



1. COORDINATE ALL EXISTING CONDITIONS IN FIELD PRIOR TO CONSTRUCTION.
2. 6" CONCRETE SLAB SHALL BE REINFORCED WITH #5'S EACH WAY AT 16" o.c. AT 1/2" FROM THE BOTTOM OF THE SLAB.
3. RAMP WALLS SHALL BE BACKFILLED WITH COMPACTED GRANULAR FILL.
4. AT END OF RAMP WALLS PROVIDE 2'-0" WIDE BY 1'-0" THICK CONTINUOUS STRIP FOOTING BENEATH WALL AS SHOWN ON PLAN. SEE DETAILS 1 AND 3 ON SHEET S110.
5. RAMP FINISH SHALL BE A BROOM WITH GROOVES TO SHED WATER AWAY FROM THE CENTER TOWARDS THE CURB. COORDINATE WITH OWNER. SLOPE SHALL BE 1/8" PER FOOT TOWARDS CURB FROM CENTER OF RAMP.
6. EXISTING UNDERGROUND TELEPHONE LINE SHALL BE REMOVED AND REROUTED AROUND NEW RAMP AS NEEDED. CONTRACTOR TO COORDINATE AND VERIFY LOCATION.
7. REMOVE AND REPLACE EXTERIOR PAVEMENT AS NECESSARY. COORDINATE WITH OWNER ON SITE.
8. ACTUAL WIDTH OF INCLINE TO BE FURTHER COORDINATED ON SITE TO CLEAT EXISTING WATER SPOUT AND JOINT IN ADJACENT BUILDING.

COPIES OF PUBLICATIONS REFERENCED IN THESE GENERAL STRUCTURAL NOTES ARE AVAILABLE FOR REVIEW AT ADVANTAGE GROUP ENGINEERS, INC.
CONTRACTORS UNFAMILIAR WITH THESE PUBLICATIONS MUST REVIEW THEM PRIOR TO CONSTRUCTION.

GOVERNING CODE

OHIO BUILDING CODE - 2011, BASED ON 2009 IBC

CLASSIFICATION OF BUILDING STRUCTURE
CATEGORY II, TABLE 1604.5

SUBSTITUTIONS, SUBMITTALS, AND RFI'S

1. CONTRACTOR SHALL SUBMIT ALL SUBSTITUTIONS FOR APPROVAL PRIOR TO CONSTRUCTION WITH THE FOLLOWING INFORMATION:
 - A. THE SCOPE, EXTENT, AND ALL LOCATIONS EFFECTED BY THE PROPOSED SUBSTITUTION.
 - B. SPECIFIC DRAWING OR SPECIFICATION REFERENCES FOR THE ORIGINAL PRODUCT OR SYSTEM SPECIFIED.
 - C. THE REASON FOR THE PROPOSED CHANGE.
 - D. COST SAVINGS AND/OR IMPACT ON SCHEDULE.
 - E. IMPACT ON ANY GUARANTEES OR WARRANTIES ASSOCIATED WITH THE PRODUCT OR SYSTEM.
 - F. COORDINATION REQUIRED WITH OTHER TRADES OR ADJACENT MATERIALS.
 - G. ANY AND ALL DEVIATIONS FROM THE SPECIFIED REQUIREMENTS.

CONSTRUCTION AND SAFETY

1. CONTRACTOR SHALL BRACE ENTIRE STRUCTURE AS REQUIRED TO MAINTAIN STABILITY UNTIL COMPLETE AND FUNCTIONING AS THE DESIGNED UNIT.
2. ENGINEER SHALL NOT BE RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OF CONSTRUCTION SELECTED BY CONTRACTOR.
3. THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. WHEN ON SITE, THE ENGINEER IS RESPONSIBLE FOR HIS OWN SAFETY BUT HAS NO RESPONSIBILITY FOR THE SAFETY OF OTHER PERSONNEL OR SAFETY CONDITIONS AT THE SITE.
4. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. SHOULD ANY DISCREPANCY BE FOUND, CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER IMMEDIATELY OF THE CONDITION.
5. CONTRACTOR SHALL BRACE ENTIRE STRUCTURE AS REQUIRED DURING DEMOLITION AND CONSTRUCTION TO MAINTAIN STABILITY UNTIL THE STRUCTURE IS COMPLETE AND FUNCTIONING AS THE DESIGNED UNIT.

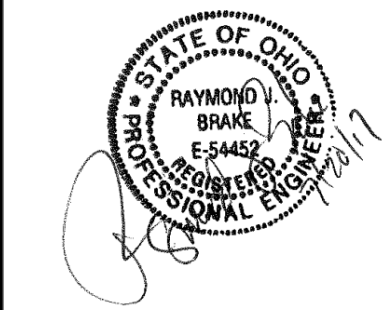
FOUNDATIONS

1. SOIL CONDITIONS
2. PER CLIENT'S REQUEST, THE FOUNDATION DESIGN AND GENERAL FOUNDATION NOTES ARE BASED ON THE ASSUMPTION OF FAVORABLE SOIL INSTALLATION. THE CONTRACTOR SHALL RETAIN A GEO TECHNICAL ENGINEER TO VERIFY DESIGN ASSUMPTIONS PRIOR TO FOUNDATION CONSTRUCTION. THE COST FOR THE GEO TECHNICAL ENGINEER SHALL BE IDENTIFIED AS A SEPARATE ITEM ON THE CONTRACTOR'S BID. THE CONTRACTOR SHALL SUBMIT COPIES OF THE GEO TECHNICAL ENGINEER'S REPORT TO ADVANTAGE GROUP ENGINEERS.
3. BOTTOM OF FOUNDATION ELEVATION INDICATED ARE FOR BIDDING PURPOSES AND MAY BE LOWERED TO SUIT SUB-SURFACE SOIL CONDITION. BEARING STRATA SHALL BE APPROVED BY A GEO TECHNICAL ENGINEER PRIOR TO PLACING CONCRETE. PROVIDE ENGINEERED FILL OR FLOWABLE FILL CONCRETE (60 PPS) UNDER FOUNDATIONS AT SOFT SPOTS AND FOR EXTENDING EXCAVATION TO ADEQUATE BEARING MATERIAL. INSTALL FOUNDATIONS AT DESIGNED ELEVATIONS.
4. FOOTINGS MAY BE PLACED WITHOUT SIDE FORMS IF EXCAVATED WALLS STAND APPROXIMATELY VERTICAL.
5. ALL FOOTINGS SHALL BEAR ON LEVEL (WITHIN 1 IN 12) UNDISTURBED SOIL OR APPROVED ENGINEERED FILL. FOUNDATIONS HAVE BEEN DESIGNED FOR A MAXIMUM SOIL BEARING OF 2000 PSF WALL FOOTINGS.
6. LATERAL SOIL PRESSURE USED FOR DESIGN OF:
- A. RETAINING WALLS: 45 PCF EQUIVALENT FLUID PRESSURE, TRIANGULAR DISTRIBUTION + SURCHARGE, 200 PSF
7. CONTRACTOR SHALL CONTACT UTILITY COMPANIES FOR LOCATING UNDERGROUND SERVICES AND IS RESPONSIBLE FOR THEIR PROTECTION AND SUPPORT.
8. COMPACTION:
- A. ENGINEERED FILL BENEATH FOOTINGS: MINIMUM COMPACTION 98% STANDARD PROCTOR DENSITY AT THE OPTIMUM MOISTURE CONTENT.
9. FINISHED GRADE SHALL SLOPE AWAY FROM THE PERIMETER FOUNDATION.

CONCRETE

1. CONCRETE WORK AND TESTING SHALL CONFORM TO ALL REQUIREMENTS OF ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS," EXCEPT AS MODIFIED BY THE SUPPLEMENTAL REQUIREMENTS BELOW. REPORTS FROM TESTS REQUIRED BY SECTION 1.6 OF ACI 301 SHALL BE SUBMITTED TO STRUCTURAL ENGINEER, ARCHITECT, OWNER, CONTRACTOR, CONCRETE SUPPLIER, AND BUILDING OFFICIAL.
2. CONCRETE WORK IN COLD WEATHER SHALL CONFORM TO ALL REQUIREMENTS OF ACI 306.1 "STANDARD SPECIFICATION FOR COLD WEATHER CONCRETING" AND ACI 308R "COLD WEATHER CONCRETING".
3. CONCRETE WORK IN HOT WEATHER SHALL CONFORM TO ALL REQUIREMENTS OF ACI 305R "HOT WEATHER CONCRETING". THE AIR TEMPERATURE, RELATIVE HUMIDITY, CEMENT TEMPERATURE, AND WIND VELOCITY SHALL BE ENTERED INTO THE NOMOGRAPH OF THIS REFERENCE TO DETERMINE IF PRECAUTIONS AGAINST PLASTIC SHRINKAGE ARE REQUIRED.
4. MATERIALS: (fc BASED ON 28 DAY UNLESS NOTED)
 - A. CONCRETE FOR RETAINING WALLS' WITH EXTERIOR EXPOSURE: $f_c = 4000$ PSI, (4.5% TO 7.5% ENTRAINED AIR), MAXIMUM WATER/CEMENTITIOUS RATIO = 0.50.
 - B. CONCRETE FOR FOOTINGS: $f_c = 3000$ PSI.
 - C. REINFORCING STEEL: ASTM A615 OR ASTM 956 (AXLE ONLY) 60 KSI YIELD DEFORMED BARS AND ASTM A185 MESH. FLAT SHEETS ONLY.
 - D. FLY ASH: ASTM C616, TYPE F OR C, FLY ASH-TO- TOTAL CEMENTITIOUS RATIO SHALL NOT EXCEED 25% MAXIMUM.
 - E. GROUND GRANULATED BLAST FURNACE SLAG: ASTM C989, TOTAL GROUND GRANULATED BLAST FURNACE SLAG -TO- TOTAL CEMENTITIOUS RATIO SHALL NOT EXCEED 50% MAXIMUM.
 - F. HIGH RANGE WATER REDUCER (HRWR) ADMIXTURE: ASTM C494.
 - G. CHLORIDE CONTENT OF CONCRETE: LIMIT TOTAL CHLORIDE ION CONTENT TO AMOUNT INDICATED IN TABLE 4.2.2.6 OF ACI 318. ADMIXTURES CONTAINING CHLORIDE ARE NOT PERMITTED IN REINFORCED CONCRETE OR CONCRETE CONTAINING METALS.
5. SLUMP SHALL BE MEASURED PRIOR TO THE ADDITION OF HRWR.
6. LAP SPLICE REINFORCING BARS 48 BAR DIAMETERS UNLESS NOTED OTHERWISE:
7. BAR CLEARANCES BETWEEN ADJACENT BARS AND FORMWORK SHALL BE AS NOTED ON THE DRAWINGS OR A MINIMUM AS PER ACI REQUIREMENTS.

Seal:



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Design Team: CCH / SJ

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Drawing No.

S110

Structural Consultants
ADVANTAGE GROUP
ENGINEERS, INC.

[illegible]

DAYTON VA DOCK INCLINE
BUILDING 143

Drawing Title: FOUNDATION / RAMP PLAN

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