

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
f 734.995.0599

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' |
|--|--|

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' |
|---|---|

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
734.663.6758 fx

Architect

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

Mechanical / Electrical Engineer

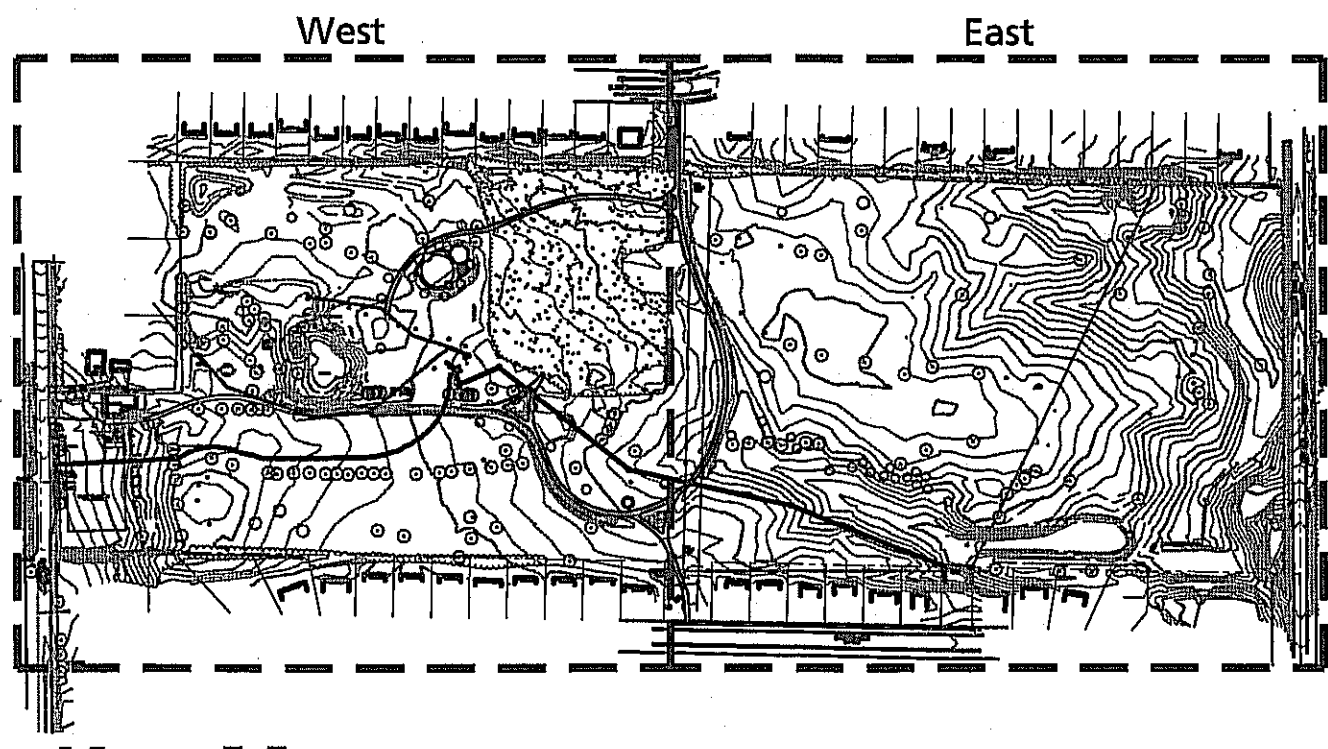
BERBIGLIA ASSOCIATES INC.
CONSULTING ENGINEERS

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

Structural Engineer

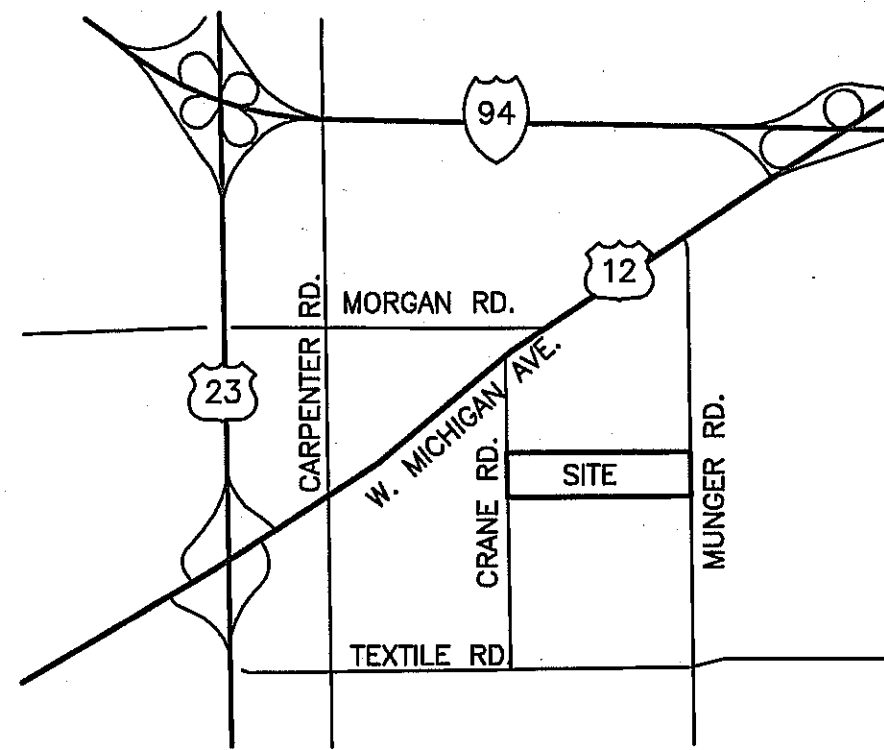
Structural Design Inc.
275 E. Liberty
Ann Arbor, MI 48104

734-213-6091



Key Map


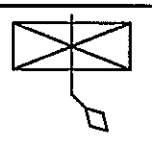


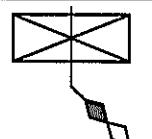




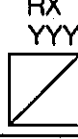
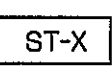


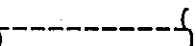

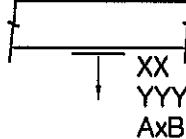

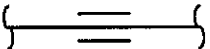
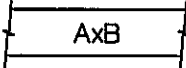


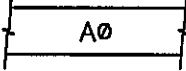

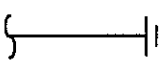
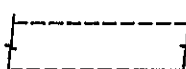

