## BUILDING INFORMATION ■ NEW BUILDING BUILDING DATA USE GROUP CONSTRUCTION CLASSIFICATION SB NUMBER OF FLOORS BUILDING HEIGHT 20'-6" BUILDING AREA IO,000 SF OCCUPANCY LOAD @ I PER 500 SF

### PROJECT DESCRIPTION / OBC INFORMATION

- THE PROPOSED STRUCTURE SHALL BE 10,000 SF, SLAB ON GRADE, NON-SPRINKLERED, ONE STORY POST FRAME CONSTRUCTED STORAGE BUILDING (WITH ALTERNATE BID CONSIDERED FOR METAL BUILDING STRUCTURE)
- THE EXISTING BUILDING ON THIS SITE AND THIS PROPOSED BUILDING ARE BOTH UNDER THE SAME OWNERSHIP (FAIRFIELD COUNTY). THE USE OF THE PROPOSED BUILDING IS ACCESSORY TO THE TENANTS IN THE EXISTING BUILDING. THE PROPOSED BUILDING SHALL BE 209' FROM THE EXISTING BUILDING. THE EXISTING BUILDING HAS AN EXISTING MEN'S RESTROOM CONTAINING THREE TOILETS, THREE URINALS AND THREE LAVATORIES, AND AN EXISTING WOMEN'S RESTROOM CONTAINING ONE TOILET AND ONE LAVATORY. THE EXISTING BUILDING HAS A UTILITY SINK. IN LIEU OF A DRINKING FOUNTAIN, THE OWNER SHALL CONTINUOUSLY PROVIDE BOTTLED WATER COOLER AT THE EXISTING BUILDING. THEREFORE, BASED UPON OBC 2902.3.3 NO TOILET FACILITIES OR OTHER PLUMBING FIXTURES ARE REQUIRED IN THE PROPOSED
- 4. ALL WORK SHALL COMPLY WITH THE 2011 OHIO BUILDING CODE, AND THE LATEST EDITIONS OF THE NEC, THE OHIO MECHANICAL CODE, THE OHIO PLUMBING CODE AND ANY OTHER APPLICABLE LOCAL CODE.

# BALDWIN GORVERNMENT SERVICES CENTER EQUIPMENT STORAGE BUILDING

240 BALDWIN DRIVE LANCASTER, OHIO 43130

## VPL PROJECT # L-1735

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C3 GRADING PLAN

C4 STORM UTILITY PLAN

C4 STORMUTILIT

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FAX: (740) 654-3009

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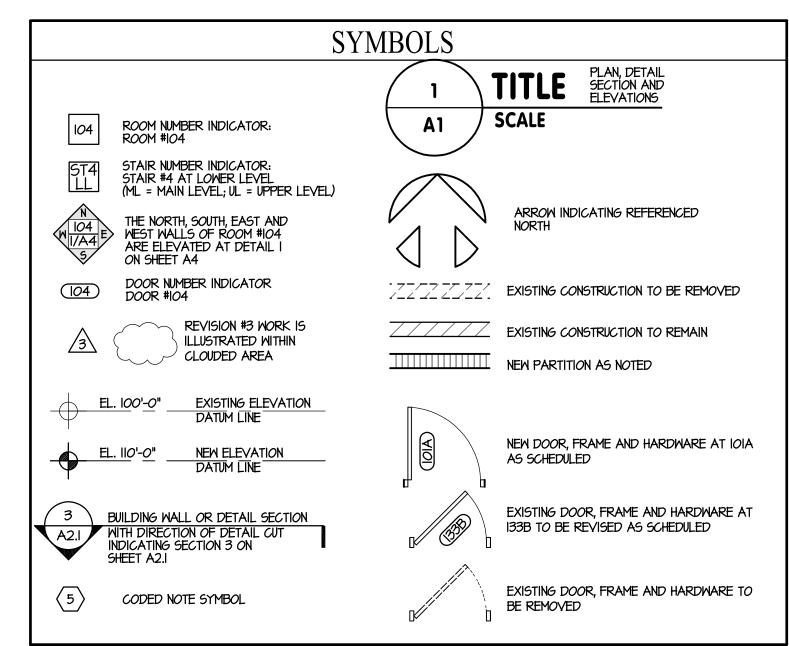
### MPL

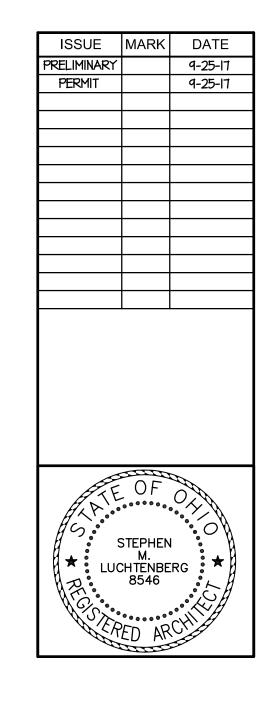
## ARCHITECTS INC.

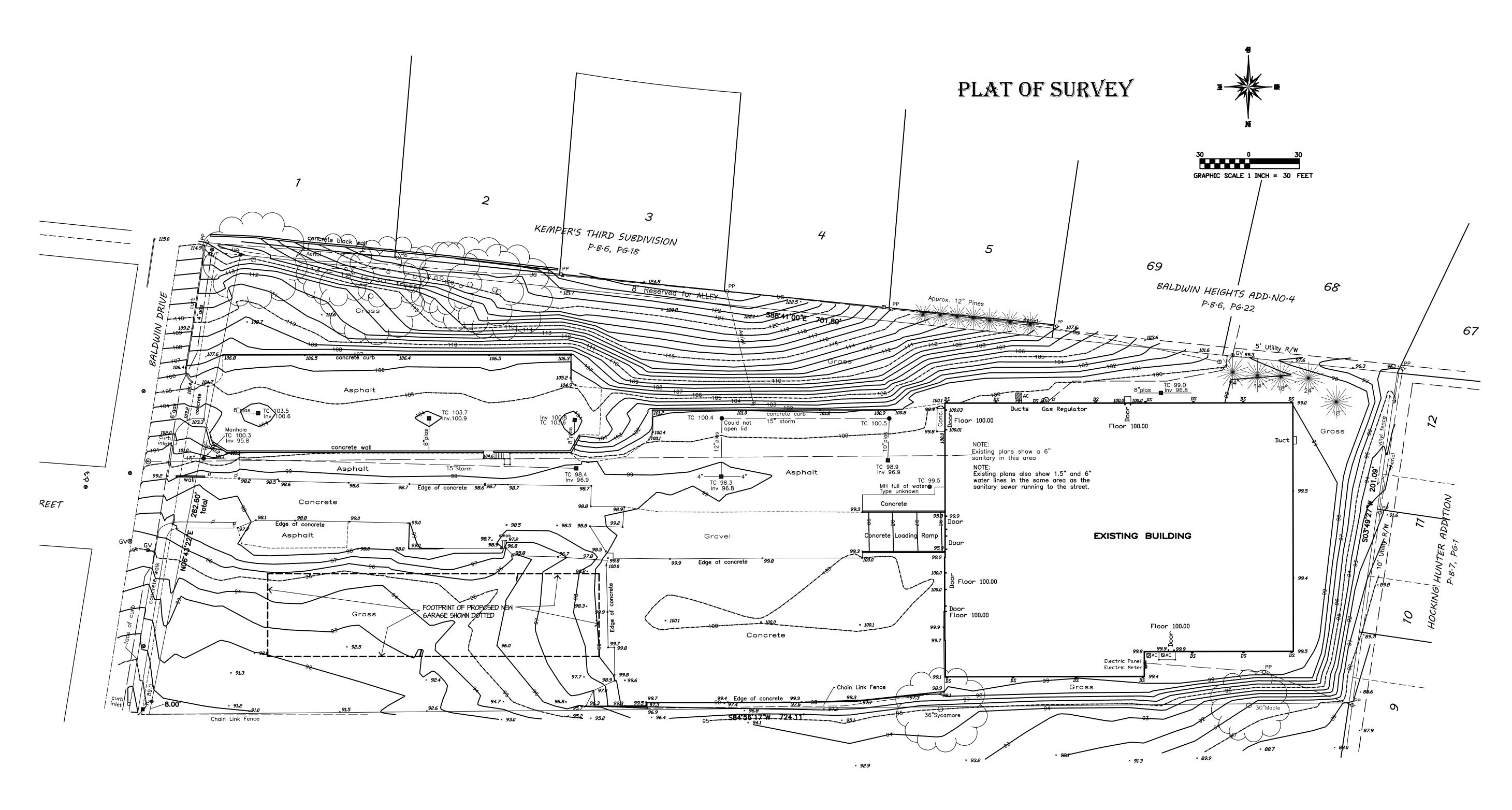
426 E. MAIN STREET, LANCASTER, OHIO 43130

PHONE: (740) 654-4048

VICINITY MAP
Forest Rose Cernelary  Bancaster  Forest Rose Cernelary  Rising Pork  Forest Rose Cernelary  Rising Rose Ce
PROJECT SITE
1 LANCASTER







L E G E N DPower Pole Light Pole Manhole, Storm Manhole, Sanitary Curb Inlet Telephone Box Gas valve Water valve Fire Hydrant — G — Gas Line — Telephone Line — E — Electric Line

—ss— Sewer, Sanitary

— s — Sewer, Storm

— x — Fence Line, as labeled

Deed Reference:
Official Record 1707, Page 4111
JEF/SFF Rentals, LLC
4.00 Acres (Exc.0.06 Acres)
PIN 053-40046.00

Contours are are one foot intervals and are based on an assumed elevation.

### **UTILITY STATEMENT**

The underground utilities shown have been located from field survey information and existing drawings. The surveyor makes no guarantees that the underground utilities shown comprise all such utilities in the area, either in-service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated although the surveyor does certify that they are located as accurately as possible from information available. The surveyor has not physically located the underground utilities.

STATE OF OHIO FAIRFIELD COUNTY CITY OF LANCASTER TOWNSHIP14, RANGE 18 SECTION 5 BANK ADDITION PART OF OUTLOTS 25 & 26



For: VPL Architects Date of Drawing: Dec.8, 2016

Registered Surveyor No.6416 Date

TOBIN-McFARLAND SURVEYING INC. 111 West Wheeling Street Lancaster, Ohio 43130 Ph. 740-687-1710 Fax 740-687-0877

CENTER  $\mathbf{m}$ SERVICES GOVERNMENT

**426 EAST MAIN STREET** LANCASTER, OHIO 43130 (740) 654-4048 facsimile: (740) 654-3009

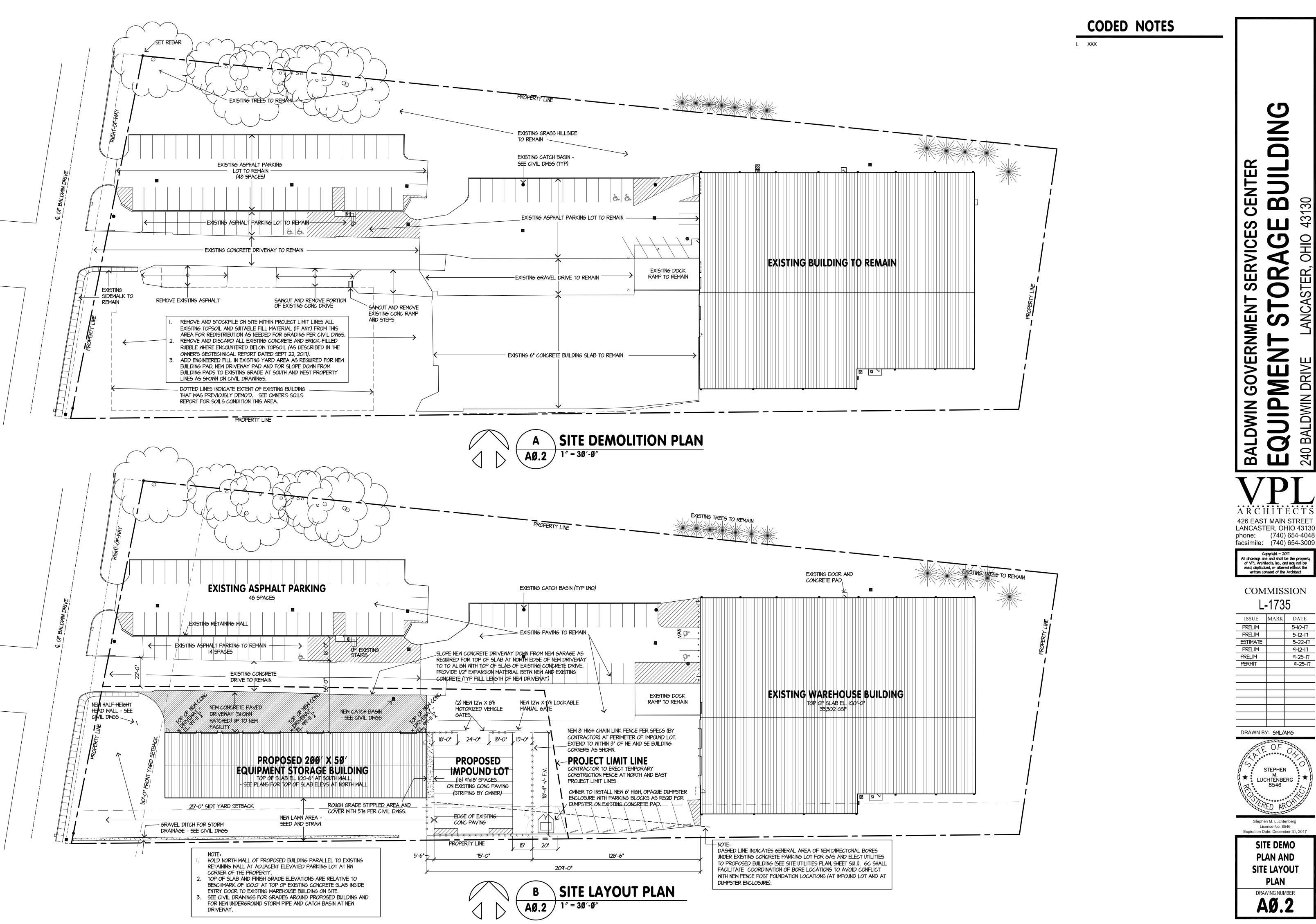
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used, duplicated, or altered without the
written consent of the Architect

COMMISSION L-1735

ISSUE	MARK	DATE
ESTIMATE		5-22-17
PERMIT		9-25-17
DRAWN B	Y: SMI/	AMG

Stephen M. Luchtenberg License No. 8546 Expiration Date: December 31, 2017

> **EXISTING SURVEY**



CENTER  $\mathbf{\Omega}$ SERVICES GOVERNMENT

TIDI 426 EAST MAIN STREET LANCASTER, OHIO 43130 phone: (740) 654-4048

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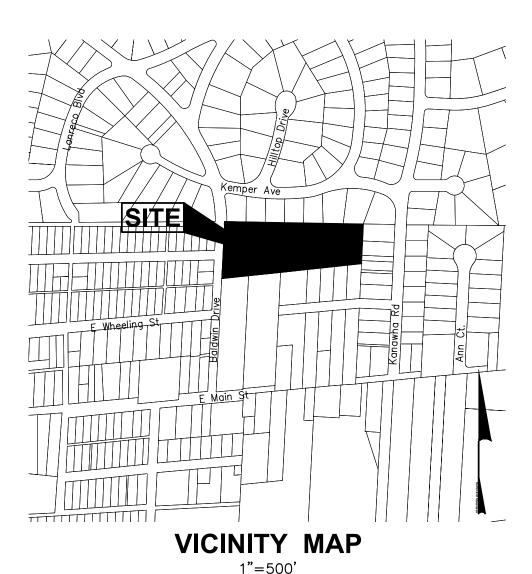
COMMISSION L-1735

ISSUE	MARK	DATE
PRELIM		5-10-17
PRELIM		5-12-17
ESTIMATE		5-22-17
PRELIM		9-12-17
PRELIM		9-25-17
PERMIT		9-25-17
	/- CM /-	4146

DRAWN BY: SML/AMG STEPHEN LUCHTENBERG 8546

Stephen M. Luchtenberg License No. 8546 Expiration Date: December 31, 2017

SITE DEMO **PLAN AND** SITE LAYOUT PLAN



### **BENCH MARKS**

<u>Datum</u>: The reference vertical datum for this project is NAVD88 as observed by GPS network rover on ODOT CORS in March 2016. Horizontal datum shall be considered local and based on control monuments listed below.

FAI 22 BM007: Located in Hocking Township, Fairfield County. Starting at the intersection of US 33 and US 22 Southwest 0.3 miles to the station on the left. Station is located 33 feet North of the centerline of US 22. Station is located on the Northeast headwall of a bridge over the Hocking River (Bridge Number FAI 22 14.37) Disk is even with the centerline of US

Elevation: 820.419

Project Benchmark #1: §" rebar found Northeast of the center of the Hubbard Drive cul-de-sac and 19' Southeast of the curb of the drive on the property to the North.

Elevation: 857.11

Project Benchmark #2: §" rebar found 75' East of the center of the Hubbard Drive cul-de-sac and 47' Southeast of the edge of pavement of the existing drive to the adjacent property to the North.

Easting: 1928902.11 Elevation: 856.96

Project Benchmark #3: Iron pin found capped 304' East of the center of the Hubbard Drive cul-de-sac and 290' Southwest of the edge of payement of Autumn Drive.

Northing: 636121.00 Easting: 1929130.74 Elevation: 857.26

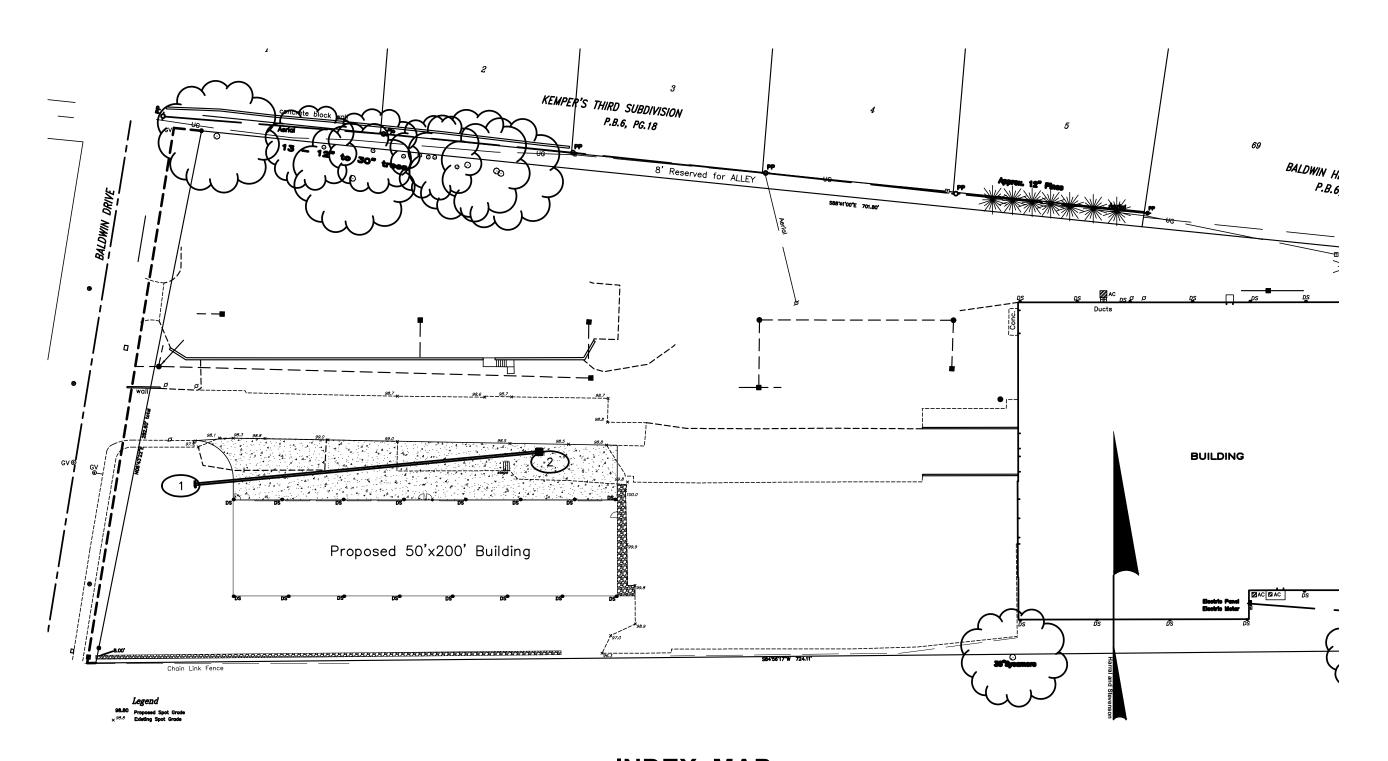
THE CURRENT CITY OF LANCASTER, CONSTRUCTION AND MATERIAL SPECIFICATIONS (CMSL), INCLUDING ALL SUPPLEMENTS THERETO, WITH THE REQUIREMENTS OF THE CITY OF LANCASTER CURRENT ON THE DATE OF THE CONTRACT, SHALL GOVERN ALL WORKMANSHIP, MATERIALS AND METHODS OF CONSTRUCTION INVOLVED IN THE IMPROVEMENTS SHOWN ON THESE PLANS, EXCEPT AS SUCH SPECIFICATIONS ARE MODIFIED BY THE FOLLOWING SPECIFICATIONS OR BY THE CONSTRUCTION DETAILS SET FORTH HEREIN.

SECTIONS OF CMSL REFER TO THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS (ODOT-CMS). THE CONTRACTOR SHALL KEEP COPIES OF CMSL AND ODOT-CMS ON THE PROJECT SITE DURING ALL CONSTRUCTION OPERATIONS.



### BALDWIN GOVERNMENT SERVICES CENTER EQUIPMENT STORAGE BUILDING

240 BALDWIN DRIVE, LANCASTER, Ohio PLOT, GRADE, AND UTILITY PLAN



### **INDEX MAP** Scale : 1"=50'

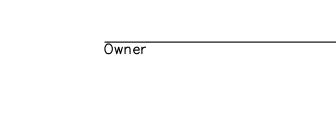
### **INDEX OF SHEETS**

- C1 Title Sheet
- C2 General Notes
- C3 Grading Plan
- C4 Utility Plan

**DEVELOPER'S STATEMENT OF INTENT** Fairfield County Commissioners

210 E Main Street Lancaster, Ohio 43130 (740)-652-7090

I hereby state that these plans have been prepared with my knowledge and concurrence and represent my intent and interests.



### The Standard Drawings Listed On These Plans Shall Be Considered a Part Thereof STANDARD DRAWINGS - CITY OF LANCASTER DWG. NO. D-6Sediment Control Silt Fence

Construction Entrance for Erosion and Sediment Control

Erosion Control Notes

Type 1 Bedding for Sewer Pipe 6"-27" Diameter

Standard Catch Basin (18" Dia. & Smaller Pipe)

**SUMMARY OF ESTIMATED QUANTITIES** 

UNIT | QTY.

Lump |

14

3,821

1,120

L.F.

Each

Each

C.Y.

C.Y.

S.F.

Each

L.F.

L.F.

L.F.

Each

Each

Lump

Lump

Lump

Lump

|Sq. Yd.| 1,200

570

6,169

Sum

Sum

Sum

DESCRIPTION

Clearing and Grubbing

Excavation (Cut)

Embankment (Fill/Import)

Undercut of Unsuitable Material (Export)

Silt Fence

Concrete Washout

Dandy Sack

Rock Channel Protection, #2 with Filter

Crushed #57 Stone

6" Reinforced Concrete

12" ODOT Half Height Headwall

12" R.C.P. with Type 1 Bedding 706.02

8" PVC Roof Drain with Type 1 Bedding 706.02

6" PVC Roof Drain with Type 1 Bedding 706.02

Clean Out with HD Casting

City of Lancaster Standard Catch Basin

Maintenance of Traffic

Construction Layout

Mobilization

Pavement Marking

Seeding and Mulching

NO. SPEC

1 202

2 203

3 203

4 203

5 207

6 207

7 207

8 207

9 207

15 604

17 | 614

18 | 623

19 624

20 641

21 | 659

D-9

D - 11

S-1

S - 29

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ity's No	Volume	Page	Grantor				
					AS BUIL	т	

Signatures below signify only concurrence with the general purpose and general location of the project. All technical ns Prepared By: Harral and Stevenson Engineering - Surveying 120 E. Main Street, Suite A Circleville, Ohio 43113 Ph: 740.497.4432 www.harralstevenson.com son W. Harral, PE 71458

JASON

HARRAL E - 71458

irral and Stevenson, LLC 71458 9/25/17 Ohio Reg. No.

PAUL MARTIN, SERVICE-SAFETY DIRECTOR GREG HINTZ, SUPT., DIVISION OF TRANSPORTATION MIKE NIXON, SUPT., DIVISION OF WATER POLLUTION CONTROL DAVID WARD, CHIEF, DIVISION OF FIRE

details remain the responsibility of the engineer preparing the plans. IMP. ACCT. NO.\_\_ MITCH NOLAND, P.E., CITY ENGINEER CONTRACT NO.\_ MIKE PETTIT, GENERAL MANAGER, MUNICIPAL GAS CONTRACTOR\_ ANDY GUNDELFINGER, DISTR. SUPV., DIVISION OF WATER BILL BURROWS, SUPT., SANITATION DEPARTMENT

City of Lancaster, Ohio ENG. FILE NO.\_\_\_\_\* COMPLETION DATE\_ Scale: As Noted

Date: September 25, 2017

**DIVISION OF ENGINEERING & CONSTRUCTION** BALDWIN GOVERNMENT SERVICES CENTER **EQUIPMENT STORAGE BUILDING** 290 BALDWIN DRIVE, LANCASTER, OHIO PLOT, GRADE, AND UTILITY PLAN Sheet No.: C1 of 4

Dwg. No. :

WORK LIMITS: THE CONTRACTOR SHALL CONFINE HIS ACTIVITIES TO THE PROJECT SITE UNDER DEVELOPMENT OR THE EXISTING RIGHT-OF-WAYS, CONSTRUCTION AND/OR PERMANENT EASEMENTS AND SHALL NOT TRESPASS UPON OTHER PRIVATE PROPERTY WITHOUT THE WRITTEN CONSENT OF THE

SAME SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS RELATED ITEMS.

SATISFACTION. THE CONTRACTOR SHALL BEAR THE COST OF THIS WORK. MISCELLANEOUS WORK: ALL ITEMS OF WORK CALLED FOR ON THE PLANS FOR WHICH NO SPECIFIC METHOD OF PAYMENT IS PROVIDED SHALL BE PERFORMED BY THE CONTRACTOR AND THE COST OF

ALL DAMAGE TO PRIVATE PROPERTIES SHALL BE REPAIRED BY THE CONTRACTOR TO THE ENGINEER'S

DRAIN TILE: ALL DRAIN TILE FOUND DURING CONSTRUCTION ACTIVITIES SHALL BE REPORTED TO THE CITY ENGINEER. ANY DRAIN TILE BROKEN DURING EXCAVATION SHALL BE REPLACED TO ITS ORIGINAL CONDITION, CONNECTED EITHER TO CURB UNDERDRAIN OR STORM SEWER SYSTEM, OR NEW UNDERDRAIN INSTALLED TO AN UNOBSTRUCTED OUTLET APPROVED BY THE CITY ENGINEER. THE CITY ENGINEER MAY REQUIRE. AT HIS OPTION. TO CONNECT ANY OR ALL DRAIN TILE FOUND ON THIS PROJECT TO OTHER TILE. A STORM SEWER OR TO AN UNOBSTRUCTED OUTLET. IN NO CASE SHALL THE DRAIN BE CONNECTED TO A SANITARY SEWER OR ALLOWED TO FLOW ONTO A PUBLIC STREET.

EXCAVATION: ALL EXCAVATION ON THIS PROJECT IS UNCLASSIFIED. THE CONTRACTOR SHALL MAKE ALL EXCAVATION OF WHATEVER NATURE NECESSARY FOR CONSTRUCTION OF WATER LINES AND SEWERS AND THEIR APPURTENANT STRUCTURES INCLUDED IN THIS PROJECT.

DISPOSAL OF EXCESS EXCAVATED MATERIAL: THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING A SITE FOR THE DISPOSAL OF EXCESS EXCAVATED MATERIAL. BEFORE DISPOSING ANY SUCH MATERIAL, THE CONTRACTOR SHALL HAVE THE DISPOSAL SITE APPROVED BY THE CITY ENGINEER. THE CONTRACTOR IS NOTIFIED THAT CITY'S FLOOD DAMAGE PREVENTION ORDINANCE REGULATES THE PLACEMENT OF FILL IN SPECIAL FLOOD HAZARD AREAS AS DELINEATED ON THE CURRENT FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAPS FOR THE CITY OF LANCASTER. THE CONTRACTOR SHALL FIRST OBTAIN A DEVELOPMENT PERMIT FROM THE ENGINEERING DEPARTMENT BEFORE DISPOSING ANY EXCESS EXCAVATED MATERIALS WITHIN ANY DESIGNATED SPECIAL FLOOD HAZARD AREA. IF EXCESS EXCAVATED MATERIALS ARE DEPOSITED IN A SPECIAL FLOOD HAZARD AREA WITHOUT A PERMIT, THE CONTRACTOR SHALL PROMPTLY REMOVE THE MATERIAL FROM THE SPECIAL FLOOD HAZARD AREA. THE COST OF THIS WORK SHALL BE BORNE BY THE CONTRACTOR. FEMA FIRM MAPS ARE AVAILABLE FOR INSPECTION IN THE ENGINEERING DEPARTMENT'S OFFICE IN THE MUNICIPAL ANNEX, 121 EAST CHESTNUT STREET, LANCASTER, MONDAYS THROUGH FRIDAYS BETWEEN 7:30 AM AND 4:00 PM.

<u>PERMITS</u>: THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS.

UTILITY LOCATIONS AND NOTIFICATION: THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS OF UTILITIES AS REQUIRED BY THE OHIO REVISED CODE SECTION 153.64. LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES SHOW IN THE PLANS ARE APPROXIMATE ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THEIR EXACT LOCATION AND ELEVATION WHEN WORKING IN THEIR VICINITY.

LOCATION, SUPPORT, PROTECTION, AND RESTORATION OF ALL UTILITY LINES, SERVICES, AND APPURTENANCES, WHETHER SHOWN ON THESE PLANS OR NOT, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. WHERE POTENTIAL GRADE CONFLICTS MIGHT OCCUR WITH EXISTING UTILITIES. THE CONTRACTOR SHALL UNCOVER SUCH UTILITIES SUFFICIENTLY IN ADVANCE OF CONSTRUCTION IN ORDER THAT THE EXACT ELEVATION MAY BE DETERMINED AND THE NECESSARY ADJUSTMENTS MADE. COST OF THE ABOVE WORK SHALL BE INCLUDED WITH THE PRICE BED FOR THE PERTINENT ITEM. UNLESS OTHERWISE NOTED ON THE PLANS. ESTIMATED QUANTITIES SHOWN ON THE PLANS FOR WATER AND SANITARY SEWER RELOCATIONS ARE FOR THOSE ITEMS ACTUALLY CALLED FOR AND SHOWN ON THE

AT LEASE SEVENTY-TWO (72) HOURS PRIOR TO COMMENCING ANY CONSTRUCTION OPERATIONS INVOLVING ANY EXCAVATING, AUGURING, BORING, OR OTHER EARTH DISTURBING ACTIVITY, OR THE DEMOLITION OF ANY STRUCTURES, THE CONTRACTOR SHALL NOTIFY THE REGISTERED UTILITY PROTECTION SERVICE. OHIO UTILITY PROTECTION SERVICE (OUPS) (1-800-362-2764) AND THE OWNERS OF EACH UTILITY FACILITY SHOWN IN THE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR MAKING A SEPARATE CONTACT WILL ALL NON-OUPS REGISTERED UTILITIES WITH FACILITIES IN THE PROJECT AREA. THROUGHOUT THE TERM OF THE PROJECT, THE CONTRACTOR SHALL MAKE ADDITIONAL CONTACT WITH OUPS AND NON-REGISTERED UTILITIES AS REQUIRED BY THE OHIO REVISED CODE, SECTION 153.64.

ANY EXISTING UTILITY OR APPURTENANCE DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR, OR AT THE CONTRACTOR'S EXPENSE.

 $\underline{\text{UTILITY OWNERS}}\!\!:$  THE FOLLOWING UTILITIES AND OWNERS ARE LOCATED WITHIN THE WORK LIMITS OF THE PROJECT:

WATER: CITY OF LANCASTER DIVISION OF WATER

225 NORTH MEMORIAL DRIVE LANCASTER, OHIO 43130 ATTN: ANDY GUNDELFINGER 740-687-6631

SANITARY CITY OF LANCASTER WATER POLLUTION CONTROL 800 LAWRENCE STREET LANCASTER, OHIO 43130

740-687-6664 **ELECTRIC:** AMERICAN ELECTRIC POWER\*\* 850 TECH CENTER DRIVE

GAHANNA, OHIO 43230-6605

ATTN: MIKE NIXON

1-800-277-2177

TELECOMMUNICATIONS AND SIGNALS:

CITY OF LANCASTER INFORMATION TECHNOLOGY DEPARTMENT 121 EAST CHESTNUT STREET, SUITE 50 LANCASTER, OHIO 43130 ATTN: MARK STARR 740-687-6645

740-687-6668 HORIZON CHILLICOTHE 68 EAST MAIN STREET P.O. BOX 480 CHILLICOTHE, OHIO 45601 ATTN. TAMMY PERRY

740-772-8260

ATTN: TIM DEITZ

CITY OF LANCASTER

815 LAWRENCE STREET

LANCASTER, OHIO 43130

TRANSPORTATION DEPARTMENT

CITY OF LANCASTER

ATTN: GREG HINTZ

740-687-6668

815 LAWRENCE STREET

LANCASTER, OHIO 43130

TRANSPORTATION DEPARTMENT

NATURAL GAS:

CITY OF LANCASTER MUNICIPAL GAS 1424 CAMPGROUND ROAD LANCASTER, OHIO 43130 ATTN: HANK TOPF

740-687-6670

740-322-6711

COLUMBIA GAS TRANSMISSION\* 1700 McCORKLE AVENUE SE P.O. BOX 1273 CHARLESTON, WV 25325-1273

SOUTHEASTERN NATURAL GAS P.O. BOX 377 FRAZYBURG, OH 43822 1-888-863-0032 740-828-2892

ATTN: MICHAEL PARK

THIS WORK.

TIME WARNER CABLE 111 NORTH 11TH STREET NEWARK, OHIO 43055 ATTN: BRIAN AMENDE (PRIMARY) 740-322-6703 ATTN: JOHN MOHLER (SECONDARY)

\*THESE COMPANIES HAVE TRANSMISSION LINES THROUGH THE CITY, BUT DO NOT SERVE CUSTOMERS WITHIN THE CITY. \*\*THESE COMPANIES SERVE VARIOUS PARTS OF THE CITY.

PAVEMENT CLEANING: THE CONTRACTOR IS HEREBY NOTIFIED THAT IT IS HIS/HER RESPONSIBILITY TO KEEP STREETS AND ROADS CLEAR OF ALL MUD, DIRT, GRAVEL AND/OR STONES OF ANY KIND DEPOSITED AS A RESULT OF HIS/HER OPERATIONS. PAVEMENTS SHALL BE CLEANED AT THE END OF EACH WORK DAY AND AT ANY OTHER TIME AS THE ENGINEER DIRECTS. FAILURE TO COMPLY WITH THIS NOTE MAY RESULT IN THE CONTRACTOR'S PROSECUTION UNDER L.C.O. 901.21. IN ADDITION, UPON THE CONTRACTOR'S FAILURE TO ADEQUATELY CLEAN THE PAVEMENT UPON NOTICE FROM THE ENGINEER, THE CITY MAY CLEAN THE PAVEMENT AND CHARGE THE CONTRACTOR FOR THE COST OF

SHOP DRAWINGS AND MATERIAL CERTIFICATIONS: TWENTY (20) BUSINESS DAYS PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL SUBMIT THE SOURCES FOR ALL MATERIALS TO BE INCORPORATED INTO THE PROJECT TO THE CITY ENGINEER. WHEN REQUIRED IN CMSL OR BY PLAN NOTE, THE CONTRACTOR SHALL ALSO PROVIDE MATERIAL SUPPLIER'S CERTIFICATION THAT THE MATERIALS

HE/SHE SUPPLIES FOR THE PROJECT MEET THE PERTINENT MATERIAL SPECIFICATION. THE CONTRACTOR SHALL ALSO SUBMIT SHOP DRAWINGS ON ALL PRECAST ITEMS OR OTHER ITEMS CONSTRUCTED OR FABRICATED WHOLLY OR IN PART OFF THE JOB-SITE THAT WILL BE INCORPORATED INTO THE WORK. NO MATERIALS SHALL BE INSTALLED UNTIL THE CITY ENGINEER HAS APPROVED THE SOURCE, THE MATERIAL CERTIFICATION AND/OR THE SHOP DRAWINGS FOR IT.

CONSTRUCTION NOISE: ACTIVITIES AND LAND USES ADJACENT TO THE PROJECT MAY BE ADVERSELY AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE THE CONSTRUCTION NOISE IMPACTS. ANY POWER-OPERATED EQUIPMENT OR CONSTRUCTION-TYPE DEVICE SHALL NOT BE OPERATED BETWEEN THE HOURS OF 9:00 PM AND 7:00 AM. IN ADDITION, ANY SUCH EQUIPMENT SHALL NOT BE OPERATED AT ANY TIME IN SUCH MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

<u>RECORD DOCUMENTS:</u> THE CONTRACTOR SHALL MAINTAIN IN A SAFE PLACE AT THE SITE TWO RECORD COPIES OF DRAWINGS, SPECIFICATIONS, ADDENDA, CHANGE ORDERS, WORK CHANGE DIRECTIVES, FIELD ORDERS, AND WRITTEN INTERPRETATIONS AND CLARIFICATIONS IN GOOD ORDER AND ANNOTATED TO SHOW CHANGES MADE DURING CONSTRUCTION. THESE RECORD DOCUMENTS TOGETHER WITH ALL APPROVED SAMPLES WILL BE AVAILABLE TO THE ENGINEER AND HIS REPRESENTATIVES FOR REFERENCE. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL DELIVER THESE RECORD DOCUMENTS TO THE ENGINEER.

INDEMNIFICATION: THE CONTRACTOR WILL INDEMNIFY AND HOLD HARMLESS THE CITY AND THE ENGINEER AND THEIR AGENTS AND EMPLOYEES FROM AND AGAINST ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES INCLUDING ATTORNEYS' FEES ARISING OUT OF OR RESULTING FROM PERFORMANCE OF THE WORK. PROVIDED THAT ANY SUCH CLAIMS. DAMAGE, LOSS OR EXPENSE IS ATTRIBUTABLE TO BODILY INJURY, SICKNESS, DISEASE OR DEATH, OR INJURY TO OR DESTRUCTION OF TANGIBLE PROPERTY, INCLUDING THE LOSS OF USE RESULTING THEREFROM; AND IS CAUSED IN WHOLE OR IN PART BY ANY NEGLIGENT OR WILLFUL ACT OR OMISSION OF THE CONTRACTOR, AND SUBCONTRACTOR, ANYONE DIRECTLY OR INDIRECTLY EMPLOYED BY ANY OF THEM OR ANYONE FOR WHOSE ACTS ANY OF THEM MAY BE LIABLE.

IN ANY AND ALL CLAIMS AGAINST THE CITY OR THE ENGINEER, OR ANY OF THEIR AGENTS OR EMPLOYEES, BY ANY EMPLOYEE OF THE CONTRACTOR, ANY SUBCONTRACTOR, ANYONE FOR WHOSE ACTS ANY OF THEM MAY BE LIABLE, THE INDEMNIFICATION OBLIGATION SHALL NOT BE LIMITED IN ANY WAY BY ANY LIMITATION ON THE AMOUNT OR TYPE OF DAMAGES, COMPENSATION OR BENEFITS PAYABLE BY OR FOR THE CONTRACTOR OR ANY SUBCONTRACTOR UNDER WORKERS' COMPENSATION ACTS, DISABILITY BENEFIT ACTS, OR OTHER EMPLOYEE BENEFIT ACTS.

THE OBLIGATION OF THE CONTRACTOR UNDER THIS PARAGRAPH SHALL NOT EXTEND TO THE LIABILITY OF THE ENGINEER, HIS AGENTS OR EMPLOYEES ARISING OUT OF THE PREPARATION OR APPROVAL OF MAPS, PLANS, OPINIONS, REPORTS, SURVEYS, CHANGE ORDERS, DESIGNS OR SPECIFICATIONS.

FINAL CLEAN-UP: THE CONTRACTOR SHALL CLEAN UP ALL DEBRIS AND MATERIALS RESULTING FROM HIS/HER OPERATIONS. IT IS ALSO THE RESPONSIBILITY OF THE CONTRACTOR TO RESTORE ALL PUBLIC AND PRIVATE SURFACES, STRUCTURES, AND/OR PROPERTIES THAT WERE DISTURBED DURING HIS/HER OPERATIONS TO THEIR ORIGINAL OR BETTER CONDITION. THE CONTRACTOR SHALL ALSO RESTORE ANY DISTURBED STREAM CHANNELS, SWALES, AND/OR DITCHES TO THEIR ORIGINAL OR BETTER CONDITION. THIS RESTORATION WORK SHALL INCLUDE THE REMOVAL OF ALL DEPOSITS OF SEDIMENT, SAND, GRAVEL, OR DIRT IN ANY WATERWAYS, AND ANY SUBSEQUENT RESEEDING OR SODDING OF THOSE WATERWAYS USING TYPE A SEED MIXTURE IN CONFORMITY WITH ODOT CMS ITEM 659, AS DEEMED NECESSARY BY THE ENGINEER. THE CONTRACTOR SHALL PERFORM THIS WORK AT HIS/HER EXPENSE, AND SHALL NOT BE DUE ANY EXTRA PAYMENT.

SAWING PAVEMENT: WHERE NECESSARY TO DISTURB PAVEMENT OR DRIVES, THE PAVEMENT SHALL BE SAW CUT IN NEAT. STRAIGHT LINES. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT BID PRICE FOR FURNISHING AND PLACING ASPHALT CONCRETE.

<u>SIDEWALKS:</u> ALL PUBLIC SIDEWALKS AND RAMPS CONSTRUCTED AS A PART OF THIS PROJECT SHALL BE CONSTRUCTED IN FULL COMPLIANCE WITH THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES (ADA) ACT OF 1990, INCLUDING ALL SUPPLEMENTS THERETO. SIDEWALKS AND RAMPS SHALL BE CONSTRUCTED WITH A DESIGN CROSS-SLOPE OF 1:64 (1.56%) BUT SHALL NOT EXCEED 1:50 (2.00%). IN ALL DIRECTIONS, ALL LANDING AREAS SHALL BE A MINIMUM OF 4 FEET BY 4 FEET WITH A DESIGN SLOPE OF 1.56% THAT SHALL NOT EXCEED 1:50 (2.00%). CROSSWALK AREAS BETWEEN CURB RAMPS SHALL BE DESIGNED FOR A CROSS-SLOPE OF 1:64 (1.56%) BUT SHALL NOT EXCEED 1:50 (2.00%).

**DUST CONTROL:** THE CONTRACTOR IS ADVISED THAT HIS WORK WILL BE IN CLOSE PROXIMITY TO CCUPIED RESIDENCES AND BUSINESSES AND SHALL MAKE ALL REASONABLE EFFORTS TO PERFORM THE EARTHWORK OPERATIONS IN A MANNER TO MINIMIZE DUST. WHEN, IN THE ENGINEER'S DETERMINATION THAT DUST IS A PROBLEM, THE CONTRACTOR SHALL APPLY A DUST PALLATIVE PER

TEMPORARY PAVEMENT REPLACEMENT: TEMPORARY PAVEMENT REPLACEMENT SHALL BE PROVIDED ON PERMANENT PAVEMENTS DAMAGED OR REMOVED BY THE CONTRACTOR IN THE PERFORMANCE OF THE WORK TO LIMITS SHOWN ON THE PLANS OR ORDERED BY THE ENGINEER. AS SOON AS THE TRENCH HAS BEEN BACKFILLED, TEMPORARY PAVEMENT SHALL BE INSTALLED. THE ENGINEER MAY REQUIRE THAT ALL MATERIALS AND EQUIPMENT INCIDENTAL TO PROVIDING THE TEMPORARY PAVEMENT BE ON THE JOB SITE PRIOR TO REMOVING THE EXISTING PAVEMENT. THE TEMPORARY PAVEMENT SHALL CONSIST OF 2 INCHES OF COMPACTED BITUMINOUS MATERIAL ITEM 405 CMSL PLACED UPON 6 INCHES OF COMPACTED ITEM 304, CMSL AGGREGATE BASE. TEMPORARY PAVEMENT SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL PERMANENT PAVEMENT IS INSTALLED.

PERMANENT PAVEMENT REPLACEMENT: PERMANENT PAVING SHALL NOT BEGIN PRIOR TO THE ENGINEER'S APPROVAL OF THE TRENCH BACKFILL. THE EXISTING PAVEMENT TO BE REMOVED SHALL RE NEATLY SAWED IN A STRAIGHT LINE AT A DISTANCE OF NO LESS THAN 12-INCHES REYOND THE TRENCH LIMITS. IF TEMPORARY PAVEMENT HAS BEEN PLACED, IT SHALL BE REMOVED DOWN TO CLEAN GRANULAR TRENCH BACKFILL MATERIAL. THE PAVEMENT TO BE REMOVED SHALL NOT BE REMOVED MORE THAN 24 HOURS PRIOR TO THE PLACING OF PERMANENT PAVEMENT MATERIALS. THE PERMANENT PAVEMENT MATERIALS AND WORKMANSHIP SHALL BE THE EQUIVALENT TO THE EXISTING PAVEMENT BEING REPLACED, OR THE PERTINENT STANDARD CONSTRUCTION DRAWING, WHICHEVER IS GREATER. ALL WORK SHALL BE PERFORMED IN CONFORMANCE WITH THE PERTINENT STANDARD CONSTRUCTION DRAWING AND CMSL.

TRAFFIC CONTROL: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN TRAFFIC WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL ERECT, MAINTAIN AND REMOVE THE NECESSARY TRAFFIC CONTROL DEVICES. BARRICADES. FLAGMEN. AND LIGHTS TO SAFELY MAINTAIN TRAFFIC AROUND HIS OPERATIONS. TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND THE CITY OF LANCASTER'S TRAFFIC CONTROL FOR CONSTRUCTION AND MAINTENANCE OPERATIONS. IN NO CASE SHALL THE STIPULATIONS OF THESE TRAFFIC CONTROL NOTES WAIVE THE REQUIREMENTS OF EITHER THE CONSTRUCTION AND MATERIAL SPECIFICATIONS OR THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

SURVEYS: THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ALL DETAIL SURVEYS NEEDED FOR CONSTRUCTION. THE CITY OF LANCASTER HAS ESTABLISHED BENCH MARKS AND CONTROL POINTS FROM WHICH THIS WORK MAY BE PERFORMED.

SAFETY: THE CONTRACTOR SHALL SOLELY BE RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE AND LOCAL SAFETY REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS INCLUDING EMPLOYEES AND PROPERTY. IT IS ALSO THE CONTRACTOR'S RESPONSIBILITY TO INITIATE, MAINTAIN AND SUPERVISE ALL SAFETY REQUIREMENTS. PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SECURING THE PROJECT SITE FROM THE GENERAL PUBLIC BOTH DURING AND AFTER HIS WORKING HOURS. THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN ALL LIGHTS, SIGNS, FENCES OR ANY OTHER SAFETY DEVICE TO PREVENT UNAUTHORIZED PERSONNEL FROM HAZARDOUS OR DANGEROUS CONDITIONS ON THE PROJECT SITE. THE COST OF SUCH WORK SHALL BE INCLUDED IN THE VARIOUS ITEMS BID FOR FURNISHING AND INSTALLING MATERIALS ON THIS

PROTECTION OF EXISTING INFRASTRUCTURE: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CAREFULLY AND DILIGENTLY PROTECT ALL EXISTING INFRASTRUCTURE AND PROPERTY WITHIN THE WORK AREA FROM DAMAGE, UNLESS SPECIFICALLY SHOWN IN THE PLANS FOR REMOVAL. THE CONTRACTOR SHALL BE LIABLE FOR ANY DAMAGE. THE ENGINEER SHALL DETERMINE IF ANY DAMAGE IS REPAIRABLE ON THE INFRASTRUCTURE OR PROPERTY MUST BE REPLACED BY THE CONTRACTOR. THE COST OF WHICH SHALL BE BORNE BY THE CONTRACTOR. THE CONTRACTOR SHALL REPAIR OR REPLACE ALL DAMAGE AND RESTORE THE WORK AREA TO A CONDITION AS GOOD OR BETTER THAN THE CONDITION BEFORE THE PROJECT BEGAN BEFORE THE PROJECT WILL BE ACCEPTED. THE COST OF THIS WORK SHALL BE INCLUDED IN THE VARIOUS ITEMS BID ON THIS PROJECT.

