

	(CONSTRUCTION NOTES
ŀ	MATERIAL	EXISTING PRODUCT TO MATCH EXACTLY
	CONCRETE BLOCK	COUNTY CONCRETE SPLIT FACE BLOCK IS "PEBBLE BEACH" #18-002C & MATCHING MORTAR COLOR IS "WESTERN" ULTRALITE
	SHINGLE	CERTAINTEED "LANDMARK" 30 YEAR "HUNTER GREEN"
	STEEL SOFFIT & FASCIA	EDCO 16" CENTER VENT SOFFIT, ROOF EDGE, FASCIAS & MISCELLANEOUS TRIM IS "HARTFORD GREEN"

MATCH EXISTING BUILDING
EXTERIOR FINISHES— ANY PRODUCT
SUBSTITUTED MUST BE APPROVED
IN WRITING BY THE OWNER OR IT
MUST BE REMOVED AT
CONTRACTORS EXPENSE AND
REPLACED WITH EXACT MATCH.

BUILDING LOADS	
COMMERCIAL SNOW LOAD PER IBC TABLE 1608.2	50# /SF
RAFTER LIVE LOAD	40# /SF
RAFTER DEAD LOAD	15# /SF
WIND LOAD PER IBC TABLE 1609 (3 SECOND BURST)	90 MPH
SOIL BEARING CAPACITY	3,000PSI
CONCRETE MIN. PSI	3,500
REINFORCING STEEL TO BE 60,000 KSI- MIN. 3 " COVER	

	KEY TO DRAWINGS
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A4 OF 6	FLOOR PLAN & ELEVATIONS
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A6 OF 6	CROSS SECTION, DETAILS & ELEVATIONS
E1 OF 1	ELECTRICAL PLAN & SPECIFICATION

PROPOSED STORAGE BUILDING FOR CITY OF MARSHFIELD HACKMAN FIELD

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PROPOSED HACKMAN FIELD STORAGE BUILDING SPECIFICATION- Page 1

BIDS WILL BE RECEIVED AS FOLLOWS:

Base Bid: General Construction & Electrical. (includes all trades necessary to complete this project per plan and specification as shown)

Note: Before submitting a bid, all contractors and subcontractors should read the Instructions to Bidders and the General Conditions of the Contract which contain th provisions applicable not only to the successful bidder, but also his subcontractors.

Note: No additional charges of any kind will be paid for options added or subtracted or other changes, without a change order signed by the City of Marshfield person responsible, approved before the work is done and any material is installed.

1. CONTRACTOR:

- 1. General contractor is to remove the existing fence up to but not including the corner and gate posts and stockpile. After the building is constructed the general contractor is to place end posts matching the existing corner and end posts tight to the new building on both the north and south ends, and replace the fence in a neat and workmanlike manner. Leftover fence fabric and parts to be stockpiled onsite for the owner.
- 2. Arrange, maintain materials in orderly manner with use of walks, drives, roads, entrances encumbered
- 3. Confine storage of materials to spaces designated
- 4. General Contractor is responsible for a storage area for his own materials and for his subcontractors materials
- 5. Besides general cleaning, each trade shall do the following special cleaning to remove dirt and so forth caused by their own trades:
 - a. Clean exterior and interior metal and masonry surfaces, including doors free of oil. stains, dust, dirt, paint, and the like; leave without blemishes.

2. GENERAL REQUIREMENTS:

CODE COMPLIANCE: All work performed on this project shall be done in accordance with all applicable codes, Local, State and Federal applicable codes and local ordinances and

EXAMINATION OF THE PREMISES: Before submitting proposal or bid for this work, each bidder shall be held responsible to visit the site of the proposed project to ascertain for himself as to the existing conditions under which the work will be obligated to operate under in performing his part or work on this project. No extras will be approved for the contractor on account of his neglect or failure to visit the site to determine all materials and labor required for completion of the project according to the plans and specifications.

