NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project Boeing Date 5-18-2001

Address S. Of 190th St. Between Normandie Ave & Harbergate Way Project Number 5936-96

Los Angeles, Calif.

Inspected import material delivered from Century City Site. Most of the import delivered to the Job site today is contaminated with oversized concrete debris and organics and is not suitable for grading. It shall be noted that these contaminated soils were rejected by NorCal on Wednesday 5-16-2001, therefore no more import soils from Century City Site will be accepted and all the contaminated material delivered today shall be completely removed from site.

Accepted by

NorCal Representative

Javier Sanchez

NORCAL ENGINEERING

SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project Boeing Date 5-22-2001

Address S of 190th St. Between Harbergate Way & Normandie Av Project Number S936-96

Los Angeles Calif.

Observation of ~~removal~~ Contaminated soils removal from knox st. areas at ± station 4 too. The operation will be continued tomorrow and the excavations will be backfilled at a later date. No Compaction tests or bottom approvals were performed at this time.

Accepted by

Javier Sanchez
NorCal Representative

NORCAL ENGINEERING

SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project Boeing Date 5-23-2001

Address N. Of Francisco st. Between Harborgate Wy & Normandie Project Number 5936-96

Los Angeles, Calif.

Observation and testing of grading operations for proposed VES building pad located at South east corner of Harborgate way and proposed Knox street. All grading done today was observed by this firm and was tested to a minimum of 90% relative compaction. The grading operations will be continued tomorrow.

Accepted by

Javier Sanchez
NorCal Representative

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project Boeing Date 5-24-2001

Address N. Of Francisco st. Between Harborgate Way & Normandie Av Project Number 5936-96

Los Angeles, Calif.

Observation and testing of grading operations for proposed VES (Vapor Extraction System) pad, located at south-east corner of Harborgate way and proposed knox st. All compaction tests taken up to pad grade resulted in 90% or above of the laboratory standard.
The VES pad located at north-east corner of property is still being over excavated, Some old under ground structures were encountered in this area and are being removed.

Accepted by

NorCal Representative

Javier Sanchez

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project Boeing Date 5-25-2001

Address S. Of 190th st. Between Hawthorne Way & Normandie Ave Project Number 5936-96

Los Angeles, Calif.

Observation and testing of grading operations for proposed VES (Vapor Extraction System) pad, located at the north east corner of property. A few under ground structures were encountered in this area during over excavation operations. All encountered structures were completely removed to expose competent native material, as recommended by this firm. The maximum depth of fill in this area will be 8 feet below existing grade. All compaction tests taken today up to 3 feet below existing grade resulted in 90% or above of the laboratory standard. The grading operations will be continued Tuesday 5-29-2001.

Accepted by

NorCal Representative

Javier Sanchez

NORCAL ENGINEERING

SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING

Date 5-26-01

Address NW FRANCISCO ST. + NORMANDIE LB.

Project Number 5936-96

OBSERVATION OF IMPORT MATERIALS AND REMOVAL OF UNSATISFACTORY SOILS IMPORTED AND REJECTED ON 5-25-01. FOR PROPOSED HARBOR GATEWAY DEVELOPMENT AT ABOVE ADDRESS.

Accepted by

Randy Bo[illegible]

NorCal Representative

Rick [illegible]

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING Date 5-29-01

Address NW FRANCISCO + NORMANDIE LB. Project Number 5936-96

OBSERVED AND TESTED GRADING OPERATIONS FOR PROPOSED HARBOR GATEWAY DEVELOPMENT AT ABOVE ADDRESS. NORTH EAST PAD TESTS RESULTED IN 90% OR BETTER RELATIVE COMPACTION.

Accepted by

NorCal Representative

NORCAL ENGINEERING

SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project Boeing

Date 5-30-01

Address NW Francisco + Normandie LB.

Project Number 5936-96

OBSERVED AND TESTED NE PAD GRADE AND IMPORT SOILS FOR PROPOSED HARBOR GATEWAY DEVELOPMENT AT ABOVE ADDRESS. TESTS RESULTED IN 90% OR BETTER RELATIVE COMPACTION.

Accepted by

NorCal Representative

NORCAL ENGINEERING

SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING Date 5-31-01

Address NW FRANCISCO + NORMANDIE LB Project Number 5936-96

INSPECTED AND APPROVED BOTTOM OF EXCAVATION OF CONTAMINATED MATERIAL TO 27' BELOW GRADE MAXIMUM DEPTH PROPOSED KNOX ST. FOR PROPOSED HARBOR GATEWAY DEVELOPMENT AT ABOVE ADDRESS.

