2012 ARCHITECTURAL & ELECTRICAL RENOVATIONS
HUDSON AREA SCHOOLS

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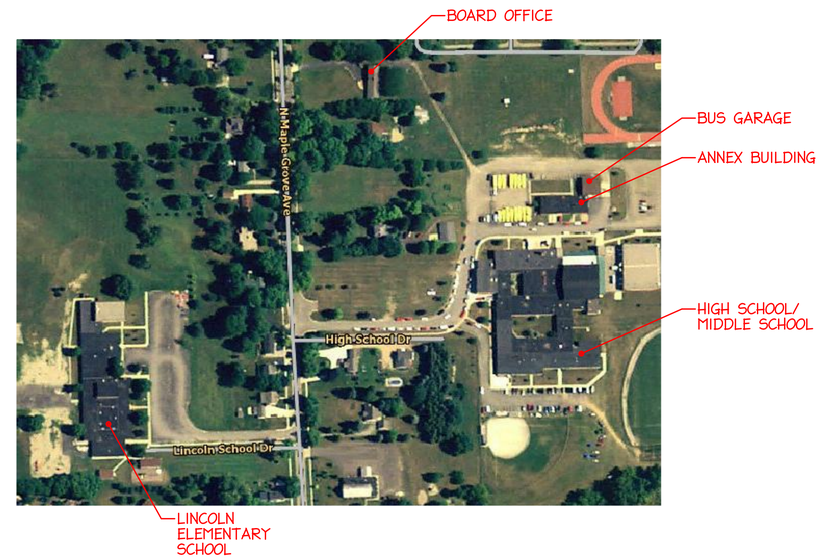
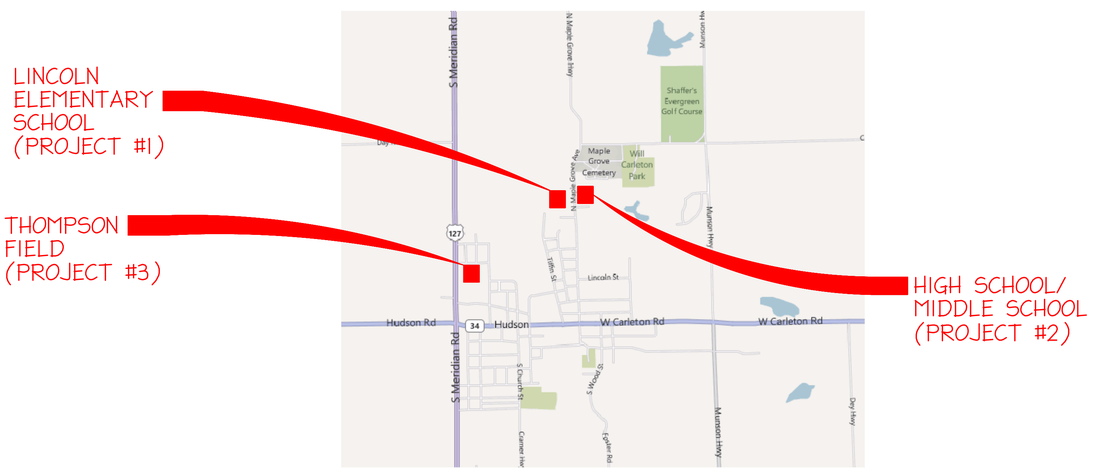
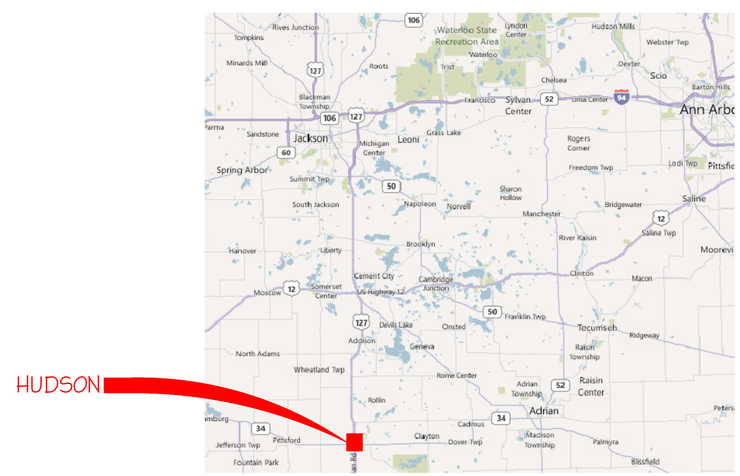


NORTH

HUDSON AREA SCHOOLS – CAMPUS MAP
NOT TO SCALE



LOCATION MAP – CITY OF HUDSON
NOT TO SCALE



VICINITY MAP
NOT TO SCALE

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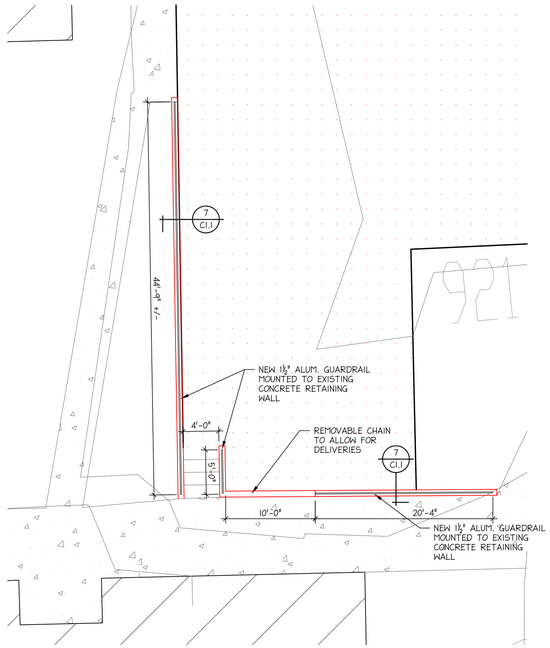
2012 ARCHITECTURAL & ELECTRICAL RENOVATIONS
HUDSON AREA SCHOOLS
771 NORTH MAPLE GROVE AVENUE
HUDSON, MICHIGAN 49247

DRAWN BY: M. FOWLER	CHK'D. BY: TA DAILEY	APP'D. BY:

COVER SHEET

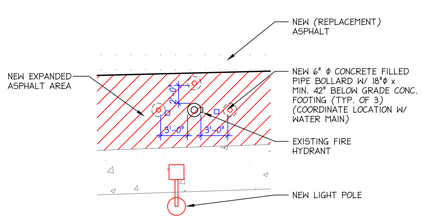
DATE: 03/09/2012	REV.: 0	DRAWING NO. A
SCALE: NONE		



NORTH

ENLARGED PLAN @ RETAINING WALL

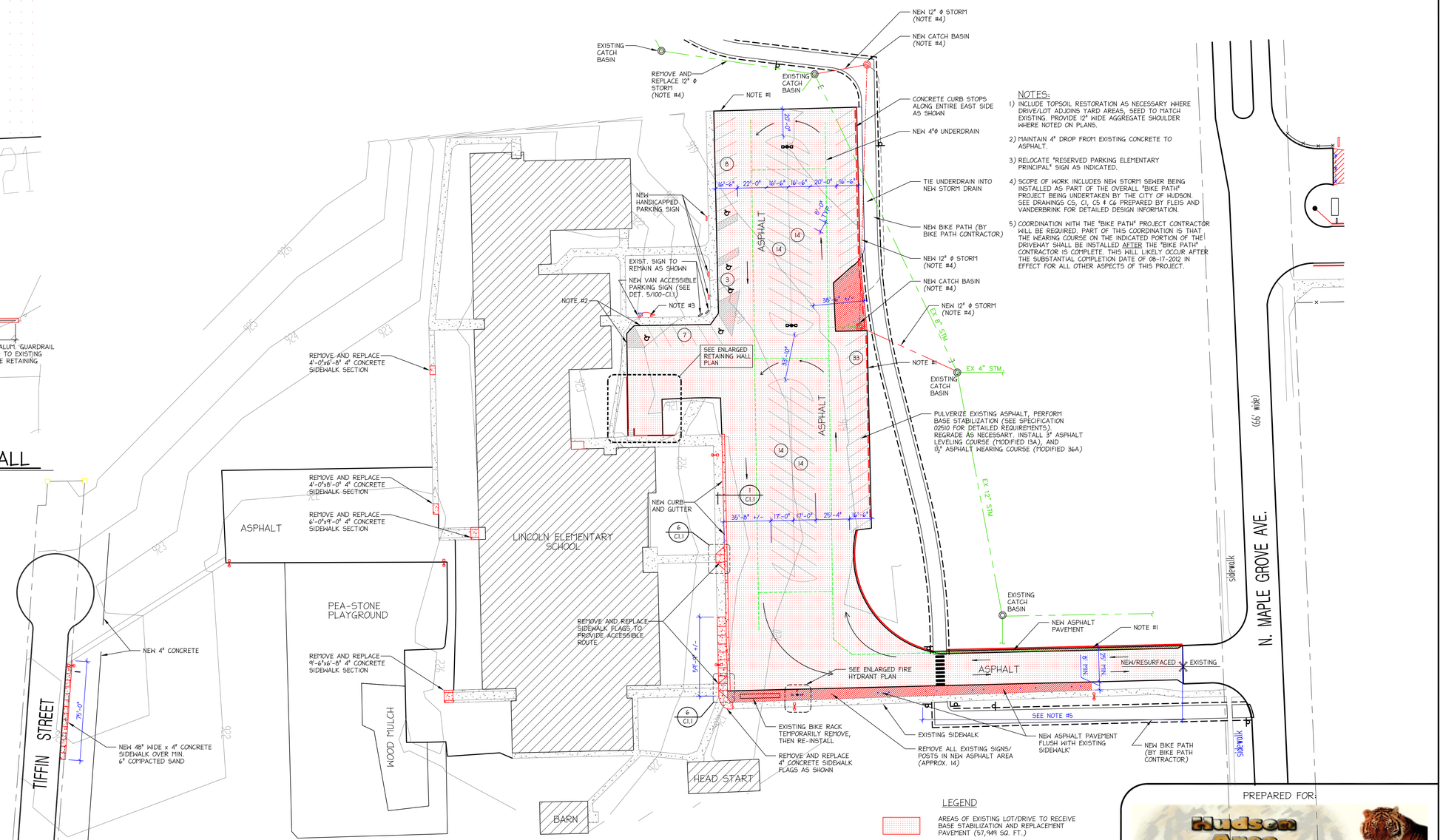
SCALE: ¼"=1'-0"



NORTH

ENLARGED PLAN @ FIRE HYDRANT

SCALE: ¼"=1'-0"



NORTH

LINCOLN ELEMENTARY SITE PLAN

SCALE: 1"=40'-0"

NOTES:

1) INCLUDE TOPSOIL RESTORATION AS NECESSARY WHERE DRIVE/LOT ADJOINS YARD AREAS, SEED TO MATCH EXISTING. PROVIDE 12" WIDE AGGREGATE SHOULDER WHERE NOTED ON PLANS.
2) MAINTAIN 4" DROP FROM EXISTING CONCRETE TO ASPHALT.
3) RELOCATE "RESERVED PARKING ELEMENTARY PRINCIPAL" SIGN AS INDICATED.
4) SCOPE OF WORK INCLUDES NEW STORM SEWER BEING INSTALLED AS PART OF THE OVERALL "BIKE PATH" PROJECT BEING UNDERTAKEN BY THE CITY OF HUDSON. SEE DRAWINGS C5, C1, C5 & C6 PREPARED BY FLEIS AND VANDERBRINK FOR DETAILED DESIGN INFORMATION.
5) COORDINATION WITH THE "BIKE PATH" PROJECT CONTRACTOR WILL BE REQUIRED. PART OF THIS COORDINATION IS THAT THE WEARING COURSE ON THE INDICATED PORTION OF THE DRIVEWAY SHALL BE INSTALLED AFTER THE "BIKE PATH" CONTRACTOR IS COMPLETE. THIS WILL LIKELY OCCUR AFTER THE SUBSTANTIAL COMPLETION DATE OF 08-17-2012 IN EFFECT FOR ALL OTHER ASPECTS OF THIS PROJECT.

LEGEND

- AREAS OF EXISTING LOT/DRIVE TO RECEIVE BASE STABILIZATION AND REPLACEMENT PAVEMENT (57,494 SQ. FT.)
- AREAS TO EXPAND LOT/DRIVE WITH NEW BASE AND NEW PAVEMENT (3,427 SQ. FT.)
- TRAFFIC FLOW DIRECTIONAL PAVEMENT MARKINGS
- EXISTING LIGHT POLES
- NEW LIGHT POLE
- NEW SHOULDER WORK (SEE NOTE #1)

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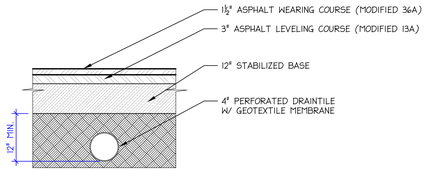
746 NORTH MAPLE GROVE AVENUE
HUDSON, MICHIGAN 49247

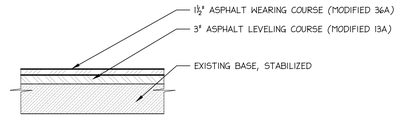
DRAWN BY: M. FOWLER	CHK'D. BY: TA DAILEY	APP'D. BY:

LINCOLN ELEMENTARY SITE PLAN

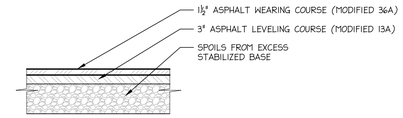
DATE: 03/09/2012	REV.: 0	DRAWING NO. 100-C1.0
SCALE: 1" = 40'-0"		



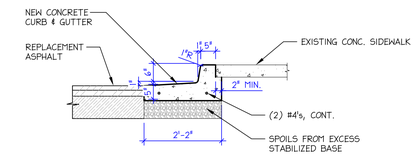
4 / 100 C1. UNDERDRAIN DETAIL
SCALE: ½"=1'-0"



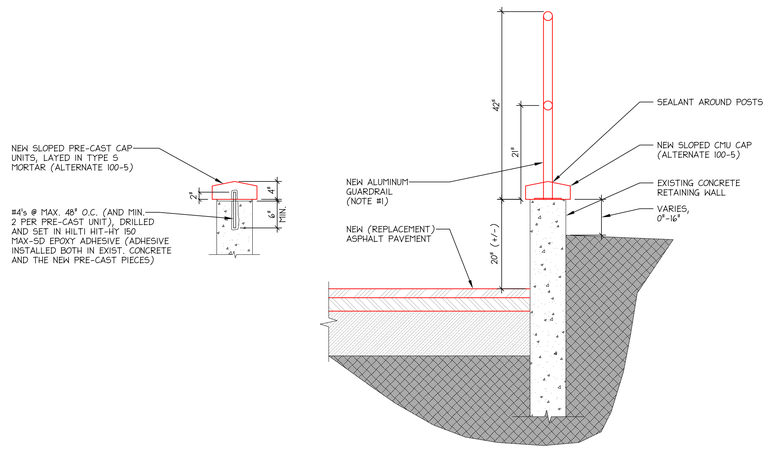
3 / 100 C1. PAVEMENT CROSS SECTION @ EXISTING PAVED AREA
SCALE: ½"=1'-0"



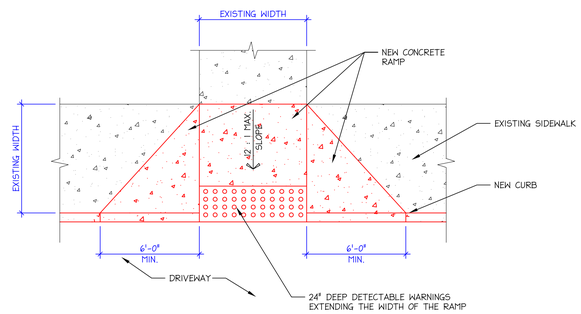
2 / 100 C1. PAVEMENT CROSS SECTION @ EXPANDED LOT AREAS
SCALE: ½"=1'-0"



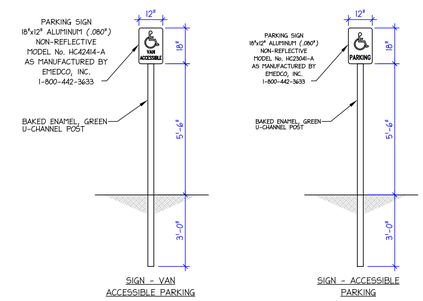
1 / 100 C1. CURB DETAIL
SCALE: ½"=1'-0"



5 / 100 C1.0 RETAINING WALL DETAIL
SCALE: ½"=1'-0"



6 / 100-C1. BARRIER FREE RAMP DETAIL
SCALE: ¼" = 1'-0"



5 / 100-C1. BARRIER FREE PARKING SIGNAGE DETAIL
SCALE: 1/2" = 1'-0"

NOTES:

1) ALUMINUM GUARDRAIL TO BE WAGNER SERIES 500 (OR EQUAL), AS FOLLOWS:
   - 1½" ϕ PIPE SIZE
   - CLEAR ANODIZED FINISH
   - SURFACE MOUNTED FLANGES MOUNTED TO EXISTING CONCRETE SURFACE.
   - TERMINATION SHALL BE ENDLOOPS

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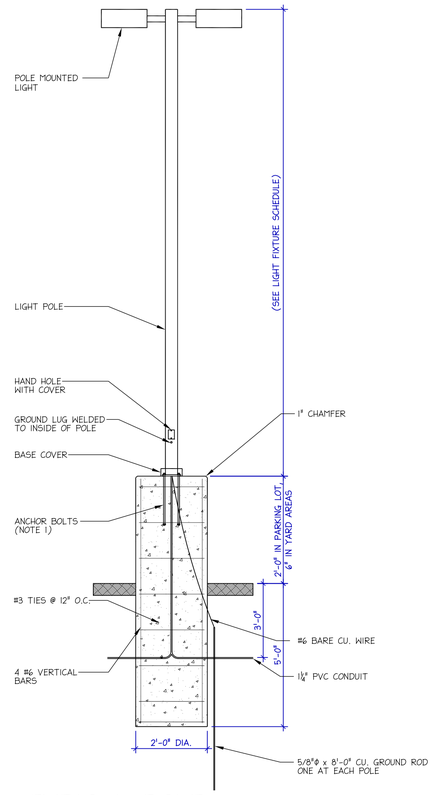
LINCOLN ELEMENTARY SITE DETAILS

DATE: 03/09/2012	REV.: 0	DRAWING NO. 100-C1.1
SCALE: AS SHOWN		

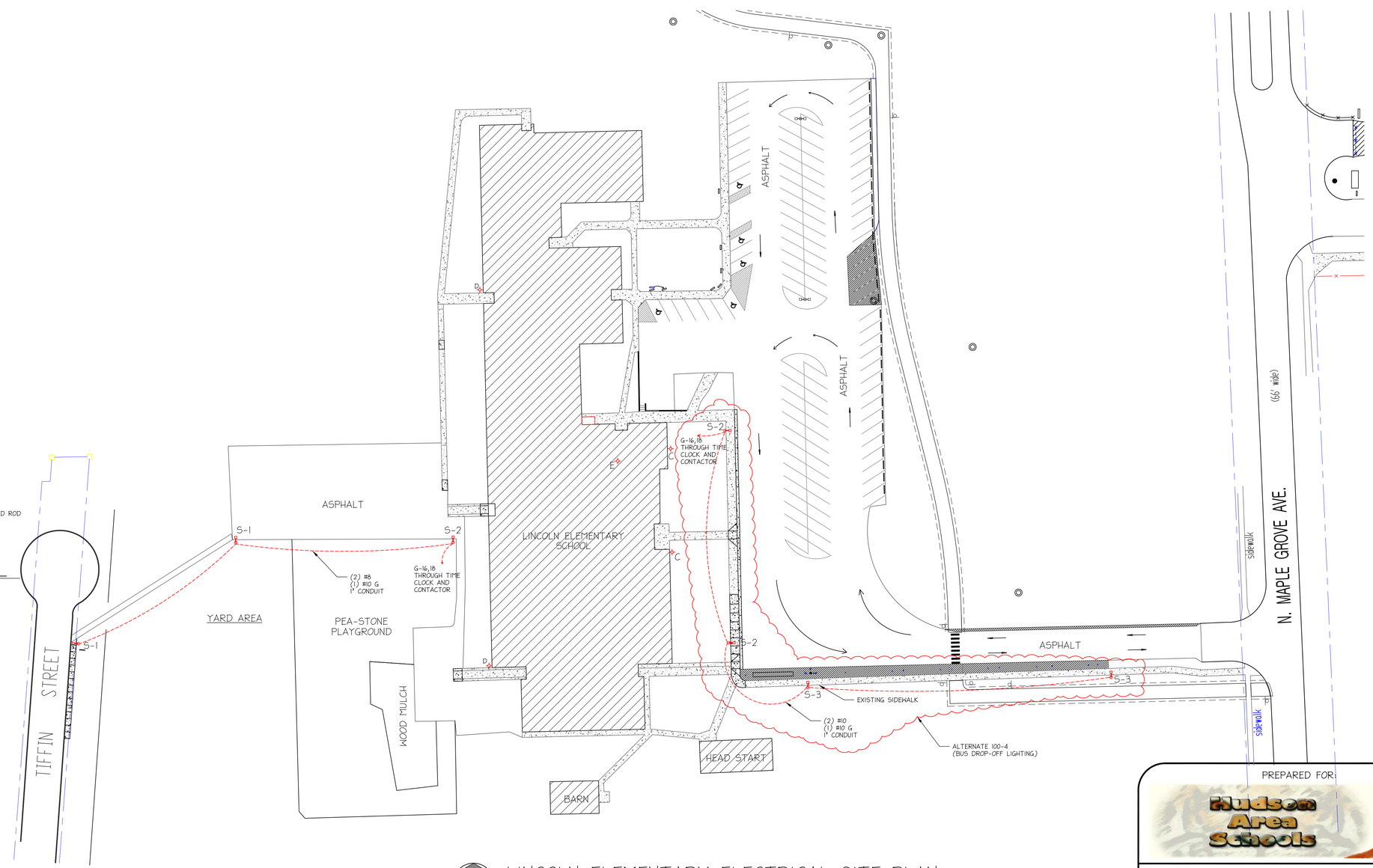


1
C3

TYPICAL POLE MOUNTED SITE LIGHT DETAIL

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

NOTES:
1) COORDINATE ANCHOR BOLT SIZE, LENGTH AND LOCATION.
2) PROVIDE 1/2" EXPANSION JOINT MATERIAL WHERE POLES ARE LOCATED IN CONCRETE AREAS.



