State of Vermont
Department of Buildings & General Services

NORTH FERRISBURGH MAINTENANCE FACILITY

4 BAY MAINTENANCE GARAGE
SALT/SAND STORAGE AND COLD STORAGE SHED

North Ferrisburgh, Vermont

AGENCY OF ADMINISTRATION
DEPT. OF BUILDINGS & GENERAL SERVICES
2 GOVERNOR AIKEN AVENUE
MONTPELIER, VERMONT 05633-5801
R. TASHA WALLIS, COMMISSIONER

AGENCY OF TRANSPORTATION
1 NATIONAL LIFE DRIVE
DRAWER 33
MONTPELIER, VT 05633
DAWN TERRILL, SECRETARY

James H. Douglas
Governor

January 2006

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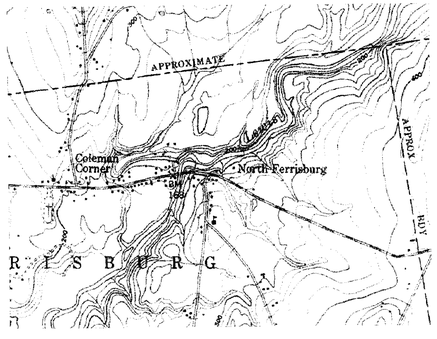
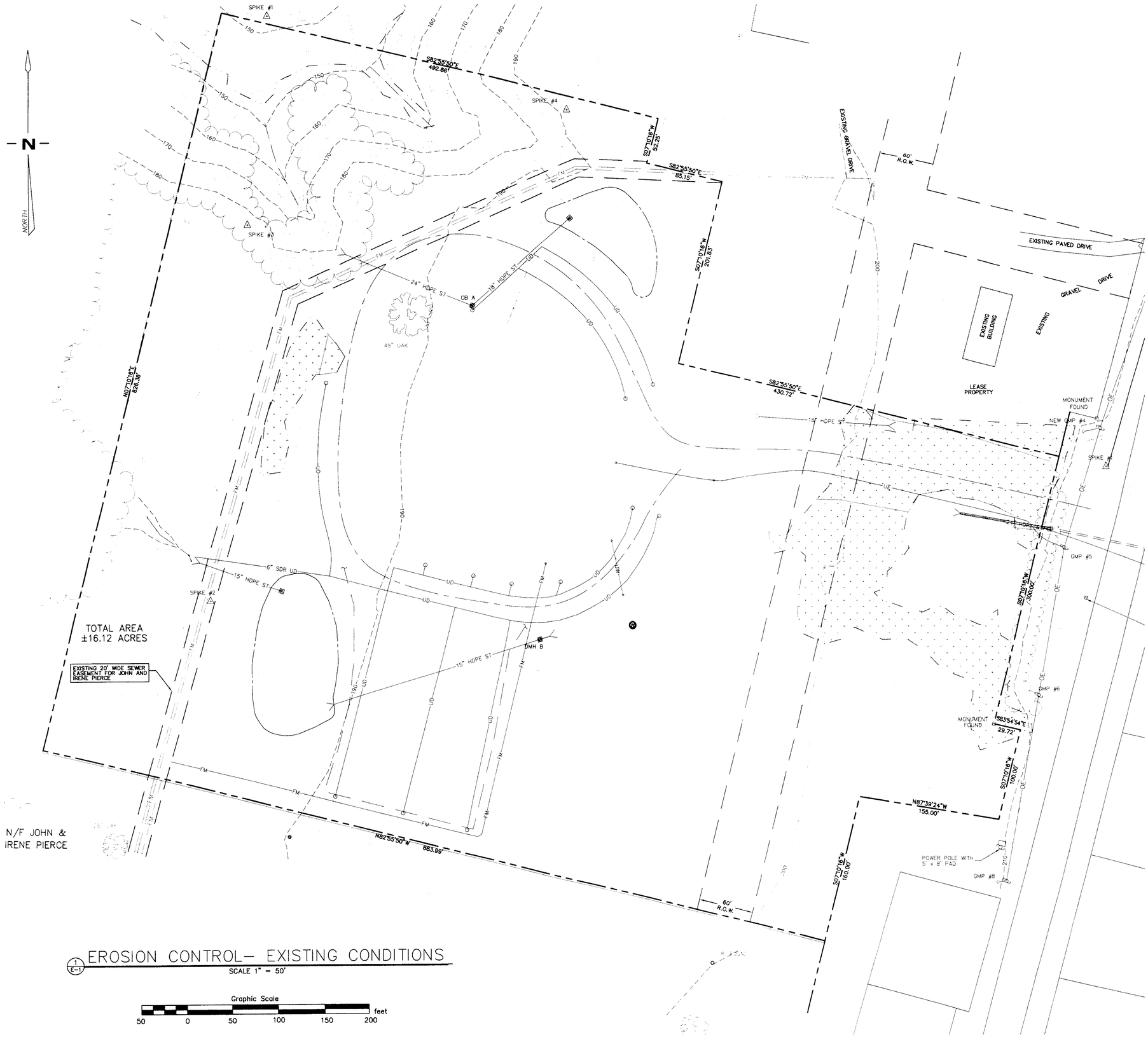
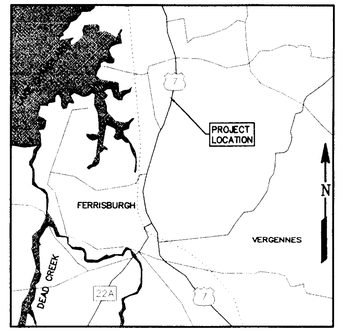


LOCATION PLAN



1 E-1 EROSION CONTROL— EXISTING CONDITIONS
SCALE 1" = 50'

Graphic Scale
50 0 50 100 150 200 feet



LOCATION MAP
N.T.S.

DESIGN SUMMARY:

1. **PROJECT DESCRIPTION:**
   NEW VERMONT AGENCY OF TRANSPORTATION DISTRICT #5 MAINTENANCE FACILITY.

2. **CONTACTS:**

OWNER: – **STATE OF VERMONT**
VT. DEPT. OF BUILDINGS & GENERAL SERVICES
2 GOVERNOR AIKEN AVENUE – DRAWER 33
MONTPELIER, VERMONT 05633–5861
CONTACT: MERLE MILLER – PROJECT MANAGER
(802) 828–5695

USER: – **AGENCY OF TRANSPORTATION, DISTRICT #5**
P.O. BOX 168
ESSEX JUNCTION, VT 05453
CONTACT: RICHARD HOSKING – DISTRICT TRANSPORTATION ADMINISTRATOR
(802) 655–1580

PROJECT ENGINEERS: – **CHAMPLAIN CONSULTING ENGINEERS**
85 PRIM ROAD, P.O. BOX 453
COLCHESTER, VERMONT 05446
CONTACT: PAUL DUCHESNEAU, P.E.
(802) 863–8060

ON–SITE PLAN COORDINATOR: – **CHAD ALLEN, P.E.**
DISTRICT #5 TRANSPORTATION PROJECT MANAGER
5 BARNES AVENUE
COLCHESTER, VERMONT 05446
(802) 654–1722

GENERAL NOTES:

(1) This plan set is for erosion prevention and sediment control purposes only and shall not be construed as construction drawings or as a property boundary survey. Property lines shown are for reference only.

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85 PRIM ROAD, P.O. BOX 453 COLCHESTER, VERMONT 05446
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FAX: (802) 864–1878

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BGS
STATE OF VERMONT
DEPARTMENT OF BUILDINGS AND GENERAL SERVICES
AGENCY OF ADMINISTRATION
MONTPELIER, VERMONT

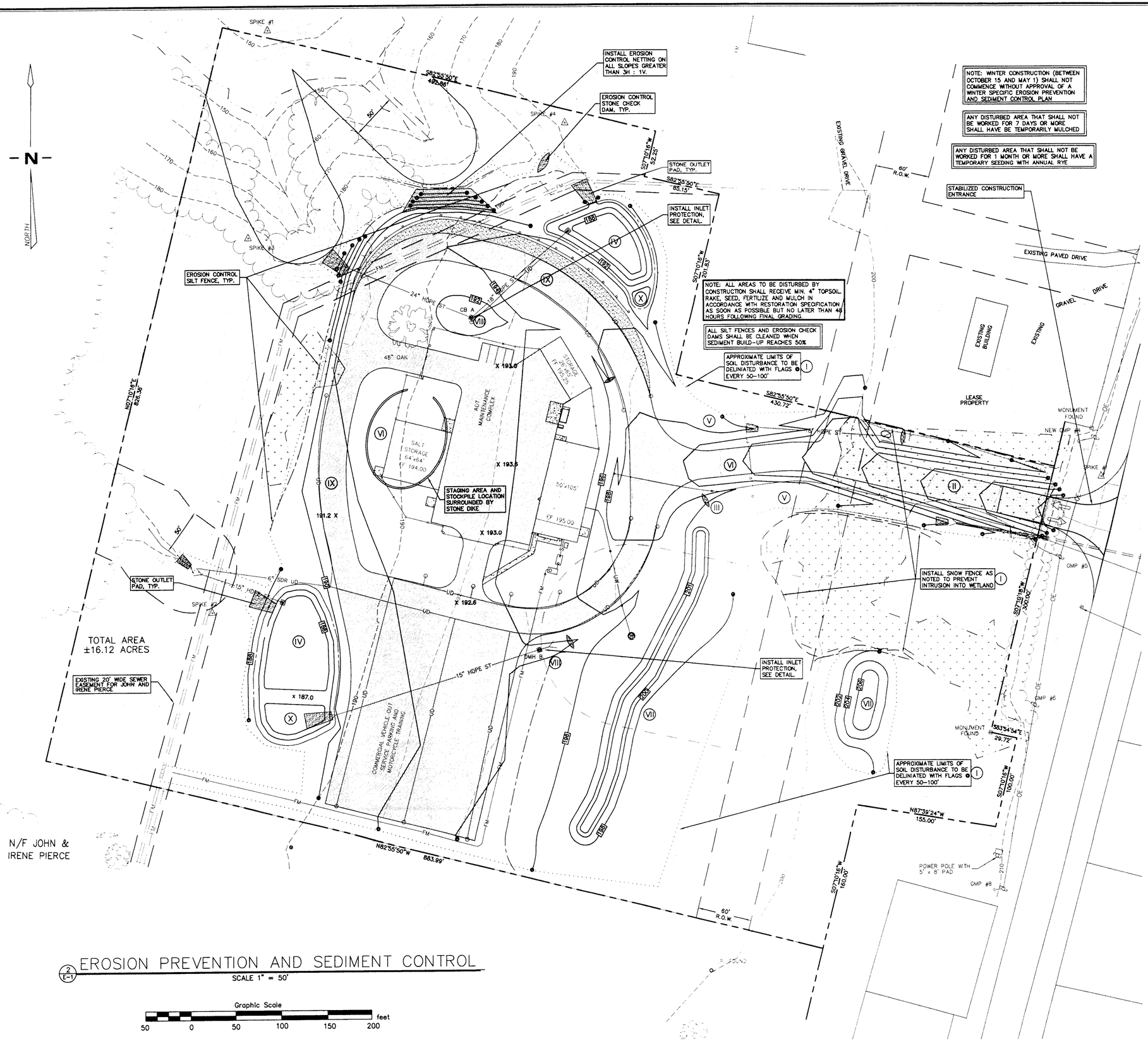
AGENCY OF TRANSPORTATION
N. FERRISBURGH MAINTENANCE FACILITY
NORTH FERRISBURGH, VERMONT

REVISIONS

SCALE: 1" = 50'
DATE: 01/04/06
DRAWN BY: CCE
APPR. BY: PD

FERRISBURGH
MAINTENANCE GARAGE
EROSION CONTROL EXISTING CONDITIONS

E–1



EROSION PREVENTION AND SEDIMENT CONTROL

2 / E-1 SCALE 1" = 50'

Graphic Scale

50 0 50 100 150 200 feet

LEGEND

- EXISTING CONTOUR
- 200 PROPOSED CONTOUR
- PROPERTY LINE
- FM EXISTING FORCE MAIN
- OE OVERHEAD ELECTRIC
- POWER POLE
- DRAINAGE SWALE
- WETLAND DELINEATION
- WETLANDS
- FM NEW FORCE MAIN
- S NEW SANITARY SEWER
- W NEW WATER LINE
- STM NEW STORM LINE
- FD NEW FLOOR DRAIN
- W NEW DRILLED WELL
- NEW GUARD RAIL
- APPROXIMATE LIMITS OF SOIL DISTURBANCE
- CATCH BASIN
- TEMPORARY STONE CHECK DAM
- STONE OUTLET PAD
- SILT FENCE
- SNOW FENCE
- EROSION CONTROL MATTING

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STATE OF VERMONT
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AGENCY OF ADMINISTRATION
MONTPELIER, VERMONT

AGENCY OF TRANSPORTATION
N. FERRISBURGH MAINTENANCE FACILITY
NORTH FERRISBURGH, VERMONT

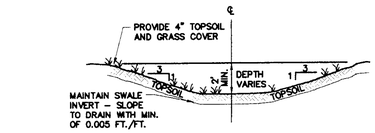
REVISIONS

SCALE: 1" = 50'
DATE: 01/04/06
DRAWN BY: CCE
APPR. BY: PD

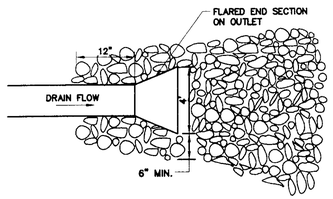
FERRISBURGH
MAINTENANCE GARAGE
EROSION PREVENTION & SEDIMENT CONTROL

E–2

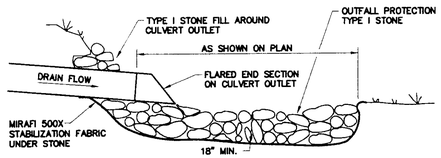
3 OF 43



1 / E-3 TYPICAL DRAINAGE SWALE
N.T.S.

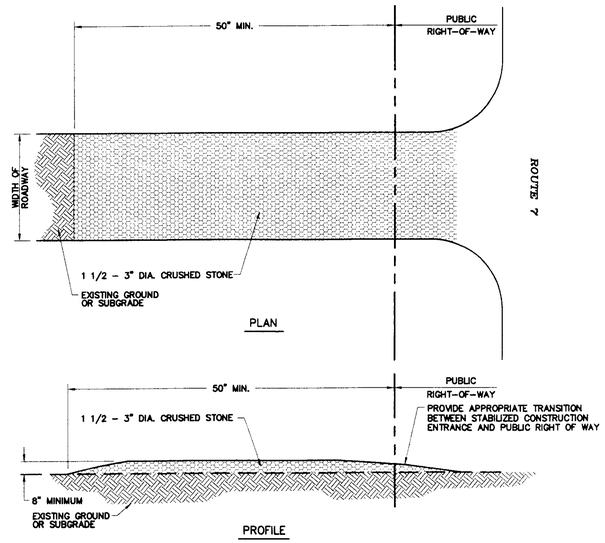


PLAN



PROFILE

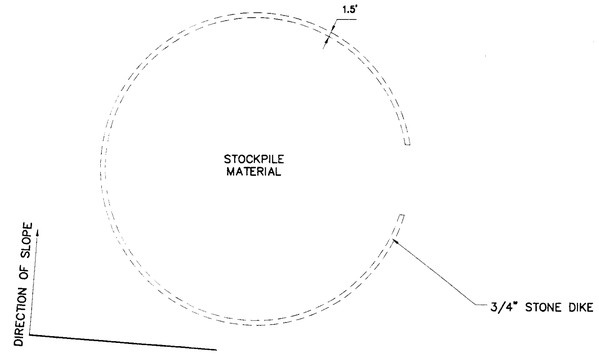
2 / E-2 CULVERT OUTLET DETAIL
N.T.S.



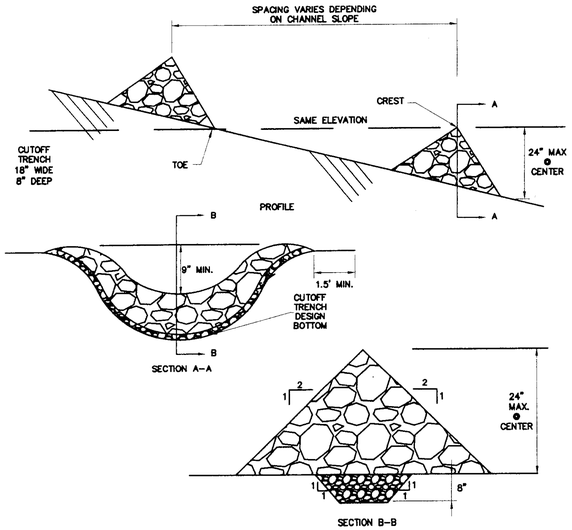
NOTES:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF SEDIMENT ONTO THE PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT TRACKED, SPILLED, OR WASHED ONTO THE PUBLIC RIGHT-OF-WAY SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
2. THE USE OF CALCIUM CHLORIDE OR WATER MAY BE NECESSARY TO CONTROL DUST DURING THE SUMMER.

3 / E-3 TEMPORARY STABILIZED CONSTRUCTION ENTRANCE DETAIL
N.T.S.



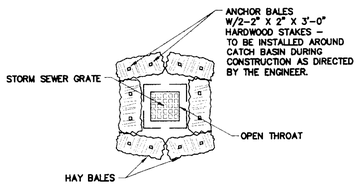
4 / E-3 STOCKPILE EROSION CONTROL
N.T.S.



CONSTRUCTION SPECIFICATIONS

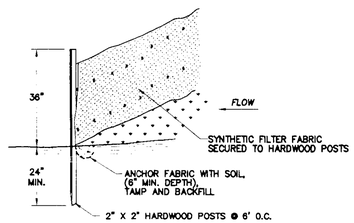
1. SET SPACING OF CHECK DAMS TO ASSURE THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
2. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
3. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
4. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.

5 / E-3 STONE CHECK DAM
N.T.S.



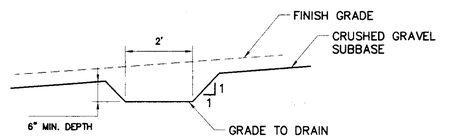
NOTE:
SET GRATE IN MIRAFI 140N FABRIC (OR APPROVED EQUIVALENT) UNTIL PERMANENT EROSION CONTROLS ARE IN PLACE. REMOVE ACCUMULATED DEBRIS & CLEAN OR REPLACE AS REQUIRED

6 / E-3 INLET PROTECTION
N.T.S.



BACK WITH STAKED HAYBALES AS INDICATED ON PLAN

7 / E-3 SILT FENCE DETAIL
N.T.S.



8 / E-3 TYPICAL DIVERSION SWALE
N.T.S.

EROSION CONTROL

1. General Notes

a. The Contractor shall construct and maintain all erosion measures in accordance with the "Vermont Handbook for Erosion Prevention and Sediment Control", current edition.

2. Construction Sequence

a. The Contractor shall be responsible for establishing all erosion control measures delineated on the plans and any additional measures that are necessary to minimize erosion. The Contractor shall have erosion control materials and installation equipment on site at all times.

b. Silt fences shall be installed along the base of the fill slopes. This shall remain in place until the project site has been stabilized. Install stone check dams in grass-lined swales 50 feet on center to prevent silt from washing into the drainage system during construction. Check dams shall be removed when vegetation is established.

c. Dust shall be controlled through the application of calcium chloride or water.

d. Excavated material from earth excavation and ditch digging shall be disposed of offsite or used for project fill material if determined suitable by the Owner's Representative.

e. All temporary erosion control measures required for any proposed winter work shall be installed prior to October 1. These measures shall be in place prior to the commencement of any site work or earth-moving.

3. Temporary Measures

a. Stone Check Dam - Shall be placed according to detail shown.

Check dams shall be repaired as needed. Once vegetation is established and the check dams are no longer needed for erosion control, they shall be removed. Sediment deposits shall then be removed and placed in an upland area where there is no danger of further erosion.

b. Silt Fences - The silt fences shall be constructed in accordance with the construction detail. The fence shall generally be placed 10 feet from the toe of the slope or as shown on the plan. The ends of the fence shall be placed uphill to form a horseshoe shape to trap all runoff.

The silt fences shall be inspected periodically for damage or buildup of sediment. All damaged silt fence shall be repaired or replaced. Sediment deposits shall be removed from the fence as they accumulate and placed in an area where there is no danger of further erosion.

c. Erosion Matting - Erosion matting shall be placed on all grass-lined swales with profile grades exceeding 5.0% and shall be placed and maintained in accordance with the Vermont Agency of Transportation Standard Specifications Sections 654 and 755.07.

d. Dust Control - During construction, dust will be controlled with water distributed by a truck-mounted spray bar. At the direction of the Engineer, Calcium Chloride AASHTO M 144 or Sodium Chloride M 143 may be used.

e. All stockpile material (topsoil, borrow, etc.) will a have a stone dike or silt fence constructed around the perimeter. Seed and mulch stockpile material as soon as possible to prevent soil erosion and sedimentation off site. Locate stockpiles on the uphill side of disturbed areas, if possible. During windy conditions, stockpiled material shall be covered or watered appropriately to prevent wind erosion.

f. Slopes greater than 1:3 shall have erosion control netting installed to stabilize the slope and reduce the erosion potential. Install netting over mulched slopes so that all parts are in contact with the soil and mulch. Pin netting with wire staples 3 feet o.c. to ensure full bonding with soil surface.

4. Permanent Measures

a. Grass Lined Swales - All swales that are not stone-lined shall be topsoiled, seeded, fertilized and mulched. Any area which shows signs of erosion shall be reseeded immediately and maintained until permanent vegetation is established.

b. Restoration - As soon as construction is completed in a given area, it shall be topsoiled, seeded, fertilized and mulched.

The topsoil shall be submitted to the Extension Service for analysis. Fertilizer shall be applied at approximately a rate of 400 pounds per acre depending on soil analysis. If necessary, lime shall be applied to the topsoil to produce a soil PH of approximately 6.0.

After the finished grade has been established and the fertilizer spread, plant the specific seed mixture and work firmly into the soil. Apply seed on the prepared seed bed with approved mechanical seeders or hydroseeding equipment. Upon completion of the above planting operations, roll all areas, leaving the surface of all area true to grade, smooth, and free from hollows or other irregularities. Thoroughly water all newly planted areas immediately after planting using a fine spray. Protect banks and swales from erosion and repair erosion that occurs. Banks, swales or other graded areas that have been washed out or have become damaged shall be repaired immediately. Unless approval is granted by the Engineer to plant off season, seeding will be conducted only during the period from April 15th to October 10th. Seeding shall not proceed before other phases of the work have progressed sufficiently and shall not interfere with other phases of work.

After seeding, mulch shall be applied at a rate of 2 tons per acre.

5. Winter Construction

a. If due to the project schedule, construction during the winter months is necessary, the contractor shall follow the winter construction procedures outlined in the "Vermont Handbook for Soil Erosion and Sediment Control on Construction Sites"

I. Minimize disturbance between October and May.

II. All erosion control measures shall be in place prior to the ground freezing.

III. Mulch shall be applied to all disturbed area at a rate of 90 pounds per 1,000 square feet. The Contractor shall maintain all areas that are mulched until permanent vegetation can be established.

6. Maintenance, Guarantee and Acceptance

a. The Contractor shall be responsible for the care and maintenance including watering of seeded areas, until the seeding is inspected and accepted by the Owner.

b. Reseeding shall be done until all areas are completely covered with a mature stand of grass. An area shall be considered covered when the entire surface contains a verdurous stand of grass. Areas that, in the opinion of the Engineer, are predominantly weeds shall be plowed up, fine graded, fertilized and reseeded in the manner specified previously, exercising caution not to cause damage to new or existing plant material.

c. Maintain and guarantee all seeded area until acceptance.

SEEDING SPECIFICATION

CONSERVATION MIX GRASS SEED		
% BY WEIGHT	LBS. LIVE SEED PER ACRE	TYPE OF SEED
35	35	CREEPING RED FESCUE
23	23	KENTUCKY BLUEGRASS
15	15	ANNUAL RYE
11	11	WINTER HARDY, PERENNIAL RYE, (VARIETY PENNFINE, MANHATTAN OR SIMILAR VARIETY)
6	6	WHITE CLOVER
10	10	HIGHLAND BENTGRASS
100	100 # LIVE SEED/ACRE	

FERTILIZER - 10 LBS PER 1000 SQ FT
SPRING SEEDING
FALL SEEDING

LIME - 90 LBS PER 1000 SQ FT
DOLOMITIC GROUND LIMESTONE
NOT LESS THAN 85% OF THE TOTAL CARBONATE

TOPSOIL
4" MINIMUM APPROVED TOPSOIL

STRAW MULCH - 2 BALES PER 1000 SQ FT
APPLY BINDER OR NETTING AS NEEDED

MAINTENANCE GUARANTEE AND ACCEPTANCE OF SEEDING
THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CARE AND MAINTENANCE, INCLUDING WATERING, OF SEEDED AREA UNTIL THE SEEDING IS INSPECTED AND ACCEPTED BY THE ENGINEER. INSPECTION SHALL BE MADE AFTER THE SECOND MOWING. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HOURS IN ADVANCE WHEN THE SECOND MOWING IS SCHEDULED.
RESEEDING SHALL BE DONE UNTIL ALL AREAS ARE COMPLETELY COVERED WITH A MATURE STAND OF GRASS. AN AREA SHALL BE CONSIDERED COVERED WHEN THE ENTIRE SURFACE CONTAINS A VIGOROUS STAND OF GRASS. AREAS THAT, IN THE OPINION OF THE ENGINEER, ARE PREDOMINANTLY WEEDS SHALL BE TILLED, FINE GRADED, FERTILIZED AND RESEEDED IN THE MANNER SPECIFIED ABOVE.

9 / E-3 SITE RESTORATION
N.T.S.

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N. FERRISBURGH MAINTENANCE FACILITY
NORTH FERRISBURGH, VERMONT

REVISIONS

SCALE: AS NOTED
DATE: 01/04/06
DRAWN BY: CCE
APPR. BY: PD

FERRISBURGH
MAINTENANCE GARAGE
ERISION AND SEDIMENT DETAILS

E-3

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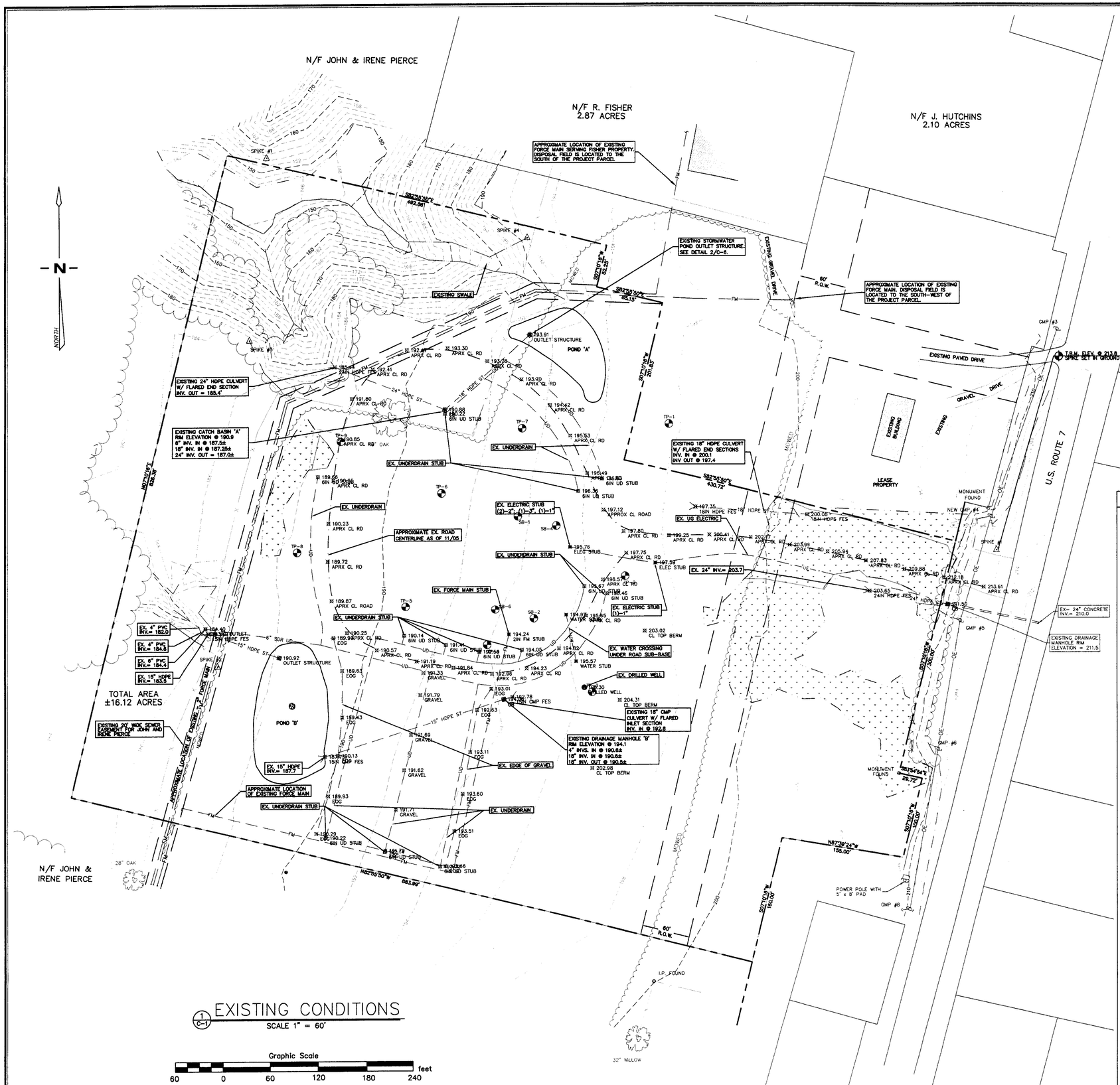


EXISTING CONDITIONS

1 / C-1

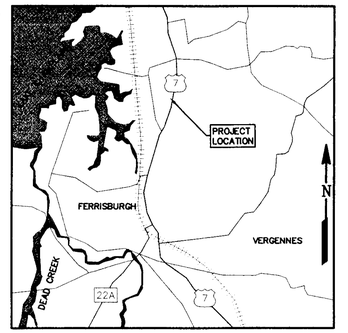
SCALE 1" = 60'

Graphic Scale

60 0 60 120 180 240 feet

TEST PIT SUMMARY

TP #1	0– 7"	LOOSE SILTY LOAM
	7– 19"	LOOSE TAN/GREY SILT FINE SAND
	19– 36"	MEDIUM STIFF GREY SILTY CLAY
	36–133"	STIFF GREY SILTY CLAY
		SEEPS @ 71"
		MOTTLING @ 12"
		NO LEDGE
TP #2	0– 8"	LOOSE SILTY LOAM
	8– 13"	LOOSE GREY FINE TO MEDIUM SAND
	13– 17"	LOOSE BROWN FINE SAND & SILT
	17– 39"	MEDIUM STIFF GREY SILT CLAY
	39–131"	STIFF SILT CLAY
		SEEPS @ 100"
		MOTTLING @ 14"
		NO LEDGE
TP #3	0– 8"	LOOSE SILTY LOAM
	8– 17"	LOOSE BROWN/GREY FINE SAND & SILT
	17– 38"	MEDIUM STIFF GREY SILTY CLAY
	38–123"	STIFF BROWN/GREY SILTY CLAY
		SEEPS @ 38"
		MOTTLING @ 8"
		NO LEDGE
TP #4	0– 6"	SILTY LOAM
	6– 12"	LOOSE GREY/BROWN SILTY CLAY
	12– 24"	MEDIUM STIFF GREY SILTY CLAY
	24– 30"	LOOSE GREY FINE SAND
	30– 47"	MEDIUM STIFF GREY SILTY CLAY
	47–135"	STIFF GREY/BROWN SILTY CLAY
		SEEPS @ 30"
		MOTTLING @ 8"
		NO LEDGE
TP #5	0– 8"	SILTY LOAM
	8– 16"	LOOSE GREY/BROWN SILTY CLAY
	16– 31"	MEDIUM STIFF GREY/BROWN SILTY CLAY
	31– 43"	STIFF GREY SILTY CLAY
	43–126"	STIFF GREY/BROWN SILTY CLAY
		SEEPS @ 36"
		MOTTLING @ 9"
		NO LEDGE
TP #6	0– 8"	SILTY LOAM
	8– 14"	LOOSE BROWN FINE SAND & SILT
	14– 44"	MEDIUM STIFF BROWN SILTY CLAY
	44–131"	STIFF BROWN SILTY CLAY
		SEEPS @ 44"
		RUNNING WATER @ 102"
		MOTTLING @ 8"
		NO LEDGE
TP #7	0– 6"	LOOSE DARK BROWN SILTY LOAM
	6– 13"	LOOSE BROWN SILT, TRACE CLAY
	13– 23"	LOOSE BROWN/GREY SILTY CLAY
	23– 36"	MEDIUM STIFF GREY/BROWN SILTY CLAY
	36– 38"	LOOSE GREY FINE SAND
	38–126"	STIFF GREY/BROWN SILTY CLAY
		SEEPS @ 33"
		RUNNING WATER @ 109"
		MOTTLING @ 7"
		NO LEDGE
TP #8	0– 9"	LOOSE DARK BROWN SILTY LOAM
	9– 12"	LOOSE BROWN FINE SAND AND SILT
	12– 16"	LOOSE BROWN SILTY CLAY
	16– 36"	MEDIUM STIFF GREY/BROWN SILTY CLAY
	36– 40"	LOOSE GREY FINE SAND
	40–123"	STIFF GREY–BROWN SILTY CLAY
		SEEPS @ 40"
		RUNNING WATER @ 108"
		MOTTLING @ 8"
		NO LEDGE
TP #9	0– 7"	LOOSE DARK BROWN SILTY LOAM
	7– 15"	LOOSE BROWN FINE SAND AND SILT
	15– 31"	MEDIUM STIFF GREY/BROWN SILTY CLAY
	31– 35"	MEDIUM COMPACT FINE GREY SAND
	35– 48"	MEDIUM STIFF GREY SILTY CLAY
	48–108"	STIFF GREY/BROWN SILTY CLAY
		SEEPS @ 30"
		RUNNING WATER @ 96"
		MOTTLING @ 8"
		NO LEDGE



LOCATION MAP

N.T.S.

DESIGN SUMMARY:

1. **PROJECT DESCRIPTION:**
NEW VERMONT AGENCY OF TRANSPORTATION DISTRICT #5 MAINTENANCE FACILITY.

2. **CONTACTS:**

OWNER: – **STATE OF VERMONT**
VT. DEPT. OF BUILDINGS & GENERAL SERVICES
2 GOVERNOR AIKEN AVENUE – DRAWER 33
MONTPELIER, VERMONT 05633–5861
CONTACT: MERLE MILLER – PROJECT MANAGER
(802) 828–5695

USER: – **AGENCY OF TRANSPORTATION, DISTRICT #5**
P.O. BOX 168
ESSEX JUNCTION, VT 05453
CONTACT: RICHARD HOSKING – DISTRICT TRANSPORTATION ADMINISTRATOR
(802) 655–1580

PROJECT ARCHITECT: – **DORE & WHITTIER**
1795 WILLISTON ROAD
SOUTH BURLINGTON, VERMONT 05403
CONTACT: ALAN BROWN
(802) 863–1428

PROJECT ENGINEERS: – **CHAMPLAIN CONSULTING ENGINEERS (CIVIL)**
85 PRIM ROAD, P.O. BOX 453
COLCHESTER, VERMONT 05446
CONTACT: PAUL DUCHESNEAU
(802) 863–8060

ENGINEERING VENTURES, INC. (STRUCTURAL)
7 KILBURN STREET
BURLINGTON, VT 05401
CONTACT: KEVIN WORDEN
(802) 863–6225

KIRICK ENGINEERING ASSOCIATES(ELECTRICAL)
75 HEGEMAN AVE.
COLCHESTER, VT 05446
CONTACT: MICHAEL KIRICK
(802) 655–5731

TEIGH SOUTHWORTH (MECHANICAL)
VT. DEPT. OF BUILDINGS & GENERAL SERVICES
2 GOVERNOR AIKEN AVENUE – DRAWER 33
MONTPELIER, VERMONT 05633–5861
(802) 828–5695

GENERAL NOTES:

(1) This plan is for topographic purposes only and is not to be construed as a property boundary survey. Property lines shown are for reference only.

(2) Prior to commencing site work, the General Contractor shall verify existing field conditions. The Project Engineer shall be notified immediately where discrepancies exist between the project drawings and actual field conditions.

(3) All existing utility information provided without the help of DIG SAFE.

(4) The General Contractor shall contact **DIG SAFE** at **(1–888–344–7233)** seventy–two hours prior to any excavation to accurately establish the location of all underground utilities located on the project site.

(5) Where dimensions on the project drawings are unclear, contact the Project Engineer immediately for clarification.

(6) It is the General Contractor's responsibility to ensure that the Project drawings reflect the latest revisions.

JOB SITE SAFETY NOTES:

(1) PROVIDE ADEQUATE SAFETY FOR ALL WORKERS AND THE GENERAL PUBLIC ON AND NEAR THE JOB SITE AT ALL TIMES.

(2) FOLLOW THE SAFETY PROCEDURES SET FORTH BY THE VERMONT OCCUPATIONAL; SAFETY AND HEALTH ADMINISTRATION, (VOSHA) AT A MINIMUM, AT ALL TIMES.

(3) ALL EXCAVATION AND HOLES SHALL BE FILLED, COVERED OR BARRICADED AT THE END OF EACH WORKING DAY.

(4) AT THE END OF EACH WORKDAY, ALL UNFINISHED WORK SHALL BE IDENTIFIED IN SUCH A MANNER SO AS TO WARN UNAUTHORIZED PERSONNEL FROM ENTERING OR USING THE UNFINISHED AREA.

LEGEND

- EXISTING CONTOUR
- PROPERTY LINE
- IRON PIN
- CONCRETE MONUMENT
- FM — FORCE MAIN
- OE — OVERHEAD ELECTRIC
- SHUT–OFF
- POWER POLE
- TEST PIT
- SOIL BORING
- EXISTING DECIDUOUS TREE
- EXISTING CONIFEROUS TREE
- EXISTING BRUSH
- TREE LINE
- FENCE
- DRAINAGE SWALE
- WETLAND DELINEATION
- WETLANDS
- 190.13 EDG — AS–BUILT POINT AS OF 11/05 (ELEVATION, DESCRIPTION)

Champlain Consulting ENGINEERS
85 PRIM ROAD, P.O. BOX 453 COLCHESTER, VERMONT 05446
PHONE: (802) 863–8060
FAX: (802) 864–1878

D&W DORE AND WHITTIER, INC.
Architects • Project Managers
1795 WILLISTON RD, STE 5 S. BURLINGTON, VT 05403 Phone: (802) 863–1428 Fax: (802) 863–6495
1400 HANCOCK STREET QUINCY, MA 02169 Phone: (617) 472–2626 Fax: (617) 471–2576

STATE OF VERMONT
PAUL DUCHESNEAU
No. 3567
REGISTERED PROFESSIONAL ENGINEER

B G S

STATE OF VERMONT
DEPARTMENT OF BUILDINGS AND GENERAL SERVICES
AGENCY OF ADMINISTRATION
MONTPELIER, VERMONT

AGENCY OF TRANSPORTATION
N. FERRISBURGH MAINTENANCE FACILITY
NORTH FERRISBURGH, VERMONT

REVISIONS

SCALE: 1" = 60'
DATE: 01/04/06
DRAWN BY: CCE
APPR. BY: PD

FERRISBURGH
MAINTENANCE GARAGE
EXISTING CONDITIONS

C–1

5 OF 43

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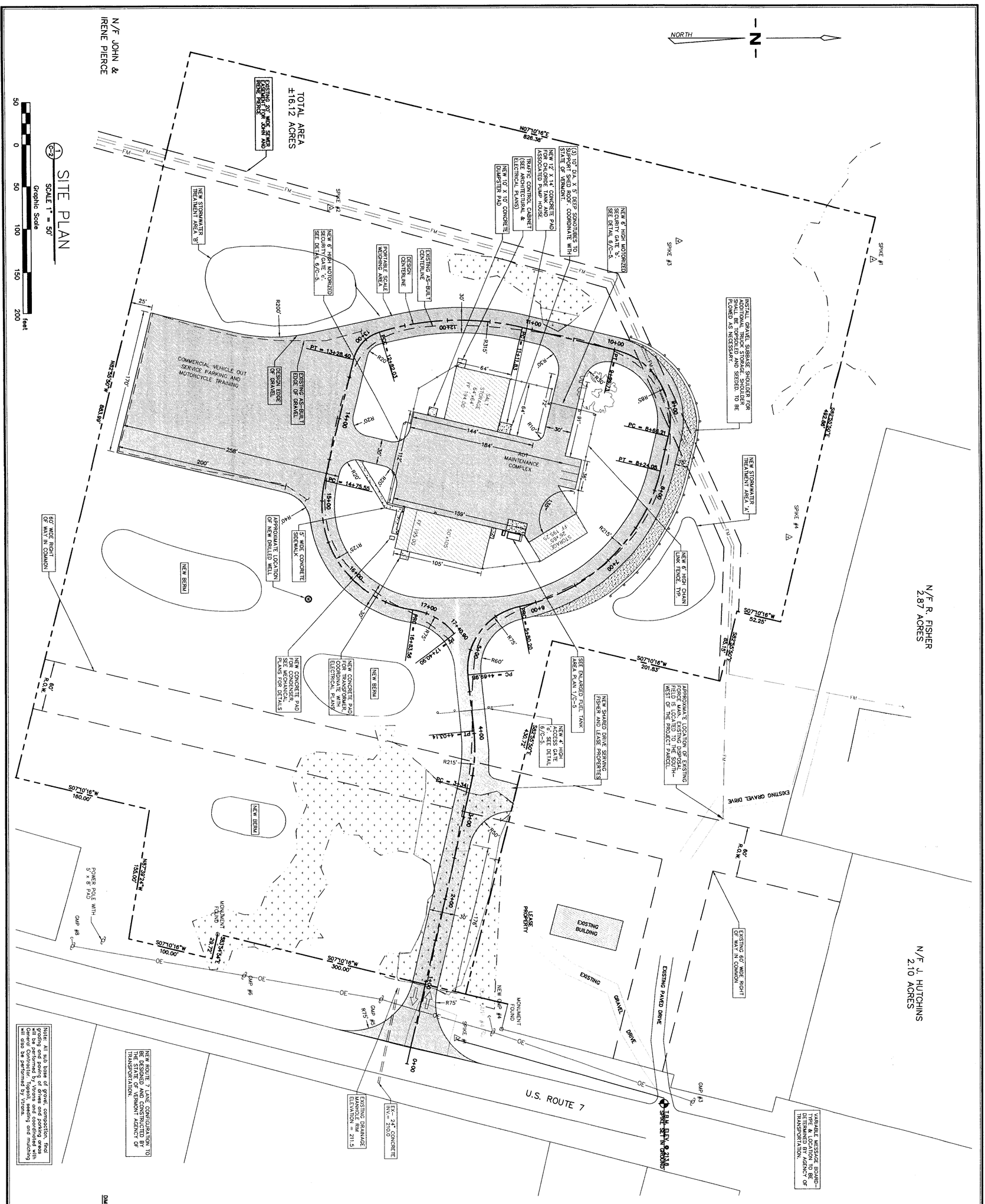
N:\sdsk\proj\23100\2005\23100_C-2_2005.dwg Tue Jan 17 17:08:49 2006 CCE//MLC


NORTH
N/F JOHN & IRENE PIERCE
TOTAL AREA ±16.12 ACRES
EXISTING 20' WIDE SEWER RIGHT OF WAY TO JOHN & IRENE PIERCE
N/F R. FISHER 2.87 ACRES
N/F J. HUTCHINS 2.10 ACRES
U.S. ROUTE 7
EXISTING GRAVEL DRIVE
EXISTING PAVED DRIVE
EXISTING BUILDING
LEASE PROPERTY
MAINTENANCE COMPLEX
COMMERCIAL VEHICLE OUT SERVICE PARKING AND MOTORCYCLE TRAINING
NEW BERM
NEW STORMWATER TREATMENT AREA 'A'
NEW STORMWATER TREATMENT AREA 'B'
NEW 6' HIGH CHAIN LINK FENCE, TYP.
NEW 6' HIGH MOTORIZED SECURITY GATE 'a', SEE DETAIL 6/C-5.
NEW 6' HIGH MOTORIZED SECURITY GATE 'c', SEE DETAIL 6/C-5.
NEW 4' HIGH ACCESS GATE 'c', SEE DETAIL 6/C-5
NEW 10' x 10' CONCRETE DUMPSTER PAD
TRAFFIC CONTROL CABINET (SEE ARCHITECTURAL & ELECTRICAL PLANS)
NEW CONCRETE PAD FOR CHLORINE TANK AND ASSOCIATED PUMP HOUSE. SEE MECHANICAL PLANS FOR DETAILS
(3) 10' DIA. X 5' DEEP SONOTUBES TO SUPPORT SIGN ONLY. COORDINATE WITH SIZE OF SIGN.
NEW CONCRETE PAD FOR GENERATOR, COORDINATE WITH ELECTRICAL PLANS
NEW CONCRETE PAD SEE MECHANICAL PLANS FOR DETAILS
NEW SHARED DRIVE SERVING FISHER AND LEASE PROPERTIES
SEE ENLARGED FUEL TANK AREA PLAN 1/C-5
APPROXIMATE LOCATION OF EXISTING LEACHFIELD. LEACHFIELD IS LOCATED TO THE SOUTH-WEST OF THE PROJECT PARCEL.
APPROXIMATE LOCATION OF NEW DRILLED WELL
5' WIDE CONCRETE SIDEWALK
60' WIDE RIGHT OF WAY IN COMMON
EXISTING 60' WIDE RIGHT OF WAY IN COMMON
INSTALL GRAVEL SUBBASE SHOULDER FOR BICYCLE TRAINING. SHOULDER SHALL BE TOPSOILED AND SEEDED TO BE PLOWED AS NECESSARY.
DESIGN EDGE OF GRAVEL
EXISTING AS-BUILT EDGE OF GRAVEL
DESIGN CENTERLINE
EXISTING AS-BUILT CENTERLINE
PORTABLE SCALE WEIGHING AREA
SALT STORAGE 64' x 64' FF = 744.00
CRUSHED STONE FF = 744.00
STONE/SAND FF = 744.00
STONE/SAND FF = 744.00
STONE/SALT FF = 744.00
STONE/SALT FF = 744.00
STONE/SAND FF = 744.00
STONE/SAND FF = 744.00
STONE/SAND

N/F JOHN & IRENE PIERCE

N/F R. FISHER
2.87 ACRES

N/F J. HUTCHINS
2.10 ACRES

N/F JOHN & IRENE PIERCE

TOTAL AREA
±16.12 ACRES

INSTALL EROSION CONTROL NETTING ON ALL SLOPES GREATER THAN 3H : 1V.

TEMPORARY EROSION CONTROL STONE CHECK DAM, TYP.

OVERFLOW SPILLWAY, TYP.

EXISTING STORMWATER POND OUTLET STRUCTURE. SEE DETAIL 2/C-6.

APPROXIMATE WETLAND IMPACT, TYPICAL

BEGIN GUARDRAIL @ STA 6+76

SEE ENLARGED FUEL TANK AREA PLAN 1/C-5

DESIGN CENTERLINE

EXISTING AS-BUILT CENTERLINE

STONE OUTLET PAD, TYP.

EXISTING 24" HDPE CULVERT W/ FLARED END SECTION INV. OUT = 185.4'

END GUARDRAIL @ STA 9+88

EXISTING CATCH BASIN 'A'
RIM ELEVATION @ 190.9
6" INV. IN @ 187.5±
18" INV. IN @ 187.25±
24" INV. OUT = 187.0±

APPROXIMATE WETLAND IMPACT, TYPICAL

TEMPORARY EROSION CONTROL SILT FENCE

STORMWATER DETENTION POND 'B'
SEE DETAIL 1/C-6.

EXISTING STORMWATER POND OUTLET STRUCTURE SEE DETAIL 2/C-6.

EXISTING 20' WIDE SEWER EASEMENT FOR JOHN AND IRENE PIERCE

APPROXIMATE LOCATION OF CAPPED END OF EXISTING FORCE MAIN. FIELD VERIFY EXACT LOCATION PRIOR TO THE START OF CONSTRUCTION.

EXISTING FORCE MAIN TO EXISTING COMPLETED WASTEWATER DISPOSAL FIELD. REFER TO WW-9-0324-1 FOR DETAILS REGARDING EXISTING DISPOSAL FIELD.

NEW 2" DIA. CLASS 160 PVC FORCE MAIN TO EXISTING DISPOSAL FIELD. NEW FORCE MAIN SHALL BE PRESSURE TESTED PRIOR TO CONNECTION WITH EXISTING FORCE MAIN.

EX. UNDERDRAIN STUB

EX. FORCE MAIN STUB

EX. UNDERDRAIN STUB

EXISTING 18" CMP CULVERT W/ FLARED INLET SECTION INV. IN @ 192.8

EXISTING DRAINAGE MANHOLE 'B'
RIM ELEVATION @ 194.1
4" INVS. IN @ 190.6±
18" INV. IN @ 190.6±
18" INV. OUT @ 190.5±

WELL ISOLATION ENVELOPE

PROPOSED EARTHEN BERMS

DESIGN EDGE OF GRAVEL

EXISTING AS-BUILT EDGE OF GRAVEL

EX. INV. OUT @ 187.8

Note: All sub base of gravel, compaction, final grading and paving of drives and parking areas will be performed by Vtrans and coordinated with General Contractor. Topsoil, seeding and mulching will also be performed by Vtrans.

APPROXIMATE LOCATION OF EXISTING FORCE MAIN. EXISTING DISPOSAL FIELD IS LOCATED TO THE SOUTH-WEST OF THE PROJECT PARCEL.

EXISTING GRAVEL DRIVE

EXISTING PAVED DRIVE

GRAVEL DRIVE

EXISTING BUILDING

LEASE PROPERTY

PROVIDE STABILIZED CONSTRUCTION ENTRANCE

MONUMENT FOUND

NEW GMP #4

GMP #3

GMP #5

GMP #6

GMP #8

T.B.M. ELEV. @ 213.8
SPIKE SET IN GROUND

U.S. ROUTE 7

EX. 24" INV.= 203.7

NEW 4" DIA. CAST IRON SANITARY SEWER PIPING. SLOPE @ 1/4" PER FT. MIN.

NEW 1,500 GALLON PRECAST CONCRETE SEPTIC TANK WITH OUTLET FILTER AND ACCESS RISER TO GRADE.

NEW 1,500 GALLON PRECAST CONCRETE PUMP STATION WITH ACCESS RISER TO GRADE

EX- 24" CONCRETE INV.= 210.0

EXISTING DRAINAGE MANHOLE RIM ELEVATION = 211.5

POWER POLE WITH 5' x 8' PAD

*NOTE:
REFER TO ELECTRICAL PLANS FOR UNDERGROUND UTILITY AND SITE LIGHTING INFORMATION AND LOCATIONS

SPIKE #1
SPIKE #2
SPIKE #3
SPIKE #4

S82°55'50"E 492.86'
S07°01'16"W 52.25'
S82°55'50"E 85.15'
S07°01'16"W 201.83'
S82°55'50"E 430.72'
S07°01'16"W 100.00'
S83°54'54"E 29.72'
S07°01'16"W 100.00'
N87°39'24"W 155.00'
S07°01'16"W 180.00'
N82°55'50"W 883.99'
N07°01'16"E 826.38'

60' R.O.W.

