

DRAWING INDEX	
TITLE	SHEET
SITE MASTER FIRE PROTECTION PLAN	MFPP-01
ENLARGED CENTRAL PROCESS AREA (WEST)	MFPP-02
ENLARGED CENTRAL PROCESS AREA (EAST)	MFPP-03
ENLARGED STEAM GENERATOR SITE	MFPP-04
ENLARGED OFFICE / WELLNESS CENTER SITE	MFPP-05

KEY NOTES:

1) PRIMARY FIRE DEPARTMENT EMERGENCY ACCESS ROAD MINIMUM:

- * EXISTING FIRE DEPARTMENT ACCESS ROAD:
- * (E) 24'-0" MIN. WIDTH TO BE MAINTAINED AT ALL TIMES
- * (E) ALL WEATHER SURFACE
- * ROAD MUST BE CAPABLE OF SUPPORTING 40,000 LB. EMERGENCY VEHICLE AT ALL TIMES
- * TRIM AND/OR REMOVE VEGETATION ALONG ROADWAY PER COUNTY STANDARDS
- * MAINTAIN MINIMUM 13'-6" CLEAR HEIGHT

2) SECONDARY ACCESS ROADS TO WELL PADS, TYPICAL FOR ALL ROADS NOT INDICATED AS PRIMARY FIRE DEPARTMENT ACCESS ROADS, 20'-0 WIDTH.

3) PROVIDE FIRE DEPARTMENT KNOX BOX FOR ALL LOCKED GATE ACCESS POINTS. CFC 503.6. MINIMUM 25'-0 WIDE GATE.

TO LONG CANYON ROAD
PROVIDE KNOX BOX & ADDRESS SIGNAGE
AT ENTRANCE GATE TO FACILITY

WELL PAD (TYPICAL)

2) TYPICAL PER ACCESS ROAD NOTES

NEW 3,000 BBL (126,000 GAL.) WATER STORAGE TANK. MINIMUM 76,500 GALLONS TO BE MAINTAINED FOR FIRE PROTECTION WATER STORAGE, IN ADDITION TO PROCESS AND UTILITY WATER.
ELEV. = 980'

NEW STEAM GENERATION SITE
SEE SHEET MFPP-4 FOR ENLARGED PLAN

NEW PRODUCTION OFFICE SITE
SEE SHEET MFPP-5 FOR ENLARGED PLAN

ACCESS ROADS:

- PRIMARY FIRE DEPARTMENT EMERGENCY ACCESS ROADS
- SECONDARY FIRE DEPARTMENT EMERGENCY ACCESS ROADS

NEW 8" C900 FIRE SERVICE

TO CAT CANYON ROAD
PROVIDE KNOX BOX & ADDRESS SIGNAGE
AT ENTRANCE GATE TO FACILITY

NEW CENTRAL PROCESS AREA SITE (EAST)
SEE SHEET MFPP-3 FOR ENLARGED PLAN

NEW CENTRAL PROCESS AREA SITE (WEST)
SEE SHEET MFPP-2 FOR ENLARGED PLAN

OVERALL SITE PLAN

1" = 400'



