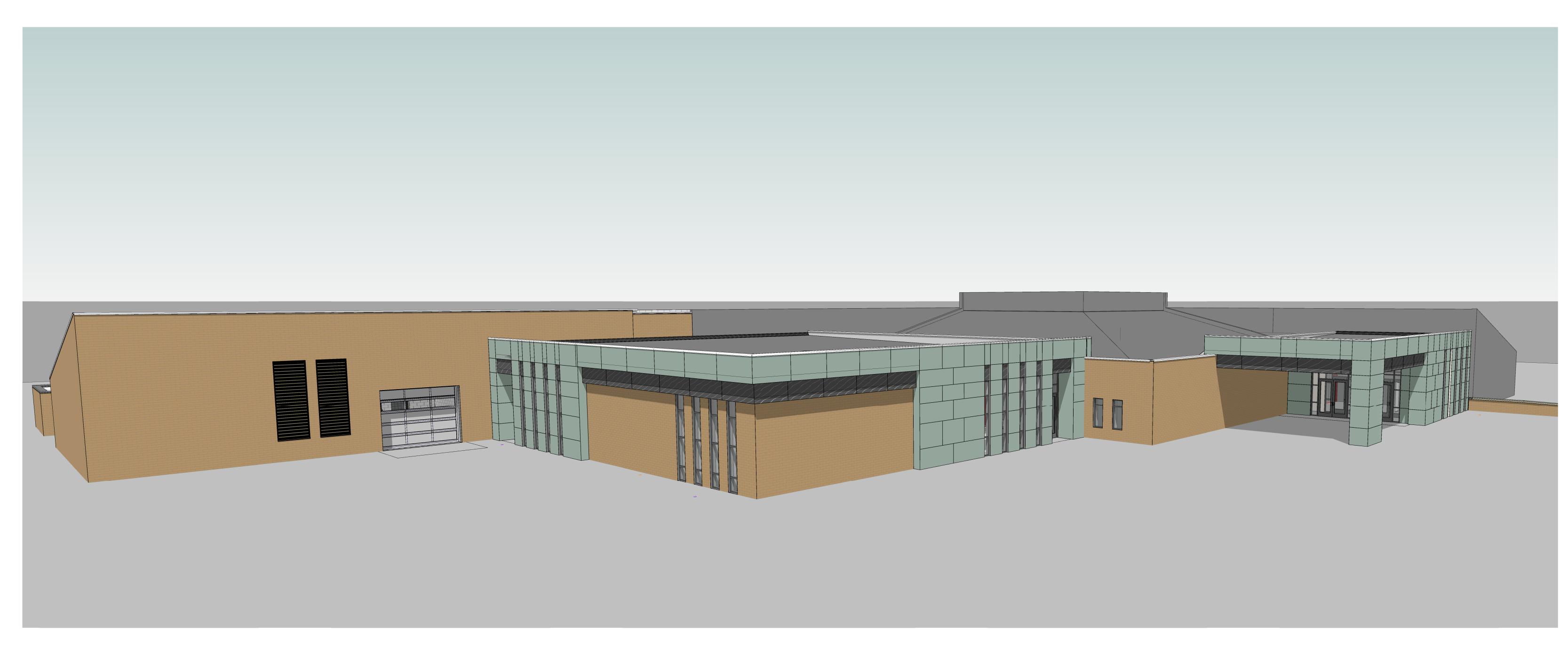
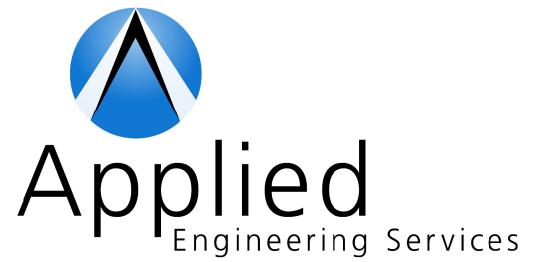
PORTER COUNTY ANNEX

3560 WILLOWCREEK RD PORTAGE, IN 46368
100% CONSTRUCTION DOCUMENTS - BP1
08.20.18









PROJECT TEAM:

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CHRISTINA COLLESTER

	EVIATIONS	0		ODIO	ODIOINAL	SHEET NUMBER	₹
A A/E	ARCHITECT/ENGINEER	G GALV	GALVANIZED	ORIG	ORIGINAL	GENERAL	
ACOUS	ACOUSTICAL	GLZ	GLAZING	Р		G000	CC
ACT	ACOUSTICAL CEILING	GUT	GUTTER	PERM	PERMANENT	G001	SH
	TILE	GYP BD/GWB	GYPSUM BOARD	PH	PHASE	CIVIL	
ADA	AMERICAN'S WITH DISABILITIES ACT			PL	PLATE	CO02	GE
ADD	ADDENDUM	H	LIANDICAD(DED)	PLAM	PLASTIC LAMINATE	C100	OV
ADJ	ADJACENT	HC HCW	HANDICAP(PED) HOLLOW CORE WOOD	PLAS PNL	PLASTIC PANEL	C110	DE
AFF	ABOVE FINISH FLOOR	HDWE/HDW	HARDWARE	PREFAB	PREFABRICATED	C200	OV
ALT	ALTERNATE	HM	HOLLOW METAL	PREFIN	PREFINISHED	C201	SI
ALUM	ALUMINUM	HMD	HOLLOW METAL DOOR	PRELIM	PRELIMINARY	C301	GF
ANOD	ANODIZED	HORIZ	HORIZONTAL	PREP	PREPARATION	C302	FL
ARCH	ARCHITECT (URAL)	HT	HEIGHT	PROJ	PROJECT	C310 C311	ST ST
В		HVAC	HEATING, VENTILATION, AIR	PT	PRESERVATIVE TREATED	C311	ST
BLDG	BUILDING		CONDITIONING	PTD	PAINTED	C313	ST
BLK	BLOCK			PTN	PARTITION	C401	UT
BLKG	BLOCKING	I				C501	ER
BM	BEAM	ICF	INSULATED	Q		C510	ST
ВОТ	BOTTOM	ID.	CONCRETE FORM	QT	QUARRY TILE	C520	ER
BRG	BEARING	ID IF	INSIDE DIAMETER INSIDE FACE			C521	ER
0		INCAND	INCANDESCENT	R		C600 C601	SI ⁻
C C/C	CENTER TO CENTER	INDIC	INDICATE	R	RADIUS	C601	SI
CAB	CABINET	INSTL	INSTALL(ATION)	RD REC	ROOF DRAIN RECESSED	C610	CI
CB	CORNER BEAD	INSUL	INSULATION	RECPT	RECEPTACLE	C611	IA\
CER	CERAMIC	INT	INTERIOR	REF	REFER(ENCE)	C612	IΑ\
CF	CUBIC FOOT			REINF	REINFORCE(D)(ING)(M	L100	LA
CFCI	CONTRACTOR	J			ENT)	L200	LA
	FURNISHED / CONTRACTOR	JST	JOIST	REQD	REQUIRED		
	INSTALLED	JT	JOINT	RESIL	RESILIENT	STRUCTURAL	
CHAN	CHANNEL	1		RM RO	ROOM ROUGH OPENING	S001 S002	AB GE
CJ	CONTROL JOINT	LAV	LAVATORY	RTU	ROOGH OPENING ROOF TOP UNOT	S002 S003	SP
CL	CENTER LINE	LD BRG	LOAD BEARING	KIO	1.001 101 01101	S003	LC
CLG	CEILING	LF	LINEAR FOOT	S		S101A	FC
CMU	CONCRETE MASONRY UNIT	LTG	LIGHTING	SAN	SANITARY	S101B	FC
CONC	CONCRETE	LTWT	LIGHTWEIGHT	SCW	SOLID CORE WOOD	S131A	RC
CONSTR	CONSTRUCTION	LVR	LOUVER	SF	SQUARE FOOT	S131B	RC
CONT	CONTINUOUS	М		SPKLR	SPRINKLER	S301	FC
CP/CPT	CARPET	MAS	MASONRY	SS STD	STAINLESS STEEL	S302 S303	FC FC
		MATL	MATERIAL	STL	STANDARD STEEL	S310	EN
D	DEMOLITION (IOLI)	MAX	MAXIMUM	STOR or ST	STORAGE	S401	CN
DEMO DF	DEMOLITION (ISH)	MECH	MECHANICAL	STRUCT	STRUCTURAL	S501	ST
DIFF	DRINKING FOUNTAIN DIFFUSER	MED	MEDICINE (MEDICAL)	SUSP	SUSPENDED	S502	ST
DIM	DIMENSION	MET	METAL	SYM	SYMBOL	S503	ST
DISP	DISPENSER	MFG	MANUFACTURER (ING)	SYS	SYSTEM	S511	ST
DO	DOOR OPENING	MIN	MINIMUM	_		S521	ST
DS	DOWNSPOUT	MISC MLWK	MISCELLANEOUS MILLWORK	T	TONOLIE AND	S522	ST
DWG	DRAWING	MO	MASONRY OPENING	T&G	TONGUE AND GROOVE	S531	ST
		MTD	MOUNTED	T/	TOP OF	ARCHITECTURAL I	DEMOI
E 		MTG	MOUNTING	TEL	TELEPHONE	D101-BP1	FIF
EJ ELEC	EXPANSION JOINT ELECTRICAL	MULL	MULLION	TEMP	TEMPORARY	3.0.2	
ELEC	(ELEVATOR)	MULT	MULTIPLE	THRES	THRESHOLD	ARCHITECTURAL	
ELEV	ELEVATION			TOT	TOTAL	A001	W
ENCL	ENCLOSURE	N N/A	NOT APPLICABLE	TYP	TYPICAL	A100-BP1	FIF
ENGR	ENGINEER	N/A NIC	NOT IN CONTRACT	U		A101.A-BP1	FIF
EQUIP	EQUIPMENT	NOM	NOMINAL	UNIF	UNIFORM	A101.B-BP1 A130	FIF
EWC	ELECTRICAL WATER COOLER	NTS	NOT TO SCALE	UNO	UNLESS NOTED	A131.A	RC
EXST	EXISTING			0.10	OTHERWISE	A131.B	RC
2,701	EXIGNITO	Ο		UR	URINAL	A201	EX
F		O/O	OUT TO OUT			A202	EX
F/F	FACE TO FACE	OA	OVERALL	V	\(\alpha\)\(\alpha\)\(\beta\)	A301	BU
FDN	FOUNDATION	OC	ON CENTER	VB VCT	VINYL COMPOSITION	A302	BU
FE	FIRE EXTINGUISHER	OD OF	OUTSIDE DIAMETER	VCT	VINYL COMPOSITION TILE	A321	W
FHC	FIRE HOSE CABINET	OF OFCI	OUTSIDE FACE OWNER FURNISHED -	VERT	VERTICAL	A322	WA
FIN FIN FL	FINISH FINISHED FLOOR	O1 O1	CONTRACTOR	VIN	VINYL	A323 A324	W
FIN FL FLR (FLRG)	FINISHED FLOOR FLOOR(ING)		INSTALLED	VT	VINYL TILE	A324 A325	W
FLR (FLRG) FLUOR	FLUOR(ING) FLUORESCENT	ОН	OVERHEAD	VWC	VINYL WALL	A325 A326	W
FOC	FACE OF CONCRETE	OPNG	OPENING		COVERING	A327	W
FOF	FACE OF FINISH	OPP	OPPOSITE	W		A328	W
FOM	FACE OF MASONRY	OPT	OPTIONAL	w W/W	WALL TO WALL	A411	DU
FOS	FACE OF STUD	ORD	OVERFLOW ROOF DRAIN	WC	WATER CLOSET	A412	CC
FR	FIRE RATING		· ·	WD	WOOD	A501	PL
FT	FIRE TREATED			WDW	WINDOW	A502	PL
FTG	FOOTING			WH	WALL HUNG	A521	SE
FURN	FURNITURE			WT	WEIGHT	A522	SE
FURR	FURRING					A523	SE

GRATING (SECTION)

GYPSUM WALL BOARD

PARTICLEBOARD

PLYWOOD

PLASTER ON METAL LATH

INSULATED GLASS:

INSULATED GLASS:

(SMALL SCALE)

MEMBRANE: WATERPROOF,

ROOF, DAMPPROOFING

METAL: ROLLED SHAPES

METAL: TYPE AS NOTED

TROWEL-ON, UNO

SAND, GROUT

AS NOTED

ACOUSTICAL, OR SAFING

SHEET NUMBER	SHEET INDEX SHEET NAME	CURR REV	REV DATE	REV DESCR
GENERAL	SHILLI IVAIVIE	JOININ NEV	INE V DATE	NEW DESCR
G000	COVER SHEET			
G001	SHEET INDEX			
CIVIL				
C002	GENERAL NOTES			
C100	OVERALL EXISTING TOPOGRAPHY PLAN			
C110	DEMOLITION PLAN			
C200	OVERALL SITE PLAN			
C201 C301	SITE PLAN GRADING PLAN			
C302	FLOOD ROUTING PLAN			
C310	STORM SEWER PLAN AND PROFILES			
C311	STORM SEWER PLAN AND PROFILES			
C312	STORM SEWER PLAN AND PROFILES			
C313	STORM SEWER PLAN AND PROFILES			
C401 C501	UTILITY PLAN FROSION CONTROL PLAN			
C510	STORM WATER POLLUTION PREVENTION PLAN			
C520	EROSION CONTROL DETAILS			
C521	EROSION CONTROL DETAILS			
C600	SITE DETAILS			
C601	SITE DETAILS			
C602 C610	SITE DETAILS CITY OF PORTAGE STANDARD DETAILS			
C610 C611	IAWC WATER INSTALLATION DETAILS AND NOTES			
C612	IAWC WATER INSTALLATION DETAILS AND NOTES	1		
L100	LANDSCAPE PLAN			
L200	LANDSCAPE DETAILS			
OTDI IOTI ID				
STRUCTURAL S001	ADDDEVIATIONS AND SYMPOLS			
S001	ABBREVIATIONS AND SYMBOLS GENERAL NOTES			
S003	SPECIAL INSPECTION REQUIREMENTS			
S004	LOAD MAPS			
S101A	FOUNDATION PLAN - AREA A			
S101B	FOUNDATION PLAN - AREA B			
S131A S131B	ROOF FRAMING PLAN, AREA A			
S301	ROOF FRAMING PLAN - AREA B FOUNDATION SCHEDULES, SECTIONS, AND DETAILS			
S302	FOUNDATION SECTIONS AND DETAILS			
S303	FOUNDATION SECTIONS AND DETAILS			
S310	ENLARGED PIER DETAILS			
S401	CMU SCHEDULES, SECTIONS, AND DETAILS			
S501 S502	STEEL SCHEDULES, SECTIONS, AND DETAILS STEEL SECTIONS AND DETAILS			
S503	STEEL SECTIONS AND DETAILS STEEL SECTIONS AND DETAILS			
S511	STEEL COLUMN AND BASE PLATE SCHEDULES			
S521	STEEL FRAME ELEVATIONS			
S522	STEEL FRAME ELEVATIONS			
S531	STEEL FRAME SECTIONS AND DETAILS			
ARCHITECTURAL DE	MOLITION			
D101-BP1	FIRST FLOOR DEMOLITION PLAN			
<u> </u>				
ARCHITECTURAL				
A001	WALL TYPES			
A100-BP1 A101.A-BP1	FIRST FLOOR PLAN - OVERALL FIRST FLOOR PLAN - AREA A			
A101.A-BP1 A101.B-BP1	FIRST FLOOR PLAN - AREA A FIRST FLOOR PLAN - AREA B	1		
A130	ROOF PLAN - OVERALL	+		
A131.A	ROOF PLAN - AREA A			
A131.B	ROOF PLAN - AREA B			
A201	EXTERIOR ELEVATIONS			
A202 A301	EXTERIOR ELEVATIONS BUILDING SECTIONS			
A301 A302	BUILDING SECTIONS BUILDING SECTIONS	1		
A321	WALL SECTIONS	1		
A322	WALL SECTIONS			
A323	WALL SECTIONS			
A324	WALL SECTIONS	1		
A325 A326	WALL SECTIONS WALL SECTIONS	1		
A326 A327	WALL SECTIONS WALL SECTIONS	1		
A328	WALL SECTIONS	+		
A411	DUMPSTER PLAN AND ELEVATIONS			
A412	COOLING TOWER ENCLOSURE PLAN AND ELEVATIONS			
A501	PLAN DETAILS			
A502	PLAN DETAILS	1		
A521 A522	SECTION DETAILS SECTION DETAILS			
A522 A523	SECTION DETAILS	1		
A524	SECTION DETAILS			
A601	DOOR SCHEDULES	1		

GRAPHIC LEGEND ベナス・リス・ナロ グロス・ナックロー SHEATHING: GYPSUM, OR AS (A) — COLUMN GRID EXISTING SPRAYED FIREPROOFING SHOWN ON ROLLED SHAPE DOOR TAG STONE: LIMESTONE, GRANITE, MARBLE OR AS NOTED NORTH ARROW TERRA COTTA, STRUCTURAL CLAY KEYED NOTE TILE: CERAMIC, QUARRY, UNO WALL SECTION CUT REFERENCE DRAWING NUMBER ELEVATION DATUM REFERENCE WOOD/ENGINEERED: GLUE XX SHEET NUMBER LAMINATED WOOD/FINISHED, SHOWN CUT AND ELEVATION **BUILDING SECTION CUT REFERENCE** DRAWING NUMBER SHEET NUMBER REVISION REFERENCE WOOD FLOOR, WOOD SHINGLES, OR SIDING WOOD FRAMING / BLOCKING: EXTERIOR ELEVATION REFERENCE CONTINOUS DRAWING NUMBER WALL TYPE REFERENCE (REFERENCE WOOD SHIM INTERIOR PARTITION LEGEND) SHEET NUMBER RESINOUS FLOORING: TERRAZO, NOTE: PATTERNS SHOWN REPRESENT CUT ENLARGED DRAWING REFERENCE **EQUIPMENT TAG** MATERIALS IN PLAN OR SECTION, UNLESS NOTED RIGID INSULATION: THERMAL, ROOM NAME AND NUMBER

GENERAL NOTES

- A. SEE SHEET G001 FOR GRAPHIC SYMBOL LEGEND. B. SEE SHEET A001 FOR GENERAL PARTITION NOTES.
- C. SEE SHEET A701 FOR GENERAL FINISH NOTES D. COORDINATE WORK OF ALL TRADES PRIOR TO STARTING CONSTRUCTION.
- E. ALL DIMENSIONS ARE TO GRID LINES, FACE OF STUD FRAMING, FINISHED FACE OF EXISTING WALL SURFACE, OR FACE OF CONCRETE / MASONRY UNITS UNLESS NOTED OTHERWISE. F. THE CONTRACTOR AND SUBCONTRACTORS INVOLVED IN THIS PROJECT SHALL BE RESPONSIBLE FOR DESIGNING AND INSTALLING THEIR RESPECTIVE WORK AND

SYSTEMS TO MEET ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES, LAWS,

- SAFETY REGULATIONS, HAZARDOUS WASTE LAWS, ETC. THE CONTRACTOR SHALL FURNISH ALL NECESSARY PERMITS. G. THE CONTRACTOR SHALL REVIEW THE DRAWINGS AND UNDERSTAND THE SCOPE OF THE DRAWINGS TO BE THE FOLLOWING: THESE CONSTRUCTION DOCUMENTS (DRAWINGS, SPECIFICATIONS, ADDENDA, ETC.) INDICATE THE GENERAL SCOPE OF THE PROJECT IN TERMS OF ARCHITECTURAL DESIGN CONCEPTS, THE DIMENSIONS OF THE BUILDING, THE MAJOR ARCHITECTURAL ELEMENTS, AND THE MAJOR STRUCTURAL, MECHANICAL, AND ELECTRICAL SYSTEMS. THE DOCUMENTS DO NOT AND ARE NOT INTENDED TO INDICATE OR DESCRIBE IN DETAIL ALL THE NECESSARY WORK REQUIRED FOR FULL PERFORMANCE OF, AND COMPLETION OF THE REQUIREMENTS OF THE CONTRACT. ON THE BASIS OF THE GENERAL SCOPE INDICATED IN THESE DOCUMENTS, THE TRADE CONTRACTORS SHALL FURNISH ALL ITEMS REQUIRED FOR THE PROPER EXECUTION AND COMPLETION OF THEIR WORK. ALL WORK SHALL BE COMPLETE IN EVERY DETAIL AND THE CONTRACTORS SHALL PROVIDE A ONE YEAR WARRANTY FOR
- H. CONTRACTORS SHALL FOLLOW AND OBEY ALL FEDERAL, STATE AND LOCAL CODES, LAWS, SAFETY REGULATIONS AND HAZARDOUS WASTE LAWS, ETC. I. DO NOT SCALE DRAWINGS. DIMENSIONS SHALL GOVERN EACH BUILDING COMPONENT LOCATION. BRING ANY DISCREPANCIES TO THE ARCHITECT'S ATTENTION IN WRITING
- J. BUILDING FIRST FLOOR IS REFERENCE ELEVATION 100'-0". REFERENCE CIVIL DRAWINGS FOR U.S.G.S. ELEVATION. K. ALL WORK SHALL BE PERFORMED IN A SKILLED WORKMANSHIP TYPE AND MANNER
- ACCEPTABLE TO THE ARCHITECT AND OWNER. L. CAULK INTERSECTION BETWEEN DIFFERENT MATERIALS.
- M. CAULK TOILET FIXTURES AND COUNTERTOP SPLASHES TO FINISH SURFACE IN ACCORDANCE WITH SEALANT SCHEDULE IN SPECIFICATIONS.
- N. EXISTING CONDITIONS SHALL BE FIELD VERIFIED PRIOR TO BIDDING OR BEGINNING OF WORK. ANY ERRORS OR OMISSIONS SHALL BE BROUGHT TO THE ARCHITECT'S
- ATTENTION IN WRITING IMMEDIATELY. O. COVER ALL RETURN AIR AND EXHAUST GRILLES WITH FILTER MEDIA FOR DURATION OF
- JOB AND CHANGE REGULARLY.





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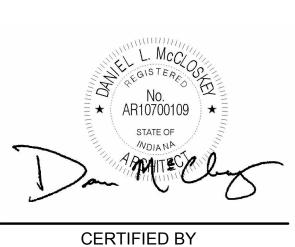
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PORTER COUNTY ANNEX

3560 WILLOWCREEK RD PORTAGE, IN 46368



ISSUANCE INDEX 08.20.18 PROJECT PHASE: 100% CONSTRUCTION DOCUMENTS - BP1

REVISION SCHEDULE NO. DESCRIPTION DATE

Project Number 2017.01279

SHEET INDEX

MATERIALS LEGEND

- - - - AIR BARRIER SYSTEM

ACOUSTICAL CEILING TILE

BATT INSULATION: THERMAL OR

ACOUSTICAL, UNO

BRICK MASONRY

CONCRETE, CAST-IN-PLACE

CONCRETE, PRECAST/CAST STONE

CONCRETE MASONRY UNIT

GLASS FIBER REINFORCED

GRANULAR FILL

GRATING (PLAN)

CONCRETE SIDING OR TRIM

CARPET, CARPET TILE (DETAIL)

GENERAL NOTES

- 1. ALL WORK TO CONFORM TO STATE AND LOCAL REGULATIONS.
- 2. CONTRACTOR SHALL KEEP ADJOINING PROPERTIES CLEAN OF CONSTRUCTION DEBRIS AND CONSTRUCTION TRAFFIC AT ALL TIMES.
- 3. THE CONTRACTOR SHALL PROTECT AND NOT DESTROY THE BASE SURVEY CONTROL POINTS DURING DEMOLITION AND CONSTRUCTION.
- 4. ALL UTILITY INFORMATION SHALL BE VERIFIED BY THE CONTRACTOR. CONTACT ENGINEER IMMEDIATELY IF ANY VARIATION EXISTS.
- 5. MAINTAIN EXISTING UTILITIES TO REMAIN IN SERVICE AND PROTECT AGAINST DAMAGE DURING DEMOLITION AND
- 6. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD DIMENSIONS. IF ANY DISCREPANCIES ARE FOUND IN THESE PLANS FROM ACTUAL FIELD CONDITIONS, THE CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY.

EXISTING TOPOGRAPHY NOTES

EXISTING TOPOGRAPHY IS PROVIDED BY: AMERICAN STRUCTUREPOINT INC., PROJECT: 2017.01279 DATED: MARCH 30, 2018

DEMOLITION NOTES

- 1. CLEAR AND GRUB ALL TREES AND VEGETATION NECESSARY FOR CONSTRUCTION.
- 2. PROTECT TREES TO REMAIN DURING CONSTRUCTION.
- 3. PLANT MATERIALS TO REMAIN, TO BE PROTECTED BY TREE FENCE WHICH ENCOMPASSES IT'S DRIP LINE. NO CONSTRUCTION EQUIPMENT, MATERIALS OR DEBRIS SHALL BE LOCATED WITHIN TREE PROTECTION BOUNDARIES. NO DEMOLITION CAN OCCUR UNTIL TREE PROTECTION IS APPROVED BY THE OWNER.
- . THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, FENCES, CONCRETE, ASPHALT PAVEMENT AND OTHER MISCELLANEOUS APPURTENANCES OFF SITE, UNLESS NOTED TO REMAIN ON THE CONTRACT DRAWINGS.
- DEMOLISH FOUNDATIONS AND OTHER BELOW-GRADE CONSTRUCTION, INCLUDING CONCRETE SLABS, TO A DEPTH OF NOT LESS THAN 48 INCHES BELOW LOWEST FOUNDATION LEVEL. COORDINATE WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS ANY DEMOLITION ADJACENT TO EXISTING BUILDING.
- 6. COMPLETELY FILL BELOW—GRADE AREAS AND VOIDS RESULTING FROM DEMOLITION OF STRUCTURES, WITH COMPACTED GRANULAR BACKFILL.
- 7. THE USE OF ANY TYPE OF EXPLOSIVES WILL NOT BE PERMITTED.
- 8. CONDUCT DEMOLITION AND CONSTRUCTION OPERATIONS TO ENSURE MINIMAL INTERFERENCE WITH STREETS, WALKS AND OTHER ADJACENT OCCUPIED FACILITIES.
- 9. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS OR OTHER OCCUPIED FACILITIES WITHOUT PERMISSION FROM THE LOCAL AUTHORITIES HAVING JURISDICTION. PROVIDE ALTERNATE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS, IF REQUIRED BY GOVERNING AUTHORITIES.
- 10. ENSURE SAFE PASSAGE OF PERSONS AROUND AREAS OF DEMOLITION AND CONSTRUCTION. CONDUCT OPERATIONS TO PREVENT DAMAGE TO ADJACENT STRUCTURES AND OTHER FACILITIES AND INJURY TO PERSONS.
- 11. PROMPTLY REPAIR DAMAGE TO ADJACENT FACILITIES CAUSED BY DEMOLITION AND CONSTRUCTION OPERATIONS.
- 12. ALL UTILITIES TO BE REMOVED SHALL BE DISCONNECTED AND CAPPED AT THE NEAREST CONNECTION POINT.
- 13. NO ON-SITE BURNING IS PERMITTED.
- 14. CONTRACTOR SHALL USE MEASURES TO CONTROL DUST AT ALL TIMES.
- 15. DEMOLITION ITEMS INCLUDE BUT ARE NOT LIMITED TO DEMOLITION ITEMS INDICATED ON THIS PLAN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REMOVE OR RELOCATE ITEMS WHICH INTERFERE WITH NEW CONSTRUCTION.
- 16. ALL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO COMMENCING DEMOLITION.

SITE NOTES

- ALL PARKING STRIPES ARE TO BE 4" PAINTED (WHITE). ADA ACCESSIBLE PARKING STRIPES SHALL BE 4"
- 2. ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT OR FACE OF CURB, UNLESS NOTED OTHERWISE.
- 3. ALL DIMENSIONS ARE TO FACE OF BRICK OR FACING MATERIAL, WHERE APPLICABLE.
- 4. ALL DIMENSIONS ARE PARALLEL WITH, OR PERPENDICULAR TO BASE LINES, PROPERTY LINES OR BUILDING LINES, UNLESS OTHERWISE NOTED.
- PROVIDE SMOOTH TRANSITIONS FROM NEW AREAS TO EXISTING FEATURES AS NECESSARY.
- RESURFACE OR RECONSTRUCT AT LEAST TO ORIGINAL CONDITIONS ALL AREAS WHERE THE EXISTING PAVEMENT OR LAWNS ARE DAMAGED DURING CONSTRUCTION FROM TRAFFIC BY CONTRACTORS, SUBCONTRACTORS OR SUPPLIERS AFTER CONSTRUCTION WORK IS COMPLETE.
- EXISTING PAVEMENT TO BE SAW CUT IN ALL AREAS WHERE INDICATED NEW PAVEMENT TO JOIN EXISTING.
- THE EDGE OF THE EXISTING ASPHALT PAVEMENT SHALL BE PROPERLY SEALED WITH A TACK COAT MATERIAL IN ALL AREAS WHERE NEW ASPHALT PAVEMENT IS INDICATED TO JOIN EXISTING ASPHALT.
- CONCRETE SAW CUTTING SHALL BE DONE AS SOON AS POURED CONCRETE HAS CURED AND CAN SUPPORT WEIGHT. PROVIDE A NEAT CUT WHICH IS TRUE IN ALIGNMENT.
- 10. ALL JOINTS ARE TO CONTINUE THROUGH THE CURB.
- 11. RADIAL JOINTS SHALL BE NO SHORTER THAN 1.5'.
- 12. CONTRACTOR SHALL USE A THICKENED EXPANSION JOINT AROUND THE PERIMETER OF ANY BLOCK OUT IN THE CONCRETE PAVING.
- 13. ALL CONSTRUCTION JOINTS SHALL BE SAWN, CLEANED OF DEBRIS, BLOWN DRY AND IMMEDIATELY SEALED WITH THE APPROPRIATE SEALANT ACCORDING TO MANUFACTURER'S DIRECTIONS.
- 14. ALL MATERIALS TO BE IN ACCORDANCE WITH LOCAL DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS RELATIVE TO MATERIAL, MIX, PLACEMENT AND WORKMANSHIP.
- 15. ALL SIDEWALKS SHALL COMPLY WITH ADA STANDARDS. MAXIMUM CROSS SLOPE OF 1:50 AND MAXIMUM LONGITUDINAL SLOPE OF 1:20.
- 16. CHAMFER ALL ENDS OF CURBS.

GRADING NOTES

- 1. SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
- 2. THE EXCAVATING CONTRACTOR MUST TAKE PARTICULAR CARE WHEN EXCAVATING IN AND AROUND EXISTING UTILITY LINES AND EQUIPMENT. VERIFY COVER REQUIREMENTS BY UTILITY CONTRACTORS AND/OR UTILITY COMPANIES SO AS NOT TO CAUSE DAMAGE.
- 3. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 72 HOURS BEFORE CONSTRUCTION IS TO START TO VERIFY IF ANY UTILITIES ARE PRESENT ON SITE. ALL VERIFICATIONS (LOCATION, SIZE AND DEPTH), SHALL BE MADE BY THE APPROPRIATE UTILITY COMPANIES. WHEN EXCAVATING AROUND OR OVER EXISTING UTILITIES, THE CONTRACTOR MUST NOTIFY THE UTILITY COMPANY SO A REPRESENTATIVE OF THAT UTILITY COMPANY CAN BE PRESENT TO INSTRUCT AND OBSERVE DURING CONSTRUCTION. SUBCONTRACTORS ARE RESPONSIBLE FOR LOCATIONS OF UTILITIES FOR THEIR OWN WORK.
- 4. CONTRACTOR TO ADJUST ALL EXISTING SURFACE INFRASTRUCTURE (HYDRANTS, VALVES, HANDHOLES, CASTINGS, IRRIGATION SYSTEM, UTILITY PEDESTALS, ETC.) AS REQUIRED TO MEET PROPOSED GRADE AT HIS/HER OWN
- 5. AFTER STRIPPING TOPSOIL MATERIAL, PROOFROLL SHALL BE PERFORMED BY A LOADED TANDEM PNEUMATIC TIRE DUMP TRUCK MINIMUM GROSS VEHICLE WEIGHT OF 15 TONS. THE TIRES SHALL BE OPERATED AT INFLATION PRESSURES BETWEEN 70-80 PSI UNLESS OTHERWISE NOTED BY THE GEOTECHINICAL ENGINEER. THE TIRES SHALL BE INFLATED WITH AIR ONLY, NO LIQUID SHALL BE USED. THE PROOFROLL SHALL BE COMPLETED UNDER INSPECTION OF SOILS FIRM TO DETERMINE LOCATIONS OF ANY POCKETS OF UNSUITABLE MATERIAL. THE NECESSITY FOR SUBDRAINS AND/OR REMOVAL OF ANY UNSUITABLE MATERIAL WILL BE DETERMINED AT THE
- 6. PROVIDE POSITIVE DRAINAGE WITHOUT PONDING IN ALL AREAS. AFTER INSTALLATION, CONTRACTOR TO TEST FOR, AND CORRECT, IF ANY, STANDING WATER CONDITIONS.
- 7. ALL PROPOSED SPOT ELEVATIONS OR CONTOURS ARE THE FINAL PAVEMENT AND FINAL GRADE ELEVATIONS.
- 8. SEE APPROPRIATE DETAILS TO DETERMINE SUBGRADE ELEVATIONS BELOW FINISH GRADE ELEVATIONS INDICATED.
- 9. TRENCHES FOR ALL STORM DRAIN LINES SHALL BE BACKFILLED COMPLETELY WITH SELECT GRANULAR MATERIAL IF WITHIN 5 FEET OF PAVEMENT.
- 10. CONTRACTOR TO PERPETUATE ANY SUBSURFACE DRAIN TILES OR PIPES ENCOUNTERED DURING CONSTRUCTION AND PROVIDE POSITIVE OUTLET TO DOWNSTREAM RECEIVING SYSTEM. CONTRACTOR TO NOTIFY THE ENGINEER WITH ANY CIRCUMSTANCES WHERE THIS CANNOT BE ACCOMPLISHED.
- 11. DUE TO SITE CONSTRAINTS. THE EARTHWORK FOR THE SITE AS DESIGNED MAY OR MAY NOT BALANCE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE EXISTING CONDITIONS AND INCLUDE IN THEIR BID ALL EARTHWORK COSTS INCLUDING IMPORTS AND/OR EXPORTS NECESSARY TO MAKE THE SITE BALANCE.
- 12. CONTRACTOR TO STABILIZE EXPOSED EARTH AS INDICATED BY THE STORMWATER POLLUTION PREVENTION PLAN OR GOVERNING AUTHORITY.

UTILITY NOTES

- 1. SITE UTILITIES SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
- 2. THE EXCAVATING CONTRACTOR MUST TAKE PARTICULAR CARE WHEN EXCAVATING IN AND AROUND EXISTING UTILITY LINES AND EQUIPMENT. VERIFY COVER REQUIREMENTS BY UTILITY CONTRACTORS AND/OR UTILITY COMPANIES SO AS NOT TO CAUSE DAMAGE.
- 3. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 72 HOURS BEFORE CONSTRUCTION IS TO START TO VERIFY IF ANY UTILITIES ARE PRESENT ON SITE. ALL VERIFICATIONS (LOCATION, SIZE AND DEPTH), SHALL BE MADE BY THE APPROPRIATE UTILITY COMPANIES. WHEN EXCAVATING AROUND OR OVER EXISTING UTILITIES, THE CONTRACTOR MUST NOTIFY THE UTILITY COMPANY SO A REPRESENTATIVE OF THAT UTILITY COMPANY CAN BE PRESENT TO INSTRUCT AND OBSERVE DURING CONSTRUCTION. SUBCONTRACTORS ARE RESPONSIBLE FOR LOCATIONS OF UTILITIES FOR THEIR OWN WORK.
- 4. CONTRACTOR TO ADJUST ALL EXISTING SURFACE INFRASTRUCTURE (HYDRANTS, VALVES, HANDHOLES, CASTINGS, IRRIGATION SYSTEM, UTILITY PEDESTALS, ETC.) AS REQUIRED TO MEET PROPOSED GRADE.
- 5. ALL UTILITY MATERIALS AND INSTALLATION SHALL CONFORM TO LOCAL STANDARDS FOR EACH UTILITY AGENCY HAVING JURISDICTION.
- 6. TRENCHES FOR ALL UTILITY LINES SHALL BE BACKFILLED COMPLETELY WITH SELECT GRANULAR MATERIAL IF THE TOP OF THE TRENCH IS WITHIN 5 FEET OF PAVEMENT.
- 7. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES AND CONDUITS TO AVOID CONFLICTS AND PROVIDE REQUIRED MINIMUM DEPTHS OF COVER. THE CONTRACTOR SHALL PROVIDE ANY ADDITIONAL BENDS WITH THRUST BLOCKS REQUIRED TO ASSURE PROPER INSTALLATION OF WATER MAINS AND LATERALS.
- 8. IN THE EVENT OF A CONFLICT BETWEEN WATER LINES AND STORM DRAINS, THE CONTRACTOR SHALL EITHER ADJUST THE WATER LINE DOWNWARD IN SUCH A MANNER SO THAT THE PIPE MANUFACTURER'S RECOMMENDATIONS ON PIPE DEFLECTION AND JOINT STRESS ARE NOT EXCEEDED OR THE CONTRACTOR SHALL PROVIDE APPROPRIATE BENDS AND CROSSINGS.
- 9. ALL COORDINATES AND DIMENSIONS ARE TO THE CENTERLINE OF UTILITIES AND STRUCTURES.
- 10. ALL PROPOSED STORM SEWER AND DRAINAGE APPURTENANCES SHALL BE IN CONFORMANCE WITH THE CITY OF PORTAGE STORMWATER SPECIFICATIONS, LATEST EDITION. DISCREPANCIES BETWEEN THE PLANS AND THE STORMWATER SPECIFICATIONS SHALL NOT ALLEVIATE THE CONTRACTOR FROM ADHERING TO THE REQUIREMENTS AS SET FORTH IN THE STORMWATER SPECIFICATIONS.

EROSION CONTROL NOTES

SITE INSPECTION.