DESIGN NOTES:

Refer to WW-9-0324-1 and plans prepared by John Stuart sheet 1 dated 11/2000, latest revision 12/2000, sheets 2&3 dated 11/2000 and sheet 1A dated 4/98 latest revision 12/2000, for information regarding the wastewater disposal system.

Potable Water Design Flows

AOT: 6 Employees @ 15 GPD	=	90 GPD
DMV: 5 Employees @ 15 GPD	=	75 GPD
DMV: Classroom- 15 Students @ 15 GPD	=	225 GPD
DMV: Enforcement- 125 Trucks @ 5 GPD	=	625 GPD
Less 10% Reduction for Low-Flow Fixtures	=	-101 GPD
Allowance for Truck Wash	=	120 GPD
Total Potable Water Design Flow	=	1034 GPD

Wastewater Design Flows

AOT: 6 Employees @ 15 GPD	=	90 GPD
DMV: 5 Employees @ 15 GPD	=	75 GPD
DMV: Classroom- 15 Students @ 15 GPD	=	225 GPD
DMV: Enforcement- 125 Trucks @ 5 GPD	=	625 GPD
Less 10% Reduction for Low-Flow Fixtures	=	-101 GPD
Total Wastewater Design Flow	=	914 GPD

Existing Wastewater Disposal System
(4) 4' x 65' Disposal Trenches

Flow = 30 gpm
Head loss = -20' (elevation) + 54' (friction & fittings) = 34'
Dose Volume = 150 Gallons
Provide: 30 gpm @ 34' T.D.H.
Recommend: Hydromatic SHEF 50 or approved equivalent

The wastewater pump specification is based on the assumed parameters of a partially completed wastewater disposal system designed by John Stuart, P.E. The condition of the existing partial system is unknown. Variables may be present that would require alternate pump selection. Therefore the pump specified shall be tested for a minimum flow rate of 20 GPM. Conditions may prove this does not meet the performance standard and an alternate pump selection may be required.

PERIODIC MAINTENANCE NOTES:

SEPTIC TANK

(1) The depth of sludge and scum in the septic tank shall be measured annually by the Owner. The septic tank shall be pumped if the sludge is closer than 3" to the septic tank outlet baffle.

(2) All interior surfaces shall be inspected for cracking after the septic tank has been pumped.

(3) The effluent filter should be rinsed clean regularly, usually at the time of septic tank inspection.

PUMP STATION

(1) During periods of infrequent use, the pump station shall be opened and filled with water via a hose to a level that will engage the pump. This action shall be performed at least once per week when occupancy and usage are too low to cycle the pump.

(2) At least once per year, open the pump station and remove all settled solids as necessary.

(3) All interior surfaces shall be inspected for cracking after the pump station has been pumped.

(4) Float and alarm elevations shall be checked and reset as necessary.

WASTEWATER DISPOSAL AREA

(1) Maintain turf conditions throughout the summer months by mowing the grass to 2 1/2" – 3" in length; reseed all bare spots.

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPERTY LINE
- IRON PIN
- CONCRETE MONUMENT
- EXISTING FORCE MAIN
- OVERHEAD ELECTRIC
- WATER SHUT-OFF
- POWER POLE
- DRAINAGE SWALE
- WETLAND DELINEATION
- WETLANDS
- NEW LANDSCAPING
- NEW FORCE MAIN
- NEW SANITARY SEWER
- NEW WATER LINE
- NEW STORM LINE
- NEW FLOOR DRAIN
- NEW DRILLED WELL
- NEW GUARD RAIL
- PROPOSED SPOT ELEVATION
- AS-BUILT POINT AS OF 11/05 (ELEVATION, DESCRIPTION)

1/C-3 GRADING AND UTILITY PLAN
SCALE 1" = 50'

Graphic Scale
50 0 50 100 150 200 feet

Champlain Consulting ENGINEERS
85 PRIM ROAD, P.O. BOX 423, COLCHESTER, VERMONT 05446
PHONE: (802) 985-8090
FAX: (802) 864-1976

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Architects • Project Managers
159 WILLISTON RD, STE 3, S. BURLINGTON, VT 05403
Phone: (802) 863-1428
Fax: (802) 863-4955
1400 BANCROFT STREET #305, DANVILLE, CA 94526
Phone: (617) 471-2897
Fax: (617) 471-2516

STATE OF VERMONT
PAUL DUCHESNEAU
No. 3567
REGISTERED PROFESSIONAL ENGINEER

B&S

STATE OF VERMONT
DEPARTMENT OF BUILDINGS & GENERAL SERVICES
AGENCY OF ADMINISTRATION
MONTPELIER, VERMONT

AGENCY OF TRANSPORTATION
N. FERRISBURGH MAINTENANCE FACILITY
NORTH FERRISBURGH, VERMONT

REVISIONS

SCALE: 1" = 50'
DATE: 01/04/06
DRAWN BY: CCE
APPR. BY: PD

FERRISBURGH
MAINTENANCE GARAGE
GRADING AND UTILITY PLAN

C-3
7 OF 43

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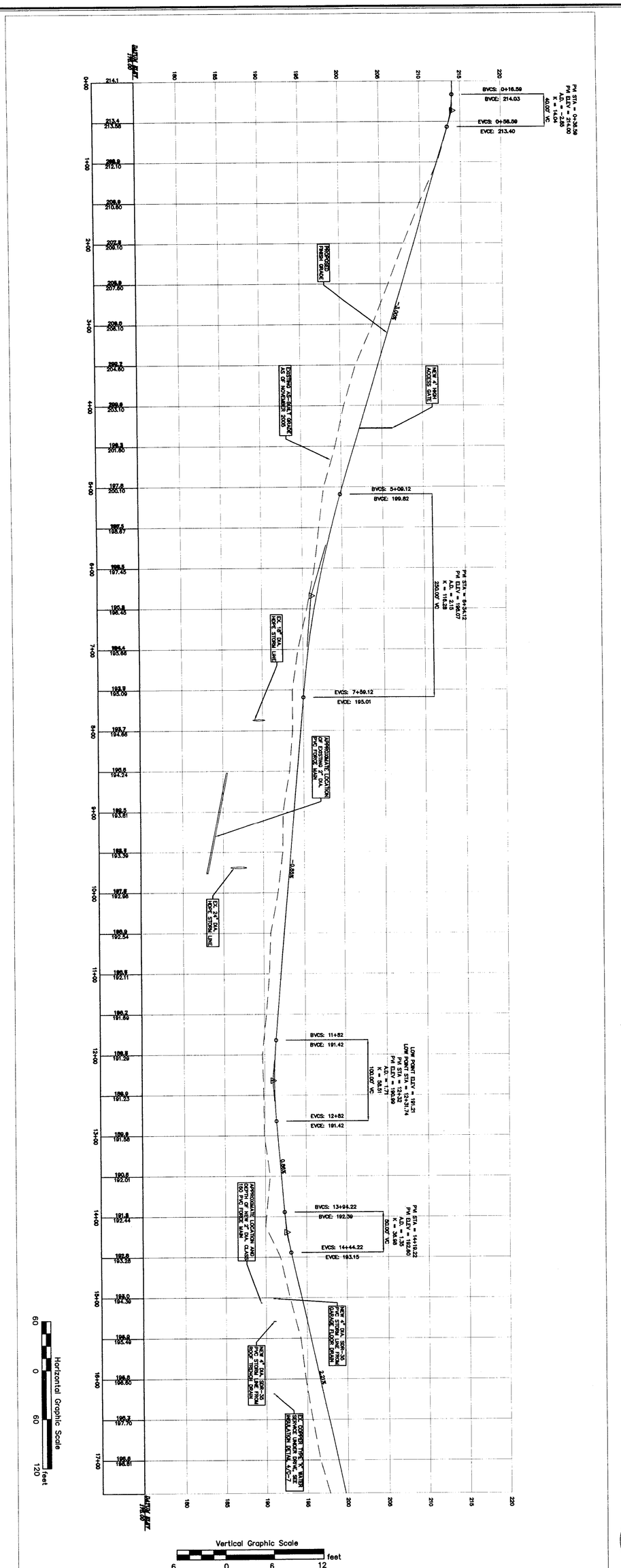

C-4

CENTERLINE DRIVEWAY PROFILE

STA 0+00 TO 17+41

Champlain Consulting ENGINEERS
85 PRIM ROAD, P.O. BOX 453
COLCHESTER, VERMONT 05446
PHONE: (802) 863-8060
FAX: (802) 864-1678

C-4	MAINTENANCE GARAGE CENTERLINE DRIVE PROFILE	FERRISBURGH	SCALE: AS NOTED DATE: 01/04/06 DRAWN BY: CCE APPR. BY: PD

REVISIONS

AGENCY OF TRANSPORTATION
N. FERRISBURGH MAINTENANCE FACILITY
NORTH FERRISBURGH, VERMONT

STATE OF VERMONT
DEPARTMENT OF BUILDINGS AND GENERAL SERVICES
AGENCY OF ADMINISTRATION
MONTPELIER, VERMONT

DORE AND WHITTIER, INC.
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QUINCY, MA 02169
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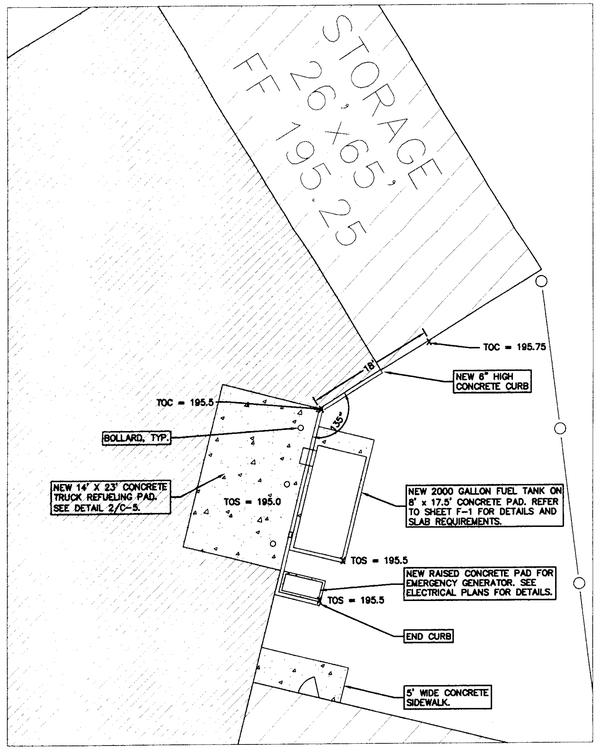
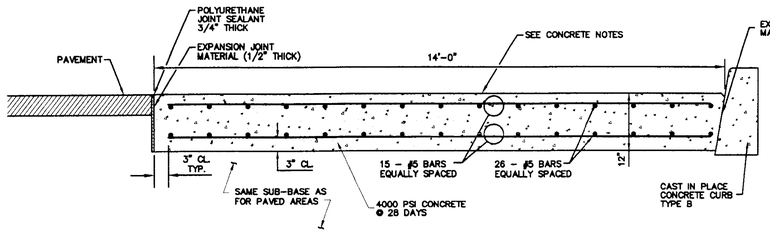
Fax: (617) 471-2516



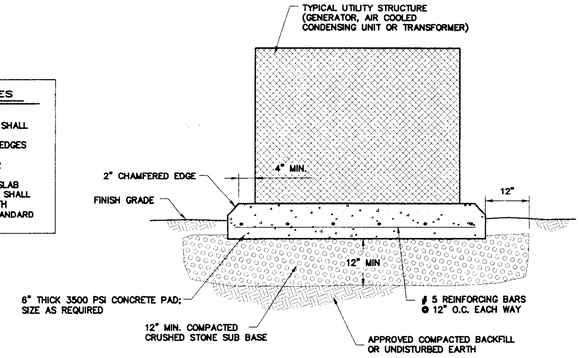
1/C-5 FUEL TANK AREA PLAN
SCALE: 1" = 10'



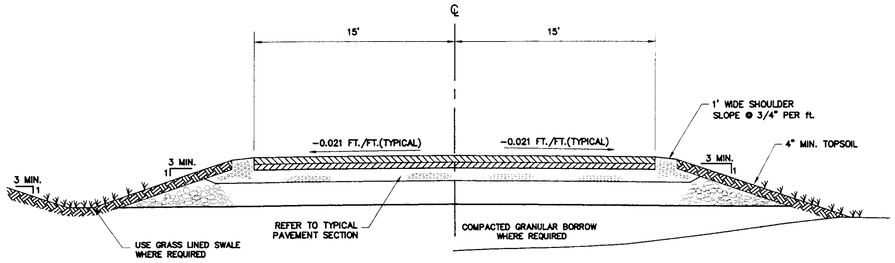
2/C-5 TRUCK REFUELING AREA SLAB SECTION
N.T.S.

CONCRETE NOTES

- MAXIMUM SLUMP OF 4"
- ALL REINFORCING STEEL SHALL BE GRADE 60
- CHAMFER ALL EXPOSED EDGES 3/4" X 3/4"
- CONCRETE SHALL BE AIR ENTRAINED 6-8%
- TROWEL FINISH TOP OF SLAB
- PLACEMENT AND CURING SHALL BE IN CONFORMANCE WITH DIVISION 500 OF THE STANDARD SPECIFICATIONS

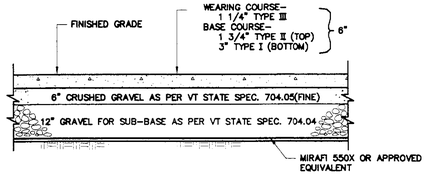


3/C-5 UTILITY PAD DETAIL
N.T.S.

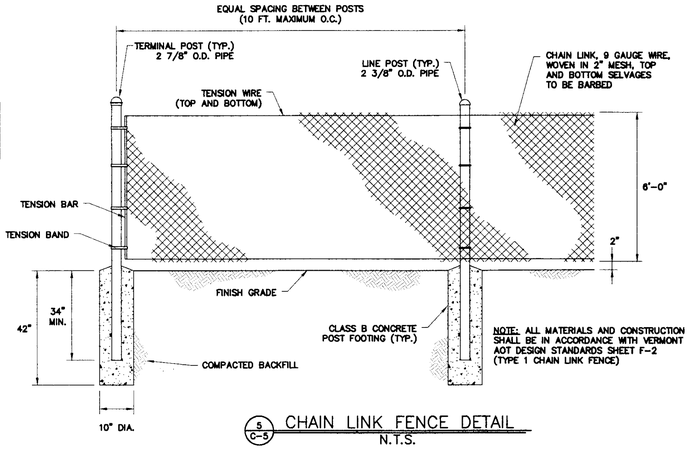


3/C-5 TYPICAL ACCESS DRIVE CROSS-SECTION
N.T.S.

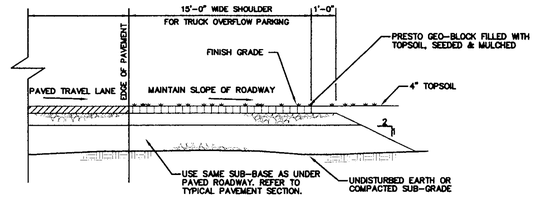
NOTE: REFER TO VAOT STANDARD SHEET B-12 AND FIGURE 3-12 OF THE VAOT ROAD DESIGN MANUAL (1998) FOR DETAILS REGARDING TRANSITION WITH EXISTING PAVEMENT.



4/C-5 TYPICAL PAVEMENT SECTION
N.T.S.

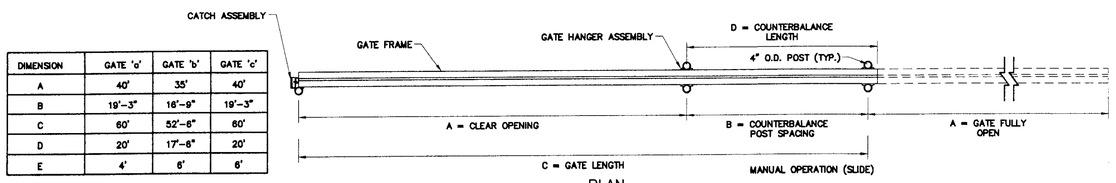


5/C-5 CHAIN LINK FENCE DETAIL
N.T.S.

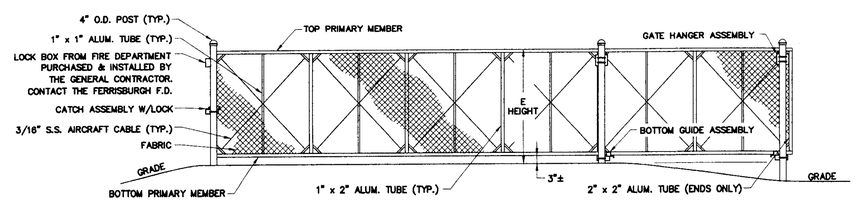


3/C-7 TYPICAL GRASSED SHOULDER WITH SUB-BASE
N.T.S.

DIMENSION	GATE 'a'	GATE 'b'	GATE 'c'
A	40'	35'	40'
B	19'-3"	16'-9"	19'-3"
C	60'	52'-6"	60'
D	20'	17'-6"	20'
E	4'	6'	6'



PLAN

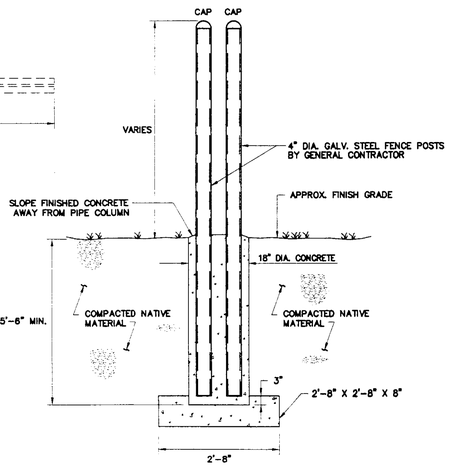


ELEVATION

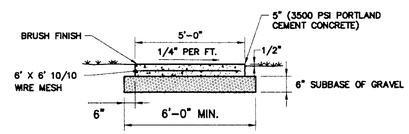
TYMETAL FORTRESS STRUCTURAL GATE SYSTEM

SUBMIT SHOP DRAWINGS FOR APPROVAL

8/C-5 ENTRANCE GATE DETAIL
N.T.S.



7/C-5 ENTRANCE GATE POSTS DETAIL
N.T.S.

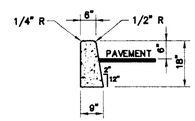


NOTE:
CONSTRUCT EXPANSION & CONTRACTION JOINTS EVERY 20' WITH DUMMY JOINTS EVERY 5'.

8/C-5 CONCRETE SIDEWALK CROSS-SECTION
N.T.S.

NOTES:

1. CURBING SHALL BE VAOT CLASS B CONCRETE.
2. CURBING SHALL BE CONSTRUCTED IN 10' SECTIONS WITH 1/8" JOINT BETWEEN SECTIONS
3. CURBING EXPANSION JOINTS SHALL BE CONSTRUCTED EVERY 20' AND SHALL BE CONSTRUCTED OF MATERIAL CONFORMING TO AASHTO DESIGNATION M-153 (1/2" SPONGE RUBBER OR CORK).
4. ALL EXPOSED SURFACES SHALL RECEIVE TWO COATS OF AN APPROVED ANTI-SPALLING COMPOUND.



9/C-5 CONCRETE CURB DETAIL
N.T.S.

Champlain Consulting ENGINEERS
65 FERN ROAD, P.O. BOX 454, CUTTINGSVILLE, VERMONT 05446
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D&W
DORE AND WHITTIER, INC.
Architects • Project Managers
175 PEARL STREET, SUITE 3
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1400 BANCROFT STREET
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Phone: (617) 471-2897
Fax: (617) 471-2316

STATE OF VERMONT
PAUL BUCHSENCU
No. 3567
REGISTERED PROFESSIONAL ENGINEER

B G S

STATE OF VERMONT
DEPARTMENT OF BUILDINGS AND GENERAL SERVICES
AGENCY OF ADMINISTRATION
MONTPELIER, VERMONT

AGENCY OF TRANSPORTATION
N. FERRISBURGH MAINTENANCE FACILITY
NORTH FERRISBURGH, VERMONT

REVISIONS

SCALE: AS NOTED
DATE: 01/04/06
DRAWN BY: CCB
APPR. BY: PD

FERRISBURGH
MAINTENANCE GARAGE
DETAILS

C-5

9 OF 43

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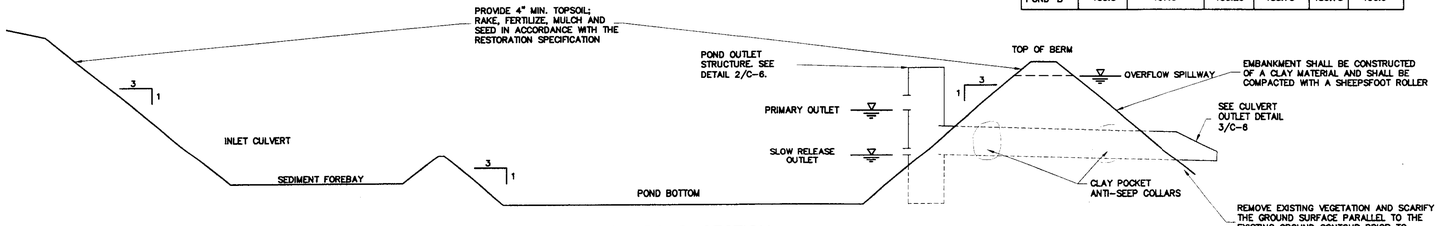
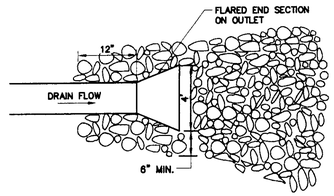
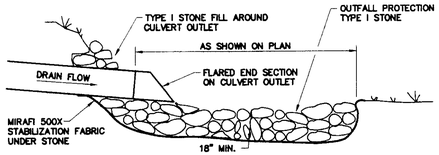
	POND BOTTOM	SLOW RELEASE OUTLET	PRIMARY OUTLET	OVERFLOW SPILLWAY	TOP BERM	STRUCTURE COVER
POND 'A'	188.0	190.0	191.5	191.95	193.0	193.9
POND 'B'	185.5	187.0	188.25	188.75	189.75	190.9



1/C-6 DETENTION POND SECTION
N.T.S.

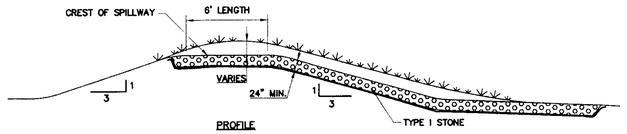


PLAN

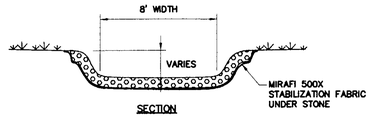


PROFILE

3/C-6 CULVERT OUTLET DETAIL
N.T.S.

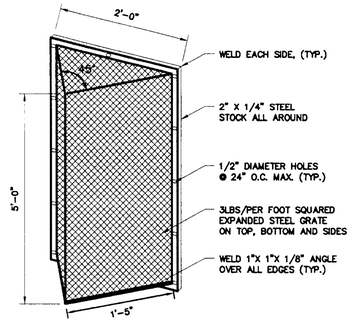


PROFILE



SECTION

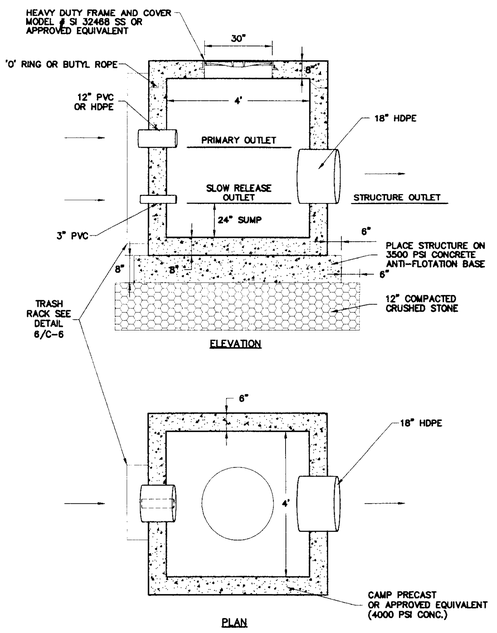
4/C-6 OVERFLOW SPILLWAY
N.T.S.



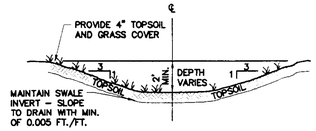
NOTES FOR TRASH RACK

1. TRASH RACK TO BE CENTERED OVER OPENING.
2. STEEL TO CONFORM TO ASTM A-36.
3. ALL SURFACES TO BE COATED WITH COLD GALVANIZING COMPOUND AFTER WELDING.
4. TRASH RACK TO BE FASTENED TO THE WALL WITH 1/2" MASONRY ANCHORS. TRASH RACK TO BE REMOVABLE.

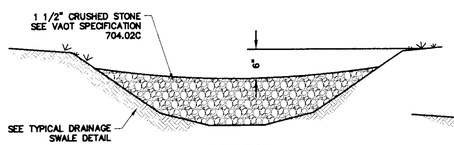
6/C-6 TRASH RACK PROTECTION
N.T.S.



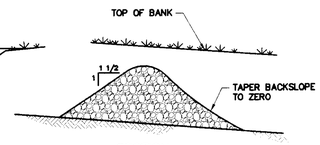
2/C-6 POND OUTLET STRUCTURE
N.T.S.



5/C-6 TYPICAL DRAINAGE SWALE
N.T.S.

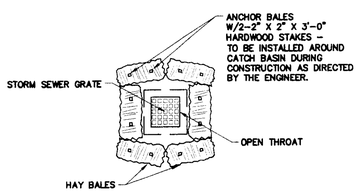


ELEVATION



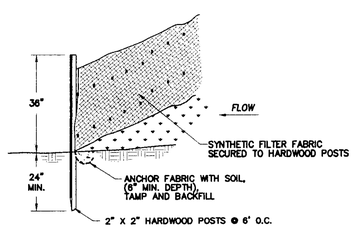
SECTION

7/C-8 CRUSHED STONE CHECK DAM
N.T.S.



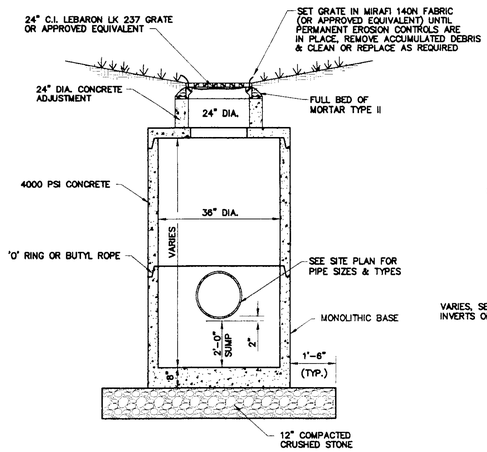
NOTE:
SET GRATE IN MIRAFI 140N FABRIC (OR APPROVED EQUIVALENT) UNTIL PERMANENT EROSION CONTROLS ARE IN PLACE, REMOVE ACCUMULATED DEBRIS & CLEAN OR REPLACE AS REQUIRED

8/C-6 INLET PROTECTION
N.T.S.

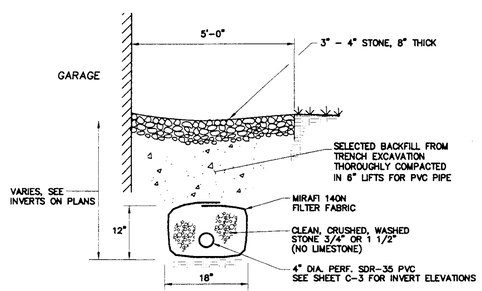


BACK WITH STAKED HAYBALES AS INDICATED ON PLAN

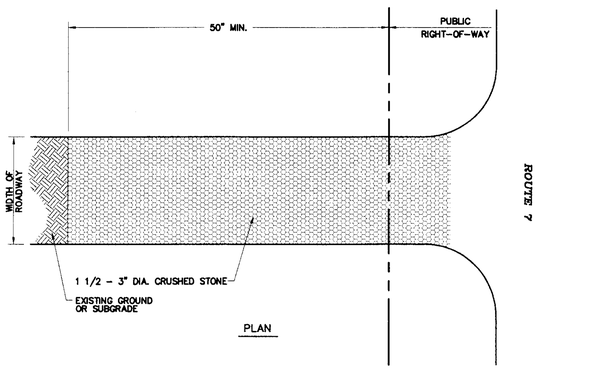
9/C-6 SILT FENCE DETAIL
N.T.S.



10/C-6 TYPICAL CATCH BASIN IN SWALE
N.T.S.



11/C-6 TYPICAL TRENCH DETAIL
N.T.S.



PROFILE

NOTES:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF SEDIMENT ONTO THE PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT TRACKED, SPILLED, OR WASHED ONTO THE PUBLIC RIGHT-OF-WAY SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
2. THE USE OF CALCUM CHLORIDE OR WATER MAY BE NECESSARY TO CONTROL DUST DURING THE SUMMER.

12/C-8 TEMPORARY STABILIZED CONSTRUCTION ENTRANCE DETAIL
N.T.S.

Champlain Consulting ENGINEERS
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1400 HANCOCK STREET, QUINCY, MA 02169, Phone: (617) 471-2500, Fax: (617) 471-2516

STATE OF VERMONT
PAUL DUCHESNEAU
No. 3567
REGISTERED PROFESSIONAL ENGINEER

B·G·S

STATE OF VERMONT
DEPARTMENT OF BUILDINGS AND GENERAL SERVICES
AGENCY OF ADMINISTRATION
MONTPELIER, VERMONT

AGENCY OF TRANSPORTATION
N. FERRISBURGH MAINTENANCE FACILITY
NORTH FERRISBURGH, VERMONT

REVISIONS

SCALE: AS NOTED	DATE: 01/04/06	DRAWN BY: CCE	APPR. BY: PD

FERRISBURGH
MAINTENANCE GARAGE
STORMWATER DETAILS

C-6

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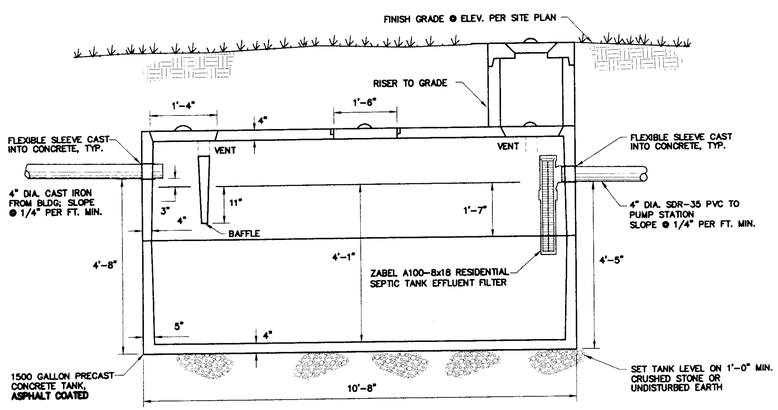
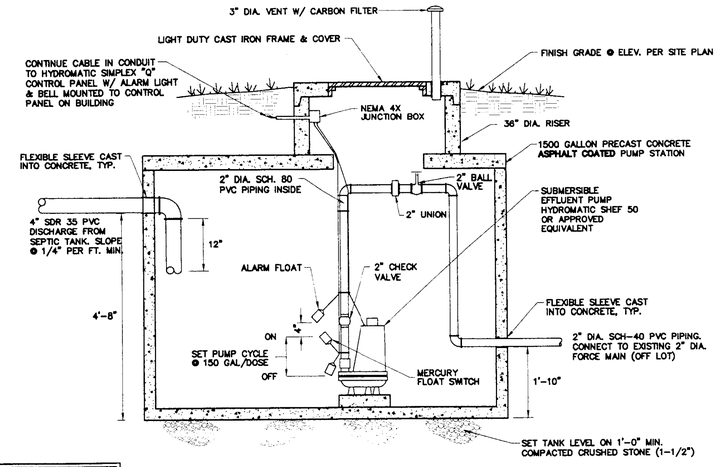
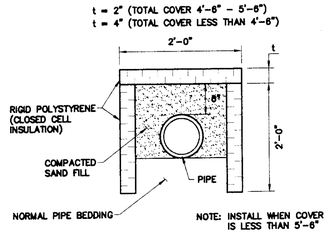


1 C-7 TYPICAL 1500 GALLON SEPTIC TANK WITH OUTLET FILTER
N.T.S.

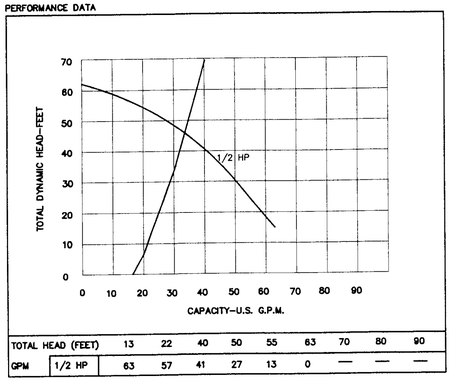


2 C-7 1500 GALLON PUMP STATION DETAIL
N.T.S.

THE WASTEWATER PUMP SPECIFICATION IS BASED ON THE ASSUMED PARAMETERS OF A PARTIALLY COMPLETED WASTEWATER DISPOSAL SYSTEM DESIGNED BY JOHN STUART, P.E. THE CONDITION OF THE EXISTING PARTIAL SYSTEM IS UNKNOWN. VARIABLES MAY BE PRESENT THAT WOULD REQUIRE ALTERNATE PUMP SELECTION. THEREFORE THE PUMP SPECIFIED SHALL BE TESTED FOR A MINIMUM FLOW RATE OF 20 GPM. CONDITIONS MAY PROVE THIS DOES NOT MEET THE PERFORMANCE STANDARD AND AN ALTERNATE PUMP SELECTION MAY BE REQUIRED.

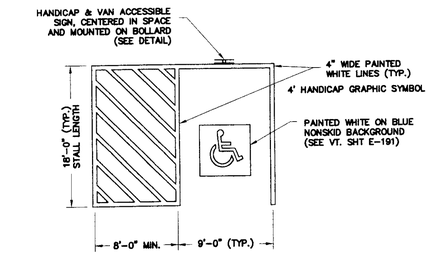


4 C-7 TYPICAL PIPING INSULATION DETAIL
N.T.S.

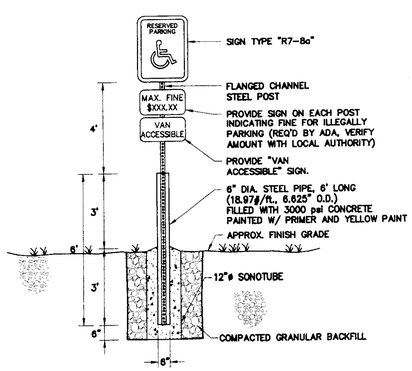


TOTAL HEAD (FEET)		13	22	40	50	55	63	70	80	90
GPM	1/2 HP	63	57	41	27	13	0	—	—	—

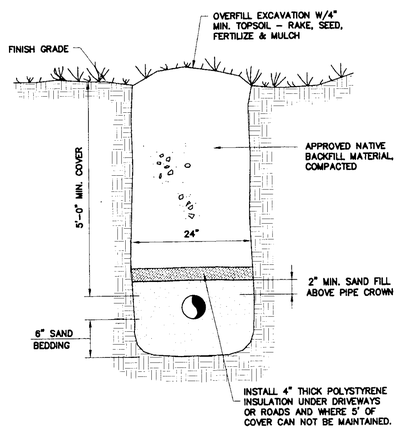
6 C-7 PUMP SPECIFICATIONS– HYDROMATIC SHEF50
N.T.S.



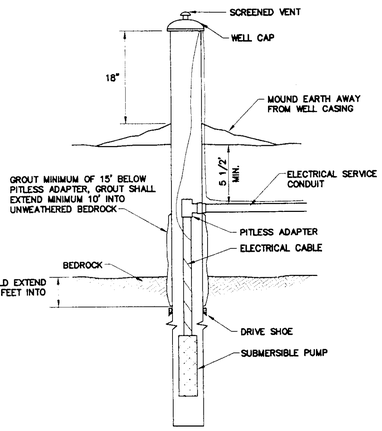
5 C-7 ACCESSIBLE SPACE PAVEMENT MARKING
N.T.S.



8 C-7 HANDICAP SIGN DETAIL
N.T.S.



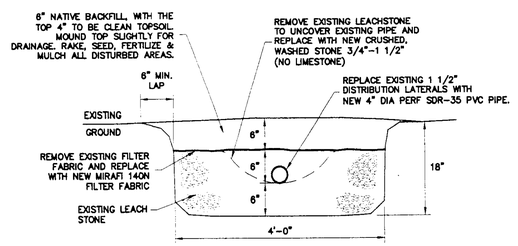
9 C-7 FORCE MAIN TRENCH DETAIL
N.T.S.



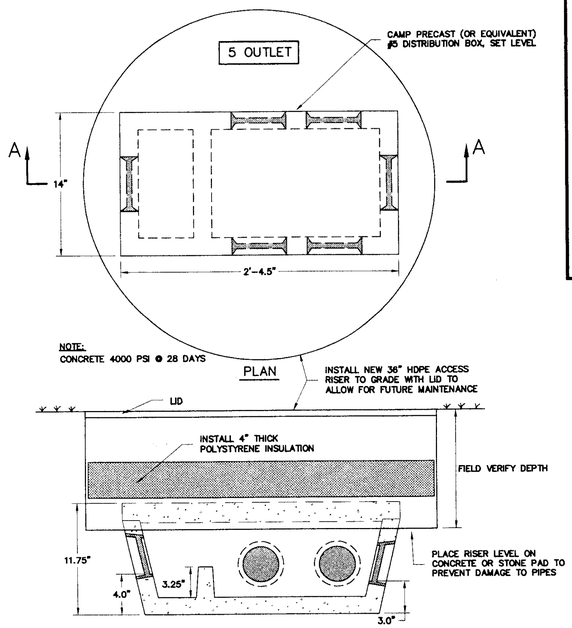
IF A WATER SAMPLE ANALYSIS INDICATES THE PRESENCE OF BACTERIA, THE WELL SHOULD BE THOROUGHLY CHECKED FOR PROPER CONSTRUCTION (SEE DIAGRAM). IN ADDITION, THE SURROUNDING AREA SHOULD BE CHECKED FOR LIKELY CONTAMINATION SOURCES. OCCASIONALLY, THE LABORATORY MICROBIOLOGIST IS UNABLE TO DETERMINE THE PRESENCE OF COLIFORM DUE TO THE CULTURE PLATE BEING OVERGROWN WITH OTHER BACTERIA. BECAUSE OF THE ABUNDANCE OF THESE OTHER BACTERIA, THE SAMPLE IS CONSIDERED CONTAMINATED.

DO NOT DRINK WATER FOUND TO BE CONTAMINATED WITH BACTERIA UNTIL CORRECTIONS ARE MADE TO THE WELL. THE SYSTEM IS DISINFECTED AND A FOLLOW-UP SAMPLE SHOWS NO COLIFORM ORGANISMS PRESENT, OR UNLESS THE WATER IS BOILED FOR FIVE MINUTES.

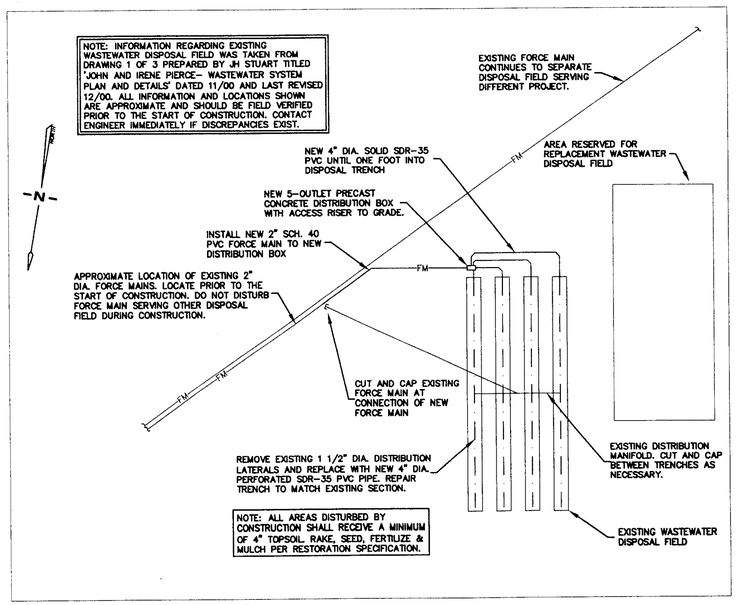
7 C-7 TYPICAL DRILLED WELL
N.T.S.



10 C-7 TYPICAL DISPOSAL TRENCH REPAIR DETAIL
N.T.S.



3 C-7 PRECAST CONCRETE DISTRIBUTION BOX DETAIL
N.T.S.



11 C-7 EXISTING WASTEWATER DISPOSAL PLAN
SCALE: 1" = 20'

Champlain Consulting ENGINEERS
85 PRIM ROAD, P.O. BOX 453, COLCHESTER, VERMONT 05446
PHONE: (802) 863-8060
FAX: (802) 864-1976
1795 WILLISTON RD, STE 5, S. BURLINGTON, VT 05403, Phone: (802) 863-6995, Fax: (802) 863-6995
1400 HANCOCK STREET, QUINCY, MA 02169, Phone: (617) 471-2316, Fax: (617) 471-2316
D&W DORE AND WHITTIER, INC. Architects • Project Managers
STATE OF VERMONT, PAUL BUCHENAU, No. 3567, REGISTERED PROFESSIONAL ENGINEER
B S G

STATE OF VERMONT
DEPARTMENT OF BUILDINGS AND GENERAL SERVICES
AGENCY OF ADMINISTRATION
MONTPELIER, VERMONT

AGENCY OF TRANSPORTATION
N. FERRISBURGH MAINTENANCE FACILITY
NORTH FERRISBURGH, VERMONT

REVISIONS	SCALE: AS NOTED	DRAWN BY: CCE
	DATE: 01/04/06	APPR. BY: PD

FERRISBURGH
MAINTENANCE GARAGE
DETAILS

C-7

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SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

PART 1 – GENERAL

1.01 DESCRIPTION OF WORK

A. Submit Shop Drawings, Product Data, and Samples required by the Contract Documents.

1.02 RELATED DOCUMENTS

A. The Conditions of the Contract and General Requirements of the Contract Documents apply to the General Contractor, Subcontractors, materials suppliers and all other persons furnishing labor and materials under this Section.

1.03 SHOP DRAWINGS

A. Drawings shall be presented in a clear and thorough manner.

1. Details shall be identified by reference to sheet and detail, schedule, or room numbers shown on Contract Drawings.

1.04 PRODUCT DATA

A. Preparation:

1. Clearly mark each copy to identify pertinent products or models.
2. Show performance characteristics and capacities.
3. Show dimensions and clearances required.
4. Show wiring or piping diagrams and controls.

B. Manufacturer's standard schematic drawings and diagrams:

1. Modify drawings and diagrams to delete information which is not applicable to the Work.
2. Supplement standard information to provide information specifically applicable to the Work.

1.05 SAMPLES

A. Office samples shall be of sufficient size and quantity to clearly illustrate:
1. Functional characteristics of the product, with integrally related parts and attachment devices.
2. Full range of color, texture and pattern.

1.06 CONTRACTOR RESPONSIBILITIES

A. Review Shop Drawings, Product Data, and Samples prior to submission.

B. Determine and verify:

1. Field measurements.
2. Field construction criteria.
3. Catalog numbers and similar data.
4. Conformance with specifications.

C. Coordinate each submittal with requirements of the Work and of the Contract Documents.

D. Notify the Engineer in writing, at time of submission, of any deviations in the submittals from requirements of the Contract Documents.

E. Begin no fabrication or work which requires submittals until return of submittals with Engineer approval.

1.07 SUBMISSION REQUIREMENTS

A. Make submittals promptly in accordance with the approved schedule, and in such sequence as to cause no delay in the Work or in the work of any other contractor.

B. Number of submittals required:

1. Shop Drawings: Submit the number of opaque reproductions which the Contractor requires, plus three copies, which will be retained by the Engineer.
2. Product Data: Submit the number of copies which the Contractor requires, plus three copies, which will be retained by the Engineer.
3. Samples: Submit the number stated in each individual specification section, or as appropriate for review and approval.

C. Submittals shall contain:

1. The date of submission and the dates of any previous submissions.
2. The Project title and number.
3. Contract identification
4. The names of:
   a. Contractor.
   b. Supplier.
   c. Manufacturer.
5. Identification of the product, with the specification section number.
6. Field dimensions, clearly identified as such.
7. Relation to adjacent or critical features of the Work or materials.
8. Applicable standards, such as ASTM or Federal Specification numbers.
9. Identification of deviations from the Contract Documents.
10. Identification of all revisions on resubmittals.
11. A blank space for Contractor and Engineer review stamps.
12. Contractor's stamp, initialed or signed, certifying review of the submittal, verification of products, field measurements and field construction criteria, and coordination of the information within the submittal with requirements of the Work and Contract Documents.

1.08 RESUBMISSION REQUIREMENTS

A. Make any corrections or changes in the submittals required by the Engineer and resubmit until approved.

B. Shop Drawings and Product Data:

1. Revise initial drawings or data, and resubmit as specified for the initial submittal.
2. Indicate any changes which have been made other than those requested by the Engineer.

C. Samples: Submit new samples as required for initial submittal.

1.09 DISTRIBUTION

A. Distribute reproductions of Shop Drawings and copies of Product Data which carry the Engineer stamp of approval to:

1. Job site file.
2. Record documents file.
3. Other affected contractors.
4. Subcontractors.
5. Supplier or Fabricator.
6. Others as required.

B. Distribute samples which carry the Engineer stamp of approval as directed by the Engineer.

1.10 ENGINEER DUTIES

A. Review submittals with reasonable promptness and in accord with the established project schedule.

B. Affix review stamp and initials or signature, and indicate requirements for resubmittal, or approval of submittal.

C. Return submittals to the Contractor for distribution, or for resubmissions.

END OF SECTION

TESTING LABORATORY SERVICES

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. The Conditions of the Contract and General Requirements of the Contract Documents apply to the General Contractor, Subcontractors, materials suppliers and all other persons furnishing labor and materials under this Section.

1.02 DESCRIPTION OF WORK

A. Work included:

1. Cooperate with the Owner's selected testing agency and all others responsible for testing and inspecting the Work.

2. Provide such other testing and inspecting as are specified to be furnished by the Contractor in this Section and/or elsewhere in the Contract Documents.

1.03 QUALITY ASSURANCE

A. The testing laboratory will be qualified to the Owner's approval.

B. Testing, when required, will be in accordance with all pertinent codes and regulations, and with selected standards of the American Society for Testing Materials.

PART 2 – PRODUCTS

2.01 PAYMENT FOR TESTING

A. Initial services: The Owner will pay for initial testing services requested by the Owner.

B. Retesting: When initial tests indicate noncompliance with the Contract Documents, subsequent retesting caused by the noncompliance shall be performed by the same testing agency, and those costs will be deducted by the Owner from the Contract Sum.

2.02 CODE COMPLIANCE TESTING

A. Inspections and tests required by codes or ordinances, or by a plan approval authority, shall be the responsibility of and shall be paid for by the Contractor, unless otherwise provided in the Contract Documents.

2.03 CONTRACTOR'S CONVENIENCE TESTING

A. Inspecting and testing performed exclusively for the Contractor's convenience shall be the sole responsibility of the Contractor.

PART 3 – EXECUTION

3.01 COOPERATION WITH TESTING LABORATORY

A. Representatives of the testing laboratory shall have access to the Work at all times and at all locations where the Work is in progress.

3.02 TAKING SPECIMENS

A. All specimens and samples for testing, unless otherwise provided in the Contract Documents, shall be taken by the testing personnel. All sampling equipment and personnel will be provided by the testing laboratory. All deliveries of specimens and samples to the testing laboratory will be performed by the testing laboratory.

3.03 SCHEDULES FOR TESTING

A. Establishing schedule:

1. By advance discussion with the testing laboratory selected by the Owner, determine the time required for the laboratory to perform its tests and to issue each of its findings.

2. Notify laboratory sufficiently in advance of operations to allow for laboratory assignment of personnel and scheduling of tests.

B. Revising schedule:

1. When changes of construction schedule are necessary during construction, coordinate all such changes with the testing laboratory as required.

C. Adherence to schedule:

1. When the testing laboratory is ready to test according to the established schedule, but is prevented from testing or taking specimens due to incompleteness of the Work, all extra charges for testing attributable to the delay may be back-charged to the Contractor and shall not be borne by the Owner.

END OF SECTION

GENERAL SPECIFICATIONS

The Standard Specifications shall refer to the Vermont Agency of Transportation Standard Specifications for Construction (Latest Edition). All site work shall also be completed in accordance with any Town of Ferrisburgh Public Works standards. Any discrepancies with the plans or specifications shall be reported to the Engineer prior to beginning that work.

A. Earthwork

1. The site shall be cleared of all debris and vegetation, and all topsoil shall be stripped prior to placing any fill material. Debris and vegetation shall be disposed of at an approved location.

2. The excavated material from on site shall not be used within five feet (5') of any structure or under parking lots, roads or sidewalks unless approved by the Engineer. General imported fill material shall not be larger than two inches (2") or have more than 20% passing the NO. 200 sieve. All excess excavated material shall be disposed of at an approved location.

3. Grading

a. Perform all rough grading, including excavation, formation of embankments, shaping, sloping, compaction, construction of ditches, disposal of surplus or unsuitable material, and any work necessary to prepare the subgrades of all roadways, walks and parking areas. Grading shall be brought to the bottom of the base course under paved or surfaced areas and to within a minimum of 24 inches of finished grade under side slopes and/or embankment areas to receive loam along roadways, walks or parking areas.

b. Accomplish all excavation and fill within the slope and grade lines as indicated on the Drawings unless otherwise authorized in writing by the Owner. Parking lots shall be graded to full cross section width at sub-grade before placing any type of sub-base or pavement except that partial width construction is permissible where necessary for the maintenance of traffic.

c. Do not use frozen material in the construction of embankments

d. Embankments shall be constructed in accordance with Section 203.11 of the Standard Specifications.
Place all material being used in embankments in horizontal layers of uniform thickness across the full width of embankment, except when it is impractical to construct full width of the embankment and partial width layers are authorized by the Owner. Do not allow or place stumps, trees, rubbish or other unsuitable material in embankments. Begin layers of embankment at the deepest part of the fill.

e. Areas of soft, yielding or otherwise unsuitable material that will not meet compaction requirements shall be removed, replaced with suitable material and properly compacted at no cost to the Owner.

f. Place embankments for paved or surface areas in horizontal layers of depths which will result in layers of compacted material not exceeding 8 inches. Compact each layer as specified before placing each new layer. Use effective spreading equipment on each layer to obtain uniform thickness prior to compacting. Each layer shall be kept crowned to shed water to the outside edges of embankment and continuous leveling and manipulating will be required to assure uniform density. Construction equipment shall be routed over the entire surface of each layer.

g. If, during the construction of the embankments, there is any indication that serious bulging, cracking, or unsafe movement may occur, the placing of fill shall be stopped or retarded to allow the material to stabilize.

h. All ditches and drains shall be constructed so they will effectively drain the roadway or parking lot before any sub-base or surface course material is placed. In handling materials, tools and equipment, the Contractor shall protect the subgrade from damage. In no case shall vehicles be allowed to travel in a single track and form ruts. If ruts are formed, the subgrade shall be reshaped and compacted and any pockets of clay, sand or soft material that may have been left in the subgrade shall be removed, replaced with approved material and properly compacted at the Contractor's expense. The subgrade shall be kept in such condition that it will drain. Sub-base, base or surface material shall not be deposited on the sub-grade until the sub-grade has been checked and approved by the Owner. After the sub-grade has been approved, hauling shall not be done nor equipment moved over the sub-grade which will distort the cross section. A tolerance of 1/2 inch above or below the finished sub-grade will be allowed provided that this 1/2 inch above or below sub-grade is not maintained for a distance longer than 50 feet, and that the required cross section is maintained.