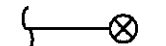
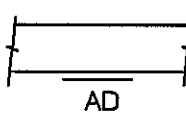

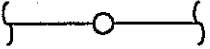
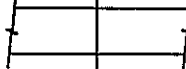




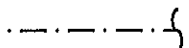
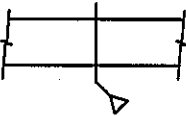





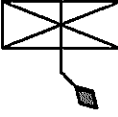

Not to Scale



Location Map

Not to Scale

| MECHANICAL ABBREVIATION LIST | |
|------------------------------|---------------------------|
| ABBREVIATION | DESCRIPTION |
| NG | NATURAL GAS |
| DCW | DOMESTIC COLD WATER |
| DHW | DOMESTIC HOT WATER |
| DHWR | DOMESTIC HOT WATER RETURN |
| SAN | SANITARY DRAINAGE |
| V | PLUMBING VENT |
| ST | STORM |
| OST | OVERFLOW STORM |
| HHWS | HEATING HOT WATER SUPPLY |
| HHWR | HEATING HOT WATER RETURN |
| CHWS | CHILLED WATER SUPPLY |
| CHWR | CHILLED WATER RETURN |
| STM | STEAM |
| COND | CONDENSATE |
| OXY | MEDICAL OXYGEN |
| MA | MEDICAL COMPRESSED AIR |
| VAC | VACUUM |
| CA | COMPRESSED AIR |
| FP | FIRE PROTECTION |
| NG | NATURAL GAS |
| SA | SUPPLY AIR |
| RA | RETURN AIR |
| EA | EXHAUST AIR |
| OA | OUTSIDE AIR |
| EX | EXISTING |

| MECHANICAL SYMBOL LIST | | | | | |
|--|--|---|--|---|--|
| SYMBOL | DESCRIPTION | SYMBOL | DESCRIPTION | SYMBOL | DESCRIPTION |
|  | AIR TERMINAL UNIT WITH HEATING COIL VAV-XX WHERE XX IS THE TERMINAL UNIT INLET SIZE MAX/MIN AIRFLOW SETTING IN CFM |  | UL APPROVED SMOKE DAMPER FOR HORIZONTAL INSTALLATION |  | 2 POSITION 2-WAY CONTROL VALVE |
|  | AIR TERMINAL UNIT WITHOUT HEATING COIL VAV-XX WHERE XX IS THE TERMINAL UNIT INLET SIZE MAX/MIN AIRFLOW SETTING CFM |  | UL APPROVED FIRE/SMOKE DAMPER FOR HORIZONTAL INSTALLATION |  | PRESSURE GAUGE |
|  | SUPPLY AIR DIFFUSER SX WHERE X IS THE DESIGNATION, REFER TO SCHEDULE, AND YYY IS THE AIRFLOW IN CFM, CONNECTION AND FLEX DUCT SIZE TO MATCH DUCT RUNOUT SIZE. |  | REHEAT COIL/DUCT MOUNTED COIL RHC-X WHERE X IS THE DESIGNATION, REFER TO SCHEDULE |  | THERMOMETER |
|  | RETURN AIR GRILL RX WHERE X IS THE DESIGNATION, REFER TO SCHEDULE, AND YYY IS THE AIRFLOW IN CFM, IF INDICATED ON PLANS. CONNECTION AND FLEX DUCT SIZE TO MATCH DUCT RUNOUT SIZE, IF INDICATED ON PLANS. |  | SOUND TRAP ST-X WHERE X IS THE DESIGNATION, REFER TO SCHEDULE |  | STEAM TRAP |
|  | EXHAUST AIR GRILL EX WHERE X IS THE DESIGNATION, REFER TO SCHEDULE, AND YYY IS THE AIRFLOW IN CFM. CONNECTION AND FLEX DUCT SIZE TO MATCH DUCT RUNOUT SIZE. |  | EXISTING PIPE OR DUCT TO BE REMOVED |  | PIPE ANCHOR |
|  | DIFFUSER/GRILL MOUNTED TO SIDE OF DUCT XX WHERE X IS THE DESIGNATION, REFER TO SCHEDULE, YYY IS THE AIRFLOW IN CFM, AND SIZE AXB |  | SHUT OFF VALVE |  | PIPE GUIDE |
|  | RECTANGULAR DUCT WITH DIMENSIONS A (SHOWN) x B (NOT SHOWN) IN INCHES |  | CHECK VALVE |  | FLOOR DRAIN WHERE X IS THE DESIGNATION, REFER TO SCHEDULE/SPECIFICATIONS |
|  | ROUND DUCT WITH DIMENSION A IN INCHES |  | AUTOMATIC FLOW CONTROL VALVE |  | CLEAN OUT |
|  | EXISTING DUCT TO BE REMOVED |  | CALIBRATED BALANCING VALVE |  | AUTOMATIC FIRE PROTECTION SPRINKLER RISER |
|  | DUCT MOUNTED ACCESS PANEL/DOOR |  | REDUCED PRESSURE ZONE BACK FLOW PREVENTER |  | FIRE PROTECTION SPRINKLER UPRIGHT HEAD |
|  | VOLUME DAMPER |  | PRESSURE RELIEF VALVE |  | FIRE PROTECTION SPRINKLER PENDENT HEAD |
|  | UL APPROVED FIRE DAMPER FOR VERTICAL INSTALLATION |  | STRAINER |  | TEMPERATURE CONTROL WIRING USED TO DESIGNATE THERMOSTAT ZONING |
|  | UL APPROVED SMOKE DAMPER FOR VERTICAL INSTALLATION |  | PRESSURE REDUCING VALVE |  | THERMOSTAT |
|  | UL APPROVED FIRE/SMOKE DAMPER FOR VERTICAL INSTALLATION |  | MODULATING 3-WAY CONTROL VALVE |  | CONNECTION TO EXISTING SYSTEMS |
|  | UL APPROVED FIRE DAMPER FOR HORIZONTAL INSTALLATION |  | MODULATING 2-WAY CONTROL VALVE | | |
| | | | | | |

GENERAL NOTES:

1. PROVIDE ACCESS TO ALL CONCEALED EQUIPMENT. COORDINATE LOCATION OF ACCESS PANELS WITH ARCHITECT.
2. SIZES INDICATED FOR ALL DUCTWORK ARE FREE AREA DIMENSIONS.
3. FLEXIBLE DUCTWORK SHALL NOT EXCEED FIVE (5) FEET IN LENGTH. FLEXIBLE DUCT SHALL NOT REST ON LIGHTING FIXTURES. WHERE FLEXIBLE DUCTS ARE USED, SUPPORT, SUSPEND FROM STRUCTURE OVERHEAD.
4. PROVIDE RECTANGULAR TO ROUND DUCT TRANSITIONS AS REQUIRED.
5. ALL AFFECTED HVAC SYSTEMS SHALL BE BALANCED IN AN INDEPENDENT TEST AND BALANCE COMPANY PER NEBB STANDARDS AND CONSTRUCTION DOCUMENTS. THREE (3) CERTIFIED COPIED OF TEST AND BALANCE REPORT SHALL BE PROVIDED TO ARCHITECT PRIOR TO JOB CLOSE OUT.
6. MECHANICAL CONTRACTOR TO COORDINATE DIFFUSER LOCATIONS WITH LIGHTS AND REFLECTED CEILING PLAN BEFORE INSTALLATION. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS.
7. EACH TRADE SHALL COORDINATE THE ROUTING AND INSTALLATION OF HIS WORK WITH THAT OF ALL OTHER TRADES THROUGH THE GENERAL CONTRACTOR. IN ANY INSTANCES OF CONFLICT, SYSTEMS REQUIRING "GRADE" OR "SLOPE" FOR DRAINAGE (SANITARY SEWER, SANITARY VENT, EQUIPMENT DRAINS, ETC) SHALL HAVE PRIORITY.
8. PENETRATIONS OF WALLS OR FLOORS FOR THE PASSAGE OF PIPING, DUCTWORK, OR OTHER EQUIPMENT SHALL BE PROPERLY SEALED AFTER INSTALLATION OF EQUIPMENT. FIELD VERIFY EXISTING WALL PENETRATIONS AND PROPERLY SEAL AS REQUIRED TO MAINTAIN WALL OR FLOOR RATING.
9. VERIFY THE ACTUAL LOCATION OF STRUCTURAL MEMBERS AND COORDINATE INSTALLATION OF THE WORK ACCORDINGLY. THE CONTRACTOR SHALL ALSO COORDINATE WITH ALL OTHER TRADES TO AVOID FIELD INTERFERENCE AND SHALL MAKE OFFSETS AND TRANSITIONS AS REQUIRED.
10. THE PRODUCTS/MATERIALS SPECIFICALLY NAMED IN THE SPECIFICATION AND/OR ON THE DRAWINGS ARE THE INTENT OF DESIGN. THE ENGINEER AND/OR OWNERS REPRESENTATIVE RESERVES THE RIGHT TO REJECT PRODUCTS/MATERIALS EVEN IF FROM OTHER ACCEPTABLE MANUFACTURERS IF IT IS FELT THEY DO NOT MEET THE INTENT OF THE SPECIFICATION.

MECHANICAL SHEET INDEX

| SHEET | DESCRIPTION |
|-------|--|
| M0.1 | MECHANICAL SHEET INDEX, ABBREVIATION LIST, AND SYMBOL LIST |
| M1.1 | UNDERGROUND PLUMBING FLOOR PLAN AND PLUMBING FLOOR PLAN |
| M2.1 | MECHANICAL HVAC FLOOR PLAN |
| M3.1 | MECHANICAL DETAILS AND SCHEDULES |

