0032652

Mr. John Grantham
State of Washington
Department of Ecology
Nuclear & Mixed Waste Program
P. O. Box 47600
Olympia, WA 98504-7600

FLUOR DANIEL, INC.

Date: May 12, 1993

Reference: Hanford Waste Vitrification Plant
DOE Contract DE-AC06-86RL10838
Fluor Contract 8457

Transmittal No.: WDOE-417

Dear Mr. Grantham:

TRANSMITTAL

We enclose * copy of the items listed below. These are issued per US-DOE request.
*2 FULLSIZE BLUELINES (ROLLED), 1 REDUCED & 2 SPECIFICATIONS

Response due to Fluor: N/A
Responds to: N/A

NUMBER	REV	DATE	TITLE
SEE TRANSMITTAL ATTACHMENT	-----	05/05/93	FAB SHOP AND FACILITIES

DEC 1993
RECEIVED
EDMC

Distribution:
Reference: FRP-918, FUP-452
R. L. Long: DOE-RL w/0
TWP/AME Corresp Cntrl Cntr, MSIN A5-10
(A920 PACKAGE),w/0
P. Felise, WHC-RL (MSIN G6-16), w/1F, SPEC
Environmental Data Management Center
(MSIN H6-08), w/1F, 1 SPEC
D. Duncan, US EPA, Region X w/0

Very truly yours,

Rosalie Cadenas for
R. S. Poulter
Project Director

RSP:MJY:lh

TRANSMITTAL ATTACHMENT FOR PACKAGE DRAWINGS

PACKAGE NUMBER: A920

DRAWING NUMBER	SHT NO.	REV	DATE	DRAWING TITLE	SOFTWARE
H-2-117077	1	1	05/05/93	CIVIL INFORMATION SHEET	A
H-2-117078	1	1	05/05/93	CIVIL FINISH GRADING, PAVING AND DRAINAGE PLAN	A
H-2-117079	1	1	05/05/93	CIVIL SECTIONS AND DETAILS	A
H-2-116029	1	1	05/05/93	FAB SHOP AND SUPPORT FACILITIES TITLE SHEET	A
H-2-116030	1	1	05/05/93	FAB SHOP AND SUPPORT FACILITIES SITE PLAN AND DRAWING INDEX	A

PROJECT TITLE:

B-595 HWVP-HANFORD WASTE VITRIFICATION PLANT

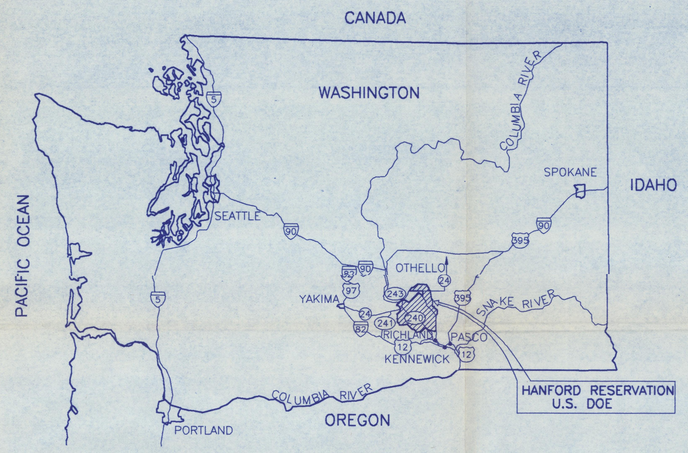
CWBS A920
FAB SHOP AND SUPPORT FACILITIES

FOR:

U.S. DEPARTMENT OF ENERGY RICHLAND OPERATIONS OFFICE

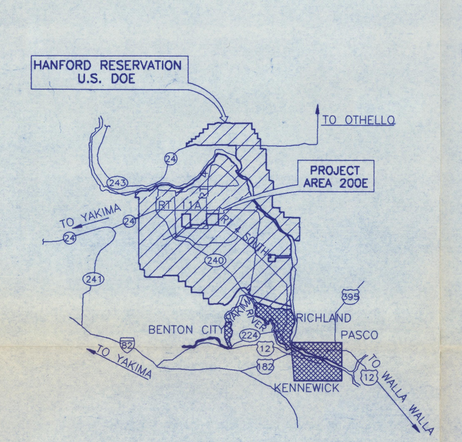
BY:

FLUOR DANIEL, INC



REGIONAL MAP

0 20 40 60 80 100
GRAPHIC SCALE
1" = 40 MILES



VICINITY MAP

0 5 10 15 20 25
GRAPHIC SCALE
1" = 10 MILES

LEGEND

- DENOTES HANFORD RESERVATION U.S. DOE
- DENOTES CITY LIMITS

MAY 7 - 1993

REV. NO.	DATE	REVISION DESCRIPTION					APPROVAL INITIALS
1	5/7/93	REVISIONS PER CR-HWVP-0881	JLD	CAS	JLD		
			EJ	MFJ	BER		
0	3/10/93	APPROVED FOR CONSTRUCTION	JLD	SS	JLD		
			EJ	MJH	BER	NHW	

CADFILE B116029A CADCODE 2B:IBM:ACD2:10.C2:SS

ENGINEERING RELEASE
REV _____ DATE _____
ERO _____

SIGNATURE	DATE
PROJ DIR N. H. WILLIAMS	03-10-93
QA MGR B. E. RITTBERG	03-09-93
INDEPENDENT SAFETY MGR M. J. HIGUERA	03-08-93
PROJECT MGR E. R. JACOBS	03-08-93
SYSTEMS MGR B. E. BYERS	03-08-93
ENGINEERING MGR P. J. SPEIDEL	03-08-93
SUPERVISOR J. L. DATTE	03-08-93
DESIGN ENGINEER S. SAM	03-08-93
CHECKED J. L. DATTE	03-08-93
DRAWN S. SAM	02/26/93

U.S.DEPARTMENT OF ENERGY
Richland Field Office
DE - AC06-86RL10838

FLUOR DANIEL, INC.
ADVANCED TECHNOLOGY DIVISION

FAB SHOP AND SUPPORT FACILITIES TITLE SHEET

PROJECT TITLE: HANFORD WASTE VITRIFICATION PLANT

PROJECT	FLUOR CONTRACT NO.	CWBS NO.
B-595	8457	A920
SCALE NONE	BLDG NO. 18	INDEX NO.