4. Compaction:

a. General: Control soil compaction during construction providing minimum percentage of density specified for each area classification.

b. Percentage of Maximum Density Requirements: Compact soil to not less than the following percentages of maximum dry density for soils which exhibit a well defined moisture-density relationship determined in accordance with ASTM D 2049, for soils which will not exhibit a well-defined moisture-density relationship.

1. Lawn or unpaved areas: Compact top 6" of sub-grade and each layer of backfill or fill material to 90% maximum dry density.

2. Compaction under paved and surfaced areas:
The entire area of each layer shall be uniformly compacted to at least the required minimum density by use of compaction equipment consisting of rollers, compactors or a combination thereof. Earth-moving and other equipment not specifically manufactured for compaction purposes will not be considered as compaction equipment. Each layer for its full width shall be compacted to not less than 90 percent of the maximum dry density as determined by the Standard Method of Test for Moisture-Density Relations of Soils, ASTM-D698, Method C, except that the material in the top two feet of any embankment, immediately below the sub- grade shall be compacted to not less than 95 percent of the maximum dry density. The field density determination will be made by a qualified testing laboratory using a nuclear density gauge.

3. Concrete Slabs: Compact each layer of backfill or material to 95% maximum dry density.

c. Moisture Control: Where sub-grades or layer of soil material must be moisture conditioned before compaction, uniformly apply water to surface of sub-grade, or layer of soil material. Free water shall not be permitted to collect or sub-grade during or subsequent to compaction operations. Remove and replace, or scarify and air dry, soil material that is too wet to permit compaction to specified density.

B. Access Drive and Parking Lot

1. The sub-grade shall be prepared in accordance with Section 203.12 of the Standard Specifications.

2. Gravel for sub-base: Shall meet the following grading requirements (Section 704.04):

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves
No. 4	20 – 60
No. 100	0 – 12
No. 200	0 – 6

The gravel shall be uniformly graded from coarse to fine and the maximum size stone particle shall not exceed 2/3 of the thickness of the layer being placed. The gravel sub-base shall be compacted to 95% of the maximum dry density as determined by AASHTO–T99.

3. Crushed Gravel for Sub-base: All materials shall be secured from approved sources. This gravel shall consist of angular and round fragments of hard durable rock of uniform quality throughout, reasonably free from thin elongated pieces, soft or disintegrated stone, dirt, organic or other objectionable matter. The grading requirements shall conform to the following table (Section 704.05 – Fine):

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves
2"	100
1 1/2"	90 – 100
No. 4	30 – 60
No. 100	0 – 12
No. 200	0 – 6

The crushed gravel shall be compacted to 95% of the maximum dry density as determined by AASHTO–T99.

4. Dense Graded Crushed Stone for Sub-base: Dense graded crushed stone for sub-base shall consist of clean, hard, uniformly graded, crushed stone. It shall be reasonably free from dirt, deleterious material and pieces which are structurally weak and shall meet the following requirements:

a. Source: This material shall be obtained from approved sources and the area from which this material is obtained shall be stripped and cleaned before blasting.

b. Grading: This material shall meet the requirements of the following table:

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves
3 1/2"	100
3"	90 – 100
2"	75 – 100
1"	30 – 80
1/2"	30 – 60
No. 4	15 – 40
No. 200	0 – 6

5. Bituminous Concrete Pavement: The materials, grading and composition, placement, and finishing for bituminous concrete pavement (Type I, II and III) shall meet the requirements of the Vermont Agency of Transportation Standard Specifications Sections 406, 702, and 704.10. Other requirements are as follows: Application of bituminous concrete pavement shall meet all the requirements of the Vermont Standard Specifications for Construction, Section 406, or as periodically amended, but not limited to, the following:

a. Weather Limitations: Bituminous material shall not be placed between November 1, and May 1. Material shall not be placed when the air temperature at the paving site in the shade and away from artificial heat is 40 degrees Fahrenheit or below.

b. Compaction: Immediately after the bituminous mixture has been spread, struck off, and surface irregularities adjusted, it shall be thoroughly and uniformly compacted by rolling. Along forms, curbs, headers, walls and other places not accessible to the rollers, the mixture shall be thoroughly compacted with hot or lightly oiled hand tampers, smoothing irons, or mechanical tampers. On depressed areas, a trench roller may be used, or slected compression strips may be used under the roller to transmit compression to the depressed area.

c. Surface Tolerances: The surface will be tested by the Engineer using a 16-foot straightedge at selected locations parallel with the centerline. Any variations exceeding 3/16 of an inch between any two contacts shall be satisfactorily eliminated. A 10-foot straight-edge may be used on a vertical curve. The straightedges shall be provided by the Contractor.

d. Matching Surfaces: When a new pavement is to match an existing bituminous pavement for a roadway or trench, the Contractor shall vertically smooth cut the existing pavement along a straight line a minimum of one foot (1') into the existing pavement, over the existing gravel base. The smooth cut shall be thoroughly cleaned and coated with Emulsified Asphalt, RS–1, just prior to paving.

6. Stabilization Fabric: Stabilization fabric where required by the Engineer shall be Mirafi 550X or equal. The fabric shall be installed in accordance with manufacturer's requirements.

7. All pavement markings shall be VT. 7.05 Fast Dry White Traffic Paint.

C. Drainage Systems

1. All culverts and storm drains shall meet the requirements of Section 601 of the Standard Specifications.

2. At the Contractor's option, the following materials may be used for the storm drainage:

a. Polyvinyl Chloride pipe conforming to ASTM Specification D3034 or F679, (PVC) sewer pipe and fittings SDR 35.

b. Reinforced concrete pipe meeting the requirements of Section 710.01.

c. Corrugated Polyethylene pipe meeting the requirements of Section 710.03.

d. Corrugated aluminum alloy pipe meeting the requirements of Section 711.02.

D. Underground Utilities

For underground electrical and telephone (cable) services, the Contractor shall trench, place bedding, place conduit, and backfill in accordance with the utility company's requirements.

E. Sanitary Sewer

1. Description

This item shall consist of the excavation and backfilling required for the connection of the new force main to the existing unused force main. This work shall include all pipe, tanks, structures and other appurtenances necessary to complete the system indicated in the drawings. All sanitary sewer materials and construction of same shall be as shown on the contract drawings and shall meet the requirements of the Town of Ferrisburgh.

2. Materials

a. PVC Gravity Sewer Pipe: PVC sewer pipe shall conform in all respects to the latest revision of ASTM Specifications D–3034 or F679, Type PSM Polyvinyl Chloride (PVC) Sewer Pipe and Fittings, SDR 35. Wall thickness of all PVC pipe shall meet ASTM Specifications for SDR 35 pipe. All pipe and fittings shall be clearly marked as follows:

– Manufacturer's Name and Trademark
– Nominal Pipe Size – 8"
– Material Designation 12454C PVC
– Legend "Type PSM SDR 35 PVC Sewer Pipe" or "PS 46 PVC Sewer Pipe"
– Designation ASTM D–3034 or F679

Joints shall be push-on type using elastomeric gaskets and shall conform to ASTM D–3212. The gaskets shall be factory installed. The pipe shall be furnished in nominal 13–foot lengths. Sufficient numbers of short lengths and full machine fittings shall be provided for use at manholes and connections. All connections will require the use of manufactured fittings. Field fabricated, saddle–type connections will not be considered acceptable.

3. Installation

a. Excavations shall be made at a point at least six inches (12" where trench is in ledge) below the pipe invert to accommodate the bedding material. All excavations are to be kept dry while pipe is being laid and until each joint and pipe have been inspected by the Engineer and approval given to commence backfilling operations.

b. The bell end of the pipe shall face upgrade at all times and be placed in such a position as to make the invert even when the succeeding section is inserted. Where required by adverse grading conditions, the Contractor shall fill any gully to make a suitable bedding for the sewer pipe. The fill shall be pneumatically or mechanically compacted to a 90 % dry density (95% in roads) as determined by the AASHTO–T–99, Method A (Standard Proctor) test, upon which the six inches (6") of bedding material shall be placed. Any pipe which is not laid to grade and alignment shall be re–laid to the satisfaction of the Engineer. The bedding material shall be placed and compacted on each side of the pipe to a height of one–half the pipe diameter for the full width of the excavated trench and as shown on the accepted plans.

c. Backfill shall consist of approved material placed in six–inch (6") layers with each layer being thoroughly compacted to not less than 95 percent of maximum dry density as determined by the ASSHTO–T–99 Standard Proctor by means approved by the Engineer.

No stones in excess of one and one–half inch (1 1/2") diameter shall be placed within two feet (2') of the outside of the pipe. Particular precautions shall be taken in placement and compaction of the backfill material in order not to damage and/or break the pipe. The backfill shall be brought up evenly on both sides of the pipe for its full length. Walking or working on the completed pipeline except as may be necessary in tamping or backfilling shall not be permitted until the trench has been backfilled to a height of at least two feet (2') on the top of the pipes. During construction, all openings to the pipe lines shall be protected from the entering of earth or other materials.

4. Force Main

Pressurization:

i. Each valved section of pipe shall be filled with water slowly and the specified test pressure, based on the elevation of the lowest point of the line or section under test and corrected to the elevation of the test gauge, shall be applied by means of a pump connected to the pipe.

ii. Air Removal: Before applying the specified test pressure, air shall be expelled completely from the pipe valves.

iii.Examination: All exposed pipe, fittings, valves and joints shall be examined carefully during the test. Any damaged or defective pipe, fittings or valves that are discovered following the pressure test shall be repaired or replaced with sound material and the test shall be repeated.

Leakage Test: A leakage test shall be conducted concurrently with the pressure test.

i. Leakage shall be defined as the quantity of water that must be supplied into the newly laid pipe, or any valved section thereof, to maintain pressure within 5 psi of the specified test pressure after the air in the pipeline has been expelled and the pipe has been filled with water.

ii. Allowable Leakage: No pipe installation will be accepted if the leakage is greater than that determined by the following formula:

$$L = \frac{ND\sqrt{P}}{7400}$$

S = Length of Pipe Testing
L = Allowable Leakage in Gals/HR
D = Nominal Diameter of Pipe (")
P = Average Test Pressure (psi)
N = Number of Joints in the Pipeline Tested

EROSION CONTROL

1. General Notes

a. The Contractor shall construct and maintain all erosion measures in accordance with the "Vermont Handbook for Soil Erosion and Sediment Control on Construction Sites, Special Publication no. 3".

2. Construction Sequence

a. The Contractor shall be responsible for establishing all erosion control measures delineated on the plans and any additional measures that are necessary to minimize erosion. The Contractor shall have erosion control materials and installation equipment on site at all times.

b. Silt fences shall be installed along the base of the fill slopes. This shall remain in place until the project site has been stabilized. Install stone check dams in grass–lined swales 50 feet on center to prevent silt from washing into the drainage system during construction. Check dams shall be removed when vegetation is established.

c. Dust shall be controlled through the application of calcium chloride or water.

d. Excavated material from earth excavation and ditch digging shall be disposed of offsite or used for project fill material if determined suitable by the Owner's Representative.

e. All temporary erosion control measures required for any proposed winter work shall be installed prior to October 1. These measures shall be in place prior to the commencement of any site work or earth–moving.

3. Temporary Measures

a. Stone Check Dam – Shall be placed according to detail 7, sheet C–6.

Check dams shall be repaired as needed. Once vegetation is established and the check dams are no longer needed for erosion control, they shall be removed. Sediment deposits shall then be removed and placed in an upland area where there is no danger of further erosion.

b. Silt Fences – The silt fences shall be constructed in accordance with the construction detail. The fence shall generally be placed 10 feet from the toe of the slope or as shown on the plan. The ends of the fence shall be placed uphill to form a horseshoe shape to trap all runoff.

The silt fences shall be inspected periodically for damage or buildup of sediment. All damaged silt fence shall be repaired or replaced. Sediment deposits shall be removed from the fence as they accumulate and placed in an area where there is no danger of further erosion.

c. Erosion Matting – Erosion matting shall be placed on all grass–lined swales with profile grades exceeding 5.0% and shall be placed and maintained in accordance with the Vermont Agency of Transportation Standard Specifications Sections 654 and 755.07.

d. Dust Control – During construction, dust will be controlled with water distributed by a truck–mounted spray bar. At the direction of the Engineer, Calcium Chloride AASHTO M 144 or Sodium Chloride M 143 may be used.

e. All stockpile material (topsoil, borrow, etc.) will a have a stone dike or silt fence constructed around the perimeter. Seed and mulch stockpile material as soon as possible to prevent soil erosion and sedimentation off site. Locate stockpiles on the uphill side of disturbed areas, if possible. During windy conditions, stockpiled material shall be covered or watered appropriately to prevent wind erosion.

f. Slopes greater than 1:3 shall have erosion control netting installed to stabilize the slope and reduce the erosion potential. Install netting over mulched slopes so that all parts are in contact with the soil and mulch. Pin netting with wire staples 3 feet o.c. to ensure full bonding with soil surface.

4. Permanent Measures

a. Grass Lined Swales – All swales that are not stone–lined shall be topsoiled, seeded, fertilized and mulched. Any area which shows signs of erosion shall be reseeded immediately and maintained until permanent vegetation is established.

b. Restoration – As soon as construction is completed in a given area, it shall be topsoiled, seeded, fertilized and mulched.

The topsoil shall be submitted to the Extension Service for analysis. Fertilizer shall be applied at approximately a rate of 400 pounds per acre depending on soil analysis. If necessary, lime shall be applied to the topsoil to produce a soil PH of approximately 6.0.

After the finished grade has been established and the fertilizer spread, plant the specific seed mixture and work firmly into the soil. Apply seed on the prepared seed bed with approved mechanical seeders or hydroseeding equipment. Upon completion of the above planting operations, roll all areas, leaving the surface of all area true to grade, smooth, and free from hollows or other irregularities. Thoroughly water all newly planted areas immediately after planting using a fine spray. Protect banks and swales from erosion and repair erosion that occurs. Banks, swales or other graded areas that have been washed out or have become damaged shall be repaired immediately. Unless approval is granted by the Engineer to plant off season, seeding will be conducted only during the period from April 15th to October 15th. Seeding shall not proceed before other phases of the work have progressed sufficiently and shall not interfere with other phases of work.

After seeding, mulch shall be applied at a rate of 2 tons per acre.

5. Winter Construction

a. If due to the project schedule, construction during the winter months is necessary, the contractor shall follow the winter construction procedures outlined in the "Vermont Handbook for Soil Erosion and Sediment Control on Construction Sites"

i. Minimize disturbance between October and May.

ii. All erosion control measures shall be in place prior to the ground freezing.

iii. Mulch shall be applied to all disturbed area at a rate of 90 pounds per 1,000 square feet. The Contractor shall maintain all areas that are mulched until permanent vegetation can be established.

6. Maintenance, Guarantee and Acceptance

a. The Contractor shall be responsible for the care and maintenance including watering of seeded areas, until the seeding is inspected and accepted by the Owner.

b. Reseeding shall be done until all areas are completely covered with a mature stand of grass. An area shall be considered covered when the entire surface contains a vedurous stand of grass. Areas that, in the opinion of the Engineer, are predominantly weeds shall be plowed up, fine graded, fertilized and reseeded in the manner specified previously, exercising caution not to cause damage to new or existing plant material.

c. Maintain and guarantee all seeded area until acceptance.

SEEDING SPECIFICATION

URBAN MIX GRASS SEED		
% BY WEIGHT	LBS. LIVE SEED PER ACRE	TYPE OF SEED
37.5	45	CREEPING RED FESCUE
31.25	37.5	KENTUCKY BLUEGRASS
31.25	37.5	WINTER HARDY, PERENNIAL RYE
100	120 # LIVE SEED/ACRE	

CONSERVATION MIX GRASS SEED		
% BY WEIGHT	LBS. LIVE SEED PER ACRE	TYPE OF SEED
35	35	CREEPING RED FESCUE
23	23	KENTUCKY BLUEGRASS
15	15	ANNUAL RYE
11	11	WINTER HARDY, PERENNIAL RYE (VARIETY PENNFINE, MANHATTAN OR SIMILAR VARIETY)
6	6	WHITE CLOVER
10	10	HIGHLAND BENTGRASS
100	100 # LIVE SEED/ACRE	

FERTILIZER – 10 LBS PER 1000 SQ FT
SPRING SEEDING
FALL SEEDING

LIME – 90 LBS PER 1000 SQ FT
DOLOMITIC GROUND LIMESTONE
NOT LESS THAN 85% OF THE TOTAL CARBONATE

TOPSOIL
4" MINIMUM APPROVED TOPSOIL

STRAW MULCH – 2 BALES PER 1000 SQ FT
APPLY BINDER OR NETTING AS NEEDED

MAINTENANCE, GUARANTEE AND ACCEPTANCE OF SEEDING
THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CARE AND MAINTENANCE, INCLUDING WATERING, OF SEEDED AREA UNTIL THE SEEDING IS INSPECTED AND ACCEPTED BY THE ENGINEER. INSPECTION SHALL BE MADE AFTER THE SECOND MOWING. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HOURS IN ADVANCE WHEN THE SECOND MOWING IS SCHEDULED.
RESEEDING SHALL BE DONE UNTIL ALL AREAS ARE COMPLETELY COVERED WITH A MATURE STAND OF GRASS. AN AREA SHALL BE CONSIDERED COVERED WHEN THE ENTIRE SURFACE CONTAINS A VIGOROUS STAND OF GRASS. AREAS THAT, IN THE OPINION OF THE ENGINEER, ARE PREDOMINANTLY WEEDS SHALL BE TILLED, FINE GRADED, FERTILIZED AND RESEEDED IN THE MANNER SPECIFIED ABOVE.

C–8 SITE RESTORATION
N.T.S.

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STATE OF VERMONT
PAUL DUCHESNAY
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REG. STERED
PROFESSIONAL ENGINEER

BGS

STATE OF VERMONT
DEPARTMENT OF BUILDINGS AND GENERAL SERVICES
AGENCY OF ADMINISTRATION
MONTPELIER, VERMONT

REVISIONS

SCALE: AS NOTED
DATE: 01/04/06
DRAWN BY: CCE
APPR. BY: PD

FERRISBURGH

MAINTENANCE GARAGE

DETAILS

C–8

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AGENCY OF TRANSPORTATION
N. FERRISBURGH MAINTENANCE FACILITY
NORTH FERRISBURGH, VERMONT

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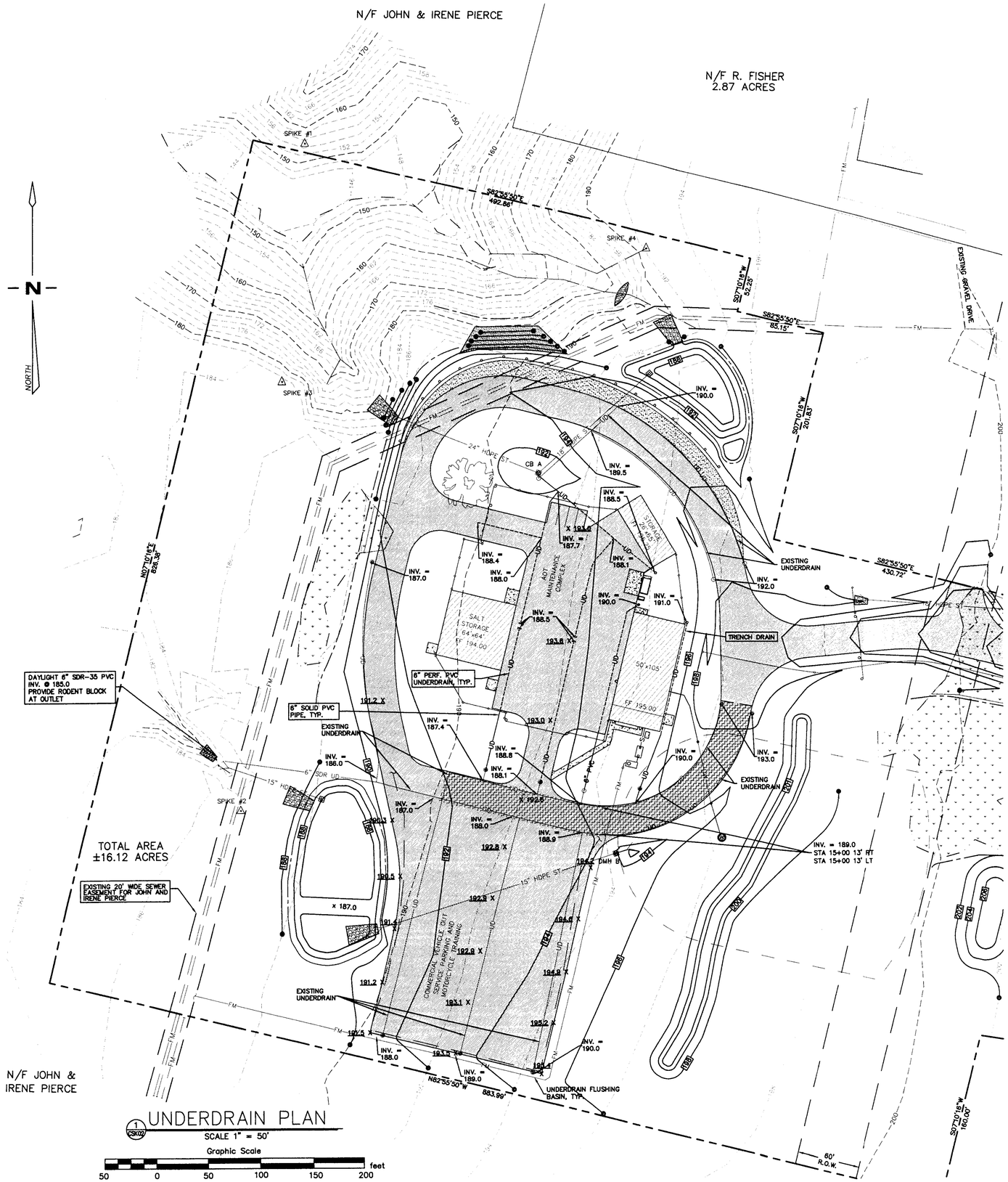
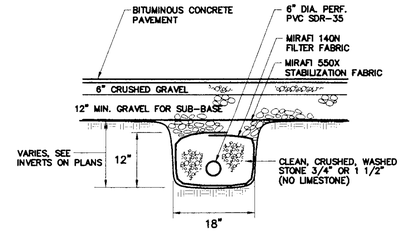


UNDERDRAIN PLAN

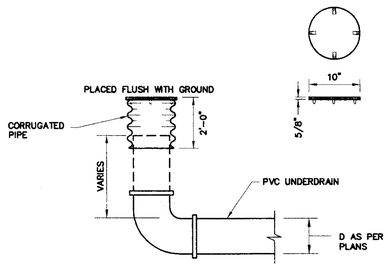
SCALE 1" = 50'

Graphic Scale: 50 0 50 100 150 200 feet



TYPICAL UNDERDRAIN DETAIL

N.T.S.



UNDERDRAIN FLUSHING BASIN

N.T.S.

NOTE:
COVER OPEN PIPE SECURELY WITH MIRAFI 140N FABRIC (OR APPROVED EQUIVALENT) UNTIL PERMANENT EROSION CONTROLS ARE IN PLACE, REMOVE ACCUMULATED DEBRIS & CLEAN OR REPLACE AS REQUIRED

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- X 193.1 PROPOSED SPOT ELEVATION
- PROPERTY LINE
- FM EXISTING FORCE MAIN
- OE OVERHEAD ELECTRIC
- WATER SHUT-OFF
- POWER POLE
- DRAINAGE SWALE
- WETLAND DELINEATION
- WETLANDS
- NEW LANDSCAPING
- FM NEW FORCE MAIN
- S NEW SANITARY SEWER
- W NEW WATER LINE
- STM NEW STORM LINE
- FD NEW FLOOR DRAIN
- W NEW DRILLED WELL
- NEW GUARD RAIL
- UD NEW UNDERDRAIN
- UNDERDRAIN FLUSING BASIN
- C.O. CLEANOUT
- ROADWAY SUBGRADE UNDERCUT BY 12"

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N. FERRISBURGH MAINTENANCE FACILITY
NORTH FERRISBURGH, VERMONT

REVISIONS	
SCALE: 1" = 50'	
DATE: 01/04/06	
DRAWN BY: CCE	
APPR. BY: PD	

FERRISBURGH

MAINTENANCE GARAGE

UNDERDRAIN PLAN

CSK-02

13 OF 43

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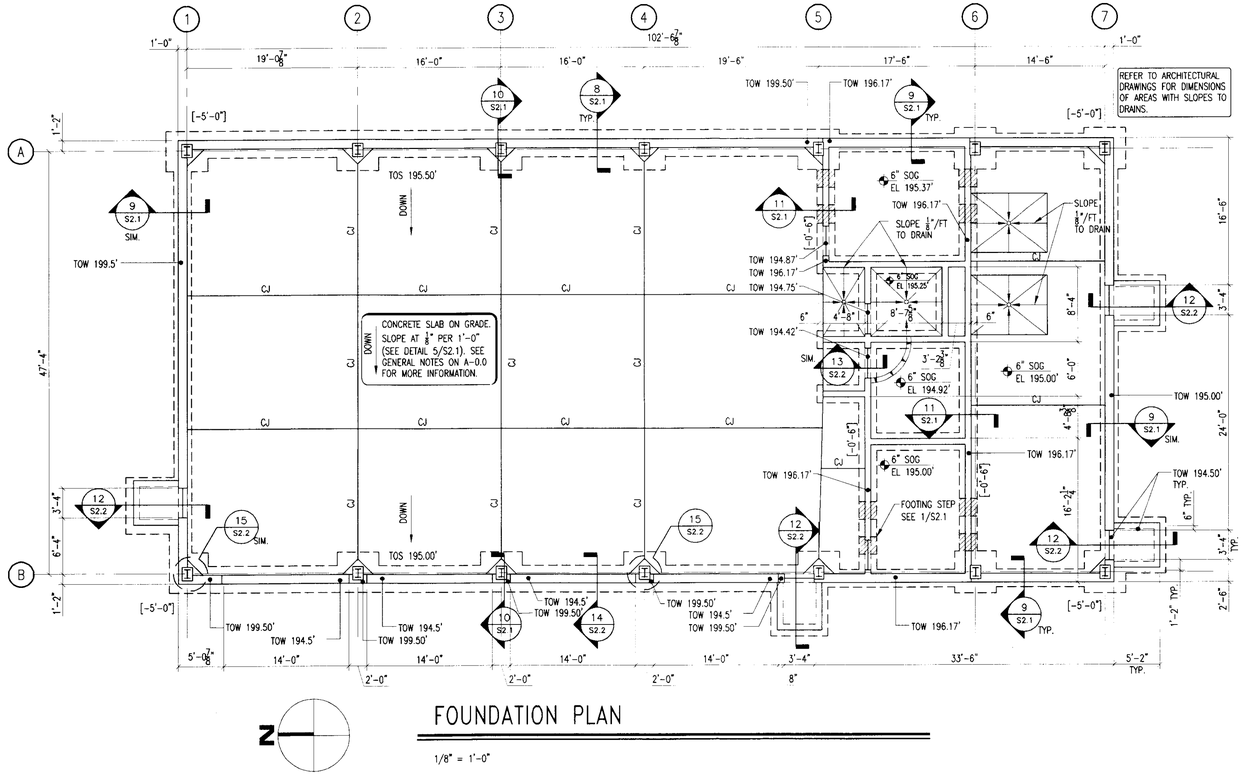

FOUNDATION PLAN

1/8" = 1'-0"

GENERAL NOTES

NOTES:

1. TOP OF FOOTING ELEVATIONS NOTED AS [-x'-xx"] RELATIVE TO 195.00'.
2. ▨ FOOTING STEP, SEE DETAIL 1/S2.1
3. TOP OF PIERS TO BE AT ELEVATION 194.33'.
4. ALL COLUMNS TO BE W12x40.
5. SLABS ON GRADE IN PARKING AND MECHANIC BAYS TO SLOPE DOWN AT 1/8" PER 1'-0" FROM REAR OF BUILDING, TO THE FRONT. SLABS ON GRADE IN CORE AND DAY AREAS TO BE FLAT.
6. INTERIOR SLABS ON GRADE HAVE IN SLAB RADIANT HEATING SYSTEM, SEE MECHANICAL DRAWINGS.
7. C.J. – CONTROL JOINT, OR CONSTRUCTION JOINT, SEE DETAIL 6/S2.1
8. FINISH SLAB IN PARKING, MECHANICAL BAYS AND CORE WITH LIGHT BROOM FINISH. FINISH OTHER AREAS WITH STEEL TROWEL.
9. SLOPE CONCRETE RAMP INTO OIL STORAGE ROOM 4" DOWN.
10. REFER TO ARCHITECTURAL DRAWINGS FOR RAISED CONCRETE MAINTENANCE PAD.
11. COORDINATE ALL WALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
12. CONTRACTOR OPTION TO LOCATE ALL FOOTINGS AT [-5'-0"] OR STEP UP AT INTERIOR AS SHOWN.
13. EXTERIOR WALK OFF PADS TO BE 5'x5'x6" THICK, BROOM FINISH.
14. SEE ARCHITECTURAL PLANS FOR MISCELLANEOUS HOUSEKEEPING PADS AND FLOOR DRAINS.
15. ALL BUILDING RELATED EXCAVATION, FILL, BACKFILL, AND COMPACTION WILL BE PERFORMED BY VTRANS AND COORDINATED WITH GENERAL CONTRACTOR.

STRUCTURAL DRAWING LIST

S-1.1 FOUNDATION PLAN, BASIS OF DESIGN, NOTES, LEGEND
S-1.2 WALL, LINTEL AND ROOF FRAMING PLANS
S-2.1 STRUCTURAL DETAILS
S-2.2 STRUCTURAL DETAILS
S-3.1 STRUCTURAL DETAILS
S-3.2 STRUCTURAL DETAILS

BASIS OF DESIGN

BUILDING CODE: 1996 BOCA CODE

DEAD LOADS:
ROOF LOAD ..... 20 psf

LIVE LOADS:
ROOF SNOW LOAD ..... 40 psf
MEZZANINE LIVE LOAD ..... 125 psf

SNOW LOADING:
GROUND SNOW LOAD ..... 40 psf
EXPOSURE FACTOR 0.8
IMPORTANCE FACTOR 1.2
FLAT ROOF SNOW LOAD ..... 40 psf

WIND LOAD:
BASIC WIND SPEED ..... 70 mph
EXPOSURE CATEGORY C
IMPORTANCE FACTOR 1.15

SEISMIC LOADING:
SEISMIC HAZARD EXPOURE GROUP III
SEISMIC PERFORMANCE CATEGORY C
Av 0.15
Cs 0.0833

SOIL BEARING CAPACITY 3000psf

ABBREVIATIONS

AB	ANCHOR BOLT	NS	NEAR SIDE
AFF	ABOVE FINISH FLOOR	oc	ON CENTER
AL	ALUMINUM	P#	PIER DESIGNATION
BOF	BOTTOM OF FOOTING	PL	PLATE
DWG	DRAWING	SS	STAINLESS STEEL
ELEV	ELEVATION	STD	STANDARD
EF	EACH FACE	TOC	TOP OF CONCRETE
ES	EACH SIDE	TOF	TOP OF FOOTING
EW	EACH WAY	TOS	TOP OF STEEL
EQ	EQUAL	TOSHELF	TOP OF SHELF
EX	EXISTING	TOW	TOP OF WALL
F#	FOOTING DESIGNATION	TYP	TYPICAL
FND	FOUNDATION	UNO	UNLESS NOTED OTHERWISE
FS	FAR SIDE	VIF	VERIFY IN FIELD
NIC	NOT IN CONTRACT		

DRAWING LEGEND

NOTE: NOT ALL SYMBOLS AND NOTATIONS USED

- NORTH ARROW
- ELEVATION
- [-5'-0"] TOP OF FOOTING ELEVATION
- 1 / S2.1 SECTION NUMBER / DRAWING WHERE SHOWN
- DECK SPAN — DECK SPAN DIRECTION OR GRATING DIRECTION
- 1/8" / FT — SLOPE DIRECTION, and MAGNITUDE
- BEAM/COLUMN SPLICE
- 12 / 6 ROOF PITCH
- MOMENT CONNECTION
- GUARDRAIL/RAILING
- BW1 BEARING/SHEAR WALL DESIGNATION
- B1 BEAM DESIGNATION
- J1 JOIST DESIGNATION
- H1 HEADER DESIGNATION
- SHEAR WALL DESIGNATION
- FOOTING STEP
- OPENING
- CONCRETE
- GROUT or FINE CRUSHED GRAVEL
- GRATING
- LEDGE/ROCK
- ¾" CRUSHED STONE
- COMPACTED GRANULAR FILL
- RIGID INSULATION
- WOOD
- UNDISTURBED SUBGRADE
- CMU BLOCK
- BRICK
- EXPANSION JOINT

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NORTH FERRISBURGH VERMONT

REVISIONS

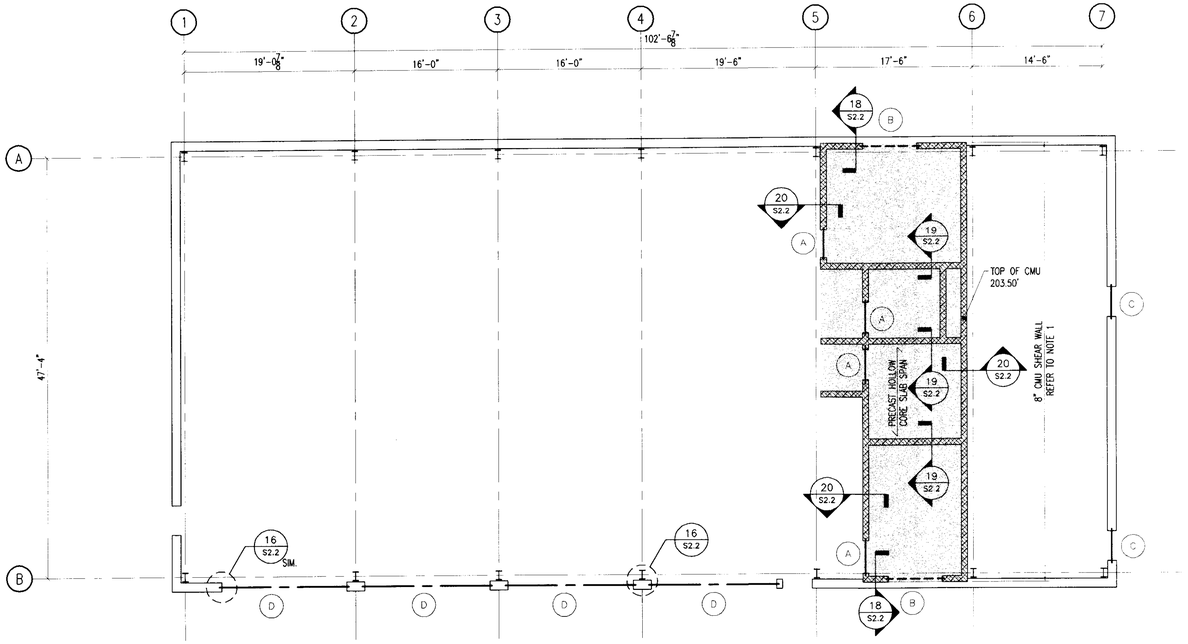
SCALE: 1/8" = 1'-0"
DATE: 01/04/06
DRAWN BY: JML
APPR. BY:

N. FERRISBURGH

MAINTENANCE GARAGE

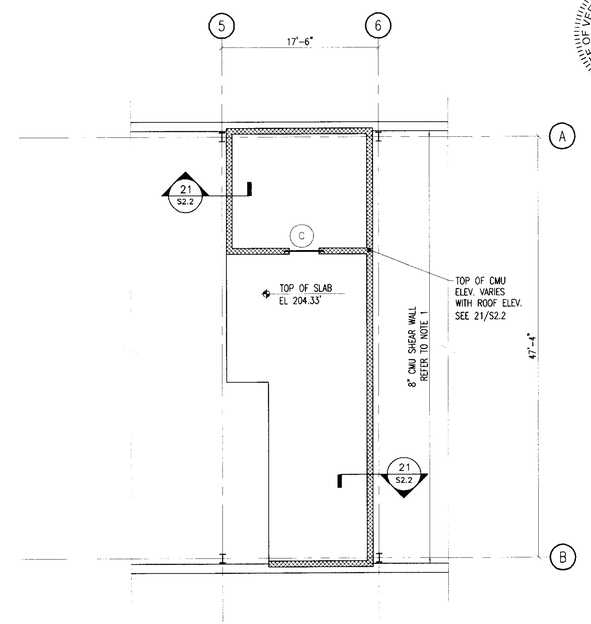
FOUNDATION PLAN

S-1.1



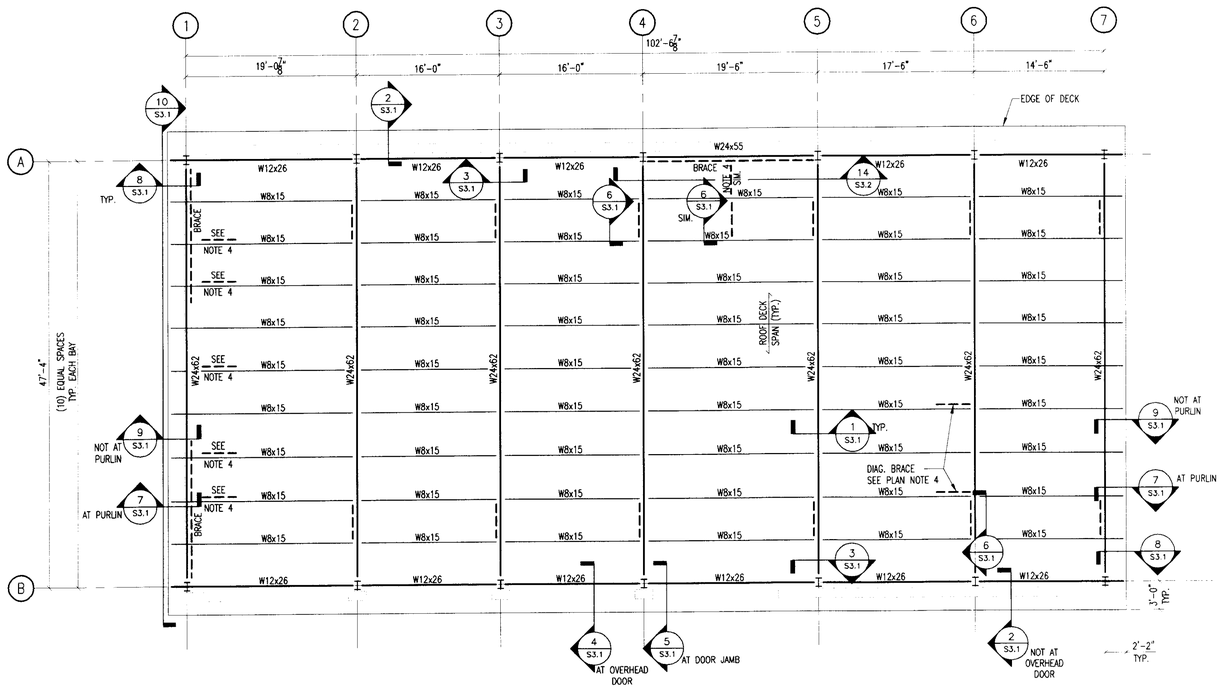
MAIN LEVEL WALL AND LINTEL PLAN

1/8" = 1'-0"



MEZZANINE LEVEL WALL AND LINTEL PLAN

1/8" = 1'-0"



ROOF FRAMING PLAN

1/8" = 1'-0"

MAIN LEVEL AND MEZZANINE WALL AND LINTEL PLAN NOTES

NOTES:

1. CMU WALLS: (FULLY GROUT ALL REINFORCED CORES.)
   INTERIOR SHEAR WALL: 8" CMU WITH #5's AT 24" oc.
   INTERIOR PARTITION WALLS: 8" CMU WITH #4's AT 24" oc.

2. INSTALL CONTINUOUS BOND BEAM AT MIDDLE OF WALL HEIGHT AND TOP OF ALL WALLS WITH (2) #4's CONTINUOUS, AND STANDARD No. 8 DUR-O-WALL TRUSS REINFORCEMENT EVERY OTHER COURSE (EVERY 16"), INSTALL AND SPLICE PER MANUFACTURER's DIRECTIONS. GROUT FULLY ALL CORES ADJACENT TO OPENINGS.

3. CMU WALL CONTROL JOINTS TO BE LOCATED AT 25'-0" oc. MAX.

4. LINTELS IN MASONRY WALL OPENINGS:

   (A) LINTEL "A" – SEE DETAIL 22/S2.2

   (B) LINTEL "B" – SEE DETAIL 22/S2.2

   (C) LINTEL "C" – SEE DETAIL 22/S2.2

5. OTHER LINTELS:

   (D) [illegible]

6. [illegible] MEZZANINE SLAB: 8" PRE-CAST HOLLOW CORE SLAB WITH 2" CONCRETE TOPPING. TOPPING TO HAVE FIBROUS CONCRETE REINFORCEMENT, AS MANUFACTURED BY FIBERMESH COMPANY OR APPROVED EQUIVALENT. ADD FIBROUS CONCRETE REINFORCEMENT AT A RATE OF 1.5 lbs. PER CUBIC YARD OF CONCRETE, PER MANUFACTURER'S INSTRUCTIONS. TOP OF TOPPING ELEVATION = TOP OF SLAB ELEV PROVIDED ON PLAN. HOLLOW CORE SLAB TO BE DESIGNED FOR A LIVE LOAD CAPACITY OF 125 psf.

ROOF FRAMING PLAN NOTES

NOTES:

1. ROOF PITCH IS APPROXIMATELY 1/4" PER 1'-0" FROM B LINE TO A LINE.
   TOP OF COLUMNS ON COLUMN LINE "A" AT ELEVATION 212.16' FT.
   TOP OF COLUMNS ON COLUMN LINE "B" AT ELEVATION 213.20' FT.

2. THE ROOF DECK (SHEAR DIAPHRAGM) SHALL BE 1½" TYPE B 20 Ga. STEEL DECKING WITH A 36/4 WELD PATTERN (5/8" WELDS) AND TWO SIDELAP FASTENERS PER SPAN. (REFER TO SPECIFICATIONS.)

3. ALL STEEL BEAM CONNECTIONS TO BE SIZED TO MEET OR EXCEED THE MINIMUM REACTION SHOWN.
   USE 6.0 kips MINIMUM WHERE REACTION NOT SPECIFIED.
   USE MINIMUM 2 BOLT CONNECTION FOR W8 PURLINS AND W12 BEAMS.

4. BRACE BOTTOM FLANGE OF W24 BEAM AT LOCATIONS SHOWN ON PLAN WITH (1) L3x3x¼", SLOPE BRACE 1/2.

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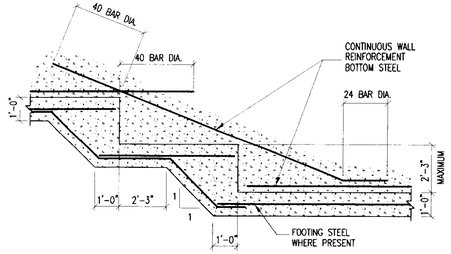
REVISIONS	SCALE: 1/8" = 1'-0"
	DATE: 01/04/06
	DRAWN BY: JML
	APPR. BY:

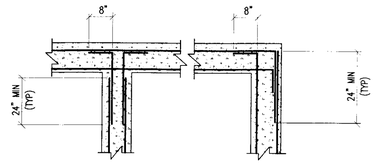
N. FERRISBURGH
MAINTENANCE GARAGE
WALL, LINTEL, and Roof FRAMING PLAN

S-1.2



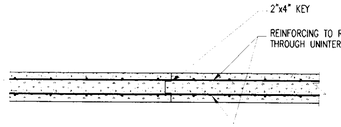
TYPICAL FOOTING STEP

1/2" = 1'-0" — 1



CORNER REINFORCING DETAIL

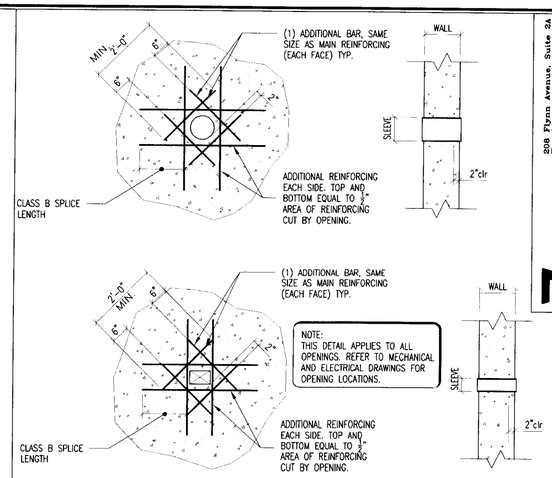
1/2" = 1'-0" — 2



MAXIMUM SPACING BETWEEN WALL JOINTS, OR FROM WALL JOINT TO CORNER, TO BE 40 FEET.

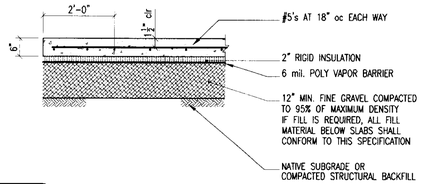
WALL CONSTRUCTION JOINT

1/2" = 1'-0" — 3



TYPICAL WALL OPENING DETAIL

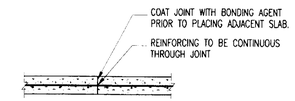
1/2" = 1'-0" — 4



NOTE:
RADIANT HEAT TUBING TO BE LOCATED BELOW SLAB REINFORCING, COORDINATE WITH RADIANT HEAT DESIGNER AND SUPPLIER/INSTALLER.

TYPICAL SLAB ON GRADE

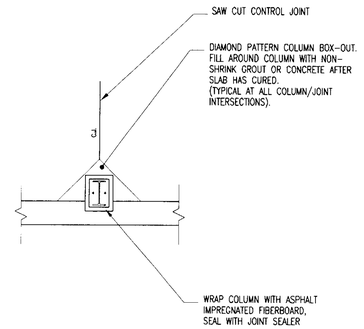
1/2" = 1'-0" — 5



NOTE:
RADIANT HEAT TUBING TO BE LOCATED BELOW SLAB REINFORCING, COORDINATE WITH RADIANT HEAT DESIGNER AND SUPPLIER/INSTALLER.

