I-B. TOPOGRAPHY AND GRADING

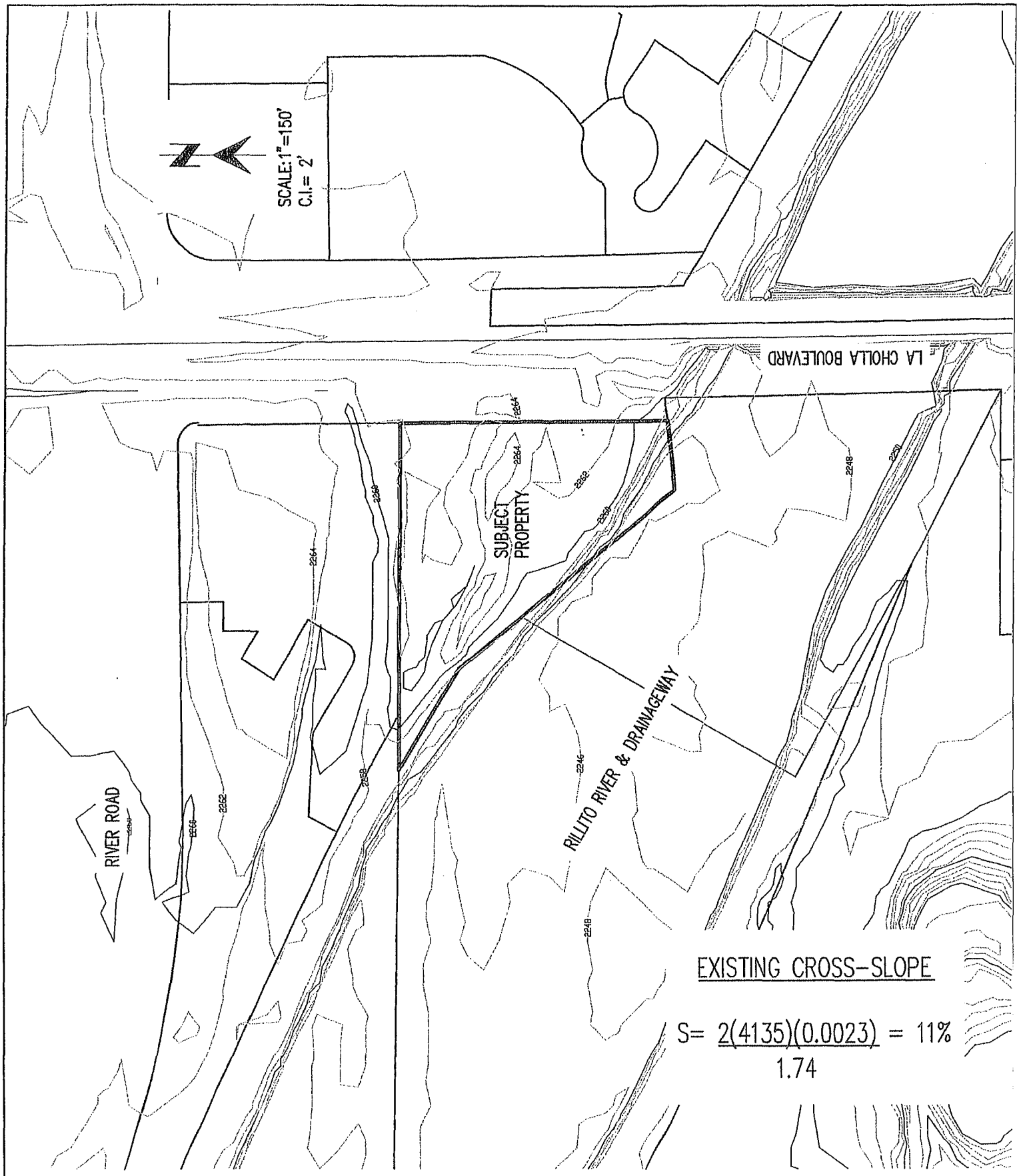
1. Topographic Characteristics

The topographic characteristics of the property are described below and are depicted on Exhibit I-B.1:

a. There are no restricted peaks or ridges on the property.
b. There are no rock outcrops on the property.
c. There are not any natural slopes that are 15% on the property.
d. There is one significant topographic feature on the property and that is the Rillito River.
e. There is some existing onsite grading associated with land clearing done by the previous owner (TEP).

2. Predevelopment Average Cross Slope

The pre-developed average cross-slope is 11%, which includes the steep bank protected banks of the Rillito River. This percentage was derived from the following formula: (4135 ft x 2 ft x 0.0023)/1.74 = 11%.



EXISTING CROSS-SLOPE

$$S = \frac{2(4135)(0.0023)}{1.74} = 11\%$$

101-13-015N

1.74 AC
SEC 16 T13S R13E

EXHIBIT I-B.1
REGIONAL TOPOGRAPHY MAP

JAS ENGINEERING
PO BOX 1888
TUCSON, ARIZONA 85702
(520) 390-7920
stanley19263@msn.com

I-C. HYDROLOGY

1. Off-site Hydrology

Exhibit I-C.1 is an offsite watershed display. The offsite watersheds consist of a portion of La Cholla Boulevard and the Circle K store site to the north.

