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 8-15-01

Address N. FRANCISCO BETWEEN NORMANDIE AND HARBOR GATE WAY LA.

Project Number 5936-96

OBSERVED AND TESTED GRADING OPERATIONS AT ABOVE ADDRESS. TEST RESULTED IN 90% OR BETTER RELATIVE COMPACTION. ABANDONED UTILITIES, AND DEMOLITION DEBRIS HAS BEEN ADEQUATELY REMOVED BY LABOR, SKIP LOADER, AND 950 LOADER.

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 8-14-2001

Address N. Of Francisco St, Between Harborgate Wy & Normandie Av Project Number S936-96

Los Angeles, Calif.

Observation and testing of continued site grading operations. All demolition debris, abandoned utility lines and underground structures encountered today during grading operations were removed from the grading areas under the observation of this firm. All compaction tests taken today resulted in 90% or above of the laboratory standard. The grading operations will be continued tomorrow.

*The import soils were shut-down due to excessive debris content.

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 8-13-01

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

OBSERVED AND TESTED GRADING OPERATIONS AT ABOVE ADDRESS. TEST RESULTED IN 90% OR BETTER RELATIVE COMPACTION WITH BOTTOM APPROVED TO 11' COMPETANT NATIVE MATERIAL. OBSERVED ADEQUATE REMOVAL OF ABANDONED UTILITIES, CONCRETE FOOTINGS, AND OTHER DEMOLITION DEBRIS.

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 8-13-01

Address N- FRANCISCO BETWEEN NORMANDIE AND HARBOR GATE WAY LA.

Project Number 5936-96

OBSERVED AND TESTED GRADING OPERATIONS FOR ADDRESS ABOVE. CONCRETE FOOTINGS, SLURRY, AND ABANDONED UTILITY PIPES WERE ADEQUATELY REMOVED FROM DEPTHS OF 3'-5' BELOW GRADE BY USE OF 950 LOADER, SKIP LOADER, AND LABORS. 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 8-10-01

Address N. FRANCISCO BETWEEN NORMANDIE AND HARBOR GATEWAY LA.

Project Number 5936-96

OBSERVED AND TESTED GRADING OPERATIONS FOR ABOVE ADDRESS. TESTS RESULTED IN 90% OR BETTER RELATIVE COMPACTION. CONSTRUCTION/DEMOLITION DEBRIS, ABANDOND UTILITY PIPES, AND CONCRETE FOOTINGS FOUND 3' - 12' BELOW GRADE WERE ADEQUATELY REMOVED BY USE OF 950 LOADER, SKIP LOADER, AND 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 8-9-01

Address N- FRANCISCO BETWEEN NORMANDIE AND HARBOR GATE WAY LA.

Project Number 5936-96

OBSERVED AND TESTED GRADING OPERATIONS AT ABOVE ADDRESS INCLUDING KNOX ST UTILITIES. UTILITIES TRENCH EAST END OF KNOX BOTTOM WAS YIELDING DUE TO FLOODING. BOTTOM WAS STABILIZED WITH 18" OF 1/2" GRAVEL.

ABANDOND PIPES AND DEMOLITION DEBRIS WERE ADEQUATLY REMOVED TO DEPTHS OF 14' TO COMPITANT NATIVE MATERIAL.

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 8-8-01

Address N- FRANCISCO BETWEEN NORMANDIE AND HARBOR GATE WAY LA.

Project Number 5936-96

OBSERVED AND TESTED GRADEING OPERATIONS AT ABOVE ADDRESS. TESTS RESULTED IN 90% OR BETTER RELATIVE COMPACTION. OBSERVED ADEQUATE REMOVAL OF DEMOLITION DEBRIS, AND ABANDONED PIPES, WITH UNCERTIFIED FILL SOILS TO COMPETANT NATIVE BOTTOMS 12'-14' BELOW GRADE. NOTED WERE LARGE CONCRETE AND PIPE DEBRIS TO A DEPTH OF 4'.

Accepted by

NorCal Representative