TOM C. DYKE drilling • blasting

PHONE 619-445-2270
FAX 619-445-4934

P.O. BOX 352, ALPINE, CALIFORNIA 91903

February 19, 2011

Steve Fitzwilliam
Geosyntec Consultants
10875 Rancho Bernardo Road, Suite 200
San Diego, California 92127

Re: SDG&E Suncrest Substation – Site Specific Blast Plan

Project blasting that is done at the SDG&E Suncrest Substation pad facilities will conform to the following:

The Contractor will obtain all necessary state and local permits prior to the commencement of blasting operations.

The Contractor will employ a state licensed blaster to conduct all blasting operations.

The Contractor will conduct all blasting operations in accordance with the State of California Construction Safety Orders.

The Contractor will not store explosives on site.

The Contractor will notify SDG&E, two working days before each shot with the anticipated time of blasting. Matt Huber (619-787-9517) mhuber@semprautilities.com.

The contractor to notify Beta Engineering two working days prior to each shot with the anticipated time of blasting. Brian Donald (858-750-2370) brian.donald@betaengineering.com

The contactor will notify Geosyntec Consultants two days before each shot with the anticipated time of blasting. Steven Fitzwilliam (858-674-6559) sfitzwilliam@geosyntec.com

The Contractor will make and document a pre-blast survey of SDG&E facilities located within 300 feet of the blasting site, and preblast notification when facilities are within 600 feet of the blast site.

The Contractor will monitor all blasting operations with a Nomis NCSC 5400 portable seismograph. Seismograph monitoring will be located at the nearest SDG&E structure within 600 feet of the blast site. Results shall be submitted to SDG&E for review.

The Contractor will provide for limiting the maximum peak particle velocity at the nearest point to the SDG&E facilities, 5 inches per second at SDG&E gas pipelines, 4 inches per second at electrical power poles and lattice towers.

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Location of blasting (see attached map)

Pad excavation has begun. Non-rippable conditions have been encountered near the top of the easterly slope of the substation pad. Blasting will be required to facilitate excavation.

Blast holes will be 4 inches in diameter, 10-21 feet in depth, hole pattern is 9 feet by 9 feet, hole inclination is vertical. Explosives will be Semi-gelatin dynamite, Cast Boosters and ANFO. The blast area is near no SDG&E facilities. The nearest structure to project blasting is approximately 3,500 feet south. No Project personnel within 800 feet of blast site. The typical hole load is as follows:

Single deck holes with one cartridge of 2x8 semigelatin dynamite or 14oz cast boosters and ANFO in amounts not to exceed a scaled distance factor of 55 or greater.

Blast hole stemming height will be 7-12 feet. The number of blast holes will be 112. Maximum pounds per delay will be a 55 scaled distance factor or greater.

The material to be blasted is granitic rock.

The Contractor will review seismic records and blasters log after each blast to insure that particle velocity limits are met.

If you have any questions or require additional information, please contact the undersigned.

TOM C. DYKE DRILLING & BLASTING, INC.
California Contractors License Number 542984

Mike Burkett

SAN DIEGO GAS & ELECTRIC SUNCREST SUBSTATION
SITE SPECIFIC BLASTING PLAN

NAME OF CONTRACTOR
Tom Dyke Drilling & Blasting, Inc.

BLAST IDENTIFICATION NUMBER
SC-2

LOCATION
SC-2 See attached drawing

DATE TIME OF BLAST
Wednesday 02-23-11 @ 12:10-1:00 P.M.

TYPE OF MATERIAL BLASTED
Granitic Rock

NUMBER OF HOLES
112

BURDEN AND SPACING
9 feet x 9 feet

DIAMETER OF HOLES
4 inch

DEPTH OF HOLES
10-21 feet (see attached hole depth on shot map)

HEIGHT OF STEMMING
7-12 feet

TYPES OF EXPLOSIVES USED
ANFO, Packaged Emulsion (Dyno AP), Semi - Gelatin Dynamite (Unigel) & Cast Boosters

TYPE OF CAPS USED
Non Electric – Nonel MS & Nonel EZTL

DELAY PERIOD
17ms, 175ms, 475ms and 500ms

PROPOSED AMOUNT OF EXPLOSIVES
2268 Pounds

MAXIMUM AMOUNT OF EXPLOSIVES PER DELAY PERIOD OF 08 MILLISECONDS OR GREATER
65 pounds

POWDER FACTOR
0.77

METHOD OF FIRING
Non Electric mushroom starter

TYPE OF CIRCUIT
Non Electric- Shock Tube

WEATHER CONDITIONS
N/A

WIND DIRECTION
N/A

DIRECTION AND DISTANCE TO NEAREST STRUCTURE OF CONCERN
None within ½ mile

TYPE OF INSTRUMENTATION
Nomis NCSC 5400 portable seismograph

VIDEO RECORDING
Yes

LOCATION AND PLACEMENT OF INSTRUMENTS
Water well 600 feet south

TRAFFIC CONTROL
Guards at all access points to the blast area, no public or job site personnel with in 800 feet

