

Hickory Woods Park (Phase 1b)

MNRTF NO. TF09-013

Date Issued: February 22, 2011

Issued for: Bid Documents

5415 Crane Road, Ypsilanti, Michigan 48197

OWNER

Pittsfield Charter Township
6201 W. Michigan Avenue
Ann Arbor, Michigan 48108
(734) 822.3101

PITTSFIELD TOWNSHIP PARK COMMISSION

Members:

Cleveland Chandler, Chairperson
Theresa Tupacz, Vice Chair
Patricia Stanton-Kawalec, Secretary
Deborah Lennington
Karen Zera

PITTSFIELD TOWNSHIP PARKS AND RECREATION

Dan Cooperrider, Director
(734) 822.2120

SURVEYOR

Midwestern Consulting
3815 Plaza Drive
Ann Arbor, MI 48108
t 734.995.0200
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BENCH MARKS

1. RAILROAD SPIKE IN W. SIDE OF 35" OAK (#1001) LOCATED AT THE N.W. PROPERTY CORNER.
ELEV.=819.47 NAVD 88
 2. RAILROAD SPIKE IN E. SIDE OF UTILITY POLE LOCATED ON THE E. SIDE OF CART SHACK.
ELEV.=829.18 NAVD 88
 3. RAILROAD SPIKE IN E. SIDE OF 20" SHAGBARK HICKORY (#1050). LOCATED IN MIDDLE OF SITE, W. OF HIGH TENSION LINE.
ELEV.=821.15 NAVD 88
 4. P.K. NAIL IN E. SIDE OF UTILITY POLE LOCATED 60'± N. OF N.E. PROPERTY CORNER.
ELEV.=799.41 NAVD 88
 5. RAILROAD SPIKE IN E. SIDE OF UTILITY POLE LOCATED IN THE CENTER OF GOLF COURSE, 550'± W. OF MUNGER ROAD.
ELEV.=819.24 NAVD 88
 6. T/BOLT WITH RIBBON ON N.W. SIDE OF TOWER LEG TO HIGH TENSION POWER LINE AT N. PROPERTY LINE.
ELEV.=821.50 NAVD 88
- 7.) COORDINATES SHOWN ARE BASED ON LOCAL COORDINATE SYSTEM. UTILIZE THE FOLLOWING INFORMATION FOR CONVERSION TO STATE PLANE COORDINATE SYSTEM:

CENTER SECTION 24 NORTH 1636.96' EAST 1915.47'	E ¼ CORNER SECTION 24 NORTH 1582.20' EAST 4572.67'
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MICHIGAN STATE PLANE COORDINATES (NAD 83 SOUTH ZONE)

CENTER SECTION 24 NORTH 258,979.60' EAST 13,312,157.84'	E ¼ CORNER SECTION 24 NORTH 258,979.11' EAST 13,314,815.61'
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LEGAL DESCRIPTION

LEGAL DESCRIPTION OF A 46.60 ACRE PARCEL OF LAND LOCATED IN THE NE 1/4 OF SECTION 24, T3S, R6E, PITTSFIELD TOWNSHIP, WASHTENAW COUNTY, MICHIGAN

Beginning at the Center of Section 24, T3S, R6E, Pittsfield Township, Washtenaw County, Michigan; thence Northerly 313.98 feet along the North and South 1/4 line of said Section 24 and the centerline of Crane Road; thence Easterly deflecting 91°42' to the right 102.0 feet; thence Northerly deflecting 91°42' to the left 18.0 feet; thence Easterly deflecting 91°42' to the right 198.0 feet; thence Northerly deflecting 91°42' to the left 488.15 feet parallel with the North and South 1/4 line of said Section 24; thence Easterly deflecting 91°34' to the right 2359.80 feet along the North line of the South 50 acres of the Northeast 1/4 of said Section 24 and parallel with the East and West 1/4 line of said Section 24; thence Southerly deflecting 88°35'30" to the right 819.46 feet along the East line of said Section 24 and the centerline of Munger Road; thence Westerly deflecting 91°24'30" to the right 2657.53 feet along the East and West 1/4 line of said Section 24 to the Point of Beginning, being part of the Northeast 1/4 of said Section 24, T3S, R6E, Washtenaw County, Michigan.

Being more particularly described as (Survey):

Beginning at the Center of Section 24, T3S, R6E, Pittsfield Township, Washtenaw County, Michigan;

thence N 00°22'43" W 313.98 feet along the N-S 1/4 line of said Section 24 and the centerline of Crane Road (66 feet wide);
thence S 88°49'10" E 102.00 feet;
thence N 00°22'43" W 18.00 feet;
thence S 88°49'10" E 198.08 feet;
thence N 00°22'43" W 487.52 feet;
thence S 88°49'04" E 2359.80 feet along the South line of Hickory Pointe Subdivision No. 3 as recorded in Liber 32 of Plats, Pages 91-98, Washtenaw County Records and along the South line of Hickory Pointe Subdivision No. 4 as recorded in Liber 34 of Plats, Pages 76-80, Washtenaw County Records;
thence S 00°13'52" E 819.37 feet along the East line of said Section 24 and the centerline of Munger Road (66 feet wide) to the E 1/4 Corner of said Section 24;
thence N 88°49'10" W 2657.77 feet along the E-W 1/4 line of said Section 24 and the North line of Ashford Village No. 5 Subdivision as recorded in Liber 31 of Plats, Pages 1-8, Washtenaw County Records to the POINT OF BEGINNING. Being a part of the NE 1/4 of Section 24, T3S, R6E, Pittsfield Township, Washtenaw County, Michigan, and containing 46.60 acres of land, more or less. Being subject to the rights of the public over the Westerly 33.00 feet of Munger Road and the Easterly 33.00 feet of Crane Road and being subject to other easements and restrictions of record, if any.

Together with an easement for water line and underground electric cable over the following described property: Commencing at the Center of Section 24, T3S, R6E, Pittsfield Township, Washtenaw County, Michigan; thence Northerly 331.98 feet along the N-S 1/4 line of said Section 24 and the centerline of Crane Road; thence Easterly deflecting 91°42' to the right 142.0 feet for a Point of Beginning; thence Northerly deflecting 91°42' to the left 10.0 feet; thence Easterly deflecting 91°42' to the right 158.0 feet; thence Southerly deflecting 88°18' to the right 10.0 feet parallel with the N-S 1/4 line of said Section 24; thence Westerly deflecting 91°42' to the right 158.0 feet to the Point of Beginning, being a part of the NE 1/4 of said Section 24, T3S, R6E, Pittsfield Township, Washtenaw County, Michigan.

