

HEAT: MINIMAL/ SEASONAL PROVIDED - NATURAL GAS

OWNER:

CITY OF ROCHESTER HILLS

1000 ROCHESTER HILLS DRIVE, ROCHESTER, MI 48309

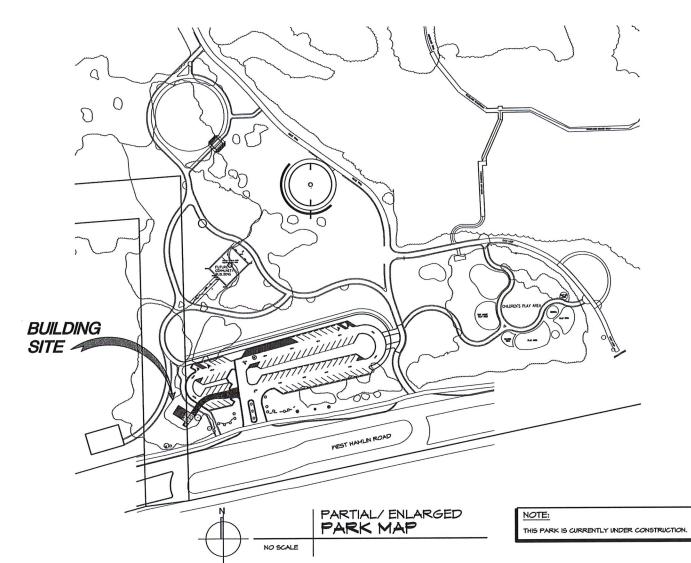
PROJECT:

INNOVATION HILLS PARK RANGER'S BUILDING

2800 W. HAMLIN ROAD, ROCHESTER HILLS, MI 48309

INDEX OF DRAWINGS

G001 TITLE SHEET C100 SITE DEMOLITION PLAN SITE DEVELOPMENT PLAN C101 SITE GRADING PLAN C102 A100 SPECIFICATIONS FLOOR PLANS, ELEVATIONS, & WALL SECTIONS A101 BUILDING SECTIONS, DETAILS, & SCHEDULES A102 ME101 **ELECTRICAL PLANS**





9100 Lapeer Rd. Suite B Davison, MI 48423 (810) 412-5640 www.h2aarchitects.net

m

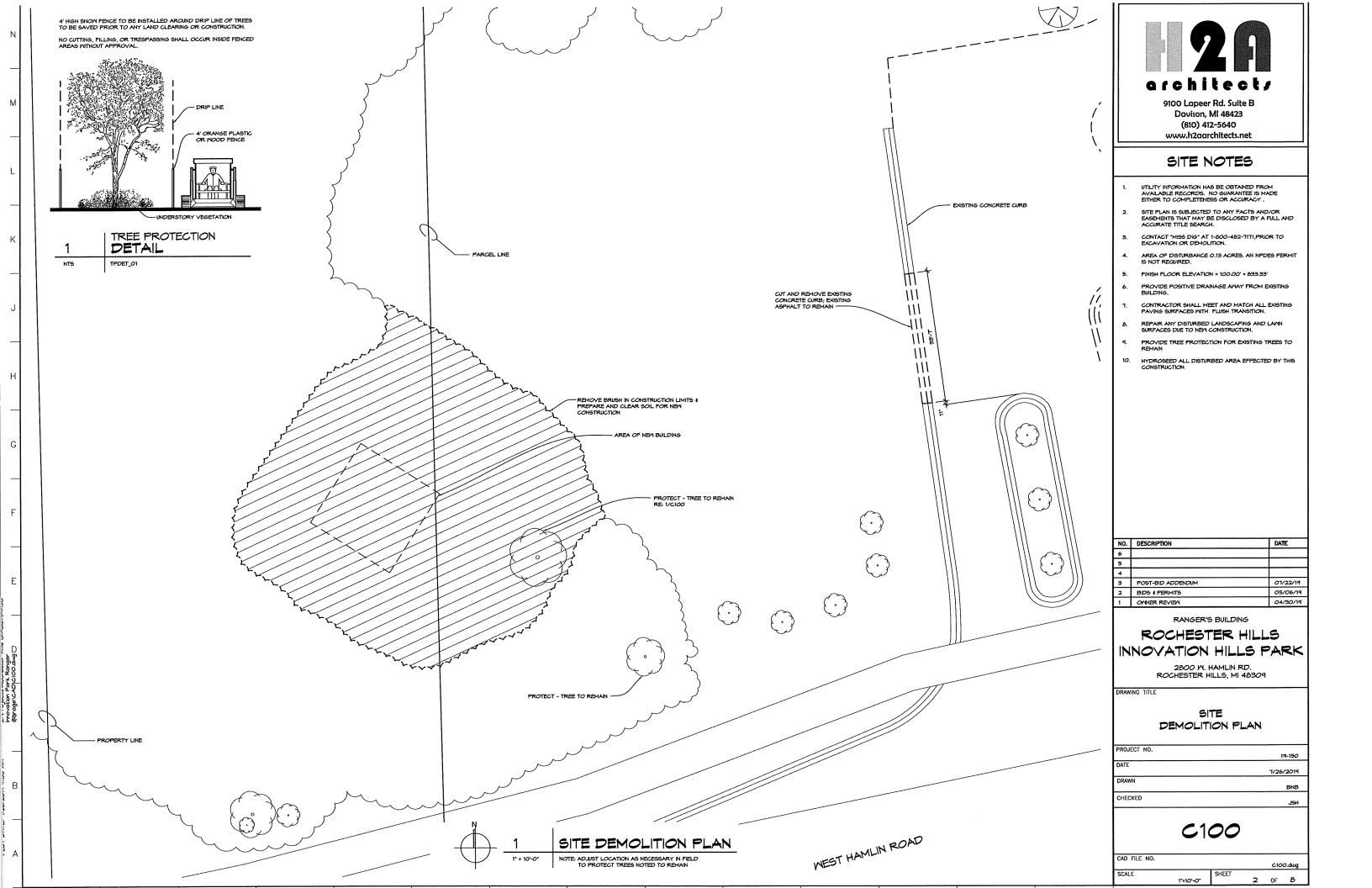
NO. DESCRIPTION DATE 07/22/19 2 BIDS & PERMITS 05/06/19 04/30/19 1 OWNER REVIEW 19-150 7/26/2019 BNB CHECKED