- MASTER SITE FIRE PROTECTION PLAN:**
- THIS MASTER SITE FIRE PROTECTION PLAN IS INTENDED TO MITIGATE FIRE DANGER AND PROVIDE RESOURCES FOR THE CONTROL OF A FIRE INCIDENT AT THE EXISTING AERA EAST CAT CANYON PRODUCTION FACILITY. THE SITE FIRE PROTECTION RESOURCES, EMERGENCY EQUIPMENT SYSTEMS AND RELATED COMPONENTS MUST MEET THE REQUIREMENTS OF THE SANTA BARBARA COUNTY FIRE DEPARTMENT (SBCFD).
 - GENERAL SITE SPRINKLER, FIRE ALARM, AND TANK FIRE PROTECTION SYSTEMS ARE INDICATED ON THESE DOCUMENT DRAWINGS. ALSO SEE THE REFERENCED C&A REPORT DATED 09/15/14 FOR ADDITIONAL TECHNICAL REFERENCES.
 - ACCESS ROADS TO MEET THE MINIMUM WIDTH, HEIGHT CLEARANCE, VEGETATION REMOVAL AND REQUIREMENTS OF THE SANTA BARBARA COUNTY FIRE DEPARTMENT DEVELOPMENT STANDARD 1 AS NOTED ON THESE PLANS.
 - SITE FIRE FLOW TO BE PROVIDED BY NEW DEDICATED FIRE WATER STORAGE TANK THAT WILL HOLD COMBINED FIRE PROTECTION AND PROCESS WATER STORAGE.
 - PRESSURIZED AND DRAFT HYDRANTS INSTALLED WHERE SHOWN ON THIS SITE PLAN. HYDRANT LOCATIONS ARE TO BE A MINIMUM OF 50'-0", AND A MAXIMUM OF 150'-0", FROM THE TANK CONTAINMENT AREAS. MAXIMUM DISTANCE BETWEEN HYDRANTS IS 500 FEET IN THE CENTRAL PROCESS FACILITY AREA. THE HYDRANTS ARE TO BE INSTALLED IN COMPLIANCE WITH SANTA BARBARA COUNTY FIRE DEPARTMENT STANDARDS.
 - ALL UNDERGROUND FIRE SERVICE PIPING, INCLUDING THRUST BLOCKS, VALVING AND ASSOCIATED APPURTENANCES ARE TO BE INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF THE CURRENT EDITION OF NFPA 24.
 - AERA PERSONNEL ARE TO IMMEDIATELY NOTIFY THE SANTA BARBARA COUNTY FIRE DEPARTMENT IN THE EVENT OF A FIRE INCIDENT OR EMERGENCY.
 - BRUSH AND VEGETATION CLEARANCE MUST BE MAINTAINED IN ACCORDANCE SBCFD STANDARD 6. CLEARANCES MUST BE AS FOLLOWS:
 - GROUND AREAS MUST BE KEPT FREE OF WEEDS, TRASH AND OTHER COMBUSTIBLE MATERIALS
 - REMOVE VEGETATION WITHIN 10 FEET FROM POWER POLES
 - REMOVE FLAMMABLE VEGETATION WITHIN 10 FEET FROM ROADS, OR REDUCE TO A MAXIMUM OF 4' STUBBLE HEIGHT.
 - REMOVE VEGETATION WITHIN 30 FEET FROM STRUCTURES, TANKS AND CONTAINMENT AREAS (EXCEPTION: VEGETATION LESS THAN 18" IN HEIGHT ABOVE THE GROUND NEED NOT BE REMOVED WHERE NECESSARY TO STABILIZE THE SOIL AND PREVENT EROSION.)
- EXCEPTIONS:**
- IF PROTECTED SPECIES VEGETATION OCCURS WITHIN THE CLEARANCE AREAS NOTED ABOVE COORDINATION BETWEEN THE COUNTY APPROVED BIOLOGIST, AERA AND THE SBCFD IS TO TAKE PLACE TO ENSURE THAT DISTURBANCE TO PROTECTED SPECIES IS LIMITED OR AVOIDED PER ENVIRONMENTAL REGULATIONS.
 - IF SPECIFIC SITE CONDITIONS PREVENT THE IMPLEMENTATION OF THE ABOVE CLEARANCES, LOCATION SPECIFIC COORDINATION BETWEEN AERA AND THE SBCFD IS TO TAKE PLACE TO ADDRESS THESE AREAS.
- PROVIDE SIGNAGE IN ACCORDANCE WITH THE PROVISIONS OF CHAPTERS 50 AND 57 OF THE 2013 CFC, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
 - PROVIDE NO SMOKING SIGNS PER CFC 5003.7.1
 - PROVIDE VISIBLE HAZARD IDENTIFICATION SIGNS PER CFC 5003.5 FOR SPECIFIC MATERIALS IN THE ABOVE GROUND TANKS AND LOCATIONS WHERE HAZARDOUS MATERIALS ARE STORED, DISPENSED, OR HANDLED
 - PROVIDE LABELING AND SIGNS FOR FLAMMABLE & COMBUSTIBLE LIQUID STORAGE TANKS PER CFC 5704.2.3, INCLUDING SIGNAGE PROHIBITING SMOKING AND OPEN FLAMES. PROVIDE NFPA 704 PLACARDS IDENTIFYING THE MATERIALS THEREIN. PROVIDE LABELING AS REQUIRED FOR HAZARDOUS AND TOXIC MATERIAL STORAGE.
 - LOCAL FIRE EXTINGUISHERS ARE TO BE PROVIDED AS REQUIRED BY FIRE CODE & SANTA BARBARA COUNTY FIRE DEPARTMENT.
 - INSTALL FOUR (4) NEW FIXED MONITORS WITH EDUCTORS TO BE INSTALLED TO APPLY EITHER WATER OR 3% AFFF FOAM SOLUTIONS TO THE TANKS AND CONTAINMENT AREA, WITH A SINGLE 265 GALLON AFFF CONCENTRATE TOTE OR (5) 55 GALLON AFFF DRUMS LOCATED ADJACENT TO EACH MONITOR, WITH WEATHERPROOF COVERINGS. THIS WOULD PROVIDE A MINIMUM FIXED ON-SITE 1,060 GALLON BULK SUPPLY OF AFFF FOAM CONCENTRATE MAINTAINED AT THE MONITOR LOCATIONS INDICATED ON THE ATTACHED DRAWINGS. TOTE TO BE CONSTRUCTED OF HDPE, SUPPORTED BY PRESSURIZED GALVANIZED STEEL BASE AND PROTECTED BY A RIGID WELDED GALVANIZED TUBULAR STEEL GRID. PROVIDE CONNECTING HOSE TO EDUCTOR NOZZLE AND PROTECTIVE WEATHER RESISTANT COVERS.
 - PROVIDE (1) NEW FIXED MONITOR WITH EDUCTOR TO BE INSTALLED TO APPLY EITHER WATER OR 3% AFFF FOAM SOLUTIONS AT LOAD RACKS AS SHOWN ON MFPP-3, WITH A SINGLE 265 GALLON AFFF CONCENTRATE TOTE OR (5) 55 GALLON AFFF DRUMS LOCATED ADJACENT TO EACH MONITOR, WITH WEATHERPROOF COVERINGS. TOTE TO BE CONSTRUCTED OF HDPE, SUPPORTED BY PRESSURIZED GALVANIZED STEEL BASE AND PROTECTED BY A RIGID WELDED GALVANIZED TUBULAR STEEL GRID. PROVIDE CONNECTING HOSE TO EDUCTOR NOZZLE AND PROTECTIVE WEATHER RESISTANT COVERS.
 - ALL OPERATIONS/STORAGE TANKS TO HAVE PROPERLY DESIGNED VAPOR RECOVERY SYSTEMS, OPERATING AND PROPERLY MAINTAINED AT ALL TIMES.
 - TRUCK LOADING RACK(S) TO COMPLY WITH THE PROVISIONS OF THE CALIFORNIA FIRE CODE, SECTION 5706.5. PROVIDE ELECTRICAL GROUNDING, SPILL CONTAINMENT AND FIRE EXTINGUISHERS AS REQUIRED.
 - FIRE SPRINKLER SYSTEM MONITORING AND SUPERVISION TO BE SUPERVISED THROUGH THE MAIN FACP FOR COMMUNICATION AND ALARM. CENTRAL STATION MONITORING TO INDICATE ALL ALARM CONDITIONS AND DISPATCH FIRE DEPARTMENT AT ALARM CONDITIONS.
 - WE RECOMMEND A MINIMUM OF 76,500 GALLONS OF DEDICATED FIRE PROTECTION WATER STORAGE FOR THIS PROPOSED PROJECT. WE RECOMMEND THE FOLLOWING BE IMPLEMENTED FOR WATER SUPPLY APPROVAL:
 - THE TANK IS TO BE EQUIPPED WITH HIGH AND LOW LEVEL AUTOMATIC FILL CONTROLS, SIGHT GAGES AND VENTING, AND MUST BE ARRANGED TO MAINTAIN THE REQUIRED MINIMUM 76,500 GALLONS OF FIRE PROTECTION WATER STORAGE SUPPLY AT ALL TIMES.
 - A LOW LEVEL ALARM IS TO BE INSTALLED; THE LOW LEVEL ALARM SIGNAL SHOULD BE CONVEYED TO A CENTRAL STATION MONITORING SERVICE OR TO A CONSTANTLY ATTENDED LOCATION ACCEPTABLE TO THE COUNTY.
 - REFERENCE C&A REPORT DATED 09/15/14.