QUALITY CONTROL: All materials and equipment used on this project shall be new and free from any and all defects and shall be of the best quality normally used for commercial construction. First class workmanship will be expected from all trades involved on this project. If workmanship or materials are found to be defective, the work shall be redone in a neat and workmanlike manner and all of the defective materials shall be replaced with new materials. Cost for the replacement, including materials and labor shall be the contractors expense and shall not be of any additional cost to the owner.

STORAGE AND PROTECTION OF MATERIALS: General contractor and subcontractors performing any work on this project shall be responsible for his storage of materials and equipment protected from wind, inclement weather, and vandalism. Damaged materials and equipment used on this project, found upon inspection, shall be removed from the premises, and shall be replaced by the contractor or person damaging same, at no cost to the owner. All contractors performing a trade on this project shall take special care and protect each others work in place. Any damage caused by one contractor to another's work shall be replaced by the contractor doing the damage

All contractors shall take special care and protect Owners existing building and property. Any damage caused by a contractor to the owners existing property or belongings shall be replaced by the contractor doing the damage at no expense to the Owner.

CLEANING: Each contractor shall be responsible for removal of their own rubbish, debris and scrap, promptly upon it's accumulation. No burning of rubbish and debris will be allowed on the premises. Spillages of oil, grease, paints or stains or other liquids which could cause a slippery or hazardous surface or stain a finished surface shall be cleaned up immediately. The General Contractor shall be responsible for the general broom cleaning of the area premises. If rubbish and debris is not removed in a timely fashion, the Owner reserves the right to have same removed, and the cost of removing same shall be charged to the responsible Contractor, or will be deducted from the final payment owed that contractor.

PROJECT MEETINGS: General contractor with ALL his subcontractors and owners representatives will have a preconstruction meeting to clarify the work to be and schedule, and questions at a time mutually agreed upon by all contractors involved in this project. Owner's representative visitations will be made periodically to the project, for the purpose of observing the work to determine compliance with the Contract documents, and may or may not coincide with the project coordination meetings. In the event of any problems, questions, or concerns affecting the project, the general contractor will contact the owners representatives to meet on the site to discuss, evaluate, and decide how to proceed with the project.

TEMPORARY FACILITIES:

Each contractor shall be responsible for the removal of his ladders at the end of each working day. Entrances shall be barricaded or locked against entry by other than the contractors

The electrical subcontractor shall make temporary electricity for light and power during construction operations available from owners existing service until permanent distribution panel. outlets, etc are installed and energized. The owner shall provide water used by any and all contractors during construction at no cost to the contractor.

Cold Weather Construction: If construction shall be carried on continuously through cold weather, the general contractor will provide temporary heat and shelter in sufficient amount, as set forth herein, to carry on his work and that of his subcontractors, sufficient to protect all work and materials against injury from dampness and cold. General contractor shall include approved temporary heating devices, adequate and proper fuel, to maintain a minimum temperature of 50 degrees F. in spaces involved at all time during the placing, setting and curing of all concrete and masonry materials, all costs of which are the responsibility of the General Contractor. WARRANTIES: All contractors who supply materials and labor for this project shall warrant same for a period of not less than two (2) years from the date of acceptance of the project in writing by the Owner.

3. SPECIFICATIONS:

03: CONCRETE

Concrete Reinforcement: All foundations and floor slab areas including stoops shall be reinforced as called for on the Plans with minimum 60,000 psi reinforcing bar. Any bending of reinforcement bars shall be done while the material is cold. Install reinforcing rods in as long lengths as possible, lap adjoining pieces at least 20 diameters using a minimum of two tie wires. Contractor shall furnish all required chairs, spacers, ties, etc. as necessary for the reinforcement placement and form placement. Any bending of reinforcement bars shall be done while the

Cast in Place Concrete: All concrete shall have a minimum compressive strength of 3.500 psi 28 day ready mix concrete. No fly ash additive will be allowed in the concrete mixture. Provide for adequate expansion joints in the slabs as shown on the plans. Exterior stoops and slabs and walks shall be air entrained concrete mixture, shall have a minimum compressive strength of 4.000 psi 28 day ready mix concrete.