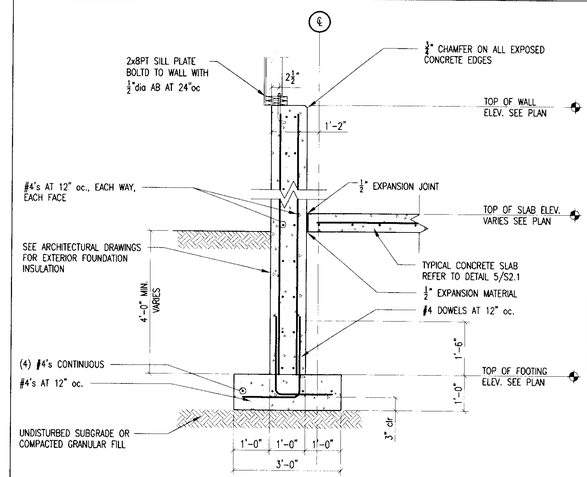
TYPICAL SLAB JOINTS

1/2" = 1'-0" — 6



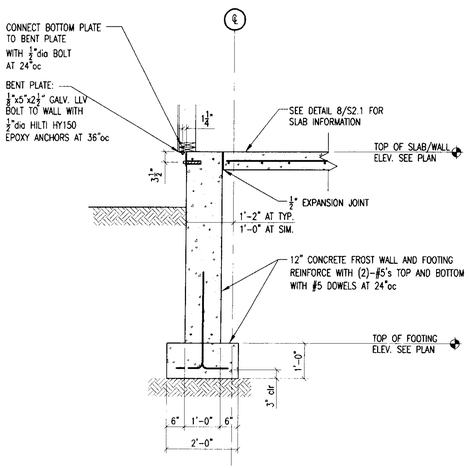
TYPICAL CONTROL JOINT AT COLUMN

1/2" = 1'-0" — 7



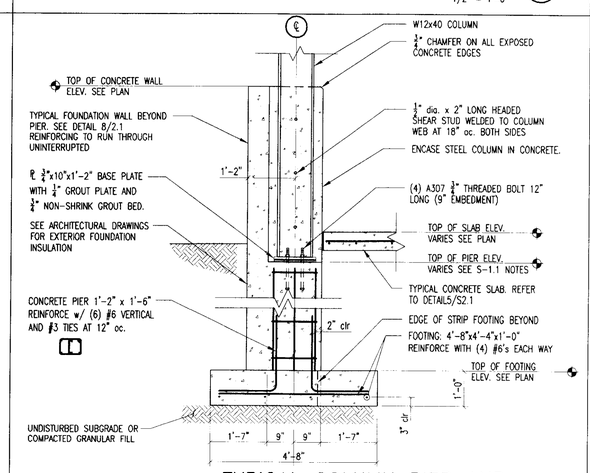
TYPICAL FOUNDATION WALL DETAIL

1/2" = 1'-0" — 8



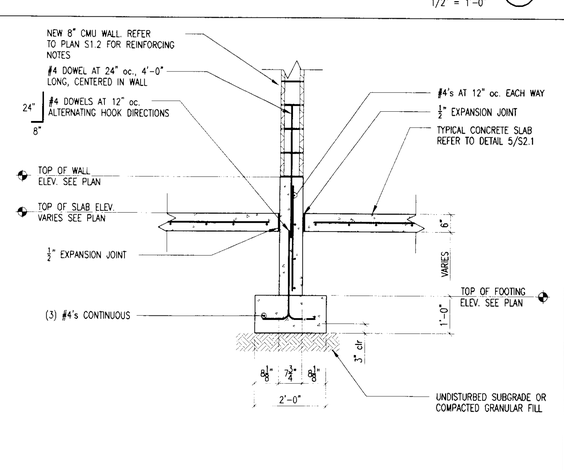
DETAIL AT DMV AND END WALLS

1/2" = 1'-0" — 9



TYPICAL COLUMN PIER AND FOOTING DETAIL AT MAINTENANCE AREA

1/2" = 1'-0" — 10



TYPICAL INTERIOR STRIP FOOTING DETAIL

1/2" = 1'-0" — 11

DETAIL NOT USED

1/2" = 1'-0" — -

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REVISIONS

SCALE: AS NOTED
DATE: 01/04/06
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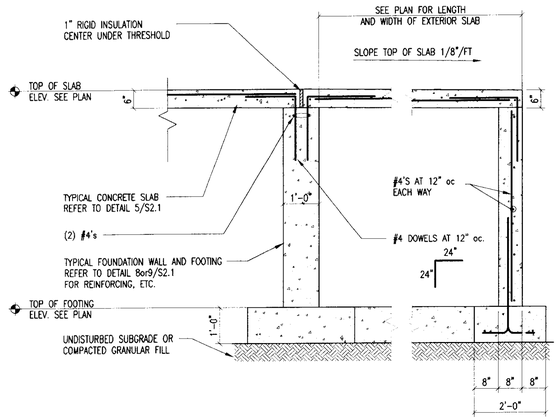
MAINTENANCE GARAGE
STRUCTURAL DETAILS

S-2.1

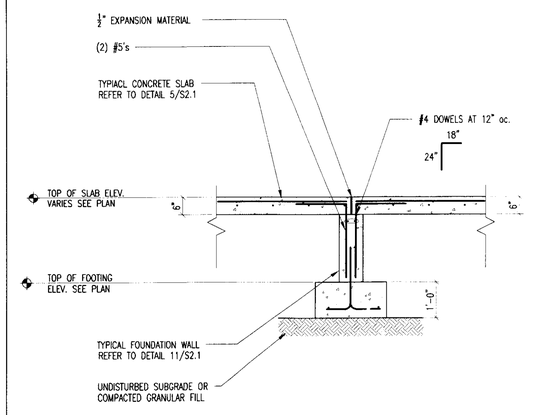
16 OF 43



TYPICAL ENTRY SLAB AT EXTERIOR DOOR

12

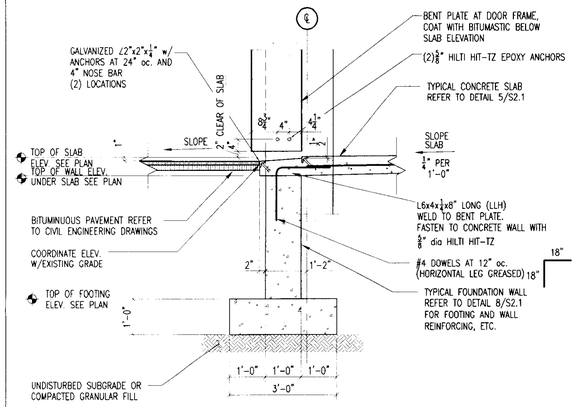
1/2" = 1'-0"



TYPICAL SLAB AT INTERIOR DOOR

13

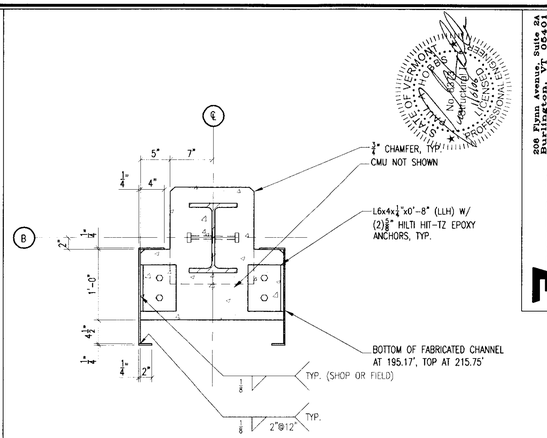
1/2" = 1'-0"



FOUNDATION WALL AND SLAB DETAIL AT OVERHEAD DOORS

14

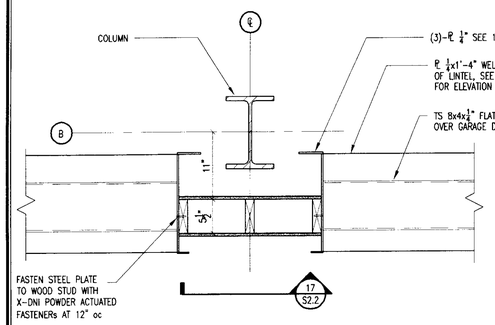
1/2" = 1'-0"



TOP OF CONCRETE DETAIL

15

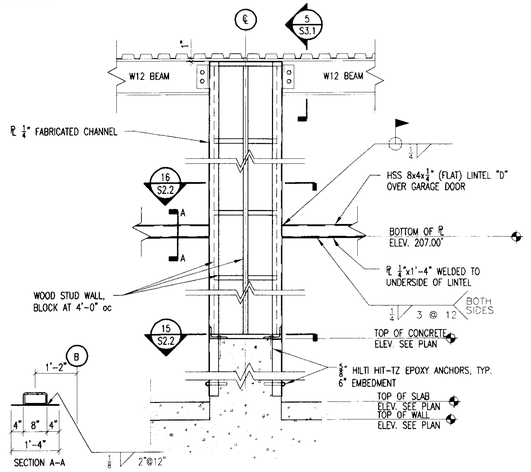
1" = 1'-0"



GARAGE DOOR LINTEL AND JAMB SECTION

16

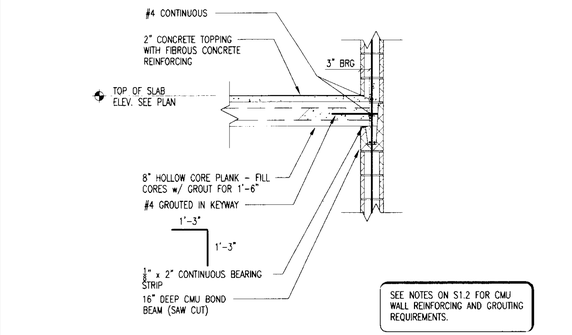
1" = 1'-0"



GARAGE DOOR LINTEL AND JAMB DETAIL

17

1/2" = 1'-0"

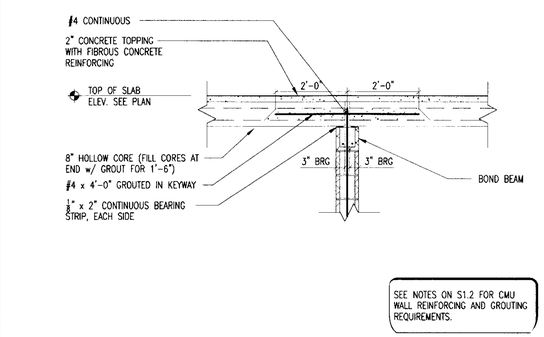


SEE NOTES ON S1.2 FOR CMU WALL REINFORCING AND GROUTING REQUIREMENTS.

EXTERIOR WALL BEARING SECTION

18

1/2" = 1'-0"

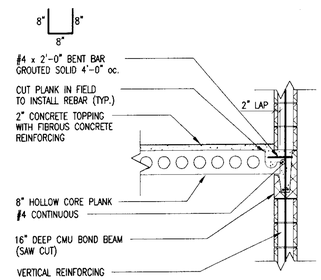


SEE NOTES ON S1.2 FOR CMU WALL REINFORCING AND GROUTING REQUIREMENTS.

INTERMEDIATE WALL BEARING SECTION

19

1/2" = 1'-0"

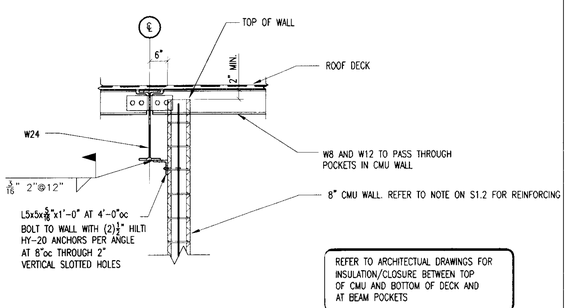


SEE NOTES ON S1.2 FOR CMU WALL REINFORCING AND GROUTING REQUIREMENTS.

SIDE WALL - LAP SECTION

20

1/2" = 1'-0"



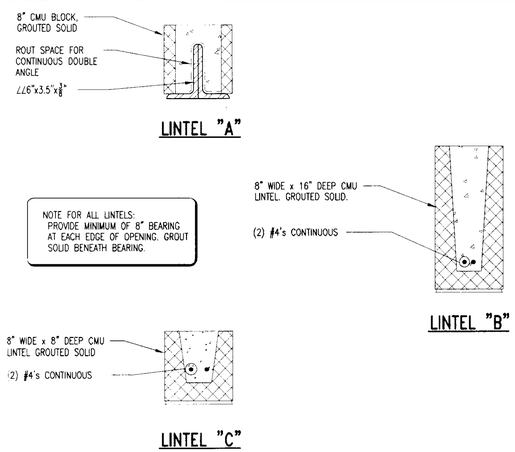
REFER TO ARCHITECTUAL DRAWINGS FOR INSULATION/CLOSURE BETWEEN TOP OF CMU AND BOTTOM OF DECK AND AT BEAM POCKETS

SEE NOTES ON S1.2 FOR CMU WALL REINFORCING AND GROUTING REQUIREMENTS.

ROOF DECK AT TOP OF CMU WALL

21

1/2" = 1'-0"



TYPICAL LINTELS

22

1/2" = 1'-0"

DETAIL NOT USED

-

1/2" = 1'-0"

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1400 DOUGLAS, #2207
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DEPARTMENT OF BUILDINGS
AND GENERAL SERVICES
AGENCY OF ADMINISTRATION
MONTPELIER, VERMONT

AGENCY OF TRANSPORTATION
N. FERRISBURGH MAINTENANCE FACILITY
NORTH FERRISBURGH VERMONT

REVISIONS

SCALE: AS NOTED	DRAWN BY: JML
DATE: 01/04/06	APPR. BY:

N. FERRISBURGH

MAINTENANCE GARAGE

STRUCTURAL DETAILS

S-2.2

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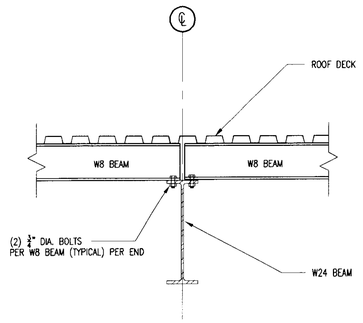
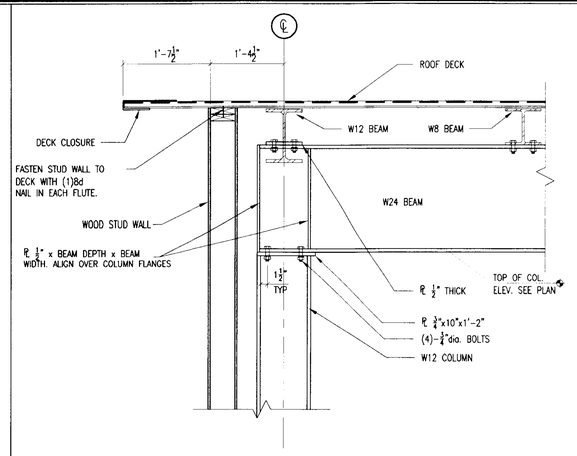


FRAMING DETAIL

1

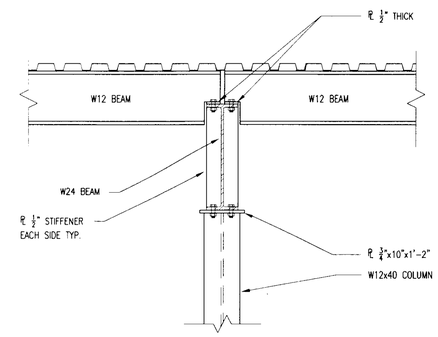
3/4" = 1'-0"



EAVE DETAIL AT EAST AND WEST WALLS

2

3/4" = 1'-0"

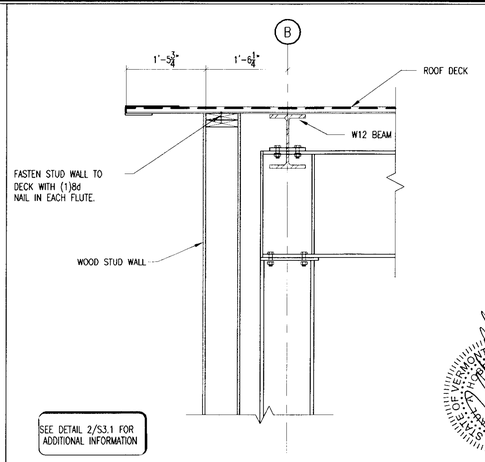


SEE DETAIL 2/S3.1 FOR
ADDITIONAL INFORMATION

FRAMING DETAIL

3

3/4" = 1'-0"

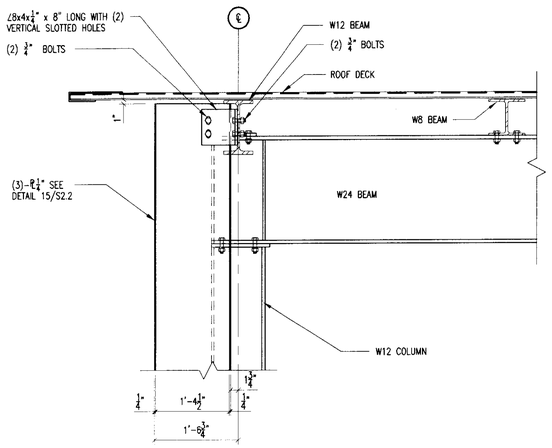


SEE DETAIL 2/S3.1 FOR
ADDITIONAL INFORMATION

EAVE FRAMING DETAIL AT OVERHEAD DOORS

4

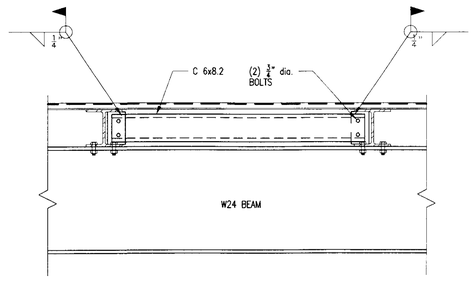
3/4" = 1'-0"



OVERHEAD DOOR JAMB DETAIL

5

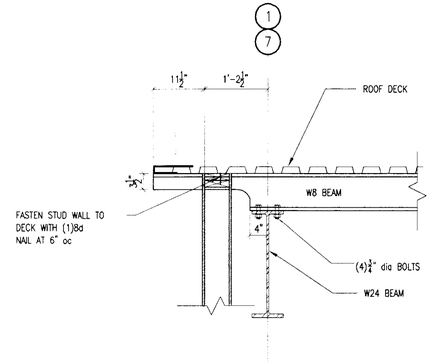
3/4" = 1'-0"



FRAMING DETAIL

6

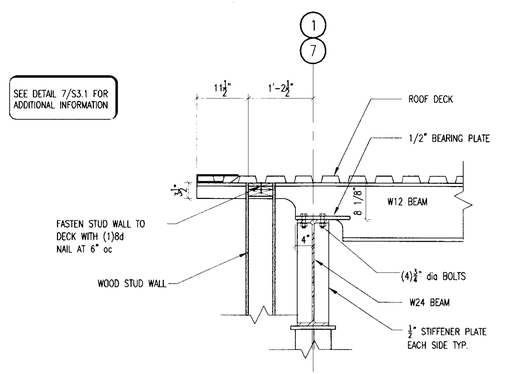
3/4" = 1'-0"



EAVE DETAIL AT NORTH AND SOUTH WALLS

7

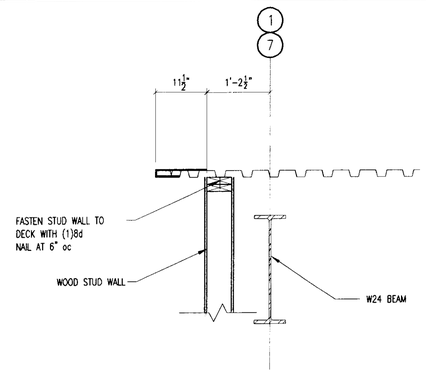
3/4" = 1'-0"



DECK SUPPORT-CORNER COLUMNS

8

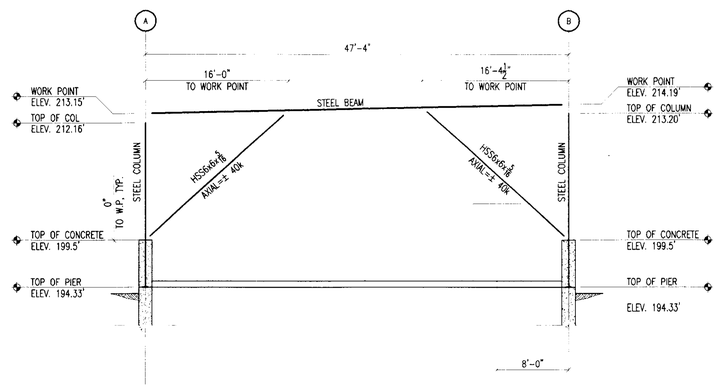
3/4" = 1'-0"



EAVE DETAIL AT NORTH AND SOUTH WALLS

9

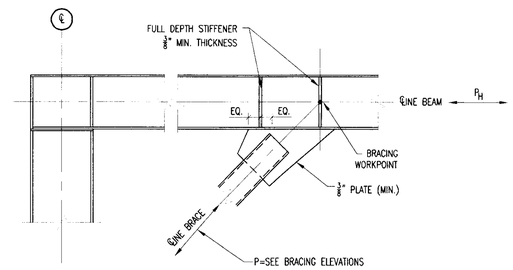
3/4" = 1'-0"



BRACE FRAME ELEVATION-GRID 1

10

1/8" = 1'-0"



TYPICAL BRACING CONNECTION
AT ECCENTRIC BRACE

11

3/4" = 1'-0"

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Burlington, VT 05401
ph. 802.863.6356
fax. 802.863.6306
Engineering Ventures.com

ENGINEERING VENTURES INC

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Phone: (978) 499-2944
Fax: (978) 499-2944

1400 HANCOCK STREET
QUINCY, MA 02169
Phone: (617) 471-3897
Fax: (617) 472-2516

D&W

DORE AND WHITTIER, INC.
Architects • Project Managers

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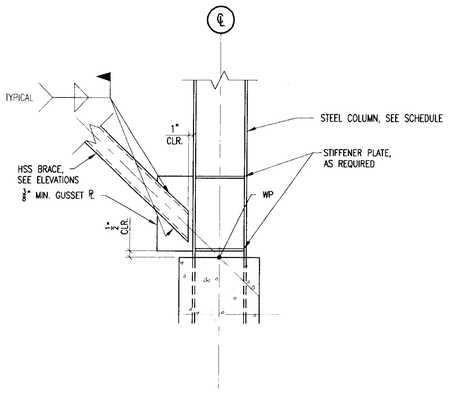
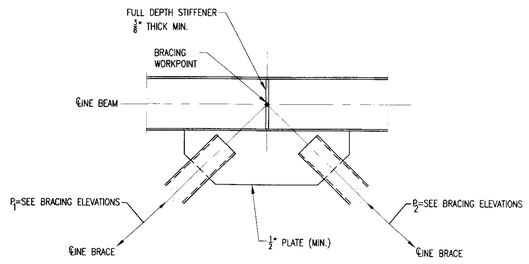


FRAMING DETAIL

12

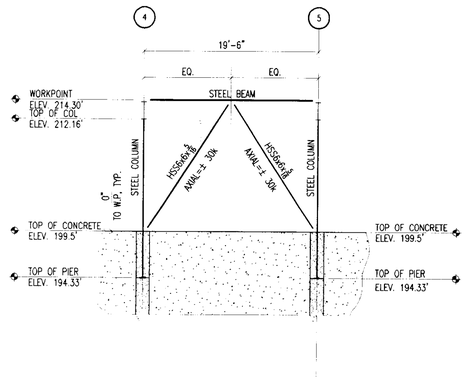
3/4" = 1'-0"



TYP. BRACING CONNECTION CHEVRON BRACE

13

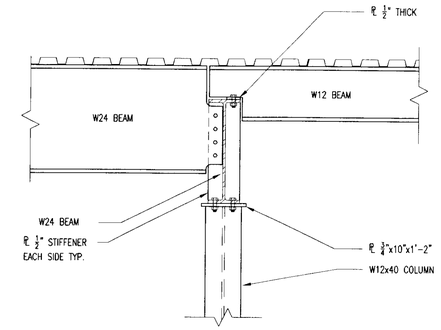
3/4" = 1'-0"



BRACE FRAME ELEVATION-GRID A

14

1/8" = 1'-0"



FRAMING DETAIL

15

3/4" = 1'-0"

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SYMBOLS LEGEND

DATUM POINT: T/CONC. T/STL. T/SUBSTRATE

GRIDLINES

FINISHED SURFACE LINES - CUT

ELEMENTS BELOW CUT LINE - HIDDEN

ELEMENTS ABOVE CUT LINE - DASHED
SOFFIT ABOVE COORDINATE W/ CEILING

PLANS, SECTIONS, DETAILS.

WINDOW
SEE SCHEDULE FOR DESCRIPTION.

DOOR NUMBER
HARDWARE NUMBER

BORROWED LITE DESIGNATION

NAME — ROOM NAME DESIGNATION:

ROOM NUMBER DESIGNATION:

SECTION OR DETAIL REFERENCE:
DETAIL NUMBER
SHEET NUMBER WHERE DETAIL IS LOCATED.
VIEW DIRECTION

SIM. OPPH.

SPECIAL NOTES

WALL SECTIONS & AND THRU-BUILDING SECTIONS

ROOM / WALL ELEVATIONS

REVISION NOTE

ABBREVIATIONS

A

ABV ABOVE
AFF ABOVE FINISHED FLOOR
ASC ABOVE SUSPENDED CEILING
ACC ACCESS (ORY)
ACFL ACCESS FLOOR
AP ACCESS PANEL
ACP ACOUSTICAL CEILING PANEL
ACPL ACOUSTICAL PLASTER
ACT ACOUSTICAL TILE
ACR ACRYLIC PLASTIC
ADD ADDENDUM
ADDN ADDITION
ADH ADHESIVE
ADJ ADJACENT
ADJT ADJUSTABLE
AGG AGGREGATE
AIB AIR INFILTRATION BARRIER
A/C AIR CONDITIONING
ALT ALTERNATE
AL ALUMINUM
APA AMERICAN PLYWOOD ASSOCIATION
AB ANCHOR BOLT
ANC ANCHOR, ANCHORAGE
ANOD ANODIZED
APX APPROXIMATE
ARCH ARCHITECT (URAL)
AD AREA DRAIN
ASB ASBESTOS
ASP ASPHALT
ACCMP ASPHALT COATED CORRUGATED METAL PIPE
AT ASPHALT TILE
AV AUDIOVISUAL
AUTO AUTOMATIC

B

BR BACKER ROD
BAR BARRIER
BB BASEBOARD
BSMT BASEMENT
BRG BEARING
BPL BEARING PLATE
BJT BED JOINT
BM BENCH MARK
BET BETWEEN
BVL BEVELED
BIT BITUMINOUS
BLN BLANKET
BLK BLOCK
BLKG BLOCKING
BLU BLUE STONE
BD BOARD
BS BOTH SIDES
BW BOTH WAYS
BOT BOTTOM
B/O BOTTOM OF
BRK BRICK
BRZ BRONZE
BLDG BUILDING
BUR BUILT UP ROOF
BN BULLNOSE

C

CAB CABINET
CUH CABINET UNIT HEATER
CPT CARPET (ED)
CSMT CASEMENT
CIPC CAST IN PLACE CONCRETE
CI CAST IRON
CST CAST STONE
CB CATCH BASIN
CK CAULK(ING)
CLG CEILING
CHT CEILING HEIGHT
CEM CEMENT
C/C CENTER TO CENTER
CM CENTIMETER (S)
CER CERAMIC MOSAIC TILE
CT CERAMIC TILE
CBD CHALKBOARD
CHAM CHAMFER
CH CHEMICAL HARDENER
CIR CIRCLE
CIRC CIRCUMFERENCE
CR CLASSROOM
CLR CLEAR (ANCE)
CL CLOSET
CLS CLOSURE
COL COLUMN
COMB COMBINATION
COMBST COMBUSTIBLE (COMBUSTION)
CMPT COMPARTMENT
COMPO COMPOSITION (COMPOSITE)
COMP COMPRESS (ED), (ION), (IBLE), COMPUTER
CONC CONCRETE
CMU CONCRETE MASONRY UNIT
COND CONDUCTOR
CONF CONFERENCE
CX CONNECTION
CONST CONSTRUCTION
CONT CONTINUOUS OR CONTINUE
CONTR CONTRACT (OR)
CLL CONTRACT LIMIT LINE
CJ CONTROL JOINT
CVTR CONVECTOR
CPR COPPER
CG CORNER GUARD
CORR CORRIDOR
CRG CORRUGATED
CMP CORRUGATED METAL PIPE
CTR COUNTER
CFL COUNTER FLASHING
CTSK COUNTER SINK SCREW
CS COUNTERSINK
CRS COURSE (S)
CVR COVER
CRG CROSS GRAIN
CFT CUBIC FOOT
CW CURTAIN WALL

D

DPR DAMPER
DP DAMPROOFING
DL DEAD LOAD
DFL DEFLECTION
DEMO DEMOLISH, DEMOLITION
DMT DEMOUNTABLE
DEP DEPRESSED
D DEPTH
DET DETAIL
DIAG DIAGONAL
DIA DIAMETER
DIM DIMENSION
DISP DISPENSER
DIV DIVISION
DR DOOR
DO DOOR OPENING, DITTO
DH DOUBLE HUNG
DA DOUBLE ACTING
DTS DOVETAIL ANCHOR SLOT
DN DOWN
DS DOWNSPOUT
DT DRAIN TILE
DRB DRAIN BOARD
DRW DRAWER
DWG DRAWING (S)
DF DRINKING FOUNTAIN
DW DUMBWAITER

E

EA EACH
EF EACH FACE
E EAST
ED EDUCATION
ELEC ELECTRIC (AL)
EWC ELECTRIC WATER COOLER
EP ELECTRICAL PANEL
EL ELEVATION
ELEV ELEVATOR
EMER EMERGENCY
ESB ENCLOSED STEEL BEAM
ENC ENCLOSURE, EXISTING NO CHANGE
ENTR ENTRANCE
EP EPOXY PAINT
EQ EQUAL
EQP EQUIPMENT
ESC ESCALATOR
EST ESTIMATE
EXC EXCAVATE
EXH EXHAUST
EXG EXISTING
EXMP EXPANDED METAL PLATE
EXPN EXPANSION
EB EXPANSION BOLT
EJT EXPANSION JOINT
EXP EXPOSED
EXT EXTERIOR
EFS EXTERIOR FINISH SYSTEM
EIFS EXTERIOR INSULATION FINISH SYSTEM
EXS EXTRA STRONG

F

FWC FABRIC WALL COVERING
FAB FABRICATE (ION)
FB FACE BRICK
F/O FACE OF
FOW FACE OF WALL
FF FACTORY FINISH
FM FACTORY MUTUAL
FCU FAN COIL UNIT
FAS FASTEN, FASTENER
FLF FINISH LOWER FLOOR
FMF FINISH MAIN FLOOR
FN FENCE
FBD FIBERBOARD
FGL FIBERGLASS
FIN FINISH (ED)
FFE FINISH FLOOR ELEVATION
FFL FINISH FLOOR LINE
FTR FINNED TUBE RADIATION
FA FIRE ALARM
FAP FIRE ANNUNCIATION PANEL
FBRK FIRE BRICK
FE FIRE EXTINGUISHER
FEAC FIRE EXTINGUISHER AND CABINET
FEARC FIRE EXTINGUISHER AND RATED CABINET
FHS FIRE HOSE STATION
FPL FIRE PLACE
FP FIRE PROOF (ING)
FRC FIRE RESISTANT COATING
FRT FIRE RETARDANT TREATED
FRTW FIRE RETARDANT TREATED WOOD
FXT FIXTURE
FLAM FLAMMABLE
FLSH FLASHING
FHMS FLATHEAD MACHINE SCREW
FHWS FLATHEAD WOOD SCREW
FLEX FLEXIBLE
FL FLOOR (ING)
FLCO FLOOR CLEANOUT
FD FLOOR DRAIN
FPL FLOOR PLATE
FLUR FLORESCENT
FT FOOT, FEET
FTG FOOTING
FRG FORGED
FDN FOUNDATION
FR FRAME (D), (ING)
FA FRESH AIR
FS FULL SIZE
FBO FURNISHED BY OTHERS, BY OWNER
FURN FURNISHED, FURNITURE
FUR FURRED (ING)
FUT FUTURE

G

GA GAGE, GAUGE
GV GALVANIZED
GI GALVANIZED IRON
GP GALVANIZED PIPE
GKT GASKET (ED)
GC GENERAL CONTRACT (OR)
GLB GLASS BLOCK
GLF GLASS FIBER
GL GLASS GLAZING
GCT GLAZED CERAMIC TILE
GCMU GLAZED CONCRETE MASONRY UNITS
GST GLAZED STRUCTURAL TILE
GB GRAB BAR
GD GRADE, GRADING
GRN GRANITE
GFCB GROUND FACE CONCRETE BLOCK
GT GROUT
GYP GYPSUM
GPL GYPSUM LATH
GPPL GYPSUM PLASTER
GPT GYPSUM TILE
GWB GYPSUM WALL BOARD

H

HC HANDICAPPED
HD HAND DRYER (HAIR DRYER)
HDB HARDBOARD
HES HARDENER AND SEALER
HDW HARDWARE
HWD HARDWOOD
HJT HEAD JOINT
HDR HEADER
HGLR HEAT, GLARE, LIGHT REDUCING GLASS
HTG HEATING
HVAC HEATING/VENTILATION/AIR CONDITIONING
HT HEIGHT
HX HEXAGONAL
HES HIGH EARLY-STRENGTH CEMENT
HDC HOLD DOWN CLIPS
HLD HOLDERS
HC HOLLOW CORE
HM HOLLOW METAL
HORIZ HORIZONTAL
HS HORIZONTAL METAL SIDING
HB HOSE BIB
HWH HOT WATER HEATER
HR HOUR

I

IMPG IMPREGNATED
INCIN INCINERATOR
INCL INCLUDE (D), (ING)
ID INSIDE DIAMETER / INSIDE DIMENSION
ICS INSULATED COMPOSITE SIDING
INSF INSULATED FILL
INS INSULATION (D), (ION)
INT INTERIOR
INTM INTERMEDIATE
INV INVERT
IE INVERT ELEVATION
IPS IRON PIPE SIZE

J

JAN JANITOR
JC JANITOR'S CLOSET
JT JOINT
JF JOINT FILLER
J JOIST

K

KCPL KEENE'S CEMENT PLASTER
KPL KICK PLATE
KIT KITCHEN
KO KNOCK (ED), OUT

L

LBL LABEL
LAB LABORATORY
LAD LADDER
LB LAG BOLT
LAM LAMINATE (D)
LAV LAVATORY
LH LEFT HAND
L LENGTH
LT LIGHT (ING)
LC LIGHT CONTROL
LP LIGHT PROOF
LW LIGHT WEIGHT
LWC LIGHTWEIGHT CONCRETE
LMS LIMESTONE
LF LINEAL FEET
LTL LINTEL
LL LIVE LOAD
LVR LOUVER
LPT LOW POINT

M

MACH MACHINE
MAG MAGNETIC
MDH MAGNETIC DOOR HOLDER
MH MANHOLE
MFR MANUFACTURE (R)
MRB MARBLE
MBD MARKER BOARD
MAS MASONRY
MO MASONRY OPENING
MAT MATERIAL (S)
MAX MAXIMUM
MECH MECHANICAL
MC MEDICINE CABINET
MED MEDIUM
MDO MEDIUM DENSITY OVERLAY
MBR MEMBER
MMB MEMBRANE
MTL METAL
MFD METAL FLOOR DECK
MTFR METAL FURRING
MRD METAL ROOF DECK
MTHR METAL THRESHOLD
MWS METAL WINDOW SYSTEM
M METER (S)
MEZZ MEZZANINE
MM MILLIMETER (S)
MWK MILLWORK
MIN MINIMUM
MIR MIRROR
MISC MISCELLANEOUS
MOD MODULE
MR MOISTURE RETARDANT
MLD MOLDING, MOULDING
MH MOP HOLDER
MT MOUNT (ED), (ING)
MOV MOVABLE
MULL MULLION
MCLF MULTI COLOR WALL FINISH

N

NL NAILABLE
NAT NATURAL
NR NOISE REDUCTION
NRC NOISE REDUCTION COEFFICIENT
NOM NOMINAL
NS NON SLIP
NMT NONMETALLIC
N NORTH
NE NORTHEAST
NW NORTHWEST
NA NOT APPLICABLE
NIC NOT IN CONTRACT
NTS NOT TO SCALE
NO NUMBER

O

OBS OBSCURE
OFF OFFICE
OC ON CENTER (S)
OP OPAQUE
OWJ OPEN WEB JOIST
OPNG OPENING
OPP OPPOSITE
OPPH OPPOSITE HAND
OSB ORIENTED STRAND BOARD
OZ OUNCE
OD OUTSIDE DIAMETER / OUTSIDE DIMENSION
OA OVERALL
OH OVERHEAD
OHDR OVERHEAD DOOR

P

PT PAINT (ED)
PS PAINTED STEEL
PR PAIR
PNL PANEL
PB PANIC BAR
PTD PAPER TOWEL DISPENSER
PAR PARALLEL
PKG PARKING
PBD PARTICLE BOARD
PTN PARTITION
PVM PATCH AND MATCH
PV PAVE (D), (ING)
PVMT PAVEMENT
PERF PERFORATE (D)
PERI PERIMETER
PERM PERMANENT
PC PIPE CHASE
PLAM PLASTIC LAMINATE
PG PLATE GLASS
PL PLATE PLASTIC, PROPERTY LINE, PLASTER
PLMB PLUMBING
PWD PLYWOOD
PT POINT, PAINT (ED)
POLY POLYETHYLENE
PISO POLYISOCIANURATE
PVC POLYVINYL CHLORIDE
PE PORCELAIN ENAMEL
PTC POST TENSIONED CONCRETE
PCF POUNDS PER CUBIC FOOT
PLF POUNDS PER LINEAR FOOT
PSF POUNDS PER SQUARE FOOT
PSI POUNDS PER SQUARE INCH
PAF POWER ACTIVATED FASTENER
PCC PRECAST CONCRETE
PFB PREFABRICATED
PFN PREFINISHED
PMF PREFINISHED METAL FASCIA
PRF PREFORMED
PMS PREFORMED METAL SIDING
PPT PRESSURE PRESERVATIVE TREATED
PSC PRESTRESSED CONCRETE
PROJ PROJECT, PROJECTION

Q

QTY QUANTITY
QT QUARRY TILE

R

RBT RABBET, REBATE
RAD RADIATOR
R RADIUS
RL RAIL (ING)
RWC RAINWATER CONDUCTOR
RRT RAISED RUBBER TILE
RCV RECEIVE (D)
RECT RECTANGULAR
REF REFERENCE
RCP REFLECTED CEILING PLAN, REINFORCED CONCRETE PIPE
RFL REFLECT (ED), (IVE), (OR)
REFG REFRIGERATOR
REG REGISTER
RGWB REINFORCED GYPSUM WALL BOARD
REM REMOVE
RENOV RENOVATION
REQ REQUIRED
RESL RESILIENT
RET RETURN
RA RETURN AIR
RVS REVERSE (SIDE)
REV REVISION (S), REVISED
RH RIGHT HAND
ROW RIGHT OF WAY
R RISER, RADIUS, RUBBER
RVT RIVET
RD ROOF DRAIN
RFH ROOF HATCH
RFG ROOFING
RH ROOM
RO ROUGH OPENING
RB RUBBER BASE
RFL RUBBER FLOORING
RT RUBBER TILE, RAISED RUBBER TILE
RBL RUBBLE STONE

S

SFGL SAFETY GLASS
SND SANITARY NAPKIN DISPENSER
SNV SANITARY NAPKIN VENDOR
SCH SCHEDULE
SCN SCREEN
SMBR SEALANT AND BACKER ROD
SLNT SEALANT
SLR SEALER
SJC SEISMIC JOINT COVER
SG SHEET GLASS
SHL SHELF, SHELVING
SHO SHORE, (D), (ING)
SIM SIMILAR
SOH SIMILAR / OPPOSITE HAND
SPMR SINGLE PLY MEMBRANE ROOF
SKL SKYLIGHT
SL SLEEVE
SC SOLID CORE
STC SOUND TRANSMISSION COEFFICIENT
SP SOUNDPROOF
S SOUTH
SE SOUTHEAST
SW SOUTHWEST
SPC SPACER
SPK SPEAKER
SPL SPECIAL
SPEC SPECIFICATION (S)
SPCB SPLITFACE CONCRETE BLOCK
SPR SPRINKLER
SQ SQUARE
SQ SQUARE FEET
SS STAINLESS STEEL
STD STANDARD
SMR STANDING SEAM METAL ROOFING
STA STATION
STL STEEL
STO STORAGE
SD STORM DRAIN
SCT STRUCTURAL CLAY TILE
STR STRUCTURE (AL)
SUSP SUSPENDED
SYM SYMETRY (ICAL)
SYN SYNTHETIC
SYS SYSTEM

T

TBD TACKBOARD
TKS TACKSTRIP
TEL TELEPHONE
TV TELEVISION
TEMP TEMPERATURE, TEMPERED
THBD TEMPERED HARD BOARD
TERM TERMINAL
TC TERRA COTA
TRZ TERRAZZO
THK THICK(NESS)
THR THRESHOLD
TRS TILE REDUCER STRIP
TM TOILET MEN
TPD TOILET PAPER DISPENSER
TPTN TOILET PARTITION
TW TOILET WOMEN
T TOILET, TREAD
TOL TOLERANCE
TAG TONGUE AND GROOVE
TOD TOP OF DECK
TOS TOP OF STEEL
TOW TOP OF WALL
TL TOWEL
TR TRANSFORM
XFMR TRANSFORMER
TGS TRANSLUCENT GLAZING SYSTEM
TRNSP TRANSPARENT
TYP TYPICAL

U

UC UNDERCUT
UNDLMT UNDERLAYMENT
UL UNDERWRITERS LABORATORY
UNF UNFINISHED
UV UNIT VENTILATOR
UNO UNLESS NOTED OTHERWISE

V

VJ V-JOINT
VR VAPOR RETARDER
VAR VARNISH
VNR VENEER
VIF VERIFY IN FIELD
VRM VERMICULITE
VRT VERTICAL
VS VERTICAL METAL SIDING
VEST VESTIBULE
V VINYL
VAT VINYL ASBESTOS TILE
VB VINYL BASE
VCT VINYL COMPOSITION TILE
VF VINYL FABRIC
VT VINYL TILE
VWC VINYL WALL COVERING
VP VISION PANEL

W

WSCT WAINSCOT
WH WALL HUNG
WHYD WALL HYDRANT
WTW WALL TO WALL
WR WASTE RECEPTACLE
WC WATER CLOSET
WP WATER PROOFING
WR WATER REPELLENT
WRSGUB WATER RESISTANT GYPSUM WALL BOARD
WS WATERSTOP
WHS WEATHER STRIP, (ING)
WWF WELDED WIRE FABRIC
W WEST
WHB WHEEL BUMPER
W WIDE, WIDTH
WND WINDOW
WW WINDOW WALL
WGL WIRE GLASS
WM WIRE MESH
W/ WITH
W/O WITHOUT
WD WOOD
WDB WOOD BASE
WP WORKING POINT
WI WROUGHT IRON

MATERIAL LEGEND

EARTH
STONE, GRAVEL
BITUMINOUS PAVING
CONCRETE
PRE-CAST CONCRETE
CONCRETE MASONRY UNITS
BRICK
STONE
SAND, MORTAR
ALUMINUM
STEEL
SHEET METAL
REINFORCING - W.W.F.
REINFORCING BAR (RODS)
PLASTER/ LATH
GYPSUM WALLBOARD
GLASS
PLYWOOD
WOOD BLOCKING (CONT.) (NOM. DIMEN.)
WOOD SHIMS (NON-CONT.)
BATT INSULATION
RIGID INSULATION
ACOUSTIC TILE
PARTICLE BOARD
PLASTIC LAMINATE (ON PLYWD)
CARPET
QUARRY TILE
FINISH WOOD

GENERAL NOTES

1. ALL DIMENSIONS ARE TO THE FACE OF CMU OR ROUGH STUD. UNLESS NOTED OTHERWISE

2. PROVIDE ALL CUT-OUTS, SLEEVES, BOX-OUTS, CHASES ETC. REQUIRED BY THE WORK. COORDINATE REQUIREMENTS WITH EACH TRADE PRIOR TO THE START OF WORK.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE THERMAL AND ACOUSTICAL REQUIREMENTS OF THE FLOOR AND ROOF CONSTRUCTION, WALLS AND PARTITIONS BY INSTALLING PROPER SEALS AND CLOSURES AT THE PERIMETER OF ALL OPENINGS

4. LOCATION AND THE SIZE OF THE FOLLOWING EQUIPMENT MUST BE COORDINATED BETWEEN RELATED TRADES. - PLUMBING, MECHANICAL ELECTRICAL, AND OTHER EQUIPMENT; CONCRETE PADS FOR ALL SUCH EQUIPMENT, ACCESS PANELS IN WALLS, CEILINGS AND SOFFITS, CEILING DIFFUSERS, LIGHT FIXTURES, HEATING AND VENTILATING UNITS, LOUVERS AND ELECTRICAL PANELS.

5. THE CONTRACTOR SHALL VERIFY SIZE AND LOCATION OF ALL BUILT-IN ITEMS.

6. ALL PARTITIONS TO EXTEND TO THE UNDERSIDE OF THE METAL ROOF DECK OR CONCRETE FLOOR DECK ABOVE UNLESS NOTED OTHERWISE.

7. CORES OF CMU PARTITION SHALL BE FILLED WITH MORTAR UNDER ALL LINTEL BEARING, AND WHERE ANCHORAGE EITHER WITHIN THE PARTITION, TO THE FACE OR THE END OF THE PARTITION IS REQUIRED. SEE STRUCTURAL FOR ADDITIONAL INFORMATION.

8. THE REQUIRED FIRE RESISTANCE RATING OF THE CMU PARTITION SHALL BE ACHIEVED BY USE OF U.L. LISTED CMU'S OR THE EQUIVALENT THICKNESS AND TYPE OF AGGREGATE.

9. THE INTEGRITY OF THE FIRE RATED WALLS AND PARTITIONS SHALL BE MAINTAINED WHEREVER A PENETRATION OR RECESS OF MORE THAN 20 SQUARE INCHES OCCURS.

   A. FOR PENETRATIONS PROVIDE A SLEEVE AND PACK WITH DOW SILICONE RTV FOAM AFTER PIPE CONDUIT OR DUCT IS IN PLACE.

   B. FOR RECESSED ITEMS THE REQUIRED WALL OR PARTITION RATING SHALL BE INSTALLED AROUND THE RECESS BEFORE. FIXTURE, BOX, ACCESSORY, ETC., IS PLACED. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATION AND COMPLETION OF THIS WORK.

10. ALL STAIRWAYS, PLATFORMS, LANDING AND EXITS SHALL BE ADEQUATE TO SUPPORT A LIVE LOAD OF 100 POUNDS PER SQ. FT., AND A CONCENTRATED LOAD OF 300 POUNDS PER SQ., FT,

11. ALL HANDRAILS SHALL BE DESIGNED AND CONSTRUCTED FOR A CONCENTRATED LOAD OF 200 POUNDS APPLIED AT ANY POINT IN ANY DIRECTION.

12. ALL STAIRS SHALL HAVE HANDRAILS EACH SIDE

13. ALL GUARDRAILS SHALL BE DESIGNED AND CONSTRUCTED FOR A CONCENTRATED LOAD OF 300 POUNDS APPLIED AT ANY POINT AND IN ANY DIRECTIONS ALONG THE TOP RAILING MEMBER. IT SHALL ALSO BE DESIGNED AND CONSTRUCTED FOR A UNIFORM LOAD OF 100 POUNDS PER FOOT APPLIED IN ANY DIRECTION AT THE REQUIRED GUARDRAIL HEIGHT.

14. THE INFILL AREA OF A GUARDRAIL SYSTEM SHALL BE DESIGNED AND CONSTRUCTED FOR A HORIZONTAL CONCENTRATED LOAD OF 200 POUNDS APPLIED ON A (1) ONE SQUARE FOOT AREA, AT ANY POINT IN THE SYSTEM, INCLUDING INTERMEDIATE RAILS OR OTHER ELEMENTS SERVING THIS PURPOSE.

15. INSTALL FIRE RATED FIRE SAFING & SEALANT AT ALL OPENINGS AND TOP OF FIRE RATED WALLS. MUST BE A UL TESTED ASSEMBLY FOR THE FIRE RESISTANCE REQUIRED.

16. DURING COLD WEATHER CONDITIONS THE POURED-IN-PLACE CONCRETE SLAB WILL ONLY BE POURED WHEN BUILDING IS COMPLETELY ENCLOSED AND TEMPORARY HEAT IS RUNNING (INDIRECT FIRED HEATERS ONLY).

