DYNAMIS ENERGY™

Ada County Landfill
Waste to Energy Facility

DESIGN PLAN APPROVAL APPLICATION

DYNAMIS
ENERGY

Design Plan Approval Application
Ada County Landfill – Waste to Energy Facility

Dynamis Energy, LLC (Dynamis) is developing and intends to build, own, and operate a renewable energy project in Ada County at the Hidden Spring Landfill. The Ada County Waste to Energy Project (the "Project") will be located at 10319 Seaman's Gulch Rd., Ada County, ID. within the existing 2700 acre Ada County Landfill. The proposed Project is subject to 40 CFR Subpart Eb and IDAPA 58.01.06 SOLID WASTE MANAGEMENT RULES. The area slated for the proposed facility is an excavated site, which was created by removing earth material used to cap MSW in the landfill. The proposed facility is located at Latitude N43°42.33' and Longitude 116°16.45'. The Project site will be re-graded to an elevation to accommodate the facility.

The Project will consist of a Municipal Solid Waste (MSW) fired steam generator. The heat input of the steam generator is expected to be about 295 million British Thermal Units per hour (MMBtu/hr.). The Project will process approximately 408 tons per day (tpd) of MSW supplied by Ada County. The Project is designed for a nominal maximum net electrical output of 22 MW for 16 hours per day after supplying steam and electrical power to the facility.

The Project will process MSW, which otherwise would have been deposited in the Ada County landfill. MSW will be diverted from the landfill cell at the landfill gate/scales to the facility and will be placed on tipping floors inside the building. Non-processible waste (primarily bulky appliances and scrap metal) will be returned to Ada for recycling. The nominal, as delivered, higher heating value of MSW is expected to be 5,800 Btu/lb.

Power supplied from the Project will be interconnected with the local 138 kV. The Project will be equipped with a black start generator capable of starting the Project during times when the power grid is out of service. Either this generator or the local grid can be utilized to support operation of the facility if the power plant is out of service.

This Project will not impact the MSW collection activities or recycling programs currently maintained by Ada County, Boise City, Meridian, etc. Additionally, the Project will not limit recycling activities, goals or methodology that Ada County, Boise City, Meridian, Star, Eagle, Garden City, and Kuna may introduce in the future.

Pursuant to IDAPA 58.01.06, approval of location restrictions by the Department of Environmental Quality is required of all new non-municipal solid waste management facilities.

This document serves as the Design Approval Application.

RECEIVED
MAY 18 2012
DEPARTMENT OF
ENVIRONMENTAL QUALITY
BOISE REGIONAL OFFICE

Dynamis Energy, LLC
776 E Riverside Dr. Ste 150
Eagle, Idaho 83616
208-938-2680 (p)

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NON-MUNICIPAL SOLID WASTE MANAGEMENT FACILITY

DESIGN PLAN APPROVAL APPLICATION

(revised 8/26/2008)

REQUIREMENTS

Pursuant to IDAPA 58.01.06, approval of the Design Application is required for all new and lateral expansions of non-municipal solid waste management facilities. Existing facilities are required to comply with the design requirements within two years from April 26, 2002. Existing facilities may submit existing approvals that demonstrate compliance with applicable design requirements. Design Application approval process may occur after or concurrently with the Siting Application approval. The Design Application approval is required prior to operation of the facility. Approval from local authorities may be required. It is recommended that the applicant contact the county and/or city in which the facility will be located.

PRE-APPLICATION MEETING

It is very important that the applicant meet with the appropriate DEQ regional office staff before the design application is submitted. A tour of the site is very helpful in identifying any possible concerns that may need to be addressed in the application. A pre-application meeting with DEQ and the local Health District is recommended. This will help ensure that there is compliance with location restrictions and operational requirements and that sufficient information is submitted to allow for a timely review. It is advantageous to DEQ, the local health district and the applicant to move this process forward as quickly as possible.

REQUIRED SUBMITTALS

Please fill out the attached form, complete the questionnaire, and attach at a minimum, the indicated documentation to support the design requirements. Original and 2 copies of the application and supporting documents should be sent to the appropriate DEQ Regional Office listed below.

INCOMPLETE INFORMATION MAY CAUSE DELAY IN THE APPROVAL PROCESS

DEQ REGIONAL OFFICE CONTACTS:

Please send the original and 2 copies of the completed application and supporting documents to the appropriate regional office below:

Department of Environmental Quality
Coeur d'Alene Regional Office
2110 Ironwood Parkway
Coeur d'Alene, ID 83814
Contact: Gary Gaffney @ 769-1422

Department of Environmental Quality
Lewiston Regional Office
1118 F. Street
Lewiston, ID 83501
Contact: Gayle Westhoff @ 799-4370

Department of Environmental Quality
Boise Regional Office
1445 N. Orchard
Boise, ID 83706
Contact: Jack Gantz @ 373-0550

Department of Environmental Quality
Twin Falls Regional Office
1363 Fillmore
Twin Falls, ID 83301
Contact: Scott Stanton @ 736-2190

Department of Environmental Quality
Pocatello Regional Office
444 Hospital Way, #300
Pocatello, ID 83204
Contact: Tom Mullican @ 236-6160

Department of Environmental Quality
Idaho Falls Regional Office
900 Skyline, Suite B
Idaho Falls, ID 83402
Contact: Christy Swenson @ 528-2650

CENTRAL OFFICE CONTACT:

Solid Waste Program Coordinator
Department of Environmental Quality
Waste Mgmt and Remediation Division
1410 N. Hilton
Boise, ID 83706
Contact: Dean Ehlert @ 373-0416

NON-MUNICIPAL SOLID WASTE DESIGN APPROVAL APPLICATION

I. GENERAL INFORMATION - Please complete (type or print) the General Information section or attach Preapplication Meeting Information if completed.

Applicant's Name Dynamis Energy, LLC

Applicant's Signature

Application Date May 18, 2012

Name of Site Ada County Landfill Waste to Energy Facility

Location of Site Hidden Hollow Sanitary Landfill

10319 Seaman's Gulch Rd. Boise, ID

Total Acreage of Site 2.727 acres for Ada County Landfill / 6.58 acres for Waste to Energy Facility

Legal Description See attached map- Section 4: C4 Dimension Plan

Property Owner of Record Ada County – See Section 6: Appendix A

Address: 200 W. Front Street 3rd Floor

Boise, ID 83702

Telephone: 208-287-7000

(attach written approval from owner to use site for stated purpose, if owner is different from applicant)

Operator of Proposed Facility Dynamis Energy, LLC

Address: 776 E. Riverside Dr. Suite 150

Eagle, ID 83616

Telephone: 208-938-2680

Contact Person Regarding This Application

Name: Doyle Pergande

Address: 776 E. Riverside Dr. Suite 150

Eagle, ID 83616

Telephone: 208-938-2680

This application is for a:

__X__ NEW FACILITY

_____ LATERAL EXPANSION of existing facility

Proposed Tier Classification:

X____ Tier II

_____ Tier III

This application is for what type of facility?

_____ Construction & Demolition Waste Landfill

_____ Transfer Station

_____ Industrial Landfill

_____ Compost Facility

_____ Septage Disposal Site

_____ Waste Tire Collection Site

_____ Petroleum Contaminated Soils Processing Site

X____ Other (please specify) Waste to Energy Thermal Oxidator

What is the composition of the waste material to be managed, processed or disposed?

Material	%
Municipal Solid Waste and tires	100

What is the volume/mass of material received per day?

Volume/Mass	Unit
408: may vary slightly daily and seasonally (due to moisture content) to produce required 18-22 MW of electricity	tons (per day)

II. DESIGN REQUIREMENTS - DESIGN APPLICATION APPROVAL

Instructions: These questions relate directly to the design requirements for non-municipal solid waste management facilities. Answer the questions below and, in an attached report, include all supporting documents and describe how they were used to make the determinations.

01. INCINERATORS, CESQG MANAGEMENT FACILITY & TRANSFER STATION FACILITY DESIGN REQUIREMENTS - All incinerators, CESQG Management Facilities and transfer stations regulated under the Solid Waste Management Rules, IDAPA 58.01.06 shall comply with items a through d.

a. Description of the tipping floor design.

Information supporting this section of the application can be found in the attached documentation as follows: (document name, page number, etc.) Section 2 & 4

b. Description of the storage or leachate management system design.

Information supporting this section of the application can be found in the attached documentation as follows: (document name, page number, etc.) Section 3 & 4

c. Building and construction design blueprints.

Information supporting this section of the application can be found in the attached documentation as follows: (document name, page number, etc.) Section 4

d. Attach a map illustrating a storm water run-on/run-off system designed to prevent contamination of surface and ground water, and prevent the spread and impact of contamination beyond the boundary of the facility.

Information supporting this section of the application can be found in the attached documentation as follows: (document name, page number, etc.) Section 5

02. TIER II NMSWLF DESIGN REQUIREMENTS. All Tier II NMSWLFs regulated under the Solid Waste Management Rules, IDAPA 58.01.06 shall submit a map depicting the items identified in a through h.

a. Surface water and erosion control systems.

b. Proposed fill area, including the location of waste disposal trenches or cells, noting the locations

of trenches used for separated wastes such as animal carcasses, tree trunks, stumps, bulky wastes, car bodies, asbestos and petroleum contaminated soils.

c. Location of borrow areas.

d. Design elevation grade of final cover.

e. Soil and water table test boring holes, wells or excavations.

f. Proposed receiving, storage, and processing areas

g. Proposed trench layout and development, and

h. Contour lines at five (5) foot intervals within the operating area and ten (10) foot intervals to the facility boundary.

03. TIER III PROCESSING FACILITIES DESIGN REQUIREMENTS. All Tier III Processing Facilities regulated under the Solid Waste Management Rules, IDAPA 58.01.06 shall submit to the Dept. items a through e.

a. Building and construction design blueprints.

Information supporting this section of the application can be found in the attached documentation as follows: (document name, page number, etc.)_____

b. A map illustrating a storm water run-on/run-off system designed to prevent contaminatin of ground or surface water and prevent contamination beyond the boundary of the facility.

Information supporting this section of the application can be found in the attached documentation as follows: (document name, page number, etc.)_____

c. Operational design and capacity information including a descriptin of the waste types and projected daily and annual waste volumes.

Information supporting this section of the application can be found in the attached documentation as follows: (document name, page number, etc.)_____

e. In addition to items a through c, owners and operators of PCS processing facilities shall also submit the following;

i. A hydrogeologic evaluation, including the potential for migration of contamination to ground or surface water;

ii. A detailed description of treatment methods to be used,

iii. Design plans for a leachate collection and control system to prevent ground and surface water contamination from the leach control system,

iv. Design plans for an air emissions control system to prevent discharges of air pollutants, and

v. Design plans for a liner designed to prevent ground or surface water contamination. The liner design shall account for the types of wastes handled and the potential for migration of liquid and gaseous contaminants to ground water.

04. TIER III NON-MUNICIPAL SOLID WASTE LANDFILL DESIGN REQUIREMENTS. Tier III Non-Municipal Solid Waste Landfills regulated under the Solid Waste Management Rules, IDAPA 58.01.06 shall submit to the Dept. items a through d.

a. Install a leachate collection and control system to prevent ground and surface water contamination.

Information supporting this section of the application can be found in the attached documentation as follows: (document name, page number, etc.)_____

b. Install a liner designed to prevent ground or surface water contamination. The liner design shall account for the types of waste handled and the potential for migration of liquid and gaseous contamination to ground or surface water.

Information supporting this section of the application can be found in the attached documentation as follows: (document name, page number, etc.)_____

c. Install appropriate toxic and flammable gas monitoring devices where the location, geophysical conditions, and waste characteristics indicate that there is a reasonable probability that the facilty will generate toxic and flammable gas: exceeding twenty-five (25) percent of the lower explosive limit for gases in facility structures; exceeding the lower explosive limit at the property boundary; or otherwise presenting a potential threat to public health or the environment.

Information supporting this section of the application can be found in the attached documentation as follows: (document name, page number, etc.)_____

d. A facility map illustrating;

i. Surface water and erosion control systems

ii. Proposed fill area, including the location of waste disposal trenches or cells, noting the locations of trenches used for separated wastes such as animal carcasses, tree trunks, stumps, bulky wastes, car bodies, asbestos, and petroleum contaminated soils;

iii. Location of borrow areas;

iv. Design elevation grade of final cover;

v. Soil and water table test boring holes, wells or excavations;

vi. Proposed receiving, storage, and processing areas;

vii. Proposed trench layout and development;

viii. Contour lines at five (5) foot intervals within the operating area and ten (10) foot intervals to the facility boundary; and

ix. Building and construction design blueprints.

Information supporting this section of the application can be found in the attached documentation as follows: (document name, page number, etc.)_____

I certify that the information contained in this application is true and accurate to the best of my knowledge. If a registered P.E. or P.G. prepares application, please affix stamp to application.

Doyle Pergande

Signature of owner, operator
or legally authorized representative

5/18/12

Date

PROFESSIONAL ENGINEER
LICENSED
P-7141
STATE OF IDAHO
DOYLE PERGANDE

DYNAMIS ENERGY

Tipping Floor Design

The tipping floor is designed to have sufficient space to dump MSW (Municipal Solid Waste) from the commercial haulers onto the floor. This MSW is pushed into piles on the floor large enough such that there will be a supply of MSW fuel to last during the times in which the haulers are not hauling, such as nights, weekends and holidays. Loaders push the MSW to the middle of the floor where the conveyor system transports the MSW to the primaries. There are 9' high concrete push walls around three sides of the tipping floor to assist with the holding of MSW and loading of the conveyor. Refer to the construction drawings in Section 4 of this application for dimensioning details, particularly drawing a2.11 for plan view and 1002063 for section view.

The tipping floor is sloped down away from the truck entrance and down away from the sides to drain the floor. The tipping floor is designed with f'c min. of 6000psi concrete and a sealing additive of 7.5 % silica fume. All joints in the floor are to be constructed with water stops. The conveyor system takes the MSW from the tipping floor to the individual primaries.

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Leachate Collection System

Liquid from the MSW on the tipping floor will flow down slope toward the conveyor. Under the conveyor the floor is sloped to a drain. The drain flows by gravity in a pipe to a sump pump in the bottom of the primary trench. The sump is designed to pump up to a drain sump in the ash room. The ash room also has the tire feed floor where the tires are fed onto a conveyor system going to the primaries. From here the leachate gravity feeds to a watertight holding tank.

The holding tank also receives any liquid from the drains in the turbine room. Liquids will be pumped from the tank into a sewage truck and hauled to a wastewater treatment facility or the landfills leachate ponds as the tank fills.

Additional information can be found in Section 4 drawing no. 1002104 and 1002038

dynamis energy, llc

ada county waste to energy facility
10319 seaman's gulch road
ada county, idaho 83714
ideq design plan approval application

NOT FOR CONSTRUCTION

abbreviations

#	NUMBER OR POUND	FLR	FLOOR	R	THERMAL RESISTANCE
	DIAMETER	FND	FOUNDATION	RAB	RUBBER WALL BASE
∠	ANGLE	FOF	FACE OF FINISH	RD	ROOF DRAIN
@	AT	FOS	FACE OF STUDS	RDG	RAIN DRAIN (GATE)
&	AND	FT	FEET	REF	REFERENCE
℄	CENTER LINE	FTG	FOOTING	REFRIG	REFRIGERATOR
				REINF	REINFORCING
AB	ANCHOR BOLT	GA	GAUGE	REQD	REQUIRED
ACT	ACOUSTIC TILE	GALV	GALVANIZED		
ADJ	ADJUSTABLE	GWB	GYPSUM BOARD	RM	ROOM
ALUM	ALUMINUM			RO	ROUGH OPENING
ANOD	ANODIZED	HDW	HOLLOW CORE WOOD	RW	REFRIGERATOR
APPROX	APPROXIMATE	HM	HOLLOW METAL	RWC	RAIN WATER CONDUCTOR
ASSOC	ASSOCIATED	HORIZ	HORIZONTAL		
		HT	HEIGHT	SCHED	SCHEDULE
BD	BOARD	HW	HARDWOOD	SCW	SOLID CORE WOOD
BFC	BROOM FINISH CONCRETE			SEAL	SEALER (FLOOR)
BLDG	BUILDING	IMU	INTERNAL COLORED CONCRETE MASONRY UNIT	SGE	SEMI GLOSS ENAMEL
BLKG	BLOCKING			SGWB	SUBSTRATE GYPSUM WALL BOARD
BM	BEAM	ID	INSIDE DIAMETER	SHT	SHEET
BOT	BOTTOM	INSUL	INSULATION	SHTHG	SHEATHING
BRG	BEARING	INT	INTERIOR		
BSMT	BASEMENT	INV	INVERT	SIM	SIMILAR
BTWN	BETWEEN			SPEC	SPECIFICATIONS
		JAN	JANITOR	SQ	SQUARE
CAB	CABINET	JST	JOIST	SS	STAINLESS STEEL
CARP	CARPET	JT	JOINT	STF	SHEET(H) TRAWELED CONCRETE
CJ	CONTROL JOINT				
CL	CENTER LINE	LAB	LABORATORY	STD	STANDARD
CLG	CEILING	LAM	LAMINATE	STL	STEEL
CMU	CONCRETE MASONRY UNITS	LAV	LAVATORY	STOR	STORAGE
		LE	LATEX ENAMEL-LOW LUSTER	STRUCT	STRUCTURAL
CO	CLEAN OUT			SUSP	SUSPENDED
COL	COLUMN	LF	LATEX FLAT	SV	SHEET VINYL
CONC	CONCRETE	LSF	LATEX SEMI GLOSS		
CONST	CONSTRUCT			TBD	TOWNSE AND GROVER
CONT	CONTINUOUS	MAT	MATERIAL	TEMP	TEMPORARY
CORR	CORRIDOR	MAX	MAXIMUM	TG	TUBE STEEL
CPT	CARPET	MECH	MECHANICAL	TWC	TEXTILE WALL COVERING
CTR	COUNTERSINK	MET	METAL	TYP	TYPICAL
CT	CERAMIC TILE	MFR	MANUFACTURER		
CWB	CAPILLARY WATER BARRIER	MIN	MINIMUM	UNO	UNLESS NOTED OTHERWISE
		MISC	MISCELLANEOUS		
DBL	DOUBLE	MO	MASONRY OPENING	VAR	VARIES
DEPT	DEPARTMENT	MTD	MOUNTED	VCT	VINYL COMPOSITION TILE
DET	DETAIL	MTG	MOUNTING		
DF	DRINKING FOUNTAIN			VERT	VERTICAL
DIA	DIAMETER	NA	NOT APPLICABLE	VERIF	VERIFY
DIM	DIMENSION	NB	NO BASE (EXPOSED BALL OF FOUNDATION)	VWC	VINYL WALL COVERING
DISP	DISPENSER				
DN	DOWN	NC	NEW CONCRETE	W	WASHER
DS	DOWNSPOUT	NIC	NOT IN CONTRACT	WC	WITH
		NM	NEW MASONRY	WCT	WATER CLOSET
E	EXISTING MATERIAL	NO	NUMBER	WCT	WASHABLE CERAMIC TILE
EA	EACH	NOM	NOMINAL	WD	WOOD
EJ	EXPANSION JOINT	NTS	NOT TO SCALE	WH	WATER HEATER
ELEC	ELECTRICAL			WO	WITH OUT
ELEV	ELEVATOR	OC	ON CENTER	WP	WATERPROOF
EC	EXISTING CONCRETE	OD	OUTSIDE DIAMETER	WRB	WATER RESISTANT GYPSUM BOARD
EM	ENTRANCE MAT	OH	OVERHEAD		
EP	EXPANSION JOINT	OPNG	OPENING	WT	WEIGHT
EP(E)	EXISTING PLASTER	OTS	OPEN TO STRUCTURE	WWF	WELDED WIRE FABRIC
EQ	EQUAL	OVF	OVERFLOW		
EQUIP	EQUIPMENT				
EXIST	EXISTING	PLAST	PLASTIC		
		PLYWD	PLYWOOD		
FE	FIRE EXTINGUISHER	POS	POSTS		
FEC	FIBERGLASS EXTERIOR CLADDING	PR	PAIR		
FIN	FINISH				
FLR	FLOOR				
FLR EL	FINISH FLOOR ELEVATION				

symbols

general notes

1. CONTRACTORS SHALL CONSULT WITH DYNAMIS AND ARCHITECT TO RESOLVE ANY CHANGES, AMBIGUITIES OR PLAN DISCREPANCIES PRIOR TO BIDDING OR CONSTRUCTION.
2. FIRM CONTRACTORS SHALL COORDINATE AND INSTALL ALL PORTIONS OF THE WORK AS DESCRIBED IN THE CONTRACT DOCUMENTS WHICH INCLUDE, BUT ARE NOT LIMITED TO DRAWINGS AND CONSTRUCTION AGREEMENT CONTRACT.
3. ALL WORK SHALL BE PERFORMED IN STRICT COMPLIANCE WITH LOCAL, COUNTY, STATE AND FEDERAL LAWS AND ORDINANCES.
4. CONTRACTORS SHALL VERIFY THE LOCATION OF ALL UTILITIES.
5. CONTRACTORS TO VERIFY ALL DIMENSIONS. NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH THE WORK.
6. PRIME CONTRACTORS SHALL RETAIN ONE SET OF THE PLANS TO NOTE AND DOCUMENT ALL CHANGES DURING CONSTRUCTION. THIS SET SHALL BE A PART OF THE GENERAL CONTRACTORS CLOSE-OUT PACKAGE.
7. PREMISE TO BE BROOM CLEAN AND EMPTY OF ALL LOOSE ITEMS AND DEBRIS AT ALL TIMES.
8. DO NOT SCALE DRAWINGS.

graphics legend

drawing schedule

a0.01	cover sheet
civil	
c1	cover sheet
c4	dimensioning plan
c5	grading plan
c6	utility plan
c7	site cross sections
architectural	
a2.11	floor plan
a2.12	floor plan
a2.13	enlarged floor plan
a3.11	exterior elevations
a3.12	exterior elevations
a3.13	exterior elevations
site	
01-S-1002200	site plan + elevation control sections
10-P-1002104	misc. utilities pipe routing plan
04-F-1002038	leachate
buildings	
09-B-1002059	main + turbine building floor plan
09-B-1002063	main building sections + details
09-B-1002195	main building sections + details
09-B-1002201	main building sections + details
09-B-1002203	turbine/boiler/scrubber partial section
09-B-1002204	turbine building sections
09-B-1002205	turbine/cooling tower partial elevation
plumbing	
p1.1	waste and vent plan - area 1
p1.2	waste and vent plan - area 2
p1.3	enlarged waste and vent plan
p2.1	water and gas plan - area 1
p2.2	water and gas plan - area 2
p2.3	enlarged water and gas plan
p3.1	plumbing details
p4.1	plumbing schedules

project site

N vicinity map

de
project owner + civil
dynamis energy, llc
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erstad ARCHITECTS, PA

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dynamis energy, llc
ada county waste to energy facility
10319 seaman's gulch road
ada county, idaho 83714

revisions:

SUBMITTAL TO IDEQ

project: 100910
date: 05.17.12
drawn: mp/tb
checked: cp/as

construction documents

cover sheet

a0.01

HIDDEN HOLLOW LANDFILL WASTE TO ENERGY PLANT

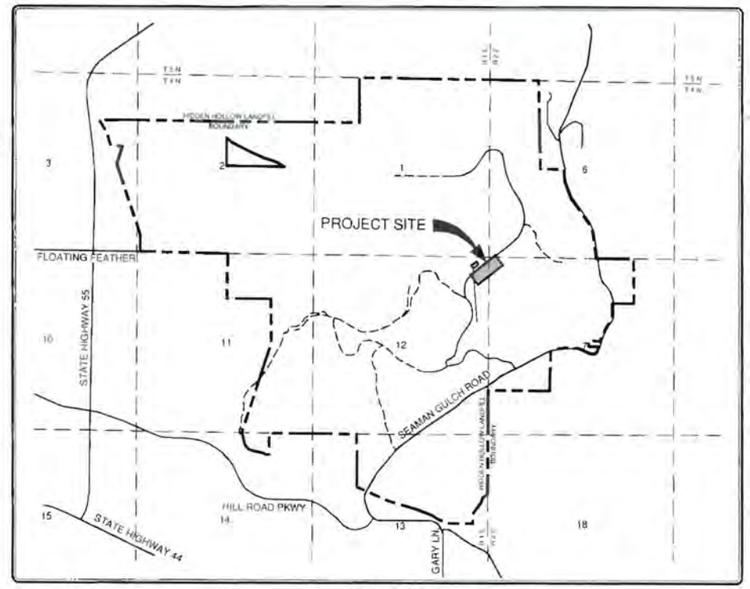
SITUATED WITHIN THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER (NE4 NE4) OF SECTION 12, TOWNSHIP 4 NORTH, RANGE 1 EAST, BOISE MERIDIAN, AND GOVERNMENT LOT 1 OF SECTION 7 AND GOVERNMENT LOT 7 OF SECTION 6, TOWNSHIP 4 NORTH, RANGE 2 EAST, BOISE MERIDIAN, ADA COUNTY, IDAHO

ADA COUNTY, IDAHO

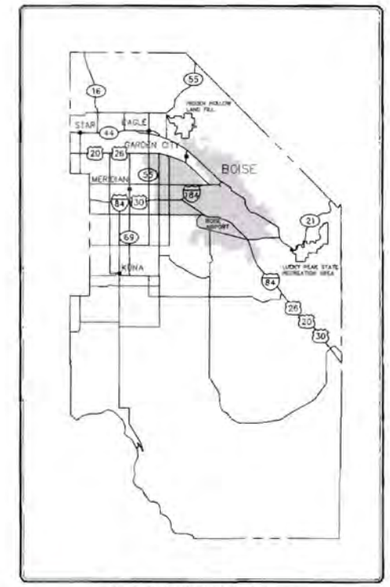
prepared by:

DYNAMIS ENERGY, LLC

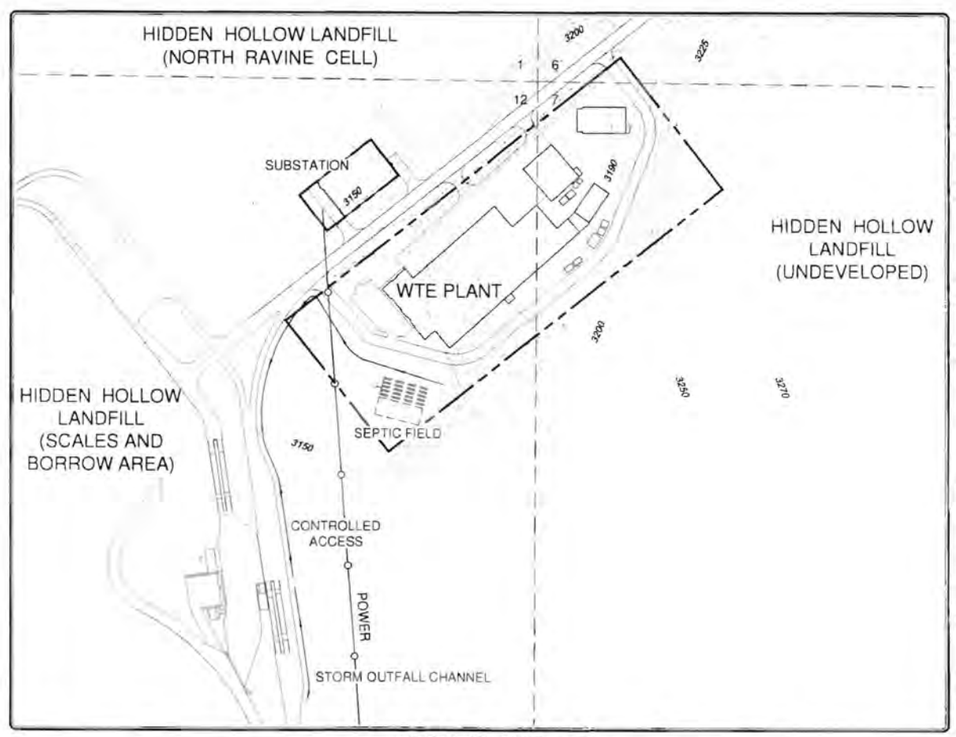
776 EAST RIVERSIDE DRIVE, SUITE 150
EAGLE, IDAHO 83616
CONTACT: DOYLE PERGANDE, P.E.
PHONE: (208) 938-2680



VICINITY MAP



ADA COUNTY MAP
NOT TO SCALE



LOCATION MAP

BASIS OF BEARING

THE WEST LINE OF THE NORTHWEST QUARTER OF SECTION 7, TOWNSHIP 4 NORTH, RANGE 2 EAST, BOISE MERIDIAN. THE NORTHWEST CORNER OF SAID SECTION 7 BEING A FOUND ⅝ INCH REBAR WITH CAP, MARKED PLS 5461, FROM WHICH A FOUND 3 ¼ INCH BRASS CAP MONUMENT MARKING THE WEST QUARTER CORNER OF SAID SECTION 7 BEARS SOUTH 02°13'17" WEST, 2611.35 FEET.