Being subject to:

Conservation Easement, as recorded in Liber 4637, Page 274, Washtenaw County Records.

Rights of the public or any governmental unit in any part of subject property taken, deeded, or used for street, road, or highway purposes.
Easement in favor of The Detroit Edison Company, as recorded in Liber 598, Page 169, Washtenaw County Records.

Grant in favor of The Detroit Edison Company, as recorded in Liber 1 of Grants, Page 298, Washtenaw County Records.

Subject to underground drain as recorded in Liber 1567, Page 12, Washtenaw County Records.(for benefit of home at 5281 Crane Road)

Terms, conditions, and provisions regarding land division and farming rights contained in the instrument recorded in Liber 4637, Page 275, Washtenaw County Records.

NOTES:

- 1.) BEARINGS ARE BASED ON ASHFORD VILLAGE NO. 5 SUBDIVISION AS RECORDED IN LIBER 31 OF PLATS, PGS. 1-6, WASHTENAW COUNTY RECORDS.
- 2.) LEGAL DESCRIPTION TAKEN FROM ABSOLUTE TITLE COMPANY FILE NO. 62635, DATED JANUARY 5, 2009.

SHEET INDEX

Sheet #	Sheet Name
S-01	Cover Sheet
S-02	Overall Existing Conditions Plan
S-03	Overall Site Plan
S-04	Existing Conditions and Demolition Plan - West
S-05	Existing Conditions and Demolition Plan - East
S-06	Existing Tree Inventory
S-07	Layout & Materials Plan - West
S-08	Layout & Materials Plan - East
S-09	SESC Plan - West
S-10	SESC Plan - East
S-11	Grading & Utilities Plan - West
S-12	Grading & Utilities Plan - East
S-13	Road and Path Plan & Profiles
S-14	Path Plan & Profile
S-15	Stormwater Management Plan
S-16	Pond Cross-Sections
S-16a	Storm Sewer Plan & Profile
S-17	Sanitary & Water Plan & Profiles
S-18	Storm System Calculations
S-19	Landscape Plan - West
S-20	Landscape Plan - East
S-21	Right-of-Way Enlargement
S-22	Right-of-Way Details
S-23	Site Details
S-24	Planting Notes & Details
S-25	Parking & Restroom Building Enlargements
S-26	Fire Protection Plan

S-27	Standard Soil Erosion Control Notes & Details
S-28	Standard Earthwork Specifications
S-29	Standard Storm Sewer Details & Specifications
S-30	Standard Sanitary Sewer Details
S-31	Standard Sanitary Sewer Specifications
S-32	Standard Water Main Details
S-33	Standard Water Main Specifications
A-1.0	Restroom Building Floor Plans & Schedules
A-2.0	Restroom Building Foundation Plan
	Restroom Building Reflected Ceiling Plan
	Restroom Building Roof Framing Plan
	Restroom Building Roof Plan
A-3.0	Restroom Building Exterior Elevations & Building Section
A-4.0	Restroom Building Wall Sections & Details
A-5.0	Restroom Building Interior Elevations & Details
M-0.1	Mechanical Sheet Index, Abbreviation List, and Symbol List
M-1.1	Underground Plumbing Floor Plan and Plumbing Floor Plan
M-2.1	Mechanical HVAC Floor Plan
M-3.1	Mechanical Details and Schedules
E-1.0	Symbol List, Lighting Fixture Schedule and One Line Diagram
E-1.1	Electrical Site Plan
E-2.1	Electrical Plans
E-3.1	Electrical Details and Diagrams

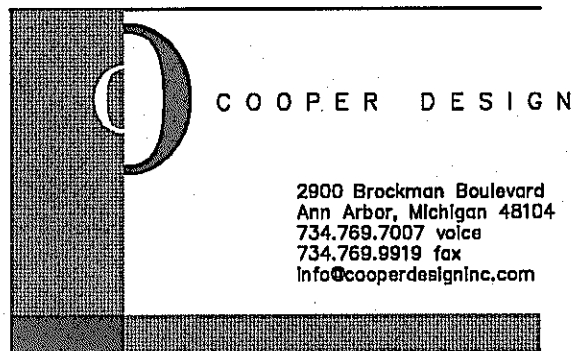
Seal

Landscape Architect / Engineer

B R
Beckett & Raeder
Landscape Architecture
Planning & Engineering

Beckett & Raeder, Inc.
555 West William, Suite 101
Ann Arbor, MI 48103
734.663.2622 ph
734.663.6759 fx

Architect



2900 Broekman Boulevard
Ann Arbor, Michigan 48104
734.769.7007 voice
734.769.9919 fax
info@cooperdesigninc.com

Mechanical / Electrical Engineer



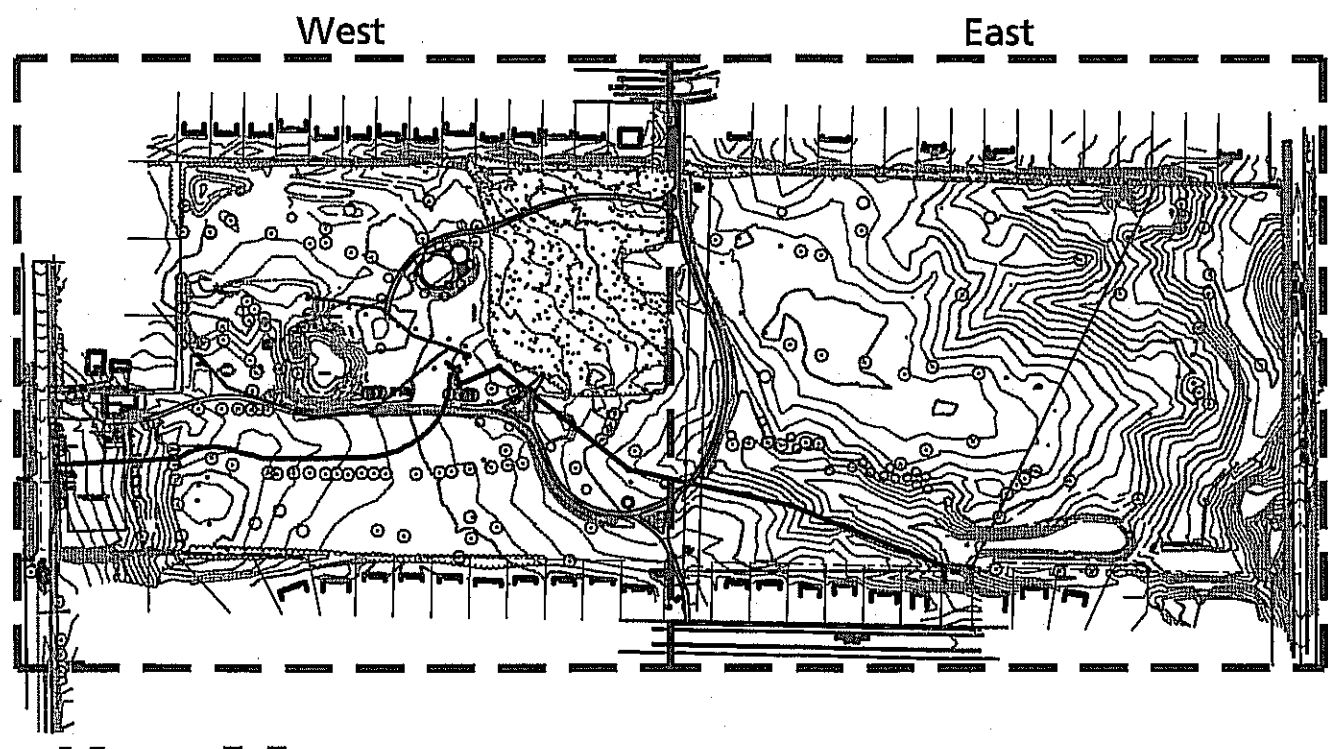
BERBIGLIA ASSOCIATES INC.
CONSULTING ENGINEERS