NORTH

LINCOLN ELEMENTARY ELECTRICAL SITE PLAN

SCALE: 1"=40'-0"

NOTES:
1) FOR LIGHT FIXTURE SCHEDULE, SEE DRAWING E3.3.

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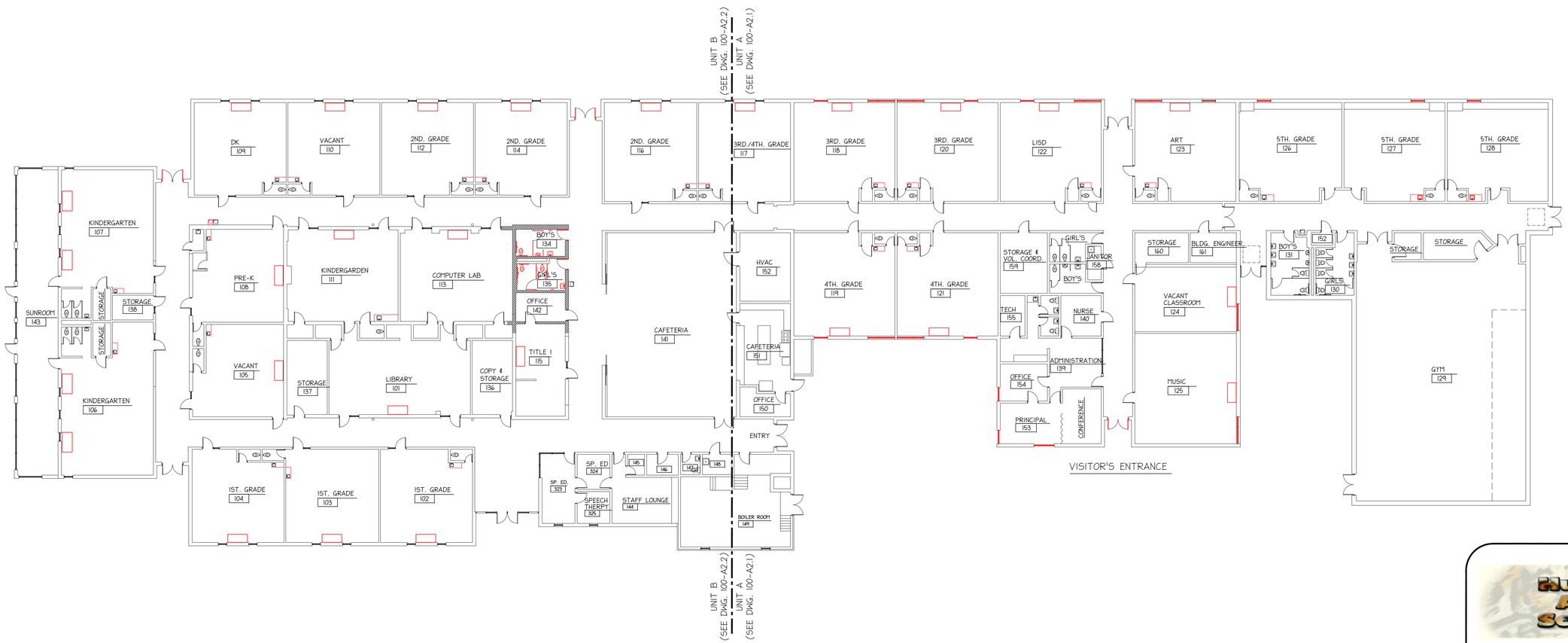
746 NORTH MAPLE GROVE AVENUE
HUDSON, MICHIGAN 49247

DRAWN BY: M. FOWLER	CHK'D. BY: TA DAILEY	APP'D. BY:

ELECTRICAL SITE PLAN

DATE: 03/09/2012	REV.: 0	DRAWING NO. 100-C2.1
SCALE: 1" = 40'-0"		



NORTH

COMPOSITE FLOOR PLAN

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

APPROX. 48,405 SQ. FT.

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DRAWN BY: M. FOWLER	CHK'D. BY: TA DAILEY	APP'D. BY:

COMPOSITE FLOOR PLAN

DATE: 03/09/2012	REV.: 0	DRAWING NO. **100-A1.1**
SCALE: 1/16" = 1'-0"		

EXISTING ROOF ASSEMBLIES (BASED ON CORE SAMPLES)

C.S. #1 = SINGLE PLY EPDM MEMBRANE
1¾" PERLITE
3" PHENOLIC INSULATION
METAL DECK (7½" CELLULAR)

C.S. #2 = SINGLE PLY EPDM MEMBRANE
1¼" PERLITE
1½" PHENOLIC INSULATION
METAL DECK (7½" CELLULAR)

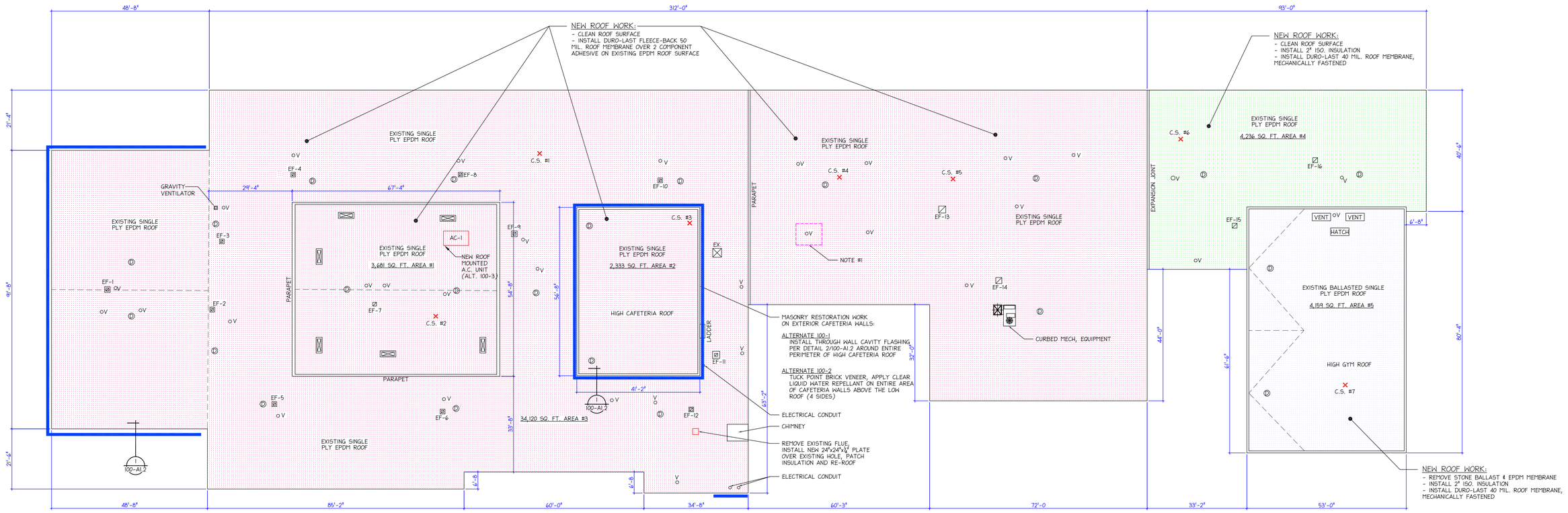
C.S. #3 = SINGLE PLY EPDM MEMBRANE
2" PERLITE
5" PHENOLIC INSULATION
METAL DECK (4½" CELLULAR)

C.S. #4 = SINGLE PLY EPDM MEMBRANE
1½" PERLITE
2" PHENOLIC INSULATION
METAL DECK (7½" CELLULAR)

C.S. #5 = SINGLE PLY EPDM MEMBRANE
1½" PERLITE
5" PHENOLIC INSULATION
METAL DECK (7½" CELLULAR)

C.S. #6 = SINGLE PLY EPDM MEMBRANE
2" ISO. INSULATION
METAL DECK

C.S. #7 = STONE BALLAST
SINGLE PLY EPDM MEMBRANE
2" ISO. INSULATION
METAL DECK



ROOF PLAN

SCALE: 1/16"=1'-0" TOTAL SQUARE FOOTAGE = 48,529

NOTES:

1) REMOVE AN APPROX. 2'-0" x 2'-0" AREA OF ROOFING AND INSULATION AROUND EXISTING VENT SO DECK SUBSTRATE CAN BE EXAMINED BY ENGINEER. REPLACE INSULATION PRIOR TO INSTALLATION OF NEW ROOFING.

2) ANY FASTENERS IN CONTACT WITH THE EXISTING PHENOLIC INSULATION (SUCH AS EDGE FASTENERS) SHALL BE STAINLESS STEEL.

ALTERNATE 100-08:

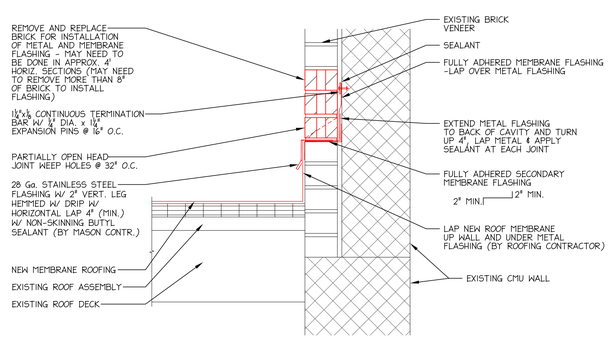
IN LIEU OF DURO-LAST MEMBRANE, INSTALL THE FOLLOWING:

AREAS 1-3: INSTALL FULLY ADHERED 60 MIL WHITE EPDM OVER MECHANICALLY ATTACHED ISO.

AREAS 4 & 5: INSTALL CARLISLE FLEECE BACK 115 (OR APPROVED EQUAL) OVER EXISTING ROOF MEMBRANE.

Specifications:

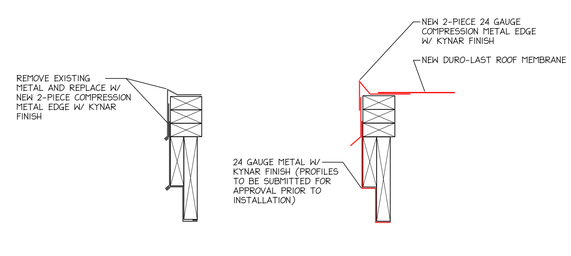
1) Roof assembly installation shall be in accordance with Duro-Last's specifications.
2) At existing roof drains, install new Duro-Last drain boots, CDR rings, and metal (blue) dome strainers.
3) Most existing exhaust fans are being replaced by the mechanical contractor, and are being installed on existing curbs. Coordinate curb/fan roof flashing to meet Duro-Last specifications.
4) At roof edges, replace the top edge metal with a 2-piece 24 guage compression metal edge w/ Kynar finish (match color of existing edge metal). The remainder of the edge metal assembly below the compression portion may remain at contractor's option. Exception: Where detail #1 is specifically called out, all existing edge metal shall be removed and replaced. Roofing contractor shall submit shop drawings with proposed edge metal profiles for approval prior to installation.
5) Existing expansion joint locations are shown on the plans. Replace with new expansion joint meeting Duro-Last specifications.
6) Existing internal parapet locations are shown on the plans. Heat weld new roof membranes on the top or side of the parapet, and then re-install existing metal copings.
7) Locations of existing drains, vents, exhaust fans, and other mechanical items are shown on the plans. While accurate in terms of overall number count, the sizes and exact locations are only approximate.



THRU-WALL FLASHING DETAIL AT UPPER CAFETERIA WALL

2 / 100-A1.2

SCALE: 1½"=1'-0" **(ALTERNATE 100-1)**



EDGE DETAIL (@ REMOVAL & REPLACE DESIGNATED AREAS)

1 / 100-A1.2

SCALE: 1½"=1'-0"

LEGEND

D	ROOF DRAIN
OV	ROOF VENT
EX.	EXHAUST FAN (CURBED)
	HOOD (CURBED)
- - - - -	ROOF SLOPE OR HIGH/LOW POINT
C.S.	CORE SAMPLE
	AREAS REQUIRING COMPLETE REMOVAL AND REPLACEMENT OF EXISTING EDGE METAL

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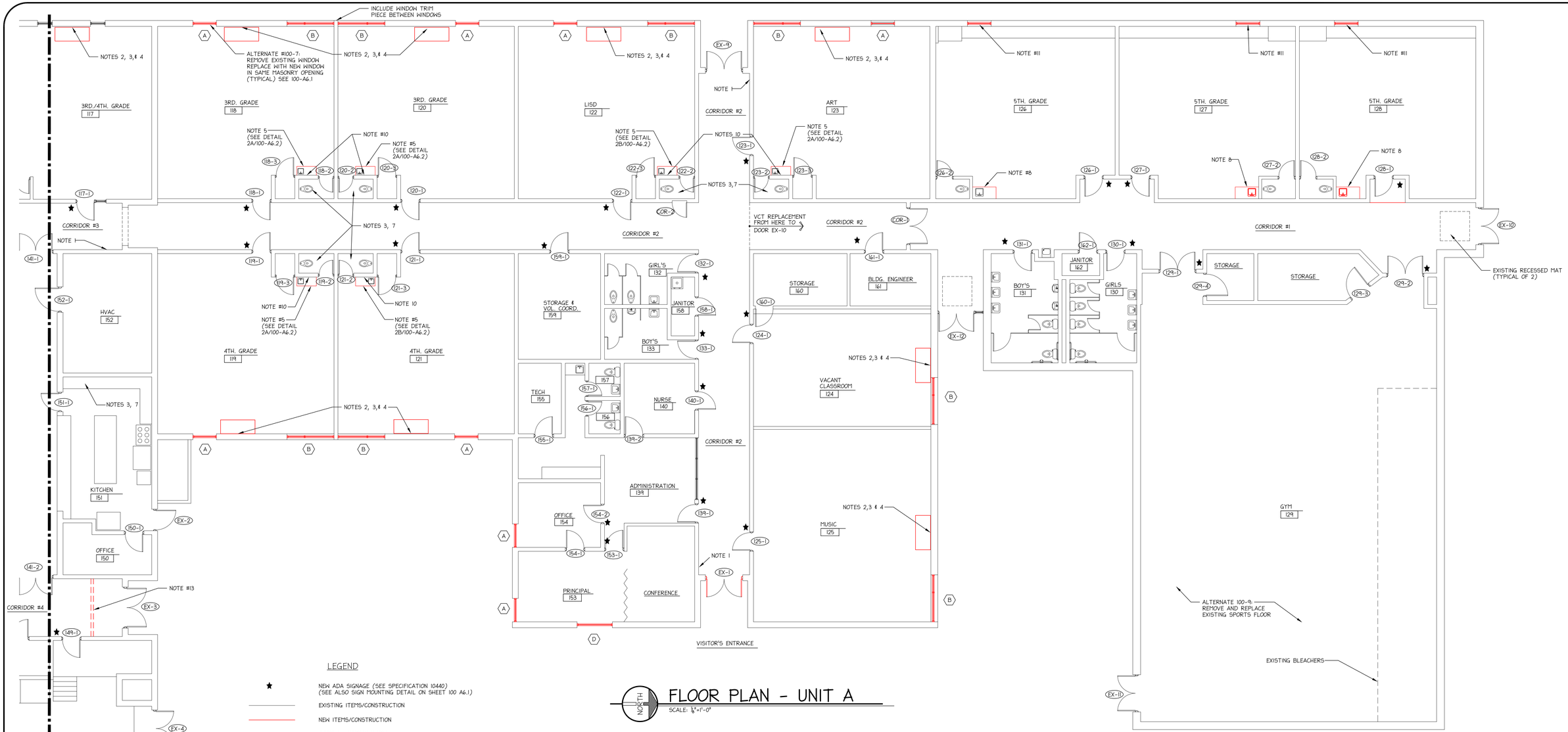
ROOF PLAN

DATE: 03/09/2012	REV.: 0	DRAWING NO. 100-A1.2
SCALE: 1/16" = 1'-0"		



FLOOR PLAN - UNIT A

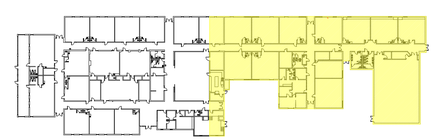
SCALE: 1/8"=1'-0"

LEGEND

- ★ NEW ADA SIGNAGE (SEE SPECIFICATION 10440) (SEE ALSO SIGN MOUNTING DETAIL ON SHEET 100 A6.1)
- EXISTING ITEMS/CONSTRUCTION
- NEW ITEMS/CONSTRUCTION
- ITEMS TO REMOVE/DEMO

NOTES:

1) INSTALL NEW SOLID SURFACE COVER OVER ABANDONED MECHANICAL WALL OPENING.
2) PATCH FLOOR PENETRATIONS AT DEMO'D MECH. UNIT AND/OR PLUMBING FIXTURES. ALSO ADD MISSING/REPLACEMENT BASE AS NECESSARY.
3) TOUCH-UP WALL PAINT AT DEMO'D AND/OR NEW MECH. UNIT AND/OR PLUMBING FIXTURE.
4) CAULK NEW/REPLACEMENT UNIT VENTS ALONG TOP OF UNITS (SEE DETAIL ON DRAWING 100-M1.10.
5) REMOVE AND REPLACE EXISTING CABINET AND COUNTERTOP. COORDINATE WITH PLUMBING CONTRACTOR.
6) PATCH CEILING TILE AT DEMO'D MECH. UNIT.
7) PATCH WALL AT DEMO'D AND/OR NEW PLUMBING FIXTURE.
8) REMOVE AND REPLACE COUNTERTOP (EXISTING CABINET TO REMAIN), COORDINATE WITH PLUMBING CONTRACTOR
9) INSTALL NEW SOLID SURFACE COVER OVER RELOCATED ELECTRICAL PANEL (FIELD VERIFY SIZE AFTER RELOCAED PANEL IS IN PLACE
10) PATCH WALL AT DEMO'D AND RELOCATED DUPLEX AS REQ'D
11) REMOVE EXISTING WINDOW COUNTERWEIGHT AND INSTALL SUITABLE REPLACEMENT SO WINDOWS OPERATE WITH LESS EFFORT.
12) REMOVE GLASS FROM UPPER CORRIDOR HOLLOW METAL FRAMES. INFILL WITH METAL STUDS AND (1) LAYER 5/8" TYPE X GYP. BOARD ON EACH SIDE, PAINTED. EXISTING HOLLOW METAL FRAMES MAY REMAIN.
13) NEW METAL STUD / GYP. BOARD BULKHEAD. SEE DRAWING 100-E2.1.



KEY PLAN

N.T.S.