BASIS OF ELEVATION

HORIZONTAL DATUM: NAD83/99, IDAHO STATE PLANE COORDINATES, IDAHO WEST ZONE 1103, ADJUSTED FOR SCALE AND ELEVATION BY A COMBINED FACTOR OF 1.0001832259.

VERTICAL DATUM: NAVD88

UNITS: U.S. SURVEY FEET

CONTROL: N.G.S. STATION "IDTD", PID: DH1488
N.G.S. STATION "BOIS A", PID: AH9750

PER "SURVEY CONTROL DIAGRAM, HIDDEN HOLLOW LANDFILL" PREPARED BY DAVID S. SHORT, P.L.S. (2009).

SHEET INDEX

SHEET NO.	PAGE	SHEET NAME
C1	1 OF 8	COVER SHEET
C2	2 OF 8	EXISTING CONDITIONS PLAN
C3	3 OF 8	TYPICAL SECTIONS AND LEGEND
C4	4 OF 8	DIMENSIONING PLAN
C5	5 OF 8	GRADING PLAN
C6	6 OF 8	UTILITY PLAN
C7	7 OF 8	SITE CROSS SECTIONS
C8	8 OF 8	REVEGETATION PLAN

PRELIMINARY NOT APPROVED FOR CONSTRUCTION

DATE: MAY 12, 2012
DESIGNED BY: STAFF
DRAWN BY: STAFF
REVIEWED BY:
PROJECT:
SCALE:

REVISIONS

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DYNAMIS ENERGY, LLC
ADA COUNTY LANDFILL WASTE TO ENERGY PLANT
COVER SHEET

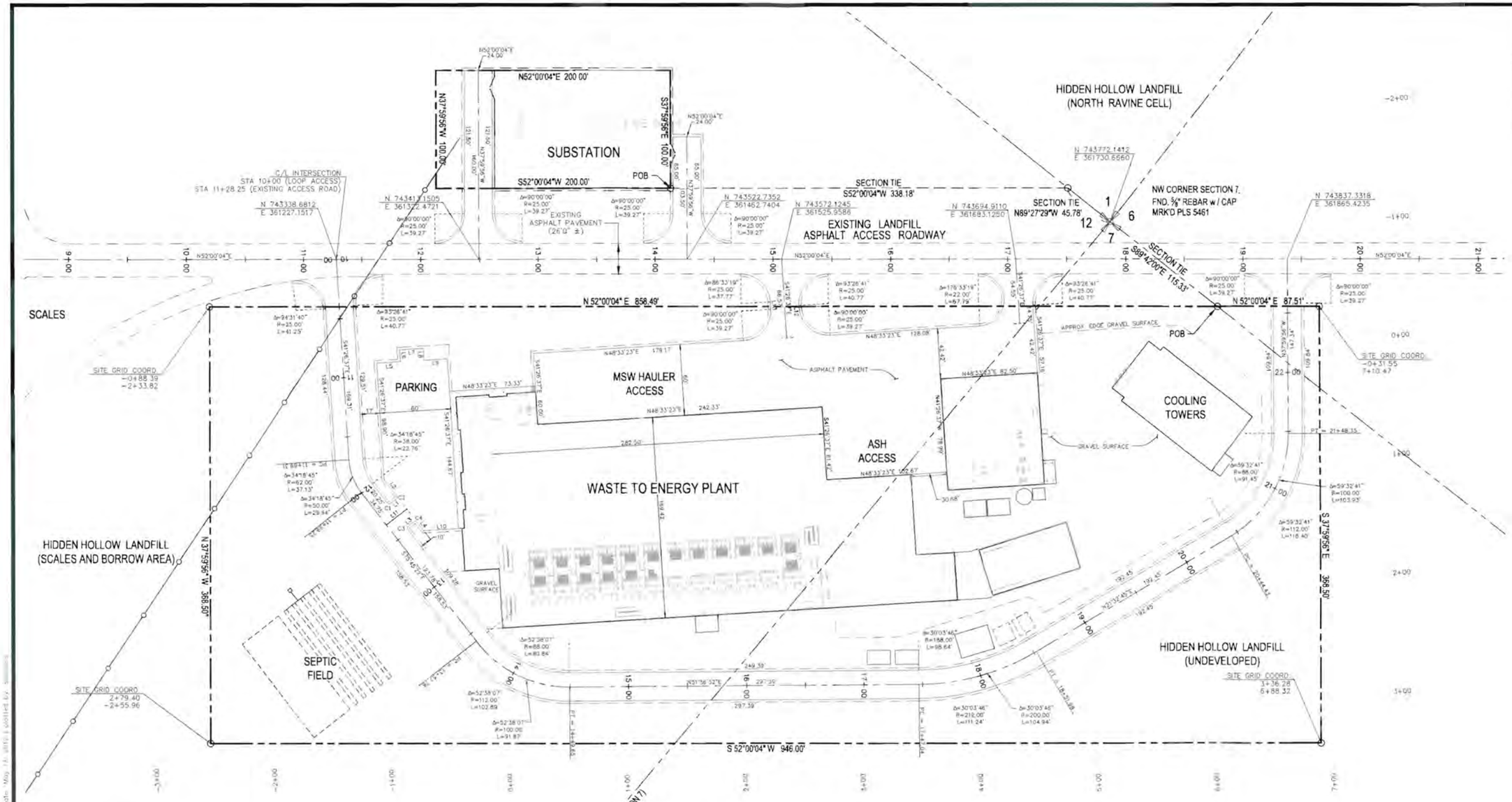
COVER SHEET

DYNAMIS ENERGY

C1

SHEET 1 OF 8

V. 10 R. 7



CURVE TABLE			
CURVE	DELTA	RADIUS	LENGTH
C1	Δ=90°00'00"	R=2.50	L=3.93
C2	Δ=90°00'00"	R=2.50	L=3.93
C3	Δ=90°00'00"	R=2.50	L=3.93
C4	Δ=90°00'00"	R=2.50	L=3.93

LINE TABLE		
LINE	LENGTH	BEARING
L1	5.00	N14°14'38"E
L2	16.47	N75°45'22"W
L3	5.00	N14°14'38"E
L4	8.73	N75°45'22"W
L5	20.00	S48°33'23"W
L6	10.00	N41°26'37"W
L7	20.00	S48°33'23"W
L8	10.00	N41°26'37"W
L9	20.00	S48°33'23"W
L10	29.45	S48°33'23"W
L11	22.00	N14°14'38"E
L12	1.74	N41°26'37"W
L13	8.19	N41°26'37"W

DESCRIPTION FOR PROPOSED LEASE TO DYNAMIS ENERGY, LLC

PARCEL 1, WASTE TO ENERGY PLANT
A TRACT OF LAND BEING A PORTION OF HIDDEN HOLLOW SUBDIVISION AS RECORDED IN BOOK 53, PAGES 4782, 4783, 4784, 4786,4787, 4788, 4789 OF THE OFFICIAL RECORDS OF ADA COUNTY, IDAHO, LOCATED IN THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER (NE1/4 NE1/4) OF SECTION 12, TOWNSHIP 4 NORTH, RANGE 1 EAST, BOISE MERIDIAN, AND GOVERNMENT LOT 1 OF SECTION 7 AND GOVERNMENT LOT 7 OF SECTION 6, TOWNSHIP 4 NORTH, RANGE 2 EAST, BOISE MERIDIAN, ADA COUNTY IDAHO, MORE PARTICULARLY DESCRIBED AS FOLLOWS.

COMMENCING AT THE NORTHWEST QUARTER OF SAID SECTION 7, BEING A FOUND 5/8 INCH REBAR WITH CAP, MARKED PLS 5461, FROM WHICH A FOUND 3-1/4 INCH BRASS CAP MONUMENT MARKING THE WEST QUARTER CORNER OF SAID SECTION 7 BEARS SOUTH 02°13'17" WEST (BASIS OF BEARING), 2611.35 FEET; THENCE ALONG THE NORTHERLY LINE OF SAID SECTION 7, SOUTH 89°42'00" EAST, 115.33 FEET TO THE POINT OF BEGINNING.

LEAVING SAID NORTHERLY LINE
THENCE NORTH 52 DEGREES 00 MINUTES 04 SECONDS EAST, A DISTANCE OF 87.51 FEET;
THENCE SOUTH 37 DEGREES 59 MINUTES 56 SECONDS EAST, A DISTANCE OF 368.50 FEET;
THENCE SOUTH 52 DEGREES 00 MINUTES 04 SECONDS WEST, A DISTANCE OF 946.00 FEET;
THENCE NORTH 37 DEGREES 59 MINUTES 56 SECONDS WEST, A DISTANCE OF 368.50 FEET;
THENCE NORTH 52 DEGREES 00 MINUTES 04 SECONDS EAST, A DISTANCE OF 858.49 FEET, TO THE POINT OF BEGINNING

CONTAINING 348,602 SQUARE FEET OR 8.00 ACRES MORE OR LESS

PARCEL 2, SUBSTATION
A TRACT OF LAND BEING A PORTION OF HIDDEN HOLLOW SUBDIVISION AS RECORDED IN BOOK 53, PAGES 4782, 4783, 4784, 4786,4787, 4788, 4789 OF THE OFFICIAL RECORDS OF ADA COUNTY, IDAHO, LOCATED IN THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER (NE1/4 NE1/4) OF SECTION 12, TOWNSHIP 4 NORTH, RANGE 1 EAST, BOISE MERIDIAN, ADA COUNTY IDAHO, MORE PARTICULARLY DESCRIBED AS FOLLOWS

COMMENCING AT THE NORTHWEST QUARTER OF SAID SECTION 7, BEING A FOUND 5/8 INCH REBAR WITH CAP, MARKED PLS 5461, FROM WHICH A FOUND 3-1/4 INCH BRASS CAP MONUMENT MARKING THE WEST QUARTER CORNER OF SAID SECTION 7 BEARS SOUTH 02°13'17" WEST (BASIS OF BEARING), 2611.35 FEET; THENCE ALONG THE NORTHERLY LINE OF SAID SECTION 12, NORTH 89°27'29" WEST, 45.78 FEET; THENCE LEAVING SAID NORTHERLY LINE, SOUTH 52°00'04" WEST, 338.18 FEET TO THE POINT OF BEGINNING.

THENCE SOUTH 52 DEGREES 00 MINUTES 04 SECONDS WEST, A DISTANCE OF 200.00 FEET;
THENCE NORTH 37 DEGREES 59 MINUTES 56 SECONDS WEST, A DISTANCE OF 100.00 FEET;
THENCE NORTH 52 DEGREES 00 MINUTES 04 SECONDS EAST, A DISTANCE OF 200.00 FEET;
THENCE SOUTH 37 DEGREES 59 MINUTES 56 SECONDS EAST, A DISTANCE OF 100.00 FEET;
TO THE POINT OF BEGINNING.

CONTAINING 20,000 SQUARE FEET OR 0.46 ACRES MORE OR LESS

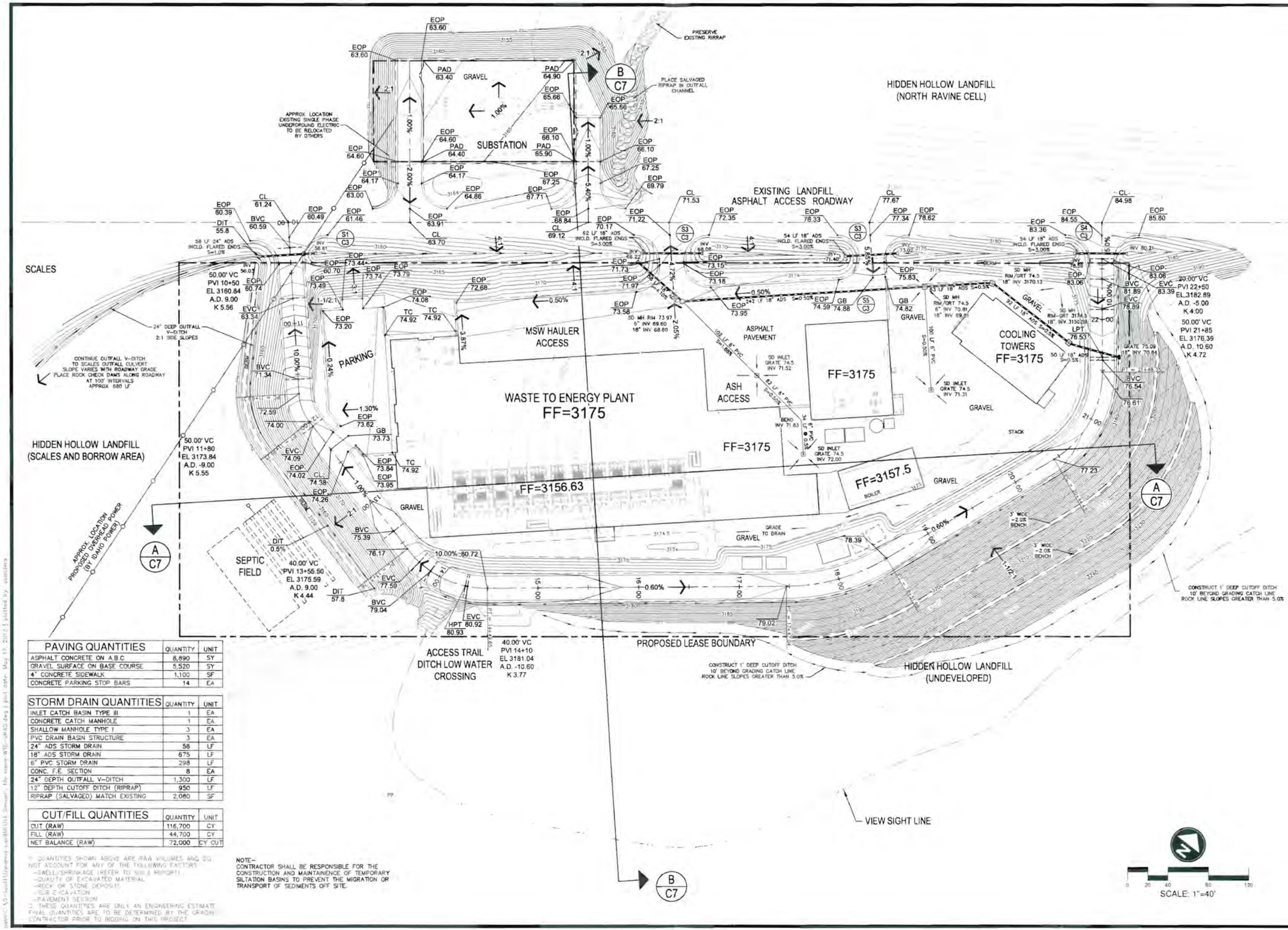
SCALE: 1"=40'

PRELIMINARY NOT APPROVED FOR CONSTRUCTION

DYNAMIS ENERGY, LLC
ADA COUNTY LANDFILL WASTE TO ENERGY PLANT
PLAN SHEET
DIMENSIONING PLAN

DYNAMIS ENERGY

C4
SHEET 4 OF 8
V. 10 R. 7



PAVING QUANTITIES	QUANTITY	UNIT
ASPHALT CONCRETE ON A.B.C.	8,890	SY
GRAVEL SURFACE ON BASE COURSE	5,520	SY
4" CONCRETE SIDEWALK	1,100	SF
CONCRETE PARKING STOP BARS	14	EA

STORM DRAIN QUANTITIES	QUANTITY	UNIT
INLET CATCH BASIN TYPE III	1	EA
CONCRETE CATCH MANHOLE	1	EA
SHALLOW MANHOLE TYPE I	3	EA
PVC DRAIN BASIN STRUCTURE	3	EA
24" ADS STORM DRAIN	58	LF
18" ADS STORM DRAIN	675	LF
6" PVC STORM DRAIN	298	LF
CONC. F.E. SECTION	8	EA
24" DEPTH OUTFALL V-DITCH	1,300	LF
12" DEPTH CUTOFF DITCH (RIPRAP)	950	LF
RIPRAP (SALVAGED) MATCH EXISTING	2,080	SF

CUT/FILL QUANTITIES	QUANTITY	UNIT
CUT (RAW)	116,700	CY
FILL (RAW)	44,700	CY
NET BALANCE (RAW)	72,000	CY CUT

1. QUANTITIES SHOWN ABOVE ARE RAW VOLUMES AND DO NOT ACCOUNT FOR ANY OF THE FOLLOWING FACTORS:
   - SWELL/SHRINKAGE (REFER TO SOILS REPORT)
   - QUALITY OF EXCAVATED MATERIAL
   - ROCK OR STONE DEPOSITS
   - SUB GRADE EXCAVATION
   - PAVEMENT SECTION
2. THESE QUANTITIES ARE ONLY AN ENGINEERING ESTIMATE. FINAL QUANTITIES ARE TO BE DETERMINED BY THE GRADING CONTRACTOR PRIOR TO BIDDING ON THIS PROJECT.

NOTE–
CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSTRUCTION AND MAINTAINENCE OF TEMPORARY SILTATION BASINS TO PREVENT THE MIGRATION OR TRANSPORT OF SEDIMENTS OFF SITE.

PRELIMINARY NOT APPROVED FOR CONSTRUCTION

REVISIONS	
DATE:	MAY 17, 2012
DESIGNED BY:	STAFF
DRAWN BY:	STAFF
REVIEWED BY:	
APPROVED:	
PROJECT:	

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DYNAMIS ENERGY, LLC

HIDDEN HOLLOW LANDFILL WASTE TO ENERGY PLANT
PLAN SHEET

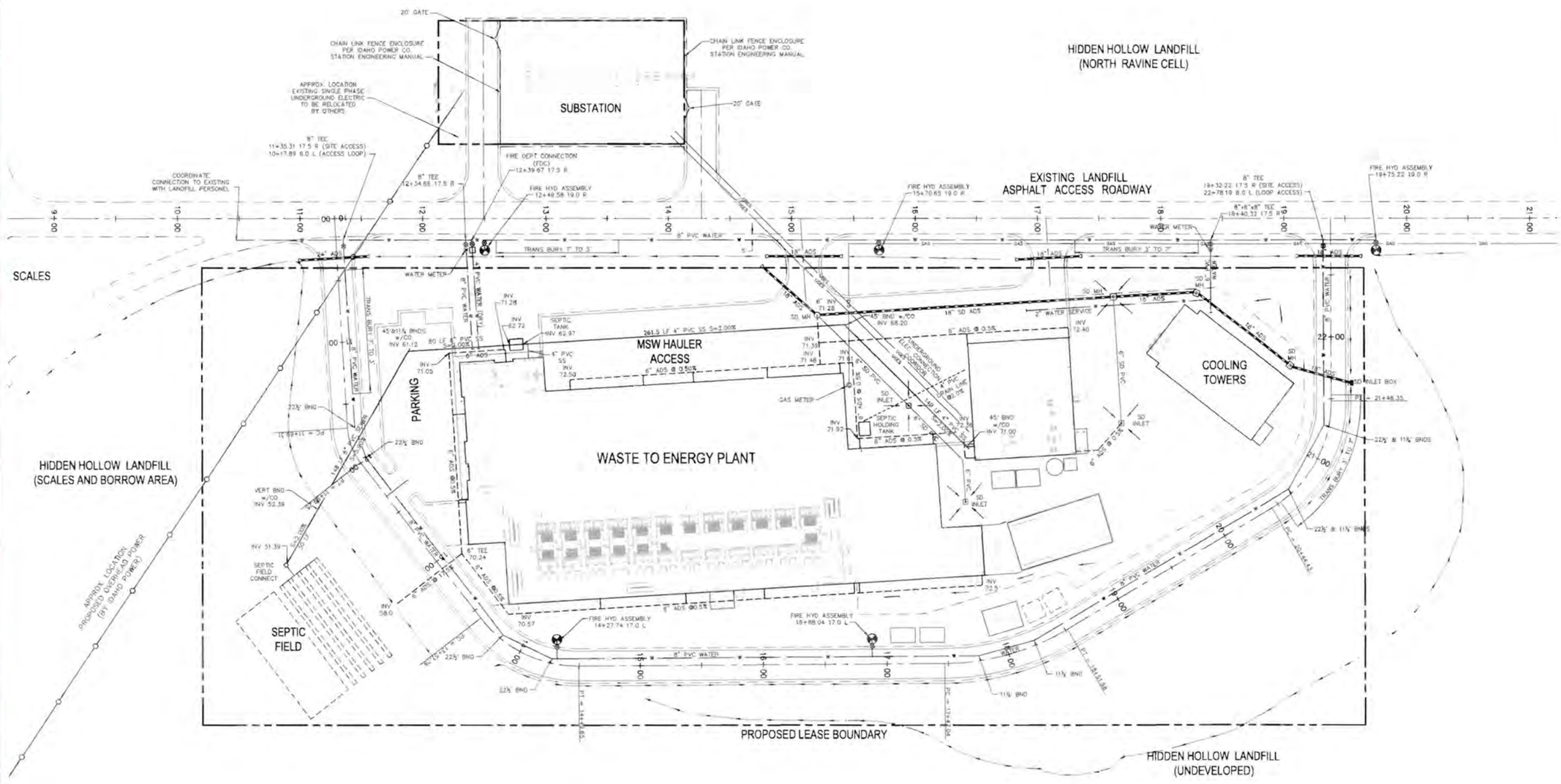
GRADING PLAN

DYNAMIS ENERGY

C5

SHEET 5 OF 8

V. 10 R. 7



UTILITY QUANTITIES	QUANTITY	UNIT
6" PVC SEWERLINE	296	LF
4" PVC SEWERLINE	399	LF
4" PVC SEWER DRAIN LINE	92	LF
SEWER CLEAN OUT	5	EA
3000 GAL. SEPTIC TANK	2	EA
8" PVC WATERLINE	2260	LF
6" PVC WATERLINE	60	LF
4" PVC WATERLINE	125	LF
8" GATE VALVE	3	EA
6" GATE VALVE	1	EA
4" GATE VALVE	1	EA
2" WATER SERVICE	150	LF
WATER METER	2	EA
FIRE HYDRANT ASSEMBLY	5	EA
FIRE DEPT CONNECTION (FDC)	1	EA
GAS METER & SERVICE EXTENTION	1	EA
6" ADS ROOF DRAIN	1380	LF
ROOF DRAIN CONNECTION	19	EA
CHAIN LINK FENCE	480	LF
CHAIN LINK GATE	2	EA

NOTE–COORDINATE ROOF DRAIN CONNECTIONS WITH ARCHITECTURAL PLAN FOR FINAL NUMBER & LOCATION

SCALE: 1"=40'

PRELIMINARY NOT APPROVED FOR CONSTRUCTION

REVISIONS

DATE: MAY 17, 2013
DESIGNED BY: STAFF
DRAWN BY: STAFF
REVIEWED BY:
APPROVED BY:
PROJECT:
CODE:

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DYNAMIS ENERGY, LLC

ADA COUNTY LANDFILL WASTE TO ENERGY PLANT

PLAN SHEET

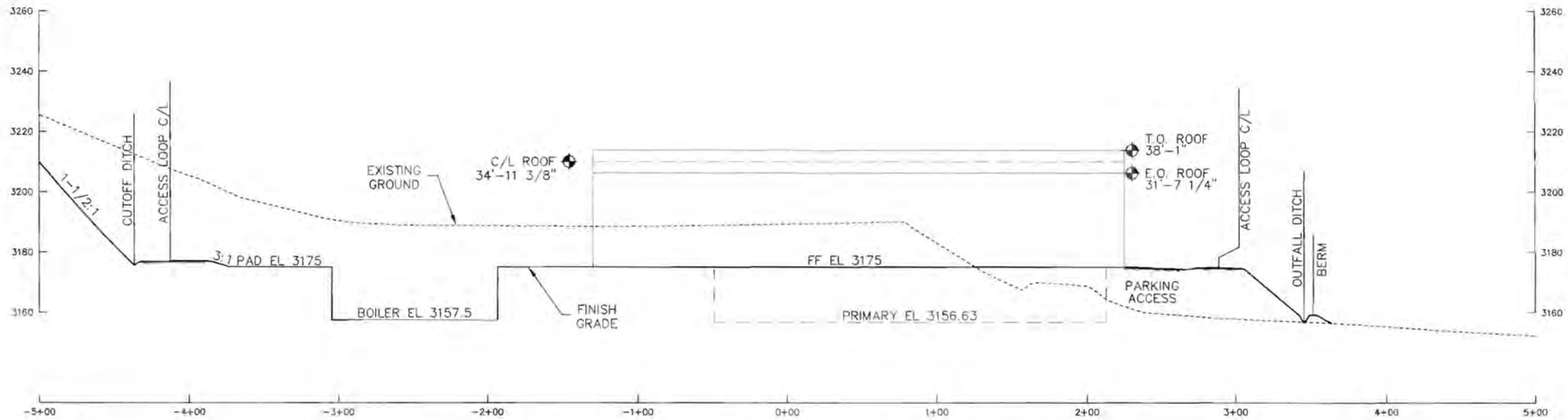
UTILITY PLAN

DYNAMIS ENERGY

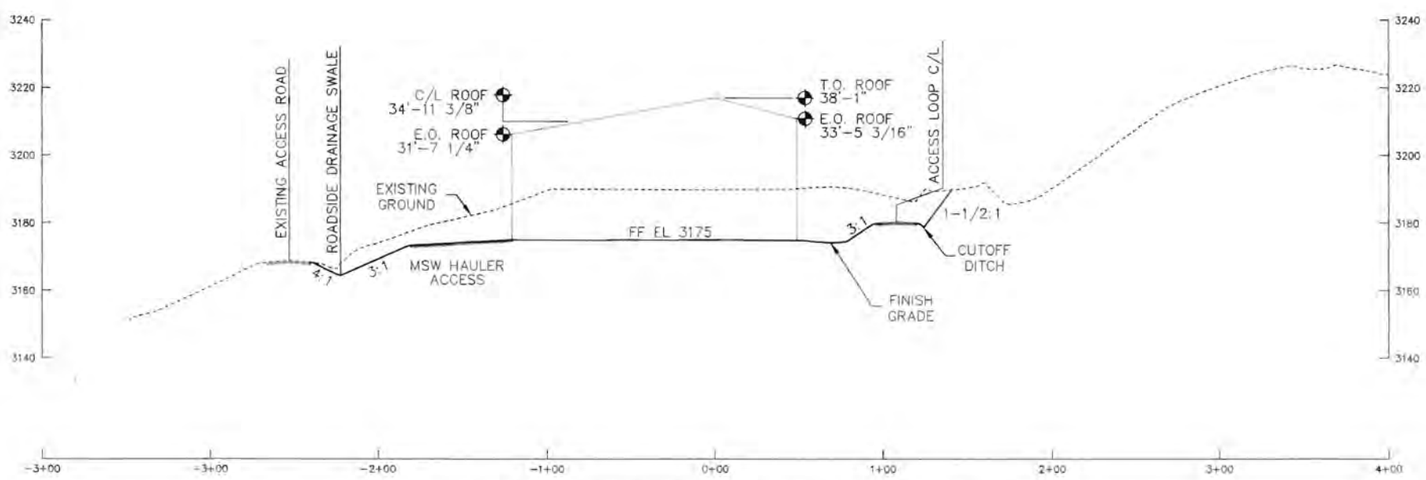
C6

SHEET 6 OF 8

V. 10 R. 7



A / C5 SITE CROSS SECTION (LOOKING SOUTHEAST)



B / C5 SITE CROSS SECTION (LOOKING NORTHEAST)

SCALE: 1"=40'
2X VERTICAL EXAGGERATION

PRELIMINARY NOT APPROVED FOR CONSTRUCTION

REVISIONS

DATE: MAY 17, 2012
DESIGNED BY: STAFF
DRAWN BY: STAFF
ENGINEER BY:
PROJECT:
SCALE: NOT TO EXCEEDED BUDGET

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DYNAMIS ENERGY, LLC

ADA COUNTY LANDFILL WASTE TO ENERGY PLANT
SECTION SHEET

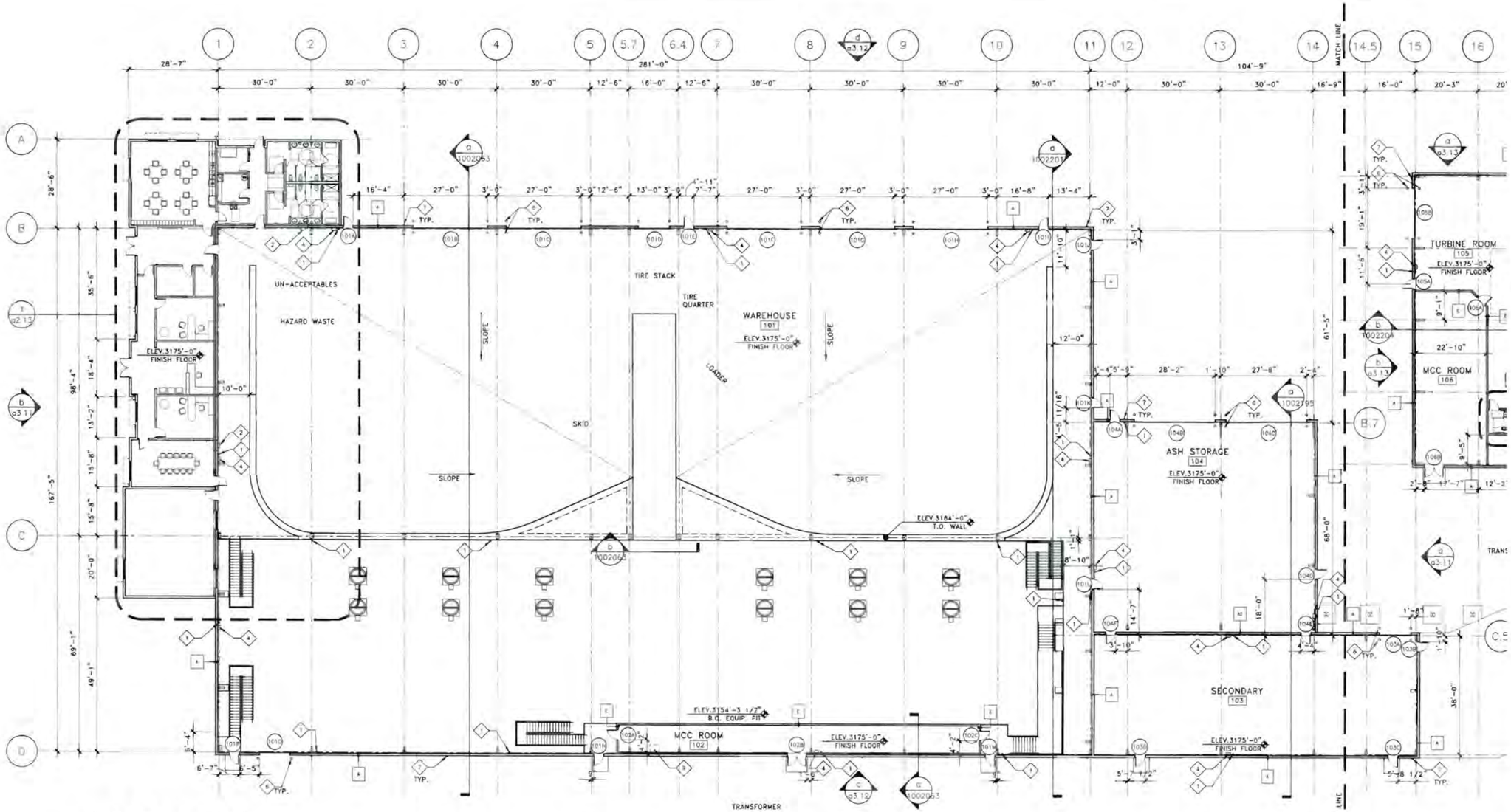
SITE CROSS SECTIONS

DYNAMIS ENERGY

C7

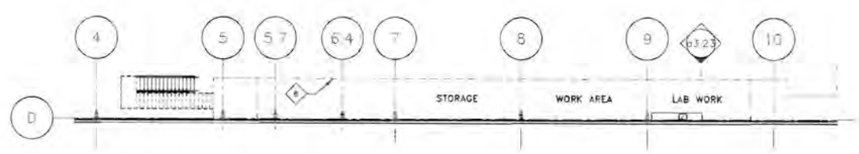
SHEET 7 OF 8

V. 10 R. 7



floor plan

SCALE: 1/16" = 1'-0"



partial pit floor plan

SCALE: 1/16" = 1'-0"

keynotes:

1. WALL MOUNTED PORTABLE FIRE EXTINGUISHER AS SPECIFIED. VERIFY FINAL LOCATIONS WITH FIRE MARSHALL. SEE 4/a5.11
2. ROOF ACCESS LADDER WITH DOOR ABOVE. SEE 1/a2.44.
3. NOT USED.
4. EYE WASH. SEE SPECIFICATIONS.
5. FLOOR DRAIN. SEE PLUMBING DRAWINGS.
6. BOLLARD. SEE 6/a5.11.
7. DOWNSPOUT. SEE ROOF PLAN.
8. MCC ROOM ABOVE.
9. ROOF HATCH ABOVE. SEE ROOF PLAN.
10. REMOVABLE ROOF SECTION ABOVE. SEE ROOF PLAN.

general notes:

A. CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD; NOTIFY ARCHITECT IF DISCREPANCIES ARE FOUND.
B. GYPSUM WALLBOARD APPLICATION & FINISHING AT ALL EXPOSED SURFACES TO COMPLY WITH SPECIFICATIONS AND/OR WITH AWCI LEVEL 5.
C. UNLESS NOTED OTHERWISE ALL EXTERIOR WALLS ARE DIMENSIONED TO FACE OF STUD.
D. UNLESS NOTED OTHERWISE ALL INTERIOR PARTITIONS ARE DIMENSIONED TO FACE OF STUD.
E. UNLESS DIMENSIONED OTHERWISE INTERIOR DOORS SHALL BE LOCATED 4" FROM ADJACENT PARTITION.
G. CONTRACTOR TO PROVIDE SOLID BLOCKING IN WALLS TO SUPPORT ALL WALL MOUNTED ITEMS.
H. SEE a2.13 FOR WALL TYPES.

NOT FOR CONSTRUCTION

eralad ARCHITECTS, PA
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(208) 331-9851 fax 331-9625 e-mail: dan@eraladarchitects.com

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dynamis energy, llc
ada county waste to energy facility
10319 seaman's gulch road
ada county, idaho 83714

revision:

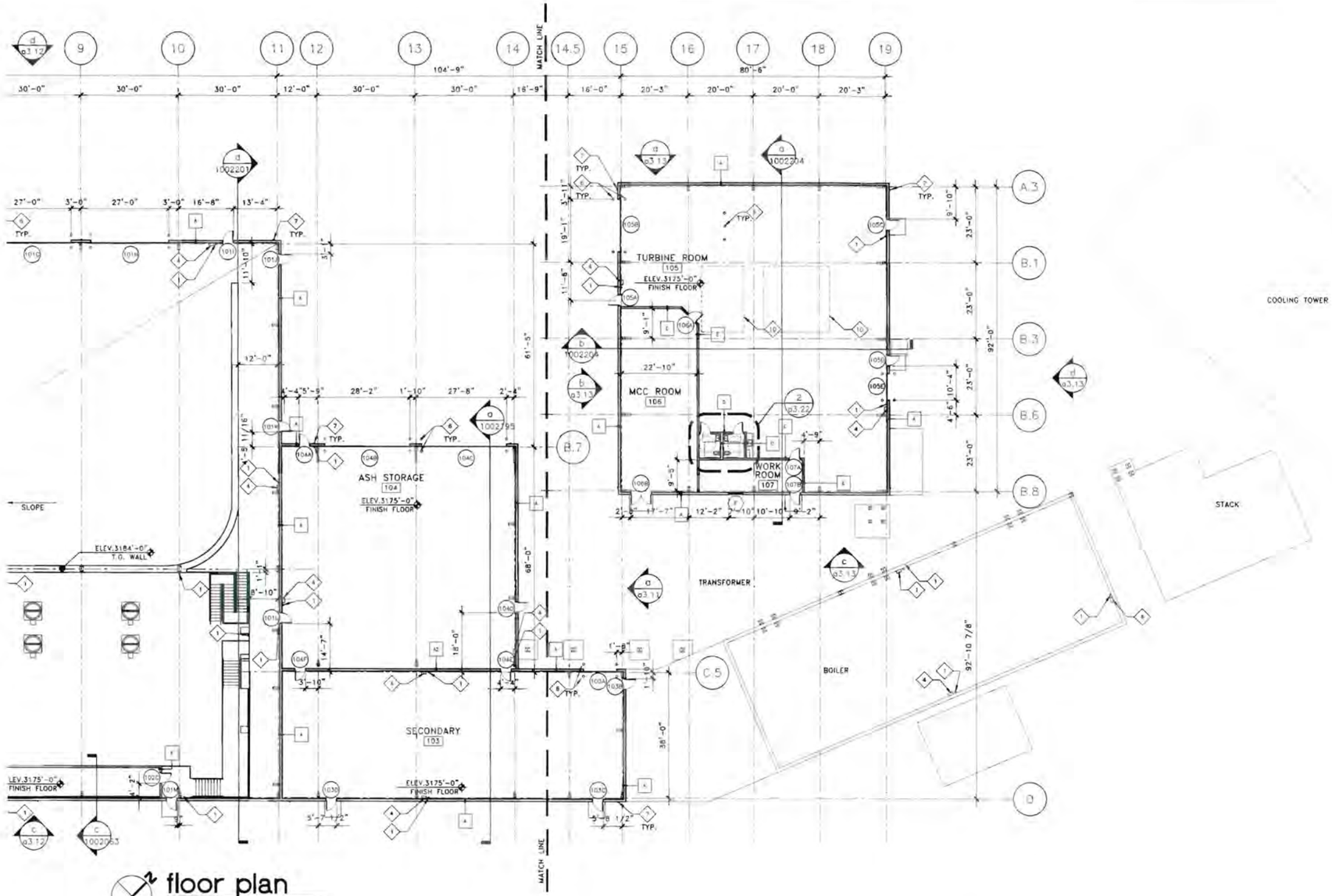
SUBMITTAL TO IDEQ

project: 100910
date: 05.17.12
drawn: mb.tb
checked: cp.ae

construction documents

floor plan

a2.11



floor plan

SCALE: 1/16" = 1'-0"

keynotes:

1. WALL MOUNTED PORTABLE FIRE EXTINGUISHER AS SPECIFIED. VERIFY FINAL LOCATIONS WITH FIRE MARSHALL. SEE 4/a5.11.
2. ROOF ACCESS LADDER WITH DOOR ABOVE, SEE 1/a2.44.
3. NOT USED.
4. EYE WASH, SEE SPECIFICATIONS.
5. FLOOR DRAIN, SEE PLUMBING DRAWINGS.
6. BOLLARD, SEE 6/a5.11.
7. DOWNSPOUT, SEE ROOF PLAN.
8. MCC ROOM ABOVE.
9. ROOF HATCH ABOVE, SEE ROOF PLAN.
10. REMOVABLE ROOF SECTION ABOVE, SEE ROOF PLAN.

general notes:

A. CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD; NOTIFY ARCHITECT IF DISCREPANCIES ARE FOUND.
B. GYPSUM WALLBOARD APPLICATION & FINISHING AT ALL EXPOSED SURFACES TO COMPLY WITH SPECIFICATIONS AND/OR WITH AWCI LEVEL 5.
C. UNLESS NOTED OTHERWISE ALL EXTERIOR WALLS ARE DIMENSIONED TO FACE OF STUD.
D. UNLESS NOTED OTHERWISE ALL INTERIOR PARTITIONS ARE DIMENSIONED TO FACE OF STUD.
E. UNLESS DIMENSIONED OTHERWISE INTERIOR DOORS SHALL BE LOCATED 4" FROM ADJACENT PARTITION.
G. CONTRACTOR TO PROVIDE SOLID BLOCKING IN WALLS TO SUPPORT ALL WALL MOUNTED ITEMS.
H. SEE a2.13 FOR WALL TYPES.

NOT FOR CONSTRUCTION

erstad ARCHITECTS, PA
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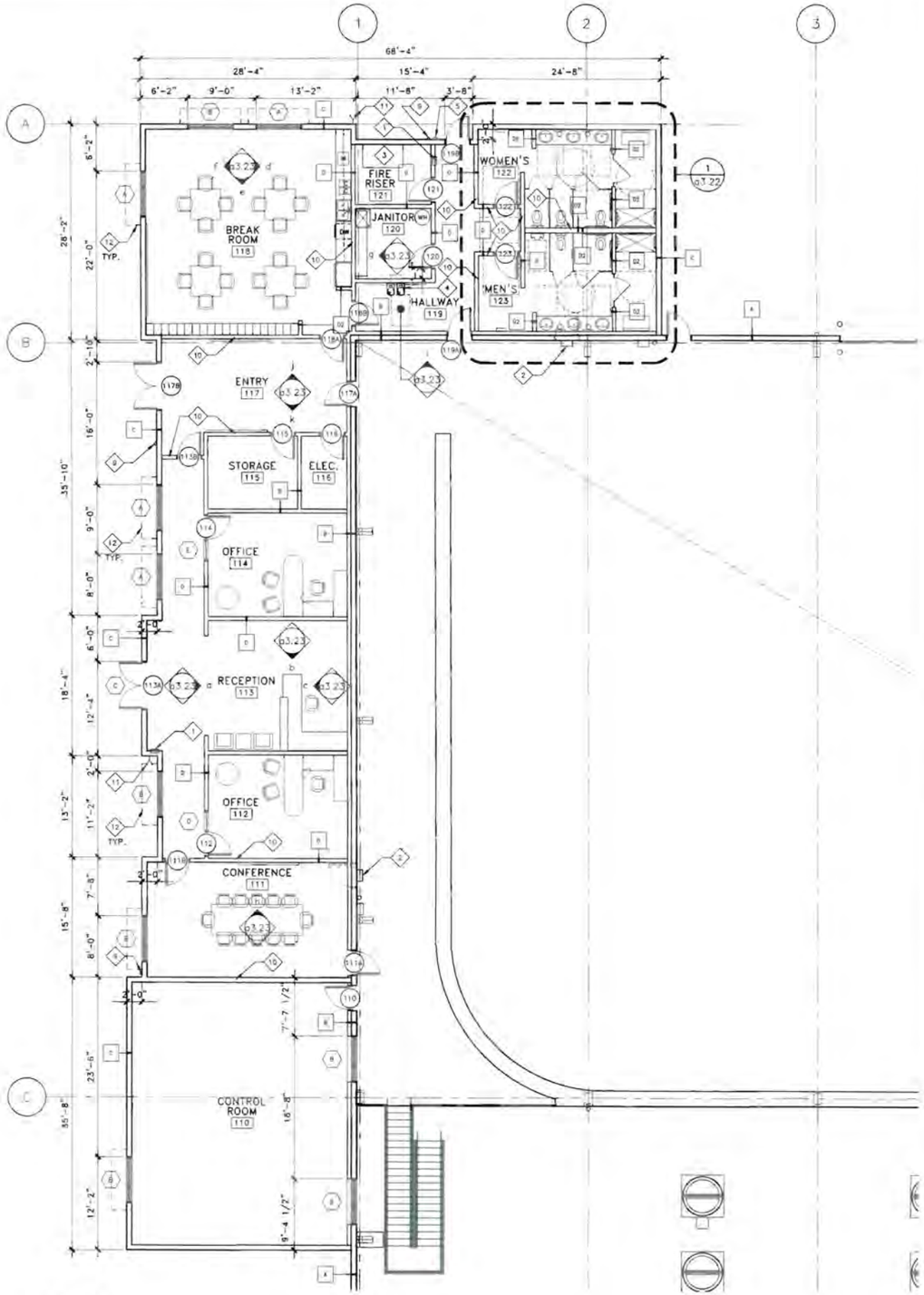
floor plan

a2.12

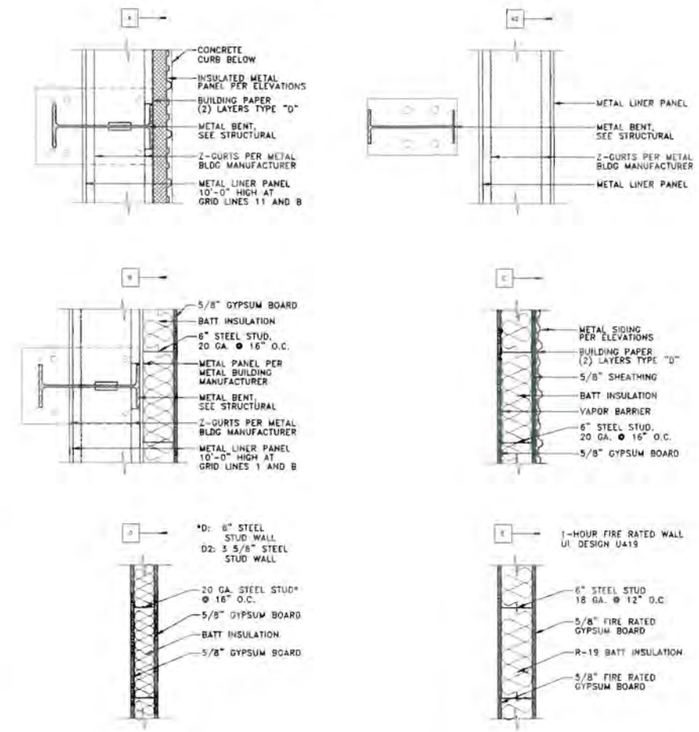


1) enlarged floor plan

SCALE: 1/8" = 1'-0"

wall types:

NOTE: SEE SECTIONS AND ELEVATIONS FOR TRANSITION FROM CONCRETE TO METAL BUILDING



keynotes:

1. RECESSED PORTABLE FIRE EXTINGUISHER AS SPECIFIED; SEE 2/a5.11.
2. ROOF ACCESS LADDER WITH DOOR ABOVE, SEE 1/a2.44.
3. FIRE RISER, SEE MECHANICAL DRAWINGS.
4. DRINKING FOUNTAINS, SEE PLUMBING DRAWINGS.
5. KNOX BOX, SEE EXTERIOR ELEVATIONS.
6. TACTILE EXIT SIGNAGE ON WALL NEAR DOORWAY, SEE 7/a5.11.
7. TACTILE SIGNAGE, SEE 7/a5.11.
8. FIRE ALARM ANNUNCIATOR PANEL; RE: ELECTRICAL DRAWINGS.
9. PRE-FINISHED GUTTER AND DOWNSPOUT, SEE ROOF PLAN.
10. WALL TO TERMINATE AT UNDERSIDE OF ROOF DECK ABOVE.
11. HOSE BIB, SEE PLUMBING DRAWINGS.
12. WINDOW AWNING ABOVE, SEE EXTERIOR ELEVATIONS AND 11/a5.11.
13. FIRE ALARM PANEL; RE: ELECTRICAL DRAWINGS.

general notes:

A. CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD; NOTIFY ARCHITECT IF DISCREPANCIES ARE FOUND.
B. GYPSUM WALLBOARD APPLICATION & FINISHING AT ALL EXPOSED SURFACES TO COMPLY WITH SPECIFICATIONS AND/OR WITH AWCI LEVEL 5.
C. UNLESS NOTED OTHERWISE ALL EXTERIOR WALLS ARE DIMENSIONED TO FACE OF STUD.
D. UNLESS NOTED OTHERWISE ALL INTERIOR PARTITIONS ARE DIMENSIONED TO FACE OF STUD.
E. UNLESS DIMENSIONED OTHERWISE INTERIOR DOORS SHALL BE LOCATED 4" FROM ADJACENT PARTITION.
G. CONTRACTOR TO PROVIDE SOLID BLOCKING IN WALLS TO SUPPORT ALL WALL MOUNTED ITEMS.
H. ALL INTERIOR PARTITION WALLS ARE TO EXTEND 6" MIN. ABOVE ADJACENT CEILING UNLESS NOTED OTHERWISE.

