

GRADING AND DRAINAGE PLAN

GENERAL NOTES:

Applicable Provisions

All applicable provisions of the Building Code and the Standard Specification for Public Works Construction, hereinafter referred to as the "Green Book", the most recent edition, as adopted by the City of Fountain Valley, shall be complied with during all grading and paving operations.

Soils Investigation

The contractor is hereby notified that a soils investigation was performed by dba Quartech Consultants. All recommendations made by the soils engineer, geotechnical engineer, engineering geologist or the site engineer shall be complied with, and the contractor is required to review the soils investigation report to familiarize himself/herself with the job site conditions.

Existing Asphalt Concrete

The onsite existing asphaltic concrete paving shall be demolished and disposed of in an approved manner. If approved in advance by the soils engineer, geotechnical engineer, engineering geologist or the site engineer, and the Fountain Valley Public Works Inspector, the asphaltic concrete may be used to produce miscellaneous base material to be used below the new paving section, in the parking areas only.

Earthwork Quantities

Earthwork quantities are estimated for permit purposes only. The grading contractor shall inspect the grading plan and calculate quantities for bid purposes.

Inspection Schedule

The following inspection schedule (as suggested by the Uniform Building Code), subject to modification by the City of Fountain Valley, is presented herein as a guideline for the contractor to follow:

Excavation and Fill Inspection

The permittee or his agent shall notify the Public Works Inspector a minimum of 24 hours before the grading operation is ready for each of the following operations:

1. Initial Inspection: When the permittee is ready to begin work, but before any grading or brushing is started.

2. Toe Inspection: After the natural ground is exposed and prepared to receive fill, but before any fill is placed.

3. Excavation Inspection: After the excavation is started, but before the vertical depth of the excavation exceeds ten feet.

4. Fill Inspection: After the fill emplacement is started but before the vertical height of the lifts exceed ten feet.

5. Drainage Device Inspection: After forms and pipe are in place, but before any concrete is placed.

6. Rough Grading: When all rough grading has been completed.

7. Final: When all work, including installation of all drainage structures and other projective devices, has been completed and the as-graded plan and required reports have been submitted.

Dimensions and Elevations

All dimensions shown hereon shall be verified by the grading contractor. The building layout shall be in accordance with approved grading, site and architectural plans. The engineer of record for the rough and/or precise grading plan shall provide rough and/or precise grading certificates to the City prior to final approval of the grading operations.

Dust Control

The grading contractor shall maintain dust control at all times.

Final Clean Up

Only Rainbow Disposal will be allowed to provide construction bins for rubbish disposal within the City of Fountain Valley.

As Builts

Contractor shall maintain and be required to submit "As Built" plans to the City prior to receiving final inspection and approval. All "As Built" changes shall be maintained on one master copy and approved and initialed by the City Project Inspector prior to implementation in the field. The final "As Built" plans shall be submitted on 24" x 36" mylar and digitally in an AutoCAD format (contact the City's Engineering Department for AutoCAD version required).

GRADING NOTES:

1. All work shall be done in accordance with the grading code of the City of Fountain Valley, the Uniform Building Code, "The Standard Specifications for Public Work Construction," hereinafter referred to as "Green Book", the most recent edition, and special requirements of the permit.

2. No grading shall be started without first notifying the public works inspector and obtaining the required permits.

3. The grading contractor shall notify the Public Works Inspector for inspector and obtain approval of the completed grading.

4. The Design Engineer shall submit to the City Engineer a Final Grading Certificate in accordance with City requirements. The Final Grading Certificate shall be submitted to the City at the completion of the grading operation and prior to issuance of a Certificate of Occupancy.

5. All rough grade pads shall be constructed 5' minimum outside of the buildings.

6. Cut slopes shall be no steeper than 2' horizontal to 1' vertical.

7. Fill slopes shall be no steeper than 2' horizontal to 1' vertical and shall have not less than 90% compaction to the finished surface.

8. Fills shall be compacted throughout to 90% density, as determined by A.S.T.M. Standard D1557 and certified by a soils engineer, geotechnical engineer, or engineering geologist.

9. Dust shall be controlled by daily watering.

10. Sanitary facilities shall be maintained on the site.

11. Subgrade shall be prepared prior to the casting of concrete slabs to the satisfaction of the soils engineer and the public works inspector.