CLASSIFICATION	BY	DRAWING NUMBER	SHEET	OF	REV
NONE	NOT REQD	H-2-116029	1	1	1

DWG NO.	DRAWING TITLE
REFERENCE DRAWINGS	
NEXT USED ON	

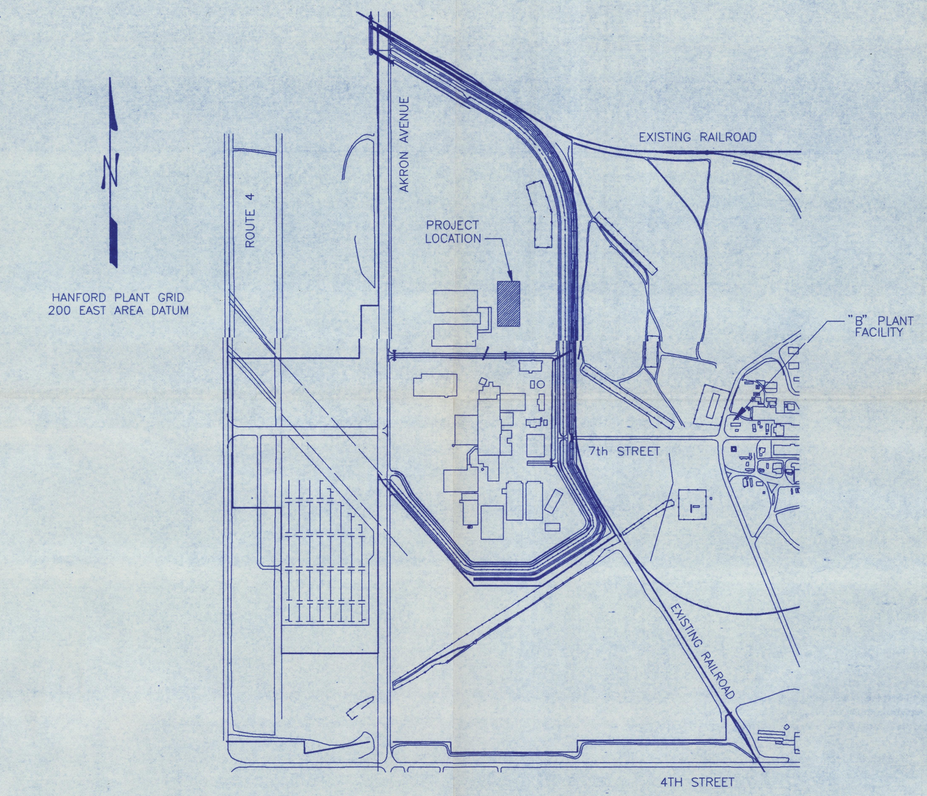
920 H-2-116029 R-1

DISTRIBUTION CODE: 301 T1 ACAD INITIALS: LK DATE: 04/21/93

RED Apr 21 09:24:11 1993 P_PAGE Q:\PLOTS\AA87LK2.PLT

DRAWING INDEX

DRAWING NO.	CODE NO.	TITLE	REV
GENERAL			
H-2-116029	T1	FAB SHOP AND SUPPORT FACILITIES TITLE SHEET	1
H-2-116030	T2	FAB SHOP AND SUPPORT FACILITIES DRAWING INDEX	1
CIVIL			
H-2-117077	C1	CIVIL INFORMATION SHEET	1
H-2-117078	C2	CIVIL FINISH GRADING, PAVING AND DRAINAGE PLAN	1
H-2-117079	C3	CIVIL SECTIONS AND DETAILS	1
ARCHITECTURAL			
SK-2-91458	A1	ARCHITECTURAL FAB SHOP GENERAL NOTES & ABBREVIATIONS	0
SK-2-91459	A2	ARCHITECTURAL FAB SHOP FLOOR PLAN	0
SK-2-91460	A3	ARCHITECTURAL FAB SHOP EXTERIOR ELEVATIONS	0
SK-2-91461	A4	ARCHITECTURAL FAB SHOP BLDG SECTIONS	0



PROJECT AREA MAP
NOT TO SCALE

NOTE

1. SEE DWG H-2-117154 (CWBS A160) FOR UTILITY POINT OF CONNECTIONS

DWG NO.	DRAWING TITLE
H-2-117154 (CWBS A160)	CIVIL UNDERGROUND UTILITY PLAN

REFERENCE DRAWINGS

NEXT USED ON

MAY 7 - 1993

REV NO.	DATE	REVISION DESCRIPTION				APPROVAL INITIALS		
1	5/5/93	REVISED PER CR-HWVP-0881	JLD	SS	JLD			
			EJ	MJH	BER			
0	3/10/93	APPROVED FOR CONSTRUCTION	JLD	SS	JLD			
			EJ	MJH	BER	NHW		

CADFILE: B116030A CADCODE: 2B:IBM:ACD2:10.C2:SS

ENGINEERING RELEASE
REV _____ DATE _____
ERO _____

SIGNATURE	DATE
PROJ DIR N. H. WILLIAMS	03-10-93
QA MGR B. E. RITTBERG	03-09-93
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DRAWN S. SAM	02/26/93

U.S. DEPARTMENT OF ENERGY
Richland Field Office
DE - AC06-86RL10838

FLUOR DANIEL, INC.
ADVANCED TECHNOLOGY DIVISION

FAB SHOP AND SUPPORT FACILITIES DRAWING INDEX

PROJECT TITLE: HANFORD WASTE VITRIFICATION PLANT

CLASSIFICATION	BY	DRAWING NUMBER	SHEET	OF	REV
NONE	NOT REQD	H-2-116030	1	1	1

PROJECT	FLUOR CONTRACT NO.	CWBS NO.
B-595	8457	A920
SCALE: NONE	BLDG NO.: 18	INDEX NO.