NOT FOR CONSTRUCTION

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ada county, idaho 83714

revision:

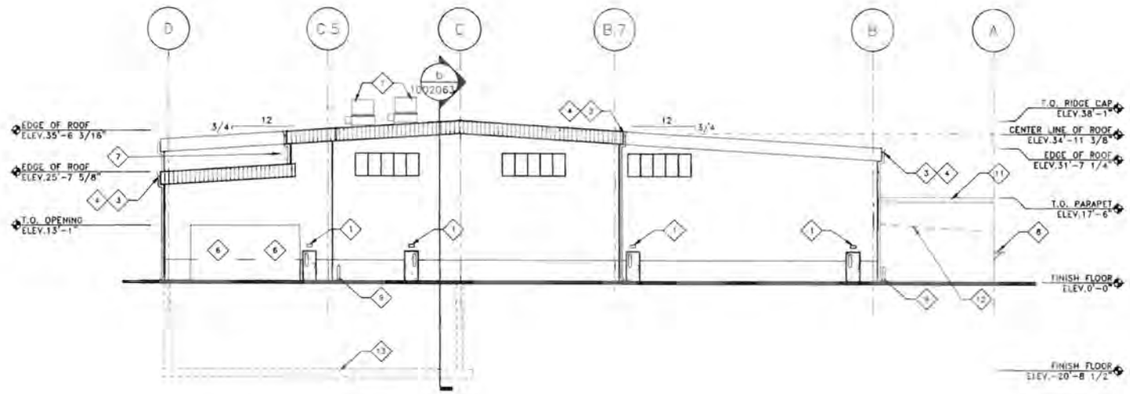
SUBMITTAL TO IDEQ

project: 100910
date: 05.17.12
drawn: mb.tb
checked: cp.ae

construction documents

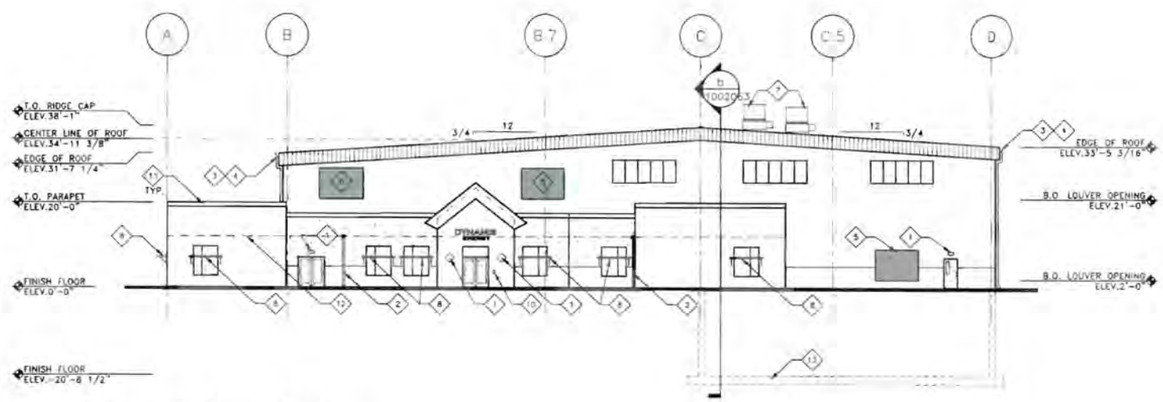
enlarged floor plan

a2.13



a) east elevation

SCALE: 1/16" = 1'-0"



b) west elevation

SCALE: 1/16" = 1'-0"

hatch patterns

4" INSULATED ROOF PANEL – COLOR PEARL GRAY
NUCOR – STANDING SEAM ROOF PROFILE-SR2

TRANSLUCENT WALL PANEL
NUCOR – AC0100FE – 5'-4" TALL

2 1/2" INSULATED PANEL – COLOR BRICK RED
NUCOR – HIGH RIB PROFILE-HR3

2 1/2" INSULATED WALL PANEL – COLOR PEARL GRAY
NUCOR – DOUBLE MESA PROFILE-DM40
NON-INSULATED PANEL AT WALL TYPE C AT OFFICE
SEE FLOOR PLAN

WALL PANEL (NON-INSULATED) – COLOR REGAL WHITE
NUCOR – HEAVY EMBOSSED PROFILE-HE40

CONCRETE WALL

keynotes:

1. EXTERIOR LIGHT FIXTURE, SEE ELECTRICAL DRAWINGS.
2. THROUGH WALL SCUPPER AND DOWNSPOUT.
3. GUTTER.
4. DOWNSPOUT.
5. LOUVERED OPENING, COORDINATE EXACT SIZE AND LOCATION WITH EQUIPMENT DRAWINGS.
6. EQUIPMENT OPENING, COORDINATE EXACT LOCATION WITH EQUIPMENT DRAWINGS.
7. MECHANICAL UNIT, SEE MECHANICAL AND EQUIPMENT DRAWINGS.
8. WINDOW AWNING, SEE DETAIL 11/a5.11.
9. BOLLARD, SEE DETAIL 6/a5.11.
10. KNOX BOX, VERIFY FINAL LOCATION WITH FIRE MARSHAL.
11. PARAPET CAP, SEE 12/a2.43.
12. LINE OF ROOF BEYOND, SEE ROOF PLAN.
13. LINE OF PRIMARY PIT BEYOND, SEE FLOOR PLAN.

general notes:

A. CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD; NOTIFY ARCHITECT IF DISCREPANCIES ARE FOUND.

NOT FOR CONSTRUCTION

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ada county, idaho 83714

revision:

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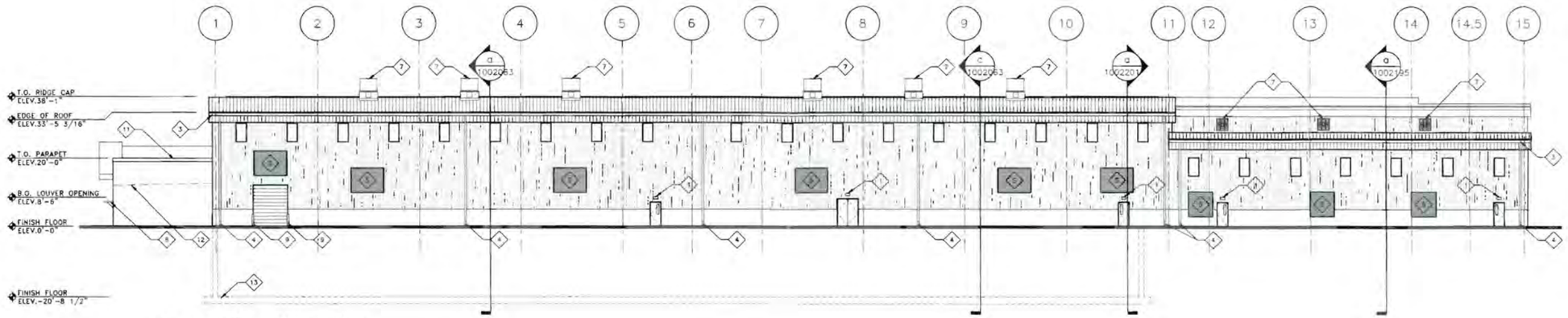
construction documents

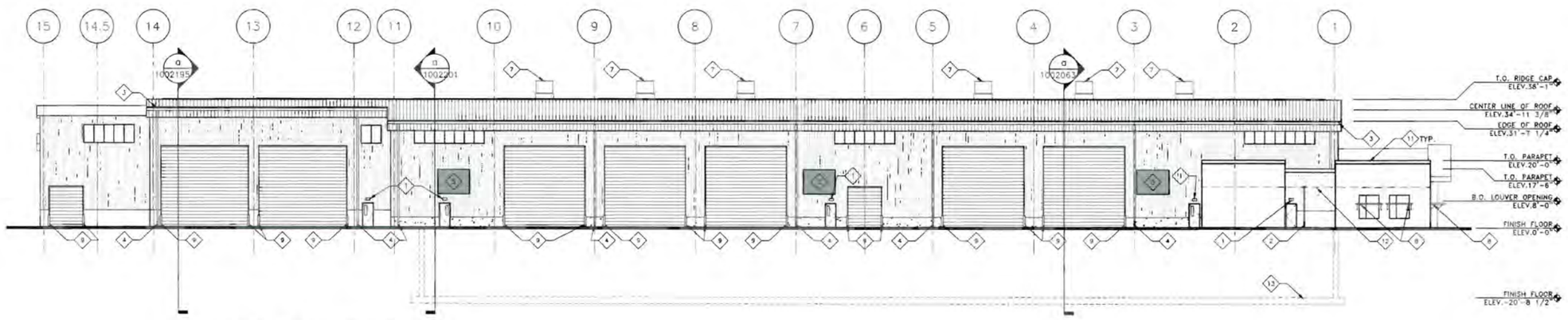
exterior elevations

a3.11



c) south elevation

SCALE: 1/16" = 1'-0"



d) north elevation

SCALE: 1/16" = 1'-0"

hatch patterns

4" INSULATED ROOF PANEL – COLOR PEARL GRAY
NUCOR – STANDING SEAM ROOF PROFILE-SR2

TRANSLUCENT WALL PANEL
NUCOR – AC010OPE – 5'-4" TALL

2 1/2" INSULATED PANEL – COLOR BRICK RED
NUCOR – HIGH RIB PROFILE-HR3

2 1/2" INSULATED WALL PANEL – COLOR PEARL GRAY
NUCOR – DOUBLE MESA PROFILE-DM40
NON-INSULATED PANEL AT WALL TYPE C AT OFFICE
SEE FLOOR PLAN

WALL PANEL (NON-INSULATED) – COLOR REGAL WHITE
NUCOR – HEAVY EMBOSSED PROFILE-HE40

CONCRETE WALL

keynotes:

1. EXTERIOR LIGHT FIXTURE, SEE ELECTRICAL DRAWINGS.
2. THROUGH WALL SCUPPER AND DOWNSPOUT.
3. GUTTER.
4. DOWNSPOUT.
5. LOUVERED OPENING, COORDINATE EXACT SIZE AND LOCATION WITH EQUIPMENT DRAWINGS.
6. EQUIPMENT OPENING, COORDINATE EXACT LOCATION WITH EQUIPMENT DRAWINGS.
7. MECHANICAL UNIT, SEE MECHANICAL AND EQUIPMENT DRAWINGS.
8. WINDOW AWNING, SEE DETAIL 11/a5.11.
9. BOLLARD, SEE DETAIL 6/a5.11.
10. KNOX BOX, VERIFY FINAL LOCATION WITH FIRE MARSHAL.
11. PARAPET CAP, SEE 12/a2.43.
12. LINE OF ROOF BEYOND, SEE ROOF PLAN.
13. LINE OF PRIMARY PIT BEYOND, SEE FLOOR PLAN.

general notes:

A. CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD; NOTIFY ARCHITECT IF DISCREPANCIES ARE FOUND.

NOT FOR CONSTRUCTION

erstad ARCHITECTS, PA
820 main street, suite 202, boise, idaho 83702
(208) 331 9621 fax 331 9025 e-mail mail@erstadarchitects.com

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dynamis energy, llc
ada county waste to energy facility
10319 seaman's gulch road
ada county, idaho 83714

revision:

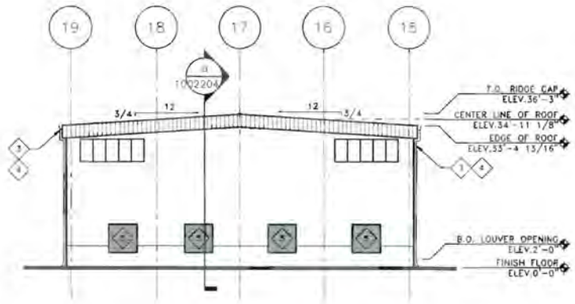
SUBMITTAL TO IDEQ

project: 100910
date: 05.17.12
drawn: mb.lb
checked: cp.ae

construction documents

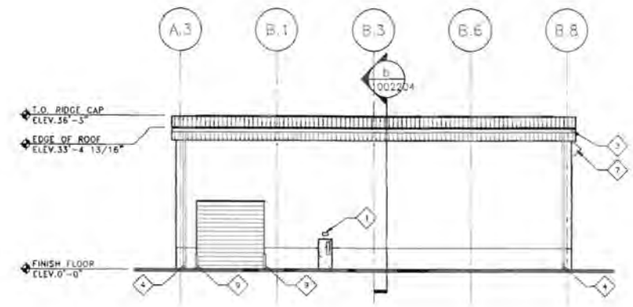
exterior elevations

a3.12



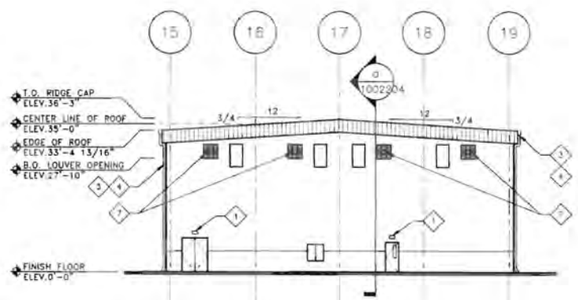
a) north elevation

SCALE: 1/16" = 1'-0"



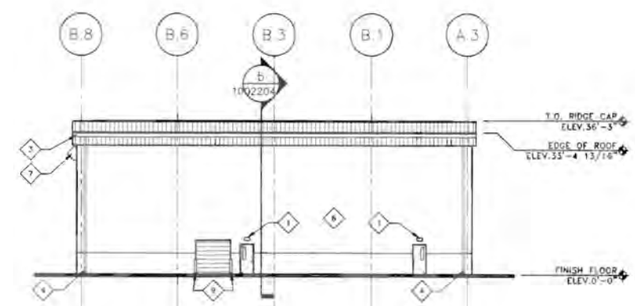
b) west elevation

SCALE: 1/16" = 1'-0"



c) south elevation

SCALE: 1/16" = 1'-0"



d) east elevation

SCALE: 1/16" = 1'-0"

hatch patterns

4" INSULATED ROOF PANEL – COLOR PEARL GRAY
NUCOR – STANDING SEAM ROOF PROFILE-SR2

TRANSLUCENT WALL PANEL
NUCOR – AC0100PE – 5'-4" TALL

2 1/2" INSULATED PANEL – COLOR BRICK RED
NUCOR – HIGH RIB PROFILE-HR3

2 1/2" INSULATED WALL PANEL – COLOR PEARL GRAY
NUCOR – DOUBLE MESA PROFILE-DM40
NON-INSULATED PANEL AT WALL TYPE C AT OFFICE
SEE FLOOR PLAN

WALL PANEL (NON-INSULATED) – COLOR REGAL WHITE
NUCOR – HEAVY EMBOSSED PROFILE-HE40

CONCRETE WALL

keynotes:

1. EXTERIOR LIGHT FIXTURE, SEE ELECTRICAL DRAWINGS.
2. THROUGH WALL SCUPPER AND DOWNSPOUT.
3. GUTTER.
4. DOWNSPOUT.
5. LOUVERED OPENING, COORDINATE EXACT SIZE AND LOCATION WITH EQUIPMENT DRAWINGS.
6. EQUIPMENT OPENING, COORDINATE EXACT LOCATION WITH EQUIPMENT DRAWINGS.
7. MECHANICAL UNIT, SEE MECHANICAL AND EQUIPMENT DRAWINGS.
8. WINDOW AWNING, SEE DETAIL 11/a5.11.
9. BOLLARD, SEE DETAIL 6/a5.11.
10. KNOX BOX, VERIFY FINAL LOCATION WITH FIRE MARSHAL.
11. PARAPET CAP, SEE 12/a2.43.
12. LINE OF ROOF BEYOND, SEE ROOF PLAN.
13. LINE OF PRIMARY PIT BEYOND, SEE FLOOR PLAN.

general notes:

A. CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD; NOTIFY ARCHITECT IF DISCREPANCIES ARE FOUND.

NOT FOR CONSTRUCTION

erstad ARCHITECTS, PA
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(208) 331-1931 fax 331-1935 e-mail: mail@erstadarchitects.com

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dynamis energy, llc
ada county waste to energy facility
10319 seaman's gulch road
ada county, idaho 83714

revision:

SUBMITTAL TO IDEQ

project: 100910
date: 05.17.12
drawn: mb.tb
checked: cp.de

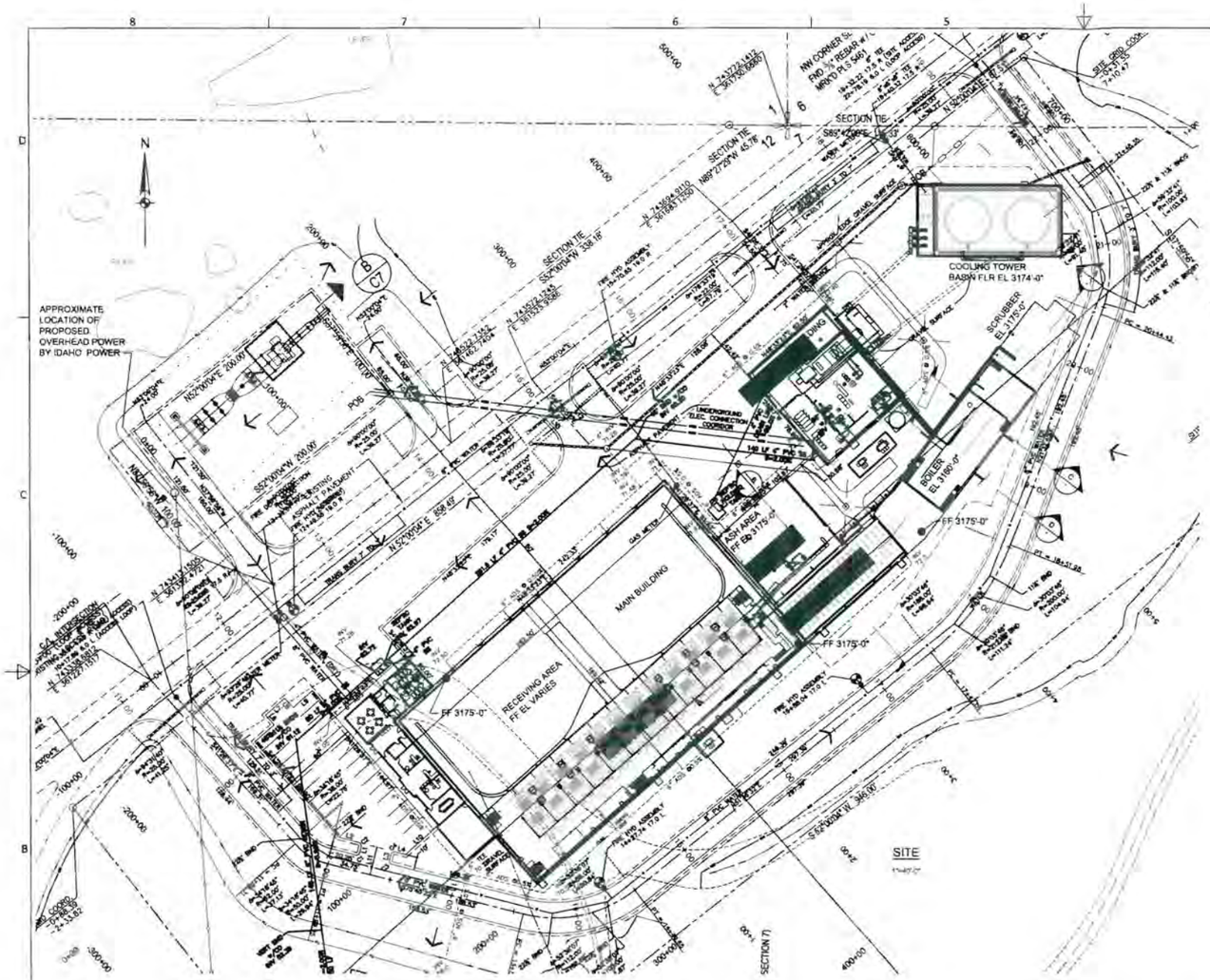
construction documents

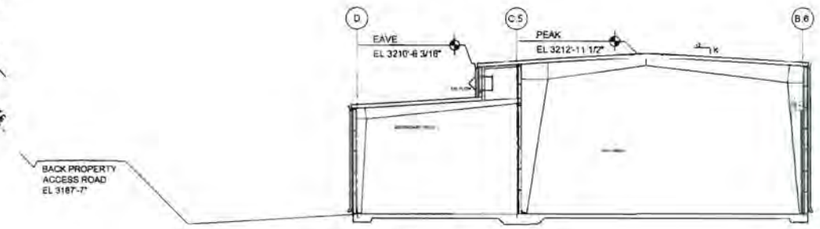
exterior elevations

a3.13

GENERAL NOTES:

A. FOR PROJECT NOTES & SPECIFICATIONS SEE DRAWING #1102-01-G-1002021 & 1002022.





B SECTION
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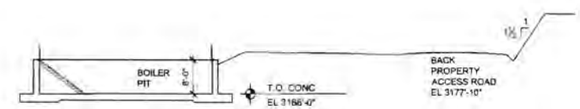

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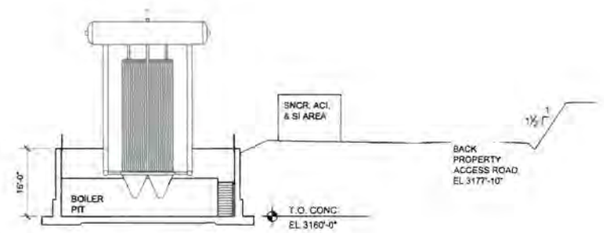
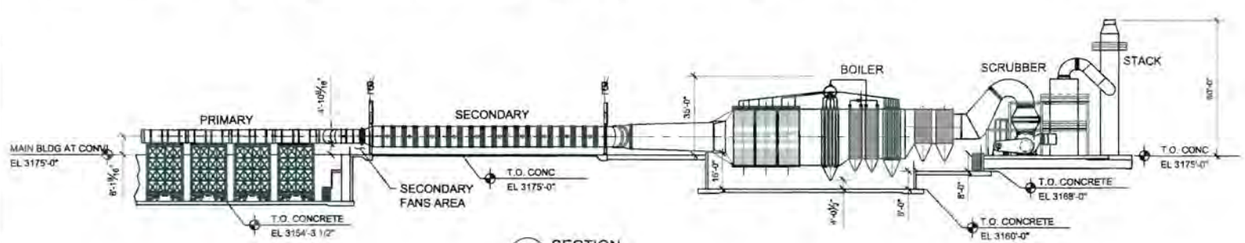
1/16"=1'-0"



D SECTION
1/16"=1'-0"



A SECTION
1"=30'-0"

NO.	REVISIONS	BY	DATE
4	IDEQ DESIGN PLAN APPROVAL APP	BEH	5/18/12
3	ISSUED FOR REVIEW & COMMENT	BEH	4/10/12
2	ISSUED FOR NOT TO EXCEED BUDGET	BEH	3/30/12
1	ISSUED FOR NOT TO EXCEED BUDGET	BEH	3/29/12

ADA COUNTY, IDAHO

EVERGREEN ENGINEERING
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EUGENE, OREGON
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www.evergreenengineering.com

EE JOB NUMBER 2540.1
CHK
APP JRS
IT DRAWING NUMBER 1102-01-S-1002200
CAD FILE 1102-01-S-1002200.dwg

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:

DECIMAL	MILLD ± 1/32		
.X ± .1	CHAMFERS ±5°		
.XX ± .02	ANGLES ±1°		
.XXX ± .005	CAST ±1/8		
FRACTIONS ±1/16			
THIRD ANGLE PROJECTION			

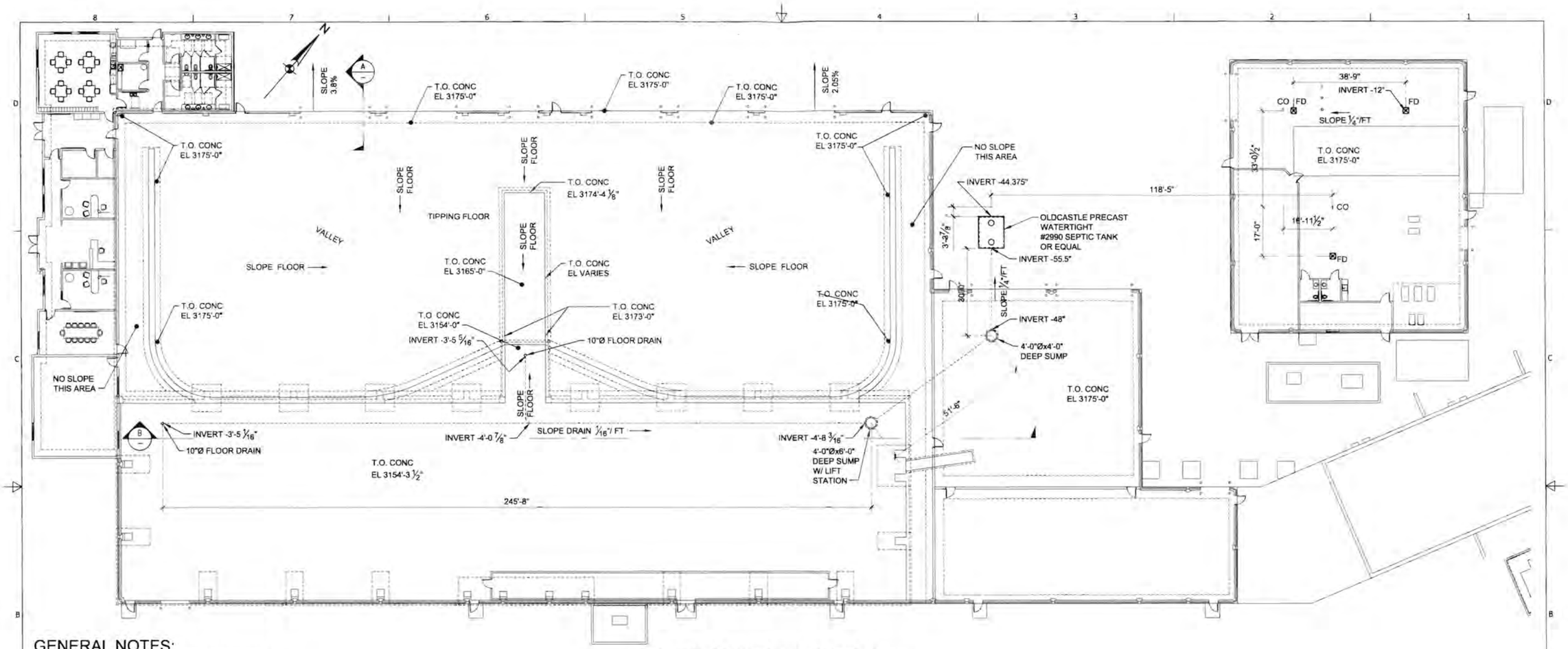
DRAWN BEH	2/9/12	
CHECKED		
QA		
MFG		
APPROVED JP	5/18/12	
MATERIAL SEE TABLE	FINISH N/A	

