



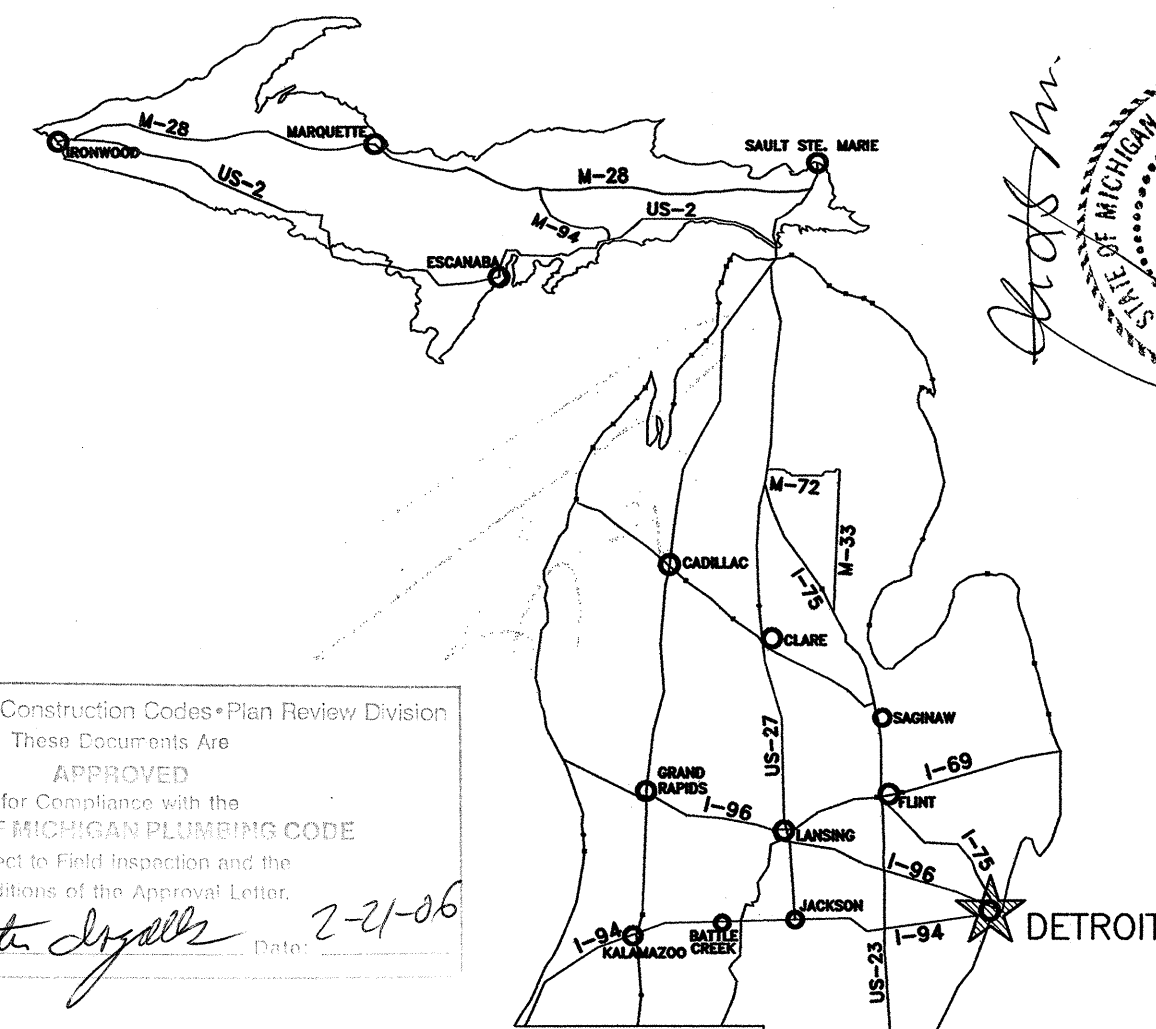
DETROIT MAINTENANCE GARAGE

METRO REGION

ACCOUNT NO. 116-59-8260-060

BUILDING CRITERIA	
MICHIGAN BUILDING CODE (2003 EDITION)	S-1, B
USE GROUP CLASSIFICATION:	2B
CONSTRUCTION TYPE:	80
OCCUPANCY LOAD (ASSUMED MAX.):	
DESIGN LOADING	
DESIGN UNIFORM DEAD LOAD	20 PSF
DESIGN UNIFORM SNOW LOAD	20 PSF
P _g = 25 PSF	
C _e = 1.0	
C _t = 1.0	
I _s = 1.0	
DESIGN SNOW DRIFT LOAD	2 PSF
DESIGN UNIFORM TOTAL LOAD	42 PSF
UNBALANCED SNOW LOAD:	
WINDWARD SIDE: 6 PSF	
LEEWARD SIDE: 32 PSF	
MEZZANINE FLOOR LOAD	
DEAD	81 PSF
LIVE	125 PSF
BASIC WIND SPEED (W/O 3-SECOND GUST)	90 MPH
SEISMIC USE GROUP	I
SEISMIC SITE CLASS	D
SEISMIC DESIGN CATEGORY	A
DESIGN SOIL BEARING PRESSURE	3,000 PSF
BUILDING AREA	
EXISTING FLOOR AREA	0 SF
PROPOSED FLOOR AREA	24,146 SF
TOTAL FLOOR AREA	24,146 SF
ALLOWABLE BUILDING AREA	17,500 SF
FRONTAGE INCREASE	8,750 SF
TOTAL	26,250 SF

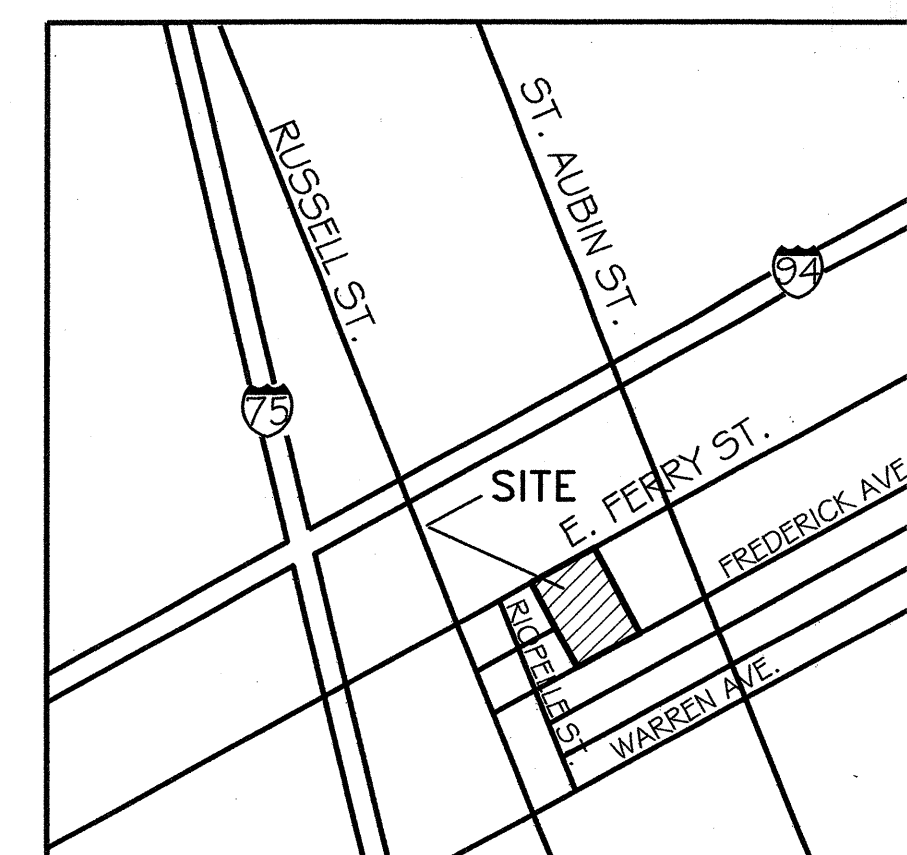
SHEET INDEX	
SHEET #	DESCRIPTION
T	TITLE SHEET
C1	SITE PLAN
C2	SOIL BEARING DATA
A1	FLOOR PLAN
A2	ELEVATIONS
A3	ROOF PLAN, STAIR DETAILS
A4	WALL SECTIONS
A5	WALL SECTIONS
A6	ENLARGED PLAN, INTERIOR ELEVATIONS
A7	ROOM FINISH SCHEDULE, DOOR SCHEDULE, & DETAILS
A8	REFLECTED CEILING PLAN
S1	FOUNDATION PLAN & DETAILS
S2	ROOF FRAMING PLAN & DETAILS
S3	STRUCTURAL DETAILS
P1	PLUMBING PLAN & DETAILS
M1	HVAC FLOOR PLAN
M2	HVAC DETAILS, SECTIONS & NOTES
M3	HVAC EQUIPMENT SCHEDULES
M4	HVAC DETAILS - DUST COLLECTION
E1	ELECTRICAL LEGEND & NOTES
E2	ELECTRICAL SITE PLAN
E3	ONE LINE DIAGRAM
E4	ELECTRICAL PLAN - POWER
E5	ELECTRICAL PLAN - LIGHTING
E6	ELECTRICAL PLAN - SYSTEMS PLAN AREA
E7	ELECTRICAL DETAILS
E8	LIGHT FIXTURE SCHEDULE
E9	ELECTRICAL PANELS
E10	ELECTRICAL DETAILS



MDCIS-Bureau of Construction Codes-Plan Review Division
These Documents Are
APPROVED
for Compliance with the
STATE OF MICHIGAN PLUMBING CODE
Subject to Field Inspection and the
Conditions of the Approval Letter.
Signature: *Pete Dwyer* Date: 2-21-06

PROJECT LOCATION
DETROIT, MICHIGAN

MDCIS-Bureau of Construction Codes-Plan Review Division
These Documents Are
APPROVED
for Compliance with the
STATE OF MICHIGAN BUILDING CODE
Subject to Field Inspection and the
Conditions of the Approval Letter.
Signature: *[Signature]* Date: 2-27-06



MDCIS-Bureau of Construction Codes-Plan Review Division
These Documents Are
APPROVED
for Compliance with the
STATE OF MICHIGAN MECHANICAL CODE
Subject to Field Inspection and the
Conditions of the Approval Letter.
Signature: *[Signature]* Date: 2/21/06

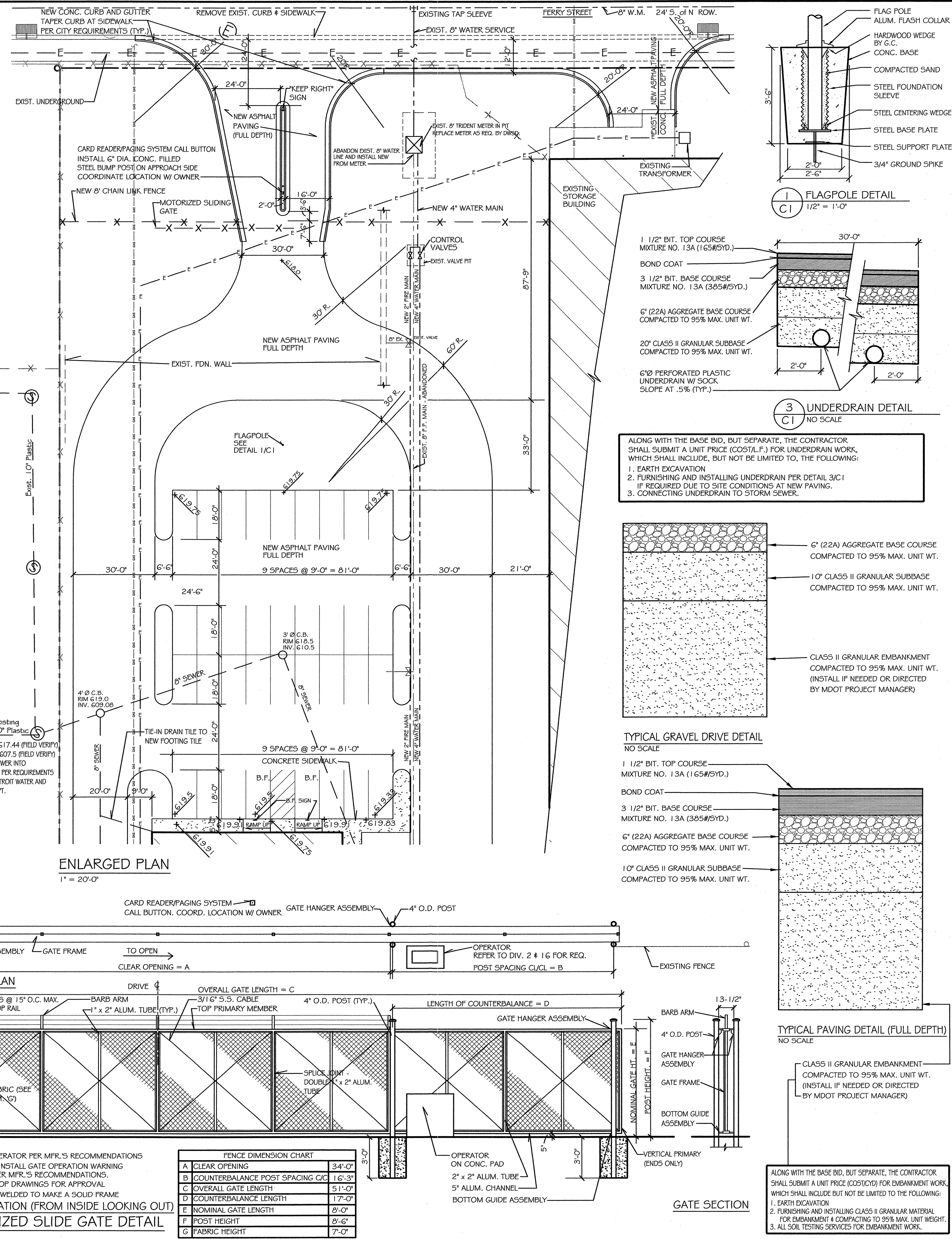
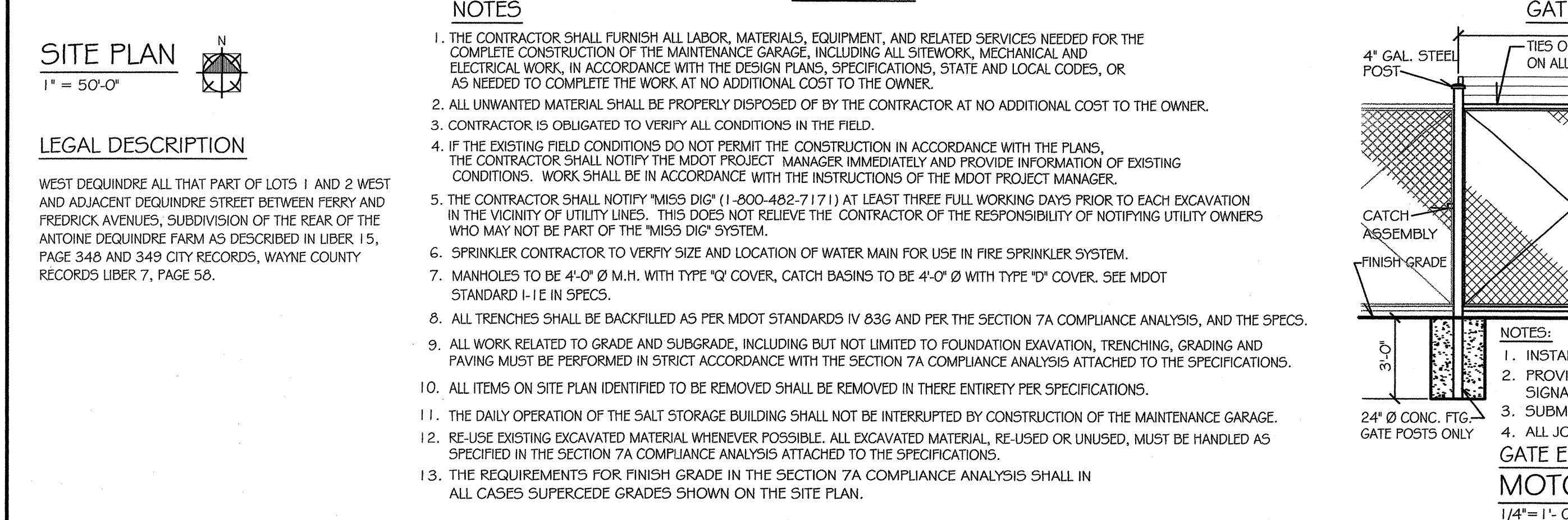
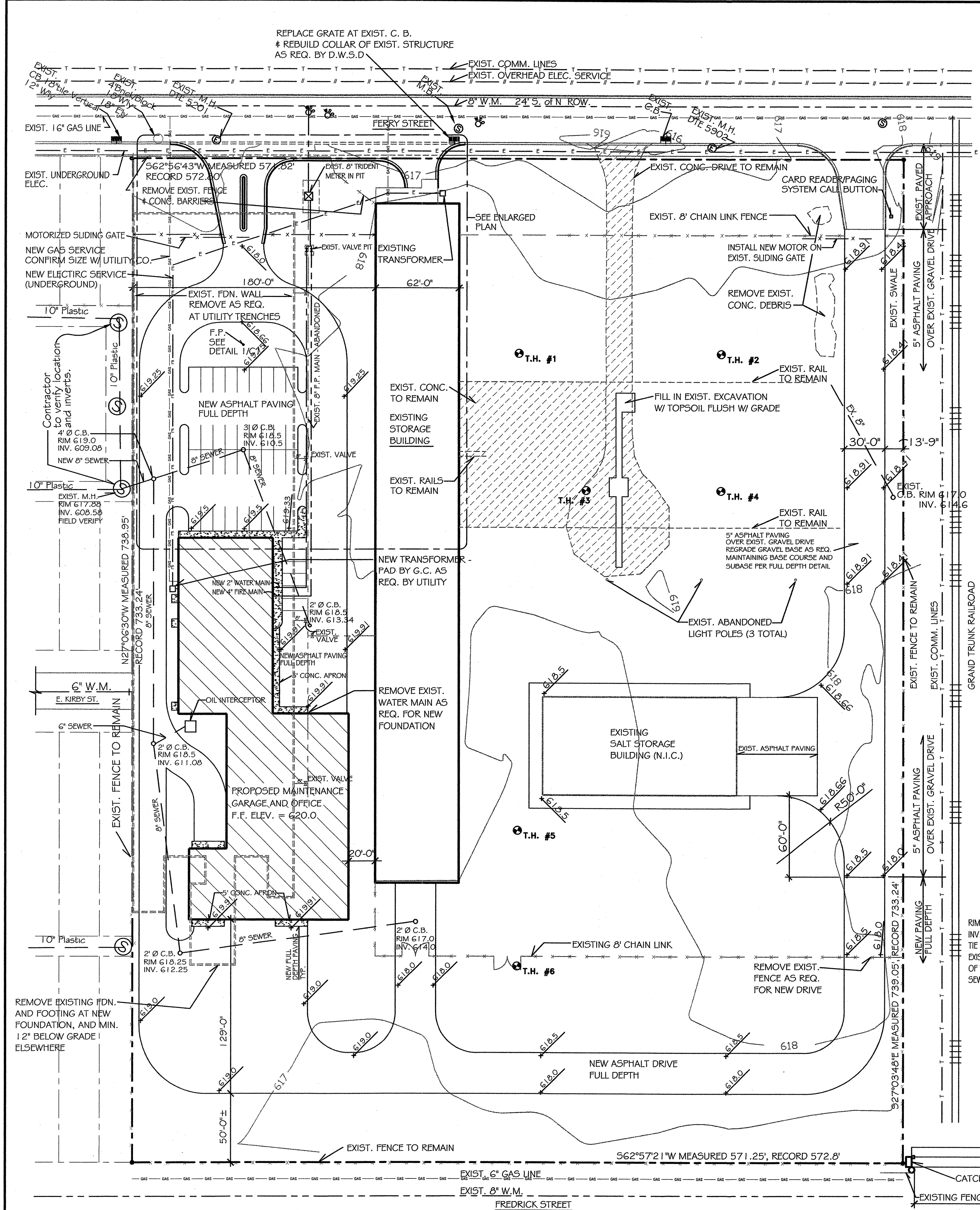
LOCATION MAP
M.D.O.T.
DETROIT MAINTENANCE GARAGE
1500 E. FERRY ST.
DETROIT, MICHIGAN 48211
WAYNE COUNTY
NOT TO SCALE

GENERAL NOTES:

- CONTRACTOR IS OBLIGATED TO VERIFY AND/OR ESTABLISH ALL DIMENSIONS, ELEVATIONS AND CONDITIONS IN THE FIELD.
- IF THE EXISTING FIELD CONDITIONS DO NOT PERMIT THE INSTALLATION OF THE WORK IN ACCORDANCE WITH THE DETAILS SHOWN, THE CONTRACTOR SHALL NOTIFY THE MDOT PROJECT MANAGER IMMEDIATELY AND PROVIDE INFORMATION OF EXISTING CONDITIONS. FINAL INSTALLATION SHALL BE IN ACCORDANCE WITH THE INSTRUCTIONS OF THE MDOT PROJECT MANAGER.
- NO PRODUCTS CONTAINING ASBESTOS OR OTHER HAZARDOUS MATERIALS SHALL BE INSTALLED ON THIS PROJECT OR USED DURING THE CONSTRUCTION OF THE PROJECT. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CERTIFY TO THE OWNER THAT THIS REQUIREMENT HAS BEEN MET. SUBCONTRACTORS SHALL VERIFY TO THE GENERAL CONTRACTOR THAT NO ASBESTOS OR OTHER HAZARDOUS PRODUCTS ARE USED IN THEIR WORK.
- THESE DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE WRITTEN OUTLINE BOOK-FORMAT SPECIFICATIONS PREPARED FOR THIS PROJECT.
- COMPLY WITH MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS FOR INSTALLATIONS OF ALL MATERIALS UNLESS MORE STRINGENT REQUIREMENTS ARE SPECIFIED.
- THIS PROJECT IS DESIGNED TO BE IN ACCORDANCE WITH THE MICHIGAN BARRIER FREE CODE AND REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA), FOR NEW WORK AND ALTERATIONS ONLY.
- THE CONTRACTOR SHALL NOTIFY "MISS DIG" (1-800-482-7171) AT LEAST THREE FULL WORKING DAYS PRIOR TO EACH EXCAVATION IN THE VICINITY OF UTILITY LINES. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE PART OF THE "MISS DIG" SYSTEM.

ALL WORK MUST BE 100% COMPLETE BY DATE INDICATED IN SPECIFICATIONS OR AN AMOUNT OF \$500 PER DAY WILL BE DEDUCTED FROM THE ORIGINAL CONTRACT AMOUNT UNTIL THE PROJECT IS COMPLETED.

MDOT Michigan Department of Transportation BUREAU OF CONSTRUCTION TECHNOLOGICAL SERVICES DIVISION FACILITIES MANAGEMENT SECTION TRANSPORTATION BUILDING LANSING, MICHIGAN	MDOT APPROVAL APPROVED BY: <i>[Signature]</i> DATE: 1-25-06 APPROVED BY: <i>[Signature]</i> DATE: 1-25-06 RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i> DATE: 1-25-06	ACCOUNT NO. 116-59-8260-060 DATE 12-22-05 REVISIONS	PROPOSED MAINTENANCE GARAGE METRO REGION 1500 EAST FERRY STREET DETROIT, MICHIGAN 48211	TITLE SHEET SHEET NO. T1
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PROPOSED MAINTENANCE GARAGE

METRO REGION

1500 EAST FERRY STREET

DETROIT, MICHIGAN 48211

MDOT

Michigan Department of Transportation

TECHNOLOGICAL SERVICES DIVISION

FACILITIES MANAGEMENT SECTION

TRANSFORMATION BUILDING

LANSING, MICHIGAN

MDOT APPROVAL

APPROVED BY: *[Signature]* DATE: 1-25-06

APPROVED BY: *[Signature]* DATE: 1-25-06

PRELIM. CONST. FINAL REC. DATE

116-59-8260

12-22-05

DEPARTMENT OF MANAGEMENT AND BUDGET OFFICE OF FACILITIES

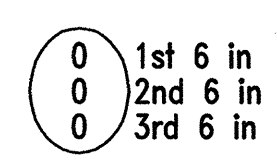
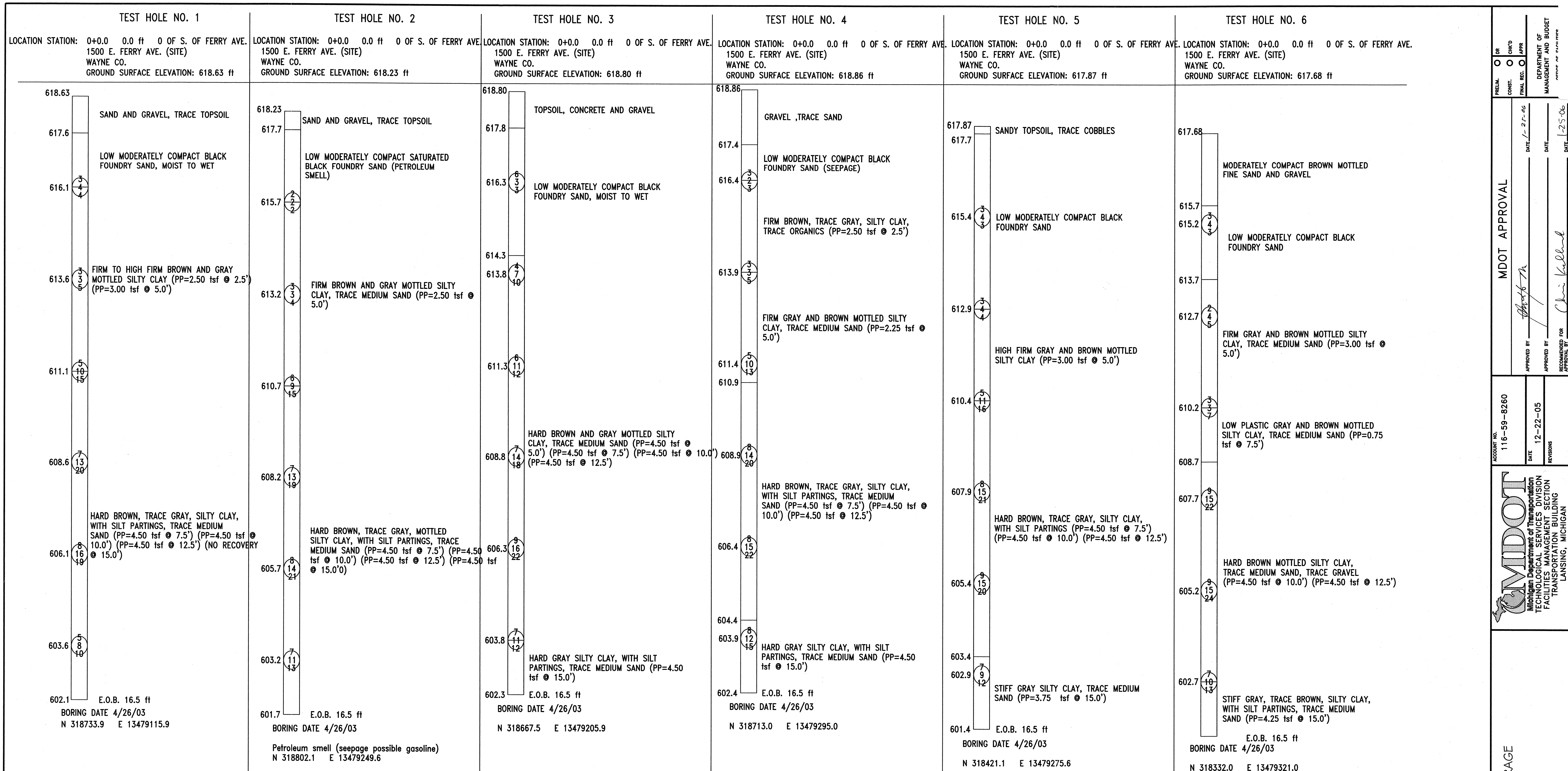
REVISIONS

SITE PLAN

C1

SHEET NO.

C1



NUMBERS IN CIRCLES DENOTE NUMBER OF BLOWS REQUIRED TO DRIVE A 2" O.D. X 1.5" I.D. SPLIT SPOON SAMPLER 3 SUCCESSIVE 6" INCREMENTS USING A 140 lb HAMMER FALLING 30".

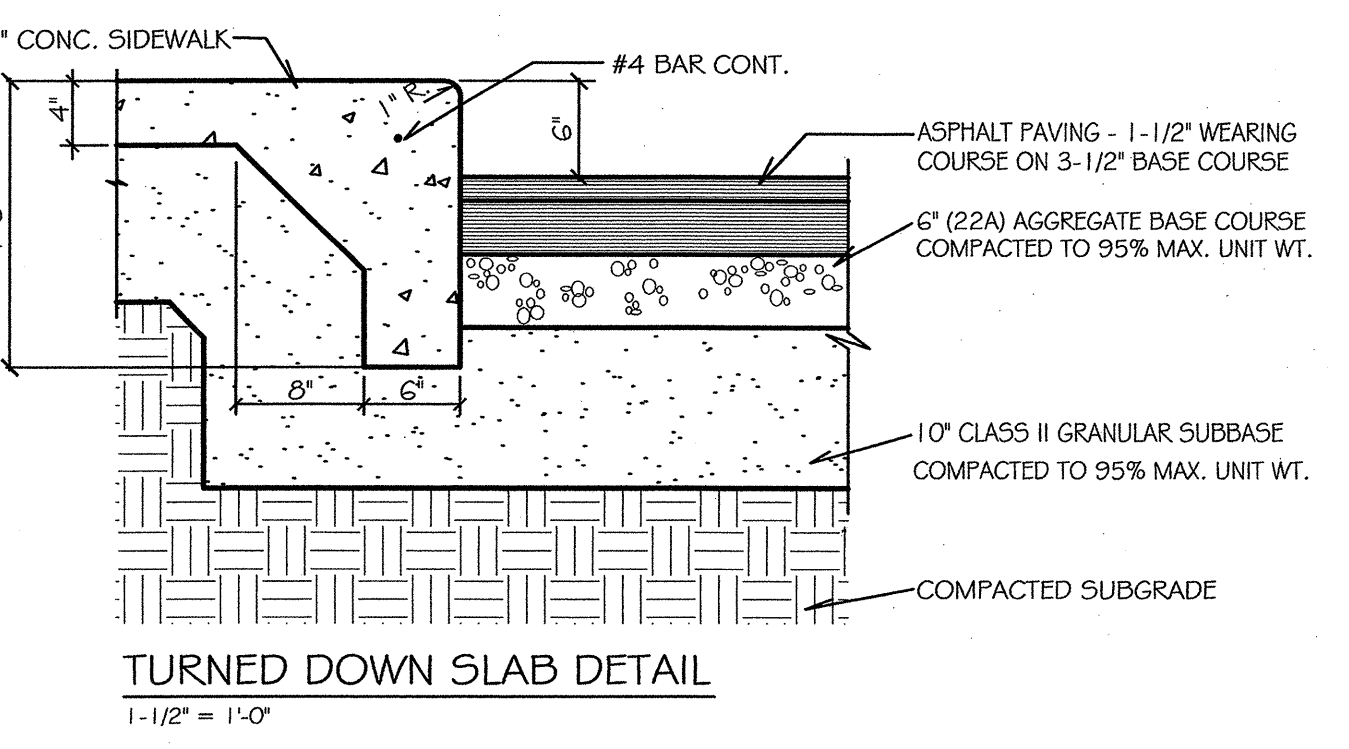
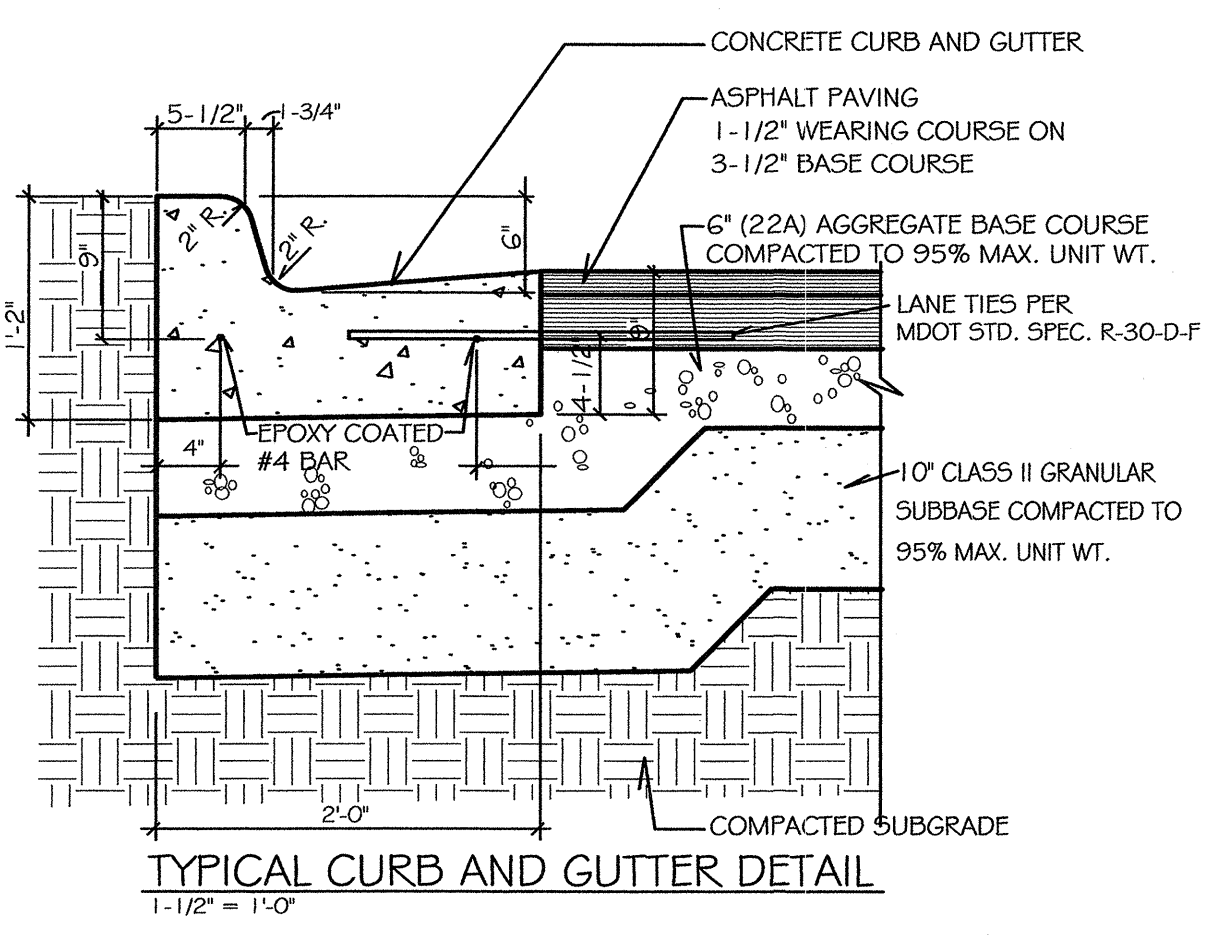
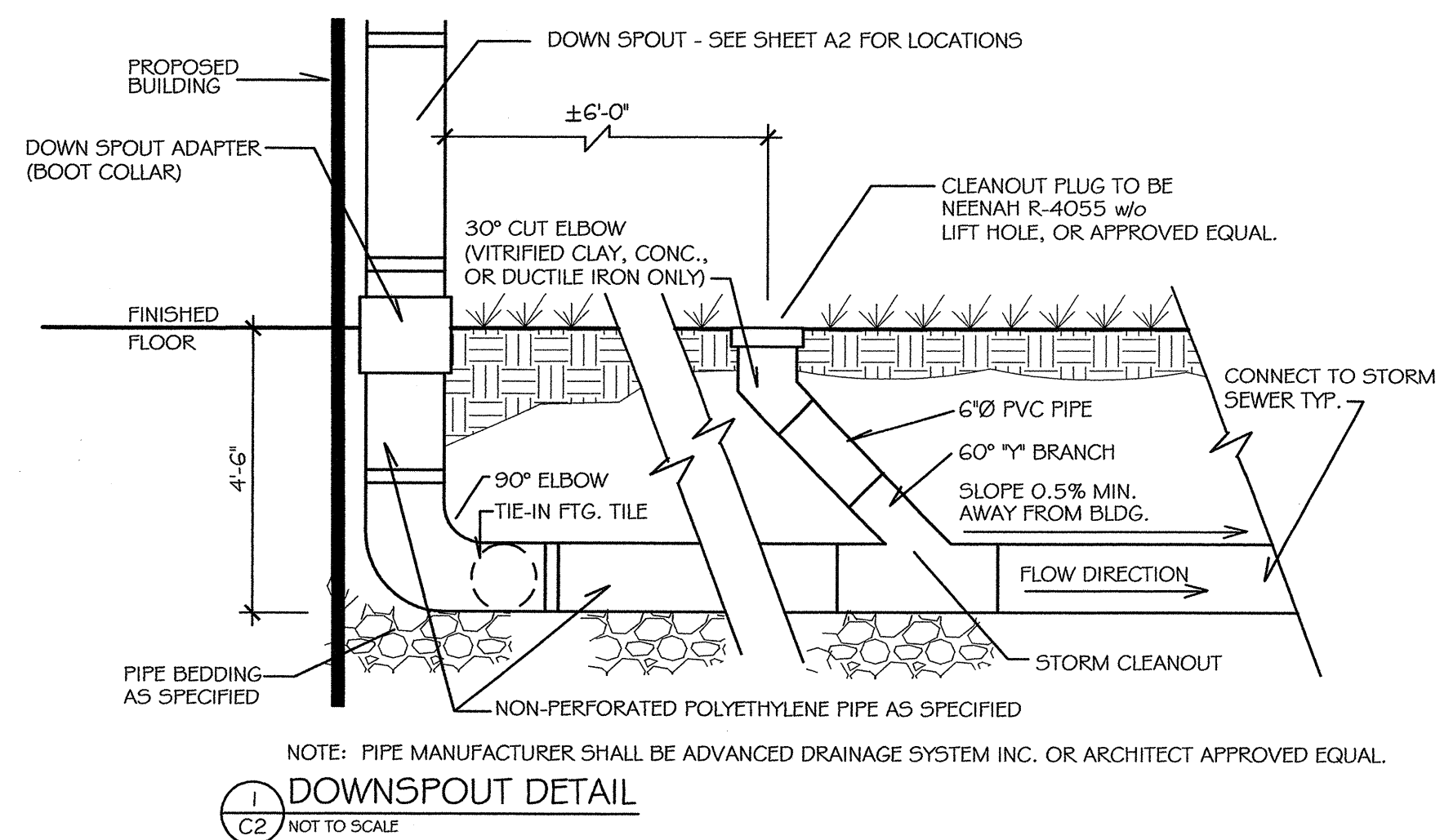
CONSISTENCY DETERMINED BY INSPECTION OF SAMPLES AND BY SOIL RESISTANCE TO PENETRATION BY JET ROD AND CASING OR AUGER.

WATER LEVELS MAY BE INFLUENCED BY RESIDUAL BORING WATER

THE SOIL BORING LOGS REPRESENT POINT INFORMATION. PRESENTATION OF THIS INFORMATION IN NO WAY IMPLIES THAT THE SUBSURFACE CONDITIONS ARE THE SAME AT LOCATIONS OTHER THAN THE EXACT LOCATION OF THE BORING.

SOIL BORING DATA

NOTE: FOR ADDITIONAL SOIL BORINGS SEE SPECIFICATION SECTION 00210.



PRELIM. O OR CONST. O CH'D O APR. O

DATE 12-27-06

APPROVED BY [Signature]

DATE 12-22-05

REVISIONS

MDOT APPROVAL

ACCOUNT NO. 116-59-8260

DATE 12-22-05

REVISIONS

MDOT

Michigan Department of Transportation

TECHNOLOGICAL SERVICES DIVISION

FACILITIES MANAGEMENT SECTION

TRANSPORTATION BUILDING

LANSING, MICHIGAN

PROPOSED MAINTENANCE GARAGE

METRO REGION

1500 EAST FERRY STREET

DETROIT, MICHIGAN 48211

SOIL BORING DATA

SITE DETAILS

SHEET NO.