12. Elevations shown in parentheses and dashed contour lines are existing.

13. Clear and remove all deleterious vegetation, such as trees, logs, roots, brush, grass, weeds, and other objectionable material prior to commencing grading.

14. All materials removed shall be taken from the building site and disposed of in a lawful manner by the contractor.

15. Areas over which fills are to be placed shall first be scarified to provide a bond between the existing ground and the material to be deposited thereon.

16. Fill materials shall be placed in horizontal layers such that the compacted thickness of each layer does not exceed 8 inches.

17. At the time of compaction, the moisture content of the fill material shall be such that the specified relative compaction will be obtained and fill will be firm, hard, and unyielding. Subgrade shall be compacted to 90% relative compaction.

18. If wet clay or expansive, organic soil is encountered, it shall be removed to a sufficient depth and area that when suitable material is imported and substituted for that material which was removed, 90% relative compaction of the subgrade can be obtained.

19. Subgrade shall be prepared such that it does not vary by more than 0.1 foot from the specified grade or cross-section.

Working hours are 7 AM-8 PM, M-F; 9 AM-8 PM, Saturday; No Sunday or legal holidays.

Soils Engineer must provide letter certifying all rough grading operations performed to his/her specifications prior to rough grade final.

A compaction report and pad certification is required prior to issuance of a building.

All pedestrian and traffic control to be "Watch" manual. Encroachment permits to be issued by Public Woks department as required.

This project shall comply with the 2016 CBC, CPC, and CEC.

NPDES NOTES:

1. Sediment from area disturbed by construction shall be retained on site using structural controls as required by the statewide General Construction Stormwater Permit.

2. Stockpiles of soil shall be properly contained to minimize sediment transport from the site to streets, drainage facilities of adjacent properties via runoff, vehicle tracking, or wind as required by the statewide General Construction Stormwater Permit.

3. Appropriate BMPs for construction-related materials, wastes, spill or residues shall be implemented to minimize transport from the site to streets, drainage facilities, or adjoining property by wind or runoff as required by the statewide General Construction Stormwater Permit.

4. Runoff from equipment and vehicle washing shall be contained at construction sites and must not be discharged to receiving waters or to the local storm drain system.

5. All construction contractor and subcontractor personnel are to be made aware of the required best management practices and good housekeeping measures for the project site and any associated construction staging areas.

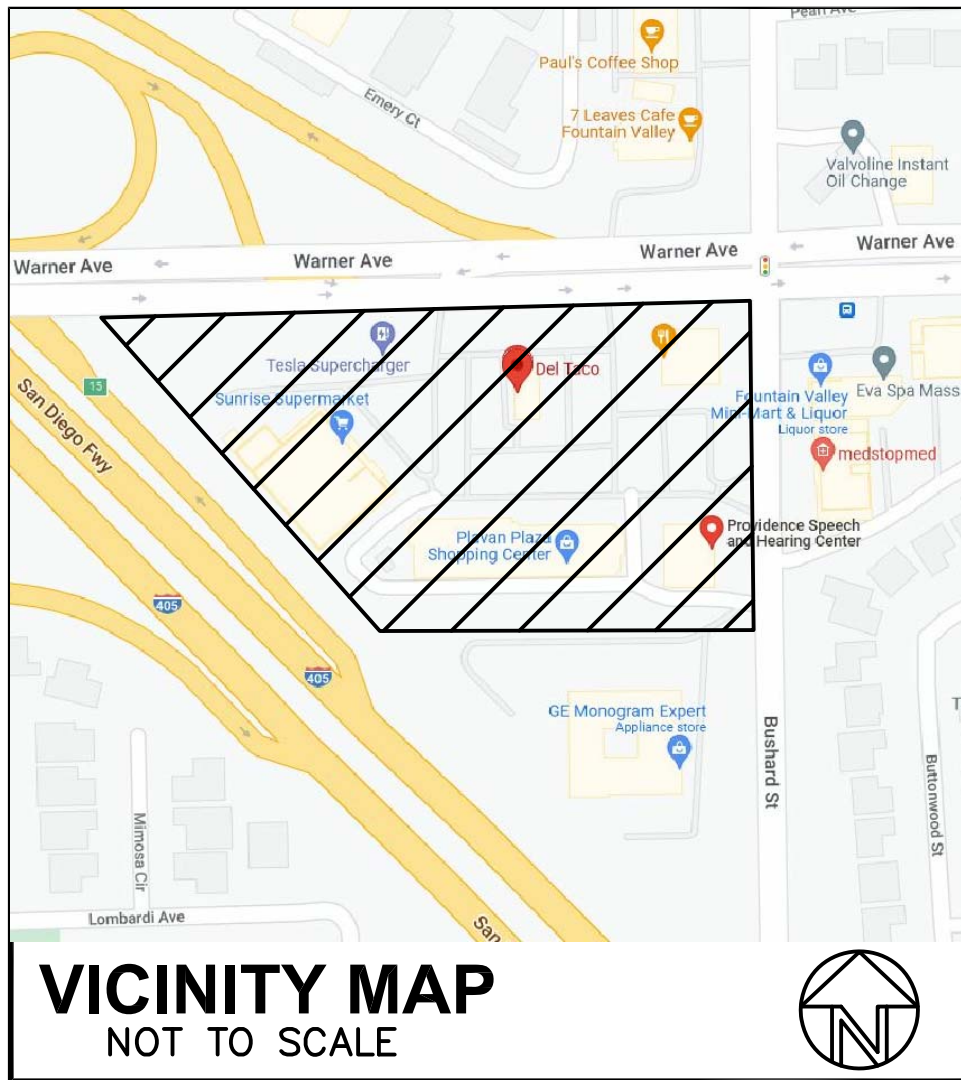
6. At the end of each day of construction activity all construction debris and waste materials shall be collected and properly disposed in trash or recycle bins.