PREPARED FOR:

Hudson Area Schools

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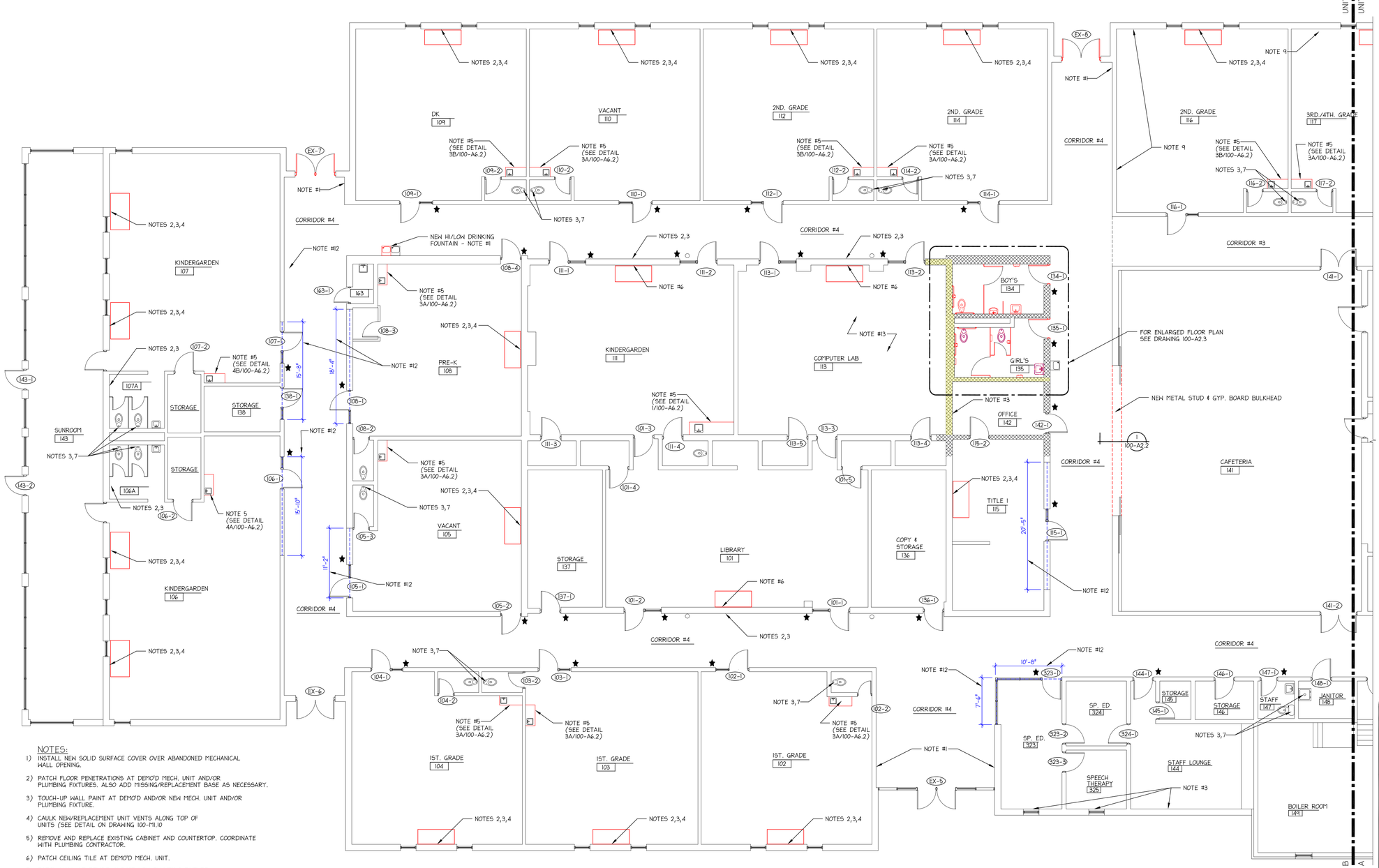
HUDSON AREA SCHOOLS
LINCOLN ELEMENTARY SCHOOL
746 NORTH MAPLE GROVE AVENUE
HUDSON, MICHIGAN 49247

DRAWN BY: M. FOWLER	CHK'D. BY: TA DAILEY	APP'D. BY:

FLOOR PLAN - UNIT A

DATE: 03/09/2012	REV.: 0	DRAWING NO. 100-A2.1
SCALE: 1/8" = 1'-0"		



NOTES:

1) INSTALL NEW SOLID SURFACE COVER OVER ABANDONED MECHANICAL WALL OPENING.
2) PATCH FLOOR PENETRATIONS AT DEMO'D MECH. UNIT AND/OR PLUMBING FIXTURES. ALSO ADD MISSING/REPLACEMENT BASE AS NECESSARY.
3) TOUCH-UP WALL PAINT AT DEMO'D AND/OR NEW MECH. UNIT AND/OR PLUMBING FIXTURE.
4) CAULK NEW/REPLACEMENT UNIT VENTS ALONG TOP OF UNITS (SEE DETAIL ON DRAWING 100-M1.10
5) REMOVE AND REPLACE EXISTING CABINET AND COUNTERTOP. COORDINATE WITH PLUMBING CONTRACTOR.
6) PATCH CEILING TILE AT DEMO'D MECH. UNIT.
7) PATCH WALL AT DEMO'D AND/OR NEW PLUMBING FIXTURE.
8) REMOVE AND REPLACE COUNTERTOP (EXISTING CABINET TO REMAIN), COORDINATE WITH PLUMBING CONTRACTOR
9) INSTALL NEW SOLID SURFACE COVER OVER RELOCATED ELECTRICAL PANEL (FIELD VERIFY SIZE AFTER RELOCAED PANEL IS IN PLACE
10) PATCH WALL AT DEMO'D AND RELOCATED DUPLEX AS REQ'D
11) REMOVE EXISTING WINDOW COUNTERWEIGHT AND INSTALL SUITABLE REPLACEMENT SO WINDOWS OPERATE WITH LESS EFFORT.
12) REMOVE GLASS FROM UPPER CORRIDOR HOLLOW METAL FRAMES. INFILL WITH METAL STUDS (28" HEIGHT) AND (1) LAYER 5/8" TYPE X GYP. BOARD ON EACH SIDE, PAINTED. EXISTING HOLLOW METAL FRAMES MAY REMAIN.
13) REWORK THE CEILING TILE AND GRID AROUND NEW CEILING MOUNTED COOLING UNIT AS REQUIRED (INCLUDE WITH ALTERNATE 100-3).

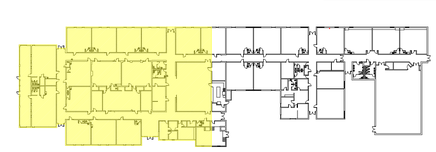
LEGEND

- ★ NEW ADA SIGNAGE (SEE SPECIFICATION 10440) (SEE ALSO SIGN MOUNTING DETAIL ON SHEET 100 A6.1)
- EXISTING ITEMS/CONSTRUCTION
- NEW ITEMS/CONSTRUCTION
- ITEMS TO REMOVE/DEMO
- EXISTING 1 HOUR FIRE RATED WALLS

NORTH

FLOOR PLAN - UNIT B

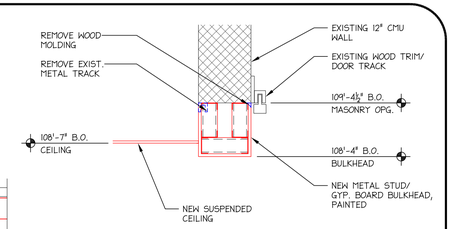
SCALE: 1/8"=1'-0"



NORTH

KEY PLAN

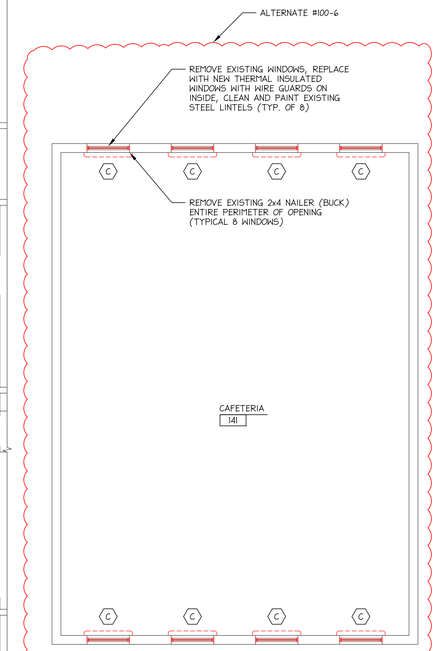
N.T.S.



BULKHEAD AT CAFETERIA DETAIL

1 / 100-A2.2

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



NORTH

CAFETERIA CLERESTORY WINDOW

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

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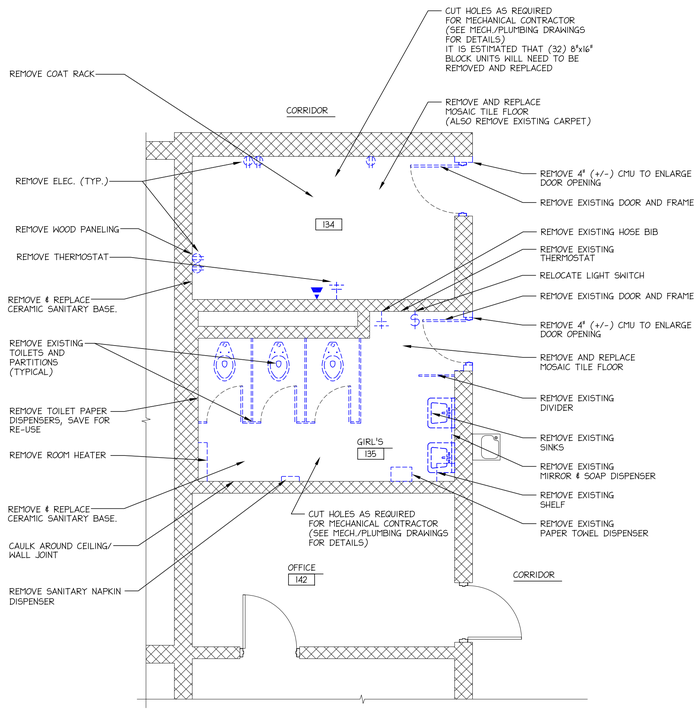
DRAWN BY: M. FOWLER	CHK'D. BY: TA DAILEY	APP'D. BY:

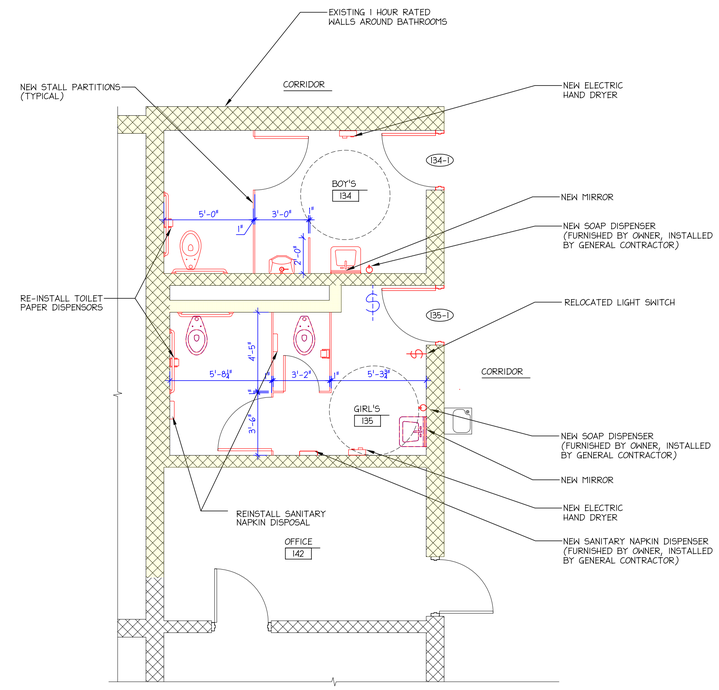
FLOOR PLAN - UNIT B

DATE: 03/09/2012	REV.: 0	DRAWING NO. 100-A2.2
SCALE: 1/8" = 1'-0"		



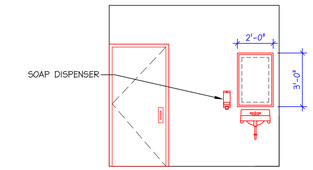
RESTROOM DEMO PLAN

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



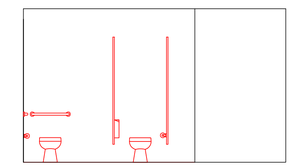
ENLARGED RESTROOM PLAN

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



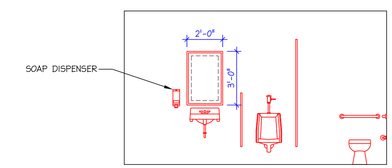
GIRLS SINK ELEVATION

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



GIRLS ELEVATION

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



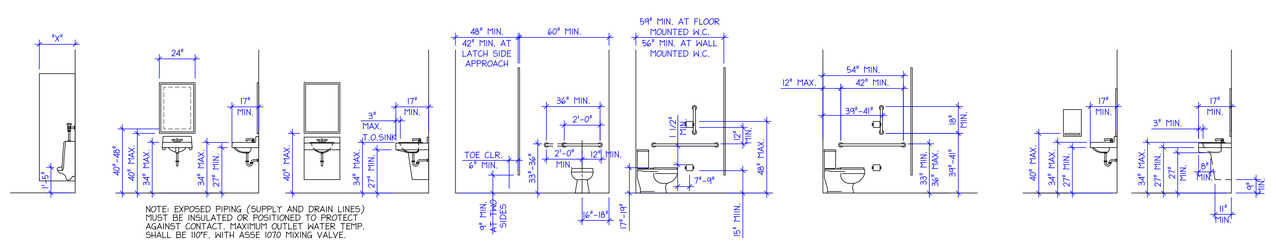
BOYS ELEVATION

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

EXISTING ITEMS/CONSTRUCTION

NEW ITEMS/CONSTRUCTION

ITEMS TO REMOVE/DEMO



NOTE: EXPOSED PIPING (SUPPLY AND DRAIN LINES) MUST BE INSULATED OR POSITIONED TO PROTECT AGAINST CONTACT. MAXIMUM OUTLET WATER TEMP. SHALL BE 110°F. WITH ASSE 1070 MIXING VALVE.

ACCESSIBILITY DIMENSIONS

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HUDSON, MICHIGAN 49247

DRAWN BY: M. FOWLER	CHK'D. BY: TA DAILEY	APP'D. BY:

ENLARGED RESTROOM PLANS

DATE: 03/09/2012	REV.: 0	DRAWING NO. 100-A2.3
SCALE: AS SHOWN		

DOOR SCHEDULE

DOOR NO.	SIZE (WIDTH x HEIGHT)	DOORS TYPE	DOORS MATERIAL	DOORS FINISH	FRAMES MATERIAL	FRAMES FINISH	HARDWARE KEYED ENTRY 1	LOCK SET 2	CLOSER 3	HINGES 4	PANIC GEAR 5	WEATHER STRP. 6	SWEEPS 7	MULLION 8	PASS SET 9	PULL PLATE 10	PRIVACY SET 11	THRESHOLD A/S	HARDWARE SET	NOTES
101-1	-							2	3										A	
101-2	-							2	3										A	
101-3	-																		-	NOTE #3
101-4	-							2											B	
101-5	-							2											B	
102-1	-							2	3										A	
102-2	-														9				D	
103-1	-							2	3										A	
103-2	-														9				D	
104-1	-							2	3										A	
104-2	-														9				D	
105-1	-							2	3										A	
105-2	-							2	3										A	
105-3	-														9				D	
106-1	-							2	3										A	
106-2	-							2											B	
107-1	-							2	3										A	
107-2	-							2											B	
108-1	-							2	3										A	
108-2	-														9				D	
108-3	-							2											B	
108-4	-							2	3										A	
109-1	-							2	3										A	
109-2	-														9				D	
110-1	-							2	3										A	
110-2	-														9				D	
111-1	-							2	3										A	
111-2	-							2	3										A	
111-3	-							2											B	
111-4	-														9				D	
112-1	-							2	3										A	
112-2	-														9				D	
113-1	-							2	3										A	
113-2	-							2	3										A	
113-3	-																		-	NOTE #3
113-4	-							2											B	
113-5	-							2											B	
114-1	-							2	3										A	
114-2	-														9				D	
115-1	-							2	3										A	
115-2	-							2											P	
116-1	-							2	3										A	
116-2	-														9				D	
117-1	-							2	3										A	
117-2	-														9				D	
118-1	-							2	3										A	
118-2	-														9				D	
118-3	-							2											B	
119-1	-							2	3										A	
119-2	-														9				D	
119-3	-							2											B	
120-1	-							2	3										A	
120-2	-														9				D	
120-3	-							2											B	
121-1	-							2	3										A	
121-2	-														9				D	
121-3	-							2											B	
122-1	-							2	3										A	
122-2	-														9				D	
122-3	-							2											B	
123-1	-							2	3										A	
123-2	-														9				D	
123-3	-							2											B	

ABBREVIATIONS & LEGEND

DOOR AND FRAME MATERIALS
- AL ALUMINUM
- HM HOLLOW METAL

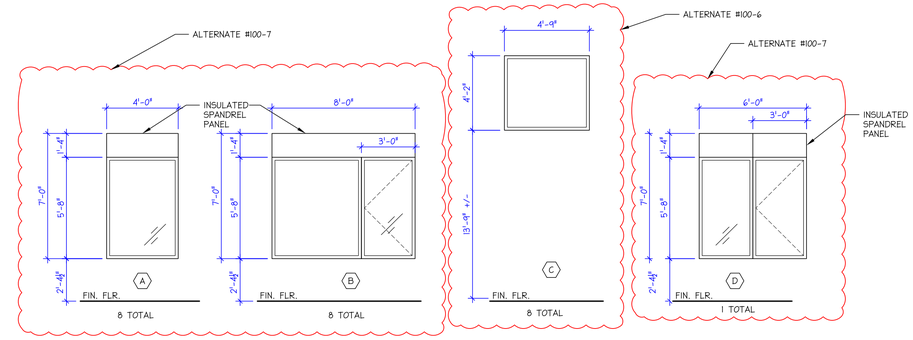
DOOR AND FRAME FINISH
- PT PAINTED
- AN ANODIZED (DARK BRONZE)
- HM HOLLOW METAL

THRESHOLDS
- A ACCESSABLE, FLAT W/SWEEP
- S STANDARD - LIPPED

DOOR SCHEDULE

DOOR NO.	SIZE (WIDTH x HEIGHT)	DOORS TYPE	DOORS MATERIAL	DOORS FINISH	FRAMES MATERIAL	FRAMES FINISH	HARDWARE KEYED ENTRY 1	LOCK SET 2	CLOSER 3	HINGES 4	PANIC GEAR 5	WEATHER STRP. 6	SWEEPS 7	MULLION 8	PASS SET 9	PULL PLATE 10	PRIVACY SET 11	THRESHOLD A/S	HARDWARE SET	NOTES
124-1	-							2	3										A	
125-1	-							2	3										A	
126-1	-								3										-	NOTE #5
126-2	-																		-	NOTE #3
127-1	-								3										-	NOTE #5
127-2	-																		-	NOTE #3
128-1	-								3										-	NOTE #5
128-2	-																		-	NOTE #3
129-1	-							2			5			8					L	NOTE #4
129-2	-							2			5			8					L	NOTE #4
129-3	-							2											B	
129-4	-							2											B	
130-1	-																		-	NOTE #3
131-1	-																		-	NOTE #3
132-1	-																		-	NOTE #3
133-1	-																		-	NOTE #3
134-1	3'-0" X 6'-8"	A	HM	P	HM	P			3							10			K	NOTE #1 (3'-4" x 6'-10" M.O.)
135-1	3'-0" X 6'-8"	A	HM	P	HM	P			3							10			K	NOTE #1 (3'-4" x 6'-10" M.O.)
136-1	-							2	3										C	
137-1	-							2	3										E	
138-1	-							2	3										E	
139-1	-							2	3										A	
139-2	-														9				D	
140-1	-							2	3										A	
141-1	-																		-	NOTE #3
141-2	-																		-	NOTE #3
142-1	-							2	3										A	
143-1	-								3		5								J	
143-2	-								3		5								J	
144-1	-							2	3										A	
145-1	-							2											B	
146-1	-							2	3										E	
147-1	-								3								11		F	
148-1	-							2	3										E	
149-1	-							2	3										E	
150-1	-							2											B	
151-1	-							2	3										C	
152-1	-							2	3										E	
153-1	-							2											P	
154-1	-							2											P	
154-2	-							2											P	
155-1	-							2											B	
156-1	-																		-	NOTE #3
157-1	-																		-	NOTE #3
158-1	-							2	3										E	
159-1	-							2	3										E	
160-1	-							2											H	
161-1	-							2	3										I	NOTE #6
162-1	-							2											P	
163-1	-							2	3										E	
323-1	-							2	3										A	
323-2	-														9				D	
323-3	-														9				D	
324-1	-							2											P	
EX-1	(2) 3'-0"X7'-0"	B	AL	AN	AL	AN	1		3	4	5	6	7			10		A	S	NOTE #1,2 (6'-6" x 7'-4" M.O.)
EX-2	-							2											Q	
EX-3	-						1		3	4	5	6	7	8		10		A	M	NOTE #2
EX-4	-						1	2	3	4		6	7						N	
EX-5	-						1		3	4	5	6	7	8		10		A	M	NOTE #2
EX-6	-						1		3	4	5	6	7	8		10		A	M	
EX-7	(2) 3'-0"X7'-0"	C	AL	AN	AL	AN	1		3	4	5	6	7	8		10		A	R	NOTE #1 (6'-6" x 9'-4" M.O.)
EX-8	(2) 3'-0"X7'-0"	C	AL	AN	AL	AN	1		3	4	5	6	7	8		10		A	R	NOTE #1,2 (6'-6" x 9'-4" M.O.)
EX-9	-								3	4		6	7						O	NOTE #2
EX-10	-							2											T	NOTE #2
EX-11	-							2			5			8					L	NOTE #4
EX-12	-																			NOTE #3
COR-1	-																			NOTE #3
COR-2	-							2											B	

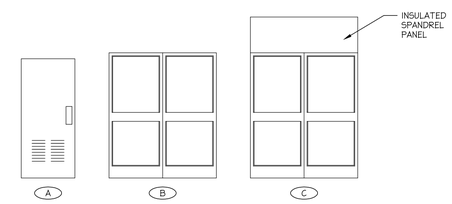
NOTE:
ALL DOORS ARE EXISTING UNLESS NOTED OTHERWISE.



WINDOW TYPES

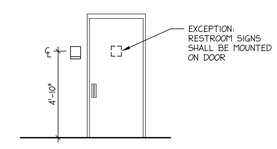
NOTE: WINDOW REMOVAL WILL BE BY OTHERS (ASBESTOS ABATEMENT CONTRACTOR)

WINDOW NOTES:
1) FIELD VERIFY ALL DIMENSIONS.
2) FOR UNITS A, B, & D, THE UPPER SPANDREL PANEL CONTAINS ASBESTOS AND WILL BE REMOVED BY OTHERS.



DOOR TYPES

DOOR SCHEDULE NOTES:
1) REMOVE EXISTING DOORS AND FRAMES AND REPLACE WITH NEW.
2) DOOR WILL/DOES HAVE ELECTRIFIED STRIKE. COORDINATE WITH SECURITY CONTRACTOR.
3) NO WORK REQUIRED AT EXISTING DOOR.
4) REMOVE EXISTING VERTICAL ROD DEVICES AND REPLACE WITH NEW RIM EXIT DEVICES AND REMOVABLE MULLIONS.
5) RE-CONNECT EXISTING CLOSER.
6) ADD NEW WRAP TO COVER EXISTING HOLES.



