San Jose Water Company

1355 S. Bascom Avenue
San Jose, CA 95128-3514

Writer's Direct Line: (408) 279-7850
Email: Jake.Walsh@sjwater.com

November 14, 2017

Station 1 Fire Protection
2351 N. Watney Way, Suite A2
Fairfield, CA 94533

Attention: Barbara Marking

Subject: 1460 Mabury Rd., San Jose, CA
APN: 254-02-044

Dear Ms. Marking:

On November 13, 2017, you requested fire protection water supply from a single outlet. Based on the information that was supplied by you, the table below provides the results of a water supply computer simulation at the location indicated. These results are valid for one year from the date of the simulation. Flow data is from the water distribution main, not from the meter connection. Elevations are interpolated from United States Geological Survey contours.

Flow Location:	**Mabury Rd., approx. 325' W/W Lenfest Rd.**
Main Size:	**12 in.**
Elevation:	**87 ft.**
Date of Computer Simulation:	**January 27, 2017**
Static Pressure:	**66 psi**
Residual Pressure:	**63 psi**
Simulation Discharge:	**1,500 gpm**

Determining the size of a Private Fire Protection Service or adequacy of a private fire protection system from the information provided herein is the responsibility of those qualified to do so. San Jose Water Company undertakes to supply only such water at such pressure as may be available any time through the normal operation of its system. Section 774 of the Public Utilities Code limits the liability of the utility resulting from a claim regarding the provision or maintenance of an adequate water supply, water pressure, equipment or other fire protection facility or service.