EROSION AND SEDIMENTATION CONTROL: THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING SOIL EROSION, SILTING AND SEDIMENTATION RESULTING FROM HIS/HER OPERATIONS. IT SHALL BE THE OBJECTIVE OF THE CONTRACTOR TO CONTAIN EROSION, SILTING AND SEDIMENTATION TO THE PROJECT SITE INSOFAR AS PRACTICAL. THE LOCATION AND TIMING OF ALL EROSION AND SEDIMENT CONTROL ITEMS SHALL BE FIELD ADJUSTED TO PREVENT SIGNIFICANT IMPACTS ON RECEIVING WATER AND/OR ADJOINING PROPERTIES. IMPLEMENTATION OF THE STORM WATER POLLUTION PREVENTION PLAN SHALL CONTINUE THROUGHOUT THE DURATION OF THE PROJECT OR UNTIL SUCH TIME THAT THE DISTURBED AREAS HAVE BEEN STABILIZED. THE ENGINEER MAY REQUIRE ADDITIONAL ACTIVITIES WHEN AND WHERE THE WORK AS SET FORTH IN THE STORM WATER POLLUTION PREVENTION PLAN IS NOT SUFFICIENT TO CONTROL THE EFFECTS OF EROSION, SILTING, AND/OR SEDIMENTATION IN CONFORMANCE WITH THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM CONSTRUCTION STORM WATER GENERAL PERMIT.

ALL REASONABLE ATTEMPTS SHOULD BE MADE TO MINIMIZE THE TOTAL AREA OF DISTURBED LAND. EACH SEDIMENT AND EROSION CONTROL MEASURE SHALL BE INSPECTED AFTER EACH RAINFALL AND

AT LEAST DAILY DURING PROLONGED RAINFALLS TO DETERMINE IF THE MEASURE IS FUNCTIONING AS

REQUIRED. ANY NECESSARY REPAIRS SHALL BE MADE IMMEDIATELY.

FIELD ADJUSTMENT FOR LOCATION AND DIMENSION OF SEDIMENT CONTROL DEVICES MAY BE MADE AS REQUIRED WITH THE APPROVAL OF THE CITY'S STORMWATER INSPECTOR. THE CITY OF LANCASTER ALSO RESERVES THE RIGHT TO REQUIRE ADDITIONS OR ALTERATIONS TO THE SEDIMENT CONTROL DEVICES SHOWN IN THE PLANS WHEN THEY ARE DEEMED INADEQUATE BY THE CITY'S STORMWATER

EROSION CONTROL DEVICES REMOVED DURING GRADING OPERATIONS SHALL BE PUT BACK IN PLACE

AT THE END OF THE DAY OR DURING INCLEMENT WEATHER.

TOPSOIL SHOULD BE REMOVED AND STOCKPILED FROM ALL WORK AREAS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, IMMEDIATELY AFTER CONSTRUCTION OF DITCHES AND/OR BASE PAVING OF STREETS, TOPSOIL FROM THE STOCKPILE SHALL BE SPREAD OVER THE EXPOSED AREAS AND GRADED AS REQUIRED TO PREPARE AREAS FOR PERMANENT SEEDING. APPLICATION OF PERMANENT SEEDING, AGRICULTURAL LINE, FERTILIZER, AND MULCHING MATERIAL SHALL BE AS PER THE PERTINENT 659 ITEMS.

IF SHOWN ON THIS PLAN, ENERGY DISSIPATION DEVICES OR EROSION CONTROL MEASURES AT THE OUTFALL OF THE STORM SEWER SYSTEM SHALL BE INSTALLED AT THE TIME OF THE CONSTRUCTION

AREAS WITHIN FIFTY (50) FEET OF A STREAM SHALL NOT BE DISTURBED UNLESS SPECIFICALLY PERMITTED IN THE PLANS. NO SOIL, ROCK, DEBRIS, OR ANY OTHER SUCH MATERIAL SHALL BE DUMPED OR PLACED INTO A WATER RESOURCE. OR INTO SUCH PROXIMITY THAT IT MAY READILY SLOUGH, SLIP, OR ERODE INTO A WATER RESOURCE, UNLESS SUCH DUMPING OR PLACING IS AUTHORIZED BY THE CITY ENGINEER AND WHEN APPLICABLE, THE U.S. ARMY CORPS OF ENGINEERS FOR SUCH PURPOSED AS, BUT NOT LIMITED TO, THE CONSTRUCTION OF BRIDGES, CULVERTS, AND EROSION CONTROL STRUCTURES.

SEEDING SHOULD BE APPLIED THE SAME DAY THAT GRADING OPERATIONS ARE COMPLETE. ALL CONSTRUCTED SLOPES AND CUTS SHALL BE SEEDED AS EACH VERTICAL INTERVAL OF NO MORE THAN TEN (10) FEET IS COMPLETED. THE CONTRACTOR SHALL IRRIGATE OR WATER AS NECESSARY TO ESTABLISH A HEALTHY, EROSION RESISTANT COVER CROP OR GRASS STAND.

WHEN GRADING OPERATION SHALL CEASE FOR A PERIOD OF FOURTEEN (14) CALENDAR DAYS OR MORE, TEMPORARY SEEDING AND MULCHING PER 659 SHALL BE IMMEDIATELY APPLIED. IF AN UNFORESEEN DELAY IS ENCOUNTERED, THE CONTRACTOR SHALL BEGIN SEEDING AND MULCHING IMMEDIATELY WHEN RECOGNIZED

IF CONSTRUCTION TAKES PLACE FROM OCTOBER 1 TO FEBRUARY 28, ALL EXPOSED AREAS ARE TO BE TEMPORARILY MULCHED UNTIL MARCH 1 AND THEN PERMANENTLY SEEDED AS PREVIOUSLY SPECIFIED. MULCHING SHALL BE APPLIED AT A RATE OF 100 POUNDS PER 1000 SQUARE FEET. IT SHALL BE ANCHORED WITH LIQUID ASPHALT RAPID CURING (R.C. 70, 250 OR 800) AT A RATE OF 0.04 GALLONS PER SQUARE YARD. WHEN APPLIED DURING FREEZING WEATHER IT SHALL BE CUT BACK WITH A KEROSENE-LIKE PRODUCT. IN AREAS WHERE RUNOFF WATER IS CONCENTRATED. MULCH NETTINGS OF JUTE, BIO-DEGRADABLE SYNTHETIC MATERIALS OR LIGHT-WEIGHT PAPER SHALL BE USED TO HOLD THE MULCH IN PLACE. SUBSTITUTE ANCHORING METHODS MAY BE USED SUCH AS STRAIGHT DISK OR NOTCHED DISK TO TUCK THE STRAW INTO THE SEEDBED THREE (3) INCHES HORIZONTAL TO THE

IN ADDITION TO THE ABOVE DESCRIBED WORK. THE CONSTRUCTION DRAWINGS OR CONTRACT DOCUMENTS MAY CONTAIN OTHER NOTES, CONTINGENCY QUANTITIES OR CONSTRUCTION AND MATERIAL SPECIFICATION THAT SET FORTH OTHER EROSION CONTROL WORK TO BE PERFORMED ON THE PROJECT. IN SUCH CASES, THE OTHER WORK SHALL BE PERFORMED IN ADDITION TO THE WORK DESCRIBED ABOVE. THE ABOVE WORK. WHERE NOT SPECIFICALLY ITEMIZED IN THE QUANTITIES SHALL BE CONSIDERED INCIDENTAL TO THE EARTHWORK AND SEEDING WORK AS SET FORTH IN THE PLANS AND THE COST OF MATERIALS, LABOR AND EQUIPMENT SHALL BE INCLUDED IN THE UNIT PRICES BID FOR EARTHWORK AND SEEDING AND MULCHING.

ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE REMOVED AND DISPOSED OF WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY PRACTICES ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE PERMANENTLY STABILIZED TO PREVENT

ALL EROSION CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE OHIO DEPARTMENT OF NATURAL RESOURCE'S RAINWATER AND LAND DEVELOPMENT MANUAL, LATEST EDITION IN FORCE AT THE TIME OF THE BID OPENING.

LINE CROSSINGS: AT ALL UTILITY CROSSINGS, THE BACKFILL SHALL BE GRANULAR MATERIAL, PER ITEM 912, BETWEEN THE TOP OF THE UPPER CONDUIT AND THE BOTTOM OF THE LOWER CONDUIT, PROVIDED THE VERTICAL CLEARANCE BETWEEN THE TWO PIPES IS 1-FOOT OR MORE. WHERE THE CLEARANCE IS LESS, A CONCRETE CRADLE SHALL BE POURED FROM THE BOTTOM OF THE LOWER PIPE TO THE SPRING LINE OF THE UPPER PIPE FOR THE FULL-WIDTH OF THE UPPER PIPE'S TRENCH WIDTH, OR LONGER IF THE ENGINEER SO ORDERS.

A SIX INCH (6") THICK SAND ENVELOPE SHALL BE USED AROUND ALL WATER AND GAS LINES TO PROTECT SAID LINES FROM ABRASIVE AND PROTRUDING AGGREGATE. THIS SAND SHALL BE FINE GRADED AGGREGATE PER ODOT 703.02.A AND FREE OF LARGE PARTICLES.

SPRING DRAINS: ALL SPRINGS ENCOUNTERED DURING EXCAVATION SHALL BE DRAINED TO AN OUTLET APPROVED BY THE CITY ENGINEER. THE SPRING DRAIN SHALL CONFORM TO STANDARD CONSTRUCTION DRAWING D-4, SPRING DRAIN DETAIL.

WEEKEND AND HOLIDAY WORK: NO WORK SHALL BE PERMITTED ON WEEKENDS OR ON CITY OF LANCASTER HOLIDAYS WITHOUT THE PRIOR, WRITTEN APPROVAL OF THE CITY ENGINEER. IF THE CONTRACTOR NEEDS TO WORK ON A WEEKEND DAY OR A HOLIDAY, HE SHALL SUBMIT HIS REQUEST STATING THE REASONS FOR WORKING THOSE DAYS TO THE CITY ENGINEER A MINIMUM OF FORTY-EIGHT (48) HOURS IN ADVANCE OF THAT WEEKEND OR HOLIDAY.

NOTIFICATION OF CONSTRUCTION: A MINIMUM OF TEN (10) BUSINESS DAYS PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL MEET WITH AND SUBMIT A CONSTRUCTION SCHEDULE TO THE CITY ENGINEER, SECURE ALL NECESSARY LICENSES AND PERMITS, AND PAY ALL INSPECTION FEES. TAPS OR CONNECTIONS INTO ANY CITY OWNED LINE (SANITARY SEWER, STORM SEWER, WATER LINE AND/OR GAS LINE) SHALL NOT BE MADE UNTIL THE REQUIRED TAP PERMIT HAS

THE CONTRACTOR SHALL NOTIFY THE CITY OF LANCASTER, CITY ENGINEER'S OFFICE A MINIMUM OF TWO (2) DAYS BEFORE BEGINNING WORK, HOLIDAYS AND WEEKENDS EXCLUDED. WHEN THE CONTRACTOR SUSPENDS OPERATIONS FOR TWO (2) OR MORE WORKING DAYS, HE SHALL NOTIFY THE CITY ENGINEER A MINIMUM OF TWENTY FOUR (24) HOURS BEFORE RESUMING WORK.

<u>REVIEW OF PROJECT SITE</u>: PRIOR TO BIDDING THE CONTRACTOR SHALL, BY PERSONAL EXAMINATION, SATISFY HIMSELF AS TO THE LOCATION OF THE PROPOSED WORK AND TO ACQUAINT HIMSELF THOROUGHLY WITH THE EXISTING CONDITIONS AND THE DIFFICULTIES THAT ARE LIKELY TO BE ENCOUNTERED IN THE PERFORMANCE OF THE PROPOSED WORK.

PROTECTION OF SURVEY MONUMENTS: THE CONTRACTOR SHALL CAREFULLY PRESERVE BENCHMARKS, PROPERTY CORNERS. REFERENCE POINTS. AND ANY OTHER SURVEY MONUMENTS OR MARKERS. IF THE ACTIONS OF THE CONTRACTOR, HIS EMPLOYEES, OR HIS SUB-CONTRACTORS RESULT IN DESTRUCTION OF OR DAMAGE TO ANY OF THE ABOVE ITEMS, THOSE ITEMS SHALL BE ACCURATELY RESTORED BY A LICENSED SURVEYOR AT THE CONTRACTOR'S EXPENSE.

OPERATION OF FIRE HYDRANTS AND WATER VALVES: THE CONTRACTOR SHALL NOT OPERATE, OPEN, CLOSE OR OTHERWISE USE ANY CITY OWNED FIRE HYDRANT OR WATER LINE VALVE WITHOUT THE WRITTEN AUTHORIZATION OF THE SUPERINTENDENT, DIVISION OF WATER. ANY UNAUTHORIZED TAKING OF WATER FROM THE CITY DISTRIBUTION SYSTEM WILL RESULT IN PROSECUTION FOR THE THEFT OF A PUBLIC UTILITY. ANY DAMAGE CAUSED TO FIRE HYDRANTS OR WATER VALVES AS A RESULT OF THE CONTRACTOR'S OPERATIONS WILL BE REPAIRED BY DIVISION OF WATER FORCES AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR IS HEREBY NOTIFIED THAT THE USE OF FIRE HYDRANTS WILL NOT BE PERMITTED ON THIS PROJECT. THE DIVISION OF WATER WILL PROVIDE THE CONTRACTOR POTABLE WATER AT THE MILLER PARK WATER TREATMENT PLANT, 225 NORTH MEMORIAL DRIVE IN BULK AT A RATE OF \$ 0.015 PER GALLON. THE CONTRACTOR MAY MAKE ARRANGEMENTS FOR OBTAINING WATER AT

THE COST OF OBTAINING AND/OR PROVIDING WATER SHALL BE INCLUDED IN THE CONTRACTOR'S VARIOUS PRICES BID FOR ASSOCIATED ITEMS IN THE PROJECT UNLESS OTHERWISE PROVIDED FOR AS

EXPOSE: THE CONTRACTOR SHALL SUFFICIENTLY EXPOSE EACH UTILITY OR STRUCTURE INDICATED ON THE PLANS IN ADVANCE OF EXCAVATING TO DETERMINE IF A GRADE CONFLICT OCCURS. LOCATIONS SHOWN ARE APPROXIMATE ONLY. OTHER UTILITIES NOT MARKED MAY ALSO REQUIRE EXPOSING.

<u>DELIVERIES TO JOB SITE - HAUL ROUTES:</u> DELIVERIES OF MATERIALS AND EQUIPMENT TO AND FROM THE JOB SITE SHALL BE ROUTED TO MAXIMIZE THE USE OF STATE AND FEDERAL ROUTES AND TO MINIMIZE THE USE OF CITY STREETS. NO LESS THAN TWO WEEKS PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT FOR APPROVAL A HAUL ROUTE LETTER TO THE CITY ENGINEER DESIGNATING THOSE ROUTES TO BE USED. IF ANY CHANGES ARE NEEDED TO THE APPROVED ROUTE, THE CONTRACTOR SHALL SUBMIT A REVISION TO THE HAUL ROUTE LETTER A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO THE DELIVERY DATE. THE ENGINEER SHALL HAVE THE RIGHT TO LIMIT THE ROUTE OF DELIVERY, TOTAL TONNAGE PER VEHICLE PER DELIVERY OR THE HOURS SUCH DELIVERIES MAY BE MADE.

DEWATERING: ANY WELL, WELL POINT, OR OTHER DEVICE INSTALLED FOR THE PURPOSE OF LOWERING THE GROUND WATER TO FACILITATE CONSTRUCTION OF THIS PROJECT SHALL BE PROPERLY ABANDONED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 3745-9-10 OF THE OHIO ADMINISTRATIVE CODE OR IN ACCORDANCE WITH THE PROVISIONS OF THIS PLAN AND THE WRITTEN APPROVAL OF THE CITY ENGINEER.

ANY CONTRACTOR INSTALLING ANY WELL, WELL POINT, PIT, OR OTHER DEVICE USED FOR THE PURPOSE OF REMOVING GROUND WATER FROM AN AQUIFER SHALL COMPLETE AND FILE A WELL LOG AND DRILLING REPORT FORM WITH THE OHIO DEPARTMENT OF NATURAL RESOURCES, DIVISION OF SOIL AND WATER RESOURCES, WITHIN 30 DAYS OF THE WELL COMPLETION IN ACCORDANCE WITH THE OHIO REVISED CODE, SECTION 1521.05. IF THE WATER REMOVAL DEVICE IS CAPABLE OF WITHDRAWING MORE THAN 100,000 GALLONS PER DAYS (EQUIVALENT TO 70 GALLONS PER MINUTE), THE

CONTRACTOR SHALL FILE A WATER WITHDRAWAL FACILITY REGISTRATION FORM WITH THE OHIO DEPARTMENT OF NATURAL RESOURCES, DIVISION OF SOIL AND WATER RESOURCES IN ACCORDANCE WITH THE OHIO REVISED CODE, SECTION 1521.16.

FOR COPIES OF THE NECESSARY WELL LOG, DRILLING REPORT, OR REGISTRATION FORMS, PLEASE

OHIO DEPARTMENT OF NATURAL RESOURCES DIVISION OF WATER RESOURCES 2045 MORSE ROAD, BUILDING B-3 COLUMBUS, OHIO 43229-6693 (614)-265-6620

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE TO THE O.D.N.R. FOR THE REGISTRY, MAINTENANCE, AND ABANDONMENT OF ANY WITHDRAWAL DEVICE USED IN THE CONSTRUCTION OF THIS PROJECT.

WORK IN PUBLIC RIGHTS-OF-WAY: NO WORK SHALL BEGIN WITHIN THE PUBLIC RIGHT-OF-WAY UNTIL AN APPROVED PERMIT TO OCCUPY THE PUBLIC RIGHT-OF-WAY HAS BEEN OBTAINED FROM THE CITY. THE CONTRACTOR SHALL INCLUDE WITH HIS PERMIT APPLICATION HIS TRAFFIC CONTROL PLAN FOR WORKING IN THE RIGHT-OF-WAY. THIS RESTRICTION INCLUDES, BUT IS NOT LIMITED TO, THE CLOSURE OF ANY STREET OR STREET LANES, AND THE PLACEMENT OF CONSTRUCTION EQUIPMENT, MATERIAL, TRAILERS AND/OR DEBRIS. IF EXCAVATION IN THE RIGHT-OF-WAY IS REQUIRED, THE CONTRACTOR MUST ALSO OBTAIN A RIGHT-OF-WAY EXCAVATION PERMIT THAT, IN ADDITION TO THE AFORESAID INFORMATION, INCLUDES AN ESTIMATE OF THE PAVEMENT AREA TO BE DISTURBED.

BACKFILL IN PAVEMENT AREAS: ALL BACKFILL OF TRENCHES WITHIN THE PAVEMENT INFLUENCE INES SHALL BE COMPACTED GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CMSL ITEM 912, UNLESS OTHERWISE SPECIFIED.

CONSTRUCTION ENTRANCE: A MINIMUM OF FIVE (5) DAYS PRIOR TO BEGINNING WORK OR MOVING EQUIPMENT AND/OR MATERIALS ONTO THE SITE, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEERING DEPARTMENT AN APPLICATION FOR A CURB CUT OR DRIVEWAY PERMIT FOR HIS CONSTRUCTION ENTRANCE, IF APPLICABLE. ALL DELIVERIES AND ACCESS TO THE SITE SHALL BE RESTRICTED TO THE APPROVED CONSTRUCTION ENTRANCE. AT THE TIME THE APPLICATION IS REVIEWED. THE EXISTING CURBING WILL BE INSPECTED AND ANY CRACKS OR BREAKS WILL BE NOTED. ANY CURBING DAMAGED DURING THE PROJECT WILL BE REPLACED BY THE CONTRACTOR AT HIS

THE CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING D-9 TO MINIMIZE THE TRACKING OF MUD, DIRT, STONES, AND OTHER DEBRIS FROM THE PROJECT SITE ONTO THE PUBLIC STREET. EXISTING CURBING REMOVED FOR THE PROJECT SHALL BE REPLACED PER CITY SPECIFICATIONS. DRIVE ENTRANCES ONTO THE PUBLIC STREET SHALL BE CONSTRUCTED IN CONFORMITY WITH STANDARDS AND SPECIFICATIONS OF THE CITY.

NSPECTIONS: VARIOUS ITEMS OF WORK ON THIS PROJECT WILL REQUIRE INSPECTIONS BY CITY PERSONNEL. INSPECTIONS WILL BE REQUIRED ON, BUT NOT LIMITED TO, CURB CUTS AND DRIVE APPROACHES, WATER TAPS AND LINES, SANITARY SEWER TAPS AND PIPE, STORMWATER DETENTION OR RETENTION FACILITIES, GAS TAPS AND LINE, AND DUMPSTER PAD AND ENCLOSURE. INSPECTIONS SHALL BE REQUESTED NO LESS THAN 48 HOURS IN ADVANCE. INSPECTIONS WILL ONLY BE PERFORMED MONDAY THROUGH FRIDAY, EXCLUDING HOLIDAYS, BETWEEN 7:30 A.M. AND 3:30 P.M. FAILURE TO OBTAIN A REQUIRED INSPECTION SHALL BE CAUSE FOR THE CITY TO DENY SERVICE TO THE FACILITY.

STREET AND LANE CLOSINGS: NO STREET OR PART OF ANY STREET, INCLUDING THE SIDEWALK, SHALL BE PERMITTED TO BE CLOSED WITHOUT AN APPROVED PERMIT TO OCCUPY THE PUBLIC RIGHT\_OF\_WAY FROM THE SERVICE\_SAFETY DIRECTOR. THE CONTRACTOR SHALL SUBMIT HIS REQUEST, ALONG WITH A PLAN OF THE PROPOSED DETOUR ROUTE AND MAINTENANCE OF TRAFFIC PLAN, A MINIMUM OF SEVENTY-TWO (72) HOURS BEFORE THE ACTUAL CLOSING, WEEKENDS AND HOLIDAYS EXCLUDED. THERE IS NO FEE FOR THIS PERMIT.

IF THE CLOSING IS APPROVED, THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER AND SUPERINTENDENT. DEPARTMENT OF TRANSPORTATION A MINIMUM OF FOUR (4) HOURS BEFORE HE IMPLEMENTS THE ACTUAL CLOSING. THE CONTRACTOR SHALL ALSO NOTIFY ANY AFFECTED RESIDENTS OR BUSINESSES PRIOR TO THE CLOSING AS TO THE EXTENT, NATURE, AND DURATION OF THE CLOSURE. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC.

THE LENGTH AND DURATION OF LANE AND/OR STREET CLOSURES SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

<u>WATER MAIN AND SERVICE LOCATION:</u> ALL EXISTING WATER MAINS SHOWN ON THE PLANS WERE OBTAINED BY DILIGENT SEARCHES OF EXISTING RECORDS AND FIELD OBSERVATIONS. LOCATIONS AND ELEVATIONS ARE APPROXIMATE ONLY. ALL INDIVIDUAL SERVICE LINES MAY NOT BE SHOWN AND SHOULD BE LOCATED BY THE CONTRACTOR PRIOR TO EXCAVATION. CALL 740-687-6631 IF ASSISTANCE IS NEEDED IN LOCATING THESE SERVICES.

WATERLINE INSTALLATION: IN ADDITION TO THE REQUIREMENTS IN CMSL, ALL WATERLINES AND APPURTENANCES SHALL BE INSTALLED IN CONFORMITY WITH THE CITY OF LANCASTER STANDARD CONSTRUCTION DRAWINGS (COL SCD) AND OHIO EPA REGULATIONS. THE CONTRACTOR SHALL SUBMIT MANUFACTURER'S "CUT SHEETS" TO THE DISTRIBUTION MANAGER, DIVISION OF WATER FOR ALL WATERLINE ITEMS/MATERIALS PRIOR TO PURCHASING THOSE ITEMS/MATERIALS. ANY INSTALLATION OF NON-APPROVED ITEMS/MATERIALS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

ALL WATER LINE WORK SHALL BE INSPECTED BY DIVISION OF WATER PERSONNEL AND NOT BACKFILLED UNTIL APPROVED. NO VALVES CONNECTING THE CONTRACTOR'S WORK TO THE PUBLIC WATER DISTRIBUTION SYSTEM SHALL BE OPENED UNTIL THE WATERLINE AND APPURTENANT WORK HAS BEEN APPROVED BY THE DISTRIBUTION MANAGER, DIVISION OF WATER.

BACKFILL: BACKFILL FOR WATER MAINS UNDER THE PAVEMENT AND WITHIN THE INFLUENCE LINES FOR SUPPORT OF THE PAVEMENT SHALL BE BACKFILLED WITH GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CMSL ITEM 912. BACKFILL OUTSIDE THE INFLUENCE LINES FOR SUPPORT OF THE PAVEMENT SHALL BE COMPACTED TO THE FULL WIDTH OF THE TRENCH TO MEET REQUIREMENTS OF

CONSTRUCTION PROCEDURE: THE TIME OF ALL WATER MAIN SHUT DOWNS SHALL BE DETERMINED BY THE WATER DEPARTMENT. WHERE FEASIBLE THE RELOCATED LINES SHALL BE LAID TO THE NEW LINE AND GRADE, TESTED, AND DISINFECTED PRIOR TO SHUTTING DOWN ANY EXISTING WATER MAIN. THE CONNECTIONS OF THE RELOCATED LINE TO THE EXISTING MAIN SHALL BE DONE AT A TIME APPROVED. BY THE DISTRIBUTION MANAGER. DIVISION OF WATER. ALL OPERATION OF EXISTING WATER MAIN VALVES SHALL BE DONE BY THE DIVISION OF WATER AND NOT THE CONTRACTOR.

TESTING: ANY TESTING PERFORMED AGAINST EXISTING VALVES SHALL BE DONE AT THE CONTRACTOR'S RISK AND IN STRICT COMPLIANCE WITH THE REQUIREMENTS OF THE DISTRIBUTION MANAGER, DIVISION OF WATER. IF SATISFACTORY TEST RESULTS CANNOT BE OBTAINED AGAINST AN EXISTING VALVE, THE NEW LINE SHALL BE DISCONNECTED FROM THE EXISTING LINE, PLUGGED AND RE-TESTED. DAMAGE CAUSED TO EXISTING LINES AND VALVES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN

HAND SWABBING: THE CONTRACTOR SHALL HAND SWAB ALL PIPE AND FITTINGS THAT ARE NOT OTHERWISE DISINFECTED. THE AMOUNT OF CHLORINE TO BE USED DURING HAND SWABBING OPERATIONS WILL BE DETERMINED BY THE DISTRIBUTION MANAGER, DIVISION OF WATER.

WATER MAIN PROTECTION: LOCATION, SUPPORT, PROTECTION AND RESTORATION OF ALL WATER LINES, SERVICES AND APPURTENANCES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL SUBMIT HIS DETAILS AND METHODS OF SUPPORTING THE WATER LINES ACROSS ANY TRENCH TO THE ENGINEER FOR APPROVAL BY THE DISTRIBUTION MANAGER, DIVISION OF WATER. SUPPORT METHOD AND DETAIL APPROVAL SHALL BE SECURED PRIOR TO THE COMMENCEMENT OF EXCAVATION OPERATIONS.

CONNECTING WATERLINES: THE CONNECTION OF EXISTING WATERLINES AND SERVICES TO PROPOSED WATERLINES SHALL BE DONE IN A MANNER THAT WILL CAUSE A MINIMUM OF INCONVENIENCE TO THOSE WITH AFFECTED SERVICES. WORK CONCERNING A DISCONNECTION AND RECONNECTION OF EXISTING WATERLINES SHALL BE DONE BETWEEN THE HOURS OF 10:00 P.M. AND 5:00 A.M. OR AS DIRECTED BY THE DISTRIBUTION MANAGER, DIVISION OF WATER. THE CONTRACTOR SHALL PROVIDE THE DISTRIBUTION MANAGER, DIVISION OF WATER WITH THE METHOD AND SCHEDULE OF SUCH WORK FOR APPROVAL. UPON THE APPROVAL OF THE METHOD AND SCHEDULE, THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER, THE LANCASTER FIRE DEPARTMENT AND THE RESIDENTS WHOSE SERVICES ARE BEING AFFECTED BEFORE BEGINNING WORK.

CONFLICTS: WHEN THERE ARE GRADE CONFLICTS BETWEEN WATERLINES AND GRAVITY SEWERS, THE WATERLINE SHALL BE LOWERED BELOW THE SEWER.

TAPS: A TAP PERMIT FOR EACH WATER SERVICE SHALL BE OBTAINED FROM THE DIVISION OF WATER PRIOR TO ANY TAP BEING MADE INTO A WATERLINE. ALL TAPS INTO EXISTING WATERLINES SHALL BE MADE BY DIVISION OF WATER PERSONNEL ONLY.

DISINFECTION: ALL WATER LINES SHALL BE DISINFECTED IN ACCORDANCE WITH THE APPLICABLE SECTION OF A.W.W.A. C651. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBSEQUENT BACTERIAL TESTING OF THE PROJECT'S WATERLINES BEFORE OPENING THE NEW LINES TO THE CITY'S DISTRIBUTION SYSTEM. WATER SAMPLES SHALL BE TAKEN AS DIRECTED BY THE DISTRIBUTION MANAGER, DIVISION OF WATER. TESTING SHALL BE PERFORMED AT AN OHIO EPA APPROVED LABORATORY. THE LABORATORY SHALL PROVIDE A CERTIFIED REPORT OF THE TEST RESULTS TO THE DISTRIBUTION MANAGER, DIVISION OF WATER.

<u>WATER LINE DEPTH:</u> WATER LINES SHALL BE LAID WITH A MINIMUM OF 4' — 6" DEPTH FROM THE TOP OF FINISHED GRADE (CURB) TO THE TOP OF THE WATER LINE.

BACKFILL: ALL TRENCH BACKFILL SHALL BE COMPACTED BACKFILL AS PER CMSL ITEM 911. THE COST OF ALL COMPACTED BACKFILL SHALL BE INCLUDED IN THE PRICE BID FOR FURNISHING AND INSTALLING PIPE. THE CONTRACTOR IS HEREBY NOTIFIED THAT THE CMSL FOR LANCASTER REQUIRES THE USE OF No. 67 CRUSHED LIMESTONE FOR BEDDING OF SANITARY PIPE.

IN ADDITION TO THE REQUIREMENTS OF CMSL ITEM 911 AS IT REFERS TO COMPACTED BACKFILL THERE MAY BE AREAS ON THE PLANS WITH THE LIMITS INDICATED ON THE PROFILE VIEW OF THE SEWER AS "COMPACTED GRANULAR BACKFILL". THESE AREAS WILL BE COMPACTED TO MEET THE REQUIREMENTS OF CMSL ITEM 912. PAYMENT FOR THE COMPACTION OF BACKFILL WITHIN THESE AREAS SHALL BE INCLUDED IN THE PRICE BID FOR CMSL FURNISHING AND INSTALLING PIPE.

BEDDING: ALL BEDDING OF SANITARY SEWER PIPE SHALL CONFORM TO THE TYPICAL TRENCH DETAIL STANDARD DRAWING S-1.

WYE POLES: THE CONTRACTOR SHALL FURNISH AND PLACE AS DIRECTED, APPROVED WYE POLES MADE OF 4"X4" LUMBER AT ALL WYE LOCATIONS, ENDS OR EXTENDED SERVICES, OR AT THE END OF EACH RISER WHERE RISERS ARE REQUIRED. THE COST OF THESE POLES SHALL BE INCLUDED IN THE PRICE BID FOR VARIOUS SEWER ITEMS.

SERVICE CONNECTIONS: SERVICES OR HOUSE CONNECTIONS SHALL NOT BE CONNECTED TO THE LATERAL OR MAIN LINE SEWERS SHOWN HEREON UNTIL FULL APPROVAL OF SAID LATERAL OR MAIN LINE SEWER HAS BEEN RECEIVED.

PROHIBITION OF CLEAN WATER CONNECTIONS TO SANITARY SEWERS: ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED IN THE CITY OF LANCASTER. WHERE SANITARY SEWER WORK IS EXPOSED TO STORM WATER FLOWS OR OTHER CLEAN WATER SOURCES, THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT STORM OR OTHER CLEAN WATER FLOW FROM ENTERING THE SANITARY SEWER SYSTEM, INCLUDING, BUT NOT LIMITED TO, THE PLUGGING OF ALL OPEN SEWER PIPE AND/OR OTHER OPENINGS AT THE END OF EACH WORK DAY.

CONNECTION TO EXISTING PIPE: WHERE THE PLANS PROVIDE FOR PROPOSED CONDUIT TO BE CONNECTED TO, OR TO CROSS EITHER OVER OR UNDER AN EXISTING CONDUIT, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE EXISTING CONDUIT BOTH AS TO LINE AND GRADE BEFORE HE STARTS TO LAY THE PROPOSED CONDUIT.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE ITEMS BID FOR FURNISHING AND INSTALLING PIPE.

SEQUENCE OF OPERATIONS: THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN SUCH A WAY THAT HE WILL COMPLETE ANY PORTION OF THE SEWER CONSTRUCTION STARTED, (INCLUDING MANHOLES, INLETS, CATCH BASINS, CONNECTIONS AND PLUGGING OF LINES) TO INSURE PROPER OPERATION AT ALL TIMES, BEGINNING AT THE OUTLET END OF ANY PIPE. ANY FAILURE OF THE CONTRACTOR TO COMPLY WITH THE ABOVE PROVISIONS WILL BE REASON FOR THE ENGINEER TO SUSPEND WORK UNTIL THE CONDITIONS ARE MET.

SEWER-WATER MAIN CROSSING: WHERE THE WATER MAIN DOES NOT MAINTAIN BOTH A TEN FOOT (10') HORIZONTAL SEPARATION AND AN EIGHTEEN INCH (18") VERTICAL SEPARATION, OR IS BELOW THE SEWER (EITHER SANITARY OR STORM), THE SEWER SHOULD BE CONSTRUCTED (OR ENCASED IN) WATER MAIN TYPE MATERIALS WHICH WILL WITHSTAND A 150 PSI PRESSURE TEST FOR A DISTANCE OF 10 FEET ON BOTH SIDES OF THE WATER MAIN.

AT ALL POINTS OF CROSSING OF WATER OR SEWER CONDUITS, THE BACKFILL SHALL BE GRANULAR MATERIAL PER ITEM 912, BETWEEN THE TOP OF THE UPPER CONDUIT AND THE BOTTOM OF THE LOWER CONDUIT. A SIX INCH (6") THICK SAND ENVELOPE SHALL BE USED AROUND THE WATER LINE TO PROTECT IT FROM ABRASIVE AND PROTRUDING AGGREGATE. THIS SAND SHALL BE FINE GRADED AGGREGATE PER ODOT 703.02.A AND FREE OF LARGE PARTICLES.

SEWER INSPECTIONS: PIPE LAYING AND BACKFILL SHALL BE PERFORMED IN ACCORDANCE WITH PERTINENT CONSTRUCTION AND MATERIAL SPECIFICATIONS OF LANCASTER AND CITY OF LANCASTER STANDARD CONSTRUCTION DRAWINGS. BACKFILLING OPERATIONS SHALL NOT BEGIN UNTIL THIS WORK HAS BEEN INSPECTED BY THE CITY ENGINEER OR HIS REPRESENTATIVE. THIS INSPECTION PRIOR TO THE BACKFILLING OPERATION DOES NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES FOR THE LEAKAGE TESTS AND DEFLECTION TESTS. INSPECTIONS MUST BE REQUESTED TWENTY-FOUR (24) HOURS IN ADVANCE. INSPECTIONS WILL ONLY BE PERFORMED ON WEEK-DAYS BETWEEN 7:30 A.M. AND 3:30 P.M. EXCLUDING CITY HOLIDAYS. REQUESTS FOR INSPECTIONS ON WEEKENDS OR HOLIDAYS MUST BE SUBMITTED IN WRITING FORTY-EIGHT (48) HOURS IN ADVANCE. REQUESTS MUST STATE THE SPECIAL CIRCUMSTANCES WARRANTING THE INSPECTION.

PROFILE: PROFILE IS SHOWN ALONG SEWER CENTERLINE. PROFILES ARE NOT SHOWN ON ALL INLET CONNECTOR SEWERS.

<u>P OF CASTING ELEVATIONS</u>: THE ELEVATIONS SHOWN ON THE PLANS FOR TOP OF CASTING OF PROPOSED MANHOLES MATCHES THE EXISTING OR PROPOSED PAVEMENT SURFACE. IN AREAS WHERE THE PAVEMENT IS TO BE RESURFACED THE TOP OF CASTING SHALL MATCH THE SURFACE OF THE RESURFACED PAVEMENT.

EXISTING SEWERS AND STRUCTURES: THE CONTRACTOR SHALL REPLACE TO THE SATISFACTION OF THE ENGINEER ALL EXISTING MANHOLES, CATCH BASINS, DRAINS, SEWERS AND APPURTENANCES REMOVED OR DAMAGED DURING CONSTRUCTION. THE ABOVE IS NOT APPLICABLE TO STRUCTURES TO BE ABANDONED. THE CONTRACTOR SHALL REMOVE DEBRIS, SILT, ETC. FROM EXISTING MANHOLES AND CATCH BASINS AND VARIOUS SEWER PIPE WHICH ARE CONNECTED IN THE NEW SYSTEM.

EXISTING SEWAGE FLOWS: THE CONTRACTOR SHALL MAKE PROVISIONS TO MAINTAIN FLOWS IN THE EXISTING SEWER AT ALL TIMES DURING CONSTRUCTION. METHODS FOR MAINTAINING FLOWS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION, AT NO TIME WILL SANITARY SEWAGE BE ALLOWED TO DISCHARGE TO ANY RIVER OR STREAM NOR SPILL OUT ON THE GROUND. APPROVAL OF PLANS BY THE ENGINEER TO MAINTAIN FLOWS SHALL NOT RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITY TO ADEQUATELY PROVIDE FOR ALL FLOWS.

THE CONTRACTOR SHALL BE AWARE THAT THE EXISTING SEWERS MAY BE OPERATING UNDER PRESSURE (HEAD) DURING TIMES OF RAINFALL; THEREFORE THE CONTRACTOR SHALL EXERCISE CAUTION WHEN WORKING ON THESE SEWERS.

PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE ITEM BID FOR FURNISHING AND INSTALLING

UNRECORDED SANITARY CONNECTIONS: ANY UNRECORDED ACTIVE CONNECTION TO A SANITARY SEWER FNCOUNTERED DURING CONSTRUCTION SHALL BE RECONNECTED TO THE EXISTING SEWER. AS DIRECTED BY THE ENGINEER.

SANITARY SEWER LATERALS: ALL BACKFILL FOR SANITARY SEWER LATERALS UNDER THE EXISTING OR

PROPOSED STREET PAVEMENT AND WITHIN THE INFLUENCE OF THE PAVEMENT SHALL BE COMPACTED

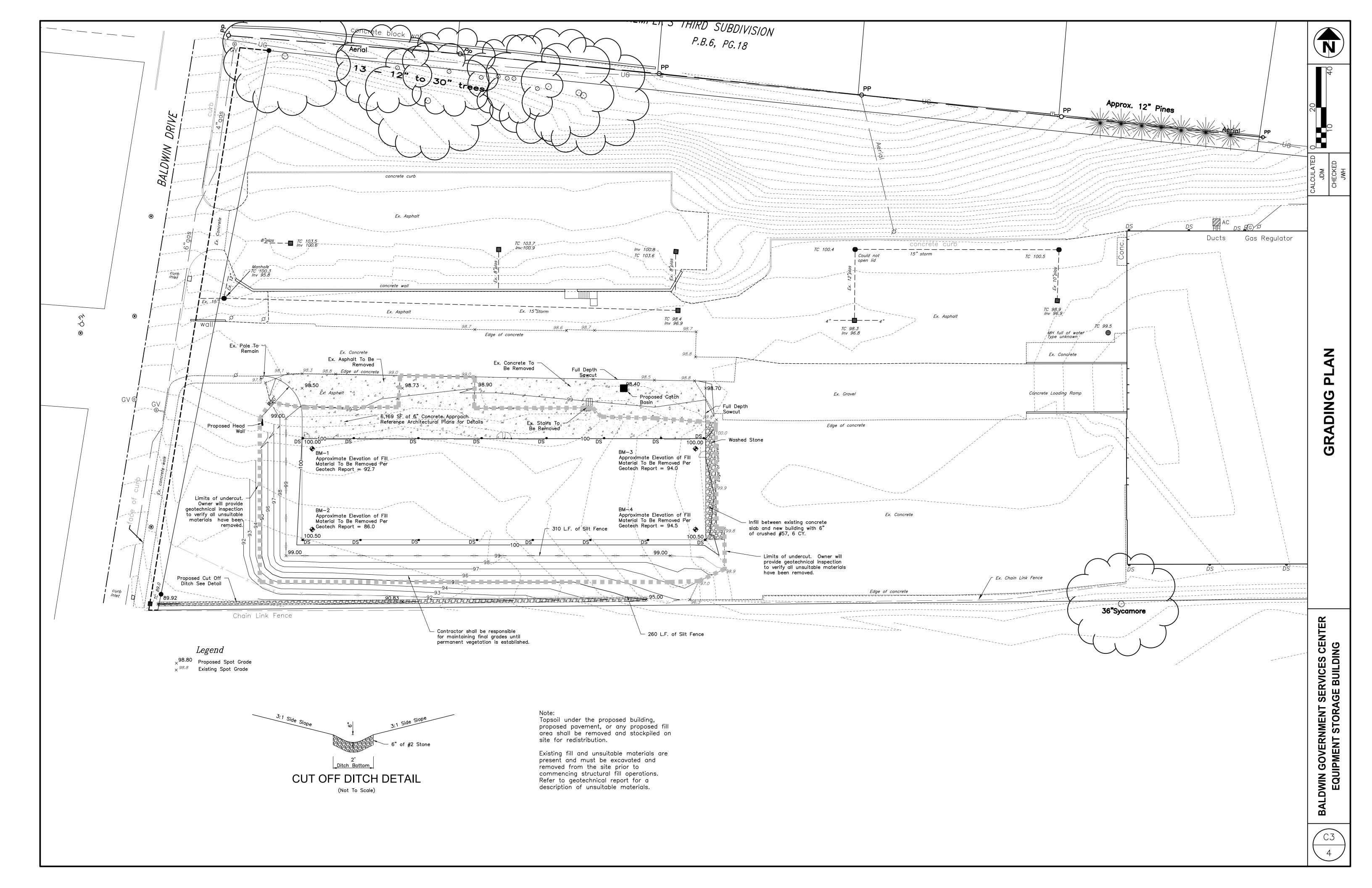
GRANULAR MATERIAL PER CMSL 912. THE REMAINING BACKFILL WITHIN THE STREET RIGHT-OF-WAY

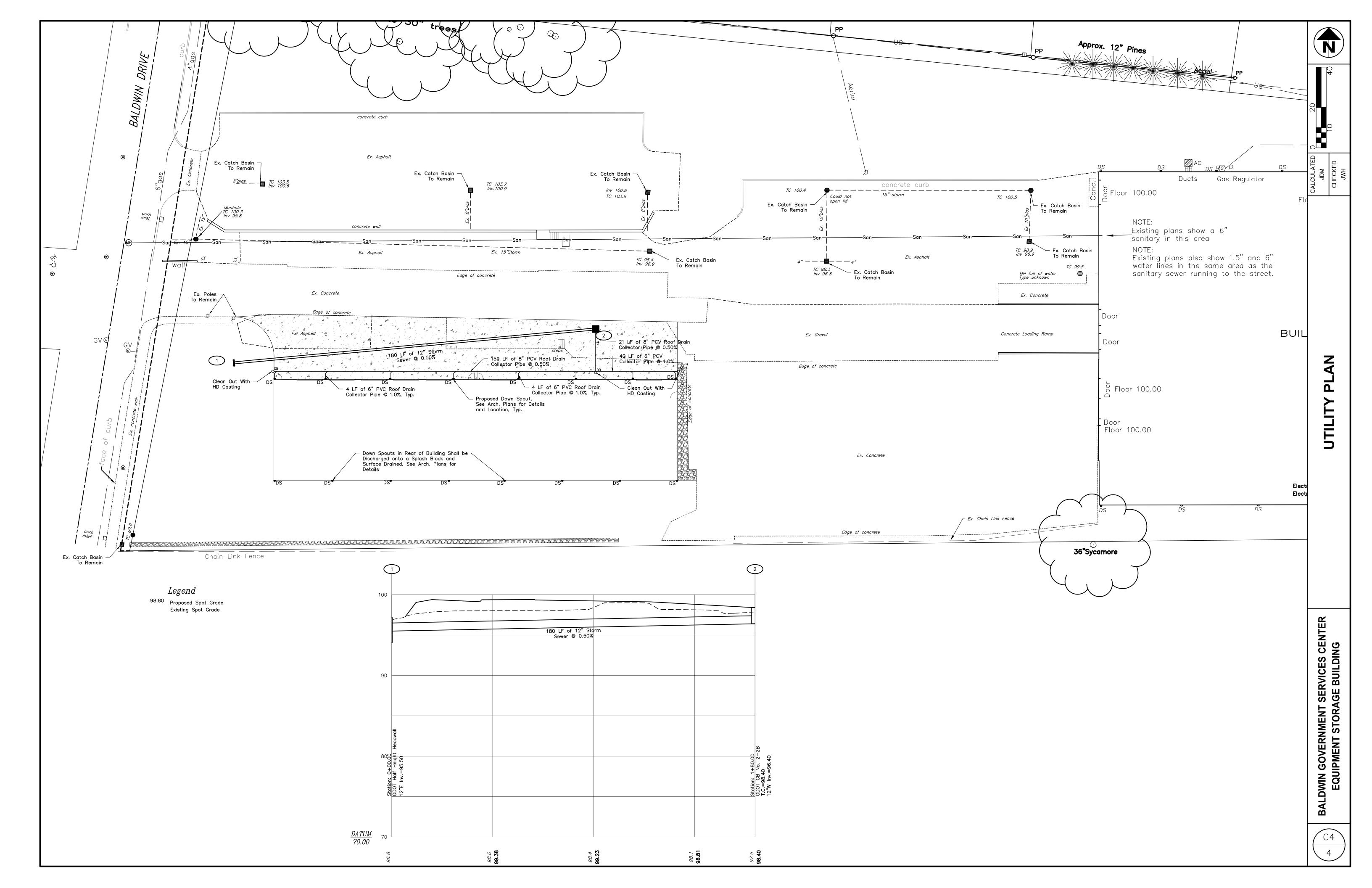
PAYMENT FOR THIS WORK AND MATERIAL SHALL BE INCLUDED IN THE UNIT BID FOR FURNISHING AND AND INSTALLING SANITARY HOUSE CONNECTION SERVICE.

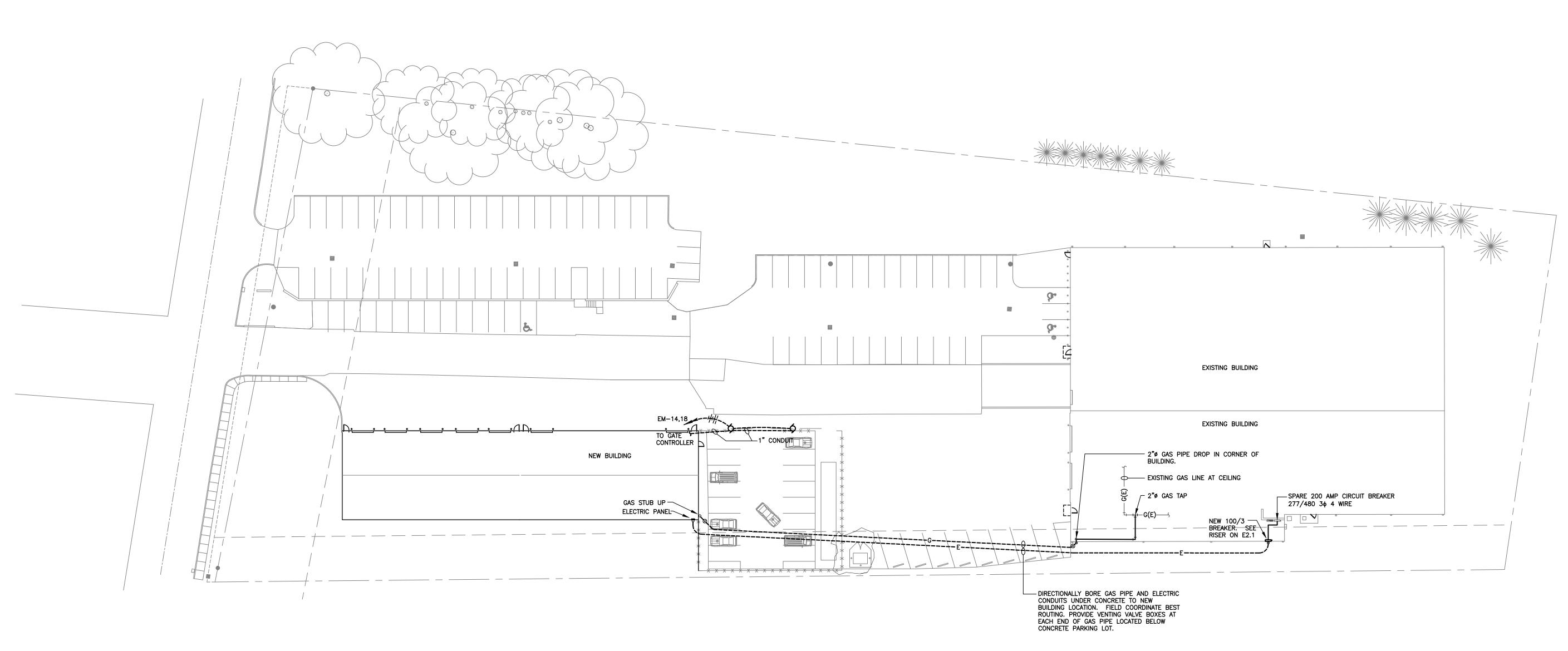
SHALL BE COMPACTED BACKFILL PER CMSL ITEM 911.

