

Harvest Landing Retail Center & Business Park Project (SPA 22-05250)



TRAFFIC IMPACT ANALYSIS REPORT

October 17, 2025

E | P | D
SOLUTIONS, INC

Harvest Landing Retail Center & Business Park Project

Traffic Impact Analysis

City of Perris

Prepared For

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1 EXECUTIVE SUMMARY

This Traffic Impact Analysis (TIA) has been prepared by EPD Solutions, Inc. (EPD) to analyze the potential traffic deficiencies of the proposed Harvest Landing Retail Center & Business Park (Project) located in the western central portion of the City of Perris, southeast of the intersection of W Placentia Avenue and I-215/E Frontage Road.

Project Description

The Project site encompasses an area of approximately 358.28 acres. The proposed Project would consist of demolishing all existing structures and constructing the Project in two phases. The Project includes a total of 358.28 acres and consists of three components: Commercial, Business Park Phase 1, and Business Park Phase 2. The following acreages and square footage (SF) are proposed across the three components:

- The following components will be developed in Opening Year I 2026 (Phase 1):
 - The Commercial component consists of lots totaling 46.72 acres south of Orange Avenue, east of Barrett Avenue, and west of Perris Boulevard. The 423,007 SF Commercial component includes retail anchor, shopping center, supermarket, fast casual restaurant, high turnover (sit-down) restaurant, fast Food restaurant with drive through and coffee/donut shop with drive-through window, a 5,500 SF medical office building, and a gasoline/service station with 12 vehicle fueling positions.
 - Business Park Phase 1 consists of lots totaling 140.70 acres south of Orange Avenue, east of I-215 Frontage Road, and west of Barrett Avenue. Business Park Phase 1 includes general light industrial uses including: 1,207,000 SF of high-cube warehouse use, 322,079 SF of parcel hub use, and 198,500 SF of other general light industrial use
- The following components will be developed in Opening Year II 2030 (Phase 1 + Phase 2):
 - Business Park Phase 2 consists of lots totaling 112.01 acres and an overlay zone of 10.66 acres north of Orange Avenue, east of I-215 Frontage Road and west of Barrett Avenue. Business Park Phase 2 is analyzed programmatically for future multiple business uses with no detailed site plan available. Business Park Phase 2 includes 3,659,693 SF of industrial park and 348,262 SF of industrial park overlays.

Project Trip Generation

The trip generation for the proposed development was analyzed using the Institute of Transportation Engineers, *Trip Generation* (11th Edition) trip generation rates. The proposed Project is estimated to generate approximately 40,321 daily trips, 2,778 AM peak hour trips, and 3,106 PM peak hour trips. When converted to passenger car equivalent (PCE) trips, the proposed Project is estimated to generate approximately 44,542 daily PCE trips, 3,091 AM peak hour PCE trips, and 3,395 PM peak hour PCE trips.

Project Study Area

The following study area intersections were evaluated during the AM and PM peak hours, which are defined as the hours with the highest traffic volumes during the 7 AM to 9 AM and 4 PM to 6 PM peak commute periods.

1. Perris Blvd/Iris Ave
2. Perris Blvd/Krameria Ave
3. N Perris Blvd/Harley Knox Blvd
4. N Perris Blvd/W Markham St
5. N Perris Blvd/Ramona Expy
6. N Perris Blvd/Morgan St
7. Evans Rd/E Rider St

8. Redlands Ave/E Rider St
9. N Perris Blvd/E Rider St
10. Redlands Ave/Placentia Ave
11. N Perris Blvd/Placentia Ave
12. Barrett Ave/W Placentia Ave
13. Indian Ave/W Placentia Ave
14. I-215 Frontage Rd/W Placentia Ave
15. I-215 NB Ramps/Placentia Ave
16. I-215 SB Ramps/Placentia Ave
17. Redlands Ave/Orange Ave
18. N Perris Blvd/Orange Ave
19. Barrett Ave/Orange Ave
20. Indian Ave/Orange Ave
21. I-215 Frontage Rd/Orange Ave
22. Redlands Ave/Citrus Ave
23. N Perris Blvd/Citrus Ave
24. Murrieta Rd/E Nuevo Rd
25. Redlands Ave/E Nuevo Rd
26. N Perris Blvd/ W Nuevo Rd
27. I-215 Frontage Rd/W Nuevo Rd
28. I-215 NB Ramps/W Nuevo Rd
29. I-215 SB Ramps/W Nuevo Rd
30. Redlands Ave/Midred St
31. N Perris Blvd/Mildred St
32. N Perris Blvd/E San Jacinto Ave
33. Indian St/Ramona Expy
34. Indian St/Morgan St
35. Indian St/Rider St
36. Perris Blvd/4th St
37. Perris Blvd/Harvest Landing Way
38. Barrett Ave/Harvest Landing Way
39. Barrett Ave/I-215 Frontage Road
40. Commercial Driveway 1, 2/Harvest Landing Way
41. Commercial Driveway 3, 4/Harvest Landing Way
42. Commercial Driveway 5/N. Perris Blvd
43. Commercial Driveway 6/Barrett Ave
44. Commercial Driveway 7/N. Perris Blvd
45. Commercial Driveway 8/N. Perris Blvd
46. Commercial Driveway 9/Existing Plaza Driveway/Orange Ave
47. Commercial Driveway 10/Orange Ave
48. Building 1 Auto Driveway 1/Orange Ave
49. Building 1 Auto Driveway 2/Orange Ave
50. Building 1 Truck Driveway/I-215 Frontage Rd
51. Building 2 Auto Driveway/Orange Ave
52. Building 2 Auto Driveway 2/Orange Ave
53. Building 2 Truck Driveway/I-215 Frontage Rd
54. Building 3 Auto Driveway/I-215 Frontage Rd
55. Building 3/4 Truck Driveway/I-215 Frontage Rd
56. Building 4/5 Auto Driveway/I-215 Frontage Rd
57. Building 5 Truck Driveway/I-215 Frontage Rd
58. Building 6 Truck Driveway/I-215 Frontage Rd
59. Building 6 Auto Driveway 1/Barrett Ave
60. Building 6 Auto Driveway 2/Barrett Ave
61. Building 7 Truck Driveway/I-215 Frontage Rd
62. Building 7 Auto Driveway 1/I-215 Frontage Rd
63. Building 7 Auto Driveway 2/Barrett Ave

In addition to the study area intersections, the following study area roadway segments were evaluated:

1. Indian Ave between Placentia Ave and Orange Ave
2. Orange Ave between Indian Ave and Perris Blvd
3. Perris Blvd between Orange Ave and Citrus Ave
4. Barrett Ave between Placentia Ave and Orange Ave
5. Perris Blvd between Placentia Ave and Orange Ave
6. Perris Blvd between Rider St and Placentia Ave
7. Nuevo Rd between Perris Blvd & I-215 NB Ramps
8. I-215 Frontage Rd between Placentia Ave and Orange Ave
9. I-215 Frontage Rd between Orange Ave and Nuevo Rd
10. Orange Ave between I-215 Frontage Rd and Indian Ave
11. Nuevo Rd between I-215 NB Ramps & I-215 SB Ramps
12. Perris Blvd between Citrus Ave and Nuevo Rd
13. Placentia Ave between I-215 NB Ramps & I-215 SB Ramps
14. Placentia Ave between I-215 NB Ramps & Indian Ave
15. Placentia Ave between Indian Ave & Perris Blvd
16. Barrett Ave between Orange Ave and Harvest Landing Way
17. Barrett Ave between Harvest Landing Way and I-215 Frontage Rd
18. Harvest Landing Way between Barrett Ave and Perris Blvd
19. Indian Ave between Placentia Ave and Water Ave

Analysis Scenario

AM and PM peak hour traffic operations were evaluated for the following scenarios:

- Existing 2024 Traffic Conditions (Existing 2023 Counts + Ambient Growth)
- Opening Year I 2026 Without Project Traffic Conditions
- (Phase 1) Opening Year I 2026 with Project Traffic Conditions
- Opening Year II 2030 Without Project Traffic Conditions
- (Phase 1 + Phase 2) Opening Year II 2030 with Project Traffic Conditions
- General Plan 2045 Without Project Traffic Conditions
- General Plan 2045 With Project Traffic Conditions

Existing Year 2024 Analysis Results

➤ Intersection Level of Service:

Among the 63 study intersections, none would operate at an unsatisfactory level of service (LOS) during the AM & PM peak hour under Existing Year 2024 condition.

➤ Intersection Queuing Analysis:

Among the four (4) study intersections, no queueing deficiencies were observed during the AM & PM peak hour under Existing Year 2024 condition.

➤ Roadway Segment Level of Service:

Among the 19 study area roadway segments, no roadway segments would operate at an unsatisfactory LOS under Existing Year 2024 condition.

Opening Year I 2026 Without Project Analysis Results

➤ Intersection Level of Service:

Among the 63 study intersections, one intersection would operate at an unsatisfactory LOS under Opening Year I 2026 Without Project condition as listed below:

- #1. Perris Blvd/Iris Ave (LOS E during AM peak hour)

➤ Intersection Queuing Analysis:

Among the four (4) study intersections, queueing deficiencies were observed under Opening Year I 2026 Without Project condition, for the following approaches:

- #28. I-215 Northbound Ramps/West Nuevo Road – eastbound left-turn lane (PM peak hour)
- #28. I-215 Northbound Ramps/West Nuevo Road – westbound right-turn lane (AM and PM peak hour)

➤ Roadway Segment Level of Service:

Among the 19 study area roadway segments, six (6) roadway segments would operate at an unsatisfactory LOS under Opening Year I 2026 Without Project condition.

- #3. Perris Blvd between Orange Ave and Citrus Ave
- #5. Perris Blvd between Placentia Ave and Orange Ave
- #6 Perris Blvd between Rider St and Placentia Ave
- #11. Nuevo Rd between I-215 NB Ramps and I-215 SB Ramps
- #13. Placentia Ave between I-215 NB Ramps and I-215 SB Ramps
- #14. Placentia Ave between I-215 NB Ramps and Indian Ave

Opening Year II 2030 Without Project Analysis Results

➤ Intersection Level of Service:

Among the 63 study intersections, five (5) intersections would operate at an unsatisfactory LOS under Opening Year II 2030 Without Project condition as listed below:

- #1. Perris Blvd/Iris Ave (LOS F during AM peak hour and LOS E during PM peak hour)
- #2. Perris Blvd/Krameria Ave (LOS E during AM and PM peak hour)
- #5. Perris Blvd/Ramona Expy (LOS F during PM peak hour)
- #27. I-215 Frontage Rd/W Nuevo Rd (LOS E during AM peak hour and LOS F during PM peak hour)
- #46. Commercial Driveway 9/Existing Plaza Driveway and Orange Ave (LOS E during PM peak hour)

➤ Intersection Queuing Analysis:

Among the four (4) study intersections, queueing deficiencies were observed under Opening Year II 2030 Without Project condition, for the following approaches:

- #15. I-215 Northbound Ramps/Placentia Avenue – westbound right-turn lane (PM peak hour)
- #28. I-215 Northbound Ramps/West Nuevo Road – eastbound left-turn lane (AM and PM peak hour)
- #28. I-215 Northbound Ramps/West Nuevo Road – westbound right-turn lane (AM and PM peak hour)

➤ Roadway Segment Level of Service:

Among the 19 study area roadway segments, the following seven (7) roadway segments would operate at an unsatisfactory LOS in the Opening Year II 2030 Without Project condition:

- #3. Perris Blvd between Orange Ave and Citrus Ave
- #5. Perris Blvd between Placentia Ave and Orange Ave
- #6. Perris Blvd between Rider St and Placentia Ave
- #7. Nuevo Rd between Perris Blvd and I-215 NB Ramps
- #11. Nuevo Rd between I-215 NB Ramps and I-215 SB Ramps
- #13. Placentia Ave between I-215 NB Ramps and I-215 SB Ramps
- #14. Placentia Ave between I-215 NB Ramps and Indian Ave

General Plan 2045 Without Project Analysis Results

➤ Intersection Level of Service:

Among the 63 study intersections, 14 intersections would operate at an unsatisfactory LOS under General Plan 2045 Without Project condition as listed below:

- #1. Perris Blvd/Iris Ave (LOS F during AM and PM peak hour)
- #2. Perris Blvd/Krameria Ave (LOS F during AM and PM peak hour)
- #3. N Perris Blvd/Harley Knox Blvd (LOS F during PM peak hour)
- #4. N Perris Blvd/W Markham St (LOS F during AM peak hour and LOS E during PM peak hour)
- #5. N Perris Blvd/Ramona Expy (LOS F during AM peak hour)
- #10. Redlands Ave/Placentia Ave (LOS F during AM and PM peak hour)
- #11. N Perris Blvd/Placentia Ave (LOS F during PM peak hour)
- #12. Barrett Ave/W Placentia Ave (LOS F during AM and PM peak hour)
- #19. Barrett Ave/Orange Ave (LOS E during AM peak hour)
- #22. Redlands Ave/Citrus Ave (LOS E during AM peak hour and LOS F during PM peak hour)
- #23. N Perris Blvd/Citrus Ave (LOS E during PM peak hour)
- #27. I-215 Frontage Rd/W Nuevo Rd (LOS F during PM peak hour)
- #28. I-215 NB Ramps/W Nuevo Rd (LOS F during AM peak hour)
- #30. Redlands Ave/Midred St (LOS E during AM peak hour)
- #32. N Perris Blvd/E San Jacinto Ave (LOS F during AM and PM peak hour)
- #46. Commercial Driveway 9/Existing Plaza Driveway and Orange Ave (LOS E during PM peak hour)

➤ Intersection Queuing Analysis:

Among the four (4) study intersections, queuing deficiencies were observed under General Plan 2045 Without Project condition, for the following approaches:

- #28. I-215 Northbound Ramps/West Nuevo Road – northbound left-turn and right-turn lane (AM peak hour)
- #28. I-215 Northbound Ramps/West Nuevo Road – eastbound left-turn lane (AM peak hour)
- #28. I-215 Northbound Ramps/West Nuevo Road – westbound right-turn lane (AM and PM peak hour)
- #29. I-215 Southbound Ramps/West Nuevo Road – southbound left-turn lane (PM peak hour)
- #29. I-215 Southbound Ramps/West Nuevo Road – westbound left-turn lane (PM peak hour)

➤ Roadway Segment Level of Service:

Among the 19 study area roadway segments, the following three (3) roadway segments would operate at an unsatisfactory LOS in the General Plan 2045 Without Project condition:

- #7. Nuevo Rd between Perris Blvd and I-215 NB Ramps
- #12. Perris Blvd between Citrus Ave and Nuevo Rd
- #14. Placentia Ave between I-215 NB Ramps and Indian Ave

Opening Year I 2026 With Project Analysis Results

➤ Intersection Level of Service:

Among the 63 study intersections, four (4) intersections would operate at an unsatisfactory LOS under Opening Year I 2026 With Project condition as listed below:

- #1. Perris Blvd/Iris Ave (LOS E during AM peak hour)
- #18. N Perris Blvd/Orange Ave (LOS E during AM peak hour)
- #26. N Perris Blvd/ W Nuevo Rd (LOS E during AM and PM peak hour)
- #27. I-215 Frontage Rd/W Nuevo Rd (LOS F during PM peak hour)

➤ Intersection Queuing Analysis:

Among the four (4) study intersections, queuing deficiencies were observed under Opening Year I 2026 With Project condition, for the following approaches:

- #28. I-215 Northbound Ramps/West Nuevo Road – eastbound left-turn lane (PM peak hour)
- #28. I-215 Northbound Ramps/West Nuevo Road – westbound right-turn lane (AM and PM peak hour)
- #29. I-215 Southbound Ramps/West Nuevo Road – westbound left-turn lane (PM peak hour)

➤ Driveway Queuing Analysis:

Driveway queuing deficiencies were not observed under Opening Year I 2026 With Project Conditions.

➤ Roadway Segment Level of Service:

Among the 19 study area roadway segments, the following seven (7) roadway segments would operate at an unsatisfactory LOS in the Opening Year I 2026 With Project condition:

- #3. Perris Blvd between Orange Ave and Citrus Ave
- #6. Perris Blvd between Rider St and Placentia Ave
- #7. Nuevo Rd between Perris Blvd and I-215 NB Ramps
- #11. Nuevo Rd between I-215 NB Ramps and I-215 SB Ramps
- #12. Perris Blvd between Citrus Ave and Nuevo Rd
- #13. Placentia Ave between I-215 NB Ramps and I-215 SB Ramps
- #14. Placentia Ave between I-215 NB Ramps and Indian Ave

Opening Year II 2030 With Project Analysis Results

➤ Intersection Level of Service:

Among the 63 study intersections, 13 intersections would operate at an unsatisfactory LOS under Opening Year II 2030 With Project condition as listed below:

- #1. Perris Blvd/Iris Ave (LOS F during AM and LOS E during PM peak hour)
- #2. Perris Blvd/Krameria Ave (LOS E during AM and PM peak hour)
- #5. Perris Blvd/Ramona Expy (LOS F during AM peak hour)
- #11. N Perris Blvd/Placentia Ave (LOS E during PM peak hour)
- #13. Indian Ave/W Placentia Ave (LOS E during AM and PM peak hour)
- #14. I-215 Frontage Rd/W Placentia Ave (LOS E during AM peak hour and LOS F during PM peak hour)
- #18. N Perris Blvd/Orange Ave (LOS E during AM peak hour and LOS F during PM peak hour)
- #21. I-215 Frontage Rd/Orange Ave (LOS F during AM and PM peak hour)
- #24. Murrieta Rd/E Nuevo Rd (LOS E during AM peak hour)
- #26. N Perris Blvd/ W Nuevo Rd (LOS F during AM and PM peak hour)
- #27. I-215 Frontage Rd/W Nuevo Rd (LOS F during AM and PM peak hour)
- #30. Redlands Ave/Midred St (LOS E during AM peak hour)
- #36. Perris Blvd/4th St (LOS F during AM and PM peak hour)

➤ Intersection Queuing Analysis:

Among the four (4) study intersections, queuing deficiencies were observed under Opening Year II 2030 With Project conditions, for the following approaches:

- #15. I-215 Northbound Ramps/Placentia Avenue – westbound right-turn lane (PM peak hour)
- #28. I-215 Northbound Ramps/West Nuevo Road – eastbound left-turn lane (AM and PM peak hour)
- #28. I-215 Northbound Ramps/West Nuevo Road – westbound right-turn lane (AM and PM peak hour)
- #29. I-215 Southbound Ramps/West Nuevo Road – southbound left-turn lane (PM peak hour)
- #29. I-215 Southbound Ramps/West Nuevo Road – westbound left-turn lane (PM peak hour)

➤ Driveway Queuing Analysis:

Driveway queuing deficiencies were not observed under Opening Year II 2030 With Project Conditions.

➤ Roadway Segment Level of Service:

Among the 19 study area roadway segments, the following seven (7) roadway segments would operate at an unsatisfactory LOS in the Opening Year II 2030 With Project condition:

- #3. Perris Blvd between Orange Ave and Citrus Ave
- #6. Perris Blvd between Rider St and Placentia Ave
- #7. Nuevo Rd between Perris Blvd and I-215 NB Ramps
- #11. Nuevo Rd between I-215 NB Ramps and I-215 SB Ramps
- #12. Perris Blvd between Citrus Ave and Nuevo Rd
- #13. Placentia Ave between I-215 NB Ramps and I-215 SB Ramps
- #14. Placentia Ave between I-215 NB Ramps and Indian Ave

General Plan 2045 With Project Analysis Results

➤ Intersection Level of Service:

Among the 63 study intersections, 21 intersections would operate at an unsatisfactory LOS under General Plan 2045 With Project condition as listed below:

- #1. Perris Blvd/Iris Ave (LOS F during AM and PM peak hour)
- #2. Perris Blvd/Krameria Ave (LOS F during AM and PM peak hour)
- #3. N Perris Blvd/Harley Knox Blvd (LOS F during PM peak hour)
- #4. N Perris Blvd/W Markham St (LOS F during AM peak hour and LOS E during PM peak hour)
- #5. Perris Blvd/Ramona Expy (LOS F during AM peak hour)
- #10. Redlands Ave/Placentia Ave (LOS F during AM and PM peak hour)
- #11. N Perris Blvd/Placentia Ave (LOS F during PM peak hour)
- #14. I-215 Frontage Rd/W Placentia Ave (LOS F during PM peak hour)
- #17. Redlands Ave/Orange Ave (LOS E during AM peak hour)
- #18. N Perris Blvd/Orange Ave (LOS F during PM peak hour)
- #21. I-215 Frontage Rd/Orange Ave (LOS F during AM and PM peak hour)
- #22. Redlands Ave/Citrus Ave (LOS F during AM and PM peak hour)
- #23. N Perris Blvd/Citrus Ave (LOS E during AM peak hour and LOS F during PM peak hour)
- #24. Murrieta Rd/E Nuevo Rd (LOS E during AM peak hour)
- #25. Redlands Ave/E Nuevo Rd (LOS E during AM and PM peak hour)
- #26. N Perris Blvd/ W Nuevo Rd (LOS E during AM and PM peak hour)
- #27. I-215 Frontage Rd/W Nuevo Rd (LOS F during PM peak hour)
- #28. I-215 NB Ramps/W Nuevo Rd (LOS F during AM peak hour)
- #29. I-215 SB Ramps/W Nuevo Rd (LOS F during PM peak hour)
- #30. Redlands Ave/Midred St (LOS E during AM peak hour)
- #32. N Perris Blvd/E San Jacinto Ave (LOS F during AM and PM peak hour)

➤ Intersection Queuing Analysis:

Among the four (4) study intersections, queuing deficiencies were observed under General Plan 2045 With Project conditions, for the following approaches:

- #15. I-215 Northbound Ramps/Placentia Avenue – westbound right-turn lane (AM and PM peak hour)
- #28. I-215 Northbound Ramps/West Nuevo Road – northbound left-turn and right-turn lane (AM peak hour)
- #28. I-215 Northbound Ramps/West Nuevo Road – eastbound left-turn lane (AM peak hour)
- #28. I-215 Northbound Ramps/West Nuevo Road – westbound right-turn lane (AM and PM peak hour)
- #29. I-215 Southbound Ramps/West Nuevo Road – southbound left-turn lane (PM peak hour)
- #29. I-215 Southbound Ramps/West Nuevo Road – westbound left-turn lane (PM peak hour)

➤ Driveway Queuing Analysis:

Driveway queuing deficiencies were not observed under General Plan 2045 With Project Conditions.