7. Construction sites shall be maintained in such a condition that a storm does not carry wastes or pollutants off the site. Discharges of material other than stormwater (non-stormwater discharges) are prohibited except as authorized by an individual DPDES permit or the statewide General Construction Stormwater Permit.

Potential pollutants include but are not limited to: solid or liquid chemical spills; wastes from paints, stains, sealants, solvents, detergents, glues, lime, pesticides, herbicides, fertilizers, wood preservatives and asbestos fibers, paint flakes or stucco fragments; fuels, oils, lubricants, and hydraulic, radiator or battery fluids; concrete and related cutting or curing residues; floatable wastes; wastes from engine/equipment steam cleaning or chemical degreasing; waster from the street cleaning; and superchlorinated potable water from line flushing and testing.

During construction, disposal of such materials should occur in a specified and controlled temporary area on-site physically separated from potential stormwater runoff, with ultimate disposal in accordance with local, state and federal requirements.

8. Discharging contaminated groundwater produced by dewatering groundwater that has infiltrated into the construction site is prohibited. Discharging of contaminated soils via surface erosion is also prohibited. Discharging non-contaminated groundwater produced by dewatering activities requires National Pollutant Discharge Elimination System (NPDES) permit from the respective State Regional Water Quality Control Board.



FINAL AS GRADED REPORT:

1. An as built grading plan prepared by the civil engineer showing original ground surface elevations, as-graded ground surface elevations, lot drainage patterns and the locations and elevations of surface drainage facilities and of the outlets of subsurface drains. Civil engineers shall state that to the best of their knowledge the work within their area of responsibility was done in substantial conformance with the final approved grading plan.

2. A report prepared by the soils engineer retained to provide such services, including locations and elevations of field density tests, summaries of field and laboratory tests, other substantiating data, and comments on any changes made during grading and their effect on the recommendations made in the approved soils engineering investigation report. Soils engineers shall submit a statement that to the best of their knowledge, the work within their area of responsibilities is in accordance with the approved soils engineering report.

LEGEND

FF
TC
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SW
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GP
58

FINISHED FLOOR
TOP OF CURB
TOP OF WALL
FINISHED SURFACE
SIDEWALK
FLOW LINE
HIGH POINT
CENTERLINE
PROPERTY LINE
CONSTRUCTION NOTE
FLOW DIRECTION
PROPOSED CONTOUR

— (435) — EXISTING CONTOUR
SAND BAG LINE
CBW CONC. BLOCK WALL
CONC. CONCRETE
D/A DRIVEWAY APPRON
D/WY. DRIVEWAY
EP EDISON POLE
SMH SEWER MANHOLE
RW RETAINING WALL
S/W SIDEWALK
WF WOODEN FENCE
WM WATER METER
GM GAS METER
..... CHAIN LINK FENCE
..... EX. STRUCTURE
* STREET LIGHT
- - - - - WATER LINE
- - - - - GAS LINE
- - - - - SEWER LINE