Ω. A M QZ

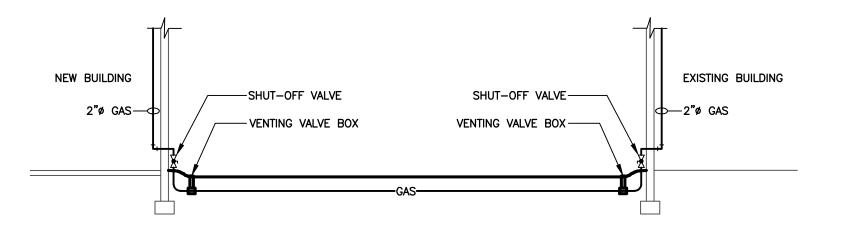
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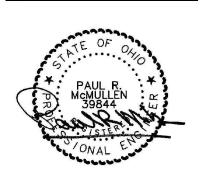


# BALDWIN GOVERNMENT SERVICES CENTER EQUIPMENT STORAGE BUILDING

MECHANCAL AND ELECTR
100 South State Street, Westervill
614-895-9408 FAX:61
E-Mail: meci@mcmulleneng.c

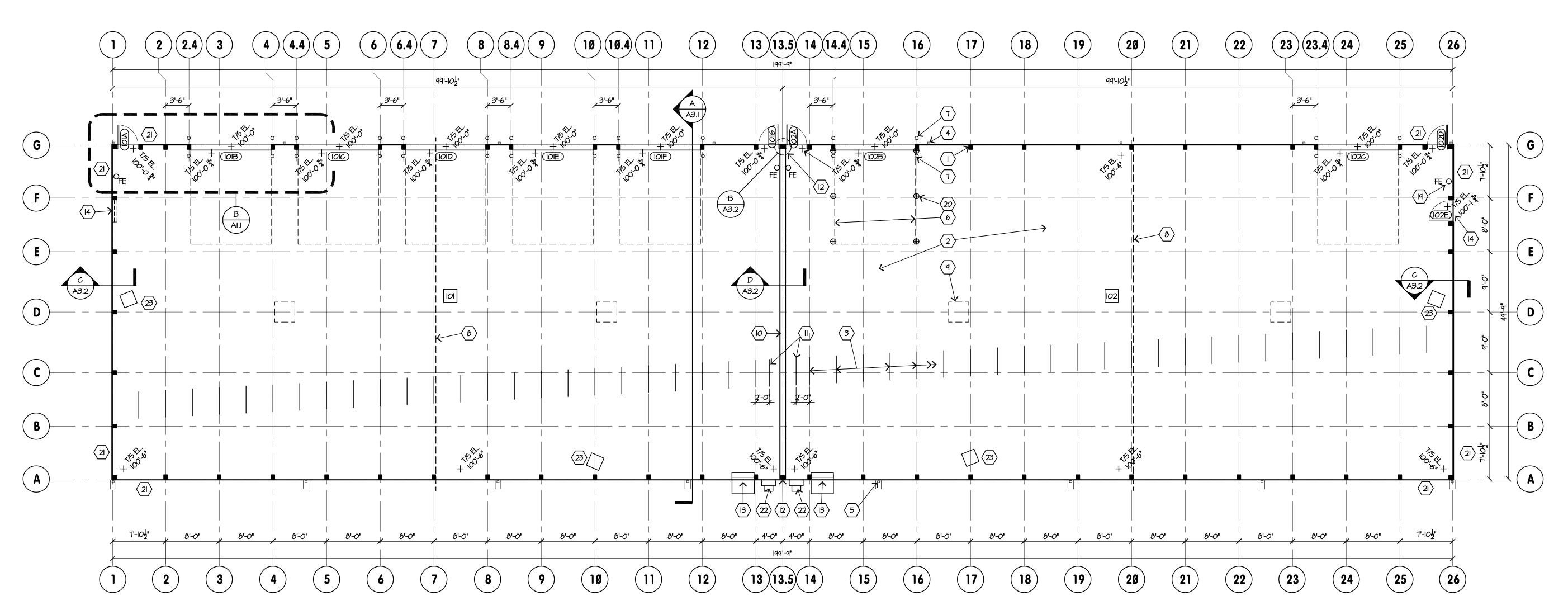
COMMISSION L-1735

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PERMIT		9-25-IT
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SITE
PLAN

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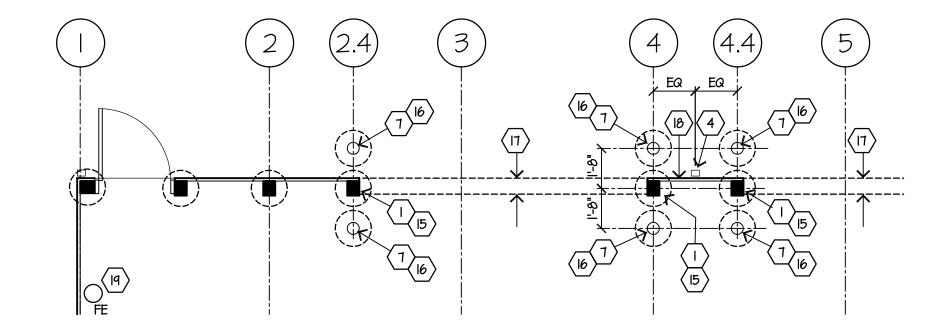
### **COORDINATION NOTE**

PRIOR TO INSTALLATION OF ANY AND ALL WORK AT THE GARAGE CEILING, IE: LIGHT FIXTURES, CEILING OUTLETS, CONDUIT, GAS PIPING, UNIT HEATERS, METAL CEILING PANELS, OVERHEAD DOOR TROLLEY TRACKS, ATTIC ACCESS HATCHES, ETC, THE GC IS RESPONSIBLE TO CHAIR AND MODERATE A MEETING WITH THE OWNER AND ALL AFFECTED SUBCONTRACTORS TO REVIEW AND COORDINATE ALL LOCATIONS, PATHS, ETC OF SAID ITEMS, AND TO ENSURE THAT ALL EQUIPMENT LOADS ARE INSTALLED AT LOCATIONS WHERE THEY ARE SUPPORTED BY ROOF TRUSSES SPECIFICALLY DESIGNED FOR THOSE LOADS. ANY INSTALLATION CONFLICTS BETWEEN ITEMS AT THE CEILING AREA ARE TO BE RESOLVED AT THIS MEETING PRIOR TO COMMENCEMENT OF INSTALLATION.

### **ALTERNATE BID NOTE**

ALTERNATE BIDS WILL BE ACCEPTED FROM BIDDERS TO CONSTRUCT A PRE-ENGINEERED METAL BUILDING IN LIEU OF THE POST FRAME STRUCTURE DETAILED HEREIN. THE METAL BUILDING SHALL HAVE THE SAME FOOTPRINT AND VOLUME AS THE DESIGN CONTAINED IN THESE DRAWINGS, BUT WITH STEEL FRAMES AT 20' OC. THE TWO HOUR FIRE BARRIER WALL, AND THE SAME QUANTITIES OF OVERHEAD DOORS, MAN DOORS, LIGHT FIXTURES, HVAC UNITS, ETC AS SHOWN IN THESE DWGS ARE TO BE INCLUDED IN THE ALTERNATE BID. IF THE METAL BUILDING ALTERNATE BID IS ACCEPTED, PRIOR TO CONSTRUCTION, THE SUCCESSFUL BIDDER WILL BE REQUIRED TO PRODUCE SHOP DRAWINGS AND REACTION CALCULATIONS FOR THE PROPOSED STRUCTURE TO THE ARCHITECT FOR REVIEW AND FOR DESIGN OF CONCRETE FOUNDATIONS. THE ARCHITECT WILL THEN (PRIOR TO CONSTRUCTION) PRODUCE A NEW SET OF CONSTRUCTION DRAWINGS REFLECTING MINOR ADJUSTMENTS IN LOCATIONS OF OVERHEAD DOORS, LIGHT FIXTURES, SWITCHES, ETC AS REQUIRED TO ACCOMODATE THE STEEL FRAME SPACING. ACCEPTABLE METAL BUILDING MANUFACTURERS INCLUDE: BUTLER MANUFACTURING COMPANY, AMERICAN BUILDINGS COMPANY, VARCO PRUDEN, CHIEF BUILDINGS, BEHLEN BUILDING SYSTEMS, GULF STATES MANUFACTURING, AND INLAND BUILDINGS. SEE THE 'INVITATION TO BID' DOCUMENTS FOR ADDITIONAL INFORMATION.







### B PARTIAL FOUNDATION PLAN A1.1 1/4"=1'-Ø" (TYPICAL)

### **CODED NOTES**

- I. (4) 2x8 LAMINATED WALL POST (TYP THROUGHOUT) AS SPECIFIED. ALL POST MEMBERS IN CONTACT WITH CONCRETE OR EARTH TO BE PRESSURE TREATED. ALL FINGER JOINTS BETWEEN POST MEMBERS TO BE STAGGERED. SET POSTS WITH MEMBERS PERPENDICULAR TO EXTERIOR WALL UNLESS NOTED OR
- DETAILED OTHERWISE.

  2. 6" CONCRETE SLAB WITH 6x6 W2.IxW2.I WWF ON 6 MIL VAPOR BARRIER ON COMPACTED LAYER OF 4" OF WASHED STONE CHOKED WITH SAND ON UNDISTURBED EARTH OR COMPACTED FILL. SLOPE TO OVERHEAD DOORS PER TOP OF SLAB ELEVATIONS NOTED ON PLAN. PROVIDE 3/4" DEPRESSED SLAB AT EACH OVERHEAD DOOR AS DETAILED. WITHIN 24 HOURS OF POUR, CONTRACTOR TO SAWCUT I.5" DEEP CONTROL JOINTS IN 8'x16' PATTERN, WITH JOINTS CENTERED ON WALL POSTS. SEE DETAIL J/A3.2 FOR TYPICAL
- CONTROL JOINTS AND CONSTRUCTION JOINTS.

  3. PRE-ENGINEERED WOOD ROOF TRUSSES AT 4' OC (UNLESS OTHERWISE NOTED OR DETAILED) WITH 2x8 ROOF PURLINS (AS SPECIFIED) STAGGERED AT 24" OC. SEE DETAIL H/A3.2 FOR TYPICAL PURLIN LAYOUT AND
- FASTENING.

  4. PREFINISHED 3x4 STEEL DOWNSPOUT TO RECTANGULAR TO ROUND BOOT AT GRADE TO 6" DIA UNDERGROUND STORM PIPE (TYP OF 8 AT NORTH WALL OF BUILDING).

  SEE CIVIL DWGS FOR UNDERGROUND STORM PIPING.

  SEE B/AI.I AND EXTERIOR ELEVATIONS FOR
- DIMENSIONS LOCATING DOWNSPOUTS.
  PREFINISHED 3x4 STEEL DOWNSPOUT TO ELBOW

- ABOVE CONCRETE SPLASHBLOCK AT GRADE.

  TYPICAL OF 8 AT SOUTH WALL OF BUILDING. SEE EXT ELEVATIONS FOR DIMENSIONS LOCATING DOWNSPOUTS.
- OPEN POSITION OF OVERHEAD GARAGE DOOR SHOWN DOTTED.
   6" PIPE BOLLARD TYP OF 4 AT EACH OVERHEAD DOOR. SEE DETAIL E/A3.2.
   DOTTED LINE INDICATES ONE LAYER OF I/2" OSB
- OF ENTIRE ROOF TRUSS TO OUTSIDE OF TOP CHORD EAVE EXTENSIONS.

  9. 2'x3' ATTIC ACCESS HATCH AT APPROX CENTER OF

SHEATHING (DRAFTSTOPPING) ATTACHED TO ONE SIDE

- EACH ATTIC SPACE CREATED BY DRAFTSTOPPING.
  TYP OF 4.

  10. TWO HOUR RATED FIRE BARRIER WALL FROM TOP OF
  SLAB TO UNDERSIDE OF ROOFING FULL WIDTH OF
  BUILDING FROM BACKSIDE OF WALL GIRT TO
  BACKSIDE OF WALL GIRT. UL DESIGN # U3OI, SEE
- ATTACHED LITERATURE.

  II. PROVIDE ADDITIONAL ROOF TRUSS AT THIS LOCATION PER DETAIL D/A3.2.

  I2. INSTALL WALL POST PARALLEL TO OUTSIDE WALL AT
- THIS LOCATION (TYP OF 2).

  13. CO2 EXHAUST FAN AND HOOD. SEE EXTERIOR ELEVS AND MECH DWGS.

14. AIR INTAKE LOUVER (CENTERED ABOVE DOOR ON

15. 18" DIA WALL POST FOOTING - SEE SECTION B/A3.1

EAST WALL). SEE EXTERIOR ELEVS AND MECH DWGS.

FOR ADDITIONAL INFO. 16. 16" DIA BOLLARD FOOTING - SEE DETAIL E/A3.2 FOR

- ADDITIONAL INFO.

  17. 8" WIDE TURN DOWN SLAB FOOTING AT EACH
  OVERHEAD DOOR. SEE SECTION C/A3.I FOR
- ADDITIONAL INFO.

  18. METAL SIDING ON HORIZONTAL WALL GIRTS.

  19. IO# ABC FIRE EXTINGUISHER MOUNTED TO WALL AT 48"
- AFF. TYP OF 4.

  20. OVERHEAD GARAGE DOOR WEIGHT IS ESTIMATED TO BE 500 LBS. WHEN IN OPEN POSITION, THIS LOAD IS DISTRIBUTED TO (SIX) 85 LB POINT LOADS; ONE AT THE SOUTH END OF EACH TROLLEY TRACK, ONE AT THE MIDPOINT OF EACH TROLLEY TRACK, AND ONE AT THE NORTH END OF EACH TROLLEY TRACK. (SHOWN THUS & ON THE FLOOR PLAN.) THE NORTH END LOADS ARE SUPPORTED AT THE ADJACENT EXTERIOR WALL. THE MIDPOINT AND SOUTH END POINTS ARE SUSPENDED FROM THE ROOF TRUSSES ABOVE. ROOF TRUSS MER IS TO INCORPORATE THESE LOADS INTO THE DESIGN OF THE ROOF TRUSSES AT THESE LOCATIONS (TYP AT 1 OVERHEAD DOORS).
- 21. PROVIDE DIAGONAL CORNER BRACING PER DETAILS 'F'
  AND 'G' ON A3.2 AND AS SHOWN ON EXTERIOR
  ELEVATIONS. TYP ALL FOUR CORNERS OF BUILDING.
- VENTILATION AIR EXHAUST FAN SEE MECH AND ELECT DWGS.
   GAS FIRED UNIT HEATER SUSPENDED FROM CEILING.
- 23. GAS FIRED UNIT HEATER SUSPENDED FROM CEILING.
  UNIT WEIGHS APPROX 65 LBS. ROOF TRUSS MFR TO
  INCORPORATE THIS LOAD INTO THE DESIGN OF THE
  ROOF TRUSSES AT THIS LOCATION. (TYP OF 4
  LOCATIONS).

### **ROOM FINISHES**

- ROOMS IOI AND IO2 TO HAVE THE FOLLOWING FINISHES:
- I. SEALED CONCRETE FLOOR SLAB
  2. EXPOSED STRUCTURE AT EXTERIOR WALLS.
- 2. EXPOSED STRUCTURE AT EXTERIOR WALLS.

  3. FIRE BARRIER WALL AT CENTER OF BUILDING TO BE PAINTED DRYWALL WITH 6" COVED VINYL BASE. PAINT

  ON THE PAINTED DRYWALL WITH 6" COVED VINYL BASE. PAINT

  ON THE PAINTED DRYWALL WITH 6" COVED VINYL BASE. PAINT

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  ON THE PAINTED DRYWALL WITH 6" COVED VINYL BASE. PAINT

  ON THE PAINTED DRYWALL WITH 6" COVED VINYL BASE. PAINTED DRYWALL BASE. PAINT
- AND BASE COLORS AS SELECTED.

  4. CEILINGS TO BE PREFINISHED, 26 GA METAL LINER
  PANELS (STANDARD COLOR AS SELECTED), SECURED

### **DOOR SPECS**

TO UNDERSIDE OF ROOF TRUSSES.

- MAN DOORS IOIA, IOIG, IO2A, IO2D AND IO2E:

  1. 3070, I 3/4" THICK, INSULATED, FLUSH, NON-RATED, I8 GA,
- PAINTED HOLLOW METAL DOORS

  2. 2"x52" PAINTED, 16 GA., WELDED HOLLOW METAL FRAMES
- 3. WEATHERSTRIPPING PACKAGE4. DOOR SWEEP
- 5. HEAVY DUTY HINGES
  6. HEAVY DUTY DIGITAL KEYPAD LEVER LOCKSET
- . HEAVY DUTY CLOSER b. FLOOR STOP
- 9. ADA COMPLIANT THRESHOLD
- MAN DOOR NOTES:

  I. HARDWARE FINISH US26D, SATIN CHROME.

  2. SEE GENERAL NOTES FOR ADDITIONAL INFO.
- OVERHEAD GARAGE DRS IOIB, IOIC, IOID, IOIE, IOIF, IO2B AND IO2C

  1. I2' WIDE  $\times$  I4' HIGH  $\times$  I  $^3_4$ " THICK OVERHEAD DOOR WITH (7) 24" WIDE TONGUE AND GROOVE PANELS WITH VINYL THERMAL
- I.I. ALL PANELS TO BE FLUSH, PREFINISHED (STD COLOR AS SELECTED), 26 GA HOT DIPPED GALVANIZED STEEL, V GROOVE WOODGRAIN INTERIOR AND EXTERIOR SURFACES WITH MIN RI6 INJECTED POLYURETHANE INSULATION, EACH PANEL REINFORCED WITH ROLL-FORMED GALV STEEL STRUTS, AND EDGED WITH GALV DOUBLE STEEL END STILES.
- I.2. I8 GA STEEL HINGES
  I.3. PROVIDE (4) 6"x24" INSULATING GLAZING PANELS IN ONE PANEL PER DOOR PER EXTERIOR ELEVATIONS.
- 1.4. PROVIDE HEAVY DUTY VINYL DOOR BOTTOM SEAL, TOP HEADER SEAL AND MEATHERSTRIPPING SECURED TO SURROUNDING BLDG STRUCTURE AT ALL OTHER EDGES.
- I.5. PROVIDE EXHAUST PORT, CAM SAFETY DEVICE, SPRING BUMPERS, HIGH CYCLE SPRINGS AND ROLLERS.
  I.6. PROVIDE IO YEAR RUST AND DELAMINATION WARRANTY, 6 YEAR WARRANTY ON HARDWARE, 3 YEAR WARRANTY ON

BUILDING

CENTER

A R C H I T E C T S

426 EAST MAIN STREET
LANCASTER, OHIO 43130
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facsimile: (740) 654-3009

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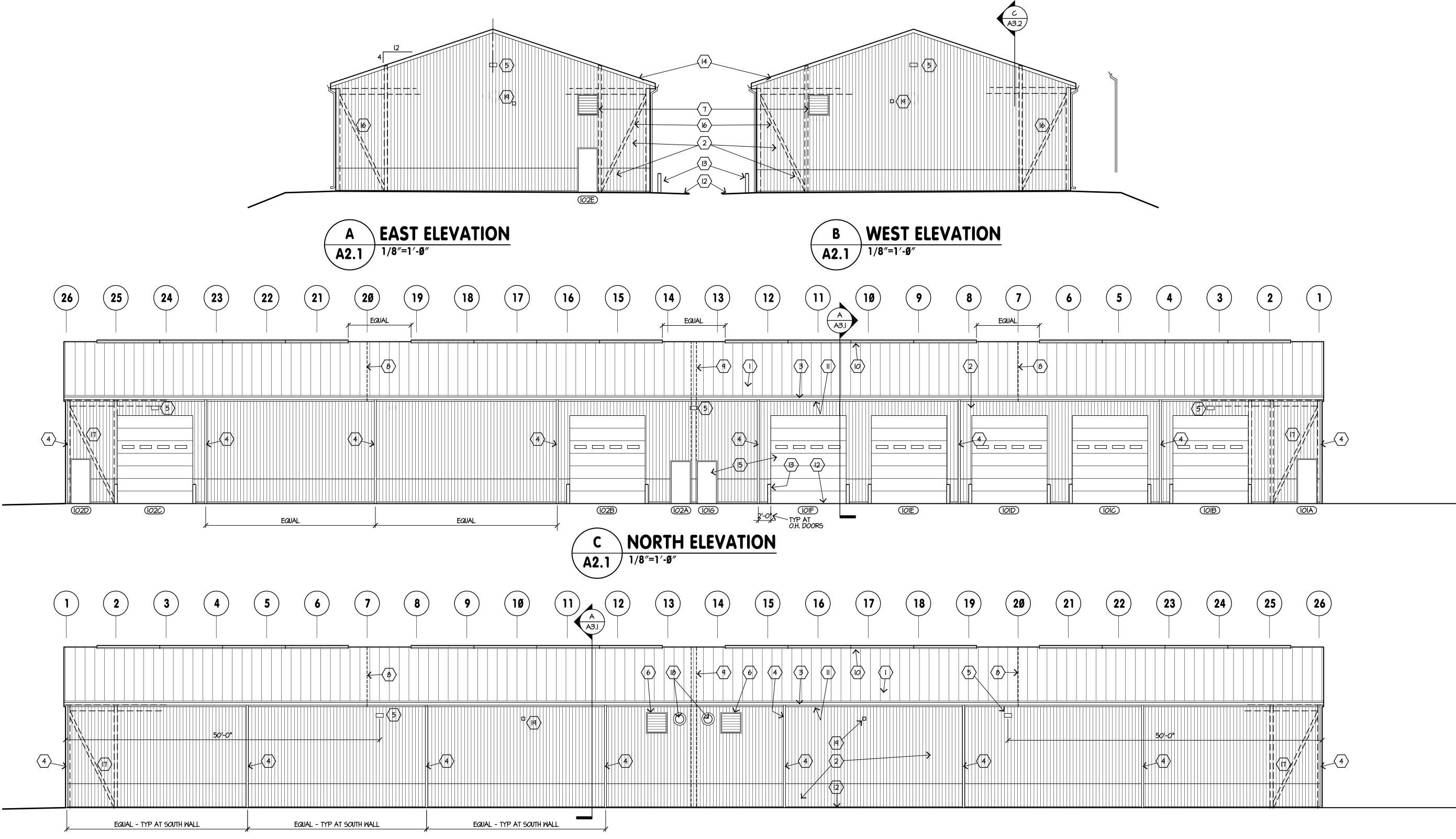
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PERMIT		9-25-17						

STEPHEN
M.
LUCHTENBERG
8546

Stephen M. Luchtenberg
License No. 8546
Expiration Date: December 31, 2017

FLOOR PLAN /
FOUNDATION PLAN /
ROOF FRAM'G PLAN
DRAWING NUMBER



SOUTH ELEVATION

### CODED NOTES

- PREFINISHED METAL ROOFING. COLOR AS SELECTED FROM MFR'S STANDARD COLOR PALLETTE. PROVIDE MFR'S STANDARD SLIDING ICE DETERRENT SYSTEM AT BOTH EAVES
- FULL LENGTH OF BUILDING. 2. PREFINISHED METAL SIDING. PROVIDE WAINSCOT WALL PANELS AT ALL SIDES OF BUILDING (TOP OF PANEL AT EL. 104'-0", BOTTOM OF PANEL AT 4" ABOVE FINISH GRADE), WITH FULL HEIGHT WALL PANELS ABOVE WAINSCOTTING. PROVIDE 'Z' FLASHING BETWEEN TOP PANELS AND WAINSCOT PANELS. UPPER WALL PANELS TO BE COLOR #1, WAINSCOT PANELS AND 'Z' FLASHING TO BE COLOR #2. OWNER TO SELECT COLORS
- FROM MFR'S STANDARD COLOR PALLETTE. 3. SEAMLESS 6", PRFINISHED STEEL, K STYLE GUTTER. COLOR AS SELECTED.
- 4. SEAMLESS 3"x4", PREFINISHED STEEL DOWNSPOUT, COLOR AS SELECTED. AT NORTH WALL, PROVIDE RECTANGULAR TO ROUND BOOT AT GRADE, TO 6" UNDERGROUND PIPE TO CONNECT TO NEW STORM DRAINAGE PIPE AS SHOWN ON CIVIL DRAWINGS. AT SOUTH WALL, PROVIDE VERTICAL TO HORIZONTAL ELBOW ABOVE CONCRETE SPLASHBLOCK AT
- GRADE FOR SURFACE DRAINAGE 5. LIGHT FIXTURE (TYP OF 3 ON NORTH WALL; 2 ON SOUTH WALL; ONE ON EAST WALL AND ONE ON WEST WALL) - SEE ELECT
- PLANS. WHERE ABOVE DOOR CENTER FIXTURE ON DOOR. 6. CO2 EXHAUST FAN (HOOD NOT SHOWN) - SEE ELECT AND MECH PLANS. STANDARD COLOR AS SELECTED.
- 7. VENTILATION AIR INTAKE LOUVER. SEE MECH DWGS. STANDARD COLOR AS SELECTED BY OWNER.
- 8. DASHED LINE INDICATES CONTINUOUS I/2" OSB SHEATING SECURED TO ONE SIDE OF ROOF TRUSS AT THIS LOCATION TO

- PROVIDE CONTINOUS ATTIC AND EAVE DRAFTSTOPPING BARRIER. SHEATHING TO EXTEND CONTINUOUSLY FROM BACKSIDE OF FASCIA AT NORTH WALL TO BACKSIDE OF FASCIA AT SOUTH WALL, FROM TOPSIDE OF EAVE SOFFIT TO UNDERSIDE OF ROOFING, FROM TOPSIDE OF INTERIOR CEILING TO UNDERSIDE OF ROOF PANELS. NOTCH SHEATHING AROUND AND TIGHT TO ROOF PURLING AND OTHER FRAMING MEMBERS
- ADJACENT TO ROOF TRUSS. INTERIOR FIRE BARRIER WALL SHOWN DASHED. SEE DETAIL
- B/A3.2. IO. END TO END FREFAB PREFINISHED STEEL RIDGE VENTS IN EACH OF THE FOUR ATTIC SPACES AS REQUITO PROVIDE 600 SQUARE INCHES OF FREE AIR AT THE ROOF RIDGE IN EACH
- ATTIC SPACE. PREFAB, PREFINISHED PERFORATED STEEL SOFFIT AT EAVE TO PROVIDE 300 SQUARE INCHES OF FREE AIR AT EACH EAVE SOFFIT IN EACH OF THE FOUR ATTIC AREAS, FOR A COMBINED TOTAL OF 600 SQUARE INCHES OF FREE AIR IN THE NORTH AND SOUTH SOFFITS IN EACH ATTIC SPACE.
- 12. APPROX FINISH GRADE. SEE SITE LAYOUT PLAN AND CIVIL DRAWINGS.
- PAINTED PIPE BOLLARD. SEE DETAIL E/A3.2.
- PREFINISHED STEEL RAKE FLASHING. SEE DETAIL A/A3.2.
- 15. DOOR AS SCHEDULED.
- 16. CORNER BRACE (SHOWN DOTTED) AT EAST AND WEST GABLE END WALLS PER DETAIL F/A3.2. (TYP OF 4) 17. CORNER BRACE (SHOWN DOTTED) AT NORTH AND SOUTH WALLS
- PER DETAIL G/A3.2. (TYP OF 4) 18. VENTILATION AIR EXHAUST FAN. SEE ELECT AND MECH DWGS. 19. INDOOR UNIT HEATER EXHAUST VENT CAP.

BUILDING BALDWIN GOVERNMENT SERVICES CENTER

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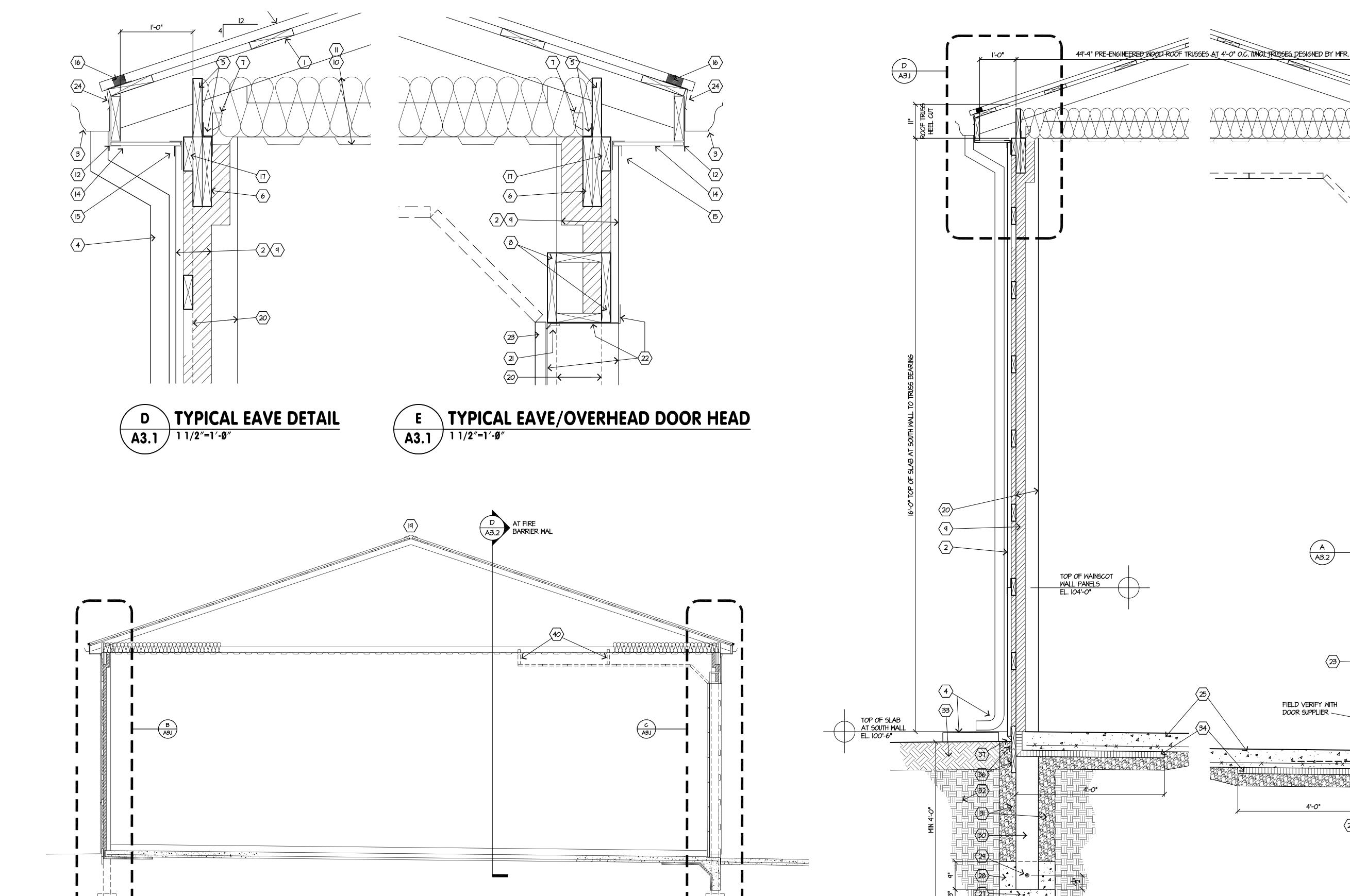
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PERMIT		9-25-17						

DRAWN BY: SML



Stephen M. Luchtenberg License No. 8546 Expiration Date: December 31, 2017

> **EXTERIOR ELEVATIONS**



**BUILDING SECTION CODED NOTES** 

PREFINISHED METAL ROOFING ON ROOF PURLINS ON

ROOF TRUSSES PER ROOF FRAMING PLAN. PROVIDE

MFR's STANDARD SLIDING ICE DETERENT SYSTEM AT

PREFINISHED METAL SIDING ON 2x6 HORIZONTAL WALL

POST WITH (3) #10 WOOD SCREWS. PROVIDE WAINSCOT

GIRTS AT 24" OC. SECURE GIRTS TO EACH WOOD

WALL PANELS (BOTTOM OF PANEL AT 4" ABOVE

GRADE) ALL SIDES OF BUILDING, WITH FULL HEIGHT

WALL PANELS ABOVE WAINSCOTTING. PROVIDE 'Z'

WAINSCOT PANELS AND 'Z' FLASHING TO BE COLOR #2.

OWNER TO SELECT COLORS FROM MFR'S STANDARD

FLASHING BETWEEN TOP PANELS AND WAINSCOT

PANELS. UPPER WALL PANELS TO BE COLOR #1,

3. SEAMLESS 6", PREFINISHED STEEL, K STYLE GUTTER.

4. SEAMLESS 3"x4", PREFINISHED STEEL DOWNSPOUT,

COLOR AS SELECTED. AT NORTH WALL, PROVIDE

RECTANGULAR TO ROUND BOOT AT GRADE, TO 6"

UNDERGROUND PIPE TO CONNECT TO NEW STORM

DRAINAGE PIPE AS SHOWN ON CIVIL DRAWINGS. AT

BOTH EAVES.

COLOR PALLETTE.

COLOR AS SELECTED.

SOUTH WALL, PROVIDE VERTICAL TO HORIZONTAL ELBOW ABOVE CONCRETE SPLASHBLOCK AT GRADE

FOR SURFACE DRAINAGE. 5. SOLID 2XIO BLOCKING TIGHT TO AND BETWEEN ROOF TRUSSES ENTIRE PERIMETER OF BUILDING. TOENAIL TO TRUSSES AT EACH END AND SECURE TO BEAM BELOW WITH A SIMPSON A35 AT EACH END OF BLOCKING. 6. (2) 2x12 SYP NO.1 BEAM. CONNECT EACH END TO POST WITH SIMSON HUC210-2 CONCEALED HANGER. TYP AT ALL SPACES BETWEEN POSTS AT BUILDING PERIMETER.

7. SECURE EACH END OF EACH TRUSS TO BEAM WITH SIMPSON H2.5A. 8. 2x12 'SPACE BEAM' ABOVE GARAGE DOOR OPENINGS WITH CONT 2x8 LAID FLAT BETWEEN 2x12s AT TOP AND BOTTOM AS SHOWN.

9. 3" OF OPEN CELL SPRAY FOAM INSULATION AT EXTERIOR WALLS (SHOWN HATCHED). IO. PREFINISHED 'LINER' CEILING PANELS SECURED TO UNDERSIDE OF ROOF TRUSSES.

II. R-30 BLOWN ATTIC INSULATION. ENSURE MIN 2" OF CLEAR VENTILATION SPACE ABOVE INSULATION AT

12. PREFINISHED STEEL FASCIA 'L' FLASHING ON CONT

2x8 FASCIA. 13. NOT USED.

14. VENTING STEEL SOFFIT. PROVIDE MIN 300 SQ INCHES OF FREE AIR AT SOFFITS ON BOTH SIDES OF EACH ATTIC AREA SEPARATED BY DRAFTSTOPPING. (TOTAL OF 600 SQ INCHES FREE AIR FROM SOFFITS INTO

A3.1  $\sqrt{\frac{3}{4''=1'-9''}}$ 

EACH ATTIC AREA.) 15. PROVIDE PREFINISHED STEEL "F / J" TRIM AT TOP OF STEEL WALL PANELS.

16. FOAM CLOSURE STRIP UP UNDER METAL ROOFING. 17. WALL GIRT.

18. NOT USED. 19. RIDGE VENT. PROVIDE 600 SQ INCHES OF FREE AIR IN EACH ATTIC SPACE SEPARATED BY DRAFTSTOPPING. EQUALLY SPACE RIDGE VENTS AS SHOWN ON EXTERIOR ELEVATIONS.

20. LAMINATED WALL POST BEYOND. 21. CONTINUOUS WEATHERSTRIPPING AT DOOR HEAD AND 22. PREFINISHED STEEL JAMB AND HEAD FLASHING AT

OVERHEAD DOOR. 23. INSULATED SECTIONAL OVERHEAD DOOR AS SCHEDULED.

24. PREFINISHED STEEL ROOF EDGE FLASHING WITH EXPOSED HEMMED EDGE DOWN OVER FASCIA FLASHING AND INTO GUTTER. OVERBEND AS REQD

TYPICAL EAVE WALL SECTION

FOR SNUG FIT AGAINST GUTTER. 25. 6" INTERIOR CONCRETE SLAB WITH  $6 \times 6$  W2.1  $\times$  W2.1 WWF ON 6 MIL VAPOR BARRIER ON 4" OF COMPACTED WASHED STONE CHOKED WITH SAND ON UNDISTURBED EARTH OR COMPACTED GRANULAR FILL. SLOPE PER TOP OF SLAB ELEVATIONS ON FLOOR PLAN. TURN VAPOR BARRIER UP TO TOP OF SLAB AT PERIMETER EDGES. WITHIN 24 HOURS OF POUR, CONTRACTOR TO SAWCUT 1.5" DEEP CONTROL JOINTS IN 8'x16' PATTERN,

WITH JOINTS CENTERED ON WALL POSTS. 26. 8" TURN DOWN FROST FOUNDATION WALL AT OVERHEAD DOORS. PROVIDE #5 x 27" VERT x 36" HORIZ HOOKED REBARS AT 24" OC AND ONE #5 HORIZONTAL AT TOP AND ONE #5 HORIZONTAL AT

BOTTOM OF TURN DOWN FOOTING. 27. 3" x 18" DIA CONCRETE FOOTING PAD

28. 9" x 18" DIA CONCRETE FOOTING POURED AROUND 29. 3/4" DIA BOLT THRU POST. BOLT TO BE PARALLEL TO 30. LAMINATED POST - ALL MEMBERS IN CONTACT WITH GROUND AND OR CONCRETE TO BE PRESSURE 31. COMPACTED GRANULAR FILL AROUND POST (TYP).

A3.1  $\sqrt{\frac{3}{4''=1'-9''}}$ 

32. UNDISTURBED EARTH OR COMPACTED FILL.

33. 9" OF TOPSOIL - TYP ALL DISTURBED LAWN AREAS. 34. 2" RIGID FOAM R-10 INSULATION ENTIRE PERIMETER OF BUILDING. EXTEND DOWN BACKSIDE OF TURN DOWN FROST FOOTINGS AT OVERHEAD DOORS AND TURN UP BETWEEN BAND BOARD AND SLAB AS SHOWN.

A A3.2

FIELD VERIFY WITH DOOR SUPPLIER ~

4'-0"

35. DEPRESS SLAB 3/4" AT OVERHEAD DOORS. SEE

36. (2) TREATED TONGUE AND GROOVE 2x8 PERIMETER BAND BOARDS SECURED TO POSTS (TYP ENTIRE PERIMETER OF BUILDING EXCEPT AT OVERHEAD DOOR TURN DOWN SLABS). HOLD TOP OF UPPER BOARD AT

EL 100'-8". 37. STANDARD PREFINISHED STEEL BASE TRIM AT BOTTOM OF WALL PANELS (TYP).

38. 6" EXTERIOR CONCRETE SLAB (AT NEW CONC APRON

AT NORTH WALL) WITH  $6 \times 6$  W2.1  $\times$  W2.1 WWF ON 4" OF

COMPACTED WASHED STONE CHOKED WITH SAND ON

40. 85 LB POINT LOAD AT EACH OVERHEAD DOOR HANGER SUPPORTED BY ROOF TRUSSES (TYP OF 2 AT EACH TROLLY TRACK - ONE AT MIDPT AND ONE AT SOUTH END OF TRACK).

INTERIOR AND EXTERIOR SLABS.

UNDISTURBED EARTH OR COMPACTED GRANULAR FILL.

HOLD TOP OF SLAB AT BUILDING AT EL 100'-0", SLOPE

SLAB DOWN AWAY FROM BUILDING IN CONTINUOUS EVEN

CONTRACTOR TO SAWCUT 1.5" DEEP CONTROL JOINTS

IN AN 8'XI6' PATTERN - ALIGN WITH INTERIOR SLAB

JOINTS. SEE CIVIL DWGS FOR ADDITIONAL INFO.

39. CONTINUOUS 1/2" EXPANSION MATERIAL BETWEEN

SLOPE AS REQUIRED TO ALIGN WITH EXISTING

CONCRETE DRIVE. WITHIN 24 HOURS OF POUR,

TYPICAL SECTION AT OVERHEAD DOOR

TOP OF DEPRESSED SLAB

EL 100'-0" (SEE PLAN FOR

ADDITIONAL TOP OF SLAB

AT OVERHEAD DOORS

DIMENSIONS)

× ^ ×

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TRUSS BEARING EL. 116'-6"

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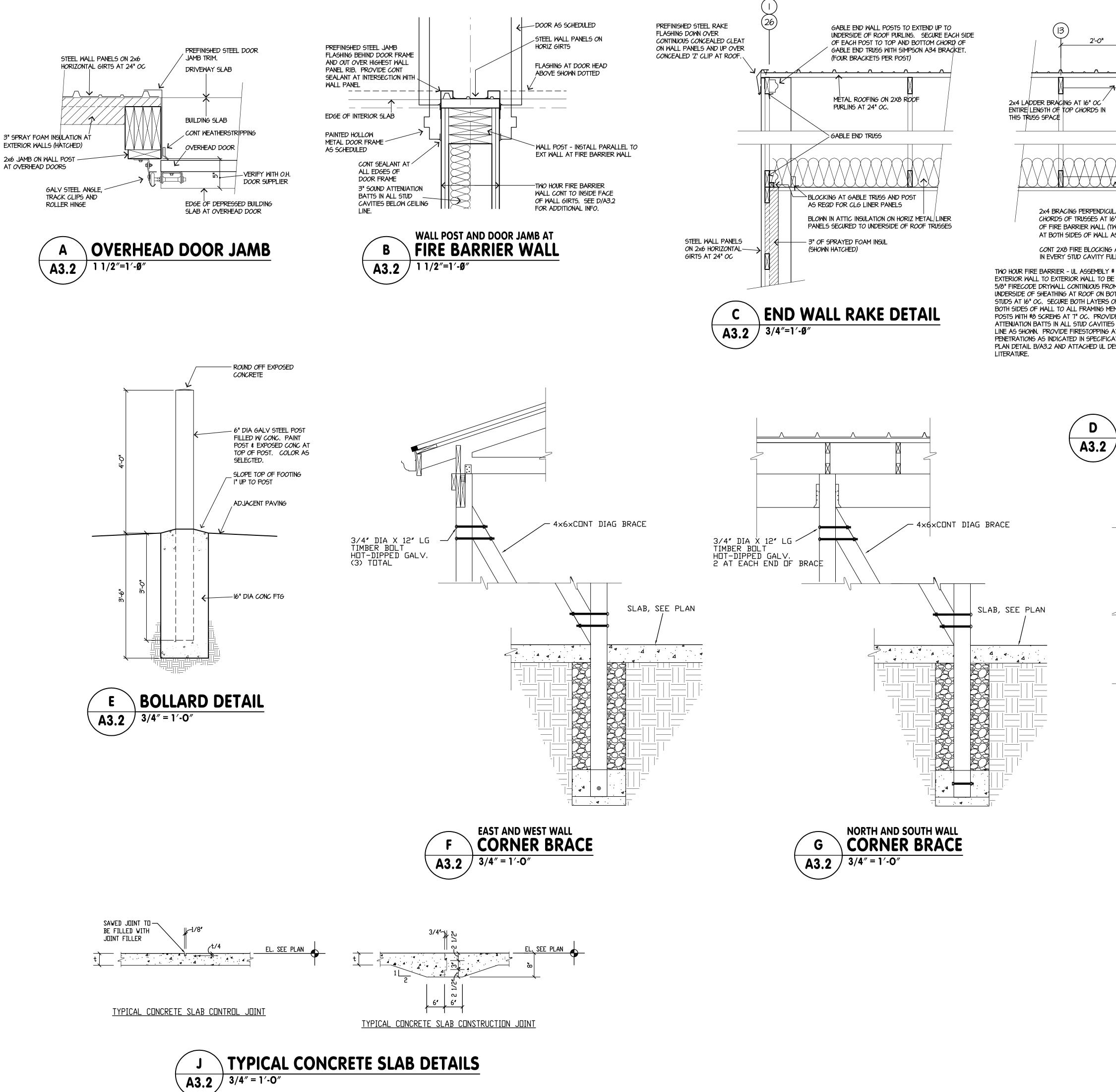
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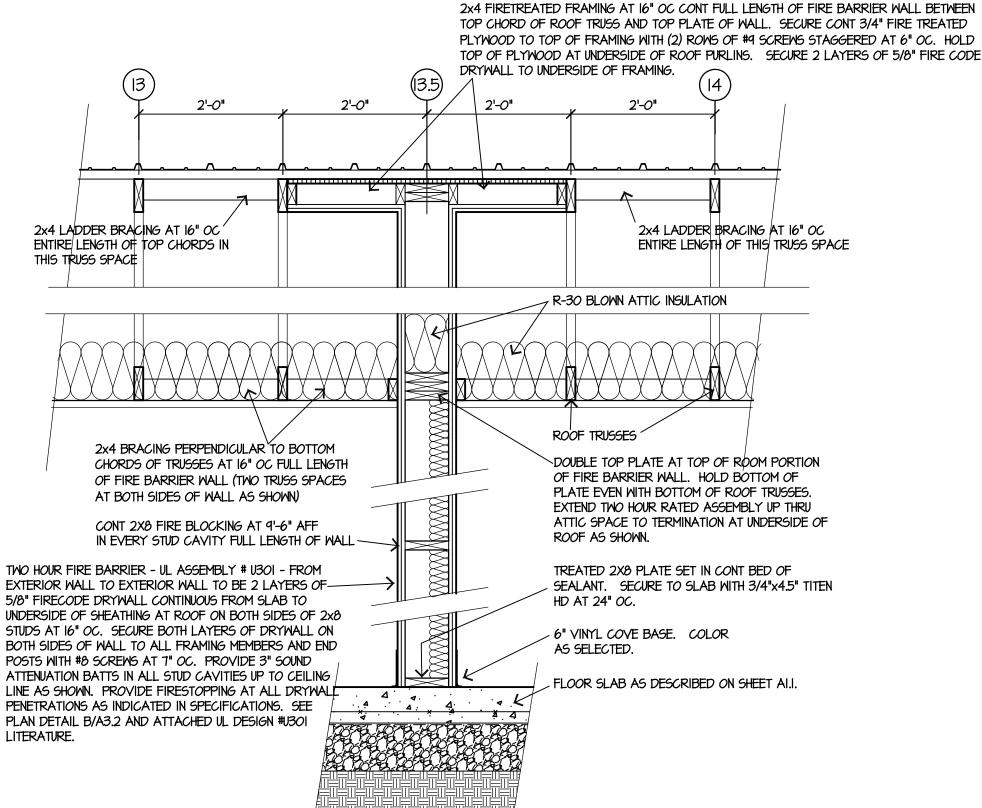
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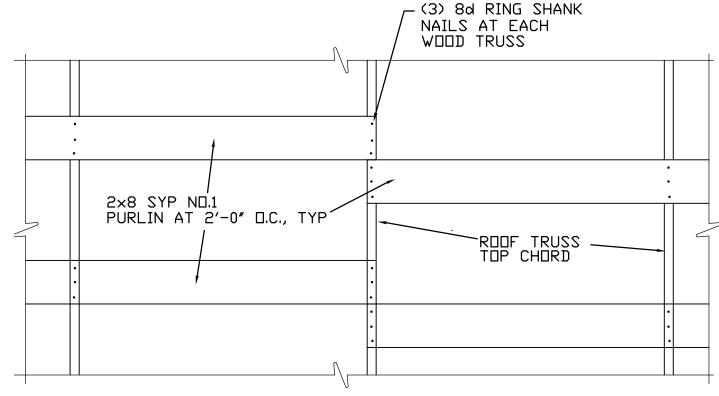
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**BUILDING AND** WALL SECTIONS





FIRE BARRIER WALL SECTION



ROOF PURLIN PLAN 3/4" = 1'-O" A3.2

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DWIN.