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AGENCY OF TRANSPORTATION
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NORTH FERRISBURGH VERMONT

REVISIONS

SCALE: N.T.S.
DATE: 1/4/06
DRAWN BY: VTW
APPR. BY: MVP

N. FERRISBURGH
MAINTENANCE GARAGE
ABBREVIATIONS /SYMBOLS/ MAT. LEGEND

A-0.0

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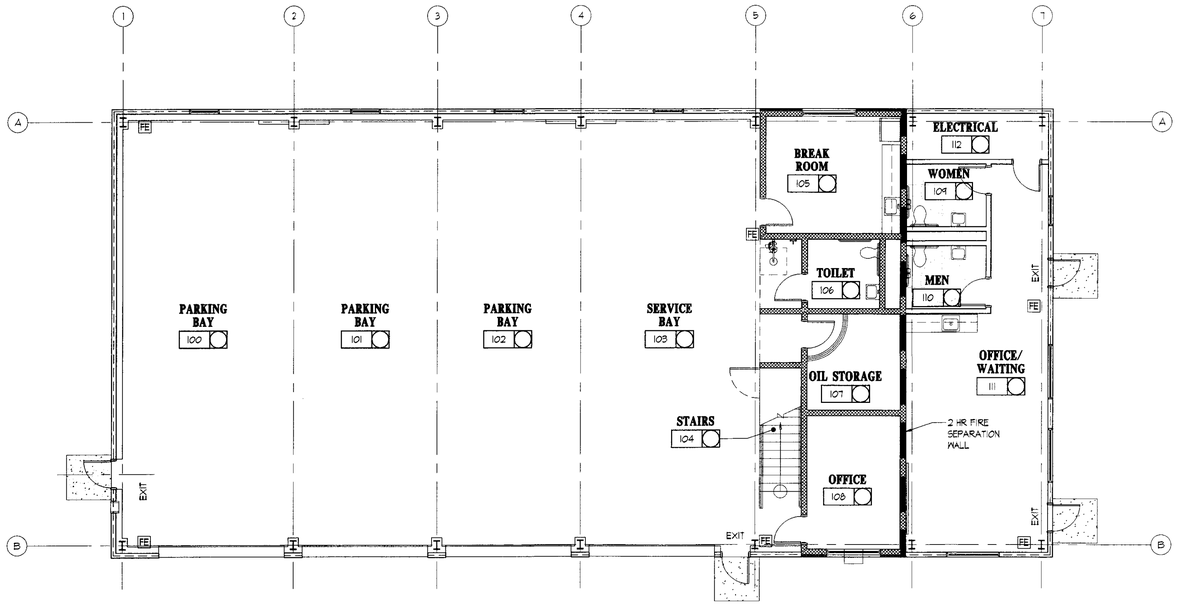
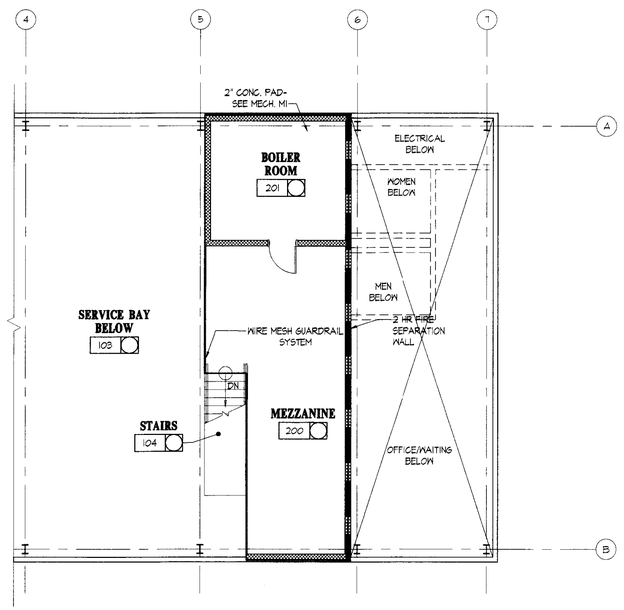


1 MAIN LEVEL PLAN
1/8" = 1'-0"



2 UPPER LEVEL PLAN
1/8" = 1'-0"

BOCA BUILDING REQUIREMENTS - 1996 EDITION

OCCUPANCY TYPE: S1 - STORAGE, ORDINARY HAZARD

CONSTRUCTION TYPE 5B, UNPROTECTED

ALLOWED HEIGHT AND AREA LIMITATIONS
S1 = 1 STORIES AT 20'
BASIC S1 = 4200 SF
ADDITIONAL AREA FOR FRONTAGE = 6,300 SF
TOTAL ALLOWABLE S1 = 10,500 SF

DESIGNED GROSS AREA
MAIN LEVEL: 5,193 SF
UPPER (MEZZANINE) LEVEL:
S1 = 691 SF

CONSTRUCTION REQUIREMENTS
FIRE SEPARATION WALLS 3 HOUR (PER NFPA 88B) BETWEEN OCCUPANCIES
FIRE ENCLOSURES EXITS AND STAIRWAYS 1 HOUR
EXIT ACCESS CORRIDORS 0 HOURS (OCCUPANT LOAD LESS THAN 30)
INTERIOR BEARING WALLS, COLUMNS, FLOOR TRUSSES 0 HOURS
STRUCTURAL MEMBERS SUPPORTING WALL 0 HOURS
FLOOR CONSTRUCTION 0 HOURS
ROOF CONSTRUCTION INCLUDING BEAMS, TRUSSES, ROOF DECKS 0 HOURS
INTERIOR DOORS AND WALLS BETWEEN PARKING BAYS AND OTHER ROOMS MUST RESIST THE PASSAGE OF SMOKE (NOT RATED) PER NFPA 88B

NFPA 101 BUILDING REQUIREMENTS - 1997 EDITION

CLASSIFICATION - STORAGE, ORDINARY HAZARD

EXITS REQUIRED - MIN 2 REQUIRED

MAX. TRAVEL DISTANCE TO EXITS 200 FEET

DEAD END CORRIDORS NOT EXCEED 50 FEET

COMMON PATH FOR ORDINARY HAZARD 50 FEET

CLASS "A" FINISH REQUIRED

LEGEND

TWO HOUR FIRE SEPARATION WALL

FE AOT SUPPLIED FIRE EXTINGUISHERS

GRAPHIC SCALE
0 4' 8' 16'
SCALE: 1/8" = 1'-0"

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AGENCY OF TRANSPORTATION
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N. FERRISBURGH VERMONT

REVISIONS	SCALE: 1/8" = 1'-0"	DATE: 1/4/06	DRAWN BY: VPW	APPR. BY: RJD

N. FERRISBURGH

MAINTENANCE GARAGE

CODE SHEET

A-0.1

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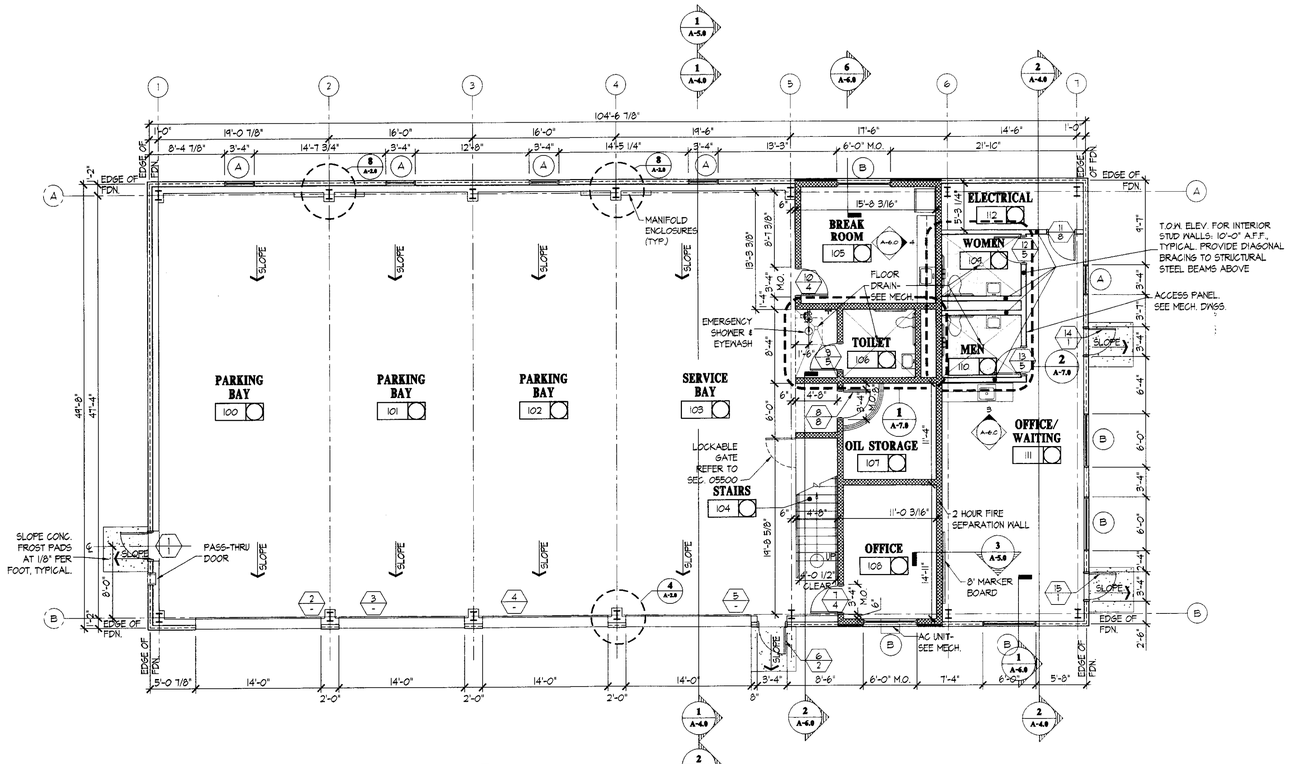
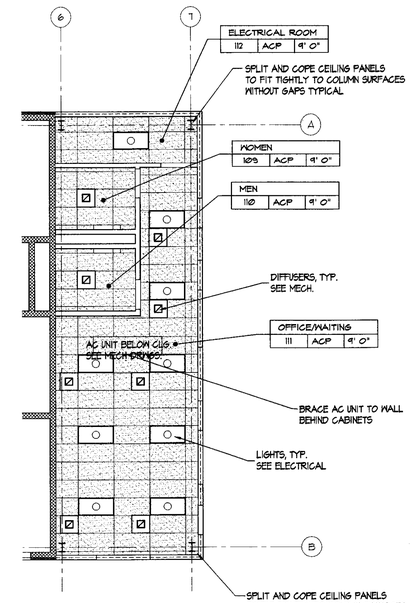


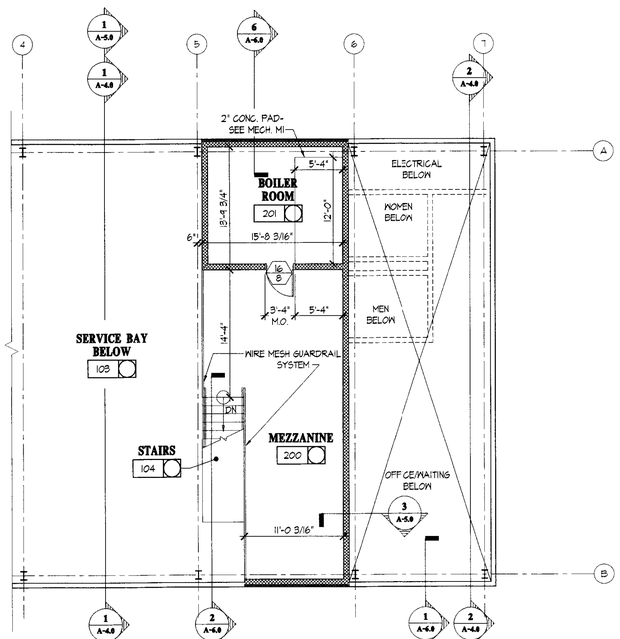
1 MAIN LEVEL PLAN
1/8" = 1'-0"



3 PARTIAL REFLECTED CEILING PLAN
1/8" = 1'-0"

INTERIOR PARTITION LEGEND

- 8" CMU
- 2X6 WOOD STUDS @ 16" O.C. WITH 1 LAYER OF 5/8" GWB EACH SIDE AND 6" OF BATT. INSULATION (2X8 WOOD STUDS ABOVE PARKING BAY OVERHEAD DOORS SEE DETAIL 2/A-5.0)



2 MEZZANINE LEVEL PLAN
1/8" = 1'-0"

LEGEND

- ACP W/ BATT INSULATION
- LIGHT FIXTURE - SEE ELEC.
- HVAC DIFFUSER - SEE MECH.

NOTES:

1) SEE SHEET A-7.0 FOR WINDOW TYPES.

2) SEE SHEET A-7.0 FOR DOOR SCHEDULE AND DETAILS.

3) CONC. PAD FOR BOILER AND HWH BY G.C.- REFER TO SHEET M1.

4) SLOPE FLOORS TO DRAIN AT ROOMS WHERE FLOOR DRAINS ARE INDICATED. SEE STRUCTURAL DRAWINGS FOR FIN FLOOR ELEVATIONS.

5) CONTROL JOINTS TYPICAL (9 / A-2.0) - SEE STRUCTURAL FOR LOCATIONS.

ROOM FINISH SCHEDULE

No.	ROOM TYPE	FLOOR MATERIAL	FINISH	BASE MATERIAL	WALL MATERIAL	FINISH	CEILING MATERIAL	FINISH	REMARKS
100	PARKING BAY	CONC	SEAL. & HARD.	CONC	CMU	PT	STL. BMS & ROOF DECK	PT	PT BEAMS ONLY
101	PARKING BAY	CONC	SEAL. & HARD.	CONC	CMU	PT	STL. BMS & ROOF DECK	PT	PT BEAMS ONLY
102	PARKING BAY	CONC	SEAL. & HARD.	CONC	CMU	PT	STL. BMS & ROOF DECK	PT	PT BEAMS ONLY
103	SERVICE BAY	CONC	SEAL. & HARD.	CONC	CMU	PT	STL. BMS & ROOF DECK	PT	PT BEAMS ONLY
104	STAIRS	CONC	SEAL. & HARD.	CONC	CMU	PT	STL. BMS & ROOF DECK	PT	PT BEAMS ONLY
105	BREAKROOM	CONC	SEAL. & HARD.	CONC	CMU	PT	PRECAST CONC. PLANK	PT	
106	TOILET	CONC	SEAL. & HARD.	CONC	CMU	PT	PRECAST CONC. PLANK	PT	
107	OIL STORAGE	CONC	SEAL. & HARD.	CONC	CMU	PT	PRECAST CONC. PLANK	PT	
108	OFFICE	CONC	SEAL. & HARD.	CONC	CMU	PT	PRECAST CONC. PLANK	PT	
109	WOMEN	RT		RB	GWB/CMU	PT	ACP W/BATT. INSULATION		
110	MEN	RT		RB	GWB/CMU	PT	ACP W/BATT. INSULATION		
111	OFFICE/WAITING	RT		RB	GWB/CMU	PT	ACP W/BATT. INSULATION		
112	ELECTRICAL	CONC	SEAL. & HARD.	CONC	GWB/CMU	PT	ACP W/BATT. INSULATION		
200	MEZZANINE	CONC	SEAL. & HARD.	CONC	CMU	PT	STL. BMS & ROOF DECK	PT	PT BEAMS ONLY
201	BOILER ROOM	CONC	SEAL. & HARD.	CONC	CMU	PT	STL. BMS & ROOF DECK	PT	PT BEAMS ONLY

TYPICAL NOTES:

1. PAINT ALL HOLLOW METAL FRAMES AND TRIM.
2. PAINT ALL EXPOSED STRUCTURE AND MISCELLANEOUS METAL, STAIRS AND RAILINGS.
3. REFER TO FLOOR PLANS FOR LOCATIONS OF WALL TYPES AND WALL MATERIAL.
4. DO NOT PAINT ELEC. CONDUIT , PIPES & OTHER MECH. EQUIP. PAINT WALL PRIOR TO INSTALLATION OF CONDUIT AND PIPES.
5. DO NOT PAINT UNDERSIDE OF GALVANIZED ROOF DECK.

GRAPHIC SCALE
0 4' 8' 16'
SCALE: 1/8" = 1'-0"

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REVISIONS

SCALE: 1/8" = 1'-0"
DATE: 1/4/06
DRAWN BY: AJC
APPR. BY: MMD

N. FERRISBURGH

MAINTENANCE GARAGE

FLOOR PLANS AND REFLECT. CEILING PLAN

A-1.0

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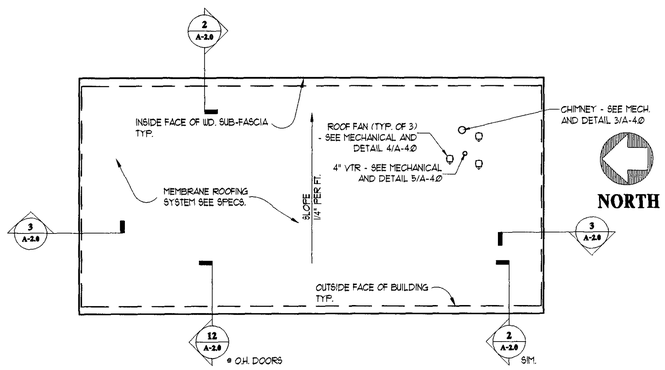
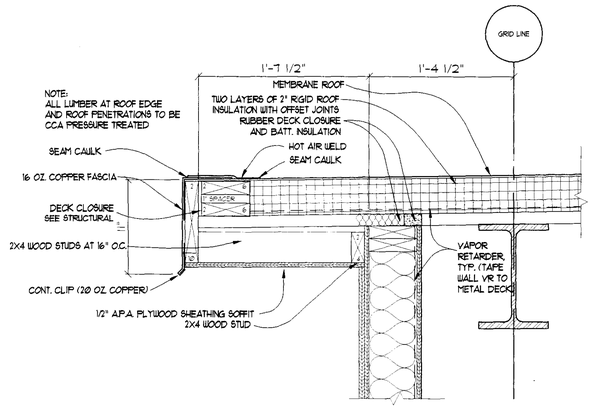
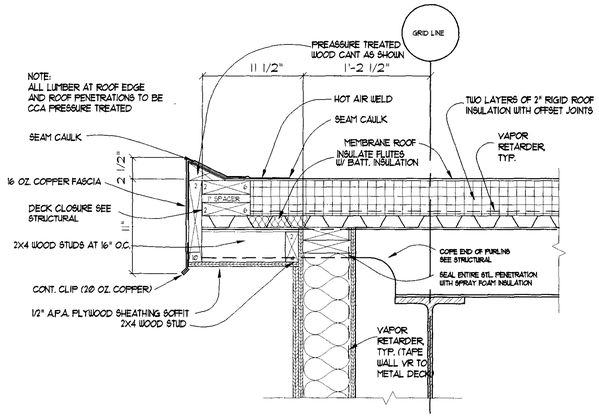


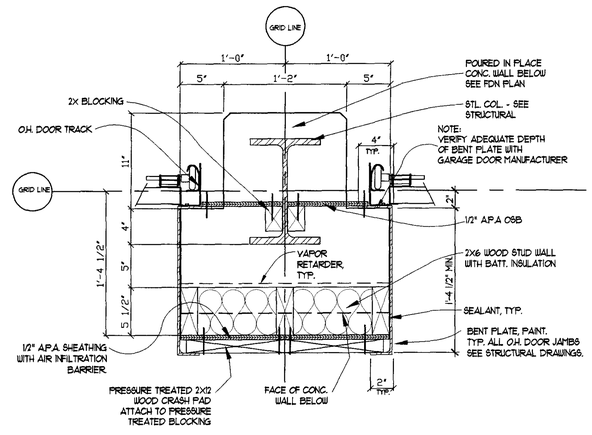
1 ROOF PLAN
1/16" = 1'-0"



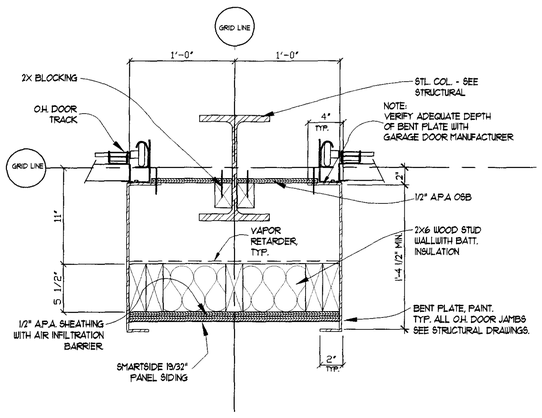
2 TYPICAL ROOF EAVE SECTION
1 1/2" = 1'-0"



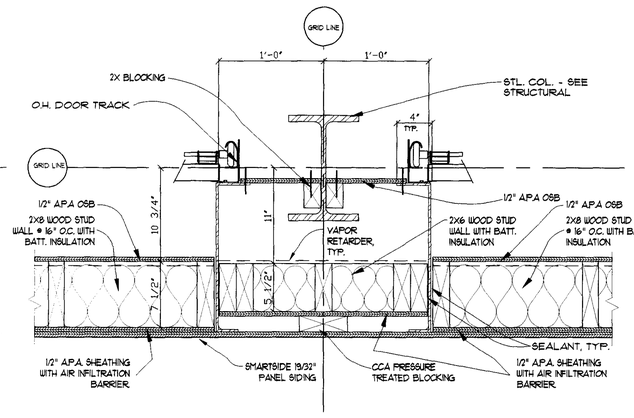
3 TYPICAL ROOF SECTION
1 1/2" = 1'-0"



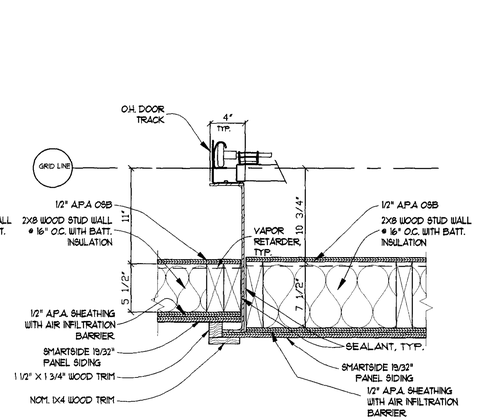
4 O.H. DOOR JAMB DETAIL
1 1/2" = 1'-0"



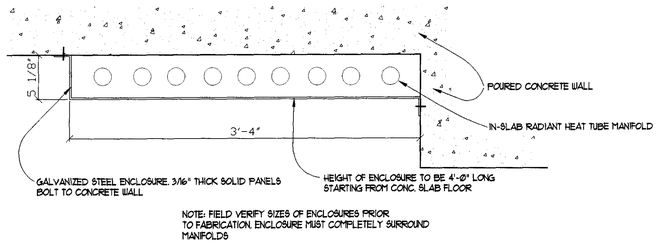
5 O.H. DOOR JAMB DETAIL
1 1/2" = 1'-0"



6 O.H. DOOR JAMB DETAIL ABOVE OPENING
1 1/2" = 1'-0"

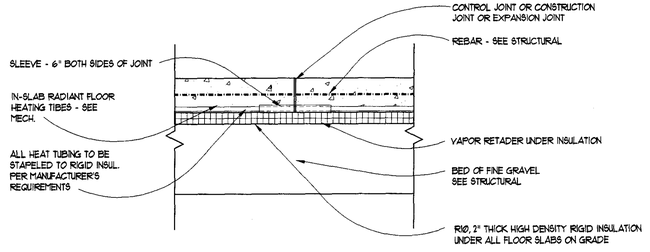


7 O.H. DOOR JAMB DETAIL ABOVE OPENING
1 1/2" = 1'-0"

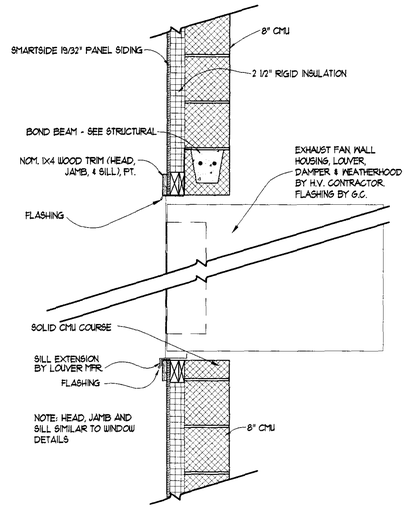


NOTE: FIELD VERIFY SIZES OF ENCLOSURES PRIOR TO FABRICATION. ENCLOSURE MUST COMPLETELY SURROUND MANIFOLDS

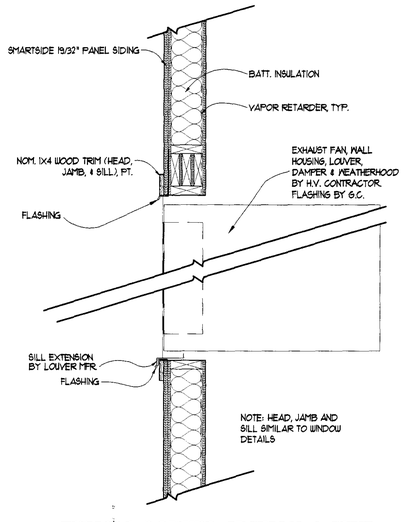
8 TYPICAL MANIFOLD ENCLOSURE
1 1/2" = 1'-0"



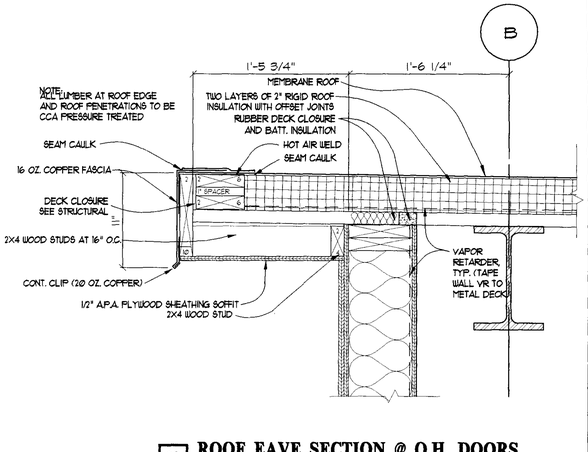
9 TYPICAL SLAB ON GRADE JOINT DETAIL
1" = 1'-0"



10 TYPICAL LOUVER SECTION @ CMU
1" = 1'-0"



11 TYPICAL LOUVER SECTION @ STUD
1" = 1'-0"



12 ROOF EAVE SECTION @ O.H. DOORS
1 1/2" = 1'-0"

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REVISIONS			
SCALE: AS NOTED	DATE: 1/4/06	DRAWN BY: VPW	APPR. BY: MD

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MAINTENANCE GARAGE

ROOF PLAN
ROOF DETAILS
MISC. DETAILS

A-2.0

23 OF 43

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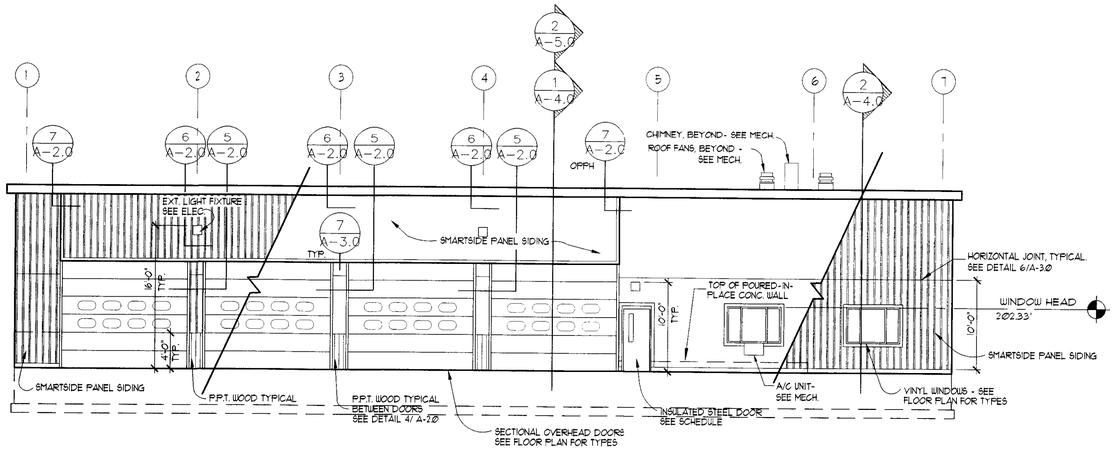
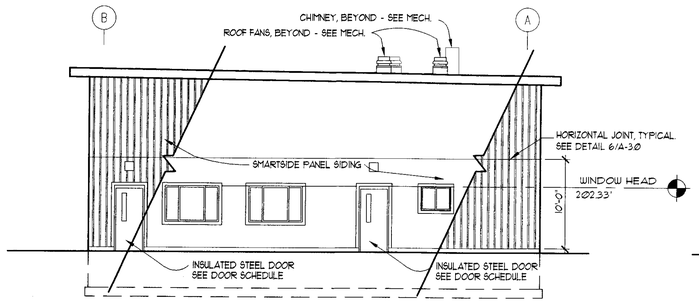
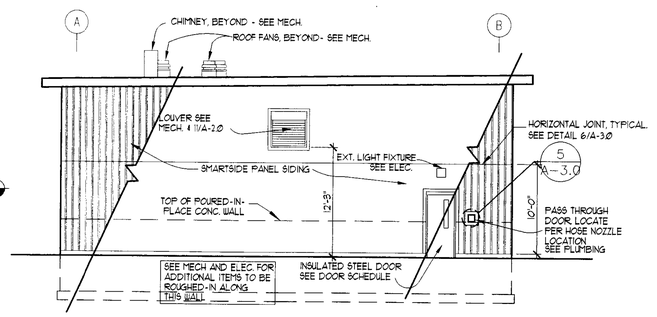


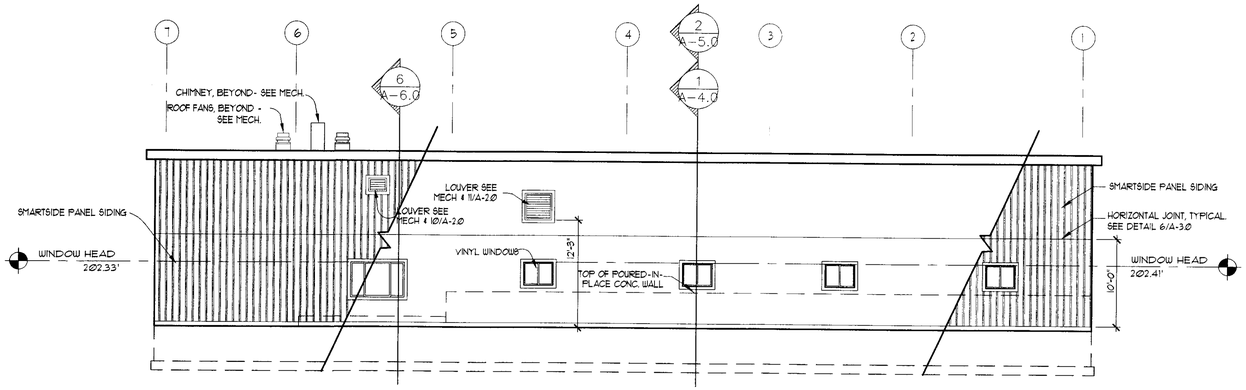
1 FRONT ELEVATION
1/8" = 1'-0"



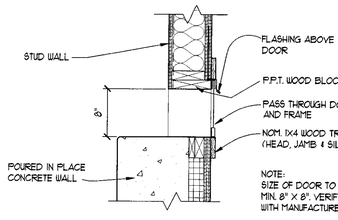
2 SIDE ELEVATION
1/8" = 1'-0"



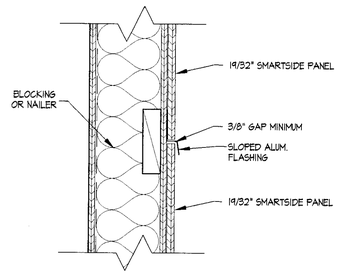
3 SIDE ELEVATION
1/8" = 1'-0"



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



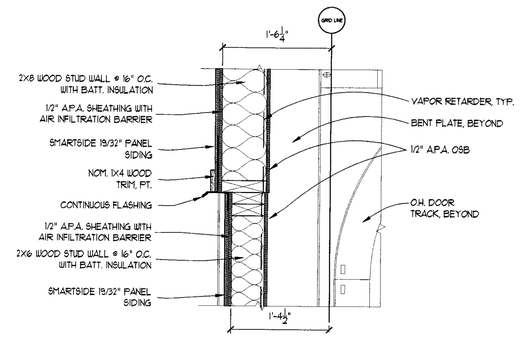
5 PASS THRU DOOR SECT.
1" = 1'-0"



6 HORIZONTAL JOINT DETAIL
NTS

NOTES:

LOUVERS AND VENTS BY HV CONTRACTOR INSTALLATION AND FLASHING BY G.C.



7 WALL TRANSITION BETWEEN O.H. DOORS
1"=1'-0"

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1400 DAVIDSON STREET
CHARLOTTE, NC 28235
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REGISTERED ARCHITECT R. JOHN DORE No. 1190 STATE OF VERMONT

BGS

STATE OF VERMONT
DEPARTMENT OF BUILDINGS AND GENERAL SERVICES
AGENCY OF ADMINISTRATION
MONTPELIER, VERMONT

AGENCY OF TRANSPORTATION
N. FERRISBURGH MAINTENANCE FACILITY
NORTH FERRISBURGH VERMONT

REVISIONS			

SCALE: AS NOTED	DRAWN BY: VPW
DATE: 1/4/06	APPR. BY: MJD

N. FERRISBURGH

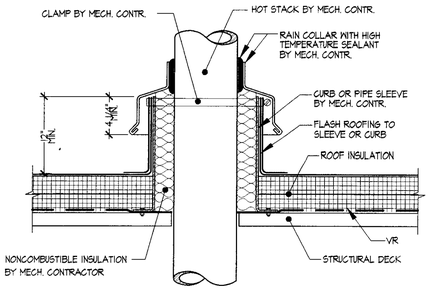
MAINTENANCE GARAGE

BUILDING ELEVATIONS

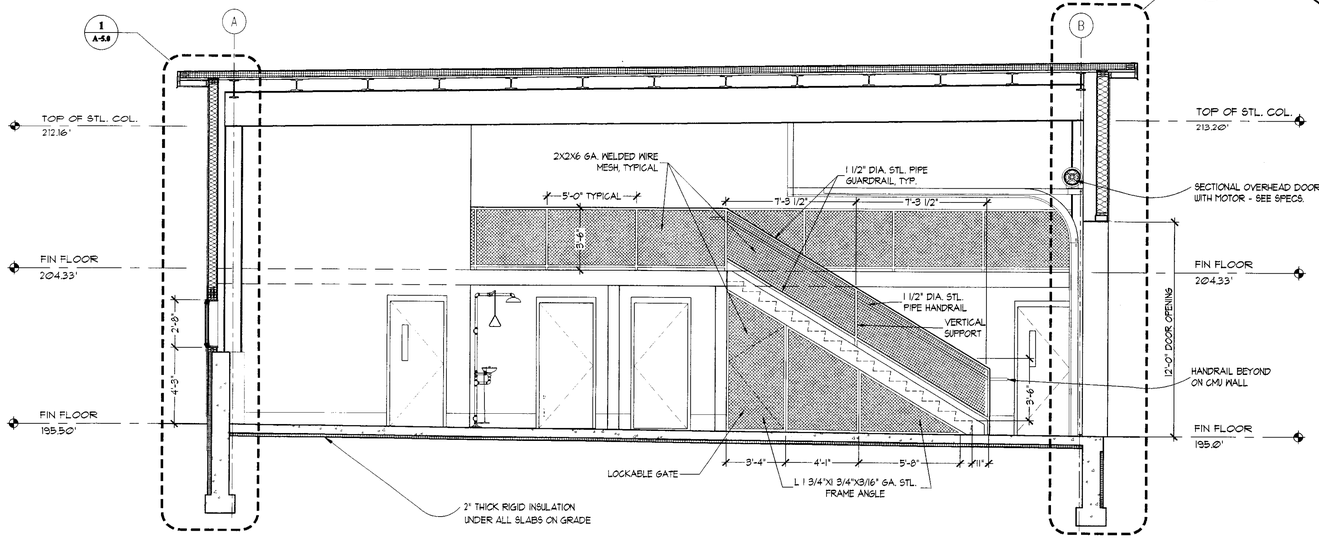
A-3.0

24 OF 43

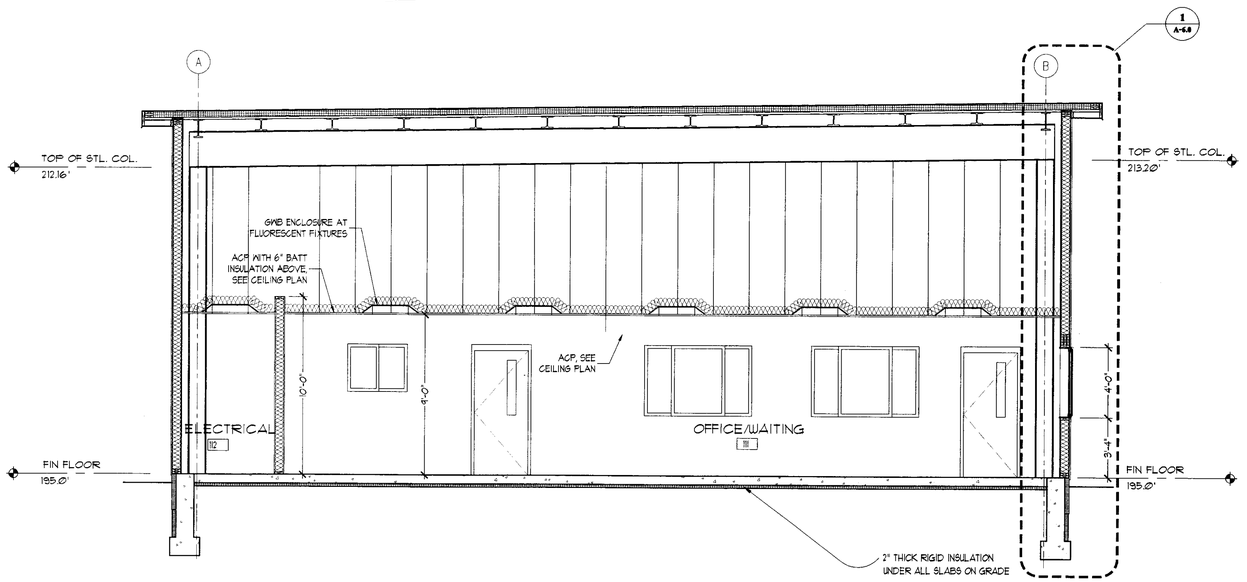
F:\AOT North Ferrisburgh\REVISED AOT 12-2-05\Drawings\Working Drawings\Sheet Drawings\442-a-3.0.dwg, Layout1, 01/17/2006 02:35:24 PM, rferro, Oce 9600 36-length.pc3



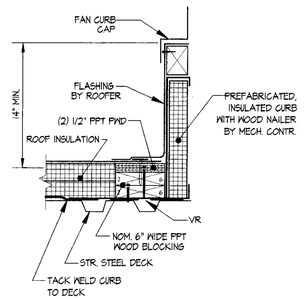
3 DETAIL @ CHIMNEY ROOF PENETRATION
1 1/2" = 1'-0"



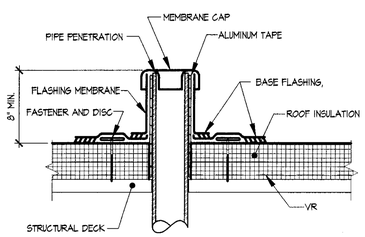
1 BUILDING SECTION
1/4" = 1'-0"



2 BUILDING SECTION
1/4" = 1'-0"



4 DETAIL @ FAN CURB
1 1/2" = 1'-0"



5 DETAIL @ VENT FLASHING
1 1/2" = 1'-0"

REGISTERED ARCHITECT R. JOHN DORE No. 1158 STATE OF VERMONT

1795 WILLISTON RD, STE 200
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1400 RAYCOR STREET
PORTLAND, ME 04103
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DEPARTMENT OF BUILDINGS AND GENERAL SERVICES
AGENCY OF ADMINISTRATION
MONTPELIER, VERMONT

AGENCY OF TRANSPORTATION
N. FERRISBURGH MAINTENANCE FACILITY
NORTH FERRISBURGH VERMONT

REVISIONS

SCALE: AS NOTED
DATE: 1/4/06
DRAWN BY: VPW
APPR. BY: MJD

N. FERRISBURGH
MAINTENANCE GARAGE
BUILDING SECTIONS AND MISC. DETAILS

GRAPHIC SCALE
0 2' 4' 8'
SCALE: 1/4" = 1'-0"

A-4.0

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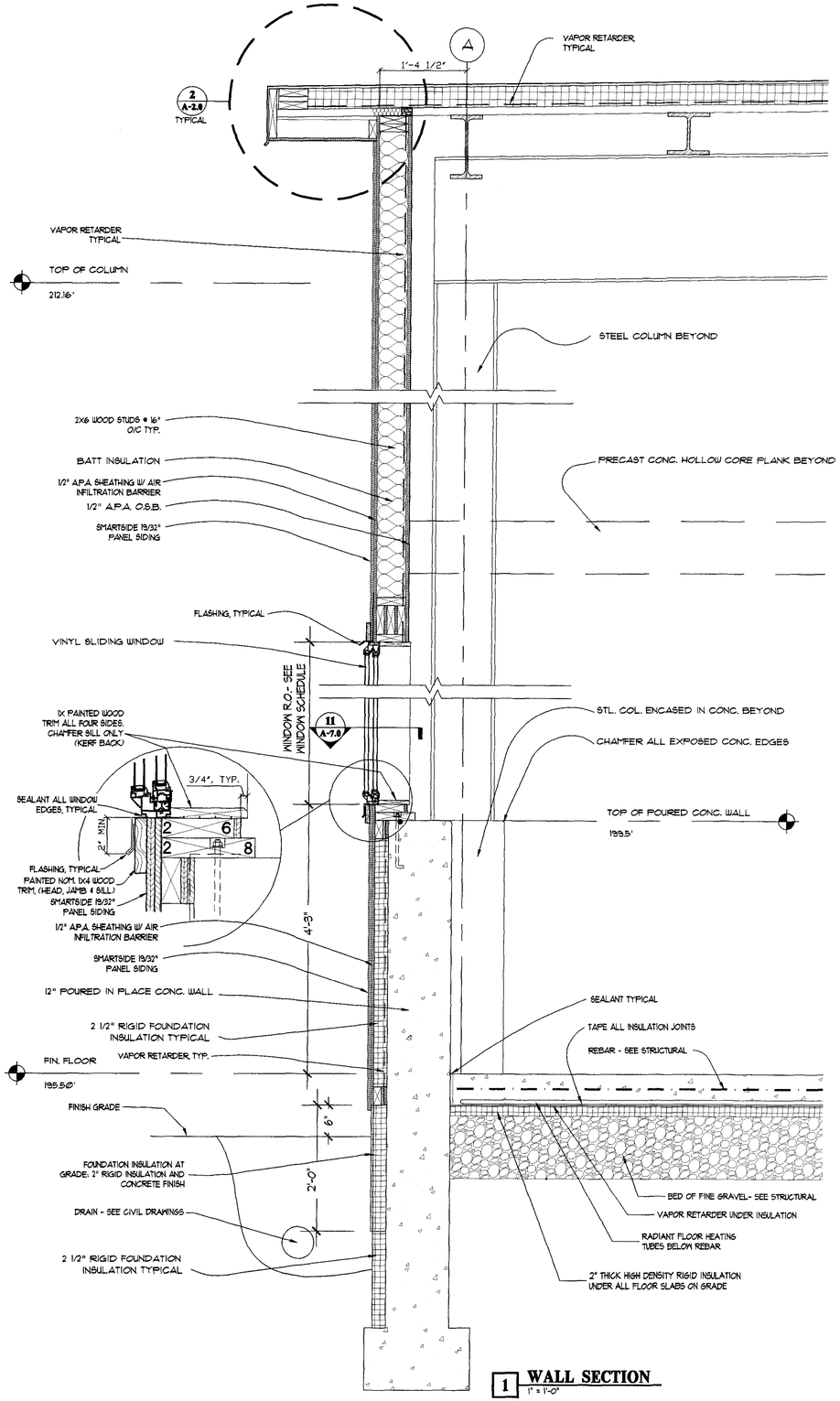
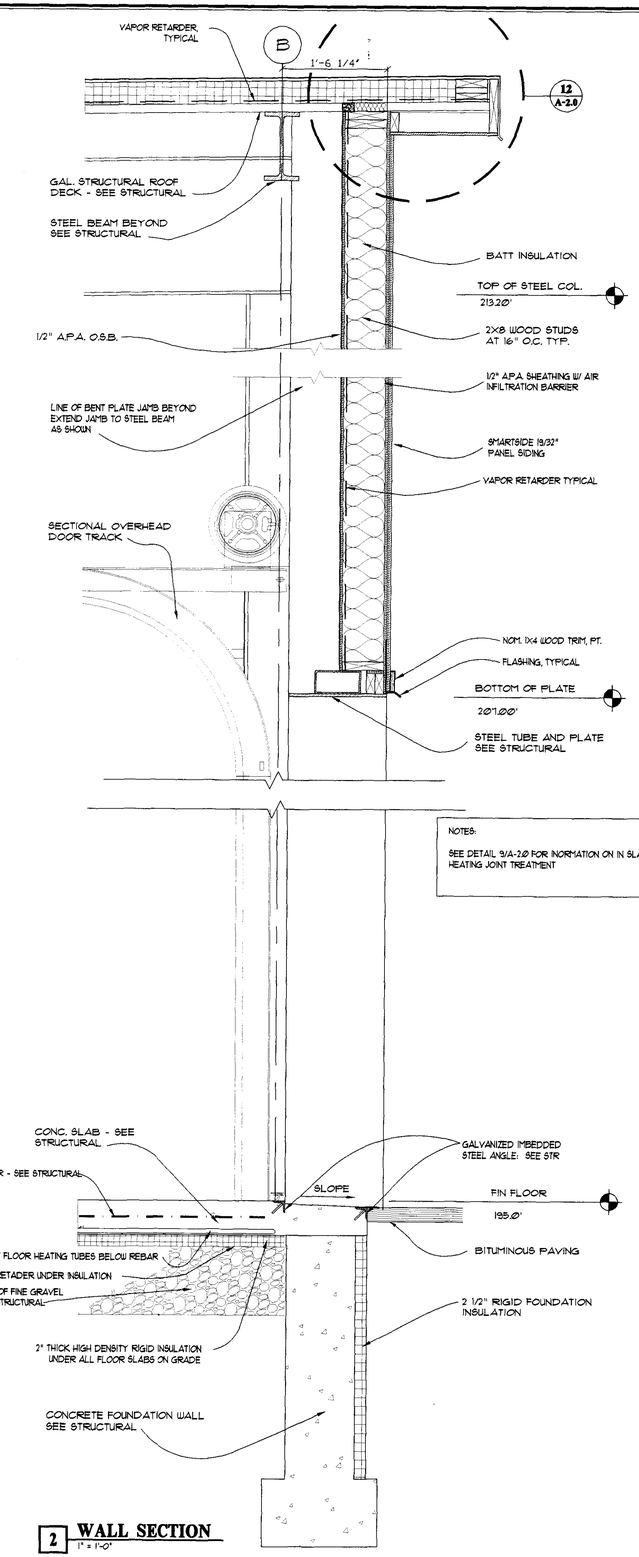
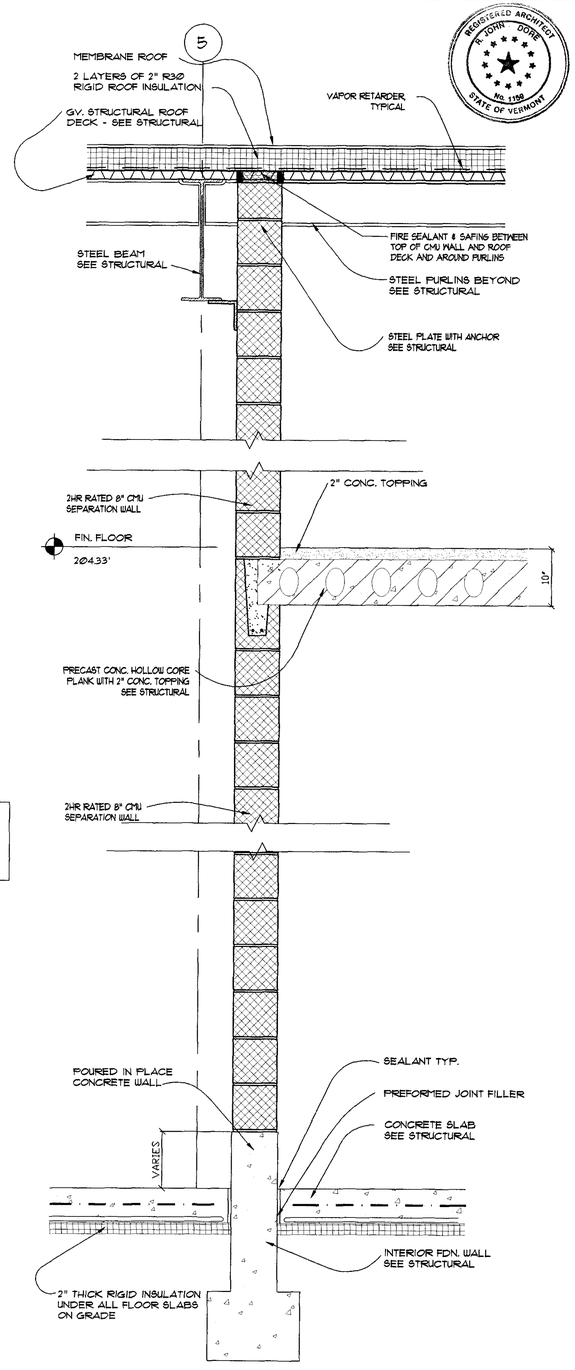
\\Dwserver3\projects\AOT North Ferrisburgh\REVISED AOT 12-2-05\Drawings\Working Drawings\Sheet Drawings\442a-4.0.dwg, 01/18/2006 07:55:05 AM, abrown



1 **WALL SECTION**
1" = 1'-0"



2 **WALL SECTION**
1" = 1'-0"



3 **WALL SECTION**
1" = 1'-0"

GENERAL NOTES:

PROVIDE VAPOR RETARDER BETWEEN RIGID INSULATION AND GV. STRUCTURAL ROOF DECK TYPICAL.