Accepted by

NorCal Representative

Rick Agler

NORCAL ENGINEERING

SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING Date 6-1-01

Address NW FRANCISCO + NORMANDIE LB Project Number 5936-96

INSPECTION OF KNOX ST. EXCAVATION AND IMPORT SOILS FOR PROPOSED HARBOR GATE WAY KNOX ST. DEVELOPMENT AT ABOVE ADDRESS.

Accepted by

NorCal Representative

Rick Asplund

NORCAL ENGINEERING

SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING

Date 6-4-01

Address NW FRANCISCO + NORMANDIE CA.

Project Number 5936-96

OBSERVED AND TESTED GRADING OPERATIONS FOR PROPOSED HARBOR GATEWAY DEVELOPMENT KNOX ST. AT ABOVE ADDRESS. TESTS RESULTED IN 90% OR BETTER RELATIVE COMPACTION.

Accepted by

NorCal Representative

NORCAL ENGINEERING

SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING

Date 6-5-01

Address NW FRANCISCO + NORMANDIE LA

Project Number 5936-96

OBSERVED AND TESTED GRADING OPERATIONS FOR PROPOSED HARBOR GATEWAY DEVELOPMENT AT KMAX PL AT ABOVE ADDRESS. TEST RESULTED IN 90% OR BETTER RELATIVE COMPACTION.

Accepted by

NorCal Representative

NORCAL ENGINEERING

SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING Date 6-6-01

Address NW FRANCISCO + NORMANDIE LA Project Number 5936-96

OBSERVED AND TESTED GRADING OPERATIONS FOR PROPOSED HARBOR GATEWAY DEVELOPMENT AT ABOVE ADDRESS. KNOX ST. EXCAVATION NORTH WALL BOTTOM IS APPROVED AT 20'. TESTS RESULTED IN 90% OR BETTER RELATIVE COMPACTION.

Accepted by

NorCal Representative

Rick Ayala

NORCAL ENGINEERING

SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING Date 6-7-01

Address NW FRANCISCO + NORMANDIE LA Project Number 5936-96

OBSERVED AND TESTED GRADING OPERATIONS FOR PROPOSED HARBOR GATEWAY DEVELOPMENT AT ABOVE ADDRESS. KNOX ST. EXCAVATION BOTTOM SOUTH WEST IS APPROVED AT APPROXIMATELY 6', TESTS RESULTED IN 90% OR BETTER RELATIVE COMPACTION.

Accepted by

NorCal Representative

NORCAL ENGINEERING

SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING Date 6-8-01

Address NW FRANCISCO + NORMANDIE LA Project Number 5936-96

OBSERVED AND TESTED GRADING OPERATIONS FOR PROPOSED HARBOR GATEWAY DEVELOPMENT AT ABOVE ADDRESS. KNOX ST. EXCAVATION BOTTOMS ARE APPROVED AT 7' SOUTH EAST. TESTS RESULTED IN 90% OR BETTER RELATIVE COMPACTION.

Accepted by

NorCal Representative

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING

Date 6-11-01

Address NW FRANCISCO + NORMANDIE

Project Number 5936-96

OBSERVED AND TESTED GRADING OPERATIONS FOR PROPOSED HARBOR GATEWAY DEVELOPMENT KNOX ST. AT ABOVE ADDRESS. TESTS RESULTED IN 90% OR BETTER RELATIVE COMPACTION.

Accepted by

NorCal Representative

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING Date 6-12-01

Address NW FRANCISCO + NORMANDIE LA Project Number 5936-96

OBSERVED AND TESTED GRADING OPERATIONS FOR PROPOSED HARBOR GATEWAY DEVELOPMENT KNOX ST. AT ABOVE ADDRESS. TEST RESULTED IN 90% OR BETTER RELATIVE COMPACTION. ALSO ELECTRICAL, WATER, SEWER, AND STORM DRAIN ABANDONED PIPES AT PROPERTY LINE BETWEEN STATIONS 8+80 AND 11+34 WILL BE REMOVED AND OR PERMANATELY SEALED AT A LATER DATE.

Accepted by

NorCal Representative

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING Date 6-13-01

Address NW FRANCISCO + NORMANDIE CA Project Number 5936-96

OBSERVED AND TESTED GRADING OPERATIONS KNOX ST. FOR PROPOSED HARBOR GATEWAY DEVELOPMENT AT ABOVE ADDRESS. BOTTOMS ARE APPROVED SOUTH HALF KNOX ST. FROM STATIONS 1+50 - 4+00 TO APPROXIMATELY 8'. TESTS RESULTED IN 90% OR BETTER RELATIVE COMPACTION.

