

MW-2
92.38

Waste Oil Tank Pit

Shop

Sea Land
Auto Loader

Car Wash

DIESEL
TANK
PIT

1-15-93

Temporary Benchmark

Office

ANR Freight
Loading Docks

Scale 1"=40'

MW-3
92.78

NW Transport
Loading Dock

LEGEND

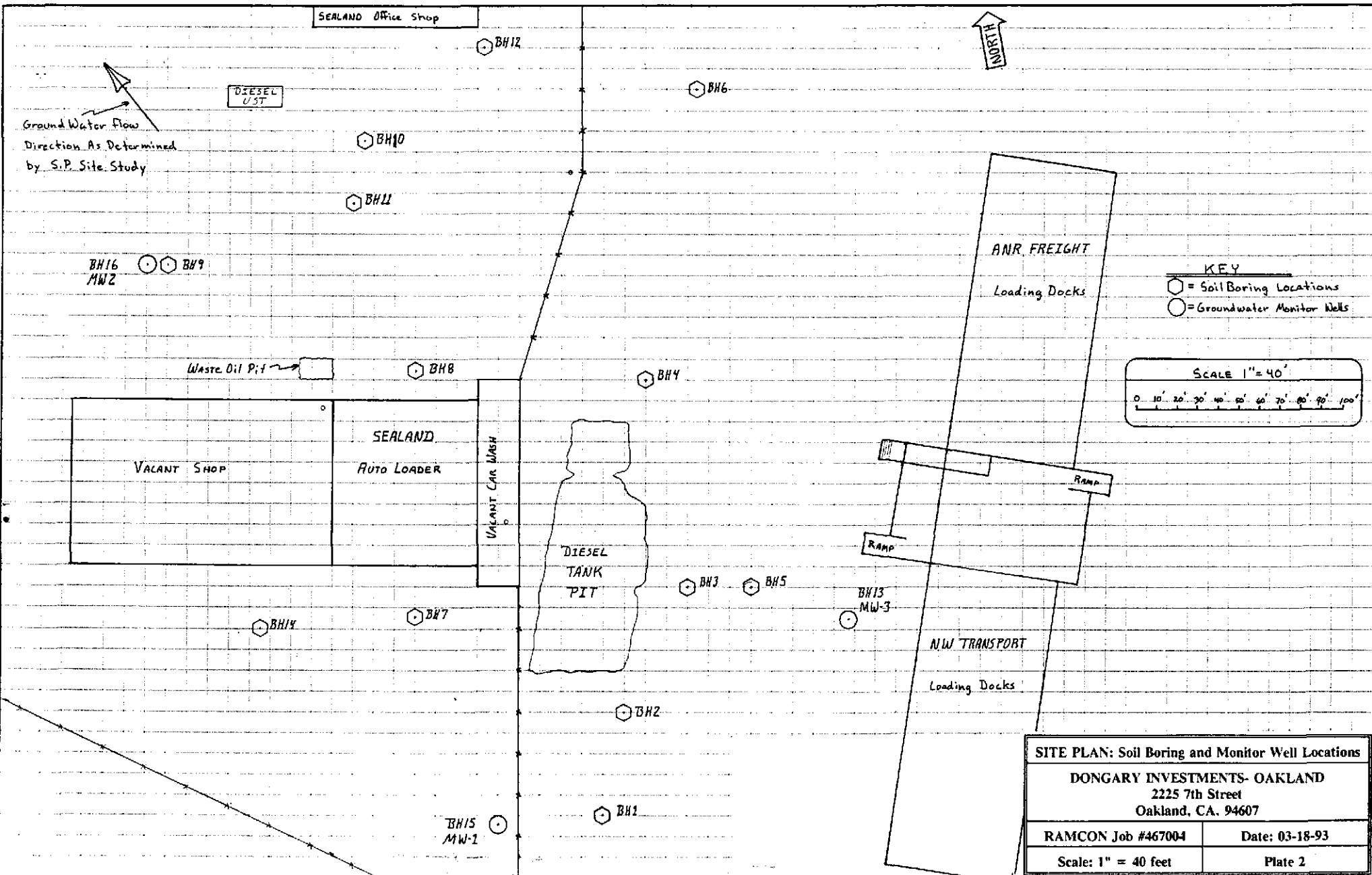
MW-1 ● - Monitoring Well

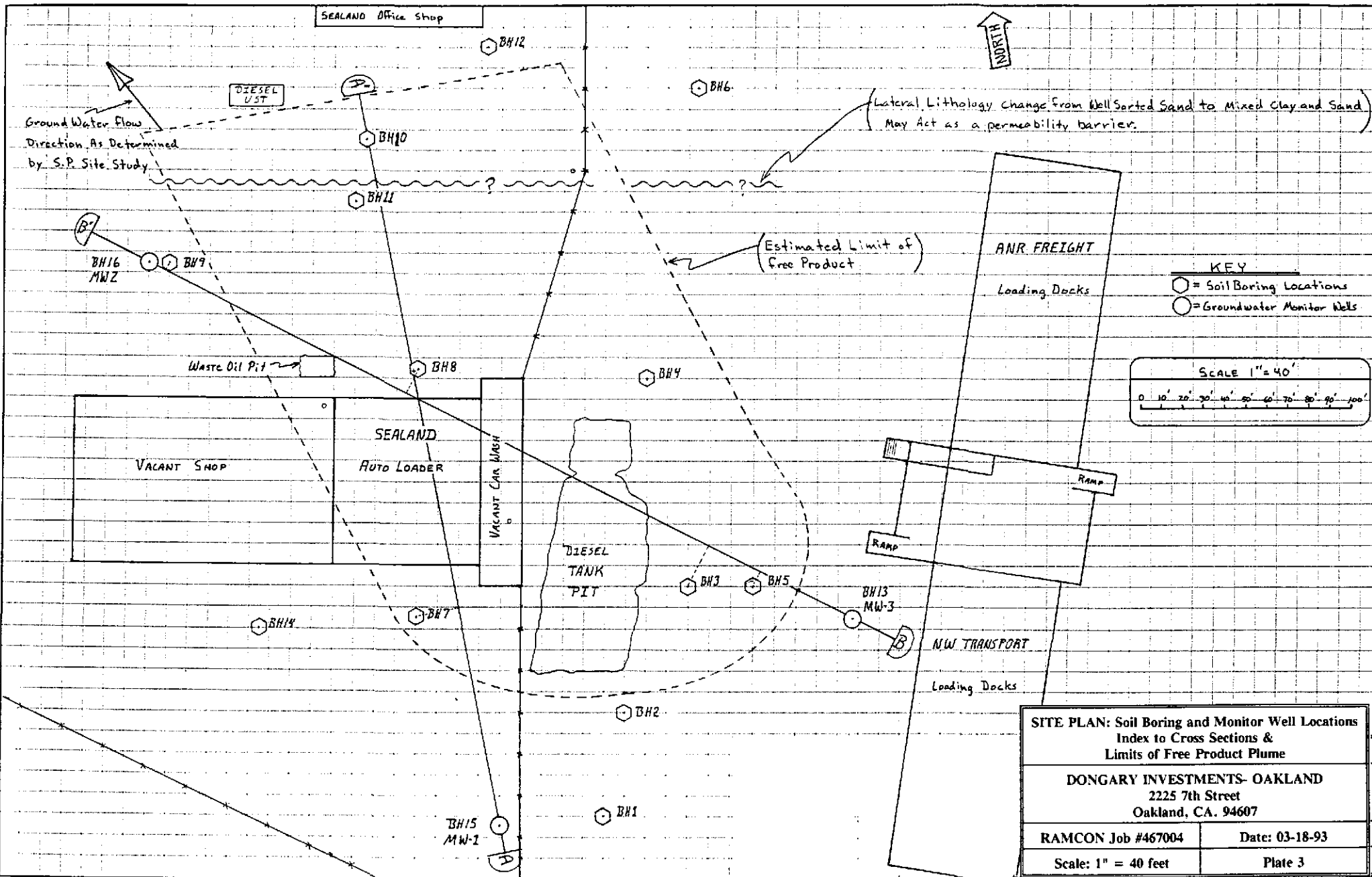
→ 1-15-93 - Groundwater Flow Direction
and date

MW-1
92.51

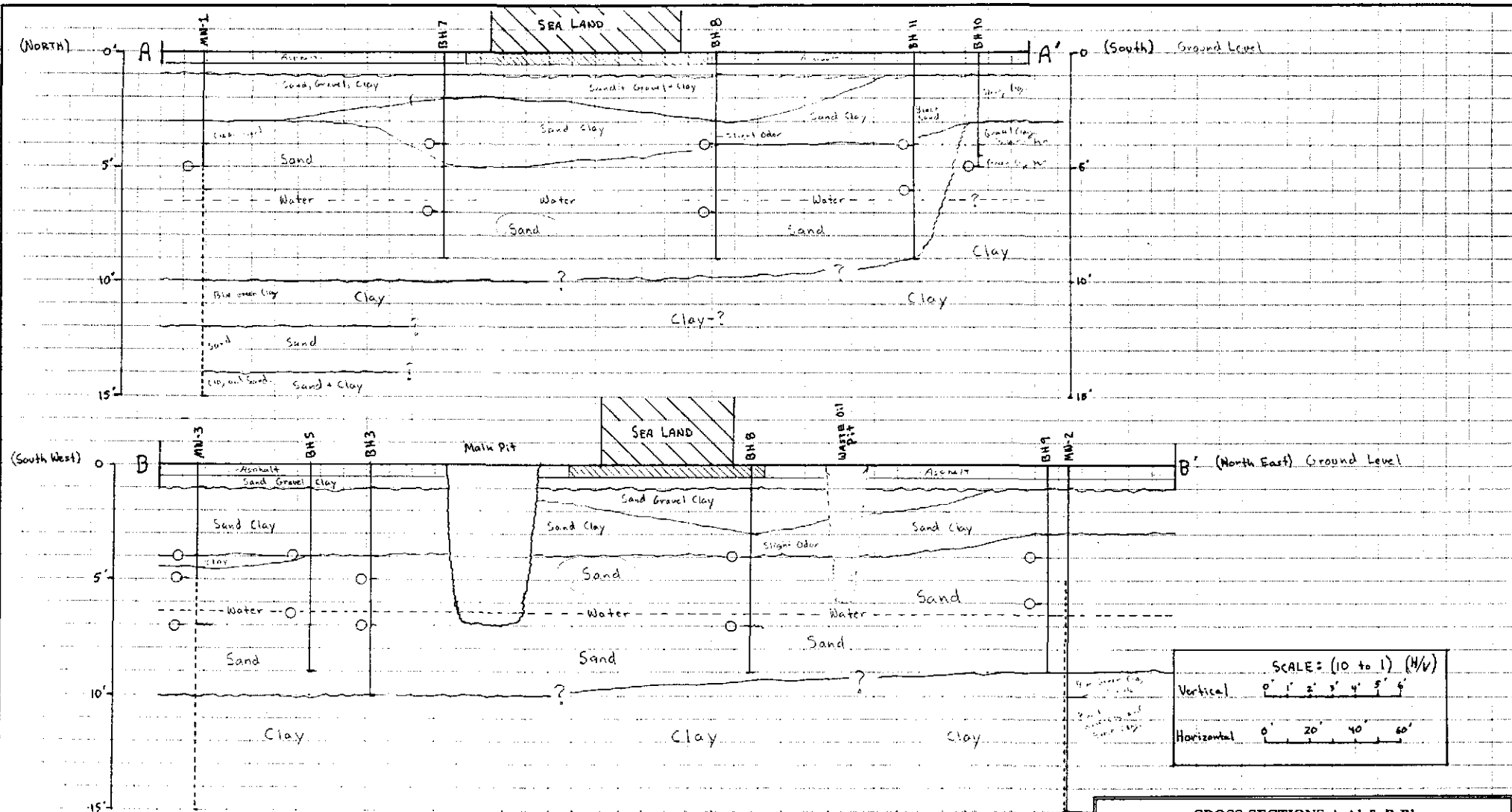
GROUNDWATER FLOW DIRECTION
(As determined from S.P. 5-14)

Taber <small>Taber Consultants Engineers and Geologists 536 Garrison Street West Sacramento, CA 95691 (916) 371-1690 Fax (916) 371-7265 Since 1954</small>		
Ramcon Inc.		
ANR Trucking Facility Oakland, California		
SITE PLAN		
2P3/392/88	Jan. 1993	Figure - 1
















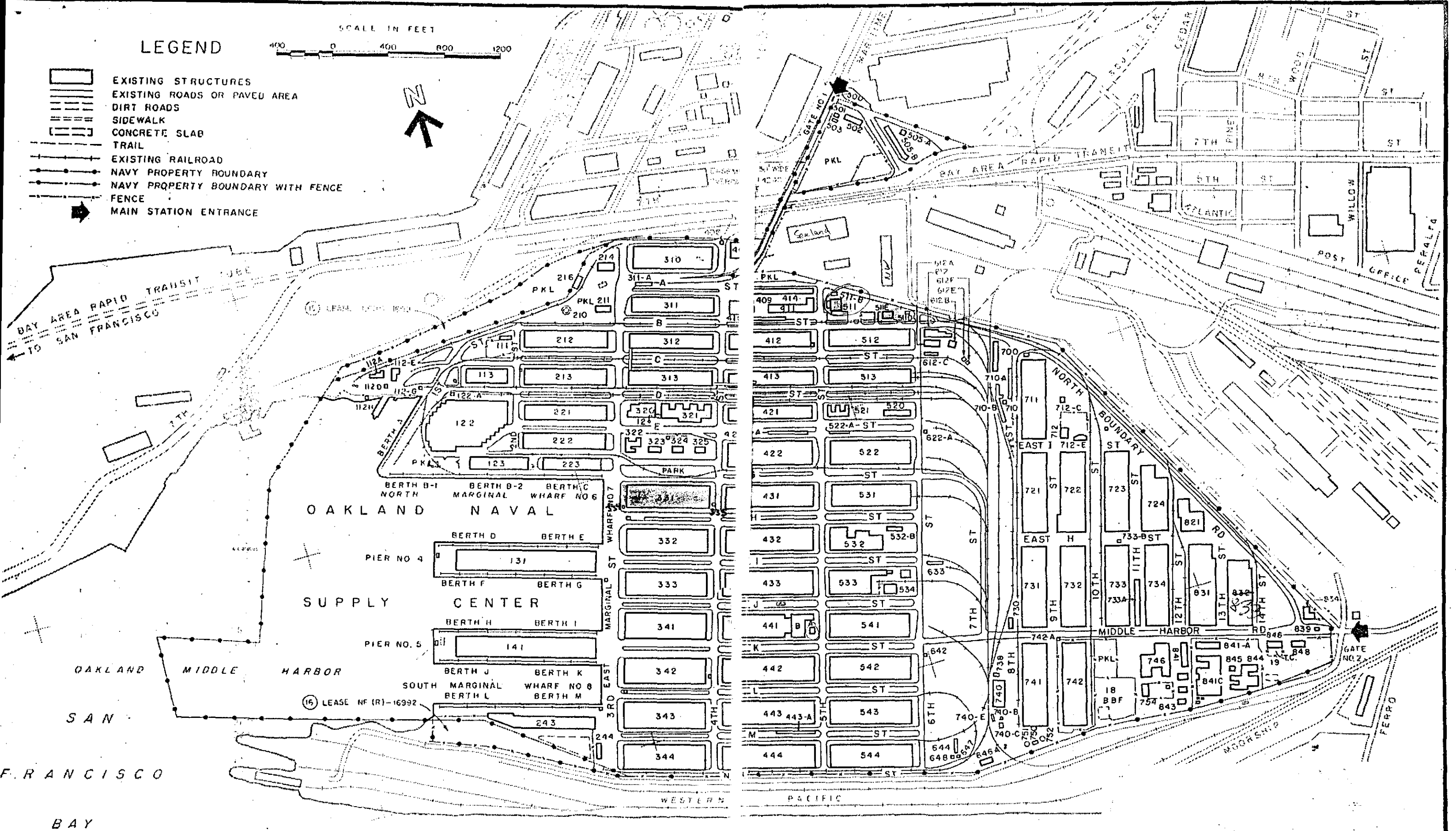
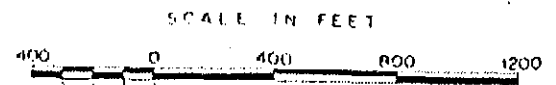
SITE PLAN: Soil Boring and Monitor Well Locations Index to Cross Sections & Limits of Free Product Plume	
DONGARY INVESTMENTS- OAKLAND 2225 7th Street Oakland, CA. 94607	
RAMCON Job #467004	Date: 03-18-93
Scale: 1" = 40 feet	Plate 3



CROSS SECTIONS A-A' & B-B'	
DONGARY INVESTMENTS- OAKLAND 2225 7th Street Oakland, CA. 94607	
RAMCON Job #476004	Date: 03-18-93
Horizontal Scale: 1" = 40 feet Vertical Scale: 1" = 4 feet	Plate 4

LEGEND

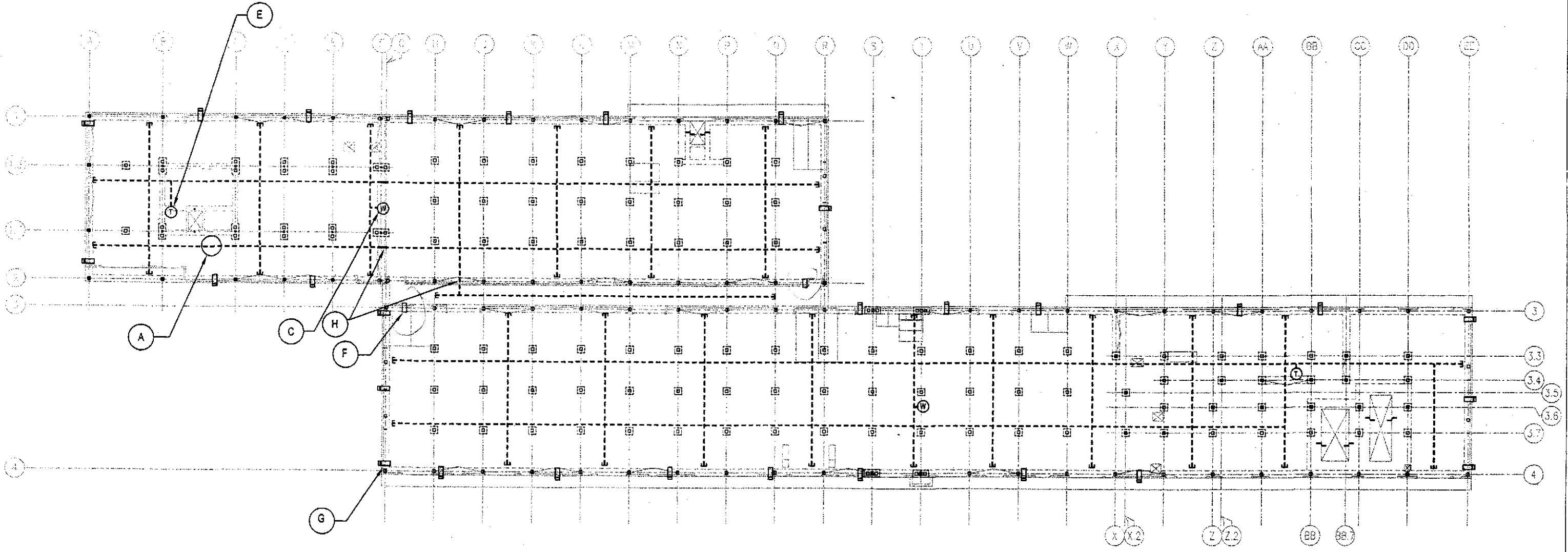
-  EXISTING STRUCTURES
-  EXISTING ROADS OR PAVED AREA
-  DIRT ROADS
-  SIDEWALK
-  CONCRETE SLAB
-  TRAIL
-  EXISTING RAILROAD
-  NAVY PROPERTY BOUNDARY
-  NAVY PROPERTY BOUNDARY WITH FENCE
-  FENCE
-  MAIN STATION ENTRANCE



OAKLAND CITY
 ALAMEDA CITY

OAKLAND BOUNDARY
 BOUNDARY

Installation and Location
Naval Supply Center Oakland



1 SUBFLOOR SOIL GAS VENT PIPING SCHEMATIC
SCALE: 1" = 20'-0"

LEGEND

- 4" DIAMETER SCHEDULE 40 SOLID PVC PIPE
- - - - 4" DIAMETER SCHEDULE 40 PERFORATED PVC PIPE
- ⌋ END CAP
- ▭ PERIMETER GRADE BEAM VENT
- ▭ INTERIOR GRADE BEAM VENT
- ⊙ W WIND ASSISTED RISER; INSTALL IN DESIGNATED WALL (SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION)
- ⊙ T UNDERSLAB SOIL GAS TEST PORT (SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION)
- ⊙ A SEE DETAIL A, SHEET MT2.01



AA#-SHT.DWG W.O.#
1-1 01-01-98 10:00AM

REFERENCES:

PLANS	AA	NO.	DATE	APP'D
FIELD BOOKS				

"PORT OF OAKLAND DATUM" IS 3'-20" BELOW MEAN SEA LEVEL

CAUTION: CHECK TRACING FOR LATEST REVISIONS

REVISIONS		REVIEWED
NO.	DATE	
		FACILITIES DEPARTMENT
		CONSTRUCTION DEPARTMENT
		PROJECT PLANNING DEPARTMENT

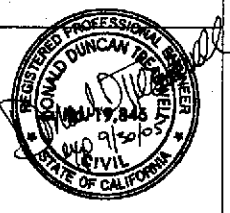
DESIGNED	GEL
CHECKED	DDT
REVIEWED	DDT
	PE 19,248
	REG. ENGINEER NO. PE 19,846
	REG. ENGINEER NO. PE 19,846
	REG. ENGINEER NO.

