

#### **Horace Planning & Zoning Commission Meeting Agenda**

Tuesday, September 13, 2022 – 6:00 pm Fire Hall Event Center – 413 Main Street, Horace, North Dakota

- 1. Declare Quorum
- 2. Regular Agenda
- 3. Approve the August 9, 2022, Planning & Zoning Commission Meeting Minutes
- 4. 5502 Co. Rd 17 Variance | Jace Hellman, Community Development Director
  - a. Variance
    - i. Public Hearing
    - ii. Discussion & Action
- 5. 9815 Industrial Dr, Building one | Jace Hellman, Community Development Director
  - a. Design Review
    - i. Discussion & Action
- 6. Adjournment



#### HORACE PLANNING and ZONING COMMISSION MEETING MINUTES

August 9, 2022 | 6 p.m. Horace Fire Hall Event Center | 413 Main Street, Horace ND 58047

Present: Russell Sahr, Amy Beaton, Julie Hochhalter, Doug Wendel, Jace Hellman, Lukas Croaker, Jim Dahlman, Councilmember Naomi Burklund

Chair Sahr called the meeting to order at 5:59 p.m.

Agenda Item 1: Declare Quorum

#### Agenda Item 2: Regular Agenda

Commissioner Hochhalter motioned to approve the Regular Agenda. Seconded by Commissioner Beaton. All in favor, none opposed. Motion carried.

#### Agenda Item 3: Approve the July 26, 2022, Planning and Zoning Commission Meeting Minutes

Commissioner Wendel motioned to approve the minutes from July 26, 2022. Seconded by Commissioner Hochhalter. All in favor, none opposed. Motion carried.

#### Agenda Item 4: Southdale Farms 7th Addition | Jace Hellman, Community Development Director

Mr. Hellman presented the Plat and Rezone for Southdale Farms 7<sup>th</sup> Addition. The plat consists of two lots with the zoning of C-2 for future commercial development. He stated that staff recommends a shared or multi-use path due to being along County Road 17, along with future traffic studies due to potential impacts to the level of service of the intersection of Christianson Blvd and County Road 17.

Commissioner Wendel had concerns regarding the amount of land uses that were permitted by right within the C-2 zone and would be more comfortable with a C-1 zoning district. City staff and the applicant was supportive of that change.

Commissioner Wendel motioned to recommend approval of the Plat for Southdale Farms 7<sup>th</sup> Addition with the conditions that a shared use pathway shall be constructed along CR-17 in conjunction with the development of the proposed plat and traffic impact studies shall be required for future development within the boundary of the plat. Seconded by Commissioner Beaton. All in favor, none opposed. Motion carried.

Commissioner Sahr motioned to recommend approval of the Rezone for Southdale Farms 7<sup>th</sup> Addition from its current zoning district of Ag to C-1. Seconded by Commissioner Hochhalter. All in favor, none opposed. Motion carried.

Agenda Item 5: Adjournment at 6:35 p.m.

The next Planning and Zoning Commission meeting is scheduled for September 13, 2022 at 6 p.m.



# CITY OF HORACE: PLANNING COMMISSION STAFF REPORT

City of Horace Commission Staff Report									
Entitlements Requested:	Subdivision	Zone Change	Design Review	Condi	tional Use	<mark>Varia</mark> i	nce	Lot Spilt	Other
Title:	5502 Co. Rd. 17 S Variance	Commission Date:	09/13/2	2022	Applica Numb		C	D-2022	-21
Parcel Number:	15000000	665070	Staff Contact:		Jace Hellman				
Owner(s)/Applicant:	Sherrie L. Moore Applicant Contact sherrielmoore@gmail.c			ail.com					

#### **Purpose**

The applicant requests a variance from the Horace City Code 17.3.8 (4) to allow an accessory structure to be built in the front yard setback due to the constraints caused on site by the watercourse setback.

Statement of Fact		
Future Land Use Map Classification The property is currently designated as Suburban		
Existing Land Use Single-Family Home		
Current Zoning Residential Estate (R-E)		
Area Size	2.40 acres	
Adjacent Zoning Districts	North: PF (Public Facilities); East: N/A (City of Fargo); South: R-E	
	(Residential Estate); West: S-R (Suburban Residential)	
Land Dedication Requirements	None	

#### **Consistency with Comprehensive Plan and Future Land Use Map**

The proposed application is consistent with the Comprehensive Plan. There are no requests to rezone 5502 Co. Rd. 17 S. The current zone of the property is Residential Estate, which is compliant with the Future Land Use Map designation of Suburban.

#### **Discussion and Observation**

The applicant is requesting a variance from Horace City Code 17.3.8 (4), which states, "No accessory structure other than fence or wall shall be located in the front or street side setback". It is the applicant's intent to build a detached garage within the front yard setback. The property in question is approximately 2.40 acres in total area, however, due to the lots shape, most of the property is covered by the City's Watercourse setback requirement, a visual has been provided within the attached exhibits.

The applicant has been in contact with third party engineering firms to inquire about the process to provide necessary evidence to have the watercourse setback reduced, however it is not feasible at this time.

#### Recommendation

To accept the findings and recommendations of the staff report and recommend approval of the 5502 Co. Rd. 17 S Variance to the City Council.

#### **Attachments**

- 1. Variance Application
- 2. Aerial Map
- 3. Watercourse Setback Exhibit 1
- 4. Watercourse Setback Exhibit 2
- 5. Approximate Building Location



COMMUNITY DEVELOPMENT DEPARTMENT 215 PARK DRIVE EAST HORACE, NORTH DAKOTA 58047 PHONE: 701.492-2972 E-MAIL: bvoigt@cityofhorace.com

**APPLICATION DATE** 

(mo/day/year)

#### VARIANCE APPLICATION

1 PROPERTY OWNER INFORMATION

NAME (PRINTED): Shervie Lynn Moore

ADDRESS: 5502 Co. Rd 17 S. Norace ND

www.cityofhorace.com

PRIMARY PHONE: 701 306 9470

ALTERNATIVE PHONE: Some

EMAIL: Sherriel Movre @ gmail-com

2 REPRESENTATIVE INFORMATION (DEVELOPER, SURVEYOR, ENGINEER)

NAME (PRINTED): Stacy Schweitzer

ADDRESS:

PRIMARY PHONE: 701-7938317

ALTERNATIVE PHONE: SAME

EMAIL:

PROPERTY DETAILS

LEGAL DESCRIPTION:

ADDRESS: 5502 Co Rd 17 S. Horace ND

CURRENT ZONING: Residential

PROPOSED LAND USE: Additional Carage Space

PLEASE EXPLAIN THE FOLLOWING: How the special conditions and circumstances have not resulted from actions of the applicant.

This house was built in 1982, Prior to my bruner ship + Prior to the auto industry producing Gigantic F350 Pickups. I furchased the home 11 yrs ago. at that time, I had smaller Uehicles. My current vehicles + traiter will not fit into my current garage as the doors are too low + too nemons.

PLEASE EXPLAIN THE FOLLOWING: How the granting the variance requested will not confer upon the applicant any special privileges that are denied by this ordinance to other premises.

As I live on the Bend & the Irwes, my property
Newson's Considerably on the touthend, where my
Current garge is located for Jace, I cannot build
onto the existing garage as it sits two Close to the
sheyene River. The properties to my south home more
twom to are Set buck from the river further. The other
properties are across Sheyenne St. to the west of me. Those
properties are across Sheyenne St. to the west of me. Those
properties do Not have the river in their Back yards on
are not Bound By the Sel Back hules.

10 PLEASE EXPLAIN THE FOLLOWING: How there is practical difficulty or unnecessary hardship in use of the premises if the strict application of the regulations are to be carried out.

I will be forced to fark my Vehicles + trailers in the elements, also, my Welker mower, lawn tractor and 3 pickups will have to be parked on my south Lown, where the garage needs to be built. also, this will make snow removal very difficult as I won't have the south side of my yard to blow snow into it it's Occupied by vehicles.

11 SIGNATURE

Sherrie Lellerre OWNER SIGNATURE	7/22/22 DATE
REPRESENTATIVE SIGNATURE	DATE
VARIANCE FEE SCHEDULE	NOTE: A NONREFUNDA-
VARIANCE FEE —\$325.00	BLE FILING FEE MUST BE ACCOMPANIED WITH THE APPLICATION AT TIME OF SUBMITTAL MADE PAYABLE TO THE

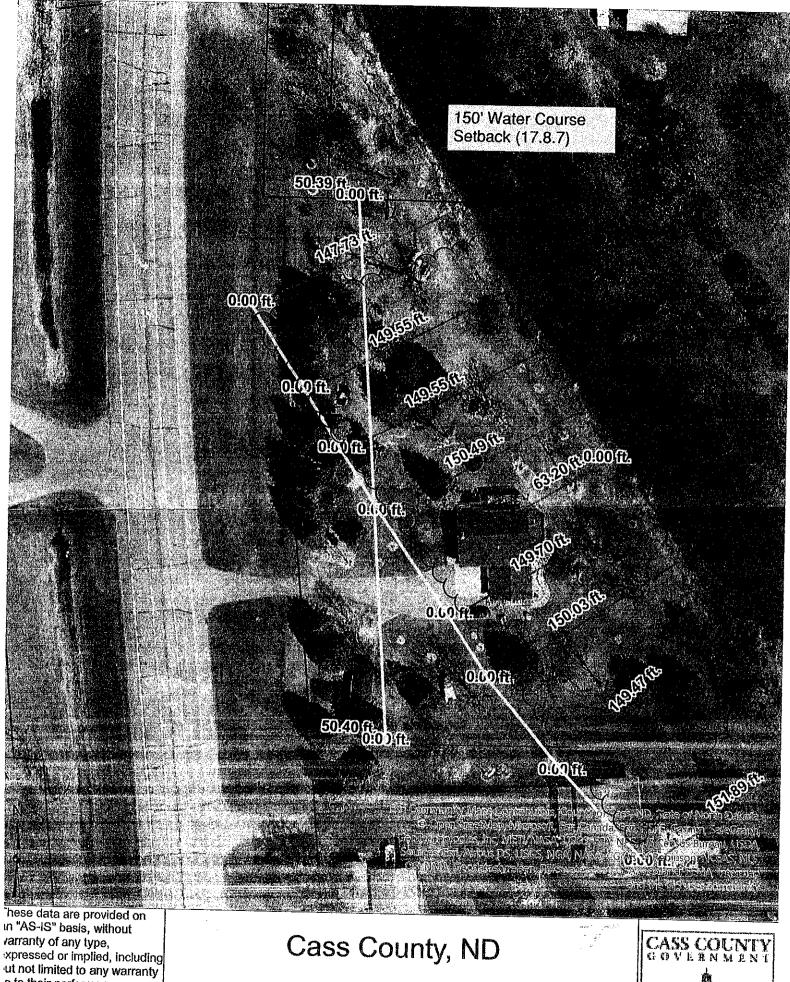
ACKNOWLEDGEMENT: WE HEREBY ACKNOWLEDGE THAT THAT THE ABOVE INFORMATION IS TRUE AND COMPLETE TO THE BEST OF OUR KNOWLEDGE AND THAT THE PRIMARY CONTACT NAMED ABOVE WILL BE CONTACTED IF ANY QUESTIONS ARISE AND WHEN THE PLAT HAS BEEN APPROVED AND APPROPRIATE COPIES ARE READY FOR RECORDING.











ut not limited to any warranty s to their performance, nerchantability, or fitness for nv particular purpose.

Date: 3/28/2022

Cass County, ND



150' Water Course Setback (17.8.7) Library Land Bureau, USDA

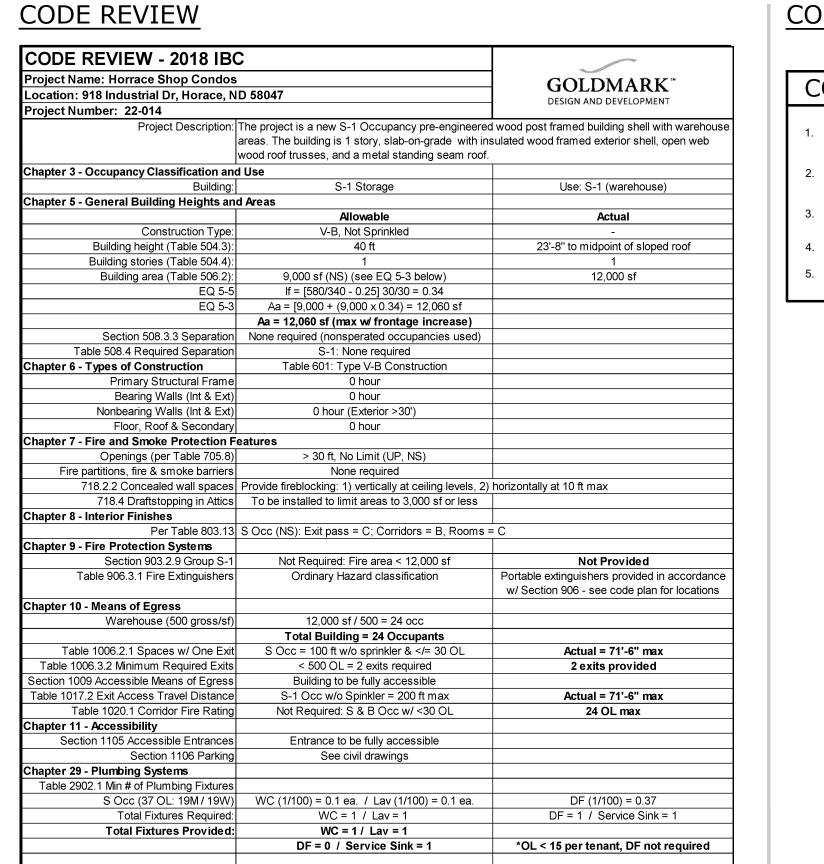


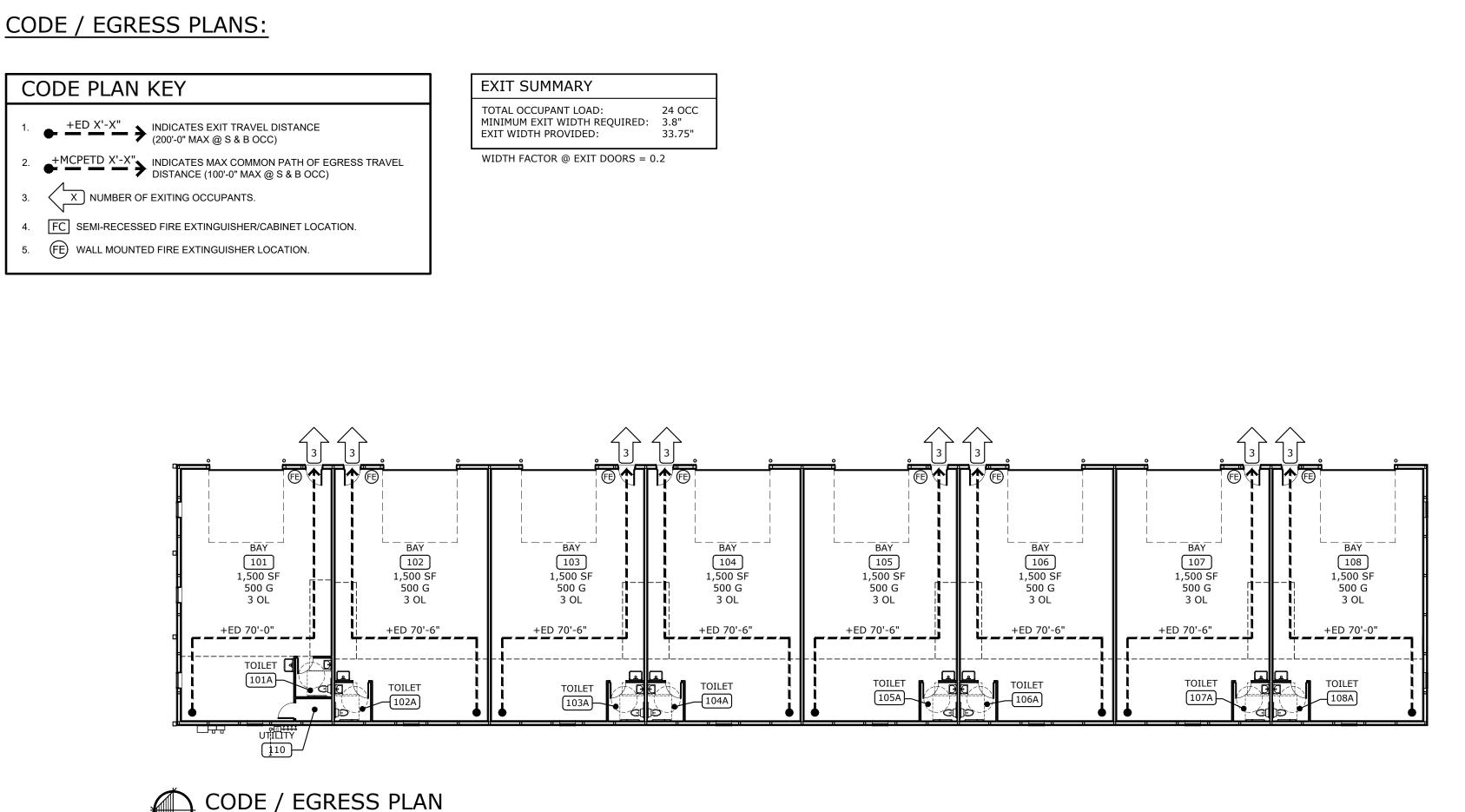


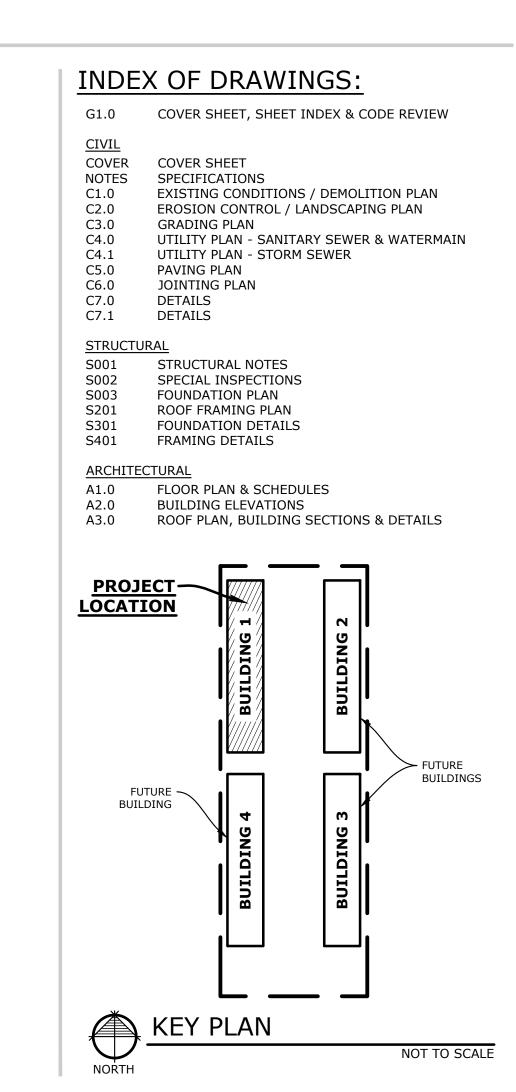
# BROGREN SHOP CONDOS

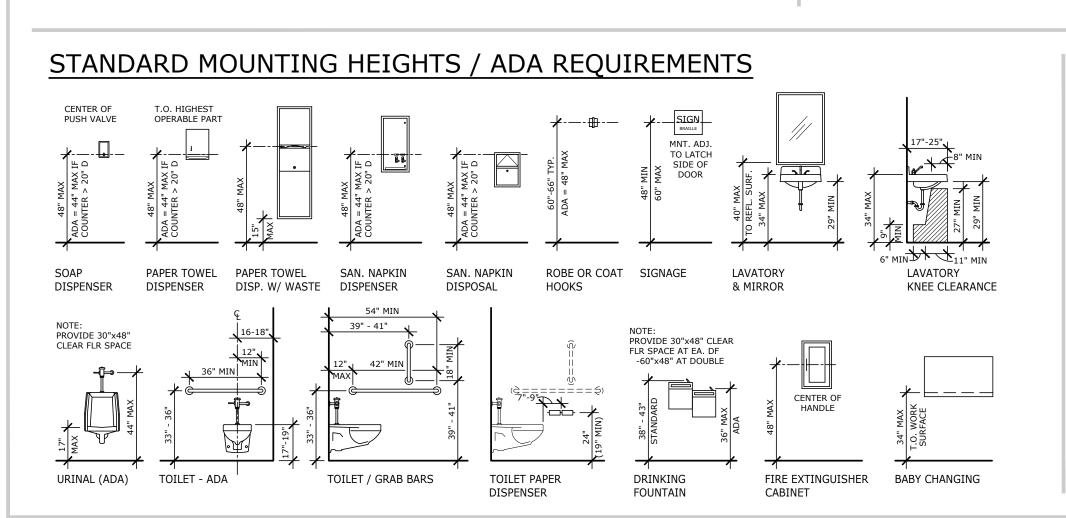
# 9815 INDUSTRIAL DR, BUILDING 1 HORACE, NORTH DAKOTA 58047

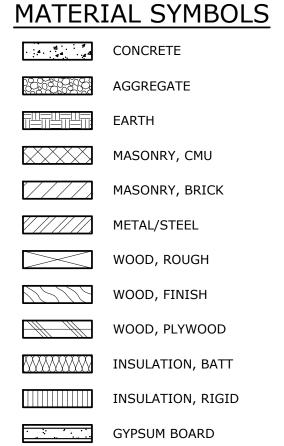
**NEW SHOP CONDOS - CONSTRUCTION SET DATE: AUGUST 26, 2022** 

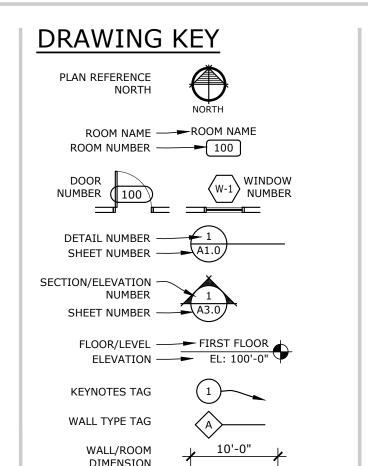










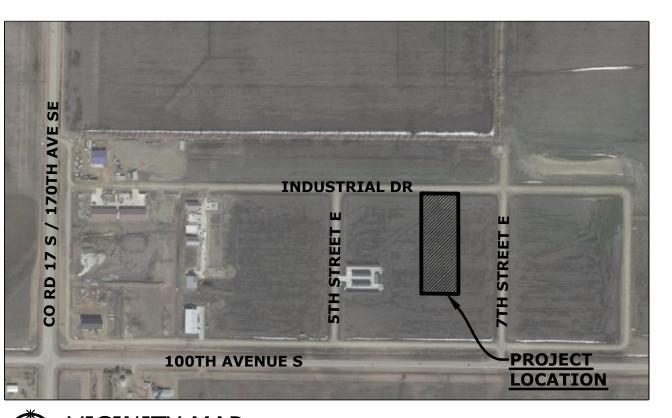


# PROJECT DIRECTORY

ARCHITECT: **GOLDMARK DESIGN & DEVELOPMENT** 2000 44TH ST. S., SUITE 102 FARGO, ND 58103 PHONE: (701) 893-3841 CONTACT: CLINTON NODLAND

OWNER & GC: **OUTDOOR CONCEPTS** 5229 51ST AVE S, SUITE 5 FARGO, ND 58104 PHONE: (701) 639-2306 CONTACT: BLAKE BROGREN CIVIL ENGINEER: MBN ENGINEERING 503 7TH ST. N., SUITE 200 FARGO, ND 58102 PHONE: (701) 478-6336 CONTACT: TONY EUKEL

STRUCTURAL ENGINEER SANDMAN STRUCTURAL ENGINEERS 1587 30TH AVENUE SOUTH, MOORHEAD, MN 56560 PHONE: (218) 227-0022 CONTACT: JUSTIN SCHOENBERG

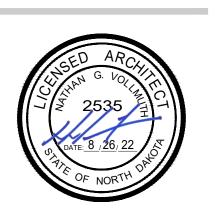


NOT TO SCALE

**DESIGN AND DEVELOPMENT** 

COPYRIGHT GOLDMARK DESIGN & DEVELOPMEN

2000 44TH ST. S., #102 FARGO, ND 58103 701-893-3839



**~** 

RE	VISIO	NS:
No.	DATE	REMARK

PROJECT NO: 22-014 AUG 26, 2022 CHECKED BY: **DOCUMENT PHASE:** 

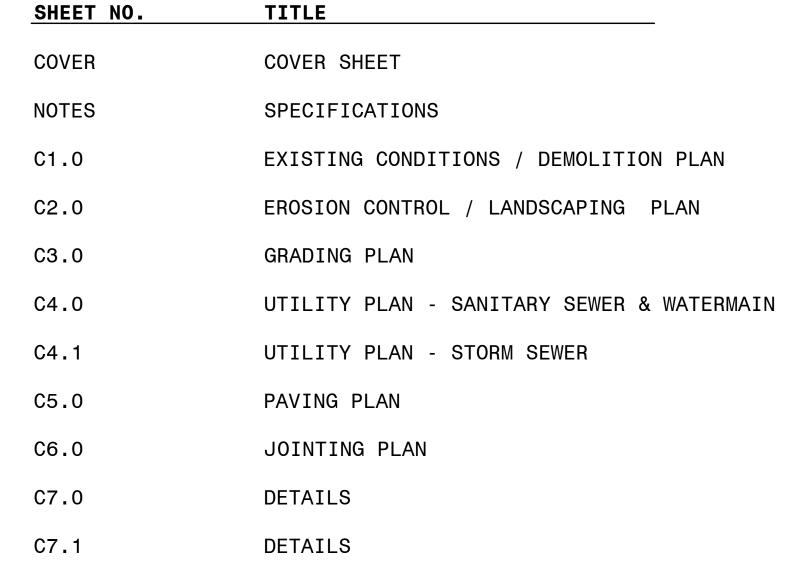
CONSTRUCTION SET SHEET CONTENTS:

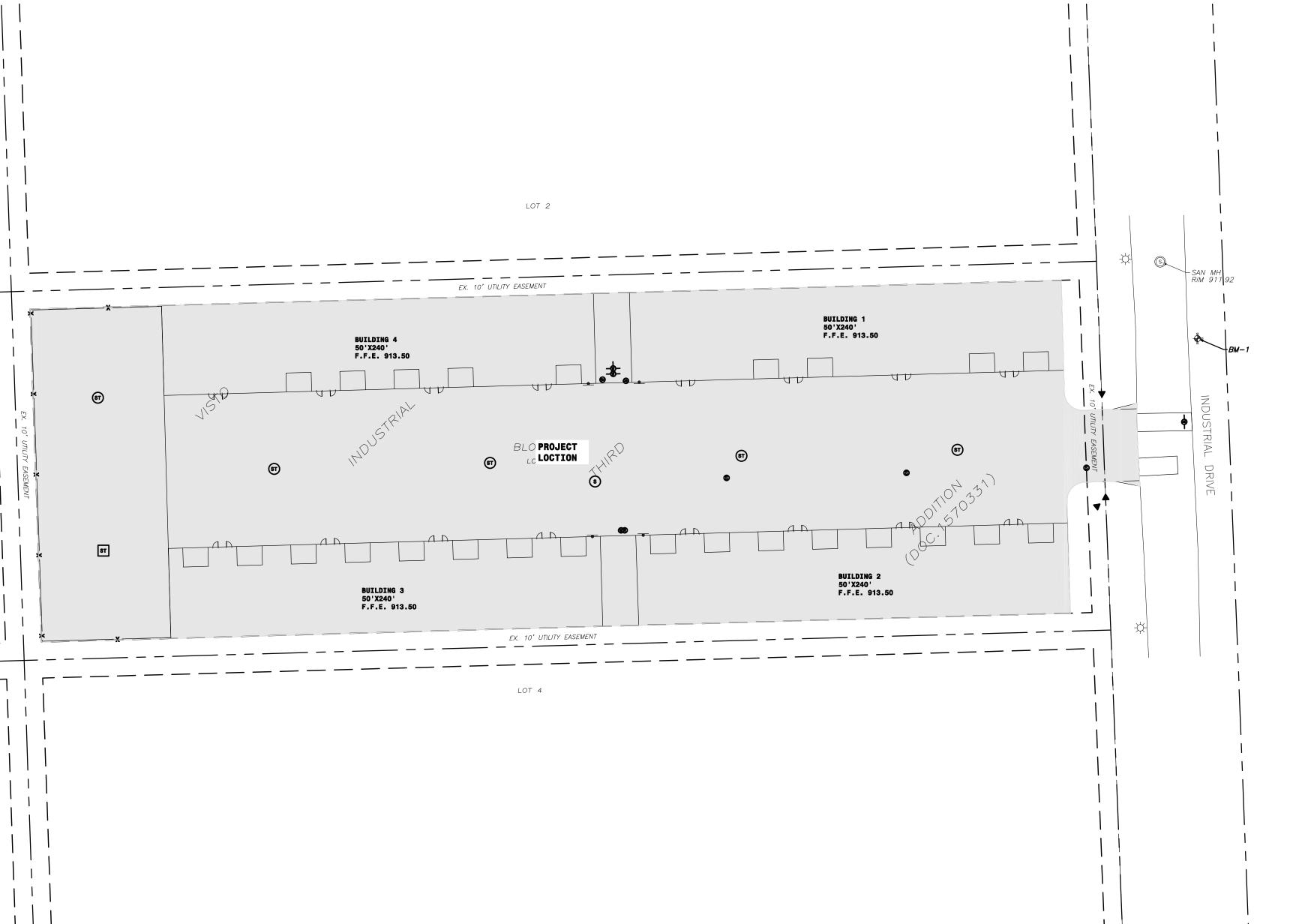
COVER SHEET. **CODE PLAN** & REVIEW

SHEET:

# BLAKE BROGREN COMMERCIAL BUILDINGS AT VISTOS INDUSTRIAL LOT 3, BLOCK 3 OF VISTO INDUSTRIAL 3RD ADDITION

PROJECT INFO	RMATION:		SHEET NO.	7
	PTION: LOT 3, IN BLOCK 3, OF VISTO INDUSTRIAL 3	RD	COVER	(
	COUNTY, NORTH DAKOTA		NOTES	5
ADDRESS:	9815 INDUSTRIAL DRIVE		C1.0	E
SITE SIZE:	123,581 SF (2.84 ACRE)		C2.0	E
ZONING:	(I-1) LIGHT INDUSTRIAL		C3.0	(
EXISTING USE	EXISTING USE OF PROPERTY: VACANT LOT		C4.0	ι
PROPOSED USE	OF PROPERTY: COMMERCIAL BUILDING		C4.1	ι
DEVELOPER:	BLAKE BROGREN OUTDOOR CONCEPTS, LLC		C5.0	F
	5229 51ST AVE S, SUITE 5 BLAKEBROGREN@GMAIL.COM		C6.0	·
	701-639-2306		C7.0	[
ENGINEER:	ANTHONY K. EUKEL, PE MBN ENGINEERING, INC. 503 7TH STREET NORTH, SUITE 200, FARGO, ND 581 TONY.EUKEL@MBNENGR.COM (701) 478-6336	02	C7.1	







503 7TH ST. N , SUITE 200 FARGO, ND 58102 PHONE: 701.478.6336 FAX: 701.478.6340

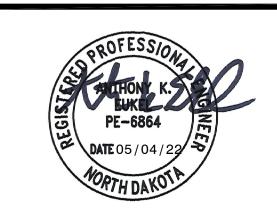
REVISIONS:

NO. DATE DESCRIPTION

1 07/22/22 CITY REVIEW

BLAKE BROGREN
COMMERCIAL BUILDINGS

9815 INDUSTRIAL DRIVE HORACE, NORTH DAKOTA



MRN .IOB #: 22-063

: 22-063 DATE: 05/22

COVER

#### GENERAL NOTES

- 1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES, AS SHOWN ON THESE PLANS, IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY PERTINENT LOCATIONS AND ELEVATIONS, ESPECIALLY AT THE CONNECTION POINTS AND AT POTENTIAL UTILITY CONFLICTS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES THAT CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM ALL APPLICABLE AGENCIES. THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AT LEAST 48 HOURS PRIOR TO THE START OF ANY EARTH DISTURBING ACTIVITY, OR CONSTRUCTION ON ANY AND ALL PUBLIC IMPROVEMENTS.
- 3. THE CONTRACTOR SHALL HAVE ONE (1) SIGNED COPY OF THE APPROVED PLANS, ONE (1) COPY OF THE APPROPRIATE STANDARDS AND SPECIFICATIONS, AND A COPY OF ANY PERMITS AND EXTENSION AGREEMENTS NEEDED FOR THE JOB, ON HAND AT ALL TIMES.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ASPECTS OF SAFETY INCLUDING, BUT NOT LIMITED TO, EXCAVATION, TRENCHING, SHORING, TRAFFIC CONTROL, AND SECURITY.
- 5. IF DURING THE CONSTRUCTION PROCESS, CONDITIONS ARE ENCOUNTERED BY THE CONTRACTOR, HIS SUBCONTRACTORS, OR OTHER AFFECTED PARTIES WHICH COULD INDICATE A SITUATION THAT IS NOT IDENTIFIED IN THE PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL STOP WORK IN THAT AREA UNTIL THE ISSUE IS RESOLVED AND CONTACT THE ENGINEER IMMEDIATELY.
- 6. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES TO THE CITY OF HORACE FOR APPROVAL, PRIOR TO ANY CONSTRUCTION ACTIVITIES WITHIN, OR AFFECTING, THE RIGHT-OF-WAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ANY AND ALL TRAFFIC CONTROL DEVICES AS MAY BE REQUIRED BY THE CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL PROVIDE A MINIMUM OF 48 HOURS' NOTICE FOR ANY ROAD CLOSURES.
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING AS-BUILT INFORMATION ON A SET OF RECORD DRAWINGS KEPT AT THE CONSTRUCTION SITE, AND AVAILABLE TO THE CITY OF HORACE AND PROJECT ENGINEER AT ALL TIMES. CONTRACTOR TO PROVIDE RECORD DRAWINGS TO CONSTRUCTION ENGINEER AT JOB COMPLETION.
- 8. ALL OPERATIONS CONDUCTED ON THE PREMISES, INCLUDING THE WARMING UP, REPAIR, ARRIVAL, DEPARTURE OR RUNNING OF TRUCKS, EARTHMOVING EQUIPMENT, CONSTRUCTION EQUIPMENT AND ANY OTHER ASSOCIATED EQUIPMENT SHALL BE LIMITED TO THE PERIOD BETWEEN 7:00 AM AND 10:00 PM EVERYDAY UNLESS OTHERWISE APPROVED BY THE PROJECT ENGINEER.
- 9. ALL EQUIPMENT AND VEHICLES LEAVING THE SITE SHALL BE CLEANED OF LOOSE DEBRIS AND SOIL. A ROCK CONSTRUCTION ENTRANCE SHALL BE BUILT TO PREVENT EXCESSIVE TRACKING AS A RESULT OF SITE OR WEATHER CONDITIONS. ALL SOIL AND OTHER DEBRIS TRACKED ONTO ADJACENT ROADWAYS (OUTSIDE THE PROJECT LIMITS) IS TO BE REMOVED REGULARLY AND BY THE END OF EACH DAY'S WORK.
- 10. THE VEHICLE TRACKING PAD IS TO INCLUDE INSTALLATION AND REMOVAL OF ALL ITEMS SHOWN IN THE "VEHICLE TRACKING PAD" DETAIL AS SHOWN IN THE EROSION CONTROL SECTION OF THE PLANS.
- 11. THE CONTRACTOR SHALL SCHEDULE A PRECONSTRUCTION CONFERENCE WITH THE CITY OF HORACE PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES.
- 12. PROVIDE A LIST OF ALL CONTRACTORS, SUBCONTRACTORS, AND SUPPLIERS TO THE CITY OF HORACE.
- 13. PROVIDE CONTACT INFORMATION FOR THE OVERALL SITE SUPERINTENDENT, ALL CONTRACTORS, AND SUBCONTRACTORS.

#### UTILITY GENERAL NOTES

- 1. CONTRACTOR SHALL NOTIFY THE CITY OF HORACE PRIOR TO CONNECTING TO ANY EXISTING UTILITY. THE CITY OF HORACE HAS VETO AUTHORITY OVER THE TIMING OF ANY CONNECTION.
- 2. ALL UTILITIES SHALL BE PRE-TESTED PRIOR TO THE CITY WITNESSING THE TEST TO ENSURE THAT SAID UTILITIES WILL PASS DURING CITY WITNESS OF TESTING. IF ANY UTILITIES DO NOT PASS DURING CITY WITNESS TESTING DUE TO NOT PERFORMING THE PRE-TESTING, A PENALTY MAY BE APPLIED TO THE GENERAL CONTRACTOR.
- 3. COORDINATE SERVICE CONNECTION LOCATIONS AT THE BUILDING WITH THE MECHANICAL CONTRACTOR PRIOR TO CONSTRUCTION OF EACH SERVICE.
- 4. ALL SERVICE CONNECTION WITH LESS THAN 5 FEET OF COVER OF THE TOP OF THE PIPE SHALL BE INSULATED. INSULATION SHALL BE INSTALLED FROM THE BUILDING TO THE POINT WHICH THE SERVICE ATTAINS 5 FEET OF COVER.
- 5. ALL SEWER/STORM AND WATER CROSSINGS SHALL HAVE A MINIMUM VERTICAL SEPARATION OF 2.0 FEET AND A MINIMUM HORIZONTAL SEPARATION OF 11 FEET. FOLLOW ALL ND PLUMBING CODE REQUIREMENTS.
- 6. CONTRACTOR IS RESPONSIBLE TO COORDINATE ALL WORK WITH THE GAS, ELECTRIC, TELEVISION, TELEPHONE AND COMMUNICATIONS UTILITY COMPANIES PRIOR TO START OF CONSTRUCTION.
- 7. CONTRACTOR SHALL CLEAN AND TELEVISE ALL SANITARY AND STORM SEWER PIPING. PROVIDE TELEVISING REPORTS AND VIDEO TO THE CITY OF HORACE.

8. CONTRACTOR SHALL BACKFILL TO THE CITY OF HORACE SPECIFICATIONS AND PROVIDE ALL TESTING RESULTS FOR BACKFILLED AREAS WITHIN THE RIGHT-OF-WAY.

#### **GRADING PLAN NOTES**

- 1. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL UTILITIES AND NOTIFYING THE APPROPRIATE UTILITY COMPANY PRIOR TO BEGINNING GRADING.
- 2. CONTOURS SHOWN ARE FOR FINISHED PAVING, SIDEWALK, SLAB, OR TOPSOIL. ADJUSTMENT FOR SUBGRADE IS THE CONTRACTOR'S RESPONSIBILITY.
- 3. UNLESS OTHERWISE SHOWN, NO PROPOSED SLOPE SHALL EXCEED FOUR (4) HORIZONTAL TO ONE (1) VERTICAL. ALL SLOPED AREAS MUST BE PROTECTED FROM EROSION. (SEE EROSION AND SEDIMENT CONTROL NOTES).
- 4. IF STRIPPED MATERIALS CONSISTING OF VEGETATION AND ORGANIC MATERIALS ARE STOCKPILED ON THE SITE, TOPSOIL MAY BE PLACED TO A HEIGHT OF FIVE FEET. SILT FENCE SHALL BE PLACED AROUND THE BASE OF THE STOCKPILE AND THE STOCKPILE SHALL BE SEEDED WITH NATIVE MIX IMMEDIATELY AFTER STRIPPING OPERATIONS ARE COMPLETE. CONTRACTOR SHALL PERIODICALLY WATER THE STOCKPILE TO REDUCE DUST.
- 5. SPOT ELEVATIONS SHALL TAKE PRECEDENCE OVER CONTOURS AND SLOPES SHOWN. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF SPOT ELEVATIONS THAT DO NOT APPEAR TO BE CONSISTENT WITH THE CONTOURS AND SLOPES. SPOT ELEVATIONS AND SPECIFIC PROFILE DESIGNS SHALL BE USED FOR SETTING ELEVATIONS OF CURB, GUTTER, AND UTILITIES.
- 6. ALL UTILITIES (MANHOLES, VALVE COVERS, CLEANOUTS, VAULTS, BOXES, ETC.) SHALL BE ADJUSTED TO FINAL GRADE PRIOR TO FINAL LIFT OF PAVEMENT.
- 7. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING HIS OWN ESTIMATE FOR EARTHWORK QUANTITIES.
- 8. THE CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE GENERAL PERMIT FOR STORM WATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
- 9. TOPSOIL SHALL BE REMOVED TO FULL DEPTH AND STOCKPILED ON SITE FOR RESPREADING. ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE 6 INCHES MINIMUM OF TOPSOIL. CONTRACTOR SHALL APPLY EROSION CONTROL BLANKET TO ALL SLOPES 6H:1V OR STEEPER.
- 10. NO STOCKPILING OF MATERIAL WILL BE ALLOWED IN THE RIGHT-OF-WAY OR EASEMENTS.

#### CONCRETE PAVING GENERAL NOTES

- 1. CONCRETE MIX DESIGN.
- A. PROPORTIONING NORMAL WEIGHT CONCRETE: COMPLY WITH ACI 211.1 RECOMMENDATIONS.
- B. CONCRETE STRENGTH: ESTABLISH REQUIRED AVERAGE STRENGTH FOR EACH TYPE OF CONCRETE ON THE BASIS OF FIELD EXPERIENCE OR TRIAL MIXTURES, AS SPECIFIED IN ACI 301.
- 1. FOR TRIAL MIXTURES METHOD, EMPLOY INDEPENDENT TESTING AGENCY ACCEPTABLE TO OWNER'S REPRESENTATIVE FOR PREPARING AND REPORTING PROPOSED MIX DESIGNS.
- C. ADMIXTURES: ADD ACCEPTABLE ADMIXTURES AS RECOMMENDED IN ACI 211.1 AND AT RATES RECOMMENDED BY MANUFACTURER.
- D. CONCRETE PROPERTIES:
- 1. COMPRESSIVE STRENGTH, WHEN TESTED IN ACCORDANCE WITH ASTM C 39/C 39M AT 28 DAYS: 4500 PSI.
- 2. FLY ASH CONTENT: MAXIMUM 20 PERCENT OF CEMENTITIOUS MATERIALS BY WEIGHT.
  - a.FLY ASH CONTENT OF MIXES (COLD WEATHER) WILL BE REDUCED TO ZERO WHEN PLACED AFTER OCTOBER 20TH AND BEFORE APRIL 1ST WITHOUT AN ADEQUATE COLD WEATHER MANAGEMENT PLAN.
- 3. CEMENT CONTENT: MINIMUM 611 LB PER CUBIC YARD.
- 4. WATER-CEMENT RATIO: MAXIMUM 42 PERCENT BY WEIGHT.
- 5. TOTAL AIR CONTENT (EXPOSED SLABS ONLY): 6% (+/- 1 PERCENT),
- DETERMINED IN ACCORDANCE WITH ASTM C173/C173M.

  6. MAXIMUM SLUMP: 4 INCHES.
- E. AGGREGATE:
- 1. FOR PAVING APPLICATIONS, MIXES SHALL GENERALLY BE PROVIDED WITH GRADATIONS CONSIDERED WELL-GRADED BY SPECIFICATION AS DETERMINED BY THE MOST CURRENT NDDOT SPECIFICATION FOR WELL-GRADED AGGREGATES FOR CONCRETE. OPTIMIZATION TECHNIQUES WILL BE USED TO PREPARE THE FINAL GRADATIONS FOR WORKABILITY AND COARSENESS FACTOR CONSIDERATIONS. FINE AND COARSE AGGREGATES FOR ALL OTHER MIXES SHALL CONFORM TO THE REQUIREMENTS OF ASTM C33-93, CLASS 4S FOR CONCRETE AGGREGATES AND MEET THE FOLLOWING REQUIREMENTS.
  - a.FINE AGGREGATES
  - 1) 3/8 INCH SIEVE: 100 PERCENT PASSING.
  - 2) NO. 4 SIEVE: 95 TO 100 PERCENT PASSING.
  - 3) NO. 16 SIEVE: 45 TO 80 PERCENT PASSING.
  - 4) NO. 50 SIEVE: 10 TO 30 PERCENT PASSING.
  - 5) NO. 100 SIEVE: 0 TO 10 PERCENT PASSING. 6) NO. 200 SIEVE: 0 TO 3 PERCENT PASSING.
  - 7) THE MAXIMUM LIMITS OF DELETERIOUS MATERIAL SHALL NOT EXCEED THE LIMITS STATED IN ASTM C33-93, CLASS 4S. SHALE CONTENT SHALL BE LESS THAN 0.5%.

#### b. COARSE AGGREGATES

- 1) 1-1/2 INCH SIEVE: 100 PERCENT PASSING.
- 2) 1 INCH SIEVE: 95 TO 100 PERCENT PASSING.
- 3) 1/2 INCH SIEVE: 25 TO 65 PERCENT PASSING.

- 4) 3/8 INCH SIEVE: 15 TO 55 PERCENT PASSING.
- 5) NO. 4 SIEVE: O TO 10 PERCENT PASSING.

6) NO. 8 SIEVE: 5 PERCENT PASSING.

7) THE MAXIMUM LIMITS OF DELETERIOUS MATERIAL SHALL NOT EXCEED THE LIMITS STATED IN ASTM C33-93, CLASS 4S; THE TOTAL OF ALL DELETERIOUS SUBSTANCES, EXCLUDING NO. 200 MATERIAL, SHALL NOT EXCEED 2.3% BY WEIGHT. SHALE CONTENT SHALL BE LESS THAN 0.5%. THE AGGREGATE SHALL SHOW A LOSS OF NOT MORE THAN 35% WHEN TESTED IN ACCORDANCE WITH ASTM C131. CRUSHED HYDRAULIC CEMENT CONCRETE WILL NOT BE ALLOWED.

#### STORM DRAIN GENERAL NOTES

- 1. ALL STORM DRAIN MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING LIDS. ALL STORM DRAIN LIDS SHALL BE LABELED "STORM DRAIN".
- 2. BEDDING MATERIAL SHALL BE INSTALLED ACCORDING TO THE DETAILS AND SPECIFICATIONS AND SHALL BE INCLUDED IN THE PRICE BID FOR THE RESPECTIVE PIPE OR MANHOLE. BEDDING SHALL MEET ASTM D2321 STANDARDS.
- 3. HDPE PIPE SHALL CONFORM TO THE STANDARDS OF ASTM F2306 FOR PIPE AND ASTM D3212 FOR FITTINGS.
- 4. ALL PORTIONS OF THE STORM SEWER SYSTEM LOCATED WITHIN 10 FEET OF A BUILDING OR WATER SERVICE SHALL BE TESTED IN ACCORDANCE WITH THE NORTH DAKOTA PLUMBING CODE.

#### WATER GENERAL NOTES

- 1. THRUST BLOCKS SHALL BE USED AT ALL BENDS AND FITTINGS. TIE RODS SHALL BE USED AT ALL BENDS AND FITTINGS WHERE THRUST BLOCKS DO NOT BEAR AGAINST UNDISTURBED SOIL.
- 2. CONTRACTOR SHALL LOCATE EXISTING VALVES PRIOR TO CONNECTION WITH THE EXISTING SYSTEM, BUT SHALL NOT OPERATE ANY VALVE WITHOUT PERMISSION AND DIRECT SUPERVISION FROM THE CITY OF HORACE.
- 3. ALL WATER MAINS, VALVES, FIRE HYDRANTS, SERVICES, AND APPURTENANCES SHALL BE INSTALLED, TESTED, AND APPROVED PRIOR TO PAVING.
- 4. INSULATION SHALL BE PROVIDED FOR ANY PIPE INSTALLED WITH LESS THAN 8.0 FEET OF COVER.
- 5. PRESSURE TEST SYSTEM TO 125 PSI FORM MINIMUM OF 2 HOURS.
- 6. INCLUDE TRACER WIRE FOR ALL WATER PIPING.
- 7. ALL GATE VALVE BOXES, CURB STOP BOXES, AND FIRE HYDRANT BARRELS SHALL BE WRAPPED WITH 8 MIL POLYETHYLENE.
- 8. DISINFECT & TEST PER NDDOH STANDARDS.

#### SANITARY SEWER GENERAL NOTES

1. ALL SANITARY SEWER MAIN TESTING SHALL BE IN ACCORDANCE WITH ALL NORTH DAKOTA PLUMBING CODE STANDARDS AND SPECIFICATIONS. COPIES OF ALL TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER, THE OWNER, AND THE GOVERNING AUTHORITY PRIOR TO THE START OF THE WARRANTY PERIOD.

#### EROSION AND SEDIMENT CONTROL

- 1. THE CONSTRUCTION SITE SWPPP EROSION CONTROL (EC) SUPERVISOR FOR THE PROJECT WILL BE PROVIDED BY THE CONTRACTOR DURING CONSTRUCTION ACTIVITIES. THE EC SUPERVISOR WILL BE IDENTIFIED BY NAME AT THE PRECONSTRUCTION CONFERENCE AND A CONTACT CELL PHONE NUMBER WILL BE MADE AVAILABLE. THE CONTRACTOR SHALL SUPPLY A COPY OF THE COMPLETED EC TRAINING PROGRAM. ISSUES THAT ARISE DURING CONSTRUCTION THAT IMPACT THE WATERS OF THE STATE OF NORTH DAKOTA WILL BE ADDRESSED AND THE EC SUPERVISOR WILL NOTIFY THE NORTH DAKOTA POLLUTION CONTROL AGENCY.
- 2. IT WILL BE THE RESPONSIBILITY OF THE EC SUPERVISOR TO IMPLEMENT THE SWPPP PLAN DURING CONSTRUCTION AND TO MAINTAIN A QUALITY CONTROL PROGRAM. IN ADDITION, THE EC SUPERVISOR WILL: 1) OVERSEE MAINTENANCE PRACTICES IDENTIFIED AS BMP'S IN THE SWPPP; 2) IMPLEMENT AND OVERSEE SWPPP AND BMP TRAINING FOR ALL PARTIES THAT WILL BE CONSTRUCTING THE PROJECT; 3) CONDUCT OR PROVIDE FOR INSPECTION AND MONITORING ACTIVITIES AS NECESSARY; 4) IDENTIFY OTHER POTENTIAL POLLUTANT SOURCES AND MAKE SURE THEY ARE ADDED TO THE PLAN; 5) IDENTIFY ANY DEFICIENCIES IN THE SWPPP AND MAKE SURE THEY ARE CORRECTED; 6) ENSURE THAT ANY CHANGES IN CONSTRUCTION PLANS ARE ADDRESSED IN THE SWPPP; AND 7) TO AID IN THE IMPLEMENTATION OF THE SWPPP PLAN, THE PROJECT WILL HAVE RANDOM SITE VISITS BY THE DESIGN TEAM AS WELL AS A FULL TIME INSPECTOR(S) ONSITE.
- 3. EXPOSED SOILS MUST BE STABILIZED AS SOON AS POSSIBLE TO LIMIT SOIL EROSION BUT IN NO CASE LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. CONTRACTOR SHALL PERIODICALLY WATER EXPOSED SOILS TO REDUCE DUST.