- 1. CONTRACTOR SHALL INSTALL ALL PERIMETER SILT FENCE AND SEDIMENT CONTROL BARRIERS PRIOR TO CLEARING AND GRADING.
- 2. THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE AS THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SOIL SEDIMENT FROM LEAVING THE SITE.
- 3. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ON
- 4. LAND ALTERATION WHICH STRIPS THE LAND OF VEGETATION, INCLUDING RE-GRADING, SHALL BE DONE IN A WAY THAT WILL MINIMIZE EROSION.
- 5. SEDIMENT LADEN WATER SHALL BE DETAINED BY EROSION CONTROL PRACTICES AS NEEDED TO MINIMIZE
- SEDIMENTATION IN RECEIVING WATER. NO STORM WATER SHALL BE DISCHARGED FROM THE SITE IN A MANNER THAT CAUSES EROSION AT THE POINT OF DISCHARGE.
- 6. WASTE AND UNUSED BUILDING MATERIALS SHALL NOT BE ALLOWED TO BE CARRIED FROM THE SITE BY STORM WATER RUNOFF. PROPER DISPOSAL OF ALL WASTE AND UNUSED BUILDING MATERIALS IS REQUIRED.
- 7. SEDIMENT BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAYS SHALL BE MINIMIZED. CLEARING OF ACCUMULATED SEDIMENT SHALL NOT INCLUDE FLUSHING WITH WATER. CLEARED SEDIMENT SHALL BE RETURNED TO THE SITE FOR DISPOSAL
- 8. SOIL WHICH HAS ACCUMULATED NEXT TO EROSION CONTROL DEVICES SHALL BE COLLECTED AND RE—DISTRIBUTED ON SITE AFTER EACH RAINFALL EVENT, AND AT LEAST ONCE A WEEK.
- 9. IF INSTALLATION OF STORM DRAINAGE SYSTEM SHOULD BE INTERRUPTED BY WEATHER OR NIGHTFALL, THE
- 10. THE SITE IS NOT LOCATED WITHIN ANY FLOODPLAIN, FLOODWAY OR FLOODWAY FRINGE AS INDICATED ON THE FLOOD INSURANCE RATE MAP (FIRM) FOR PORTER COUNTY, IN, MAP NUMBER 18127C0116D, DATED SEPTEMBER
- 11. SCHEDULE OF EARTHWORK ACTIVITIES:

PIPE ENDS SHALL BE COVERED WITH FILTER FABRIC.

- a. THE DURATION OF TIME WHICH AN AREA REMAINS EXPOSED SHALL BE KEPT TO A PRACTICAL MINIMUM. THE AREA SHALL BE STABILIZED AS SOON AS POSSIBLE. UN-VEGETATED AREAS THAT ARE SCHEDULED OR LIKELY TO BE LEFT INACTIVE FOR FIFTEEN (15) DAYS OR MORE MUST BE TEMPORARILY OR PERMANENTLY STABILIZED WITH MEASURES APPROPRIATE FOR THE SEASON TO MINIMIZE EROSION POTENTIAL. ALTERNATIVE MEASURES TO SITE STABILIZATION ARE ACCEPTABLE IF THE PROJECT SITE OWNER OR THEIR REPRESENTATIVE CAN DEMONSTRATE THEY HAVE IMPLEMENTED EROSION AND SEDIMENT CONTROL MEASURES ADEQUATE TO PREVENT SEDIMENT DISCHARGE.
- b. TOPSOIL REPLACEMENT SHALL TAKE PLACE FROM MARCH 1 TO OCTOBER 31. STOCKPILE TOPSOIL AT ALL OTHER TIMES OF THE YEAR. PERMANENT AND FINAL VEGETATION AND STRUCTURAL EROSION CONTROL DEVICES SHALL BE INSTALLED WITHIN SEVEN (7) DAYS AFTER FINAL GRADING OR AS SOON AS POSSIBLE.
- c. INSTALL INLET PROTECTION AROUND INLETS IMMEDIATELY UPON COMPLETION OF THE STRUCTURE. REMOVE INLET PROTECTION FOR PAVING OPERATION. REPLACE INLET PROTECTION AFTER PAVING IS COMPLETE. INLET PROTECTION SHALL REMAIN IN PLACE UNTIL VEGETATION IS ESTABLISHED ON SEEDED AREAS
- 12. PRIOR TO COMPLETION OF THE PROJECT, CONTRACTOR SHALL CLEAN OUT ALL STORM DRAINAGE STRUCTURES AND RESTORE ALL DITCHES AND PONDS TO DESIGNED GRADES.
- 13. CONTRACTOR SHALL REMOVE ALL SEDIMENT CONTROL BARRIERS ONCE CONSTRUCTION IS COMPLETE AND THE SITE HAS BEEN STABILIZED.
- 14. ALL PROPOSED EROSION AND SEDIMENT CONTROL SHALL BE IN CONFORMANCE WITH THE CITY OF PORTAGE STORMWATER SPECIFICATIONS, LATEST EDITION. DISCREPANCIES BETWEEN THE PLANS AND THE STORMWATER SPECIFICATIONS SHALL NOT ALLEVIATE THE CONTRACTOR FROM ADHERING TO THE REQUIREMENTS AS SET FORTH IN THE STORMWATER SPECIFICATIONS.
- 15. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED BY THE INSPECTOR.

EXISTING LEGEND

🚱 bush

🖾 air conditioner (h) telephone handhole (T) telephone manhole curb inlet telephone marker sign Clean out -**T** telephone pedestal drainage manhole

ohe overhead electric line

E electric meter box र्रें tree 匡 electric cross box raffic manhole ð flag pole (W) water manhole

fire hydrant ⋈ water valve **◀** ground light -∲- yard light gas meter tr top of rim elevation inv invert elevation ─ guy wire rcp reinforced concrete pipe

∰ inlet cmp corrugated metal pipe vcp clay pipe ☼ light pole pvc plastic pipe fo buried fiber optic line post buried telephone line

D power pole g buried gas line e buried eletric line w buried water line S sanitary manhole ctv buried television line

BENCHMARK DATA

(88 DATUM)

CUT SQUARE SET EAST SIDE 24" DIAMETER CONCRETE LIGHT BASE 24" ABOVE GRADE AT SOUTH SIDE OF NORTH ENTRANCE TO PORTER COUNTY ANNEX; ±75' WEST OF Q WILLOW SPRING ROAD AND ±30' SOUTH OF NORTH ENTRANCE. ELEV: 641.636

BOAT SPIKE SET ON NORTH SIDE UTILITY POLE #860-551 AT NW CORNER WILLOW SPRING DRIVE AND HOSPITAL ENTRANCE ROAD; ± 50' WEST OF € WILLOW SPRING DRIVE AND ± 50' NORTH OF & HOSPITAL DRIVE. ELEV: 641.205

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GEOTECHNICAL & ENVIRONMENTAL NOTE:

CONTRACTOR SHALL REFER TO THE GEOTECHNICAL ENGINEERING REPORT FOR INFORMATION ABOUT SOIL CONDITIONS.

!! CAUTION !!

THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (including, but not limited to, manholes, inlets, valves, and marks made upon the ground by others) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL

CALL TOLL FREE "811" OR 1-800-382-5544 INDIANA UNDERGROUND



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> 11500408 STATE OF - WDIANA

ISSUANCE INDEX DATE: 08/17/2018 PROJECT PHASE:

CONSTRUCTION DOCUMENTS

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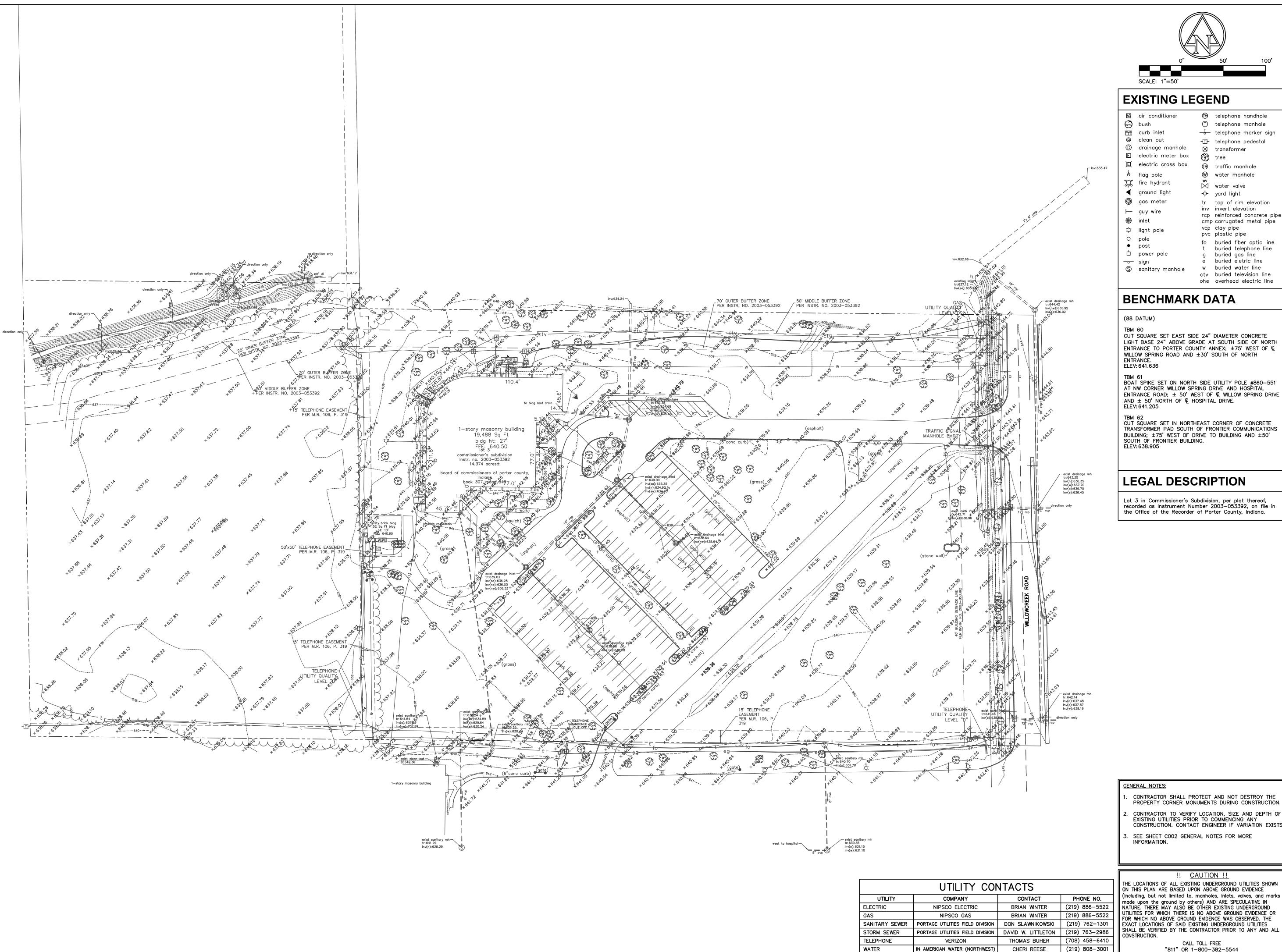
REVISION SCHEDULE NO. DESCRIPTION DATE

Project Number 2017.01279

GENERAL NOTES

UTILITY CONTACTS UTILITY COMPANY CONTACT PHONE NO. ELECTRIC NIPSCO ELECTRIC BRIAN WINTER (219) 886-5522 (219) 886-5522 GAS NIPSCO GAS BRIAN WINTER DON SLAWNIKOWSKI (219) 762-1301 SANITARY SEWER | PORTAGE UTILITIES FIELD DIVISION | STORM SEWER PORTAGE UTILITIES FIELD DIVISION DAVID W. LITTLETON (219) 763-2986 708) 458-6410 VERIZON IN AMERICAN WATER (NORTHWEST) WATER CHERI REESE (219) 808-3001

(REV. 03/21/18



tr top of rim elevation rcp reinforced concrete pipe cmp corrugated metal pipe

LIGHT BASE 24" ABOVE GRADE AT SOUTH SIDE OF NORTH ENTRANCE TO PORTER COUNTY ANNEX; ±75' WEST OF @

ENTRANCE ROAD; ± 50' WEST OF & WILLOW SPRING DRIVE

recorded as Instrument Number 2003-053392, on file in

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NORTH ANNEX

ISSUANCE INDEX DATE: 08/17/2018

PROJECT PHASE: CONSTRUCTION DOCUMENTS

REVISION SCHEDULE NO. DESCRIPTION DATE

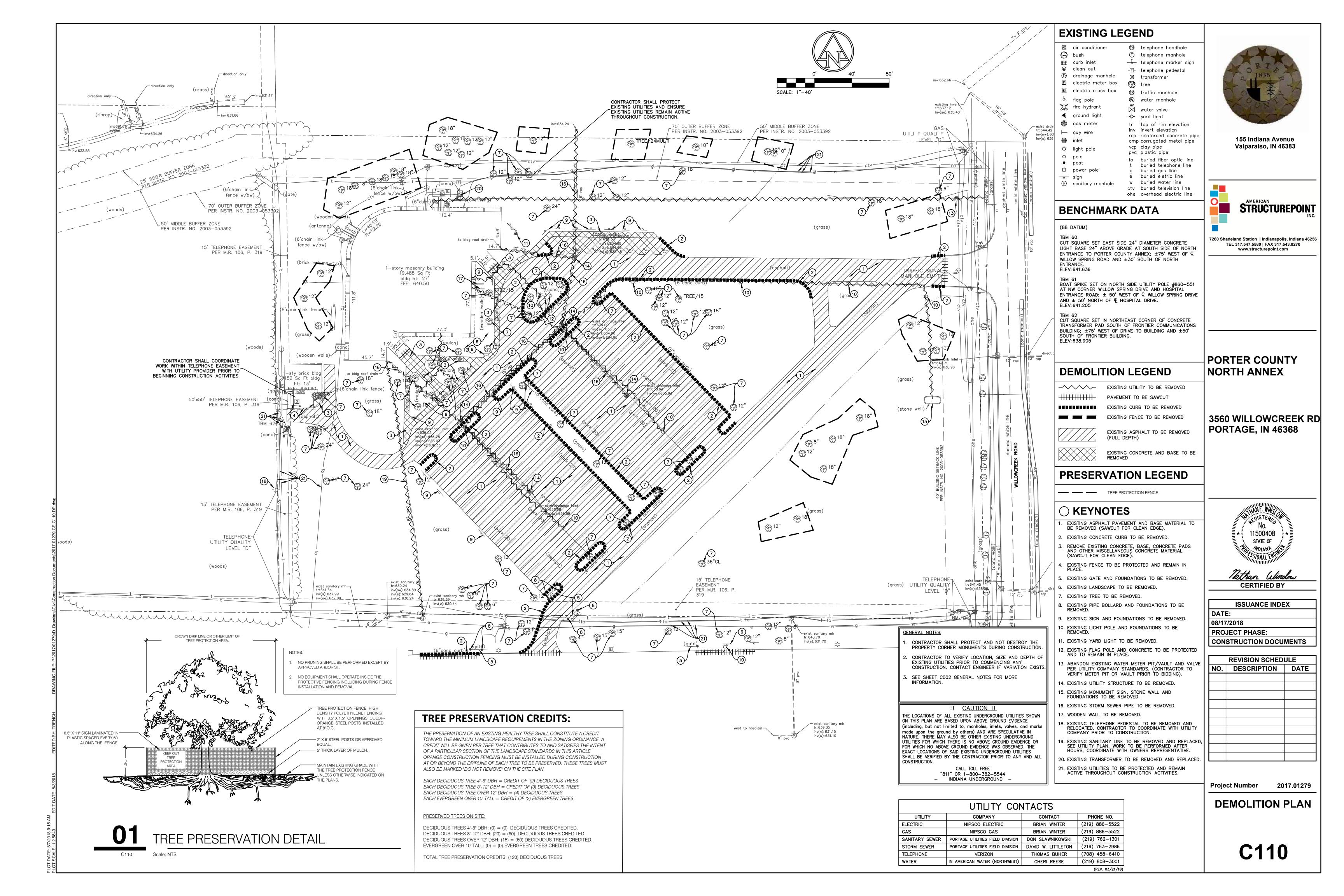
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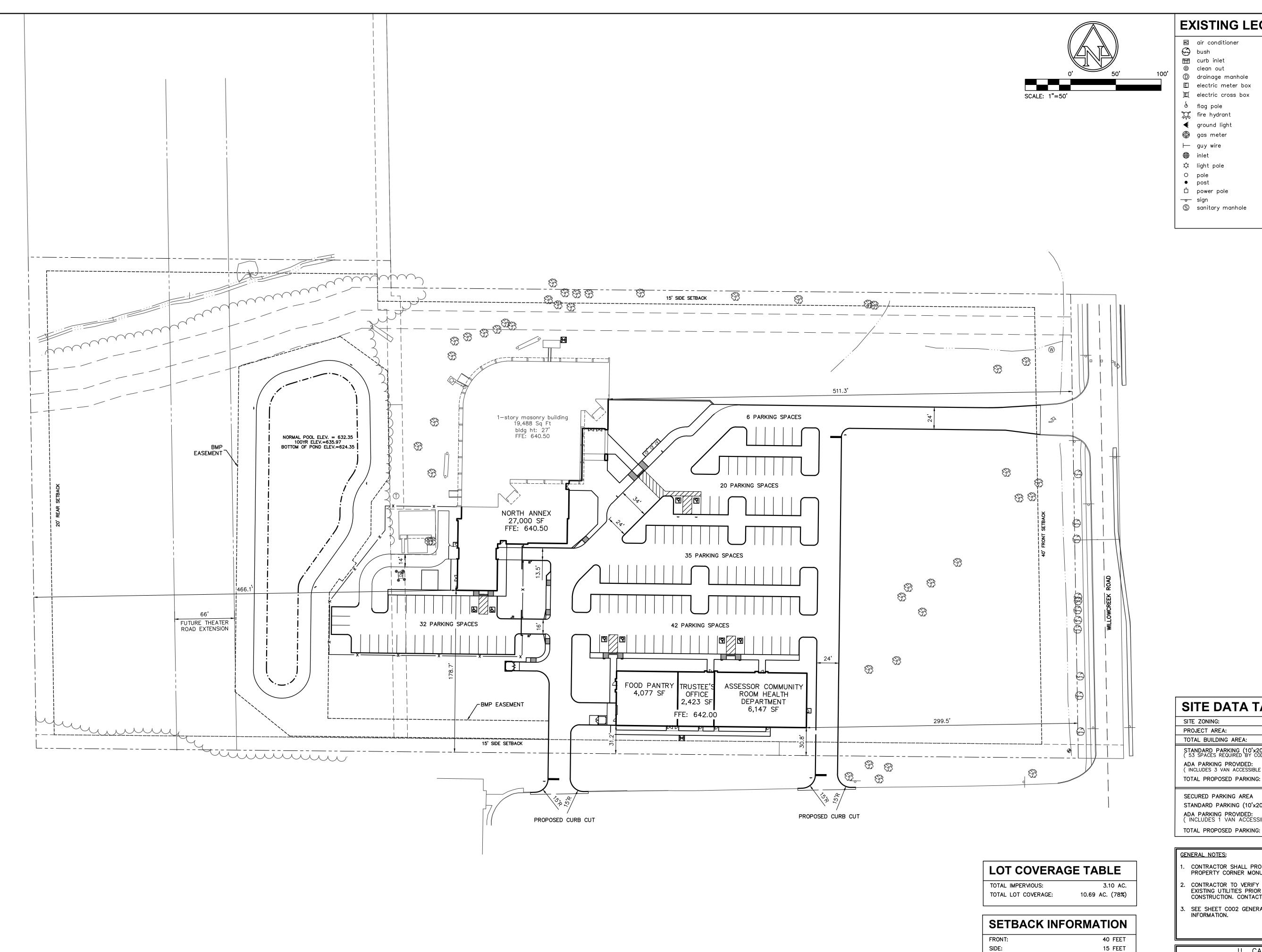
Project Number 2017.01279

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(REV. 03/21/18)

OVERALL EXISTING TOPOGRAPHY PLAN





EXISTING LEGEND

- 🖾 air conditioner (h) telephone handhole ① telephone manhole curb inlet -T telephone marker sign clean out -II- telephone pedestal
- ① drainage manhole E electric meter box E electric cross box raffic manhole W water manhole
- 🥽 fire hydrant water valve **€** ground light -∲- yard light gas meter tr top of rim elevation inv invert elevation rcp reinforced concrete pipe
- **∰** inlet cmp corrugated metal pipe vcp clay pipe 🌣 light pole pvc plastic pipe O pole
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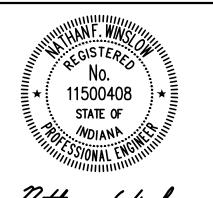
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SITE DATA TABLE **ISSUANCE INDEX** SITE ZONING: IS DATE: 13.9± ACRES PROJECT AREA: TOTAL BUILDING AREA: ±40,000 SF 08/17/2018 STANDARD PARKING (10'x20'): (53 SPACES REQUIRED BY CODE) PROJECT PHASE:

ADA PARKING PROVIDED: (INCLUDES 3 VAN ACCESSIBLE) TOTAL PROPOSED PARKING: SECURED PARKING AREA STANDARD PARKING (10'x20'): ADA PARKING PROVIDED:
(INCLUDES 1 VAN ACCESSIBLE)

REVISION SCHEDULE				
10.	DESCRIPTION	DATI		

CONSTRUCTION DOCUMENTS

GENERAL NOTES:

20 FEET

REAR:

LANDSCAPE BUFFER ADDITIONAL 20 FEET ON

REAR (ONLY WHEN ABUTTING RESIDENTIAL)

- CONTRACTOR SHALL PROTECT AND NOT DESTROY THE PROPERTY CORNER MONUMENTS DURING CONSTRUCTION. . CONTRACTOR TO VERIFY LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO COMMENCING ANY CONSTRUCTION. CONTACT ENGINEER IF VARIATION EXISTS.

!! CAUTION !! **OVERALL SITE PLAN**

32

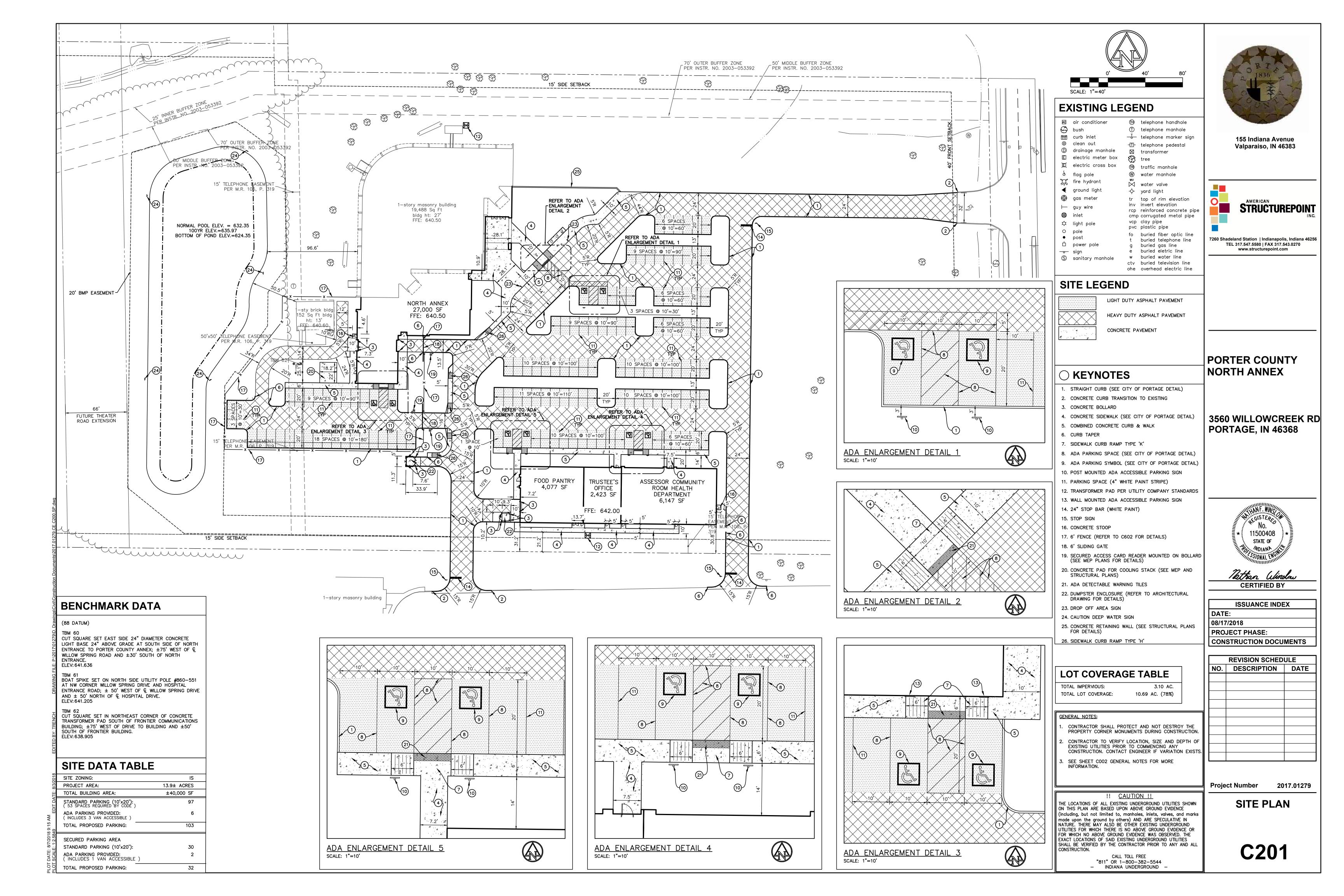
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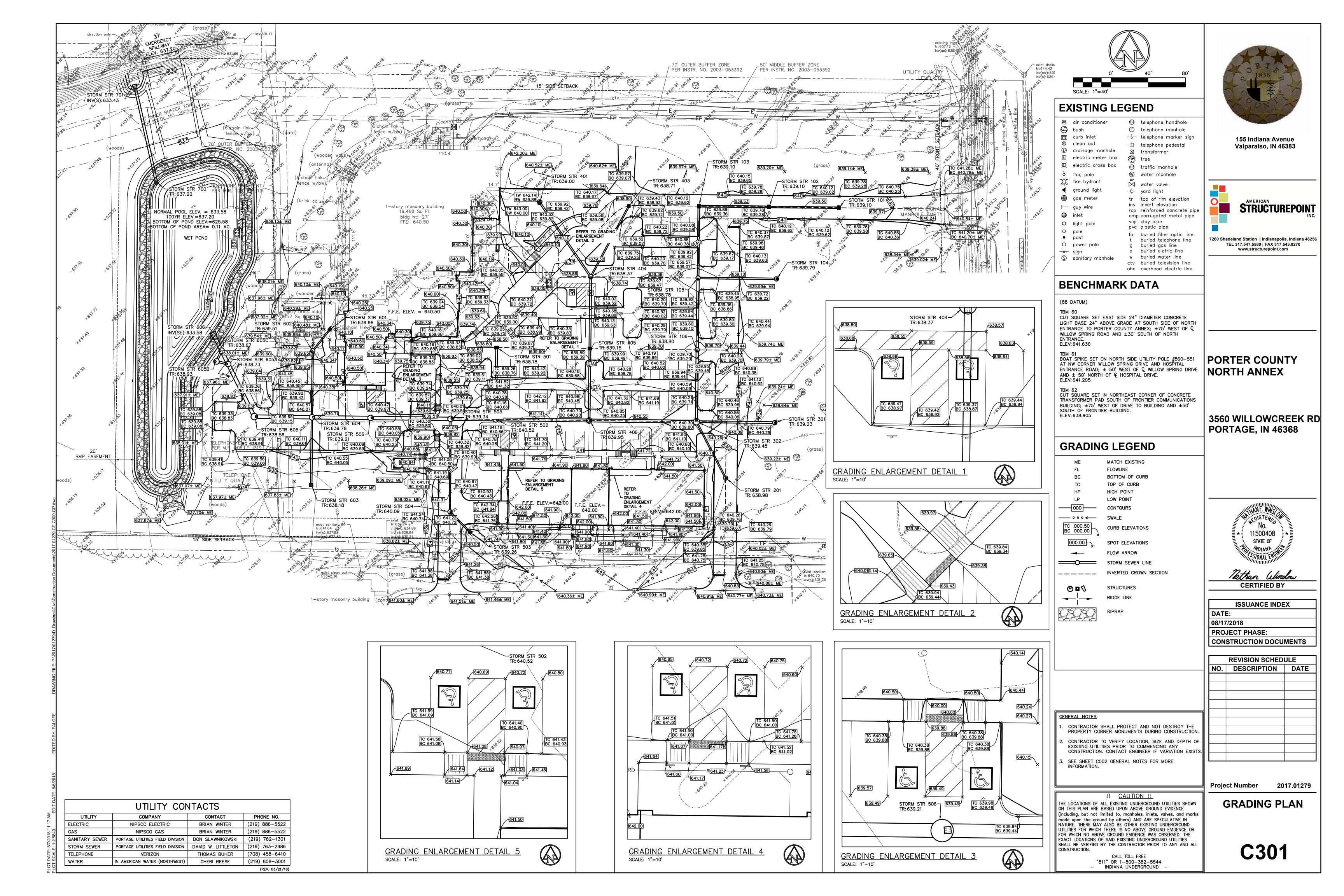
Project Number 2017.01279

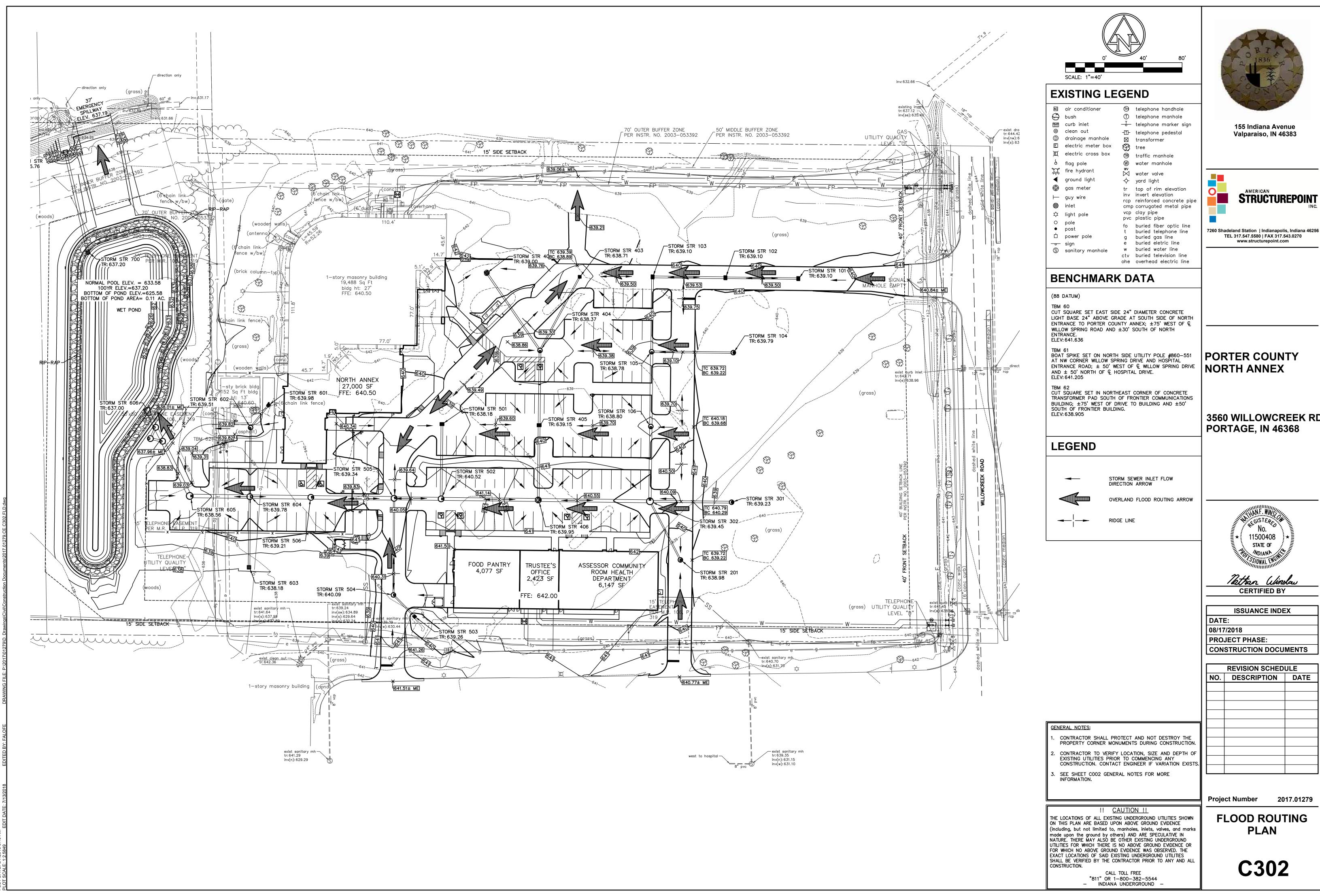
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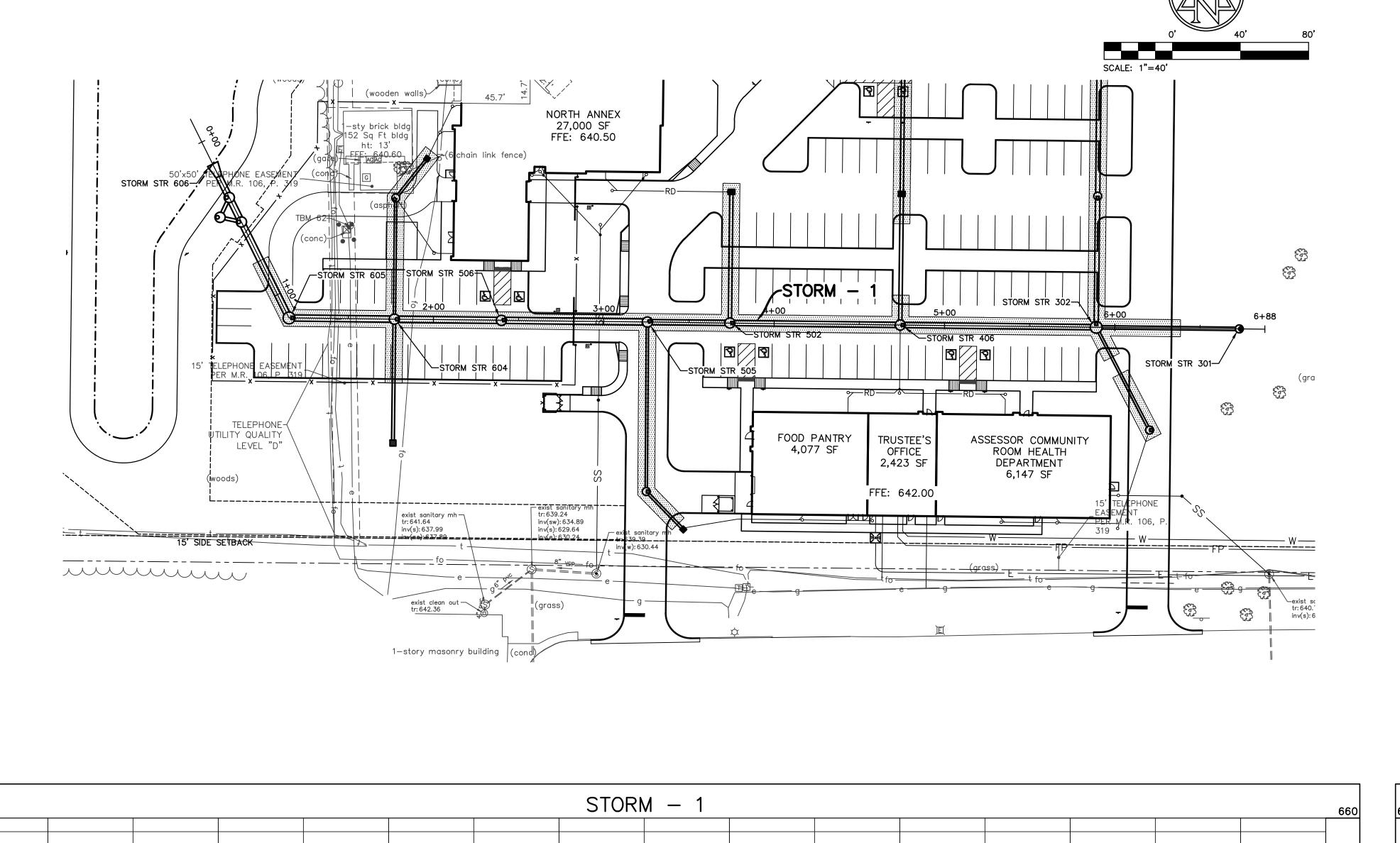
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3560 WILLOWCREEK RD



SCALE: 1"=40' STORM

EXISTING LEGEND

- 🖾 air conditioner (h) telephone handhole 🚱 bush
- T telephone manhole curb inlet -T telephone marker sign clean out
- -II- telephone pedestal drainage manhole
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- ☐ power pole g buried gas line e buried eletric line -o- sign w buried water line S sanitary manhole ctv buried television line ohe overhead electric line

BENCHMARK DATA

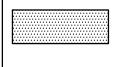
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TBM 61 BOAT SPIKE SET ON NORTH SIDE UTILITY POLE #860-551 AT NW CORNER WILLOW SPRING DRIVE AND HOSPITAL ENTRANCE ROAD; ± 50' WEST OF & WILLOW SPRING DRIVE AND ± 50' NORTH OF € HOSPITAL DRIVE.

TBM 62
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PLAN & PROFILE LEGEND



GRANULAR BACKFILL REQUIRED; THE GRANULAR BACKFILL AREAS SHOWN IN PLAN VIEW ARE AN ESTIMATE PROVIDED BY THE ENGINEER. EXACT LIMITS OF GRANULAR BACKFILL ARE TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR BASED ON TRENCH WIDTH AND AS DIRECTED BY THE AUTHORITY HAVING JURISDICTION.

3560 WILLOWCREEK RD

PLAN & PROFILE NOTES

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- 2. ALL STORM PIPES WITH LESS THAN 24" OF COVER SHALL BE CLASS IV RCP.