B R ①
Beckett&Raeder

Landscape Architecture
Planning & Engineering

Beckett & Raeder, Inc.
535 West William, Suite 101
Ann Arbor, MI 48103

734.663.2622 ph
734.663.6759 fx

Consultants

COOPER DESIGN

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

Project Title

**Pittsfield Township Parks
Parks Commission**

**HICKORY WOODS PARK
PHASE 1b IMPROVEMENTS**

Pittsfield Township, MI

Sheet Title

**MECHANICAL SHEET INDEX,
ABBREVIATION LIST, AND
SYMBOL LIST**

Dates

02.22.2011 Bid Documents.

Scale

AS SHOWN

Quality Control

Drawn: CC

Checked: JC

Approved: JC

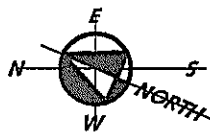
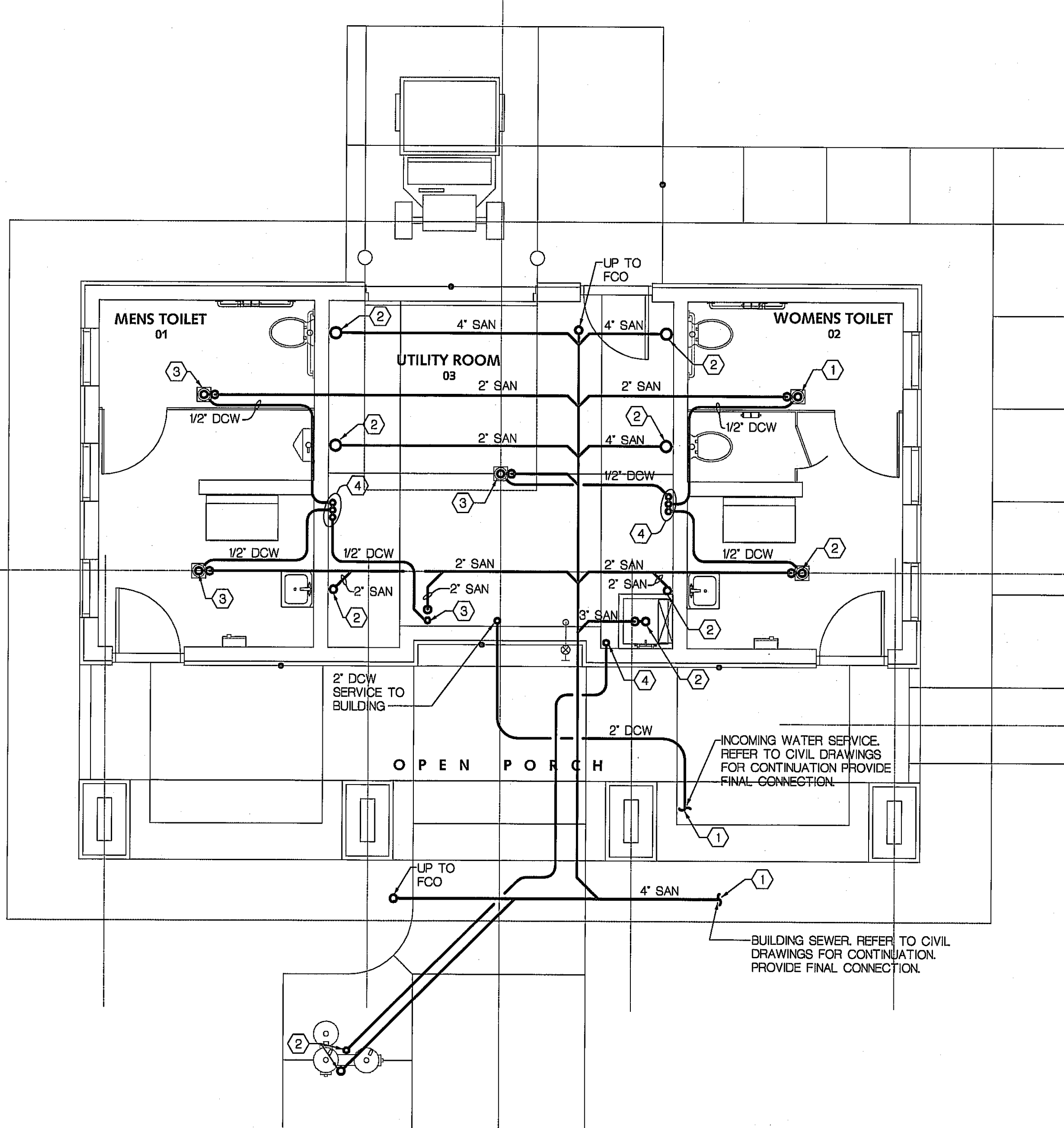
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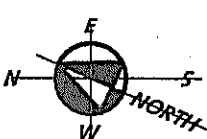
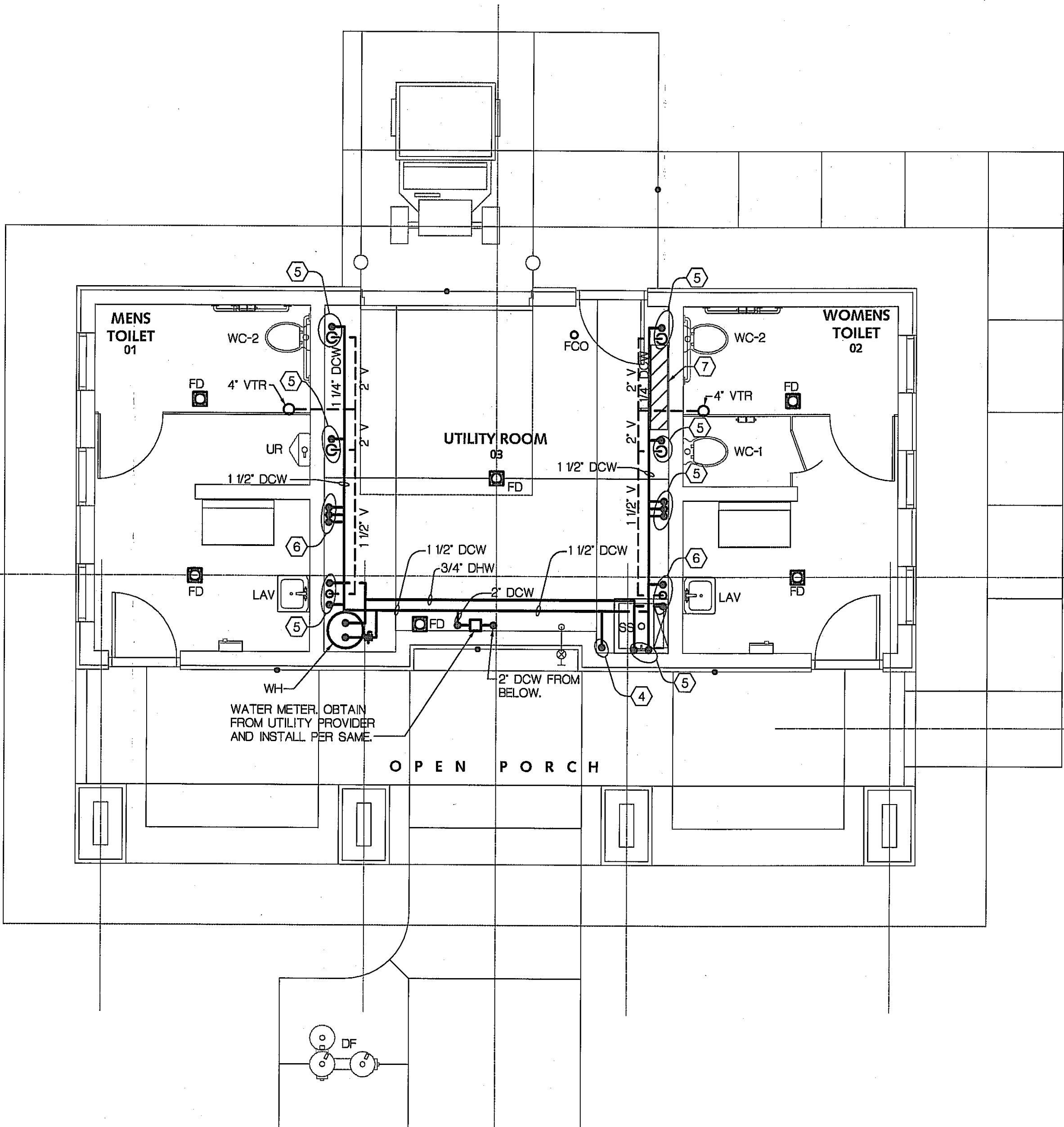
Sheet Number

M0.1

 **BERBIGLIA ASSOCIATES INC.**
CONSULTING ENGINEERS
38400 West 12 Mile Road
Farmington Hills, Michigan 48331
(248) 469-3100 • Fax (248) 469-3161
BAP 10-6028



UNDERGROUND PLUMBING FLOOR PLAN
SCALE: 1/4" = 1'-0"