36400 West 12 Mile Road
Farmington Hills, Michigan 48331
(248) 489-3400 FAX (248) 489-3161

Structural Engineer

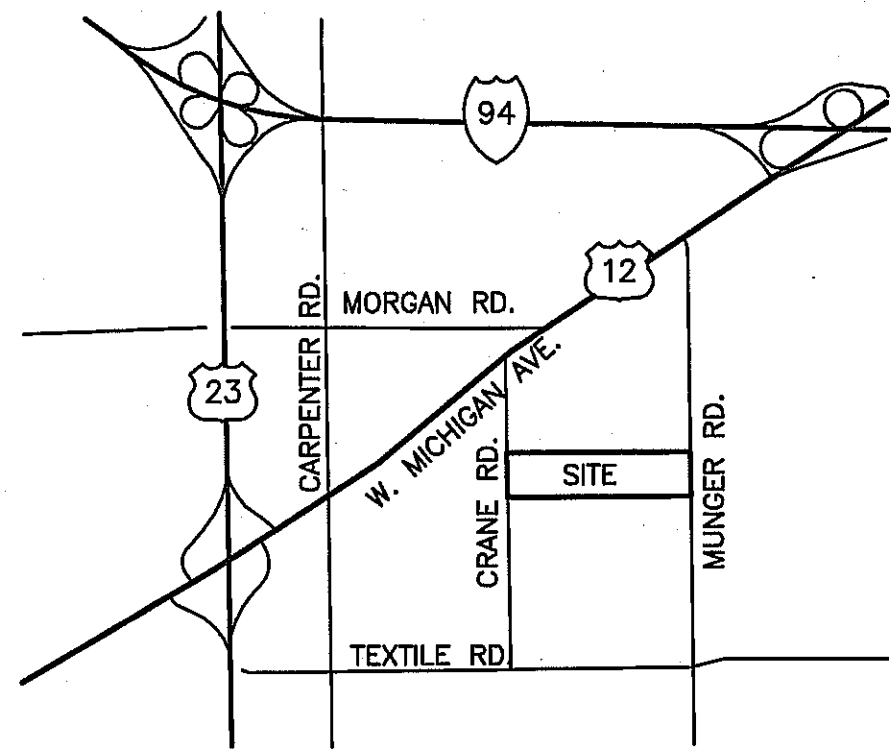
Structural Design Inc.
275 E. Liberty
Ann Arbor, MI 48104

734-213-6091



Key Map

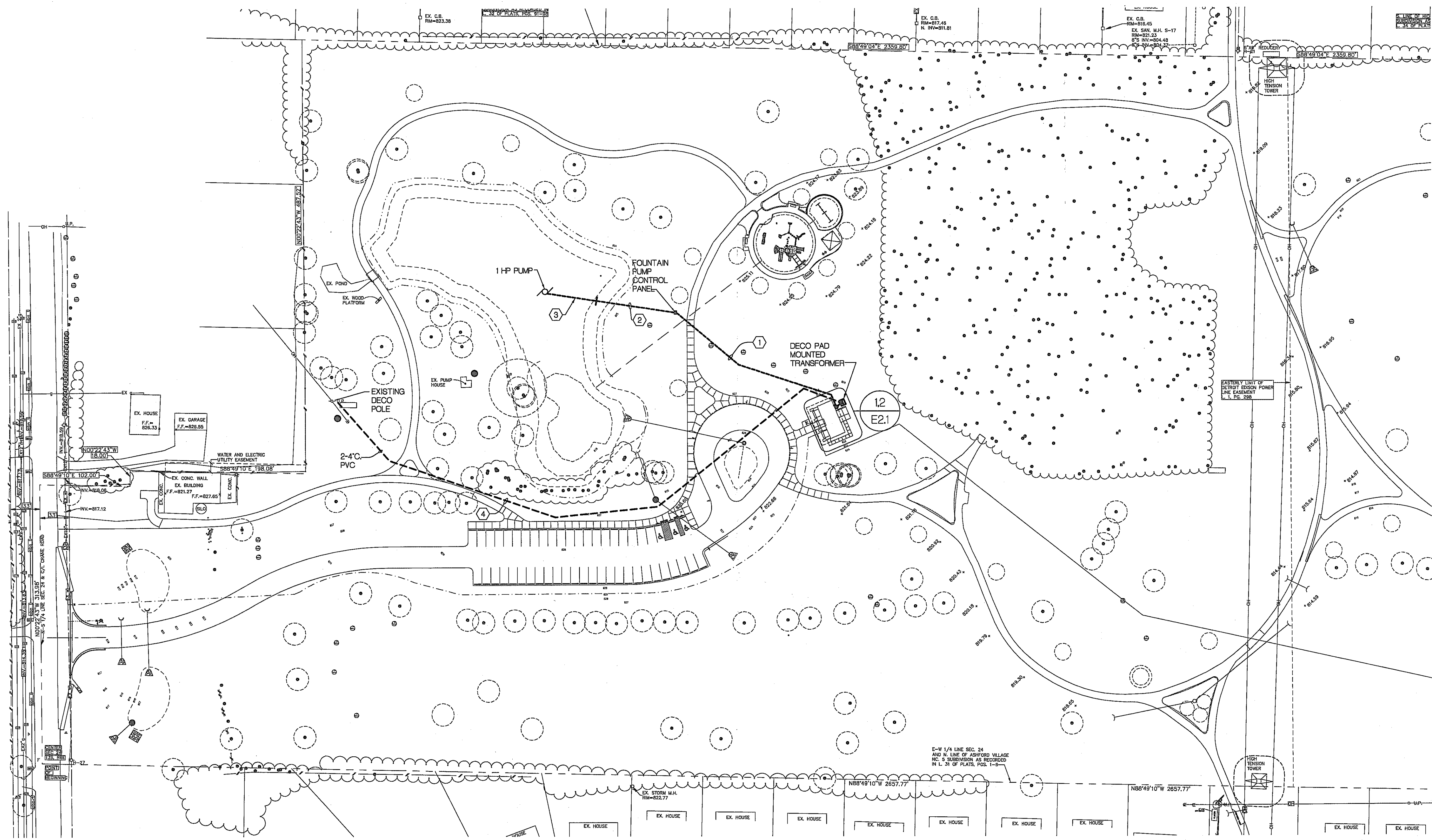
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Location Map

