# **LEGEND**

	LEGEN	שו
GAS	GAS	EXISTING GAS LINE
GS GS	—— GS ———	EXISTING GAS SERVICE
ELEC-UG/ /	ELEC-OH	EXISTING ELECTRIC (UNDERGROUND / OVERHE
CATV-UG/ /	CATV-OH	EXISTING CABLE (UNDERGROUND / OVERHEAD)
TEL-UG/ /	TEL-OH	EXISTING TELEPHONE (UNDERGROUND / OVER
WAT	WAT	EXISTING WATER MAIN
ws ws	ws ws	EXISTING WATER SERVICE
STM	STM	EXISTING STORM SEWER
—— — RD — — RD — —	- RD — — RD ——	EXISTING ROOF DRAIN
SAN	SAN	EXISTING SANITARY SEWER
	FM	EXISTING SANITARY FORCE MAIN
FOC	FOC	EXISTING FIBER OPTICS
x x x x	××	EXISTING FENCE
650		EXISTING CONTOUR (MAJOR)
648		EXISTING CONTOUR (MINOR)
EX. RW		EXISTING RIGHT OF WAY
		EXISTING PROPERTY LINE
		EXISTING EASEMENT
.0 0 0 0 0	0 0 0 0 .	EXISTING GUARDRAIL
		EXISTING TREE LINE

EXISTING FLAGPOLE

EXISTING MAILBOX

EXISTING PULL BOX

EXISTING LIGHT POLE

EXISTING GAS METER

EXISTING GAS VALVE

EXISTING GAS BOX

EXISTING POWER POLE

EXISTING GUY WIRE / ANCHOR

EXISTING SANITARY MANHOLE

EXISTING SANITARY CLEANOUT

EXISTING SINGLE / DOUBLE CURB INLET

EXISTING STORM MANHOLE

EXISTING CATCH BASIN

EXISTING FIRE HYDRANT

EXISTING WATER METER

EXISTING WATER VALVE

EXISTING BUSHES / TREES

EXISTING STORM CLEANOUT

EXISTING TELEPHONE MANHOLE

EXISTING TELEPHONE PEDESTAL

EXISTING ELECTRIC METER

EXISTING ELECTRIC MANHOLE

EXISTING CABLE PEDESTAL

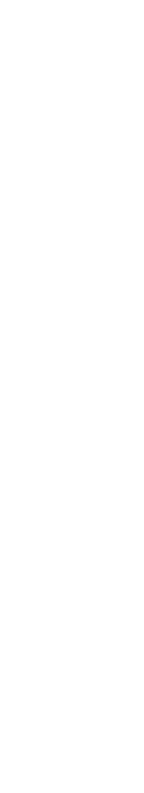
EXISTING ELECTRIC PEDESTAL

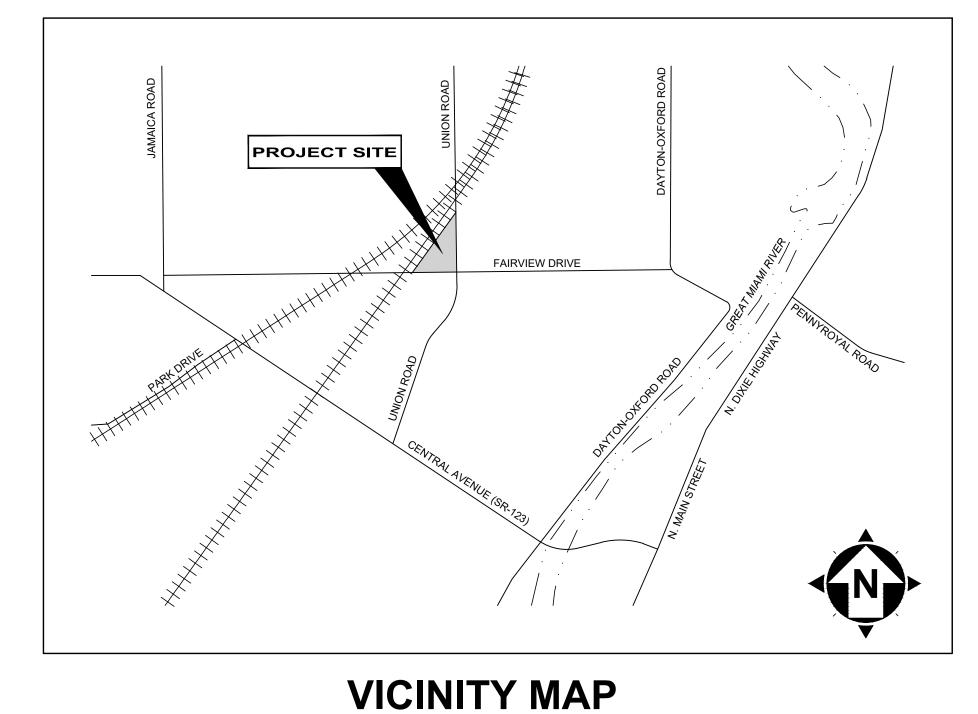
**EXISTING SIGN** 

# FRANKLIN TOWNSHIP NEW SALT BARN

CITY OF CARLISLE,
WARREN COUNTY, OHIO
PROJECT #231847

INDEX OF SHEETS					
SHEET NO.	SHEET NAME				
1	TITLE SHEET				
2	GENERAL NOTES AND DETAILS				
3	SOIL EROSION CONTROL DETAILS				
4	EXISTING CONDITIONS AND DEMOLITION PLAN				
5	SITE AND GRADING PLAN				
S001	GENERAL STRUCTURAL NOTES				
S110	FOUNDATION PLAN				
S310	FOUNDATION SECTIONS				





CONTROL POINTS							
CONTROL POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION			
1	582517.29	1458425.98	697.50	IRON PIN W/CAP (BENCHMARK)			
2	582508.38	1458633.03		IRON PIN W/CAP			
3	582699.27	1458588.09		IRON PIN W/CAP			

# DATUM:

HORIZONTAL: US STATE PLANE 1983, OHIO SOUTH 3402, GEOID MODEL: GEOID 12A. COORDINATES ARE GROUND. GROUND TO GRID SCALE FACTOR IS 0.9999140326. VERTICAL: NAVD 1988

OHIO Utilities Protection SERVICE Call Before You Dig
811 or 1-800-362-2764 CALL TWO WORKING DAYS BEFORE YOU DIG

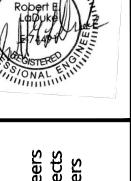
(NON MEMBERS MUST BE CALLED DIRECTLY)

ODOT STANDARD CONSTRUCTION DRAWINGS						
BP-2.2	TRANSVERSE PAVEMENT JOINTS	01/15/2021				
MH-1.1	MANHOLE NO. 1	07/15/2022				

SI	<u> </u>	σ			Ö			
FRANKLIN TOWNSHIP		CARLISLE, OH	CT NO.	TITLE SHEET				
	2	231	84	7				
		DISCI						
		CIN						
		SHEET	SHEET NAME					

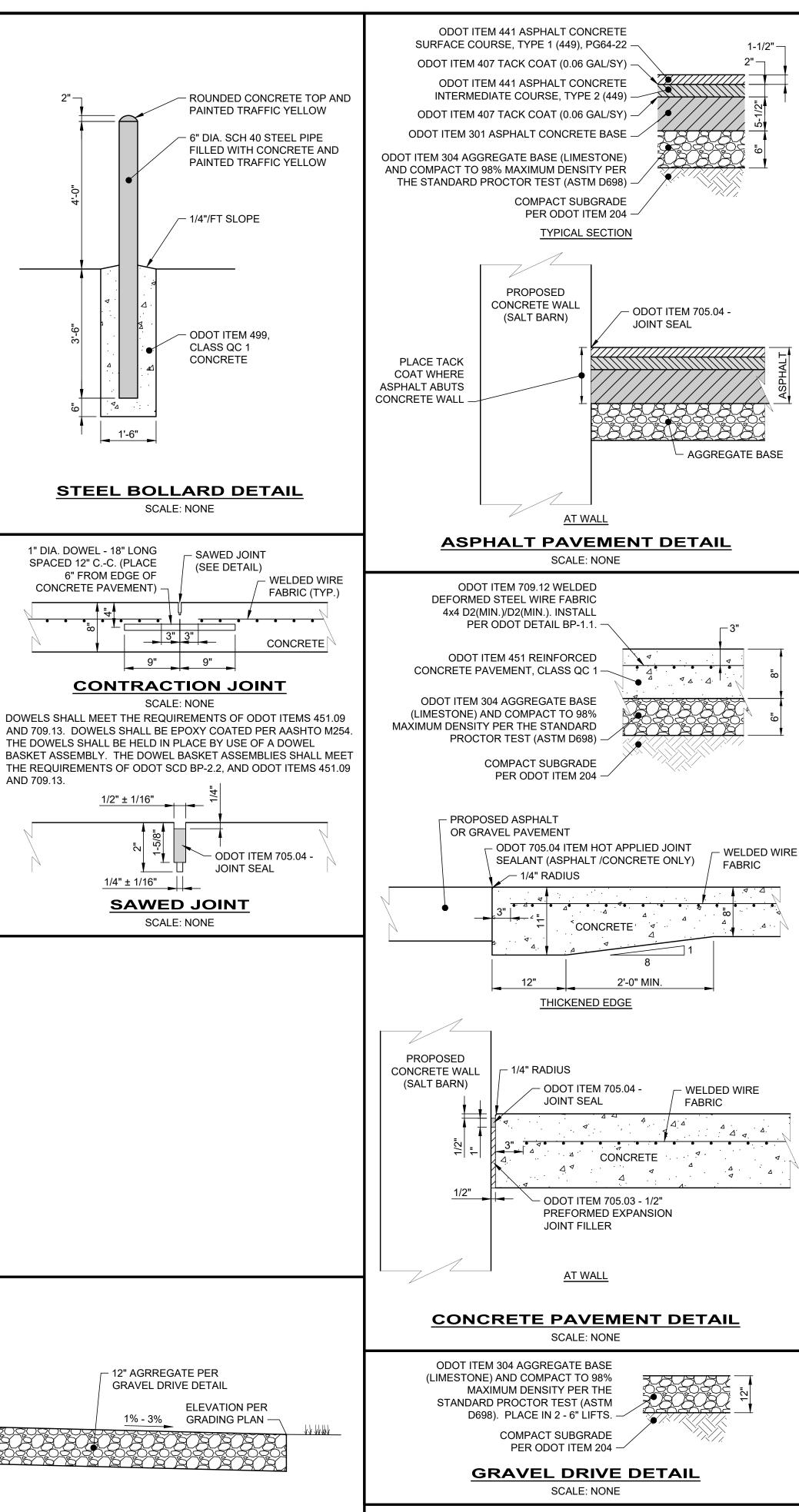
ROBERT E. LaDUKE DATE

H:\2023\231847\DWG\SHEETS\C\_231847 - PLAN SET.DWG - TITLE SHEET - 2/9/2024 3:19:51 PM - ROBERT LADUKE



your trusted advisor

Consultants archite



#### GENERAL NOTES:

- ALL WORK AND MATERIALS REQUIRED TO COMPLETE THIS PROJECT SHALL BE IN ACCORDANCE WITH THE 2023 EDITION OF THE OHIO DEPARTMENT OF TRANSPORTATION (ODOT) CONSTRUCTION AND MATERIAL SPECIFICATIONS, EXCEPT AS PROVIDED ON THESE CONSTRUCTION PLANS. WHERE CONFLICTS OCCUR IN THE ABOVE, THE NOTES AND DETAILS ON THESE CONSTRUCTION PLANS SHALL TAKE PRECEDENCE, UNLESS OTHERWISE DIRECTED BY THE DESIGN ENGINEER.
- 2. THE CONTRACTOR SHALL OBTAIN THE REQUIRED PERMITS FROM THE TOWNSHIP, COUNTY AND/OR UTILITY COMPANIES PRIOR TO STARTING ANY CONSTRUCTION WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FEES ASSOCIATED WITH ANY PERMITS INCLUDING FEES FOR INSPECTIONS. PERMIT FEES AND INSPECTION FEES SHALL BE INCLUDED IN THE UNIT COSTS FOR THE VARIOUS BID ITEMS.
- THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEERING DEPARTMENT (937-746-0555), FIRE DEPARTMENT (937-743-7725) AND POLICE DEPARTMENT (937-746-0555) OF THE NATURE OF THE PROJECT A MINIMUM OF TEN (10) DAYS PRIOR TO THE START OF CONSTRUCTION, AS WELL AS A MINIMUM OF TEN (10) DAYS PRIOR TO ANY LANE RESTRICTIONS, CLOSURES AND DETOURS.
- 4. THE CONTRACTOR MUST CONTACT OUPS (OHIO UTILITIES PROTECTION SERVICE) AT 811 OR 800-362-2764 AT LEAST 48 HOURS, BUT NO MORE THAN 10 WORKING DAYS, BEFORE BEGINNING ANY DIGGING, EXCLUDING SATURDAYS, SUNDAYS AND LEGAL HOLIDAYS. NON-MEMBER UTILITIES MUST BE CONTACTED DIRECTLY. IT IS THE CONTRACTOR RESPONSIBILITY TO BE FAMILIAR WITH THE REQUIREMENTS OF OUPS. THE CONTRACTOR SHALL COORDINATE THE MARKINGS AND/OR LOCATING TO STAY A MINIMUM OF 2 WORKING DAYS AHEAD OF PLANNED CONSTRUCTION ACTIVITIES.
- 5. THE CONTRACTOR SHALL CONFIRM OR LOCATE ALL UNDERGROUND UTILITIES WITHIN EXCAVATION LIMITS, WHETHER OR NOT SHOWN ON THE CONSTRUCTION PLANS OR FIELD MARKED BY OUPS OR OTHER UTILITY MARKING SERVICE. THE CONTRACTOR SHALL DOCUMENT ANY UTILITY NOT SHOWN OR DIFFERING FROM THE CONSTRUCTION PLANS, AND PROVIDE THE INFORMATION TO THE OWNER SHOWING LOCATIONS WITH MEASUREMENTS TO REFERENCE POINTS. ANY RESULTING UTILITY CONFLICTS WITH PROPOSED IMPROVEMENTS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE TOWNSHIP (OWNER) AND DESIGN ENGINEER PRIOR TO BEGINNING ANY CONSTRUCTION.
- 6. EXISTING UNDERGROUND UTILITIES SHOWN ON THESE CONSTRUCTION PLANS WERE OBTAINED FROM VARIOUS SOURCES INCLUDING, BUT NOT LIMITED TO, FIELD OBSERVATIONS (E.G. ABOVE GROUND FEATURES, FLAGGED OR PAINTED MARKED UNDERGROUND UTILITIES) AND RECORDS MADE AVAILABLE (E.G. ORIGINAL CONSTRUCTION PLANS, AS-BUILT DRAWINGS, DISTRIBUTION AND SERVICE MAPS, GIS DATABASES, AERIAL PHOTOGRAPHY) TO CREATE A COMPOSITE DRAWING OF EXISTING CONDITIONS. ALTHOUGH GRAPHICALLY SHOWN AS ACCURATELY AS POSSIBLE FROM THE INFORMATION MADE AVAILABLE, THERE IS NO GUARANTEE OR WARRANTY, EXPRESSED OR IMPLIED, OF THE COMPLETENESS, CORRECTNESS OR ACCURACY OF SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED.
- 7. THERE SHALL BE NO DEVIATION FROM THE APPROVED CONSTRUCTION PLANS WITHOUT PRIOR WRITTEN APPROVAL FROM THE TOWNSHIP (OWNER) OR DESIGN ENGINEER. ANY DEVIATION WITHOUT PRIOR WRITTEN APPROVAL SHALL BE AT THE CONTRACTOR'S RISK AND EXPENSE.
- 3. ALL WORK REQUIRED FOR REMOVAL, RELOCATION OR NEW WORK AS PART OF THESE CONSTRUCTION PLANS SHALL BE PERFORMED BY AND AT THE EXPENSE OF THE CONTRACTOR AND INCLUDED IN THE BID PRICES FOR THE VARIOUS WORK ITEMS, UNLESS DIRECTED IN WRITING BY THE OWNER. ANY WORK SHOWN ON THE CONSTRUCTION PLANS BUT NOT PAID FOR SEPARATELY AS A BID ITEM SHALL BE INCLUDED IN THE COST OF OTHER BID ITEMS. THE AMOUNT BID FOR EACH BID ITEM SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT AND TRANSPORTATION NECESSARY FOR THE EXECUTION OF THE WORK.
- 9. BEFORE SUBMITTING A BID, THE BIDDER SHALL EXAMINE THESE CONSTRUCTION PLANS AND VIEW THE SITE TO BECOME FAMILIAR WITH ALL MATTERS WHICH MAY AFFECT PERFORMANCE AND COMPLETION OF THE WORK. QUANTITIES PROVIDED ARE ESTIMATED, AND THE BIDDER IS RESPONSIBLE FOR VERIFYING BID QUANTITIES PRIOR TO SUBMITTING A BID. IF DISCREPANCIES ARE DISCOVERED, THEY SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND DESIGN ENGINEER SO THE APPROPRIATE ADJUSTMENT OR CORRECTION MAY BE MADE. THE ACT OF SUBMITTING A BID SHALL MEAN THAT THE BIDDER HAS COMPLIED WITH ALL REQUIREMENTS OF THIS NOTE, AND THEREFORE NO CONCESSION WILL BE GRANTED BECAUSE OF CLAIM OF MISUNDERSTANDING OR LACK OF INFORMATION.
- 10. UNIT PRICES FOR THE VARIOUS ITEMS OF WORK WILL BE USED WHERE THE SCOPE OF WORK INDICATED IN THE CONSTRUCTION PLANS IS CHANGED. THEY SHALL BE APPLIED ONLY TO THE QUANTITIES INVOLVED IN THE CHANGE AND SHALL BE ADDED TO OR DEDUCTED FROM THE LUMP SUM TOTAL BID FOR THE CATEGORY OF THE WORK.
- 11. WHEN SPECIFIED ON THE CONSTRUCTION PLANS OR IN THE SPECIFICATIONS, CONTINGENCY QUANTITIES SHALL BE PERFORMED ONLY UNDER WRITTEN DIRECTION OF THE OWNER OR DESIGN ENGINEER. THE CONTRACTOR SHALL NOT ORDER CONTINGENCY MATERIAL OR PERFORM CONTINGENCY WORK UNTIL DIRECTED. THE ACTUAL WORK LOCATION AND QUANTITIES FOR SUCH ITEMS SHALL BE DOCUMENTED BY THE CONTRACTOR.
- 12. THE CONTRACTOR SHALL OBTAIN AND PAY FOR THE SERVICES OF A TESTING AGENCY FOR ALL REQUIRED MATERIAL TESTING AND/OR INSPECTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COSTS OF RE-INSPECTION OR RE-TESTING OF ANY WORK NOT INSTALLED IN COMPLIANCE WITH THE CONSTRUCTION PLANS.
- 13. THE CONTRACTOR SHALL REVIEW THE SUBSURFACE INVESTIGATION AND GEOTECHNICAL EVALUATION REPORT PREPARED BY ALT & WITZIG ENGINEERING, INC., PROJECT 23CN0311, DATED 12/15/2023. THE CONTRACTOR SHALL ADHERE TO ALL ASPECTS AND RECOMMENDATIONS OF THE REPORT.
- 14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION LAYOUT STAKING INCLUDING HORIZONTAL AND VERTICAL CONTROL. THESE CONSTRUCTION PLANS HAVE BEEN DEVELOPED FOR ELECTRONIC LAYOUT STAKING. ANY DISCREPANCIES DISCOVERED IN THE CONSTRUCTION PLAN INFORMATION, OR BETWEEN THE CONSTRUCTION PLAN AND ELECTRONIC DATA, SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE DESIGN ENGINEER SO THE APPROPRIATE ADJUSTMENTS MAY BE MADE PRIOR TO THE START OF CONSTRUCTION OR THE CONTINUATION OF THE SAME. THE DESIGN ENGINEER MAKES NO REPRESENTATION REGARDING FITNESS FOR ANY PARTICULAR PURPOSE, OR SUITABILITY FOR USE WITH ANY SOFTWARE OR HARDWARE. DUE TO THE EASILY ALTERABLE NATURE OF ELECTRONIC DOCUMENTS, THROUGH EITHER UNINTENTIONAL OR INTENTIONAL MEANS, THE DESIGN ENGINEER DOES NOT MAKE ANY EXPRESS OR IMPLIED WARRANTY FOR THE ACCURACY OR COMPLETENESS OF THIS INFORMATION AND THEREFORE, ACCEPTS NO LIABILITY FOR THE COMPLETENESS, CORRECTNESS OR LEGIBILITY OF THE ELECTRONIC DATA. HARD COPIES (I.E., PRINTS, PAPER COPIES, ETC.) SHALL PREVAIL IN ANY DISPUTE OVER ACCURACY OR SUFFICIENCY OF ELECTRONIC DOCUMENTS.
- 15. ALL WORK ON PRIVATE PROPERTY AND WITHIN THE PUBLIC RIGHT-OF-WAY IS SUBJECT TO INSPECTION BY THE TOWNSHIP (OWNER). THE TOWNSHIP (OWNER) RESERVES THE RIGHT TO HALT CONSTRUCTION ACTIVITY FOR NONCONFORMANCE OF CONSTRUCTION PLANS, SPECIFICATIONS OR OTHER APPLICABLE STANDARDS OR REGULATIONS. NO WORK SHALL BE PERFORMED WITHOUT AN AUTHORIZED INSPECTOR PRESENT, UNLESS OTHERWISE APPROVED.
- 16. ANY DEFECTS IN THE CONSTRUCTION, INCLUDING MATERIALS OR WORKMANSHIP, SHALL BE REPLACED OR CORRECTED BY THE CONTRACTOR BY REMOVAL AND REPLACEMENT OR OTHER APPROVED METHODS PRIOR TO ACCEPTANCE BY THE TOWNSHIP (OWNER) WITH NO ADDITIONAL COMPENSATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO EXISTING UTILITIES RESULTING FROM NON-CONFORMANCE WITH THE APPLICABLE STANDARDS OR THROUGH GENERAL NEGLIGENCE. FAILURE BY THE CONTRACTOR TO VERIFY AND/OR DETERMINE EXISTING INFORMATION WILL RESULT IN THE CONTRACTOR BEING RESPONSIBLE FOR ANY CHANGES NECESSARY TO COMPLETE THE WORK SPECIFIED WITHOUT ADDITIONAL COMPENSATION.
- SITE VISITS PERFORMED BY THE DESIGN ENGINEER SHALL NOT BE CONSTRUED AS INSPECTIONS OF MEANS AND METHODS OF CONSTRUCTION PERFORMED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL MAINTAIN A CURRENT SET OF CONSTRUCTION PLANS ON SITE AT ALL TIMES. ATTENTION IS DIRECTED TO THE FACT THE CONSTRUCTION PLANS MAY HAVE BEEN ALTERED IN SIZE DURING PRINTING OR REPRODUCTION, AND MUST BE CONSIDERED WHEN OBTAINING SCALED DATA FROM THE CONSTRUCTION PLANS.
- 19. THE CONTRACTOR SHALL PROVIDE A FIELD OFFICE.
- 20. THE CONTRACTOR SHALL SUBMIT A PLAN OF OPERATIONS FOR REVIEW AND APPROVAL BY THE OWNER (TOWNSHIP) THAT WILL INDICATE EQUIPMENT STAGING AREAS, STOCKPILE LOCATIONS, CONSTRUCTION TRAILERS AND SANITATION FACILITIES.
- 21. THE CONTRACTOR SHALL MAINTAIN A SAFE WORKING ENVIRONMENT AT ALL TIMES AND IS SOLELY RESPONSIBLE FOR DESIGN AND CONSTRUCTION OF STABLE, TEMPORARY EXCAVATIONS PER LOCAL, STATE AND FEDERAL REGULATIONS INCLUDING OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION). NEITHER THE OWNER (TOWNSHIP) OR DESIGN ENGINEER ASSUME RESPONSIBILITY FOR CONSTRUCTION SAFETY OR THE CONTRACTOR'S OR OTHER PARTIES' COMPLIANCE WITH SAFETY REGULATIONS; SUCH RESPONSIBILITY IS NOT BEING IMPLIED AND SHOULD NOT BE INFERRED.
- 22. APPROPRIATE BARRICADES, WARNING LIGHTS, SIGNS, FENCING, ETC. SHALL BE ERECTED AROUND THE CONSTRUCTION AREA DURING ALL NON-WORKING HOURS TO ALERT PERSONS OF THE POTENTIAL DANGER ASSOCIATED WITH THE AREA UNDER CONSTRUCTION AS WELL AS TO PREVENT ACCESS BY UNAUTHORIZED PERSONNEL TO THE CONSTRUCTION SITE. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THE SAFETY OF THE GENERAL PUBLIC AS WELL AS ALL CONSTRUCTION PERSONNEL.
- 23. THE CONTRACTOR SHALL STAY WITHIN THE DESIGNATED PROPERTY FOR THE PROJECT AT ALL TIMES. NO MATERIAL SHALL BE STORED NOR ANY WORK PERFORMED OUTSIDE OF THE DESIGNATED PROPERTY UNLESS OTHERWISE APPROVED IN WRITING.
- 24. ANY EXISTING ROADWAY, DRIVEWAY, DRIVE CULVERT, LAWN, CURB, SIDEWALK, SIGN, FENCE, LANDSCAPING ITEM OR OTHER APPURTENANCE DISTURBED DURING CONSTRUCTION BUT NOT DESIGNATED FOR REMOVAL OR REPLACEMENT SHALL BE RESTORED BY THE CONTRACTOR WITHOUT ADDITIONAL COMPENSATION TO A CONDITION EQUAL TO OR BETTER THAN THAT WHICH EXISTED PRIOR TO DISTURBANCE AND TO THE SATISFACTION OF THE TOWNSHIP (OWNER).
- 25. THE CONTRACTOR SHALL DESIGNATE A PERSON IN RESPONSIBLE CHARGE (SUPERVISOR) WITH A CELL PHONE AT THE CONSTRUCTION SITE DURING ALL CONSTRUCTION ACTIVITIES, INCLUDING SUBCONTRACTOR ACTIVITIES.
- PRIOR TO THE RELEASE OF THE RETAINER OR CONSTRUCTION BOND BY THE TOWNSHIP (OWNER), THE CONTRACTOR MUST COMPLETE THE DESIGN ENGINEER PROJECT PUNCH LIST. ALL PUNCH LIST ITEMS SHALL BE COMPLETED WITHIN TWO (2) MONTHS OF THE PUNCH LIST ISSUANCE DATE OR AS DIRECTED IN WRITING FROM THE DESIGN ENGINEER.



antsoments architects planners

your trusted advisor consultants

 ISSUED FOR:
 BID SET
 NO
 REVISION

 ISSUE DATE:
 02/28/2024
 A
 A

 SCALE:
 AS SHOWN
 A
 A

 DESIGNED BY:
 REL
 A
 A

 CHECKED BY:
 JMS
 A
 A

CARLISLE, OH

CARLISLE, OH

NOTES AND DETA

GENERAL NO

231847
DISCIPLINE
CIVIL

SHEET OF **8** 

SHEET NAME

PROPOSED CONCRETE

PROVIDE ADITIONAL ODOT ITEM 304

AGGREGATE BASE (LIMESTONE) AND

COMPACT TO 98% MAXIMUM DENSITY

PER THE STANDARD PROCTOR TEST

(ASTM D698). MAXIMUM LIFT IS 6".

EXISTING GRAVEL

GRAVEL PLACEMENT DETAIL
SCALE: NONE

WALL (SALT BARN)

GRADING PLAN 1% - 3%

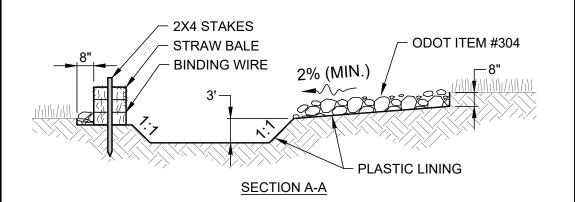
- ELEVATION PER

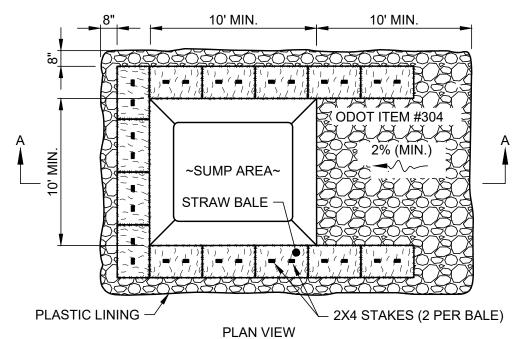
- SUBSOILING SHALL OCCUR WHEN SOIL MOISTURE IS LOW ENOUGH TO ALLOW THE SOIL TO CRACK OR FRACTURE. SUBSOILING IS NOT PERMITTED ON SLIP-PRONE AREAS.
- THE SEED BED SHALL BE PREPARED BY APPLYING AGRICULTURAL GROUND LIMESTONE OR FERTILIZER AS RECOMMENDED BY A SOIL TEST. IN LIEU OF A SOIL TEST, APPLY LIME AT 2 TONS/AC. OR FERTILIZER AT 500 LB/AC. OF 10-10-10 OR 12-12-12 ANALYSIS. LIME AND FERTILIZER SHALL BE WORKED INTO THE SOIL TO A DEPTH OF 3".
- APPLY SEED UNIFORMLY ON FIRM, MOIST SEED BED BETWEEN MARCH 1 AND MAY 31 OR AUGUST 1 AND SEPTEMBER 30. TILLAGE FOR SEEDBED PREPARATION SHALL OCCUR WHEN THE SOIL IS DRY ENOUGH TO CRUMBLE AND NOT FORM RIBBONS WHEN COMPRESSED BY HAND. SEEDING SHOULD NOT BE APPLIED BETWEEN OCTOBER 1 AND NOVEMBER 20 BECAUSE SEEDS MAY GERMINATE, BUT WILL NOT SURVIVE THE WINTER. IF SEEDING MUST OCCUR, INCREASE THE SEEDING RATE BY 50% AND ANCHOR. APPLY ADDITIONAL MULCH AND IRRIGATION AS REQUIRED TO ENSURE GERMINATION.
- MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING.
- SEEDING SHALL INCLUDE IRRIGATION TO ESTABLISH VEGETATION DURING DRY OR HOT WEATHER OR ON ADVERSE SITE CONDITIONS.
- SEEDING SHALL NOT BE CONSIDERED ESTABLISHED FOR AT LEAST 1 FULL YEAR FROM THE TIME OF SEEDING. DURING THIS PERIOD INSPECT FOR SOIL EROSION OR VEGETATION LOSS AND REPAIR BARE OR SPARSE AREAS, FILL GULLIES, RE-FERTILIZE, RE-SEED AND RE-MULCH AS NEEDED.
- ADEQUATE PERMANENT VEGETATION SHALL BE GROUND COVER DENSE ENOUGH TO COVER 80% OF THE SOIL SURFACE BASED ON VISUAL INSPECTION.

PERMANENT SEEDING FERTILIZATION AND MOWING CHART							
MIXTURE	FORMULA	LB/ AC.	TIME	MOW			
CREEPING RED FESCUE DOMESTIC RYEGRASS KENTUCKY BLUEGRASS	10-10-10	500	FALL, YEARLY, OR AS NEEDED	<u>&gt;</u> 3"			
TALL FESCUE	10-10-10	500		. 4"			
TURF-TYPE FESCUE	10-10-10	500		<u>&gt;</u> 4"			
CROWN VETCH FESCUE	0-20-20	400	SPRING, AND	DO NOT			
FLAT PEA FESCUE	0-20-20	400	YEARLY AFTER ESTABLISHED	MOW			

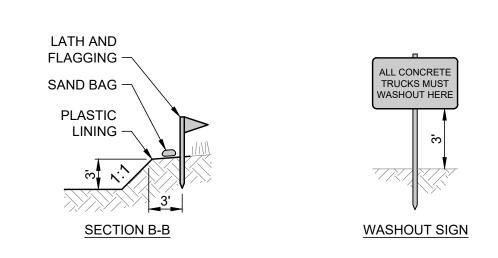
PERMANENT S	SEEDING SPECI	ES SELECTION				
SEED MIX	SEED RATE LB/AC.	NOTES:				
GENERAL USE						
CREEPING RED FESCUE DOMESTIC RYEGRASS KENTUCKY BLUEGRASS	20 - 40 10 - 20 20 - 40	FOR CLOSE MOWING AND WATERWAYS WITH <2.0 FT./SEC. VELOCITY				
TALL FESCUE	40 - 50					
TURF-TYPE FESCUE	90					
STEEP	BANKS OR CUT	SLOPES				
TALL FESCUE	40 - 50					
CROWN VETCH TALL FESCUE	10 - 20 20 - 30	DO NOT SEED LATER THAN AUGUST				
FLAT PEA TALL FESCUE	20 - 25 20 - 30	DO NOT SEED LATER THAN AUGUST				
ROAD	DITCHES AND S	WALES				
TALL FESCUE	40 - 50					
TURF-TYPE FESCUE KENTUCKY BLUEGRASS	90 5					
	LAWN					
KENTUCKY BLUEGRASS PERENNIAL RYEGRASS	100 - 120 100 - 120					
KENTUCKY BLUEGRASS CREEPING RED FESCUE	100 - 120 100 - 120	FOR SHADED AREAS				

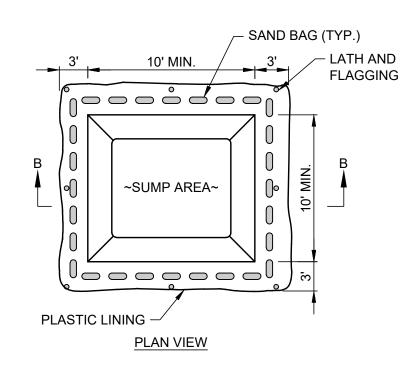
# PERMANENT SEEDING NOTES









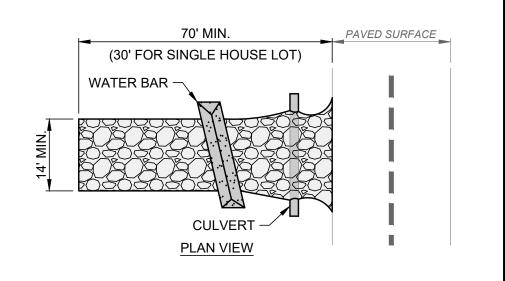


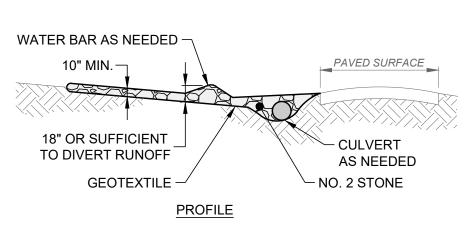
#### **TEMPORARY LOCATION FOR MULTIPLE PHASE OR LARGE PROJECT**

- CONCRETE WASHOUT AREA SHALL BE LOCATED A MINIMUM OF 100' FROM STORM SEWER INLETS, STREAMS, WETLANDS OR ANY OTHER SURFACE WATERS.
- 2. IF CONCRETE WASHOUT AREA IS LOCATED AWAY FROM A PAVED SURFACE, CONSTRUCT A GRAVEL ACCESS ROUTE EQUAL IN COMPOSITION TO A CONSTRUCTION ENTRANCE.
- CONCRETE WASHOUT AREA SHALL BE SUFFICIENT SIZE TO CONTAIN CONCRETE WASTE GENERATED. LARGE SITES MAY REQUIRE MULTIPLE CONCRETE WASHOUT AREAS.
- 4. PLASTIC LINING SHALL BE DOUBLE-LINED, CONTINUOUS 10-ML POLYETHYLENE SHEETING FREE OF HOLES, TEARS OR OTHER DEFECTS INSTALLED ON A SMOOTH, LEVEL SURFACE, FREE OF LARGE ROCKS AND DEBRIS.
- CONCRETE WASHOUT SIGNAGE SHALL BE CLEARLY VISIBLE AND LOCATED WITHIN 30 FEET OF EACH WASHOUT AREA.
- CONCRETE WASHOUT AREA SHALL BE COVERED DURING INCLEMENT WEATHER TO PREVENT OVERFLOW.
- 7. PREFABRICATED, PORTABLE AND RE-USABLE CONCRETE WASHOUT CONTAINERS ARE ACCEPTABLE.
- CONCRETE WASHOUT AREA SHALL BE INSPECTED DAILY TO CHECK FOR DAMAGE AND DETERMINE IF IT NEEDS CLEANED OR REPLACED. ANY DAMAGE TO THE SIDEWALLS OR PLASTIC LINING SHALL BE REPAIRED IMMEDIATELY. REPLACE THE ENTIRE CONCRETE WASHOUT AREA WHEN IT IS 75% FULL.

# **CONCRETE WASHOUT DETAIL**

SCALE: NONE





## NOTES:

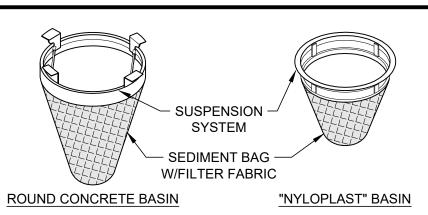
GEOTEXTILE SHALL BE COMPOSED OF STRONG ROT-PROOF POLYMERIC FIBERS MEETING THE FOLLOWING:

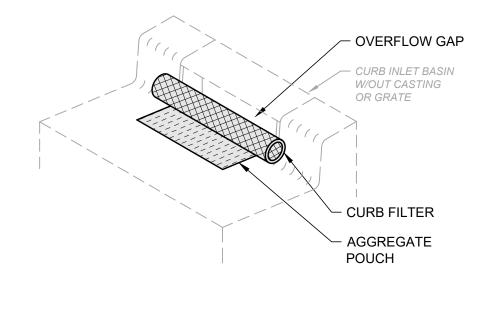
TENSILE STRENGTH	200 LB
PUNCTURE STRENGTH	80 PSI
TEAR STRENGTH	50 LB
BURST STRENGTH	320 PSI
ELONGATION	20%
EQUIVALENT OPENING SIZE	< 0.6 MM
PERMITTIVITY	0.001 CM/SEC.

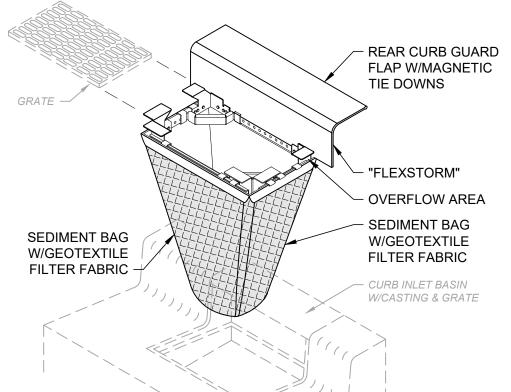
- 2. INSTALL WATER BAR, AS NEEDED, TO PREVENT SURFACE RUNOFF FROM FLOWING OUT ONTO PAVEMENT.
- 3. APPLY ADDITIONAL STONE AS CONDITIONS DEMAND, REPLENISH STONE WHEN THE DEPTH IS LESS THAN 6", AND REPLACE IF STONES BECOMES MUD-LADEN.
- IMMEDIATELY REMOVE MUD DROPPED, WASHED OR TRACKED ONTO ROADS OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS BY SCRAPING OR SWEEPING.
- CONSTRUCTION ENTRANCE SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES OR PREVENT OFF-SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE SITE SHALL BE RESTRICTED FROM MUDDY
- 6. CONSTRUCTION ENTRANCE SHALL REMAIN UNTIL THE DISTURBED AREA IS STABILIZED OR REPLACED WITH A PERMANENT ROADWAY.

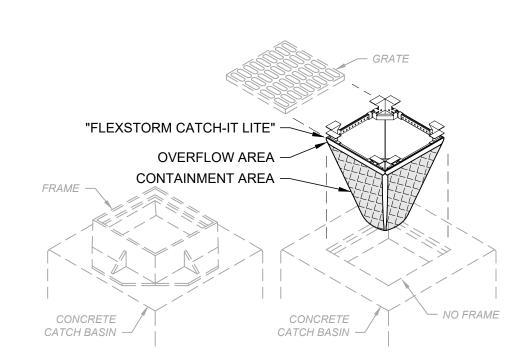
## **CONSTRUCTION ENTRANCE DETAIL**

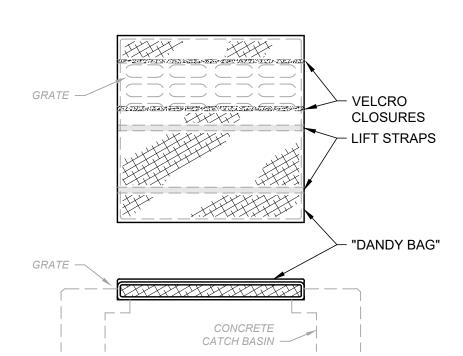
SCALE: NONE







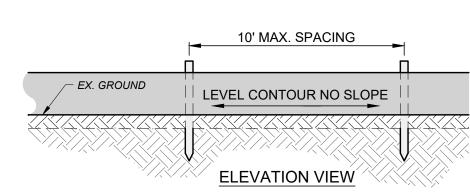




- ALL NEW AND EXISTING STORM INLET BASINS WITHIN THE WORK LIMITS SHALL HAVE INLET PROTECTION INSTALLED.
- INLET PROTECTION SHALL BE INSTALLED AS EACH STORM INLET IS CONSTRUCTED.
- NOT ALL ITEMS SHOWN MAY APPLY OR DIFFERENT TYPES OR CONFIGURATIONS MAY BE REQUIRED. THE CONTRACTOR SHALL MEASURE EACH INLET TO CONFIGURE AND ASSEMBLE CUSTOMIZED INLET FILTERS.

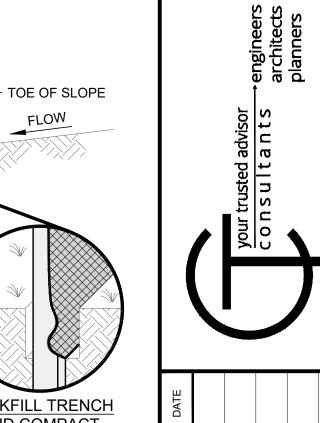
**INLET PROTECTION DETAIL** 

SCALE: NONE



5' FLAT SLOPE IN

FRONT OF BARRIER



O. WIN		your trusted a	nsulta
PROFILE VIEW		yon	000
WRAP GEOTEXTILE AROUND STAKES BEFORE DRIVING  BACKFILL TRENCH AND COMPACT	DATE		
	REVISION		
JOINING FENCES  TES:	RE		
PRESERVE VEGETATION FOR 5 FEET OR AS MUCH AS POSSIBLE UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE RE-ESTABLISHED WITHIN 7 DAYS FROM SILT FENCE INSTALLATION.			

VERIFICATION FENCE POSTS ARE FIRMLY IN THE GROUND. BUILT UP SEDIMENT SHALL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED 1/3 THE FENCE HEIGHT. SILT FENCE DETAIL

THE MAXIMUM DRAINAGE AREA PER 100 FEET OF SILT FENCE IS

OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A

CONCENTRATED FLOW, THEN CHANGE THE LAYOUT OF THE SILT

SILT FENCE SHALL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS,

SCALE: NONE

VERIFICATION FABRIC IS SECURELY ATTACHED TO FENCE POSTS, AND

FENCE, REMOVE ACCUMULATED SEDIMENT OR INSTALL OTHER

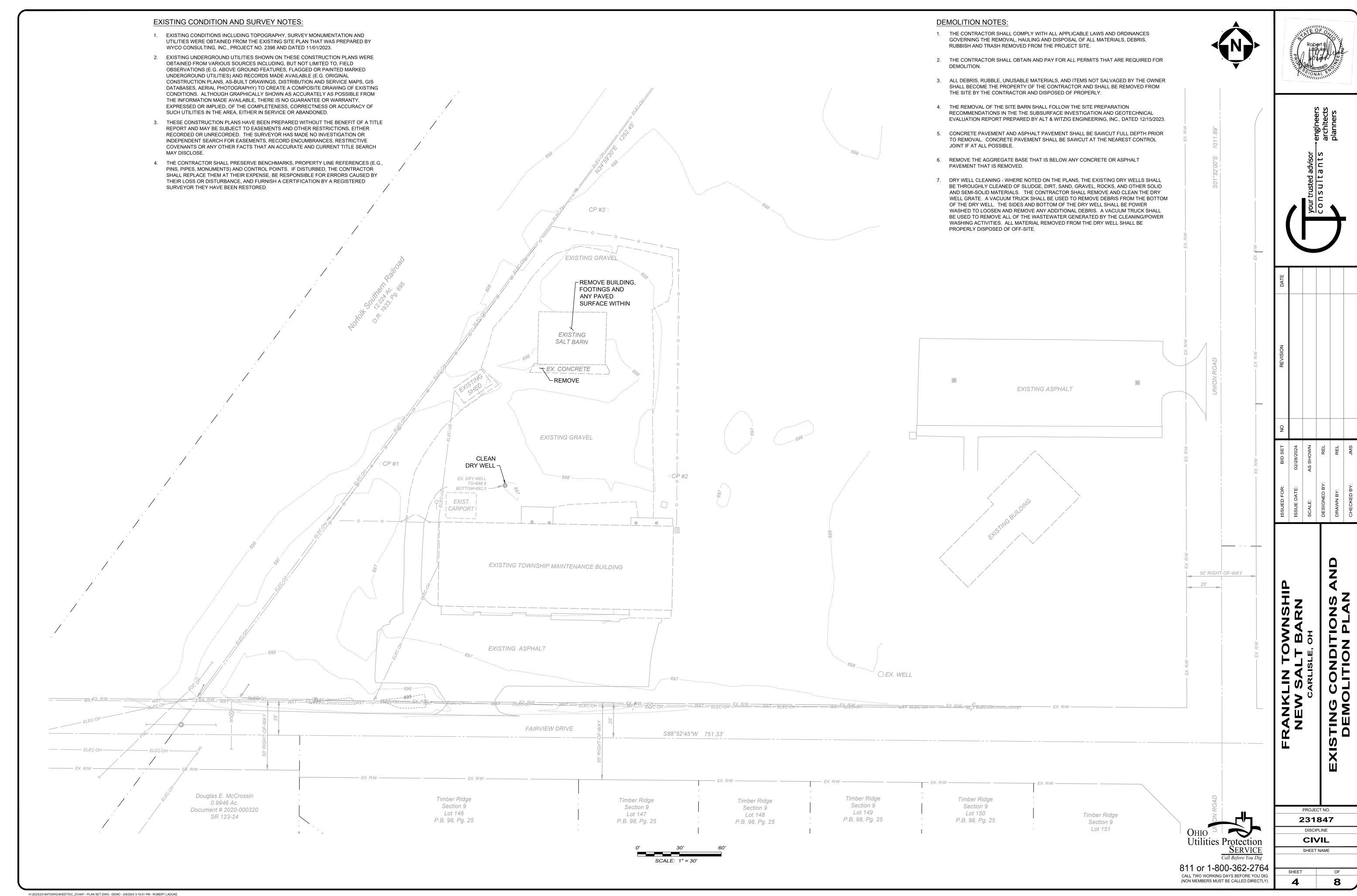
DEPENDENT ON THE SLOPE, BUT NO MORE THAN 1/2 ACRE. SILT FENCE CANNOT BE USED FOR DRAINAGE AREAS WITH SLOPES GREATER THAN

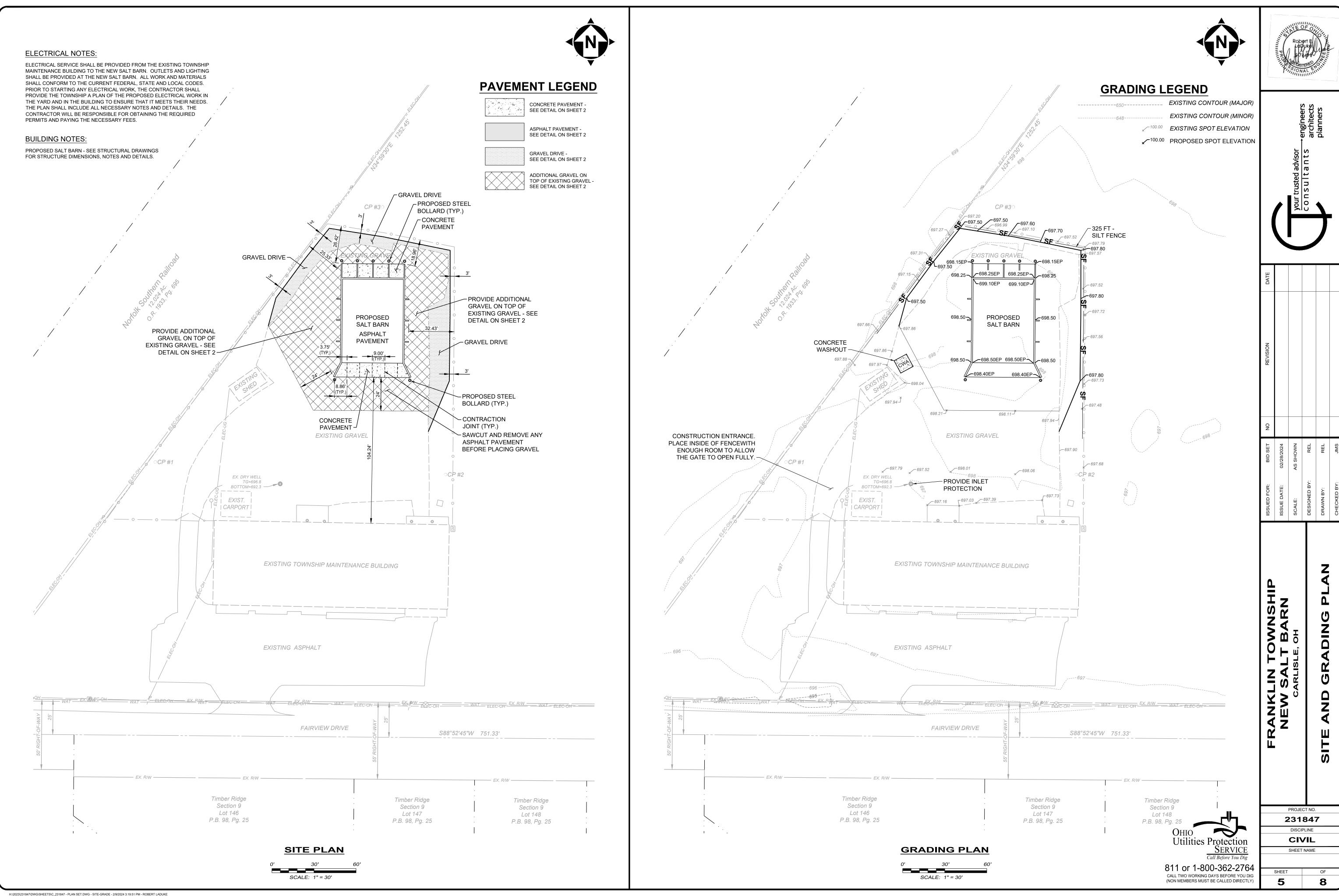
SILT FENCE MAY ONLY PASS RUNOFF AS DIFFUSE FLOW THROUGH THE

GEOTEXTILE. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER

NOTES:

PROJECT NO. 231847 DISCIPLINE CIVIL SHEET NAME







PROJECT NO. 231847 DISCIPLINE CIVIL

SHEET NAME

### **GENERAL STRUCTURAL NOTES**

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 - 2017, BASED ON 2015 IBC

CLASSIFICATION OF THE BUILDING STRUCTURE: RISK CATEGORY I, TABLE 1604.5

#### DESIGN LOADS

- PRE-ENGINEERED ROOF STRUCTURE:
- A. FOUNDATION IS BASED ON FOUNDATION REACTIONS PROVIDED BY CLEARSPAN ENGINEERING SERVICES AND PRODUCTS CO., DATED
- SPECIAL INSPECTION REQUIREMENTS PER SECTION 1704. SEE CONSTRUCTION SPECIFICATIONS AND OR SPECIAL INSPECTION BOOKLET ADDENDUM REQUIREMENTS.

#### SPECIAL INSPECTIONS

PER THE REQUIREMENTS OF CHAPTER 17, SECTION 1704.1, OF THE REFERENCED BUILDING CODE, SPECIAL INSPECTIONS ARE NOT NECESSARY FOR THE PROPOSED BUILDING CONSTRUCTION. THIS BUILDING HAS BEEN ASSIGNED TO A CATEGORY I TYPE FACILITY (TABLE 1604.5) AND IS EXEMPTED FROM SPECIAL INSPECTIONS DUE TO THE WORK BEING OF "MINOR" NATURE.

#### 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 AFFECTED 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 THE 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.
- 2. SHOP DRAWING SUBMITTALS SHALL BE SUBMITTED BY THE GENERAL CONTRACTOR IN A TIMELY MANNER TO PROVIDE AN ADEQUATE AMOUNT OF TIME FOR REVIEW.
- A. ALL SUBMITTALS MUST BE REVIEWED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTING FOR REVIEW. ANY SHOP DRAWINGS RECEIVED DO NOT BEAR THE STAMP OF THE GENERAL CONTRACTOR AS WELL AS CLEAR EVIDENCE THAT THE SUBMITTAL HAS BEEN REVIEWED WILL BE REJECTED WITHOUT REVIEW.
- B. REVIEW BY STRUCTURAL ENGINEER OF RECORD WILL BE FOR GENERAL COMPLIANCE WITH THE CONTRACT DOCUMENTS AND CONFORMANCE WITH THE DESIGN CONCEPT. THIS REVIEW DOES NOT IN ANYWAY RELIEVE THE CONTRACTOR AND/OR THE CONTRACTOR'S SUBCONTRACTORS FROM RESPONSIBILITY FOR ERRORS OR DEVIATIONS FROM THE CONTRACT REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR ALL DIMENSIONS, PROPER FIT, QUALITIES OF THE MATERIALS, AND COORDINATION WITH OTHER TRADES AND SUPPLIERS.
- C. IF CHANGES ARE MADE TO A PREVIOUSLY REVIEWED SUBMITTAL. DENOTE ALL REVISED AREAS WITH REVISION CLOUD AND TAGS.
- D. STRUCTURAL SUBMITTAL REQUIREMENTS

Submittal/Shop Drawing	Submittal	Calculations	PE/SE Seal & Signature
Concrete Mix – Conforming to ACI 318	For Review	N/a	N/a
Concrete Reinforcing	For Review	N/a	N/a

- For Review denotes the contractor must submit to the design team for review. The contractor shall not fabricate or install until all design team comments have been resolved in writing.

 For Record denotes the contractor must submit to the design team for record. The contractor's engineer is responsible for all loading and coordination of loads to be resisted by the building's structural elements. Any load resisted by the building's structural elements must be approved by the EOR.

- N/a denotes not applicable.
- 3. REQUESTS FOR INFORMATION (RFI'S) SHALL BE SUBMITTED IN A TIMELY MANNER WHEN INFORMATION IS MISSING FROM THE CONSTRUCTION DOCUMENTS, INFORMATION IS CONFLICTING WITHIN THE CONSTRUCTION DOCUMENTS, OR IS AMBIGUOUS.
- A. THE CONTRACTOR MUST USE DUE DILIGENCE IN ATTEMPTING TO FIND ANY ANSWER PRIOR TO SUBMITTING AN RFI.
- B. IF THE INFORMATION REQUESTED IN AN RFI IS APPARENT FROM FIELD OBSERVATION, IS CONTAINED IN THE CONSTRUCTION DOCUMENTS, OR IS REASONABLY INFERABLE FROM THE CONSTRUCTION DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE TO THE OWNER FOR ALL REASONABLE COSTS CHARGED RELATED TO ADDITIONAL SERVICES INCURRED DUE TO ANSWERING THE RFI.

# CONSTRUCTION AND SAFETY

- 1. THE CONTRACTOR SHALL BRACE ENTIRE STRUCTURE AS REQUIRED TO MAINTAIN STABILITY UNTIL COMPLETE AND FUNCTIONING AS THE DESIGNED UNIT.
- THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE MEANS, METHODS. TECHNIQUES, SEQUENCES OR PROCEDURES OF CONSTRUCTION SELECTED BY THE 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. THE CONTRACTOR SHALL ONLY USE STRUCTURAL PLANS ISSUED AS "FOR CONSTRUCTION" OR ISSUES THEREAFTER. PRIOR ISSUES SHALL ONLY BE USED FOR PERMITTING OR BIDDING PURPOSES.

# MISCELLANEOUS STRUCTURAL NOTES

 THESE STRUCTURAL DRAWINGS DEPICT A STRUCTURAL SYSTEM AND THE MAJOR COMPONENTS OF THAT SYSTEM. MINOR ITEMS, INCLUDING BUT NOT LIMITED TO, POURSTOPS, DECK SUPPORT ANGLES, FRAMES AT FLOOR AND ROOF DECK OPENINGS, CFS AT ARCHITECTURAL FEATURES, ETC. SHALL BE SUPPLIED BY THE CONTRACTOR AS NEEDED TO PROVIDE A COMPLETE SYSTEM.

- WHERE DETAILS ARE CALLED FOR IN ONE AREA OF THE BUILDING. THEY SHALL BE DUPLICATED AT SIMILAR CONDITIONS UNLESS NOTED OTHERWISE.
- 3. STRUCTURAL AND ARCHITECTURAL PLANS SHOW DIMENSIONS AND ELEVATIONS TO SIGNIFICANT WORKING POINTS. CONTRACTORS, DETAILERS AND SUPPLIERS ARE RESPONSIBLE FOR THE DETERMINATION OF ALL DIMENSIONS, PITCHES, ELEVATIONS, ETC. BEYOND THOSE NOTED AS NECESSARY TO THOROUGHLY DETAIL/FABRICATE THEIR WORK. CONTACT ARCHITECT WITH ANY DISCREPANCIES FOUND.

#### FOUNDATIONS 1

#### 1. SOIL CONDITIONS:

- A. FOUNDATION DESIGN IS BASED ON RECOMMENDATIONS DESCRIBED IN THE GEOTECHNICAL ENGINEER'S REPORT BY ALT AND WITZIG ENGINEERING INC, DATED DECEMBER 15TH 2023. THE GEOTECHNICAL ENGINEER'S REPORT IS AVAILABLE UPON REQUEST. THE GEOTECHNICAL REPORT LIST SOIL IMPROVEMENT AS RECOMMENDED OR IF THE OWNER IS WILLING TO ACCEPT THE RISK OF SETTLEMENT, FOUNDATIONS MAY BE POURED ON EXISTING SHALLOW SOILS. THE DESIGN IS BASED ON A SPREAD FOOTING SYSTEM WITH A 1500 PSF BEARING CAPACITY.
- 2. THE 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 GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE. PROVIDE ENGINEERED FILL OR FLOWABLE FILL CONCRETE (500 PSI) UNDER FOUNDATIONS AT SOFT SPOTS AND FOR EXTENDING EXCAVATION TO ADEQUATE BEARING MATERIAL. INSTALL FOUNDATIONS AT DESIGNED ELEVATIONS.
- 3. FOOTINGS AND GRADE BEAMS MAY BE PLACED WITHOUT SIDE FORMS IF EXCAVATED WALLS STAND APPROXIMATELY VERTICAL.
- 4. 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 PRESSURE OF 1500 PSF BELOW STRIP FOOTINGS AND 1500 PSF BELOW ISOLATED COLUMN FOOTINGS.
- LATERAL SOIL PRESSURES USED FOR DESIGN:
- A. RETAINING WALLS: 45 PCF EQUIVALENT FLUID PRESSURE, TRIANGULAR
- 6. CONTRACTOR SHALL CONTACT UTILITY COMPANIES FOR LOCATING UNDERGROUND SERVICES AND IS RESPONSIBLE FOR THEIR PROTECTION

#### COMPACTION:

- A. ALL FILL MATERIALS SHALL BE APPROVED BY A GEOTECHNICAL
- CONSULTANT. B. ENGINEERED FILL BENEATH FOOTINGS: MINIMUM COMPACTION 98%
- STANDARD PROCTOR DENSITY AT THE OPTIMUM MOISTURE CONTENT C. BACKFILL AGAINST FOUNDATION WALLS ALONG INTERIOR FACE OF FOUNDATION WALLS SHALL BE CLAYEY MATERIAL COMPACTED IN 6" LIFTS TO 95% STANDARD PROCTOR DENSITY OR CONCRETE WITH A COMPRESSIVE STRENGTH OF f'c = 500 PSI.
- D. BACKFILL ALONG EXTERIOR FACE OF BASEMENT OR ALONG RETAINING TYPE WALLS SHALL BE A WELL-GRADED GRANULAR MATERIAL COMPACTED TO 95% STANDARD PROCTOR DENSITY UP TO WITHIN 24 INCHES OF THE FINISHED GRADE. TOP 24" OF BACKFILL SHALL BE COMPACTED CLAYEY MATERIAL. AT THE BOTTOM OF THE GRANULAR MATERIAL, PLACE A 4" DIAMETER PERFORATED FOUNDATION DRAINPIPE WITH POSITIVE DRAINAGE TO SUMP OR TO DAYLIGHT. AT EXTERIOR RETAINING WALLS, 4" DIAMETER WEEP HOLES AT 10'-0" ON CENTER MAXIMUM MAY BE INSTALLED IN LIEU OF PERFORATED
- E. BACKFILL ALONG EXTERIOR FACE OF SHALLOW WALL FOUNDATIONS TO BE COMPACTED CLAYEY MATERIAL; COMPACT TO 95% STANDARD
- F. FILL BELOW FLOOR SLABS TOP 12" OF SUBBASE BELOW INTERIOR FLOOR SLAB TO BE PROOF ROLLED TO 98% STANDARD PROCTOR DENSITY PRIOR TO PLACEMENT OF SLAB.
- 8. ALL AREAS WITHIN THE FOOTPRINT OF THE BUILDING, INCLUDING UTILITY TRENCHES, MUST BE FREE OF ANY WET AND/OR SOFT AREAS PRIOR TO THE PLACEMENT OF FILL MATERIAL OR SLAB.
- 9. SEAL UTILITY TRENCH AT THE EXTERIOR FOUNDATION WALL BY USING A COMPACTED CLAYEY BACKFILL OR LEAN CONCRETE TO CREATE A DAM TO PREVENT ENTRY OF WATER.

# 10. FINISHED GRADE SHALL SLOPE AWAY FROM THE PERIMETER FOUNDATION.

AGGREGATE PIER GROUND IMPROVEMENT

- DESIGN OF AGGREGATE PIERS SHALL RELY ON THE PROJECT GEOTECHNICAL REPORT INDICATED IN THE FOUNDATIONS SECTION OF THESE STRUCTURAL GENERAL NOTES.
- 2. THE AGGREGATE PIER GROUND IMPROVEMENT SYSTEM SHALL BE EITHER VIBRATED STONE COLUMNS OR RAMMED PIERS. AGGREGATE PIERS REFERENCED IN THESE NOTES REFER TO BOTH VIBRATED STONE COLUMNS AND RAMMED PIERS. THE AGGREGATE PIER ELEMENTS SHALL BE IN COLUMNAR-TYPE CONFIGURATION AND SHALL BE USED TO PRODUCE A SOIL IMPROVEMENT SYSTEM FOR SUPPORT OF THE FOUNDATION LOADS MAINTAINING SETTLEMENT WITHIN ACCEPTABLE TOLERANCES.
- 3. THE AGGREGATED PIER INSTALLER SHALL PROVIDE QUALIFICATIONS AND SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO
- 4. THE AGGREGATE PIER INSTALLER SHALL HAVE A MINIMUM OF 5 YEARS EXPERIENCE WITH THE INSTALLATION OF AGGREGATE PIER SYSTEMS AND SHALL HAVE COMPLETED AT LEAST 20 PROJECTS.
- 5. THE DESIGN ALLOWABLE BEARING PRESSURE AFTER INSTALLATION OF THE AGGREGATE PIER GROUND IMPROVEMENT SYSTEM SHALL BE 5000 PSF BASED ON A DESIGN LIFE OF 100 YEARS.
- 6. THE DESIGN ALLOWABLE SETTLEMENT SHALL BE AS INDICATED IN THE REFERENCED GEOTECHNICAL REPORT BUT NO GREATER THAN 1" TOTAL SETTLEMENT AND 1/2" DIFFERENTIAL SETTLEMENT OVER 50 FEET.
- THE INSTALLER SHALL SUBMIT DETAILED DESIGN CALCULATIONS, CONSTRUCTION DRAWINGS, AND SHOP DRAWINGS (DESIGN SUBMITTAL) FOR APPROVAL AT LEAST 2 WEEKS BEFORE THE BEGINNING OF CONSTRUCTION. A DETAILED EXPLANATION OF THE DESIGN PARAMETERS FOR SETTLEMENT CALCULATIONS SHALL BE INCLUDED IN THE DESIGN SUBMITTAL. ADDITIONALLY, THE QUALITY CONTROL TEST PROGRAM FOR THE AGGREGATED PIER SYSTEM, MEETING THESE DESIGN REQUIREMENTS SHALL BE SUBMITTED. ALL CALCULATIONS AND DRAWINGS SUBMITTED SHALL BE PREPARED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF THE PROJECT LOCATION.
- MODULUS TEST REPORTS: THE INSTALLER SHALL PERFORM AT LEAST (1) MODULUS TEST FOR EACH PROJECT AREA ON NON-PRODUCTION AGGREGATE PIER ELEMENTS TO VERIFY THE DESIGN ASSUMPTIONS. THE INSTALLER SHALL PROVIDE TO THE PROJECT GEOTECHNICAL ENGINEER A DESCRIPTION OF THE INSTALLATION EQUIPMENT, INSTALLATION RECORDS,

- COMPLETE TEST DATA, ANALYSIS OF THE TEST DATA, AND VERIFICATION OF THE DESIGN PARAMETER VALUES BASED ON THE MODULUS TEST RESULTS. THE REPORT SHALL BE PREPARED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF THE PROJECT
- DAILY AGGREGATE PIER PROGRESS REPORTS: THE INSTALLER SHALL FURNISH A COMPLETE AND ACCURATE RECORD OF THE AGGREGATE PIER INSTALLATION. THE RECORD SHALL INDICATE THE PIER LOCATION, LENGTH, VOLUME OF AGGREGATE USED OR NUMBER OF LIFTS, DENSIFICATION FORCES DURING INSTALLATION, AND FINAL ELEVATIONS OR DEPTHS OF THE BASE AND TOP OF PIERS. THE RECORD SHALL ALSO INDICATE THE TYPE AND SIZE OF THE INSTALLATION EQUIPMENT USED AND THE TYPE OF AGGREGATE USED. THE INSTALLER SHALL IMMEDIATELY REPORT ANY UNUSUAL CONDITIONS ENCOUNTERED DURING INSTALLATION.
- 10. THE LAYOUT OF AGGREGATED PIER ELEMENTS, SPOIL REMOVAL (AS REQUIRED), FOOTING EXCAVATIONS, AND SUBGRADE PREPARATION FOLLOWING AGGREGATE PIER INSTALLATION SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
- 11. FOUNDATION EXCAVATIONS TO EXPOSE THE TOPS OF THE AGGREGATE PIERS SHALL BE MADE WITH CARE AND SHALL BE PROTECTED UNTIL CONCRETE PLACEMENT UTILIZING PROCEDURES AND EQUIPMENT BEST SUITED TO AVOID EXPOSURE TO WATER, PREVENT SOFTENING OF THE SOIL BETWEEN PIERS AND ACHIEVE DIRECT AND FIRM CONTACT BETWEEN THE PIER TOP AND CONCRETE FOOTING. CARE SHOULD BE EXERCISED TO PREVENT OVEREXCAVATION OF THE TOP OF PIER INCLUDING DAMAGE FROM THE TEETH OF THE EXCAVATOR. IF THE PIERS ARE DISTURBED, THEY SHOULD BE RECOMPACTED USING A PLATE TAMPER.
- 12. PLACE FOOTING CONCRETE IMMEDIATELY AFTER FOOTING EXCAVATION IS MADE AND APPROVED, PREFERABLY THE SAME DAY AS THE EXCAVATION. EXCAVATIONS LEFT OVERNIGHT SHALL BE PROTECTED AND REINSPECTED PRIOR TO PLACING CONCRETE.

#### 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.
- CONCRETE WORK IN COLD WEATHER SHALL CONFORM TO ALL REQUIREMENTS OF ACI 306.1 "STANDARD SPECIFICATION FOR COLD WEATHER CONCRETING" AND ACI 306R "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, CONCRETE TEMPERATURE, AND WIND VELOCITY SHALL BE ENTERED INTO THE NOMOGRAPH OF THIS REFERENCE TO DETERMINE IF PRECAUTIONS AGAINST PLASTIC SHRINKAGE ARE
- 4. CONCRETE MIX DESIGNS SHALL BE SUBMITTED FOR EACH TYPE OF CONCRETE TO THE STRUCTURAL ENGINEER FOR APPROVAL IN ACCORDANCE WITH ACI 301 SECTION 4.2.3.4 FIELD TEST DATA OR TRIAL
- SUBMIT SHOP DRAWINGS OF REINFORCING STEEL.
- MATERIALS (ALSO SEE CONCRETE MIX SCHEDULE):
- A. REINFORCING STEEL: ASTM A615 OR ASTM 996 (AXLE ONLY) 60 KSI YIELD DEFORMED BARS AND ASTM A1064 MESH, FLAT SHEETS ONLY,
- B. FLY ASH: ASTM C618, TYPE F OR C. FLY ASH-TO-TOTAL CEMENTITIOUS RATIO SHALL NOT EXCEED 25% MAXIMUM.
- GROUND GRANULATED BLAST FURNACE SLAG: ASTM C989. TOTAL GROUND GRANULATED BLAST FURNACE SLAG-TO-TOTAL CEMENTITIOUS RATIO SHALL NOT EXCEED 50% MAXIMUM
- D. HIGH RANGE WATER REDUCER (HRWR) ADMIXTURE: ASTM C494. E. 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.
- CONCRETE MIX SCHEDULE:

Application	f <sub>c</sub> @ 28 days (psi)	Air Content <sup>1</sup>	Max w/c ratio <sup>2</sup>	Max Agg. Size <sup>1</sup> (in)	F Class	S Class	W Class	C Class
Footings & Drilled Piers	3000	N/a	0.55	3/4	F0	S0	W0	C0
Foundation and Retaining Walls	4000	6% ± 1.5%	0.45	3/4	F2	S0	W1	C1
Exterior Flatwork (Plain Concrete)	4500	6% ± 1.5%	0.45	3/4	F3	S0	W1	C1

- [1] Where 3/8" maximum aggregate is preferred, adjust air entrainment to 7.5% ± 1.5% (if required).
- [2] Where air entrainment is not required by design, the contractor/supplier may choose to include air entrainment to improve placement or finish characteristics. Air entrainment is not permitted in normal weight concrete to receive a hard trowel finish and entrapped air shall not exceed 3%. [3] - f'₀ = 1800 psi @ 3 days
- [4] Normal weight aggregate with 8%-18% retained on each sieve. Fly ash not permitted. f'c = 1800 psi @ 3 days.
- [5] Cortec MCI required.
- [6] f'<sub>c</sub> = 3000 psi @ 7 days.
- [7] Entrained air is not required provided walls are painted and exterior paint is
- maintained by the owner.
- SLUMP SHALL BE MEASURED PRIOR TO THE ADDITION OF HRWR.
- 9. ALL REINFORCING BARS, EMBEDS, AND ANCHOR RODS SHALL BE PLACED WITHIN THE REQUIRED TOLERANCES AND SUPPORTED TO PREVENT DISPLACEMENT DURING CONCRETE PLACEMENT. WORKING REINFORCING BARS, EMBEDS, AND ANCHOR RODS INTO WET CONCRETE (KNOWN AS "WET STICKING") IS PROHIBITED. IF NECESSARY, CONTRACTOR MAY PROVIDE ADDITIONAL REINFORCING BARS TO SECURELY TIE REINFORCING BARS, EMBEDS, AND ANCHOR RODS.
- 10. LAP SPLICE REINFORCING BARS 48 BAR DIAMETERS UNLESS NOTED
- 11. BAR CLEARANCES BETWEEN ADJACENT BARS AND FORMWORK SHALL BE AS NOTED ON THE DRAWINGS OR A MINIMUM AS PER ACI REQUIREMENTS.
- 12. CONTROL JOINTS IN SLABS ON GROUND SHALL BE LOCATED AT 12'-0" MAXIMUM SPACING AND SHALL CREATE SECTIONS OF SLAB WITH A MAXIMUM ASPECT RATIO OF 11/2 TO 1. CONTROL JOINTS SHALL BE SAWN AND SHALL BE A MINIMUM OF 1/4 OF THE SLAB THICKNESS DEEP. THE CONTROL JOINT SHALL BE SAWN AS SOON AS THE SAW BLADE CAN CUT THE CONCRETE WITHOUT DISPLACING THE AGGREGATE. CUT EVERY OTHER MESH WIRE AT THE CONTROL JOINT LOCATION PRIOR TO PLACING CONCRETE. IF AN EARLY-CUTTING SAW IS BE USED AND A SHALLOWER DEPTH OF THE CUT IS DESIRED, CONTACT THE ENGINEER IN ADVANCE FOR APPROVAL

- 13. CONSTRUCTION JOINTS IN SLABS ON GROUND MAY BE LOCATED AT ANY CONTROL JOINT LOCATION. CONSTRUCTION JOINTS SHALL HAVE A KEY FORMED AT MID-DEPTH OF THE FIRST CAST SECTION. THE KEY SHALL BE 11/2" DEEP AND SHALL BE 1/3 OF THE SLAB THICKNESS HIGH. THE TOP AND BOTTOM OF THE KEY SHALL HAVE 1 VERTICAL TO 3 HORIZONTAL SLOPE.
- PROVIDE 3/4" CHAMFER AT CORNERS OF EXPOSED CONCRETE.



FRANKLIN
74 FAIRVIEW
ARLISLE, OH

DRAWING INDEX

TYPICAL ABBREVIATION LIST

MECH

REINE

SDS

SCH

STL

T/FTG

TYP

UNO

NOT ALL ABBREVIATIONS APPLY. INCLUDED FOR REFERENCE ONLY.

SIM

Live Load

= Maximum

= Minimum

Mechanical

Non Shrink

= Not to Scale

On Center

Roof Drain

= Reinforcement

= Roof Top Unit

Step Footing

Solid Bearing

= Top Of Footing

Tube Steel

Typical

= Vertical

= Step Wall

= Schedule

Similar

= Steel

Self Drilling Screw

Secondary Roof Drain

= Unless Noted Otherwise

Welded Wire Fabic

Wide Flange

Work Point

= Piece

= Plate

Micro Laminated

Long Leg Horizontal

= Laminated Strand Lumber

Laminated Veneer Lumber

Powder Actuated Fastener

= Pounds Per Square Foot

Pre-Engineered Metal Building

Long Leg Vertical

S001 GENERAL STRUCTURAL NOTES

= Alternate Each Face

= Bottom of Footing

Bottom of Deck

= Cast In Place

= Control Joint

= Center Line

= Concrete

= Continuous

= Dead Load

= Drawings

= Elevation

= Engineer

= Each Way

= Each Face

= Exterior

= Footing

= Gauge

= Foundatior

Galvanized

= Granular

= Pounds

Horizontal

General Contractor

= Hold Down Anchor

Hollow Structural Section

= Kips Per Square Foot

= Expansion Joint

= Embedment

Equal Distance

= Concrete Masonry Unit

= Architect

= Building

= Bearing

= Clear

= Beam

S110 FOUNDATION PLAN

AEF

ARCH

BLDG

B/FTG

BRG

CIP

CLR

CMU

CONC

CONT

EJ

EMBD

ENGR

EQ

EW

EXT

FTG

FND

GRAN

HORZ

HD

B/DECK

BM

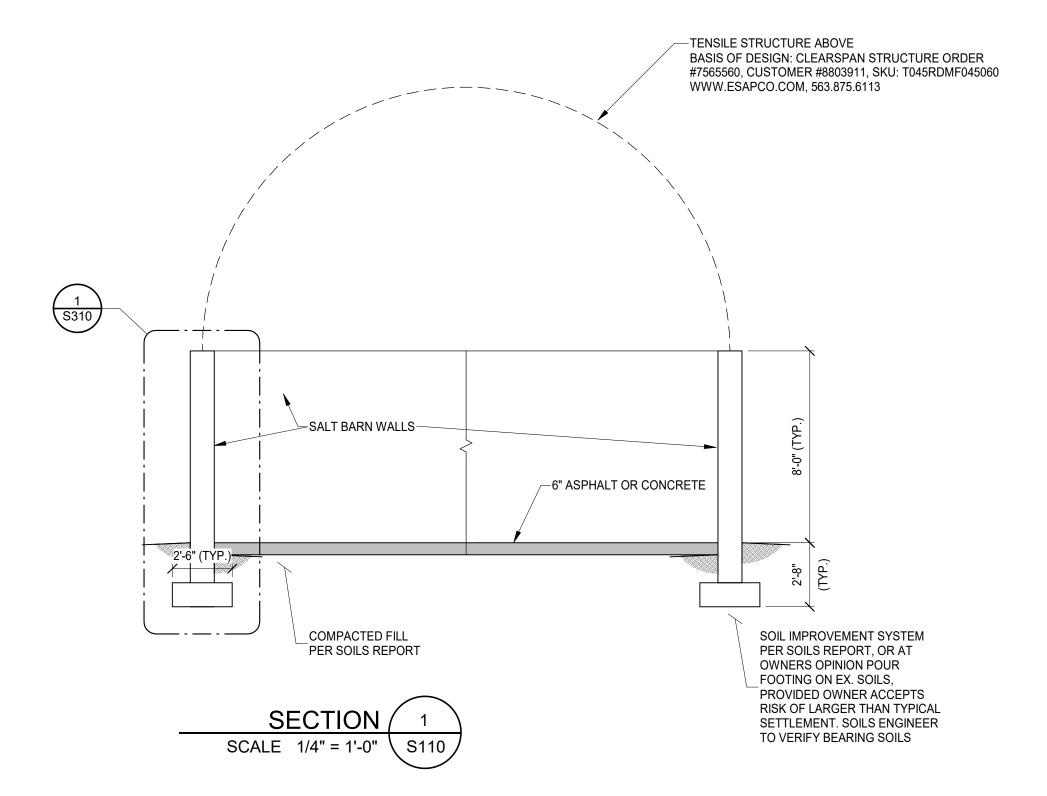
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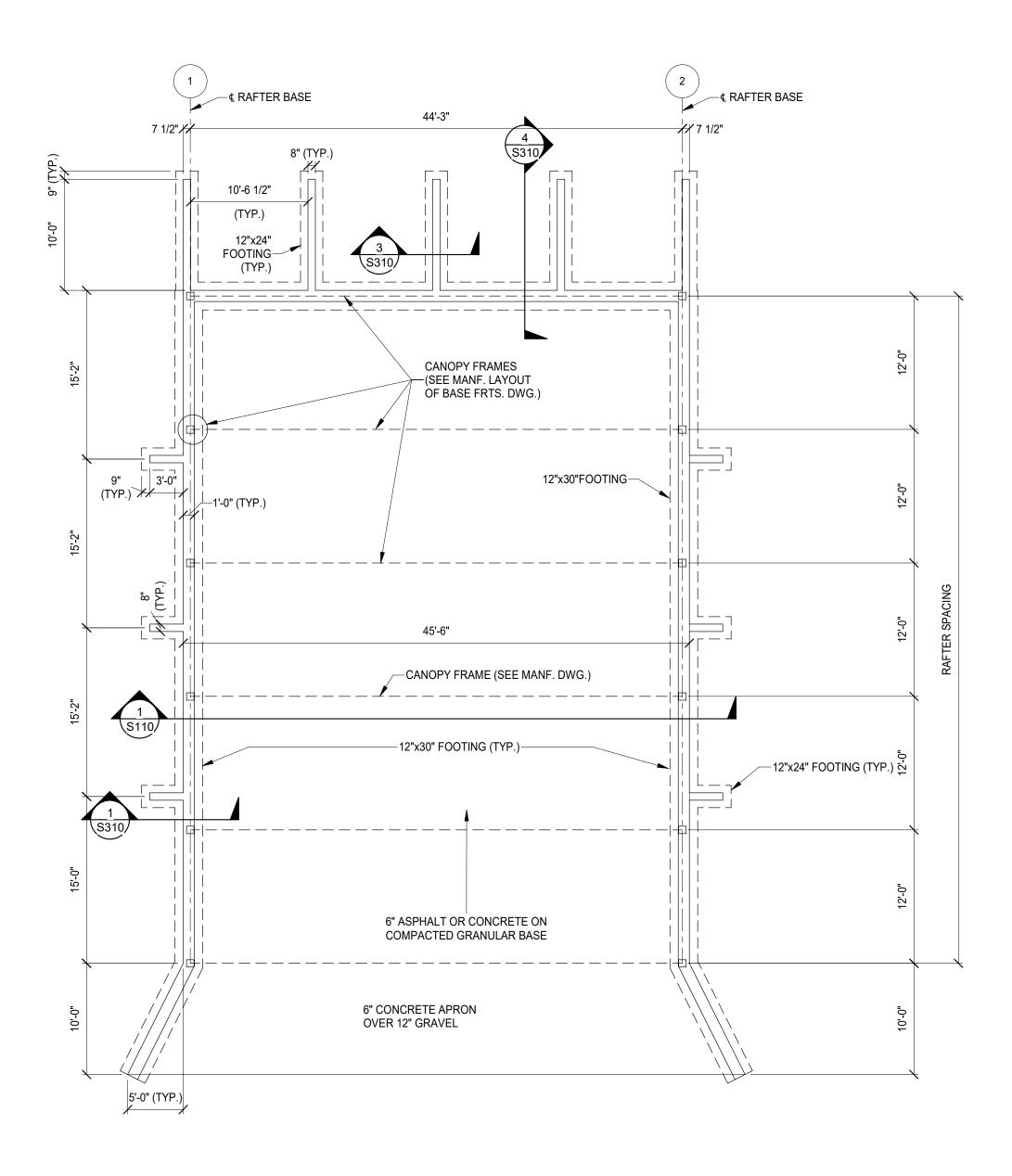


# Revision/Submission Date 02/16/2024

Project Number: 23160.10 Design Team: JTL / STH

**GENERAL STRUCTURAL NOTES** 









# PLAN NOTES:

- 1. COORD ALL DIMS w/ ARCH & DELEGATED SALT STRUCTURE
- 2. DESIGN BASED ON LOADS BY DRAWINGS BY "CLEAR SPAN" STRUCTURAL
- 3. CONCRETE TO BE 4000 psi (28 DAYS) w/ MAX 6% AIR.
- 4. SEE SOILS REPORT FOR FOUNDATION PREPARATION RECOMENDATIONS
- 5. SEE SOIL NOTES FOR ADDITIONAL INFORMATION



PREPARED FOR: CT CONSULTANTS

FRANKLIN SALT STORAGE

474 FAIRVIEW
CARLISLE, OH

ONAL

PERMIT 02/16/2024

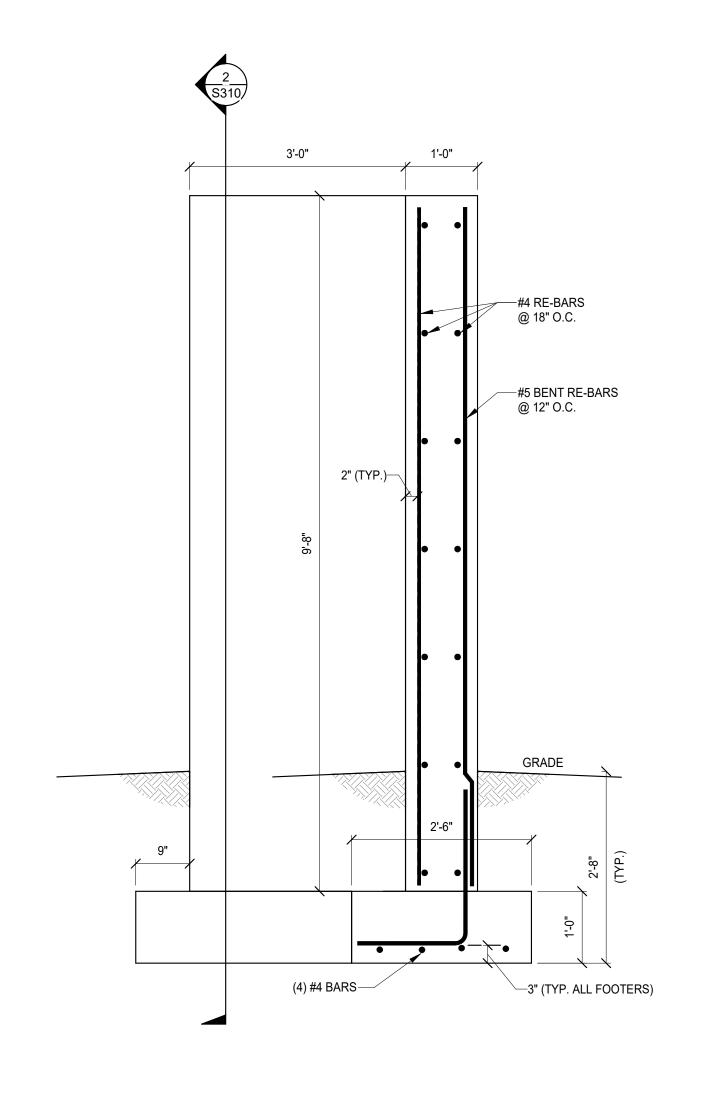
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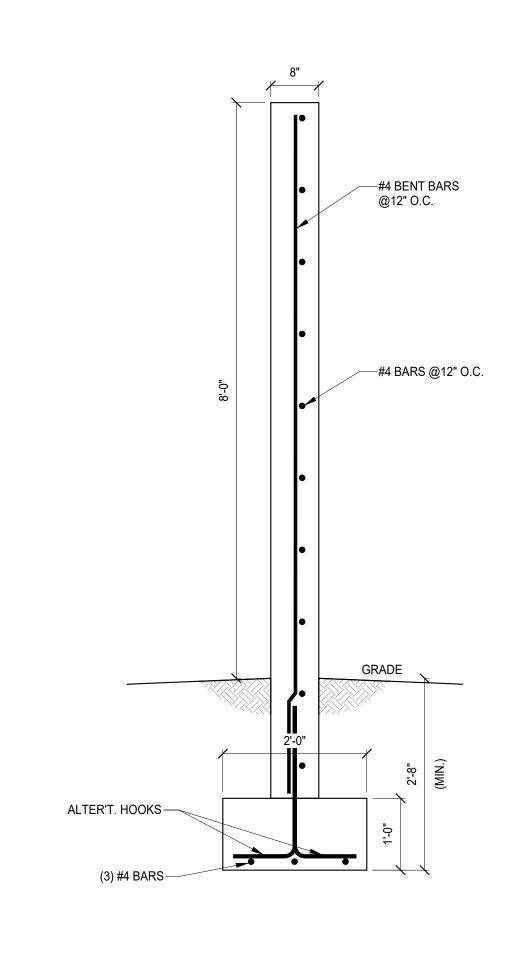
Design Team: JTL / STH

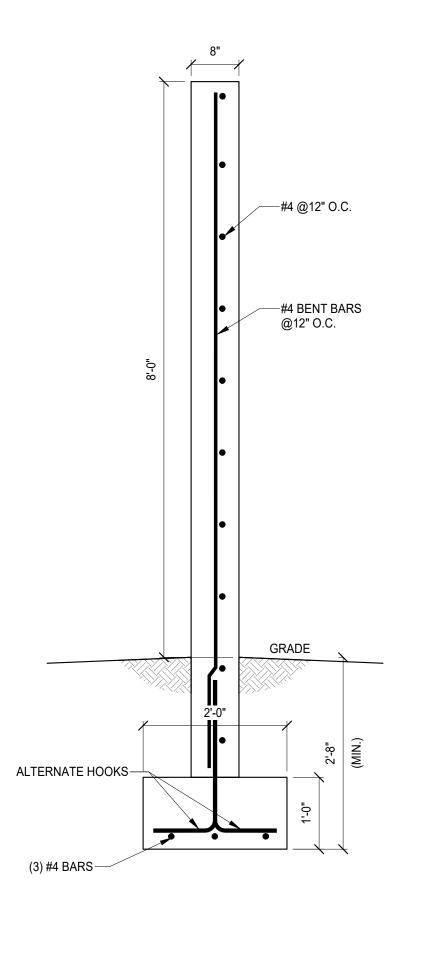
**FOUNDATION PLAN** 

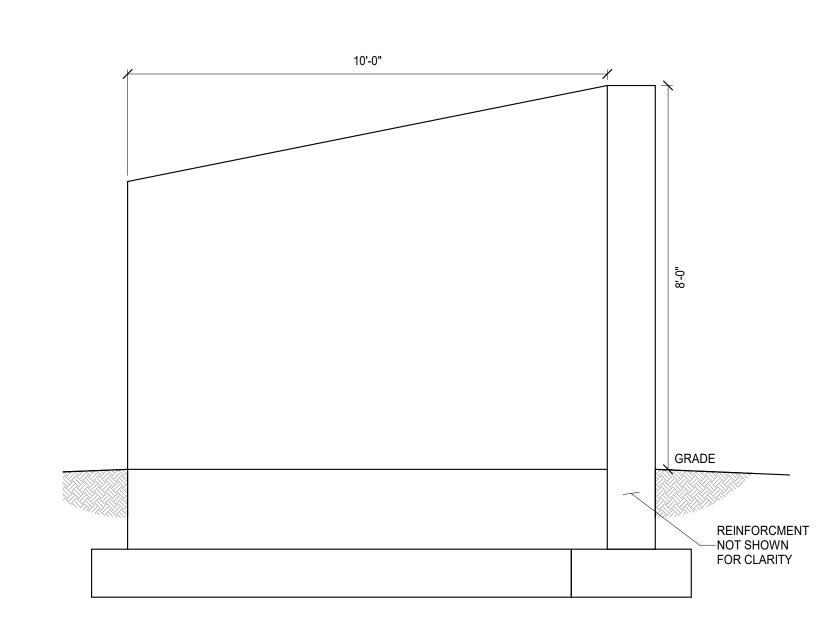
**S110** 



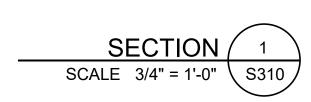


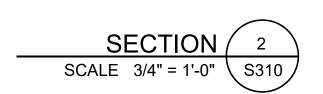


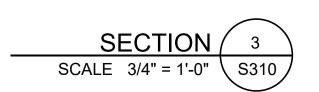


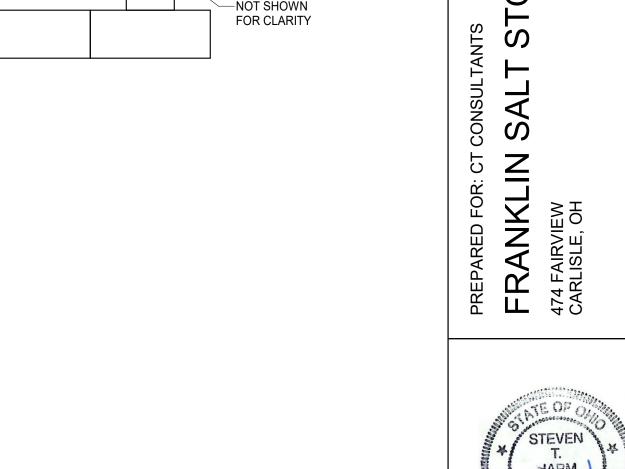


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STORAGE

# Revision/Submission Date
PERMIT 02/16/2024

Project Number: 23160.10 Design Team: JTL / STH

FOUNDATION SECTIONS

**S310**