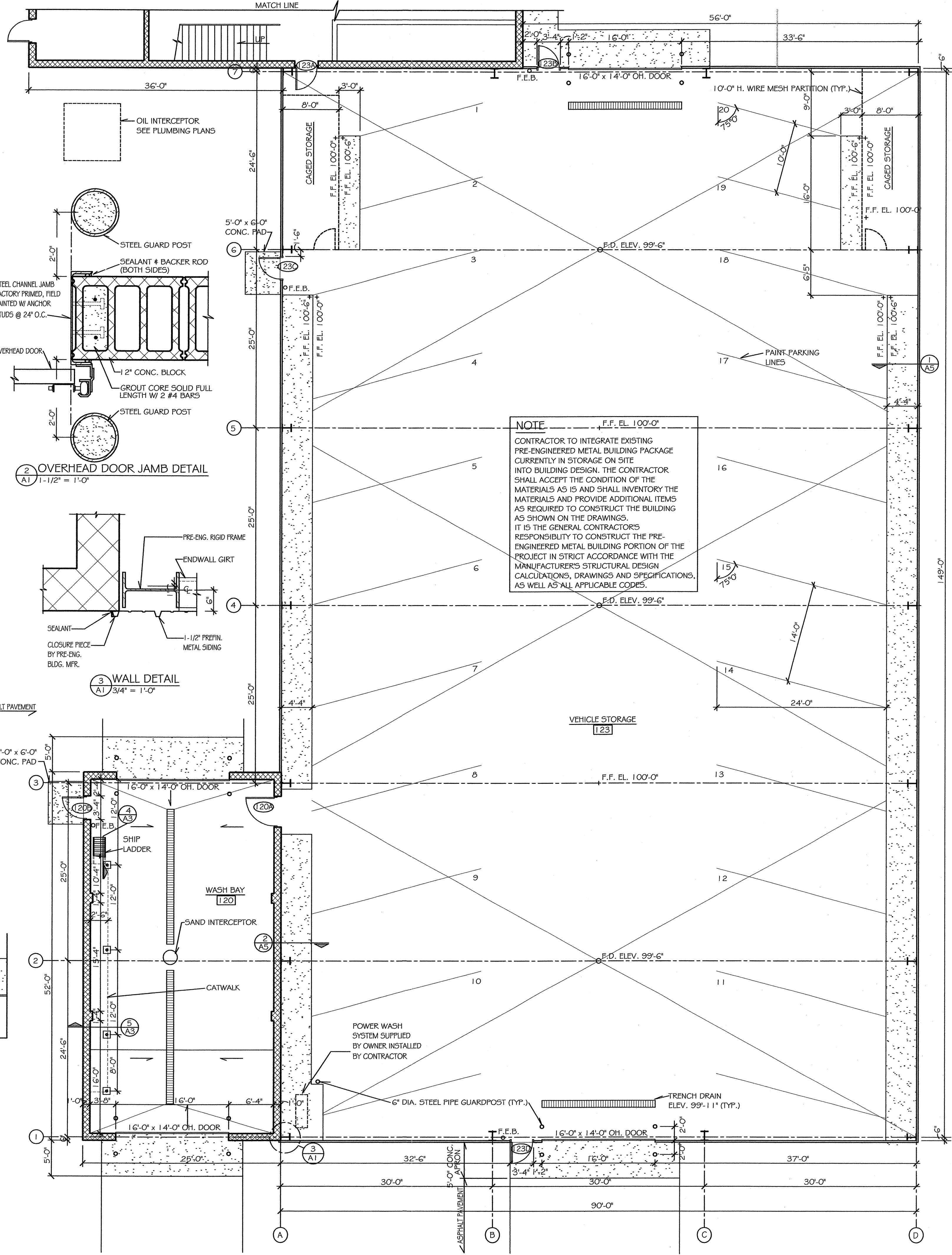
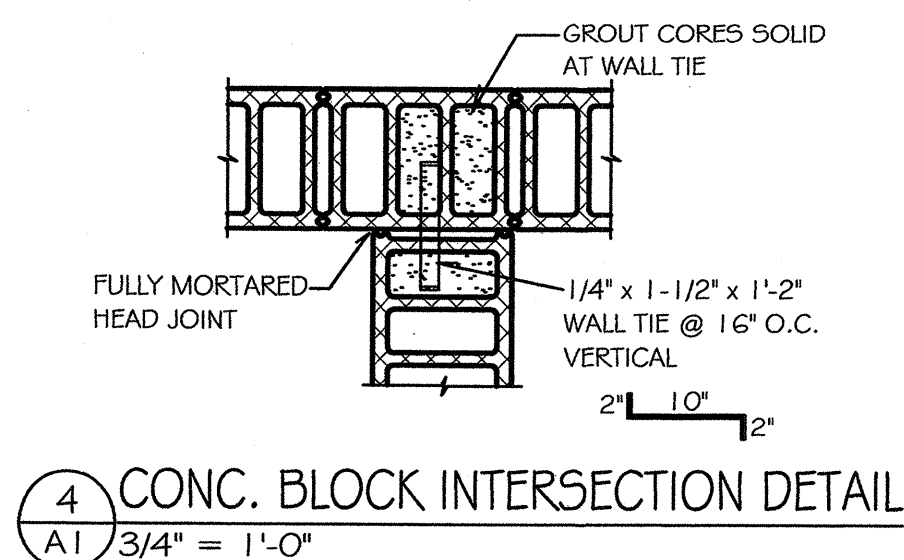
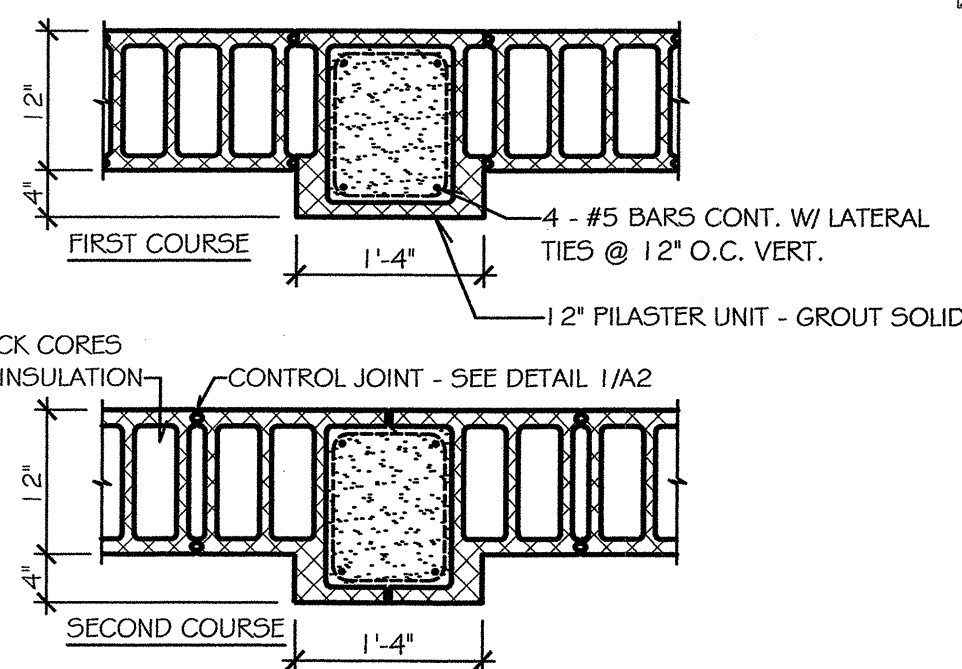
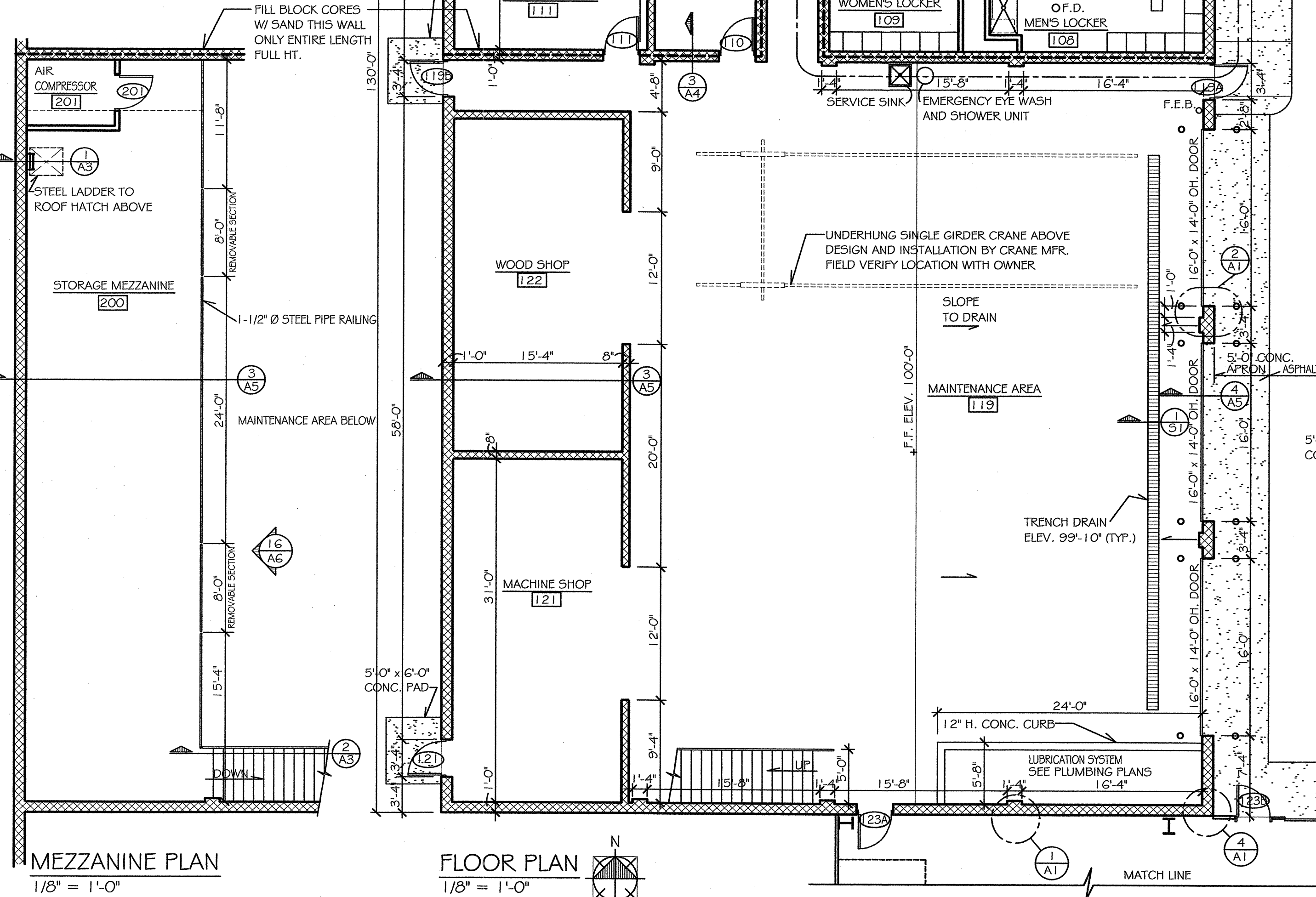
C2

WALL KEY

- 12" (UNLESS NOTED OTHERWISE) CONCRETE MASONRY BLOCK FULL HEIGHT (UNLESS NOTED OTHERWISE) FILL CORES W/ SAND ON INTERIOR WALLS WHERE NOTED, AND FILL CORES W/ LOOSE FILL INSULATION ON EXTERIOR FULL HEIGHT
- 12" CONCRETE MASONRY BLOCK FULL HEIGHT TO UNDERSIDE OF DECK (3 HOUR)
- 5/8" GYP. BD. ON 1" METAL Z-FURRING CHANNELS @ 24" O.C. W/ 1" RIGID INSUL. BETWEEN ON NEW CONCRETE BLOCK.
- 5/8" GYP. BD. BOTH SIDES OF 2x4 WOOD STUDS @ 16" O.C. MIN. 6" ABOVE CEILING. BRACE TO STRUCTURE ABOVE AS REQ. INSTALL SOUND ATTENUATION BATTS BETWEEN STUDS. SILL PLATE TO BE PRESSURE TREATED. NOTE: ALL GYP. BD. INSTALLED INSIDE ROOMS 107, 108, AND 109 TO BE WATER RESISTANT TYPE (CEMENT BOARD IN SHOWER AREAS)
- 5/8" FIRE RATED GYP. BD. BOTH SIDES OF 2x4 WOOD STUDS @ 16" O.C. FULL HT. TO BOT. OF DECK W/ SOUND ATTN. BATTS BETWEEN STUDS. SILL PLATE TO BE PRESSURE TREATED U.L. DESIGN #U305 (1 HOUR)

NOTES

- F.E.B. = FIRE EXTINGUISHER WITH BRACKET
F.E.C. = FIRE EXTINGUISHER CABINET
- THE FOLLOWING SPACES SHALL BE EQUIPPED WITH AN AUTOMATIC FIRE SPRINKLER SYSTEM (DESIGN AND LAYOUT OF SYSTEM TO BE BY A LICENSED SPRINKLER CONTRACTOR IN ACCORDANCE WITH ALL APPLICABLE CODES):
MECHANICAL ROOM 113
MAINTENANCE AREA 119
WASH BAY 120
MACHINE SHOP 121
WOOD SHOP 122
VEHICLE STORAGE 123



MDOT APPROVAL

APPROVED BY

DATE

APPROVED BY

DATE

RECOMMENDED FOR APPROVAL BY

DATE

PRELIM. CONST. FINAL REC. OPR.

DEPARTMENT OF

MANAGEMENT AND BUDGET

OFFICE OF FACILITIES

ACCOUNT NO. 116-59-8260

DATE 12-22-05

REVISIONS

MDOT
Michigan Department of Transportation
TECHNOLOGICAL SERVICES DIVISION
FACILITIES MANAGEMENT SECTION
TRANSPORTATION BUILDING
LANSING, MICHIGAN

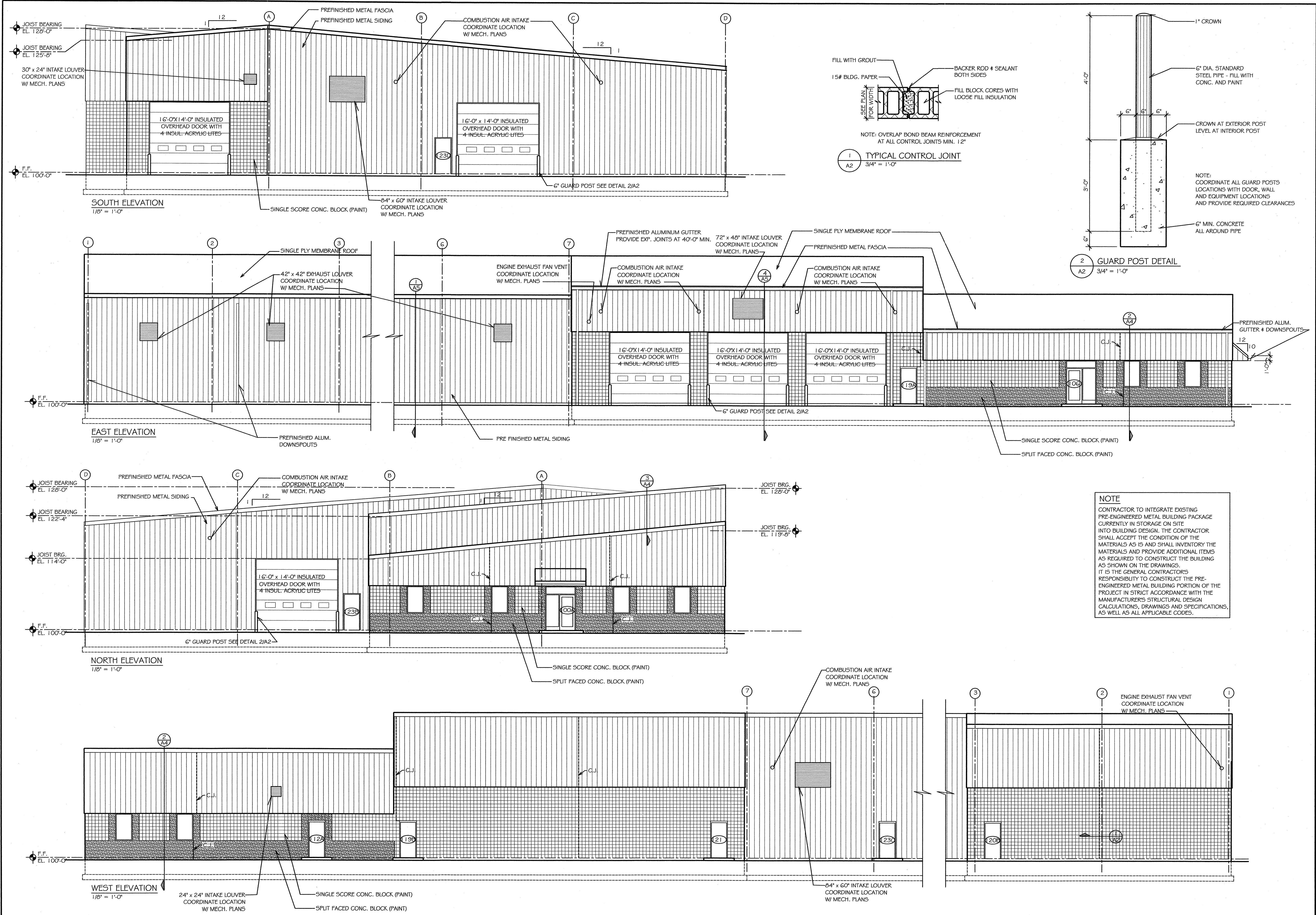
PROPOSED MAINTENANCE GARAGE
METRO REGION
1500 EAST FERRY STREET
DETROIT, MICHIGAN

FLOOR PLAN

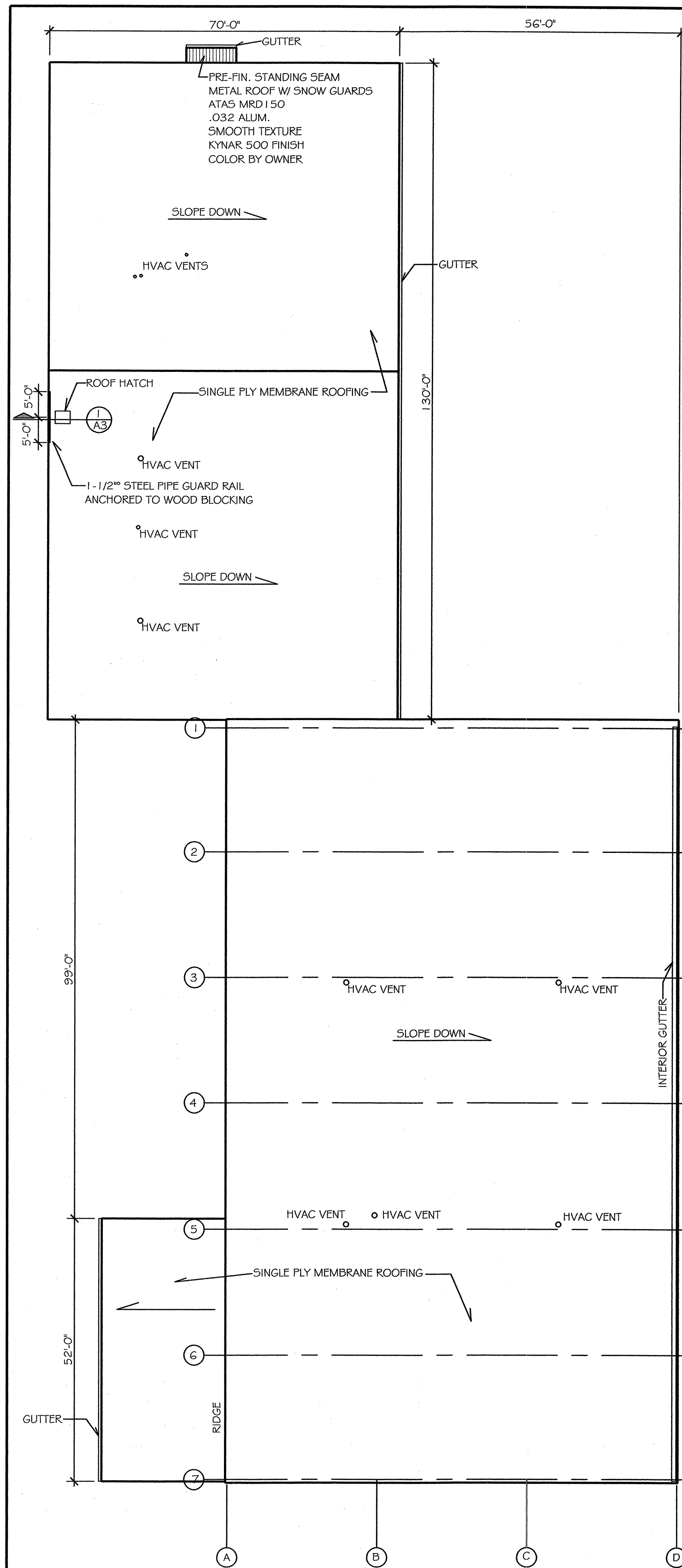
SHEET NO.

A1

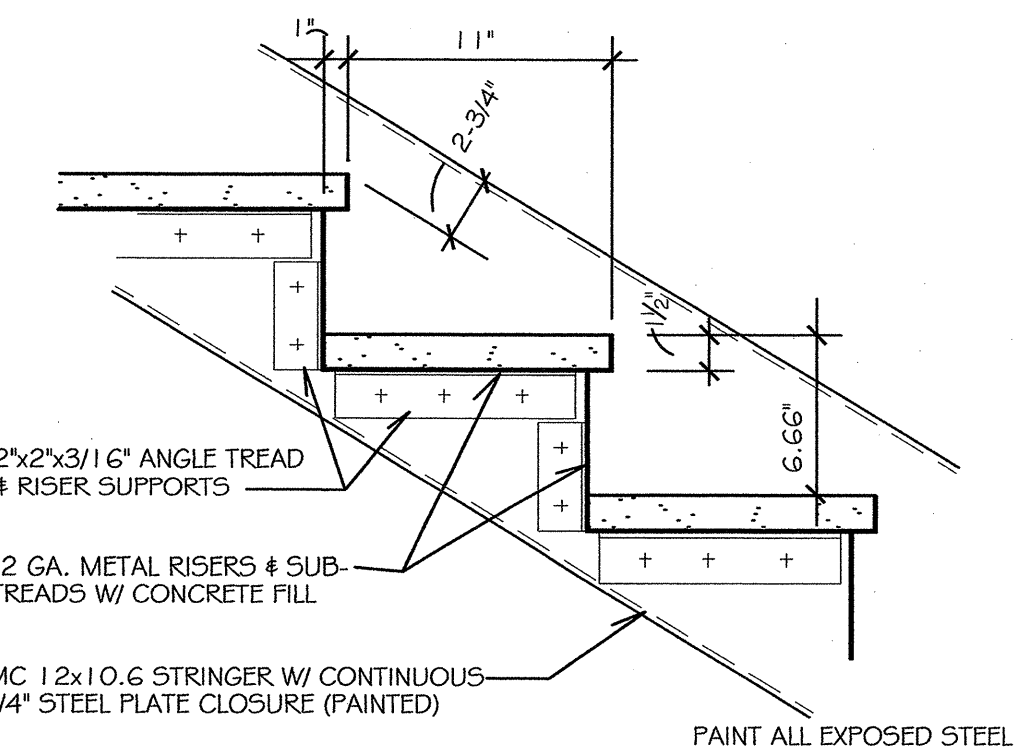
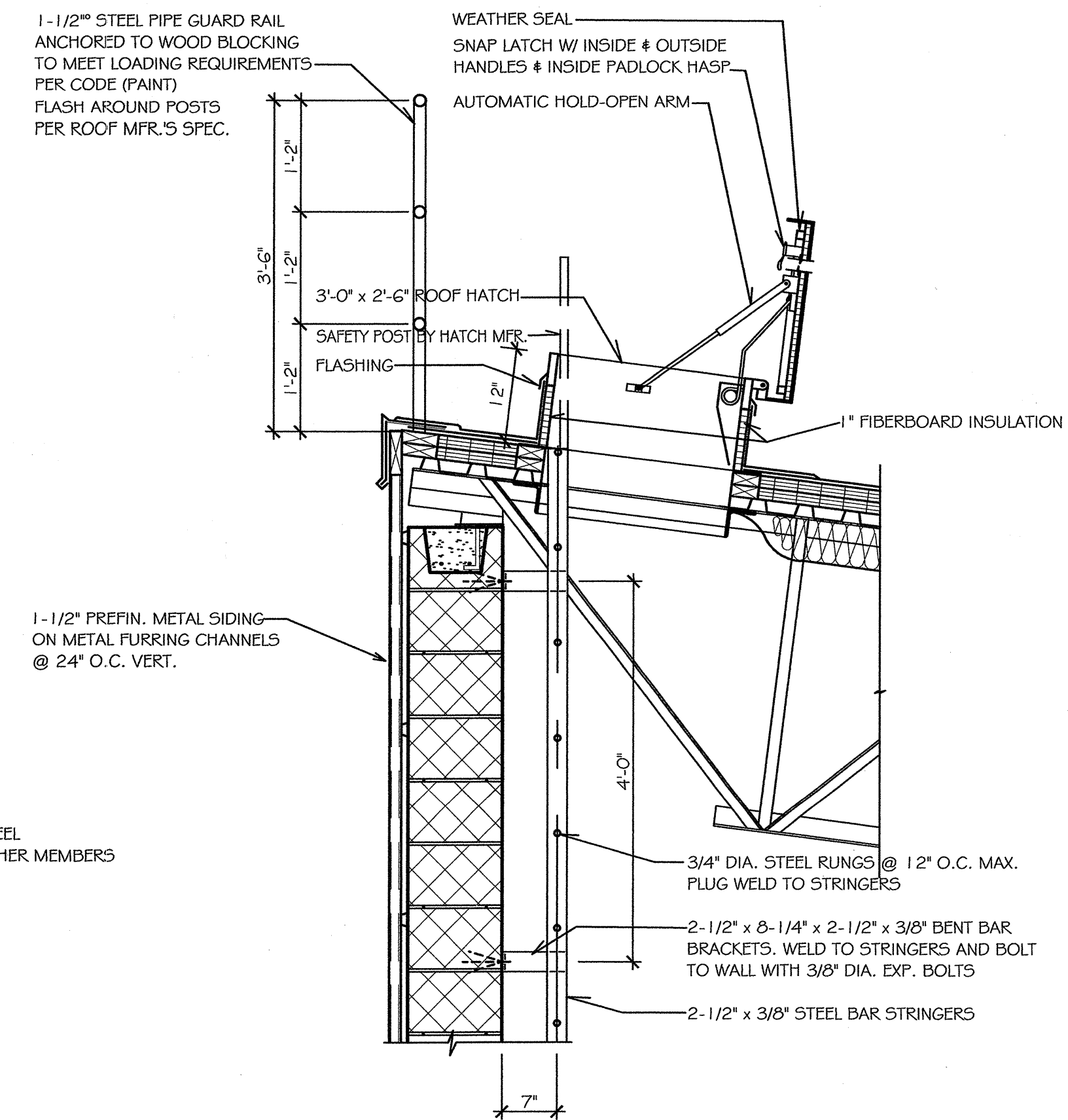
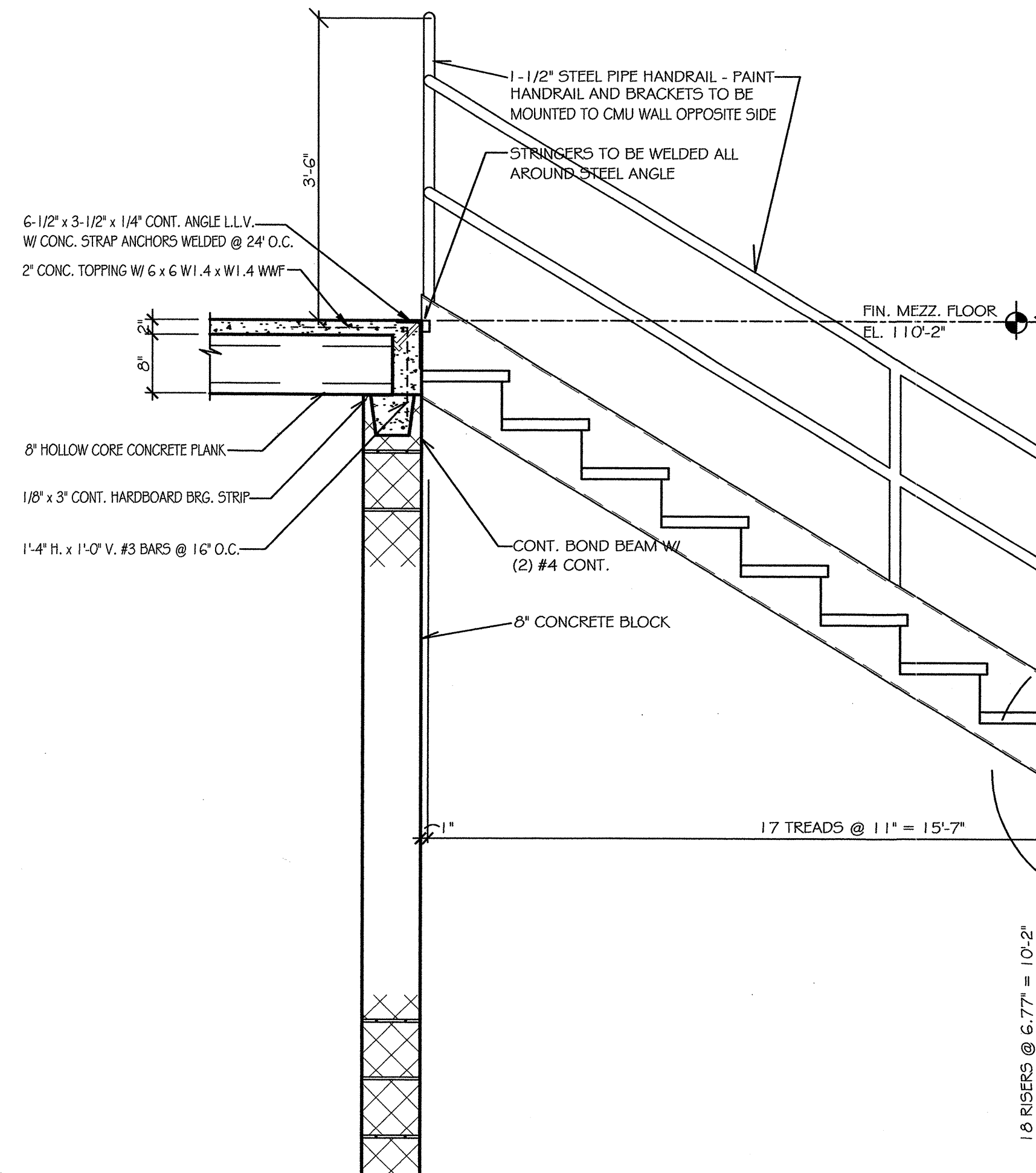
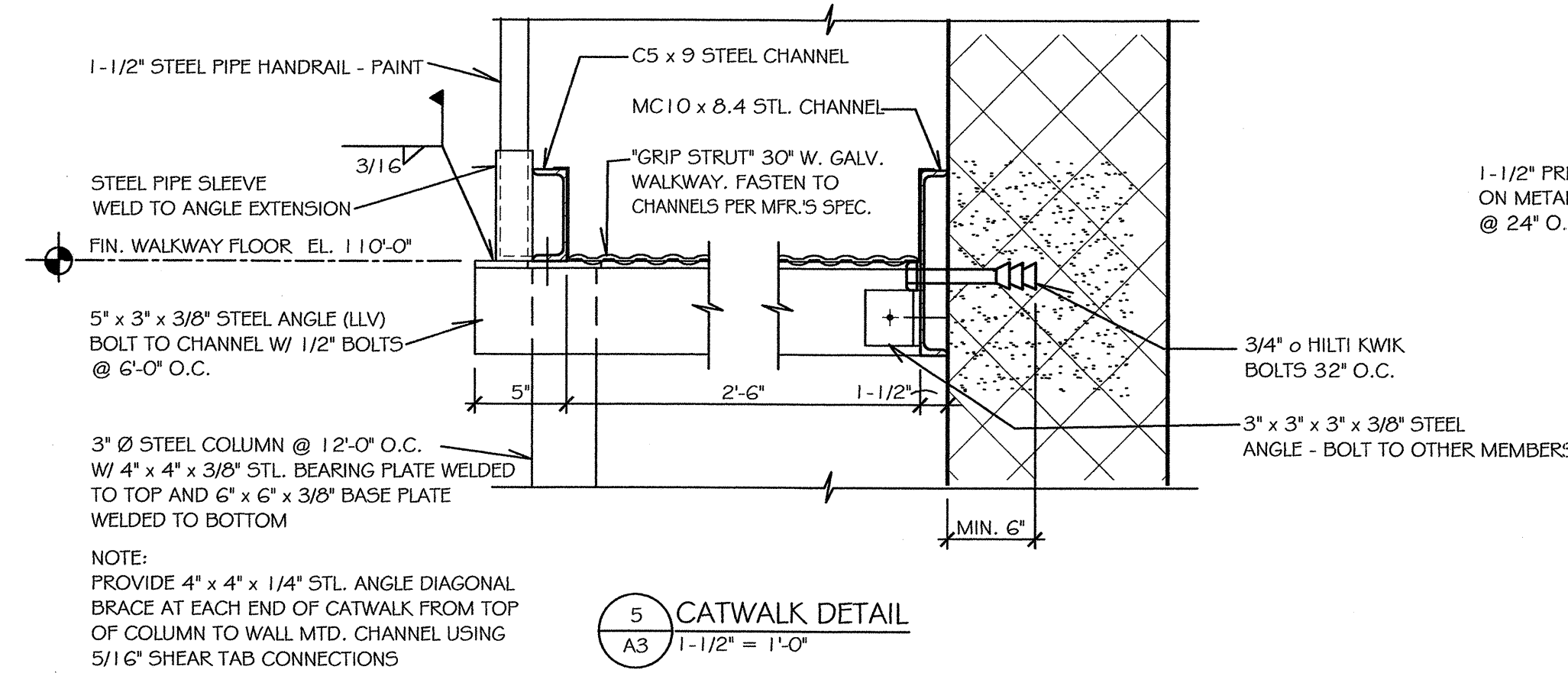
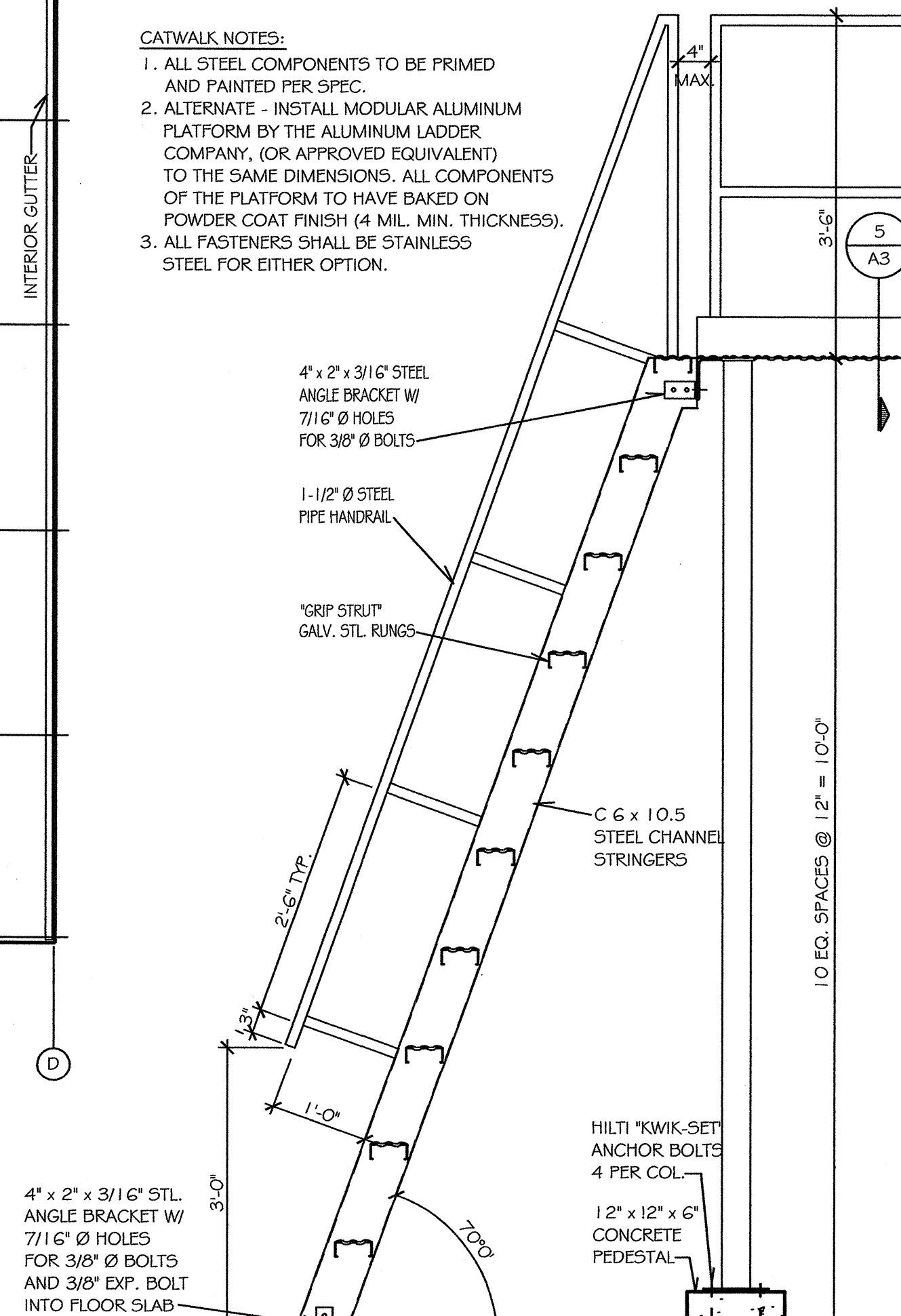
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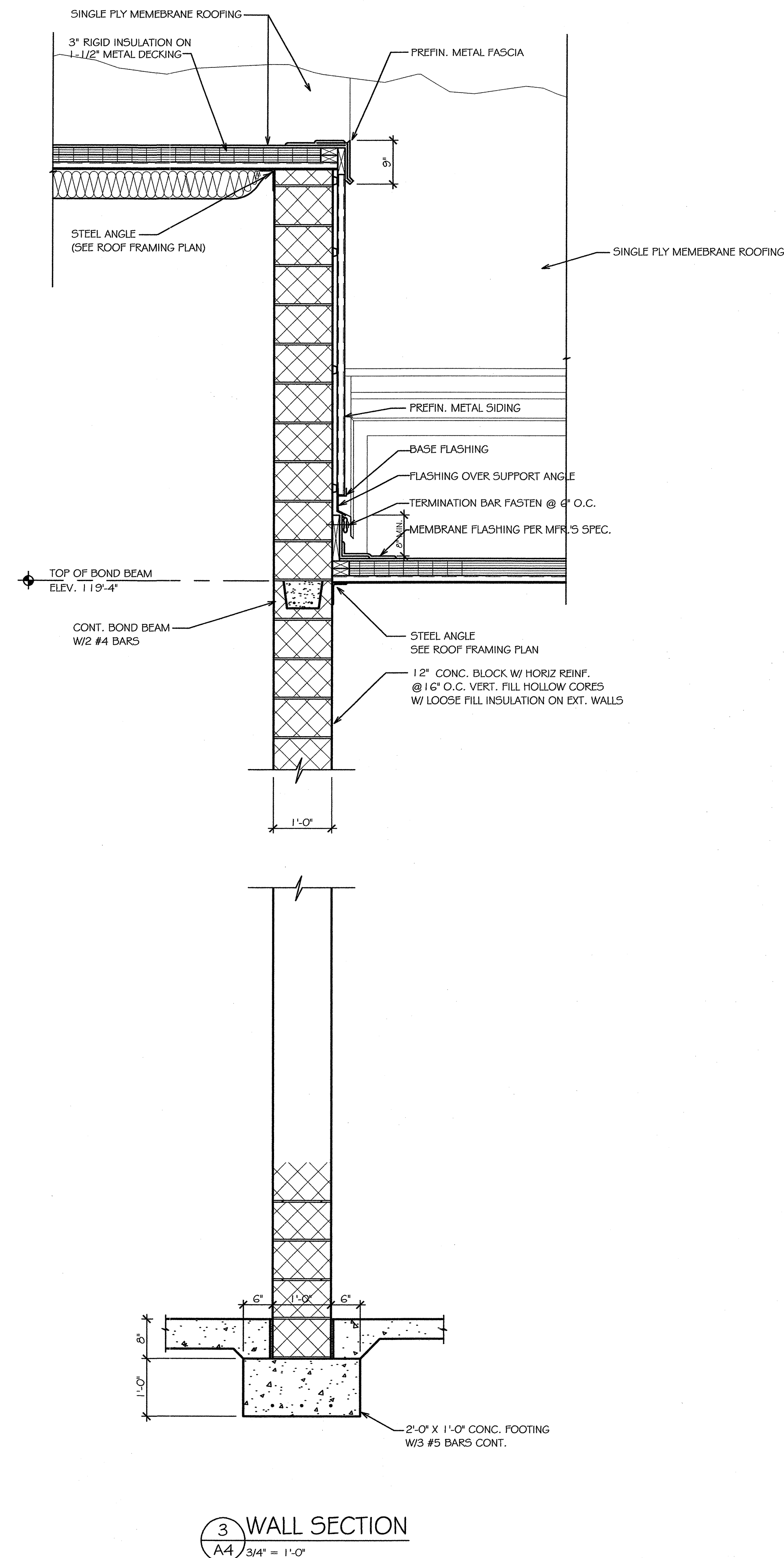
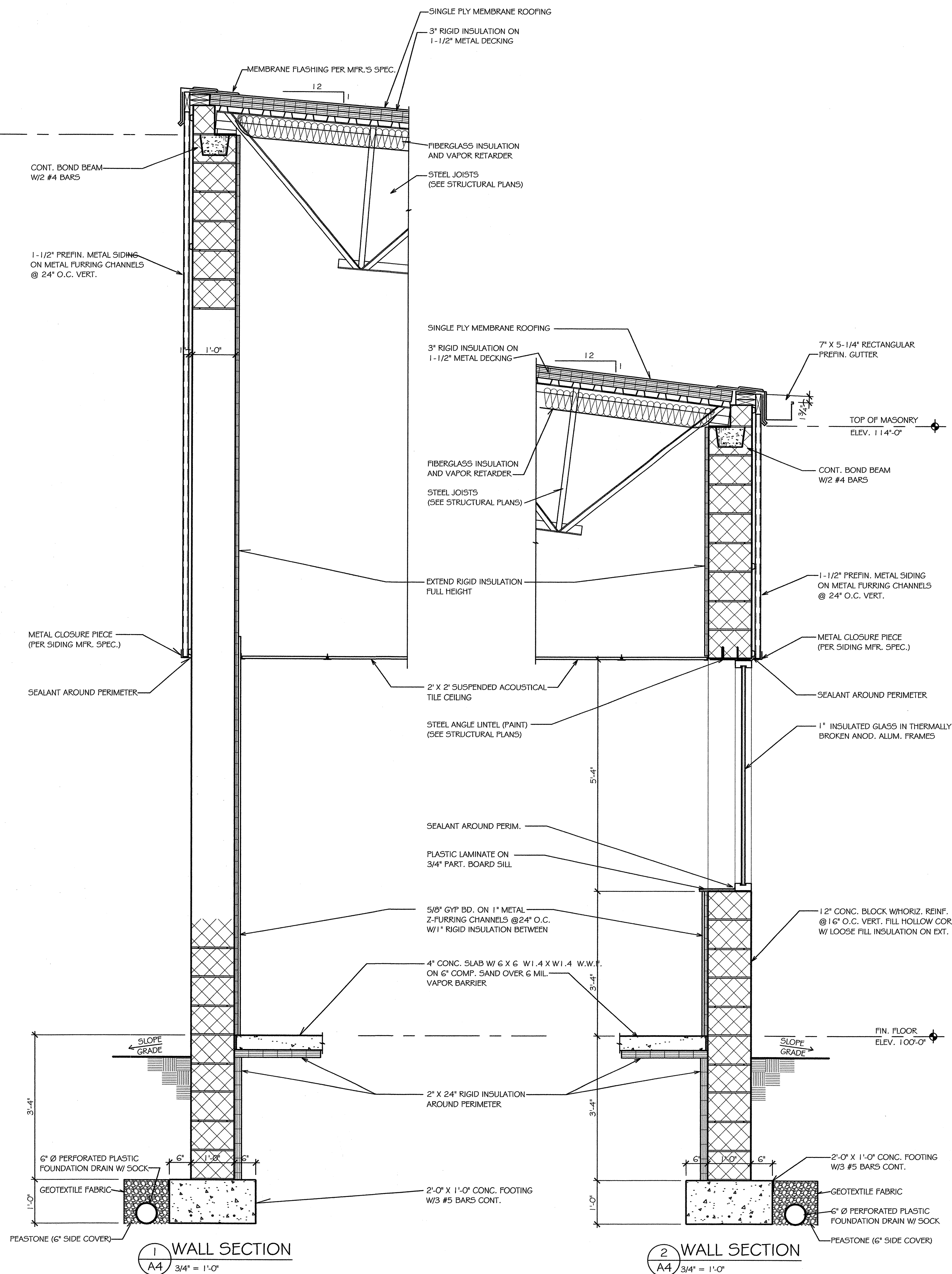
PROPOSED MAINTENANCE GARAGE METRO REGION 1500 EAST FERRY STREET DETROIT, MICHIGAN 48211	
ELEVATIONS	
SHEET NO. A2	
ACCOUNT NO. 116-59-8260	
DATE 12-22-05	
REVISIONS	
MDOT APPROVAL	
DR. PRELIM. CONST. FINAL REC.	CHK'D. APPR.
APPROVED BY: <i>[Signature]</i>	DATE: 1-2-06
APPROVED BY: <i>[Signature]</i>	DATE: 1-25-06
RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i>	
DEPARTMENT OF MANAGEMENT AND BUDGET BUREAU OF FACILITIES	
100433	