Accepted by

NorCal Representative

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING Date 6-14-01

Address NW FRANCISCO + NORMANDIE CA Project Number 5936-96

OBSERVED AND TESTED GRADING OPERATIONS FOR PROPOSED HARBOR GATEWAY DEVELOPMENT AT ABOVE ADDRESS. NORTH WEST HALF OF WEST END KNOX ST BOTTOM IS APPROVED TO 8' BELOW GRADE. HOWEVER 3 FOOTINGS IN THIS AREA 30' FROM CURB FACE NEEDS TO BE REMOVED. TESTS REVEALED IN 90% OR BETTER RELATIVE COMPACTIONS.

Accepted by

NorCal Representative

NORCAL ENGINEERING

SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING

Date 6-15-01

Address NW FRANCISCO + NORMANDIE

Project Number 5936-96

OBSERVED AND TESTED GRADING OPERATIONS FOR KNOX ST. PROPOSED HARBOR GATEWAY DEVELOPMENT AT ABOVE ADDRESS. TESTS RANGED IN 90% OR BETTER RELATIVE COMPACTION.

Accepted by

NorCal Representative

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project Bocina

Date 6-18-01

Address NW Francisco + Normandie

Project Number 5936-96

Observed and tested grading operations for Knox St. Proposed Harbor Gateway Development at above address. Tests resulted in 90% or better relative compaction.
Bottom is approved for west end of Knox St. from 12'-10' below grade.

Accepted by

NorCal Representative

NORCAL ENGINEERING

SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING Date 6-19-01

Address NW FRANCISCO + NORMANDIE LA Project Number 5936-96

OBSERVED AND TESTED GRADING OPERATIONS FOR PROPOSED HARBOR GATEWAY DEVELOPMENT AT ABOVE ADDRESS. TESTS RESULTED IN 90% OR BETTER RELATIVE COMPACTION.

Accepted by

NorCal Representative

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project Boeing

Date 6-20-2001

Address N. of Francisco street, between Harborgate way and Normandie Ave, Los Angeles, Calif.

Project Number 5936-96

Field Supervisor.

Inspected and approved over excavated bottom for an area ± 275' long (N-S) by ± 105 wide (E-W) located at ±210' south of proposed Knox street along Harborgate Way.

Several uncertified filled excavations were encountered through-out this bottom. All these areas were completely removed to competent native material under the directions of this firm. The maximum depth of fill ~~placed~~ in this area will be ±11'-0" (as per grading plans contours). Compaction tests are being performed by our soils technician on site. Grading operations will be continued tomorrow.

Accepted by

NorCal Representative

Javier Sanchez

NORCAL ENGINEERING

SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING Date 6-20-01

Address NW FRANCISCO + NORMANDIE LA Project Number 5936-96

OBSERVED AND TESTED GRADING OPERATIONS FOR PROPOSED HARBOR GATEWAY DEVELOPMENT AT ABOVE ADDRESS. TESTS RESULTED IN 90% OR BETTER RELATIVE COMPACTION.

Accepted by

NorCal Representative

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING

Date 6-21-01

Address NW FRANCISCO + NORMANDIE

Project Number 5936-96

OBSERVED AND TESTED GRADING OPERATIONS FOR PROPOSED HARBOR GATEWAY DEVELOPMENT AT ABOVE ADDRESS. BOTTOMS OF GRADING OPERATIONS ARE APPROVED, TESTS RESULTED IN 90% OR BETTER RELATIVE COMPACTION. ALL OVERSIZED CONCRETE, CONSTRUCTION DEBRIS, ABANDONED UTILITY PIPES ETC. ARE BEING ADEQUATELY REMOVED BY SKIP LOADER AND TWO LABORS.

Accepted by

NorCal Representative

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project Boeing Date 6-21-2001

Address N. Of Francisco st, between Harborgate way and Normandie Ave, Los Angeles, Calif. Project Number 5936-96

Field Supervisor for site grading operations.
Inspected and approved bottom over excavation for an area 300 feet long (N.S) by 80 feet wide (E-W), located along Harborgate way. Several uncertified filled excavations, abandoned utility lines, and under ground structures were encountered in this area during grading operations.
All the above were completely removed to competent native material under the directions of this firm. The maximum depth of fill in this area will be approximately 12' (as per grading plans). Compaction tests are being performed by our soils technician on site.

Accepted by

NorCal Representative

Javier Sanchez

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project Boeing Date 6-22-2001

Address N. of Francisco street, between Harborgate Way and Normandie Ave, Los Angeles, Calif. Project Number 5936-96

Field Supervisor for site grading operations.
Inspected and approved bottom over excavation for an area 400 feet long (N.S) by 80 feet (E.W.), located at ± 917 feet north of Francisco Street along Harborgate Way. All the uncertified fill soils, oversized concrete and construction debris encountered in this area during over excavation operations were completely removed to competent native material under the directions of this firm. The maximum depth of fill in this area will be approximately 13 feet. Compaction tests are being performed by our soils technician on site.