REV. NO.	DATE	REVISION	REV. BY	CHK. BY	APP'D
03/05/16		UPDATES MFPP: REVISED BACKGROUNDS			
09/15/14		UPDATE MFPP			
08/28/14		UPDATE MFPP			
08/11/14		UPDATE MFPP			



DRAWN BY:	P. T.	DATE:	04/08/14
DESIGN:	J. C.	DATE:	
CHECK:		DATE:	
ENGINEER:		DATE:	
APPROVED:		DATE:	
APPROVED:		DATE:	

MASTER FIRE PROTECTION PLAN
AERA
EAST CAT CANYON FIELD
SANTA BARBARA COUNTY - CALIFORNIA
SITE PLAN & GENERAL NOTES

SCALE: 1"=400' DWG NO: MFPP-1 SHT: 1 of 5 REV. NO.

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SYMBOL LEGEND	SYM
FOAM MONITOR	FMA
AFFF FOAM TOTE	FOT
PRESSURIZED FIRE HYDRANT	FHP
HAND HELD FIRE EXTINGUISHER	FHP
SECTIONAL CONTROL VALVE	SCV
EMERGENCY SHUT DOWN LOCATION	ESD
FIRE SPRINKLER SYSTEM RISER	SR

TANK / VESSELS: MFPP-2 AND MFPP-3

Date: 12/7/14
 Rev: B
 T.J. Cross Engineers, Inc.
 Project #13186
 DS-13186-21
 EQUIPMENT LIST
 AERA ECC

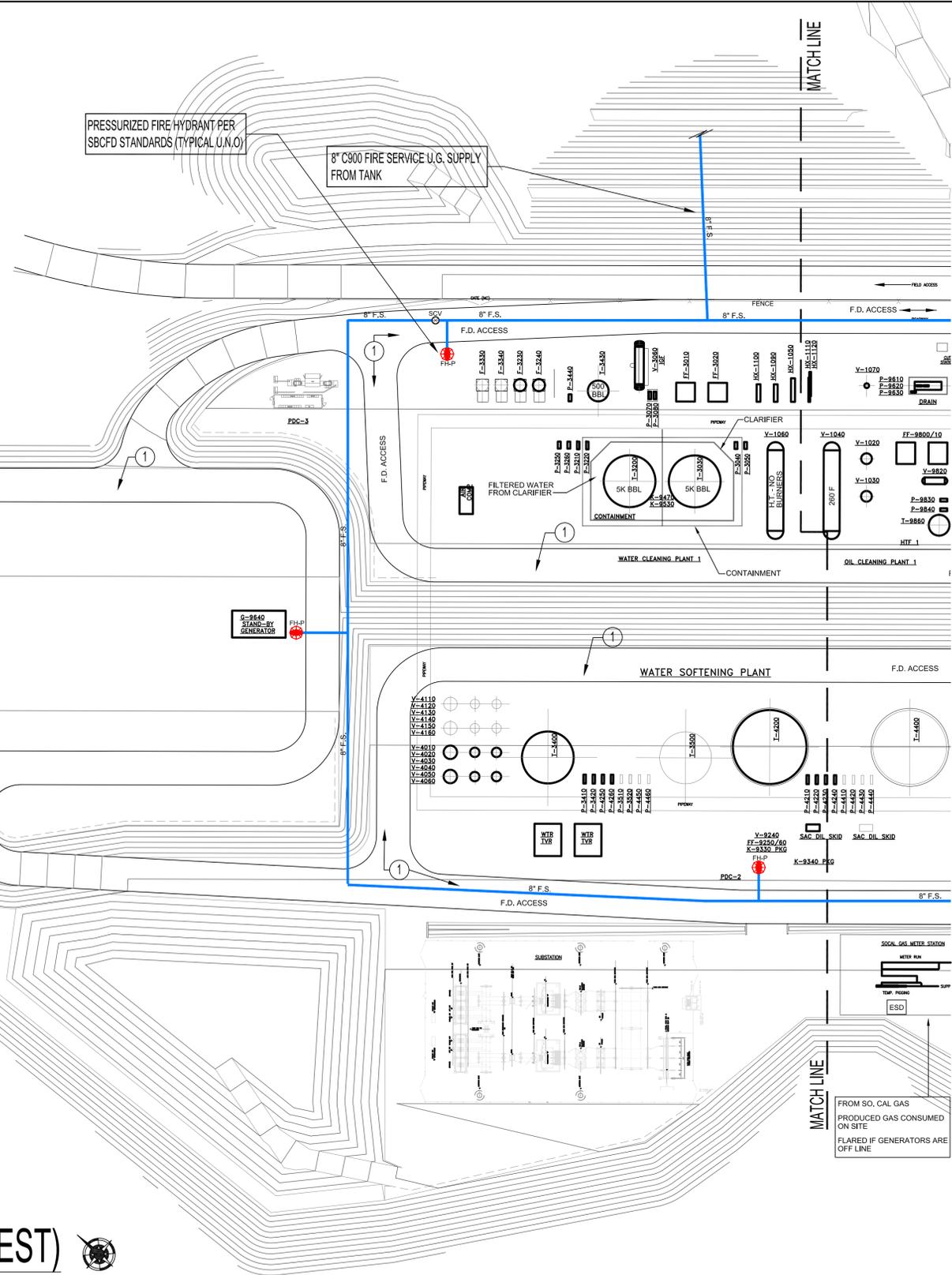
IDENTIFICATION	Description Long	PFD Dwg No.	Process Stream	Capacity	Size
V-1130	Free-Water Knockout Horiz Vessel Train 1	SK-13186-52	Production	18,000 BPD	12'-0" DIA x 60'-0" S/S
V-1130	Free-Water Knockout Horiz Vessel Train 1	SK-13186-56	Production	18,000 BPD	12'-0" DIA x 60'-0" S/S
V-1140	Free-Water Knockout Horiz Vessel Train 2	SK-13186-66	Production	18,000 BPD	12'-0" DIA x 60'-0" S/S
V-1140	Free-Water Knockout Horiz Vessel Train 2	SK-13186-68	Production	18,000 BPD	12'-0" DIA x 60'-0" S/S
V-1150	Electrostatic Coalescer Horiz Vessel Train 1	SK-13186-53	Emulsion	6,000 BPD	12'-0" DIA x 60'-0" S/S
V-1150	Electrostatic Coalescer Horiz Vessel Train 1	SK-13186-67	Emulsion	6,000 BPD	12'-0" DIA x 60'-0" S/S
V-1160	Electrostatic Coalescer Horiz Vessel Train 2	SK-13186-67	Emulsion	6,000 BPD	12'-0" DIA x 60'-0" S/S
V-1160	Electrostatic Coalescer Horiz Vessel Train 2	SK-13186-69	Emulsion	6,000 BPD	12'-0" DIA x 60'-0" S/S
T-2040	LCO Storage Tank	SK-13186-54	Light Crude	6,500 BBL	44'-0" DIA x 24'-0" H
T-2050	LCO Storage Tank	SK-13186-54	Light Crude	6,500 BBL	44'-0" DIA x 24'-0" H
T-2060	LCO Storage Tank	SK-13186-54	Light Crude	6,500 BBL	44'-0" DIA x 24'-0" H
T-2170	Stock Oil Storage/Reject Tank	SK-13186-55	Stock Oil	10,000 BBL	56'-0" DIA x 24'-0" H
T-2180	Stock Oil Storage/Reject Tank	SK-13186-55	Stock Oil	10,000 BBL	56'-0" DIA x 24'-0" H
T-2190	Stock Oil Storage/Reject Tank	SK-13186-55	Stock Oil	10,000 BBL	56'-0" DIA x 24'-0" H
T-6320	PGSG Waste Tank	SK-13186-65	Waste	227 BBL	16'-0" DIA x 8'
T-7030	Sludge Separation Tank	SK-13186-65	Only Solids	1,500 gpm	24'-0" DIA x 36'-0" (6'-0" Cone)
T-7070	Slop Oil Surge Tank	SK-13186-65	Slop Oil	1,000 BBL	21'-0" DIA x 16'-0"
T-7140	Sludge Separation Tank	SK-13186-65	Only Solids	1,500 gpm	24'-0" DIA x 36'-0" (6'-0" Cone)
T-7180	Slop Oil Surge Tank	SK-13186-65	Slop Oil	1,000 BBL	21'-0" DIA x 16'-0"
V-7240	Electrostatic Coalescer Horiz Vessel Train 2	SK-13186-72	Emulsion	6,000 BPD	12'-0" DIA x 60'-0" (GAL)

