DANE COUNTY WASTE TRANSFER STATION
AND
HOUSEHOLD HAZARDOUS WASTE FACILITY
RODEFELD LANDFILL
7102 US HIGHWAY 12 & 18 MADISON, WISCONSIN

GRAEF

One Honey Creek Corporate Center
125 South 84th Street, Suite 401
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CONSULTANTS:

PROJECT TITLE:

DANE COUNTY
WASTE TRANSFER STATION
AND HOUSEHOLD HAZARDOUS
WASTE FACILITY
RODEFELD LANDFILL

ISSUE:

CIVIL

C200 DEMOLITION AND EROSION CONTROL PLAN
C300 SITE AND LANDSCAPE PLAN
C400 GRADING PLAN
C500 UTILITY PLAN
C700 JOINTING PLAN
C900 EROSION CONTROL DETAILS
C901 PAVING DETAILS
C902 UTILITY DETAILS
C903 SITE DETAILS

ARCHITECTURAL

A101 HHW FIRST FLOOR PLAN/ WTS LOWER LEVEL PLAN
A102 HHW MEZZANINE PLAN / WTS UPPER LEVEL PLAN
A103 HHW FIRST FLOOR EQUIPMENT PLAN - FOR REFERENCE ONLY
A121 ROOF PLAN
A300 BUILDING ELEVATIONS
A301 BUILDING ELEVATIONS
A400 BUILDING SECTIONS
A401 BUILDING SECTIONS
A501 ENLARGED PARTIAL PLAN AND DETAILS
A600 DOOR SCHEDULE AND DOOR, WINDOW AND FRAME ELEVATIONS

STRUCTURAL

S000 GENERAL NOTES
S100 FOUNDATION PLAN
S101 STRUCTURAL UPPER LEVEL PLAN
S500 DETAILS
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M202 HHW MEZZANINE / WTS UPPER LEVEL HVAC PLAN
M203 GENERATOR BUILDING HVAC PLANS
M800 MECHANICAL DETAILS
M801 MECHANICAL DETAILS
M900 MECHANICAL SCHEDULES

ELECTRICAL

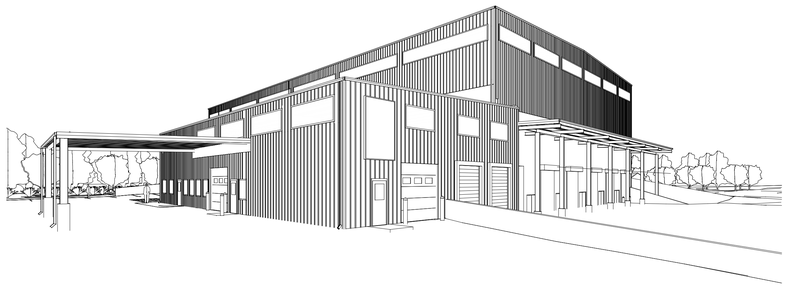
E000 ELECTRICAL SYMBOLS, ABBREVIATIONS AND SHEET INDEX
E001 SITE ELECTRICAL PLAN, LIGHTING FIXTURE SCHEDULE, AND DETAILS
E002 SITE PHOTOMETRIC PLAN
E101 HHW FIRST FLOOR / WTS LOWER LEVEL ELECTRICAL PLAN
E102 HHW MEZZANINE / WTS UPPER LEVEL ELECTRICAL PLAN
E103 HHW / WTS GROUNDING SYSTEM ELECTRICAL PLAN
E201 HHW FIRST FLOOR / WTS LOWER LEVEL SYSTEM PLAN
E202 HHW MEZZANINE / WTS UPPER LEVEL SYSTEM PLAN
E401 ELECTRICAL SCHEDULES
E402 ELECTRICAL SCHEDULES & ONE-LINE DIAGRAMS
E500 ELECTRICAL DETAILS

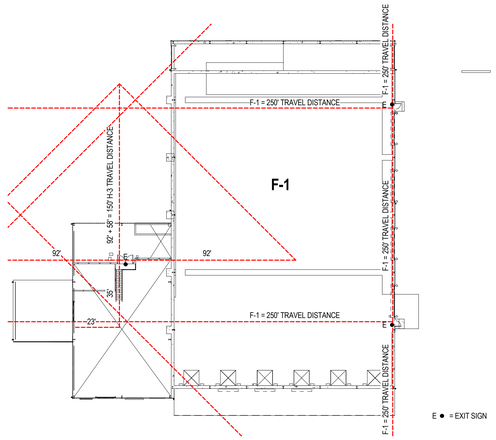
PLUMBING

P000 PLUMBING SYMBOLS, ABBREVIATIONS & SCHEDULES
P100 HHW FIRST/ WTS LOWER LEVEL BELOW SLAB PLUMBING PLAN
P101 HHW FIRST/ WTS LOWER LEVEL PLUMBING PLAN
P102 HHW MEZZANINE /WTS UPPER LEVEL PLUMBING PLAN
P300 PLUMBING ISOMETRICS
P500 PLUMBING DETAILS

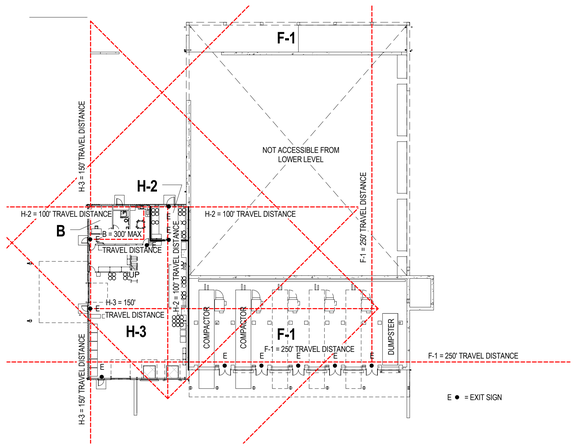
FIRE PROTECTION

FP101 HHW FIRST/ WTS LOWER LEVEL FIRE PROTECTION PLAN
FP102 HHW MEZZANINE/ WTS UPPER LEVEL FIRE PROTECTION PLAN





2 Exiting MEZZANINE / UPPER LEVEL EXITING PLAN
1/32" = 1'-0"



1 LOWER LEVEL EXITING PLAN
1/32" = 1'-0"

SUBMITTALS

BID SET	05-11-2010

BUILDING CODE DATA

PER THE IBC 2006 WITH WISCONSIN COMMERCIAL BUILDING CODE MODIFICATIONS

FLOOR AREA	
UPPER LEVEL:	19,333 GSF
LOWER LEVEL:	12,670 GSF
OCCUPANCY: MIXED USE OCCUPANCY	
F1: FACTORY INDUSTRIAL	
B: BUSINESS	
H2: HAZARDOUS - SOLVENT BULKING	
H3: HAZARDOUS	
CLASSIFICATION OF CONSTRUCTION:	
TYPE II B	
SPRINKLER SYSTEM:	
BUILDING IS COMPLETELY SPRINKLERED	
FIRE RESISTANCE RATING REQUIREMENTS:	
FRAME:	0 HOUR
EXTERIOR WALLS:	0 HOUR
INTERIOR WALLS:	2 HOUR BETWEEN B /F-1 AND H2 1 HOUR BETWEEN B /F-1 AND H3
FLOORS:	2 HOUR BETWEEN B /F-1 AND H2 1 HOUR BETWEEN B /F-1 AND H3
ROOF:	0 HOUR

MAXIMUM EXITING DISTANCE REQUIRED:	
F-1 EXITING DISTANCE:	250 FEET
B EXITING DISTANCE:	300 FEET
H-2 EXITING DISTANCE:	100 FEET
H-3 EXITING DISTANCE:	150 FEET
MAXIMUM EXITING DISTANCE PROVIDED:	
LESS THAN REQUIRED, REFER TO EXITING PLAN VIEWS 1/T000 AND 2/T000	

AGGREGATE EXIT WIDTH REQUIRED:		PROVIDED:
F-1 EXIT WIDTH:	OCC. x 0.15 = 38.9" REQUIRED,	408.0" PROVIDED
B EXIT WIDTH:	OCC. x 0.15 = 0.9" REQUIRED,	34.0" PROVIDED
H-2 EXIT WIDTH:	OCC. x 0.2 = 0.6" REQUIRED,	46.0" PROVIDED
H-3 EXIT WIDTH:	OCC. x 0.2 = 7.2" REQUIRED,	102.0" PROVIDED
H-3 STAIR WIDTH:	OCC. x 0.3 = 2.1" REQUIRED,	36.0" PROVIDED

AGGREGATE EXIT WIDTH PROVIDED:

TOTAL AGGREGATE WIDTH FOR WHOLE BUILDING = 626.0" PROVIDED

SANITARY REQUIREMENTS:

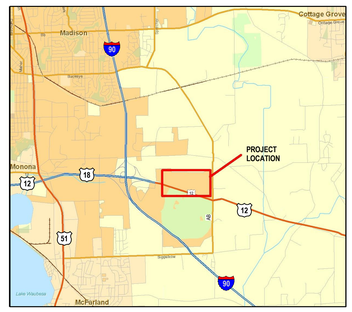
PER 2902.2 EXCEPTION #2, SEPARATE FACILITIES SHALL NOT BE REQUIRED IN STRUCTURES OR TENANT SPACES WITH A TOTAL OCCUPANT LOAD, INCLUDING BOTH EMPLOYEES AND CUSTOMERS, OF 15 OR LESS.

NUMBER OF OCCUPANTS - RELATED TO PROJECT:

USE	GROSS AREA	SQ.FT. / OCCUPANT	OCCUPANTS
F-1	27,226	100 GROSS	273
B	681	100 GROSS	7
H-2	369	100 GROSS	4
H-3	3,727	100 GROSS	38
TOTAL OCCUPANTS BY AREA CALCULATION:			MAX: 322
ACTUAL OCCUPANT TOTAL:			MAX: 15

SANITARY FIXTURES PROVIDED:

WOMEN:	MEN:	UNISEX:
NA	NA	1



LOCATION MAP

PROJECT INFORMATION:

PROJECT NUMBER:	2009-0328.00
DATE:	05-11-2010
DRAWN BY:	JMR
CHECKED BY:	SEB
APPROVED BY:	JHK
SCALE:	AS NOTED

SHEET TITLE:

TITLE SHEET

SHEET NUMBER:

T000

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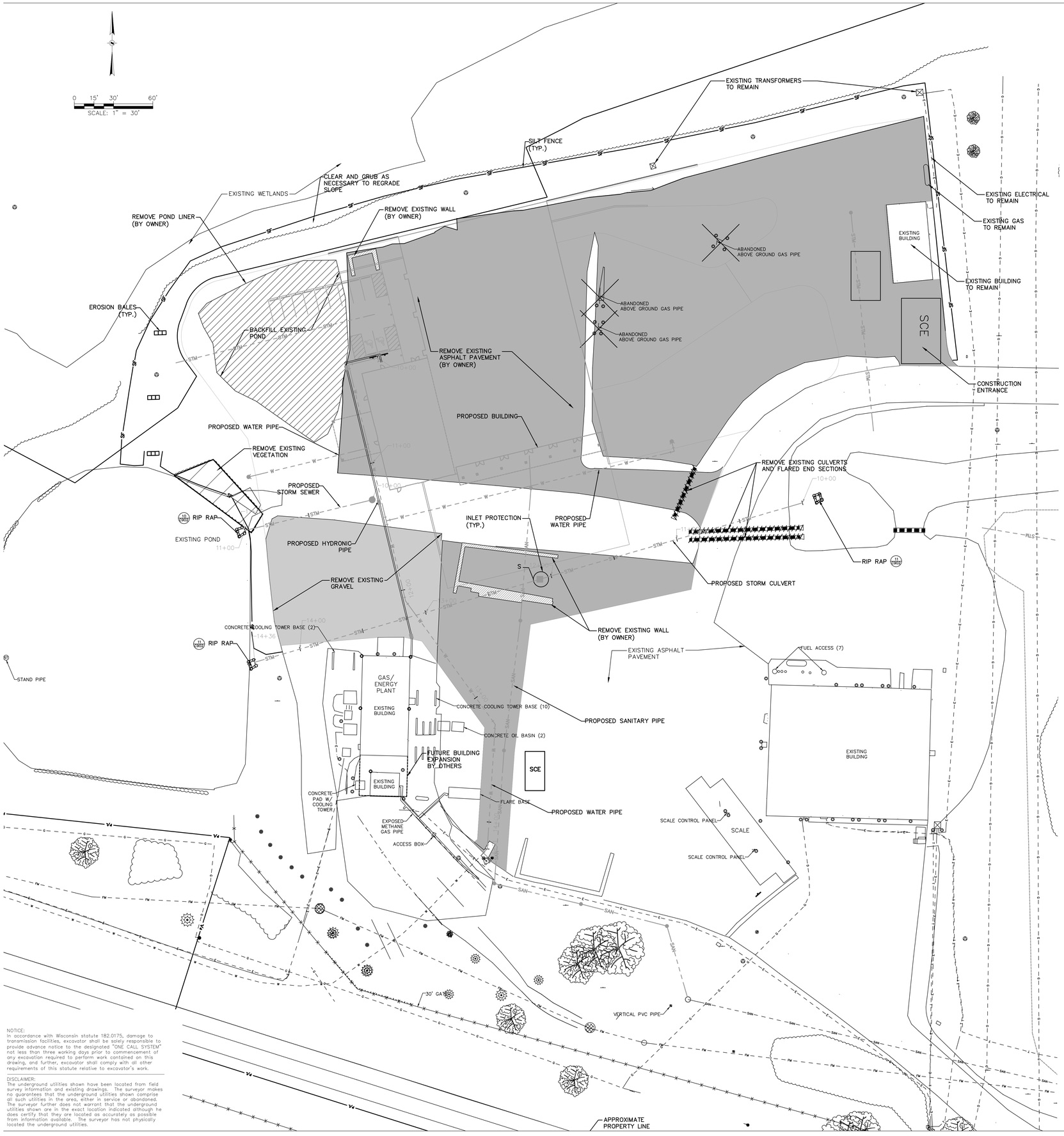
5/11/2010 3:32:22 PM



NOTICE:
In accordance with Wisconsin statute 182.0175, damage to transmission facilities, excavator shall be solely responsible to provide advance notice to the designated "ONE CALL SYSTEM" not less than three working days prior to commencement of any excavation required to perform work contained on this drawing, and further, excavator shall comply with all other requirements of this statute relative to excavator's work.

DISCLAIMER:
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REMOVAL NOTES

1. EXISTING CONDITIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR AND DISCREPENCIES REPORTED TO THE ENGINEER PRIOR TO STARTING WORK.
2. CONTRACTOR SHALL VERIFY ALL EXISTING LINES NOTED FOR ABANDONMENT OR REMOVAL. EXISTING UTILITIES MUST REMAIN IN SERVICE UNTIL NEW UTILITIES OR PLUMBING IS INSTALLED.
3. ASPHALT PAVEMENT NOTED FOR REMOVAL OWNER WILL SAWCUT TO FULL DEPTH PRIOR TO REMOVAL.
4. CONTRACTOR IS RESPONSIBLE FOR SECURING THE JOB SITE TO PROTECT THE PUBLIC.
5. CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH LOCAL ORDINANCES FOR DUST CONTROL.
6. UTILITIES SHALL BE REMOVED TO LOCATIONS INDICATED ON PLANS. ALL STORM MANHOLES AND INLETS ALONG REMOVED STORM SEWER SHALL BE REMOVED. MANHOLE AND INLET RIMS AND CASTINGS SHALL BE SALVAGED AND GIVEN TO DANE COUNTY UNLESS OTHERWISE INDICATED.

EROSION CONTROL NOTES

1. CONSTRUCTION SITE EROSION CONTROL AND SEDIMENTATION CONTROL SHALL COMPLY WITH THE REQUIREMENTS OF DANE COUNTY, CITY OF MADISON, AND THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES (WDNR) "CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL TECHNICAL STANDARDS".

2. ALL EROSION CONTROL MEASURES SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND SHALL BE INSTALLED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL ON SITE.

3. ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED FOR STABILITY AND OPERATION AFTER A RAINFALL OF 0.5 INCHES OR MORE, BUT NO LESS THAN ONCE EVERY WEEK. MAINTENANCE OF ALL EROSION CONTROL STRUCTURES SHALL BE PROVIDED TO INSURE INTENDED PURPOSE IS ACCOMPLISHED. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANUP AND REMOVAL OF ALL SEDIMENT WHEN LEAVING PROPERTY. EROSION CONTROL MEASURES MUST BE IN WORKING CONDITION AT END OF EACH WORK DAY.

4. SILT FENCE SHALL BE INSTALLED IN THE LOCATIONS SHOWN ON THE CONSTRUCTION PLANS. SEDIMENT DEPOSITS WILL BE REMOVED FORM BEHIND THE SILT FENCE WHEN DEPOSITS REACH A DEPTH OF 6 INCHES. THE SILT FENCE WILL BE REPAIRED OR REPLACED AS NECESSARY TO MAINTAIN A BARRIER.

5. FILTER FABRIC SHALL BE INSTALLED BENEATH INLET COVERS TO TRAP SEDIMENT AS PER INLET PROTECTION DETAIL IN THE LOCATIONS SHOWN ON THE CONSTRUCTION PLANS.

6. EROSION CONTROL MEASURES SHALL BE MAINTAINED ON A CONTINUING BASIS UNTIL SITE IS FULLY STABILIZED.

7. PERIODIC STREET SWEEPING WILL BE COMPLETED BY THE OWNER TO MAINTAIN THE PUBLIC STREET FREE OF DUST AND DIRT.

8. SILT FENCE SHALL BE INSTALLED IN HORSESHOE FASHION AROUND ALL TOPSOIL AND FILL STOCKPILES. NOTIFY DANE COUNTY OF ANY NEW STOCKPILE LOCATIONS.

9. CONSTRUCTION SEQUENCE FOR EROSION CONTROL INCLUDES:
   1. INSTALL STABILIZED CONSTRUCTION ENTRANCE.
   2. INSTALL SILT FENCE AND EROSION BALES
   3. REMOVE EXISTING UTILITIES NOTED FOR REMOVAL.
   4. STRIP TOPSOIL AND STOCK PILE.
   5. PERFORM ROUGH GRADING.
   6. INSTALL UTILITIES.
   7. INSTALL INLET PROTECTION ON PROPOSED UTILITIES.
   8. INSTALL PAVEMENT, SITE WALLS, AND BUILDINGS.
   9. INSTALL LANDSCAPING ON COMPLETED SITE WITHIN 7 DAYS OF COMPLETING CONSTRUCTION.
   10. REMOVE EROSION CONTROL MEASURES ONLY WHEN SITE IS FULLY STABILIZED.

10. SITE DEWATERING. WATER PUMPED FROM THE SITE SHALL BE TREATED BY SEDIMENT BASINS OR OTHER APPROPRIATE BEST MANAGEMENT PRACTICES SPECIFIED BY THE WDNR TECHNICAL STANDARDS. WATER SHALL NOT BE DISCHARGED IN A MANNER THAT CAUSES EROSION OF THE SITE, ADJACENT SITES, OR RECEIVING CHANNELS.

11. WASTE AND MATERIAL DISPOSAL. ALL WASTE AND UNUSED BUILDING MATERIALS (INCLUDING GARBAGE, DEBRIS, CLEANING WASTES, WASTEWATER, TOXIC MATERIALS, OR HAZARDOUS MATERIALS) SHALL BE PROPERLY DISPOSED IN ACCORDANCE WITH LANDFILL TIPPING FEE AND RECYCLING REQUIREMENTS AND NOT ALLOWED TO BE CARRIED OFF-SITE BY RUNOFF OR WIND.

12. TRACKING. EACH SITE SHALL HAVE GRAVELED ROADS, ACCESS DRIVES AND PARKING AREAS OF SUFFICIENT WIDTH AND LENGTH TO PREVENT SEDIMENT FROM BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAYS. ANY SEDIMENT REACHING A PUBLIC OR PRIVATE ROAD SHALL BE REMOVED BY STREET CLEANING, TO THE SATISFACTION OF THE COUNTY BEFORE THE END OF EACH WORKDAY. FLUSHING MAY NOT BE USED UNLESS SEDIMENT WILL BE CONTROLLED BY A SEDIMENT BASIN OR OTHER APPROPRIATE BEST STANDARDS. NOTIFY DANE COUNTY FOR CHANGES IN STABILIZED CONSTRUCTION ENTRANCE LOCATION.

13. SEDIMENT CLEANUP. ALL OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF A STORM EVENT SHALL BE CLEANED UP BY THE END OF THE NEXT WORK DAY. ALL OTHER OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF CONSTRUCTION ACTIVITIES SHALL BE CLEANED UP BY THE END OF THE WORK DAY.

14. ALL DISTURBED GROUND LEFT INACTIVE FOR SEVEN OR MORE DAYS SHALL BE STABILIZED BY TEMPORARY OR PERMANENT SEEDING, TEMPORARY OR PERMANENT SEEDING AND MULCHING, SODDING, COVERING WITH TARPS, OR EQUIVALENT BEST MANAGEMENT PRACTICES. IF TEMPORARY SEEDING IS USED, A PERMANENT COVER SHALL ALSO BE REQUIRED AS PART OF THE FINAL SITE STABILIZATION. SEEDING OR SODDING SHALL BE REQUIRED AS PART OF THE FINAL SITE STABILIZATION.

15. SOIL OR DIRT STORAGE PILES SHALL BE LOCATED A MINIMUM OF 30 FEET FROM ANY DOWNSLOPE ROAD, LAKE, STREAM, WETLAND, OR DRAINAGE CHANNEL. STRAW BALE OR FILTER FABRIC FENCES SHALL BE PLACED ON THE DOWN SLOPE SIDE OF THE PILES. IF REMAINING FOR MORE THAN THIRTY DAYS, PILES SHALL BE STABILIZED BY MULCHING, VEGETATIVE COVER, TARPS OR OTHER MEANS.

16. WHEN THE DISTURBED AREA HAS BEEN STABILIZED BY PERMANENT VEGETATION OR OTHER MEANS. TEMPORARY BEST MANAGEMENT PRACTICES SUCH AS FILTER FABRIC FENCES, STRAW BALES, SEDIMENT AND SEDIMENT TRAPS SHALL BE REMOVED.

17. NOTIFY THE COUNTY WITHIN TWO WORKING DAYS OF COMMENCING ANY LAND DEVELOPMENT OR LAND DISTURBING ACTIVITY.

18. NOTIFY THE COUNTY OF COMPLETION OF ANY BEST MANAGEMENT PRACTICES WITHIN THE NEXT WORKING DAY AFTER THEIR INSTALLATION.

19. OBTAIN PERMISSION IN WRITING FROM DANE COUNTY ENGINEERING DEPARTMENT PRIOR TO MODIFYING THE EROSION CONTROL PLAN.

20. REPAIR ANY SILTATION OR EROSION DAMAGE TO ADJOINING SURFACES AND DRAINAGEWAYS RESULTING FROM LAND DEVELOPMENT OR LAND DISTURBING ACTIVITIES.

21. KEEP A COPY OF THE EROSION CONTROL PLAN ON SITE.

GENERAL NOTES

1. BASE SURVEY WAS PREPARED BY QUAM ENGINEERING, SEPTEMBER 2009. UNDERGROUND UTILITIES HAVE BEEN SHOWN TO A REASONABLE DEGREE OF ACCURACY AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES.
2. CONTRACTOR TO COORDINATE WITH UTILITY OWNER ON RELOCATION OF EXISTING UTILITY.

LEGEND
- REMOVE ASPHALT PAVEMENT
- REMOVE GRAVEL PAVEMENT
- BACKFILL EXISTING POND
- REMOVE EXISTING WALL
- REMOVE VEGETATION
- RELOCATE GAS PIPE AND REMOVE BOLLARDS
- SF — SILT FENCE (9/2900)
- S — INLET PROTECTION (1/2900)
- REMOVE UTILITY
- EROSION BALES (34/2900) (38/2900)
- SCE — STONE CONSTRUCTION ENTRANCE (4/2900)
- RIP RAP

SURVEY LEGEND
- CONTROL POINT
- EXISTING GAS PROBE / MONITORING POINT
- EXISTING BOLLARD
- EXISTING SIGN
- EXISTING GAS VALVE
- EXISTING WATER VALVE
- EXISTING HYDRANT
- EXISTING DOWNSPOUT
- EXISTING MANHOLE
- EXISTING DECIDUOUS TREE
- EXISTING CONIFEROUS TREE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING TREE / BUSH DRIPLINE
- EXISTING FENCE
- EXISTING BURIED COMMUNICATIONS
- EXISTING BURIED ELECTRIC
- EXISTING BURIED GAS
- EXISTING STORM CULVERT
- EXISTING WETLAND

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PROJECT TITLE:
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ISSUE:

NO.	DATE	REVISIONS	BY

PROJECT INFORMATION:

PROJECT NUMBER:	2009-0328.00
DATE:	5-11-2010
DRAWN BY:	CTS
CHECKED BY:	DMM
APPROVED BY:	JPH
SCALE:	1" = 30'
FILE PATH:	C_00_DEMO_EC0328

SHEET TITLE:
DEMOLITION AND EROSION CONTROL PLAN

SHEET NUMBER:
C200

GENERAL NOTES

1. BASE SURVEY WAS PREPARED BY QUAM ENGINEERING, SEPTEMBER 2009. UNDERGROUND UTILITIES HAVE BEEN SHOWN TO A REASONABLE DEGREE OF ACCURACY AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THEIR EXACT LOCATION.
2. ALL DIMENSIONS AND RADII ARE TO EDGE OF PAVEMENT OR FACE OF CURB WHERE CURB IS SHOWN.

LEGEND

- PROPOSED BUILDING
- PROPOSED ASPHALT PAVEMENT (2 / C901)
- PROPOSED CONCRETE PAVEMENT (3 / C901)
- PROPOSED HIGHSIDE CURB AND GUTTER (4 / C901)
- PROPOSED NATIVE GRASS SEED MIX (7 / C903)
- PROPOSED POROUS ASPHALT PAVEMENT (5 / C901)
- PROPOSED TIPPING RAMP CONCRETE PAVEMENT (1A / C901)
- PROPOSED TIPPING RAMP ASPHALT PAVEMENT (2A / C901)
- PROPOSED BIOFILTRATION BASIN (8 / C903)

SURVEY LEGEND

- CONTROL POINT
- EXISTING GAS PROBE / MONITORING POINT
- EXISTING BOLLARD
- EXISTING SIGN
- EXISTING GAS VALVE
- EXISTING WATER VALVE
- EXISTING HYDRANT
- EXISTING DOWNSPOUT
- EXISTING MANHOLE
- EXISTING DECIDUOUS TREE
- EXISTING CONIFEROUS TREE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING TREE / BUSH DRIPLINE
- EXISTING FENCE
- EXISTING BURIED COMMUNICATIONS
- EXISTING BURIED ELECTRIC
- EXISTING BURIED GAS
- EXISTING STORM CULVERT
- EXISTING WETLAND

PROPOSED ENVIRONMENTAL CORRIDOR LIMIT
EXISTING TRANSFORMER
EXISTING PAVEMENT LIMIT
EXISTING WETLANDS
5' CURB TAPER (5 / C901)
CAST-IN-PLACE RETAINING WALL (SEE STRUCTURAL DRAWINGS)
CONCRETE WHEEL STOP (BY OWNER)
CONCRETE BOLLARD 8' O.C. (TYP.)
4" WHITE EPOXY (BY OWNER)
HIGHSIDE CURB AND GUTTER (4 / C901) (TYP.)
EXISTING BUILDING
EXISTING ABANDONED ABOVE GROUND GAS PIPE
PROPOSED WASTE TRANSFER STATION
21,776 SF
EL. = 891.42 - 890.83 (TIPPING)
EL. = 879.83 (DRIVE-THRU)
EL. 872.00 (COMPACTORS)
EXISTING POND (TO BE FILLED)
HANDICAP PAVEMENT MARKING (BY OWNER)
HANDICAP SIGN (3 / C901)
CANOPY
PROPOSED HOUSEHOLD HAZARDOUS WASTE 4,500 SF F.F. = 876.00
OVERHEAD DOOR
DUMPSTER BAY
COLUMN (TYP.)
CANOPY
3 - FUTURE COMPACTOR BAYS
2 - COMPACTOR BAYS
2 - LOADING DOCKS
OVERHEAD DOOR
CAST-IN-PLACE RETAINING WALL (SEE STRUCTURAL DRAWINGS)
EXISTING DRIVE
EXISTING STORMWATER MANAGEMENT POND
CONCRETE COOLING TOWER BASE (2)
STAND PIPE
GAS/ ENERGY PLANT
EXISTING BUILDING
CONCRETE COOLING TOWER BASE (10)
CONCRETE OIL BASIN (2)
FUTURE BUILDING EXPANSION BY OTHERS
REPLACE PAVEMENT OVER UTILITY TRENCHES. MATCH EXISTING ASPHALT PAVEMENT SECTION AND GRADES
EXISTING ASPHALT PAVEMENT
FUEL ACCESS (7)
CONCRETE PAD W/ COOLING TOWER
EXPOSED METHANE GAS PIPE
ACCESS BOX
FLARE BASE
SCALE CONTROL PANEL
SCALE
SCALE CONTROL PANEL
SIGN BY OWNER
CLEAN SWEEP
BIOFILTRATION BASIN (8 / C903)
SEE C900 FOR LANDSCAPE SCREENING
30' GATE
VERTICAL PVC PIPE
0 15' 30' 60'
SCALE: 1" = 30'

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ISSUE:

NO.	DATE	REVISIONS	BY

PROJECT INFORMATION:

PROJECT NUMBER:	2009-0328.00
DATE:	5-11-2010
DRAWN BY:	CTS
CHECKED BY:	DMM
APPROVED BY:	JPH
SCALE:	1" = 30'
FILE PATH:	C_00_LAYOUT0328

SHEET TITLE:

SITE AND LANDSCAPE PLAN

SHEET NUMBER:

C300

GENERAL NOTES

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2. OWNER WILL EXCAVATE THE EXISTING FILL MATERIAL AND/OR TOPSOIL FOLLOWED BY PROOF-ROLLING AND/OR THOROUGH COMPACTION OF THE EXPOSED SURFACE UNDER ALL PROPOSED PAVED AND BUILDING AREAS TO 95% MODIFIED PROCTOR DENSITY. OWNER WILL FILL TO ELEVATION 871.50 AVERAGE ELEVATION OVER THE SITE. CONTRACTOR SHALL VERIFY ELEVATIONS PRIOR TO BEGINNING WORK. CONTACTOR WILL RECEIVE NO EXTRA PAYMENT FOR WORK UNLESS THE AVERAGE ELEVATION VARIES BY MORE THAN 3 INCHES FROM 871.50.

0 15' 30' 60'
SCALE: 1" = 30'

LEGEND

- 876 – PROPOSED MINOR CONTOUR
- 880 – PROPOSED MAJOR CONTOUR
- TOW 880.12 / BOW 872.00 – TOP OF WALL GRADE / BOTTOM OF WALL GRADE
- 875.50 / 875.00 – FLANGE GRADE / TOP OF CURB GRADE
- 880.83 – SPOT GRADE
- – GRADING LIMITS

LEGEND

- CONTROL POINT
- EXISTING GAS PROBE / MONITORING POINT
- EXISTING BOLLARD
- EXISTING SIGN
- EXISTING GAS VALVE
- EXISTING WATER VALVE
- EXISTING HYDRANT
- EXISTING DOWNSPOUT
- EXISTING MANHOLE
- EXISTING DECIDUOUS TREE
- EXISTING CONIFEROUS TREE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING TREE / BUSH DRIPLINE
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- EXISTING BURIED ELECTRIC
- EXISTING BURIED GAS
- EXISTING STORM CULVERT
- EXISTING WETLAND

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GRĀEF

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CONSULTANTS:

PROJECT TITLE:
DANE COUNTY
WASTE TRANSFER STATION
AND HOUSEHOLD HAZARDOUS
WASTE FACILITY
RODEFELD LANDFILL

ISSUE:

NO.	DATE	REVISIONS	BY

PROJECT INFORMATION:

PROJECT NUMBER:	2009-0328.00
DATE:	5-11-2010
DRAWN BY:	CTS
CHECKED BY:	DMM
APPROVED BY:	JPH
SCALE:	1" = 30'
FILE PATH:	C_00_GRADING0328

SHEET TITLE:
GRADING PLAN

SHEET NUMBER:
C400

GENERAL NOTES

1. BASE SURVEY WAS PREPARED BY QUAM ENGINEERING, SEPTEMBER 2009. UNDERGROUND UTILITIES HAVE BEEN SHOWN TO A REASONABLE DEGREE OF ACCURACY AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THEIR EXACT LOCATION.
2. BUILDING LATERALS SHALL BE CONSTRUCTED IN ACCORDANCE WITH LOCAL AND STATE PLUMBING CODES. SITE UTILITY CONTRACTOR TO STUB LATERALS TO 5 FEET OUTSIDE OF BUILDING. SEE PLUMBING DRAWINGS FOR CONTINUATION OF PIPING INSIDE OF BUILDING BY PLUMBING CONTRACTOR.
3. CONTRACTOR SHALL VERIFY ELEVATION OF EXISTING INVERTS PRIOR TO INSTALLATION OF PROPOSED UTILITIES. AT WATER MAIN CROSSINGS, CENTER ONE FULL LENGTH OF WATER PIPE ON SEWER THAT BOTH JOINTS WILL BE AS FAR FROM SEWER AS POSSIBLE.
4. CONTRACTOR TO COORDINATE WITH LOCAL GAS, TELEPHONE AND ELECTRIC UTILITIES FOR EXACT LOCATION, SIZE AND DEPTH OF NEW SERVICE.
5. SANITARY SEWER SHALL BE SDR-35, ASTM D3034, PVC. STORM SEWER SHALL BE HDPE, WATER MAIN SHALL BE CLASS 51 DUCTILE IRON, AWWA C151/ANSI A21.51. BOX CULVERT SHALL BE REINFORCED CONCRETE.
6. SEE MECHANICAL DRAWINGS FOR DETAILS RELATING TO HYDRONIC PIPING.