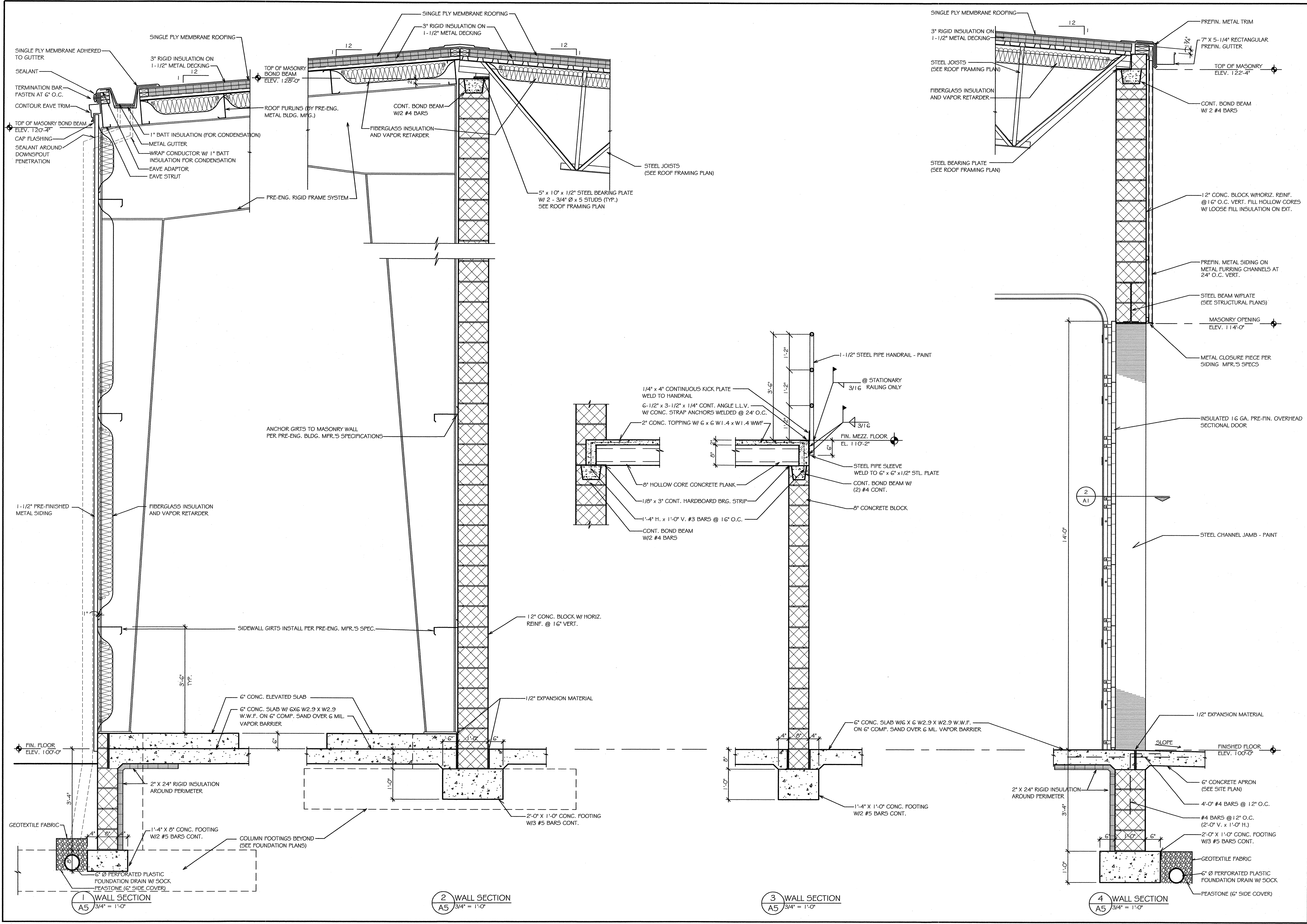
- CATWALK NOTES:**
1. ALL STEEL COMPONENTS TO BE PRIMED AND PAINTED PER SPEC.
 2. ALTERNATE - INSTALL MODULAR ALUMINUM PLATFORM BY THE ALUMINUM LADDER COMPANY, (OR APPROVED EQUIVALENT) TO THE SAME DIMENSIONS. ALL COMPONENTS OF THE PLATFORM TO HAVE BAKED ON POWDER COAT FINISH (4 MIL. MIN. THICKNESS).
 3. ALL FASTENERS SHALL BE STAINLESS STEEL FOR EITHER OPTION.



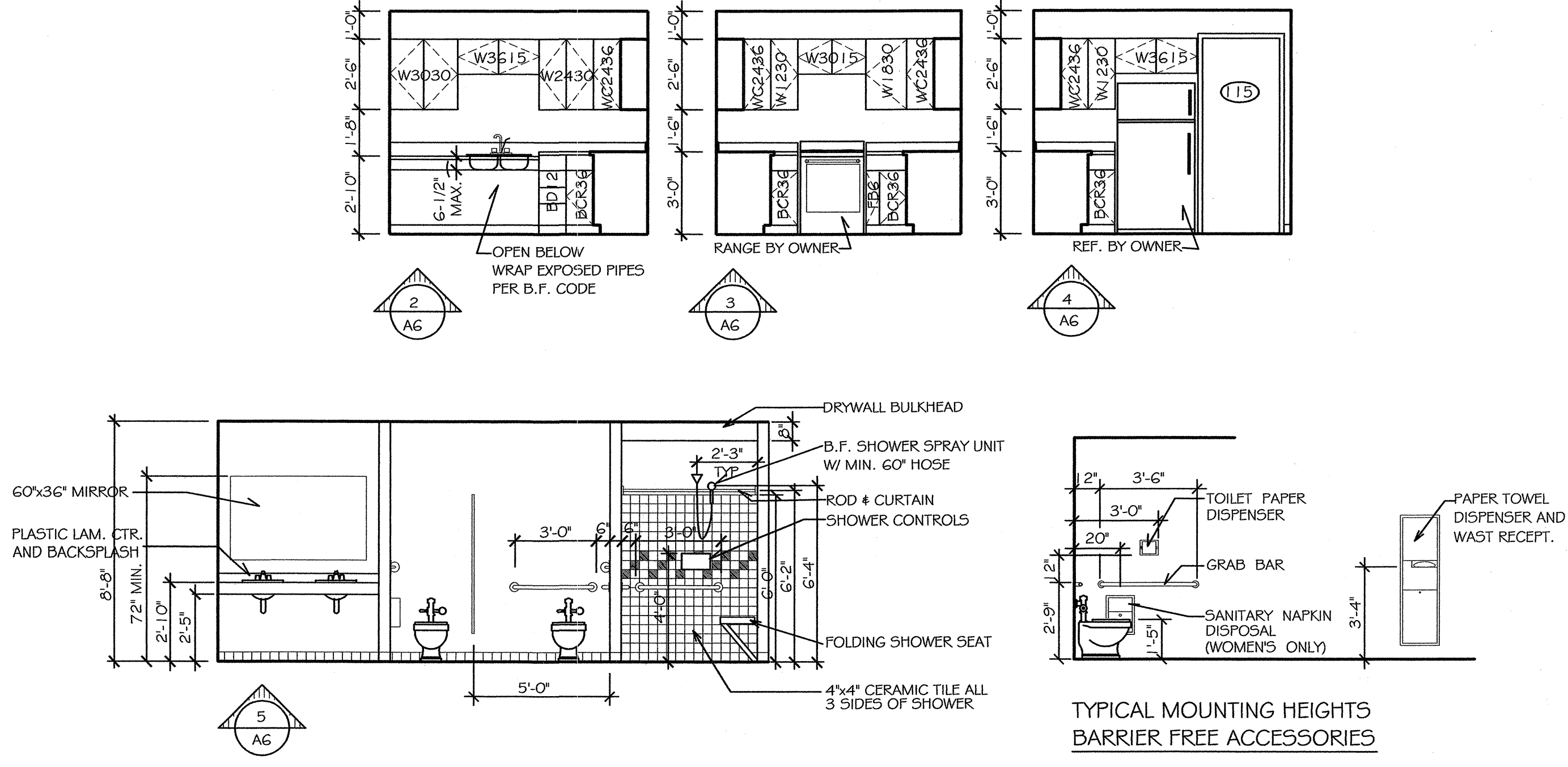
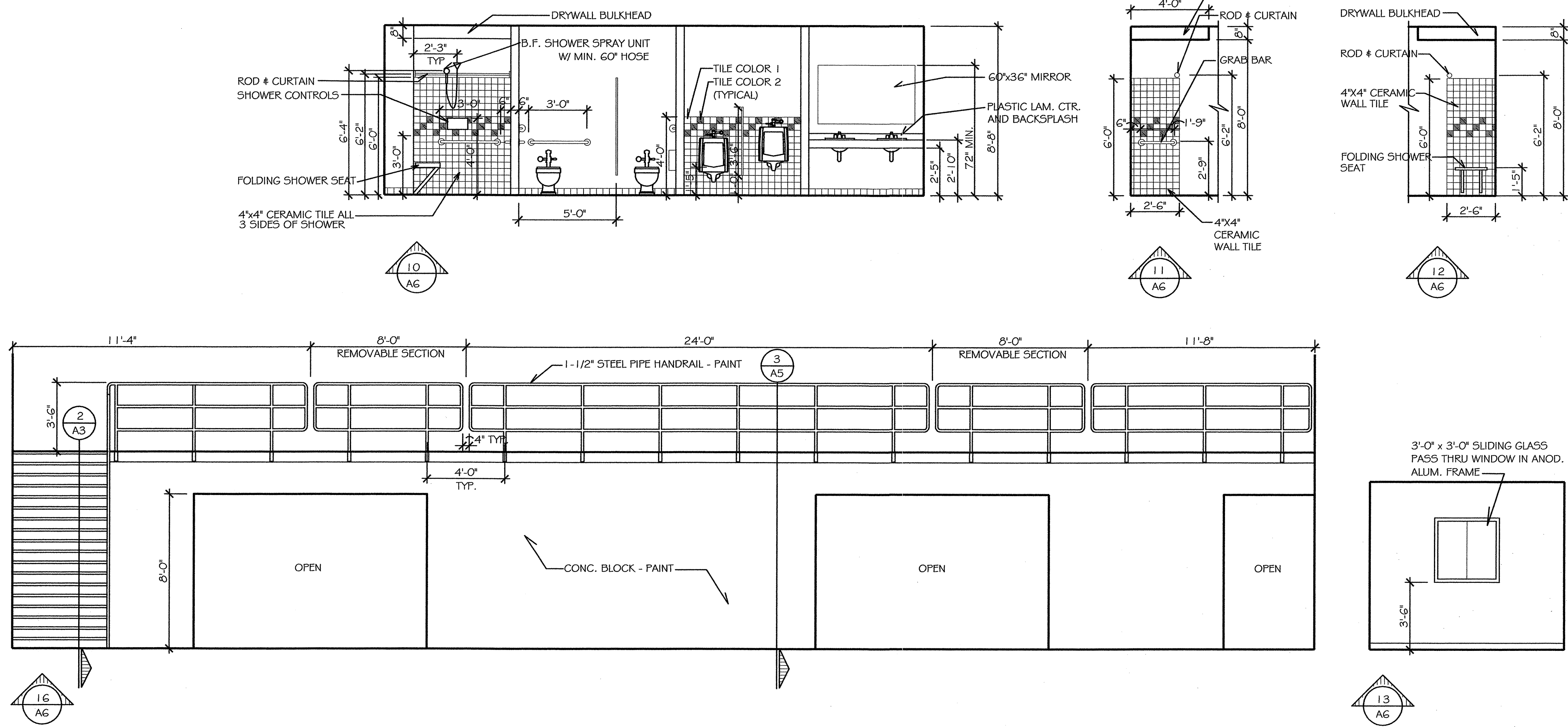
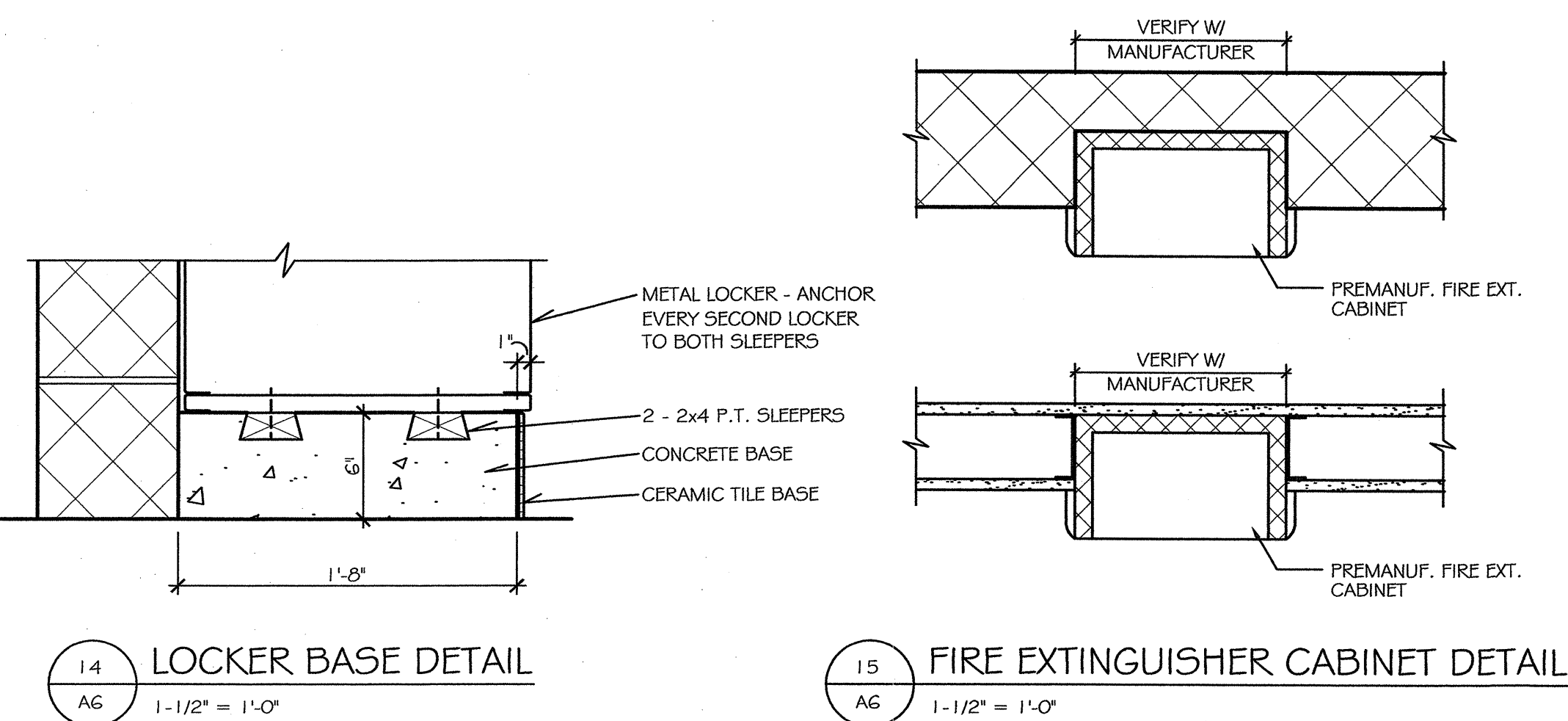
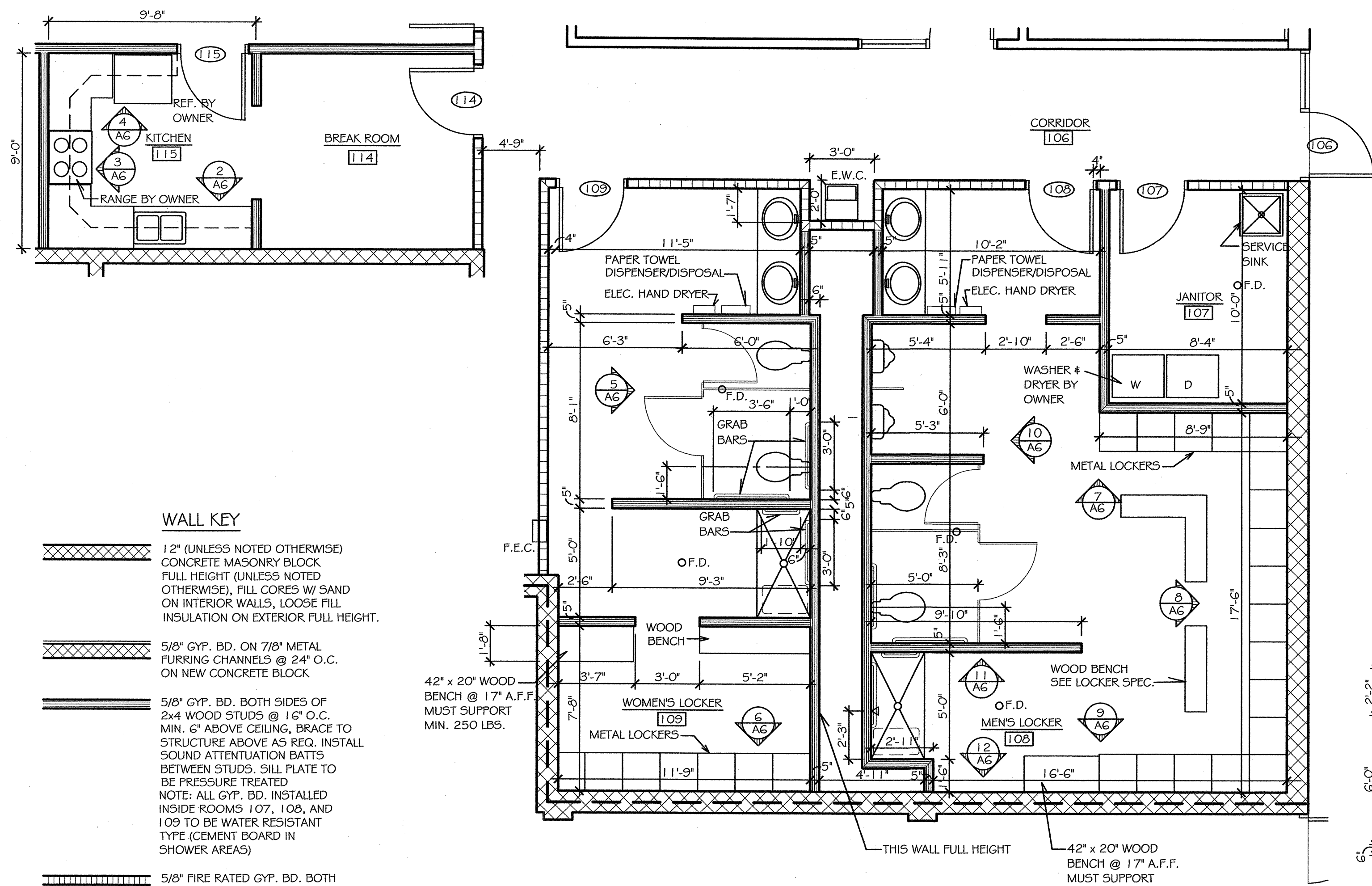
MDOT Michigan Department of Transportation TECHNOLOGICAL SERVICES DIVISION FACILITIES MANAGEMENT BUILDING LANSING, MICHIGAN		ACCOUNT NO. 116-59-8260-060	PRELIM. ☐ OR ☐ CONST. ☐ CH'D ☐ FINAL REC. ☐ APRR ☐
PROPOSED MAINTENANCE GARAGE METRO REGION 1500 EAST FERRY STREET DETROIT, MICHIGAN 48211		DATE 12-22-05	DEPARTMENT OF MANAGEMENT AND BUDGET
SHEET NO. A3		APPROVED BY [Signature]	DATE 1-25-06
ROOF PLAN, DETAILS		APPROVED BY [Signature]	DATE 1-25-06



PRELIM. ☐ DE. ☐ CHG'D ☐ CORR'D ☐ APPR. ☐ CONST. ☐ FINAL REC. ☐		DATE: 12-21-06 DATE: 12-25-06	
MDOT APPROVAL APPROVED BY: <i>[Signature]</i> RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i>		ACCOUNT NO. 116-59-8260-060 DATE: 12-22-05 REVISIONS:	
PROPOSED MAINTENANCE GARAGE METRO REGION 1500 EAST FERRY STREET DETROIT, MICHIGAN 48211			
SHEET NO. A4			



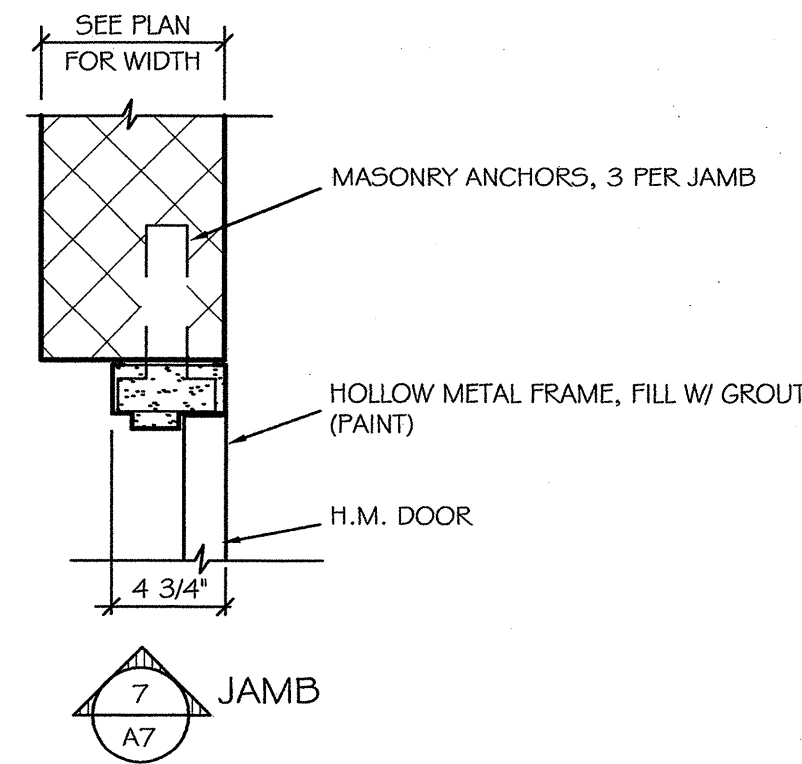
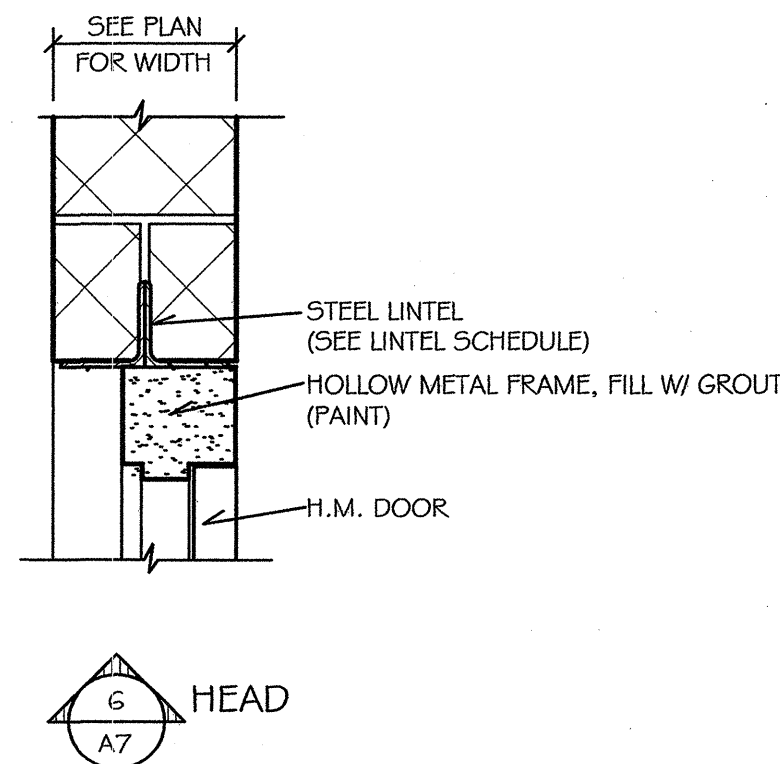
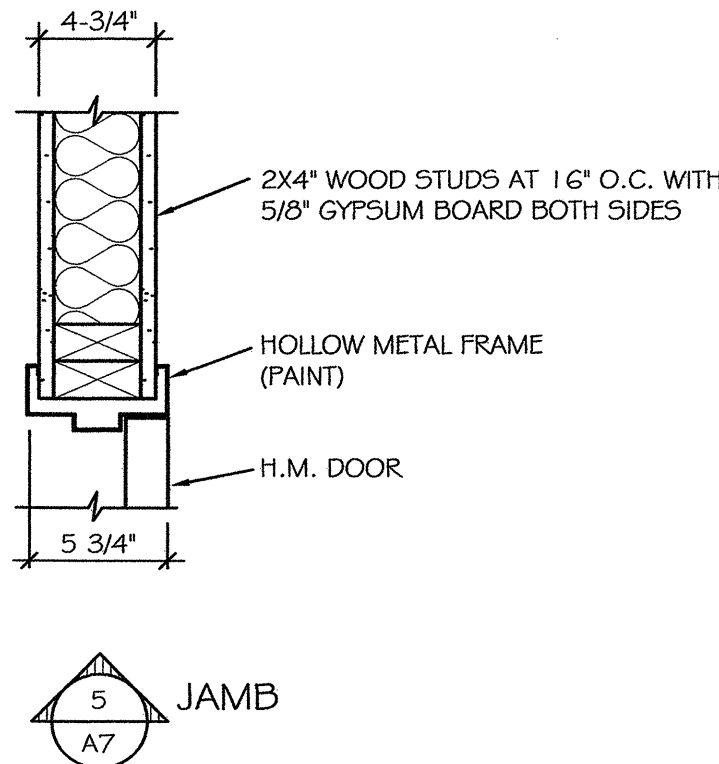
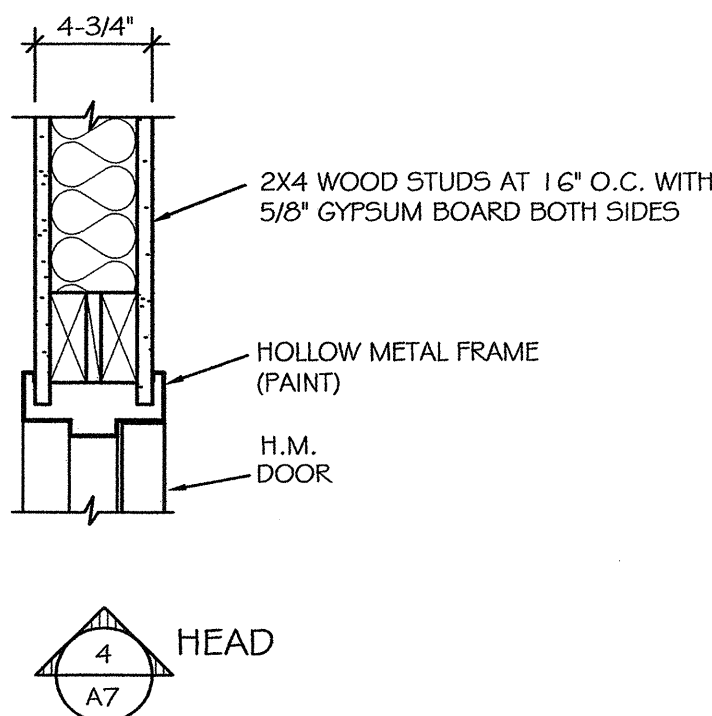
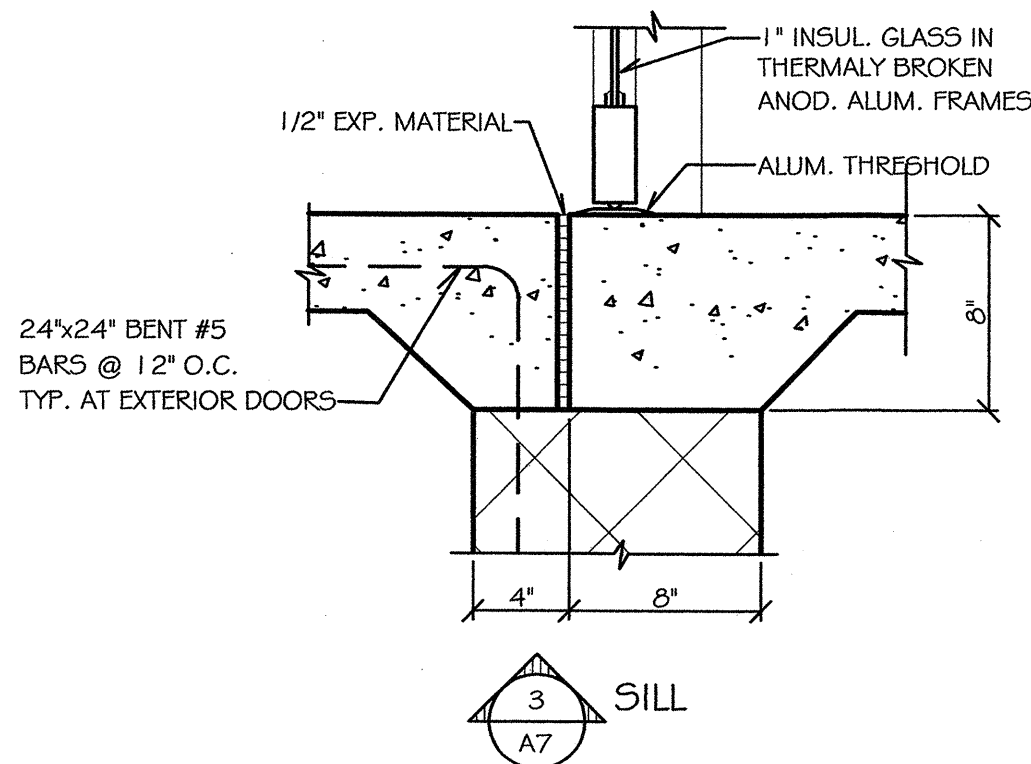
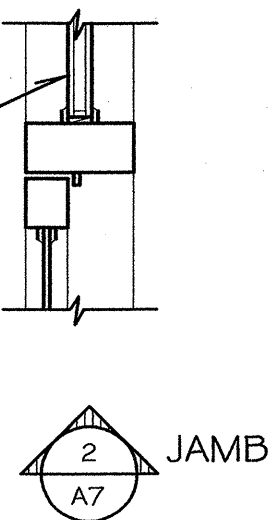
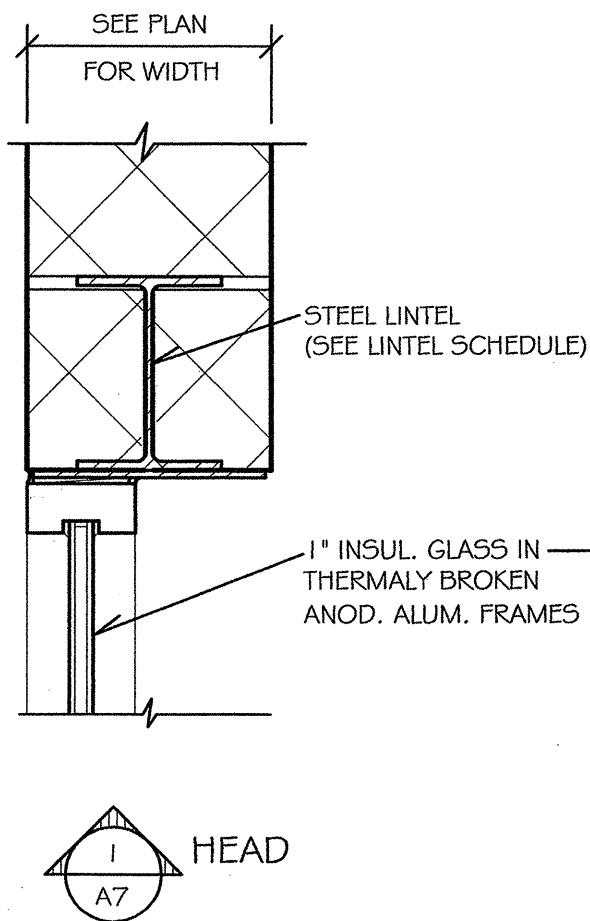
PRELIM. ☐ OR ☒		CONSTR. ☐ OR ☒		FINAL REC. ☐ OR ☒	
APPROVED BY: <i>[Signature]</i>		APPROVED BY: <i>[Signature]</i>		RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i>	
DATE: 1-22-05		DATE: 1-22-05		DATE: 1-25-06	
REVISIONS		REVISIONS		REVISIONS	
ACCOUNT NO. 116-59-8260-060					
MDOT Michigan Department of Transportation TECHNOLOGICAL SERVICES DIVISION FACILITIES MANAGEMENT SECTION TRANSPORTATION BUILDING LANSING, MICHIGAN					
PROPOSED MAINTENANCE GARAGE METRO REGION 1500 EAST FERRY STREET DETROIT, MICHIGAN 48211					
WALL SECTIONS					
SHEET NO. A5					



PRELIM. DR CONST. CHD FINAL REC. APPR	DEPARTMENT OF MANAGEMENT AND BUDGET APPROVED BY: <i>Chris Kallala</i> DATE: 1-25-06
APPROVED BY: <i>Chris Kallala</i> DATE: 12-22-05	REVISIONS DATE: 12-22-05
ACCOUNT NO. 116-59-8280-060 PROPOSED MAINTENANCE GARAGE METRO REGION 1500 EAST FERRY STREET DETROIT, MICHIGAN 48211	
FLOOR PLAN SHEET NO. A6	