TYPICAL SIGN MOUNTING DETAIL

PREPARED FOR:

Hudson Area Schools

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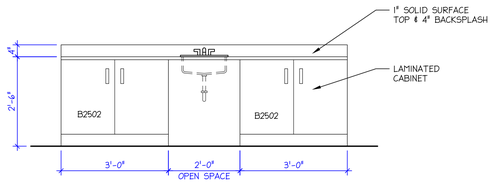
HUDSON, MICHIGAN 49247

DRAWN BY: M. FOWLER | CHK'D. BY: TA DAILEY | APP'D. BY:

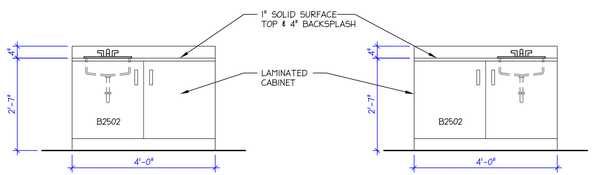
DOOR SCHEDULE AND DETAILS

DATE: 03/09/2012 | REV.: 0 | DRAWING NO. 100-A6.1
SCALE: AS SHOWN



1 / 100-A6.2 CABINET ELEVATION

SCALE: ½"=1'-0"

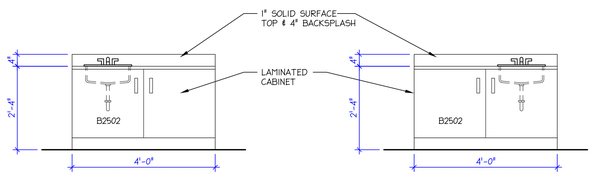


A - LEFT SIDE

B - RIGHT SIDE

2 / 100-A6.2 CABINET ELEVATION

SCALE: ½"=1'-0"

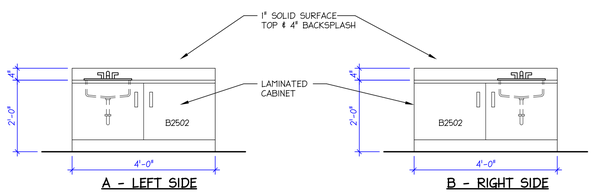


A - LEFT SIDE

B - RIGHT SIDE

3 / 100-A6.2 CABINET ELEVATION

SCALE: ½"=1'-0"



A - LEFT SIDE

B - RIGHT SIDE

4 / 100-A6.2 CABINET ELEVATION

SCALE: ½"=1'-0"

NOTE: CASEWORK NUMBERS ARE BASED ON TMI CATALOG.

ROOM FINISH SCHEDULE

ROOM NO.	ROOM NAME	FLOORS					WALLS		BASE					CEILING				CEILING HEIGHT	NOTES
		EXIST. SPORTS FLOOR	NEW VCT TILE	EXISTING CERAMIC TILE	EXISTING VCT	NEW MOSAIC TILE	PAINTED GYP. BOARD	PAINTED CMU	EXISTING 4" CERAMIC	NEW 4" RUBBER COVE	NEW MOSAIC SANITARY	EXISTING METAL COVE	EXISTING 4" RUBBER COVE	NEW 2x4 ACOUSTICAL TILE	EXIST. 2X4 ACOUSTICAL		NONE		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
101	LIBRARY														14			-	2
102	1st. GRADE				4				8										2,3,9,10
103	1st. GRADE				4				8										2,3,9,10
104	1st. GRADE				4				8										2,3,9,10
105	VACANT				4				8										2,3,9,10
106	KINDERGARDEN				4				8										2,3,9,10
106A	RESTROOM																		2
107	KINDERGARDEN				4				8										2,3,10
107A	RESTROOM				4								12						2,10
108	PRE-K				4				8										2,3
109	DK				4				8										2,3,9,10
110	VACANT				4				8										2,3,9,10
111	KINDERGARDEN				4								12		14				2
112	2nd. GRADE				4				8										2,3,9,10
113	COMPUTER LAB				4								12		14				2
114	2nd. GRADE				4				8										2,3,9,10
115	TITLE 1																		2,3
116	2nd. GRADE				4				8										2,3,9,10
117	3rd/4th GRADE				4								12						2,3,9
118	3rd. GRADE				4								12						2,3,9
119	4th GRADE				4								12						2,3,9
120	3rd. GRADE				4								12						2,3,9
121	4th. GRADE				4								12						2,3,9
122	LISD				4								12						2,3,9
123	ART				4								12						2,3,9
124	VACANT CLASSRM.				4								12						2,3,9
125	MUSIC				4								12						2,3,9
126	5th. GRADE																		1
127	5th. GRADE																		1
128	5th. GRADE																		1
129	GYM	1										11							8
130	GIRL'S																		1
131	BOY'S																		1
132	GIRL'S																		1
133	BOY'S																		1
134	BOY'S					5		7			10								7
135	GIRL'S					5		7			10								7
136	COPY & STORAGE																		1
137	STORAGE																		1
138	STORAGE																		1
139	ADMINISTRATION																		1
140	NURSE																		1
141	CAFETERIA																		2
142	OFFICE																		1
143	SUNROOM																		1
144	STAFF LOUNGE																		2
145	STORAGE																		1
146	STORAGE																		1
147	STAFF RESTROOM																		2
148	JANITOR																		2
149	BOILER ROOM																		2
150	OFFICE																		1
151	KITCHEN																		2
152	HVAC																		1
153	PRINCIPAL																		1
154	OFFICE																		1
155	TECH																		1
156	RESTROOM																		1
157	RESTROOM																		1
158	JANITOR																		1
159	VOL. COORD.																		1
160	STORAGE																		1
161	BUILDING ENGINEER																		1
162	JANITOR																		1
163	JANITOR																		1
323	SPECIAL ED.						6												2
324	SPECIAL ED.																		1
325	SPEECH THERAPY																		2
-	CORRIDOR 1		2							9								8'-0"	5, SEE PLAN FOR AFFECTED AREA
-	CORRIDOR 2		2							9								8'-0"	2,5 SEE PLAN FOR AFFECTED AREA
-	CORRIDOR 3													13				8'-7"	2,6
-	CORRIDOR 4				4								12	13				8'-7"	2, 11

NOTES:

1) EXISTING FINISHES TO REMAIN IN THIS ROOM, NO NEW WORK.
2) EXISTING FINISHES TO REMAIN IN THIS ROOM (UNLESS NOTED OTHERWISE). HOWEVER PATCH (MATCH EXISTING) AND REPAIR AS NOTED ON PLANS.
3) CAULK NEW/REPLACEMENT UNIT VENTS ALONG TOP OF UNITS (SEE DETAIL ON DRAWING 100-M1.10.)
4) SEE DRAWINGS 100-E2.1 & 100-E2.2 FOR REFLECTED CEILING PLANS.
5) REMOVE EXIST. NON-ADHERING VCT AND REPLACE WITH NEW. ALSO REPLACE EXISTING BASE IN THE AREA OF FLOOR REPAIR.
6) REMOVE EXIST. CEILING TILE AND GRID TO ALLOW FOR NEW CEILING MOUNTED PIPING.
7) REMOVE AND REPLACE EXIST. CERAMIC SANITARY BASE AND MOSAIC FLOOR TILE. EXISTING METAL DECK CEILING TO REMAIN. REPAINT CMU WALLS. CAULK ENTIRE PERIMETER AT CEILING-TO-WALL JOINT.
8) REMOVAL OF EXISTING SPORTS FLOOR AND INSTALLATION OF NEW SPORTS FLOOR IN GYM TO BE BID AS ALTERNATE 100-9. INCLUDE TEMPORARY REMOVAL AND RE-INSTALLATION OF BLEACHERS, METAL COVE BASE, AND WALL MATS AS REQUIRED.
9) EXISTING FLOOR FINISH IN CLASSROOM TOILET ROOM IS 1"x1" PORCELAIN TILE. ANY REQ'D. PATCHING SHALL BE DONE IN A FULL RECTANGLE SHAPE.
10) ANY REQ'D. PATCHING OF WALL BASE MAY BE DONE IN MATCHING CERAMIC OR WITH 4" RUBBER.
11) PAINT GYP. BOARD CEILING BULKHEAD.

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HUDSON AREA SCHOOLS
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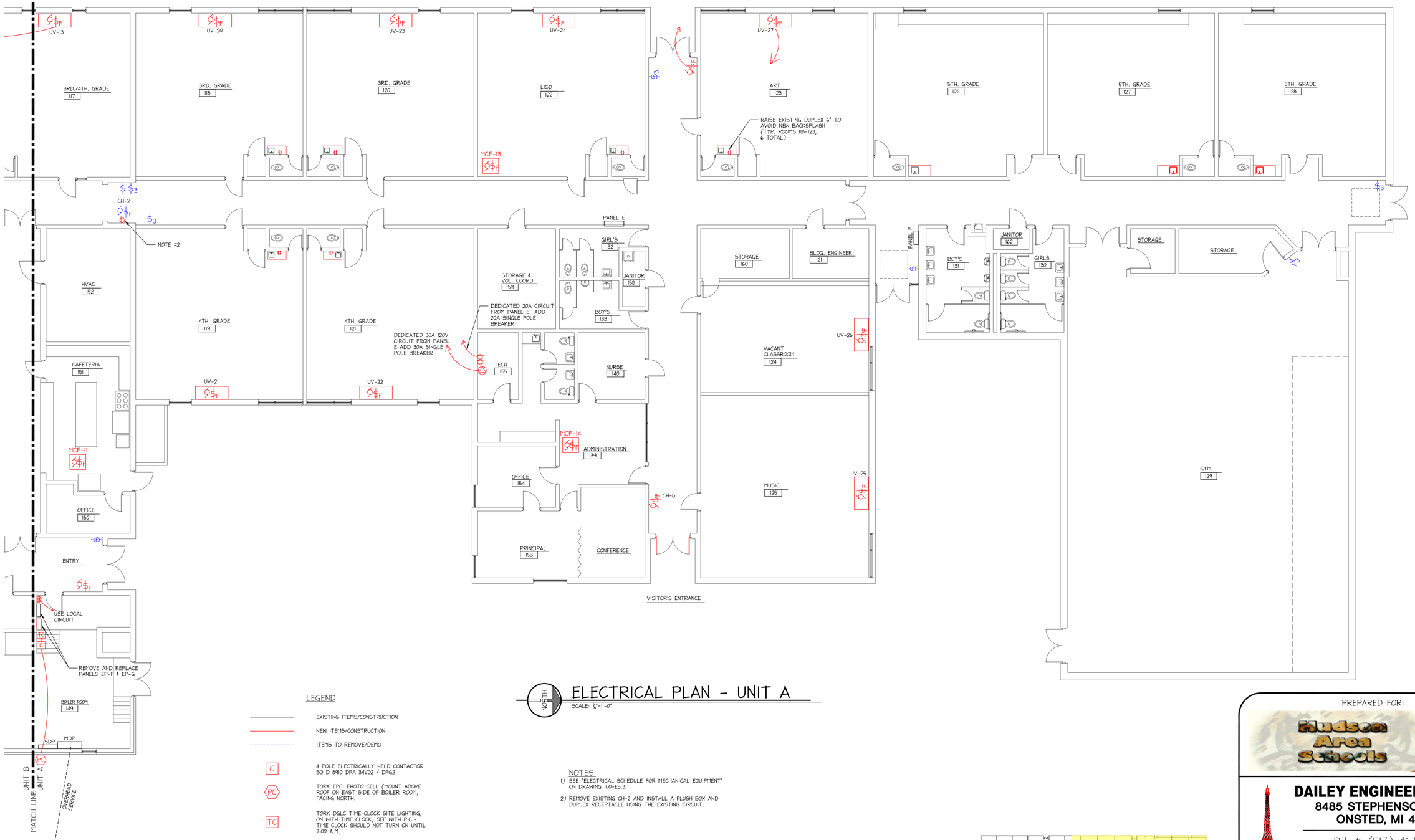
746 NORTH MAPLE GROVE AVENUE
HUDSON, MICHIGAN 49247

DRAWN BY: M. FOWLER | CHK'D. BY: TA DAILEY | APP'D. BY:

ROOM FINISH SCHEDULES

DATE: 03/09/2012 | REV.: 0 | DRAWING NO. **100-A6.2**

SCALE: AS SHOWN



ELECTRICAL PLAN - UNIT A

NORTH

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

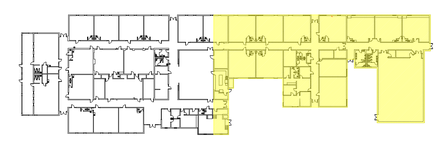
LEGEND

	EXISTING ITEMS/CONSTRUCTION
	NEW ITEMS/CONSTRUCTION
	ITEMS TO REMOVE/DEMO
C	4 POLE ELECTRICALLY HELD CONTACTOR SQ D 8910 DPA 34V02 / DPG2
PC	TORK EPCI PHOTO CELL (MOUNT ABOVE ROOF ON EAST SIDE OF BOILER ROOM, FACING NORTH.
TC	TORK DGLC TIME CLOCK SITE LIGHTING, ON WITH TIME CLOCK, OFF WITH P.C.- TIME CLOCK SHOULD NOT TURN ON UNTIL 7:00 A.M.
EF-X	EF-1 THRU EF-14 DISCONNECT EXISTING EXHAUST FAN AND RE-CONNECT NEW EXHAUST FAN TO EXISTING CIRCUIT. INSTALL BUSSMAN SSU WITH PROPER SIZE DUAL ELEMENT FUSE.
	30A 120V TWIST LOCK RECEPTACLE L5-30R HUBBELL HBL2610

NOTES:

1) SEE "ELECTRICAL SCHEDULE FOR MECHANICAL EQUIPMENT" ON DRAWING 100-E3.3.

2) REMOVE EXISTING CH-2 AND INSTALL A FLUSH BOX AND DUPLEX RECEPTACLE USING THE EXISTING CIRCUIT.



KEY PLAN

NORTH

N.T.S.

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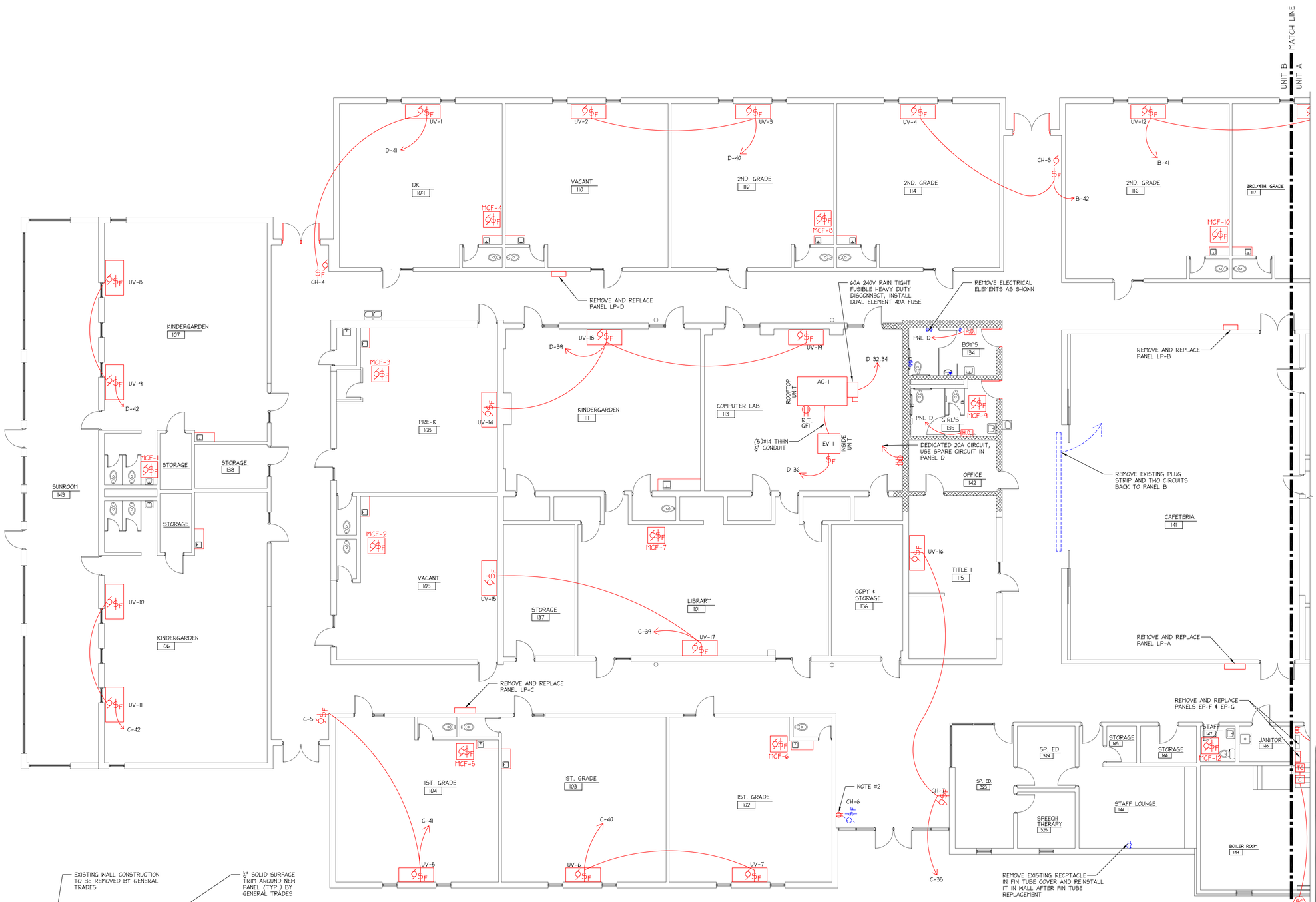
DRAWN BY: M. FOWLER	CHK'D. BY: TA DAILEY	APP'D. BY:

ELECTRICAL PLAN - UNIT A

DATE: 03/09/2012	REV.: 0	DRAWING NO. 100-E1.1
SCALE: 1/8" = 1'-0"		



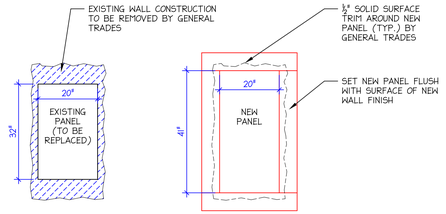
ELECTRICAL PLAN - UNIT B

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

NOTES:

1) SEE "ELECTRICAL SCHEDULE FOR MECHANICAL EQUIPMENT" ON DRAWING 100-E3.3.

2) REMOVE EXISTING CH-6 AND INSTALL A FLUSH BOX AND DUPLEX RECEPTACLE USING THE EXISTING CIRCUIT.

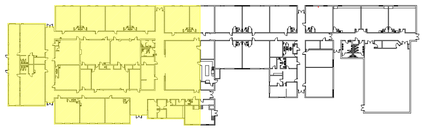


PANEL REPLACEMENT DETAIL

1 / 100-E1.2 N.T.S.

LEGEND

- EXISTING ITEMS/CONSTRUCTION
- NEW ITEMS/CONSTRUCTION
- ITEMS TO REMOVE/DEMO
- H.D. — WORLD AIRFORCE HAND DRYER MODEL J-975
- EF-X — EF-1 THRU EF-14 DISCONNECT EXISTING EXHAUST FAN AND RE-CONNECT NEW EXHAUST FAN TO EXISTING CIRCUIT. INSTALL BUSSMAN SSU WITH PROPER SIZE DUAL ELEMENT FUSE.