LEGEND

- STM – PROPOSED STORM SEWER (4/C902)
- SAN – PROPOSED SANITARY SEWER (3/C902)
- W – PROPOSED WATER MAIN (6/C902)
- ■ – PROPOSED CATCH BASIN (2/C902)
- ● – PROPOSED CLEANOUT (1/C902)

EXISTING PAVEMENT LIMIT
PROPOSED ENVIRONMENTAL CORRIDOR LIMIT
EXISTING WETLANDS
LIGHT POLE (TYP.)
PROP STORM CLEANOUT RIM: 873.55 4"S IE OUT: 872.00
EXISTING BUILDING
ABANDONED ABOVE GROUND GAS PIPE
0 15' 30' 60'
SCALE: 1" = 30'

LEGEND
- CONTROL POINT
- EXISTING GAS PROBE / MONITORING POINT
- EXISTING BOLLARD
- EXISTING SIGN
- EXISTING GAS VALVE
- EXISTING WATER VALVE
- EXISTING HYDRANT
- EXISTING DOWNSPOUT
- EXISTING MANHOLE
- EXISTING DECIDUOUS TREE
- EXISTING CONIFEROUS TREE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING TREE / BUSH DRIPLINE
- EXISTING FENCE
- EXISTING BURIED COMMUNICATIONS
- EXISTING BURIED ELECTRIC
- EXISTING BURIED GAS
- EXISTING STORM CULVERT
- EXISTING WETLAND

23 L.F. – 8" DIP @ S=0.0320'/'
26.9 L.F. – (2)–6" DIRECT BURIED HEATING PIPING @ S=0.0283'/'
(2)–PROP. 90° BEND STA. 10+18.89, 0.00' I.E. 868.26
(2)–PROP. HYDRONIC BUILDING SERVICE STA. 10+00.00, 0.00' 4" I.E. 869.02 (FOR CONTINUATION SEE MECHANICAL PLANS)
CONCRETE ANCHOR SEE MECHANICAL DRAWINGS (TYP.)
45.63'
41.76'
8" – 90° BEND STA. 10+00.00, 0.00' I.E. 869.02
PROPOSED WASTE TRANSFER STATION 21,776 SF EL. = 891.42 – 890.83 (TIPPING) EL. = 879.83 (DRIVE–THRU) EL. = 872.00 (COMPACTORS)
156 L.F. – 4" UNDERDRAIN W/FILTER SOCK
OUTLET – 872.00
PROP. SANITARY BUILDING CONNECTION STA. 10+00.00, 0.00' RIM EL. 871.95 6" S. I.E. 864.57
25 L.F. – 6" PVC @ S=0.0055'/'
VERT. GRADE BREAK (2) STA. 11+45.53, 111.21'L I.E. 862.20
STRC–114 STA:10+88.20 OFF: 0.00 INV IN: 866.20 8" INV IN: 866.28 6" INV OUT: 866.20 8"
8" – 90° BEND STA. 10+22.89, 0.00' I.E. 868.29
PROP. STORM MH #1 STA:10+00.00 OFF: 0.00 8"E IE IN: 864.92 10"W IE OUT: 864.75
65 L.F. – 8" DIP @ S=0.0320'/'
PROPOSED HOUSEHOLD HAZARDOUS WASTE 4,500 SF F.F. = 876.00
TRANSFORMER
PROP. HYDRANT (1) 7.5' BURY DEPTH STA. 11+37.71, 226.42'L I.E. 866.00
94 L.F. – 6" DIP @ S=0.0000'/'
PROP. HYDRANT (2) 6.0' BURY DEPTH STA. 10+88.20, 84.39'R I.E. 866.28
57 L.F. – 8" DIP @ S=0.0320'/'
8 L.F. – 6" DIP @ S=0.0000'/'
115 L.F. – 6" DIP @ S=0.0330'/'
6" – 90° BEND STA. 11+45.53, 226.42'L 6" I.E. 866.00 6" I.E. 866.00
100 L.F. – 10" HDPE @ S=0.0065'/'
PROP. CLEANOUT (1) STA. 10+24.56, 0.00' RIM EL. 871.71 6" N. I.E. 864.44 6" S. I.E. 864.44 102 L.F. – 6" PVC @ S=0.0051'/'
111 L.F. – 6" DIP @ S=–0.0202'/'
4"E IE IN: 870.00
87 L.F. – 4" DRAIN TILE (8/C903) @ S=0.0058'/'
PROP STORM CLEANOUT RIM: 871.50 4"S IE IN: 870.50 4"W IE OUT: 870.50
4"N IE IN: 871.00
PROP. OUTFALL (1) STA:11+00.40 OFF: 0.00 10"E IE: 864.10
216.5 L.F. – (2)–6" DIRECT BURIED HEATING PIPING @ S=0.0333'/'
63 L.F. – 8" DIP @ S=0.0320'/'
PROP. 2' X 5' BOX CULVERT (INLET) STA:10+00.00 OFF: 0.00R 2'X5'W IE OUT: 868.61
PROP 8" x 6" TEE STA:11+45.53 OFF: 0.00 INV IN: 864.45 6" INV IN: 864.37 8" INV OUT: 864.37 8"
8" – 22.5° BEND STA. 12+08.48, 0.00' I.E. 862.35 I.E. 862.35
14 L.F. – 8" DIP @ S=0.0320'/'
PROP. CB STA:12+09.09 OFF: 0.00R RIM: 870.76 2'X5' E IE IN: 866.40 2'X5' W IE OUT: 866.40
209 L.F. – 2'X5' BOX CULVERT @ S=0.0106'/'
EXISTING STORMWATER MANAGEMENT POND
227 L.F. – 2'X5' BOX CULVERT @ S=0.0106'/'
BIOFILTRATION BASIN (8/C903)
VERT. GRADE BREAK STA. 12+22.10, 0.00' I.E. 861.91 I.E. 861.91
PROP. CLEANOUT (2) STA. 11+26.12, 0.00' RIM EL. 871.83 6" N. I.E. 863.92 6" S. I.E. 863.92
PROP. 2' X 5' BOX CULVERT (OUTFALL) STA:14+36.08 OFF: 0.00L 2'x5' E IE IN: 864.00
100 L.F. – 6" PVC @ S=0.0052'/'
(2)–PROP. 22.5° BEND STA. 12+31.86, 0.00' I.E. 861.06
103 L.F. – 8" DIP @ S=–0.0319'/'
14.2 L.F. – (2)–6" DIRECT BURIED HEATING PIPING @ S=0.0000'/'
8" – 45° BEND STA. 13+25.20, 0.00'
PROP. CLEANOUT (3) STA. 12+26.24, 0.00' RIM EL. 872.75 6" N. I.E. 863.40 6" S. I.E. 863.40
SEE MECHANICAL DRAWINGS FOR CONTINUATION I.E. 861.06
95 L.F. – 8" DIP @ S=0.0000'/'
102 L.F. – 6" PVC @ S=0.0051'/'
356 L.F. – 4 DRAIN TILE (8/C903) @ S=0.0000'/'
PROP STORM CLEANOUT RIM: 871.50 4"N IE OUT: 870.50
PROP. 45° BEND CONNECT TO EXIST. 6" W.M. CONTRACTOR SHALL VERIFY ELEV. OF EXIST. W.M. TEMP. PLUG WITH 2" A.V. DO NOT REMOVE PLUG & A.V. UNITL PRESSURE TEST IS COMPLETE AND A SAFE WATER SAMPLE IS OBTAINED. CONNECT TO EXIST. 6" W.M. WITH 8"X6" TAPPING SLEEVE AND VALVE STA:14+20.63 OFF: 0.00 EX. 6" I.E. 868.2+/– 8" I.E. 865.20 (5/C902)
68 L.F. – 6" PVC @ S=0.0052'/'
PROP. CLEANOUT (6) STA. 14+64.00, 0.00' RIM EL. 874.17 6" W. I.E. 862.17 6" S. I.E. 862.17
PROP. CLEANOUT (4) STA. 13+28.18, 0.00' RIM EL. 875.47 6" N. I.E. 862.88 6" E. I.E. 862.88
58 L.F. – 6" PVC @ S=0.0051'/'
PROP. CLEANOUT (5) STA. 13+96.22, 0.00' RIM EL. 875.37 6" W. I.E. 862.52 6" E. I.E. 862.52
68 L.F. – 6" PVC @ S=0.0052'/'
EX. SANITARY MANHOLE CONNECT W/KOR–N–SEAL CONNECTION OR EQUIVALENT STA. 15+22.45, 0.00' RIM EL. 866.37 6" N. I.E. 861.87
APPROXIMATE EXISTING SANITARY LATERAL LOCATION
APPROXIMATE EXISTING FORCE MAIN LOCATION
APPROXIMATE PROPERTY LINE

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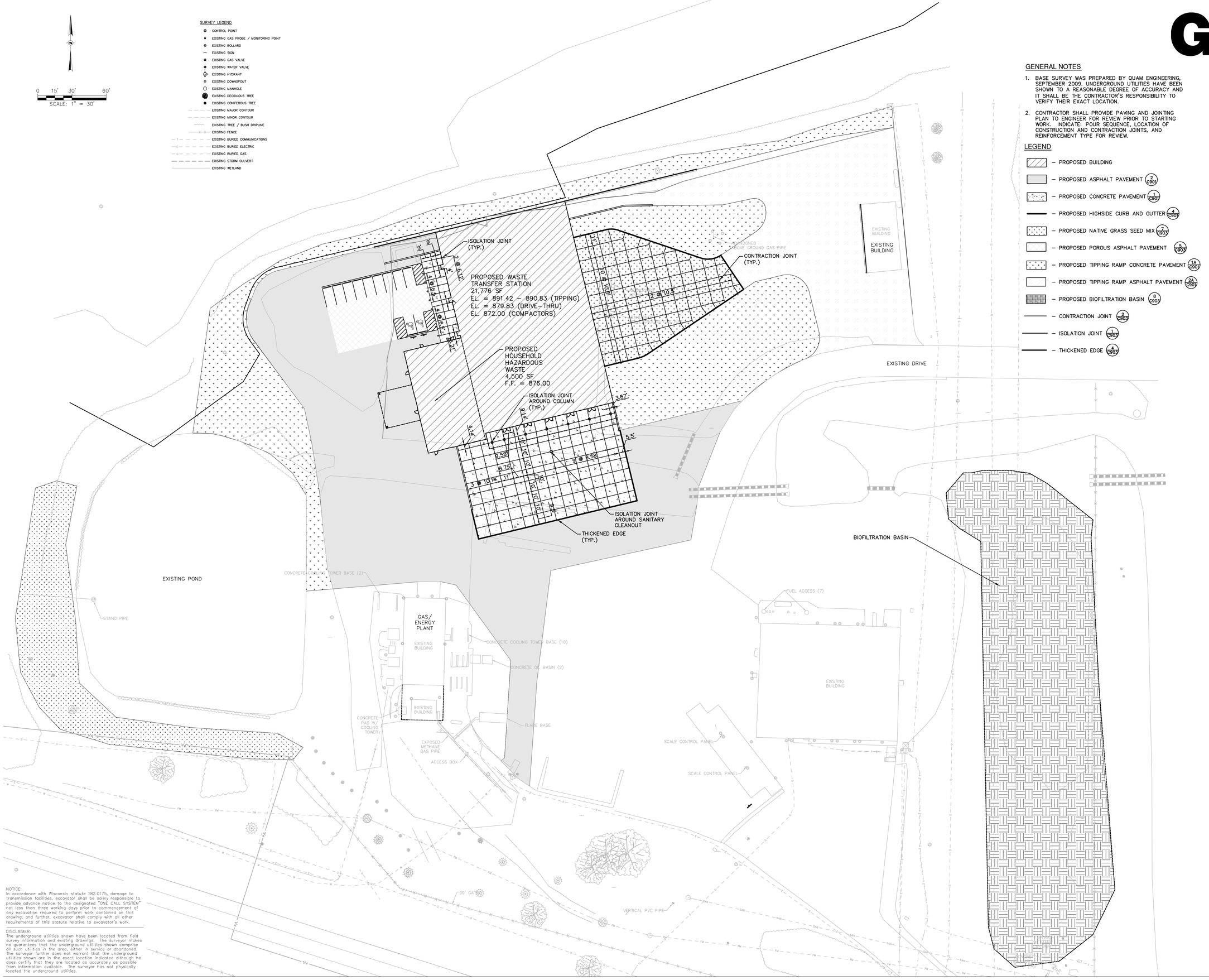
DRAWN BY:	CTS
CHECKED BY:	DMM
APPROVED BY:	JPH
SCALE:	1" = 30'
FILE PATH:	C_00_PUTIL0328

SHEET TITLE:
UTILITY PLAN

SHEET NUMBER:
C500



GENERAL NOTES

1. BASE SURVEY WAS PREPARED BY QUAM ENGINEERING, SEPTEMBER 2009. UNDERGROUND UTILITIES HAVE BEEN SHOWN TO A REASONABLE DEGREE OF ACCURACY AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THEIR EXACT LOCATION.
2. CONTRACTOR SHALL PROVIDE PAVING AND JOINTING PLAN TO ENGINEER FOR REVIEW PRIOR TO STARTING WORK. INDICATE: POUR SEQUENCE, LOCATION OF CONSTRUCTION AND CONTRACTION JOINTS, AND REINFORCEMENT TYPE FOR REVIEW.

LEGEND

- PROPOSED BUILDING
- PROPOSED ASPHALT PAVEMENT (2/C901)
- PROPOSED CONCRETE PAVEMENT (1/C901)
- PROPOSED HIGHSIDE CURB AND GUTTER (4/C901)
- PROPOSED NATIVE GRASS SEED MIX (7/C901)
- PROPOSED POROUS ASPHALT PAVEMENT (4/C901)
- PROPOSED TIPPING RAMP CONCRETE PAVEMENT (1A/C901)
- PROPOSED TIPPING RAMP ASPHALT PAVEMENT (2A/C901)
- PROPOSED BIOFILTRATION BASIN (8/C903)
- CONTRACTION JOINT (2/C903)
- ISOLATION JOINT (1/C903)
- THICKENED EDGE (4/C903)

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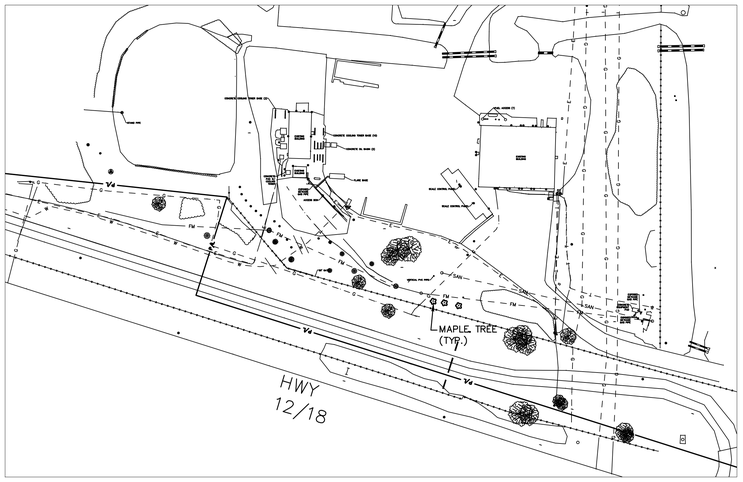
FILE PATH:	C_00_JOINTING0328

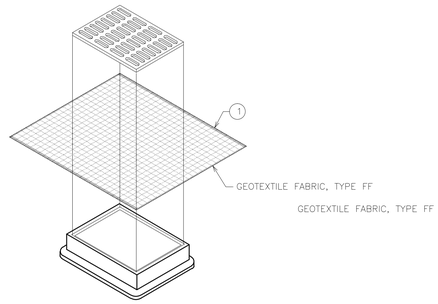
SHEET TITLE:
JOINTING PLAN

SHEET NUMBER:
C700



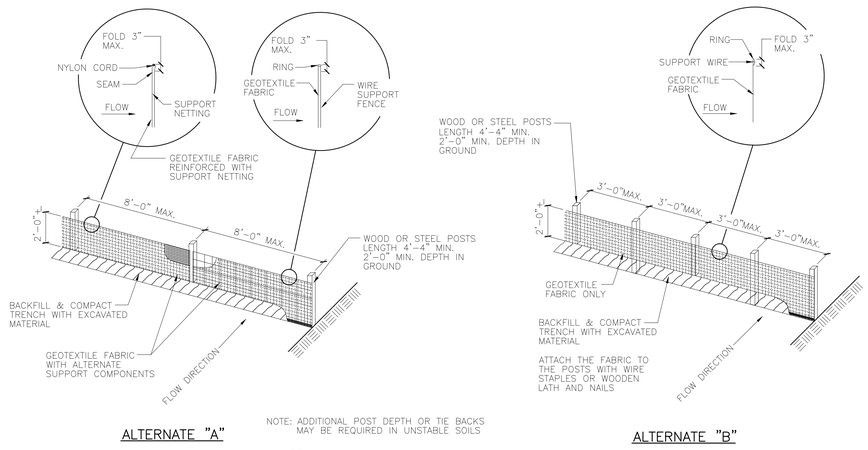
PROPOSED MAPLE TREES

1"=100'



1 INLET PROTECTION, TYPE B (WITHOUT CURB BOX)

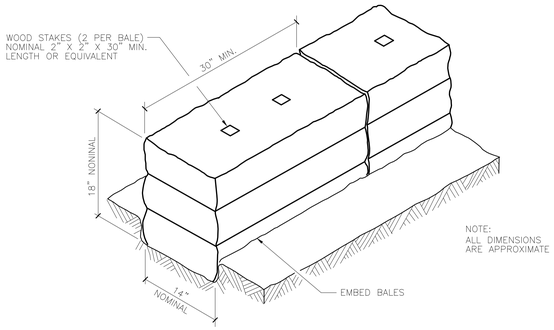
(CAN BE INSTALLED ON ANY INLET TYPE)



ALTERNATE "A" ALTERNATE "B"

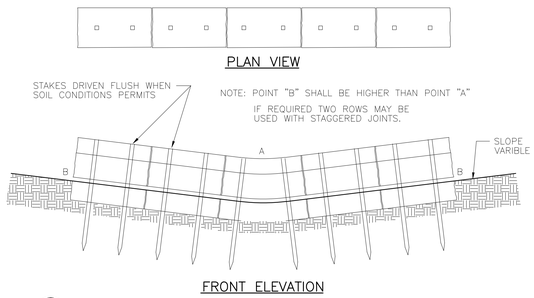
2 SILT FENCE

N.T.S.



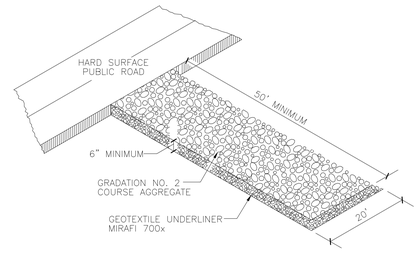
3A DETAIL OF EROSION BALE INSTALLATION

N.T.S.



3B EROSION BALES ACROSS DITCH BOTTOM

N.T.S.



4 CRUSHED STONE CONSTRUCTION ENTRANCE

N.T.S.

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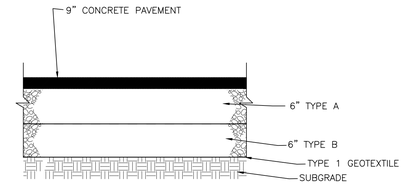
SCALE:	N.T.S.
FILE PATH:	C_00_DETAILS0328

SHEET TITLE:

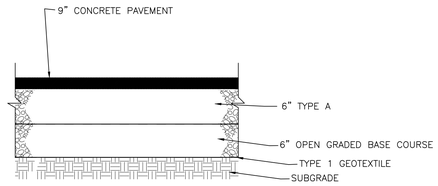
EROSION CONTROL DETAILS

SHEET NUMBER:

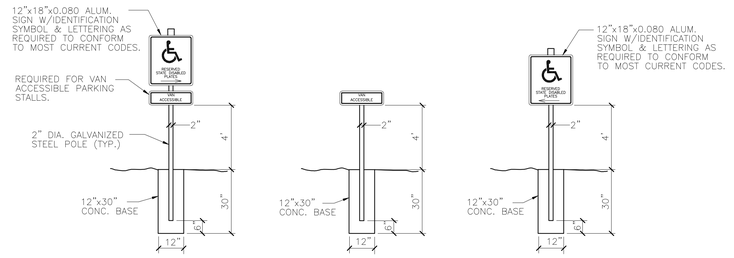
C900



1 CONCRETE PAVEMENT
N.T.S.

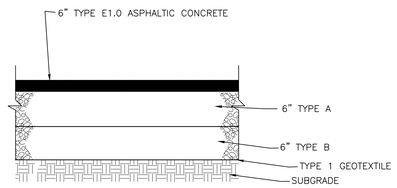


1A TIPPING RAMP CONCRETE PAVEMENT
N.T.S.

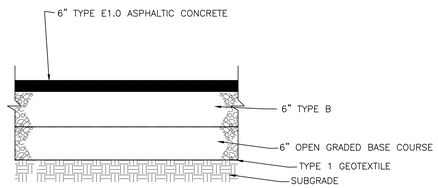


RIGHT ARROW VAN ACCESS LEFT ARROW

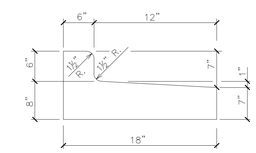
3 WHEELCHAIR ACCESSIBLE SIGNS
N.T.S.



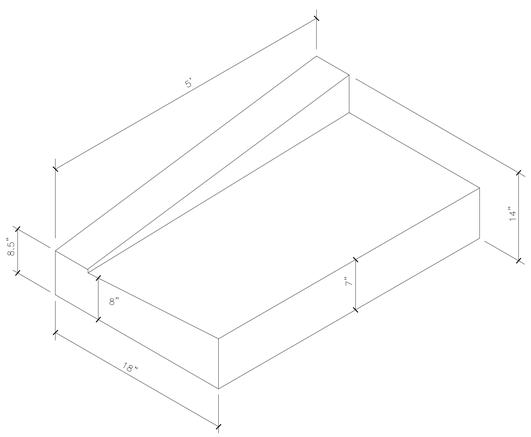
2 ASPHALT PAVEMENT
N.T.S.



2A TIPPING RAMP ASPHALT PAVEMENT
N.T.S.



4 VERTICAL FACE HIGHSIDE CONCRETE CURB & GUTTER
N.T.S.



5 5' CURB TAPER SECTION
N.T.S.

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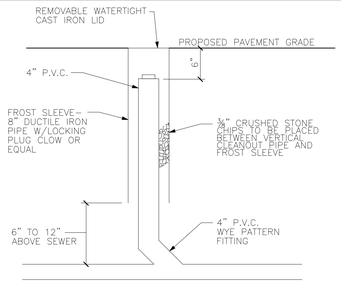
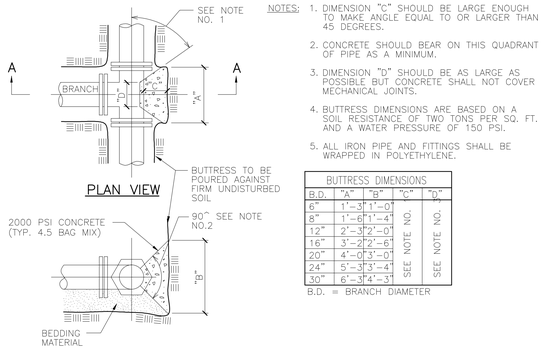
SHEET TITLE:
PAVING DETAILS

SHEET NUMBER:
C901



1 CLEANOUT EXTENSION TO GRADE

N.T.S.



NOTES:

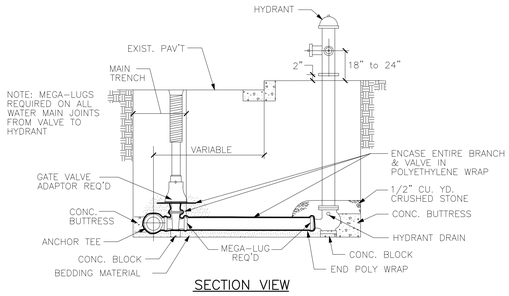
1. DIMENSION "C" SHOULD BE LARGE ENOUGH TO MAKE ANGLE EQUAL TO OR LARGER THAN 45 DEGREES.
2. CONCRETE SHOULD BEAR ON THIS QUADRANT OF PIPE AS A MINIMUM.
3. DIMENSION "D" SHOULD BE AS LARGE AS POSSIBLE BUT CONCRETE SHALL NOT COVER MECHANICAL JOINTS.
4. BUTTRESS DIMENSIONS ARE BASED ON A SOIL RESISTANCE OF TWO TONS PER SQ. FT. AND A WATER PRESSURE OF 150 PSI.
5. ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED IN POLYETHYLENE.

BUTTRESS DIMENSIONS					
B.D.	"A"	"B"	"C"	"D"	
6"	1'–3"	1'–0"	SEE NOTE NO.	SEE NOTE NO.	
8"	1'–6"	1'–4"			
12"	2'–3"	2'–0"			
16"	3'–0"	2'–6"			
20"	4'–0"	3'–0"			
24"	5'–3"	3'–4"			
30"	6'–3"	4'–3"			

B.D. = BRANCH DIAMETER

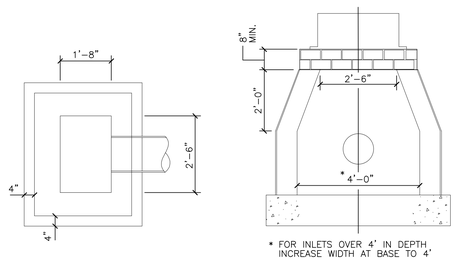
5 BUTTRESS FOR TEES

N.T.S.

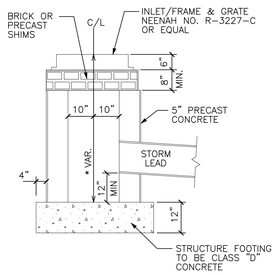


8 STANDARD HYDRANT SETTING

N.T.S.

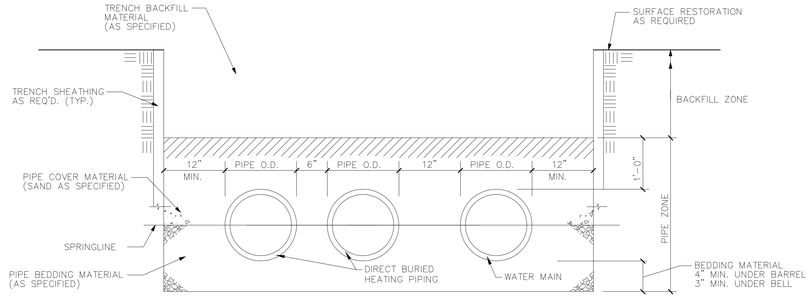


* FOR INLETS OVER 4' IN DEPTH, INCREASE WIDTH AT BASE TO 4'



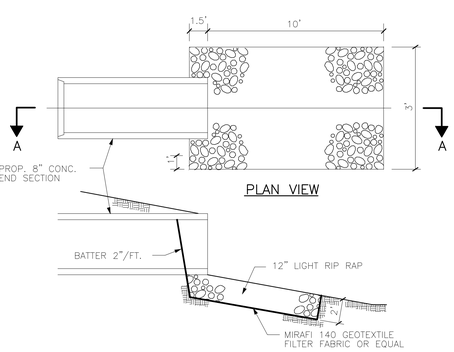
2 STANDARD CATCH BASIN

N.T.S.



6 WATER MAIN & HEATING PIPING TRENCH DETAIL

N.T.S.



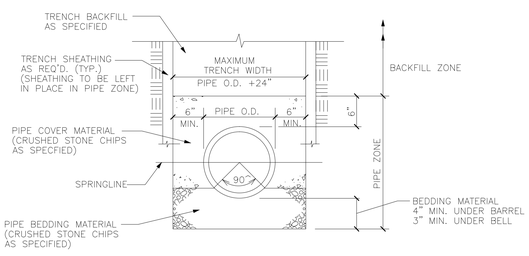
10 PROPOSED RIP RAP @ 8" STORM SEWER OUTFALL

N.T.S.

NOTE: 3" OF ADDITIONAL BEDDING REQUIRED IN WET TRENCH AT NO ADDITIONAL COST.

3 CLASS "B" BEDDING DETAIL FOR SANITARY SEWER

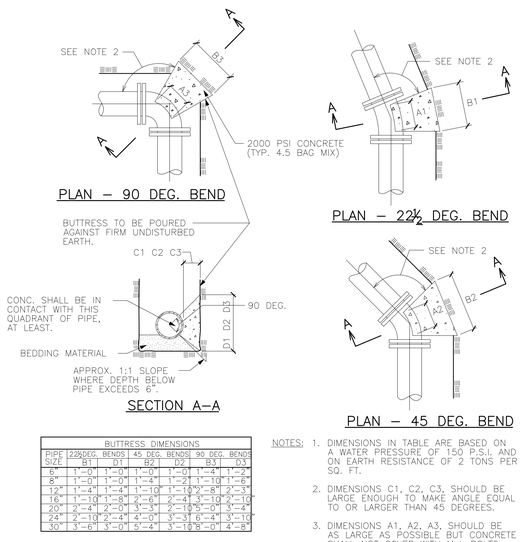
N.T.S.



NOTE: 3" OF ADDITIONAL CRUSHED STONE REQUIRED IN WET TRENCH AT NO ADDITIONAL COST.

4 CLASS "C" BEDDING DETAIL FOR STORM SEWER

N.T.S.



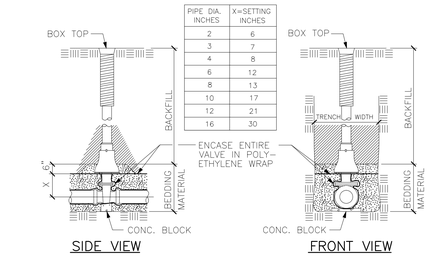
BUTTRESS DIMENSIONS								
PIPE SIZE	22½DEG. BENDS		45 DEG. BENDS		90 DEG. BENDS			
	B1	D1	B2	D2	B3	D3		
6"	1'–0"	1'–0"	1'–0"	1'–0"	1'–0"	1'–4"	1'–2"	
8"	1'–0"	1'–0"	1'–4"	1'–2"	1'–10"	1'–6"		
12"	1'–4"	1'–4"	1'–10"	1'–10"	2'–8"	2'–3"		
16"	1'–10"	1'–8"	2'–6"	2'–4"	3'–10"	2'–10"		
20"	2'–4"	2'–0"	3'–3"	2'–10"	5'–0"	3'–4"		
24"	2'–10"	2'–4"	4'–0"	3'–3"	6'–4"	3'–10"		
30"	3'–6"	3'–0"	5'–4"	3'–10"	8'–0"	4'–8"		

NOTES:

1. DIMENSIONS IN TABLE ARE BASED ON A WATER PRESSURE OF 150 P.S.I. AND ON EARTH RESISTANCE OF 2 TONS PER SQ. FT.
2. DIMENSIONS C1, C2, C3, SHOULD BE LARGE ENOUGH TO MAKE ANGLE EQUAL TO OR LARGER THAN 45 DEGREES.
3. DIMENSIONS A1, A2, A3, SHOULD BE AS LARGE AS POSSIBLE BUT CONCRETE SHALL NOT COVER WITH M.J. BOLTS.
4. SHAPE OF BACK OF BUTTRESS MAY VARY AS LONG AS POUR IS AGAINST FIRM UNDISTURBED EARTH.
5. ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED IN POLYETHYLENE.

7 CONCRETE BUTTRESS FOR BENDS

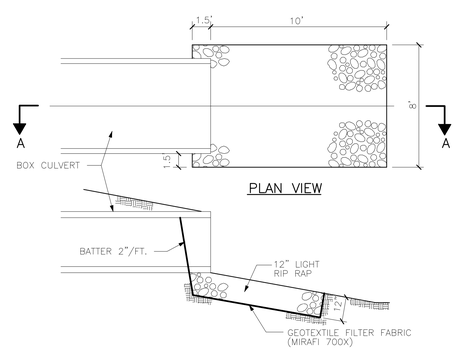
N.T.S.



PIPE DIA. INCHES	X=SETTING INCHES
2	6
3	7
4	8
6	12
8	13
10	17
12	21
16	30

9 STANDARD GATE VALVE BOX SETTING DETAIL

N.T.S.



11 PROPOSED RIP RAP @ BOX CULVERT

N.T.S.

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PROJECT TITLE:

DANE COUNTY
WASTE TRANSFER STATION
AND HOUSEHOLD HAZARDOUS
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RODEFELD LANDFILL

ISSUE:

NO.	DATE	REVISIONS	BY

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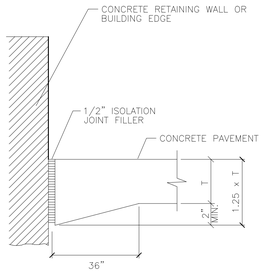
SCALE:	N.T.S.
FILE PATH:	C_00_DETAILS0328

SHEET TITLE:

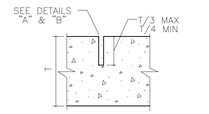
UTILITY DETAILS

SHEET NUMBER:

C902



1 ISOLATION JOINT
N.T.S.



2 CONTRACTION JOINT
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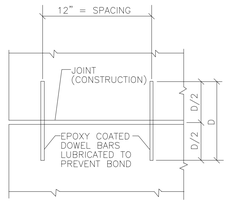
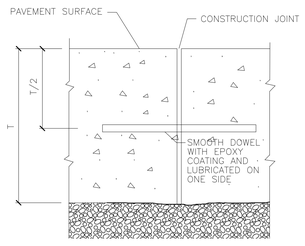
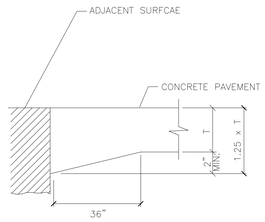


PAVEMENT THICKNESS	DOWEL DIAMETER	DOWEL LENGTH "D"
6"	3/4"	14"
8"	1"	14"
10"	1-1/4"	16"
12"	1-1/2"	18"

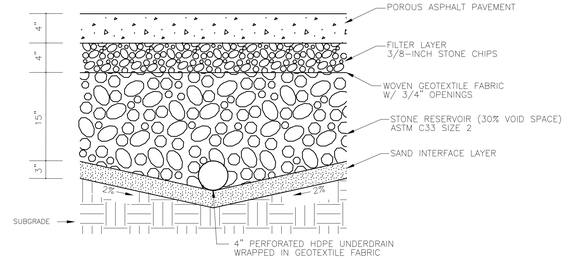
GENERAL NOTE:
DOWELS TO BE PLACED STARTING 1' FROM EDGE OF SLAB.



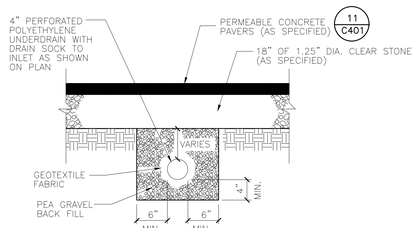
3 CONSTRUCTION JOINT
N.T.S.



4 THICKENED EDGE
N.T.S.

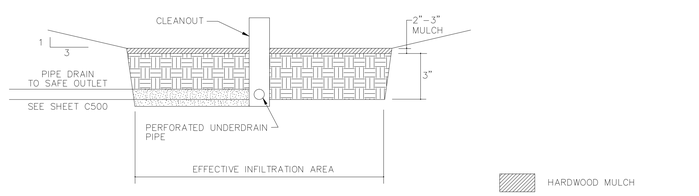


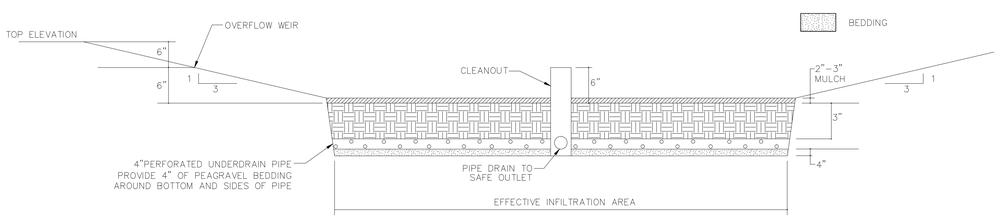
5 POROUS ASPHALT PAVEMENT SECTION
N.T.S.



6 UNDERDRAIN DETAIL
N.T.S.

BIO-INFILTRATION SEED MIX (Without Wildflowers)	
Botanical Name	**Common Name**
Permanent Grasses/Sedges:	
Andropogon gerardii	Big Bluestem
Carex comosa	Bristly Sedge
Carex cristatella	Crested Oval Sedge
Carex lurida	Bottlebrush Sedge
Carex spp.	Prairie Sedge Mix
Carex vulpinoidea	Brown Fox Sedge
Elymus virginicus	Virginia Wild Rye
Glyceria striata	Fowl Manna Grass
Panicum virgatum	Switch Grass
Scirpus atrovirens	Dark Green Rush
Scirpus cyperinus	Wool Grass
Spartina pectinata	Prairie Cord Grass
Temporary Cover:	
Avena sativa	Common Oat
Lolium multiflorum	Annual Rye





BIOFILTRATION NOTES

THE NOTES BELOW ARE FROM THE WDNR CONSERVATION PRACTICE STANDARD (CDS) 1004 FOR BIORETENTION FOR INFILTRATION. THE DOCUMENT IS LOCATED AT THE FOLLOWING LINK:
http://dnr.wi.gov/runoff/pdf/stormwater/techstds/post/Bioretention_1004a.zip

ROOTSTOCK AND PLUGS SHALL BE USED IN ESTABLISHING TREES, SHRUBS AND HERBACEOUS PERENNIALS. SEED SHALL NOT BE USED TO ESTABLISH VEGETATION.

SHREDDED HARDWOOD MULCH OR CHIPS, AGED A MINIMUM OF 12 MONTHS, SHALL BE PLACED ON THE SURFACE OF THE BIORETENTION AREA. THE MULCH SHALL BE FREE OF FOREIGN MATERIAL, INCLUDING OTHER PLANT MATERIAL.

ENGINEERED SOIL PERCENTAGE COMPOSITION
COMPONENT (BY VOLUME)
SAND 50%
COMPOST 50%

THE COMPOST COMPONENT SHALL MEET THE REQUIREMENTS OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES SPECIFICATION S100, COMPOST.

THE ENGINEERED SOIL MIX SHALL BE FREE OF ROCKS, STUMPS, ROOTS, BRUSH OR OTHER MATERIAL OVER 1 INCH IN DIAMETER. NO OTHER MATERIALS SHALL BE MIXED WITH THE PLANTING SOIL THAT MAY BE HARMFUL TO PLANT GROWTH OR PROVE A HINDRANCE TO PLANTING OR MAINTENANCE.

THE ENGINEERED SOIL MIX SHALL HAVE A PH BETWEEN 5.5 AND 6.5.

THE ENGINEERED SOIL MIX SHALL HAVE ADEQUATE NUTRIENT CONTENT TO MEET PLANT GROWTH REQUIREMENTS.

FILTER FABRIC SHALL COVER THE UNDERDRAIN PIPE AND SHALL NOT EXTEND LATERALLY FROM EITHER SIDE OF THE PIPE MORE THAN TWO FEET. THE FABRIC SHALL MEET THE SPECIFICATIONS OF WISCONSIN STANDARDS AND SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, SECTION 645.2.4, SCHEDULE TEST B, 2003 EDITION, OR AN EQUIVALENT APPROVED BY THE ADMINISTERING AUTHORITY.

A CLEAN OUT SHALL BE RIGID, NON-PERFORATED PVC PIPE, COVERED WITH A WATERTIGHT CAP.

CONSTRUCTION SITE RUNOFF FROM DISTURBED AREAS SHALL NOT BE ALLOWED TO ENTER THE BIORETENTION DEVICE. RUNOFF FROM PERVIOUS AREAS SHALL BE DIVERTED FROM THE DEVICE UNTIL THE PERVIOUS AREAS HAVE UNDERGONE FINAL STABILIZATION.

CONSTRUCTION SHALL BE SUSPENDED DURING PERIODS OF RAINFALL OR SNOWMELT. CONSTRUCTION SHALL REMAIN SUSPENDED IF PONDED WATER IS PRESENT OR IF RESIDUAL SOIL MOISTURE CONTRIBUTES SIGNIFICANTLY TO THE POTENTIAL FOR SOIL SMEARING, CLUMPING OR OTHER FORMS OF COMPACTION.

