MOUSE RIVER ENHANCED FLOOD PROTECTION PROJECT
PHASE MI-5B.1
SOURIS RIVER JOINT WATER RESOURCE BOARD

CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD-LOCATING ALL SITE UTILITIES, PRIVATE AND PUBLIC, PRIOR TO STARTING THE WORK. ALL UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE. ANY UTILITIES DAMAGED BY CONTRACTOR SHALL BE REPAIRED BY CONTRACTOR TO THE SATISFACTION OF THE UTILITY OWNER.
RAILWAY AVE NE
BUILDING TO BE
RELOCATED
(1459 RAILWAY AVE)

PUBLIC WORKS FACILITY
(1025 31st Street SE)

60' X 200'

STORM
BUILDING
A

STORM
BUILDING
B

EXISTING BUILDING LOCATION

PROPOSED BUILDING LOCATION

SOURIS RIVER JOINT
WATER RESOURCE BOARD
MINOT, NORTH DAKOTA

MOUSE RIVER - PHASE MI-5B.1
ENHANCED FLOOD PROTECTION PROJECT
BUILDING RELOCATION

PRELIMINARY
SUBMITTAL

HOUSTON
ENGINEERING, INC.

Feet
Scale

0
100
50

N

EXISTING BUILDING LOCATION

PROPOSED BUILDING LOCATION

11th AVE SE

40'
50'
60'

Scale
Feet

0
100
50

N

HOUSTON
ENGINEERING, INC.
1. CONTRACTOR TO FURNISH COMPLETE AND DETAILED SHOP DRAWING & SUBMITTALS FOR REVIEW AND

6. THE CONTRACTOR HAS SOLE RESPONSIBILITY FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND

DESIGN CRITERIA/DESIGN LOADS:

DEAD LOAD

LUMBER MATERIAL GRADE & DOWEL-TYPE FASTENERS - CONCRETE MIX DESIGNS BY 3RD PARTY TESTING AGENCY

APPROVAL BY THE EOR. THE FOLLOWING ARE REQUIRED FOR THIS PROJECT.

AND SPECIFICATIONS.

THE PURPOSE OF DETERMINING IF THE WORK OF THE CONTRACTOR IS PROCEEDING IN GENERAL

IMMEDIATELY FOR REMEDIATION. SPECIFIC NOTES AND DETAILS SHALL PRESIDE OVER GENERAL NOTES

OMISSION IN CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

TO MEMBER SIZES, DETAILS, AND DIMENSIONS SPECIFIED IN THE CONTRACT DOCUMENTS.

CLEARLY INDICATED THAT THEY HAVE BEEN REVIEWED AND APPROVED BY THE EOR.

C & C BASE PRESSURE qh - ult 21.0 PSF - ROOF DESIGN LOADS

NOTES

10. IF SHOWN ON FOUNDATION PLAN, DRAINTILE IS FOR GRAPHICAL REPRESENTATION ONLY. SIZE AND LAYOUT

7. UNLESS SPECIFICALLY PRESCRIBED IN A GEOTECHNICAL REPORT, BACKFILL SHALL BE PLACED AND

8. MASONRY REQUIREMENTS.

9. PROVIDE ADEQUATE BOLSTERS, HIGH CHAIRS, SUPPORT BARS, ETC TO MAINTAIN THE SPECIFIED

12. CAST DOWELS, WITH STD 90 DEGREE HOOK, IN FOOTINGS FOR CONCRETE PIERS AND WALLS ABOVE.

11. SEE DETAILS FOR REINFORCING LAP SPLICE SCHEDULE, UNLESS ON PLAN OR DETAILS.

13. SUPPLY 50 FEET EXTRA OF #5 REBAR FOR MISC. PLACEMENT AS DIRECTED BY THE ENGINEER.
### SPECIAL INSPECTION - CAST IN PLACE CONCRETE CONSTRUCTION