Not to Scale

E1.0



ELECTRICAL SITE PLAN
SCALE 1" = 60'-0"

- GENERAL SITE PLAN NOTES:**
1. ALL SITE CONDUITS SHALL BE INSTALLED A MINIMUM OF 30" BELOW GRADE.
 2. ALL SITE CONDUITS SHALL BE P.V.C. EXCEPT AS OTHERWISE SPECIFIED.
 3. INSTALL A WARNING TAPE ABOVE ALL SITE CONDUITS. LOCATE 12" BELOW GRADE. SEE SPECIFICATIONS FOR REQUIREMENTS.
 4. COORDINATE EXACT TERMINATION LOCATION OF ELECTRIC SERVICE CONDUITS WITH THE UTILITY COMPANY PRIOR TO INSTALLATION.

- KEY NOTES:**
- ① REFER TO SHEET E10 FOR CONDUIT AND WIRE SIZES.
 - ② PROVIDE 125'C. FROM FOUNTAIN PUMP CONTROL PANEL TO A LOCATION 5' WITHIN POND.
 - ③ MAKE FINAL CONNECTIONS TO PUMP UTILIZING PUMP WIRING PROVIDED WITH PUMP.
 - ④ PROVIDE HANDHOLES AS REQUIRED.

Consultants

COOPER DESIGN

2900 Breckman Boulevard
Ann Arbor, Michigan 48104
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Project Title

Pittsfield Township Parks
Parks Commission

HICKORY WOODS PARK
PHASE 1b IMPROVEMENTS

Pittsfield Township, MI

Sheet Title

LIGHTING AND POWER
AND SYSTEMS FLOOR
PLAN

Dates

02.22.2011 Bid Documents.

Scale

AS SHOWN

Quality Control

Drawn: CC

Checked: JC

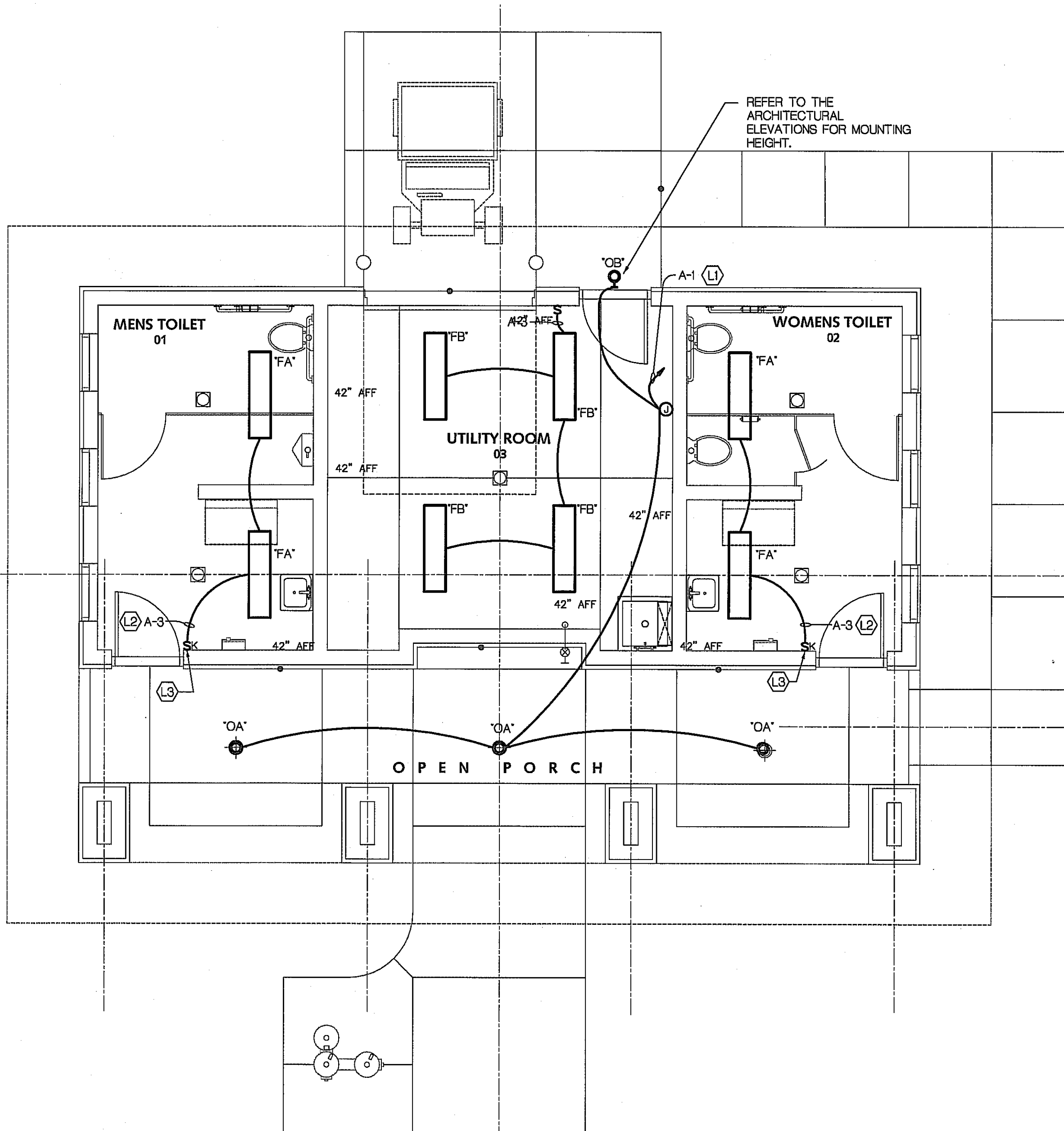
Approved: JC

Project Number

201029

Sheet Number

E2.1



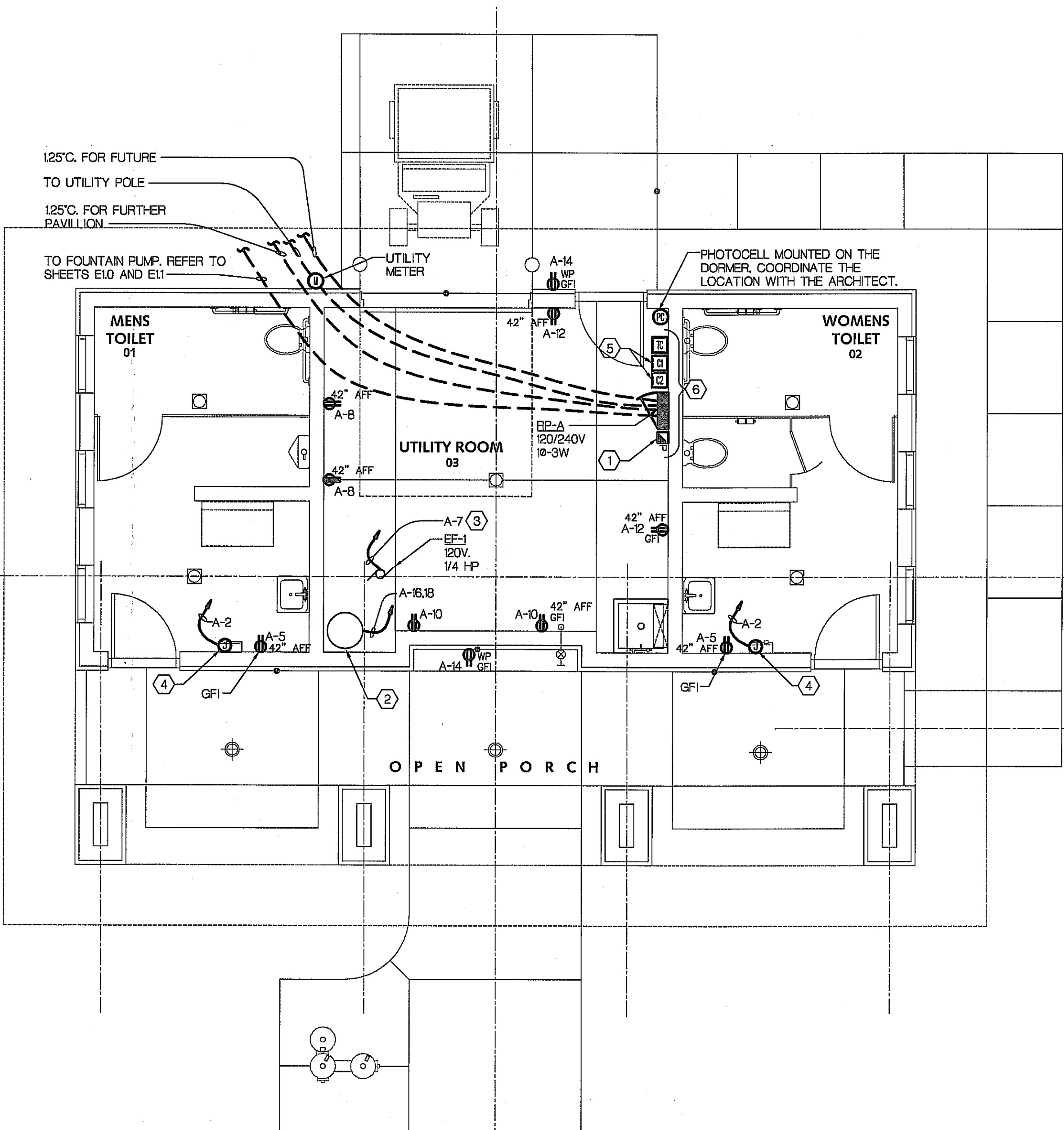