COMPACTION AND SMEARING OF THE SOILS BENEATH THE FLOOR AND SIDE SLOPES OF THE BIORETENTION AREA, AND COMPACTION OF THE SOILS USED FOR BACKFILL IN THE SOIL PLANTING BED, SHALL BE MINIMIZED. DURING SITE DEVELOPMENT, THE AREA DEDICATED TO THE BIORETENTION DEVICE SHALL BE CORDONED OFF TO PREVENT ACCESS BY HEAVY EQUIPMENT. ACCEPTABLE EQUIPMENT FOR CONSTRUCTING THE BIORETENTION DEVICE INCLUDES EXCAVATION HOES, LIGHT EQUIPMENT WITH TURF TYPE TIRES, MARSH EQUIPMENT OR WIDE-TRACK LOADERS.

IF COMPACTION OCCURS AT THE BASE OF THE BIORETENTION DEVICE, THE SOIL SHALL BE REFRACTURED TO A DEPTH OF AT LEAST 12 INCHES. IF SMEARING OCCURS, THE SMEARED AREAS OF THE INTERFACE SHALL BE CORRECTED BY RAKING OR ROTO-TILLING.

PRIOR TO PLACEMENT IN THE BIORETENTION DEVICE, THE ENGINEERED SOIL SHALL BE PREMIXED AND THE MOISTURE CONTENT SHALL BE LOW ENOUGH TO PREVENT CLUMPING AND COMPACTION DURING PLACEMENT.

THE ENGINEERED SOIL SHALL BE PLACED IN A SINGLE 3 INCH LIFT.

STEPS MAY BE TAKEN TO INDUCE MILD SETTLING OF THE ENGINEERED SOIL BED AS NEEDED TO PREPARE A STABLE PLANTING MEDIUM AND TO STABILIZE THE PONDING DEPTH. VIBRATING PLATE-STYLE COMPACTORS SHALL NOT BE USED TO INDUCE SETTLING.

THE ENTIRE SOIL PLANTING BED SHALL BE MULCHED PRIOR TO PLANTING VEGETATION TO HELP PREVENT COMPACTION OF THE PLANTING SOIL DURING THE PLANTING PROCESS. MULCH SHALL BE PUSHED ASIDE FOR THE PLACEMENT OF EACH PLANT.

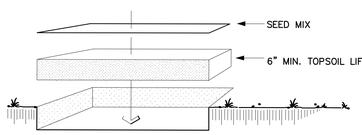
8 BIOFILTRATION BASIN
N.T.S.

PLANTING NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR BECOMING AWARE OF ALL RELATED EXISTING AND PROPOSED CONDITIONS, UTILITIES, PIPES AND STRUCTURES, ETC. PRIOR TO BIDDING AND CONSTRUCTION. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR CONTACTING ALL UTILITYCOMPANIES FOR FIELD LOCATION OF ALL UNDERGROUND UTILITY LINES, INCLUDING DEPTHS, PRIOR TO ANY EXCAVATION. CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR ANY AND ALL COST OR OTHER LIABILITIES INCURRED DUE TO DAMAGE OF SAID UTILITIES/STRUCTURES/ETC.
2. THE CONTRACTOR SHALL NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WHEN IT IS APPARENT THAT UNKNOWN OBSTRUCTIONSAND/OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER FOR CLARIFICATION. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL LIABILITIES,INCLUDING NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION WITH SUBCONTRACTORS AS REQUIRED TO ACCOMPLISH ALL PLANTING AND RELATED OPERATIONS.
4. SEE SPECIFICATIONS AND DETAILS FOR PLANTING METHODS, REQUIREMENTS, SOIL TESTING, MATERIALS, EXECUTION AND PLANT PROTECTION.
5. THE ACCEPTABLE TOLERANCES FOR THIS PROJECT ARE MINIMAL AND SPECIFIC LAYOUT IS REQUIRED AS SHOWN ON THE LAYOUT, PLANTING, AND OTHER PLANS. CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE 48 HOURS PRIOR TO COMMENCEMENT OF WORK TO COORDINATE PROJECT INSPECTION SCHEDULES.
6. IF CONFLICTS ARISE BETWEEN SIZE OF AREAS AND PLANS, CONTRACTOR IS REQUIRED TO CONTACT OWNER'S REPRESENTATIVE FOR RESOLUTION.FAILURE TO MAKE SUCH CONFLICTS KNOWN TO THE OWNER'S REPRESENTATIVE WILL RESULT IN CONTRACTOR'S LIABILITY TO RELOCATE THE MATERIALS.
7. PLANT NAMES MAY BE ABBREVIATED ON THE DRAWINGS. SEE PLANT LEGEND FOR SYMBOLS, ABBREVIATIONS, BOTANICAL/COMMONNAMES, SIZES, ESTIMATED QUANTITIES (IF GIVEN) AND OTHER REMARKS.
8. THE CONTRACTOR SHALL FINE GRADE, RAKE AND BE RESPONSIBLE FOR POSITIVE DRAINAGE AWAY FROM ALL STRUCTURES AND THROUGHOUT SITE, WITH ACCURATELY SET FLOW LINES. NO LOW SPOTS OR PONDING OF SURFACE WATER WILL BE ACCEPTED IN THE FINAL WORK. NO ROCKS OR DEBRIS WILL BE ACCEPTED. FINAL GRADE TOLERANCES ARE +/-0.1 FOOT MAXIMUM.REVIEW/ACCEPTANCE BY LANDSCAPE ARCHITECT, PRIOR TO INSTALLATION.
9. WHERE PROVIDED, AREA TAKEOFFS AND PLANT QUANTITY ESTIMATES ARE FOR INFORMATION ONLY. CONTRACTOR IS RESPONSIBLE TO DO THEIR OWN QUANTITY TAKE-OFFS FOR ALL PLANT MATERIALS AND SIZES SHOWN ON PLANS. IN CASE OF ANY DISCREPANCIES, PLANS (PLANT SYMBOLS) TAKE PRECEDENCE OVER CALL-OUTS AND/OR "PLANT LIST".
10. COORDINATE INSTALLATION OF ALL PLANT MATERIAL WITH INSTALLATION OF ALL ADJACENT IRRIGATION, PAVEMENTS, DRAINAGE CURB ANDRELATED STRUCTURES. ANY DAMAGE TO EXISTING IMPROVEMENTS IS THE RESPONSIBILITY OF THE CONTRACTOR.
11. UNLESS OTHERWISE INDICATED, ALL PLANTING AREAS INCLUDING SEED AND PLANTING BEDS, SHALL RECEIVE SOIL AMENDMENTS PER SPECIFICATIONS, OTHER DRAWINGS, AND/OR APPROVED METHODS.
12. THE CONTRACTOR IS RESPONSIBLE TO "RESTORE" ALL AREAS OF THE SITE, OR ADJACENT AREAS, WHERE DISTURBED. TURF AREAS DISTURBED SHALL BE RESTORED WITH NEW SOD.
13. THE LANDSCAPE CONTRACTOR SHALL TAKE ALL NECESSARY SCHEDULING AND OTHER PRECAUTIONS TO AVOID WINTER, CLIMATIC, OR OTHER DAMAGE TO PLANTS. A "PLANTING WINDOW" OF SPECIFIC CALENDAR DAYS IS REQUIRED TO BE SUBMITTED BY THE CONTRACTOR FOR APPROVAL AND PLANTING OPERATIONS SHOULD OCCUR PER THIS APPROVED SCHEDULE. SEE SPECIFICATIONS FOR MORE INFORMATION.

NATIVE GRASS SEED MIX

Botanical Name	Common Name
Permanent Grasses:	
Andropogon gerardii	Big Bluestem
Bouteloua curtipendula	Side Oats Grama
Carex spp.	Prairie Sedge Mix
Elymus canadensis	Canada Wild Rye
Panicum virgatum	Switch Grass
Schizachyrium scoparium	Little Bluestem
Sorghastrum nutans	Indian Grass
Temporary Cover:	
Avena sativa	Common Oat
Lolium multiflorum	Annual Rye



1. EXISTING TOPSOIL WILL BE STOCKPILED ON SITE FOR DISTRIBUTION
2. LANDSCAPE ARCHITECT TO APPROVE PREPARED SEEDBED BEFORE SEED IS PLANTED. FAILURE TO OBTAIN LANDSCAPE ARCHITECT'S APPROVAL WILL RESULT IN REJECTION OF THE SEEDING WORK.
3. PRIOR TO SPREADING, THE EARTHWORK CONTRACTOR SHALL CLEAN TOPSOIL OF ROOTS/STONES/FOREIGN MATTER. LANDSCAPE CONTRACTOR TO AMEND TOPSOIL AS DETERMINED BY SOILS TEST ANALYSIS REPORT.
4. LANDSCAPE ARCHITECT SHALL APPROVE FINISHED LAWN GRADE @ UNIFORM NATURAL SLOPES PRIOR TO THE SEWING OF SEED
5. SEED BLEND & PROCEDURES ARE DESCRIBED IN WRITTEN SPECIFICATION
6. LANDSCAPE CONTRACTOR SHALL ESTABLISH VIGOROUS GROWTH AND MOW & MAINTAIN AS DESCRIBED IN WRITTEN SPECIFICATION
7. SEE LANDSCAPE PLAN FOR LOCATION OF VARIOUS SEED MIXES.

7 NATIVE GRASS SEED PLANTING DETAIL

FOR ALL AREAS TO BE SEEDED OUTSIDE OF BIORETENTION AREA

GRAEF

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CONSULTANTS:

PROJECT TITLE:

DANE COUNTY
WASTE TRANSFER STATION
AND HOUSEHOLD HAZARDOUS
WASTE FACILITY
RODEFELD LANDFILL

ISSUE:

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SHEET TITLE:

SITE DETAILS

SHEET NUMBER:

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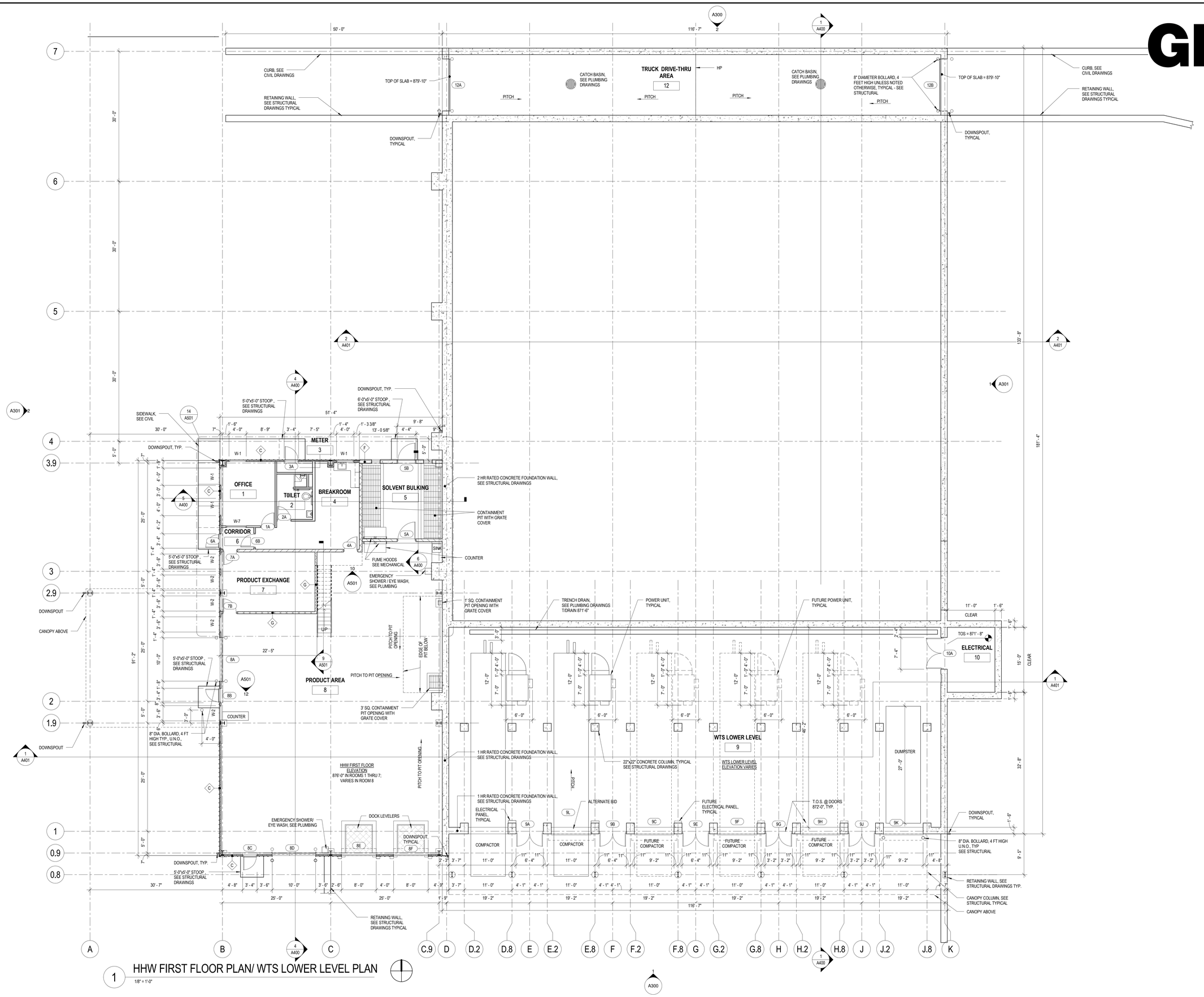

1 HHW FIRST FLOOR PLAN/ WTS LOWER LEVEL PLAN
1/8" = 1'-0"

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WASTE FACILITY
RODEFELD LANDFILL

ISSUE:

PROJECT INFORMATION:

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DATE:	05-11-2010
DRAWN BY:	JMR
CHECKED BY:	SEB
APPROVED BY:	JHK
SCALE:	AS NOTED

SHEET TITLE:

HHW FIRST FLOOR PLAN/ WTS LOWER LEVEL PLAN

SHEET NUMBER:

A101

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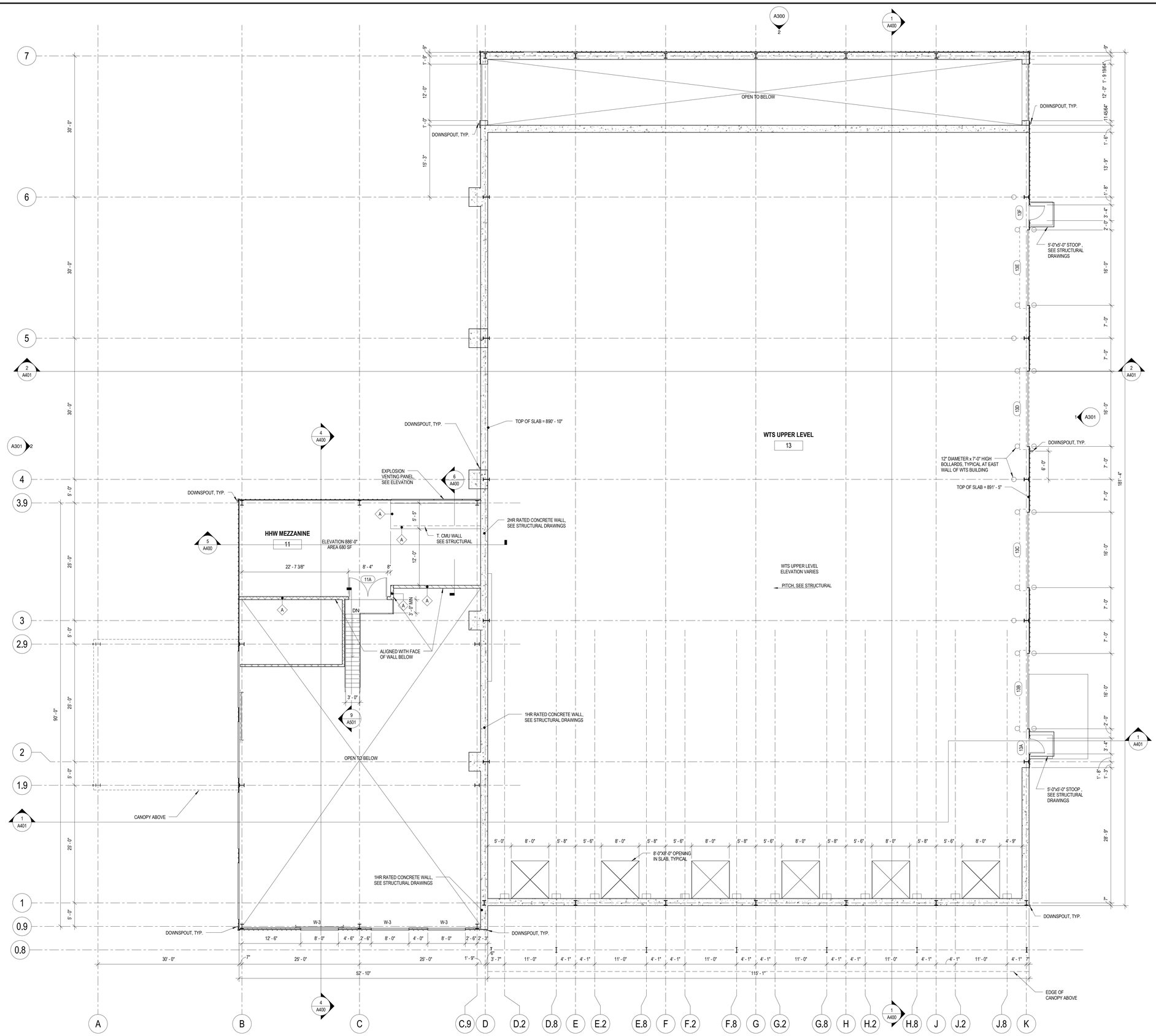

1 HHW MEZZANINE PLAN/ WTS UPPER LEVEL PLAN
1/8" = 1'-0"

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APPROVED BY:	JHK
SCALE:	AS NOTED

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SHEET NUMBER:

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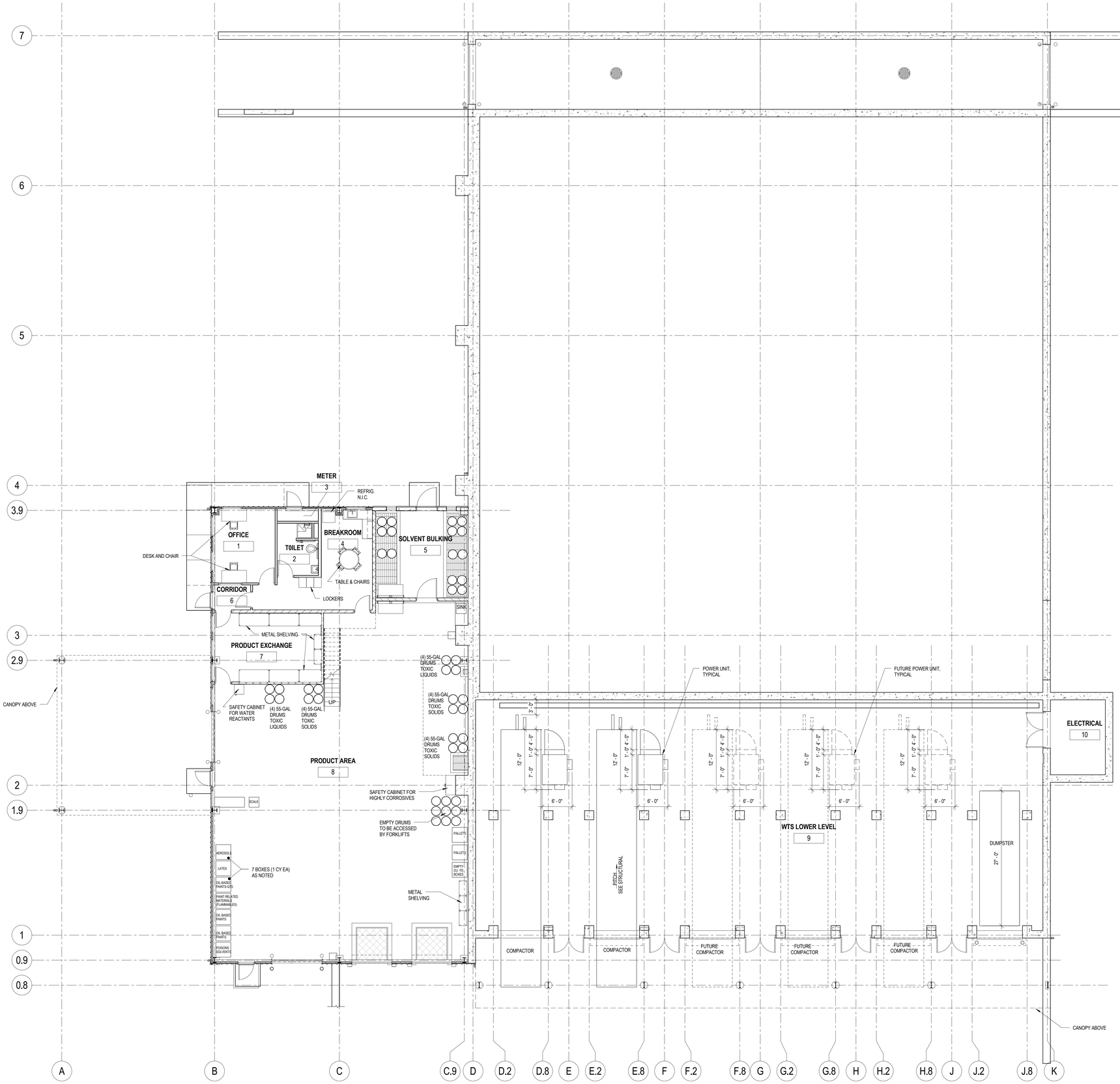

2 HHW FIRST FLOOR PLAN/ WTS LOWER LEVEL EQUIPMENT PLAN

1/8" = 1'-0"

NOTE: **THIS DRAWING IS FOR REFERENCE ONLY. EQUIPMENT AND STORAGE CONTAINERS SHOWN ARE BY OTHERS. REFER TO A101 FOR CONTRACT ITEMS.**

FOR REFERENCE ONLY

GRAEF

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CONSULTANTS:

PROJECT TITLE:

DANE COUNTY
WASTE TRANSFER STATION
AND HOUSEHOLD HAZARDOUS
WASTE FACILITY
RODEFELD LANDFILL

ISSUE:

PROJECT INFORMATION:

PROJECT NUMBER:	2009-0328.00
DATE:	05-11-2010
DRAWN BY:	JMR
CHECKED BY:	SEB
APPROVED BY:	JHK
SCALE:	AS NOTED

SHEET TITLE:

HHW FIRST FLOOR EQUIPMENT PLAN

SHEET NUMBER:

A103

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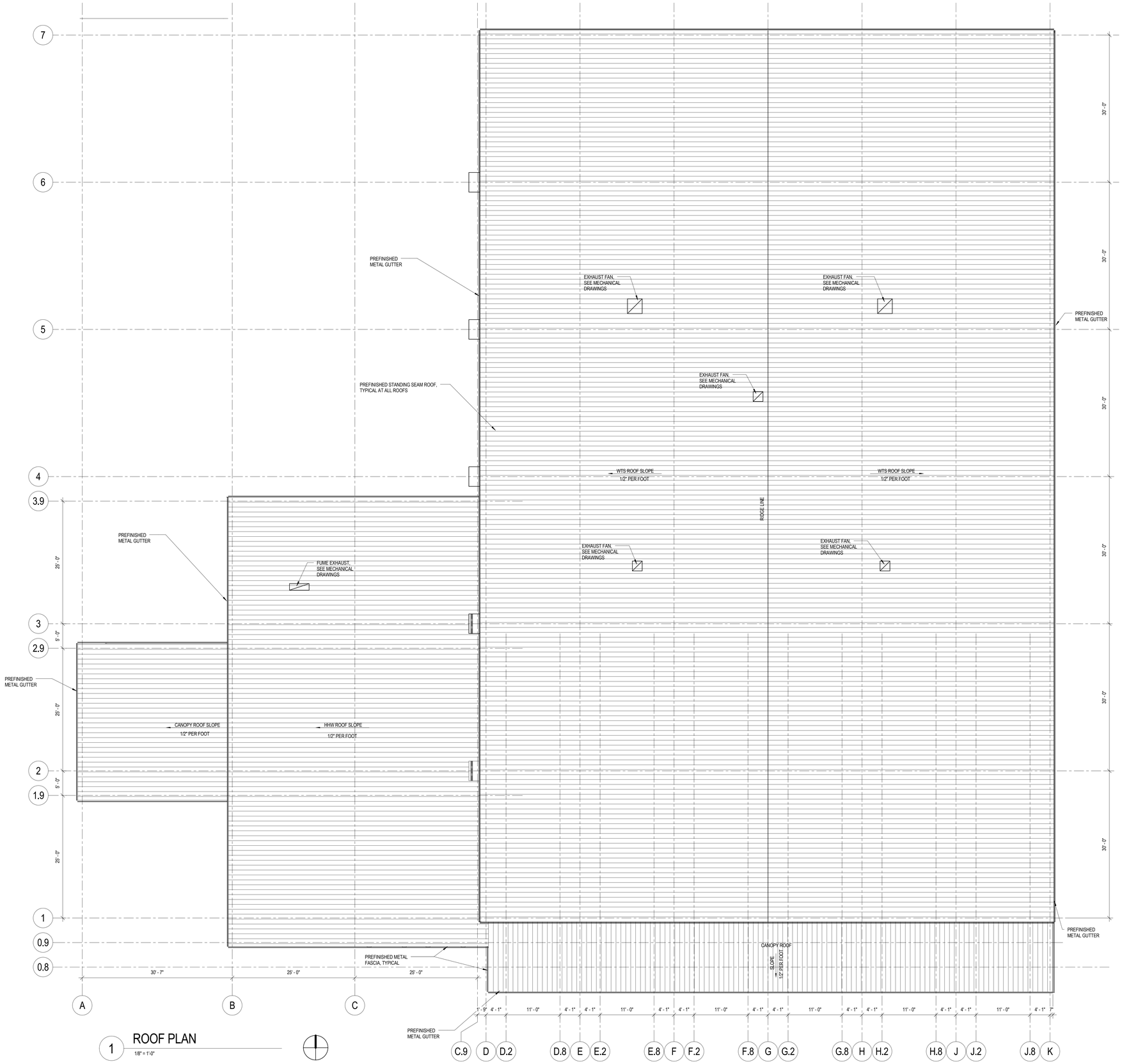

1 ROOF PLAN
1/8" = 1'-0"

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APPROVED BY:	JHK
SCALE:	AS NOTED

SHEET TITLE:
ROOF PLAN

SHEET NUMBER:
A121

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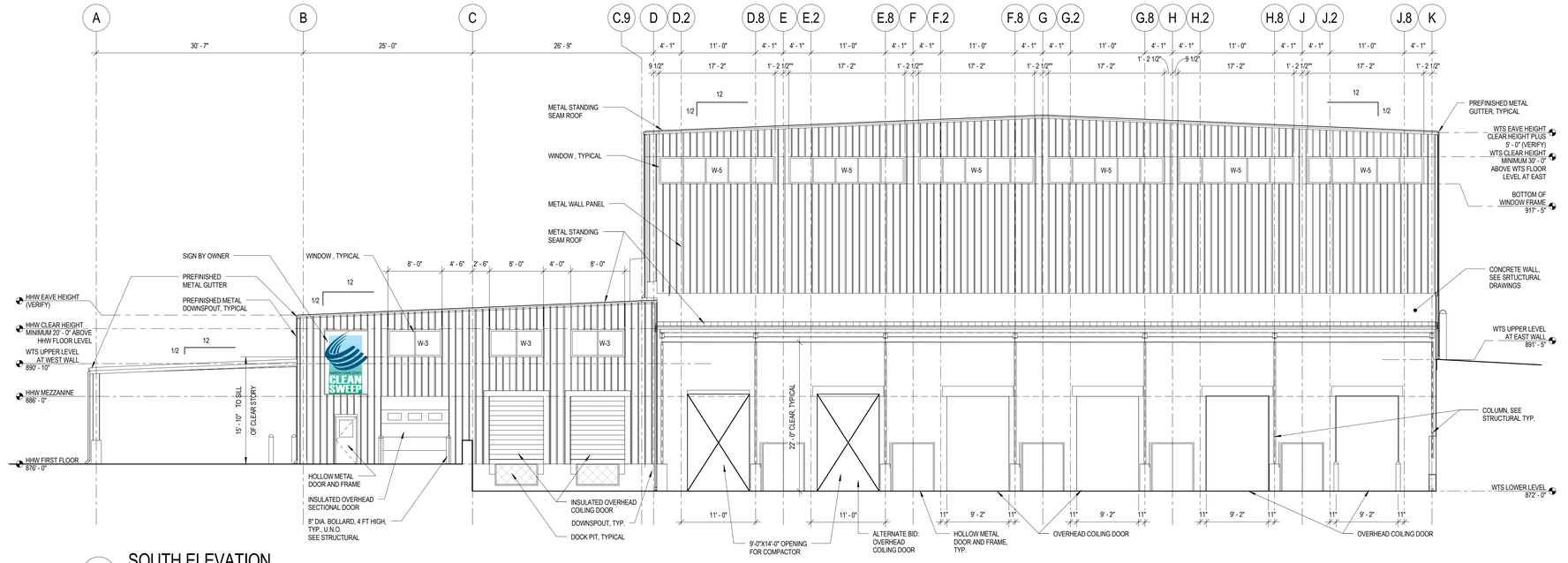
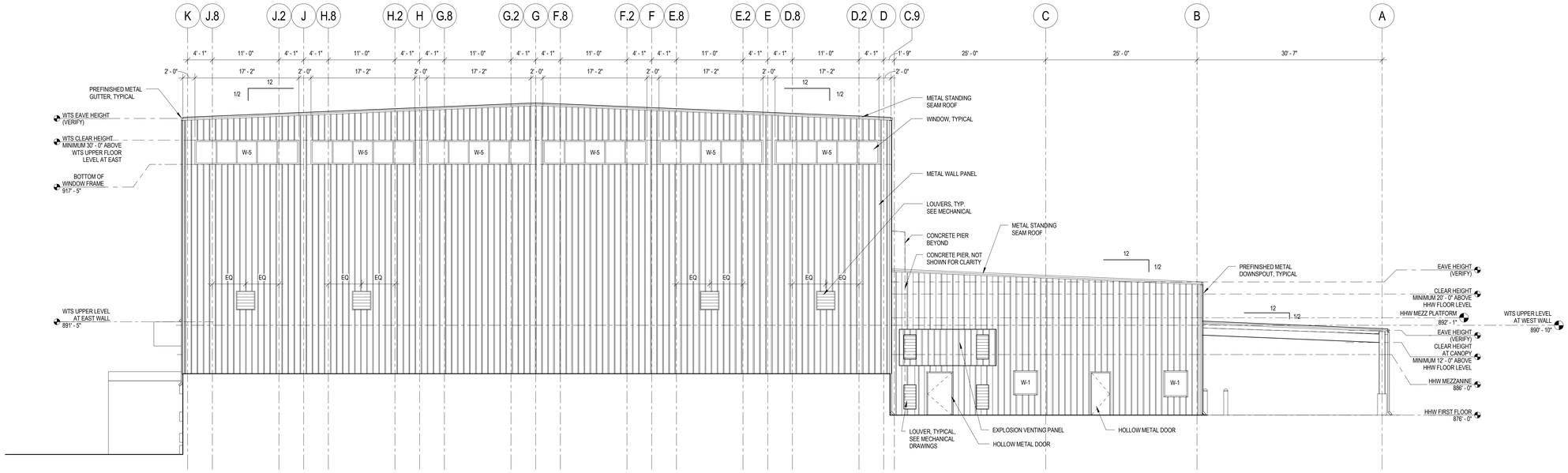


1 SOUTH ELEVATION

1/8" = 1'-0"



2 NORTH ELEVATION

1/8" = 1'-0"

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DATE:	05-11-2010
DRAWN BY:	JMR
CHECKED BY:	SEB
APPROVED BY:	JHK
SCALE:	AS NOTED

SHEET TITLE:

BUILDING ELEVATIONS

SHEET NUMBER:

A300

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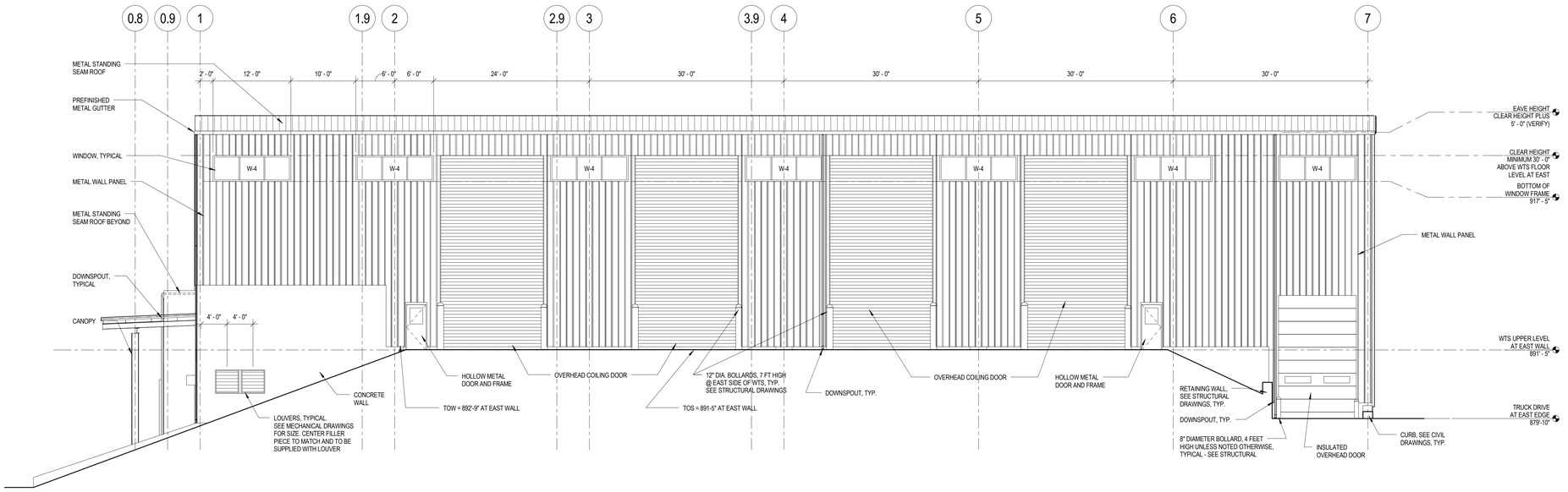
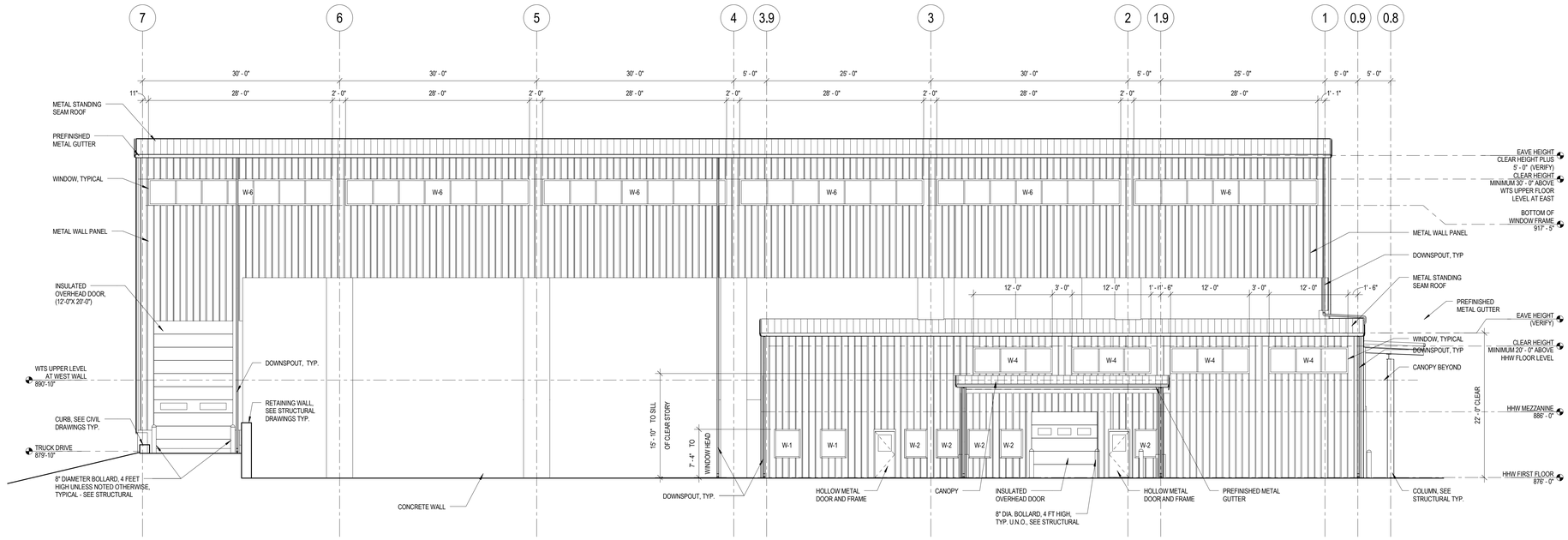