➤ Roadway Segment Level of Service:

Among the 19 study area roadway segments, the following four (4) roadway segments would operate at an unsatisfactory LOS in the General Plan 2045 With Project condition:

- #3. Perris Blvd between Orange Ave and Citrus Ave

- #7. Nuevo Rd between Perris Blvd and I-215 NB Ramps
- #12. Perris Blvd between Citrus Ave and Nuevo Rd
- #14. Placentia Ave between I-215 NB Ramps and Indian Ave

Opening Year I 2026 With Project Improvements

➤ Intersection Level of Service:

The following improvements would improve the LOS to a satisfactory level or better than baseline in the Opening Year I 2026 With Project condition for 2 of the 4 intersections with an unsatisfactory LOS under Opening Year I 2026 With Project conditions:

- #18. N Perris Blvd/Orange Ave
 - Add right-turn overlap to EBR movement.
 - U-turns on all approaches are already prohibited at the intersection.
- #26. N Perris Blvd/ W Nuevo Rd
 - Add right-turn overlap to NBR movement.
 - EB & WB U-turns are already prohibited at the intersection

Per the City of Moreno Valley Guidelines, any signalized study intersection that is operating at unacceptable LOS without project traffic where the project increases delay by 5.0 or more seconds shall identify improvements to offset the increase in delay. For Intersection #1 Perris Blvd/Iris Ave, the Project increases the AM Peak delay by 1.9 seconds and the PM Peak delay by 2.2 seconds. Therefore, no improvements are recommended for Intersection #1 Perris Blvd/Iris Ave.

No feasible improvements would result in Intersection #27 I-215 Frontage Rd/W Nuevo Rd operating with satisfactory LOS.

➤ Intersection Queuing Analysis:

The following improvement would result in satisfactory queuing for the Opening Year I 2026 With Project condition:

- #29. I-215 SB Ramps/W Nuevo Rd
 - Change WB and EB Protected Phasing to Split Phasing.

➤ Roadway Segment Level of Service:

Based on City of Perris staff's recommendation, peak hour directional roadway segment analysis is conducted for roadway segments that have an unsatisfactory daily LOS. If the boundary intersections are forecast to operate at an acceptable LOS, a peak hour directional roadway segment analysis can be completed to verify that the peak hour roadway volumes are adequate.

All roadway segments would operate at satisfactory LOS during the AM and PM peak hours in the Opening Year I 2026 With Project condition.

Opening Year II 2030 With Project Improvements

➤ Intersection Level of Service:

The following improvements would improve the LOS to a satisfactory level in the Opening Year II 2030 With Project condition:

- #2. Perris Blvd/Krameria Ave
 - Change WB and EB Split Phase to Prot-Perm WBL and Protected EBL.
 - The speed limit on the west leg (Krameria Ave) is 25 mph.
- #5. Perris Blvd/Ramona Expy
 - Restripe EBL/EBL/EBT/EBT/EBT/EBR to EBL/EBL/EBL/EBT/EBT/EBR
- #11. N Perris Blvd/Placentia Ave
 - Add right-turn overlap to SBR movement.
 - EB U-turn is already prohibited at the intersection.
- #13. Indian Ave/W Placentia Ave
 - Change NB and SB Protected Left-turn Phasing to Prot-Perm Left-turn Phasing.
 - The speed limit on the north leg and south leg (Indian Ave) is 35 mph.
- #14. I-215 Frontage Rd/W Placentia Ave
 - Change NB and SB approach to split phasing.
 - Restripe to remove south leg shoulder and accommodate an additional NBL lane, then restripe NB approach from NBL/NBTR to NBL/NBL/NBLTR,
 - Restripe WB approach from WBL/WBT/WBT/WBR to WBL/WBT/WBT/WBTR,
 - Widen West leg of Placentia Ave to accommodate an additional receiving lane
 - Add right-turn overlap to EBR movement
 - NB & SB U-turn will be restricted at the intersection.
 - No existing AM and PM peak hour U-turn movements are observed at Intersection #14.
- #18. N Perris Blvd/Orange Ave
 - Add right-turn overlap to NBR, SBR, EBR and WBR movement.
 - U-turns on all approaches are already prohibited at the intersection.
- #21. I-215 Frontage Rd/Orange Ave
 - Restripe SBL/SBT/SBT to SBL/SBL/SBT.
 - As part of the development of the Project, I-215 Frontage Rd is being widened to 4-lane from Placentia Avenue to Nuevo Road.
- #24. Murrieta Rd/E Nuevo Rd
 - Add right-turn overlap to WBR movement.
 - NB & SB U-turn are already prohibited at the intersection.
- #26. N Perris Blvd/ W Nuevo Rd
 - Add right-turn overlap to NBR, EBR and WBR movement.
 - NB & SB U-turn would be restricted at the intersection.
 - The existing U-turn movements are added to the following intersection turning movements as a result of U-turns being restricted at Intersection #26:
 - SB U-turns
 - SBL at Intersection #26, EB U-turn at Intersection # 25, and WBR at Intersection #26
 - NB U-turns
 - NBL at Intersection #26 and WBL at the intersection of Perris Plaza/W Nuevo Road
 - EB & WB U-turns are already restricted at the intersection.
 - Restripe SBL/SBL/SBT/SBT/SBR/SBR to SBL/SBL/SBT/SBT/SBT/SBR
- #30. Redlands Ave/Midred St
 - This intersection passes signal warrant. Install Traffic Signal.
- #36. Perris Blvd/4th St
 - Restripe SBL/SBT/SBR to SBL/SBT/SBTR.

No feasible improvements would result in the following intersection operating with satisfactory LOS. However, the following improvement will improve the intersection to a lower delay and a better LOS as compared to the Opening Year II 2030 Without Project condition:

- #1. Perris Blvd/Iris Ave
 - Add right-turn overlap to NBR movement.
 - WB & EB U-turn are already prohibited at the intersection.

No feasible improvements would result in Intersection #27 I-215 Frontage Rd/W Nuevo Rd operating with satisfactory LOS.

➤ Intersection Queuing Analysis:

The following improvements would result in satisfactory queueing for the Opening Year II 2030 With Project condition:

- #29. I-215 SB Ramps/W Nuevo Rd
 - Change WB and EB Protected Phasing to Split Phasing.

No feasible improvements would result in the following intersections operating with satisfactory queueing. However, the following improvements will improve the intersection to a lower queue length compared to the Opening Year II 2030 Without Project condition:

- #15. I-215 NB Ramps/Placentia Ave
 - Restripe WBT, WBT, WBR to WBT, WBTR, WBR.

➤ Roadway Segment Level of Service:

Based on City of Perris staff's recommendation, peak hour directional roadway segment analysis is conducted for roadway segments that have an unsatisfactory daily LOS. If the boundary intersections are forecast to operate at an acceptable LOS, a peak hour directional roadway segment analysis can be completed to verify that the peak hour roadway volumes are adequate.

All roadway segments would operate at satisfactory LOS during the AM and PM peak hours in the Opening Year II 2030 With Project condition besides the following Segment:

- #14. Placentia Ave between I-215 NB Ramps and Indian Ave
 - EB: LOS E during AM and PM peak hour
 - WB: LOS F during PM peak hour

The unsatisfactory LOS at Segment #14 is a result of the Phase II development of the Project. Future projects within Phase II must prepare a project level traffic impact analysis. That analysis must identify this impact and require widening Segment 14 of Placentia Avenue between I-215 northbound ramps and Indian Avenue to six lanes when project specifics are known.

General Plan 2045 With Project Improvements

The following improvements would improve the LOS to a satisfactory level in the General Plan 2045 With Project condition:

- #5. Perris Blvd/Ramona Expy (LOS F during AM peak hour)
 - Restripe EBL/EBL/EBT/EBT/EBT/EBR to EBL/EBL/EBL/EBT/EBT/EBR.
- #14. I-215 Frontage Rd/W Placentia Ave (LOS F during PM peak hour)
 - Change NB and SB approach to split phasing
 - Restripe to remove south leg shoulder and accommodate an additional NBL lane, then restripe NB approach from NBL/NBTR to NBL/NBL/NBLTR
 - Restripe WB approach from WBL/WBT/WBT/WBT/WBR to WBL/WBT/WBT/WBT/WBTR
 - Widen West leg of Placentia Ave to accommodate an additional receiving lane.
 - Add right-turn overlap to EBR movement
 - NB & SB U-turn will be restricted at the intersection.
 - No existing AM and PM peak hour U-turn movements are observed at Intersection #14.
- #17. Redlands Ave/Orange Ave (LOS E during AM peak hour)
 - Widen NBL/NBT/NBTR to NBL/NBL/NBT/NBTR.
- #18. N Perris Blvd/Orange Ave (LOS F during PM peak hour)
 - Add right-turn overlap to NBR movement.
 - U-turns on all approaches are already prohibited at the intersection.
 - Restripe SBL/SBT/SBT/SBT/SBR to SBL/SBL/SBT/SBT/SBTR.
 - Restripe WBL/WBT/WBT/WBR to WBL/WBL/WBT/WBTR.
- #21. I-215 Frontage Rd/Orange Ave (LOS F during AM and PM peak hour)
 - Restripe SBL/SBT/SBT to SBL/SBL/SBT.
 - As part of the development of the Project, I-215 Frontage Rd is being widened to 4-lane from Placentia Avenue to Nuevo Road.
- #22. Redlands Ave/Citrus Ave (LOS F during AM and PM peak hour)
 - This intersection passes signal warrant. Install Traffic Signal.
- #23. N Perris Blvd/Citrus Ave (LOS E during PM peak hour)
 - Restripe SBL/SBT/SBT/SBT/SBR to SBL/SBL/SBT/SBT/SBTR.
 - Widen NBL/NBT/NBT/NBTR to NBL/NBT/NBT/NBT/NBR
 - Change WB and EB Split Phase to Protected WBL and Permissive EBL.
- #24. Murrieta Rd/E Nuevo Rd (LOS E during AM peak hour)
 - Add right-turn overlap to WBR movement.
 - NB & SB U-turn are already prohibited at the intersection.
- #25. Redlands Ave/E Nuevo Rd (LOS E during AM peak hour and PM peak hour)
 - Restripe WBL/WBT/WBT/WBR to WBL/WBT/WBT/WBTR.
 - Restripe EBL/EBT/EBT/EBR to EBL/EBT/EBT/EBTR.
- #26. N Perris Blvd/ W Nuevo Rd (LOS E during AM and PM peak hour)
 - Restripe EBL/EBL/EBT/EBT/EBR to EBL/EBL/EBL/EBT/EBTR.
 - Restripe SBL/SBL/SBT/SBT/SBR/SBR to SBL/SBL/SBT/SBT/SBT/SBR.
- #28. I-215 NB Ramps/W Nuevo Rd (LOS F during AM peak hour)
 - Restripe EBL/EBT/EBT/EBT to EBL/EBL/EBT/EBT.
- #29. I-215 SB Ramps/W Nuevo Rd (LOS F during PM peak hour)
 - Change WB and EB Protected Phasing to Split Phasing.
- #30. Redlands Ave/Midred St (LOS E during AM peak hour)
 - This intersection passes signal warrant. Install Traffic Signal.