PORT OF OAKLAND
530 WATER ST. OAKLAND, CALIFORNIA

CHIEF ENGINEER	<i>Christina</i>	C 23297
APPROVED	<i>James</i>	C 33213
RECOMMENDED	<i>Chris</i>	C 43841
	<i>Ms. Korzunsky</i>	C 57584

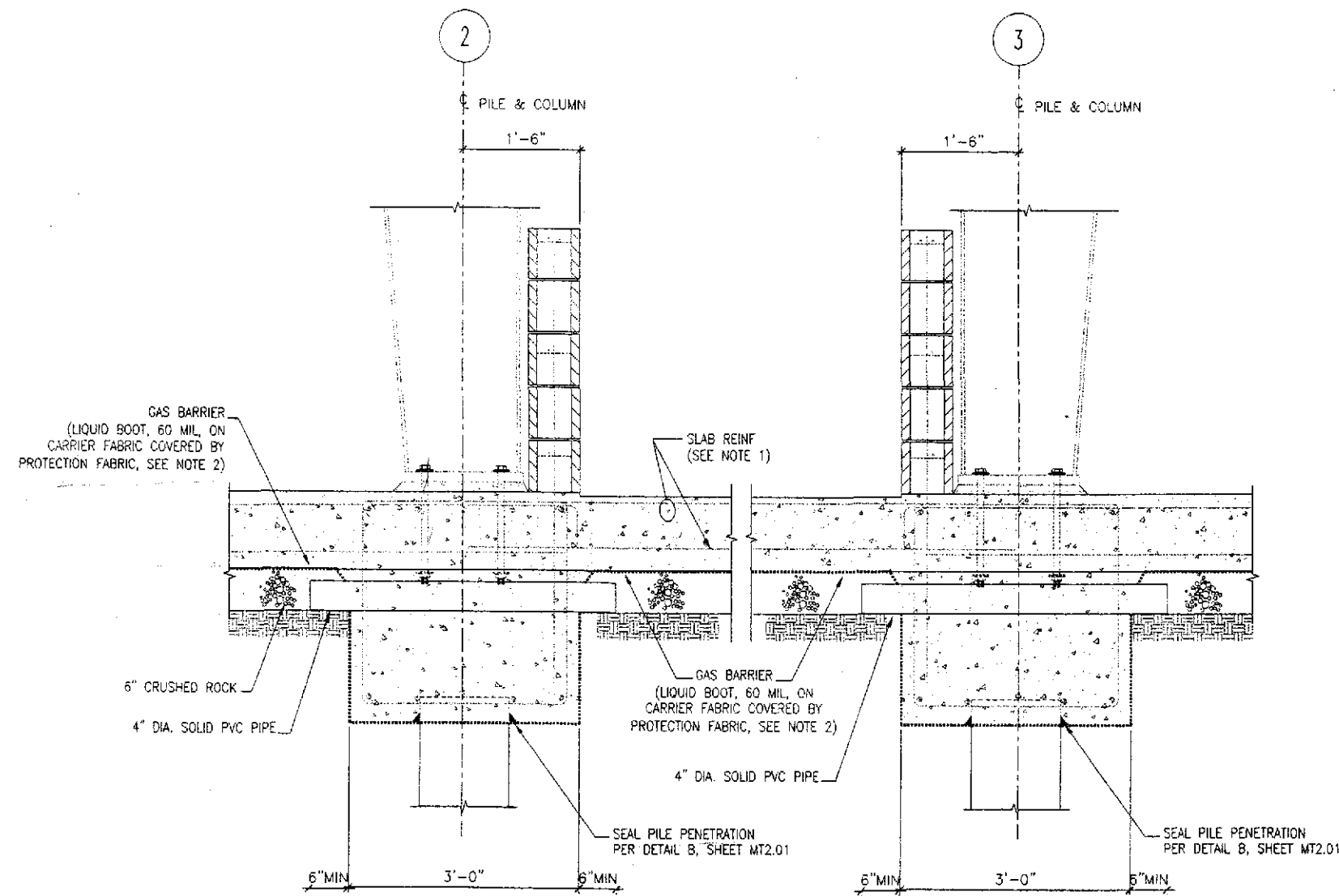
Treadwell & Rollo
Environmental and Geotechnical Consultants
555 Montgomery Street, Suite 1300
San Francisco, California
(415) 955-0040

Michael Willis Architects
471 Ninth Street
Oakland, CA 94607
tel: (510) 287-9710

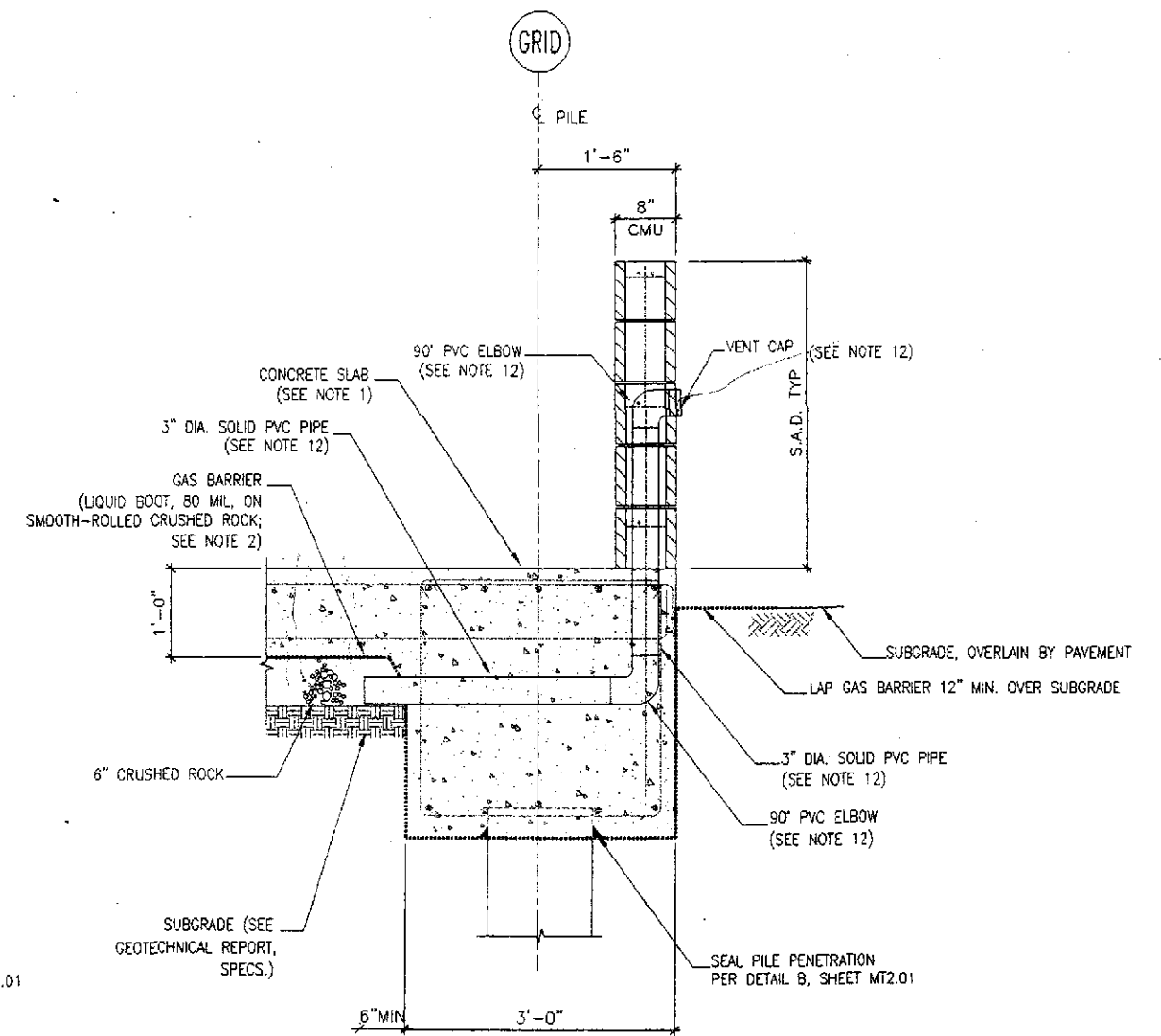


MARITIME & 7TH STREET SITE	DATE 02-04-03
PORT FIELD SUPPORT SERVICES COMPLEX	SCALE:
SOIL GAS MITIGATION SYSTEM - PLAN	SHEET: 1/1 OF 203 SHEETS
MT1.01	AA-3827

CAUTION: THIS PLAN MAY BE REDUCED 9" ORIGINAL SCALE



F INTERIOR VENT THROUGH INTERIOR GRADE BEAM
SCALE: 1" = 1'-0"



G EXTERIOR VENT THROUGH PERIMETER GRADE BEAM
SCALE: 1" = 1'-0"

AA#-SHT DWG W.O.#
1-1 01-01-98 10:00AM

REFERENCES:

PLANS	AA
FIELD BOOKS	
"PORT OF OAKLAND DATUM" IS 3.20' BELOW MEAN SEA LEVEL	
CAUTION: CHECK TRACING FOR LATEST REVISIONS	

REVISIONS			
NO.	DATE	APP'D	

REVIEWED	FACILITIES DEPARTMENT
REVIEWED	CONSTRUCTION DEPARTMENT
REVIEWED	PROJECT PLANNING DEPARTMENT

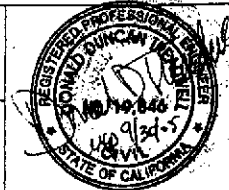
DRAWN	GEL
DESIGNED	DOT PE 19,846
CHECKED	DDT PE 19,846
REVIEWED	DDT PE 19,846

PORT OF OAKLAND
530 WATER ST. OAKLAND, CALIFORNIA

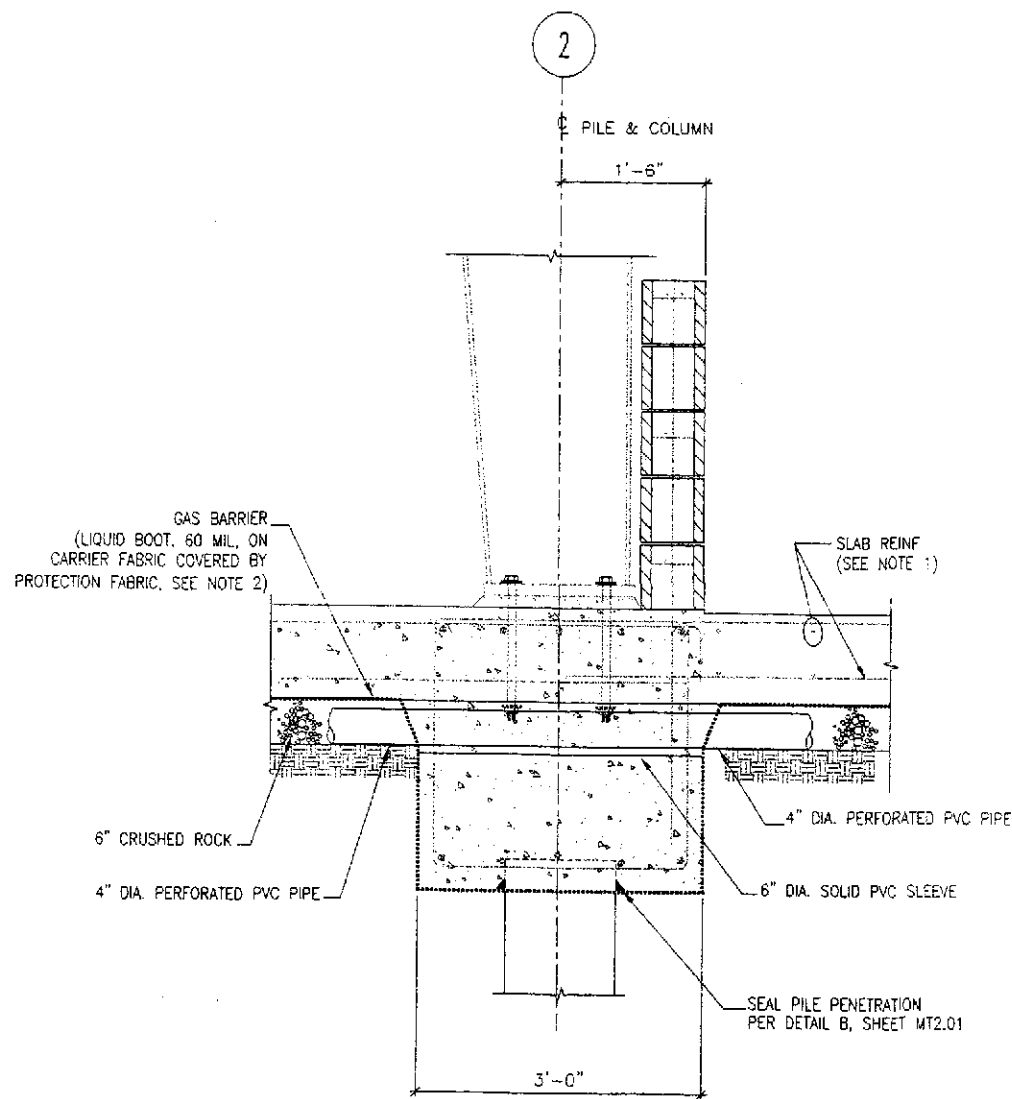
CHIEF ENGINEER	<i>[Signature]</i> C 23297
APPROVED	<i>[Signature]</i> C 33213
RECOMMENDED	<i>[Signature]</i> C 43841

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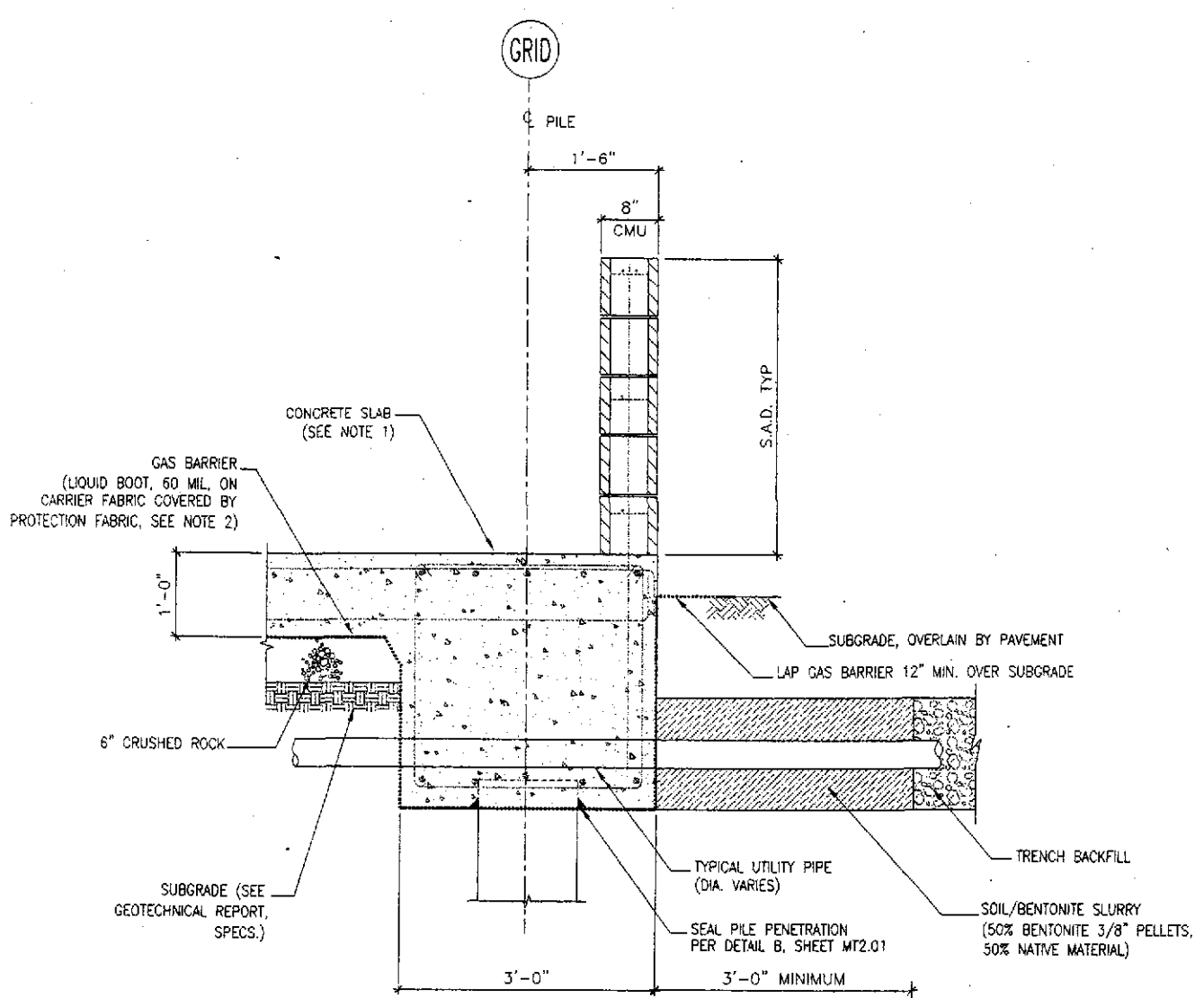
Treadwell & Rollo
Environmental and Geotechnical Consultants
555 Montgomery Street, Suite 1300
San Francisco, California
(415) 905-9040



MARITIME & 7TH STREET SITE	DATE: 02-04-03
PORT FIELD SUPPORT SERVICES COMPLEX	SCALE:
SOIL GAS MITIGATION SYSTEM - DETAILS	SHEET: 24 OF 203 SHEETS
MT2.02	AA-3827



H PIPING PENETRATION THROUGH INTERIOR GRADE BEAM
SCALE: 1" = 1'-0"



I TYPICAL UTILITY TRENCH CUTOFF @ PERIMETER GRADE BEAM
SCALE: 1" = 1'-0"

AA#-SHT.DWG W.C.#
1-1 01-01-98 10:00AM

REFERENCES:

PLANS	AA
FIELD BOOKS	
"PORT OF OAKLAND DATUM" IS 3.20' BELOW MEAN SEA LEVEL	
CAUTION: CHECK TRACING FOR LATEST REVISIONS	

REVISIONS			
NO.	DATE	APP'D	

REVIEWED	DEPARTMENT
	FACILITIES DEPARTMENT
	CONSTRUCTION DEPARTMENT
	PROJECT PLANNING DEPARTMENT

DRAWN	GEL
DESIGNED	DOT PE 19,846
CHECKED	DOT PE 19,846
REVIEWED	DDT PE 19,846

PORT OF OAKLAND
530 WATER ST. OAKLAND, CALIFORNIA

CHIEF ENGINEER	REG. ENGINEER NO.
<i>John S. ...</i>	C 23297
APPROVED <i>James ...</i>	C 33213
RECOMMENDED <i>Chris ...</i>	C 43841
<i>HL 1002342567 C 57384</i>	REG. ENGINEER NO.