1 EAST ELEVATION

1/8" = 1'-0"



2 WEST ELEVATION

1/8" = 1'-0"

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DRAWN BY:	JMR
CHECKED BY:	SEB
APPROVED BY:	JHK
SCALE:	AS NOTED

SHEET TITLE:

BUILDING ELEVATIONS

SHEET NUMBER:

A301

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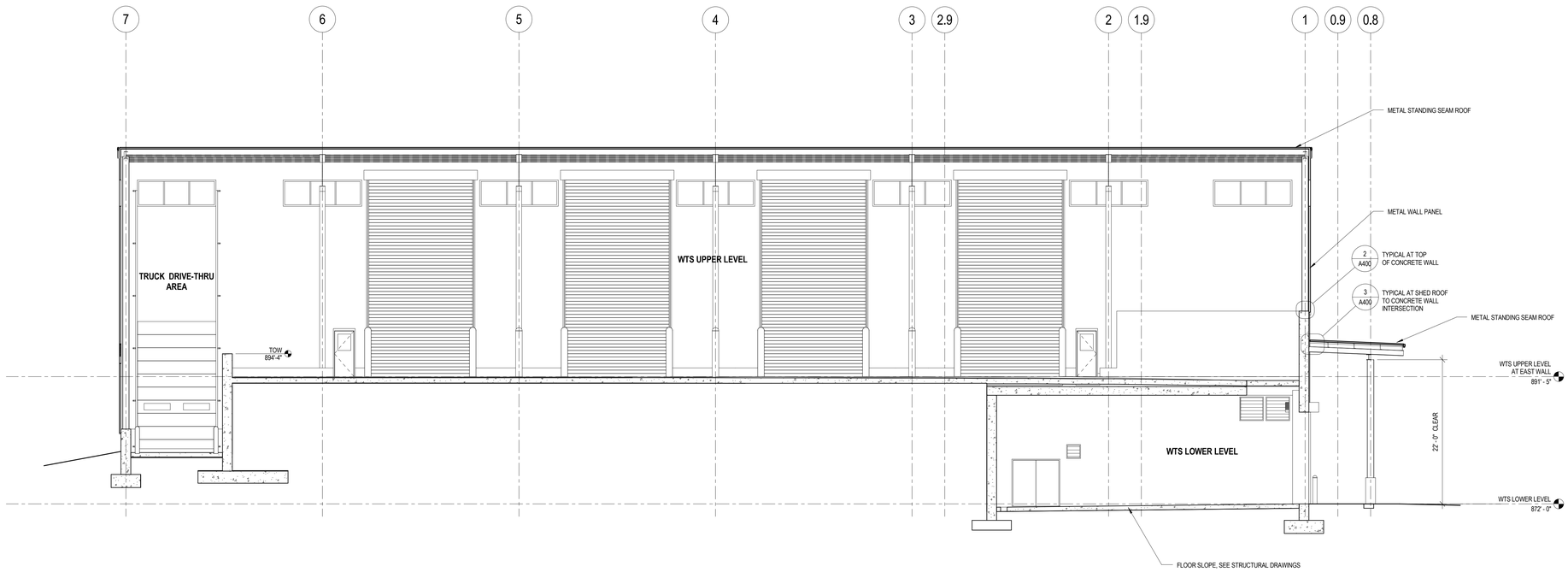
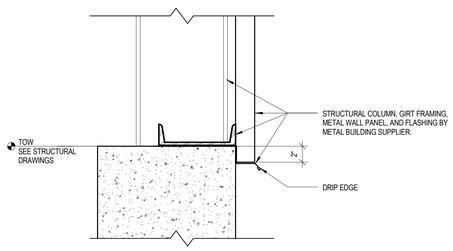
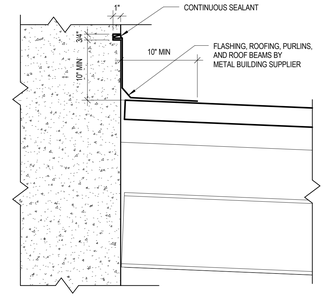


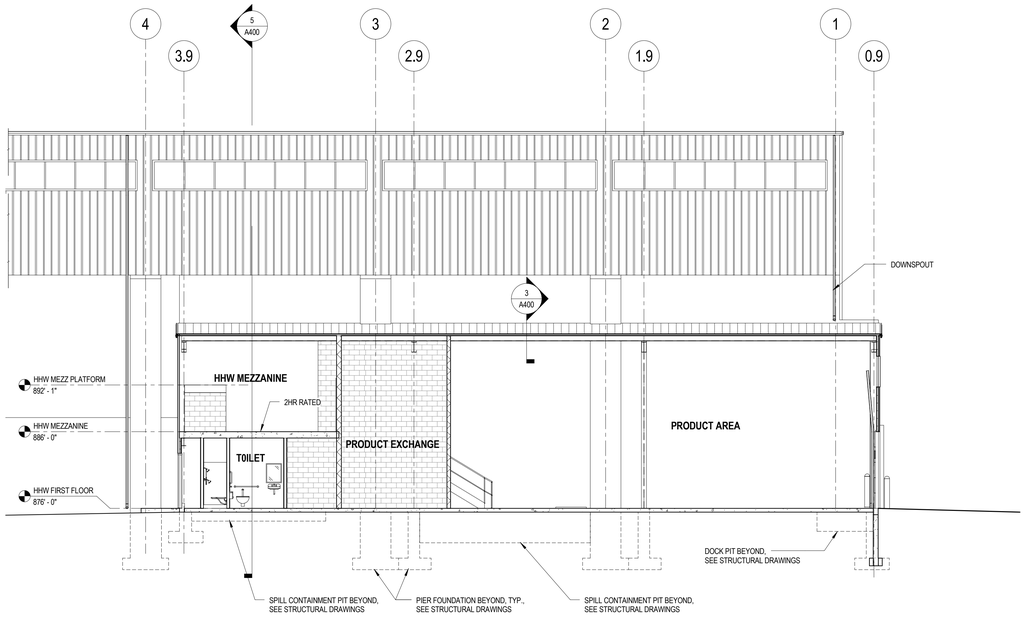
1 SECTION
1/8" = 1'-0"



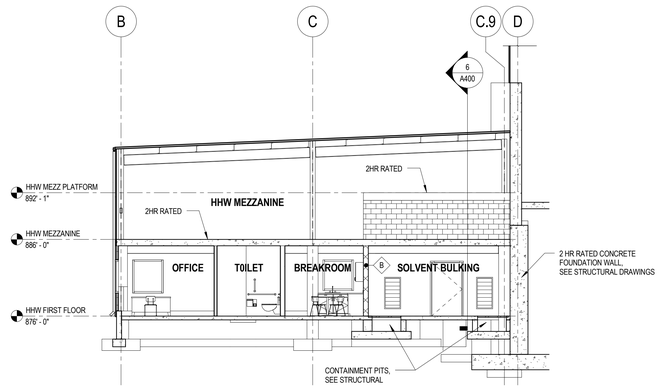
2 DETAIL
1 1/2" = 1'-0"



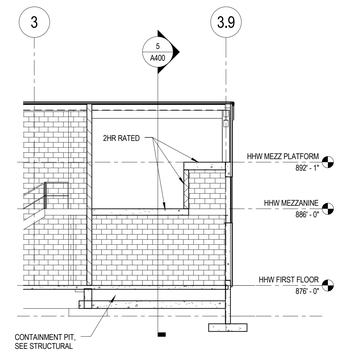
3 DETAIL
1 1/2" = 1'-0"



4 SECTION
1/8" = 1'-0"



5 SECTION
1/8" = 1'-0"



6 SECTION
1/8" = 1'-0"

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DRAWN BY:	JMR
CHECKED BY:	SEB
APPROVED BY:	JHK
SCALE:	AS NOTED

SHEET TITLE:
BUILDING SECTIONS

SHEET NUMBER:
A400

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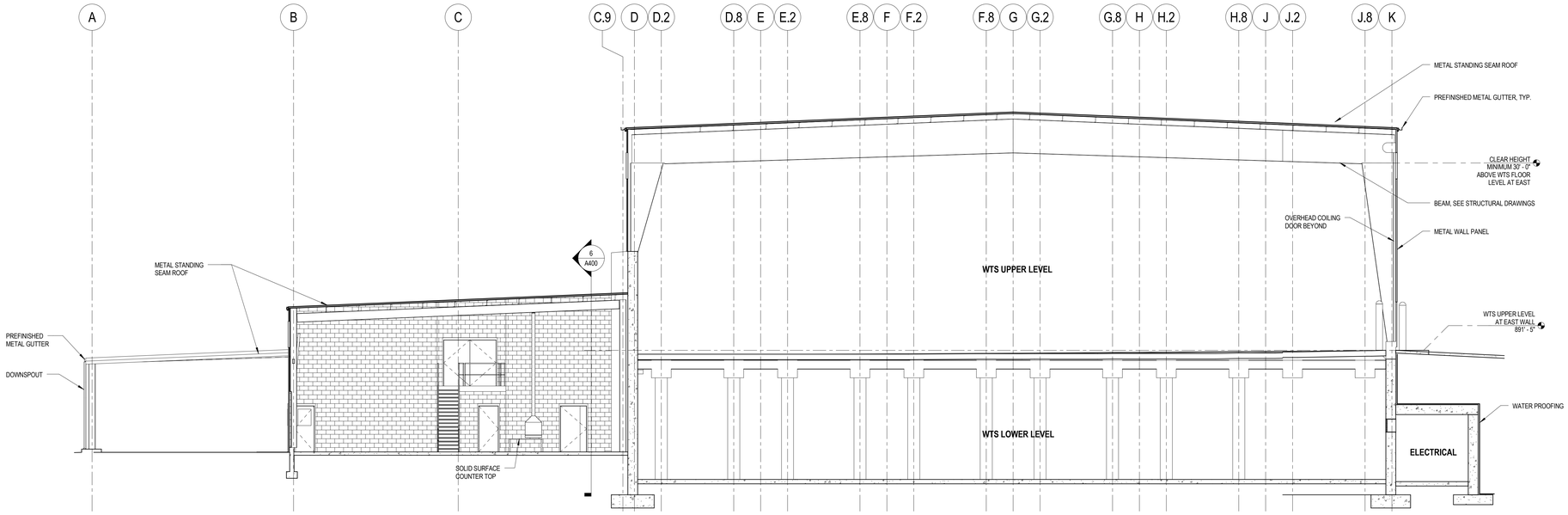
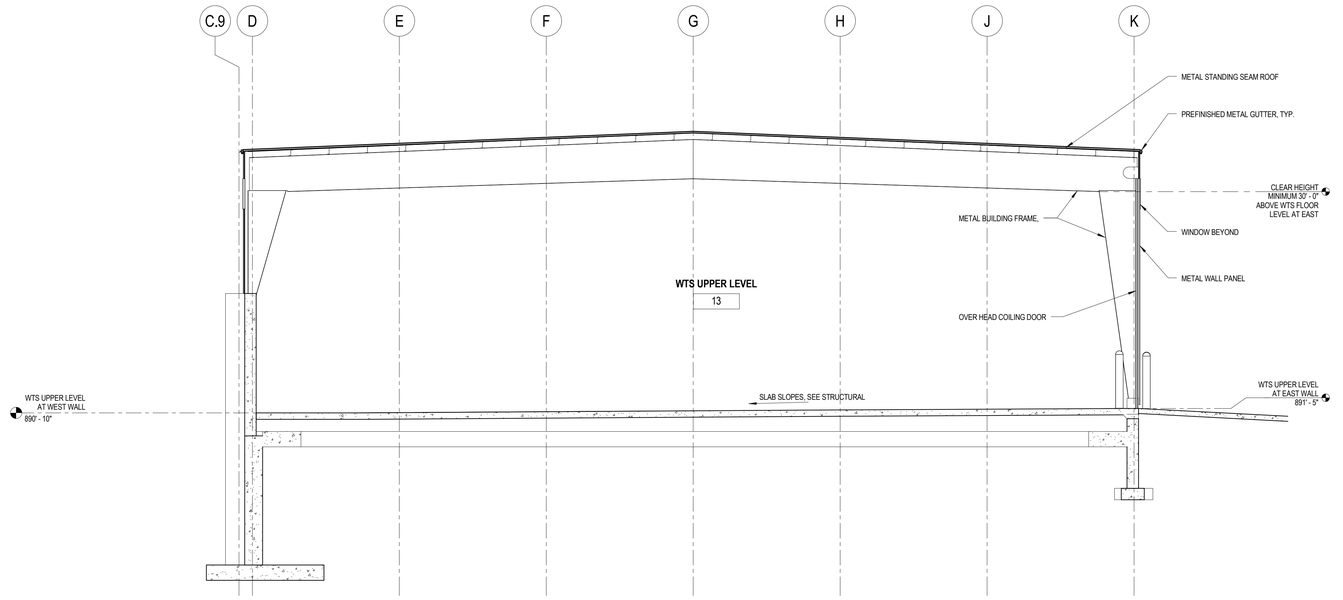


1 SECTION

1/8" = 1'-0"



2 SECTION

1/8" = 1'-0"

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APPROVED BY:	JHK
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SHEET TITLE:

BUILDING SECTIONS

SHEET NUMBER:

A401

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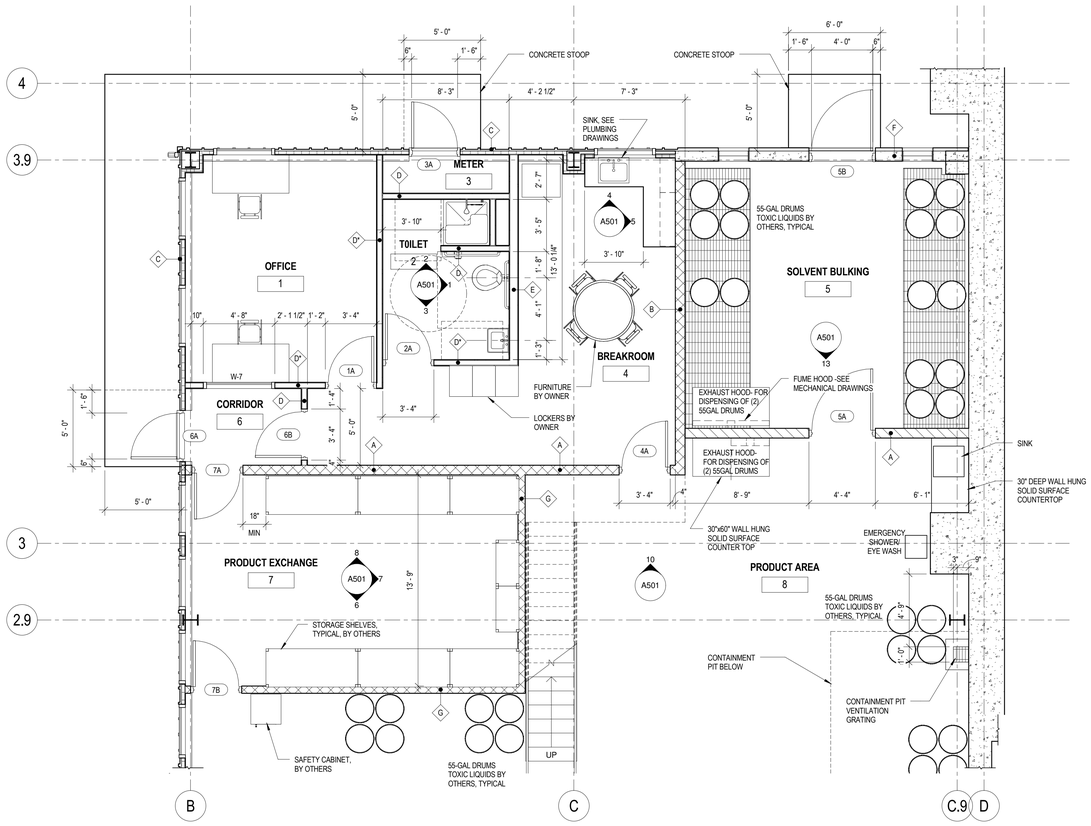
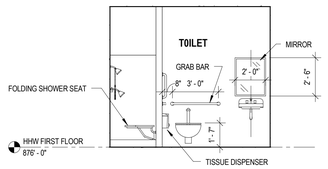
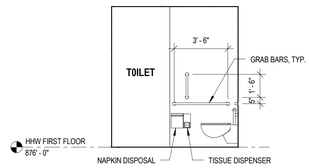


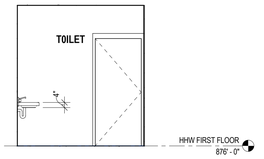
14 ENLARGED PARTIAL FLOOR PLAN
1/4" = 1'-0"



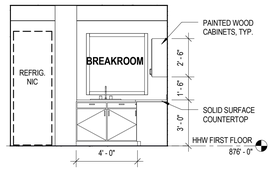
1 INTERIOR ELEVATION
1/4" = 1'-0"



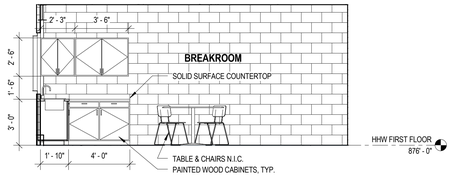
2 INTERIOR ELEVATION
1/4" = 1'-0"



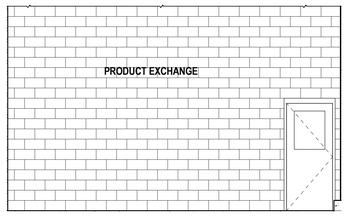
3 INTERIOR ELEVATION
1/4" = 1'-0"



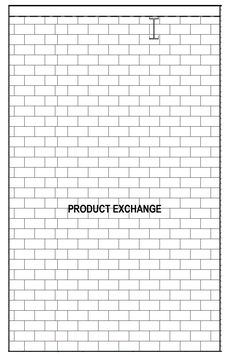
4 INTERIOR ELEVATION
1/4" = 1'-0"



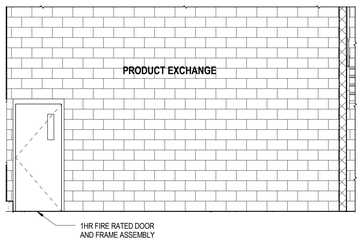
5 INTERIOR ELEVATION
1/4" = 1'-0"



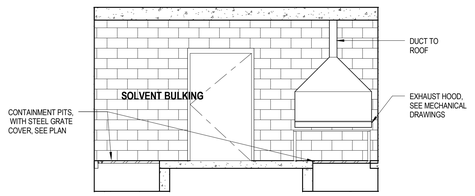
6 INTERIOR ELEVATION
1/4" = 1'-0"



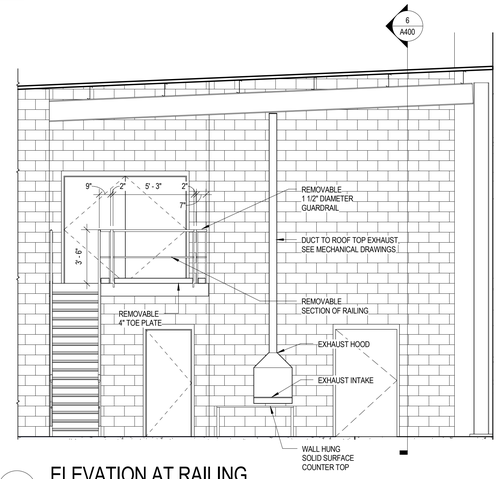
7 INTERIOR ELEVATION
1/4" = 1'-0"



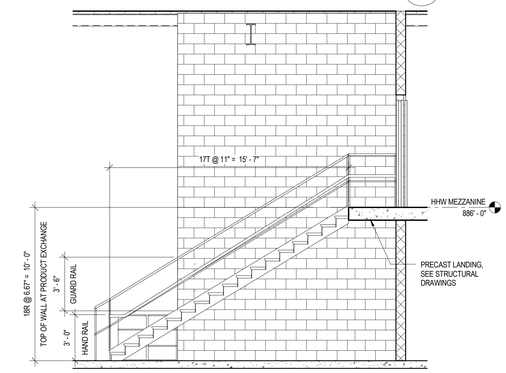
8 INTERIOR ELEVATION
1/4" = 1'-0"



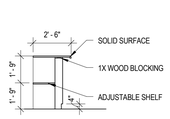
13 INTERIOR ELEVATION
1/4" = 1'-0"



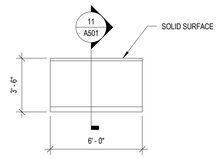
10 ELEVATION AT RAILING
1/4" = 1'-0"



9 SECTION AT STAIR
1/4" = 1'-0"



11 SECTION AT COUNTER
1/4" = 1'-0"



12 COUNTER ELEVATION
1/4" = 1'-0"

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APPROVED BY:	JHK
SCALE:	AS NOTED

SHEET TITLE:
ENLARGED PARTIAL PLAN
AND DETAILS

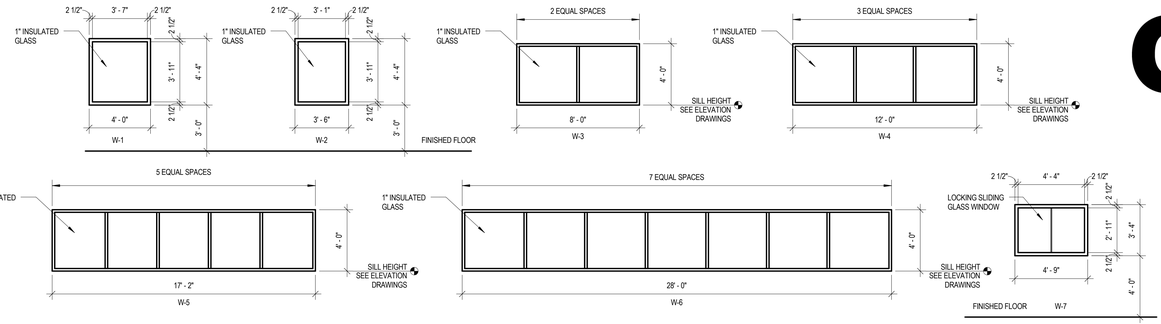
SHEET NUMBER:
A501

ROOM FINISH SCHEDULE

ROOM NO	ROOM NAME	FLOOR	WALLS								CEILING		NOTES
			NORTH		SOUTH		EAST		WEST				
			MAT	FIN	MAT	FIN	MAT	FIN	MAT	FIN	MATL	HEIGHT	
1	OFFICE	CARPET TILE	LP	---	GYP-BD	PT	GYP-BD	PT	LP	---	STRUCT	9' - 2"	VINYL BASE
2	TOILET	CONC / EPX	GYP-BD	PT	GYP-BD	PT	GYP-BD	PT	GYP-BD	PT	STRUCT	9' - 2"	
3	METER	CONC	LP	---	GYP-BD	PT	GYP-BD	PT	GYP-BD	PT	STRUCT	9' - 2"	
4	BREAKROOM	CONC / EPX	GYP-BD	PT	CMU	HPC	CMU	HPC	GYP-BD	PT	STRUCT	9' - 2"	SOLID SURFACE COUTNERTOPS
5	SOLVENT BULKING	CONC / EPX	CONC	HPC	CMU	HPC	CONC	HPC	CMU	PT	STRUCT	VARIES	HEIGHT VARIES, SEE STRUCTURAL
6	CORRIDOR	CONC / EPX	GYP-BD	PT	CMU	HPC	CMU	HPC	LP	---	STRUCT	9' - 2"	
7	PRODUCT EXCHANGE	CONC / EPX	CMU	HPC	GYP-BD	PT	GYP-BD	PT	LP	---	STRUCT	9' - 0"	
8	PRODUCT AREA	CONC / EPX	GYP-BD/CMU	PT/HPC	LP	---	CONC	HPC	LP	---	STRUCT	VARIES	OPEN TO ROOF STRUCTURE, SOLID SURFACE COUNTERTOPS
9	WTS LOWER LEVEL	CONC	CONC	CONC	CONC	---	CONC	---	CONC	---	STRUCT	16' - 0"	
10	ELECTRICAL	CONC	CONC	CONC	CONC	---	CONC	---	CONC	---	STRUCT	9' - 0"	
11	HHW MEZZANINE	CONC	LP	---	CMU	HPC	CMU/CONC	HPC	LP	---	STRUCT	VARIES	OPEN TO ROOF STRUCTURE
12	TRUCK DRIVE-THRU AREA	CONC	CONC	HPC	CONC	---	CONC	---	CONC	---	STRUCT	VARIES	OPEN TO ROOF STRUCTURE
13	WTS UPPER LEVEL	CONC	MP	---	MP	---	MP	---	CONC	---	STRUCT	VARIES	OPEN TO ROOF STRUCTURE

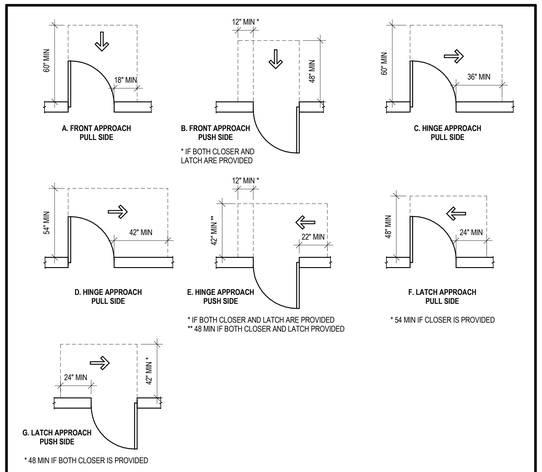
ABBREVIATIONS:

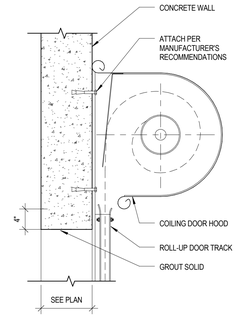
CONC - CONCRETE
GYP-BD - GYPSUM BOARD
HM - HOLLOW METAL
LP - LINER PANEL
MP - METAL PANEL
PT - PAINT
STRUCT - STRUCTURE
EPX - EPOXY
HPC - HI-PERFORMANCE COATING



DOOR AND FRAME SCHEDULE

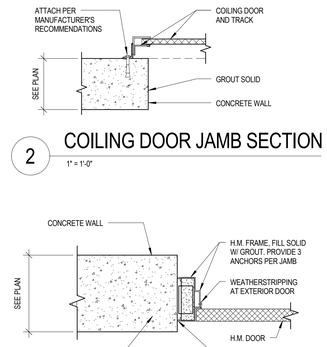
MARK	From Room: Number	From Room: Name	To Room: Number	To Room: Name	DOOR SIZE W	DOOR SIZE HT	DOOR TYPE	DOOR TYPE	DOOR MATL	DOOR FINISH	FRAME TYPE	FRAME MATL	FRAME FINISH	DETAIL JAMB	DETAIL HEAD	FIRE RATING LABEL	HARD WARE SET NO	R-VALUE	NOTES
1A	1	OFFICE	4	BREAKROOM	3' - 0"	7' - 0"		D-2	HM	PT	F-1	HM	PT				7		THIS DOOR TO REMAIN LOCKED
2A	2	TOILET	4	BREAKROOM	3' - 0"	7' - 0"		D-1	HM	PT	F-1	HM	PT				7		
3A	3	METER		EXTERIOR	3' - 0"	7' - 0"		D-1	HM	PT	F-1	HM	PT				1	R 1.43	
4A	8	PRODUCT AREA	4	BREAKROOM	3' - 0"	7' - 0"		D-1	HM	PT	F-2	HM	PT	6/A600	5/A600	E	4		
5A	5	SOLVENT BULKING	8	PRODUCT AREA	4' - 0"	7' - 0"		D-1	HM	PT	F-2	HM	PT	6/A600	5/A600	E	5		
5B	5	SOLVENT BULKING		EXTERIOR	4' - 0"	7' - 0"		D-1	HM	PT	F-1	HM	PT	6/A600	5/A600		3	R 1.43	
6A	6	CORRIDOR		EXTERIOR	3' - 0"	7' - 0"		D-2	HM	PT	F-1	HM	PT				1	R 1.43	
6B	4	BREAKROOM	6	CORRIDOR	3' - 0"	7' - 0"		D-1	HM	PT	F-1	HM	PT				6		WITH HOLD OPEN ARM
7A	7	PRODUCT EXCHANGE	6	CORRIDOR	3' - 0"	7' - 0"		D-3	HM	PT	F-2	HM	PT	6/A600	5/A600	E	6		THIS DOOR TO REMAIN CLOSED PER CODE
7B	7	PRODUCT EXCHANGE	8	PRODUCT AREA	3' - 0"	7' - 0"		D-2	HM	PT	F-2	HM	PT	6/A600	5/A600		4		
8A	8	PRODUCT AREA		EXTERIOR	10' - 0"	10' - 0"		D-7	---	---	---	---	---				-	R 2	SECTIONAL DOOR
8B	8	PRODUCT AREA		EXTERIOR	3' - 0"	7' - 0"		D-2	HM	PT	F-1	HM	PT				2	R 1.43	
8C	8	PRODUCT AREA		EXTERIOR	3' - 0"	7' - 0"		D-2	HM	PT	F-1	HM	PT				2	R 1.43	
8D	8	PRODUCT AREA		EXTERIOR	10' - 0"	10' - 0"		D-7	---	---	---	---	---				-	R 2	SECTIONAL DOOR
8E	8	PRODUCT AREA		EXTERIOR	8' - 0"	10' - 0"		D-6	---	---	---	---	---				-	R 2	COILING DOOR
8F	8	PRODUCT AREA		EXTERIOR	8' - 0"	10' - 0"		D-6	---	---	---	---	---				-	R 2	COILING DOOR
9A	9	WTS LOWER LEVEL		EXTERIOR	3' - 0"	7' - 0"	PAIR	D-5	HM	PT	F-3	HM	PT	4/A600	3/A600		3		
9B	9	WTS LOWER LEVEL		EXTERIOR	3' - 0"	7' - 0"	PAIR	D-5	HM	PT	F-3	HM	PT	4/A600	3/A600		3		
9C	9	WTS LOWER LEVEL		EXTERIOR	9' - 2"	14' - 0"		D-6	---	---	---	---	---	2/A600	1/A600		-	NA	COILING DOOR
9E	9	WTS LOWER LEVEL		EXTERIOR	3' - 0"	7' - 0"	PAIR	D-5	HM	PT	F-3	HM	PT	4/A600	3/A600		3		
9F	9	WTS LOWER LEVEL		EXTERIOR	9' - 2"	14' - 0"		D-6	---	---	---	---	---	2/A600	1/A600		-	NA	COILING DOOR
9G	9	WTS LOWER LEVEL		EXTERIOR	3' - 0"	7' - 0"	PAIR	D-5	HM	PT	F-3	HM	PT	4/A600	3/A600		3		
9H	9	WTS LOWER LEVEL		EXTERIOR	9' - 2"	14' - 0"		D-6	---	---	---	---	---	2/A600	1/A600		-	NA	COILING DOOR
9J	9	WTS LOWER LEVEL		EXTERIOR	3' - 0"	7' - 0"	PAIR	D-5	HM	PT	F-3	HM	PT	4/A600	3/A600		3		
9K	9	WTS LOWER LEVEL		EXTERIOR	9' - 2"	14' - 0"		D-6	---	---	---	---	---	2/A600	1/A600		-	NA	COILING DOOR
9L	9	WTS LOWER LEVEL		EXTERIOR	9' - 2"	14' - 0"		D-6	---	---	---	---	---	2/A600	1/A600		-	NA	COILING DOOR / ALTERNATE BID ITEM, SEE SPEC DIVISION 0
10A	10	ELECTRICAL	9	WTS LOWER LEVEL	3' - 6"	7' - 0"	PAIR	D-4	HM	PT	F-3	HM	PT	4/A600	3/A600		3		LOUVER GRILL IN DOOR LEAF
11A	11	HHW MEZZANINE	8	PRODUCT AREA	8' - 0"	7' - 0"		D-4	HM	PT	F-4	HM	PT	6/A600	5/A600		5		LOUVER GRILL IN DOOR LEAF
12A	12	TRUCK DRIVE THRU AREA		EXTERIOR	12' - 0"	20' - 0"		D-7	---	---	---	---	---				-	R 0.69	SECTIONAL DOOR
12B	12	TRUCK DRIVE THRU AREA		EXTERIOR	12' - 0"	20' - 0"		D-7	---	---	---	---	---				-	R 0.69	SECTIONAL DOOR
13A	13	WTS UPPER LEVEL		EXTERIOR	3' - 0"	7' - 0"		D-2	HM	PT	F-1	HM	PT				1	R 0.69	
13B	13	WTS UPPER LEVEL		EXTERIOR	16' - 0"	30' - 0"		D-6	---	---	---	---	---				-	R 0.69	COILING DOOR
13C	13	WTS UPPER LEVEL		EXTERIOR	16' - 0"	30' - 0"		D-6	---	---	---	---	---				-	R 0.69	COILING DOOR
13D	13	WTS UPPER LEVEL		EXTERIOR	16' - 0"	30' - 0"		D-6	---	---	---	---	---				-	R 0.69	COILING DOOR
13E	13	WTS UPPER LEVEL		EXTERIOR	16' - 0"	30' - 0"		D-6	---	---	---	---	---				-	R 0.69	COILING DOOR
13F	13	WTS UPPER LEVEL		EXTERIOR	3' - 0"	7' - 0"		D-2	HM	PT	F-1	HM	PT				1	R 0.69	





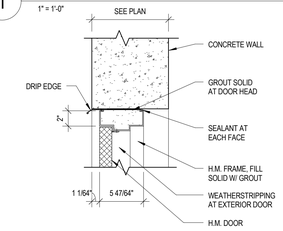
1 COILING DOOR HEAD SECTION

1" = 1'-0"



2 COILING DOOR JAMB SECTION

1" = 1'-0"

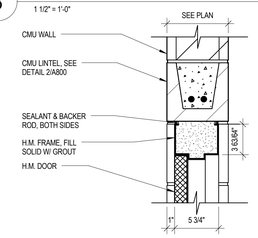


3 DOOR HEAD DETAIL

1 1/2" = 1'-0"

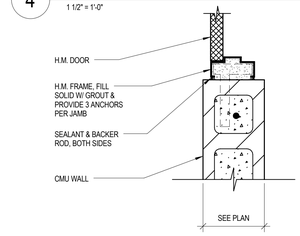
4 DOOR JAMB SECTION

1 1/2" = 1'-0"



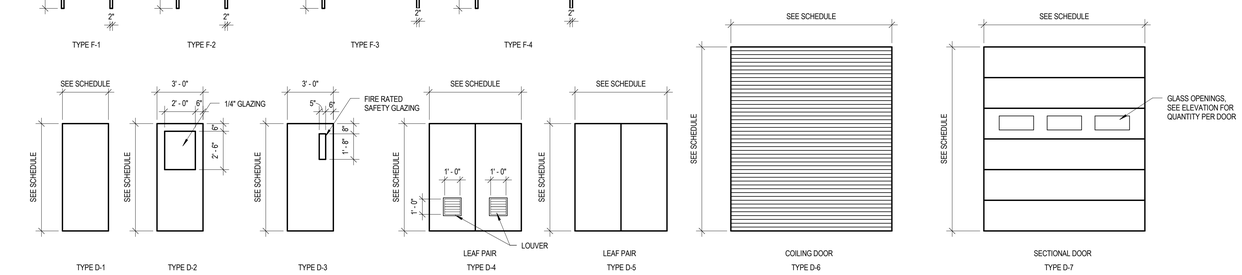
5 CMU HEAD DETAIL

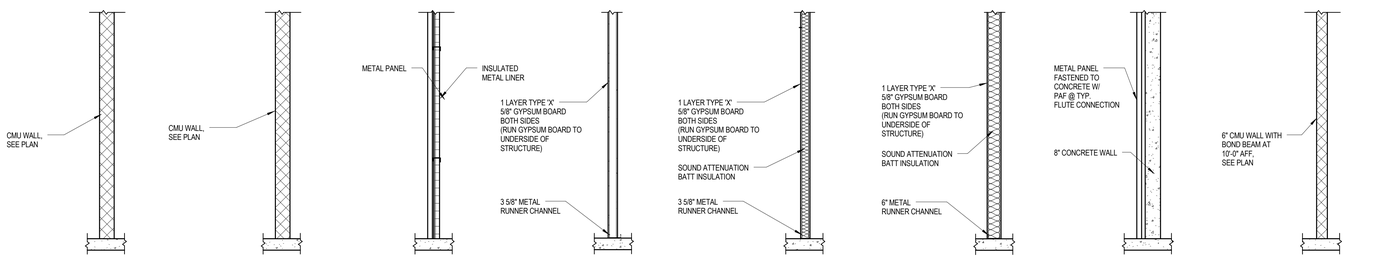
1 1/2" = 1'-0"



6 CMU JAMB DETAIL

1 1/2" = 1'-0"





WALL TYPE 'A' — 1 HR FIRE RATED WALL

WALL TYPE 'B' — 2 HR FIRE RATED WALL

UL DESIGN NO. U905

PER WISCONSIN CODE 302.3.3 EXCEPTION #1

WALL TYPE 'C'