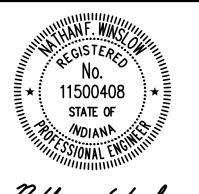
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PORTER COUNTY **NORTH ANNEX**

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ISSUANCE INDEX DATE: 08/17/2018

PROJECT PHASE: CONSTRUCTION DOCUMENTS

REVISION SCHEDULE NO. DESCRIPTION DATE

GENERAL NOTES:

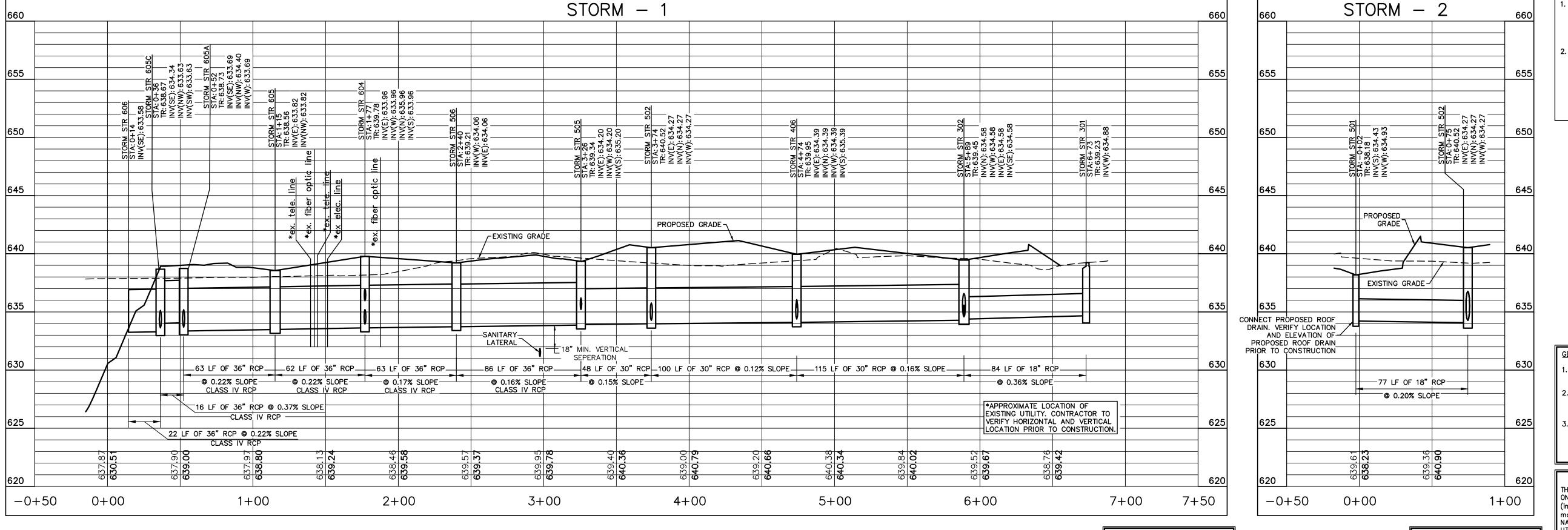
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> "811" OR 1-800-382-5544 INDIANA UNDERGROUND —

Project Number 2017.01279 STORM SEWER PLAN **AND PROFILES**

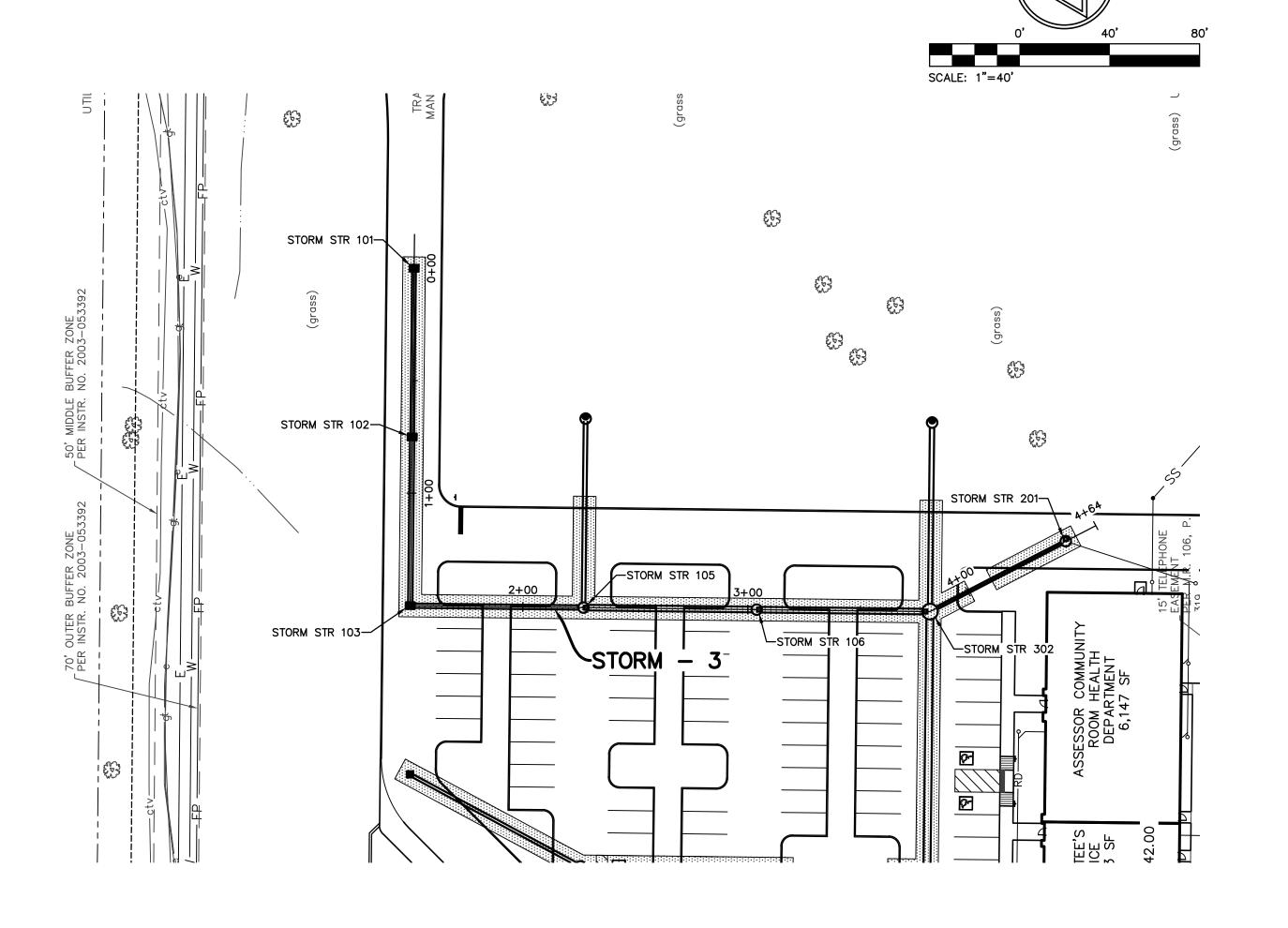
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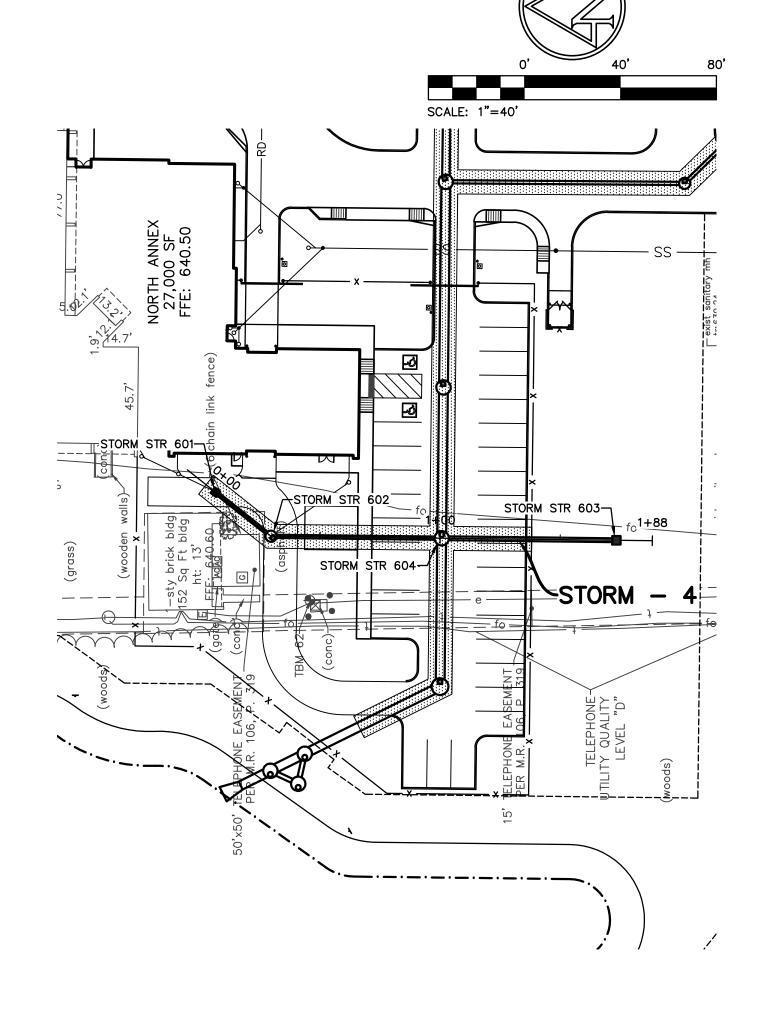


SCALE: 1" = 40' (HORIZ)1" = 5' (VERT)

SCALE: 1" = 40' (HORIZ)

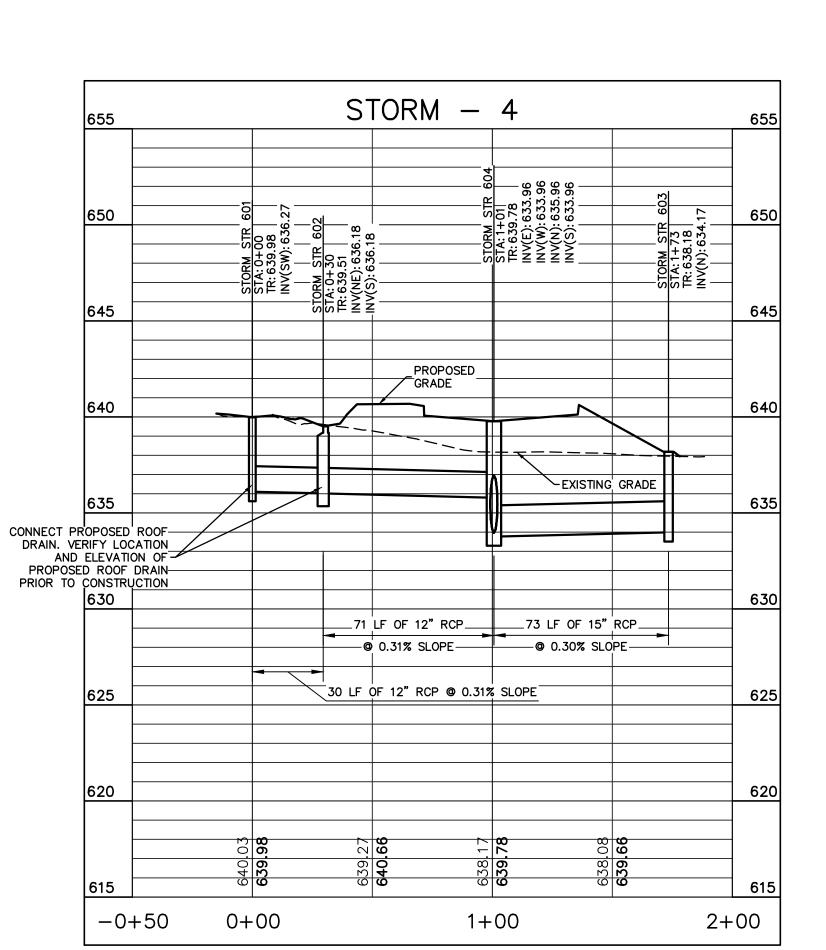
1" = 5' (VERT)CALL TOLL FREE





STORM - 3650 _ଚ୍ଚ୍ଚ STORM STR STA: 2+27 TR: 638.78 INV(N): 634.7 INV(S): 634.7 EXISTING GRADE--PROPOSED-GRADE 635 CONNECT PROPOSED ROOF DRAIN. VERIFY LOCATION AND ELEVATION OF -PROPOSED ROOF DRAIN PRIOR TO CONSTRUCTION _75 LF OF 15" RCP_____75 LF OF 18" RCP____ __77 LF OF 18" RCP______77 LF OF 24" RCP_ __77 LF OF 24" RCP______ © 0.13% SLOPE-—@ 0.15% SLOPE— CLASS IV RCP CLASS IV RCP 625 O O 615 0+00 1+00 -0+502+00 3+00 4+00 5+00

SCALE: 1" = 40' (HORIZ) 1" = 5'(VERT)



SCALE: 1" = 40' (HORIZ)

EXISTING LEGEND

- 🖾 air conditioner (h) telephone handhole ᠪ bush ① telephone manhole
- curb inlet telephone marker sign clean out -II- telephone pedestal D drainage manhole
- E electric meter box **ኛ**ያ tree 🗵 electric cross box raffic manhole δ flag pole (W) water manhole 🥽 fire hydrant water valve
- **∢** ground light -∲- yard light gas meter tr top of rim elevation inv invert elevation rcp reinforced concrete pipe
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BENCHMARK DATA

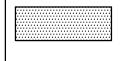
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TBM 62 CUT SQUARE SET IN NORTHEAST CORNER OF CONCRETE TRANSFORMER PAD SOUTH OF FRONTIER COMMUNICATIONS BUILDING; $\pm 75^{\circ}$ WEST OF DRIVE TO BUILDING AND $\pm 50^{\circ}$ SOUTH OF FRONTIER BUILDING. ELEV: 638.905

PLAN & PROFILE LEGEND



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PLAN & PROFILE NOTES

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ISSUANCE INDEX DATE: 08/17/2018 PROJECT PHASE:

CONSTRUCTION DOCUMENTS

	REVISION SCHEDULE						
0.	DESCRIPTION	DATE					

GENERAL NOTES:

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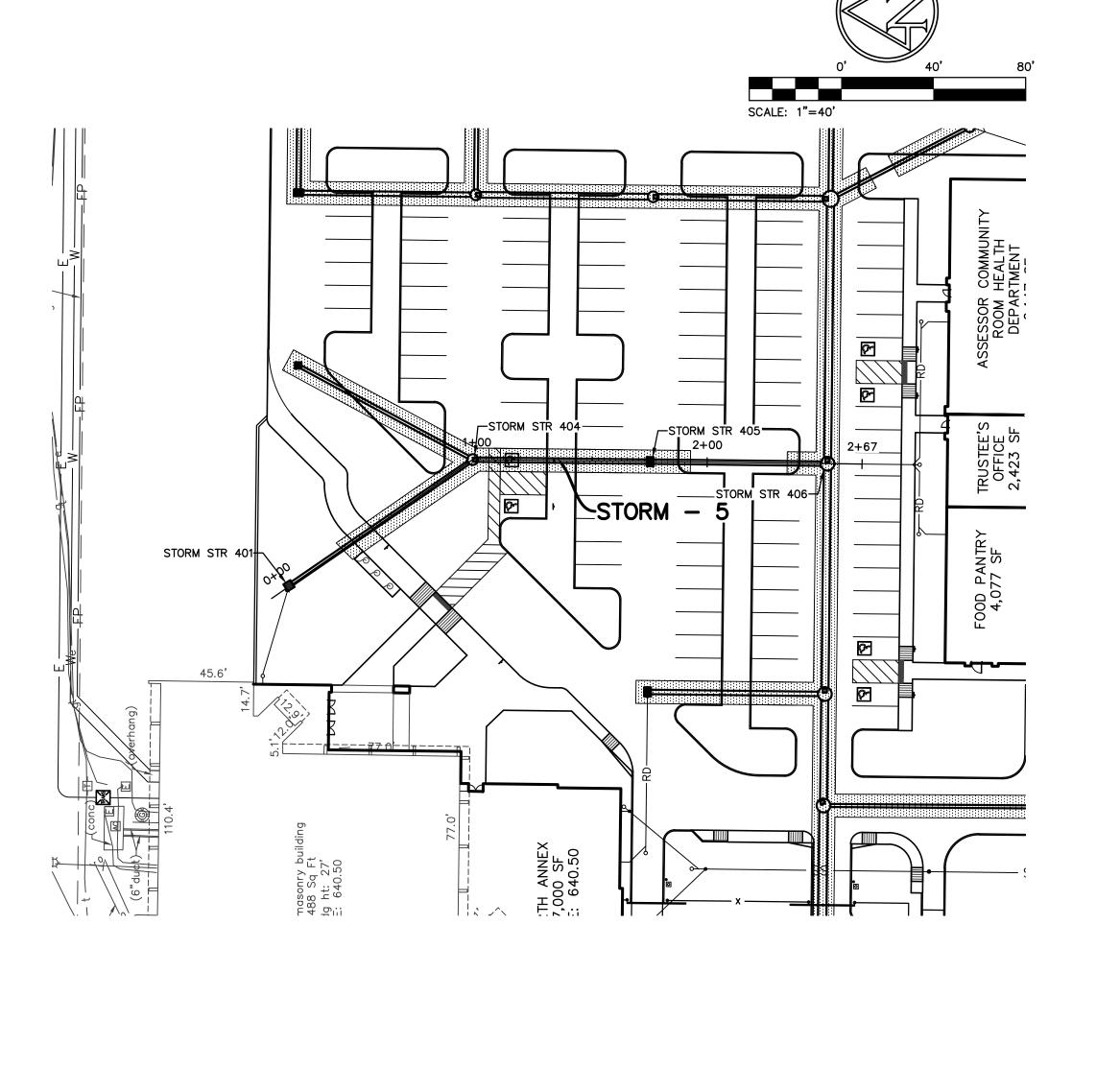
> CALL TOLL FREE "811" OR 1-800-382-5544 INDIANA UNDERGROUND —

Project Number 2017.01279 STORM SEWER PLAN

C311

AND PROFILES

1" = 5' (VERT)



STORM - 5

77 LF OF 18" RCP

_@ 0.25% SLOPE.

CLASS IV RCP

1+00

EXISTING GRADE-

97 LF OF 15" RCP

@ 0.25% SLOPE

0+00

CONNECT PROPOSED ROOF-

DRAIN. VERIFY LOCATION
AND ELEVATION OF
PROPOSED ROOF DRAIN

PRIOR TO CONSTRUCTION

-0+50

635

_33 33 36 36 37

3+00

SCALE: 1" = 40' (HORIZ)

3+50

1" = 5'(VERT)

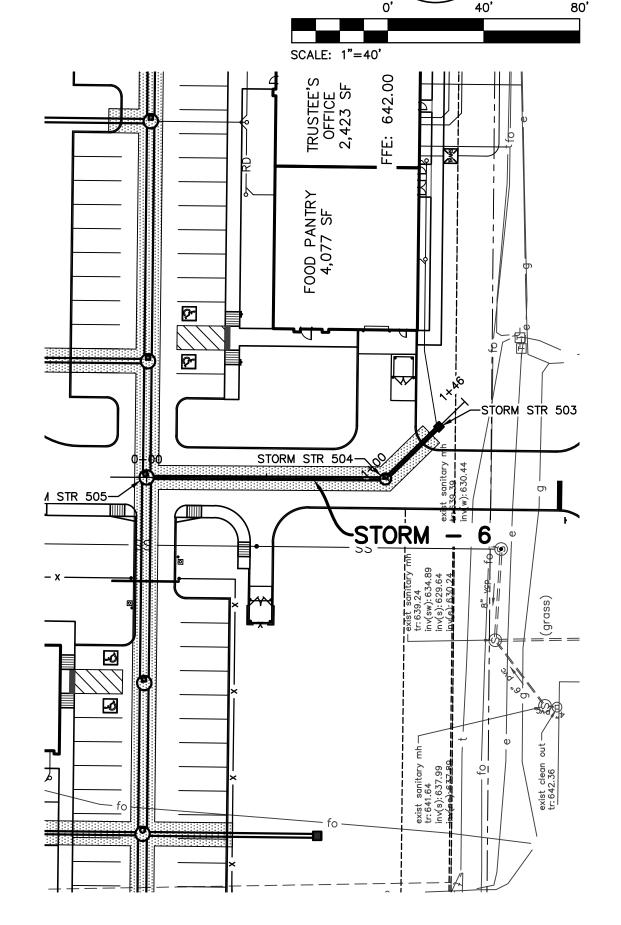
STA: 2+52 TR: 639.95 INV(E): 634.3 INV(W): 634.3 INV(W): 634.3 INV(W): 634.3 INV(S): 635.3

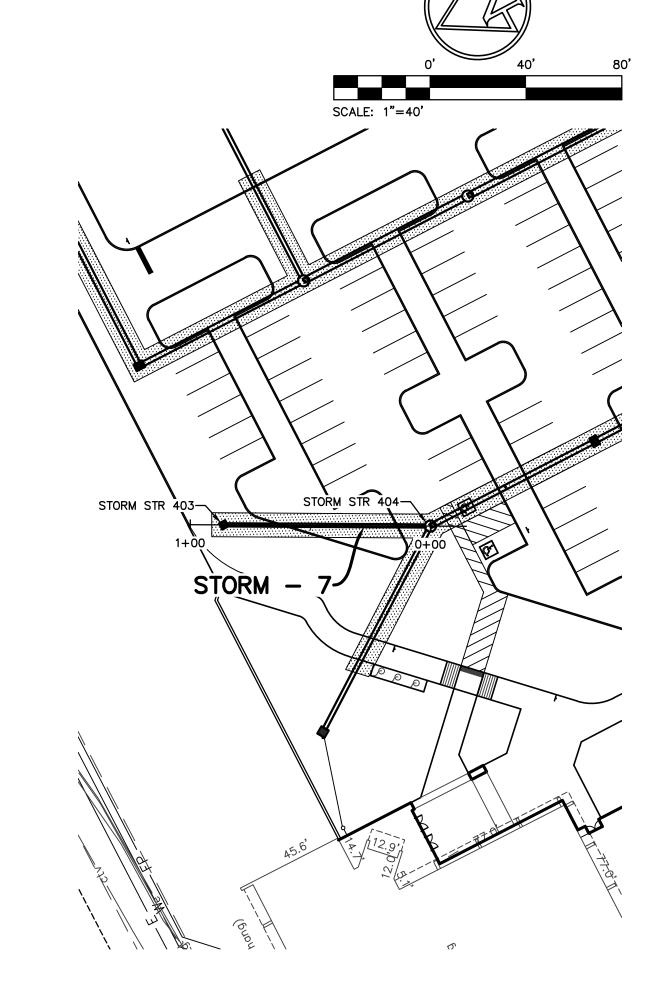
—PROPOSED-∕ GRADE

__77 LF OF 18" RCP_

__**@** 0.32% SLOPE__

2+00

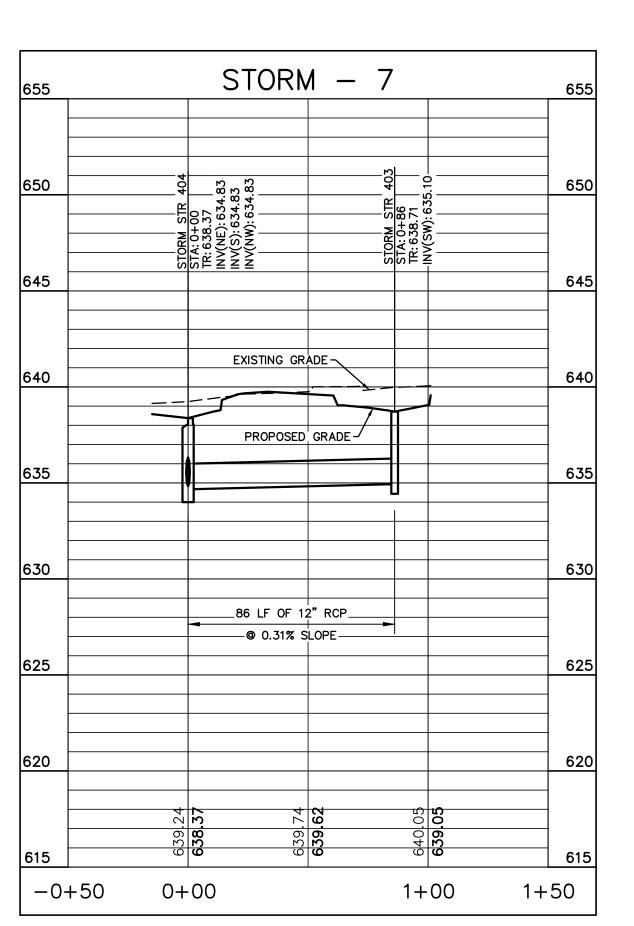




STORM - 6 650 STORM STR STA: 0+00 TR: 639.34 INV(E): 634.2 INV(S): 635.2 645 _PROPOSED_ GRADE EXISTING GRADE 635 630 -100 LF OF 12" RCP-—@ 0.31% SLOPE 625 31 LF OF 12" RCP @ 0.31% SLOPE 620 615 -0+500+001+00

SCALE: 1" = 40' (HORIZ) 1" = 5'(VERT)

620



SCALE: 1" = 40' (HORIZ) 1" = 5' (VERT)

EXISTING LEGEND

6 bush

d flag pole

🢢 fire hydrant

€ ground light

- 🖾 air conditioner (H) telephone handhole
 - (T) telephone manhole - telephone marker sign -II- telephone pedestal
- curb inlet clean out D drainage manhole E electric meter box **ኛ**ያ tree
- 🗵 electric cross box raffic manhole (W) water manhole water valve -∲- yard light
- gas meter tr top of rim elevation inv invert elevation — guy wire rcp reinforced concrete pipe **∰** inlet cmp corrugated metal pipe
- vcp clay pipe 🌣 light pole pvc plastic pipe O pole fo buried fiber optic line post buried telephone line □ power pole
- g buried gas line e buried eletric line w buried water line S sanitary manhole ctv buried television line ohe overhead electric line

BENCHMARK DATA

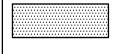
(88 DATUM)

CUT SQUARE SET EAST SIDE 24" DIAMETER CONCRETE LIGHT BASE 24" ABOVE GRADE AT SOUTH SIDE OF NORTH ENTRANCE TO PORTER COUNTY ANNEX; ±75' WEST OF @ WILLOW SPRING ROAD AND ±30' SOUTH OF NORTH ENTRANCE. ELEV: 641.636

BOAT SPIKE SET ON NORTH SIDE UTILITY POLE #860-551 AT NW CORNER WILLOW SPRING DRIVE AND HOSPITAL ENTRANCE ROAD; ± 50' WEST OF & WILLOW SPRING DRIVE AND ± 50' NORTH OF & HOSPITAL DRIVE.

TBM 62 CUT SQUARE SET IN NORTHEAST CORNER OF CONCRETE TRANSFORMER PAD SOUTH OF FRONTIER COMMUNICATIONS BUILDING; $\pm 75^{\circ}$ WEST OF DRIVE TO BUILDING AND $\pm 50^{\circ}$ SOUTH OF FRONTIER BUILDING. ELEV: 638.905

PLAN & PROFILE LEGEND



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3560 WILLOWCREEK RD

PLAN & PROFILE NOTES

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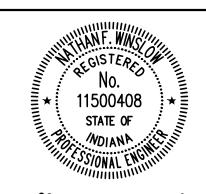
155 Indiana Avenue Valparaiso, IN 46383



7260 Shadeland Station | Indianapolis, Indiana 46256 TEL 317.547.5580 | FAX 317.543.0270 www.structurepoint.com

PORTER COUNTY **NORTH ANNEX**

PORTAGE, IN 46368



Nathan Winslaw **CERTIFIED BY**

ISSUANCE INDEX DATE: 08/17/2018 PROJECT PHASE: CONSTRUCTION DOCUMENTS

REVISION SCHEDULE NO. DESCRIPTION DATE

GENERAL NOTES:

- CONTRACTOR SHALL PROTECT AND NOT DESTROY THE PROPERTY CORNER MONUMENTS DURING CONSTRUCTION.
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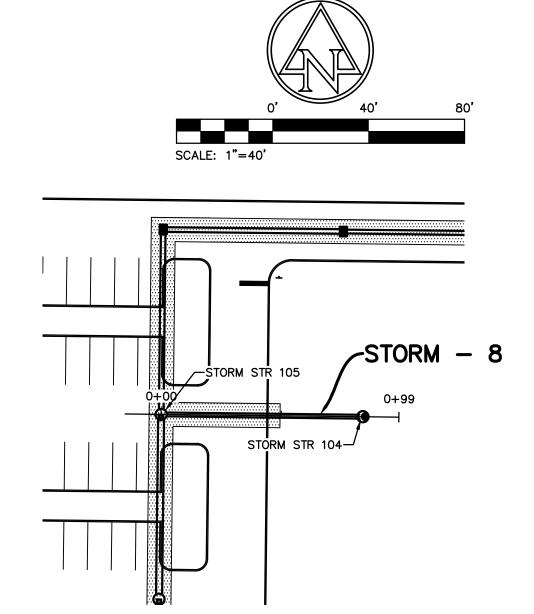
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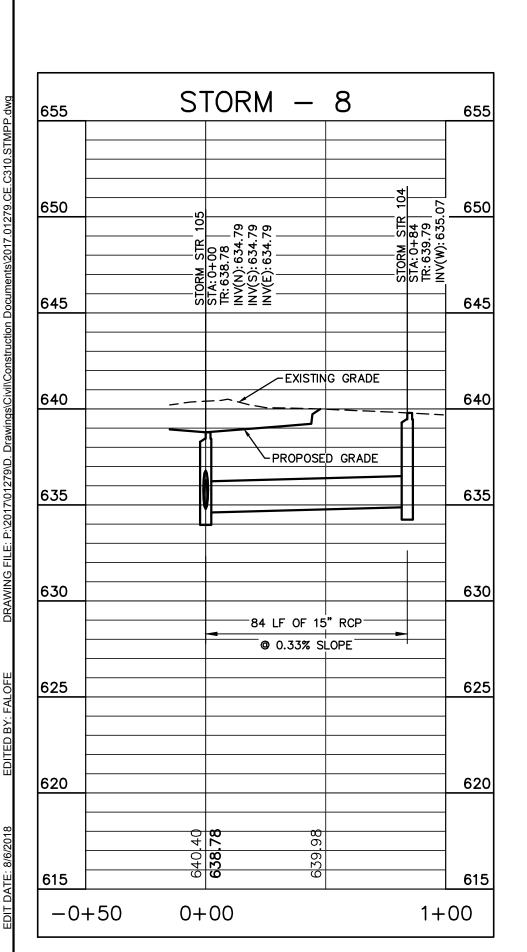
> CALL TOLL FREE "811" OR 1-800-382-5544 INDIANA UNDERGROUND —

SEE SHEET COO2 GENERAL NOTES FOR MORE INFORMATION.

Project Number 2017.01279 THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE

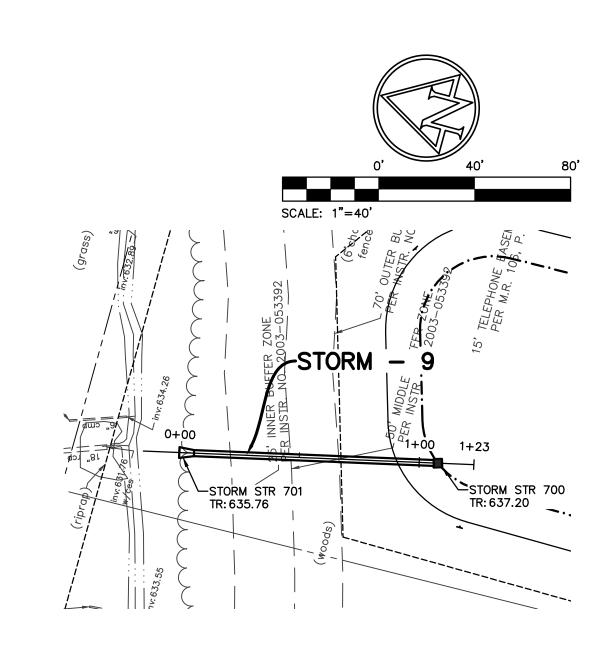
STORM SEWER PLAN (including, but not limited to, manholes, inlets, valves, and marks made upon the ground by others) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND **AND PROFILES**





SCALE: 1" = 40' (HORIZ)

1" = 5' (VERT)



655		STORM -	- 9	655
650			Ol	650
645	STORM STR 701 STA: 0+00 INV(S): 633.43		STORM STR 700 STA: 1+08 TR: 637.20 INV(N): 633.58	645
640		EXISTING GR	RADE	640
635				635
630	1	PROPOSED GF	Ш	630
625				625
620				620
615	639.27 633.49	637.71	637.51 635.26	615

SCALE: 1" = 40' (HORIZ) 1" = 5'(VERT)

				TODA OTDUOTUDE DAT					
		NOTE	S ALL CASTINGS SHALL ::	TORM STRUCTURE DATA BE LABELED "DUMP 1		-DRAINS	TO WATER	RWAY"	
STR. NO.	STRUCTURE / CASTING TYPE	T.O.R.	INCOMING PIPE DATA (DIRECTION) [FROM STR]	OUTGOING PIPE DATA (DIRECTION) [TO STR]	OUTGOING PIPE L.F.	OUTGOING PIPE SIZE	OUTGOING GRADE (%)	CONNECT TO STRUCT	REMARKS
101	TYPE "J" INLET / R-3455-C	639.10		15" RCP 635.24 (W) [102]	75'	15"	0.18%	102	
102	TYPE "M" INLET / R-3455-C	639.10	15" RCP 635.10 (E) [101]	18" RCP 635.10 (W) [103]	75'	18"	0.18%	103	
103	TYPE "M" INLET / R-3455-C	639.10	18" RCP 634.97 (E) [102]	18" RCP 634.97 (S) [105]	77'	18"	0.23%	105	
104	TYPE "C" MANHOLE / R-4342	639.79		15" RCP 635.07 (W) [105]	84'	15"	0.33%	105	
105	TYPE "C" MANHOLE / R-3472	638.78	18" RCP 634.79 (N) [103] 15" RCP 634.79 (E) [104]	24" RCP 634.79 (S) [106]	77'	24"	0.13%	106	
106	TYPE "C" MANHOLE / R-3472	638.80	24" RCP 634.69 (N) [105]	24" RCP 634.69 (S) [302]	77'	24"	0.15%	302	
201	TYPE "C" MANHOLE / R-3472	638.98		12" RCP 634.79 (NW) [302]	68'	12"	0.31%	302	CONNECT TO ROOF DRAIN
301	TYPE "C" MANHOLE / R-4342	639.23		18" RCP 634.88 (W) [302]	84'	18"	0.36%	302	
302	TYPE "K" MANHOLE / R-3472	639.45	24" RCP 634.58 (N) [106] 18" RCP 634.58 (E) [301] 12" RCP 634.58 (SE) [201]	30" RCP 634.58 (W) [406]	115'	30"	0.16%	406	
401	TYPE "F" INLET / R-4215-C	639.00		15" RCP 635.07 (SE) [404] 6" HDPE 635.57 (NW) []	97' 3'	15" 6"	0.25 % 0.00 %	404	CONNECT TO ROOF DRAIN
403	TYPE "A" INLET / R-3472	638.71		12" RCP 635.10 (SW) [404]	86'	12"	0.31%	404	
404	TYPE "C" MANHOLE / R-3472	638.37	12" RCP 634.83 (NE) [403] 15" RCP 634.83 (NW) [401]	18" RCP 634.83 (S) [405]	77'	18"	0.25%	405	
405	TYPE "M" INLET / R-3455-C	639.15	18" RCP 634.64 (N) [404]	18" RCP 634.64 (S) [406]	77'	18"	0.32%	406	
406	TYPE "J" MANHOLE / R-3472	639.95	30" RCP 634.39 (E) [302] 18" RCP 634.39 (N) [405]	30" RCP 634.39 (W) [502] 8" HDPE 635.39 (S) []	100' 3'	30" 8"	0.12% 0.00%	502	
501	TYPE "J" INLET / R-3455-C	638.18		18" RCP 634.43 (S) [502] 6" HDPE 634.93 (W) []	77' 2'	18" 6"	0.20 % 0.00 %	502	CONNECT TO ROOF DRAIN
502	TYPE "J" MANHOLE / R-3472	640.52	30" RCP 634.27 (E) [406] 18" RCP 634.27 (N) [501]	30" RCP 634.27 (W) [505]	48'	30"	0.15%	505	
503	TYPE "A" INLET / R-4342	639.26		12" RCP 635.60 (NW) [504]	31'	12"	0.31%	504	
504	TYPE "C" MANHOLE / R-3472	640.09	12" RCP 635.51 (SE) [503]	12" RCP 635.51 (N) [505]	100'	12"	0.31%	505	
505	TYPE "J" MANHOLE / R-3472	639.34	30" RCP 634.20 (E) [502] 12" RCP 635.20 (S) [504]	36" RCP 634.20 (W) [506]	86'	36"	0.16%	506	
506	TYPE "J" MANHOLE / R-3472	639.21	36" RCP 634.06 (E) [505]	36" RCP 634.06 (W) [604]	63'	36"	0.17%	604	
601	TYPE "A" INLET / R-3472	639.98		12" RCP 636.27 (SW) [602]	30'	12"	0.31%	602	CONNECT TO ROOF DRAIN
602	TYPE "C" MANHOLE / R-3472	639.51	12" RCP 636.18 (NE) [601]	12" RCP 636.18 (S) [604]	71'	12"	0.31%	604	CONNECT TO ROOF DRAIN
603	TYPE "F" INLET / R-4215-C	638.18		15" RCP 634.17 (N) [604]	73'	15"	0.30%	604	
604	TYPE "J" MANHOLE / R-1772	639.78	36" RCP 633.96 (E) [506] 12" RCP 635.96 (N) [602] 15" RCP 633.96 (S) [603]	36" RCP 633.96 (W) [605]	62'	36"	0.22%	605	
605	TYPE "K" MANHOLE / R-3472	638.56	36" RCP 633.82 (E) [604]	36" RCP 633.82 (NW) [605A]	63'	36"	0.22%	605A	
605A	TYPE "J" MANHOLE / R-1772	638.73	36" RCP 633.69 (SE) [605]	36" RCP 634.40 (NW) [605C] 18" HDPE 633.69 (W) [605B]	16' 13'	36" 18"	0.37 % 0.25 %	605C 605B	
605B	AQUA-SWIRL AS-5	638.93	18" HDPE 633.66 (E) [605A]	18" HDPE 633.66 (NE) [605C]	13'	18"	0.25%	605C	SEE DETAIL
605C	TYPE "J" MANHOLE / R-1772	638.67	36" RCP 634.34 (SE) [605A] 18" HDPE 633.63 (SW) [605B]	36" RCP 633.63 (NW) [606]	22'	36"	0.22%	606	
606	36" CONCRETE END SECTION		36" RCP 633.58 (SE) [605C]						DEBRIS GUARD REQUIRED
700	OUTLET CONTROL STRUCTURE	637.20		24" RCP 633.58 (N) [701]	108'	24"	0.14%	701	SEE DETAIL
701	24" CONCRETE END SECTION		24" RCP 633.43 (S) [700]						DEBRIS GUARD REQUIRED

EXISTING LEGEND

囯 electric cross box

🚱 bush

∰ inlet

🖾 air conditioner 🕦 telephone handhole curb inlet © clean out ① drainage manhole

① telephone manhole telephone marker sign -T- telephone pedestal

E electric meter box ξ%β tree

raffic manhole

rcp reinforced concrete pipe

cmp corrugated metal pipe

d flag pole W water manhole 🥽 fire hydrant water valve **∢** ground light -∲- yard light gas meter tr top of rim elevation inv invert elevation

vcp clay pipe 🌣 light pole pvc plastic pipe O pole fo buried fiber optic line post

t buried telephone line ☐ power pole g buried gas line e buried eletric line w buried water line S sanitary manhole ctv buried television line ohe overhead electric line