- 4. TEMPORARY OR PERMANENT DRAINAGE DITCHES OR SWALES WITHIN 200 LINEAL FEET FROM THE PROPERTY EDGE, OR FROM THE POINT OF DISCHARGE INTO A SURFACE WATER, SHALL BE STABILIZED WITHIN 24 HOURS OF CONNECTION TO DISCHARGE POINT OR SURFACE WATER.
- 5. EXPOSED SLOPES ARE TO BE LEFT ROUGH, NOT SMOOTH, UNTIL PERMANENT STABILIZATION IS IMPLEMENTED.
- 6. EXCAVATIONS AND OTHER SOIL DISTURBING ACTIVITIES SHALL BE KEPT TO PRACTICAL MINIMUMS. NATURAL VEGETATION SHALL BE PRESERVED WHEN POSSIBLE.
- 7. THE CONTRACTOR SHALL MINIMIZE DUSTY CONDITIONS BY REGULARLY WATERING EXPOSED SOILS.
- 8. SILT FENCE SHALL BE INSTALLED PRIOR TO CONSTRUCTION AS SHOWN ON EROSION CONTROL (EC) PLAN SHEET.IF SILT FENCE BECOMES DAMAGED IT SHALL BE IMMEDIATELY REPAIRED OR REPLACED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCE PERIODICALLY AND/OR UPON THE COLLECTION OF SEDIMENT TO A POINT OF 1/3 THE FENCE HEIGHT. SILT FENCE SHALL REMAIN IN PLACE UNTIL FINAL TURF ESTABLISHMENT HAS OCCURRED.
- 9. TEMPORARY STOCKPILES ARE NOT TO BE PLACED IN STORM WATER CONVEYANCES OR SURFACE WATERS AND THEY ARE TO BE SURROUNDED BY SILT FENCE.
- 10. ALL STORM SEWER INLETS AND CULVERT INLETS ARE TO BE PROTECTED BY APPROPRIATE APPROVED BMP'S DURING CONSTRUCTION AND UNTIL ALL SOURCES OF POTENTIAL SEDIMENT PRODUCTION ARE STABILIZED. BMP'S MUST BE IN PLACE PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES.

#### SEED MIXTURE

1. SEED: SHALL BE LABELED IN ACCORDANCE WITH USDA RULES AND REGULATIONS UNDER THE FEDERAL SEED ACT. WET, MOLDY, OR OTHERWISE DAMAGED SEED WILL NOT BE ACCEPTED. WEED SEED NOT TO EXCEED 0.5% OF TOTAL MIXTURE. MIXTURE AND MINIMUM PURITY REQUIREMENTS AS FOLLOWS:

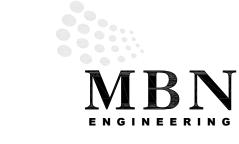
PARK KENTUCKY BLUE GRASS: 40% BY WEIGHT.

CREEPING RED FESCUE: 40% BY WEIGHT.

PERENNIAL RYE GRASS: 20% BY WEIGHT.

RATE OF SEEDING = 225-250 POUNDS PER ACRE.

- 2. APPLY FERTILIZER IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- 3. APPLY AFTER SMOOTH RAKING OF TOPSOIL AND PRIOR TO ROLLER COMPACTION.
- 4. DO NOT APPLY FERTILIZER AT SAME TIME OR WITH SAME MACHINE AS WILL BE USED TO APPLY SEED.
- 5. MIX THOROUGHLY INTO UPPER 2 INCHES OF TOPSOIL.
- 6. LIGHTLY WATER TO AID THE DISSIPATION OF FERTILIZER.
- 7. SOIL SHALL BE MOIST WHEN SEEDING. SEED SHALL BE MECHANICALLY SOWN WITH A DRILL OR BRILLION TYPE SEEDER. SEED MAY BE BROADCAST SOWN IN SMALL AREAS AND COVERED 1/2 INCH BY A HARROW OR APPROVED DEVICE. APPLY SEED UNIFORMLY AT THE SPECIFIED RATE FOR THE MIX.
- 8. APPLY MULCH SLURRY AT A RATE OF 45 LBS PER 1000 SQ FT EVENLY IN TWO INTERSECTING DIRECTIONS. THE MULCH SHALL HAVE A TACKING AND BONDING AGENT TO ENSURE LASTING STABILIZATION AND REDUCE EROSION POTENTIAL. THE TACKIFIER SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
- 9. DAMAGED OR DEAD SEEDED AREAS SHALL BE REPLACED AT NO EXPENSE TO THE OWNER FOR A PERIOD OF 1 YEAR AFTER FINAL ACCEPTANCE HAS BEEN MADE.
- 10. COVER SEEDED SLOPES WHERE GRADE IS 4 INCHES PER FOOT OR GREATER WITH EROSION FABRIC. ROLL FABRIC ONTO SLOPES WITHOUT STRETCHING OR PULLING.



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1 07/22/22 CITY REVIEW

BLAKE BROGREN

COMMERCIAL BUILDINGS

9815 INDUSTRIAL DRIVE HORACE, NORTH DAKOTA



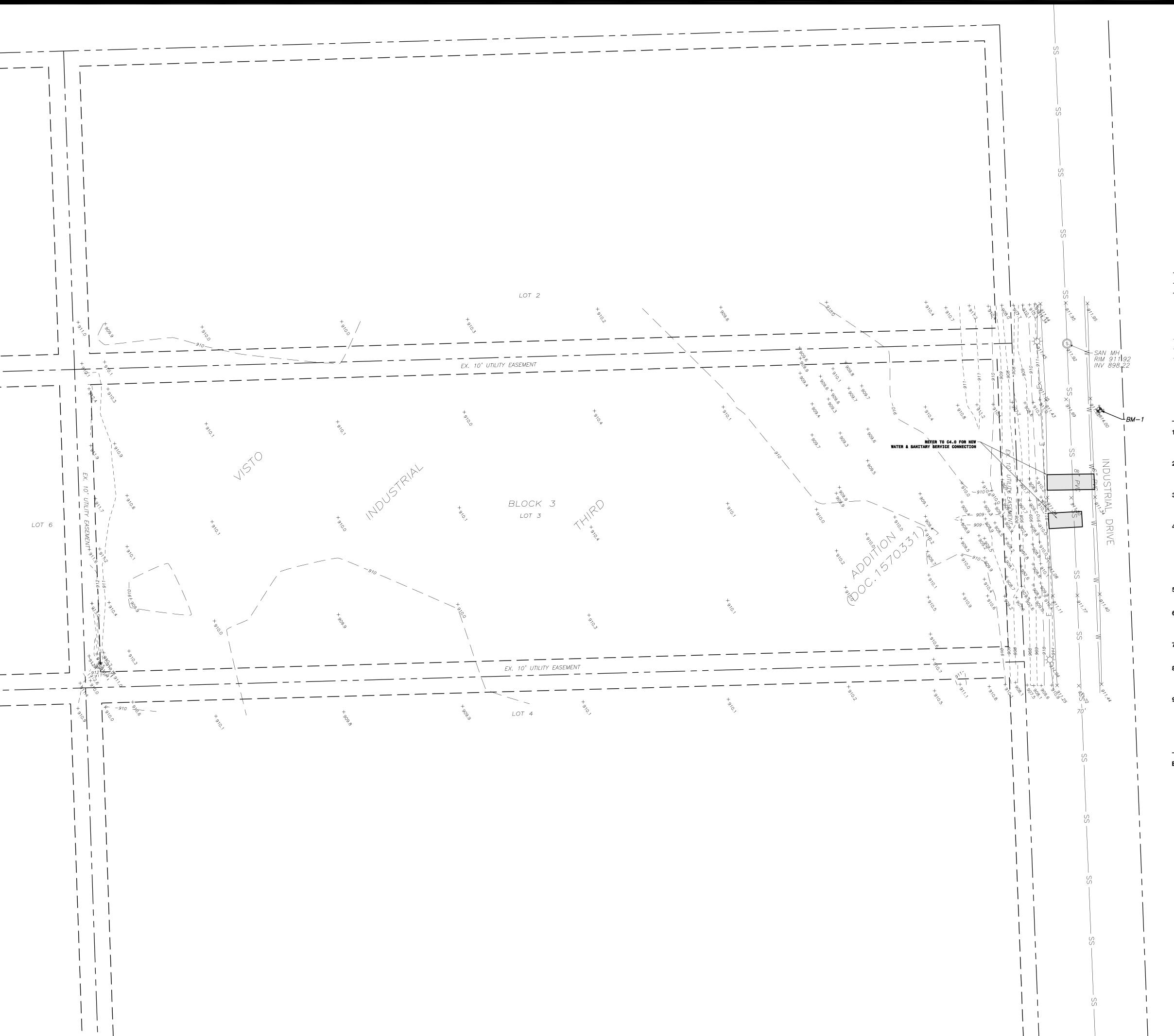
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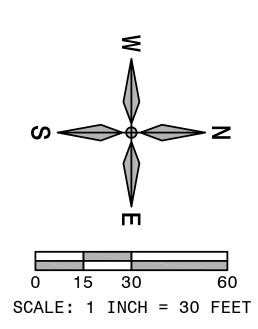
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DATE: <u>05/22/22</u>

NOTES





# MBN ENGINEERING

ENGINEERING

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# SYMBOL LEGEND:

EXISTING PROPERTY LINE
EXISTING EASEMENT LINE
EXISTING HYDRANT/BENCHMARK

EXISTING SANITARY MANHOLE
EXISTING LIGHT POLE
EXISTING WATER LINE
EXISTING SANITARY SEWER LINE
EXISTING ELECTRICAL LINE

REMOVE EXISTING GRAVEL ROAD SECTION

# **PLAN NOTES:**

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- 2. CONTRACTOR SHALL NOTIFY UTILITY COMPANIES FOR UNDERGROUND LOCATIONS 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.
  NORTH DAKOTA ONE CALL PHONE NUMBER: 1-800-795-0555.
- 3. CONTRACTOR SHALL PROTECT ALL PROPERTY PINS. PROPERTY PINS DESTROYED OR DISTURBED SHALL BE REPLACED AT CONTRACTORS EXPENSE.
- 4. IF THE LAND BOUNDARY DENOTED ON THE PLANS ENCOMPASSES MORE THAN ONE (1) ACRE OR IS LESS THAN ONE (1) ACRE, BUT IS PART OF A LARGER DEVELOPMENT PLAN, A NOTICE OF INTENT TO OBTAIN A STORM WATER POLLUTION PERMIT SHALL BE ACQUIRED BY THE CONTRACTOR AND OWNER FROM THE NORTH DAKOTA STATE HEALTH DEPARTMENT SEVEN (7) DAYS PRIOR TO CONSTRUCTION.
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- 8. CONTRACTOR SHALL COORDINATE TAPPING OF THE EXISTING WATERMAIN WITH THE CITY OF HORACE MAINS AND HYDRANTS DEPARTMENT.
- 9. ALL GRASSED AREAS DISTURBED BY CONSTRUCTION SHALL BE TOPSOILED (6" DEPTH), GRADED, SEEDED, AND HYDRO-MULCHED.

# **BENCHMARKS:**

BM-1: TOP NUT OF HYDRANT LOCATED ON THE NORTH SIDE OF INDUSTRIAL DRIVE, ±450' WEST OF THE INTERSECTION OF 7TH STREET EAST AND INDUSTRIAL DRIVE.

ELEVATION = 914.00 (NAVD88)

REVISIONS:

NO. DATE DESCRIPTION

1 07/22/22 CITY REVIEW

# BLAKE BROGREN COMMERCIAL BUILDINGS

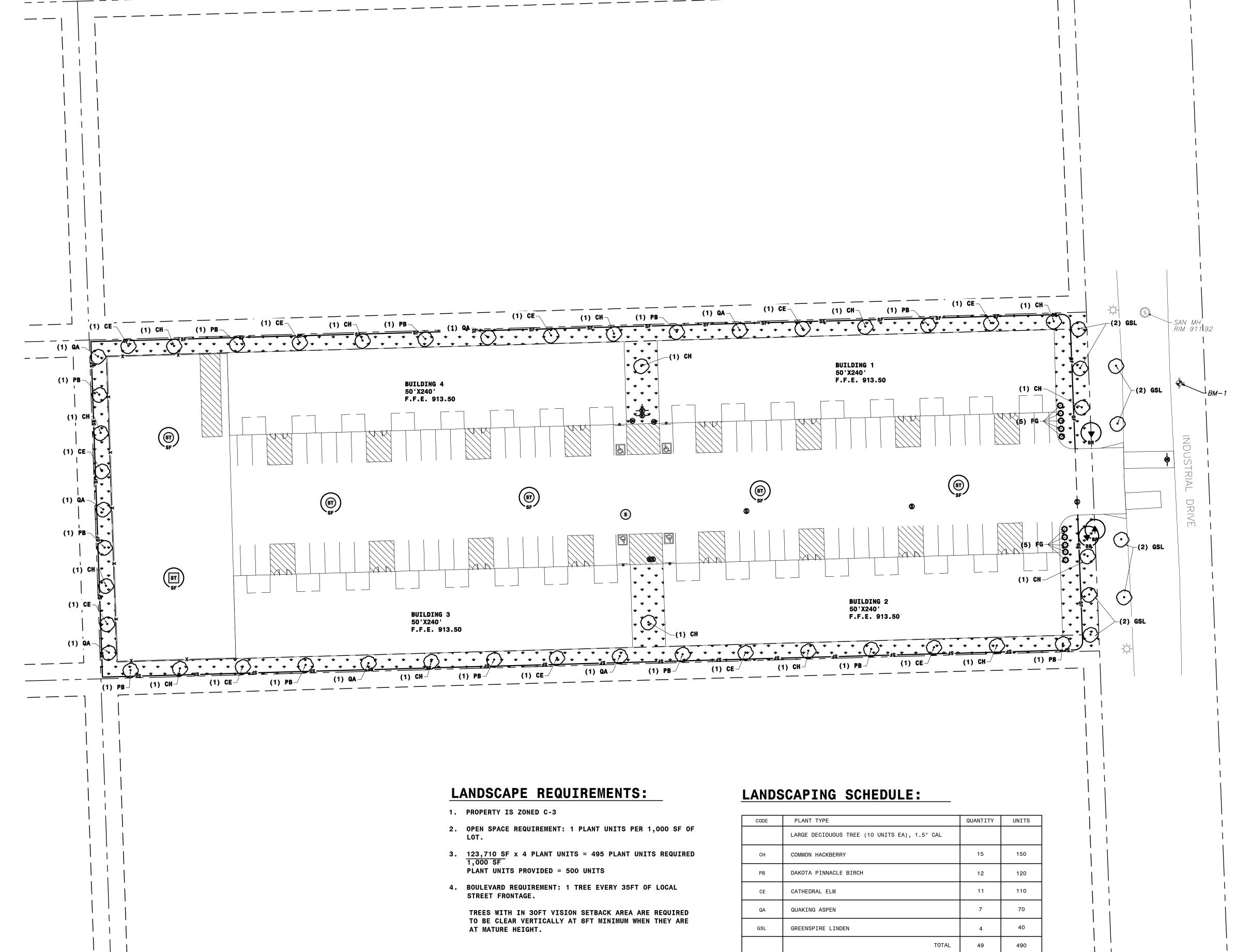
9815 INDUSTRIAL DRIVE HORACE, NORTH DAKOTA



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DATE: <u>05/22/22</u>

C1.0



SMALL SHRUB (TWO GALLON)

BOULEVARD TREES (LARGE DECIDUOUS TREE, 1.5" CAL)

TOTAL

KARL FORESTER GRASS

GREENSPIRE LINDEN

# **∞ ∞ ≥ ≥ ≥** SCALE: 1 INCH = 30 FEET

# SYMBOL LEGEND:

-	
	EXISTING PROPERTY LINE
	EXISTING EASEMENT LINE
<del>•</del>	EXISTING HYDRANT/BENCHMARK
<u> </u>	EXISTING SANITARY MANHOLE
-\(\frac{1}{2}\)	EXISTING LIGHT POLE
W	EXISTING WATER LINE
SS	EXISTING SANITARY SEWER LINE
—— Е ——	EXISTING ELECTRICAL LINE
0	NEW CURB STOP
-@-	NEW GATE VALVE
<b>-</b>	NEW FIRE HYDRANT
<b>©</b>	NEW SANITARY CLEANOUT
ST	NEW STORM INLET
ST	NEW STORM MANHOLE
S	NEW SANITARY MANHOLE
<del>- 0 -</del>	NEW ACCESSIBLE SIGN
<b>A</b>	NEW FLARED END SECTION
SF	NEW SILT FENCE
SF	NEW INLET PROTECTION
BR	NEW BIO ROLL
$\bigcirc$	NEW TREES
ŏ	NEW PERENNIAL GRASSES
<b>*</b> * *	NEW CEEDING AREA
<b>* * *</b>	NEW SEEDING AREA

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# **BLAKE BROGREN COMMERCIAL BUILDINGS**

DESCRIPTION

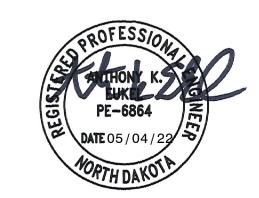
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9815 INDUSTRIAL DRIVE HORACE, NORTH DAKOTA

**REVISIONS:** 

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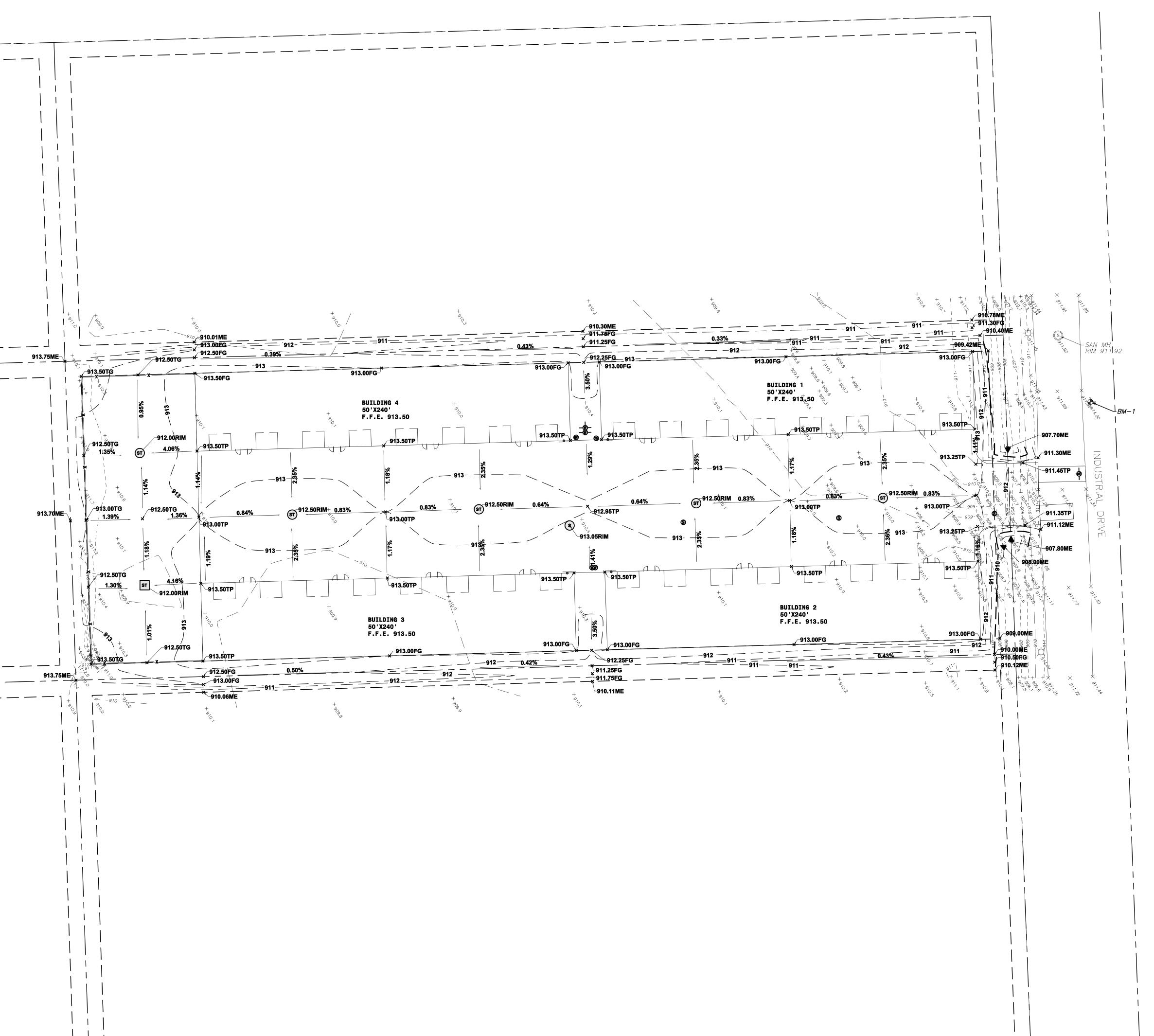


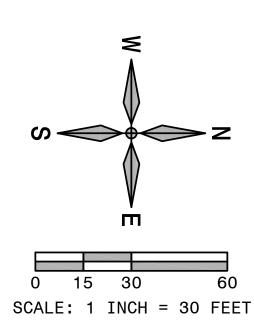
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# **BENCHMARKS:**

ELEVATION = 914.00 (NAVD88)

MBN JOB #: <u>22-063</u> DATE: <u>05/22/22</u>





# SYMBOL LEGEND:

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	EXISTING EASEMENT LINE
	EXISTING HYDRANT/BENCHMARK
<b>(S)</b>	EXISTING SANITARY MANHOLE
<del>\</del>	EXISTING LIGHT POLE
W	EXISTING WATER LINE
	EXISTING SANITARY SEWER LINE
—— E ——	EXISTING ELECTRICAL LINE
•	NEW CURB STOP
	NEW GATE VALVE
<b>-6</b> -	NEW FIRE HYDRANT
<b>©</b>	NEW SANITARY CLEANOUT
ST	NEW STORM INLET
ST	NEW STORM MANHOLE
S	NEW SANITARY MANHOLE
<del>-</del>	NEW ACCESSIBLE SIGN
<b>A</b>	NEW F.E.S.
900.00RIM	NEW RIM ELEVATION
900.00INV	NEW INVERT ELEVATION
900.00TP	NEW TOP OF PAVMENT ELEVATION
900.00TG	NEW TOP OF GRAVEL ELEVATION
900.00SW	NEW SIDEWALK ELEVATION
900.00ME	MATCH EXISTING ELEVATION
1.0%	NEW SLOPE & DIRECTION OF FLOW
<u> </u>	NEW CONTOUR LINE

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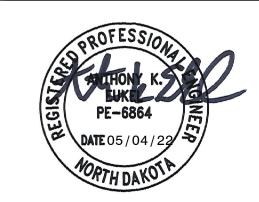
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BLAKE BROGREN