DOOR SCHEDULE											
DOOR NO.	DOOR			FRAME		DETAIL			FIRE RATING	HDWR. SET	REMARKS
	SIZE	MATERIAL	TYPE	MATERIAL	TYPE	HEAD	JAMB	SILL			
100A	3'-0" x 7'-0"	ALUM.	A	ALUM.	I	1/A7	2/A7	3/A7		A1	
100B	3'-0" x 7'-0"	ALUM.	A	ALUM.	I	1/A7	2/A7	3/A7		A2	SEE DOOR NOTE #1
101	3'-0" x 7'-0" x 1.75'	H.M.	B	H.M.	III	6/A7	7/A7		180 MIN.	4	
102	3'-0" x 7'-0" x 1.75'	H.M.	D	H.M.	II	4/A7	5/A7			5	
103	3'-0" x 7'-0" x 1.75'	H.M.	D	H.M.	II	4/A7	5/A7			5	
104	3'-0" x 7'-0" x 1.75'	H.M.	B	H.M.	II	4/A7	5/A7			5	
105A	3'-0" x 7'-0" x 1.75'	H.M.	B	H.M.	IV	4/A7	5/A7		60 MIN.	11	
105B	3'-0" x 7'-0" x 1.75'	H.M.	B	H.M.	IV	4/A7	5/A7		60 MIN.	11	SEE DOOR NOTE #1
106	3'-0" x 7'-0"	ALUM.	A	ALUM.	I	1/A7	2/A7	3/A7		A1	SEE DOOR NOTE #1
107	3'-0" x 7'-0" x 1.75'	H.M.	B	H.M.	II	4/A7	5/A7		60 MIN.	2	
108	3'-0" x 7'-0" x 1.75'	H.M.	B	H.M.	II	4/A7	5/A7		60 MIN.	7	
109	3'-0" x 7'-0" x 1.75'	H.M.	B	H.M.	II	4/A7	5/A7		60 MIN.	7	
110	3'-0" x 7'-0" x 1.75'	H.M.	B	H.M.	III	6/A7	7/A7		180 MIN.	4	
111	3'-0" x 7'-0" x 1.75'	H.M.	B	H.M.	III	6/A7	7/A7		180 MIN.	6	
112A	3'-0" x 7'-0" x 1.75'	H.M.	B	H.M.	III	6/A7	7/A7			8	
112B	3'-0" x 7'-0" x 1.75'	H.M.	B	H.M.	III	6/A7	7/A7		60 MIN.	9	
113	3'-0" x 7'-0" x 1.75'	H.M.	B	H.M.	III	6/A7	7/A7		60 MIN.	10	
114	3'-0" x 7'-0" x 1.75'	H.M.	C	H.M.	II	4/A7	5/A7		60 MIN.	3	
115	3'-0" x 7'-0" x 1.75'	H.M.	B	H.M.	II	4/A7	5/A7			3	
116	3'-0" x 7'-0" x 1.75'	H.M.	B	H.M.	II	4/A7	5/A7			2	
117	3'-0" x 7'-0" x 1.75'	H.M.	C	H.M.	II	4/A7	5/A7		60 MIN.	1	
119A	3'-0" x 7'-0" x 1.75'	H.M.	B	H.M.	III	6/A7	7/A7			12	
119B	3'-0" x 7'-0" x 1.75'	H.M.	B	H.M.	III	6/A7	7/A7			12	
120A	4'-0" x 10'-0" x 1.75'	H.M.	B	H.M.	III	6/A7	7/A7			13	
120B	3'-0" x 7'-0" x 1.75'	H.M.	B	H.M.	III	6/A7	7/A7			12	
121	3'-0" x 7'-0" x 1.75'	H.M.	B	H.M.	III	6/A7	7/A7			12	
123A	3'-0" x 7'-0" x 1.75'	H.M.	B	H.M.	III	6/A7	7/A7			14	
123B	3'-0" x 7'-0" x 1.75'	H.M.	D	H.M.	II					12	SEE DOOR NOTE #2
123C	3'-0" x 7'-0" x 1.75'	H.M.	B	H.M.	II					12	SEE DOOR NOTE #2
123D	3'-0" x 7'-0" x 1.75'	H.M.	B	H.M.	II					12	SEE DOOR NOTE #2
201	3'-0" x 7'-0" x 1.75'	H.M.	B	H.M.	II	4/A7	5/A7			10	

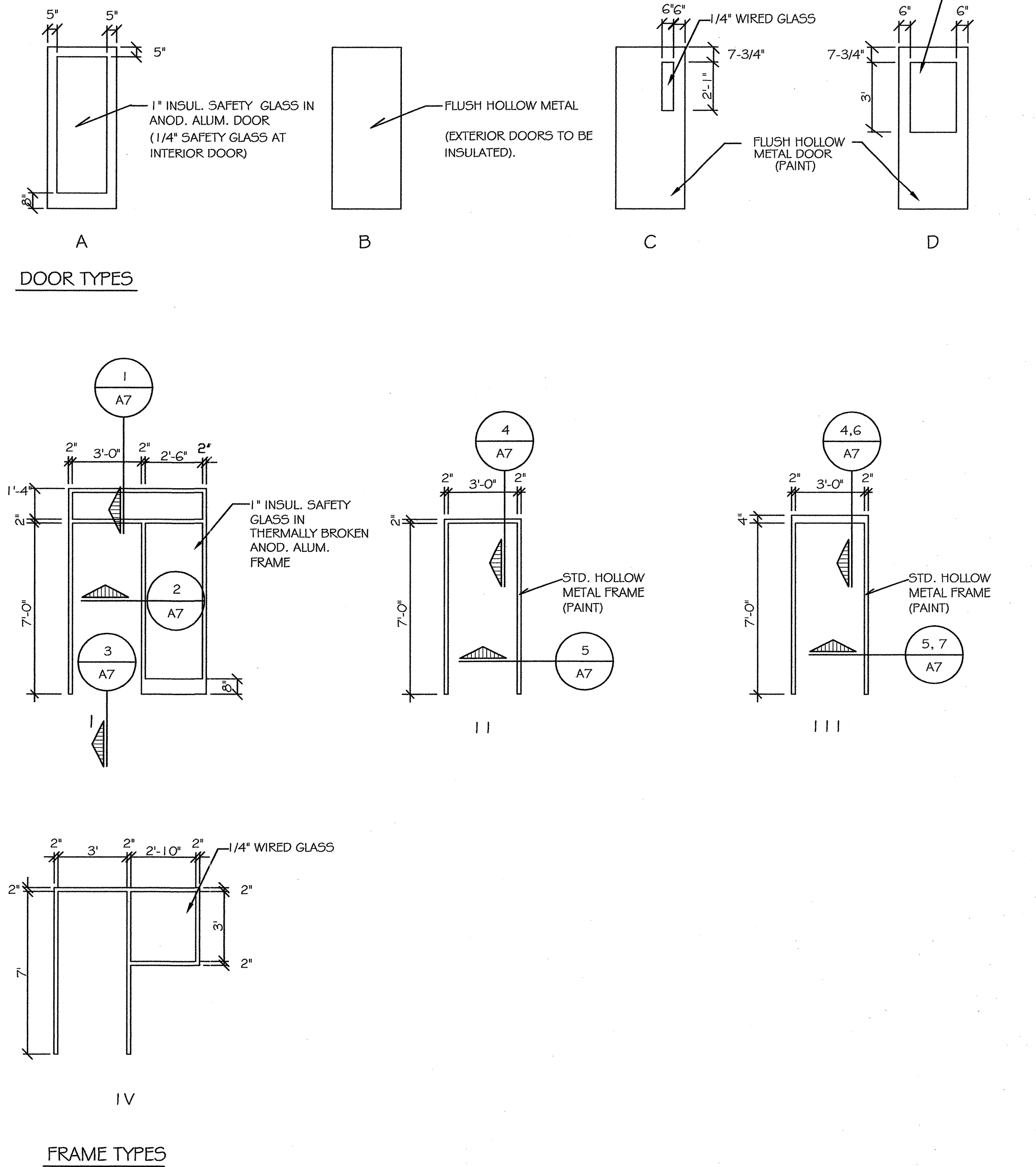
- DOOR SCHEDULE NOTES:
- 1/4" SAFETY GLASS IN DOOR AND SIDE LITE.
 - INSTALL PER PRE-ENGINEERED BUILDING MANUFACTURER'S SPECIFICATIONS.



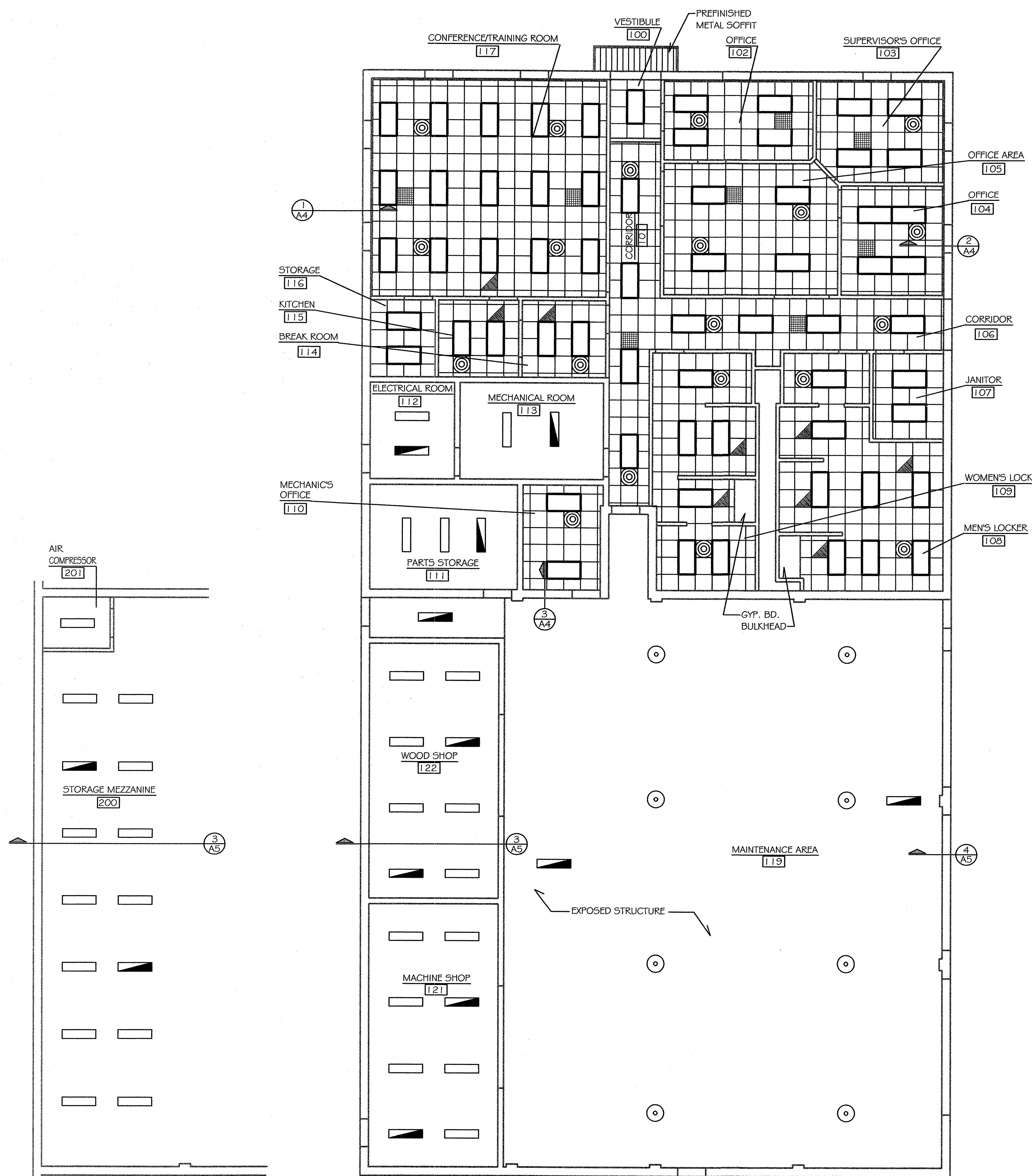
HEAD, JAMB & SILL DETAILS
1-1/2" = 1'-0"

ROOM FINISH SCHEDULE													
ROOM NO.	ROOM NAME	FLOOR	BASE	WALLS				CEILING			REMARKS		
				NORTH	EAST	SOUTH	WEST	MAT.	FIN.	HGT.			
100	VESTIBULE	Q.T.	Q.T.	-	-	GYP. BD.	PAINT	-	-	GYP. BD.	PAINT	S.A.T.	8'-8" SEE R.F. NOTE #1
101	CORRIDOR	V.C.T.	VINYL	-	-	GYP. BD.	PAINT	C.M.U.	PAINT	GYP. BD.	PAINT	S.A.T.	8'-8"
102	OFFICE	V.C.T.	VINYL	GYP. BD.	PAINT	GYP. BD.	PAINT	GYP. BD.	PAINT	GYP. BD.	PAINT	S.A.T.	8'-8"
103	SUPERVISORS OFFICE	CARPET	VINYL	GYP. BD.	PAINT	GYP. BD.	PAINT	GYP. BD.	PAINT	GYP. BD.	PAINT	S.A.T.	8'-0"
104	OFFICE	CARPET	VINYL	GYP. BD.	PAINT	GYP. BD.	PAINT	GYP. BD.	PAINT	GYP. BD.	PAINT	S.A.T.	8'-0"
105	OFFICE AREA	V.C.T.	VINYL	GYP. BD.	PAINT	GYP. BD.	PAINT	GYP. BD.	PAINT	GYP. BD.	PAINT	S.A.T.	8'-8"
106	CORRIDOR	V.C.T.	VINYL	GYP. BD.	PAINT	C.M.U.	PAINT	GYP. BD.	PAINT	-	-	S.A.T.	8'-0"
107	JANITOR	V.C.T.	VINYL	GYP. BD.	PAINT	C.M.U.	PAINT	GYP. BD.	PAINT	GYP. BD.	PAINT	S.A.T.	8'-8"
108	MENS LOCKER	C.T.	C.T.	GYP. BD.	PAINT	C.M.U.	PAINT	C.M.U.	PAINT	GYP. BD.	PAINT	S.A.T.	8'-8" SEE R.F. NOTE #2, 3
109	WOMANS LOCKER	C.T.	C.T.	GYP. BD.	PAINT	GYP. BD.	PAINT	C.M.U.	PAINT	C.M.U.	PAINT	S.A.T.	8'-8" SEE R.F. NOTE #2, 3
110	MECHANICS OFFICE	V.C.T.	VINYL	C.M.U.	PAINT	C.M.U.	PAINT	C.M.U.	PAINT	C.M.U.	PAINT	S.A.T.	8'-0"
111	PARTS STORAGE	EPOXY	-	C.M.U.	PAINT	C.M.U.	PAINT	C.M.U.	PAINT	C.M.U.	PAINT	S.A.T.	8'-8"
112	ELECTRICAL ROOM	SEALER	-	C.M.U.	PAINT	C.M.U.	PAINT	C.M.U.	PAINT	C.M.U.	PAINT	S.A.T.	
113	MECHANICAL ROOM	SEALER	-	C.M.U.	PAINT	C.M.U.	PAINT	C.M.U.	PAINT	C.M.U.	PAINT	S.A.T.	
114	BREAK ROOM	V.C.T.	VINYL	GYP. BD.	PAINT	GYP. BD.	PAINT	C.M.U.	PAINT	GYP. BD.	PAINT	S.A.T.	8'-0"
115	KITCHEN	V.C.T.	VINYL	GYP. BD.	PAINT	GYP. BD.	PAINT	C.M.U.	PAINT	GYP. BD.	PAINT	S.A.T.	8'-0"
116	STORAGE	V.C.T.	VINYL	GYP. BD.	PAINT	GYP. BD.	PAINT	C.M.U.	PAINT	C.M.U.	PAINT	S.A.T.	8'-0"
117	CONFERENCE/ TRAINING ROOM	CARPET	VINYL	GYP. BD.	PAINT	GYP. BD.	PAINT	GYP. BD.	PAINT	GYP. BD.	PAINT	S.A.T.	8'-8"
118	NOT USED												
119	MAINTENANCE AREA	EPOXY	-	C.M.U.	PAINT	C.M.U.	PAINT	C.M.U.	PAINT	C.M.U.	PAINT	EXPOSED PAINT	-
120	WASH BAY	EPOXY	-	C.M.U.	EPOXY	C.M.U.	EPOXY	C.M.U.	EPOXY	C.M.U.	EPOXY	EXPOSED PAINT	-
121	MACHINE SHOP	EPOXY	-	C.M.U.	PAINT	C.M.U.	PAINT	C.M.U.	PAINT	C.M.U.	PAINT	EXPOSED PAINT	-
122	WOOD SHOP	EPOXY	-	C.M.U.	PAINT	C.M.U.	PAINT	C.M.U.	PAINT	C.M.U.	PAINT	EXPOSED PAINT	-
123	VEHICLE STORAGE	SEALER	-	C.M.U.	PAINT	EXPOSED	EXPOSED	C.M.U.	PAINT	EXPOSED	EXPOSED	PAINT	-
200	STORAGE MEZZANINE	EPOXY	-	C.M.U.	PAINT	-	-	C.M.U.	PAINT	C.M.U.	PAINT	EXPOSED PAINT	-
201	AIR COMPRESSOR	EPOXY	-	GYP. BD.	PAINT	GYP. BD.	PAINT	C.M.U.	PAINT	C.M.U.	PAINT	EXPOSED PAINT	-

- ROOM FINISH SCHEDULE NOTES:
- INSTALL HOLD DOWN CLIPS IN VESTIBULE
 - SEE INTERIOR ELEVATIONS FOR EXTENT OF CERAMIC WALL TILE
 - INSTALL 1/2" CEMENT BOARD PER SPEC. IN LIEU OF WATER RESISTANT GYP. BD. IN SHOWER AREAS ONLY



PRELIM. CONST. 0	OR	CH'D 0	APPR. 0	DEPARTMENT OF MANAGEMENT AND BUDGET	100433
MDOT APPROVAL				APPROVED BY: <i>Chad H.</i>	DATE: 1-24-06
APPROVED BY: <i>Chad H.</i>				DATE: 1-25-06	
RECOMMENDED FOR APPROVAL BY: <i>Chad H.</i>				DATE: 1-25-06	
ACCOUNT NO. 116-59-8260				DATE 12-22-05	REVISIONS
MDOT Michigan Department of Transportation TECHNOLOGICAL SERVICES DIVISION FACILITIES MANAGEMENT SECTION TRANSPORTATION BUILDING LANSING, MICHIGAN					
PROPOSED MAINTENANCE GARAGE METRO REGION 1500 EAST FERRY STREET DETROIT, MICHIGAN 48211					
ROOM FINISH SCHEDULE DOOR SCHEDULE & DETAILS					
SHEET NO. A7					



REFLECTED CEILING PLAN
(ABOVE MEZZANINE)
1/8" = 1'-0"

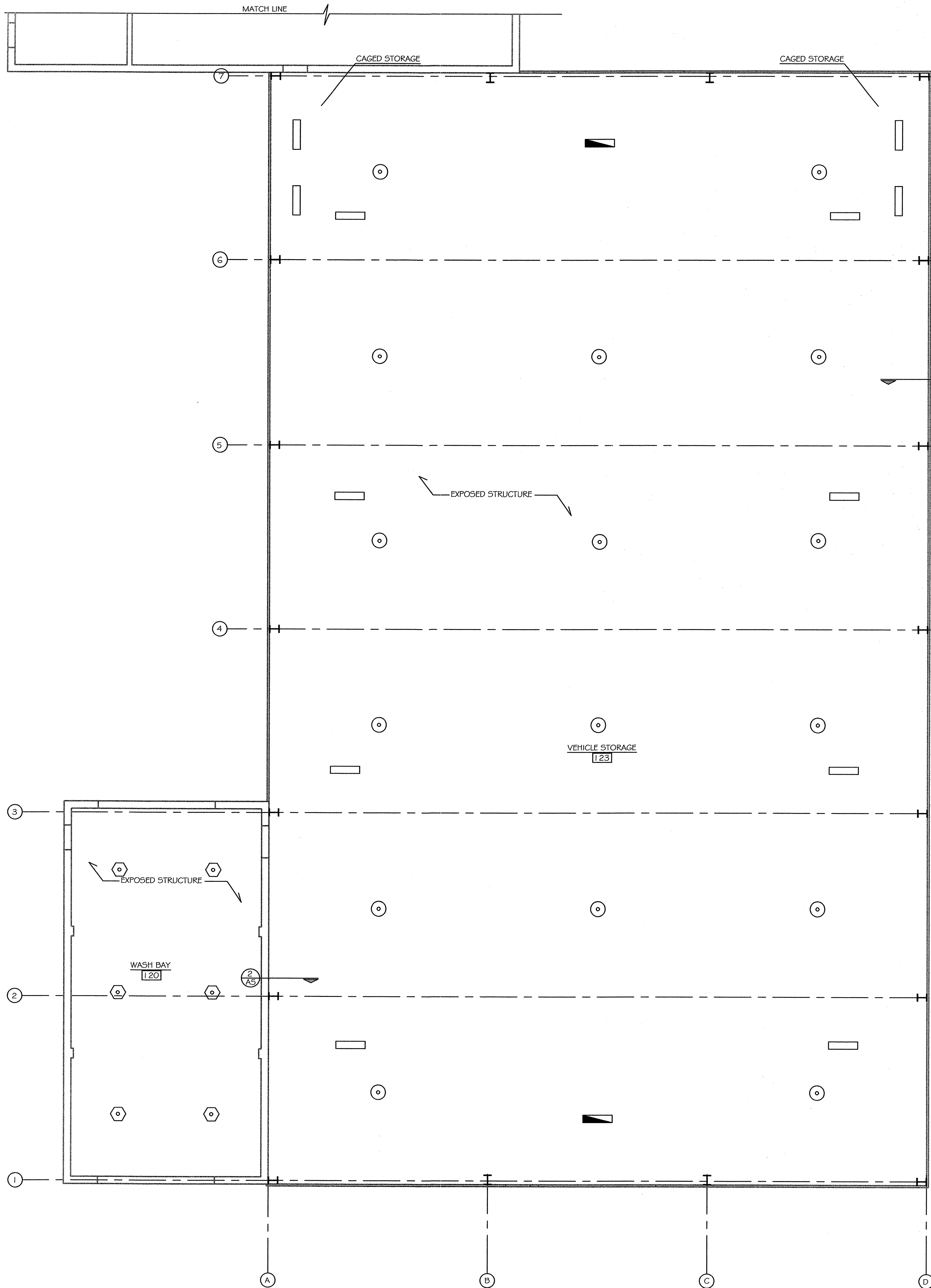
REFLECTED CEILING PLAN
1/8" = 1'-0"

LEGEND

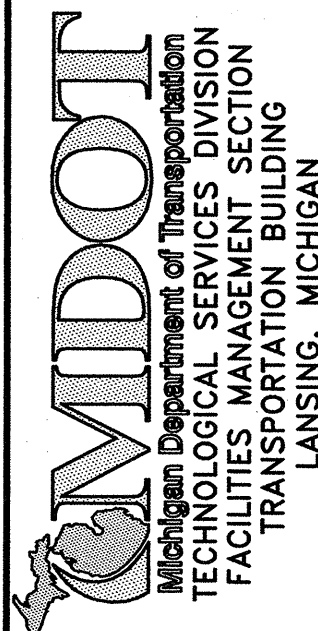
-  DENOTES CEILING RETURN AIR GRILLE
-  DENOTES CEILING EXHAUST FAN GRILLE
-  DENOTES CEILING DIFFUSER

NOTE:

1. COORDINATE LAYOUT OF LIGHTING WITH ELECTRICAL PLANS.
2. COORDINATE LAYOUT OF SUPPLY AND RETURN GRILLES WITH MECHANICAL PLANS



ACCOUNT NO.
116-59-8260-060



PROPOSED MAINTENANCE GARAGE
METRO REGION
1500 EAST FERRY STREET
DETROIT, MICHIGAN 48211

REFLECTED CEILING PLAN

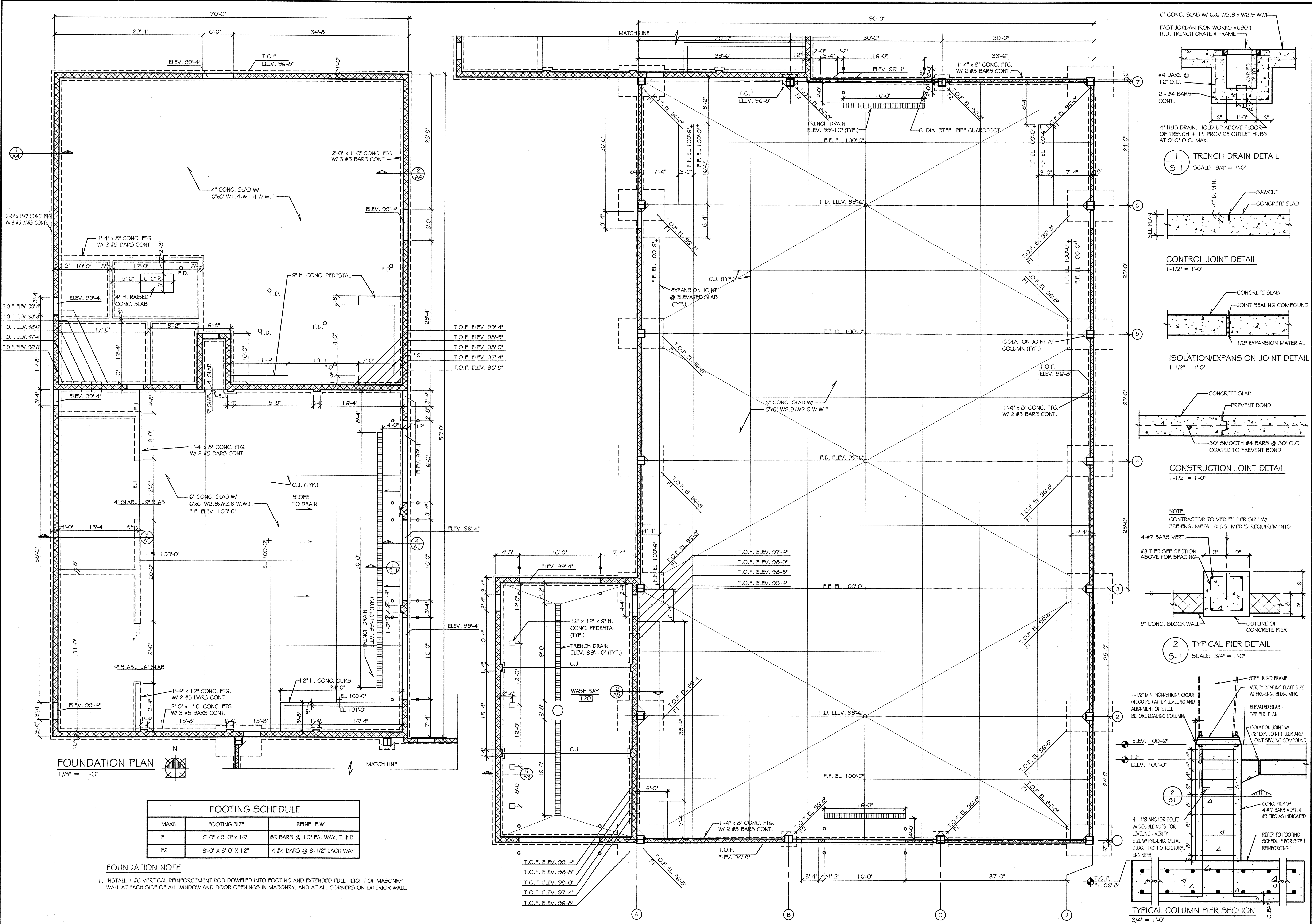
SHEET NO.
A8

MDOT APPROVAL

APPROVED BY: *[Signature]* DATE: 1-22-05
RECOMMENDED FOR APPROVAL BY: *[Signature]* DATE: 1-25-05

PRELIM. ☐ OR ☐
CONST. ☐ OR ☐
FINAL REC. ☐ OR ☐
APPR. ☐ OR ☐
DEPARTMENT OF
MANAGEMENT AND BUDGET
REVIEW OF PLAN SHEET

100433



PRELIM. O DR O CHG'D O APPR
CONST. O
FINAL REC. O
DATE 1-24-06
DATE 1-25-06

MDOT APPROVAL
APPROVED BY [Signature]
DATE 12-22-05
REVISIONS

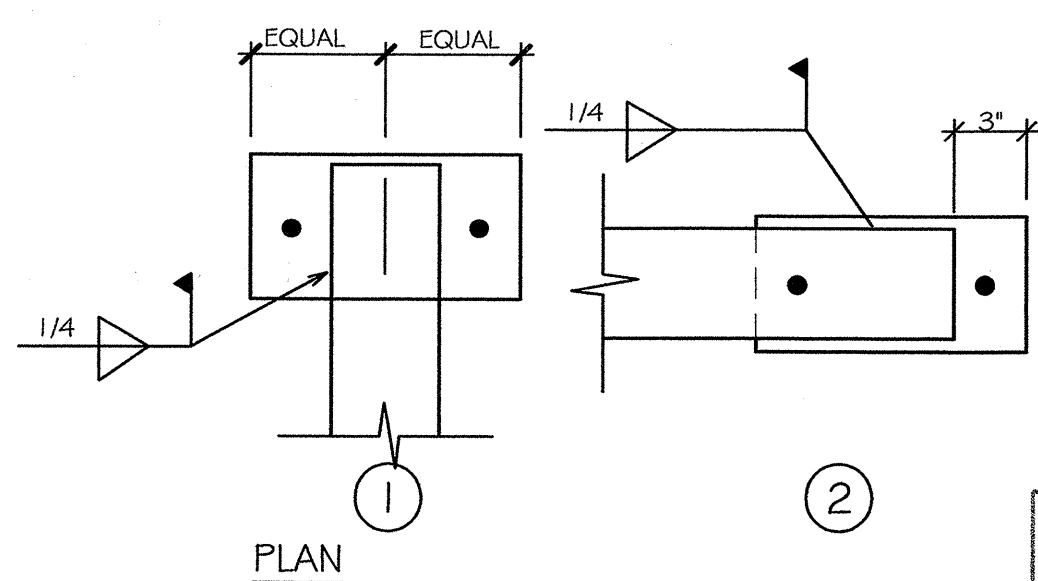
ACCOUNT NO. 116-59-8260-060
DATE 12-22-05
REVISIONS

MDOT
Michigan Department of Transportation
TECHNOLOGICAL SERVICES DIVISION
FACILITIES MANAGEMENT SECTION
TRANSITION BUILDING
LANSING, MICHIGAN

PROPOSED MAINTENANCE GARAGE
METRO REGION
1500 EAST FERRY STREET
DETROIT, MICHIGAN 48211

FOUNDATION PLAN
SHEET NO. S1

100433

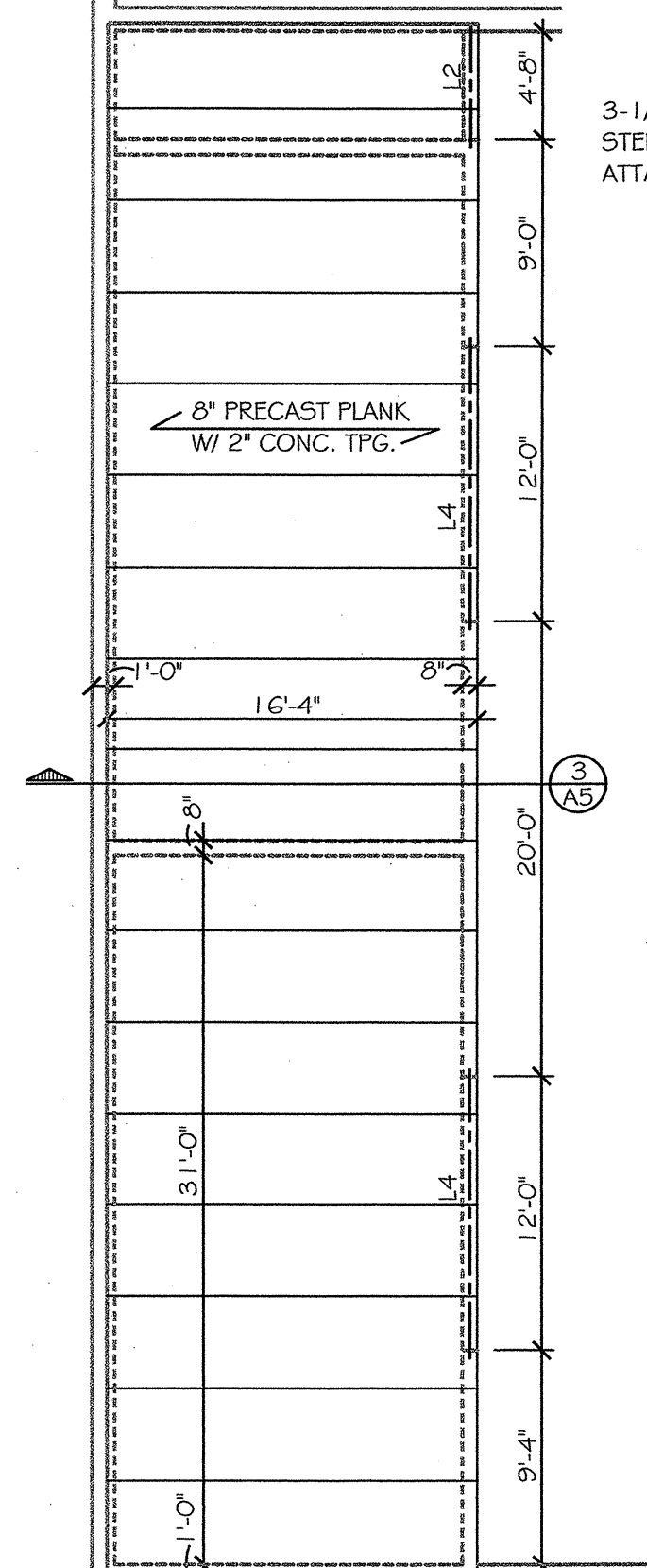


BEAM BEARING PLATE DETAILS
3/4" = 1'-0"

STRUCTURAL NOTES

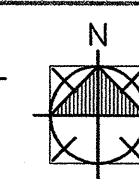
- ALL CONCENTRATED LOADS TO FALL ON JOIST PANEL POINTS. CONTACT ARCHITECT FOR ANY CONCENTRATED LOADS THAT DO NOT FALL ON JOIST PANEL POINTS.
- PROVIDE BEARING DETAILS AS REQ. BY THE S.J.I. FOR ALL STEEL ROOF DECK. CONTRACTOR, DECK SUPPLIER AND ERECTOR TO REVIEW ALL DETAILS PRIOR TO PREPARING SHOP DRAWINGS AND ERECTION OF DECK.
- PROVIDE 1" COMPRESSIBLE FILLER WHERE MASONRY WALL MEETS STEEL ROOF DECK (FIRE STOP).
- TYPICAL JOIST BEARING TO BE ON 5" x 10" x 1/2" STEEL BEARING PLATE WITH 2 - #3/4" Ø x 5 STUDS (TYP.) SEE DETAIL 2/AS

NOTE:
G.C. TO COORDINATE W/ MECHANICAL ENGINEER/CONTRACTOR LOCATIONS OF ALL OPENINGS IN PRECAST PLANK AND PROVIDE HEADERS WHERE REQUIRED.



MEZZANINE FRAMING PLAN
1/8" = 1'-0"

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



LINTEL SCHEDULE

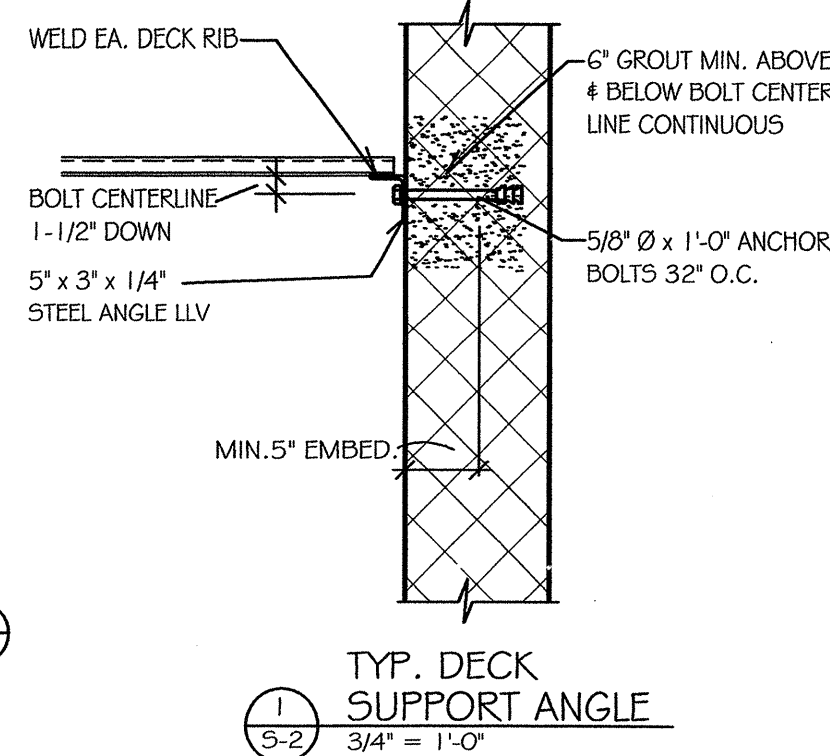
MARK	CLEAR SPAN	SIZE	MIN. BEARING	NOTE
L1	TO 4'-0"	3-1/2" x 3-1/2" x 1/4"	4"	1
L2	4'-0" - 6'-0"	4" x 3-1/2" x 1/4" (LLV)	6"	1
L3	6'-0" - 8'-0"	5" x 3-1/2" x 5/16" (LLV)	8"	1
L4	12'-0"	W 8 x 21 W/ 7-1/2" x 1/4" PLATE	8"	
L5	16'-0"	W 16 x 26 W/ 11-1/2" x 1/4" PLATE	8"	

LINTEL SCHEDULE NOTES:

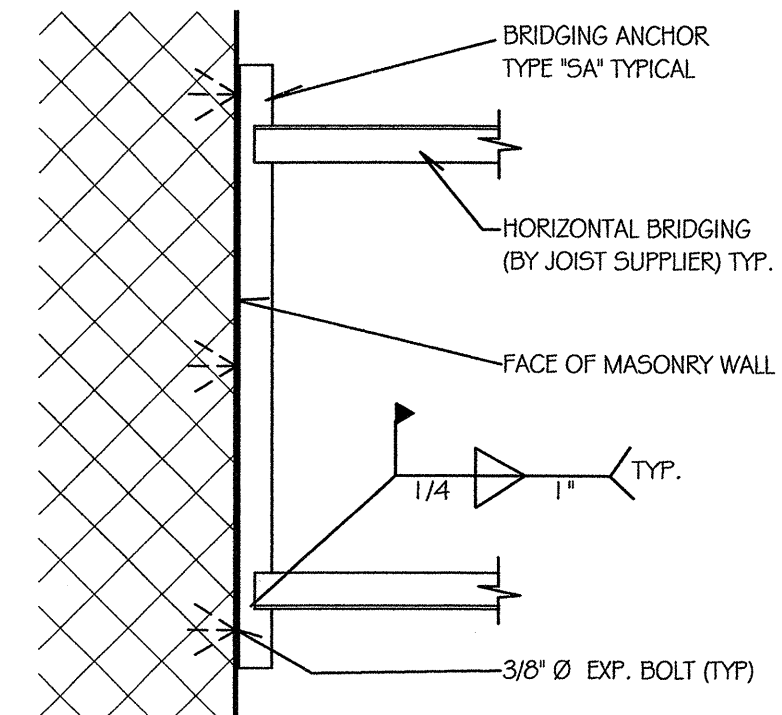
- FOR EACH 4" OF MASONRY
- LINTELS REQUIRED FOR DUCTWORK, LOUVERS, ETC. TO BE COORDINATED W/ MECHANICAL ENGINEER/CONTRACTOR
- INSTALL 4 #5 BARS VERT. BELOW EACH BEARING PLATE OF LINTEL OR BEAMS AND FILL BLOCK CORES SOLID W/ GROUT FULL HEIGHT

BEARING PLATE SCHEDULE

MARK	SIZE	ANCHORS	DETAIL
BP1	6" x 9" x 1/2" STL. PL.	TWO 1/2" Ø x 12"	1
BP2	8" x 12" x 1/2" STL. PL.	TWO 1/2" Ø x 12"	1
BP3	12" x 8" x 1/2" STL. PL.	TWO 1/2" Ø x 12"	2

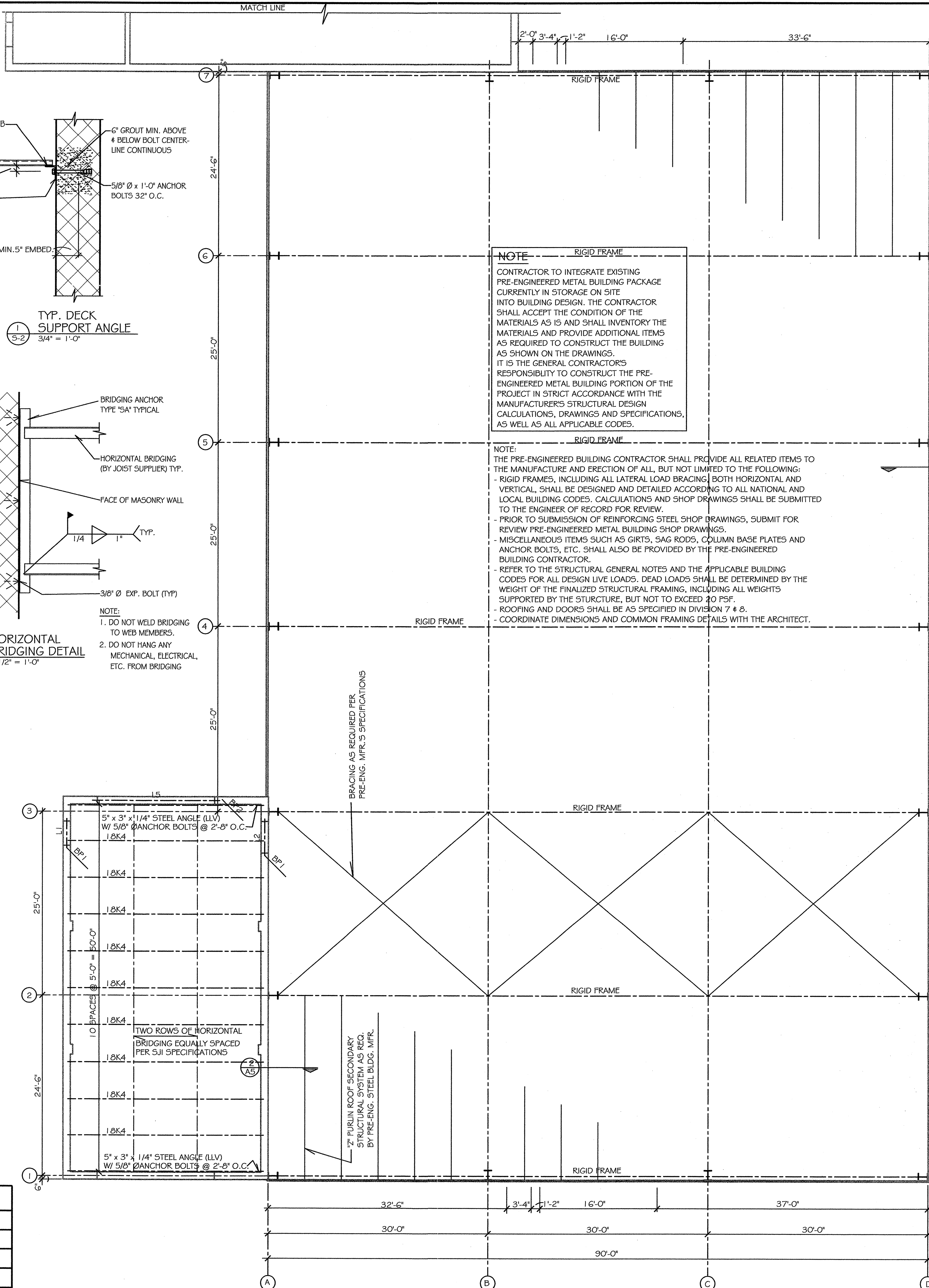


TYP. DECK SUPPORT ANGLE
3/4" = 1'-0"



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

- NOTE:
- DO NOT WELD BRIDGING TO WEB MEMBERS.
 - DO NOT HANG ANY MECHANICAL, ELECTRICAL, ETC. FROM BRIDGING



NOTE

CONTRACTOR TO INTEGRATE EXISTING PRE-ENGINEERED METAL BUILDING PACKAGE CURRENTLY IN STORAGE ON SITE INTO BUILDING DESIGN. THE CONTRACTOR SHALL ACCEPT THE CONDITION OF THE MATERIALS AS IS AND SHALL INVENTORY THE MATERIALS AND PROVIDE ADDITIONAL ITEMS AS REQUIRED TO CONSTRUCT THE BUILDING AS SHOWN ON THE DRAWINGS. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO CONSTRUCT THE PRE-ENGINEERED METAL BUILDING PORTION OF THE PROJECT IN STRICT ACCORDANCE WITH THE MANUFACTURER'S STRUCTURAL DESIGN CALCULATIONS, DRAWINGS AND SPECIFICATIONS, AS WELL AS ALL APPLICABLE CODES.