Maximum size of coarse aggregates for all concrete shall be as follows: 3/4"; Maximum slump for concrete slabs on grade shall be 3". Do not place concrete on frozen soil.

Portland Cement shall be Type 1, Air-entrained Portland Cement shall be Type 1A, Admixtures shall not be used except for air-entraining. Add air-entraining admixture at a rate of 6%, but not more than the manufacturers recommendations.

Liquid curing/sealing/hardening agent shall be used on all flatwork surfaces, to be Kure-N-Seal by Sonneborn, or approved equal

Concrete Testing: Concrete testing will not be required unless the owners representative has any concern, in which case contractor shall engage a reputable testing laboratory to perform evaluation tests of the concrete mix designs. Pour and retain one cylinder of each concrete mix truckload until the project is finished and approved by owner's representatives. If said tests indicate that any mix is not as specified, the contractor shall remove and replace said sections at no additional cost to the owner.

Expansion Joints: Expansion joint material shall meet "Specifications for Preformed Expansion Joint Fillers for Concrete Paving and Structural Construction" - ASTM D-1752. Provide pre-molded flexible, lightweight, non-staining, polyethylene closed-cell expansion joint fillers 1/2" thick x 5" as manufactured by W.R. Meadows or equal, for expansion joints abutting concrete walls, curbs, structures, walks, etc. Extend joint fillers full width and depth of the joint. Where more than one length is required, lace or clip joint filler lengths together. Furnish joint fillers in one piece lengths wherever possible. Provide for adequate expansion joints by sawcutting & filling slabs so maximum area shall not exceed three hundred (300) square feet or 20' in either direction.

Concrete placement: General contractor shall prepare fill below floor slabs by placing and compacting sand and gravel base in all areas so that they are free of humps and hollows. All concrete slabs to have 2 " extruded polystyrene 20# density underneath. Do not sprinkle water on any plastic vapor barriers. Place concrete using methods which prevent segregation of the concrete mixes. If concrete placement is interrupted for more than 1/2 hour, place a keyed construction joint. Maintain reinforcing in proper position during concrete placement operations using stands or 1/2 concrete bricks. Do not use concrete which becomes non-plastic and unworkable, or which has been contaminated by foreign materials and remove rejected concrete from the jobsite.. Do not use re-tempered concrete, it free of humps and hollows. Protect freshly placed concrete from premature drying and excessive hot or cold temperatures. Start initial curing as soon as free water has disappeared from the concrete surface. Weather permitting, keep concrete continually moist for not less than 7 days. Concrete placed during cold weather shall be protected in heated enclosures and maintained at a temperature at least 50 degrees for a period of at least 7 days when the air temperature is expected to fall below 40 degrees Conform to ACI 306 for cold weather concrete work. Bring slab surfaces to level with a straight edge and strike it off, use bull floats and darby's to smooth the surface, ready for finishing. Place vapor barrier on all sub-grades, lap all joints six (6) inches and turn up four (4) inches at all edges of slabs, forms, piers, etc. Do not damage vapor barrier when placing reinforcement, concrete or other related items.. Do not place concrete on frozen soil.

All concrete form work shall conform to the American Institute (ACI) 301-72, "Specification for Structural Concrete for Buildings" and ACI 347-68. "Recommended Practice for Concrete Formwork". Before placement of the concrete, notify other trades to permit installation of their work to be embedded in the concrete mixes.

Concrete Finishing: Concrete floors and slabs shall be trowelled to a smooth even finish. Apply a non-slip broom finish to the exterior concrete stoops or platforms. Steel trowel finish of all

interior slabs. Provide slopes as called for on inside floor at doors and exterior slabs as indicated on the plan. All formed surfaces exposed to view and not to be plastered shall have a smooth form finish with tie holes and defects patched and all fins removed.

NO calcium chloride or any additive to speed setup shall be used.