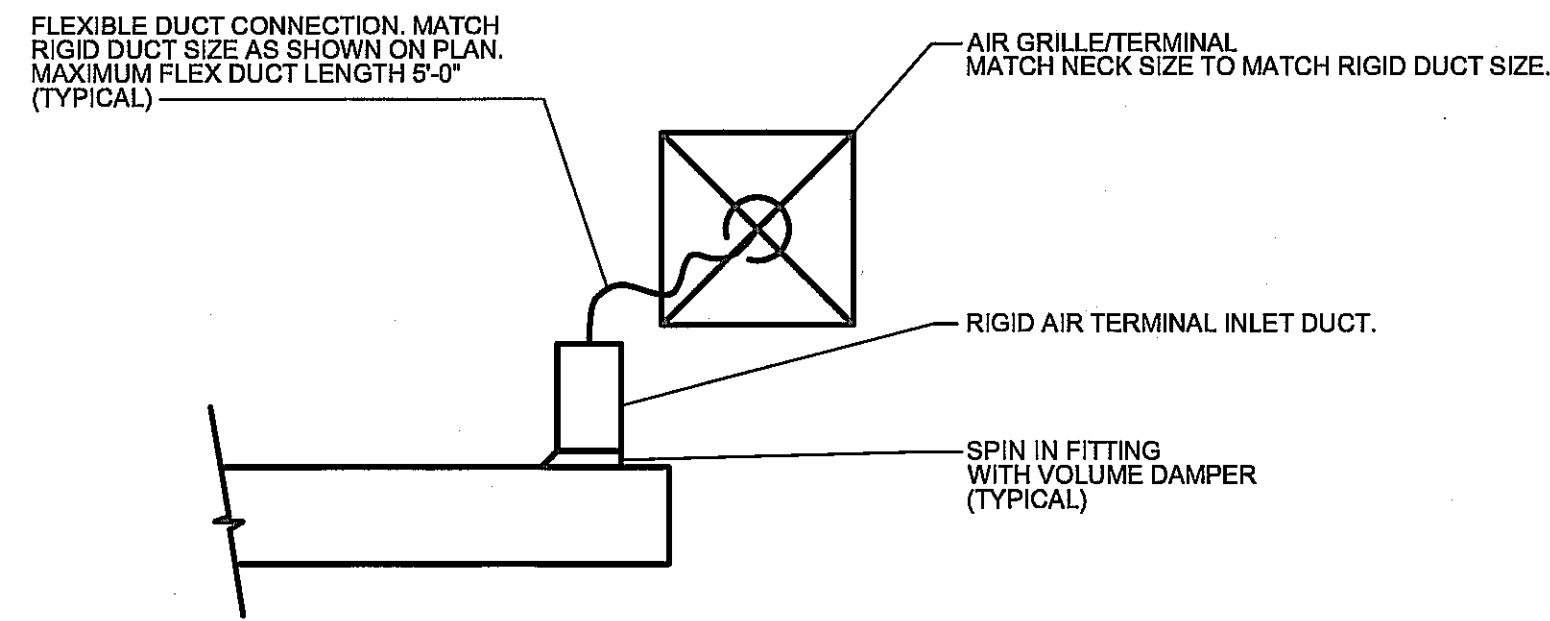
PLUMBING FLOOR PLAN
SCALE: 1/4" = 1'-0"

GENERAL NOTES:

1. LOCATE ALL VALVES AND OTHER ITEMS REQUIRING SERVICE OVER ACCESSIBLE CEILINGS. IF DEVICES ARE REQUIRED TO BE INSTALLED OVER HARD CEILINGS, PROVIDE A 24"X24" ACCESS DOOR OF MATERIAL AND FINISH TO MATCH THE CEILING.
2. ALL PIPING REQUIRED TO BE PITCHED, SHALL BE PITCHED AT 1/8" PER FOOT UNLESS NOTED OTHERWISE.
3. REFER TO PLUMBING FIXTURE PIPE SIZING SCHEDULE FOR REQUIRED SERVICES AND CONNECTION SIZES TO EACH PLUMBING FIXTURE.
4. ALL PIPING IS TO BE SURFACE MOUNTED IN THE UTILITY ROOM. PIPING TO BE CONFIGURED SUCH THAT IT DRAINS TO ONE LOW POINT IN THE UTILITY ROOM PER EACH TOILET ROOM. PROVIDE A DRAIN VALVE WITH MALE HOSE END AT EACH DRAIN LOCATION.

KEY NOTES:

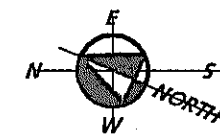
- ① REFER TO CIVIL DRAWINGS FOR CONTINUATION. PROVIDE TRANSITION AND FINAL CONNECTION AS REQUIRED.
- ② SAN UP TO FIXTURE. REFER TO PLUMBING FIXTURE PIPE SIZING SCHEDULE FOR PIPE SIZE.
- ③ SAN AND DCW UP TO FLOOR DRAIN WITH TRAP PRIMER CONNECTION. REFER TO PLUMBING FIXTURE PIPE SIZING SCHEDULE FOR PIPE SIZE.
- ④ 1/2" DCW FROM ABOVE.
- ⑤ DHW, DCW, AND V, AS INDICATED, TO PLUMBING FIXTURE. REFER TO PLUMBING FIXTURE PIPE SIZING SCHEDULE FOR SERVICES AND SIZES.
- ⑥ 1/2" DCW DOWN TO TRAP PRIMER. REFER TO TRAP PRIMER DETAIL.
- ⑦ COORDINATE PLUMBING WITH ELECTRICAL EQUIPMENT TO MAINTAIN CLEARANCES ABOVE THE ELECTRICAL PANELS AND EQUIPMENT. COORDINATE WITH ELECTRICAL TRADES.



AIR TERMINAL DETAIL
NO SCALE

PROVIDE TRANSITION AS REQUIRED.

EA LOUVER REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS MINIMUM 1 SF FREE AREA.



MECHANICAL HVAC FLOOR PLAN

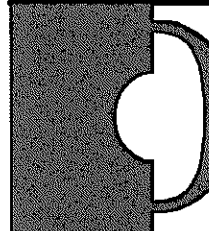
SCALE: 1/4" = 1'-0"

GENERAL NOTES:

1. LOCATE ALL VARIABLE AIR VOLUME BOXES AND DAMPERS OVER ACCESSIBLE CEILINGS. IF DEVICES ARE REQUIRED TO BE INSTALLED OVER HARD CEILINGS, PROVIDE A 24"X24" ACCESS DOOR OF MATERIAL AND FINISH TO MATCH THE CEILING.
2. FLEX DUCT SIZE SHALL MATCH THE SIZE OF THE DUCT BRANCH RUNOUT.
3. INSTALL EXHAUST FAN PER THE MANUFACTURER'S REQUIREMENTS.
4. ALL DUCT IN EXPOSED AREAS IS TO BE INSTALLED ABOVE THE BOTTOM CORD OF THE TRUSS SYSTEM.