ENLARGED CENTRAL PROCESS AREA (WEST)

1" = 50'



North



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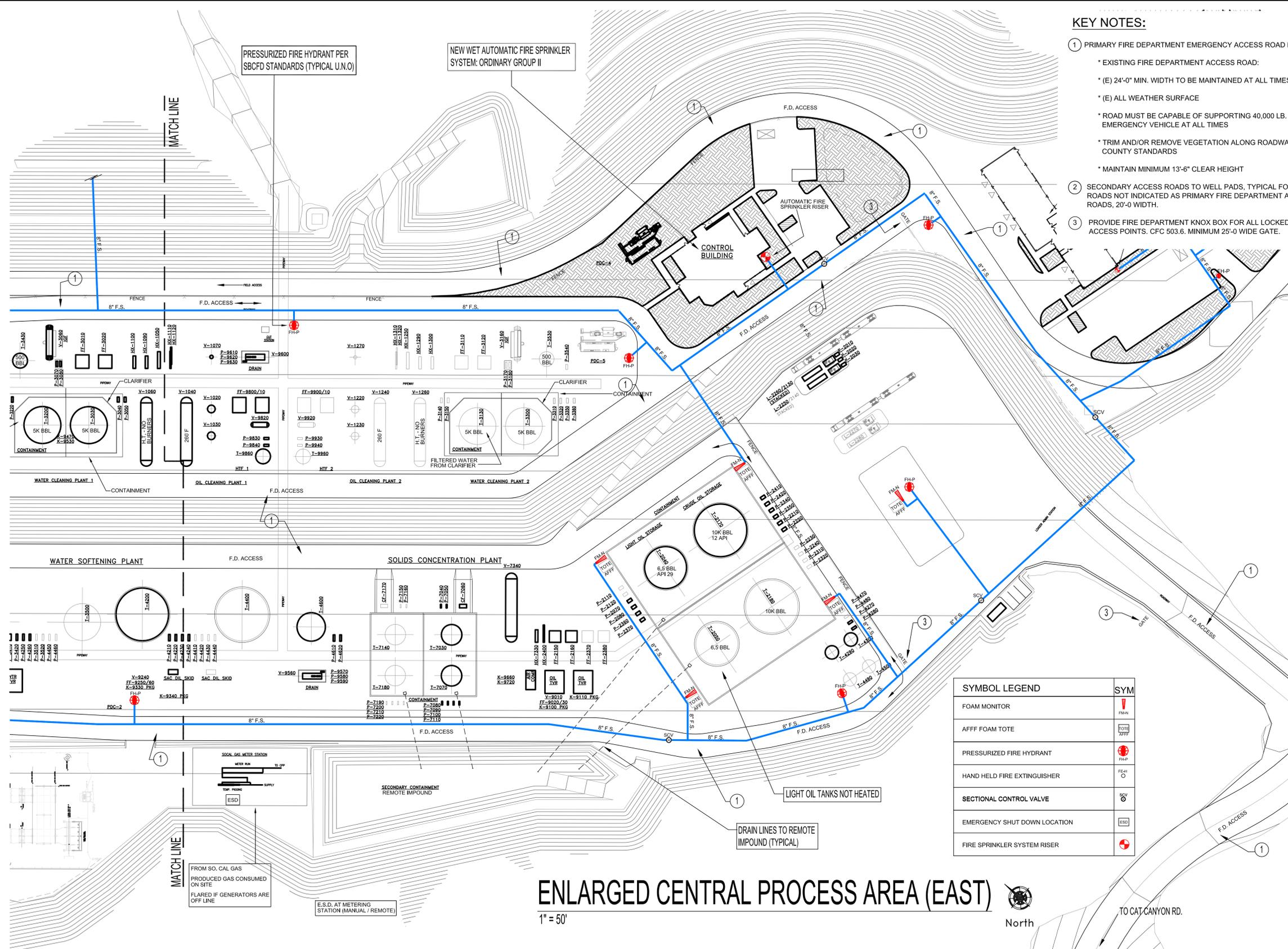
REV. NO.	DATE	REVISION
03/05/16		UPDATES MFPP: REVISED BACKGROUNDS
09/15/14		UPDATE MFPP
08/28/14		UPDATE MFPP
08/11/14		UPDATE MFPP