GRAPHIC SCALE
0 6" 1' 2'
SCALE: 1" = 1'-0"

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LEBANON, NH 03766
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REGISTERED ARCHITECT
R. CONN DORE
No. 1150
STATE OF VERMONT

STATE OF VERMONT
DEPARTMENT OF BUILDINGS AND GENERAL SERVICES
AGENCY OF ADMINISTRATION
MONTPELIER, VERMONT

AGENCY OF TRANSPORTATION
N. FERRISBURGH MAINTENANCE FACILITY
NORTH FERRISBURGH VERMONT

REVISIONS

SCALE: 1" = 1'-0"
DATE: 1/4/06
DRAWN BY: VTW
APPR. BY: MJD

N. FERRISBURGH
MAINTENANCE GARAGE
WALL SECTIONS

A-5.0

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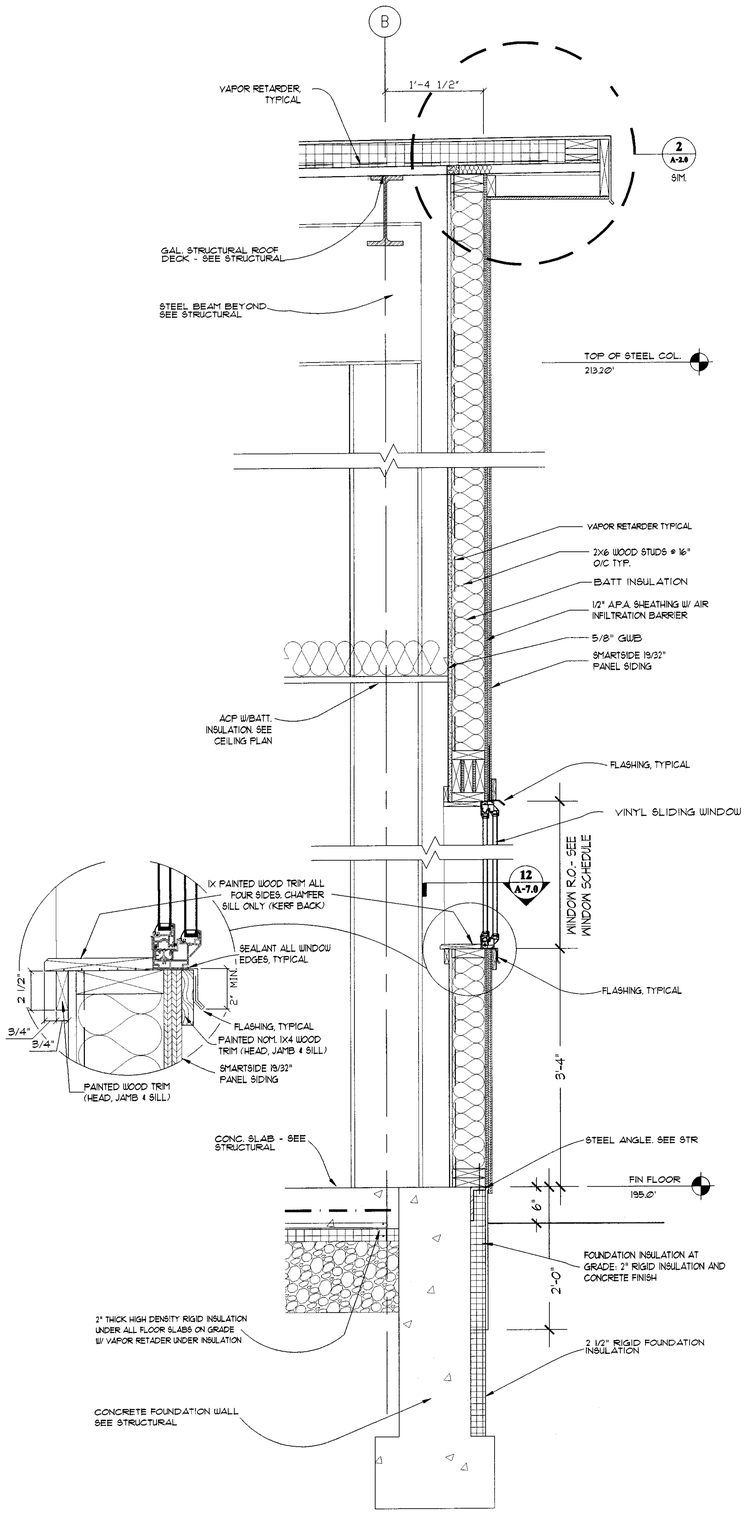
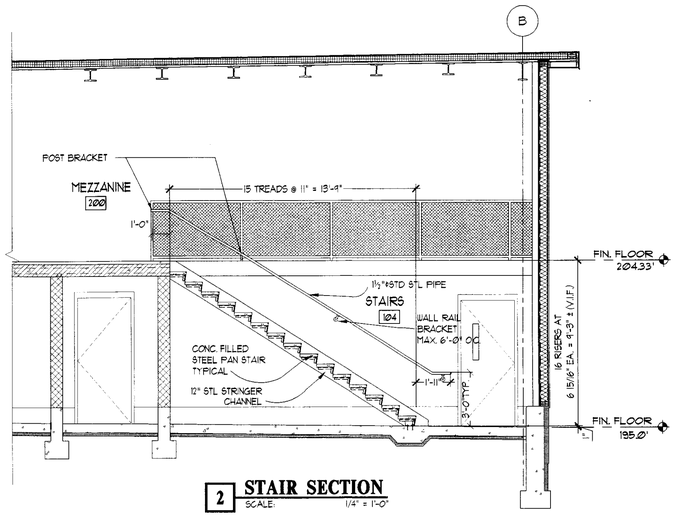
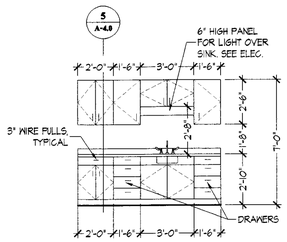


1 WALL SECTION
SCALE: 1" = 1'-0"

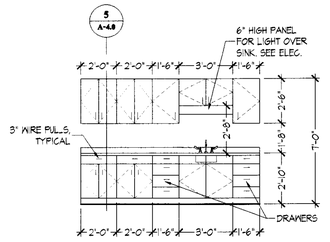


2 STAIR SECTION
SCALE: 1/4" = 1'-0"



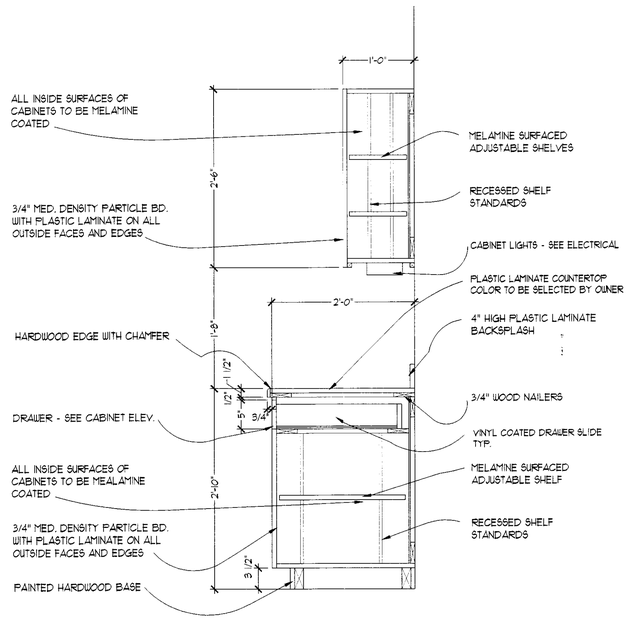
FIELD VERIFY ALL CABINET DIMENSIONS

3 CABINET ELEV. @ ROOM 111
1/4" = 1'-0"

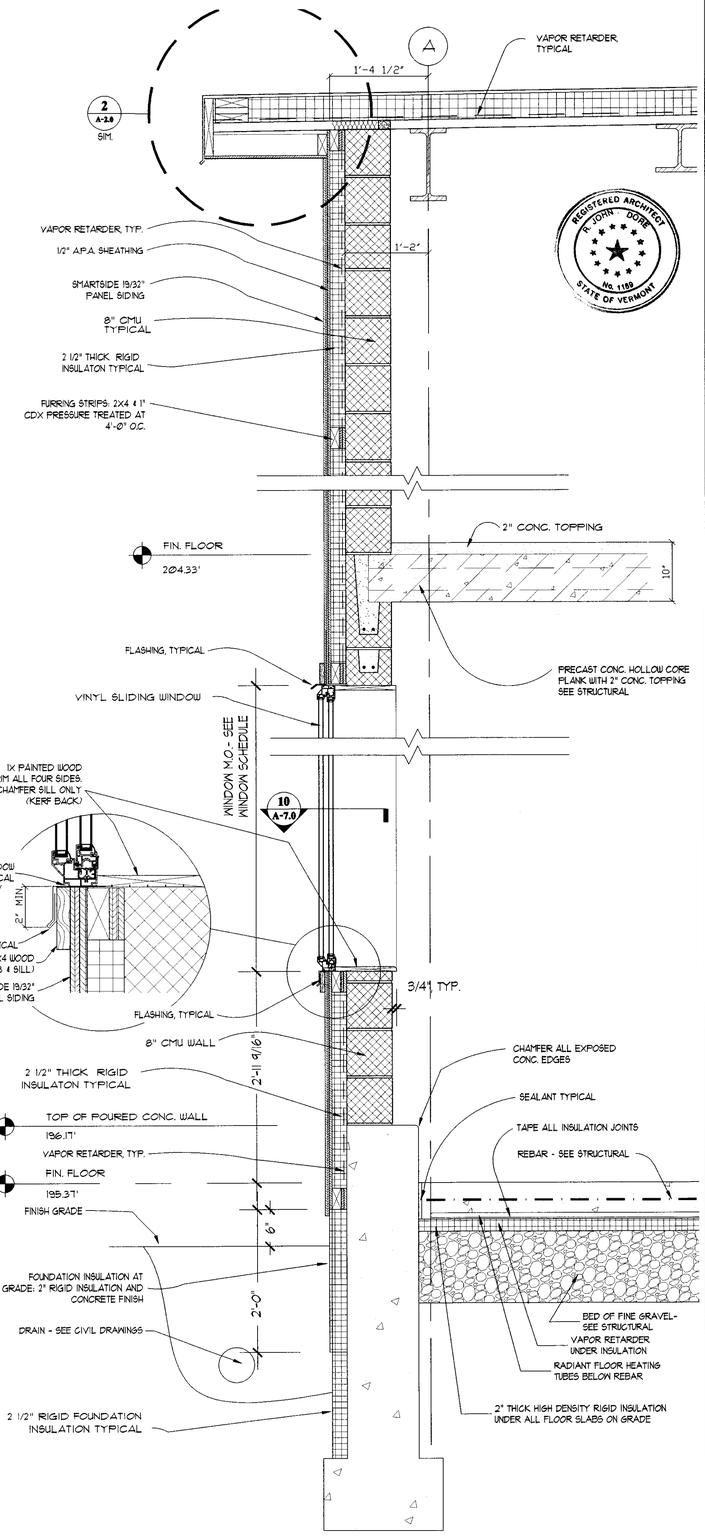


FIELD VERIFY ALL CABINET DIMENSIONS

4 CABINET ELEV. @ BREAK ROOM 105
1/4" = 1'-0"



5 TYPICAL CABINET SECTION
1" = 1'-0"



6 WALL SECTION
SCALE: 1" = 1'-0"

1795 WILLISTON RD, STE 300
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MONTPELIER, VERMONT

AGENCY OF TRANSPORTATION
N. FERRISBURGH MAINTENANCE FACILITY
N. FERRISBURGH VERMONT

REVISIONS

SCALE: AS NOTED
DATE: 1/4/06
DRAWN BY: VMW
APPR. BY: MJD

N. FERRISBURGH

MAINTENANCE GARAGE
WALL, STAIR & CABINET SECTIONS

A-6.0

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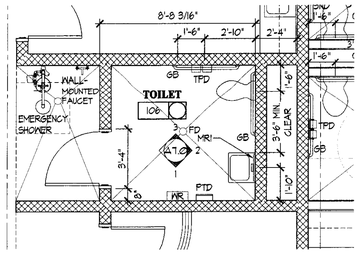
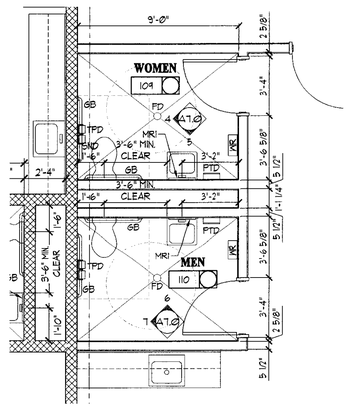
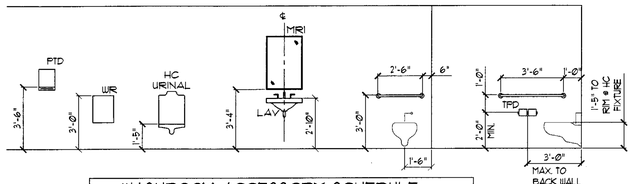


1 ENLARGED PLAN @ TOILET 106
1/4" = 1'-0"



2 ENLARGED PLANS @ MEN 110, WOMEN 111
1/4" = 1'-0"

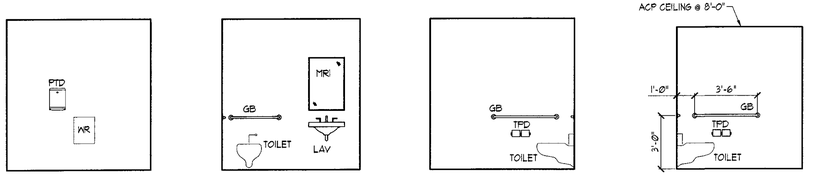
NOTE: PROVIDE ACCESS PANELS IN PLUMBING CHASE WALL AS REQUIRED - SEE PLUMBING DRWGS. AND SPECS.



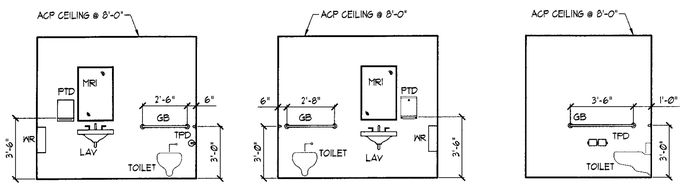
WASHROOM ACCESSORY SCHEDULE	
ABBREVIATION	DESCRIPTION
MRI	MIRROR, 24" X 36"
GB	GRAB BAR
TPD	SURF. MOUNT TOILET TISSUE HOLDER
PTP	PHENOLIC TOILET PARTITION
PTD	PAPER TOWEL DISPENSER
WR	WASTE RECEPTACLE

NOTES:

1. GC TO FULLY GROUT CMU BLOCK CELLS FOR MOUNTING ALL ACCESSORIES.
2. GC TO PROVIDE WOOD BLOCKING AS REQUIRED FOR MOUNTING ACCESSORIES IN STUD WALLS.

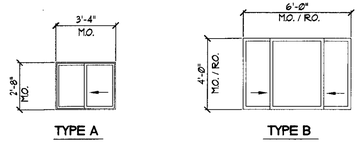


1 TOILET 106 · 2 TOILET 106 · 3 TOILET 106 · 4 WOMEN 109



5 WOMEN 109 · 6 MEN 110 · 7 MEN 110

3 TOILET ELEV.
1/4" = 1'-0"



4 WINDOW TYPES
1/4" = 1'-0"

DOOR & FRAME SCHEDULE (INCLUDING BORROWED LITES)

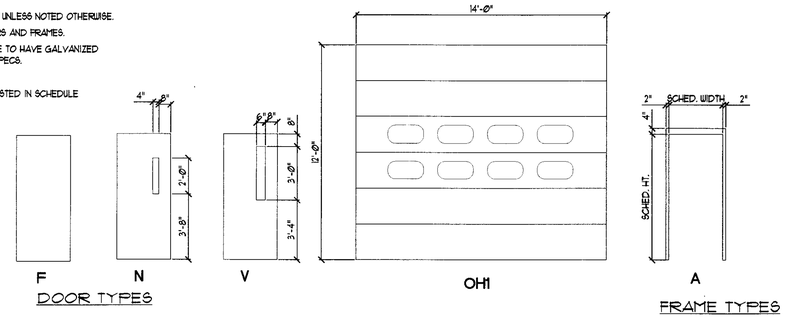
DOOR NUMBER	DOOR TYPE	DOOR MATERIAL	DOOR FINISH	DOOR SIZE	FRAME FR. TYPE	FRAME FR. MATERIAL	FRAME FR. FINISH	FRAME HEAD	FRAME JAMB	FRAME SILL	FRAME LABEL	REMARKS	DOOR NUMBER
1	V	HM	PT	3'-0" X 7'-0"	A	HM	PT	6/A-7.0	6 4 9/A-7.0	-	-	INSULATED EXTERIOR DOOR	1
2	OH1	STL	PT	12'-0" X 14'-0"	-	-	PT	-	4 4 5/A-2.0	-	-	-	2
3	OH1	STL	PT	12'-0" X 14'-0"	-	-	PT	-	4 4 5/A-2.0	-	-	-	3
4	OH1	STL	PT	12'-0" X 14'-0"	-	-	PT	-	4 4 5/A-2.0	-	-	-	4
5	OH1	STL	PT	12'-0" X 14'-0"	-	-	PT	-	4 4 5/A-2.0	-	-	-	5
6	V	HM	PT	3'-0" X 7'-0"	A	HM	PT	6/A-7.0	6 4 9/A-7.0	-	-	INSULATED EXTERIOR DOOR	6
7	N	HM	PT	3'-0" X 7'-0"	A	HM	PT	7/A-7.0	7/A-7.0	-	-	-	7
8	F	HM	PT	3'-0" X 7'-0"	A	HM	PT	7/A-7.0	7/A-7.0	-	-	-	8
9	F	HM	PT	3'-0" X 7'-0"	A	HM	PT	7/A-7.0	7/A-7.0	-	-	-	9
10	N	HM	PT	3'-0" X 7'-0"	A	HM	PT	7/A-7.0	7/A-7.0	-	-	-	10
11	F	HM	PT	3'-0" X 7'-0"	A	HM	PT	8/A-7.0	8/A-7.0	-	-	-	11
12	F	HM	PT	3'-0" X 7'-0"	A	HM	PT	8/A-7.0	8/A-7.0	-	-	-	12
13	F	HM	PT	3'-0" X 7'-0"	A	HM	PT	8/A-7.0	8/A-7.0	-	-	-	13
14	V	HM	PT	3'-0" X 7'-0"	A	HM	PT	6/A-7.0	6/A-7.0	-	-	INSULATED EXTERIOR DOOR	14
15	V	HM	PT	3'-0" X 7'-0"	A	HM	PT	6/A-7.0	6/A-7.0	-	-	INSULATED EXTERIOR DOOR	15
16	F	HM	PT	3'-0" X 7'-0"	A	HM	PT	7/A-7.0	7/A-7.0	-	-	-	16

NOTES:

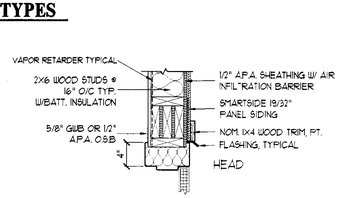
1. ALL DOORS ARE 1 3/4" THICK, UNLESS NOTED OTHERWISE.
2. INSULATE ALL EXT. HM. DOORS AND FRAMES.
3. ALL DOORS AND FRAMES ARE TO HAVE GALVANIZED PRIMER THEN PAINTED. SEE SPECS.

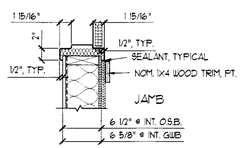
DOOR SYMBOL

18 / 12 — DOOR NUMBER LISTED IN SCHEDULE / HARDWARE SET

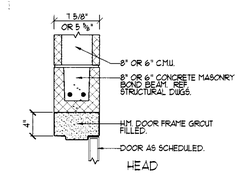


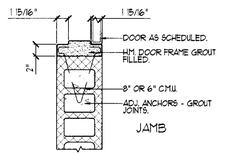
5 DOOR AND FRAME TYPES
1/4" = 1'-0"



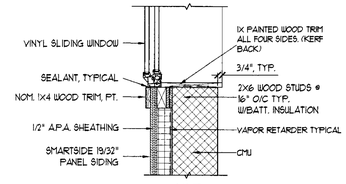


6 TYPICAL EXTERIOR DOOR JAMB/HEAD
1" = 1'-0"

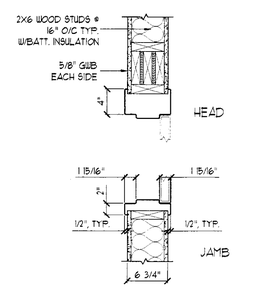




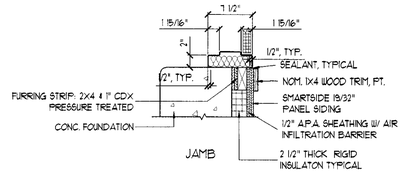
7 TYPICAL INTERIOR CMU DOOR JAMB/HEAD
1" = 1'-0"



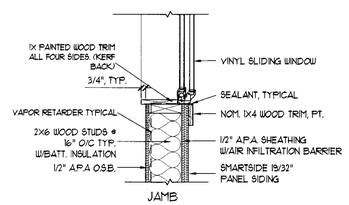
10 WINDOW JAMB @ CMU
1" = 1'-0"



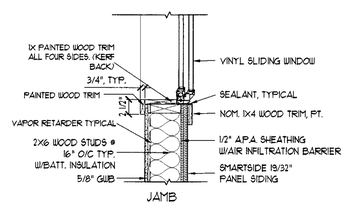
8 TYPICAL INTERIOR STUD DOOR JAMB/HEAD
1" = 1'-0"



9 EXTERIOR DOOR JAMB @ FOUNDATION
1" = 1'-0"



11 WINDOW JAMB @ PARKING BAYS
1" = 1'-0"



12 WINDOW JAMB @ OFFICE/WAITING 111
1" = 1'-0"

D&W
DORE AND WHITTIER, INC.
Architects • Project Managers
170 BOLLIVER'S CT. STE. 200
P.O. BURLINGTON, VT. 05403
Phone: (802) 863-6488
Fax: (802) 863-6565
79 WATER STREET, STE. 304
MONTPELIER, VT. 05602
Phone: (802) 499-2999
Fax: (802) 499-2944
1400 DUNN'S MT. ROAD
JERICHO, VT. 05465
Phone: (802) 899-3939
Fax: (802) 41-2816

B&S

STATE OF VERMONT
DEPARTMENT OF BUILDINGS AND GENERAL SERVICES
AGENCY OF ADMINISTRATION
MONTPELIER, VERMONT

REGISTERED ARCHITECT R. JOHN DORE NO. 1159 STATE OF VERMONT

AGENCY OF TRANSPORTATION
N. FERRISBURGH MAINTENANCE FACILITY
N. FERRISBURGH VERMONT

REVISIONS

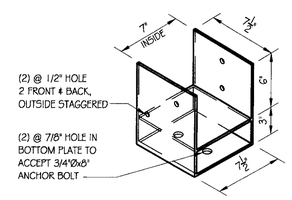
SCALE: AS NOTED
DATE: 1/4/06
DRAWN BY: VPW
APPR. BY: MD

N. FERRISBURGH
MAINTENANCE GARAGE
TOILET DETAILS
DOOR SCHEDULE
WINDOW TYPES

A-7.0

28 OF 43

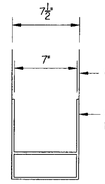
\\Dwserver3\projects\AOT North Ferrisburgh\REVISED AOT 12-2-05\Drawings\Working Drawings\Sheet Drawings\442-a-7.0.dwg, 01/18/2006 07:58:03 AM, abrown



COLUMN BASE DETAIL

SCALE: 1 1/2" = 1'-0"

NOTE:
POST BASE TO BE FABRICATED FROM 1/4" PLATE STEEL PRIMED & PAINTED (2 COATS) BLACK BEFORE INSTALLATION

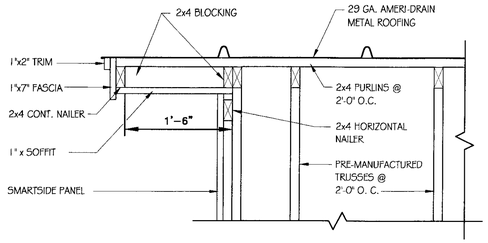


SECTION D-D

SCALE: 1 1/2" = 1'-0"

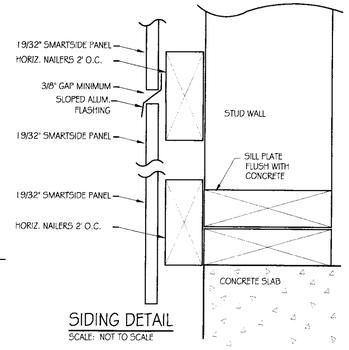
NOTE

INSIDE LAG BOLTS TO BE IN ℄ OF POST SO THEY WILL NOT INTERFERE WITH THE OVERHEAD DOOR TRACK.



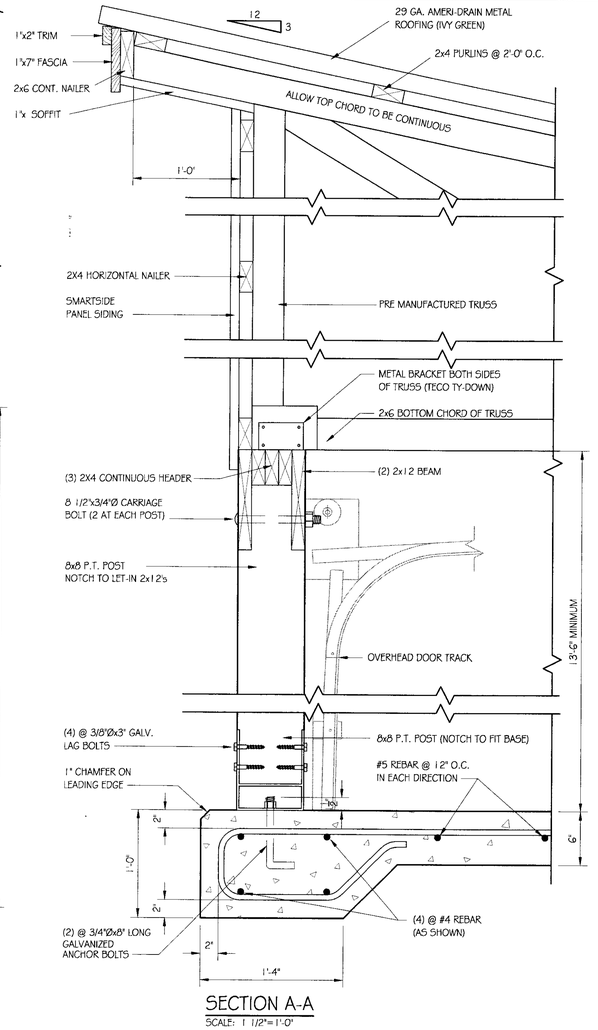
SECTION B-B SOFFIT DETAIL

SCALE: 1"=1'-0"



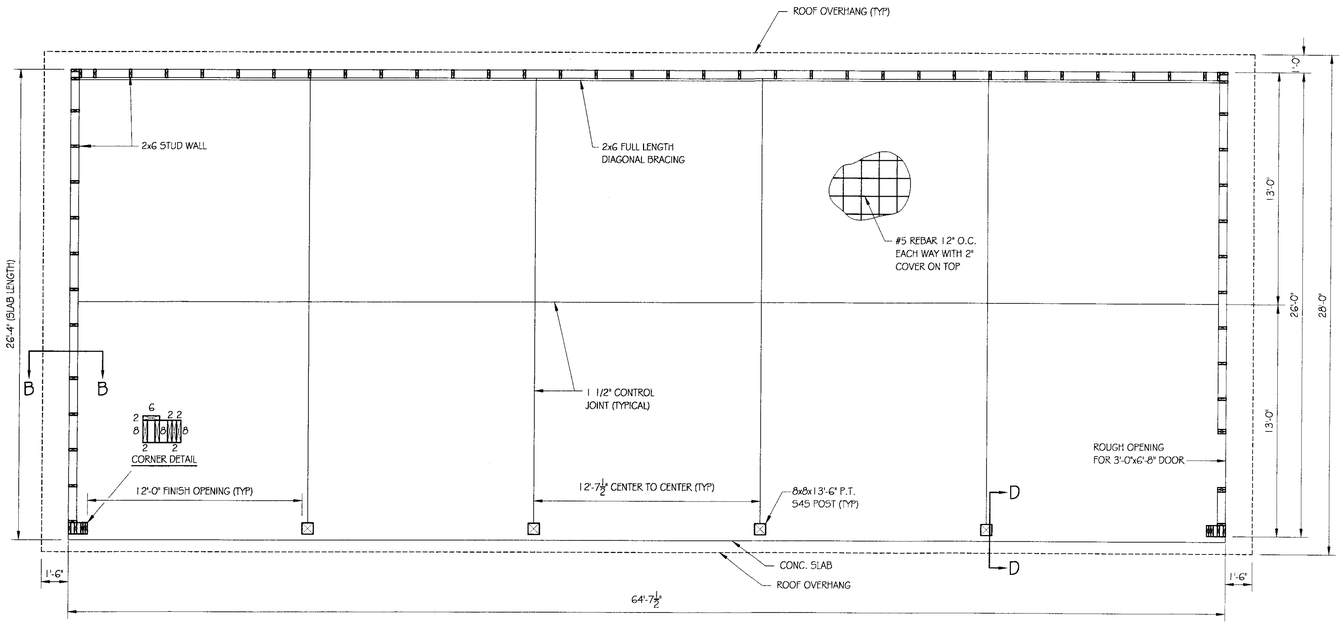
SIDING DETAIL

SCALE: NOT TO SCALE



SECTION A-A

SCALE: 1 1/2"= 1'-0"



SHED PLAN

SCALE: 1/4"= 1'-0"

GENERAL NOTES

ALL BUILDINGS RELATED EXCAVATION, FILL, BACKFILL, COMPACTION WILL BE PERFORMED BY VTRANS AND COORDINATED WITH GENERAL CONTRACTOR.

ALL SUB BASE OF GRAVEL, COMPACTION, FINAL GRADING AND PAVING OF DRIVES AND PARKING AREAS WILL BE PERFORMED BY VTRANS AND COORDINATED WITH GENERAL CONTRACTOR.

STEEL DOOR AND FRAME NOTES:

DOOR: DOOR SHALL BE UNINSULATED 16 GAUGE METAL, 1 3/4" THICK, ZINC COATED PER ASTM 525.
FRAME: 14 GAUGE METAL, ZINC COATED
MANUFACTURER: STEEL KRAFT OR APPROVED EQUAL.
HARDWARE: SEE SPECIFICATIONS

ELECTRICAL NOTES:

SEE DRAWING E-3 FOR ELECTRICAL DETAILS & SPECIFICATIONS.

OVERHEAD DOOR NOTES:
SEE SPECIFICATIONS

TRUSS NOTES:

TRUSS MANUFACTURER TO PROVIDE DEPT. OF STATE BUILDINGS ENGINEER A SET OF ENGINEERED & STAMPED DRAWINGS FOR APPROVAL PRIOR TO TRUSS MANUFACTURE (ENGINEER MUST BE LICENSED IN VERMONT).

TRUSS MANUFACTURER TO PROVIDE THE CONTRACTOR WITH ALL NECESSARY INSTRUCTIONS FOR PROPER TRUSS INSTALLATION, ANCHORAGE, BRACING, LIFTING, ETC..

TRUSS DESIGN LOADS IN ACCORDANCE WITH THE 1987 B.O.C.A. FOR VERMONT.

MINIMUM LOADS:
LIVE - PER 1987 B.O.C.A. FOR VERMONT (40 PSF MIN.)
DEAD - AS CALCULATED FROM TRUSS & ROOF MATERIAL
5 PSF ON BOTTOM CORD
WIND - 25 PSF
DIAGONAL WIND BRACING PER TRUSS MANUFACTURER.

LUMBER NOTES:

FRAMING MEMBERS TO BE KILN DRIED CONSTRUCTION GRADE SPRUCE S45
19% MOISTURE CONTENT.

PLATES & NAILERS IN CONTACT WITH CONCRETE TO BE CCA 0.40 TREATED

TRIM, AND SOFFIT MATERIAL TO BE NATIVE ROUGH SAWN WHITE PINE, SPRUCE, EASTERN FIR OR RED PINE.

ALL FASTENERS TO BE GALVANIZED AND SHALL BE APPROPRIATELY SIZED.

SMARTSIDE PANEL NOTES:

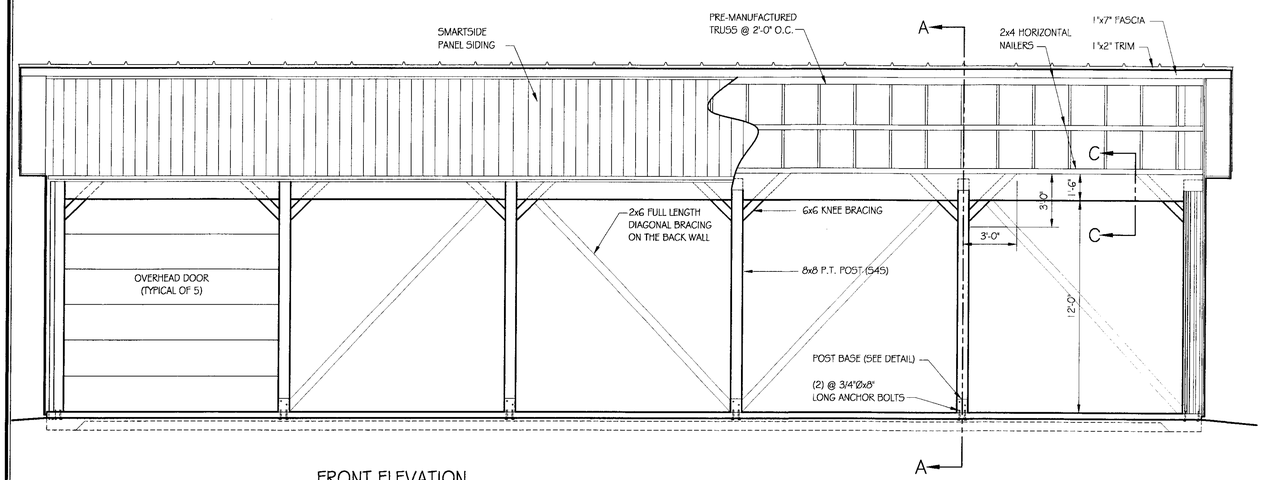
8d GALVANIZED NAILS FOR 19/32" PANELS PENETRATING STUDS 1 1/2"
NAIL SPACING: 6" MAX. PERIMETER, 12" MAX FIELD, 3/8" MIN. FROM EDGES.
NAILS TO BE SET FLUSH. DO NOT COUNTERSINK NAILS INTO PANEL.
MINIMUM 3/8" GAP REQUIRED AT HORIZONTAL JOINTS OF PANEL SIDING.
SMARTSIDE PANEL SIDING MUST NOT CONTACT CONCRETE. 1/2" CLEARANCE MIN.
SMARTSIDE PANEL SIDING MUST NOT CONTACT GROUND. 6" CLEARANCE MIN.
PAINT ALL PANEL SURFACES INCLUDING BOTTOM EDGES
ADDITIONAL SMARTSIDE PANEL INSTALLATION INFO CAN BE FOUND AT WWW.SMARTSIDEONLINE.COM OR CALL 800-648-6893

FINISH NOTES:

ROOFING COLOR: IVY GREEN (BY AMERI-DRAIN) OR AS DIRECTED BY ENGINEER
PAINT TO BE OLYMPIC ACRYLIC LATEX SATIN FINISH .
COLOR TO BE DETERMINED BY ENGINEER.
APPLY PAINT AS SOON AS POSSIBLE AFTER SIDING IS INSTALLED.
PRE-PRIME ALL ROUGH SAWN FINISH MATERIAL PRIOR TO INSTALLATION. APPLY TWO COATS OF FINISH.

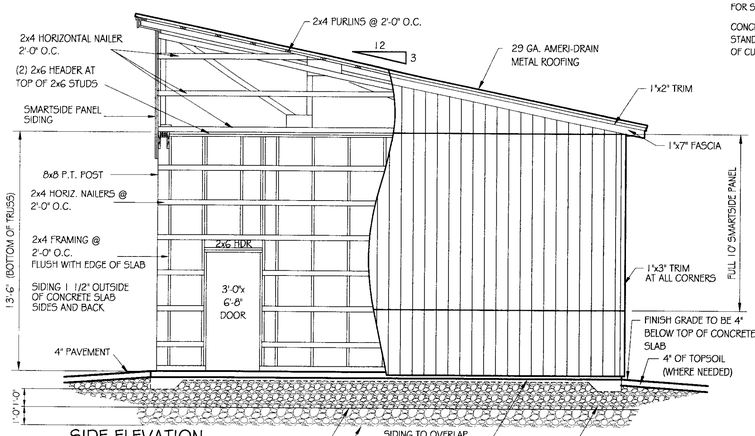
CONCRETE NOTES: PER A.O.T. STANDARD.

CONCRETE STRENGTH TO BE 3500 PSI
CONCRETE FINISH TO BE FLOATED.
CONCRETE TO BE CLASS "B" PER AOT STANDARD SPECIFICATIONS TABLE 501.03A WITH 5% ± 1% AIR ENTRAINMENT, AND 2"-4" SLUMP.
RE-BAR TO BE CONTINUOUS THROUGH CONSTRUCTION JOINTS.
CONTRACTOR TO LEAVE NO METAL WITHIN 1" OF SURFACE. USE 1" DEEP PLASTIC CONES AT ALL TIES AND PLUG ALL TIE HOLES WITH AN APPROVED NON-SHRINK GROUT.
ALL RE-BAR TO BE GRADE 60 WITH 3" CLEARANCE ON ALL SIDES UNLESS NOTED OTHERWISE.
RE-BAR TO BE STORED ON BLOCKING 4" MINIMUM ABOVE GROUND.
CONCRETE SUPPLIER TO PROVIDE TEST CYLINDERS FOR CONCRETE TESTING.
ALL CONCRETE TESTING TO BE DONE BY OWNER. CONTRACTOR IS RESPONSIBLE FOR SCHEDULING.
CONCRETE CURING SHALL FOLLOW IMMEDIATELY AFTER FORM REMOVAL PER A.O.T. STANDARD 501.17A. WATER CURING WILL BE REQUIRED , UNLESS ALTERNATE MEANS OF CURING IS APPROVED, IN WRITING, BY THE PROJECT ENGINEER.



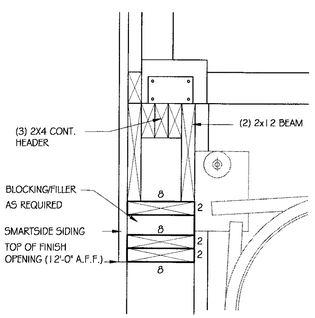
FRONT ELEVATION

SCALE: 1/4"= 1'-0"



SIDE ELEVATION

SCALE: 1/4"= 1'-0"



SECTION C-C

SCALE: 1 1/2"= 1'-0"

STATE OF VERMONT
Department of Buildings and General Services
Agency of Administration
Montpelier, Vermont

AGENCY OF TRANSPORTATION
NORTH FERRISBURGH MAINTENANCE FACILITY
NEW 26' x 64' STORAGE SHED
PLAN, DETAILS AND ELEVATIONS
TOWN OF NORTH FERRISBURGH VERMONT

REVISIONS

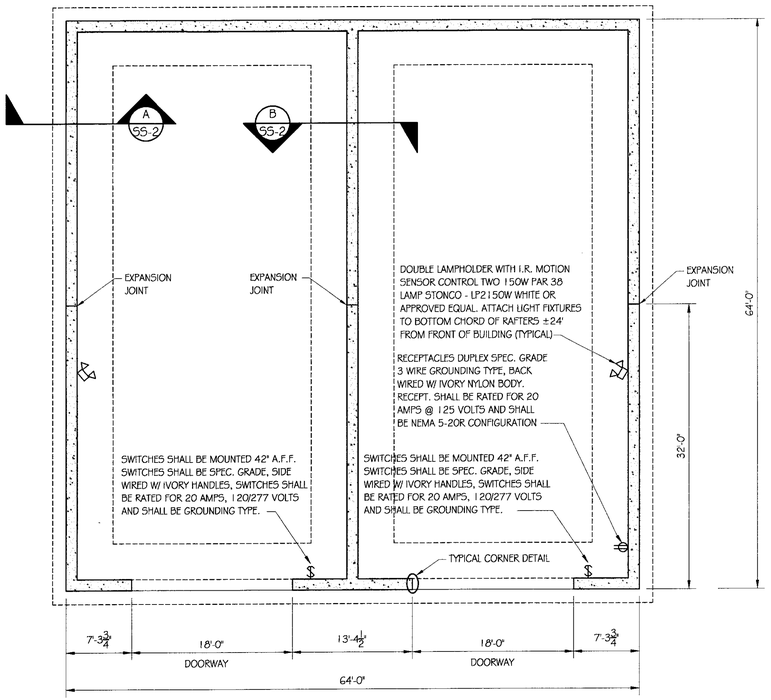
SCALE:	DATE:	DRAWN BY:	APPR. BY:
AS NOTED	JANUARY 4, 2006	S.K. Jarawicz	M. MILLER

AGENCY OF TRANSPORTATION
NEW 26' x 64' STORAGE SHED
PLAN, DETAILS AND ELEVATIONS

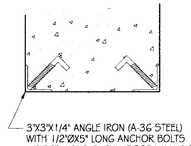
CS-1

29 OF 43

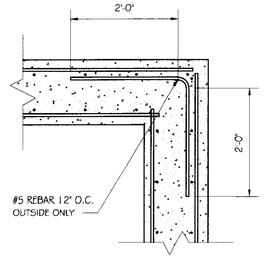
\\Dwserver3\projects\AOT North Ferrisburgh\REVISED AOT 12-2-05\Drawings Rec'd From Consultants\State\Rec'd 1-18-06\New Storage Shed2000.dwg, 01/19/2006 11:56:48 AM, sbrown



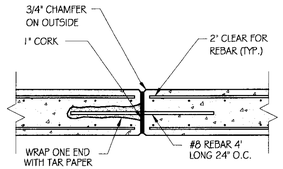
FOUNDATION PLAN
SCALE: 1/8" = 1'-0"



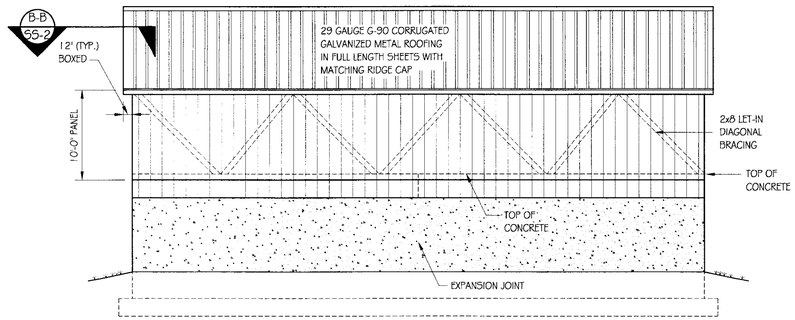
CORNER DETAIL AT OPENINGS
SCALE: 1 1/2" = 1'-0"



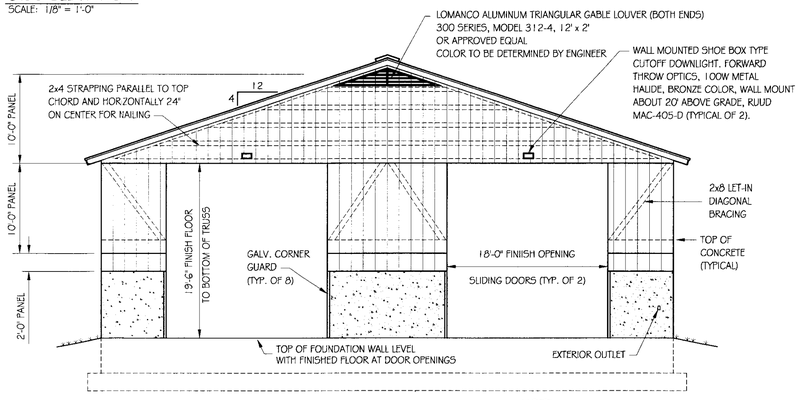
CORNER DETAIL
SCALE: 3/4" = 1'-0"



EXPANSION JOINT DETAIL
SCALE: 1/2" = 1'-0"

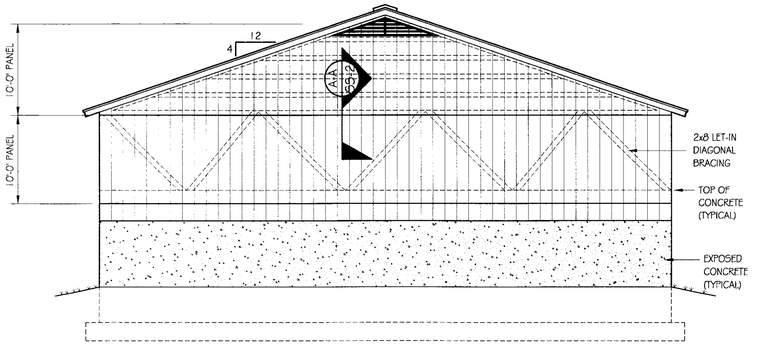


SIDE ELEVATION
SCALE: 1/8" = 1'-0"

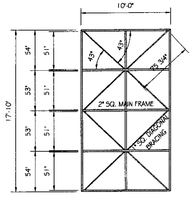


FRONT ELEVATION
SCALE: 1/8" = 1'-0"

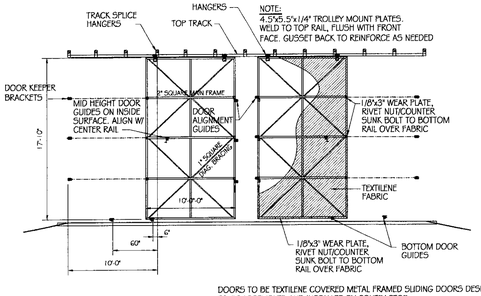
NOTE:
ALL ELECTRICAL CONDUIT BELOW GRADE AND ON THE EXTERIOR OF THE BUILDING SHALL BE 1" RIGID CONDUIT. CONDUIT INSIDE THE BUILDING SHALL BE 3/4" SCH. 80 PVC.



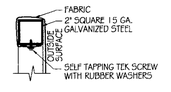
BACK ELEVATION
SCALE: 1/8" = 1'-0"



DOOR FRAMING DETAIL
SCALE: 1/8" = 1'-0"



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



WRAP & TEK DETAIL
NOT TO SCALE

GENERAL INFORMATION:
FRAME: 2" SQUARE GALV. STEEL "GATORSHIELD" FULLY WELDED
FABRIC: TEXTILENE VINYL
FABRIC/FRAME ATTACHMENT: WRAP AND TEK
HANGING HARDWARE: OVERHEAD TRACK AND HANGERS
DOOR TRACK AND GUIDE DETAILS BY DOOR MANUFACTURER.

DOORS TO BE TEXTILENE COVERED METAL FRAMED SLIDING DOORS DESIGNED BY OTTER CREEK AWNINGS. TO BE ASSEMBLED AND INSTALLED BY CONTRACTOR. SUBMITTAL OF SHOP DRAWING REQUIRED.

GENERAL NOTES

ALL BUILDINGS RELATED EXCAVATION, FILL, BACKFILL, COMPACTION WILL BE PERFORMED BY VTRANS AND COORDINATED WITH GENERAL CONTRACTOR.

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5 PSF ON BOTTOM CORD
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NAILS TO BE SET FLUSH. DO NOT COUNTERSINK NAILS INTO PANEL.

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SMARTSIDE PANEL SIDING MUST NOT CONTACT CONCRETE. 1/2" CLEARANCE MIN.

SMARTSIDE PANEL SIDING MUST NOT CONTACT GROUND. 6" CLEARANCE MIN.

PAINT ALL PANEL SURFACES INCLUDING BOTTOM EDGES

ADDITIONAL SMARTSIDE PANEL INSTALLATION INFO CAN BE FOUND AT WWW.SMARTSIDEONLINE.COM OR CALL 800-648-6893

FINISH NOTES:

ROOFING COLOR: IVY GREEN (BY AMERI-DRAIN) OR AS DIRECTED BY ENGINEER

PAINT TO BE OLYMPIC ACRYLIC LATEX SATIN FINISH .

COLOR TO BE DETERMINED BY ENGINEER.

APPLY PAINT AS SOON AS POSSIBLE AFTER SIDING IS INSTALLED.

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APPLY TWO COATS OF FINISH.

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CONCRETE TO BE CLASS "B" PER AOT STANDARD SPECIFICATIONS TABLE 501.03A WITH 5% ± 1% AIR ENTRAINMENT, AND 2"-4" SLUMP.

RE-BAR TO BE CONTINUOUS THROUGH CONSTRUCTION JOINTS.

CONTRACTOR TO LEAVE NO METAL WITHIN 1" OF SURFACE. USE 1" DEEP PLASTIC CONES AT ALL TIES AND PLUG ALL TIE HOLES WITH AN APPROVED NON-SHRINK GROUT.

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ELECTRICAL NOTES:
SEE DRAWING E-3 FOR ELECTRICAL DETAILS & SPECIFICATIONS.

STATE OF VERMONT
Department of Buildings and General Services
Agency of Administration
Montpelier, Vermont

VERMONT

AGENCY OF TRANSPORTATION
NEW 64' x 64' SALT / SAND SHED
PLAN, DETAILS & ELEVATIONS

NORTH FERRISBURGH

REVISIONS

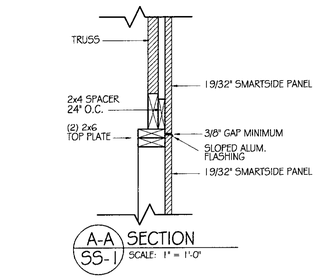
SCALE:	AS NOTED
DATE:	JANUARY 4, 2006
DRAWN BY:	S.K. Janiewicz
APPR. BY:	M. MILLER

AGENCY OF TRANSPORTATION
NEW 64' x 64' SALT / SAND SHED
PLAN, DETAILS & ELEVATIONS

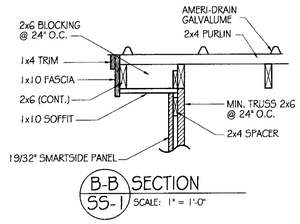
SS-1

30 OF 43

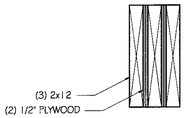
\\Dwgserver3\projects\AOT North Ferrisburgh\REVISED AOT 12-2-05\Drawings Rec'd From Consultants\State\Rec'd 1-18-06\64x64SaltShed2000.dwg, 01/18/2006 11:58:27 AM, abrown



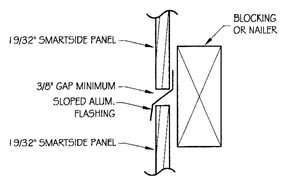
A-A SECTION
SS-1 SCALE: 1" = 1'-0"



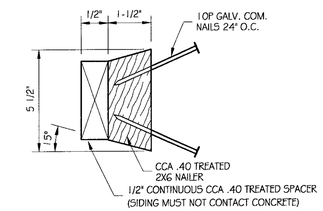
B-B SECTION
SS-1 SCALE: 1" = 1'-0"



HEADER DETAIL
SCALE: N.T.S.

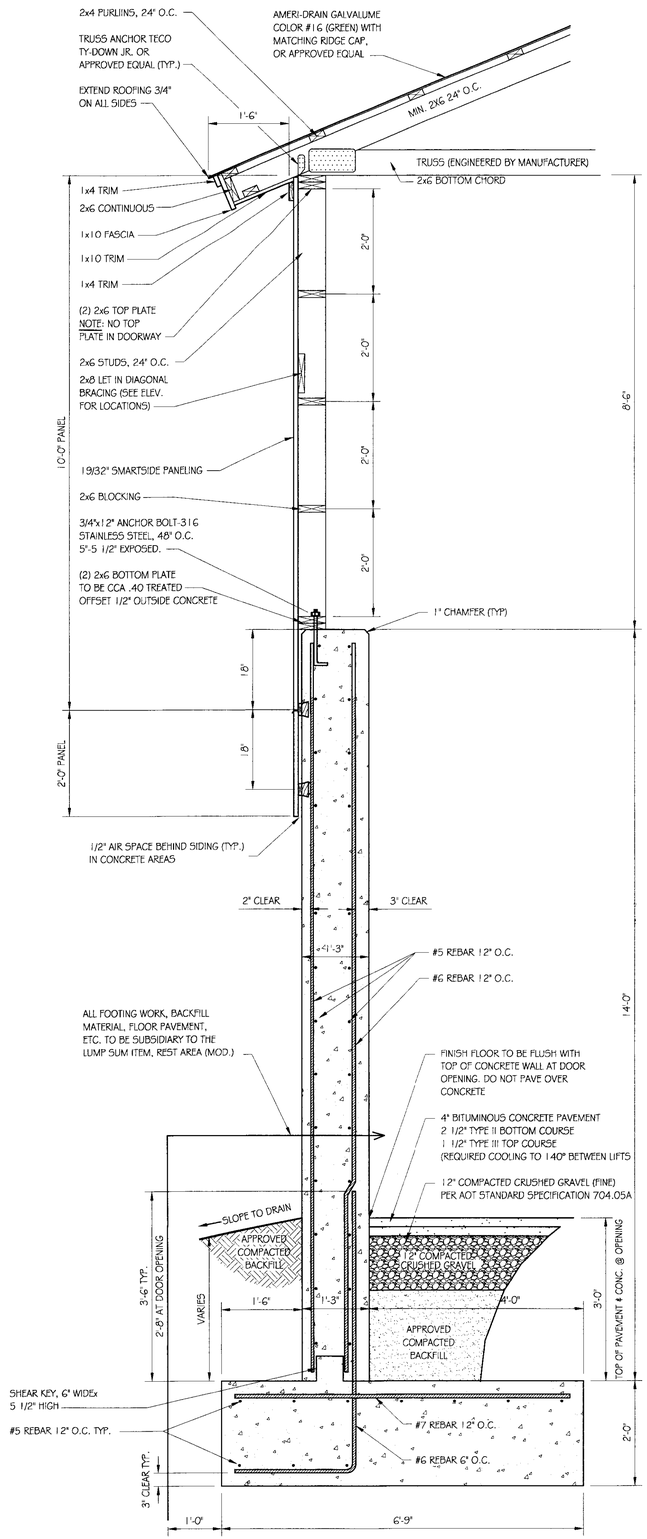


HORIZ. JOINT DETAIL
SCALE: N.T.S.

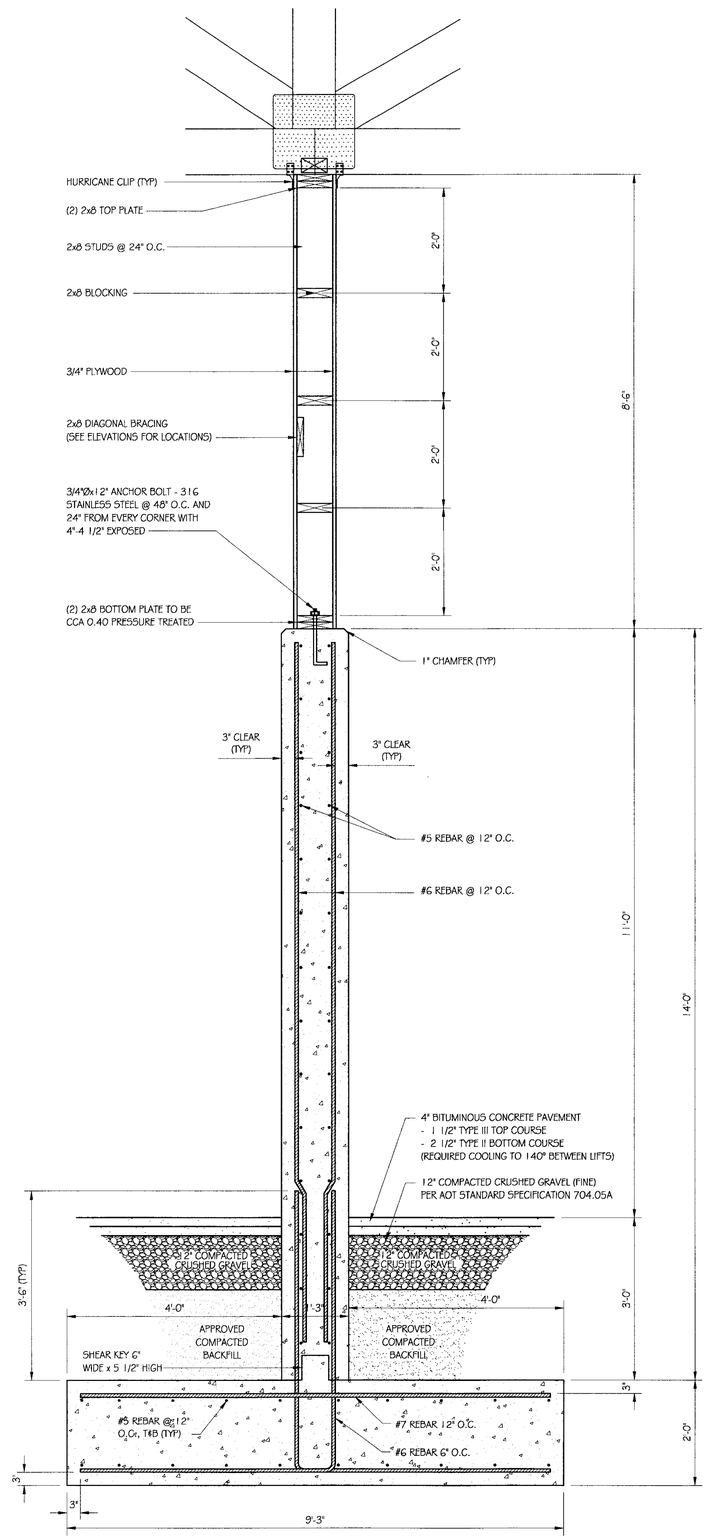


NOTE: SOME HORIZONTAL SIDING JOINTS FALL ALONG THIS NAILER. LOCATION OF NAILER IN CONCRETE IS CRITICAL.

