



STREET/SIDEWALK BLOCKAGE FORM

FOR USE BY FRANCHISE UTILITY COMPANIES ONLY - MAY NOT BE SUBMITTED BY CONTRACTOR

E-mail to: TrafficControlPermit@sandiego.gov | Questions? Call 619-446-5150

ATTENTION

City Comments:

The night work hours listed on this Permit may be revised by Noise Permit intake of the Code Enforcement Section.

City Use Only

APPROVED ☒

DENIED ☐

Date Reviewed 08/31/2018

Reviewer's Name Mary Rose Santos

Reviewer's Phone Number (619) 446-5367

Information Below must be **TYPED** and Completed by Franchise Utility Company Only

Date Submitted	8/29/18	Contractor	ARB	Type of Work			
Utility Company	SDG&E	Contact Name	Rod Nelson	Lane Closure	1	Street Closure	2
Contact Name	Vinh Hunh	Phone Number	(619) 778-2405	Sidewalk Closure	3	Alley Closure	4
Phone Number	(858) 610-1161	Email Address	Rnelson@prim.com	Parking Lane	5	Detour	6
Email Address	VHuynh@semprautilities.com			Trenching	7	Flagging	8
				Bike Lane	9		

Street Name	From	To	Thomas Bros.	Start Date	End Date	Work Hours	Type of Work
Sample Street	Sample Road	Sample Avenue	1200-A1	xx/xx/xxxx	xx/xx/xxxx	8:30AM - 3:30PM	1,2,3,4,5,6,7,8,9
Miramar Road	Padgett Street	Kearny Mesa Road	1209-E6	09/04/2018	09/21/2018	9:00PM - 5:00AM	1,5,7,8
Black Mountain Road	Activity Road	Miramar Road	1209-E6	09/04/2018	09/21/2018	9:00PM - 5:00AM	6,8
Kearny Villa Road	Maya Linda Road	Kearny Mesa Road	1209-E5	09/04/2018	09/21/2018	9:00PM - 5:00AM	6,8
Kearny Mesa Road	Miramar Road	End of Kearny Mesa Road	1209-F6	09/04/2018	09/21/2018	9:00PM - 5:00AM	1,5,7,8

APPROVED
TRAFFIC CONTROL PERMIT

AUG 31 2018

ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES

Applicant Comments: Caltrans Phases C-5 through C-11, City Phase SD-1, Sunday - Thursday night work 9pm to 5am

Is this an Extension? ☒ YES ☐ NO

Date of previous approval: 08/07/2018

CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

• Completed **TYPED** form must be submitted a minimum of 2 working days prior to start of work.

• All plans shall be original, legible, and submitted in PDF format.

• No work on Saturdays, Sundays, and City-Observed Holidays unless authorized by City staff.

• Work affecting traffic signals requires a minimum of 5 working days advance notice - Contact Field Services at: jvaca@sandiego.gov

APPROVED TRAFFIC CONTROL PERMIT

AUG 31 2018

CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

SIGN LEGEND

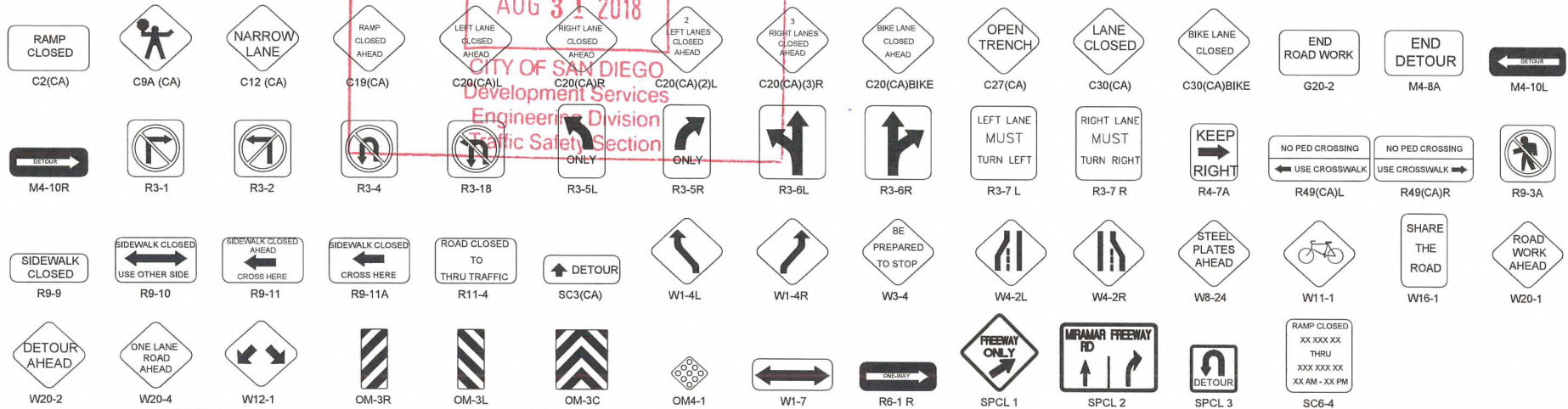


TABLE 1

SPEED (S)	MINIMUM TAPER LENGTH * FOR WIDTH OF OFFSET 12 FEET (W)				MAXIMUM CHANNELIZING DEVICE SPACING			
	TANGENT 2L	MERGING L	SHIFTING L/2	SHOULDER L/3	X	Y	Z	CONFLICT
20	160	80	40	27	20	40	10	
25	250	125	63	42	25	50	12	
30	360	180	90	60	30	60	15	
35	490	245	123	82	35	70	17	
40	640	320	160	107	40	80	20	
45	1080	540	270	180	45	90	22	
50	1200	600	300	200	50	100	25	
55	1320	660	330	220	50	100	25	
60	1440	720	360	240	50	100	25	
65	1560	780	390	260	50	100	25	
70	1680	840	420	280	50	100	25	
75	1800	900	450	300	50	100	25	

* - For other offsets, use the following merging taper length formula for L:
For speed of 40 mph or less, L = WS/60
For speed of 45 mph or more, L = WS

Where: L = Taper length in feet

W = Width of offset in feet

S = Posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

** - Use for taper and tangent sections where there are no pavement markings or where there is a conflict between existing pavement markings and channelizers (CA).

TABLE 2

SPEED *	Min D **	DOWNGRADE Min D ***		
		-3%	-6%	-9%
20	115	116	120	126
25	155	158	165	173
30	200	205	215	227
35	250	257	271	287
40	305	315	333	354
45	360	378	400	427
50	425	448	474	507
55	495	520	553	593
60	570	598	638	686
65	645	682	728	785
70	730	771	825	891
75	820	866	927	1003

* - Speed is posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

** - Longitudinal buffer space or flagger station spacing

*** - Use on sustained downgrade steeper than -3 percent and longer than 1 mile.

TABLE 3

ROAD TYPE	DISTANCE BETWEEN SIGNS *		
	A	B	C
URBAN - 25 mph OR LESS	100	100	100
URBAN - MORE THAN 25 mph TO 40 mph	250	250	250
URBAN - MORE THAN 40 mph	350	350	350
RURAL	500	500	500
EXPRESSWAY / FREEWAY	1000	1500	2640

* - The distances are approximate, are intended for guidance purposes only, and should be applied with engineering judgment. These distances should be adjusted by the Engineer for field conditions, if necessary, by increasing or decreasing the recommended distances.

LEGEND

- APPROXIMATE TRENCH LOCATION
- SIGN
- TRAFFIC CONES / DELINEATOR
- BARRICADE
- FLAGGER
- FLASHING ARROW SIGN
- WORK ZONE
- ARMORGLARD

ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

DATE: 1/4/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb



Gail McMorran
President

NIV5

15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 658.385.0500 WWW.NIV5.COM

AIRX JOB#: X160218

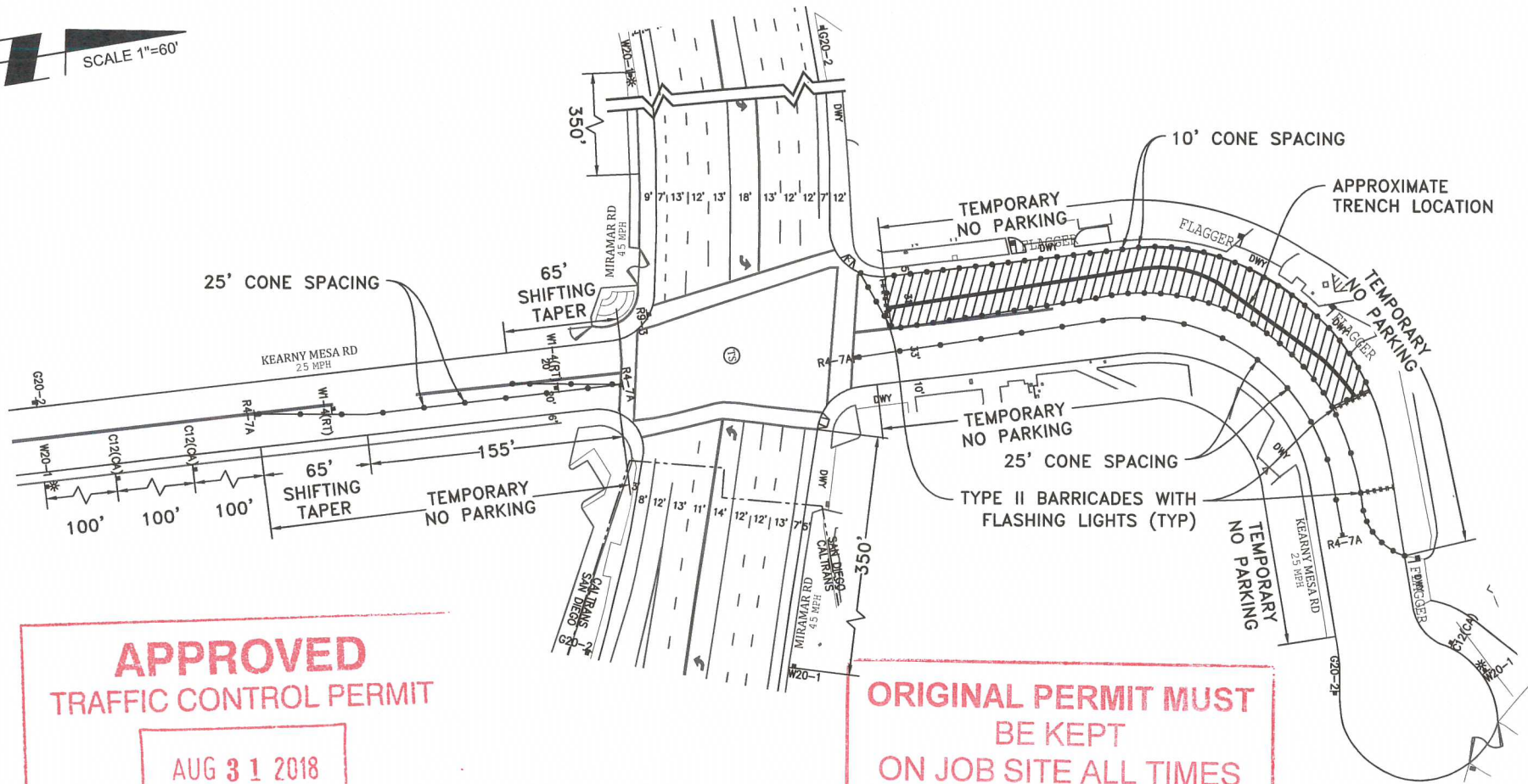
THOMAS GRID#: 1209-F6

MISC/POTHOLE#:

DRAWN FOR: SAN DIEGO

TYPE OF WORK: TRENCHING / CONDUIT

SHEET 1 OF 4



APPROVED
TRAFFIC CONTROL PERMIT

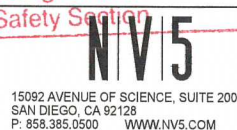
AUG 31 2018

ORIGINAL PERMIT MUST
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PHASE SD - 1

PROJECT NAME: Sycamore Canyon Substation To
Pensquitos Substation - 230 KV Underground

DATE: 1/4/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb



AIRX JOB#: X160218

THOMAS GRID#: 1209-F6

MISC/POTHOLE#:

DRAWN FOR: SAN DIEGO

TYPE OF WORK: TRENCHING / CONDUIT

SHEET 2 OF 4

SIGN LEGEND



TABLE 1

SPEED (S)	MINIMUM TAPER LENGTH FOR WIDTH OF OFFSET 12 FEET (W)				MAXIMUM CHANNELIZING DEVICE SPACING			
	TANGENT	WINGING	SHOULDER	SHOULDER	TAPER	TANGENT	COV. CT	
	L 1/2	L 1/2	L 1/2	L 1/2	L 1/2	L 1/2	L 1/2	
20	160	80	40	20	20	80	10	
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LEGEND

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- SIGN
- TRAFFIC CONES / DELINEATOR
- BARRICADE
- FLAGGER
- FLASHING ARROW SIGN
- WORK ZONE
- ZONEGUARD
- SIGN WITH PORTABLE FLASHING BEACON
- QUADGUARD II CRASH CUSHION
- CALTRANS CRASH ARRAY TU17

APPROVED

TRAFFIC CONTROL PERMIT

AUG 31 2018

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground



AIRX JOB#: X160218

MISC/POTHOLE#:

TYPE OF WORK: TRENCHING / CONDUIT

CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

THOMAS GRID#: 1209-F6

DRAWN FOR: CALTRANS



DATE: 1/22/2018

DESIGNED: Clint Jones

CHECKED BY: Mark Webb

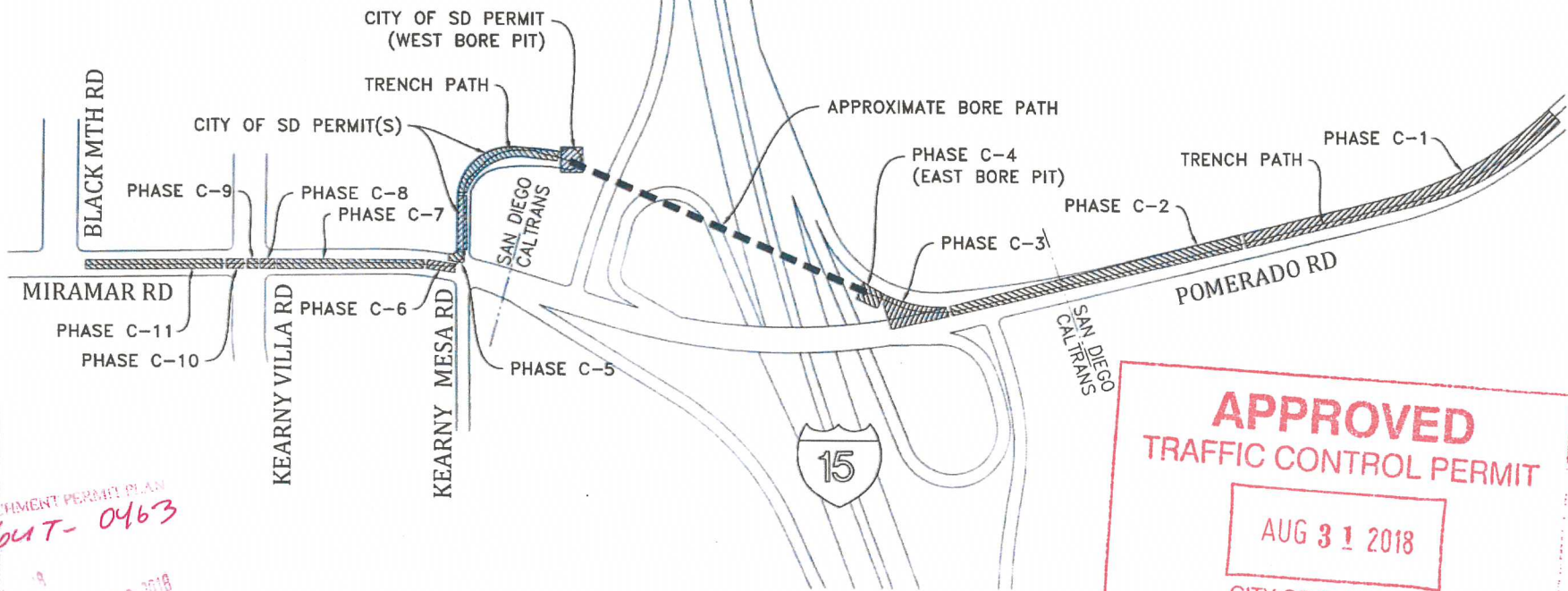
SHEET 1 OF 48

ORIGINAL PERMIT MUST
ON JOB SITE ALL TIMES

PHASE MAP: (NOT TO SCALE)

**ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES**

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JAN 24 2018
CALTRANS-PET



**APPROVED
TRAFFIC CONTROL PERMIT**

AUG 31 2018

CITY OF SAN DIEGO

Development Services

Engineering Division

Field Safety Section

DATE: 1/22/2018

DESIGNED: Clint Jones

CHECKED BY: Mark Webb



PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

AIRX SURVEYORS, INC.
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AIRX JOB#: X160218
MISC/POTHOLE#:
TYPE OF WORK: TRENCHING / CONDUIT

THOMAS GRID#: 1209-F6
DRAWN FOR: CALTRANS

SHEET 2 OF 48

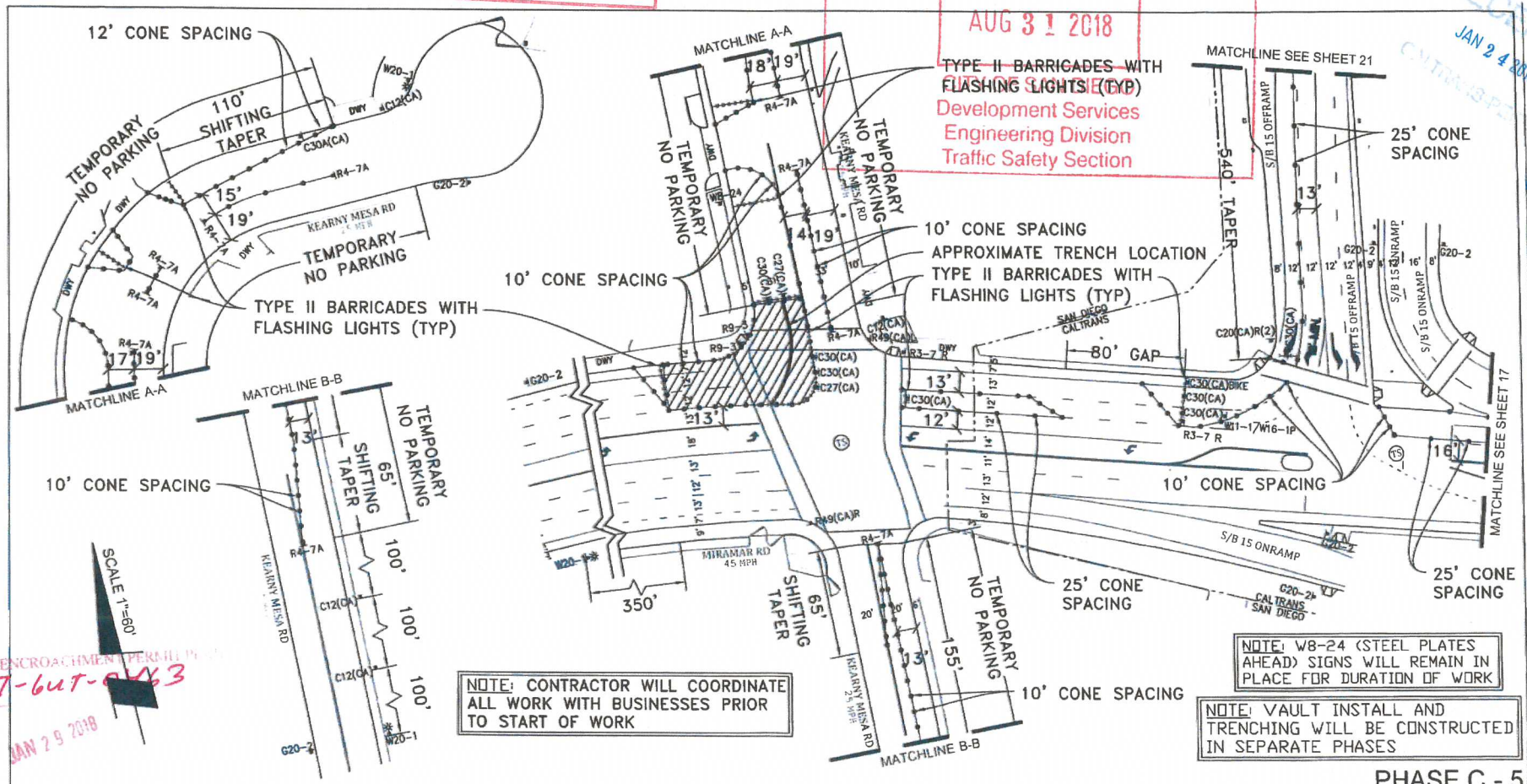
MOVED ENCROACHMENT PERMIT PLAN
11-17-6417-0463
JAN 24 2018

**ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES**

**APPROVED
TRAFFIC CONTROL PERMIT**

AUG 31 2018

REC'D
JAN 24 2018
CTR 1335



APPROVED ENCROACHMENT PERMIT IN
11-17-but-0463
Permit No. 11-17-but-0463

JAN 29 2018

PHASE C - 5

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

AIRX SURVEYORS, INC.
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P: 858 385 0500 WWW.NV5.COM

AIRX JOB#: X160218

MISC/POTHOLE#:

TYPE OF WORK: TRENCHING / CONDUIT

THOMAS GRID#: 1209-F6

DRAWN FOR: SAN DIEGO



DATE: 1/22/2018

DESIGNED: Clint Jones

CHECKED BY: Mark Webb

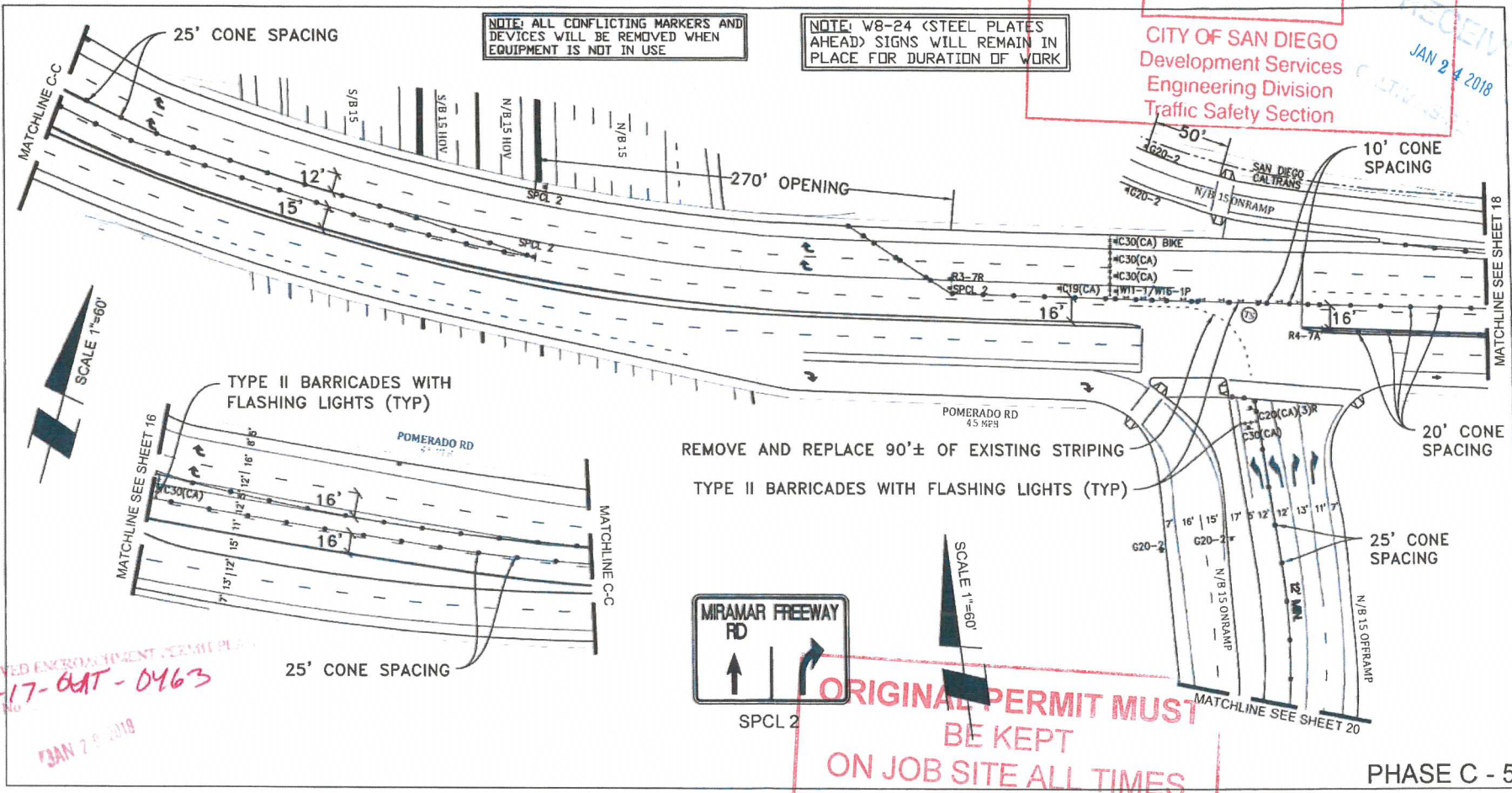
SHEET 16 OF 48

APPROVED TRAFFIC CONTROL PERMIT

AUG 31 2018

CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

JAN 24 2018



PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

AIRX SURVEYORS, INC.
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AIRX JOB#: X160218

THOMAS GRID#: 1209-F6

MISC/POTHOLE#:

DRAWN FOR: SAN DIEGO

TYPE OF WORK: TRENCHING / CONDUIT



SHEET 17 OF 48

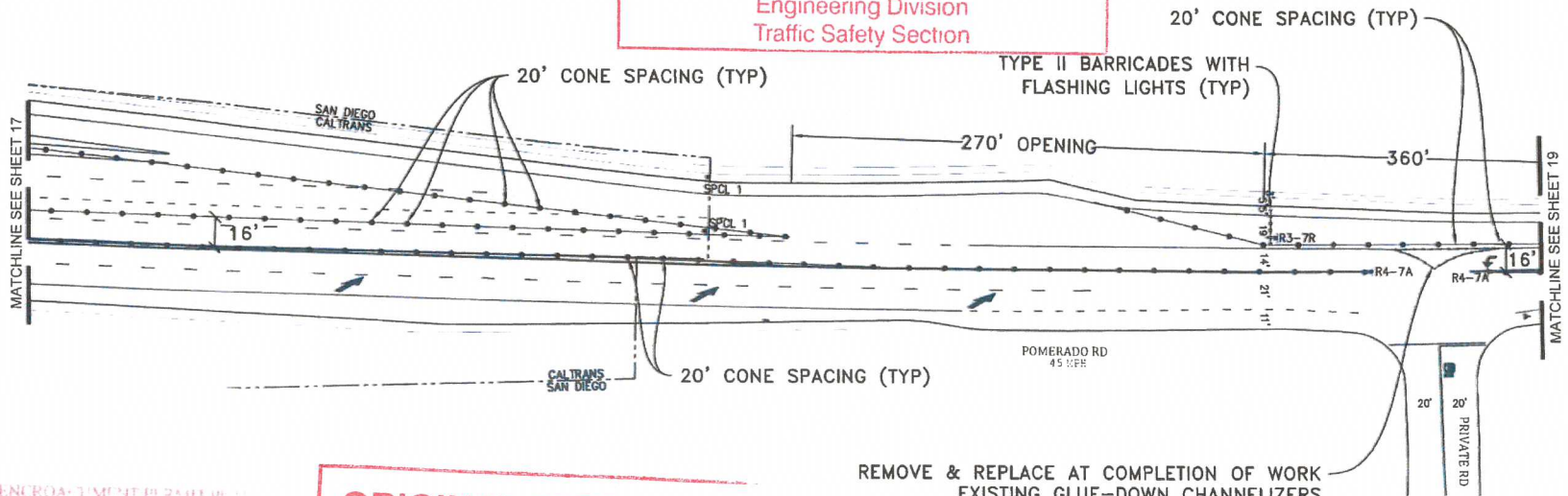
APPROVED TRAFFIC CONTROL PERMIT

AUG 31 2018

CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

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JAN 24 2018

SCALE 1"=60'



REMOVE & REPLACE AT COMPLETION OF WORK
EXISTING GLUE-DOWN CHANNELIZERS
PER SEPARATE CITY OF SAN DIEGO PERMIT

ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES

APPROVED ENCROACHMENT PERMIT
11-17-64T-0463
Permit No.