DRAWN BY:	DATE:
P.T.	04/08/14
DESIGN:	DATE:
J.C.	
CHECK:	DATE:
ENGINEER:	DATE:
APPROVED:	DATE:
APPROVED:	DATE:

MASTER FIRE PROTECTION PLAN
AERA
 EAST CAT CANYON FIELD
 SANTA BARBARA COUNTY - CALIFORNIA
 CENTRAL PROCESS AREA (WEST)

SCALE:	DWG NO.	SHT:	REV. NO.
1"=50'	MFPP-2	2 of 5	



KEY NOTES:

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8. PROVIDE SIGNAGE IN ACCORDANCE WITH THE PROVISIONS OF CHAPTERS 50 AND 57 OF THE 2013 CFC, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

- PROVIDE NO SMOKING SIGNS PER CFC 5003.7.1
- PROVIDE VISIBLE HAZARD IDENTIFICATION SIGNS PER CFC 5003.5 FOR SPECIFIC MATERIALS IN THE ABOVE GROUND TANKS AND LOCATIONS WHERE HAZARDOUS MATERIALS ARE STORED, DISPENSED, OR HANDLED
- PROVIDE LABELING AND SIGNS FOR FLAMMABLE & COMBUSTIBLE LIQUID STORAGE TANKS PER CFC 5704.2.3, INCLUDING SIGNAGE PROHIBITING SMOKING AND OPEN FLAMES. PROVIDE NFPA 704 PLACARDS IDENTIFYING THE MATERIALS THEREIN. PROVIDE LABELING AS REQUIRED FOR HAZARDOUS AND TOXIC MATERIAL STORAGE.

9. LOCAL FIRE EXTINGUISHERS ARE TO BE PROVIDED AS REQUIRED BY FIRE CODE & SANTA BARBARA COUNTY FIRE DEPARTMENT.

10. INSTALL FOUR (4) NEW FIXED MONITORS WITH EDUCTORS TO BE INSTALLED TO APPLY EITHER WATER OR 3% AFFF FOAM SOLUTIONS TO THE TANKS AND CONTAINMENT AREA, WITH A SINGLE 265 GALLON AFFF CONCENTRATE TOTE OR (5) 55 GALLON AFFF DRUMS LOCATED ADJACENT TO EACH MONITOR, WITH WEATHERPROOF COVERINGS. THIS WOULD PROVIDE A MINIMUM FIXED ON-SITE 1,000 GALLON BULK SUPPLY OF AFFF FOAM CONCENTRATE MAINTAINED AT THE MONITOR LOCATIONS INDICATED ON THE ATTACHED DRAWINGS. TOTE TO BE CONSTRUCTED OF HDPE, SUPPORTED BY PRESSURIZED GALVANIZED STEEL BASE AND PROTECTED BY A RIGID WELDED GALVANIZED TUBULAR STEEL GRID. PROVIDE CONNECTING HOSE TO EDUCTOR NOZZLE AND PROTECTIVE WEATHER RESISTANT COVERS.

11. PROVIDE (1) NEW FIXED MONITOR WITH EDUCTOR TO BE INSTALLED TO APPLY EITHER WATER OR 3% AFFF FOAM SOLUTIONS AT LOAD RACKS AS SHOWN ON MFPP-3, WITH A SINGLE 265 GALLON AFFF CONCENTRATE TOTE OR (5) 55 GALLON AFFF DRUMS LOCATED ADJACENT TO EACH MONITOR, WITH WEATHERPROOF COVERINGS. TOTE TO BE CONSTRUCTED OF HDPE, SUPPORTED BY PRESSURIZED GALVANIZED STEEL BASE AND PROTECTED BY A RIGID WELDED GALVANIZED TUBULAR STEEL GRID. PROVIDE CONNECTING HOSE TO EDUCTOR NOZZLE AND PROTECTIVE WEATHER RESISTANT COVERS.

12. ALL OPERATIONS/STORAGE TANKS TO HAVE PROPERLY DESIGNED VAPOR RECOVERY SYSTEMS, OPERATING AND PROPERLY MAINTAINED AT ALL TIMES.

13. TRUCK LOADING RACK(S) TO COMPLY WITH THE PROVISIONS OF THE CALIFORNIA FIRE CODE, SECTION 5706.5. PROVIDE ELECTRICAL GROUNDING, SPILL CONTAINMENT AND FIRE EXTINGUISHERS AS REQUIRED.

14. FIRE SPRINKLER SYSTEM MONITORING AND SUPERVISION TO BE SUPERVISED THROUGH THE MAIN FAC FOR COMMUNICATION AND ALARM. CENTRAL STATION MONITORING TO INDICATE ALL ALARM CONDITIONS AND DISPATCH FIRE DEPARTMENT AT ALARM CONDITIONS.

15. WE RECOMMEND A MINIMUM OF 76,500 GALLONS OF DEDICATED FIRE PROTECTION WATER STORAGE FOR THIS PROPOSED PROJECT. WE RECOMMEND THE FOLLOWING BE IMPLEMENTED FOR WATER SUPPLY APPROVAL:

- THE TANK IS TO BE EQUIPPED WITH HIGH AND LOW LEVEL AUTOMATIC FILL CONTROLS, SIGHT GAGES AND VENTING, AND MUST BE ARRANGED TO MAINTAIN THE REQUIRED MINIMUM 76,500 GALLONS OF FIRE PROTECTION WATER STORAGE SUPPLY AT ALL TIMES.
- A LOW LEVEL ALARM IS TO BE INSTALLED; THE LOW LEVEL ALARM SIGNAL SHOULD BE CONVEYED TO A CENTRAL STATION MONITORING SERVICE OR TO A CONSTANTLY ATTENDED LOCATION ACCEPTABLE TO THE COUNTY.