BENCHMARK DATA

(88 DATUM)

CUT SQUARE SET EAST SIDE 24" DIAMETER CONCRETE LIGHT BASE 24" ABOVE GRADE AT SOUTH SIDE OF NORTH ENTRANCE TO PORTER COUNTY ANNEX; ±75' WEST OF Q WILLOW SPRING ROAD AND ±30' SOUTH OF NORTH ENTRANCE. ELEV: 641.636

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TBM 62 CUT SQUARE SET IN NORTHEAST CORNER OF CONCRETE TRANSFORMER PAD SOUTH OF FRONTIER COMMUNICATIONS BUILDING; $\pm 75^{\circ}$ WEST OF DRIVE TO BUILDING AND $\pm 50^{\circ}$ SOUTH OF FRONTIER BUILDING. ELEV: 638.905

PLAN & PROFILE LEGEND



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PORTER COUNTY **NORTH ANNEX**

155 Indiana Avenue

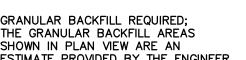
Valparaiso, IN 46383

STRUCTUREPOINT

7260 Shadeland Station | Indianapolis, Indiana 46256

TEL 317.547.5580 | FAX 317.543.0270

www.structurepoint.com



3560 WILLOWCREEK RD **PORTAGE, IN 46368**

PLAN & PROFILE NOTES

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ISSUANCE INDEX DATE:

CERTIFIED BY

08/17/2018 PROJECT PHASE: CONSTRUCTION DOCUMENTS

NO.	DESCRIPTION	DATE

REVISION SCHEDULE

GENERAL NOTES:

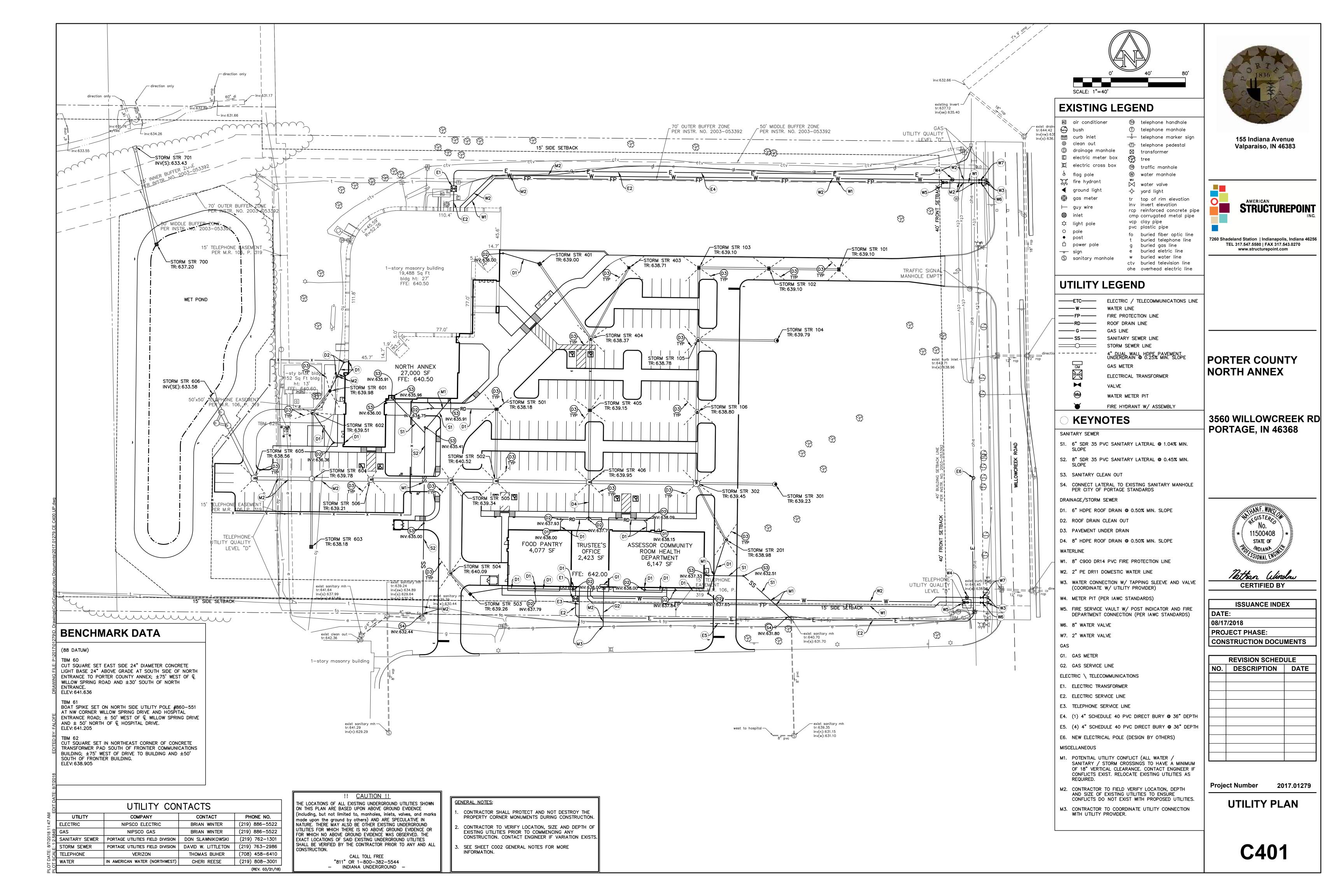
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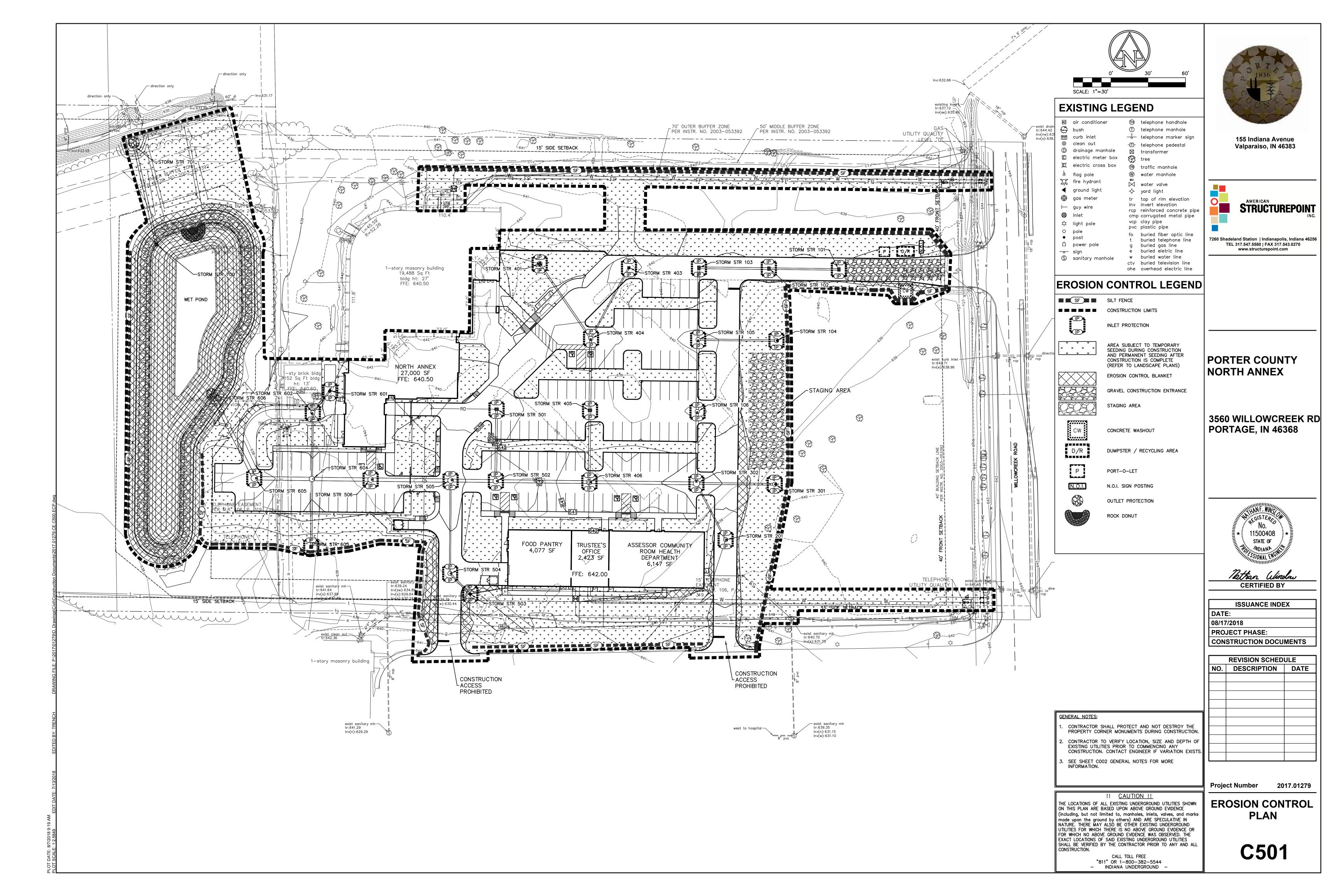
Project Number 2017.01279

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> CALL TOLL FREE "811" OR 1-800-382-5544 INDIANA UNDERGROUND —

STORM SEWER PLAN **AND PROFILES AND DATA TABLE**





OPERATOR'S INFORMATION Porter County Commissioners Address: 155 Indiana Avenue, Suite 205 Representative: Jeff Good

County Commissioner

219-465-3400

Telephone: NOTICE OF INTENT

All parties defined as owners or operators must submit a Notice of Intent (NOI) at least 48 hours prior to commencement of on-site construction activities. Submittal of late NOI's is not prohibited; however, authorization under the construction general permit is only for discharges that occur after permit coverage is grant ed. Unpermitted discharges may be subject to enforcement actions by the EPA. For the purposes of this permit, an operator is defined as any party meeting either of the following requirements:

- a) The party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications.
- b) The party has day-to-day operational control of those activities at a project that are necessary to ensure compliance with a stormwater pollution prevention plan for the site or other permit conditions.

A2 11" x 17" PLAT

Refer to the Site Plan.

A3 PROJECT NARRATIVE

The proposed project is located along the west side of Willowcreek Road in Portage, Porter County, Indiana. The ±13.79 acre site currently consists of the existing Porter County Annex facility, parking lot, and associated infrastructure. The proposed development will include a building addition to the existing facility and the construction of an office building along the south side of the site.

44 VICINITY MAP

Refer to Title Sheet

A5 LEGAL DESCRIPTION OF THE PROJECT SITE

Refer to sheet C100

46 LOCATION OF ALL LOTS AND PROPOSED SITE IMPROVEMENTS

The site will not be subdivided; therefore, there are no individual lots on the property. The proposed site improvements are shown on the included plans.

A7 HYDROLOGIC UNIT CODE (HUC)

HUC 14 - 04040001040030 Burns Ditch-Willow Creek

AS STATE AND FEDERAL WATER QUALITY PERMITS

IDEM - Rule 5 NOI

9 SPECIFIC POINT WHERE STORMWATER DISCHARGE WILL LEAVE THE SITE

Stormwater drainage from the site will be conveyed by a proposed storm sewer to a proposed wet detention facility along the west side of the site. The wet detention facility will discharge to an existing swale located along the north side of the property, which is then conveyed to the roadside ditch of Willowcreek Road, and ultimately discharged to Willow Creek.

A10 LOCATION AND NAME OF ALL WETLANDS, LAKES, AND WATERCOURSES ON AND ADJACENT TO THE SITE

No wetlands, lakes or watercourses have been identified on the site that may be impacted by stormwater discharges as a result of the proposed construction activities.

A11 IDENTIFICATION OF ALL RECEIVING WATERS

Willow Creek is the ultimate receiving water for the project area.

A12 IDENTIFICATION OF ALL POTENTIAL DISCHARGES TO GROUND WATER

There are no locations on site where surface water may be discharged into ground water.

A13 100-YEAR FLOODPLAINS, FLOODWAYS, AND FLOODWAY FRINGES

The lot is located in an unshaded Zone "X" (areas determined to be outside the 0.2 percent annual chance floodplain) as indicated on the Porter County, Indiana, Flood Insurance Rate Map 18127C0116D, DATED SEPTEMBÉR 30, 2015.

A14 PRE-CONSTRUCTION AND POST-CONSTRUCTION ESTIMATE OF PEAK DISCHARGE

Pre-construction 10-year discharge: 8.42 cfs Post-construction 10-year discharge: 4.90 cfs

A15 ADJACENT LAND USE

North: Commercial East: Commercial South: Medical Hospital West: Residential

A16 LOCATIONS AND APPROXIMATE BOUNDARIES OF ALL DISTURBED AREAS

Approximate boundaries of disturbed areas are as identified on the Erosion Control Plan.

A17 IDENTIFICATION OF EXISTING VEGETATIVE COVER

Approximate areas of existing vegetative cover are as shown on the existing topography sheets.

A18 SOILS MAP INCLUDING SOIL DESCRIPTION AND LIMITATIONS

The Natural Resources Conservation Service (NRCS) Web Soil Survey of Porter County, Indiana, indicates Del Ray

Silt Loam, Milford Silty Clay Loam, and Whitaker Loam are located on the site. The on-site soil will be treated as recommended by the geotechnical engineer if the conditions are unsuitable

for the proposed construction. Remedial treatments may include, but are not limited to, removal of unsuitable soil and backfilling with engineered material, installation of a geofabric within or under the pavement system, or treatment of the subgrade with lime.

A19 LOCATIONS, SIZE, AND DIMENSIONS FOR PROPOSED STORMWATER SYSTEMS

Locations of stormwater systems: Refer to the Utility Plan Size of storm sewer: Refer to the Utility Plan Details of storm inlets and manholes: Refer to Site Details

A20 PLANS FOR ANY OFF-SITE CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS PROJECT

A21 LOCATIONS OF PROPOSED SOIL STOCKPILES AND/OR BORROW/DISPOSAL

Excess soil shall be immediately stockpiled, surrounded with silt fence and seeded and/or removed from the construction site in accordance with all applicable laws. If topsoil stockpiles are anticipated for this project, they

A22 EXISTING SITE TOPOGRAPHY

Refer to the Existing Topography Plan A23 PROPOSED FINAL SITE TOPOGRAPHY

Refer to the Grading Plan

B1 DESCRIPTION OF POTENTIAL POLLUTANT SOURCES ASSOCIATED WITH CONSTRUCTION ACTIVITIES

The following potential pollutant sources may be associated with construction activities on site:

- Material storage areas (more specifically described below)
- Construction waste material Fuel storage areas and fueling stations
- Exposed soils Leaking vehicles and equipment
- Sanitary waste from temporary toilet facilities
- Litter Windblown dust
- Soil tracking off site from construction equipment The following construction materials may be staged or stored on site at various points during development of

the site:

- Structural fill
- Pavement Base Stone HDPE, PVC, RCP or Ductile Iron pipe
- Precast concrete, HDPE or PVC drainage and sanitary structures

B2 SEQUENCE DESCRIBING STORMWATER QUALITY MEASURE IMPLEMENTATION RELATIVE TO LAND-DISTURBING ACTIVITIES

- Schedule pre-construction meeting with local stormwater authority.
- Install construction entrance. Utilize the gravel construction entrance for installation of the perimeter silt fence. Add stone if needed. Post the NOI at the entrance. Add protection measures to existing inlets.
- Install staging area, fueling station, material storage area and concrete truck washout Strip the top soil and grade. Construct wet detention basin
- Complete the cut and fills on the site. Final grade and seed the pond slopes. Install check dams or stabilize the slopes with erosion control blankets. Prior to building construction install stone surface for paved areas.
- Building pads left dormant for more than 15 days, must be temporarily seeded. Start building construction. Install staging area for building materials.
- Install storm sewer and other utilities. Provide inlet protection immediately upon completion of the inlet and install riprap outlet protection prior to installing outlets. Final grade and stabilize slopes when inlets are functioning.
- Seed the perimeter of the site. Complete utility installation, curbs, paving and building construction

Install landscaping plant material and stabilize all disturbed areas. Remove all erosion and sediment control practices when areas have a uniform grass cover.

B3 STABLE CONSTRUCTION ENTRANCE LOCATIONS AND SPECIFICATIONS

Construction entrances will be in place prior to any site construction or demolition. Entrances are shown on the Erosion Control Plan, refer to the Erosion Control Details for details.

B4 SEDIMENT CONTROL MEASURES FOR SHEET FLOW AREAS

Sheet flow areas will be protected by seed and mulch or hydroseeding. Erosion control blankets will be installed on sloped areas where the slope exceeds 6:1 (horizontal to vertical). Silt Fencing will be utilized to prevent sedimentation from leaving the site. Refer to the Erosion Control Plan for locations and the Erosion Control

B5 SEDIMENT CONTROL MEASURES FOR CONCENTRATED FLOW AREAS

Proposed swales will be stabilized with erosion control blankets, and rock donuts will be installed to slow runoff to inlets. Straw bales and silt fences will not be allowed as concentrated flow protection measures. Refer to

the Erosion Control Plan for locations and the Erosion Control Details for details. **B6 STORM SEWER INLET PROTECTION MEASURE LOCATIONS AND SPECIFICATIONS**

The contractor shall install appropriate inlet protection measures at each inlet. Refer to the Erosion Control Plan for locations and the Erosion Control Details for details. Straw bales will not be allowed as inlet protection

B7 RUNOFF CONTROL MEASURES

Details for details

Silt fence will be utilized to prevent sediment from leaving the site via runoff.

B8 STORMWATER OUTLET PROTECTION SPECIFICATIONS

Stormwater outlets will be protected by riprap aprons to prevent scour erosion. Refer to the Erosion Control Plan for locations and the Frosion Control Details for details

B9 GRADE STABILIZATION STRUCTURE LOCATIONS AND SPECIFICATIONS

Rip rap aprons at outlets will be utilized to prevent grade destabilization. Refer to the Erosion Control Plan for locations and the Erosion Control Details for details.

B10 LOCATION, DIMENSIONS, SPECIFICATIONS, AND CONSTRUCTION DETAILS OF EACH STORMWATER QUALITY MEASURE

A wet detention pond will be used onsite to treat all stormwater prior to discharging to teh existing swale along the north side of the site. Refer to the Erosion Control Plan for locations of each stormwater quality measure and the Erosion Control Details.

B11 TEMPORARY SURFACE STABILIZATION METHODS APPROPRIATE FOR EACH SEASON

Surface stabilization is required on any bare or thinly vegetated area that is scheduled or likely to remain inactive for a period of 15 days or more. Refer to the Temporary Seeding Detail within Erosion Control Details for specifics on soil amendments, seed mixtures and mulching.

B12 PERMANENT SURFACE STABILIZATION SPECIFICATIONS

- A. Loosen lawn area to a minimum depth of 6 inches. Mix soil amendments and fertilizers with topsoil at rates specified. Organic soil amendments such as peat, compost or manure shall be applied at 2" depth evenly over soil and incorporated into the top 6" of topsoil. Provide fertilizer with percentage of nitrogen required to provide not less than 1 pound of actual nitrogen per 1,000 sq. ft. of lawn area and not less than 4 percent phosphoric acid and 2 percent potassium. At least 50 percent of nitrogen to be organic form. Delay mixing of
- ertilizer if planting will not follow placing of planting soil within a few days. Fertilizer for lawns: provide a fast release fertilizer with a composition of 1 lb per 1.000 sq. ft. of actual
- nitrogen, 4 percent phosphorous, and 2 percent potassium by weight. Slow-release fertilizer for trees and shrubs: granular fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorous and potassium made up of a composition by weight of 5 percent
- Grade lawn and grass areas to a smooth, even surface with loose, uniformly fine texture. Limit fine grading to areas that can be planted within immediate future. Remove trash, debris, stones larger than 1 inch diameter. and other objects that may interfere with planting or maintenance operations. Sow seed using a spreader or seeding machine. Do not seed when wind velocity exceeds 5 miles per hour. Distribute seed evenly over entire area by sowing equal quantity in 2 directions at right angles to each other.
- Rake seed lightly into top 1/8 inch of soil, roll lightly, and water with a fine spray. Install erosion control blankets as indicated on the plan. Protect seeded areas against erosion by spreading clean, seed—free straw mulch after completion of seeding operations. Spread uniformly to form a continuous blanket not less than 1-1/2 inches loose measurements
- over seeded areas. Water newly planted lawn areas and keep moist until new grass is established. Immediately repair any lawn areas disturbed by construction activities including tree and shrub installation.
- Refer to the Permanent Seeding Details within the Erosion Control Detail Sheet, for timing of permanent seeding, grass seed specifications and mulching specifications.

B13 MATERIAL HANDLING AND SPILL PREVENTION PLAN

Solid Waste Disposal

<u> Hazardous Waste</u>

No solid material, including building materials, is permitted to be discharged to surface waters or buried on site. All solid waste materials, including disposable materials incidental to the construction activity. must be collected in containers or closed dumpsters. The collection containers must be emptied periodically and the collected material hauled to a landfill permitted by the State and/or appropriate local municipality to accept the waste for disposal.

A foreman or supervisor should be designated in writing to oversee, enforce, and instruct construction workers on proper solid waste procedures.

Whenever possible, minimize the use of hazardous materials and generation of hazardous wastes. All hazardous waste materials will be disposed in the manner specified by federal, state, or local regulations or by the

dust. After construction, the site should be stabilized to reduce dust.

Use containment berms in fueling and maintenance areas and where potential for spills is high.

A foreman or supervisor should be designated in writing to oversee, enforce and instruct construction workers on proper hazardous waste procedures. The location of any hazardous waste storage areas should be indicated

on the stormwater pollution prevention plan by the operator following on-site location of the facility. <u>Dust Control/Off-Site Vehicle Tracking</u> During construction, water trucks should be used, as needed, by each contractor or subcontractor to reduce

Construction traffic should enter and exit the site at a Construction Entrance with a rock pad or equivalent device. The purpose of the rock pad is to minimize the amount of soil and mud that is tracked onto existing streets. If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize offsite impacts.

Sanitary/Septic

Contractors and subcontractors must comply with all state and local sanitary sewer, portable toilet, or septic system regulations. Sanitary facilities shall be provided at the site by each contractor or subcontractor throughout construction activities. The sanitary facilities should be utilized by all construction personnel and be serviced regularly. All expenses associated with providing sanitary facilities are the responsibility of the contractors and subcontractors. The location of any sanitary facilities should be indicated on the stormwater pollution prevention plan by the operator following on—site location of said facilities.

<u>Water Source</u>

Water used to establish and maintain grass, to control dust, and for other construction purposes must originate from a public water supply or private well approved by the State or local health department.

Equipment Fueling and Storage Areas

Equipment fueling, maintenance, and cleaning should only be completed in protected areas (i.e., bermed area).

Leaking equipment and maintenance fluids will be collected and not allowed to discharge onto soil where they may be washed away during a rain event.

Equipment wash down (except for wheel washes) should take place within an area surrounded by a berm. The use of detergents is prohibited.

<u> Hazardous Material Storage</u> Chemicals, paints, solvents, fertilizers, and other toxic or hazardous materials should be stored in their original

containers (if original container is not resealable, store the products in clearly labeled, waterproof containers). Except during application, the containers should be kept in trucks or in bermed areas within covered storage facilities. Runoff containing such materials shall be collected, removed from the site, and disposed of in accordance with the federal, state, and local regulations.

As may be required by federal, state or local regulations, the Contractor should have a Hazardous Materials Management Plan and/or Hazardous Materials Spill and Prevention Program in place. A foreman or supervisor should be designated in writing to oversee, enforce, and instruct construction workers on proper hazardous materials storage and handling procedures. The location of any hazardous material storage areas should be indicated on the stormwater pollution prevention plan by the operator following on—site location of the storage

Discharge of hazardous substances or oil into stormwater is subject to reporting requirements. In the event of a spill of a hazardous substance, the operator is required to notify the National Response Center (1-800-424-8802) to properly report the spill. In addition, the operator shall submit a written description of the release (including the type and amount of material released, the date of the release, the circumstances of the release, and the steps to be taken to prevent future spills) to the local governing authority. The SWPPP must be revised within 14 calendar days after the release to reflect the release, stating the information above along with modifications to minimize the possibility of future occurrences. Each contractor

<u>Concrete Washout</u> All concrete trucks waste material shall be completely contained and disposed in accordance with all local, state, and federal regulations. A pit or container is required when cleaning concrete chutes.

Minor - Small spills that typically involve oil, gasoline, paint, hydraulic fluid, etc., can be controlled by the first responder at the discovery of the spill.

and subcontractor is responsible for complying with these reporting requirements.

• Contain spill to prevent material from entering storm or ground water. Do not flush with water or • Use absorbent material to clean—up spill material and any subsequently contaminated soil and

Semi-Significant Spills - Approximately ten gallons or less of pollutant with no contamination of ground or surface waters. Minor spills can be generally controlled by the first responder with help from other site personnel. This response may require other operations to stop to make sure the spill is quickly and safely

- addressed. At the discovery of the spill: · Contain spill to prevent material from entering storm or ground water. Do not flush with water or
- Use absorbent material to clean—up spills and dispose of properly. Spills on impervious surfaces should be disposed of as soon as possible to prevent migration deeper into the soil and groundwater. Dispose of contaminated soils or absorbents properly.
- Contact 911 if the spill could be a safety issue. Contact supervisors and designated site inspectors immediately. Contaminated solids are to be removed to an approved landfill

Major or Hazardous Spills — More than ten gallons, there is the potential for death, injury or illness to humans or animals, or has the potential for surface or groundwater pollution.

- Control or contain the spill without risking bodily harm. Temporarily plug storm drains if possible to prevent migration of the spill into the stormwater system. immediately contact the local Fire Department at 911 to report any hazardous material spill. · Contact supervisors and designated site inspectors immediately. Governing authorities responsible for storm water facilities should be contacted as well. The contractor is responsible for having these contact numbers available at the job site. A written report should be submitted to the owner as
- soon as possible. • As soon as possible but within 2 hours of discovery, contact the local agency responsible for spill management. The following information should be noted for future reports to the agency:
- Name, address and phone number of person making the spill report The location of the spill
- The time of the spill
- Identification of the spilled substance Approximate quantity of the substance that has been spilled or may be further spilled
- The duration and source of the spill Name and location of the damaged waters
- •• What measures were taken in the spill response

•• Other information that may be significant Additional regulations or requirements may be present. A spill response professional should be consulted to make sure all appropriate and required steps have been taken. Contaminated solids should only be removed

from the site after approval is given by the appropriate agency. B14 MONITORING AND MAINTENANCE GUIDELINES FOR EACH PROPOSED STORMWATER QUALITY MEASURE

All impacted areas, as well as all erosion and sediment control devices, will be inspected every seven (7) calendar days and within 24 hours after a rainfall of 0.5 inch or greater. Where sites have been final or temporarily stabilized or on sites where runoff is unlikely due to winter conditions (e.g., site is covered with snow, ice, or frozen ground exists), such inspections shall be conducted at least once every month.

Inspections shall be conducted and a written report prepared, by a designated and qualified person familiar

with the USEPA NPDES Storm Water General Permit, this SWPPP, and the Project. Inspection reports shall be completed including scope of the inspection, name(s) and qualifications of personnel making the inspection, the date of the inspection, observations relating to the implementation of

the SWPPP, and any actions taken as a result of incidents of noncompliance noted during the inspection. The

The contractor shall keep a copy of the inspection reports on site and permanently for a period of two years

inspection report should state whether the site was in compliance or identify any incidents of noncompliance.

following construction. The on-site reports may be requested by inspections conducted by the local governing authority. Locations where vehicles exit the site shall be inspected for evidence of off-site sediment tracking. Each

contractor and subcontractor shall be responsible for maintaining the Construction Entrance and other

controls as described in this SWPPP. Inspectors must evaluate areas used for storage of materials that are exposed to precipitation. The purpose is to ensure that materials are protected and/or impounded so that pollutants cannot discharge from storage

areas. Off—site material storage areas used solely by the subject project are considered to be part of the project and must be included in the erosion control plans and the site inspection reports.

Soil Stabilization Inspections Seeded areas will be inspected to confirm that a healthy stand of vegetation is maintained. The site has achieved final stabilization once all areas are covered with pavement or have a stand of vegetation with at least 70% of the background vegetation density. The density of 70% or greater must be maintained to be considered as stabilized. The operator or their representative will water, fertilize, and reseed disturbed areas

as needed to achieve this goal.

protected from erosion

<u>Erosion and Sediment Control Inspections</u> All controls should be inspected at least once every seven (7) calendar days and following any storm event of 0.5 inch or greater. The following is a list of inspection/maintenance practices that will be used for

- Geotextiles/Erosion Control Mats: Missing or loose matting must be replaced or re-anchored. Inlet Protection: If silt fence inlet protection is to be used, sediment should be removed when it reaches approximately one—half the height of the fence. If a sump is used, sediment should be removed when
- the volume of the basin is reduced by 50%. Diversion Swales: Clean debris or other obstructions as needed. Damage from storms or normal construction activities (i.e., tire ruts) shall be repaired immediately.
- Mulching: Inspect for thin or bare spots caused by natural decomposition or weather—related events. Mulch in high traffic areas should be replaced on a regular basis to maintain uniform protection. 5. Sediment Trap: Accumulated silt shall be removed and the basin shall be re-graded to its original dimensions at such point that the capacity of the impoundment has been reduced to one-half of its
- protected from erosion. Sediment Basin: Inspect frequently to check for damage and to ensure obstructions are not diminishing the effectiveness of the structures. Sediment shall be removed and the basin shall be re-graded to its original dimensions at such point that the capacity of the impoundment has been reduced to 20% of its original storage capacity. The removed sediment shall be stockpiled or redistributed in areas that are

original storage capacity. The removed sediment shall be stockpiled or redistributed in areas that are

- 7. Silt Fence: Removal of built-up sediment will occur when the sediment reaches one-third the height of
- Stabilized Construction Entrance: Periodic re-grading and top dressing with additional stone. Straw Bales: Replace straw bales that show signs of deterioration. Vegetation: Protect newly seeded areas from excessive runoff and traffic until vegetation is established. Establish a watering and fertilizing schedule.

Good Housekeeping: Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges through screening of outfalls

In the event that sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize adverse impacts. An example of this may be the situation where sediment has washed into the street and could be carried into the storm sewers by the next rainfall and/or pose a safety hazard to users of public streets. Modifications/Revisions to SWPPP.

Based on inspection results, any necessary modification to this SWPPP shall be implemented within seven calendar days of the inspection. A modification is necessary if a control measure or operational procedure does not provide adequate pollutant control. All revisions shall be recorded on a Record of Revisions within

It is the responsibility of the operator to maintain effective pollutant discharge controls. Physical site conditions or contractor/subcontractor practices could make it necessary to install more controls than were originally planned. For example, localized concentrations of surface runoff or unusually steep areas could require additional silt barrier or other structural controls. Assessing the need for and installing additional controls will be a continuing contractor/subcontractor responsibility until final stabilization is achieved. Contractors and subcontractors implementing this SWPPP must remain alert to the need to periodically refine and update this SWPPP in order to accomplish the intended goals.

Notice of Termination Compliance of the site with the General Construction Permit remains the responsibility of all operators that have submitted an NOI until such time as they have submitted a Notice of Termination (NOT). The permittee's authorization to discharge under the General Construction Permit terminates at midnight of the day the NOT is signed.

All permittees must submit an NOT within thirty (30) days after one or more of the following conditions

- 1. Final stabilization has been achieved on all portions of the site for which the permittee was responsible. 2. Another operator/permittee has assumed control over all areas of the site that have not been finally
- 3. In residential construction operations, temporary stabilization has been completed and the residence has

B15 EROSION AND SEDIMENT CONTROL SPECIFICATIONS FOR INDIVIDUAL BUILDING LOTS

been transferred to the homeowner.

expected from this type of land use are listed below:

Since the entire site is under a single ownership, there are not any individual building lots.

C1 DESCRIPTION OF POLLUTANTS AND THEIR SOURCES ASSOCIATED WITH THE PROPOSED LAND USE The proposed land use is an institutional facility. The pollutants and sources of each pollutant normally

Pollutant Source: Passenger vehicles, delivery vehicles. Type of Pollutant: Oil, gasoline, diesel fuel, any hydrocarbon associated with vehicular fuels and lubricants, grease, antifreeze, windshield cleaner solution, brake fluid, brake dust, rubber, glass, metal and plastic fragments, grit, road de—icing materials.

Type of Pollutant: Cleaning solutions or solvents, leaks from HVAC equipment, grit from roof drainage, aggregate or rubber fragments from roofing system.

Type of Pollutant: Cleaning solutions or solvents, litter (paper, plastic, general refuse associated with distribution operations), uneaten food products, bacteria. Pollutant Source: Parking lot Type of Pollutant: Any pollutant associated with vehicular sources, grit from asphalt wearing surface,

Pollutant Source: Lawn and landscape areas

sources, elevated water temperatures from contact with impervious surfaces.

Type of Pollutant: Fertilizers, soil, organic material (leaves, mulch, grass clippings) C2 SEQUENCE DESCRIBING STORMWATER QUALITY MEASURE IMPLEMENTATION

stormwater prior to discharging from the site.

shown on the grading plan sheet C300.

schedules vary with each manufacturer.

<u>Mechanical BMP</u>

The stormwater wet detention pond will remain in place as permanent features after construction is completed. The purpose of the these measures is to restrict stormwater discharges and provide a sediment

bituminous compounds from periodic maintenance (sealing, resurfacing and patching), pavement de-icing

materials, paint fragments from parking stall stripes, concrete fragments, wind-blown litter from off-site

C3 DESCRIPTION OF PROPOSED POST-CONSTRUCTION STORMWATER QUALITY MEASURES

A vegetative filter strip are used to trap sediment from small, disturbed areas by reducing velocity of sheet Vegetative filter strips capture sediment by filtering storm water runoff and allowing sediment to settle out.

Topsoil will be placed in lawn areas and seeded with grass, and graded not to exceed 3:1 slopes. Proposed

improve storm water quality. The vegetated areas will slow the velocities of storm water runoff, reduce sediment runoff, and reduce problems associated with mud or dust from bare soils. <u>Wet Detention Pond</u> A wet detention pond detains storm water runoff long enough for contaminated sediments to settle and

remain in the pond and allow the water in the pond to be displaced by the next rain event. The

landscape trees and shrubs will also be added. These Bio areas will act as a natural filter strip to help

quality and quantity. <u> Mechanical BMP (Aqua—swirl. etc.)</u> A BMP structure will be installed at the downstream end of the storm sewer system, prior to the storm sewer outlet. The primary purpose of the BMP is to remove sediment, oils and floatable debris from the

sedimentation process removes particulates, organic matter, and metals from the water while nutrients are

removed through biological uptake. By capturing and retaining runoff, wet ponds control both storm water

Good Housekeeping Measures Good Housekeeping measures such as regular street sweeping, installation of trash receptacles, and reduction

in fertilizer overspray can be incorporated by the owner and/or occupant. C4 LOCATION, DIMENSIONS, SPECIFICATIONS, AND CONSTRUCTION DETAILS OF EACH STORMWATER QUALITY MEASURE The following items are stormwater quality measures that will be installed during construction. These items will

remain in place after construction is completed and are considered to serve an incidental function as post-construction stormwater quality BMPs. <u> Wet Detention Pond</u> The wet detention pond will be located at the west end of the site and will collect stormwater runoff as

The site contains an Aqua—Swirl AS—5 unit located on the west side of the site just upstream of the outlet to the pond. C5 DESCRIPTION OF MAINTENANCE GUIDELINES FOR POST-CONSTRUCTION STORMWATER QUALITY MEASURES

complete, are described below. Refer to the BMP Operations and Maintenance Manual for more detailed maintenance requirements. <u>Vegetated Filter Strip</u> Filter strips require little maintenance once vegetation is established. Mow as needed during the growing

Maintenance requirements for the stormwater quality measures which will remain in place after construction is

<u>Wet Detention Pond</u> Inspect periodically as needed or at least every six months. Sediment shall be disposed of off site in accordance with all applicable laws. Areas that show sign of erosion shall be stabilized with erosion control blanket and/or seed as necessary.