No feasible improvements would result in the following intersections operating with satisfactory LOS. However, the following improvements to the intersection will result in a lower delay and a better LOS as compared to the General Plan 2045 Without Project condition:

- #1.Perris Blvd/Iris Ave (LOS F during AM and PM peak hour)
 - Add right-turn overlap to NBR movement.
 - WB & EB U-turn are already prohibited at the intersection.
- #2.Perris Blvd/Krameria Ave (LOS F during AM and PM peak hour)
 - Change WB and EB Split Phase to Prot-Perm WBL and Protected EBL.
 - The speed limit on the west leg (Krameria Ave) is 25 mph..
- #3.N Perris Blvd/Harley Knox Blvd (LOS F during PM peak hour)
 - Restripe WBL/WBL/WBT/WBT/WBT/WBR to WBL/WBL/WBT/WBT/WBR/WBR.
 - The thru movement queueing can be accommodated with 2 thru lanes.
- #4.N Perris Blvd/W Markham St (LOS F during AM peak hour)
 - Change Protected WBL and EBL Phase to Prot-Perm.
 - The speed limit on Markham St is 35 mph.
 - Restripe NBL/NBT/NBT/NBR to NBL/NBT/NBT/NBTR
 - Restripe EBL/EBT/EBTR to EBL/EBT/EBR
- #10. Redlands Ave/Placentia Ave (LOS F during AM and PM peak hour)
 - This intersection passes signal warrant. Install Traffic Signal.
 - Restripe SBL, SBT, SBT, SBR to SBL, SBL, SBT, SBR.
- #11. N Perris Blvd/Placentia Ave (LOS F during PM peak hour)
 - Add right-turn overlap to SBR movement.
 - EB U-turn is already prohibited at the intersection.
- #32. N Perris Blvd/E San Jacinto Ave (LOS F during AM and PM peak hour)
 - Change Protected WBL and EBL Phase to Prot-Perm.
 - The speed limit on San Jacinto Ave is 35 mph.

No feasible improvements would result in Intersection #27 I-215 Frontage Rd/W Nuevo Rd operating with satisfactory LOS.

➤ Intersection Queuing Analysis:

The following improvements would result in satisfactory queueing approach for General Plan 2045 With Project condition:

- #15. I-215 NB Ramps/Placentia Ave
 - Restripe WBT/WBT/WBT/WBR to WBT/WBT/WBR/WBR.

No feasible improvements would result in the following intersections operating with satisfactory queueing. However, the following improvements will improve the intersection to a lower queue length compared to the General Plan 2045 Without Project condition:

- #28. I-215 NB Ramps/W Nuevo Rd
 - Restripe EBL/EBT/EBT/EBT to EBL/EBL/EBT/EBT.
- #29. I-215 SB Ramps/W Nuevo Rd
 - Change WB and EB Protected Phasing to Split Phasing.

➤ Roadway Segment Level of Service:

Based on City of Perris staff's recommendation, peak hour directional roadway segment analysis is conducted for roadway segments that have an unsatisfactory daily LOS. If the boundary intersections are forecast to operate at an acceptable LOS, a peak hour directional roadway segment analysis can be completed to verify that the peak hour roadway volumes are adequate.

All roadway segments would operate at satisfactory LOS during the AM and PM peak hours in the General Plan 2045 With Project condition.

2 INTRODUCTION

This Traffic Impact Analysis (TIA) has been prepared by EPD Solutions, Inc. (EPD) to analyze the proposed Harvest Landing Retail Center & Business Park Project (Project) located in the western central portion of the City of Perris, southeast of the intersection of W Placentia Avenue and I-215/E Frontage Road. The TIA was prepared based on the approved scope of work which was reviewed and approved by the City of Perris and is provided in *Appendix A*. The TIA was prepared according to the approved scope of work using methodologies and significance criteria consistent with the City of Perris LOS Standards and Traffic Criteria for Traffic Studies.

2.1 Project Description

Regional access to the Project site is provided by the I-215 freeway, south of the Project through W Nuevo Road and North of the Project at Placentia Avenue. Local access to the site is via I-215 Frontage Road, Placentia Avenue, Orange Avenue, Barrett Avenue Perris Boulevard and Nuevo Road.

The Project includes a total of 358.28 acres and consists of three components: Commercial, Business Park Phase 1, and Business Park Phase 2. The following acreages and square footage (SF) are proposed across the three components:

- The following components will be developed in Opening Year I 2026 (Phase 1):
 - The Commercial component consists of lots totaling 46.72 acres south of Orange Avenue, east of Barrett Avenue, and west of Perris Boulevard. The 423,007 SF Commercial component includes retail anchor, shopping center, supermarket, fast casual restaurant, high turnover (sit-down) restaurant, fast Food restaurant with drive through and coffee/donut shop with drive-through window, a 5,500 SF medical office building, and a gasoline/service station with 12 vehicle fueling positions.
 - Business Park Phase 1 consists of lots totaling 140.70 acres south of Orange Avenue, east of I-215 Frontage Road, and west of Barrett Avenue. Business Park Phase 1 includes general light industrial uses including: 1,207,000 SF of high-cube warehouse use, 322,079 SF of parcel hub use, and 198,500 SF of other general light industrial use.
- The following components will be developed in Opening Year II 2030 (Phase 1 + Phase 2):
 - Business Park Phase 2 consists of lots totaling 112.01 acres and an overlay zone of 10.66 acres north of Orange Avenue, east of I-215 Frontage Road and west of Barrett Avenue. Business Park Phase 2 is analyzed programmatically for future multiple business uses with no detailed site plan available. Business Park Phase 2 includes 3,659,693 SF of industrial park and 348,262 SF of industrial park overlays.
- The remaining areas of 48.17 acres within the proposed Project are dedicated to a water quality retention basin and roadways along the development of Phase 1 and Phase 2.

The site consists of 111 parcels with Assessor's Parcel Numbers (APNs) shown in Table 2.1, Parcel Exhibit. The location of the Project is shown in *Figure 2.1*, and the Project site plan is shown in *Figure 2.2*.

The Project site would provide access for trucks and automobiles through a total of 27 driveways in Phase I: nine (9) driveways along Frontage Road, six (6) along Orange Avenue, five (5) along Barrett Avenue, four (4) along Harvest Landing Way, and three (3) along Perris Boulevard. Table 2.2 shows the identifies the signal control, vehicles allowed, and ingress/egress movement allowed at all 24 Project driveways.

Table 2.1: Parcel Exhibit

Project Site APN List			
305-110-001	305-120-006	305-160-028	305-220-021
305-110-002	305-120-007	305-160-027	305-190-033
305-110-003	305-120-008	305-160-025	305-220-059
305-110-021	305-120-026	305-160-026	305-220-060
305-110-007	305-130-001	305-160-022	305-220-061
305-110-006	305-130-002	305-160-023	305-220-062
305-110-005	305-130-003	305-160-024	305-240-027
305-110-004	305-130-004	305-190-028	305-100-028
305-120-020	305-130-005	305-190-029	305-100-008
305-120-021	305-130-006	305-190-030	305-100-009
305-120-022	305-160-001	305-190-031	305-170-018
305-120-023	305-160-002	305-190-014	305-110-015
305-120-024	305-160-003	305-190-020	305-110-016
305-120-025	305-130-009	305-190-019	305-110-022
305-120-004	305-160-030	305-220-011	305-110-023
305-120-005	305-160-029	305-220-020	305-110-024
305-110-025	305-110-026	305-110-027	305-110-032
305-110-033	305-110-034	305-110-035	305-140-012
305-140-024	305-140-025	305-140-026	305-140-027
305-140-031	305-140-032	305-140-034	305-140-040
305-140-041	305-140-049	305-140-050	305-140-052
305-140-053	305-140-054	305-140-055	305-140-056
305-140-057	305-140-058	305-140-059	305-140-060
305-140-061	305-060-042	305-060-036	305-060-037
305-090-055	305-090-026	305-090-028	305-090-030
305-090-032	305-090-056	305-090-057	305-090-058
305-090-059	305-090-015	305-090-016	305-090-017
305-090-019	305-090-018	305-070-004	

Table 2.2: Project Driveway Details

Intersection #	Project Driveway	Traffic Control	Type of Vehicles Allowed	Ingress/Egress Movement Allowed	Opposite Leg Exists?	Opposite Leg (Exists/Project Build-Out)
40	Commercial Driveway 1, 2 and Harvest Landing Way	TWSC	Automobiles	RI/RO	No	Harvest Landing Way (Project Build-Out)
41	Commercial Driveway 3, 4 and Harvest Landing Way	TWSC	Automobiles	Full-Access	No	Harvest Landing Way (Project Build-Out)
42	Commercial Driveway 5 and N. Perris Blvd	TWSC	Automobiles	RO	Yes	Perris Blvd (Exists)
43	Commercial Driveway 6 and Barrett Ave	TWSC	Automobiles	RI/RO	No	Barrett Ave (Project Build-Out)
44	Commercial Driveway 7 and N. Perris Blvd	TWSC	Automobiles	RI/RO	Yes	Perris Blvd (Exists)
45	Commercial Driveway 8 and N. Perris Blvd	TWSC	Automobiles	LI/RI/RO	Yes	Perris Blvd (Exists)
46	Commercial Driveway 9 and Orange Ave	Signal	Automobiles	Full-Access	Yes	Orange Ave (Exists)
47	Commercial Driveway 10 and Orange Ave	TWSC	Automobiles	RI/RO	Yes	Orange Ave (Exists)
48	Building 1 Auto Driveway 1 and Orange Ave	TWSC	Automobiles	Full-Access	Yes	Orange Ave (Exists)
49	Building 1 Auto Driveway 2 and Orange Ave	TWSC	Automobiles	RI/RO	Yes	Orange Ave (Exists)
50	Building 1 Truck Driveway and I-215 Frontage Rd	Signal	Trucks	LI/RI/RO	Yes	I-215 Frontage Rd (Exists)
51	Building 2 Auto Driveway 1 and Orange Ave	TWSC	Automobiles	RI/RO	Yes	Orange Ave (Exists)
52	Building 2 Auto Driveway 2 and Orange Ave	TWSC	Automobiles	Full-Access	Yes	Orange Ave (Exists)
53	Building 2 Truck Driveway and I-215 Frontage Rd	TWSC	Trucks	LI/RO	Yes	I-215 Frontage Rd (Exists)
54	Building 3 Auto Driveway and I-215 Frontage Rd	TWSC	Automobiles	RI/RO	Yes	I-215 Frontage Rd (Exists)
55	Building 3/4 Truck Driveway and I-215 Frontage Rd	TWSC	Trucks	LI/RO	Yes	I-215 Frontage Rd (Exists)
56	Building 4/5 Auto Driveway and I-215 Frontage Rd	TWSC	Automobiles	Full-Access	Yes	I-215 Frontage Rd (Exists)
57	Building 5 Truck Driveway and I-215 Frontage Rd	TWSC	Trucks	LI/RO	Yes	I-215 Frontage Rd (Exists)
58	Building 6 Truck Driveway and I-215 Frontage Rd	TWSC	Trucks	LI/RO	Yes	I-215 Frontage Rd (Exists)
59	Building 6 Auto Driveway 1 and Barrett Ave	TWSC	Automobiles	Full-Access	Yes	Barrett Ave (Exists)
60	Building 6 Auto Driveway 2 and Commercial Truck Driveway and Barrett Ave	TWSC	Automobiles	Full-Access	No	Barrett Ave (Project Build-Out)
61	Building 7 Truck Driveway and I-215 Frontage Rd	TWSC	Trucks	LI/RO	Yes	I-215 Frontage Rd (Exists)
62	Building 7 Auto Driveway 1 and I-215 Frontage Rd	TWSC	Automobiles	RI/RO	Yes	I-215 Frontage Rd (Exists)
63	Building 7 Auto Driveway 2 and Barrett Ave	TWSC	Automobiles	Full-Access	Yes	Barrett Ave (Exists)