Dynamis Energy LLC,
776 E. Riverside Dr. Ste. 150
Eagle, ID 83616

TITLE
408T WASTE TO ENERGY FACILITY
SITE PLAN &
ELEVATIONS CONTROL SECTIONS

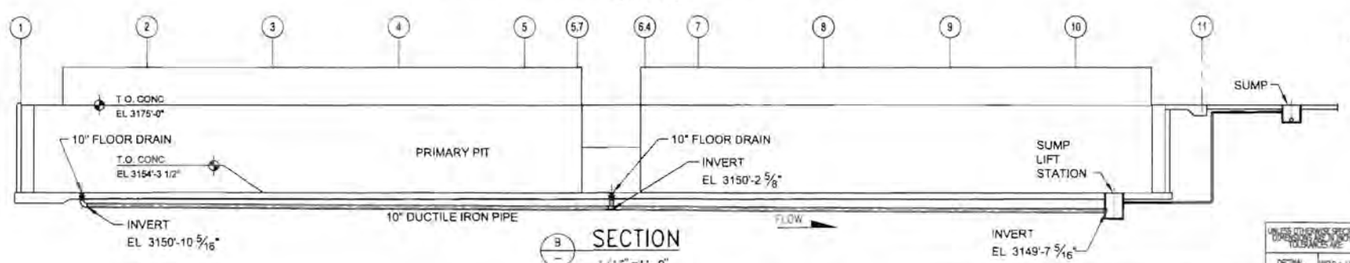
SIZE	DWG NO	REV
D	1102-01-S-1002200	4

SCALE NOTED
SHEET 1 OF 1



LEACHATE DRAINAGE & PIPING PLAN

1/16" = 1'-0"



B SECTION

1/16" = 1'-0"

A SECTION

1/16" = 1'-0"

GENERAL NOTES:

A. FOR PROJECT NOTES & SPECIFICATIONS SEE DRAWING #1102-01-G-1002021 & 1002022.
B. HOLDING TANK TO HAVE BOTH AUDIBLE AND VISUAL ALARM.
C. HOLDING TANK ALARMS SHALL BE SET TO SIGNAL AT THE "TIME-TO-PUMP" AND "EXCEEDING RESERVE STORAGE VOLUME" LEVELS.
D. TANK TO BE WATERTIGHT CONSTRUCTION.
E. ALL CONNECTIONS TO BE WATERTIGHT.
F. DUCTILE IRON PIPE AND FITTINGS CONFORMING TO ANSI/AWWA C150/A21.50 STANDARDS TO BE USED IN ALL UNDER CONCRETE LOCATIONS.
G. PVC PIPE AND FITTINGS CONFORMING TO ASTM D1785 AND D2466 MAY BE USED FOR LOCATIONS NOT UNDER CONCRETE.
H. ALL WALL PENETRATIONS SHALL BE SLEEVED.
I. THE OUTLET ASSEMBLY OF THE TANK SHALL BE REMOVED, UTILIZING TANK ACCESS OPENINGS FOR WASTE WATER REMOVAL.
J. LIFT STATION SHALL HAVE EFFLUENT PUMP, ON/OFF FLOATS, ALARM FLOATS (LLL, LL, HL, HHL) COMPLETE INTERNAL PIPING SYSTEM, CHECK VALVE, DUPLEX GUIDE BARS.
K. LIFT STATION DISCHARGE LINE TO BE DOUBLE WALLED AND HAVE AUTOMATIC LINE LEAK DETECTOR.
L. HYDROPHILIC RUBBER WATER STOP SHALL BE USED ON ALL HORIZONTAL CAST-IN-PLACE CONCRETE JOINTS. HYDROPHILIC AGENT SHALL BE HOMOGENEOUSLY DISTRIBUTED THROUGHOUT ACRYLATE POLYMER MATRIX TO PROVIDE CONSISTENT SEALING PERFORMANCE.
M. PVC WATERSTOPS SHALL BE USED ON ALL VERTICAL CAST-IN-PLACE CONCRETE JOINTS. WATERSTOPS SHALL SPAN THE JOINT, FORMING A CONTINUOUS, WATERTIGHT DIAPHRAGM THAT PREVENTS THE PASSAGE OF FLUID.

NO.	REVISIONS	BY	DATE
G	IDEQ DESIGN PLAN APPROVAL APP	BEH	5/16/12
F	ISSUED FOR REFERENCE ONLY	BEH	5/14/12
E	ISSUED FOR REVIEW & COMMENT	JRM	5/10/12
D	ISSUED FOR REVIEW & COMMENT	JRM	5/09/12
C	ISSUED FOR REVIEW & COMMENT	BEH	4/25/12
B	ISSUED FOR REVIEW & COMMENT	BEH	4/24/12
A	ISSUED FOR REVIEW & COMMENT	BEH	4/24/12

ADA COUNTY, IDAHO

EVERGREEN ENGINEERING
Engineering and Construction Services
EUGENE, OREGON
(541) 688-4771 FAX: (541) 688-8799

EE JOB NUMBER 2540.1
DWG JP
APP. JP
EE DRAWING NUMBER 1102-10-P-1002104
CAD FILE 1102-10-P-1002104.dwg

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:
DECIMAL: .X ±.1; .XX ±.02; .XXX ±.005; FRACTIONS 1/16; THIRD ANGLE PROJECTION
CHAMFERS ±5°; ANGLES ±1°; CAST ±1/8

DRAWN BEH 4/23/12; CHECKED; Q.A.; MFG; APPROVED JP
MATERIAL SEE TABLE; FINISH N/A

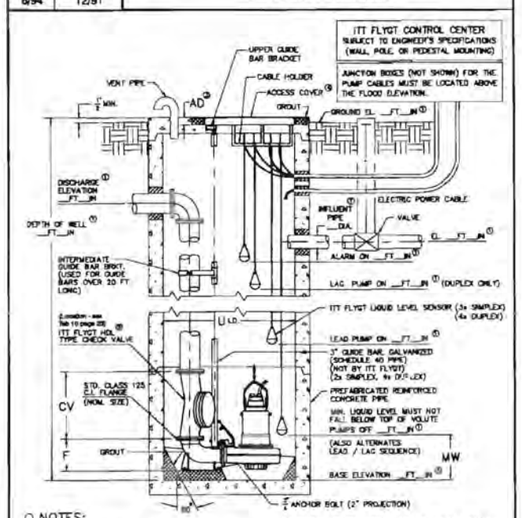
Dynamis Energy LLC,
776 E. Riverside Dr. Ste. 150
Eagle, ID 83616

TITLE
408T WASTE TO ENERGY FACILITY
LEACHATE DRAINAGE & PIPING PLAN

SIZE D; DWG NO 1102-10-P-1002104; REV G
SCALE: 1/16"=1'-0"; SHEET 1 OF 1

PAGE	SECTION
2	5
ISSUED 6/94	SUPERSEDES 12/91

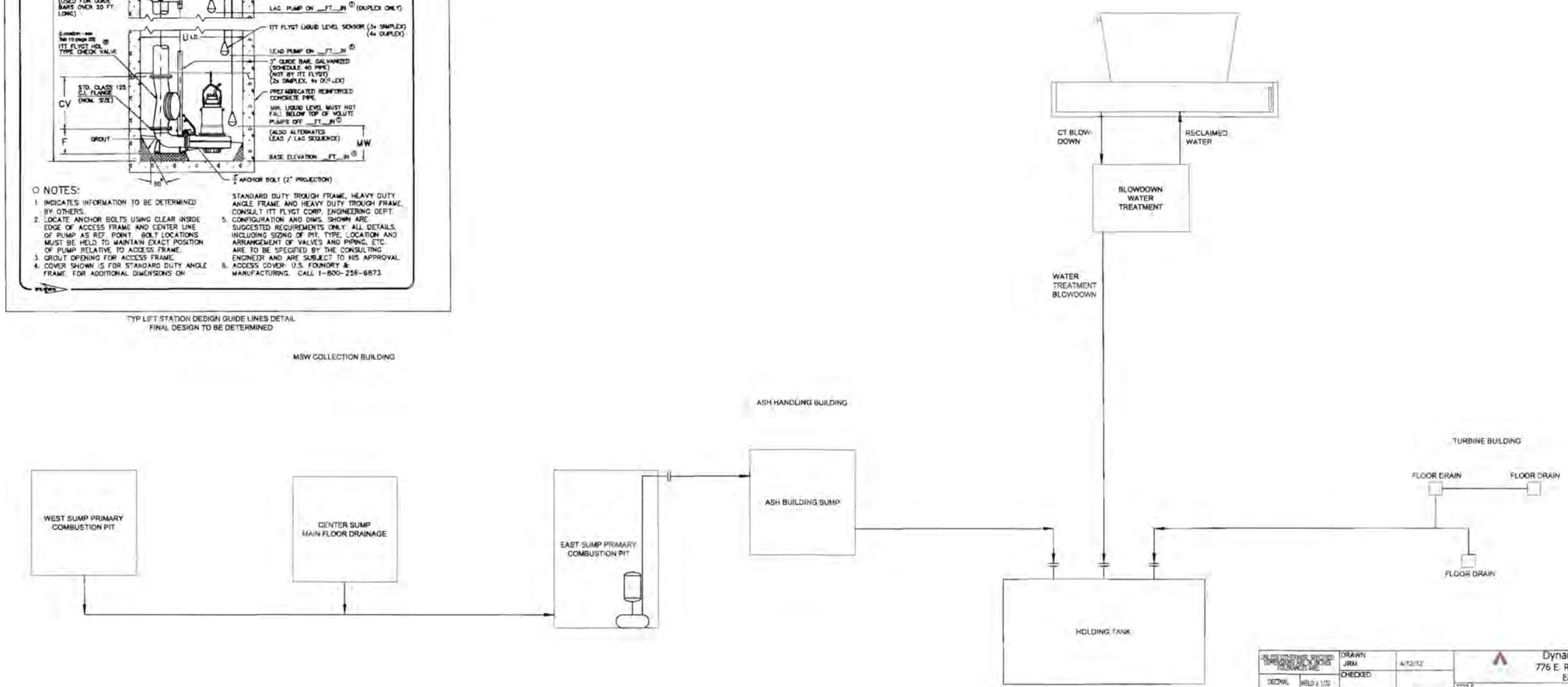
CP-3201
Lift Station Dimensions



NOTES:

1. INDICATES INFORMATION TO BE DETERMINED BY OTHERS.
2. LOCATE ANCHOR BOLTS USING CLEAR INSIDE EDGE OF ACCESS FRAME AND CENTER LINE OF PUMP AS REF. POINT. BOLT LOCATIONS MUST BE HELD TO MAINTAIN EXACT POSITION OF PUMP RELATIVE TO ACCESS FRAME.
3. GROUT OPENING FOR ACCESS FRAME.
4. COVER SHOWN IS FOR STANDARD DUTY ANGLE FRAME. FOR ADDITIONAL DIMENSIONS ON STANDARD DUTY TROUGH FRAME, HEAVY DUTY ANGLE FRAME AND HEAVY DUTY TROUGH FRAME, CONSULT ITT FLYGT CORP. ENGINEERING DEPT.
5. CONFIGURATION AND DIMS. SHOWN ARE SUGGESTED REQUIREMENTS ONLY. ALL DETAILS, INCLUDING SIZING OF PIT, TYPE, LOCATION AND ARRANGEMENT OF VALVES AND PIPING, ETC. ARE TO BE SPECIFIED BY THE CONSULTING ENGINEER AND ARE SUBJECT TO HIS APPROVAL.
6. ACCESS COVER: U.S. FOUNDRY & MANUFACTURING. CALL 1-800-258-6873.

TYP LIFT STATION DESIGN GUIDE LINES DETAIL
FINAL DESIGN TO BE DETERMINED



NO	REVISIONS	BY	DATE
C	IDEQ DESIGN PLAN APPROVAL APP	BEH	5/15/12
B	FOR REFERENCE ONLY	BEH	5/15/12
A	FOR REFERENCE ONLY	JRM	5/09/12

ADA COUNTY, IDAHO

EVERGREEN ENGINEERING
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EUGENE, OREGON

EE JOB NUMBER 2540.1

EE DRAWING NUMBER 1102-04-F-1002038 CAD FILE: 1102-04-F-1002038.dwg

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:
DECIMAL HELD ± 1/32
X ±.1 CHAMFERS ±5°
XX ±.02 ANGLES ±1°
XXX ±.005 DIST ±1/8
FRACTIONS ±1/16
THIRD ANGLE PROJECTION

DRAWN JRM 4/12/12
CHECKED
QA
MFG
APPROVED JP
MATERIAL SEE TABLE
FINISH N/A

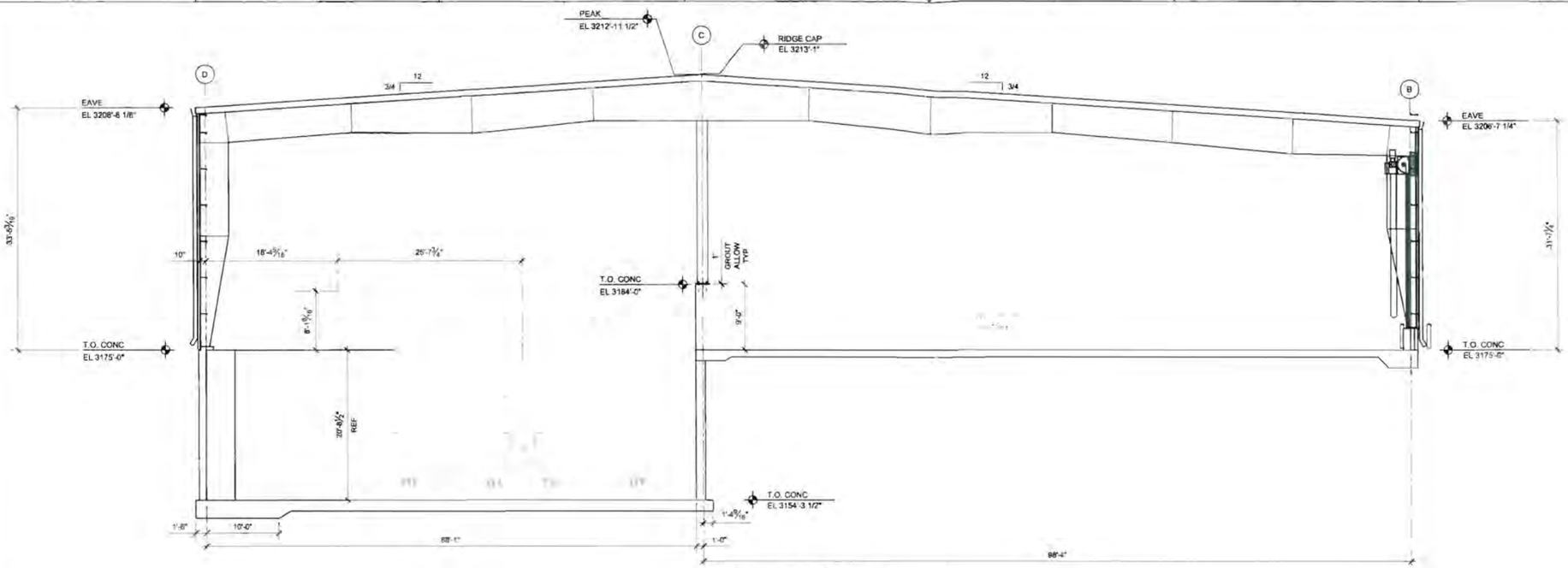
Dynamis Energy LLC,
776 E. Riverside Dr. Ste. 150
Eagle, ID 83616

TITLE
LEACHATE DRAINAGE FLOW DIAGRAM

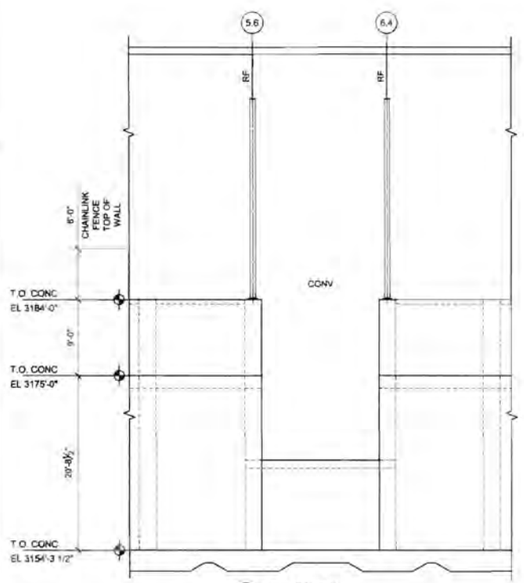
SIZE D | DWG NO 1102-04-F-1002038 | REV C
SCALE: NONE | SHEET 1 OF 1

GENERAL NOTES:

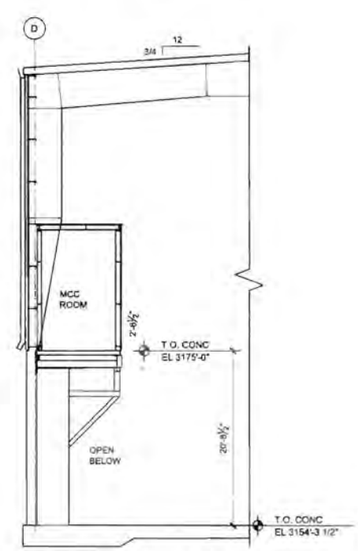
A FOR PROJECT NOTES & SPECIFICATIONS SEE DRAWING #1102-01-G-1002021 & 1002022



A SECTION @ COL LINE 3
1002015, 1002059 1/8"=1'-0"



B SECTION
1002059 1/8"=1'-0"



C PARTIAL SECTION @ COL LINE 9
1002059 1/8"=1'-0"

NO	REVISIONS	BY	DATE
5	IDEQ FOR THE DESIGN APPROVAL APPLICATION	NGJ	05/18/12
4	ISSUED FOR NOT TO EXCEED BUDGET	BEH	3/26/12
3	ISSUED FOR NOT TO EXCEED BUDGET	BEH	3/7/12
2	ISSUED FOR BID W/ REVISIONS	BEH	3/5/12
1	ISSUED FOR BID W/ CHANGES	BEH	2/24/12
0	ISSUED FOR BID WAS DWG 1102-01-B-1002061	BEH	2/23/12

ADA COUNTY, IDAHO

EVERGREEN ENGINEERING
Engineering and Construction Services
EUGENE, OREGON

EE JOB NUMBER 2540.1

EE DRAWING NUMBER 1102-09-B-1002061 CAD FILE 1102-09-B-1002061.dwg

DRAWN NGJ 12/05/11
CHECKED
QA
MFG
APPROVED JP
MATERIAL SEE TABLE
FINISH N/A

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:
DECIMAL WELD ± 1/32
.X ±.1 CHAMFERS ±5°
.XX ±.02 ANGLES ±1°
.XXX ±.005 CAST ±1/8
FRACTIONS ±1/16
THIRD ANGLE PROJECTION

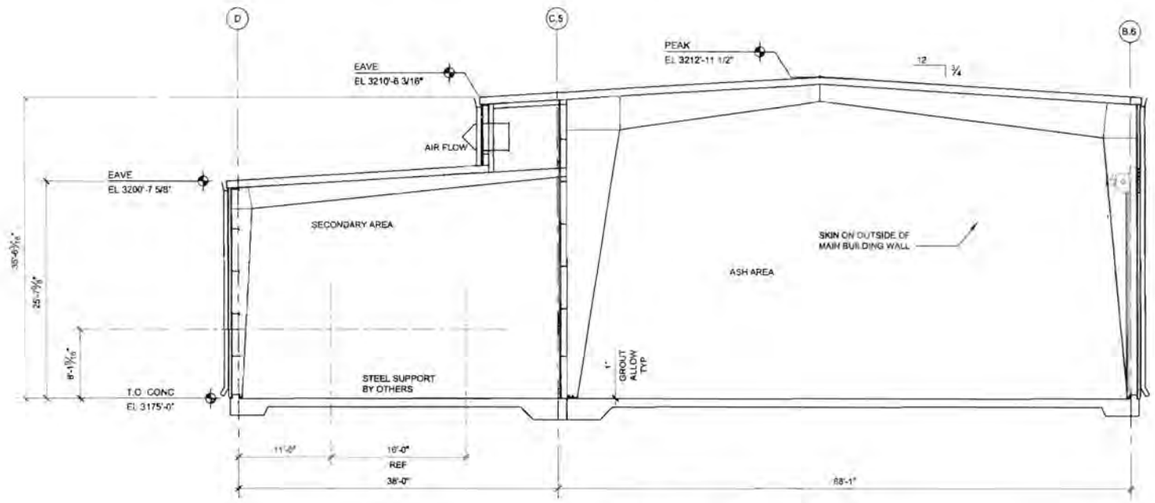
Dynamis Energy LLC,
776 E. Riverside Dr. Ste. 150
Eagle, ID 83616

TITLE
408T WASTE TO ENERGY FACILITY
MAIN BUILDING
SECTIONS & DETAILS

SIZE D | DWG NO 1102-09-B-1002063 | REV 5
SCALE: NOTED | SHEET 1 OF 1

GENERAL NOTES:

A. FOR PROJECT NOTES & SPECIFICATIONS SEE DRAWING #1102-01-G-1002021 & 1002022



A SECTION
1002015, 1002059 1/8"=1'-0"

NO.	REVISIONS	BY	DATE
4	IDEQ FOR THE DESIGN PLAN APPROVAL APP	NGJ	05/18/12
3	ISSUED FOR NOT TO EXCEED BUDGET	BEH	3/29/12
2	ISSUED FOR NOT TO EXCEED BUDGET	BEH	3/7/12
1	ISSUED FOR BID W/ REVISIONS	BEH	3/5/12
0	ISSUED FOR BID WAS DWG 1102-01-B-1002060	BEH	2/23/12

ADA COUNTY, IDAHO

EVERGREEN ENGINEERING
Engineering and Construction Services
EUGENE, OREGON

JOB NUMBER 2540.1
DWG
APP JP

DWG NUMBER 1102-09-B-1002195 DWG FILE 1102-09-B-1002195.dwg

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:
DECIMAL MELD ± 1/32
X ±.1 CHAMFERS 45°
XX ±.02 ANGLES ±1°
XXX ±.005 CAST ±1/8
FRACTIONS ±1/16
THIRD ANGLE PROJECTION

DRAWN NGJ	12/05/11	
CHECKED		
QA		
MFG		
APPROVED JP		
MATERIAL SEE TABLE	FINISH N/A	

Dynamis Energy LLC,
776 E. Riverside Dr. Ste. 150
Eagle, ID 83616

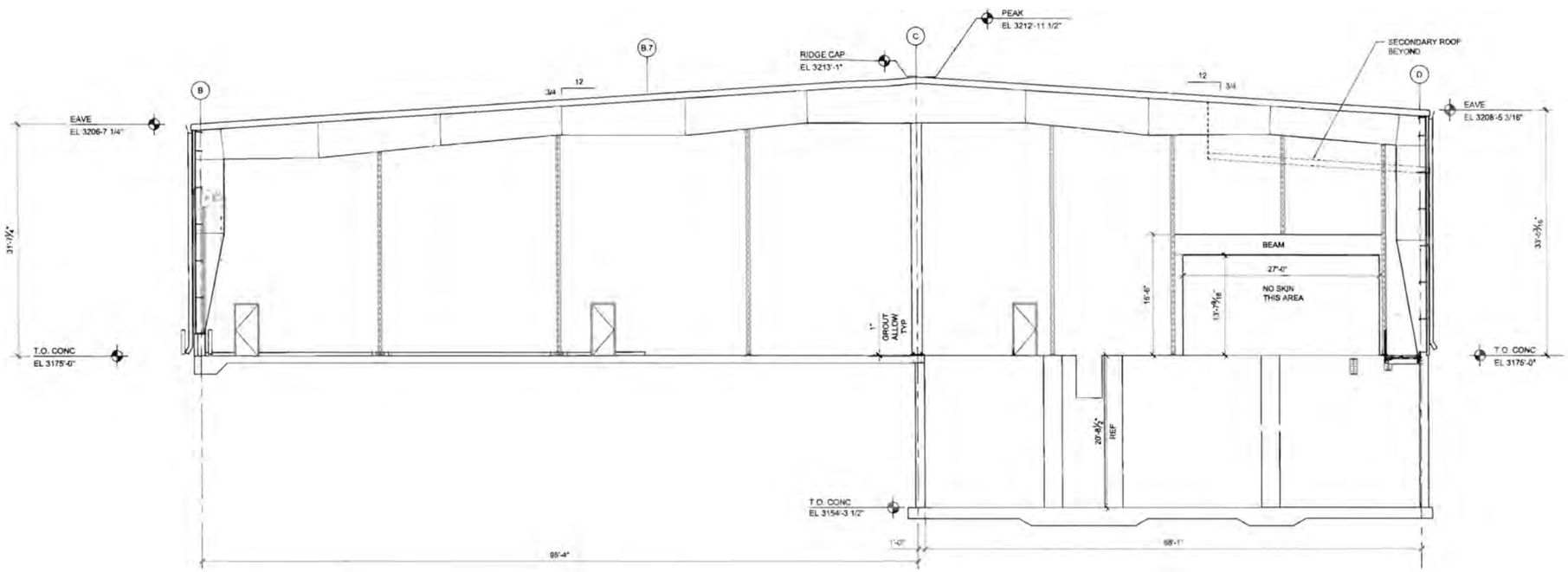
TITLE
408T WASTE TO ENERGY FACILITY
MAIN BUILDING
SECTIONS & DETAILS

SIZE	DWG NO	REV
D	1102-09-B-1002195	4

SCALE: NOTED SHEET 1 OF 1

GENERAL NOTES:

A FOR PROJECT NOTES & SPECIFICATIONS SEE DRAWING #1102-01-G-1002021 & 1002022



A SECTION @ COL LINE 10.6

1002015, 1002059 1/8"=1'-0"