KEY PLAN

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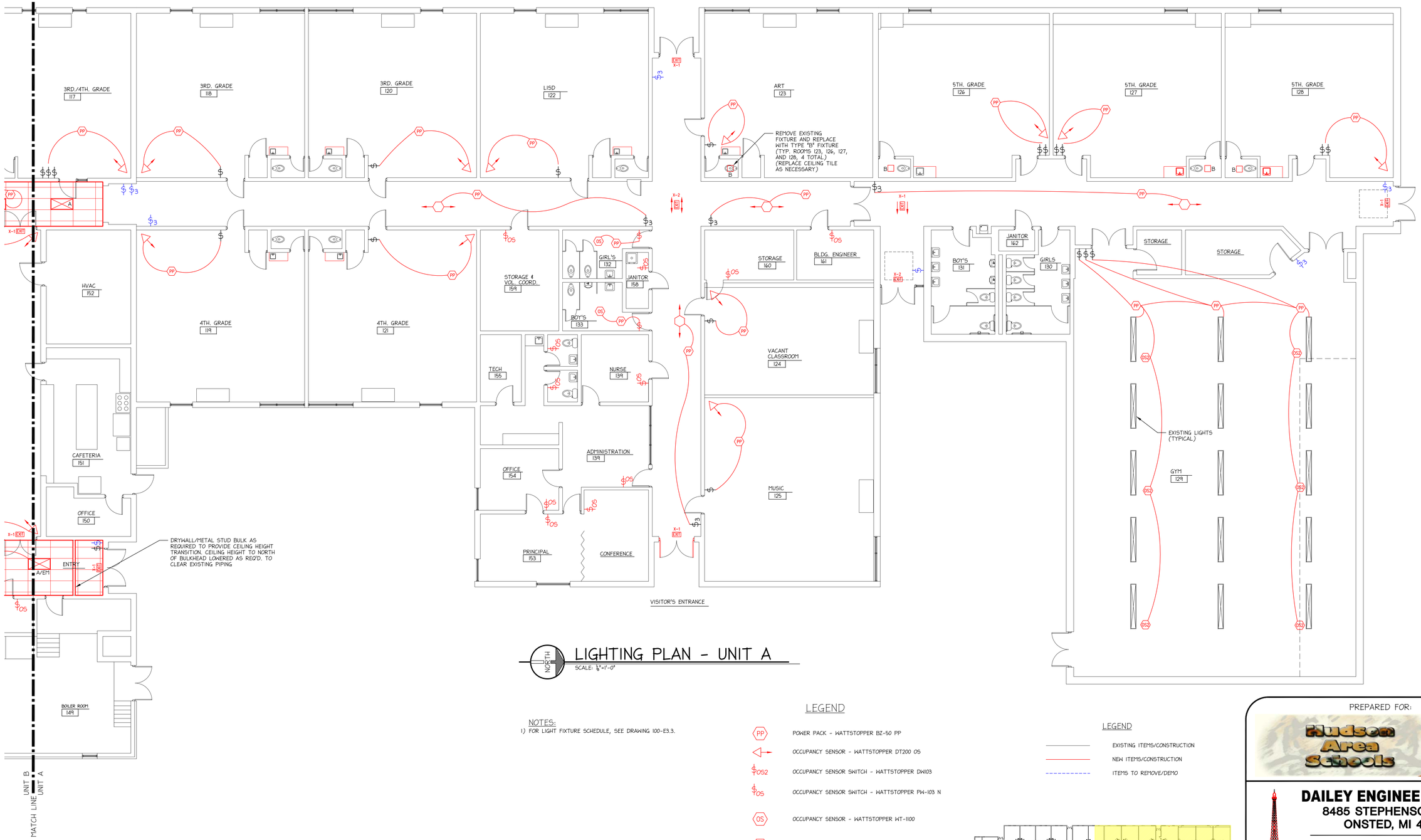
DRAWN BY: M. FOWLER	CHK'D. BY: TA DAILEY	APP'D. BY:

ELECTRICAL PLAN - UNIT B

DATE: 03/09/2012	REV.: 0	DRAWING NO. 100-E1.2
SCALE: 1/8" = 1'-0"		



LIGHTING PLAN - UNIT A

NORTH

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

NOTES:

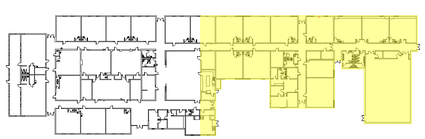
1) FOR LIGHT FIXTURE SCHEDULE, SEE DRAWING 100-E3.3.

LEGEND

PP	POWER PACK - WATTSTOPPER BZ-50 PP
	OCCUPANCY SENSOR - WATTSTOPPER DT200 OS
OS2	OCCUPANCY SENSOR SWITCH - WATTSTOPPER DW103
OS	OCCUPANCY SENSOR SWITCH - WATTSTOPPER PW-103 N
OS	OCCUPANCY SENSOR - WATTSTOPPER WT-1100
OS2	OCCUPANCY SENSOR - WATTSTOPPER CI-300-1
	OCCUPANCY SENSOR - WATTSTOPPER WT 2255
PC	PHOTO CELL
$	EXISTING LIGHT SWITCH
-$-	REMOVE EXISTING SWITCH, CAP WIRES AND INSTALL BLANK STAINLESS STEEL FACEPLATE

LEGEND

	EXISTING ITEMS/CONSTRUCTION
	NEW ITEMS/CONSTRUCTION
	ITEMS TO REMOVE/DEMO



KEY PLAN

NORTH

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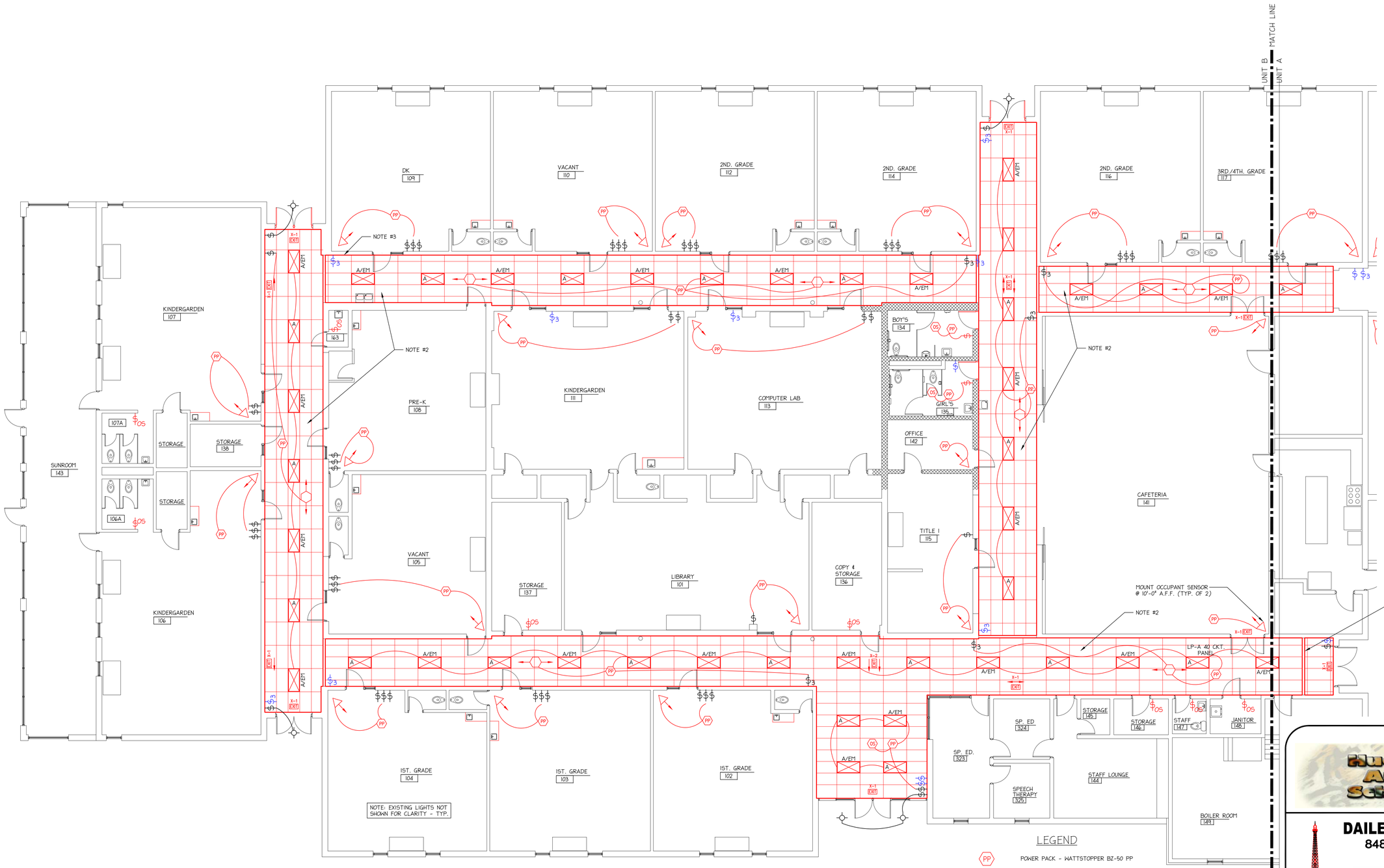
LIGHTING PLAN - UNIT A

DATE: 03/09/2012	REV.: 0	DRAWING NO. 100-E2.1
SCALE: 1/8" = 1'-0"		



LEGEND

- EXISTING ITEMS/CONSTRUCTION
- NEW ITEMS/CONSTRUCTION
- ITEMS TO REMOVE/DEMO

LEGEND

- PP — POWER PACK - WATTSTOPPER BZ-50 PP
- OCCUPANCY SENSOR - WATTSTOPPER DT200 OS
- $052 — OCCUPANCY SENSOR SWITCH - WATTSTOPPER DW103
- $OS — OCCUPANCY SENSOR SWITCH - WATTSTOPPER PW-103 N
- OS — OCCUPANCY SENSOR - WATTSTOPPER WT-1100
- OCCUPANCY SENSOR - WATTSTOPPER WT 2255
- PC — PHOTO CELL
- $3 — DEMO EXISTING SWITCH, INSTALL BLANK FACE PLATE

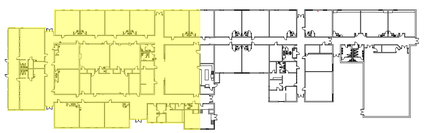
LIGHTING PLAN - UNIT B

NORTH

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

NOTES:

1) FOR LIGHT FIXTURE SCHEDULE, SEE DRAWING 100-E3.3.
2) DISCONNECT AND REMOVE (26) 8'-0" FLOURESCENT LIGHT FIXTURES (TURN OVER TO OWNER). USE EXISTING CIRCUITS FOR NEW LIGHTS SHOWN ON THIS PLAN.
3) DISCONNECT AND REMOVE EXISTING WALL MOUNTED EMERGENCY LIGHT FIXTURE.



KEY PLAN

NORTH

N.T.S.

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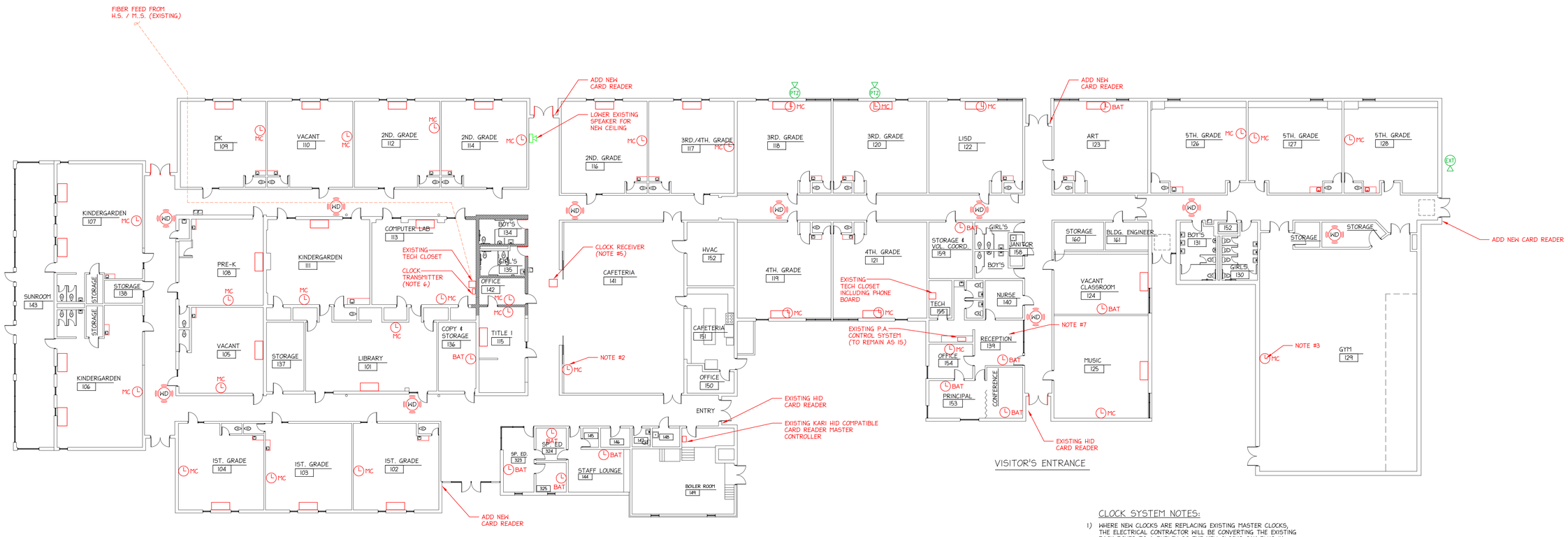
LIGHTING PLAN - UNIT B

DATE: 03/09/2012	REV.: 0	DRAWING NO. 100-E2.2
SCALE: 1/8" = 1'-0"		



TECHNOLOGY/SECURITY FLOOR PLAN

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

CLOCK SYSTEM NOTES:

1) WHERE NEW CLOCKS ARE REPLACING EXISTING MASTER CLOCKS, THE ELECTRICAL CONTRACTOR WILL BE CONVERTING THE EXISTING BACK BOXES TO A DUPLEX SO THE NEW CLOCKS CAN PLUG IN.
2) INSTALL NEW WIRE GUARD OVER NEW 16" CLOCK.
3) INSTALL EXISTING WIRE GUARD OVER NEW 16" CLOCK.
4) ALL NEW CLOCKS SHALL BE 12.5" ANALOG, EXCEPT GYM AND CAFETERIA CLOCKS SHALL BE 16".
5) THE PRIMEX WIRELESS 72 MEGAHERTZ (GPS) RECEIVER SHALL BE MOUNTED ON THE UPPER EXTERIOR WALL OF THE CAFETERIA.
6) THE PRIMEX WIRELESS 1 WATT INTERNAL TRANSMITTER SHALL BE LOCATED 5' MIN. ABOVE THE FLOOR IN THE IMMEDIATE VICINITY OF THE EXISTING TECH CLOSET.

ACCESS CONTROL NOTES:

7) PROVIDE RECEPTIONIST THE ABILITY TO OPEN AND LOCKDOWN THE VISITORS ENTRANCE DOOR WITH PUSH BUTTON CONTROL (SCHEDULE OVERRIDE).

CORRIDOR "WIRELESS DROPS" NOTES:

8) INSTALL CAT 5 WIRING FOR EACH NEW WIRELESS DROP DEVICE (FURNISHED AND INSTALLED BY OTHERS) TO THE NEAREST TECH CLOSET. PROVIDE 20' EXTRA LENGTH OF WIRE TO ALLOW FOR FIELD ADJUSTMENT TO DEVICE LOCATIONS. LEAVE 10' EXTRA LENGTH OF WIRE AT TECH CLOSET, TERMINATION WILL BE BY OTHERS.

CLOCK SYSTEM LEGEND

MC	REPLACE EXISTING CLOCK (32 TOTAL) (NOTE #1)
BAT	INSTALL NEW CLOCK (NO EXISTING CLOCK AT THIS LOCATION (9 TOTAL)

TECHNOLOGY LEGEND

WD	WIRELESS DROP (SEE NOTE #8)

CC T.V. LEGEND

	SYMBOL LEGEND	MODEL NUMBER
PTZ	PTZ CAMERA	VG5-723-ECE
EXT	DOME CAMERA, PENDANT MOUNT, EXTERIOR	NDN-498V09-22PS W/ VDA-WMT-DOME MOUNT

NOTE: THE BOSCH MODELS ABOVE PROVIDE A DESIGN BASIS. EQUIVALENT EQUIPMENT MANUFACTURED BY PANASONIC, PELCO AND HONEYWELL ARE APPROVED SUBSTITUTIONS.
SEE DRAWING 200-E3.2 FOR OVERALL SCHOOL DISTRICT NETWORK DIAGRAM.

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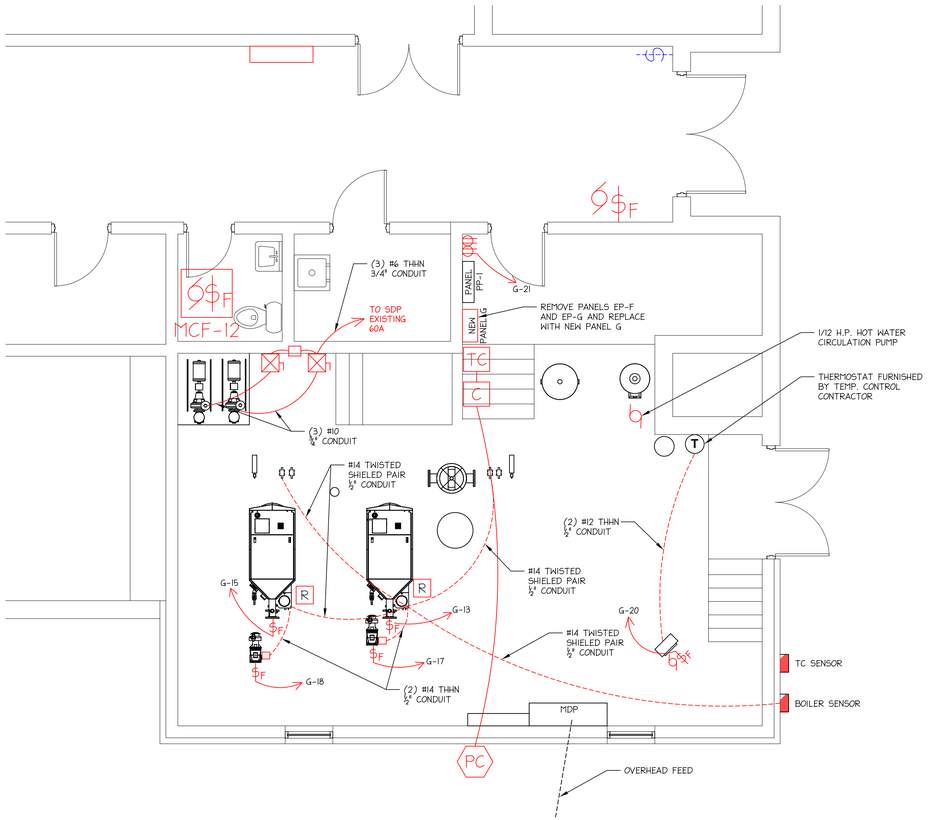
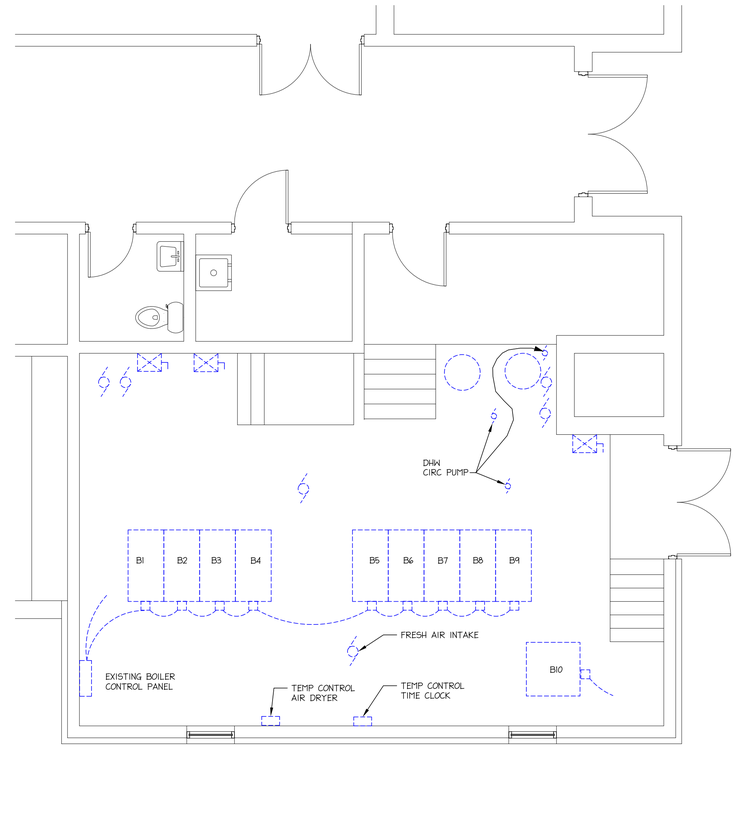
TECHNOLOGY/SECURITY FLOOR PLAN

DATE: 03/09/2012	REV.: 0	DRAWING NO. 100-E3.1
SCALE: 1/16" = 1'-0"		



BOILER ROOM ELECTRICAL PLAN

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



BOILER ROOM ELECTRICAL DEMO PLAN

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

LEGEND

- EXISTING ITEMS/CONSTRUCTION
- NEW ITEMS/CONSTRUCTION
- ITEMS TO REMOVE/DEMO
- SIZE 1 FUSIBLE COMBINATION STARTER W/ CONTROL TRANSFORMER AND HAND OFF AUTO SW. SQ D 8538 SCG13,V02,F4T,C
- R — RELAY SQ D 8501 C07V20/UE-1
- C — 4 POLE ELECTRICALLY HELD CONTACTOR SQ D 8910 DPA 34V02 / DPG2
- PC — TORK EPCI PHOTO CELL (MOUNT ABOVE ROOF ON EAST SIDE OF BOILER ROOM, FACING NORTH.
- TC — TORK DIGITAL DGLC TIME CLOCK

DEMOLITION NOTES

1) ALL WIRING AND UNUSED CONDUIT ARE TO BE REMOVED BACK TO SOURCE.
2) ALL MOTORS & STARTERS SHOWN ARE TO BE DISCONNECTED AND REMOVED.
3) BOILERS 1-9 ARE TO BE DISCONNECTED INCLUDING LIMIT SWITCHES & CONTROLS
4) EXISTING BOILER CONTROL PANEL TO BE TURNED OVER TO THE SCHOOL
5) BOILER #10 IS TO BE DISCONNECTED
6) TEMP CONTROL AIR DRYER & TIME CLOCK TO BE DISCONNECTED & REMOVED
7) COORDINATE DEMO WORK WITH MECHANICAL CONTRACTOR. SEE SHEET 100-M-D AND ACCOMPANYING NOTES.