NOTE:

- THE PRE-ENGINEERED BUILDING CONTRACTOR SHALL PROVIDE ALL RELATED ITEMS TO THE MANUFACTURE AND ERECTION OF ALL, BUT NOT LIMITED TO THE FOLLOWING:
- RIGID FRAMES, INCLUDING ALL LATERAL LOAD BRACING BOTH HORIZONTAL AND VERTICAL, SHALL BE DESIGNED AND DETAILED ACCORDING TO ALL NATIONAL AND LOCAL BUILDING CODES. CALCULATIONS AND SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW.
 - PRIOR TO SUBMISSION OF REINFORCING STEEL SHOP DRAWINGS, SUBMIT FOR REVIEW PRE-ENGINEERED METAL BUILDING SHOP DRAWINGS.
 - MISCELLANEOUS ITEMS SUCH AS GIRTS, SAG RODS, COLUMN BASE PLATES AND ANCHOR BOLTS, ETC. SHALL ALSO BE PROVIDED BY THE PRE-ENGINEERED BUILDING CONTRACTOR.
 - REFER TO THE STRUCTURAL GENERAL NOTES AND THE APPLICABLE BUILDING CODES FOR ALL DESIGN LIVE LOADS, DEAD LOADS SHALL BE DETERMINED BY THE WEIGHT OF THE FINALIZED STRUCTURAL FRAMING, INCLUDING ALL WEIGHTS SUPPORTED BY THE STRUCTURE, BUT NOT TO EXCEED 40 PSF.
 - ROOFING AND DOORS SHALL BE AS SPECIFIED IN DIVISION 7 & 8.
 - COORDINATE DIMENSIONS AND COMMON FRAMING DETAILS WITH THE ARCHITECT.

PRELIM.

DR

0

CONSTR.

CHK'D

0

FINAL REC.

APPR

0

MDOT APPROVAL

APPROVED BY: *[Signature]*

APPROVED BY: *[Signature]*

RECOMMENDED FOR APPROVAL BY: *[Signature]*

DATE: 1-21-16

DATE: 1-25-16

DATE: 1-25-16

ACCOUNT NO. 116-59-8260-060

DATE 12-22-05

REVISIONS

MDOT

Michigan Department of Transportation

TECHNOLOGICAL SERVICES DIVISION

FACILITIES MANAGEMENT SECTION

TRANSPORTATION BUILDING

LANSING, MICHIGAN

PROPOSED MAINTENANCE GARAGE

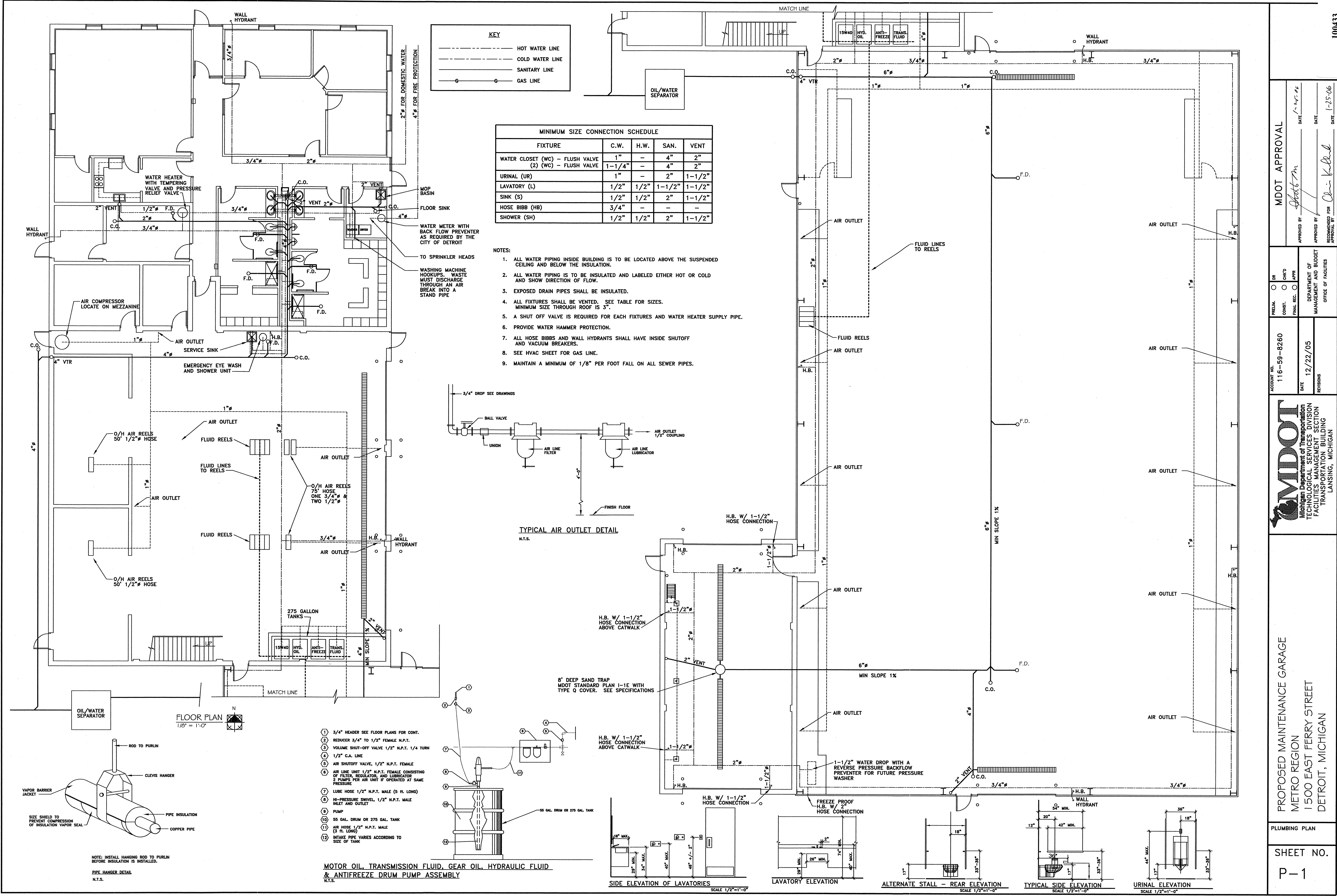
METRO REGION

1500 EAST FERRY STREET

DETROIT, MICHIGAN 48211

ROOF FRAMING PLAN

SHEET NO. S2



MDOT
Michigan Department of Transportation
TECHNOLOGICAL SERVICES DIVISION
FACILITIES MANAGEMENT SECTION
TRANSPORTATION BUILDING
LANSING, MICHIGAN

PROPOSED MAINTENANCE GARAGE
METRO REGION
1500 EAST FERRY STREET
DETROIT, MICHIGAN

PLUMBING PLAN

SHEET NO.
P-1

MDOT APPROVAL

APPROVED BY: *[Signature]* DATE: 1-25-06
APPROVED BY: *[Signature]* DATE: 1-25-06
REQUESTED FOR APPROVAL BY: *[Signature]* DATE: 1-25-06

PRELIM. O DR
CONST. O CHK'D
FINAL REC. O APPR

ACCOUNT NO. 116-59-8260

DATE 12/22/05

REVISIONS

DEPARTMENT OF
MANAGEMENT AND BUDGET
OFFICE OF FACILITIES

OPERATION REQUIREMENTS FOR HVAC EQUIPMENT															
OFFICE AREA - WINTER OCCUPIED (AS DETERMINED BY TIME CLOCK)															
1.) WHEN THE LIGHT SWITCH IN EITHER THE MEN'S, WOMEN'S, OR CONFERENCE ROOM IS IN THE "ON" POSITION, THE FURNACE BLOWER SHALL OPERATE. THE FURNACE'S OUTSIDE AIR INTAKE LOUVER SHALL OPEN (100%), AND THE EXHAUST FAN FOR THE "LIGHTED" ROOM SHALL OPERATE TO PROVIDE VENTILATION AIR TO THE SPACE. THE MOTORIZED DAMPERS FOR THE "UNLIGHTED" ROOMS SHALL BE IN THE CLOSED POSITION.															
2.) EACH ZONE (9 TOTAL) SHALL HAVE IT'S OWN DIGITAL THERMOSTAT WHICH SHALL BE SET AT 72°F. ONLY ONE OF THE THERMOSTATS SHALL BE PROGRAMMABLE AND SHALL BE LOCATED IN THE SUPERVISOR'S OFFICE (RM. 103).															
3.) WHEN A ZONE TEMPERATURE FALLS BELOW 72°F, THE THERMOSTAT FOR THAT ZONE SHALL CALL FOR HEAT BY SIGNALING THE ZONE CONTROL PANEL (Z.C.P.) TO ACTIVATE THE FURNACE BURNER/BLOWER AND FOR THE ZONE'S MOTORIZED DAMPER TO OPEN (WHERE APPLICABLE). WHEN THE ZONE'S SET TEMPERATURE IS REACHED, THE DAMPER(S) CLOSES AND THE BURNER/BLOWER DEACTIVATES.															
4.) THE MOTORIZED INTAKE LOUVER SHALL BE IN THE OPEN POSITION (100%) TO DELIVER 1000 CFM (MIN) OF OUTSIDE AIR WHEN THE FURNACE BLOWER IS ACTIVATED.															
5.) THE BURNER OF THE FURNACE SHALL BE STAGED TO MAINTAIN A DISCHARGE SET POINT (ADJUSTABLE).															
6.) ZONE THERMOSTATS SHALL OVERRIDE THE DISCHARGE THERMOSTAT AND DRIVE THE BURNER TO A HIGH-FIRE MODE IF THE ZONE'S AIR TEMPERATURE IS NOT SATISFIED.															
7.) SHOULD THE DISCHARGE TEMPERATURE DROP BELOW 50°F, THE FREEZESTAT WILL SHUT DOWN THE BLOWER FAN AND ALL EXHAUST FANS, COMPLETELY CLOSE THE OUTSIDE AIR INTAKE LOUVER, AND SOUND AN ALARM BELL.															
8.) THE HEATER CIRCUIT OF THE FURNACE SHALL BE LOCKED OUT WHEN THE OUTSIDE AIR TEMPERATURE IS ABOVE 65°F.															
9.) THE CONTRACTOR SHALL FURNISH, INSTALL, AND WIRE ALL CONTROLS NOT AVAILABLE FROM THE FURNACE MANUFACTURER. THESE COMPONENTS SHALL BE INTEGRATED TO ACCOMPLISH THE REQUIRED SEQUENCE OF OPERATION AND THEIR INSTALLATION SHALL BE COORDINATED WITH THE FURNACE MANUFACTURER.															
OFFICE AREA - WINTER UNOCCUPIED (AS DETERMINED BY TIME CLOCK)															
1.) THE OUTSIDE AIR INTAKE LOUVER SHALL BE 100% CLOSED AND ALL EXHAUST FANS OFF.															
2.) THE FURNACE BLOWER AND BURNER CIRCUITS SHALL BE DEACTIVATED.															
3.) A PROGRAMMABLE (SET BACK) THERMOSTAT LOCATED IN THE SUPERVISOR'S OFFICE (RM. 103) SHALL CONTROL THE SPACE TEMPERATURE AND BE SET AT 68°F. ALL MOTORIZED ZONE DAMPERS SHALL BE IN THE OPEN POSITION.															
4.) THE PROGRAMMABLE (SET BACK) THERMOSTAT SHALL HAVE THE CAPABILITY OF OVERRIDING THE TIME CLOCK AND CAUSE THE EQUIPMENT TO GO INTO AN OCCUPIED MODE FOR UP TO THREE (3) HOURS.															
OFFICE AREA - SUMMER OCCUPIED (AS DETERMINED BY TIME CLOCK)															
1.) WHEN THE LIGHT SWITCH IN EITHER THE MEN'S, WOMEN'S, OR CONFERENCE ROOM IS IN THE "ON" POSITION, THE FURNACE BLOWER SHALL OPERATE. THE FURNACE'S OUTSIDE AIR INTAKE LOUVER SHALL OPEN (100%), AND THE EXHAUST FAN FOR THE "LIGHTED" ROOM SHALL OPERATE TO PROVIDE VENTILATION AIR TO THE SPACE. THE MOTORIZED DAMPERS FOR THE "UNLIGHTED" ROOMS SHALL BE IN THE CLOSED POSITION.															
2.) EACH ZONE (9 TOTAL) SHALL HAVE IT'S OWN DIGITAL THERMOSTAT WHICH SHALL BE SET AT 74°F. ONLY ONE OF THE THERMOSTATS SHALL BE PROGRAMMABLE AND SHALL BE LOCATED IN THE SUPERVISOR'S OFFICE (RM. 103).															
3.) WHEN A ZONE TEMPERATURE RISES ABOVE 74°F, THE THERMOSTAT FOR THAT ZONE SHALL CALL FOR COOLING BY SIGNALING THE ZONE CONTROL PANEL (Z.C.P.) TO ACTIVATE THE CONDENSING UNIT AND FOR THE ZONE'S MOTORIZED DAMPER TO OPEN (WHERE APPLICABLE). WHEN THE ZONE'S SET TEMPERATURE IS REACHED, THE MOTORIZED DAMPER(S) CLOSES AND THE CONDENSING UNIT DEACTIVATES.															
4.) THE MOTORIZED INTAKE LOUVER SHALL BE IN THE OPEN POSITION (100%) TO DELIVER 1000 CFM (MIN) OF OUTSIDE AIR WHEN THE FURNACE BLOWER IS ACTIVATED.															
5.) THE BURNER CIRCUIT SHALL BE DEACTIVATED.															
6.) THE BURNER CIRCUIT OF THE FURNACE SHALL ACTIVATE WHEN THE OUTSIDE AIR TEMPERATURE IS BELOW 65°F. THE SYSTEM SHALL REMAIN IN THE WINTER OCCUPIED MODE UNTIL THE OUTSIDE AIR TEMPERATURE IS ABOVE 65°F.															
7.) THE CONTRACTOR SHALL FURNISH, INSTALL, AND WIRE ALL CONTROLS NOT AVAILABLE FROM THE FURNACE MANUFACTURER. THESE COMPONENTS SHALL BE INTEGRATED TO ACCOMPLISH THE REQUIRED SEQUENCE OF OPERATION AND THEIR INSTALLATION SHALL BE COORDINATED WITH THE FURNACE MANUFACTURER.															
OFFICE AREA - SUMMER UNOCCUPIED (AS DETERMINED BY TIME CLOCK)															
1.) THE OUTSIDE AIR INTAKE LOUVER SHALL BE 100% CLOSED AND ALL EXHAUST FANS OFF.															
2.) THE FURNACE BLOWER AND BURNER CIRCUITS SHALL BE DEACTIVATED. SHALL BE DEACTIVATED.															
3.) A PROGRAMMABLE (SET BACK) THERMOSTAT LOCATED IN THE SUPERVISOR'S OFFICE (RM. 103) SHALL CONTROL THE SPACE TEMPERATURE AND BE SET AT 76°F. ALL MOTORIZED ZONE DAMPERS SHALL BE IN THE OPEN POSITION.															
4.) THE PROGRAMMABLE (SET BACK) THERMOSTAT SHALL HAVE THE CAPABILITY OF OVERRIDING THE TIME CLOCK AND CAUSE THE EQUIPMENT TO GO INTO AN OCCUPIED MODE FOR UP TO THREE (3) HOURS.															

CONDENSING UNIT & COOLING COIL															
MARK	MANUFACTURER	MODEL NUMBER	TONS	SUPPLY VOLTAGE	FULL LOAD AMPS	COOLING SUPPLY AIR	MAKE-UP AIR	RETURN AIR	E.A.T. (D.B.)	E.A.T. (W.B.)	L.A.T. (D.B.)	L.A.T. (W.B.)	NOTE (SUMMER RM. COMFORT)		
CU-1	BRYANT	566D150	12	460V/3ø/60HZ	31.7	-	-	-	-	-	-	-	-		
CC-1	REZNOR	ACUB	12	-	-	3010 CFM	1000 CFM	2010 CFM	83°F	69°F	SEE NOTE	SEE NOTE	74°F D.B./62°F W.B./45% R.H.		

GAS-FIRED, UPFLOW FURNACE & UNIT HEATER, ELECTRIC WALL HEATER SCHEDULE															
MARK	MANUFACTURER	MODEL NUMBER	BTUH INPUT	BTUH OUTPUT	SUPPLY VOLTAGE	T.S.P. " W.C.	MOTOR HP	MOTOR RPM	AMP	GAS TYPE	HEATING SUPPLY AIR	RETURN AIR	MAKE-UP AIR	E.A.T. (D.B.)	L.A.T. (D.B.)
HS-1	REZNOR	CAJA 300	300,000	240,000	230V/3ø/60HZ	1.5	3	1800	9.6	NATURAL	2010 CFM	1010 CFM	1000 CFM	32°F	92°F
UH-1	MODINE	BSH 225-S-04-31	225,000	182,250	230V/3ø/60HZ	-	3/4	900	3.8	NATURAL	3068 CFM	-	-	-	-
UH-2	MODINE	BSH 225-S-04-31	225,000	182,250	230V/3ø/60HZ	-	3/4	900	3.8	NATURAL	3068 CFM	-	-	-	-
UH-3	MODINE	PSH 225-05-31	225,000	184,500	230V/3ø/60HZ	-	1/3	1140	3.2	NATURAL	-	-	-	-	-
EWH-1	QMARK	AWH-4404MG	-	13,650	230V/1ø/60HZ	-	-	-	16.7	-	-	-	-	-	-

NOTE: 1.) UNIT HEATERS UH-1 AND UH-2 SHALL BE EQUIPPED WITH A BELT GUARD.
2.) THE EXTERNAL STATIC PRESSURE FOR UNIT HEATERS UH-1 AND UH-2 IS 0.20" W.C.
3.) REZNOR HEATING UNIT "HS-1" REQUIRES A MOTOR STARTER (REZNOR OPTION AN10).

OPERATION REQUIREMENTS FOR HV EQUIPMENT

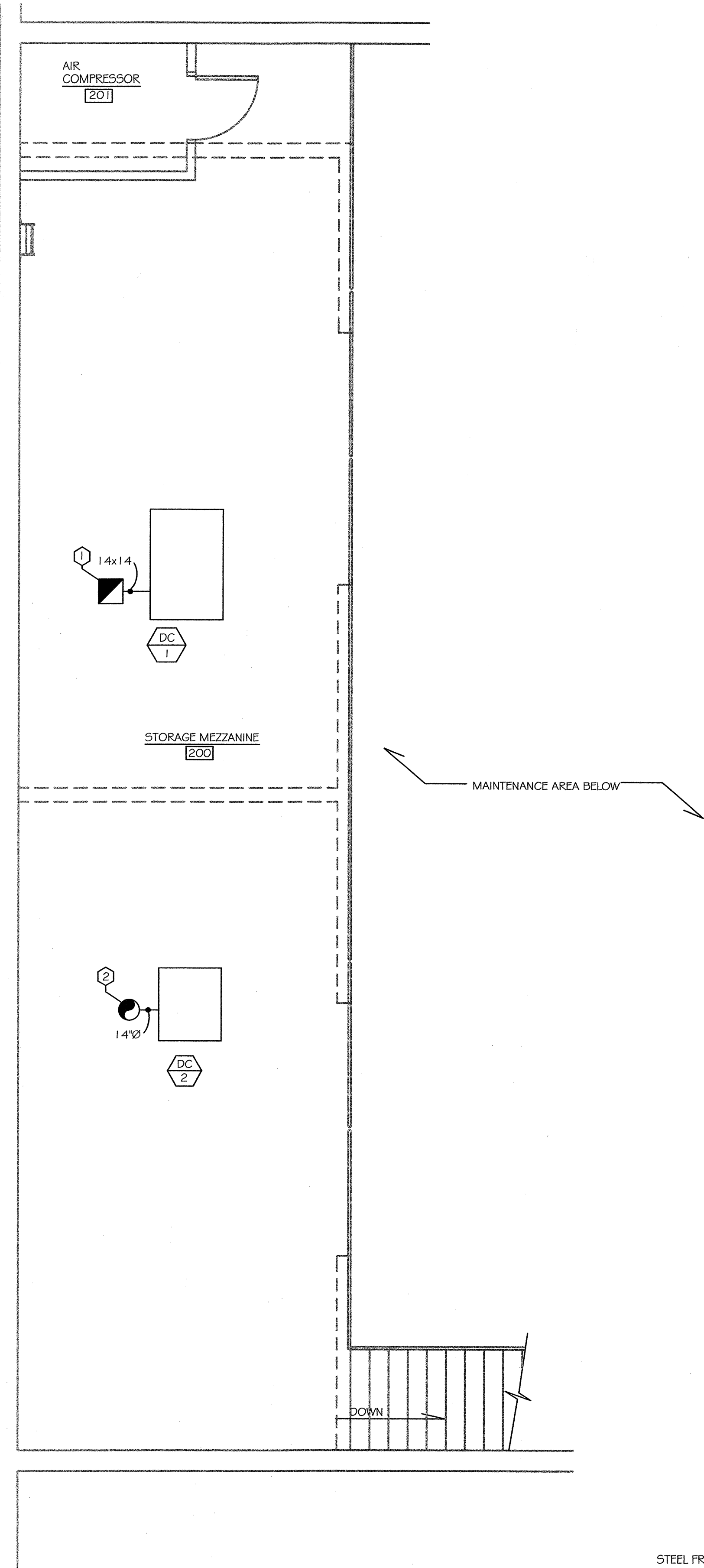
VEHICLE STORAGE, MAINTENANCE AREA, WASH BAY - WINTER OCCUPIED															
1.) THE COMBINATION MOTOR STARTER/DISCONNECT SWITCHES SHALL BE PROVIDED WITH A HEAVY-DUTY ON/OFF SELECTOR SWITCH AND PILOT LIGHT. WHEN THE SELECTOR SWITCH AND BLADE DISCONNECT ARM ARE IN THE "ON" POSITION (PILOT LIGHT "ON"), THE EXHAUST FAN(S) WILL OPERATE. AT THE SAME TIME THE ACTUATOR(S) WILL ENERGIZE TO OPEN THE OUTSIDE AIR INTAKE LOUVER(S). THE EXHAUST FAN(S) SHALL QUIT OPERATING AND THE LOUVER(S) SHALL FULLY CLOSE WHEN EITHER THE SELECTOR SWITCH OR BLADE DISCONNECT ARM IS IN THE "OFF" POSITION (PILOT LIGHT "OFF"). SEE NOTE 3 OF LOUVER SCHEDULE FOR ADDITIONAL REQUIREMENTS.															
2.) WHEN ANY COMBINATION OF EXHAUST FANS EF-1, EF-2, AND EF-3 ARE RUNNING, THE FRESH AIR INTAKE LOUVER LV-7 WILL BE FULLY OPEN.															
3.) WHEN ANY COMBINATION OF EXHAUST FANS EF-4, EF-5, AND EF-6 ARE RUNNING, THE FRESH AIR INTAKE LOUVER LV-8 WILL BE FULLY OPEN.															
4.) ALL THERMOSTATS LOCATED IN THE VEHICLE STORAGE AND WASH BAY AREAS SHALL BE SET TO MAINTAIN A MINIMUM SPACE TEMPERATURE OF 55°F.															
5.) ALL THERMOSTATS LOCATED IN THE MAINTENANCE AREA SHALL BE SET TO MAINTAIN A MINIMUM SPACE TEMPERATURE OF 72°F.															
6.) THE MIN. VENTILATION AIR REQUIRED FOR EACH AREA SHALL BE AS FOLLOWS: A) VEHICLE STORAGE: 20,400 CFM B) MAINTENANCE AREA 6,500 CFM C) WASH BAY 2,400 CFM															
7.) FOR THE CONTROL REQUIREMENTS OF THE TWO-STAGE INFRA-RED HEATERS, LOCATED IN THE VEHICLE STORAGE AND MAINTENANCE AREAS, SEE SPECIFICATIONS.															
8.) THE CONTROL SYSTEM FOR THE UNIT HEATERS LOCATED IN THE MAINTENANCE AREA AND WASH BAY SHALL BE SINGLE-STAGE, INTERMITTENT PILOT IGNITION, 100% SHUT-OFF WITH CONTINUOUS RETRY. PILOT IS AUTOMATICALLY LIT ON CALL FOR HEAT.															
9.) THE CONTRACTOR SHALL FURNISH, INSTALL, AND WIRE ALL CONTROLS NOT AVAILABLE FROM THE EQUIPMENT MANUFACTURER. THESE COMPONENTS SHALL BE INTEGRATED TO ACCOMPLISH THE REQUIRED SEQUENCE OF OPERATION AND THEIR INSTALLATION SHALL BE COORDINATED WITH THE EQUIPMENT MANUFACTURER.															

VEHICLE STORAGE, MAINTENANCE AREA, WASH BAY - WINTER UNOCCUPIED															
1.) ALL EXHAUST FANS SHALL BE SHUT-OFF MANUALLY. ALL LOUVERS CLOSED.															
2.) ALL INFRA-RED AND UNIT HEATERS SHALL OPERATE ACCORDING TO THE WINTER OCCUPIED REQUIREMENTS SPECIFIED ABOVE.															

VEHICLE STORAGE, MAINTENANCE AREA, WASH BAY - SUMMER OCCUPIED															
1.) THE COMBINATION MOTOR STARTER/DISCONNECT SWITCHES SHALL BE PROVIDED WITH A HEAVY-DUTY ON/OFF SELECTOR SWITCH AND PILOT LIGHT. WHEN THE SELECTOR SWITCH AND BLADE DISCONNECT ARM ARE IN THE "ON" POSITION (PILOT LIGHT "ON"), THE EXHAUST FAN(S) WILL OPERATE. AT THE SAME TIME THE ACTUATOR(S) WILL ENERGIZE TO OPEN THE OUTSIDE AIR INTAKE LOUVER(S). THE EXHAUST FAN(S) SHALL QUIT OPERATING AND THE LOUVER(S) SHALL FULLY CLOSE WHEN EITHER THE SELECTOR SWITCH OR BLADE DISCONNECT ARM IS IN THE "OFF" POSITION (PILOT LIGHT "OFF"). SEE NOTE 3 OF LOUVER SCHEDULE FOR ADDITIONAL REQUIREMENTS.															
2.) WHEN ANY COMBINATION OF EXHAUST FANS EF-1, EF-2, AND EF-3 ARE RUNNING, THE FRESH AIR INTAKE LOUVER LV-7 WILL BE FULLY OPEN.															
3.) WHEN ANY COMBINATION OF EXHAUST FANS EF-4, EF-5, AND EF-6 ARE RUNNING, THE FRESH AIR INTAKE LOUVER LV-8 WILL BE FULLY OPEN.															
4.) THE MIN. VENTILATION AIR REQUIRED FOR EACH AREA SHALL BE AS FOLLOWS: A) VEHICLE STORAGE: 20,400 CFM B) MAINTENANCE AREA 6,500 CFM C) WASH BAY 2,400 CFM															
5.) THE THERMOSTATS FOR THE INFRA-RED AND UNIT HEATERS SHALL BE EITHER TURNED OFF OR SET AT 60°F. IF THE THERMOSTATS ARE TURNED OFF, THEY SHALL BE TURNED ON AS NEEDED.															
6.) THE CONTRACTOR SHALL FURNISH, INSTALL, AND WIRE ALL CONTROLS NOT AVAILABLE FROM THE EQUIPMENT MANUFACTURER. THESE COMPONENTS SHALL BE INTEGRATED TO ACCOMPLISH THE REQUIRED SEQUENCE OF OPERATION AND THEIR INSTALLATION SHALL BE COORDINATED WITH THE EQUIPMENT MANUFACTURER.															

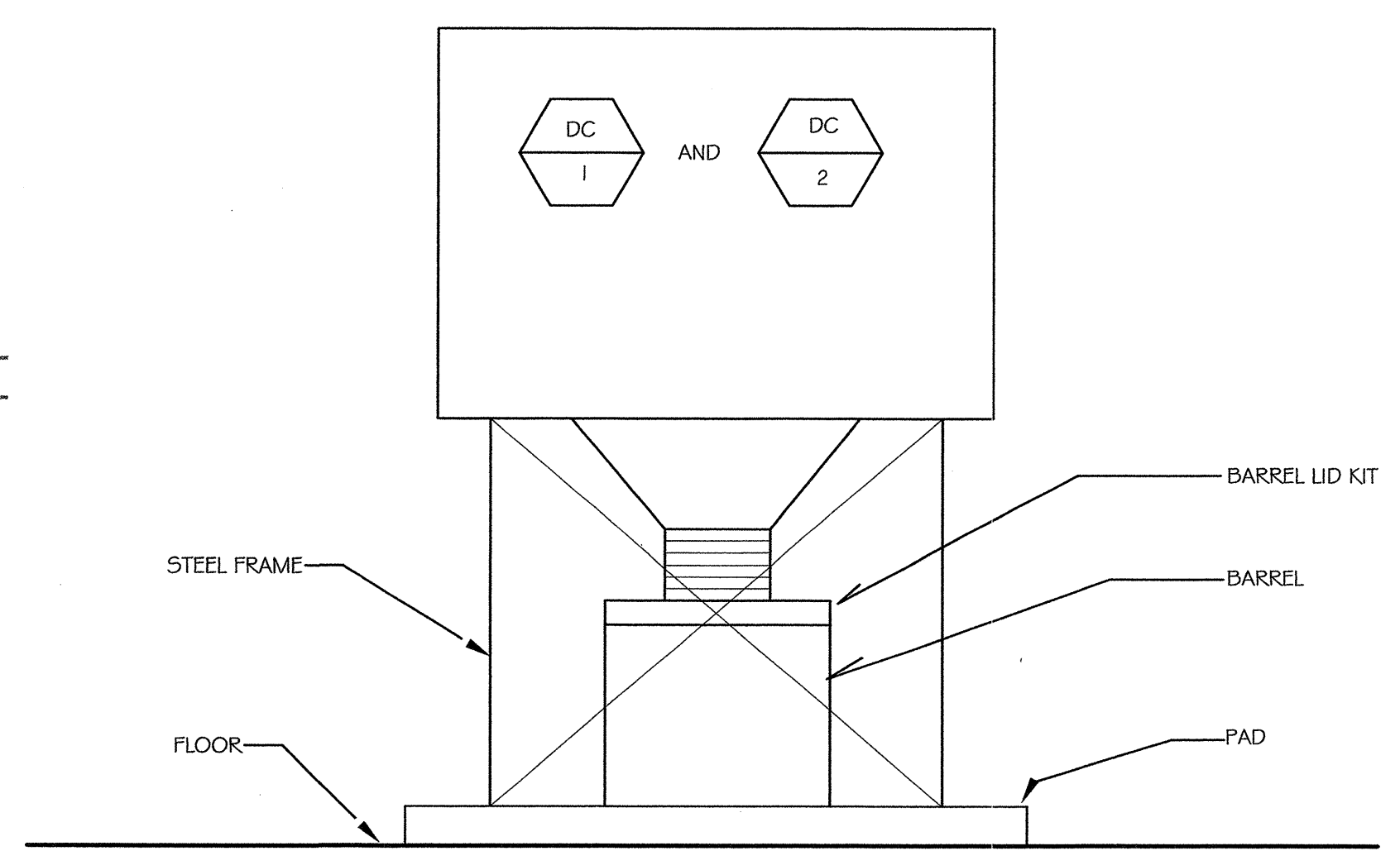
VEHICLE STORAGE, MAINTENANCE AREA, WASH BAY - SUMMER UNOCCUPIED															
1.) ALL EXHAUST FANS SHALL BE SHUT-OFF MANUALLY. ALL LOUVERS CLOSED.															
2.) THE THERMOSTATS FOR THE INFRA-RED AND UNIT HEATERS SHALL BE EITHER TURNED OFF OR SET AT 60°F. IF THE THERMOSTATS ARE TURNED OFF, THEY SHALL BE TURNED ON AS NEEDED.															

WET ENVIRONMENT INSTALLATION (WASH BAY)															
ALL OVERHEAD DOOR OPERATORS, HOSE REELS AND EXHAUST FANS LOCATED IN WASH BAY SHALL BE PROVIDED WITH FACTORY OR FIELD INSTALLED NEMA 4X COMPONENTS WITH THE APPROPRIATE TEMPERATURE RATING WHERE POSSIBLE. A NOTORIZED LETTER SHALL BE SUBMITTED WITH SHOP DRAWINGS INDICATING WHAT MODIFICATIONS WILL BE PERFORMED IN THE FACTORY OR FIELD AND WHAT MODIFICATIONS WILL NOT AND WHY. ALSO IN THE LETTER INDICATE THE UL LISTINGS FOR EACH PIECE OF EQUIPMENT.															



HVAC MEZZANINE PLAN
1/4" = 1'-0"

- NOTES
- ① 14" x 14" EXHAUST AIR DUCT DOWN TO THE WOOD SHOP.
 - ② 16" x EXHAUST AIR DUCT DOWN TO THE MACHINE SHOP

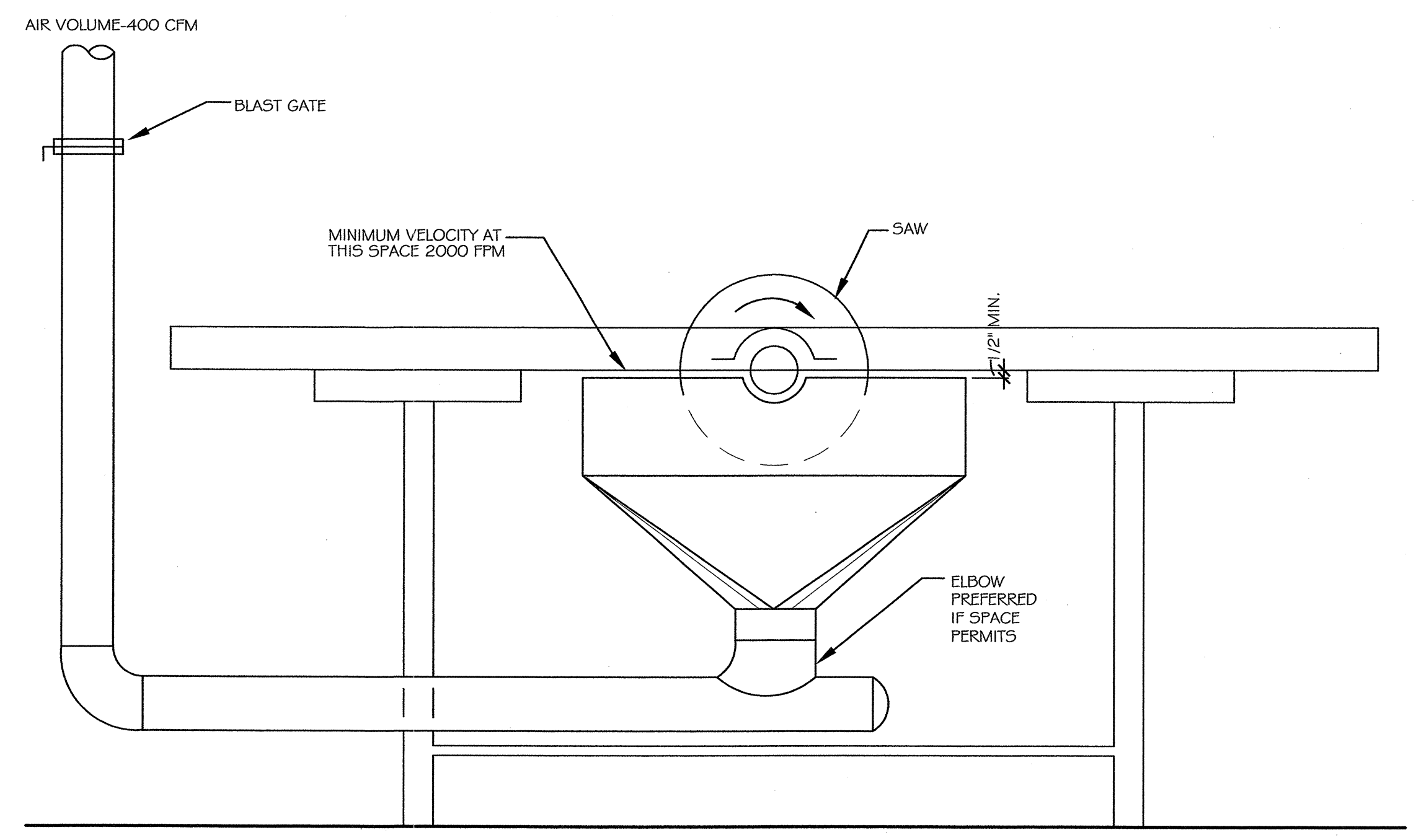


1 DUST COLLECTION ELEVATION DETAIL
M4 NOT TO SCALE

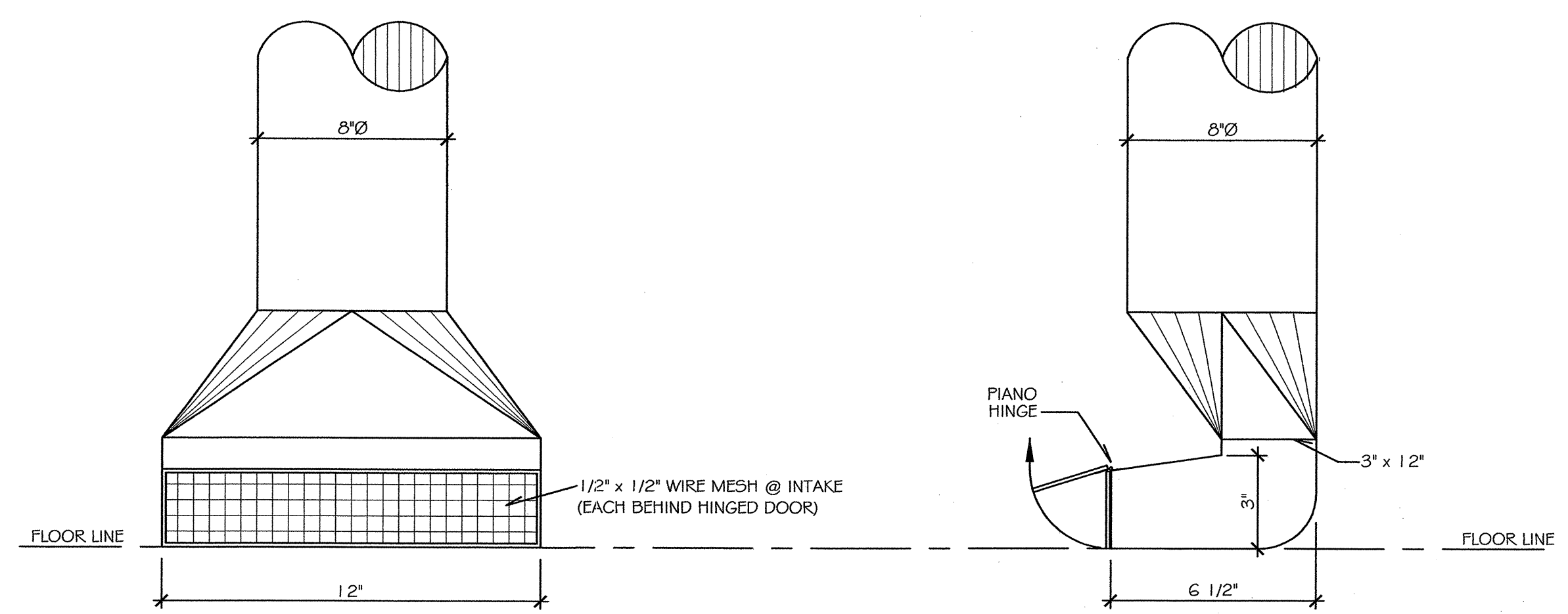
DUST COLLECTOR SCHEDULE							
UNIT NO	MANUFACTURER / MODEL NO.	AIR FLOW (CFM)	RESISTANCE IN. SP	HP	VOLTS	FILTER AREA (SQ. FT.)	REMARKS
DC-1	MICRO AIR RP4	2700	3"	5	460/3	1000	SEE NOTE # 1
DC-2	MICRO AIR OM6000	2500	2.5"	7.5	460/3	11,630	SEE NOTE # 2

NOTE: 1. ROTATING PULSE CLEANING, HOPPER, FLOOR STAND, SOLID STATE TIMER BOARD, FIRE SUPPRESSION PORTS.