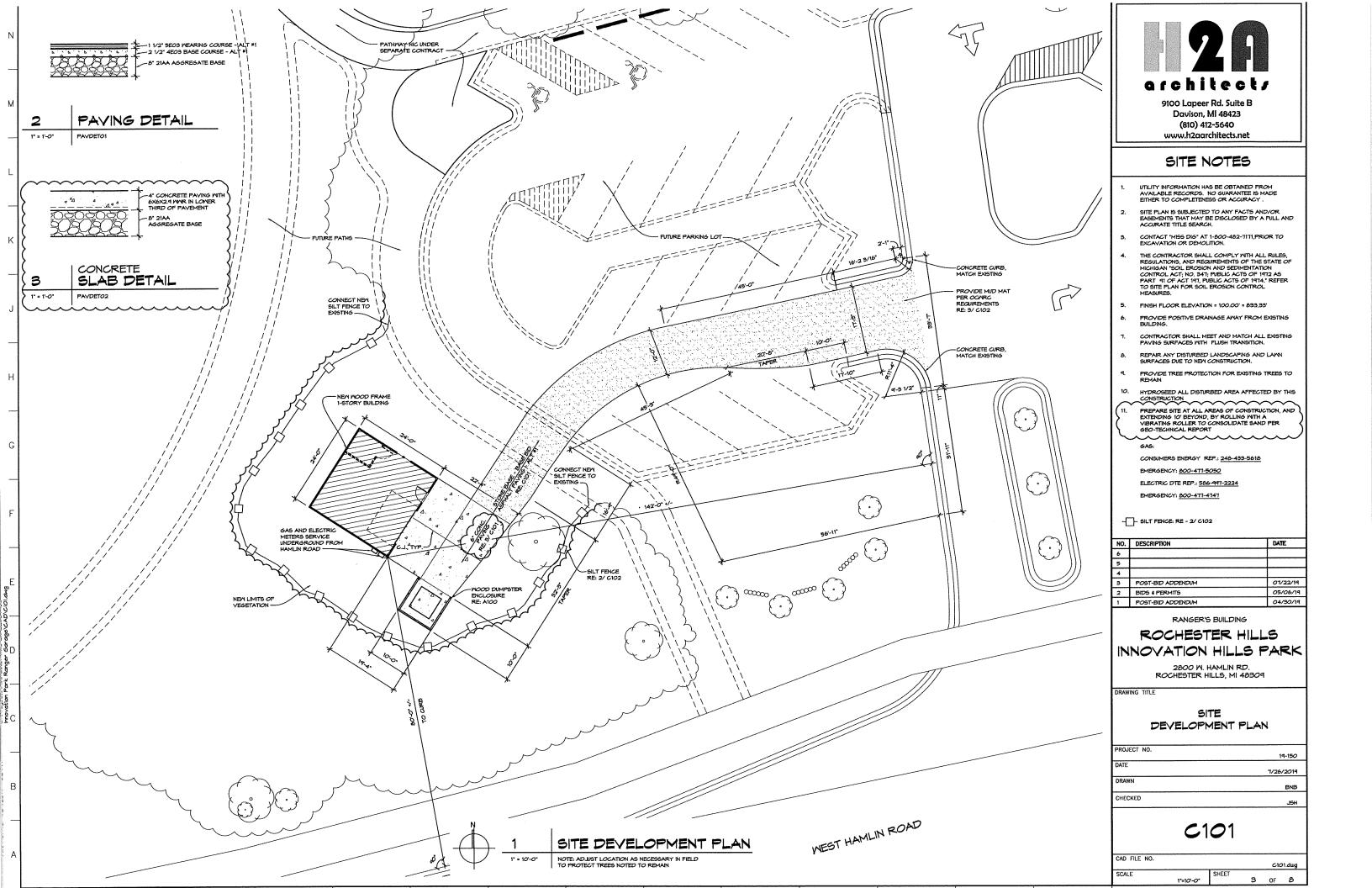
G001

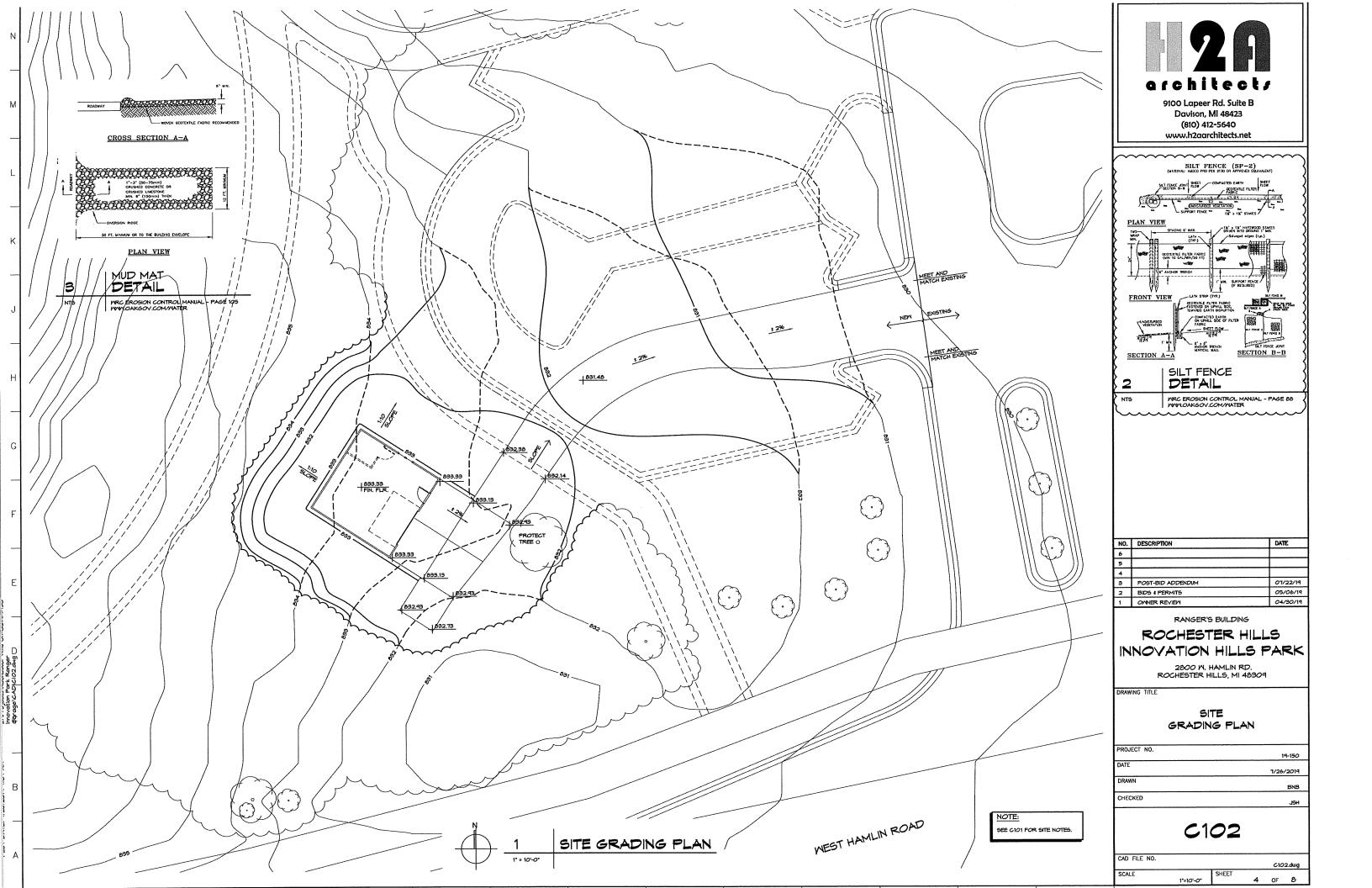
CAD FILE NO. 6001 SHEET 1 05 8

ARK

Ž D







SPECIFICATIONS

DIVISION 3 - CONCRETE: MINIMUM COMPRESSIVE STRENGTH AT 26 DAYS SHALL BE 9,000 FSI FOR FOUNDATIONS AND 4500 FSI FOR FLOOR SLABS.