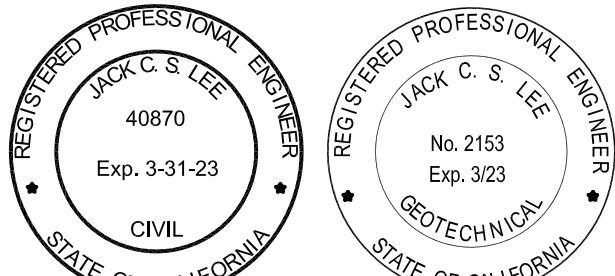
NOTE:
TOPO SURVEY MAP WAS DONE BY
BRADLEY K. OWENS (LS#7819) IN 9/27/2019
353 E. CENTER ST., #115 ANAHEIM, CA 92805
PHONE: (714) 746-3420
EMAIL: BRAD_OWENS@ATT.NET

EASEMENTS:

- (A) INDICATES AN EASEMENT FOR STREET AND UTILITIES PURPOSES DEDICATED TO CITY OF FOUNTAIN VALLEY PER 10793/100 O.R.
- (B) BY RESOLUTION OF ORANGE COUNTY BOARD OF SUPERVISORS, FILE NO. F-220
- (C) STERN RANCHO RESERVATION
- (D) 10' SEWER EASEMENT PER O.R. 10944/47

I HEREBY CERTIFY THAT:
1.- THESE PLANS HAVE BEEN PREPARED UNDER MY SUPERVISION
2.- THE GRADING SHOWN HEREON WILL NOT DIVERT DRAINAGE FROM ITS NATURAL DOWNSTREAM COURSE OR OBSTRUCT THE DRAINAGE OF ADJACENT PROPERTIES
3.- EXISTING GROUND CONTOURS AND ELEVATIONS WERE OBTAINED BY FIELD SURVEY

ENGINEER: JACK C. LEE, R.C.E. 40870 EXP. 3/31/2023 Date 03/31/2022



PLAVAN PLAZA

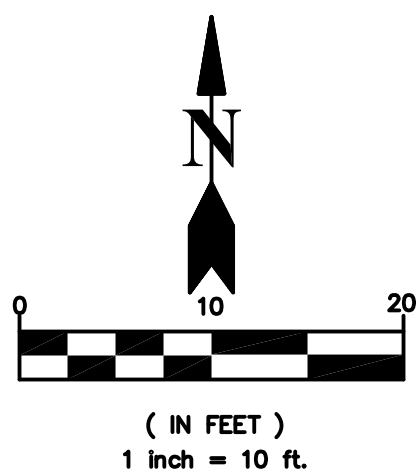
17075 BUSHARD ST., FOUNTAIN VALLEY, CA

City of Fountain Valley

C-1

SHEET 1 OF 3 SH.

GRADING AND DRAINAGE PLAN



CALLAND ENGINEERING, INC.
dba QUARTECH CONSULTANTS
576 E. LAMBERT ROAD, BREA, CA 92821
TEL: (714) 671-1050 FAX: (714) 671-1090

RELEASED

REVISIONS

PLAVAN PLAZA
17075 BUSHARD ST., FOUNTAIN VALLEY, CA
City of FOUNTAIN VALLEY

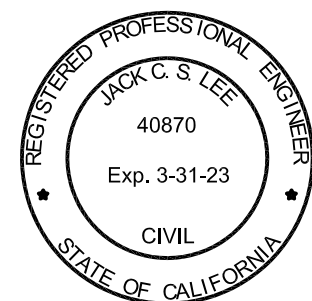
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CONSTRUCTION NOTES:

- (1) EXISTING PLANTER & LIGHT POLE TO BE REMOVED
- (2) EXISTING CONCRETE DRIVEWAY TO BE REMOVED
- (3) EXISTING CONCRETE DRIVEWAY TO BE RESURFACED
- (4) EXISTING TRANSFORMER TO BE PROTECTED IN PLACE
- (5) EXISTING UTILITY BOX TO BE PROTECTED IN PLACE
- (6) NEW WATER METER, PER PLUMBING PLAN
- (7) NEW TRASH ENCLOSURE, PER ARCHITECTURAL PLAN, PER SEPARATE PERMIT
- (8) NEW BUILDING/ PATIO, PER ARCHITECTURAL PLAN, PER SEPARATE PERMIT
- (9) CONSTRUCT NEW 0.5'H CURB
- (10) CONSTRUCT NEW PLANTER, PER ARCHITECTURAL PLAN
- (11) LIMIT OF OVER-EXCAVATION PER SOIL REPORT PREPARED BY DBA QUARTECH CONSULTANTS

