# DRAINAGE REPORT REGIONAL GATEWAY COMMERCE PARK 

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## INTRODUCTION

The proposed development consists of an unknown number of office and warehouse buildings on 450 acres ( $\pm$ ). The development is located at the northwest corner of I-10 and I-8 interchange. This site is currently a vacant site with minimal existing improvements which slopes from southeasterly to northwesterly. The site is bounded by I-10 to the east, I-8 to the south, Southern Pacific Railroad to the northeast and an existing irrigation canal to the north. A vicinity map, legal description and the area's FIRM maps are attached for reference.

## OFFSITE DRAINAGE \& HYDRAULICS

The site is bounded on the north side by an existing irrigation canal, east and south side by existing highway improvements for I-10 and I-8. There are existing cross road culverts under I-8 which convey offsite stormwater from the south side of I-8 impacting the development.

The offsite drainage currently conveyed to this site will continue to be accepted and routed through the site. Stormwater staging areas, channels and storm drains will be provided to convey the stormwater to their historical outfall locations through the existing canal overchute pipes. The staging areas will allow for detention of the stormwater ensuring that no increase in flowrate on the downstream property owners.

Drainage easements will be granted across the lots that are affected by the offsite drainage routing.

## ONSITE DRAINAGE \& RETENTION

All lots within the Commerce Park, with the exception of the Corporate Office Lots, are to retain their gross area portion of the 100-year, 2-hour storm event. Stormwater will be routed onsite by a combination of sheet flow and storm drain systems.

There is an open space regional retention area which will retain the Corporate Office Lots gross area retention volume. Stormwater will be routed onsite by a combination of sheet flow and storm drain systems to the public storm drain system, which conveys this area's stormwater to the open space regional retention area.

[^0]Conceptual final floor elevations are provided on the conceptual grading and drainage plan. This provides a relationship between the lots with respect to the slope of the overall park.

## ONSITE HYDRAULICS

There will be both private (onsite) and public (offsite) storm drain systems conveying storm water to their onsite/offsite retention basins. A portion of the onsite storm water in the parking areas are conveyed by sheet flow through curb openings to their onsite basins. The storm drain pipes/catch basins will be sizes accordingly during the construction document phase of the development.

## OTHER PROJECT INFORMATION

The final floor elevations shown on the Conceptual Grading Design are approximate with respect to the expected elevations of the Commerce Park.

This site is located in zone $X$ and zone A as defined by Firm Map 04013C1555 and 04013C1560E Dated December 4, 2007.