TWSC: Two-Way Stop Control

RI: Right-In

RO: Right-Out

LI: Left-In

Figure 2.1: Project Location



Figure 2.2a: Project Site Plan – Overall Site Plan



Figure 2.2b: Project Site Plan – Industrial Building 1

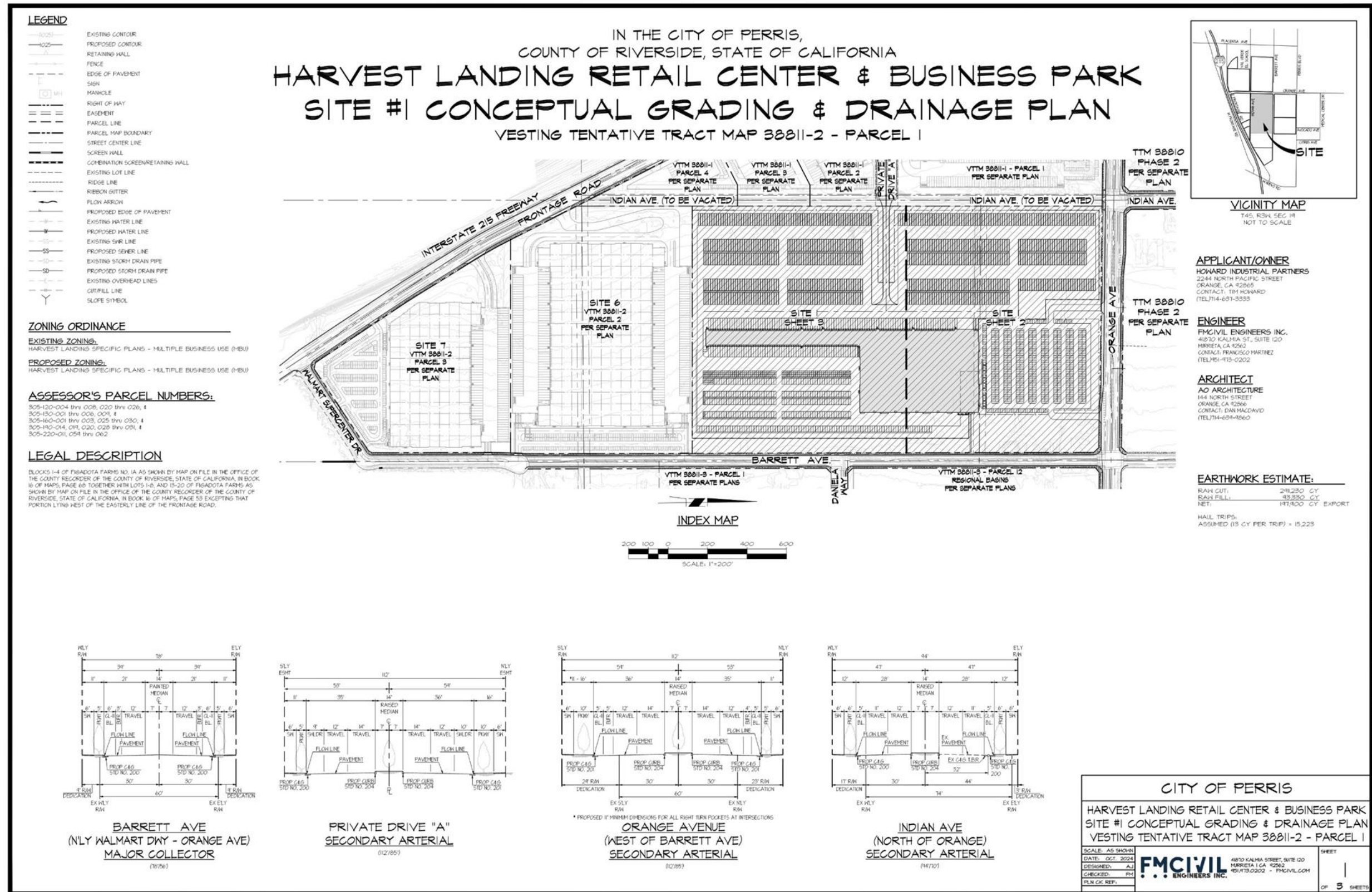
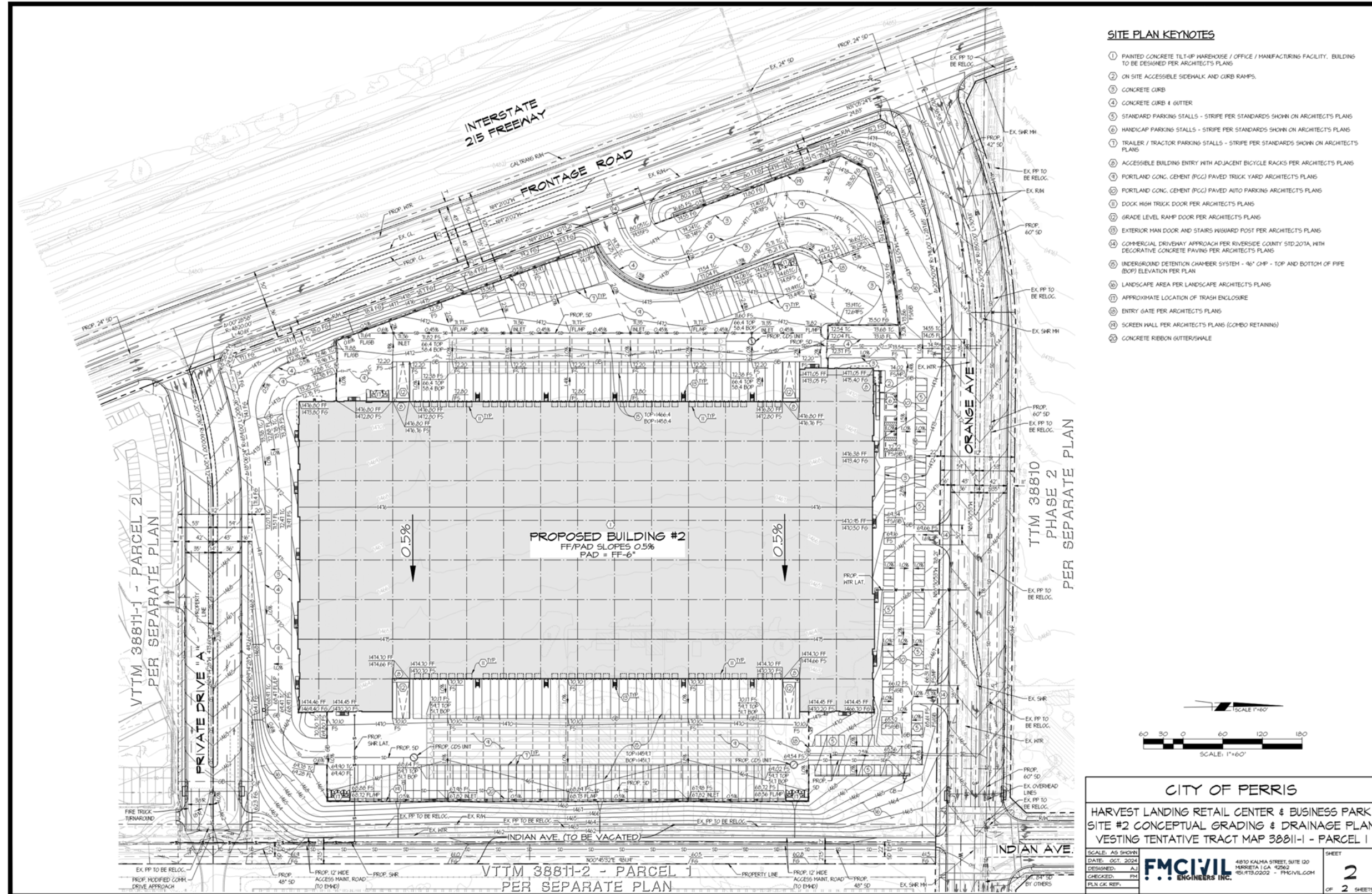


Figure 2.2c: Project Site Plan – Industrial Building 2



- SITE PLAN KEYNOTES**
- ① PAINTED CONCRETE TILT-UP WAREHOUSE / OFFICE / MANUFACTURING FACILITY. BUILDING TO BE DESIGNED PER ARCHITECTS PLANS
 - ② ON SITE ACCESSIBLE SIDEWALK AND CURB RAMPS.
 - ③ CONCRETE CURB
 - ④ CONCRETE CURB & GUTTER
 - ⑤ STANDARD PARKING STALLS - STRIPE PER STANDARDS SHOWN ON ARCHITECTS PLANS
 - ⑥ HANDICAP PARKING STALLS - STRIPE PER STANDARDS SHOWN ON ARCHITECTS PLANS
 - ⑦ TRAILER / TRACTOR PARKING STALLS - STRIPE PER STANDARDS SHOWN ON ARCHITECTS PLANS
 - ⑧ ACCESSIBLE BUILDING ENTRY WITH ADJACENT BICYCLE RACKS PER ARCHITECTS PLANS
 - ⑨ PORTLAND CONC. CEMENT (PCC) PAVED TRUCK YARD ARCHITECTS PLANS
 - ⑩ PORTLAND CONC. CEMENT (PCC) PAVED AUTO PARKING ARCHITECTS PLANS
 - ⑪ DOCK HIGH TRUCK DOOR PER ARCHITECTS PLANS
 - ⑫ GRADE LEVEL RAMP DOOR PER ARCHITECTS PLANS
 - ⑬ EXTERIOR MAIN DOOR AND STAIRS W/ GUARD POST PER ARCHITECTS PLANS
 - ⑭ COMMERCIAL DRIVEWAY APPROACH PER RIVERSIDE COUNTY STD.2017 WITH DECORATIVE CONCRETE PAVING PER ARCHITECTS PLANS
 - ⑮ UNDERGROUND DETENTION CHAMBER SYSTEM - 46" CMP - TOP AND BOTTOM OF PIPE (BOP) ELEVATION PER PLAN
 - ⑯ LANDSCAPE AREA PER LANDSCAPE ARCHITECTS PLANS
 - ⑰ APPROXIMATE LOCATION OF TRASH ENCLOSURE
 - ⑱ ENTRY GATE PER ARCHITECTS PLANS
 - ⑲ SCREEN WALL PER ARCHITECTS PLANS (COMBO RETAINING)
 - ⑳ CONCRETE RIBBON GUTTER/SHALE

CITY OF PERRIS

**HARVEST LANDING RETAIL CENTER & BUSINESS PARK
SITE #2 CONCEPTUAL GRADING & DRAINAGE PLAN
VESTING TENTATIVE TRACT MAP 38811-1 - PARCEL 1**

SCALE: AS SHOWN	2 OF 2 SHEETS
DATE: OCT. 2024	
DESIGNED: AJ	
CHECKED: FM	
PLN. CK. REF.	