PREPARED FOR:

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DRAWN BY: M. FOWLER	CHK'D. BY: TA DAILEY	APP'D. BY:

ENLARGED BOILER ROOM ELECTRICAL PLAN

DATE: 03/09/2012	REV.: 0	DRAWING NO. 100-E3.2
SCALE: AS SHOWN		

1 Phase PANEL LOAD SHEET

Panel LP - A | Mounting Flush | Panel Location Corridor east side of cafeteria

Voltage 120/240 1ph 3w | AMPS 200 MLO | Fed From SDP

Load & Location	Load in VA	P	amp	Ckt no		Ckt no	P	amp	Load in VA	Load & Location
Existing load		1	20	1	*	2	1	20		Spare *****
Spare *****		1	20	3	*	4	1	20		Spare *****
Existing load		1	20	5	*	6	1	20		Existing load
Existing load		1	20	7	*	8	1	20		Existing load
Existing load		1	20	9	*	10	1	20		Existing load
Existing load		1	20	11	*	12	1	20		Existing load
Existing load		1	20	13	*	14	1	20		Existing load
Existing load		1	20	15	*	16	1	20		Existing load
Existing load		1	20	17	*	18	1	20		Existing load
Existing load		1	20	19	*	20	1	20		Existing load
Existing load		1	20	21	*	22	1	20		Existing load
Existing load		1	20	23	*	24	1	20		Existing load
Existing load		1	20	25	*	26	1	20		Existing load
Existing load		1	20	27	*	28	1	20		Existing load
Existing load		1	20	29	*	30	1	20		Existing load
Existing load		1	20	31	*	32	1	20		Existing load
Existing load		1	20	33	*	34	2	20		Existing load
Existing load		1	15	35	*	36				
Spare		1	20	37	*	38	1	20		Spare
Spare		1	20	39	*	40	1	20		Spare
Spare		1	20	41	*	42	1	20		Spare
Subtotal Lighting										Subtotal Lighting
Subtotal Outlets										Subtotal Outlets
Subtotal Other	0									Subtotal Other
Total Load Lighting									0	
Total existing Load									13920	
Total new Load									0	
Total connected Load									13920	

Connected AMPS 58.00 * 1.25 = 73 | Panel Feeder 3 3/0

Conduit 2"

Existing pnl A has a load of 13.9kVA fed from a 200 amp switch
Existing pnl -A is a 40 circuit panel. Remove panel and replace it with a 42 circuit pnl.
(Spare *****) these circuits become spare when circuits in classrooms are combined

1 Phase PANEL LOAD SHEET

Panel LP -B | Mounting Flush | Panel Location west of cafeteria

Voltage 120/240 1ph 3w | AMPS 200 MLO | Fed From MDP

Load & Location	Load in VA	P	amp	Ckt no		Ckt no	P	amp	Load in VA	Load & Location
Spare *****		1	20	1	*	2	1	20		Lighting 117
Spare *****		1	20	3	*	4	1	20		Existing load
Spare *****		1	20	5	*	6	1	20		Lighting 116
Spare ******		1	20	7	*	8	1	20		Existing load
Existing load		1	20	9	*	10	1	20		Existing load
Spare *****		1	20	11	*	12	1	20		Lighting 114
Spare *****		1	20	13	*	14	1	20		Existing load
Existing load		1	20	15	*	16	1	20		Existing load
Existing load		1	20	17	*	18	1	20		Existing load
Existing load		1	20	19	*	20	1	20		Existing load
Lighting w side of cafeteria		1	20	21	*	22	1	20	Spare *****	Spare
Spare *****		1	20	23	*	24	1	20	Spare *****	Spare
Existing load		1	20	25	*	26	1	20		Existing load
Existing load		1	20	27	*	28	1	20		Existing load
Existing load		1	20	29	*	30	1	20		Existing load
Spare		1	20	31	*	32	1	20		Spare
Spare		1	20	33	*	34	1	20		Spare
Spare		1	20	35	*	36	1	20		Spare
Spare		1	20	37	*	38	1	20		Spare
UV 1&13 Rm 116&117	960	1	20	39	*	40	1	20		Spare
		1	20	41	*	42	1	20	720	UV 4, CH 3 Rm 114 & corridor
Subtotal Lighting										Subtotal Lighting
Subtotal Outlets										Subtotal Outlets
Subtotal Other	960								720	Subtotal Other
Total Load Lighting									0	
Total existing Load									5870	
Total new Load									1680	
Total connected Load									7550	

Connected AMPS 31.46 * 1.25 = 39 | Panel Feeder 3 3/0

Conduit 2"

Existing pnl B has a load of 7.5kVA fed from a 200 amp switch
Existing pnl -B is a 40 circuit panel. Remove panel and replace it with a 42 circuit pnl.
(Spare *****) these circuits become spare when circuits in classrooms are combined

1 Phase PANEL LOAD SHEET

Panel LP -C | Mounting Flush | Panel Location east corridor south end

Voltage 120/240 1ph 3w | AMPS 200 MLO | Fed From MDP

Load & Location	Load in VA	P	amp	Ckt no		Ckt no	P	amp	Load in VA	Load & Location
Lighting 106		1	20	1	*	2	1	20		Lighting 109
Existing load		1	20	3	*	4	1	20		Spare ******
Spare *****		1	20	5	*	6	1	20		Lighting 103
Spare ******		1	20	7	*	8	1	20		Spare ******
lighting 104		1	20	9	*	10	1	20		Spare ******
Existing load		1	20	11	*	12	1	20		Lighting room 105
Spare ******		1	20	13	*	14	1	20		Existing load
Spare ******		1	20	15	*	16	1	20		Lighting 102
Spare ******		1	20	17	*	18	1	20		Existing load
Existing load		1	20	19	*	20	1	20		Existing load
Existing load		1	20	21	*	22	1	20		Existing load
Existing load		1	20	23	*	24	1	20		Existing load
Existing load		1	20	25	*	26	1	20		Existing load
Existing load		1	20	27	*	28	1	20		Existing load
Existing load		1	20	29	*	30	1	20		Existing load
Existing load		1	20	31	*	32	1	20		Existing load
Existing load		1	20	33	*	34	1	20		Existing load
Existing load		1	20	35	*	36	1	20		Existing load
Spare		1	20	37	*	38	1	20	924	UV 16, CH 6&7 RM 115 & Corr
UV 15&16 Rm 105,101	960	1	20	39	*	40	1	20	960	UV 2&3 Rm 103,102
UV 5 & CH 5 Rm104 & corridc	720	1	20	41	*	42	1	20	890	UV 10&12 Rm 106
Subtotal Lighting										Subtotal Lighting
Subtotal Outlets										Subtotal Outlets
Subtotal Other	1680								2774	Subtotal Other
Total Load Lighting									0	
Total existing Load									5256	
Total new Load									4454	
Total connected Load									9710	

Connected AMPS 40.46 * 1.25 = 51 | Panel Feeder 3 3/0

Conduit 2"

Existing pnl C has a load of 9.7kVA fed from a 200 amp switch
Existing pnl -C is a 40 circuit panel. Remove panel and replace it with a 42 circuit pnl.
(Spare *****) these circuits become spare when circuits in classrooms are combined

1 Phase PANEL LOAD SHEET

Panel LP -D | Mounting Flush | Panel Location west coridor south end

Voltage 120/240 1ph 3w | AMPS 200 MLO | Fed From MDP

Load & Location	Load in VA	P	amp	Ckt no		Ckt no	P	amp	Load in VA	Load & Location
Spare *****		1	20	1	*	2	1	20		Lighting 109
Spare *****		1	20	3	*	4	1	20		Spare *****
Lighting 110		1	20	5	*	6	1	20		Spare *****
Spare *****		1	20	7	*	8	1	20		Lighting 112
Spare *****		1	20	9	*	10	1	20		Existing load
Existing load		1	20	11	*	12	1	20		Existing load
Existing load		1	20	13	*	14	1	20		Spare *****
Lighting 108		1	20	15	*	16	1	20		Spare *****
Lighting 107		1	20	17	*	18	1	20		Spare *****
Existing load		1	20	19	*	20	1	20		Existing load
Existing load		1	20	21	*	22	1	20		Existing load
Existing load		1	20	23	*	24	1	30		Existing load
Existing load		1	20	25	*	26	1	15		Existing load
Existing load		1	20	27	*	28	1	20		Existing load
Existing load		1	20	29	*	30	1	20		Existing load
Spare		1	20	31	*	32	1	20		Spare
Spare		1	20	33	*	34	1	20		Spare
Spare		1	20	35	*	36	1	20		Spare
Spare		1	20	37	*	38	1	20		Spare
UV 14,18&19 Rm 108,111,112	1440	1	20	39	*	40	1	20	960	UV 2&3 Rm 110,112
UV1 & CH4 Rm 109 & corridor	720	1	20	41	*	42	1	20	890	UV 8 & 9 Rm 107
Subtotal Lighting										Subtotal Lighting
Subtotal Outlets										Subtotal Outlets
Subtotal Other	2160								1850	Subtotal Other
Total Load Lighting									0	
Total existing load									10680	
Total new Load									4010	
Total connected Load									14690	

Connected AMPS 61.21 * 1.25 = 77 | Panel Feeder 3 3/0

Conduit 2"

Existing pnl D has a load of 14.7kVA fed from a 200 amp switch
Existing pnl -D is a 28 circuit panel. Remove panel and replace it with a 42 circuit pnl.
(Spare *****) these circuits become spare when circuits in classrooms are combined

1 Phase PANEL LOAD SHEET

Panel LP - G | Mounting Surface | Panel Location Boiler room mezzanine

Voltage 120/240 1ph 3w | AMPS 100 MLO | Fed From SDP

Load & Location	Load in VA	P	amp	Ckt no		Ckt no	P	amp	Load in VA	Load & Location
Existing load		1	20	1	*	2	1	20		Existing load
Existing load		1	20	3	*	4	1	20		Existing load
Existing load		1	20	5	*	6	1	20		Existing load
Existing load		1	20	7	*	8	1	20		Existing load
Existing load		1	20	9	*	10	1	20		Existing load
Existing load		1	20	11	*	12	1	20		Existing load
Boiler 1	1200	1	15	13	*	14	1	20		Existing load
Boiler 2	1200	1	15	15	*	16	2	20	2072	Site lighting
Pump 1	1176	1	15	17	*	18				
Pump 2	1176	1	15	19	*	20	1	15	336	UH - 1
Spare		1	20	21		22	1	15	120	H W circ pump
Spare		1	20	23		24	1	20		Spare
Spare		1	20	25		26	1	20		Spare
Spare		1	20	27		28	1	20		Spare
Spare		1	20	29		30	1	20		Spare
Subtotal Lighting									2072	Subtotal Lighting
Subtotal Outlets										Subtotal Outlets
Subtotal Other	4752								2528	Subtotal Other
Total Load Lighting									2072	
Total existing Load									3120	
Total new Load									7280	
Total connected Load									12472	

Connected AMPS 51.97 * 1.25 = 65 | Panel Feeder 3 #2 thhn

Conduit 1 1/4"

Existing pnls F & G have a load of 3.1kVA fed from a 60 amp switch
Existing pnls F & G are two panels with combined 14 circuits.
Replace panels with a new 30 circuit panel
Install a new 100 amp fusible switch in SDP

Electrical Schedule for Mechanical Equipment

ITEM	ROOM #	MARK	MOTOR HP	VOLTS/PH CYCLE	AMPS	ZONE	
	109	UV-1	0.33	120/60/1	4	2	LP-D Disconnect and reconnect on new circuit. Add SSU w proper size dual element fuse.
	110	UV-2	0.33	120/60/1	4	2	LP-D Disconnect and reconnect on new circuit. Add SSU w proper size dual element fuse.
	112	UV-3	0.33	120/60/1	4	2	LP-D Disconnect and reconnect on new circuit. Add SSU w proper size dual element fuse.
	114	UV-4	0.33	120/60/1	4	2	LP-B Disconnect and reconnect on new circuit. Add SSU w proper size dual element fuse.
	104	UV-5	0.33	120/60/1	4	2	LP-C Disconnect and reconnect on new circuit. Add SSU w proper size dual element fuse.
	103	UV-6	0.33	120/60/1	4	2	LP-C Disconnect and reconnect on new circuit. Add SSU w proper size dual element fuse.
	102	UV-7	0.33	120/60/1	4	2	LP-C Disconnect and reconnect on new circuit. Add SSU w proper size dual element fuse.
	107	UV-8	0.33	120/60/1	3.7	2	LP-D Disconnect and reconnect on new circuit. Add SSU w proper size dual element fuse.
	107	UV-9	0.33	120/60/1	3.7	2	LP-D Disconnect and reconnect on new circuit. Add SSU w proper size dual element fuse.
	106	UV-10	0.33	120/60/1	3.7	2	LP-C Disconnect and reconnect on new circuit. Add SSU w proper size dual element fuse.
	106	UV-11	0.33	120/60/1	3.7	2	LP-C Disconnect and reconnect on new circuit. Add SSU w proper size dual element fuse.
	116	UV-12	0.33	120/60/1	4	2	LP-B Disconnect and reconnect on new circuit. Add SSU w proper size dual element fuse.
	117	UV-13	0.33	120/60/1	4	2	LP-B Disconnect and reconnect on new circuit. Add SSU w proper size dual element fuse.
	108	UV-14	0.33	120/60/1	4	2	LP-D Disconnect and reconnect on new circuit. Add SSU w proper size dual element fuse.
	105	UV-15	0.33	120/60/1	4	2	LP-C Disconnect and reconnect on new circuit. Add SSU w proper size dual element fuse.
	115	UV-16	0.33	120/60/1	3.7	2	LP-C Disconnect and reconnect on new circuit. Add SSU w proper size dual element fuse.
	101	UV-17	0.33	120/60/1	4	2	LP-C Disconnect and reconnect on new circuit. Add SSU w proper size dual element fuse.
	111	UV-18	0.33	120/60/1	4	2	LP-D Disconnect and reconnect on new circuit. Add SSU w proper size dual element fuse.
	113	UV-19	0.33	120/60/1	4	2	LP-D Disconnect and reconnect on new circuit. Add SSU w proper size dual element fuse.
	118	UV-20	0.50	120/60/1	4.7	3	Disconnect and reconnect on existing circuit. Add SSU w proper size dual element fuse
	121	UV-21	0.50	120/60/1	4.7	3	Disconnect and reconnect on existing circuit. Add SSU w proper size dual element fuse
	119	UV-22	0.50	120/60/1	4.7	3	Disconnect and reconnect on existing circuit. Add SSU w proper size dual element fuse
	120	UV-23	0.50	120/60/1	4.7	3	Disconnect and reconnect on existing circuit. Add SSU w proper size dual element fuse
	122	UV-24	0.50	120/60/1	4.7	3	Disconnect and reconnect on existing circuit. Add SSU w proper size dual element fuse
	125	UV-25	0.50	120/60/1	4.7	3	Disconnect and reconnect on existing circuit. Add SSU w proper size dual element fuse
	124	UV-26	0.50	120/60/1	4.7	3	Disconnect and reconnect on existing circuit. Add SSU w proper size dual element fuse
	123	UV-27	0.50	120/60/1	4.7	3	Disconnect and reconnect on existing circuit. Add SSU w proper size dual element fuse
	CORR-3	CH-1	0.033	120/60/1	3	2	Disconnect and reconnect on existing circuit. Add SSU w proper size dual element fuse
REMOVI	CORR-5	CH-2					Disconnect and install a duplex receptacle after unit is removed
	CORR-4	CH-3	0.033	120/60/1	2	2	LP-B Disconnect and reconnect on new circuit. Add SSU w proper size dual element fuse.
	CORR-1	CH-4	0.033	120/60/1	2	2	LP-D Disconnect and reconnect on new circuit. Add SSU w proper size dual element fuse.
	CORR-1	CH-5	0.033	120/60/1	2	2	LP-C Disconnect and reconnect on new circuit. Add SSU w proper size dual element fuse.
REMOVI	CAFE	CH-6					Disconnect and install a duplex receptacle after unit is removed
	CAFE	CH-7	0.05	120/60/1	2	2	LP-C Disconnect and reconnect on new circuit. Add SSU w proper size dual element fuse.
	CORR-6	CH-8	0.05	120/60/1	2	3	Disconnect and reconnect on existing circuit. Add SSU w proper size dual element fuse
	CORR-6	CH-9	0.05	120/60/1	2	3	Disconnect and reconnect on existing circuit. Add SSU w proper size dual element fuse
		UH-1	0.33	120/60/1	2.8	2	

Lincoln panel information

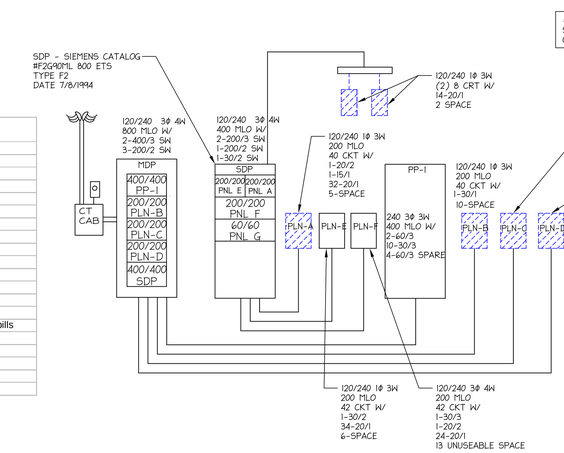
Elementary School 120/240 3ph 4w

Pnl	Location	Fed from	Wire size	Sw Size	Required Replacement Fuse size	Existing Fuse size
A	E of caffeteria	SDP	3 3/0 1ph	200	LPN-RK-175SP	200 FRN
B	W of Caffeteria	MDP	3 3/0 1ph	200	LPN-RK-175SP	200 FRN
C	S of E corridor	MDP	3 3/0 1ph	200	LPN-RK-175SP	200 FRN
D	S of W corridor	MDP	3 3/0 1ph	200	LPN-RK-175SP	200 FRN
E	N corridor 68 add	SDP	3 4/0 1ph	200	LPN-RK-200SK	200 FRN
F	E short corridor 68 addition	SDP	4 3/0 3ph	100	LPN-RK-175SP	
EP E&F	boiler rm	SDP		60		
PP1	boiler rm	SDP	3 4/0 3ph	400	LPN-RK-200SK	400 FRN
SDP	boiler rm	MDP	4 500mcm 3ph	400	LPN-RK-350SP	400 FRN
Elementary					peak demand frtom cpco bills	
Meter number	55 960 437				49000 w	204.17
						1/12/11

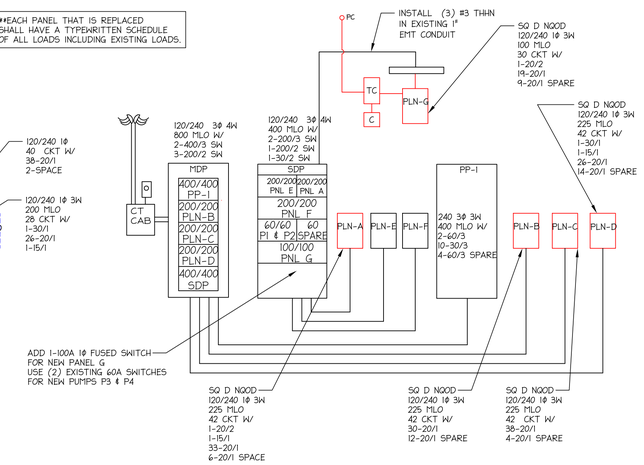
Fuses in all fused switches in MDP and SDP shall be replaced with LPN Low Peak fuses as listed.
Supply one spare set of each size of fuse and a Bussman spare fuse cabinet SFC-FUSE-CAB.
Install fuse cabinet in location as instructed by Maintenance personnel.

LEGEND

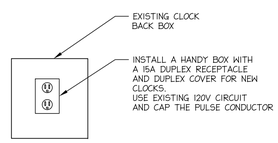
- EXISTING ITEMS/CONSTRUCTION
- NEW ITEMS/CONSTRUCTION
- ITEMS TO REMOVE/DEMO



1 E3.3 RISER DIAGRAM (EXISTING)
N.T.S.



2 E3.3 RISER DIAGRAM (NEW)
N.T.S.

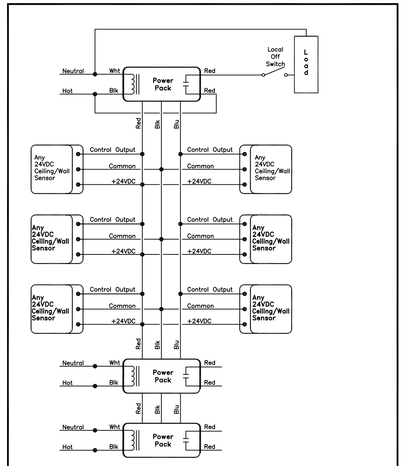


4 100-E3.3 MASTER CLOCK DETAIL
N.T.S.

INSTALL ARC FLASH HAZARD LABELS ON ALL ELECTRICAL PANELS, NEW OR EXISTING. LABEL IS EQUAL TO SETON #84619 (5"W x 3½"H)

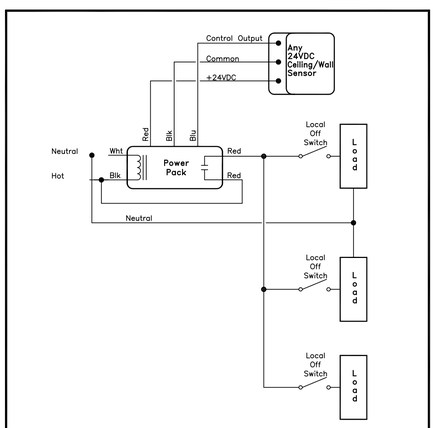
DANGER
Arc Flash Hazard
Appropriate PPE Required
Do not operate controls or open covers without appropriate personal protection equipment.
Failure to comply may result in injury or death!
Refer to NFPA 70E for minimum PPE requirements.