1 LIGHTING FLOOR PLAN
E2.1 SCALE: 1/4" = 1'-0"

LIGHTING KEY NOTES:

- ① SERVE VIA LIGHTING CONTACTOR. REFER TO THE WIRING DIAGRAM ON SHEET E1.0.
- ② SERVE VIA THE LIGHTING CONTACTOR AND AND VIA FIXTURE OCCUPANCY SENSOR.
- ③ KEY OPERATED SWITCH, COOPER #AH18N OR APPROVED EQUAL WITH STAINLESS STEEL COVERPLATE.

GENERAL NOTES:

- 1. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF LIGHT FIXTURES.
- 2. ALL JUNCTION BOXES SERVING BRANCH CIRCUIT WIRING SHALL BE LABELED WITH CIRCUITS SERVED. USE P-TOUCH STYLE LABELS ON BOX COVER.
- 3. WHERE MORE THAN ONE LIGHT SWITCH IS INDICATED TO BE INSTALLED AT THE SAME LOCATION, THEY SHALL BE GROUPED UNDER A COMMON COVERPLATE. ALL SWITCHES SHALL BE MOUNTED AT 48" AFF UNLESS OTHERWISE NOTED.
- 4. ALL CONDUIT AND WIRING SERVING EXTERIOR LIGHTING SHALL BE CONCEALED WITHIN BUILDING CONSTRUCTION.
- 5. REFER TO ARCHITECTURAL FLOOR PLANS AND ELEVATIONS FOR EXACT LOCATION OF DEVICES.
- 6. ALL WALL MOUNTED DEVICES (RECEPTACLES AND LOW VOLTAGE OUTLETS, ETC.) SHALL BE MOUNTED AT 18" AFF UNLESS OTHERWISE INDICATED.
- 7. ALL RECEPTACLES WITHIN 6'-0" OF A SINK (OR OTHER WATER SUPPLY) SHALL BE GFI TYPE RECEPTACLES.
- 8. ALL CONDUITS SERVING WIRING 120 VOLTS OR GREATER SHALL INCLUDE A GROUND WIRE.