2. PREFILTER & STANDARD BAG FILTER, INTERIOR SOUND SUPPRESSION, FLOOR STAND MAGNETIC GAUGE.



CONNECTION DETAIL AT TABLE SAW
NOT TO SCALE



FRONT ELEVATION

SIDE ELEVATION

2 TYPICAL FLOOR SWEEP DUST COLLECTOR DETAIL
M4 3" = 1'-0"

PRELIM. CONST. ☐ OR ☒ CHKD. ☐ APPR. ☐	MDOT APPROVAL		DEPARTMENT OF MANAGEMENT AND BUDGET
	APPROVED BY: <i>[Signature]</i>	APPROVED BY: <i>[Signature]</i>	APPROVED BY: <i>[Signature]</i>
DATE: 1-22-06	DATE: 1-22-06	DATE: 1-25-06	
ACCOUNT NO. 116-59-8260-060	DATE 12-22-05	REVISIONS	
Michigan Department of Transportation TECHNOLOGICAL SERVICES DIVISION FACILITIES MANAGEMENT SECTION TRANSPORTATION BUILDING LANSING, MICHIGAN			
PROPOSED MAINTENANCE GARAGE METRO REGION 1500 EAST FERRY STREET DETROIT, MICHIGAN 48211			
HVAC DETAILS- DUST COLLECTION			
SHEET NO. M4			

	DUPLEX RECEPTACLE, 125V, 20A, INSTALL 18" A.F.F. U.O.N.
	DUPLEX RECEPTACLE REEL 125V, 20A, INSTALL UNDER MEZZANINE
	DUPLEX GROUND FAULT INTERRUPTER RECEPTACLE, 125V, 20A, INSTALL 18" A.F.F. U.O.N.
	DUPLEX WEATHERPROOF RECEPACLE, 125V, 20A, INSTALL 18" A.F.F. U.O.N.
	DUPLEX RECEPTACLE FOR COUNTER, 125V., 20A, INSTALL 9" A.F.F.
	RECEPTACLE, 250V, 30A, INSTALL 18" AFF, U.O.N.
	240/120V 3W 4W PANELBOARD, SURFACE MOUNTING, SEE SCHEDULE FOR OTHER RATINGS
	208/120V 3W 4W PANELBOARD, SURFACE MOUNTING, SEE SCHEDULE FOR OTHER RATINGS
	480/277V 3W 4W PANELBOARD, SURFACE MOUNTING, SEE SCHEDULE FOR OTHER RATINGS
	UNFUSED DISCONNECT SWITCH, 30A, 3 POLE U.O.N.
	FUSED DISCONNECT SWITCH, 30A, 3 POLE U.O.N.
	MAGNETIC MOTOR STARTER, 3 POLE, NEMA SIZE 1 U.O.N.
	COMBINATION STARTER, 3 POLE, NEMA SIZE 1 U.O.N.
	JUNCTION BOX
	MOTOR, BY DIVISION 15 U.O.N.
	MOTOR ON ROOF ABOVE, BY DIVISION 15 U.O.N.
	MOTOR OPERATOR DAMPER, BY DIVISION 15 U.O.N.
	LIGHTING CONTACTOR
	PHOTOCELL
	VAV BOX, (BY DIV. 15 LOCATED ABOVE CEILING) PANEL BOARD AND CIRCUIT AS INDICATED
	OPEN-CLOSE-STOP PUSHBUTTON STATION FOR OVERHEAD DOOR CONTROL
	PUSHBUTTON IN NEMA 1 ENCLOSURE, FOR OVERRIDE ON GATE OPERATOR
	HOME RUN TO PANEL EL2, CIRCUIT 7, 2 #12, #10g., 3/4" c.
	HOME RUN TO PANEL EL2, CIRCUIT 7, 9, 4 #12, #10g., 3/4" c.
	HOME RUN TO PANEL EL2, CIRCUIT 7, 9, 11, 6 #12, #10g., 3/4" c.
	SWITCHING DESIGNATION LIGHTING FIXTURE, PER LIGHTING FIXTURE SCHEDULE CIRCUIT DESIGNATION FIXTURE TYPE

	SWITCH, 120/277V, 1 POLE, 20A
	THREE WAY SWITCH, 120/277, 20A
	FOUR WAY SWITCH, 120/277V, 20A
	FAN CONTROL SWITCH, PRESET, VARIABLE SPEED LEVITON 6627-P OR EQUAL
	MOMENTARY CONTACT SWITCH
	MANUAL MOTOR STARTING SWITCH, 120V, 20A, 1P
	FIRE ALARM SMOKE DETECTOR
	TELEPHONE AND DATA OUTLET, 18" A.F.F., INSTALL FLUSH 4" SQUARE BACKBOX, 3/4"C. TO ABOVE, LAY IN CEILING OR EXPOSED CEILING LEVEL, NYLON BUSHING, AND FULLWIRE ONLY. SEE GENERAL NOTE 20
	CAPPED CONDUIT
	WEATHERPROOF GROUND FAULT INTERRUPTER RECEPTACLE, VAPORTIGHT HEAVY DUTY ALUMINUM 200W FIXTURE, WEATHERPROOF LIGHT SWITCH, INSTALLED FOR MAINTENANCE OF ROOF MOUNTED MECHANICAL EQUIPMENT. INSTALL ELECTRICAL CHANNEL FOR SUPPORT. CURCUIT AS INDICATED ON PLANS.
	TRANSFORMER, RATING AS INDICATED
	HANDHOLE, COMPOSOLITE OR EQUAL, SIZE PER SPEC
	CONDUIT, TURNED UP
	CONDUIT, TURNED DOWN
	ELECTRIC DOOR OPENER
	CARD READER
	MOTION DETECTOR
	PAGING SYSTEM DEVICE
	CAMERA

ELECTRICAL NOTES

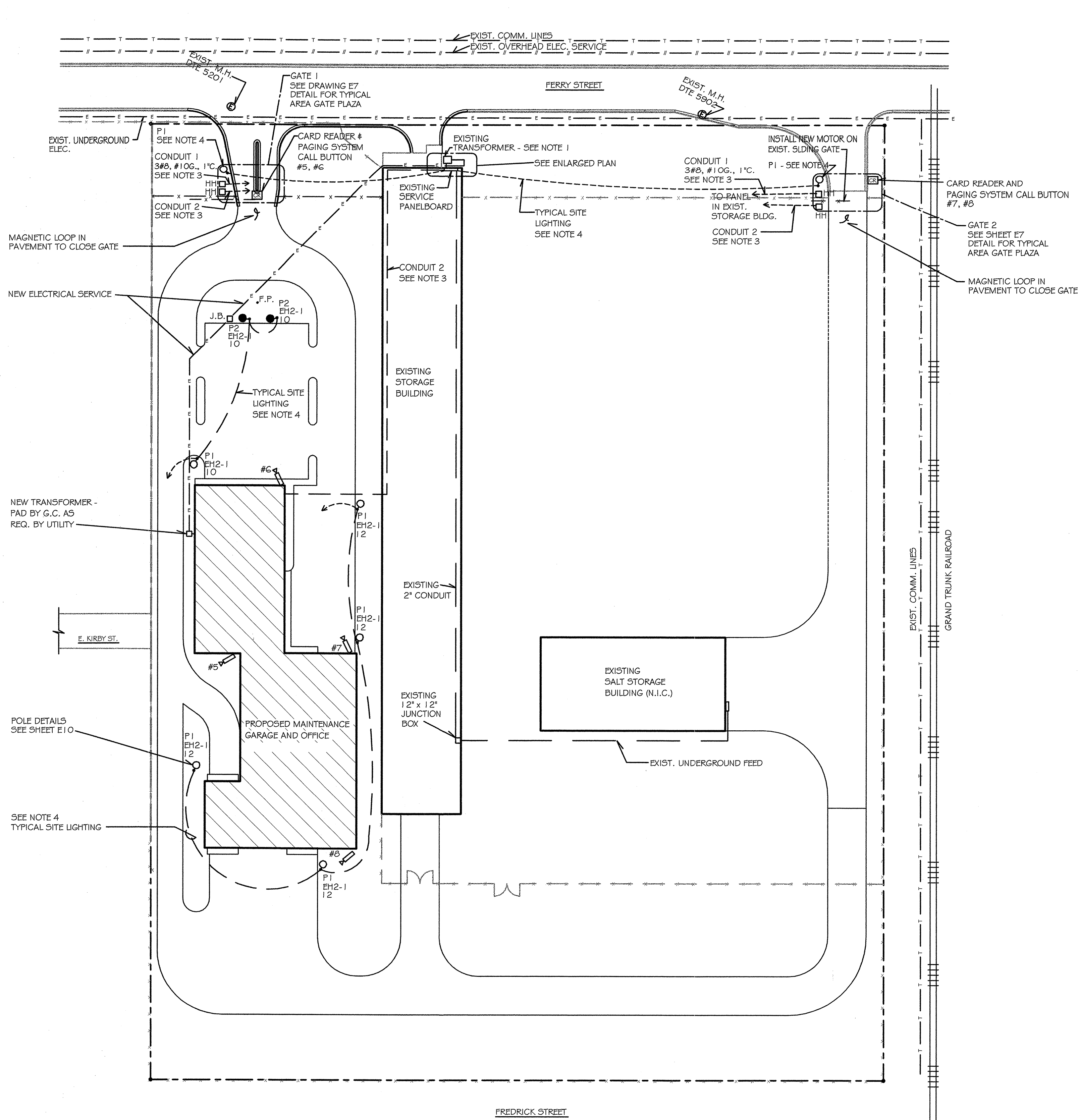
GENERAL NOTES:

- DRAWINGS ARE DIAGRAMATIC. ALL DIMENSIONS SHOWN ARE APPROXIMATE. ALL LOCATIONS SHALL BE FIELD VERIFIED.
- ALL WORK SHALL BE IN CONFORMANCE WITH THE NATIONAL ELECTRICAL CODE- LATEST EDITION ADOPTED BY MICHIGAN THE MICHIGAN ELECTRICAL CODE AMMENDMENTS, LOCAL/MUNICIPAL CODES, AND THE AUTHORITY HAVING JURISDICTION.
- ALL CONNECTIONS TO EQUIPMENT SUBJECT TO MOVEMENT OR VIBRATION SHALL BE LIQUID TIGHT FLEXIBLE METAL CONDUIT, NOT LESS THAN 12" IN LENGTH, NOR GREATER THAN 36" IN LENGTH.
- ALL CONDUIT PENETRATIONS SHALL BE SEALED WITH APPROPRIATE CONDUIT SEALING MATERIAL.
- SEE MECHANICAL DRAWINGS FOR EQUIPMENT RATINGS AND SIZES.
- ALL POWER AND LIGHTING WIRING SHALL BE NOT LESS THAN 2#12, #12G, 3/4"C.
- ALL CONTROL WIRING SHALL BE NOT LESS THAN 2#14, #14G, 3/4"C.
- ALL CABLE SIZES SHALL UTILIZE COPPER CONDUCTORS
- ALL CABLES INSTALLED IN AIR HANDLING PLENUMS SHALL BE PLENUM RATED CABLE
- HOME RUNS SHALL NOT BE COMBINED IN A RACEWAY UNLESS SHOWN ON THE CONTRACT DRAWINGS. SINGLE PHASE BRANCH CIRCUIT HOME RUNS MAY BE COMBINED AT THE CONTRACTOR'S DISCRETION NOT GREATER THAN (3) PHASE CONDUCTORS, (3) NEUTRAL CONDUCTORS, AND GROUNDING CONDUCTOR.
- EACH SINGLE PHASE BRANCH CIRCUIT CONDUCTOR SHALL HAVE A DEDICATED NEUTRAL BACK TO THE PANELBOARD.
- SUPPORTING WIRE FOR THE SUSPENDED CEILING GRID SHALL NOT BE USED AS RACEWAY SUPPORT.
- THE CONTRACTOR SHALL MAKE AN ALLOWANCE FOR THE INSTALLATION OF FIVE (5) DEDICATED RECEPTACLES WITH BRANCH CIRCUIT WIRING AND CONDUIT IN ADDITION TO THOSE SHOWN ON THE CONTRACT DRAWINGS. THESE RECEPTACLES SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER.
- MAJOR FEEDERS, SUCH AS FROM 480V PANELS TO TRANSFORMERS, AND AT'S'S, FEEDS TO 208V PANELS ARE NOT SHOWN ON THE PLANS. THESE FEEDERS ARE PART OF THE WORK, AND SHALL BE INSTALLED AS INDICATED ON THE ONE LINE DIAGRAM.
- ALL DEVICE PLATED SHALL BE STAINLESS STEEL, PER SECTION 16140. ALL NORMAL DEVICES SHALL BE GRAY, PER SECTION 16140.
- THE ELECTRICAL UTILITY SERVING THIS WORK IS: DETRIOT EDISON. THE REPRESENTATIVE IS: CHIMERE F. HORN: PH. (313) 235-2013, DETROIT MICHIGAN
- HVAC CONTROL WIRING FURNISHED AND INSTALLED IN ACCORDANCE WITH DIVISION 15. ALL HVAC CONTROL WIRING SHALL BE INSTALLED IN CONDUIT, IN CONFORMANCE WITH DIVISION 16 REQUIREMENTS
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE POWER TO THE DISCONNECT SWITCH LOCATED ADJACENT TO EACH APPLIANCE OR EQUIPMENT. FINAL POWER HOOK-UP OF THE APPLIANCE OR EQUIPMENT SHALL BE MADE BY THE MECHANICAL CONTRACTOR. THE DISCONNECT SWITCHES ARE TO BE FURNISHED BY THE ELECTRICAL CONTRACTOR. THE EXHAUST FAN MOTOR STARTERS ARE TO BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
- ALL EXHAUST FAN MOTOR STARTERS AND RELATED ITEMS TO BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. SEE PLAN SHEET M-3 FOR OPERATION REQUIREMENTS OF HVAC EQUIPMENT. QUALITY OF THE STARTERS SHALL BE SQUARE-D OR BETTER. MOTOR STARTERS SHALL BE FURNISHED WITH AUXILIARY CONTACT(S) WHICH SHALL BE INTERLOCKED WITH INTAKE LOUVER ACTUATOR(S). AIR INTAKE LOUVER(S) SHALL BE FULLY OPEN PRIOR TO THE EXHAUST FAN(S) RUNNING.
- PENETRATIONS THROUGH FIRE RATED WALLS BY DIVISION 16 CONTRACTOR SHALL BE SEALED WITH APPROPRIATE FIREPROOFING MATERIAL TO RESTORE FIRE RATING. SEE ARCHITECTURAL DRAWINGS FOR FIRE RATED WALL CONSTRUCTION PLAN
- TELEPHONE AND DATA CABLING FROM MDF TO OUTLET WILL BE INSTALLED BY THE OWNER, UNDER SEPERATE CONTRACT. PROVIDE RACEWAY ONLY.
- ELECTRICAL CONTRACTOR TO PROVIDE 120V POWER SUPPLY FOR ELECTRIC DOOR/STRIKES OPENERS
- OPTIONAL-STANDBY/EMERGENCY WIRING SHALL BE KEPT SEPARATE FROM NORMAL POWER RACEWAYS.
- EXTERIOR ENCLOSURES SHALL BE NEMA 4 RATED
- THE TELEPHONE UTILITY SERCVING THIS WORK IS: 58C.
- ALL RECEPTACLES IN ROOMS 119,120, 121, 122 AND 123, ARE TO BE GFCI PROTECTED.
- THE CONTRACTOR SHALL INSTALL ALL ELECTRICAL EQUIPMENT AS SHOWN AND ANY NECESSARY EQUIPMENT REQUIRED TO MAKE AN OPERATIONAL SYSTEM. ALL ELECTRICAL EQUIPMENT LOCATED INDOORS AND OUTDOORS SHALL BE IN AN APPROPRIATE NEMA TYPE ENCLOSURE.

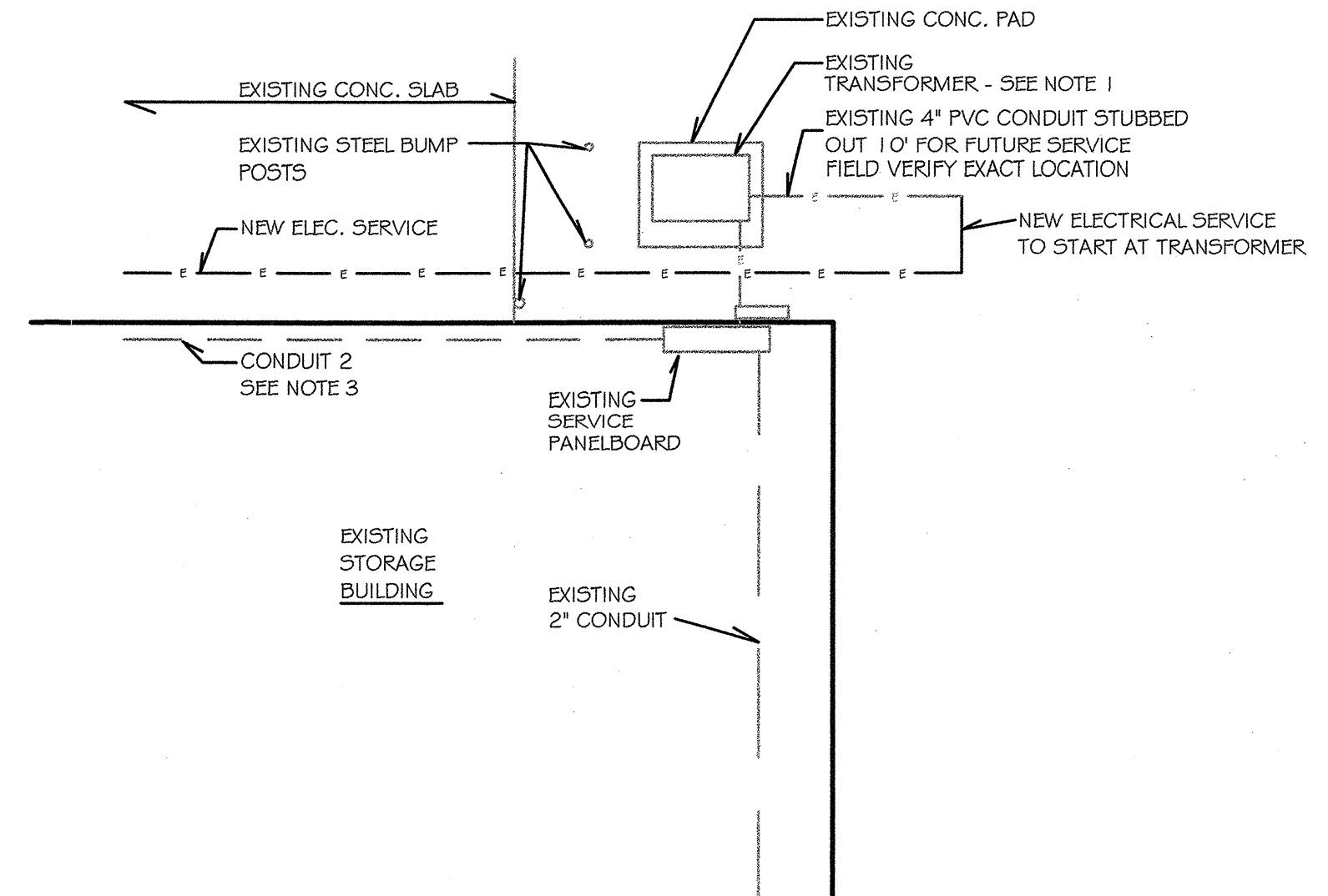
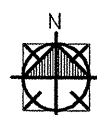
ABBREVIATIONS

A	AMPERES
AC	AIR COMPRESSOR
AF	AMPERE FUSE
AFC	ABOVE FINISHED COUNTER
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AIC	AMPERES INTERRUPTING CAPACITY
C	CONDUIT
CB	CIRCUIT BREAKER
CU	COOLING UNIT
DC	DUST COLLECTOR
DDC	DIRECT DIGITAL CONTROL PANEL
DS	DISCONNECT SWITCH
EQPT	EQUIPMENT
EW	ELECTRIC WATER COOLER
EF	EXHAUST FAN
FA	FIRE ALARM
G	GROUND
HOA	HAND OFF AUTOMATIC
IFH	INFRARED HEATER
LMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT
LTG	LIGHTING
MFR	MANUFACTURER
OL	OVERLOADS
P	POLE
Ø	PHASE
RCPT	RECEPTACLE
RM	ROOM
SW	SWITCH
TBI	TO BE INSTALLED
TEL	TELEPHONE
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS
VF	VENTILATING FAN
W	WIRE
WP	WEATHERPROOF

PROPOSED MAINTENANCE GARAGE METRO REGION 1500 EAST FERRY STREET DETROIT, MICHIGAN 48211	ELECTRICAL PLAN LEGEND AND NOTES	SHEET NO. E1
ACCOUNT NO. 116-59-8260-060		
DATE 12-22-05		
REVISIONS		
MDOT APPROVAL		
APPROVED BY	DATE 12-22-05	DEPARTMENT OF
APPROVED BY	DATE 12-25-06	100433
Michigan Department of Transportation TECHNOLOGICAL SERVICES DIVISION FACILITIES MANAGEMENT SECTION TRANSPORTATION BUILDING LANSING, MICHIGAN		



ELECTRICAL SITE PLAN
1" = 50'-0"

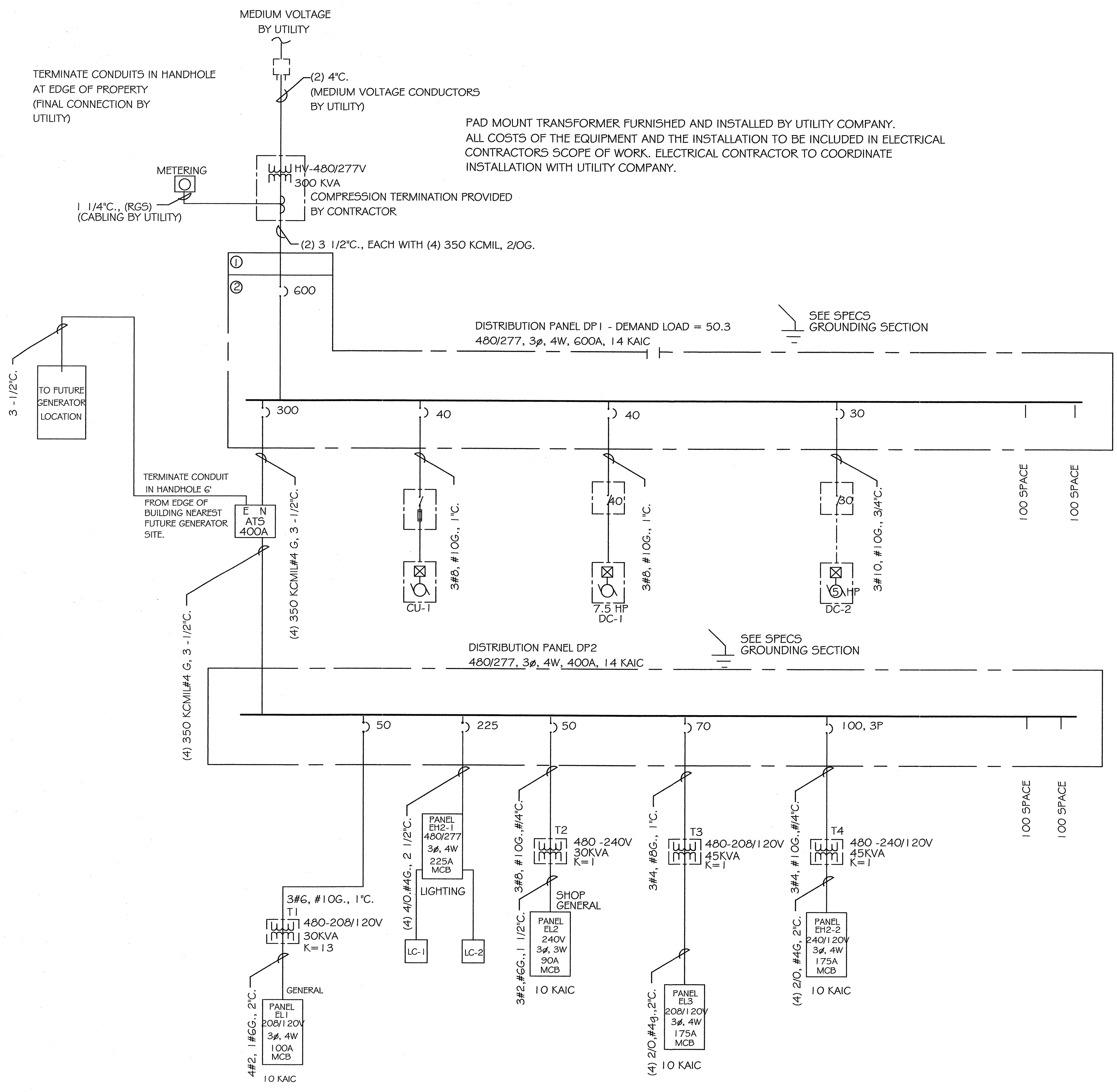


ENLARGED PLAN @TRANSFORMER
1/8" = 1'-0"

NOTES

1. NEW ELECTRICAL SERVICE TO START FROM EXISTING TRANSFORMER AND BE PULLED THROUGH EXISTING CONDUIT. SEE ENLARGED PLAN.
2. SERVICE FOR TELEPHONES, (2) 2" C. (PVC) FROM PROPERTY LINE TO INSIDE BUILDING (ROOM 116) AS SHOWN, PROVIDE HANDHOLES AS SHOWN. CABLE BY TELEPHONE CO.
3. FEEDERS TO GATE PLAZA TWO (2) 1" C. (PVC) FROM GATE PLAZA TO FEEDER PANEL INSIDE OF EXIST. STORAGE BUILDING. PROVIDE HANDHOLES AS SHOWN. CONDUIT #1 HAS 3 #6, #10G. FOR PLAZA POWER. CONDUIT #2 HAS PLAZA CONTROL CABLING (2#14 FOR GATE ACTIVATE, 2#14 FOR SPEAKERS/MICROPHONE ON PEDESTAL, #14G.) CONDUIT #2 TO CONTINUE INSIDE OF EXISTING STORAGE BUILDING AND THEN UNDERGROUND TO SUPERVISOR'S OFFICE IN NEW MAINTENANCE GARAGE.
4. CONDUIT/WIRING TO SITE LIGHTING (P1 POLES AND P2 IN GRADE) SHALL BE 4#6, #10G., 1" C. (PVC). LIGHT POLES AT TWO (2) GATES TO BE FED BY EXISTING SERVICE PANELBOARD IN EXISTING STORAGE BUILDING.

PROPOSED MAINTENANCE GARAGE METRO REGION 1500 EAST FERRY STREET DETROIT, MICHIGAN 48211		ELECTRICAL SITE PLAN SHEET NO. E2	
ACCOUNT NO. 116-59-8260 DATE 12-22-05 REVISIONS		MDOT APPROVAL APPROVED BY: <i>[Signature]</i> DATE: 1-22-06 APPROVED BY: <i>[Signature]</i> DATE: 1-25-06 RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i> DATE: 1-25-06	
PRELIM. ☐ OR ☒ CH'D CONST. ☐ ☒ APRR FINAL REC. ☐		DEPARTMENT OF MANAGEMENT AND BUDGET OFFICE OF FACILITIES	
Michigan Department of Transportation TECHNICAL SERVICES DIVISION FACILITIES MAINTENANCE SECTION TRANSPORTATION BUILDING LANSING, MICHIGAN			



ONE LINE DIAGRAM- INSTALLATION

ONE LINE DIAGRAM SYMBOLS

- PP1
120/208
3ø, 4W
200A 3P
MCB

MAIN CIRCUIT BREAKER PANELBOARD. "PP1" INDICATES PANEL DESIGNATION. "120/208" INDICATES PANEL OPERATING VOLTAGE. "3ø, 4W" INDICATES PHASE AND WIRE. "200A 3P" INDICATES 3 POLE MAIN CIRCUIT BREAKER RATED 200A.
- 200
200

FUSED SWITCH. TOP NUMBER INDICATES FUSE SPACE IN AMPERES. BOTTOM NUMBER INDICATES SWITCH RATING IN AMPERES.
- 200

CIRCUIT BREAKER. NUMBER INDICATES TRIP RATING IN AMPERES. 3 POLE.
- BUS
- FEEDER
- M

MOTOR. NUMBER INDICATES RATING IN HORSEPOWER
- 480-208/120V
150 KVA

TRANSFORMER, PRIMARY VOLTAGE, SECONDARY VOLTAGE, RATING IN KVA AS INDICATED. K FACTOR AS INDICATED.
- M

MAGNETIC MOTOR STARTER. NUMBER INDICATES NEMA RATING.
- 400

AUTOMATIC TRANSFER SWITCH. 480/277, 3ø, SOLID NEUTRAL. NUMBER INDICATES RATING IN AMPERES AS INDICATED.
- GROUND
- 200

DISCONNECT SWITCH. RATING IN AMPERES AS INDICATED.
- CURRENT TRANSFORMER

PRELIM.
CONSTR.
FINAL REC.

DR
CHK'D
APPR

MDOT APPROVAL

APPROVED BY
DATE 1-22-05

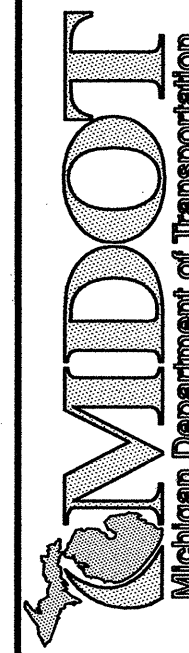
APPROVED BY
DATE 1-25-05

RECOMMENDED FOR APPROVAL BY
DATE 1-25-05

ACCOUNT NO.
116-59-8260-060

DATE 12-22-05

REVISIONS



Michigan Department of Transportation
TECHNOLOGICAL SERVICES DIVISION
FACILITIES MANAGEMENT SECTION
TRANSPORTATION BUILDING
LANSING, MICHIGAN

PROPOSED MAINTENANCE GARAGE
METRO REGION
1500 EAST FERRY STREET
DETROIT, MICHIGAN 48211

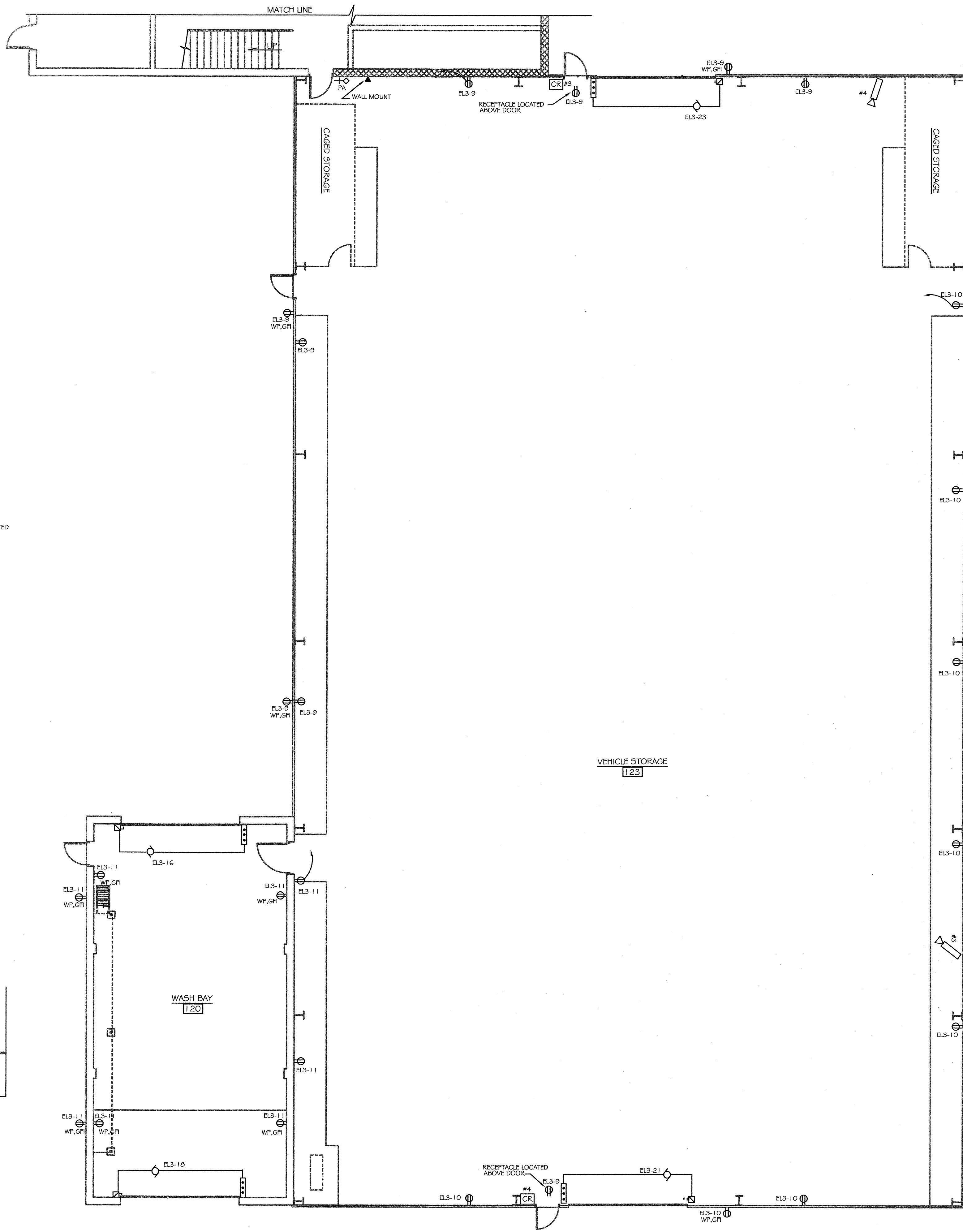
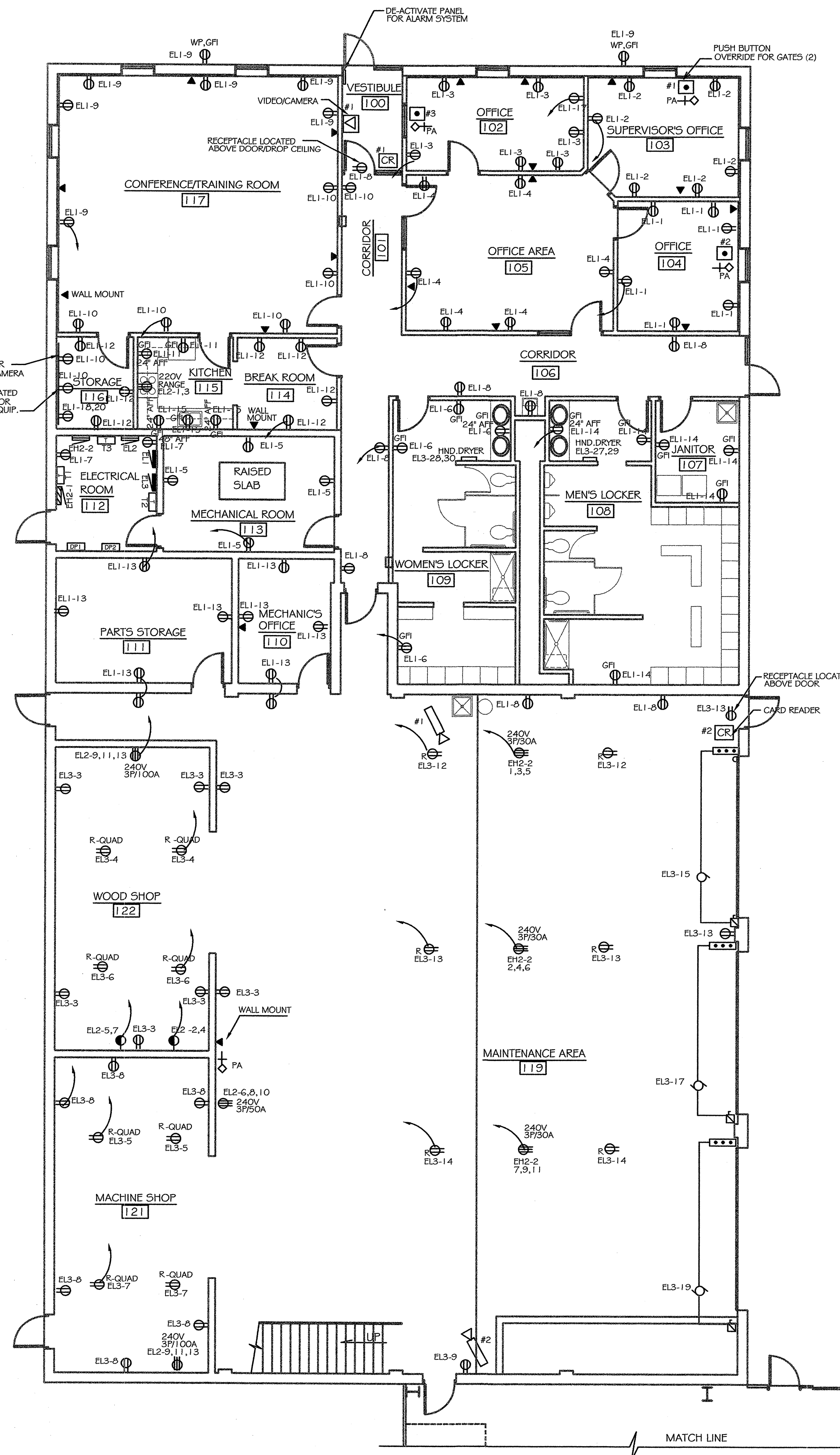
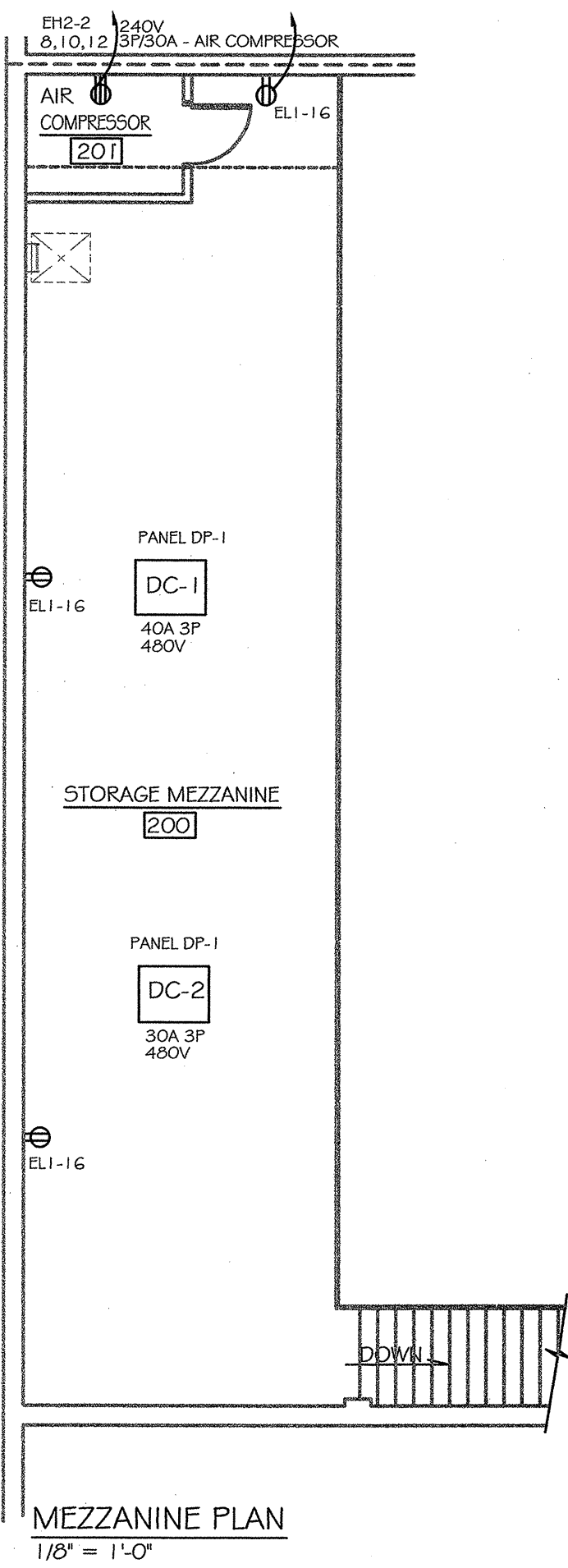
ELECTRICAL
ONE LINE DIAGRAM

SHEET NO.
E3

100433

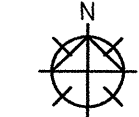
SYMBOLS

- ⊕ GFI
⊕ WP
⊕ R
⊕ 220/240V OUTLET
⊕ MOTOR
⊕ TELEPHONE AND/OR DATA OUTLET
⊕ THERMOSTAT
⊕ OVERHEAD DOOR CONTROL
⊕ PUSH BUTTON IN NEMA 1 ENCLOSURE, FOR OVERRIDE ON GATE OPERATOR DISCONNECT SWITCH
⊕ SWITCH
⊕ THREE WAY SWITCH
⊕ FOUR WAY SWITCH
⊕ ELECTRIC DOOR OPENER
⊕ CARD READER
⊕ PAGING SYSTEM DEVICE
⊕ CAMERA
⊕ VIDEO/CAMERA



NOTES:
ALL RECEPTACLES IN ROOMS 119, 120, 121, 122 & 123 ARE TO BE GFCI PROTECTED.