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tel: (510) 287-9710

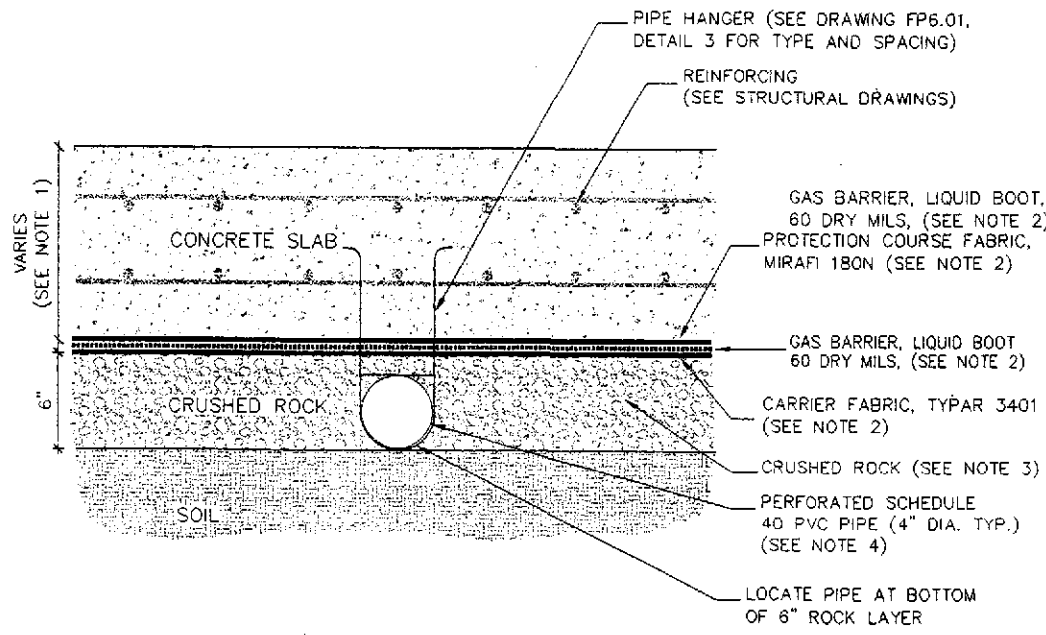
Treadwell & Rollo
Environmental and Geotechnical Consultants
555 Montgomery Street, Suite 1300
San Francisco, California
(415) 965-9040



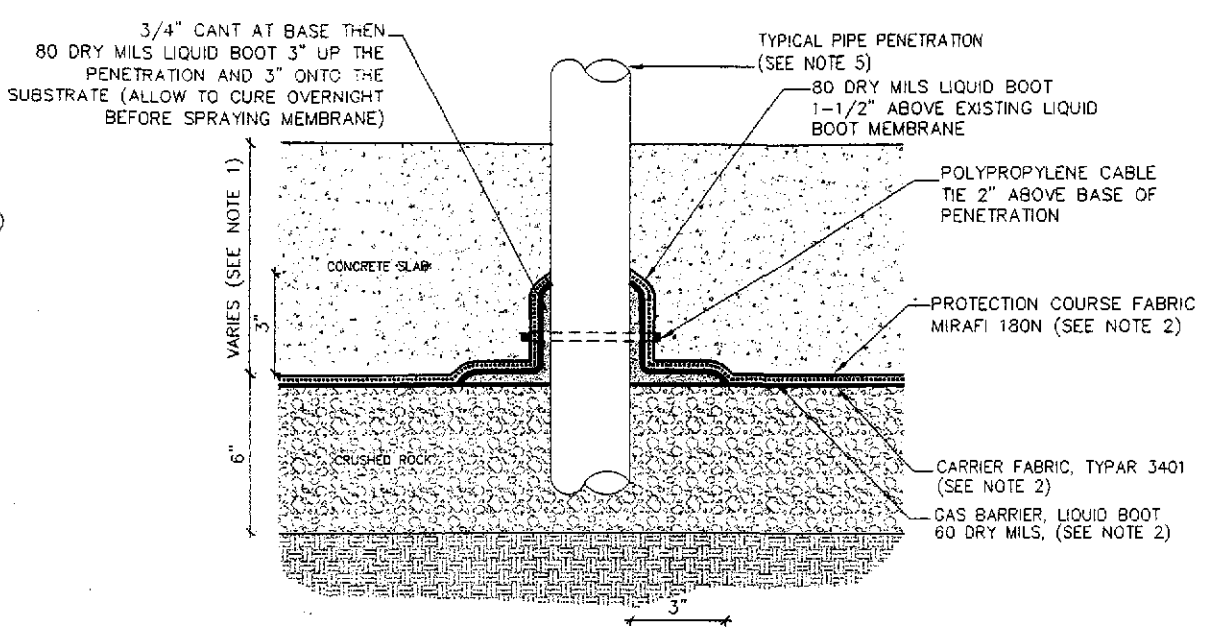
MARITIME & 7TH STREET SITE	DATE: 02-04-03
PORT FIELD SUPPORT SERVICES COMPLEX	SCALE:
SOIL GAS MITIGATION SYSTEM - DETAILS	SHEET: 22 of 203 SHEETS

MT2.03	AA-3827
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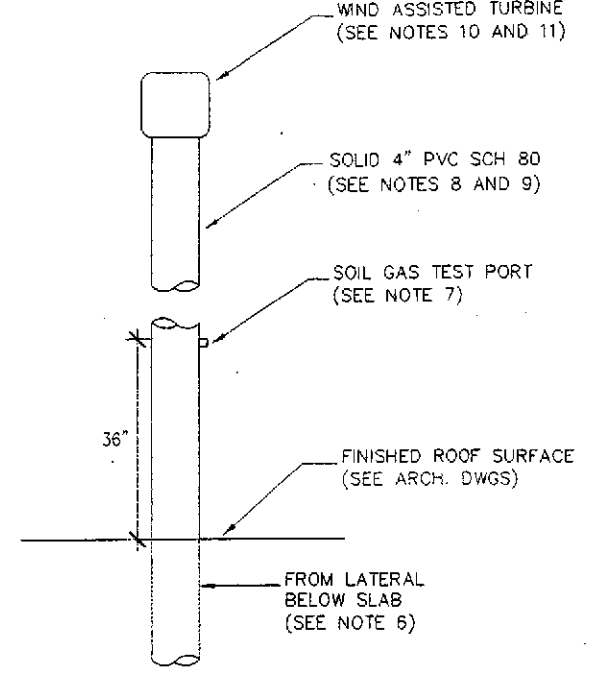
CAUTION: THIS PLAN MAY BE REDUCED ? ... ORIGINAL SCALE



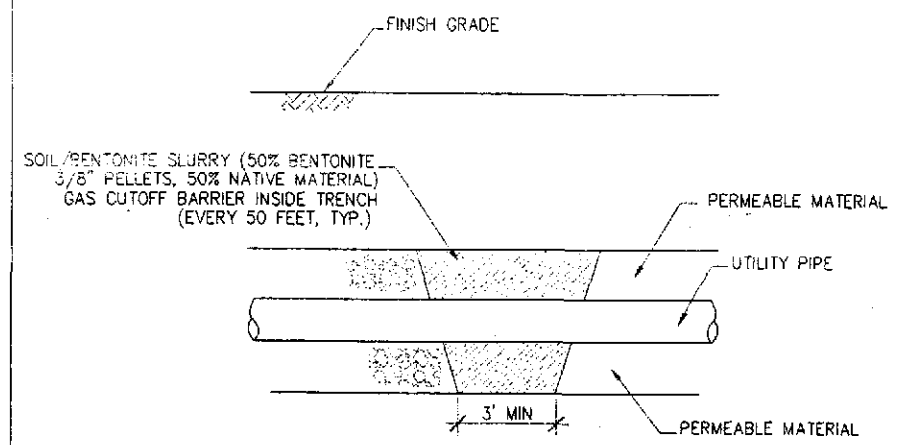
A SOIL GAS COLLECTION SYSTEM LATERAL
NOT TO SCALE



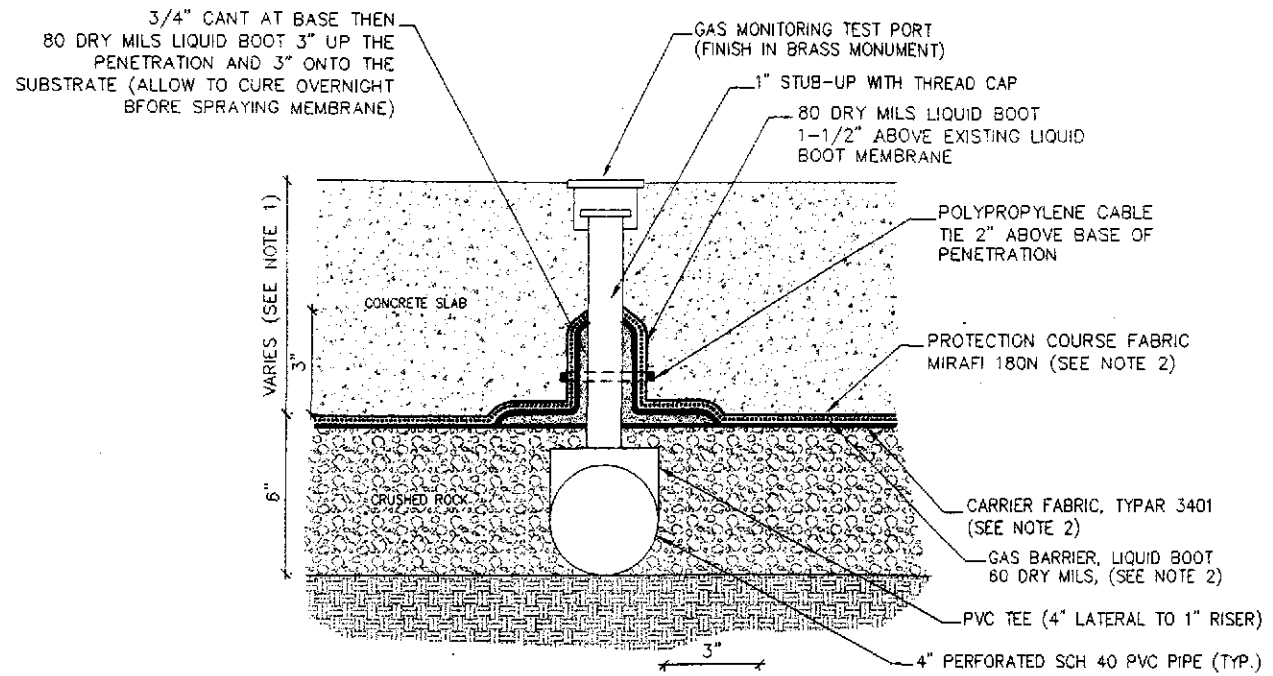
B TYPICAL SEALING OF ALL PENETRATIONS THROUGH CONCRETE SLAB
NOT TO SCALE



C RISER AND TURBINE AT ROOF
NOT TO SCALE



D UTILITY SOIL GAS CUT-OFF BARRIER IN UTILITY TRENCH
NOT TO SCALE



E SOIL GAS TEST PORT
NOT TO SCALE

- NOTES:
1. ALL LOCATIONS AND DIMENSIONS OF BUILDING SLABS, FOOTINGS, AND GRADE BEAMS TO BE CONFIRMED WITH STRUCTURAL DETAILS.
 2. THE LIQUID BOOT SHALL BE INSTALLED ACCORDING TO MANUFACTURERS SPECIFICATIONS AND QAVOC REQUIREMENTS, OUTLINED IN SECTIONS 07140 AND 07141 BY A MANUFACTURER APPROVED APPLICATOR. SLAB PENETRATIONS SHALL NOT BE IN CONTACT WITH AN ADJACENT PENETRATION THAT WOULD PREVENT PROPER SEALING OF THE PENETRATION CIRCUMFERENCE. PROTECTION COURSE FABRIC SHALL BE MIRAFI 180N NON-WOVEN GEOTEXTILE. CARRIER FABRIC SHALL BE TYPAR 3401, WITH THE HEAT-TREATED SIDE FACING THE LIQUID BOOT.
 3. CRUSHED ROCK SHALL BE 1/4" X 3/4".
 4. THE HORIZONTAL PIPE SHALL BE OF SCHEDULE 40 PVC, HANGOR SMOOTHWALL DRAIN PIPE, OR SIMILAR QUALITY PLASTIC PIPE. INDICATED SECTIONS OF HORIZONTAL PIPE SHALL BE PERFORATED WITH 5/8 INCH DIAMETER HOLES, THREE HOLES ACROSS THE UPPER ONE-THIRD OF THE PIPE. EVERY THREE INCHES ALONG THE PERFORATED SECTION; AN ADDITIONAL 5/8 INCH DIAMETER HOLE SHALL BE DRILLED ON THE UNDERSIDE OF THE PIPE AT LEAST EVERY 2 LINEAR FEET ALONG THE PERFORATED SECTION TO ALLOW WATER, IF ANY, TO DRAIN FROM THE PIPE.
 5. SLAB PENETRATION SHALL NOT BE IN CONTACT WITH ADJACENT PENETRATIONS OR STEEL COLUMNS TO ALLOW TROWEL GRADE LIQUID BOOT APPLICATION AROUND ENTIRE PENETRATION CIRCUMFERENCE.
 6. THE VERTICAL RISER PIPE TO THE WIND TURBINE SHALL BE SUPPORTED AT THE PIPE CHASE WALLS AND LABELED AS "CONTAINS COMBUSTIBLE GAS; DO NOT BREAK OR CUT".
 7. A TEST PORT SHALL BE INSTALLED TO SAMPLE AIR FROM THE COLLECTION PIPE 36 INCHES ABOVE ROOF LEVEL, WITH A VALVE ABOVE THE TEST PORT TO CLOSE OFF AIR INTAKE FROM THE WIND TURBINE DURING TESTING.
 8. THE VERTICAL RISER PIPE TO THE WIND-ASSISTED TURBINE VENT SHALL BE 4 INCH DIAMETER SCHEDULE 80 PVC AND EXTEND TO AN ELEVATION 15 FEET ABOVE THE ROOF LEVEL.
 9. PROVIDE 1-INCH DIAMETER ELECTRICAL CONDUIT TO RISER FOR POSSIBLE FUTURE POWER NEEDS TO A MECHANICAL VACUUM BLOWER. COORDINATE WITH ELECTRICAL DRAWINGS.
 10. THE WIND-ASSISTED TURBINE VENT ON TOP OF THE 4 INCH PVC RISER SHALL BE 24 INCH DIA. GALVANIZED STEEL (McMASTER-CARR CAT# 1992K24) AND SHALL BE INDEPENDENTLY SUPPORTED FROM PVC RISER.
 11. TURBINE SHALL BE ADAPTED TO FIT A 4 INCH PIPE.
 12. PIPE PENETRATIONS THROUGH THE PERIMETER GRADE-BEAM SHALL BE OF SCHEDULE 80 PVC. THE VENT PIPE CAP SHALL KEEP OUT DEBRIS BUT ALLOW AIR TO ENTER THE PIPE. CONTRACTOR SHALL COORDINATE PLACEMENT OF PIPING INSIDE EXTERIOR WALL WITH ARCHITECT AND SUBMIT SAMPLE CAP TO ARCHITECT FOR APPROVAL. VENTS SHALL BE LOCATED A MINIMUM OF 36 INCHES AWAY FROM DOOR JAMS.

AA#-SHT.DWG W.O.#
1=1 01-01-98 10:00AM

REFERENCES:

PLANS	AA	...
FIELD BOOKS		
"PORT OF OAKLAND DATUM" IS 3.20' BELOW MEAN SEA LEVEL		
CAUTION: CHECK TRACING FOR LATEST REVISIONS		

REVISIONS		REVIEWED	DATE	APP'D
NO.				
		FACILITIES DEPARTMENT		
		CONSTRUCTION DEPARTMENT		
		PROJECT PLANNING DEPARTMENT		

DRAWN	GEL
DESIGNED	DDT
CHECKED	DDT
REVIEWED	DDT

PORT OF OAKLAND
530 WATER ST. OAKLAND, CALIFORNIA

CHIEF ENGINEER	<i>[Signature]</i>	C 23297
APPROVED	<i>[Signature]</i>	C 33213
RECOMMENDED	<i>[Signature]</i>	C 43841

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(415) 956-9040

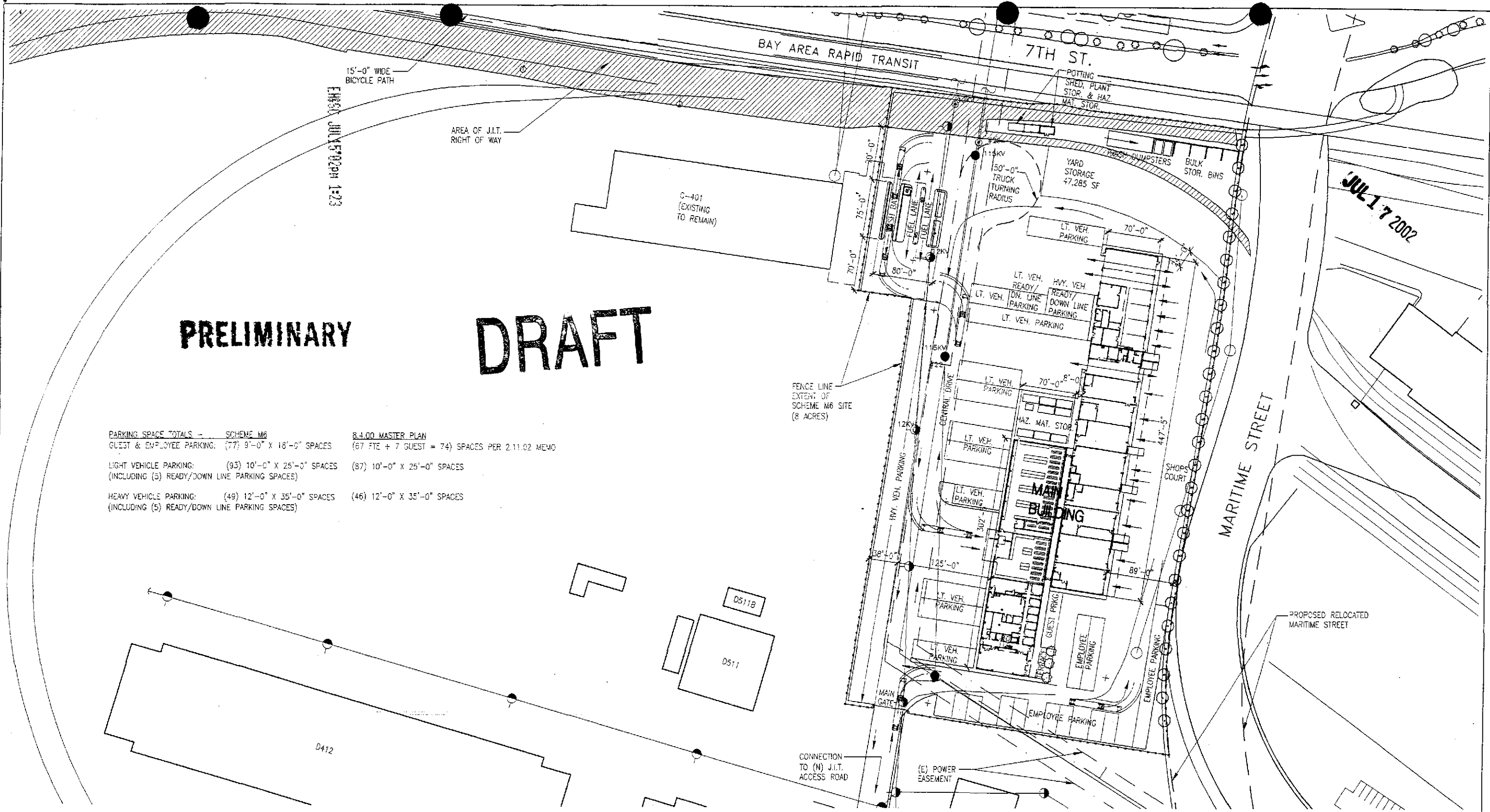
REGISTERED PROFESSIONAL ENGINEER
HOWARD DUNCAN
CIVIL
STATE OF CALIFORNIA

MARITIME & 7TH STREET SITE
PORT FIELD SUPPORT SERVICES COMPLEX

DATE: 02-04-03
SCALE: 1/8" = 1'-0"
SHEET: 20 OF 20 SHEETS

SOIL GAS MITIGATION SYSTEM - DETAILS
MT2.01 AA-3827

CAUTION: THIS PLAN MAY BE REDUCED 9" ORIGINAL SCALE



PRELIMINARY DRAFT

PARKING SPACE TOTALS - SCHEME M6

GUEST & EMPLOYEE PARKING:	(77) 9'-0" X 18'-0" SPACES	8.4.00 MASTER PLAN	(67 FTE + 7 GUEST = 74) SPACES PER 2.11.02 MEMO
LIGHT VEHICLE PARKING:	(93) 10'-0" X 25'-0" SPACES	(87) 10'-0" X 25'-0" SPACES	(INCLUDING (5) READY/DOWN LINE PARKING SPACES)
HEAVY VEHICLE PARKING:	(49) 12'-0" X 35'-0" SPACES	(46) 12'-0" X 35'-0" SPACES	(INCLUDING (5) READY/DOWN LINE PARKING SPACES)