NAILER DETAIL
SCALE: N.T.S.



A WALL SECTION
SS-1 SCALE: 3/4" = 1'-0"



B WALL SECTION
SS-1 SCALE: 3/4" = 1'-0"

STATE OF VERMONT
Department of Buildings and General Services
Agency of Administration
Montpelier, Vermont

AGENCY OF TRANSPORTATION
NEW 64' x 64' SALT / SAND SHED
SECTIONS
NORTH FERRISBURGH VERMONT

REVISIONS			
SCALE:	AS NOTED	DRAWN BY:	S.K. Janawicz
DATE:	JANUARY 4, 2006	APPR. BY:	M. MILLER

AGENCY OF TRANSPORTATION
NEW 64' x 64' SALT / SAND SHED
SECTIONS

SS-2

\\Dwserver3\projects\AOT North Ferrisburgh\REVISED AOT 12-2-05\Drawings Rec'd From Consultants\State\Rec'd 1-18-06\64x64SandSaltShed2000.dwg, 01/18/2006 01:28:17 PM, akrown

SPECIFICATIONS

1.) "ARMOR CAST" 2000 GALLON, DOUBLE WALL, ABOVE GROUND FUEL STORAGE TANK, OR APPROVED EQUAL.

2.) 2" DIA. UPDRAFT VENT

3.) 6" DIA. EMERGENCY VENT

4.) REMOTE FILL WITH OVERFLOW PREVENTION VALVE, DROP TUBE, ADAPTER AND DUST CAP

5.) CLOCK STYLE LIQUID LEVEL INDICATOR 818 (GALLONS)

6.) LOCKABLE FLIP CAP TO STICK TANK

7.) TANK GAUGE STICK

8.) KRUEGER MECHANICAL LEAK DETECTION GAUGE

9.) 4" COUPLING WITH DOUBLE TAP BUSHING WITH TWO ½" PORTS

10.) ½" SUCTION AND RETURN TUBES

11.) DOUBLE POPPET FOOT VALVE

12.) "GASBOY" #9823, ¾ HP COMMERCIAL PUMP WITH REMOTE LCD REGISTER

13.) "GASBOY" REMOTE REGISTER TANK MOUNT KIT

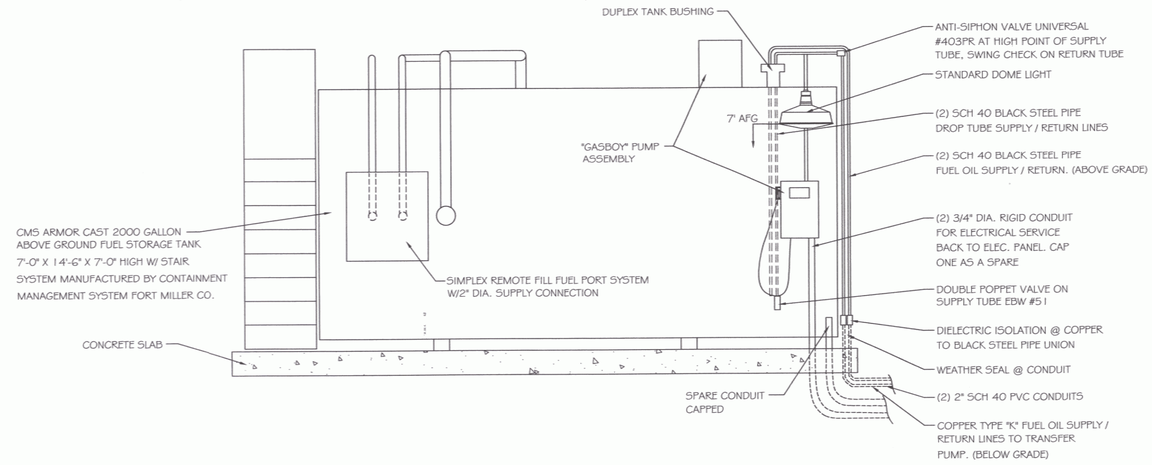
14.) INTERNAL FILTER; ADAPTER & ELEMENT, DIESEL

15.) 1" DIA CURB HOSE WITH WHIP, LONG ENOUGH TO FILL EMERGENCY GENERATOR LOCATED NEXT TO FUEL TANK, SWIVEL & SAFE BREAK COUPLING

16.) HIGH SPEED DIESEL AUTO NOZZLE

17.) 1 ½" Ø ANGLE CHECK VALVE, SINGLE POPPET & EXTERNAL EMERGENCY VALVE

18.) MODEL SP200L STEEL STAIRS WITH 1 HANDRAIL, GALVANIZED



2000 GAL. ABOVE GROUND FUEL STORAGE TANK

SCALE: 1/2" = 1'-0"

NOTES:

1. FASTEN OIL LINES & ELECTRICAL CONDUIT SECURELY ACCORDING TO TANK MANUFACTURERS INSTRUCTIONS.

2. CONTRACTOR TO MAKE ALL CONDUIT AND ELECTRICAL CONNECTIONS BETWEEN PANEL / PUMP AND REGISTER PER MANUFACTURERS INSTRUCTIONS.

3. FOR SIZES ON FUEL SUPPLY / RETURN PIPING SEE SHEET M-1.

NOTES:

1.) SEE SHEET C-5 FOR DETAILS

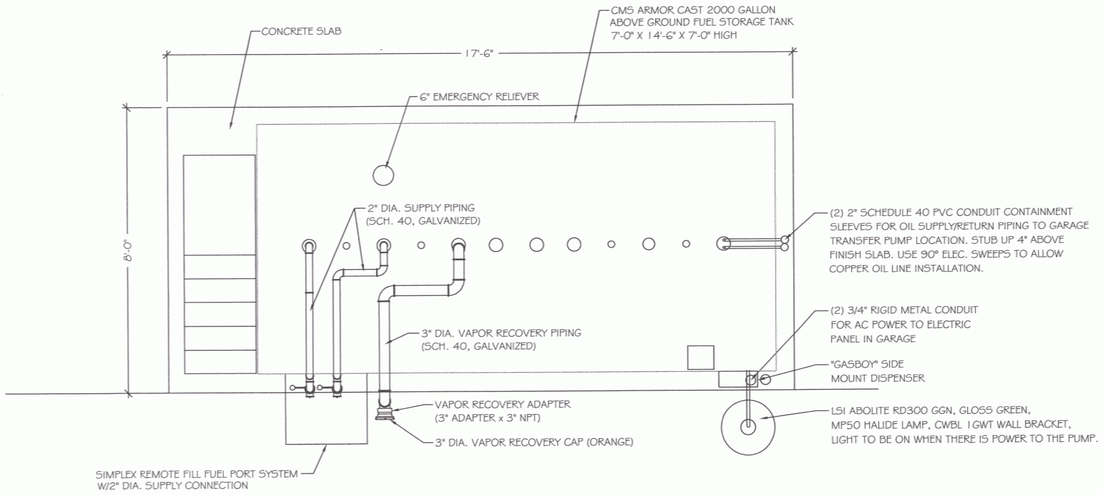
2.) PLACE OIL SUPPLY AND RETURN CONDUITS ON SOUTH END, 6" FROM EDGE OF SLAB TO INSIDE EDGE OF CONDUIT (CENTERED IN WIDTH OF SLAB).

3.) PLACE (2) 3/4" RIGID ELEC. CONDUIT FROM ELEC. PANEL BACK TO CORNER OF CONCRETE SLAB AS SHOWN ON DRAWINGS.

4.) SEAL ALL CONDUITS EXPOSED TO WEATHER TO PREVENT MOISTURE FROM ACCUMULATING IN CONDUIT. USED MECHANICAL SEALS OF APPROVED CAULKING ON EXPOSED CONDUITS OR AROUND FUEL LINES.

5.) FUEL TANK SLAB TO COMPLY WITH TANK MANUFACTURERS REQUIREMENT.

6.) IF ALTERNATE TANK IS SELECTED, ADJUST SLAB SIZE.



PLAN VIEW OF FUEL STORAGE TANK

SCALE: 1/2" = 1'-0"

STATE OF VERMONT
Department of Buildings and General Services
Agency of Administration
Montpelier, Vermont

AGENCY OF TRANSPORTATION
NORTH FERRISBURG GARAGE
FUEL STORAGE TANK
NORTH FERRISBURG, VERMONT

REVISIONS

SCALE: AS NOTED
DATE: JANUARY 4, 2006
DRAWN BY: N. HERSEY
APPR. BY: TEIGH

A.O.T.

NORTH FERRISBURG GARAGE

FUEL STORAGE TANK

F-1

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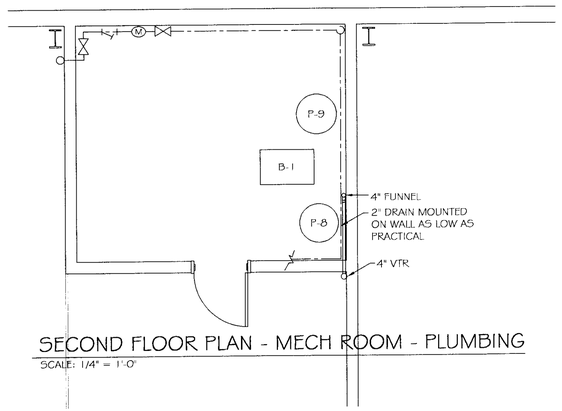
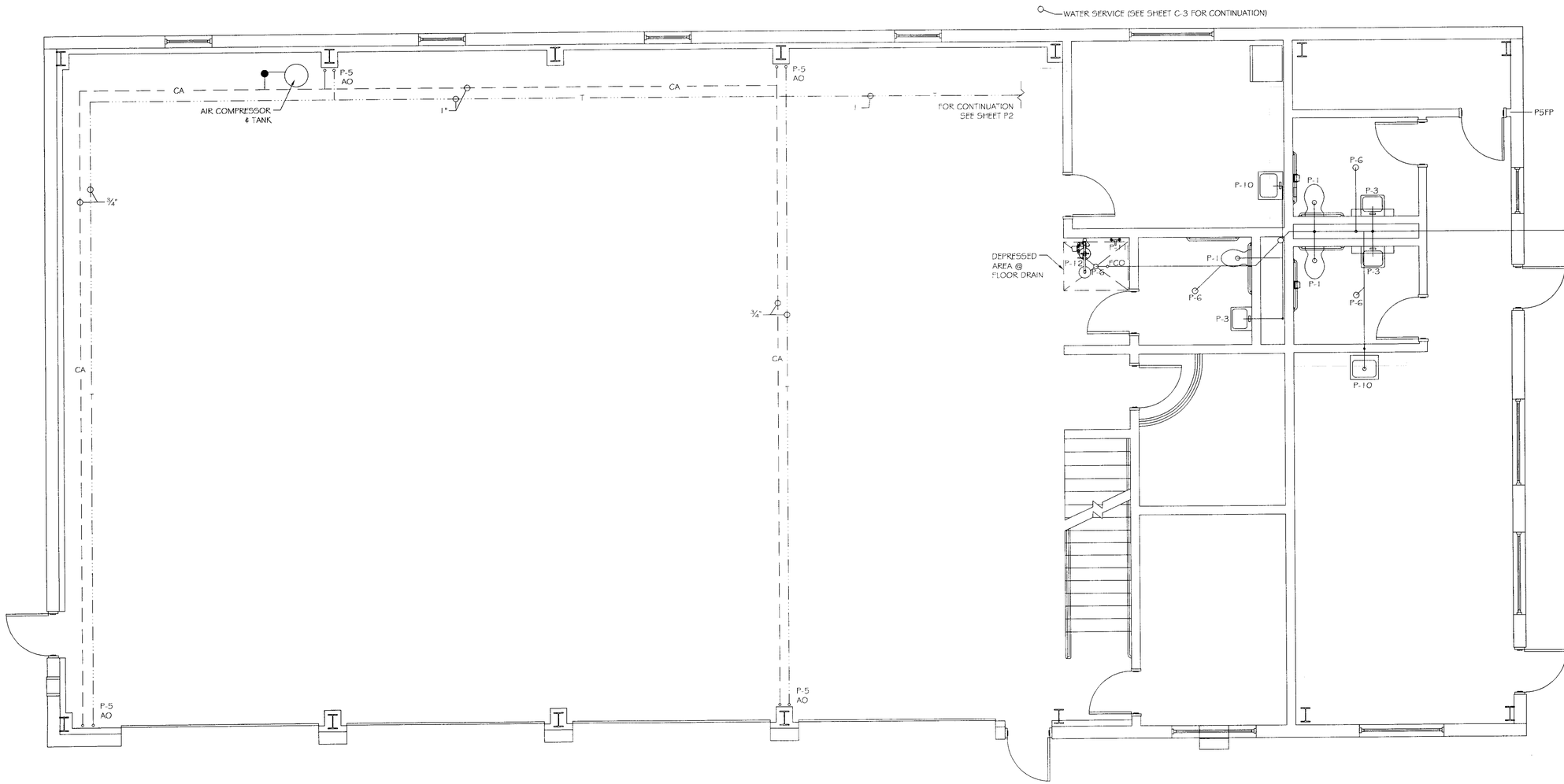


SECOND FLOOR PLAN - MECH ROOM - PLUMBING

SCALE: 1/4" = 1'-0"

PLUMBING SYMBOLS			
	COLD WATER		UNION
	HOT WATER		HOSE BIBB
	TEMPERED WATER		"P" TRAP
	COMPRESSED AIR	M	WATER METER
	WASTE PIPING		WYE STRAINER
	VENT PIPING		3 WAY BALL VALVE
	FLOW DIRECTION		LINKSEAL BETWEEN PIPE & SLEEVE
	GATE OR BALL VALVE		THERMOSTATIC MIXING VALVE
	CHECK VALVE	EXT	EXPANSION TANK, AMTROL THERM-X-TROL ST-5
	BACK FLOW PREVENTER DRAIN DOWN TO P-12. CUT END OF PIPE @ 45°.		
	PRESSURE & TEMP. RELIEF VALVE W/ DRAIN TO P-12. CUT END OF PIPE @ 45°.		
	WATER HAMMER ARRESTER		

NOTE:
IF ANY DEVICES SUCH AS VALVES OR TRAP PRIMERS ARE INSTALLED WITHIN WALLS, PROVIDE ACCESS PANEL TO SERVICE.



FLOOR PLAN

SCALE: 1/4" = 1'-0"

STATE OF VERMONT
Department of Buildings and General Services
Agency of Administration
Montpelier, Vermont

AGENCY OF TRANSPORTATION
NORTH FERRISBURG GARAGE
PLUMBING PLAN
NORTH FERRISBURG, VERMONT

REVISIONS

SCALE: AS NOTED
DATE: JANUARY 4, 2006
DRAWN BY: N. HERSEY
APPR. BY: TEIGH

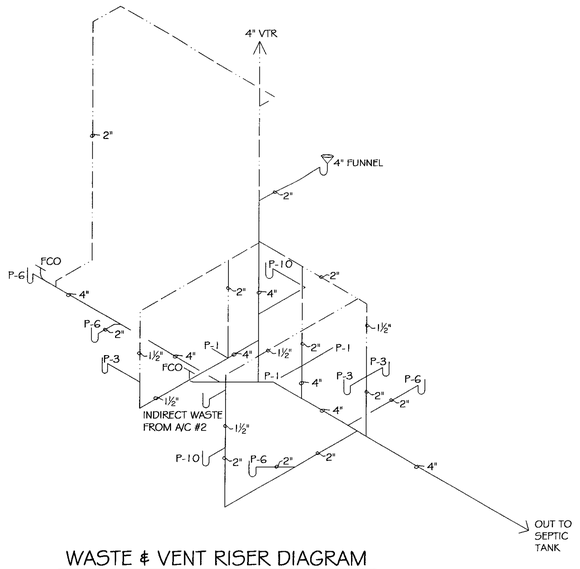
A.O.T.

NORTH FERRISBURG GARAGE

PLUMBING PLAN

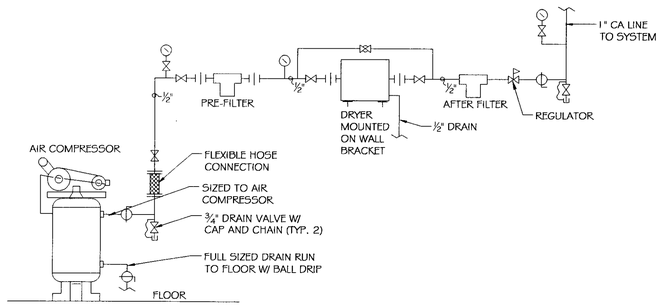
P-1

33 OF 43



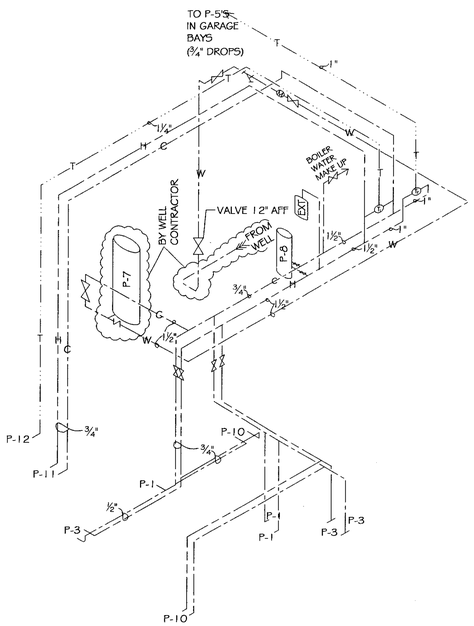
WASTE & VENT RISER DIAGRAM

N.T.S



COMPRESSED AIR PIPING DIAGRAM

N.T.S



SUPPLY RISER DIAGRAM

N.T.S

FIXTURE SCHEDULE

ABR.	FIXTURE	DESCRIPTION	NOTES	ROUGH IN DRAIN	ROUGH IN VENT	ROUGH IN COLD	ROUGH IN HOT
P-1	TOILET	WATER CLOSET, WALL MOUNT, CLOSE-COUPLED, TANK TYPE, 1.6GPF: ELJER "WALFORD" #0911-7925, WHITE VITREOUS CHINA, ELONGATED, PRESSURE ASSISTED SIPHON JET ACTION, WALL MOUNTED, CLOSE COUPLED FLUSHOMETER TANK, MOUNTED WITH RIM AT 17". SEAT TO BE ELONGATED, OPEN FRONT WITH BOLT CAPS. PROVIDE SUPPLY STOP AND CARRIER.		4"	2"	1/2"	–
P-2	URINAL	NOT USED		-	-	-	–
P-3	LAVATORY	LAVATORY, WALL HUNG, WHITE VITREOUS CHINA, 20" X 18", REAR OVERFLOW, 4" CENTER FAUCET HOLES, ELJER "BLAIR" #0511-1308, WITH WALL HANGER. FITTINGS SHALL BE CHROME SINGLE LEVER CONTROL WITH CERAMIC ELEMENTS, OFFSET GRID STRAINER, SYMMONS "SYMMETRIX" MODEL S-20-2-OFG-LST.	MOUNT WITH RIM @ 34" A.F.F.	1 1/2"	1 1/2"	1/2"	1/2"
P-4	SERVICE SINK	NOT USED		-	-	-	-
P-5 P-5FP	HOSE BIBB	INTERIOR HOSE BIBS: BRONZE OR BRASS, REPLACEABLE HEXAGONAL DISC, HOSE THREAS SPOUT, CHROME PLATED WITH VACUUM BREAKER. WATTS SCB-2 WITH VACUUM BREAKER. WALL HYDRANT: NON-FREEZE, SELF-DRAINING TYPE WITH CHROME PLATED HOSE THREAD SPOUT, REMOVABLE KEY AND VACUUM BREAKER.	MOUNT @ 54" AFF	–	–	–	1/2"
P-6	FLOOR DRAIN	CAST IRON BODY WITH FLASHING CLAMP, 5" ROUND, ADJUSTABLE NICKEL-BRONZE SQUARE HOLE STRAINER, AS MANUFACTURED BY ZURN INDUSTRIES, ZN-415-P-4XX-5B. PROVIDE WITH TRAP PRIMER.	PROVIDE W/ TRAP PRIMER FROM COLD WATER AT NEAREST FAUCET SET	2"	–	–	–
P-7	FLOOR DRAIN	NOT USED		-	–	–	–
P-8	WATER HEATER	INDIRECT FIRED WATER HEATER: BUDERUS ST-150, 40 GALLON INSULATED TANK WITH COIL INSIDE, 159 GALLON PER HOUR RATING FROM 50°F TO 140°F.	PROVIDE P&T RELIEF VALVE.	–	–	1 1/2"	1 1/2"
P-9	PRESSURE TANK	BY WELL CONTRACTOR		–	–	1 1/2"	–
P-10	SINK	KITCHEN: ELKAY, SINGLE COMPARTMENT, 18 GAUGE, STAINLESS STEEL WITH 4 HOLE FAUCET DECK MODEL DLR-2222-10. FITTINGS SHALL BE CHROME SINGLE LEVER CONTROL WITH SEPARATE SPRAY, STAINLESS DOU STRAINER, CUP STRAINERS, AND P-TRAP, SYMMONS "SYMMETRIX" MODEL 2-23-2-W-10-LST.		2"	4"	1/2"	1/2"
P-11	MOP FILL	WALL MOUNT FAUCET SHALL BE ROUGH FINISHED CHROME WITH VACUUM BREAKER AND HOSE THREADS: AMERICAN STANDARD FAUCET #8344.112.	MOUNT WITH SPOUT @24" A.F.F.	–	–	3/4'	3/4"
P-12	EYEWASH	10" ABS PLASTIC SHOWER HEAD AND A STAINLESS STEEL EYEWASH RECEPTOR WITH TWIN SOFT-FLO ABS PLASTIC ANTI-SURGE EYEWASH HEADS. A PULL ROD ACTIVATED SHOWER. PUSH FLAG OR FOOT TREADLE ACTIVATES EYEWASH. PIPE AND FITTINGS 1 ¼" SCHEDULE 40 HOT DIPPED GALVANIZED STEEL. HAWS MODEL #8300. PROVIDE WITH HAWS MODEL 9201 TEMPERED WATER BLENDING VALVE IN A HAWS MODEL 9205.SUR SURFACE MOUNTED STAINLESS STEEL CABINET.		–	–	–	–
⊗	CLEANOUTS	AS INDICATED OR REQUIRED BY CODE. CLEANOUTS SAME SIZE AS PIPE. FLOOR CLEANOUTS TO BE SET FLUSH WITH FLOOR, ZURN MODEL Z-1400-1 OR APPROVED EQUAL.		–	–	–	–

STATE OF VERMONT
Department of Buildings
and General Services
Agency of Administration
Montpelier, Vermont

AGENCY OF TRANSPORTATION
NORTH FERRISBURG GARAGE
PLUMBING PLAN
NORTH FERRISBURG, VERMONT

REVISIONS

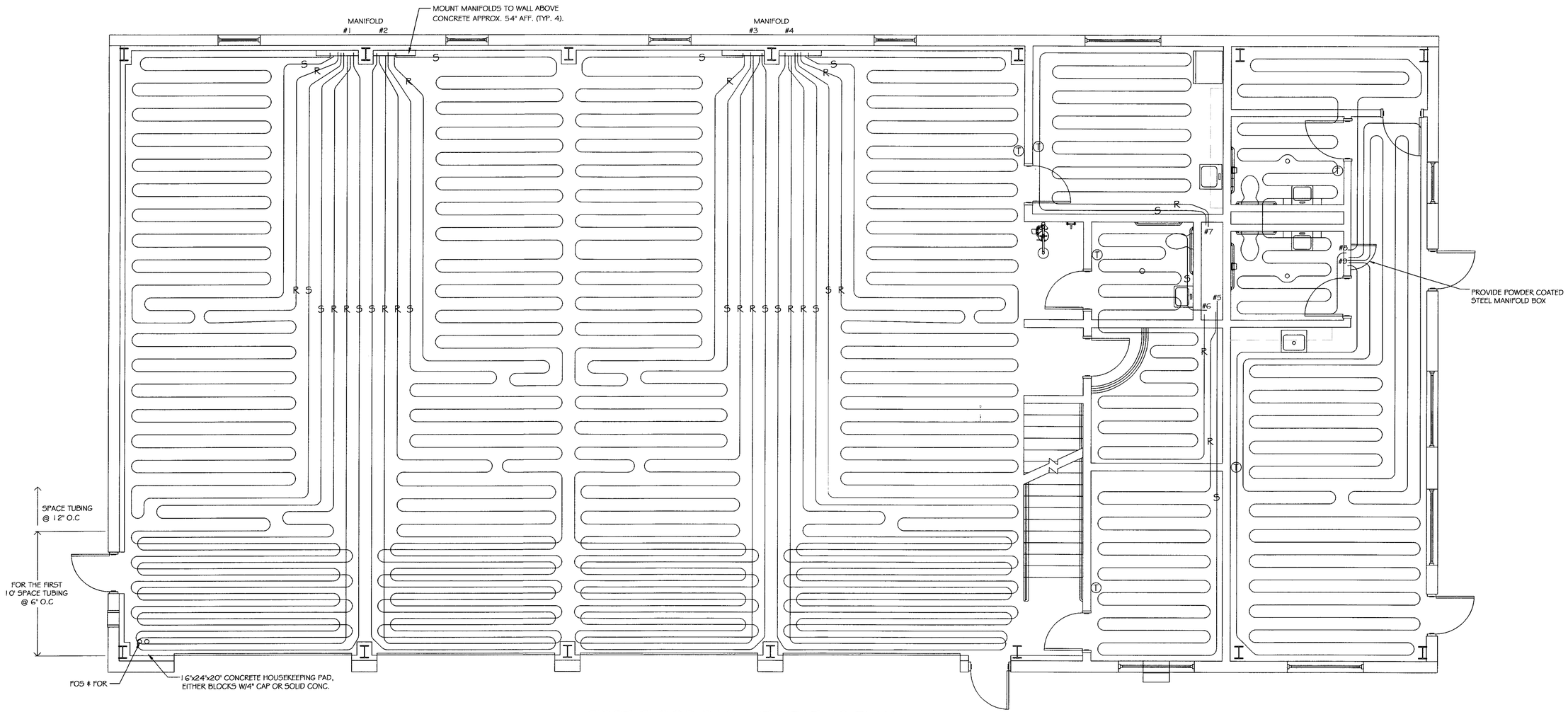
SCALE: AS NOTED
DATE: JANUARY 4, 2006
DRAWN BY: N. HERSEY
APPR. BY: TEIGH

A.O.T.

NORTH FERRISBURG GARAGE

PLUMBING PLAN

P-2

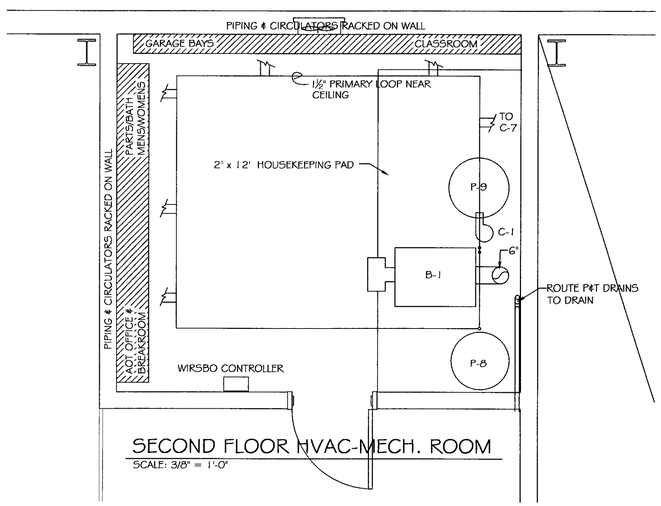


FIRST FLOOR RADIANT HEATING PLAN

SCALE: 1/4" = 1'-0"

RADIANT TUBING SCHEDULE

MANIFOLD #	LOCATION	RADIANT LOOP #	AREA SERVED	TUBE SIZE	TUBE LENGTH (IN FLOOR)	GPM	ΔP	WATER TEMP.	FLOOR TEMP. (SURFACE)	BTU/SF	VALVE 1/2 TURNS
1	COLUMN A2-LEFT	1	GARAGE	5/8"	268	1.66	9.62	97	81.9	33.8	3.69
1	COLUMN A2-LEFT	2	GARAGE	5/8"	266	1.65	9.42	97	81.9	33.8	3.67
1	COLUMN A2-LEFT	3	GARAGE	5/8"	269	1.67	9.73	97	81.9	33.8	3.71
1	COLUMN A2-LEFT	4	GARAGE	5/8"	266	1.65	9.42	97	81.9	33.8	3.67
2	COLUMN A2-RIGHT	5	GARAGE	5/8"	291	1.80	12.02	97	81.9	33.8	3.99
2	COLUMN A2-RIGHT	6	GARAGE	5/8"	291	1.80	12.02	97	81.9	33.8	3.99
2	COLUMN A2-RIGHT	7	GARAGE	5/8"	292	1.81	12.14	97	81.9	33.8	4.00
3	COLUMN A4-LEFT	8	GARAGE	5/8"	292	1.81	12.14	97	81.9	33.8	4.00
3	COLUMN A4-LEFT	9	GARAGE	5/8"	291	1.80	12.02	97	81.9	33.8	3.99
3	COLUMN A4-LEFT	10	GARAGE	5/8"	291	1.80	12.02	97	81.9	33.8	3.99
4	COLUMN A4-RIGHT	11	GARAGE	5/8"	281	1.74	10.94	97	81.9	33.8	3.86
4	COLUMN A4-RIGHT	12	GARAGE	5/8"	280	1.74	10.83	97	81.9	33.8	3.85
4	COLUMN A4-RIGHT	13	GARAGE	5/8"	285	1.75	11.09	97	81.9	33.8	3.88
4	COLUMN A4-RIGHT	14	GARAGE	5/8"	284	1.76	11.20	97	81.9	33.8	3.90
5	MEZZANINE	15	AOT OFFICE	5/8"	150	.53	.74	83	73.9	17.7	4.00
6	MEZZANINE	16	BATH/PARTS	5/8"	145	.2	.09	72	68.4	6.8	4.00
7	MEZZANINE	17	BREAKROOM	5/8"	179	.66	1.26	83	74.2	18.4	4.00
8	DMV	18	MEN/WOMEN /ELEC	5/8"	182	.2	.14	83.6	69.5	9.7	4.00
9	DMV	19	OFFICE/ WAITING	5/8"	252	1.2	5.1	134	86	48.7	4.00
9	DMV	20	OFFICE/ WAITING	5/8"	252	1.2	5.1	134	86	48.7	4.00



SECOND FLOOR HVAC-MECH. ROOM

SCALE: 3/8" = 1'-0"

STATE OF VERMONT
Department of Buildings and General Services
Agency of Administration
Montpelier, Vermont

BUILDING FOR A SUSTAINABLE VERMONT

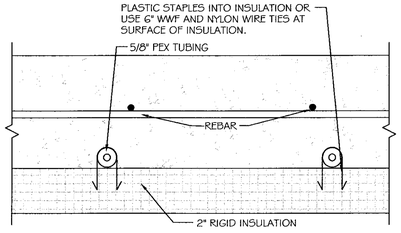
AGENCY OF TRANSPORTATION
NORTH FERRISBURG GARAGE
HVAC PLAN
NORTH FERRISBURG, VERMONT

REVISIONS

SCALE: AS NOTED
DATE: JANUARY 4, 2006
DRAWN BY: N. HERSEY
APPR. BY: TEIGH

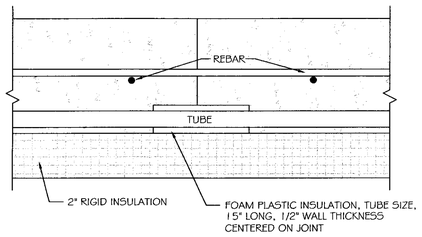
A.O.T.
NORTH FERRISBURG GARAGE
HVAC PLAN

M-1



TYPICAL CROSS SECTION

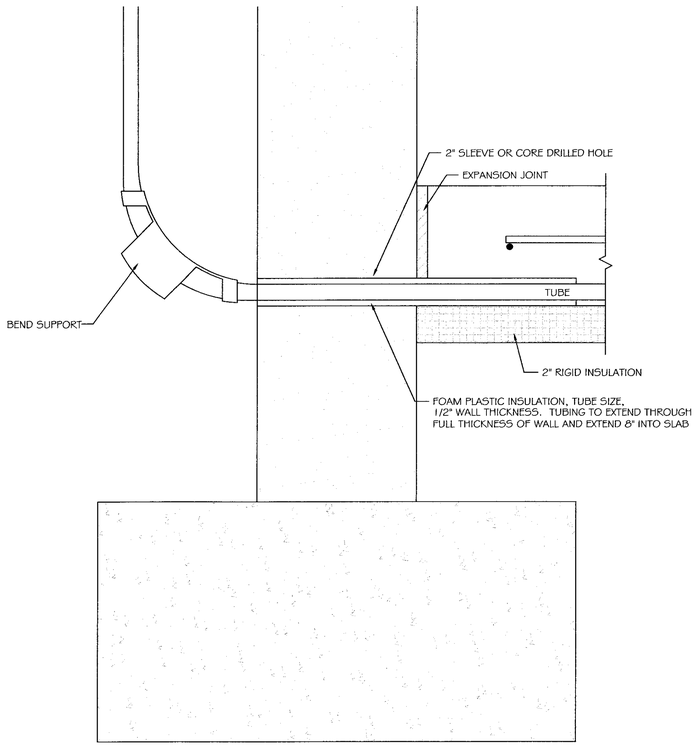
NOT TO SCALE



TYPICAL JOINT DETAIL

NOT TO SCALE

NOTE:
CONTRACTOR TO TAKE SPECIAL CARE WHEN CUTTING JOINT NOT TO DAMAGE TUBING.



TUBING PASSING THROUGH INTERIOR WALL DETAIL

NOT TO SCALE

LEGEND

- BALL VALVE, FULL PORTED, S.S. BALL
- BALL VALVE WHOSE THREADS & BRASS CAP
- STRAINER & BALL VALVE BLOW DOWN
- MIXING VALVE SET @ 95°F TACO 5003-C1
- PRESSURE RELIEF VALVE, PIPE TO 6" A.F.F.
- (T) THERMOSTAT, MOUNT @ 54" A.F.F.
- (S) SENSOR, MOUNT @ 54" A.F.F.
- THERMOMETER
- TACO FLO CHECK
- CIRCULATOR
- SPIROVENT 1-1/2" AIR SEPARATOR
- PRESSURE GAUGE
- (V) VACUUM GUAGE
- TOUR-ANDERSON STAD BALANCING VALVE
- (M) KENT OIL METER
- FUEL OIL TRANSFER PUMP, SUNTEC BB-1020M
- FUEL OIL RATED, FULL PORT, S.S. BALL BALL VALVE
- SUNTEC PRV-38
- FIREMATIC VALVE
- CHECK VALVE

SEQUENCE OF CONTROL

A. OUTSIDE AIR SENSOR SHALL BE LOCATED ON THE NORTH WALL WHERE IT WONT BE INFLUENCED BY ANYTHING OTHER THAN THE OUTSIDE AIR TEMP.

B. HEATING SYSTEM:
1. THE BOILER, DOMESTIC HOT WATER MAKER, AND CIRCULATORS SHALL BE CONTROLLED BY A WIRSBO PROMIX 212 CONTROL PANEL, EITHER DIRECTLY OR INDIRECTLY.

2. WHEN OUTDOOR AIR FALLS BELOW 60° (ADJ):
   a. BOILER IS ENABLED.
   b. FUEL OIL TRANSFER PUMP IS ENABLED.
   c. CIRCULATORS C-1, C-2 AND C-8 ARE STARTED.
   d. CIRCULATORS C-3 THROUGH C-6, AND C-9 THROUGH C-10 ARE ENABLED.

3. OPERATING AQUASTAT ON BOILER TO MAINTAIN BOILER BETWEEN 150°F AND 170°F.

4. INJECTION CIRCULATOR C-3 AND C-9 TO BE MODULATED BY A CONTROLLER BASED ON: OUTSIDE AIR TEMPERATURE, INSIDE AIR TEMPERATURE OF GARAGE AND LOOP TEMPERATURE TO MAINTAIN CALCULATED LOOP SUPPLY SETPOINT. SETPOINT, OFFSET AND RATIO TO BE ADJUSTABLE AT CONTROLLER. INITIAL VALVES FOR CONTROLLER:

MODES 1	RST	(GARAGE)
WWSD 1	65°F	
MIX 10K 1	INDR	
MIX RM 1	65°F	(ROOM TEMP)
MIX IND 1	65°F	
MIX DSN 1	97°F	
MIX MAX 1	140°F	
OUT DSGN	-20°F	
MODES 2	RST	(OFFICE / WAITING)
WWSD 2	65°F	
MIX 10K 2	INDR	
MIX RM 2	66°F	(ROOM TEMP)
MIX IND 2	65°F	
MIX DSN 2	118°F	
MIX MAX 2	140°F	
BOIL RET	120°F	

5. CIRCULATOR C-4 TO CYCLED ON AND OFF BY THE THERMOSTAT IN THE BATHROOM TO MAINTAIN SETPOINT.

6. CIRCULATOR C-5 TO CYCLED ON AND OFF BY THE THERMOSTAT IN THE AOT OFFICE TO MAINTAIN SETPOINT.

7. CIRCULATOR C-6 TO CYCLED ON AND OFF BY THE THERMOSTAT IN THE BREAKROOM TO MAINTAIN SETPOINT.

8. AQUASTAT IN DOMESTIC HOT WATER TANK TO ENABLE BOILER AND CYCLE CIRCULATOR C-7 TO MINTAIN SETPOINT.

9. CIRCULATOR C-10 TO CYCLE ON AND OFF BY THE THERMOSTAT IN THE WOMENS ROOM TO MAINTAIN SETPOINT.

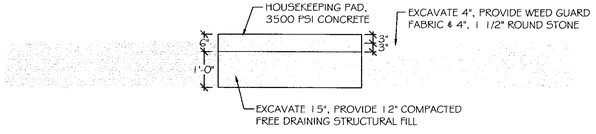
C. FUEL OIL TRANSFER PUMP TO OPERATE WHENEVER BOILER OPERATES. EMERGENCY BOILER SHUT-OFF SWITCH TO SHUT OFF TRANSFER PUMP ALSO.

D. FAN F-1 TO COME ON WITH LIGHT SWITCH, AND OPERATE FOR 5 MINUTES AFTER LIGHT IS TURNED OFF.

E. FAN F-2 TO BE CONTROLLED BY A SPRING WOUND TIMER SWITCH. SEE ELECTRICAL DRAWING FOR DETAILS.

F. MOD-1 TO OPEN WHENEVER FAN F-2 OPERATES AND CLOSE WHEN F-2 STOPS.

G. FAN F-3 TO OPERATE WHEN BURNER OPERATES.



SECTION THROUGH HOUSEKEEPING PAD

SCALE: 1/2" = 1'-0"

EQUIPMENT SCHEDULE

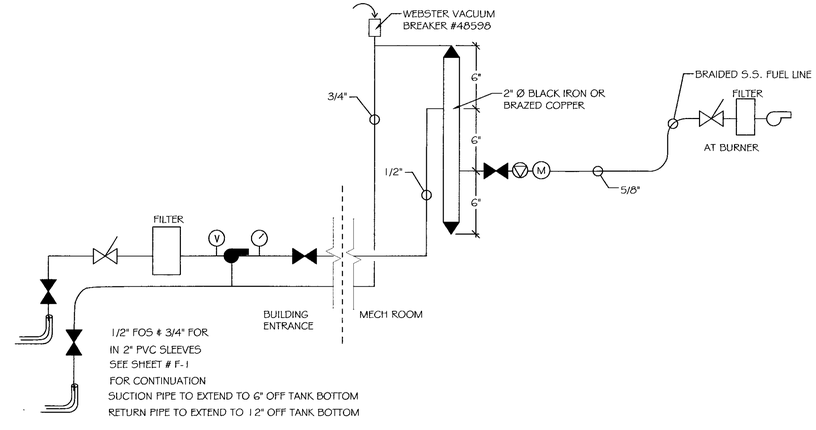
PLAN SYMBOL	DESCRIPTION	MANUF. & MODEL	CHARACTERISTICS	ELECTRIC VOLTS / Ø / HZ	NOTES
B-1	BOILER	BUDERUS G215-6	294,000 BTU INPUT, 223,000 BTU NET IBR, RIELLO 40 SERIES-F10 BURNER	120 / 1 / 60 2.2 A	
XT-1	EXP. TANK	AMTROL ST-30V	14 GALLON TANK 11.3 GALLON ACCEPTANCE		
L-1	RELIEF LOUVER	VENT PRODUCTS 2750	36" x 36"		BRONZE ANODIZED, ARCH TO SELECT COLOR
L-2	LOUVER	VENT PRODUCTS 2750	16" x 20"		BRONZE ANODIZED ARCH TO SELECT COLOR
MOD-1	RELIEF DAMPER	VENT PRODUCTS 5703	36" x 36"	120 / 1 / 60	BELIMO DIRECT COUPLED ACTUATOR SPRING WOUND N.C.
AC-1	AIR CONDITIONER AOT	FRIEDRICH U50B10A	8000 BTU THROUGH WALL SEER 10.0	7.5A 120/1/60	
AC-2	AIR CONDITIONER DMV	CARRIER 40QAB060	58,500 BTU, 1600 CFM, SEER 10.8	208 / 230-1-60, MCA 3.3, MOCP 15.0, FLA 2.6	SUSPEND UNIT FROM ROOFING STEEL (179#) PROVIDE VIBRATION ISOLATION
ACC2	CONDENSER DMV	CARRIER 38MDC060	MATCHED CONDENSER	208 / 230-1-60, MOCP 60.0, FLA 30.4	

CIRCULATOR SCHEDULE

PLAN SYMBOL	SYSTEM	MANUF. & MODEL	G.P.M.	FEET HEAD	H.P.	ELECTRICAL	R.P.M.	NOTES
C-1	MAIN	TACO 0010	20.0	4.0	1/15	120/1/60 1.3 A	3250	
C-2	GARAGE ZONE	TACO 1615	25.0	24.0	1/3	120/1/60	1750	
C-3	GARAGE INJECTION	TACO 006 (CI)	4.0	4.0	1/35	120/1/60 .52 A	3250	
C-4	OFFICE ZONE	TACO 006 (CI)	0.5	1.0	1/35	120/1/60 .52 A	3250	
C-5	PARTS / BATHROOM ZONE	TACO 006 (CI)	0.2	1.0	1/35	120/1/60 .52 A	3250	
C-6	BREAK ROOM	TACO 006 (CI)	0.7	1.0	1/35	120/1/60 .52 A	3250	
C-7	WATER HEATER	TACO 007	15.9	5.0	1/25	120/1/60 .70 A	3250	
C-8	OFFICE / WAITING	TACO 007	2.4	10	1/25	120/1/60 .70 A	3250	
C-9	OFFICE / WAITING INJECTION	TACO 006 (CI)	1.0	1.0	1/35	120/1/60 .52 A	3250	
C-10	MENS/WOMENS	TACO 006 (CI)	0.2	1.0	1/35	120/1/60 .52 A	3250	

FAN SCHEDULE

PLAN SYMBOL	SYSTEM	MANUF. MODEL & TYPE	C.F.M.	S.P. IN.	SONES	FAN RPM	HP.	ELECTRICAL	NOTES
F-1	BATHROOM	GREENHECK G-065-D	100	.25	2.8	1325	1/30	120/1/60	BIRD SCREEN, BDD. CURB & SPEED CONTROL, 3 IDENTICAL UNITS
F-2	GARAGE VENT	GREENHECK SBS-112A-4	4250	.125	12.2	649	1/4	120/1/60	W/WEATHER HOOD, SCREEN & MOD W/ BELIMO ACTIVATOR
F-3	COMBUSTION	GREENHECK SE1-8-440-E	100	.125	2.2	1050	1/100	120/1/60	W/WEATHER HOOD, SCREEN & MOD W/ BELIMO ACTIVATOR



FUEL SUPPLY SCHEMATIC

NOT TO SCALE

STATE OF VERMONT
Department of Buildings and General Services
Agency of Administration
Montpelier, Vermont

AGENCY OF TRANSPORTATION
NORTH FERRISBURG GARAGE
HVAC DETAILS & SCHEDULES
NORTH FERRISBURG, VERMONT

REVISIONS

SCALE: AS NOTED
DATE: JANUARY 4, 2006
DRAWN BY: N. HERSEY
APPR. BY: TEIGH

A.O.T.

NORTH FERRISBURG GARAGE

DETAILS

M-2

36 OF 43

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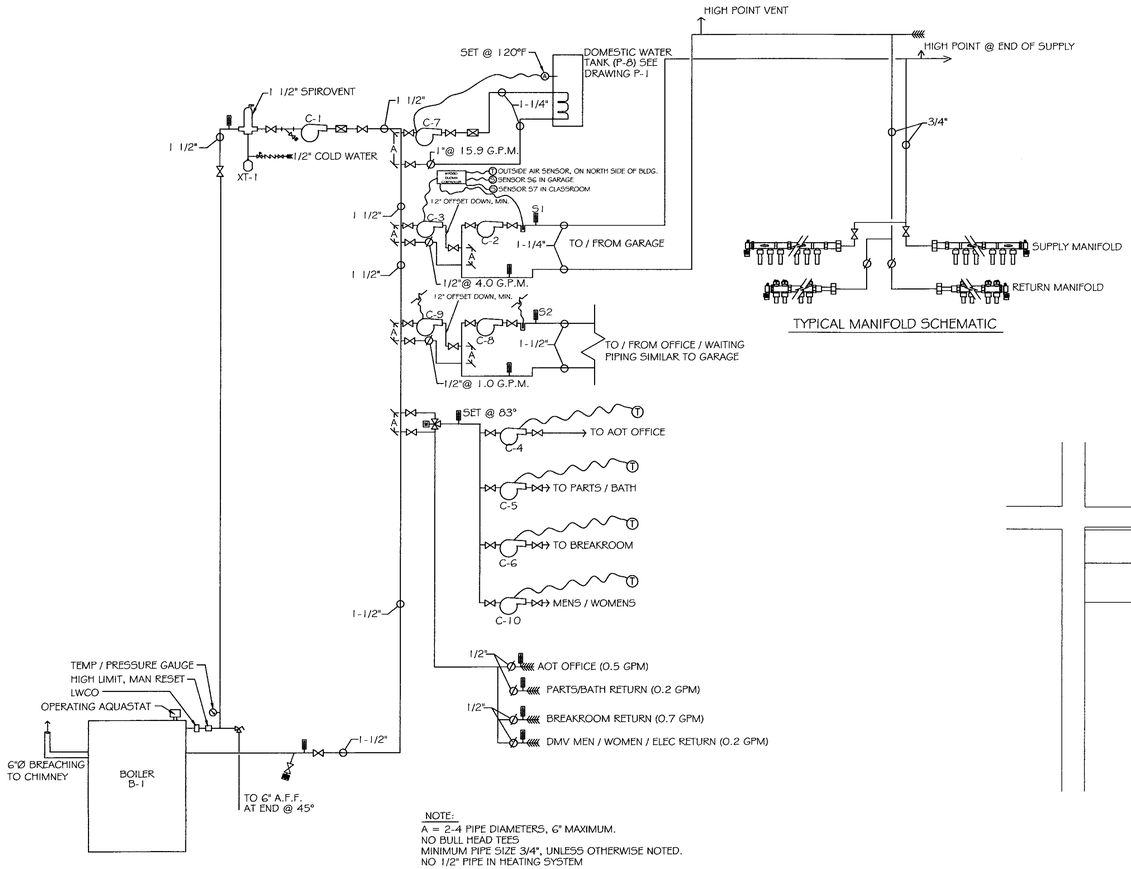
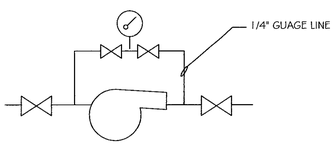


TYPICAL MANIFOLD SCHEMATIC

NOTE:
A = 2-4 PIPE DIAMETERS, 6" MAXIMUM.
NO BULL HEAD TEES
MINIMUM PIPE SIZE 3/4", UNLESS OTHERWISE NOTED.
NO 1/2" PIPE IN HEATING SYSTEM

HYDRONIC PIPING SCHEMATIC

NOT TO SCALE

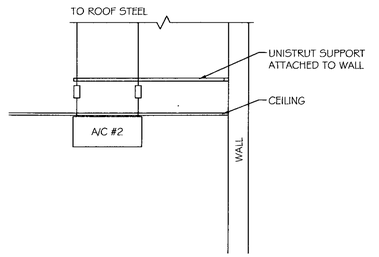


PRESSURE GUAGE & PIPING AT EACH CIRCULATOR

N.T.S.