Tool joints between expansion joints, cut grooves 1/8" to 1/4" wide and at least one (1") inch deep as follows:

1. In walks not wider than six feet, transverse grooves with spacing of approximately equal to half the walk width, but not less than four feet

2. In walks wider than six feet, transverse grooves with spacing of approximately equal to half the walk width, and a longitudinal groove on the centerline of the walk.

04: REINFORCED MASONRY

Concrete Masonry Units

All reinforced concrete masonry materials and construction shall conform to the latest edition of the following

A. ACI 530. 1/ ASCE 6/TMS 602 "Specification for Masonry Structures."

B. ACI 530 / ASCE 5/TMS 402 "Building Code Requirements for Masonry Structures."

Concrete block shall conform to ASTM C-90. The required strength on the cross sectional area of concrete block shall be a minimum of 2500nsi.

Split faced concrete block MUST be County Concrete "Pebble Beach" #18-002C. Smooth block are to match existing buildings smooth block. Matching mortar color is "Western" Ultralite. And must be an exact match per plans. NO substitutions are acceptable.

Concrete Masonry Units shall be ASTM C 90, Grade N-1, Load bearing. Free of cracks, chips or other damage that may impair structural qualities exposed to units in finished work, uniform in color and texture and free from damage that impairs appearance qualities, free from Iron and other substances that will stain finishes.

All concrete block masonry units shall be laid in running bond unless necessary for exact match of existing buildings

Masonry block cells containing vertical reinforcement shall be grouted solid, filling cells with mortar shall be unacceptable

The base of each cell in which reinforcing bar is placed must have a cleanout hole.

Reinforcing steel shall conform to ASTM grade 60. Vertical reinforcing bars located in the center of a wall shall be lapped by a minimum of 40 diameters using a minimum of two tie wires. Vertical reinforcing bars with a clear cover of 2" or less shall be lapped a minimum of 60 diameters. Mechanical splices may be used in lieu of lap splices.

Provide continuous reinforced bond beam block in all reinforced masonry walls at the top and as shown on the Plans. Bond beams shall be continuous at masonry control joints. Bond beam reinforcing shall extend into and be continuous with all intersecting bond beams.

Provide control joints in exterior masonry walls @ 24' oc typical, at a maximum of 12' from

Fill cores of masonry under all bearing plates for a minimum width 3 times the bearing plate length for three courses below bearing. Mortar Materials

Mortar shall be Type M above grade.

- 1. ASTM C270 unless otherwise specified.
- 2. Aggregate: ASTM C 144.
- 3. Water shall be clean and free from injurious amounts of acids, alkalies,

organic materials or other deleterious substances.

Grout shall have a minimum compressive strength of 2000psi at 28 days, conform to ASTM C476, and have a slump between 8 to 10". The required minimum 28 day compressive strength of the combination of concrete block, grout

& mortar on the net area of the construction shall be 1830 psi.

Protect all masonry work from the elements and from staining or damage of every description during the progress of work.

Consult with all other trades with reference to chases and openings that may be required for their portion of the work and shall leave such openings according to other contractor's

Prepare mortar only in conformance with ASTM C 270. Standard mortar proportions by volume: Materials that have partially set shall not be re-tempered or used. Frozen, caked or lumpy material shall not be used. Mixers and boxes shall be thoroughly cleaned of all set or hardened mortar before the materials for a new batch are loaded. All masonry shall be laid up by skilled mechanics and in accordance with the following specifications and applicable trade practices and as indicated on the plans. Lap all horizontal joint reinforcing at corners. Width of reinforcing shall be 2" less than wall thickness. All joints shall be concave, tooled smooth. Horizontal courses of all work shall be kept level and in no case shall any work be carried up without a line on one side of the wall. Vertical joints of alternate courses shall be correctly centered, one over another and faces of all walls shall be plumb and true. All work shall be laid up to the full thickness indicated without stepping or toothing. Masonry contractor shall provide expansion ioints to prevent cracking of masonry from expansion, contraction or any other cause.