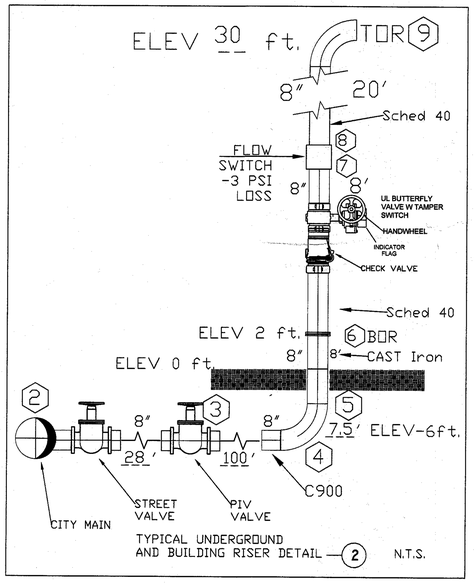
Sincerely,

Jake Walsh

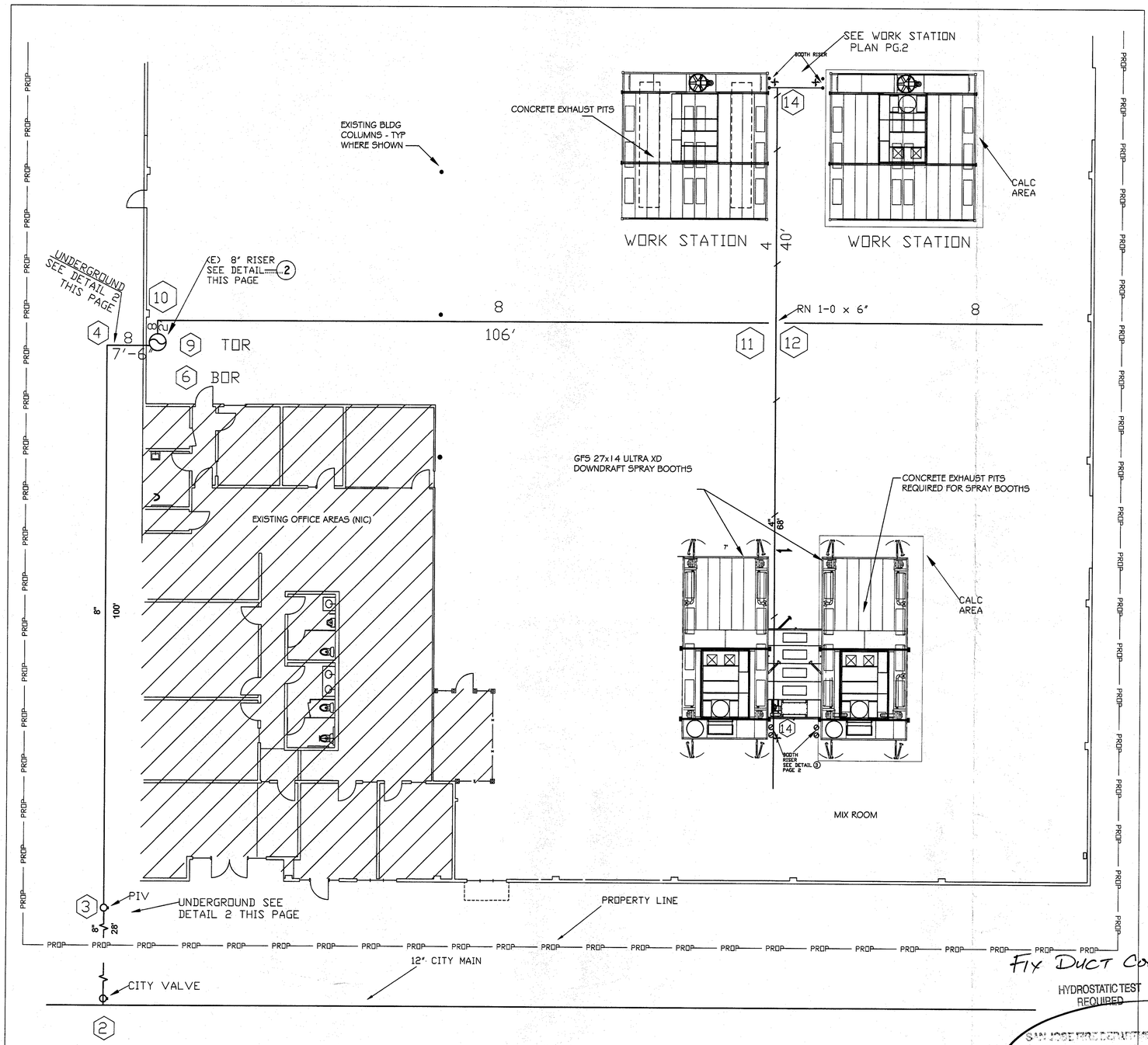
Jake Walsh, P.E.
Director of Engineering, Planning

For additional information
Backflow: 408-279-7872
Map requests: 408-918-7360
Static water pressure: 408-918-7361
Water meter sizing: 408-279-7839

JW:mh
FP18017-026E
cc: Fire Flow File



TYPICAL UNDERGROUND AND BUILDING RISER DETAIL — (2) N.T.S.



PARTIAL BUILDING AND CITY MAIN PLAN

SCOPE OF WORK:
STATION 1 FIRE PROTECTION TO PROVIDE LABOR, MATERIAL AND EQUIPMENT NEEDED TO INSTALL 82 FIRE SPRINKLERS INTO 2 PAINT SPRAY BOOTH, 2 WORK STATIONS, DUCTS, PLENUMS, PITS. WATER SUPPLY FROM EXISTING RISER AND OVER HEAD PIPING. NFPA 13 EXTRA HAZARD GROUP 2 DESIGN.

REVISIONS	
NO.	DATE / DESCRIPTION

LICENSED FIRE PROTECTION CONTRACTOR STATION 1 FIRE PROTECTION CLASSIFICATION C-16 LICENSE 706366 STATE OF CALIFORNIA

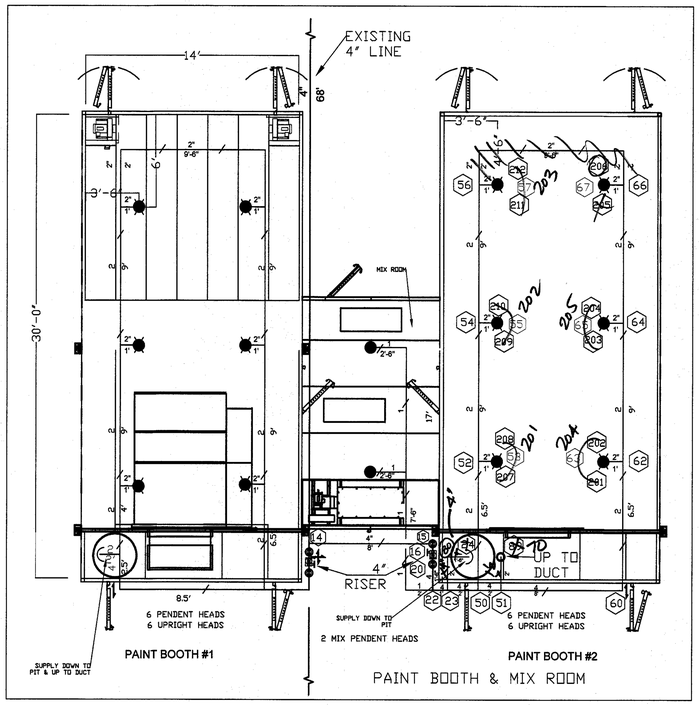
Project Title:
TESLA MOTORS RECON
1460 MABURY RD
SAN JOSE, CA. 95133