16. REFERENCE C&A REPORT DATED 09/15/14.

SYMBOL LEGEND	SYM
FOAM MONITOR	FAM
AFFF FOAM TOTE	FOFF
PRESSURIZED FIRE HYDRANT	FHP
HAND HELD FIRE EXTINGUISHER	FEH
SECTIONAL CONTROL VALVE	SCV
EMERGENCY SHUT DOWN LOCATION	ESD
FIRE SPRINKLER SYSTEM RISER	FSP

ENLARGED CENTRAL PROCESS AREA (EAST)

1" = 50'



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 www.collingsandassociates.com

REV. NO.	DATE	REVISION	REV. BY	CHK. BY	APP'D
1	03/05/16	UPDATES MFPP: REVISED BACKGROUNDS			
2	09/15/14	UPDATE MFPP			
3	06/28/14	UPDATE MFPP			
4	08/11/14	UPDATE MFPP			



DRAWN BY:	DATE:
P.T.	04/08/14
DESIGN:	DATE:
J.C.	
CHECK:	DATE:
ENGINEER:	DATE:
APPROVED:	DATE:
APPROVED:	DATE:

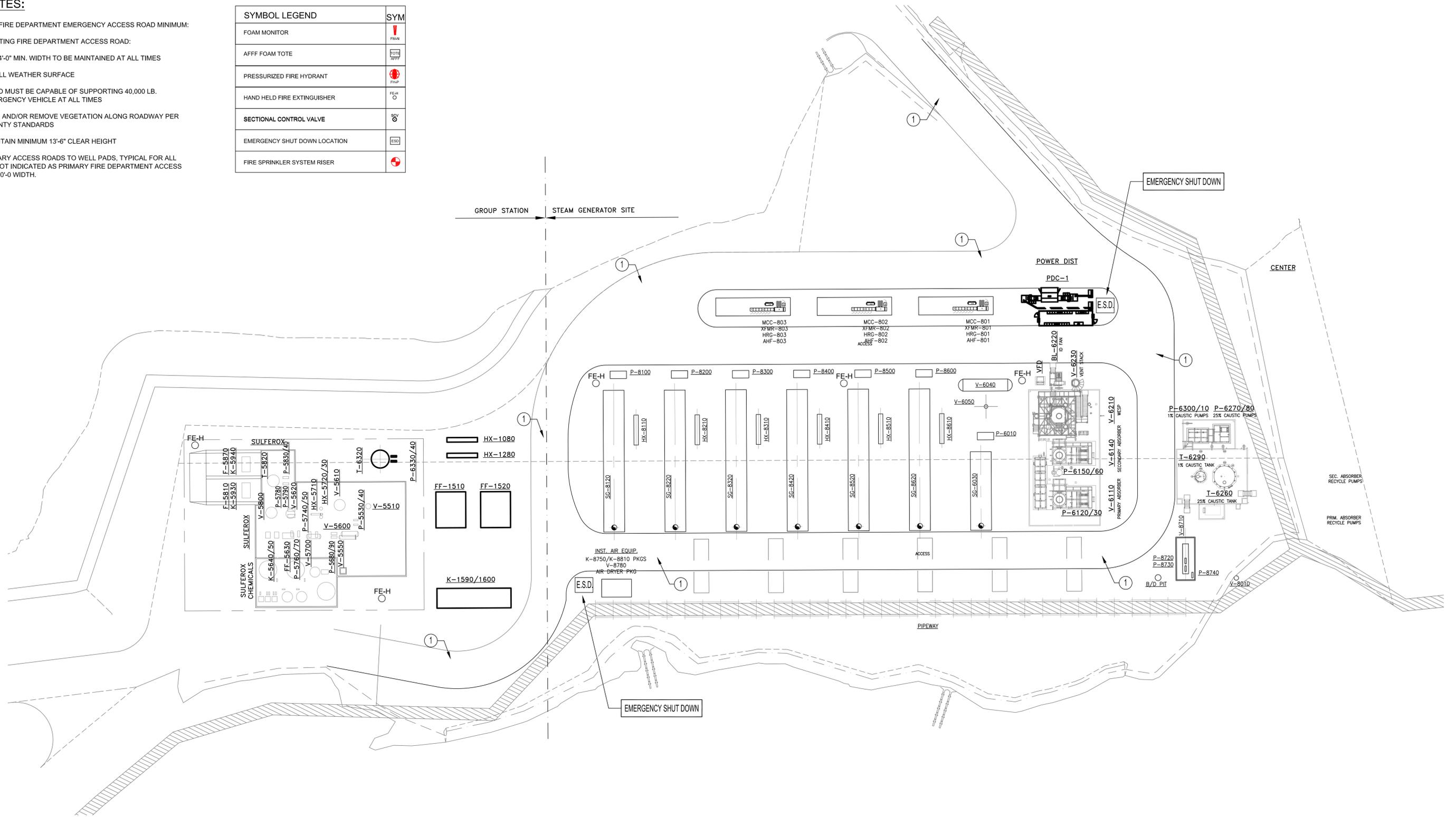
MASTER FIRE PROTECTION PLAN
AERA
 EAST CAT CANYON FIELD
 SANTA BARBARA COUNTY - CALIFORNIA
 CENTRAL PROCESS AREA (EAST)

SCALE: 1"=50' DWG NO: MFPP-3 SHT: 3 of 5 REV. NO.

