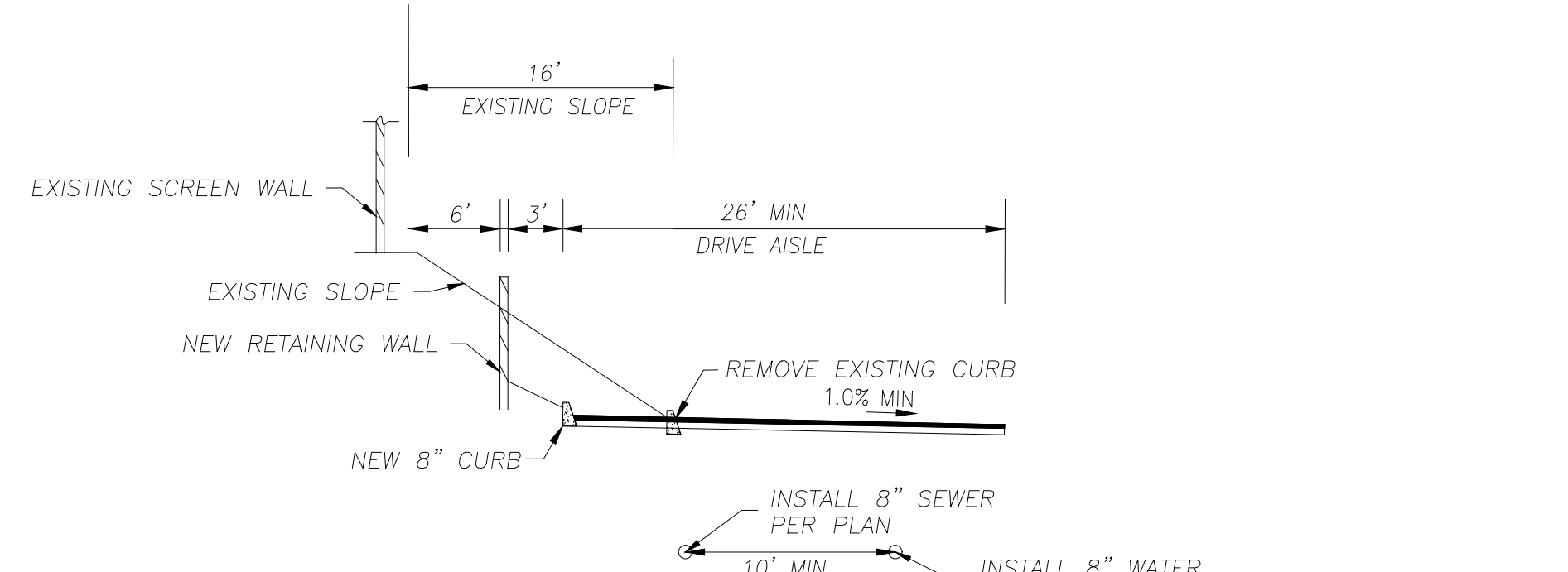
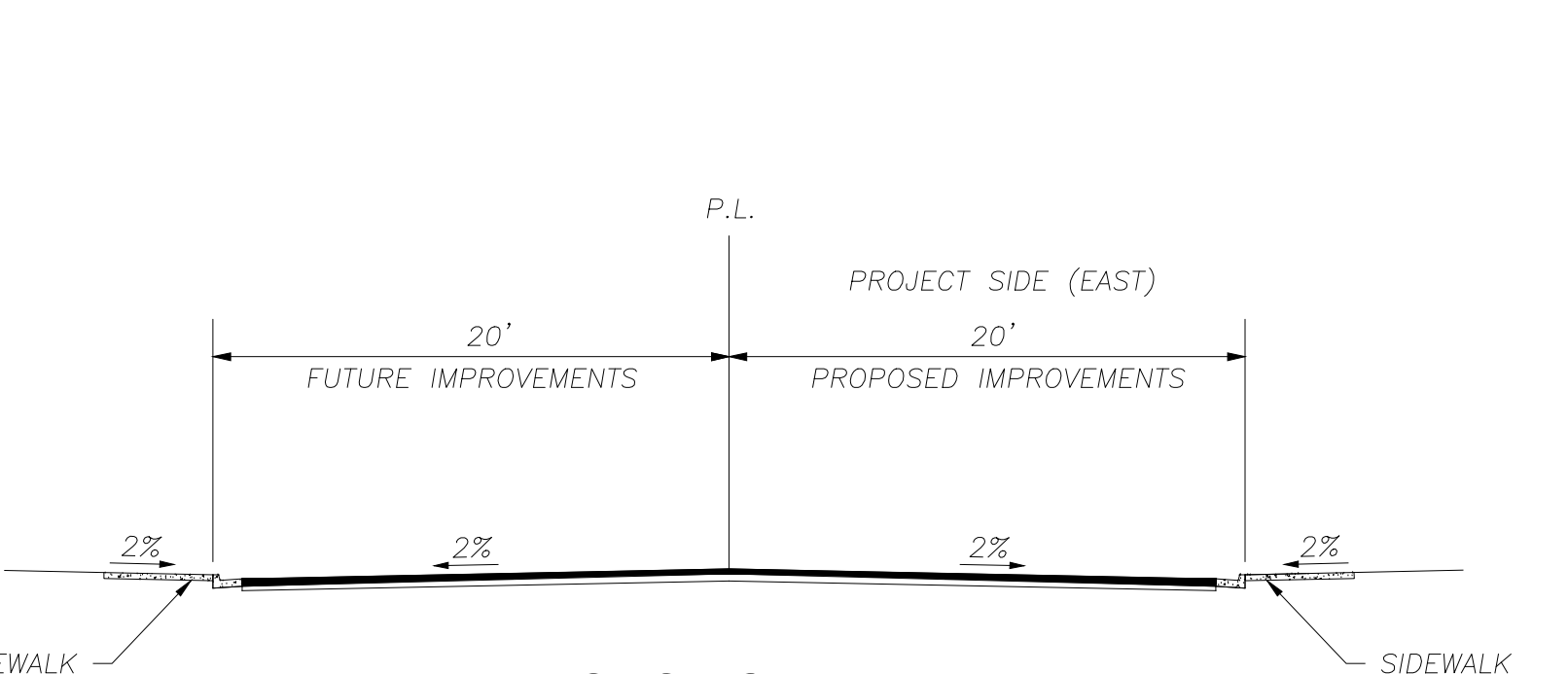