<table>
<thead>
<tr>
<th>Description</th>
<th>Required Frequency</th>
<th>Required On Completion</th>
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<tbody>
<tr>
<td>Appearance of Edge - Rebar &amp; Expanded Metal</td>
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<tr>
<td>Placement &amp; Consolidation</td>
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<tr>
<td>Materials and Compliance</td>
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<tr>
<td>Special Inspections on Placement</td>
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<td>Special Inspections on Consolidation</td>
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<td>Special Inspections on Expanded Metal</td>
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<tr>
<td>Special Inspections on Reinforcement</td>
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<tr>
<td>Special Inspections on Steel - Hangers</td>
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<tr>
<td>Special Inspections on Steel - Grade Plate</td>
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<tr>
<td>Special Inspections on Steel - Mechanical Splice</td>
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<td>Special Inspections on Concrete</td>
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<tr>
<td>Special Inspections on Concrete - Crack Control</td>
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<tr>
<td>Special Inspections on Concrete -配筋</td>
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### SPECIAL INSPECTION - REINFORCED CONCRETE

**Engineer of Record:** PE-GEOTECH.

**Special Inspectors:**
- Non-Destructive Testing Technician - Level II or III (ASNT)
- Welding Inspector (ASME, AWS)
- Reinforced Concrete Special Inspector (ICC-RCSI)
- Certified Structural Steel Inspectors (AWS/AISC-SSI)
- Concrete Field Testing Technician - Grade 1 (ACI-CFTT)
- Architectural Engineer - ASAE/ASCE/ASCE
- Quality Control Inspector (QCI)
- Structural Steel Fabricator - ASCE/ACI
- Structural Steel Project Manager
- Special Inspections - PE-GEOTECH.

### SPECIAL INSPECTION - DEEP FOUNDATIONS

**Engineer of Record:** PE-GEOTECH.

**Special Inspectors:**
- Deep Foundation: Drilled Pier Foundations - Inspect installation and maintenance of records for each pier. Verify pier diameter, bell diameter, edge distance & adhesive required.
- Post-Installed Anchors - Inspect installation for type of anchor, embedment, required.
- Concrete - Review concrete batch tickets and verify compliance with project requirements.
- Reinforcement - Inspect concrete placement and consolidation.
- Mechanical Splices - Verify that bars are adequately spliced.
- Structural Steel - Inspect Soils below footings for adequate bearing capacity.
- Verify extent and slope of fill placement.
- Verify criteria. Inspect piles for damage from driving and compression tests of each source of fill. Inspect placement, lift & load consolidation.
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NOTE:
SLAB ON GRADE
IN FUTURE PHASE

1. SLAB ON GRADE TO BE IN FUTURE PHASE
2. BUILDING IS AN UNHEATED STRUCTURE AND UTILIZES A UNINSULATED SLAB
   SYSTEM PER OWNER/CONTRACTOR'S REQUEST. THEREFORE THE SLAB ON GRADE
   SYSTEM IS SUBJECT TO MOVEMENT RELATED TO FREEZE-THAW CYCLE.
   SSE IS NOT TO BE HELD LIABLE FOR ANY HEAVING AND/OR CRACKING OF THE
   SLAB THAT MAY OCCUR OR DAMAGE TO THE BUILDING AS A RESULT
3. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS BASED ON (E) BUILDING
   DIMENSIONS.
4. T.O. EXTERIOR PIER ELEVATION = 100'-0" UNO
5. FOR (E) POST BASE REPAIR/SPLICE DUE TO DAMAGED OR ROTTED POST, S.D.
   3/S301 FOR CONNECTION INTO CONCRETE PIER.
6. CONTRACTOR TO OMIT PIERS AT OVERHEAD DOOR LOCATIONS AS NECESSARY.