WALL TYPE 'D'

WALL TYPE 'D*'

WALL TYPE 'E'

WALL TYPE 'F'

WALL TYPE 'G'

WALL TYPES

3/8" = 1'-0"

HARDWARE SET SCHEDULE

HARDWARE SET NO. 1 (SINGLE DOOR - EXTERIOR)	
1 1/2 PAIRS	HINGES 4 1/2" X 4 1/2" X FBB199 X NRP X US32D
1 EACH	LOCKSET ML 2051 X NSM X US32D W/ LEVER ARM
1 EACH	DOOR CLOSER P4040 W/ HOLD OPEN ARM X AL (INSIDE MOUNT) X 6" MAX. PROJECTION
1 EACH	THRESHOLD 566A
1 SET	WEATHERSTRIPPING 32A FOR HEAD AND JAMBS

HARDWARE SET NO. 2 (SINGLE DOOR - EXTERIOR)	
1 1/2 PAIRS	HINGES 4 1/2" X 4 1/2" X FBB199 X NRP X US32D
1 EACH	LOCKSET ML2051 W/ LEVER ARM
1 EACH	DOOR CLOSER P4040 W/ HOLD OPEN ARM X AL (INSIDE MOUNT) X 6" MAX. PROJECTION
1 EACH	THRESHOLD 566A
1 SET	WEATHERSTRIPPING 32A FOR HEAD AND JAMBS
1	PANIC DEVICE ED8200

HARDWARE SET NO. 3 (DOUBLE DOOR - EXTERIOR)	
3 PAIRS	HINGES 4 1/2" X 4 1/2" X FBB199 X NRP X US32D
1 EACH	LOCKSET ML2051 W/ LEVER ARM ML2010
2 EACH	DOOR CLOSER P4040 W/ HOLD OPEN ARM X AL (INSIDE MOUNT) X 6" MAX. PROJECTION
1 SET	FLUSH BOLTS 559 X US26D (TOP & BOT.) INACTIVE LEAF (WITH REMOVABLE SILL POCKET)
1 EACH	COORDINATOR 469 1/2 X US26D ON INACTIVE LEAF
1 EACH	ASTRAGAL 40A (ACTIVE LEAF)
1 EACH	THRESHOLD 566A
1 SET	WEATHERSTRIPPING 32A FOR HEAD AND JAMBS

HARDWARE SET NO. 4 (SINGLE DOOR - INTERIOR)	
1 1/2 PAIRS	HINGES 4 1/2" X 4 1/2" X FBB199 X NRP X US32D
1 EACH	PASSAGE LOCKSET ML2010 W/ LEVER ARM
1 EACH	DOOR CLOSER P4040 W/ HOLD OPEN ARM X AL (INSIDE MOUNT) X 6" MAX. PROJECTION
1 SET	SMOKE SEAL FOR HEAD AND JAMBS (RATED DOOR ONLY)
1 EACH	DOOR STOPS (FLOOR MOUNTED)

HARDWARE SET NO. 5 (DOUBLE DOOR - INTERIOR)	
3 PAIRS	HINGES 4 1/2" X 4 1/2" X FBB199 X NRP X US32D
1 EACH	PASSAGE LOCKSET W/ LEVER ARM ML2010
2 EACH	DOOR CLOSER P4040 W/ HOLD OPEN ARM X AL (INSIDE MOUNT) X 6" MAX. PROJECTION
1 SET	FLUSH BOLTS 559 X US26D (TOP & BOT.) INACTIVE LEAF (WITH REMOVABLE SILL POCKET)
1 EACH	COORDINATOR 469 1/2 X US26D ON INACTIVE LEAF
1 EACH	ASTRAGAL 40A (ACTIVE LEAF)
1 SET	SMOKE SEAL FOR HEAD AND JAMBS (RATED DOOR ONLY)
2 EACH	DOOR STOPS (FLOOR MOUNTED)

HARDWARE SET NO. 6 (SINGLE DOOR - INTERIOR)	
1 1/2 PAIRS	HINGES 4 1/2" X 4 1/2" X FBB199 X NRP X US32D
1 EACH	LOCKSET ML2051 W/ LEVER ARM
1 EACH	DOOR CLOSER P4040 W/ NO HOLD OPEN X AL (INSIDE MOUNT) X 6" MAX. PROJECTION
1 SET	SMOKE SEAL FOR HEAD AND JAMBS (RATED DOOR ONLY)
1 EACH	DOOR STOPS (FLOOR MOUNTED)

HARDWARE SET NO. 7 (SINGLE DOOR - EXTERIOR)	
1 1/2 PAIRS	HINGES 4 1/2" X 4 1/2" X FBB199 X NRP X US32D
1 EACH	LOCKSET ML2051 W/ LEVER ARM
1 EACH	DOOR CLOSER P4040 W/ HOLD OPEN ARM X AL (INSIDE MOUNT) X 6" MAX. PROJECTION
1 EACH	DOOR STOPS (FLOOR MOUNTED)

GRÄEF

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Milwaukee, WI 53214-1470
414 / 259 1500
414 / 259 0037 fax

www.graef-usa.com

CONSULTANTS:

PROJECT TITLE:

DANE COUNTY
WASTE TRANSFER STATION
AND HOUSEHOLD HAZARDOUS
WASTE FACILITY
RODEFELD LANDFILL

ISSUE:

PROJECT INFORMATION:

PROJECT NUMBER:	2009-0328.00
DATE:	05-11-2010
DRAWN BY:	JMR
CHECKED BY:	SEB
APPROVED BY:	JHK
SCALE:	AS NOTED

SHEET TITLE:

DOOR SCHEDULE AND DOOR, WINDOW AND FRAME ELEVATIONS

SHEET NUMBER:

A600

C:_revit worksets\20090328_A_L_DaneCntyWasteTransfer\2009-0328_A_L.rvt
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DESIGN SPECIFICATIONS

- DESIGN IS IN ACCORDANCE WITH THE STATE OF WISCONSIN AND THE 2006 INTERNATIONAL BUILDING CODE.
- MINIMUM 28 DAY CONCRETE CYLINDER STRENGTH SHALL BE:

FOOTINGS	3000 PSI
GRADE BEAMS	4000 PSI
SLABS ON GRADE	4000 PSI
TIPPING SLAB	6000 PSI
PIERS	4000 PSI
COLUMNS	4000 PSI
FOUNDATION WALLS	4000 PSI

- TIPPING SLAB AGGREGATE SHALL BE TRAP ROCK OR OTHER ROCK OF EQUIVALENT HAVING A MOH'S HARDNESS OF 7.0 OR GREATER. TIPPING SLAB SHALL CONTAIN DRAMIX RC 80/60 BN STEEL FIBERS 55 LBS/CY OR APPROVED EQUAL DO NOT USE AIR-ENTRAINMENT IN THE TIPPING SLAB MIX DESIGN.
- REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60.
- STRUCTURAL STEEL W-SHAPES SHALL CONFORM TO ASTM A992 GRADE 50.
- STRUCTURAL STEEL PLATES, ANGLES, CHANNELS, AND OTHER ROLLED MEMBERS SHALL CONFORM TO ASTM A36.
- ANCHOR RODS SHALL CONFORM TO ASTM F1554 GRADE 36.
- STATED BEARING CAPACITY FOR SPREAD FOOTINGS IS 3000 PSF, BASED UPON SOILS REPORT DATED JANUARY 19, 2010 AND APRIL 19, 2010, AS PREPARED BY SOIL & ENGINEERING SERVICES, INC.
- DESIGN LOADS:

FLOOR LIVE LOADS (IBC 2006)	
HHW BUILDING	125 PSF
HHW BUILDING - MEZZANINE	250 PSF
TRANSFER STATION	600 PSF OR VOLVO L220F (EQUIPMENT LOAD)
ROOF LIVE LOAD	
HHW BUILDING	23 PSF + DRIFTING SNOW
TRANSFER STATION	23 PSF + DRIFTING SNOW
ROOF SNOW LOAD (ASCE 7-05)	
HHW BUILDING	
OCCUPANCY CATEGORY	III
IMPORTANCE FACTOR	Is = 1.1
GROUND SNOW LOAD	Pg = 30 PSF
FLAT ROOF SNOW LOAD	Pf = 23 PSF
EXPOSURE FACTOR	Ce = 0.9
THERMAL FACTOR	Ct = 1.0
TRANSFER BUILDING	
OCCUPANCY CATEGORY	II
IMPORTANCE FACTOR	Is = 1.0
GROUND SNOW LOAD	Pg = 30 PSF
FLAT ROOF SNOW LOAD	Pf = 23 PSF
EXPOSURE FACTOR	Ce = 0.9
THERMAL FACTOR	Ct = 1.2
WIND LOAD (ASCE 7-05)	
OCCUPANCY CATEGORY	
HHW BUILDING	III
TRANSFER BUILDING	II
IMPORTANCE FACTOR	
HHW BUILDING	Iw = 1.15
TRANSFER BUILDING	Iw = 1.0
BASIC WIND SPEED	V = 90 MPH
EXPOSURE	C
INTERNAL PRESSURE COEFFICIENT	GCpi = +/- 0.18
SEISMIC LOAD (IBC 2006)	
HHW BUILDING	
OCCUPANCY CATEGORY	III
IMPORTANCE FACTOR	Ie = 1.25
SPECTRAL RESPONSE ACCELERATIONS	SS = 0.106 g S1 = 0.044 g
SPECTRAL RESPONSE COEFFICIENTS	SDS = 0.113g SD1 = 0.070 g
SEISMIC RESPONSE COEFFICIENT	Cs = 0.057
RESPONSE MODIFICATION FACTOR	R = 3
SOIL SITE CLASS	E
SEISMIC DESIGN CATEGORY	B
BASIC SEISMIC FORCE RESISTING SYSTEM	ORDINARY STEELMOMENT FRAME
DESIGN BASE SHEAR	V= 0.069 x WEIGHT
ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE PROCEDURE
TRANSFER BUILDING	
OCCUPANCY CATEGORY	II
IMPORTANCE FACTOR	Ie = 1.0
SPECTRAL RESPONSE ACCELERATIONS	SS = 0.106 g S1 = 0.044 g
SPECTRAL RESPONSE COEFFICIENTS	SDS = 0.113g SD1 = 0.070 g
SEISMIC RESPONSE COEFFICIENT	Cs = 0.057
RESPONSE MODIFICATION FACTOR	R = 3
SOIL SITE CLASS	E
SEISMIC DESIGN CATEGORY	B
BASIC SEISMIC FORCE RESISTING SYSTEM	ORDINARY STEELMOMENT FRAME
DESIGN BASE SHEAR	V= 0.069 x WEIGHT
ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE PROCEDURE

- RESISTANCE TO LATERAL LOADS ON STRUCTURE IS PROVIDED BY PRE-ENGINEERED MOMENT FRAME. CONTRACTOR SHALL PROVIDE SUFFICIENT TEMPORARY BRACING UNTIL ALL LATERAL SUPPORT SYSTEMS ARE IN PLACE AND FUNCTIONAL.
- ALL STRUCTURAL FRAMING AND CONNECTIONS HAVE BEEN DESIGNED FOR THE FINAL COMPLETED CONDITION AND HAVE NOT BEEN INVESTIGATED FOR POTENTIAL LOADINGS ENCOUNTERED DURING STEEL ERECTION AND CONSTRUCTION. ANY INVESTIGATION OF THE STRUCTURAL FRAMING AND CONNECTIONS FOR ADEQUACY DURING THE STEEL ERECTION AND CONSTRUCTION PROCESS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR IS RESPONSIBLE FOR ALL MEANS AND METHODS OF CONSTRUCTION AND ALL JOB SITE SAFETY.

EARTHWORK

- IF DESIGN CAPACITY IS NOT ENCOUNTERED AT THE ELEVATIONS SHOWN, FOOTINGS MUST BE MODIFIED OR LOWERED. CONSULT ENGINEER BEFORE PROCEEDING.
- NO HOLES, TRENCHES OR DISTURBANCES OF THE SOIL SHALL BE ALLOWED WITHIN THE VOLUME DESCRIBED BY 45 DEGREE LINES SLOPING FROM THE BOTTOM EDGE OF THE FOOTING. IF SUCH ARE REQUIRED, FOOTINGS MUST BE LOWERED.
- BACKFILL EVENLY ON EACH SIDE OF FOUNDATION WALLS AND RETAINING WALLS FOR A MAXIMUM UNEQUAL SOIL HEIGHT OF 1'-6" WHERE FINAL CONDITION HAS SOIL ON EACH SIDE.
- DO NOT BACKFILL AGAINST BASEMENT WALLS UNTIL FLOOR SYSTEM IS IN PLACE AND FASTENED OR UNTIL WALLS ARE ADEQUATELY BRACED. BRACING SHALL BE DESIGNED BY THE CONTRACTOR.
- SUBGRADE UNDER SLABS SHALL BE FREE DRAINING GRANULAR FILL COMPACTED IN 3 INCH TO 6-INCH LAYERS EXCEPT WHERE LOOSE FILL IS INDICATED ON PLANS.
- BACKFILL AGAINST INTERIOR FOUNDATION WALLS SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT. MATERIAL AVAILABLE ON-SITE MAY BE USED OR AT CONTRACTOR'S OPTION MATERIAL MAY BE BROUGHT ON-SITE PER GEOTECHNICAL REPORT.
- PROVIDE A MINIMUM OF 12 INCH WIDE VERTICAL DRAINAGE LAYER BEHIND ALL WALLS AND GEOTEXTILE PER GEOTECH REPORT. PROVIDE DRAIN TILE AT THE BASE OF THIS DRAINAGE LAYER.
- PROVIDE MINIMUM 24 INCHES OF WASHED STONE OVER ALL DRAIN TILES AND 4 INCHES BELOW.

CONCRETE

- FORMWORK SHALL BE DESIGNED IN ACCORDANCE WITH THE ACI MANUAL OF CONCRETE PRACTICE.
- REINFORCING STEEL SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH THE ACI MANUAL OF CONCRETE PRACTICE UNLESS OTHERWISE NOTED.
- LAP ALL WALL BARS WITH CLASS B SPLICES UNLESS OTHERWISE DETAILED. LAP WELDED WIRE MESH 6 INCHES.
- PROVIDE COLUMN AND WALL DOWELS OF THE SAME SIZE AND NUMBER AS THE RESPECTIVE COLUMN AND WALL REINFORCING UNLESS OTHERWISE DETAILED.
- PROVIDE TWO #4 BARS AS STIRRUP CARRY BARS WHERE NO TOP STEEL IS AVAILABLE TO HOLD STIRRUPS.
- WHEREVER AN APPROVED PIPE OR CONDUIT EXTENDS THROUGH A BEAM, PROVIDE ONE ADDITIONAL STIRRUP ON EACH SIDE OF THE OPENING.
- CONCRETE PROTECTION FOR REINFORCING BARS SHALL BE IN ACCORDANCE WITH THE "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE", ACI 318-05.
- SLABS ON GRADE SHALL BE CAST ALLOWING A SUFFICIENT NUMBER OF JOINTS TO ADEQUATELY CONTROL SHRINKAGE CRACKING. SAWCUTTING SHALL BE DONE AS SOON AS SAWCUT WILL NOT RAVEL CONCRETE OR WITHIN 16 HOURS MAXIMUM OF INITIAL POURING OPERATION. MAXIMUM SIZE OF PANELS SHALL BE 12.5 FEET BY 12.5 FEET. GENERALLY, JOINTS SHALL OCCUR ON COLUMN CENTERLINES.
- ALLOW AT LEAST 24 HOURS BEFORE POURING ADJACENT WALL SECTIONS BETWEEN CONSTRUCTION JOINTS. MAXIMUM LENGTH OF POUR TO BE 40 FEET, UNLESS CRACK INDUCERS ARE USED AS DETAILED ON THE DRAWINGS. COLUMN LINE 'D' PUSHWALL CONSTRUCTION AND CONTROL JOINT SPACING SHOULD BE CENTERED BETWEEN EACH CONCRETE PIER.
- CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 24 HOURS PRIOR TO PLACING CONCRETE.
- CONSTRUCTION JOINTS IN BEAMS, JOISTS OR SLABS TO BE LOCATED BETWEEN THE 1/4 POINT AND CENTERLINE OF SPAN, OR AS DIRECTED BY THE ENGINEER.
- DO NOT PLACE OR CUT HOLES IN CONCRETE SLABS, BEAMS, WALLS OR COLUMNS WITHOUT PRIOR APPROVAL OF THE ENGINEER.
- EXTERIOR EXPOSED CONCRETE SHALL BE AIR-ENTRAINED. AIR CONTENT SHALL BE 6 PERCENT (+/-1 1/2 PERCENT).
- CAMBER CONCRETE MEMBERS FOR DEAD LOAD DEFLECTION BY ADJUSTING FORMS.
- PIPES AND CONDUITS EMBEDDED IN OR PASSING THROUGH STRUCTURAL MEMBERS MUST BE APPROVED BY THE STRUCTURAL ENGINEER. PIPE AND CONDUITS EMBEDDED IN CONCRETE SHALL NOT BE LARGER THAN 2 INCHES IN OUTSIDE DIAMETER AT THEIR WIDEST POINT OR FITTING OR 1/3 OF THE THICKNESS OF THE SLAB, BEAM OR WALL.
- ELECTRICAL CONDUIT OR PIPES EMBEDDED IN OR PASSING THROUGH SLABS, BEAMS OR WALLS SHALL BE LOCATED AND PLACED SO THAT:
  1. THEY ARE NOT CLOSER THAN THREE DIAMETERS ON CENTER.
  2. THE CONCRETE COVER IS NOT LESS THAN 2 INCHES.
  3. THEY RUN BETWEEN REINFORCING AND DO NOT DISPLACE IT IN ANY MANNER.
- NO ALUMINUM CONDUITS SHALL BE PLACED IN CONCRETE.
- CHAMFER ALL EXPOSED CONCRETE CORNERS. SEE ARCHITECTURAL/STRUCTURAL DRAWINGS FOR REQUIREMENTS.
- CONCRETE SHALL BE TESTED BY THE OWNER'S TESTING LAB. SEE SPECIFICATIONS FOR REQUIREMENTS.
- PROPER CURING PROCEDURES SHALL BE USED FOR SLAB ON GRADE TO PREVENT CURLING.
- CALCIUM CHLORIDE SHALL NOT BE USED IN CONCRETE MIXES.
- PROVIDE WATERSTOPS AT ALL CONSTRUCTION JOINTS BELOW THE WATER TABLE AND AS SHOWN ON DRAWINGS. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- COORDINATE WALL DOOR OPENINGS WITH METAL BUILDING SUPPLIER.

STRUCTURAL STEEL

- STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE AISC "STEEL CONSTRUCTION MANUAL", THIRTEENTH ADDITION, AND THE AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES", MARCH 18, 2005 EDITION.
- ALL STRUCTURAL AND MISCELLANEOUS STEEL WHICH SHALL REMAIN EXPOSED TO VIEW SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE AISC "SPECIFICATION FOR ARCHITECTURALLY EXPOSED STRUCTURAL STEEL" WITHOUT GAPS OR OPEN JOINTS.
- ALL WELDING SHALL COMPLY WITH AWS D1.1 USING E70XX ELECTRODES. ALL WELDING TO BE DONE BY AWS PREQUALIFIED WELDERS, CERTIFIED FOR WELDS MADE. PROVIDE CONTINUOUS MINIMUM SIZED WELDS PER AISC REQUIREMENTS, UNLESS NOTED OTHERWISE.
- THE MINIMUM SIZE OF FILLET WELDS SHALL BE AS SPECIFIED IN TABLE J2.4 IN THE AISC "STEEL CONSTRUCTION MANUAL".
- MINIMUM STRENGTH OF WELDED CONNECTIONS: UNLESS NOTED OTHERWISE ON THE DRAWINGS, ALL SHOP AND FIELD WELDS SHALL DEVELOP THE FULL TENSILE STRENGTH OF THE MEMBER OF ELEMENT JOINED. ALL MEMBERS WITH MOMENT CONNECTIONS, NOTED ON THE DRAWINGS, SHALL BE WELDED TO DEVELOP THE FULL FLEXURAL CAPACITY OF THE MEMBER, UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- BOLTED CONNECTIONS SHALL BE MADE WITH ASTM A325 HIGH STRENGTH BOLTS (MINIMUM 3/4-INCH DIAMETER). CONNECTIONS SHALL SUPPORT, AT A MINIMUM, ONE-HALF THE TOTAL [FACTORED] UNIFORM LOAD CAPACITY SHOWN IN THE AISC TABLES OF UNIFORM LOAD CONSTANTS FOR THE GIVEN BEAM, SPAN, AND STEEL SPECIFIED, UNLESS OTHERWISE DETAILED. BEAM-TO-BEAM AND BEAM-TO-COLUMN FRAMING CONNECTIONS SHALL BE MADE WITH DOUBLE ANGLES UNLESS OTHERWISE DETAILED.
- ALL STRUTS, HANGERS, AND BRACES SHALL HAVE CONNECTIONS DESIGNED TO DEVELOP THE FULL ALLOWABLE TENSILE STRENGTH OF THE MEMBER UNLESS THE DESIGN FORCE IS INDICATED ON THE DRAWINGS, IN WHICH CASE THE CONNECTIONS SHALL BE DESIGNED FOR THE FORCE INDICATED.
- COLUMN BASE PLATES SHALL HAVE OVERSIZED HOLES WITH PLATE WASHERS (MINIMUM 3/8-INCH THICK) PROVIDED WITH ANCHOR RODS.
- GROUT UNDER BASE PLATES IN ACCORDANCE WITH THE "AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
- CLEAN, PREPARE, AND SHOP PRIME EXTERIOR EXPOSED STRUCTURAL STEEL MEMBERS IN ACCORDANCE WITH S.S.P.C. STANDARDS SP-1 AND SP-6.
- CLEAN, PREPARE, AND SHOP PRIME INTERIOR EXPOSED STRUCTURAL STEEL MEMBERS IN ACCORDANCE WITH S.S.P.C. STANDARDS SP-1 AND SP-3.
- WHILE THE DESIGN DOCUMENTS MAY REFERENCE OSHA, THEY ARE NOT INTENDED TO SPECIFICALLY IDENTIFY ALL APPLICABLE OSHA REQUIREMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY AND COMPLY WITH ALL APPLICABLE OSHA REQUIREMENTS.
- ALL STRUCTURAL STEEL PERMANENTLY EXPOSED TO THE WEATHER, INCLUDING MASONRY SHELF ANGLES, SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123, UNLESS OTHERWISE NOTED.
- REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL MISCELLANEOUS STEEL.

COLD-FORMED STEEL FRAMING

- DESIGN, FABRICATION, AND ERECTION OF COLD-FORMED STEEL FRAMING SHALL BE IN ACCORDANCE WITH THE AISI "COLD FORMED STEEL DESIGN MANUAL", LATEST EDITION. ALL FRAMING MEMBERS SHOWN ON PLANS ARE SCHEMATIC AND ARE SHOWN FOR INTENT ONLY. DESIGN AND CALCULATIONS WILL BE REVIEWED BY GRAEF.
- STEEL STUD CURTAIN WALL AND CONNECTIONS TO BE DESIGNED BY SUPPLIER. STEEL STUD CURTAIN WALL AND CONNECTION DESIGN SHALL BE SEALED BY PROFESSIONAL ENGINEER EXPERIENCED IN THIS WORK AND REGISTERED IN THE STATE OF WISCONSIN.
- NON-LOAD BEARING STUDS NOT VERTICALLY SUPPORTING MASONRY SHALL TRANSFER LATERAL LOADS TO STRUCTURE BY MEANS OF SLIDE CLIPS TO ALLOW FOR VERTICAL MOVEMENT OF PRIMARY STRUCTURAL MEMBERS.
- SPLICES IN AXIALLY LOADED STUDS ARE NOT PERMITTED.
- STUDS, TRACK, AND ACCESSORIES SHALL BE GALVANIZED WITH A MINIMUM G90 COATING PER ASTM A525.
- STUDS SHALL BE PLUMBED, ALIGNED, AND SECURELY ATTACHED TO FLANGES OR WEBS OF LOWER TRACK. STUDS SHALL BE SEATED TIGHT TO TRACK WEBS PRIOR TO ATTACHMENT.
- JOISTS SHALL BE LOCATED DIRECTLY OVER BEARING STUDS OR A LOAD DISTRIBUTION MEMBER SHALL BE PROVIDED AT THE TOP OF THE WALL.
- REFER TO ARCHITECTURAL WALL SECTIONS AND DETAILS FOR ADDITIONAL INFORMATION.
- ALL MEMBERS 0.0566-INCH MINIMUM THICKNESS OR THICKER (16 GAGE OR LOWER) SHALL BE OF MINIMUM 50 KSI STEEL. ALL MEMBERS OF 0.0451-INCH MINIMUM THICKNESS OR THINNER (18 GAGE OR HIGHER) AND ALL ACCESSORIES SHALL BE OF MINIMUM 33 KSI STEEL.
- STEEL STUD ERECTOR SHALL CONSTRUCT ALL LIGHTGAGE FRAMING IN A MANNER WHICH PROTECTS LATERAL STABILITY OF THE STRUCTURE.
- ALL WELDS PERFORMED ON GALVANIZED LIGHTGAGE COMPONENTS SHALL BE COATED WITH ZINC RICH PAINT FOR CORROSION PROTECTION IN ACCORDANCE WITH ASTM A780. CONTRACTOR SHALL NOTIFY THE ENGINEER TO ALLOW ADEQUATE TIME FOR WELDS TO BE REVIEWED BEFORE SYSTEMS ARE ENCLOSED.
- STEEL STUD WALLS SHALL BE DESIGNED AND CONSTRUCTED TO PROVIDE REQUIRED CAPACITIES TO CARRY CONSTRUCTION LOADS. CONTRACTOR SHALL PROVIDE NECESSARY BRIDGING OR ATTACHMENT TO WALL SHEATHING BEFORE STRUCTURAL COMPONENTS ARE LOADED.

PRECAST CONCRETE

- PRECAST CONCRETE MEMBERS SHALL BE DESIGNED IN ACCORDANCE WITH THE ACI BUILDING CODE, LATEST EDITION.
- PRECAST CONCRETE SHALL BE DETAILED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE ACI MANUALS AND THE AFOREMENTIONED CONCRETE PROVISIONS.
- PRECAST CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER DESIGN AND REINFORCING OF PRECAST CONCRETE FOR HANDLING AND ERECTION STRESSES.
- PRECAST MEMBERS SHALL BE ATTACHED AND SUPPORTED BY THE STRUCTURE AS INDICATED ON THE DRAWINGS.
- PRECAST MEMBERS SHALL BE DESIGNED AND REINFORCED FOR SELF-WEIGHT AND ALL SUPERIMPOSED LOADS SHOWN ON THE DRAWINGS.
- PRECAST MEMBERS SHALL BE CAPABLE OF SAFELY SUPPORTING ANY CONCENTRATED LOADS INDICATED BY THE STRUCTURAL, MECHANICAL, AND ARCHITECTURAL DRAWINGS.
- PRECAST CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS (HANGERS, CLIPS, PLATES, HEADERS, ANCHORAGES, ETC.) WHICH MUST BE PRECAST INTO THE CONCRETE UNLESS OTHERWISE NOTED OR REQUIRED FOR CONNECTION OF PRECAST TO STRUCTURE.
- CONTRACTOR SHALL COORDINATE LOCATIONS OF ALL HOLES OR OPENINGS WITH RESPECTIVE TRADES BEFORE FABRICATION. ANY DEVIATION FROM THESE LOCATIONS OR ADDITIONAL OPENINGS MUST BE APPROVED BY THE FABRICATOR.
- MAXIMUM ALLOWABLE CAMBER SHALL BE 1 INCH.
- FIRE RATING OF PRECAST FLOOR PLANK SHALL BE 2 HOUR .
- GROUT IN PRECAST MEMBER KEYWAYS SHALL BE NON-SHRINK GROUT. MINIMUM COMPRESSIVE STRENGTH SHALL BE 3500 PSI.
- WALL PANEL JOINTS SHALL BE FILLED WITH APPROVED FIRE STOP MATERIAL AND POLYURETHANE JOINT SEALANT.

CONCRETE MASONRY

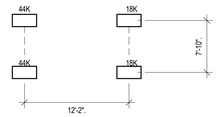
- PRODUCTION AND CONSTRUCTION OF CONCRETE MASONRY SHALL BE IN ACCORDANCE WITH THE "BUILDING CODE REQUIREMENTS FOR CONCRETE MASONRY STRUCTURES", ACI 530-05, AND THE NCMA TECHNICAL GUIDE.
- COLD WEATHER CONSTRUCTION SHALL BE IN COMPLIANCE WITH NCMA "RECOMMENDED PRACTICES AND GUIDE SPECIFICATIONS FOR COLD WEATHER MASONRY AND CONSTRUCTION."
- INSPECTED WORKMANSHIP STRESS VALUES WERE USED IN DESIGN. APPROPRIATE INSPECTION SHALL BE REQUIRED.
- STRENGTH OF CONCRETE MASONRY SHOWN IS BASED ON NET AREA OF UNIT.
- ALL MASONRY SHALL BE NORMAL WEIGHT UNITS IN ACCORDANCE WITH ACI.
- CALCIUM CHLORIDE OR ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL NOT BE USED.
- MASONRY WALLS SHALL BE ADEQUATELY BRACED TO RESIST WIND FORCES UNTIL PERMANENT DESIGN SUPPORTS ARE IN PLACE AND FUNCTIONAL. BRACING SHALL BE DESIGNED BY THE CONTRACTOR.
- PROVIDE DOWELS INTO FOUNDATION THE SAME SIZE AND NUMBER AS WALL REINFORCING.
- LAP REINFORCING BARS 48 DIAMETERS U.N.O.
- CONCRETE MASONRY WALL SHALL BE REINFORCED AT EVERY OTHER BED JOINT WITH 9 GAGE TRUSS TYPE JOINT REINFORCEMENT.
- VERTICAL BARS SHOWN ON THE DESIGN DRAWINGS SHALL BE PLACED IN A CONTINUOUS UNOBSTRUCTED CELL OF NOT LESS THAN 3 INCHES BY 4 INCHES.
- ALL BOND BEAM AND PILASTER SHALL BE REINFORCED AS SHOWN ON THE DESIGN DRAWINGS AND FILLED WITH GROUT.
- ALL DOOR AND WINDOW JAMBS SHALL BE GROUTED SOLID 8 INCHES WIDE UNLESS SHOWN OTHERWISE.
- WHERE NOT SHOWN OTHERWISE, MINIMUM SOLID GROUTED MASONRY BELOW BEAM REACTIONS SHALL BE 16 INCHES DEEP BY 32 INCHES LONG.
- WHERE NOT SHOWN OTHERWISE, MINIMUM SOLID GROUTED MASONRY BELOW LINTEL REACTIONS SHALL BE 16 INCHES DEEP BY 16 INCHES LONG.

MISCELLANEOUS

- DIMENSIONS OF EXISTING CONSTRUCTION OR CONSTRUCTION IN PROGRESS SHALL BE VERIFIED AND COORDINATED PRIOR TO FABRICATION OF STRUCTURAL COMPONENTS.
- VERIFY AND COORDINATE, WITH ALL CONTRACTORS, THE LOCATION OF ALL ARCHITECTURAL AND MECHANICAL APPURTENANCES AND OPENINGS.
- EXPANSION ANCHORS SHALL BE HILTI KWIK BOLT TZ OR APPROVED EQUAL.
- ADHESIVE ANCHORS SHALL BE HILTI SD500 OR APPROVED EQUAL.
- SLEEVE ANCHORS SHALL BE HILTI HLC OR APPROVED EQUAL.
- BOTTOM OF ALL FOOTINGS SHALL BE A MINIMUM OF 4'-0" BELOW LOWEST ADJACENT GRADE.

EQUIPMENT LOADS

VOLVO L220F (LOADED / LIFTING CONDITION)



PRE-CONTRACT WORK BY OWNER:

1. DEMOLITION OF SITE PAVEMENT AND RETAINING WALLS BY OWNER.
2. OWNER TO REMOVE AND REPLACE 4 TO 10 FEET OF POOR SOILS WITH LANDFILL SITE STOCKPILE MATERIAL APPROVED BY GEOTECHNICAL ENGINEER TO ELEVATION 871-6". SEE PROJECT MANUAL FOR COMPACTION REQUIREMENTS.

NOTE TO CONTRACTOR:

1. FOR EXCAVATION, BACKFILL, AND COMPACTION WORK SEE SPECIFIC COMPACTION REQUIREMENTS INDICATED IN PROJECT MANUAL.

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SHEET TITLE:

GENERAL NOTES

SHEET NUMBER:

S000

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FOOTING SCHEDULE

MARK	SIZE	REINFORCING
A	4'-6" x 4'-6" x 1'-6"	6 #5 E.W. BOT.
B	8'-6" x 8'-6" x 2'-0"	9 #6 E.W. BOT. (IN ADD. TO WALL FTG. REINF.)
C	5'-0" x 5'-0" x 1'-6"	6 #6 E.W. BOT.

CONCRETE COLUMN / PIER SCHEDULE

MARK	SIZE WxL	REINFORCING VERTICALS	REINFORCING TIES	TYPE	TOP OF PIER	MINIMUM ANCHOR BOLTS	REMARKS
A	22"x22"	8 - #8	#4@12"	II	886'-8"	N/A	1
B	18"x22"	8- #8	#4@12"	III	901'-5"	N/A	1
C	48"x48"	16- #10	#4@12"	IV	905'-10"	(6)-1" DIA. W/30" EMBED MIN., SEE 16/SS00 & 28/SS00	1
D	18"x30"	12 - #9	#4@12"	V	892'-9"	(4)-1 1/4" DIA. W/24" EMBED MIN., SEE 16/SS00 & 28/SS00	1
E	18"x18"	8 - #7	#4@12"	II	876'-8"	(4)-3/4" DIA. W/18" EMBED MIN., SEE 16/SS00 & 28/SS00	1
F	18"x18"	8 - #6	#4@12"	II	901'-5"	(4)-3/4" DIA. W/18" EMBED MIN., SEE 16/SS00 & 28/SS00	2
G	18"x18"	8 - #6	#4@12"	II	882'-10"	(4)-1" DIA. W/24" EMBED MIN., SEE 16/SS00 & 28/SS00	
H	18" DIA.	8 - #7	#4@12"	VI	876'-0" U.N.O. (TOP=)	(4)-5/8" DIA. W/16" EMBED MIN., SEE 16/SS00 & 28/SS00	1
J	18"x18"	8 - #7	#4@12"	II	892'-1"	(4)-3/4" DIA. W/18" EMBED MIN., SEE 16/SS00 & 28/SS00	1
K	12"x18"	4 - #7	#4@12"	I	877'-2 3/4"	(4)-3/4" DIA. W/18" EMBED MIN., SEE 16/SS00 & 28/SS00	1
L	30"x22"	16 - #8	#4@12"	VII	889'-4"	N/A	3
M	18"x22"	8 - #8	#4@12"	III	901'-5"	N/A	4

PIER SCHEDULE NOTES:
1. VERIFY ANCHOR BOLT PLACEMENT & PROJECTIONS W/ METAL BUILDING SUPPLIER.
2. SEE DETAIL 28/SS00 FOR TYPICAL ANCHOR BOLT.

PIER SCHEDULE REMARKS:

1. PROVIDE STANDARD HOOKS ON VERTICAL REINFORCING AT TOP OF PIER. ROTATE HOOKS TO AVOID ANCHOR RODS.
2. BOTTOM OF PIER EQUALS TOP OF DOOR OR TOP OF FOOTING AS APPLICABLE.
3. PROVIDE STANDARD HOOKS INTO CONCRETE BEAM FOR BARS THAT TERMINATE AT TOP FO 16" SLAB. PROVIDE CLASS "B" LAP WITH BARS THAT CONTINUE TO TOP FO WALL IN PIER (M).
4. BOTTOM OF PIER EQUAL TO TOP OF 16" SLAB AT 889'-4" BUT VERTICAL REINFORCEMENTHAVE A CLASS "B" LAP WITH PIER (L) REINFORCEMENT.