SPCL 1

JAN 23 2018

PHASE C - 5

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

AIRX SURVEYORS, INC.
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P: 858 385 0500 WWW.NV5.COM

AIRX JOB#: X160218

MISC/POTHOLE#:

TYPE OF WORK: TRENCHING / CONDUIT

THOMAS GRID#: 1209-F6

DRAWN FOR: SAN DIEGO



DATE: 1/22/2018

DESIGNED: Clint Jones

CHECKED BY: Mark Webb

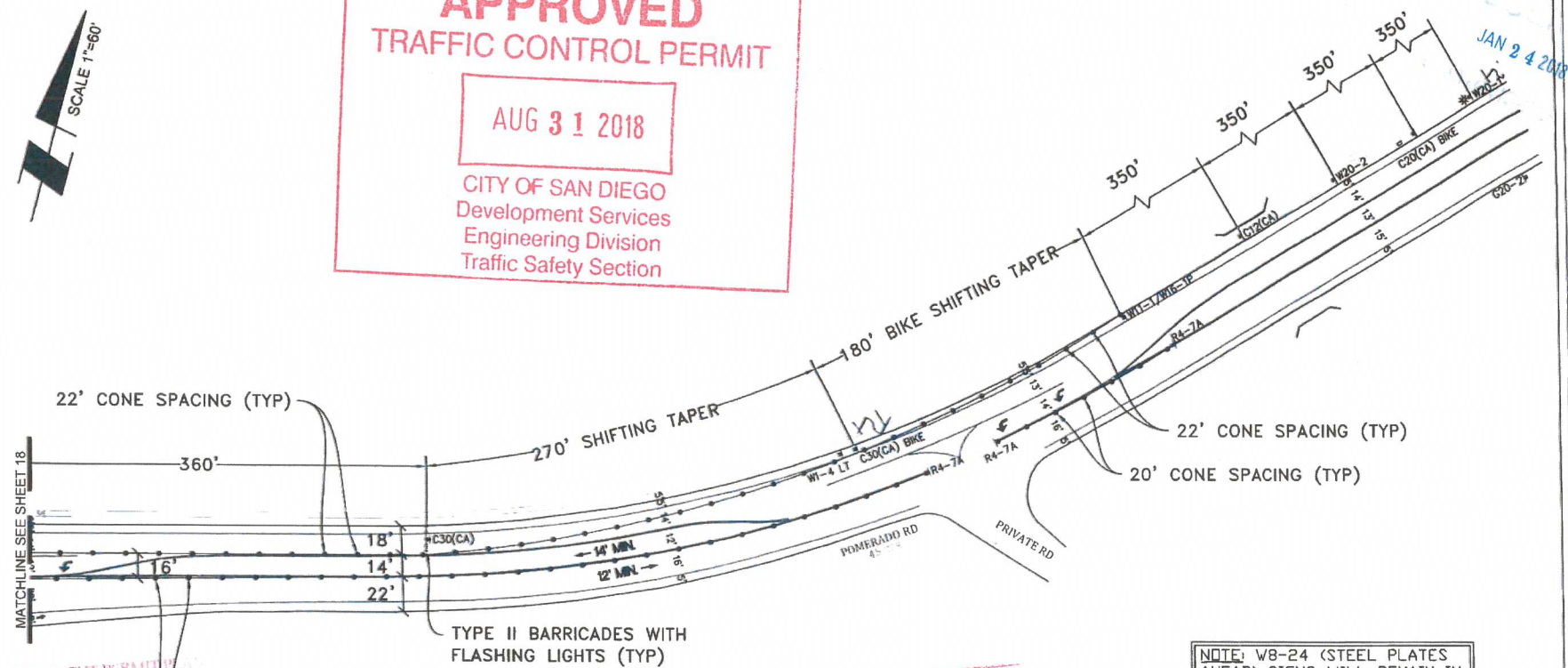
SHEET 18 OF 48



APPROVED
TRAFFIC CONTROL PERMIT

AUG 31 2018

CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section



APPROVED ENCROACHMENT PERMIT
11-17-6UT-0463
Permit No.

JAN 2 8 2018

**ORIGINAL PERMIT MUST
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ON JOB SITE ALL TIMES**

NOTE: W8-24 (STEEL PLATES
AHEAD) SIGNS WILL REMAIN IN
PLACE FOR DURATION OF WORK

PHASE C - 5

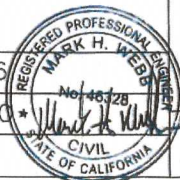
PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

AIRX SURVEYORS, INC.
Gail McMorran
President
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SAN DIEGO, CA 92128
P: 858 385 0500 WWW.NV5.COM

AIRX JOB#: X160218
MISC/POTHLES#:
TYPE OF WORK: TRENCHING / CONDUIT

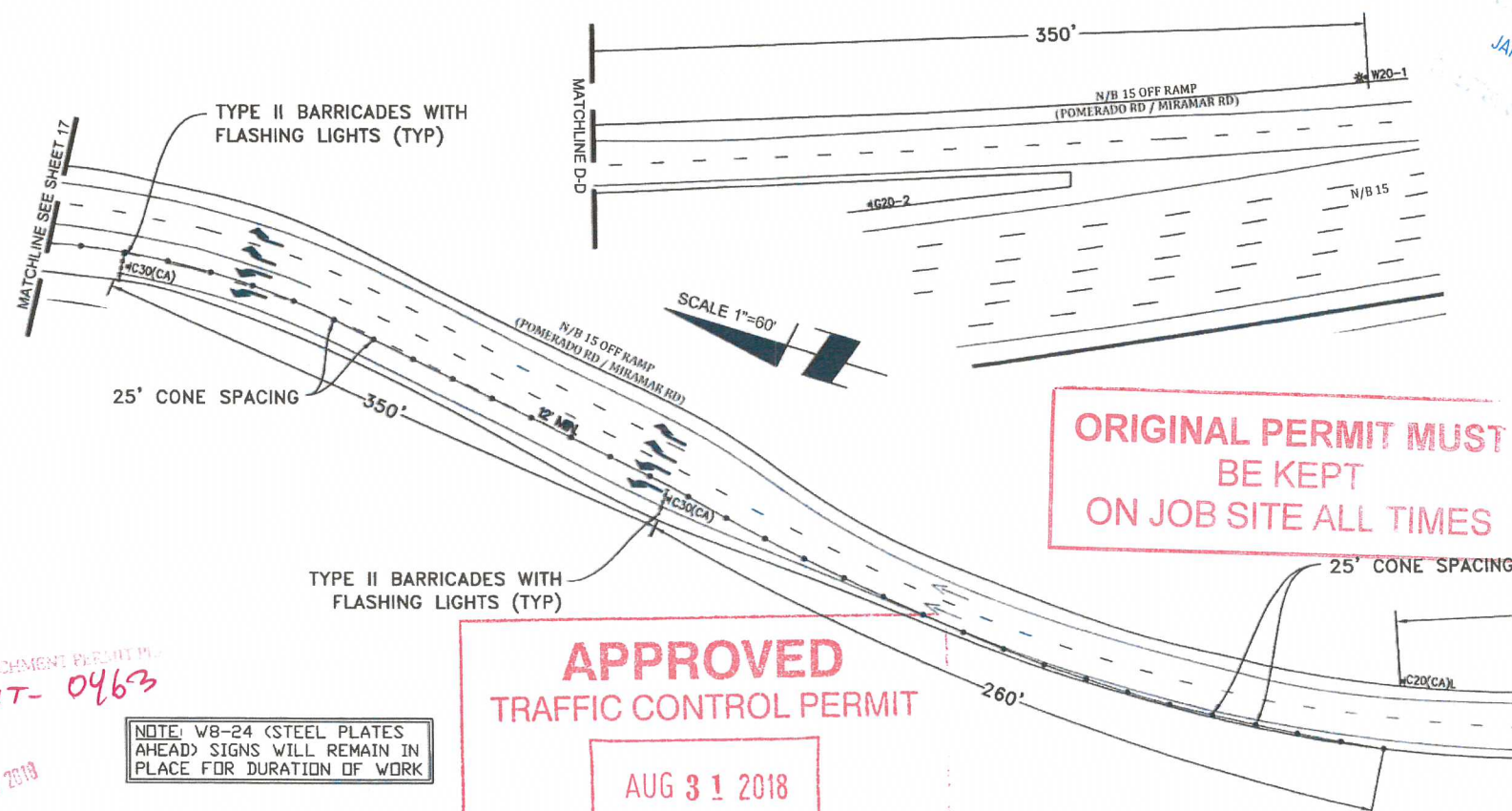
THOMAS GRID#: 1209-F6
DRAWN FOR: SAN DIEGO



DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

SHEET 19 OF 48

JAN 24 2018



**ORIGINAL PERMIT MUST
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ON JOB SITE ALL TIMES**

**APPROVED
TRAFFIC CONTROL PERMIT**

AUG 31 2018

CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

NOTE: W8-24 (STEEL PLATES
AHEAD) SIGNS WILL REMAIN IN
PLACE FOR DURATION OF WORK

APPROVED ENCROACHMENT PERMIT NO.
11-17-64T-0463

JAN 29 2018

PHASE C - 5

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

AIRX SURVEYORS, INC.
Gail McMorran
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AIRX JOB#: X160218
MISC/POTHOLE#:
TYPE OF WORK: TRENCHING / CONDUIT

THOMAS GRID#: 1209-F6
DRAWN FOR: SAN DIEGO



SHEET 20 OF 48

APPROVED
TRAFFIC CONTROL PERMIT

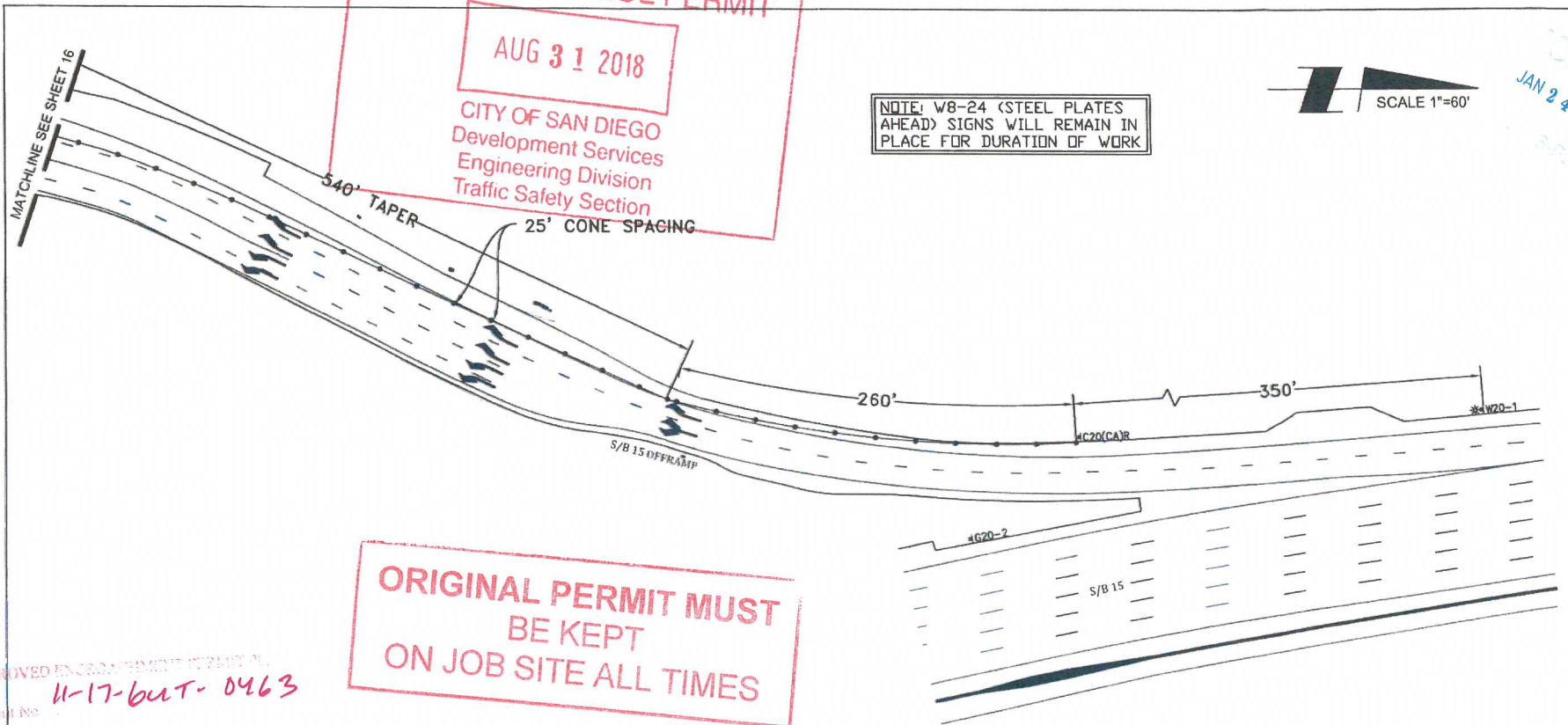
AUG 31 2018

CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

NOTE: W8-24 (STEEL PLATES
AHEAD) SIGNS WILL REMAIN IN
PLACE FOR DURATION OF WORK

SCALE 1"=60'

JAN 24 2018



**ORIGINAL PERMIT MUST
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APPROVED ENCLOSURE PERMIT NO.
11-17-but-0463

JAN 29 2018

PHASE C - 5

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

AIRX SURVEYORS, INC.
Gail McMorran
President
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AIRX JOB#: X160218

MISC/POTHLES#:

TYPE OF WORK: TRENCHING / CONDUIT

THOMAS GRID#: 1209-F6

DRAWN FOR: SAN DIEGO



DATE: 1/22/2018

DESIGNED: Clint Jones

CHECKED BY: Mark Webb

SHEET 21 OF 48

**ORIGINAL PERMIT MUST
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**APPROVED
TRAFFIC CONTROL PERMIT**

AUG 31 2018

**CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section**

NOTE: W8-24 (STEEL PLATES
AHEAD) SIGNS WILL REMAIN IN
PLACE FOR DURATION OF WORK

JAN 24 2018

APPROXIMATE TRENCH LOCATION

TYPE II BARRICADES WITH
FLASHING LIGHTS (TYP)

TYPE II BARRICADES
WITH FLASHING LIGHTS (TYP)

25' CONE SPACING

TYPE II BARRICADES WITH
FLASHING LIGHTS (TYP)

TYPE II BARRICADES WITH
FLASHING LIGHTS (TYP)

TYPE II BARRICADES WITH
FLASHING LIGHTS (TYP)

10' CONE SPACING

PHASE C - 6



SPCL 1

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

DATE: 1/22/2018

DESIGNED: Clint Jones

CHECKED BY: Mark Webb

AIRX SURVEYORS, INC.
Gail McMorran
President
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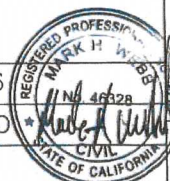
AIRX JOB#: X160218

THOMAS GRID#: 1209-F6

MISC/POTHOLE#:

DRAWN FOR: SAN DIEGO

TYPE OF WORK: TRENCHING / CONDUIT



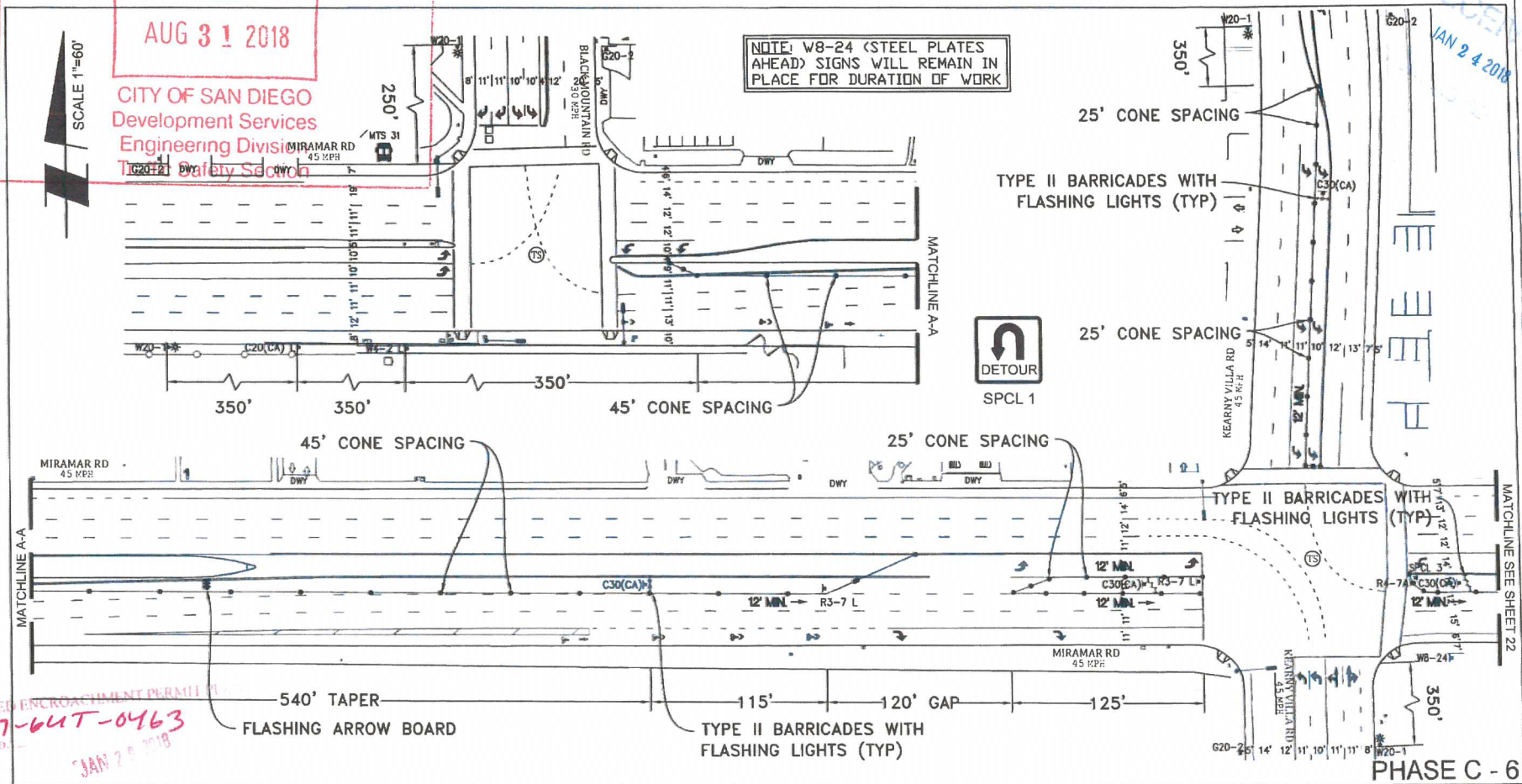
SHEET 22 OF 48

APPROVED TRAFFIC CONTROL PERMIT

AUG 31 2018

CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

NOTE: W8-24 (STEEL PLATES
AHEAD) SIGNS WILL REMAIN IN
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PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

AIRX SURVEYORS, INC.
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P. 858 585.0500 WWW.NIV5.COM

AIRX JOB#: X160218

MISC/POTHOLE#:

TYPE OF WORK: TRENCHING / CONDUIT

THOMAS GRID#: 1209-F6

DRAWN FOR: SAN DIEGO



DATE: 1/22/2018

DESIGNED: Clint Jones

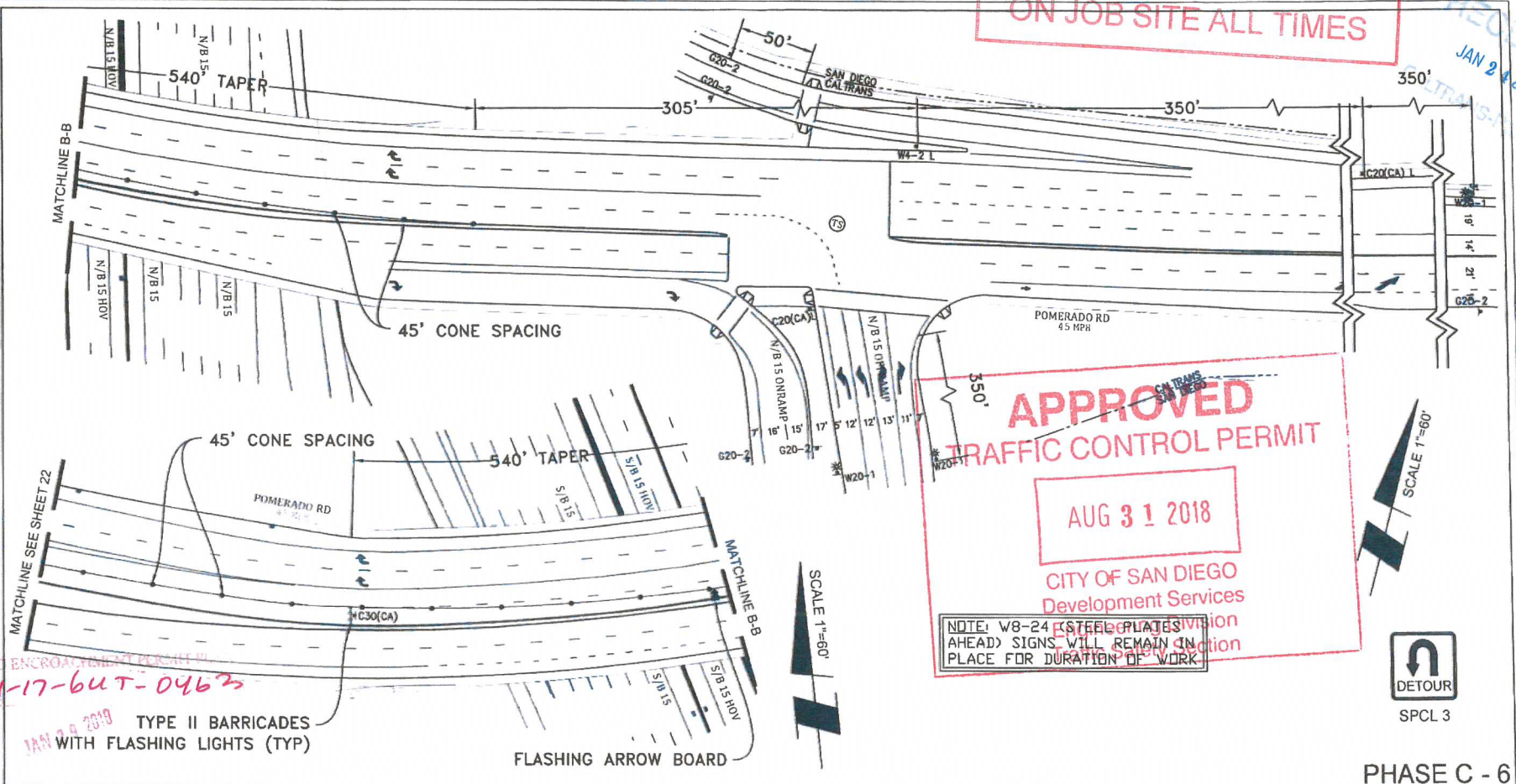
CHECKED BY: Mark Webb

SHEET 23 OF 48

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RECEIVED
JAN 24 2018



PHASE C - 6

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

AIRX SURVEYORS, INC.
Gail McMorran
President
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ESCONDIDO, CA 92027
PHONE: (760) 480-2347
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NIV5
15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858 385 0500 WWW.NIV5.COM

AIRX JOB#: X160218

THOMAS GRID#: 1209-F6

MISC/POTHOLE#:

DRAWN FOR: SAN DIEGO

TYPE OF WORK: TRENCHING / CONDUIT



SHEET 24 OF 48

APPROVED

TRAFFIC CONTROL PERMIT

AUG 31 2018

CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

**ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES**

JAN 24 2018

SCALE 1"=60'

TYPE II BARRICADES WITH
FLASHING LIGHTS (TYP)

APPROXIMATE
TRENCH LOCATION

MIRAMAR RD
4" 5588

MATCHLINE SEE SHEET 26

10' CONE SPACING

TYPE II BARRICADES
WITH FLASHING LIGHTS (TYP)

25' CONE SPACING

90' GAP

TYPE II BARRICADES WITH
FLASHING LIGHTS (TYP)

10' CONE SPACING

NOTE: W8-24 (STEEL PLATES
AHEAD) SIGNS WILL REMAIN IN
PLACE FOR DURATION OF WORK

PHASE C - 7

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

DATE: 1/22/2018

DESIGNED: Clint Jones

CHECKED BY: Mark Webb

AIRX SURVEYORS, INC.
Gail McMorran
President
3334 EAST EL NORTE PARKWAY, SUITE C
ESCONDIDO, CA 92027
PHONE: (760) 460-2347
CELL: (760) 418-3736

NV5

15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 658 385 0500 WWW.NV5.COM

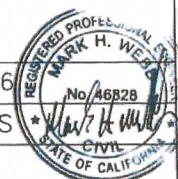
AIRX JOB#: X160218

MISC/POTHOLE#:

TYPE OF WORK: TRENCHING / CONDUIT

THOMAS GRID#: 1209-F6

DRAWN FOR: CALTRANS



SHEET 25 OF 48

CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

PHASE C - 7

SHEET 26 OF 48

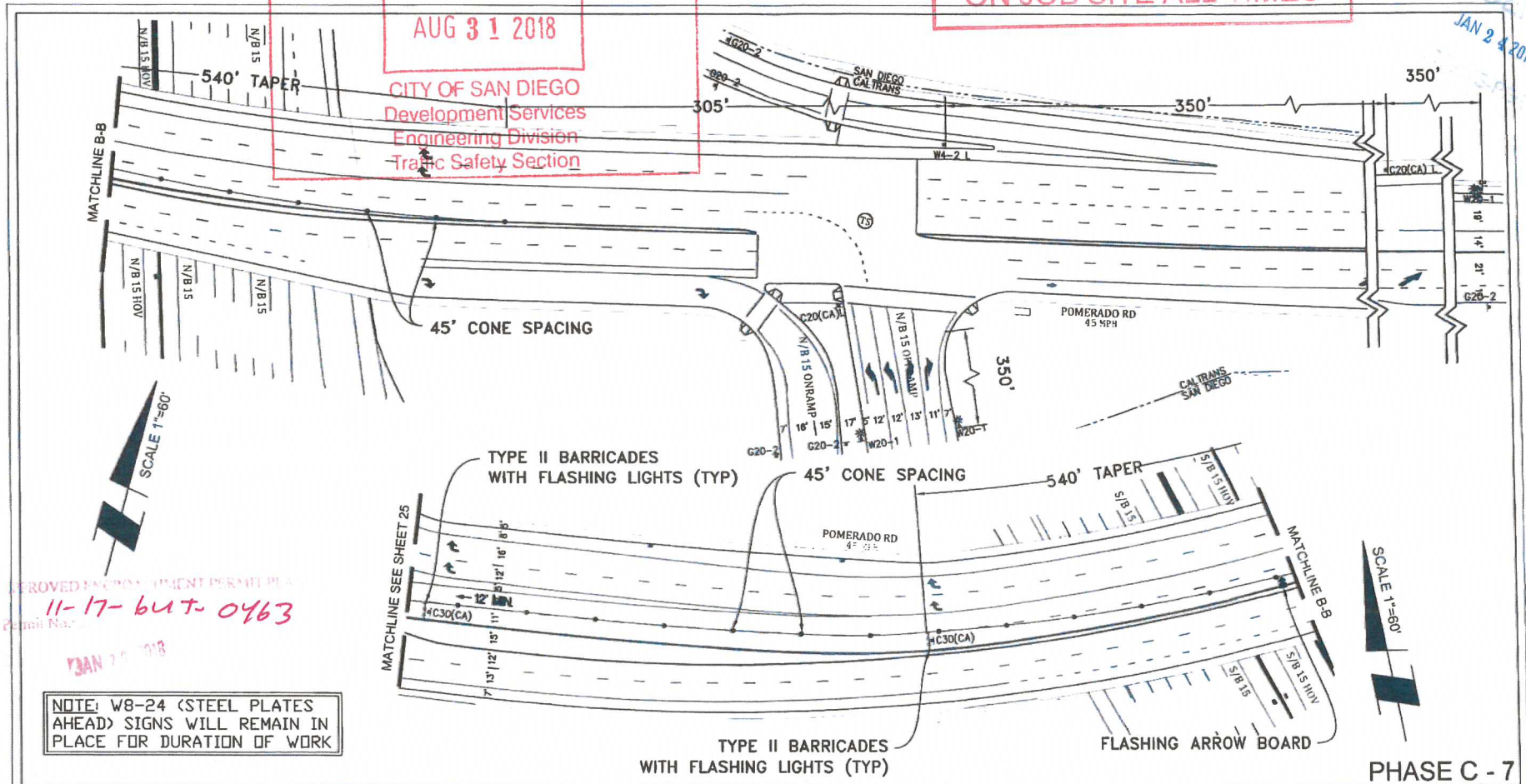
ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES

APPROVED
TRAFFIC CONTROL PERMIT

AUG 31 2018

CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES



APPROVED ENGINEERING PERMIT PLATE
11-17-64T-0463

NOTE: W8-24 (STEEL PLATES
AHEAD) SIGNS WILL REMAIN IN
PLACE FOR DURATION OF WORK

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

AIRX SURVEYORS, INC.
Gail McMorran
President
2514 EAST EL NORTE PARKWAY, SUITE C
ESCONDIDO, CA 92027
PHONE: (760) 485-2347
CELL: (760) 419-3738

NV5
15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 658.385.0500 WWW.NV5.COM

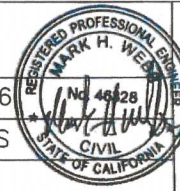
AIRX JOB#: X160218

MISC/POTHOLE#:

TYPE OF WORK: TRENCHING / CONDUIT

THOMAS GRID#: 1209-F6

DRAWN FOR: CALTRANS



DATE: 1/22/2018

DESIGNED: Clint Jones

CHECKED BY: Mark Webb

SHEET 27 OF 48

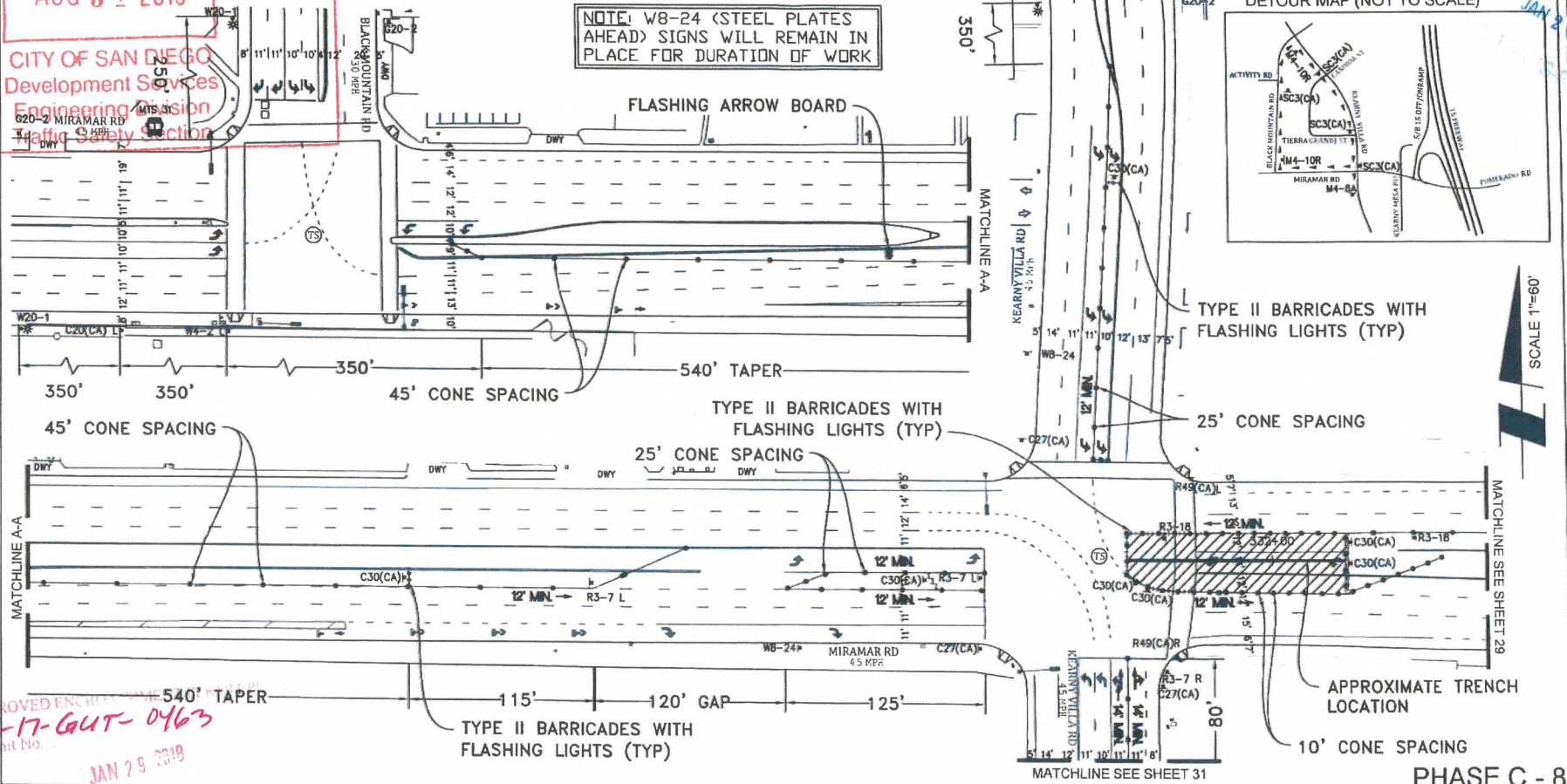
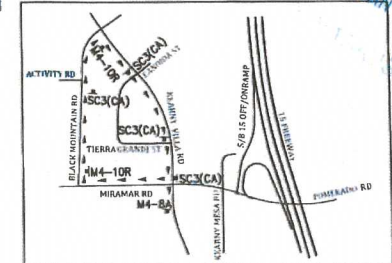
APPROVED TRAFFIC CONTROL PERMIT

AUG 31 2018

CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

NOTE: W8-24 (STEEL PLATES
AHEAD) SIGNS WILL REMAIN IN
PLACE FOR DURATION OF WORK

DETOUR MAP (NOT TO SCALE)



PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

AIRX SURVEYORS, INC.
Gail McMorran
President
2534 EAST EL NORTE PARKWAY SUITE C
ESCONDIDO, CA 92027
PHONE: (760) 480-2347
CELL: (760) 419-3738

NV5
15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92126
P: 858.385.0500 WWW.NV5.COM

AIRX JOB#: X160218

MISC/POTHOLE#:

TYPE OF WORK: TRENCHING / CONDUIT

THOMAS GRID#: 1209-F6

DRAWN FOR: CALTRANS



DATE: 1/22/2018

DESIGNED: Clint Jones

CHECKED BY: Mark Webb

SHEET 28 OF 48

ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES

APPROVED TRAFFIC CONTROL PERMIT

AUG 31 2018

CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES

SCALE 1"=60'

TYPE II BARRICADES WITH
FLASHING LIGHTS (TYP)

25' CONE SPACING

TYPE II BARRICADES
WITH FLASHING LIGHTS (TYP)

25' CONE SPACING

TYPE II BARRICADES WITH
FLASHING LIGHTS (TYP)

10' CONE SPACING

NOTE: W8-24 (STEEL PLATES
AHEAD) SIGNS WILL REMAIN IN
PLACE FOR DURATION OF WORK

PHASE C - 8

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

AIRX SURVEYORS, INC.
Gail McMorran
President
2534 EAST EL NORTE PARKWAY SUITE C
ESCONDIDO, CA 92027
PHONE: (760) 488-2517
CELL: (760) 418-3728

NIV5
15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858.385.0500 WWW.NIV5.COM

AIRX JOB#: X160218

THOMAS GRID#: 1209-F6

MISC/POTHOLE#:

DRAWN FOR: CALTRANS

TYPE OF WORK: TRENCHING / CONDUIT



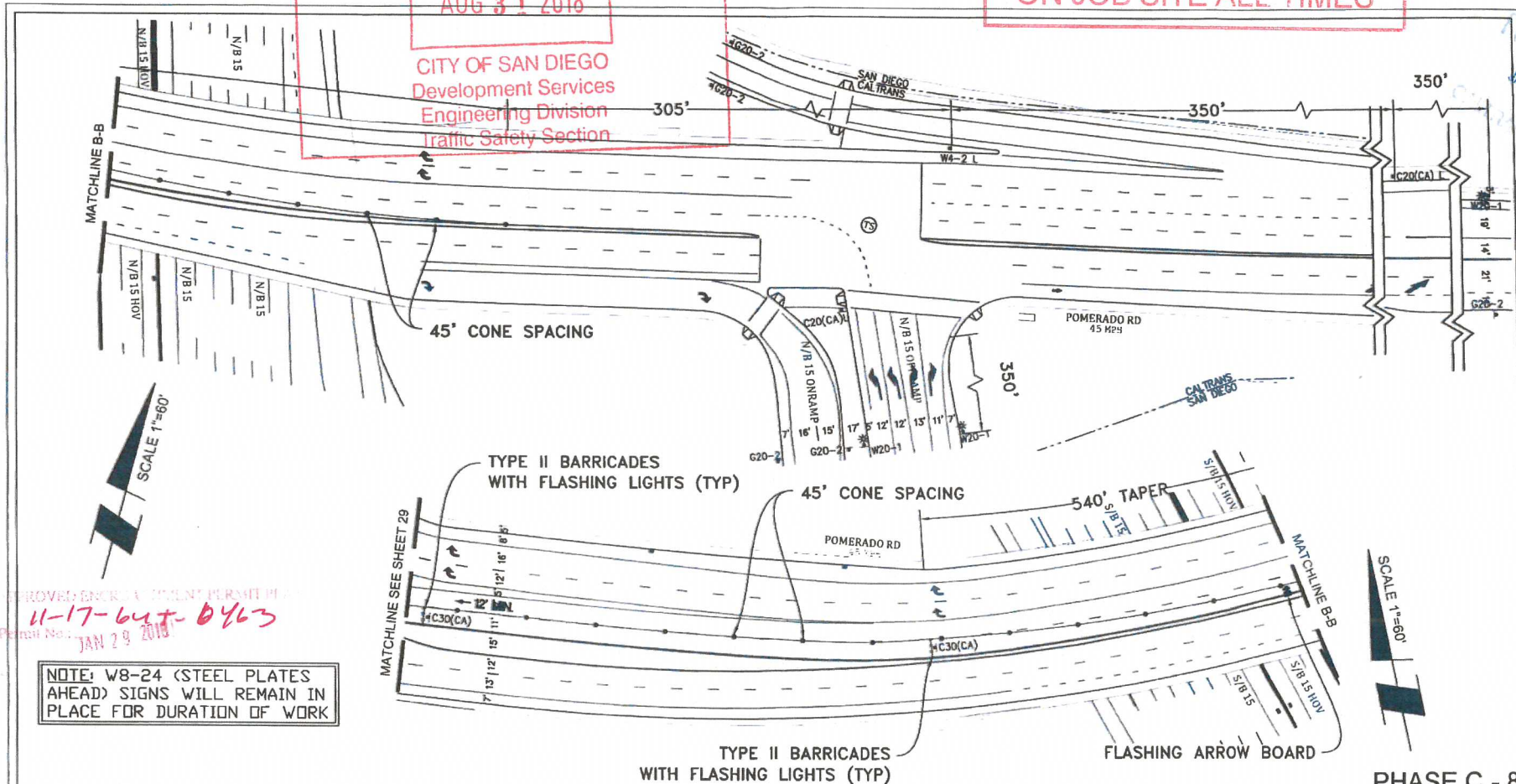
SHEET 29 OF 48

APPROVED TRAFFIC CONTROL PERMIT

AUG 31 2018

CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES



PHASE C - 8

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground



NV5
15002 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858 385.0500 WWW.NV5.COM

AIRX JOB#: X160218

MISC/POTHOLE#:

TYPE OF WORK: TRENCHING / CONDUIT

THOMAS GRID#: 1209-F

DRAWN FOR: CALTRANS



DATE: 1/22/2018

DESIGNED: Clint Jones

CHECKED BY: Mark Webb

SHEET 30 OF 48

APPROVED TRAFFIC CONTROL PERMIT

AUG 31 2018

CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

SCALE 1"=60'

TYPE II BARRICADES WITH
FLASHING LIGHTS (TYP)

45' CONE SPACING

540' TAPER

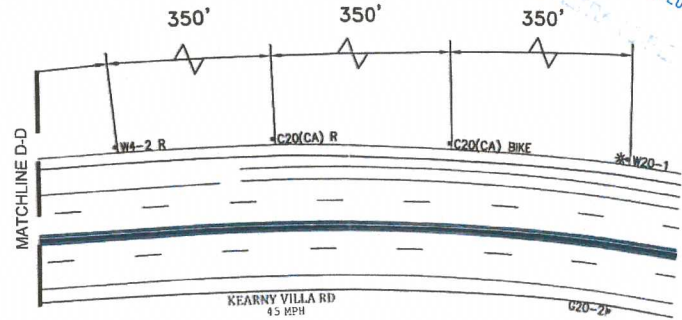
ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES

180' BIKE SHIFTING TAPER

FLASHING ARROW BOARD

25' CONE SPACING

PHASE C - 8



RECEIVED
JAN 24 2018
CITY OF SAN DIEGO

APPROVED ENCROACHMENT PERMIT PL
11-17-64 T-0463
Permit No. 11-17-64 T-0463

NOTE: W8-24 (STEEL PLATES
AHEAD) SIGNS WILL REMAIN IN
PLACE FOR DURATION OF WORK

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

AIRX SURVEYORS, INC.
Gail McMorran
President
2534 EAST EL NORTE PARKWAY, SUITE C
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15082 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858 385.0500 WWW.NV5.COM

AIRX JOB#: X160218

MISC/POTHOLE#:

TYPE OF WORK: TRENCHING / CONDUIT

THOMAS GRID#: 1209-F6

DRAWN FOR: CALTRANS



DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

SHEET 31 OF 48

APPROVED
TRAFFIC CONTROL PERMIT

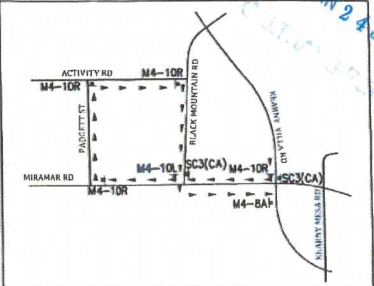
AUG 31 2018

ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES

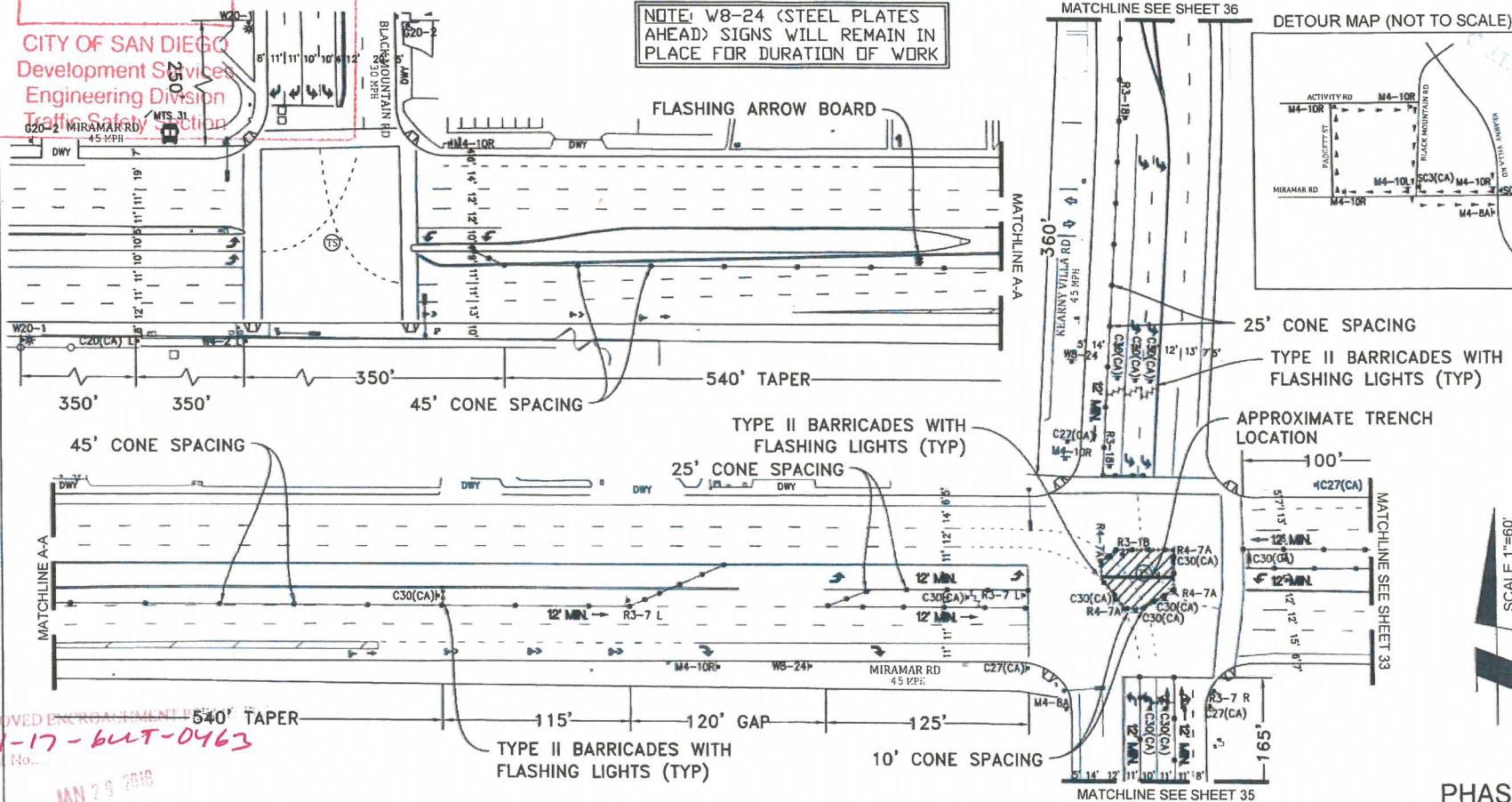
CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