1 SITE PLAN - SCHEME M6
SCALE 1" = 60'-0"

SITE AREA = 8 ACRES

Michael Willis Architects
246 First Street
Suite 300
San Francisco, CA 94105
tel: (415) 957-3750



REFERENCES:

PLANS	AA	...
FIELD BOOKS		
"PORT OF OAKLAND DATUM" IS 3.20' BELOW MEAN SEA LEVEL.		
CAUTION: CHECK TRACING FOR LATEST REVISIONS		

REVISIONS			
NO.	DATE	APP'D	

REVIEWED	FACILITIES DEPARTMENT
REVIEWED	CONSTRUCTION DEPARTMENT
REVIEWED	PROJECT PLANNING DEPARTMENT

DRAWN	MER
DESIGNED	MWA
CHECKED	CBL
REVIEWED	

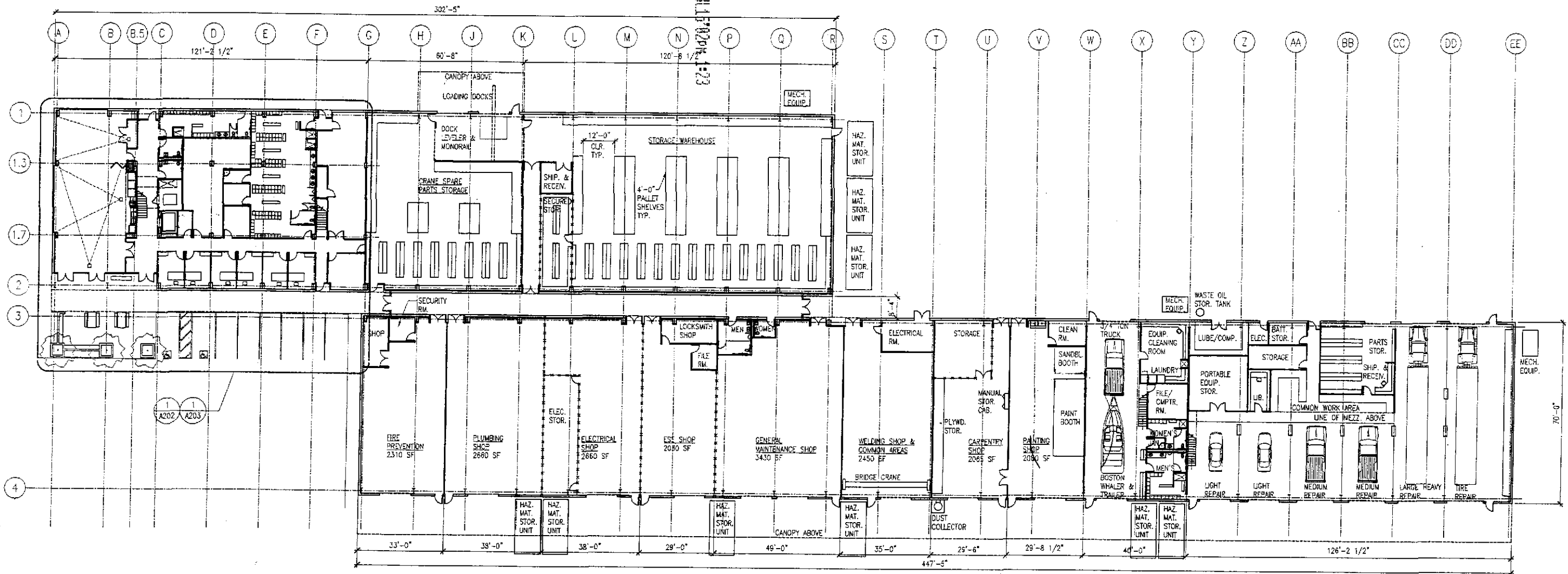
PORT OF OAKLAND
530 WATER ST. OAKLAND, CALIFORNIA

CHIEF ENGINEER	
APPROVED	
RECOMMENDED	

SCHEME M6
PORT FIELD SUPPORT SERVICES COMPLEX
SITE PLAN - SCHEME M6

DATE:	07-13-02
SCALE:	1"=60'-0"
SHEET:	1 OF 7 SHEETS
A100	

ERASC JUL 17 2002 1:23



PRELIMINARY DRAFT

1 MAIN BUILDING FIRST FLOOR PLAN
 SCALE: 1" = 20'-0"

AREA	MAY 3, 2002 MEMO	SCHEME M6
ADMINISTRATION	16,324 SF	16,975 SF
SHOPS	19,650 SF	19,685 SF
STORAGE WAREHOUSES	11,650 SF	12,688 SF
VEHICLE MAINT. & DIVER'S SHOP	11,500 SF	11,638 SF
TOTAL SF	59,124 SF	60,986 SF



REFERENCES:	REVISIONS
PLANS AA	NO. DATE APP'D
FIELD BOOKS	
"PORT OF OAKLAND DATUM" IS 3.20' BELOW MEAN SEA LEVEL.	
CAUTION: CHECK TRACING FOR LATEST REVISIONS	

REVIEWED: _____	DRAWN: MER
REVIEWED: _____	DESIGNED: MWA
REVIEWED: _____	CHECKED: CBL
REVIEWED: _____	REVIEWED: _____

PORT OF OAKLAND
 530 WATER ST. OAKLAND, CALIFORNIA

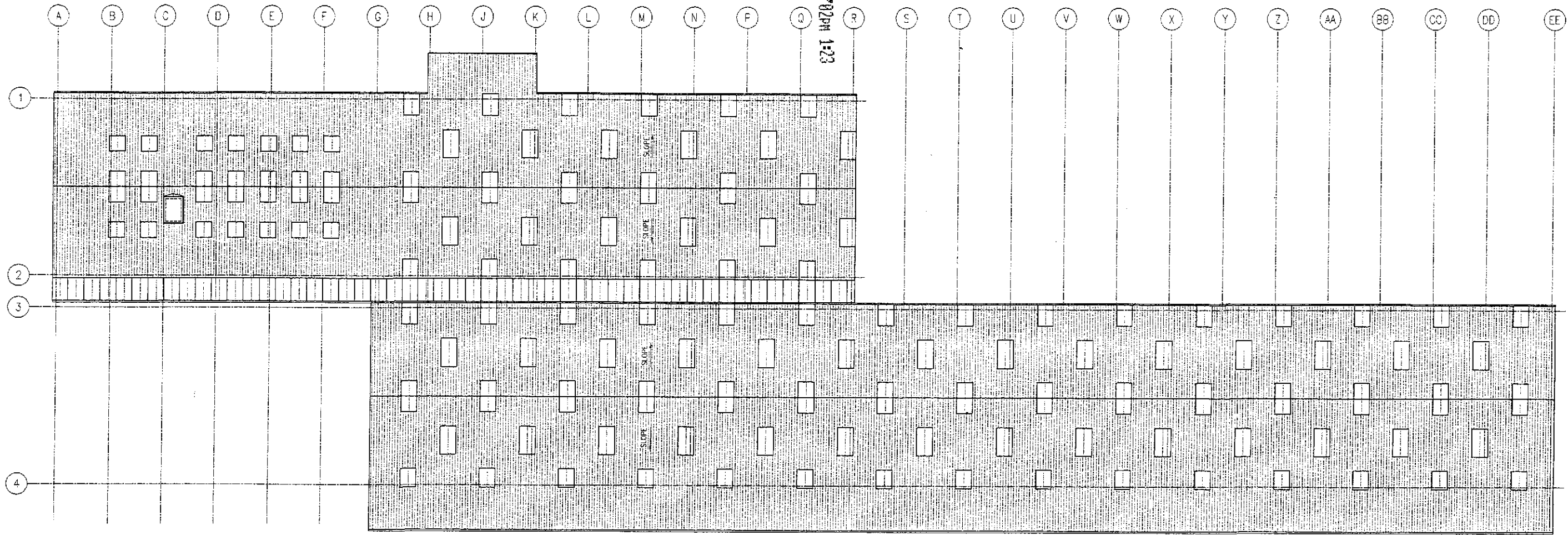
CHIEF ENGINEER	REG. ENGINEER NO.
APPROVED	REG. ENGINEER NO.
RECOMMENDED	REG. ENGINEER NO.

Michael Willis Architects
 246 First Street
 Suite 300
 San Francisco, CA 94105
 tel: (415) 957-3750



SCHEME M6	DATE: 07-15-02
PORT FIELD SUPPORT SERVICES COMPLEX	SCALE: 1" = 20'-0"
MAIN BUILDING FIRST FLOOR PLAN	SHEET: 2 OF 7 SHEETS
A200	

EMSC JUL 15 02 PM 1:23



PRELIMINARY DRAFT

1 MAIN BUILDING ROOF PLAN
SCALE 1" = 20'-0"



REFERENCES:
PLANS
FIELD BOOKS
"PORT OF OAKLAND DATUM"
IS 3.20' BELOW MEAN SEA LEVEL.
CAUTION:
CHECK TRACING FOR LATEST REVISIONS

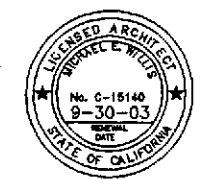
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NO.	DATE	APP'D	

REVIEWED _____	DRAWN _____ MER
REVIEWED _____ FACILITIES DEPARTMENT	DESIGNED _____ MWA
REVIEWED _____ CONSTRUCTION DEPARTMENT	CHECKED _____ CBL
REVIEWED _____ PROJECT PLANNING DEPARTMENT	REVIEWED _____

PORT OF OAKLAND
530 WATER ST. OAKLAND, CALIFORNIA

CHIEF ENGINEER _____
APPROVED _____
RECOMMENDED _____

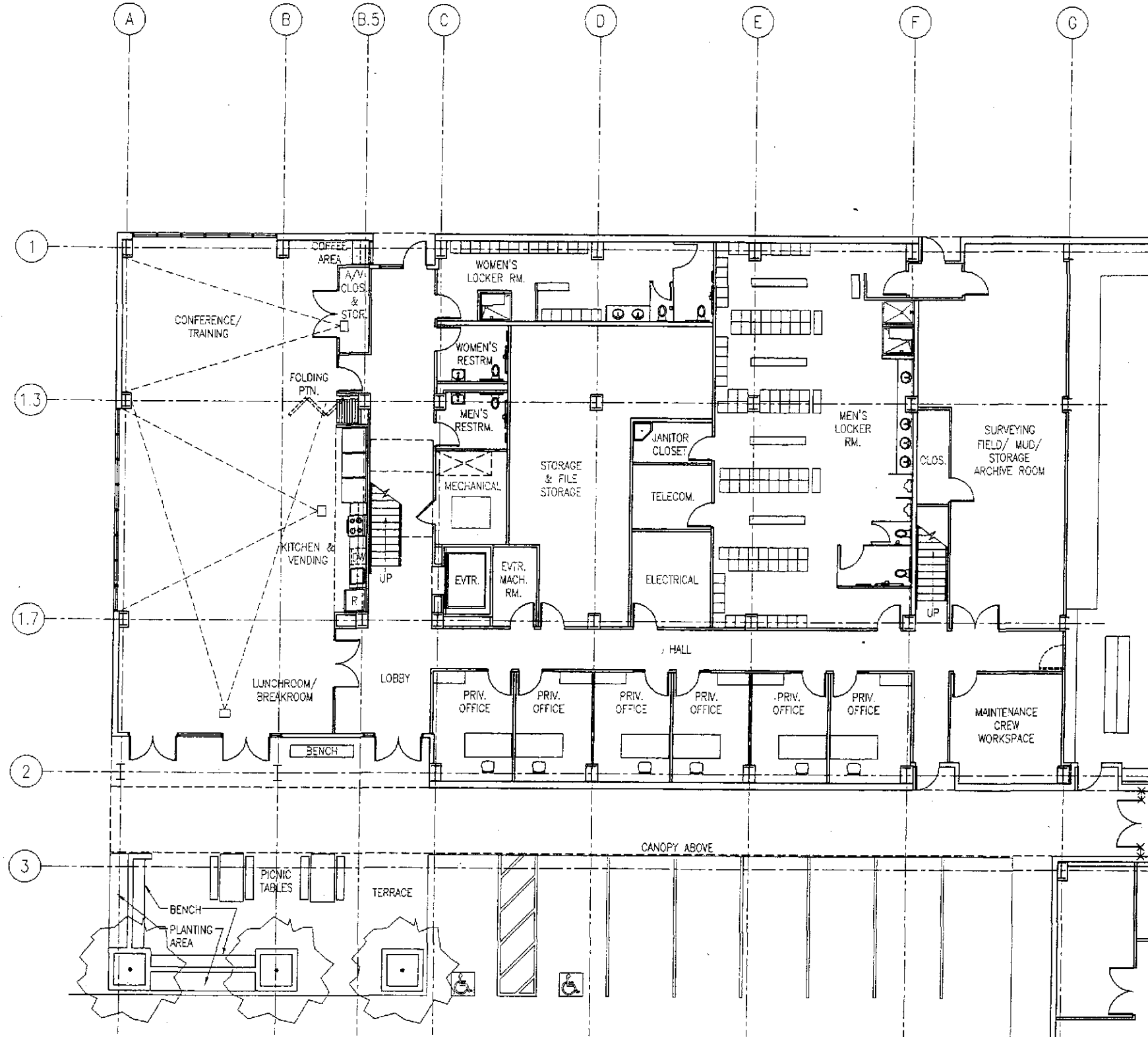
Michael Willis Architects
246 FINEZ STREET
SUITE 300
SAN FRANCISCO, CA 94110
tel: (415) 937-2750



SCHEME M6
PORT FIELD SUPPORT SERVICES COMPLEX
MAIN BUILDING ROOF PLAN

DATE: 07-15-02
SCALE: 1"=20'-0"
SHEET: 3 OF 7 SHEETS
A201

ERST JUL15'02PM 1:23



1 ADMINISTRATION FIRST FLOOR PLAN
SCALE 1/8" = 1'-0"

PRELIMINARY DRAFT

REFERENCES:
PLANS AA
FIELD BOOKS
"PORT OF OAKLAND DATUM"
IS 3.20' BELOW MEAN SEA LEVEL.
CAUTION:
CHECK TRACING FOR LATEST REVISIONS

REVISIONS	
NO.	DATE APP'D

REVIEWED _____
FACILITIES DEPARTMENT
REVIEWED _____
CONSTRUCTION DEPARTMENT
REVIEWED _____
PROJECT PLANNING DEPARTMENT

DRAWN MER, TPS, BMR
DESIGNED MWA
CHECKED CBL
REVIEWED _____

PORT OF OAKLAND
530 WATER ST. OAKLAND, CALIFORNIA

CHIEF ENGINEER
APPROVED _____
RECOMMENDED _____

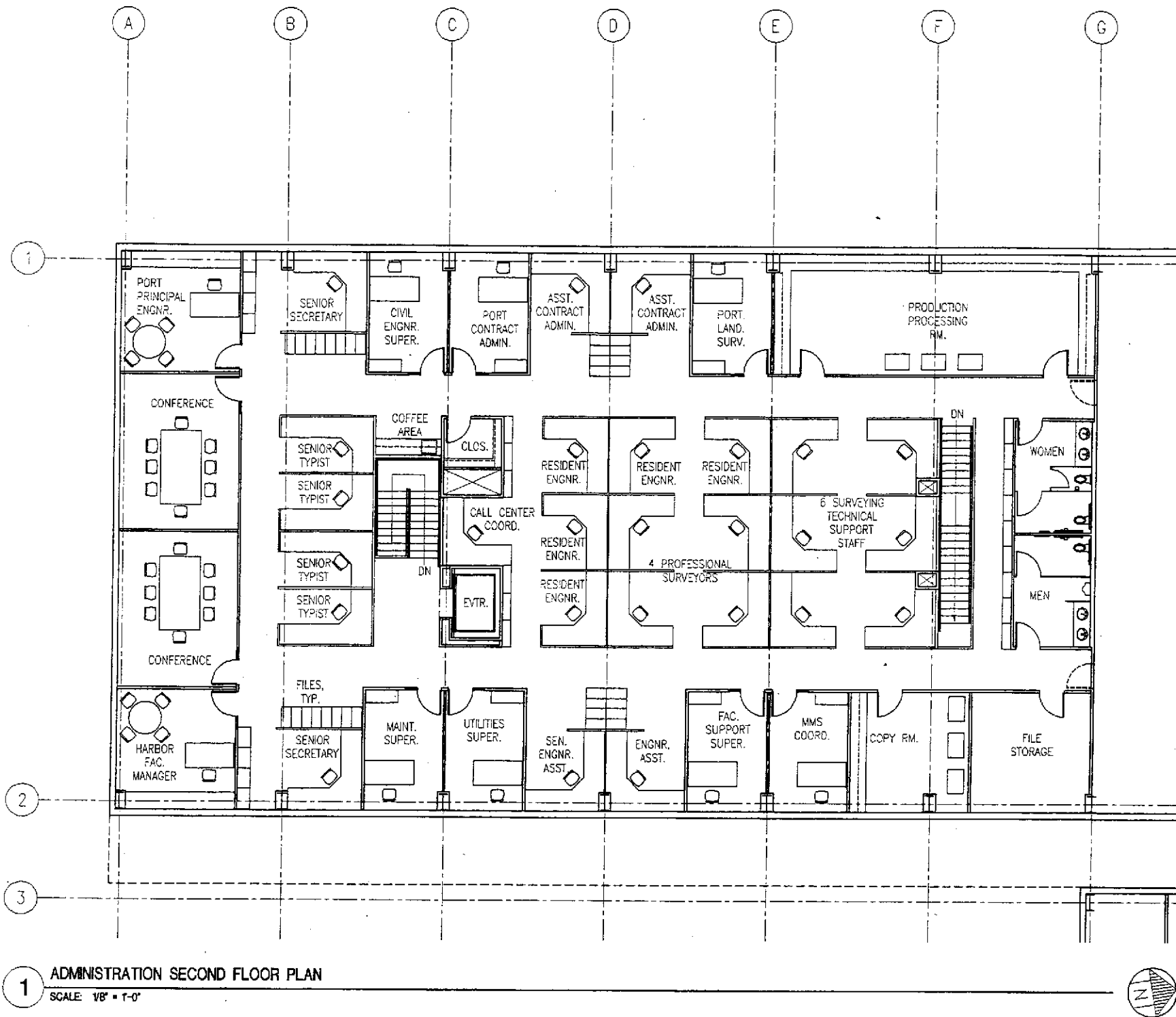
Michael Willis Architects
246 First Street
Suite 900
San Francisco, CA 94105
tel: (415) 957-2750



SCHEME M6
PORT FIELD SUPPORT
SERVICES COMPLEX
ADMINISTRATION FIRST FLOOR PLAN

DATE: 07-15-02
SCALE: 1/8" = 1'-0"
SHEET: 4 OF 7 SHEETS
A202

EHSC JUL15'02PM 1:23



PRELIMINARY DRAFT

1 ADMINISTRATION SECOND FLOOR PLAN
SCALE: 1/8" = 1'-0"

REFERENCES:

PLANS	AA
FIELD BOOKS	
PORT OF OAKLAND DATUM IS 3.20' BELOW MEAN SEA LEVEL.	
CAUTION: CHECK TRACING FOR LATEST REVISIONS	

REVISIONS			
NO.	DATE	APPRD.	