TYPE VI — TYPE VII

TYPE I — TYPE II — TYPE III — TYPE IV — TYPE V

FOUNDATION PLAN NOTES

- TYPICAL SLAB: 6" SLAB ON GRADE REINFORCED WITH FIBERS. SEE SPECIFICATIONS. TOS = 876'-0" INDICATED THUS = TOS = X'-X" ON PLAN.
- TYPICAL SLAB: 8" SLAB ON GRADE REINFORCED WITH FIBERS. SEE SPECIFICATIONS. TOS = VARIES INDICATED THUS = TOS = X'-X" ON PLAN. FOR EXTENTS OF SLAB SEE KEY NOTE 1.
- ALL FOOTINGS SHALL BEAR ON NATIVE SOILS OR STRUCTURAL FILL WITH SOIL BEARING CAPACITY OF 3000 PSF.
- COORDINATE WALL AND SLAB OPENING SIZES AND LOCATIONS WITH MECH., ELEC., OR PLUMBING. SEE DETAIL 1/SS00 FOR ADDITIONAL REINFORCING.
- SEE ARCHITECT FOR SLOPES IN SLAB @ FLOOR DRAINS
- ◀ = FOOTING STEP, SEE 17/SS00
- ⬡ = FOOTING MARK, SEE SCHEDULE THIS SHEET.
- ◯ = PIER MARK, SEE SCHEDULE THIS SHEET.
- TOP OF FOOTING INDICATED THUS: TOF = X'-X" ON THE PLAN
- TOP OF CONCRETE WALL INDICATED THUS: TOW = X'-X" ON THE PLAN, FOR TOP OF SITE RETAINING WALLS VERIFY WITH SHEET C400.
- C.J. = TYPICAL SLAB ON GRADE CONTROL OR CONSTRUCTION JOINT, SEE 8/SS00 OR 27/SS00.
- FOR TYPICAL DETAILS SEE SS00.
- I = STEEL COLUMN, BY METAL BUILDING CONTRACTOR.
- ⊠ = SLAB OPENINGS

KEY NOTES

1. EXTENTS OF 8" SLAB ON GRADE. SLAB SLOPES SEE ELEVATION MARKERS ON PLAN.
2. SOIL BELOW TIPPING SLAB
3. 6" SLAB ON GRADE EXCEPT AT PIT, SEE PLAN NOTES.
4. 1 1/2" x 3/4" MINI-MESH OR APPROVED EQUAL FIBERGLASS GRATING WITH LOAD CAPACITY OF LL = 150 PSF OR 1000lbs POINT LOAD AT MIDSPAN.
5. SLAB OPENING W/ 1 1/2" x 3/4" MINI-MESH OR APPROVED EQUAL FIBERGLASS GRATING WITH LOAD CAPACITY OF LL = 150 PSF OR 1000lbs POINT LOAD AT MIDSPAN. SEE PLAN FOR DIMENSIONS.
6. 3"x18 GA. NON COMPOSITE METAL DECK AS FORM WITH NORMAL WEIGHT CONCRETE SLAB FOR TOTAL THICKNESS OF 9 INCHES REINFORCE WITH (2)#7 PER FLUTE & 3/4" CLEAR FROM DECK IN LONG DIRECTION & #7@8" O.C. 3/4" CLEAR FROM TOP OF DECK.
7. 6" WIDE x 2" HIGH CURB. SEE DETAIL 3/SS02 FOR REINFORCING. PROVIDE SHORING AROUND OPENING UNTIL CONCRETE HAS REACHED THE SPECIFIED STRENGTH. TOP OF CURB ELEVATION = 875'-11".
8. FULLY GROUTED 8" CMU WALL W/ #7@8" O.C. VERTICAL BARS.
9. PARTIALLY GROUTED 8" CMU WALL W/ #5@48" O.C. VERTICAL BARS.
10. MOCK-UP 8" TIPPING SLAB AND CONSTRUCTION JOINT DOWELS. SEE PLAN NOTE ON S101 & 27/SS00.
11. 7'-4" WIDE x 7'-4" HIGH ROUGH DOOR OPENING. VERIFY SIZE W/ ARCH. SEE DETAIL 1/SS00 FOR REINFORCING AROUND OPENING. SEE MEP FOR MEP OPENING LOCATIONS.
12. 4" DRAIN TILE AT BOTTOM OF DRAINAGE LAYER WITH 1" CLEAR STONE MIN. 4" THICK ON ALL SIDES. PROVIDE FILTER FABRIC BETWEEN SOIL AND CLEAN STONE.
13. SEE ARCH. PLAN FOR DOUBLE DOOR OPENING.
14. MEP OPENING SEE MEP DRAWINGS FOR LOCATION OF THIS AND OTHER OPENINGS.
15. PARTIALLY GROUTED 6" CMU WALL WITH #4@48" O.C. VERTICAL BARS. BOND BEAMS WITH (2)#4 @ 10'-0" ABOVE FINISH FLOOR AND 20'-0" ABOVE FINISH FLOOR.
16. 4" DRAIN TILE AT BOTTOM OF DRAINAGE LAYER WITH 1" CLEAR STONE MIN. 4" THICK ON ALL SIDES. PROVIDE FILTER FABRIC BETWEEN SOIL AND CLEAN STONE. SEE PLUMBING FOR CONNECTIONS.
17. FROST STOOP AT MANDOOR. SEE DETAIL 14/SS02 AND ARCH . FOR EXACT LOCATIONS.

1 S100 - Structural Foundation Plan
1/8" = 1'-0"

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CONSULTANTS:

PROJECT TITLE:

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WASTE FACILITY
RODEFELD LANDFILL

ISSUE:

PROJECT INFORMATION:

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CHECKED BY:	JWH
APPROVED BY:	DFW
SCALE:	AS NOTED

SHEET TITLE:

FOUNDATION PLAN

SHEET NUMBER:

S100

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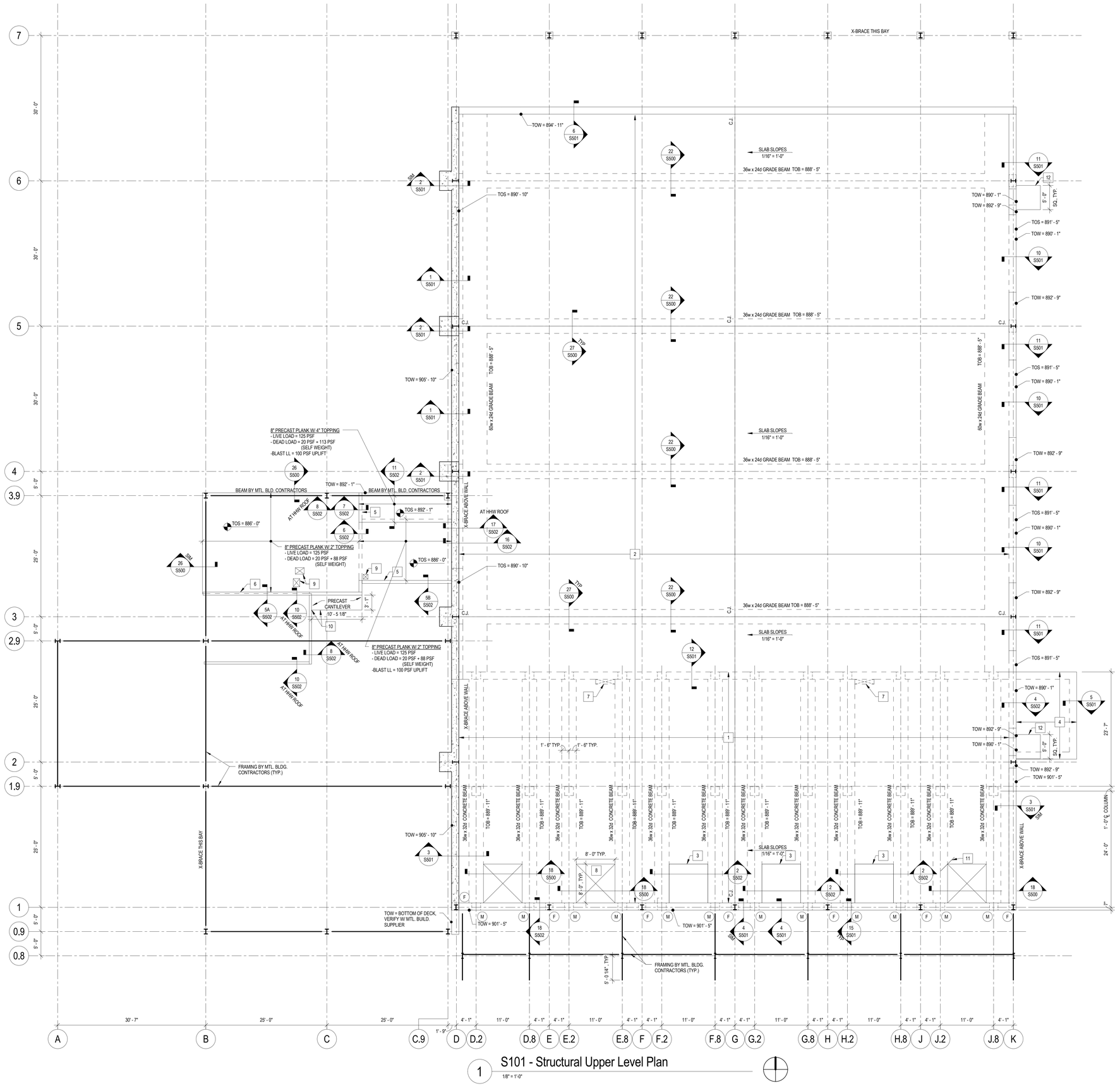

1 S101 - Structural Upper Level Plan
1/8" = 1'-0"

UPPER LEVEL PLAN NOTES

- TYPICAL SLAB: 10" TIPPING SLAB WITH SHRINKAGE REDUCING CONCRETE SEE SPECIFICATIONS FOR REINFORCING. SLAB SLOPES 1/16" PER FOOT, SEE TOS = X'-X" ON PLAN.
- TYPICAL SLAB: 16" STRUCTURAL SLAB REINFORCED WITH EPOXY COATED:
  #5@12" O.C. EAST / WEST BOTTOM 1 1/2" COVER
  #5@18" O.C. NORTH / SOUTH BOTTOM
  #6@12" O.C. NORTH / SOUTH TOP
  #8@12" O.C. EAST / WEST TOP 1 1/2" COVER
  TOP OF STRUCTURAL SLAB = 889'-4"(LEVEL)
  FOR EXTENTS OF SLAB SEE KEY NOTE 1.
- TOP OF BEAM ELEVATION INDICATED THUS: TOB = X'-X" ON PLAN, SEE DETAIL 19/S500.
- SEE ARCHITECT FOR SLOPES IN SLAB @ FLOOR DRAINS
- COORDINATE WALL AND SLAB OPENING SIZES AND LOCATIONS WITH MECH., ELEC., OR PLUMBING. SEE DETAIL 1/S500 FOR ADDITIONAL REINFORCING.
- TOP OF CONCRETE WALL INDICATED THUS: TOW = X'-X" ON PLAN, SEE SECTIONS TO DETERMINE JOINT BETWEEN SLAB AND WALL.
- TOP OF SLAB IS NOTED AS TOS = X'-X" ON PLAN. TOS AT PRECAST PLANK INDICATES TOP OF TOPPING SLAB.
- C.J. = TYPICAL SLAB ON GRADE CONTROL OR CONSTRUCTION JOINT, SEE 1/S500.
- FOR STOOP DETAIL SEE 19/S502.
- (X) = PIER MARK, SEE SCHEDULE ON S100.
- = STEEL COLUMN, BY METAL BUILDING CONTRACTOR.
- = SLAB OPENINGS, PRECASTER TO PROVIDE HEADER AS REQUIRED.
- = 8" INTERIOR LOAD BEARING CMU WALL.
- = 8" INTERIOR NON LOAD-BEARING CMU WALL.
- FOR CONCRETE BEAMS, TOP OF BEAM INDICATED THUS: TOB = XX'-XX" ON PLAN. SEE DETAIL 19/S500.

KEY NOTES

1	EXTENTS OF 16" STRUCTURAL SLAB, BELOW TIPPING SLAB. SEE PLAN NOTES
2	10" TIPPING SLAB-ON-GRADE, SEE PLAN NOTES.
3	FUTURE OPENING. SEE DETAIL 2/S502.
4	18" STRUCTURAL SLAB OVER ELECTRICAL ROOM REINF. W/ EPOXY COATED #6@12" O.C. EACH WAY TOP & BOTTOM. PROVIDE 3/4" CLEAR FOR BOTTOM MAT BOTTOM EAST-WEST BARS & 2" CLEAR FOR TOP MAT TOP EAST-WEST BARS. TOP OF SLAB = 883'-2"
5	FULLY GROUTED 8" CMU WALL W/#7@48" O.C. VERT.
6	PARTIALLY GROUTED 8" CMU WALL W/#5@48" O.C. VERT.
7	MECH., ELEC., OR PLUMBING OPENING. COORDINATE SIZES AND LOCATIONS WITH APPROPRIATE DISCIPLINES. SEE DETAIL 1/S500 FOR ADDITIONAL REINFORCING.
8	BASE BID: USE SECTION 1/S502 THROUGH OPENING. ALTERNATE BID: USE SECTION 2/S502 THROUGH OPENING.
9	MEP OPENING IN PRECAST COORDINATE SIZE AND LOCATIONS WITH MEP DRAWINGS. PROVIDE STEEL HEADERS AS REQUIRED.
10	COORDINATE METAL STAIR CONNECTIONS WITH PRECAST SUPPLIER.
11	PROVIDE #4 x 4'-0" DIAGONAL TOP AND BOTTOM @ ALL INTERIOR CORNERS OF SLAB OPENINGS.
12	FROST STOOP AT MANDOOR. SEE DETAIL 14/S502 AND ARCH . FOR EXACT LOCATIONS.

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SHEET TITLE:
STRUCTURAL UPPER LEVEL PLAN

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S101

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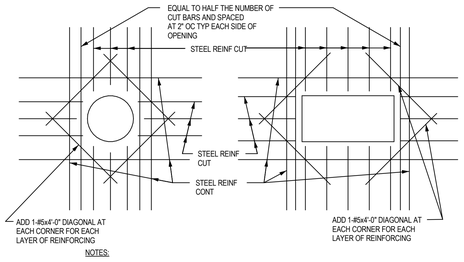
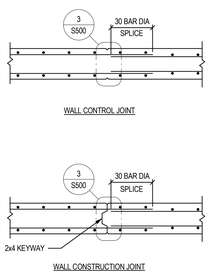
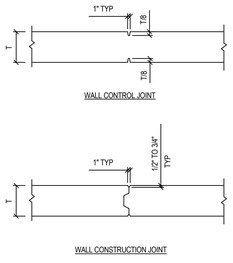


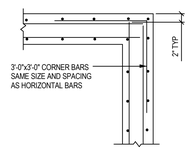
1 WALL OPENING REINFORCING
1/2" = 1'-0"



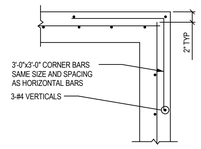
2 WALL JOINT REINF.
1/2" = 1'-0"



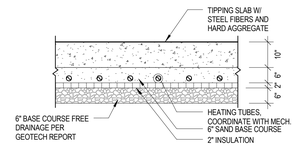
3 WALL JOINTS
1/2" = 1'-0"



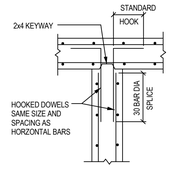
5 WALL CORNER
1/2" = 1'-0"



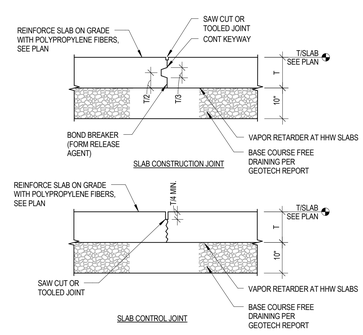
4 WALL CORNER
1/2" = 1'-0"



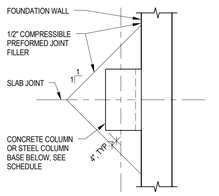
7 TIPPING SLAB
1/2" = 1'-0"



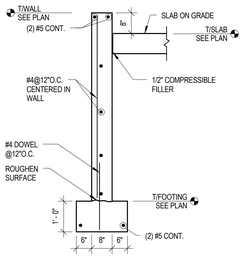
6 WALL INTERSECTION
1/2" = 1'-0"



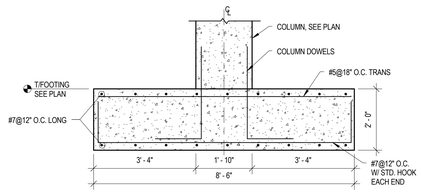
8 TYP. 6" & 8" S.O.G. JOINT DETAILS
1/2" = 1'-0"



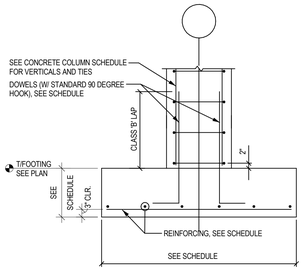
9 TYP. PERIMETER SLAB ISOLATION JOINT
1/2" = 1'-0"



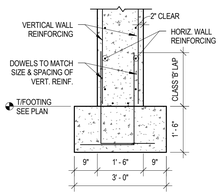
10 STRIP FOOTING
1/2" = 1'-0"



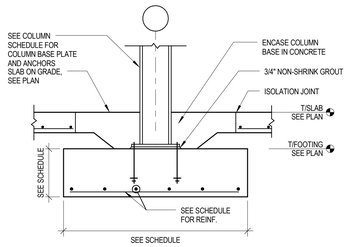
11 SECTION @ STRIP FOOTING
1/2" = 1'-0"



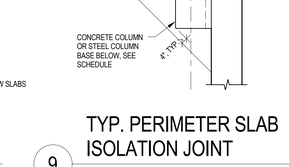
12 SPREAD FTG AT CONCRETE COL.
1/2" = 1'-0"



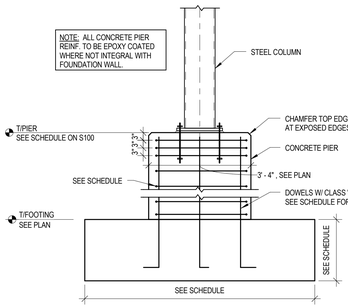
13 TYP. SECTION @ WALL FOOTING
1/2" = 1'-0"



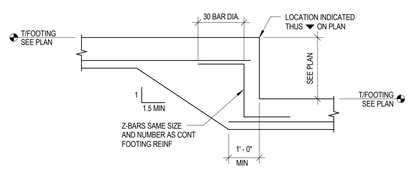
14 SPREAD FOOTING AT STEEL COLUMN
1/2" = 1'-0"



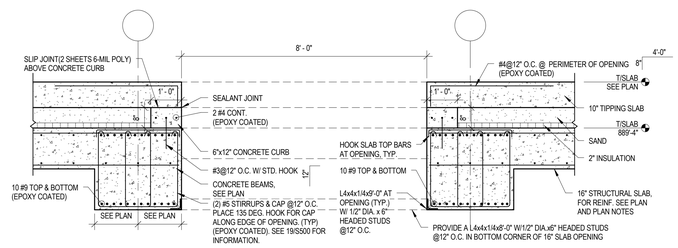
15 TYP. CMU WALL ON THICKENED SLAB
1/2" = 1'-0"



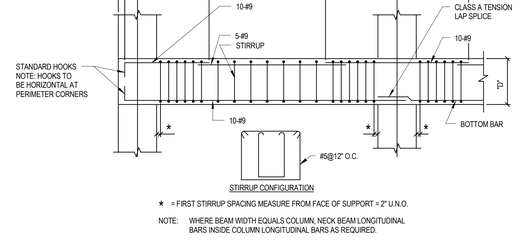
16 TYP. CONCRETE PIER
1/2" = 1'-0"



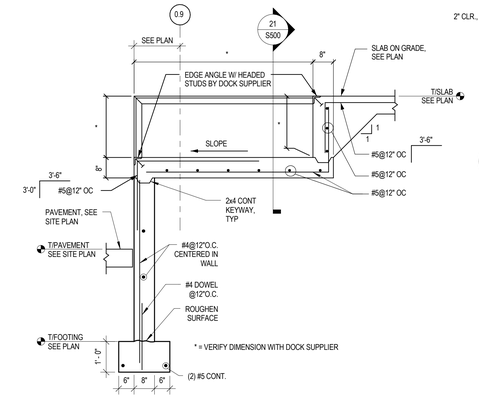
17 TYP. FOOTING STEP
1/2" = 1'-0"



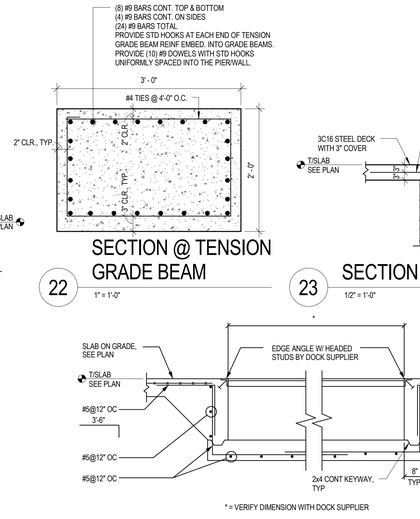
18 SECTION @ SLAB OPENING
1/2" = 1'-0"



19 TYPICAL BEAM DIAGRAM
1/2" = 1'-0"



20 DOCK LEVELER
1/2" = 1'-0"



21 DOCK LEVELER PIT
1/2" = 1'-0"

22 SECTION @ TENSION GRADE BEAM
1" = 1'-0"

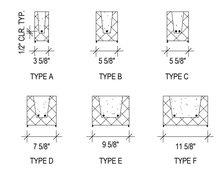
23 SECTION
1/2" = 1'-0"

CMU LINTEL SCHEDULE

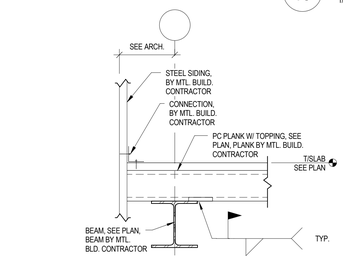
USE AT ALL OPENINGS FOR MASONRY WALLS

WALL THICKNESS	SPAN	REINFORCEMENT	TYPE DETAIL
4"	4'-0" OR LESS	1 - #4	A
	4'-0" TO 6'-0"	1 - #5	A
6"	4'-0" OR LESS	1 - #4	B
	4'-0" TO 6'-0"	1 - #5	B
	6'-0" TO 8'-0"	2- #6	C
8"	6'-0" OR LESS	2 - #5	D
	6'-0" TO 8'-0"	2 - #6	D
10"	6'-0" OR LESS	2 - #5	E
	6'-0" TO 8'-0"	2 - #8	E
12"	6'-0" OR LESS	2 - #6	F
	6'-0" TO 10'-0"	2 - #8"	F

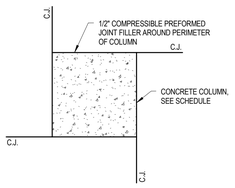
CMU LINTEL NOTES:
1. USE LOAD BEARING CONCRETE UNITS FOR LINTELS.
2. FILL UNITS SOLID WITH ASTM C476 GROUT.
3. USE FULL MORTAR BEDDING FOR COURSE ABOVE AND AT BEARING.
4. CONCRETE MASONARY LINTELS SHALL BEAR A MINIMUM OF 8" EACH END.
5. SEE PLANS FOR LINTELS AT BEARING WALLS.



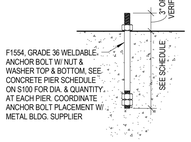
24 TYP. CMU LINTEL SCHEDULE
3/4" = 1'-0"



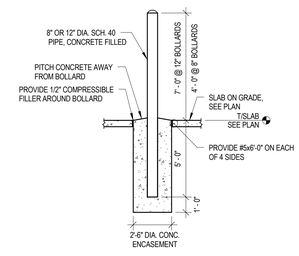
26 SECTION
3/4" = 1'-0"



25 TYP. ISOLATION JOINT AT INTERIOR COLUMN
3/4" = 1'-0"



28 TYP. ANCHOR BOLT
1 1/2" = 1'-0"



29 TYP. BOLLARD DETAIL
1/4" = 1'-0"

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AND HOUSEHOLD HAZARDOUS
WASTE FACILITY
RODEFELD LANDFILL

ISSUE:

PROJECT INFORMATION:

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DRAWN BY:	JRW
CHECKED BY:	JWH
APPROVED BY:	DFW
SCALE:	AS NOTED

SHEET TITLE:
DETAILS

SHEET NUMBER:
S500

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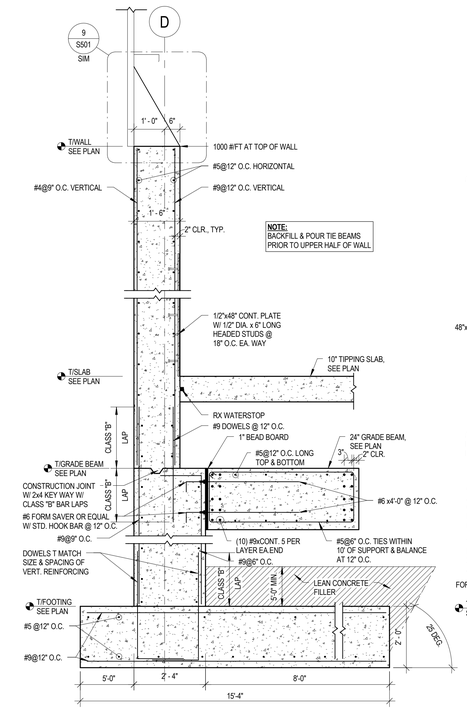
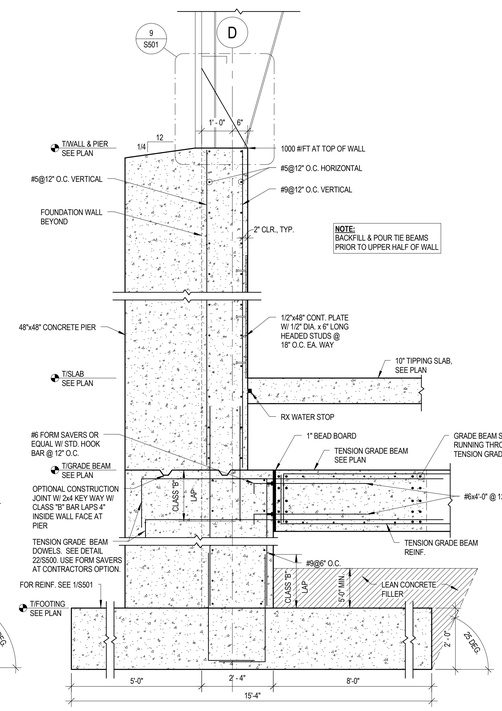


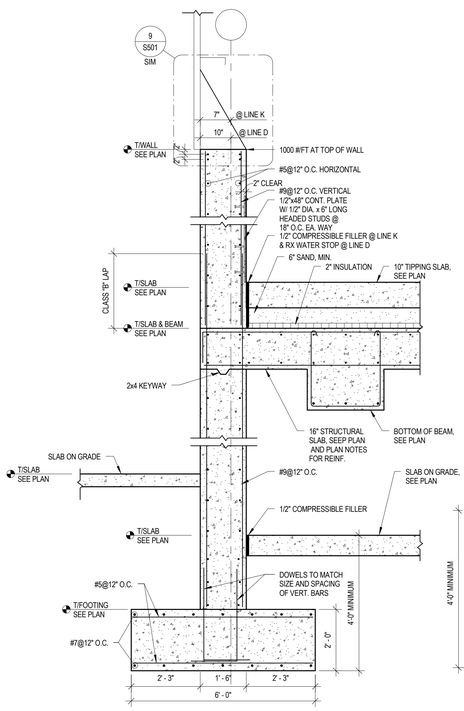
1 SECTION @ PUSH WALL

1/2" = 1'-0"



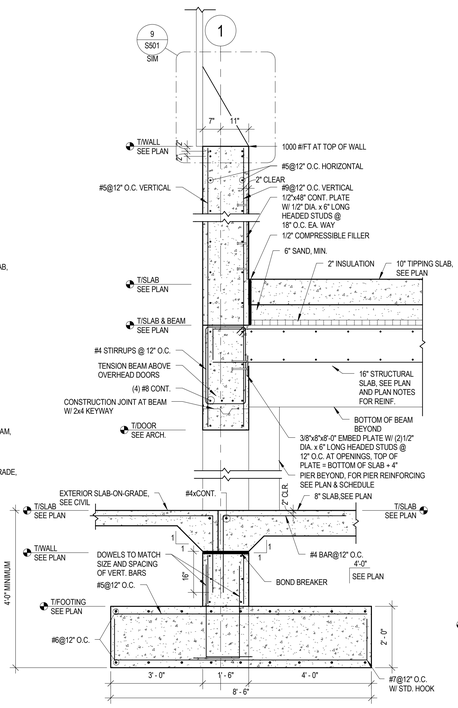
2 PIER SECTION @ PUSH WALL

1/2" = 1'-0"



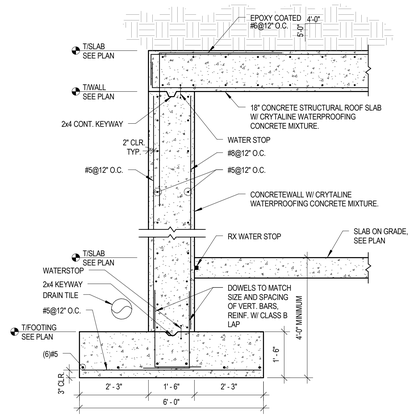
3 SECTION @ PUSH WALL

1/2" = 1'-0"



4 SECTION @ PUSH WALL

1/2" = 1'-0"



5 SECTION @ ELECTRICAL ROOM

1/2" = 1'-0"

6 SECTION @ INTERIOR RETAINING WALL

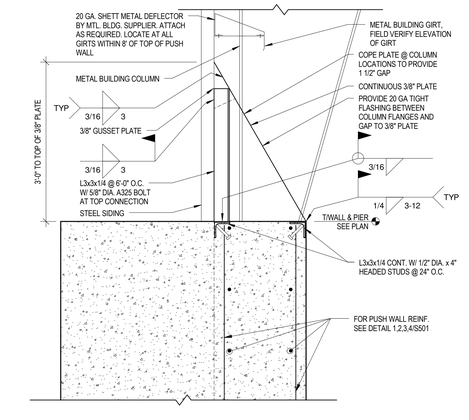
1/2" = 1'-0"

7 SECTION @ SITE RETAINING WALL

1/2" = 1'-0"

8 SECTION @ SITE RETAINING WALL

1/2" = 1'-0"



9 SECTION @ CONTINUOUS PLATE AT PUSHWALL

1" = 1'-0"

10 SECTION @ FOUNDATION WALL

1/2" = 1'-0"

11 SECTION @ FOUNDATION WALL

1/2" = 1'-0"

12 SECTION @ FOUNDATION WALL

1/2" = 1'-0"

13 SECTION @ FOUNDATION WALL

1/2" = 1'-0"

14 TRENCH DRAIN DETAIL

1" = 1'-0"

15 PIER SECTION @ BEAM

1/2" = 1'-0"

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APPROVED BY:	DFW
SCALE:	AS NOTED

SHEET TITLE:

DETAILS

SHEET NUMBER:

S501

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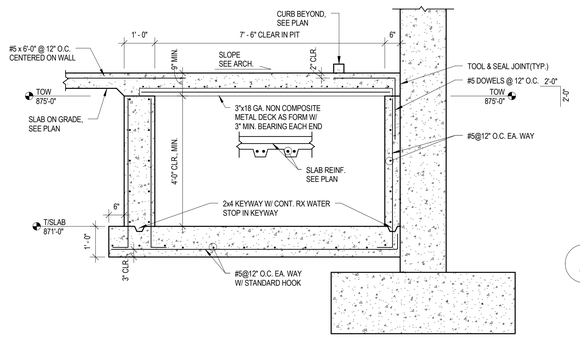
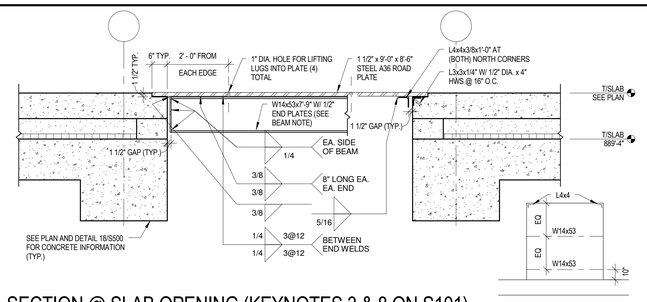
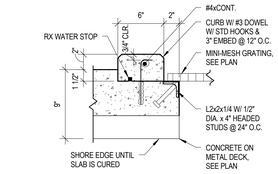


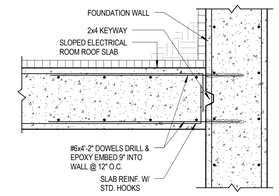
1 SECTION @ CONTAINMENT PIT
1/2" = 1'-0"



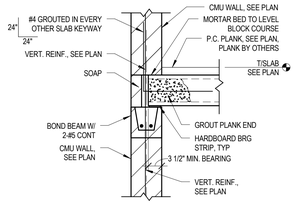
2 SECTION @ SLAB OPENING (KEYNOTES 3 & 8 ON S101)
1/2" = 1'-0"



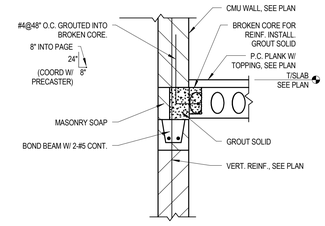
3 CURB DETAIL
1 1/2" = 1'-0"



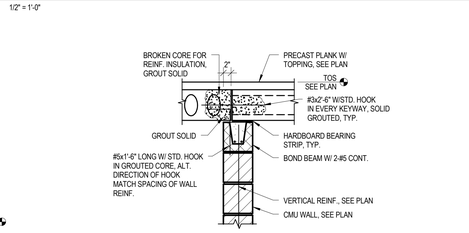
4 SECTION @ ELECTRICAL ROOM ROOF
3/4" = 1'-0"



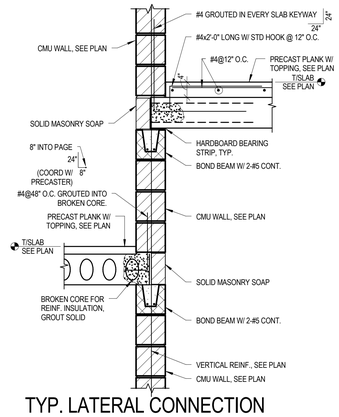
5A TYPICAL INTERIOR WALL (BEARING PLANK FROM ONE SIDE)
3/4" = 1'-0"



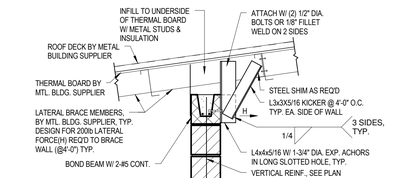
5B TYPICAL INTERIOR WALL (NON-BEARING PLANK)
3/4" = 1'-0"



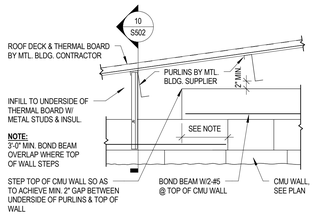
6 TYP. LATERAL CONNECTION OF NON-LOAD BEARING WALL AT CONTINUOUS SLAB
3/4" = 1'-0"



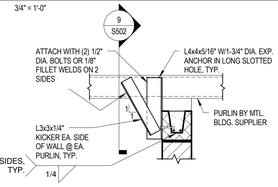
7 TYP. LATERAL CONNECTION OF CMU WALL AT SLABS
3/4" = 1'-0"



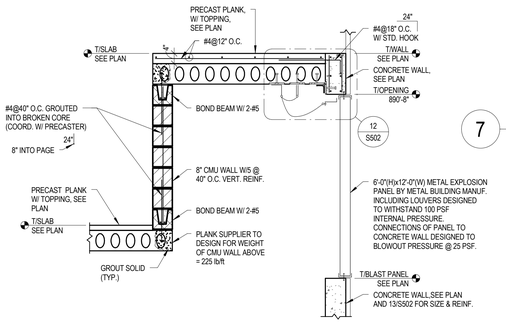
8 TOP OF CMU WALL AT ROOF
3/4" = 1'-0"



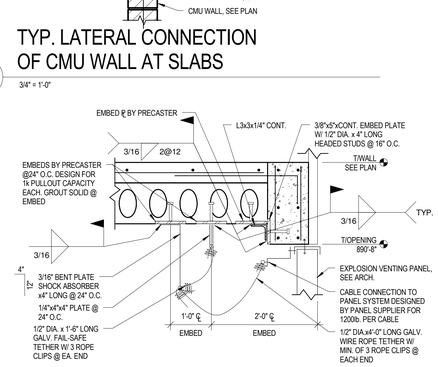
9 TOP OF CMU WALL AT ROOF
3/4" = 1'-0"



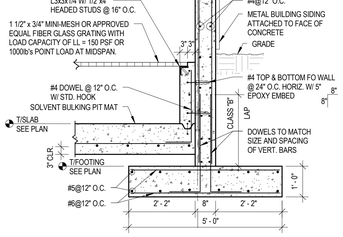
10 TOP OF CMU WALL AT ROOF
3/4" = 1'-0"



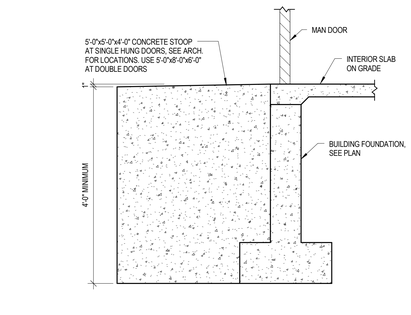
11 SECTION @ EXPLOSION RELIEF PANEL
1/2" = 1'-0"



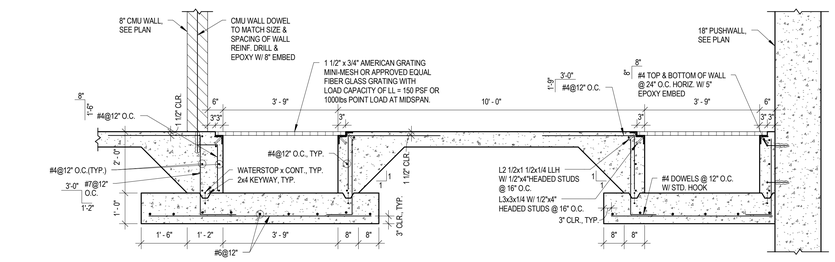
12 SECTION @ EXPLOSION RELIEF PANEL
1" = 1'-0"



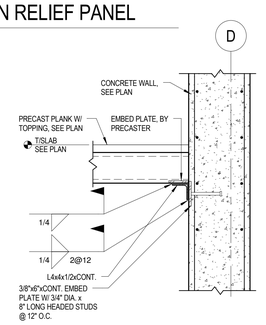
13 SECTION
1/2" = 1'-0"



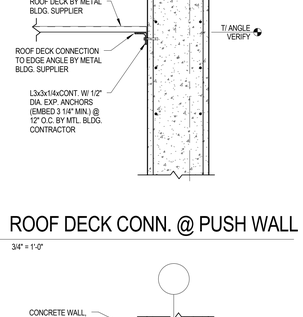
14 TYPICAL STOOP SECTION
1/2" = 1'-0"



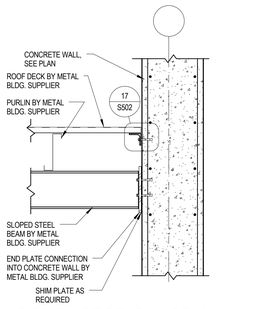
15 SOLVENT BULKING PIT SECTION
1/2" = 1'-0"



16 LOAD BEARING PLANK @ PUSH WALL
3/4" = 1'-0"



17 ROOF DECK CONN. @ PUSH WALL
3/4" = 1'-0"



18 COMPACTOR CANOPY FRAMING CONNECTION
3/4" = 1'-0"

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SCALE:	AS NOTED

SHEET TITLE:

DETAILS

SHEET NUMBER:

S502

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MECHANICAL SYMBOLS AND ABBREVIATIONS

NOTE: NOT ALL SYMBOLS AND ABBREVIATIONS INDICATED HERE ARE USED IN THE DRAWINGS AND MAY NOT APPLY TO THIS PROJECT. ADDITIONAL SYMBOLS MAY BE INDICATED IN THE DRAWINGS.