ELECTRICAL PLAN- POWER
1/8" = 1'-0"



PRELIM. DR. O		CONST. O		CHK'D O		APPR. O	
MDOT APPROVAL				APPROVED BY: <i>[Signature]</i> DATE: 1-27-11			
APPROVED BY: <i>[Signature]</i> DATE: 1-25-11				RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i> DATE: 1-25-11			
ACCOUNT NO. 116-59-8260-060		DATE 12-22-05		REVISIONS			
		Michigan Department of Transportation		TECHNOLOGICAL SERVICES DIVISION		FACILITIES MANAGEMENT SECTION	
PROPOSED MAINTENANCE GARAGE		METRO REGION		1500 EAST FERRY STREET		DETROIT, MICHIGAN 48211	
ELECTRICAL PLAN POWER		SHEET NO. E4					
						100433	

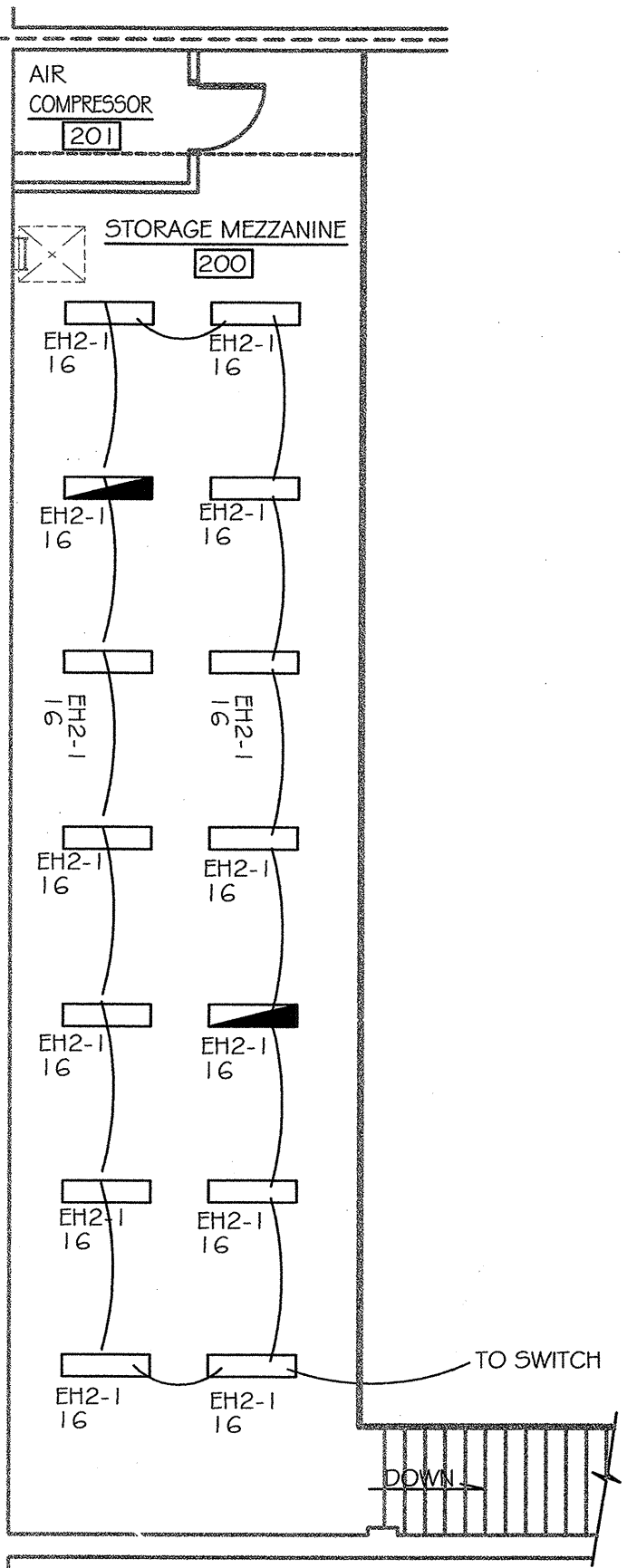
NOTES:

1. FOR TYPE 55, 56, 57 MOUNTING HEIGHTS TO BE 13'-4" A.F.F. VERIFY LOCATION WITH OWNER.
2. PROVIDE FLANGE MOUNTING FOR GYPSUM BOARD TYPE CEILING

LEGEND

LIGHTING FIXTURES DETAIL - REFER TO SHEET- E8

- TYPE - J2
- TYPE - J1
- TYPE - S5
- TYPE - S7
- TYPE - A1
- TYPE - A2
- TYPE - S6
- TYPE - EM
- TYPE - X1
- TYPE - X2
- TYPE - X2

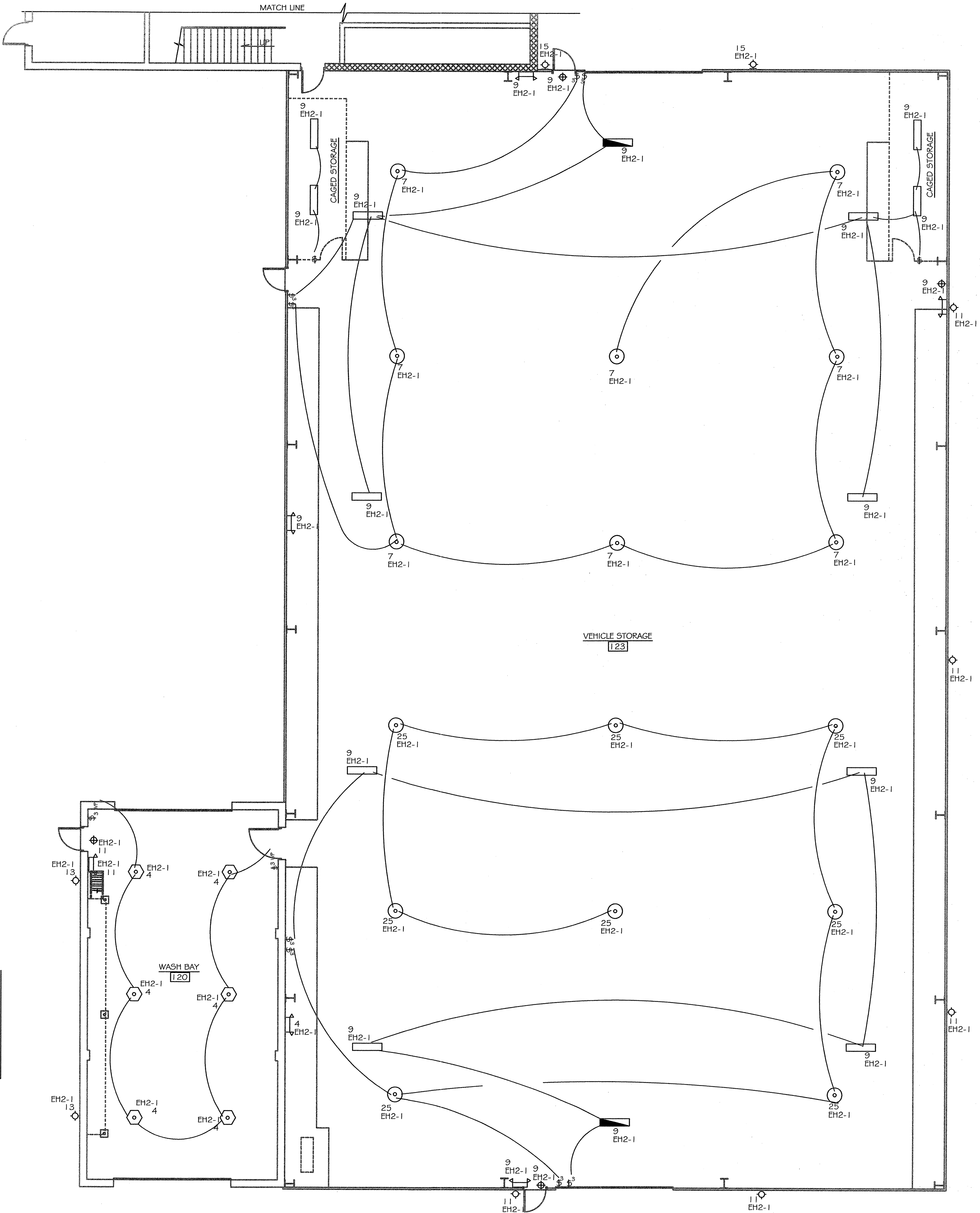
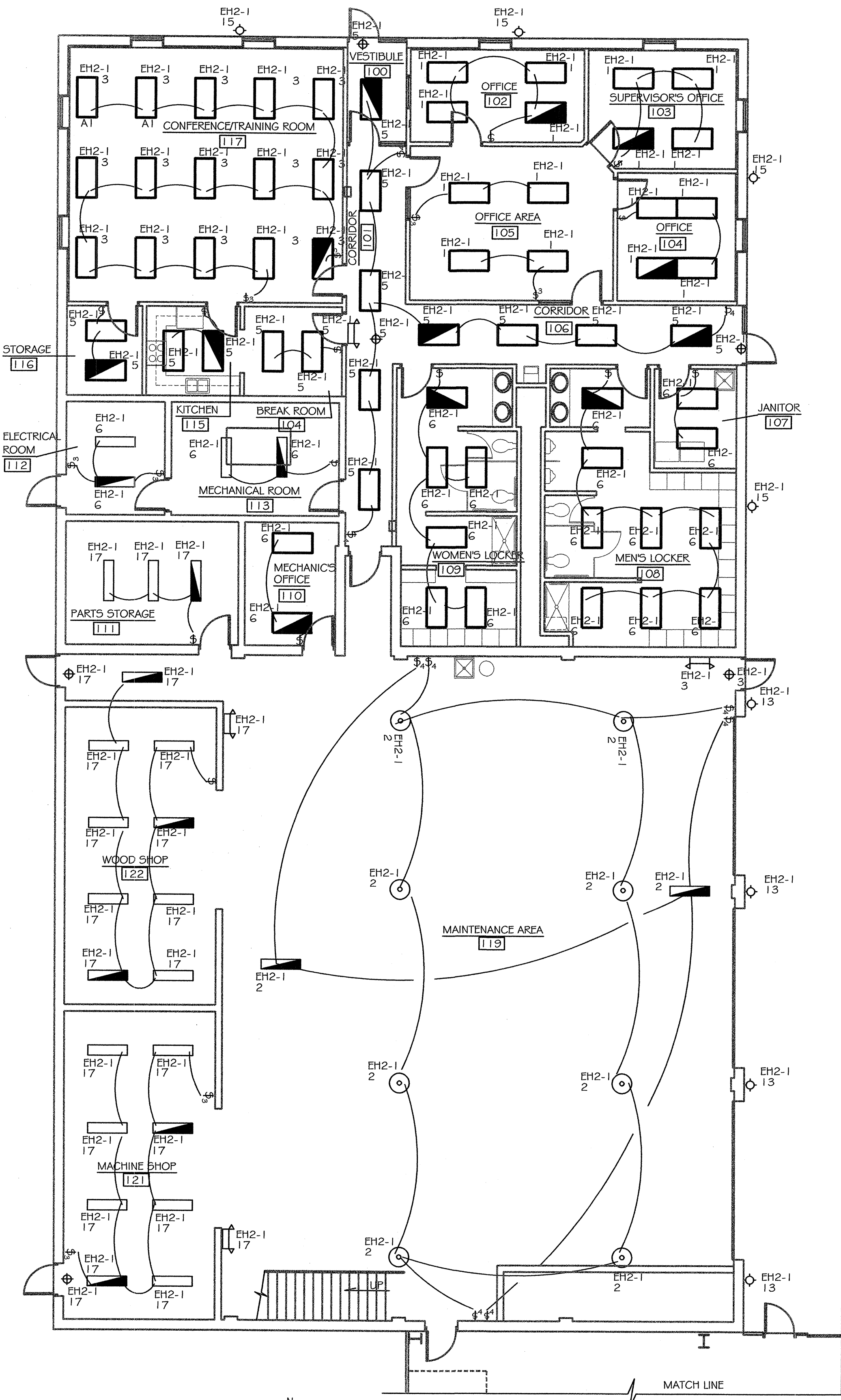
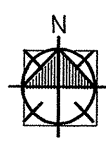


MEZZANINE PLAN

1/8" = 1'-0"

ELECTRICAL PLAN - LIGHTING

1/8" = 1'-0"



MDOT APPROVAL

ACCOUNT NO.
116-59-8260-060

MDOT
Michigan Department of Transportation
TECHNOLOGICAL SERVICES DIVISION
FACILITIES MANAGEMENT SECTION
TRANSPORTATION BUILDING
LANSING, MICHIGAN

PROPOSED MAINTENANCE GARAGE
METRO REGION
1500 EAST FERRY STREET
DETROIT, MICHIGAN 48211

ELECTRICAL PLAN
LIGHTING

SHEET NO.
E5

DATE: 12-22-05

APPROVED BY: [Signature]

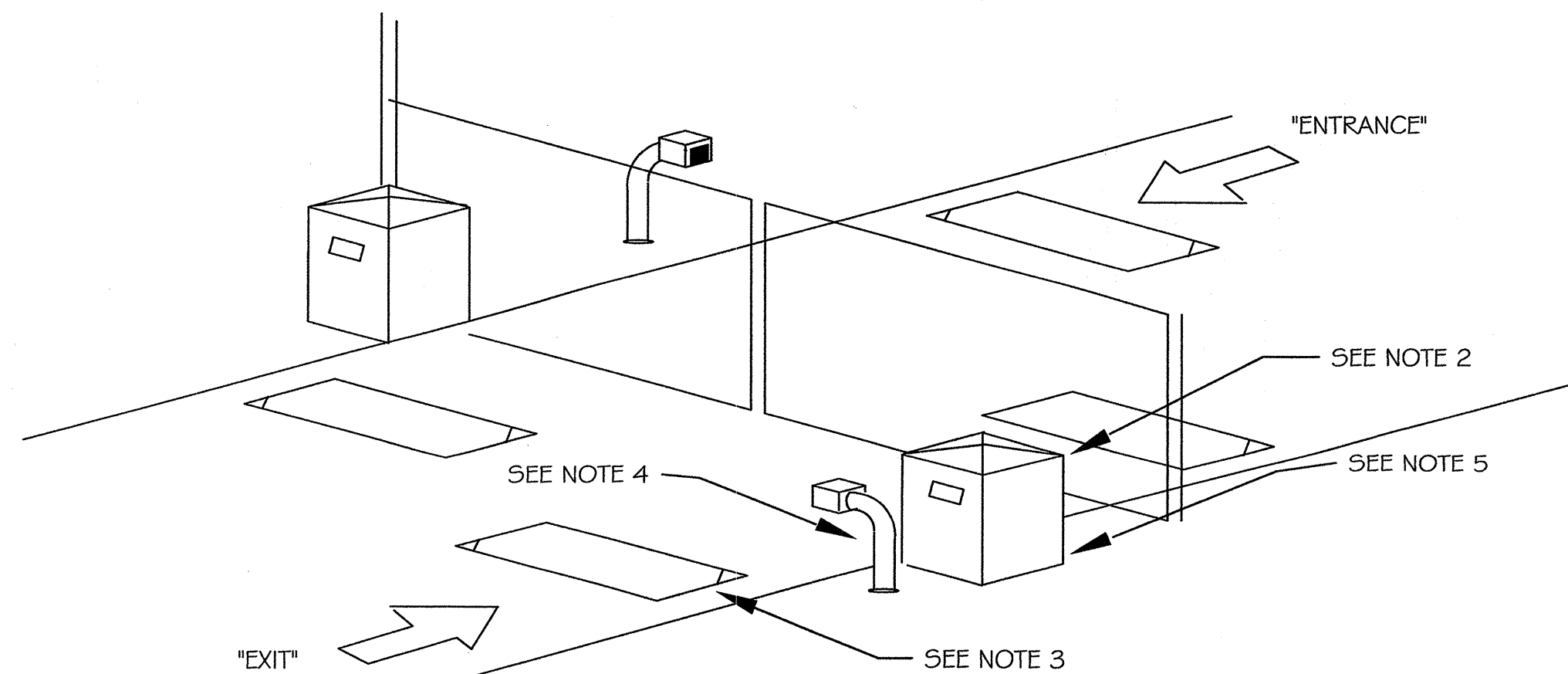
APPROVED BY: [Signature]

RECOMMENDED FOR APPROVAL BY: [Signature]

DATE: 1-25-06

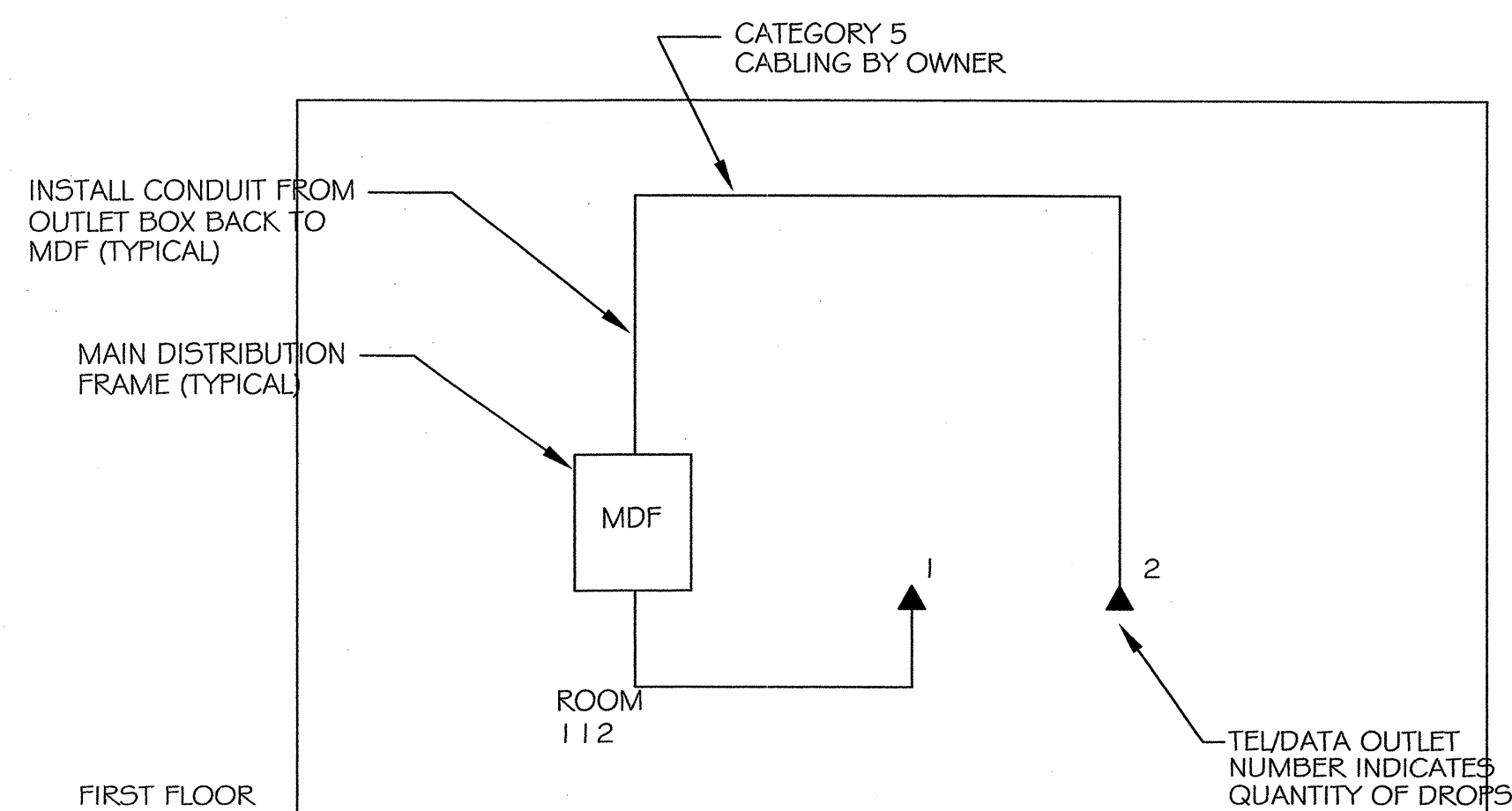
PRELIM. OR CONST. FINAL REC. APPR.

100433



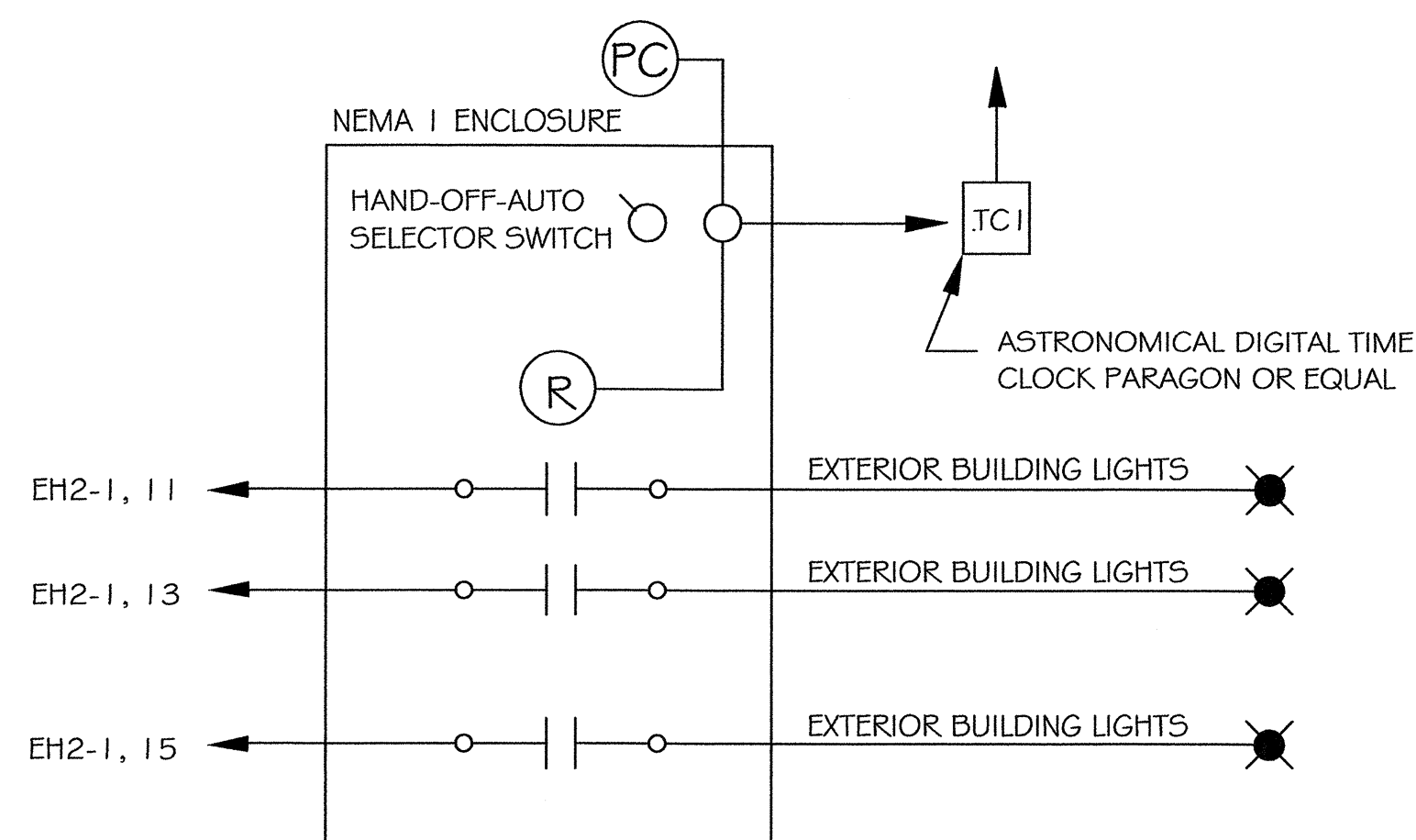
- NOTES:
1. THIS ARRANGEMENT IS TYPICAL FOR PLAZA LOCATION AS SHOWN ON THE SITE DRAWING E2
 2. GATE MECHANISM SHALL CONTAIN A THERMOSTATICALLY CONTROLLED ELECTRIC HEATER TO PREVENT CONDENSATION IN THE UNIT. (TYPICAL) GATE MECHANISM SHALL CONTAIN RADIO RECEIVER FOR PORTABLE TRANSMITTERS IN VEHICLES. GATE MECHENISM SHALL CONTAIN CONNECTIONS FOR A REMOTE PUSHBUTTON OVERRIDE (LOCATED IN THE ADMINISTRATION OFFICE).
 3. VEHICLE DETECTOR LOOP, PAVEMENT SHALL BE SAWCUT FOR INSTALLATION OF 2'-6" X 6'-0" LOOPS. CUT OFF CORNERS NOT LESS THAN 6" TO ELIMINATE WIRE BENDS OF MORE THAN 45 DEGREES. SEAL SAWCUTS WITH EPOXY TYPE SEALANT.
 4. KEYPAD SHALL BE FOR OPERATION IN AMBIENT TEMPERATURES OF -20 TO 120 DEGREES F. KEYPAD ENCLOSURE SHALL PREVENT CONDENSATION INSIDE THE UNIT.
 5. (2) VEHICLE DETECTORS LOCATED INSIDE EACH OF (2) GATE MECHANISM CABINETS. @ FOR "VEHICLE AT GATE", 1 FOR "CLOSE GATE". VEHICLE DETECTOR SHALL BE MICROPROCESSOR BASED, SELF TUNNING TO COMPENSATE FOR AGING/CHANGING CONDITIONS AND GENERATE OUTPUT SIGNAL(S) AS REQUIRED FOR SYSTEM OPERATION.

DETAIL - PLAZA EQUIPMENT
SEE SHEET- E2



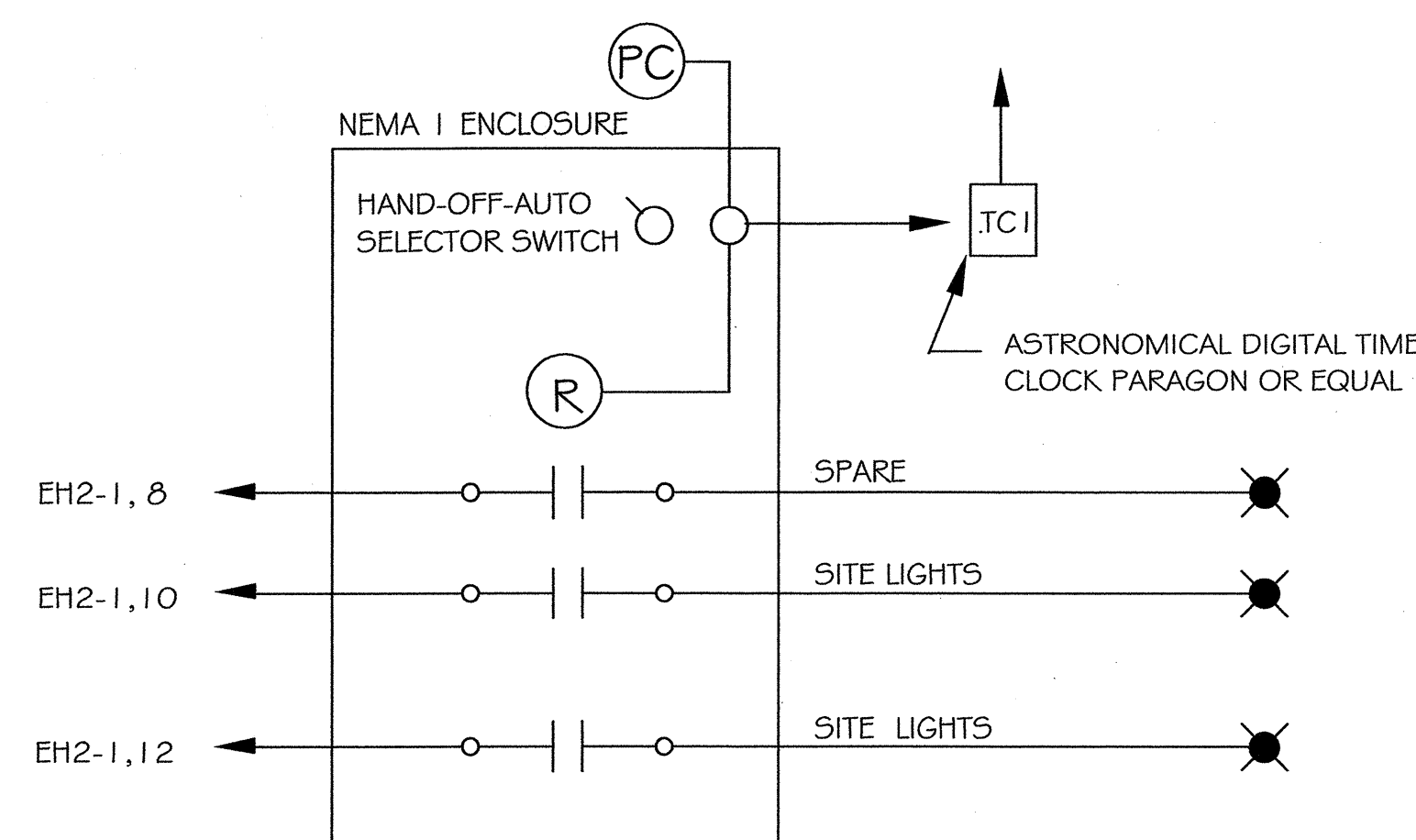
- NOTES:
1. OUTLETS MAY BE COMBINED WITH OTHER OUTLETS IN COMMON RACEWAY

DETAIL - TELEPHONE/DATA OUTLET RISER
NOT TO SCALE



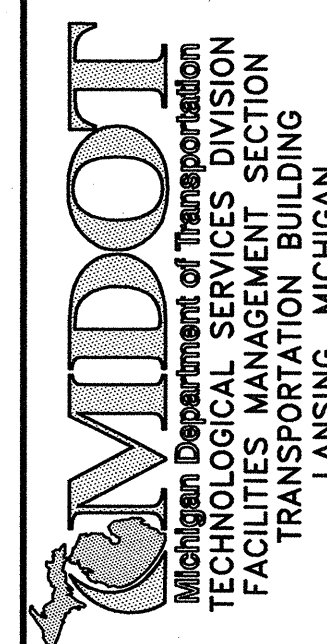
- NOTES:
1. CONTACTORS SHALL BE MECHANICALLY HELD TYPE, SQUARE D "LXG" WITH "RG" CONTROL OPTION, OR EQUAL.
 2. PROVIDE LIGHTING CONTACTOR WITH 3 POSITION SELECTOR SWITCH AND LED INDICATING PILOT LIGHT.
 3. PHOTOCELL SHALL BE WIRED TO OVERRIDE TIME CLOCK.

DETAIL - LIGHTING CONTACTOR 1
SEE SHEET- E3



- NOTES:
1. CONTACTORS SHALL BE MECHANICALLY HELD TYPE, SQUARE D "LXG" WITH "RG" CONTROL OPTION, OR EQUAL.
 2. PROVIDE LIGHTING CONTACTOR WITH 3 POSITION SELECTOR SWITCH AND LED INDICATING PILOT LIGHT.
 3. PHOTOCELL SHALL BE WIRED TO OVERRIDE TIME CLOCK.

DETAIL - LIGHTING CONTACTOR 2
SEE SHEET E3



PROPOSED MAINTENANCE GARAGE
METRO REGION
1500 EAST FERRY STREET
DETROIT, MICHIGAN 48211

ELECTRICAL
DETAILS

SHEET NO.
E7

MDOT APPROVAL

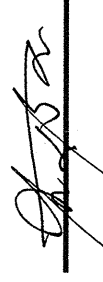
APPROVED BY	DATE	APPROVED BY	DATE	RECOMMENDED FOR	DATE
<i>[Signature]</i>	1-25-06	<i>[Signature]</i>	1-25-06		

PRELIM.	OR	CON'T.	OR	CH'D	APPR.
ACCOUNT NO. 116-59-8260-060			DEPARTMENT OF MANAGEMENT AND BUDGET OFFICE OF FACILITIES		
DATE 12-22-05			REVISIONS		

LIGHTING FIXTURE SCHEDULE

SYMBOL	CLASSIFICATION	DESCRIPTION	NUMBER OF LAMPS	LAMP TYPE	LAMP SIZE	MOUNTING	VOLTAGE	MANUFACTURER AND CATALOG NUMBER	EQUAL MANUFACTURER	EQUAL MANUFACTURER	REMARKS
TYPE A1	STANDARD	2'X4' PRISMATIC 2 LAMP LAY IN GRID TROFFER, (1) 2 LAMP BALLAST, #A12 ACRYLIC LENS .125", PAINTED AFTER FABRICATION	2	FLUORESCENT	T8 32 WATT 3500°K	IN ACOUSTIC CEILING TILE GRID	277V	LITHONIA SP SERIES 2SP-G-232-A12125-277-GEB-PAF	LIGHTOLIER SPS SERIES SPS2GFSV1232-SO-277V	METALUX GC SERIES 2GC-232A125-277V-EB81-PAF	
TYPE A2	STANDARD	2'X4' PRISMATIC 2 LAMP LAY IN GRID TROFFER, (1) 1 LAMP BALLAST, (1) 1 LAMP BATTERY - INVERTER BALLAST, #A12 ACRYLIC LENS .125", PAINTED AFTER FABRICATION	2	FLUORESCENT	T8 32 WATT 3500°K	IN ACOUSTIC CEILING TILE GRID	277V	LITHONIA SP SERIES 2SP-G-232-A12125-277-GEB-ELPAF	LIGHTOLIER SPS SERIES SPS2GFSV1232-SO-EM-277V	METALUX GC SERIES 2GC-232A125-277V-EB81-EL4-PAF	
TYPE J1	STANDARD	13.5"X4' INDUSTRIAL 2 LAMP FIXTURE, (1) 2 LAMP BALLAST, PENDANT HUNG	2	FLUORESCENT	T8 32 WATT 3500°K	PENDANT HUNG	277V	LITHONIA AF SERIES AF-232-277V-GEB	LIGHTOLIER TFA SERIES TFA232RS-277V-SO	METALUX DIM SERIES DIM-232-277V-EB81	
TYPE J2	STANDARD	13.5"X4' 2 LAMP INDUSTRIAL FIXTURE, (1) 1 LAMP BALLAST, (1) 1 LAMP BATTERY - INVERTER BALLAST	2	FLUORESCENT	T8 32 WATT 3500°K	PENDANT HUNG	277V	LITHONIA AF SERIES AF-232-277V-GEB-EL	LIGHTOLIER TFA SERIES TFA232RS-277V-SO-EM	METALUX DIM SERIES DIM-232-277V-EB81-EL4	
TYPE P1	STANDARD	AREA LIGHT, ROUND, ROLLED FORMED HOUSING, ONE PIECE REFLECTOR SYSTEM, CONVEX TEMPERED GLASS LENS, SPUN AND STAMPED ALUMINUM REFLECTOR, BALLAST TRAY MOUNTED TO HOUSING INTERIOR, FORMED DOOR WITH HEAVY DUTY HINGE, LONG LIFE BALLAST CORE-COIL, DARK BRONZE COLOR.	1	HIGH PRESSURE SODIUM	400 WATTS	POLE MOUNTED	277V	APPROVED EQUAL	APPROVED EQUAL	McGRAW-EDISON GRA-402242D BK	USE 14" ARM, AND 30 FEET. ROUND STRAIGHT POLE (COOPER RSS6M30SF) CWA BALLAST
TYPE P2	STANDARD	WELL LIGHT, SEALED HOUSING, PROTECTIVE GRILL, WATER TIGHT CONNECTION	1	METAL HALIDE	175 WATT	IN GRADE	277V	HYDREL 9350 SERIES 9355F-A-MH175/277/RFL/JBA01/AS02	APPROVED EQUAL	APPROVED EQUAL	
TYPE S5	STANDARD	R28 LUMARK 28"	1	METAL HALIDE	400 WATT	HOOK PHILUM	277V	LUMARK R28 MHEP22/28-400-5T LUM 400W MH 5TAP BALLAST	APPROVED EQUAL	APPROVED EQUAL	MOUNTED 16 TO 18 FEET AFF.
TYPE S6	WET LOCATION	WALL LUMINAIRE, FULLY ENCLOSED, DIE CAST CONSTRUCTION, EXTRUDED AND SPUN ALUMINUM, SUITABLE FOR WET LOCATION, STAINLESS STEEL HARDWARE, CORROSION RESISTANT FINISH	1	METAL HALIDE	100 WATT	WALL	277V	BEGA 6421MH	LIGHTOLIER	METALUX	BALLAST SHALL BE SUITABLE FOR STARTING AT -20°F. FINISH: WHITE COLOR
TYPE X1	STANDARD	UNIVERSAL MOUNT STEEL L.E.D. EXIT SIGN, 90 MINUTE ILLUMINATION	N/A	L.E.D.	N/A	UNIVERSAL	277V	LITHONIA LX-S-W-2-R-277	DYNARY 86-W-01-T-Q	SURE-LITES UN SERIES UN-1-SRWLED	EMERGENCY BATTERY BACKUP SHALL BE SUITABLE FOR A MINIMUM OF 90 MINUTES. SEE LIGHTING PLAN FOR FACEPLATE ARRANGEMENTS.
TYPE EM	STANDARD	EMERGENCY BATTERY OPERATED	2	INCANDESCENT	9 WATTS	WALL MOUNTED	277V	LITHONIA	BIG BEAM	SURE LITES AA-1	EMERGENCY BATTERY BACKUP SHALL BE SUITABLE FOR A MINIMUM OF 90 MINUTES. SEE LIGHTING PLAN FOR FACEPLATE ARRANGEMENTS.
TYPE S7	WET LOCATION	LOW BAY ENCLOSED OPTICAL	1	METAL HALIDE	400 WATTS	HOOK	277V	LUMARK LOW BAY	APPROVED EQUAL	APPROVED EQUAL	
TYPE X2	WET LOCATION	EMERGENCY EXIT SIGN	2	INCANDESCENT	15 WATTS	PENDANT	277V	LITHONIA	APPROVED EQUAL	APPROVED EQUAL	EMERGENCY BATTERY BACKUP SHALL BE SUITABLE FOR A MINIMUM OF 90 MINUTES. SEE LIGHTING PLAN FOR FACEPLATE ARRANGEMENTS.
TYPE EM2	WET LOCATION	EMERGENCY LIGHTING	2	SEALED BEAM	8 WATTS	PENDANT	277V	LITHONIA ELUX 2	APPROVED EQUAL	APPROVED EQUAL	EMERGENCY BATTERY BACKUP SHALL BE SUITABLE FOR A MINIMUM OF 90 MINUTES. SEE LIGHTING PLAN FOR FACEPLATE ARRANGEMENTS.