NO.	REVISIONS	BY	DATE
5	IDEQ FOR THE DESIGN PLAN APPROVAL APP	NGJ	05/18/12
4	ISSUED FOR NOT TO EXCEED BUDGET	BEH	3/29/12
3	ISSUED FOR NOT TO EXCEED BUDGET	BEH	3/7/12
2	ISSUED FOR BID W/ REVISIONS	BEH	3/5/12
1	ISSUED FOR BID W/ CHANGES	BEH	2/24/12
0	ISSUED FOR BID WAS DWG 1102-01-B-1002059	BEH	2/23/12

ADA COUNTY, IDAHO

EVERGREEN ENGINEERING
Engineering and Construction Services
EUGENE, OREGON

EE JOB NUMBER 2540.1

EE DRAWING NUMBER 1102-09-B-1002201 CAD FILE 1102-09-B-1002201.dwg

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:
DECIMAL WHLD ± 1/32
.X ± .1 CHAMFERS ±5°
.XX ± .02 ANGLES ±1°
.XXX ± .005 CAST ±1/8
FRACTIONS ±1/16
THIRD ANGLE PROJECTION

DRAWN NGJ 12/12/11
CHECKED
QA
MFG
APPROVED JP
MATERIAL SEE TABLE
FINISH N/A

Dynamis Energy LLC,
776 E. Riverside Dr. Ste. 150
Eagle, ID 83616

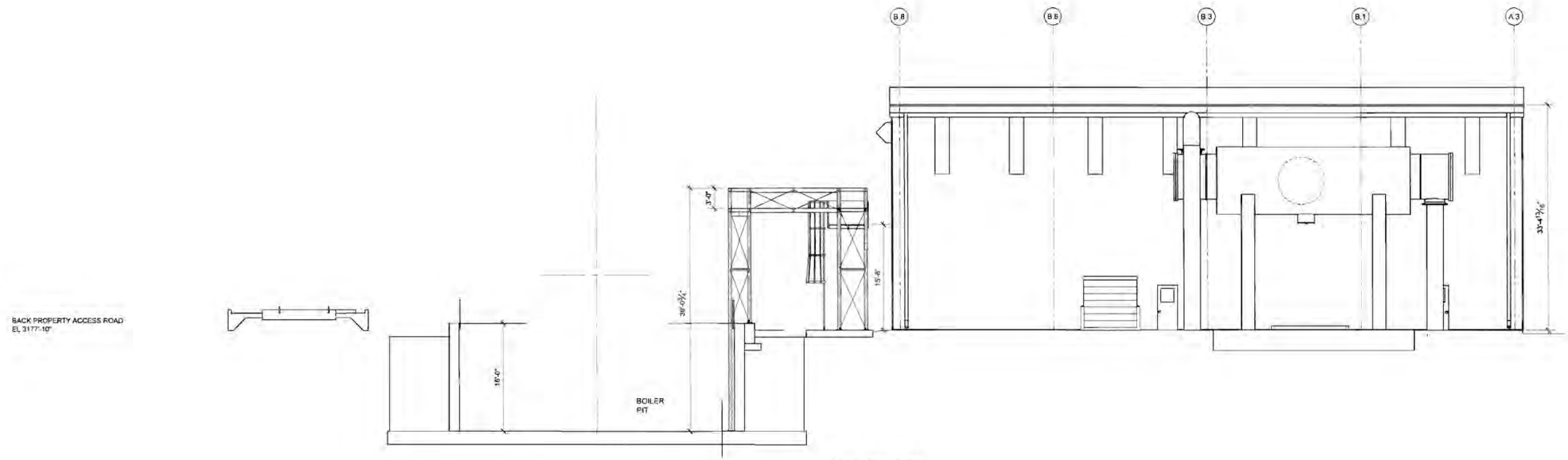
TITLE
408T WASTE TO ENERGY FACILITY
MAIN BUILDING
SECTIONS & DETAILS

SIZE D | DWG NO 1102-09-B-1002201 | REV 5

SCALE: 3/16"=1'-0" | SHEET 1 OF 1

GENERAL NOTES:

A. FOR PROJECT NOTES & SPECIFICATIONS SEE DRAWING #1102-01-G-1002021 & 1002022.



A 1002017 SECTION 1/8"=1'-0"

NO	REVISIONS	BY	DATE
1	IDEQ FOR THE DESIGN PLAN APPROVAL APP	NGJ	05/18/12
0	ISSUED FOR NOT TO EXCEED BUDGET	BEH	3/29/12

ADA COUNTY, IDAHO

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CE JOB NUMBER 2540.1

CE DRAWING NUMBER 1102-09-B-1002203 CAD FILE 1102-09-B-1002203.dwg

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:
DECIMAL WELD ± 1/32
.X ±.1 CHAMFERS ±5°
.XX ±.02 ANGLES ±1°
.XXX ±.005 CAST ±1/8
FRACTIONS ±1/16
THIRD ANGLE PROJECTION

DRAWN	BEH	3/13/12
CHECKED		
QA		
MFG		
APPROVED	JP	
MATERIAL	SEE TABLE	FINISH N/A

Dynamis Energy LLC,
776 E. Riverside Dr. Ste. 150
Eagle, ID 83616

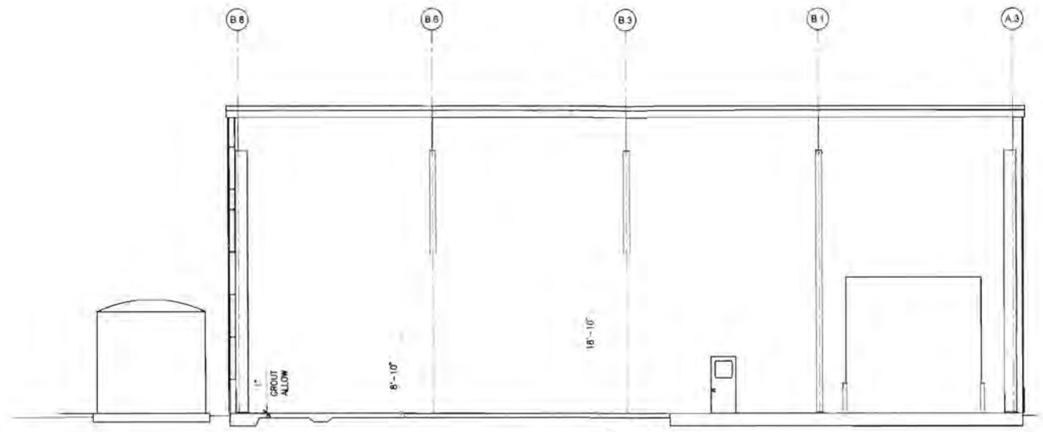
TITLE
408T WASTE TO ENERGY FACILITY
TURBINE/ BOILER/ SNCR
PARTIAL SECTION

SIZE	DWG NO	REV
D	1102-09-B-1002203	1

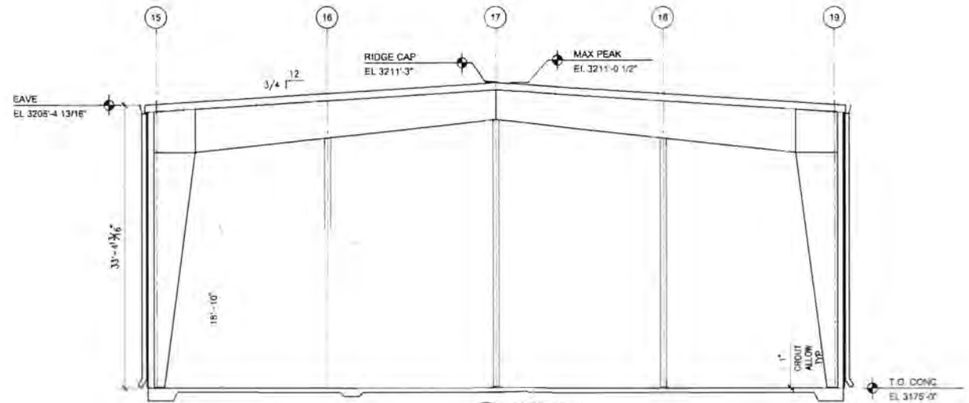
SCALE: NOTED SHEET 1 OF 1

GENERAL NOTES:

A. FOR PROJECT NOTES & SPECIFICATIONS SEE DRAWING #1102-01-G-1002021 & 1002022



A SECTION
1002016, 1002059 1/8"=1'-0"



B SECTION
1002016, 1002059 1/8"=1'-0"

NO.	REVISIONS	BY	DATE
4	IDEQ FOR THE DESIGN PLAN APPROVAL APP	NGJ	05/18/12
3	ISSUED FOR NOT TO EXCEED BUDGET	BEH	3/29/12
2	ISSUED FOR NOT TO EXCEED BUDGET	BEH	3/7/12
1	ISSUED FOR BID W/ REVISION	BEH	2/29/12
0	ISSUED FOR BID WAS DWG 1102-01-B-1002065	BEH	2/23/12

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JOB NUMBER 2540.1

DWG NO 1102-09-B-1002204

CAD FILE: 1102-09-B-1002204.dwg

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:
DECIMAL .X ±.1 .XX ±.02 .XXX ±.005
MELD ± 1/32
CHAMFERS ±5°
ANGLES ±1°
DIST ±1/8
FRACTIONS ±1/16
THIRD ANGLE PROJECTION

DRAWN BEH 12/15/11
CHECKED
QA
MFG
APPROVED JP
MATERIAL SEE TABLE
FINISH N/A

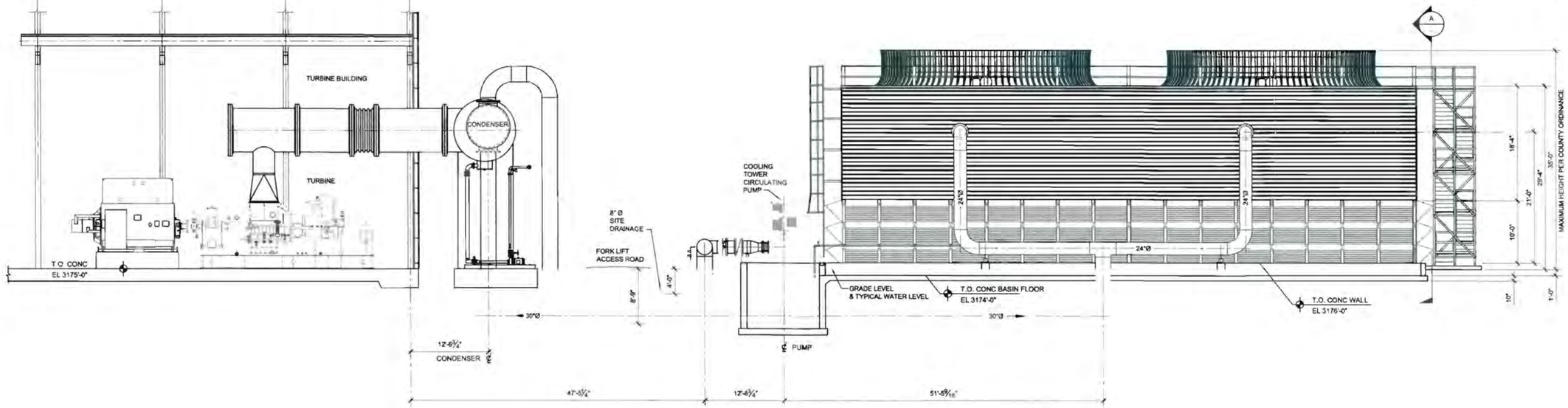
Dynamis Energy LLC,
776 E. Riverside Dr. Ste. 150
Eagle, ID 83616

TITLE
408T WASTE TO ENERGY FACILITY
TURBINE BUILDING
SECTIONS

SIZE D
DWG NO 1102-09-B-1002204
REV 4
SCALE 1/8"=1'-0"
SHEET 1 OF 1

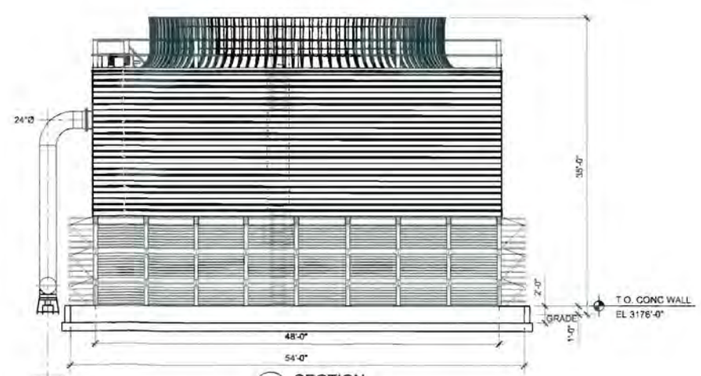
GENERAL NOTES:

A. FOR PROJECT NOTES & SPECIFICATIONS SEE DRAWING #1102-01-G-1002021 & 1002022.



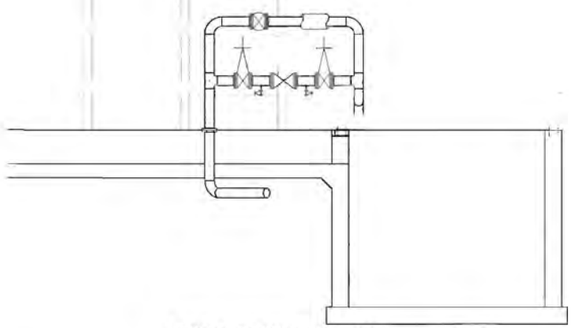
PARTIAL SOUTH ELEVATION

1/8"=1'-0"



A SECTION

1/8"=1'-0"



PARTIAL NORTH ELEVATION

1/4"=1'-0"

NO.	REVISIONS	BY	DATE
1	IDEQ FOR THE DESIGN PLAN APPROVAL APP	NGJ	05/18/12
0	ISSUED FOR NOT TO EXCEED BUDGET	BEH	3/23/12

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EE JOB NUMBER 2540.1

EE DRAWING NUMBER: 1102-09-B-1002205 CAD FILE: 1102-09-B-1002205.dwg

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:

DECIMAL	WELD ± 1/32
.X ±.1	CHAMFERS ±5°
.XX ±.02	ANGLES ±1°
.XXX ±.005	CAST ±1/8
FRACTIONS ±1/16	

THIRD ANGLE PROJECTION

DRAWN	BEH	12/15/11
CHECKED		
QA		
MFG		
APPROVED	JP	3/13/12
MATERIAL	SEE TABLE	FINISH N/A

Dynamis Energy LLC,
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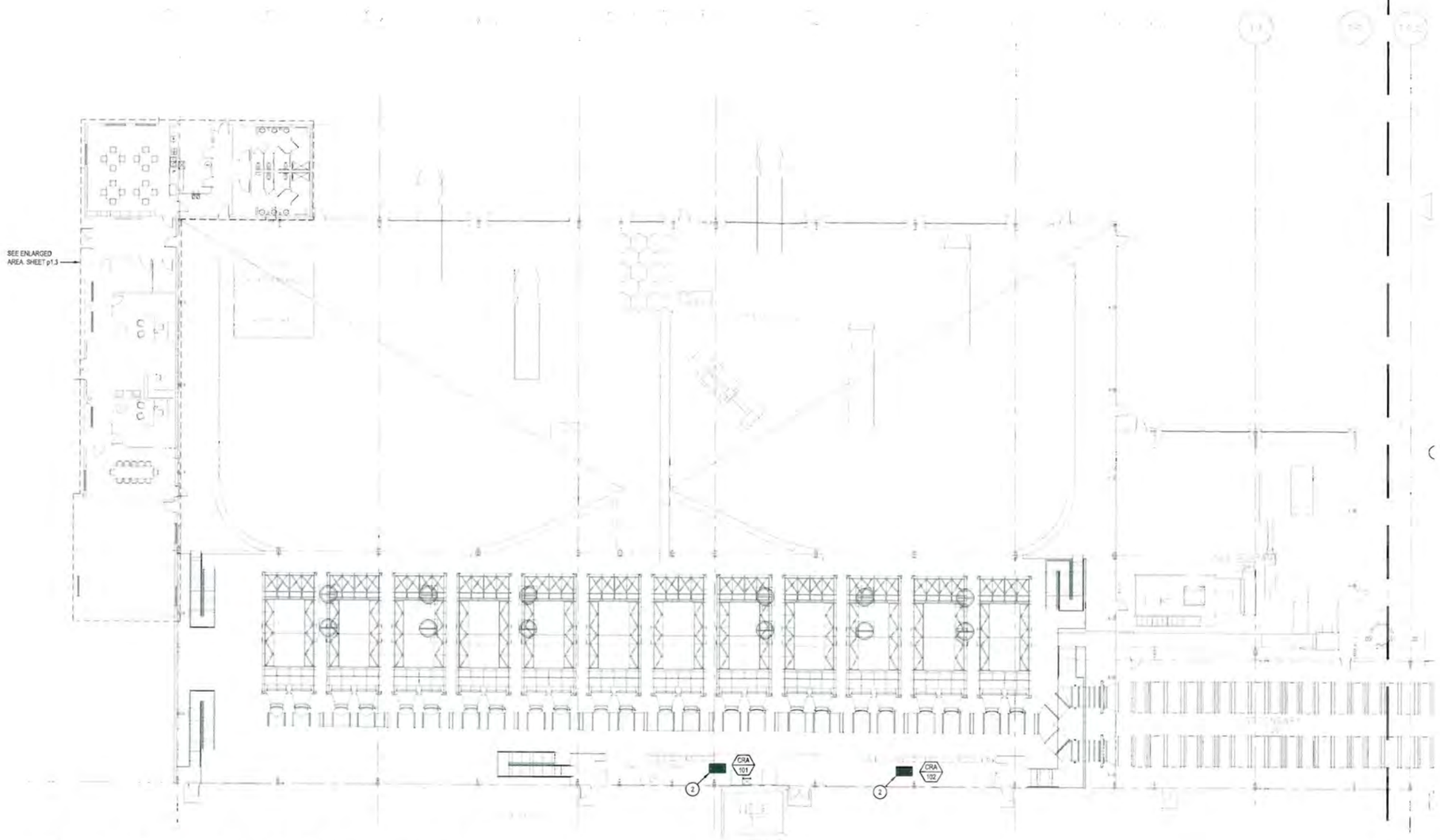
TITLE
408T WASTE TO ENERGY FACILITY
COOLING TOWER
PARTIAL ELEVATIONS

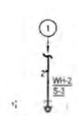
SIZE	DWG NO	REV
D	1102-09-B-1002205	1

SCALE: NOTED SHEET 1 OF 1



waste and vent plan - area 1

SCALE: 1/16" = 1'-0"



KEYED NOTES:

◯ SYMBOL USED FOR NOTE CALLOUT

1 RUN 2" WASTE LINE INDIRECT TO SUMP

2 ROUTE CONDENSATE TO TAILPIECE OF S-3 BELOW

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revision:

SUBMITTAL TO IDEQ

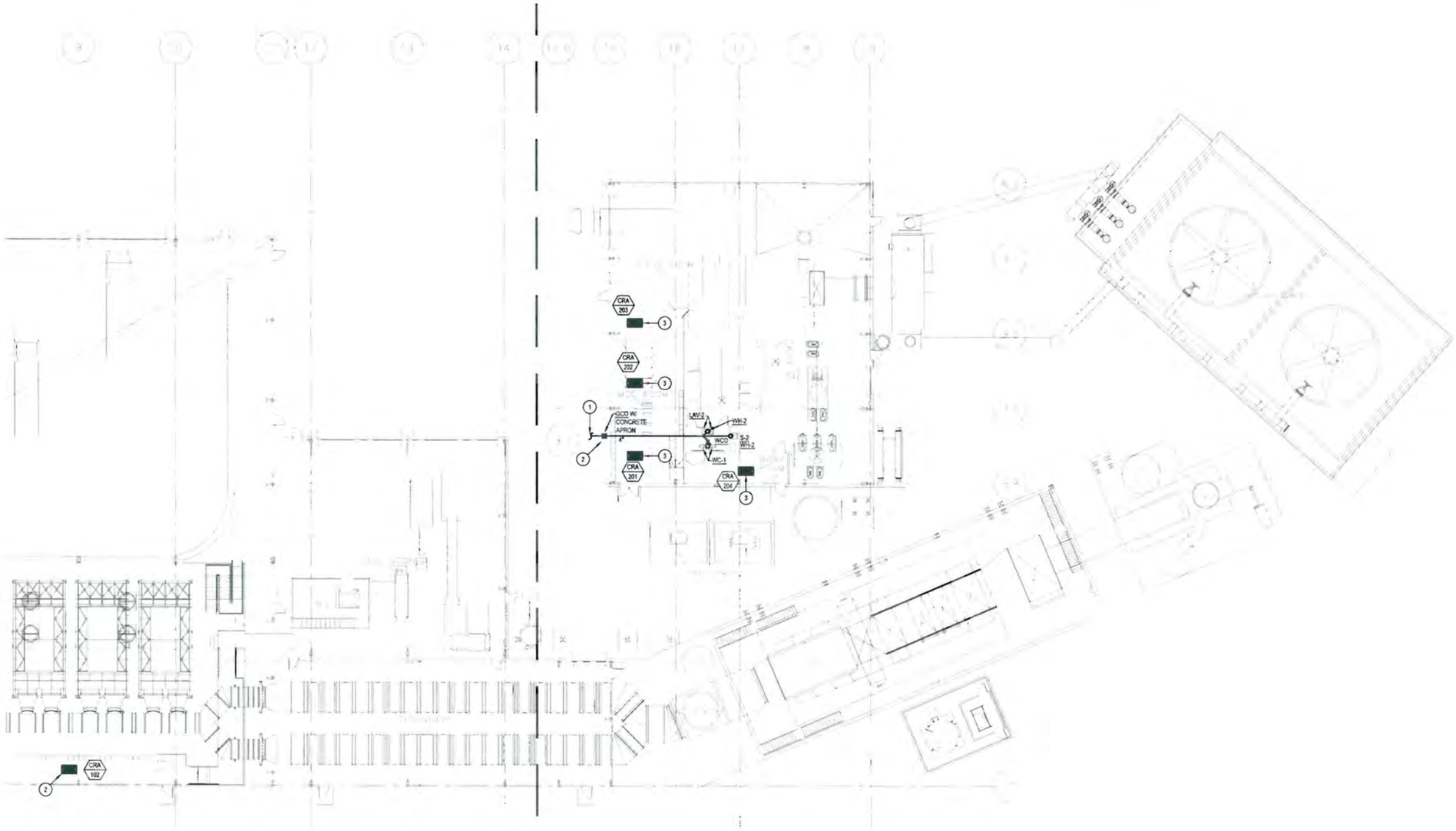
project: 100910
date: 05.17.12
drawn: aa/mp
checked: cep

construction documents

MUSGROVE ENGINEERING, P.A.

waste and vent plan - area 1

p1.1



waste and vent plan - area 2

SCALE: 1/16" = 1'-0"

KEYED NOTES:

◯ SYMBOL USED FOR NOTE CALLOUT

1. 4" WASTE LINE OUT TO SEWER MAIN. SEE CIVIL SITE PLAN FOR CONTINUATION
2. INVERT = 30" B.F.F
3. ROUTE CONDENSATE TO TAILPIECE OF S-2

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420 main street, suite 202, boise, idaho 83702
[illegible] 331 [illegible] fax 331 [illegible] e-mail: [illegible]

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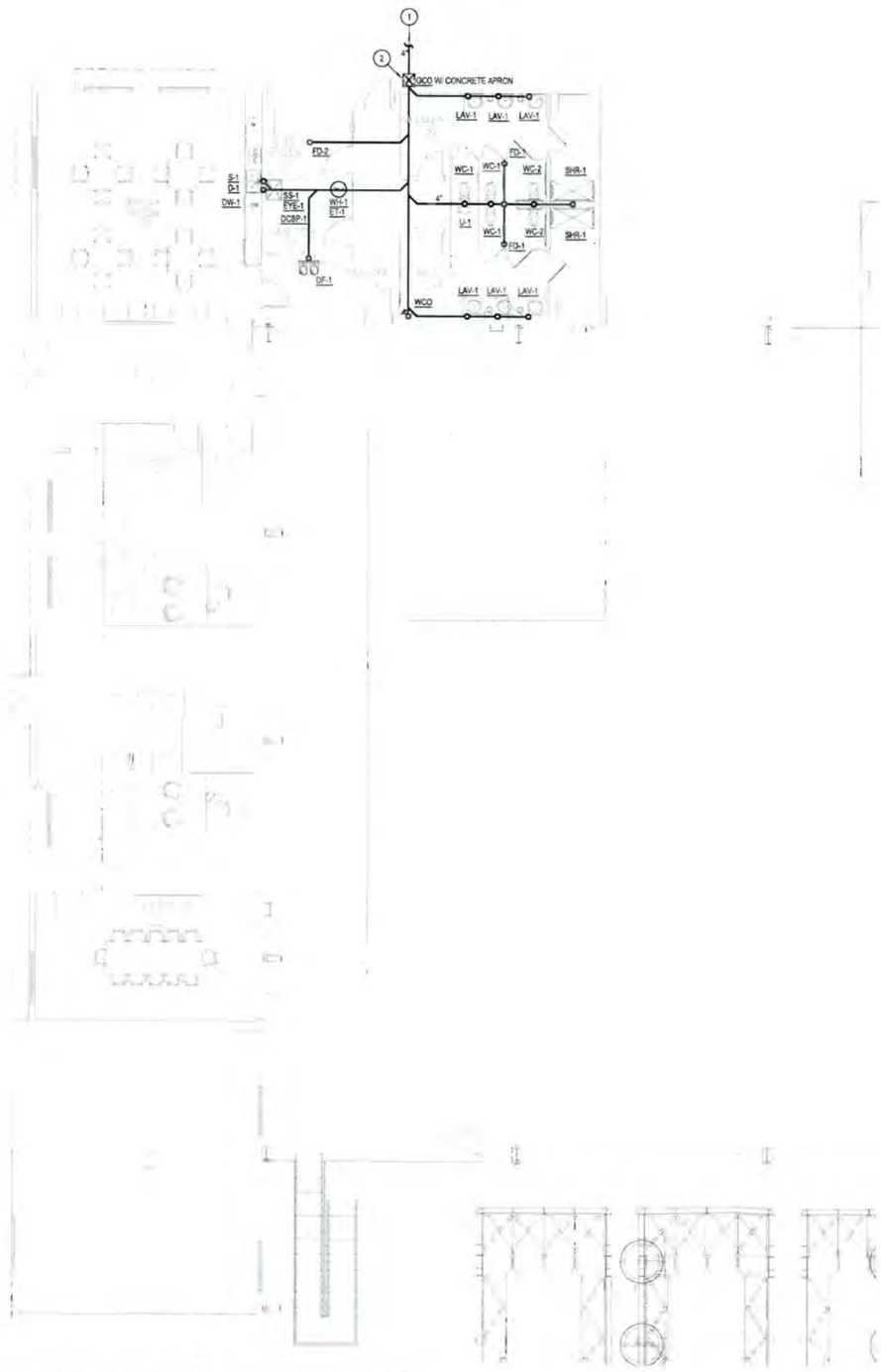
waste and vent plan - area 2

p1.2



enlarged waste and vent plan

SCALE: 1/8" = 1'-0"