INSTRUMENTATION RECORDS

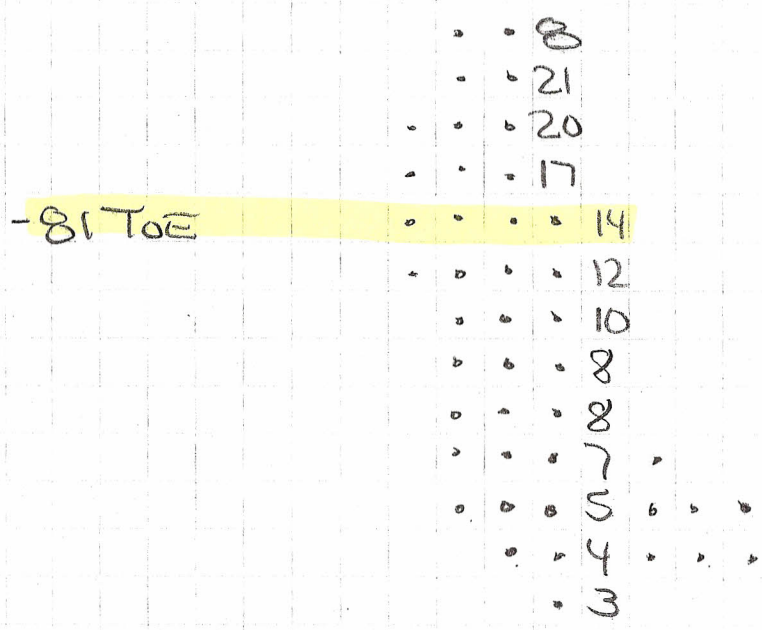
ANY UNUSUAL CIRCUMSTANCES OR OCCURANCES DURING BLAST

MEASURES TAKEN TO LIMIT AIR NOISE AND FLY ROCK
Proper blast design, stemming height and materials.