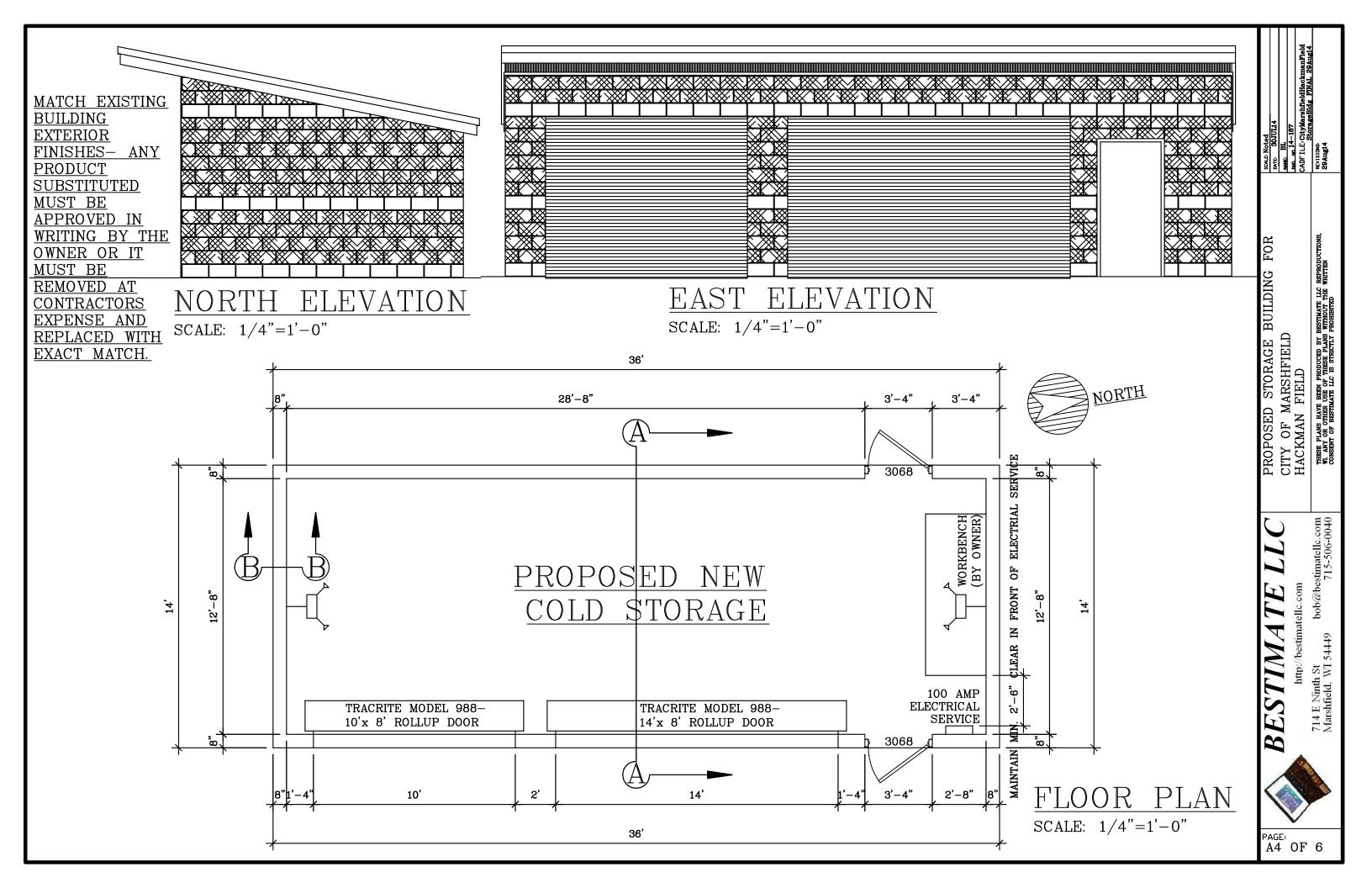
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