REVIEWED	FACILITIES DEPARTMENT
REVIEWED	CONSTRUCTION DEPARTMENT
REVIEWED	PROJECT PLANNING DEPARTMENT

DRAWN	MER, TPS, BMR
DESIGNED	MWA
CHECKED	CBL
REVIEWED	

PORT OF OAKLAND
530 WATER ST. OAKLAND, CALIFORNIA

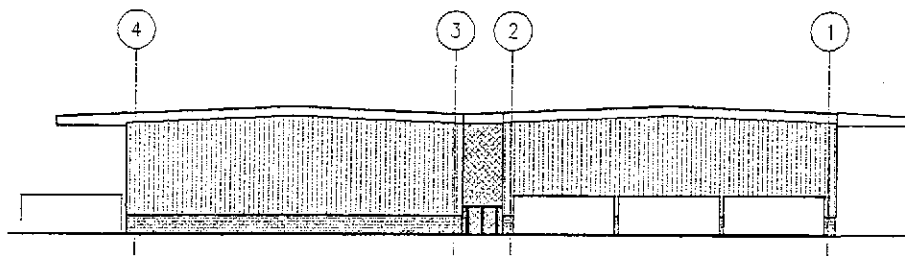
CHIEF ENGINEER	
APPROVED	
RECOMMENDED	

Michael Wells Architects
244 First Street
Suite 300
San Francisco, CA 94105
tel: (415) 957-0750

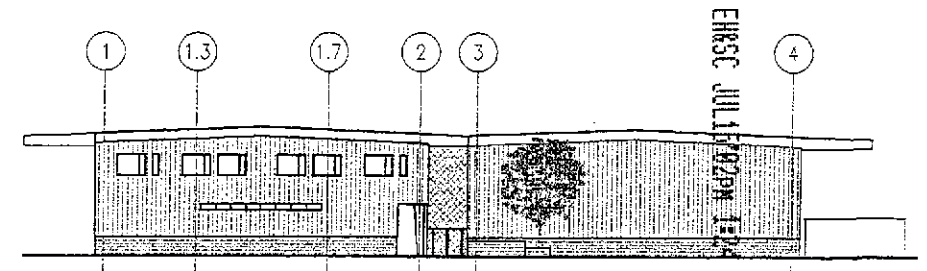


SCHEME MB	DATE: 07-15-02
PORT FIELD SUPPORT SERVICES COMPLEX	SCALE: 1/8" = 1'-0"
ADMINISTRATION SECOND FLOOR PLAN	SHEET: 5 OF 7 SHEETS

A203



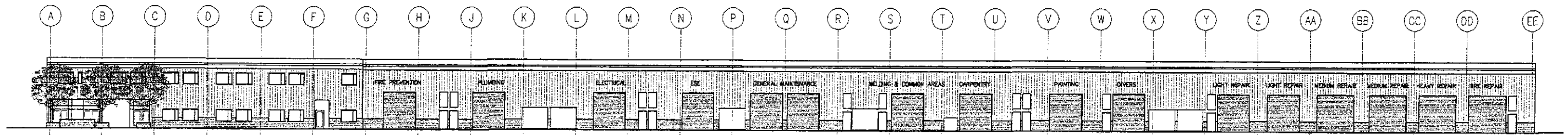
2 MAIN BUILDING NORTH ELEVATION
SCALE: 1" = 20'-0"



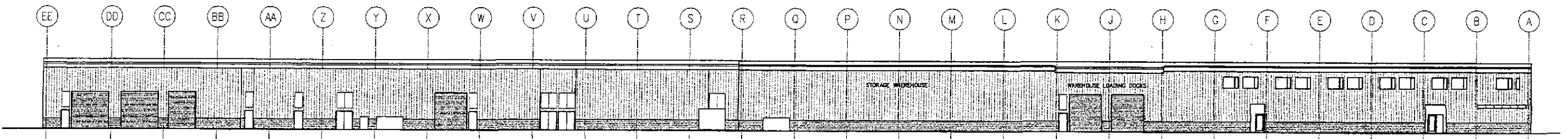
1 MAIN BUILDING SOUTH ELEVATION
SCALE: 1" = 20'-0"

PRELIMINARY

DRAFT



3 MAIN BUILDING EAST ELEVATION
SCALE: 1" = 20'-0"



4 MAIN BUILDING WEST ELEVATION
SCALE: 1" = 20'-0"

Michael Willis Architects
246 First Street
Suite 200
San Francisco, CA 94105
tel: (415) 957-2750



REFERENCES:
PLANS AA ...
FIELD BOOKS
"PORT OF OAKLAND DATUM"
IS 3.20' BELOW MEAN SEA LEVEL.
CAUTION:
CHECK TRACING FOR LATEST REVISIONS

REVISIONS			
NO.	DATE	APP'D	

REVIEWED _____
FACILITIES DEPARTMENT
REVIEWED _____
CONSTRUCTION DEPARTMENT
REVIEWED _____
PROJECT PLANNING DEPARTMENT

DRAWN: MER, BMR
DESIGNED: MWA
CHECKED: CBL
REVIEWED _____
REG. ENGINEER NO. _____

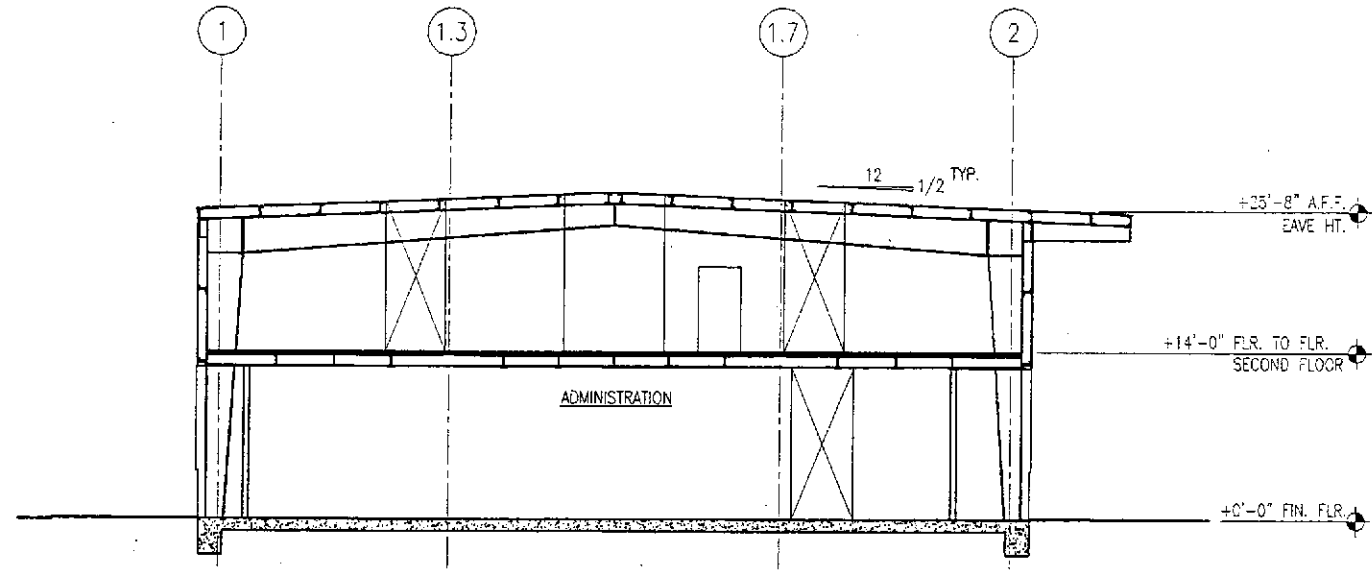
PORT OF OAKLAND
530 WATER ST. OAKLAND, CALIFORNIA

CHIEF ENGINEER
APPROVED _____
RECOMMENDED _____
REG. ENGINEER NO. _____

SCHEME M6
PORT FIELD SUPPORT SERVICES COMPLEX
MAIN BUILDING ELEVATIONS
A300

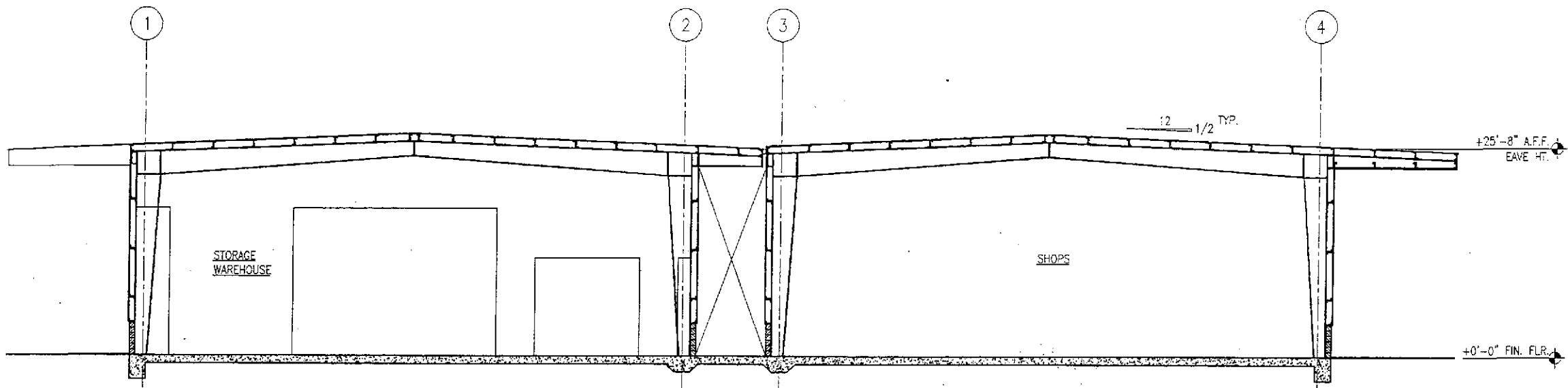
DATE: 07-15-02
SCALE: 1" = 20'-0"
SHEET: 6 OF 7 SHEETS

EHRSC JUL 15 02 PM 1:24



1 TYPICAL SECTION THROUGH ADMINISTRATION LOOKING NORTH
SCALE: 1/8" = 1'-0"

PRELIMINARY DRAFT



2 TYPICAL SECTION THROUGH MAIN BUILDING LOOKING NORTH
SCALE: 1/8" = 1'-0"

REFERENCES:
PLANS AA ...
FIELD BOOKS
"PORT OF OAKLAND DATUM"
IS 3.20' BELOW MEAN SEA LEVEL.
CAUTION:
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REVISIONS			
NO.	DATE	APP'D	

REVIEWED	FACILITIES DEPARTMENT
REVIEWED	CONSTRUCTION DEPARTMENT
REVIEWED	PROJECT PLANNING DEPARTMENT

DRAWN	MER
DESIGNED	MWA
CHECKED	CBL
REVIEWED	

PORT OF OAKLAND
530 WATER ST. OAKLAND, CALIFORNIA

CHIEF ENGINEER	
APPROVED	
RECOMMENDED	

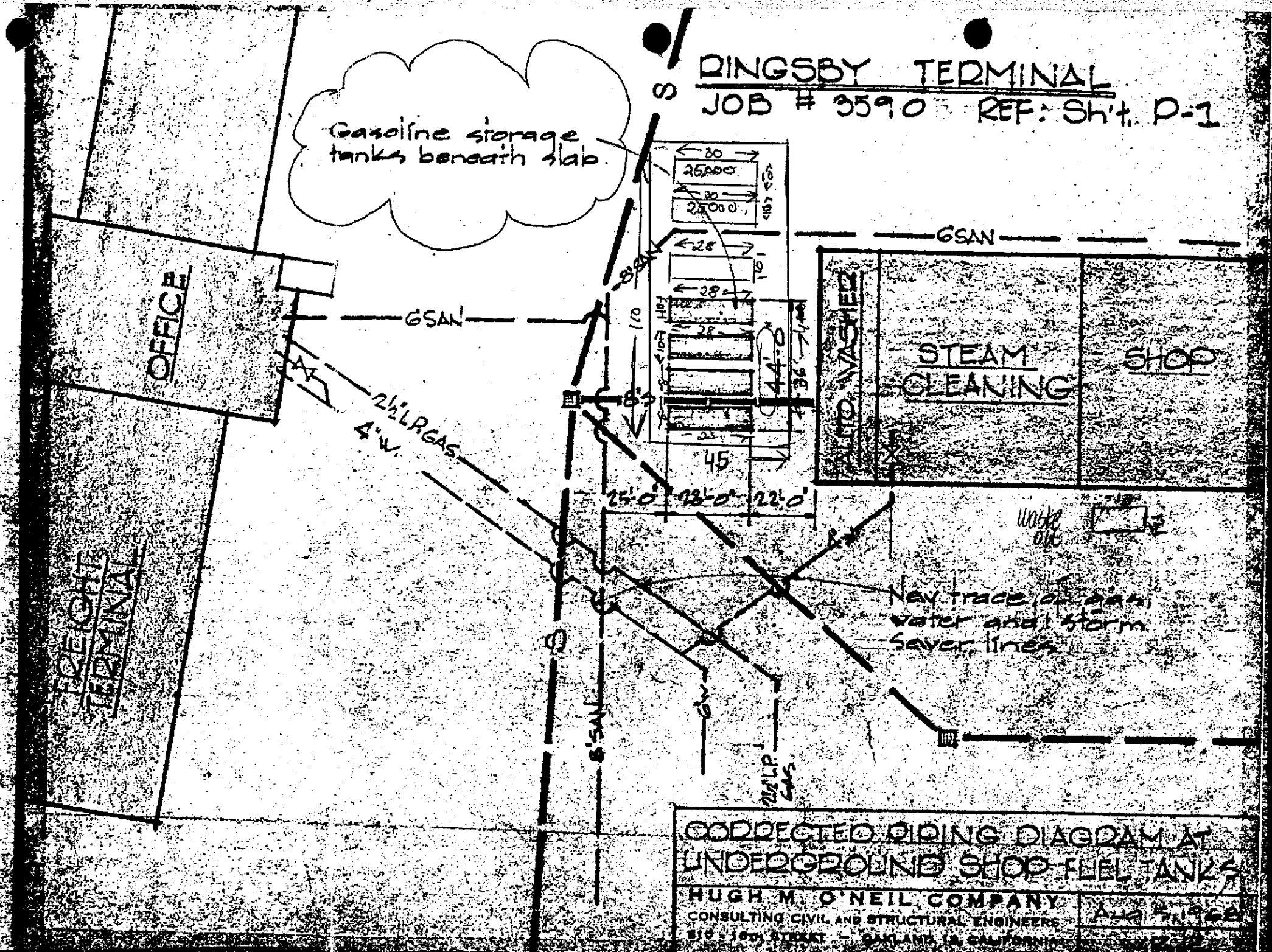
Michael Willis Architects
246 First Street
Suite 300
San Francisco, CA 94105
tel: (415) 957-3750



SCHEME M6
PORT FIELD SUPPORT
SERVICES COMPLEX
MAIN BUILDING SECTIONS

DATE: 07-15-02
SCALE: 1/8" = 1'-0"
SHEET: 7 OF 7 SHEETS
A301

RINGSBY TERMINAL
JOB # 3590 REF: SH't. P-1



**COLLECTED PIPING DIAGRAM AT
 UNDERGROUND SHOP FUEL TANKS**
HUGH M. O'NEIL COMPANY
 CONSULTING CIVIL AND STRUCTURAL ENGINEERS
 610 - 16TH STREET - OAKLAND 12, CALIFORNIA

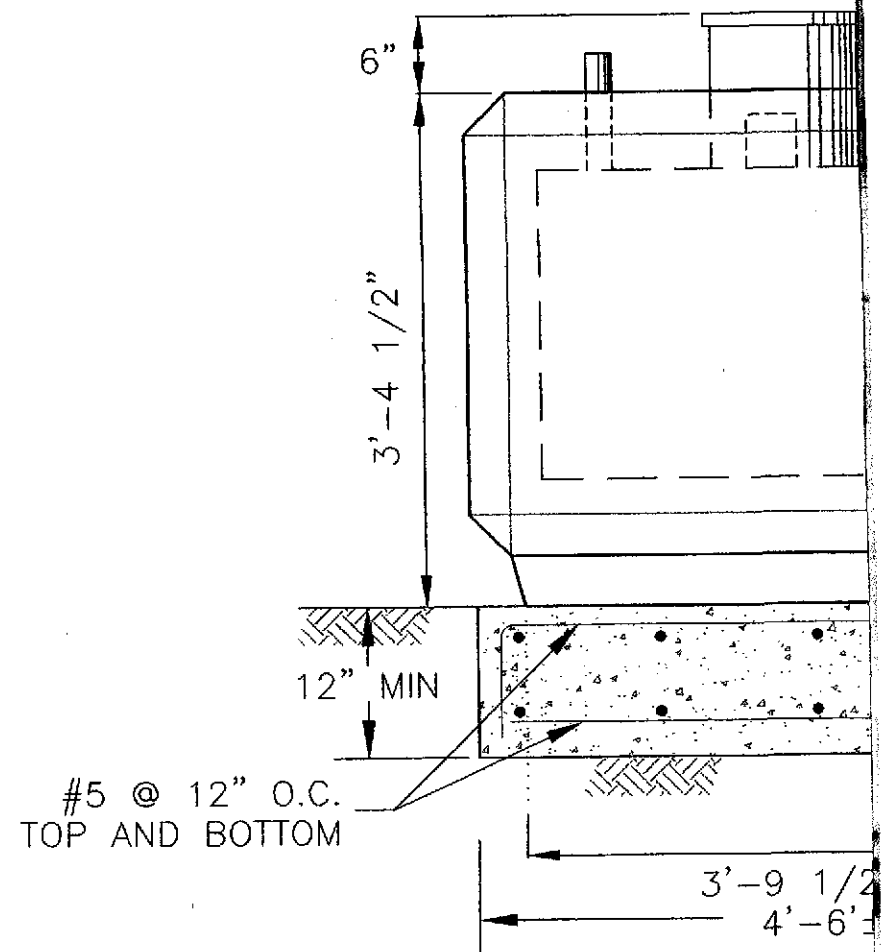
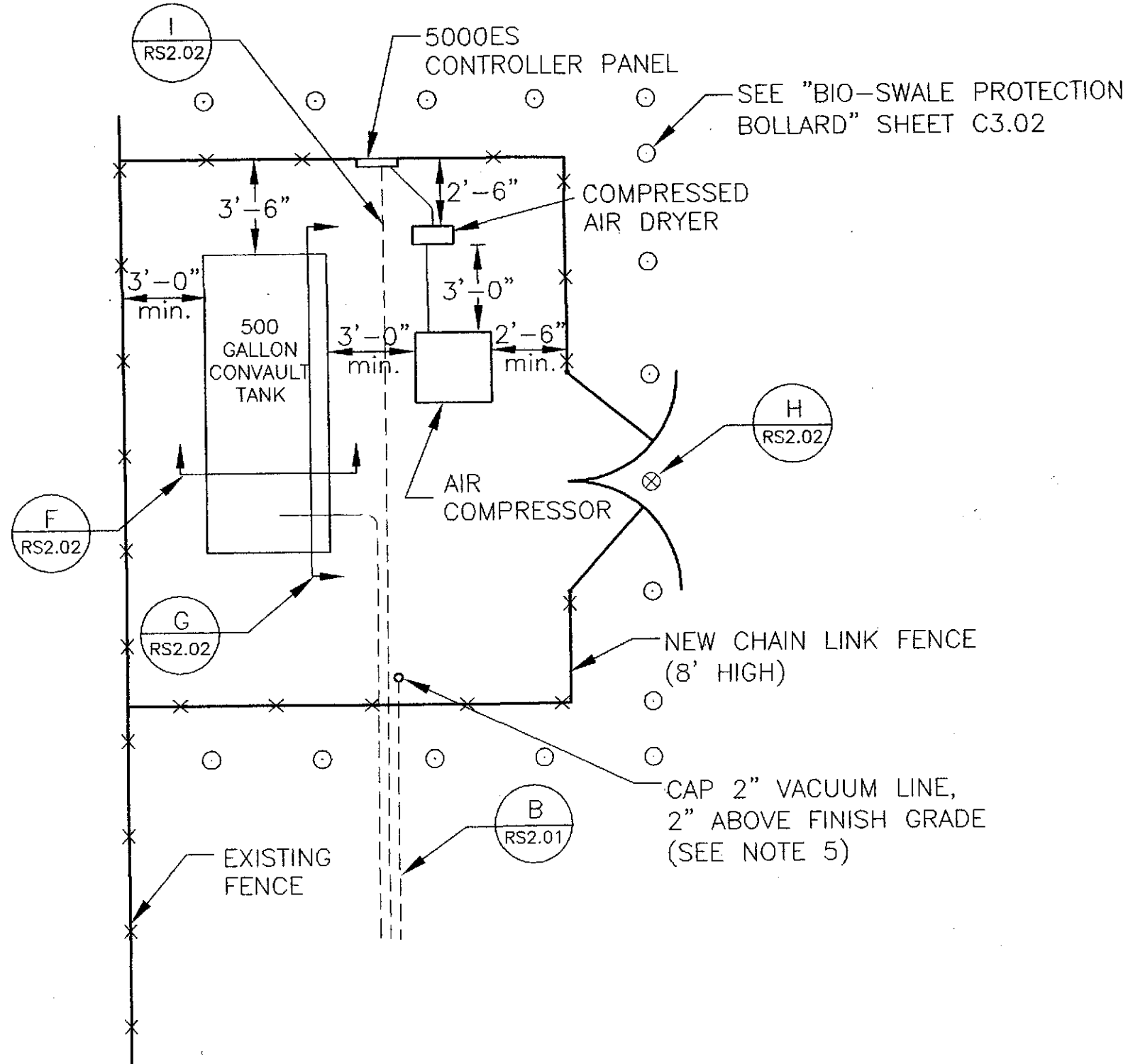
RINGSBY FREIGHT TERMINAL
 BLDGS. C-406 & C-407
 SEVENTH ST. NEAR MARITIME
 OAKLAND, CALIFORNIA