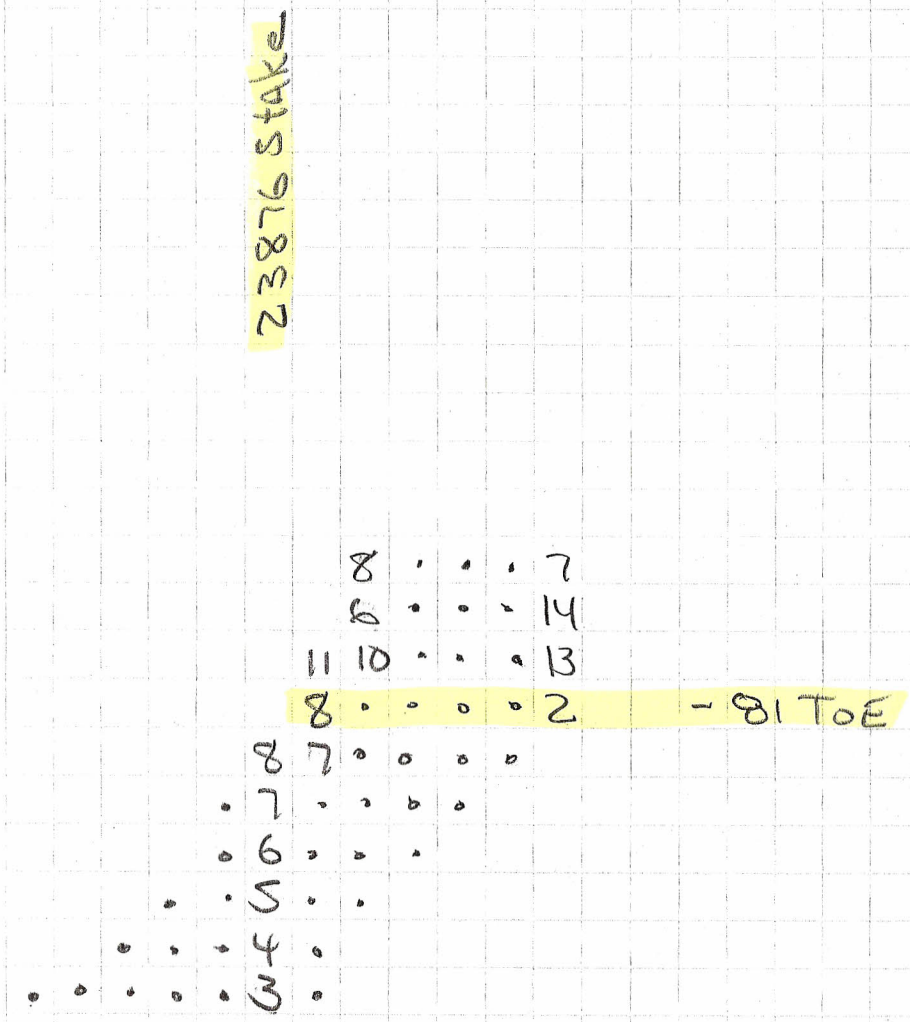
BLASTER
AJ Corirossi

AREA SC-2
112 Holes
Hole Diameter 4 inch
Pattern 9' x 9'
10 Feet min. hole depth

23870 Stake



23876 Stake



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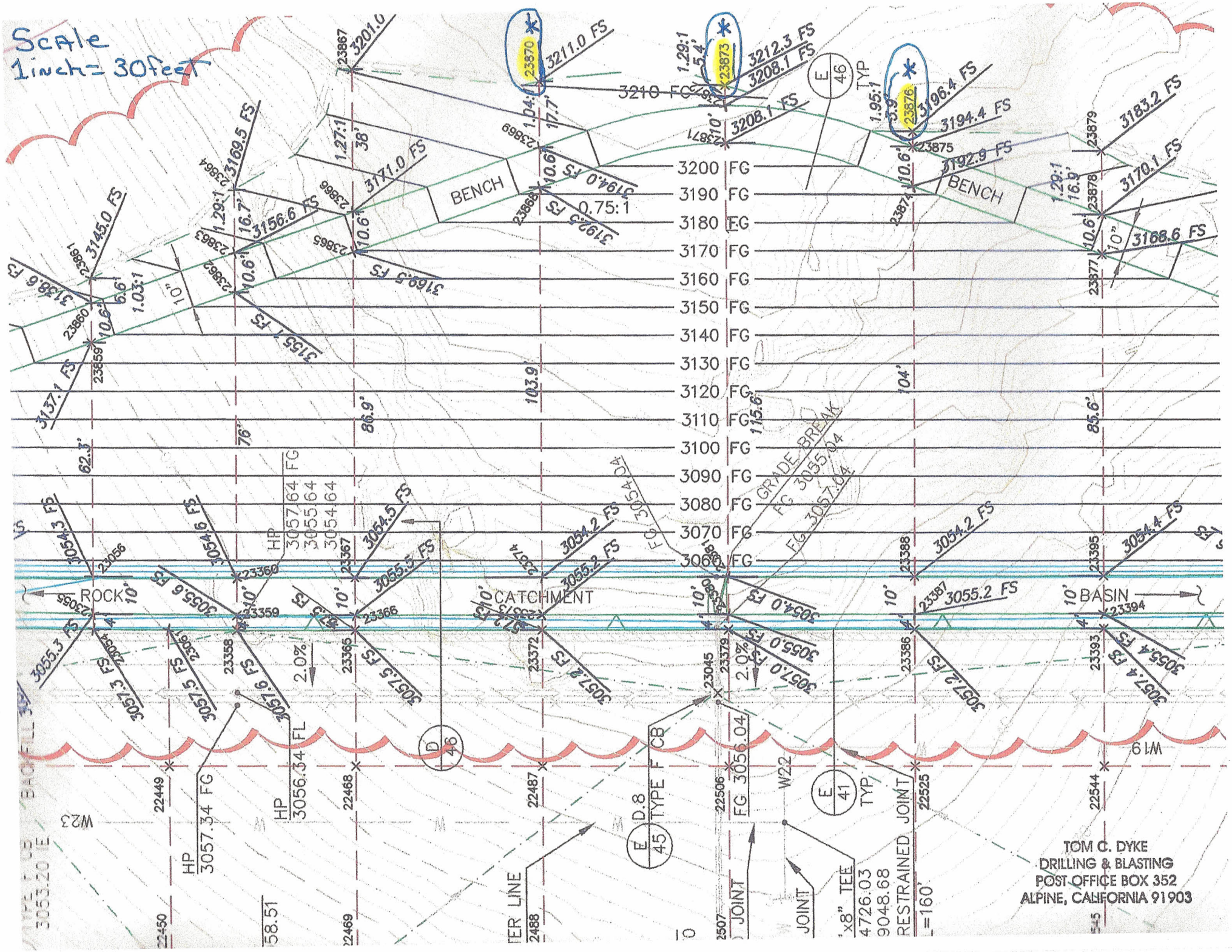
Scale
1 inch = 30 feet
BENCH
BENCH
CATCHMENT
BASIN
ROCK
GRADE BREAK
FG 3055.04
FG 3057.04
0.75:1
1.03:1
1.27:1
1.29:1
1.04:1
1.95:1
2.0%
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