NOTE: W8-24 (STEEL PLATES
AHEAD) SIGNS WILL REMAIN IN
PLACE FOR DURATION OF WORK

DETOUR MAP (NOT TO SCALE)



JAN 24 2018



PHASE C - 9

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

AIRX SURVEYORS, INC.
Gail McMorran
President
2534 EAST EL NORTE PARKWAY SUITE C
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CELL: (760) 419-3738

NIV5
16092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 658 385 0500 WWW.NV5.COM

AIRX JOB#: X160218

THOMAS GRID#: 1209-F6

MISC/POTHOLE#:

DRAWN FOR: CALTRANS

TYPE OF WORK: TRENCHING / CONDUIT



SHEET 32 OF 48

**ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES**

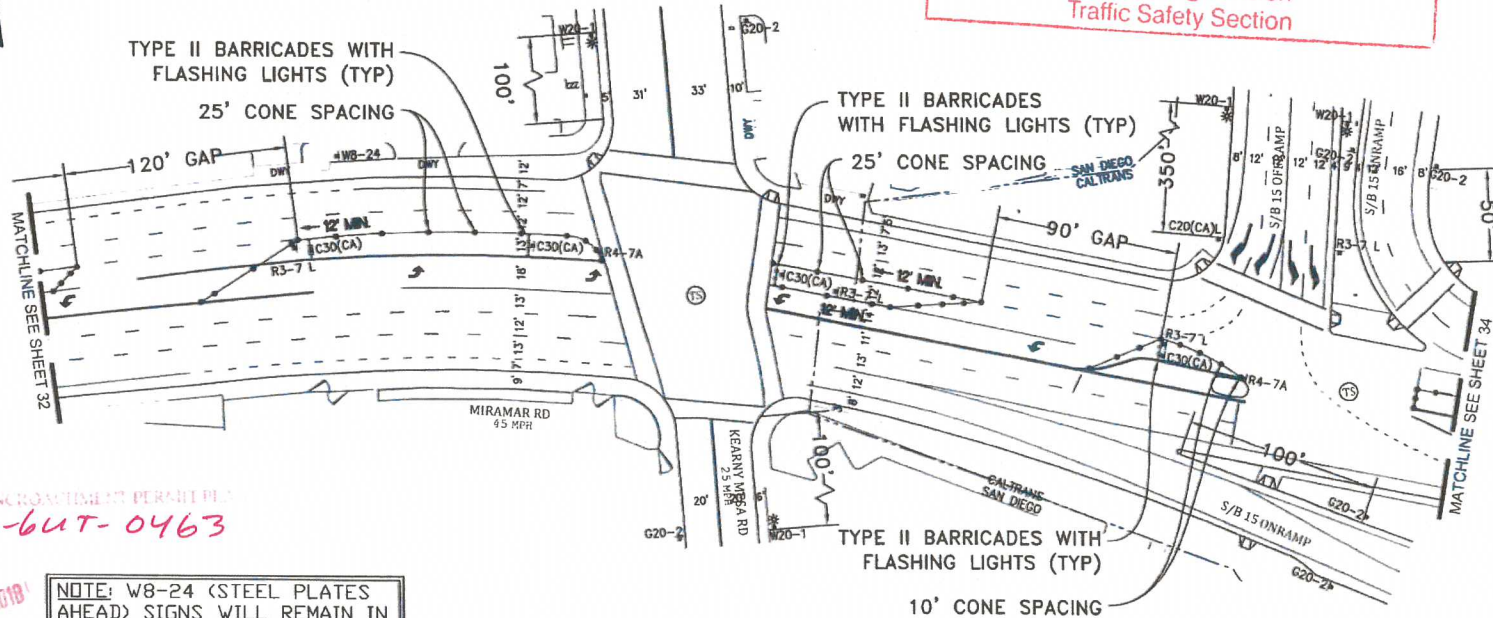
**APPROVED
TRAFFIC CONTROL PERMIT**

AUG 31 2018

CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

JAN 24 2018

SCALE 1"=60'



NOTE: W8-24 (STEEL PLATES
AHEAD) SIGNS WILL REMAIN IN
PLACE FOR DURATION OF WORK

PHASE C - 9

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

AIRX SURVEYORS, INC.
Gail McMorran
President
2534 EAST EL NORTE PARKWAY, SUITE C
ESCONDIDO, CA 92027
PHONE: (760) 485-2247
CELL: (760) 419-3728

NV5
15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858.385.0500 WWW.NV5.COM

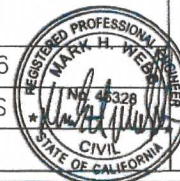
AIRX JOB#: X160218

THOMAS GRID#: 1209-F6

MISC/POTHOLE#:

DRAWN FOR: CALTRANS

TYPE OF WORK: TRENCHING / CONDUIT



SHEET 33 OF 48

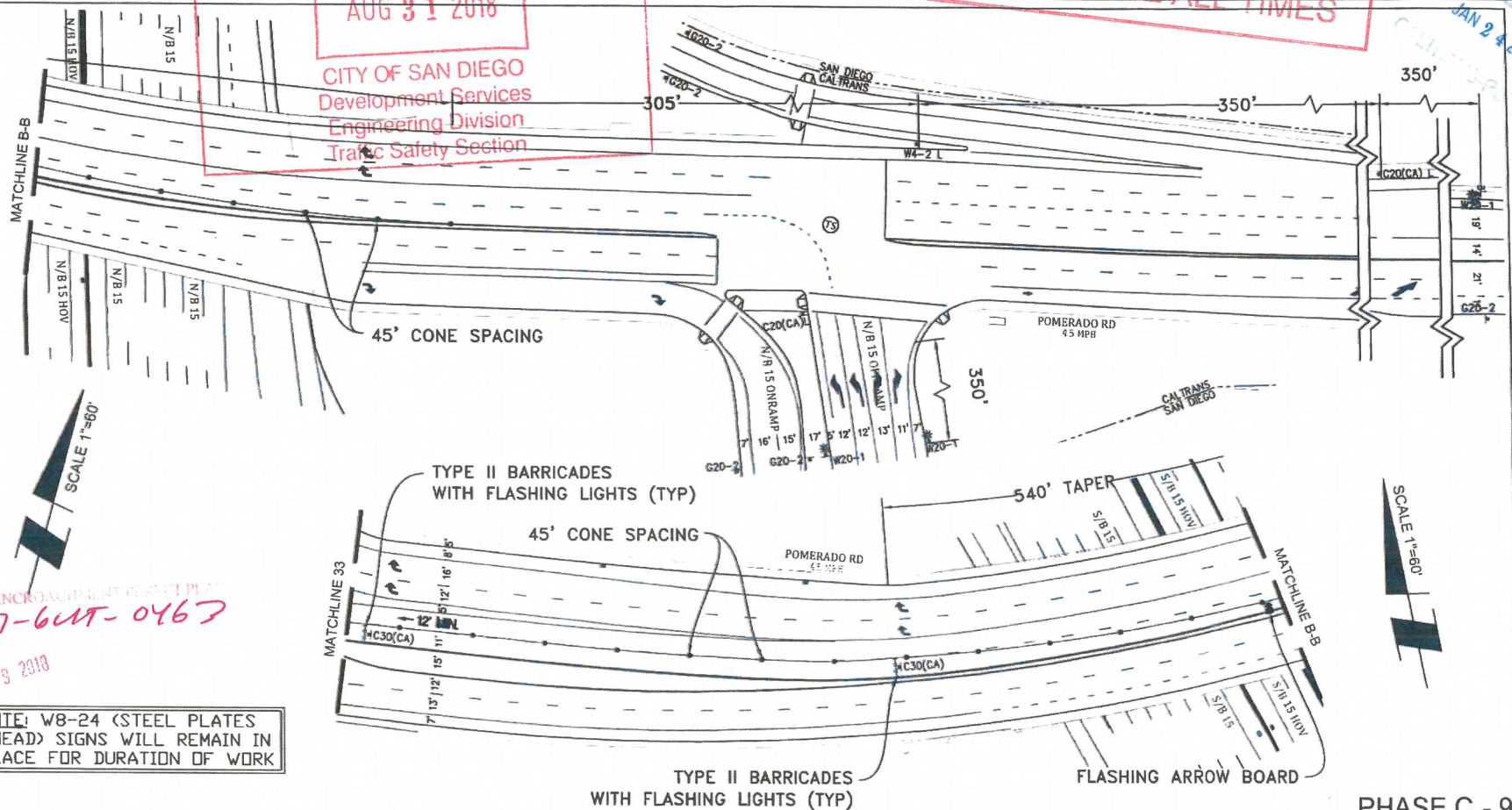
APPROVED
TRAFFIC CONTROL PERMIT

AUG 31 2018

CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

**ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES**

JAN 24 2018



APPROVED ENCROACHMENT PERMIT
11-17-6UT-0467
Permit No.

JAN 23 2018

NOTE: W8-24 (STEEL PLATES
AHEAD) SIGNS WILL REMAIN IN
PLACE FOR DURATION OF WORK

PHASE C - 9

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

AIRX SURVEYORS, INC.
Gail McMorran
President
2534 EAST EL NORTE PARKWAY, SUITE C
ESCONDIDO, CA 92027
PHONE: (760) 460-2047
CELL: (760) 419-3728

NV5
15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858 385 0500 WWW.NV5.COM

AIRX JOB#: X160218
MISC/POTHOLE#:
TYPE OF WORK: TRENCHING / CONDUIT

THOMAS GRID#: 1209-F6
DRAWN FOR: CALTRANS



SHEET 34 OF 48

SHEET 35 OF 48

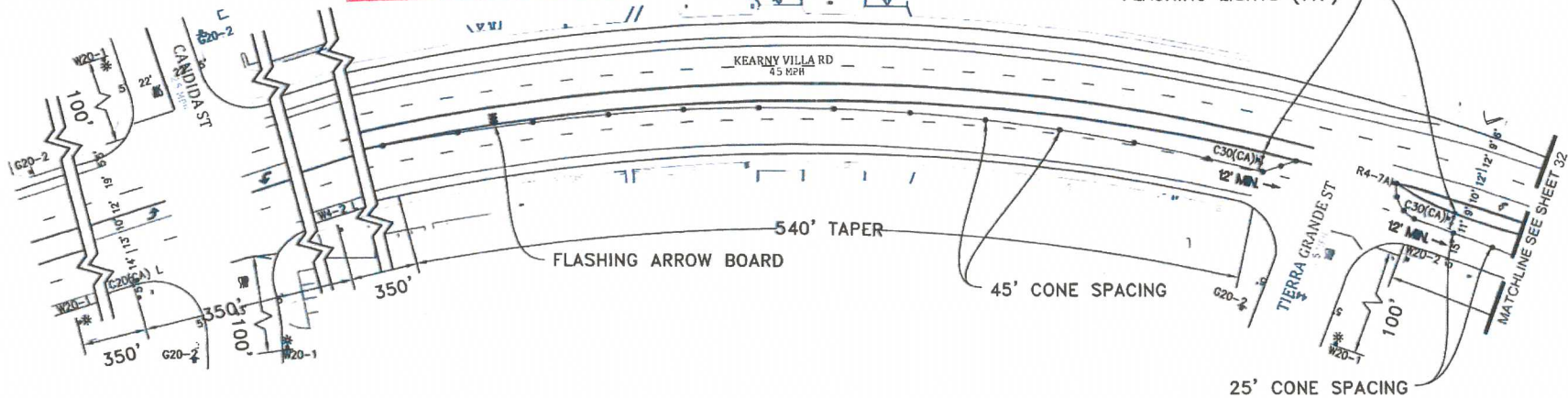
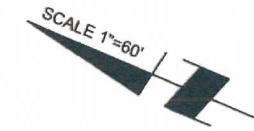
APPROVED
TRAFFIC CONTROL PERMIT

AUG 31 2018

CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES

JAN 24 2018



NOTE: W8-24 (STEEL PLATES
AHEAD) SIGNS WILL REMAIN IN
PLACE FOR DURATION OF WORK

APPROVED ENCROACHMENT PERMIT #
11-17-64T-0463
Permit No.:

JAN 29 2018

PHASE C - 9

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

AIRX SURVEYORS, INC.
Gail McMorran
President
2534 EAST EL NORTE PARKWAY SUITE C
ESCONDIDO, CA 92027
PHONE: (760) 480-2247
CELL: (760) 419-3738

NV5
15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858.385.0500 WWW.NV5.COM

AIRX JOB#: X160218

MISC/POTHOLE#:

TYPE OF WORK: TRENCHING / CONDUIT

THOMAS GRID#: 1209-F6

DRAWN FOR: CALTRANS



DATE: 1/22/2018

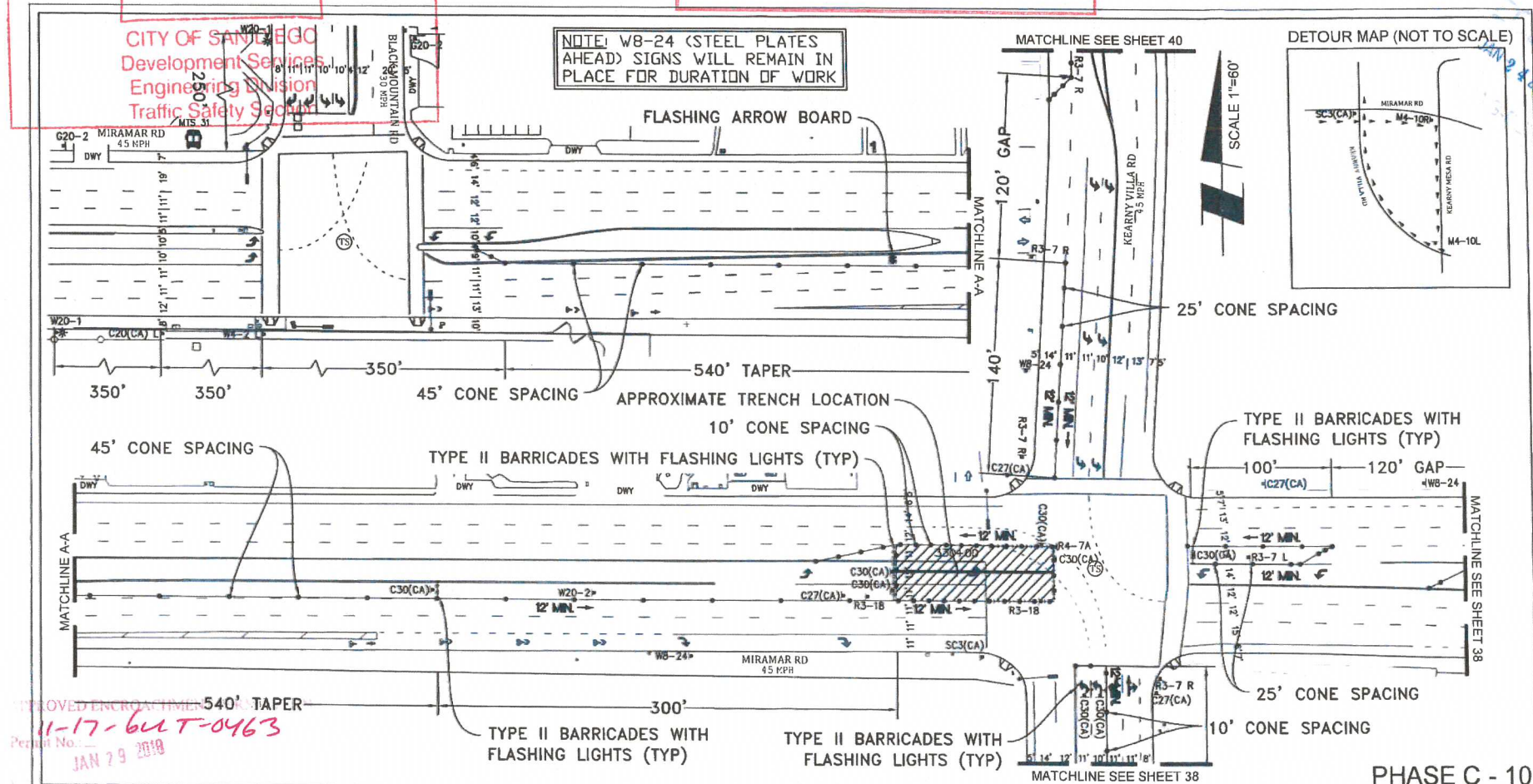
DESIGNED: Clint Jones

CHECKED BY: Mark Webb

SHEET 36 OF 48

AUG 31 2018

ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES



PHASE C - 10

PROJECT NAME: TL23071 – Sycamore Canyon Substation To
Penasquitos Substation – 230 KV Underground



NV5
15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858 385 0500 WWW.NV5.COM

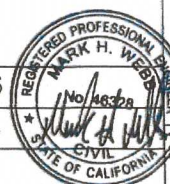
AIRX JOB#: X160218

MISC/POTHLES#:

TYPE OF WORK: TRENCHING / CONDUIT

THOMAS GRID#: 1209-F6

DRAWN FOR: CALTRANS



DATE: 1/22/2018

DESIGNED: Clint Jones

CHECKED BY: Mark Webb

SHEET 37 OF 48

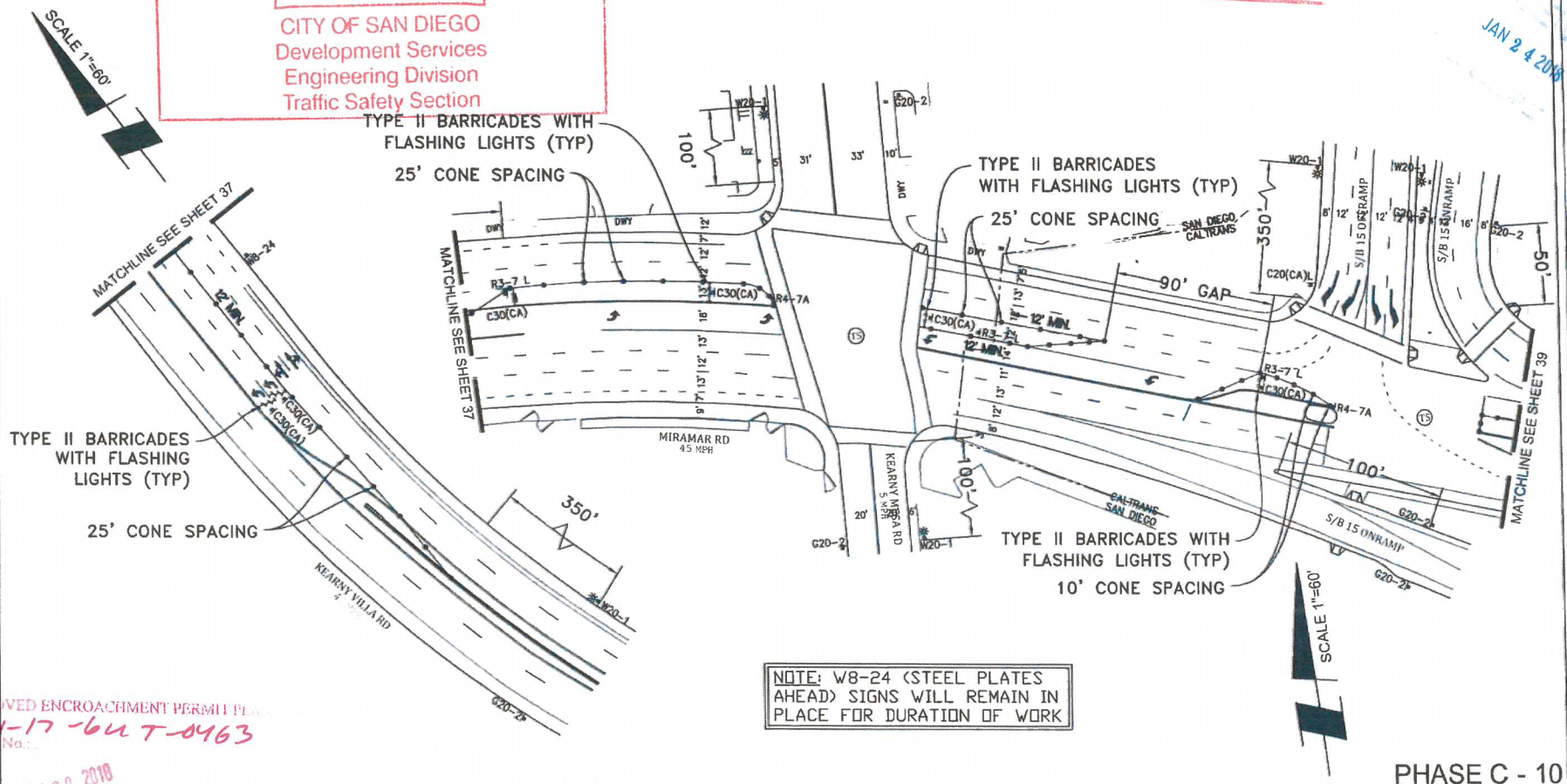
APPROVED TRAFFIC CONTROL PERMIT

AUG 31 2018

CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES

JAN 24 2018



NOTE: W8-24 (STEEL PLATES
AHEAD) SIGNS WILL REMAIN IN
PLACE FOR DURATION OF WORK

PHASE C - 10

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

AIRX SURVEYORS, INC.
Gail McMoran
President
2334 EAST EL NORTE PARKWAY SUITE C
ESCONDIDO, CA 92027
PHONE: (760) 460-2347
CELL: (760) 419-3738

NV5
15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858.385 0500 WWW.NV5.COM

AIRX JOB#: X160218
THOMAS GRID#: 1209-F6
MISC/POTHOLE#:
DRAWN FOR: CALTRANS
TYPE OF WORK: TRENCHING / CONDUIT



SHEET 38 OF 48

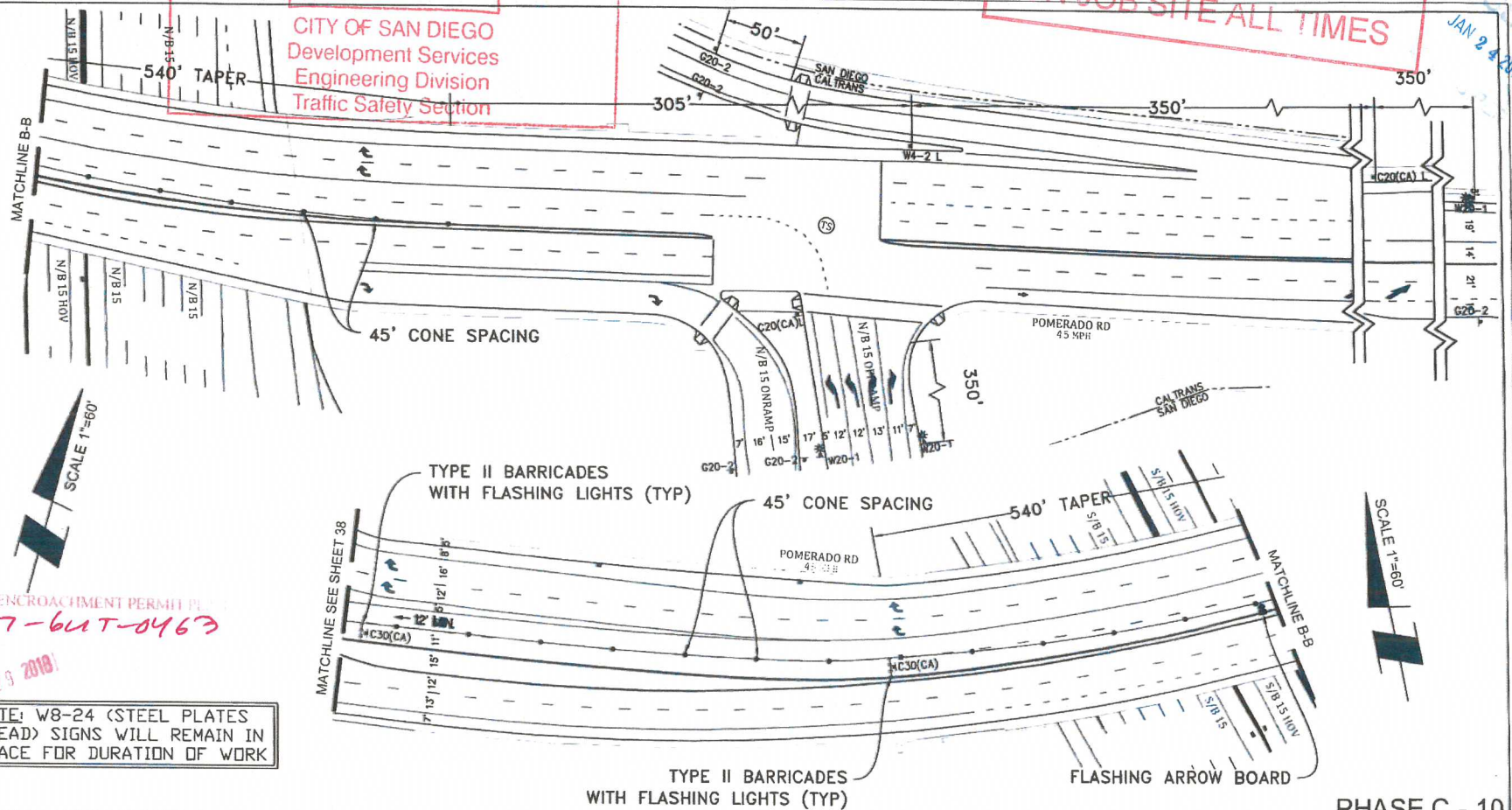
APPROVED TRAFFIC CONTROL PERMIT

AUG 31 2018

CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES

JAN 24 2018



PHASE C - 10

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

AIRX SURVEYING, INC.
Gail McMoran
President
2534 EAST EL NORTE PARKWAY, SUITE C
ESCONDIDO, CA 92027
PHONE: (760) 490-2347
CELL: (760) 410-3738

NV5
15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92126
P: 858.385.0500 WWW.NV5.COM

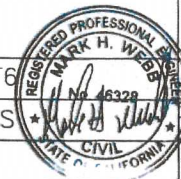
AIRX JOB#: X160218

MISC/POTHOLE#:

TYPE OF WORK: TRENCHING / CONDUIT

THOMAS GRID#: 1209-F0

DRAWN FOR: CALTRANS



DATE: 1/22/2018

DESIGNED: Clint Jones

CHECKED BY: Mark Webb

SHEET 39 OF 48

APPROVED ENCROACHMENT PERMIT PL 11-17-64T-0463
Permit No. 11-17-64T-0463

JAN 29 2018

NOTE: W8-24 (STEEL PLATES
AHEAD) SIGNS WILL REMAIN IN
PLACE FOR DURATION OF WORK

APPROVED
TRAFFIC CONTROL PERMIT

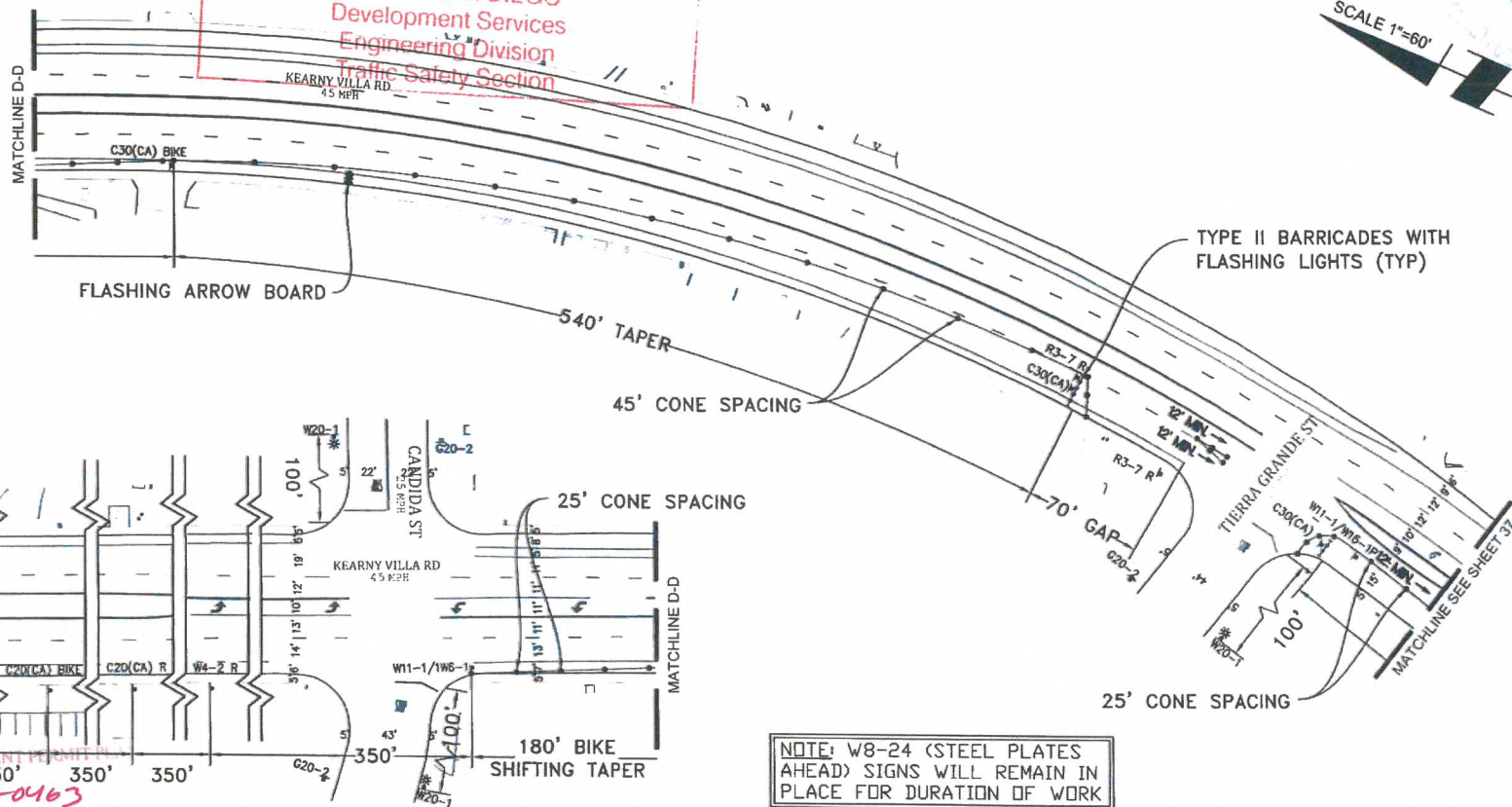
AUG 31 2018

CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

**ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES**

SCALE 1"=60'