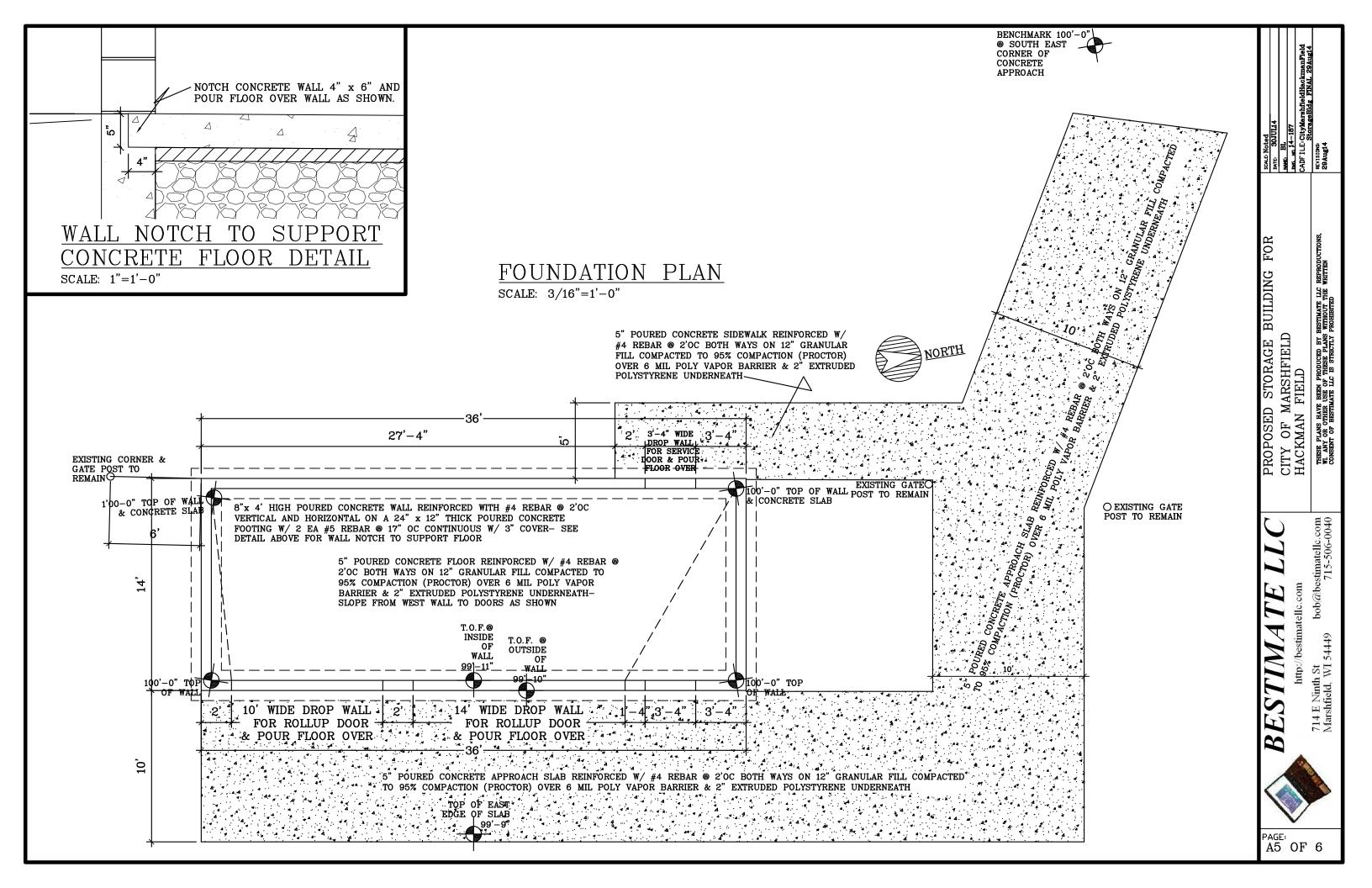
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