DISTRIBUTION CODE: 301 T2 ACAD INITIALS: LK DATE: 04-21-93

92d H-2-116030 1 1 1 R.1

Wed Apr 21 10:41:15 1993 P:CAD2 G:\PLOTS\PAAP2TSC1.PLT

ABBREVIATIONS

&	AND
@	AT
A.C.	ASPHALTIC CONCRETE
ACI	AMERICAN CONCRETE INSTITUTE
APPROX	APPROXIMATE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
BC	BEGINNING OF CURVE
BCR	BEGINNING OF CURVE RETURN
BLDG	BUILDING
BM	BENCHMARK
CB	CATCH BASIN
℄	CENTER LINE
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CMP	CORRUGATED METAL PIPE
DIA OR ø	DIAMETER
DB	DIRECT BURY ELECTRICAL LINE
DWG/DWGS	DRAWING(S)
E	EAST
EC	END OF CURVE
ECR	END OF CURVE RETURN
EL	ELEVATION
EP	EDGE OF PAVEMENT
ETC	ETCETERA
FDN	FOUNDATION
FF	FINISH FLOOR
FG	FINISHED GRADE
FL	FLOW LINE
FWX	FIRE WATER LINE
FS	FINISHED SURFACE
GALV	GALVANIZED
GB	GRADE BREAK
HP	HIGH POINT
HVAC	HEATING VENTILATION AND AIR CONDITIONING
HWVP	HANFORD WASTE VITRIFICATION PLANT
ICR	INFORMATION/CHANGE REQUEST
IE	INVERT ELEVATION
L=	LENGTH
LF	LINEAR FEET
MH	MANHOLE
MAX	MAXIMUM
MIN	MINIMUM
N	NORTH
NO. OR #	NUMBER
OC	ON CENTER
%	PERCENT
PI	POINT OF INTERSECT
PR	PAIR
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
REF	REFERENCE
RR	RAILROAD
S	SOUTH
SE	SOUTH EAST
S=	SLOPE
SCHD	SCHEDULE
SD	STORM DRAIN
SPEC	SPECIFICATION
SS	SANITARY SEWER
SQ	SQUARE
SW	SOUTH WEST
SWX	SANITARY (POTABLE) WATER LINE
TC	TOP OF CURB
TOG	TOP OF GRATE
TR	TOP OF RAIL
TYP	TYPICAL
W	WEST
W/	WITH
WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
WWF	WELDED WIRE FABRIC

LEGEND

- EXISTING SECURITY FENCE
- WELDED WIRE FABRIC
- NEW CHAIN LINK FENCE
- FENCE (BY OTHERS)
- NEW RAILROAD (BY OTHERS)
- UNIFORM SLOPE
- SUBGRADE
- RIPRAP
- POWER POLES (EXISTING)
- LIGHT POLE (EXISTING)
- LIGHT POLE (BY OTHERS)
- 710.00 — NEW SPOT ELEVATION
- (710.00) — EXISTING SPOT ELEVATION
- BENCHMARK
- SOIL BORING LOCATION
- DENOTES CENTERLINE
- NEW CONTOUR TO BE MATCHED TO EXISTING GRADE
- (700) — EXISTING CONTOURS
- 700 — NEW CONTOURS
- DB — DIRECT BURY ELECTRICAL LINES (BY OTHERS)
- (FWX) — FIRE WATER LINE W/SIZE INDICATED (BY OTHERS)
- (SS) — SANITARY SEWER LINE (BY OTHERS)
- (SWX) — SANITARY WATER LINE W/SIZE INDICATED (BY OTHERS)
- NEW UNDERGROUND UTILITY (AS NOTED)
- FLOW LINE
- E / 117056 — DENOTES DETAIL OR SECTION CALLOUT "5" ON DRAWING NUMBER H-2-117056
- CONCRETE (SECTIONAL VIEW)
- CONCRETE (PLAN VIEW)
- 3 — DENOTES REVISION AND NUMBER
- MH — SANITARY SEWER MANHOLE (BY OTHERS)
- FIRE HYDRANT (BY OTHERS, UNLESS NOTED OTHERWISE)
- BARRICADE POSTS (BY OTHERS, UNLESS NOTED OTHERWISE)
- CAPPED PIPE (BY OTHERS)
- NEW CAPPED PIPE
- POST INDICATOR VALVE (BY OTHERS)
- GATE VALVE W/VALVE BOX (BY OTHERS)
- NEW POST INDICATOR VALVE
- LIMITS OF NEW ASPHALT PAVING

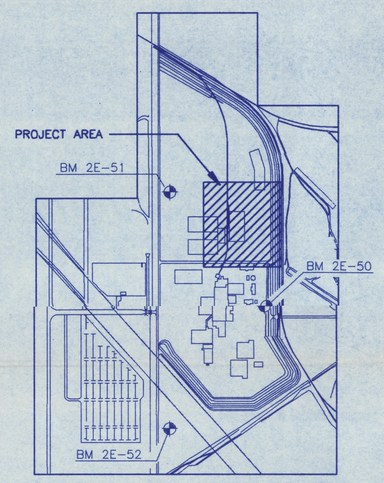
GENERAL NOTES:

1. THE SELLER SHALL VERIFY CONDITIONS AT THE JOB SITE PRIOR TO STARTING CONSTRUCTION AND THE ENGINEER SHALL BE NOTIFIED, IN WRITING, OF ANY DISCREPANCIES OR INCONSISTENCIES.
2. HORIZONTAL AND VERTICAL CONTROL IS BASED ON THE EXISTING HANFORD PLANT 200E AREA SYSTEM. THE PROJECT BENCHMARKS TO BE USED IN THE CONSTRUCTION OF THE HANFORD WASTE VITRIFICATION PLANT ARE LISTED IN THE TABLE BELOW AND ARE INDICATED IN THE KEY PLAN ON THIS DRAWING.

BENCHMARK NAME	DESCRIPTION	HANFORD 200E AREA DATUM (USE FOR CONSTRUCTION)		WASHINGTON COORDINATE SYSTEM (LAMBERT)*
		COORDINATES(FT)	ELEVATION(FT)	COORDINATES (METERS)
2E-50	BRASS CAP SET IN CONCRETE	N 42499.94 W 55599.84	706.09	N 136,431.11 E 572,945.31
2E-51	BRASS CAP SET IN CONCRETE	N 43897.51 W 56725.52	698.61	N 136,856.09 E 572,601.03
2E-52	BRASS CAP SET IN CONCRETE	N 40950.18 W 56725.10	713.50	N 135,957.83 E 572,603.72

