

GENERAL Included is furnishing of all labor, equipment, and materials to construct a one story warehouse. The contract for erection of the building shall be prepared and executed in accordance with the "Standard General Conditions of the Construction Contract", of the National Society of Professional Engineers. Copies of this form are available on demand from the Office of the Engineer.

DESIGN CRITERIA A.I.S.C. Manual (1963); A.C.I. Manual (1963); B.O.C.A. Code (latest Edition).

EXISTING CONDITIONS All existing conditions and dimensions shall be determined and verified in the field prior to fabrication of any materials.

LOADS Roof - 30 psf; Warehouse floor - 250 psf; stairs - 100 psf.

SOIL VALUE In compliance with Section 725.0 as amended, we have made an investigation of the proposed site for this project. In conjunction with soil boring information supplied by Granger & Oliver, in our opinion the soil is capable of sustaining a superimposed load of 2000 psf. The soil is sandy clay and clayey sand. Final bearing value shall be ascertained at time of footing excavation.

FOOTINGS To be minimum of 2'-6" below finished grade and bearing on undisturbed soil 1'-0" below original grade. All footings not shown will be 12" thick and project 6" each side.

CONTROLLED FILL where required shall be placed in strict accordance with the Prince Georges County Building Code and applicable A.S.T.M. Specifications. All fill shall be placed under the direction of a qualified Foundation Engineer and Testing Laboratory. Field inspection reports are to be filed with the structural engineer.

BACKFILL All backfill to be compacted by means approved by the Engineer in 6" layers. Compacted fill prior to laying of the floor slabs shall have a density and compressive value of not less than 95% of the normal undisturbed soil value, which shall be determined by an approved testing laboratory as prescribed by the pertinent A.A.S.H.O. Specifications.

EXCAVATION The Contractor shall be responsible for providing adequate vertical and horizontal support of adjacent buildings, excavation and utilities. Grade all areas to drain.

CONSTRUCTION LOADS The Contractor shall ask for and obtain the Engineer's approval before placing on the structure any loads greater than the above design loads.

CONCRETE In general to conform to the A.C.I. Building Code Requirements for Reinforced Concrete (1963). Concrete for slabs shall have a compressive strength of 3000 psi at 28 days, with 6 bags of cement per cubic yard, and 8 gallons of water per bag of cement. Footing concrete shall be 2500 psi, with 1 1/2 bags of cement per cubic yard. Maximum slump - 3".

CONCRETE PROTECTION reinforcing steel to have the following minimum concrete cover: footings - 3"; slabs - middle of slab

REINFORCING STEEL All reinforcing steel shall be new, high strength billet steel conforming to A.S.T.M. Specifications A-432 and A-305 (Min. $F_y = 60,000$ psi). All reinforcing steel shall be detailed, fabricated and placed in accordance with the latest edition of the A.C.I. Manual of Standard Practice.

WELDED WIRE MESH To conform to A.S.T.M. Specification A-185, and to be placed as indicated on the drawings. Lap edges at least 6" in each direction.

STRUCTURAL STEEL In general to conform to A.S.T.M. Specification A-36. All steel shall be detailed, fabricated and erected in accordance with the latest edition of the AISC Manual. All connections shall develop the full strength of the beams. In general, field connections shall be made with 3/4" high strength bolts (A-325), and shop connections shall be welded. Frame all openings in roof with 4" x 4" x 5/16" angles, unless otherwise noted. All structural steel shall be painted one coat of light colored zinc chromate. Minimum bearing plates shall be 6" x 8" x 3/8", unless otherwise shown.

STEEL JOISTS All steel joists shall conform to the latest S.J.I. Specifications, and the Prince Georges County Building Department, in all respects. Joists shall be welded to steel supports with two 1/4" welds, 1" long.

METAL ROOF DECK To be 1 1/2", 22 gauge, galvanized or painted. Deck shall extend over three supports, and shall be capable of supporting a minimum uniform load of 30 psf. Metal deck shall be manufactured by a member of the Steel Deck Institute, and shall be installed in strict accordance with the specifications of the Steel Deck Institute.