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

Consultants



COOPER DESIGN

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

Project Title

**Pittsfield Township Parks
Parks Commission**

**HICKORY WOODS PARK
PHASE 1b IMPROVEMENTS**

Pittsfield Township, MI

Sheet Title

**MECHANICAL HVAC
FLOOR PLAN**

Dates

02.22.2011 Bid Documents.

Scale

AS SHOWN

Quality Control

Drawn: CC

Checked: JC

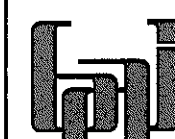
Approved: JC

Project Number

201029

Sheet Number

M2.1



BERBIGLIA ASSOCIATES INC.
CONSULTING ENGINEERS
38400 West 12 Mile Road
Farmington Hills, Michigan 48331
(248) 489-3100 • FAX (248) 489-3161
248 10-6559

EXHAUST FAN SCHEDULE

| MARK | AREA SERVED | FLOW (CFM) | T.S.P. (IN WC) | DRIVE | MOTOR (BHP) | MOTOR (HP) | VOLTS/ PHASE | MANUFACTURER/ MODEL NUMBER | REMARKS |
|------|--------------|------------|----------------|-------|-------------|------------|--------------|----------------------------|---------|
| EF-1 | TOILET ROOMS | 400 | 0.60 | BELT | 0.11 | 0.25 | 120/1 | GREENHECK/ SQ-95-VG | |
| | | | | | | | | | |

GRILLE, REGISTER, AND DIFFUSER SCHEDULE

| MARK | SIZE (IN) | PATTERN | MANUFACTURER/ MODEL NUMBER | REMARKS |
|------|-----------|---------|----------------------------|---------|
| E-1 | 12X12 | - | PRICE/ 98 | |
| E-2 | 10X20 | - | PRICE/ 98 | |

NOTES:
1. NECK SIZE TO MATCH CONNECTING RUNOUT DUCT.

PLUMBING FIXTURE PIPE SIZING SCHEDULE

| FIXTURE | OVERHEAD BRANCH PIPE SIZE (IN) | | PIPE SIZE IN WALL (IN) | | | |
|-------------------------------|--------------------------------|-----|------------------------|-----|------------------|-------|
| | DCW | DHW | DCW | DHW | SAN | VENT |
| LAVATORY (LAV) | 3/4 | 3/4 | 1/2 | 1/2 | 1 1/2 | 1 1/2 |
| SINK (SK) | 3/4 | 3/4 | 1/2 | 1/2 | 1 1/2 | 1 1/2 |
| SERVICE SINK (SS) | 3/4 | 3/4 | 3/4 | 3/4 | 3 | 1 1/2 |
| WATER CLOSET (WC) | 1 1/4 | NA | 1 1/4 | NA | 4 | 2 |
| URINAL (UR) | 1 | NA | 3/4 | NA | 2 | 2 |
| DRINKING FOUNTAIN (EWC OR DF) | 3/4 | NA | 1/2 | NA | 1 1/2 | 1 1/2 |
| FLOOR DRAIN (FD) | 1/2 | - | 1/2 | - | AS NOTED ON PLAN | - |

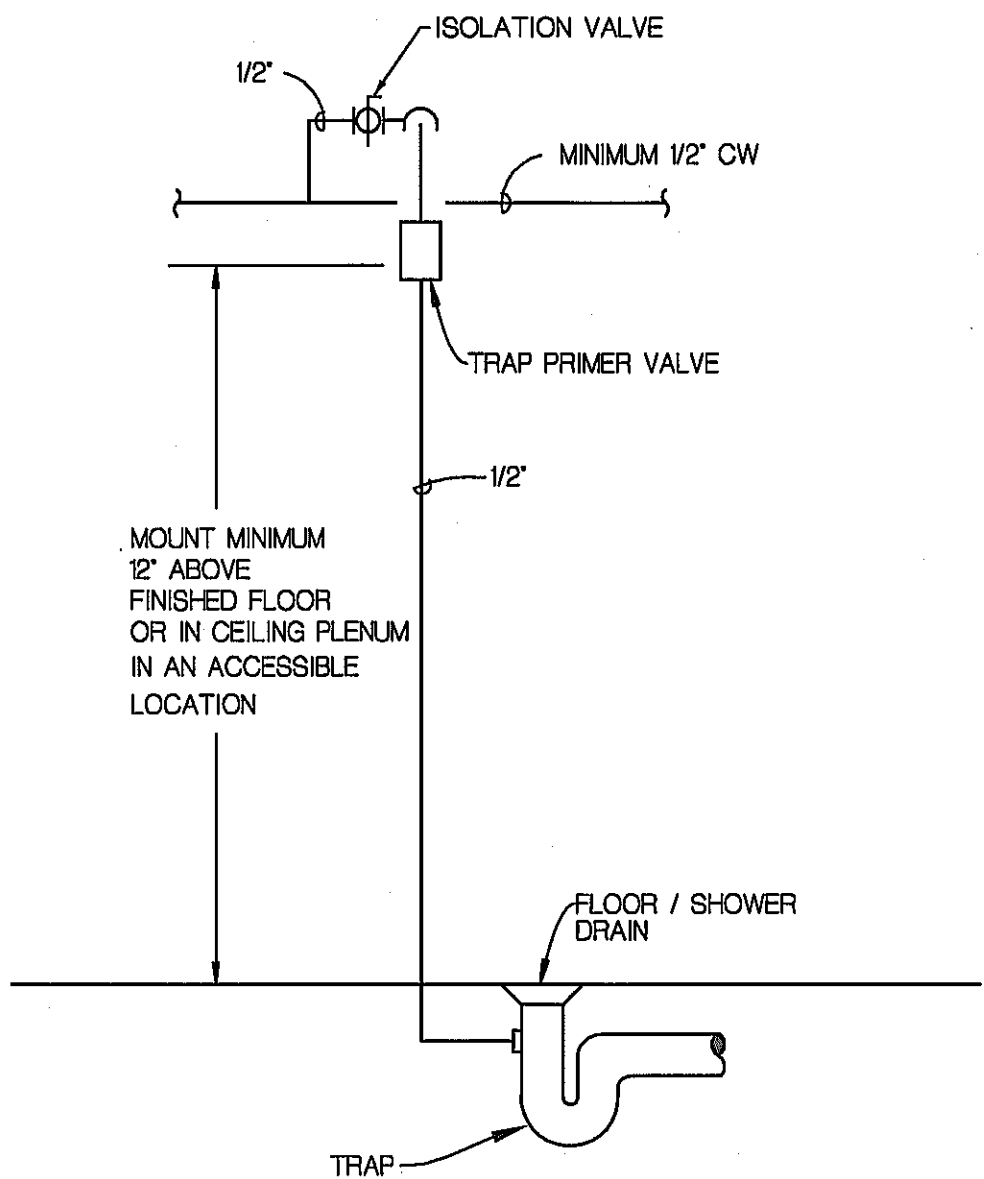
WATER HEATER SCHEDULE

| MARK | AREA SERVED | CAPACITY (WATT) | CAPACITY (GAL) | VOLTS/ PHASE | MANUFACTURER/ MODEL NUMBER | REMARKS |
|------|--------------------|-----------------|----------------|--------------|----------------------------|---------|
| WH | DOMESTIC HOT WATER | 1,000 | 20 | 240/1 | AO SMITH/ DEL-20 | |
| | | | | | | |