*FOR INFORMATION ONLY

3. THE COORDINATES AND ELEVATIONS SHOWN FOR THESE BENCHMARKS ARE BASED ON THE SURVEY DATA REPORT PREPARED BY KAISER ENGINEERS, TITLED "HANFORD WASTE VITRIFICATION PLANT", DATED 9-15-89 (FILE NUMBER 2ESW-039).
4. THE EXISTING UTILITIES AND ITEMS LOCATED IN THE PLANS WHICH ARE NOT CONSTRUCTED BY OTHERS, ARE SHOWN IN AN APPROXIMATE MANNER ONLY. THE LOCATIONS OF EXISTING UTILITY LINES SHOWN HAVE BEEN PROVIDED BY THE OWNER BASED ON EXISTING AS-BUILT DRAWINGS. THE SELLER SHALL TAKE NECESSARY MEASURES TO HOLD SAFE AND PREVENT DAMAGING THE EXISTING UTILITY LINES AND ASSOCIATED APPURTENANCES.
5. EXISTING CONTOURS SHOWN REFLECT THE SITE CONDITIONS AFTER SITE PREPARATION OPERATIONS UNDER CWBS NO. A130.
6. THE SELLER SHALL ROUTE AND INSTALL, FIRE WATER, SANITARY WATER, AND SEWER SERVICE LINES FROM THE TIE-IN SOURCES INDICATED ON THE PLANS TO THE FABRICATION SHOP BUILDING PLUMBING CONNECTION POINTS. SERVICE LINES SHALL MAINTAIN A MINIMUM COVER OF 42" TO THE TOP OF PIPE BELOW FINISHED GRADE.
7. SEWER, FIRE WATER AND SANITARY WATER LINES SHALL BE PRESSURE TESTED IN ACCORDANCE WITH SPECIFICATION B-595-C-A920-02100, PRIOR TO CONNECTION TO EXISTING FACILITIES.
8. SELLER SHALL PROVIDE HORIZONTAL AND VERTICAL AS-BUILTS DATA ON ALL SITE IMPROVEMENTS CONSTRUCTED AS PART OF THIS WORK TO INCLUDE UNDERGROUND UTILITIES, STORM DRAINAGE FACILITIES, GRADING, PAVING AND BUILDING FEATURES.
9. SELLER SHALL IDENTIFY UNKNOWN FIELD OBJECTS AND NOTIFY BUYER OF ANY CONFLICTS.
10. DRAINAGE DITCHES, CULVERTS, AND MISCELLANEOUS STRUCTURES SHALL BE CONSTRUCTED TO THE LINES AND GRADES INDICATED ON DRAWINGS. ANY DEVIATIONS WILL REQUIRE THE SELLER TO SUBMIT AN ENGINEERING OR FIELD CHANGE REQUEST TO THE BUYER FOR APPROVAL PRIOR TO ANY CONSTRUCTION.
11. UNPAVED AREAS DISTURBED DURING CONSTRUCTION OR GRADING ACTIVITIES SHALL BE OVERLAYED WITH 4" OF COMPACTED ROCK SURFACING TO THE FINISH GRADE ELEVATIONS INDICATED ON THE DRAWINGS.
12. A CLEAR DISTANCE OF 8'-6" SHALL BE MAINTAINED FROM THE CENTER LINE OF RAILROAD TO THE FACE OF THE FABRICATION SHOP BUILDING.
13. THRUST BLOCKS FOR THE FIRE WATER (FWX) AND RAW WATER (RWX) LINES SHALL BE PROVIDED AT ALL HORIZONTAL AND VERTICAL DEFLECTIONS, CHANGES IN PIPE SIZE, AND FITTING LOCATIONS IN ACCORDANCE WITH THE THRUST BLOCK DETAILS SHOWN ON SHEET H-2-117079. THRUST BLOCKS SHALL NOT BE REQUIRED FOR THE SANITARY WATER (SWX) LINE WHERE CONTINUOUSLY FUSED AND HAS BEEN APPROVED. WHERE INTERFERENCE OCCUR, THRUST BLOCKS SHALL ENCOMPASS ADJACENT PIPELINES FOR TRANSMISSION OF THRUST FORCES TO ADJACENT UNDISTURBED SOIL.



KEY PLAN
SCALE: NONE

5. STRUCTURAL MATERIALS
   CONCRETE: (28 DAY COMPRESSIVE STRENGTH)
   STRUCTURAL 4000 PSI
   NON-STRUCTURAL 2500 PSI
   SHOTCRETE 3000 PSI
   REINFORCING STEEL: ASTM A615-GRADE 60
   WELDED WIRE FABRIC: ASTM A185
   STEEL CULVERT PLATE: SKID RESISTANT 33,000 PSI YIELD STRENGTH
   STAINLESS STEEL: ASTM A240 OR A276 TYPE 304 OR 304L
   MISCELLANEOUS STEEL: ASTM A36

GENERAL DESIGN CRITERIA

1. NEW FINISHED ROADS AND PAVED AREAS FOR THE HWVP PROJECT ARE DESIGNED FOR HS20 TRUCK LOADING.
2. EARTH RETENTION STRUCTURES SUCH AS CULVERT HEADWALL AND RETAINING WALLS ARE DESIGNED FOR AN ACTIVE PRESSURE COEFFICIENT EQUAL TO 0.27 AND SOIL DENSITY OF 110 POUNDS PER CUBIC FOOT.
3. EXCAVATION, BACKFILL COMPACTION AND ROAD DESIGN ARE BASED ON RECOMMENDATIONS GIVEN IN THE GEOTECHNICAL INVESTIGATION REPORT PREPARED BY DAMES & MOORE FOR KAISER ENGINEERS, JOB NO. 10805-383-016 DATED NOVEMBER 15, 1989 AND SUPPLEMENTS THEREOF.
4. FINISHED GRADES AND DRAINAGE STRUCTURES HAVE BEEN ESTABLISHED AND SIZED TO BE CONSISTENT WITH THE OVERALL SITE DRAINAGE REQUIREMENTS.