COMMERCIAL BUILDINGS

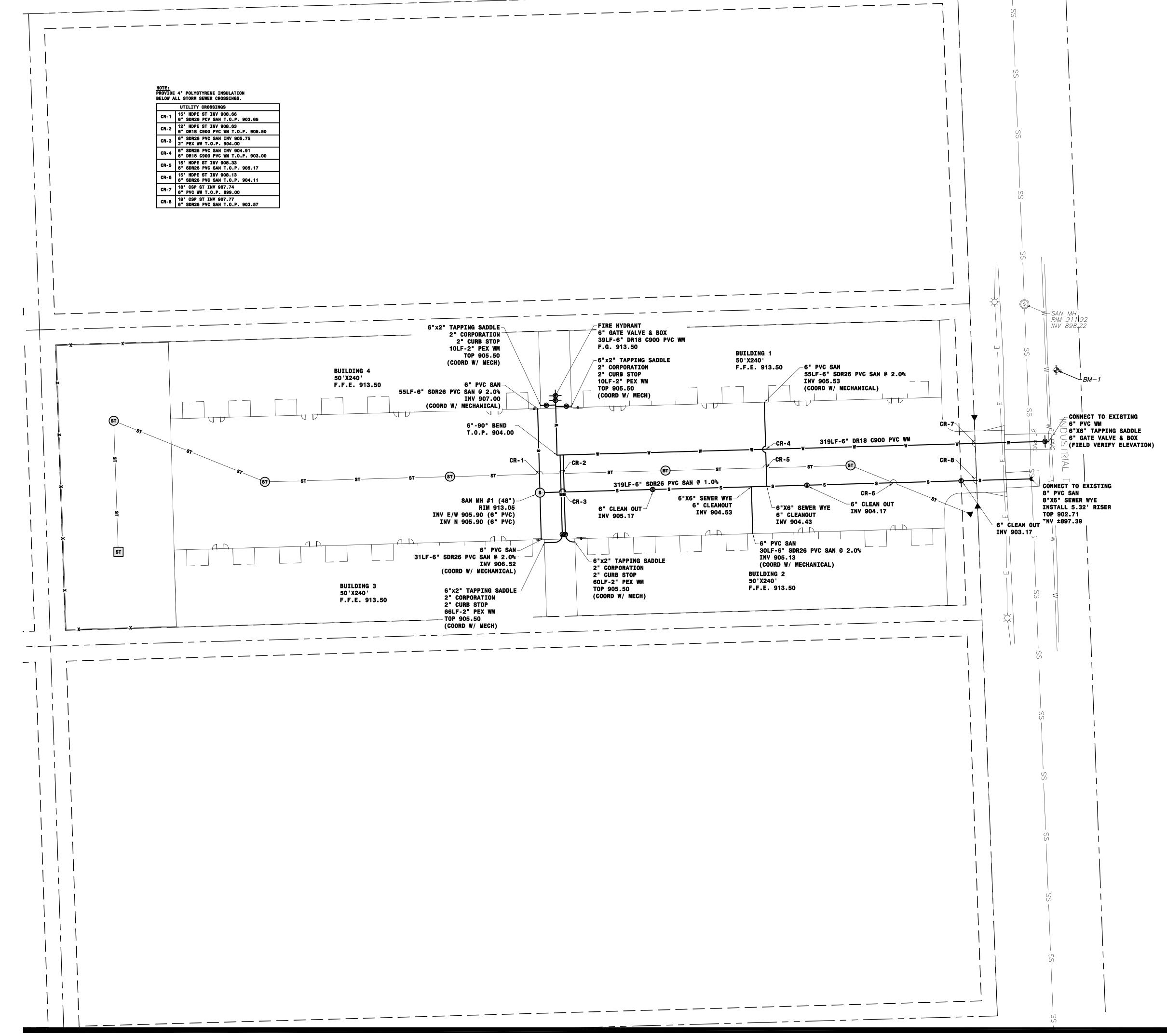
9815 INDUSTRIAL DRIVE HORACE, NORTH DAKOTA

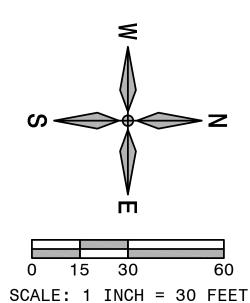


MBN JOB #: 22-063

DATE: <u>05/22/22</u>

C3.0





# SYMBOL LEGEND:

— – – —	EXISTING PROPERTY LINE
	EXISTING EASEMENT LINE
	EXISTING HYDRANT/BENCHMARK
S	EXISTING SANITARY MANHOLE
<del>\</del>	EXISTING LIGHT POLE
W	EXISTING WATER LINE
——— SS ———	EXISTING SANITARY SEWER LINE
——— E ———	EXISTING ELECTRICAL LINE
<b>@</b>	NEW CURB STOP
<b>-®</b> -	NEW GATE VALVE
<b>-</b>	NEW FIRE HYDRANT
<b>S</b>	NEW SANITARY CLEANOUT
ST	NEW STORM INLET
(ST)	NEW STORM MANHOLE
S	NEW SANITARY MANHOLE
•	NEW ACCESSIBLE SIGN
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st	NEW STORM SEWER LINE
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NO.	DATE	DESCRIPTION
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BLAKE BROGREN COMMERCIAL BUILDINGS

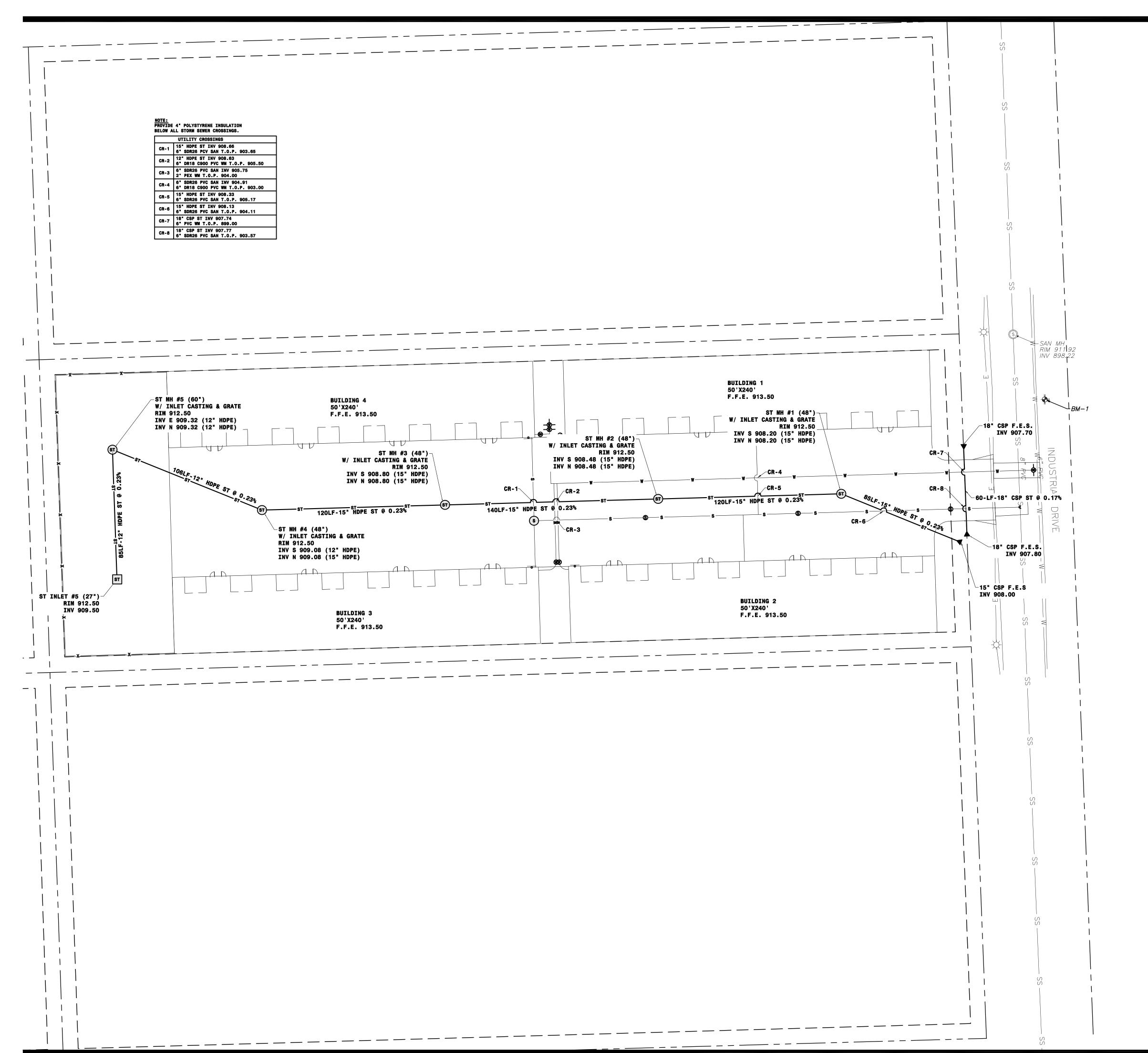
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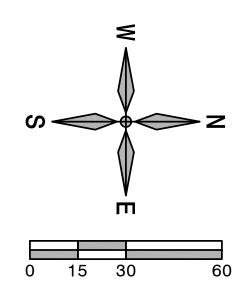
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MBN JOB #: <u>22-063</u>

#: <u>22-063</u> DATE: <u>05/22/22</u>

C4.0





SCALE: 1 INCH = 30 FEET

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# MBN ENGINEERING

ENGINEERING

MECHANICAL \* ELECTRICAL \* CIVIL

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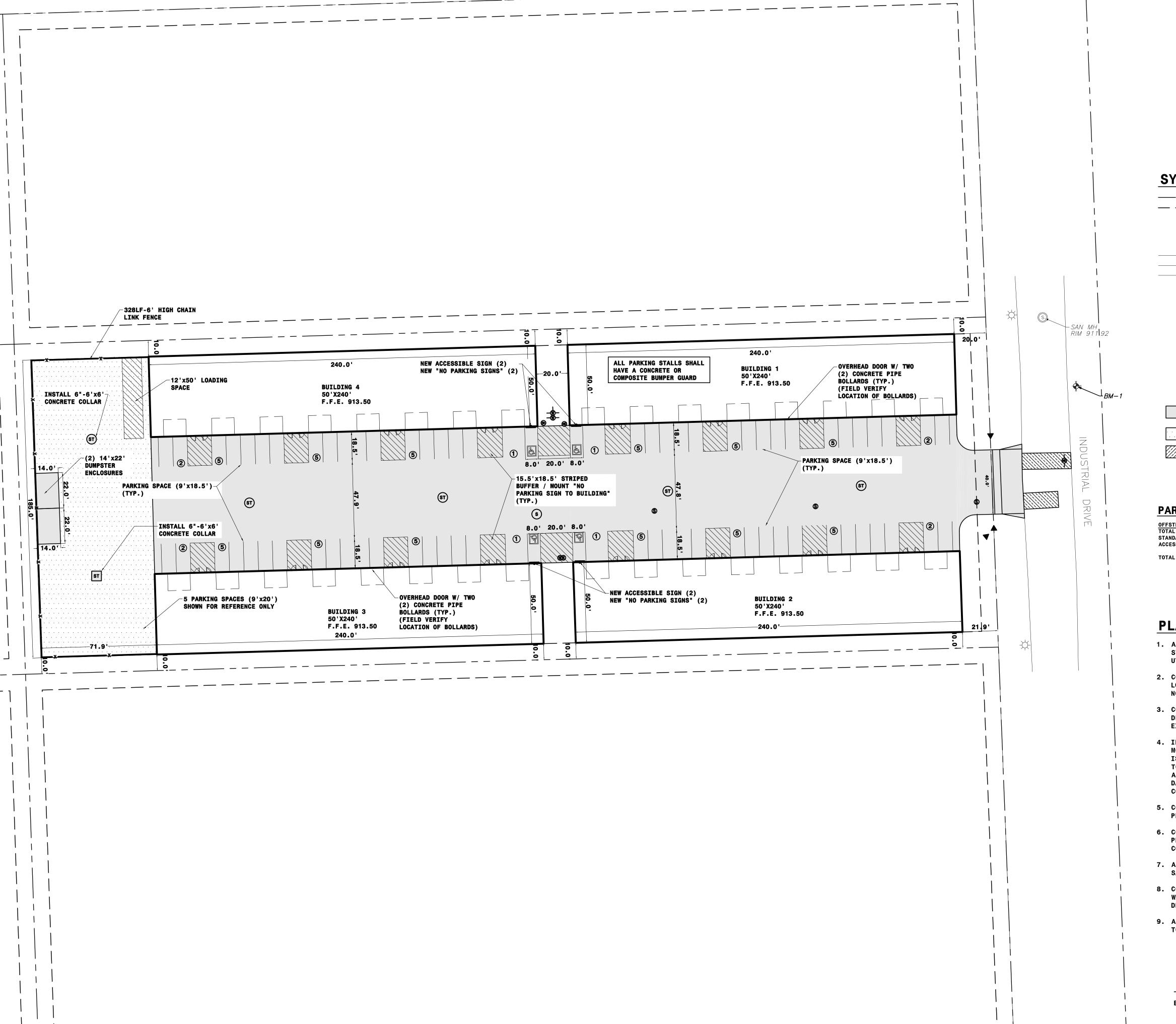
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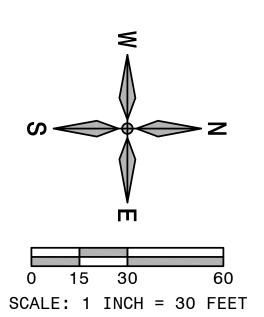
BLAKE BROGREN COMMERCIAL BUILDINGS

9815 INDUSTRIAL DRIVE HORACE, NORTH DAKOTA

MBN JOB #: <u>22-063</u> DATE: <u>05/22/22</u>

C4.





# SYMBOL LEGEND:

EXISTING PROPERTY LINE **EXISTING EASEMENT LINE** EXISTING HYDRANT/BENCHMARK **EXISTING SANITARY MANHOLE** EXISTING LIGHT POLE EXISTING WATER LINE **EXISTING SANITARY SEWER LINE** EXISTING ELECTRICAL LINE **NEW CURB STOP NEW GATE VALVE NEW FIRE HYDRANT NEW SANITARY CLEANOUT NEW STORM INLET** NEW STORM MANHOLE **NEW SANITARY MANHOLE** NEW ACCESSIBLE SIGN NEW F.E.S. NEW 6" REINFORCED CONCRETE PAVEMENT NEW GRAVEL SECTION NEW GRAVEL ROAD SECTION

#### PARKING REQUIREMENTS:

OFFSTREET PARKING
TOTAL SHOP SPACES - 8 PER BUILDING OR 32 SHOP SPACES
STANDARD PARKING PROVIDED - 1 SPACE PER SHOP = 32 SPACES
ACCESSIBLE SPACES PROVIDED - 4 SPACES (ALL VAN ACCESSIBLE)

TOTAL PARKING PROVIDED = 72 SPACES

## **PLAN NOTES:**

- 1. ALL WORK SHALL COMPLY WITH THE MOST RECENT CITY OF HORACE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF PUBLIC UTILITIES.
- 2. CONTRACTOR SHALL NOTIFY UTILITY COMPANIES FOR UNDERGROUND LOCATIONS 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.
  NORTH DAKOTA ONE CALL PHONE NUMBER: 1-800-795-0555.
- 3. CONTRACTOR SHALL PROTECT ALL PROPERTY PINS. PROPERTY PINS
  DESTROYED OR DISTURBED SHALL BE REPLACED AT CONTRACTORS
  EXPENSE.
- 4. IF THE LAND BOUNDARY DENOTED ON THE PLANS ENCOMPASSES MORE THAN ONE (1) ACRE OR IS LESS THAN ONE (1) ACRE, BUT IS PART OF A LARGER DEVELOPMENT PLAN, A NOTICE OF INTENT TO OBTAIN A STORM WATER POLLUTION PERMIT SHALL BE ACQUIRED BY THE CONTRACTOR AND OWNER FROM THE NORTH DAKOTA STATE HEALTH DEPARTMENT SEVEN (7) DAYS PRIOR TO CONSTRUCTION.
- 5. CONTRACTOR SHALL MAINTAIN TEMPORARY EROSION CONTROL UNTIL PERMANENT EROSION CONTROL IS ESTABLISHED.
- 6. CONTRACTOR SHALL ACQUIRE AN EROSION SEDIMENT CONTROL (ESC)
  PERMIT FROM THE CITY OF HORACE PRIOR TO START OF
  CONSTRUCTION.
- 7. ALL PAVEMENT MARKED FOR DEMOLITION SHALL BE FULL DEPTH SAW CUT PRIOR TO REMOVAL.
- 8. CONTRACTOR SHALL COORDINATE TAPPING OF THE EXISTING WATERMAIN WITH THE CITY OF HORACE MAINS AND HYDRANTS DEPARTMENT.
- 9. ALL GRASSED AREAS DISTURBED BY CONSTRUCTION SHALL BE TOPSOILED (6" DEPTH), GRADED, SEEDED, AND HYDRO-MULCHED.

#### **BENCHMARKS:**

BM-1: TOP NUT OF HYDRANT LOCATED ON THE NORTH SIDE OF INDUSTRIAL DRIVE, ±450' WEST OF THE INTERSECTION OF 7TH STREET EAST AND INDUSTRIAL DRIVE.

ELEVATION = 914.00 (NAVD88)



503 7TH ST. N , SUITE 200 FARGO, ND 58102 PHONE: 701.478.6336 FAX: 701.478.6340

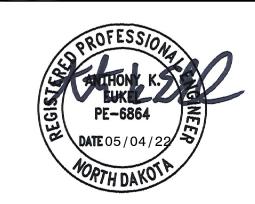
REVISIONS:

NO. DATE DESCRIPTION

O7/22/22 CITY REVIEW

# BLAKE BROGREN COMMERCIAL BUILDINGS

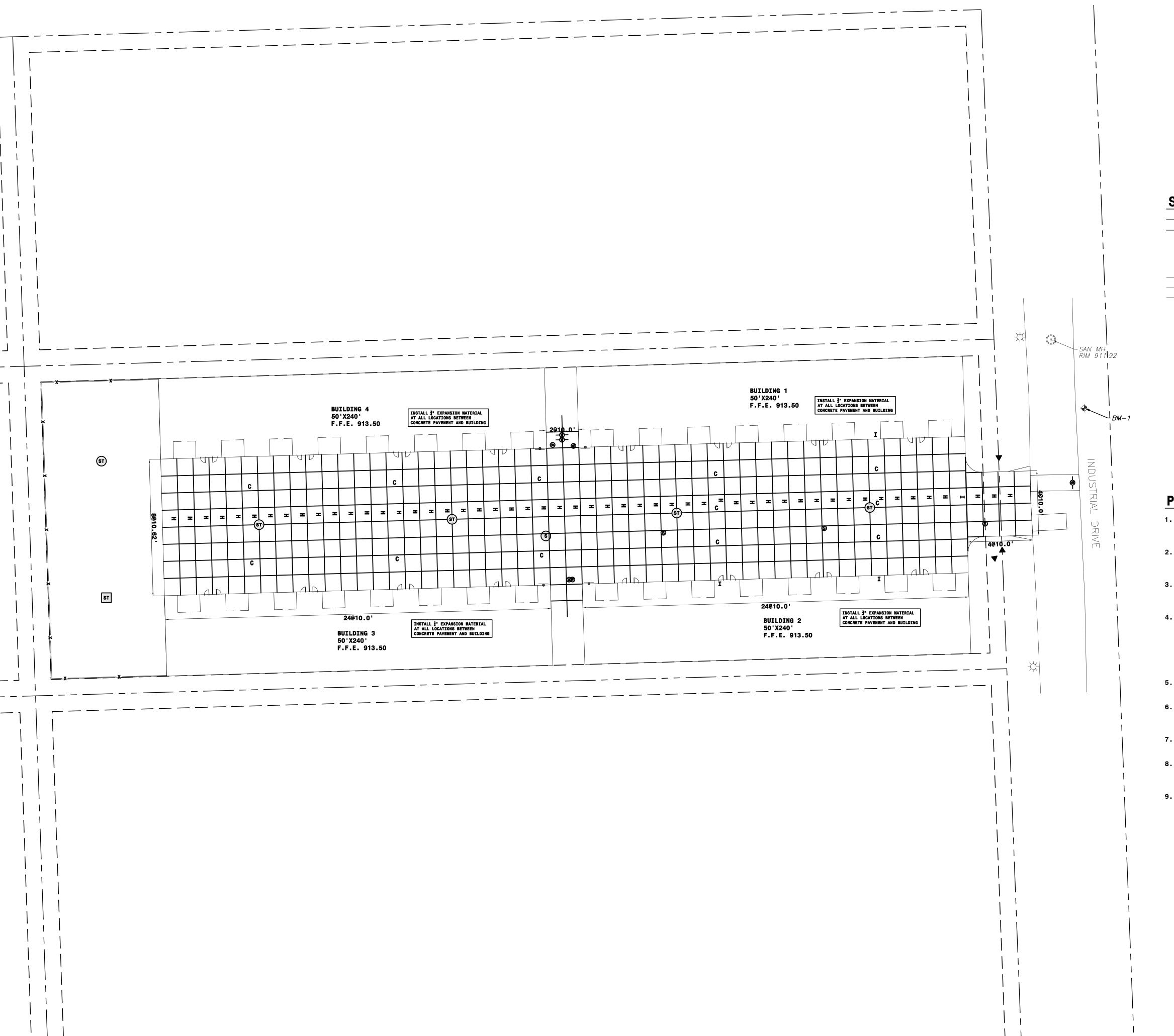
9815 INDUSTRIAL DRIVE HORACE, NORTH DAKOTA

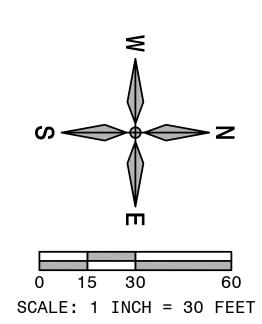


MBN JOB #: <u>22-063</u>

DATE: <u>05/22/22</u>

C5.0





# SYMBOL LEGEND:

	EXISTING PROPERTY LINE
	EXISTING EASEMENT LINE
	EXISTING HYDRANT/BENCHMARK
<u> </u>	EXISTING SANITARY MANHOLE
<del>\</del>	EXISTING LIGHT POLE
	EXISTING WATER LINE
—— SS ——	EXISTING SANITARY SEWER LINE
—— Е ——	EXISTING ELECTRICAL LINE
•	NEW CURB STOP
	NEW GATE VALVE
	NEW FIRE HYDRANT
<b>S</b>	NEW SANITARY CLEANOUT
ST	NEW STORM INLET
ST	NEW STORM MANHOLE
S	NEW SANITARY MANHOLE
<del>-</del>	NEW ACCESSIBLE SIGN
<b>A</b>	NEW F.E.S.
С	NEW TIED CONSTRUCTION JOINT
н	NEW CONSTRUCTION JOINT
I	NEW ISOLATION JOINT

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ELEVATION = 914.00 (NAVD88)



ENGINEERING

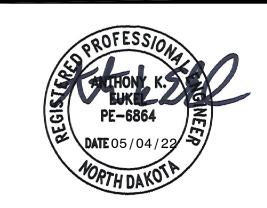
MECHANICAL \* ELECTRICAL \* CIVIL

503 7TH ST. N, SUITE 200
FARGO, ND 58102
PHONE: 701.478.6336
FAX: 701.478.6340

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BLAKE BROGREN
COMMERCIAL BUILDINGS

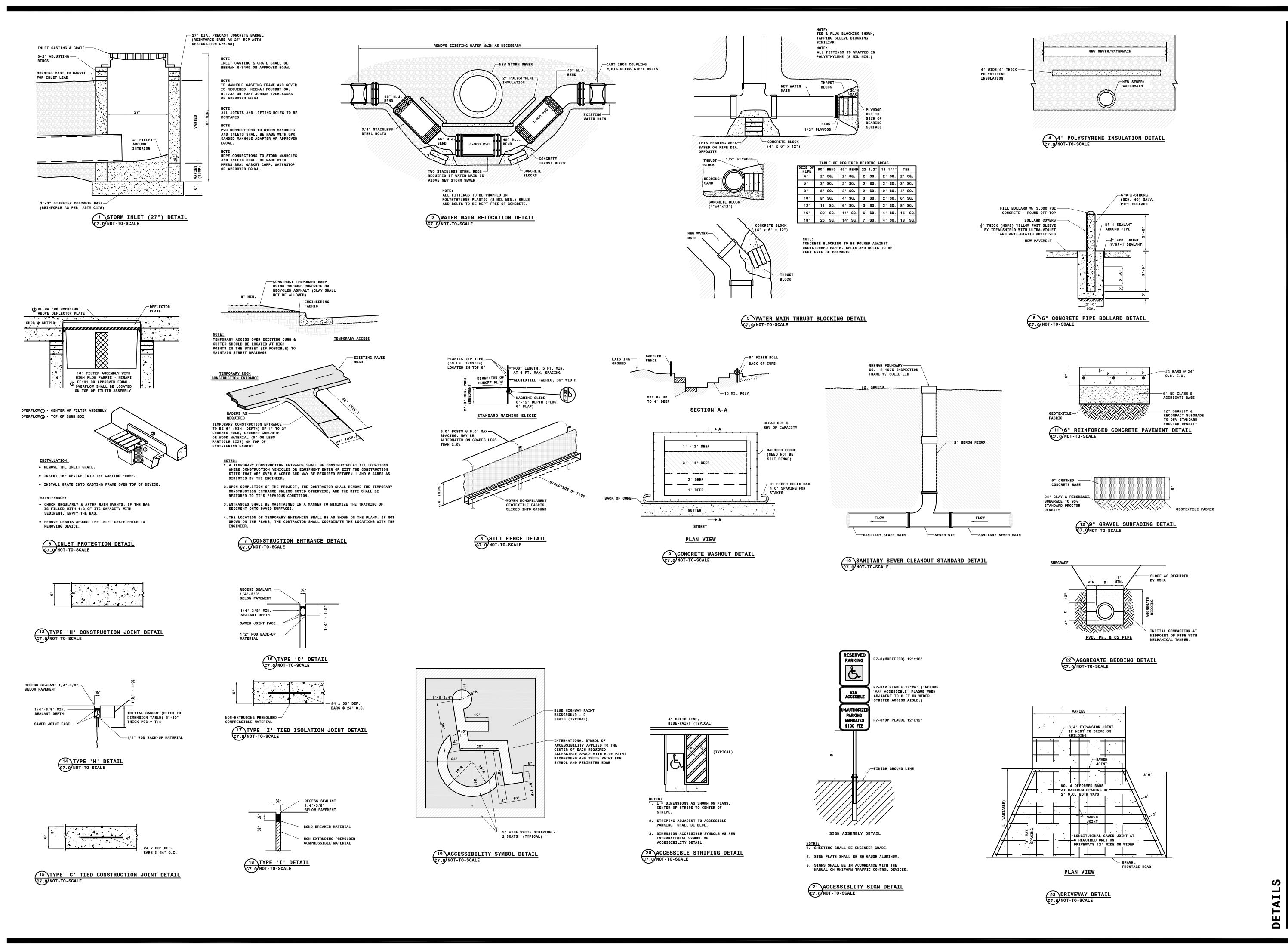
9815 INDUSTRIAL DRIVE HORACE, NORTH DAKOTA