MDOT APPROVAL

APPROVED BY:  DATE: 1-25-06

APPROVED BY:  DATE: 1-25-06

RECOMMENDED FOR APPROVAL BY:  DATE: 1-25-06

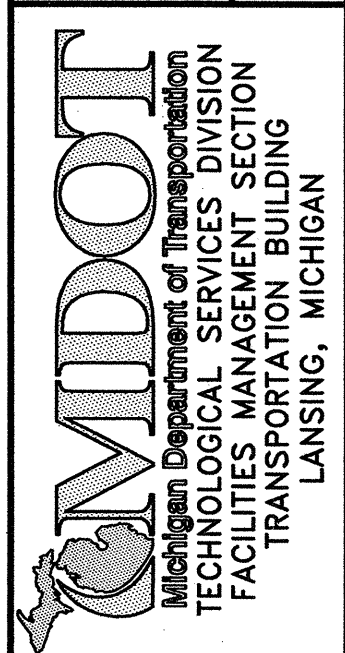
PRELIM. ☐ OR ☒ CHG'D

CONST. ☐ FINAL REC. ☐ APRR

DEPARTMENT OF MANAGEMENT AND BUDGET OFFICE OF FACILITIES

DATE: 12-22-05

REVISIONS



PROPOSED MAINTENANCE GARAGE
METRO REGION
1500 EAST FERRY STREET
DETROIT, MICHIGAN 48211

ELECTRICAL SCHEDULE
LIGHTING FIXTURES

SHEET NO. E8

PANEL EL I									
VOLTAGE					208/120V				
BUS, NEUTRAL BUS RATING					100A, 100				
SHORT CIRCUIT RATING					100KAIC				
PHASE, WIRE					3, 4				
MAIN CIRCUIT BREAKER, POLES					100A, 3P				
MOUNTING					FLUSH				

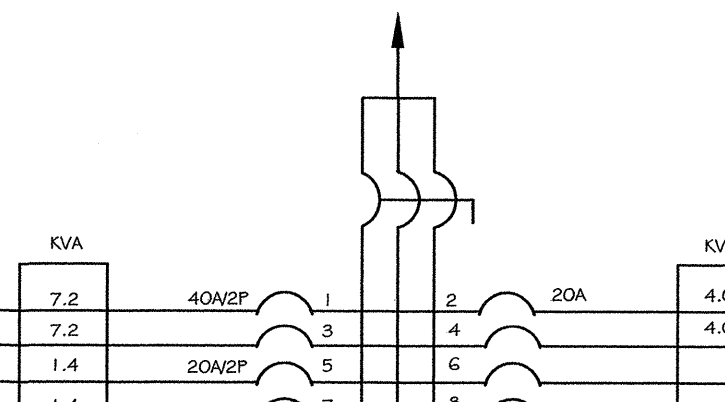
KVA					KVA				
RM 104	1.08	20A	1	2	20A	1.08	RM 103		
RM 102	1.08	20A	3	4	20A	1.08	RM 105		
RM 113	0.72	20A	5	6	20A	0.72	RM 109		
RM 112	0.72	20A	7	8	20A	1.26	RM 101, 106		
RM 117	1.26	20A	9	10	20A	1.26	RM 117		
RM 115	0.36	20A	11	12	20A	1.26	RM 116, 114		
RM 110, 111	1.98	20A	13	14	20A	1.08	RM 107, 108		
RM 115	0.54	20A	15	16	20A	0.54	MEZZANINE, RM 200		
RM 102 PA	0.18	20A	17	18	20A	0.18	TELE EQUIP, RM 112		
SPARE	0.0	20A	19	20	20A	0.18	TELE EQUIP, RM 112		
SPARE	0.0	20A	21	22	20A	0.0	SPARE		
SPARE	0.0	20A	23	24	20A	0.0	SPARE		
SPARE	0.0	20A	25	26	20A	0.0	SPARE		
SPARE	0.0	20A	27	28	20A	0.0	SPARE		
SPARE	0.0	20A	29	30	20A	0.0	SPARE		

NOTES

1. * * * AT AMPERE RATING INDICATES GFI TYPE.

2. * # * AT AMPERE RATING INDICATES EPT TYPE.

CONNECTED LOAD	A-KVA	5.58	B - KVA	5.40	C - KVA	3.60
TOTAL LOAD	KVA	14.58				

PANEL EL2									
VOLTAGE				240/120V					
B ¹ BUS, NEUTRAL BUS RATING				100A					
SHORT CIRCUIT RATING				10KAC					
PHASE, WIRE				3,4					
MAIN CIRCUIT BREAKER, POLES				90A, 3P					
MOUNTING				SURFACE					
									
RM 115 RANGE	7.2	40A/2P	1	2	20A	4.0	TABLE SAW	RM 122	
RM 115 RANGE	7.2		3	4		4.0	TABLE SAW	RM 122	
RM 122 PANELSAW	1.4	20A/2P	5	6					SPARE
RM 122 PANELSAW	1.4		7	8	20A/2P	2.04			EW-1
RM 121	0.0	100A	9	10		2.04			EW-1
RM 121	0.0	100A	11	12		3.81			HS-1
RM 121	0.0	100A	13	14	20A/3P	3.81			HS-1
SPARE	0.0		15	16		3.81			HS-1
SPARE	0.0		17	18					SPARE
EF-13	3.6	20A	19	20					SPARE
EF-13	3.6		21	22	20A	9.6			EF-12
EF-13	3.6		23	24		9.6			EF-12
SPARE	0.0	15A	25	26		9.6			EF-12
SPARE	0.0	20A	27	28	20A	0.0			SPARE
SPARE	0.0	20A	29	30	20A	0.0			SPARE

NOTES

1. *** AT AMPERE RATING INDICATES GFI TYPE.
2. * * * AT AMPERE RATING INDICATES EPD TYPE.

CONNECTED LOAD	A-KVA	31.65	B - KVA	30.25	C - KVA	18.41
TOTAL LOAD	KVA	80.31				

PANEL EL3									
VOLTAGE					208/120V				
BUS, NEUTRAL BUS RATING					225A, 225A				
SHORT CIRCUIT RATING					10KAIC				
PHASE, WIRE					3,4				
MAIN CIRCUIT BREAKER, POLES					175A, 3P				
MOUNTING					SURFACE				
	KVA	20A	1	2	20A		KVA		
SPARE	0.0						0.0		SPARE
RM, 122	1.26	20A	3	4	20A	0.72			RM 122 REEL
RM 121 REEL	0.72	20A	5	6	20A	0.72			RM 121 REEL
RM 121 REEL	0.72	20A	7	8	20A	1.05			RM 121
RM 123	1.60	20A	9	10	20A	1.62			RM 123
RM 120 WASHBAY	1.62	20A	11	12	20A	0.36			RM 119
RM 119	0.72	20A	13	14	20A	0.36			RM 119
M-OH. DOOR RM 119	1.59	20A	15	16	20A	1.59			M-OH. DOOR RM 120
M-OH. DOOR RM 119	1.59	20A	17	18	20A	1.59			M-OH. DOOR RM 120
M-OH. DOOR RM 119	1.59	20A	19	20	20A	1.82			IRH - 1, 3, 5
M-OH. DOOR RM 123	1.59	20A	21	22	20A	1.72			IRH - 2, 4, 6
M-OH. DOOR RM 123	1.59	20A	23	24	20A	1.72			IRH - 7, 8, 9
EF 7, 8, 9	3.34	20A	25	26	20A	0.60			IRH - 10
RM 108 - HAND DRYER	10.0	20A	27	28	20A	10.0			HAND DRYER RM 109
RM 105 - HAND DRYER	10.0	20A	29	30	20A	10.0			HAND DRYER RM 109
SPARE	0.0	20A	31	32	20A	0.0			SPARE
SPARE	0.0	20A	33	34	20A	0.0			SPARE
SPARE	0.0	15A	35	36	20A	0.0			SPARE
SPARE	0.0	20A	37	38	20A	0.0			SPARE
SPARE	0.0	20A	39	40	20A	0.0			SPARE
SPARE	0.0	20A	41	42	20A	0.0			SPARE

PANEL EH2 - I									
VOLTAGE					480/277V				
B ¹ BUS, NEUTRAL BUS RATING					225A				
SHORT CIRCUIT RATING					14KAIC				
PHASE, WIRE					3,4				
MAIN CIRCUIT BREAKER, POLES					225A, 3P				
MOUNTING					SURFACE				
KVA					KVA				
L-RM 102, 103, 104, 105	1.47	20A	1	2	20A	4.176	L-RM 119		
L-RM	1.47	20A	3	4	20A	3.65	L-RM 120		
RM 101, 106, 114, 115, 116	1.64	20A	5	6	20A	1.96	L-RM 107, 108, 109, 110, 112		
L-RM 123	4.17	20A	7	8	20A	0.0	SITE LIGHT		
L-RM 123	1.63	20A	9	10	20A	1.56	SITE LIGHT		
L-EXT BLDG. LIGHTS	1.006	20A	11	12	20A	2.08	SITE LIGHT		
L-EXT BLDG. LIGHTS	1.006	20A	13	14	20A	4.19	L-RM 123		
L-EXT BLDG. LIGHTS	1.006	20A	15	16	20A	1.09	MEZZANINE RM 200		
RM 111, 122, 121	1.71	20A	17	18	20A	0.0	SPARE		
POWER WASHER	5.8	20A	19	20	20A	0.0	SPARE		
POWER WASHER	5.8	30A/3P	21	22	20A	0.0	SPARE		
POWER WASHER	5.8	20A	23	24	20A	0.0	SPARE		
RM 123	4.17	20A	25	26	20A	0.942	M-GATE 1		
SPARE	0.0	20A/3P	27	28	15A/3P	0.942	M-GATE 1		
SPARE	0.0	20A	29	30	20A	0.942	M-GATE 1		
SPARE	0.0	20A	31	32	20A	0.942	M-GATE 2		
SPARE	0.0	20A/3P	33	34	15A/3P	0.942	M-GATE 2		
SPARE	0.0	20A	35	36	20A	0.942	M-GATE 2		
SPARE	0.0	20A	37	38	20A	0.0	SPARE		
SPARE	0.0	20A	39	40	20A	0.0	SPARE		
SPARE	0.0	20A	41	42	20A	0.0	SPARE		

NOTES

1. " * " AT AMPERE RATING INDICATES GFI TYPE.
2. " # " AT AMPERE RATING INDICATES EPD TYPE.

CONNECTED LOAD	A-KVA	26.946	B - KVA	18.17	C - KVA	16.36
TOTAL LOAD	KVA	61.476				

PANEL EH2 -2																																																																																																																																																																																											
VOLTAGE				240/120V																																																																																																																																																																																							
B ₁ BUS, NEUTRAL BUS RATING				225A																																																																																																																																																																																							
SHORT CIRCUIT RATING				14KAIC																																																																																																																																																																																							
PHASE, WIRE				3,4																																																																																																																																																																																							
MAIN CIRCUIT BREAKER, POLES				225A, 3P																																																																																																																																																																																							
MOUNTING				SURFACE																																																																																																																																																																																							
<table border="1"> <thead> <tr> <th></th><th colspan="3">KVA</th><th></th><th></th><th></th><th></th><th>KVA</th><th></th></tr> </thead> <tbody> <tr> <td>PORTABLE LIFT</td><td>7.5</td><td>30A</td><td>1</td><td>2</td><td>30A</td><td>7.5</td><td>PORTABLE LIFT</td></tr> <tr> <td>PORTABLE LIFT</td><td>7.5</td><td>30A</td><td>3</td><td>4</td><td>30A</td><td>7.5</td><td>PORTABLE LIFT</td></tr> <tr> <td>PORTABLE LIFT</td><td>7.5</td><td>30A</td><td>5</td><td>6</td><td>30A</td><td>7.5</td><td>PORTABLE LIFT</td></tr> <tr> <td>PORTABLE LIFT</td><td>7.5</td><td>30A</td><td>7</td><td>8</td><td></td><td>8.3</td><td>STORAGE MEZZ. - AIR COMPR.</td></tr> <tr> <td>PORTABLE LIFT</td><td>7.5</td><td>30A</td><td>9</td><td>10</td><td>30A/3P</td><td>8.3</td><td>STORAGE MEZZ. - AIR COMPR.</td></tr> <tr> <td>PORTABLE LIFT</td><td>7.5</td><td>30A</td><td>11</td><td>12</td><td></td><td>8.3</td><td>STORAGE MEZZ. - AIR COMPR.</td></tr> <tr> <td>EF 1,2,3</td><td>3.34</td><td></td><td>13</td><td>14</td><td></td><td>3.33</td><td>UH-1 EF 1O, UH-2</td></tr> <tr> <td>EF 1,2,3,</td><td>3.34</td><td>20A/3P</td><td>15</td><td>16</td><td>20A/3P</td><td>3.33</td><td>UH-1 EF 1O, UH-2</td></tr> <tr> <td>EF 1,2,3,</td><td>3.34</td><td></td><td>17</td><td>18</td><td></td><td>3.33</td><td>UH-1 EF 1O, UH-2</td></tr> <tr> <td>EF 4,5,6</td><td>3.34</td><td></td><td>19</td><td>20</td><td></td><td>3.33</td><td>UH-3, EF-11</td></tr> <tr> <td>EF 4,5,6,</td><td>3.34</td><td>20A/3P</td><td>21</td><td>22</td><td>20A/3P</td><td>3.33</td><td>UH-3, EF-11</td></tr> <tr> <td>EF 4,5,6,</td><td>3.34</td><td></td><td>23</td><td>24</td><td></td><td>3.33</td><td>UH-3, EF-11</td></tr> <tr> <td>SPARE</td><td>0.0</td><td></td><td>25</td><td>26</td><td></td><td>0.0</td><td>SPARE</td></tr> <tr> <td>SPARE</td><td>0.0</td><td>20A/3P</td><td>27</td><td>28</td><td></td><td>0.0</td><td>SPARE</td></tr> <tr> <td>SPARE</td><td>0.0</td><td></td><td>29</td><td>30</td><td></td><td>0.0</td><td>SPARE</td></tr> <tr> <td>SPARE</td><td>0.0</td><td></td><td>31</td><td>32</td><td>20A</td><td>0.0</td><td>SPARE</td></tr> <tr> <td>SPARE</td><td>0.0</td><td>20A/3P</td><td>33</td><td>34</td><td>20A</td><td>0.0</td><td>SPARE</td></tr> <tr> <td>SPARE</td><td>0.0</td><td></td><td>35</td><td>36</td><td>20A</td><td>0.0</td><td>SPARE</td></tr> <tr> <td>SPARE</td><td>0.0</td><td>20A</td><td>37</td><td>38</td><td>20A</td><td>0.0</td><td>SPARE</td></tr> <tr> <td>SPARE</td><td>0.0</td><td>20A</td><td>39</td><td>40</td><td>20A</td><td>0.0</td><td>SPARE</td></tr> <tr> <td>SPARE</td><td>0.0</td><td>20A</td><td>41</td><td>42</td><td>20A</td><td>0.0</td><td>SPARE</td></tr> </tbody> </table>											KVA							KVA		PORTABLE LIFT	7.5	30A	1	2	30A	7.5	PORTABLE LIFT	PORTABLE LIFT	7.5	30A	3	4	30A	7.5	PORTABLE LIFT	PORTABLE LIFT	7.5	30A	5	6	30A	7.5	PORTABLE LIFT	PORTABLE LIFT	7.5	30A	7	8		8.3	STORAGE MEZZ. - AIR COMPR.	PORTABLE LIFT	7.5	30A	9	10	30A/3P	8.3	STORAGE MEZZ. - AIR COMPR.	PORTABLE LIFT	7.5	30A	11	12		8.3	STORAGE MEZZ. - AIR COMPR.	EF 1,2,3	3.34		13	14		3.33	UH-1 EF 1O, UH-2	EF 1,2,3,	3.34	20A/3P	15	16	20A/3P	3.33	UH-1 EF 1O, UH-2	EF 1,2,3,	3.34		17	18		3.33	UH-1 EF 1O, UH-2	EF 4,5,6	3.34		19	20		3.33	UH-3, EF-11	EF 4,5,6,	3.34	20A/3P	21	22	20A/3P	3.33	UH-3, EF-11	EF 4,5,6,	3.34		23	24		3.33	UH-3, EF-11	SPARE	0.0		25	26		0.0	SPARE	SPARE	0.0	20A/3P	27	28		0.0	SPARE	SPARE	0.0		29	30		0.0	SPARE	SPARE	0.0		31	32	20A	0.0	SPARE	SPARE	0.0	20A/3P	33	34	20A	0.0	SPARE	SPARE	0.0		35	36	20A	0.0	SPARE	SPARE	0.0	20A	37	38	20A	0.0	SPARE	SPARE	0.0	20A	39	40	20A	0.0	SPARE	SPARE	0.0	20A	41	42	20A	0.0	SPARE
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CONNECTED LOAD		A-KVA		45.04		B - KVA		45.04																																																																																																																																																																																			
TOTAL LOAD		KVA		135.12																																																																																																																																																																																							

APPROVED BY [Signature] DATE 1-20-06

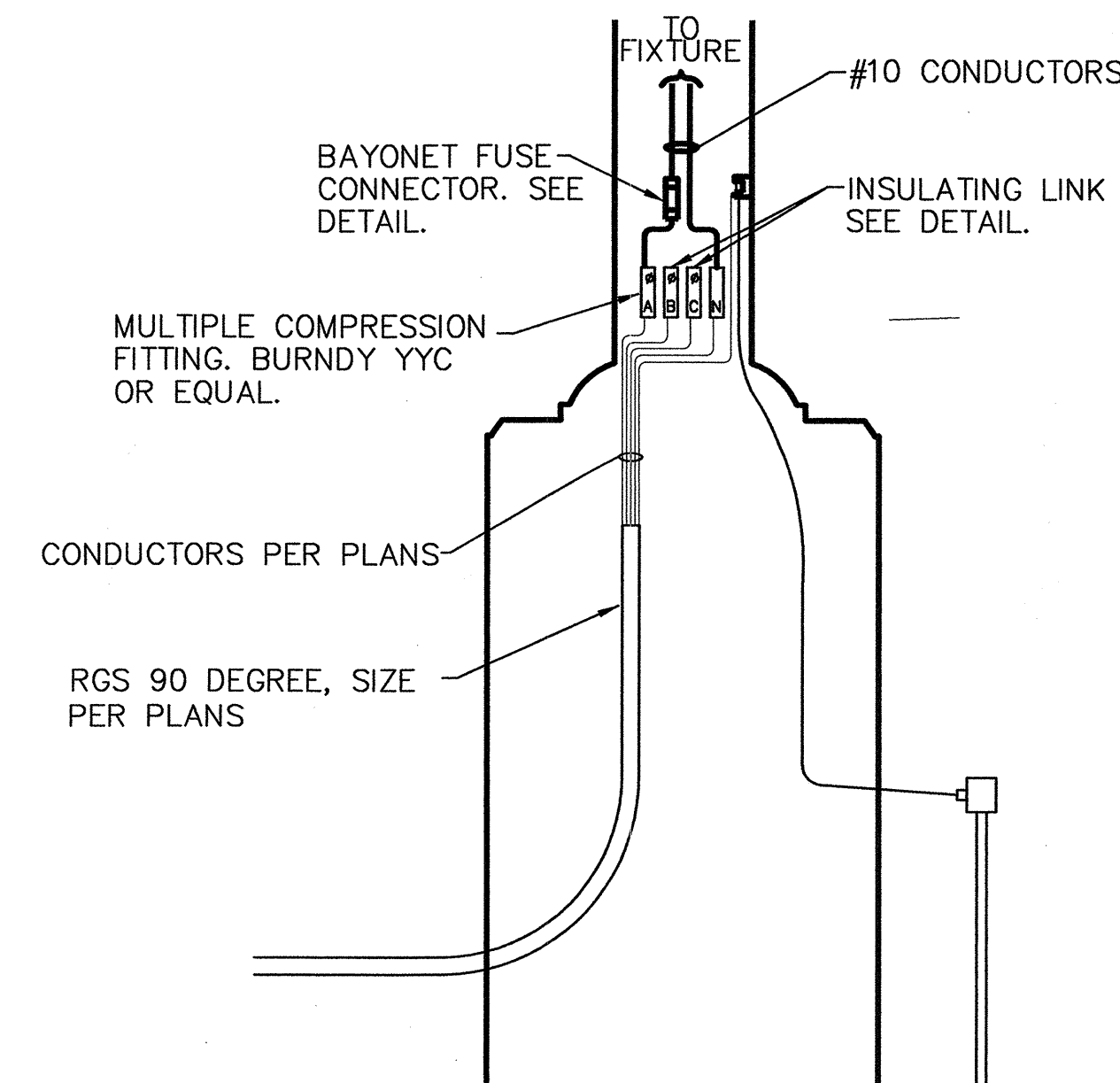
APPROVED BY [Signature] DATE _____

RECOMMENDED FOR APPROVAL BY Chin Kalish DATE 1-25-06

ACCOUNT NO.	116-59-8260-060
DATE	12-22-05
REVISIONS	

PROPOSED MAINTENANCE GARAGE
METRO REGION
1500 EAST FERRY STREET
DETROIT, MICHIGAN 48211

SHEET NO.
E9

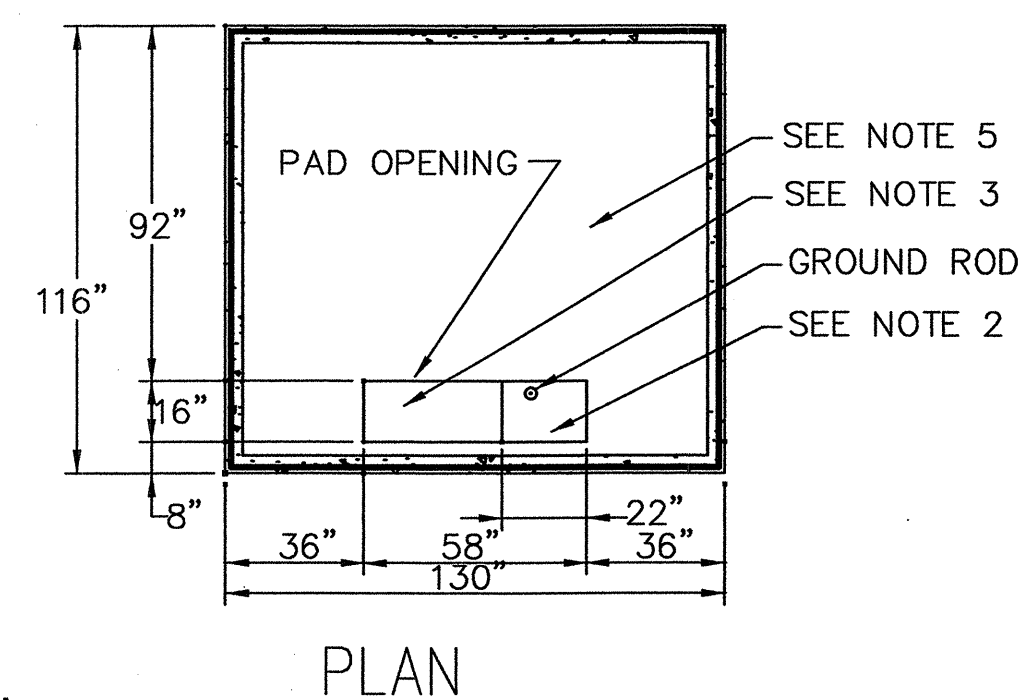


NOTES:

1. PROVIDE SUFFICIENT CONDUCTOR SLACK TO PERMIT WITHDRAWAL OF THE CONDUCTOR THROUGH THE HANDHOLE.
2. PHASE CONNECTIONS AS SHOWN ON PLAN 5.

DETAIL : POLE WIRING DETAIL-1

NOT TO SCALE

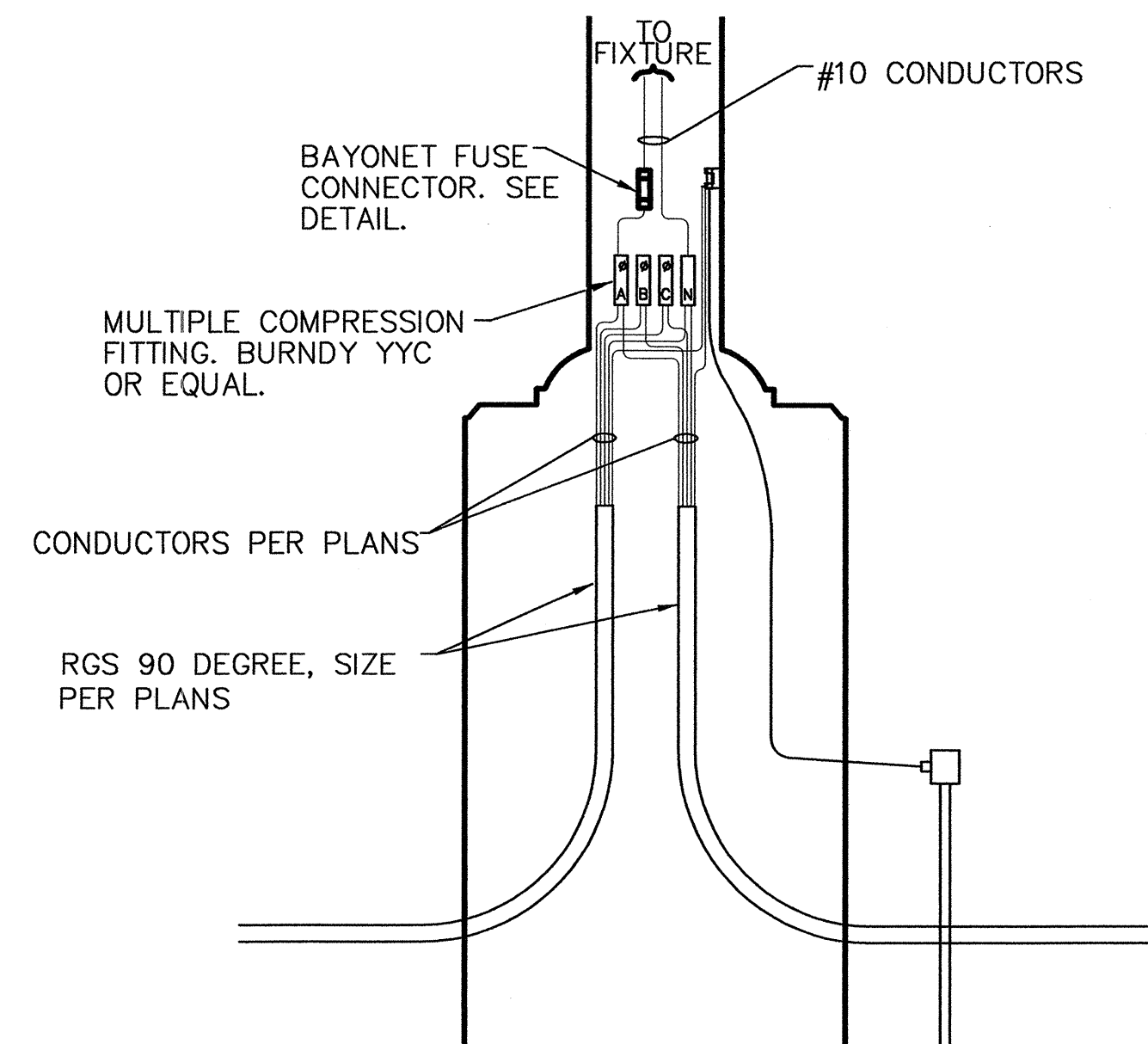
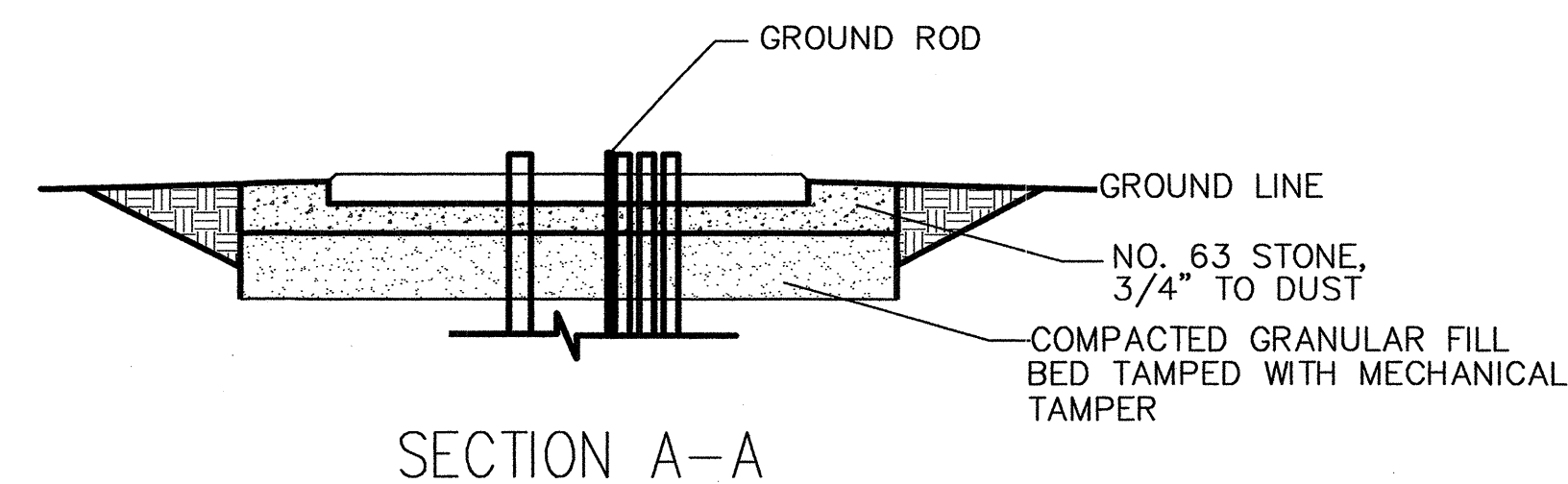


NOTES:

1. THE TOP OF FOUNDATION SHALL BE SMOOTH AND LEVEL.
2. MAXIMUM SPACE AVAILABLE FOR LOW VOLTAGE CONDUITS.
3. HIGH VOLTAGE CONDUIT AREA.
4. CONDUIT SHALL BE NOT LESS THAN 36".
5. WHERE POSSIBLE DO NOT INSTALL CONDUITS UNDERNEATH THIS AREA.
6. BACKFILL UNDER FOUNDATION SHALL BE COMPACTED GRANULAR FILL. CONDUITS SHALL BE INSTALLED PRIOR TO FOUNDATION. ALL CONDUITS SHALL BE EXTENDED NOT LESS THAN 5'-0" FROM EDGE OF PAD.
7. GROUND SLOPE AWAY FROM PAD SHALL BE 36:1.
8. REINFORCING BAR SHALL BE (3) 124" AND (2) 110" #4 DEFORMED BAR. BAR SHAPE SHALL BE STRAIGHT.
9. VOLUME OF CONCRETE SHALL BE NOT LESS THAN 2.43 CUBIC YARDS.
10. MAXIMUM TRANSFORMER WEIGHT SHALL BE 18,000 LBS.
11. CONTRACTOR SHALL FIELD VERIFY EXACT EQUIPMENT DIMENSIONS AND CONDUIT STUB-UP LOCATIONS PRIOR TO INSTALLATION.

DETAIL : 300KVA TRANSFORMER PAD

NOT TO SCALE

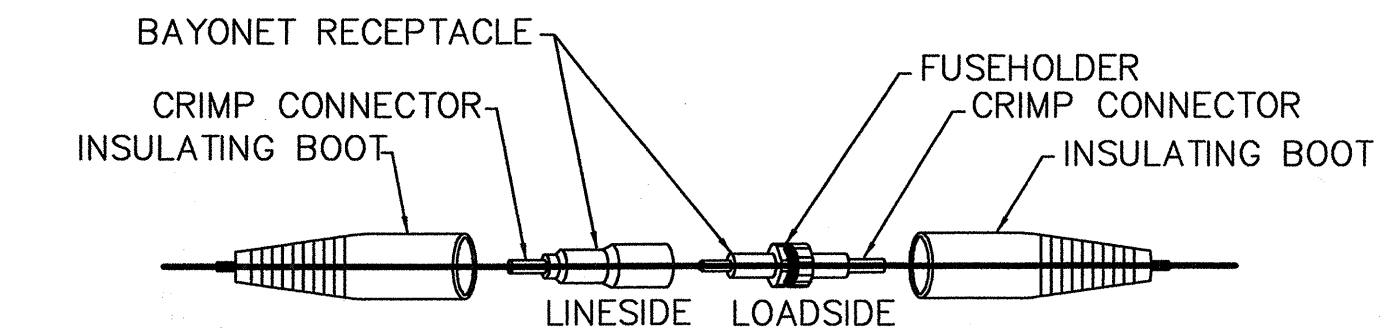


NOTES:

1. PROVIDE SUFFICIENT CONDUCTOR SLACK TO PERMIT WITHDRAWAL OF THE CONDUCTOR THROUGH THE HANDHOLE.
2. PHASE CONNECTIONS AS SHOWN ON PLANS.

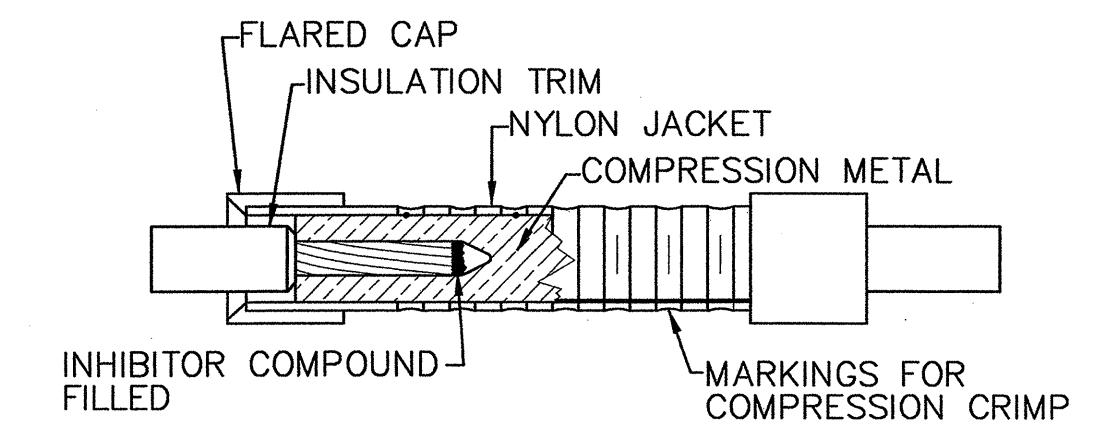
DETAIL : POLE WIRING DETAIL-2

NOT TO SCALE



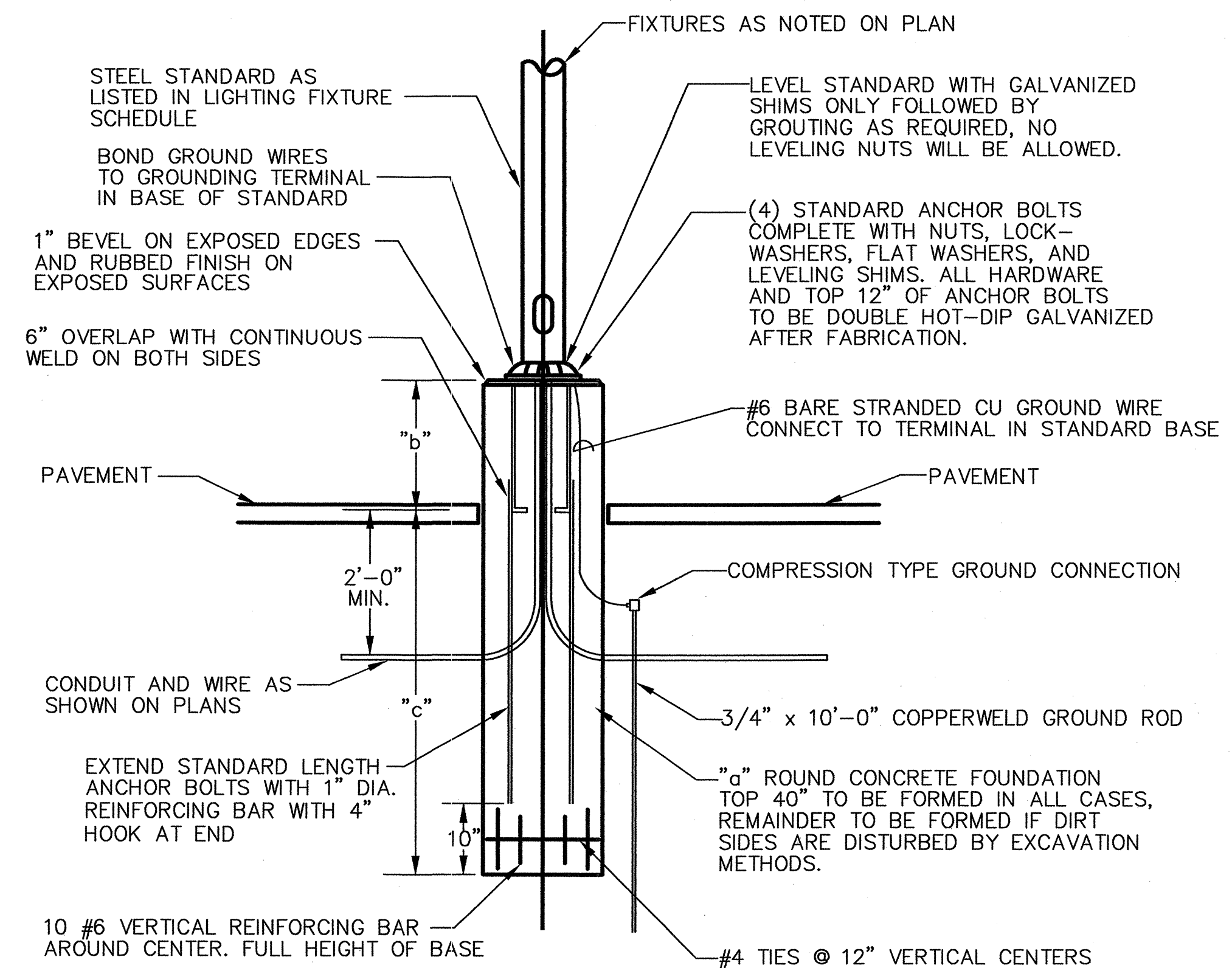
DETAIL : BAYONET FUSE CONNECTOR

NOT TO SCALE



DETAIL : INSULATING LINK

NOT TO SCALE



NOTES:

1. FOR 30' POLES a=24", b=30", c=96".

DETAIL : POLE BASE

NOT TO SCALE

MDOT Michigan Department of Transportation TECHNOLOGICAL SERVICES DIVISION FACILITIES MANAGEMENT BUILDING LANSING, MICHIGAN		PROPOSED MAINTENANCE GARAGE METRO REGION 1500 EAST FERRY STREET DETROIT, MICHIGAN 48211
ACCOUNT NO. 116-59-8260-060	PRELIM. ☐ DR ☐ OR ☐ CHG'D ☐ APPR CONST. ☐ FINAL REC. ☐	DEPARTMENT OF MANAGEMENT AND BUDGET OFFICE OF FACILITIES
DATE 12-22-05	REVISIONS	SHEET NO. E10
MDOT APPROVAL APPROVED BY: <i>[Signature]</i> DATE: 1-24-06 APPROVED BY: <i>[Signature]</i> DATE: 1-25-06 RECOMMENDED FOR APPROVAL BY: <i>[Signature]</i> DATE: 1-25-06		ELECTRICAL DETAILS