MAY 7 - 1993

REV NO.	DATE	REVISION DESCRIPTION	APPROVAL INITIALS		
1	5/5/93	REVISIONS PER CR-HWVP-0881 AND RELEASE TBD/HOLD NO. 246		HLC	SAR
0	3/10/93	APPROVED FOR CONSTRUCTION	BRE	HLC	SAR

CADFILE B117077A — CADCODE 2B:IBM:ACD2:10.C2:SS

ENGINEERING RELEASE
REV _____ DATE _____
ERO _____

SIGNATURE	DATE
PROJ DIR N/A	
QA MGR N/A	
INDEPENDENT SAFETY MGR N/A	
PROJECT MGR N/A	
SYSTEMS MGR N/A	
ENGINEERING MGR N/A	
SUPERVISOR S. RUNK	3-8-93
DESIGN ENGINEER H. CHANG	3-8-93
CHECKED B. EISENBISE	3-08-93
DRAWN H. CHANG	03-08-93

U.S. DEPARTMENT OF ENERGY
Richland Field Office
DE - AC06-86RL10838

FLUOR DANIEL, INC.
ADVANCED TECHNOLOGY DIVISION

CIVIL INFORMATION SHEET

PROJECT TITLE: HANFORD WASTE VITRIFICATION PLANT

PROJECT	FLUOR CONTRACT NO.	CWBS NO.
B-595	8457	A920

SCALE	BLDG NO.	INDEX NO.
1"=40'	18	

CLASSIFICATION	BY	DRAWING NUMBER	SHEET	OF	REV
NONE	NOT REQD	H-2-117077	1	1	1

DWG. NO.	DRAWING TITLE
H-2-116030	FAB SHOP AND SUPPORT FACILITIES DWG INDEX

REFERENCE DRAWINGS
NEXT USED ON

A920 H-2-117077 R: 1

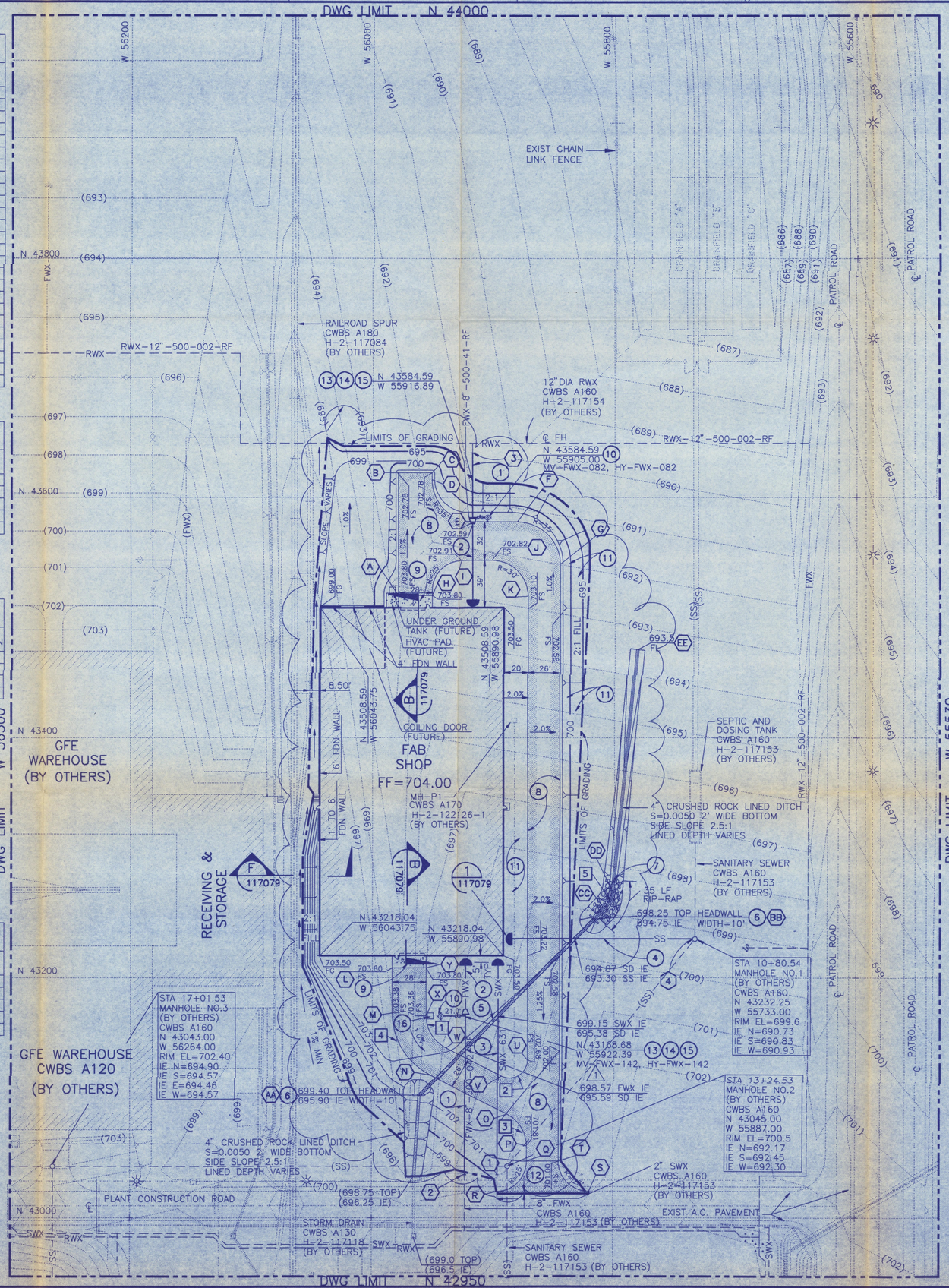
DISTRIBUTION CODE: 053 C1 ACAD INITIALS: HLC DATE: 03-08-93

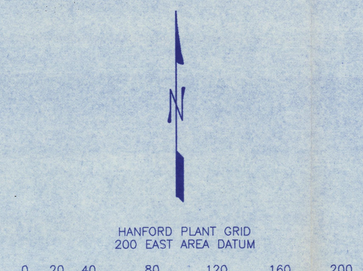
ACCESS ROAD POINT COORDINATES			
	NORTH	WEST	REMARKS
A	43518.59	55979.19	EP
B	43620.60	55979.19	EP
C	43620.60	55951.20	EP
D	43614.59	55951.20	ECR
E	43579.59	55916.20	BCR
F	43579.59	55879.98	EC
G	43544.59	55844.98	BC
H	43518.59	55951.20	ECR
I	43547.59	99926.20	BCR
J	43547.59	55900.98	EC
K	43517.59	55870.98	BC
L	43208.05	55983.52	EP
M	43170.71	55983.52	BC
N	43118.95	55951.70	EC
O	43086.46	55887.44	BCR
P	43059.69	55870.98	ECR
Q	43047.00	55870.98	BCR
R	43022.00	55895.98	ECR
S	43022.00	55819.98	BCR
T	43047.00	55844.98	ECR
U	43131.66	55870.98	BCR
V	43118.28	55892.74	ECR
W	43141.70	55939.07	BC
X	43168.48	55955.53	EC
Y	43208.05	55955.53	EP