2 POWER AND SYSTEMS FLOOR PLAN
E2.1 SCALE: 1/4" = 1'-0"

POWER AND SYSTEM KEY NOTES:

- ① MANUAL MOTOR STARTER FOR EF-1.
- ② ELECTRIC WATER HEATER, 3KW, 240V, 1Ø.
- ③ SERVE VIA LIGHTING CONTROL CONTACTOR AND MANUAL MOTOR STARTER IN UTILITY ROOM 03.
- ④ HAND DRYER. COORDINATE MOUNTING HEIGHT WITH ARCHITECTURAL TRADES AND THE MANUFACTURERS INSTALLATION.
- ⑤ LIGHTING CONTROL CONTACTORS. REFER TO THE DETAIL ON SHEET E1.0.
- ⑥ COORDINATE THE ELECTRICAL EQUIPMENT INSTALLATION WITH THE MECHANICAL TRADES TO AVOID PLUMBING RUNNING ABOVE THE ELECTRICAL PANEL AND EQUIPMENT.

Consultants

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Project Title

Pittsfield Township Parks
Parks Commission

HICKORY WOODS PARK
PHASE 1b IMPROVEMENTS

Pittsfield Township, MI

Sheet Title

ELECTRICAL
DETAILS AND DIAGRAMS

Dates

02.22.2011 Bid Documents.

Scale

AS SHOWN

Quality Control

Drawn: CC

Checked: JC

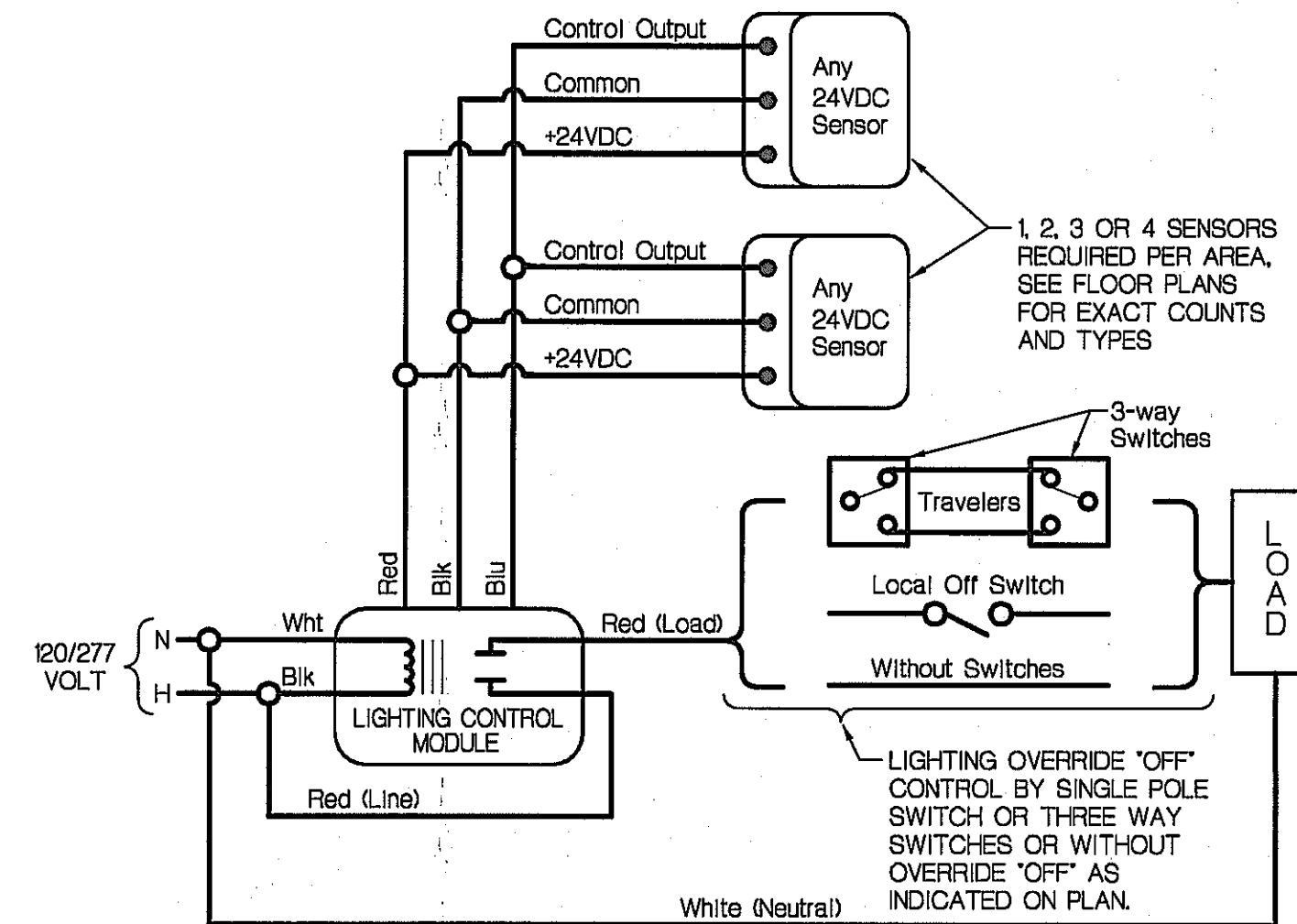
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Project Number