Accepted by

NorCal Representative

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING Date 6-22-01

Address NW FRANCISCO + NORMANDIE Project Number 5936-96

OBSERVED AND TESTED GRADING OPERATIONS FOR PROPOSED HARBOR GATEWAY DEVELOPMENT AT ABOVE ADDRESS. TESTS RESULTED IN 90% OR BETTER RELATIVE COMPACTION. TWO LARGE CONCRETE STRUCTURES WERE REVEALED BY EXCUVATER APPROXIMATLY 300' FROM FRANCISCO AND 9'-8' FROM ALONG SIDE HARBOR GATEWAY WHICH WILL BE REMOVED BY VIKEING ON MONDAY.

Accepted by Randy Boeing

NorCal Representative Rick Hayhoe

NORCAL ENGINEERING

SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project Boeing

Date 6-25-2001

Address N. Of Francisco st, between Harbgate Way and Normandie Ave, Los Angeles, Calif.

Project Number 5936-96

Observation and testing of continued site grading operations at the above location. All grading done today was performed under the observation of this firm, all inspected bottoms were found to be into competent native material. Some underground structures, oversized concrete and construction debris were encountered today during grading operations. All the above were removed from the fill areas under the directions of this firm. All compaction tests taken today resulted in 90% or above of the laboratory standard. The grading operations will be continued tomorrow.

Accepted by

Javier Sanchez
NorCal Representative

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project Boeing

Date 6-26-2001

Address N. Of Francisco St, between Harborgate Way and Normandie Ave,

Project Number 5936-96

Field Supervisor for site grading Operations.
All grading done today was performed under the observation of this firm, over excavated bottoms were inspected and approved prior to placing fill soils, existing uncertified fill soils are being removed to competent native material, however no compacted fill blanket below bottom of proposed foundations will be done at this time. All Underground structures, abandoned utility pipes and construction debris encountered today were completely removed from grading areas.

Accepted by

Javier Sanchez
NorCal Representative

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING Date 6-26-01

Address NW FRANCISCO + NORMANDIE LA Project Number 5936-96

OBSERVED AND TESTED GRADING OPERATIONS FOR PROPOSED HARBOR GATEWAY DEVELOPMENT AT ABOVE ADDRESS. TESTS RESULTED IN 90% OR BETTER RELATIVE COMPACTION. TWO WELLS AT NORTH END OF GRADING AREA EXISTING SOILS ARE LEFT IN PLACE 10' SURROUNDING EACH WELL, WHICH WILL BE REPLACED WITH ENGINEERED FILL AT A LATER DATE.

Accepted by

NorCal Representative

NORCAL ENGINEERING

SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING

Date 6-27-01

Address NW FRANCISCA + NORMANDIE LA

Project Number 5936-96

OBSERVED AND TESTED GRADING OPERATIONS FOR PROPOSED HARBOR GATEWAY DEVELOPMENT AT ABOVE ADDRESS. TESTS RESULTED IN 90% RELATIVE COMPACTION WITH APPROVED BOTTOMS APPROXIMATELY 8'-10' BELOW SUBGRADE. SOIL SAMPLE TAKEN OF IMPORT FOR LABORATORY ANALYSIS.

Accepted by

NorCal Representative

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project Boeing

Date 6-27-2001

Address N. Of Francisco St, between Harborgate way and Normandie Ave, Los Angeles

Project Number 5936-96

Field Supervisor for Site grading Operations at the above location. All over excavated bottoms inspected today were found to be into competent native material and were approved by this firm prior to the placement of compacted fill soils. All underground structures, abandoned utility pipes and construction debris encountered today were completely removed from the grading areas under the observation of this firm.

Note. All the existing monitoring wells were left in place surrounded by approximately 5 feet of undisturbed soils. These areas shall be properly reexcavated and compacted at a later date.

Compaction tests are being performed by our soils technician on site.

Accepted by

NorCal Representative

Javier Sanchez.

NORCAL ENGINEERING

SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING Date 6-28-01

Address NW FRANCISCO + NORMANDIE LA Project Number 5938-96

OBSERVED AND TESTED GRADING OPERATIONS FOR PROPOSED HARBOR GATEWAY DEVELOPMENT AT ABOVE ADDRESS. TESTS RESULTED IN 90% OR BETTER RELATIVE COMPACTION INCLUDING SEWER TRENCH EXCAVATION BACK FILL KNOX ST. BOTTOMS APPROVED FOR GRADING OPERATIONS.