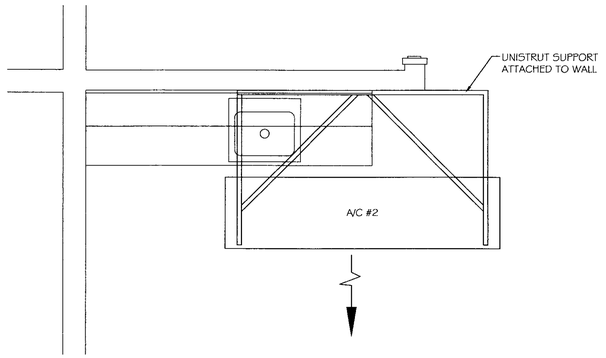
DIFFUSER SCHEDULE

SYMBOL	MAKE	MANUF. MODEL & TYPE	NECK SIZE	CFM	REMARKS
(A)	METALAIRE	SERIES 7000 R	6 X 6	100	6 X 6 DUCT UP TO F-1 ON ROOF



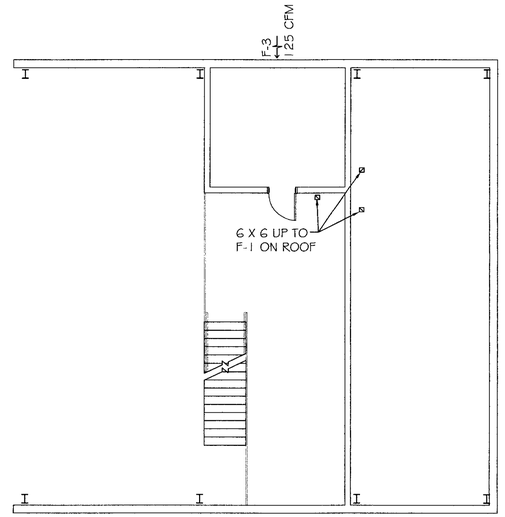
SECTION OF A/C #2 UNIT

SCALE: 1/4" = 1'-0"



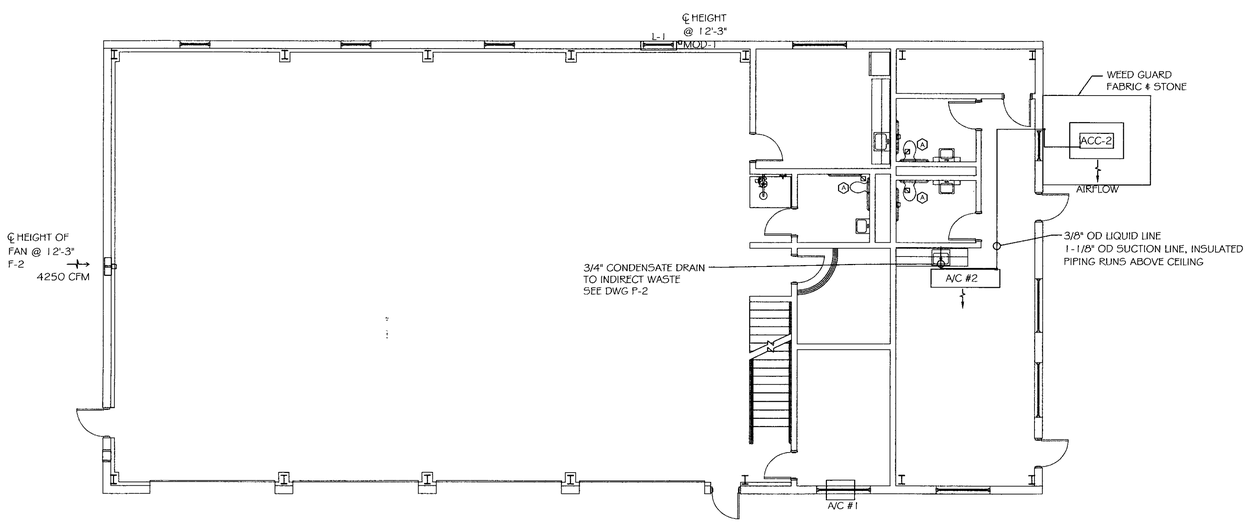
PLAN VIEW OF A/C #2 UNIT

SCALE: 1/4" = 1'-0"



SECOND FLOOR HVAC - MECH ROOM

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



FIRST FLOOR HVAC - MECH PLAN

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

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Montpelier, Vermont

AGENCY OF TRANSPORTATION
NORTH FERRISBURG GARAGE
PIPING SCHEMATIC
NORTH FERRISBURG, VERMONT

REVISIONS

SCALE: AS NOTED
DATE: JANUARY 4, 2006
DRAWN BY: N. HERSEY
APPR. BY: TEIGH

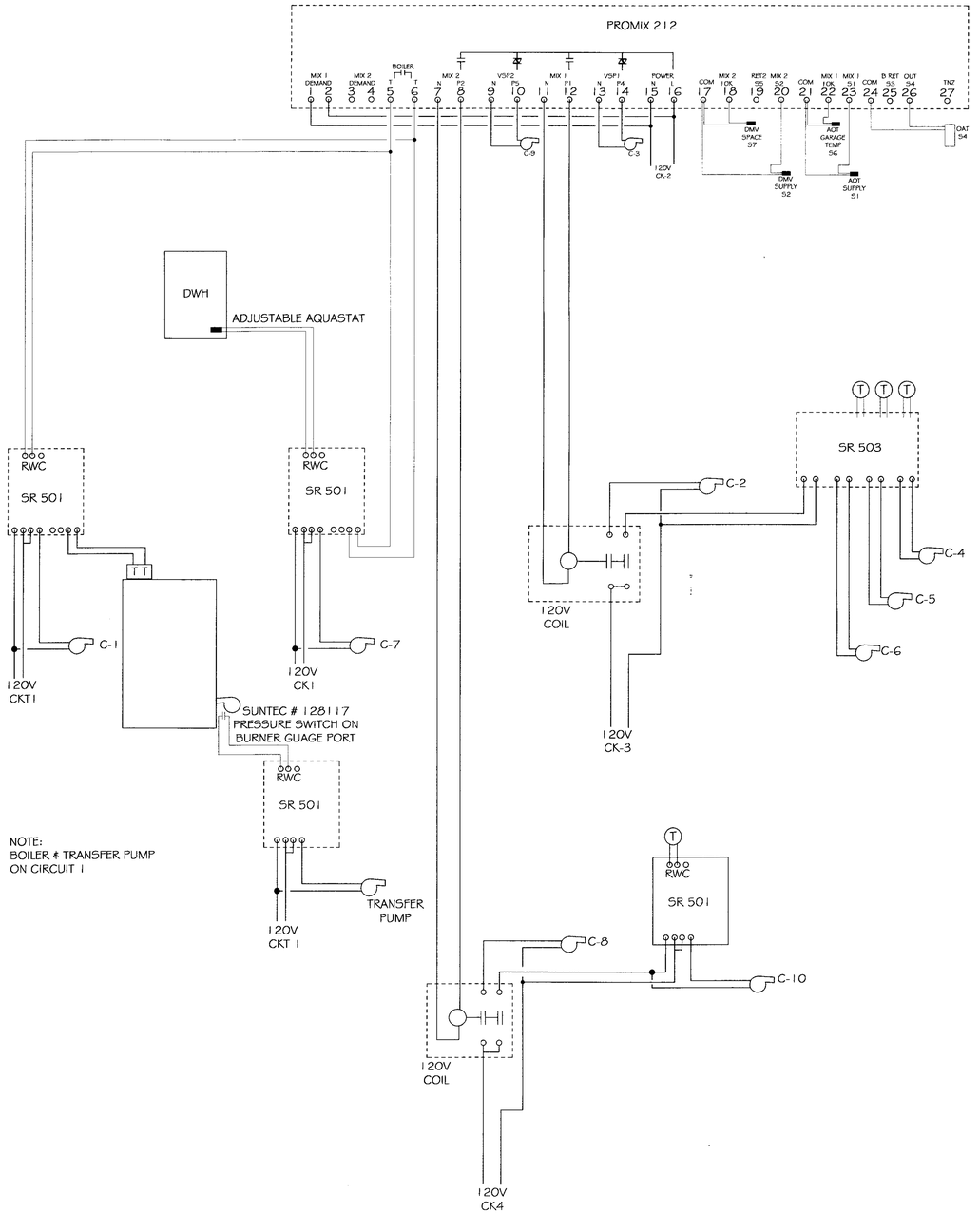
A.O.T.

NORTH FERRISBURG GARAGE

SCHEMATIC

M-3

N:\towns\North Ferrisburg\2005\WFE-05-01-M2-BD.dwg



STATE OF VERMONT
Department of Buildings
and General Services
Agency of Administration
Montpelier, Vermont

VERMONT

AGENCY OF TRANSPORTATION
NORTH FERRISBURG GARAGE
WIRING SCHEMATIC

NORTH FERRISBURG, VERMONT

REVISIONS

SCALE: AS NOTED
DATE: JANUARY 4, 2006
DRAWN BY: N. HERSEY
APPR. BY: TEIGH

A.O.T.

NORTH FERRISBURG GARAGE

SCHEMATIC

M-4

AGENCY OF TRANSPORTATION
N. FERRISBURGH MAINTENANCE FACILITY

FERRISBURGH VERMONT

LEGEND

NOTE: NOT ALL SYMBOLS MAY BE USED IN THIS DRAWING SET.

POWER

- DUPLEX RECEPTACLE, 20A, 125V, 3W, GND. MOUNT BOTTOM 16" A.F.F. (U.O.N.)
  - $\ominus_{AB}$ DENOTES MOUNTING ABOVE COUNTER BACKSPLASH
  - $\ominus_{AC}$ DENOTES MOUNTING ABOVE CEILING
- $\ominus_{2}$ DOUBLE DUPLEX (QUAD) RECEPTACLE, 125V, 3W, GND. MOUNT BOTTOM 16" A.F.F. (U.O.N.)
- SPECIAL RECEPTACLE, 250V MATCH EQUIPMENT PLUG NEMA CONFIG. MOUNT BOTTOM 16" A.F.F. (U.O.N.)
- $\ominus_{GFCI}$ DUPLEX RECEPT. W/GFCI,20A, 125V, 3W, GND. MOUNT BOTTOM 16" A.F.F.
  - $\ominus_{AB}^{GFCI}$ DENOTES MOUNTING ABOVE COUNTER BACKSPLASH
  - $\ominus_{WP}$ DENOTES GFI RECEPTACLE IN WEATHERPROOF HOUSING
- DISCONNECT SWITCH, FUSED, CODE SIZED
- DISCONNECT SWITCH, NON FUSED, CODE SIZED
- (1) MOTOR, HORSEPOWER AS SHOWN
- (J) JUNCTION BOX, FURNISH WITH BLANK COVER, U.O.N.
- [T] TRANSFORMER
- PANELBOARD, SURFACE
- —UE— UNDERGROUND ELECTRIC
- PANELBOARD, FLUSH
- PUSH BUTTON CONTROL STATION
- CORD REEL, 20A RATED, APPLETON #_____ OR EQUAL
- (T) LOW TEMPERATURE SENSOR FOR LOW BUILDING TEMP ALARM, 120V, _____ OR EQUAL
- TWO CHANNEL SURFACE WIREWAY SYSTEM FOR COMBINATION POWER & TEL/DATA OUTLETS, WIREMOLD 3000 OR APPROVED EQUAL

LIGHTING

- FLUORESCENT LUMINAIRE (SIZE/SHAPE VARIES)
- B LUMINAIRE WITH SELF CONTAINED EMERGENCY BATTERY PACK. REFER TO LUMINAIRE SCHEDULE
- B LUMINAIRE W/O SWITCHING, I.E. 24 HOURS OPERATION REFER TO LUMINAIRE SCHEDULE
- SURFACE, CEILING MOUNTED LUMINAIRE
- (R) RECESSED CEILING LUMINAIRE
- FLUORESCENT STRIP LUMINAIRE
- LED EXIT SIGN WITH SELF CONTAINED EMERGENCY BATTERY AND LIGHTS
- A WALL MOUNTED LUMINAIRE REFER TO LUMINAIRE SCHEDULE

LIGHTING IDENTIFICATION CONVENTIONS:

B = FIXTURE TYPE IDENTIFICATION. REFER TO LIGHTING SCHEDULE.

a = SWITCH LEG

(OS) OCCUPANCY SENSOR

SWITCHING CONTROLS

- S_a SWITCH, SPST, 125V, GND, MOUNT TOP AT 44" A.F.F. (SUPERSCRIPT DENOTES SIMILARLY MARKED LUMINAIRES CONTROLLED TOGETHER)
- S_3 THREE-WAY SWITCH, 125V, GND, MOUNT TOP AT 44" AFF
- S_D INCANDESCENT DIMMER SWITCH, SLIDER TYPE, SCREWLESS WALL PLATE, MOUNT TOP AT 44" A.F.F.
- S_M MANUAL MOTOR SENTINEL SWITCH, TOGGLE TYPE W/HEATER, MOUNT AT UNIT, (120V EQUIPMENT ONLY)
- S_F FAN SPEED CONTROL SWITCH
- S_{OB} OIL BURNER EMERGENCY SHUT OFF SWITCH WITH RED COVERPLATE, SPST, 125V, GND, MOUNT TOP AT 44" AFF.

TELECOMMUNICATIONS

- W WALL MOUNTED TELEPHONE OUTLET. MOUNT CENTER OF BOX AT 48" A.F.F.
- TELECOMMUNICATIONS OUTLET, FLUSH, COORDINATE EXACT MOUNTING HEIGHT WITH POWER RECEPTACLE. PROVIDED WITH 2 DATA JACKS AND 1 VOICE JACK UNLESS NOTED OTHERWISE.
  - $_{AB}$ DENOTES MOUNTING ABOVE DESKTOP SURFACE AREA. COORDINATE WITH FURNITURE PLANS OR OWNER.

MISCELLANEOUS

- (0) TITLE / SCALE DETAIL NUMBER, TITLE AND SCALE
- (1) KEYED NOTE
- TC TIME CLOCK
- X / XX MECHANICAL EQUIPMENT TAG, REFER TO MECHANICAL DRAWINGS FOR DEVICE IDENTIFICATION

DRAWING INDEX

E0 - GENERAL NOTES, DRAWING INDEX, LEGEND

SE1 - ELECTRICAL SITE PLAN

E1 - MAIN & UPPER LEVELS ELECTRICAL POWER PLAN

E2 - MAIN & UPPER LEVELS ELECTRICAL LIGHTING PLAN

E3 - STORAGE SHEDS A & B & SALT STORAGE SHED ELECTRICAL POWER & LIGHTING PLAN

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MONTPELLIER, VERMONT

AGENCY OF TRANSPORTATION
N. FERRISBURGH MAINTENANCE FACILITY
N. FERRISBURGH, VERMONT

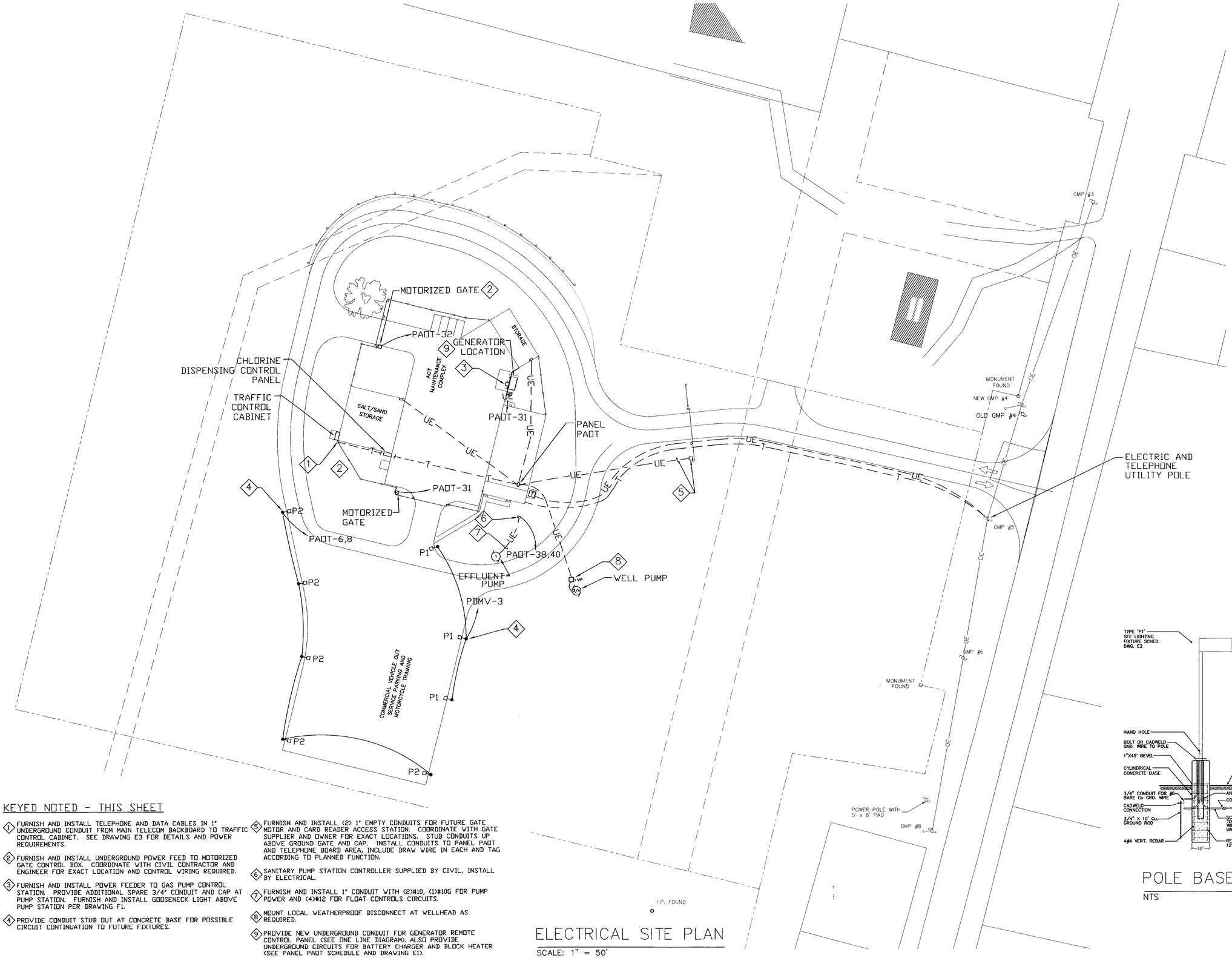
REVISIONS

SCALE: AS NOTED
DATE: 01/04/06
DRAWN BY: DJS
APPR. BY: MFK

DRAWING LEGEND, GENERAL NOTES & DRAWING INDEX

E0

SHEET 39 OF 43

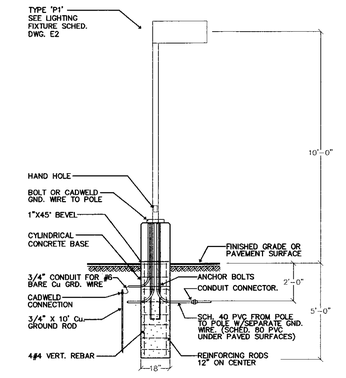


KEYED NOTED - THIS SHEET

1. FURNISH AND INSTALL TELEPHONE AND DATA CABLES IN 1" UNDERGROUND CONDUIT FROM MAIN TELECOM BACKBOARD TO TRAFFIC CONTROL CABINET. SEE DRAWING E3 FOR DETAILS AND POWER REQUIREMENTS.
2. FURNISH AND INSTALL UNDERGROUND POWER FEED TO MOTORIZED GATE CONTROL BOX. COORDINATE WITH CIVIL CONTRACTOR AND ENGINEER FOR EXACT LOCATION AND CONTROL WIRING REQUIRED.
3. FURNISH AND INSTALL POWER FEEDER TO GAS PUMP CONTROL STATION. PROVIDE ADDITIONAL SPARE 3/4" CONDUIT AND CAP AT PUMP STATION. FURNISH AND INSTALL GOOSENECK LIGHT ABOVE PUMP STATION PER DRAWING F1.
4. PROVIDE CONDUIT STUB OUT AT CONCRETE BASE FOR POSSIBLE CIRCUIT CONTINUATION TO FUTURE FIXTURES.
5. FURNISH AND INSTALL (2) 1" EMPTY CONDUITS FOR FUTURE GATE MOTOR AND CARD READER ACCESS STATION. COORDINATE WITH GATE SUPPLIER AND OWNER FOR EXACT LOCATIONS. STUB CONDUITS UP ABOVE GROUND GATE AND CAP. INSTALL CONDUITS TO PANEL PADT AND TELEPHONE BOARD AREA, INCLUDE DRAW WIRE IN EACH AND TAG ACCORDING TO PLANNED FUNCTION.
6. SANITARY PUMP STATION CONTROLLER SUPPLIED BY CIVIL, INSTALL BY ELECTRICAL.
7. FURNISH AND INSTALL 1" CONDUIT WITH (2)#10, (1)#10G FOR PUMP POWER AND (4)#12 FOR FLOAT CONTROLS CIRCUITS.
8. MOUNT LOCAL WEATHERPROOF DISCONNECT AT WELLHEAD AS REQUIRED.
9. PROVIDE NEW UNDERGROUND CONDUIT FOR GENERATOR REMOTE CONTROL PANEL (SEE ONE LINE DIAGRAM). ALSO PROVIDE UNDERGROUND CIRCUITS FOR BATTERY CHARGER AND BLOCK HEATER (SEE PANEL PADT SCHEDULE AND DRAWING E1).

ELECTRICAL SITE PLAN

SCALE: 1" = 50'



POLE BASE DETAIL

NTS

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N. FERRISBURGH, VERMONT

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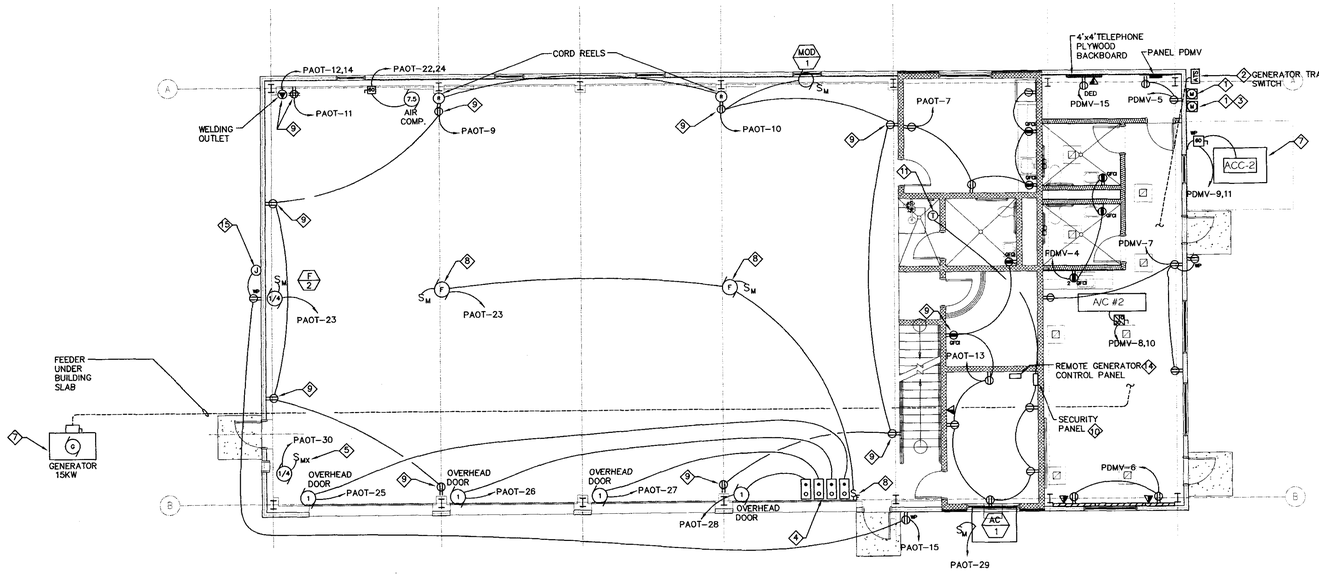
DATE: 01/04/06
DRAWN BY: DJG
APPR. BY: MPK

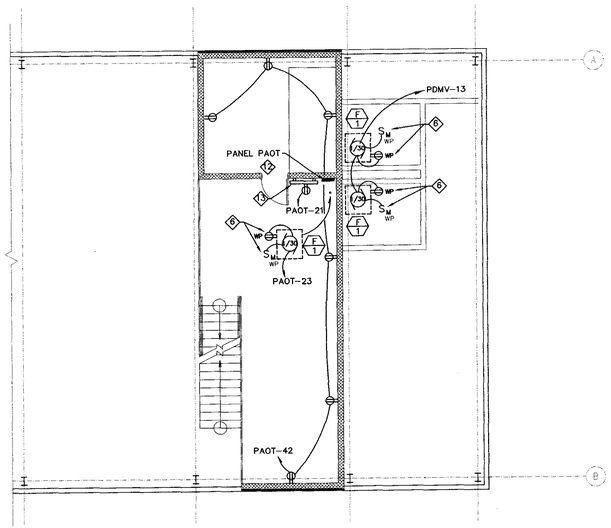
ELECTRICAL SITE PLAN

SE1



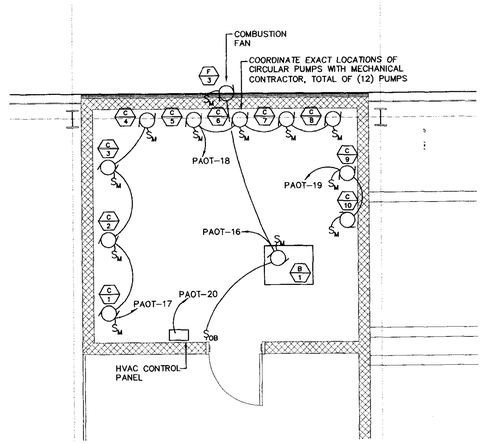
MAIN LEVEL PLAN – ELECTRICAL POWER (1)

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



UPPER LEVEL PLAN – ELECTRICAL POWER (2)

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



BOILER ROOM EQUIPMENT DETAIL (3)

SCALE: 1/4" = 1'-0"

KEYNED NOTES – POWER PLANS:

1. FURNISH AND INSTALL METER AT LOCATION SHOWN AT THE EXTERIOR OF THE BUILDING. METER APPLICATION TYPE SHALL BE SPECIFIC FOR SWAPPING OUT WITHOUT LOSING EXISTING BUILDING POWER, SEE SPECS FOR DETAILS. A SINGLE MOTOR SHALL BE INSTALLED; HOWEVER, TWO MOTOR SOCKETS SHALL BE PROVIDED FOR FUTURE SEPARATION OF SERVICES, SEE POWER RISER.
2. FURNISH AND INSTALL ATS FOR EMERGENCY POWER TO ADT SIDE OF THE BUILDING ONLY. NOTE THAT DMV SIDE OF THE BUILDING SHALL NOT HAVE POWER TO LIGHTS AND VENTILATION IN CASE OF EMERGENCY. DMV WILL CONTINUE TO HAVE HEATING IN AN EMERGENCY. PROVIDE SPACE FOR POSSIBLE FUTURE A.T.S.
3. FURNISH AND INSTALL LOCKABLE DISCONNECT AT LOCATION SHOWN WITH SPECIFIED METER, ON THE EXTERIOR OF THE BUILDING.
4. PUSHBUTTON CONTROL STATIONS SUPPLIED WITH OVERHEAD DOOR, INSTALLED BY ELECTRICAL. VERIFY EXACT MOUNTING LOCATION (NEXT TO LIGHT SWITCHES) WITH OWNER PRIOR ROUGH-IN.
5. PROVIDE EXPLOSION PROOF MOTOR SENTINEL SWITCH AS REQUIRED FOR FUEL PUMP FOR BOILER.
6. FAN UNITS ARE LOCATED ON ROOF, PROVIDE WEATHERPROOF MOTOR SENTINEL SWITCH AND MAINTENANCE RECEPTACLE AS REQUIRED.
7. SEE SITE AND MECHANICAL PLANS FOR EXACT LOCATIONS OF GENERATOR AND CONDENSER UNIT ACC-2.
8. FURNISH AND INSTALL PADDLE FAN AND LOCAL CONTROL SWITCH LOCATED NEXT TO LIGHT SWITCHES.
9. MOUNT RECEPTACLE AT 36"AFF. AND FEED FROM ABOVE. CONDUIT SHALL NOT BE INSTALLED BELOW 18" UNLESS FITTED WITH EXPLOSION PROOF COMPONENTS AND METHODS.
10. SECURITY PANEL FOR AUTO DIAL TO HELP WHEN BUILDING TEMPERATURE DROPS BELOW 45°F. VERIFY EXACT INSTALLATION LOCATION WITH OWNER, SEE CONTROL SCHEMATIC DIAGRAM.
11. LOCATE LOW TEMP SENSOR AWAY FROM OUTSIDE DRAFTS AS DIRECTED BY OWNER.
12. SERVICE FEEDER FOR PANEL PAOT SHALL BE RUN WITHIN THE MASONRY BLOCK WALL.
13. FURNISH AND INSTALL 4'x8'x3/4' MARINE GRADE PLYWOOD BACKBOARD FOR TEL/DATA DEMARC AND NETWORK EQUIPMENT.
14. FURNISH AND INSTALL 1" CONDUIT TO GENERATOR AND PROVIDE CONTROL WIRES TO REMOTE GENERATOR CONTROL PANEL AS REQUIRED.
15. PROVIDE 120V CIRCUIT FIT UP FOR GENERATOR BATTERY CHARGER AS REQUIRED. VERIFY EXACT LOCATION IN FIELD.

PAOT

120/240 VOLT, 1 PHASE, 3 WIRE, AMP — 175A MAIN CB, SURFACE MOUNT, 10k AIC

Description	Wire	Cond	kW	Brkr	Ckt	Ø	Ckt	Brkr	kW	Cond	Wire	Description
LIGHTS – SERVICE BAY	2#12,1#12G	3/4"	1.0	20	1	A	2	20	1.4	3/4"	2#12,1#12G	LIGHTS – SERVICE BAY
LIGHTS – BREAK, OFFICE, BATHROOM	2#12,1#12G	3/4"	0.5	20	3	B	4	20	0.5	3/4"	2#12,1#12G	LIGHTS – EXTERIOR
LIGHTS – UPPER LEVEL	2#12,1#12G	3/4"	0.5	20	5	A	6	20	1.0	1"	2#8,1#12G	LIGHTS – PARKING LOT
RECEPTACLES – BREAK ROOM	2#12,1#12G	3/4"	1.5	20	7	B	8					
RECEPTACLES – BAYS	2#12,1#12G	3/4"	0.7	20	9	A	10	20	0.7	3/4"	2#12,1#12G	RECEPTACLES – BAYS
RECEPTACLES – WELDING AREA	2#12,1#12G	3/4"	0.4	20	11	B	12	50	5.0	3/4"	2#6,1#10G	WELDING OUTLET
RECPTS – OFFICE, BATHRM & FAN F-1	2#12,1#12G	3/4"	1.3	20	13	A	14					
RECEPTACLES – OUTSIDE	2#12,1#12G	3/4"	0.4	20	15	B	16	20		3/4"	2#12,1#12G	BOILER & COMB. FAN
CIRC PUMPS	2#12,1#12G	3/4"	0.5	20	17	A	18	20	0.5	3/4"	2#12,1#12G	CIRC PUMPS
CIRC PUMPS	2#12,1#12G	3/4"	0.5	20	19	B	20	15	0.2	3/4"	2#12,1#12G	HVAC CONTROL PANEL
RECEPTACLES – TELE BOARD	2#12,1#12G	3/4"	0.2	20	21	A	22	60	7.5	3/4"	3#6,1#10G	AIR COMPRESSOR
FANS: F1, F2 & CEILING	2#12,1#12G	3/4"	0.8	20	23	B	24					
OVERHEAD DOOR	2#12,1#12G	3/4"	1.0	20	25	A	26	20	1.0	3/4"	2#12,1#12G	OVERHEAD DOOR
OVERHEAD DOOR	2#12,1#12G	3/4"	1.0	20	27	B	28	20	1.0	3/4"	2#12,1#12G	OVERHEAD DOOR
AC-1	2#12,1#12G	3/4"		20	29	A	30	20	1.0	3/4"	2#12,1#12G	BOILER FUEL PUMP
MOTORIZED GATE	2#12,1#12G	3/4"	1.0	20	31	B	32	20	1.0	3/4"	2#12,1#12G	MOTORIZED GATE
PANEL PA	3#10,1#10G	1"	2.5	30	33	A	34	60	3.6	1"	3#6,1#8G	PANEL PS
					35	B	36					
GENERATOR BLOCK HEATER	3#10,1#10G	1"		20	37	A	38	20	1.0	3/4"	2#10,1#10G	EFFLUENT PUMP
SPARE				20	39	B	40					
SPARE				20	41	A	42	20	1.3	3/4"	2#12,1#12G	RECEPTACLES UPPER LEVEL

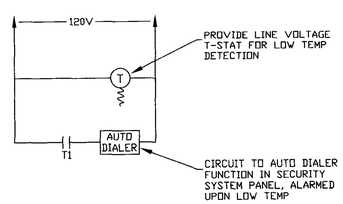
LOAD DATA	kW	Amps	NOTES
Phase A			
Phase B			
Total Connected	47.2	196	

PDMV

120/240 VOLT, 1 PHASE, 3 WIRE, AMP — 125A MAIN CB, SURFACE MOUNT, 10k AIC

Description	Wire	Cond	kW	Brkr	Ckt	Ø	Ckt	Brkr	kW	Cond	Wire	Description
LIGHTING – OFFICE, BATHS	2#12,1#12G	3/4"		20	1	A	2	20		3/4"	2#12,1#12G	LIGHTING – MEETING ROOM
LIGHTING – PARKING LOT	2#12,1#12G	3/4"	0.6	20	3	B	4	20		3/4"	2#12,1#12G	RECEPTACLES – BATHS, KITCHEN
RECEPTACLES – ELECTRICAL RM	2#12,1#12G	3/4"		20	5	A	6	20		3/4"	2#12,1#12G	RECEPTACLES – WIREWAY
RECEPTACLES – MEETING	2#12,1#12G	3/4"		20	7	B	8	15–2P		3/4"	2#12,1#12G	AC-2
ACC-2	2#8,1#10G	3/4"		60	9	A	10					
					11	B	12	30–3P		1"	3#10,1#10G	PANEL PB
RECEPTS. (WH) & FANS (F-1)	2#12,1#12G	3/4"		20	13	A	14					
EXEL RECEPT – TELEPHONE BKBRD	2#12,1#12G	3/4"		20	15	B	16					
					17	A	18					
					19	B	20					

LOAD DATA	kW	Amps	NOTES
Phase A			
Phase B			
Total Connected			



SECURITY SYSTEM SCHEMATIC (4)

NTS

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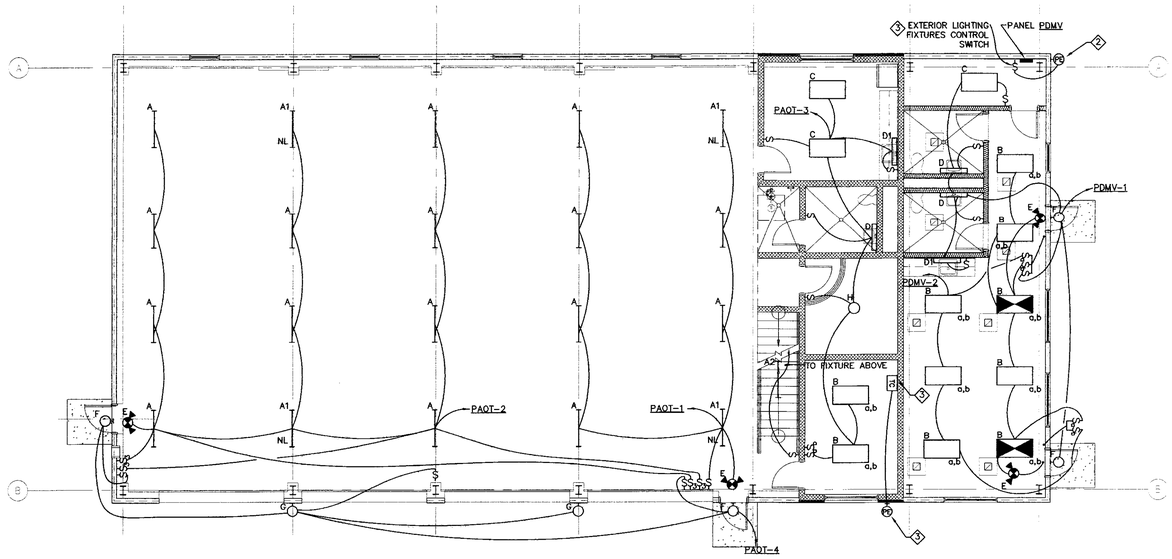
ELECTRICAL POWER PLAN

E1

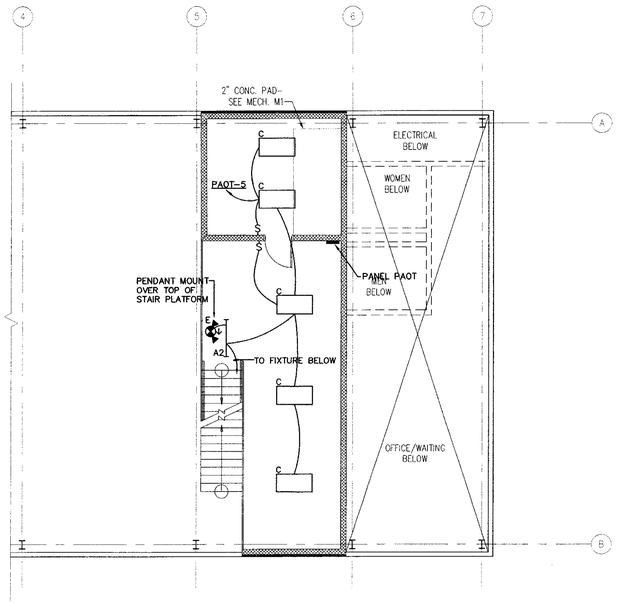
SHEET 41 OF 43



MAIN LEVEL PLAN – ELECTRICAL LIGHTING

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

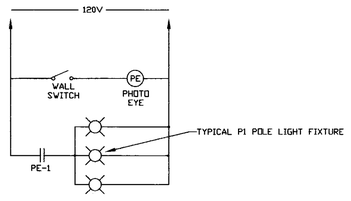
(1)



UPPER LEVEL PLAN – ELECTRICAL LIGHTING

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

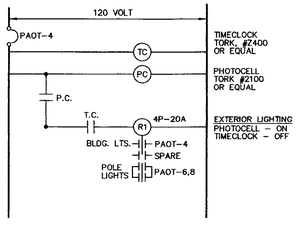
(2)



DMV PARKING LOT LIGHTING CONTROL DIAGRAM

NTS

(4)



AOT PARKING LOT LIGHTING CONTROL DIAGRAM

NTS

(3)

ELECTRICAL NOTES:

1. THE LIGHT SWITCH FOR THE POLE MOUNTED LIGHTING FIXTURES AT THE COMMERCIAL PARKING AREA SHALL BE LOCATED WITHIN THE DMV SPACE AS SHOWN.
2. MOUNT PHOTO EYE FOR DMV WALKWAY AND PARKING AREA FIXTURES HIGH UP ON WALL, SEE CONTROL DIAGRAM FOR CIRCUITING.
3. PHOTO EYE AND TIME CLOCK FOR AOT PARKING AREA, SEE LIGHTING CONTROL DIAGRAM BELOW FOR CIRCUITING DETAILS.
4. NIGHT LIGHT DESIGNATED FIXTURES SHALL UTILIZE ONE LAMP FOR 'B' TYPE FIXTURES AND TWO LAMPS FOR 'A' TYPE FIXTURES

LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER	CAT. NO.	SUGGESTED LAMPS	DIFFUSER	MOUNTING	SUGGESTED STYLE
A	METALUX	E1M-432-120-EB81	(4) 32 WATT-SUPER T8	20% UPLIGHT	CHAIN HUNG	INDUSTRIAL STYLE WITH UPLIGHT CONSTRUCTION, WHITE ENAMEL FINISH
A1	METALUX	E1M-432-120-EB81	(4) 32 WATT-SUPER T8	20% UPLIGHT	CHAIN HUNG	SAME AS TYPE "A" EXCEPT WITH TWO BALLASTS
A2	METALUX	E1M-432-120-EB81	(2) 32 WATT-SUPER T8	20% UPLIGHT	CHAIN HUNG	SAME AS TYPE "A" EXCEPT WITH TWO LAMPS
B	METALUX	2EP3G332S36-120-EB82	(3) 32 WATT-SUPER T8	PARABOLIC	TROFFER	
C	METALUX	2GC8232A-120-EB81	(2) 32 WATT-SUPER T8	ACRYLIC PRISMATIC	TROFFER	
D	METALUX	BAU230-120-EB	(2) 30 WATT	ACRYLIC PRISMATIC	WALL	WALL BRACKET WITH UP/DOWN LIGHT, 36" LONG
D1	METALUX	BAU130-120-EB	(1) 30 WATT			SAME AS TYPE "D", EXCEPT WITH SINGLE LAMP FOR DOWNLIGHTING ON COUNTERTOP
E	PRESCOLITE	PEXHL3REC-CBW	LED	N/A	WALL OR CEILING	LED EXIT SIGN WITH SELF CONTAINED EMERGENCY BATTERY & EMERGENCY LIGHTHEADS
F	HUBBELL	W7H8	(1) 70 WATT METAL HALIDE	CLEAR POLYCARBONATE	WALL	WALL PACK WITH SHARP CUT-OFF SHIELD, DARK BRONZE TRIM
G	HUBBELL	TWSM100MHDLDB-120	(1) 100 WATT METAL HALIDE	CLEAR GLASS	WALL	WALL PACK, SHARP CUT-OFF DESIGN, DARK BRONZE TRAPEZOID SHAPE
H	STONCO	MDK270WHT	(2) 150W PAR 38	NONE	DIRECT TO RAFTER	BASIC PAR STYLE LAMP IN TWN BASE HOLDER W/ MOTION SENSOR ACTIVATION, MOUNT FIXTURE TO BOTTOM CHORD OF RAFTER, HOWEVER, SEPARATE MOTION SENSOR FROM BACKPLATE AND MOUNT AT 12' HEIGHT ALONG WALL FOR BETTER MOTION SENSING
J	NOT USED					
K	HUBBELL	MSS-G-100H-T-8-1-PCR	(1) 100W METAL HALIDE	FORWARD THROW	GARAGE	MAGNUSPEC SHARP CUT-OFF WALL MOUNT FIXTURE TO MATCH TYPE "P", BRONZE FINISH
P1	HUBBELL	RCS-A-175H-3P-8-1-MAL-4-X W/ SAP 42 POLE	(1) 175W METAL HALIDE	TYPE III DISTRIBUTION	POLE	MAGNUMFORM POLE FIXTURE, SHARP CUT-OFF, 20' SQUARE ALUMINUM POLE MOUNTED ON CONCRETE BASE, DARK BRONZE FINISH
P2	HUBBELL	RCS-A-175H-3P-8-1-MAL-4-X W/ SAP 42 POLE	(1) 175W METAL HALIDE	TYPE III DISTRIBUTION	POLE	SAME AS TYPE "P1", EXCEPT WIRED FOR 240 VOLT CIRCUIT

GENERAL NOTES:

1. ALL FLUORESCENT BALLASTS SHALL BE ELECTRONIC TYPE.
2. ALL COMPACT FLUORESCENT LUMINAIRES SHALL HAVE HIGH POWER FACTOR "HPF" ELECTRONIC BALLASTS.
3. LAMPS SHALL BE SUPPLIED AND INSTALLED BY CONTRACTOR.
4. ALL FLUORESCENT BALLASTS SHALL HAVE A THIRD HARMONIC DISTORTION (THD) OF <10%

** LENGHT OF FIXTURE WILL VARY PENDING LOCATION, ALSO VERIFY CONNECTION REQUIREMENTS AND EMERGENCY BATTERY OPTIONS

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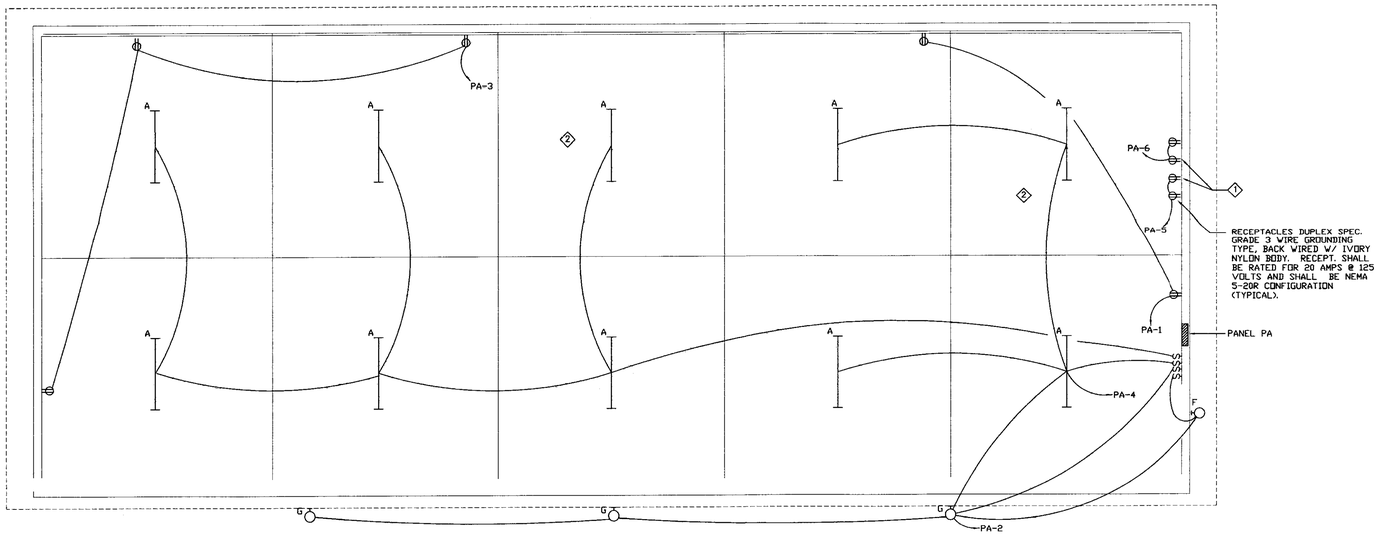
ELECTRICAL LIGHTING PLAN

E2

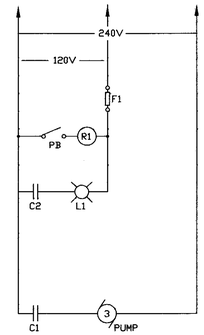


STORAGE SHED – ELECTRICAL POWER AND LIGHTING PLAN

SCALE: 1/4" = 1'-0"

(1)

NOTE: ALL ELECTRICAL CONDUIT BELOW GRADE AND ON THE EXTERIOR OF THE BUILDING SHALL BE 1" RIGID CONDUIT. CONDUIT INSIDE THE BUILDING SHALL BE 3/4" SCH. 80 PVC.



NOTE: CONTRACTOR SHALL PROVIDE LOCAL PUSHBUTTON, RELAY AND FUSE BLOCK IN GASKETED, WATERPROOF, SALT RESISTANT ENCLOSURE, MOUNTED NEXT TO PUMP. CONTRACTOR SHALL ALSO PROVIDE LOCAL INDICATION LIGHT, WATERPROOF, AND MOUNTED ON THE TOP OF THE PUMPS HOSE TOWER. PROVIDE ALL PVC CONDUIT REQUIRED FOR COMPLETE INSTALLATION.

PB = SQUARE D #BW255, START-STOP WITH MAINTAINED CONTACTS IN NEMA 4 BOX

R1 = SQUARE D #CD7120, DPST RELAY, 30 AMP CONTACT RATING

L1 = EDWARDS #48SINA-H5-25WH, 120V INDICATING LIGHT, AMBER, NEMA 4X ENCLOSURE

F1 = FUSE BLOCK WITH 5A, 120V FUSE

CHLORINE TANK DISPENSING SYSTEM CONTROL DIAGRAM

N.T.S.

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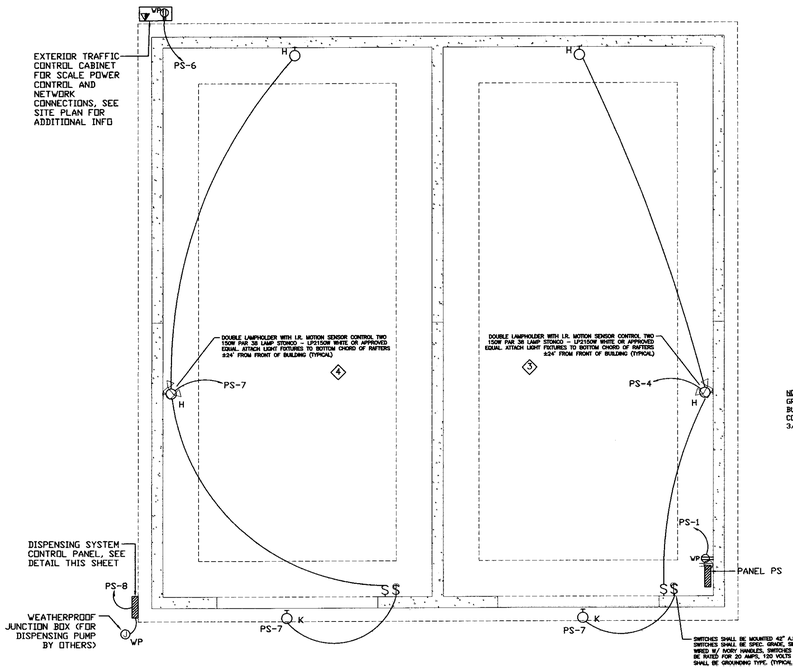
ELECTRICAL NOTES:

1. FURNISH AND INSTALL RECEPTACLES FOR BATTERY CHARGERS, LOCATED AS DIRECTED BY OWNER. MOUNT RECEPTACLES AT 36" HEIGHT.
2. MOUNT LIGHT FIXTURES WITH JACK CHAIN AT 13'-0" HEIGHT TO AVOID OVERHEAD DOORS AND TRACK SYSTEM.
3. NOT USED.
4. ALL CONDUIT SYSTEMS WITHIN SALT SHED SHALL BE PVC-40 WITH ALL REQUIRED COUPLINGS, J-BOXES AND HARDWARE.



NOTE: ALL ELECTRICAL CONDUIT BELOW GRADE AND ON THE EXTERIOR OF THE BUILDING SHALL BE 1" RIGID CONDUIT. CONDUIT INSIDE THE BUILDING SHALL BE 3/4" SCH. 80 PVC.

SALT-SAND STORAGE BUILDING – ELECTRICAL POWER AND LIGHTING PLAN

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

(3)

PA — STORAGE SHED

120/240 VOLT, 1 PHASE, 3 WIRE, AMP — 60A MAIN LUG, SURFACE MOUNT, 10k AIC

Description	Wire	Cond	kW	Brkr	Ckt	Ø	Ckt	Brkr	kW	Cond	Wire	Description
RECEPTACLES – STORAGE SHED	2#12,1#12G	3/4"	0.4	20	1	A	2	20	0.4	3/4"	2#12,1#12G	EXTERIOR LIGHTS – STORAGE SHED
RECEPTACLES – STORAGE SHED	2#12,1#12G	3/4"	0.8	20	3	B	4	20		3/4"	2#12,1#12G	LIGHTING – STORAGE SHED
RECEPTS. – STORAGE SHED BATTERY CHARGER	2#12,1#12G	3/4"		20	5	A	6	20		3/4"	2#12,1#12G	RECEPTS. – STORAGE SHED BATTERY CHARGER
SPARE				20	7	B	8					
					9	A	10					

LOAD DATA	kW	Amps	NOTES
Phase A			
Phase B			
Total Connected			

PS — SALT-SAND STORAGE BUILDING

120/240 VOLT, 1 PHASE, 3 WIRE, AMP — 60A MAIN LUG, SURFACE MOUNT, 10k AIC

Description	Wire	Cond	kW	Brkr	Ckt	Ø	Ckt	Brkr	kW	Cond	Wire	Description
EXTERIOR RECEPT.	2#12,1#12G	3/4"		20-1P	1	A	2					BLANK
BLANK					3	B	4	20-1P		3/4"	3#12,1#12G	LIGHTS-INTERIOR SAND STORAGE
SPARE				20-1P	5	A	6	20-1P		3/4"	3#12,1#12G	RECEPT & ICEM – EXT. TRAFFIC CONTROL CABINET
EXTERIOR LIGHTS	2#12,1#12G	3/4"		20-1P	7	B	8	20-1P		3/4"	3#10,1#10G	CHLORINE DISPENSING SYSTEM CONTROL PNL
					9	A	10					
					11	B	12					
					13	A	14					
					15	B	16					

LOAD DATA	kW	Amps	NOTES
Phase A			
Phase B			
Total Connected			

POWER ONE-LINE DIAGRAM

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DRAWN BY: DJS
APPR. BY: MFK

ELECTRICAL POWER & LIGHTING PLAN

E3

SHEET 43 OF 43