NTERCR SLABS ON GRADE SHALL BE MINIMUM 4 INCH THICK AND REINFORCED WITH 6 x 6 x Y23 XY23 YVF WITH MINIMUM EDGE
AND END LAPS OF 8 INCHES, PLACE ON A MINIMUM 10 MIL POLYETHYLENE VAPOR BARRER OVER A MINIMUM 6' SAND BARE
COMPACTED TO 956 PROCTOR SURFACES SCHEDULED TO REMAIN EXPOSED SHALL RECEIVE LIGAD CURRIG COMPOUND
TO VOCOMP-25 BY IN. MEADON'S, PROVIDE TROVEH FINISH ON INTERIOR CONCRETE.

PROVIDE MINIMUM CONCRETE COVER FOR REINFORCEMENT, CAST AGAINST EARTH - 3 INCHES OR AS NOTED ON DRAVINGS.
BEFORED TO YEATHER - 2 INCHES OR AS NOTED ON DRAVINGS. NOT EXPOSED TO EARTH OR PERMARY
REINFORCEMENT IN BEAMS AND COLUMNS - 11/28 INCHES OR AS NOTED ON DRAVINGS.

SCHOOL OF THE PROVIDE THE AND COLUMNS - 11/28 INCHES OR AS NOTED ON DRAVINGS.

SCHOOL OF THE PROVIDE THE ADDRESS OF TO EARTH OR PEATHER FRINARY
SECONDARY REINFORCHENT IN SLABS AND WALLS - 9/4 NICH OR AS NOTED ON DRAVINGS.

REPRESENTATIVE CONCRETE TEST CYLINDERS SHALL BE TAKEN EACH DAY OF CONCRETE OFERATIONS. ANY WORK FOAD TO NOT MEET SPECIFICATIONS SHALL BE REMOVED AND REPLACED. TESTING BY ONLES, CONTRACTOR TO COORDINATE.

DESIGN, CONSTRUCTION AND TESTING OF CONCRETE AND REINFORCING STEEL SHALL CONFORM TO THE LATEST EDITION OF ACL-301, AC1-315 AND AC1-316.

REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60

WELDER WIRE FABRIC SHALL CONFORM TO ASTM A185 (FLAT SHEETS)

CORNERS OF EXPOSED CONCRETE SHALL HAVE 3/4" CHAMFER UN.O.

FOR EMBEDDED ITEMS REFER TO ARCHITECTURAL MECHANICAL AND ELECTRICAL DRAWINGS PRIOR TO CONSTRUCTION

ALL INTERIOR SLABS SHALL HAVE A STEEL TOWELED FINISH UNLESS NOTED OTHERWISE.

CACC FIELD TESTING AND INSPECTIONS OF CONCRETE MATERIALS AND CONCRETE INSTALLATION SHALL BE COMPLETED BY AN INDEPENDENT TESTING AGENCY EMPLOYED BY THE CITY OF ROCHESTER HILLS.

POUR FOOTINGS IN CONTINUOUS POUR ON UNDISTURBED SOIL. DO NOT PLACE CONCRETE ON FROZEN GROADD IN PREEZING CONDITIONS, PLACE IN FULL DEPTH IN ONE OPERATION.

DIVISION 4 - MASONRY:

М

THE RENFORCED CONCRETE MASONRY FOR THIS PROJECT HAS BEEN DESIGNED AND DETAILED IN ACCORDANCE WITH THE ALLOYABLE STRESS DESIGN METHOD.

REINFORCED MASONRY SHALL HAVE MINIMM COMPRESSIVE STRENGTH, FM, OF 1500 PSI, MASONRY UNITS SHALL BE MEDILM MEIGHT BLOCK COMFORMING TO ASTM CRO, AND SHALL HAVE A MINIMM NET AREA COMPRESSIVE STRENGTH OF 2100 PSI, MORTAR SHALL CONFORM TO ASTM CROT, TYPE 5, GROUT SHALL CONFORM TO ASTM CATE,

REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60, UNLESS NOTED O

ALL RENFORCED CELLS, ALL CELLS BELOW GRADE, AND ALL CELLS BELOW FINSH FLOOR SHALL BE GROUTED SOLID.

WHEN A FOUNDATION DOWEL DOES NOT LINE UP WITH A VERTICAL BLOCK CORE, IT SHALL NOT BE SLOPED MORE THAN ONE HORIZONTAL IN 8 VERTICAL DOWELS MAY BE GROUTED INTO A CELL IN VERTICAL ALIGNMENT, EVEN THOUGH IT IS IN AN ADJACENT CELL TO THE VERTICAL WALL RENFORCING.

REINFORCING STEEL SHALL BE SECURED IN PLACE BEFORE GROUTING STARTS.

VERTICAL BARS SHALL BE HELD IN POSITION AT TOP AND BOTTOM AND AT INTERVALS NOT EXCEEDING 200 DIAMETERS OF THE REINFORCING, NOR 20 FEET, BARS SHALL BE IN PLACE PRIOR TO GROUTING.

VERTICAL REINFORCING BARS SHALL HAVE A MINIMUM GROUT COVER OF 1/2 OF AN INCH TO THE INSIDE FACE OF MASCHRY UNIT AND A MINIMUM TOTAL MASCHRY COVER NOT LESS THAN TWO INCHES.

PARALLEL ADJACENT VERTICAL RENFORCING BARS SHALL HAVE A MINIMAN CLEAR DISTANCE NOT LESS THAN 1 1/2 BAR DIAMETERS NOR 1 1/2 NORES.

VERTICAL CELLS THAT WILL BE GROUTED SHALL HAVE A VERTICAL ALIGNMENT TO MAINTAIN A CONTINUOUS UNOBSTRUCTED CELL

ALL BOLTS, ANCHORS, ETC., INSERTED IN THE WALLS, SHALL BE GROUTED SOLID INTO POSITION.

SPLICED RENFORCING BARS SHALL BE LAPPED A MINIMAN OF 48 BAR DIAMETERS BASED ON THE MAXIMUM ALLOWABLE STRESS

DIVISION 5 - METALS:

G

ANCHOR BOLTS SHALL BE MINIMUM 1/2 INCH DIAMETER HEADED, WITH 7 INCHES EMBEDMENT.

MOOD FRAMING FOR WALLS AND HEADERS SHALL BE S-P-F No. 1/ No. 2 OR BETTER AS FOLLOWS.

Bending Fb = 875 psi Shear Fv = 135 psi Mod Elas E = 1,400,000 psi

MOOD IN CONTACT WITH MASONRY, CONCRETE, MEATHER OR GRADE SHALL BE PRESSURE TREATED.

MOOD TRUSSES SHALL BE DESIGNED BY THE TRUSS COMPANY. TRUSSES SHALL BE DESIGNED BY A LICENSED PROFESSIONAL BIGINEER EXPERIENCED IN THE TYPE OF MORK AND LICENSED IN THE STATE OF THE PROJECT. TRUSS COMPANY SHALL RECOMMEND SIZE, TYPE, AND SPACING OF BRACING, SHOP DRAWINGS SHALL BEAR THE SEAL OF THE BYGINEER, ANCHOR TRUSSES INTH (MARRICANE) TIES APPROPRIATE FOR THE APPLICATION.

TRUSSES SHALL BE PRE-ENGINEERED AND INSTALLED IN ACCORDANCE WITH BCSI-BI THRU BII INCLIDING ALL TEMPORARY AND PERMANENT BRACING RECOMMENDED IN BCSI AS A MINIMAM, INCLUDING ADDITIONAL BRACING AS NOKATED ON THESE PROJECT DOCUMENTS, ALL INTERNAL TEMPORARY NON-INTERFERING BRACING TO REMAIN AS PERMANENT, TRUSS FABRICATION SPECIAL INSPECTIONS SHALL BE IN ACCORDANCE WITH THE MBC.