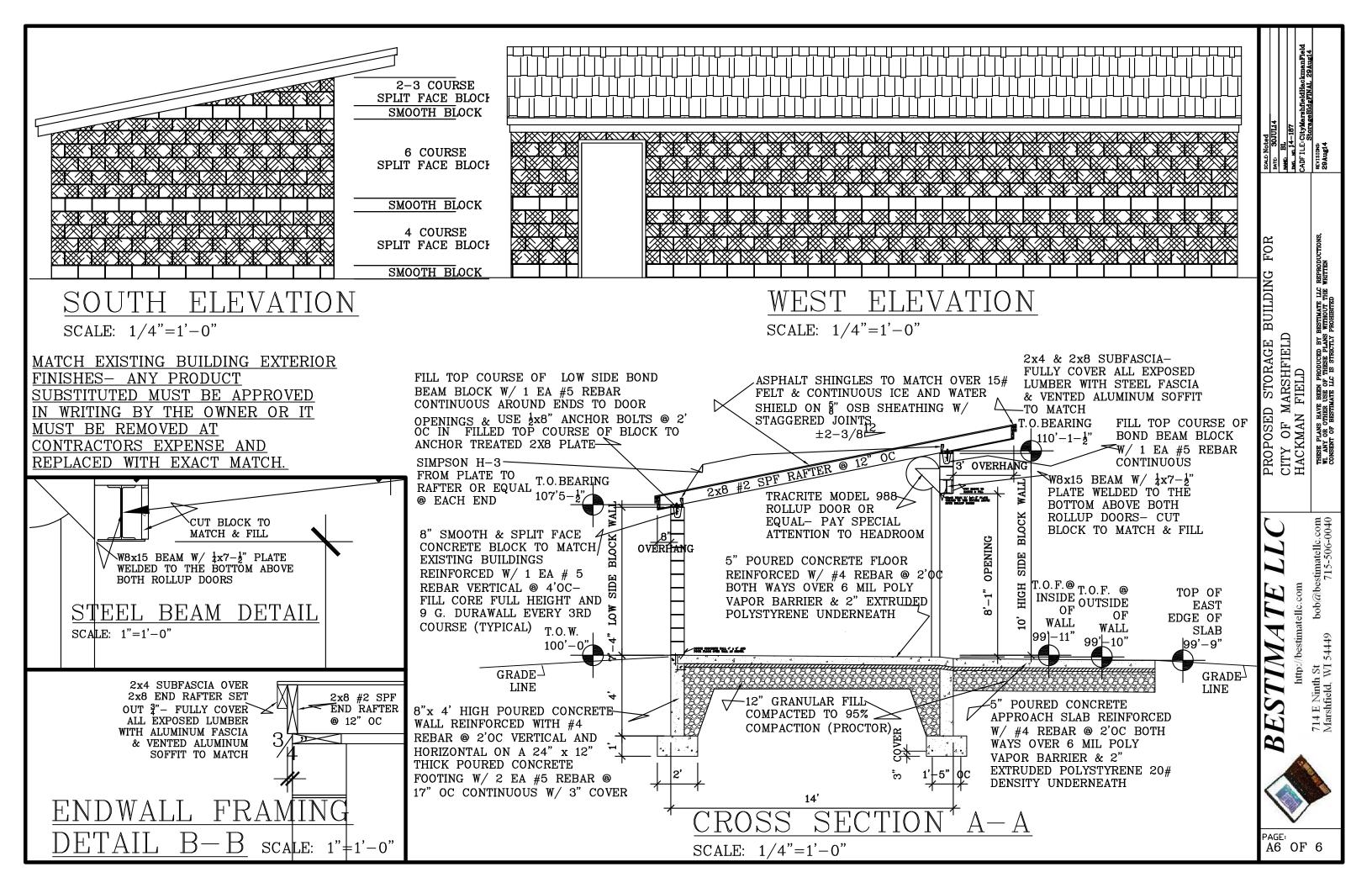
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ESTIMATE