4810 KALMA STREET, SUITE 120
MARRIETTA, GA 30262
951-975-0202 - FMCIVIL.COM

Figure 2.2d: Project Site Plan – Industrial Building 3

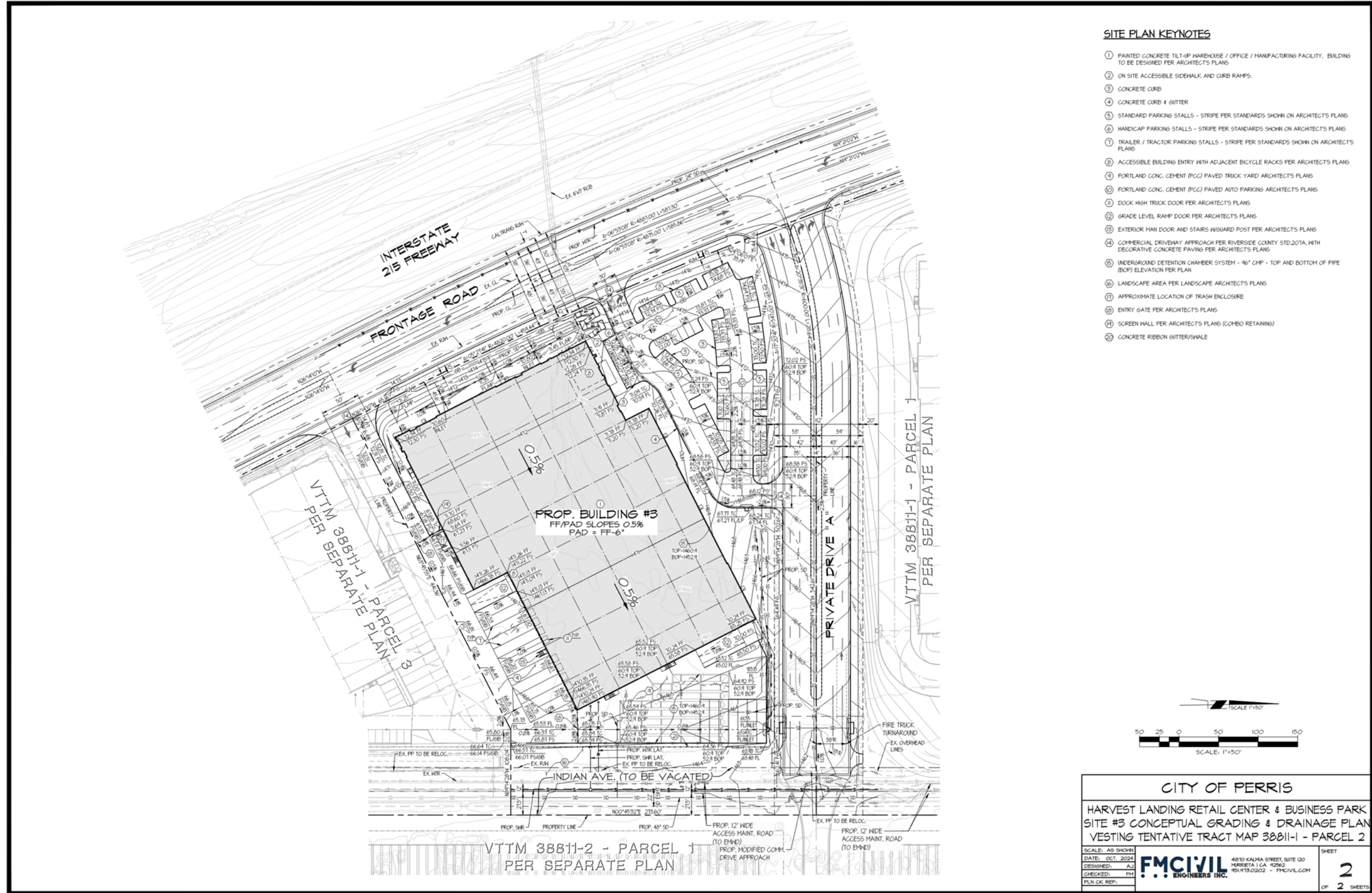
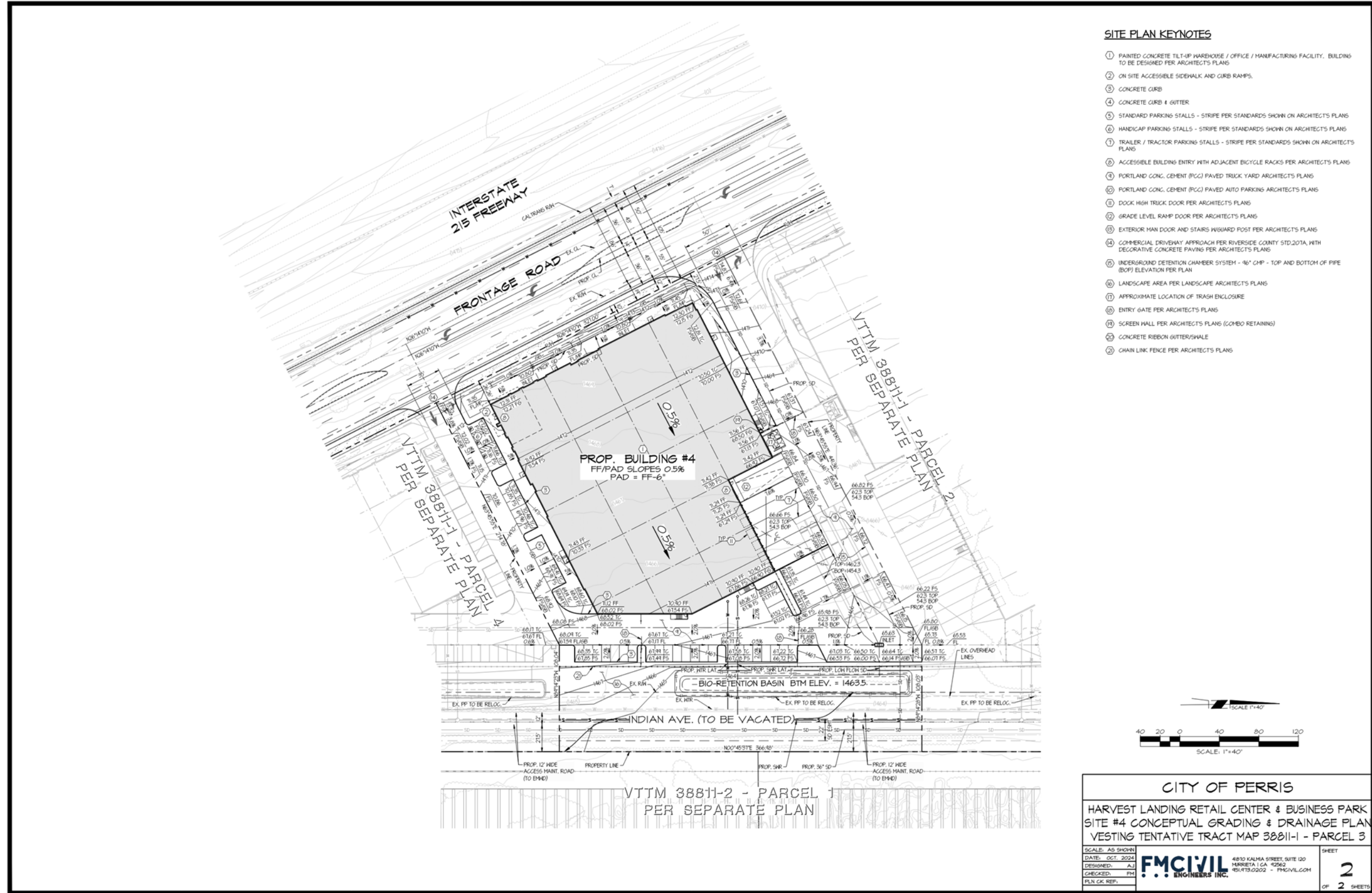
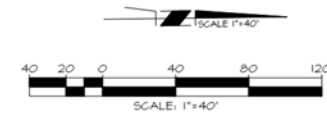


Figure 2.2e: Project Site Plan – Industrial Building 4



- SITE PLAN KEYNOTES**
- ① PAINTED CONCRETE TILT-UP WAREHOUSE / OFFICE / MANUFACTURING FACILITY. BUILDING TO BE DESIGNED PER ARCHITECTS PLANS
 - ② ON SITE ACCESSIBLE SIDEWALK AND CURB RAMPS.
 - ③ CONCRETE CURB
 - ④ CONCRETE CURB & GUTTER
 - ⑤ STANDARD PARKING STALLS - STRIPE PER STANDARDS SHOWN ON ARCHITECTS PLANS
 - ⑥ HANDICAP PARKING STALLS - STRIPE PER STANDARDS SHOWN ON ARCHITECTS PLANS
 - ⑦ TRAILER / TRACTOR PARKING STALLS - STRIPE PER STANDARDS SHOWN ON ARCHITECTS PLANS
 - ⑧ ACCESSIBLE BUILDING ENTRY WITH ADJACENT BICYCLE RACKS PER ARCHITECTS PLANS
 - ⑨ PORTLAND CONC. CEMENT (PCG) PAVED TRUCK YARD ARCHITECTS PLANS
 - ⑩ PORTLAND CONC. CEMENT (PCG) PAVED AUTO PARKING ARCHITECTS PLANS
 - ⑪ DOCK HIGH TRUCK DOOR PER ARCHITECTS PLANS
 - ⑫ GRADE LEVEL RAMP DOOR PER ARCHITECTS PLANS
 - ⑬ EXTERIOR MAN DOOR AND STAIRS W/GUARD POST PER ARCHITECTS PLANS
 - ⑭ COMMERCIAL DRIVEWAY APPROACH PER RIVERSIDE COUNTY STD.207A, WITH DECORATIVE CONCRETE PAVING PER ARCHITECTS PLANS
 - ⑮ UNDERGROUND DETENTION CHAMBER SYSTEM - 16" CMP - TOP AND BOTTOM OF PIPE (BOP) ELEVATION PER PLAN
 - ⑯ LANDSCAPE AREA PER LANDSCAPE ARCHITECTS PLANS
 - ⑰ APPROXIMATE LOCATION OF TRASH ENCLOSURE
 - ⑱ ENTRY GATE PER ARCHITECTS PLANS
 - ⑲ SCREEN HALL PER ARCHITECTS PLANS (COMBO RETAINING)
 - ⑳ CONCRETE RIBBON GUTTER/SWALE
 - ㉑ CHAIN LINK FENCE PER ARCHITECTS PLANS



CITY OF PERRIS

**HARVEST LANDING RETAIL CENTER & BUSINESS PARK
SITE #4 CONCEPTUAL GRADING & DRAINAGE PLAN
VESTING TENTATIVE TRACT MAP 38811-1 - PARCEL 3**

SCALE: AS SHOWN	FMCIVIL ENGINEERS INC.	4810 KALMA STREET, SUITE 120 MERRIETTA, CA 95662 916.975.0202 - FMCIVIL.COM	2
DATE: OCT. 2024		DESIGNED: AJ	OF 2 SHEETS
CHECKED: FM		PLN. CHK. REF:	
PLN. CHK. REF:			