PLUMBING FIXTURE SCHEDULE

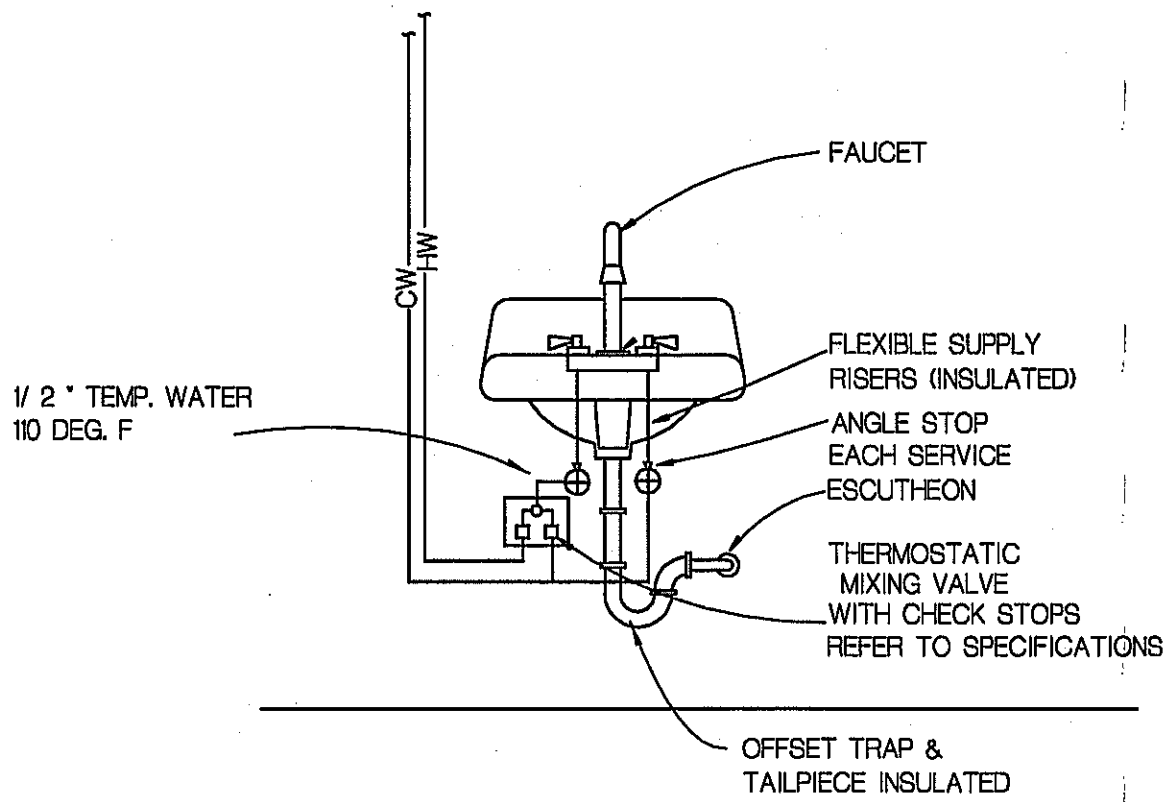
| MARK | FIXTURE | MATERIAL/ COLOR | MANUFACTURER/ MODEL NUMBER | TRIM/FAUCET/ FLUSH VALVE | REMARKS |
|------|-----------------------------------|-------------------------------|---------------------------------------|-------------------------------------|---|
| WC-1 | WALL HUNG WATER CLOSET | VITREOUS CHINA/WHITE | AMERICAN STANDARD/ 2294.011 AFWALL | SLOAN ROYAL/ MODEL 111 | |
| WC-2 | WALL HUNG WATER CLOSET - ADA | VITREOUS CHINA/WHITE | AMERICAN STANDARD/ 2294.011 AFWALL | SLOAN ROYAL/ MODEL 111 | |
| UR | URINAL - ADA | VITREOUS CHINA/WHITE | AMERICAN STANDARD/ 6561.017 TRIMBROOK | SLOAN ROYAL/ MODEL 186-1.0 | |
| LAV | WALL HUNG LAVATORY - ADA | VITREOUS CHINA/WHITE | AMERICAN STANDARD/ 0355.012 LUCERNE | AMERICAN STANDARD/ 2385.278 RELIANT | SEE NOTE 1 |
| SS | FLOOR MOUNTED SERVICE SINK | TERRAZZO | FIAT/ MSB-100 | FIAT/ 830-AA SS | SEE NOTE 2 |
| DF-1 | DRINKING FOUNTAIN | 12 GAUGE 304 SS | HAWES/ STREETSMART 3500 D | - | HI-LO VANDAL RESISTANT PEDESTAL WITH PET FOUNTAIN |
| FD | FLOOR DRAIN | CAST IRON BODY/ NICKEL BRONZE | JAY R SMITH/ FIGURE 2005-B | - | |
| FCO | FLOOR CLEAN OUT - FINISHED SPACES | CAST IRON BODY/ NICKEL BRONZE | JAY R SMITH/ FIGURE 4020 | - | |

NOTES:
1. PROVIDE TEMPERING VALVE AND TRAP WRAP AS SPECIFIED.
1. PROVIDE STAINLESS STEEL SPLASH PANELS ON THE TWO ADJACENT WALLS, HOSE WITH MOUNTING CLIP, AND MOP RACK.