Frequent inspection and cleanout is critical for proper operation. Recommended inspection and maintenance



155 Indiana Avenue Valparaiso, IN 46383



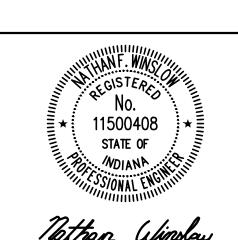
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PORTER COUNTY **NORTH ANNEX**

3560 WILLOWCREEK RD PORTAGE, IN 46368



CERTIFIED BY

ISSUANCE INDEX

CONSTRUCTION DOCUMENTS

DATE:

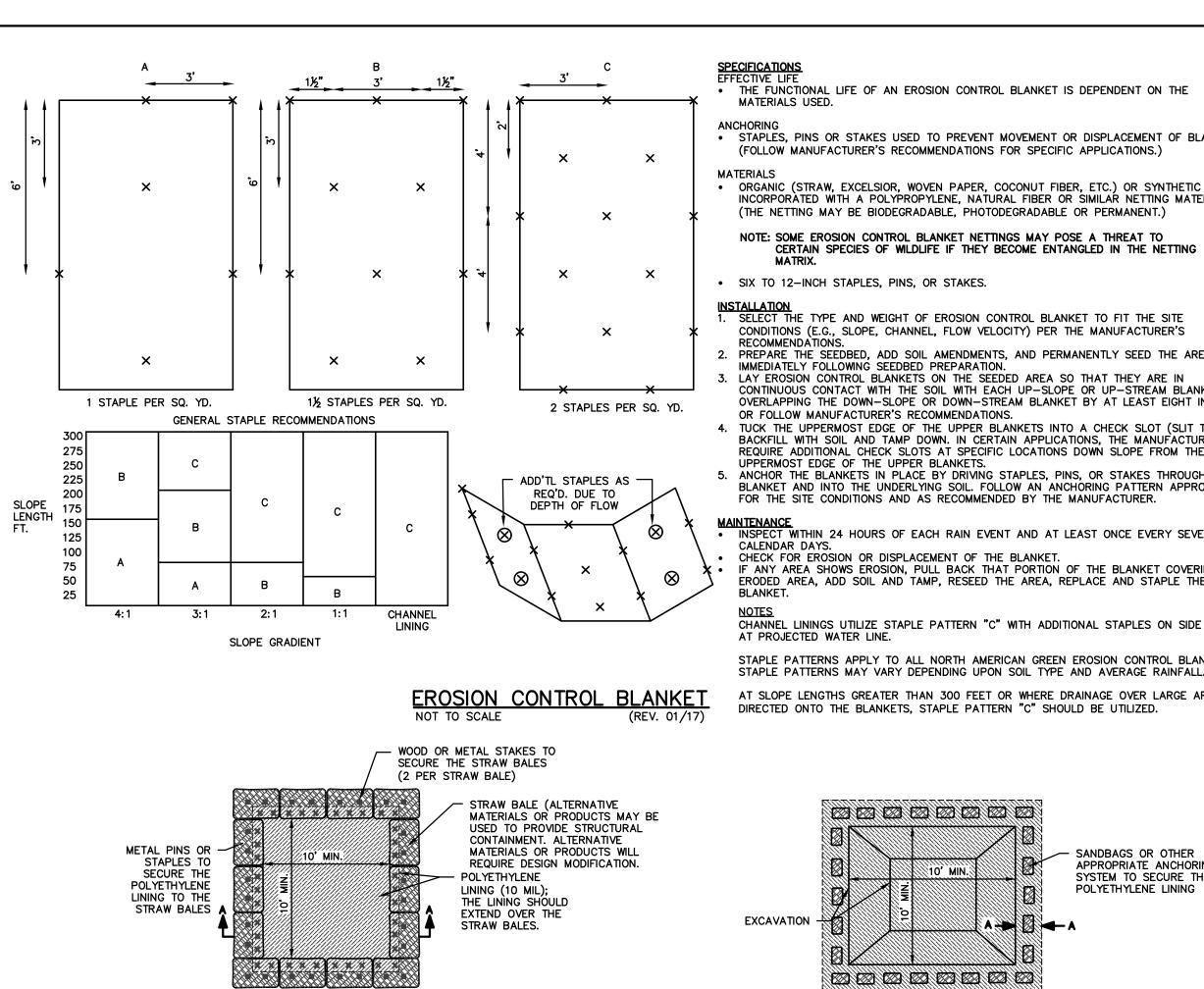
08/17/2018

PROJECT PHASE:

REVISION SCHEDULE NO. DESCRIPTION DATE

Project Number 2017.01279

STORM WATER **POLLUTION** PREVENTION PLAN



ABOVE GRADE SYSTEM MATERIALS MINIMUM OF TEN MIL POLYETHYLENE SHEETING THAT IS FREE OF HOLES, TEARS, AND OTHER DEFECTS. THE SHEETING SELECTED SHOULD BE OF AN APPROPRIATE SIZE TO FIT THE WASHOUT SYSTEM WITHOUT SEAMS OR OVERLAP OF THE LINING (DESIGNED

SOIL MATERIAL

OR STAPLES

- WOOD OR

ORANGE SAFETY FENCING OR EQUIVALENT. STRAW BALES, SANDBAGS (BAGS SHOULD BE ULTRAVIOLET-STABILIZED GEOTEXTILE FABRIC), SOIL MATERIAL, OR OTHER APPROPRIATE MATERIALS THAT CAN BE USED TO CONSTRUCT A CONTAINMENT SYSTEM (ABOVE GRADE SYSTEMS).

PLAN VIEW

POLYETHYLENE

(10 MIL)

4 INCHES INTO THE SOIL

SECTION A-A

METAL PINS OR STAPLES AT A MINIMUM OF SIX INCHES IN LENGTH, SANDBAGS, OR ALTERNATIVE FASTENER TO SECURE POLYETHYLENE LINING TO THE CONTAINMENT SYSTEM. NON-COLLAPSING AND NON-WATER HOLDING COVER FOR USE DURING RAIN EVENTS (OPTIONAL).

AND INSTALLED SYSTEMS).

PREFABRICATED WASHOUT SYSTEMS/CONTAINERS

 INSTALL AND LOCATE ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS. DESIGNED AND INSTALLED SYSTEMS

METAL PINS -

OR STAPLES

UTILIZE AND FOLLOW THE DESIGN IN THE STORM WATER POLLUTION PREVENTION PLAN TO INSTALL THE SYSTEM. DEPENDENT UPON THE TYPE OF SYSTEM, EITHER EXCAVATE THE PIT OR INSTALL THE CONTAINMENT SYSTEM. A BASE SHALL BE CONSTRUCTED AND PREPARED THAT IS FREE OF ROCKS AND OTHER DEBRIS THAT MAY CAUSE TEARS OR

PUNCTURES IN THE POLYETHYLENE LINING. INSTALL THE POLYETHYLENE LINING. FOR EXCAVATED SYSTEMS, THE LINING SHOULD EXTEND OVER THE ENTIRE EXCAVATION. THE LINING FOR BERMED SYSTEMS SHOULD BE INSTALLED OVER THE POOLING AREA WITH ENOUGH MATERIAL TO EXTEND THE LINING OVER THE BERM OR CONTAINMENT SYSTEM. THE LINING SHOULD BE SECURED WITH PINS, STAPLES, OR OTHER FASTENERS.

PLACE FLAGS, SAFETY FENCING, OR EQUIVALENT TO PROVIDE A BARRIER TO CONSTRUCTION EQUIPMENT AND OTHER TRAFFIC. PLACE A NON-COLLAPSING, NON-WATER HOLDING COVER OVER THE WASHOUT FACILITY PRIOR TO A PREDICTED RAINFALL EVENT TO PREVENT ACCUMULATION OF WATER AND POSSIBLE OVERFLOW OF THE SYSTEM (OPTIONAL). INSTALL SIGNAGE THAT IDENTIFIES CONCRETE WASHOUT AREAS.

POST SIGNS DIRECTING CONTRACTORS AND SUPPLIERS TO DESIGNATED LOCATIONS. WHERE NECESSARY, PROVIDE STABLE INGRESS AND EGRESS OR ALTERNATIVE APPROACH PAD FOR CONCRETE WASHOUT

MAINTENANCE

INSPECT DAILY AND AFTER EACH STORM EVENT. INSPECT THE INTEGRITY OF THE OVERALL STRUCTURE INCLUDING, WHERE APPLICABLE, THE CONTAINMENT SYSTEM.

INSPECT THE SYSTEM FOR LEAKS, SPILLS, AND TRACKING OF SOIL BY EQUIPMENT. INSPECT THE POLYETHYLENE LINING FOR FAILURE, INCLUDING TEARS AND PUNCTURES.

ONCE CONCRETE WASTES HARDEN, REMOVE AND DISPOSE OF THE MATERIAL. EXCESS CONCRETE SHOULD BE REMOVED WHEN THE WASHOUT SYSTEM REACHES 50 PERCENT OF THE DESIGN CAPACITY. USE OF THE SYSTEM SHOULD BE DISCONTINUED UNTIL APPROPRIATE MEASURES CAN BE INITIATED TO CLEAN THE STRUCTURE. PREFABRICATED SYSTEMS SHOULD ALSO UTILIZE THIS CRITERION, UNLESS THE MANUFACTURER HAS ALTERNATE SPECIFICATIONS. UPON REMOVAL OF THE SOLIDS, INSPECT THE STRUCTURE. REPAIR THE STRUCTURE AS NEEDED OR CONSTRUCT A NEW SYSTEM. DISPOSE OF ALL CONCRETE IN A LEGAL MANNER. REUSE THE MATERIAL ON SITE, RECYCLE OR HAUL THE MATERIAL TO AN APPROVED CONSTRUCTION/DEMOLITION LANDFILL SITE. RECYCLING OF MATERIAL IS ENCOURAGED. THE WASTE MATERIAL CAN BE

USED FOR MULTIPLE APPLICATIONS INCLUDING BUT NOT LIMITED TO ROADBEDS AND BUILDING. THE AVAILABILITY FOR RECYCLING SHOULD BE CHECKED LOCALLY. THE PLASTIC LINER SHOULD BE REPLACED AFTER EVERY CLEANING; THE REMOVAL OF MATERIAL WILL USUALLY DAMAGE THE

THE CONCRETE WASHOUT SYSTEM SHOULD BE REPAIRED OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE CONCRETE WASHOUT SYSTEMS ARE DESIGNED TO PROMOTE EVAPORATION. HOWEVER, IF THE LIQUIDS DO NO EVAPORATE AND THE SYSTEM IS NEAR CAPACITY IT MAY BE NECESSARY TO VACUUM OR REMOVE THE LIQUIDS AND DISPOSE OF THEM IN AN ACCEPTABLE METHOD. DISPOSAL MAY BE ALLOWED AT THE LOCAL SANITARY SEWER AUTHORITY PROVIDED THEIR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMITS ALLOW FOR ACCEPTANCE OF THIS MATERIAL. ANOTHER OPTION WOULD BE TO UTILIZE A SECONDARY CONTAINMENT SYSTEM OR BASIN FOR FUTURE DEWATERING.

PREFABRICATED UNITS ARE OFTEN PUMPED AND THE COMPANY SUPPLYING THE UNIT PROVIDES THIS SERVICE. INSPECT CONSTRUCTION ACTIVITIES ON A REGULAR BASIS TO ENSURE SUPPLIERS, CONTRACTORS, AND OTHERS ARE UTILIZING DESIGNATED WASHOUT AREAS. IF CONCRETE WASTE IS BEING DISPOSED OF IMPROPERLY, IDENTIFY THE VIOLATORS AND TAKE APPROPRIATE ACTION.

WHEN CONCRETE WASHOUT SYSTEMS ARE NO LONGER REQUIRED, THE CONCRETE WASHOUT SYSTEMS SHALL BE CLOSED. DISPOSE OF ALL HARDENED CONCRETE AND OTHER MATERIALS USED TO CONSTRUCT THE SYSTEM. HOLES, DEPRESSIONS AND OTHER LAND DISTURBANCES ASSOCIATED WITH THE SYSTEM SHOULD BE BACKFILLED, GRADED, AND

COMPLETE CONSTRUCTION/INSTALLATION OF THE SYSTEM AND HAVE WASHOUT LOCATIONS OPERATIONAL PRIOR TO CONCRETE DO NOT WASH OUT CONCRETE TRUCKS OR EQUIPMENT INTO STORM DRAINS, WETLANDS, STREAMS, RIVERS, CREEKS, DITCHES, OR NEVER WASH OUT INTO A STORM SEWER DRAINAGE SYSTEM. THESE SYSTEMS ARE TYPICALLY CONNECTED TO A NATURAL CONVEYANCE SYSTEM.

WHERE NECESSARY, PROVIDE STABLE INGRESS AND EGRESS. IT IS RECOMMENDED THAT WASHOUT SYSTEMS BE RESTRICTED TO WASHING CONCRETE FROM MIXER AND PUMP TRUCKS AND NOT USED TO DISPOSE OF EXCESS CONCRETE OR RESIDUAL LOADS DUE TO THE POTENTIAL TO EXCEED THE DESIGN CAPACITY OF THE WASHOUT SYSTEM. SMALL AMOUNTS OF EXCESS OR RESIDUAL CONCRETE (NOT WASHOUT WATER) MAY BE DISPOSED OF IN

CONCRETE WASH OUT
NOT TO SCALE (REV. 01/17)

THE FUNCTIONAL LIFE OF AN EROSION CONTROL BLANKET IS DEPENDENT ON THE MATERIALS USED

 STAPLES, PINS OR STAKES USED TO PREVENT MOVEMENT OR DISPLACEMENT OF BLANKET (FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR SPECIFIC APPLICATIONS.)

ORGANIC (STRAW, EXCELSIOR, WOVEN PAPER, COCONUT FIBER, ETC.) OR SYNTHETIC MULCH INCORPORÀTED WITH A POLYPROPYLENE, NATURAL FIBER OR SIMILAR NETTING MATERIAL.

NOTE: SOME EROSION CONTROL BLANKET NETTINGS MAY POSE A THREAT TO CERTAIN SPECIES OF WILDLIFE IF THEY BECOME ENTANGLED IN THE NETTING

SELECT THE TYPE AND WEIGHT OF EROSION CONTROL BLANKET TO FIT THE SITE

CONDITIONS (E.G., SLOPE, CHANNEL, FLOW VELOCITY) PER THE MANUFACTURER'S RECOMMENDATIONS. PREPARE THE SEEDBED, ADD SOIL AMENDMENTS, AND PERMANENTLY SEED THE AREA IMMEDIATELY FOLLOWING SEEDBED PREPARATION. LAY EROSION CONTROL BLANKETS ON THE SEEDED AREA SO THAT THEY ARE IN

CONTINUOUS CONTACT WITH THE SOIL WITH EACH UP—SLOPE OR UP—STREAM BLANKET OVERLAPPING THE DOWN-SLOPE OR DOWN-STREAM BLANKET BY AT LEAST EIGHT INCHES, OR FOLLOW MANUFACTURER'S RECOMMENDATIONS. 4. TUCK THE UPPERMOST EDGE OF THE UPPER BLANKETS INTO A CHECK SLOT (SLIT TRENCH), BACKFILL WITH SOIL AND TAMP DOWN. IN CERTAIN APPLICATIONS, THE MANUFACTURER MAY REQUIRE ADDITIONAL CHECK SLOTS AT SPECIFIC LOCATIONS DOWN SLOPE FROM THE

UPPERMOST EDGE OF THE UPPER BLANKETS 5. ANCHOR THE BLANKETS IN PLACE BY DRIVING STAPLES, PINS, OR STAKES THROUGH THE BLANKET AND INTO THE UNDERLYING SOIL. FOLLOW AN ANCHORING PATTERN APPROPRIATE FOR THE SITE CONDITIONS AND AS RECOMMENDED BY THE MANUFACTURER.

INSPECT WITHIN 24 HOURS OF EACH RAIN EVENT AND AT LEAST ONCE EVERY SEVEN CALENDAR DAYS. CHECK FOR EROSION OR DISPLACEMENT OF THE BLANKET.

IF ANY AREA SHOWS EROSION, PULL BACK THAT PORTION OF THE BLANKET COVERING THE ERODED AREA, ADD SOIL AND TAMP, RESEED THE AREA, REPLACE AND STAPLE THE

CHANNEL LININGS UTILIZE STAPLE PATTERN "C" WITH ADDITIONAL STAPLES ON SIDE SLOPES AT PROJECTED WATER LINE. STAPLE PATTERNS APPLY TO ALL NORTH AMERICAN GREEN EROSION CONTROL BLANKETS.

AT SLOPE LENGTHS GREATER THAN 300 FEET OR WHERE DRAINAGE OVER LARGE AREAS IS DIRECTED ONTO THE BLANKETS, STAPLE PATTERN "C" SHOULD BE UTILIZED.

APPROPRIATE ANCHORING SYSTEM TO SECURE THE POLYETHYLENE LINING **EXCAVATION** PLAN VIEW SANDBAGS OR OTHER APPROPRIATE ANCHORING SYSTEM TO SECURE THE POLYETHYLENE LINING POLYETHYLENE — LINING (10 MIL)

> BELOW GRADE SYSTEM AREAS THAT WILL NOT RESULT IN FLOW TO AN AREA THAT IS TO BE PROTECTED. INSTALL SYSTEMS AT STRATEGIC LOCATIONS THAT ARE CONVENIENT AND IN CLOSE PROXIMITY TO WORK AREAS AND IN SUFFICIENT NUMBER TO ACCOMMODATE THE DEMAND FOR DIPOSAL.

INSTALL SIGNAGE IDENTIFYING THE LOCATION OF CONCRETE WASHOUT SYSTEMS.

 LOCATE CONCRETE WASHOUT SYSTEMS AT LEAST 50 FEET FROM ANY CREEKS, WETLANDS, DITCHEST, KARST FEATURES, OR STORM DRAINS/MANMADE CONVEYANCE SYSTEMS. TO THE EXTENT PRACTICAL, LOCATE CONCRETE WASHOUT SYSTEMS IN RELATIVELY FLAT AREAS THAT HAVE ESTABLISHED

VEGETATIVE COVER AND DO NOT RECEIVE RUNOFF FROM ADJACENT LAND AREAS. LOCATE IN AREAS THAT PROVIDE EASY ACCESS FOR CONCRETE TRUCKS AND OTHER CONSTRUCTION EQUIPMENT. LOCATE AWAY FROM OTHER CONSTRUCTION TRAFFIC TO REDUCE THE POTENTIAL FOR DAMAGE TO THE SYSTEM.

GENERAL DESIGN CONSIDERATIONS

SECTION A-A

THE STRUCTURE OR SYSTEM SHALL BE DESIGNED TO CONTAIN THE ANTICIPATED WASHOUT WATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES. THE SYSTEM SHALL BE DESIGNED, TO THE EXTENT PRACTICAL, TO ELIMINATE RUNOFF FROM ENTERING THE WASHOUT SYSTEM.

RUNOFF FROM A RAINSTORM OR SNOWMELT SHOULD NOT CARRY WASTES AWAY FROM THE WASHOUT LOCATION. WASHOUT WILL NOT IMPACT FUTURE LAND USES (I.E., OPEN SPACES, LANDSCAPED AREAS, HOME SITES, PARKS) WASHOUT SYSTEMS/CONTAINMENTS MEASURES MAY ALSO BE UTILIZED ON SMALLER INDIVIDUAL BUILDING SITES. THE DESIGN AND SIZE OF THE SYSTEM CAN BE ADJUSTED TO ACCOMMODATE THE EXPECTED CAPACITY.

PREFABRICATED WASHOUT SYSTEMS/CONTAINERS SELF-CONTAINED STURDY CONTAINMENT SYSTEMS THAT ARE DELIVERED TO A SITE AND LOCATED AT STRATEGIC LOCATIONS FOR CONCRETE DISPOSAL

THESE SYSTEMS ARE MANUFACTURED TO RESIST DAMAGE FROM CONSTRUCTION EQUIPMENT AND PROTECT AGAINST LEAKS OR • MANUFACTURER OR SUPPLIER PROVIDES THE CONTAINERS. THE PROJECT SITE MANAGER MAINTAINS THE SYSTEM OR THE

SUPPLIER PROVIDES COMPLETE SERVICE THAT INCLUDES MAINTENANCE AND DISPOSAL UNITS ARE OFTEN AVAILABLE WITH OR WITHOUT RAMPS. UNITS WITH RAMPS LEND THEMSELVES TO ACCOMMODATE PUMP TRUCKS. MAINTAIN ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

THESE UNITS ARE DESIGNED AND INSTALLED ON SITE. THEY TEND TO BE LESS RELIABLE THAN PREFABRICATED SYSTEMS ARE OFTE PRONE TO FAILURE. CONCRETE WASHOUT SYSTEMS CAN BE CONSTRUCTED ABOVE OR BELOW GRADE. IT IS NOT UNCOMMON TO HAVE A SYSTEM THAT IS PARTLY BELOW GRADE WITH AN ADDITIONAL CONTAINMENT STRUCTURE ABOVE GRADE. WASHOUT SYSTEMS SHALL UTILIZE A PIT OR BERMED AREA DESIGNED AND MAINTAINED AT A CAPACITY TO CONTAIN ALL LIQUID

AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS. THE VOLUME OF THE SYSTEM MUST ALSO BE DESIGNED TO CONTAIN RUNOFF THAT DRAINS TO THE SYSTEM AND RAINFALL THAT ENTERS THE SYSTEM FOR A TWO-YEAR FREQUENCY, 24-HOUR STORM EVENT.

 A WASHOUT SYSTEM INSTALLED BELOW GRADE SHOULD BE A MINIMUM OF TEN FEET WIDE BY TEN FEET LONG, BUT SIZED TO CONTAIN ALL LIQUID AND WASTE THAT IS EXPECTED TO BE GENERATED BETWEEN SCHEDULED CLEANOUT PERIODS. THE SIZE OF THE PIT MAY BE LIMITED BY THE SIZE OF THE POLYETHYLENE AVAILABLE. THE POLYETHYLENE LINING SHOULD BE ADEQUATE SIZE TO EXTEND OVER THE ENTIRE EXCAVATION. • INCLUDE A MINIMUM 12-INCH FREEBOARD TO REASONABLY ENSURE THAT THE STRUCTURE WILL NOT OVERTOP DURING A RAIN

LINE THE PIT WITH TEN MIL POLYETHYLENE LINING TO CONTROL SEEPAGE. THE BOTTOM OF EXCAVATED PIT SHOULD BE ABOVE THE SEASONAL HIGH WATER TABLE

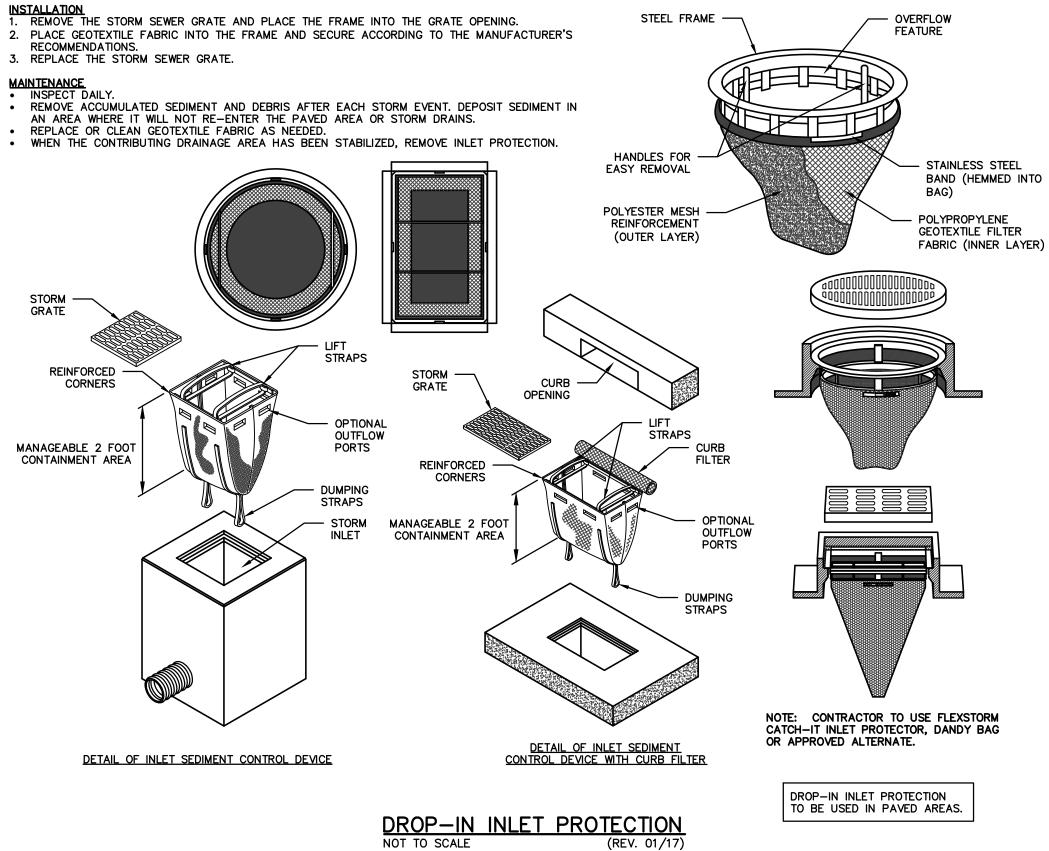
 A SYSTEM DESIGNED AND BUILT ABOVE GRADE SHOULD BE A MINIMUM OF TEN FEET WIDE BY TEN FEET LONG, BUT SIZED TO CONTAIN ALL LIQUID AND WASTE THAT IS EXPECTED TO BE GENERATED BETWEEN SCHEDULED CLEANOUT PERIODS. THE SIZE OF THE CONTAINMENT SYSTEM MAY BE LIMITED BY THE SIZE OF POLYETHYLENE AVAILABLE. THE POLYETHYLENE LINING SHOULD BE F ADEQUATE SIZE TO EXTEND OVER THE BERM OR CONTAINMENT SYSTEM. THE SYSTEM DESIGN MAY UTILIZE AN EARTHEN BERM, STRAW BALES, SANDBAGS, OR OTHER ACCEPTABLE BARRIERS THAT WILL

MAINTAIN ITS SHAPE AND INTEGRITY AND SUPPORT THE POLYETHYLENE LINING. INCLUDE A MINIMUM FOUR-INCH FREEBOARD AS PART OF THE DESIGN.

 DO NOT LEAVE EXCESS MUD IN THE CHUTES OR HOPPER AFTER THE POUR. EVERY EFFORT SHOULD BE MADE TO EMPTY THE CHUTES AND HOPPER AT THE POUR. THE LESS MATERIAL LEFT IN THE CHUTES AND HOPPER, THE QUICKER AND EASIER THE CLEANOUT. SMALL AMOUNTS OF EXCESS CONCRETE (NOT WASHOUT WATER) MAY BE DISPOSED OF IN AREAS THAT WILL NOT RESULT IN FLOW TO AN AREA THAT IS TO BE PROTECTED. AT THE WASHOUT LOCATION, SCRAPE AS MUCH MATERIAL FROM THE CHUTES AS POSSIBLE BEFORE WASHING THEM. USE NON-WATER CLEANING METHODS TO MINIMIZE THE CHANCE FOR WASTE TO FLOW OFF SITE.

REMOVE AS MUCH MUD AS POSSIBLE WHEN WASHING OUT. STOP WASHING OUT IN AN AREA IF YOU OBSERVE WATER RUNNING OFF THE DESIGNATED AREA OR IF THE CONTAINMENT SYSTEM IS LEAKING OR OVERFLOWING AND INFFFECTIVE DO NOT BACK FLUSH EQUIPMENT AT THE PROJECT SITE. BACK FLUSHING SHOULD BE RESTRICTED TO THE PLANT AS IT GENERATES LARGE VOLUMES OF WASTE THAT MORE THAN LIKELY WILL EXCEED THE CAPACITY OF MOST WASHOUT SYSTEMS. IF AN EMERGENCY ARISES, BACK FLUSH SHOULD ONLY BY PERFORMED WITH THE PERMISSION OF AN ON-SITE MANAGER FOR THE

DO NOT USE ADDITIVES WITH WASH WATER. DO NOT USE SOLVENTS OR ACIDS THAT MAY BE USED AT THE TARGET PLANT.



STEEL FRAME

REPLACE OR CLEAN GEOTEXTILE FABRIC AS NEEDED. WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE INLET PROTECTION STORM -MANAGEABLE 2 FOOT CONTAINMENT AREA

OVERFLOW

STORM SEWER PIF **EMERGENCY OVERFLOW** BOTTOM OF DAM SECTION B-B #8 STONE (1' MIN. THICKNESS) (1' MIN. THICKNESS) 1' MIN. SECTION A-A MAINTENANCE

• INSPECT WITHIN 24 HOURS OF A RAIN EVENT AND AT LEAST ONCE EVERY SEVEN CALENDAR DAYS. WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE AND PROPERLY DISPOSE OF ANY UNSTABLE SEDIMENT AND CONSTRUCTION MATERIAL, AND RE-STABILIZE.

ROCK DONUT DETAIL

NOT TO SCALE





PORTER COUNTY **NORTH ANNEX**

3560 WILLOWCREEK RD PORTAGE, IN 46368

SPECIFICATIONS

NOTE: ALTERNATIVE SUPPORT SYSTEMS MAY BE SUBSTITUTED FOR HARDWOOD POSTS AND CROSS BRACES.

CONTRIBUTING DRAINAGE AREA ONE ACRE MAXIMUM.

SIX MONTHS (MAXIMUM).

 RUNOFF FROM A TWO-YEAR FREQUENCY, 24—HOUR STORM EVENT ENTERING A STORM DRAIN WITHOUT BYPASS FLOW.

 HEIGHT - 12 TO 18 INCHES, MEASURED FROM THE TOP OF STORM DRAIN INLET. • POST SPACING - 36-INCH MAXIMUM SPACING BETWEEN POSTS. • FRAME SUPPORT - BRACING TO STRENGTHEN INTEGRITY OF THE STRUCTURE. (STRUCTURE MUST WITHSTAND 1½-FOOT HEAD OF WATER AND SEDIMENT WITHOUT

•• 2 x 2 INCH OR 2 x4 INCH HARDWOOD POSTS. THREE FEET LENGTH, MINIMUM.

• 1 x 2 INCH OR 1 x 3 INCH HARDWOOD CROSS BRACING LUMBER.

 STAPLES OR NAILS. GEOTEXTILE FABRIC.

COLLAPSING OR WITHSTANDING.)

TABLE 2. GEOTEXTILE FABRIC SPECIFICATIONS FOR SILT FENCE (MINIMUM)

NON-WOVEN PHYSICAL PROPERTY GEOTEXTILE FABRIC GEOTEXTILE FABRIC FILTERING EFFICIENCY 85% 85% UV RESISTANCE (INHIBITORS AND ŠTABILIZERS TO ENSURE SIX MONTH MINIMUM LIFE AT TEMPERATURES 0° TO TEXTILE STRENGTH AT 20% ELONGATION STANDARD STRENGTH 30 LBS. PER LINEAL INCH 50 LBS. PER LINEAL INCH EXTRA STRENGTH 50 LBS. PER LINEAL INCH 70 LBS. PER LINEAL INCH SLURRY FLOW RATE 0.3 GAL./MIN./SQUARE FOOT 4.5 GAL./MIN./SQUARE FOOT 15 GAL./MIN./SQUARE FOOT 220 GAL./MIN./SQUARE FOOT WATER FLOW RATE

> - PROVIDE CROSS BRACING WHEN NECESSARY BURIED GEOTEXTILE

DIG AN EIGHT-INCH DEEP, FOUR-INCH WIDE TRENCH AROUND THE PERIMETER OF THE

2. IF USING PRE-ASSEMBLED GEOTEXTILE FABRIC AND POSTS, DRIVE THE POSTS INTO THE SOIL, TIGHTLY STRETCHING THE GEOTEXTILE FABRIC BETWEEN POSTS AS EACH IS DRIVEN (POSTS MUST BE PLACED ON THE INLET SIDE OF THE ANCHOR TRENCH WITH THE GEOTEXTILE FABRIC ON THE SIDE OF THE TRENCH FARTHEST FROM THE INLET.) NOTE: IF ASSEMBLING THE GEOTEXTILE FABRIC AND POSTS ON—SITE, DRIVE THE POSTS INTO THE SOIL AND THEN SECURE THE GEOTEXTILE FABRIC TO THE POSTS BY PLACING A PIECE OF LATHE OVER THE FABRIC AND FASTENING IT TO THE POST (STRETCHING

3. USE THE WRAP JOIN METHOD WHEN JOINING POSTS.4. PLACE THE BOTTOM 12 INCHES OF GEOTEXTILE FABRIC INTO THE EIGHT—INCH DEEP TRENCH, LAYING THE REMAINING FOUR INCHES IN THE BOTTOM OF THE TRENCH AND

EXTENDING AWAY FROM THE INLET. 5. BACKFILL THE TRENCH WITH SOIL MATERIAL AND COMPACT IT IN PLACE. 6. BRACE THE POSTS BY NAILING BRACES INTO EACH CORNER POST OR UTILIZE RIGID

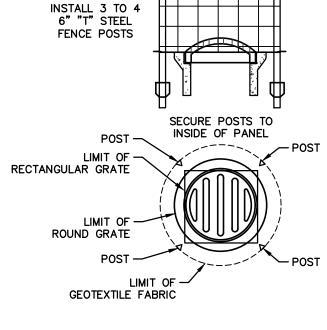
THE FABRIC BETWEEN POSTS AS IT IS FASTENED).

PANELS TO SUPPORT FABRIC. NOTE: IN SITUATIONS WHERE STORM WATER MAY BYPASS THE STRUCTURE,

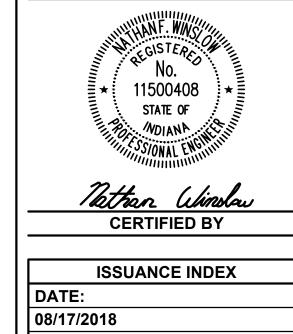
SET THE TOP OF THE GEOTEXTILE FABRIC FILTER AT LEAST SIX INCHES LOWER THAN THE GROUND ELEVATION ON THE DOWN-SLOPE SIDE OF THE STORM DRAIN INLET,

 BUILD A TEMPORARY DIKE, COMPACTED TO SIX INCHES HIGHER THAN THE FABRIC, ON THE DOWN-SLOPE SIDE OF THE STORM DRAIN INLET, USE IN CONJUNCTION WITH EXCAVATED DROP INLET PROTECTION.

MAINTENANCE INSPECT GEOTEXTILE FABRIC AND MAKE NEEDED REPAIRS IMMEDIATELY. REMOVE SEDIMENT FROM POOL AREA TO PROVIDE STORAGE FOR THE NEXT STORM EVENT. AVOID DAMAGING OR UNDERCUTTING FABRIC DURING SEDIMENT REMOVAL. USE ONE 16" LIVESTOCK WHEN CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE SEDIMENT, PANEL WRAPPED W/ PROPERLY DISPOSE OF ALL CONSTRUCTION MATERIAL, GRADE AREA TO THE GEOTEXTILE FABRIC ELEVATION OF THE STORM DRAIN INLET TOP, THEN STABILIZE IMMEDIATELY. INSTALL 3 TO 4 6" "T" STEEL FENCE POSTS GEOTEXTILE FABRIC SECURED WITH LATHE COMPACTED FILL POST · RECTANGULAR GRATE GEOTEXTILE FABRIC LAID ON DOWN-SLOPE T



NOTE: THIS MEASURE IS NOT RECOMMENDED FOR PAVED SURFACES DUE TO INABILITY TO ENTRENCH THE FABRIC AND LACK OF AN ANCHORING SYSTEM.



PROJECT PHASE:

CONSTRUCTION DOCUMENTS				
	REVISION SCHED	ULE		
NO.	DESCRIPTION	DATE		

Project Number 2017.01279

EROSION CONTROL DETAILS

SILT FENCE INLET PROTECTION

SIDE AND BOTTOM OF:

TRENCH

GRADE AND APPLY SOIL AMENDMENTS.

SEED FINAL GRADED AREAS DAILY WHILE SOIL IS STILL LOOSE AND MOIST.

DENSITY OF VEGETATIVE COVER NINETY PERCENT OR GREATER OVER THE SOIL SURFACE.

- SOIL AMENDMENTS SELECT MATERIALS AND RATES AS DETERMINED BY A SOIL TEST (CONTACT YOUR COUNTY SOIL AND WATER CONSERVATION DISTRICT OR COOPERATIVE EXTENSION OFFICE FOR ASSISTANCE AND SOIL INFORMATION. INCLUDING AVAILABLE SOIL TESTING SERVICES) OR 400 TO 600 POUNDS OF 12-12-12 ANALYSIS FERTILIZER, OR EQUIVALENT. CONSIDER THE USE OF REDUCED PHOSPHOROUS APPLICATION WHERE SOIL TESTS INDICATE ADEQUATE PHOSPHOROUS LEVELS IN THE SOIL PROFILE.
- SEED SELECT APPROPRIATE PLANT SPECIES SEED OR SEED MIXTURES ON THE BASIS OF SOIL TYPE, SOIL pH, REGION OF THE STATE, TIME OF YEAR, AND INTENDED LAND USE OF THE AREA TO BE SEEDED (SEE TABLE 1). MULCH - STRAW, HAY, WOOD FIBER, ETC. (TO PROTECT SEEDBED, RETAIN MOISTURE, AND ENCOURAGE PLANT GROWTH). ANCHORED TO PREVENT REMOVAL BY WIND OR WATER OR COVERED WITH PREMANUFACTURED EROSION CONTROL

GRADE THE SITE TO ACHIEVE POSITIVE DRAINAGE. ADD TOPSOIL TO ACHIEVE NEEDED DEPTH FOR ESTABLISHMENT OF VEGETATION. (COMPOST MATERIAL MAY BE ADDED TO IMPROVE SOIL MOISTURE HOLDING

- CAPACITY, SOIL FRIABILITY, AND NUTRIENT AVAILABILITY.) SEEDBED PREPARATION TEST SOIL TO DETERMINE pH AND NUTRIENT LEVELS.
- APPLY SOIL AMENDMENTS AS RECOMMENDED BY THE SOIL TEST AND WORK INTO THE UPPER TWO TO FOUR INCHES OF SOIL. IF TESTING IS NOT DONE. APPLY 400 TO 600 POUNDS PER ACRE OF 12-12-12 ANALYSIS FERTILIZER, OR EQUIVALENT. TILL THE SOIL TO OBTAIN A UNIFORM SEEDBED. USE A DISK OF RAKE, OPERATED
- ACROSS THE SLOPE, TO WORK THE SOIL AMENDMENTS INTO THE UPPER TWO TO FOUR INCHES OF THE SOIL.
- OPTIMUM SEEDING DATES ARE MARCH 1 TO MAY 10 AND AUGUST 10 TO SEPTEMBER 30. PERMANENT SEEDING DONE BETWEEN MAY 10 AND AUGUST 10 MAY NEED TO BE IRRIGATED. SEEDING OUTSIDE OR BEYOND OPTIMUM SEEDING DATES IS STILL POSSIBLE WITH THE UNDERSTANDING THAT RESEEDING OR OVERSEEDING MAY BE REQUIRED IF ADEQUATE SURFACE COVER IS NOT ACHIEVED, RESEEDING OR OVERSEEDING CAN BE EASILY ACCOMPLISHED IF THE SOIL SURFACE REMAINS WELL PROTECTED WITH MULCH. SELECT A SEEDING MIXTURE AND RATE FROM TABLE 1. SELECT SEED MIXTURE

BASED ON SITE CONDITIONS, SOIL pH, INTENDED LAND USE, AND EXPECTED LEVEL

- APPLY SEED UNIFORMLY WITH A DRILL OR CULTIPACKER SEEDER OR BY BROADCASTING. PLANT OR COVER THE SEED TO A DEPTH OF ONE-FOURTH TO ONE—HALF INCH. IF DRILLING OR BROADCASTING THE SEED. ENSURE GOOD SEED-TO-SOIL CONTACT BY FIRMING. THE SEEDBED WITH A ROLLER OR CULTIPACKER AFTER COMPLETING SEEDING OPERATIONS. (IF SEEDING IS DONE WITH A HYDROSEEDER, FERTILIZER AND MULCH CAN BE APPLIED WITH THE SEED IN A
- MULCH ALL SEEDED AREAS AND USE APPROPRIATE METHODS TO ANCHOR THE MULCH IN PLACE. CONSIDER USING EROSION CONTROL BLANKETS ON SLOPING AREAS AND CONVEYANCE CHANNELS.

INSPECT WITHIN 24 HOURS OF EACH RAIN EVENT AND AT LEAST ONCE EVERY

OF MAINTENANCE.