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DATE: <u>05/22/22</u>

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ENGINEERING MECHANICAL \* ELECTRICAL \* CIVIL

**503 7TH ST. N, SUITE 200 FARGO, ND 58102** PHONE: 701.478.6336 FAX: 701.478.6340

**REVISIONS:** DESCRIPTION <u>√1</u> 07/22/22 CITY REVIEW

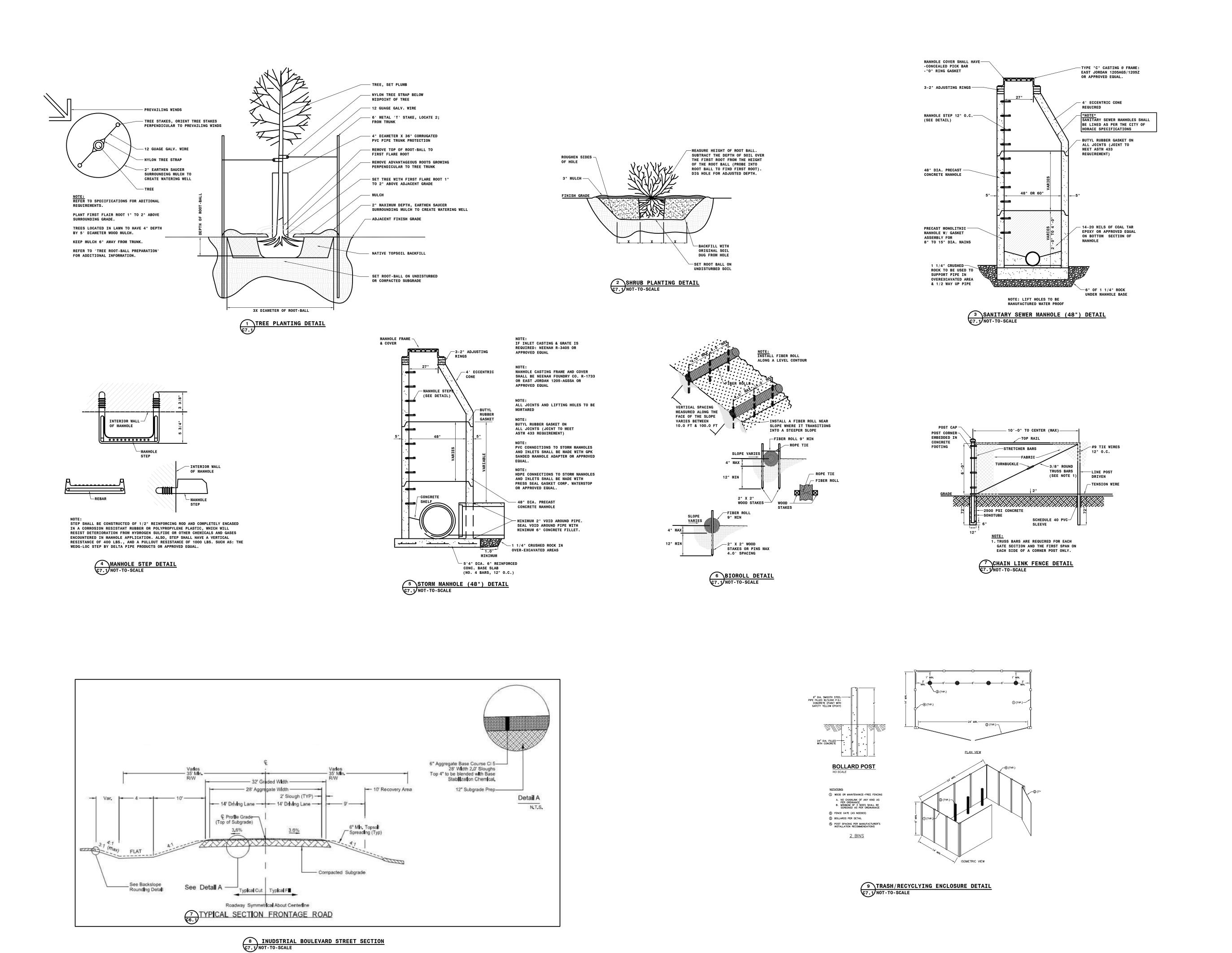
**BLAKE BROGREN** COMMERCIAL BUILDINGS

9815 INDUSTRIAL DRIVE HORACE, NORTH DAKOTA



MBN JOB #: <u>22-063</u>

DATE: <u>05/22/22</u>



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O7/22/22 CITY REVIEW

BLAKE BROGREN
COMMERCIAL BUILDINGS

9815 INDUSTRIAL DRIVE HORACE, NORTH DAKOTA



MBN JOB #: <u>22-063</u> DATE: <u>05/22/22</u>

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#### **GENERAL STRUCTURAL NOTES:**

- 1. THE GOVERNING BUILDING CODE IS THE INTERNATIONAL BUILDING CODE (IBC) 2018 EDITION AS APPROVED AND AMENDED BY THE CITY OF HORACE, ND.
- CONTRACT DOCUMENTS INCLUDE THE STRUCTURAL DRAWINGS AND SPECIFICATIONS, BUT DO NOT INCLUDE SHOP DRAWINGS, VENDOR DRAWINGS, OR OTHER SUBMITTALS BY THE CONTRACTOR.
- CONTRACTOR SHALL CROSS VERIFY ALL CONTRACT DOCUMENTS, ELEVATIONS, DIMENSIONS, AND EXISTING CONDITIONS PRIOR TO STARTING WORK. DISCREPANCIES OR CONFLICTS SHALL BE NOTED TO THE EOR IMMEDIATELY FOR REMEDIATION. SPECIFIC NOTES AND DETAILS SHALL PRESIDE OVER GENERAL NOTES AND
- THE DIMENSIONS, LOCATIONS, AND DETAILS SHOWN ON THE DRAWINGS ARE BASED ON THE BEST AVAILABLE INFORMATION AT THE TIME OF THE DRAWINGS BEING ISSUED. DEVIATIONS WHICH ARE NECESSARY OR WHICH CONFLICT SHALL BE REPORTED TO THE EOR. CONTRACTOR SHALL HAVE FULL RESPONSIBILITY FOR DEVIATIONS NOT APPROVED BY THE EOR.
- COSTS OF ADDITIONAL DESIGN WORK DUE TO THE SELECTION OF AN OPTION OR DUE TO ERRORS OR OMISSION IN CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR HAS SOLE RESPONSIBILITY FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION. THE STRUCTURAL DRAWINGS REFLECT THE COMPLETED STRUCTURE. BRACING, SHORING, AND PROTECTION DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR. THE STRUCTURE SHALL NOT BE LOADED WITH CONSTRUCTION MATERIALS AND EQUIPMENT THAT EXCEEDS THE DESIGN LOADS.
- PENETRATIONS NOT SHOWN ON THE DRAWINGS MUST BE APPROVED BY THE EOR BEFORE PLACING THROUGH STRUCTURAL ELEMENTS. CONTRACTOR SHALL PROVIDE A CAST-IN SLEEVE FOR ALL HORIZONTAL ELEMENTS THAT EXTEND THROUGH FOOTING AND FOUNDATION WALL, SUCH AS DRAIN TILE, CONDUIT, PIPING, ETC. COORDINATE SLEEVES WITH EOR. SEE MECHANICAL, ELECTRICAL, AND ARCHITECTURAL DRAWINGS FOR ALL PENETRATIONS AND EMBEDDED ITEMS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
- CONTRACTOR TO VERIFY ALL WEIGHTS, LOCATIONS & DIMENSIONS OF MECH. EQUIPMENT SHOWN AND NOTIFY THE EOR OF ANY DISCREPANCIES. COORDINATE THIS INFORMATION WITH ALL NECESSARY
- PERIODIC SITE OBSERVATION BY REPRESENTATIVES OF SANDMAN STRUCTURAL ENGINEERS IS SOLELY FOR THE PURPOSE OF DETERMINING IF THE WORK OF THE CONTRACTOR IS PROCEEDING IN GENERAL ACCORDANCE WITH THE STRUCTURAL CONTRACT DRAWINGS. A LIMITED SITE OBSERVATION SHOULD NOT BE CONSTRUED AS EXHAUSTIVE OR CONTINUOUS TO CHECK THE QUALITY OR QUANTITY OF THE WORK, BUT RATHER PERIODIC IN AN EFFORT TO GUARD THE OWNER AGAINST DEFECTS OR DEFICIENCIES IN THE WORK OF THE CONTRACTOR. ALL MATERIALS AND WORKMANSHIP ARE SUBJECT TO THE REVIEW OF THE EOR.
- SEE THE FOLLOWING DETAILS FOR STANDARD DETAILS: CIP CONCRETE & FOUNDATION: 1/S301

WOOD FRAMING: 1/S401

# SHOP DRAWING & DEFERRED DESIGN SUBMITTAL NOTES:

1. CONTRACTOR TO FURNISH COMPLETE AND DETAILED SHOP DRAWING & SUBMITTALS FOR REVIEW AND

APPROVAL BY THE EOR. THE FOLLOWING ARE REQUIRE	D FOR THIS PROJECT.
SHOP DRAWING OR SUBMITTAL	NOTES/COMMENTS
CONCRETE MIX DESIGNS	BY 3RD PARTY TESTING AGENCY
CONCRETE REINFORCEMENT	-
LUMBER MATERIAL GRADE & DOWEL-TYPE FASTENERS	-
METAL PLATE CONNECTED WOOD TRUSSES	DEFERRED SUBMITTAL: SEE NOTE #4

- CONTRACT DRAWINGS SHALL NOT BE REPRODUCED FOR USE AS SHOP DRAWINGS. ALL SHOP DRAWINGS MUST BEAR THE REVIEW STAMP OF THE CONTRACTOR BEFORE THEY ARE REVIEWED BY THE EOR.
- SHOP DRAWINGS SHALL SHOW ALL FIELD DETAILS AND ADDITIONAL INFORMATION NEEDED FOR THE CONTRACTOR TO CONSTRUCT THE BUILDING PER THE CONTRACT DOCUMENTS.
- STRUCTURAL COMPONENTS/SYSTEMS DESIGNATED AS A "DEFERRED SUBMITTAL" OR AS "DELEGATED DESIGN", "DESIGNED BY OTHERS", OR "PRE-ENGINEERED" MUST INCLUDE A CALCULATION PACKAGE THAT IS STAMPED AND SIGNED BY A REGISTERED PROFESSIONAL ENGINEER, LICENSED IN THE STATE THE PROJECT WILL BE CONSTRUCTED, PRIOR TO SUBMITTAL FOR APPROVAL TO THE EOR
- SHOP DRAWINGS SHALL BE AVAILABLE ON THE JOB SITE DURING TIMES OF INSPECTION AND SHALL BE CLEARLY INDICATED THAT THEY HAVE BEEN REVIEWED AND APPROVED BY THE EOR.
- REVIEW OF SUBMITTALS AND SHOP DRAWINGS BY THE EOR DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW AND CHECK ALL SUBMITTALS AND SHOP DRAWINGS BEFORE SUBMITTING TO THE STRUCTURAL ENGINEER. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR THE ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, AND DIMENSIONS SPECIFIED IN THE CONTRACT DOCUMENTS.

#### **DESIGN CRITERIA/DESIGN LOADS:**

WOOD TRUSS CONSTRUCTION."

ALL**SPECTORATHRESPONSEEDODEFLEIENTO(S**D1)

	SNOW LO	DAD DESIGN CR	ITERIA
GROUND SNOW LOAD	Pg	50 PSF	-
SNOW IMPORTANCE FACTOR	ls	1.0	-
EXPOSURE FACTOR	Ce	1.0	-
THERMAL FACTOR	Ct	1.1	TYPICAL
SLOPED ROOF FACTOR	Cs	0.86	TYPICAL

ROOF DESIGN LOADS					
LOAD TYPE	NOTATION	LOAD	NOTES		
SNOW LOAD	S	33.1 PSF	TYPICAL (Pf or Ps)		
LIVE LOAD	RLL	20 PSF	-		
DEAD LOAD	D	10 PSF	D TC = 4 PSF / D BC = 6 PSF		
NOTES: ALL BOOK COMPON	MENTO CHALL DE DECI	CNED EOD DDIE	TI OADS AND DALANCED & LINDALANCED SNOW		

DEAD LOAD	U	10 PSF	D 1C = 4 P3F / D BC	J - 0 P3F
NOTES: ALL ROOF COMPONENTS	SHALL BE DESI	GNED FOR DRIF	T LOADS AND BALANCED & U	JNBALANCED SNOW
LOADING PER ASCE 7. SEE PLAN F	OR SNOW DRIF	T LOADS		

WIND LOAD DESIGN CRITERIA								
ULT. DESIGN WIND SPEED V-ult 115 MPH -								
RISK CATEGORY	-	II	-					
EXPOSURE CATEGORY	-	С	-					
INTERNAL PRESSURE COEFFICIENT	GCpi	+/- 0.18	-					
C & C BASE PRESSURE	qh - ult	24.7 PSF	-					
	•							

	ETAL BLATE AGNINEATER	WOOD TO	LIGO NOTE	·
IV	ETAL PLATE CONNECTED	או עטטע וא	USS NOTE:	DED LOCAL HIDIODICTION
_	10 1114 114 114011 1	'	V.L ////	PER LOCAL JURISDICTION
1	DIMETRATEPRATERYONNECTED WAS	D TRUSSES SH	ALL MARTHER MARCHINE	ERED BY A REGISTERED PROFESSIONAL
١.			1	
	FNGINEER IN THE STATE OF THE	PROJECT AS	FALED COVER	SHEET SHALL BE SUBMITTED WITH THE
			2,1222 00 1211	
	│ <sup>™</sup> SHIOPTORAWINGS ATTYTHE TIME C	PESUBMITTAL.	SHOP DRAWING	B DESIGN SUBMITTAL TOUCHMPLY WITH
	ID 0 0 0 0 0 0 1 0 0 0 0 0 1			

RAIN LOAD DESIGN CRITERIA

- RARGER SEPTION 2303.4. ds/dh 0"/0" WOOD TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION", AFPA, AND "NATIONAL DESIGNS TANDARD FOR METAL PLATE CONNECTED
- TRUSSES TO BE DESIGNED TO SATISFY THE FOLLOWING DEFLECTION REQUIREMENTS. TRUSS SUPPLIER TO PROVIDE CAMBERTAS VECTAS SARY (19) COUNTER DEFLECTIONS. 1.0 ASSUMED MAPPED SPECTRAL RESPONSE (Ss) PER TPI DEFLECTION TOTAL LOAD (TL) = KXDL+LL. [NOTE.MAP76BEPERFIER SR58P, RAFF, MAND, OR LIVE] PER JEI GREEREAG TORS (KY) TO BE (16) (NOT) WOOD FRAMING), 1.5 (SOUD SAWN OR SCL WOOD, DRY USE), OR 2.0 (METAL PLATE CONNECTED WOOD TRUSSES, DRY USE). PARTITION WALLS BELOW TRUSSES TO BE FRAMED TO
- TRUSS SUPFISHED BENGER EPERGEFORT TO FOLLOW FRAMING SCHEME AS THE LOADS HAVE BEEN DISTRIBUTED TO THE FOUNDATION ACCORDINGLY. IF REVISED FRAMING DIRECTIONS ARE DESIRED BY SUPPAISERSELYNNIMHSTOBE-REBINITINGDSTORENPROVAL PRIOR TO FRAUNDATION CONSTRINGERNRAMES
- UNO ON DRAWINGS, FOR HAS NOT PROVIDED STRUCTURAL SHEATHING BENEATH THE BOTTOM CHORD OF ROOF OR FLOOR TRUSSES FOR BRACING. ALL HARDWARE (BOLTS, HANGERS, STRAPS, ETC) REQUIRED FOR CONNECTIONS BETWEEN TRUSSES SHALL BE DESIGNAMALAN SUSSER POLIEDUS ET HISE TRUSS ENGINEER AND SUPPLIER. EQUIVALENT LATERAL FORCE
- UNO, ROOF TRUSSES SHALL BE ATTACHED TO THE TOP PLATE AT ALL BEARING CONDITIONS WITH SIMPSON I2.5T CLIPS INSTALLED PER MANUFACTURER'S INSTRUCTIONS. GIRDERS AND ROOF BEAMS SHOULD BE FQUINDATION MAINESJ PPORTS WITH (2) H2.5T CLIPS. TRUSS SUPPLIER TO PROVIDE BEARING BLOCKS AS
- REQUIRED BY DESIGN. FOOTINGS ARE DESIGNED FOR AN ASSUMED NET ALLOWABLE SOIL BEARING PRESSURE OF 1500 psf FOR 8. DO NEXTRO-FROOT INGSOANDTHEOGS SHIEODS DER OF BOTANGS SIELLE SE TASSSATIVENDS ALLO OWNAB DE SUSSE ARING PRESSURE
- SHALL BE VERIFIED BY A LICENSED GEOTECHNICAL ENGINEER AT TIME OF CONSTRUCTION LAYOUT AND SPACING GUIDELINES ON PLAN ARE FOR REFERENCE ONLY UNLESS SPECIFICALLY 2. DIMENSOONED DOODENGIESO.AVATIONS FROM WATER, MOISTURE, OR FROST INFILTRATION, PRIOR TO PLACEMENT OF FOOTING CONCRETE, CLEAN FOOTING EXCAVATIONS OF SNOW, WATER, MUD, DIRT, AND
- 10. GIRDDEETRISISSESNISHAPLABEESFORPTORGSTORYBAGMEINLUMBER OZESTSIOS GRATBEISS PLIES (MIN OF 2 STUDS) WITH CONTINUOUS SOLID BEARING TO THE FOUNDATION. AVOID BEARING GIRDER TRUSSES OVER 3. WALEROPS NIXIONSERING LESS COOTHING BY ISSTEAD IMBEEN REPORD COOM/PALEAND ATIONS OF THE GEOTECHNICAL REPORT. SEE
- PLAN FOR TOP OF FOOTING ELEVATIONS AND DETAILS FOR FOOTING STEP REQUIREMENTS. 11. THE GUIDELINES SET FORTH BY THE TRUSS PLATE INSTITUTE (TPI) & SCBA PUBLICATION BSCI "GUIDE TO 4. GOODHERAONTOFAEOTBRIANALINBE INISSAOINSOBLEEFSTRANTINE(IANDT BIEACONGNOMENDETTELPLAFEANOISNECTELDSOIL OR WOODATHUSSESSIDSTHANSBILLAGUEXOSVIEONBSITEE TRUSS INSTALLER.
- 125. THE BARTAEIPLATECOMPACETOTISMACOBE RUSSESUPPLANDS SHEATIES BPPAY IDHENS BRREEVITECSING STEPINGS INCER OR SUM QUURMISIEDETISUO ITEICHHETHRUSSEENRECAUCONFOREASTNINGEREPROTRINSOSALHEBERDETER PERCNEALINIS PERCETOTING, AND BRACINGUOTENTENSISES.
- 136. EREIBTAOKFBIRASHAGLOFEWOODPARTESSBS ISBTCHEARBISAOMBANISTWOFFEREINTRUISSAINSTASHABLTWETTERUSSLOWED. INSTRIACER RISHAELAPROBIDEATEEDPOIRAAR ERNAGONGALIADSTORAHA &ICRIOSSOERAGENGO (PEAR ESSOFORIDEA BINITIV. ROOF SHEATHING. CEILING & PERMANENT BRACING CAN BE APPLIED & SHEARWALLS COMPLETED.
- 7. UNLESS SPECIFICALLY PRESCRIBED IN A GEOTECHNICAL REPORT, BACKFILL SHALL BE PLACED AND PERIO QUINTENACE REPORNICO ONS EVIDEOS TRUTES SEES CIKNEES SEDENES TO ARLIEDS SE, VIDEOS TRUES SCIONS TENUTE AT WHEER INVENDE CATED BY TROMRUSSIONESHOON DREWINGSON IN DROWN LUNG WITCH DANGE OF TROMPENDED FOR DEPORT OF THE PROPERTY OF THE PROP W EBB**IE** DIBERCIDENIES SIEACO DE PAIC AETO DE DAMINIEMU NIHOBS SIS (GOHDEHENSES SDAERDUHRENCENTS MAXTEDNENNITHESTM PLANDA 1935E 0101 20) RESTRICT.
- 158. SEE WALAIF PLOTTE (\$\$) ARRIECTO EBEVOENDE FRELDS IS MORE LORIAMON PROPOPER BASARENT OVER AND TERREDON COLUMNS BRACING.LOCATIONS AND REQUIREMENTS.
- CONTRACTOR TO COORDINATE INTERIOR & EXTERIOR TOP OF FOOTINGS WITH MEP CONTRACTORS, PRIOR TO START OF CONSTRUCTION. PLUMBING TO BE ROUTED ABOVE FOOTINGS UNLESS APPROVED BY EOR. FOOTINGS MAY NEED TO BE LOCALLY LOWERED TO ACCOUNT FOR ADJACENT PLUMBING LINES OR BASINS THAT COULD UNDERMINE SUPPORTING SOIL ALONGSIDE OR BELOW FOOTINGS.
- 10. IF SHOWN ON FOUNDATION PLAN, DRAINTILE IS FOR GRAPHICAL REPRESENTATION ONLY. SIZE AND LAYOUT TO BE CONFIRMED WITH MEP CONTRACTOR AND CIVIL DRAWINGS.

#### POST INSTALLED ANCHOR NOTES:

POST INSTALLED ANCHORS NOTED ON PLAN AND/OR DETAILS NOTED SHALL BE AS FOLLOWS (UNO). IF ALTERNATIVE ANCHORS ARE DESIRED, CONTRACTOR MUST SUBMIT PRODUCT DATA FOR APPROVAL BY THE STRUCTURAL ENGINEER PRIOR TO ORDERING OF MATERIALS. ANCHORS USED TO TRANSFER STRUCTURAL LOADS MUST HAVE BEEN APPROVED BY METHODS OF ACI 318 APPENDIX D FOR MECHANICAL ANCHORS AND ICC-ES AC308 FOR ADHESIVE AND TORQUE-CONTROLLED ANCHORS. ADHESIVES USED IN COLD WEATHER MUST MEET ALL WEATHER REQUIREMENTS AND CODE REQUIREMENTS STATED ABOVE.

> INJECTION ADHESIVE ANCHORS: SIMPSON SET-3G ADHESIVE. THREADED RODS TO BE A193 GRADE B7 WITH EMBEDDED END CUT @ 45° ANGLE.

SIMPSON STRONG BOLT 2 **EXPANSION ANCHORS:** 

SCREW ANCHORS:

POWDER ACTUATED FASTENERS (PAF): 0.157"Ø STEEL-TO-STEEL, THRU BASE METAL, 1/2" MIN. EDGE DISTANCE. 0.157"Øx11/4" STEEL TO CONCRETE & MASONRY. 3" MIN. CONCRETE EDGE DISTANCE (UNO).

2. POST INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE DRAWINGS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE STRUCTURAL ENGINEER PRIOR TO USING POST INSTALLED ANCHORS FOR MISSING OR MISPLACED CIP ANCHORS. CARE SHALL BE TAKEN TO AVOID CONFLICTS WITH EXISTING REINFORCING BARS. HOLES SHALL BE DRILLED AND CLEANED PER ANCHOR MANUFACTURER'S SPECIFICATIONS. ANCHORS AND ADHESIVE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.

SIMPSON TITEN HD

#### **CONCRETE AND STEEL REINFORCEMENT NOTES:**

- 1. CONCRETE AND STEEL REINFORCEMENT SHALL CONFORM TO AMERICAN CONCRETE INSTITUTION (ACI) CODES AND SPECIFICATIONS, LATEST EDITION.
  - ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE" ACI 315 "DETAILS & DETAILING OF CONCRETE REINFORCEMENT" ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" ACI 306R "COLD WEATHER CONCRETING"
- 2. CAST-IN-PLACE CONCRETE COMPRESSIVE STRENGTHS REQUIRED (28 DAY):

FOOTINGS	3000 PSI	PIERS / COLUMNS	3000 P
FOUNDATION WALLS	3000 PSI	EXTERIOR SLABS	4500 P
INTERIOR SLAB	4000 PSI	(AIR ENTRAINED 5%-7% /	SEE SPECS)

- 3. SUBMIT CONCRETE MIX DESIGN & STRENGTH DATA TO EOR FOR APPROVAL. ALL ADMIXTURES ARE THE RESPONSIBILITY OF THE CONCRETE SUPPLIER'S ENGINEER.
- 4. CAST-IN-PLACE CONCRETE SHALL BE SUBJECT TO TESTING BY AN INDEPENDENT TESTING LABORATORY, SEE SPECS AND SPECIAL INSPECTION REQUIREMENTS.
- i. ALL CONCRETE SHALL BE PLACED PER ACI & THOROUGHLY CONSOLIDATED BY MEANS OF A VIBRATOR,
- 6. REINFORCING STEEL SHALL BE GRADE 60 DEFORMED, BILLET-STEEL, ASTM A615, UNO.