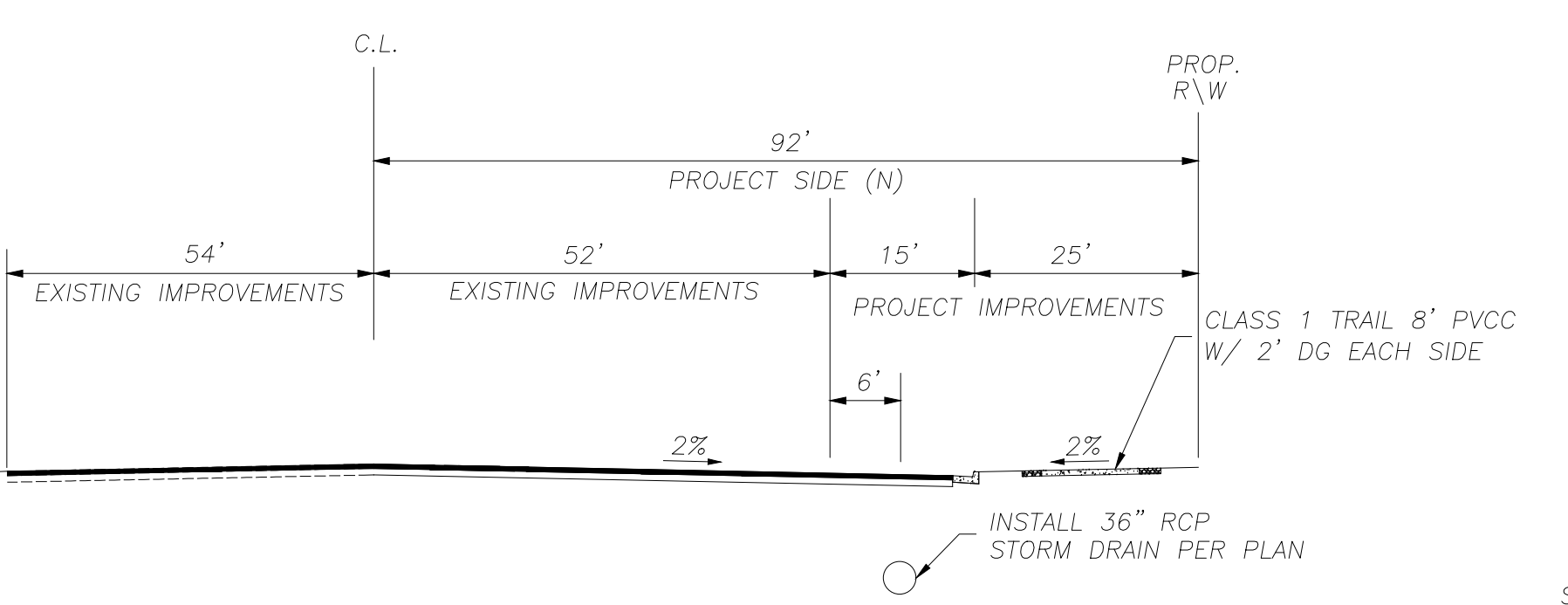
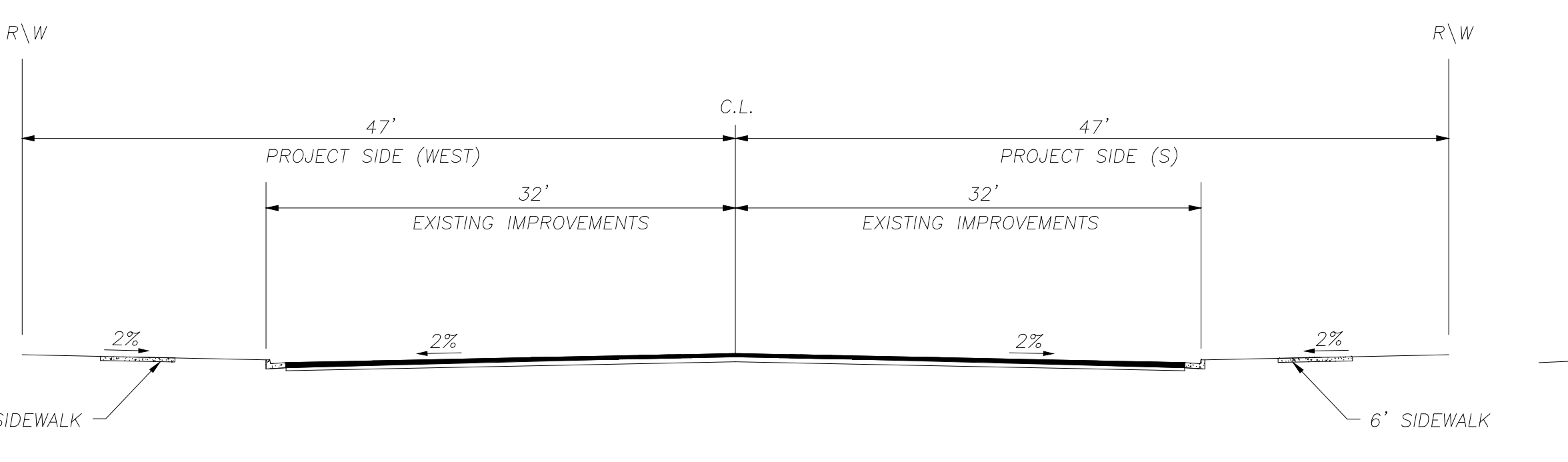