3 E3.3 PANEL LABEL DETAIL
N.T.S.



GYM WIRING DIAGRAM

Watt Stopper/Legrand 800-879-8585
Scale None | Drawing 57-010 | Date 12/16/05 | Rev 2



TYP. CLASSROOM OCCUPANCY SENSOR WIRING

Watt Stopper/Legrand 800-879-8585
TWA Any 24VDC Sensor Controlling Dual Level Lighting

LIGHT FIXTURE SCHEDULE				
Lincoln Elementary School				
MARK	MANUFACTURER	MODEL NUMBER	LAMPS	REMARKS
A	Metalux	2GR8 232 A 120 ER81	2 F32 T8 SP41	2X4 recessed lay in
A/EM	Metalux	2GR8 232 A EL8 120 ER81	2 F32 T8 SP41	2X4 recessed lay in with emergency battery
B	Portfolio	C7118 E 120 7280L1-1 TRR7	1 - 18w compact flourescent	Remove existing and replace 7" recessed flourescent
C	Lumark	HP GS 70 MT	1 70 HPS	Remove existing wall pack and replace
D	Lumark	HP GS 70 MT	1 70 HPS	Remove existing yard light and replace
E				Remove existing 1000W Qtz on caffeteria wall above roof. Remove circuit and conduit to panel.
S-1	McGraw Edison	CAL 400 HPS MT 3F	1 - 400 HPS	Mount on 25' sq steel pole
S-2	McGraw Edison	CAL 250 HPS MT 3F	1 - 250 HPS	Mount on 25' sq steel pole
S-3	McGraw Edison	CAL 250 HPS MT 2F	1 - 250 HPS	Mount on 25' sq steel pole
X-1	Sure Lites	LPX 7R WH	Included	Remove existing and replace
X-2	Sure Lites	LPX 7R WH	Included	New exit light
				Exit lights shall be connected ahead of an
				unswitched local lighting circuit

PREPARED FOR:

Hudson Area Schools

DAILEY ENGINEERING, INC.
8485 STEPHENSON ROAD
ONSTED, MI 49265
PH. # (517) 467-9000
FAX # (517) 467-9010
EMAIL - todddailey@me.com

HUDSON AREA SCHOOLS
LINCOLN ELEMENTARY SCHOOL
746 NORTH MAPLE GROVE AVENUE
HUDSON, MICHIGAN 49247

DRAWN BY: M. FOWLER | CHK'D. BY: TA DAILEY | APP'D. BY:

ELECTRICAL SCHEDULES & DETAILS

DATE: 03/09/2012 | REV.: 0 | DRAWING NO. **100-E3.3**
SCALE: AS SHOWN

MURDOCK TRAIL

TRAFFIC DATA

POSTED SPEED N/A
DESIGN SPEED 20 MPH

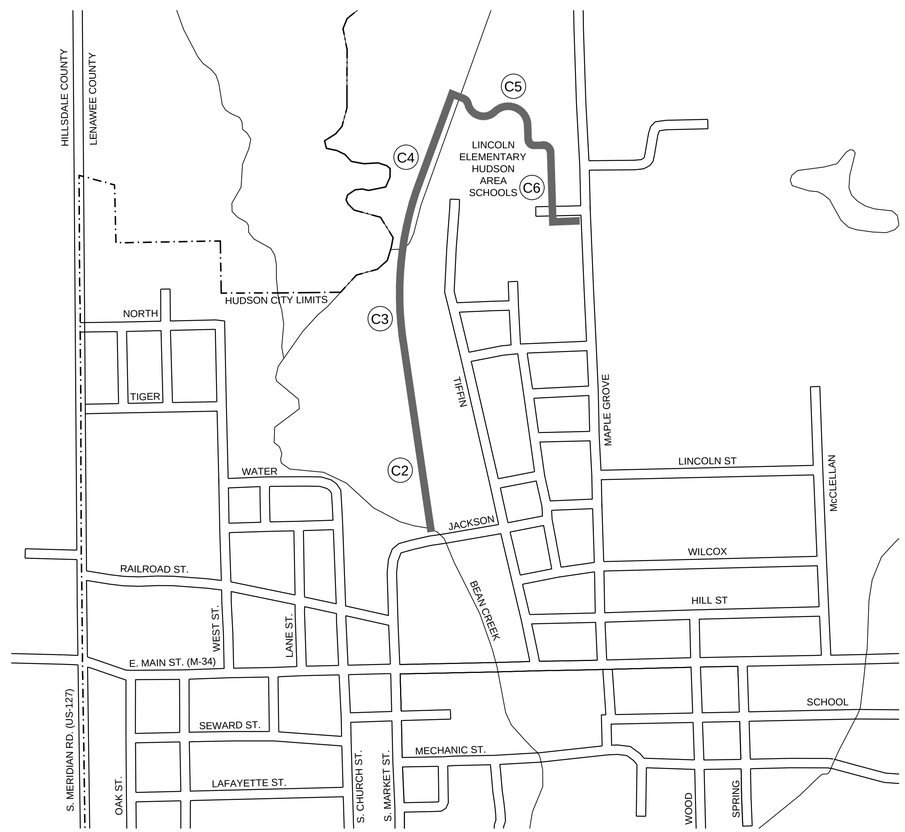
CITY OF HUDSON
LENAWEE COUNTY, MICHIGAN
IN COOPERATION WITH
MICHIGAN DEPARTMENT OF TRANSPORTATION AND THE FEDERAL HIGHWAY ADMINISTRATION
PLANS OF PROPOSED
MURDOCK TRAIL

CONTROL SECTION:	
JOB NUMBER:	
FEDERAL PROJECT NUMBER:	
FEDERAL ITEM NUMBER:	

VICINITY MAP

NOTES:

1. THE IMPROVEMENTS COVERED BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND SUPPLEMENTAL SPECIFICATIONS.
2. THE PLANS ARE DESIGNED IN ACCORDANCE WITH THE 1999 EDITION - "GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES".
3. THE PLACING OF PAVEMENT MARKINGS AND TRAFFIC CONTROL SIGNS SHALL BE DONE IN ACCORDANCE WITH THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, 2011 EDITION.



PROJECT LOCATION

C2 SHEET NUMBER

LOCATION MAP

NORTH

INDEX OF DRAWINGS

SHEET NO.	DESCRIPTION
CS	TITLE SHEET
C1	NOTES & LEGEND / TYPICAL CROSS SECTIONS
C2	PLAN & PROFILE - MURDOCK TRAIL STA 10+00 (P.O.B) TO 21+00
C3	PLAN & PROFILE - MURDOCK TRAIL STA 21+00 TO 32+00
C4	PLAN & PROFILE - MURDOCK TRAIL STA 32+00 TO 42+10
C5	PLAN & PROFILE - MURDOCK TRAIL STA 50+05 TO 58+00
C6	PLAN & PROFILE - MURDOCK TRAIL STA 58+00 TO 65+59
C7a	TRAIL CROSS SECTIONS
C7b	TRAIL CROSS SECTIONS
C8	SITE DETAILS

PROJECT LENGTH: 0.91 MILES

CONTRACT FOR: SHARED USE PATH, HMA PAVING, STORM SEWER, AND TRAIL APPURTENANCES.

CITY OF HUDSON APPROVAL

STEVE HARTSEL
CITY MANAGER

DATE

THESE PLANS WERE PREPARED FOR
THE CITY OF HUDSON BY:

FLEIS & VANDENBRINK ENGINEERING, INC.
4798 Campus Drive, Kalamazoo, MI 49008
P: 269.385.0011 F: 269.382.6972

CRAIG L. SHUMAKER P.E.
FLEIS & VANDENBRINK ENGINEERING, INC.
REGISTERED PROFESSIONAL ENGINEER 40113

DATE

BEFORE YOU DIG
CALL MISS DIG
CALL 3 FULL WORKING DAYS:
811
1-800-482-7171

809520 cs
korim 121911

CONTROL SECTION	JOB NUMBER
PROJECT NUMBER	FEDERAL ITEM NUMBER

PROJECT 809520

CS

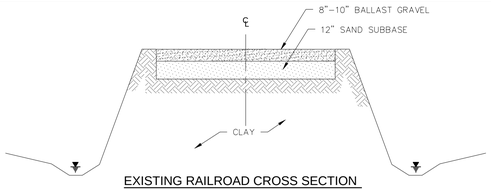
SHEET NO.

CITY OF HUDSON

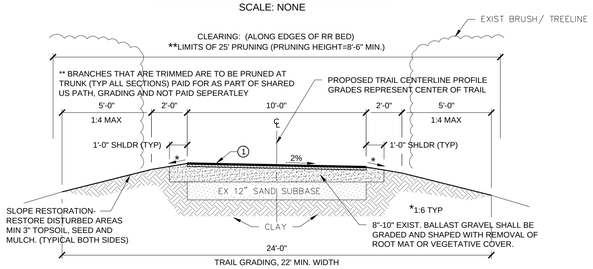
MURDOCK TRAIL

809520

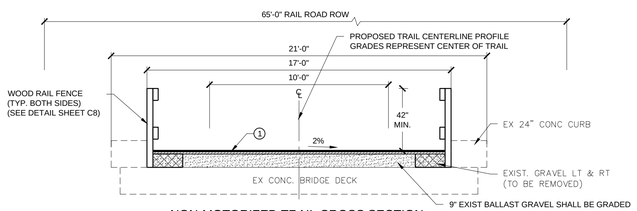
CONTROL SECTION -
JOB NUMBER -



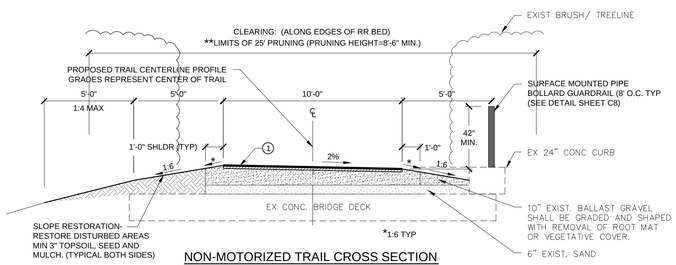
EXISTING RAILROAD CROSS SECTION
SCALE: NONE



NON-MOTORIZED TRAIL CROSS SECTION
STA 10+13 (POB) TO STA 10+55
STA 11+25 TO STA 25+95
STA 26+85 TO STA 27+35
STA 27+65 TO STA 28+50
STA 29+50 TO STA 42+00
SCALE: NONE

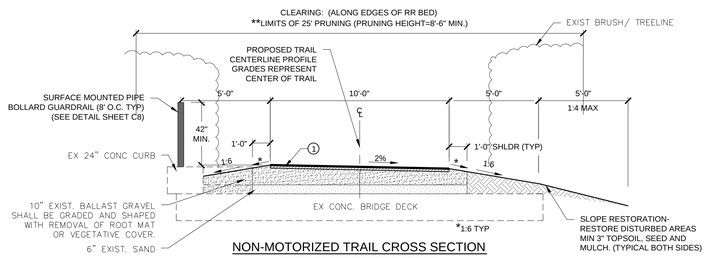


NON-MOTORIZED TRAIL CROSS SECTION
STA 10+55 TO STA 11+25
SCALE: NONE



NON-MOTORIZED TRAIL CROSS SECTION
STA 25+95 TO STA 26+85
SCALE: NONE

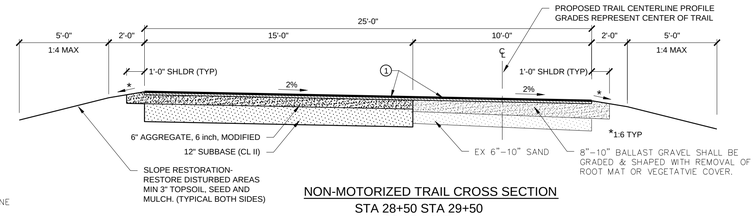
** BRANCHES THAT ARE TRIMMED ARE TO BE PRUNED AT TRUNK (TYP ALL SECTIONS) PAID FOR AS PART OF SHARED US PATH, GRADING AND NOT PAID SEPERATLEY



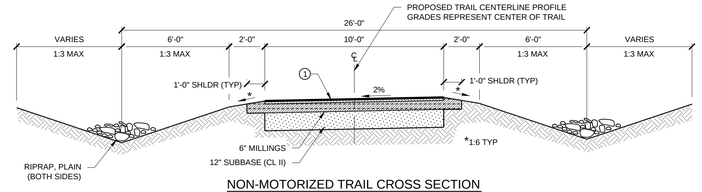
NON-MOTORIZED TRAIL CROSS SECTION
STA 27+35 TO STA 27+65
SCALE: NONE

** BRANCHES THAT ARE TRIMMED ARE TO BE PRUNED AT TRUNK (TYP ALL SECTIONS) PAID FOR AS PART OF SHARED US PATH, GRADING AND NOT PAID SEPERATLEY

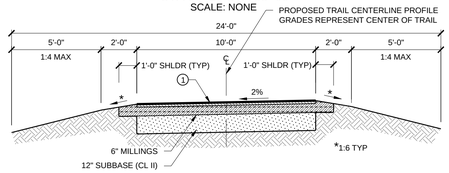
HMA APPLICATION TABLE						
COURSE	TYPE	ITEM	EST. YIELD	BINDER GRADE	AWI	REMARKS
1	SHARED USE PATH	HMA, LVSP	220 LBS/SYD	PG 58-28	-	



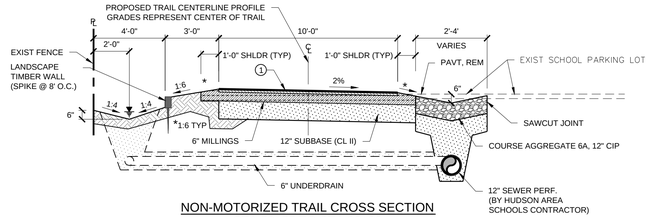
NON-MOTORIZED TRAIL CROSS SECTION
STA 28+50 STA 29+50
SCALE: NONE



NON-MOTORIZED TRAIL CROSS SECTION
STA 50+20 STA 53+00
SCALE: NONE



NON-MOTORIZED TRAIL CROSS SECTION
STA 53+00 STA 58+55
STA 60+00 TO STA 65+59 (POE)
SCALE: NONE



NON-MOTORIZED TRAIL CROSS SECTION
STA 58+55 TO STA 60+00
SCALE: NONE

LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	TREE (DECIDUOUS)		CABLE BOX		TEMP. SURVEY POINT
	BUSH		TELEPHONE RISER	BM#	BENCHMARK
	TREE (CONIFEROUS)		TELEPHONE MANHOLE		SECTION CORNER
	DEAD TREE		ELECTRICAL RISER		PROPERTY LINE
	STUMP		ELECTRICAL MANHOLE		WATERMAIN
	MANHOLE		POWER POLE		SANITARY SEWER
	SANITARY CLEANOUT		LIGHT POLE		STORM SEWER
	RD. CATCH BASIN		GUY POLE	CATV	CABLE T.V.
	SQ. CATCH BASIN		GUY ANCHOR	T	TELEPHONE
	FIRE HYDRANT		RAILROAD	E	ELECTRIC
	WATER VALVE		YARD LIGHT	G	GAS
	CURB STOP & BOX		SIGN	OH	OVERHEAD LINES
	WELL		MAILBOX	X	FENCE
	WATER MANHOLE		GUARD POST		WOODLINE
	WATER METER		FOUND CONC. MONUMENT		CULVERT (UNDER 10")
SB–#	SOIL BORING		FOUND IRON ROD		CULVERT (10" AND UP)
	MONITORING WELL		SET IRON ROD		

NOTE: ALL ITEMS LISTED ON THE LEGEND MAY NOT BE PRESENT ON DRAWING.

STANDARD PLANS

CONSTRUCTION OF THE FOLLOWING ITEMS WHERE CALLED FOR ON THE PLANS, WILL BE CONSTRUCTED ACCORDING TO THE MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD PLANS UNLESS OTHERWISE INDICATED.

ITEM OF WORK TRAIL PLANS	M.D.O.T. STANDARD PLAN NO.
DRAINAGE STRUCTURES	R-1-E
COVER B	R-7-E
COVER E	R-10-C
COVER G	R-12-D
DRIVEWAY OPENINGS & APPROACHES AND CONCRETE SIDEWALKS	R-29-H*
GRANULAR BLANKET, UNDERDRAINS, OUTLET ENDINGS FOR UNDERDRAINS, AND SEWER BULKHEADS	R-80-D
UTILITY TRENCHES	R-83-B
OUTLET HEADWALLS	R-85-D
PRECAST CONCRETE END SECTION FOR PIPE CULVERT	R-86-D
SOIL EROSION & SEDIMENTATION CONTROL MEASURES	R-96-E

*DENOTES SPECIAL DETAIL INCLUDED IN PLANS

TRAFFIC AND SAFETY SPECIAL DETAILS

GROUND DRIVEN SIGN SUPPORTS FOR TEMP SIGNS	WZD-100-A
TEMPORARY TRAFFIC CONTROL DEVICES	WZD-125-E

CONSTRUCTION NOTES

SOIL EROSION CONTROL MEASURES
TO PROTECT SLOPES AND DITCHES, SOD OR SEED / MULCH SHOULD BE PLACED AS SOON AS POSSIBLE. TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE UTILIZED DURING CONSTRUCTION IN ACCORDANCE WITH THE MDOT STANDARD PLANS.

PLAN ELEVATIONS
ELEVATIONS SHOWN IN THESE PLANS ARE BASED ON USGS DATUM.

UNDERGROUND UTILITIES
FOR PROTECTION OF UNDERGROUND UTILITIES, THE CONTRACTOR SHALL DIAL 1-800-482-7171 A MINIMUM OF THREE WORKING DAYS EXCLUDING SATURDAYS, SUNDAYS & HOLIDAYS PRIOR TO EXCAVATING IN THE VICINITY OF UTILITY LINES. ALL "MISS DIG" PARTICIPATING MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING THE UTILITY OWNERS WHO MAY NOT BE PART OF THE "MISS DIG" ALERT SYSTEM.

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

PUBLIC UTILITIES
THE EXISTING UTILITIES LISTED BELOW AND SHOWN ON THESE PLANS REPRESENT THE BEST INFORMATION AVAILABLE. THIS INFORMATION DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO SATISFY HIMSELF AS TO THEIR ACCURACY OR OF HIS RESPONSIBILITY IN CASE UTILITIES HAVE BEEN CONSTRUCTED OR REMOVED.

GAS	MICHIGAN GAS UTILITIES CORPORATION 899 TELEGRAPH ROAD MONROE, MI 48161 P 734.457.6125 ATTN: RHONDA McCORMICK remccormick@mcihigangasutilities.com	ELECTRIC	CONSUMERS ENERGY ONE ENERGY PLAZA JACKSON, MI49201 P 269.969.8644 ATTN: KYLE SWARTZ
CABLE TELEVISION	COMCAST 965 CENTURY AVENUE, S.W. GRAND RAPIDS, MI 49503 P 517.938.8240 ATTN: JIM NEWBY	TELEPHONE	FRONTIER 340 S. MAIN STREET ADRIAN, MI 49221 P 517.265.0648 ATTN: MARK SPINA mark.spina@ftr.com
WATER/SEWER	CITY OF HUDSON 40 JACKSON ST. HUDSON, MI 49247 P 517.448.6101 ATTN: PHIL GOODLOCK	FIBER OPTIC	D& P COMMUNICATIONS 124 TECUMSEH STREET DUNDEE, MI 49220 P 734.279.1339 X152 ATTN: JAMES PLOTTS james.plotts@d-pcomm.com

NOTICE TO RESIDENTS
THE CONTRACTOR SHALL NOTIFY RESIDENTS 24 HOURS IN ADVANCE OF DISRUPTION OF ANY UTILITY SERVICES.

STRUCTURE COVERS
DRAINAGE STRUCTURE — COVER E, AND G.

DRIVEWAYS
CONTRACTOR SHALL MAINTAIN ACCESS TO DRIVEWAYS DURING CONSTRUCTION WITH 22A AGGREGATE OR BITUMINOUS MILLINGS; INCLUDED IN MINOR TRAF DEVICES PAY ITEM.

SURFACE RESTORATION
INCLUDED WITHIN SHARED US PATH, HMA.

TREES/ PRUNING/ CLEARING
BRANCHES THAT ARE TRIMMED ARE TO BE PRUNED AT TRUNK (TYP. ALL SECTIONS) PRUNING OF TREES SHALL BE PAID FOR AS PART OF SHARED USE PATH, GRADING AND NOT PAID FOR SEPARATELY. TREE AND STUMP REMOVAL ALONG EDGES OF RAILROAD BED AND NOT WITHIN "EXCAVATION, EARTH" AREAS WILL BE PAID FOR AS "CLEARING".

RIGHT-OF-WAY
ALL ACCESS TO WORK ALONG THE RIGHT-OF-WAY SHALL BE ALONG PROPOSED BICYCLE PATH ROUTE WITH ENTRANCES AT JACKSON ST. AND MAPLE GROVE ST. CONTRACTOR MAY COORDINATE WITH HUDSON AREA SCHOOLS FOR POSSIBLE ACCESS OFF THE END OF TIFFEN STREET AS A TEMPORARY HAUL ROUTE.