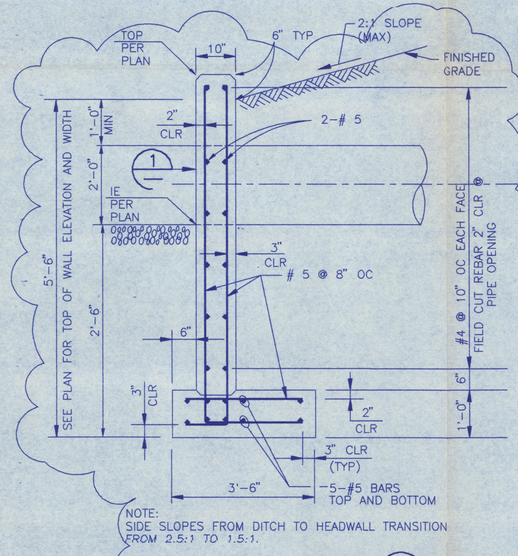
STORM DRAIN ℄ POINT COORDINATES			
	NORTH	WEST	REMARKS
AA	43101.88	55960.68	
BB	43248.76	55816.28	
CC	43257.02	55808.18	
DD	43271.43	55801.44	
EE	43473.80	55781.23	

UTILITY TIE-IN POINT COORDINATES			
	NORTH	WEST	INVERT ELEVATION
1	43035.93	55895.39	696.20
2	43035.93	55922.39	695.50
3	43637.00	55916.89	687.30
4	43232.25	55735.00	690.93

CURVE DATA				
	DELTA	RADIUS	TANGENT	LENGTH
1	63°10'43"	30.00'	18.45'	33.08'
2	116°49'17"	15.00'	24.39'	30.58'
3	116°49'17"	30.00'	48.78'	61.17'
4	63°10'43"	58.00'	35.67'	63.96'
5	38°44'12"	24.00'	8.44'	16.23'



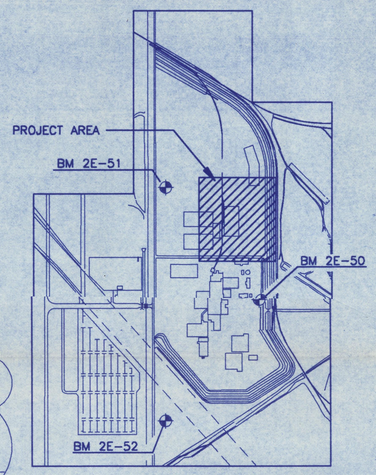




NOTE:
SIDE SLOPES FROM DITCH TO HEADWALL TRANSITION FROM 2.5:1 TO 1.5:1.

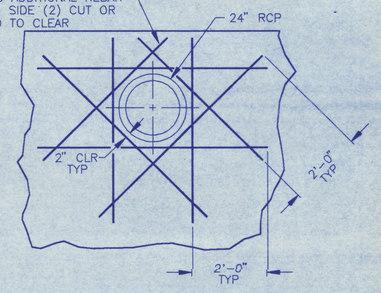
TYPICAL HEADWALL SECTION (A/—)

SCALE: NONE



KEY PLAN

SCALE: NONE



STORM DRAIN REBAR THROUGH HEADWALL

DETAIL (1/—)

SCALE: NONE

CONSTRUCTION NOTES:

1. INSTALL 8" DIA FIRE WATER LINE (FINAL PIPE ROUTE TO BE ESTABLISHED BY SELLER)
2. INSTALL 6" DIA FIRE WATER LINE (FINAL PIPE ROUTE TO BE ESTABLISHED BY SELLER)
3. INSTALL 2" DIA SANITARY WATER LINE (FINAL PIPE ROUTE TO BE ESTABLISHED BY SELLER)
4. INSTALL 6" DIA SANITARY SEWER LATERAL (FINAL PIPE ROUTE TO BE ESTABLISHED BY SELLER)
5. INSTALL 24" DIA RCP STORM DRAIN LINE IN ACCORDANCE WITH DETAIL (7/117079)
6. CONSTRUCT STORM DRAIN HEADWALL IN ACCORDANCE WITH SECTION (A/—)
7. INSTALL ROCK RIPRAP IN ACCORDANCE WITH SECTION (D/117079)
8. CONSTRUCT ACCESS ROAD IN ACCORDANCE WITH SECTION (E/117079)
9. CONSTRUCT CONCRETE APRON IN ACCORDANCE WITH SECTION (C/117079)
10. INSTALL FIRE HYDRANT IN ACCORDANCE WITH DETAIL (3/117079)
11. INSTALL ROCK SURFACING IN ACCORDANCE WITH DETAIL (5/117079)
12. 2' SAWCUT AND JOIN EXISTING PAVING AS REQUIRED, FEATHER EDGE FOR A SMOOTH JOIN.
13. 8" X 8" X 6" TEE (8/117079)
14. 8" X 6" REDUCER
15. GATE VALVE WITH POST INDICATOR PER DETAIL (4/117079)
16. STREAM STOPPER PER DETAIL (6/117079)

MAY 7 - 1993

QUALITY LEVEL II
SAFETY CLASS 4

REV NO.	DATE	REVISION DESCRIPTION	APPROVAL INITIALS			
1	5/5/93	REVISIONS PER CR-HWVP-0881 AND RELEASE TBD/HOLD NO. 247		HLC	BRE	
0	3/10/93	APPROVED FOR CONSTRUCTION	BRE	HLC	SAR	

CADFILE B117078A CADCODE 2B:IBM:ACD2:10.C2:SS

ENGINEERING RELEASE
REV ____ DATE ____
ERO ____

SIGNATURE	DATE
PROJ DIR	N/A
QA MGR	N/A
INDEPENDENT SAFETY MGR	N/A
PROJECT MGR	N/A
SYSTEMS MGR	N/A
ENGINEERING MGR	N/A
SUPERVISOR S. RUNK	3-8-93
DESIGN ENGINEER H. CHANG	3-8-93
CHECKED B. EISENBISE	3-8-93
DRAWN H. CHANG	03-08-93