PARTICULARLY AROUND REINFORCEMENT STEEL AND CORNERS OF FORM WORK.

- 7. WELDED REINFORCING STEEL SHALL BE GRADE 60, LOW CARBON, ASTM A706, WHICH IS SPECIALLY MANUFACTURED TO BE WELDABLE.
- 8. WELDED WIRE FABRIC SHALL COMPLY WITH ASTM A82 AND A185 STANDARDS AND SHALL BE PLACED IN THE CENTER OF THE SLAB, UNO. LAP JOINTS A MINIMUM OF 6". EXTEND FABRIC TO BE WITHIN 1" OF SLAB EDGES.
- 9. PROVIDE ADEQUATE BOLSTERS, HIGH CHAIRS, SUPPORT BARS, ETC TO MAINTAIN THE SPECIFIED CLEARANCES FOR THE ENTIRE LENGTH OF ALL REINFORCING STEEL AND WELDED WIRE FABRIC.
- 10. PROVIDE EXTRA REINFORCEMENT AROUND ALL OPENINGS GREATER THAN 8" SQUARE OR ROUND. PROVIDE (2) #5 BARS @ 3" OC FOR EACH MAT OF BARS, AT EACH SIDE AND CORNER OF OPENING EXTENDING MINIMUM 18" PAST CORNER OF THE OPENING. PLACE 2" CLEAR FROM OPENING.
- 11. SEE DETAILS FOR REINFORCING LAP SPLICE SCHEDULE, UNO ON PLAN OR DETAILS.
- 12. CAST DOWELS, WITH STD 90 DEGREE HOOK, IN FOOTINGS FOR CONCRETE PIERS AND WALLS ABOVE. DOWELS SHALL BE THE SAME SIZE AND QTY AS THE VERTICAL REINFORCING (UNO)
- 13. SUPPLY 50 FEET EXTRA OF #5 REBAR FOR MISC. PLACEMENT AS DIRECTED BY THE ENGINEER. CONTRACTOR SHALL INCLUDE LABOR ALLOWANCE FOR PLACEMENT.
- 14. EXTERIOR SLABS SHALL DRAIN FREELY AWAY FROM THE BUILDING. SEE CIVIL AND ARCH. DRAWINGS FOR
- 15. CONTROL SAWCUT JOINTS ARE TO BE EXECUTED AS SOON AS CONCRETE HAS HARDENED SUFFICIENTLY TO PREVENT AGGREGATE FROM DISLODGING BY SAW AND PRIOR TO SHRINKAGE STRESS CRACKING. SEE DETAIL 1/S301 FOR SLAB CONSTRUCTION JOINTS (CCJ) AND FOR SLAB CONTROL JOINTS (CJ). CONTRACTOR SHALL SUBMIT A PROPOSED JOINT LAYOUT TO ARCH/ENG FOR APPROVAL PRIOR TO SLAB PLACEMENT.
  - CONTROL JOINTS SHALL BE ON COLUMN LINES AND @ RE-ENTRANT CORNERS TO THE GREATEST EXTENT POSSIBLE WITH SPACING LESS THAN 15'-0" OC BETWEEN.
  - CONSTRUCTION JOINTS SHALL BE LOCATED SO AS NOT TO ALLOW A SINGLE SLAB POUR TO EXCEED 4000 SQUARE FEET UNLESS ALTERNATE MEASURES ARE TAKEN TO CONTROL SLAB CURLING & SHRINKAGE.
  - C. PROVIDE CJ OR CCJ JOINTS SO AS NOT TO EXCEED A SLAB UNIT ASPECT RATIO OF 1.5:1.
- 16. SYNTHETIC FIBER REINFORCEMENT, WHERE SPECIFIED ON PLAN FOR SLABS-ON-GRADE, TOPPINGS, AND/OR SLABS ON DECK. SHOULD BE MACROSYNTHETIC AND SHALL CONFORM TO ASTM C 1116/C (TYPE III) AND ACI 544 DOCUMENTS. DOSAGE RATE TO BE SPECIFIED BY THE CONCRETE MIX DESIGNER TO COMPLY WITH THE FOLLOWING REQUIREMENTS: FIBER DOSAGE TO BE EQUIVALENT TO THE DISTRIBUTED STEEL REINFORCEMENT OF ACI 318 FOR MINIMUM SHRINKAGE AND TEMPERATURE REINFORCEMENT RATIO OF 0.0018 (UNO). RESIDUAL STRENGTH AFTER FIRST CRACK SHALL BE BETWEEN 20% AND 25%. DOSAGE OF FIBER FOR SLABS ON COMPOSITE STEEL DECKING SHALL NOT BE LESS THAN 4 LB/CUBIC YARD, AS RECOMMENDED IN ANSI/SDI C -2011. MIX DESIGN SUBMITTAL TO INCLUDE DOSAGE RATES, ENGINEERING DATA, AND HISTORICAL PERFORMANCE DATA FROM THE FIBER MANUFACTURER/SUPPLIER.
- 17. SEE ARCH DRAWINGS FOR DIMENSIONS OF STOOPS, FOUNDATION WALL HOLDOUTS, SLAB RECESSES, SLOPED SLABS & FOUNDATION WALL INSULATION.

#### **WOOD FRAMING NOTES:**

- WOOD AND TIMBER CONSTRUCTION SHALL COMPLY WITH THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (AITC) STANDARD SPECIFICATIONS.
- WOOD CONSTRUCTION SHALL CONFORM TO CHAPTER 23 (SECTIONS 2301, 2302, 2303, 2304, 2305, & 2306) OF THE 2015 IBC FOR MINIMUM REQUIREMENTS UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS. FOR MINIMUM FASTENING REFER TO TABLE IBC 2304.9.1. PER SECTION 2301.2. THE STRUCTURAL DESIGN OF THIS STRUCTURE HAS BEEN IN ACCORDANCE WITH THE "ALLOWABLE STRESS" DESIGN" METHOD. PROVISIONS WITHIN SECTION 2308 "CONVENTIONAL LIGHT-FRAME CONSTRUCTION" DO NOT APPLY TO THIS STRUCTURE.
- 3. ALL FRAMING LUMBER SHALL BE INSTALLED WITH MOISTURE CONTENT OF 19% OR LESS INDICATING "S-DRY" ON THE GRADE STAMP.
- 4. ALL LUMBER IN CONTACT WITH CONCRETE, MASONRY OR EXPOSED TO WEATHER SHALL BE PRESSURE TREATED WITH WATERPROOFING TREATMENT, 28% MAX. MOISTURE CONTENT.
- 5. ALL SIMPSON STRONG-TIE CONNECTORS USED WITH PRESSURE TREATED LUMBER SHALL BE "Z-MAX" COATED AS A MINIMUM OR REQUIRED COATING TO PROTECT CONNECTORS FROM SURFACE CHEMICALS. PROVIDE A PRESERVATIVE-TREATED BARRIER BETWEEN TREATED PLATES AND HOLD-DOWNS.
- 6. LUMBER SHALL COMPLY WITH NATIONAL DESIGN SPECIFICATION (NDS), LATEST EDITION SUPPLEMENT FOR MINIMUM ALLOWABLE DESIGN STRESS VALUES FOR LUMBER GRADES SHOWN BELOW. ALL LUMBER FRAMING SHALL BE MARKED WITH A GRADE STAMP.

MINIMUM LUMBER T <i>F</i>	DESIGN VAL KEN FROM N					SIGN VALUES
SPECIES & GRADE	Fb	Ft	Fv	FcP	Fc	E
	L	OAD BEAR	ING WALL	STUDS		
SPF #1/#2	875	450	135	425	1150	1,400,000
		HEADERS	/BEAMS/JC	ISTS		
HEM FIR #2	850	525	150	405	1300	1,300,000
	·	TREATED	BEAMS/JC	ISTS		
SOUTHERN PINE #1	1000	650	175	565	1400	1,600,000
	TOP PL/H	EADER PL	ABOVE G	ROUND SIL	L PL	
SPF #1/#2	875	450	135	425	1150	1,400,000
	·	TREA	TED SILL P	L		
SOUTHERN PINE #2	1000	600	175	565	1400	1,400,000
		TREA	TED POST	3		
SOUTHERN PINE #2	850	550	165	375	525	1,200,000
		NON-TRI	EATED PO	STS		
DOUG FIR #2	750	475	170	625	700	1,300,000
	F	LOOR TRU	SS END RI	BBONS		
SPF #1/#2	875	450	135	425	1150	1,400,000

IF ALTERNATIVE GRADE OR SPECIES OF LUMBER IS DESIRED THAT IS EQUAL OR GREATER THAN THE ABOVE REQUIREMENTS; CONTRACTOR TO SUBMIT REQUEST TO ENGINEER FOR APPROVAL PRIOR TO ORDERING OF MATERIAL. SPF-S #2 IS SPRUCE-PINE-FIR SOUTH & IS NOT EQUIVALENT TO SPF #1/#2

ANCHOR TREATED SILL PLATES TO CONCRETE/MASONRY WITH 1/2"Ø GALV A.R.'S 4'-0" OC MINIMUM, UNO ON PLAN. HOOKED ROD WITH MINIMUM EMBED = 7"; SEE STANDARD DETAILS. THERE SHALL BE A MINIMUM OF (2) ANCHORS PER PIECE OF SILL PLATE W/ (1) BOLT LOCATED NO MORE THAN 12" OR LESS THAN 4" FROM END OF EACH SILL PLATE PIECE. A. 1/2"x5" SIMPSON TITEN HD (GALV) MAY BE DIRECTLY SUBSTITUTED FOR CIP SILL PLATE ANCHORS.

- DIMENSIONAL LUMBER USED FOR HEADERS SHALL HAVE NO SPLITS OR CHECKS.
- PROVIDE STD CUT WASHERS PER STRUCTURAL DETAILS FOR ALL BOLTS IN WOOD MEMBERS. RE-TORQUE NUTS 48 HOURS AFTER FIRST TIGHTENING. SEE DRAWINGS FOR LOCATIONS OF SQ. PLATE WASHERS.
- 10. NOTCHING OR CUTTING OF STRUCTURAL WOOD MEMBERS IS PROHIBITED WITHOUT PRIOR APPROVAL FROM ENGINEER. HOLES BORED IN WALL STUDS OR JOISTS SHOULD BE IN THE CENTER HALF OF THE MEMBER AND SHALL NOT BE LARGER THAN 1/4 OF THE DEPTH OF THE MEMBER. ALLOWABLE CUTTING. NOTCHING. AND BORED HOLE PROVISIONS OF IBC SECTION 2308 DO NOT APPLY TO THIS STRUCTURE
- 11. LOAD BEARING STUD WALLS TO BE 2x4 @ 1'-4" OC UNO. SEE TABLE ABOVE FOR SPECIES & GRADE.
- 12. EXTERIOR WALLS AND LOAD BEARING WALLS SHALL BE CAPPED WITH DOUBLE TOP PLATES. THE PLATES SHALL OVERLAP AT CORNERS AND AT INTERSECTIONS WITH OTHER LOAD BEARING WALLS. SEE STANDARD
- 13. POSTS AND BEARING STUDS (JACKS/KINGS) FOR BEAMS AND HEADERS SHALL BE CONTINUOUS TO THE FOUNDATION LEVEL. PROVIDE SQUASH BLOCKING BETWEEN FLOOR LEVELS TO MATCH THE WIDTH OF THE POST/STUD ASSEMBLY FROM ABOVE.
- 14. TOP FLANGE OF ALL RAFTERS, JOISTS AND BEAMS TO BE LATERALLY SUPPORTED @ 24" OC MIN. PROVIDE BRIDGING FOR TOP FLANGE AS REQUIRED TO NEAREST FRAMING MEMBER OR PROVIDE ADEQUATELY SUPPORTED PLYWOOD DECKING.
- 15. PROVIDE SOLID BLOCKING AT BEARING POINTS OF ALL 2x JOISTS.
- 16. METAL FRAMING ANCHORS AND HARDWARE SHOULD BE AS NOTED IN DETAILS. ALTERNATIVE HARDWARE THAT IS EQUAL OR GREATER IN CAPACITY MUST BE SUBMITTED TO ENGINEER FOR APPROVAL PRIOR TO INSTALLATION. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
- 17. FASTENERS IN CONTACT WITH PRESERVATIVE-TREATED WOOD SHALL BE OF HOT-DIPPED ZINC-COATED GALVANIZED STEEL OR STAINLESS STEEL. THIS INCLUDES NAILS, TIMBER RIVETS, SILL ANCHORS, WOOD SCREWS, THRU BOLTS, AND LAG SCREWS.
- 18. STRUCTURAL LOAD BEARING OR LATERAL LOAD RESISTING WALLS ARE SHOWN ON THE PLAN. SEE ARCH DRAWINGS FOR PARTITION WALLS, PROVIDE NECESSARY CONNECTION/ALLOWANCE OF PARTITION WALLS TO UNDERSIDE OF FLOOR AND ROOF FRAMING TO ACCOUNT FOR FRAMING DEFLECTION.
- 19. DRILL BOLT/ANCHOR HOLES IN WOOD 1/16" LARGER THAN THE NOMINAL DIAMETER OF THE BOLT. REPAIR OVERSIZED HOLES WITH BEARING PLATE WASHERS.
- 20. ALL JOISTS, TRUSSES, HEADERS, AND BEAMS SHALL HAVE FULL BEARING UNO NOTED ON THE DETAILS.

MINIMUM DESIGN VALUES FOR ENGINEERED WO	OOD MATERIALS UN	O ON PLAN (	OR DETAILS (PSI)
MATERIAL AND FUNCTION	Fb	FcII	Е
LVL BEAMS	2600	N/A	2,000,000
LSL BEAMS	2325	N/A	1,550,000
PSL BEAMS	2900	N/A	2,000,000
PSL COLUMNS	N/A	2500	1,800,000

MINIMUM	DIMENSIC	NS OF FA	STENERS. I	JNO [NDS APPENDIX L] UNITS	S = INCHES		
FASTENER TYPE	L	D	Н	FASTENER TYPE	L	D	Н
NAIL: 6d	2	0.113	0.266	NAIL: 16d	3 1/2	0.162	0.344
NAIL: 8d	2 1/2	0.131	0.281	NAIL: 30d	4 1/2	0.207	0.438
NAIL: 10d	3	0.148	0.312	#6 TYPE S OR W DRYWALL SCREW	1 7/8"	N/A	N/A

L = LENGTH, D = DIAMETER, H = HEAD DIAMETER

#### WOOD STRUCTURAL PANEL WALL SHEATHING (WOOD FRAMING):

- 1. ALL PANELS SHALL HAVE A GRADE STAMP BY AN AMERICAN PLYWOOD ASSOCIATION (APA APPROVED AGENCY MEETING THE PROJECT REQUIREMENTS. ALL PANELS SHALL BE EXPOSURE 1, MINIMUM.
- 2. TYPICAL EXTERIOR WALL SHEATHING, UNO: NOMINAL THICKNESS = 7/16", SPAN RATING 24/16.
- 3. PANEL JOINTS SHALL BE AT STUD CENTERLINE AND SHALL BE OFFSET FROM ADJACENT PANELS.
- EDGES TO BE BUTT TIGHT @ JOINTS. PANELS LESS THAN 12" WIDE SHALL NOT BE USED.
- 4. FASTENERS SHALL BE SPACED @ 6" OC ALONG ALL PANEL EDGES & @ 12" OC IN THE FIELD OF THE PANELS. FASTENERS TO BE LOCATED NOT LESS THAN 3/8" IN FROM THE EDGE OF THE PANEL
- 5. MINIMUM FASTENERS SHALL BE: 8d COMMON NAILS, WITH A MINIMUM 1 3/8" PENETRATION, FLUSH DRIVEN, UNO.
- IN SHEARWALL APPLICATIONS, IF PRE-FABRICATED PANELS ARE USED, WALL SHEATHING MUST SPLICE @ STUD CENTERLINE AND NOT AT A JOINT BETWEEN WALL PANELS. IF SPLICE DOES HAPPEN BETWEEN WALL PANELS, AN ALTERNATE CONNECTION OF PANELS IS TO FASTEN END STUDS OF PANELS TOGETHER W/ 16d NAILS @ 6" OC STAGGERED FROM BOTH SIDES. IN BOTH CASES, FIELD INSTALL UPPER TOP PLATE FOR WALL CONTINUITY PER STANDARD DETAILS.
- IN SHEARWALL APPLICATIONS: PANEL EDGES TO BE UNBLOCKED, UNO. PANELS SHALL NOT BE LESS THAN 4'x8', EXCEPT AT BOUNDARIES AND CHANGES IN FRAMING. WALL OPENINGS, SUCH
- AS WINDOWS AND DOORS, DO NOT CONSTITUTE CHANGES IN FRAMING. 8. FASTENING REQUIREMENTS SHALL APPLY TO ALL STUDS, TOP & BOTTOM PLATES, & BLOCKING.
- 9. MINIMUM SPACING OF NAILS TO BE 3" OC FOR 2X LUMBER.
- 10. PROPOSED PENETRATIONS THROUGH SHEARWALL SHEATHING NEEDS TO BE SUBMITTED TO EOR. FOR APPROVAL PRIOR TO CUTTING IN THE FIELD.

MECH

MECHANICAL

#### **ABBREVIATIONS AND SYMBOLS** ALTERNATE

LUM.	ALUMINUM	MEP	MECH/ELECTRICAL/PLUMBING
RCH	ARCHITECT	MFR	MANUFACTURER
LK'G	BLOCKING	MIN	MINIMUM
0	BOTTOM OF	MISC	MISCELLANEOUS
RG	BEARING	MO	MASONRY OPENING
IP .	CAST IN PLACE	NOM	NOMINAL
;J	CONTROL JOINT	NTS	NOT TO SCALE
JP	COMPLETE JOINT PENETRATION	NS	NON-SHRINK
CJ.	CONSTRUCTION CONTROL JOINT		ON CENTER
LR	CLEAR	OD	OUTSIDE DIAMETER
MU	CONCRETE MASONRY UNIT	OF	OUTSIDE FACE
ONC	CONCRETE	OH	OVERHEAD
ONN	CONNECTION	OPP	OPPOSITE
ONT	CONTINUOUS	OPN'G	OPENING
ONST	CONSTRUCTION	PAF	POWDER ACTUATED FASTENE
OORD	COORDINATION	P/C	PRECAST
RC	COLD ROLLED CHANNEL	PLF	POUNDS PER LINEAR FOOT
BE	DECK BEARING ELEVATION	PSF	POUNDS PER SQUARE FOOT
BL	DOUBLE	PSI	POUNDS PER SQUARE INCH
EG	DEGREE	RAD	RADIUS
ET	DETAIL	REF	REFERENCE
IAG	DIAGONAL	REINF	REINFORCING / REINFORCE
IM	DIMENSION	REQ'D	REQUIRED
L	DEAD LOAD	RET	RETURN
_ )T	DOUBLE TEE	RTU	ROOF TOP UNIT
WG	DRAWING	R/W	REINFORCE WITH
A	EACH	SC	SLIP CRITICAL
L	ELEVATION	S.D.	SEE DETAIL
OR	ENGINEER OF RECORD	SF	SQUARE FOOTAGE
Q	EQUAL	SIM	SIMILAR
Ξ)	EXISTING	SOG	SLAB ON GRADE
XP	EXPANSION	SPA	SPACING / SPACES
XT	EXTERIOR	SPECS	SPECIFICATIONS
.W.	EACH WAY	SQ	SQUARE
DN	FOUNDATION	SS	STAINLESS STEEL
T	FOOT	STD	STANDARD
TG	FOOTING	TEMP	TEMPORARY
SALV	GALVANIZE	T & G	TONGUE & GROOVE
SA.	GAUGE	THK	THICK / THICKENED
S.C.	GENERAL CONTRACTOR	TO	TOP OF
IC	HOLLOW CORE	TOB	TOP OF BEAM
ISA	HEADED STUD ANCHOR	TOF	TOP OF FOOTING
IORZ	HORIZONTAL	TOJ	TOP OF JOIST
ISS	HOLLOW STRUCTURAL SECTION	TOW	TOP OF WALL
)	INSIDE DIAMETER	TOS	TOP OF STEEL
=	INSIDE FACE	TRANS	TRANSVERSE
NT	INTERIOR	TYP	TYPICAL
Γ	INVERTED TEE	ULT	ULTIMATE
BE	JOIST BEARING ELEVATION	UNO	UNLESS NOTED OTHERWISE
	KIPS	(V)	VERIFY
LF	KIPS PER LINEAR FOOT	) VÉRT	VERTICAL
SF	KIPS PER SQUARE FOOT	W/	WITH
SI	KIPS PER SQUARE INCH	W/O	WITHOUT
L	LIVE LOAD	WP	WORK POINT
LH	LONG LEG HORIZONTAL	WWF	WELDED WIRE FABRIC
SH	LONG SIDE HORIZONTAL	Ę	CENTER LINE
LV	LONG LEG VERTICAL	Ę	PLATE
SV	LONG SIDE VERTICAL	<u>'</u> ∟ ☑	SQUARE
OC	LOCATION	Ø	DIAMETER
ONG	LONGITUDINAL	±	PLUS OR MINUS
IAS	MASONRY	@	AT
1AX	MAXIMUM	$\dot{lack}$	ELEVATION

SHEET LIST

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Revision Schedule Date

**BLAKE BROGREN POLE BUILDING** 

HORACE,

NORTH DAKOTA

**GENERAL NOTES** 







ARCHITECTURE | PLANNING 420 Main Avenue Moorhead, Minnesota 56560 Telephone: (218)233-4422

PROJECT NUMBER: 22202-5 AUGUST 3RD, 2022

STRUCTURAL NOTES

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**SPECIAL INSTRUCTIONS AND TESTING:** 

THIS PROJECT REQUIRES SPECIAL INSPECTION AND TESTING IN ACCORDANCE WITH CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE, 2018 EDITION. THESE NOTES AND THE STATEMENT OF SPECIAL INSPECTIONS PREPARED FOR THE PROJECT OWNER ARE INTENDED TO INFORM THE CONTRACTOR OF THE QUALITY ASSURANCE PROGRAM AND THE EXTENT OF THE CONTRACTOR'S RESPONSIBILITIES.

#### **GENERAL NOTES:**

- 1. THE SPECIAL INSPECTION AND TESTING PROGRAM IS A QUALITY ASSURANCE PROGRAM INTENDED TO ENSURE THAT THE WORK IS PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- 2. THE SPECIAL INSPECTION PROGRAM DOES NOT RELIEVE THE CONTRACTOR OF HIS OR HER RESPONSIBILITY TO COMPLY WITH THE OFFICIAL CONTRACT DOCUMENTS. THE CONTRACTOR HAS THE SOLE RESPONSIBILITY FOR ANY DEVIATIONS FROM THE OFFICIAL CONTRACT DRAWINGS. THE SPECIAL INSPECTOR DOES NOT REPLACE THE DUTIES OF THE BUILDING OFFICIAL NOR THE QUALITY CONTROL RESPONSIBILITIES AND PERSONNEL OF THE CONTRACTOR. JOB SITE SAFETY AND MEANS AND METHODS OF CONSTRUCTION ARE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
- 3. THESE INSPECTIONS ARE IN ADDITION TO THE INSPECTIONS SPECIFIED IN THE IBC SECTION 110 AND SPECIFIC STRUCTURAL OBSERVATION AS MAY BE REQUIRED BY THE CODE.
- 4. THOUGH NOT REQUIRED BY CODE, SPECIAL INSPECTORS AND/OR INSPECTION AGENCIES CAN DOCUMENT ACCEPTANCE OF THEIR RESPONSIBILITIES AND SCOPE OF WORK FOR A PROJECT BY SIGNING AN AGREEMENT THAT INCLUDES A DETAILED SCHEDULE OF SERVICES, COMMONLY KNOWN AS THE SPECIAL INSPECTION AND TESTING AGREEMENT AND THE SPECIAL INSPECTION AND TESTING SCHEDULE. THIS DOCUMENT
- 5. THE STRUCTURAL DESIGN METHODS AND/OR ASSUMPTIONS UTILIZED ARE BASED UPON THE SPECIAL INSPECTIONS REQUIRED WITHIN THE CONTRACT DOCUMENTS.

MAY REFERENCE THIS SHEET AS THE "STATEMENT OF SPECIAL INSPECTIONS," (SSI).