ALL CLIPS AND HANGERS SHALL BE INSTALLED WITH NAILS OF NUMBER AND SIZE AS INDICATED IN MANUFACTURER'S CATALOG UNLESS NOTED OTHERWISE.

THE ERECTOR SHALL PROVIDE TEMPORARY BRIDGING, PERMANDIT AND TEMPORARY BRACING, AND GUYS TO STABILIZE TRUSSES WITL PERMANDIT BRACING IS INSTALLED AND SHEATHING OR DECKING IS IN PLACE AND FASTENED.

TEMPORARY/ PERMANENT BRACING PER BCSI IS NOT SHOWN ON THESE PLANS BUT IS REQUIRED, SEE BCSI-B1-B11. TRUSSES SHALL BE DESIGNED, MANUFACTURED AND ERECTED IN ACCORDANCE WITH THE SPECIFICATIONS, GUIDES AND RECOMMENDATIONS OF THE TRUSS PLATE INSTITUTE. AMERICAN INSTITUTE OF TIMBER CONSTRUCTION AND ANSI / AND NOS FOR MOOD CONSTRUCTION.

TRUSS SHOP DRAYINGS SHALL BE SUBMITTED FOR REVIEW TO GENERAL CONTRACTOR, ARCHITECT AND ENGINEER OF RECORD PRIOR TO FABRICATION.

ALL TRUSSES SHALL HAVE (2) H2.5A TIE DOWNS (1) EACH SIDE OF BOTTOM CHORD TO BEAM SUPPORTS MIN U.N.O, OR SPECIFIED BY TRUSS SUPPLER.

WOOD CONSTRUCTION PANELS FOR ROOFS SHALL BE RATED APA-PRP-108 SHEATHING WITH EXTERIOR EXPOSURE CLASS. SPAN RATING 82/16, 5/8 INCH THICK.

WOOD CONSTRUCTION PANELS FOR WALLS SHALL BE: APA-PRP-108 RATED SHEATHING WITH EXTERIOR EXPOSURE CLASS, SPAN RATING 24/0, 7/16 INCH THICK.

CONTRACTOR SHALL PROVIDE BLOCKING AS NEEDED FOR ALL ANCHORAGE OF CONSTRUCTION AND MOINTING OF EQUIPMENT, FIXTURE AND ACCESSORS

SIDING SHALL BE STRAND PANEL SIDING, CHANNEL GROOVE B' O.C., 530 THICK X 4' X B', SHIPLAP EDGE, EMBOSSED ROUGH SAVN CEDAR TEXTURE, EQUAL TO LPSMARTSIDE, ACRYLIC PRIMED FOR PAINTING.

CORNER TRIM SHALL BE 1 1/4 X 4 TEXTURED ENGINEERED WOOD OUTSIDE CORNER TRIM, EQUAL TO LIPSMARTSIDE TRIM, ACRYLIC PRIVED FOR PAINTING

TRIM AROUND DOOR, YNDOW, TOP AND BOTTOM OF WALL TRIM SHALL BE 1 X 4 STRAND TRIM, EQUAL TO LPSMARTSIDE SERIES 190 TRIM, ACRYLLC FRIMED FOR PAINTING.

TRIM IN CONTACT WITH MASONRY OR GRADE SHALL BE FLYASH 1 X 6 AS MANUFACTURED BY BORAL OR EQUAL, ACRYLIC PRIMED FOR PARTING.

ROOF SHEATHING H-CLIPS SHALL BE 20 GAUGE GALVANIZED STEEL, SIZE PER PANEL THICKNESS, AS MANUFACTURED BY SMPSON STRONG TIE OR EQUAL. NSTALL AS RECOMMENDED BY MANUFACTURE.

TRUSS TIE DOWN HURRICANE CLIPS SHALL BE 18 GAUGE GALVANIZED STEEL AS MANUFACTURED BY SIMPSON STRONG TE OR EQUAL. INSTALL AS RECOMMENDED BY MANUFACTURER.

FASTENERS SHALL BE GALVANIZED STEEL UNLESS OTHERWISE NOTED, SIZE AND TYPE TO SUIT CONDITION. PROVIDE STANLESS STEEL, OR ZING FASTENERS WHERE APPROPRIATE FOR NON-STANING CHARACTERISTICS, FASTENERS SHALL BE PROVIDED IN ACCORDANCE WITH APPLICABLE STANDARDS, CODES, AND FEDERAL STANDARDS. PROVIDE HOLD-DOWN CLIPS FOR INCOO ROOF SHEATHING, ROOF SHEATHING SHALL BE ATTACHED TO TRUSSES WITH 11/27 PENETRATION WITH 8D COMMON (MIN) AT 67 O.C. AT SUPPORTED EDGES AND 12" O.C. IN FIELD (MIN) UN.O.

ALL WOOD FRAMING, DESIGN AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE MICHIGAN BUILDING CODE AND THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION

ALL EXPOSED STEEL SHAPES, PLATES AND BOLTS SHALL BE GALVANIZED.

ALL FASTENERS AND CONNECTORS USED WITH TREATED WOOD SHALL BE STANLESS STEEL WILESS NOTED OTHERWISE.

ALL MOOD TO MOOD CONNECTIONS SHALL USE "COMMON" NAILS UNIO. ON PROJECT DRAYINGS OR BUILDING SUPPLIER DOCUMENTS SIMPSON CONNECTORS SHALL USE NAILS OR SCREMS SPECIFIED BY SMPSON AND ALL CONNECTOR HOLES SHALL.

DIVISION T - THERMAL AND MOISTURE PROTECTION:

RIGID INSULATION SHALL BE PROVIDED AT THE PERMETER OF THE FOADATION WALL, 2-0" DOWN AND 2-0" INVARD, MINIMAN THICKNESS 2 INCHES, RIGID INSULATION SHALL BE EXTRUDED POLYSTYRENE EQUAL TO R 5/INCH.

SHEET METAL FLASHING AND TRIM SHALL BE PRE-FINISHED ALIMINIM OR PRE-FINISHED GALVANIZED STEEL. GAUGE SHALL BE SLFFICIENT TO RESIST WIND LOADS AND OIL CANNING.

ASPHALT SHNGLES SHALL BE LAMINATED STRIP, MULTI-PLY OVERLAY CONGTRUCTION, GLASS-FIBER RENFORCED, MINERAL-GRANULE SURFACED, SELF-SEALING, EQUAL TO CHOMS CORNING TRUE DEFINITION DURATION, LIMITED LIFETIME WARRANTES ARCHITECTURAL SHINGLES, COLOR AS SELECTED FROM MANUFACTURERS STANDARD COLOR, REMODELLAYMENT SHALL BE TIPE 1, NO. 15 FOR GENERAL AREAS, INDESLAYMENT ICE AND WATER SHELD SHALL BE SELF-ACHERING SHEET POLYETHYLENE FACED, MIN 40 MIL THICK, SLIP RESSTANT, POLYETHYLENE-FILM-RESHFORCED TOP SURFACE LAMINATED TO SES MODIFIED ASPHALT ADDRESSIVE NITH GUICK RELIASE BACKING; COLOR PAPILED, EGALL TO CERTAIN TEED WINTERGUARD, USE FOR AREA FROM EAVE UP SLOPE TO 2"0" BEYOND INTERNAL FACE OF WALL AS ICE BARRIER.