KEYED NOTES:

SYMBOL USED FOR NOTE CALLOUT

1 4" WASTE LINE OUT TO SEWER MAIN. SEE CIVIL SITE PLAN FOR CONTINUATION

2 INVERT = 3'-0" @ F.F.

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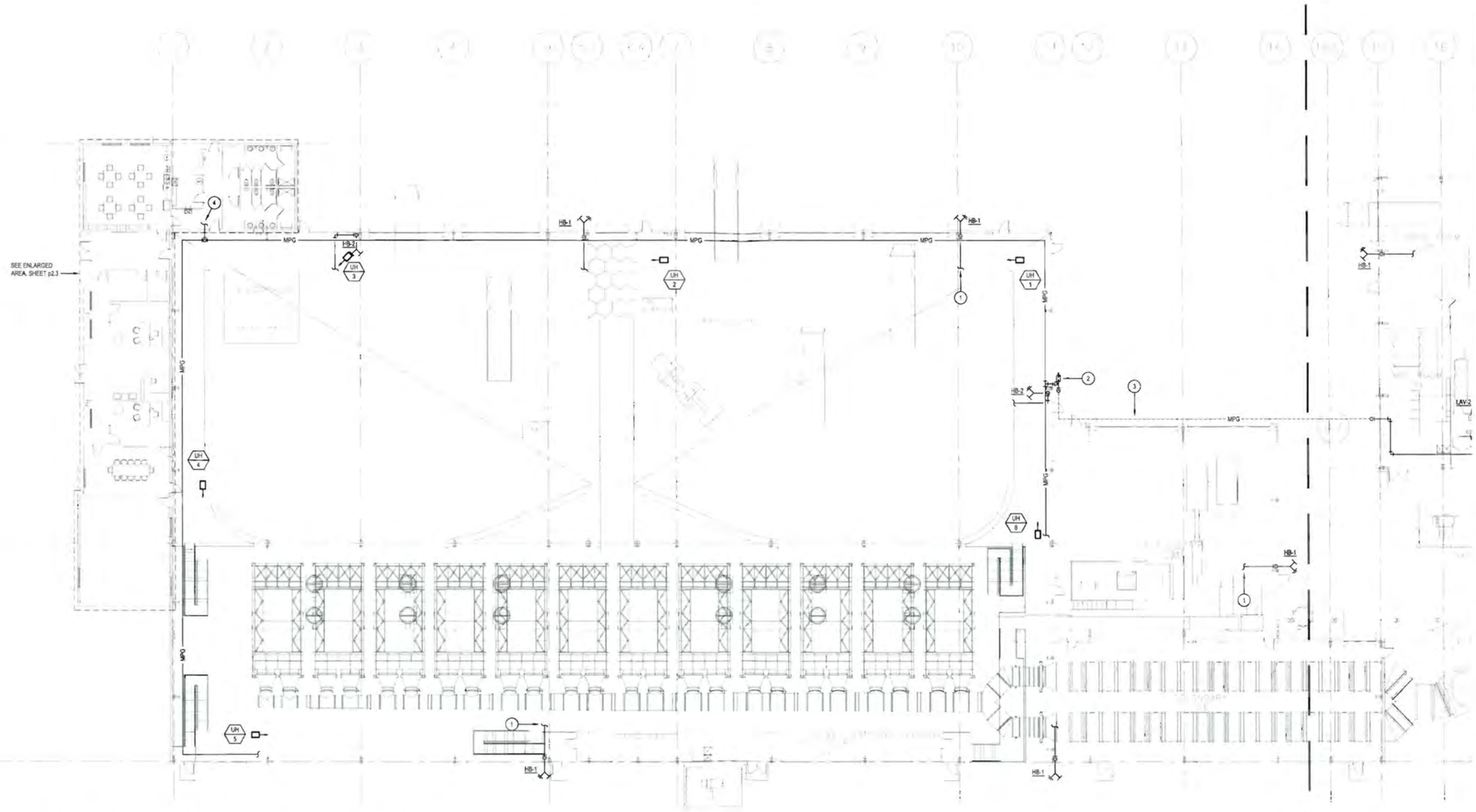
MUSGROVE ENGINEERING, P.A.

enlarged waste and vent plan

p1.3



water and gas plan - area 1

SCALE: 1/16" = 1'-0"

KEYED NOTES:

SYMBOL USED FOR NOTE CALLOUT

1. CONNECT TO NEAREST POTABLE WATER LOOP LOCATION. TYPICAL
2. GAS METER LOCATION. BRANCH OFF SERVICE MAIN AND RUN 5 PSI LINE AS SHOWN
3. ROUTE 5 PSI GAS LINE UNDERGROUND TO TURBINE BUILDING AS SHOWN. ROUTE UP OUTSIDE WALL AND INTO BUILDING
4. ROUTE GAS LINE UP TO OFFICE ROOF AREA HEIGHT AND OUT

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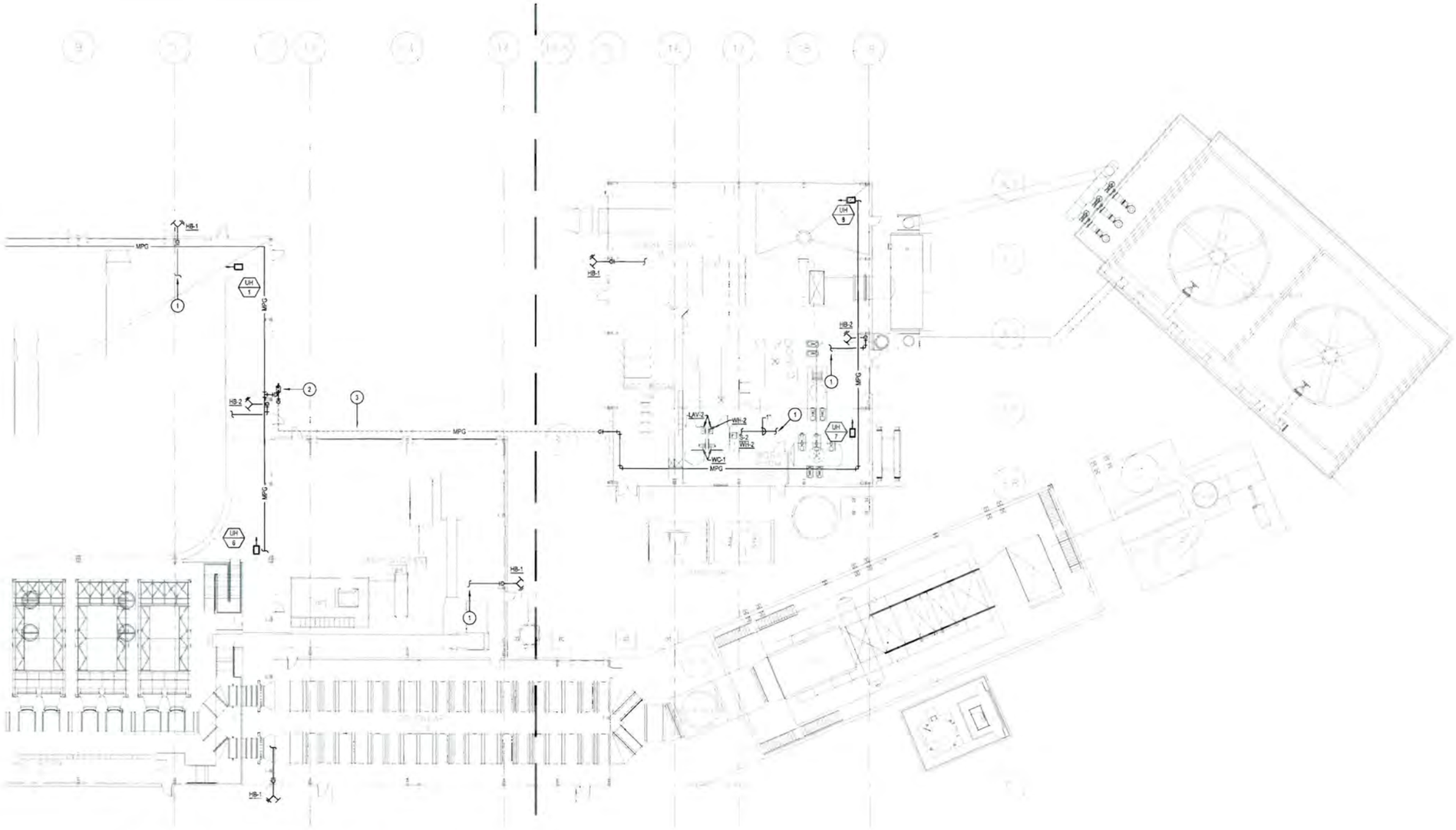
water and gas plan - area 1

p2.1



water and gas plan - area 2

SCALE: 1/16" = 1'-0"

KEYED NOTES:

SYMBOL USED FOR NOTE CALLOUT

1 CONNECT TO NEAREST EXISTING POTABLE WATER LOOP LOCATION

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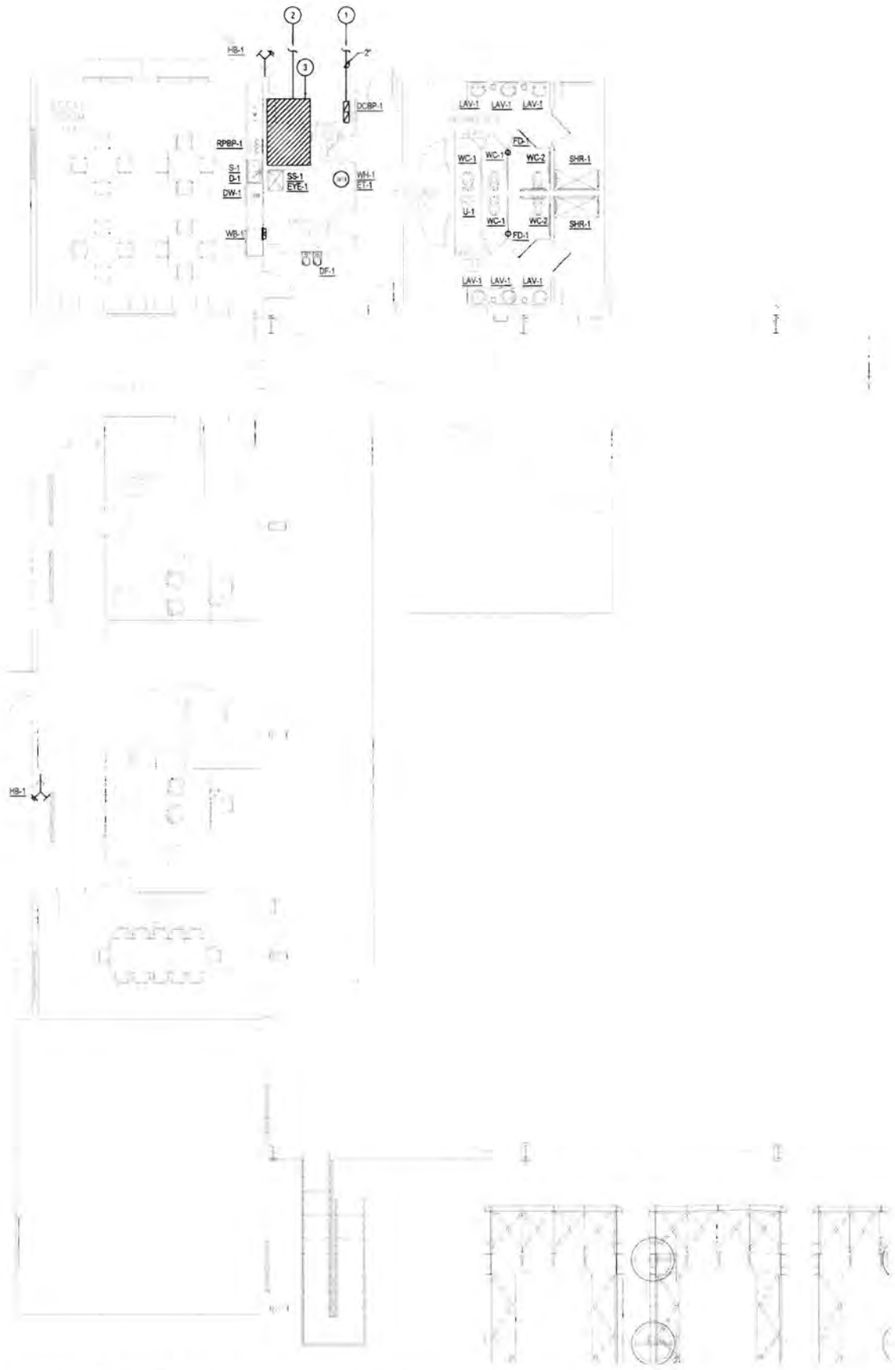
water and gas plan - area 2

p2.2



enlarged water and gas plan

SCALE: 1/8" = 1'-0"

KEYED NOTES:

SYMBOL USED FOR NOTE CALLOUT

1. 2" CW LINE IN FROM WATER MAIN. SEE CIVIL SITE PLAN FOR CONTINUATION
2. FIRE SPRINKLER LINE TO BE SIZED AND INSTALLED BY FIRE SPRINKLER CONTRACTOR. FIRE SPRINKLER CONTRACTOR SHALL DESIGN THE FIRE SPRINKLER SYSTEM ACCORDING TO A STATIC PRESSURE OF ??? PSI AND A FLOW OF ???? GPM AT ?? PSI RESIDUAL PRESSURE. (FIRE FLOW INFORMATION PROVIDED BY UNITED WATER IDAHO) FIRE LINE CONNECTION TO MAIN WATER SERVICE SHALL MEET STATE AND LOCAL UTILITY REQUIREMENTS
3. FIRE SPRINKLER RISER LOCATION. FIRE RISER SHALL PROVIDE A WET FIRE SPRINKLER SYSTEM THAT INCLUDES A TAMPER SWITCH, FLOW SWITCH, ALARM BELL, AND FIRE DEPARTMENT CONNECTION

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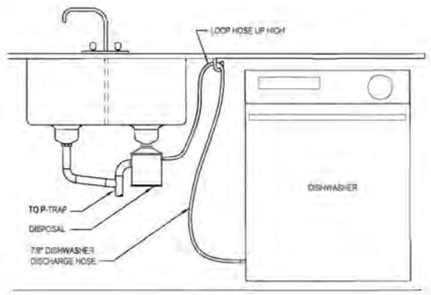
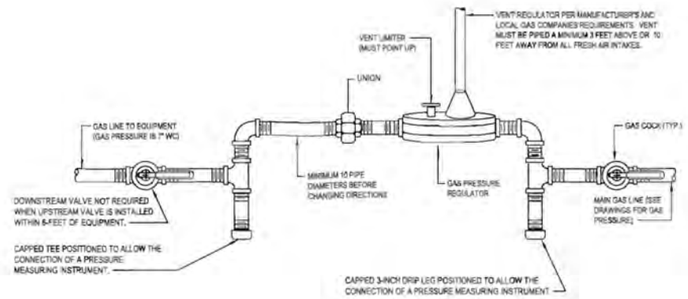
enlarged water and gas plan

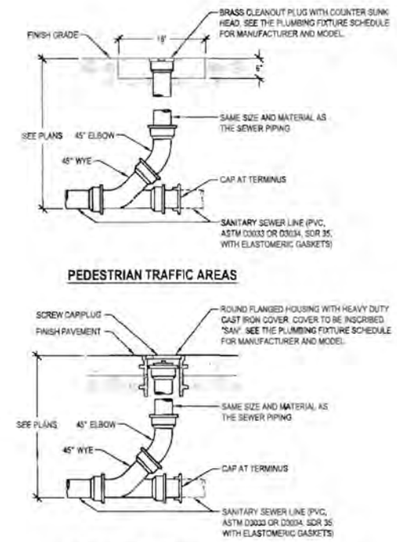
p2.3



DISHWASHER CONNECTION DETAIL
NOT TO SCALE



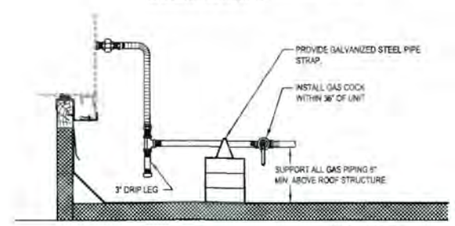
GAS PRESSURE REGULATOR DETAIL
NOT TO SCALE



GRADE CLEANOUT (GCO) DETAIL
NOT TO SCALE

EQUIPMENT CONNECTION NOTES:

1. INSTALL FLEX CONNECTION AT ALL ROOF TOP UNITS WHICH HAVE SPRING ISOLATION CURBS (36" MAX.)
2. INSTALL SOLID PIPE CONNECTION TO ALL ROOF TOP UNITS WHICH DO NOT HAVE SPRING ISOLATION CURBS.
3. PAINT PIPE WITH RUSTOLEUM #### PRO-GUARD PRIMER, RED OR GRAY, OR APPROVED EQUAL.



APPROVED PIPE SUPPORT SYSTEMS:

MIRO MODEL 1.5 WITH SPACERS
MIRO INDUSTRIES 1-800-768-8978

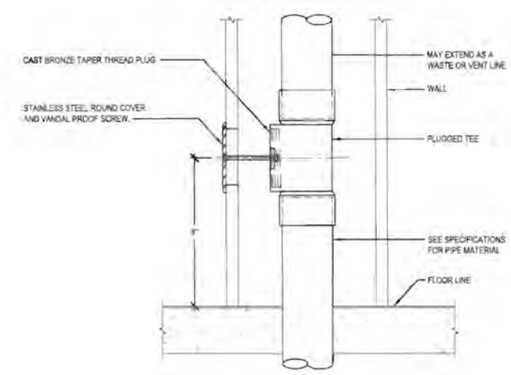
ADVANCED SUPPORT PRODUCTS
ASP, INC 1-888-941-5737

VERSABLOCK BY FREEDOM INC.,
VERSABLOCK.COM 1-888-812-9625 OR
1-208-887-0229

PIPE SUPPORTS SHALL BE AS FOLLOWS:

SIZE OF PIPE	SUPPORT REQUIRED
1/2"	6' O.C.
3/4" - 1"	8' O.C.
1 1/4" OR LARGER	10' O.C.