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STEPHEN
M.

★ LUCHTENBERG
8546

Expiration Date: December 31, 2017

**DETAILS** 

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C

ARCHITECTS

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September 21, 2017

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### 1. HOW DO YOU WANT TO SEARCH?

2. RESULTS

FIRE-RESISTANCE DESIGN

Assembly Usage Disclaimer

### **Search Parameters**

Assembly type Walls and Partitions Protection type Wood Stud, Gypsum Board, Lath &/or Rating Rating ≥ 2 hr and < 3 hr

### BXUV - Fire Resistance Ratings - ANSI/UL 263

### BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

See General Information for Fire-resistance Ratings - ANSI/UL 263

See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

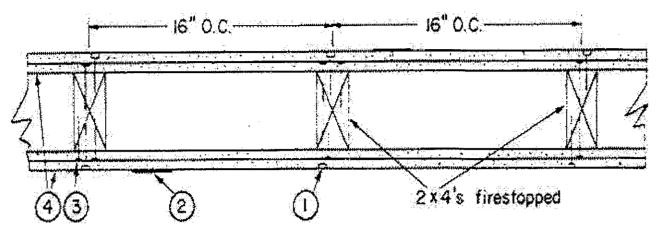
Design No. U301

### Bearing Wall Rating — 2 Hr.

Finish Rating — 66 Min.

This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or **BXUV7** 

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



1. Nailheads — Exposed or covered with joint compound

2. **Joints** — Exposed joints covered with joint compound and paper tape. Joint compound and paper tape may be omitted when square edge boards are used. As an alternate, nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard with the joints reinforced with paper tape.

3. Nails — 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam. 1/4 in. diam heads, and 8d cement coated nails 2-3/8 in. long, 0.113 in. shank diam, 9/32 in. diam heads.

4. Gypsum Board\* — 5/8 in. thick, two layers applied either horizontally or vertically. Inner layer attached to studs with the 1-7/8 in. nails spaced 6 in. OC. Outer layer attached to studs over inner layer with the 2-3/8 in. long nails spaced 8 in. OC. Vertical joints located over studs. All joints in face layers staggered with joints in

base layers. Joints of each base layer offset with joints of base layer on opposite side. When used in widths other than 48 in., gypsum board to be installed

> When Steel Framing Members\* (Item 6 or 6A) are used, base layer attached to furring channels with in. long Type S bugle-head steel screws spaced max 24 in. OC; face layer attached with 1-5/8 in. long Type S bugle-head steel screws spaced max 12 in. OC.

ACADIA DRYWALL SUPPLIES LTD — Type X, 5/8 Type X, Moisture Resistant Type X, Gypsum Sheathing Type X, Mold & Mildew Resistant Type X and Mold & Mildew Resistant AR Type X, Type Blueglass Exterior Sheathing

AMERICAN GYPSUM CO — Types AGX-1, M-Glass, AG-C, AGX-11, LightRoc

BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO — Type DBX-1

**CERTAINTEED GYPSUM INC** — Types 1, FRPC. EGRG. GlasRoc, Type C, Type X, Type X-1

CGC INC — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C — Types LGFC2A LGFC6A, LGFC-C/A, LGFC-WD, LGLLX

GEORGIA-PACIFIC GYPSUM L L C — Types 5, 6, 9, C, DAP, DD, DA, DAPC, DGG, DS, GPFS6, LS, TG-C, Type X, Veneer Plaster Base-Type X, Water Rated-Type X, Sheathing Type-X, Soffit-Type X, GreenGlass Type X, Type LWX, Veneer Plaster Base-Type LWX, Water Rated-Type LWX, Sheathing Type-LWX, Soffit-Type LWX, Type DGLW, Water Rated-Type DGLW, Sheathing Type-

DGLW, Soffit-Type DGLW, Type LW2X, Veneer Plaster Base - Type LW2X, Water Rated - Type LW2X, Sheathing - Type LW2X, Soffit - Type LW2X, Type DGL2W, Water Rated - Type DGL2W, Sheathing - Type DGL2W

NATIONAL GYPSUM CO — Types eXP-C, FSK, FSK-C, FSK-G, FSW, FSW-3, FSW-5, FSW-6, FSW-8, FSW-C, FSW-G, FSMR-C, FSL

PABCO BUILDING PRODUCTS L L C. DBA PABCO GYPSUM — Types C, PG-2, PG-3, PG-3W, PG-4, PG-5, PG-5W, PG-5WS, PG-9, PG-11, PG-C or PGS-WRS

PANEL REY S A — Types PRC, PRC2, PRX, RHX, MDX. ETX. GREX

SIAM GYPSUM INDUSTRY (SARABURI) CO LTD — Type EX-1

THAI GYPSUM PRODUCTS PCL — Type C or Type X

UNITED STATES GYPSUM CO — Types AR. C. FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, ULX, USGX, WRC, WRX

USG BORAL ZAWAWI DRYWALL L L C SFZ — Types C, SCX

**USG MEXICO S A DE C V** — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX. WRC. WRX

4A. **Gypsum Board\*** — (As an alternate to Item 4) — Nom 3/4 in. thick, installed as described in Item 4. CGC INC — Types AR, IP-AR

UL Product Spec

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UL Product Spec

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**UL Product Spec** 

Page 7 of 15

**UL Product Spec** 

Page 8 of 15

UNITED STATES GYPSUM CO — Types AR, IP-AR

**USG MEXICO S A DE C V** — Types AR, IP-AR

4B. Gypsum Board\* — (As an alternate to Items 4 and 4A) — 5/8 in. thick, 2 ft wide, tongue and groove edge, applied horizontally as the outer layer to one side of the assembly. Secured as described in Item 4. Joint covering (Item 2) not required. CGC INC — Type SHX

UNITED STATES GYPSUM CO — Type SHX

USG MEXICO S A DE C V — Type SHX

4C. Gypsum Board\* — (As an alternate to Items 4, 4A or 4B — Not Shown) — For Direct Application to Studs Only- For use on one or both sides of the wall as the base layer or one or both sides of the wall as the face layer. Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-5/8 in. long Type W coarse thread gypsum panel steel screws spaced 8 in. OC at perimeter and in the field when applied as the base layer. When applied as the face layer screw length to be increased to 2-1/2 in. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. placed on the face of studs and attached to the stud with two 1 in. long Type S-12 pan head steel screws, F4j.one at the top of the strip and one at the bottom of the strip. Lead discs or tabs may be used in lieu of or in addition to the lead batten strips or optional at other locations. Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards underneath screw locations prior to the installation of the screws. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Fasteners for face layer gypsum panels (Items 4, 4A or 4B) when installed over lead backed board to be min 2-1/2 in. Type S-12 bugle head steel screws spaced as described in Item 4.

RAY-BAR ENGINEERING CORP — Type RB-LBG.

4D. Gypsum Board\* — As an Alternate to Item 4 — 5/8 in. thick applied either horizontally or vertically. Inner layers fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screw 1 in. from edge of board. Outer layers fastened to framing with 1-7/8 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screw 1 in, from edge of board. When used in widths other than 48 in., gypsum board to be installed horizontally. All joints in face layers staggered with joints in base layers. Joints of each base layer offset with joints of base layer on opposite side. AMERICAN GYPSUM CO — Types AGX-1, M-Glass, AG-C, LightRoc

4E. Gypsum Board\* — (As an alternate to Items 4 through 4D) — 5/8 in. thick, 4 ft. wide, paper surfaced applied vertically and secured as described in Item 4. GEORGIA-PACIFIC GYPSUM L L C — Type X ComfortGuard Sound Deadening Gypsum Board

4F. Gypsum Board\* — (As an alternate to Item 4) — Not to be used with item 6. 5/8 in. thick, 4 ft. wide, paper surfaced, applied vertically and secured as described in Item 4. NATIONAL GYPSUM CO — SoundBreak XP Type X Gypsum Board

4G. Gypsum Board \* — (As an alternate to Items 4 through 4F) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as described in Item 4. PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM —

Types QuietRock ES

4H. Gypsum Board\* — (As an alternate to Item 4) — Not to be used with item 6. 5/8 in. thick, 4 ft. wide, paper surfaced, applied vertically or horizontally and secured as described in Item 4. CERTAINTEED GYPSUM INC — Type SilentFX

41. Gypsum Board\* — (As an alternate to item 4) — 5/8 in. thick, two layers applied either horizontally or vertically. Inner layer attached to studs with 1-1/4 in. long Type W steel screws spaced 8 in. OC. Outer layer attached to studs over inner layer with 2 in. long Type W steel screws spaced 8 in. OC offset 6 in. from base layer. Vertical joints located over studs. Vertical and horizontal joints between inner and outer layers staggered. Outer layer joints covered with joint tape and compound, screwheads covered with joint compound. As an alternate to the joint compound nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard. Joints reinforced. Wallboard other than 48 in. wide must be applied horizontally. The SoundBreak XP Type X Gypsum Board is not to be used with Item 6. NATIONAL GYPSUM CO — Types eXP-C, FSK, FSK-C, FSK-G, FSW, FSW-3, FSW-5, FSW-6, FSW-C, FSW-G, FSMR-C, SoundBreak XP Type X Gypsum Board

4J. Gypsum Board\* — (As an alternate to Items 4) — For Direct Application to Studs Only- For use as the base layer or as the face layer. Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-5/8 in. long Type W coarse thread gypsum panel steel screws spaced 8 in. OC at perimeter and in the field when applied as the base layer. When applied as the face layer screw length to be increased to 2-1/2 in. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 10 ft long with a max thickness of 0.140 in. placed on the face of studs and attached to the stud with two 1 in. long Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, max 5/16 in. diam by max 0.140 in. thick, compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grades "B, C or D". Fasteners for face layer gypsum panels (Items 4, 4A or 4B) when installed over lead backed board to be min 2-1/2 in. Type S-12 bugle head steel screws spaced as described in Item 4. MAYCO INDUSTRIES INC — "X-Ray Shielded Gypsum"

4K. **Gypsum Board\*** — For use with Item 7 — 5/8 in. thick, two layers applied vertically. Inner layer attached to resilient channels with 1 in, long steel screws spaced 8 in, OC. Outer layer attached to resilient channels over inner layer with 1-5/8 in. long steel screws

layers. Joints of each base layer offset with joints of base layer on opposite side. Insulation, Items 8 or 9 is required. AMERICAN GYPSUM CO — Types AGX-1, M-Glass, AG-C, AGX-

4L. Gypsum Board\* — (As an alternate to Items 4) — For Direct Application to Studs Only- For use as the base layer or as the face layer. Nom 5/8 in. thick lead backed gypsum panels with beveled. square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-5/8 in. long Type W coarse thread gypsum panel steel screws spaced 8 in. OC at perimeter and in the field when applied as the base layer. When applied as the face layer screw length to be increased to 2-1/2 in. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Fasteners for face layer gypsum panels (Items 4, 4A or 4B) when installed over lead backed board to be min 2-1/2 in. Type S-12 bugle head steel screws spaced as described in Item 4. RADIATION PROTECTION PRODUCTS INC — Type RPP - Lead Lined Drywall

4M. Gypsum Board\* — (As an alternate to Item 4) — 5/8 in. thick, 4 ft. wide, two layers applied vertically with vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Secured as described in Item 4.

4N. Gypsum Board\* — (As an alternate to 5/8 in. Type FSW in Items 4 or 4l) — Nom. 5/16 in. thick gypsum panels applied vertically or horizontally. Two layers of 5/16 in. for every single layer of 5/8 in. gypsum board described in Item 4 or 4l. Horizontal joints on the same side need not be staggered. Inner layer of each double 5/16 in. layer attached with fasteners, as described in item 4 or 4I, spaced 24

spaced 8 in. OC. All joints in face layers staggered with joints in base

CERTAINTEED GYPSUM INC — 5/8" Easi-Lite Type X

DRAWN BY: 5ML STEPHEN LUCHTENBERG

Stephen M. Luchtenberg Expiration Date: December 31, 2017

FIRE BARRIER **UL DESIGN** # U3Ø1

NATIONAL GYPSUM CO — Type FSW

Type LGLLX

40. Wall and Partition Facings and Accessories\* — (As an alternate to Items 4 through 4N) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as described in Item 4. PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock 527

4P. **Gypsum Board\*** — (As an alternate to Item 4) — 5/8 in. thick, two layers applied either horizontally or vertically. Inner layer attached to studs with 1-1/4 in. long Type W steel screws spaced 10 in. OC with the last two screws 4 and 1 in. from the edges of the board. Outer layer attached to studs over inner layer with 1-7/8 in. long Type W steel screws spaced 10 in. OC offset 5 in. from base layer with the last two screws 4 and 1 in. from the edges of the board. Vertical joints located over studs. Vertical and horizontal joints between inner and outer layers staggered. Outer layer joints covered with joint tape and compound, screwheads covered with joint compound. When used in widths other than 48 in., gypsum panels are to be installed horizontally. CONTINENTAL BUILDING PRODUCTS OPERATING CO. L L C — Type LGFC6A, Type LGFC2A, Type LGFC-C/A, Type LGFC-WD,

4Q. Gypsum Board\* — (As an alternate to Item 4. For use with Item 13) — Any 5/8 in. thick, 4 ft. wide, Gypsum Board UL Classified for Fire Resistance (CKNX) eligible for use in Design Nos. U305 and L501 or G512. Two layers, applied either horizontally or vertically, and screwed to studs with 1-5/8 in. long Type W coarse thread steel screws at 8 in. OC at perimeter and in the field with the last two screws 4 and 3/4 in. from the edges of the board when applied as the base layer. For the face layer, screw length to be increased to 2-1/2 in. All joints in face layers staggered with joints in base layers. When used in widths other than 48 in., gypsum panels are to be installed horizontally.

5. Molded Plastic\* — Not Shown, Optional — Solid vinyl siding mechanically secured over the outer layer to framing members in accordance with manufacturer's recommended installation details. ALSIDE, DIV OF ASSOCIATED MATERIALS INC

B. Insulated system with metal channels —

manufacturer over the moisture barrier and the

Gypsum Board Item 4. Z girt channels to be

Install moisture barrier over the Gypsum Board Item

4. Install galvanized Z girt channels specified by the

installed horizontally at a max. spacing of 24" OC. Z

girt channels attached through the Gypsum Board

insulation between the Z girts. Maximum thickness

of mineral wool insulation not to exceed 6 in. As per

installed on Acry channel with 1-1/4" long corrosion

coated stainless steel screws at a max spacing of

and the moisture barrier to the wood studs with

screws provided by the manufacturer at a max

spacing of 24 inches OC. Install mineral wool

manufacturer's instructions install Acry Metal

Channels vertically over the Z girts at a max

horizontal spacing of 24 in. OC. Acrytec Panels

24 in. OC, along with manufacturers approved

Adhesive to be applied in a zigzag pattern along

C. Non insulated wood strapping system —

every channel. Joint treatment in between panels to

be Tremco illmod 600 pre compressed polyurethane

Install moisture barrier over the Gypsum Board Item

4 and Install 1" x 3" wood strapping vertically at a

horizontal spacing not greater than 24 inches OC., over the moisture barrier. 1" x 3" wood strapping attached through the moisture barrier and the

Gypsum Board to the Wood studs using fasteners

max., 24 in. OC. Acrytec Panels to be installed on

the 1" x 3" wood strapping using manufacturers approved stainless steel fasteners spaced at

116 adhesive applied in a zigzag pattern along

D. Insulated Wood Strapping System — Install

moisture barrier and the Gypsum Board Item 4, max

thickness of insulation not to exceed 4 inches. Install

moisture barrier over the Gypsum Board Item 4.

1" x 3" wood strapping vertically at a horizontal spacing not greater than 24 inches OC. Wood

Install Extruded Polystyrene Insulation over

to be Tremco illmod 600 pre compressed

polyurethane foam sealant.

specified by the manufacturer and fasteners spaced

maximum 24 inches OC along with Tremco Vulcum

every wood strap. Joint treatment in between panels

adhesive (3M 540 or Tremco Vulcum 116).

foam sealant.

**GENTEK BUILDING PRODUCTS LTD** 

VYTEC CORP

6. Steel Framing Members\* — (Optional, Not Shown) — Furring channels and Steel Framing Members as described below:

> A. Furring Channels — Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to stude as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Wallboard attached to furring channels as described in Item 4.

> B. Steel Framing Members\* — Used to attach furring channels (Item 6a) to studs. Clips spaced 48 in. OC., and secured to study with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted into clips. RSIC-1 clip for use with 2-9/16 in, wide furring channels. RSIC-1 (2.75) clip for use with 2-23/32 in. wide furring channels. PAC INTERNATIONAL L L C — Types RSIC-1, RSIC-1 (2.75)

6A. Steel Framing Members\* — (Optional, Not Shown) — Furring channels and Steel Framing Members as described below:

> A. Furring Channels — Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to stude as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 4.

B. Steel Framing Members\* — Used to attach furring channels (Item 6Aa) to studs. Clips spaced 48 in. OC., and secured to stude with 2 in. coarse

drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into STUDCO BUILDING SYSTEMS -- RESILMOUNT

Sound Isolation Clips - Type A237R

7. Furring Channel — Optional — Not Shown — For use on one side of the wall with Item 4K — Resilient channels, 25 MSG galv steel, spaced vertically 24 in. OC, flange portion screw attached to one side of studs with 1-1/4 in. long diamond shaped point, double lead Phillips head steel screws. When resilient channels are used. insulation, Item 8 or 9 is required.

8. Batts and Blankets\* — Required for use with resilient channels. Item 7, min. 3 in. thick mineral wool batts, placed to fill interior of wall, attached to the nom 4 in. face of the studs with staples placed 24 in.

**ROXUL INC** — Type SAFEnSOUND

**THERMAFIBER INC** — Type SAFB, SAFB FF

9. Batts and Blankets\* — (As an alternate to Item 8) — Min. 3 in. thick glass fiber batts bearing the UL Classification Marking as to Surface Burning and/or Fire Resistance, friction-fitted to fill the stud cavities. See Batts and Blankets (BKNV or BZJZ) Categories for names of Classified companies.

9A. Fiber, Sprayed\* — (Optional) — As an alternate to Batts and Blankets (Item 8), Required for use with resilient channels, Item 7, Not for use with Item 6, or 6A. — Spray applied mineral wool insulation. The fiber is applied with adhesive, at a minimum density of 4.0 pcf, to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. See Fiber, Sprayed

AMERICAN ROCKWOOL MANUFACTURING, LLC — Type Rockwool Premium Plus

10. Wall and Partition Facings and Accessories\* — (Optional, Not Shown) — Nominal 1/2 in. thick, 4 ft wide panels, for optional use as an additional layer on one or both sides of the assembly. Panels attached in accordance with manufacturer's recommendations. When the QR-500 or QR-510 panel is installed between the wood framing and the UL Classified gypsum board, the required UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM --Type QuietRock QR-500 or QR-510

11. Cementitious Backer Units\* — (Optional Item Not Shown — For Use On Face Of 2 Hr Systems With All Standard Items Required) — 7/16 in., 1/2 in., 5/8 in., 3/4 in. or 1 in. thick, min. 32 in. wide. Applied vertically with vertical joints centered over studs. Face layer fastened over gypsum board to studs and runners with cement board screws of adequate length to penetrate stud by a minimum of 3/8 in. for steel framing members, and a minimum of 3/4 in. for wood framing members spaced a max of 8 in. OC. NATIONAL GYPSUM CO — Type DuraBacker, PermaBase. DuraBacker Plus, or PermaBase Plus

12. Wall and Partition Facings and Accessories\* — (Optional, Not Shown) - When the Wall Assembly is used as an External Wall, on the External side of the wall one of the following Wall and Partition and Facing Accessories may be used, refer to items (A) to (C) below.

> A. Non Insulated system with metal channels — Install moisture barrier over the Gypsum Board Item 4 and Install Acry Metal Channels vertically at a horizontal spacing not greater than 24 inches OC. over the moisture barrier. Acry Metal Channels attached through the moisture barrier and the Gypsum Board to the Wood Studs using fasteners specified by the manufacturer and fasteners spaced max., 24 in. OC. Install Acrytec Panels on Acry Metal Channels using 1-1/4" long corrosion coated stainless steel screws spaced at a max spacing of 24 inches OC, along with manufacturer's approved adhesive (3M 540 or Tremco Vulcum 116). Adhesive to be applied in a zigzag pattern along every channel. Joint treatment in between panels shall be Tremco illmod 600 pre compressed polyurethane foam sealant.

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Guide Information includes specifics concerning alternate materials and alternate methods of construction.

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ALDWIN

L-1735 ISSUE MARK DATE 9-25-17

DRAWN BY: SML STEPHEN LUCHTENBERG

Stephen M. Luchtenberg License No. 8546 Expiration Date: December 31, 2017

TWO HOUR FIRE BARRIER **UL DESIGN** # U3Ø1

DRAWING NUMBER

UL Product Spec

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strapping attached through the Insulation, the Gypsum Board and moisture barrier to the Wood Studs using fasteners specified by the manufacturer and fasteners spaced max. 24 in. OC. Acrytec Panels to be installed over the wood strapping using manufacturers approved stainless steel fasteners at a max spacing of 24 in. OC and Tremco Vulcum 116 adhesive applied in a zigzag pattern along every wood strap. Joint treatment in between panels to be Tremco illmod 600 pre compressed polyurethane foam sealant.

ACRYTEC PANEL INDUSTRIES — Nominal 5/8 inch thick Acrytec

13. Foamed Plastic\* — (Optional - For use with Item 4Q) — Spray applied, foamed plastic insulation, at any thickness from partial fill to completely filling stud cavity. SES FOAM INC — SES 2 lb. Spray Foam and Sucraseal 0.5 lb. Spray Foam. For use in Bearing and Non-Load Bearing Walls.

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Last Updated on 2017-09-21

### Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The

Request a Field Evaluation

### GENERAL

- THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE AFTER THE BUILDING IS FULLY COMPLETED. IT IS SOLEY THE CONTRACTOR'S RESPONSIBILITY TO DERMINE ERECTION, PROCEDURE AND SEQUENCE AND TO ENSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIE DOWNS WHICH MIGHT BE NECESSARY. SUCH MATERIAL SHALL REMAIN THE CONRTRACTOR'S PROPERTY AFTER COMPLETION OF THE PROJECT.
- 2. IT IS SOLEY THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL APPLICABLE SAFTEY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.
- 3. SHOULD ANY OF THE DETAILED INSTRUCTIONS SHOWN ON THE DRAWINGS CONFLICT WITH THE GENERAL STRUCTURAL NOTES, THE SPECIFICATIONS OR WITH EACH OTHER, THE STRICTEST PROVISIONS SHALL
- 4. FOUNDATIONS ARE DESIGNED FOR AN ALLOWABLE SOIL BEARING PRESSURE OF 3000 PSF, PER GEOTECHNICAL CONSULTANTS INC SOILS REPORT, PROJECT # 17-G-G21105, DATED SEPTEMBER 22, 2017. PREPARE SITE IN STRICT CONFORMANCE OF THE GEOTECH REPORT.
- 5. GOVERNING CODE: 2011 OHIO BUILDING CODE.

```
DESIGN LOADS:
      FLOOR LIVE LOADS (WITH REDUCTIONS PER 1607.9 WHERE APPLICABLE 100 PSF
       ROOF LIVE LOADS IN ACCORDANCE WITH OBC 1607.11
      ROOF SNOW LOADS IN ACCORDANCE WITH OBC 1608:
           GROND SNOW LOAD (Pa)
           SLOPED ROOF SNOW LOAD (Ps)
  6.3.2.
                                               14 PSF
           SNOW EXPOSURE FACTOR (Ce)
  6.3.4.
           SNOW LOAD IMPORTANCE FACTOR (IS)
                                               1.0
            THERMAL FACTOR (Ct)
 6.4. WIND LOADS IN ACCORDANCE WITH OBC 1609
           BASIC WIND SPEED (V)
                                               90 MPH
           WIND IMPORTANCE FACTOR (IW)
           EXPOSURE CATEGORY
           INTERNAL PRESSURE COEFFICIENT (GCpi) +/- 0.18
  6.4.4.
           COMPONENTS AND CLADDING PRESSURE +/- 19 PSF
        SEISMIC DESIGN DATA IN ACCORDANCE WITH OBC 1613
           OCCUPANCY CATEGORY
  6.5.2.
           SEISMIC IMPORTANCE FACTOR (IE)
  6.5.3.
  6.5.4.
  6.5.5.
           SITE CLASS
  6.5.6.
           SDS
  6.5.7.
           SDI
  6.5.8.
           SEISMIC DESIGN CATEGORY
  6.5.9.
           SEISMIC FORCE RESISTING SYSTEM
               LIGHT FRAME BRACED FRAMES AND LIGHT FRAMED SHEAR WALLS OF ALL OTHER
   6.5.9.1
                MATERIALS
  6.5.10.
           SEISMIC RESPONSE COEFFIECIENT (CS) 0.079
           RESPONSE MODIFICATION FACTOR (R)
  6.5.II.
   6.5.12.
           ANALYSIS PROCEDURE
               EQUIVALENT LATERAL FORCE
```

### REINFORCED CONCRETE

MATERIALS SPECIFICATIONS IN GENERAL COMPLY WITH ACI-301-05, SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS STRUCTURAL CONCRETE:

fc (psi)

SPF NO. 1 / NO. 2

CLASS LOCATION

FOOTINGS 3500 (MIN) INTERIOR SLABS ON GRADE AND ALL

INTERIOR CONC NOT OTHERWISE IDENTIFIED 3500 (MIN)

EXTERIOR SLABS ON GRADE, SITE CONCRETE, PIERS, AND ALL EXTERIOR CONCRETE NOT OTHERWISE IDENTIFIED

BACKFILL BELOW FOOTINGS 2500

I.C. CONTINGENCIES:

PROVIDE LEAN CONCRETE (CLASS IV) UNDER FOUNDATIONS FOR ACCIDENTAL OVER EXCAVATION, SOFTSPOTS AND TRENCHES I.D. SPLICES

SPLICES FOR VERTICAL STEEL IN PIERS - LAP 30 DIAMETERS UNLESS NOTED OTHERWISE. MINIMAL LAP FOR FOOTING REINFORCING = 36 DIAMETERS WEDGE ANCHORS AND CHEMICAL ANCHORS:

MINIMUM EMBEDMENT SHALL BE 6 BOLT DIAMETERS UNLESS OTHERWISE DESIGNATED.

### STRUCTURAL LUMBER

I. MATERIALS I.I. ALL EXTERIOR LUMBER AND ALL LUMBER IN CONTACT WITH CONCRETE, MASONRY, GROUND, SOIL, AND WHEN USED IN CONDITIONS WITH MOISTURE PRESENT, IS TO BE PRESSURE TREATED TO RESIST DECAY. PRESERVATIVES USED FOR PRESSURE TREATMENT SHALL BE ALKALINE COPPER QUAT, ACQ-C OR ACQ-D. PRESSURE TREAT PER AWPA USE CATEGORY:

UC4A - GROUND CONTACT UC3B - ABOYE GROUND EXTERIOR DECKING BEAMS, JOISTS, RAILING, STAIRS 1.1.2.

UC2 - SILL PLATES OTHER PRESERVATIVES PROPOSED FOR USE ARE TO BE SUBMITTED FOR REVIEW

PRIOR TO ERECTION OR INSTALLATION ON THE PROJECT.

STRUCTURAL LUMBER 1.2. 1.2.1. WALL STUDS, TOP PLATES AND BLOCKING 1.2.2.

WALL SILL PLATES IN CONTACT WITH SLAB 1.2.3.

SYP NO. 2 (PRESSURE ROOF PURLINS, WALL GIRTS, BEAMS, WALL POSTS SYP NO. I 1.2.4. MULTI-PLY LAMINATED POSTS SHALL BE 2400 MSR USING SYP NO.1 OR EQUAL.

1.2.4.1. MEMBER JOINTS TO BE STAGGERED FROM WYTHE TO WYTHE. 1.2.4.2. FINGER JOINT AND GLUE ALL MEMBER JOINTS. 1.2.4.3. NAIL AND GLUE POST MYTHES TOGETHER, ACHIEVING A COMPOSITE SECTION. ALL DESIGN VALUES PER 2005 NFPA NATIONAL DESIGN SPECIFICATION.

ANY SUBSTITUTIONS SHALL MEET MINIMUM DESIGN VALUES OF ABOVE

ALL MEMBERS IN CONTACT WITH EARTH OR CONC SLAB TO BE PRESSURE

2. SPECIFICATIONS:

1.2.4.5.

2.I. UNLESS SPECIFICALLY SHOWN OTHERWISE, DESIGN, FABRICATION AND ERECTION SHALL BE GOVERNED BY THE LATEST REVISIONS OF:

NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION US PRDUCT STANDARD PS-I FOR CONSTRUCTION AND INDUSTRIAL PLYWOOD APA DESIGN / CONSTRUCTION GUIDE - RESIDENTIAL AND COMMERCIAL 2.l.3.

3. CONNECTIONS 3.I. JOISTS TO BEAMS OR JOISTS TO TRUSSES

3.I.I. 16 GA STANDARD JOIST HANGERS UNLESS NOTED OTHERWISE 3.2. BEAMS TO BEAMS 16 GA BEAM HANGERS UNLESS NOTED OTHERWISE

ALL HANGERS, STRAPS, CAPS, BASES, HOLDOWNS, TIES OR OTHER CONNECTORS IN CONTACT WITH PRESSURE TREATED LUMBER ARE TO BE BATCH / POST HOT DIPPED GALVANIZED PER ASTM A123 WITH A MINIMUM G185 COATING OR STAINLESS STEEL WITH CHEMICAL COMPOSTION CONFORMING TO AISI 303/304 OR AISI 316. ALL FASTENERS INCLUDING NAILS, ANCHOR BOLTS, POWDER ACTUATED FASTENERS,

SCREWS, BOLTS, AND THREADED RODS, IN CONTACT WITH PRESSURE TREATED LUMBER ARE TO BE HOT DIPPED GALVANIZED PER ASTM A153 WITH A MINIMUM G185 COATING OR STAINLESS STEEL WITH CHEMICAL COMPOSITION CONFORMING TO AISI 303/304 OR

ALL FASTENERS AND CONNECTORS ARE TO BE OF THE SAME MATERIAL - STAINLESS STEEL OR HOT DIPPED GALVANIZED. DO NOT MIX MATERIALS. ALL MECHANICAL ANCHORS INCLUDING WEDGE ANCHORS AND SLEEVE ANCHORS IN

CONTACT WITH PRESSURE TREATED LUMBER ARE TO BE STAINLESS STEEL WITH CHEMICAL COMPOSITION CONFORMING TO AISI 303/304 OR AISI 316. SUPPORTS - USE ADHESIVES MEETING APA SPECIFICATIONS APG-OI AND APPLIED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

MULTIPLE WYTHE ROOF TRUSSES - USE IOD NAILS AT 8" OC FROM EACH SIDE.

### PRE-ENGINEERED WOOD ROOF TRUSSES

MATERIALS LUMBER AS REQUIRED BY THE TRUSS MFR. MINIMUM GRADE TO BE SYP NO.2 KD 15 PERCENT MC, EXCEPT FOR WEBS, WHICH MAY BE MINIMUM GRADE OF SYP NO. 3, KD 15 PERCENT MC.

I.2. CONNECTIONS ALL INTERNAL TRUSS CONNECTIONS ARE TO BE DESIGNED BY THE TRUSS MFR. 1.2.2. CONNECTORS SHALL BE DEFORMED PLATE TYPE OF MINIMUM 20 GA GALVANIZED SHEET

ALL JOINTS ARE TO BE DESIGNED USING METHODS AS SET FORTH IN TPI STANDARDS. 1.2.4. ALL TRUSS TO TRUSS HANGERS SHALL BE MINIMUM 16 GA AND SHALL BE PROVIDED BY THE TRUSS SUPPLIER

1.2.5. ALL HANGERS, STRAPS, CAPS, BASES, HOLDOWNS, TIES OR OTHER CONNECTORS IN CONTACT WITH PRESSURE TREATED LUMBER ARE TO BE BATCH / POST HOT DIPPED GALVANIZED PER ASTM A123 WITH A MINIMUM G185 COTING OR STAINLESS STEEL WITH CHEMICAL COMPOSITION CONFORMING TO AISI 303/304 OR AISI 316.

ALL FASTENERS INCLUDING NAILS, ANCHOR BOLTS, POWDER ACTUATED FASTENERS, SCREWS, BOLTS AND THREADED RODS IN CONTACT WITH PRESSURE TREATED LUMBER ARE TO BE HOT DIPPED GALVANIZED PER ASTM AI53 WITH A MINIMUM GIBS COATING OR STAINLESS STEEL WITH CHEMICAL COMPOSITION CONFORMING TO AISI2=303/304 OR AISI 316.

FASTENERS AND CONNECTORS ARE TO BE OF THE SAME MATERIAL - STAINLESS STEEL OR HOT DIPPED GALVANIZED. DO NOT MIX MATERIALS.

SPECIFICATIONS AND REFERENCE STANDARDS UNLESS SPECIFICALLY SHOWN OTHERWISE; DESIGN, FABRICATION, ERECTION, HANDLING AND BRACING REQUIREMENTS ARE TO BE GOVERNED BY THE LATEST REVISIONS OF: NATIONAL DESIGN SPECIFICATIONS FOR STRESS GRADE LUMBER AND ITS FASTENINGS.

1.3.1.2. TIMBER CONSTRUCTION STANDARDS. 1.3.1.3. DESIGN SPECIFICATIONS FOR LIGHT METAL PLATE CONNECTED WOOD TRUSSES. 1.3.1.4. TRUSS PLATE INSTITUTE PUBLICATION - BTW BRACING WOOD TRUSSES COMMENTARY

AND RECOMMENDATIONS EXCEPT AS NOTED BELOW. 2. DESIGN ALL ROOF TRUSSES ARE TO BE DESIGNED BY THE TRUSS MANUFACTURER FOR THE FOLLOWING

MINIMUM LOADS 2.l.O.l. TOP CHORD LIVE LOAD 20 PSF 2.1.0.1.2. SNOW LOAD 14 PSF + DRIFT + UNBALANCED DEAD LOAD 10 PSF 2.1.0.1.3. 2.1.0.2. BOTTOM CHORD

2.1.0.2.1. DEAD LOAD 10 PSF TRUSS DESIGNS ARE TO INCLUDE ADDITIONAL LOADING CONDITIONS SUCH AS DRIFT LOADS AND UNBALANCED LOADS NECESSARY TO CONFORM TO THE BUILDING CODE. TRUSS DESIGN LOADS ARE TO INCLUDE OTHER INCREASED LIVE LOADS INDICATED ON THE

CONSTRUCTION DRAWINGS. REFER TO THE ARCHITECTURAL AND MECHANICAL DRAWINGS TO COORDINATE LOCATIONS, SIZES AND WEIGHTS TO BE SUPPORTED WHERE TRUSSES ARE REQUIRED TO FRAME INTO OTHER TRUSSES, DESIGN OF THE HANGERS SHALL BE THE RESPONSIBILITY OF THE TRUSS MFR. THE TRUSS MFR SHALL MAKE NECESSARY

PROVISIONS IN THE SUPPORTING TRUSS TO ACCEPT THE TYPE OF HANGER REUIRED. THE DESIGN OF ALL WEB MEMBER PERMANENT BRACE SIZES AND CONNECTIONS REQUIRED FOR THE STRUCTURAL ADEQUACY OF THE TRUSSES SHALL BE THE SOLE RESPONSIBILITY OF THE TRUSS

ADDITIONAL MEMBER PERMANENT BRACE SIZES AND CONNECTIONS, NOT PROVIDED BY THE SHEATHING SHOWN ON THE CONSTRUCTION DRAWINGS SHALL ALSO BE THE RESPONSIBILITY OF THE TRUSS MFR. THIS BRACING CAN INCLUDE, BUT IS NOT LIMITED TO, TOP CHORD BRACING FOR TRUSSES WITH BIGGY BACKS, AND INTERMEIATE BRACES FOR GABLE TRUSS WEB MEMBERS.

SUBMITTALS: TRUSS DESIGNS ARE TO BE SUBMITTED FOR REVIEW BY THE ENGINEER OF RECORD, AND BY THE PLAN EXAMINER / CODE OFFICIAL HAVING JURISDICTION PRIOR TO FABRICATION. TRUSS SUBMITTAL SHALL INCLUDE THE FOLLOWING INFORMATION:

DESIGN INFORMATION FOR EACH TYPE OF TRUSS SUPPLIED LAYOUT DRAWING INDICATING LOCATION OF EACH SPECIFIC TRUSS TYPE. 3.1.3.

PERMANIENT MEMBER BRACE LOCATIONS, BRACE SIZES AND CONNECTIONS. 3.1.4. RUSS HANGER TYPE AND LOCATION, FOR ALL TRUSSES FRAMING INTO TRUSSES. TRUSS DESIGNS AND LAYOUT DRAWING STAMPED AND SIGNED BY A REGISTERED

PROFESSIONAL ENGINEER, STATE OF OHIO. SUBMITTALS WHICH DO NOT INCLUDE THE ABOVE LISTED INFORMATION WILL BE RETURNED TO THE CONTRACTOR PRIOR TO REVIEW.

MISCELLANEOUS UNLESS SPECIFICALLY NOTED OTHERWISE ON THE APPROVED TRUSS SHOP DRAWINGS, ALL MEMBERS OF MULTIPLE TRUSSES ARE TO BE NAILED TOGETHER WITH IOD COMMON NAILS AT 8" OC FOR DOUBLE TRUSSES OR WITH 16d CONNOM NAILS AT 8" OC FROM EACH SIDE FOR TRIPLE

### ARCHITECTURAL GENERAL NOTES

DIVISION I - GENERAL REQUIREMENTS

OIOI. THE BUILDING SHALL FULLY COMPLY WITH THE STANDARDS REQUIRED BY 2011 EDITION OF THE OHIO BUILDING CODE (OBC), FOR USE GROUP "S-2", STORAGE, HAVING VB CONSTRUCTION TYPE, AS WRITTEN HEREIN.

0102. BEGIN WORK IMMEDIATELY AFTER OWNER ISSUED AUTHORIZATION TO PROCEED. . THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND SCHEDULING THE PROJECT.

OIO3. ALTHOUGH THE ARCHITECT WILL BE PROVIDING PROJECT OBSERVATION SERVICES FOR THE OWNER, THE ARCHITECT SHALL NOT BE HELD RESPONSIBLE FOR THE ACTS OR OMISSIONS OR VARIATIONS FROM THE DRAWINGS AND SPECIFICATIONS BY THE OWNER, CONTRACTOR, OR ANY SUBCONTRACTOR OR THEIR AGENTS OR EMPLOYEES, OR ANY OTHER PERSON PERFORMING OR SUPERVISING ANY OF THE WORK.

0104. CONSTRUCTION DOCUMENTS

a. THESE CONSTRUCTION DOCUMENTS (DRAWINGS AND GENERAL NOTES) ARE TO BE USED IN WHOLE, NOT IN PART. FAILURE TO REVIEW THIS ENTIRE SET OF CONSTRUCTION DOCUMENTS BY ANY CONTRACTOR, SUPPLIER, OR ANY OTHER ENTITY PERFORMING WORK ON OR PROVIDING PRODUCTS, MATERIALS OR SUPPLIES FOR THIS PROJECT DOES NOT RELIEVE HIM OR HER FROM THEIR RESPONSIBILITY TO FULLY UNDERSTAND ALL OF THE INFORMATION CONTAINED HEREIN AND ALL OF THE CROSS-COORDINATION BETWEEN TRADES THAT WILL BE REQUIRED IN ORDER TO PERFORM THE WORK PER THE CONSTRUCTION DOCUMENTS. CHANGE ORDER REQUESTS RESULTING FROM SUCH FAILURE SHALL NOT BE CONSIDERED.

DO NOT SCALE ANY DRAWINGS IN THIS SET. ALL CONTRACTORS SHALL FIELD DETERMINE AND VERIFY ALL DIMENSIONS BEFORE BEGINNING ANY WORK. ALL CONTRACTORS SHALL FIELD DETERMINE AND VERFY ALL SITE CONDITIONS BEFORE BEGINNING ANY WORK.

0105. THE OWNER HAS OBTAINED AND PAID FOR APPLICATION OF PLANS APPROVAL ONLY FROM THE JURISDICTION HAVING AUTHORITY. OTHER FEDERAL, STATE AND LOCAL PERMITS REQUIRED FOR THE WORK SHALL BE OBTAINED BY AND PAID FOR BY THE CONTRACTOR UNLESS NOTED OTHERWISE.

0106. THE CONTRACTOR SHALL NOT COMMENCE ANY WORK ON THIS PROJECT UNTIL THE INSURANCE REQUIRED BY THE OWNER (AS LISTED IN THE INVITATION TO BID) HAS BEEN SO OBTAINED, WAIVED OR APPROVED.

OIOT. FORM OF CONTRACT: AS REQUIRED BY OWNER.

OIOS. CONTRACTOR: PROVIDE AND PAY FOR THE FOLLOWING FIELD ENGINEERING SERVICES REQUIRED FOR THE

a. SURVEY WORK REQUIRED IN EXECUTION OF THE PROJECT. I. FIELD DETERMINING THE EXACT LOCATION AND DEPTH OF ALL NEW AND/OR EXISTING UTILITIES FOR ALL

2. FIELD DETERMINING EXACT LOCATION AND DEPTH OF STORM WATER PIPING FOR ALL NEW WORK. 3. FIELD DETERMINING EXACT FINISHED FLOOR ELEVATIONS.

4. FIELD DETERMINING EXISTING AND PROPOSED GRADE ELEVATIONS

b. CIVIL, STRUCTURAL, OR OTHER PROFESSIONAL ENGINEERING SERVICES SPECIFIED OR REQUIRED TO EXECUTE CONTRACTOR'S CONSTRUCTION METHODS.

0109. TEMPORARY FACILITIES, UTILITIES, AND CONTROLS

AT THE PROJECT SITE.

a. FURNISH TEMPORARY ELECTRICAL POWER TO DO THE WORK IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (N.E.C.) AND THE UTILITY PROVIDER'S REQUIREMENTS. TEMPORARY ELECTRIC COSTS SHALL BE PAID FOR BY THE CONTRACTOR.

b. FURNISH POTABLE WATER TO DO THE WORK. COSTS SHALL BE PAID FOR BY THE CONTRACTOR. c. FURNISH TEMPORARY ON-SITE TOILET FACILITIES. COSTS OF THESE FACILITIES SHALL BE PAID FOR BY THE

CONTRACTOR. d. FURNISH TEMPORARY WASTE RECEPTACLES/REFUSE DUMPSTERS. ALL COSTS ASSOCIATED WITH DEBRIS

REMOVAL SHALL BE PAID FOR BY THE CONTRACTOR. e. THE CONTRACTOR SHALL HAVE ON DISPLAY AT ALL TIMES, ALL BUILDING PERMITS, THE APPROVED PLANS AND ALL CERTIFICATES OF PLANS APPROVAL AS ISSUED BY THE AUTHORITY HAVING JURISDICTION AS

I. FURNISH FOR DISPLAY ALL REFERENCE MANUALS, MATERIALS, ETC., AS NOTED THROUGHOUT THESE GENERAL NOTES AND DRAWINGS. ALSO, FURNISH, FOR DISPLAY AND REFERENCE, A COPY OF THE OHIO BUILDING CODE AND A COPY OF THE NATIONAL ELECTRICAL CODE.

F. FURNISH TEMPORARY TELEPHONE SERVICE TO DO THE WORK. COSTS SHALL BE PAID FOR BY THE

OIIO. STORED MATERIALS AND EQUIPMENT REQUIRED TO BE ON SITE SHALL BE IN OWNER APPROVED DESIGNATED STAGING AREAS WITHIN THE PROJECT LIMIT LINE. TRAILERS, CONTAINERS, ETC. USED FOR STORAGE SHALL BE FURNISHED BY, LOCKED BY AND PAID FOR BY THE CONTRACTOR. a. THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR PROTECTION OF MATERIALS AND EQUIPMENT STORED

OIII. SAFETY: THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE AND LOCAL SAFETY REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS INCLUDING EMPLOYEES AND PROPERTY. IT IS ALSO THE CONTRACTOR'S RESPONSIBILITY TO INITIATE, MAINTAIN AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK IN ACCORDANCE WITH THE STATE OF OHIO REQUIREMENTS.

OII2. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SECURING THE PROJECT SITE FROM THE GENERAL PUBLIC, BOTH DURING AND AFTER THE WORKING HOURS. THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN ALL LIGHTS, SIGNS, FENCES OR ANY OTHER SAFETY DEVICES TO PREVENT UNAUTHORIZED PERSONNEL FROM HAZARDOUS OR DANGEROUS CONDITIONS ON THE PROJECT SITE.

OII3. THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS FULLY ERECTED IT. IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO ENSURETHE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, SHEETING, TEMPORARY BRACING, GLYS OR TIE-DOWNS WHICH MIGHT BE NECESSARY. SUCH MATERIALS SHALL REMAIN THE CONTRACTOR'SPROPERTY AFTER THE COMPLETION OF THE PROJECT.

OII4. SHOULD ANY OF THE DETAILED INSTRUCTIONS SHOWN ON THE DRAWINGS CONFLICT WITH THESE GENERAL NOTES OR WITH EACH OTHER, THE STRICTEST PROVISION SHALL GOVERN. a. ANY ITEM SPECIFIED AND NOT SHOWN ON THE DRAWINGS OR SHOWN ON THE DRAWINGS AND NOT SPECIFIED

SHALL BE FURNISHED AND INSTALLED UNDER THIS CONTRACT. b. COMPLY WITH REFERENCED STANDARD SPECIFICATIONS AND ASSOCIATION OR TRADE STANDARDS,

EXCEPT WHEN MORE RIGID REQUIREMENTS ARE SPECIFIED OR REQUIRED BY APPLICABLE CODES. c. USE ONLY STANDARD SPECIFICATIONS AND ASSOCIATION OR TRADE STANDARDS IN EFFECT AS OF BIDDING TIME, EXCEPT WHEN A SPECIFIC DATE IS INDICATED.

OII5. EQUIPMENT FRAMING, LOADS, OPENINGS AND STRUCTURES IN ANY WAY RELATED TO HVAC, PLUMBING OR ELECTRICAL REQUIREMENTS ARE SHOWN FOR CONTRACT BIDDING PURPOSES ONLY. THE CONTRACTOR SHALL OBTAIN APPROVAL OF THE INVOLVED TRADE(S) BEFORE PROCEEDING WITH SUCH PORTION OF THE WORK. EXCESS COST RELATED TO VARIATION IN THESE REQUIREMENTS TO BE BORNE BY THE APPROPRIATE SUB-CONTRACTOR.

OII6. PERFORM CUTTING, REMOVAL, AND DEMOLITION WORK TO REMOVE MINIMUM MATERIALS AND SURFACES NECESSARY AND IN A MANNER TO AVOID DAMAGE TO TO ADJACENT WORK. PROTECT EXISTING MATERIALS, FINISHES, EQUIPMENT AND ADJACENT WORK WHICH IS SCHEDULED TO REMAIN FROM DAMAGE. WHERE CUTTING AND/OR REMOVAL OF EXISTING MATERIALS OR CONSTRUCTION RESULTS IN UNFINISHED AND/OR DAMAGED SURFACES NOT SCHEDULED FOR APPLICATION OF NEW FINISH MATERIALS, PATCH, FILL, OR OTHERWISE PREPARE SURFACES AND FINISH TO MATCH ADJACENT UNDISTURBED EXISTING FINISHES. SALVAGE SUFFICIENT QUANTITIES OF CUT OR REMOVED MATERIALS TO REPLACE DAMAGED WORK OF EXISTING CONSTRUCTION, WHEN MATERIAL IS NOT READILY OBTAINABLE ON CURRENT MARKET.

OIIT. EACH TRADE SHALL FURNISH THE CONTRACTOR WITH AND BE RESPONSIBLE FOR, EXACT LOCATION AND SIZE OF ALL HOLES AND OPENINGS REQUIRED TO BE CUT OR NECESSARY FOR THEIR WORK. UNLESS SPECIFICALLY INDICATED IN THE CONTRACT DOCUMENTS, THE COST OF FORMING HOLES AND OPENINGS SHALL BE BORNE BY THE TRADE REQUIRING THE HOLES AND OPENINGS.

OIIB. CUTTING, WHEN NECESSARY, SHALL BE DONE WITH TOOLS AND METHODS TO PREVENT UNNECESSARY DAMAGE TO SURROUNDING AREAS, STRUCTURAL MEMBERS OR EQUIPMENT. NO CUTTING WILL BE DONE WHICH WILL, IN ANY WAY, REDUCE THE STRUCTURAL STRENGTH OF THE BUILDING. SHOULD CUTTING BE NECESSARY, CONTACT THE STRUCTURAL ENGINEER IN WRITING BEFORE BEGINNING ANY WORK, DO NOT PROCEED WITH SUCH OPERATION UNLESS SPECIFIC WRITTEN APPROVAL IS

OBTAINED. WORK BY OWNER. a. NONE UNLESS OTHERWISE NOTED ON THE DRAWINGS.