Accepted by

NorCal Representative

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project Boeing Date 6-28-2001

Address N. Of Francisco St, between Harbergate Way and Normandie Ave, Los Angeles, Calif. Project Number 5936-96

Field Supervisor for site grading operations and sewer trench backfill at knox street. All grading done today was performed under the observation of this firm. All underground structures, abandoned utility pipes and construction debris encountered today were completely removed from the grading areas as directed by this firm. Monitoring wells in grading areas were left in place surrounded by approximately 5 feet of uncertified fill soils. These areas shall be properly excavated and recompacted at a later date. Compaction tests for grading operations and sewer trench backfill are being performed by our soils technician on site.

Accepted by

NorCal Representative

Javier Sanchez

NORCAL ENGINEERING

SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project Boeing

Date 6-29-2001

Address N. of Francisco st, between Harborgate Way & Normandie Ave, Los Angeles.

Project Number 5936-96

Field Supervisor for site grading operations at the above project. All under ground structures, abandoned manholes, sewer pipes and other construction debris were completely removed from the fill areas under the directions of this firm. All over excavated bottoms done today were inspected and approved by this firm prior to the placement of compacted fill soils. Compaction tests for the grading and for the sewer trench backfill at Knox Street are being performed by our soils technician on site.

Accepted by

NorCal Representative

Javier Sanchez

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING

Date 6-29-01

Address NORTH of FRANCISCO BETWEEN NORMANDIE + HARBOR GATEWAY LA.

Project Number 5936-96

OBSERVED AND TESTED GRADING OPERATIONS AND UTILITY TRENCH EXCAVATION BACKFILL KNOX ST. FOR PROPOSED HARBOR GATEWAY DEVELOPMENT AT ABOVE ADDRESS. TESTS RESULTED IN 90% OR BETTER RELATIVE COMPACTION AND GRADING BOTTOMS ARE APPROVED FOR DEPTHS APPROXIMATELY 11'-8' BELOW GRADE.

Accepted by

NorCal Representative

Rick A

NORCAL ENGINEERING

SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING Date 7-2-01

Address N OF FRANCISCO BETWEEN NORMANDIE AND HARBOR GATEWAY LA. Project Number 5936-96

OBSERVED AND TESTED GRADING OPERATIONS FOR PROPOSED HARBOR GATEWAY DEVELOPMENT AT ABOVE ADDRESS. TESTS RESULTED IN 90% OR BETTER RELATIVE COMPACTION WITH APPROVED BOTTOMS.

Accepted by

NorCal Representative

Rick

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project Boeing Date 7-02-2001

Address N. of Francisco St., between Harborgate Way & Normandie Ave, Los Angeles, Calif. Project Number 5936-96

Field Supervisor for site grading operations and sewer trench backfill at knox street.

All abandoned utility pipes, underground structures and other debris were encountered today during grading operations were completely removed from the grading areas as directed by this firm. The sewer trench areas backfilled today were observed by this firm and tested to a minimum of 90% relative compaction. Compaction tests for sewer trench backfill and site grading operations are being performed by our soils technician on site.

Accepted by

NorCal Representative

Javier Sanchez

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project Boeing

Date 7-03-2001

Address N. of Francisco st, between Harborgate way and Normandie Ave, Los Angeles, Calif.

Project Number 5936-96

Field Supervisor for site grading operations and sewer trench backfill operations at Knox street.

All under ground structures, abandoned utility pipes, uncertified filled excavations and construction debris encountered today during grading operations were completely removed from the grading areas under the observation of this firm. Compaction tests for the grading operations and sewer trench backfilled are being performed by our soils technician on site.

Accepted by

NorCal Representative

Javier Sanchez

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING Date 7-3-01

Address N-OF-FRANCISCO BETWEEN NORMANDIE AND HARBOR GATEWAY LA. Project Number 5936-96

OBSERVED AND TESTED GRADING OPERATIONS FOR PROPOSED HARBOR GATEWAY DEVELOPMENT AT ABOVE ADDRESS. TESTS RESULTED IN 90% OR BETTER RELATIVE COMPACTION. ABANDOND SEWER PIPES AND CONSTRUCTION DEBRIS ARE ADEQUATELY BEEING REMOVED.

Accepted by

NorCal Representative

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project Boeing Date 7-05-2001

Address N. of Francisco Street, between Harborgate Way & Normandie Ave, Los Angeles, Calif. Project Number 5936-96

Field Supervisor for site grading operations and sewer trench backfill at Knox street.

All the monitor wells encountered during grading operations will be/are being left in place with approximately 5 feet of uncertified fill soils around well. These areas shall be properly graded at a later date.

Compaction tests for Knox Street sewer trench backfill and for site grading operations are being performed by our soils technician on site.

Accepted by

NorCal Representative

Javier Sanchez

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING Date 7-5-01

Address N OF FRANCISCO BETWEEN NORMANDIE AND HARBOR GATEWAY, LA. Project Number 5936-96

OBSERVED AND TESTED GRADING OPERATIONS AND KNOX ST. TRENCH BACKFILL FOR PROPOSED HARBOR GATEWAY DEVELOPMENT AT ABOVE ADDRESS. TESTS RESULTED IN 90% OR BETTER RELATIVE COMPACTION WITH APPROVED BOTTOMS.