HUGH M. O'NEIL COMPANY
 CONSULTING CIVIL AND STRUCTURAL ENGINEERS
 INDUSTRIAL PLANTS FOUNDATION INVESTIGATIONS
 COMMERCIAL BUILDINGS SUPERVISION OF CONSTRUCTION
 610 - 16TH STREET OAKLAND 12, CALIFORNIA PHONE 852-3509

Assembled on standard sheet	ALO	2-12-69
Revised 10-2-1968 to be voided led by Dwg. of Aug 5, '68	VRR	8-5-68
REVISION	DATE	BY

UNDERGROUND PIPING REVISION

DATE **2-12-69**
 DRAWN BY **ALO** CIVIL & STRUCTURAL ENGINEER CALIF. REG. NO. _____
 CHECKED BY _____
 PROJECT NO. **3590** DWG. NO. **P-1A**



E EQUIPMENT COMPOUND

1 INCH = 5 FEET

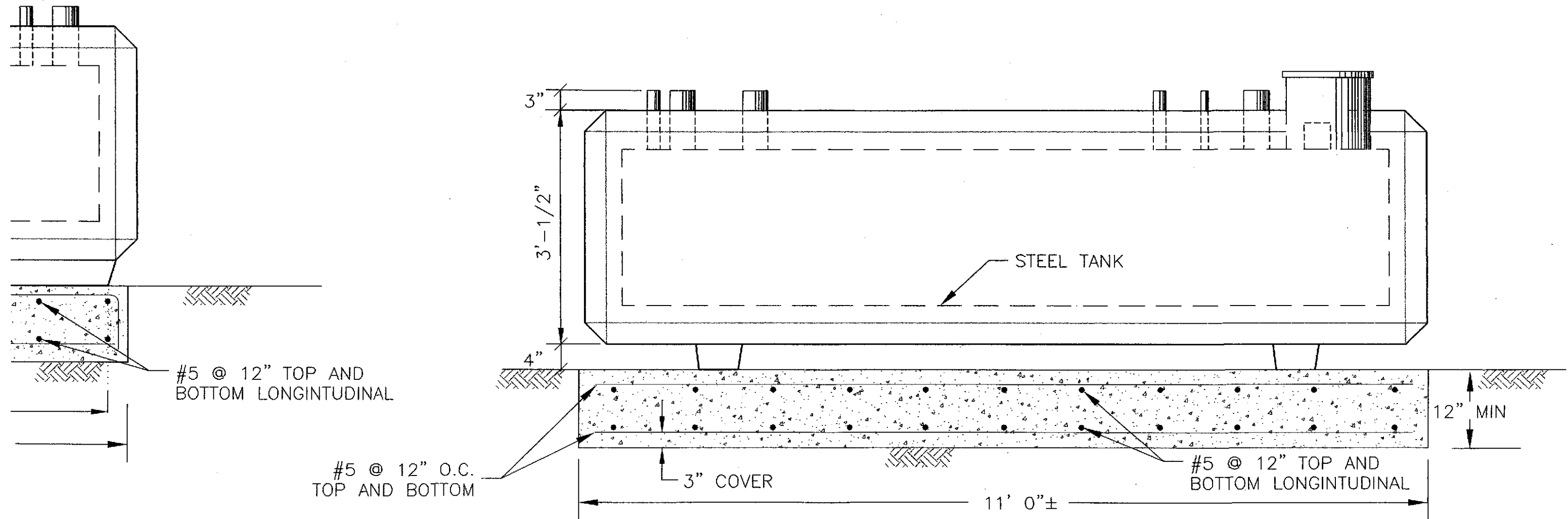
0 5 FEET

ORIGINAL SCALE

F STORAGE TANK AND FOUNDATION

NOT TO SCALE

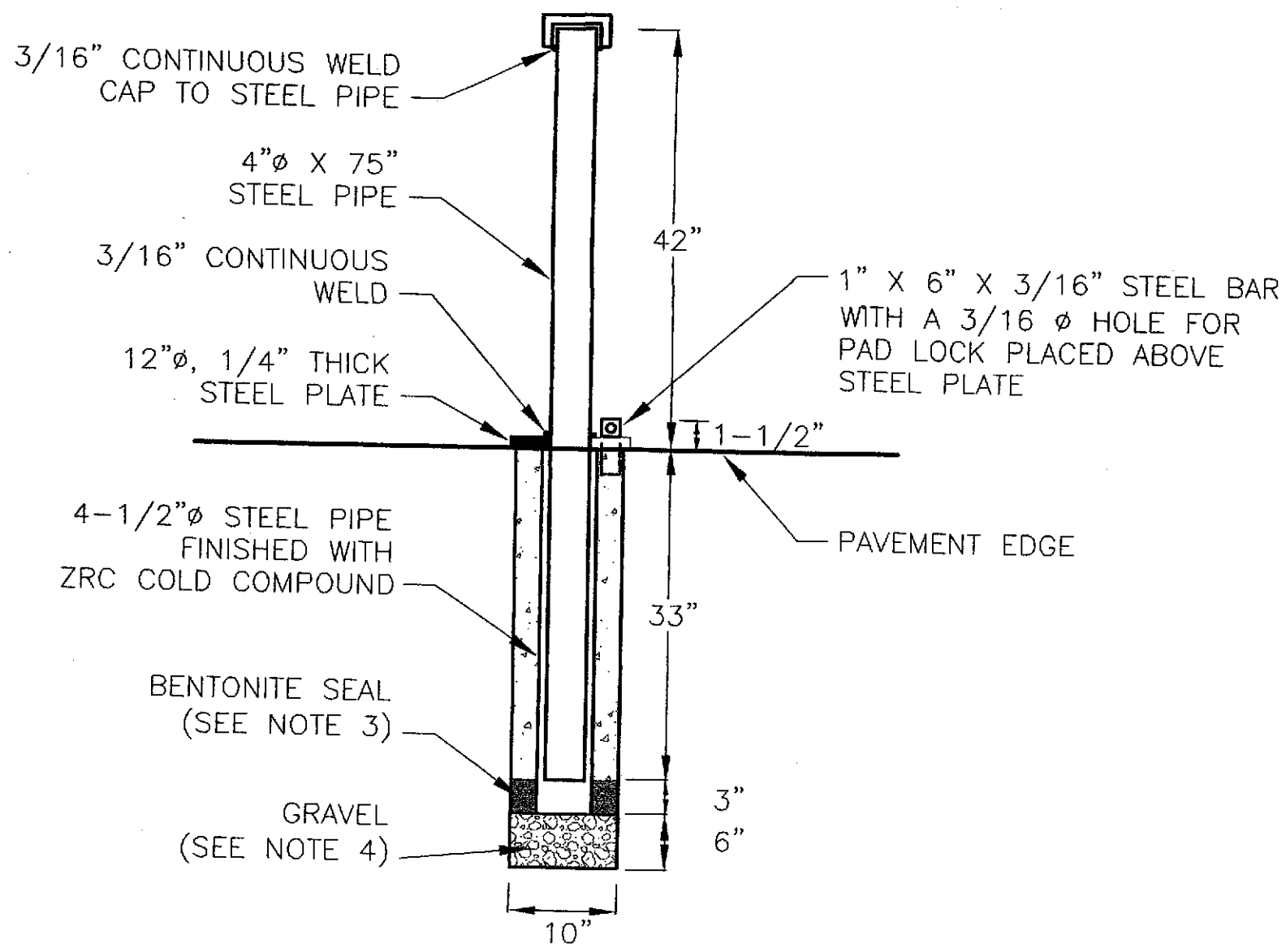
2



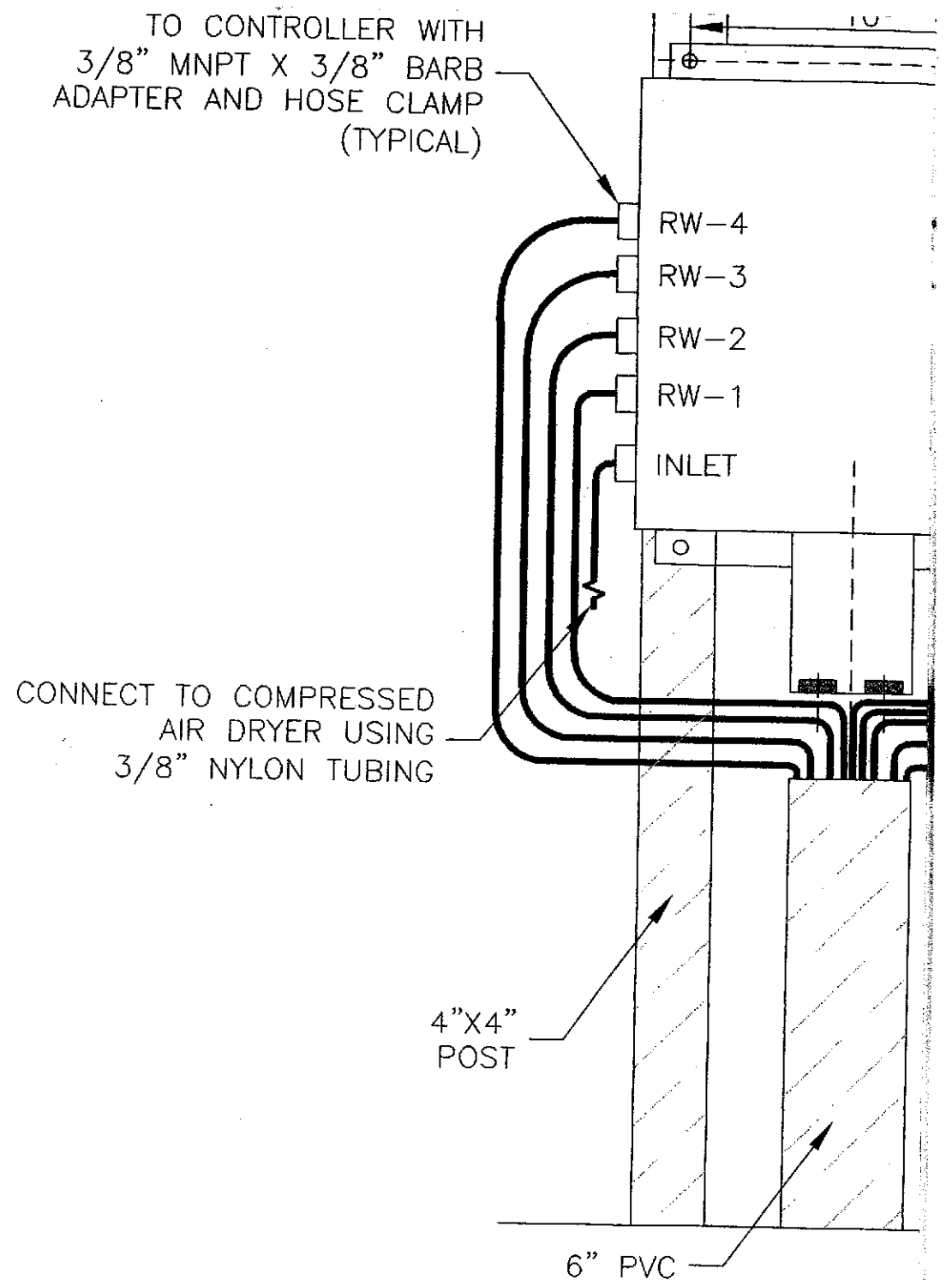
FOUNDATION PAD - END VIEW

(G) STORAGE TANK AND FOUNDATION PAD - SIDE VIEW

NOT TO SCALE



H REMOVABLE BOLLARD DETAIL
NOT TO SCALE



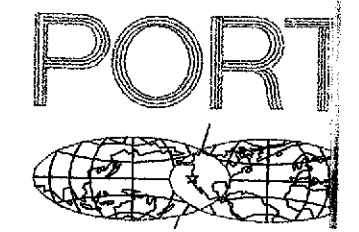
I XITECH MODEL 5000ES CON
NOT TO SCALE

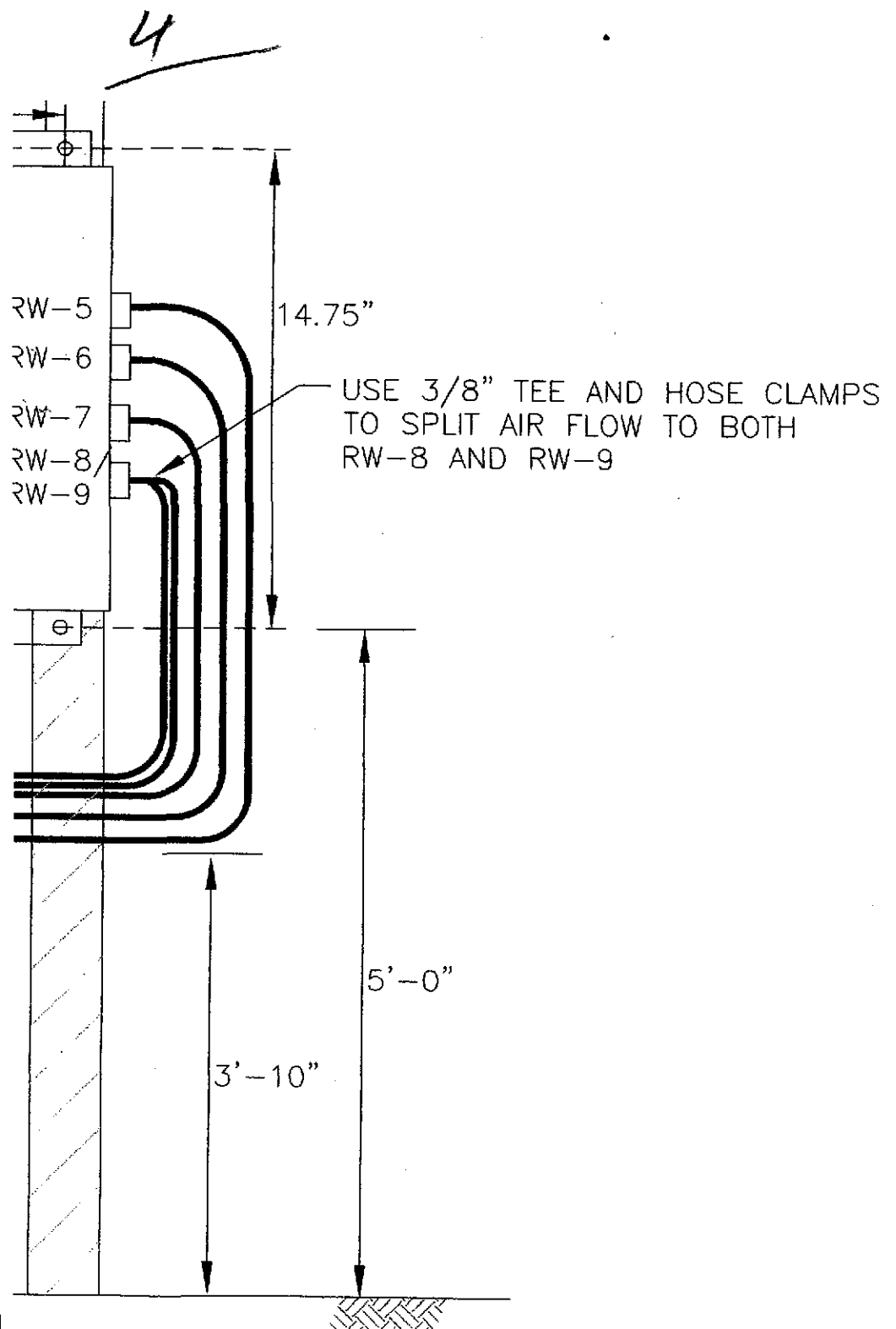
REFERENCES:
3 AA ...
BOOKS
"OF OAKLAND DATUM"
20' BELOW MEAN SEA LEVEL
ION:
< TRACING FOR LATEST REVISIONS
ON: THIS PLAN MAY BE REDUCED 0 1" 2" ---

REVISIONS			
NO.	DATE	APP'D	
1			ADDED FREE PRODUCT RECOVERY SYSTEM

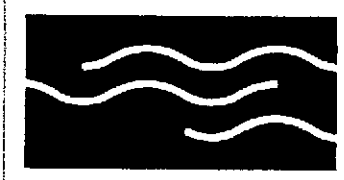
REVIEWED	FACILITIES DEPARTMENT
REVIEWED	CONSTRUCTION DEPARTMENT
REVIEWED	PROJECT PLANNING DEPARTMENT

DRAWN	JMV
DESIGNED	BKM C 57489
CHECKED	BKM C 57489
REG. ENGINEER NO.	C 57489
REVIEWED	BKM C 57489
REG. ENGINEER NO.	C 57489





ROLLER PANEL



Michael Willis Architects
471 Ninth Street
Oakland, CA 94607
tel: (510) 287-9710



Treadwell & Rollo

Environmental and Geotechnical Consultants
555 Montgomery Street, Suite 1300
San Francisco, California
(415) 955-9040

MARITIME & 7TH STREET SITE

PORT FIELD SUPPORT SERVICES COMPLEX

DATE: 02/04/03

SCALE:

SHEET: 22-2 OF 203 SHEETS

OF OAKLAND

CHIEF ENGINEER
John Anderson

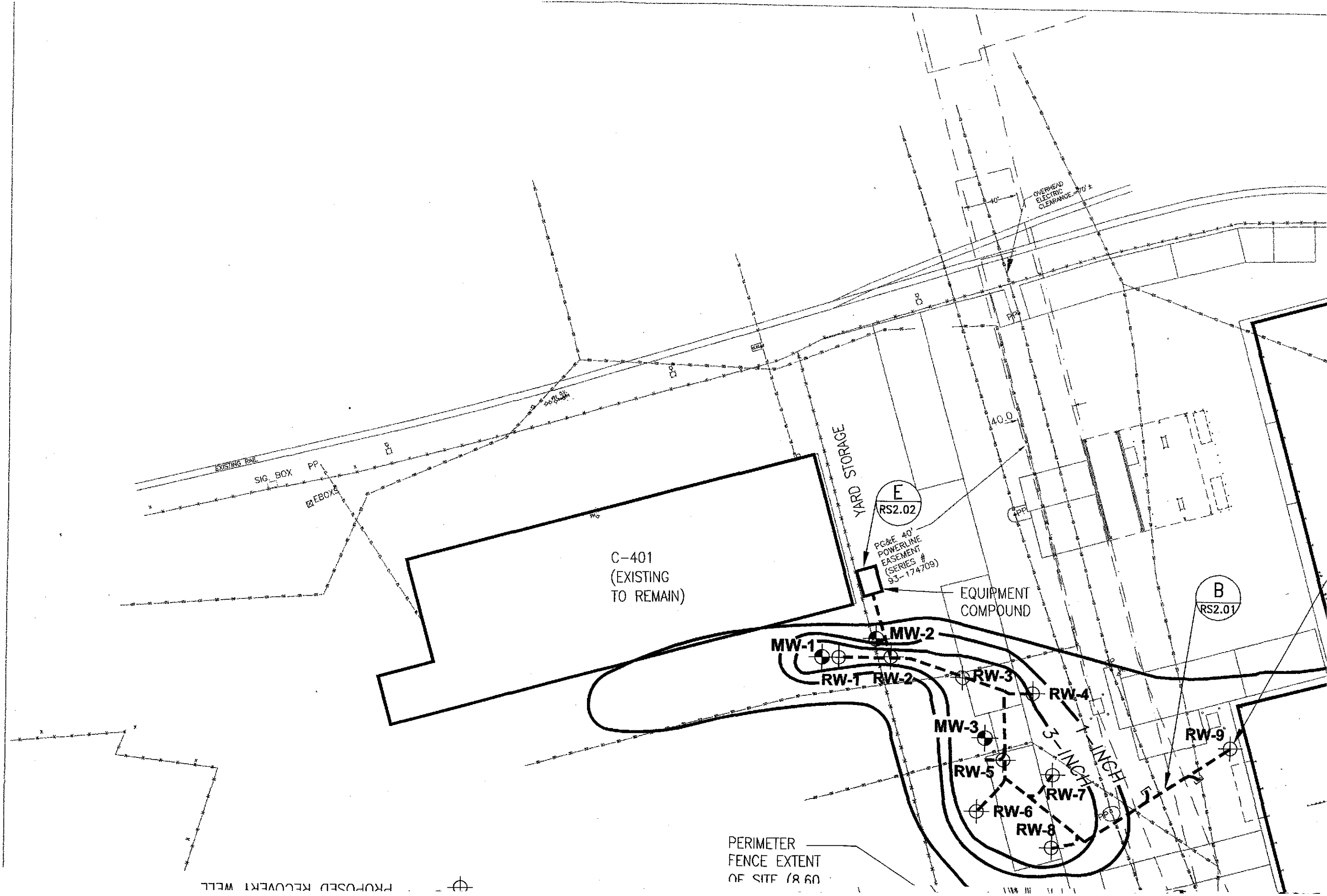
C 23297

APPROVED *Amal Das*

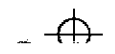
REG. ENGINEER NO. C 33213

REG. ENGINEER NO.