- SEVEN CALENDAR DAYS UNTIL THE VEGETATION IS SUCCESSFULLY ESTABLISHED. CHARACTERISTICS OF A SUCCESSFUL STAND INCLUDE VIGOROUS DARK GREEN OR BLUISH-GREEN SEEDLINGS WITH A UNIFORM VEGETATIVE COVER DENSITY OF 90
- CHECK FOR EROSION OR MOVEMENT OF MULCH. REPAIR DAMAGED, BARE, GULLIED, OR SPARSELY VEGETATED AREAS AND THEN
- FERTILIZE, RESEED, AND APPLY AND ANCHOR MULCH. IF PLANT COVER IS SPARSE OR PATCHY, EVALUATE THE PLANT MATERIALS CHOSEN, SOIL FERTILITY, MOISTURE CONDITION, AND MULCH APPLICATION; REPAIR
- AFFECTED AREAS EITHER BY OVERSEEDING OR PREPARING A NEW SEEDBED AND RESEEDING. APPLY AND ANCHOR MULCH ON THE NEWLY SEEDED AREAS. IF VEGETATION FAILS TO GROW, CONSIDER SOIL TESTING TO DETERMINE SOIL pH
- OR NUTRIENT DEFICIENCY PROBLEMS. (CONTACT YOUR SOIL AND WATER CONSERVATION DISTRICT OR COOPERATIVE EXTENSION OFFICE FOR ASSISTANCE.)
- IF ADDITIONAL FERTILIZATION IS NEEDED TO GET A SATISFACTORY STAND, DO SO ACCORDING TO SOIL TEST RECOMMENDATIONS.
- ADD FERTILIZER THE FOLLOWING GROWING SEASON. FERTILIZE ACCORDING TO SOIL TEST RECOMMENDATIONS. FERTILIZE TURF AREAS ANNUALLY. APPLY FERTILIZER IN A SPLIT APPLICATION.
- FOR COOL-SEASON GRASSES, APPLY ONE-HALF OF THE FERTILIZER IN LATE SPRING AND ONE-HALF IN EARLY FALL. FOR WARM-SEASON GRASSES, APPLY ONE-THIRD IN EARLY SPRING, ONE-THIRD IN LATE SPRING, AND THE REMAINING ONE-THIRD IN MIDDLE SUMMER.

SEEDING SPECIFICATIONS SEEDBED PREPARATION

GRADE AND APPLY SOIL AMENDMENTS.

SEEDING FREQUENCY SEED ROUGH GRADED AREAS DAILY WHILE SOIL IS STILL LOOSE AND MOIST.

DENSITY OF VEGETATIVE COVER EIGHTY PERCENT OR GREATER OVER THE SOIL SURFACE.

- SOIL AMENDMENTS SELECT MATERIALS AND RATES AS DETERMINED BY A SOIL TEST. (CONTACT YOUR COUNTY SOIL AND WATER CONSERVATION DISTRICT OR COOPERATIVE EXTENSION OFFICE FOR ASSISTANCE AND SOIL INFORMATION, INCLUDING AVAILABLE SOIL TESTING SERVICES) OR 400 TO 600 POUNDS OF 12-12-12 ANALYSIS FERTILIZER, OR EQUIVALENT. CONSIDER THE USE OF REDUCED PHOSPHOROUS APPLICATION WHERE SOIL
- TESTS INDICATE ADEQUATE PHOSPHOROUS LEVELS IN THE SOIL PROFILE. SEED - SELECT APPROPRIATE PLANT SPECIES SEED OR SEED MIXTURES ON THE BASIS OF QUICK GERMINATION, GROWTH, AND TIME OF YEAR TO BE SEEDED (SEE TABLE 1). MULCH - STRAW, HAY, WOOD FIBER, ETC. (TO PROTECT SEEDBED, RETAIN MOISTURE, AND ENCOURAGE PLANT GROWTH). ANCHORED TO PREVENT REMOVAL BY WIND OR

WATER OR COVERED WITH MANUFACTURED EROSION CONTROL BLANKETS. TABLE 1 CLODE STEEDNESS DESTRICTIONS

TABLE 1. SLOPE STEEPNESS RESTRICTIONS				
SEED SPECIES*	RATE PER ACRE	PLANTING DEPTH	OPTIMUM DATES**	
WHEAT OR RYE	150 LBS.	1 TO 1-1/2 INCHES	SEPT. 15-0CT. 30	
SPRING OATS	100 LBS.	1 INCH	MARCH 1-APRIL 15	
ANNUAL RYEGRASS	40 LBS.	1/4 INCH	MARCH 1-MAY 1 AUG. 1-SEPT. 1	
GERMAN MILLET	40 LBS.	1 TO 2 INCHES	MAY 1-JUNE 1	
SUDANGRASS	35 LBS.	1 TO 2 INCHES	MAY 1-JULY 30	
BUCKWHEAT	60 LBS.	1 TO 2 INCHES	APRIL 15-JUNE 1	
CORN (BROADCAST)	300 LBS.	1 TO 2 INCHES	MAY 11-AUG. 10	
SORGHUM	35 LBS.	1 TO 2 INCHES	MAY 1-JULY 15	

*PERENNIAL SPECIES MAY BE USED AS A TEMPORARY COVER, ESPECIALLY IF THE AREA TO BE SEEDED WILL REMAIN IDLE FOR MORE THAN ONE YEAR. **SEEDING DONE OUTSIDE THE OPTIMUM SEEDING DATES INCREASES THE CHANCES OF SEEDING FAILURE. DATES MAY BE EXTENDED OR SHORTENED BASED ON THE LOCATION OF THE PROJECT WITHIN THE STATE.

MULCH ALONE IS AN ACCEPTABLE TEMPORARY COVER AND MAY BE USED IN LIEU OF TEMPORARY SEEDING, PROVIDED THAT IT IS APPROPRIATELY ANCHORED.

A HIGH POTENTIAL FOR FERTILIZER, SEED, AND MULCH TO WASH EXISTS ON STEEP BANKS, CUTS, AND IN CHANNELS AND AREAS OF CONCENTRATED FLOW.

- TEST SOIL TO DETERMINE pH AND NUTRIENT LEVELS. APPLY SOIL AMENDMENTS AS RECOMMENDED BY THE SOIL TEST. IF TESTING IS NOT DONE, APPLY 400 TO 600 POUNDS PER ACRE OF 12-12-12 ANALYSIS FERTILIZER, OR
- WORK THE SOIL AMENDMENTS INTO THE UPPER TWO TO FOUR INCHES OF THE SOIL WITH A DISK OR RAKE OPERATED ACROSS THE SLOPE.
- SELECT A SEED SPECIES OR AN APPROPRIATE SEED MIXTURE AND APPLICATION RATE
- APPLY SEED UNIFORMLY WITH A DRILL OR CULTIPACKER SEEDER OR BY BROADCASTING. PLANT OR COVER SEED TO THE DEPTH SHOWN IN TABLE 1.
- IF DRILLING OR BROADCASTING THE SEED, ENSURE GOOD SEED-TO-SOIL CONTACT BY FIRMING THE SEEDBED WITH A ROLLER OR CULTIPACKER AFTER COMPLETING SEED OPERATIONS.
- DAILY SEEDING WHEN THE SOIL IS MOIST IS USUALLY MOST EFFECTIVE. IF SEEDING IS DONE WITH A HYDROSEEDER, FERTILIZER AND MULCH CAN BE APPLIED WITH THE SEED IN A SLURRY MIXTURE.
- APPLY MULCH AND ANCHOR IT IN PLACE.

INSPECT WITHIN 24 HOURS OF EACH RAIN EVENT AND AT LEAST ONCE EVERY SEVEN CALENDAR DAYS.

- CHECK FOR EROSION OR MOVEMENT OF MULCH AND REPAIR IMMEDIATELY.
- MONITOR FOR EROSION DAMAGE AND ADEQUATE COVER (80 PERCENT DENSITY); RESEED, FERTILIZE, AND APPLY MULCH WHERE NECESSARY.
- IF NITROGEN DEFICIENCY IS APPARENT. TOP-DRESS FALL SEEDED WHEAT OR RYF SEEDING WITH 50 POUNDS PER ACRE OF NITROGEN IN FEBRUARY OR MARCH.

TABLE 1. PERMANENT SEEDING RECOMMENDATIONS

THIS TABLE PROVIDES SEVERAL SEED MIXTURE OPTIONS. ADDITIONAL SEED MIXTURES ARE AVAILABLE COMMERCIALLY. WHEN SELECTING A MIXTURE. CONSIDER INTENDED LAND USE AND SITE CONDITIONS, INCLUDING SOIL PROPERTIES (E.G., SOIL pH AND DRAINAGE), SLOPE ASPECT, AND THE TOLERANCE OF EACH SPECIES TO SHADE AND DROUGHT.

OPEN LOW-MAINTENANCE AREAS

(REMAINING IDLE MORE THAN SIX MONTHS)				
SEED MIXTURES	RATE PER ACRE PURE LIVE SEED	OPTIMUM SOIL pH		
1. PERENNIAL RYEGRASS WHITE CLOVER*	70 LBS. 2 LBS.	5.6 TO 7.0		
2. PERENNIAL RYEGRASS TALL FESCUE**	70 LBS. 50 LBS.	5.6 TO 7.0		
3. TALL FESCUE** WHITE CLOVER*	70 LBS. 2 LBS.	5.5 TO 7.5		
STEEP BANKS AND CUTS, LOW-MAINTENANCE AREAS				

(NOT MOWED)

NOT MOWED)				
SEED MIXTURES	RATE PER ACRE PURE LIVE SEED	OPTIMUM SOIL pH		
I. SMOOTH BROME GRASS RED CLOVER*	35 LBS. 20 LBS.	5.5 TO 7.0		
2. TALL FESCUE** WHITE CLOVER*	50 LBS. 2 LBS.	5.5 TO 7.5		
3. TALL FESCUE** RED CLOVER*	50 LBS. 20 LBS.	5.5 TO 7.5		
RED CLOVER* WHITE CLOVER*	30 LBS. 20 LBS. 2 LBS.	5.6 TO 7.0		
5. CROWNVETCH* TALL FESCUE**	12 LBS. 30 LBS.	5.6 TO 7.0		
ANAIC AND LICH MAINTENANCE AREAC				

LAW	LAWNS AND HIGH-MAINTENANCE AREAS						
	SEED MIXTURES	RATE PER ACRE PURE LIVE SEED	OPTIMUM SOIL pH				
1.	BLUEGRASS	140 LBS.	5.5 TO 7.0				
2.	PERENNIAL RYEGRASS (TURF TYPE)	60 LBS. 90 LBS.	5.6 TO 7.0				
3.	TALL FESCUE (TURF TYPE)** BLUEGRASS	170 LBS. 30 LBS.	5.6 TO 7.5				
	SEED MIXTURES	RATE PER ACRE	OPTIMUM SOIL pH				

	SEED WIIXTORES	PURE LIVE SEED	01 111110111 001E PI
	1. PERENNIAL RYEGRASS WHITE*	150 LBS. 2 LBS.	5.5 TO 7.0
ł	2. KENTUCKY BLUEGRASS SMOOTH BROMEGRASS SWITCHGRASS TIMOTHY PERENNIAL RYEGRASS WHITE CLOVER**	20 LBS. 10 LBS. 3 LBS. 4 LBS. 10 LBS. 2 LBS.	5.5 TO 7.5
	3. TALL FESCUE* WHITE CLOVER**	150 LBS. 2 LBS.	5.5 TO 7.5
	4. TALL FESCUE** PERENNIAL RYEGRASS KENTUCKY BLUEGRASS	150 LBS. 20 LBS. 20 LBS.	5.5 TO 7.5

*FOR BEST RESULTS: (A) LEGUME SEED SHOULD BE INOCULATED; (B) SEEDING MIXTURES CONTAINING LEGUMES SHOULD PREFERABLY BE SPRING-SEEDED, ALTHOUGH THE GRASS MAY BE FALL-SEEDED AND THE LEGUME FROST-SEEDED; AND (C) IF LEGUMES ARE FALL-SEEDED, DO SO IN EARLY FALL.

**TALL FESCUE PROVIDES LITTLE COVER FOR, AND MAY BE TOXIC TO SOME SPECIES OF WILDLIFE. THE INDIANA DEPARTMENT OF NATURAL RESOURCES RECOGNIZES THE NEED FOR ADDITIONAL RESEARCH ON ALTERNATIVES SUCH AS BUFFALOGRASS, ORCHARDGRASS, SMOOTH BROMEGRASS, AND WITCHGRASS. THIS RESEARCH, IN CONJUNCTION WITH DEMONSTRATION AREAS, SHOULD FOCUS ON EROSION CONTROL CHARACTERISTICS, WILDLIFE TOXICITY, TURF DISABILITY, AND

MULCH SPECIFICATIONS

TABLE 1. SLOPE STEEPNESS RESTRICTIONS

1 TON

CONTROL BLANKETS OR OTHER STABILIZATION METHODS.

MATERIAL* RATE PER ACRE

MATERIALS

STRAW OR HAY

OR CELLULOSE

THE SOIL SURFACE.

TABLE 2. MULCH ANCHORING METHODS

MULCH ANCHORING TOOL OR

FARM DISK (DULL, SERRATED,

AND BLADES SET STRAIGHT)

WOOD HYDROMULCH FIBERS

SYNTHETIC TACKIFIERS

NETTING (SYNTHETIC OR

AND/OR WATER.

BIODEGRADABLE MATERIAL)

CLEATING WITH DOZER TRACKS

BINDERS, OR SOIL STABILIZERS

PERMANENT SEEDING WITH MULCH

AN OAT OR WHEAT COMPANION OR NURSE CROP MAY BE USED WITH ANY OF THE ABOVE PERMANENT SEEDING MIXTURES, AT THE FOLLOWING RATES: SPRING OATS - ONE-FOURTH TO THREE-FOURTHS BUSHEL PER ACRE

WHEAT - NO MORE THAN ONE-HALF BUSHEL PER ACRE 2. A HIGH POTENTIAL FOR FERTILIZER, SEED, AND MULCH TO WASH EXISTS ON STEEP BANKS, CUTS, AND IN CHANNELS AND AREAS OF CONCENTRATED FLOW.

MULCH SPECIFICATIONS MATERIALS

TABLE 1. SLOPE STEEPNESS RESTRICTIONS

MATERIAL*	RATE PER ACRE	COMMENTS		
STRAW OR HAY	2 TONS	SHOULD BE DRY, FREE OF UNDESIRABLE SEEDS. SPREAD BY HAND OR MACHINE. MUST BE CRIMPED OR ANCHORED (SEE TABLE 2).		
WOOD FIBER OR CELLULOSE	1 TON	APPLY WITH A HYDRAULIC MULCH MACHINE AND USE WITH TACKING AGENT.		
MULCHING IS NOT RECOMMENDED IN CONCENTRATED FLOWS. CONSIDER EROSION				

CONTROL BLANKETS OR OTHER STABILIZATION METHODS.

 THE MULCH SHOULD HAVE A UNIFORM DENSITY OF AT LEAST 75 PERCENT OVER THE SOIL SURFACE. ANCHORING

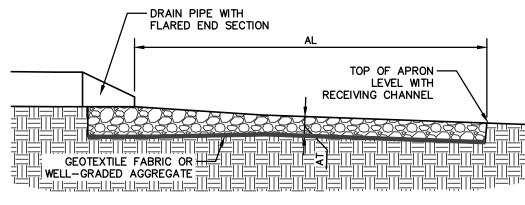
TABLE 2. MULCH ANCHORING METHODS			
ANCHORING METHOD*	HOW TO APPLY		
MULCH ANCHORING TOOL OR FARM DISK (DULL, SERRATED, AND BLADES SET STRAIGHT)	CRIMP OR PUNCH THE STRAW OR HAY TWO TO FOUR INCHES INTO THE SOIL. OPERATE MACHINERY ON THE CONTOUR OF THE SLOPE.		
CLEATING WITH DOZER TRACKS	OPERATE DOZER UP AND DOWN SLOPE TO PREVENT FORMATION OF RILLS BY DOZER CLEAT		
WOOD HYDROMULCH FIBERS	APPLY ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.		
SYNTHETIC TACKIFIERS, BINDERS, OR SOIL STABILIZERS	APPLY ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.		
NETTING (SYNTHETIC OR BIODEGRADABLE MATERIAL)	INSTALL NETTING IMMEDIATELY AFTER APPLYING MULCH. ANCHOR NETTING WITH STAPLES. EDGES OF NETTING STRIPS SHOULD OVERLAP WITH EACH UP-SLOPE STRIP OVERLAPPING FOUR TO SIX INCHES OVER THE ADJACENT DOWN-SLOPE STRIP. BEST SUITED TO SLOPE APPLICATIONS. IN MOST INSTANCES, INSTALLATION DETAILS ARE SITE SPECIFIC, SO MANUFACTURER'S RECOMMENDATIONS SHOULD BE FOLLOWED.		
*ALL FORMS OF MULCH MUST BE ANCHORED TO PREVENT DISPLACEMENT BY WI			

IS OF MULCH MUST BE ANCHORED TO PREVENT DISPLACEMENT BY WIND AND/OR WATER.

- APPLY MULCH AT THE RECOMMENDED RATE SHOWN IN TABLE 1. 2. SPREAD THE MULCH MATERIAL UNIFORMLY BY HAND, HAYFORK, MULCH BLOWER, OR HYDRAULIC MULCH MACHINE. AFTER SPREADING, NO MORE THAN 25 PERCENT OF THE GROUND SHOULD BE VISIBLE.
- ANCHOR STRAW OR HAY MULCH IMMEDIATELY AFTER APPLICATION. THE MULCH CAN BE ANCHORED USING ONE OF THE METHODS LISTED BELOW: a. CRIMP WITH A MULCH ANCHORING TOOL, A WEIGHTED FARM DISK WITH DULL SERRATED BLADES SET STRAIGHT, OR TRACK CLEATS OF A
 - b. APPLY HYDRAULIC MULCH WITH SHORT CELLULOSE FIBERS, APPLY A LIQUID TACKIFIER, OR d. COVER WITH NETTING SECURED BY STAPLES.

MULCH MAINTENANCE • INSPECT WITHIN 24 HOURS OF EACH RAIN EVENT AND AT LEAST ONCE EVERY

- SEVEN CALENDAR DAYS.
- CHECK FOR EROSION OR MOVEMENT OF MULCH; REPAIR DAMAGED AREAS, RESEED, APPLY NEW MULCH AND ANCHOR THE MULCH IN PLACE. CONTINUE INSPECTIONS UNTIL VEGETATION IS FIRMLY ESTABLISHED.
- IF EROSION IS SEVER OR RECURRING, USE EROSION CONTROL BLANKETS OR OTHER MORE SUBSTANTIAL STABILIZATION METHODS TO PROTECT THE AREA.



AL = APRON LENGTH (FEET)AW = APRON WIDTH (FEET)AT = APRON THICKNESS (FEET)

NOTE: AW IS THE APRON WIDTH AT THE NARROW END OF THE APRON.

<u>SPECIFICATIONS</u> • PEAK RUNOFF FROM A 10-YEAR FREQUENCY, 24-HOUR STORM EVENT OR THE DESIGN DISCHARGE OF THE WATER CONVEYANCE STRUCTURE, WHICHEVER IS GREATER.

• TEN FEET PER SECOND.

GRADE > 2%

GEOTEXTILE FABRIC

8" MINIMUM INDOT CA

NO. 2 AGGREGATE

UNDERLINE

GEOTEXTILE FABRIC

UNDERLINER

· ALIGNED STRAIGHT WITH CHANNEL FLOW. IF A CURVE IS NECESSARY TO ALIGN THE APRON WITH THE RECEIVING STREAM, LOCATE THE CURVE IN THE UPSTREAM SECTION OF THE APRON. •• 1.2 TIMES THE MAXIMUM STONE DIAMETER FOR A d50 STONE SIZE OF 15 INCHES OR LARGER. •• 1.5 TIMES THE MAXIMUM STONE DIAMETER FOR A d 50 STONE SIZE OF 15 INCHES OR LESS.

SIZING FOR FLOW DISSIPATERS AT CULVERT PIPE OUTLETS					
PIPE SIZE	MEDIAN RIPRAP DIAMETER	APRON WIDTH*	APRON LENGTH**		
8 IN.	6 IN. MIN.	2 TO 3 FT.	5 TO 7 FT.		
12 IN.	6 IN. MIN.	3 TO 4 FT.	6 TO 10 FT.		
15 IN.	6 IN. MIN.	4 TO 6 FT.	6 TO 12 FT.		
18 IN.	6 IN. MIN.	4 TO 6 FT.	8 TO 16 FT.		
21 IN.	6 IN. MIN.	6 TO 8 FT.	8 TO 16 FT.		
24 IN.	9 IN. MIN.	6 TO 8 FT.	12 TO 18 FT.		
30 IN.	9 IN. MIN.	8 TO 10 FT.	14 TO 20 FT.		
36 IN.	9 IN. MIN.	10 TO 12 FT.	16 TO 22 FT.		
42 IN.	9 IN. MIN.	12 TO 14 FT.	18 TO 24 FT.		
48 IN.	12 IN. MIN.	12 TO 14 FT.	18 TO 26 FT.		
54 IN.	12 IN. MIN.	14 TO 16 FT.	22 TO 28 FT.		
60 IN.	12 IN. MIN.	15 TO 17 FT.	22 TO 32 FT.		
66 IN.	12 IN. MIN.	17 TO 19 FT.	24 TO 36 FT.		
72 IN.	12 IN. MIN.	18 TO 20 FT.	26 TO 40 FT.		
84 IN.	18 IN. MIN.	21 TO 23 FT.	30 TO 44 FT.		

SPECIFICATIONS DRAINAGE AREA

EFFECTIVE LIFE

SIX MONTHS (MAXIMUM).

PERCENT SLOPE

*CONSIDER OTHER ALTERNATIVES.

• DEPTH: EIGHT INCHES MINIMUM.

TO PLOW IN THE SILT FENCE.

OUTLINED IN TABLE 2.

TEXTILE STRENGTH AT 20%

PHYSICAL PROPERTY

FI ONGATION

ILTERING EFFICIENCY

STANDARD STRENGTH

EXTRA STRENGTH

WATER FLOW RATE

UV RESISTANCE

POST SPACING

LURRY FLOW RATE

MATERIALS AND SILT FENCE SPECIFICATIONS

NOTE: SILT FENCES CAN BE PURCHASED COMMERCIALLY

WIDTH: FOUR INCHES MINIMUM.

*APRON WIDTH AT THE NARROW END OF APRON (PIPE OR CHANNEL OUTLET). **SELECT LENGTH TAKING INTO CONSIDERATION THE LOW FLOW (NO PRESSURE HEAD) OR HIGH FLOW (PRESSURE HEAD) CONDITIONS OF THE CULVERT PIPE

RIPRAP OUTLET PROTECTION

• LIMITED TO ONE-QUARTER ACRE PER 100 LINEAR FEET OF FENCE.

MINIMUM OF 10 FEET BEYOND THE TOE OF THE SLOPE TO PROVIDE A BROAD, SHALLOW

• ACCESSIBLE FOR MAINTENANCE (REMOVAL OF SEDIMENT AND SILT FENCE REPAIR).

NOTE: MULTIPLE ROWS OF SILT FENCE ARE NOT RECOMMENDED ON THE SAME SLOPE.

AFTER INSTALLING THE FENCE, BACKFILL WITH SOIL MATERIAL AND COMPACT

NOTE: AN ALTERNATIVE TO TRENCHING IS TO USE MECHANICAL EQUIPMENT

FABRIC - WOVEN OR NON-WOVEN GEOTEXTILE FABRIC, MEETING SPECIFIED MINIMUMS

GEOTEXTILE FABRIC

85%

30 LBS. PER LINEAL INCH

50 LBS. PER LINEAL INCH

HEIGHT - A MINIMUM OF 18 INCHES ABOVE GROUND LEVEL (30 INCHES MAXIMUM). REINFORCEMENT - FABRIC SECURELY FASTENED TO POSTS WITH WOOD LATHE. SUPPORT POSTS - 2x2 INCH HARDWOOD POSTS. STEEL FENCE POSTS MAY BE

SUBSTITUTED FOR HARDWOOD POSTS (STEEL POSTS SHOULD HAVE PROJECTIONS FOR

SPACING - EIGHT FEET MAXIMUM IS FENCE IS SUPPORTED BY WIRE MESH FENCING,

SIX FEET MAXIMUM FOR EXTRA-STRENGTH FABRIC WITHOUT WIRE BACKING.

D.3 GAL./MIN./SQUARE FOOT 4.5 GAL./MIN./SQUARE FOOT 15 GAL./MIN./SQUARE FOOT 220 GAL./MIN./SQUARE FOOT

(TO BURY AND ANCHOR THE LOWER PORTION OF THE FENCE FABRIC).

TABLE 2. GEOTEXTILE FABRIC SPECIFICATIONS FOR SILT FENCE (MINIMUM)

FURTHER RESTRICTED BY SLOPE STEEPNESS (SEE TABLE 1).

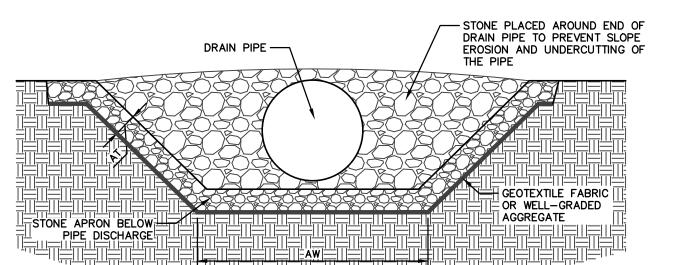
• INSTALLED PARALLEL TO THE SLOPE CONTOUR.

TABLE 1. SLOPE STEEPNESS RESTRICTIONS

 < 2%</th>
 < 50:1</th>
 100 FEET

 2% - 5%
 50:1 TO 20:1
 75 FEET

 5% - 10%*
 20:1 TO 10:1
 50 FEET



RIPRAP

- •• HARD, ANGULAR, HIGHLY WEATHER RESISTANT. SPECIFIC GRAVITY OF AT LEAST 2.5.
- SIZE AND GRADATION THAT WILL WITHSTAND VELOCITIES OF STORM WATER DISCHARGE FLOW
- WELL-GRADED MIXTURE OF STONE WITH 50 PERCENT OF THE STONE PIECES, BY WEIGHT. LARGER THAN THE d₅₀ SIZE AND THE DIAMETER OF THE LARGEST STONE EQUAL TO 1.5 TIMES
- GEOTEXTILE FABRIC OR WELL-GRADED AGGREGATE (INDOT CA NO. 9, 11, OR 12).

DIVERT SURFACE WATER RUNOFF AROUND THE STRUCTURE DURING CONSTRUCTION SO THAT THE SITE CAN BE PROPERLY DEWATERED FOR FOUNDATION PREPARATION.

- EXCAVATE FOUNDATION AND APRON AREA SUBGRADES BELOW DESIGN ELEVATION TO ALLOW FOR THIS THICKNESS OF FILTER MEDIUM AND RIPRAP. 3. COMPACT ANY FILL USED IN SUBGRADE PREPARATION TO THE DENSITY OF SURROUNDING
- UNDISTURBED SOIL MATERIAL 4. SMOOTH SUBGRADE ENOUGH TO PROTECT GEOTEXTILE FABRIC FROM TEARING.
- 5. PLACE GEOTEXTILE FABRIC OR AGGREGATE BEDDING MATERIAL (FOR STABILIZATION AND FILTRATION) ON THE COMPACTED AND SMOOTHED FOUNDATION. 6. INSTALL RIPRAP TO THE LINES AND ELEVATIONS SHOWN IN THE CONSTRUCTION PLANS. BLEND
- RIPRAP SMOOTHLY TO SURROUNDING GRADE. IF THE CHANNEL IS WELL DEFINED, EXTEND THE APRON ACROSS THE CHANNEL BOTTOM AND UP THE CHANNEL BANKS TO AN ELEVATION OF SIX INCHES ABOVE THE MAXIMUM TAILWATER DEPTH OR THE TOP OF THE BANK, WHICHEVER IS LESS. 7. IF GEOTEXTILE FABRIC TEARS WHEN PLACING RIPRAP, REPAIR IMMEDIATELY BY LAYING AND
- AT LEAST 12 INCHES. 8. CONSTRUCT A SMALL PLUNGE POOL WITHIN THE OUTLET APRON. (RIPRAP APRONS MUST BE LEVEL WITH OR SLIGHTLY LOWER THAN THE RECEIVING CHANNEL AND SHOULD NOT PRODUCE AN OVERFALL OR RESTRICT FLOW OF THE WATER CONVEYANCE STRUCTURE.)

STAPLING A PIECE OF FABRIC OVER DAMAGED AREA, OVERLAPPING THE UNDAMAGED AREAS BY

- INSPECT WITHIN 24 HOURS OF A RAIN EVENT AND AT LEAST ONCE EVERY SEVEN CALENDAR.
- INSPECT FOR STONE DISPLACEMENT; REPLACE STONES ENSURING PLACEMENT AT FINISHED GRADE. CHECK FOR EROSION OR SCOURING AROUND SIDES OF THE APRON; REPAIR IMMEDIATELY. · CHECK FOR PIPING OR UNDERCUTTING; REPAIR IMMEDIATELY.

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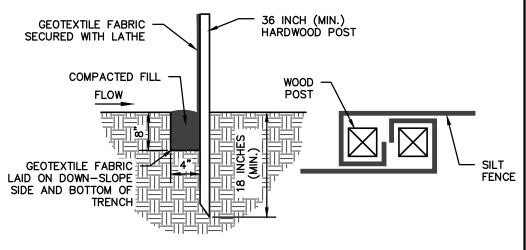
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CERTIFIED BY		
ISSUA	NCE INDEX	

REVISION SCHEDULE

NO. DESCRIPTION DATE

08/17/2018 PROJECT PHASE: CONSTRUCTION DOCUMENTS

- MEET SPECIFICATIONS AS OUTLINED WITHIN THIS MEASURE. REMOVE DEPOSITED SEDIMENT WHEN IT IS CAUSING THE FILTER FABRIC TO BULGE OR WHEN IT REACHES ON-HALF THE HEIGHT OF THE FENCE AT ITS LOWEST POINT. WHEN CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE THE FENCE AND
- SEDIMENT DEPOSITS, GRADE THE SITE TO BLEND WITH THE SURROUNDING AREA, AND



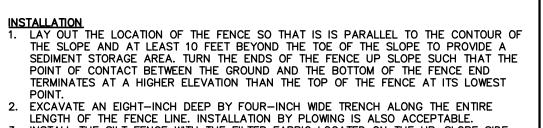
NOTE: SILT FENCE <u>IS NOT</u> RECOMMENDED FOR USE AS A DIVERSION AND SHOULD NOT BE USED ACROSS A STREAM, CHANNEL, DITCH, SWALE, OR ANYWHERE THAT CONCENTRATED FLOW IS ANTICIPATED.

SILT FENCE CONSTRUCTION

GEOTEXTILE FABRIC

70 LBS. PER LINEAL INCH

85%



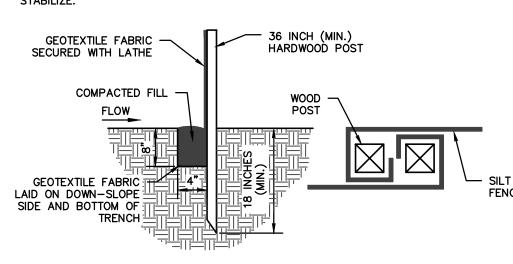
LENGTH OF THE FENCE LINE. INSTALLATION BY PLOWING IS ALSO ACCEPTABLE.
INSTALL THE SILT FENCE WITH THE FILTER FABRIC LOCATED ON THE UP-SLOPE SIDE OF THE EXCAVATED TRENCH AND THE SUPPORT POSTS ON THE DOWN-SLOPE SIDE OF THE TRENCH. 4. DRIVE THE SUPPORT POSTS AT LEAST 18 INCHES INTO THE GROUND, TIGHTLY STRETCHING THE FABRIC BETWEEN THE POSTS AS EACH IS DRIVEN INTO THE SOIL. A MINIMUM OF 12 INCHES OF THE FILTER FABRIC SHOULD EXTEND INTO THE TRENCH. (IF

IT IS NECESSARY TO JOIN THE ENDS OF TWO FENCES, USE THE JOINT METHOD SHOWN. 5. LAY THE FOUR INCHES OF FILTER FABRIC ON THE BOTTOM OF THE TRENCH AND EXTEND IT TOWARD THE UP-SLOPE SIDE OF THE TRENCH. 6. BACKFILL THE TRENCH WITH SOIL MATERIAL AND COMPACT IT IN PLACE. NOTE: IF THE SILT FENCE IS BEING CONSTRUCTED ON-SITE, ATTACH THE FILTER FABRIC TO THE SUPPORT POSTS (REFER TO TABLES 1 AND 2 FOR SPACING AND GEOTEXTILE SPECIFICATIONS) AND ATTACH WOODEN LATHE TO SECURE THE FABRIC TO THE POSTS. ALLOW FOR AT LEAST 12 INCHES OF FABRIC BELOW

GROUND LEVEL. COMPLETE THE SILT FENCE INSTALLATION, FOLLOWING STEPS 1 THROUGH 6 ABOVE.

INSPECT WITHIN 24 HOURS OF A RAIN EVENT AND AT LEAST ONCE EVERY SEVEN CALENDAR DAYS. IF FENCE FABRIC TEARS, STARTS TO DECOMPOSE, OR IN ANY WAY BECOMES

INEFFECTIVE, REPLACE THE AFFECTED PORTION IMMEDIATELY. ALL REPAIRS SHOULD



EROSION CONTROL

DETAILS

2017.01279

Project Number

TEMPORARY SEEDING WITH MULCH

APPLY ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. INSTALL NETTING IMMEDIATELY AFTER APPLYING MULCH ANCHOR NETTING WITH STAPLES. EDGES OF NETTING STRIPS SHOULD OVERLAP WITH EACH UP-SLOPE STRIP OVER APPING FOUR TO SIX INCHES OVER THE ADJACENT IDOWN-SLOPE STRIP, BEST SUITED TO SLOPE APPLICATIONS. IN MOST INSTANCES, INSTALLATION DETAILS ARE SITE SPECIFIC, SO MANUFACTURER'S RECOMMENDATIONS SHOULD BE FOLLOWED. *ALL FORMS OF MULCH MUST BE ANCHORED TO PREVENT DISPLACEMENT BY WIND

SHOULD BE DRY, FREE OF UNDESIRABLE SEEDS.

MUST BE CRIMPED OR ANCHORED (SEE TABLE 2)

CRIMP OR PUNCH THE STRAW OR HAY TWO TO

FOUR INCHES INTO THE SOIL. OPERATE MACHINERY

OPERATE DOZER UP AND DOWN SLOPE TO PREVENT

SPREAD BY HAND OR MACHINE.

*MULCHING IS NOT RECOMMENDED IN CONCENTRATED FLOWS. CONSIDER EROSION

THE MULCH SHOULD HAVE A UNIFORM DENSITY OF AT LEAST 75 PERCENT OVER

APPLY WITH A HYDRAULIC MULCH

MACHINE AND USE WITH TACKING AGENT.

ON THE CONTOUR OF THE SLOPE.

FORMATION OF RILLS BY DOZER CLEATS.

APPLY ACCORDING TO MANUFACTURER'S

MULCH APPLICATION

1. APPLY MULCH AT THE RECOMMENDED RATE SHOWN IN TABLE 1. SPREAD THE MULCH MATERIAL UNIFORMLY BY HAND, HAYFORK, MULCH BLOWER, OR

HYDRAULIC MULCH MACHINE. AFTER SPREADING, NO MORE THAN 25 PERCENT OF THE GROUND SHOULD BE VISIBLE. 3. ANCHOR STRAW OR HAY MULCH IMMEDIATELY AFTER APPLICATION. THE MULCH CAN BE ANCHORED USING ONE OF THE METHODS LISTED BELOW: a. CRIMP WITH A MULCH ANCHORING TOOL, A WEIGHTED FARM DISK WITH DULL

CALENDAR DAYS.

IF EROSION IS SEVER OR RECURRING, USE EROSION CONTROL BLANKETS OR OTHER

MORE SUBSTANTIAL STABILIZATION METHODS TO PROTECT THE AREA.

APPLY NEW MULCH AND ANCHOR THE MULCH IN PLACE. CONTINUE INSPECTIONS UNTIL VEGETATION IS FIRMLY ESTABLISHED.

MULCH MAINTENANCE

• INSPECT WITHIN 24 HOURS OF EACH RAIN EVENT AND AT LEAST ONCE EVERY SEVEN CHECK FOR EROSION OR MOVEMENT OF MULCH; REPAIR DAMAGED AREAS, RESEED,

SERRATED BLADES SET STRAIGHT, OR TRACK CLEATS OF A BULLDOZER, APPLY HYDRAULIC MULCH WITH SHORT CELLULOSE FIBERS,

APPLY A LIQUID TACKIFIER, OR d. COVER WITH NETTING SECURED BY STAPLES.

ENCOUNTERING WET CONDITIONS OR SOILS WITH SEASONAL HIGH WATER TABLE LIMITATIONS).

INSTALLATION

1. REMOVE ALL VEGETATION AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA. GRADE FOUNDATION AND CROWN FOR POSITIVE DRAINAGE. IF THE SLOPE OF THE CONSTRUCTION ENTRANCE IS TOWARD A PUBLIC ROAD AND EXCEEDS TWO (2) PERCENT, CONSTRUCT AN EIGHT (8) INCH HIGH DIVERSION RIDGE WITH A RATIO OF 3-TO-1 SIDÈ ŚLOPES ACROSS THE FOUNDATION ÀRÉA ABOUT 15 FEET FROM THE ENTRANCE TO DIVERT RUNOFF AWAY FROM THE ROAD (SEE CROSS-SECTION VIEW ABOVE).

WHERE POSSIBLE, DIVERT ALL STORM WATER RUNOFF AND DRAINAGE FROM THE TEMPORARY

AVOID LOCATING ON STEEP SLOPES OR AT CURVES IN PUBLIC ROADS.

PLANS, LEAVING THÈ SURFACE SMOOTH AND SLOPED FOR DRAINAGE.

CONSTRUCTION INGRESS/EGRESS PAD TO A SEDIMENT TRAP OR BASIN.

THICKNESS: EIGHT (8) INCHES MINIMUM.

INSTALL A CULVERT PIPE UNDER THE PAD IF NEEDED TO MAINTAIN PROPER PUBLIC ROAD DRAINAGE. IF WET CONDITIONS ARE ANTICIPATED, PLACE GEOTEXTILE FABRIC ON THE GRADED FOUNDATION TO IMPROVE STABILITY. PLACE AGGREGATE (INDOT CA NO. 2) TO THE DIMENSIONS AND GRADE SHOWN IN THE CONSTRUCTION

WIDTH: TWENTY (20) FEET MINIMUM OR FULL WIDTH OF ENTRANCE/EXIT ROADWAY, WHICHEVER IS GREATER.

LENGTH: ONE-HUNDRED FIFTY (150) FEET MINIMUM (LENGTH CAN BE SHORTER FOR SMALLER SITES).