Accepted by

X James C Randall

NorCal Representative

NORCAL ENGINEERING

SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project Boeing Date 7-06-2001

Address N. of Francisco St, between Harbogate Way & Normandie Project Number 5936-96

Los Angeles, Calif.

Field Supervisor for site grading operations and sewer trench backfill at proposed knox street. Grading operations got shut-down at 10:00 A.m due to present rain. The grading will be continued on Monday 7-09-2001.

Accepted by

Javier Sanchez
NorCal Representative

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING

Date 7-6-01

Address N FRANCISCO BETWEEN NORMANDIE AND HARBOR GATEWAY LA

Project Number 5936-96

OBSERVED AND TESTED KNOX ST TRENCH BACK FILL AND GRADING OPERATIONS. TESTS RESULTED IN 90% OR BETTER RELATIVE COMPACTION JOB SHUT DOWN EARLY DUE TO RAIN.

Accepted by

NorCal Representative

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING Date 7-9-01

Address N-FRANCISCO BETWEEN NORMANDIE AND HARBOR GATEWAY CA. Project Number 5936-96

OBSERVED AND TESTED KNOX ST AND GRADING OPERATIONS. SOIL SAMPLE OF IMPORT MATERIAL TAKEN FOR LABORITORY ANALYSIS, APPROVED FOR FILL. TESTS RESULTED IN 90% OR BETTER RELATIVE COMPACTION.

Accepted by

NorCal Representative

Rick Astaire

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project Boeing Date 7-10-2001

Address N. of Francisco st. between Harbogate wy & Normandie Ave Project Number 5936-96

Los Angeles, Calif.

Field Supervisor for site grading operations and sewer trench backfill at Proposed knox street.

An excavation with uncertified fill soils and crushed concrete (some rebar) was encountered at 50' south of knox street, ± 150' east of Harbogate way. All these uncertified materials were completely removed to competent native material under the directions of this firm. The maximum depth of fill in this area will be approximately 24 feet. Compaction tests for the grading and sewer backfill are being performed by our soils Technician on site.

Accepted by

NorCal Representative

Javier Sanchez

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING Date 7-10-01

Address N- FRANCISCO BETWEEN NORMANDIE AND HARBOR GATEWAY LA. Project Number 5936-96

OBSERVED AND TESTED KNOX ST. AND GRADING OPERATIONS. ALL CONCRETE CONSTRUCTION, AND DEMOLITION DEBRIS, AND ABANDONED PIPES ARE ADEQUATELY BEING REMOVED. BOTTOMS ARE APPROVED AND TESTS RESULTING IN 90% BETTER RELATIVE COMPACTION.

Accepted by

NorCal Representative

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING

Date 7-11-01

Address N- FRANCISCO BETWEEN NORMANDIE AND HARBOR GATEWAY LA

Project Number 5936-96

OBSERVED AND TESTED GRADEING OPERATIONS. TESTS RESULTED IN 90% OR BETTER RELATIVE COMPACTION.

Accepted by

NorCal Representative

NORCAL ENGINEERING

SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project Boeing Date 7-11-2001

Address N. of Francisco St. between Harborgate Wy & Normandie Ave Project Number S936-96

Los Angeles, Calif.

Field Supervision for site grading operations and sewer trench backfill at Knox Street. All abandoned utility lines, manholes, underground structures and other construction debris were completely removed from the grading areas under the directions of this firm. All over excavated bottoms were inspected and approved prior to the placement of compacted fill soils. Compaction tests are being performed by our soils technician on site. The grading operations and sewer trench backfill will be continued tomorrow.

Accepted by

NorCal Representative

Javier Sanchez

NORCAL ENGINEERING

SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING

Date 7-12-01

Address N- FRANCISCO BETWEEN NORMANDIE AND HARBOR GATE WAY LA

Project Number 5936-96

OBSERVED AND TESTED GRADING OPERATIONS AT ABOVE ADDRESS. TESTS RESULTED IN 90% OR BETTER RELATIVE COMPACTION.

Accepted by

NorCal Representative

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project Boeing Date 7-12-2001

Address N. of Francisco st. Between Harborgate Wy & Normandie Project Number 5936-96

Los Angeles Calif.

Field Supervisor for site grading operations and sewer trench backfill at knox street.
All grading done today was observed by this firm and was tested to a minimum of 90% relative compaction. All demolition debris, abandoned utility pipes and other underground structures encountered today during grading operations were completely removed from the grading areas under the observation of this firm. Compaction tests are being performed by our soils technician on site. The grading operations will be continued tomorrow.