0120. PROGRESS CLEANING: DAILY, AND MORE OFTEN IF NECESSARY, PICK UP ALL SCRAP, DEBRIS AND WASTE MATERIALS. REMOVE RESULTANT DEBRIS AND LEGALLY DISPOSE.

0121. FINAL CLEANING

a. SITE: I. UNLESS OTHERWISE SPECIFICALLY DIRECTED BY THE OWNER, BROOM CLEAN ALL PAVED AREAS ON THESITE AND ALL PUBLIC PAVED AREAS DIRECTLY ADJACENT TO THE SITE, REMOVE RESULTANT DEBRIS AND LEGALLY DISPOSE.

b. EXTERIOR:

I. VISUALLY INSPECT ALL EXTERIOR SURFACES AND REMOVE ALL TRACES OF SOIL, WASTE MATERIAL, SMUDGES, AND OTHER FOREIGN MATTER. REMOVE ALL TRACES OF SPLASHED MATERIALS FROM ADJACENT SURFACES. CLEAN ALL GLASS.

c. INTERIOR: I. VISUALLY INSPECT ALL INTERIOR SURFACES AND REMOVE ALL TRACES OF SOIL, WASTE MATERIAL. SMUDGES, AND OTHER FOREIGN MATTER. REMOVE ALL TRACES OF SPLASHED MATERIALS FROM ADJACENT SURFACES. REMOVE ALL PAINT DROPPINGS, WALLBOARD MUD DROPPINGS, SPOTS, STAINS, AND DIRT FROM FINISHED SURFACES. CLEAN ALL GLASS.

a. BID AND SUPPLY ONLY ON MANUFACTURER'S AS LISTED IN THESE GENERAL NOTES AND AS LISTED ON THE DRAWINGS. SUBSTITUTIONS WILL BE REVIEWED IF SUBMITTED TO THE ARCHITECT AT LEAST SIX (6) WORKINGS DAYS PRIOR TO THE BID OPENING DATE. SUBSTITUTIONS WILL NOT BE ACCEPTED AFTER THIS TIME.

SUBSTITUTION SUBMITTALS MUST INCLUDE SUFFICIENT DATA TO CLEARLY PROVE TO THE ARCHITECT THAT THE PROPOSED SUBSTITUTION IS EQUAL TO OR SUPERIOR TO THE SPECIFIED ITEM. THE ARCHITECT WILL NOT BE RESPONSIBLE TO TAKE TIME TO RESEARCH OR INVESTIGATE THE ADEQUACY OF THE PROPOSED SUBSTITUTION. THE ONUS OF PROOF IS ON THE BIDDER. INSUFFICIENT SUBMITTALS WILL NOT BE CONSIDERED.

Ol23. CONTRACT CLOSE-OUT

a. COMPLY WITH PROCEDURES STATED IN GENERAL CONDITIONS OF THE CONTRACT FOR ISSUANCE OF CERTIFICATE OF SUBSTANTIAL COMPLETION AND CONTRACT COMPLETION. SEE OWNER FOR ADDITIONAL

0124. CLOSE-OUT SUBMITTALS EVIDENCE OF COMPLIANCE WITH REQUIREMENTS OF GOVERNING AUTHORITIES:

a. CERTIFICATE OF OCCUPANCY b. CERTIFICATES OF INSPECTION:

I) BALANCING OF HVAC SYSTEM(S)

2) ELECTRICAL SYSTEM(S) c. PROJECT RECORD DOCUMENTS

d. OPERATING AND MAINTENANCE DATA, INSTRUCTIONS TO OWNER.

e. WARRANTIES AND BONDS f. FINISH HARDWARE KEYS AND KEYING SCHEDULE

q. SPARE PARTS AND MAINTENANCE MATERIALS i. EVIDENCE OF PAYMENT AND RELEASE OF LIENS CERTIFICATE OF INSURANCE FOR PRODUCTS AND COMPLETED OPERATIONS

Ol25. GUARANTEE.

a. THE CONTRACTOR SHALL GUARANTEE THE WORKMANSHIP AND THE NEW MATERIALS INSTALLED AS SET FORTH IN THESE GENERAL NOTES AND DRAWINGS, FOR A PERIOD OF ONE (I) YEAR FROM THE COMPLETION DATEACCEPTED BY THE OWNER. IN ADDITION, THE NEW MATERIALS SHALL BE COVERED BY OTHER MANUFACTURERS WARRANTIES.

DIVISION 02 - EXISTING CONDITIONS

0201. REMOVAL OF EXISTING RUBBLE FILL FROM SITE:

a. THE OWNER AND ARCHITECT ASSUMES NO RESPONSIBILITY FOR THE ACTUAL CONDITION OF THE SITE AND ALL BURIED OR VISIBLE ITEMS THAT ARE TO BE DISPOSED OF BY THE

b. HAZARDOUS MATERIALS:

I.I. IN THE EVENT THE CONTRACTOR ENCOUNTERS MATERIALS WITHIN THE SITE THAT IS REASONABLY BELIEVED TO BE A TOXIC MATERIAL WHICH HAS NOT BEEN RENDERED HARMLESS, THE CONTRACTOR SHALL IMMEDIATELY STOP WORK IN THE AFFECTED AREA AND REPORT THE CONDITION TO THE ARCHITECT AND THE OWNER IN WRITING. I.2. WORK IN THE AFFECTED AREA SHALL NOT BE RESUMED EXCEPT BY WRITTEN AGREEMENT OF THE OWNER AND CONTRACTOR UNTIL THE SUSPECTED MATERIAL IS PROVEN NOT TO BE HAZARDOUS OR THE SUSPECTED MATERIAL IS LEGALLY REMOVED OR RENDERED HARMLESS.

I.3. THE CONTRACTOR SHALL NOT BE REQUIRED TO PERFORM WORK, WITHOUT CONSENT, RELATING ANY TOXIC MATERIALS FOUND ON SITE. OBTAIN AND PAY FOR ALL NECESSARY PERMITS IN CONJUNCTION WITH HAULING AND

DISPOSING OF DEMOLISHED MATERIALS AND PROVIDE TIMELY NOTICE OF SUCH ACTIONS TO

PROTECTION: PERFORM SELECTIVE DEMOLITION WORK TO PREVENT INJURY OR DAMAGE TO THE REMAINING ADJACENT SURFACES AND ELEMENTS. PROVIDE NECESSARY BARRICADES, LIGHTS AND ENCLOSURES FOR SITE OCCUPANTS, PUBLIC AND WORKER SAFETY, AND ROTECTION OF PROPERTY. PROVIDE NECESSARY SHORING AND BRACING FOR SUPPORT AND PROTECTION OF ADJACENT SURFACES AND ELEMENTS THAT WILL REMAIN.

APPLICABLE FEDERAL, STATE OF OHIO, AND LOCAL GOVERNING AUTHORITIES.

 MAINTAIN EXISTING UTILITY SERVICES TO EXISTING BUILDING ON SITE AND PROTECT AGAINST DAMAGE DURING SELECTIVE DEMOLITION OPERATIONS. DO NOT INTERRUPT EXISTING UTILITIES SERVING EXISTING FACILITIES, EXCEPT WHEN AUTHORIZED BY THE OWNER. MAINTAIN FIRE PROTECTION SERVICES TO EXISTING BUILDING DURING THE ENTIRE SELECTIVE DEMOLITION

f. TRAFFIC: DO NOT CLOSE OR OBSTRUCT EXISTING ADJACENT ROAD, DRIVEWAYS, PARKING AREAS, SIDEWALKS, AND PASSAGEWAYS WITHOUT PROPER AUTHORIZATION FROM THE OWNER.

### DIVISION 3 - CONCRETE

SATISFACTORY PERFORMANCE.

0301. STEEL REINFORCED CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF CHAPTERS 16 AND 19, OBC, THE AMERICAN CONCRETE INSTITUTE (ACI) ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE," LATEST EDITION, AND THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI) HANDBOOK, LATEST EDITION.

0302. EXAMINE SUBSTRATES, STRUCTURE AND INSTALLATION CONDITIONS. DO NOT PROCEED WITH WORK UNDER THIS SECTION UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. a. INSTALLATION CONSTITUTES ACCEPTANCE OF EXISTING CONDITIONS AND RESPONSIBILITY FOR

0303. SPECIFICATIONS, IN GENERAL, SHALL COMPLY WITH ACI 301 "STANDARD SPECIFICATION FOR STRUCTURAL CONCRETE", LATEST EDITIONS. b. PLACEMENT AND CURING OF CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF ACI 305 "HOT WEATHER

CONCRETING" AND ACI 306 "COLD WEATHER CONCRETING", LATEST EDITIONS. 0304. UNLESS OTHERWISE SHOWN OR SPECIFIED, DESIGN, CONSTRUCT, ERECT, MAINTAIN AND REMOVE FORMS AND RELATED STRUCTURES FOR CAST-IN-PLACE CONCRETE WORK IN COMPLIANCE WITH THE LATEST REVISIONS OF ACI 347, "RECOMMENDED PRACTICE FOR CONCRETE FORMWORK." a. FORMWORK SHALL SUPPORT VERTICAL, LATERAL, STATIC, AND DYNAMIC LOADS THAT MIGHT BE APPLIED

FORMWORK CONSTRUCTION TOLERANCES AND SURFACE IRREGULARITIES. b. COAT CONTACT SURFACES OF FORMWORK WITH FORM RELEASE AGENTS IN ACCORDANCE MANUFACTURER'S INSTRUCTIONS BEFORE PLACING REINFORCEMENT.

AND STRUCTURES ARE OF CORRECT SIZE, SHAPE, ALIGNMENT, ELEVATION, AND POSITION. MAINTAIN

UNTIL CONCRETE STRUCTURE CAN SUPPORT SUCH LOADS. CONSTRUCT FORMWORK SO CONCRETE MEMBERS

0305. ALL REINFORCING DETAILS SHALL CONFORM TO ACI 315, "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES", LATEST EDITION, AND THE CONCRETE REINFORCING STEEL INSTITUTE HANDBOOK (CRSI), LATEST EDITION, UNLESS DETAILED OTHERWISE ON THE DRAWINGS. a. HAVE ON-SITE AT LEAST ONE COPY OF THE ACI FIELD REFERENCE MANUAL, SPY15, AT ALL TIMES.

b. TESTING OF ALL CONCRETE SHALL CONFORM TO ACI STANDARDS, LATEST EDITIONS p.s.i. 0306. DESIGN CRITERIA. a. FLOOR LIVE LOADS:

0307. MATERIALS:

a. STRUCTURAL CONCRETE: <u>CLASS</u>

I. CONCRETE SLABS-ON-GRADE; IOO psf.

<u>LOCATION</u> FOOTINGS 3,500 p.s.i. INTERIOR SLABS ON GRADE 3,500 p.s.i. AND ALL INTERIOR CONCRETE NOT OTHERWISE IDENTIFIED. EXTERIOR SLABS ON GRADE 4,500 p.s.i.

AND ALL EXTERIOR CONCRETE (WITH AIR)

NOT OTHERWISE IDENTIFIED. BACKFILL BELOW FOOTINGS 2500 p.s.i. Ш Z Ш 0

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COMMISSION

ISSUE MARK DATE 9-25-17 PERMIT 9-25-17

DRAWN BY: 5ML STEPHEN LUCHTENBERG 8546

Stephen M. Luchtenberg License No. 8546 Expiration Date: December 31, 2017 STRUCTURAL

AND ARCHITECTURA

GENERAL NOTES

- 2. CLEAN, NORMAL WEIGHT AGGREGATES, FINE AND COURSE, COMPLYING WITH ANSI-ASTM C 33 REQUIREMENTS. PROVIDE AGGREGATES FROM ONE SOURCE OF SUPPLY. USE OF PIT OR BANKRUN
- GRAVEL IS NOT PERMITTED. 3. LIGHT WEIGHT AGGREGATES COMPLYING WITH ANSI-ASTM C 330 REQUIREMENTS.
- 4. WATER TO CLEAN, FRESH AND POTABLE. 5. GROUT FOR MASONRY CORE FILL IN ACCORDANCE WITH ASTM C 476, COARSE TYPE
- c. PROVIDE CONCRETE ADMIXTURES BY ESTABLISHED REPUTABLE MANUFACTURERS AND USE IN COMPLIANCE WITH MANUFACTURER'S PUBLISHED DIRECTIONS AND SPECIFICATIONS.
- I. AIR-ENTRAINING ADMIXTURE: ANSI-ASTM C 260. 2. WATER-REDUCING ADMIXTURE: ANSI-ASTM C 494, TYPE A.
- 3. NON-CHLORIDE, NON-CORROSIVE ACCELERATOR: ANSI-ASTM C 494, TYPE C OR R. 4. SUPER PLASTICIZER: ANSI-ASTM C 494, TYPE F OR G.
- d. ALL DEFORMED REINFORCING BARS: ASTM A 615, GRADE 60. REINFORCEMENT SHALL BE FREE OF OIL, SCALE, DIRT AND OTHER COATINGS THAT WOULD REDUCE OR DESTROY BOND WITH THE CONCRETE. A LIGHT COATING OF RUST IS NOT OBJECTIONABLE.
- I. FOOTING CORNER BARS TO MATCH HORIZONTAL REINFORCING. MINIMUM LENGTH OF EACH LEG 45 BAR
- 2. REINFORCING RODS AND MESH SHALL BE OF THE SIZE AND LOCATION AS INDICATED.
- 3. PROVIDE REINFORCING BAR ALIGNMENT DEVICES AT A MAXIMUM SPACING OF 192 BAR DIAMETERS. 4. AT SPLICES IN VERTICAL REINFORCING BARS, PROVIDE MECHANICAL COUPLERS OR 48 BAR
- e. USE ASTM A 185 WELDED STEEL WIRE FABRIC. WELDED WIRE FABRIC SHALL BE OF THE SIZE AND LOCATION AS INDICATED. PROVIDE CONCRETE COVER AT REINFORCING AS INDICATED.
- a. SUPPORTS FOR REINFORCEMENT (INCLUDING WELDED WIRE FABRIC): BOLSTERS, CHAIRS, SPACERS AND OTHER DEVICES FOR SPACING, SUPPORTING AND FASTENING REINFORCEMENT IN PLACE.
- I. USE SUPPORTS COMPLYING WITH CRSI RECOMMENDATIONS. 2. DO NOT USE WOOD, BRICK AND OTHER UNACCEPTABLE MATERIALS.
- 0308. READY-MIXED CONCRETE: COMPLY WITH THE REQUIREMENTS OF ASTM C 94 AND AS HEREIN SPECIFIED. a. DELETE THE REFERENCES FOR ALLOWING ADDITIONAL WATER TO BE ADDED TO THE BATCH FOR MATERIALS WITH INSUFFICIENT SLUMP. ADDITION OF WATER TO THE BATCH WILL NOT BE PERMITTED. b. DURING HOT WEATHER OR UNDER CONDITIONS CONTRIBUTING TO RAPID SETTING OF CONCRETE, A SHORTER
- MIXING TIME THAN SPECIFIED IN ASTM C 94 MAY BE REQUIRED. 0309. UNLESS OTHERWISE NOTED, INSTALL REINFORGING TO PROVIDE MINIMUM CONCRETE COVER AS FOLLOWS: a. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH; 3 INCHES OF COVER.
  - b. CONCRETE EXPOSED TO EARTH OR WEATHER: I. #5 BARS AND SMALLER; I-I/2 INCHES OF COVER.
- 2. OTHERS; 2 INCHES OF COVER. 0310. CONSTRUCTION JOINTS ARE PERMITTED ONLY WHERE INDICATED AND DETAILED AND AS APPROVED BY THE
  - TESTING OF ALL CONCRETE SHALL CONFORM TO ACI STANDARDS, LATEST EDITION.
- a. HAVE ON-SITE AT LEAST ONE COPY OF THE ACI FIELD REFERENCE MANUAL, SP-15, AT ALL TIMES. PERFORM A MINIMUM OF ONE TEST FOR TYPE OF CONCRETE USED. TESTS SHALL BE PERFORMED BY
- AN ACCREDITED TESTING AGENCY AND SHALL BE PAID FOR BY THE CONTRACTOR. b. SLUMP LIMITS: PROPORTION AND DESIGN MIXES TO RESULT IN CONCRETE SLUMP AT POINT OF PLACEMENT
- I. RAMPS AND SLOPING SURFACES: NOT MORE THAN 3 INCHES.

STRUCTURAL ENGINEER. ALL CONSTRUCTION JOINTS ARE TO BE KEYED.

- 2. SLABS-ON-GRADE: NOT LESS THAN I INCH, AND NO MORE THAN 3 INCHES. 3. OTHER CONCRETE: NOT LESS THAN I INCH, AND NO MORE THAN 4 INCHES.
- 4. IF SUPER PLASTICIZER IS USED, INITIAL SLUMP TO BE 2 TO 3 INCHES, INCREASED TO 8 INCHES MAXIMUM
- AFTER ADDITION (AT JOB SITE) OF THE SUPER PLASTICIZER 0312. PROVIDE "LEAN CONCRETE" (CLASS IV) UNDER FOUNDATIONS FOR ACCIDENTAL OVER-EXCAVATION, SOFT SPOTS AND TRENCHES.
- 0313. PROVIDE THE FOLLOWING FINISHES:
- a. FLOAT FINISH FOR ALL INTERIOR GARAGE FLOORS.
- b. NOT USED.
- c. BROOM FINISH FOR EXTERIOR SLABS AND SIDEWALKS. CLASS B TOLERANCE
- 0314. APPLY TRANSPARENT LIQUID CURING COMPOUND FORMULATED FROM CHLORINATED RUBBER, PLASTICIZED AND STABILIZED, COMPLYING WITH ANSI-ASTM C 309, TYPE I, CLASS B, UNLESS OTHERWISE APPROVED BY STRUCTURAL ENGINEER COVERAGE RATE AS RECOMMENDED BY THE MANUFACTURER. a. MANUFACTURERS:
  - I. MASTERSEAL 66; MASTER BUILDERS.
  - 2. A-H 3 WAY SEALER; ANTI-HYDRO WATERPROOFING CO.
  - 3. EUCOCURE; EUCLID CHEMICAL CO. 4. KURE-N-SEAL; SONNEBORN BUILDING PRODUCTS
- b. APPLY LIQUID CURING -HARDENER COMPATIBLE WITH CURING COMPOUND. THIS COAT SHALL BE IN ADDITION TO ANY MATERIAL APPLIED DURING CURING OPERATION.
- 0315. DESIGN, ERECT, CONSTRUCT, SUPPORT, BRACE AND MAINTAIN FORMWORK, ACCORDING TO ACI 301, TO SUPPORT VERTICAL, LATERAL, STATIC, AND DYNAMIC LOADS THAT MIGHT BE APPLIED UNTIL CONCRETE STRUCTURE CAN SUPPORT SUCH LOADS, CONSTRUCT FORMWORK SO CONCRETE MEMBERS AND STRUCTURES ARE OF CORRECT SIZE. SHAPE, ALIGNMENT, ELEVATION, AND POSITION. MAINTAIN FORMWORK CONSTRUCTION TOLERANCES AND SURFACE IRREGULARITIES COMPLYING WITH ACI 347 LIMITS.
- a. COAT CONTACT SURFACES OF FORMWORK WITH FORM RELEASE AGENTS IN ACCORDANCE MANUFACTURER'S INSTRUCTIONS BEFORE PLACING REINFORCEMENT.
- 0316. PROVIDE CORK OR PRE-MOULDED ASPHALT EXPANSION JOINTS AS REQUIRED BETWEEN CONCRETE AND
- ADJACENT MATERIAL.
- 0317. ALL INTERIOR SLABS-ON-GRADE TO HAVE 6 MIL POLYETHYLENE FILM MOISTURE BARRIER UNDERLAYMENT FREE OF PUNCTURES. OVERLAPPED 2'-0" AT JOINTS.
  - DIVISION 4 MASONRY
- 0401. ALL MASONRY WORK AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF CHAPTERS 16 AND 21, OBC. THE AMERICAN CONCRETE INSTITUTE, COMMITTEE 530, AND THE NATIONAL CONCRETE MASONRY ASSOCIATION (NCMA) "TEK BULLETINS"
- 0402. EXAMINE SUBSTRATES, STRUCTURE AND INSTALLATION CONDITIONS. DO NOT PROCEED WITH WORK UNDER THIS SECTION UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. a. INSTALLATION CONSTITUTES ACCEPTANCE OF EXISTING CONDITIONS AND RESPONSIBILITY FOR
- SATISFACTORY PERFORMANCE. 0403. CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C 90 SPECIFICATIONS FOR HOLLOW LOAD BEARING CONCRETE MASONRY UNITS. PROVIDE SHAPES AND SIZES TO COMPLETE THE WORK. CONCRETE BUILDING
- BRICK SHALL CONFORM TO ASTM C 55 SPECIFICATIONS. a. MINIMUM NET AREA COMPRESSIVE STRENGTH OF CONCRETE MASONRY UNITS TO BE 2,500 p.s.i.
- b. MINIMUM NET AREA COMPRESSIVE STRENGTH OF CONCRETE BUILDING BRICK UNITS TO BE 3,500 p.s.i. 0404. TACE BRICK UNITS SHALL CONFORM TO ASTM C 216, GRADE MW OR SW, TYPE FRS.. PROVIDE SHAPES AND SIZES TO COMPLETE THE WORK. TESTING OF BRICK SHALL CONFORM TO ASTM C 67 SPECIFICATIONS.
- a. MINIMUM NET AREA COMPRESSIVE STRENGTH OF FACE BRICK UNITS TO BE 3,000 p.s.i. b. COLOR, STYLE AND TEXTURE AS SELECTED BY THE OWNER. 0405. SILLS AT MASONRY OPENINGS AND ELSEWHERE IF SHOWN:
- a. IF AND WHERE SHOWN, PROVIDE LIMESTONE SILLS TO CONFORM TO ASTM C 170. PROVIDE SHAPES AND SIZES TO COMPLETE THE WORK. TESTING OF LIMESTONE SHALL CONFORM TO ASTM C 99 AND ASTM C 97 SPECS.

  I. MINIMUM NET AREA COMPRESSIVE STRENGTH SELIMESTONE UNITS TO BE 4,000 p.s.i. 2. PROVIDE CONTINUOUS MASONRY FLASHING UNDER AND UP BEHIND LIMESTONE SILL. PROVIDE
- WEEPS AT MAX 18" O.C. 3. COLOR, STYLE AND TEXTURE AS SELECTED BY THE OWNER.
- b. IF AND WHERE SHOWN, PROVIDE FACE BRICK ROWLOCK SILL COURSE I. PROVIDE SOLID BRICK UNITS AT EXPOSED ENDS OF ROWLOCK SILL
- 2. PROVIDE CONTINUOUS MASONRY FLASHING UNDER AND UP BEHIND ROWLOCK SILL. PROVIDE MEEPS AT MAX 18" O.C.
- 0406. MORTAR AND GROUT MATERIALS.
- a. MORTAR: TYPE S. MINIMUM COMPRESSIVE STRENGTH OF 18,000 psi, FOR MASONRY WORK BELOW GRADE. USE TYPE N FOR REMAINING MASONRY WORK. I. PORTLAND CEMENT-LIME MIX; PACKAGED BLEND OF PORTLAND CEMENT COMPLYING WITH ASTM C 150,
- TYPE I OR TYPE III, AND ALL HYDRATED LIME COMPLYING WITH ASTM C207. 2. AGGREGATE FOR MORTAR; ASTM C144, EXCEPT FOR JOINTS LESS THAN 1/4 INCH, USE AGGREGATE
- GRADED WITH 100 PERCENT PASSING THE NO. 16 SIEVE. GROUT FOR BOND BEAM AND CORE FILL: ASTM C476, COURSE TYPE. MINIMUM COMPRESSIVE STRENGTH OF
- I. AGGREGATE FOR GROUT; ASTM C404.
- 2. MAXIMUM HEIGHT OF GROUT LIFT TO BE 4'-0". c. WATER: POTABLE.
- d. DO NOT USE ANTIFREEZE, CALCIUM CHLORIDE, OR ADMIXTURES CONTAINING CALCIUM CHLORIDE IN ANY MORTAR OR GROUT. INSTALL MASONRY WORK PERFORMED IN, NEAR, OR BELOW FREEZING TEMPERATURES IN ACCORDANCE WITH SECTION 0409 THIS DIVISION.
- e. DO NOT CHANGE SOURCE OR BRANDS OF MORTAR MATERIALS DURING THE COURSE OF THE WORK.

- 0407. STEEL REINFORCING.
  - a. HORIZONTAL JOINT REINFORCEMENT SHALL BE ASTM A 82 TRUSS TYPE, HOT DIPPED MILL GALVANIZED 9 GAUGE DEFORMED WIRE, CONTINUOUS RECTANGULAR TAB-TIE, DRIP TYPE, SPACING SHALL BE 16" O.C. VERTICALLY FULL HEIGHT OF WALL LAP MINIMUM OF 6". FURNISH JOINT REINFORCING IN MASONRY WALLS
  - ABOVE GRADE. b. USE ASTM A 615, GRADE 60, DEFORMED, FOR ALL REINFORCING BARS. SEE DIVISION 3 CONCRETE FOR
- PROVIDE REINFORCING BAR ALIGNMENT DEVICES AT A MAXIMUM SPACING OF 192 BAR DIAMETERS. 2. AT SPLICES IN VERTICAL REINFORGING BARS, PROVIDE MECHANICAL COUPLERS OR 48 BAR DIAMETER LAP.
- 0408. VERTICAL STEEL REINFORCING BARS GROUTED INTO CORES OF CONCRETE MASONRY UNITS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS. a. FURNISH DOWELS FROM THE FOOTING, SAME SIZE AND SPACING AS WALL BARS. LAP 12 INCHES MINIMUM

WITH WALL BARS, UNLESS NOTED OTHERWISE. EMBED INTO FOOTING  $\delta$  INCHES PLUS STANDARD 40

- DEGREE HOOK. b. PROVIDE A CONTINUOUS VERTICAL CAVITY, AT LEAST 2" X 3" IN SIZE, FREE OF MORTAR DROPPINGS. c. PROVIDE AN OPENING FOR CLEANOUT AND INSPECTION AT EACH VERTICAL BAR, AT BOTTOM OF EACH GROUT LIFT.
- 0409. TIES AND ANCHORS.
  - a. GALVANIZED, CORRUGATED, STEEL SHEET: ASTM A 366/A 366M COLD ROLLED. CARBON-STEEL SHEET HOT-DIP GALVANIZED AFTER FABRICATION TO COMPLY WITH ASTM A 153 AT EXTERIORWOOD FRAMED
  - 1. 22 GAUGE MINIMUM
  - 2. SCREWED APPLIED DIRECTLY TO WOOD STUDS ONLY: 16" O.C. HORIZONTAL, 24" O.C. VERTICAL. o. WELDED ATTACHED MASONRY VENEER ANCHORS: UNITS WITH TRIANGLE WIRE TIE AND RIB-STIFFENED, SHEET METAL ANCHOR SECTION TO WELD TO STRUCTURAL STEEL AND WITH RAISED RIB-STIFFENED STRAP STAMPED INTO CENTER TO PROVIDE A SLOT FOR CONNECTION OF WIRE TIE.
- MANUFACTURERS: I. DUR-O-WAL INC., HECKMAN BUILDING PRODUCTS, INC., OR HOHMANN & BARNARD, INC.
- 0410. EMBEDDED FLASHING MATERIALS. a. COPPER MATERIAL, 10 OZ/SQ.FT. WEIGHT OR O.O.135 INCH THICK FOR FULLY CONCEALED FLASHING; 16 OZ/SQ. FT. WEIGHT OR O.0126 INCH THICK ELSEWHERE.
  - b. METAL DRIP EDGE EXTENDING AT LEAST 3 INCHES INTO WALL AND 1/2 INCH OUT FROM WALL, WITH HEMMED OUTER EDGE BENT DOWN 30 DEGREES
- c. FOR FLASHING PARTLY EXPOSED TO THE EXTERIOR, USE METAL FLASHING AS NOTED ABOVE, FOR FLASHING NOT EXPOSED TO THE EXTERIOR, USE ONE OF THE FOLLOWING, UNLESS OTHERWISE INDICATED: I. COPPER LAMINATED FLASHING: MANUFACTURER'S STANDARD LAMINATED FLASHING CONSISTING OF 7 OZ/SQ. FT. SHEETCOPPER, BONDED WITH ASPHALT BETWEEN 2 LAYERS OF GLASS-FIBER CLOTH.
- d. MANUFACTURERS: I. ADVANCED BUILDING PRODUCTS, INC., HOHMANN & BARNARD, INC. OR AFCO PRODUCTS INC.
- 0411. ENVIRONMENTAL CONDITIONS a. COLD WEATHER CONSTRUCTION SHALL CONFORM TO THE "RECOMMENDED PRACTICES AND GUIDE SPECIFICATIONS FOR COLD WEATHER CONSTRUCTION" DEVELOPED BY THE ALL WEATHER MASONRY MASONRY COUNCIL (AWMC).
  - I. CONCRETE MASONRY UNITS: DURING PERIODS WHEN TEMPERATURES ARE 40 DEGREES F AND FALLING, NO MASONRY WORK WILL BE PERFORMED UNLESS MEANS APPROVED BY THE AWMC AND UTILIZED BY THE CONTRACTOR ARE PROVIDED FOR HEATING MATERIALS, AND MASONRY IS PROTECTED FROM FROST UNTIL MORTAR HAS HARDENED.
  - 2. BRICK MASONRY UNITS: DURING PERIODS WHEN TEMPERATURES ARE 40 DEGREES F. AND FALLING, NO MASONRY WORK WILL BE PERFORMED UNLESS APPROVED BY THE ARCHITECT, INCLUDING BARRICADES AND HEATED ENCLOSURES ARE PROVIDED FOR HEATING MATERIALS, AND MASONRY IS PROTECTED FROM FROST UNTIL MORTAR HAS HARDENED. ANTI-FREEZE ADMIXTURES ARE NOT ACCEPTABLE IN BRICK MASONRY WORK.
- b. ALL MASONRY WORK: DURING RAINY WEATHER, DO NOT WORK UNLESS MATERIALS AND WORK ARE c. PROTECT PARTIALLY COMPLETED MASONRY AGAINST WEATHER BY COVERING WITH STRONG, BY COVER.
- WEATHERPROOF, NON-STAINING MEMBRANE. HOLD SECURELY IN PLACE.
- 0412. LAY UP CONCRETE MASONRY UNITS IN RUNNING BOND, PLUMB, TRUE TO LINE, WITH COURSES LEVEL AND DIMENSIONS SHOWN ON THE DRAWINGS. ALL JOINTS EXPOSED TO THE EXTERIOR, IN VIEW, SHALL BE TOOLED WITH A ROUND OR CONCAVE TOOL.
- a. VERTICAL COLLAR JOINTS TO BE FILLED SOLID WITH MORTAR.
- b. PROVIDE IOO% SOLID BEARING, MINIMUM THREE COURSES UNDER BEAMS AND GIRDERS. c. FILL CORE SOLID AROUND ANCHOR BOLTS.
- d. HOLLOW MASONRY UNITS TO BE LAID WITH FULL MORTAR COVERAGE ON HORIZONTAL AND VERTICAL FACE SHELLS. WEBS SHALL ALSO BE BEDDED IN ALL COURSES OF PIERS AND PILASTERS, IN THE STARTING COURSE ON FOOTINGS, AND WHEN ADJACENT TO CELLS OR CAVITIES TO BE FILLED WITH CONCRETE OR GROUT. SOLID UNITS TO BE LAID WITH FULL HEAD AND BED.
- e. ALL CONCRETE MASONRY UNIT BED AND HEAD JOINTS SHALL BE 3/8" THICK F. DO NOT WET CONCRETE MASONRY UNITS.
- a. AS MASONRY WORK PROGRESSES, BUILD-IN ITEMS SPECIFIED UNDER THIS AND OTHER SECTIONS OF THESE GENERAL NOTES/SPECIFICATIONS. FILL IN SOLIDLY WITH MASONRY AROUND BUILT-IN ITEMS. h. AS MASONRY WORK PROGRESSES, BUILD-IN ITEMS SPECIFIED UNDER THIS AND OTHER SECTIONS OF THESE
- GENERAL NOTES/SPECIFICATIONS. FILL IN SOLIDLY WITH MASONRY AROUND BUILT-IN ITEMS. FURNISH CRACK CONTROL JOINTS IN FACE BRICK VENEER SYSTEM AS SHOWN ON THE DRAWINGS AND IN ACCORDANCE WITH NCMA TEK 10-4 BULLETIN SPECIFICATIONS AND DETAILS.
- 0414. PROVIDE SOLID MASONRY UNITS, GROUTED UNITS ACCEPTABLE, FOR ALL LINTELS, BEAMS, COLUMNS, JOISTS, PLATES AND ANYLOAD-BEARING MEMBERS.
- 0415. FURNISH AND INSTALL MANUFACTURED STONE MASONRY VENEER SYSTEM (CULTURED STONE) AS SHOWN ON THE DRAWINGS. FIELD APPLY VENEER SYSTEM OVER WOOD FRAMED EXTERIOR WALLS OF BUILDING ADDITION AND ON EXISTING WOOD FRAMED WALLS AT LOCATION(S) AS DIRECTED BY THE OWNER. FURNISH, WEATHER RESISTANT BARRIER, METAL LATH, "SCRATCH COAT", "APPLICATION COAT", MORTAR JOINT MATERIAL, ALL CULTURED STONE PIECES AND ACCESSORIES TO COMPLETE AND MAKE WEATHERTIGHT THE WORK, FURNISH ALL REQUIRED
- FLASHINGS AND COUNTER-FLASHINGS. REQUIRED FLASHINGS AND COUNTER-FLASHINGS. a. INSTALL THE VENEER ASSEMBLY IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS 0604. ENGINEERED WOOD PRODUCTS. AND SPECIFICATIONS,I. PROVIDE EXPANSION JOINTS AS INDICATED, WHEN NOT INDICATED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS FOR TYPE OF SUBSTRATES AND SYSTEMS REQUIRED. I. INSTALL JOINT SEALANTS AT PERIMETER JOINTS AND JOINTS WITHIN THE SYSTEM USING ELASTOMERIC JOINT
- SEALANTS IN ACCORDANCE WITH VENEER ASSEMBLY AND JOINT SEALANT MANUFACTURERS. 2. METAL LATH TO BE GALVANIZED 2.5 LBS. OR 3.4 LBS., EXPANDED, FLAT OR RIBBED TYPE. b. INSTALLATION SHALL BE PERFORMED BY THE SYSTEM MANUFACTURER OR AN APPLICATOR TRAINED AND APPROVED BY THE SYSTEM MANUFACTURER.
- I. INSTALL VENEER SYSTEM ONLY AT TEMPERATURES ABOVE 40 DEGREES F.
- C. SUBMIT MANUFACTURER'S WRITTEN 30 YEAR MATERIAL WARRANTY. D. STONE STYLE, PATTERN AND COLOR AS SELECTED BY THE OWNER.
- 0416. FURNISH AND INSTALL PORTLAND CEMENT MASONRY VENEER SYSTEM (STUCCO) AS SHOWN ON THE DRAWINGS. FIELD APPLY VENEER SYSTEM OVER WOOD FRAMED EXTERIOR WALLS OF BUILDING ADDITION AS SHOWN.
- 0417. ALL ACCESSORIES TO COMPLETE AND MAKE WEATHER-TIGHT THE WORK. FURNISH ALL REQUIRED METAL TRIMS, TERMINATION BARS, FLASHINGS, AND COUNTER-FLASHINGS.
  - a. INSTALL THE VENEER ASSEMBLY IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS AND SPECIFICATIONS.
  - I. PROVIDE EXPANSION JOINTS AS INDICATED, WHEN NOT INDICATED IN ACCORDANCE WITH INDUSTRY STANDARDS AND RECOMMENDATIONS FOR TYPE OF SUBSTRATES AND SYSTEMS REQUIRED. 2. INSTALL JOINT SEALANTS AT PERIMETER JOINTS AND JOINTS WITHIN THE SYSTEM USING ELASTOMERIC JOINT SEALANTS IN ACCORDANCE WITH INDUSTRY STANDARDS AND JOINT SEALANT MANUFACTURERS. 3. METAL LATH TO BE GALVANIZED 2.5 LBS. OR 3.4 LBS., EXPANDED, FLAT OR RIBBED TYPE.
- b. INSTALLATION SHALL BE PERFORMED BY AN EXPERIENCED APPLICATORS HAVING A MINIMUM OF 5 YEARS EXPERIENCE.
- I. INSTALL VENEER SYSTEM ONLY AT TEMPERATURES ABOVE 40 DEGREES F. c. TEXTURE, PATTERN AND COLOR AS SELECTED BY THE OWNER.
- 0418. MISCELLANEOUS MASONRY ACCESSORIES. a. COMPRESSIBLE FILLER STRIPS OF NEOPRENE COMPLYING WITH ASTM D 1056, GRADE 2AI. b. ROUND PLASTIC WEEP/VENT TUBING OF MEDIUM DENSITY POLYETHYLENE, 3/8 INCH O.D. BY 4 INCHES LONG.
- c. COTTON OR POLYESTER ROPE WICKING MATERIAL. 1/4 TO 3/8 INCH IN DIAMETER, IN LENGTH REQUIRED TO PRODUCE 2 INCHEXPOSURE ON EXTERIOR AND 18 INCHES IN CAVITY BETWEEN WYTHES. d. CAVITY DRAINAGE MATERIAL OF 3/4 INCH THICK, FREE DRAINING MESH, MADE FROM POLYETHYLENE
- STRANDS. e. MANUFACTURERS:
- I. ADVANCED BUILDING PRODUCTS, INC., CAVCLEAR, POLYTITE MANUFACTURING CORP. OR AFCO PRODUCTS 0419. PROTECT PARTIALLY COMPLETED MASONRY AGAINST WEATHER BY COVERING WITH STRONG, WEATHERPROOF,
- NON-STAINING MEMBRANE. HOLD SECURELY IN PLACE. 0420. AFTER MORTAR IS THOROUGHLY SET AND CURED, CLEAN EXPOSED MASONRY IN ACCORDANCE TO METHOD DESCRIBED IN BIA TECHNICAL NOTES NO. 20, USING JOB MIXED DETERGENT SOLUTION.
  - a. CLEAN MASONRY WITH A PROPRIETARY ACIDIC CLEANER APPLIED ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS b. PROTECT ADJACENT SURFACES FROM CONTACT WITH ANY CLEANERS.

DIVISION 5 - METALS

- 0501. STRUCTURAL STEEL AND MISCELLANEOUS METAL SHALL CONFORM TO THE REQUIREMENTS OF CHAPTERS 16
- 0502. EXAMINE SUBSTRATES, STRUCTURE AND INSTALLATION CONDITIONS. DO NOT PROCEED WITH WORK UNDER THIS SECTION UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. a. INSTALLATION CONSTITUTES ACCEPTANCE OF EXISTING CONDITIONS AND RESPONSIBILITY FOR
- SATISFACTORY PERFORMANCE. 0503. UNLESS SPECIFICALLY SHOWN OTHERWISE, DESIGN, FABRICATION AND ERECTION TO BE GOVERNED BY: a. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS", LATEST EDITION.
  - b. AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES", LATEST EDITION. c. AMERICAN WELDING SOCIETY (AWS) "STRUCTURAL WELDING CODE", AWS DI-I, LATEST EDITION. d. RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS (RCSC) "SPECIFICATION FOR STRUCTURAL JOINT USING ASTM A 325 OR A 490 BOLTS".
- e. RCSC "LOAD AND RESISTANCE FACTOR DESIGN SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A 325 OR A 490 BOLTS".
- 0504. SHOP PAINT ALL STRUCTURAL STEEL CONFORMING TO STEEL STRUCTURES PAINTING COUNCIL SPECIFICATION NO. 15-68T, TYPE I.
- a. DO NOT PAINT STEEL OR ANCHOR BOLTS WHICH WILL BE ENCASED IN CONCRETE. b. STRUCTURAL STEEL SHAPES ARE TO RECEIVE TWO COATS OF SHOP PAINT.
- I. SSPC-PAINT 13. c. STEEL LINTELS IN EXTERIOR FACE BRICK VENEER SYSTEM WALLS ARE TO RECEIVE TWO COATS OF SHOP
- I. SSPC-PAINT 13. d. GALVANIZING REPAIR PAINT TO BE ZINC RICH PRIMER PAINT. e. GALVANIZED FINISHES:
- I. ASTM AI53 FOR GALVANIZING IRON AND STEEL HARDWARE 2. ASTM AI23 FOR GALVANIZING ROLLED, PRESSED AND FORGED STEEL SHAPES, PLATES, BARS AND STRIPS 1/8" THICK AND HEAVIER.
- 0505. HIGH-STRENGTH BOLTS: ASTM A 325 OR A 490.
- 0506. ANCHOR BOLTS ASTM A 307 OR A 36, INSTALL ANCHOR BOLTS AS SHOWN. a. EXPANSION BOLTS: HILTI "KWIK-BOLTS" OR APPROVED EQUAL b. PROVIDE HEAVY NUT AND WASHER AT ALL ANCHOR BOLTS (BOTH ENDS WHERE SHOWN).
- 0507. WOOD FRAMING METAL CONNECTORS: GALVANIZED STEEL JOIST HANGERS, TRUSS HOLD-DOWN ("HURRICANE") CLIPS, HOLD-DOWN ANCHORS, PLYWOOD SHEATHING CLIPS, STEEL STRAPPING, ETC., WITH GAUGE AS NOTED ON DRAWINGS, BASED ON SIMPSON "STRONG-TIE" COMPANY WITH EQUAL BY TECO COMPANY.
- 0508. EMBEDMENT LENGTH OF EXPANSION BOLTS INTO SOLID MASONRY OR CONCRETE SHALL BE AS FOLLOWS: a. 1/2 INCH DIAMETER BOLTS: 3 1/2INCHES EMBEDMENT. b. 3/4 INCH DIAMETER BOLTS: 5 INCHES EMBEDMENT.
- 0509. FURNISH AND INSTALL I 1/2 " DIAMETER, PAINTED, GALVANIZED STEEL PIPE, ALL WELDED CONSTRUCTION.... HANDRAILS AND RAILING ASSEMBLIES IN ACCORDANCE WITH OBC AND ADAAG REQUIREMENTS. LINELUDE ALL RAILINGS AND HANDRAILS FOR EXTERIOR RAMP AND STAIR, INTERIOR LOWER LEVEL STAIR, AND HANDRAILS FOR MASONRY STAIRWELL. a. COMPLY WITH THE NATIONAL ASSOCIATION OF ARCHITECTURAL METAL-MANUFACTURERS (NAAMM)
  - " PIPE RAILING MANUAL", LATEST EDITION, RECOMMENDATIONS FOR MATERIALS, FABRICATIONS AND INSTALLATION. b. HANDRAILS MUST BE DESIGNED AND CONSTRUCTED TO CARRY A CONCENTRATED LOAD OF 200 POUNDS
- APPLIED AT ANY POINT AND IN ANY DIRECTION AND A UNIFORM LOAD OF 50 POUNDS APPLIED IN ANY c. PROVIDE ALL SLEEVES, ANCHORS, CLIPS AND OTHER ITEMS REQUIRED TO COMPLETE THE WORK, FURNISH THE SAME TO THE OTHER TRADES IF REQUIRED TO BE "BUILT-IN" WORK.
- 0510. PROVIDE ALL METAL FASTENERS, BOLTS, NUTS, WASHERS, ANDHOR BOLTS, ETC AS REQD FOR FRAMING WORK. ALL METAL HANGERS, CONNECTORS, CLIPS, STRAPS, ANCHORS, BOLTS, FASTENERS, SCREWS, ETC. IN DIRECT CONTACT WITH ANY PERSERVATIVELY TREATED LUMBER SHALL BE STAINLESS STEEL TYPE 304 OR TYPE 316 OR "DOUBLE DIPPED" GALVANIZED THAT COMPLIES WITH THE ASTM A 123 (CONNECTORS) OR A153 (FASTENERS) CLASS D STANDARDS FOR FASTENERS AND HARDWARE. THE CONNECTORS AND FASTENERS MUST BE MADE OF THE SAME MATERIAL FOR COMPATIBILITY.

d. EIELD VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE FABRICATING ANY OF THE WORK.

- DIVISION 6 CARPENTRY
- 0601. CARPENTRY AND WOOD CONSTRUCTION SHALL BE IN ACCORDANCE WITH CHAPTERS 15, 16 AND 23, OBC AND THE DIKUCIUKAL DKAMINGS
- 0602. EXAMINE SUBSTRATES, STRUCTURE AND INSTALLATION CONDITIONS. DO NOT PROCEED WITH WORK UNDER THIS SECTION UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. a. INSTALLATION CONSTITUTES ACCEPTANCE OF EXISTING CONDITIONS AND RESPONSIBILITY FOR
- SATISFACTORY PERFORMANCE.
  - a. NOMINAL LUMBER SIZES ARE INDICATED, EXCEPT AS SHOWN BY DETAIL DIMENSIONS. PROVIDE ACTUAL 0612. FINISH CARPENTRY AND CABINETS (MILLWORK) SHALL COMPLY WITH THE STANDARDS OF "CUSTOM" QUALITY IN SIZES AS REQUIRED BY U. S. PRODUCT STANDARDS (PS) PS-20 FOR MOISTURE CONTENT SPECIFIED FOR
  - FOR EACH USE b. Provide dressed seasoned dimensioned lumber, 545, KILN-dried with Maximum 15% moisture CONTENT (MC15 OR KD).
- c. SEE STRUCTURAL GENERAL NOTES FOR ADDITIONAL LUMBER INFO.
- a. 🔼 = TRUSJOIST MCMILLIAN CORP. "MICRO=LAM LAMINATED VENEER LUMBER BEAMS, HEADERS 🗗
- APPROVED EQUAL. FURNISH DIMENSIONS AND SIZES INDICATED. b. FURNISH DONGLAS FIR VENEER LUMBER GLUED IN A CONTINUOUS PROCESS WITH ALL GRAIM PARALLEL WITH LENGTH OF MEMBER. BEAMS SHALL BE SINGLE ONE-PIECE LENGTH, FREE OF FINGER JOINTS, SCARF JOINTS OR BEAMS SHALL BE SINGLE ONE-PIECE LENGTH, FREE OF FINGER JOINTS, SCARF JOINTS OR MECHANICAL CONNECTIONS IN FULL LENGTH OF MEMBERS. FURNISH DESIGNASTRESSES AS FOLLOWS: I. EXTREME FIBER STRESS IN BENDING (FB): 2,900 PSI (FOR 12-INCH, DEEP MEMBERS).
- 3. TENSION PARALLEL TO GRAIN (FT): 1850 psi. . COMPRESSION PARALLEL TO GRAIN (FC) 2,900 psj 5. COMPRESSION PERPENDICULAR TO GRAIN: DOCUST PERPENDICULAR AND PARALLEL TO GLUE LINE. c. 6. HORIZONTAL SHEAR (FV): 290 psi PERPENDICULAR AND PARALLEL TO GLUE LINE. TJI = TRUSJOIST MCMILLIAN CORP. PREFABRICATED WOODS." JU JOISTS OR APPROVED EQUAL. FURNISH DIMENSIONS AND SIZES INDICATED WITH FLANGES NOT LESS THAN 1-1/2" WIDE. FURNISH UNITS
- COMPLYING WITH THE FOLLOWING REQUIREMENTS: I. FLANGE MATERIAL: JOIST MANUFACTURER'S STANDARD 2. WEB MATERIAL: JOIST MANUFACTURER'S STANDARD.

2. MODULUS OF ELASTICITY (E): 2000,000 psi.

3. ALLOWABLE DESIGN STRESSES: AS PUBLISHED BY THE MANUFACTURER, DETERMINED ACCORDING TO D 5055, TO ASTM D 5055, AND DEMONSTRATED BY COMPREHENSIVE TESTING PERFORMED QUALIFIED INDEPENDENT TESTING LABORATORY.