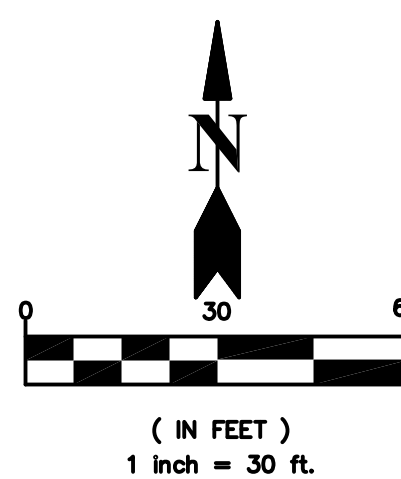


C-2

SHEET 2 OF 3 SH.

EROSION CONTROL PLAN

P.M.B. 109 / 13



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RELEASED

REVISIONS

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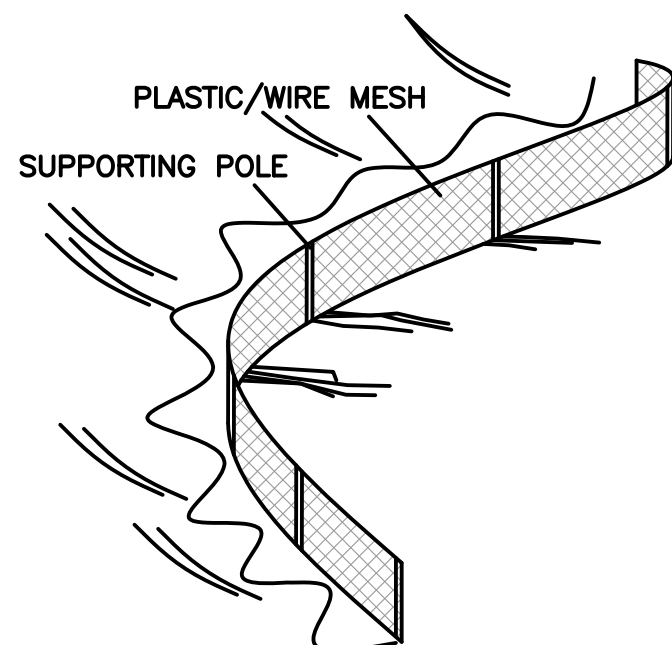
1. IN CASE OF EMERGENCY, CALL: MR. BINH TRAN AT (714) 476-7778
2. THE UNDERSTANDING CIVIL ENGINEER WILL SUPERVISE EROSION CONTROL WORK AND CERTIFY THAT THE SYSTEM FUNCTIONS PROPERLY AND IS IN ACCORDANCE WITH THE APPROVED PLANS.
3. DEVICES SHALL NOT BE MOVED OR MODIFIED WITHOUT THE APPROVAL OF THE CITY ENGINEER OR IN AN EMERGENCY, BY THE DESIGN OF THE CIVIL ENGINEER OR DESIGNER.
4. ALL REMOVABLE PROTECTIVE DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN THE FIVE-DAY RAIN PROBABILITY FORECAST EXCEEDS 40 PERCENT. FORECAST SHALL BE RECEIVED FROM BROADCASTS
5. AFTER A RAINSTORM, ALL SILT AND DEBRIS SHALL BE REMOVED AND CHECK BERMS AND DESILTING BASINS AND THE BASINS PUMPED DRY, ANY GRADE/SLOPE SURFACE PROTECTION MEASURES DAMAGED DURING A RAINSTORM SHALL ALSO BE IMMEDIATELY REPAIRED. FAILURE TO PROVIDE EFFECTIVE MAINTENANCE MAY RESULT IN PENALTIES.
6. GRADED AREAS AROUND THE TRACT PERIMETER, IF APPLICABLE, MUST DRAIN AWAY FROM THE FACE OF THE SLOPE AT THE CONCLUSION OF EACH WORKING DAY.
7. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATER CREATES A HAZARDOUS CONDITION.
8. AREAS SHALL BE MAINTAINED IN SUCH STATE THAT FIRE ACCESS SHALL BE MAINTAINED AT ALL TIMES (INCLUDING ACCESS TO NEIGHBORING PROPERTIES).
9. PLANTING FOR SLOPE PROTECTION SHALL BE ACCOMPLISHED PRIOR ROUGH GRADE RELEASE UNLESS A WAIVER IF THIS REQUIREMENT SHALL BE OBTAINED FROM THE CITY ENGINEER.
10. ALL LOT D/S SHALL BE DESIGNED TO DRAIN TO AN ACCEPTABLE LOCATION AT A MINIMUM OF 1 PERCENT.
11. DEVICES SHALL BE PROPERLY MAINTAINED IN PLACE UNTIL PROJECT COMPLETION. DAMAGED GRAVEL BAGS MUST BE REPLACED.
12. BUILD UP OF SILT AROUND ANY DESILTERS SHALL BE PERIODICALLY REMOVED TO THE SATISFACTION OF THE CITY PUBLIC WORKS INSPECTOR. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR TEMPORARY STORAGE OF EXISTING MANHOLE COVERS, IF APPLICABLE, UNTIL DESILTER USE OF MANHOLE IS COMPLETE.
13. A GUARD SHALL BE POSTED ON THE SITE WHENEVER THE DEPTH OF WATER IN ANY DEVICE EXCEEDS 18 INCHES.
14. AFTER A RAINSTORM, ALL SILT AND DEBRIS SHALL BE REMOVED FROM PUBLIC DRAINS OR PIPES, FROM DRAINS OR PIPES OF ADJACENT PROPERTIES, AND FROM ALL PUBLIC
15. FOR PROJECT EXTENDING INTO SUBSEQUENT RAINY SEASON, NEW TEMPORARY DRAINAGE AND EROSION CONTROL PLANS SHALL BE SUBMITTED. THESE PLANS SHALL COMPLY WITH ALL THE ABOVE MENTIONED REQUIREMENTS.
16. THE DEVELOPER SHALL SUBMIT A LETTER TO THE CITY ENGINEER SUBMIT A NOTICE OF INTENT TO THE STATE OF CALIFORNIA WATER RESOURCE BOARD IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PROGRAM AND THE CLEAN WATER ACT OF 1990.
17. FOR ALL GRADING PROJECTS, DEVELOPER MUST SUBMIT A WATER QUALITY MANAGEMENT PLAN TO THE ENGINEERING DIVISION FOR REVIEW AND APPROVAL IN CONJUNCTION WITH THE GRADING PLANS SUBMITTAL.