TRAP PRIMER DETAIL

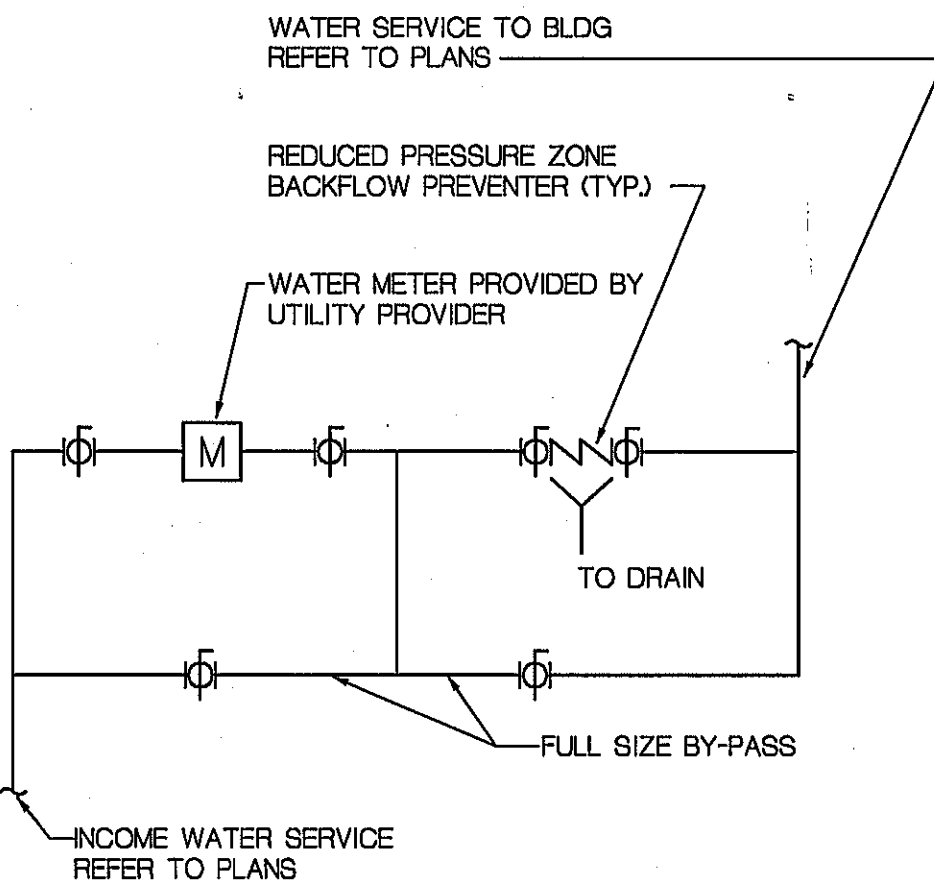
SCALE: NO SCALE



LAVATORY/SINK PIPING DETAIL

SCALE: NO SCALE

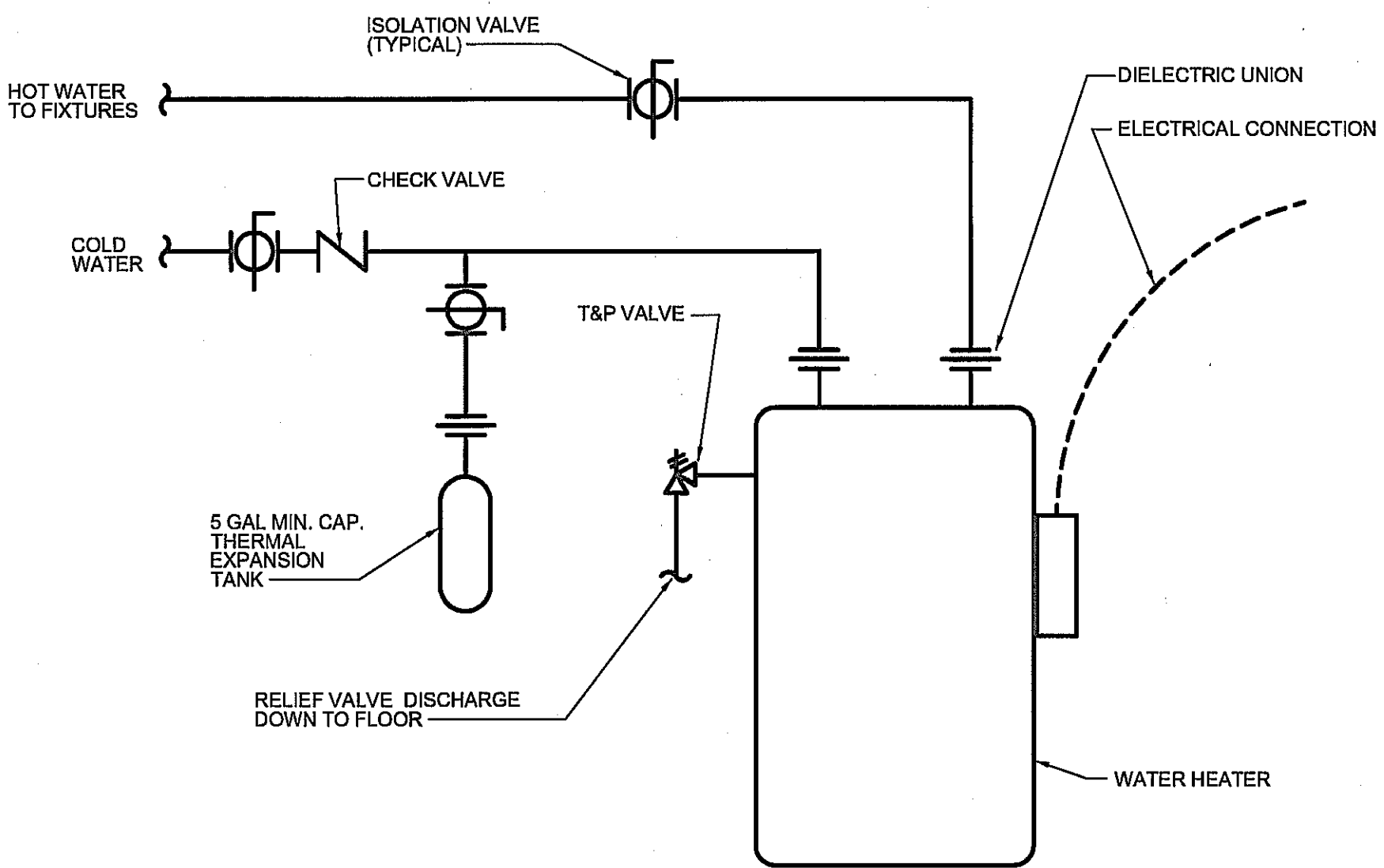
NOTE:
APPLICABLE TO ALL LAVATORIES IN ALL TOILET ROOMS AND EXAM ROOM SINKS.



WATER METER DETAIL

SCALE: NO SCALE

NOTE: SUPPORT FROM FLOOR.



WATER HEATER INSTALLATION DETAIL

NO SCALE