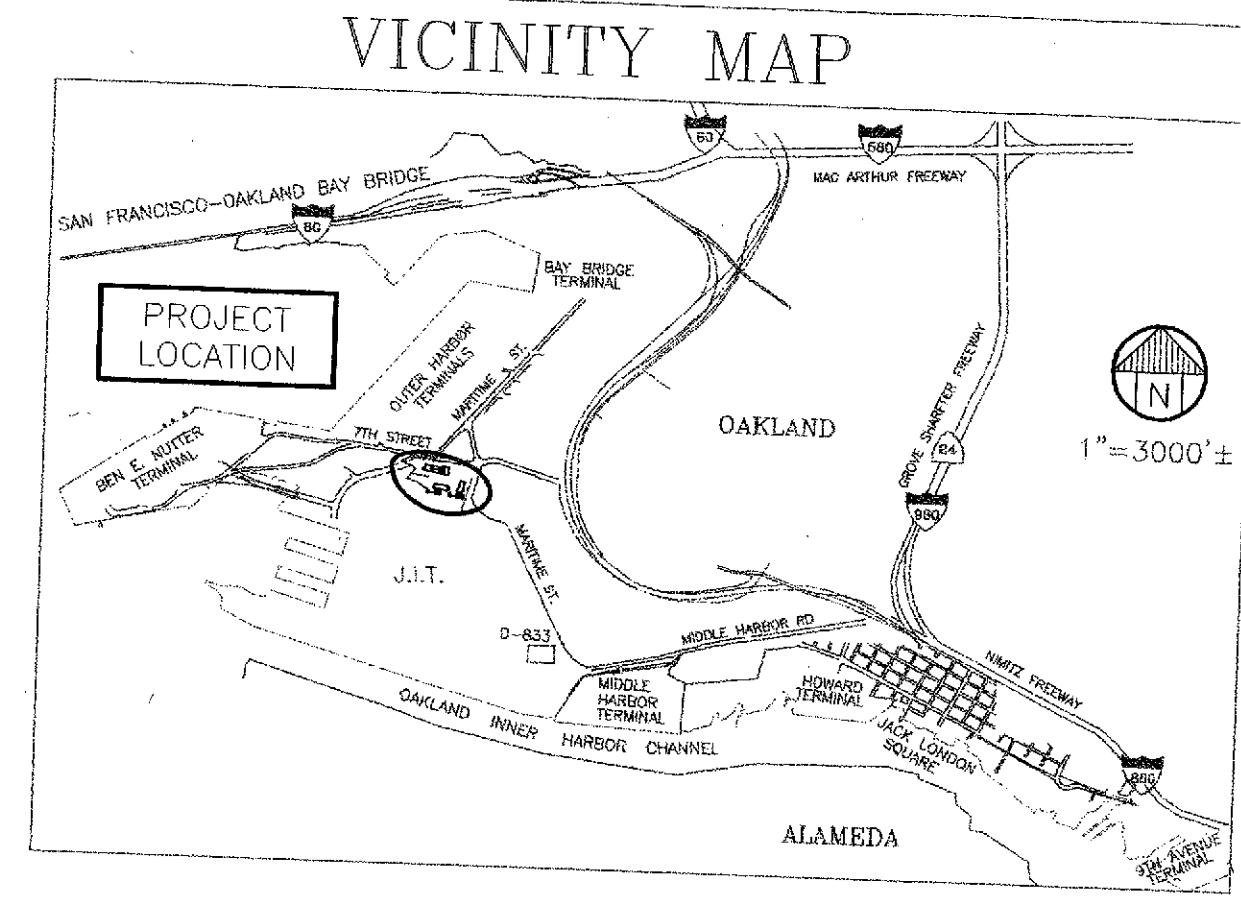
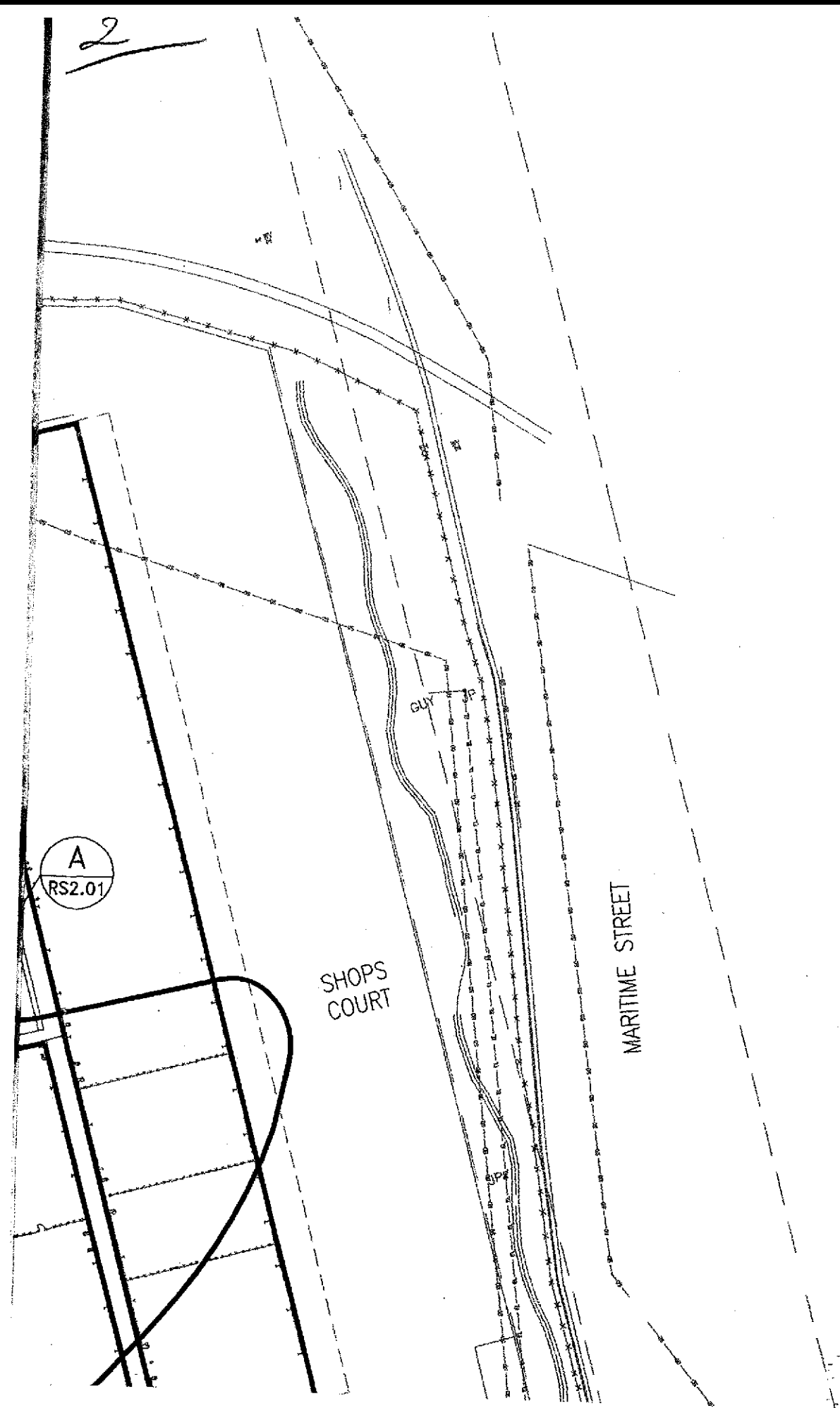
1





PROPOSED RECOVERY WELL



PERIMETER FENCE EXTENT OF SITE (8.60)



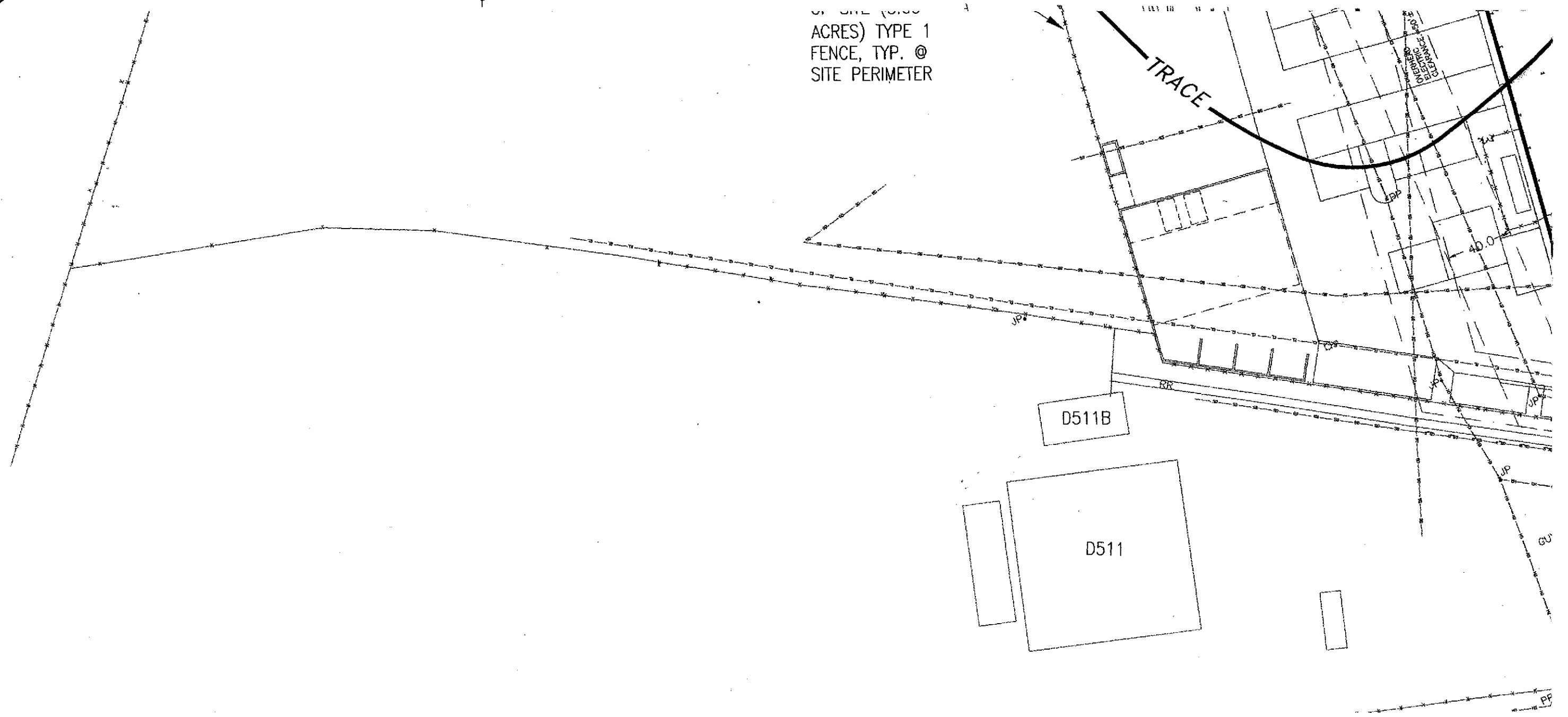
LEGEND

-  EXISTING MONITORING WELL
-  PROPOSED RECOVERY WELL

2

FROM ASHROCK REVISIONS

OF SITE (0.30
ACRES) TYPE 1
FENCE, TYP. @
SITE PERIMETER



REFERENCES:
ANS AA
LD BOOKS
PORT OF OAKLAND DATUM"
3.20' BELOW MEAN SEA LEVEL
NOTATION:
CHECK TRACING FOR LATEST REVISIONS

REVISIONS			
NO.	DATE	APP'D	
1			ADDED FREE PRODUCT RECOVERY SYSTEM

REVIEWED _____
FACILITIES DEPARTMENT

REVIEWED _____
CONSTRUCTION DEPARTMENT

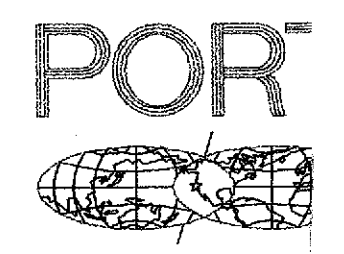
REVIEWED _____
PROJECT PLANNING DEPARTMENT

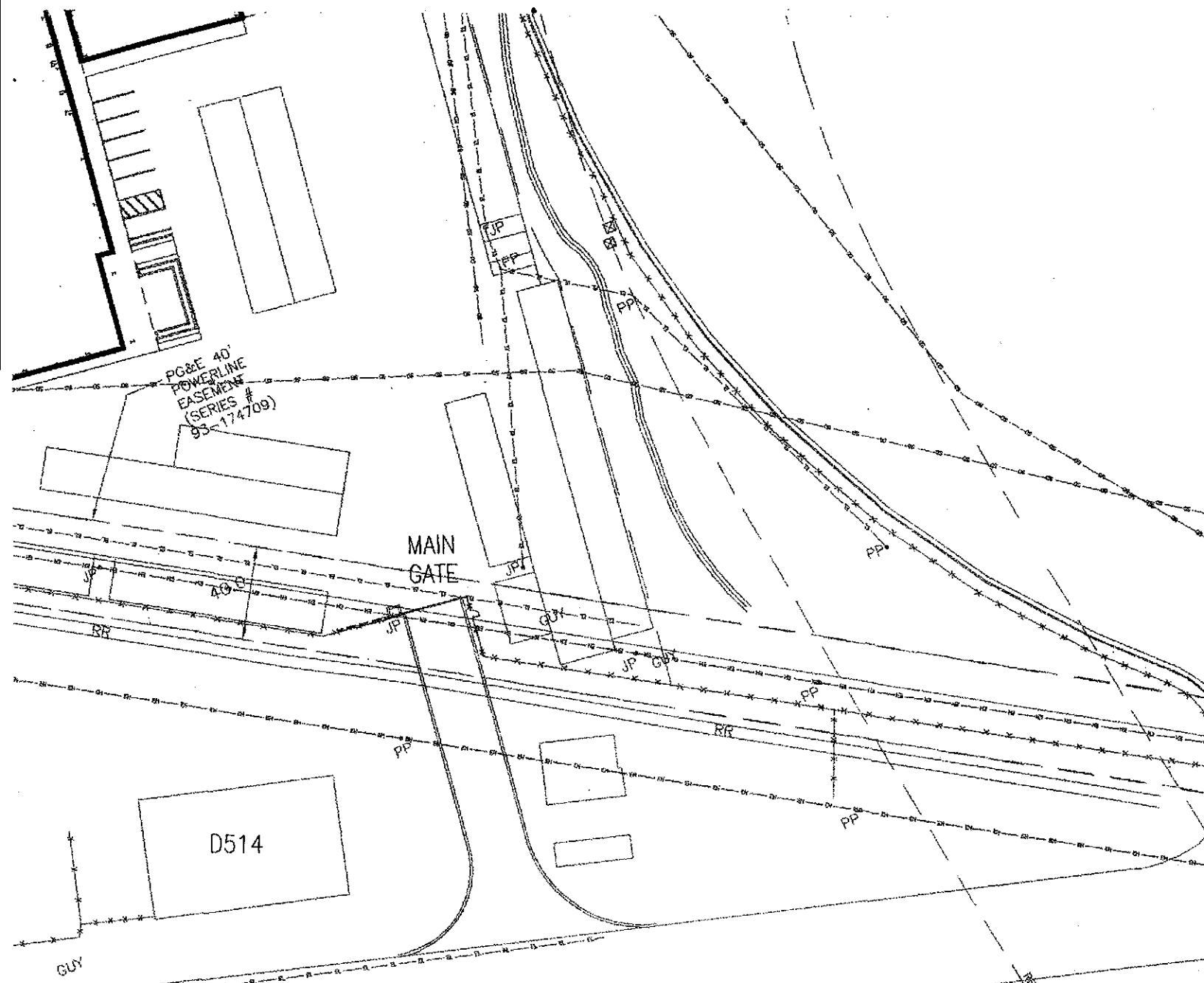
DRAWN _____ JMV





DESIGNED _____ BKM REG. ENGINEER NO. C 57489

CHECKED _____ BKM REG. ENGINEER NO. C 57489

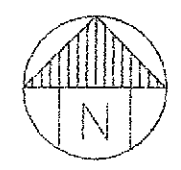
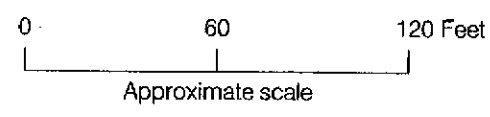
REVIEWED _____ BKM REG. ENGINEER NO. C 57489








-  PROPOSED RECOVERY WELL
-  FREE PRODUCT THICKNESS, INNOVATIVE TECHNICAL SOLUTIONS, INC., DATED 5/20/02
-  UTILITY TRENCH FOR PROUCT RECOVERY SYSTEM
-  SEE DETAIL A, SHEET RS2.01

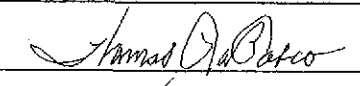
Alameda County
 DEC 16 2002
 Environmental Health

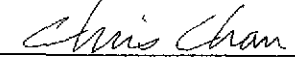


 <p>Michael Willis Architects 471 Ninth Street Oakland, CA 94607 tel: (510) 287-9710</p>	
<p>MARITIME & 7TH STREET SITE</p>	
<p>PORT FIELD SUPPORT SERVICES COMPLEX</p>	
<p>DATE: 02/04/03</p>	<p>SCALE:</p>
<p>SHEET: 22-1 OF 203 SHEETS</p>	
<p>FREE PRODUCT RECOVERY SYSTEM SITE PLAN</p>	<p>RS1.01 AA-3827</p>

OF OAKLAND
 530 WATER ST. OAKLAND, CALIFORNIA

CHIEF ENGINEER

 REG. ENGINEER NO. C 23297

APPROVED 
 REG. ENGINEER NO. C 33213

RECOMMENDED 
 REG. ENGINEER NO. C 43841

QUICK CONNECT REDUCING UNION
(3/8"-1/4")

3/8" NYLON AIR SUPPLY LINE

3/4" OIL RESISTANT
PRODUCT RETURN LINE

AIR EXHAUST
CHECK VALVE

3-WAY VALVE
(3/4"-5/16")

HIGH TANK SENSOR

SKIMMER CONTROLLER
(SEE NOTE 18)

COMPRESSED AIR DRYER
(SEE NOTE 16)

4" WELL CAP
WITH 2" FITTINGS
FROM XITECH, INC.