ONE-HALF (1/2) TO ONE AND ONE-HALF (1-1/2) INCH WASHED AGGREGATE (INDOT CA NO. 53); OPTIONAL, USED PRIMARILY WHERE THE PURPOSE OF THE PAD IS TO KEEP SOIL FROM ADHERING TO

GEOTEXTILE FABRIC UNDERLAYMENT (USED AS A SEPARATE LAYER TO PREVENT INTERMIXING OF AGGREGATE AND THE UNDERLYING SOIL MATERIAL AND TO PROVIDE GREATER BEARING STRENGTH WHEN

ONE (1) TO TWO AND ONE-HALF (2-1/2) INCH DIAMETER WASHED AGGREGATE (INDOT CA NO. 2).

CROSS SECTION

150' MINIMUM

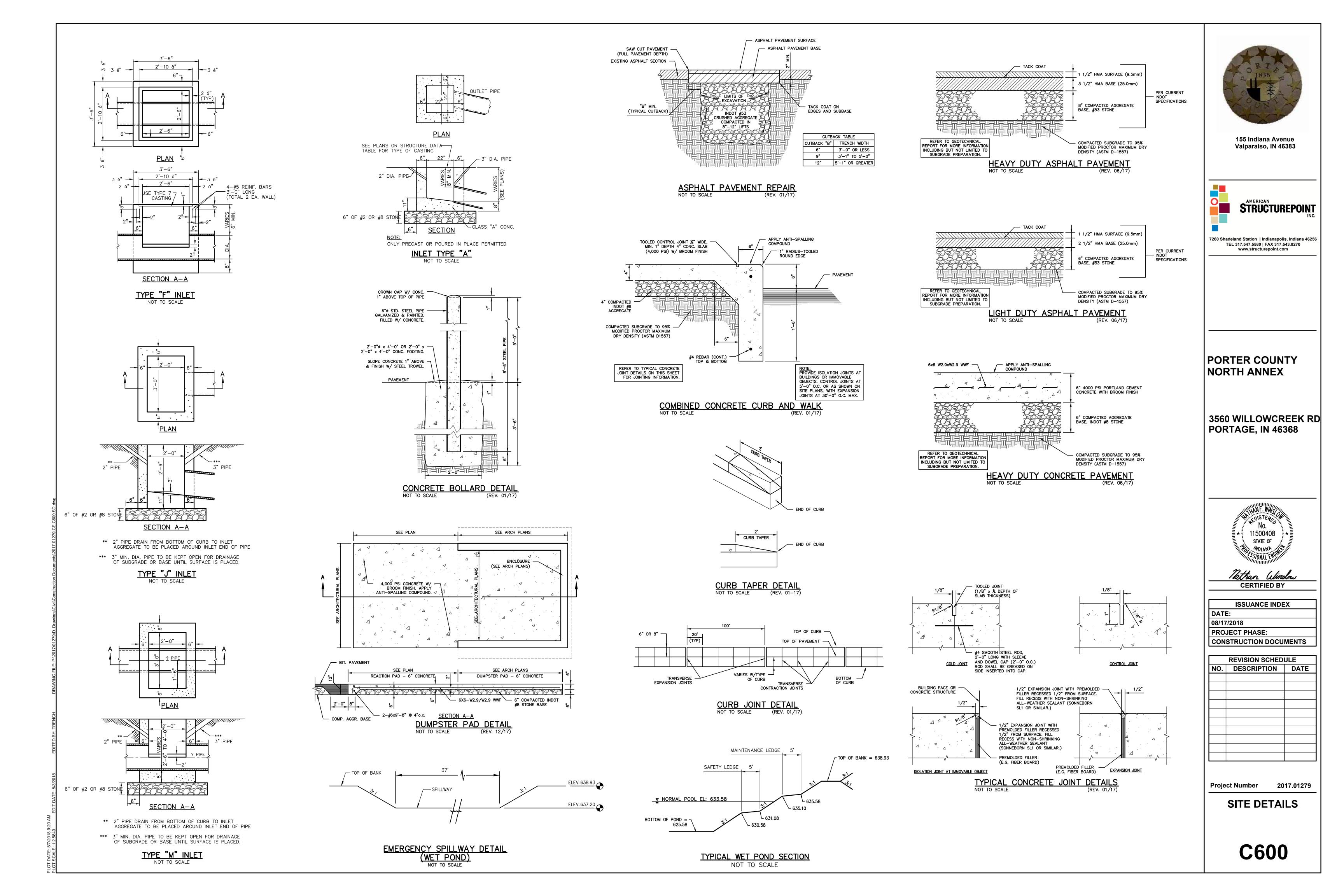
<u>SPECIFICATIONS</u>

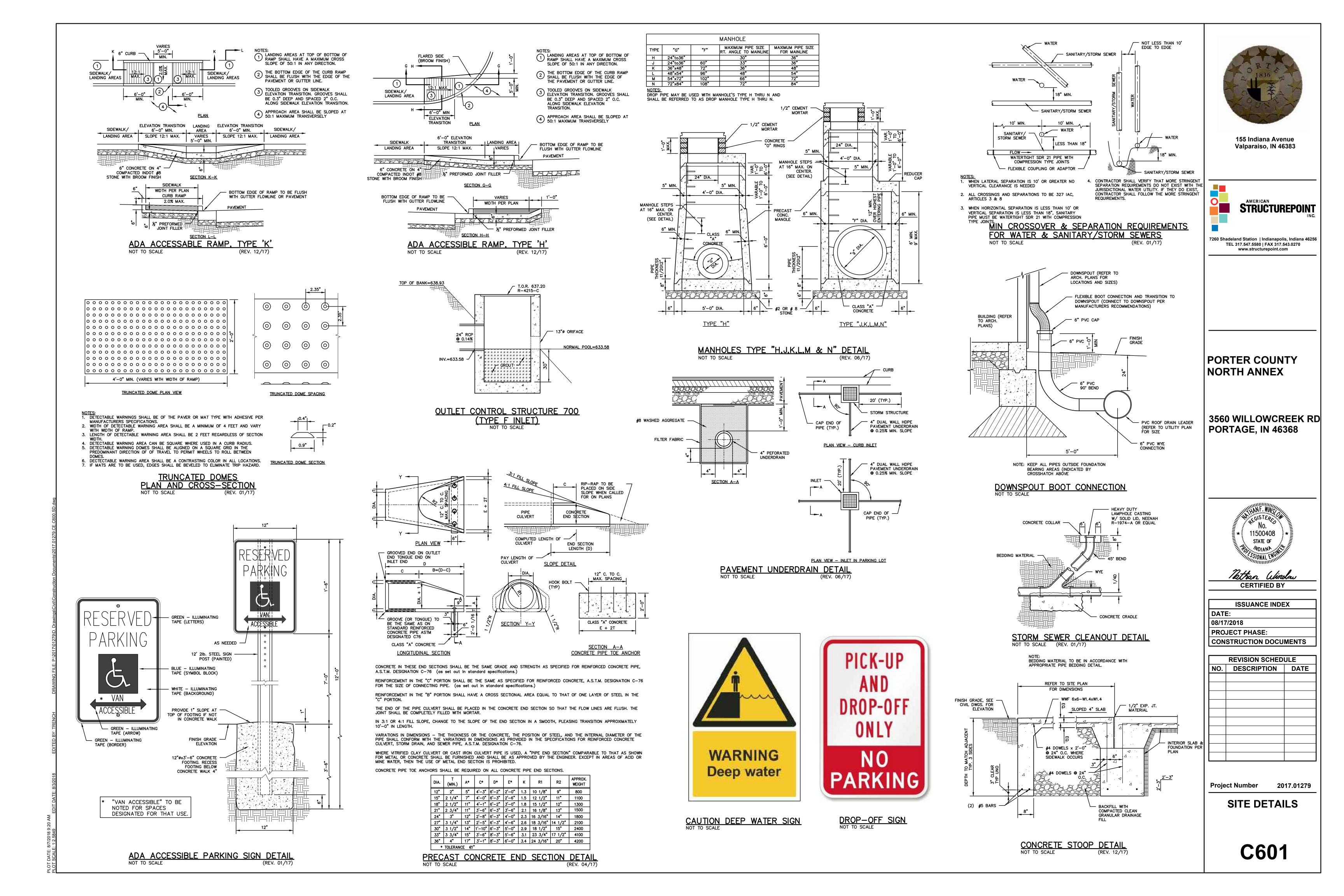
DIMENSIONS

MATERIALS

RESHAPE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL. TOP-DRESS WITH CLEAN AGGREGATE AS NEEDED. IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS. FLUSHING SHOULD ONLY BE USED IF THE WATER FROM THE CONSTRUCTION DRIVE CAN BE CONVEYED INTO

> GRAVEL CONSTRUCTION ENTRANCE <u>(SITES LARGER THAN TWO ACRES</u>





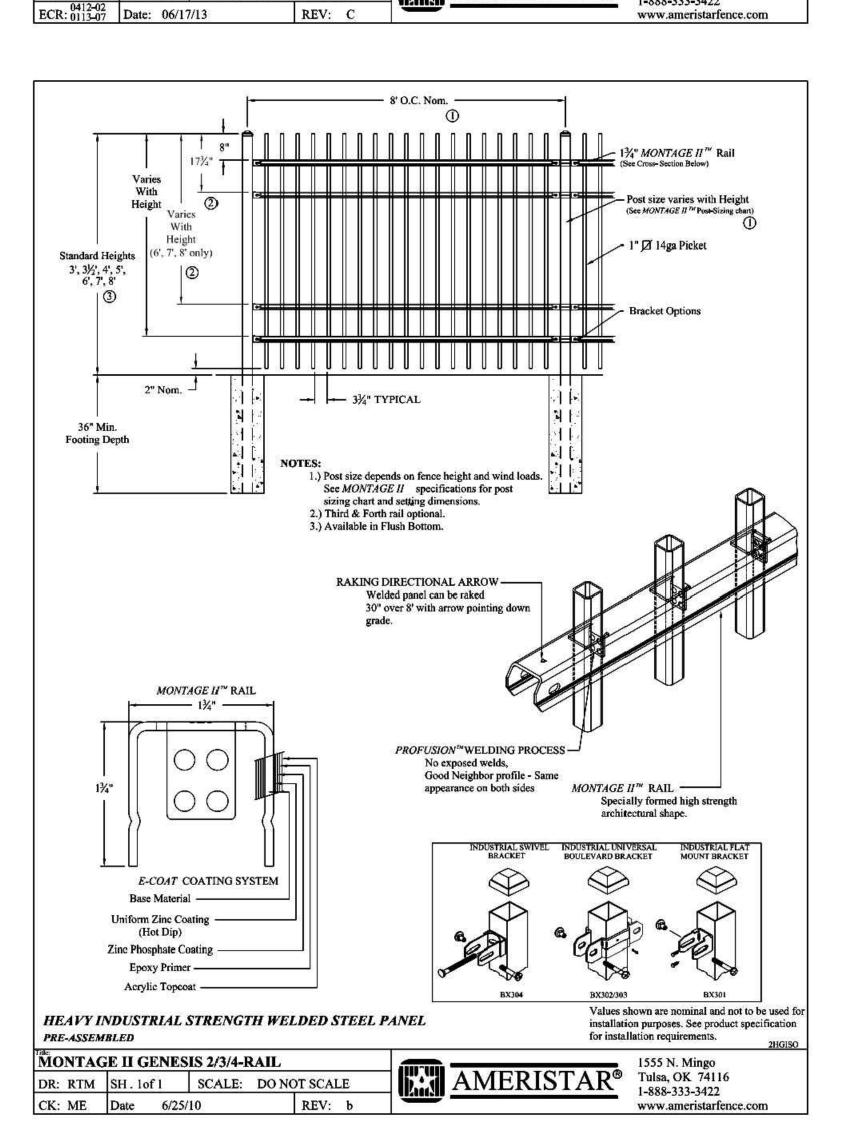
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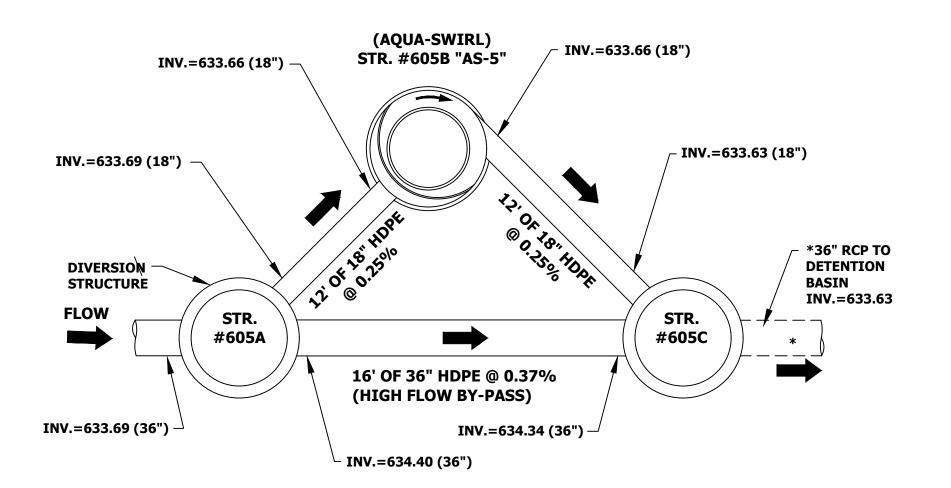
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OFF-LINE AQUA-SWIRL AS-5 PLAN #605B

AQUA-SWIRLTM PCS SPECIFICATION NOTES 06-07-12 Indianapolis, Indiana

1. Manufacturer shall be responsible for complete assembly of Swirl

2. Polymer Coated Steel (PCS) Swirl Concentrator shall be fabricated from polymer precoated steel sheet for corrugated steel pipe, and shall comply with provided upon request. ASTM A 760 and ASTM A 742.

3. Stub outs and internal components shall be supplied by manufacturer and

structure to grade.

MIG welded using accepted welding practices. 4. Manufacturer shall supply direct access to Swirl Concentrator via 30-inch ID riser(s). Riser should not be field cut by Contractor, Riser should maintain its finish cut length as supplied by manufacturer to match final grade per

5. Contractor shall supply pipe couplings to and from Swirl Concentrator, which shall be Mar-Mac (www.marmac.com), Fernco, or Mission style flexible

boot with stainless steel tension bands and shear guard. 6. Contractor shall prepare excavation and off-load Swirl Concentrator. Contractor is responsible for bedding and backfill around Swirl Concentrator as

detailed on site plan. (see notes 11 and 12) 7. Manufacturer shall supply standard manhole frame(s) and cover(s). (Traffic rated H20)

8. Where traffic loading (H-20) is required or anticipated, a 4-foot diameter, 14-inch thick reinforced concrete pad must be placed over the Swirl Concentrator to support and level the manhole frame. The top of riser pipe must be wrapped with compressible expansion joint material to a minimum 1inch thickness to allow transfer of wheel loads from manhole cover to concrete outward from Swirl Concentrator and for the full height of the Swirl slab. Manhole cover shall bear on concrete slab and not on riser pipe. The concrete slab shall have a minimum strength of 3,000 psi and be reinforced with #4 reinforcing steel (per drawing). Minimum cover over reinforcing steel shall be 1-inch. Top of manhole cover and concrete slab shall be level with

9. Unless other traffic barriers are present, bollards shall be placed around access risers in non-traffic areas to prevent inadvertent loading by maintenance vehicles. Sample of typical bollard installation detail and recommended locations of bollards around the Swirl Concentrator can be

10. Where high groundwater elevations are present or anticipated, Contractor shall supply concrete anti-floatation pad underneath and poured over the octagonal base plate of the swirl (see Anti-Floatation Base Detail) to prevent buoyancy and base plate deflection (details, if necessary, available upon request).

11. Excavation and Bedding - The trench and trench bottom shall be approved site elevations (as indicated on approved shop drawing). If constructed in accordance with ASTM A 798 Section 5, Trench excessary to extend riser, Contractor should use adjusting rings to bring top of exception 6, Foundation, and Section 7, Bedding. The PCS Swirl Concentrator shall be installed on a stable base consisting of at least 6-inches of Class 1 stone materials (Class I #8 crushed stone, angular, large void content; contains little or no fines) as defined by ASTM D 2321, Section 5, Materials, and compacted to 95% proctor density. Bedding shall not contain stones retained on a 3-inch ring, frozen lumps, highly plastic clay, organic material, corrosive material, or other deleterious foreign materials. All required safety precautions for Swirl Concentrator installation are the responsibility of the Contractor and shall be per OSHA approved methods.

> 12. Backfill Requirements - Backfill materials shall be Class 1 stone materials (Class I #8 crushed stone, angular, large void content; contains little or no fines) as defined by ASTM D 2321, Section 5, Materials, and compacted to 90% proctor density. Backfilling shall conform to ASTM A 798, Section 10, Structural Backfill Placement. Backfill shall be placed in 6 to 12 inch layers or "lifts" and compacted before adding the next lift. Backfill shall extend at least 18 inches Concentrator (including riser(s)) extending laterally to undisturbed soils.



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PORTER COUNTY **NORTH ANNEX**

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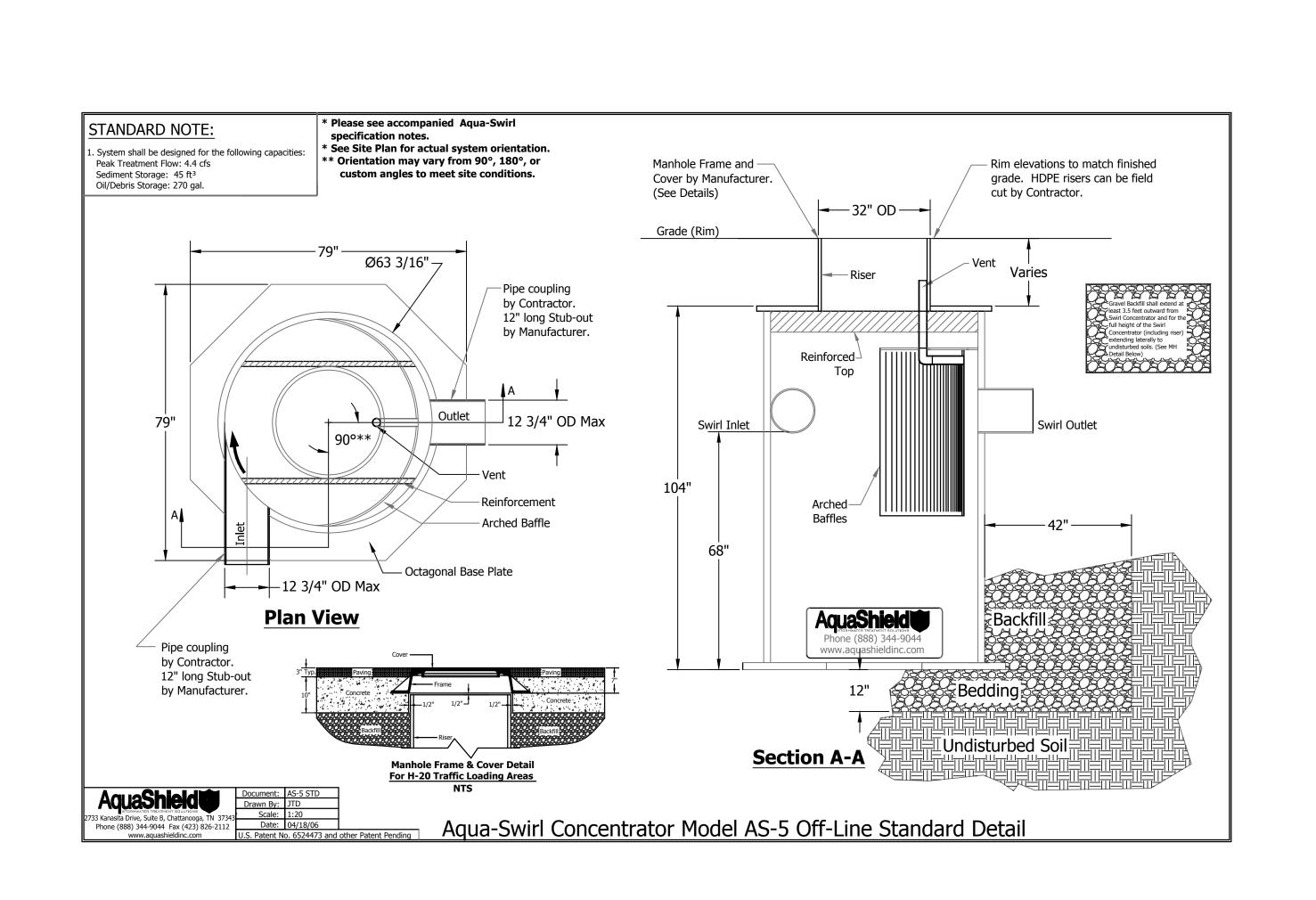


ISSUANCE INDEX DATE: 08/17/2018 PROJECT PHASE: CONSTRUCTION DOCUMENTS

REVISION SCHEDULE NO. DESCRIPTION DATE

Project Number 2017.01279

SITE DETAILS



70' COLLECTOR STREET 50' LOCAL STREET CITY OF PORTAGE STANDARD SPECIFICATIONS Section is Sanitary Sewers 1. The design and installation of sanitary sewer systems shall be in accordance with the immended Standards for Vastewater Facilities (10 State Standards), Indiana Department of rommental Management construction permit and the Portage Vater Reclamation Department Standard 1.2 Materials

1. Gravity Sewers

a. Gravity sewers 15" diameter or less shall be rigid bell and spigot, SDR 35 PVC
nanufactured in accordance with ASTM D3034, Standard Specifications for PVC Sewer Pipe Fittings.
Gravity sewers grater than 15" diameter shall be manufactured in accord with ASTM F679-95, T-1.

2. Force Mains

a. Force mains shall be ductile iron, Pressure Class 250 or greater and manufactured in accordance with ANSI/AVWA C151 DuctRe Iron Pipe, Centrifugally Cast, for Water and Dither Liquids.

3. Manholes

a. Manholes shall be constructed of pre-cast concrete sections in accordance with ASTM C478, Standard Specification for Pre-cast Reinforced Concrete Manhole Sections.

b. Manholes shall have a minimum diameter of 48-inches. 1.3 Installation
1. Gravity Sewers
2. Gravity sewers shall have a minimum cover of at least 48—inches measured from the top of the pipe to the proposed finish grade.
2. Gravity sewers shall be designed and constructed, when flowing full, with slopes that result in average flow velocities of not less than two (2) feet per second. Diversized sewers shall not be approved to justify using decreased slopes.
2. Anchors shall be placed where necessary to protect against damage from impact and STRAIGHT CURB ROLLED CURB & GUTTER SLOPE: 1/4 */FT. ___ TYPICAL FOR COMMERCIAL APPLICATIONS - SLOPE: 1/4 "/FT. SIDEWALK DETAIL PROVIDE EXPANSION JOINTS AT 20' G.C. MAX AND AT CURVES, TANGENTS AND CORNERS. HANDICAP RAMP * SIDEWALK AT DRIVEWAY - 5" CONC. WITH REINFORCED MESH - 6"x6" - 10/10 OR FIBER REINFORCED CONCRETE . BASE OF CURB TO REST ON COMPACTED FILL. * WHEN CURBS ARE MACHINE PLACED A STABLE ROADS IS REQUIRED. MAXIMUM VERTICAL TRACK DEFLECTION DURING POUR SHALL BE LESS THAN 1/4 INCH. . RUN BARS CONTINUOUS THRU EXPANSION JOINTS erosion.

d. Continuous and uniform bedding shall be provided in the trench along the entire length of the pipe. Pipe shall not be installed deeper than one (1) foot below the static water level. Dewatering shall be required for soils with higher static water levels. Bedding and back fill shall be per the attached detail.

2. Force Mains

a. Force mains shall be installed in accordance with AVWA standard C600 Installation of Ductile Iron Vater Mains and Their Appurtenances.

b. Air relief valves or other air relief devices shall be installed at every intermediate apex point where air may accumulate in the force main.

3. Marholes

a. Inlet or outlet pipes shall be joined to the manhole with a gasketed, flexible watertight connection. TYPICAL CROSS SECTION b. Manhole covers shall be watertight with concealed pick holes and marked SANITARY.

c. Manholes shall not be located more than 300 feet apart.

d. Manholes shall be placed in the street.

e. Manholes shall be placed at all end points of sanitary sewers, changes in pipe sizes and placed to the street. e. Manholes shall be placed at an erm political changes in pipe alignments.

f. A drop pipe shall be provided for a sewer entering a manhole at an elevation of 24-inches or more above the manhole invert.

4. Service Laterals

a. Service laterals shall be at least 6-inches in diameter.

b. Clean-outs shall be placed at the house foundation and at intervals not exceeding 150 c. Tracer wires shall be attached to the service.
d. Connections to an existing sanitary sewer manhole shall be core-drilled. The connection shall be nade using a watertight flexible connection. 1.4 Deflection and Leakage Testing 1.4 Deflection and Leakage Testing
1. Gravity Sewers
a. A deflection test shall be performed an each flexible pipe following the elapse of thirty
(30) days after the placement of the final back fill.
l. No pipe shall exceed a deflection of five percent (5%) or greater.
l. The diameter of the rigid ball or mandrel used for a deflection test shall be no less than 95% of the base inside diameter of the pipe to be tested. The test shall not be performed with the aid of a mechanical pulling device.
b. All gravity pipe shall be tested using either a hydrostatic test or law pressure air test.
l. Hydrostatic tests shall be performed with a minimum of two (2) feet of positive head. The rate of exfiltration shall not exceed 200 gallons per inch of pipe diameter per linear mile per day.
l. Air tests shall conform to ASTM F1417, Standard Test Method for Installation BIGO_PIPE
BIGORROW FOR STRUCTURE
BACKFILL (UNLESS OTHERWISE
NOTED) COMPACTED TO
95% MOD. PROCTOR per day.

I. Air tests shall conform to ASTM F1417, Standard Test Method for Installation
Acceptance of Plastic Gravity Sewer Lines Using Low Pressure Air.

2. Force Mains

a. Force mains shall be pressure and leak tested in accordance with AVWA standard C600,
AVWA Standard for Installation of Ductile-Iron Water Mains and Their Appurtenances.

3. Manholes

a. Manholes shall be air tested in accordance with ASTM C1244, Standard Test Method for
Concrete Sewer Manholes by the Negative Air Pressure (Vacuum) Test.

4. A designated Portage Utility Service Department employee shall witness all leakage and deflection tests. At least 24 hours notice shall be required. Video tapes shall be submitted to the Utility Service Department's Field Division for review and approval. CONCRETE CURB & GUTTER TYPICAL FOR COMMERCIAL APPLICATIONS TRANSVERSE CONSTRUCTION JOINTS 20' ON CENTER. WHEN CURBS ARE MACHINE PLACED A STABLE ROADBED IS REQUIRED. MAXIMUM VERTICAL TRACK DEFLECTION DURING POUR SHALL BE LESS THAN 1/4 INCH. **GUTTER INLET** SECTION UNDER DRAIN 1.5 Separation of Sanitary Sewers from Water Mains
1. Sanitary sewers shall not be located within ten (10) feet of any existing or proposed water mains, when necsured horizontally from the outside edge of the sanitary sewer to the outside edge of any existing and proposed water mains.
2. If the sanitary sewers and water mains must cross, the sanitary sewers and water mains must be separated by a minimum of 18-inches as measured vertically from the outside edge of the sanitary sewer to the outside edge of the water main for a distance of at least ten (10) feet.
3. No manhole shall be placed within eight (8) feet of a water main as measured from the outside edge of the manhole to the outside edge of the water main. . CURB SECTION SHALL BE A MONOLITHIC POUR. PIPE BEDDING DETAIL CATCH BASIN CURB WARP PLAN Section 2: Storm Sewers SIGN 72" MIN. 60" MIN. 72" MIN. 500 MIN. 72" MIN. 510N SIGN 50" MIN. 72" MIN. 510N 2.1 General

1. Drainage systems shall be designed to conform to the guidelines set forth in Stormwater
Technical Guide. 2.2 Materials

1. Storm sever pipe placed within the influence of the road (45° angle from the back of curb).

a. Reinforced concrete manufactured in accordance with ASTM C-76.

2. Alternate storm sever pipe when not placed under pavement or curbs.

a. Reinforced concrete manufactured in accordance with ASTM C-76.

b. High Bensity Polyethylene (HDPE) manufactured in accordance with AASHTO M294 type S with an elastomeric rubber seal meeting ASTM F477.

c. Dither materials approved by the City Engineer.

3. Manholes shall be constructed of pre-cast concrete sections in accordance with ASTM C478, Standard Specification for Pre-cast Reinforced Concrete Manhole Sections. SELF SEALING LIDS FOR SANITARY WITH SANITARY STAMPED ON THE LID IN STREET RIGHT-OF-WAY USE EAST JORDAN 1020-275# BEYOND STREET RIGHT-OF-WAY USE EAST JORDAN 1480-150# SEWER PIPE TO 5" INSIDE PROPERTY LINE, MR. SLOPE = 1.0%, MAX SLOPE = 33.0% -2.3 Installation
1. Continuous and uniform bedding shall be provided in the trench along the entire length of the pipe. Pipe shall not be installed deeper than one (1) foot below the static water level. Dewatering shall be required for sols with higher static water levels. Hand dig bell holes.
2. The pipe shall be installed per the attached detail.
3. The minimum dameter of storn sewers shall be 12-inches.
4. Storn sewers shall be designed and constructed, when flowing full, with slopes that result in average flow velocities of not less than two (2) feet per second. 2.4 Lot Drainage
1. Lots shall be sloped as to drain surface water away from the house and into common swales 1. Lots shall be sloped as to drain surface makes and to the rear yard drains.
2. Lots shall be graded to comply with IRC R401.3 - grade away from the foundation walls shall fall a minimum of 6-inches within the first 10-feet.
3. Developer shall install rear yard drains and final grade, vegetate and protect the rear yard drainage easements prior to the final acceptance of the infrastructure by the City of Portage Board of Public Works and Safety. W. SLOPE (SLOPE TO BE LESS THAN 1:1 WHEN NECESSARY POURED CONC. FILLET & BENCH REQD. ON SANITARY, MANHOLES 2.5 Erosion Control

1. Erosion control neasures shall conform to the Indiana Handbook for Erosion Control in Beveloping Areas and "Rule 3" of the Indiana Bepartment of Environmental Management.

2. Land alterations, including regrading, which strip the land of vegetation, shall be accomplished in a manner that minizes erosion or the addition of sediments to natural and manmade drainage ways. This will reduce the impact on adjacent properties and water quality of receiving water. Whenever feasible, natural vegetation shall be retained, protected and supplemented.

3. Sediment controls should be installed whenever runoff from disturbed portions of the parcel will leave the parcel. Sediment controls may include vegetative buffer strips, filter barriers, sediment basins, debris basins or silt traps.

4. Any flow from a disturbed parcel should pass through a filter barrier or sediment basin before entering a storm drain liket.

5. Gravel construction entrances are to be install prior to the beginning construction. Access to the project is restricted to this drive. STANDARD TEE - BARREL SIZE TO BE AS CALLED FOR ON THE PLANS, (REGULAR PARKING SPACE) TYPICAL DETAIL FOR ACCESSIBLE PARKING SPACES TYPICAL SANITARY SEWER SERVICE LATERAL GREASE INTERCEPTOR (1000 GAL) # 48' NINDMUM TO THE BOTTOM OF THE SIGN SIGN TO BE INSTALLED AS CLOSE TO THE CENTER OF THE PARKING PACE AS POSSIBLE NSIDE DROP MANHOLE CONNECTION - TYPE DMH SANITARY & TYPE "C" STORM MANHOLE- TYP MH Section 3: Roadways 3.1 General

1. All asphalt materials shall be manufactured in an INDUT approved plant. All materials and construction shall compty with the latest edition of the INDUT Standard Specifications.

2. Developers are directed to the City of Portage Municipal Code for roadway design criteria.

3. Subgrade

a. The povement subgrade shall consist of undisturbed in-situ soils which are adequately drained, contain no sort of yielding soils, have not been distorted by the movement of heavy equipment and contain no improperly filled holes or trenches.

b. The subgrade shall be compacted to 95% dry density and shall be roll tested using a fully loaded tri-axel or semi-trailer. The City Engineer shall approve the subgrade prior to the installation of the subbase.

4. Subbase

a. Shall be #53 compacted aggregate.

b. Subbase being placed on nongranular subgrade shall be placed on a geofabric material approved by the City Engineer prior to it's placement.

C. The subbase shall be roll tested using a fully loaded tri-axel or semi-trailer. The City Engineer shall approve the subgrade prior to the installation of the subbase.

d. In lieu of placing the standard pavement section, soil tests may be taken by an approved Geotechnical Engineer and pavement sections, now be designed specifically for that iocation. The Geotechnical Engineer and pavement sections may be designed specifically for that iocation. The Geotechnical Engineer shall certify the pavement design and certify that it was installed to his requirements prior to acceptance by the City of Portage Board of Public Works and Safety.

5. Asphalt Pavements

a. Shall be of the thickness specified in the Standard Details.

b. Shall not be placed on frozen subbase.

c. Asphalt binder shall not be placed when the temperature is expected to be below 32 degrees.

d. Asphalt surface shall not be placed when the temperature is expected to be below 45 d. Asphalt surface shall not be placed when the temperature is expected to be below 45 REVISED February 8, 2018 . Tack coat shall be placed if the binder coarse has been driven on. Binder Course
 Binder course shall be placed level with the rin of the casting. Prior to placement of surface course an adjusting ring shall be placed to raise structure to final grade. CITY OF PORTAGE, INDIANA Section 4: Governing Specifications 4.1 General

1. Unless otherwise provided by specifications of a specific project, the latest revision of the following documents shall apply to all work performed and material specified for use in all improvements:

a. Indiana Department of Transportation Standard Specifications

b. City of Portage Municipal Code

c. City of Portage Undicance 92-5 - Drainage Ordinance

d. Great Lakes - Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers

e. 327 IAC Article 3. Wastewater Treatment Facilities; Issuance of Permits; Construction and Permit Requirements

f. American Vater Works Association

g. American Society of Testing and Materials

h. Indiana Handbook for Erosion Control in Developed Areas

1. ADDAG - Americans with Disabilities Act (ADA) Accessibility Guidelines

J. PROWAG - Public Rights-of-Way Accessibility Guidelines STANDARD DETAILS DEPARTMENT OF COMMUNITY DEVELOPMENT 6070 CENTRAL AVENUE PORTAGE, INDIANA 46368 FILTER FABRIC EXTEN UPSLOPE IN TRENCH PHONE: 219-762-4204 FAX: 219-764-5749 SILT FENCE INSTALLATION YARD INLET APPROVED BY THE CITY OF PORTAGE UTILITY SERVICE BOARD MAY 9, 2001 GRADING PLAN APPROVED BY THE CITY OF PORTAGE BOARD OF PUBLIC WORKS AND SAFETY