MISCELLANEOUS QUANTITIES			
QUANTITY	UNIT	ITEM CODE	DESCRIPTION
1	LS	1500001	Mobilization, Max. 5%
1	LS	8120170	Minor Traf Devices

FLEIS & VANDENBRINK ENGINEERING, INC.
4798 Campus Drive, Kalamazoo, MI 49008
P: 269.385.0011
F: 269.382.6972

NO.	REVISIONS	BY	DATE

REVISED IN ACCORDANCE WITH CONSTRUCTION RECORDS

CITY OF HUDSON
LENAWEE COUNTY, MICHIGAN
MURDOCK TRAIL

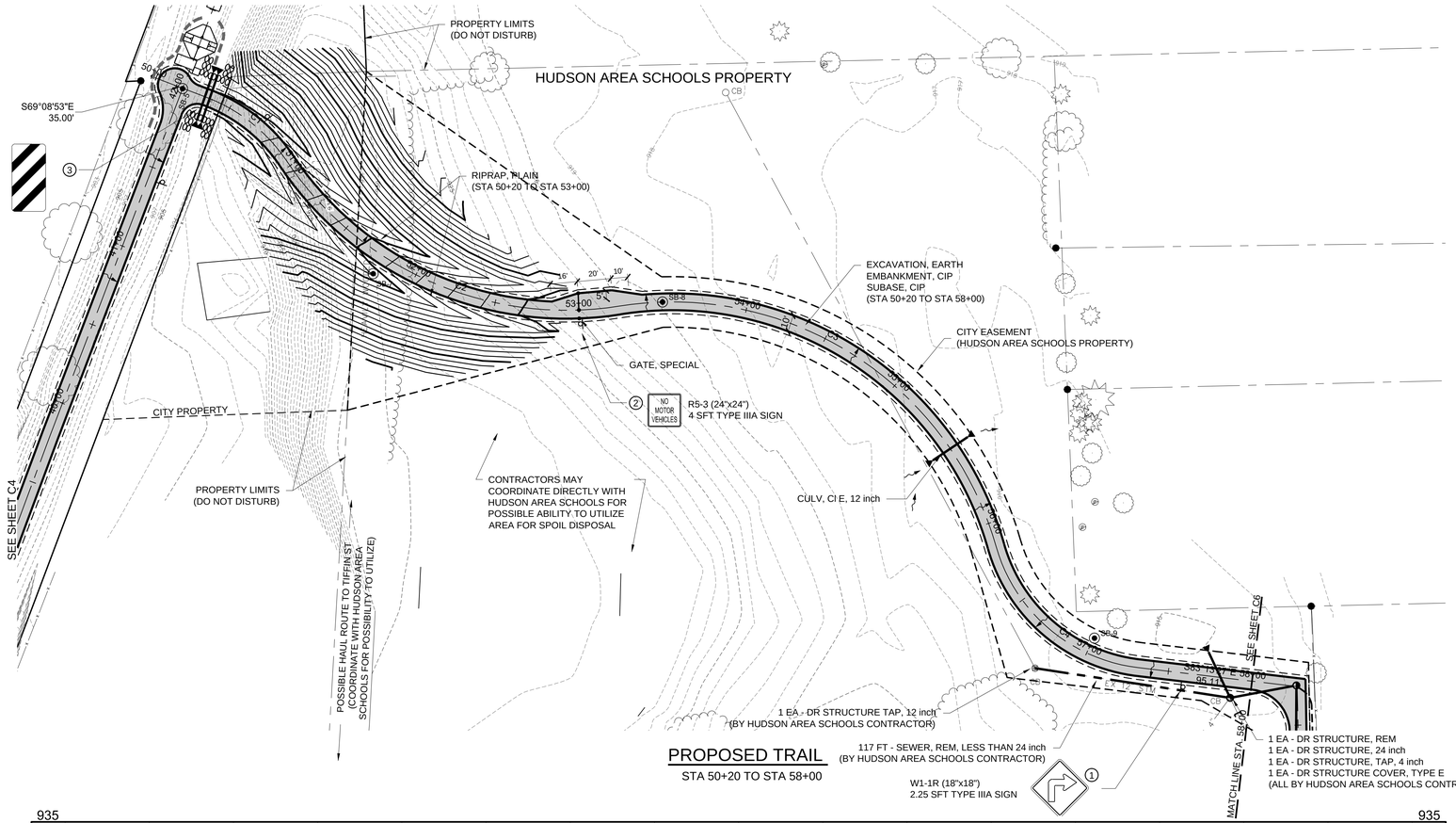
NOTES & LEGEND / TYPICAL CROSS SECTIONS

PROJECT MGR. CLS	DATE 01/12
DRAWN BY RCG	DATE 01/12
ENGINEER CLS	DATE 01/12
CAD FILE 809520 C1	2010
EDIT korim 022112	
SCALE	AS NOTED
DRAWING	

PROJECT 809520

C1

SHEET NO.



PROPOSED TRAIL

STA 50+20 TO STA 58+00

NORTH

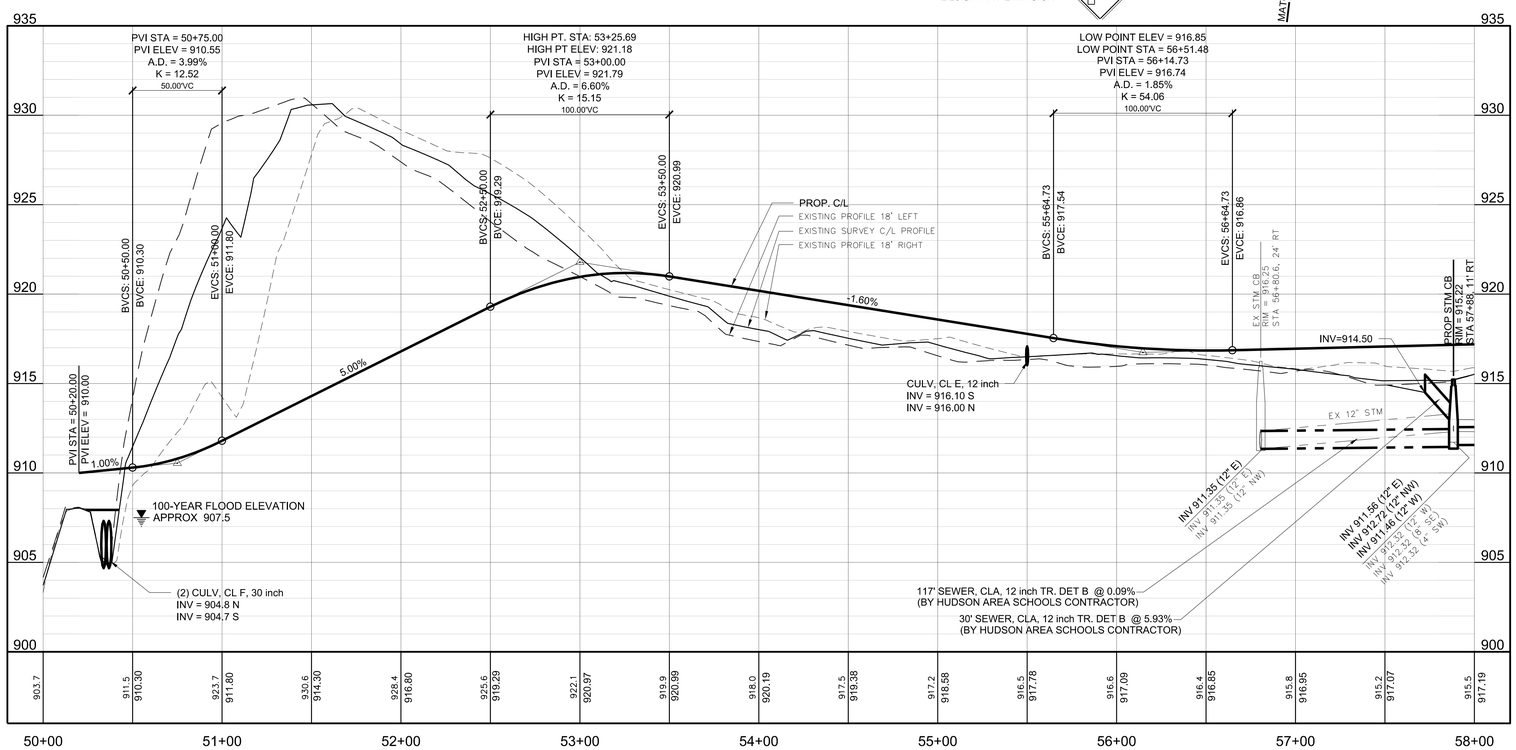
0 40 80
SCALE IN FEET

CONSTRUCTION SIGNING					
SIGN	TYPE	SIZE	SIGN AREA (SFT)	NUMBER	TOTAL AREA (SFT)
1	W1-1R	18"x18"	2.25	1	2.25
2	R5-3	24"x24"	4.00	1	4.00
3		12"X24"	2.00	4	8.00
				TOTAL:	14.25

Curve Table					
Curve #	Radius	Length	Chord Direction	Chord Length	Delta
C1	100.000	61.614	S51° 29' 49"E	60.64	35°18'08"
C2	200.000	227.580	S66° 26' 39"E	215.50	65°11'49"
C3	200.000	290.241	S57° 28' 07"E	265.43	83°08'53"
C4	100.000	117.512	S49° 33' 34"E	110.87	67°19'47"

LEGEND

- EROSION CONTROL, SILT FENCE
- AGGREGATE BASE, 6 inch, MODIFIED
- SHARED USE PATH, HMA
- DRAINAGE FLOW DIRECTION
- RIPRAP, HEAVY



MISCELLANEOUS QUANTITIES (THIS SHEET)			
QUANTITY	UNIT	ITEM CODE	DESCRIPTION
500	Cyd	2050010	Embankment, CIP
6600	Cyd	2050016	Excavation, Earth
150	Cyd	3010002	Subbase, CIP
885	Syd	3027011	Aggregate Base, 6 inch, Modified
25	Ft	4010539	Culv, CI E, 12 inch
115	Ton	8060040	Shared use Path, HMA
1	Ea	8087050	Gate, Special
14.25	Sft	8100404	Sign, Type IIIA
60	Ft	8100371	Post, Steel, 3 lb
200	Syd	8130010	Riprap, Plain

HUDSON AREA SCHOOLS CONTRACTOR MISCELLANEOUS QUANTITIES (THIS SHEET)			
QUANTITY	UNIT	ITEM CODE	DESCRIPTION
1	Ea	2030011	Dr Structure, Rem
117	Ft	2030015	Sewer, Rem, Less than 24 inch
147	Ft	4020004	Sewer, Cl A, 12 inch, Tr Det A
1	Ea	4030035	Dr Structure Cover, Type E
1	Ea	4030200	Dr Structure, 24 inch DIA
1	Ea	4030304	Dr Structure, Tap, 4 inch
1	Ea	4030312	Dr Structure, Tap, 12 inch

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NO	REVISIONS	BY	DATE

REVISED IN ACCORDANCE WITH CONSTRUCTION RECORDS

CITY OF HUDSON
LENAWEE COUNTY, MICHIGAN
MURDOCK TRAIL

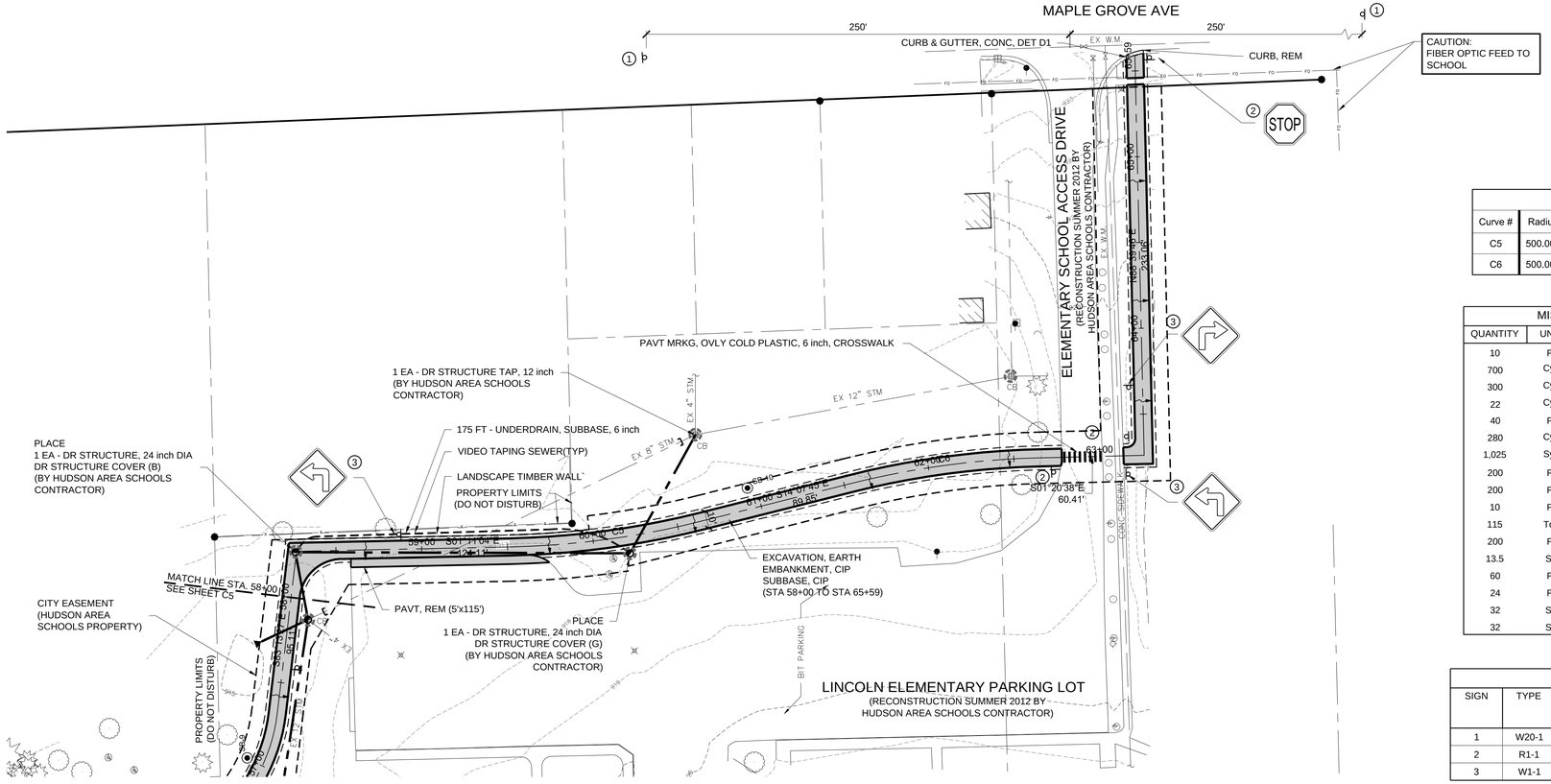
PLAN AND PROFILE

PROJECT MGR. CLS	DATE 01/12
DRAWN BY RCG	DATE 01/12
ENGINEER CLS	DATE 01/12
CAD FILE 809520 C5	2010
EDIT korim 022812	
SCALE	1"=40'
DRAWING	

PROJECT 809520

C5

SHEET NO.



NORTH

0 40 80
SCALE IN FEET

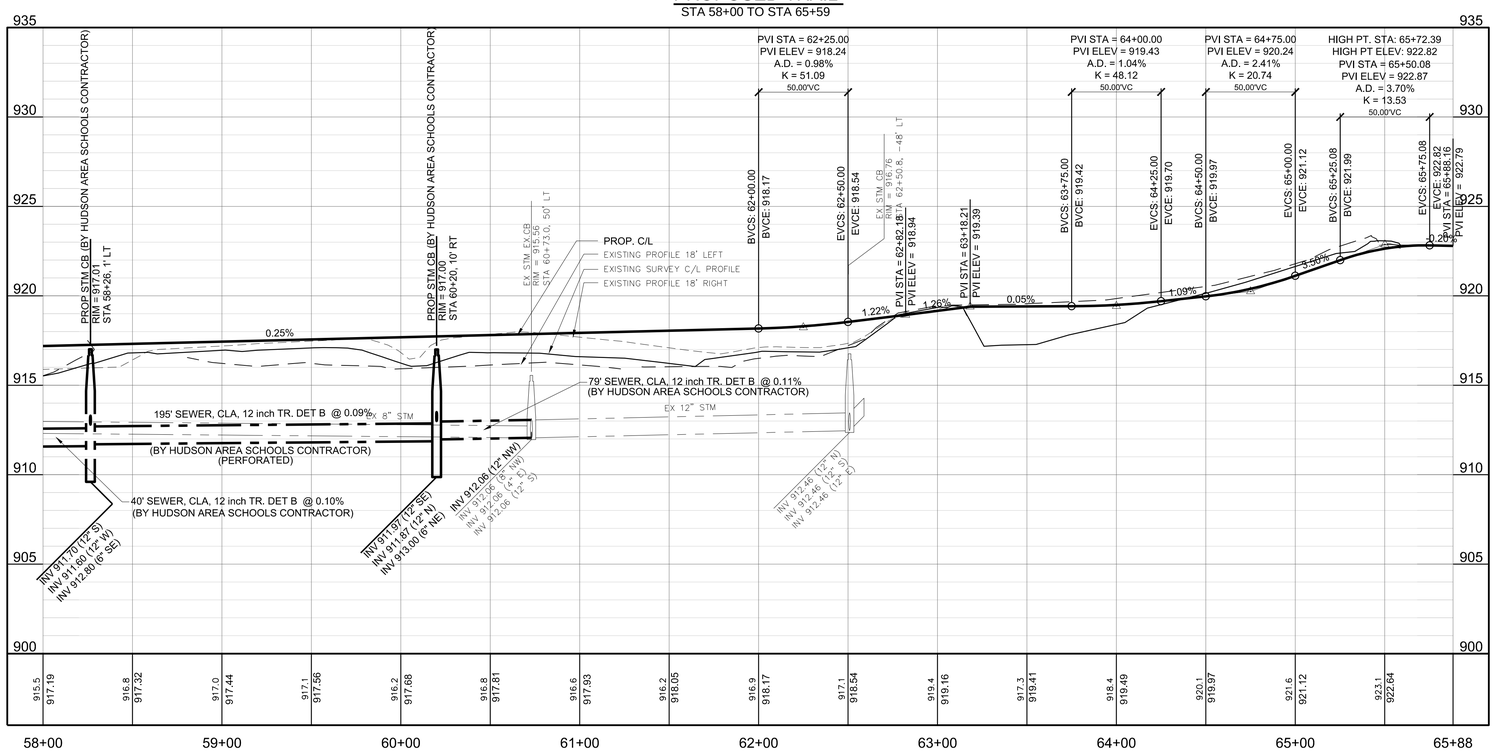
Curve Table					
Curve #	Radius	Length	Chord Direction	Chord Length	Delta
C5	500.000	112.962	S07° 39' 25"E	112.72	12°56'40"
C6	500.000	111.571	S07° 44' 12"E	111.34	12°47'06"

MISCELLANEOUS QUANTITIES (THIS SHEET)			
QUANTITY	UNIT	ITEM CODE	DESCRIPTION
10	Ft	2040021	Curb, Rem
700	Cyd	2050010	Embankment, CIP
300	Cyd	2050016	Excavation, Earth
22	Cyd	2060001	Aggregate, 6A
40	Ft	2080036	Erosion Control, Silt Fence
280	Cyd	3010002	Subbase, CIP
1,025	Syd	3027011	Aggregate Base, 6 inch, Modified
200	Ft	4021275	Video Taping Sewer & Culvert Pipe
200	Ft	4040003	Underdrain, Bank, 6 inch
10	Ft	8020030	Curb and Gutter, Conc, Det D1
115	Ton	8060040	Shared use Path, HMA
200	Ft	8087001	Landscape Timber Wall
13.5	Sft	8100404	Sign, Type IIIA
60	Ft	8100371	Post, Steel, 3 lb
24	Ft	8110024	Pavt Mrkg, Ovly Cold Plastic, 6 inch, Crosswalk
32	Sft	8120350	Sign, Type B, Temp, Prismatic, Furn
32	Sft	8120351	Sign, Type B, Temp, Prismatic, Oper

SIGNAGE					
SIGN	TYPE	SIZE	SIGN AREA (SFT)	NUMBER	TOTAL AREA (SFT)
1	W20-1	48"x48"	16.0	2	32.0
2	R1-1	18"x18"	2.25	3	6.75
3	W1-1	18"x18"	2.25	3	6.75
				TOTAL:	45.50

PROPOSED TRAIL

STA 58+00 TO STA 65+59



LEGEND

- EROSION CONTROL, SILT FENCE
- AGGREGATE BASE, 6 inch, MODIFIED
- SHARED USE PATH, HMA
- DRAINAGE FLOW DIRECTION

1. ROAD WORK AHEAD — W20-1 (48"x48")
   16 SFT TYPE IIIA SIGN
2. STOP — R1-1 (18"x18")
   2.25 SFT TYPE IIIA SIGN
3. W1-1L (18"x18")
   2.25 SFT TYPE IIIA SIGN
   W1-1R (18"x18")
   2.25 SFT TYPE IIIA SIGN

HUDSON AREA SCHOOLS CONTRACTOR MISCELLANEOUS QUANTITIES (THIS SHEET)			
QUANTITY	UNIT	ITEM CODE	DESCRIPTION
314	Ft	4020004	Sewer, Cl A, 12 inch, Tr Det A
2	Ea	4030200	Dr Structure, 24 inch dia
1	Ea	4030312	Dr Structure, Tap, 12 inch
1	Ea	4030010	Dr Structure Cover, Type B
1	Ea	4030040	Dr Structure Cover, Type G

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PLAN AND PROFILE

PROJECT MGR. CLS	DATE 01/12
DRAWN BY RCG	DATE 01/12
ENGINEER CLS	DATE 01/12
CAD FILE 809520 C6 2010	
EDIT rickg 030112	
SCALE 1"=40'	
DRAWING	

PROJECT 809520

C6

SHEET NO.