FIBERGLASS BATT INSULATION SHALL BE PROVIDED AS INDICATED ON DRAWINGS, INSULATION SHALL BE CLASS A, EQUAL, WITH KRAFT FACING FOR TYPES INVAIND V CONSTRUCTION, AND FOLL FACING FOR TYPES I AND 11 CONSTRUCTION. IR VALUE AS INDICATED ON DRAWINGS, PRODUCTS SUCH AS CELLILOSE BY INVAIND CO. OR CLOSED CELL FOAM BY KYNENE ARE ACCEPTABLE ALTERNATIVES, INSULATION IN ATTIC BY G.C. INSULATION IN WALLS BY CONDER.

ALTERVALIVES, INSULATION IN ATTIC ST. G.C. INSULATION IN PALLS ST CONNEX.

PROVIDE AIR AND MEATHER MEMBRANE BARRIER EQUAL TO TYVEK COMMERCIAL MRAP ON EXTERIOR FACE OF WALL SHEATHING. TO BE COVERED BY SIDNIG. OVERLAP MINIMA 12 INCHES AND ANCHOR IN ACCORDANCE WITH MANUFACTURENS. RECOMMENDATIONS, PROVIDED FUND APPLIED AIR BARRIER EQUAL TO 'AR-SHELD LMP' ON EXTERIOR FACE OF SHEATHING OR MASONRY SUBSTRATE IN CAVITY WALL CONSTRUCTION.

CHEET METAL FLASHING AND TRIM SHALL BE PREFINISHED ALLMINUM OR PREFINISHED GALVANIZED STEEL AS NOKATED ON THE

STEEL FASCUS GAUGE AS FOLLOMS: UP TO 6 NCH HIGH - 25 GAUGE ALUMBUM FASCUS AS FOLLOMS: UP TO 6 NCHES HIGH - 040 NCH THICK COLOR AS SELECTED FROM HAMEFACTURER'S STANDARD COLORS.

PREFINENED ALLMINUM SOFFIT SHALL BE 12 NCH MIDE VENTILATING TYPE PANELS, JOH NCH THICK, PROVIDE WITH ACCESSORES FOR COMPLETE INSTALLATION, VENTILATION NET FREE AREA S NOTED ON DRAWINGS, PRODUCTS EQUAL TO SILL EVEN ARE ACCEPTABLE, COLOR TO BE SELECTED FROM MANIFACTUREN'S STANDARD COLORS.

DIVISION 8: DOORS AND WINDOWS:

SERVICE DOORS SHALL BE 24 GAIGE COMMERCIAL GRADE STEEL DOORS, SOLID FOAM CORE, APPROPRIATE FOR OUTDOOR LOCATIONS, FLUSH FACE, GALVANIZED WITH BAXED ON BYANEL FRISH, FRAMES SHALL BE 24 GAIGE STEEL OR ALLINIUM, DOOR AND FRAME SHALL BE PRE-HING, PROVIDE DRIP CAP, J-TRIM AND HEM TRIM FROM THE METAL SDING MANUFACTURER TO FINISH OPPINIS, COLORS SHALL BE SELECTED FROM MANUFACTURER'S STAYDARD FINISHES AND COLORS.

SERVICE DOOR HARDWARE SHALL BE COMMERCIAL GRADE., PROVIDE COMPLETE SYSTEM. EXTERIOR DOORS SHALL HAVE:

MEDIUM DUTY COMMERCIAL HINGES (3) FIVE KNICKLE BALL BEARING TYPE: SELECT, HAGAR, STANLEY OR EQUAL LEVERALOCKSETS WITH INTERCHANGEABLE CORE: EQUAL TO SCHLAGE INDSORDRIAGE26 LOW PROFILE ALLMINIM THRESHOLDS, SWEEPS AND FELT WEATHER STRIPPING: NATIONAL GUARD OR EQUAL

OVERHEAD GARAGE DOOR SHALL BE COMMERCIAL GRADE, INSULATED DOOR, 24 GAUGE METAL INTERIOR AND EXTERIOR SHEET METAL INTH 2" FOAM CORE (R-4) EQUAL TO MODEL CFR 68 AS HANJEACTURED BY IDEAL DOOR. TRACK SHALL BE MIN 2" STANDARD LIFT TRACK, 12" RADIJS, BRACKET MOINTS AND TUBULAR TORSION SFRING, PROVIDE SLIDE MOINT LOCKS ON EACH SIDE. 10 YEAR WARRANTEE. COLOR TO BE SELECTED FROM HANJEACTURERS STANDARD COLORS.

WINDOWS SHALL BE VINYL FIXED WITH INSULATED GLASS EQUAL TO JELDWEN 'BEST SERIES' WITH LOW E GLASS. COLOR TO BE SELECTED FROM MANUFACTURERS STANDARD COLORS.

DIVISION 9 - FINISHES:

GYPSUM BOARD SHALL BE 1/2 INCH THICK, TAPERED EDGE, ASTM C 1396/C 1396M

PROVIDE JOINT FILLERS AND SEALANTS APPROPRIATE FOR USE AND LOCATION, AS MANUFACTURED BY BASE, PECORA OR EQUAL.

PAINT SHALL BE EQUAL TO SHERVISH WILLIAMS COMMERCIAL GRADE LOW YOU PAINTS UNLESS NOTED OTHERWISE. (3) COATS.

INTERIOR CEILINGS: LATEX PRIMER, EQUAL TO SHERVIN WILLIAMS PREPRITE PROBLOCK, PRIMER/SEALER, BS SERIES TO COATS, ACRYLIC EQUAL TO SHERMIN WILLIAMS SOLO, AT4 SERIES, FLAT

EXTERIOR MOOD: ACRYLIC COATING EQUAL TO DURATION

DIVISION 31 - SITE:

PROVIDE SOIL BROSION MEASURES TO COMPLY WITH COUNTY STANDARDS INCLIDING BUT NOT LIMITED TO SILT FENCE. STRIP BUILDING SITE WITHIN AREA OF NEW CONSTRUCTION. STOCKPILE TOPSOIL FOR REISE, PROTECT ALL ELEMENTS NOTED TO REMAIN.

CLEAN FILL REMOVED FOR CONSTRUCTION MAY BE STOCKPILED AND REMAIN ON SITE FOR THE OWNERS USE. ALL DEMOUSHED PAVING MATERIALS SHALL BE REMOVED PROMPTLY.

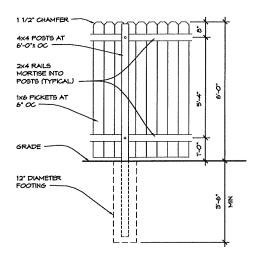
EXCAVATE AS REQUIRED ALLOWING SUFFICIENT SPACE FOR CONSTRUCTION MEASURES AND UTILITIES. SUBGRADE FOOTINGS SHALL BE LEVEL AND FREE OF LOOSE MATERIAL OR WATER.

FILL MATERIALS SHOULD BE OF TYPE APPROPRIATE FOR USE AND LOCATION. COMPACT MATERIALS IN LIFTS NOT MORE THAN 12 INCHES TO A MINIMUM OF 95% PROCTOR.