Accepted by

NorCal Representative

Javier Sanchez

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING Date 7-13-01

Address N. FRANCISCO BETWEEN NORMANDIE AND HARBOR GATEWAY, CA. Project Number 5936-96

OBSERVED AND TESTED GRADING OPERATIONS AT ABOVE ADDRESS. CONTAMINATED SOILS FOUND ARE BEING OVER EXCAVATED. BOTTOMS ARE APPROVED AND TESTS RESULTED IN 90% OR BETTER RELATIVE COMPACTION.

Accepted by

NorCal Representative

NORCAL ENGINEERING

SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project Boeing Date 7-16-2001

Address N. Of Francisco st. Between Harborgate Wy & Normandie Ave. Project Number 5936-96

Los Angeles, Calif.

Field Supervisor for site grading operations at the above location. All grading done today was performed under the observation of this firm. All abandoned utility lines, manholes, underground structures and construction debris were completely removed from the grading areas under the directions of this firm. Three labors and a skip loader are being removing over sized material and debris from grading areas. Existing monitor wells are being left in place & surrounded by approximately 5 feet of uncertified fill soils, these areas shall be properly over excavated and recompacted at a later date. Compaction testing is being performed by our Soils Technician on site.

Accepted by

NorCal Representative

Javier Sanchez

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING Date 7-16-01

Address N. FRANCISCO BETWEEN NORMANDIE AND HARBOR GATE WAY LA Project Number 5936-96

OBSERVED AND TESTED GRADING OPERATIONS AND KNOX ST. TRENCH BACK FILL AT ABOVE ADDRESS. BOTTOMS ARE APPROVED AND TESTS RESULTED IN 90% OR BETTER RELATIVE COMPACTION.

ABANDONED STORM DRAINS AT EAST END OF KNOX ST. WILL BE CAPPED AT A LATER DATE.

Accepted by

NorCal Representative

NORCAL ENGINEERING

SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project Boeing Date 7-17-2001

Address N. of Francisco st. Between Harborgate Wy & Namanzic Project Number 5936-96

Los Angeles, Calif.

Field Supervisor for site grading operations and utility trench backfill at proposed knox street.

Storm drain pipe is being installed at west end of knox street, Sand bedding and jetting will be done at a later date.

All abandoned utility pipes, under ground structures and construction debris encountered today, during site grading operations were completely removed from grading areas under the observation of this firm. Compaction tests are being performed by our soils technician on site. The grading and utility pipe backfill operations will be continued tomorrow.

Accepted by

NorCal Representative

Javier Sanchez

NORCAL ENGINEERING

SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING Date 7-17-01

Address N- FRANCISCA BETWEEN NORMANDIE AND HARBOR GATEWAY LA. Project Number 5936-96

OBSERVED AND TESTED GRADING OPERATIONS AND STORM DRAIN KNOX ST. AT ABOVE ADDRESS.
STORM DRAIN TOP OF PIPE 1' BELOW SUBGRADE SHADING OBSERVED WITH GRAVEL, SAND JETTING WILL BE DONE AT LATER DATE. ADEQUATE REMOVAL OF ABANDONED SEWER PIPE, CONCRETE, AND SLURRY OBSERVED.
TESTS RESULTED IN 90% OR BETTER RELATIVE COMPACTION.

Accepted by

NorCal Representative

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project Boeing Date 7-18-2001

Address N. Of Francisco st, between Harborgate Wy & Normandie Ave Project Number 5936-96

Los Angeles, Calif.

Field Supervisor for site and east end of knox street grading Operations. knox street was over excavated to fence line at east end, a few abandoned utility pipes were encountered in this area. All encountered pipes were completely removed to competent native material prior to the placement of compacted fill soils. The maximum depth of fill in this area will be approximately 6 feet. All compaction tests taken up to rough subgrade resulted in 90% or above of the laboratory standard. All fill placed was tested to a minimum of 90% relative compaction by our soils technician on site. The grading operations will be continued tomorrow.

Accepted by

NorCal Representative

Javier Sanchez

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING Date 7-18-01

Address N. - FRANCISCO BETWEEN NORMANDIE AND HARBOR GATE WAY LA. Project Number 5936-96

OBSERVED AND TESTED GRADING OPERATIONS AND GRADING EAST END OF KNOX ST. AT ABOVE ADDRESS.

GRADING BOTTOMS APPROVED TESTS RESULTED IN 90% OR BETTER RELATIVE COMPACTION.

KNOX ST. ABANDONED WATER AND UTILITY PIPES WERE ADEQUATELY REMOVED, BOTTOM IS APPROVED TO 4'-6', TESTS RESULTED IN 90% OR BETTER RELATIVE COMPACTION.