MANUFACTURED BY BONDING STRESS-GRADED LUMBER FLANGES TO APA-PERFORMANCE-RATED PANEL

WEBS WITH EXTERIOR-TYPE ACHESIVES COMPLYING WITH ASTM D 2534 TO PRODUCE "I" SHAPED JOISTS

- ADHESIVES TO BE ASTM D 2559 WATERPROOF TYPE.
- 0605. CONSTRUCTION PANELS/PLYWOOD: a. Sub-Looring: Apa rated sheathing, span rating 32/16, tongue and groove, exterior glue, CONFORMING WITH PS 1-95 SPECIFICATIONS. THICKNESS AS NOTED ON DRAWINGS.
- I. INSTALL IN ACCORDANCE WITH U.L. DESIGN FIRE RESISTANCE RATING DETAILS AS SHOWN ON THE b. UNDERLAYMENT: APA UNDERLAYMENT INT WITH EXTERIOR GLUE OR APA UNDERLAYMENT CC PLUGGED EXT, SQUARE EDGE, CONFORMING WITH PS 1-95 SPECIFICATIONS. THICKNESS AS NOTED ON DRAWINGS.
- I. INSTALL IN ACCORDANCE WITH U.L. DESIGN FIRE RESISTANCE RATING DETAILS AS SHOWN ON THE C. ROOF SHEATHING: APA STRUCTURAL I & II RATED SHEATHING EXT, SPAN RATING 16/0, CONFORMING WITH PS 1-95 SPECIFICATIONS. THICKNESS AS NOTED ON DRAWINGS.
- d. WALL SHEATHING AND BRACING: APA RATED SHEATHING EXT, SPAN RATING 32/16, CONFORMING WITH PS 1-95 SPECIFICATIONS. THICKNESS AS NOTED ON DRAWINGS. e. Electrical and telephone equipment backing panels to apa ac ext, fire-retardant treated PLYWOOD, 3/4" MINIMUM THICKNESS.
- BOARD (OSB), AND COMPOSITE STRUCTURAL PANELS, (COM-PLY) MEETING APA PRP-108 PERFORMANCE STANDARDS WILL BE ACCEPTABLE FOR CONSTRUCTION PANELS q. UNDERLAYMENT BOARD: INSTALL "RECOVERY BOARD" FOR MEMBRANE ROOFING IN ACCORDANCE WITH ROOFING MANUFACTURER'S POLISHED SPECIFICATIONS AND DETAILS. FURNISH UNDERLAYMENT BOARD OF HIGH DENSITY WOOD FIBERBOARD WITH ASPHALT COATED EAGHIO, 1/2 "THICK IN MANUFACTURER'S

F. EXCEPT WHEN PLYWOOD PANELS ARE SPECIFIED, CONSTRUCTION PANELS INCLUDING ORIENTED STRAND

I. COMPRESSIVE STRENGTH: 2. DENSITY: 15.5 pcf.

3. R VALUE: 1.23

STANDARD PANEL SIZES

- 0606. UNLESS OTHERWISE NOTED, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE PROPERLY DESIGNED CONNECTORS FOR THE END SUPPORT OF ALL MEMBERS. AS A MINIMUM, CONNECTIONS FOR STRUCTURAL MEMBERS SHALL CONFORM TO THE FASTENING SCHEDULE LISTED IN SECTION 2304.9, TABLE 2304.9.1, OBC. a. JOIST TO BEAMS, 16 GA. GALVANIZED JOIST HANGERS BY SIMPSON STRONG-TIE CO. PROVIDE SLOPED
  - AND/OR SKEWED HANGERS WHERE REQUIRED. b. PROVIDE GALVANIZED STEEL CONNECTORS, WITH STEEL GAUGE AS NOTED, FOR WOOD FRAMING AS MANUFACTURED BY SIMPSON "STRONG-TIE" COMPANY. USE ONLY FASTENERS AS REQUIRED BY THE MANUFACTURER.
- 0607. MISCELLANEOUS FRAMING REQUIREMENTS. a. USE CONTINUOUS, HORIZONTAL STAGGERED, SOLID 2x WOOD BLOCKING AT MAX IO' INTERVALS IN STUD

WALL CAVITIES EXCEEDING IO' IN HEIGHT

- b. PROVIDE A SINGLE, SILL PLATE AT THE BOTTOM AND A DOUBLE PLATE AT THE TOP OF ALL STUD WALLS. MATCHING STUD WIDTH. I. FIRE BARRIER WALL SILL PLATES SHALL BE PRESSURE TREATED WOOD AND SHALL BE ANCHORED TO THE
- FLOOR SLAB AS DETAILED. SILL PLATES SHALL BE FREE OF FINGER JOINTS, SCARF JOINTS OR MECHANICAL CONNECTIONS IN FULL. c. FURNISH WOOD HEADERS OVER OPENINGS IN ACCORDANCE WITH THE DRAWINGS.

ALL PRESSURE TREATED WOOD SHALL COMPLY WITH AWPA C2 OR C9-70 REQUIREMENTS AND SECTION

- d. FURNISH AND INSTALL WOOD BRIDGING, BLOCKING, BRACING, ETC. FOR PREFABRICATED WOOD ROOF TRUSSES AS INDICATED ON THE TRUSS MANUFACTURER'S APPROVED SHOP DRAWINGS. 0608. ALL LUMBER IN CONTACT WITH THE EARTH, CONCRETE AND/OR MASONRY SHALL BE PRESSURE TREATED.
- 0609. PROVIDE ALL ROUGH CARPENTRY FOR WOOD BARRICADES, BRACING, BLOCKING, ETC., AS NEEDED OR
- 0610. FURNISH AND INSTALL PREFABRICATED WOOD ROOF TRUSSES AND GIRDERS AS SHOWN ON THE DRAWINGS. TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH TRUSS PLATE INSTITUTE (TPI) DESIGN SPECIFICATIONS TPI 1-95, NATIONAL DESIGN SPECIFICATIONS (NDS) FOR WOOD CONSTRUCTION AND SECTION 2303.4, OBC AND WITH THE LATEST EDITION OF THE "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" AS RECOMMENDED BY THE AMERICAN FOREST AND PAPER ASSOCIATION.
  - I. LUMBER: SPECIES PER DESIGN BY TRUSS MANUFACTURER; NO. 2 GRADE OR BETTER, I5% MAXIMUM M.C. 2, CONNECTIONS: ALL INTERNAL CONNECTIONS ARE TO BE DESIGNED BY THE TRUSS MANUFACTURER. METAL CONNECTOR PLATES TO BE GALVANIZED SHEET STEEL ASTM A 446, GRADE A. COATING GLASS G 60 3. HANGERS AND SEATS: ALL TRUSS TO TRUSS HANGERS, GIRDER TO COLUMN SEATS ARE TO BE DESIGNED AND PROVIDED BY THE TRUSS MANUFACTURER.
- I. SEE STRUCTURAL DRAWINGS FOR LOADING REQUIREMENTS AND ADDITIONAL INFORMATION. 2, IN ADDITION TO THE UNIFORM LOADS INDICATED ON THE DRAWINGS, DESIGN TRUSSES AND GIRDERS FOR ALL SUPERIMPOSED DEAD LOADS INCLUDING BUT NOT LIMITED TO OVERLAY FRAMING, CHIMNEYS, MECHANICAL EQUIPMENT, ETC.
- 3. DESIGN OF MEMBERS AND CONNECTIONS IS TO BE BY A PROFESSIONAL ENGINEER, REGISTERED IN OHIO, EXPERIENCED IN SIMILAR DESIGNS, RETAINED BY THE MANUFACTURER. 4. THE DESIGN OF ALL HANGER CONNECTIONS AND SEATS SHALL BE THE RESPONSIBILITY OF THE TRUSS c. SUBMITTALS.
- 2. SUBMIT LAYOUT DRAWING WHICH INDICATES THE LOCATION OF EACH TRUSS AND GIRDER TRUSS.

I. SUBMIT TRUSS SHOP DRAWINGS WHICH EXHIBIT THE SEAL OF THE ENGINEER RESPONSIBLE FOR THE TRUSS

- SUBMIT HANGER CONNECTOR AND SEATS TYPES AND LOCATIONS. d. ROOF TRUSS DESIGN LOADINGS - SEE STRUCTURAL GENERAL NOTES
- e. TRUSS MANUFACTURER TO SUBMIT ERECTION PLAN AND SHOP DRAWINGS, BEARING THE SIGNARURE AND SEAL OF AN ENGINEER REGISTERED IN THE STATE OF OHIO CONFORMING TO THE DESIGN CRITERIA SPECIFIED HEREIN, FOR APPROVAL AND PRIOR TO FABRICATION. SUBMITTED DATA TO CONTAIN:
- DESIGN LOADINGS AND ALLOWABLE STRESS INCREASES EMPLOYED CALCULATED TRUSS MEMBER STRESSES RATED LOAD CAPACITY OF THE TRUSS MEMBER CONNECTION
- SIZE, SPECIES, AND STRESS-GRADE OF LUMBER EMPLOYED FABRICATION DETAILS INDICATING LOCATION OF CONNECTORS
- PERMANENT BRIDGING/BRACING MEMBERS, LOCATIONS AND DETAILS HANDLLING AND ERECTION INSTRUCTIONS

TRUSS-TO-TRUSS CONNECTION DETAILS

SURFACE MOUNTED ITEMS AND EQUIPMENT, ETC.

SOUND WALLS AS SHOWN ON THE DRAWINGS.

WRITTEN INSTRUCTIONS

SEE DIVISION 3.

0705 THRU 711 - NOT USED.

- FAILURE TO FURNISH ANY OF THE ABOVE REQUIRED DATA WILL BE REGARDED AS AMPLE REASON FOR THE REJECTION OF THE SHOP DRAWINGS. THE CONTRACTOR SHALL APPROVE FABRICATION DRAWINGS INDICATING SIZE SHAPE AND LAYOUT PRIOR TO SUBMITTAL FOR REVIEW BY THE ARCHITECT.
- 9. CONNECTOR PLATES SHALL BE A MINIMUM OF 0.036" IN THICKNESS AND SHALL BE FORMED. MANUFACTURED FROM MATERIAL MEETING THE REQUIREMENTS OF ASTM A-446, GRADE A,

OGII. HANDLEXAND EREBE, BROWIDNIAED ANCAORKORIDENICES WAYED THIRINGSTALLA BRZSCARG (DTGPEORFTRIAGEDS) IN

- STRICT ACCORDANCE WITH TPI'S "BRACING WOOD TRUSSES" BWT-76, OR LATEST EDITION, AND THE TRUSS MANUFACTURER'S PROCEDURES AND SPECIFICATIONS. a. INSTALL ALL PERMANENT BRACING AND COMPONENTS PRIOR TO APPLICATION OF LOADS TO TRUSSES.
- ACCORDANCE WITH THE ARCHITECTURAL WOODWORK INSTITUTE STANDARDS, TITLED, "ARCHITECTURAL WOODWORK QUALITY THE CONTRACTOR SHALL PROVIDE ALL NECESSARY/REQUIRED 2 X WOOD STANDARDS", LATEST EDITION. MILLWORK, MILLWORK SUPPLIER/INSTALLER SHALL PROVADE AND INSTALL BLOCKING FOR ANCHORING FINISH HARDWARE FOR ALL CADINETS.

a. FURNISH ALL NECESSARY/REQUIRED 2 X WOOD BLOCKING FOR ANCHORING, GRAB BARS, RECESSED ITEMS,

- 0613. FURNISH AND INSTALL ALL CLOSET AND STORAGE SHELVING AS SHOWN AND/OR NOTED ON THE DRAWINGS. USE AWI CUSTOM GRADE, SECTION 600, AD-INT-APA PLYWOOD WITH HARDWOOD EDGE NOSING, MINIMUM 3/4" THICK. AERIFY ALL SHELVING REQUIREMENTS WITH OWNER.
- 0614. FURNISH AND INSTALL ROUGH HARDWARE OF EVERY KIND AND DESCRIPTION REQUIRED TO COMPLETE THE BUILDING. FURNISH AND INSTALL FINISH HARDWARE PER DIVISION 8 OF THESE GENERAL NOTES.
- 0615. ALL EXTERIOR FASTENINGS, NAILS, ETC., TO BE NON-STAINING AND NON-CORROSIVE. 0616. PROVIDE AND INSTALL ALL PLASTIC LAMINATE, COMPLETE, IN PLACE, AS SHOWN ON THE DRAWINGS AND AS NEEDED FOR A COMPLETE AND PROPER INSTALLATION.
- O MANUFACTURER'S: WILSON ART, WESTINGHOUSE OR GENERAL ELECTRIC. 0617. FURNISH AND INSTALL CARPENTRY-RELATED ITEMS SUCH AS INSULATION, WEATHERSTRIPPING, CAULKING, LOUVERS, ETC., AS NOTED/SHOWN ON THE DRAWINGS.

a. PLASTIC LAMINATES SHALL HAVE "HIGH WEAR" TYPE FINISH IN ACCORDANCE WITH NEMA LD 3.

- DIVISION 7 THERMAL AND MOISTURE PROTECTION
- 0701. THERMAL INSULATING MATERIALS SHALL BE IN ACCORDANCE WITH CHAPTER 7 OBC. INSULATING MATERIALS SHALL HAVE A FLAME SPREAD RATING OF 15 OR LESS, AND SMOKE-DEVELOPED RATING OF 450 OR LESS. THE WORK UNDER THIS SECTION UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
- a. INSTALLATION CONSTITUTES ACCEPTANCE OF EXISTING CONDITIONS AND RESPONSIBILITY FOR SATISFACTORY PERFORMANCE. 0703. FURNISH AND INSTALL APPROPRIATE INSULATIONS FOR SLAB EDGES, EXTERIOR WALLS, ATTIC SPACES AND
- a. RIGID INSULATION FOR CONCRETE FLOOR-SLAB-PERIMETER SHALL BE DOW CHEMICAL STYROFOAM "SM" OR EQUAL. FURNISH THICKNESSES AND "R" VALUES AS NOTED ON THE DRAWINGS. I. IF NOT OTHERWISE INDICATED, EXTEND INSULATION A MINIMUM OF 24 INCHES BELOW EXTERIOR GRADE LINE. INSTALL PERIMETER INSULATION ON VERTICAL SERVICES BY SETTING UNITS IN ADHESIVE.
- b. OPEN CELL SPRAYED FOAM INSULATION @ R 3.5 PER INCH AT EXTERIOR WALLS. c. <del>"Faced Mineral\_Fiber blank</del>et insulation: Astm *c 66*5 type III, Cl<del>ass A. Category I, Faced With</del> FOIL-SCRIM-KRAFT, FOIL-SCRIM, OR FOIL-SKIM-POLYETIMLENE VAPOR-RETARDER MEMBRANE ON ONE EACE, FURNISH THICKNESSES AND "R" VALUES AS NOTED ON THE DRAWINGS.
- d. GLASS-FIBER LOOSE-FILL INSULATION: ASTM C 764 FOR TYPE (METHOD OF APPLICATION) INDICATED BELOW. FURNISH THICKNESSES AND "R" VALUES AS NOTED ON THE DRAWINGS. I. TYPE I FOR PNEUMATIC APPLICATION.
- 2. TYPE 2 FOR POURED APPLICATION. e. INSTALL MINERAL FIBER BLANKET INGULATION ACCORDING TO ASTM C 1320, LOOSE-FILL GLASS-FIBER <u>INGULATION ACCORDING TO ASTM C 1015 AND MANUFACTURER'S WRITTEN INSTRUC</u> F. INSTALL EAVE VENTILATION BAFFLES AT ROOF TRUSSES IN ACCORDANCE WITH MANUFACTURER'S
- 0704. INSTALL 6 MIL POLYETHYLENE, INTERIOR, VAPOR BARRIER UNDER GYPSUM BOARD AT ALL INSULATED EXTERIOR a. ALL INTERIOR SLABS-ON-GRADE TO HAVE 6 MIL POLYETHYLENE FILM MOISTURE BARRIER UNDERLAYMENT.

- 0712. FORMED METAL PANELS AND ACCESSORIES
  - a. FURNISH AND INSTALL STEEL ROOF PANELS, STEEL WALL PANELS, STEEL CEILING PANELS, STEEL ACCESSORIES, FLASHINGS, SOFFITS, CLOSURE TRIMS, SEALANTS, ETC AS REQUIRED FOR A WEATHERPROOF INSTALLATION AS ILLUSTRATED ON THE DRAWINGS. ALL METAL
- COMPONENTS TO BE FACTORY FINISHED AS DESCRIBED HEREIN. b. PROVIDE TWO YEAR MFR'S WARRANTY FROM DATE OF COMPLETION FOR ANY COMPONENTS OF THE METAL PANEL SYSTEMS THAT FAIL IN MATERIALS OR WORKMANSHIP WITHIN THE
- c. PROVIDE 30 YEAR WARRANTY FROM DATE OF COMPLETION FOR PANEL FINISHES. MFR AGREES TO REPAIR THE FINISH OR REPLACE METAL PANELS THAT SHOW EVIDENCE OF DETERIORATION OF FACTORY-APPLIED FINISHES WITHIN THE SPECIFIED WARRANTY PERIOD.
- d. METAL PANEL TESTING REQMTS: d.a. WIND LOAD AS REQD BY CODE - ASTM EI592. MAX WIND LOAD DEFLECTION = 1/180
- OF SPAN AIR INFILTRATION OF NOT MORE THAN 0.06 CFM/SF - ASTM E 283 AT TEST PRESSURE
- DIFF OF 6.24 LBF/SF. ZERO WATER PENETRATION - ASTM E 331 AT TEST PRESSURE DIFF OF 6.24 LBF/SF FIRE RESISTANCE RATING - ASTM E 119.
- e. PANELS ARE TO ALLOW FOR THERMAL MOVEMENTS FROM AMBIENT AND SURFACE TEMPERATURE CHANGES IN ORDER TO PREVENT BUCKLING, OPENING OF JOINTS, OVERSTRESSING OF COMPONENTS, FAILURE OF JOINT SEALANTS, FAILURE OF CONECTIONS AND OTHER DETERIMENTAL EFFECTS.
- FABRICATION: F.A. FABRICATE AND FINISH PANELS AT FACTORY, AS NECESSARY TO FULFILL TESTING
- PROVIDE PANEL PROFILE, INCLUDING MAJOR RIBS AND INTERMEDIATE STIFFENING RIBS FOR FULL LENGTH OF PANEL.
- FABRICATE METAL PANEL JOINTS WITH FACTORY-INSTALLED CAPTIVE GASKETS OR SEPERATOR STRIPS THAT PROVIDE A WETHERTIGHT SEAL AND PREVENT METAL TO METAL CONTACT AND THAT MINIMIZE NOISE FROM MOVEMENTS F.d. FABRICATE FLASHING AND TRIM TO COMPLY WITH MANUFACTURER'S
- RECOMMENDATIONS AND RECOMMENDATIONS IN SMACNA'S "ARCHITECTURAL SHEET METAL MANUAL" THAT APPLY TO DESIGN, DIMENSIONS, METAL AND OTHER CHACTERISTICS OF ITEM INDICATED.

FINISHES - ALL PANELS AND ACCESSORIES:

- THREE COAT FLUOROPOLYMER: AAMA 621. FLUOROPOLYMER FINISH CONTAINING NOT LESS THAN 70 % PVDF RESIN BY WEIGHT IN BOTH COLOR-COAT AND CLEAR TOP-COAT. COLORS AS SELECTED BY THE ARCHITECT FROM THE MFR'S FULL RANGE OF
- SILICONIZED POLYESTER: EPOXY PRIMER AND SILICONE-MODIFIED, POLYESTER-ENAMEL TOPCOAT; WITH A DRY FILM THICKNESS OF NOT LESS THAN 0.2 MIL FOR PRIMER AND 0.8 MIL FOR TOPCOAT.

CONCEALED FINISH: WHITE OR LIGHT COLORED ACRYLIC OR POLYESTER BACKER

- h. PRODUCTS h.a. PROVIDE FACTORY FORMED STEEL PANELS DESIGNED TO BE FIELD ASSEMBLED BY LAPPING SIDE EDGES OF ADJACENT PANELS AND MECHANICALLY ATTACHING PANELS TO SUPPORTS USING EXPOSED FASTENERS IN SIDE LAPS. INCLUDE ACCESSORIES
- REQUIRED FOR WEATHERTIGHTINSTALLATION. EXTERIOR WALL AND ROOF PANELS TO BE 24" WIDE (MIN), 26 GA, WITH 7/8" HIGH RAISED TAPERED TRAPEZOIDAL MAJOR RIBS AT 9" O.C. AND INTERMEDIATE STIFFENING RIBS SYMMETRICALLY SPACED BETWEEN MAJOR RIBS.

INTERIOR CEILING (LINER) PANELS TO BE 16" WIDE, 29 GA, PERFORATED FOR SOUND

- CONTROL, WITH 7/8" HIGH RAISED TAPERED TRAPEZOIDAL MAJOR RIBS AT 9" O.C. AND INTERMEDIATE STIFFENING RIBS SYMMETRICALLY SPACED BETWEEN MAJOR RIBS, WITH 4 MIL VAPOR BARRIER ADHERED TO BACKSIDE. ALL PANELS TO BE FORMED FROM ZINC-COATED (GALVANIZED) STEEL SHEET COMPLYING WITH ASTM A653 / A653M, 690 (Z275) COATING DESIGNATION, OR ALUMINUM-ZINC ALLOY-COATED STEEL SHEET COMPLYING WITH ASTM A729 /
- QUALITY. PREPAINTED TY THE COIL-COATING PROCESS TO COMPLY WITH ASTM PROVIDE ACCESSORY COMPONENTS AS REQUIRED FOR A COMPLETE, WEATHERTIGHT PANEL SYSTEM INCLUDING TRIM, COPINGS, FASCIA, RAKES, EAVES, MULLIONS, SILLS, CORNER UNITS, CLIPS, FLASHINGS, SEALANTS, GASKETS, FILLERS, AND SIMILAR ITEMS.

AT29M, CLASS AZ50 (CLASS AZMI50) COATING DESIGNATION, STRUCTURAL

- MATCH MATERIAL AND FINISH OF METAL PANELS UNLESS OTHERWISE INDICATED. PROVIDE METAL BACKING PLATES AT PANEL END SPLICES, FABRICATED FROM MATERIAL RECOMMENDED BY MFR. PROVIDE CLOSED-CELL, EXPANDED, CELLULAR, RUBBER OR CROSSLINKED, POLYOLEFIN-FOAM OR CLOSED-CELL LAMINATED POLYETHYLENE; MINIMUM I"
- THICK, FLEXIBLE CLOSURE STRIPS: CUT OR PREMOLDED TO MATCH METAL PANEL PROFILE. PROVIDE CLOSURE STRIPS WHERE INDICATED OR NECESSARY TO ENSURE WEATHERTIGHT CONSTRUCTION. h.e. PANEL FASTENERS TO BE SELF-TAPPING SCRES DESIGNED TO WITHSTAND DESIGN LOADS. PROVIDE EXPOSED FASTENERS WITH HEADS MATCHING COLOR OF PANELS BY

MEANS OF PLASTIC CAPS OR FACTORY-APPLIED COATING. PROVIDE EPDM OR PVC

BEARING ON WEATHER SIDE OF PANES IN UNIFORM VERTICAL AND HORIZONTAL ALIGNMENT

- SEALING WASHERS FOR EXPOSED FASTENERS PROVIDE PANEL SEALANT TYPES AS RECOMMENDED BY MFR THAT ARE COMPATIBLE WITH PANEL MATERIALS, ARE NONSTAINING AND DO NOT DAMAGE PANEL FINISH. h.f.a. COLORS OF ALL EXPOSED SEALANTS AS SELECTED INSTALL PANELS AND ASSOCIATED ITEMS TRUE TO LINE, WITH GASKETED FASTENERS
- AND SPACING AS RECOMMENDED BY MANUFACTURER. INSTALL SCREW FASTENERS USING PROPER TOOLS HAVING CONTROLLED TORQUE ADJUSTED TO OBTAIN CONTROLLED UNIFORM COMPRESSION FO RPOSITIVE SEAL WITHOUT RUPTURE OF WASHER OR DAMAGE TO SCREW THREADS OR DAMAGE TO PANEL. ALL SCREWS TO BE INSTALEED IN PREDRILLED HOLES. PROVIDE SEALANT OR TAPE BETWEEN PANELS AND PROTRUDING EQUIPMENT, VENTS AND
- ACCESSORIES. NEST PANEL SPLICES WITH MIN 6" END LAP, SEALED WITH SEALANT AND FASTENDED TOGETHER BYINTERLOCKING CLAMPING PLATES. PROVIDE NEAT AND WEATHERTIGHT ENCLOSURE. k. INSTALL ALL ACCESSORIES WITH POSITIVE ANCHORAGE TO BUILDING AND WEATHERTIGHT
- MOUNTING. PROVIDE FOR THERMAL EXPANSION. COORDINATE INSTALLATION WITH FLASHINGS AND OTHER COMPONENTS. FLASHING AND TRIM INSTALLATION TO COMPLY WITH MFR'S WRITTEN INSTALLATION INSTRUCTIONS AND SMACNA'S " ARCHITECTURAL SHEET METAL MANUAL." PROVIDE CONCEALED FASTNERS WHERE POSSIBLE. PROVIDE PERMANTLY WATERTIGHT INSTALLATION.

PROVIDE OGEE ALUMINUM GUTTERS AND STANDARD DOWN SPOUTS AS SHOWN ON THE DRAWINGS. INSTALL

- AND SUPPORT GUTTER AND DOWN SPOUTS IN ACCORDANCE WITH LATEST INSTALLATION INSTRUCTIONS FROM GUTTER MANUFACTURER AND S.M.A.C.N.A. DETAILS. ALL GUTTER WORK SHALL BE JOINED AND OVERLAPPED
- AS REQUIRED TO PRODUCE A WEATHER AND WATER TIGHT SYSTEM. a. 5" O.G., GUTTER O.O27 INCHES THICK MINIMUM. b. 3" X 4", DOWN-SPOUT 0.027 INCHES THICK MINIMUM.
- c. METAL SHEET MANUFACTURER: ALCOA, WOLVERINE AND ALSIDES OR OWNER APPROVED EQUAL. d. COLOR(S) AS SELECTED BY OWNER. e. DOWN SPOUTS TO DRAIN IN ACCORDANCE WITH CITY OF LANCASTER REQUIREMENTS. 0702. EXAMINE SUBSTRATES, STRUCTURE AND INSTALLATION CONDITIONS. DO NOT PROCEED WITH ANY PORTION OF 0714. FURNISH CONTINUOUS RIDGE VENTILATOR. INSTALL VENTILATING RIDGE CAP WITH VENTILATING MESH HAVING A MINIMUM NET FREE AREA AS INDICATED ON DRAWINGS. PROVIDE LOW PROFILE RIDGE CAP WITH VERSA VENT
  - MFR'S WRITTEN INSTRUCTIONS. FURNISH VENT BAFFLES TO PREVENT SNOW AND RAIN ENTERING AND WEEP HOLES TO ALLOW WATER TO DRAIN TO ROOF.
  - FURNISH AND INSTALL GLASS FIBER OR MINERAL WOOL, I" X 8" MINIMUM, INSULATING SILL SEALER UNDER
  - PRESSURE TREATED WOOD "SILL" PLATE OVER MASONRY/CONCRETE FOUNDATION WALLS. 0717 - 0718 NOT USED.
  - OTI9. EXTERIOR CAULKING SHALL BE ELASTIC, NON-STAINING, NON-CORRODING, "G.E. SILICONE". INTERIOR CAULKING SHALL BE ELASTIC, NON-STAINING, NON-CORRODING, SHERWIN WILLIAMS ACRYLIC LATEX, PAINTABLE, 20 YEAR TYPE OR APPROVED EQUAL. a. SEAL ALL LOCATIONS WHICH REQUIRE SEALING TO PREVENT INFILTRATION OF AIR, WATER AND INSECTS.

RIDGE VENT MATERIAL APPLIED AT UNDERSIDE OF VENT CAP (OR APPROVED EQUAL SYSTEM). INSTALL PER

MANUFACTURER FOR APPLICATION INDICATED. USE ROD DIAMETER THAT WILL CAUSE COMPRESSION WHEN 0720. FURNISH AND INSTALL ALL NECESSARY MATERIALS INCLUDING INTUMESCENT WRAP, RESTRICTING COLLARS, ANDCAULK REQUIRED TO FIRE PROOF SEAL ALL OPENINGS INCLUDING PENETRATIONS OF PIPES, CABLES AND

b. Install sealant backer rods, except where recommended to be omitted by sealant

- CONDUITS, IN FIRE RATED WALL, CEILING AND FLOOR ASSEMBLIES. a. USE ONLY MATERIALS CLASSIFIED BY UL TO PROVIDE FIRE STOPPING EQUAL TO TIME RATING OF CONSTRUCTION ASSEMBLY BEING PENETRATED. FURNISH ASBESTOS FREE MATERIALS AS TESTED IN
- b. FIRE BARRIER MATERIALS. I. GYPSUM BOARD WALLS AND CEILINGS: 3M CERAMIC MATERIALS DEPARTMENT MPWI25.0I PRODUCTS AND U.L. PENETRATION FIRESTOP NO. WLIOIO-C FOR GYPSUM BOARD WALLS AND CEILINGS WITH

ACCORDANCE WITH UL 1479 AND ASTM E 814.

MANUFACTURED BY DOW CORNING CORP. 2. INTUMESCENT WRAP/STRIP: 3M, FIRE BARRIER FS-195. 3. RESTRICTING COLLARS: 3M, FIRE BARRIER RC-I, 30 GAUGE, GALVANIZED STEEL.

4. FIRE BARRIER CAULK: 3M. CP 25 N/S AND CP 225 L ACCORDING TO APPLICATION.

C. SEAL PENETRATIONS AGAINST THE PASSAGE OF FIRE, SMOKE OR OTHER GASES. INSTALL MATERIALS IN STRICT ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS AND SPECIFICATIONS.

2 HOUR RATING, SILICONE SEALANT TO BE 3M FIRE BARRIER SEALANT 2000 (NON-SLUMP)

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> STEPHEN LUCHTENBERG 8546

DRAWING NUMBER

Stephen M. Luchtenberg License No. 8546 Expiration Date: December 31, 2017

> **ARCHITECTURAL** GENERAL NOTES

0802. EXAMINE SUBSTRATES, STRUCTURE AND INSTALLATION CONDITIONS. DO NOT PROCEED WITH WORK UNDER THIS SECTION UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. a. INSTALLATION CONSTITUTES ACCEPTANCE OF EXISTING CONDITIONS AND RESPONSIBILITY FOR

### 0803. STEEL DOORS AND FRAMES.

SATISFACTORY PERFORMANCE.

a. PROVIDE FULL FLUSH STEEL DOORS IN DIMENSIONS AND TYPES AS SHOWN ON THE DRAWINGS, LABELED OR NON-LABELED AS INDICATED ON THE DOOR SCHEDULE IN THE DRAWINGS. FURNISH 20 GAUGE FOR INTERIOR DOORS AND 18 GAUGE, GALVANIZED, FOR EXTERIOR DOORS, OR GAUGE AS REQUIRED FOR THE FIRE RESISTANCE RATING REQUIREMENTS, PROPERLY REINFORCED FOR THE FINISHED HARDWARE SELECTED. FACTORY PRIME DOORS FOR FIELD APPLIED FINISHES. APPLIED FINISHES. I. SECURE TEMPLATES FROM THE FINISH HARDWARE SUPPLIER, AND ACCURATELY INSTALL, OR MAKE

b. Flush Metal Door Frames shall be formed from Minimum 18 gauge. Interior, and 16 gauge. GALVANIZED, EXTERIOR, COLD ROLLED STEEL WITH 2" FACES. FURNISH SHAPES AS INDICATED ON THE DRAWINGS. USE ONLY DOOR FRAMES RATED FOR HEAVY DUTY EXTERIOR USE.

c. Install steel doors and frames in accordance with manufacturer's instructions and final

I. ANCHOR COMPONENT PARTS SECURELY IN PLACE BY BOLTING, OR OTHER PERMANENT MECHANICAL ATTACHMENT SYSTEM, WHICH WILL COMPLY WITH PERFORMANCE REQUIREMENTS. USE CONCEALED FASTENERS WHEREVER POSSIBLE.

d. MANUFACTURER: STEELCRAFT MANUFACTURING CO. AND REPUBLIC DOOR CORP.

### 0804. NOT USED.

### 0805. NOT USED.

0806. DOOR HARDWARE SHALL COMPLY WITH SECTIONS 1003.3.1.8 AND 1003.3.1.8.1, OBC, CHAPTER II, OBC AND THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG). DOORS LEADING TO DANGEROUS AREAS SUCH AS LOADING PLATFORMS, UTILITY ROOMS, FURNACE ROOMS, ETC. SHALL BE EQUIPPED WITH KNOBS THAT HAVE A KNURLED FINISH.

a. ALL HARDWARE SHALL MEET OR EXCEED FEDERAL SPECIFICATION FF HI06C AND ANSI A 156.2, GRADE 2. b. INSTALL HARDWARE IN STRICT COMPLIANCE WITH MANUFACTURER'S INSTRUCTIONS AND ADAAG REQUIREMENTS. SET UNITS LEVEL

PLUMB AND TRUE TO LINE AND LOCATION. ADJUST AND REINFORCE ATTACHMENT SUBSTRATE AS

REQUIRED FOR PROPER INSTALLATION AND OPERATION. c. MANUFACTURERS OR OWNER APPROVED EQUAL.

I. HINGES; HAGER, STANLEY, MCKINNEY. 2. LOCKSETS; SCHLAGE, SARGENT, MARKS

3. CLOSERS; SARGET, NORTON, LCN. 4. TRIM AND STOPS: ROCKWOOD, HAGER, IVES.

5. THRESHOLDS; NATIONAL GUARD, HAGER, PEMKO. 6. WEATHERSTRIP; NATIONAL GUARD, HAGER, PEMKO.

d. SEE HARDWARE SCHEDULE. 0807. GLAZING SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH CHAPTER 24 OBC. SAFETY GLAZING MATERIALS SHALL BE PROVIDED WHERE SHOWN ON THE DRAWINGS. SAFETY GLAZING IN DOORS, FIXED PANELS ADJACENT TO DOORS, RAMPS, STAIRS AND SHOWER DOORS SHALL COMPLY WITH THE REQUIREMENTS FOR HUMAN IMPACT LOADS, SECTION 2406, OBC, SAFETY STANDARDS FOR ARCHITECTURAL GLAZING MATERIALS LISTED IN APPENDIX "A", OBC, THE CONSUMER COMMISSION, CPSC 16-CFR, Part 1201 and

a. ALL EXTERIOR DOORS AND WINDOWS TO HAVE INSULATING GLAZING.

### 0808. NOT USED.

### 0809. SECTIONAL OVERHEAD DOORS.

a. PROVIDE SECTIONAL OVERHEAD DOORS IN DIMENSIONS AND TYPES AS SHOWN AND SPECIFIED ON THE DWGS. I. FURNISH STANDARD GALVANIZED STEEL TRACK ASSEMBLY

2. FURNISH 120 VOLT, I/2 HP ELECTRIC, CHAIN DRIVEN, OPERATOR. FURNISH INTERIOR OPERATOR SWITCH AND ALL AUTOMATIC REVERSE OPERATION SAFETY DEVICES.

3. FURNISH LIFTING HANDLES AND KEYED LOCKING BAR.

4. PROPERLY REINFORCED DOORS AND FRAMES FOR THE FINISHED HARDWARE SELECTED. b. INSTALL MATERIALS AND SYSTEMS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. INSTALL ALL COMPONENTS IN PROPER RELATION TO ADJACENT CONSTRUCTION AND WITH UNIFORM APPEARANCE. ANCHOR COMPONENT PARTS SECURELY IN PLACE BY BOLTING, OR OTHER PERMANENT MECHANICAL. ATTACHMENT SYSTEM, WHICH WILL COMPLY WITH PERFORMANCE REQUIREMENTS. USE CONCEALED ASTENERS WHEREVER POSSIBLE.

c. DOOR MANUFACTURER: HAAS DOOR, MODEL # 112 OR APPROVED EQUAL BY OVERHEAD DOOR CORP., WAYNE DALTON CORP OR RAYNOR GARAGE DOOR CO.

### d. DOOR OPERATOR: LIFTMASTER, MODEL # MT5011 OR APPROVED EQUAL 0810. ATTIC ACCESS HATCHES

- a. 24"x36" FLUSH PANEL WITH CONCEALED SPRING HINGES TO ALLOW FOR 175 DEGREE
- OPENING, CAM LOCKS, FACTORY POWDER COAT FINISH, COLOR AS SELECTED BY OWNER. b. PROVIDE DOUBLE 2XIO FRAMED OPENING BETWEEN BOTTOM CHORD OF ROOF TRUSSES SO
- c. ADHERE R-30 BATT INSULATION TO TOP SIDE OF ACCESS DOOR TO PROVIDE CONTINUOUS ATTIC INSULATION.
- d. INSTALL PER MFR'S INSTRUCTIONS. e. MILCOR MODEL # DW 3203-036 OR APPROVED EQUAL.

### DIVISION 9 - FINISHES

0901. EXAMINE SUBSTRATES, STRUCTURE AND INSTALLATION CONDITIONS. DO NOT PROCEED WITH WORK UNDER THIS SECTION UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

a. INSTALLATION CONSTITUTES ACCEPTANCE OF EXISTING CONDITIONS AND RESPONSIBILITY FOR SATISFACTORY

0902. GYPSUM WALLBOARD SYSTEMS SHALL COMPLY WITH CHAPTERS & AND 25 OBC, WITH A CLASS II FINISH IN ACCORDANCE WITH SECTION 803.0 OBC.

0903. FURNISH GYPSUM WALLBOARD IN TYPES AND IN THICKNESSES AS SHOWN ON THE DRAWINGS, USE TYPE "X", "FIRE CODE", WALLBOARD WHERE FIRERATING IS CALLED FOR. PROVIDE ONLY UL LABELED GYPSUM WALLBOARD IN COMPLIANCE WITH ASTM C C 630. a. INSTALLATION WILL COMPLY WITH GYPSUM ASSOCIATION GA 216 "RECOMMENDED SPECIFICATIONS FOR THE

APPLICATION AND FINISHING OF GYPSUM BOARD" AND WALLBOARD MANUFACTURER'S WRITTEN

b. CONSTRUCT CONTROL JOINTS INTO SYSTEM TO COMPLY WITH USG BULLETIN SA923 "GOOD DESIGN PRACTICE" RECOMMENDATIONS. c. USE ONLY FASTENERS, TRIMS, JOINT TREATMENT, ADHESIVES AND ACOUSTICAL SEALANTS APPROVED AND

0904. FURNISH A SUSPENDED ACOUSTICAL CEILING SYSTEM TO CONFORM TO THE REQUIREMENTS OF ASTM C 635

a. WORKMANSHIP SHALL COMPLY WITH CEILING & INTERIOR SYSTEMS CONTRACTORS ASSOCIATION (CISCA) CODE OF PRACTICES.

b. FURNISH LAY-IN PANELS WITH EXPOSED GRID SUSPENSION SYSTEM AND ACCESSORIES WHERE LAY-IN CEILING SYSTEM IS INDICATED ON THE DRAWING

INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

d. MANUFACTURER: GOLD BOND OR U.S. GYPSUM.

I. FURNISH FACTORY EINISHED PANELS AS SELECTED. c. DO NOT START ANY CEILING SUSPENSION SYSTEM WORK UNTIL ALL GYPSUM WALLBOARD IS APPLIED AND

### 🖟. INSTALL ALL TRACKS, HANGER WIRES, TILES, ETC. IN ACCORDANCE THE MANUFACTURER'S DETAILS AND 🦼 SPECIFICATIONS.

NANGER WIRES: ASTM A 641 GALVANIZED CARBON STEEL, SOFT TEMPER, PRESTRETCHED, NOT LEGE

12 CAUGE. 2. SUPPORT ALL FOUR (4) CORNERS OF SUSPENSION SYSTEM AT ALL RECESSED TYPE FLUORESCENT LIGHTING FIXTURES WITH HANGER WIRES.

e. MANUFACTURE ARMSTRONG PRELUDE EXPOSED "TEE" GRID SYSTEM, AND ARMSTRONG MINABOARD PANELS WITH EQUAL SUSPENSION SYSTEMS BY USG INTERIOR (DONN) CEILING SUSPENSION SYSTEMS, OR CHICAGO METALLIC CORPORATION.

f. COLOR, STYLES, TEXTURE, ETC. AS SELECTED BY OWNER.

### 0905. HARD SURFACE FLOOR TILE:

a. FURNISH FLOOR TILES, GROUT AND ALL ACCESSORY PIECES AS REQUIFOR COMPLETE INSTALLATION. b. INSTALL TILES IN ACCORDANCE WITH ANSI A137.1 "CERAMIC TILE" AND THE TILE COUNCIL OF AMERICA (TCA) INSTALLATION HANDBOOK DETAILS, CURRENT EDITION.

PROVISIONS FOR, ALL FINISH HARDWARE AT THE FACTORY c. MFR, COLOR, STYLES, TEXTURE, ETC. AS SELECTED BY OWNER

C. MANUFACTURER: ARMSTRONG OR OWNER APPROVED EQUAL.

d. HARD SURFACE FLOOR TILE ALLOWANCE AS LISTED ON THE BID FORM SHAT INCLUDE ALL FLOOR PREP, ALL MATERIALS AND ALL LABOR COSTS.

0906. SHEET VINYL FLOOR COVERINGS. A. SHEET VINYL SHALL BE CLASS II FLAME SPREAD RATING IN ACCORDANCE WITH THE FOLLOWING FIRE TESTS, ASTM E 84, ASTM E 662 and ASTM E 648. B. O.090 INCHES THICK WITH A MINIMUM WEAR LAYER OF O.050 INSH THICK, COMPLYING WITH ASTM F 1066.

D. COLOR AND STYLE: AS SELECTED BY OWNER. MATERIALS INCLUDING WALL BASE, AND ALL LABOR COSTS.

### 0907. VINYL COMPOSITION TILE (VCT).

a. VCT SHALL BY CLASS II FLAME SPREAD RATING IN ACCORDANCE WITH THE FOLLOWING FIRE TESTS, ASTM E 84, ASTM E 662 AND ASTM E 648.

b. FS SS-7-312, TYPE IV, I/8" X 12" X 12" TILES. . MANOFACTURER: ARMSTRONG EXCELON IMPERIAL MODERN SERIES, COMPARABLE BY AZROCK, FINITKOTE, ? and kentile d/COLOR AND STYLE: AS SELECTED BY OWNER.

0908. VINYL WALL BASE.

a. BASE SHALL COMPLY WITH FEDERAL SPECIFICATION FS SS W 40A, TYPE II. b. FURNISH LONG LENGTH ROLLS OF 6" HIGH AND 4" HIGH, I/6" THICK, SOLID VINYL. COVED AT LOCATIONS

I. SEE ROOM FINISH SCHEDULE ON THE DRAWINGS. c. MANUFACTURER: ARMSTRONG, AZROCK AND FLINTKOTE. d. COLOR AS SELECTED.

a. FURNISH AND INSTALL CARPETING, PADDING, EDGE STRIPS, ACCESSORIES, ETC, WHERE INDIGATED ON THE DRAWINGS. b. Carpet in Corridors, Vertical Exits and Passageways Shall be classified in accordance with ASTM E 648 AND ASTM E 662 TESTING REQUIREMENTS.

c. ALL CARPET MUST PASS THE DOC FF-I "PILL TES I. FURNISH A COPY OF ALL TESTING DATA FOR ANY CARPET TO THE STATE OF OHIO BUILDING CODE F. MFR, COLOR AND STYLE AS SELECTED BY OWNER.

q. CARPET ELECTING ALLOWANCE AS LISTED ON THE BID FORM SHALL INCLUDE ALL FLOOR PREPARATION, HE MATERIALS, AND ALL LABOR COSTS. 0910. PAINTING - GENERAL REQUIREMENTS.

a. FURNISH COATING SYSTEM MATERIALS, INCLUDING SEALERS, PRIMERS, STAINS, FILLERS, EMULSIONS, ENAMELS, SPECIAL COATINGS

I. SURFACE PREPARATION, PRIME, INTERMEDIATE AND FINISH COATINGS FOR INTERIOR AND EXTERIOR SCHEDULED SURFACES AND ITEMS. 2. TOUCH-UP AND FINISH PAINTING OF SHOP PRIMED STRUCTURAL STEEL, METAL FABRICATIONS AND STEEL DOORS AND FRAMES

b. Furnish all Labor. Tools, Plant Equipment, Scaffolds, and Materials to complete all painting WORKIN ACCORDANCE WITH THE DRAWINGS AND THESE GENERAL SPECIFICATIONS. c. NO WORK WILL BE PERMITTED UNTIL ALL CONSTRUCTION ACTIVITIES INVOLVING MOISTURE OR DUST IN

ADJACENT AREAS HAVE BEEN COMPLETED, THE MOISTURE INVOLVED HAS DISSIPATED, AND ADJACENT MASSES HAVE REACHED A CONSTANT CONDITION OF HUMIDITY I. PROVIDE HEAT AS REQUIRED TO MAINTAIN ROOM TEMPERATURE BETWEEN 55 AND 75 DEGREES F.

2. PROVIDE ADEQUATE VENTILATION. d. PERFORM PREPARATION AND CLEANING PROCEDURES IN STRICT ACCORDANCE WITH MANUFACTURER'S

WRITTEN DIRECTIONS AND SPECIFICATIONS. e. MIX, PREPARE AND APPLY PAINT AND FINISH TREATMENT IN STRICT ACCORDANCE WITH MANUFACTURER'S WRITTEN DIRECTIONS AND SPECIFICATIONS.

f. Paints and stains by sherwin Williams Company, or Equal Products by Pratt and Lambert, Inc., BENJAMIN MOORE & COMPANY, DEAN AND BARRY, INC., GLIDDEN, OR A MANUFACTURER AS SELECTED BY

AS TO NOT DISTURB SURROUNDING BLOWN INSULATION WHEN ACCESS DOOR IS IN OPERATION. OII. PAINTING - EXTERIOR FINISH REQUIREMENTS USING SHERWIN-WILLIAMS TYPE PAINTS AND STAINS. a. SURFACES NOT TO BE PAINTED:

I. FACE BRICK, CONCRETE MASONRY UNITS UNLESS OTHERWISE NOTED AND STONE. 2. PREFINISHED METALS.

3. VINYL SIDING, VINYL FENCING, INCLUDING ALL ACCESSORIES. 4. ITEMS WITH FACTORY-APPLIED FINISH, EXCEPT AS SPECIFICALLY NOTED OTHERWISE. b. PAINTED FERROUS METAL FULL GLOSS ALKYD ENAMEL: 2 FINISH COATS OVER PRIMER. PRIMER IS NOT

TOTAL DRY FILM SHOP-PRIMED ITEMS. I. PRIMER: S-W KEM KROMIK METAL PRIMER B50N2/WI. 2. FINISH COATS: S-W INDUSTRIAL ENAMEL B54 SERIES.

c. PAINTED ZING-COATED METAL WITH HIGH GLOSS ALKYD ENAMEL: 2 FINISH COATS OVER PRIMER. I. PRIMER: S-W GALVITE B50W3. 2. FINISH COATS: S-W METALASTIC II ENAMEL B53 SERIES.

0912. PAINTING - INTERIOR FINISH REQUIREMENTS USING SHERWIN-WILLIAMS TYPE PAINTS AND STAINS. a. SURFACES NOT TO BE PAINTED:

I. PREFINISHED FLOOR, WALL AND CEILING COVERINGS. 2. PREFINISHED METALS. 3. GYPSUM WALLBOARD CEILINGS ABOVE SUSPENDED TILES UNLESS OTHERWISE NOTED.

4. ITEMS WITH FACTORY-APPLIED FINISH, EXCEPT AS SPECIFICALLY OTHERWISE NOTED. b. Painted Gypsum Wallboard with Lusterless (Flat) Latex Finish: 2 Finish coats over primer. I. PRIMER: S-W PRO-MAR 200 LATEX WALL PRIMER. 2. FINISH COAT: S-W PRO-MAR 200 LATEX FLAT.

3. I FINISH COAT OVER PRIMER AT ALL CLOSETS, EXPOSED CEILINGS c. PAINTED GYPSUM WALLBOARD WITH "LOW" GLOSS ENAMEL FINISH: 2 FINISH COATS OVER PRIMER WITH TOTAL DRY FILM THICKNESS NOT LESS THEN 2.5 MILS. I. PRIMER: 5-W PRO-MAR 200 LATEX WALL PRIMER.

2. FINISH COATS: S-W PRO-MAR 200 ALKYD LOW-GLOSS ENAMEL 3. ALL WASHROOMS, VESTIBULES AND LOUNGE. SEE OWNER FOR ADDITIONAL AREAS. d. Painted Ferrous Metal Semigloss enamel Finish: 2 finish coats over primer with total DRY FILM THICKNESS NOT LESS THAN 3.4 MILS.

I. PRIMER: 5-W KERN KROMIK METAL PRIMER B50N2/WI 2. FINISH COATS: S-W PRO-MAR 200 ALKYD SEMI-GLOSS. e. PAINTED ZINC-COATED METAL: 2 FINISH COATS OVER PRIMER.

I. PRIMER: S-W GALVITE B50W3. 2. FINISH COATS: S-W PRO-MAR 200 ALKYD SEMI-GLOSS.

F. PAINTED WOOD WITH SEMIGLOSS ENAMEL FINISH: 2 FINISH COATS OVER UNDERCOAT WITH TOTAL DRY FILM THICKNESS NOT LESS THAN 3.4 MILS. I. UNDERCOAT: 5-W PRO-MAR 200 ALKYD ENAMEL UNDERCOATER.