ROOFTOP UNIT - GAS PIPING DETAIL
NOT TO SCALE



WALL CLEANOUT (WCO) DETAIL
NOT TO SCALE

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plumbing details

p3.1

1 **WASTE AND VENT RISER**
NTS

2 **WATER RISER**
NTS

PLUMBING FIXTURE SCHEDULE

SYMBOL	FIXTURE ADDITIONAL COMMENTS	CONNECTION SIZE					MANUFACTURER / MODEL NUMBER / DESCRIPTION / ADDITIONAL COMMENTS
		WASTE	VENT	TRAP	CW	HW	
D-1	DISPOSER	2	1 1/2	1 1/2	–	–	INSINKERATOR MODEL BADGER 1 1/3 HORSEPOWER, 120 VOLTS, 6.7 AMPS, CONTROLLED BY WALL SWITCH PROVIDE WITH PRE-WIRED POWER CORD.
DCBP-1	DOUBLE CHECK BACKFLOW PREVENTER	–	–	–	SEE PLANS	–	WATTS SERIES LF 007 DOUBLE CHECK VALVE ASSEMBLY. MODEL NO. LF 007M1QT - REPLACEABLE SEATS AND SEAT DISCS, CAST BRONZE BODY CONSTRUCTION- 1/2" THRU 2", 2-1/2" & 3" 709 SERIES. PROVIDE WITH STRAINER. LEAD FREE.
DF-1	DRINKING FOUNTAIN (INTERIOR DUAL BUBBLERS) (ELECTRIC WATER COOLER) (ADA COMPLIANT)	1 1/2	1 1/2	1 1/4	1/2	–	ELKAY MODEL EZSTL8C WITH FLEXO-GUARD ANTI-MICROBIAL SAFETY BUBBLER. OPERATED BY FRONT OR SIDE PUSH BARS, CLEANABLE Y STRAINER, 115 VOLT, 4.0 AMP, 60 HERTZ.
DW-1	DISHWASHER	–	–	–	–	1/2	PROVIDED BY OTHERS. SEE DETAIL SHEET P3.1.
ET-1	EXPANSION TANK	–	–	–	3/4	–	AMTROL THERM-X-TROL ST-12, OR APPROVED EQUAL. NON ASME SERIES THERMAL EXPANSION ABSORBER.
EYE-1	EMERGENCY EYE WASH (WALL MOUNTED)	–	–	–	1/2	–	ACORN SAFETY MODEL S0406-CH12-BFP. WALL MOUNTED WITH DUAL 45° ANGLED HEADS AND RECOIL HOSE, PROVIDE WITH FLIP TOP DUST COVERS, UNIVERSAL EMERGENCY SIGN, VACUUM BREAKER, AND STAINLESS STEEL 90° WITH SHEET NIPPLE.
FCO	FLOOR CLEANOUT	SEE PLANS	–	–	–	–	JAY R. SMITH 4023 SERIES WITH ADJUSTABLE TOP AND ABS PLUG. PROVIDE WITH SMITH & GARD FIGURE NUMBER 9912 FOR HEIGHT ADJUSTMENT AFTER CONCRETE POUR.
FD-1	FLOOR DRAIN (CONCRETE FLOOR)	2	1 1/2	2	–	–	JAY R. SMITH FIGURE NUMBER 2005Y-A6NB. NO-HUB OUTLET, 5" ROUND, NICKEL BRONZE FINISH, WITH ADJUSTABLE STRAINER AND TRAP PRIMER. INSTALL TOP OF DRAIN 1/8" BELOW FINISH FLOOR AND CAULK EDGE.
FD-2	FLOOR DRAIN (CONCRETE FLOOR)	4	2	4	–	–	JAY R. SMITH FIGURE NUMBER 2005Y-A08NB. NO-HUB OUTLET, 8" ROUND, NICKEL BRONZE FINISH, WITH ADJUSTABLE STRAINER AND TRAP PRIMER. INSTALL TOP OF DRAIN 1/8" BELOW FINISH FLOOR AND CAULK EDGE.
GCO	GRADE CLEANOUT (NON-PAVED AREAS)	SEE PLANS	–	–	–	–	JAY R. SMITH 4220 SERIES WITH ABS PLUG.
GCO	GRADE CLEANOUT (PAVED AREAS)	SEE PLANS	–	–	–	–	JAY R. SMITH 4250 SERIES, ROUND FLANGED HOUSING WITH HEAVY DUTY CAST IRON COVER. FURNISH WITH ABS PLUG, COVER TO BE INSCRIBED "SAN".
HB-1	HOSE BIBB (EXTERIOR) (NON-FREEZE)	–	–	–	3/4	–	WOODFORD MODEL 65 - EXPOSED STYLE WITH ANTI-SIPHON VACUUM BREAKER, 3/4" INLET , AND CHROME PLATED. PROVIDE WITH TEE KEY AND INSTALL AT 18" ABOVE FINISH GRADE.
HB-2	HOSE BIBB (INTERIOR)	–	–	–	3/4	–	WOODFORD MODEL 24 - EXPOSED STYLE WITH ANTI-SIPHON VACUUM BREAKER, 3/4" INLET, AND CHROME PLATED. PROVIDE WITH METAL WHEEL HANDLE AND WOODFORD MODEL 27HD1 / BACKFLOW PREVENTER.
LAV-1	MOTION SENSOR LAVATORY (COUNTERTOP / CABINET MOUNTED) (BATTERY OPERATED) (ADA COMPLIANT)	1 1/2	1 1/2	1 1/4	1/2	1/2	KOHLER PENNINGTON MODEL K-2198-4. VITREOUS CHINA, COUNTERTOP MOUNTED, HOLES ON 4" CENTERS, AND GRID STRAINER. SLOAN OPTIMA MODEL EBF-650-BCM BATTERY POWERED FAUCET AND MIXING VALVE MIX-60-A. PROVIDE WITH PIPING INSULATION. TRUEBRO LAV GUARD, PLUMBEREX HANDI-SHIELD, OR EQUAL.
LAV-2	MOTION SENSOR LAVATORY (WALL MOUNTED) (BATTERY OPERATED) (ADA COMPLIANT)	1 1/2	1 1/2	1 1/4	1/2	1/2	KOHLER KINGSTON MODEL K-2005, WITH K-7715 GRID STRAINER, SLOAN OPTIMA MODEL EBF-650-BCM BATTERY POWERED FAUCET, AND MIXING VALVE MIX-60-A. PROVIDE WITH LS-1 LAV SHIELD, AND JAY R. SMITH FIGURE NUMBER 0700 SUPPORT WITH CONCEALED ARMS.
LS-1	LAVATORY SHIELD (WALL MOUNTED SHIELD FOR CONCEALING PIPING, VALVES, AND INSTANTANEOUS WATER HEATERS)	–	–	–	–	–	TRUEBRO "LAV SHIELD" ADA COMPLIANT, TOTAL ENCLOSURE. SINGLE-PIECE CONSTRUCTION. SLOAN OPTISHIELD ETF-529. OR APPROVED EQUAL.
RPBP-1	REDUCED PRESSURE BACKFLOW PREVENTER	–	–	–	–	–	WATTS, SERIES 009 REDUCED PRESSURE ZONE ASSEMBLY, MODEL NO. 009 - QT WITH QUARTER TURN BALL VALVES. BRONZE STRAINER, AND AIR GAP. BRONZE BODY CONSTRUCTION- 1/2" THRU 2", PROVIDE WITH STRAINER. LEAD FREE 2 1/2" & 3" 909 SERIES.
S-1	SINK - DOUBLE COMPARTMENT (13" X 18" X 8 1/2" - EACH) (ADA COMPLIANT)	2	1 1/2	1 1/2	1/2	1/2	ELKAY LUSTERTONE MODEL LRAD-3322: 8 1/2" DEEP STAINLESS STEEL SINK. ELKAY HI-ARC MODEL LKE-4123 SINGLE LEVER FAUCET, SWING SPOUT, AND HOSE SPRAY. PROVIDE WITH ELKAY MODEL LK-35 CHROME PLATED TAILPIECE AND STAINLESS STEEL BASKET.
S-2	SINK - SINGLE COMPARTMENT (11" X 22" X 6 1/2") (ADA COMPLIANT)	2	1 1/2	1 1/2	1/2	1/2	ELKAY LUSTERTONE MODEL LRAD-1722: 8 1/2" DEEP STAINLESS STEEL SINK. ELKAY HI-ARC MODEL LKE-4123 SINGLE LEVER FAUCET, SWING SPOUT, AND HOSE SPRAY. PROVIDE WITH ELKAY MODEL LK-35 CHROME PLATED TAILPIECE AND STAINLESS STEEL BASKET.
S-3	SINK - SINGLE COMPARTMENT (16" X 14" X 7 1/2") (WITH DRAINBOARD)	2	1 1/2	1 1/2	1/2	1/2	JUST MODEL SI-1433-A-GR-L: 7 1/2" DEEP STAINLESS STEEL SINK. ELKAY HI-ARC MODEL LKE-4123 SINGLE LEVER FAUCET, SWING SPOUT, AND HOSE SPRAY. PROVIDE WITH JUST MODEL J-35 CHROME PLATED TAILPIECE AND STAINLESS STEEL BASKET.
SA-1	SHOCK ABSORBER (WATER HAMMER ARRESTOR)	–	–	–	–	–	JAY R. SMITH FIGURE NUMBER 5005 TO 5050, OR APPROVED EQUAL, SIZED PER FIXTURES SERVED. PROVIDE ACCESS PANEL.
SHR-1	SHOWER PACKAGE (ADA COMPLIANT) (63" X 37" X 75")	2	1 1/2	2	1/2	1/2	BEST BATH SYSTEMS MODEL LSS6337A75B WITH A ½" THRESHOLD, ONE PIECE SMOOTH WALL FINISH WITH ½" PLYWOOD BEHIND THE WALL SYSTEM AT CRITICAL LOCATIONS FOR STRENGTH, AND CUSTOMIZED INSTALLATION OF ACCESSORIES. ADA MINIMUM INSIDE DIMENSIONS OF 60" X 30" FOR ROLL IN SHOWERS. ½" THRESHOLD ELIMINATES THE NEED TO RECESS FOR ADA COMPLIANCE IF A ½" MINIMUM FLOORING IS USED. INCLUDE: (1) 32" X 36" S.S. GRAB BAR, (1) 34" X 21" HDPE SWING DOWN ADA COMPLIANT SEAT, (1) SURFACE MOUNT SOAP DISH AT 48" TALL, (1) SIOUX CHIEF CAULKLESS BRASS DRAIN #827-2B WITH CHROME SCREEN. MOEN 5346 HANDHELD SHOWER SYSTEM, POSI-TEMP WITHOUT VOLUME CONTROL, ADJUSTABLE TEMPERATURE LIMIT STOP, ½" TURN STOPS, 4 PORT CYCLING VALVE, HANDHELD SHOWER, 69" DOUBLE SWIVEL HOSE ASSEMBLY, 30" SLIDE BAR, VACUUM BREAKER, DROP ELL, AND 5 FT. WATER STOPPER. PROVIDE TAPE-WEIGHTED SHOWER CURTAIN.
SS-1	SERVICE SINK (24" X 24" X 10") (FLOOR MOUNTED)	3	2	3	1/2	1/2	ACORN TERRAZZO WARE MODEL TR14-2424H0. PROVIDE AND INSTALL WITH STAINLESS STEEL BUMPER GUARD, DRAIN GASKET, CHROME FAUCET, 30" HOSE AND WALL HANGER, MOP HANGER, AND 2 SIDE STAINLESS STEEL WALL GUARD.
TD-1	TRENCH DRAIN (10" WIDE) (HEAVY TRAFFIC RATED)	2	1 1/2	2	–	–	JAY R. SMITH FIGURE NUMBER 9812 10" WIDE TRENCH DRAIN SYSTEM. SLOPE DRAIN SYSTEM WITH INTEGRAL METAL RAIL. PROVIDE WITH END CAPS, OUTLETS, CATCH BASIN (9812G-880-CB24-BP), AND HEAVY DUTY (CLASS C) GALVANIZED STEEL BAR GRATE (MODEL 9812-G). REFER TO ARCHITECTURAL PLAN FOR EXACT LENGTH REQUIREMENTS.
U-1	URINAL (MOTION SENSOR / BATTERY OPERATED) (ADA COMPLIANT)	2	1 1/2	INT.	3/4	–	KOHLER BARDON MODEL K-4980-ET WALL MOUNTED URINAL WITH 3/4" TOP SPUD. SLOAN REGAL XL186-0.5SMO SIDE MOUNT OPERATOR AND REGAL XL FLUSHOMETER. INCLUDE BEEHIVE STRAINER AND JAY R. SMITH FIGURE NUMBER 0637 ADJUSTABLE FIXTURE SUPPORT.
WB-1	WALL BOX (WATER SUPPLY TO ICE MAKER)	–	–	–	1/2	–	OATEY FIREMASTER MODEL 36490 WITH FACEPLATE, ADJUSTABLE METAL SUPPORT BRACKET, AND WATER HAMMER ARRESTOR. FIRE-RATED, OR APPROVED EQUAL.
WC-1	WATER CLOSET (MOTION SENSOR / BATTERY OPERATED) (FLOOR MOUNTED) (COMFORT HEIGHT / ADA COMPLIANT)	3	2	INT.	1	–	KOHLER HIGHCREST MODEL K-4302 / FLOOR MOUNTED, WITH ELONGATED BOWL. KOHLER LUSTRA MODEL K-4666-C / ELONGATED OPEN FRONT SEAT WITH HINGE. SLOAN REGAL XL111-SMO FLUSHOMETER.
WCO	WALL CLEANOUT	SEE PLANS	–	–	–	–	JAY R. SMITH 4472T SERIES WITH CAST BRONZE TAPER THREAD PLUG, STAINLESS STEEL ROUND COVER AND A STAINLESS STEEL VANDAL PROOF SCREW.
WH-1	WATER HEATER (NOMINAL 50 GALLON) (NATURAL GAS - HIGH EFFICIENCY)	–	–	–	SEE PLANS	SEE PLANS	BRADFORD WHITE MODEL PDX-505-60B-3N. 60 MBH INPUT/56 MBH OUTPUT, 110 V.A.C., 3.1 AMPS, 22" DIAMETER, 56" TALL WITH TOP CONNECTIONS. PROVIDE WITH PVC INTAKE/VENT KIT AND SEISMIC STRAP.
WH-2	WATER HEATER (POINT OF USE) (ELECTRIC)	–	–	–	SEE PLANS	SEE PLANS	EEMAX FLOW CONTROLLED MODEL SP30 277/1, 29 AMPS, 6.0 KW, AND SHALL PROVIDE 55°F TEMPERATURE RISE AT 1.0 GPM. PROVIDE WITH LS-1 LAV SHIELD TO VERIFY WATER HARDNESS CALL CAMILLE CEGNAR AT UNITED WATER (362-7371) OR EMAIL AT camille.cegnar@unitedwater.com

NOTES:

1. ALL ADA COMPLIANT FIXTURES MUST COMPLY WITH ICC/ANSI A117.1. SEE ARCHITECTURAL PLANS FOR HANDICAPPED FIXTURE DESIGNATIONS, LOCATIONS, CLEARANCES, AND MOUNTING HEIGHTS.
2. ALL EXPOSED HW PIPING AND DRAIN LINES BENEATH ALL LAVATORIES AND ALL ADA COMPLIANT SINKS MUST BE INSULATED TO PREVENT BURNS. REFER TO ARCHITECTURAL PLANS. INSULATE WITH MOLDED CLOSED CELL VINYL INSULATION - TRUEBRO, PLUMBEREX, OR EQUAL.
3. PROVIDE P-TRAP PRIMERS FOR ALL FLOOR DRAINS AND FLOOR SINKS (PPP INC. OR EQUAL). USE (URN P-6000-TPQ (OR EQUAL) IF FLUSH VALVES ARE PRESENT. PROVIDE A BALL TYPE SHUT-OFF VALVE UPSTREAM OF PRIMER VALVE.
4. SEE SPECIFICATIONS FOR ALTERNATE APPROVED MANUFACTURERS.
5. HIGH EFFICIENCY WATER HEATERS. PROVIDE WITH CONDENSATE NEUTRALIZATION KIT BY JIM BOILER WORKS MODEL JM (OR EQUAL), SIZED PER EQUIPMENT CAPACITY.
6. BACKFLOW PREVENTION: THIS BUILDING IS PROVIDED WITH A BACKFLOW PREVENTION DEVICE ON THE MAIN WATER SERVICE AND REDUCED PRESSURE BACKFLOW PREVENTION ON THE FOLLOWING PIECES OF EQUIPMENT:
   COFFEE MAKER.

MUSGROVE ENGINEERING, P.A.

NOT FOR CONSTRUCTION

erstad ARCHITECTS, PA
420 main street, suite 322, boise, idaho 83702
[208] 331 9551 fax 331 9555 e-mail: mail@erstadarchitects.com

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dynamis energy, llc
ada county waste to energy facility
10319 seaman's gulch road
ada county, idaho 83714

revision:

SUBMITTAL TO IDEQ

project: 100910
date: 05.17.12
drawn: aa/mp
checked: cep

construction documents

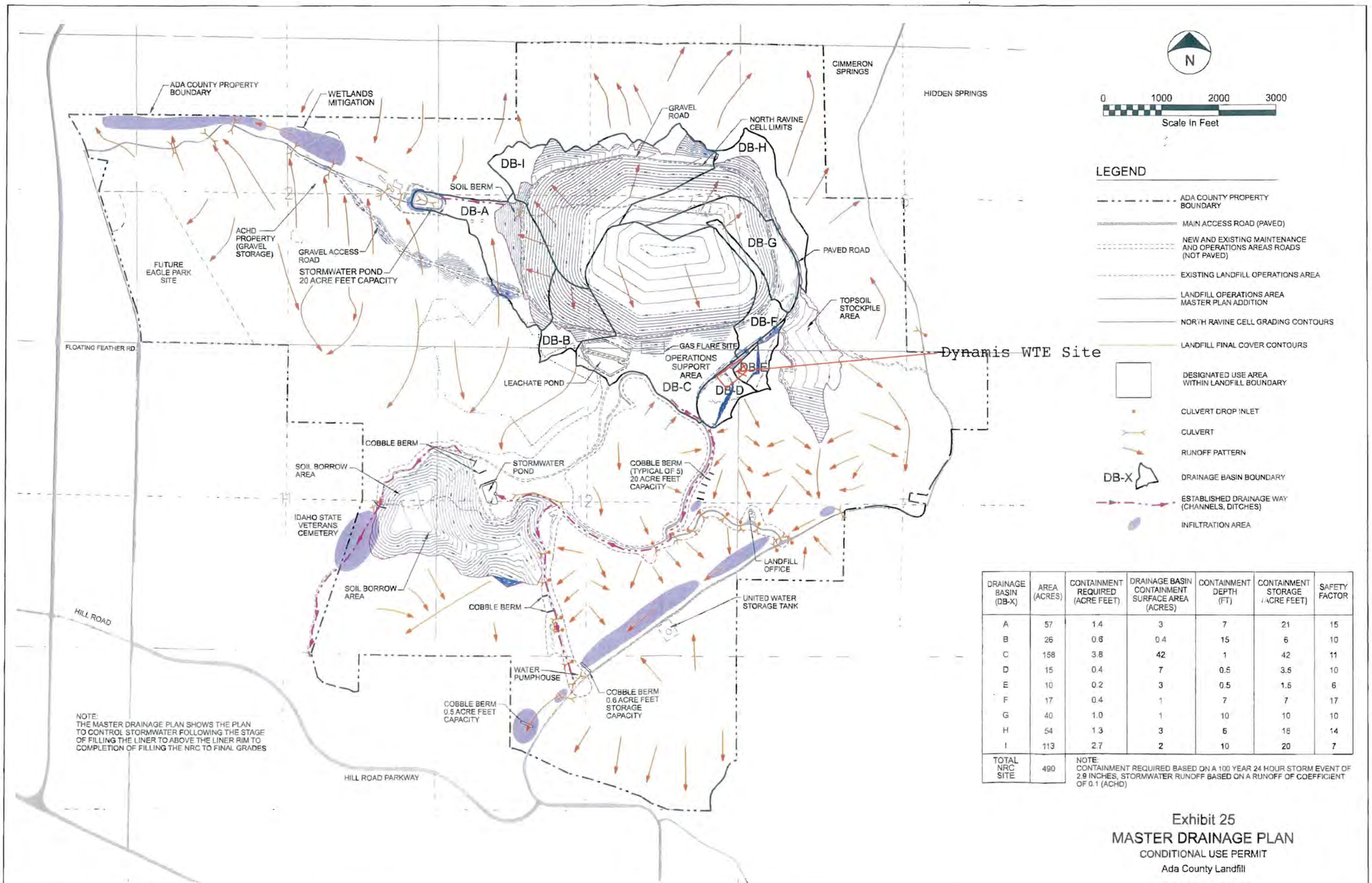
plumbing schedules

p4.1

DYNAMIS ENERGY

Storm Water Management

The Storm Water Management Plan is illustrated on the Grading Plan in Section 4 Sheet C5. All drainage from the site and roof drains (shown on Utility Plan in Section 4 Sheet C6) flow into a drainage system. No outside water is allowed to flow into the building and mix with inside drainage or leachate. The storm drainage is collected into drainage ditches and conveyed to the landfills retention storage ponds shown on the Master Drainage Plan included within this Section. The Storm Water Runoff Report is also included in this Section.



NOTE:
THE MASTER DRAINAGE PLAN SHOWS THE PLAN TO CONTROL STORMWATER FOLLOWING THE STAGE OF FILLING THE LINER TO ABOVE THE LINER RIM TO COMPLETION OF FILLING THE NRC TO FINAL GRADES

DRAINAGE BASIN (DB-X)	AREA (ACRES)	CONTAINMENT REQUIRED (ACRE FEET)	DRAINAGE BASIN CONTAINMENT SURFACE AREA (ACRES)	CONTAINMENT DEPTH (FT)	CONTAINMENT STORAGE (ACRE FEET)	SAFETY FACTOR
A	57	1.4	3	7	21	15
B	26	0.6	0.4	15	6	10
C	158	3.8	42	1	42	11
D	15	0.4	7	0.5	3.5	10
E	10	0.2	3	0.5	1.5	6
F	17	0.4	1	7	7	17
G	40	1.0	1	10	10	10
H	54	1.3	3	6	18	14
I	113	2.7	2	10	20	7
TOTAL NRC SITE	490					

NOTE:
CONTAINMENT REQUIRED BASED ON A 100 YEAR 24 HOUR STORM EVENT OF 2.9 INCHES, STORMWATER RUNOFF BASED ON A RUNOFF OF COEFFICIENT OF 0.1 (ACHD)

Exhibit 25
MASTER DRAINAGE PLAN
CONDITIONAL USE PERMIT
Ada County Landfill

CH2MHILL

cup drainage.dgn 06-APR-2005

DEERE & AULT
CONSULTANTS, INC.

April 4, 2012

Mr. Doyle Pergande, P.E.
Dynamis Energy, LLC
776 E Riverside Dr, Suit 160
Eagle, Idaho 83616

Subject: Dynamis Energy WTE Plant
Storm Water Runoff Calculations

Dear Mr. Pergande:

The purpose of this letter is to present the storm water calculations for the Dynamis Waste to Energy Plant at the Ada County Landfill. This letter is organized into three sections as follows:

- Background
- Calculations
- Results

Background

Deere & Ault Consultants, Inc. was retained by Dynamis Energy, LLC to produce storm water calculations for the planned WTE Plant at the Ada County landfill. These calculations and the supporting plan drawing are intended to be included with the project's Ada County Building Permit.

Calculations

Deere & Ault used the rational method along with current project site plans and topographic mapping for determining the storm water runoff at the WTE Plant site. The City of Boise Storm Water Design Manual Appendix A was referenced for all storm water calculations as recommended by the Ada County Development Services Department. Conservative runoff coefficients from the design manual were used for the analysis and are shown on the attached calculations. The design rainfall intensity for the site is 1 inch per hour (rounded up from 0.9 in/hr) for a 50-year storm event. The required rainfall duration is 1 hour.

Dynamis is in an uncommon situation with regard to storm water runoff at their facility at the Ada County Landfill site. In particular, the USEPA and local jurisdictions enforcing EPA rules generally require new developments to provide on-site storm water retention or pursue a NPDES permit to discharge to existing surface waters. In virtually every case, on-site retention is the chosen method. In the case of the Dynamis Energy facility, Ada County Landfill staff directed Dynamis to provide no on-site storm water detention at their facility, in favor of directing all runoff to the landfill's existing conveyance and retention facilities.

3156 S. Bown Way, Suite 101
Boise, Idaho 83706
Phone: 208-331-9736

In support of this direction from Ada County Landfill staff, the storm water analysis for the Dynamis facility became one of evaluating the pre- and post project runoff conditions with the difference showing the impact on the landfill's overall storm water facilities. The attached calculations labeled "Existing Conditions" show the runoff volume and peak flows for the portions of the site that are occupied by the Dynamis project or drain to the project site. As indicated in the calculations, the predicted existing conditions produce 11,311 cubic feet of runoff and a peak flow of 3.12 cfs. The calculations labeled "Post Project Conditions" predict 19,400 cubic feet of runoff and a peak flow of 5.34 cfs.

Results

The net impact on the Ada County Landfill storm water system as a result of the Dynamis project is an additional volume of 8,089 cubic feet of storm water (19,400 cf – 11,311 cf) and an additional 2.22 cfs of flow (5.34 cfs – 3.12 cfs) under the design condition of 1-in./hr for a duration of 1 hr. For design purposes, Dynamis should consider that the storm water flows issuing from the southwest potion of their site will be approximately 5.3 cfs under the design storm. It should also be understood that when conveying the project site storm water to the landfill's existing conveyance system, the flows will increase beyond 5.3 cfs as a result of the increased drainage areas in the down slope direction.

We appreciate this opportunity to serve Dynamis Energy. Please contact me if you have any questions regarding this analysis.

Very truly yours,

DEERE & AULT CONSULTANTS, INC.

Ray Eldridge, P.E.
Principal

Attachments

Dynamis WTE Plant - Ada County Landfill
Stormwater Calculations
Exisitng Conditions

Design Storm: 50-yr event, 1 hour duration (City of Boise Code)

Design Intensity (i): 1.0 in/hr

Required Retention Storage:

$$V = \Sigma \frac{ciA}{12}$$

Where: A = Area in ft^2
V = Volume in ft^3
c = Runoff Coefficient

Peak Flow:

$$q = ciA$$

Where: A = Area in acres
q = Flow in ft^3/s
c = Runoff Coefficient

C-Values	
Pavement	0.95
Roof	0.95
Exposed Soil	0.15
Parking	0.65

Description	Area (ft^2)	Area (acre)	C Value	Contributing Volume (ft^3)	Peak Flow (ft^3/s)
Pavement (Roads)	24,800	0.57	0.95	1,963	0.54
Roof	-	0.00	0.95	0	0.00
Paved Parking Lot	-	0.00	0.65	0	0.00
Soil	747,800	17.17	0.15	9,348	2.58
Retention Pond	0	0.00	1.00	0	0.00
SUMS	**772,600**	**17.74**		**11,311**	**3.12**

Required Retention Volume ft^3	Peak Flow (cfs)
11,400	3.12

Dynamis WTE Plant - Ada County Landfill
Stormwater Calculations
Post Project Conditions

Design Storm: 50-yr event, 1 hour duration (City of Boise Code)

Design Intensity (i): 1.0 in/hr

Required Retention Storage:

$$V = \Sigma \frac{ciA}{12}$$

Where: A = Area in ft^2
V = Volume in ft^3
c = Runoff Coefficient

Peak Flow:

$$q = ciA$$

Where: A = Area in acres
q = Flow in ft^3/s
c = Runoff Coefficient

C-Values	
Pavement	0.95
Roof	0.95
Exposed Soil	0.15
Parking	0.65

Description	Area (ft^2)	Area (acre)	C Value	Contributing Volume (ft^3)	Peak Flow (ft^3/s)
Pavement (Roads)	57700	1.32	0.95	4,568	1.26
Roof	83000	1.91	0.95	6,571	1.81
Paved Parking Lot	8400	0.19	0.65	455	0.13
Soil	623500	14.31	0.15	7,794	2.15
SUMS	**772,600**	**17.74**		**19,388**	**5.34**

Required Retention Volume ft^3	Peak Flow (cfs)
19,400	5.34

P:\Dynamis\Stormwater\CAD areas\C-2.dwg

4/4/2012 12:29 PM

REV	DATE	BY	DESCRIPTION

SCALE: AS NOTED

WARNING: 0 1/2 1 — IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

DESIGNED: R. ELDRIDGE
DRAWN: P. HUNTER
CHECKED: R. ELDRIDGE

DEERE & AULT CONSULTANTS, INC.
3156 SOUTH BOWN WAY, SUITE 101
BOISE, IDAHO 83706
TEL 208.331.9736

DYNAMIS ENGERY, LLC
DYNAMIS WASTE TO ENERGY PLANT
SITE DRAINAGE PLAN

SHEET C-01

This serves to confirm that Dynamis Energy, LLC is responsible under Section II.B.4 of the Franchise Agreement between Dynamis Energy, LLC and Ada County (a copy of relevant provision is attached) for obtaining the design plan approval.

Dynamis Energy, LLC
776 E Riverside Dr. Ste 150
Eagle, Idaho 83616
208-938-2680 (p)

AGREEMENT NO. 9385

FRANCHISE AGREEMENT

BETWEEN ADA COUNTY AND DYNAMIS ENERGY, LLC

HIDDEN HOLLOW WASTE TO ENERGY PROJECT

PROJECT NO. _____

LANDFILL WASTE TO ENERGY FRANCHISE AGREEMENT

THIS FRANCHISE AGREEMENT, dated as of this 1st day of November, 2011 ("Franchise Agreement"), is by and between Dynamis Energy LLC, an Idaho limited liability company (the "Franchisee"), and Ada County, Idaho, a duly organized and existing county under the laws and constitution of the State of Idaho(the "County").

RECITALS AND FINDINGS

A. County owns and operates County's Facility at which County collects, places, compresses, and covers Municipal Solid Waste.

B. County provided an opportunity to the private sector to provide new technologies applicable to recycling, waste reduction and energy production from Municipal Solid Waste and to that end solicited and received proposals.

C. Franchisee submitted a proposal to design, construct, operate, and maintain a waste to energy facility located at County's Facility, which was accepted by County.

D. The Board determined to enter into negotiations with Franchisee, which has resulted in this Franchise Agreement.

E. As part of that negotiation the Board determined to pay Franchisee to design a waste to energy facility, which design, rights, and intellectual property the County would own, subject to purchase by Franchisee.

F. During the period of this Franchise Agreement Franchisee has agreed to take a minimum average of 408 tons of Municipal Solid Waste per calendar day delivered to its waste to energy facility at no charge to County for the purpose of securing a long-term supply of fuel for electric power generation. County and Franchisee have agreed that Franchisee may be allowed to take more.

G. Franchisee has made arrangements and will be responsible for constructing, operating, and maintaining the waste to energy facility.

H. The Board has determined that significant benefits to all Ada County residents can be obtained if the amount of waste being accepted and compacted in its landfills can be reduced and a steady electric power supply provided.

I. County and Franchisee have mutually agreed that Franchisee's Facilities will fit upon and shall be located on the Premises.

IN WITNESS WHEREOF, the parties hereto have caused this Franchise Agreement to be executed by their duly authorized undersigned officers as of the date first set forth above.

Board of Ada County Commissioners

By: _____
Rick Yzaguirre, Chairman

By: _____
Sharon M. Ullman, Commissioner

By: Approved VLB
Vernon L. Bisterfeldt, Commissioner

ATTEST:

_____
Christopher D. Rich, Ada County Clerk

FRANCHISEE – DYNAMIS ENERGY, LLC

10-28-11
Date executed

By: [signature]
Title: Chairman & CEO
Address: 776 E. Riverside Dr., Suite 150
Eagle, ID 83616

STATE OF IDAHO)
) ss.
County of Ada)

On this 28th day of October, 2011, before me, a Notary Public, personally appeared C. Lloyd Malafry, known or identified to me to be the CEO of the limited liability company that executed the instrument or the person who executed the instrument on behalf of said company, and acknowledged to me that such company executed the same.

CRYSTAL A. HINKLE NOTARY PUBLIC STATE OF IDAHO

[signature]
Notary Public for Idaho
Commission Expires November 24, 2014