ABANDONED STORM DRAIN AT PROPERTY LINE TEMPORARILY BOARDED UP, WILL BE CAPPED AT LATER DATE AT STATION 11+48.45.

Accepted by

NorCal Representative

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING Date 7-19-01

Address N. FRANCISCO BETWEEN NORMANDIE AND HARBOR GATEWAY CA. Project Number 5936-96

OBSERVED AND TESTED GRADING OPERATIONS AND KNOX ST. WEST STORM DRAIN. AT ABOVE ADDRESS. STORM DRAIN SAND JETTING WAS OBSERVED AT WEST KNOX ST. ASPHALT SLURRY WAS REMOVED FROM SITE GRADING AREA WITH CONSTRUCTION DEBRIS ADEQUATELY TO NORCALS SPECIFICATIONS. TESTS RESULTED IN 90% OR BETTER RELATIVE COMPACTION.

Accepted by

NorCal Representative

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project Boeing Date 7-19-2001

Address N. of Francisco st, between Harbergate Wy & Normandie Av Project Number 5936-96

Los Angeles Calif.

Inspected and approved bottom of excavation from removed contaminated soils. This excavation is located on site grading area ± 200 feet east of Harbergate way and 300 feet South of proposed knox street, the excavation measures ±42' east-west by ± 50' north-South with a maximum depth of 29' below existing grade. This bottom is into competent native material and is ok to receive fill soils, the Environmental company on site also approved this excavation to be backfilled. Backfill operations for this excavation will be performed tomorrow. All the backfill shall be inspected by this firm and shall be tested to a minimum of 90% relative compaction.

Accepted by

NorCal Representative

Javier Sanchez

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project Boeing Date 7-20-2001

Address N. Of Francisco St. between Harbogate Wy & Normandie Ave Project Number 5936-96

Los Angeles, Calif.

Field Supervisor for site grading operations and excavation backfill. Inspected and tested backfill compaction for the 29 feet deep excavation from removal contaminated soils. This excavation is located ± 200 East of Harbogate way by 300 feet South of proposed knox street, the maximum depth of fill will be approximately 29° feet. All compaction tests taken for the first ± 5° of fill resulted above 90% of the laboratory standard, the test of the backfill will be observed and tested by our soils Technician on site.

All demolition debris and over sized concrete encountered today during grading operations was removed from the grading by 3 labors and a skip loader under the observation of this firm.

Accepted by

NorCal Representative

Javier Sanchez

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project BOEING Date 7-20-01

Address N- FRANCISCO BETWEEN NORMANDIE AND HARBOR GATEWAY LA. Project Number 5936-96

OBSERVED AND TESTED GRADING OPERATIONS AND KNOX ST STORM DRAIN WEST END, AT ABOVE ADDRESS. BOTTOM OF 27' PIT IS APPROVED BY NORCAL AND ON SITE ENVIRONMENTAL AGENCY. TESTS RESULTED IN 90% OR BETTER RELATIVE COMPACTION. KNOX ST WEST END STORM DRAIN WAS OBSERVED TO BEING PROPERLY JETTED WITH SAND SHADING AND 6" CAP OF COMPACTED SOIL AT SUBGRADE.

Accepted by

NorCal Representative

NORCAL ENGINEERING

SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project Boeing Date 7-29-2001

Address N. of Francisco st Between Harborgate Way & Normandie Av Project Number 5936-96

Los Angeles, Calif.

Field Supervisor for site grading operations and knox street utility trenches backfill operations.
All abandoned utility lines, underground structures and other construction debris encountered today during grading operations were removed from grading areas under the observation of this firm. Compaction testing is being performed by our soils Technician on site. The City grading Inspector has been also inspecting and approving over excavated bottoms prior to the placement of compacted fill soils. The grading operations will be continued tomorrow

Accepted by

NorCal Representative

Javier Sanchez

NORCAL ENGINEERING

SOILS AND GEOTECHNICAL CONSULTANTS

Field Observation Memo

10641 HUMBOLT STREET
LOS ALAMITOS, CALIFORNIA 90720
PHONE 562.799.9469 • FAX 562.799.9459

Project Boeing Date 7-24-2001

Address N. of Francisco St., between Harborgate Wy & Namantic Av Project Number 5936-96

Los Angeles, Calif.

Field Supervisor for site grading operations and storm drain trench backfill at knox street.

An excavation with uncertified crushed brick and concrete was encountered today during grading operations, all these materials are being removed and mixed with on site clayey material as recommended by this firm, all other abandoned utility lines and construction debris encountered today were completely removed from the fill areas by two labors and a skip loader under the observation of this firm. All grading done today was observed and tested to a minimum of 90% relative compaction by our Soils Technician on site.

Accepted by

NorCal Representative

Javier Sanchez