A1 GRADING PLAN

LG101

LEGEND:

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- CENTERLINE
- DETENTION SIGN
- DRAINAGE PIPE
- HPS - HIGHPOINT OF SURVEY
- LP - LOW POINT
- RE - RIM ELEVATION
- R/V IN & OUT - CATCHBASIN IN & OUT
- FF - FINISHED FLOOR ELEVATION
- PC - POINT OF CURVE
- PT - POINT OF TANGENT
- PB - CATCH BASIN
- SP - SPOT ELEVATION

GENERAL NOTES:

1" = 20'-0" LG101

A1 GRADING PLAN

REV

PROJECT NO.

11

CONFIDENTIALITY AGREEMENT

DATE: 12/12/2016

DRAWN BY: KD

CHECKED BY: DZ

GRADING PLAN

UNIVERSITY OF ARIZONA
SITE ENGINEERING
LAB 101A, FALL 2016
KIRK DIMOND

THIS DRAWING HAS BEEN PRODUCED FOR EDUCATIONAL PURPOSES ONLY.

KIRK DIMOND

REVISIONS

SHEET CONTENTS

CHECKED BY:

DATE:

DRAWN BY:

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11

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GRADING PLAN

UNIVERSITY OF ARIZONA
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QUESTIONS:

DESCRIBE 1) HOW YOUR GRADING PLAN MANAGES PRECIPITATION ON SITE, 2) WHAT DIFFERENCE DOES IT MAKE, AND 3) HOW DO YOU KNOW?:

1. The grading plan manages precipitation on site by being equipped, through appropriate design choices, to handle a rain event in the 95th percentile. Based on calculations of impervious surface area, and the amount of water that can be expected as runoff in a 95th percentile rain event, the basins and detention areas can handle 1760 cubic feet of water. The basins can handle almost 1900 cubic feet of water. The design ensures that the same amount of water is collected and redirected from the storm drain.
2. The difference that this makes is that rather than simply disregarding the influence that runoff and rainwater can have on the adjacent areas, the proposed grading takes this into account by going above and beyond to minimize high intensity rain events.
3. Based on water quality volume calculations, as well as calculation of area and depth, the basins are the appropriate size for high intensity storms.

HOW DO CONSIDERING LANDSCAPE PERFORMANCE AFFECT YOUR GRADING DESIGN DECISIONS?

Having to consider landscape performance required that the project feature a certain amount of accessibility, by having access to various sight lines of the building. Accessibility is key to maintaining a sustainable approach, as opposed to the alternative of developing the site either without consideration or without the proper regard for site lines.

1. The proposed grading plan limits soil and vegetation disturbance by keeping the permanent contours of development small as possible, and by not developing into the surrounding plant communities.
2. The difference that the new area is smaller in depth, 20-30%, depending on the area, but help to the development footprint smaller and shorter makes the removal of any of the vegetation.

DESCRIBE 1) HOW YOUR GRADING PLAN LIMITS SOIL AND VEGETATION DISTURBANCE, AND 2) WHAT DIFFERENCE DID IT MAKE?:

1. The plan optimizes accessibility and wayfinding by keeping all nestled slopes under 5%, also by placing ADA parking closer to the building entrance. Additionally, there is a 45' line of sight radius for optimal vision depending on the area, but helped the development footprint smaller and shorter.
2. The difference that the paths were marginally longer due to the smaller slope, and safety around the transition zone.
3. The quantitative measurements that would cut less into the adjacent earth.

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