MECHANICAL ABBREVIATIONS

ADJ	-	ADJUSTABLE
AFF	-	ABOVE FINISHED FLOOR
AL	-	ALUMINUM
ALT	-	ALTERNATE
AP	-	ACCESS PANEL
APD	-	AIR PRESSURE DROP
APPROX	-	APPROXIMATE
ARCH	-	ARCHITECTURAL
AVG	-	AVERAGE
BAS	-	BUILDING AUTOMATION SYSTEM
BOB	-	BOTTOM OF BEAM
BOD	-	BOTTOM OF DUCT
BOP	-	BOTTOM OF PIPE
BTU	-	BRITISH THERMAL UNITS
BTUH	-	BRITISH THERMAL UNITS PER HOUR
CAV	-	CONSTANT AIR VOLUME
CFH	-	CUBIC FEET PER HOUR
CFM	-	CUBIC FEET PER MINUTE
CL	-	CENTERLINE
CLG	-	CEILING
COND	-	CONDENSATE
CONTR	-	CONTRACTOR
COP	-	COEFFICIENT OF PERFORMANCE
CU	-	COPPER
DAP	-	DUCT ACCESS PANEL
DB	-	DRY BULB
DDC	-	DIRECT DIGITAL CONTROL
DEG	-	DEGREES
DIA	-	DIAMETER
DIM	-	DIMENSION
DN	-	DOWN
DWG	-	DRAWING
DX	-	DIRECT EXPANSION
EA	-	EXHAUST AIR
EAT	-	ENTERING AIR TEMPERATURE
EC	-	ELECTRICAL CONTRACTOR
EDR	-	EQUIVALENT DIRECT RADIATION
EFF	-	EFFICIENCY
ELEC	-	ELECTRICAL
ELEV	-	ELEVATION
EM	-	EMERGENCY
ESP	-	EXTERNAL STATIC PRESSURE
ETR	-	EXISTING TO REMAIN
EWT	-	ENTERING WATER TEMPERATURE
EXH	-	EXHAUST
EXP	-	EXPANSION
EXIST	-	EXISTING
F	-	FAHRENHEIT
FC	-	FORWARD CURVED
FLA	-	FULL LOAD AMPS
FLR	-	FLOOR
FM	-	FACTORY MUTUAL
FPD	-	FLUID PRESSURE DROP
FPI	-	FINS PER INCH
FPM	-	FEET PER MINUTE
FPS	-	FEET PER SECOND
FAT	-	FLOAT AND THERMOSTATIC
FT	-	FEET
FTG	-	FOOTING
GA	-	GAUGE
GAL	-	GALLON
GALV	-	GALVANIZED
GBD	-	GRAVITY BACKDRAFT DAMPER
GC	-	GENERAL CONTRACTOR
GPM	-	GALLONS PER MINUTE
GPH	-	GALLONS PER HOUR
HP	-	HORSEPOWER
ID	-	INSIDE DIAMETER
IE	-	INVERT ELEVATION
IN	-	INCHES
LAT	-	LEAVING AIR TEMPERATURE
LBHR	-	POUNDS PER HOUR
LF	-	LINEAR FEET
LTG	-	LIGHTING
LWT	-	LEAVING WATER TEMPERATURE
MAX	-	MAXIMUM
MBH	-	THOUSANDS OF BTU PER HOUR
MC	-	MECHANICAL CONTRACTOR
MCA	-	MINIMUM CIRCUIT AMPACITY
MCC	-	MOTOR CONTROL CENTER
MEP	-	MECHANICAL, ELECTRICAL AND PLUMBING
MER	-	MECHANICAL EQUIPMENT ROOM
MEZZ	-	MEZZANINE
MFR	-	MANUFACTURER
MIN.	-	MINIMUM
MISC	-	MISCELLANEOUS
NA	-	NOT APPLICABLE
NC	-	NORMALLY CLOSED
NIC	-	NOT IN CONTRACT
NO	-	NORMALLY OPEN
NPS	-	NOMINAL PIPE SIZE
NPSH	-	NET POSITIVE SUCTION HEAD
NPT	-	NATIONAL PIPE THREAD
NR	-	NEAR
NTS	-	NOT TO SCALE
OA	-	OUTSIDE AIR
OC	-	ON CENTER
OED	-	OPEN END DUCT
OLP	-	OVERLOAD PROTECTION
OV	-	OUTLET VELOCITY
PC	-	PLUMBING CONTRACTOR
PCF	-	POUNDS PER CUBIC FOOT
PD	-	PRESSURE DROP
PH	-	PHASE
PLBG	-	PLUMBING
POC	-	POINT OF CONNECTION
PPH	-	POUNDS PER HOUR
PRV	-	PRESSURE RELIEF VALVE
PSF	-	POUNDS PER SQUARE FOOT
PSI	-	POUNDS PER SQUARE INCH
PSIA	-	POUNDS PER SQUARE INCH ABSOLUTE
PSIG	-	POUNDS PER SQUARE INCH GAUGE
PVC	-	POLYVINYL CHLORIDE
RA	-	RETURN AIR
REQD	-	REQUIRED
RF	-	ROOF
RH	-	RELATIVE HUMIDITY
RPM	-	REVOLUTIONS PER MINUTE
SA	-	SUPPLY AIR
SCH	-	SCHEDULE
SHT	-	SHEET
SP	-	STATIC PRESSURE
SPEC	-	SPECIFICATION
SQ	-	SQUARE
S/S	-	STAINLESS STEEL
STD	-	STANDARD
STRUCT	-	STRUCTURAL
T&P	-	TEMPERATURE AND PRESSURE
TA	-	TRANSFER AIR
TBR	-	TO BE REMOVED
TC	-	TEMPERATURE CONTROL
TEMP	-	TEMPERATURE
TOB	-	TOP OF BEAM
TOD	-	TOP OF DUCT
TOP	-	TOP OF PIPE
TOS	-	TOP OF SLAB
TSP	-	TOTAL STATIC PRESSURE
T STAT	-	THERMOSTAT
TYP	-	TYPICAL
UC	-	UNDERCUT DOOR
UNO	-	1" (BY GENERAL CONTRACTOR) UNLESS OTHERWISE NOTED
V	-	VOLTS
VA	-	VALVE
VAV	-	VARIABLE AIR VOLUME
VEL	-	VELOCITY
VP	-	VELOCITY PRESSURE
VTR	-	VENT THRU ROOF
W/	-	WITH
W/O	-	WITHOUT
WB	-	WET BULB
WC	-	WATER COLUMN
WG	-	WATER GAUGE
X	-	EXISTING

MECHANICAL EQUIPMENT ABBREVIATIONS

AC	-	AIR CONDITIONING UNIT/AIR COMPRESSOR
ACC	-	AIR COOLED CONDENSER
ACCU	-	AIR COOLED CONDENSING UNIT
ACU	-	AIR CONDITIONING UNIT
AHU	-	AIR HANDLING UNIT
AMD	-	AIR MIXING DEVICE
ARU	-	AIR ROTATION UNIT
AS	-	AIR SEPARATOR
AT	-	AIR TERMINAL DEVICE
B	-	BOILER
BBS	-	BOILER BLOWDOWN SEPARATOR
BC	-	BOOSTER COIL
BFS	-	BOILER FEEDWATER SYSTEM
C	-	CONVECTOR
CC	-	COOLING COIL
CH	-	CHILLER
CP	-	CONDENSATE PUMP
CRU	-	CONDENSATE RETURN UNIT
CT	-	COOLING TOWER
CUH	-	CABINET UNIT HEATER
CV	-	CONVECTOR
DC	-	DUST COLLECTOR
DH	-	DEHUMIDIFIER
EBB	-	ELECTRIC BASEBOARD
EF	-	EXHAUST FAN
EH	-	EXHAUST HOOD
EJ	-	EXPANSION JOINT
ET	-	EXPANSION TANK
EUH	-	ELECTRIC UNIT HEATER
F	-	FILTER
FCU	-	FAN COIL UNIT
FD	-	FLOOR DRAIN
FOP	-	FUEL OIL PUMP
FOT	-	FUEL OIL TANK
FTR	-	FIN TUBE RADIATION
GF	-	GAS FURNACE
GV	-	GRAVITY VENTILATOR
H	-	HUMIDIFIER
HC	-	HEATING COIL
HP	-	HEAT PUMP
HRC	-	HEAT RECOVERY COIL
HRD	-	HEAT RECLAIM DEVICE
HX	-	HEAT EXCHANGER
IAH	-	INTAKE AIR HOOD
IF	-	INLINE FAN
IFH	-	INFRARED HEATER
LP	-	LOUVERED PENTHOUSE
MAU	-	MAKE-UP AIR UNIT
MCC	-	MOTOR CONTROL CENTER
P	-	PUMP
RAHU	-	ROOFTOP AIR HANDLING UNIT
RCP	-	RADIANT CEILING PANEL
REF	-	ROOF EXHAUST FAN
RF	-	RETURN FAN
RH	-	RELIEF HOOD
RTU	-	ROOFTOP UNIT
RV	-	ROOF VENTILATOR
SA	-	SOUND ATTENUATOR
SF	-	SUPPLY FAN
T	-	TANK
TXV	-	THERMAL EXPANSION VALVE
UH	-	UNIT HEATER
UST	-	UNDERGROUND STORAGE TANK
UV	-	UNIT VENTILATOR
V	-	VALVE
VFD	-	VARIABLE FREQUENCY DRIVE
VP	-	VACUUM PUMP

PIPING SYSTEMS AND FITTINGS

- BBD — BOILER BLOW DOWN
- BF — BOILER FEED
- BI — BREATHABLE AIR
- CWS — CHILLED WATER SUPPLY
- CWR — CHILLED WATER RETURN
- A — COMPRESSED AIR
- CDS — CONDENSER WATER SUPPLY
- CDR — CONDENSER WATER RETURN
- D — DRAIN LINE
- FOF — FUEL OIL FILL
- FOS — FUEL OIL SUPPLY
- FOR — FUEL OIL RETURN
- FOV — FUEL OIL VENT
- GCWS — GLYCOL CHILLED WATER SUPPLY
- GCWR — GLYCOL CHILLED WATER RETURN
- HPWS — HEAT PUMP WATER SUPPLY
- HPWR — HEAT PUMP WATER RETURN
- HPS — HIGH PRESSURE STEAM
- HPC — HIGH PRESSURE CONDENSATE
- HWS — HOT WATER SUPPLY
- HWR — HOT WATER RETURN
- H — HUMIDIFICATION
- LP — LIQUEFIED PETROLEUM GAS
- MU — MAKE-UP WATER
- MPS — MEDIUM PRESSURE STEAM
- MPC — MEDIUM PRESSURE CONDENSATE
- NG — NATURAL GAS
- N2 — NITROGEN
- V — VENT LINE
- PC — PUMPED CONDENSATE
- RHG — REFRIGERANT HOT GAS
- RL — REFRIGERANT LIQUID
- RS — REFRIGERANT SUCTION
- RV — REFRIGERANT VENT
- VAC — VACUUM (AIR)

PIPE VALVES AND SPECIALTIES

- ANGLE VALVE
- BALANCING VALVE (CIRCUIT SETTER) — C.S.
- BALL VALVE
- BUTTERFLY VALVE
- BUTTERFLY VALVE WITH ACTUATOR
- CHECK VALVE (ARROW INDICATES FLOW DIRECTION)
- DIAPHRAGM VALVE
- DRAIN VALVE WITH CAPPED OUTLET — ¾"
- FLOAT OPERATED VALVE
- GATE VALVE
- GLOBE VALVE
- PLUG VALVE
- PRESSURE REDUCING VALVE
- PRESSURE RELIEF VALVE
- SHUTOFF VALVE (SEE SPECIFICATION FOR TYPE)
- SOLENOID VALVE
- THERMAL EXPANSION VALVE
- TRIPLE DUTY VALVE
- 2-WAY CONTROL VALVE
- 3-WAY CONTROL VALVE
- FLANGE
- UNION
- ANCHOR
- PIPE GUIDE
- ECCENTRIC REDUCER
- CONCENTRIC REDUCER
- LINE CONTINUATION BREAK
- PIPELINE STRAINER
- ELBOW DOWN
- ELBOW UP
- TEE DOWN
- TEE UP
- PIPE CAP
- VALVE IN VERTICAL
- AUTOMATIC AIR VENT — AV
- MANUAL AIR VENT — MAV
- BALL JOINT
- EXPANSION JOINT — EJ
- FLEXIBLE CONNECTION
- FLOW SWITCH — FS
- FLOW METER — FM
- PETE'S PLUG
- PRESSURE GAUGE
- PRESSURE SWITCH — PS
- STEAM TRAP (INDICATE TYPE: T - THERMOSTATIC TRAP; F&T - FLOAT AND THERMOSTATIC TRAP; IB - INVERTED BUCKET TRAP) — XX
- THERMOMETER
- DIRECTION OF FLOW
- DIRECTION OF PITCH RISE (R) OR DROP (D) — R

NOTE:
(X) PRIOR TO SYSTEM TYPE DENOTES EXISTING PIPING (i.e. XHWS - EXISTING HOT WATER SUPPLY)

(XX) = SYSTEM PRESSURE IN PSIG (i.e. 15 PSIG)

DUCTWORK FITTINGS

SINGLE LINE DUCTWORK | DOUBLE LINE DUCTWORK

- RECTANGULAR/ROUND BRANCH TAKE OFF (SA, RA, AND EA) — 45°, D; 1/4 D BUT NOT NOT LESS 6"
- 1/4 W BUT NOT NOT LESS 6" — TEE (FOR LOW PRESSURE SUPPLY AIR DUCTWORK ONLY) — 45°, W
- 15° MAX. FOR DIVERGING TRANSITION, 25° MAX. FOR CONVERGING TRANSITION - ECCENTRIC
- 15° MAX. FOR DIVERGING TRANSITION, 25° MAX. FOR CONVERGING TRANSITION - CONCENTRIC
- DUCT WITH FLOW DIRECTION ARROW
- LINE CONTINUATION BREAK (RECTANGULAR, ROUND)
- SUPPLY AIR (SA) OR OUTDOOR AIR (OA) DUCT UP
- SUPPLY AIR (SA) OR OUTDOOR AIR (OA) DUCT DOWN
- RETURN AIR (RA), RELIEF AIR OR TRANSFER AIR (TA) DUCT UP
- RETURN AIR (RA), RELIEF AIR OR TRANSFER AIR (TA) DUCT DOWN
- EXHAUST AIR (EA) DUCT UP
- EXHAUST AIR (EA) DUCT DOWN
- DUCT RISE/DROP W/ 90° ELBOWS (SUPPLY RECTANGULAR DUCT SHOWN)
- W, R=1.5W — RADIUS ELBOW — EITHER RADIUS OR SQUARE ELBOW (REFER TO SPECIFICATION FOR ADDITIONAL REQUIREMENTS)
- SQUARE ELBOW WITH TURNING VANES
- D — DUCT RISE (R) OR DROP (D) W/ 30° ELBOWS (RECTANGULAR DUCTS)
- THIS DUCT RUNS UNDERNEATH — DUCT CROSS OVER

DIFFUSER, GRILLE, AND REGISTER NOTATION

DUCT SIZE IN INCHES
(NET INSIDE DIMENSIONS)
FIRST FIGURE: SIDE SHOWN
SECOND FIGURE: SIDE NOT SHOWN

SUPPLY AIR DUCT (SA)
EXHAUST AIR DUCT (EA)
RETURN AIR DUCT (RA)
TRANSFER AIR DUCT (TA)

DIFFUSER AIR PATTERN
1 ARROW: 1 WAY
2 ARROWS: 2 WAY
3 ARROWS: 3 WAY
NO ARROWS: 4 WAY

12x12 — 12"Ø INDICATES ROUND DUCTWORK; 12x12Ø INDICATES OVAL DUCTWORK

CD-1 250 — (SEE SCHEDULE FOR NECK SIZE FOR CD'S)
- CEILING DIFFUSER (CD)
- RETURN GRILLE (RG)
- SUPPLY REGISTER (SR)
- LINEAR DIFFUSER (LD)
- TRANSFER GRILLE (TG)
- EXHAUST GRILLE (EG)

AIR QUANTITY (CFM)

- SQUARE/RECTANGULAR SUPPLY DIFFUSER, GRILLE OR REGISTER
- ROUND DIFFUSER
- RETURN REGISTER OR GRILLE (HORIZONTAL MOUNT)
- EXHAUST REGISTER OR GRILLE (HORIZONTAL MOUNT)
- SIDEWALL REGISTER OR GRILLE (DUCT MOUNT)
- SUPPLY REGISTER OR GRILLE (VERTICAL MOUNT)
- EXHAUST OR RETURN REGISTER OR GRILLE (VERTICAL MOUNT)
- DOOR TRANSFER GRILLE — DR
- UNDERCUT DOOR — UC

DAMPERS AND CONTROLS

- MANUAL VOLUME DAMPER — VD
- FIRE DAMPER — FD
- SMOKE DAMPER — SD
- COMBINATION FIRE/SMOKE DAMPER — FD/SD
- BACKDRAFT DAMPER — B
- MOTORIZED DAMPER — M
- SPACE THERMOSTAT — T
- SPACE HUMIDISTAT — H
- NIGHT CYCLE CONTROL THERMOSTAT — T_N
- TEMPERATURE SENSOR — TS
- HUMIDITY SENSOR — HS
- PRESSURE SENSOR — PS
- DUCT SMOKE DETECTOR — DS
- STARTER — ST
- SPEED SWITCH — S

DUCTWORK SPECIALTIES

- DUCT REHEAT COIL
- TEST HOLE
- ACCESS DOOR — AD
- NEW TO EXISTING DUCT CONNECTION — NEW / EXISTING
- REMOVE EXISTING DUCTWORK
- FLEXIBLE DUCT — OR
- POINT OF CHANGE IN DUCT CONSTRUCTION BY PRESSURE CLASS — 1 / 2
- LINED DUCTWORK

GENERAL SYMBOLS

- DETAIL REFERENCE: TOP DESIGNATES DETAIL NUMBER; BOTTOM DESIGNATES SHEET NUMBER — 1 / M.XX
- SECTION REFERENCE: TOP DESIGNATES SECTION NUMBER; BOTTOM DESIGNATES SHEET NUMBER — 1 / M.XX
- ELEVATION SYMBOL
- EXISTING PIPING, DUCTWORK, EQUIPMENT, DEVICES, ETC. TO BE DEMOLISHED
- EXISTING PIPING, DUCTWORK OR EQUIPMENT TO REMAIN
- NEW PIPING, DUCTWORK OR EQUIPMENT
- VAV-1 — EQUIPMENT NAME AND NUMBER
- 1 — PLAN KEYED NOTE NUMBER
- REVISION NUMBER
- POINT OF CONNECTION (NEW TO EXISTING)
- POINT OF DISCONNECTION

MECHANICAL SHEET INDEX

M000	MECHANICAL SYMBOLS, ABBREVIATIONS AND SHEET INDEX
M201	HHW FIRST FLOOR / WTS LOWER LEVEL HVAC PLAN
M202	HHW MEZZANINE / WTS UPPER LEVEL HVAC PLAN
M800	MECHANICAL DETAILS
M801	MECHANICAL DETAILS
M900	MECHANICAL SCHEDULES

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DANE COUNTY
WASTE TRANSFER STATION
AND HOUSEHOLD HAZARDOUS
WASTE FACILITY
RODEFELD LANDFILL

ISSUE:

PROJECT INFORMATION:

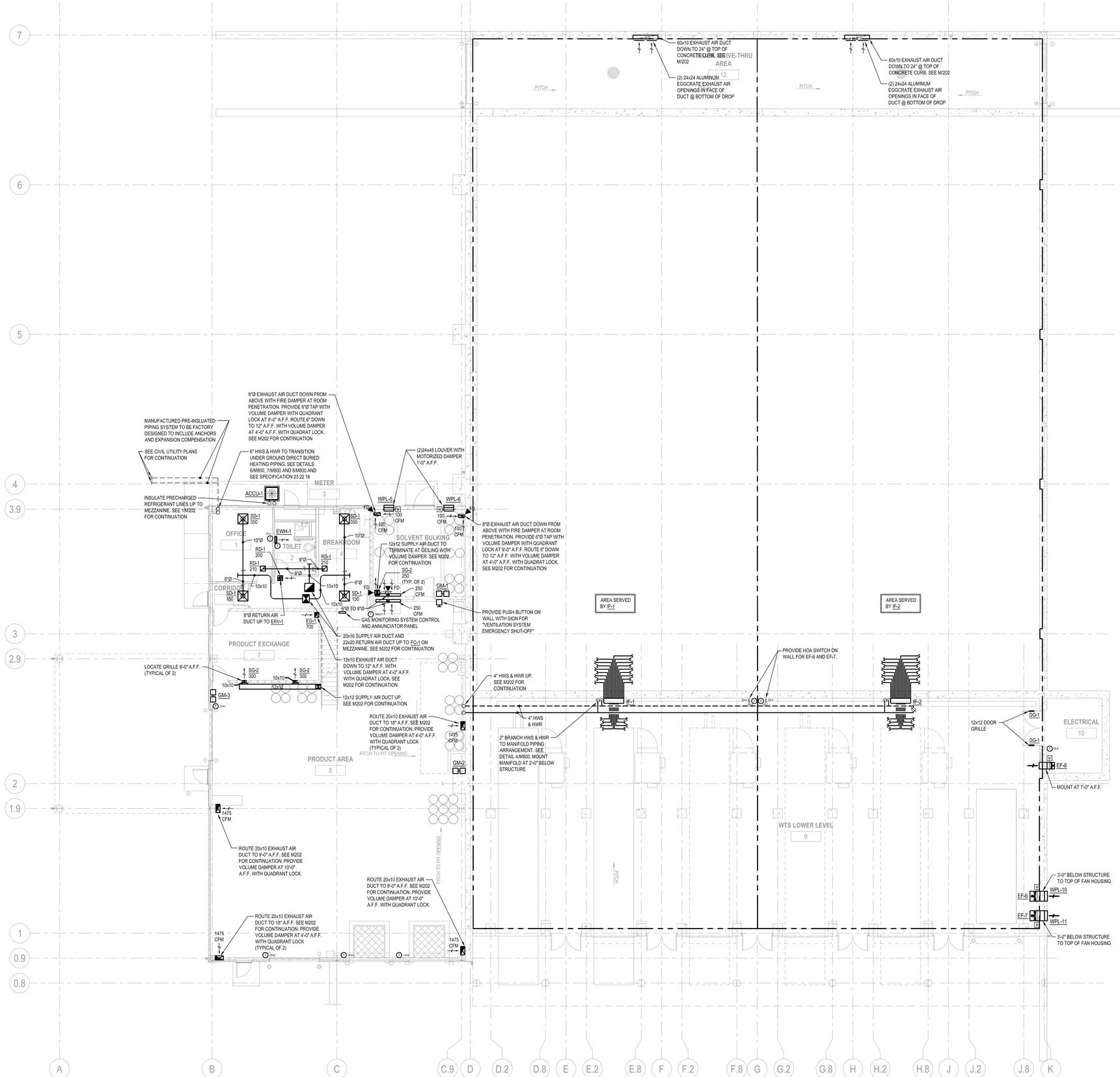
PROJECT NUMBER:	2009-0328.00
DATE:	05-11-2010
DRAWN BY:	MHS
CHECKED BY:	MEL
APPROVED BY:	PDZ
SCALE:	AS NOTED

SHEET TITLE:

MECHANICAL SYMBOLS, ABBREVIATIONS AND SHEET INDEX

SHEET NUMBER:

M000



1 M201 HHW FIRST FLOOR/WTS LOWER LEVEL HVAC PLAN

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

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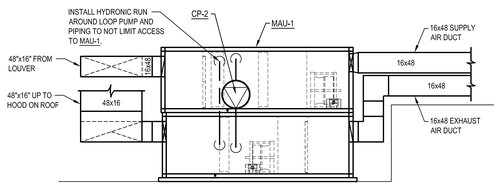

2 M202 SECTION AT MAKE-UP AIR UNIT

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

1 M202 HHW MEZZANINE/ WTS UPPER LEVEL HVAC PLAN

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

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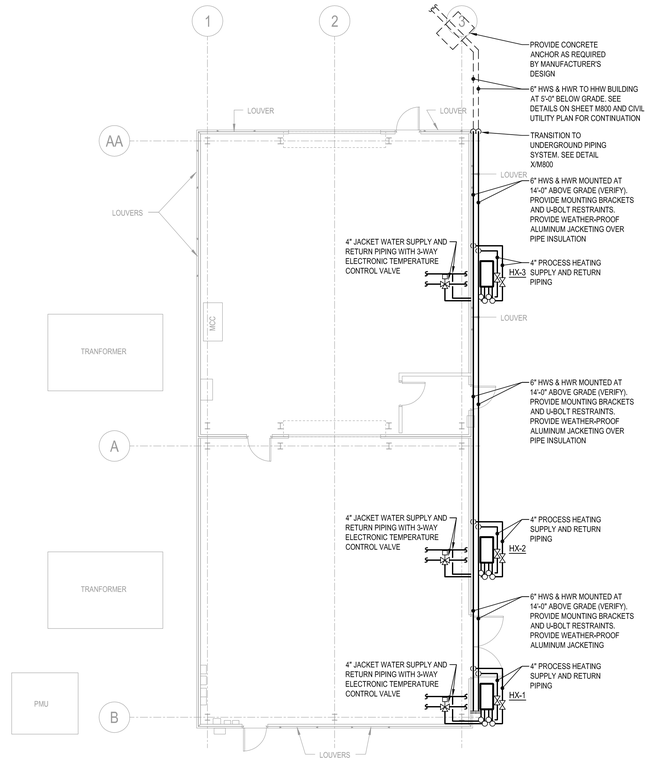
SCALE:	AS NOTED

SHEET TITLE:

HHW MEZZANINE/WTS UPPER LEVEL HVAC PLAN

SHEET NUMBER:

M202



1 M203 FLOOR PLAN - HVAC PLAN

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

NOTES:

1. ROUTE PIPING TO PROVIDE ACCESS TO VALVES, HEAT EXCHANGER, AND PIPING CONNECTIONS.
2. ISOLATION VALVES SHALL BE INSULATED AND LOCATED WITHIN ENCLOSURE.
3. THREE-WAY TEMPERATURE CONTROL VALVES SHALL BE LOCATED WITHIN ENGINE BUILDING.
4. EXTENSION OF ENGINE JACKET WATER PIPING WITHIN BUILDING SHALL MATCH EXISTING PIPING, INSULATION TYPE AND THICKNESS, AND JACKETING.
5. CONTRACTOR SHALL VERIFY EXISTING SITE CONDITIONS AND OPERATIONS AND WORK WITH OPERATIONS STAFF TO COORDINATE WORK FOR ENGINE DOWNTIME.

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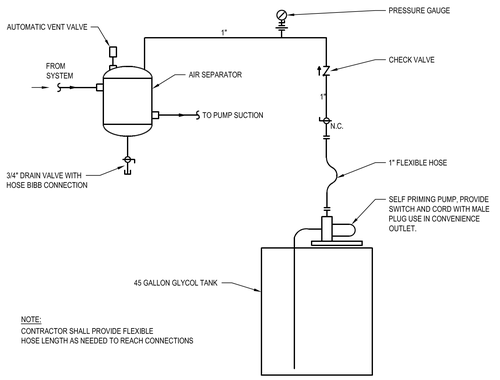
SCALE:	AS NOTED

SHEET TITLE:

GENERATOR BUILDING HVAC PLANS

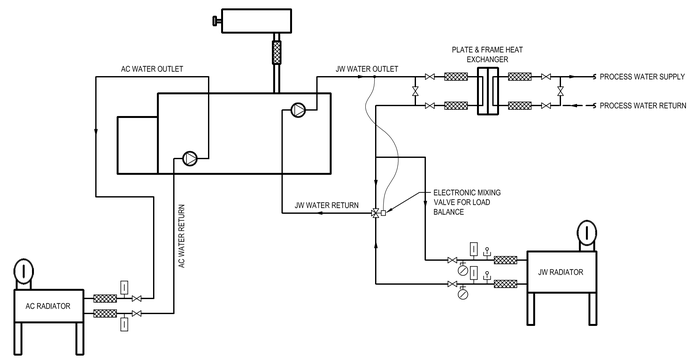
SHEET NUMBER:

M203



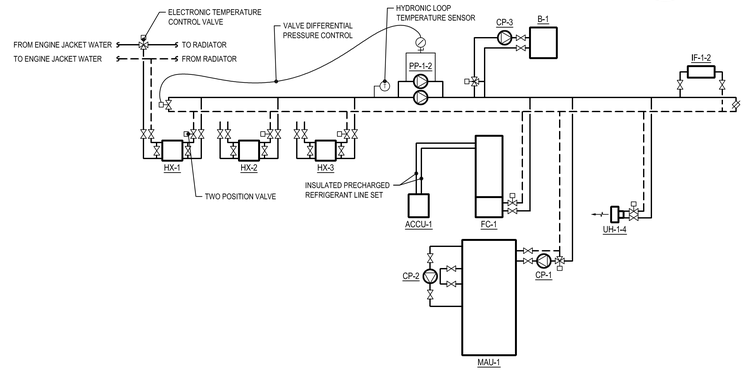
9 M800 GLYCOL / WATER FEED DETAIL

SCALE: NONE



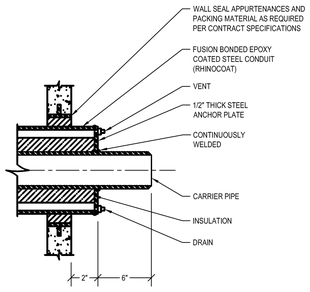
4 M800 JACKET WATER RECOVERY WITH TWO LOOP COOLING SCHEMATIC

SCALE: NONE



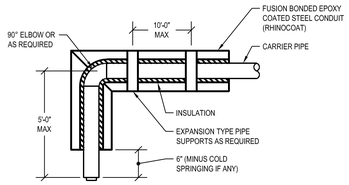
1 M800 HOT WATER FLOW SCHEMATIC

SCALE: NONE



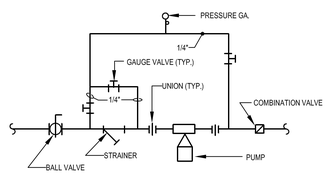
10 M800 CONDUIT END SEAL DETAIL

SCALE: NONE



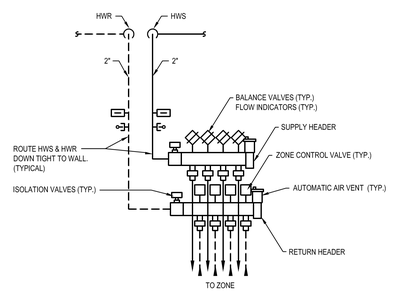
7 M800 CONDUIT MITERED ELBOW DETAIL

SCALE: NONE



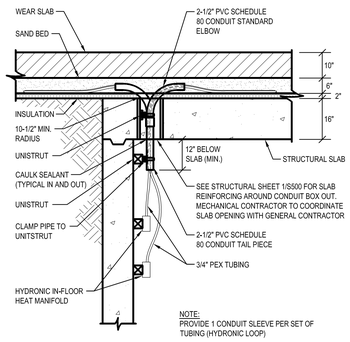
5 M800 INLINE PUMP DETAIL

SCALE: NONE



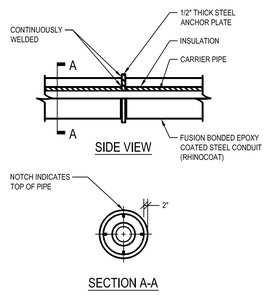
2 M800 RADIANT FLOOR HEATING MANIFOLD DETAIL

SCALE: NONE



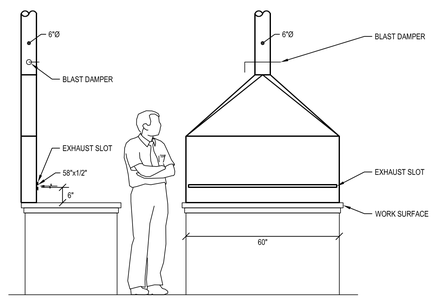
11 M800 IN-FLOOR SLAB PENETRATION DETAIL

SCALE: NONE



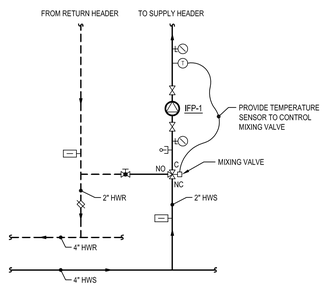
8 M800 CONDUIT ANCHOR DETAIL

SCALE: NONE



6 M800 BENCH FUME SLOT HOOD DETAIL

SCALE: NONE



3 M800 RADIANT FLOOR HEATING MANIFOLD DETAIL

SCALE: NONE

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ISSUE:

PROJECT INFORMATION:

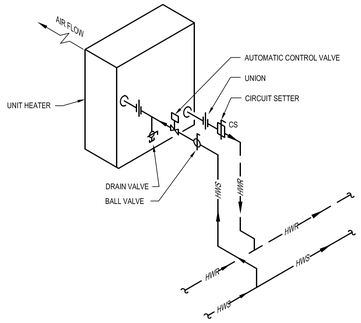
PROJECT NUMBER:	2009-0328.00
DATE:	05-11-2010
DRAWN BY:	MHS
CHECKED BY:	MEL
APPROVED BY:	PDZ
SCALE:	AS NOTED

SHEET TITLE:

MECHANICAL DETAILS

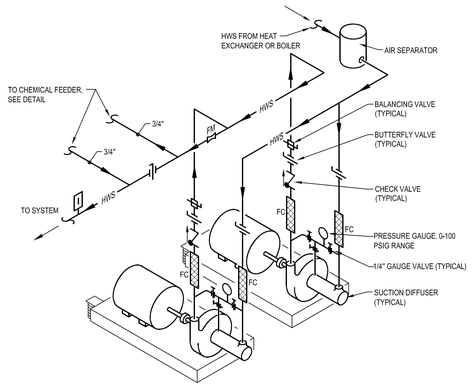
SHEET NUMBER:

M800



10 M801 HOT WATER UNIT HEATER PIPING DETAIL

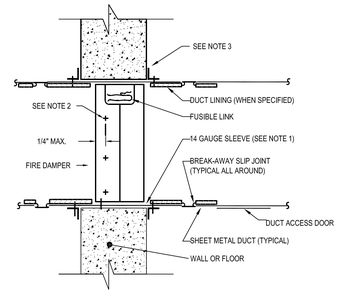
SCALE: NONE



NOTE:
BALANCING VALVE MAY BE OMITTED ON VARIABLE SPEED PUMPING SYSTEMS.