2. FINISH COATS: S-W PRO-MAR 200 ALKYD SEMI-GLOSS. q. Stain and varnish finish wood: Not less than 2.0 Mils DRY film thickness of finish coating. I. I COAT S-W WOOD STAIN A48.

2. I COAT S-W FAST-DRI SEALER. 3. 2 COATS S-W SATIN POLYURETHANE VARNISH.

### DIVISION IO - SPECIALTIES

1001. EXAMINE SUBSTRATES, STRUCTURE AND INSTALLATION CONDITIONS. DO NOT PROCEED WITH WORK UNDER THIS SECTION UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. A. INSTALLATION CONSTITUTES ACCEPTANCE OF EXISTING CONDITIONS AND RESPONSIBILITY FOR SATISFACTORY PERFORMANCE.

1002. FIRE EXTINGUISHERS: ALL EXTINGUISHERS SHALL BE MULTI-PURPOSE DRY CHEMICAL IN STEEL CYLINDER, U. S. RATING 4A-60-BC, IO LBS. a. SURFACE MOUNTED EXPOSED UNITS: LARSEN MODEL #MP5 EXPOSED INSTALLATION WITH MANUFACTURER'S

STANDARD WALL BRACKET. FURNISH AT LOCATION(S) AS SHOWN ON THE DRAWINGS. b. Provide extinguishers fully loaded, tested, tagged, and ready for use by owner c. INSTALL ALL SIGNAGE IN ACCORDANCE WITH APPROVAL AGENCIES AND MANUFACTURER'S SPECIFICATIONS. d. INSTALL IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND DETAILS. e. MANUFACTURER: JL INDUSTRIES, INC., KIDDE FYRNETICS, INC., AND LARSEN'S MANUFACTURING CO.

### DIVISION 31 - SITEMORK

### 3101. GENERAL

a. CONFORM TO THE APPLICABLE REQUIREMENTS OF THE OHIO BUILDING CODE (OBC), OHIO EPA REGULATIONS AND O.S.H.A. REGULATIONS FOR THE SAFETY OF ADJACENT STRUCTURES, DUST CONTROL AND DISPOSAL OF

b. CONTRACTOR IS TO THOROUGHLY FAMILIARIZE HIMSELF WITH THE CONTENTS OF THE OWNER'S SOILS REPORT (DATED SEPTEMBER 22, 2017) AND SHALL COMPLY WITH AND ADHERE TO ALL RECOMMENDATIONS, INSTRUCTIONS, CONSIDERATIONS AND OTHER PERTINENT INFORMATION CONTAINED THEREIN

c. PERFOEM SITE WORK OPERATIONS AND THE REMOVAL OF EXCESS AND WASTE MATERIALS TO ASSURE MINIMUM INTERFERENCE WITH STREETS, WALKS AND OTHER ADJACENT OCCUPIED OR USED FACILITIES.

d. CONTROL DUST CAUSED BY THE WORK. DAMPEN SURFACES AS REQUIRED. COMPLY WITH POLLUTION CONTROL REGULATIONS OF GOEVERING AUTHORITIES.

e. PROTECT EXISTING BUILDINGS, PAVING, TREES, PLANTS, LAWNS AND OTHER IMPROVEMENTS, SERVICES AND FACILITIES ON SITE AND ADJACENT TO THE SITE FROM DAMAGE CAUSED BY SITE-WORK OPERATIONS. COST OF REPAIR AND RESTORATION OF DAMAGED ITEMS WILL BE AT THE CONTRACTOR'S EXPENSE.

3102. THE CONTRACTOR SHALL PREPARE THE SITE FOR CONSTRUCTION. THE APPROX LOCATIONS OF UNDERGROUND STRUCTURES AND/OR UTILITIES IS SHOWN ON THE EXISTING SURVEY. THE CONTRACTOR IS RESPONSIBILE TO COORDINATE WITH THE UTILITY COMPANIES TO DETERMINE THE EXACT LOCATIONS OF ALL EXISTING UNDERGROUND STRUCTURES AND/OR UTILITIES WHETHER SHOWN OR NOT SHOWN ON THE EXISTING SURVEY THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PROTECTION OF ALL NEW AND EXISTING UNDERGROUND STRUCTURES AND/OR UTILITIES.

E. VINYL FLOOR COVERING ALLOWANCE AS LISTED ON THE BID FORM SHALL INCLUDE ALL FLOOR PREP, ALL 3103. FIELD VERIFY ALL EXISTING DIMENSIONS WHICH AFFECT THE NEW CONSTRUCTION PRIOR TO THE START OF ANY WORK. IMMEDIATELY NOTIFY THE OWNER OF ANY DISCREPANCIES BETWEEN THE DRAWINGS AND ACTUAL FIELD CONDITIONS; DO NOT PROCEED WITH THAT PORTION OF WORK UNTIL ALL DISCREPANCIES HAVE BEEN RESOLVED.

> 3104. PERFORM ALL SITE CLEARING REQUIRED (STRIPPING UNDERGROWTH, REMOVING TREES AND SHRUBS, REMOVING DEBRIS, ETC.) PRIOR TO COMMENCING BUILDING CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED SITEMORK PERMITS AND FOR ALL NECESSARY PERMITS/FEES IN CONJUNCTION WITH HAULING AND DISPOSING OF DEBRIS AND MATERIALS. FURNISH A TIMELY NOTICE OF SUCH ACTIONS TO APPLICABLE FEDERAL, STATE OF OHIO AND LOCAL GOVERNING AUTHORITIES.

a. LEGALLY DISPOSE OF EXCESS DIRT AND DEBRIS, COMPLY WITH ALL APPLICABLE REGULATIONS. THE CONTRACTOR IS RESPONSIBLE FOR ANY STREET CLEAN-UP AND REPAIR OF DAMAGES TO CITY/COUNTY PROPERTY. DO NOT STORE OR PERMIT TO ACCUMULATE ON-SITE. BURNING OR BURYING OF MATERIALS OR DEBRIS ON THE SITE WILL NOT BE PERMITTED. b. ON-SITE STORING OF TOP SOIL IS LIMITED. STORE ONLY IN AREA(S) WITHIN THE PROJECT LIMIT LINE, IN

LOCATION(S) APPROVED BY THE OWNER. SATISFACTORY TOPSOIL SHALL COMPLY WITH ODOT 653.02.

c. REMOVE EXISTING GRASS AND/OR SURFACE GROUND COVER BEFORE STRIPPING TOPSOIL. PROVIDE ALL NECESSARY EXCAVATING FOR FOUNDATIONS TO COMPLY WITH CHAPTER 18, OBC. a. NOTIFY THE OWNER IN WRITING IMMEDIATELY OF ANY UNUSUAL SOIL CONDITIONS, SUCH AS UNEXPECTED

UNDERGROUND SPRING OR SEEPAGE WATER, OR SOILS OF QUESTIONABLE BEARING CAPACITY. 3106. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO RETAIN THE SERVICES OF A SOILS ENGINEER TO INSPECT AND APPROVE FOUNDATION EXCAVATIONS FOR THE ASSUMED SOIL BEARING CAPACITY NOTED ON THE STRUCTURAL DRAWINGS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER OF THE SOILS ENGINEER'S FINDINGS AND SHALL BE RESPONSIBLE FOR ALL FOUNDATION MODIFICATIONS AS RECOMMENDED BY THE SOILS ENGINEER.

3107. EXCAVATE FOR FOUNDATIONS TO ELEVATIONS AS SHOWN, ALL EXCAVATIONS FOR FOOTINGS AND UNDER SLABS TO BE CLEAN, FREE FROM ORGANIC MATTER. KEEP FOUNDATION EXCAVATIONS FREE OF WATER AT ALL TIMES, REPLACE SOFT OR WEAKENED SOIL WITH LEAN CONCRETE (CLASS IV). REMOVE DEBRIS FROM EXCAVATIONS BEFORE BACKFILLING.

3108. THE CONTRACTOR MAY ADJUST BOTTOM OF FOOTING BEARING ELEVATIONS AS REQUIRED BY FIELD CONDITIONS. CONCRETE FOOTINGS MUST BEAR ON UNDISTURBED SOILS OR COMPACTED FILL.

3109. FURNISH BACKFILL AND FILL MATERIALS OF CLEAN, SATISFACTORY SOIL MATERIALS, FREE OF CLAY, DEBRIS, WASTE, FROZEN MATERIALS, VEGETABLE AND OTHER DELETERIOUS MATTER. I. ROCKS OR LUMPS LARGER THAN 3 INCHES IN ANY DIMENSION WILL NOT BE PERMITTED.

3110. BACKFILL AND FILL SHALL BE PERFORMED IN SUCH METHOD AS TO PRODUCE NO SETTLEMENT. BACKFILL AND FILL SHALL BE PLACED IN LIFTS OF 8 INCHES MAXIMUM LOOSE DEPTH. EACH LIFT SHALL BE

a. POWER VIBRATING COMPACTOR OR SIMILAR EQUIPMENT TO ENSURE MAXIMUM COMPACTION OF THE MATERIAL.

I. COMPACTION SHALL NOT BE LESS THAN 100% OF MAXIMUM DENSITY FOR COHESIVE OR COHESIONLESS MATERIAL, IN ACCORDANCE WITH ASTM D 698. 2. PUDDLING AND JETTING OF FILL AND BACKFILL MATERIAL WILL NOT BE PERMITTED.

b. HAND TAMPER AT POST HOLE FOUNDATIONS. DO NOT USE ROLLING COMPACTION EQUIPMENT ADJACENT TO BUILDING FOUNDATIONS. c. EXTEND FILL A MINIMUM OF 5' BEYOND BUILDING AND A MINIMUM OF I'-O" BEYOND EDGE OF

3111. WHERE LOOSE FILL MATERIALS ARE ENCOUNTERED, THE LOOSE MATERIALS SHALL BE OVER-EXCAVATED DOWN TO SUITABLE SOILS. THE OVER-EXCAVATED AREA SHALL THEN BE FILLED WITH SATISFACTORY SOIL MATERIALS WHICH WILL PRODUCE THE RESULTS OF COMPACTION AND LOAD CARRYING CAPACITY REQUIRED.

### THE FILL SHALL BE PLACED AND COMPACTED IN ACCORDANCE WITH SECTION 0210. 3112. MATERIALS

a. FILL MATERIALS - ASTM D2487 SOIL CLASSIFICATION GROUPS GL, GM, GC, SM, SM, ML, AND CL. NO FILL SOILS SHALL CONTAIN MORE THAN 50 % SILT SIZES IN THE UPPER THREE

b. DRAINAGE FILL - ODOT 703 WASHED, EVENLY GRADED MIXTURE OF CRUSHED STONE, OR CRUSHED OR UNCRUSHED STONE OR GRAVEL COURSE AGGREGATE GRADING SIZE 57, WITH 100% PASSING A 1 1/2" SIEVE AND NOT MOR THAN 5% PASSIN=G A #8 SIEVE.

GRANULAR BASE FOR CONCRETE SLAB ON GRADE - ODOT 703 #6 (3/8" TO 3/4") CLEAN, UNIFORMLY GRADED CRUSHED STONE OR GRAVEL GRANULAR BACKFILL - ODOT 703 #67 (#4 TO 3/4") CLEAN, UNIFORMLY GRADED CRUSHED

e. SOIL EROSION AND SILTATION CONTROL - PROVIDE TEMPORARY CONTROL MATERIALS INCLUDING STRAW BALES, DRAINS, GRASSES, FILTER FABRICS OR OTHER ACCEPTABLE

MATERIALS COMPLYING WITH ODOT 207. FILTER FABRIC - NONWOVEN PERVIOUS GEOTEXTILE FABRIC OF POLYPROPYLENE, NUYLON OR POLYESTER FIBERS OR COMBINATION OF FIBERS, ROT-RESISTANT, WATER PERMEABLE AND UNAFFECTED BY FREEZING AND THAWING. PROVIDE MFR'S STANDARD WIDTH, LONG LENGTH ROLLS.

FERTILIZER - (5-10-5) DELIVERED TO SITE IN UNOPENED CONTAINERS THAT CLEARLY

DISPLAY THE MFR'S LABEL, INDICATING THE ANALYSIS OF THE CONTENTS. SEED - GRASS MIXTURE COMPARABLE TO EXISTING TURF, DELIVERED TO SITE IN UNOPENED CONTAINERS THAT CLEARLY DISPLAY THE MFR'S LABEL, INDICATING THE ANALYSIS OF THE CONTENTS.

### 3113. TRENCHING

a. EXCAVATE FOR UTILITY TRENCH TO DEPTHS FOR NEW STORM PIPING AS INDICATED ON CIVIL DRAWINGS. BOTTOM OF EXCAVATION SHALL BE FIRM, UNDISTURBED EARTH OR COMPACTED FILL, FREE FROM LOOSE MATERIAL, DEBRIS AND FOREIGN MATTER. WHERE WATER IS ENCOUNTERED IN THE TRENCH, DEWATER AND PROVIDE SAND AS REQ'D TO DRAIN THE WATER AND STABILIZE THE BED.

b. PIPE BEDDING SHALL BE 2" OF SAND. PROVIDE FIRM AND UNIFORM SUPPORT OF PIPING AT INDICATED ELEVATIONS. TAMP SAND BEDDING AS REQ'D FOR FIRM SUPPORT. WRAP ALL JOINTS IN GRAVITY FLOW PIPING WITH FILTER FABRIC ALL AROUND THE PIPE. PLACE FILTER FABRIC UNDER THE PIPE BEFORE LAYING PIPE IN SAND BEDDING. FILTER

FABRIC SHALL EXTEND AT LEAST 12 INCHES ON EACH SIDE OF THE JOINT. d. UTILITY TRENCH BACKFILL SHALL BE PLACED IN 6 INCH LAYERS, LEVELED, RAMMED AND TAMPED IN PLACE. EACH LAYER SHALL BE COMPACTED WITH SUITABLE COMPACTION EQUIPMENT TO AT LEAST 90% RELATIVE COMPACTION, TAKING CARE NOT TO DAMAGE OR MISALIGN ANY PIPE. THE TOP 12 INCES OF BACKFILL UNDER PAVEMENT BASE SHALL BE COMPACTED TO AT LEAST 95% COMPACTION.

3114 CONTRACTOR SHALL APPLY TERMITE SOIL TREATMENT UNDER SLAB AND AROUND PERIMETER OF THE WORK WITH CHEMICALS PER U.S. DEPARTMENT OF AGRICULTURE (USDA) RECOMMENDATIONS CONTAINED IN USDA H&G BULLETIN NO. 64.

a. FURNISH TO OWNER A NON-CANCELABLE WRITTEN WARRANTY, SIGNED BY THE CONTRACTOR AND APPLICATOR, CERTIFYING THE FOLLOWING

I. SOIL AND UNDER-SLAB TREATMENTS HAVE BEEN PERFORMED IN ACCORDANCE WITH THE ABOVE

2. EFFECTIVENESS OF THE TREATMENT WILL CONTINUE FOR NOT LESS THAN FIVE (5) YEARS AFTER TREATMENT DATE.

3. ALL EVIDENCE OF TERMITE INFESTATION WITHIN WARRANTY PERIOD SHALL BE RETREATED IN ACCORDANCE WITH THE ABOVE REQUIREMENTS AND AT NO ADDITIONAL COST TO THE OWNER. 4. DAMAGE TO ALL STRUCTURES CAUSED BY TERMITES WITHIN WARRANTY PERIOD WILL BE CORRECTED WITHOUT COST TO THE OWNER.

3115. PROVIDE ALL NECESSARY TRENCHING, EXCAVATING, BACKFILLING AND GRADING FOR UTILITY SERVICES TO THE BUILDING TO COMPLY WITH UTILITY COMPANIES REQUIREMENTS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL CODES. CONDUIT, PIPING, ETC., FURNISHED AND INSTALLED BY RESPECTIVE SUB-CONTRACTORS.

3116. FURNISH UNDERGROUND, GRAVITY FLOW NON-PRESSURIZED STORM DRAINAGE OUTSIDE THE BUILDING. a. COMPLY WITH ANY ADDITIONAL REQUIREMENTS FROM THE JURISDICTION HAVING AUTHORITY.

b. FURNISH A COMPLETE STORM WATER SYSTEM IN ACCORDANCE WITH THE DRAWINGS. c. FURNISH A COMPLETE FOUNDATION FOOTING DRAIN ASSEMBLY WITH 4 INCH PERFORATED DRAIN TILES AS SHOWN ON THE DRAWINGS. TERMINATE AT EXISTING GULLY AS SHOWN ON DWGS. FURNISH "SCREENED" TERMINATION. COVER EXTERIOR FOOTING DRAIN TILE WITH CONTINUOUS GEOTECHNICAL FILTER WRAP AND 12" OF FREE DRAINING GRAVEL BEFORE BACKFILLING

d. FURNISH A COMPLETE DOWN-SPOUT DRAIN TILE ASSEMBLY WITH SIZES OF DRAIN TILES AS SHOWN ON THE UPPER LEVEL OVERALL PLAN. e. PIPING AND PIPING SPECIALTIES MATERIALS SHALL BEAR LABEL, STAMP, OR OTHER MARKINGS FROM

APPROVED TESTING AGENCIES F. ASSEMBLE AND INSTALL COMPONENTS ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.

3117. FINE GRADE ALL AFFECTED AREAS OF SITE WITH 12" OF CLEAN TOP SOIL. BEGIN FINISH GRADING AFTER ROUGH GRADING HAS HAD SUFFICIENT TIME FOR SETTLEMENT. SCARIFY SUBGRADE SURFACE IN LAWN AREAS TO A DEPTH OF 4 INCHES AND REMOVE ALL ROCKS GREATER THAN I" DIAMETER AND ALL OTHER FORIEGN MATERIAL. SHAPE TOP AND BOTTOM OF BANKS FOR SMOOTH GENTLE TRANSITIONS IN CONTOUR.

3118. SEED AT A RATE OF 4 POOUNDS PER 1000 SQUARE FEET. LIGHTLY RAKE SEED INTO BED IMMEDIATELY AFTER SEEDING. ROLL SEEDED AREA IMMEDIATELY WITH A ROLLER NOT TO EXCEED 150 POUNDS PER FOOT OF ROLLER WIDTH. WATER ENTIRE SEEDED AREA DAILY (UTILIZING OWNER'S WATER AT EXISTING BUILDING ON SITE) UNTIL ENTIRE LAWN AREA OF BUILDING SITE HAS A FULL THICK AND SUSTAINABLE CROP OF GRASS THAT IS ACCEPTED BY THE OWNER.

### DIVISION 32 - SITE IMPROVEMENTS

### 3201. CHAIN LINK FENCING

 a. INSTALL 8' HIGH CHAIN LINK FENCING WITH TOP AND MID HEIGHT RAILS, FULL HEIGHT FABRIC, GATES AND GATE CONTROLS WHERE SHOWN ON THE DRAWINGS - AT THE EXISTING CONCRETE PAVING AND IN THE LAWN AREA ADJACENT TO THE EAST END OF THE BUILDING.

b. CONTRACTOR IS TO COORDINATE FENCE POST FOUNDATION LOCATIONS SO AS TO NOT DISTURB UNDERSLAB ELECTRIC AND GAS UTILITIES THAT ARE TO BE DIRECTIONALLY BORED UNDER THE EXISTING PAYING DURING CONSTRUCTION. c. FENCING CONTRACTOR TO PRODUCE A POST LAYOUT DRAWING WITH LINE POLES AT MAX IO'

OC FOR ARCHITECT'S REVIEW PRIOR TO INSTALLATION. d. MATERIALS:

CORNER POSTS - 3" O.D., DQ 40 GA., GALV.

LINE POSTS - 2 3/8" O.D., DQ 40 GA., GALV. 3. TOP AND MID HEIGHT RAILS - I 5/8" O.D., DQ 40 GA., GALV 4. FABRIC - 2" DIAMOND MESH, 27 H DIAMOND COUNT, 9 GA., O.148" DIAMETER COATED WIRE, TWISTED TOP SELVAGE, KNUCKLED BOTTOM SELVAGE, ASTM A 392 CLASS I HOT DIP, SELF-HEALING, ZINC GALVANIZING AFTER FABRIC IS WEAVED.

12 YEAR WARRANTY. 5. PROVIDE GALVANIZED FITTINGS AND ACCESSORIES AS REQ'D FOR A COMPLETE

Installation. 6. MANUFACTURER: MASTER HALCO OR APPROVED EQUAL.

e. ENCASE ALL LINE AND CORNER FENCE POSTS IN 36" DEEP x 8" DIA CONCRETE FOUNDATIONS. ENCASE POSTS ADJACENT TO GATES IN 36" DEEP x 16" DIA CONCRETE FOUNDATIONS. CORE DRILL POST FOUNDATIONS WHERE LOCATED ON EXISTING CONCRETE PAVING.

e. GATES PROVIDE TWO MOTORIZED ROLLING GATES AND ONE MANUAL ROLLING GATE AS SHOWN ON THE DRAWINGS.

MOUNT OPERATOR TO FENCING ADJACENT TO GATE LOCATION.

PRODUCT - DOOR KING SERIES 9000, OR APPROVED EQUAL.

2. MOTORIZED GATE OPERATOR 2.I. PROVIDE SEPARATE UNIT FOR EACH MOTORIZED GATE - EACH TO BE 1/2 HORSEPOWER, BELT-DRIVEN OPERATOR CAPABLE OF OPENING AND CLOSING MAX 1000 LB GATE. FIELD VERIFY WITH OWNER THE LOCATION OF REMOTE CONTROL SWITCHES INSIDE BUILDING.

### Ш $\geq$ ш O 9 TITI

426 FAST MAIN STREET LANCASTER, OHIO 43130 (740) 654-4048 phone: facsimile: (740) 654-3009

All drawings are and shall be the propert

of VPL Architects, Inc., and may not be used, duplicated, or altered without the

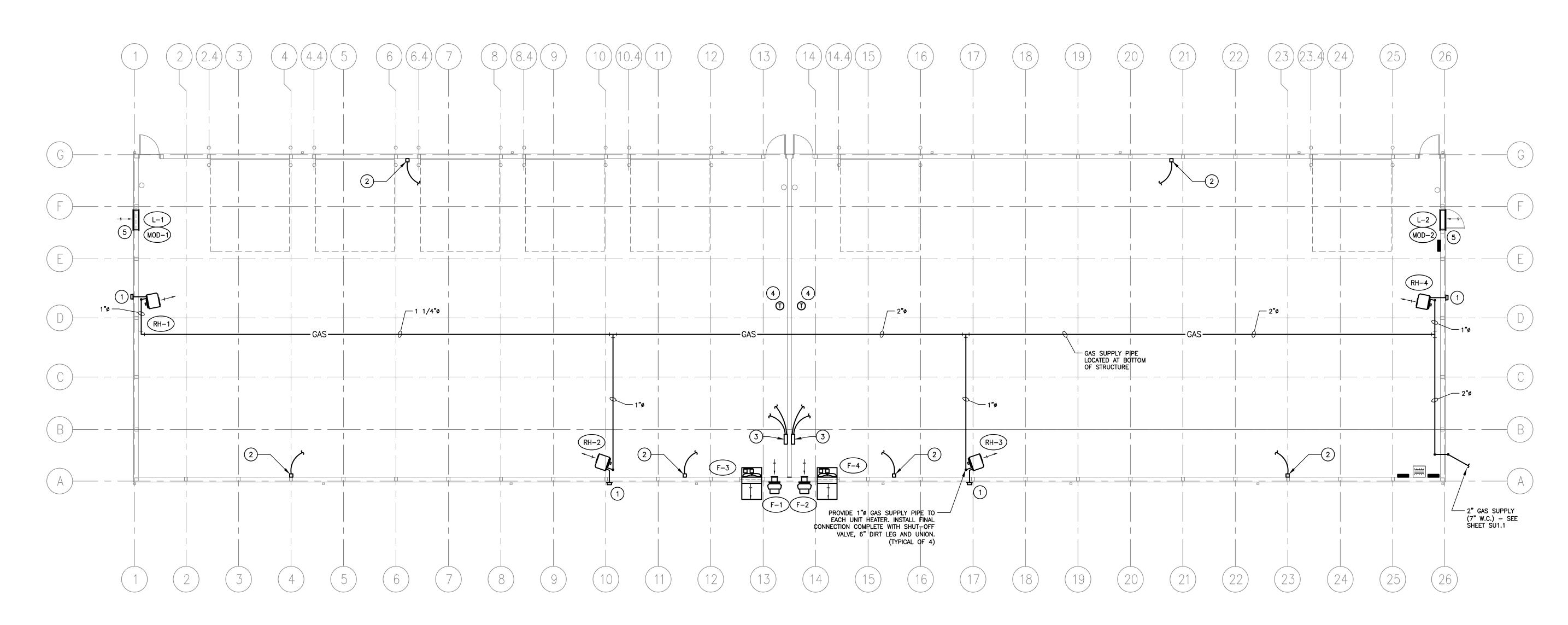
written consent of the Architect COMMISSION

ISSUE MARK DATE 9-25-17 PERMIT 9-25-17

DRAWN BY: 5ML STEPHEN LUCHTENBERG 8546

Stephen M. Luchtenberg License No. 8546 Expiration Date: December 31, 2017

**ARCHITECTURAL** GENERAL NOTES



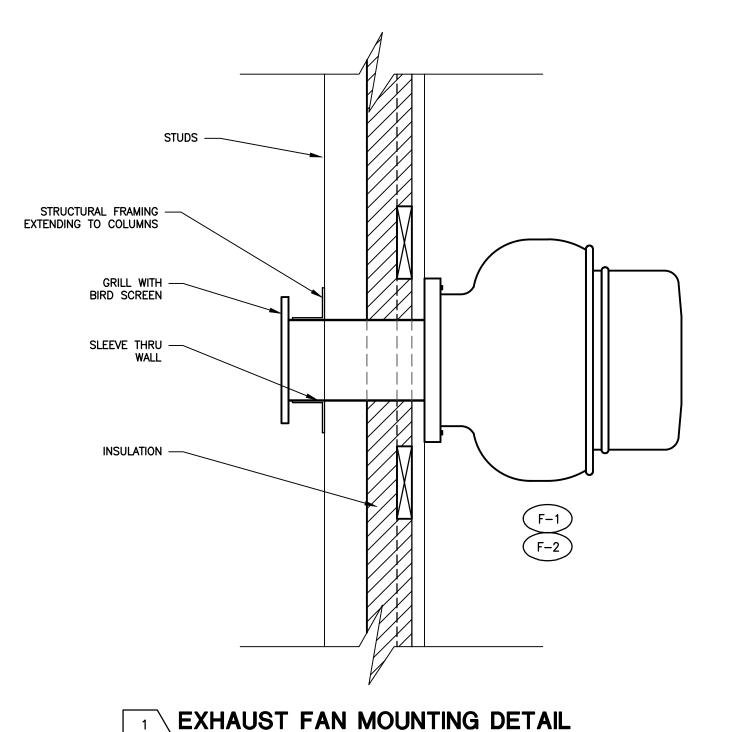


### **HVAC GENERAL NOTES**

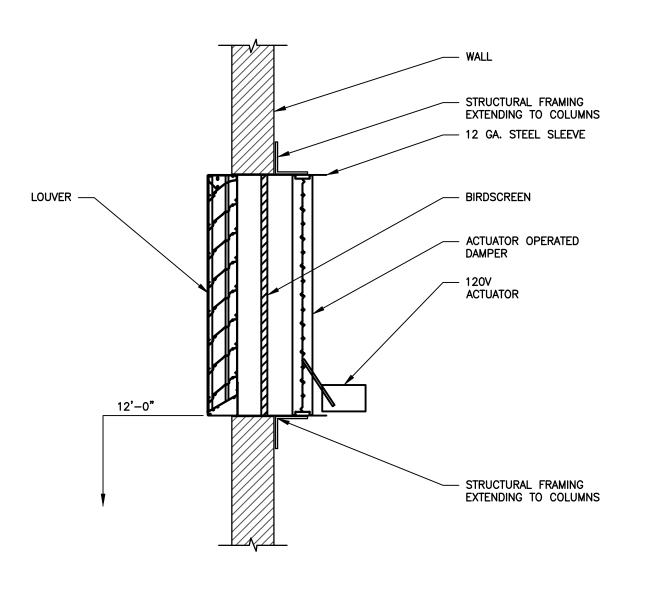
- A. COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND PRIME CONTRACTOR
- B. EQUIPMENT LAYOUTS ARE SCHEMATIC. FIELD COORDINATE ALL EQUIPMENT POSITIONS WITH STRUCTURE, LIGHTS, CEILING, CONDUIT, PIPING AND OTHER
- C. PERFORM ALL WORK IN ACCORDANCE WITH APPLICABLE CODES, RULES, AND REGULATIONS OF LOCAL, STATE AND FEDERAL AUTHORITIES OF JURISDICTION.
- D. SEE SPECIFICATIONS FOR INFORMATION ON ALL EQUIPMENT AND INSULATION

### O HVAC CODED NOTES

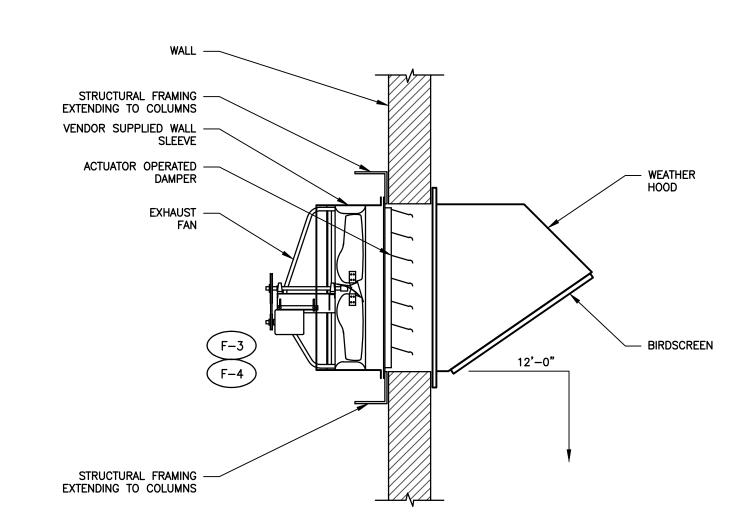
- 1. ROUTE 4" INSULATED GAS HEATER EXHAUST DUCT OUT THROUGH WALL TO VENDOR SUPPLIED WALL CAP. MAINTAIN SLIGHT DOWNWARD SLOPE FOR CONDENSATE DRAINAGE OUTSIDE. MAINTAIN HEATER EXHAUST DUCT AT A MINIMUM HEIGHT OF 8'-0" AND SEAL AROUND WALL PENETRATATION.
- 2. CARBON MONOXIDE SENSOR FOR CO SYSTEM. MOUNT ON WALL 12" ABOVE FLOOR.
- CONTROL PANEL FOR CO SENSORS. INTERFACE SENSORS TO OPEN MOD-1 / MOD-2 DAMPERS FULL OPEN 100%, OPEN EXHAUST FAN DAMPER, AND ACTIVATE FAN F-3 / F-4. 120V CONTROL WIRING BY E.C.
- 4. THERMOSTAT FOR UNIT HEATER CONTROL. MOUNT THERMOSTATS AND SENSORS AT A MINIMUM HEIGHT OF 48".
- MOD-1 / MOD-2 TO HAVE TWO SETTING POSITIONS, 10% AND 100% OPEN.
   DURING NORMAL OPERATION, THE DAMPER WILL BE 10% OPEN. DAMPER WILL OPEN
   TO 100% UPON ACTIVATION OF CO SENSOR SYSTEM.



M1.1 NTS







3 EXHAUST FAN MOUNTING DETAIL
M1.1 NTS

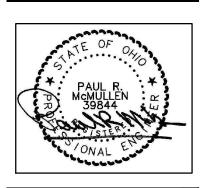
# BALDWIN GOVERNMENT SERVICES CENTER ELECTRICAL BOOKERN GOVERNMENT SERVICES CENTER SELECTRICAL BOOKERN GOVERNMENT SERVICES CENTER AND SERVICES CENTER EQUIPMENT STORAGE BUILD AND SERVICES CENTER THE CONTRACT SERVICES

COMMISSION

L-1735

ISSUE MARK DATE
PRELIM 9-12-17
PERMIT 9-25-17

DRAWN BY: MECI



FLOOR PLAN
MECHANICAL

DRAWING NUMBER

11 1

of roughing—in without additional cost.

- A. Refer to Instructions to Bidders, General Conditions, Supplementary Conditions, and the Sections of Division 1: General Requirements for specific requirements, responsibilities and methods relating to the Mechanical work.
- 3. Furnish all materials, labor, tools, transportation, incidentals and appurtenances to complete in every detail and leave in working order all items of work called for herein or shown on accompanying drawings. Include any minor items of work necessary to provide complete and fully operative systems whether specifically shown
- Comply with all Local and State building codes, Life Safety Code, National Fire Protection Association (NFPA), applicable utility company requirements and applicable
- Obtain and pay for all required permits, fees, inspections and tests. File drawings necessary to obtain permits, schedule necessary inspections and tests. Submit Certificates of Inspection and approval upon completion of the work.
- Material and equipment installed under this Contract shall be new, un-deteriorated, and of a quality not less than the minimum specified. All equipment shall be certified, listed and labeled by UL. Work must be performed by Licensed Contractors as required by Local and State Codes. Contractors shall be certified by approving agencies for all work required.
- Drawings are schematic and show approximate locations of work. Exact locations of equipment must be coordinate with other contractors and verified in the field. It is not intended that drawings indicate all necessary offsets, and it shall be the work of this Contractor to make the installation in such a manner as to conform to structure, avoid obstructions, preserve headroom and keep openings and passageways clear. Significant deviations from Drawings must be approved by the Architect. The Architect reserves the right to make minor changes up to the time
- 3. If a conflict occurs between the Drawings and Specifications, the Contractor shall immediately call it to the attention of the Architect, who will determine which interpretation shall take precedence.
- Guarantee all work executed under this Contract to be free from defective workmanship and/or materials. Should any defects develop within a period of one (1) year after final acceptance has been made, correct them and repair any damage that resulted from same at no additional cost.
- Submit six (6) copies of shop drawings, product data and samples as required under Division 1, and as listed in these specifications.
- Maintain a record set of prints showing exact location of all work. Record addendum and change order items, and any deviations made from bid documents. Drawings shall be clean and undamaged, and shall not be used for any purpose other than recording deviations from working drawings and exact locations of concealed work. Maintain drawings at the job site and current for weekly inspection. Upon completion of work, deliver these drawings to Architect.
- Submit two (2) bound copies of operation and maintenance manuals, 8-1/2" X 11" in three ring hard back binders. Format as follows: Title page: Title of Project, Address, Date of Submittal, Name and Address of Contractor, Name of Architect, Name of Engineer. Second page: Index of manual contents/A tabbed section for each specification section with a list of all equipment furnished under that section together with suppliers' names and addresses and a copy of each approved shop drawing. Also provide the following in each section as applicable: description of systems, operating instructions, maintenance and lubrication instructions, servicing instructions, manufacturer's information and parts lists, including sources of supply, equipment warranties, control diagrams, wiring diagrams, routine and 24 hour emergency information: name, address and telephone number of servicing agency, include names of personnel to be contacted for service arrangements.
- After placing systems in operation, thoroughly instruct designated Owner's personnel on operation and maintenance of all equipment and systems. Provide a minimum of (8) hours total instruction: location of equipment and explanation of function, reference to operating instruction manuals for record and clarity, coordination of written and verbal instructions so that each is understood by personnel, explanation of control system, including panel, Specify maintenance performed by Owner.
- l. Comply with applicable Section of Division 1 for product delivery, storage and handling procedures and requirements.
- Locate existing utilities prior to beginning work. Reroute or replace existing utilities where necessary to permit installation of work. Should uncharted or incorrectly charted piping or other utilities be encountered during work operations, notify the Architect immediately for procedure directions. Cooperate with utility companies in maintaining active services and facilities in operation.
- Whenever the Contractor furnishes equipment or material other than the Design Base Manufacturer specified, he is responsible for the cost and coordination of all modifications required not only for his work, but also for the work of all other
- Contractor may submit substitutes of his choice, without prior approval, on the "Substitution Sheet" included in the Bid Schedule. Such substitutes will not form basis of award and may be considered only after selection of lowest bidder furnishing "Base Design" as specified.
- . Avoid cutting of concrete, masonry and other new work, by coordination and use of sleeves and inserts. Inform the General Contractor of the locations of all sleeves and inserts required and deliver sleeves and inserts to the General Contractor for installation. Perform cutting and patching when required for installation of new work in existing construction. Cut holes through concrete, brick, tiles etc., when necessary by rotary core drilling. Patching shall match adjacent materials and shall be accomplished only by tradesmen skilled in the respective craft required.
- Cutting of reinforced concrete and precast structural concrete prohibited unless approved by Structural Engineer. Cutting and drilling, when approved, shall be by the General Contractor.
- Upon completion of work, all material and equipment furnished in this Contract shall be thoroughly cleaned of dirt, stickers, grease, rust, oil and other foreign matter. Prepare for finish painting, where painting is specified. Clean galvanized ductwork in exposed areas with diluted acetic acid. Finish painting of piping and equipment installed under this Contract is included under Division 9 except as noted. HVAC Contractor shall spot prime factory finished equipment which has rusted or been damaged with zinc chromate primer. Repaint entire item matching original color.
- Protect surface, equipment, and materials during construction from damage from water, dirt, welding and cutting, spatters paint droppings, etc. Repair or replace as directed any materials damaged during construction operations. All materials or equipment stored outside shall be elevated and protectively covered. Materials and equipment sensitive to weather or construction conditions shall be stored inside. Where necessary, sensitive equipment shall be stored in a heated area. Damaged equipment or materials must immediately be repaired or replaced by this Contractor, to the satisfaction of the Architect and at no additional cost to the Owner.
- Electrical Contractor to provide conduit and wiring for devices as indicated on Electrical Drawings and in Specifications. Any additional wiring required for equipment shall to be the responsibility of this Contractor. All wiring to be installed in metal conduit and to comply with latest edition of National Electric Code, NFPA 70, and with the Electrical Division of these Specifications, Division 16. Furnish to the Electrical Contractor approved wiring diagrams required for equipment furnished. This Contractor will be responsible for the successful operation of systems.
- HVAC SHOP DRAWINGS 15020
- Submit six (6) copies of shop drawings for review of the following equipment. Submittals shall include, but not limited to the following:
- Exhaust Fans Insulation Louvers
- Dampers
- 5. Temperature Controls Unit Heaters
- Check, sign and approve all shop drawings. Drawings not signed and approved by the Contractor will be returned.
- Submit shop drawings for all items of equipment, piping, and insulation for review before construction. Prepare required drawings at sufficient scale to clearly show details of construction, physical dimensions and related work of others. Review of shop drawings shall not relieve the Contractor of responsibility for accuracy of shop drawings or of full requirements of the Contract drawings.
- 15130
- A. This Contractor shall furnish 12 ga. sheet metal sleeves for all wall and floor openings required for his work. The General Contractor shall install all sleeves. Do not install sleeves through concrete joists, beam columns, or other structural members except where specifically indicated or approved by the Architect and

- Structural Engineer
  - B. Furnish sleeves sized to provide an annular space of 1/2" between the passing pip or pipe insulation. Sleeves shall be cut flush with each surface, except where clamping flanges are use. In rated firewalls, fire partitions, smoke stops and floors fill annular space around pipe with fire stopping materials as specified in Section 15135. In sleeves through exterior wall, pack annular space with insulating material seal and make waterproof. Seal off all spaces around rectangular ducts through walls with sheet metal collars.
  - FIRESTOPPING A. Furnish and install firestopping for all mechanical penetrations through floors, and
  - through fire rated assemblies. Provide firestopping materials that are currently classified with UL as "Fill, Void, or Cavity Materials," and "Through Penetration Firestop Systems." Provide firestopping materials that have been tested in accordance with ASTM E 814 and UL 1479. All firestopping materials shall be labeled with ASTM E814 number. Install all firestopping materials in accordance with manufacturer's instructions.
  - PIPE HANGERS AND ATTACHMENTS
  - A. Furnish and install pipe hangers and attachments for all piping and piping system
  - B. Furnish and install supplementary channels, plates, etc., where required between building structural members.
  - C. Provide dielectric protection between dissimilar metals, such as copper to steel.
  - D. Provide blocking and supports at pipe rough—ins to fixtures and equipment All supports and parts shall conform to the latest requirements of the ASA Code
  - for Pressure Piping B31.1 and MSS Standard Practice SP-69. Supports and parts shall have a stress safety factor of 5.
  - G. Products are based on Grinnell Figure numbers unless otherwise noted. Optional

Fig. 260 w/shield

manufacturers:	Modern Pipe Supports, PHD, M-	-CO or Uni-strut.
Pipe Hangers		
Pipe	2" and Smaller	2–1/2" and Larger

Fig. CT-99

Steel, insulated Fig. 260 w/shield Attachments for Structural Steel Construction

<u>Structure</u> Steel bar joists Steel beam with corrugated metal deck above Steel beam with concrete deck above

Copper, uninsulated

Copper, insulated

Steel, uninsulated

Top beam clamp, Fig. 227 Top beam clamp, Fig. 227 Bottom beam clamp, Fig. 227 (Use only where top beam

clamps are not possible.)

Attachment

Fig. CT-65

Fig. 260

Fig. 260 w/shield

Fig. 260 w/shield

Do not hang pipe from other pipes. In chase spaces, provide additional pipe stand and framing for attachment of pipe brackets and piping. Use correct size hangers Increase hanger size to allow for increased diameter of line caused by pipe covering Double nut, ping or spot weld all hanger support nuts in areas subject to vibration

K. Support horizontal piping according to the following schedule:

Pipe			
<u>Size</u>	<u>Steel</u>	<u>Copper</u>	<u>Diamete</u>
3/4" and smaller	7'	5'	3/8" 3/8"
	8'	6 <b>'</b>	
1-1/2", 2" 2-1/2", 3"	10' 11'	8' 9'	3/8"
2-1/2 , 3 4"	12'	9 10'	3/8" 1/2"
6" and larger	12'	12'	3/4"

Install wall brackets where required. Provide pipe guides and anchors as required t properly control pipe movement. Method to suit job conditions.

### INSTALLATION OF PIPING

- A. Provide unions or flanges at each final connection and at each piece of equipment. parts and equipment for inspection and cleaning. Welded connections to equipment are prohibited
- B. Make connections to equipment as detailed on the Drawings and per the manufacturer's installation instructions.
- C. Where connection size is smaller than piping, make reduction at final connection only (do not reduce size of pipe drop).
- D. Provide valves and specialties as required, to complete installation of each piece of equipment, for proper operation.
- Install piping with due consideration to other trades.

to provide 1-0" clearance between piping systems.

F. Unions in Copper Pipe: Bronze 150 lb. ground joint, solder end. Unions in Steel Pipe: Black malleable iron, bronze ground ball joint.

G. Flanges: Up thru 2-1/2 inches: Cast iron screwed, 125# or higher as required.

- H. Gaskets: 1/8 inch minimum thick, fibrous type with double coat of graphite, except
- use Type 304 stainless steel with carbon steel guide on high temperature piping systems. Use dielectric gaskets where joining dissimilar piping material. Bolts for steel, cast iron, brass and bronze, for 250# SWP and 450 degrees F or
- below to be carbon steel, with American Standard, regular, square heads and American Standard, heavy hexagon, semi-finished nuts. ASTM A307, Grade B, Tee head, high tensile steel bolts and nuts may be used in
- copper or aluminum alloys.) K. Install all piping parallel or perpendicular to building walls and floors. Offset lines around columns, beams and other obstructions as required. Piping shall be installed

mechanical joint pipe lines. (Mechanical joints are not to be used with tubing of

- Install piping to provide clearance for personnel passage, headroom, operation of doors or windows, equipment, lighting outlets, or with Owner's apparatus and equipment. Coordinate pipe runs and elevations with other Contractors before installation. Where interferences develop in field, pipes may need to be offset or rerouted, at no additional cost to Owner, as required to resolve interferences.
- M. Securely support all piping from structure with approved hangers, rods, brackets and
- N. Install valves at service connections to equipment and branch lines from main lines All valves and unions to be installed so as to be accessible through ceiling or wall
- O. Make changes in pipeline direction with fittings, rather than bending.
- P. Ream ends of pipe and clean before installing.
- Q. Plug open ends of pipe lines during installation to keep dirt and foreign materials
- R. After erection and prior to putting in service, lines shall be blown or flushed free o
- loose materials. Clean stainer screens and aerators.
- S. Pipes run through new block and brick shall enter and leave at mortar joints. T. Piping containing liquids shall not be installed over electrical equipment.
- U. On any given system, the Contractor will not be permitted to mix and join different types of pipe material. For example, if a storm or sanitary system uses plastic and cast iron, the Contractor may change from one to the other only once, the line may not be changed back to the first material further downstream.
- V. Install malleable or cast iron escutcheons on piping passing through outside walls o through walls, floors, and ceilings of unfinished areas.
- W. Welded joints shall comply with (ANSI B31.1).
- X. Solder and brazing work shall comply with (ANSI B31.1).

- Y. Threaded joints shall comply with (ANSI B1.20.1).
- Z. Ends of piping systems shall be reamed after cutting.
- AA. Prepare and clean all joints and fittings prior to welding, soldering and/or threading. BB. Remove scale, flux, pipe dope, etc. at completion of work.

### MECHANICAL IDENTIFICATION

- A. Provide pipe markers for all exposed piping in equipment rooms, accessible chases, and piping mains above accessible ceilings for maintenance operations. Provide equipment identification for all major items of mechanical equipment.
- B. Pipe markers and valve tags by Brady, Seton, or Brimar Industries are acceptable: 3/4" thru 5-7/8" outside diameter: Setmark opti-code roll form markers, 6" and larger: Setmark ultra—mark roll form markers.
- Identification shall be the same as that shown on Contract Drawings, i.e., F—1, AHU-1, BC-1, CU-1, etc. Letter height shall be 2-1/2" and shall be readable from standing position on the floor, or from roof hatch

### MECHANICAL SOUND AND VIBRATION CONTROL

- A. Furnish and install ceiling spring isolators for all suspended fans, all vibration isolation materials specified herein shall be provided by a single manufacturer to assure single source responsibility for the proper performance of materials used. Vibration isolation materials are based on Peabody Noise Control, or equal by
  - NATURAL GAS SYSTEM
- A. Site gas mains furnished and installed by Gas Company.
- B. Furnish and install gas service pipe as shown on drawings.
- C. Furnish and install a complete gas piping system for the building as shown on drawings, including rough—in and final connections to all gas fired equipment, and as required for a complete installation.
- D. Perform all work as required by Code and the local Gas Utility.
- E. Provide final connections to all gas fired equipment.
- F. Pay all fees and charges required for installation of this work.
- G. Gas meters shall be by Local Gas Utility
- H. The complete installation shall be in strict accordance with the requirements of the Local Gas Utility to include piping, tests and installation procedures.
- I. Provide gas meter set as required by Local Gas Utility. Set gas regulator at gas meter to deliver no more than 7" W.C.
- J. Make final connections to all equipment requiring same.
- K. Provide valves, unions and 6" dirt legs in pipe lines at connection to all equipment.
- Provide gas pressure regulators on gas-fired fixtures and pieces of equipment where required. Coordinate with Equipment Supplier and field conditions.
- M. Install vents from interior pressure regulators on gas—fired equipment and from sleeves, where required. Extend line through outside wall above grade, sleeve and
- caulk, turn pipe down, terminate with approved vent cap. N. Gas piping system shall be installed per N.F.P.A. #54 and Local Gas Company

### PIPE AND FITTINGS

A. Provide all piping and fittings for natural gas as shown on drawings.

E. Piping shall run parallel with building lines and other piping.

- B. Gas pipes in the building above slab shall be Schedule #40 black steel piping (ASTM-A120) with welded steel fittings (ANSI B31.1) or threaded malleable iron
- fittings (ANSI B16.3). All gas piping 2" and larger shall be welded. C. Gas piping exterior to the building below grade as required by the Local Gas Utility.
- D. Gas piping below concrete slab or concealed in masonry construction shall be encased in Schedule #40 black steel pipe with welded joints and vented to outside. Piping below grade shall have plastic coating and wrapped joints.
- F. Piping located in finished areas without ceilings shall be installed tight to walls at bottom of structural members. Coordinate exact routing with Architect and General
- G. All pipe penetrations through concrete block walls shall be core drilled. Coordinate all cuttings with General Contractor.
- H. Coordinate all below slab piping with footings. Verify depth of piping and depth of footings prior to installation of each. Pipe shall not undercut footings.
- GAS-FIRED EQUIPMENT
- A. Furnish and install gas fired unit heaters where shown on the drawings. Gas fired propeller unit heaters shall be by Reznor as scheduled on the drawings or equal by Sterling, Hastings, Modine, Trane or Peerless. Heat exchanger shall be all welded construction of aluminized steel. Unit shall be complete with all power and control connections, high limit, fan control, automatic gas valve with 100% safety pilot shut-off, automatic spark ignition pressure regulator and manual main and pilot gas
- Fans shall be propeller type with direct drive motors with thermal overload protection. Unit casing shall be heavy gauge steel with horizontal and vertical discharge louvers, draft diverter, phosphatized undercoating, and baked enamel finish. Unit shall be complete with 24 volt control system and transformer. Heat exchanger shall be warranted for ten (10) years from date of manufacture, and unit shall be AGA certified
- Coordinate gas piping hook—up to heating units with Plumbing Contractor. Install unit heater per manufacturer's recommendations. Coordinate location and mounting height of heaters in field with Architect prior to mounting. Support units from structure above. Provide angle bracing and threaded rod per manufacturer's

### EXHAUST AND SUPPLY FANS

- A. Furnish and install wall mounted fans as noted on the drawings and specified herein. Furnish prefabricated insulated wall sleeve compatible with equipment furnished.
- Wall mounted exhaust fan shall be Cook powered wall exhaust fan as scheduled on the drawings or equal by Penn, Greenheck, Jenco-Fan, ACME, or Shipman. Power wall exhausters shall be spun aluminum, centrifugal type with direct or belt drive motor. Fans shall be furnished with motor support plate, birdscreen, unit mounted disconnect switch, fan motor overload protection, and clear anodized finish. For capacities refer to exhaust fan schedule on the drawings.
- Coordinate location of all equipment with Architect in field. Coordinate electrical requirements of all fans with Electrical Contractor. All wall openings for fans shall be by the General Contractor.