Date: April. 26, 2018
Drawn By: BA
Scale: AS NOTED

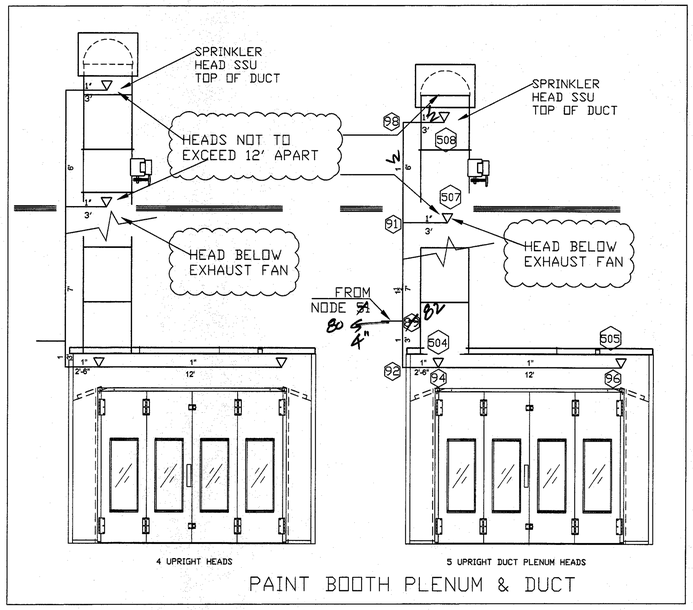
STATION 1 FIRE PROTECTION
2351 WATNEY WAY A2
FAIRFIELD, CA. 94533
LICENSE 706366, C-16

FIRE SPRINKLER PLAN

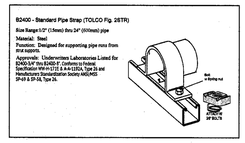
FP.1

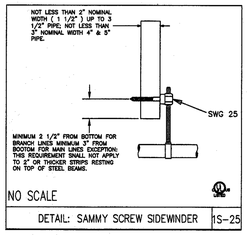


PAINT BOOTH & MIX ROOM



PAINT BOOTH PLENUM & DUCT



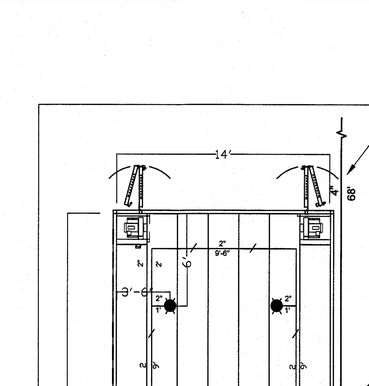


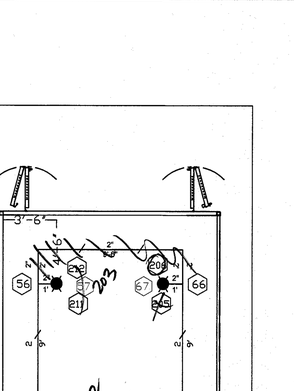
AFCON

BEAM HANGER

615

SPRINKLER HEAD LEGEND									
SYM	MFG.	MDL.	K	TEMP	ORIENT	THRD.	ORIFICE	FINISH	SIN	QTY
●	TYCO	TYB	8	286°	SSP	3/4"	17/32	BRASS	TYB4251	2
○	TYCO	TYB	8	286°	SSU	3/4"	17/32	BRASS	TYB4151	8
●U	TYCO	TYB	8	286°	SSU	3/4"	17/32	BRASS	TYB4151	12
●P	TYCO	TYB	8	286°	SSP	3/4"	17/32	BRASS	TYB4251	12
▽	TYCO	TYB	8	286°	SSU	3/4"	17/32	BRASS	TYB4151	12
									TOTAL HEADS THIS PAGE	46