7 M801 DUPLEX BASE MOUNTED HOT WATER PUMP PIPING DETAIL

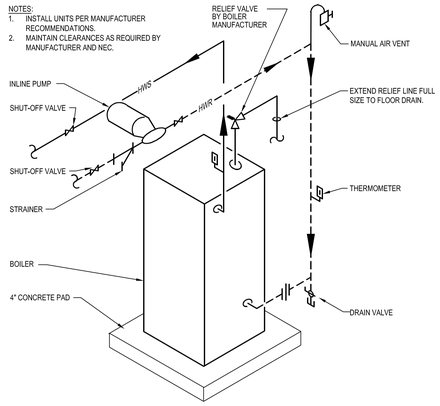
SCALE: NONE



NOTES:
1. CLEARANCE BETWEEN THE WALL/FLOOR AND THE DAMPER/SLEEVE ASSEMBLY SHALL BE 1/8" PER FOOT OF WIDTH AND HEIGHT. MINIMUM CLEARANCES SHALL BE 1/4" FOR ANY SIZE DAMPER/SLEEVE ASSEMBLY. THE MAXIMUM OPENING SHALL NOT EXCEED 1/8" PER FOOT PLUS 1". MOUNTING ANGLES SHALL OVERLAP WALL BY 1" MINIMUM ON ALL SIDES.
2. THE DAMPER FRAME SHALL BE FASTENED TO THE SLEEVE USING #14 SHEET METAL SCREWS. A MINIMUM OF THREE FASTENERS PER SIDE SHALL BE USED.
3. MOUNTING ANGLES SHALL BE INSTALLED ON BOTH SIDES OF THE WALL/FLOOR OPENING AND SHALL BE USED ON ALL 4 SIDES OF THE DAMPER/SLEEVE ASSEMBLY. MINIMUM MOUNTING ANGLE SIZE IS 2"x2"x18 GAUGE. MOUNTING ANGLES SHALL BE ATTACHED TO DAMPER/SLEEVE ASSEMBLY USING #14 SHEET METAL SCREWS. A MINIMUM OF THREE FASTENERS PER SIDE SHALL BE USED.

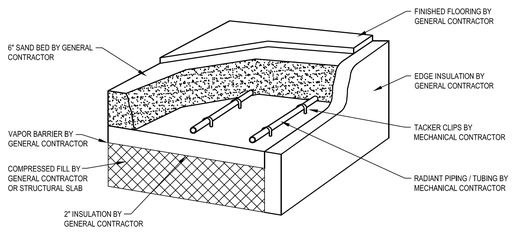
4 M801 FIRE DAMPER DETAIL

SCALE: NONE



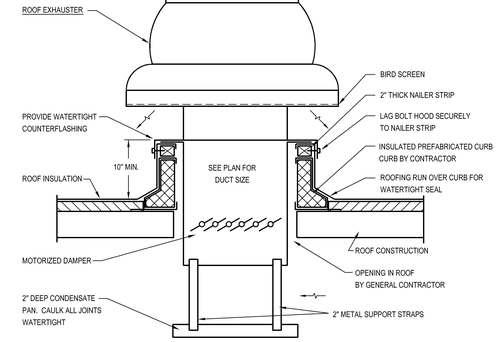
1 M801 HIGH EFFICIENCY HOT WATER BOILER PIPING DETAIL

SCALE: NONE



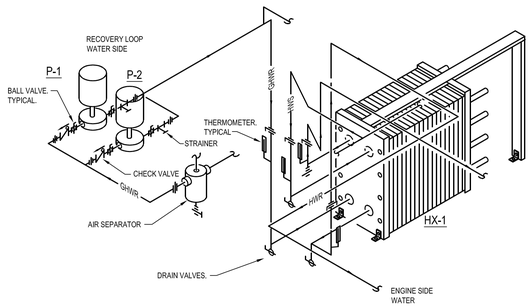
11 M801 HYDRONIC IN - FLOOR HEATING DETAIL

SCALE: NONE



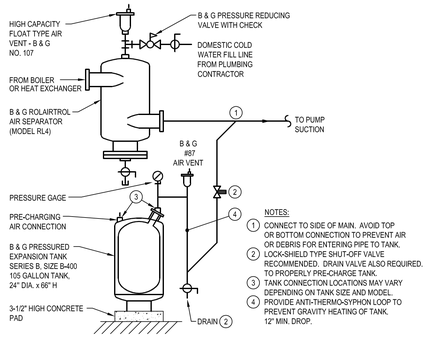
8 M801 TYPICAL ROOF EXHAUSTER DETAIL WITH CONDENSATE PAN

SCALE: NONE



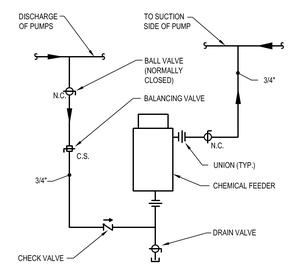
5 M801 PLATE AND FRAME TYPE HEAT EXCHANGER PIPING DETAIL

SCALE: NONE



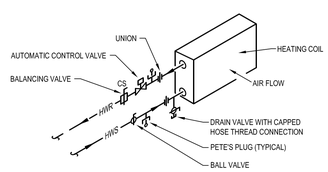
2 M801 VERTICAL EXPANSION TANK WITH AIR SEPARATOR DETAIL

SCALE: NONE



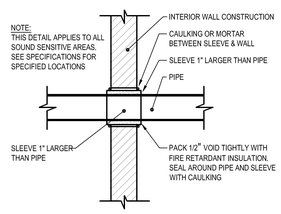
12 M801 CHEMICAL FEEDER PIPING DETAIL

SCALE: NONE



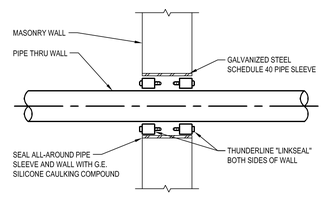
9 M801 TYPICAL PIPING TO HOT WATER BOOSTER COIL DETAIL

SCALE: NONE



6 M801 PIPES THROUGH WALLS DETAIL

SCALE: NONE



3 M801 PIPE THROUGH EXTERIOR BELOW GRADE WALL DETAIL

SCALE: NONE

GRAEF

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CONSULTANTS:

PROJECT TITLE:

DANE COUNTY
WASTE TRANSFER STATION
AND HOUSEHOLD HAZARDOUS
WASTE FACILITY
RODEFELD LANDFILL

ISSUE:

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MAKE-UP AIR UNIT WITH ENERGY RECOVERY (MAU)

UNIT NO.	SERVES	SUPPLY AIR SIDE																						EXHAUST AIR SIDE														CONTROLS	MANUFACTURER	MODEL	REMARKS
		TOTAL CFM	ESP (IN. WC)	FAN		MOTOR			FILTER SECTION		WINTER PERFORMANCE													TOTAL CFM	ESP (IN. WC)	FAN		MOTOR			FILTER SECTION		ENERGY RECOVERY SECTION - WINTER														
											ENERGY RECOVERY COIL SECTION							HOT WATER COIL SECTION																								
				TYPE	DRIVE	BHP	HP	VOLT / PH	TYPE	EFFICIENCY	EDB (°F)	EWB (°F)	LDB (°F)	LWB (°F)	MBH	APD	GPM	GLYCOL (%)	EAT (°F)	LAT (°F)	GPM	WPD	GLYCOL (%)			TYPE	DRIVE	HP	VOLT / PH	TYPE	EFFICIENCY	EDB (°F)	EWB (°F)	LDB (°F)	LWB (°F)	MBH	APD	GPM	GLYCOL (%)				
MAU-1	PRODUCT AREAS	7,800	1.25	PLENUM	BELT	6.31	10	480 / 3	PLEATED	MERV 8	-15	-16	9.06	6.02	202.6	0.02	30	40% P.G.	-15	90	75	2.9	30% P.G.	7,800	1.25	PLENUM	BELT	10	480 / 3	PLEATED	MERV 8	59	45.4	34.4	32.3	208.3	0.01	30	40% P.G.	VFD, DAT	JOHNSON CONTROLS	SOLUTION 51x66	1, 2, 3

NOTES: VFD: PROVIDE SEPARATE VARIABLE FREQUENCY DRIVE FOR SUPPLY AND EXHAUST FAN SECTIONS. PROVIDE AIR FLOW METERS IN DUCT TO ALLOW FANS TO MATCH VOLUME FLOWRATES.
DAT: CONTROL MODULATING HOT WATER FROM DISCHARGE AIR TEMPERATURE CONTROLLER TO PROVIDE A SUPPLY AIR TEMPERATURE OF 75° F (FIELD ADJUSTABLE).

1. PROVIDE UNIT WITH MANUFACTURER PROVIDED VFDS.
2. PROVIDE UNIT WITH DDC UNIT CONTROLLER WITH BACNET IP INTERFACE FOR BAS CONNECTION. CONTROLLER SHALL BE ACCESSIBLE FROM EXTERIOR OF UNIT VIA ACCESS DOOR OPENING.
3. PROVIDE UNIT WITH FOLLOWING FACTORY MOUNTED OPTIONS:
   a. MOTOR OPERATED OUTDOOR AIR AND EXHAUST AIR LOW LEAKAGE DAMPERS.
4. EXHAUST FAN SHALL BE EXPLOSION PROOF MOTOR AND ALUMINUM WHEEL AND HOUSING.

RADIANT FLOOR PERFORMANCE SCHEDULE

UNIT NO.	AREA (SQ. FT.)	HEAT (BTU/SQ. FT.)	HYDRONICS				LOOPS				HEAD (FT. HD)
			EWT (°F)	LWT (°F)	GPM	GLYCOL (%)	CONTROL VALVE	NUMBER OF LOOPS	SPACING (IN.)	SIZE (IN.)	
IF-1	13,000	38.5	140	120	46	30 PG	3-WAY MIXING	19	18" O.C.	3/4" PEX	23
IF-2	13,000	38.5	140	120	46	30 PG	3-WAY MIXING	19	18" O.C.	3/4" PEX	23

NOTES:
1. OUTDOOR AIR RESET.
2. SLAB TEMPERATURE SENSORS AVERAGED (4).
3. ROTH RADIANT SYSTEMS USED AS BASIS OF DESIGN, AS REPRESENTED BY FLUID HANDLING INCORPORATED (414) 358-2646.

GAS MONITORING DEVICE SCHEDULE (GM)

UNIT NO.	GAS MONITOR SENSOR INFORMATION			DISPLAY CONFIGURATION	OUTPUTS	POWER SUPPLY (VOLT / PHASE)	MANUFACTURER	MODEL
	CONSTRUCTION	SENSOR TYPE(S)	ALARM POINT(S)					
GM-1	EXPLOSION PROOF CL 1, DIV 1	COMBUSTIBLE GAS - SOLVENTS	25% LEL	3.5" LCD GREEN LED RED LED	4-20 mA 1 RELAY	115 / 1	MSA	ULTIMA XE
GM-2	EXPLOSION PROOF CL 1, DIV 2	COMBUSTIBLE GAS - SOLVENTS	25% LEL	3.5" LCD GREEN LED RED LED	4-20 mA 1 RELAY	115 / 1	MSA	ULTIMA X3
		COMBUSTIBLE GAS - PETRO VAPORS	25% LFL					
GM-3	EXPLOSION PROOF CL 1, DIV 2	COMBUSTIBLE GAS - SOLVENTS	25% LEL	3.5" LCD GREEN LED RED LED	4-20 mA 1 RELAY	115 / 1	MSA	ULTIMA X3
		COMBUSTIBLE GAS - PETRO VAPORS	25% LFL					
GM-4	EXPLOSION PROOF CL 1, DIV 2	CARBON MONOXIDE (CO)	35 PPM	3.5" LCD GREEN LED RED LED	4-20 mA 1 RELAY	115 / 1	MSA	ULTIMA X3
		METHANE (CH4)	25% LEL					
		NITROGEN DIOXIDE (NO2)	1 PPM					
GM-5	EXPLOSION PROOF CL 1, DIV 2	CARBON MONOXIDE (CO)	35 PPM	3.5" LCD GREEN LED RED LED	4-20 mA 1 RELAY	115 / 1	MSA	ULTIMA X3
		METHANE (CH4)	25% LEL					
		NITROGEN DIOXIDE (NO2)	1 PPM					
GM-6	EXPLOSION PROOF CL 1, DIV 2	CARBON MONOXIDE (CO)	35 PPM	3.5" LCD GREEN LED RED LED	4-20 mA 1 RELAY	115 / 1	MSA	ULTIMA X3
		METHANE (CH4)	25% LEL					
		NITROGEN DIOXIDE (NO2)	1 PPM					
GM-7	EXPLOSION PROOF CL 1, DIV 2	CARBON MONOXIDE (CO)	35 PPM	3.5" LCD GREEN LED RED LED	4-20 mA 1 RELAY	115 / 1	MSA	ULTIMA X3
		METHANE (CH4)	25% LEL					
		NITROGEN DIOXIDE (NO2)	1 PPM					

NOTES:
1. INTERLOCK GAS MONITORS WITH WITH ANNUCIATOR PANEL, CONTROL PANEL, AND BUILDING AUTOMATION SYSTEM TO INDEX ASSOCIATED VENTILATION SYSTEM TO HIGHEST VENTILATION MODE UPON SENSING AN ALARM CONDITION.
2. PROVIDE DISPLAY PANEL INDICATION OF ALARM CONDITION AS WELL AS ALARM SIGNAL IN BAS.
3. PROVIDE PUSH BUTTON FOR EACH MONITOR TO ALLOW ALARM ACKNOWLEDGEMENT AND MENU ACCESS.
4. POWER SUPPLY WIRING SHALL BE THE RESPONSIBILITY OF THE TEMPERATURE CONTROLS CONTRACTOR.
5. MOUNTING HEIGHTS OF SENSORS SHALL BE AS DICTATED BY AHJ AND ACCEPTABLE PRACTICE FOR GAS BEING DETECTED.

HEAT EXCHANGER WATER TO WATER (HX)

UNIT NO.	SERVICE	LOCATION	ENGINE JACKET WATER				PROCESS WATER				MBH	CONTROL VALVE	MANUFACTURER	MODEL
			GPM	EWT (°F)	LWT (°F)	WPD (PSI)	GPM	EWT (°F)	LWT (°F)	WPD (PSI)				
HX-1	ENGINE 1	COGEN BUILDING	370	230	213	4.76	310	160	180	3.12	2,952	ELECTRONIC PID	SONDEX	S22-IG10-45-TK-LIQUID
HX-2	ENGINE 2	COGEN BUILDING	370	230	213	4.76	310	160	180	3.12	2,952	ELECTRONIC PID	SONDEX	S22-IG10-45-TK-LIQUID
HX-3	ENGINE 3	COGEN BUILDING	370	230	213	4.76	310	160	180	3.12	2,952	ELECTRONIC PID	SONDEX	S22-IG10-45-TK-LIQUID

NOTES:
1. CONTACT MIKE KIME AT E.D.NEWELL CO. 1-262-857-6871.
2. CONTRACTOR SHALL RE-BALANCE ENGINE JACKET WATER CIRCUIT TO PROVIDE PROPER WATER FLUID FLOW THROUGH ENGINE.

WEATHERPROOF LOUVERS (WPL)

UNIT NO.	LOCATION	SERVES	DESIGN (CFM)	SIZE (IN)			MAX. APD (IN. WC)	MAX. VEL. (FPM)	FREE AREA (SQ. FT.)	BLADE ANGLE	BLADE TYPE	CONSTRUCTION	FINISH	SCREEN	MANUFACTURER	MODEL
				L	H	D										
WPL-1-4	TIPPING FLOOR	EF-1, -2, -3, -4	3,250	36	36	6	0.08	690	4.71	37.5	DRAINABLE	ALUMINUM	ANODIZED	BIRD	RUSKIN	ELF6375DX
WPL-5-8	SOLVENT BULKING	EXP. CNTL.	400	24	48	6	0.05	100	4.0	37.5	DRAINABLE	ALUMINUM	ANODIZED	BIRD	RUSKIN	ELF6375DX
WPL-9	MEZZANINE	MAU-1	7,500	48	54	6	0.10	745	10.06	37.5	DRAINABLE	ALUMINUM	ANODIZED	BIRD	RUSKIN	ELF6375DX
WPL-10-11	COMPACTOR	EF-6, -7	10,125	42	42	6	0.25	1510	6.74	37.5	DRAINABLE	ALUMINUM	ANODIZED	BIRD	RUSKIN	ELF6375DX

NOTES:
1. WPL-5-8 SHALL BE PROVIDED WITH THERMALLY BROKEN, INSULATED BLADE DAMPER SIMILAR TO TAMCO 9000 SERIES. DAMPER SHALL BE WIRED SO THAT IN THE EVENT OF LOSS OF POWER, DAMPER SHALL SPRING RETURN OPEN.
2. WPL-5-8 ACTUATOR TO BE MOUNTED IN EXPLOSION PROOF ENCLOSURE. USE LOW VOLTAGE ACTUATOR, MOUNT ACTUATOR ON WALL SYSTEM AND USE JACK SHAFT TO LOUVER IN EXPLOSION RELIEF PANEL.

PUMPS AND CIRCULATORS (P)

UNIT NO.	SERVICE	SIZE	LOCATION	GPM	HEAD (FT. HD)	OPER. TEMP. (°F)	RPM	MOTOR			TYPE	MIN. EFF. %	MANUFACTURER	MODEL	GLYCOL (%)
								HP	VOLTS	PH					
PP-1	PROCESS LOOP	3	MEZZANINE	300	45	180	1,750	7.5	460	3	BASE MOUNT	70	TACO	3007	30 PG
PP-2	PROCESS LOOP	3	MEZZANINE	300	45	180	1,750	7.5	460	3	BASE MOUNT	70	TACO	3007	30 PG
CP-1	MAU COIL	2	MAU-1	75	15	180	1,750	3/4	460	3	INLINE	60	TACO	1935	30 PG
CP-2	HEAT RECOVERY	1-1/4	MAU-1	36	15	25	1,750	1/2	120	1	INLINE	55	TACO	1911	40 PG
CP-3	BOILER	2	B-1	102	15	180	1,750	3/4	460	3	INLINE	55	TACO	1935	30 PG
IFP-1	MANIFOLD 1	1-1/2	IF-1	45	25	140	1,750	3/4	460	3	INLINE	55	TACO	1915	30 PG
IFP-2	MANIFOLD 2	1-1/2	IF-2	45	25	140	1,750	3/4	460	3	INLINE	55	TACO	1915	30 PG

BOILERS (B)

UNIT NO.	TYPE	KW	OUTPUT MBH	ELECTRICAL					MANUFACTURER	MODEL
				AMPS	VOLTS	PH	ELEMENTS	STEPS		
B-1	ELECTRIC RESISTANCE	300	1,024	361	460	3	30	8	HYDRO STEAM INDUSTRIES	HWR2438

NOTES:
1. PROVIDE LOAD LIMITOR DEVICE TO CONTROL DEMAND RESPONSE.
2. PROVIDE DOOR INTERLOCK TO DISABLE OPERATION.
3. PROVIDE PROPORTIONAL STEP CONTROLLER WITH PROGRESSIVE SEQUENCE.

SIDEWALL EXHAUSTER (SE)

UNIT NO.	SERVICE	CFM	TOTAL S.P. (IN. WC)	FAN SPEED (RPM)	OPERATING POWER (BHP)	DRIVE	MOTOR				MOTOR TYPE	WALL OPENING (IN. x IN.)	MANUFACTURER	MODEL
							HP	VOLTS	PH	SPEED CONTROL				
EF-6	COMPACTOR	10,125	0.25	1,160	1.3	DIRECT	1-1/2	460	3	N/A	TEFC	39-3/4 x 39-3/4	GREENHECK	SCE3-30-420
EF-7	COMPACTOR	10,125	0.25	1,160	1.3	DIRECT	1-1/2	460	3	N/A	TEFC	39-3/4 x 39-3/4	GREENHECK	SCE3-30-420
EF-8	ELECTRICAL	2,476	0.25	1,160	0.27	DIRECT	1/4	120	1	N/A	TEFC	27-1/4 x 27-1/4	GREENHECK	SCE3-20-617

NOTES:
1. PROVIDE WITH WALL HOUSING, MOTOR OPERATED DAMPER AND FAN GUARDS.

ROOF EXHAUSTERS (RE)

UNIT NO.	SERVICE	CFM	TOTAL S.P. (IN. WC)	HIGH SPEED (RPM)	OPERATING POWER (BHP)	DRIVE	MOTOR				MOTOR TYPE	PRE-FAB CURB		MANUFACTURER	MODEL
							HP	VOLTS	PHASE	SPEED CONTROL		STD.	ATTEN.		
EF-1	TIPPING FLOOR	3,250	0.60	833	0.65	BELT	3/4	460	3	N/A	EXP	12"	N/A	GREENHECK	GB-200
EF-2	TIPPING FLOOR	3,250	0.60	833	0.65	BELT	3/4	460	3	N/A	EXP	12"	N/A	GREENHECK	GB-200
EF-3	TIPPING FLOOR	3,250	0.60	833	0.65	BELT	3/4	460	3	N/A	EXP	12"	N/A	GREENHECK	GB-200
EF-4	TIPPING FLOOR	3,250	0.60	833	0.65	BELT	3/4	460	3	N/A	EXP	12"	N/A	GREENHECK	GB-200
EF-5	TIPPING FLOOR	1,300	0.60	1,210	0.15	BELT	1/4	120	1	N/A	EXP	12"	N/A	GREENHECK	GB-121

NOTES:
1. SS - SOLID STATE SPEED CONTROL DEVICE.
2. EXP - EXPLOSION PROOF MOTOR.
3. ALUMINUM HOUSING, WHEEL AND RUB RING.

HOT WATER HEATING COIL (HC)

UNIT NO.	SERVES	CFM	MBH	SIZE (IN)		FACE AREA (SQ. FT.)	FACE VELOCITY (FPM)	NUMBER OF ROWS	MAX. APD (IN. WC)	EAT (°F)	LAT (°F)	GPM	EWT (°F)	LWT (°F)	MAX. WPD (FT. HD)	MANUFACTURER	MODEL
				L	W												
HC-1	FC-1	1,000	70	18.5	22	2.75	365	2	0.09	35	95	7	180	160	6.2	CARRIER	HC2XX021020

NOTES:
1. CASED, HORIZONTAL COIL SHALL BE MATCHED WITH FAN COIL (FC-1).
2. UNIT CONFIGURATION IS DOWN FLOW WITH COIL ON DISCHARGE OF FAN COIL.

FAN COIL UNIT (FC)

UNIT NO.	SERVICE	UNIT ARRANGEMENT	TOTAL CFM	O.A. CFM	EXT. SP. "WC	FILTER	VOLTS/ PH	EAT (°F)		LAT (°F)		TOTAL MBH	SENS. MBH	REFRIGERANT	MANUFACTURER	MODEL
								DB	WB	DB	WB					
FC-1	OFFICE / BREAK	VERTICAL DOWNFLOW	1,000	200	0.50	2" PLEAT	208 / 1	81.1	70.2	55.3	53.7	34.4	17.9	410-A	CARRIER	FY14ANF036

AIR COOLED COMPRESSOR-CONDENSER UNIT (ACCU)

UNIT NO.	SERVICE	COMPRESSOR						OUTSIDE AIR TEMPERATURE (°F)	CONDENSING FANS			ELECTRICAL			MANUFACTURER	MODEL
		MBH	TONS	REFRIGERANT TYPE	SUCTION TEMPERATURE (°F)	UNLOADING	H.G. BYPASS	SEER	TOTAL CFM	NO.	HP EACH	MOCP	MCA	VOLTS / PHASE		
ACCU-1	FC-1	36	3	410-A	109	1 STAGE	NO	14	95	3800	1	1/5	35	22	208 / 1	CARRIER	24ACA436

ELECTRIC WALL HEATER (EWH)

UNIT NO.	SERVICE	WATTS	BTU/HR.	RECESS DIMENSION (IN)			MOUNTING ABOVE FLOOR (IN)	VOLTS	PHASE	MANUFACTURER	MODEL
				W	H	D					
EWH-1	TOILET	3,000	10,245	15.75	19.25	2	18	208	1	QMARK	CWH3404

NOTES:
1. PROVIDE INTEGRAL THERMOSTAT.
2. PROVIDE WHITE FINISH.

DIFFUSER, REGISTER, & GRILLE SCHEDULE

UNIT NO.	SERVICE	MAXIMUM APD (IN WC)	MAXIMUM NC	PATTERN	SIZE (IN)	FINISH	MATERIAL	MOUNTING	ACCESSORIES	MANUFACTURER	MODEL NO.
SD-1	OFFICE	0.03	12	4-WAY	24	WHITE	ALUMINUM	SURFACE	N/A	TITUS	TMSA-AA
SG-1	PRODUCT AREAS	0.02	25	DOUBLE DEFLECTION	36x12	WHITE	ALUMINUM	SURFACE	N/A	TITUS	300FL
SG-2	PRODUCT EXCHANGE	0.07	15	DOUBLE DEFLECTION	10x10	WHITE	ALUMINUM	SURFACE	N/A	TITUS	300FL
RD-1	OFFICE	0.01	-	EGG CRATE	10x10	WHITE	ALUMINUM	SURFACE	N/A	TITUS	50F
EG-1	PRODUCT AREAS	0.01	-	EGG CRATE	24x24	WHITE	ALUMINUM	SURFACE	N/A	TITUS	50F
DG-1	MEZZANINE DOOR	0.04	26	LINEAR GRILLE	12x12	ALUMINUM	ALUMINUM	SURFACE	N/A	TITUS	CT-700

ENERGY RECOVERY VENTILATOR (ERV)

UNIT NO.	SERVICE	LOCATION	EXHAUST AIR					SUPPLY AIR					FILTERS				FAN SECTION			MBH	EFF. %	MANUFACTURER	MODEL
			CFM	EAT °F	EWB °F	LAT °F	APD "WC	CFM	EAT °F	EWB °F	LAT °F	APD "WC	SUPPLY AIR		EXHAUST AIR		FLA	HP	VOLTS/ PH				
													EFF	SIZE	EFF	SIZE							
ERV-1	OUTDOOR AIR	MEZZANINE	200	70	54.5	45	0.5	200	-15	-1	54.7	0.5	MERV 8	14x20	MERV 8	14x20	7	0.6	120 / 1	18.1	77	RENEW-AIRE	EV450IN

NOTES:
1. PROVIDE A 6" ALUMINUM SIDEWALL VENT CAP FOR EXHAUST AIR PENETRATION, BROAN MODEL 641 OR SIMILAR.
2. PROVIDE A 6" ALUMINUM SIDEWALL FRESH AIR CAP FOR OUTDOOR AIR PENETRATION, BROAN MODEL 641FA OR SIMILAR.

HOT WATER UNIT HEATER (UH)

UNIT NO.	SERVICE	TYPE	FAN				COIL					SUPPLY PIPE CONN. (IN.)	RETURN PIPE CONN. (IN.)	DIFFUSER TYPE	MANUFACTURER	MODEL NO.
			CFM	RPM	HP	VOLTS	PHASE	MBH	EAT (°F)	GPM	EWT	LWT				
UH-1	HHW	PROPELLER	1,250	1,600	0.15	180	1	85	50	8.5	180	160	1-1/4	1-1/4	LOUVERED	REZNOR	WS 60/85
UH-2	HHW	PROPELLER	1,250	1,600	0.15	180	1	85	50	8.5	180	160	1-1/4	1-1/4	LOUVERED	REZNOR	WS 60/85
UH-3	HHW	PROPELLER	1,250	1,600	0.15	180	1	85	50	8.5	180	160	1-1/4	1-1/4	LOUVERED	REZNOR	WS 60/85
UH-4	HHW	PROPELLER	1,250	1,600	0.15	180	1	85	50	8.5	180	160	1-1/4	1-1/4	LOUVERED	REZNOR	WS 60/85

MOTOR CONTROL SCHEDULE

UNIT	ELECTRICAL LOAD	VOLTS/ PH	MOTOR STARTER				CONTROL			DISCONNECT BY		
			TYPE	FURN BY	LOCATION	ACCESSORIES	TYPE	FURN BY	LOCATION	TYPE	FURN BY	LOCATION
MAU-1 SUPPLY FAN	10 HP	480 / 3	VFD	M.C.	NEAR	HOA, DC	BAS	T.C.	INTEGRAL	NFDS	E.C.	NFDS
MAU-1 EXHAUST FAN	10 HP	480 / 3	VFD	M.C.	NEAR	HOA, DC	BAS	T.C.	INTEGRAL	NFDS	E.C.	NFDS
FC-1	1/3 HP	208 / 1	FVNR	MANF	INTEGRAL	N/A	AUTOMATIC	T.C.	REMOTE	NFDS	E.C.	ON
ACCU-1	1/3 HP	208 / 1	FVNR	MANF	INTEGRAL	N/A	AUTOMATIC	T.C.	REMOTE	NFDS	E.C.	ON
PP-1	7.5 HP	460 / 3	VFD	M.C.	NEAR	HOA, DC	BAS	T.C.	REMOTE	NFDS	E.C.	NFDS
PP-2	7.5 HP	460 / 3	VFD	M.C.	NEAR	HOA, DC	BAS	T.C.	REMOTE	NFDS	E.C.	NFDS
CP-1	3/4 HP	460 / 3	FVNR	MANF	INTEGRAL	N/A	BAS	T.C.	REMOTE	NFDS	E.C.	NFDS
CP-2	1/2 HP	120 / 1	FVNR	MANF	INTEGRAL	N/A	AUTOMATIC	T.C.	REMOTE	NFDS	E.C.	NFDS
CP-3	3/4 HP	460 / 3	FVNR	MANF	INTEGRAL	N/A	AUTOMATIC	T.C.	REMOTE	NFDS	E.C.	NFDS
IFP-1	3/4 HP	460 / 3	FVNR	MANF	INTEGRAL	N/A	BAS	T.C.	REMOTE	NFDS	E.C.	NFDS
IFP-2	3/4 HP	460 / 3	FVNR	MANF	INTEGRAL	N/A	BAS	T.C.	REMOTE	NFDS	E.C.	NFDS
UH-1	1/8 HP	120 / 1	MANUAL	MANF	INTEGRAL	N/A	AUTOMATIC	T.C.	REMOTE	NFDS	E.C.	NFDS
UH-2	1/8 HP	120 / 1	MANUAL	MANF	INTEGRAL	N/A	AUTOMATIC	T.C.	REMOTE	NFDS	E.C.	NFDS
UH-3	1/8 HP	120 / 1	MANUAL	MANF	INTEGRAL	N/A	AUTOMATIC	T.C.	REMOTE	NFDS	E.C.	NFDS
UH-4	1/8 HP	120 / 1	MANUAL	MANF	INTEGRAL	N/A	AUTOMATIC	T.C.	REMOTE	NFDS	E.C.	NFDS
ERV-1	2/3 HP	120 / 1	FVNR	MANF	INTEGRAL	N/A	AUTOMATIC	T.C.	REMOTE	NFDS	MANF.	ON
EWH-1	3 KW	208 / 1	MANUAL	MANF	INTEGRAL	N/A	AUTOMATIC	T.C.	REMOTE	NFDS	E.C.	REMOTE
EF-1 THROUGH EF-4	3/4 HP	480 / 3	FVNR	MANF	INTEGRAL	N/A	BAS	T.C.	REMOTE	NFDS	MANF.	ON
EF-5	1/4 HP	480 / 3	FVNR	MANF	INTEGRAL	N/A	BAS	T.C.	REMOTE	NFDS	E.C.	ON
EF-6 AND EF-7	1-1/2 HP	480 / 3	FVNR	MANF	INTEGRAL	N/A	AUTOMATIC	T.C.	REMOTE	NFDS	E.C.	ON
EF-8	1/4 HP	480 / 3	FVNR	MANF	INTEGRAL	N/A	AUTOMATIC	T.C.	REMOTE	NFDS	E.C.	ON
B-1	300 KW	480 / 3	MANUAL	MANF	INTEGRAL	N/A	MANUAL	T.C.	REMOTE	NFDS	E.C.	ON

NOTES:
1. ALL STARTERS TO BE FURNISHED BY ABB, SQUARE D, OR APPROVED EQUIVALENT.

MOTOR STARTER TYPES

1. MAN. - MANUAL COMBINATION MOTOR STARTER CIRCUIT BREAKER
2. FVNR - FULL VOLTAGE, NON-REVERSING, MAGNETIC, COMBINATION MOTOR STARTER CIRCUIT BREAKER
3. FVR - FULL VOLTAGE, REVERSING, MAGNETIC, COMBINATION MOTOR STARTER CIRCUIT BREAKER
4. SSRV - SOLID STATE, REDUCED VOLTAGE, COMBINATION MOTOR STARTER CIRCUIT BREAKER
5. 2S1W - TWO SPEED, SINGLE WINDING, COMBINATION MOTOR STARTER CIRCUIT BREAKER
6. 2S2W - TWO SPEED, DUAL WINDING, COMBINATION MOTOR STARTER CIRCUIT BREAKER
7. VFD - VARIABLE FREQUENCY DRIVE WITH INTEGRAL CIRCUIT BREAKER AND PILOT LIGHT INDICATORS

MOTOR STARTER MOUNTING LOCATIONS

1. NEAR - MOUNT MOTOR STARTER WITHIN SIGHT OF EQUIPMENT, PREFERABLY WITHIN THE SAME ROOM
2. ON - MOUNT MOTOR STARTER ON UNIT IN LOCATION APPROVED BY EQUIPMENT MANUFACTURER AND ENGINEER
3. INT. - MOTOR STARTER SHALL BE INTEGRAL TO THE UNIT, PROVIDE FACTORY MOUNTED WHEN POSSIBLE
4. REMOTE - MOTOR STARTER SHALL BE MOUNTED REMOTE TO UNIT LOCATION, SEE PLANS FOR DETAILS

MOTOR STARTER RESPONSIBILITY

1. M.C. - MECHANICAL CONTRACTOR
2. E.C. - ELECTRICAL CONTRACTOR
3. T.C. - TEMPERATURE CONTROLS CONTRACTOR
4. G.C. - GENERAL CONTRACTOR
5. MANF. - EQUIPMENT MANUFACTURER

MOTOR STARTER ACCESSORIES

1. DS - INTEGRAL DISCONNECT SWITCH
2. HOA - INTEGRAL HAND-OFF-AUTO SELECTOR SWITCH
3. TS - FACE MOUNTED ON-OFF TOGGLE SWITCH
4. PB - FACE MOUNTED ON-OFF PUSH BUTTON SWITCH
5. PL(G) - FACE MOUNTED PILOT LIGHT INDICATING STATUS (COLOR OF LIGHT, G=GREEN, Y=YELLOW, R=RED, W=WHITE)
6. DC - PROVIDE WITH SPARE SETS OF DRY CONTACTS, 2 SETS NORMALLY OPEN & 1 SET NORMALLY CLOSED

DISCONNECT TYPES

1. NFDS. - NON-FUSED DISCONNECT SWITCH, MOUNTED NEAR MOTOR
2. FDS - FUSED DISCONNECT SWITCH, MOUNTED NEAR MOTOR

DISCONNECT MOUNTING LOCATIONS

1. NEAR - MOTOR STARTER IS IN SIGHT OF EQUIPMENT, PREFERABLY WITHIN THE SAME ROOM
2. ON - MOTOR STARTER ON UNIT IN LOCATION APPROVED BY EQUIPMENT MANF. & ENGINEER
3. INT. - MOTOR STARTER SHALL BE INTEGRAL TO UNIT, PROVIDE FACTORY MOUNTED
4. REMOTE - MOUNT MOTOR STARTER REMOTE FROM UNIT LOCATION, SEE PLANS FOR DETAILS

DISCONNECT RESPONSIBILITY

1. M.C. - MECHANICAL CONTRACTOR
2. E.C. - ELECTRICAL CONTRACTOR
3. T.C. - TEMPERATURE CONTROLS CONTRACTOR
4. G.C. - GENERAL CONTRACTOR
5. MANF. - EQUIPMENT MANUFACTURER

CONTROL TYPES

1. MAN. - MANUAL CONTROL
2. AUTO - AUTOMATIC CONTROL, LOCAL TO UNIT
3. BAS - BUILDING AUTOMATION SYSTEM BASED CONTROL

INTAKE RELIEF OR EXHAUST HOOD

UNIT NO.	LOCATION	SERVICE	CFM	APD (IN. WC)	DIMENSIONAL DATA				DAMPER TYPE	ROOF CURB HEIGHT (IN)	MANUFACTURER	MODEL
					THROAT (IN)	CURB CAP (IN)	HOOD (IN)	HEIGHT (IN)				
EH-1	ROOF	MAU-1	7,500	0.009	90x46	96x52	120x69	26.75	MOD	12	GREENHECK	FGR

NOTES:
1. ALUMINUM BIRDSCREEN.
2. ALUMINUM BLADE MOTORIZED DAMPER IN CRUB TRAY.

GRAEF

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CONSULTANTS:

PROJECT TITLE:

DANE COUNTY
WASTE TRANSFER STATION
AND HOUSEHOLD HAZARDOUS
WASTE FACILITY
RODEFELD LANDFILL

ISSUE:

PROJECT INFORMATION:

PROJECT NUMBER:	2009-0328.00
DATE:	05-11-2010
DRAWN BY:	MHS
CHECKED BY:	MEL
APPROVED BY:	PDZ
SCALE:	AS NOTED

SHEET TITLE:

MECHANICAL SCHEDULES

SHEET NUMBER:

M900