U.S. DEPARTMENT OF ENERGY
Richland Field Office
DE - AC06-86RL10838

FLUOR DANIEL, INC.
ADVANCED TECHNOLOGY DIVISION

CIVIL
FINISH GRADING, PAVING AND DRAINAGE PLAN

PROJECT TITLE: HANFORD WASTE VITRIFICATION PLANT

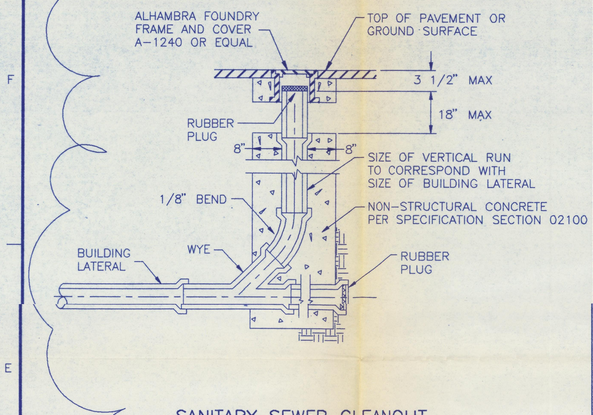
PROJECT	FLUOR CONTRACT NO.	CWBS NO.
B-595	8457	A920
SCALE: AS SHOWN	BLDG NO. 18	INDEX NO.

CLASSIFICATION	BY	DRAWING NUMBER	SHEET	OF	REV
NONE	NOT REQD	H-2-117078	1	1	1

DWG NO.	DRAWING TITLE
H-2-117011	CWBS-A130, DRAWING INDEX
H-2-117150	CWBS-A160, DRAWING INDEX
H-2-116030	FAB SHOP AND SUPPORT FACILITY DWG INDEX
REFERENCE DRAWINGS	
NEXT USED ON	