HYDRAULIC SYSTEM

PAINT SPRAY AREAS PROTECTED BY A HYDRAULICALLY DESIGNED AUTOMATIC FIRE SPRINKLER SYSTEM

PROJECT: TESLA BOOTH

AREA: 1 Paint Spray Booth

NO. OF SPRINKLERS FLOWING: 20 Heads

BASIS OF DESIGN: .40 gpm/sq. ft.

Area of discharge: 1 Booth, plenum, pit & duct

WATER FLOW RATE:..... 544.38 GPM

Residual Pressure r'qd at The Base of the Riser: 50 PSI

INSTALLED BY:
STATION 1 FIRE PROTECTION

HYDRAULIC SYSTEM

PAINT SPRAY AREAS PROTECTED BY A HYDRAULICALLY DESIGNED AUTOMATIC FIRE SPRINKLER SYSTEM

PROJECT: TESLA WORK STATION

AREA: 1 Paint Spray Booth

NO. OF SPRINKLERS FLOWING: 19 Heads

BASIS OF DESIGN: .40 gpm/sq. ft.

Area of discharge: 1 Work station, pit & duct

WATER FLOW RATE:..... 595.49 GPM

Residual Pressure r'qd at The Base of the Riser: 50 PSI

INSTALLED BY:
STATION 1 FIRE PROTECTION

GENERAL FIRE PROTECTION NOTES:

1. SYSTEM DESIGN, INSTALLATION, AND TESTING SHALL BE IN ACCORDANCE WITH NFPA 13 AND THE LOCAL AHJ.
2. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE STANDARDS OF NFPA 13, NFPA 14, NFPA 20, NFPA 24 AND CITY AND STATE REQUIREMENTS.
3. SYSTEM PIPING TO BE OF STEEL PIPE AND IRON FITTINGS MEETING CRITERIA OF ASTM AND NFPA 13.
4. ALL MATERIAL AND DEVICES TO BE U.L. AND/OR FM APPROVED. ALL DEVICES SHALL BE NEW AND FREE OF DEFECTS.
5. HANGERS AND SPACING SHALL BE INSTALLED PER NFPA 13.
6. NOTE HEAD TYPES IN LEGEND PLAN.
7. ANY AND ALL ALARM SYSTEM WIRING AND INSTALLATION IS BY OTHERS.
8. 2016 CBC–
9. 2016 CEC, 2016 CMC, 2016 CPC.
10. 2016 CAL. FIRE CODE AS ADOPTED BY THE CITY OF SAN JOSE–SJMC TITLE 17, SECTION 17.12.
11. INTERNATIONAL EXISTING BUILDING CODE, APPENDIX CHAPTERS A2, A3 AND A4.
12. EXISTING BUILDING CODE.
13. GREEN BUILDING CODE.
14. HISTORICAL BUILDING CODE.
15. CALIFORNIA BUILDING CODE. TITLE 24, PART 6
16. INSTALLATION PER NFPA 13, 2013 EDITION AND NFPA 33, 2016 EDITION.

CODES IN EFFECT:

2016 CALIFORNIA BUILDING CODE
2016 CALIFORNIA ELECTRICAL CODE
2016 CALIFORNIA MECHANICAL CODE
2016 CALIFORNIA PLUMBING CODE
2016 CALIFORNIA FIRE CODE
2016 CALIFORNIA ENERGY CODE
2016 CALIFORNIA GREEN BUILDING STANDARDS CODE
BRENTWOOD MUNICIPAL CODE
INSTALLATION PER NFPA 13, 2016 EDITION AND NFPA 33, 2011 EDITION.

SPRINKLERS TO BE PROTECTED WITH CELLOPHANE BAGS HAVING A THICKNESS OF 0.003 OR LESS PER NFPA 13 2016 SECTION 6.2.6.4.2

PAINT BOOTHS

0' 1' 4' 8' 16'

1/4" = 1 FT.