JAN 24 2018



PHASE C - 10

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

AIRX SURVEYORS, INC.
Gail McMorran
President
7534 EASY EL HORTO PARKWAY, SUITE C
ESCONDIDO, CA 92027
PHONE: (760) 480-2347
CELL: (760) 419-3728

NIV5
15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858.385.0500 WWW.NIV5.COM

AIRX JOB#: X160218

THOMAS GRID#: 1209-F6

MISC/POTHOLE#:

DRAWN FOR: CALTRANS

TYPE OF WORK: TRENCHING / CONDUIT

DATE: 1/22/2018

DESIGNED: Clint Jones

CHECKED BY: Mark Webb



SHEET 40 OF 48

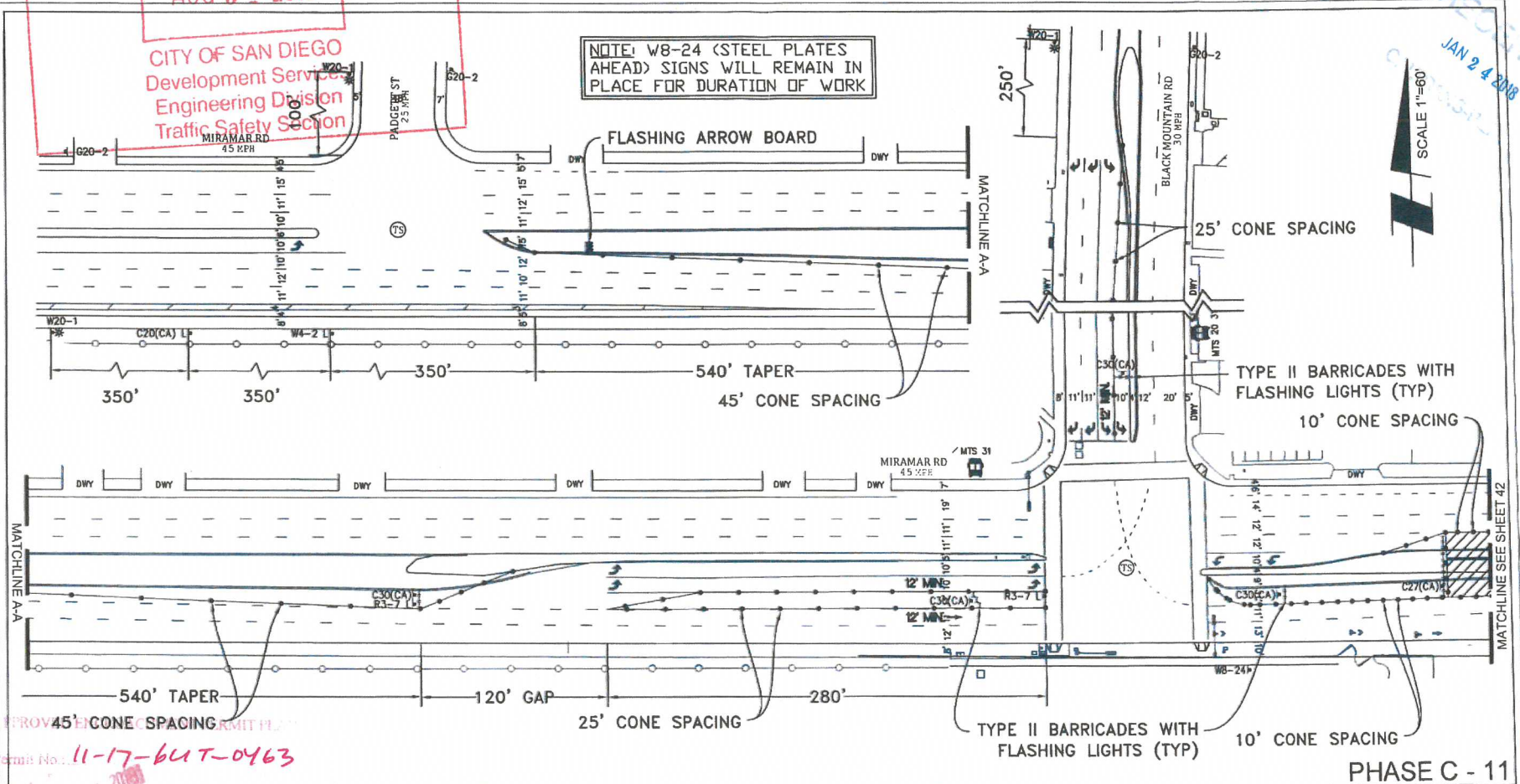
APPROVED
TRAFFIC CONTROL PERMIT

AUG 31 2018

CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

**ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES**

NOTE: W8-24 (STEEL PLATES
AHEAD) SIGNS WILL REMAIN IN
PLACE FOR DURATION OF WORK



PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

AIRX
UTILITY SURVEYORS, INC.
Gail McMorran
President
2534 EAST EL MONTE PARKWAY, SUITE C
ESCONDIDO, CA 92027
PHONE: (760) 480-2347
CELL: (760) 410-3728

NV5
15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 658 385 0500 WWW.NV5.COM

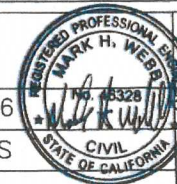
AIRX JOB#: X160218

THOMAS GRID#: 1209-F6

MISC/POTHoles#:

DRAWN FOR: CALTRANS

TYPE OF WORK: TRENCHING / CONDUIT



SHEET 41 OF 48

RECEIVED
JAN 24 2018
TRANSPORT
100-



SHEET 42 OF 48

ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES

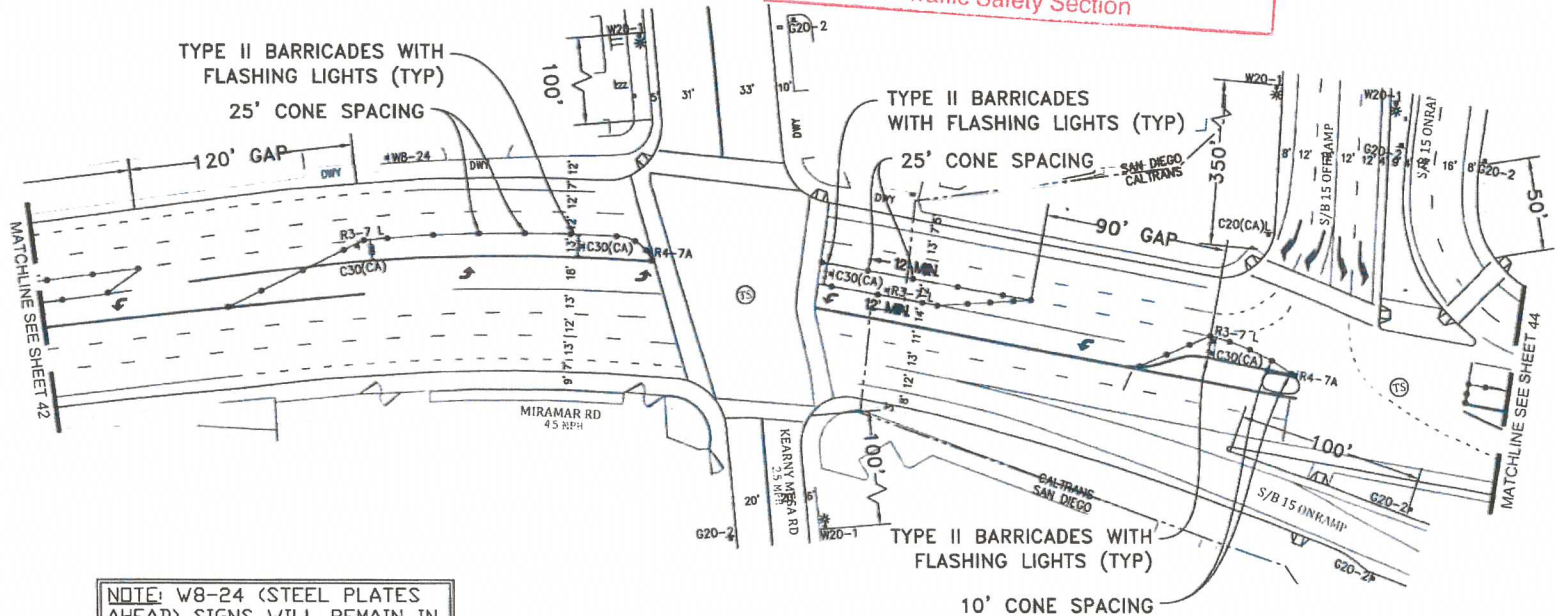
APPROVED
TRAFFIC CONTROL PERMIT

AUG 31 2018

CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

RECEIVED
JAN 24 2018
CALTRANS

SCALE 1"=60'



NOTE: W8-24 (STEEL PLATES
AHEAD) SIGNS WILL REMAIN IN
PLACE FOR DURATION OF WORK

APPROVED ENCROACHMENT PERMIT
11-17-6415-0463
Permit No. 11-17-6415-0463

PHASE C - 11

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

AIRX SURVEYORS, INC.
Gail McMorran
President
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ESCONDIDO, CA 92027
PHONE: (760) 480-2347
CELL: (760) 419-3786

NV5

15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858.385.0500 WWW.NV5.COM

AIRX JOB#: X160218

THOMAS GRID#: 1209-F6

MISC/POTHOLE#:

DRAWN FOR: CALTRANS

TYPE OF WORK: TRENCHING / CONDUIT



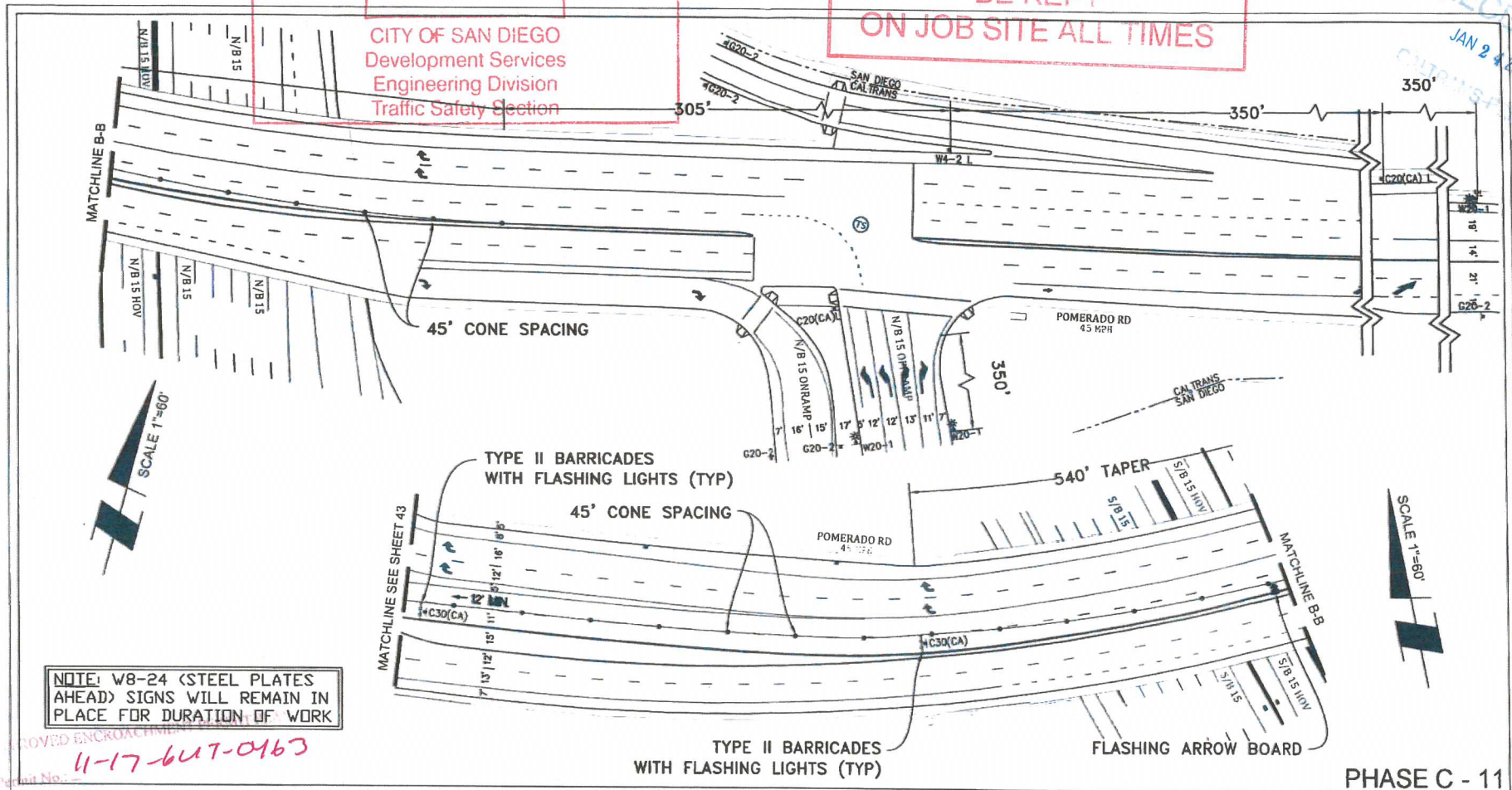
SHEET 43 OF 48

APPROVED TRAFFIC CONTROL PERMIT

AUG 31 2018

CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES



PHASE C - 11

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground



NV5
15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P. 858 385 0500 WWW.NV5.COM

AIRX JOB#: X160218

MISC/POTHOLE#:

TYPE OF WORK: TRENCHING / CONDUIT

THOMAS GRID#: 1209-F6

DRAWN FOR: CALTRANS



DATE: 1/22/2018

DESIGNED: Clint Jones

CHECKED BY: Mark Webb

SHEET 44 OF 48