2" VACUUM LINE
2" BALL VALVE

5000ES
CONTROLS

AIR EXHAUST TUBING

5/16" OIL RESISTANT TUBING

SAFETY ROPE

1/4" NYLON AIR SUPPLY TUBING

XITECH SKIMMER
(SEE NOTE 14)

FREE PRODUCT

GROUNDWATER

AIR COMPRESSOR
(SEE NOTE 15)

USE 3/4" MNPT X 1/2" BARB ADAPTER,
1/2" NYLON TUBING, 1/2 MNPT X 1/2"
BARB ADAPTER, AND HOSE CLAMPS

USE 1/2" MNPT X 3/8" BARB ADAPTER,
3/8" NYLON TUBING, 3/8 MNPT X 3/8"
BARB ADAPTER, AND HOSE CLAMPS

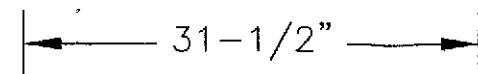
3/8" NYLON AIR SUPPLY LINES
INSIDE 6" PVC CONDUIT

D RECOVERY WELL INSTRUMENTATION (TYP)

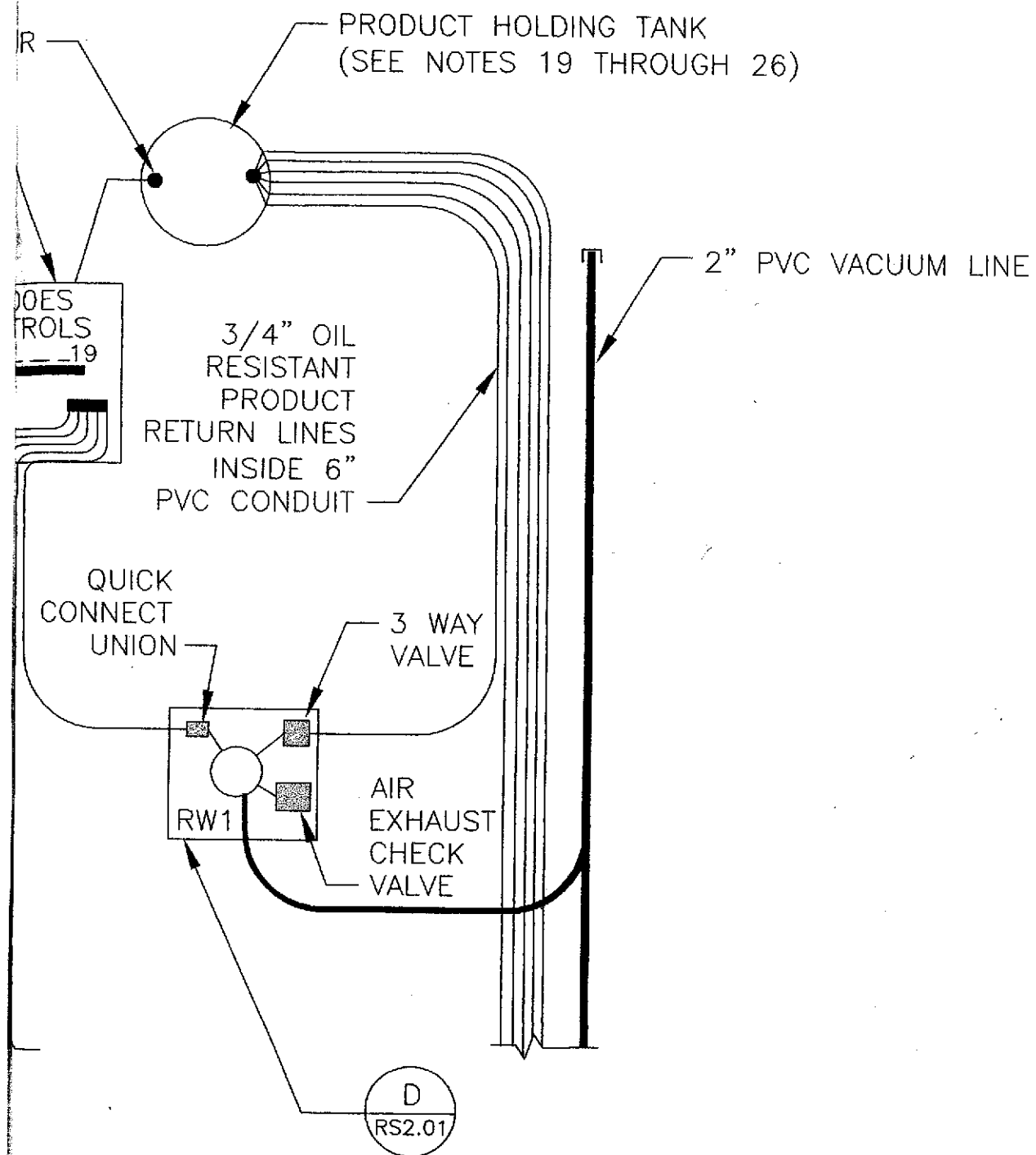
NOT TO SCALE

C PIPING AND INS

NOT TO SCALE



CHRISTY BOY P-R-DIT



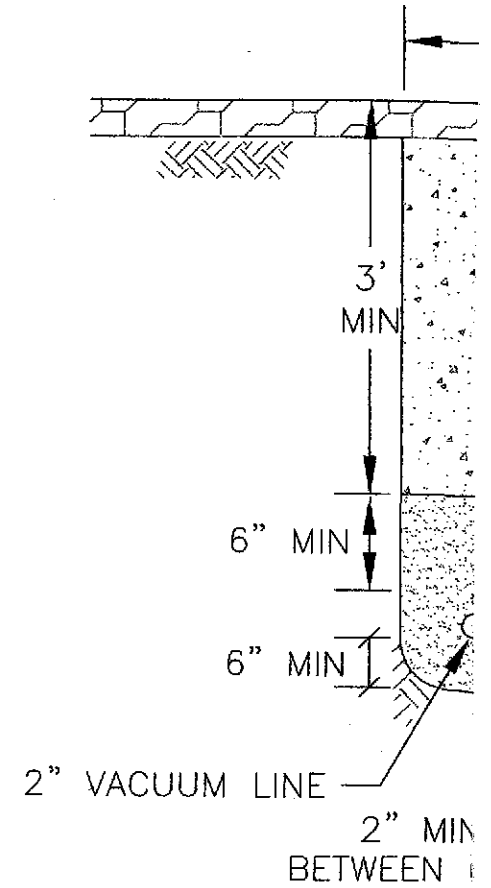
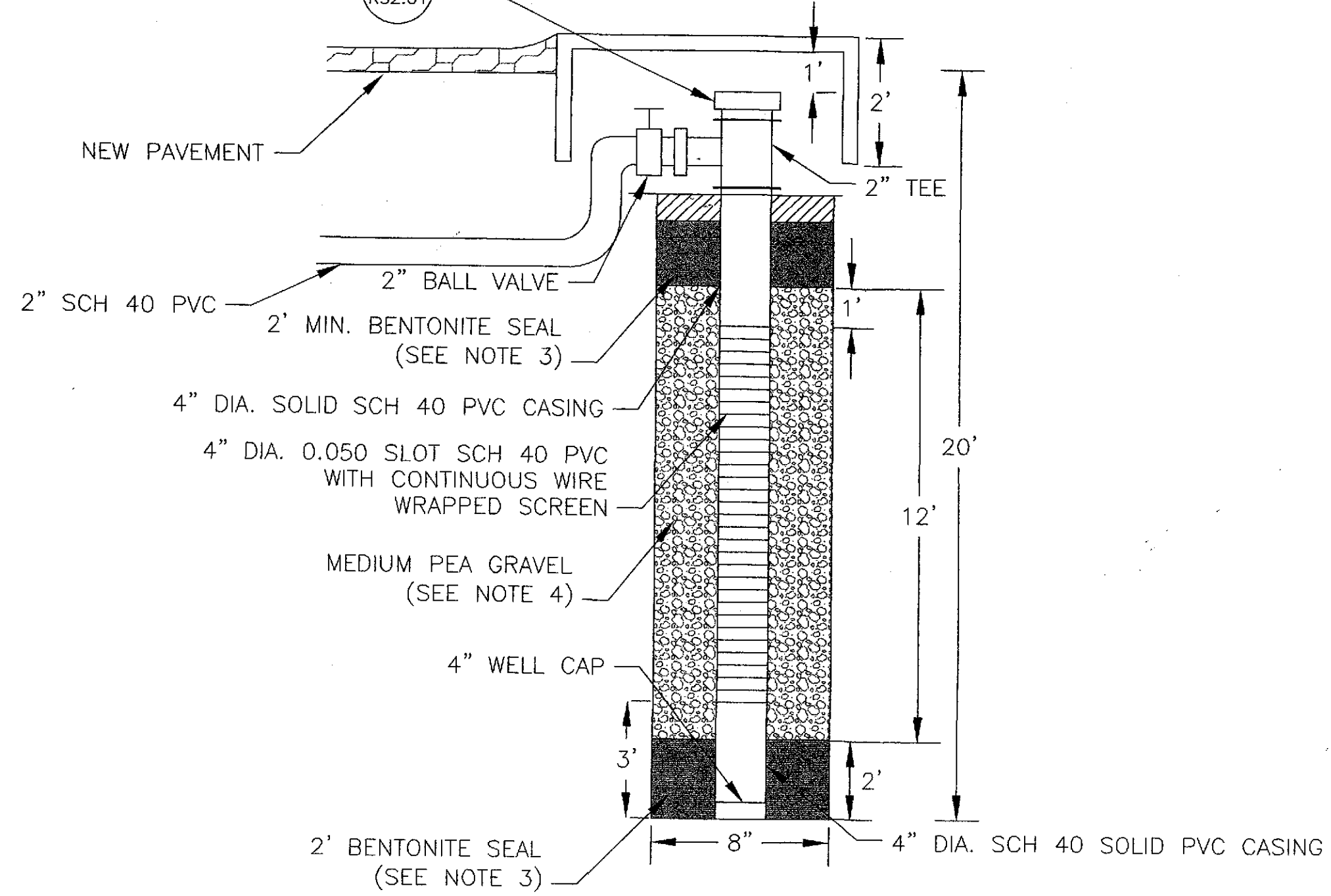
INSTRUMENTATION

NOTES:

1. AN ALAMEDA COUNTY WATER DISTRICT WELL PERMIT APPLICATION MUST BE SUBMITTED AND APPROVED BY THE COUNTY PRIOR TO COMMENCING THE RECOVERY WELL INSTALLATION.
2. LOCATION AND DEPTH OF EXISTING UTILITIES ARE APPROXIMATE AND HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL CHECK AND VERIFY LOCATIONS OF ALL EXISTING UTILITIES BOTH UNDERGROUND AND OVERHEAD. NO EXCAVATION OR DRILLING SHALL BE DONE UNTIL ALL INVOLVED UTILITY COMPANIES ARE NOTIFIED 24-HOURS IN ADVANCE. "UNDERGROUND SERVICE ALERT" POLICY PROCEDURE IS TO BE FOLLOWED.
3. BENTONITE SEALS SHALL BE COMPOSED OF COMMERCIALY AVAILABLE PELLETS. BENTONITE SEALS PLACED ABOVE THE WATER TABLE SHALL BE HYDRATED IMMEDIATELY AFTER PLACEMENT.
4. PEA GRAVEL SHALL CONSIST OF INERT ROUNDED GRAVEL WHERE 100 PERCENT OF THE MATERIAL PASSES THE 1/2-INCH SCREEN AND 90 PERCENT IS RETAINED ON THE 1/4-INCH SCREEN.
5. ONLY SWEEPING BENDS, NO 90° JOINTS, SHALL BE USED FOR PVC CONDUIT USED FOR AIR SUPPLY AND PRODUCT RETURN LINES.
6. ALL POLYVINYL CHLORIDE PIPE (PVC) SHALL BE SCHEDULE 40. FITTINGS SHALL BE OF THE SAME MATERIAL AND SHALL BE OF THE SOLVENT-WELD TYPE.
7. BALL VALVES SHALL BE OF THE FULL PORT TYPE AND CONTAIN UNIONS ON BOTH ENDS SO THAT THE VALVE BODY CAN BE REMOVED FROM THE LINE WITHOUT BREAKING DOWN THE PIPING. THE UNIONS, IN TURN, SHALL BE SOLVENT-WELDED TO THE PVC PIPING. THE HANDLE SHALL BE EASILY REMOVABLE AND PARALLEL TO THE PIPING WHEN THE VALVE IS OPEN.
8. WHERE CHANGES IN SIZE OCCUR IN ANY AND ALL PIPING, REDUCING FITTINGS SHALL BE USED.
9. IN GENERAL, ALL PIPING CONNECTIONS TO EQUIPMENT SHALL BE PROVIDED WITH UNIONS. A SUFFICIENT NUMBER OF UNIONS SHALL BE USED TO ALLOW FOR THE DISMANTLING OF ALL PIPE, VALVES, AND EQUIPMENT.
10. DETECTABLE UTILITY MARKING TAPE SHALL BE BURIED 12 INCHES BELOW THE SURFACE DIRECTLY ABOVE THE CENTER CONDUIT.
11. SEE GEOTECHNICAL REPORT FOR COMPACTION REQUIREMENTS.
12. POUR SLAB AFTER REVIEW OF EXCAVATION AND COMPACTION AND WRITTEN ACCEPTANCE OF THE GEOTECHNICAL ENGINEER.
13. BEDDING SAND SHALL CONSIST OF WELL GRADED SAND WHERE 100

3

WITH H-20 LOAD TRAFFIC COVER



A RECOVERY WELL CONSTRUCTION (TYP)
NOT TO SCALE

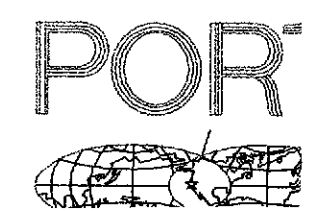
B UTILITY TRENCH
NOT TO SCALE

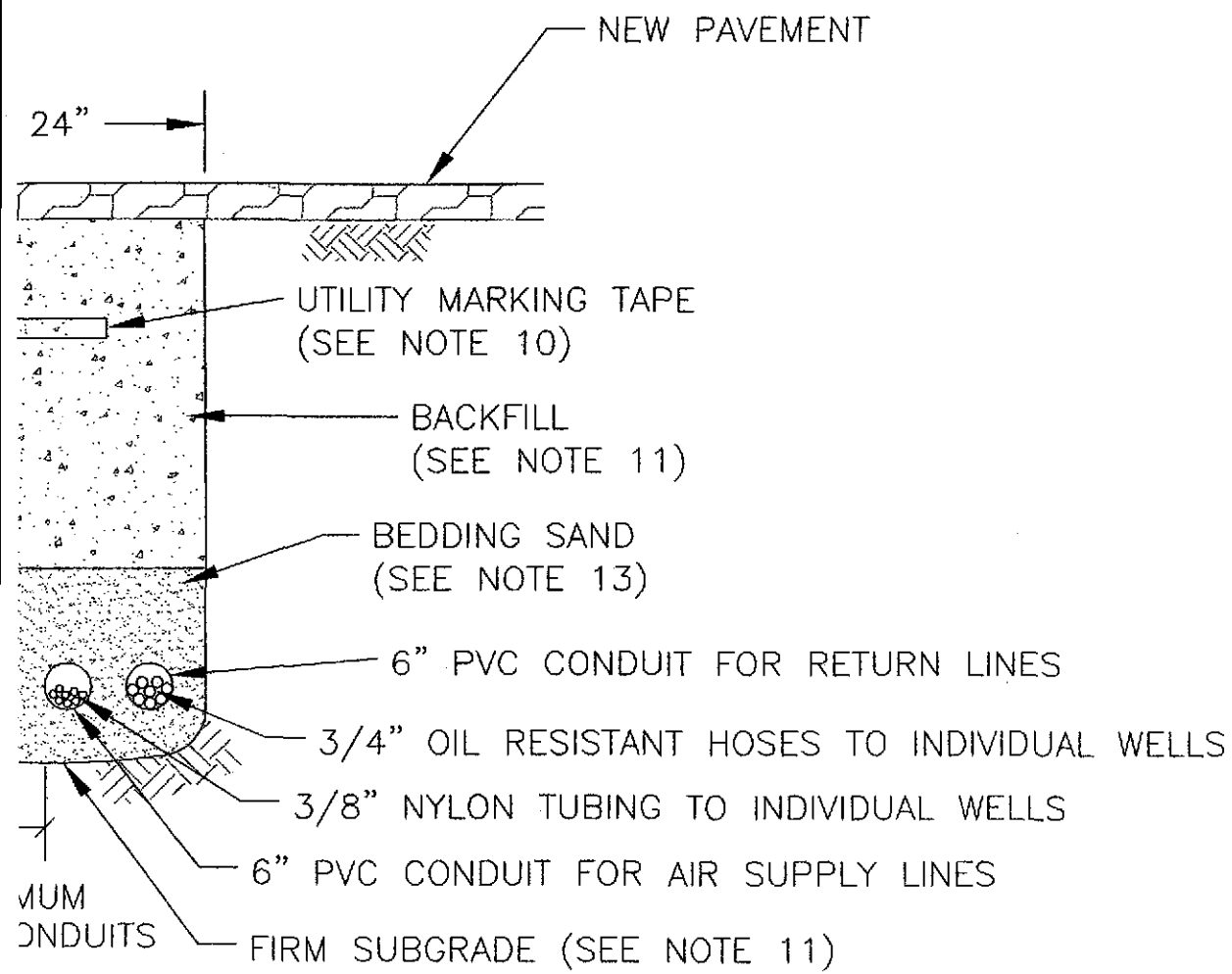
REFERENCES:
 STANDARDS
 FIELD BOOKS
 "PORT OF OAKLAND DATUM"
 3.20' BELOW MEAN SEA LEVEL
 CAUTION:
 CHECK TRACING FOR LATEST REVISIONS

REVISIONS			
NO.	DATE	APP'D	
1			ADDED FREE PRODUCT RECOVERY SYSTEM

REVIEWED _____
 FACILITIES DEPARTMENT
 REVIEWED _____
 CONSTRUCTION DEPARTMENT
 REVIEWED _____



DRAWN _____ JMV
 DESIGNED _____ BKM C 57489
 REG. ENGINEER NO. C 57489
 CHECKED _____ BKM
 REG. ENGINEER NO. C 57489
 REVIEWED _____ BKM
 REG. ENGINEER NO. C 57489





- PERCENT OF THE MATERIAL PASSES THE 3/8-INCH SCREEN AND LESS THAN 1 PERCENT PASSES THE NO. 200 SCREEN. A UTILITY SOIL GAS CUT-OFF BARRIER (MT2.01 DETAIL D) MUST BE INSTALLED EVERY 50 FEET ALONG THE UTILITY TRENCH.
- 14. XITECH MODEL ADJ 200 SKIMMER. PUMP INSTALLATION MUST BE COORDINATED WITH XITECH AND PORT REPRESENTATIVES.
- 15. INGERSOLL-RAND MODEL 2475N7.5 80 GALLON AIR COMPRESSOR, 7.5 HP, VERTICAL TANK.
- 16. INGERSOLL-RAND MODEL DS25 REFRIGERATED COMPRESSED AIR DRYER.
- 17. SEE SHEETS E2.01 AND E7.03 FOR ELECTRICAL REQUIREMENTS.
- 18. SKIMMER CONTROLLER WILL BE A XITECH MODEL 5000ES CONTROLLER.
- 19. THE TANK SHALL BE A 500-GALLON CONVAULT ABOVEGROUND STORAGE TANK OR EQUIVALENT.
- 20. THE CONTRACTOR MUST ADHERE TO THE VARIOUS CODES AND REGULATIONS APPLICABLE TO THIS SITE FOR THE STORAGE OF COMBUSTIBLE AND FLAMMABLE LIQUIDS. THE CODES AND REGULATIONS MAY ORIGINATE FROM LOCAL FIRE AUTHORITIES (E.G., FIRE MARSHALS), LOCAL BUILDING JURISDICTIONS (E.G. CITY OR COUNTY BUILDING OFFICIALS), STATE LAWS AND REGULATIONS (E.G., AIR RESOURCE BOARD), FEDERAL AGENCIES (E.G., ENVIRONMENTAL PROTECTION AGENCY), REGIONAL AND NATIONAL CODES (E.G., NATIONAL FIRE PROTECTION ASSOCIATION [NFPA] OR UNIFORM FIRE CODE [UFC]) OR OTHERS.
- 21. INSTALLATION OF THE TANK MUST BE PERFORMED BY PERSONNEL THAT HAVE KNOWLEDGE AND EXPERIENCE IN PROCEDURES INVOLVED WITH PROPER AND SAFE INSTALLATION OF ABOVEGROUND TANKS USED FOR THE STORAGE OF STABLE, FLAMMABLE AND COMBUSTIBLE LIQUIDS.

CH (TYP)

	<p>Michael Willis Architects 471 Ninth Street Oakland, CA 94607 tel: (510) 287-9710</p>	
<p>Treadwell & Rollo Environmental and Geotechnical Consultants 555 Montgomery Street, Suite 1300 San Francisco, California (415) 955-9040</p>		
<p>MARITIME & 7TH STREET SITE</p>		<p>DATE: 02/04/03</p>
<p>PORT FIELD SUPPORT SERVICES COMPLEX</p>		<p>SCALE:</p>
<p>FREE PRODUCT RECOVERY SYSTEM - DETAILS</p>		<p>SHEET: 22-2 OF 203 SHEETS</p>
<p>RS2.01</p>		<p>AA-3827</p>

OF OAKLAND
 530 WATER ST. OAKLAND, CALIFORNIA

CHIEF ENGINEER

 C 23297
 REG. ENGINEER NO.

APPROVED
 C 33213
 REG. ENGINEER NO.

RECOMMENDED
 C 43841
 REG. ENGINEER NO.