Figure 2.2f: Project Site Plan – Industrial Building 5

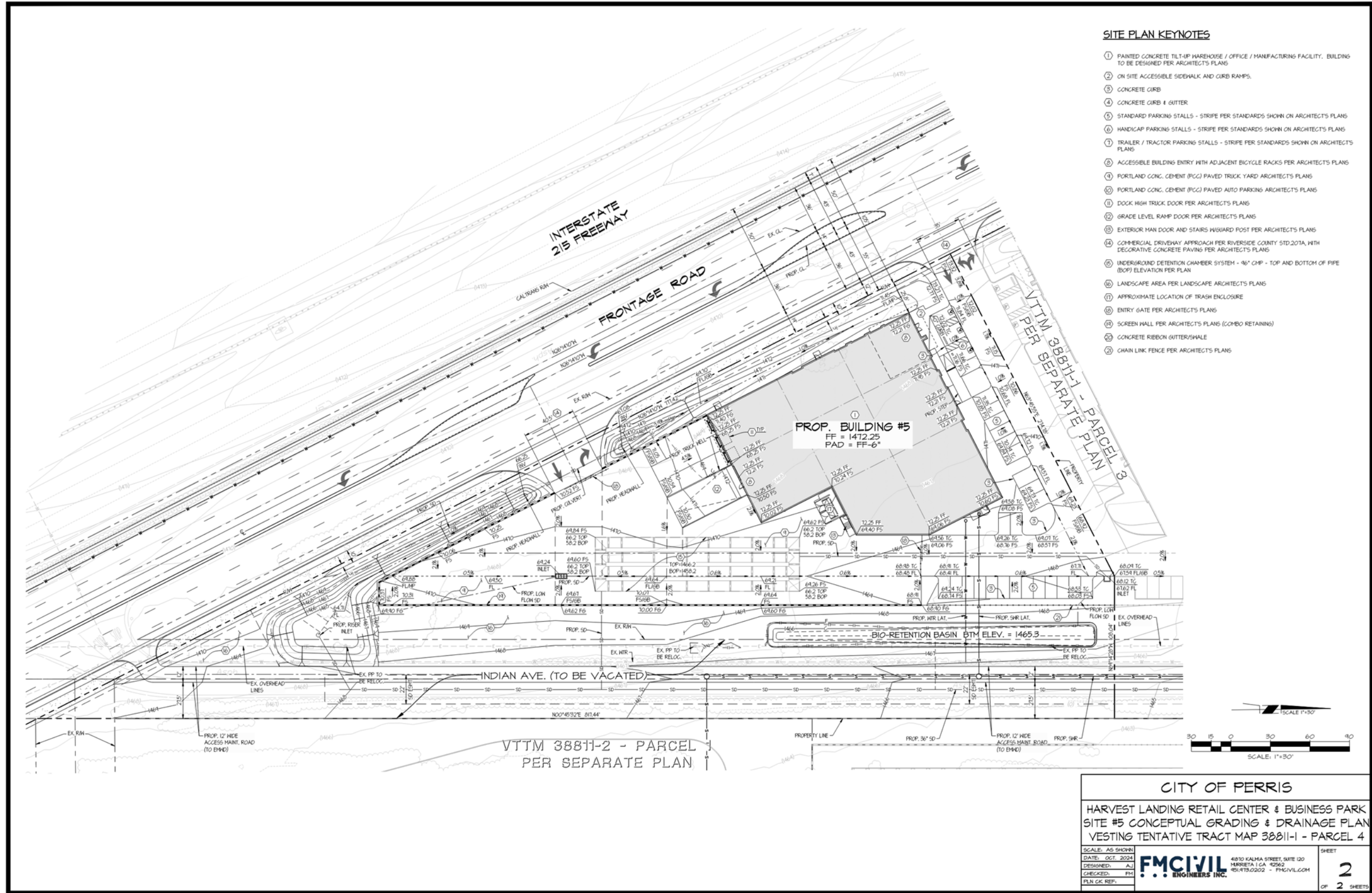


Figure 2.2g: Project Site Plan – Industrial Building 6

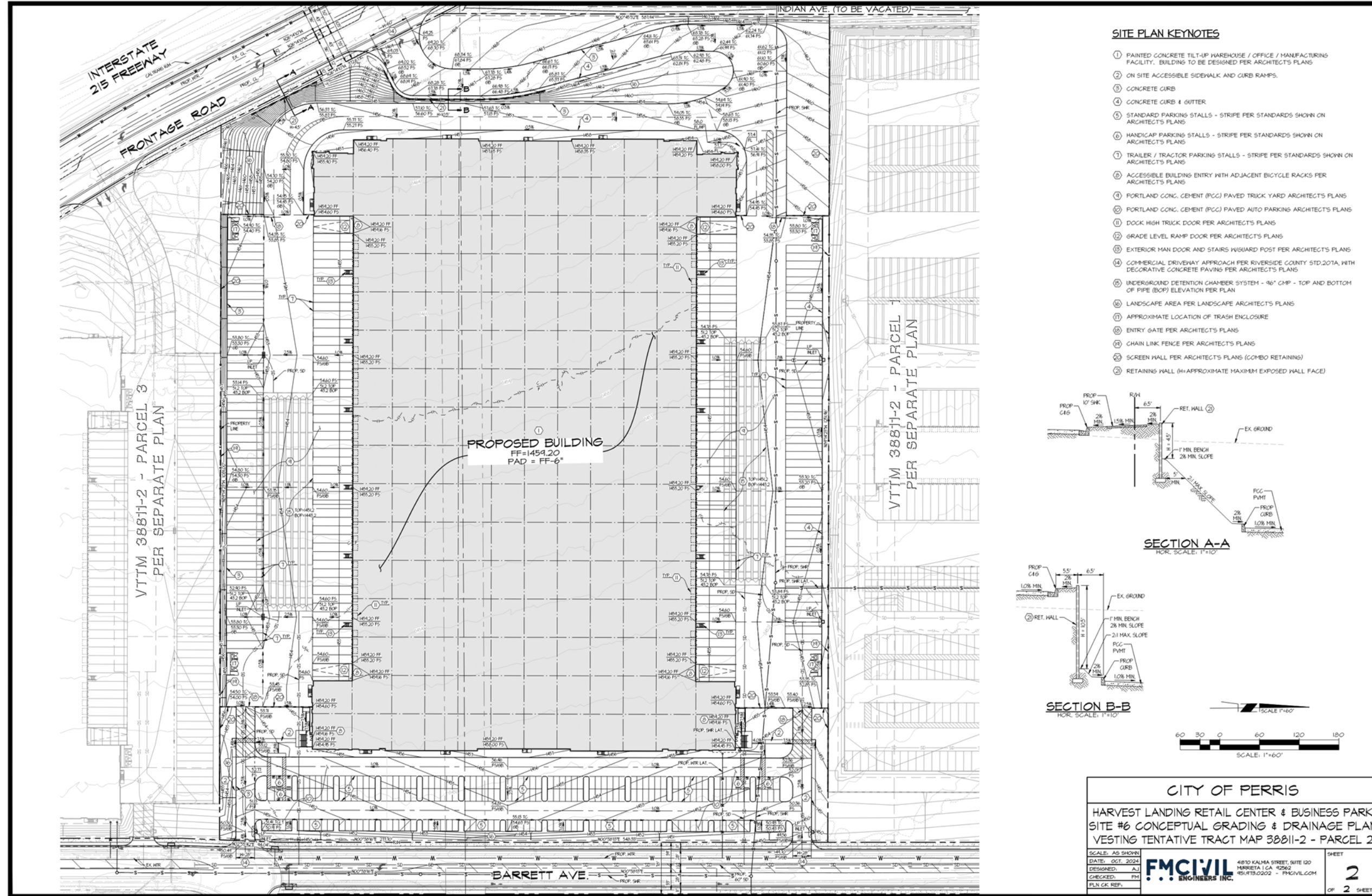


Figure 2.2h: Project Site Plan – Industrial Building 7

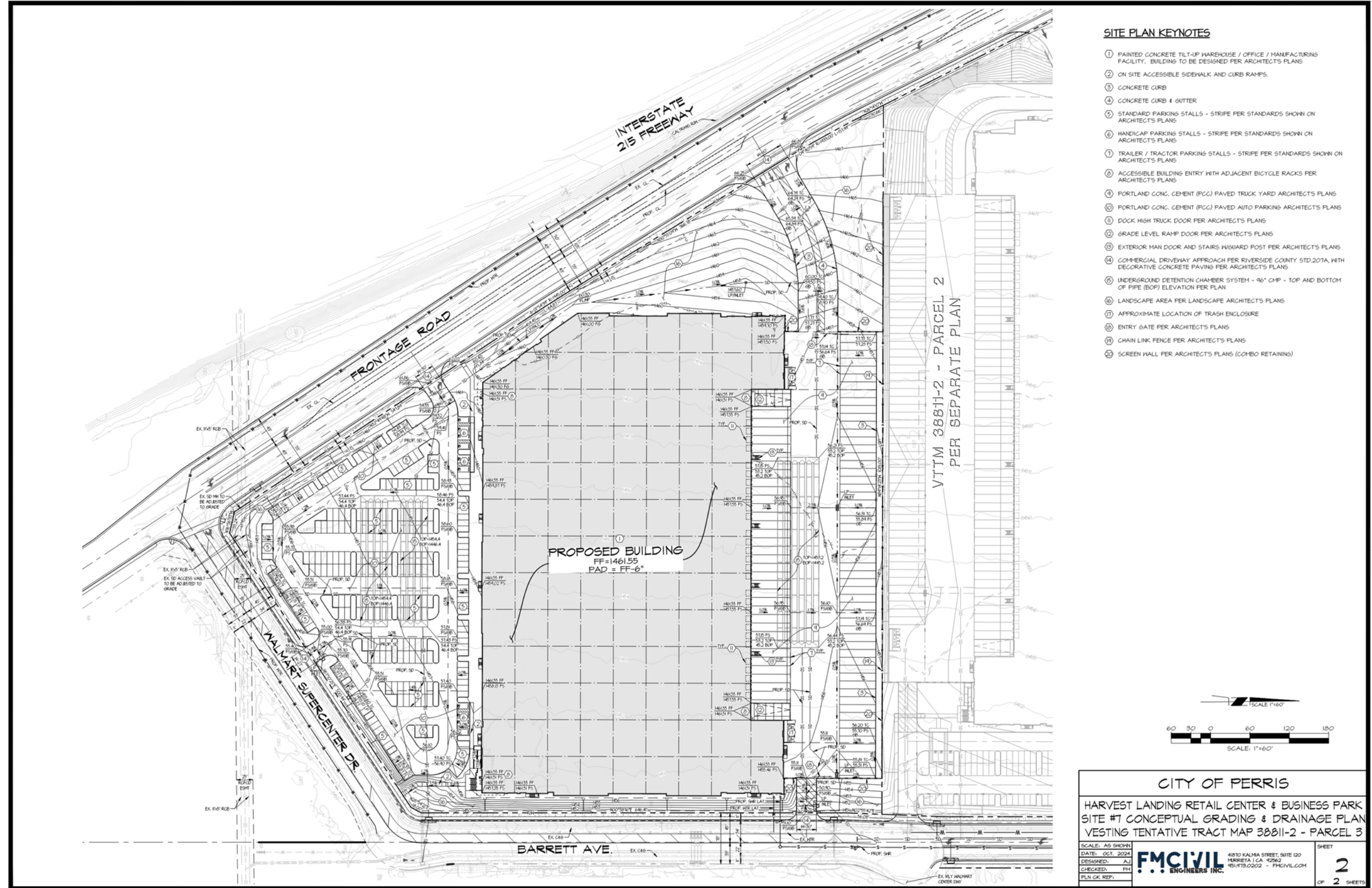


Figure 2.2i: Project Site Plan – Southern Commercial Parcel

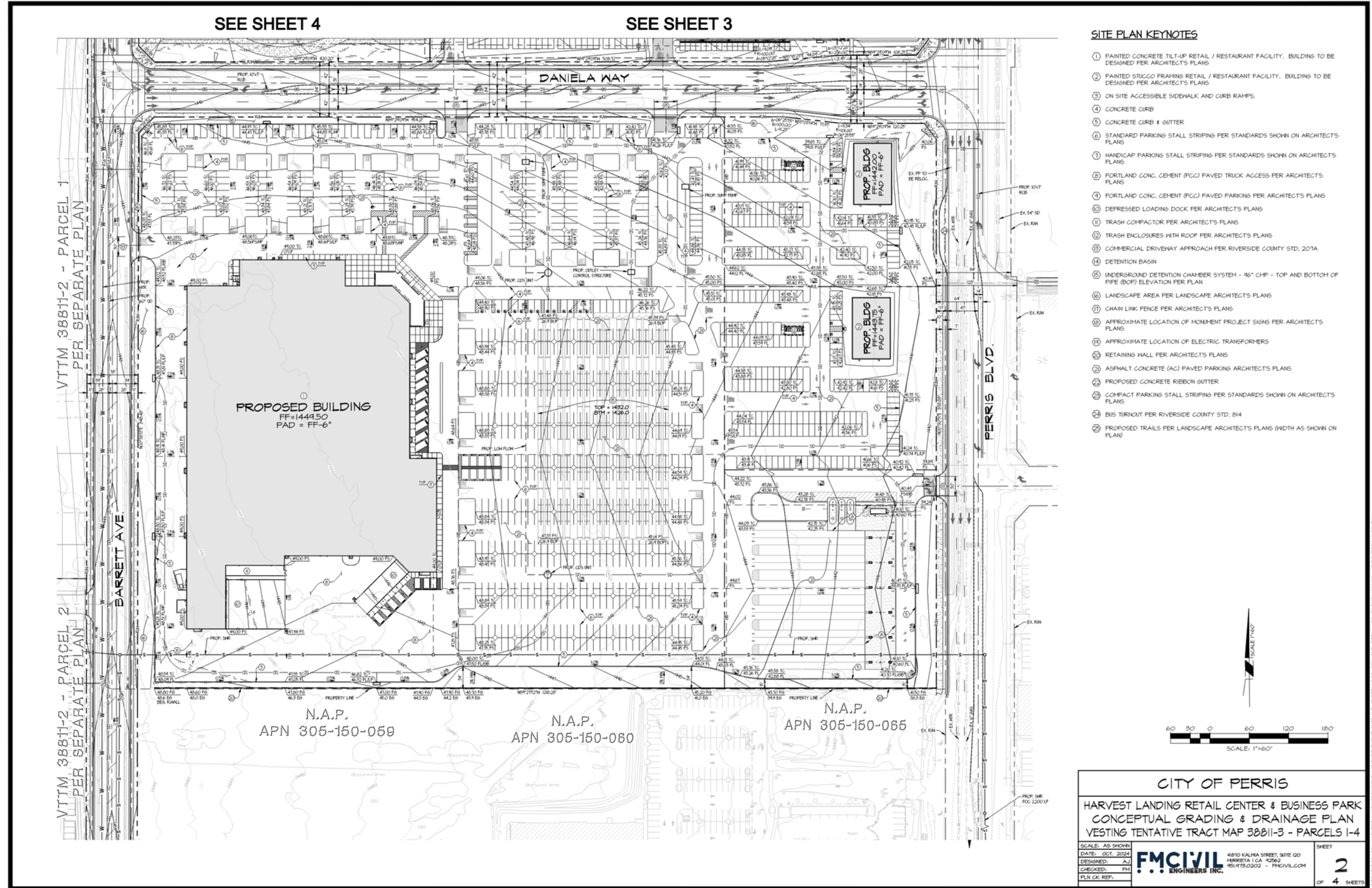
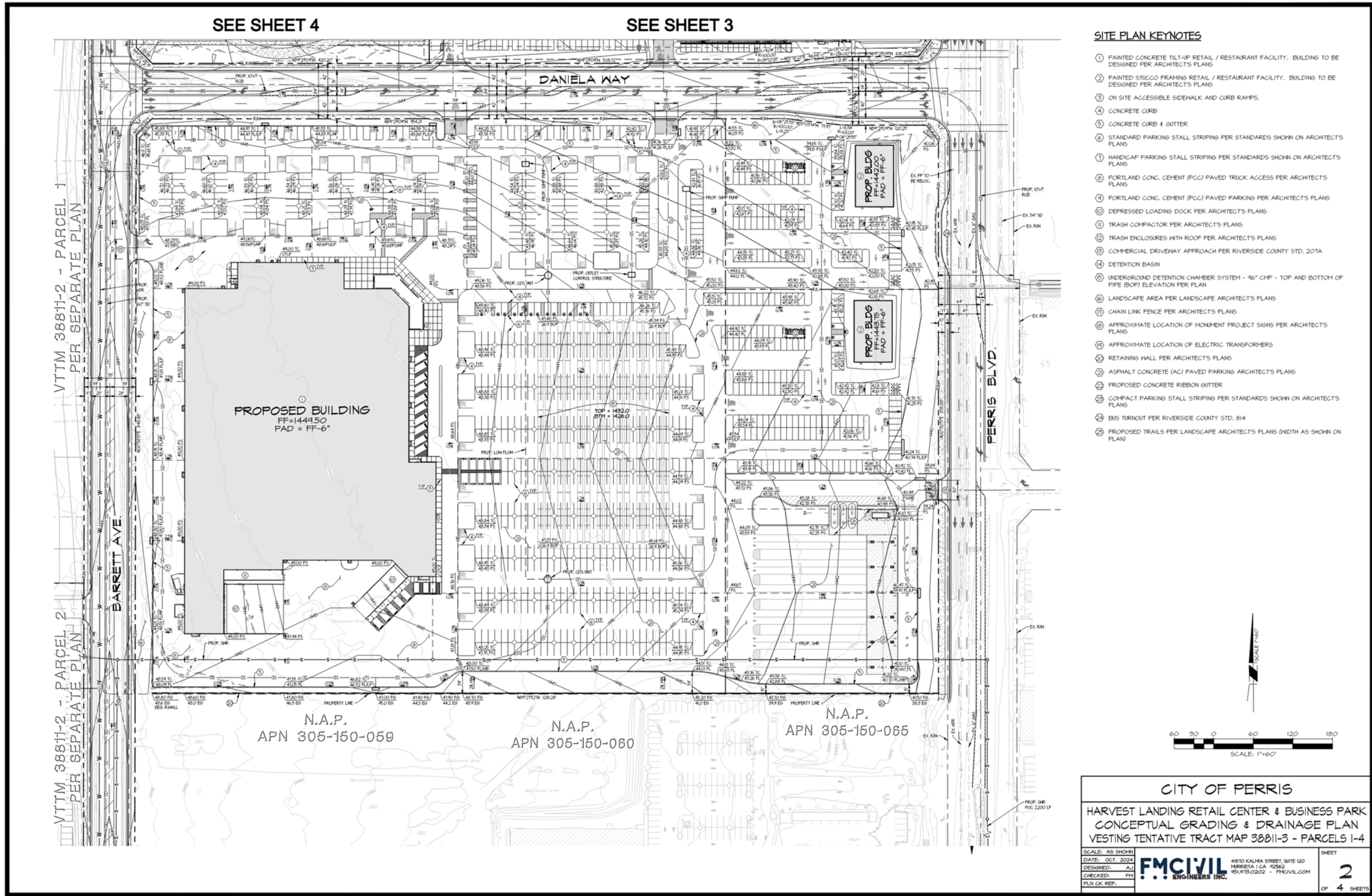
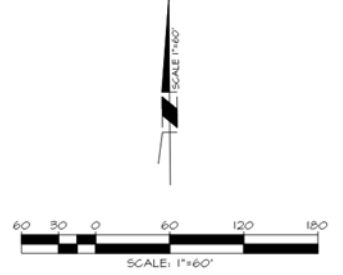


Figure 2.2j: Project Site Plan – Northern Commercial Parcel



- SITE PLAN KEYNOTES**
- ① PAINTED CONCRETE TILT-UP RETAIL / RESTAURANT FACILITY. BUILDINGS TO BE DESIGNED PER ARCHITECT'S PLANS
 - ② PAINTED STUCCO FRAMING RETAIL / RESTAURANT FACILITY. BUILDINGS TO BE DESIGNED PER ARCHITECT'S PLANS
 - ③ ON SITE ACCESSIBLE SIDEWALK AND CURB RAMPS.
 - ④ CONCRETE CURB
 - ⑤ CONCRETE CURB & GUTTER
 - ⑥ STANDARD PARKING STALL STRIPING PER STANDARDS SHOWN ON ARCHITECT'S PLANS
 - ⑦ HANDICAP PARKING STALL STRIPING PER STANDARDS SHOWN ON ARCHITECT'S PLANS
 - ⑧ PORTLAND CONG. CEMENT (PCG) PAVED TRUCK ACCESS PER ARCHITECT'S PLANS
 - ⑨ PORTLAND CONG. CEMENT (PCG) PAVED PARKING PER ARCHITECT'S PLANS
 - ⑩ DEPRESSED LOADING DOCK PER ARCHITECT'S PLANS