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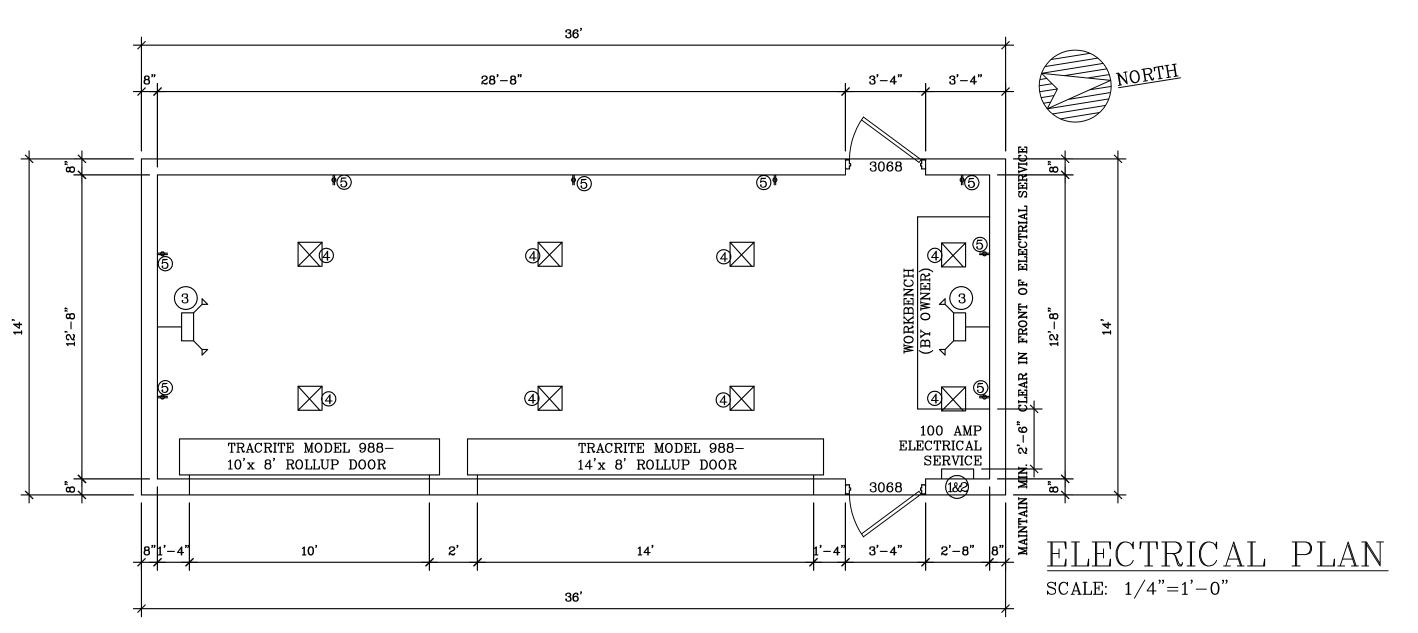


ELECTRICAL NOTES

Electrical Contractor shall furnish all materials and labor as required to complete the project in accordance with the plan and schedule. Electrical work labor and materials shall be in strict accordance with all local, State, and Federal applicable codes, and shall include obtaining and paying for all Local, State, and Federal approvals, permits, and fees that are applicable.

Electrical work shall include trenching, and all material and labor for underground service from existing service and backfill with compacted excavated earth in suitable size for electrical main entrance as shown on plan and all costs shall be included in this bid. See Electrical Specification Page 3.

ELECTRICAL SCHEDULE				
#	QTY	EQUIPMENT		
1	1	100 AMP UNDERGROUND FEEDER -		
2	1	100 AMP SINGLE PHASE BREAKER PANEL		
3	2	21 WATT LED EMERGENCY WALL PACS		
4	8	38 WATT LED CEILING LITES- 37 FOOT CANDLES AVG.		
5	8	20 AMP GFI OUTLETS		



PROPOSED STORAGE BUILDING FOF CITY OF MARSHFIELD HACKMAN FIELD

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