## EXHIBITS

VICINITY MAP/LEGAL DESCRIPTION/FIRM MAP


LEGAL DESCRIPTION FOR I-10 AND I-8
NORTH OF INTERSTATE 8 AND WEST OF INTERSTATE 10
THE FOLLOWING DESCRIBED PROPERTY, PORTIONS OF SECTIONS 2, 10, 11, 12, 13 AND 14, ALL BEING A PART OF TOWNSHIP 7 SOUTH, RANGE 6 EAST, GILA AND SALT RIVER BASE AND MERIDIAN AS NOTED HEREIN, MORE PARTICULARLY DESCRIBED AS FOLLOWS:
BEGINNING AT THE SOUTHWEST CORNER OF THE SOUTHWEST QUARTER OF SAID SECTION 2, FROM WHICH THE SOUTH QUARTER CORNER OF SECTION 2 BEARS NORTH 89 DEGREES 54 MINUTES 56 SECONDS EAST, A DISTANCE OF 2647.85 FEET, AND IS THE BASIS OF BEARINGS FOR THIS LEGAL DESCRIPTION;
THENCE NORTH 00 DEGREES 30 MINUTES 37 SECONDS WEST, ALONG THE WESTERLY LINE OF SAID SOUTHWEST QUARTER, A DISTANCE OF 296.64 FEET TO THE CENTERLINE OF THE FLORENCE CANAL; THENCE EASTERLY ALONG SAID CENTERLINE THROUGH THE FOLLOWING COURSES, NORTH 82 DEGREES 45 MINUTES 04 SECONDS EAST A DISTANCE OF 50.36 FEET TO A POINT OF CURVATURE, CONCAVE SOUTHERLY, HAVING A RADIUS OF 4000.00 FEET;
THENCE EASTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 3 DEGREES 29 MINUTES 53 SECONDS, AN ARC DISTANCE OF 244.20 FEET TO A POINT OF TANGENCY;
THENCE NORTH 86 DEGREES 14 MINUTES 57 SECONDS EAST A DISTANCE OF 169.87 FEET TO A POINT OF CURVATURE, CONCAVE NORTHWESTERLY, HAVING A RADIUS OF 650.00 FEET;
THENCE NORTHEASTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 54 DEGREES 37
MINUTES 20 SECONDS, AN ARC DISTANCE OF 619.67 FEET TO A POINT OF TANGENCY;
THENCE NORTH 31 DEGREES 37 MINUTES 37 SECONDS EAST A DISTANCE OF 337.19 FEET TO A POINT OF CURVATURE CONCAVE SOUTHEASTERLY, HAVING A RADIUS OF 500.00 FEET;
THENCE NORTHEASTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 19 DEGREES 49 MINUTES 02 SECONDS, AN ARC DISTANCE OF 172.94 FEET TO A POINT OF TANGENCY;
THENCE NORTH 51 DEGREES 26 MINUTES 39 SECONDS EAST A DISTANCE OF 480.02 FEET TO A POINT OF CURVATURE CONCAVE SOUTHERLY, HAVING A RADIUS OF 550.00 FEET;
THENCE EASTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 74 DEGREES 29 MINUTES 32 SECONDS, AN ARC DISTANCE OF 715.07 FEET;
THENCE SOUTH 54 DEGREES 03 MINUTES 49 SECONDS EAST A DISTANCE OF 417.59 FEET TO A POINT ON THE EASTERLY LINE OF THE SOUTHWEST QUARTER OF SECTION 2;
THENCE SOUTH 00 DEGREES 21 MINUTES 35 SECONDS EAST, ALONG SAID EASTERLY LINE AND LEAVING AFORESAID CENTERLINE OF THE FLORENCE CANAL, A DISTANCE OF 1126.62 FEET TO THE SOUTH QUARTER CORNER OF SECTION 2, ALSO BEING THE NORTH QUARTER CORNER OF SECTION 11; THENCE NORTH 89 DEGREES 54 MINUTES 56 SECONDS EAST, ALONG THE NORTHERLY LINE OF SAID SECTION 11, A DISTANCE OF 1713.04 FEET TO A POINT ON THE SOUTHWESTERLY RIGHT-OF-WAY OF THE SOTHERN PACIFIC RAILROAD;
THENCE SOUTH 53 DEGREES 51 MINUTES 22 SECONDS EAST, ALONG SAID SOUTHWESTERLY LINE, A DISTANCE OF 1152.78 FEET TO A POINT ON THE EASTERLY LINE OF AFORESAID SECTION 11, ALSO BEING THE WESTERLY LINE OF SECTION 12;
THENCE SOUTH 00 DEGREES 19 MINUTES 38 SECONDS WEST, ALONG SAID WESTERLY LINE, A DISTANCE OF 645.63 FEET TO A POINT ON THE NORTHERLY LINE OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 12;
THENCE NORTH 89 DEGREES 29 MINUTES 03 SECONDS EAST, ALONG SAID NORTHERLY LINE, A DISTANCE OF 692.01 FEET TO A POINT ON THE WESTERLY RIGHT-OF-WAY OF INTERSTATE 10;
THENCE ALONG SAID RIGHT-OF-WAY THROUGH THE FOLLOWING COURSES, SOUTH 04 DEGREES 17 MINUTES 13 SECONDS EAST A DISTANCE OF 2726.21 FEET TO A POINT OF CURVATURE, CONCAVE EASTERLY, HAVING A RADIUS OF 5879.58 FEET;