LINTELS Unless otherwise indicated, provide loose angle lintels as follows, with overlap for each 4" of masonry, with 3/2" leg horizontal and 2" minimum bearing each end:
 opening to 3'-0" - 3 1/2" x 3 1/2" x 1/4" L
 3'-1" to 5'-0" - 4" x 3 1/2" x 5/16" L
 5'-1" to 6'-6" - 5" x 3 1/2" x 3/8" L
 6'-6" to 8'-0" - 6" x 3 1/2" x 3/8" L
 Openings greater than 8'-0" - 8" x 8" with suspended 3/16" plate and minimum of 8" bearing each end. Lintels over openings in interior masonry walls, not otherwise specified, shall be pre-cast, lightweight concrete lintels with -1-#5 bar top and bottom for each 4" width.

STEEL INSPECTION Field structural steel to be inspected by qualified inspectors approved by the structural engineer. Field inspection reports to be filed with the structural engineer within 5 days of the time of actual inspection. Inspectors must be notified of all phases of construction and welding by the general contractor.

APPROVAL OF SHOP DRAWINGS Shop drawings for all structural items mentioned above are a part of the structural design of this project, and must be submitted to and approved by this office. If a contractor or owner fails to obtain our approval of the shop drawings, we will not be responsible for the structural design of this project.

PAVING AND DRIVEWAY ENTRANCES Bituminous paving, of the section and destination shown on the drawings, and driveway entrances shall be made in strict accordance with the Prince Georges County General Specifications and Standards for Highway and Street Construction.

ROOFING To be "bonded-type" 4-ply built up over 1" rigid insulation. To bond roof to structure. Provide all membrane flashing, cants, and counter flashing, all as shown on the plans. The Contractor shall properly flash and water proof all openings in roof for water pipes, skylights, plumbing vents and roof drains. Furnish and install skylights as shown in plans.

CARPENTRY Provide all wood framing, blocking and other rough lumber, securely anchored or fastened in place where shown or called for in plans. Stems and joists shall be structural grade Douglas fir. Soffit shall be 1/2" exterior grade fir plywood. Provide base molding and 1/4" round at all partition walls.

DRYWALL All drywall shall be 1/2" recessed with taped joints. Provide corner beads at all outside corners.

PAINTING The Contractor to furnish all labor and materials necessary for painting as follows:

- All doors, trim and moldings to receive two coats of semi-gloss paint.
- All drywall to receive two coats of alkali base paint. Drywall partition above entrance stairway will not be painted. Drywall at entrance soffit shall receive two coats of semi-gloss paint.
- All interior masonry in bathrooms to receive two coats of alkali base masonry paint.
- All galvanized roof leaders and downspouts shall receive one coat of galvanized metal primer and one coat of semi-gloss paint. Cast iron roof leader extensions shall be primed and painted to match.
- All exposed exterior block masonry walls shall receive one coat of "Spraycrete" or approved equal.

MASONRY Clay facing brick shall conform to A.S.T.M. Specification C-216-67, oversize (3 courses per 2 block courses). Allow 13200 per thousand. All masonry construction shall be in accordance with the American Standard Building Code Requirements for masonry, where specified as solid brick or 100% solid masonry. Isolated piers and pilasters shall be constructed of clay bricks with a minimum strength of 4500 psi, unless otherwise noted.

Provide #9 duro-wall or equivalent in all masonry walls every other block course (i.e. 8" o.c. vert.) unless noted otherwise. Above and below wall openings place duro-wall at 8" o.c. for two block courses. Provide 3 courses of solid brick or 100% solid masonry below all joist and slab bearing lines. Provide 16" minimum solid brick or 100% solid masonry below all lintels and/or minor wall bearing beams. Brick piers shall be fully bonded into adjacent walls. Unless otherwise specified in plans, all masonry shall conform to the following specifications:
 Hollow load-bearing concrete masonry units - A.S.T.M. - C-90-667
 Hollow non-load bearing concrete masonry units - A.S.T.M. - C-129-647
 Solid load-bearing concrete masonry units - A.S.T.M. - C-143-667
 Facing brick - A.S.T.M. - C-216-67
 Mortar (Type "M"-750 psi) - A.S.T.M. - C-270-641
 (Type "M"-2500 psi - below grade) - A.S.T.M. - C-270-647

DRAINAGE The contractor shall furnish all labor, materials and equipment for roof and parking lot drainage, including but not limited to the following:
 1. Three parapet galvanized roof scuppers.
 2. Galvanized leaders and cast iron roof extensions.
 3. Concrete drainage pipe along business wall.
 4. Parking lot drainage inlet and grate.
 5. Connection to existing storm drain inlet.

Permit for field connection shall be obtained by the Engineer.

PLUMBING The contractor shall furnish all labor, materials, equipment and connection fees necessary to complete and leave ready for operation the plumbing system, in accordance with the plans and all applicable codes, including but not limited to the following:
 1. Domestic water connection and distribution system.
 2. Sanitary sewer system and connection.
 3. Fire sprinkler main and connection riser and including the 0.5" & V.V. valve at the building wall. Interior fire sprinkler system not included in this contract.
 4. Plumbing fixtures and hot water heaters.
 5. Individual interior water meters not included in base bid.
 6. All necessary gas connection and piping system to tank of gas.

ALTERNATE BID - interior 5/8" disk type water meters, in place, 1/2" meter.

ELECTRICAL, HEATING AND VENTILATING The contractor shall furnish all labor, materials and equipment necessary to complete and leave ready for operation all the items in accordance with the plans and all applicable codes, including, but not limited to the following:
 1. Payment of POCO permit fees and related costs for electrical service.
 2. All electrical fixtures, wiring and duct exhausts. Furnish bulbs for all lighting fixtures.
 3. All gas fired space heaters.
 4. Wiring of electrical equipment furnished and installed by others.

SITE PLAN

WATER AND SEWER NOTES

1. All water and sewer lines to be installed in accordance with the latest edition of the Prince Georges County Building Code.
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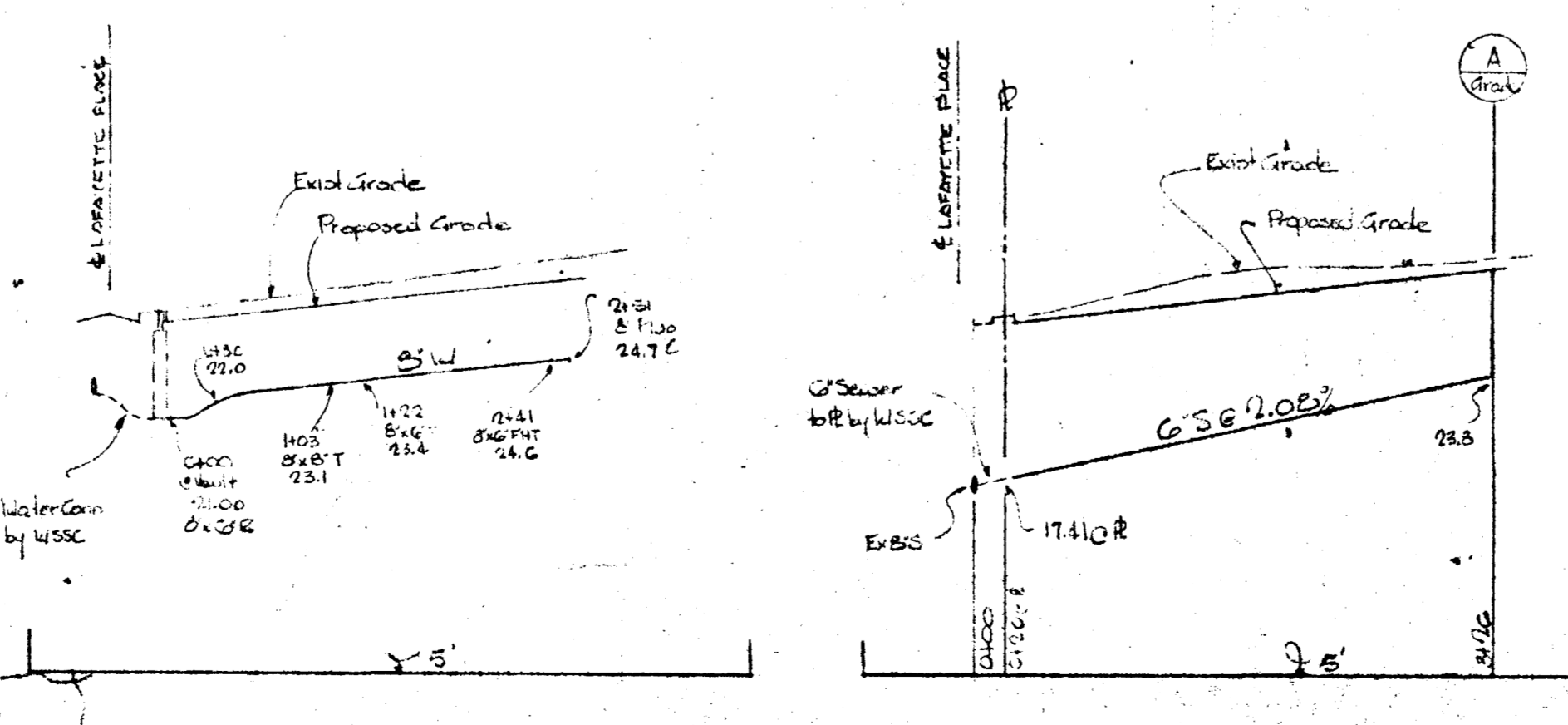
INDEX OF DRAWINGS

NO	DESCRIPTION
1	SITE PLAN, STRUCTURAL NOTES AND SPECIFICATIONS, GENERAL
2	FOUNDATION PLAN, WALL SECTIONS AND COLUMN BARRING LOGS
3	ELECTRICAL AND MECHANICAL DETAILS
4	PLUMBING PLAN, ELECTRICAL, MECHANICAL AND DETAILS
5	ROOF PLAN, MECHANICAL AND ELECTRICAL DETAILS
6	PAVING, HEATING AND VENTILATING
PROPOSED	
WAREHOUSE NO. 3A	
HYATTSVILLE INDUSTRIAL	
EMMONSTON-PRINCE GEORGES COUNTY-MARYLAND	
REVISIONS	MARTIN INDUSTRIAL
1	PARK VENTURE
2	2045 University Blvd. E.
	Adolph, Maryland
	MACRIS AND SIMKO
	Consulting Engineers
	817 Spring Spring Ave.
	Silver Spring Md.
Job No.	SHEET
Date	

COIL BORINGS

BORING NO.	GROUND SURFACE ELEV.	DEPTH	DESCRIPTION
7	31'	0'	JANA & BRUVEL
		10'	BROWN GRAY CLAY TRACE SAND
		7'	(SANDY)
		8'	
		18'	18'
8	31'	0'	FINE GRAY BROWN SAND TRACE CLAY
		16'	(S CLAYEY SAND)
		51'	
		28'	
		17'	(S SANDY CLAY)
		15'	
9	30'	0'	CLAY FILL
		4'	BROWN LOAMY SLAY
		10'	BROWN GRAY SANDY CLAY
		7'	FINE GRAY SANDY CLAY
		5'	(SEE NOTE 9A)
		10.5'	
		48'	FINE BROWN GRAY SAND TRACE CLAY
		50'	(SEE NOTE 9A)
		15'	NOTE 9A: COARSE BROWN SAND & GRAVEL TRACE CLAY
7.	ON COMPLETION	7'	31'
	BAILED TO	12'	51'
	30 MIN. AFTER BAILING	6"	51'
	1 HOUR "	5"	NOISE
	5 HRS. "	5"	"
8.	ON COMPLETION	4.5'	5.8'
	BAILED TO	15.5'	5.5'
	10 MIN. AFTER BAILING	11'	NOISE
	1 HOUR "	10'	"
	24 HRS. "	10'	"
9.	ON COMPLETION	8'	13'
	BAILED TO	12'	13'
	15 MIN. AFTER BAILING	9'	13'
	1 HOUR "	8'	NOISE
		8'	"

WATER AND SEWER PROFILES



AREA TABULATION

DESCRIPTION	AREA
GROSS PROPERTY AREA (LOT 9)	14,371 sq ft
GROSS BUILDING AREA (WHSE 3A)	22,200 sq ft
PROBING REQUIRED (WHSE 3A)	30
TOTAL PROBING	29

PROPERTY DESCRIPTION
 LOT 9 - Block B
 HYATTSVILLE INDUSTRIAL
 (BOWENSTON, MD)

H & I - 8/20
 How - 11/23/84
 LA - 1/16/85