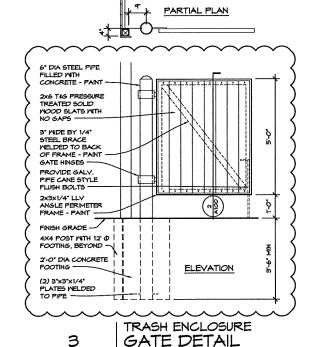
FORTLAND COMENT CONCRETE PAYING SHALL BE MINIMAN COMPRESSIVE STRENGTH OF 4500 PSI AT 25 DAYS, REINFORCING SHALL BE 6 x 6 x 1/21,2 1/2/2 1/2/4 1/2/4 1/2/4 BE MINIMAN EDGE AND END LAPS OF 5 NICHES, AR CONTENT SHALL BE 5 - 6%, SUMP SHALL NOT EXCEED 3 NICHES, PROVIDE BROOM FINSH ON EXTERIOR SLABS. PROVIDE MINIMAL 3 INCHES OF TOPSOIL FOR AREAS SCHEDULED TO RECEIVE TURF, PROVIDE SOD OR HYDROSEED CONSISTING OF A MIXTURE OF ANNUAL AND PERENNIAL SEED. CONTRACTOR SHALL WATER THE TURF AREA UNTIL TURF IS ESTABLISHED BUT NOT LESS THAN 30 DAYS.

RESTORE AND REPAIR ANY AREAS DAMAGED DURING CONSTRUCTION, PROTECT ALL AREAS ADJACENT TO CONSTRUCTION,

ALL LAWN AREAS SHALL BE MATERED, FERTILIZED, AND TRAMED, MOYED AND SENERALLY MANTANED BY THE CONTRACTOR UNTIL SUBSTANIAL COMPLETION, OR UNIL THAT IS FULLY ESTABLISHED. LAWN SHALL BE MOYED AT 2 1/2 - 3" MEIGHT, FRET MOYING SHALL BE BY CONTRACTOR.

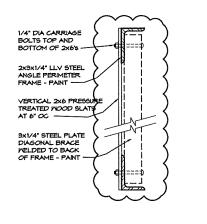


TRASH ENCLOSURE FENCING DETAIL 1/2" = 1'-0"



DMPENCGATEO3

1/2" = 1'-0"



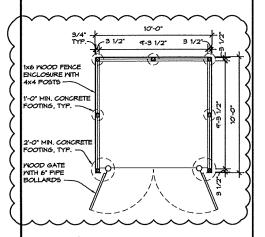
GATE SECTION



9100 Lapeer Rd. Suite B Davison, MI 48423 (810) 412-5640 www.h2aarchitects.net

SPECIAL INSPECTION SCHEDULE

NO SPECIAL INSPECTIONS REQUIRED PER MICHIGAN BUILDING CODE SECTION 1704, REFER TO SPECIFICATIONS



DUMPSTER FENCE DMPENCGATEON 1/4" = 1'-0"