### AIR DEVICES AND LOUVERS

- A. Furnish and install louvers as noted on the drawings or specified herein. All devices shall mount flush in the wall or as noted on the drawings. All devices shall have a factory baked enamel finish as scheduled on the drawings. Finish shall be selected
- Stationary louvers shall be extruded aluminum stationary louver type with minimum 12 gauge blades and frame and 1/2" aluminum mesh screen inside. Optional manufacturers: Louvers and Dampers, Ruskin, American Warming and Ventilating, Airolite, Arrow.
- C. Louver finish shall be factory applied baked fluorocarbon coating system equal to "Duranar" by PPG, a 2 coat system with total minimum dry film thickness of 1.2 mils. Coating system to comply with the published specifications by PPG and meet requirements of AAMA 605.2. All finishes shall be selected by Architect.
- Verify final locations of louvers as shown on the drawings with Architect. Louvers shall be furnished to the General Contractor with mounting sleeve for installation. This Contractor shall locate opening for General Contractor with approval by

### TEMPERATURE CONTROL

5950

- . Furnish and install all temperature controls and safety devices as noted on the drawings or specified herein. Design and installation work noted below shall be by Temperature Control Contractor normally engaged in this type of work. The control system is intended to cover the automatic control of all heating, ventilating, and air conditioning equipment.
- The Control Contractor shall guarantee the control system installed under this section of the specification to be free from defects in workmanship and material under normal use and provide service for a period of one year after acceptance of the building. Any defects in workmanship or material during this time shall be corrected by the Control Contractor at no charge to the Owner.
- After completion of the installation, the control contractor shall completely adjust all control equipment provided under this contract and place the system in operation.
- All controls shall be programmable and adjustable unless noted otherwise and be by Honeywell, Johnson Control, Barber Colman, Robert Shaw or unit manufacturer. Thermostatic control devices shall be capable of setback to 55 degrees F (heating) and 85 degrees F (cooling). Automatic changeover devices shall have a 5 degree
- Other controls, sensors and safety devices shall be as required for intended function, required by code, and compatible with other controls.
- Damper motors shall be line or low voltage as required and by Honeywell or equal. Thermostat setpoints shall be determined by the tenant.

### HVAC ALTERNATES

A. Include in the space provided in the Bid Documents, the amount to be added or deducted for providing the HVAC work shown on the drawings. END OF SECTION

### FAN SCHEDULE APPROXIMATE ESP NOTES SYMBOL COOK MODEL # CFM HP RPM DRIVE LECTRICAL DUTY DAMPER ROOF OPNO WEIGHT F-1 100W10DM 250 0.25" 1/16 DIRECT 120/1 10" SQ. 1050 VENT EXH **GRAVITY** 45 LBS. F-2 0.25" 10" SQ. 1/16 DIRECT 120/1 100W10DM 1050 VENT EXH. **GRAVITY** 45 LBS. BELT F-3 0.25" 120/1 2,3,5 24EW614B 3750 1/2 1179 36.44" SQ. **MOTOR** 170 LBS CO SYST. F-4 0.25" 3750 1/2 BELT 120/1 170 LBS. 2,3,5 24EW614B 1179 36.44" SQ. CO SYST. **MOTOR**

INCLUDES WALL COLLAR, GSS WALL SHUTTER, AND 45° WEATHER HOOD.

CONDENSATE DRAIN PIPE, 3/4"ø, ROUTED TO NEAREST FLOOR DRAIN

- WIRED TO RUN UPON ACTIVATION OF CARBON MONOXIDE SYSTEM.
- INCLUDES WALL COLLAR, SAFETY SCREEN ON FAN INLET AND 45° WEATHER HOOD.
- WIRED TO FOR CONTINUOUS OPERATION. MOTOR CONTROLLED DAMPER, 120V/1.

	UNIT HEATER SCHEDULE										
BURNER	REZNOR	BTUH	BTUH	EXHAUST	MINIMOUNTING	GAS CONNECTION	ELECTRIC	CAL	NOTES		
SYMBOL	MODEL	INPUT	OUTPUT	OUTPUT DIAMETER	HEIGHT	DIAMETER HEIGHT	SIZE	VOLTS/PH	FLA	NOIES	
RH-1	UDAP-30	30,000	24,600	4"	12'-0"	1/2"	120/1	1.9	1-4		
RH-2	UDAP-30	30,000	24,600	4"	12'-0"	1/2"	120/1	1.9	1-4		
RH-3	UDAP-30	30,000	24,600	4"	12'-0"	1/2"	120/1	1.9	1-4		
RH-4	UDAP-30	30,000	24,600	4"	12'-0"	1/2"	120/1	1.9	1-4		

DISCONNECT SWITCH FOR GAS LINE BY HC. ELECTRICAL DISCONNECT 4. REZNOR VENT CAP AT SIDE WALL TERMINATION POINT. SWITCH BY EC.

LOUVER / DAMPER SCHEDULE									
SYMBOL	GREENHECK LOUVER MODEL #	GREENHECK DAMPER MODEL #	SIZE W X H	LOUVER SQUARE FEET FREE AREA	F.P.M	ACTUATOR VOLTAGE	APPROXIMATE S.P.	CFM	NOTES
L-1 / (MOD-1)	EDD-401	VCD-20	36" x 36"	3.34	1122	120V	0.26	3,750	1 THRU 4
L-2 / MOD-2	EDD-401	VCD-20	36" × 36"	3.34	1122	120V	0.26	3,750	1 THRU 4

3. INSTALLATION SHALL BE IN STRICT CONFORMANCE WITH

MANUFACTURER'S WRITTEN INSTRUCTIONS.

FINISH TO BE SELECTED BY ARCHITECT.

WITH A MINIMUM SLOPE OF 1/2" PER 12".

- ALUMINUM CONSTRUCTION.
- BIRDSCREEN DEHIND LOUVER.
- MODULATING DAMPER. DAMPER TO HAVE TWO SETTINGS: FULL OPEN AND 10% OPEN.

**COMMISSION** 

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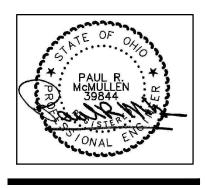
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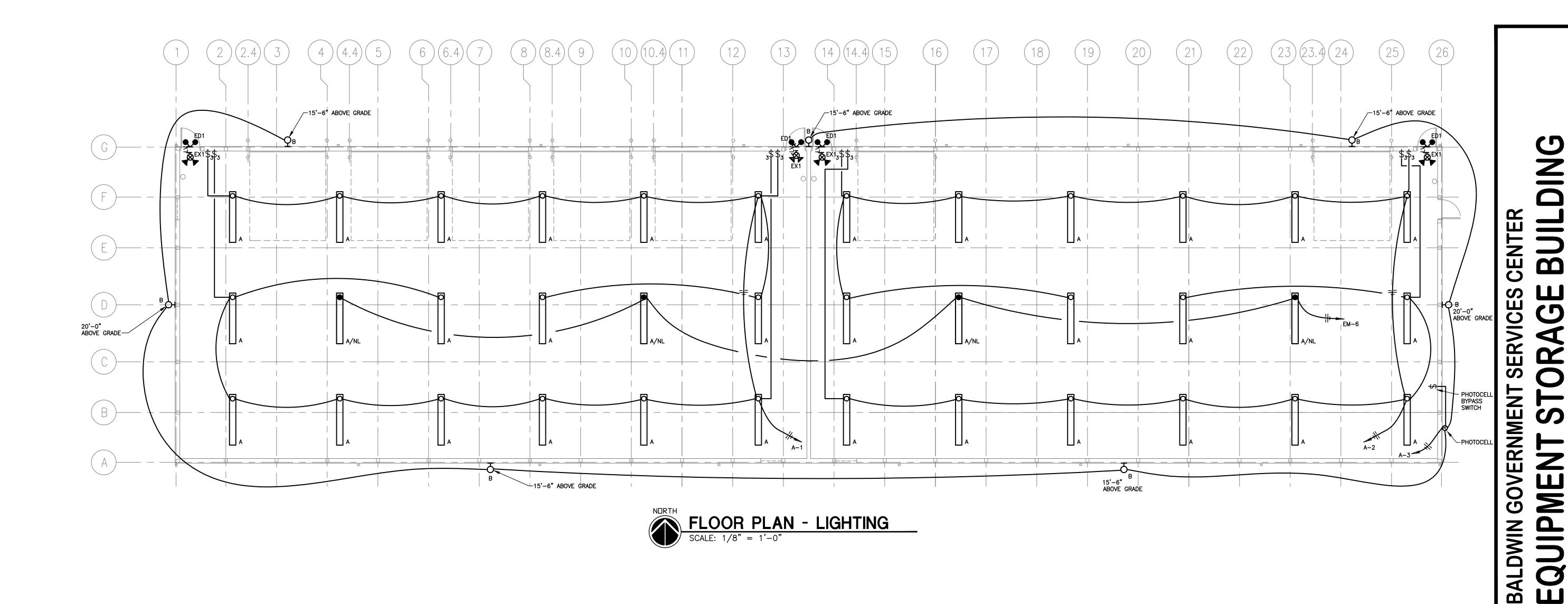
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L-1735 ISSUE MARK DATE PRELIM PERMIT 9-25-17

DRAWN BY: MECI



SCHEDULES, MECHANICAL





96" LED STRIP LIGHT, STANDARD DIFFUSE SNAP ON FROSTED LENS. 6,000 LUMENS, 80CRI, WHITE FINISH. INCLUDE WIRE GUARD AND HANGER CHAIN ACCESSORIES. (49 WATTS LITHONIA #TZL1N L96 6000LM FST MVOLT 35K 80CRI WH ACCESSORIES: HC36; (2) WGZ48

A/NL 96" LED STRIP LIGHT, STANDARD DIFFUSE SNAP ON FROSTED LENS. 6,000 LUMENS, 80CRI, WHITE FINISH. EMERGENCY BATTERY PACK OPTION. INCLUDE WIRE GUARD AND HANGER CHAIN ACCESSORIES. (49 WATTS)

LITHONIA #TZL1N L96 6000LM FST 120V 35K 80CRI E7W WH ACCESSORIES: HC36; (2) WGZ48

EXTERIOR WALL MOUNTED LED AREA LUMINAIRE, FULL CUTOFF WITH TYPE II MEDIUM DISTRIBUTION, SINGLE PIECE DIE CAST ALUMINUM HOUSING, INTEGRAL HEAT SINK FINS, IP65 RATED, BIRD DETERRENT SPIKES, PRECISION MOLDED ACRYLIC LENSES, 30 LED ARRAY, 7,948 LUMENS, 4,000°K, 70 CRI. (3) 700 mA CLASS 1 ELECTRONIC DRIVERS, POWER FACTOR >90%, THD <20%. MOUNT TO WALL AS SHOWN ON LIGHTING PLANS. FINISH LUMINAIRE PER ARCHITECT. 120V, (71 WATTS)

POLYCARBONATE LED EXIT SIGN w/ WHITE HOUSING, RED LETTERS, SEALED MAINTENANCE FREE HIGH OUTPUT NICKEL CADMIUM BATTERY DELIVERS 90-MINUTES CAPACITY (9.6V, 12W) TO INTEGRAL EMERGENCY LAMPS (9.6V, 1.5W), UNIVERSAL MOUNTING, SINGLE FACE WITH EXTRA FACEPLATE AND COLOR PANEL, 120/277V.

THE UNIT HAS AN ÁDDITIONAL 9.6V, 6W REMOTE CAPACITY.

<u>LITHONIA</u> #LHQM-LED-S-R-HO or APPROVED EQUAL.

DUAL HEAD ADJUSTABLE WALL MOUNT EGRESS FIXTURE w/ (2)

DUAL HEAD ADJUSTABLE WALL MOUNT EGRESS FIXTURE w/ (2) 1.5W/9.6V
LED LAMP HEADS, SUITABLE FOR OUTDOOR LOCATION (WET/DAMP)
INSTALLATIONS. FINISH PER OWNER/ARCHITECT. BACKBOX SHALL BE
INSTALLED FULLY RECESSED.

LITHONIA #ELA-T-QWP-L0309 OR APPROVED EQUAL.



COMMISSION

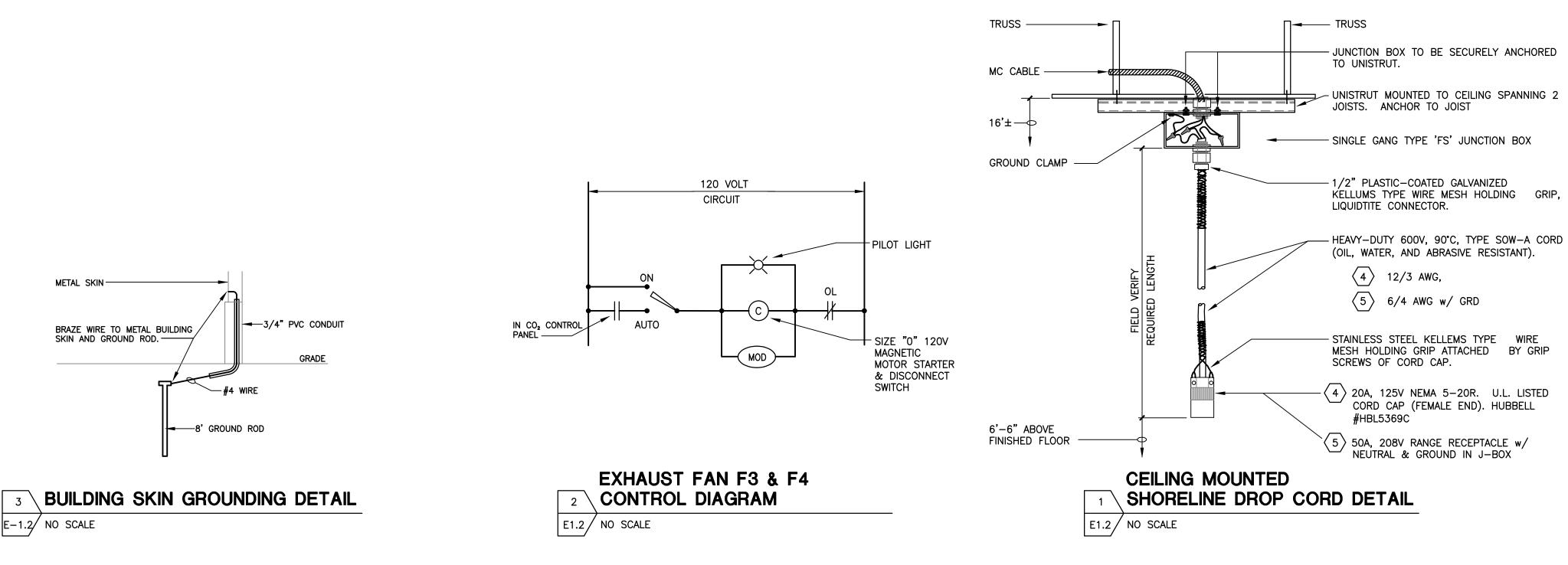
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PERMIT		9-25-17
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FLOOR PLAN
ELECTRICAL
LIGHTING
DRAWING NUMBER

# 



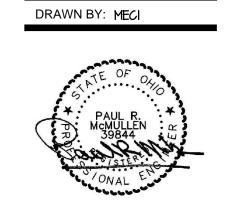


### POWER CODED NOTES

- 1. DOUBLE THROW SWITCH. SEE RISER ON SHEET E2.1.
- 2. PANEL <u>EM</u>.
- 3. RECEPTACLES ON 2-HOUR FIRE WALL. PROVIDE FIRE RATED BACKING ON OUTLET BOXES.
- 4. INSTALL 20 AMP RECEPTACLE FROM JUNCTION BOX AS SHOWN IN DETAIL 1 THIS SHEET. MOUNT JUNCTION BOX TO UNISTRUT CHANNEL COORDINATE LOCATION IN FIELD WITH OWNER REPRESENTATIVE.
- 5. INSTALL 50 AMP RECEPTACLE FROM JUNCTION BOX AS SHOWN IN DETAIL 1 THIS SHEET. MOUNT JUNCTION BOX TO UNISTRUT CHANNEL. COORDINATE LOCATION IN FIELD WITH OWNER REPRESENTATIVE. 40 AMP LOAD PENDANT 6'-6" A.F.F. RANGE OUTLET 4 POLE.
- 6. EXTEND LOW VOLTAGE WIRE TO CONTROLS (SENSORS AT GARAGE DOOR, BUTTONS AT MAN-DOORS) PER DOOR OPENER MANUFACTURER'S REQUIREMENTS.
- 7. PUSH BUTTON DOOR CONTROLS PER DOOR OPENER MANUFACTURER'S REQUIREMENTS.

8. UNIT HEATER BY H.C. PROVIDE LOCAL DISCONNECT AND CIRCUIT AS SHOWN.

- 9. FAN BY H.C. PROVIDE MOTOR STARTER, CIRCUIT TO RUN UPON ACTIVATION OF CARBON MONOXIDE SYSTEM. SEE CONTROL DIAGRAM THIS SHEET.
- 10. EXHAUST FAN BY H.C. PROVIDE LOCAL DISCONNECT. CIRCUIT TO RUN CONTINUOUSLY
- AS SHOWN.
- 11. CO2 SYSTEM CONTROL PANEL BY H.C. H.C. .TO PROVIDE CO2 SENSORS AND WIRING. CIRCUIT AS SHOWN.
- 12. GROUND BUILDING SIDING PER DETAIL #3 THIS SHEET.



COMMISSION

L-1735

ISSUE MARK DATE

9-12-17

9-25-17

PRELIM

PERMIT

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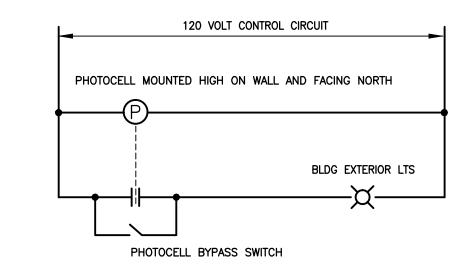
SERVICES

BALDWIN GOVERNMENT

FLOOR PLAN
ELECTRICAL
POWER

DRAWING NUMBER
F 1 7

	ELECTRICA	AL LEG	SEND
\$	SINGLE POLE SWITCH. M.H. 42" A.F.F. TO BOTTOM	A.F.F	ABOVE FINISHED FLOOR
Ψ	UNLESS NOTED OTHERWISE. 120 VOLT	CLG	CEILING
\$3	3-WAY ROCKER ARM SWITCH. M.H. 42" A.F.F. TO BOTTOM UNLESS NOTED OTHERWISE. 120 VOLT	C,CDT	CONDUIT
ф	20 AMP, 120 VOLT NEMA 5-20R GROUNDING TYPE DUPLEX	E.C.	ELECTRICAL CONTRACTOR
¥	RECEPTACLE. M.H. 18" TO BOTTOM UNLESS NOTED OTHERWISE.	EF	EXHAUST FAN
<del> </del>	2-20 AMP, 120 VOLT NEMA 5-20R GROUNDING TYPE	ЕМ	EMERGENCY
Ħ	DUPLEX RECEPTACLES IN 2 GANG BOX. M.H. 18" TO BOTTOM UNLESS NOTED OTHERWISE.	EX'G, (E)	EXISTING
<b>₩</b> P <b>G</b> FI	20 AMP, 120 VOLT NEMA 5-20R GROUNDING TYPE DUPLEX	EWC	ELECTRIC WATER COOLER
<b>Y</b> GFI	RECEPTACLE WITH SELF—CONTAINED GROUND FAULT INTERUPTION PROVISIONS. WEATHERPROOF HORIZONTAL	GD	GARBAGE DISPOSAL
	MOUNT. METAL COVER, FINISH COLOR BY ARCHITECT. M.H. 18" TO BOTTOM UNLESS NOTED OTHERWISE.	GND	GROUND
del	20 AMP, 120 VOLT NEMA 5-20R GROUNDING TYPE DUPLEX	IG	ISOLATED GROUND
	RECEPTACLE w/ SELF-CONTAINED GROUND FAULT INTERRUPTION PROVISIONS. M.H. 18" TO BOTTOM UNLESS	LV	LOW VOLTAGE
₼ <sup>TL</sup>	NOTED OTHERWISE.	MDP	MAIN DISTRIBUTION PANEL
Φ	20 AMP, 120 VOLT GROUNDING TYPE SIMPLEX TWIST LOCK RECEPTACLE, CEILING MOUNTED.	M.H.	MOUNTING HEIGHT (ABOVE FINISHED FLOOR)
	SPECIAL PURPOSE RECEPTACLE.	MOD	MOTOR OPERATED DAMPER
JO	JUNCTION BOX	NL	NIGHT LIGHT
S	SENSOR	RCPT	RECEPTACLE
•	CONTROL BUTTON	(TIE)	INDICATES SAME CIRCUIT USED ELSEWHERE
	MOTOR STARTER	TYP	TYPICAL
Ø	MOTOR	WP	WEATHERPROOF
	ELECTRIC UNIT HEATER (SUSPENDED)	2	CODED NOTED, NUMBER 2 INDENTIFICATION
MOD	MOTOR OPERATED DAMPER		
F-X	HVAC EQUIPMENT LABEL		
	ELECTRIC METER		
	SWITCH		
	BRANCH CIRCUIT SURFACE MOUNTED PANEL BOARD.		
HOT GRD	BRANCH CIRCUIT CONDUIT, 1/2" MINIMUM, CONCEALED BELOW SLAB OR IN CEILING OR IN WALLS, SLASH MARKS INDICATE NUMBER OF CONDUCTORS, #12 AWG UNLESS NOTED OTHERWISE.		
H A-1	HOMERUN TO PANELBOARD, 3/4" MINIMUM. LETTER INDICATES PANEL, NUMBER INDICATES CIRCUIT(S).		
·	CONDUIT RISE		
<b>&gt;</b>	CONDUIT DROP		
<del></del>	CONDUIT CAP		
LV	LOW VOLTAGE WIRING		
	WIRING & CONDUIT BELOW FLOOR OR GRADE		
		1	

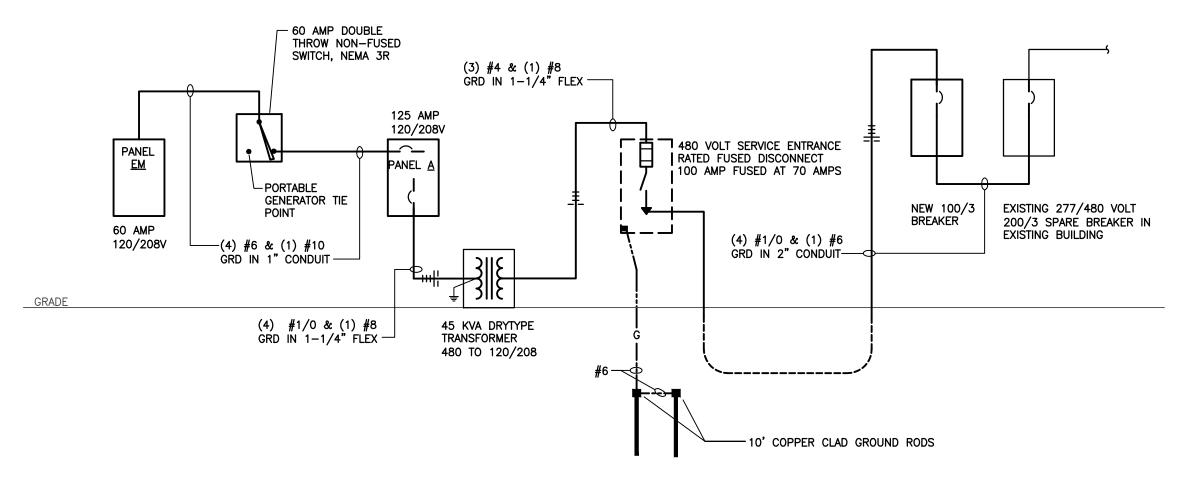


### EXTERIOR LIGHTING 1 CONTROL WIRING DIAGRAM

E2.1 NO SCALE

PANE	±:	MAIN BREAKER	YES	_	125	Α	MF	Σ,	22,000	AIC	MOUNTING _	SURFACE	_
,	4	MAIN LUGS ONLY	NO		120 / 208 VOLTS			LOCATION (SEE PLAN)		_			
TYPE	<u> </u>	SOLID NEUTRAL	YES		3 PH., 4 WIRE, 60 HZ		FED FROM	EX'G BLDG					
NG	OD	GROUND BUS	YES		* = GFI E	3RE	Ak	ŒR			** = WITH 'LOCK-C	N'	
CKT No.	BKR	LOAD		WIRE	CKT. KW		В	SE	CKT. KW	WIRE	LOAD	BKR	CK7
1	20/1	LTG - WEST		10	1.0	Х			1.0	10	LTG - EAST	20/1	2
3	20/1	LTG - EXTERIOR (VIA	PC)	10	0.5		Х		0.7	12	RCPT - EXTERIOR	20/1	4
5	20/1	RCPT - SHORELINE		12	0.7			Х	0.7	12	RCPT - EAST	20/1	6
7	20/1	RCPT - SHORELINE		12	0.7	Х			0.7	12	RCPT - EAST	20/1	8
9					4.8		Х		0.7	12	RCPT - EAST	20/1	10
11	50/3	RCPT-SHORELINE		6				Х	0.7	12	RCPT - EAST	20/1	12
13						Χ			0.7	12	RCPT - EAST	20/1	14
15	20/1	RCPT - WEST		12	0.7		Х				SPARE	20/1	16
17	20/1	RCPT - WEST		12	0.4			Х	2.4	10	RCPT - APPLIANCE 30/2		18
19	20/1	RCPT - WEST		12	0.5	Χ			2.4	10	RCPT - APPLIANCE	30/2	20
21	15/1	SPARE					Х				SPARE	15/1	22
23	15/1	HEATERS - WEST		12	0.5			Х	0.5	12	HEATERS - EAST	15/1	24
25	20/1	SPARE				Χ					SPARE	20/1	26
27	20/1	SPARE					Х				SPARE	20/1	28
29	20/1	SPARE						Х	0.7	12	RCPT - EXTERIOR	20/1	30
31		SPACE				Х					SPACE		32
33		SPACE					Х				SPACE		34
35		SPACE						Х			SPACE		36
37		SPACE				Х			3.6				38
39		SPACE					Х		4.0	6	PANEL <u>EM</u>	60/3	40
41		SPACE						Х	3.6				42

PAN	EL:	MAIN BREAKER	NO	-	60		MF	D.,	10,000	AIC	MOUNTING	SURFA	CE		
E	M	MAIN LUGS ONLY	YES	_	120 / 208 VOLTS			LOCATION	(SEE PL	4 N)					
TYPE	<u>:</u>	SOLID NEUTRAL	YES	_	3 Pt	H., 4	W	IRE,	60 HZ		FED FROM PANEL A				
NG	QOD	GROUND BUS	YES	_	* = GFI I	3RE	Αk	(ER			** = WITH 'LOCK-ON'				
CKT No.	BKR	LOAD		WIRE	CKT. KW	_	_	SE C	CKT. KW	WIRE	LOAD	)	BKR	CKT No.	
1	20/1	GARAGE DOOR WES	ST T	10	1.2	Х			1.2	10	GARAGE DOOR E	AST	20/1	2	
3	20/1	GARAGE DOOR WES	T	10	1.2		Х		1.2	10	GARAGE DOOR E	AST	20/1	4	
5	20/1	GARAGE DOOR WES	ST .	10	1.2			Х	0.2	10	LTG - NIGHT LIGH	ITS	20/1	6	
7	20/1	GARAGE DOOR WES	ST.	10	1.2	Х					SPARE		20/1	8	
9	20/1	GARAGE DOOR WES	ST.	10	1.2		Χ		0.4	12	F-1, F-2, & CO2 C	ONTROL	20/1	10	
11	20/1	F-3		12	1.1			Х	1.1	12	F-4		20/1	12	
13	20/1	SPARE				Х			0.8	12	MOTORIZED GAT	E	20/1	14	
15	20/1	SPARE					Χ				SPARE		20/1	16	
17	20/1	SPARE						Х	0.8	12	MOTORIZED GAT	E	20/1	18	
19		SPACE				Х					SPACE			20	
21		SPACE					Х				SPACE			22	
23		SPACE						Х			SPACE			24	



2 RISER DIAGRAM
E-2.1 NO SCALE

McMULLEN ENGINEERING	' I			JOB NAM	E:	BALDWIN	GOVT SE	RVICES CE	ENTER			
100 SOUTH STATE WESTERVILLE, OH 4	3081				1706B							
614-895-9408 FAX: 614-	-895-9450			DATE:	9/20/2017			BY:	MECI			
		SL	JMMAR)	OF CC	NNECT	ED LOA	AD IN K	Ν				
					T'	YPE OF LC						
DESCRIPTION OF LOAD	LTG	RCPT	MOTOR	ELEC HTG	COOLING	KITCHEN APPL*	WATER HTR	COMPUTER	REFRIG	MISC		TOTAL
	2.5	15.1	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.6
M	0.2	0.0	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	11.2
ARGEST MOTOR LOAD	 = 1.2	x 25% =	0.3									
OTAL CONNECTED KW	2.7	15.1	10.6	1.0						0.4		29.8
EMAND FACTOR	125%	**	***	GREA	TEST	100%	100%	100%	100%	100%	100%	23.0
.E.C. DIVERSIFIED KW	3.4	12.6	10.9	1.0		10070	.0070	13370	.5570	0.4	.0070	28.2
					x KW / (	VOI TAC	GE x SO	RT(PHA	SF)) =	7	8	AMPS

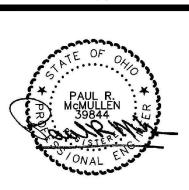


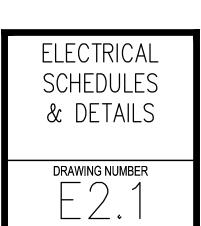
**BALDWIN** 

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COMMISSION L-1735

ISSUE	MARK	DATE
	WAKK	
PRELIM		9-12-17
PERMIT		9-25-17
DRAWN B	Y: MECI	





### **ELECTRICAL SPECIFICATIONS**

### 16000 GENERAL ELECTRICAL PROVISIONS

- A. Provide electrical work as shown and specified. Furnish all material and labor to complete and leave in working order all items of work indicated, including any minor items of work necessary to provide a complete and fully operative lighting and electrical system.
- B. Perform all work in accordance with applicable local and state codes and ordinances, including the regulations of the following:
   1. Americans with Disabilities Act.
- Ohio Building Code.
   National Electric Code.
- 4. Local building codes and ordinances.
- The following industry standards, specifications are also minimum requirements:

  1. The National Electrical Manufacturer's Association Standards (NEMA).
- The Manufacturer's Recommendation.
   Underwriter Laboratories Incorporated Standards (UL).
- 4. American National Standards Institute (ANSI).
- D. Test all parts of electrical systems for proper ground operation and provides system free from short circuits.
  1. Meager test all feeders and branch circuits of electrical systems.

2. Test, adjust and balance all equipment and systems for proper performance.

- All materials and equipment shall be new and of a quality specified. Workmanship shall conform to standards of best practice and all labor employed shall be competent to do work required.
- Prior to submitting a bid, visit the site of the proposed construction to become thoroughly acquainted with existing utilities, working conditions, etc. Allowance will not be made for non-compliance with this condition after bidding.
- S. Keep the premises free from accumulation of waste material, or rubbish caused by employees or work under this Division of the specification. At the completion of the work, remove all surplus materials, tools, etc., and leave the premises "broom—clean". Remove all temporary wiring upon project completion.
- . After completion of work, marked—up "as—built" drawings shall be prepared and delivered to Owner. Accurately record location of all below grade wiring.
- I. Upon completion of project, prepare and submit to the Architect for final distribution to the Owner, two (2) copies of an Electrical Operation and Maintenance Manual in a hard cover binder. Contents of manual shall consist of final shop drawings of panelboards and electrical equipment; one set of manufacturer's original commercially printed catalog data sheets of lighting fixtures and devices; part lists; safety, maintenance and operation instructions; and final list of electrical materials installed, listing manufacturer, catalog number, and local supplier of replacement and spare parts for each item.
- J. Guarantee work executed under this Contract to be free from defective workmanship and/or materials. Should any defects develop within a period of one (1) year after final acceptance has been made, correct them and repair any damage that resulted from same at no expense whatsoever to Owner.
- K. Submit for approval manufacturer's drawings and/or catalog cuts (six copies) for all lighting fixtures, switches, panelboards, and wiring devices. Review and stamp prior to submittal.
- L. The drawings indicate the general arrangement and locations of the electrical work. Data presented on these drawings are as accurate as planning can determine, but field verification of all dimensions, locations, levels, etc., to suit field conditions is required. Review all architectural, structural and mechanical drawings and adjust all work to meet the requirements of conditions shown. The architectural drawings shall take precedence over all other drawings. Discrepancies between different plans, or between drawings and specifications, or regulations and codes governing the installation shall be brought to the attention of the Architect in writing before the date of bid opening. If discrepancies are not reported, bid the greater quantity or better quality, and appropriate adjustments will be made after contract award. Field measure and confirm mounting heights and location of electrical equipment with respect to counters, mechanical equipment, etc. Do not scale distances off the electrical drawings; use actual building dimensions.
- M. In all cases switches controlling lighting are to be located on the strike side of doors. Location indicated for switches and outlets are approximate. Owner may make minor relocations at no additional charge.
- Should structural elements prevent running of conduits, installation of outlets or cabinets as shown on the drawings, the necessary minor change, as determined by the Architect, shall be permitted.
- O. Perform coring, cutting, chopping, fitting, repairing and finishing of the work necessary for the installation of the equipment of this Section. However, no cutting of the work of other trades or of any structural member shall be done without the consent of the Architect. Properly fill seal, fireproof and waterproof all openings, sleeves, and holes in slabs. Furnish and install all required sleeves and inserts.
- P. Cooperate with other trade so that installation of electrical outlets and equipment will be properly coordinated. Check conduit, fixture, and other equipment locations with the other trades to avoid conflict with the piping, ductwork, steel, piping, beams, or other obstructions.
- Q. During construction, protect all electrical equipment and materials from construction debris, moisture absorption, and metallic corrosion.
- R. Carefully check the locations of the outlet boxes and determine that they have not been disturbed during the installation of material of other trades.
- S. Provide Micarta nameplates to identify panelboards, disconnect switches, starters, and other major equipment.
- Excavating and Backfilling:
- Do all excavating and backfilling required for execution of the work. Contractor
  is to meet with Soil's Engineer to discuss trenching and backfill materials and
  methods prior to beginning work. Backfill is to be completed with mechanical
  equipment as directed by Soil's Engineer.
- Patch all concrete and/or paved areas cut by excavating and refinish to match adjacent surfaces.
   Determine the locations of all existing underground utilities and protect same from damage. Damage to any utility shall be promotely replaced and received.
- Jetermine the locations of all existing underground utilities and protect same from damage. Damage to any utility shall be promptly replaced and repaired. All costs for repair of damage to such services shall be paid by Contractor causing the damage.
   Remove surplus earth from premises.
- U. Cutting and Patching:
  1. Provide all required cutting and patching required to install new work. Cutting

16100 ELECTRICAL SERVICE SYSTEM

shall be by saw cut or core drill. Seal all wall penetrations watertight.

A. Furnish and install a complete 277/480 volt, 3 phase, 4 wire electrical service from the existing building and as shown on drawings.

### 16150 ELECTRICAL DISTRIBUTION

- A. Extend electric circuit to all equipment requiring power.
- 3. Safety switches shall be heavy duty type, 250 volt, with number of poles required. Safety switches for air conditioning use shall be of the fusible type. Switch size shall be as required by code and as indicated on the drawings. Where outside the building, the switches shall be rain tight type NEMA 3R. All switches shall be lockable. As manufactured by Square D, ITE, General Electric or Cutler Hammer.
- Provide branch circuit panelboard(s) as shown on drawings and as manufactured by Square D, ITE, Cutler Hammer or General Electric. Provide copper bus bars. Main breaker shall be center mounted. Provide typed circuit directory under plastic cover in each panel door. Balance final loads within 10% of all three phases. Mount panels 6'-6" on top. Panel to have front cover door.
- D. The branch breakers shall be molded case, quick—make, quick—break, with thermal magnetic trip and permanently bolted to bus bars. Short circuit ratings shall be minimum 10,000 amps, RMS system for 208 volt system, 14,000 on 480 volt system, unless otherwise stated on the drawings. Only full rated ACB's permitted, no duplex. Breakers to be 1, 2, or 3 pole as listed on the drawings.
- E. Multiple pole breakers must be the common trip type. NO TIE HANDLES PERMITTED WITH SINGLE POLE BREAKERS.
- F. Provide ARC fault breakers as noted.
- G. All circuit breakers serving refrigeration, A/C and/or ventilation equipment such as rooftop units, condensing units or air handling units shall be 'HACR' rated.

### 16171 MOTOR STARTERS, CONTROLS AND INTERLOCKS

- A. Provide all motor starters, disconnect switches, controls and interlocks except those furnished as a factory installed, integral assembly of packaged mechanical
- B. 24 volt temperature control wiring and conduit is the responsibility of the HVAC Contractor. 120 volt temperature control wiring is the responsibility of the Electrical Contractor.
- C. Minimum NEMA size 0 with overloads matched to motor nameplate rating and manufactured by Square D, Allen Bradley, ITE, GE, Cuttler Hammer or Westinghouse.
- Manual starters: Square D 2510. Furnish stainless steel coverplates for flush-mounted starters.
   Magnetic starters: Square D Class 8536.
- Combination starters: Square D Class 8538. Furnish fusible or non-fusible as noted.
- D. Provide with on-off or H-O-A switch in starter coverplate with pilot light, 120 volt control transformer with double fused primary and fused secondary windings.
   E. Provide identification nameplates on all motor starters.
- F. Install motor starters where shown on the drawings and provide any auxiliary contacts required as necessary to interlock mechanical equipment systems.

### contacts required as necessary to interlock mechanical equipment systems. 16175 DRY TYPE TRANSFORMER

- Provide dry type transformer conforming to NEMA ST—20 standards. Transformer to be as manufactured by Square D, ITE, General Electric, or Cutler Hammer. Transformer to be 60 Hertz, air cooled, two winding, insulated type. Transformer to have vibration isolators.
- B. Dry—type transformers shall have 150° C rise rating, and be completely enclosed except for ventilation openings.
- A. Rigid Galvanized Steel (RGS) may be used in all areas. Intermediate Metallic Conduit (IMC) may be used in indoor locations. Use electrical Metallic Tubing (EMT) in indoor locations not in contact with earth, not in concrete slabs or concrete walls and not subject to damage. Use flexible steel conduit not exceeding 36" for indoor final connections to mechanical equipment and not exceeding 72" for recessed removable fluorescent light fixtures. Use liquid—tight flexible steel conduit not exceeding 36" for outdoor final connections to equipment or in kitchens and wet locations.
- B. Where the conduit enters outlet boxes, fixtures or cabinets, firmly fasten by double locknuts and bushings. Firmly fasten conduit to the building construction. Run exposed conduits parallel to the building lines, supported by appropriate hangers (Unistrut, T&B or Appleton) from structure. Support conduits on 5 foot intervals and within 3 feet of any box or fitting. Do not support conduits from ceiling, piping, ceiling supports, ductwork, or other conduits.
- C. Conduit connectors shall be double locknut type. UL listed and labeled, with set—screw or compression fittings.
- D. Conduit sizes shall be as required by code and as indicated or specified herein. Minimum conduit size 1/2".
  E. All empty conduit systems shall have 200 lb. test pull cord to facilitate installation
- of future wire.

  F. Conceal conduits and outlets within the building structure; except that conduits
- may be run exposed in certain areas as indicated on the drawings. Run conduit shown to be installed in cabinets, and casework directed by Architect.

### 16210 OUTLET, PULL AND JUNCTION BOXES

- A. Each switch, light, receptacle or other outlets shall be provided with a code gauge, galvanized steel outlet box. Junction and pull boxes shall be code gauge, galvanized steel. Outlet boxes shall be of the one piece, knockout type, in general 4" square with plaster ring. Plaster rings shall be set to provide not more than 1/8" from wall surface to ring. In no case shall plaster ring project beyond surface of wall. Single gang rings similar to Steel City 52020 shall be used for boxes in unfinished brick. #180 boxes may be used for unfinished masonry flush wall outlets. Center all outlet boxes in block course.
- B. Boxes installed for the alarm, computer, security, and telephone system shall be provided with appropriate coverplates.

### 16220 WIRING

- A. Unless otherwise specified, all wire shall be stranded Type THHN, THWN or XHHW copper. The wires shall be color—coded. Unless otherwise required by local ordinances, ground wires shall be green, neutral wires shall be white and phase wires shall be black (Phase A), red (Phase B), or blue (Phase C) for 120/208 volt and brown, orange, yellow (A,B,C) for 277/480 volt. Conductors shall be minimum #12 AWG unless otherwise indicated.
- B. Do not install conductors until conduit system is complete. Use Mineralac #100 or equivalent as a lubricant to facilitate the installation of the conductors in the conduit system.
- C. All 1 phase branch circuits shall consist of 1 phase conductor and 1 neutral (120V) or 2 phase conductors (208V). All 3 phase branch circuits shall consist of 3 phase conductors. When two or three single phase circuits are shown to be combined, these circuits may share a single neutral. For isolated ground receptacles, provide one isolated ground conductor per circuit.
- D. Install a green equipment wire in each panel feeder or branch circuit. Conduit and raceway systems shall not be used for equipment grounding means.
- E. Grounding shall be in accordance with the latest edition of the National Electric
- F. Wire all motors to conform with manufacturers' recommendations and with applicable codes. Provide necessary material, including wire, conduit, fittings, etc., required to connect motor. Motors, controls, etc., shall be furnished by the supplier of the driven equipment. Verify equipment location and sizes with the trade supplying the motor before installing the conduit or outlets.
- G. Provide all starters unless indicated as furnished by others. Starters shall be combination fused disconnect type with on/off switch (HOA if required), control transformer, overloads, indicating lights, 2 aux reversible contacts. Manual starts shall have on/off (HOA if required) switch, overload indicating light.

### 16230 METAL CLAD 'MC' CABLE

- A. The Contractor, at his option, may use metal clad cable type "MC" (no BX or Type AC acceptable) for branch circuits when following conditions are met:

  1. Approved by local code jurisdiction.
- Maximum 20 AMP branch circuits.
   #12 or #10 stranded copper conductors with THHN insulation including an
- insulated ground.
  4. Installed concealed above ceilings or in walls in dry locations only. (Exposed
- 'MC' cable will not be allowed.)

  5. Installed in strict compliance with latest edition of National Electric Code and as described herein.
- B. Metal clad cable shall be interlocking or continuous galvanized steel sheath type with continuous ground wire (using sheath as ground is unacceptable), #12 or #10 stranded copper conductor, 600 volt THHN insulation rated at 90℃, UL labeled.
- C. In patient care areas of healthcare facilities, "MC" cable shall meet requirements of NEC-517 and have second path of ground type "HCF".
- D. References and Ratings for Cable 1. UL 83, 1479, 1569 and 1581.
- Shall meet all applicable OSHA and HUD requirements.
   Shall be UL rated for installation in environmental air handling space.
   Shall be rated for 3-hour firewall penetration.
- E. Connectors shall be those specifically designed for use with MC cable (Romex and
- BX connectors are not acceptable).

G. 'MC' cable shall be installed in a neat and orderly manner, perpendicular and

- F. 'MC' cable shall be installed in strict compliance with all applicable articles of the National Electric Code and as described herein.
- H. Cable shall be installed in building concealed above ceiling or in interior walls only.

  No exposed 'MC' cable will be allowed.
- I. In any room, including mechanical, electrical, service rooms, stairwells, etc., where wiring cannot be concealed, it must be installed in conduit.

- J. Where 'MC' cable is installed in accessible attic spaces and run across the top of joists, studs or rafters, the cable shall be protected by guard strips in accordance with the National Electric Code. Guard strips are not required if the 'MC' cable is installed parallel to the side rafters, studs, or joists.
- K. Where 'MC' cable is installed above accessible ceilings, the cable must be supported at code required intervals.
- L. 'MC' cable may be supported from conduit supports or provide independent support wires from structure with clips to secure cable. Clips shall be designed and manufactured for this use.
- M. 'MC' cable shall not be supported from conduits, piping, ductwork, ceiling grid wires,
- N. DO NOT allow 'MC' cable to lay on ceiling grid system or be in contact with any piping or ductwork.
- O. DO NOT expose 'MC' cable on wall at surface mounted panelboard. Where 'MC' cable is used for homerun circuit(s) to a surface mounted panelboard, one of the two following methods shall be used and shall be consistent throughout the
- building.

  1. Provide 'EMT' conduits from panelboard to above ceiling. Install 'MC' cable in
- these conduits from above ceiling to panel.

  2. Provide wire in 'EMT' conduit from panel to above ceiling, extend to first splice point in circuit. At that location 'EMT' conduit with wire may be converted to 'MC' cable.
- Where 'MC' cable penetrates fire rated construction, provide fire stopping per code and as approved by the local authority having jurisdiction.
- Q. At lighting fixture, device or equipment being fed by 'MC' cable, provide an appropriate junction or outlet box for wiring connections and mounting. 'MC' cable punched through wall, ceiling or into cabinetry is unacceptable.

### 50 WIRING DEVICES

- A. Light switches shall be toggle quiet AC type, 120/277 volts, 20 amp specification grade commercial series, contacts shall be silver alloy and switch shall have one piece Lexan lever and cam. Terminals shall be spring loaded, color coded and suitable for side and back wiring. Hubbell #CSB120 series or equal.
- B. General purpose duplex receptacles shall be automatic grounding type, NEMA 5—20R configuration, finder—grove face, 20 amp commercial, specification grade, with provisions for back wiring by means of spring—staked screwed or side wiring with captive held binding screws, shall be constructed of arc—resistant material. Hubbell #BR20 series or equal.
- C. Ground fault interrupting (GFI) type receptacles shall be self—contained, automatic grounding type, NEMA 5—20R configuration, specification grade, with test and reset buttons and self testing. Hubbell #GFR—ST20 or equal.
- All devices shall be ivory in color
- E. All wall outlet plates to be smooth satin finished stainless steel 302/304. Provide type of faceplates to match devices.
- . Exterior outlets shall be complete with weatherproof plate with hinged cover or covers in accordance with NEC  $406.9(\mathrm{B})$  and a neoprene gasket between the plate, box and mounting surface. Red Dot CKM series or equal.

### 16350 LIGHTING

- a. Furnish and install all lighting fixtures as indicated on drawings. Provide contactors and controls as indicated. Fluorescent ballasts shall be the electronic type with Class 'A' sound rating and UL listed Class 'P' factory installed.
- B. Provide all necessary fittings required to support all fixtures, as well as wood or metal supports for surface and/or pendant fixtures on suspended ceilings. All fixtures are to be supported independent of ceiling system. Provide a minimum of (2) hanger wires similar to ceiling grid hanger wires from opposite corners of all lay—in lighting fixtures.
- c. Provide all lamps as indicated on drawings.
- . Locate and aim adjustable fixtures as directed by the Owner's representative.
- E. All linear fluorescent fixtures shall include a factory installed integral UL listed ballast disconnect to simultaneously break line and neutral connection to the

### 16600 TEMPERATURE CONTROL

A. Unless otherwise indicated on the plans, all conduit, wiring, boxes, etc., for temperature controls shall be furnished and installed by the HVAC Contractor.

END OF SECTION



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RNM

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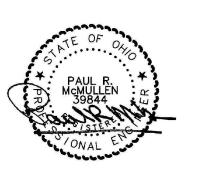
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### COMMISSION L-1735

ISSUE	MARK	DATE					
PRELIM		9-12-17					
PERMIT		9-25-17					
DRAWN BY: MECI							



ELECTRICAL SPECIFICATION