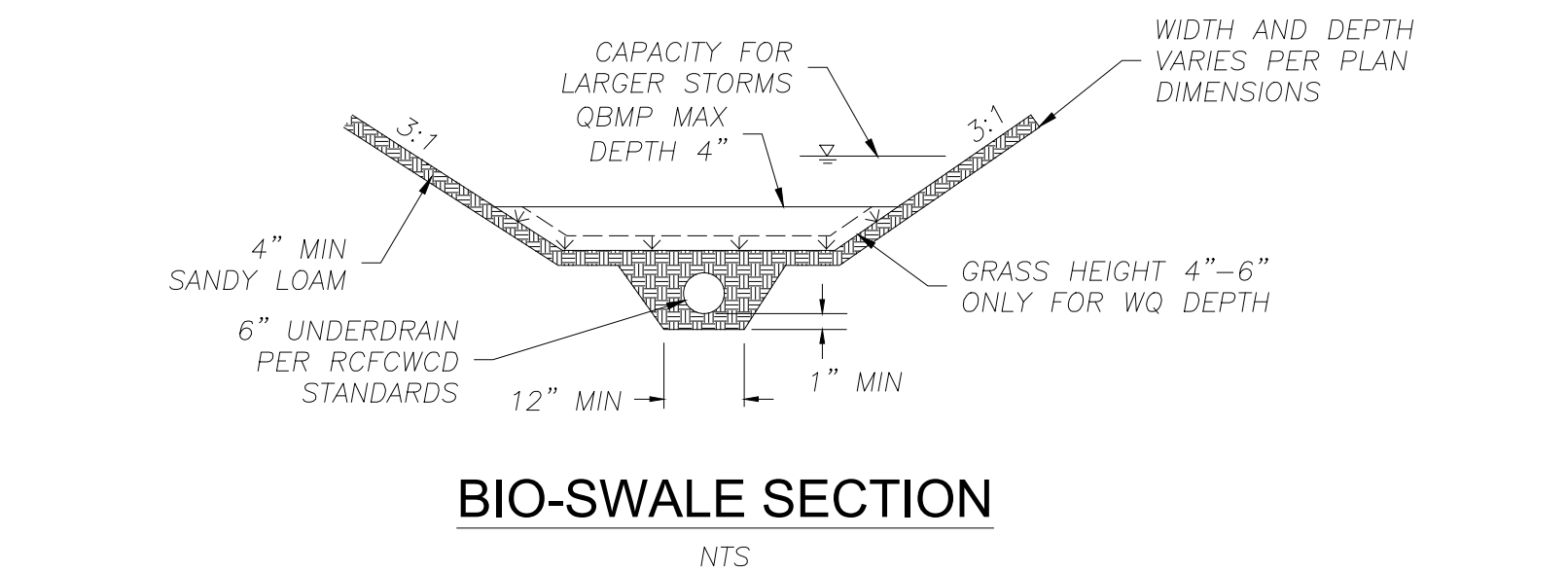
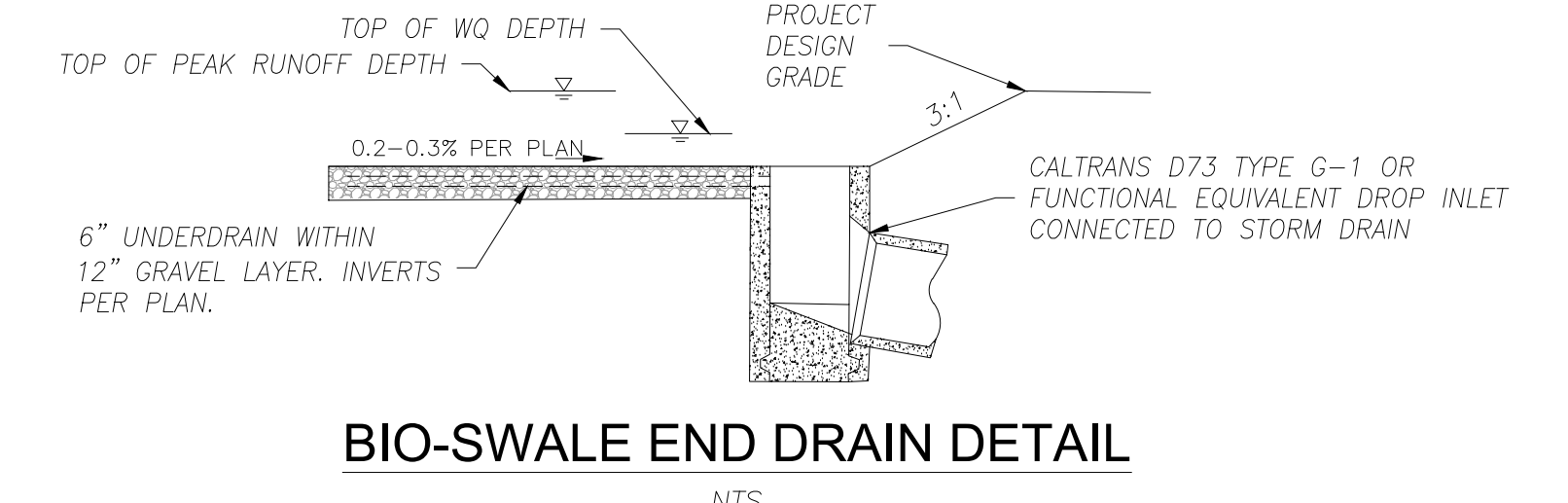
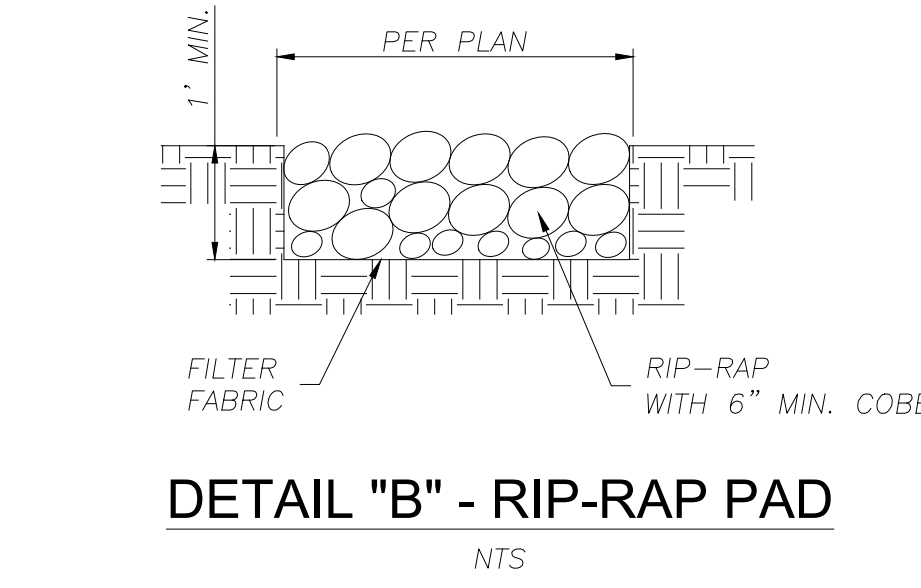
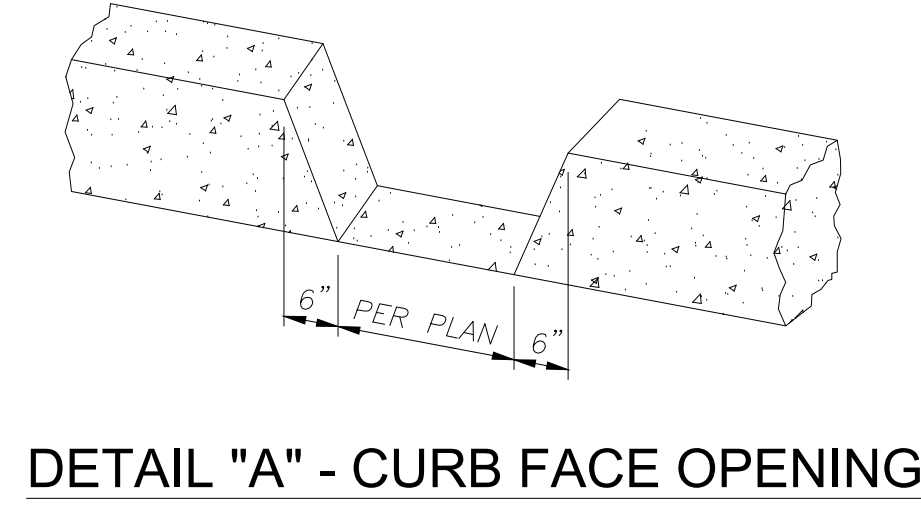
LEGEND/ABBREVIATION

CF	CURB FACE	TC	TOP OF CURB
FG	FINISH GRADE	TG	TOP OF GRATE
FF	FINISHED FLOOR	SD	STORM DRAIN
FL	FLOW LINE	PL	PROPERTY LINE
GB	GRADE BREAK	PE	PEDESTRIAN
HP	HIGH POINT	TYP.	TYPICAL
INV	INVERT	EH	EXISTING FIRE HYDRANT
LP	LOW POINT	WV	WATER VALVE
R/W	RIGHT-OF-WAY	WM	WATER METER
P=XX.X	PAD ELEVATION	SL	STREET LIGHT
FF=XX.X	FINISH FLOOR ELEVATION	SD	PROPOSED STORM DRAIN LINE
2%	DIRECTION OF DRAINAGE/GRADE	EX	EXISTING CONTOUR



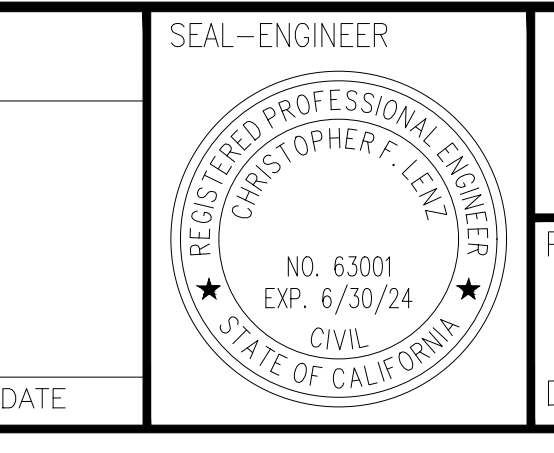
TRASH ENCLOSURE COVER NOTES:

- 1.4-INCH X 8-INCH METAL BEAM POWDER COATED
- 2.4-INCH X 4-INCH TUBULAR STEEL POST. SET POST FLUSH TO WALL. GROUT FILL POST SOLID. PAINT WITH 2 COATS ZINC PRIMER & 2 COATS SATIN FINISH PAINT.
3. GATE FRAME CONTINUOUS. ATTACH GATE FRAME TO STEEL POST WITH 3 HEAVY DUTY HINGES. CONTRACTOR SHALL SUPPLY SHOP DRAWINGS FOR APPROVAL PRIOR TO CONSTRUCTION.
4. CMU WALL REFER TO STRUCTURAL ENGINEERS SPECIFICATIONS FOR REINFORCEMENT.
5. CONCRETE FOOTING / REFER TO STRUCTURAL ENGINEERS SPECIFICATIONS FOR REINFORCEMENT.
6. HEAVY DUTY HINGES
7. METAL TRELLIS POWDER COATED (OR 2 COATS ZINC PRIMER & 2 COATS SATIN FINISH PAINT); COLOR TO BE SELECTED; REFER TO SHOP DRAWINGS FOR ROOF FRAMING.
8. 3-INCH X 8-INCH X 1/4-INCH THICK GALVANIZED STEEL SHIP PLATE AND LOCKABLE KEEPER. WELD TO GATE FRAME. AS SHOWN. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL.
9. MIN-V-BEAM 28 GAUGE WITH ENDURA CLAD FINISH AS MANUFACTURED BY ASC PACIFIC INC. OR APPROVED EQUAL. SPOT WELD TO ANGLE FRAME (CONTRACTOR TO SUBMIT SHOP DRAWINGS).
10. 3/8-INCH X 1/2-INCH GALVANIZED STEEL DIAGONAL CROSS BRACE / FILLET WELD TO FRAME AND SPOT WELD TO MIN-V-BEAM (AT BACK OF GATE).
11. HEAVY DUTY DROP CRANE BOLT. ATTACH TO GATE FRAME. SET 1-8 INCHES LONG X 1 INCH O.D. GALVANIZED PIPE SLEEVE TO ACCEPT BOLT. STANLY CD 10009-18 INCHES OR APPROVED EQUAL.
12. COMPACTED SUBGRADE PER GEOTECHNICAL REPORT.
13. 8-INCH THICK PCC CONCRETE PAD WITH 6 X 6 X 10 W/M.
14. METAL ROOF, CORRUGATED STEEL - BERRIDGE LEAD-COPE STRAIGHT S-DECK / INSTALL PER MANUFACTURERS SPECIFICATIONS.
15. 8-INCH X 2-INCH X 1/8-INCH CMU CAP TO MATCH WALL COLOR.
16. DISABLE ACCESSIBLE RAMP AND HANDRAIL IF REQUIRED.
17. CONCRETE CURB
18. A CONCRETE FOOTING TO ACHIEVE 4300 PSI @ 28 DAYS.
19. TRASH BINS - SIZE AND NUMBER AS REQUIRED BY CITY.



NOTE: WORK CONTAINED WITHIN THESE PLANS SHALL NOT COMMENCE UNTIL ENCROACHMENT PERMIT AND/OR GRADING PERMIT HAS BEEN ISSUED. THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY OF DESIGN AND ACCEPTABILITY OF THE WORK HEREON. IN THE EVENT OF DISCREPANCIES ARISING AFTER CITY APPROVAL OR DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY CITY.

CITY OF PERRIS			
APPROVED BY:	SEAL-ENGINEER	DATE:	DATE:
ENGINEER	CHRISTOPHER F. LENZ	6/30/24	6/30/24
DESIGN BY:	DRAWN BY:	CHECKED BY:	CITY ENGINEER



PREPARED UNDER THE DIRECTION OF:
CHRISTOPHER F. LENZ
REGISTRATION EXPIRES 6-30-24

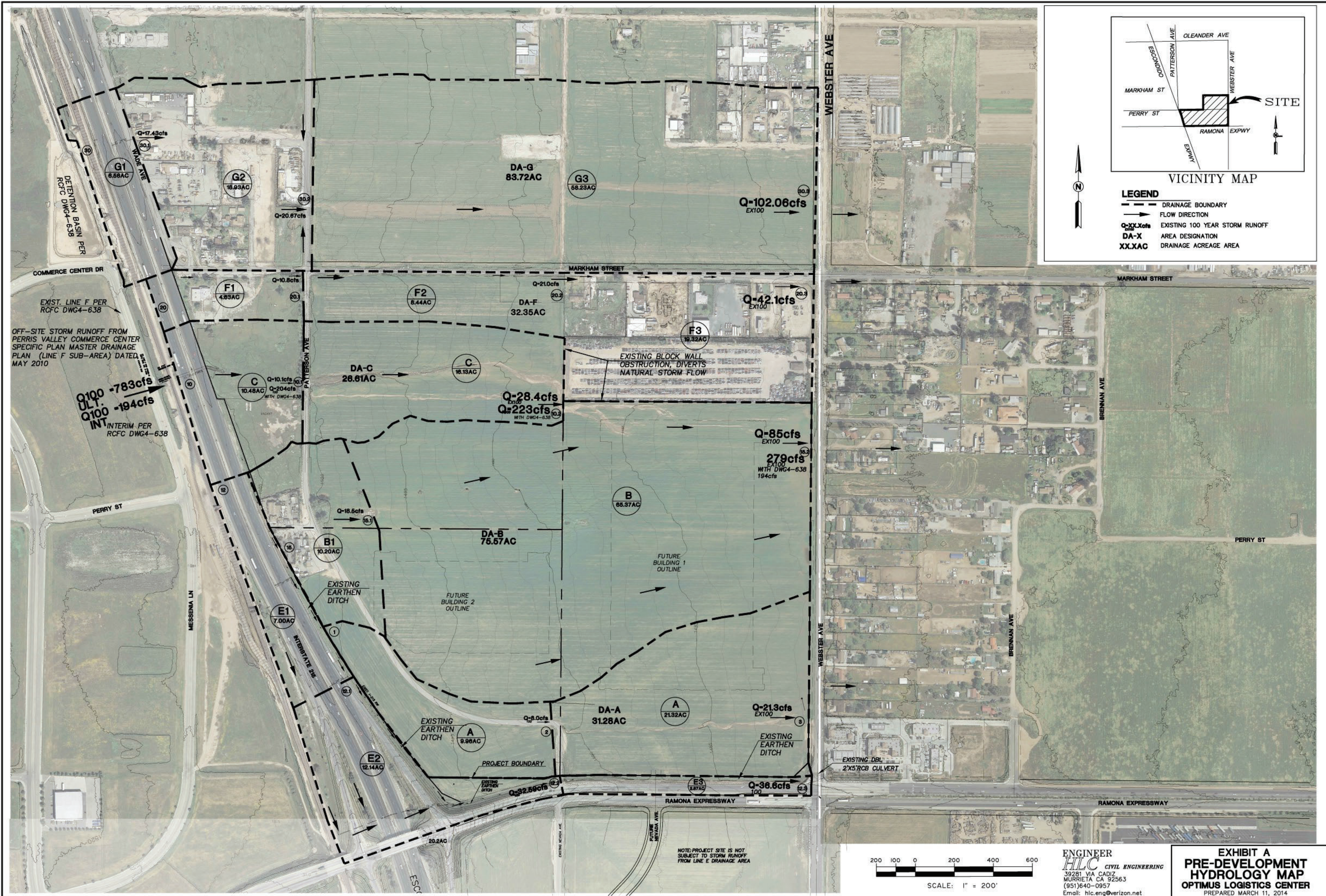
BENCH MARK: NGS DATA POINT DESIGNATION: 432 PID-DX5439 3" ALUMINUM DISC STAMPED "BM432" SW CORNER PERRIS BLVD AND RIDGE STREET BASE OF STEEL SIGNAL LIGHT, 3.5' X 2.7' CONC BASE ON EAST SIDE SET FLUSH
ELEVATION = 1455.11' NAVD 88

SCALE: FIELD BOOK DESIGN DRAWN CHECKED

ZONING CASE #DPR _____ SPA _____ SHEET NO. _____
PERRIS, CA 92571
PRELIMINARY GRADING & DRAINAGE PLAN
PERRIS GATEWAY - PHASE II
DRAINAGE - PROPOSED CONDITION
FOR: OPTIMUS BUILDING CORP. W.G. CITY FILE NO. DPR _____

FIGURE 3

Offsite Exhibit - Optimus Logistics Center



OFF-SITE STORM RUNOFF FROM PERRIS VALLEY COMMERCE CENTER SPECIFIC PLAN MASTER DRAINAGE PLAN (LINE F SUB-AREA) DATED MAY 2010

Q100 -783cfs
ULT. Q100 -194cfs
INT. PER RCFC DWG4-638

EXISTING BLOCK WALL OBSTRUCTION, DIVERTS NATURAL STORM FLOW

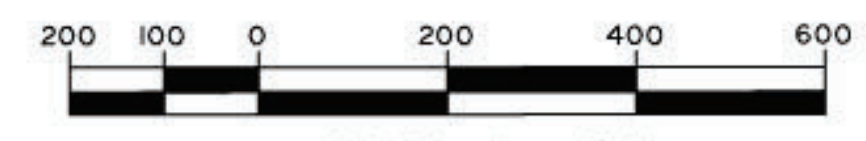
FUTURE BUILDING 1 OUTLINE

FUTURE BUILDING 2 OUTLINE

EXISTING DBL 2'X5'RCB CULVERT

PROJECT BOUNDARY

NOTE: PROJECT SITE IS NOT SUBJECT TO STORM RUNOFF FROM LINE E DRAINAGE AREA



ENGINEER
HLC CIVIL ENGINEERING
39281 VIA CADIZ
MURRIETA CA 92563
(951)640-0957
Email: hlc.enr@verizon.net

EXHIBIT A
PRE-DEVELOPMENT
HYDROLOGY MAP
OPTIMUS LOGISTICS CENTER
PREPARED MARCH 11, 2014