DESCRIPTION DATE NO. 07/22/19 POST-BID ADDENDUM BIDS & PERMITS 05/06/19 04/30/19 OWNER REVIEW

RANGER'S BUILDING

ROCHESTER HILLS INNOVATION HILLS PARK

2800 W. HAMLIN RD. ROCHESTER HILLS, MI 48309

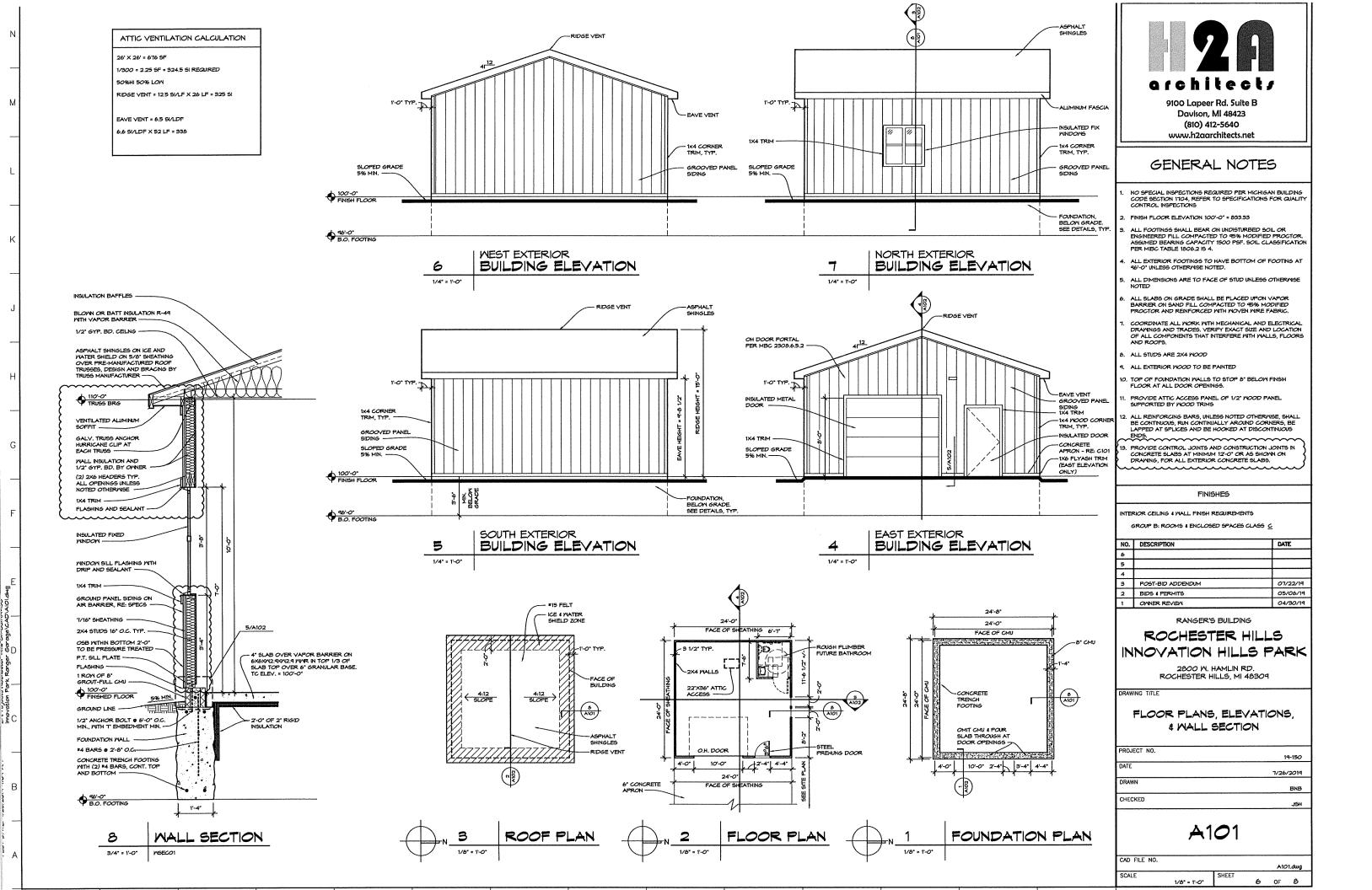
DRAWING TITLE

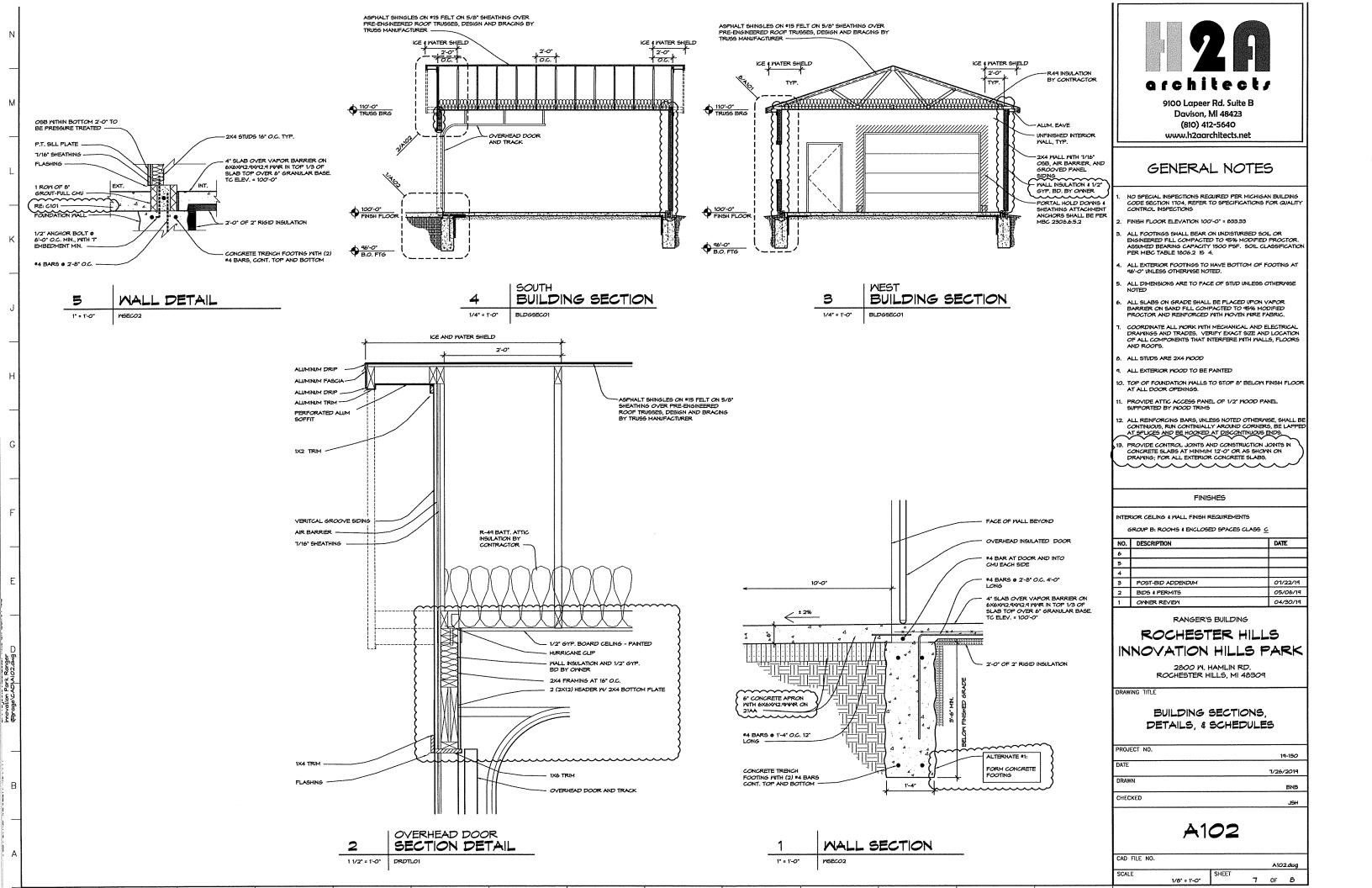
SPECIFICATIONS AND NOTES

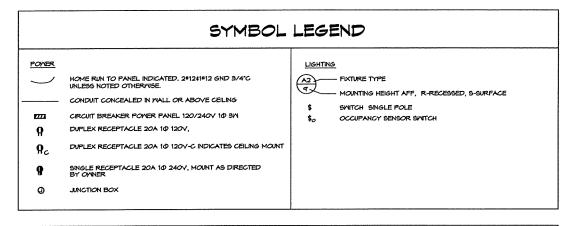
ROJECT NO. 14-150 7/26/2019 RAWN BNB CHECKED JSH

A100

CAD FILE NO. A100.dwg SCALE SHEET 1/8" = 1'-0" 5 OF 8



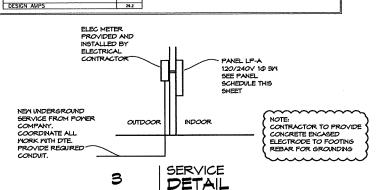




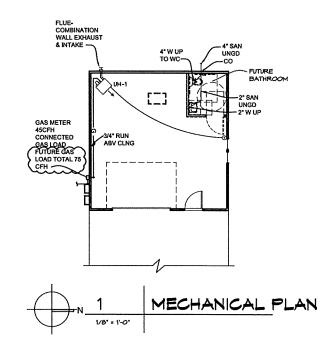
		FIXTURE SCHEDULE					
_	MANUFACTURER	DESCRIPTION	MOUNTING	LAMP		TYPE	SYMBOL
			HEIGHT	TYPE	NO		
1	1. LITHONIA CLX LED MDL SEF 2. COOPER 3. WILLIAMS	5.2'x48' SUFACE MOUNTED LED INDUSTRIAL FIXTURE, ALLMINUM LIGHT VEIGHT HEAT SINK DESIGN, FABRICATED STEEL CHANNEL. WIDE DIFFUSED LENS. 3000 LIMPINS, WIDE DISTRIBUTION, ELECTRONIC DRIVER, 4000K, 120V OPERATION.	5	LP840 80CRI 8000 LUMENS 190		A	
TI.	1. LITHONIA SB LED WRAP SER 2. COOPER 3. WILLIAMS	5-5/6'X48' SURFACE MOINTED LOW PROFILE LED WRAPAROUND FIXTURE, DIE FORMED COLD ROLL STEEL WITH SNAP ON CHANNEL COVER, 3400 LIMBIS, WIDE DISTRIBUTION, ELECTRONIC DRIVER, 4000K, 120V OPERATION.	5	LP840 80CRI 3900 LUMENS 32N		В	
_	1. LITHONIA DSXW1-10C-700-40K T3M-120-PE-WG-VG-SF.	13-3/4"M X 10"D X 6 3/6"A. ARCHITECTURAL STYLE LED MALL PACK, RUGGED DIE-CAST ALIMINAM HOUSING, SINGLE PIECE DIE CAST ALIMINAM HOUSING, SINGLE PIECE DIE CAST ALIMINAM CONSTRUCTION NITH COMPLETELY SEALED HOUSING, UL. LISTED FOR NET LOCATION, 10 LED SINGLE ENGINE 100MA DRIVER, 2561 LUMENS, TYPE 3 DISTRIBUTION, PHOTOCELL, VANDAL GUARD AND MER GUARD. 120 VOLT, COLOR AS SELECTED BY ARCHITECTURAL TRADES.	S SEE PLANS FOR MOUNTING HEIGHT	LED 4000K 26M		c	0
_	1. ELITE LED LIGHTING ELX-625 2. LITHONIA LIGHTING	EXIT LIGHT EMERGENCY LIGHT SHALL BE UNIVERSAL MOINT, DIE CAST ALIMINUM CONSTRUCTION, HIGH OUTPUT LED DIFFUSE LIGHT PANEL, RED LETTERS WITH MAINTENANCE FREE NICKEL CADIN BATHERY CAPABLE OF PROVIDING 90 MINUTE FULL LIGHT OPERATION. CAT "ELLL LIGHT OPERATION.	5	LED		×	€
_	1. ELITE LED LIGHTING ELM-LED-881 2. LITHONIA LIGHTING	EMERGENCY LIGHT REMOTE HEAD TO BE CONNECTED TO EXIT SIGN. CAT "ELM LED 881	5	LED		X1	~