201029

Sheet Number

E3.1

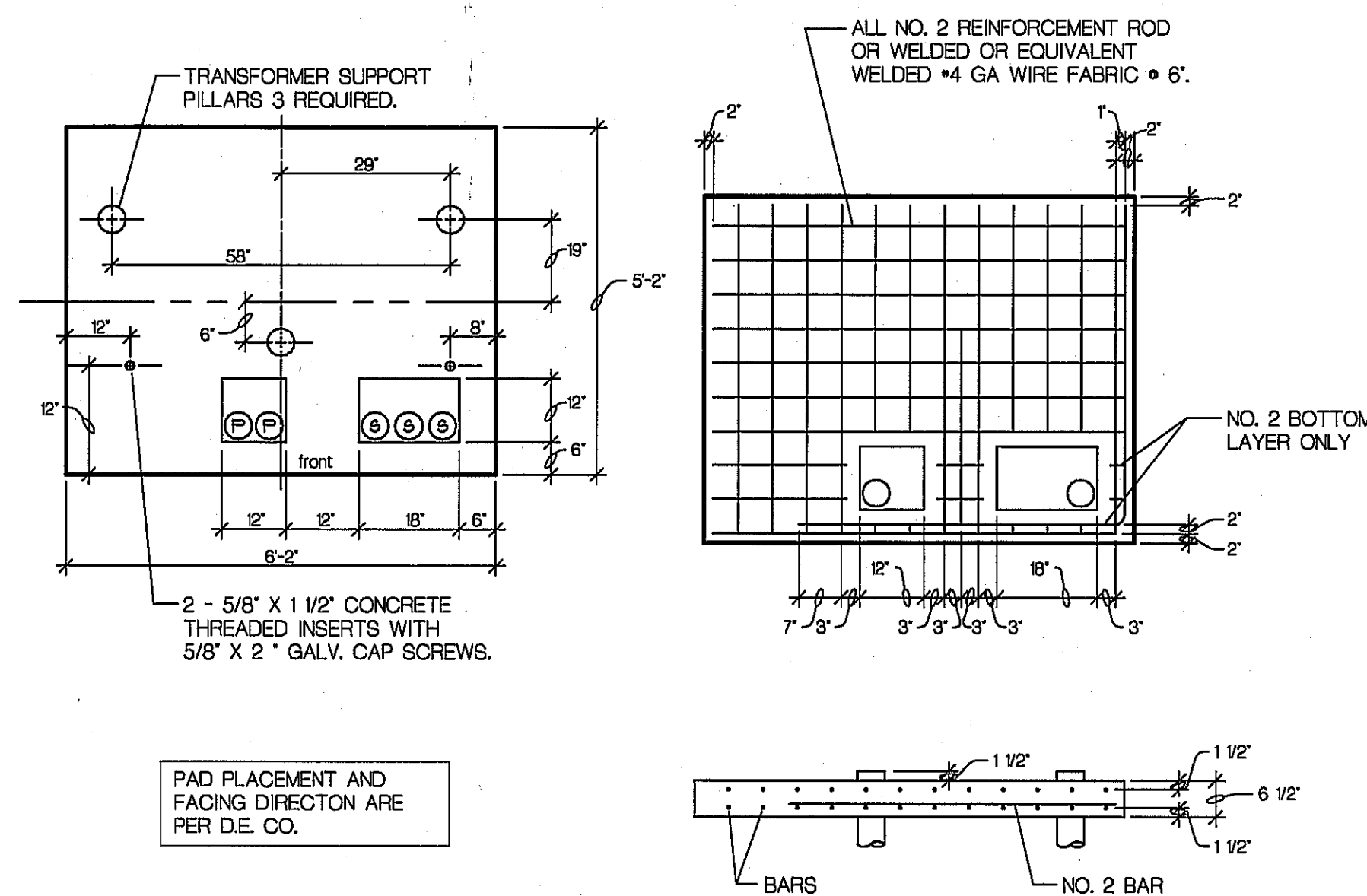


OCCUPANCY SENSOR GENERAL NOTES

1. ALL AUTOMATIC LIGHTING CONTROL DEVICES SHALL BE INSTALLED AND WIRED IN ACCORDANCE WITH MANUFACTURERS DIAGRAMS AND INSTRUCTIONS.
2. POWER PACKS TO BE LOCATED OVERHEAD ABOVE A LIGHT SWITCH CONTROLLING ROOM OR AREA LIGHTING. WHERE LIGHTING DOES NOT HAVE A LOCAL SWITCH, LOCATE POWER SUPPLIES ABOVE THE CEILING NEAR AN OCCUPANCY SENSOR.

LIGHTING CONTROL DIAGRAM

NO SCALE



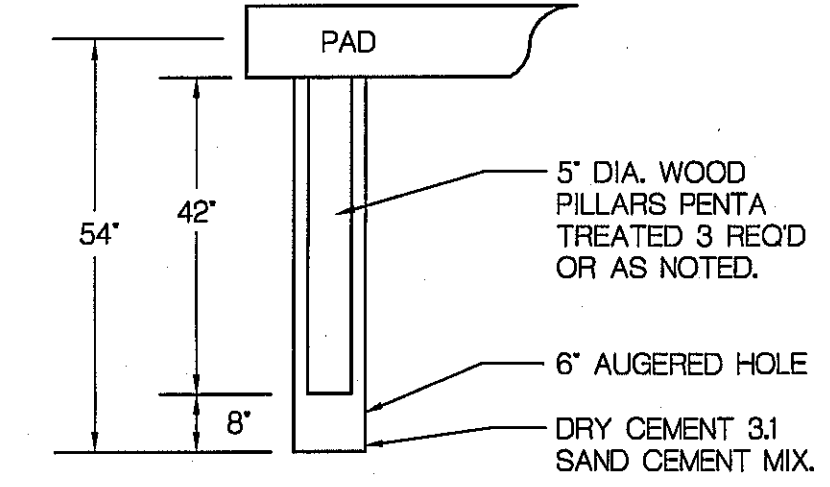
PAD REINFORCEMENT DETAIL

SERVICE TRANSFORMER PAD DETAILS

NO SCALE

GENERAL NOTES:

1. SEE SIM-ESIG PAGES 3, 6, 9, AND 3, 6, 10 FOR PAD AND GROUND ROD INSTALLATION DETAILS AND 3, 7, 11 FOR MINIMUM CLEARANCES TO OBSTRUCTIONS.
2. PRIMARY CONDUIT MUST BE POSITIONED AT THE FRONT OF THE PRIMARY WINDOW AS SHOWN.
3. NUMBER OF CONDUIT IS TO BE APPROVED BY THE SERVICE PLANNER.
4. IF CONDUCTORS ARE NOT PULLED IN ALL SECONDARY SERVICE CONDUITS, THE UNUSED CONDUIT SHOULD BE AT THE FRONT POSITION.
5. SWEEPS MUST BE 4\"/>
6. CONCENTRATION 6 BAGS OF CEMENT PER YARD.
7. MAINTAIN CONCRETE COVER CLEARANCES BETWEEN REINFORCEMENT RODS AND SURFACES AS SHOWN.
8. TRANSFORMER AND PAD SELECTION ON SECONDARY METERED INSTALLATIONS WILL BE DETERMINED BY THE DETROIT EDISON SERVICE PLANNER.