KEY NOTES:

- ① PRIMARY FIRE DEPARTMENT EMERGENCY ACCESS ROAD MINIMUM:
 - * EXISTING FIRE DEPARTMENT ACCESS ROAD:
 - * (E) 24'-0" MIN. WIDTH TO BE MAINTAINED AT ALL TIMES
 - * (E) ALL WEATHER SURFACE
 - * ROAD MUST BE CAPABLE OF SUPPORTING 40,000 LB. EMERGENCY VEHICLE AT ALL TIMES
 - * TRIM AND/OR REMOVE VEGETATION ALONG ROADWAY PER COUNTY STANDARDS
 - * MAINTAIN MINIMUM 13'-6" CLEAR HEIGHT
- ② SECONDARY ACCESS ROADS TO WELL PADS, TYPICAL FOR ALL ROADS NOT INDICATED AS PRIMARY FIRE DEPARTMENT ACCESS ROADS, 20'-0 WIDTH.

SYMBOL LEGEND	SYM
FOAM MONITOR	FM-M
AFFF FOAM TOTE	FFM
PRESSURIZED FIRE HYDRANT	PHF
HAND HELD FIRE EXTINGUISHER	FEH
SECTIONAL CONTROL VALVE	SCV
EMERGENCY SHUT DOWN LOCATION	E.S.D.
FIRE SPRINKLER SYSTEM RISER	FSR



ENLARGED STEAM GENERATOR SITE
1" = 30'



REV. NO.	DATE	REVISION	REV. BY	CHK. BY	APP'D.
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08/28/14		UPDATE MFPP			
08/11/14		UPDATE MFPP			



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APPROVED:		DATE:	

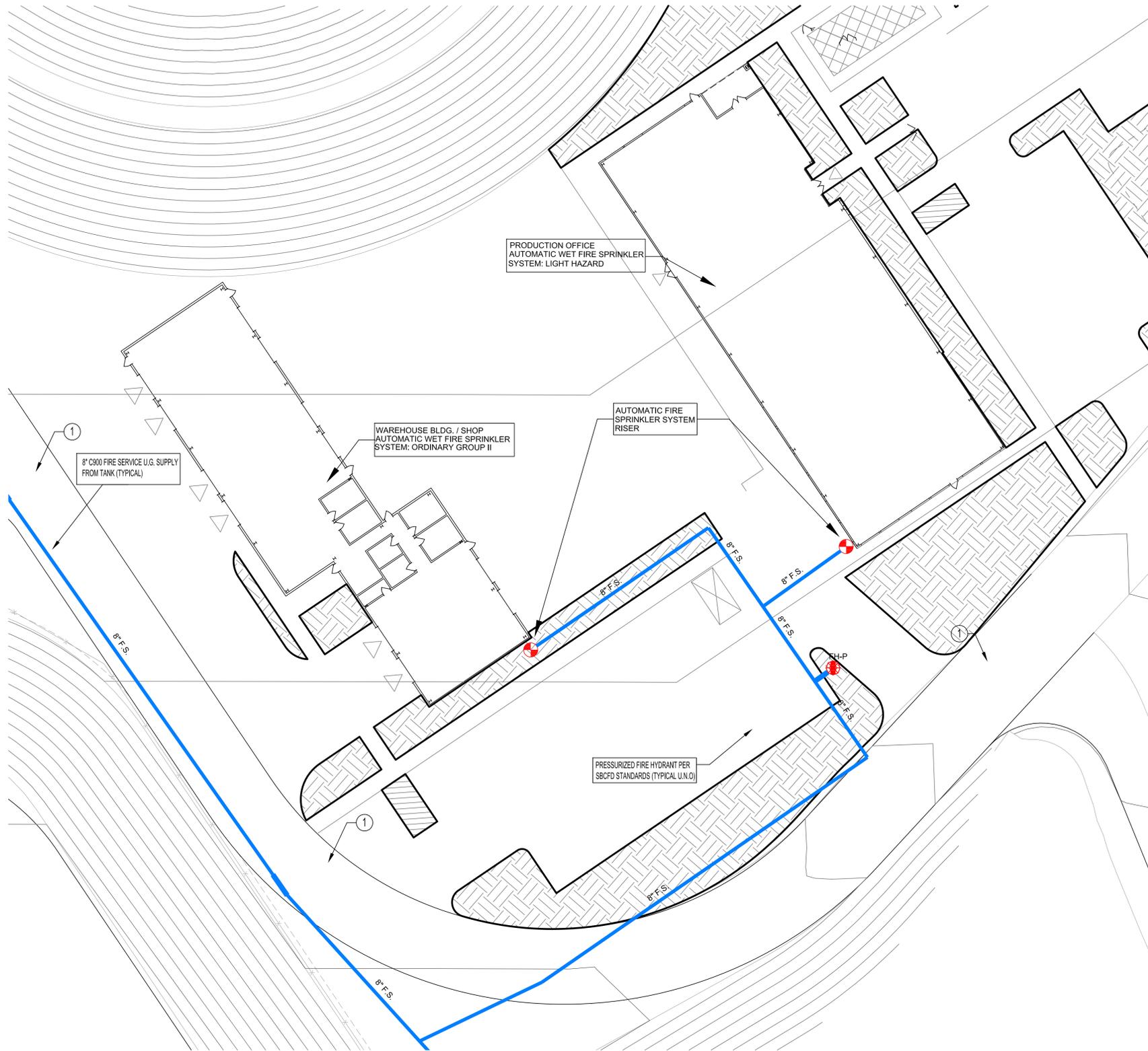
MASTER FIRE PROTECTION PLAN
AERA
EAST CAT CANYON FIELD
SANTA BARBARA COUNTY - CALIFORNIA
STEAM GENERATOR SITE

SCALE: 1"=20' DWG NO: MFPP-4 SHT: 4 of 5 REV. NO.

KEY NOTES:

- 1 PRIMARY FIRE DEPARTMENT EMERGENCY ACCESS ROAD MINIMUM:
 - * EXISTING FIRE DEPARTMENT ACCESS ROAD:
 - * (E) 24'-0" MIN. WIDTH TO BE MAINTAINED AT ALL TIMES
 - * (E) ALL WEATHER SURFACE
 - * ROAD MUST BE CAPABLE OF SUPPORTING 40,000 LB. EMERGENCY VEHICLE AT ALL TIMES
 - * TRIM AND/OR REMOVE VEGETATION ALONG ROADWAY PER COUNTY STANDARDS
 - * MAINTAIN MINIMUM 13'-6" CLEAR HEIGHT
- 2 SECONDARY ACCESS ROADS TO WELL PADS, TYPICAL FOR ALL ROADS NOT INDICATED AS PRIMARY FIRE DEPARTMENT ACCESS ROADS. 20'-0 WIDTH.
- 3 PROVIDE FIRE DEPARTMENT KNOX BOX FOR ALL LOCKED GATE ACCESS POINTS. CFC 503.6. MINIMUM 25'-0 WIDE GATE.