FOUNDATION PLAN NOTES:
1. (E) TRUSS BEARING ELEVATION = 116'-0" (V)
2. FULL HEIGHT 2x6 POST REINFORCING IS ALLOWED TO BE SPLICED
   AT APPROXIMATELY 6'-0" ABOVE THE TOP OF PIER. S.D. 5/S301 FOR
   SPLICE DETAIL. BOTTOM SECTION OF REINFORCING STUD TO BE
   TREATED LUMBER.
3. THE FOLLOWING MATERIAL GRADES WERE ASSUMED FOR THE
   EVALUATION OF THIS POLE BUILDING:
   - ROOF PURLINS: SPF #2
   - WALL GIRTS: SPF #2
   - POSTS: SP #1
4. CONTACT EOR PRIOR TO ADDING ANY NEW OPENINGS IN EXTERIOR
   BUILDING WALLS. EOR TO REVIEW AND DESIGN ANY MODIFICATIONS
   REQUIRED TO EXISTING BUILDING STRUCTURE FOR NEW OPENINGS.
5. BUILDING IS AN UNHEATED STRUCTURE AND UTILIZES A
   UNINSULATED SLAB SYSTEM PER OWNER/CONTRACTOR'S REQUEST.
   THEREFORE THE SLAB ON GRADE SYSTEM IS SUBJECT TO
   MOVEMENT RELATED TO FREEZE-THAW CYCLE, WHICH WILL ALSO
   CAUSE THE WOOD STUD WALL AND TRUSS TO MOVE WITH THE
   SLAB. SSE IS NOT TO BE HELD LIABLE FOR ANY CRACKING OR
   DAMAGE TO THE TRUSSES AS A RESULT

ROOF FRAMING PLAN NOTES:
1 PROVIDE ADDITIONAL TWO SPAN 2x4 ROOF PURLINS CENTERED BETWEEN EXISTING
   PURLINS FOR 10'-0" ON EACH SIDE OF RIDGE, TYP. S.D. 4/S301

Revision Schedule

<table>
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<tr>
<th>#</th>
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ADJUSTMENT FACTOR = 1.5
ADJUSTMENT FACTOR = 1.3
ADJUSTMENT FACTOR = 1.33
ADJUSTMENT FACTOR = 1.2

12/22/2021 7:30:09 AM

STRENGTH F'c
CONCRETE
3000 PSI
Bd = BAR DIAMETER

12-22-2021
PURLIN CONN DETAIL 4
FOUNDATION STANDARD DETAILS 1
1" = 1'-0" S301
1/2" = 1'-0" S301
CONCRETE REINFORCEMENT CLEAR COVER, UNO (NON
CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH EARTH
CONCRETE CAST AGAINST & PERMANENTLY EXPOSED TO EARTH
CONCRETE EXPOSED TO EARTH OR WEATHER: #5 OR SMALLER
BEAMS, COLUMNS (PRIMARY REINF, TIES, STIRRUPS, SPIRALS)
CONCRETE EXPOSED TO EARTH OR WEATHER: #6 THRU #18
REINFORCING STEEL SPLICE LENGTHS FOR STANDARD NON
#6 AND
38 Bd
44 Bd
CLASS A SPLICE
TYPE #1 SPLICE
SLABS, WALLS, JOISTS: #11 & SMALLER
SLABS, WALLS, JOISTS: #14 & #18
LARGER
#7 AND
55 Bd
57 Bd
CLASS B SPLICE
TYPE #2 SPLICE
2x4 PURLIN
(E) WOOD ROOF TRUSS
MINIMUM 2
ROOF PURLINS TO BE
NOTE:
LARGER
SMALLER
3"
74 Bd
75 Bd
LARGER
#7 AND
107 Bd
92 Bd
CLEAR COVER
TYPE #4 SPLICE
COMPRESSION
A. VERTICAL HOOKED OR STRAIGHT BARS EXTENDING FROM FOOTINGS: TYPE #4 SPLICE, UNO
A. FOR HORIZ REINFORCING IN MAT SLABS, BEAMS, AND FOOTINGS W/ MORE THAN 12" OF
E. UNO ON PLAN OR DETAILS, LAP THE SLAB BARS W/ A LAP LENGTH OF 48 Bd
D. VERTICAL BARS IN BASEMENT, RETAINING WALLS & GRADE BEAMS: TYPE #3 SPLICE
B. HORIZONTAL BARS IN GRADE BEAMS, FOOTINGS & FOUNDATION WALLS: TYPE #2 SPLICE
C. VERTICAL BARS IN COLUMNS & PIERS: TYPE #4 SPLICE
BARRIER SEE
FINISH:
GRADE:
GALV
HOT DIPPED
COMMON LAW, STATUTORY, AND OTHER RESERVED RIGHTS,
PROTECTED UNDER COPYRIGHT LAW. SSE SHALL RETAIN ALL
UNAUTHORIZED USE IS STRICTLY PROHIBITED.