#-#" - MOUNTING HEIGHT ABOVE FINISHED FLOOR TO BOTTOM OF FIXTURE. PANEL NO. LP-A FED FROM POMER COMPANY METER FEEDER CABLE SIZE 3#34!#96ND 1-1/4*C VOLTS 120/240 PHASE 1 NO WIRES 3 MAIN BUS RATING 100A MAIN BREAKER 100A LUGS _____ CIRC. KW PER PHASE DESCRIPTION DESCRIPTION A 8 RECEPTACLES 2 1.2 0 15 20 1.2 CH-1 AIR COMPRESSOR 0.6 · 0.6 RECEPTACLES 25 14 2.0 FUTURE HTR 16 SPACE SPACE PHISE A PHISE B TOTAL CONNECTED LOAD LOCATION RANGER'S BUILDING MOUNTING SURFACE JOB NO 19-12 CATE | 4/15/18 DEMAND FORD KM 7.0

G



NO-SCALE



MECHANICAL SPECIFICATIONS

The design drawings show the general arrangement and extent of the work. The drawings are diagrammatic and may not be drawn to scale in certain areas for purposes of clarity and legibility. It is intended that all apparatus be located symmetrical with architectural elements and be installed to avoid obstructions and preserve headroom. The contractor shall review the plans of other trades with his sown work to avoid conflicts and interference's; he shall make use of all sources of data, including shop drawings and drawings of equipment furnished by others.

ACCESS TO FOURMENT

All control devices, equipment, dampers, etc., shall be so located so as to provide for each access of operation, repairs and maintenance; if concealed, access panels or extended operators shall be

SUPPORTS:

Provide all supports, framing, etc., for the proper installation of pipe, equipment. etc., fabricated from structural steel shapes and to prevent sagging, vibration and strain, and to provide for

The heating, ventilating and air conditioning shall be tested and balanced to demonstrate that specified capacities of the various parts of all systems as indicated in the contract documents can be met and all controls are functioning properly.

All material and workmanship shall be guaranteed for a period of one year from the date of acceptance, and the contractor shall make good any defects within that period at no additional cost to the cowner.

PLUMBING

SANITARY PIPING

All piping below grade shall be service weight cast Iron soil pipe with compression type fittings

Option: Pipe and Fittings, shall be plastic PVC: Type DWV, per; ASTM D2665. Joints shall be plastic PVC solvent welded, per; ASTM D2665.

CLEANOUTS AND ACCESS COVERS (CO):

Provide cleanouts at the foot or base of each vertical waste or soil stack, in drainage lines at all changes in direction and at 100°-0" intervals having no changes in direction.

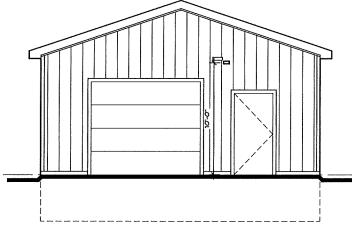
Standard weight schedule 40, ASTM 1-20 black steel pipe with class 150 screwed malleable iron

GAS VALVE

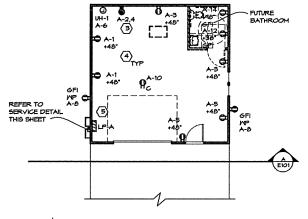
Gas valve shall be non-fubricated plug valves; ACF or Dezurik. Provide plug valves at all connections to equipment.

UNIT HEATER UH-1

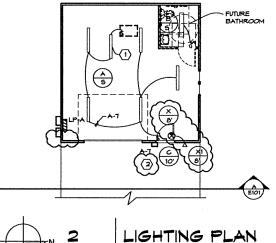
Reznor UDASO45 gas-fired separated combustion, 630 CFM @ 45 MBH input, 37.4 MBH output, aluminized steel heat exchanger, aluminized steel burner and drip pan, spark ignited, remote thermostat, 2.5 FLA, 115 volts.

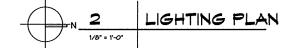














9100 Lapeer Rd. Suite B Davison, MI 48423 (810) 412-5640 www.h2aarchitects.net

ELECTRICAL NOTES

- ELECTRICAL WORK SHALL COMPLY WITH LATEST NATIONAL ELECTRICAL CODE, LIFE SAFETY CODE AND APPLICABLE STATE AND LOCAL CODES AND ORDINANCES.
- ELECTRICAL EQUIPMENT AND WRING SHALL BE NEW AND SHALL BE FURNISHED AND INSTALLED BY THIS CONTRACTOR, UNLESS OTHERWISE NOTED.
- 3. WIRING SHALL BE IN CONDUIT, CONDUIT SHALL BE 3/4" MIN. CONDUITS NEW MIRES SHALL BE TYPE THAN. MINIMUM SIZE SHALL BE #12 AMG, UNLESS OTHERWISE
- 4. RECEPTACLE CIRCUITS SHALL HAVE A DEDICATED GROUND AND DEDICATED NEUTRAL.
- VERIFY AND COORDINATE WITH ARCHITECTURAL DRAWINGS EXACT LOCATION AND MOUNTING HEIGHTS OF POWER AND DATA OUTLETS.
- PROVIDE A TYPEWRITTEN DIRECTORY IN THE PANEL DOOR, ACCURATELY INDICATING ROOMS AND EQUIPMENT BEING SERVED. CONTRACTOR SHOULD MAKE EVERY ATTEMPT TO IDENTIFY ALL CIRCUITS.

KEYED ELECTRICAL NOTES

- MOUNT FIXTURE ABOVE CEILING IN ATTIC SPACE, CIRCUIT
- OUTDOOR FIXTURES TO BE CONTROLLED BY PHOTOCELL. 240V COMPRESSOR, CIRCUIT AS SHOWN, VERIFY EXACT LOCATION AND TYPE OF CONNECTION WITH OWNER PRIOR
- ALL RECEPTACLES SHALL BE GFI, SPECIFICATION GRADE, 20A 120V, GRAY COLOR WITH STAILESS STEEL COVER PLATE. BY LEGRAND, LEVITON OR EQUAL.
- NEM PANEL "LP-A" SHALL BE SPECIFICATION GRADE, SURFACE MOINTED, "SQUARE D NO" OR EQUAL BY EATON OR SIEMENS, SEE SCHEDULE THIS SHEET.

NO.	DESCRIPTION	DATE	
6			
5			
4			
3			
2	POST-BID ADDENDUM	07/22/19	
1	RIDS AND PERMITS	07/11/14	

RANGER'S BUILDING

ROCHESTER HILLS INNOVATION HILLS PARK

2800 W. HAMLIN RD. ROCHESTER HILLS, MI 48309

DRAWING TITLE

ELECTRCAL PLANS

PROJECT NO. 19-150 DATE 7/26/2019 FAA/ BNR CHECKED

ME101

CAD FILE NO. ME101.dwg SCALE SHEET 8 OF 8 1/6" = 1'-0"