SYMBOL LEGEND	SYM
FOAM MONITOR	
AFFF FOAM TOTE	
PRESSURIZED FIRE HYDRANT	
HAND HELD FIRE EXTINGUISHER	
SECTIONAL CONTROL VALVE	
EMERGENCY SHUT DOWN LOCATION	
FIRE SPRINKLER SYSTEM RISER	



ENLARGED OFFICE / WAREHOUSE SITE

1" = 20'



North

MASTER SITE FIRE PROTECTION PLAN:

1. THIS MASTER SITE FIRE PROTECTION PLAN IS INTENDED TO MITIGATE FIRE DANGER AND PROVIDE RESOURCES FOR THE CONTROL OF A FIRE INCIDENT AT THE EXISTING AERA EAST CAT CANYON PRODUCTION FACILITY. THE SITE FIRE PROTECTION RESOURCES, EMERGENCY EQUIPMENT SYSTEMS AND RELATED COMPONENTS MUST MEET THE REQUIREMENTS OF THE SANTA BARBARA COUNTY FIRE DEPARTMENT (SBCFD).
- GENERAL SITE FIRE SPRINKLER, FIRE ALARM, AND TANK FIRE PROTECTION SYSTEMS ARE INDICATED ON THESE DOCUMENT DRAWINGS. ALSO SEE THE REFERENCED C&A REPORT DATED 09/15/14 FOR ADDITIONAL TECHNICAL REFERENCES.
2. ACCESS ROADS TO MEET THE MINIMUM WIDTH, HEIGHT CLEARANCE, VEGETATION REMOVAL AND REQUIREMENTS OF THE SANTA BARBARA COUNTY FIRE DEPARTMENT DEVELOPMENT STANDARD 1 AS NOTED ON THESE PLANS.
3. SITE FIRE FLOW TO BE PROVIDED BY NEW DEDICATED FIRE WATER STORAGE TANK THAT WILL HOLD COMBINED FIRE PROTECTION AND PROCESS WATER STORAGE.
4. PRESSURIZED AND DRAFT HYDRANTS INSTALLED WHERE SHOWN ON THIS SITE PLAN. HYDRANT LOCATIONS ARE TO BE A MINIMUM OF 50'-0", AND A MAXIMUM OF 150'-0", FROM THE TANK CONTAINMENT AREAS. MAXIMUM DISTANCE BETWEEN HYDRANTS IS 500 FEET IN THE CENTRAL PROCESS FACILITY AREA. THE HYDRANTS ARE TO BE INSTALLED IN COMPLIANCE WITH SANTA BARBARA COUNTY FIRE DEPARTMENT STANDARDS.
5. ALL UNDERGROUND FIRE SERVICE PIPING, INCLUDING THRUST BLOCKS, VALVING AND ASSOCIATED APPURTENANCES ARE TO BE INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF THE CURRENT EDITION OF NFPA 24.
6. AERA PERSONNEL ARE TO IMMEDIATELY NOTIFY THE SANTA BARBARA COUNTY FIRE DEPARTMENT IN THE EVENT OF A FIRE INCIDENT OR EMERGENCY.
7. BRUSH AND VEGETATION CLEARANCE MUST BE MAINTAINED IN ACCORDANCE SBCFD STANDARD 6. CLEARANCES MUST BE AS FOLLOWS:
 - GROUND AREAS MUST BE KEPT FREE OF WEEDS, TRASH AND OTHER COMBUSTIBLE MATERIALS
 - REMOVE VEGETATION WITHIN 10 FEET FROM POWER POLES
 - REMOVE FLAMMABLE VEGETATION WITHIN 10 FEET FROM ROADS, OR REDUCE TO A MAXIMUM OF 4' STUBBLE HEIGHT.
 - REMOVE VEGETATION WITHIN 30 FEET FROM STRUCTURES, TANKS AND CONTAINMENT AREAS. EXCEPTION: VEGETATION LESS THAN 18" IN HEIGHT ABOVE THE GROUND NEED NOT BE REMOVED WHERE NECESSARY TO STABILIZE THE SOIL AND PREVENT EROSION.)
- EXCEPTIONS:
 - (a) IF PROTECTED SPECIES VEGETATION OCCURS WITHIN THE CLEARANCE AREAS NOTED ABOVE COORDINATION BETWEEN THE COUNTY APPROVED BIOLOGIST, AERA AND THE SBCFD IS TO TAKE PLACE TO ENSURE THAT DISTURBANCE TO PROTECTED SPECIES IS LIMITED OR AVOIDED PER ENVIRONMENTAL REGULATIONS.
 - (b) IF SPECIFIC SITE CONDITIONS PREVENT THE IMPLEMENTATION OF THE ABOVE CLEARANCES, LOCATION SPECIFIC COORDINATION BETWEEN AERA AND THE SBCFD IS TO TAKE PLACE TO ADDRESS THESE AREAS.
8. PROVIDE SIGNAGE IN ACCORDANCE WITH THE PROVISIONS OF CHAPTERS 50 AND 57 OF THE 2013 CFC, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
 - PROVIDE NO SMOKING SIGNS PER CFC 5003.7.1
 - PROVIDE VISIBLE HAZARD IDENTIFICATION SIGNS PER CFC 5003.5 FOR SPECIFIC MATERIALS IN THE ABOVE GROUND TANKS AND LOCATIONS WHERE HAZARDOUS MATERIALS ARE STORED, DISPENSED, OR HANDLED
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16. REFERENCE C&A REPORT DATED 09/15/14.



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MASTER FIRE PROTECTION PLAN
AERA
 EAST CAT CANYON FIELD
 SANTA BARBARA COUNTY - CALIFORNIA
 OFFICE / WELLNESS CENTER SITE

SCALE:	1"=90'	DWG NO.:	MFPP-5	SHT:	5 of 5	REV. NO.:	
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