#### **CONTRACTOR RESPONSIBILITIES AND DUTIES:**

- 1. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING AND PROVIDING ADEQUATE NOTICE TO THE SPECIAL INSPECTORS FOR ALL INSPECTIONS. THE CONTRACTOR SHALL REQUEST SPECIAL INSPECTION OF THE REQUIRED ITEMS PRIOR TO THOSE ITEMS BECOMING INACCESSIBLE AND UNOBSERVABLE DUE TO PROGRESSION OF WORK.
- 2. THE CONTRACTOR SHALL PROVIDE THE SPECIAL INSPECTOR ACCESS TO THE APPROVED CONTRACT DOCUMENTS. THESE DOCUMENTS INCLUDE SEALED DRAWINGS AND SPECIFICATIONS, ADDENDA, CHANGE ORDERS, APPROVED SHOP DRAWINGS, ISSUED SKETCHES AND REVISION DRAWINGS, AND ALL DIRECTIVES ISSUED BY THE ARCHITECT/ENGINEER. THIS CURRENT SET OF DOCUMENTS SHALL BE AVAILABLE AT THE JOB SITE.
- 3. THE CONTRACTOR IS TO CORRECT DISCREPANCIES AND DEVIATIONS AS DETERMINED BY SPECIAL INSPECTOR. ALL DISCREPANCIES AND DEVIATIONS OBSERVED SHALL BE RE-INSPECTED UNTIL THE SPECIAL INSPECTOR DEEMS CONSTRUCTION TO BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- 4. THE CONTRACTOR IS TO RETAIN SPECIAL INSPECTION RECORDS COMPLETED BY THE SPECIAL INSPECTORS AT THE JOB SITE.

#### SPECIAL INSPECTOR QUALIFICATIONS AND RESPONSIBILITIES:

- 1. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.
- 2. SPECIAL INSPECTORS SHALL NOTIFY CONTRACTOR PERSONNEL OF THEIR PRESENCE AND RESPONSIBILITIES
- 3. THE SPECIAL INSPECTOR/TESTING AGENCY SHALL BE INDEPENDENT OF THE CONTRACTOR TO AVOID CONFLICT OF INTEREST.
- 4. THE SPECIAL INSPECTOR IS OBLIGATED TO BOTH THE OWNER AND THE BUILDING OFFICIAL FOR OBSERVING THAT THE WORK IS EXECUTED IN ACCORDANCE WITH THE OFFICIAL CONTRACT DOCUMENTS. THESE DOCUMENTS INCLUDE SEALED DRAWINGS AND SPECIFICATIONS, ADDENDA, CHANGE ORDERS, APPROVED SHOP DRAWINGS, ISSUED SKETCHES AND REVISION DRAWINGS, AND ALL DIRECTIVES ISSUED BY THE ARCHITECT/ENGINEER.
- SPECIAL INSPECTORS SHALL KEEP ORGANIZED RECORDS OF INSPECTIONS AND SUBMIT INSPECTION REPORTS WITH A MINIMUM WEEKLY FREQUENCY TO THE CONTRACTOR, BUILDING OFFICIAL, ENGINEERS, AND ARCHITECTS INDIVIDUALLY. REPORTS SHOULD INDICATE THAT WORK INSPECTED WAS DONE IN CONFORMANCE TO APPROVED CONSTRUCTION DOCUMENTS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION TO THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED, THEY SHOULD BE REPORTED TO THE BUILDING OFFICIAL AND TO THE ENGINEER OF RECORD.
- 6. A FINAL SIGNED REPORT IS TO BE SUBMITTED AT THE END OF THE PROJECT DOCUMENTING REQUIRED SPECIAL INSPECTIONS AND CORRECTION OF ANY DISCREPANCIES. THIS REPORT SHOULD STATE THAT ALL ITEMS REQUIRING SPECIAL INSPECTION AND TESTING WERE FULFILLED AND REPORTED TO THE BEST OF THEIR KNOWLEDGE IN CONFORMANCE WITH THE APPROVED PLANS, SPECIFICATIONS, AND THE APPLICABLE PROVISIONS OF THE IBC. ITEMS NOT IN CONFORMANCE, UNRESOLVED ITEMS, OR ANY DISCREPANCIES IN INSPECTION COVERAGE SHOULD BE SPECIFICALLY ITEMIZED.
- E 7. THE FOLLOWING ARE THE QUALIFICATIONS FOR INDIVIDUALS PERFORMING SPECIFIC INSPECTIONS OR TESTS INCLUDING IN THIS PROJECT'S SSI.

A. AMERICAN CONCRETE INSTITUTE (ACI): CONCRETE FIELD TESTING TECHNICIAN - GRADE 1 (ACI-CFTT) CONCRETE CONSTRUCTION INSPECTOR (ACI-CCI) LABORATORY TESTING TECHNICIAN - GRADE 1 OR 2 (ACI-LTT) STRENGTH TESTING TECHNICIAN (ACI-STT)

B. AMERICAN WELDING SOCIETY (AWS): CERTIFIED WELDING INSPECTOR (AWS-CWI) CERTIFIED STRUCTURAL STEEL INSPECTION (AWS/AISC-SSI)

C. AMERICAN SOCIETY OF NON-DESTRUCTIVE TESTING (ASNT) NON-DESTRUCTIVE TESTING TECHNICIAN - LEVEL II OR III (ASNT)

D. INTERNATIONAL CODE COUNCIL (ICC): STRUCTURAL MASONRY SPECIAL INSPECTOR (ICC-SMSI)

STRUCTURAL STEEL AND BOLTING SPECIAL INSPECTOR (ICC-SSSI) STRUCTURAL WELDING SPECIAL INSPECTOR (ICC-SWI) PRESTRESSED CONCRETE SPECIAL INSPECTOR (ICC-PCSI) REINFORCED CONCRETE SPECIAL INSPECTOR (ICC-RCSI) SOILS SPECIAL INSPECTOR (ICC-SSI)

E. PROFESSIONAL STATE LICENSING: PROFESSIONAL ENGINEER (PE)

#### **STATEMENT OF SPECIAL INSPECTIONS (SSI):**

THE FOLLOWING TABLES INDICATED THE MINIMUM SPECIFIC SPECIAL INSPECTION AND TESTING TO BE PERFORMED ON THIS PROJECT AND THE QUALIFICATIONS OF THE INDIVIDUAL INSPECTORS AND TESTING TECHNICIANS.

#### **DEFINITIONS:**

- 1. <u>CONTINUOUS SPECIAL INSPECTION</u>: THE FULL-TIME OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK IS BEING PERFORMED. 100% OF THE WORK MUST BE INSPECTED AND IT MUST BE INSPECTED AS THE WORK IS
- PERIODIC SPECIAL INSPECTION: THE PART-TIME OR INTERMITTENT OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK HAS BEEN, OR IS BEING, PERFORMED AND AT THE COMPLETION OF WORK.
- 3. YES: THIS INSPECTION AND/OR TESTING IS REQUIRED BY THE BUILDING CODE AND MUST BE PERFORMED.
- 4. NO: THIS INSPECTION AND/OR TESTING IS NOT APPLICABLE TO THE PROJECT, AND NEED NOT BE PERFORMED.
- 5. <u>SUGGESTED</u>: THIS INSPECTION AND/OR TESTING IS NOT REQUIRED BY THE BUILDING CODE. HOWEVER, THE ENGINEER OF RECORD RECOMMENDS IMPLEMENTING THEM FOR QUALITY ASSURANCE. A POTENTIAL EXISTS FOR THESE MEASURES TO BE A VALUE ADDED SERVICE FOR THE OWNER TO ENSURE PROPER PROJECT COMPLETION.

SPECIAL INSPECTIONS - SOILS AND FOUNDATIONS							
VERIFICATION AND INSPECTION	AGENCY QUALIFICATION	<u>SCOPE</u>	REFERENCED STANDARD	FREQUENCY OF INSPECTION	REQUIRED ON PROJECT		
1. Shallow Foundations	ICC-SSI PE-GEOTECH.	Inspect Soils below footings for adequate bearing capacity and consistency with geotechnical report.	N/A	Periodic testing to verify compliance with project specifications & geotechnical report.	YES		
2. Controlled Structural Fill  ICC-SSI PE-GEOTECH.  Perform applicable sieve tests and modified Proctor tests of each source of fill. Inspect placement, lift thickness, and compaction. Test density of each lift.  Verify extent and slope of fill placement.		Applicable ASTM Specs	Periodic testing to verify compliance with project specifications & geotechnical report.	YES			
3. Deep Foundation: Driven Piles	PE-GEOTECH.	Inspect and log pile driving operations. Record pile driving resistance and verify compliance with driving criteria. Inspect piles for damage from driving and plumbness. Verify pile size, length and accessories.	-	Continuous	NO		
4. Deep Foundations: Drilled Pier Foundations	PE-GEOTECH.	Inspect installation and maintain complete records for each pier. Verify pier diameter, bell diameter, lengths, embedment into bedrock and suitable of each bearing strata.	-	Continuous	NO		

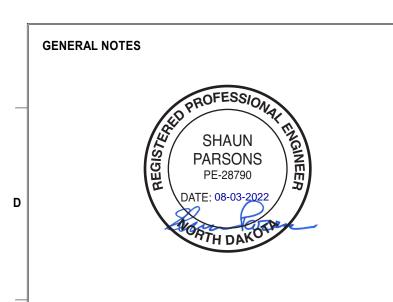
2 3 4 5 6 7 8 9 10

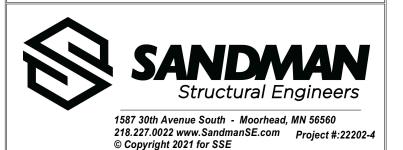
SPECIAL INSPECTION - WOOD CONSTRUCTION							
VERIFICATION AND INSPECTION QUALIFICA		<u>SCOPE</u>	REFERENCED STANDARD	FREQUENCY OF INSPECTION	REQUIRED ON PROJECT		
Fabricator Certification/ Quality Control Procedures	-	Fabricated to be enrolled in a nationally accepted inspection program acceptable to the Structural drawings and specifications. The approved fabricator to submit a certification of compliance to a the building official.	-	N/A	YES		
2. Material Grading	-	Review sheathing, framing members, wall studs, plates for proper species and grade	Applicable APA & AITC Specs	Prior to Construction & Periodic during construction	YES		
3. Connections	-	Inspect connection of framing members. Including nail and bolts for size and spacing. Verify metal hardware connectors for type and proper installation	ANSI/AF&PA & Supplier's Specs	Periodic	YES		
4. Framing and Details	-	Inspect framing for plumbness, spacing, bearing length, and size. Verify bracing is installed as required.	ANSI/AF&PA	Periodic	YES		
5. Diaphragms and Shearwalls	-	Inspect size, configuration, blocking and fastening of shearwalls and diaphragms. Verify panel grade and thickness. Verify size and installation of hold-downs and straps.	ANSI/AF&PA & Supplier's Specs	Periodic	YES		
6. Prefabricated Wood Trusses & I-Joists	-	See Item #1. Inspect installation for location, spacing, bearing length, connectors, and permanent bracing.	ANSI/AF&PA & Supplier's Specs	Periodic	YES		

#### BLAKE BROGREN POLE BUILDING

HORACE, NORTH DAKOTA

Revision Schedule					
No. Date					







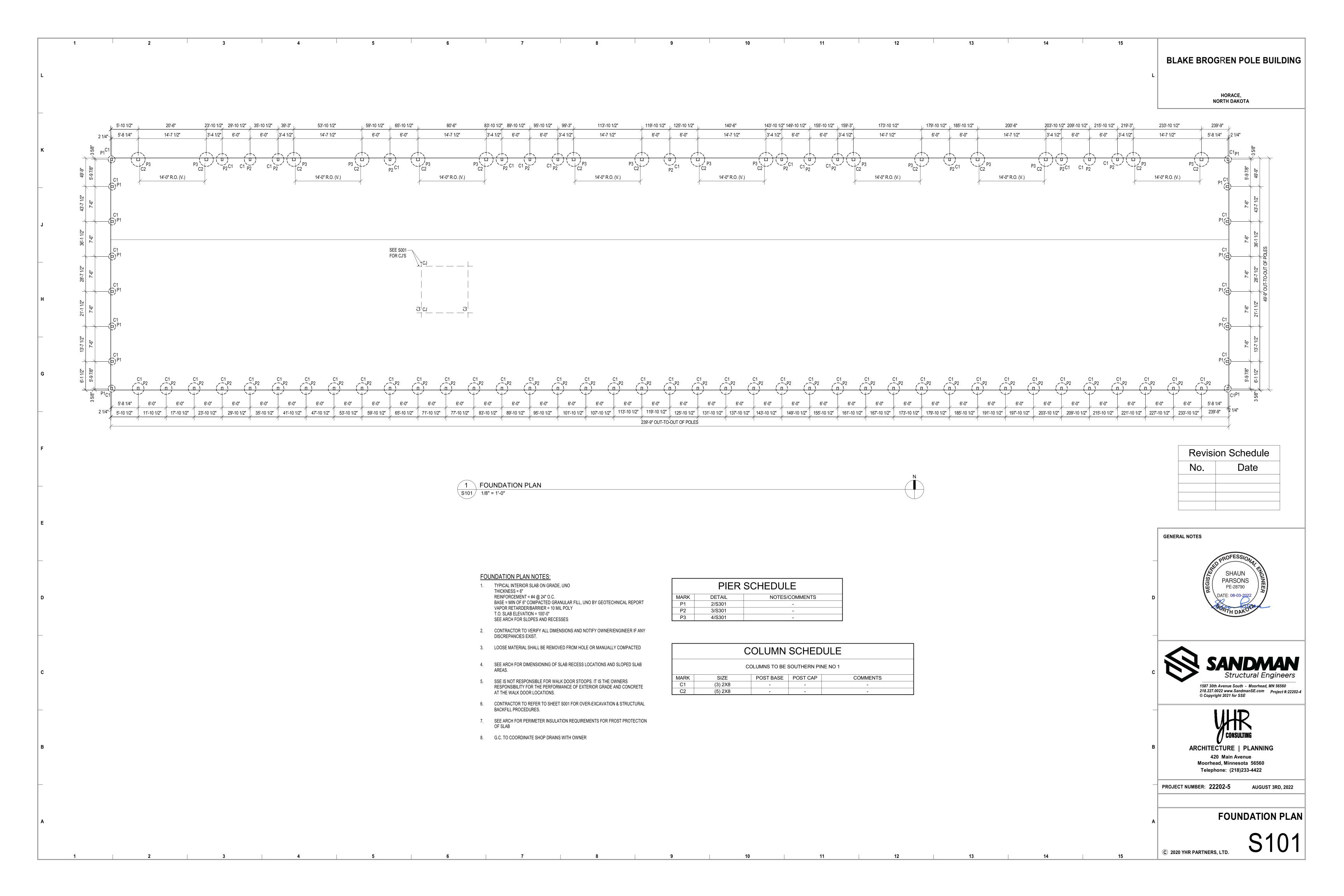
ARCHITECTURE | PLANNING 420 Main Avenue Moorhead, Minnesota 56560 Telephone: (218)233-4422

PROJECT NUMBER: 22202-5

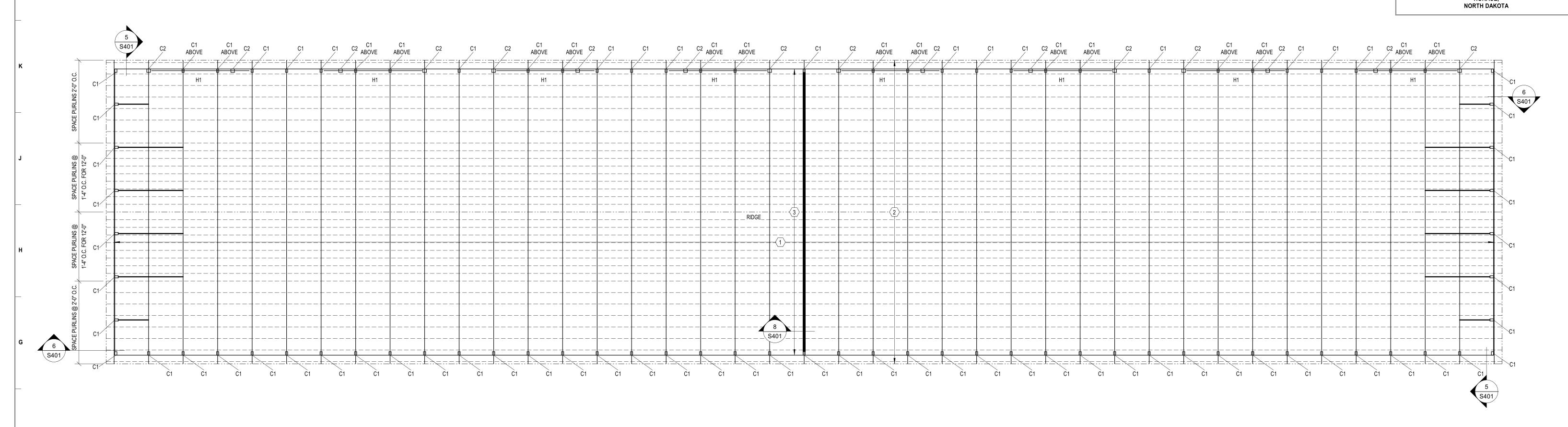
**SPECIAL INSPECTIONS** 

**AUGUST 3RD, 2022** 

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1 ROOF FRAMING PLAN S201 1/8" = 1'-0"



Revision Schedule			
No. Date			

#### ROOF FRAMING PLAN NOTES:

- ROOF TRUSS BEARING ELEVATION = 118'-0"
   WALL GIRTS ARE TO BE 2X4 1650Fb-1.5E MSR SPACED @ 2'-0" O.C.
   U.N.O. FASTEN W/ (2) #14 x 4" LONG WOOD SCREWS. WALL GIRTS TO
   BE 2-SPAN MIN
- ROOF AND WALL PANEL TO BE 26 GA PRO-PANEL II.
   ROOF PANEL TO BE FASTENED TO ROOF PURLINS W/ #10 SCREWS LOCATED IN THE FLATS @ 12" O.C. IN THE FIELD AND 6" O.C. ON END.

- WALL PANEL FASTENERS TO BE 1" LONG WOODGRIP SCREWS PLACED ON THE FLATS NEXT TO MAJOR RIBS @ EVERY WALL GIRT AND SPLASH PLANK

- THE RIDGE CAP TO BE FASTENED TO THE PURLINS W/ 2" LONG WOODGRIP SCREWS THROUGH EVERY MAJOR RIB.
- TREATED 2X8 SPLASH PLANKING SHALL BE FASTENED TO EA COLUMN W/ (3) 1/4" X 3 1/2" SCREWS
- 5. SEE S001 SHEATHING NOTES FOR GENERAL REQUIREMENTS
- 6. ALL FASTENERS AND METAL HARDWARE IN CONTACT WITH TREATED LUMBER TO HAVE REQUIRED COATING TO PROTECT FOR CORROSION
- 7. PROVIDE TYPICAL 2X6 INFILL FRAMING @ DOORS & WINDOWS
- 8. ROOF SLOPE TO BE 4/12 SLOPE. SEE ARCH FOR TRUSS PROFILE
- 9. NO SNOW CLEATS ALLOWED ON ROOF

#### KEYNOTES

NOTE

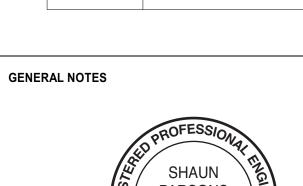
1 ROOF TRUSSES @ EA POST BY TRUSS SUPPLIER. SLOPE TO BE 4/12.

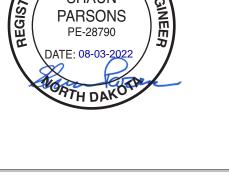
- 2 2X4 ROOF PURLINS TO BE GRADE 1650Fb 1.5E MSR LUMBER. SEE PLAN FOR SPACING. SEE DETAIL 2/S401 FOR CONNECTION.

  3 SHEADWALL TO BE 3X6 STUDS @ 310" O.C. WITH 3X4 WALL CIPTS @
- SHEARWALL TO BE 2X6 STUDS @ 2'-0" O.C. WITH 2X4 WALL GIRTS @ 2'-6" O.C. & 29 GAUGE PANEL.

COLUMN SCHEDULE						
COLUMNS TO BE SOUTHERN PINE NO 1						
BASE PLATE ANCHOR ROD MARK SIZE TYPE TYPE COMMENTS						
C1	(3) 2X8	-	-	-		
C2	(5) 2X8	-	-	-		

HEADER SCHEDULE						
JACK KING MARK SIZE STUD STUDS COMMENT						
H1	(2) 1 3/4" x 24" LVL	0.02	0.020	-		









ARCHITECTURE | PLANNING
420 Main Avenue
Moorhead, Minnesota 56560
Telephone: (218)233-4422

PROJECT NUMBER: 22202-5 AUGUST 3RD, 2022

ROOF FRAMING PLANS

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520

REINFORCING STEEL SPLICE LENGTHS FOR STANDARD NON-COATED BARS TYPE #4 SPLICE TYPE #1 SPLICE TYPE #2 SPLICE TYPE #3 SPLICE COMPRESSION CONCRETE CLASS A SPLICE CLASS B SPLICE CLASS B SPLICE COMPRESSIVE SPLICE STRENGTH F'c #4 AND LARGER SMALLER | LARGER | SMALLER | LARGER | SMALLER | LARGER 30 Bd 4000 PSI 38 Bd 47 Bd 49 Bd 62 BD 74 Bd 92 Bd 30 Bd

Bd = BAR DIAMETER

CONCRETE REINFORCEMENT CLEAR COVER, UNO (NON-PRESTRESSED)	
CONDITION & DESIGNATION	CLEAR COVER
CONCRETE CAST AGAINST & PERMANENTLY EXPOSED TO EARTH	3"
CONCRETE EXPOSED TO EARTH OR WEATHER: #6 THRU #18	2"
CONCRETE EXPOSED TO EARTH OR WEATHER: #5 OR SMALLER	1 1/2"
CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH EARTH	
SLABS, WALLS, JOISTS: #14 & #18	1 1/2"
SLABS, WALLS, JOISTS: #11 & SMALLER	3/4"
BEAMS, COLUMNS (PRIMARY REINF, TIES, STIRRUPS, SPIRALS)	1 1/2"

- 3/4"x14" SMOOTH

DOWEL @ 1'-0" O.C.

GREASE ONE END

2'-0"

SLAB CONSTRUCTION. JT.

- SEE PLAN FOR

SLAB REINF.

FDN WALL

SEE PLAN

SLAB THICKENED EDGE

1. MIN LAP: 18" FOR TYPE #1 THRU TYPE #3 & 12" FOR TYPE #4 SPLICES.

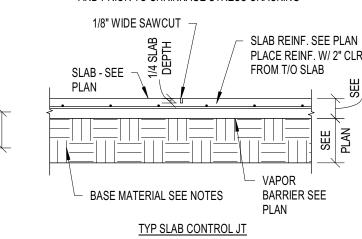
SPACING LESS THAN 6 Bd - ADJUSTMENT FACTOR = 1.5

FRESH CONCRETE PLACED BELOW BAR - ADJUSTMENT FACTOR = 1.3 B. FOR Fy OTHER THAN 60 KSI - ADJUSTMENT FACTOR = Fy (USED)/60 C. FOR LIGHT WEIGHT CONCRETE - ADJUSTMENT FACTOR = 1.33 D. TYPICAL EPOXY COATED REINFORCING - ADJUSTMENT FACTOR = 1.2 E. TYPICAL EPOXY COATED REINFORCING W/ COVER LESS THAN 3Bd OR CLEAR

A. VERTICAL HOOKED OR STRAIGHT BARS EXTENDING FROM FOOTINGS: TYPE #4 SPLICE, UNO B. HORIZONTAL BARS IN GRADE BEAMS, FOOTINGS & FOUNDATION WALLS: TYPE #2 SPLICE

E. UNO ON PLAN OR DETAILS, LAP THE SLAB BARS W/ A LAP LENGTH OF 48 Bd

1. SAWCUT JT SHALL BE EXECUTED AS SOON AS CONCRETE HAS HARDENED SUFFICIENTLY TO PREVENT AGGREGATE FROM DISLODGING BY SAW AND PRIOR TO SHRINKAGE STRESS CRACKING



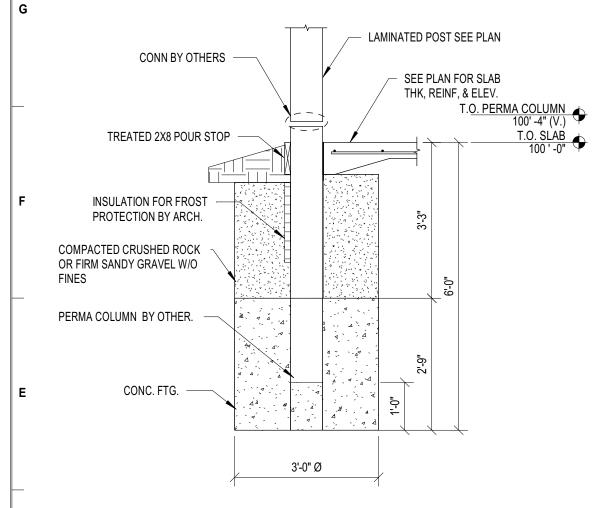
1 FOUNDATION STANDARD DETAILS
| S301 | 1/2" = 1'-0"

THICKNESS

PLUS 2"

SLAB SEE

PLAN



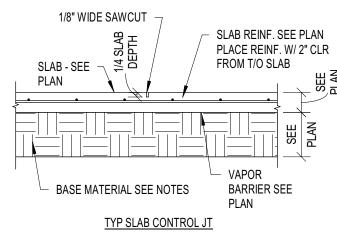
4 FOUNDATION DETAIL (P3) S301 1/2" = 1'-0"

2. REQUIRED SPLICE LENGTH = LISTED SPLICE LENGTH x ADJUSTMENT FACTORS ADJUSTMENT FACTORS = 1.0 IF NONE BELOW APPLY

A. FOR HORIZ REINFORCING IN MAT SLABS, BEAMS, AND FOOTINGS W/ MORE THAN 12" OF

3. ALL ADJUSTMENT FACTORS THAT APPLY SHALL BE USED TO CALCULATE REQUIRED SPLICE LENGTH. 4. UNLESS OTHERWISE NOTED ON PLANS OR DETAILS, LAP THE FOLLOWING BARS AS DEFINED IN LAP SPLICE TABLE ABOVE

C. VERTICAL BARS IN COLUMNS & PIERS: TYPE #4 SPLICE D. VERTICAL BARS IN BASEMENT, RETAINING WALLS & GRADE BEAMS: TYPE #3 SPLICE



2 FOUNDATION DETAIL (P1) S301 1/2" = 1'-0"

CONC. FTG.

