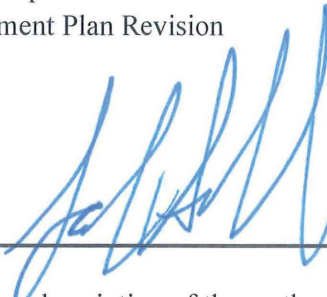


Attachment 5: Earthwork Memo 1

MEMO
August 25, 2020

TO: Erick Sebastian Gomez, Planner
Santa Barbara County, Planning and development
PROJECT: Plantel Nurseries Development, Development Plan Revision
Case No. 19RVP-00000-00115
2775 E. Clark Avenue, Santa Maria
APN 129-170-004
SUBJECT: Proposed Earthwork
FROM: John Smith: Tartaglia Engineering



The following is intended to present a more comprehensive description of the earthwork proposed for the Plantel Expansion.

OPERATIONS

Plantel provides vegetable seedlings (transplants) to farmers, primarily in the Santa Maria Valley. On occasion, however, the product can serve farming operations up to several hundred miles away. A farmer that incorporates transplants into their business model realizes numerous benefits to the operation; from gaining another growing cycle within the calendar year to having a higher take or establishment rate, and from having greater production per acre to consuming less water per crop. With some insight, tolerance for risk, and a little luck, farmers that use transplants in more colder climates can often get a jump on the season by being first to market.

In anticipation of a possible expansion to the business based on market conditions, a 2010 development on the west side of the main entrance road included all the backbone and support infrastructure for the entire site. In addition to greenhouses and outdoor growing bed areas, the initial development included all administration, maintenance, employee gathering, warehousing, and shipping and receiving facilities for the developed footprint at that time, but also for the possible easterly expansion. The scope of this 2020 permit is that expansion to the existing facility, contemplated in 2010, with a focus on more greenhouses and a second germination building, along with requisite storm water control facilities and an irrigation water recycling plant. When complete, greenhouses and growing areas will be fully incorporated into and become integral with the current operation.

The Clark Avenue operation is capital intensive and highly mechanized. From mechanical seeders to automatic planting devices, and from self-propelled irrigators to temperature-controlled movable greenhouse wall and roof panels, the system is truly state of the art. With this technology and its human support element, comes design requirements for effective operation. Greenhouse floor and outdoor growing areas must be relatively flat for the automatic equipment to function and greenhouse walls must be vertical and roof eaves and soffits must be level for proper movement. Outside the growing areas, travel-ways are very limited in slope and cross-slope design, to accommodate safe forklift operations.

SITE

The site is along the north side of Clark Avenue, about a half mile east of Lake Marie. Clark Avenue is the highpoint or high edge of the development with the terrain dropping down and away as it extends north from the street. The main entrance is in the middle of the property, with the driveway extending straight north from this point. Improvements to the west of the main entrance were permitted in 2010. For the most part, the area along the west side of the main driveway is level with the driveway, providing greenhouse growing areas, outdoor growing areas, and safe, unrestricted forklift operation by and between all growing areas, germination and planting areas, and shipping and receiving facilities.

The development currently being pursued is to occur along the east side of the main driveway. At present, this 77-acre area is a combination of:

- A. 42 acres are in berry farming under hoop structures.
- B. 12.5 acres are in outdoor seedling production.
- C. The balance of the area (22.5 acres) has been graded in preparation for temporary expansion of growing, material processing, and support equipment storage.
- D. Virtually 99.9% of the proposed development footprint has been disturbed through agricultural operations.

The outdoor seedling production area on the east side, within the proposed development footprint, has been graded near flat, to accommodate a portion of the automatic equipment operation inherent to the transplant business. This grading was authorized through an agricultural grading permit, issued by the County in 2016. At the time it was performed, it was understood to be a temporary condition, in anticipation of an eventual return to the Planning Department for a more complete east-side development permit.

EARTHWORK

The project proposes approximately 780,000 cubic yards of earth cut and 600,000 cubic yards of earth fill. As presented, it is in an earth balance condition, with consideration of earth shrinkage of approximately 30%. No anticipated earth import or export. The grading plan presents greenhouse areas and travel ways that are near or slightly lower than the main driveway, facilitating safe, unencumbered forklift movement from the east side growing areas to the west side shipping and receiving areas. The grading plan drops slightly as you progress to the north and east. When approaching the east property line, the growing area drops in a 2:1 slope down to existing grade about 40 feet from the property line. To the north, the growing area drops in a 2:1 slope down to the storm water detention facility and the recycled water plant, before rising back up to existing grade before reaching the north property line.

An on-site geotechnical investigation was performed in 2007 by Earth Systems Pacific for the west side development, and updated in 2010 to reflect final design. The report found the site and site soils suitable for construction of proposed improvements, with no presence of substantial geologic constraints. The Earth Systems team has recently provided a preliminary review of the proposed easterly expansion plans. They are prepared to perform a geotechnical investigation, lab testing, and report of findings and recommendations when this project moves into final design.

The proposed grading plan includes cut slopes in excess of 15 feet in vertical height. Revised plans to be submitted with the next planning submission will reflect means and methods for addressing cut slope sloughing through over-excavation of the cut slope, followed with re-construction of the slope in an engineered fill configuration.

As designed, stormwater and excess irrigation water is collected in two detention basins, meeting Flood Control attenuation requirements, and returned to the site through the recycling plant as irrigation water. Heavy storm events that exceed recycling water system capacities will ultimately discharge off the property in an easterly direction, at the current point of surface discharge.

CONCLUSION

1. The project works and fits within the site, with no impacts to neighbors.
2. The nature of the business dictates a relatively flat working surface, with safe forklift maneuverability across the main entrance driveway to facilities on the west side.
3. As presented, the earthwork is a balance condition, with no import and no export.
4. Being at or below the elevation of Clark Avenue, the project will not present any unsightly or visibly offensive vertical cut or fill slopes, or general view issues.
5. The development is consistent with the west side of the property and with the agricultural theme and feel of this portion of northern Santa Barbara County.
6. The compacted fill slope is an acceptable solution to address concerns regarding 15-foot vertical cut slopes.
7. The site and site soils collectively do not present any geologic constraint that would preclude this development, as presented.