LICENSED FIRE PROTECTION CONTRACTOR
STATION 1 FIRE PROTECTION CO.
CLASSIFICATION C-16
LICENSE NO. 706366
STATE OF CALIFORNIA

Project Title:
TESLA MOTORS
RECON
1460 MABURY RD
SAN JOSE, CA. 95133

Date: May. 15, 2018
Drawn By: BA
Scale: 1/4" or as noted

STATION 1 FIRE PROTECTION
2351 WATNEY WAY A2
FAIRFIELD, CA. 94533
LICENSE 706366, C-16

FIRE SPRINKLER PLAN

FP.2

TOLBrace™ Seismic Calculations

STATION 1 FIRE PROTECTIO

Project Address: TESLA
MABURY
SAN JOSE
Job #

Calculations based on 2010 NFPA Pamphlet #13

Brace Information

Maximum Spacing	55' 0" (16.76 m)
Maximum Brace Length	7' 0" (2.13 m)
Bracing Material	1" Sch.40
Angle from Vertical	45° Min.
Least Rad. of Gyration	0.42" (11 mm)
L/R Value	200
Max Horizontal Load	1310 lbs (594 kg)
Force Factor (Cp)	0.7

Fastener Information

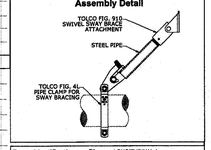
Fastener Orientation	NPDA Type E
Maximum Load	725 lbs (327 kg) 600
Diameter	5/8" (16 mm) 1/2
Length	Minimum 4x Wood Member
Type	Dual Through-Bolts - Fig.908 X

TOLCO™ Brace Components

TOLCO™ Component Fig. Number	Adjusted Load
Fig. 4L Clamp	1425 lbs (646 kg)
Fig.910 Threaded Swivel	1131 lbs (513 kg)

*Calculation Based on CONCENTRIC Loading
*Please Note: These calculations are for TOLCO™ components only. Use of any other components voids these calculations and the listing of the assembly.

Assembly Detail



Brace Identification on Plans	LONGITUDINAL 1
Orientation of Brace	Longitudinal

Size and Type of Pipe	Total Length	Total Calculated Load
4" Sch.10 Steel Pipe (101.6 mm)	50ft (16.8 m)	454 lbs (206 kg)
4" MEGA FLOW	69' Max	
Percentage added for Fittings and Sprinklers	15%	68 lbs (30.85 kg)
Total Adjusted Load of all pipe within Zone of Influence		522 lbs (237 kg)

(TOLBrace™ Version 8) Use of TOLBrace™ is subject to terms and conditions per the end user license agreement

TOLBrace™ Seismic Calculations

STATION 1 FIRE PROTECTIO

Project Address: TESLA
MABURY
SAN JOSE
Job #

Calculations based on 2010 NFPA Pamphlet #13

Brace Information

Maximum Spacing	35' 0" (10.67 m)
Maximum Brace Length	7' 0" (2.13 m)
Bracing Material	1" Sch.40
Angle from Vertical	45° Min.
Least Rad. of Gyration	0.42" (11 mm)
L/R Value	200
Max Horizontal Load	1310 lbs (594 kg)
Force Factor (Cp)	0.7

Fastener Information

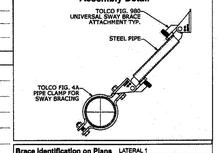
Fastener Orientation	NPDA Type E
Maximum Load	725 lbs (363 kg) 600
Diameter	5/8" (19 mm) 1/2
Length	Minimum 4x Wood Member
Type	Dual Through-Bolts - Fig.906 X

TOLCO™ Brace Components

TOLCO™ Component Fig. Number	Adjusted Load
Fig. 4A Clamp	1131 lbs (513 kg)
Fig.980 Universal Swivel	1425 lbs (646 kg)

*Calculation Based on CONCENTRIC Loading
*Please Note: These calculations are for TOLCO™ components only. Use of any other components voids these calculations and the listing of the assembly.

Assembly Detail



Brace Identification on Plans	LATERAL 1
Orientation of Brace	Lateral

Size and Type of Pipe	Total Length	Total Calculated Load
4" Sch.10 Steel Pipe (101.6 mm)	39ft (10.7 m)	259 lbs (131 kg)
4" Sch.10 Steel Pipe (101.6 mm)	46ft (13.7 m)	371 lbs (166 kg)
4" MEGA FLOW 10.67	40' Max	
Percentage added for Fittings and Sprinklers	15%	99 lbs (44.91 kg)
Total Adjusted Load of all pipe within Zone of Influence		769 lbs (344 kg)

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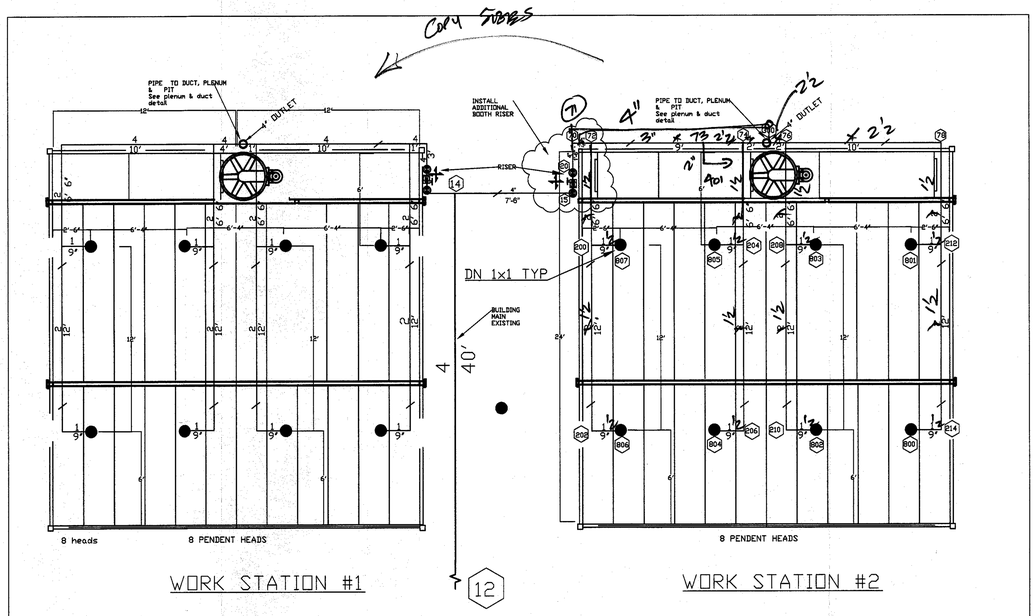

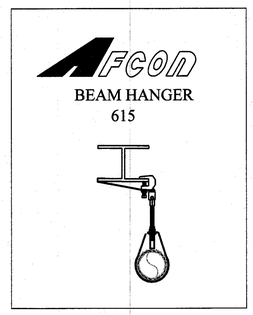

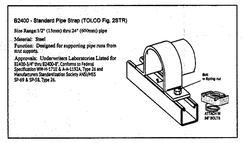

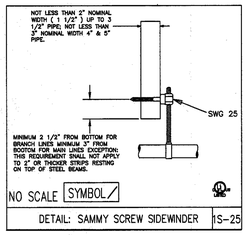

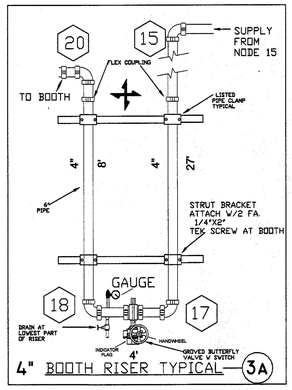

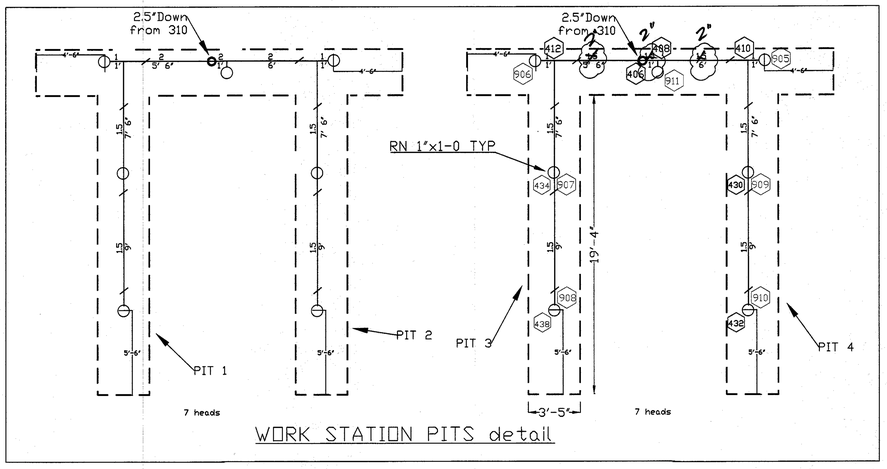

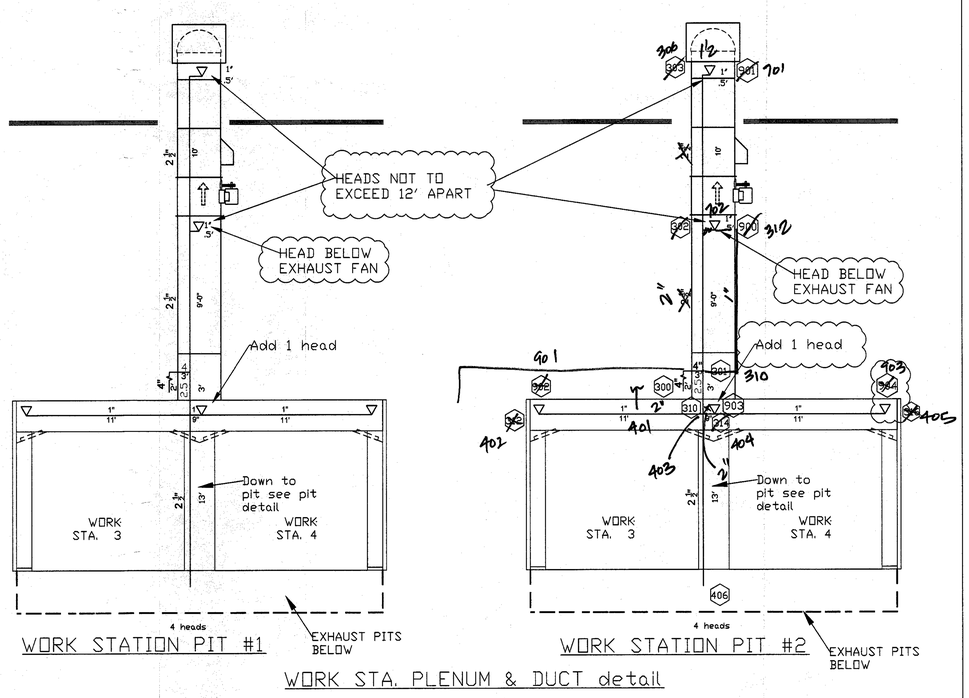

WORK STATIONS

SPRINKLER RISER
SWAY BRACE
2 WAY SWAY BRACE
BACK FLOW
PIPE DROP
PIPE RISE
CONCEALED/SEMI-RECESSED HEAD

SPRINKLER HEAD LEGEND

SYM	MFG.	MDL.	K	TEMP	ORIENT	THRD.	ORIFICE	FINISH	SIN	QTY
●	TYCO	TYB	8	286°	SSP	3/4"	17/32	BRASS	TYB4251	16
▼	TYCO	TYB	8	286°	SSP	3/4"	17/32	BRASS	TYB4151	9
○	TYCO	TYB	8	286°	SSU	3/4"	17/32	BRASS	TYB4151	14

TOTAL HEADS THIS PAGE 39

FIRE PROTECTION CONTRACTOR
LICENSED FIRE PROTECTION CO.
CLASSIFICATION C-16
LICENSE NO. 706366
STATE OF CALIFORNIA

Project Title:
TESLA MOTORS
RECON
1460 MABURY RD
SAN JOSE, CA. 95133

Date: May. 15, 2018
Drawn By: BA
Scale: AS NOTED

STATION 1 FIRE PROTECTION
2351 WATNEY WAY A2
FAIRFIELD, CA. 94533
LICENSE 706366, C-16

FIRE SPRINKLER PLAN

FP.3