1'-6" Ø

CONN BY OTHERS -

TREATED 2X8 POUR STOP —

SEE ARCH FOR INSULATION —

COMPACTED CRUSHED ROCK

OR FIRM SANDY GRAVEL W/O

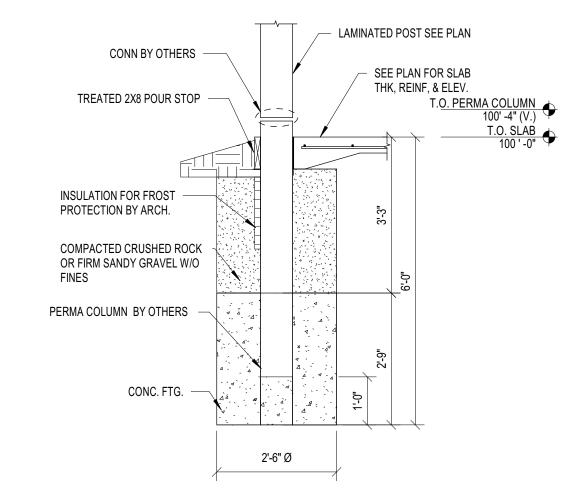
PERMA COLUMN BY OTHER.

LAMINATED POST SEE PLAN

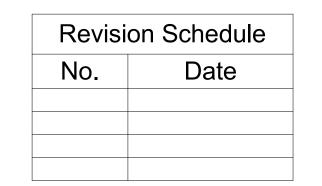
SEE PLAN FOR SLAB

T.O. PERMA COLUMN 100' -4" (V.)

THK, REINF, & ELEV.



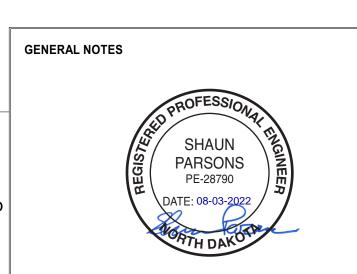
3 FOUNDATION DETAIL (P2) S301 / 1/2" = 1'-0"

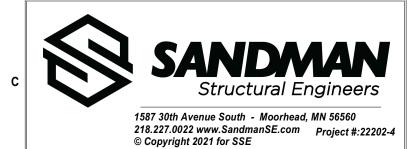


**BLAKE BROGREN POLE BUILDING** 

HORACE,

NORTH DAKOTA







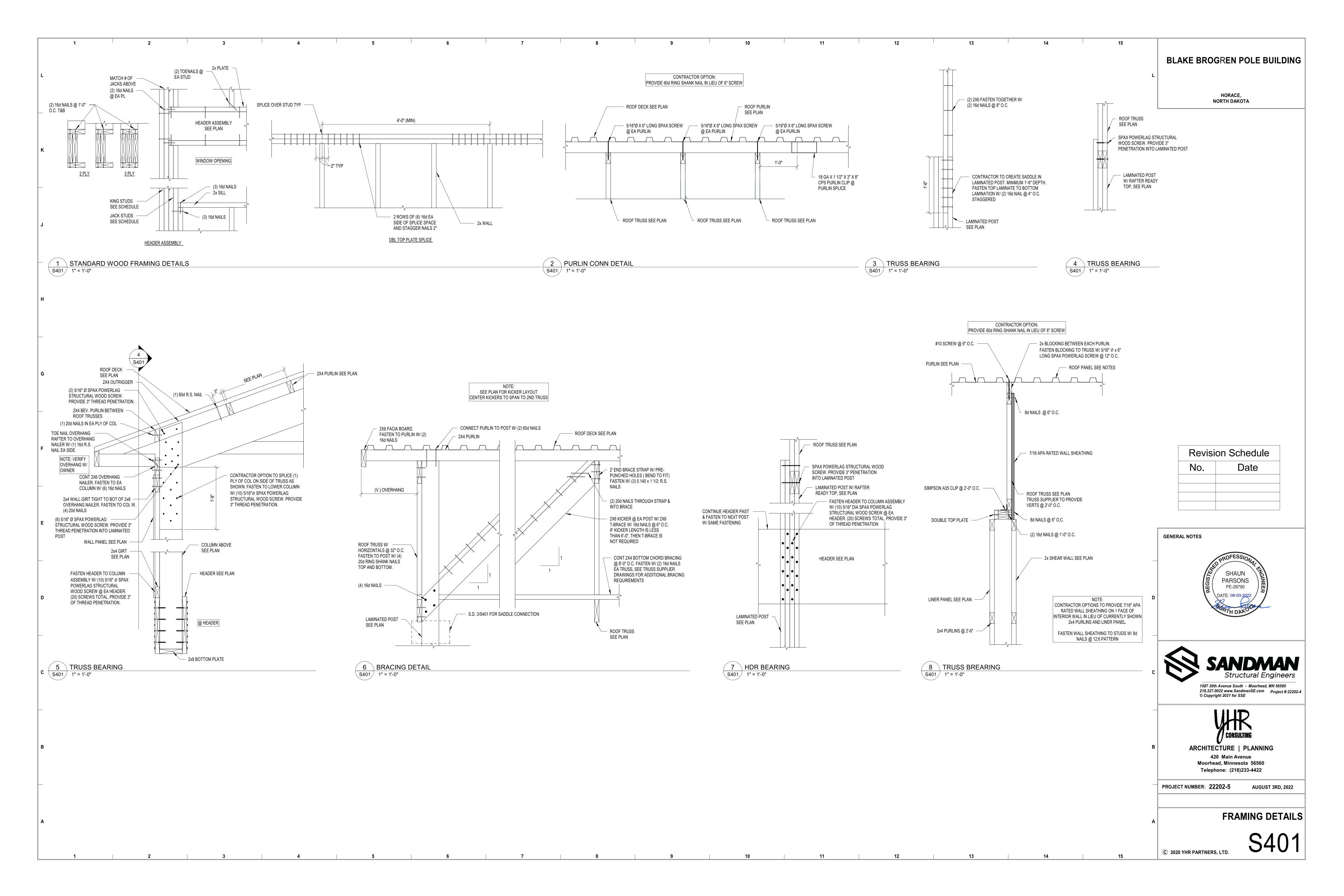
ARCHITECTURE | PLANNING 420 Main Avenue Moorhead, Minnesota 56560 Telephone: (218)233-4422

PROJECT NUMBER: 22202-5

**AUGUST 3RD, 2022** 

FOUNDATION DETAILS

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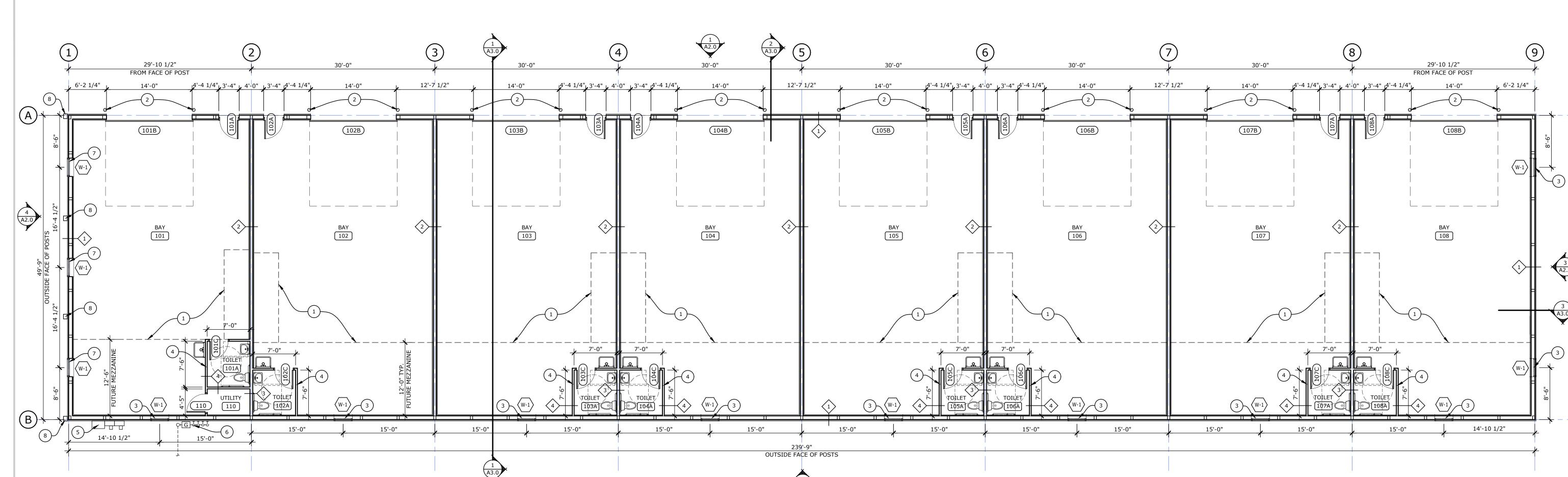




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2000 44TH ST. S., #102 FARGO, ND 58103

701-893-3839



FLOOR PLAN

**5/8**" G.W.B.

5/8" G.W.B.

2x6 WOOD STUDS @ 16" O.C.

FULL BATT INSULATION

 $\langle 3 \rangle$ INTERIOR PARTITION WALL

NON-RATED

EXTERIOR METAL PANEL BUILDING WRAP

R-21 BATT INSULATION

VAPOR BARRIER

EXTERIOR SIDE

\_~\_^\_\_

INTERIOR SIDE

 $\langle 1 \rangle$ 

EXTERIOR BEARING WALL

NON-RATED

2X6 HORIZ WD PURLINS @ 30" O.C.

2X4 HORIZ WD PURLINS @ 30" O.C.

METAL LINER PANEL OR 5/8" G.W.B.

WOOD LAM POST - SEE STRUCT.

2x4 WOOD STUDS @ 16" O.C.

- LOCATIONS TBD BY OWNER/G.C.

BATT INSULATION

INTERIOR PARTITION WALL

NON-RATED

METAL LINER PANEL

2X HORIZ. WOOD FURRING

2X HORIZ. WOOD FURRING

FULL BATT INSULATION

METAL LINER PANEL

INTERIOR PARTITION WALL

NON-RATED

SCALE:  $1 \frac{1}{2}$ " = 1'-0

2x6 WOOD STUDS @ 16" O.C.

5/8" G.W.B.

SCALE: 1/8" = 1'-0



- (1) DASHED LINES INDICATE POSSIBLE FUTURE MEZZANINE AND STAIR
- (2) CONCRETE FILLED 6" DIA. STEEL BOLLARD; PAINTED BLACK
- HIGH WINDOWS SHOWN DASHED TO INDICATE LOCATION ON PLAN. SEE ELEVATIONS FOR HEIGHT AND LOCATIONS
- ALL TOILET & STORAGE ROOM WALLS TO BE FRAMED TO 9'-0" AFF. 2X12 WOOD JOISTS & 3/4" T&G PLYWOOD SHEATHING TO BE INSTALLED AS LID ASSEMBLY.
- MAIN FEEDER PANEL & ELECTRICAL METERS. VERIFY SIZES & LOCATION WITH OWNER/G.C. & UTILITY COMPANY
- GAS METER HEADER BY GAS UTILITY. SIZE TO ALLOW FOR 8 POSSIBLE FUTURE METERS. VERIFY LOCATION.
- (7) HIGH WINDOWS ABOVE. SEE ELEVATIONS FOR HEIGHTS AND LOCATIONS. (8) DECORATIVE WOOD POSTS & TRUSS FRAMING BY OWNER. SEE ELEVATIONS.

# **GENERAL NOTES**

- ALL DIMENSIONS ARE TAKEN FROM OUTSIDE FACE OF BUILDING SHELL WOOD POST FRAMING TO CENTER OF INTERIOR WOOD STUD FRAMING, U.O.N.
- ALL INTERIOR WALLS TO BE 3 1/2" WOOD STUDS AT 16" O.C., AND ALL DEMISING WALLS TO BE 5 1/2" WOOD STUDS AT 16" O.C., U.O.N.
- ALL WORK TO MEET OR EXCEED LOCAL AND NATIONAL CODE STANDARDS.

NEED TO BE COORDINATED WITH OWNER & MEP CONTRACTOR.

1 DOOR & FRAME TYPE/MATERIAL TBD BY OWNER/G.C

103C 3'-0" 7'-0" WD B ST HM HM-1 P.F. - - - - - - - 1
104A 3'-0" 7'-0" MTL A P.F. - - - - - - - - 1
104B 14'-0" 14'-0" STL C P.F. - - - - - - - - - 1
104C 3'-0" 7'-0" WD B ST HM HM-1 P.F. - - - - - - - 1
105A 3'-0" 7'-0" MTL A P.F. - - - - - - - - - - 1
105B 14'-0" 14'-0" STL C P.F. - - - - - - - - - - 1
105B 14'-0" 14'-0" STL C P.F. - - - - - - - - - - - 1

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HARDWARE GROUPS:

1 TO BE DETERMINED BY OWNER/G.C

- ALL GYP. WALL BOARD TO BE LEVEL 4 FINISH, UNLESS COVERED WITH TILE. VERIFY WITH OWNER.
- MECHANICAL AND ELECTRICAL SYSTEMS TO BE DESIGNED/ENGINEERED BY DESIGN/BUILD CONTRACTOR. ITEMS SHOWN ON PLANS ARE FOR DESIGN INTENT ONLY AND

- 6. SEE CIVIL DRAWINGS FOR ALL SITE & LANDSCAPING RELATED
- 7. SEE STRUCTURAL DRAWINGS FOR FOOTING & FOUNDATIONS, WALL FRAMING, ROOF TRUSS AND ALL OTHER STRUCTURAL
- 8. WAREHOUSE AREAS TO HAVE METAL LINER PANELS INSTALLED ON ALL WALLS AND CEILINGS..
- 9. RESTROOMS TO HAVE FRP INSTALLED 48" HIGH ON ALL WET

# WALLS. ALL OTHER WALLS TO BE PAINTED GWB. & VINYL BASE.

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**REVISIONS**: No. DATE REMARK

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INDUSTF ACE, ND

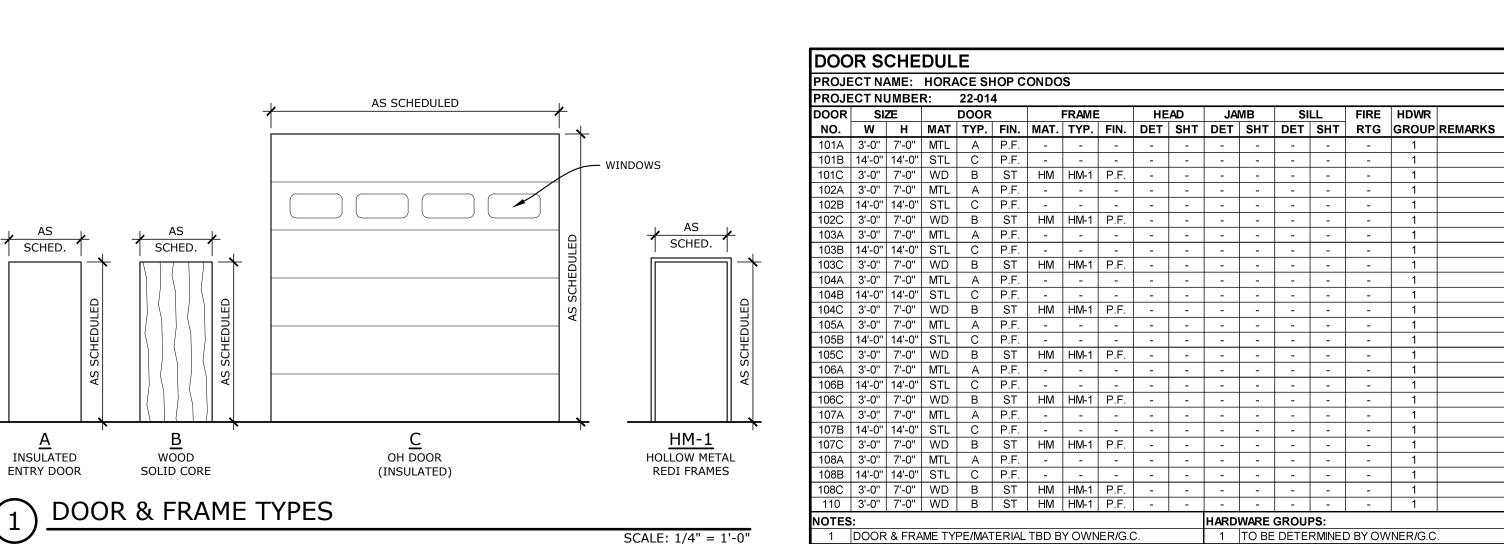
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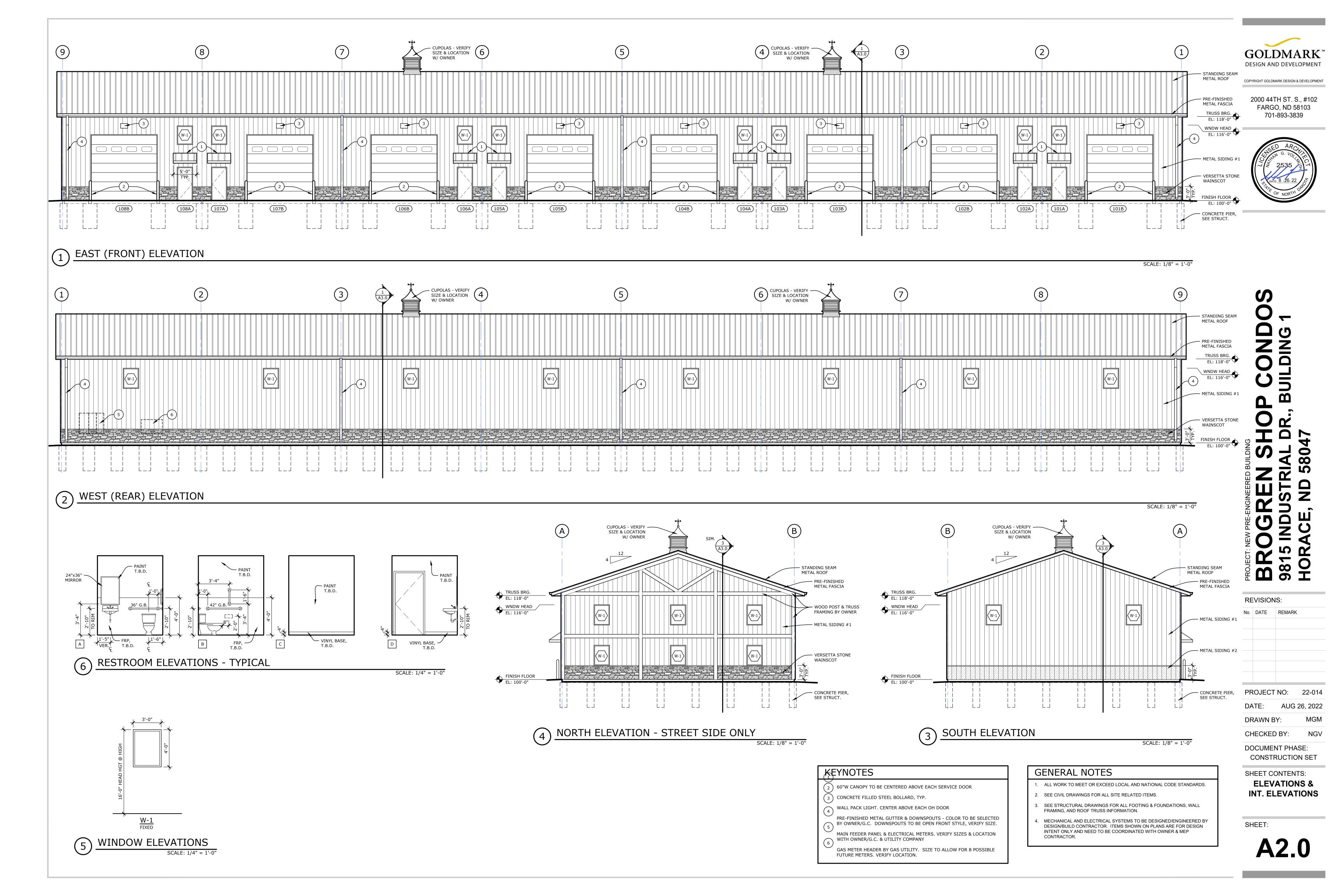
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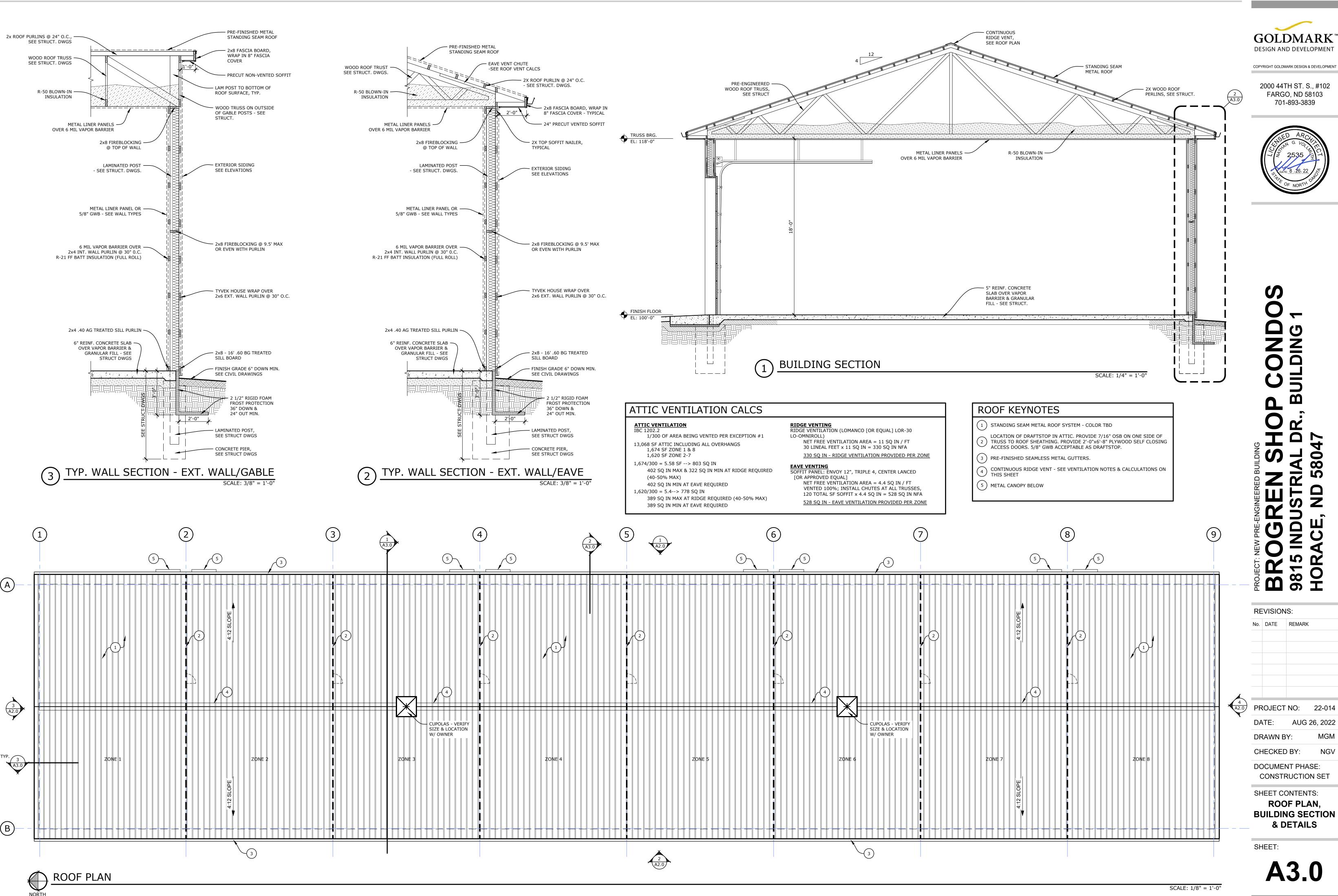
**CONSTRUCTION SET** SHEET CONTENTS:

**FLOOR PLAN** & SCHEDULES

SHEET:







**DESIGN AND DEVELOPMENT** 

2000 44TH ST. S., #102 FARGO, ND 58103 701-893-3839



OGREN INDUSTRI/ ACE, ND 58 **BR**(9815 HOR)

AUG 26, 2022 CHECKED BY:

DOCUMENT PHASE: CONSTRUCTION SET

SHEET CONTENTS: **ROOF PLAN**,

& DETAILS

SHEET: