FREDERICK COUNTY TRANSFER STATION AND PROCESSING FACILITY RETROFIT DESIGN
9031 REICHS FORD ROAD, FREDERICK, MARYLAND

MARCH 2025

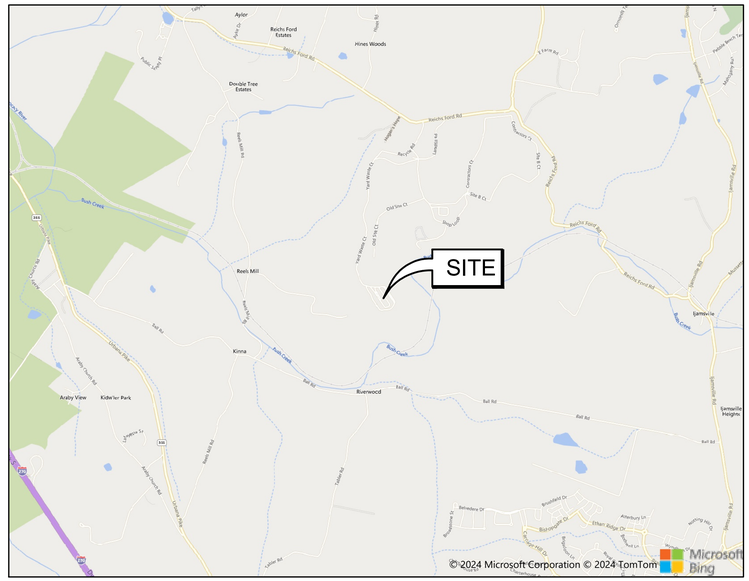
PROJECT AERIAL IMAGE

MAP SOURCE: BING IMAGERY (2023)

0 500 1000

SCALE IN FEET

Sheet List	
Sheet Number	Sheet Title
1	COVER SHEET
2	EXISTING CONDITIONS
3	EXISTING CONDITIONS WEST SIDE BUILDING EXTERIOR
4	PROPOSED CONDITIONS
5	GRADING PLAN
6	PROPOSED CONDITIONS BUILDING EXTERIOR
7	TRAFFIC FLOW PLAN
8	STRUCTURAL NOTES
9	STRUCTURAL NOTES
10	PARTIAL FOUNDATION PLAN
11	SECTIONS
12	FRAMING SECTIONS



PROJECT FOCUS MAP

MAP SOURCE: BING IMAGERY (2023)

0 2000 4000

SCALE IN FEET

PREPARED FOR:

FREDERICK COUNTY DIVISION OF SOLID WASTE AND RECYCLING
9031 REICHS FORD ROAD,
FREDERICK, MARYLAND 21074

PREPARED BY:

Geosyntec consultants

10211 WINCOPIN CIRCLE, FLOOR 4
COLUMBIA, MARYLAND 21044
PHONE: (410) 381-4333

CONSTRUCTION DRAWING

REV	DATE	DESCRIPTION	DRN	APP

Geosyntec consultants

10211 WINCOPIN CIRCLE, FLOOR 4
COLUMBIA, MARYLAND 21044 USA
TELEPHONE: 410.381.4333

TITLE: COVER SHEET

PROJECT: TRANSFER STATION RETROFIT

SITE: FREDERICK COUNTY TRANSFER STATION
FREDERICK, MARYLAND

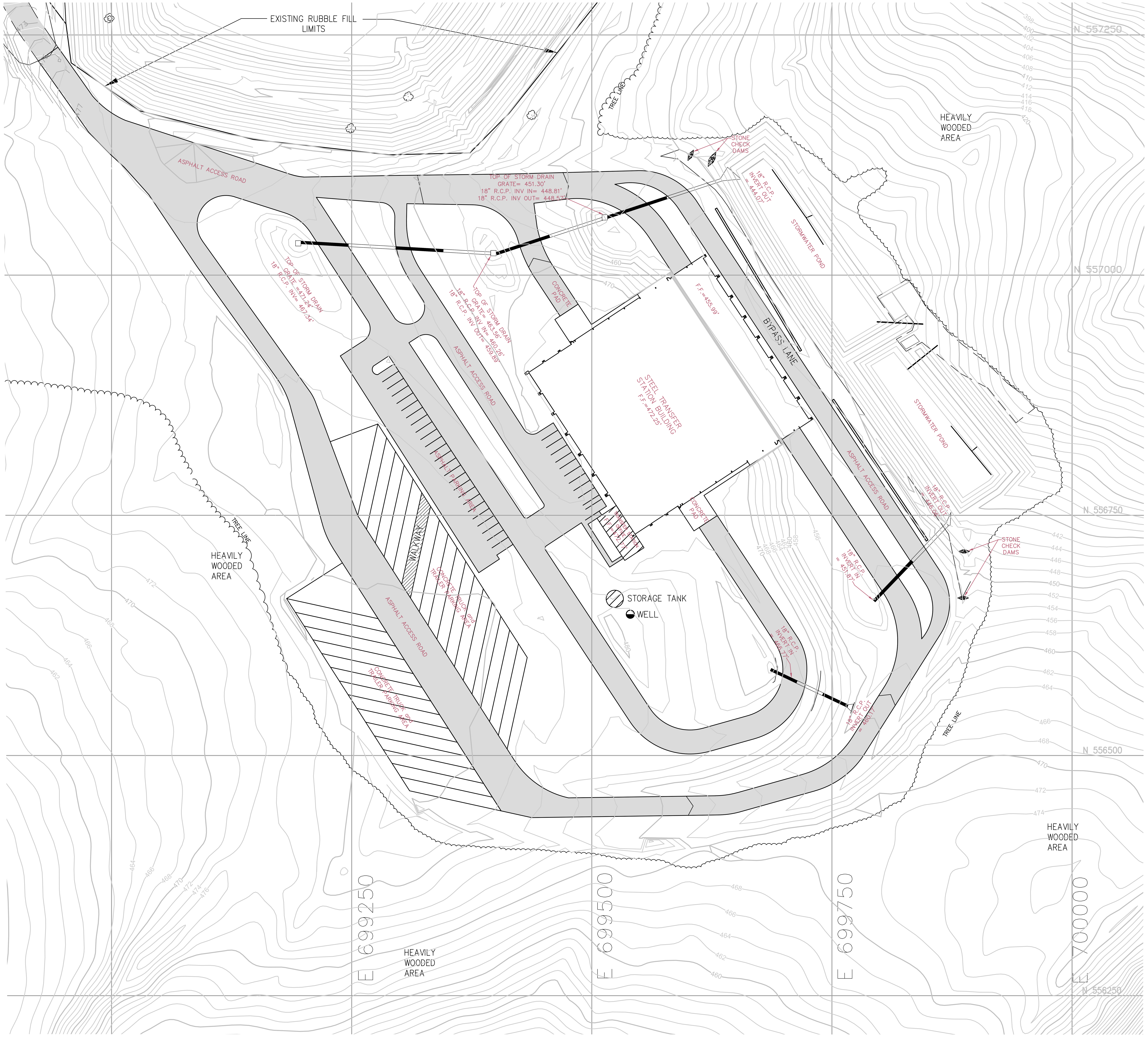
SIGNATURE

3/26/2025
DATE

STATE OF MARYLAND · MEENA VISWANATH · 37584 · PROFESSIONAL ENGINEER

DESIGN BY:	JFB	DATE:	MARCH 2025
DRAWN BY:	TCR	PROJECT NO.:	ME2602
CHECKED BY:	TR	FILE:	
REVIEWED BY:	MLV	DRAWING NO.:	
APPROVED BY:	MLV		1 OF 12

C:_GEOACCADCS\GEOSYNTEC\FREDERICK CO UTILITIES AND SOLID WASTE\PROJECT FILES\CAD\01_TRANSFER STATION RETROFIT\DWG\SHEET\01_COVER SHEET



EXISTING RUBBLE FILL LIMITS
N 557250
N 557000
N 556750
N 556500
N 556250
E 699250
E 699500
E 699750
E 700000
HEAVILY WOODED AREA
HEAVILY WOODED AREA
HEAVILY WOODED AREA
HEAVILY WOODED AREA
TREE LINE
TREE LINE
TREE LINE
STONE CHECK DAMS
STONE CHECK DAMS
ASPHALT ACCESS ROAD
ASPHALT ACCESS ROAD
ASPHALT ACCESS ROAD
ASPHALT ACCESS ROAD
TOP OF STORM DRAIN GRATE= 451.30'
18" R.C.P. INV IN= 448.81'
18" R.C.P. INV OUT= 448.57'
CONCRETE PAD
CONCRETE PAD
STEEL TRANSFER STATION BUILDING F.F.=472.25'
F.F.=455.99'
BYPASS LANE
STORMWATER POND
STORMWATER POND
WALKWAY
CONCRETE TRUCK OR TRAILER PARKING AREA
CONCRETE TRUCK OR TRAILER PARKING AREA
STORAGE TANK
WELL

LEGEND

—10—	EXISTING GROUND ELEVATION (FEET)
	PIPES
	EDGE OF PAVEMENT
	TREE LINE
	PAVEMENT

NOTES:

1. EXISTING CONDITIONS FROM FINAL PLANS PROVIDED BY SCS ENGINEERING DATED SEPTEMBER 2007. EXISTING CONDITIONS TO BE FIELD-VERIFIED BY CONTRACTOR.
2. CONTRACTOR TO PROTECT ALL EXISTING INFRASTRUCTURE INCLUDING INTERIOR SECURITY CAMERAS.

0 50 100
SCALE IN FEET

REV	DATE	DESCRIPTION	DRN	APP

Geosyntec consultants
10211 WINCOPIN CIRCLE, FLOOR 4
COLUMBIA, MARYLAND 21044 USA
TELEPHONE: 410.381.4333

TITLE: EXISTING CONDITIONS

PROJECT: TRANSFER STATION RETROFIT

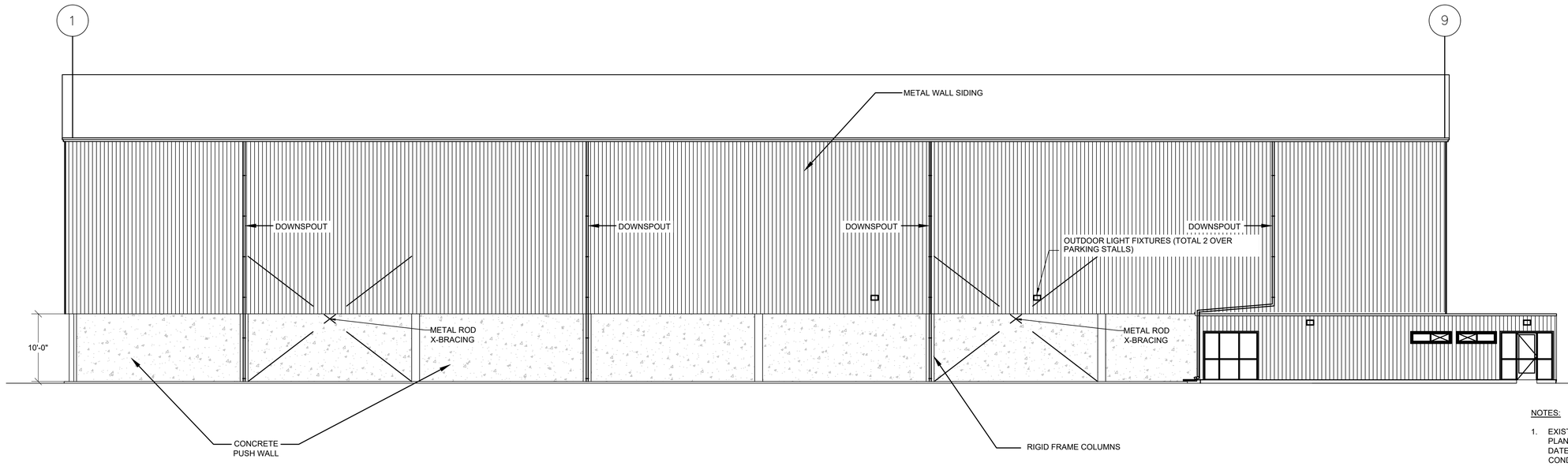
SITE: FREDERICK COUNTY TRANSFER STATION
FREDERICK, MARYLAND

SIGNATURE
3/26/2025
DATE

STATE OF MARYLAND · MEENA VISWANATH · 57584 · PROFESSIONAL ENGINEER

DESIGN BY:	JFB	DATE:	MARCH 2025
DRAWN BY:	TCR	PROJECT NO.:	ME2602
CHECKED BY:	TR	FILE:	
REVIEWED BY:	MLV	DRAWING NO.:	
APPROVED BY:	MLV	2 OF 12	

CONSTRUCTION DRAWING



NOTES:

1. EXISTING CONDITIONS FROM FINAL PLANS PROVIDED BY SCS ENGINEERING DATED SEPTEMBER 2007. EXISTING CONDITIONS TO BE FIELD-VERIFIED BY CONTRACTOR.
2. REFER TO DRAWING 2 FOR PLAN VIEW OF BUILDING.
3. CONTRACTOR TO PROTECT ALL EXISTING INFRASTRUCTURE INCLUDING INTERIOR SECURITY CAMERAS.

0 100 200
SCALE IN FEET

REV	DATE	DESCRIPTION	DRN	APP

Geosyntec consultants
10211 WINCOPIN CIRCLE, FLOOR 4
COLUMBIA, MARYLAND 21044 USA
TELEPHONE: 410.381.4333

TITLE: EXISTING CONDITIONS WEST SIDE BUILDING EXTERIOR

PROJECT: TRANSFER STATION RETROFIT

SITE: FREDERICK COUNTY TRANSFER STATION
FREDERICK, MARYLAND

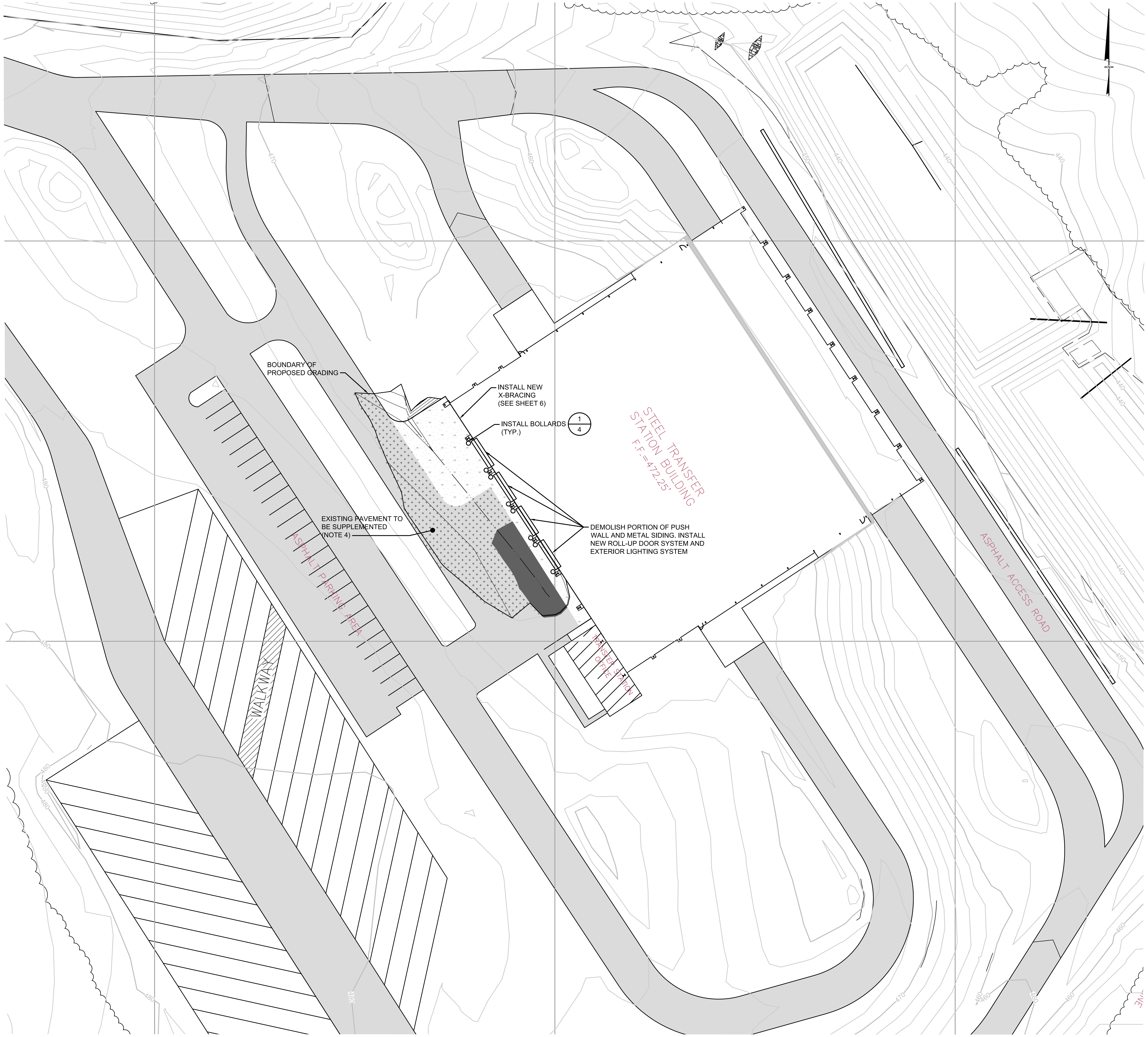
SIGNATURE
3/26/2025
DATE

STATE OF MARYLAND · MELISSA L. VISWANATH · 37584 · PROFESSIONAL ENGINEER

DESIGN BY:	JFB	DATE:	MARCH 2025
DRAWN BY:	TCR	PROJECT NO.:	ME2602
CHECKED BY:	TR	FILE:	
REVIEWED BY:	MLV	DRAWING NO.:	
APPROVED BY:	MLV		3 OF 12

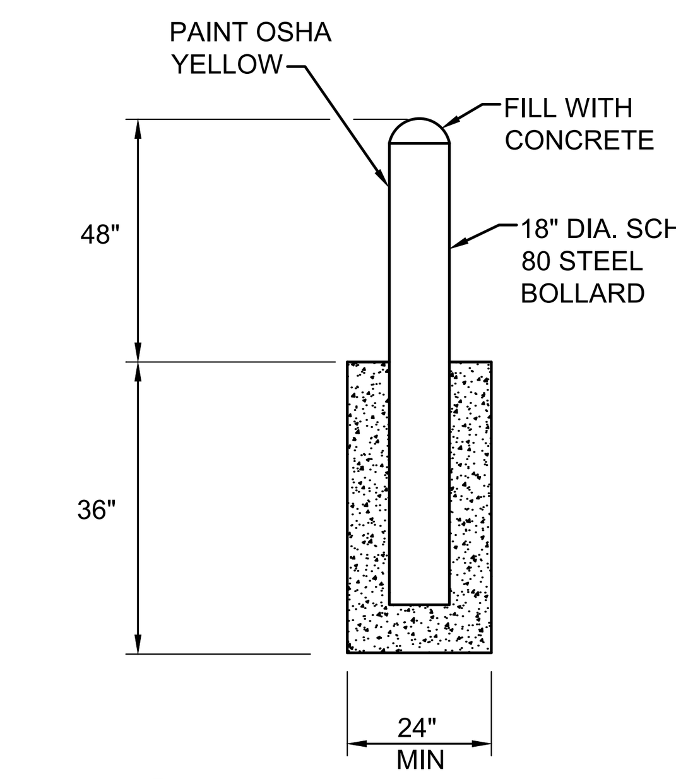
CONSTRUCTION DRAWING

C:_GEOACADCDS\GEOSYNTEC\FREDERICK CO UTILITIES AND SOLID WASTE\PROJECT FILES\CADD\01_TRANSFER STATION RETROFIT\WORKSHEETS\04_EXISTING CONDITIONS BUILDING EXTERIOR



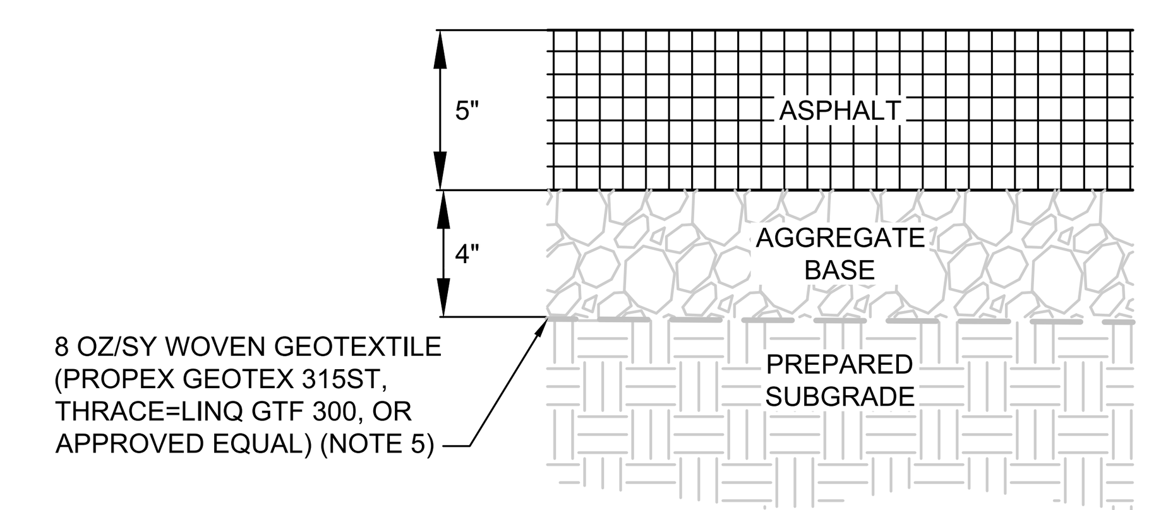
LEGEND

- EXISTING GROUND ELEVATION (FEET)
- PIPES
- EDGE OF ROAD
- PROPOSED EDGE OF PAVEMENT
- TREE LINE
- PROPOSED PAVEMENT
- EXISTING PAVEMENT
- EXISTING PAVEMENT TO BE REMOVED AND REPLACED FOLLOWING REGRADING
- EXISTING PAVEMENT TO BE SUPPLEMENTED



1/4 DETAIL BOLLARD

SCALE: 1" = 2'



2/4 DETAIL PAVEMENT SECTION

SCALE: 1" = 1'

NOTES:

1. EXISTING CONDITIONS FROM FINAL PLANS PROVIDED BY SCS ENGINEERING DATED SEPTEMBER 2007. EXISTING CONDITIONS TO BE FIELD-VERIFIED BY CONTRACTOR.
2. ASPHALT ACCESS ROAD TO BE RE-GRADED. SEE SHEET 5 FOR GRADING PLAN.
3. CONTRACTOR TO PROTECT ALL EXISTING INFRASTRUCTURE INCLUDING INTERIOR SECURITY CAMERAS.
4. EXISTING PAVEMENT TO BE SUPPLEMENTED BY PLACING ADDITIONAL PAVEMENT. IN AREAS WHERE FINAL GRADE EXCEEDS EXISTING GRADE BY THE PAVEMENT SECTION (9 INCHES), PLACE FULL ASPHALT AND AGGREGATE BASE SECTION AND THICKEN AGGREGATE BASE SECTION, AS NEEDED. BREAK ASPHALT PRIOR TO PLACING AGGREGATE BASE TO ALLOW DRAINAGE.
5. WOVEN GEOTEXTILE SHALL OLY BE PLACED ON PREPARED SUBGRADE, NOT ON SUPPLEMENTED PAVEMENT.

REV	DATE	DESCRIPTION	DRN	APP

Geosyntec consultants
10211 WINCOPIN CIRCLE, FLOOR 4
COLUMBIA, MARYLAND 21044 USA
TELEPHONE: 410.381.4333

0 30 60
SCALE IN FEET

TITLE: PROPOSED CONDITIONS

PROJECT: TRANSFER STATION RETROFIT

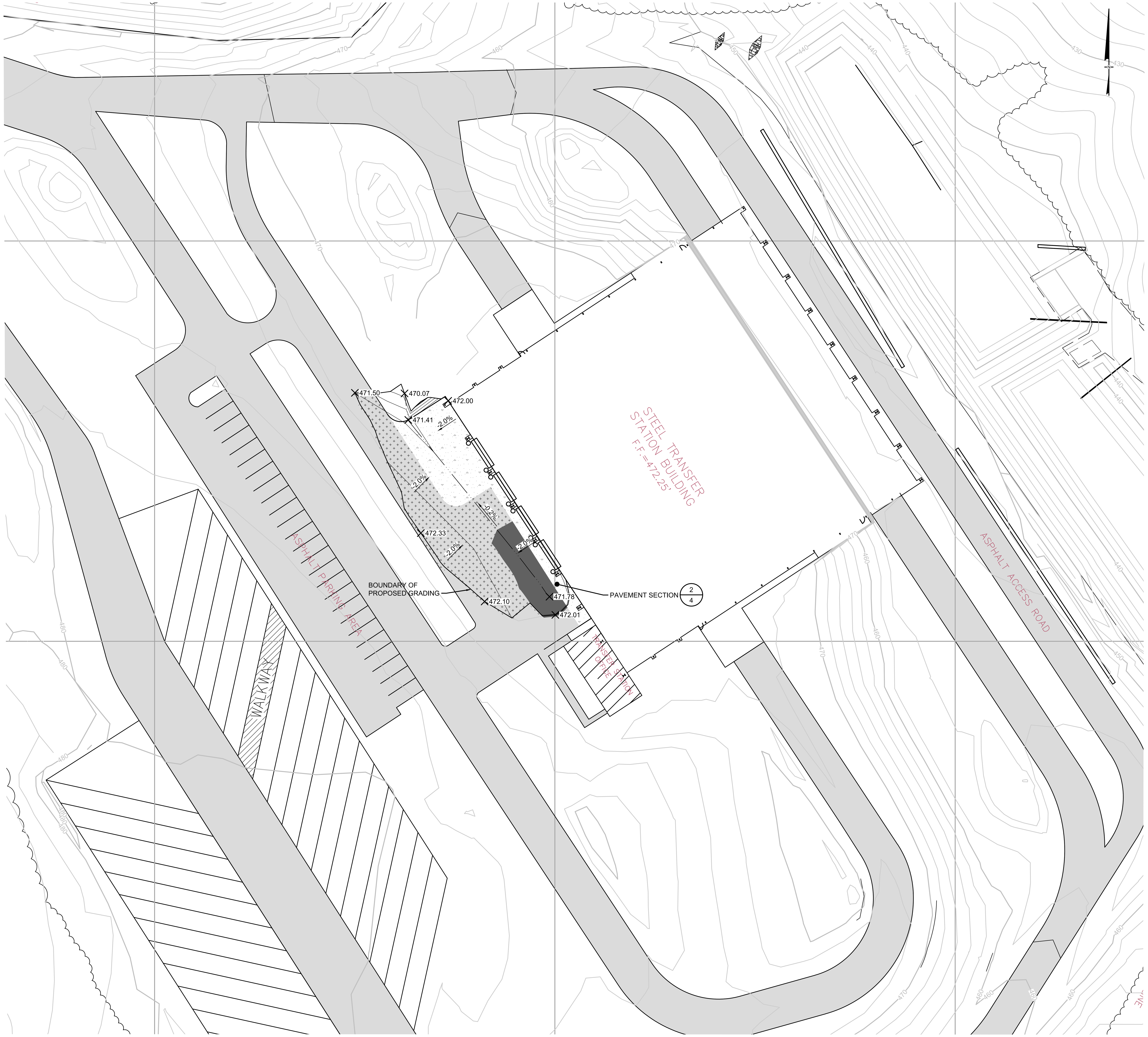
SITE: FREDERICK COUNTY TRANSFER STATION
FREDERICK, MARYLAND

SIGNATURE
3/26/2025
DATE

STATE OF MARYLAND · MEENA L. VISWANATH · 57584 · PROFESSIONAL ENGINEER

DESIGN BY:	JFB	DATE:	MARCH 2025
DRAWN BY:	TCR	PROJECT NO.:	ME2602
CHECKED BY:	TR	FILE:	
REVIEWED BY:	MLV	DRAWING NO.:	
APPROVED BY:	MLV	4 OF 12	

CONSTRUCTION DRAWING



LEGEND

- EXISTING GROUND ELEVATION (FEET)
- PIPES
- EDGE OF ROAD
- PROPOSED EDGE OF PAVEMENT
- TREE LINE
- PROPOSED PAVEMENT
- EXISTING PAVEMENT
- EXISTING PAVEMENT TO BE REMOVED AND REPLACED FOLLOWING REGRADING
- EXISTING PAVEMENT TO BE SUPPLEMENTED

NOTES:

1. EXISTING CONDITIONS FROM FINAL PLANS PROVIDED BY SCS ENGINEERING DATED SEPTEMBER 2007. EXISTING CONDITIONS TO BE FIELD-VERIFIED BY CONTRACTOR.
2. CONTRACTOR TO PROTECT ALL EXISTING INFRASTRUCTURE INCLUDING INTERIOR SECURITY CAMERAS.
3. EXISTING PAVEMENT TO BE SUPPLEMENTED BY PLACING ADDITIONAL PAVEMENT. IN AREAS WHERE FINAL GRADE EXCEEDS EXISTING GRADE BY THE PAVEMENT SECTION (9 INCHES), PLACE FULL ASPHALT AND AGGREGATE BASE SECTION AND THICKEN AGGREGATE BASE SECTION, AS NEEDED. BREAK ASPHALT PRIOR TO PLACING AGGREGATE BASE TO ALLOW DRAINAGE.

0 30 60
SCALE IN FEET

REV	DATE	DESCRIPTION	DRN	APP

Geosyntec consultants
10211 WINCOPIN CIRCLE, FLOOR 4
COLUMBIA, MARYLAND 21044 USA
TELEPHONE: 410.381.4333

TITLE: GRADING PLAN

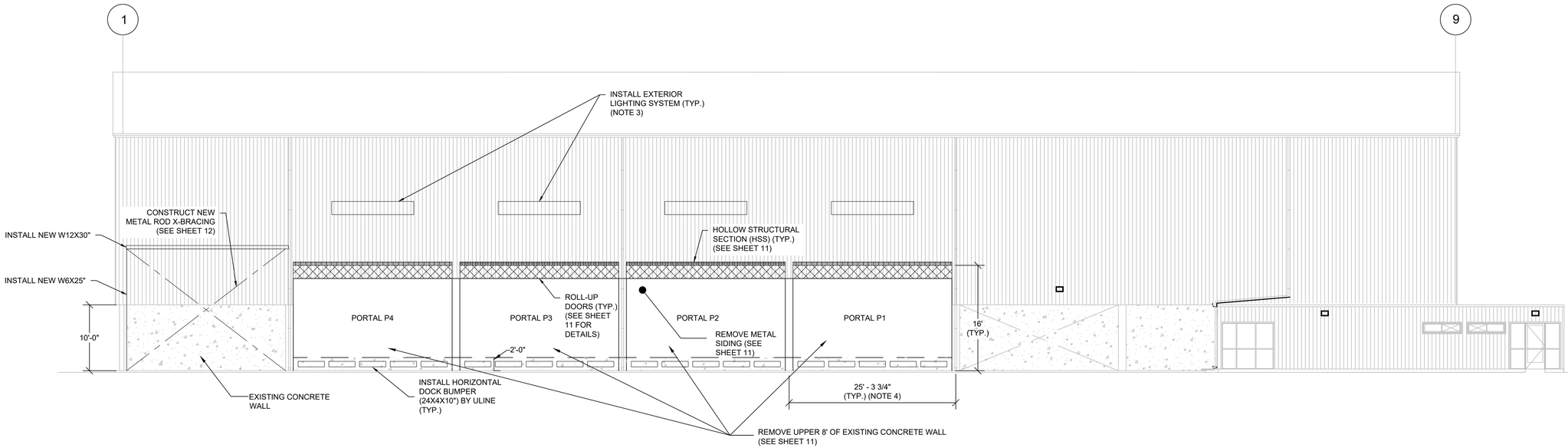
PROJECT: TRANSFER STATION RETROFIT

SITE: FREDERICK COUNTY TRANSFER STATION
FREDERICK, MARYLAND

SIGNATURE
3/26/2025
DATE

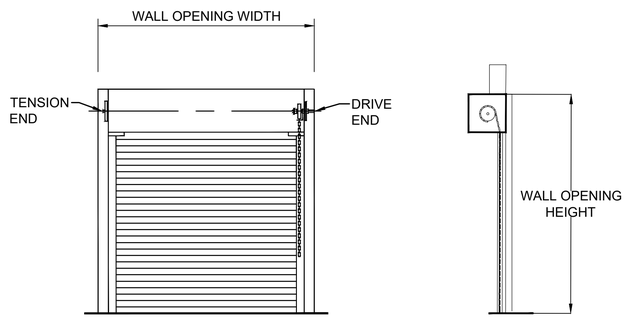
DESIGN BY:	JFB	DATE:	MARCH 2025
DRAWN BY:	TCR	PROJECT NO.:	ME2602
CHECKED BY:	TR	FILE:	
REVIEWED BY:	MLV	DRAWING NO.:	
APPROVED BY:	MLV	5 OF 12	

CONSTRUCTION DRAWING



NOTES:

1. EXISTING CONDITIONS FROM FINAL PLANS PROVIDED BY SCS ENGINEERING DATED SEPTEMBER 2007. EXISTING CONDITIONS TO BE FIELD-VERIFIED BY CONTRACTOR.
2. REFER TO DRAWING 9 FOR PLAN VIEW OF BUILDING.
3. LIGHTING SYSTEM SHALL BE 16,800 LUMEN MAX, 120 WATT MAX LED WALL PACK FIXTURE. CONNECT LIGHT TO EXISTING ELECTRICAL SYSTEM.
4. WALL OPENING WIDTH INDICATES THE DISTANCE BETWEEN TWO EXISTING COLUMNS.



3/6 DETAIL
ROLL-UP DOOR

SCALE: 1" = 30'

0 100 200
SCALE IN FEET

REV	DATE	DESCRIPTION	DRN	APP

Geosyntec consultants
10211 WINCOPIN CIRCLE, FLOOR 4
COLUMBIA, MARYLAND 21044 USA
TELEPHONE: 410.381.4333

TITLE: PROPOSED CONDITIONS BUILDING EXTERIOR

PROJECT: TRANSFER STATION RETROFIT

SITE: FREDERICK COUNTY TRANSFER STATION
FREDERICK, MARYLAND

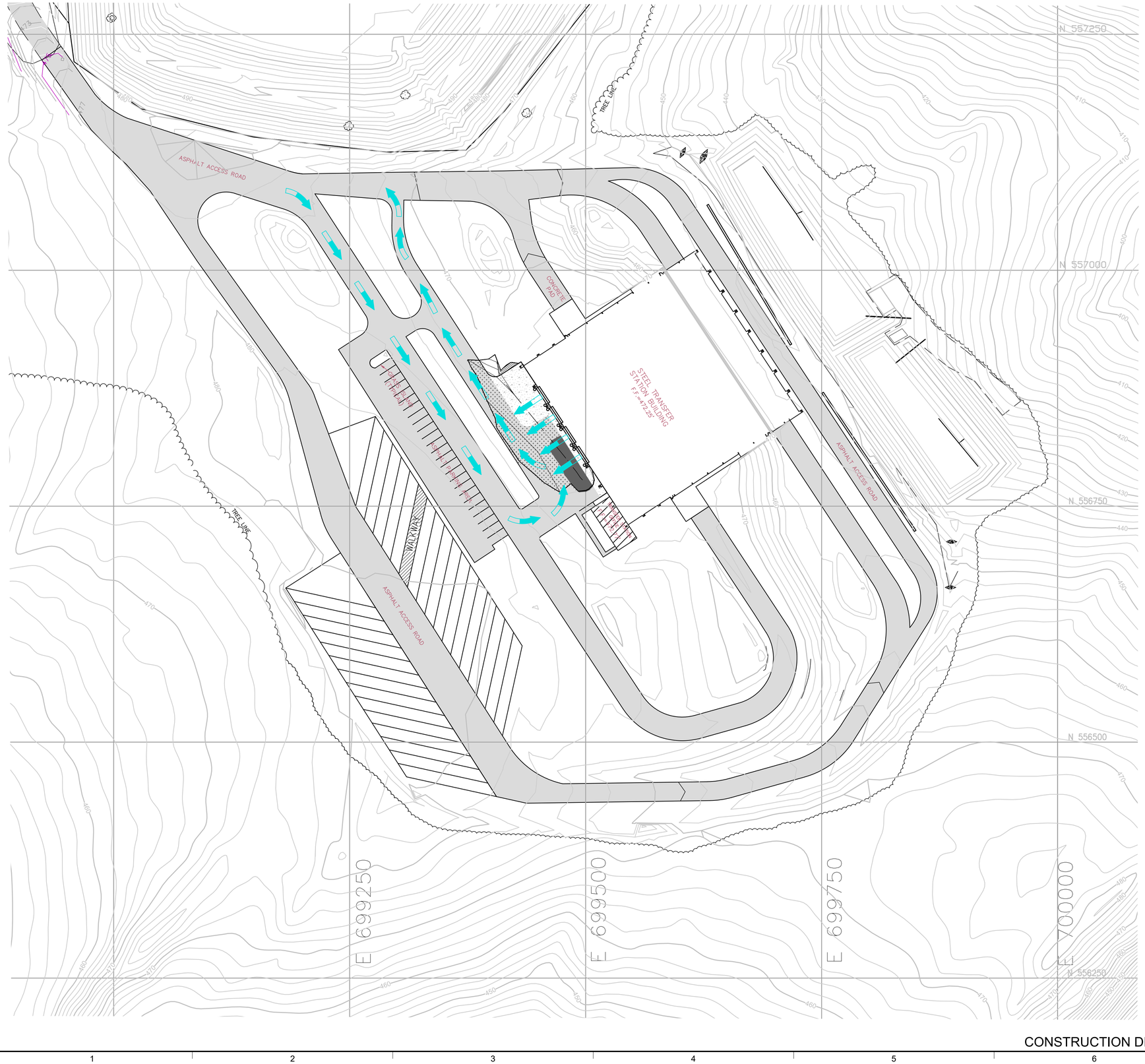
SIGNATURE
3/26/2025
DATE

STATE OF MARYLAND · MELISSA L. VISVANATH · 57584 · PROFESSIONAL ENGINEER

DESIGN BY:	JFB	DATE:	MARCH 2025
DRAWN BY:	TCR	PROJECT NO.:	ME2602
CHECKED BY:	TR	FILE:	
REVIEWED BY:	MLV	DRAWING NO.:	6 OF 12
APPROVED BY:	MLV		

CONSTRUCTION DRAWING

C:_GEO-ACCACCDOCS\GEOSYNTECFREDERICK.CO.UTILITIES AND SOLID WASTE\PROJECT FILES\CAD\01_TRANSFER STATION RETROFIT\DWGS\SHEETS\07_PROPOSED CONDITIONS BUILDING EXTERIOR



LEGEND

- EXISTING GROUND ELEVATION (FEET)
- PIPES
- EDGE OF ROAD
- PROPOSED EDGE OF PAVEMENT
- TREE LINE
- PROPOSED PAVEMENT
- EXISTING PAVEMENT
- EXISTING PAVEMENT TO BE REMOVED AND REPLACED FOLLOWING REGRADING
- EXISTING PAVEMENT TO BE SUPPLEMENTED
- RESIDENT TRAFFIC FLOW ARROW

0 50 100
SCALE IN FEET

REV	DATE	DESCRIPTION	DRN	APP

Geosyntec consultants
10211 WINCOPIN CIRCLE, FLOOR 4
COLUMBIA, MARYLAND 21044 USA
TELEPHONE: 410.381.4333

TITLE: TRAFFIC FLOW PLAN

PROJECT: TRANSFER STATION RETROFIT

SITE: FREDERICK COUNTY TRANSFER STATION
FREDERICK, MARYLAND

DESIGN BY:	JFB	DATE:	MARCH 2025
DRAWN BY:	TCR	PROJECT NO.:	ME2602
CHECKED BY:	TR	FILE:	
REVIEWED BY:	MLV	DRAWING NO.:	7 OF 12
APPROVED BY:	MLV		

SIGNATURE
3/26/2025
DATE

STATE OF MARYLAND · MEENA L. VISWANATH · 57584 · PROFESSIONAL ENGINEER

CONSTRUCTION DRAWING

C:_GEO\ACCOUNTS\GEOSYNTEC\FREDERICK CO UTILITIES AND SOLID WASTE\PROJECT FILES\CAD\00_TRANSFER STATION RETROFIT\DWG\SHEET\SQ1_TRAFFICFLOW.PLAN

DESIGN CRITERIA

BUILDING CODE:
2018 INTERNATIONAL BUILDING CODE AND ASCE 7-16
2018 INTERNATIONAL EXISTING BUILDING CODE.

ANY REFERENCES TO VARIOUS TRADE CODES THROUGHOUT THESE NOTES ARE TO THE YEAR OF THE CODE CITED IN THE ABOVE REFERENCE BUILDING CODE.

DESIGN LIVE LOADS:

ROOF STRUCTURAL ELEMENTS SHALL BE DESIGNED FOR THE MORE CRITICAL OF THE FOLLOWING LOAD CASES
CASE 1 30 PSF MINIMUM (NOT REDUCIBLE)
CASE 2 SNOW LOAD BASED ON 30 PSF GROUND SNOW LOAD WITH APPLICABLE DRIFT AND SLIDING LOADS

ROOF SNOW LOAD DESIGN DATA:
FLAT ROOF SNOW LOAD (Pf) - 21 PSF
MINIMUM SNOW LOAD PER ASCE 7-16 -7.3.4 (Pm) – 20 PSF
SNOW EXPOSURE FACTOR (Ce) – 1.0
SNOW LOAD IMPORTANCE FACTOR (I) - 1.0
THERMAL FACTOR (Ct) – 1.0

ROOF RAIN LOAD DATA:
RAIN INTENSITY (i) – 2.97 IN/HR
RAIN LOAD <21 PSF
ROOF DRAINAGE BY EXISTING SLOPED ROOF.

FLOORS: THE FLOOR AREAS HAVE BEEN DESIGNED FOR THE FOLLOWING MINIMUM LIVE LOADS.
LIVE LOAD REDUCTION HAS BEEN CONSIDERED IN FLOOR AND COLUMN DESIGN.

TIPPING FLOOR	250 PSF OR HS20-44
OFFICES	50 PSF + 15 PSF PARTITION LOAD
EQUIPMENT SUPPORTS	DESIGNED FOR ACTUAL LOADS INDICATED ON THE DRAWINGS

DESIGN DEAD LOADS:

ROOF	30 PSF (TOTAL INCLUDING SELF WEIGHT)
FLOOR	150 PSF (TOTAL)
FLOOR	112 PSF (SLAB)
FLOORING	38 PSF (TOPPING)

LATERAL LOADS:

WIND LOAD ANALYSIS

RISK CATEGORY	II
ULTIMATE WIND SPEED (Vult)	115 MPH
NOMINAL WIND SPEED (Vasd)	89 MPH
WIND EXPOSURE	C
INTERNAL PRESSURE COEFFICIENT	+/- 0.18

NET WIND UPLIFT ON ROOF WITH RESPECT TO METAL DECK AND STEEL FRAMING TO BE PER THE LOADS IN THE COMPONENTS AND CLADDING WIND CHART ON S001.

SEISMIC LOAD ANALYSIS

RISK CATEGORY	II
SEISMIC IMPORTANCE FACTOR(Ie)	1.0
MCE SPECTRAL RESPONSE ACCELERATION PARAMETER - SHORT (Ss)	13.3%g
MCE SPECTRAL RESPONSE ACCELERATION PARAMETER - 1 second (S1)	4.3%g
SITE CLASS	D
SOIL SITE COEFFICIENT (FA / FV)	1.6 / 2.4
DESIGN EQ SPECTRAL RESPONSE ACCEL. PARAMETER - SHORT (Sds)	0.142
DESIGN EQ SPECTRAL RESPONSE ACCEL. PARAMETER - 1 second (Sd1)	0.069
SEISMIC DESIGN CATEGORY	B
BASIC SEISMIC FORCE RESISTING SYSTEM	H per TABLE 12.2-1 ASCE7-10
RESPONSE MODIFICATION COEFFICIENT (R)	3.0
SYSTEM OVERSTRENGTH FACTOR (Ωo)	3.0
DEFLECTION AMPLIFICATION FACTOR (Cd)	3.0
SEISMIC RESPONSE COEFFICIENT (Cs)	0.0473
BASE SHEAR (Fx)	MASS x Cs
ANALYSIS PROCEDURE UTILIZED	EQUIVALENT LATERAL FORCE

LATERAL ANALYSIS OF RENOVATION SHOWS THAT LATERAL MEMBER DEMAND-TO-CAPACITY RATIOS ARE INCREASED BY LESS THAN 10 PERCENT AFTER ALTERATIONS; NO REMEDIATION OF THE LATERAL SYSTEM IS REQUIRED PER IEBC SECTION 503.4 EXCEPTION

GENERAL NOTES

REFER TO THE ARCHITECTURAL, ELECTRICAL, MECHANICAL AND PLUMBING DRAWINGS FOR ADDITIONAL SLEEVES, ANCHORS, VENT OPENINGS, ETC. NOT SHOWN ON THE STRUCTURAL PLANS.

NOTIFY THE STRUCTURAL ENGINEER OF RECORD OF ANY DEVIATION FROM THE STRUCTURAL CONTRACT DOCUMENTS FOR APPROVAL (I.E. OPENINGS IN STRUCTURAL ELEMENTS SUCH AS LOAD-BEARING WALLS).

ALL MATERIALS SHALL BE IN CONFORMANCE WITH THE LATEST EDITION OF THE ASTM SPECIFICATIONS NOTED IN THE STRUCTURAL NOTES AND PROJECT SPECIFICATIONS BASED ON THE FINAL DATE NOTED ON THE CONSTRUCTION DOCUMENTS.

THIS PROJECT HAS BEEN DESIGNED FOR THE WEIGHTS OF THE MATERIALS INDICATED ON THE DRAWINGS AND FOR THE LIVE LOADS INDICATED IN THE DESIGN DATA ABOVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADDITIONAL SHORING AND BRACING FOR THE STRUCTURE IF ACTUAL CONSTRUCTION LOADS EXCEED THE DESIGN LOADS.

ALL DIMENSIONS AND NOTES SHALL SUPERSEDE ALL SCALE REFERENCES ON THE DRAWINGS.

ALL WORK SPECIFIED HEREIN SHALL BE INSPECTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, THE BUILDING CODE AND ALL LOCAL ORDINANCES. THE CONTRACTOR SHALL HIRE AN EXPERIENCED, QUALIFIED SPECIAL INSPECTOR TO PERFORM ALL THE REQUIRED INSPECTION WORK. ADTEK ENGINEERS WILL NOT PERFORM THE CONTINUOUS DAILY SPECIAL INSPECTIONS DURING CONSTRUCTION. ADTEK ENGINEERS MAY VISIT THE SITE TO ASCERTAIN GENERAL CONFORMANCE TO THE CONTRACT DOCUMENTS AND SUCH VISITS ARE NOT TO BE CONSTRUED AS MEETING THE DAILY SPECIAL INSPECTION REQUIREMENTS UNLESS THE ENGINEER SPECIFICALLY SO STATES IN WRITING.

IT IS THE INTENT OF THESE DRAWINGS FOR ALL DISCIPLINES AND SPECIFICATIONS TO PRODUCE A COMPLETE PROJECT. IN ALL CASES THE DRAWINGS AND SPECIFICATIONS MUST BE REVIEWED, PRICED, ESTIMATED, AND CONSTRUCTED IN THEIR ENTIRETY. THE DRAWINGS ARE COMPLEMENTARY TO ONE ANOTHER AND THE SPECIFICATIONS. ANYTHING SHOWN OR IMPLIED ON ANY ONE DRAWING MUST BE PROVIDED, INSTALLED AND CONNECTED AS THOUGH IT WAS SHOWN ON ALL DRAWINGS AND INCLUDED IN THE ORIGINAL PRICING. NO REQUEST FOR ADDITIONAL COST OR CHANGE ORDER WILL BE ACCEPTED BY THE OWNER FROM ANY CONTRACTOR, SUPPLIER, OR INSTALLER THAT RESULTS FROM A FAILURE TO THOROUGHLY REVIEW ALL DRAWINGS AND SPECIFICATIONS, COORDINATE WITH OTHER TRADES, OR THOROUGHLY INSPECT THE SITE TO DETERMINE ALL EXISTING CONDITIONS.

IF AN ASSUMED OR ACTUAL CONFLICT IS DISCOVERED IN THE CONTRACT DOCUMENTS, THE MORE EXPENSIVE OR HIGHER QUALITY OPTION (AS DETERMINED BY THE ARCHITECT/ENGINEER) SHALL BE ASSUMED TO APPLY UNLESS DIRECTED OTHERWISE BY THE ARCHITECT/ENGINEER.

THE CONTRACTOR IS REQUIRED TO VISIT THE SITE, FAMILIARIZE THEMSELVES WITH THE LOCAL CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED AND AS ARE NECESSARY FOR CONSTRUCTION, AND CORRELATE THEIR OBSERVATIONS WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. IT IS ASSUMED THAT THE CONTRACTOR HAS OBTAINED, BEFORE AWARD OF THE CONTRACT, CLARIFICATION OF ALL QUESTIONS AS TO THE INTENT OF THE CONTRACT DOCUMENTS AND OF ASSUMED OR ACTUAL CONFLICT BETWEEN TWO OR MORE ITEMS IN CONTRACT DOCUMENTS. SHOULD THE CONTRACTOR FAIL TO OBTAIN SUCH CLARIFICATION, THE ARCHITECT/ENGINEER SHALL DIRECT WORK TO PROCEED BY THE METHOD INDICATED, SPECIFIED OR REQUIRED BY CONTRACT DOCUMENTS WHICH WILL PRODUCE THE BEST RESULTS, AS JUDGED BY THE ARCHITECT/ENGINEER. SUCH DIRECTION BY THE ARCHITECT/ENGINEER SHALL NOT ENTITLE THE CONTRACTOR TO ANY CLAIM FOR EXTRA COST.

CONTRACTOR RESPONSIBILITIES

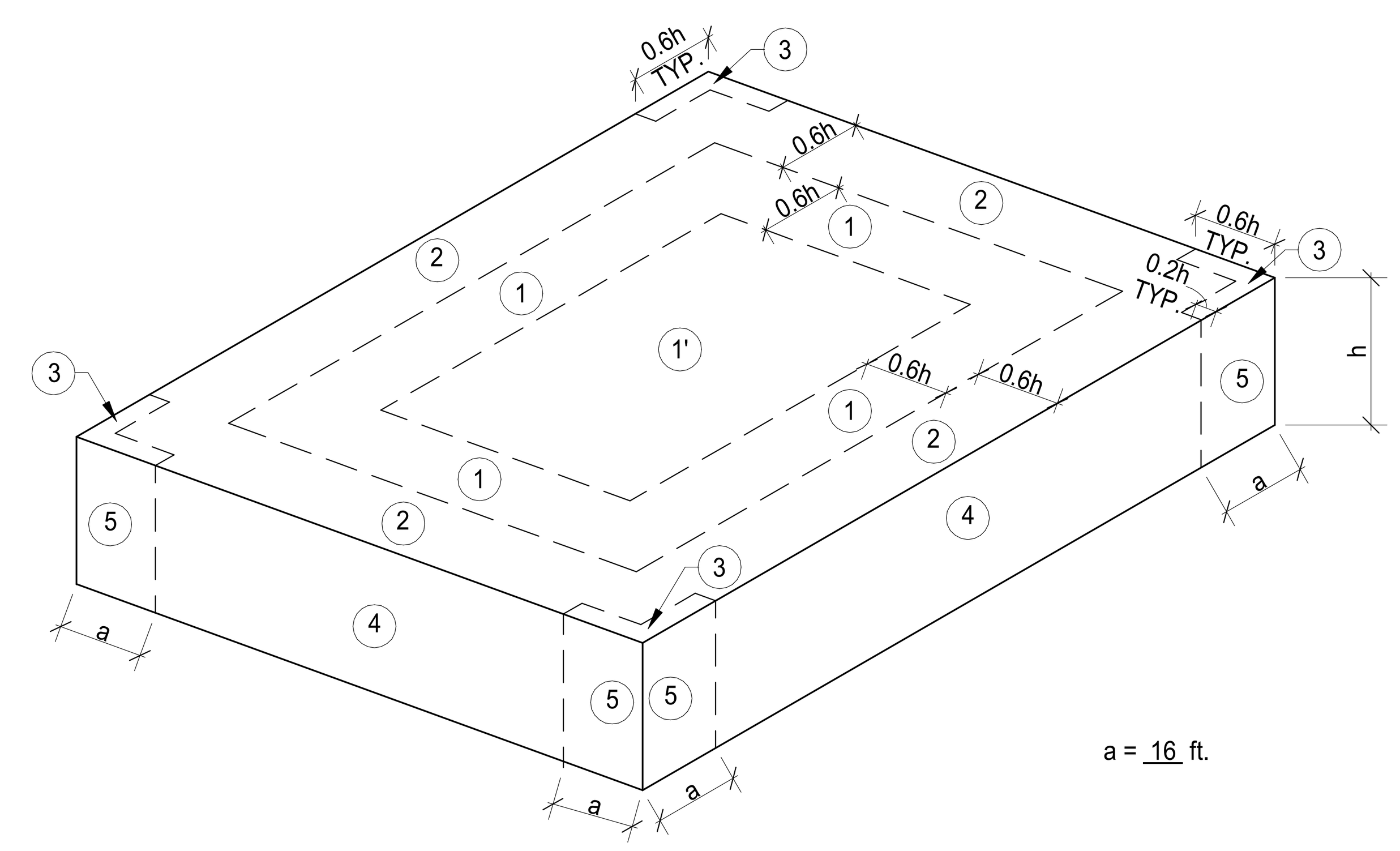
THE FOLLOWING LIST IS NOT INTENDED TO BE ALL INCLUSIVE, BUT MERELY TO PLACE EMPHASIS ON PARTICULAR ITEMS OF JOB SCHEDULING AND SAFETY.

1. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE PROJECT DESIGN TEAM FOR REVIEW, ALLOWING A MINIMUM OF TWO WEEKS FOR REVIEW BY THE PROJECT ARCHITECT AND STRUCTURAL ENGINEER.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REDESIGN OF THE STRUCTURAL SUPPORTS OF EQUIPMENT WHEN THE OPERATING WEIGHT OF THE EQUIPMENT PROVIDED (INCLUDING CURBS AND ACCESSORIES) EXCEEDS THE MAXIMUM DESIGN WEIGHTS NOTED ON THE STRUCTURAL DRAWINGS. SUBMIT STRUCTURAL CALCULATIONS AND DETAILS FOR THE REVISED EQUIPMENT SUPPORT TO THE PROJECT ARCHITECT FOR REVIEW. THE SUBMITTAL SHALL BE STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROJECT JURISDICTION.
3. IF ACTUAL FIELD CONDITIONS VARY FROM WHAT IS SHOWN OR ASSUMED IN THE CONTRACT DOCUMENTS, THE CONTACTOR IS REQUIRED TO PROMPTLY NOTIFY THE ARCHITECT/ENGINEER AND RECEIVE DIRECTION PRIOR TO PROCEEDING WITH THE WORK AFFECTED BY THE ACTUAL FIELD CONDITION.
4. THE CONTRACTOR SHALL NOTIFY THE PROJECT SPECIAL INSPECTOR IN ADVANCE OF WORK REQUIRING INSPECTIONS OR ON-SITE PERSONNEL. COORDINATE ADVANCE NOTIFICATION REQUIREMENTS WITH THE SPECIAL INSPECTOR.
5. IF THE CONTRACTOR ANTICIPATES A PROBLEM THAT WILL REQUIRE ASSISTANCE FROM THE PROJECT STRUCTURAL ENGINEER, THE CONTRACTOR SHALL MAKE EVERY EFFORT TO PROVIDE THE ENGINEER WITH MINIMUM 24 HOURS NOTICE.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION IS ACCORDING TO THE SIGNED AND SEALED CONSTRUCTION DOCUMENTS AND THE REVIEWED SHOP DRAWINGS.
7. THE CONTRACTOR SHALL ENGAGE A PROFESSIONAL ENGINEER REGISTERED IN THE PROJECT JURISDICTION TO DESIGN AND DETAIL THE SUBMITTAL ITEMS NOTED IN THE DEFERRED SUBMITTALS BELOW.
8. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING BETWEEN THE STRUCTURAL AND ARCHITECTURAL DRAWINGS. IT IS NOT INTENDED THAT THE STRUCTURAL DRAWINGS BE USED INDEPENDENTLY OF THE ARCHITECTURAL DRAWINGS. ANY DISCREPANCIES, INCLUDING DIMENSIONS, SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER BEFORE PROCEEDING WITH THE WORK.
9. THE CONTRACTOR IS RESPONSIBLE FOR METHODS TO ENSURE CONSTRUCTION SAFETY AT THE SITE THROUGHOUT THE COURSE OF THE PROJECT CONSTRUCTION. SEE O.S.H.A. & M.O.S.H. REGULATIONS FOR CONSTRUCTION.
10. UPON STRUCTURAL COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING THE SPECIAL INSPECTOR SUBMIT A LETTER OF CERTIFICATION INDICATING THAT THE STRUCTURE IS IN COMPLIANCE WITH THE PLANS, SPECIFICATIONS, CONCRETE TEST REPORTS AND CODE REQUIREMENTS. THIS LETTER MUST BE REVIEWED BY THE ARCHITECT AND ENGINEER OF RECORD BEFORE SUBMITTAL.

SUBMITTALS NOTES

1. SUBMIT THE SHOP DRAWINGS NOTED BELOW TO THE DESIGN TEAM FOR REVIEW.
2. REPRODUCTION OF ANY PORTION OF THE STRUCTURAL CONSTRUCTION DOCUMENTS FOR USE AS SHOP DRAWINGS IS PROHIBITED.

SUBMITTALS:
A. CONCRETE MIX DESIGN BY EITHER TRIAL BATCH OR FIELD EXPERIENCE METHODS. (EACH SUBMITTED MIX MUST IDENTIFY ITS INTENDED USE)
B. CONCRETE REINFORCING
C. STRUCTURAL STEEL
D. ANY OPENINGS IN NEW AND EXISTING STRUCTURAL ELEMENTS NEED TO BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD FOR APPROVAL.



a = 16 ft.

WIND COMPONENT & CLADDING LOAD SCHEDULE							
	POSITIVE PRESSURE		NEGATIVE PRESSURE				
AREA (SQ. FT.)	ZONE 4 (PSF)	ZONE 5 (PSF)	ZONE 1 (PSF)	ZONE 2	ZONE 3	ZONE 4	ZONE 5
10	25.94	25.94	-41.31	-54.5	-74.23	-28.12	-34.77
20	24.74	24.74	-38.59	-51.01	-67.25	-26.92	-32.37
50	23.22	23.22	-34.99	-46.33	-57.99	-25.40	-29.31
100	22.02	22.02	-32.26	-42.84	-50.01	-24.20	-26.92

NOTES:
1. POSITIVE AND NEGATIVE SIGNS ON VALUES IN SCHEDULE INDICATE PRESSURES ACTING TOWARD AND AWAY FROM THE SURFACE, RESPECTIVELY.
2. ZONES 1, 2, AND 3 ARE FOR ROOFS. ZONES 4 AND 5 ARE FOR WALLS. SEE DIAGRAM ABOVE FOR IDENTIFYING EXTENTS OF WIND PRESSURE ZONES.
3. VALUES GIVEN ARE FOR 700 YEAR MRI (MEAN RECURRENCE INTERVAL) AS REQUIRED FOR STRENGTH CALCULATIONS. ALTERNATE DESIGN VALUES MAY BE USED PROVIDED SUPPORTING CALCULATIONS, SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE PROJECT'S JURISDICTION, ARE SUBMITTED FOR REVIEW.

SPECIAL INSPECTIONS

SPECIAL INSPECTIONS ARE REQUIRED DURING CONSTRUCTION IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE. THE TERM SPECIAL INSPECTOR REFERS TO THE SPECIAL INSPECTING ENGINEER OF RECORD HIRED BY THE OWNER IN COMPLIANCE WITH THE INTERNATIONAL BUILDING CODE. INSPECTIONS OF FOUNDATION SUBGRADES MUST BE CONDUCTED BY A LICENSED GEOTECHNICAL ENGINEER, REFERRED TO HEREIN AS THE GEOTECHNICAL INSPECTOR. SPECIAL INSPECTIONS SHALL BE PERFORMED FOR, BUT NOT LIMITED TO, THE FOLLOWING STRUCTURAL ITEMS:

1. FOUNDATION REINFORCING
2. CONCRETE FORMWORK AND REINFORCING
3. CONCRETE MIX AND PLACEMENT
4. STRUCTURAL STEEL ERECTION
5. POST-INSTALLED ANCHORS

FOUNDATION

ASSUMED SOIL BEARING VALUE:

2,500 POUNDS PER SQUARE FOOT FOR COLUMN AND WALL FOOTINGS.

EXISTING CONDITIONS

ALL EXISTING CONDITIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BEFORE EXCAVATION, DEMOLITION, OR CONSTRUCTION IS BEGUN. EXISTING UTILITIES SHALL BE LOCATED AND PROTECTED AS REQUIRED BY THE EXCAVATION, DEMOLITION, OR CONSTRUCTION. FIELD MEASUREMENTS SHALL BE MADE OF ADJOINING CONSTRUCTION RELATIVE TO THE PROPER INSTALLATION OF NEW WORK. ALL DISCREPANCIES SHALL BE REPORTED TO THE PROJECT ARCHITECT AND STRUCTURAL ENGINEER PRIOR TO PROCEEDING WITH THE WORK IN THE AREA OF THE DISCREPANCY.

FIELD VERIFY ALL RELEVANT EXISTING DIMENSIONS, ELEVATIONS, AND MEMBER SIZES.

SHORING OF BUILDING STRUCTURAL MEMBERS IF REQUIRED DURING DEMOLISH OF PUSH WALL

SHORING OF STRUCTURAL ELEMENTS SHALL BE PROVIDED AS REQUIRED TO PROTECT EXISTING CONSTRUCTION . THE SHORING DESIGN SHALL BE AS REQUIRED BY THE CONSTRUCTION. SUBMIT SHOP DRAWINGS SHOWING ACTUAL SEQUENCE AND DETAILS OF THE SHORING PROCEDURE, AS WELL AS CALCULATIONS INDICATING THAT THE EXISTING BUILDING LOADS AND CONSTRUCTION LOADS HAVE BEEN ACCOMMODATED IN THE SHORING DESIGN. SEE THE "CONTRACTOR RESPONSIBILITIES" AND "SUBMITTAL" NOTES ABOVE FOR ADDITIONAL REQUIREMENTS.

THE CONTRACTOR SHALL VERIFY THE CONDITION OF THE EXISTING STRUCTURE IN THE AREA OF THE PROPOSED SHORING. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF THE DESIGN AND REPAIR OF EXISTING STRUCTURES AND/OR FINISHES DAMAGED DURING SHORING OPERATIONS.

BOARD FOR PROFESSIONAL ENGINEERS 19939 CRAIG E. JOHNSON STATE OF MARYLAND
01/08/2025

I HEREBY CERTIFY THAT THESE DOCUMENTS ARE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO 19939, EXPIRATION DATE: 02/05/2025

ADTEK
CIVIL, STRUCTURAL, & SPECIALTY ENGINEERING
150 South East Street, Suite 201
Frederick, Maryland 21701
Phone: 301-662-4408 Fax: 301-662-7484
www.adtekengineers.com

CONSTRUCTION DRAWINGS

REV	DATE	DESCRIPTION	DRN	APP

Geosyntec consultants
10211 WINCOPIN CIRCLE, FLOOR 4
COLUMBIA, MARYLAND 21044 USA
TELEPHONE: 410.381.4333

TITLE: STRUCTURAL NOTES

PROJECT: TRANSFER STATION RETROFIT

SITE: FREDERICK COUNTY UTILITIES AND SOLID WASTE
FREDERICK, MARYLAND

SIGNATURE
DATE

DESIGN BY:	CEJ	DATE:	01/08/25
DRAWN BY:	JAC	PROJECT NO.:	ME2602
CHECKED BY:	CEJ	FILE:	
REVIEWED BY:		DRAWING NO.:	8 OF 12
APPROVED BY:			

STRUCTURAL CONCRETE

REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60. ALL WELDED WIRE REINFORCING SHALL CONFORM TO ASTM A1064. DETAILING SHALL BE IN ACCORDANCE WITH ACI MANUAL 315 AND STANDARD 318.

CONCRETE SHALL BE NORMAL WEIGHT. WITH A 28 DAY COMPRESSIVE STRENGTH = 4,500 PSI WITH 0.45 WATER/CEMENT RATIO AND 6% ± 1.5 AIR ENTRAINMENT.

MAXIMUM AGGREGATE SIZE FOR CONCRETE SHALL BE IN ACCORDANCE WITH THE MAXIMUM AGGREGATE SIZES IN ACI 318 AND AS FOLLOWS:

CONCRETE PIERS, WALLS	3/4"
CONCRETE SLABS ON GRADE	3/4"

ALL EXTERIOR CONCRETE AND CONCRETE EXPOSED TO WEATHER SHALL BE AIR-ENTRAINED.

CONCRETE SLUMP: 3" +/- 1"
8" AFTER ADDITION OF HRWR AT THE SITE

THE USE OF ADDITIVES SHALL NOT BE PERMITTED UNLESS SPECIFICALLY APPROVED BY THE STRUCTURAL ENGINEER OR NOTED IN THE PROJECT SPECIFICATIONS. THE USE OF ADDITIVES CONTAINING CALCIUM CHLORIDE SHALL NOT BE PERMITTED.

PROVIDE A HIGH RANGE WATER REDUCER (HRWR OR SUPERPLASTICIZER) FOR PUMPED CONCRETE AND AS REQUIRED FOR WORKABILITY.

ALL REINFORCING STEEL MARKED "CONTINUOUS" SHALL BE LAPPED AS REQUIRED WITH CLASS B TENSION SPLICES PER ACI 315. PROVIDE CLASS B TENSION SPLICES AT WALL CORNERS AND INTERSECTIONS WITH STANDARD 90 DEGREE BENT CORNER BARS, INCLUDING CORNERS OF WALL FOOTINGS AND BOND BEAMS. LAP WELDED WIRE REINFORCING ONE FULL SQUARE AT SIDE AND END LAPS. PROVIDE CORNER LAP BARS AT ALL LONGITUDINAL FOOTING REINFORCING AS WELL AS AT ALL HORIZONTAL WALL REINFORCING.

PROVIDE CONCRETE PROTECTION FOR REINFORCING AS FOLLOWS (UNLESS NOTED OTHERWISE):

PIERS: 1-1/2" TO THE TIES

ALL CONCRETE WORK, REINFORCING PLACEMENT FORMWORK SHALL BE INSPECTED UNDER THE SUPERVISION OF THE SPECIAL INSPECTOR. CONCRETE QUALITY CONTROL, INSPECTION AND TESTING SHALL BE IN STRICT ACCORDANCE WITH THE PROJECT SPECIFICATIONS, ACI 301 AND THE LOCAL BUILDING CODE REQUIREMENTS.

CONSTRUCTION PRACTICES:

FORMWORK DESIGN, SHORING, AND BRACING SHALL BE ACCORDING TO ACI 301.
FORMWORK TOLERANCES SHALL BE PER ACI 117.

THE SPECIAL INSPECTOR SHALL PERFORM A MINIMUM OF ONE CONCRETE TEST FOR EACH 50 CUBIC YARDS OF CONCRETE POURED AT THE PROJECT WITH AT LEAST ONE TEST FOR EACH DAY THAT CONCRETE IS POURED. EACH CONCRETE TEST SHALL INCLUDE A SLUMP TEST AND FIVE LABORATORY CURED TEST CYLINDERS FOR COMPRESSIVE STRENGTH TESTS. TEST TWO CYLINDERS AT 7 DAYS AFTER THE CONCRETE POUR AND TWO AT 28 DAYS WITH ONE RESERVE CYLINDER. THE SPECIAL INSPECTOR SHALL SUBMIT WRITTEN TEST REPORTS TO THE PROJECT ARCHITECT AND STRUCTURAL ENGINEER. THE ARCHITECT AND STRUCTURAL ENGINEER SHALL BE NOTIFIED OF ALL TESTS THAT DO NOT MEET THE PROJECT SPECIFICATIONS WITHIN 24 HOURS.

STRUCTURAL STEEL

ALL STEEL SHALL BE IN ACCORDANCE WITH THE SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, AISC 360, BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC).

ALL STEEL W SHAPES SHALL BE ASTM A992, GRADE 50. ALL ANGLES, CHANNELS, BENT PLATES, FLAT STOCK AND OTHER MISC. METAL SHAPES SHALL BE ASTM A36 UNLESS NOTED OTHERWISE. ALL CONNECTIONS SHALL BE WELDED OR BOLTED.

HOLLOW STRUCTURAL SECTIONS (HSS) SHALL CONFORM TO ASTM A500, GRADE C.

ANCHOR BOLTS SHALL CONFORM TO ASTM F1554, GRADE 36.

SHOP AND FIELD FASTENERS SHALL BE ASTM A325 HIGH STRENGTH BOLTS IN BEARING TYPE CONNECTIONS, UNLESS NOTED OTHERWISE.

NATURAL CAMBER OF STEEL BEAMS TO BE FABRICATED WITH CAMBER "UP". ANY ADDITIONAL CAMBER TO BE FABRICATED WITH CAMBER "UP". ERECTION OF ALL BEAMS TO BE CAMBER "UP".

HOLES SHALL NOT BE CUT THROUGH BEAMS AND COLUMNS UNLESS INDICATED OR APPROVED BY THE STRUCTURAL ENGINEER.

WELDING SHALL BE DONE ONLY BY AWS CERTIFIED WELDERS. WELD IN ACCORDANCE WITH THE AWS "STANDARD CODE" FOR ARC AND GAS WELDING IN BUILDING CONSTRUCTION. USE E70XX ELECTRODES.

PROVIDE ADEQUATE BRACING AND GUY-WIRING FOR STEEL MEMBERS DURING STEEL ERECTION PRIOR TO FLOOR AND ROOF CONSTRUCTION. THE STEEL FRAME SHALL BE PLUMB WITHIN THE TOLERANCES IN THE AISC AND PROJECT SPECIFICATIONS. STEEL COLUMNS HAVE NOT BEEN DESIGNED AS SELF SUPPORTING, AND MUST BE ADEQUATELY BRACED DURING ERECTION.

SEE THE "CONTRACTOR RESPONSIBILITES" AND "SUBMITTAL" NOTES FOR ADDITIONAL STEEL SHOP DRAWING REQUIREMENTS.

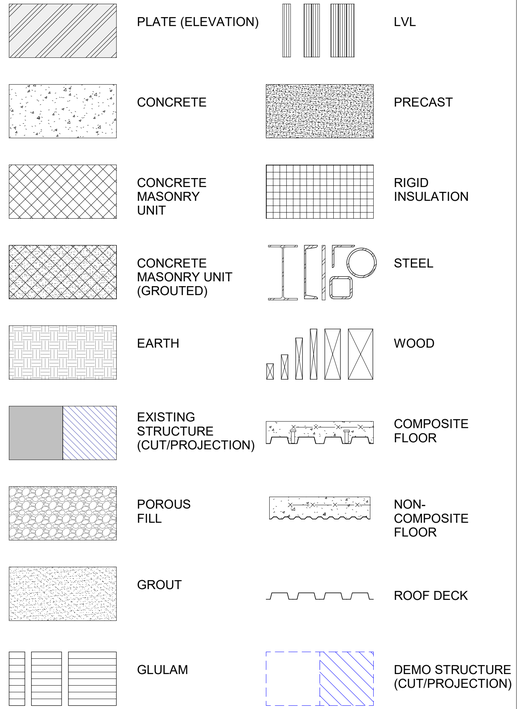
STRUCTURAL STEEL EXPOSED TO WEATHER:

ALL EXPOSED STEEL SHALL BE HOT DIPPED GALVANIZED PER ASTM A123 AFTER FABRICATION. APPLY ZINC PRIMER TO BOLTED AND WELDED CONNECTIONS IN THE FIELD.

STRUCTURAL ABBREVIATIONS

&	AND
@	AT
°	DEGREE
Ø	DIAMETER
=	EQUAL
#	NUMBER/POUNDS
±	PLUS OR MINUS
A	
AB	ANCHOR BOLT
ARCH.	ARCHITECT, ARCHITECTURAL
ACI	AMERICAN CONCRETE INSTITUTE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
AISI	AMERICAN IRON AND STEEL INSTITUTE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWS	AMERICAN WELDING SOCIETY
B	
BCX	BOTTOM CHORD EXTENSION
BEW	BOTTOM EACH WAY
B.F.	BRACED FRAME
BM	BEAM
BOTT	BOTTOM
B.O.	BOTTOM OF
B.PL, BP	BEARING PLATE / BASE PLATE
BRG	BEARING
BTWN	BETWEEN
C	
CJ	CONTROL JOINT / CONSTRUCTION JOINT
CL	CENTERLINE
CFS	COLD FORMED STEEL
CIP	CAST IN PLACE
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONSTR	CONSTRUCTION
CONT	CONTINUOUS
CRSI	CONCRETE REINFORCING STEEL INSTITUTE
CVR	COVER
D	
DEFL	DEFLECTION
DIA	DIAMETER
DN	DOWN
DWG, DWGs	DRAWING / DRAWINGS
E	
EA	EACH
EE	EACH END
EF	EACH FACE
EJ	EXPANSION JOINT
ELEC	ELECTRICAL
ELEV, EL	ELEVATION
EMBED	EMBEDMENT / EMBEDDED
ENGR	ENGINEER
EOD	EDGE OF DECK
EOJ	EDGE OF JOIST
EOS	EDGE OF SLAB
EQ	EQUAL
ETC	ETCETERA
EW	EACH WAY
EX, EXIST, (E)	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
F	
FAB	FABRICATOR
FDN, FOUND	FOUNDATION
FFE	FINISHED FLOOR ELEVATION
FIN	FINISHED
FLR	FLOOR
FOW	FACE OF WALL
FT	FEET / FOOT
FTG	FOOTING
G	
GA	GAGE
GALV	GALVANIZED
H	
HORIZ	HORIZONTAL
HSS	HOLLOW STRUCTURAL SECTION
H.J.R.	HORIZONTAL JOINT REINFORCEMENT
I	
IF	INSIDE FACE
IN	INCH
INT.	INTERIOR
J	
J.B.E.	JOIST BEARING ELEVATION
JST	JOIST
JT	JOINT
K	
k, K	KIP
L	
LB	POUND
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LT	LIGHT
M	
MAX	MAXIMUM
MC	MOMENT CONNECTION
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MO	MASONRY OPENING
MTL	METAL
N	
(N)	NEW
NO.	NUMBER
NCMA	NATIONAL CONCRETE AND MASONRY ASSOCIATION
O	
O.C.	ON CENTER
OF	OUTSIDE FACE
OH	OPPOSITE HAND
OPP	OPPOSITE
OSHA	OCCUPATIONAL SAFETY HEALTH ADMINISTRATION
P	
PAF	POWDER ACTUATED FASTENER
PL	PLATE
PLUMB	PLUMBING
PLWD	PLYWOOD
P/C	PRECAST
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
R	
REINF.	REINFORCED / REINFORCING
REQ'D	REQUIRED
RO	ROUGH OPENING
RTU	ROOF TOP UNIT
S	
SCHED, SCH'D	SCHEDULE
SIM	SIMILAR
SJI	STEEL JOIST INSTITUTE
S.O.G., SOG	SLAB ON GRADE
STD	STANDARD
STL	STEEL
SW	SHEAR WALL
T	
TCX	TOP CHORD EXTENSION
T.O.	TOP OF
T.O.STL	TOP OF STEEL
T.O.S.	TOP OF SLAB ELEVATION
T.O.W.	TOP OF WALL
TYP.	TYPICAL
U	
U.N.O.	UNLESS NOTED OTHERWISE
V	
VERT.	VERTICAL
V.I.F.	VERIFY IN FIELD
W	
w/	WITH
w/IN	WITHIN
w/OUT	WITHOUT
WMC	WIND MOMENT CONNECTION
WT	WEIGHT
WWR	WELDED WIRE REINFORCEMENT
X	
x, X	BY

SYMBOL LEGEND



CRAIG E. JOHNSON
19939
STATE OF MARYLAND
PROFESSIONAL ENGINEER
01/08/2025

I HEREBY CERTIFY THAT THESE DOCUMENTS ARE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO 19939, EXPIRATION DATE: 02/05/2025

ADTEK
CIVIL, STRUCTURAL, & SPECIALTY ENGINEERING
150 South East Street, Suite 201
Frederick, Maryland 21701
Phone: 301-662-4408 Fax: 301-662-7484
www.adtekengineers.com

CONSTRUCTION DRAWINGS

REV	DATE	DESCRIPTION	DRN	APP

Geosyntec consultants
10211 WINCOPIN CIRCLE, FLOOR 4
COLUMBIA, MARYLAND 21044 USA
TELEPHONE: 410.381.4333

TITLE: STRUCTURAL NOTES

PROJECT: TRANSFER STATION RETROFIT

SITE: FREDERICK COUNTY UTILITIES AND SOLID WASTE
FREDERICK, MARYLAND

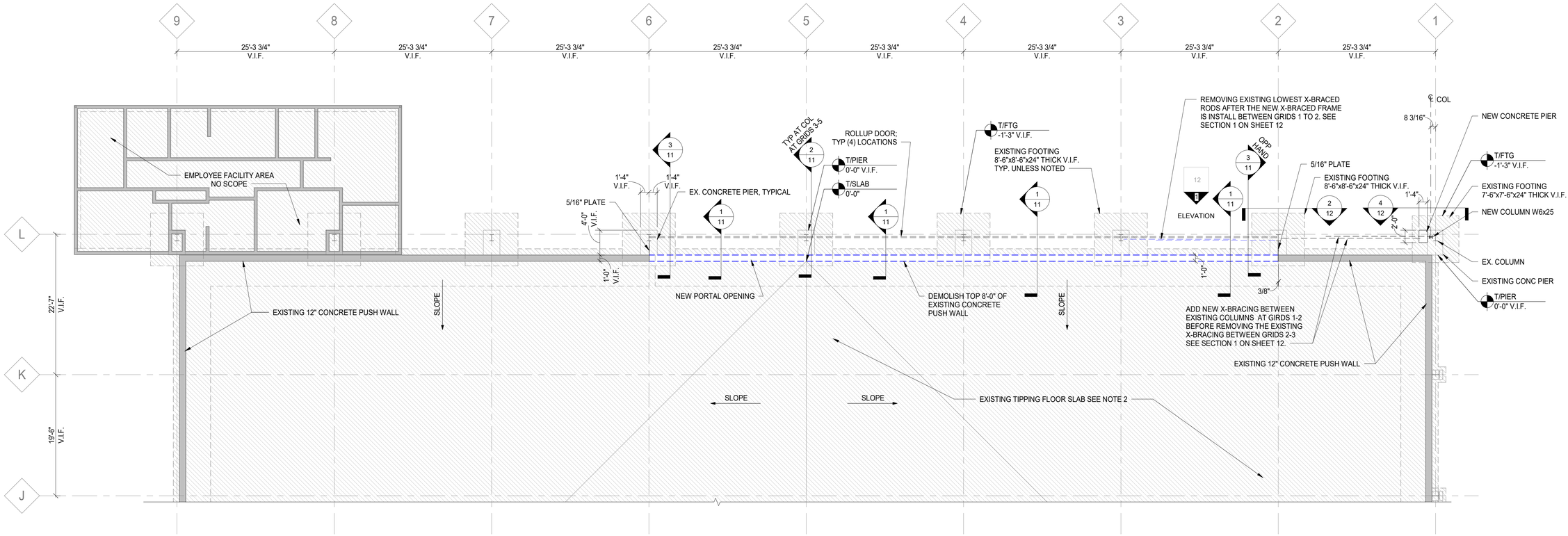
SIGNATURE

DATE

DESIGN BY:	CEJ	DATE:	01/08/25
DRAWN BY:	JAC	PROJECT NO.:	ME2602
CHECKED BY:	CEJ	FILE:	
REVIEWED BY:		DRAWING NO.:	9 OF 12
APPROVED BY:			

1/8/2025 3:52:32 PM

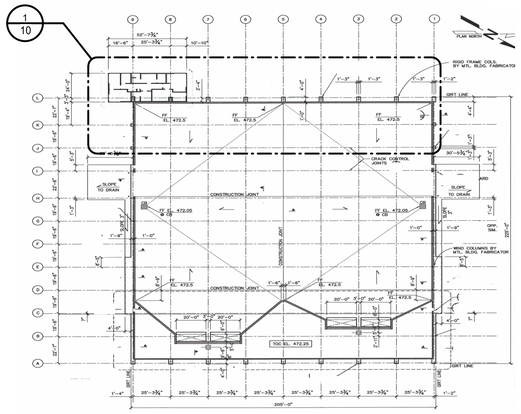
C:\Users\jchaparro\Documents\22_2401.0043 Frederick County Transfer Station_JACMD08.rvt



1 / 10 PARTIAL FOUNDATION PLAN
SCALE: 1/8" = 1'-0"

FOUNDATION PLAN NOTES

1. SEE SHEETS 8 THRU 9 FOR STRUCTURAL NOTES AND SHEETS 11 THRU 12 FOR TYPICAL DETAILS. THE TYPICAL DETAILS APPLY WHEREVER THE CONDITION EXISTS UNLESS DETAILED OTHERWISE.
2. EXISTING 9" CONCRETE SLAB ON GRADE WITH #5 AT 12" O.C. TOP AND BOTTOM WITH 3" CONCRETE TOPPING SLAB. SEE THE PLAN FOR THE TOP OF SLAB ELEVATION. ELEVATION 0'-0" CORRESPONDS TO AN APPROXIMATE ELEVATION OF 472.25' V.I.F. AT HIGH POINT. COORDINATE FINAL ELEVATION WITH SITE/CIVIL DRAWINGS.
3. SEE THE PLAN FOR TOP OF WALL FOOTING AND COLUMN FOOTING ELEVATIONS. THE TOP OF FOOTING ELEVATIONS ARE REFERENCED FROM ELEVATION 0'-0". FOOTING ELEVATIONS ARE FOR BIDDING PURPOSES ONLY AND MAY HAVE TO BE ADJUSTED BASED ON FIELD CONDITIONS ENCOUNTERED DURING EXCAVATION.
4. THE TOP OF PIER ELEVATION SHALL BE AT 0'-0" TOP OF FLOOR SLAB UNLESS NOTED OTHERWISE.
5. ALL COLUMNS, PIERS, AND COLUMN FOOTINGS SHALL BE CENTERED ON GRID LINES UNLESS NOTED OTHERWISE.
6. REFER TO THE GEOSYNTEC DRAWINGS FOR DIMENSIONS NOT SHOWN.



2 / 10 KEY PLAN
SCALE: 3/4" = 1'-0"

I HEREBY CERTIFY THAT THESE DOCUMENTS ARE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO 19939, EXPIRATION DATE: 02/05/2025

01/08/2025

ADTEK
CIVIL, STRUCTURAL, & SPECIALTY ENGINEERING
150 South East Street, Suite 201
Frederick, Maryland 21701
Phone: 301-662-4408 Fax: 301-662-7484
www.adtekengineers.com

CONSTRUCTION DRAWINGS

REV	DATE	DESCRIPTION	DRN	APP

Geosyntec consultants
10211 WINCOPIN CIRCLE, FLOOR 4
COLUMBIA, MARYLAND 21044 USA
TELEPHONE: 410.381.4333

TITLE: PARTIAL FOUNDATION PLAN

PROJECT: TRANSFER STATION RETROFIT

SITE: FREDERICK COUNTY UTILITIES AND SOLID WASTE
FREDERICK, MARYLAND

SIGNATURE

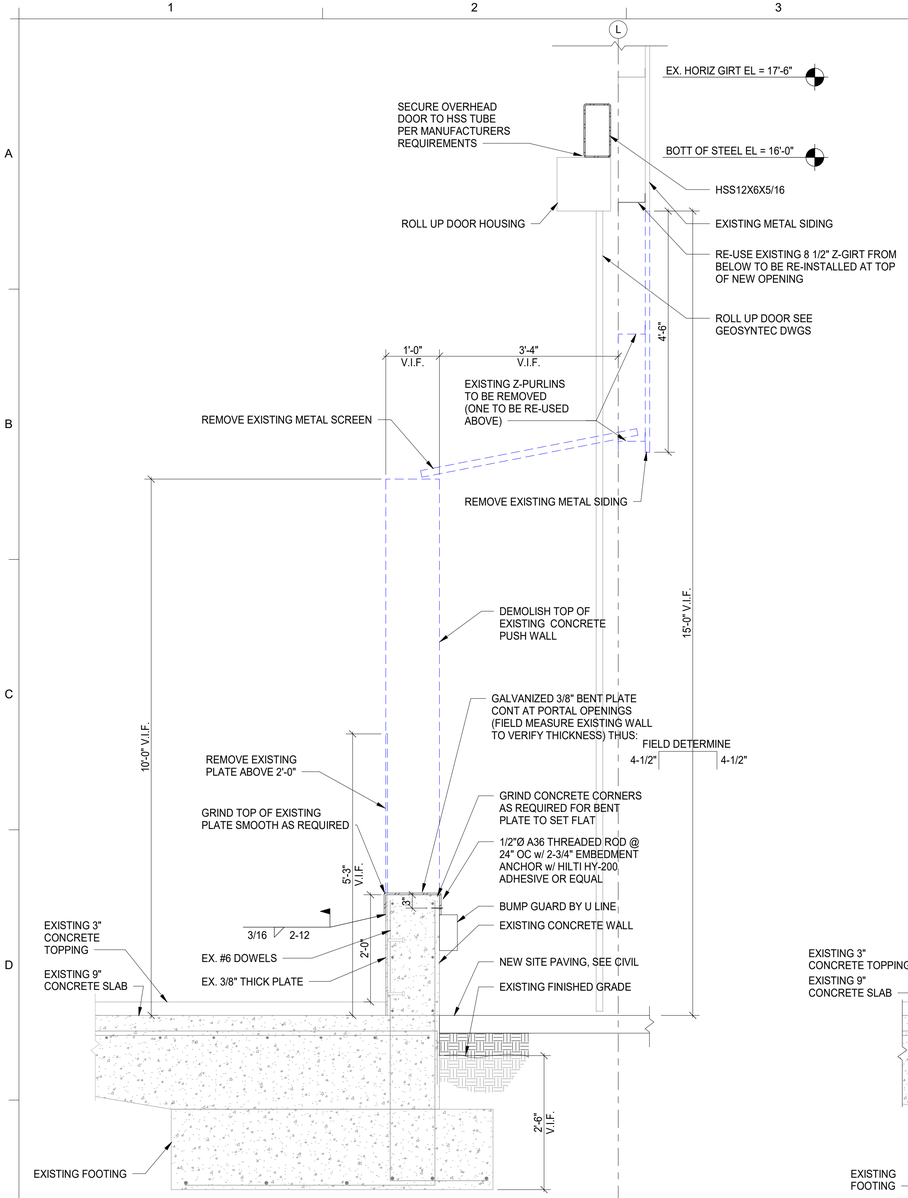
DATE

THE ACCOMPANYING ELECTRONIC FILES ARE IN NO WAY TO BE TAKEN AS A REPLACEMENT OF COPIES OF THE OFFICIALLY SEALED DOCUMENTS. THE INFORMATION IS SUPPLIED "AS IS" AND ANY PERSON(S) OR ORGANIZATION(S) MAKING USE OF OR RELYING UPON THIS DATA IS RESPONSIBLE FOR CONFIRMING ITS ACCURACY AND COMPLETENESS. THESE FILES ARE NOT STAMPED OR SEALED AND ONLY DRAWINGS WITH APPROPRIATE STAMP OR SEAL ARE TO BE CONSIDERED AS FINAL. NO SEALED DOCUMENTS

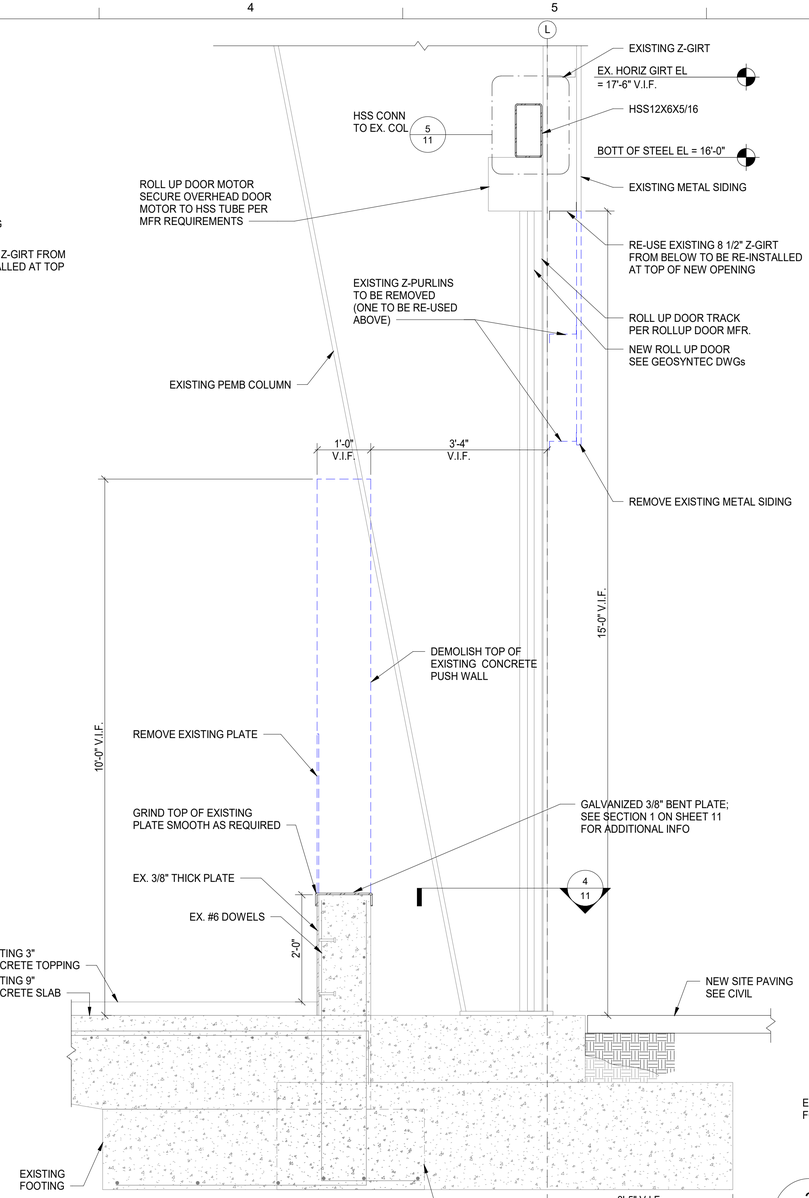
DESIGN BY:	CEJ	DATE:	01/08/25
DRAWN BY:	JAC	PROJECT NO.:	ME2602
CHECKED BY:	CEJ	FILE:	
REVIEWED BY:		DRAWING NO.:	10 OF 12
APPROVED BY:			

1/8/2025 3:52:33 PM

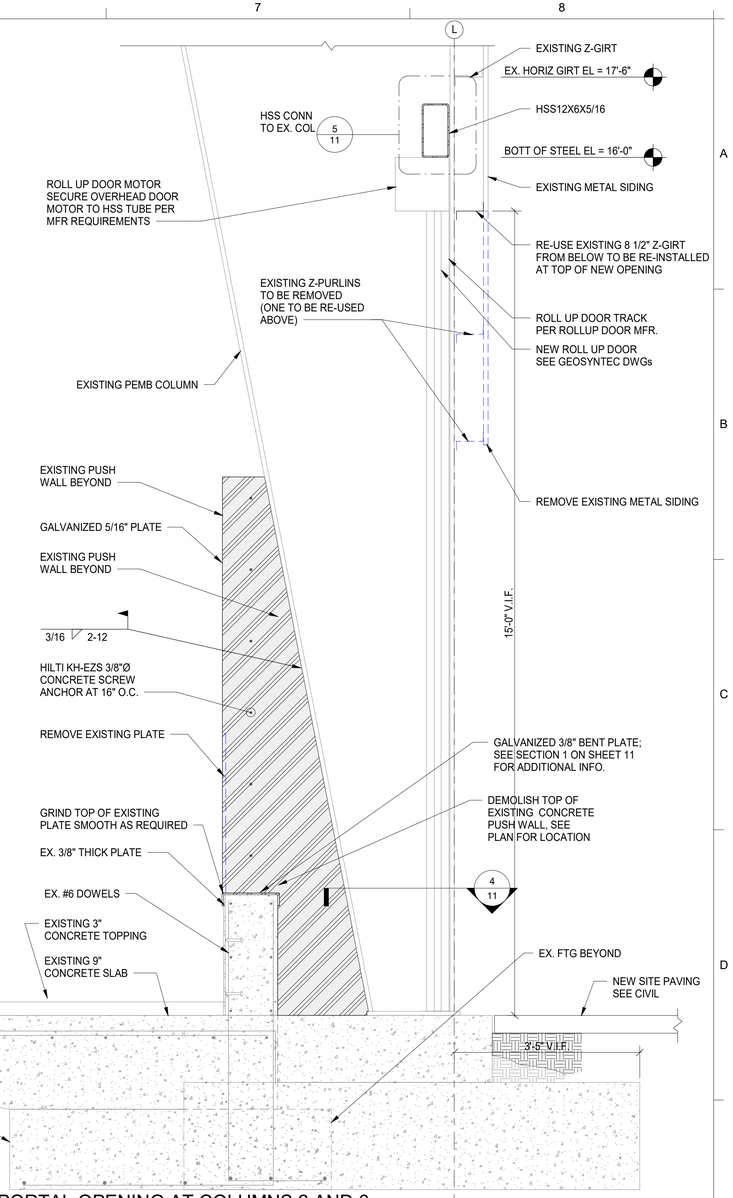
C:\Users\jchaparro\Documents\22_2401.0043 Frederick County Transfer Station_JACMD08.rvt



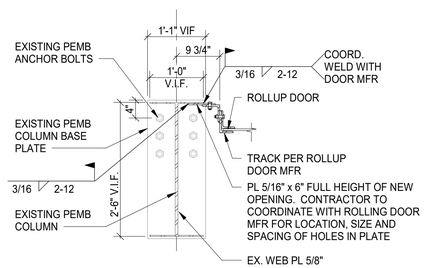
1 / 11 PUSH WALL AT NEW PORTAL BETWEEN COLUMNS
SCALE: 3/4" = 1'-0"



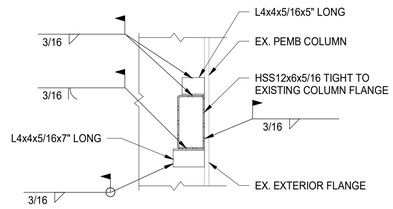
2 / 11 NEW PORTAL OPENING AT COLUMNS 3, 4 & 5
SCALE: 3/4" = 1'-0"



3 / 11 NEW PORTAL OPENING AT COLUMNS 2 AND 6
SCALE: 3/4" = 1'-0"



4 / 11 ROLLING DOOR TRACK - PLAN DETAIL
SCALE: 3/4" = 1'-0"



5 / 11 CONN OF NEW TUBE TO EXISTING PEMBCOLUMN
SCALE: 3/4" = 1'-0"

REV	DATE	DESCRIPTION	DRN	APP

Geosyntec consultants
10211 WINCOPIN CIRCLE, FLOOR 4
COLUMBIA, MARYLAND 21044 USA
TELEPHONE: 410.381.4333

TITLE: SECTIONS

PROJECT: TRANSFER STATION RETROFIT

SITE: FREDERICK COUNTY UTILITIES AND SOLID WASTE
FREDERICK, MARYLAND

BOARD FOR PROFESSIONAL ENGINEERS
19939
CHRIS E. JOHNSON
STATE OF MARYLAND
01/08/2025

I HEREBY CERTIFY THAT THESE DOCUMENTS ARE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO 19939, EXPIRATION DATE: 02/05/2025

ADTEK
CIVIL, STRUCTURAL, & SPECIALTY ENGINEERING
150 South East Street, Suite 201
Frederick, Maryland 21701
Phone: 301-662-4408 Fax: 301-662-7484
www.adtekengineers.com

CONSTRUCTION DRAWINGS

SIGNATURE

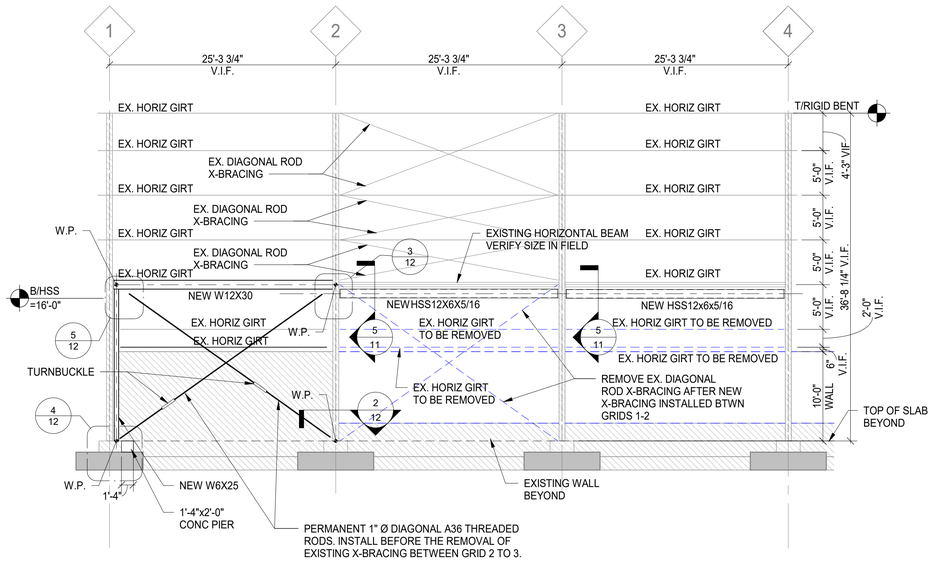
DATE

THE ACCOMPANYING ELECTRONIC FILES ARE IN NO WAY TO BE TAKEN AS A REPLACEMENT OF COPIES OF THE OFFICIALLY SEALED DOCUMENTS. THE INFORMATION IS SUPPLIED "AS IS" AND ANY PERSON(S) OR ORGANIZATION(S) MAKING USE OF OR RELYING UPON THIS DATA IS RESPONSIBLE FOR CONFIRMING ITS ACCURACY AND COMPLETENESS. THESE FILES ARE NOT STAMPED OR SEALED AND ONLY DRAWINGS WITH APPROPRIATE STAMP OR SEAL ARE TO BE CONSIDERED AS FINAL AND SEALED DOCUMENTS

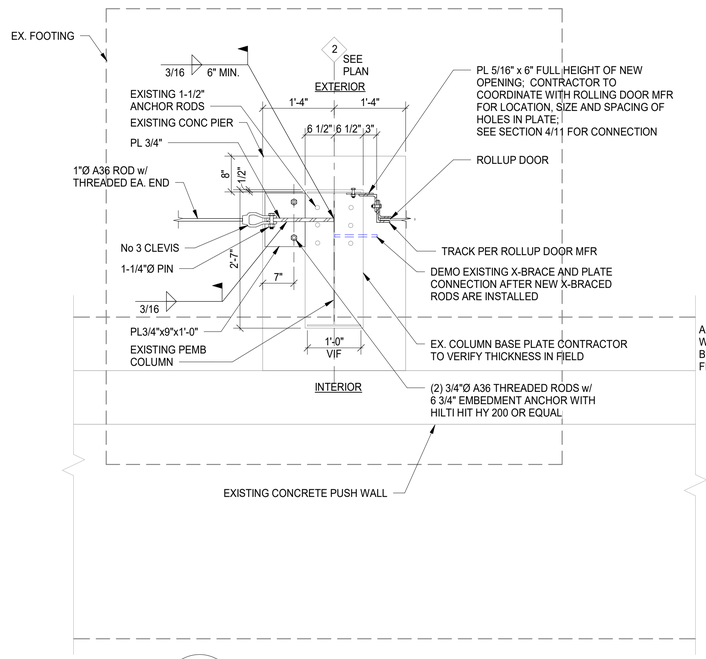
DESIGN BY:	CEJ
DRAWN BY:	JAC
CHECKED BY:	CEJ
REVIEWED BY:	
APPROVED BY:	
DATE:	01/08/25
PROJECT NO.:	ME2602
FILE:	
DRAWING NO.:	11 OF 12

1/8/2025 3:52:33 PM

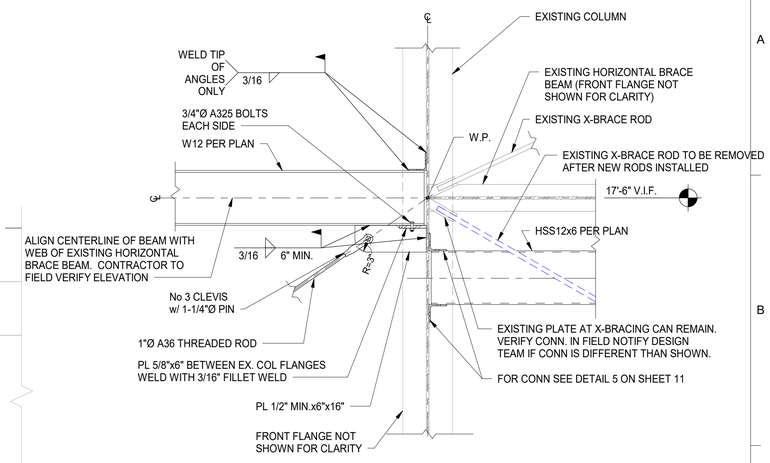
C:\Users\jchaparro\Documents\22_2401.0043 Frederick County Transfer Station_JACMD08.rvt



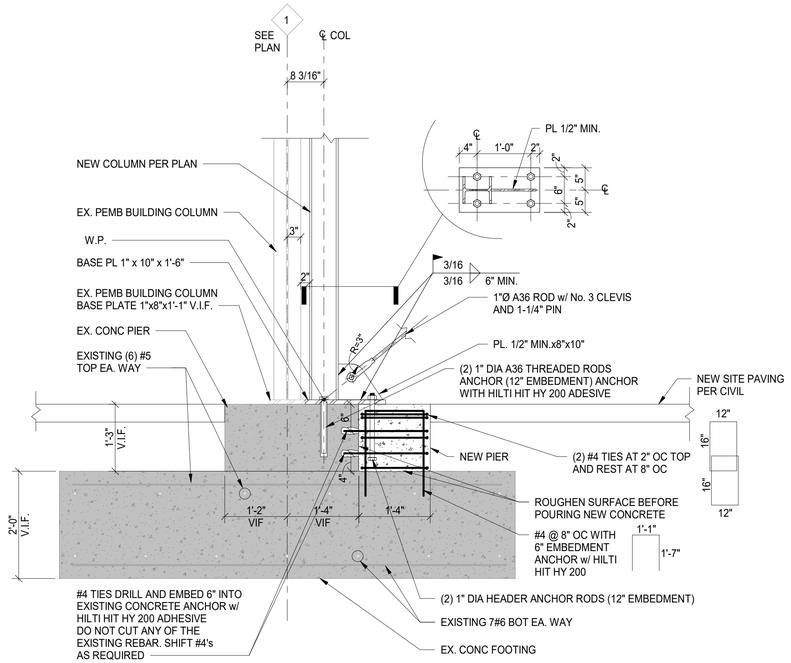
1/12 DIAGONAL ROD X-BRACED FRAME
SCALE: 1/8" = 1'-0"



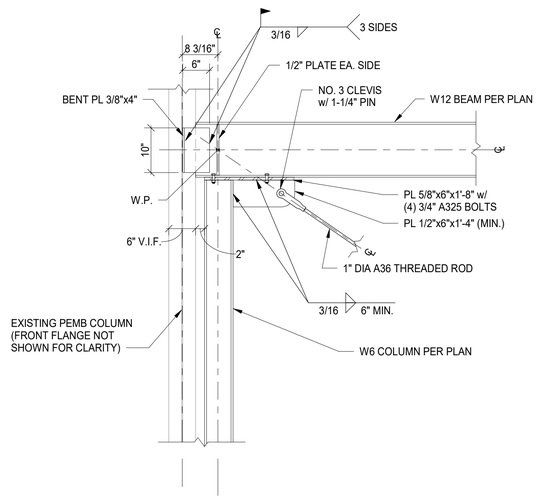
2/12 NEW COLUMN BASE DETAIL
SCALE: 3/4" = 1'-0"



3/12 BEAM/HSS CONNECTION TO EXISTING COLUMN
SCALE: 3/4" = 1'-0"



4/12 EXPANDED PIER & FOOTING AT MOMENT FRAME
SCALE: 3/4" = 1'-0"



5/12 BEAM CONNECTION TO EXISTING COLUMN
SCALE: 3/4" = 1'-0"

I HEREBY CERTIFY THAT THESE DOCUMENTS ARE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO 19939, EXPIRATION DATE: 02/05/2025

01/08/2025

ADTEK
CIVIL, STRUCTURAL, & SPECIALTY ENGINEERING
150 South East Street, Suite 201
Frederick, Maryland 21701
Phone: 301-662-4408 Fax: 301-662-7484
www.adtekengineers.com

CONSTRUCTION DRAWINGS

REV	DATE	DESCRIPTION	DRN	APP

Geosyntec consultants
10211 WINCOPIN CIRCLE, FLOOR 4
COLUMBIA, MARYLAND 21044 USA
TELEPHONE: 410.381.4333

TITLE: FRAMING SECTIONS

PROJECT: TRANSFER STATION RETROFIT

SITE: FREDERICK COUNTY UTILITIES AND SOLID WASTE
FREDERICK, MARYLAND

DESIGN BY:	CEJ	DATE:	01/08/25
DRAWN BY:	JAC	PROJECT NO.:	ME2602
CHECKED BY:	CEJ	FILE:	
REVIEWED BY:		DRAWING NO.:	12 OF 12
APPROVED BY:			

THE ACCOMPANYING ELECTRONIC FILES ARE IN NO WAY TO BE TAKEN AS A REPLACEMENT OF COPIES OF THE OFFICIALLY SEALED DOCUMENTS. THE INFORMATION IS SUPPLIED "AS IS" AND ANY PERSON(S) OR ORGANIZATION(S) MAKING USE OF OR RELYING UPON THIS DATA IS RESPONSIBLE FOR CONFIRMING ITS ACCURACY AND COMPLETENESS. THESE FILES ARE NOT STAMPED OR SEALED AND ONLY DRAWINGS WITH APPROPRIATE STAMP OR SEAL ARE TO BE CONSIDERED AS FINAL, NO SEALED DOCUMENTS

SIGNATURE

DATE