THENCE SOUTHERLY ALONG SAID LINE THROUGH A CENTRAL ANGLE OF 8 DEGREES 49 MINUTES 52 SECONDS, AN ARC DISTANCE OF 906.24 FEET TO A POINT ON A NON-TANGENT LINE; THENCE SOUTH 05 DEGREES 25 MINUTES 53 SECONDS EAST A DISTANCE OF 164.66 FEET TO THE BEGINNING OF A NON-TANGENT CURVE, CONCAVE WESTERLY, HAVING A RADIUS OF 553.11 FEET, THE CENTER OF WHICH BEARS SOUTH 84 DEGREES 41 MINUTES 57 SECONDS WEST;
THENCE SOUTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 21 DEGREES 10 MINUTES 25 SECONDS, AN ARC DISTANCE OF 204.40 FEET TO A POINT ON THE SOUTHERLY LINE OF SECTION 12, BEING THE NORTHERLY LINE OF SECTION 13;
THENCE CONTINUING ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 94 DEGREES 15 MINUTES 43 SECONDS, AN ARC DISTANCE OF 909.96 FEET, TO THE BEGINNING OF A NON-TANGENT LINE, THE PREVIOUSLY DESCRIBED CURVE BEING A TRANSITION DEPARTING FROM THE WESTERLY RIGHT-OF-WAY OF INTERSTATE 10 TO THE NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE 8;
THENCE ALONG SAID NORTHERLY RIGHT-OF-WAY THROUGH THE FOLLOWING COURSES, NORTH 61 DEGREES 39 MINUTES 05 SECONDS WEST A DISTANCE OF 380.35 FEET TO A POINT ON THE WESTERLY LINE OF SECTION 13, ALSO BEING THE EASTERLY LINE OF SECTION 14;
THENCE CONTINUING NORTH 61 DEGREES 39 MINUTES 05 SECONDS WEST A DISTANCE OF 379.65 FEET TO A POINT ON THE NORTHERLY LINE OF SECTION 14, BEING THE SOUTHERLY LINE OF SECTION 11; THENCE NORTH 53 DEGREES 51 MINUTES 02 SECONDS WEST A DISTANCE OF 3634.89 FEET TO A POINT; THENCE, LEAVING AFORESAID NORTHERLY RIGHT-OF-WAY, NORTH 00 DEGREES 14 MINUTES 28 SECONDS EAST A DISTANCE OF 1835.73 FEET TO A POINT ON THE NORTHERLY LINE OF THE SOUTH HALF OF THE NORTHWEST QUARTER OF SECTION 11;
THENCE SOUTH 89 DEGREES 59 MINUTES 42 SECONDS WEST, ALONG SAID LINE, A DISTANCE OF 1994.01 FEET TO THE WESTERLY LINE OF SECTION 11, BEING THE NORTHEAST CORNER OF THE SOUTH HALF OF THE NORTHEAST QUARTER OF SECTION 10;
THENCE SOUTH 89 DEGREES 48 MINUTES 27 SECONDS WEST, ALONG THE NORTHERLY LINE OF SAID SOUTH HALF, A DISTANCE OF 83.38 FEET TO A POINT;
THENCE NORTH 26 DEGREES 55 MINUTES 41 SECONDS EAST A DISTANCE OF 93.86 FEET TO A POINT OF NON-TANGENT CURVATURE, CONCAVE NORTHWESTERLY, THE CENTER OF WHICH BEARS NORTH 61 DEGREES 42 MINUTES 48 SECONDS WEST, HAVING A RADIUS OF 1525.59 FEET;
THENCE NORTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 3 DEGREES 22 MINUTES 35 SECONDS, AN ARC DISTANCE OF 89.90 FEET TO A POINT ON THE EASTERLY LINE OF THE NORTHEAST QUARTER OF SECTION 10;
THENCE NORTH 00 DEGREES 13 MINUTES 15 SECONDS WEST, ALONG SAID EASTERLY LINE, A DISTANCE OF 1156.28 FEET TO THE POINT OF BEGINNING.




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