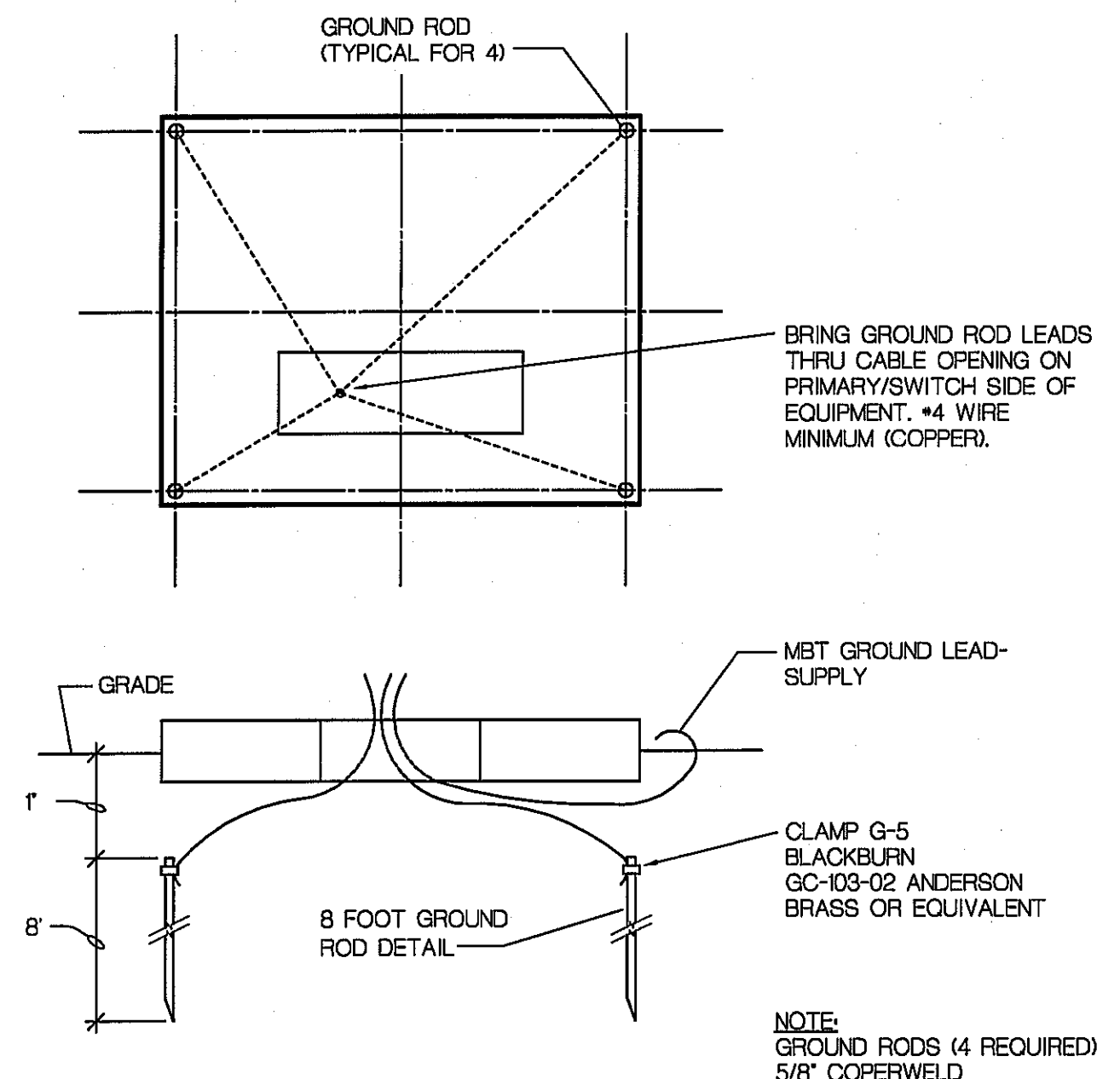


SUPPORT POST DETAIL

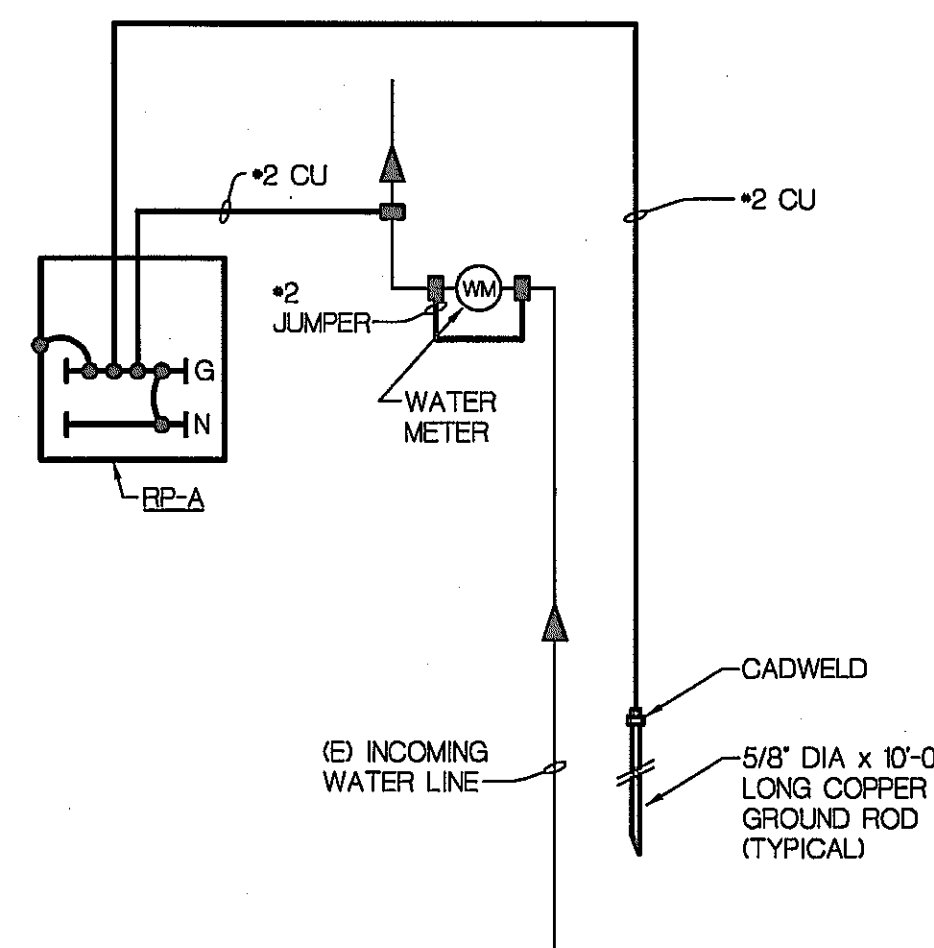
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ALTERNATE SUPPORTS NOTE:

1. 6\"/>
2. 6\"/>
3. EQUIVALENT PRE-CAST CONCRETE POST 42\"/>



PAD GROUNDING DETAIL



TYPICAL BUILDING
GROUNDING RISER DIAGRAM

NO SCALE