CONSTRUCTION NOTES:

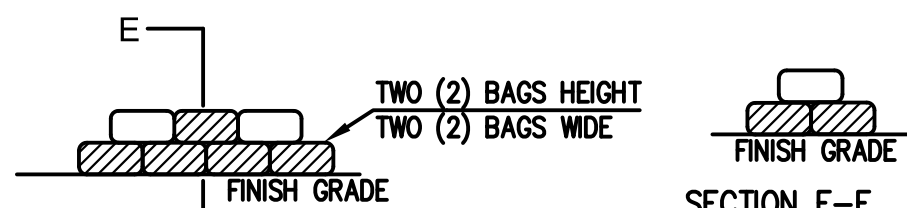
SE-1	SILT FENCE ALONG THE ENTIRE FRONTAGE OF THE PROPERTY EXCEPT THE DRIVEWAY APPROACH, PER BMP SE-1	405 L.F.
SE-8	SAND BAG EROSION CONTROL ALONG BOUNDARIES OF CONSTRUCTION AREA. THE SAND BAGS SHOULD BE 2 BAGS WIDE AND 2 BAGS HIGH, PER BMP SE-8, PER DETAILS HEREON	405 L.F.

QUANTITY:

405 L.F.
405 L.F.



SE-1 PERIMETER SILT FENCE



SE-8 TYPICAL SECTION - SAND BAG
NTS

CALLAND ENGINEERING, INC.
dba QUARTECH CONSULTANTS

576 E. LAMBERT ROAD, BREA, CA 92821
TEL: (714) 671-1050 FAX: (714) 671-1090

PLAVAN PLAZA

17075 BUSHARD ST., FOUNTAIN VALLEY, CA

City of JOHNSON HANSEN

DRAWN: NT

CHECKED:

DATE: 03/31/2022

JOB NO.: **21-019-064**

SCALE: **1"=30'**

FILE NAME:

C-3

SHEET 3 OF 3 SHT.