A portion of La Cholla Boulevard and part of the Circle K store site drain to the northeast corner of the project site. This 3.4-acre area discharges about 32 cfs into an earthen swale located along the north boundary. The remainder of the Circle K site (1.0 ac, 9.4 cfs) drains to the northwest corner of the site (see Exhibit I-C.1).

The north half of the site combines with the two offsite flows to create a 5.2-acre watershed that discharges about 46 cfs to the northwest corner of the site. The remaining portion of the site (0.9 ac, 4.2 cfs) drains to the south.

2. On-site Hydrology

Exhibit I-C.4 depicts the relevant conditions of onsite hydrology. Below is a list of the pertinent items:

a. The Rillito River is listed as a Flood Control Resource Area.
b. Exhibit I-C.4 includes peak discharges and concentration points.
c. The developable portion of the project site is within a federally mapped Shaded Zone X (FIRM panel 04019C1667L), Pima County, Arizona and Incorporated Areas, effective date: June 16, 2011. The portion of the site that is within the Rillito River is within a Zone AE floodplain.
d. There is not a floodplain with 100 cfs or greater during a 100-year storm that affects the site.
e. There is not any onsite sheet flow.
f. There are not any lakes, ponds, wetlands, springs, or perennial surface water onsite.
g. There are not any onsite washes that warrant an erosion hazard setback.
h. There is mapped, regulated Important Riparian Hydromesoriparian habitat classifications adopted by the 2005 Floodplain and Erosion Hazard Management Ordinance amendment on the project site.
i. Flow arrows are shown on the Exhibit.
j. There is a drainage easement (Dkt 6532 Pg 971) and a Drainage and Recreation Easement (Dkt 10636 Pg 1948) on the property. Neither easement affects the development of the site. Both are associated with the Rillito River.
k. Drainage infrastructure onsite consists of the Rillito River and a couple of graded earthen channels.

3. Hydrology

a. Downstream flood conditions are essentially the same for pre- and post-development of the site. Non-regulatory flows are associated with the site, which is within a balanced drainage basin.
b. A 3.4-acre area discharges about 32 cfs into an earthen swale located along the north boundary. Another 1.0-acre watershed discharges 9.4 cfs drains to the northwest corner of the site (see Exhibit I-C.1). The north half of the site combines with the two offsite flows to create a 5.2-acre watershed that discharges about 46 cfs to the northwest corner of the site. The remaining portion of the site (0.9 ac, 4.2 cfs) drains to the south.
c. Peak discharges at the site were determined by using Pima County's PC Hydro calculation methodology.
d. There is not a floodplain with 100 cfs or greater during a 100-year storm that affects the site.

101-13-015N

1.74 AC
SEC 16 T13S R13E

EXHIBIT I-C.1
OFFSITE WATERSHED MAP

JAS ENGINEERING
PO BOX 1888
TUCSON, ARIZONA 85702
(520) 390-7920
stanley19263@msn.com

EXHIBIT I-C.4
ONSITE
HYDROLOGY MAP

101-13-015N

1.74 AC

SEC 16 T13S R13E

ENGINEERING
PO BOX 1888
TUCSON, ARIZONA 85702
(520) 390-7920
stanley19263@msn.com

I-D. BIOLOGICAL RESOURCES

1. Conservation Land System (CLS) – Exhibit I-D.1 outlines Important Riparian and Biological Core Management Areas in a regional context. There is not a Special Species Management Area within the region depicted. Important Riparian Area covers the entire site as shown on the exhibit.

2. Sonoran Desert Conservation Plan – Priority Conservation Area

    a. The site does not fall within the Priority Conservation Area for the Pima Pineapple Cactus.
    a. The site does not fall within the Priority Conservation Area for the Needle-Spined Pineapple Cactus.
    a. The site does not fall within the Priority Conservation Area for the Cactus Ferruginous Pygmy Owl. The site is not within the area for the Western Burrowing Owl.

3. There are not any saguaros located within the site boundaries.

4. The site is not part of a Habitat Protection or Community Open Space priority acquisition property.

EXHIBIT I-D.1
CONSERVATION LAND SYSTEM MAP

101-13-015N
1.74 AC
SEC 16 T13S R13E

JAS ENGINEERING
P.O. BOX 1888
TUCSON, ARIZONA 85702
(520) 390-7920
stanley19263@msn.com

SCALE: 1"=1200'

SUBJECT PROPERTY

SUNSET ROAD

SHANNON ROAD

BOULEVARD

LA CANADA DRIVE

RIVER ROAD

CURTIS ROAD

LA CHOLLA

RUTHRAUFF ROAD

08 09 10 11
17 16 15 14
09 10 15 14
16 15
17 16 16 15 15 14
20 21 21 22 22 23

LEGEND

- XERORIPARIAN C
- IMPORTANT RIPARIAN AREAS
- MULTIPLE USE MANAGEMENT AREAS