 - ⑪ TRASH COMPACTOR PER ARCHITECT'S PLANS
 - ⑫ TRASH ENCLOSURES WITH ROOF PER ARCHITECT'S PLANS
 - ⑬ COMMERCIAL DRIVEWAY APPROACH PER RIVERSIDE COUNTY STD. 207A
 - ⑭ DETENTION BASIN
 - ⑮ UNDERGROUND DETENTION CHAMBER SYSTEM - 46" C/P - TOP AND BOTTOM OF PIPE (BOP) ELEVATION PER PLAN
 - ⑯ LANDSCAPE AREA PER LANDSCAPE ARCHITECT'S PLANS
 - ⑰ CHAIN LINK FENCE PER ARCHITECT'S PLANS
 - ⑱ APPROXIMATE LOCATION OF MONUMENT PROJECT SIGNS PER ARCHITECT'S PLANS
 - ⑲ APPROXIMATE LOCATION OF ELECTRIC TRANSFORMERS
 - ⑳ RETAINING WALL PER ARCHITECT'S PLANS
 - ㉑ ASPHALT CONCRETE (AC) PAVED PARKING ARCHITECT'S PLANS
 - ㉒ PROPOSED CONCRETE RIBBON GUTTER
 - ㉓ COMPACT PARKING STALL STRIPING PER STANDARDS SHOWN ON ARCHITECT'S PLANS
 - ㉔ BUS TURNOUT PER RIVERSIDE COUNTY STD. 814
 - ㉕ PROPOSED TRAILS PER LANDSCAPE ARCHITECT'S PLANS (WIDTH AS SHOWN ON PLAN)



CITY OF PERRIS

**HARVEST LANDING RETAIL CENTER & BUSINESS PARK
CONCEPTUAL GRADING & DRAINAGE PLAN
VESTING TENTATIVE TRACT MAP 38811-3 - PARCELS 1-4**

SCALE: AS SHOWN	FMCIVIL ENGINEERS INC.	DATE: OCT 2024	4810 KALMA STREET, SUITE 100 PERRIS, CA 92426 951/478-0202 - FMCIVIL.COM	SHEET
DESIGNED: A.J.		2		
CHECKED: PH		OF 4 SHEETS		
PLN CK REP:				