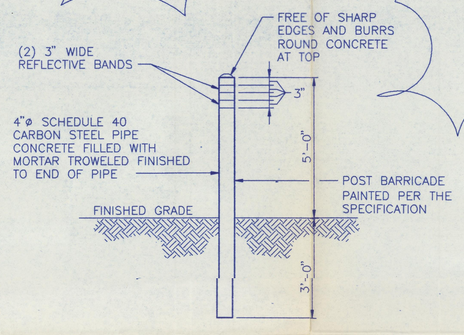
A920 H-2-117078 1 1 1 R-11

DISTRIBUTION CODE: 053 C2 ACAD INITIALS: DRM DATE: 4-20-93



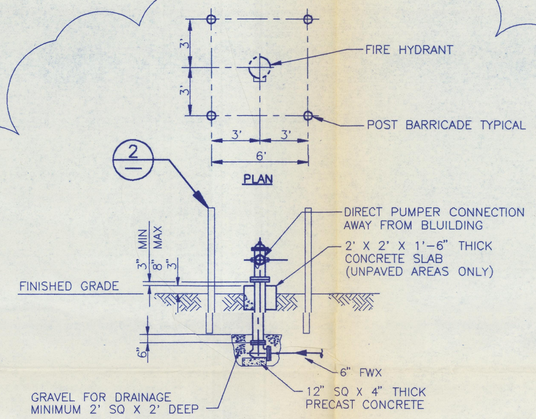
SANITARY SEWER CLEANOUT

DETAIL 1 / 117078
SCALE: NONE



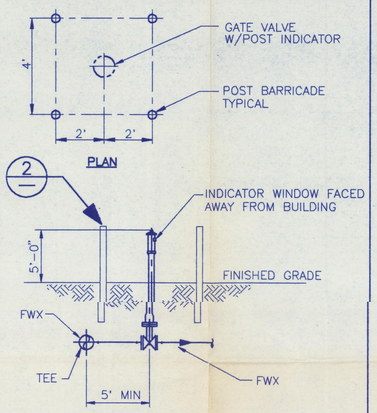
POST BARRICADE

DETAIL 2 / —
SCALE: NONE



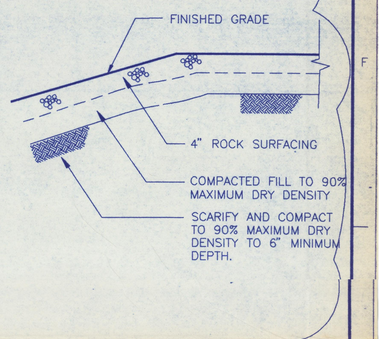
FIRE HYDRANT

DETAIL 3 / 117078
SCALE: NONE



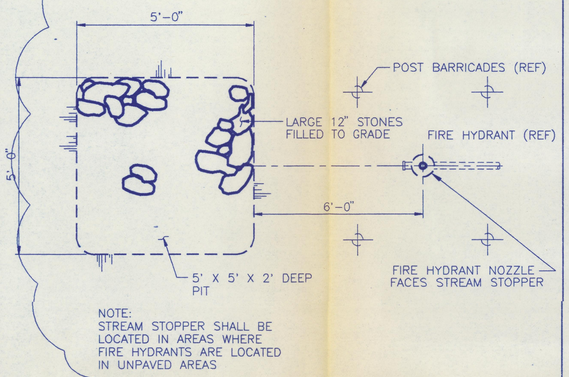
GATE VALVE WITH POST INDICATOR

DETAIL 4 / 117078
SCALE: NONE



TYPICAL ROCK SURFACING

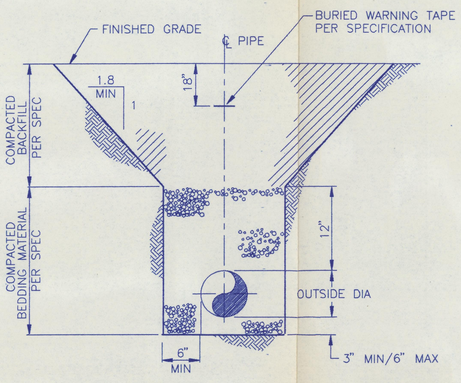
DETAIL 5 / 117078
SCALE: NONE



NOTE:
STREAM STOPPER SHALL BE LOCATED IN AREAS WHERE FIRE HYDRANTS ARE LOCATED IN UNPAVED AREAS

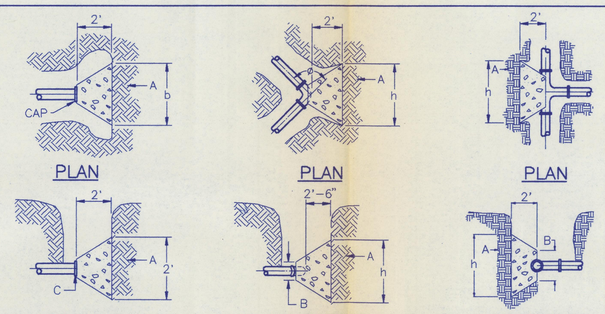
STREAM STOPPER

DETAIL 6 / 117078
SCALE: NONE



TYPICAL PIPE TRENCH

DETAIL 7 / 117078
SCALE: NONE

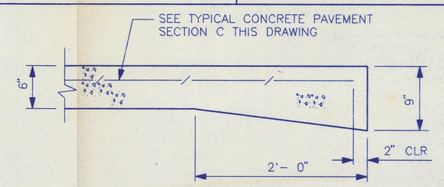


A. UNDISTURBED EARTH.
B. OUTSIDE DIAMETER OF PIPE + 8".
C. OUTSIDE DIAMETER OF CAP (12"x12" MIN).

PIPE SIZE	ELBOW ANGLE ø	ELBOW (b) DIM	ELBOW (h) DIM	TEE OR CAP (b) DIM	TEE OR CAP (h) DIM
6"				2'	2'
6"	30',45',60'	2'	2'		
6"	90'	2'-6"	2'-6"		
8"				3'	3'
8"	90' 60'	3'	3'		
8"	45'	2'-6"	2'-6"		
8"	30'	2'	2'		

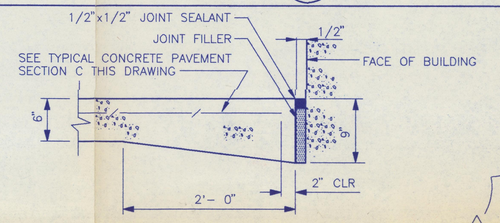
THRUST BLOCKS

TYPICAL DETAIL 8 / 117078
SCALE: NONE



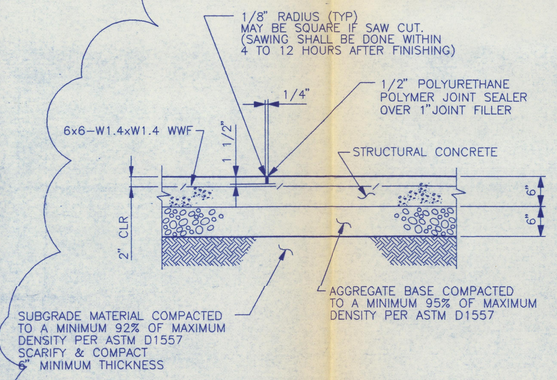
EDGE OF CONCRETE PAVING

SECTION A / —
SCALE: NONE



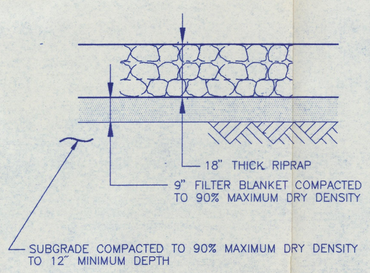
TYPICAL EXPANSION JOINT

DETAIL B / 117078
SCALE: NONE



TYPICAL CONCRETE PAVEMENT

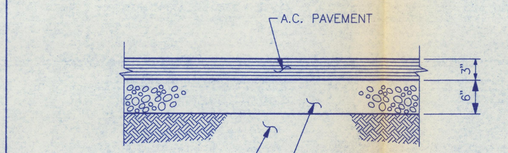
SECTION C / 117078
SCALE: NONE



NOTE:
RIPRAP SHALL BE INSTALLED PER SPECIFICATION.

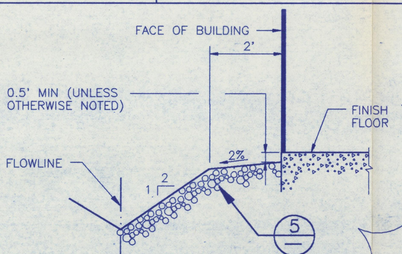
TYPICAL RIP-RAP

SECTION D / 117078
SCALE: NONE



TYPICAL ASPHALT PAVEMENT

SECTION E / 117078
SCALE: NONE



TYPICAL GRADING @ BUILDING FACE

SECTION F / 117078
SCALE: NONE

NOTES:

1. SEE DRAWING H-2-117077 FOR ABBREVIATIONS, LEGEND, AND GENERAL NOTES.

DWG NO.	DRAWING TITLE
H-2-116030	FAB SHOP AND SUPPORT FACILITIES DWG INDEX

REFERENCE DRAWINGS

NEXT USED ON

MAY 7 - 1993

QUALITY LEVEL II
SAFETY CLASS 4

REV NO.	DATE	REVISION DESCRIPTION	APPROVAL INITIALS			
1	5/4/93	REVISIONS PER CR-HWVP-0881 AND RELEASE TBD/HOLD NO. 248		HLC	BRE	
0	3/10/93	APPROVED FOR CONSTRUCTION	BRE	HLC	SAR	

CADFILE B117079A CADCODE 2B:IBM:ACD2:10.C2:SS

ENGINEERING RELEASE
REV ____ DATE ____
ERO ____

SIGNATURE	DATE
PROJ DIR N/A	
QA MGR N/A	
INDEPENDENT SAFETY MGR N/A	
PROJECT MGR N/A	
SYSTEMS MGR N/A	
ENGINEERING MGR N/A	
SUPERVISOR S. RUNK	3-8-93
DESIGN ENGINEER H. CHANG	3-8-93
CHECKED B. EISENBISE	3-8-93
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CIVIL
SECTIONS AND DETAILS

PROJECT TITLE: HANFORD WASTE VITRIFICATION PLANT

PROJECT	FLUOR CONTRACT NO.	CWBS NO.
B-595	8457	A920
SCALE: NONE	BLDG NO. 18	INDEX NO.

CLASSIFICATION	BY	DRAWING NUMBER	SHEET	OF	REV
NONE	NOT REQD	H-2-117079	1	1	1

A920 H-2-117079 R-1

DISTRIBUTION CODE: 053 C3 ACAD

INITIALS: DRM
DATE: 4-21-93