155 Indiana Avenue Valparaiso, IN 46383



STRUCTUREPOINT

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PORTER COUNTY NORTH ANNEX

3560 WILLOWCREEK RD PORTAGE, IN 46368

CERTIFIED BY

ISSUANCE INDEX
DATE:
08/17/2018

REVISION SCHEDULE

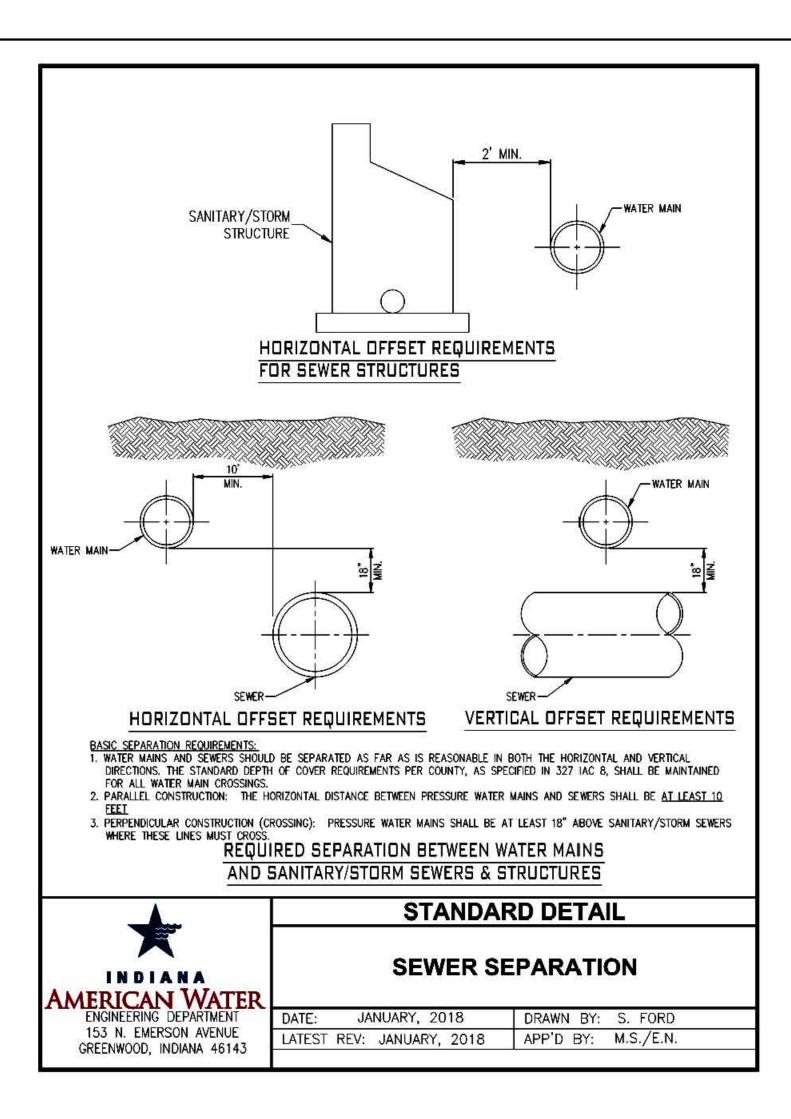
PROJECT PHASE:
CONSTRUCTION DOCUMENTS

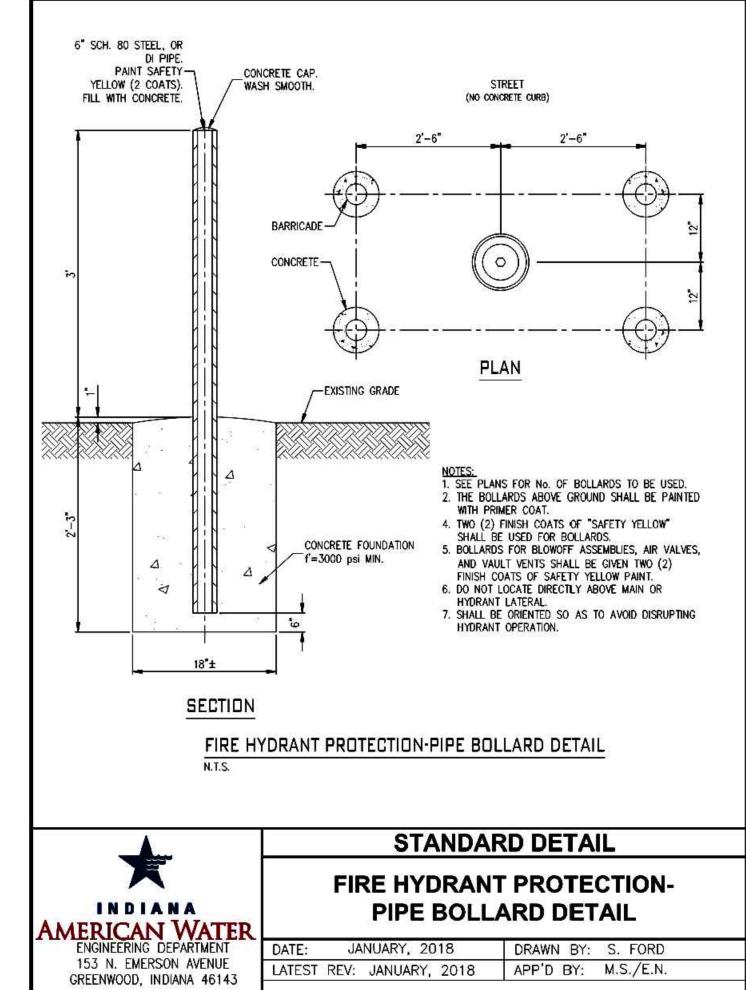
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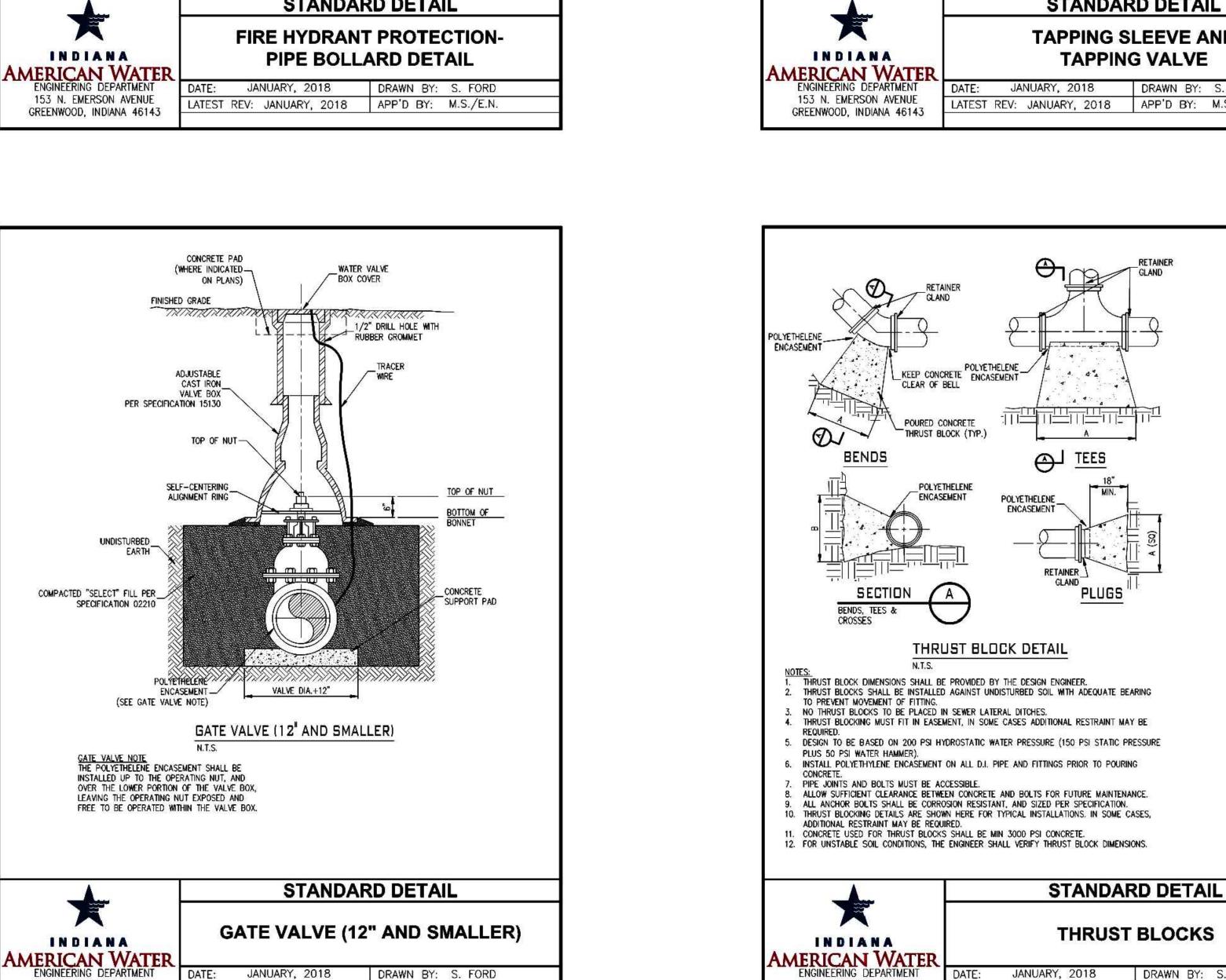
Project Number 2017.01279

SEPTEMBER 10, 2001

CITY OF PORTAGE STANDARD DETAILS





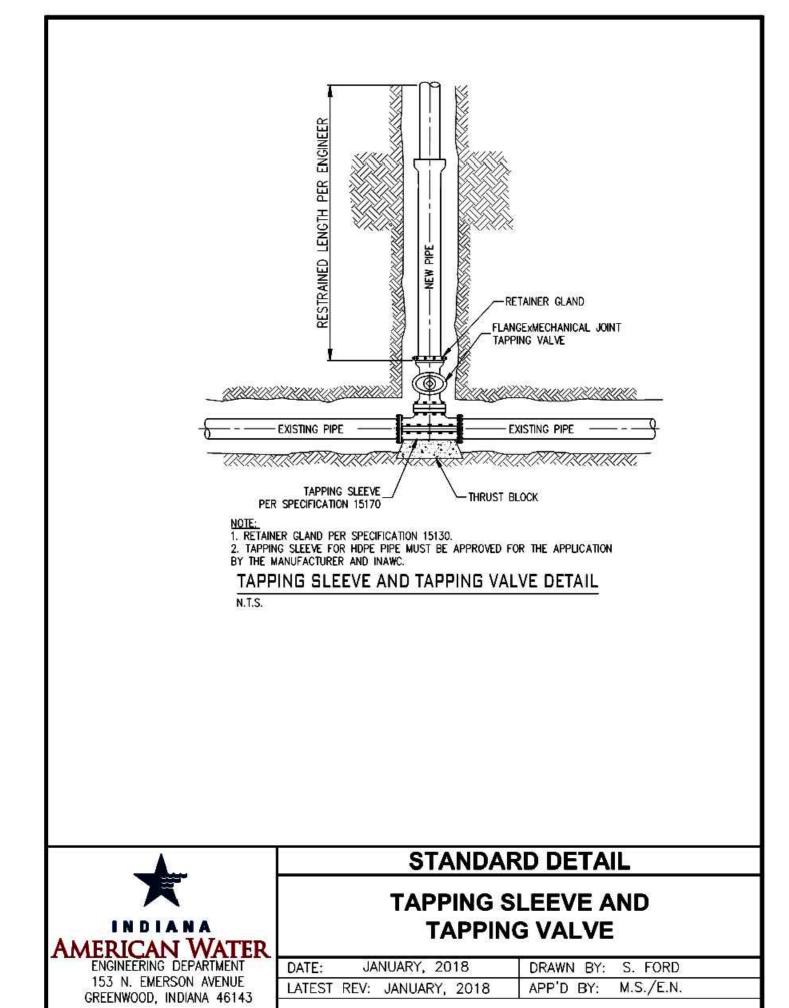


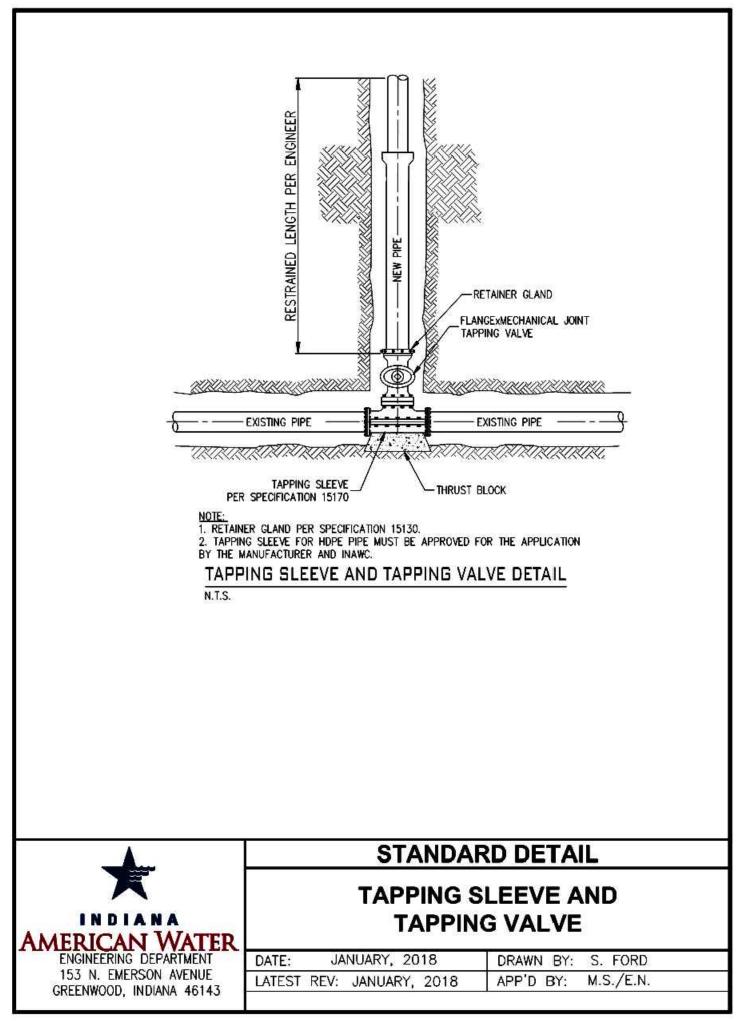
JANUARY, 2018 DRAWN BY: S. FORD

LATEST REV: JANUARY, 2018 APP'D BY: M.S./E.N.

153 N. EMERSON AVENUE

GREENWOOD, INDIANA 46143





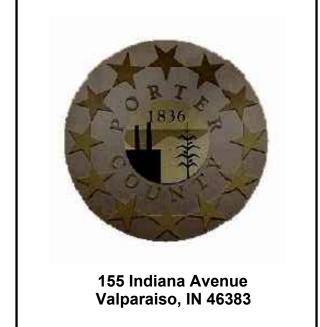
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153 N. EMERSON AVENUE

GREENWOOD, INDIANA 46143

DRAWN BY: S. FORD





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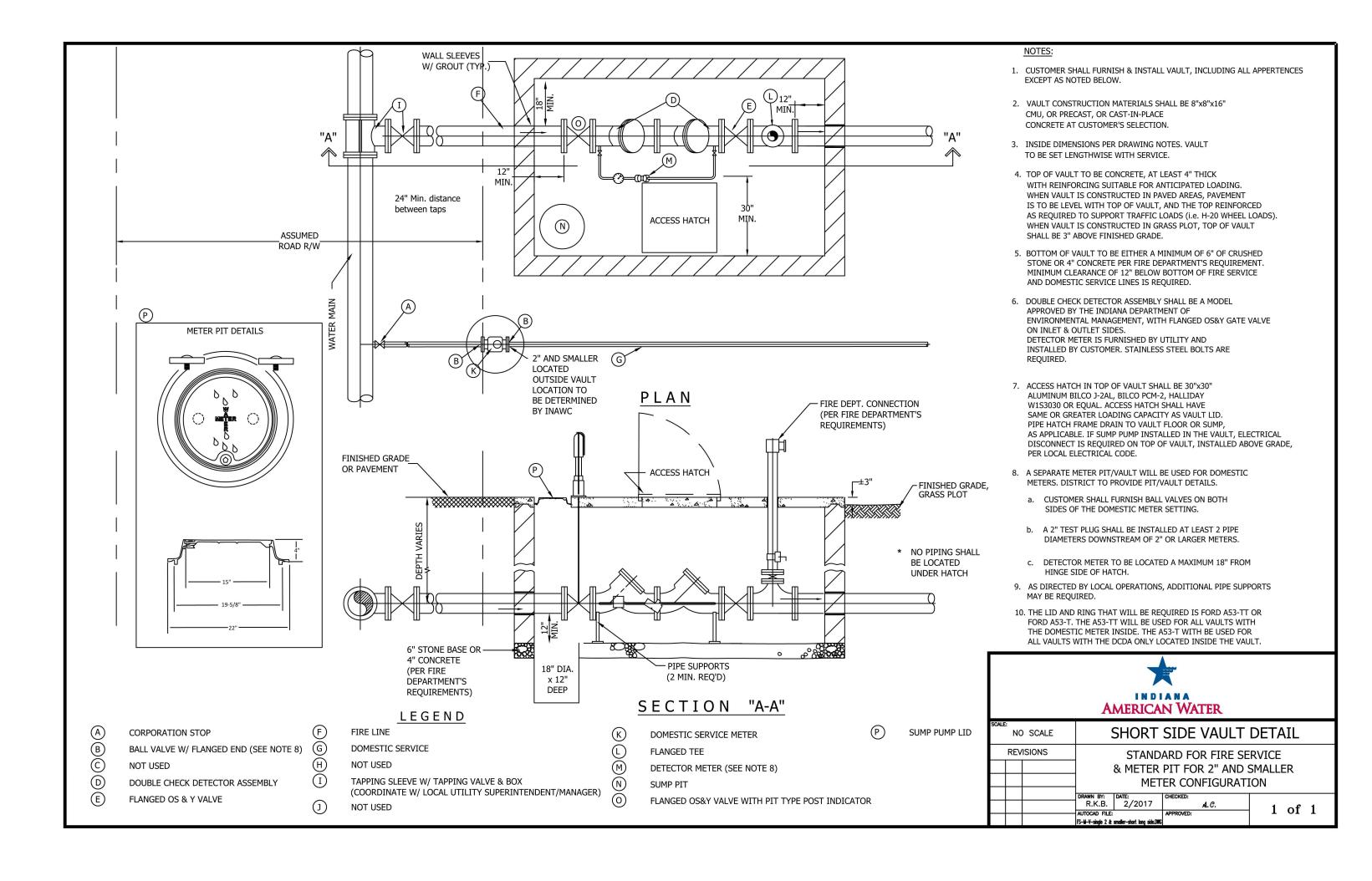
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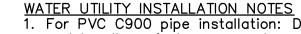
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NO.	DESCRIPTION	DATE			

Project Number 2017.01279

IAWC WATER INSTALLATION DETAILS AND NOTES







- 1. For PVC C900 pipe installation: DR14 pipe is required. Deflection of pipe joints and bending of pipes are not permitted. All angles shall be made with proper fittings. When restraint of pipe—to—pipe joints are required, all joints shall be restrained with external split serrated restraint harnesses. Select fill material required for bedding and embedment regardless of pipe's proximity to pavement.
- 2. For Ductile Iron pipe installation: Pressure Class 350 for pipes 12—inch nominal size and smaller. When restraint of pipe—to—pipe joints are required, push—on restraining gaskets with integral stainless steel locking segments are permitted on pipe—to—pipe connections 12—inch nominal size and smaller only. Pipe-to-pipe connections greater than 12-inch nominal size shall be restrained per specification section 15105.
- 3. Encase all ductile iron piping, ductile iron fittings, valves, hydrants, and all
- other metallic appurtenances in 12mil polyethylene. 4. All fire hydrant laterals shall be ductile iron pipe.
- 5. All MJ T-bolts and flange bolts shall have Xylan or FluoroKote #1 corrosion resistant coating.
- 6. All fittings shall be restrained using MJ retainer glands or poured concrete thrust blocks.
- 7. Copper—clad steel tracer wire required on installation of all pipe. Tracer wire shall be taped to pipe or polyethylene encasement at a minimum spacing of 10—feet. Splices shall be encased in waterproof connectors. Continuity shall be tested after completion of backfill.
- 8. Select fill material required for final backfill when within 5-feet of pavement per specification section 02210.
- 9. Maintain the required 10—feet of horizontal separation and 18—inches of vertical separation from sanitary and storm sewers. Maintain 8—feet of horizontal separation from sanitary and storm structures. See 327 IAC 8-3.2-9 of the Indiana Administrative Code for more information.

10. Maintain minimum cover depth of X" and a maximum of X"+24".

<u>USER NOTES:</u>Depending on water main pipe material, choose between note #1 or #2. • X"per 327 IAC 8-3.2-17(d)



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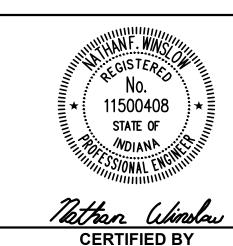


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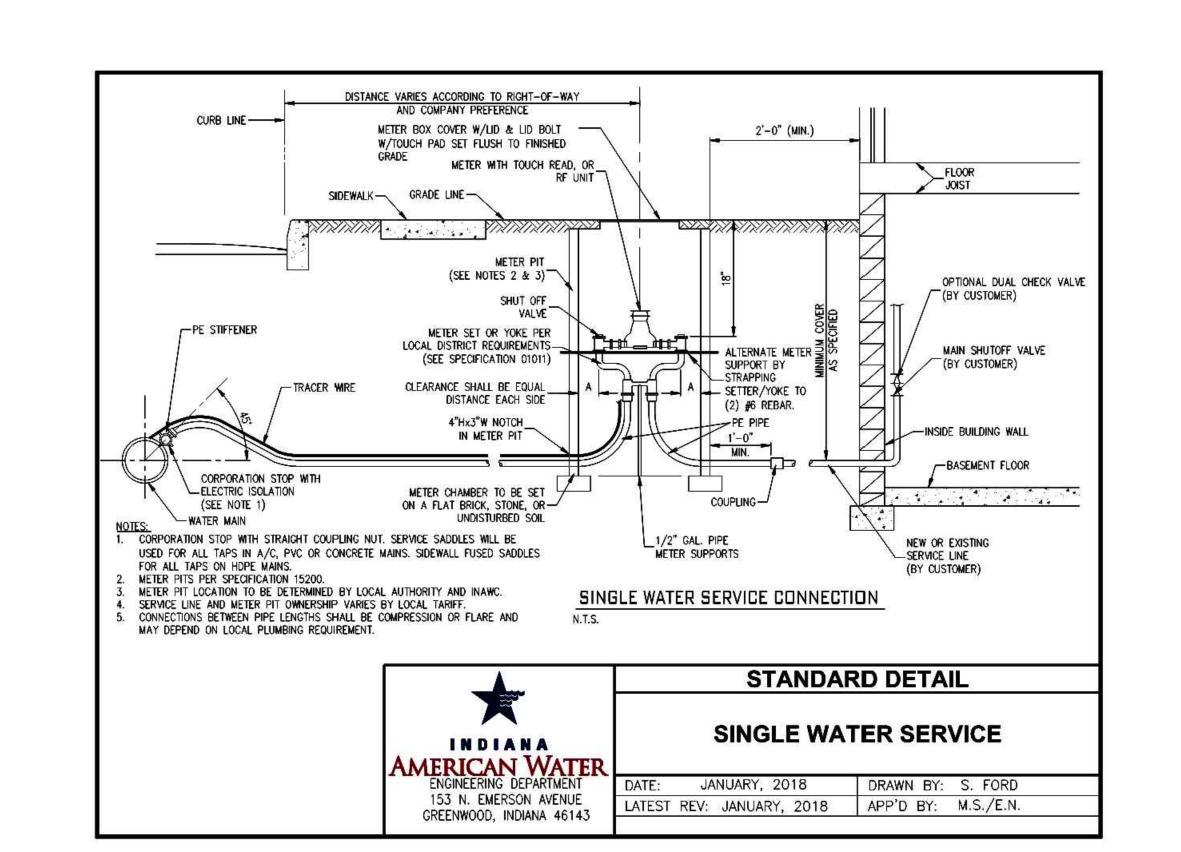


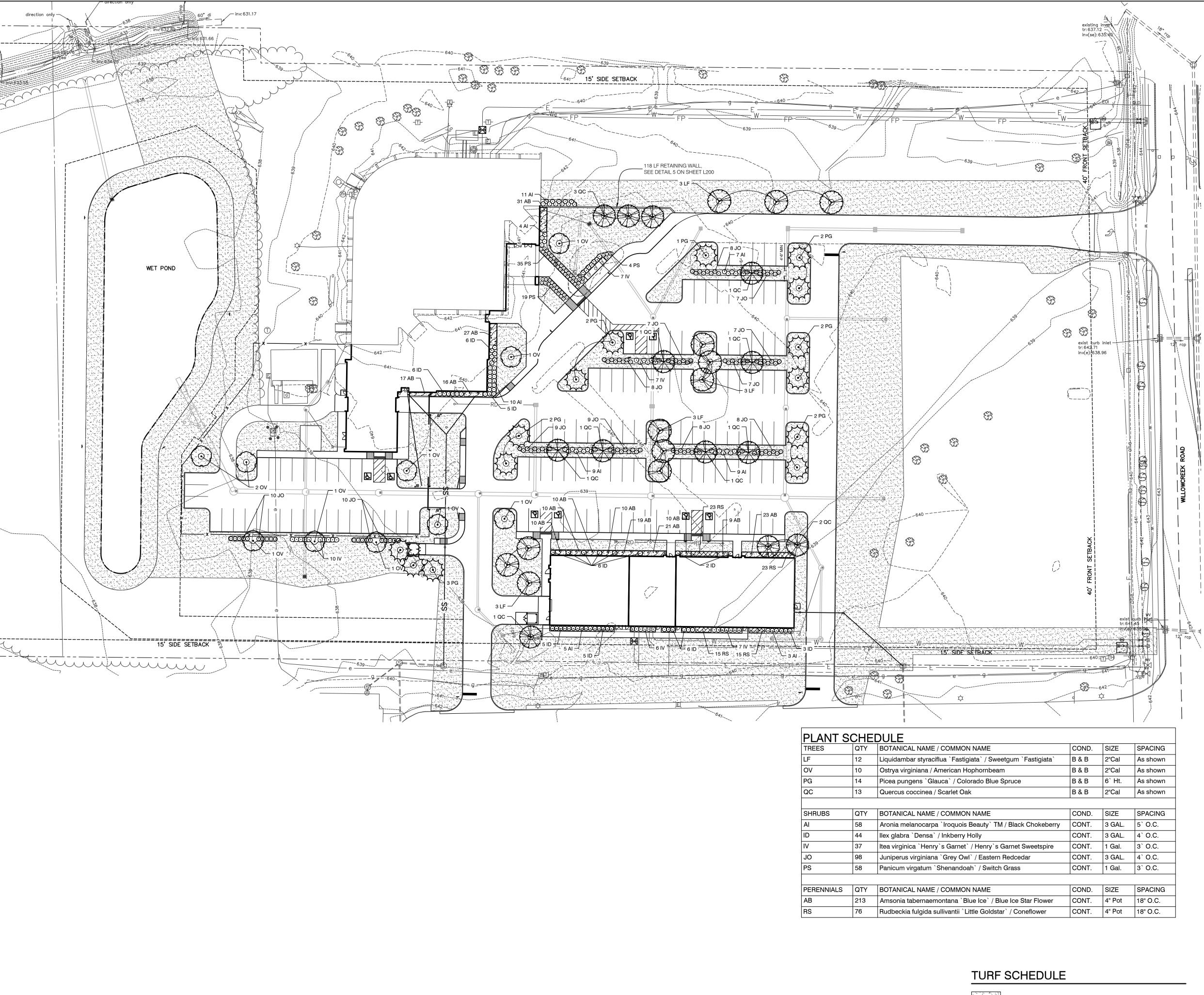
ISSUANCE INDEX DATE: 08/17/2018 PROJECT PHASE: CONSTRUCTION DOCUMENTS

REVISION SCHEDULE NO. DESCRIPTION DATE					
NO. DESCRIPTION DATE					
	NO.				

Project Number 2017.01279

IAWC WATER INSTALLATION DETAILS AND NOTES





GENERAL NOTES:

- CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS IN THE FIELD PRIOR TO BEGINNING WORK. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES ASSOCIATED WITH WORK. UTILITIES SHALL BE REPAIRED TO SATISFACTION OF THE UTILITY OWNER AND/OR OPERATING AUTHORITY AT NO ADDITIONAL COST.
- A MINIMUM OF 4" OF TOPSOIL $(\frac{2}{3})$ TOPSOIL, $\frac{1}{3}$ MULCH AND SOIL CONDITIONER) SHALL BE PLACED ON ALL AREAS TO BE SEEDED, SODDED AND PLANTED. PLANTING SOIL MIX SHALL BE FREE FROM SUBSOIL, VEGETATION, WEEDS OR ANY EXTRANEOUS OR DELETERIOUS MATERIALS LARGER THAN 1". REMOVE ANY UNSUITABLE AND EXCESS TOPSOIL, AS DETERMINED BY SOILS ENGINEER, FROM THE SITE. FURNISH ANY ADDITIONAL TOPSOIL NEEDED AT NO ADDITIONAL COST. ADDED TOPSOIL SHALL BE INCORPORATED INTO EXISTING SOIL.
- 3. IN CASE OF DISCREPANCIES BETWEEN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE. IF IN QUESTION, CONTACT THE
- 4. ALL PLANTING BEDS SHALL HAVE A 3" THICK LAYER OF SHREDDED HARDWOOD BARK MULCH. NO UTILITY MULCH OR PROCESSED TREE TRIMMINGS WILL BE ALLOWED. ALL PLANTING BEDS SHALL HAVE PRE-EMERGENT HERBICIDE APPLIED AS PER MANUFACTURER'S RECOMMENDATION, AFTER INSTALLATION IS
- 5. FINAL PLACEMENT OF PLANT MATERIALS, ETC. SHALL BE APPROVED BY LANDSCAPE ARCHITECT BEFORE PLANTING OPERATIONS ARE TO PROCEED. ALL TREE LOCATIONS SHALL BE MARKED WITH A WOODEN STAKE INDICATING VARIETY AND SIZE
- 6. NO SUBSTITUTIONS OF PLANT MATERIAL WILL BE ALLOWED. IF PLANTS ARE SHOWN TO BE UNAVAILABLE, THE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT PRIOR TO BID DATE IN WRITING. ALL PLANTS SHALL BE INSPECTED AND TAGGED WITH PROJECT IDENTIFICATION AT NURSERY OR CONTRACTOR'S OPERATION PRIOR TO MOVING TO JOB SITE. PLANTS MAY ALSO BE INSPECTED AND APPROVED OR REJECTED ON THE JOB SITE.
- ALL PLANTS ARE TO MEET OR EXCEED AMERICAN STANDARDS FOR NURSERY STOCK, 2004 EDITION, AS SET FORTH BY AMERICAN ASSOCIATION OF NURSERYMEN.
- 8. PLANTS AND ALL OTHER MATERIALS TO BE STORED ON SITE WILL BE PLACED WHERE THEY WILL NOT CONFLICT WITH CONSTRUCTION AND AS DIRECTED BY OWNER.
- 9. ALL NEW LANDSCAPE PLANTINGS SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FOLLOWING FINAL INSPECTION BY LANDSCAPE ARCHITECT. AT END OF THIS PERIOD, PLANT MATERIAL TERMED DEAD OR UNSATISFACTORY BY LANDSCAPE ARCHITECT SHALL BE REPLACED AT NO ADDITIONAL CHARGE BY THE LANDSCAPE CONTRACTOR.
- 10. ALL DISTURBED LAWN AREAS SHALL BE HYDRO-SEEDED OR SODDED AS SHOWN PER THE LANDSCAPE AND EROSION CONTROL PLANS.
- 11. LAWN AND SOD AREAS ARE TO BE GRADED UNIFORMLY WITHOUT ANY UNDULATIONS OR IRREGULARITIES IN THE SURFACE PRIOR TO ANY HYDRO-SEED OR SOD WORK.
- 12. ALL LAWN IS TO BE A BLEND PER THE PLANT SCHEDULE. HYDRO-SEED AREAS ARE TO HAVE 0% NOXIOUS WEED AND FREE
- 13. PROTECT LAWN SEEDED AREAS WITH STRAW MULCH. SPREAD MULCH UNIFORMLY AT A MINIMUM RATE OF 2 TONS PER ACRE TO FORM A CONTINUOUS BLANKET 1 ½ INCHES IN LOOSE THICKNESS OVER SEEDED AREAS.

ORDINANCE NOTES:

SITE ZONED: IS - INSTITUTIONAL

NEW PLANTING REQUIREMENTS: ALL NATIVE SPECIES ARE REQUIRED DECIDUOUS TREES TO BE INSTALLED AT 2" CALIPER (MIN) **EVERGREEN TREES TO BE INSTALLED AT 6' HEIGHT (MIN.)**

LOT PLANTING AREAS:

A SITE OVER 40,000 SF SHALL BE REQUIRED TO PLANT (4) DECIDUOUS TREES IN THE LOT PLANTING AREA, AND (1) DECIDUOUS TREE FOR EACH ADDITIONAL 20,000 SF

SITE AREA: 600,590 SF REQUIRED: (32) DECIDUOUS TREES

PROVIDED: (36) EXISTING TREES TO BE PRESERVED

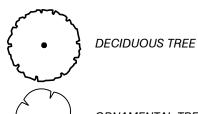
(1) DECIDUOUS TREE + (4) SHRUBS REQUIRED PER 40 LF OF FOUNDATION FACING STREETS OR PARKING FACILITIES

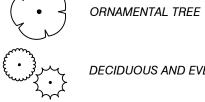
SOUTH BUILDING FOUNDATION (235 LF) REQUIRED: (5.9) TREES + (23.5) SHRUBS PROVIDED: (6) TREES + (48) SHRUBS

NORTH BUILDING FOUNDATION (380 LF) REQUIRED: (9.5) TREES + (38) SHRUBS

PROVIDED: (2) TREES + (38) SHRUBS

LANDSCAPE LEGEND





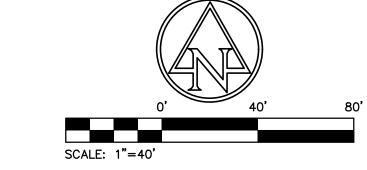
DECIDUOUS AND EVERGREEN SHRUBS



SPADE EDGE



TURF SEED MIX 127,736 sf See specifications for additional lawn seed mixes and installation requirements. Agrostis alba / Redtop 12,774 sf Festuca rubra / Red Fescue 38,321 sf Lolium perenne / Perennial Ryegrass 12,774 sf





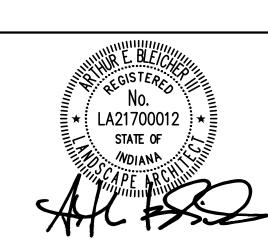
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PORTER COUNTY **NORTH ANNEX**

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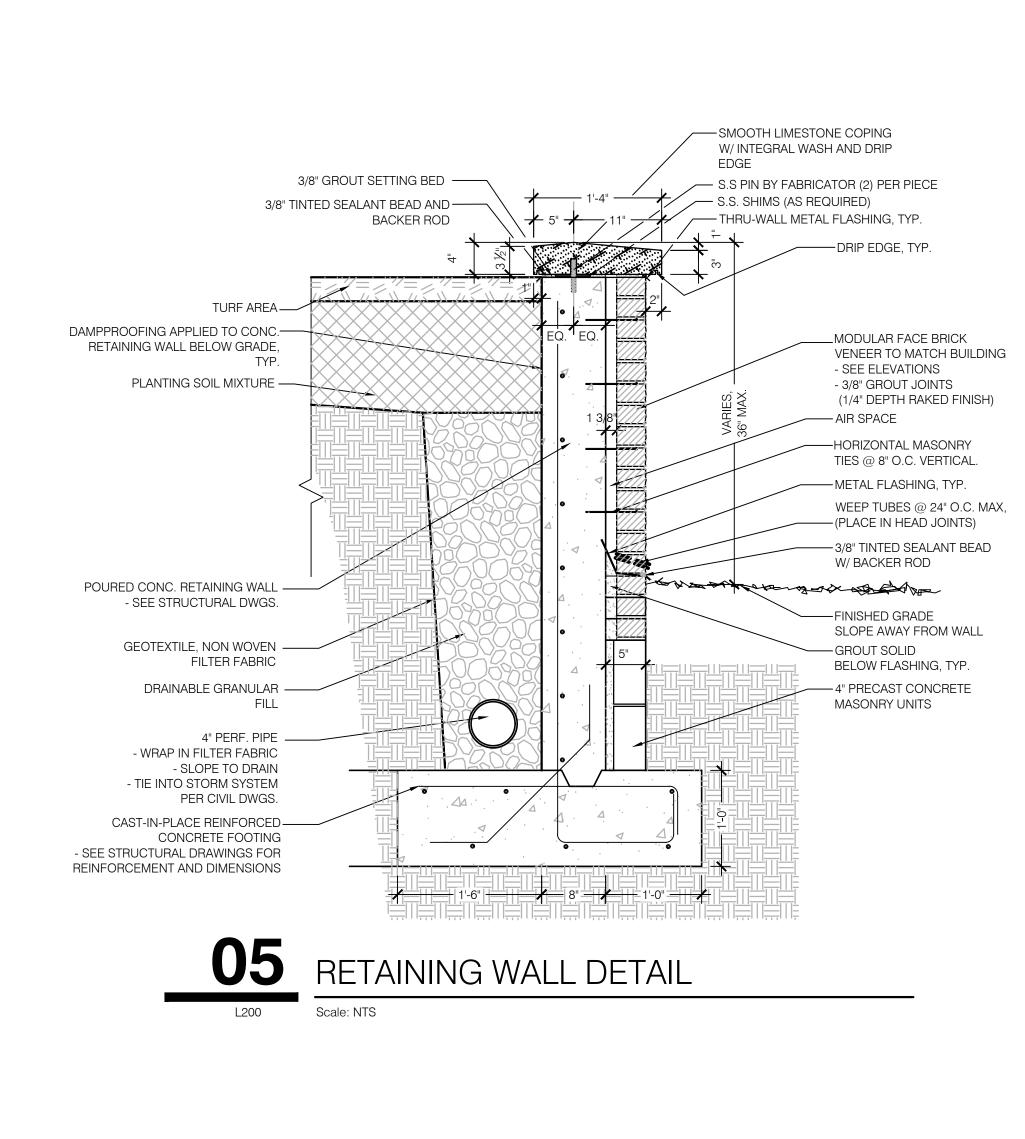
ISSUANCE INDEX DATE: 08/17/2018 PROJECT PHASE: CONSTRUCTION DOCUMENTS

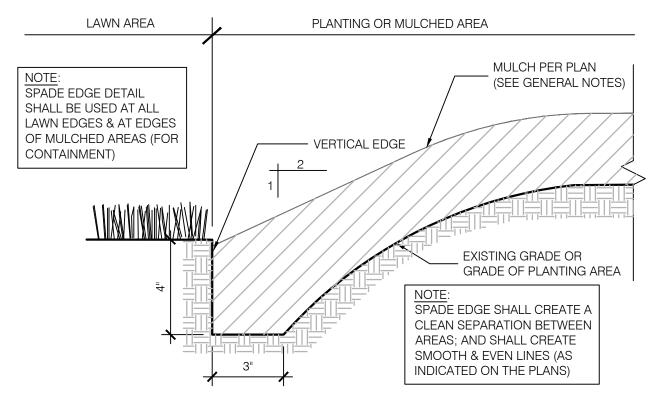
REVISION SCHEDULE				
NO.	DESCRIPTION	DATE		

2017.01279 Project Number

LANDSCAPE PLAN

L100





SPADE EDGE DETAIL

Scale: NTS

SPADE EDGE

SPADE EDGE

SPADE EDGE

OULTIVATED SOIL

NOTE: BREAK THROUGH ANY EXISTING "HARD-PAN" AND REMOVE AS NECESSARY TO PROVIDE GOOD PERCOLATION AND POSITIVE DRAINAGE.

PLANTING PROCEDURE

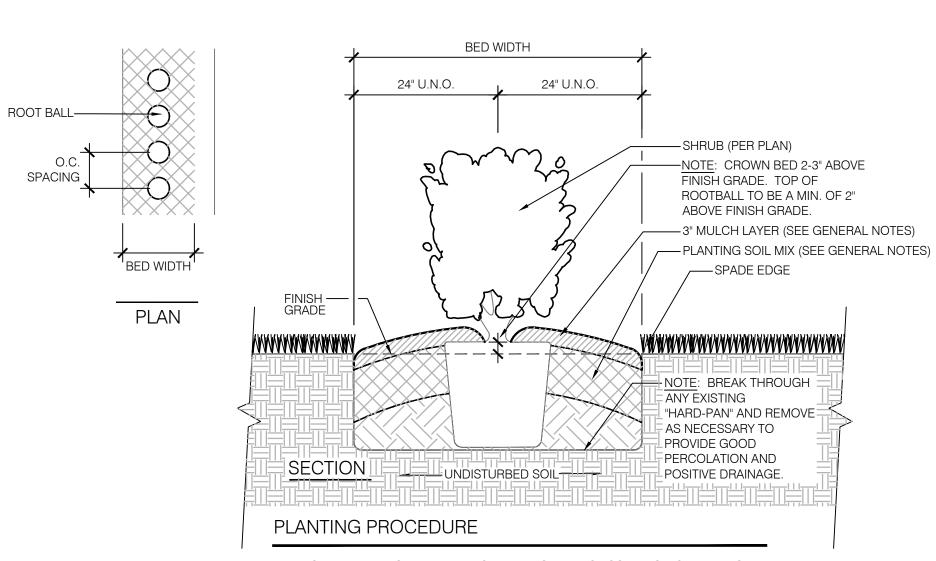
- LAYOUT BED AND OUTLINE WITH SPADE EDGE. PLACE SOIL FROM SPADE EDGE WITHIN BED.
 ROTOTILL BED TO 12" DEPTH. SPREAD 4" MIN. LAYER OF PLANTING SOIL MIX OVER BED. ROTOTILL
- PLANTING SOIL MIX INTO TOP OF BED.
- 3. INSTALL PLANTS, MULCH AND WATER THOROUGHLY. DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING.

03 GR

L200

GROUNDCOVER PLANTING DETAIL

Scale: NTS



1. LAYOUT BED AND OUTLINE WITH SPADE EDGE. PLACE SOIL FROM SPADE EDGE WITHIN BED.

- 2. ROTOTILL BED TO A 12" MIN. DEPTH OR AS REQUIRED FOR SPECIFIED SHRUBS. REMOVE EXISTING SOIL AS REQUIRED. SPREAD 6" MIN. LAYER OF PLANTING SOIL
- MIX OVER BED. ROTOTILL PLANTING SOIL MIX INTO TOP OF BED.

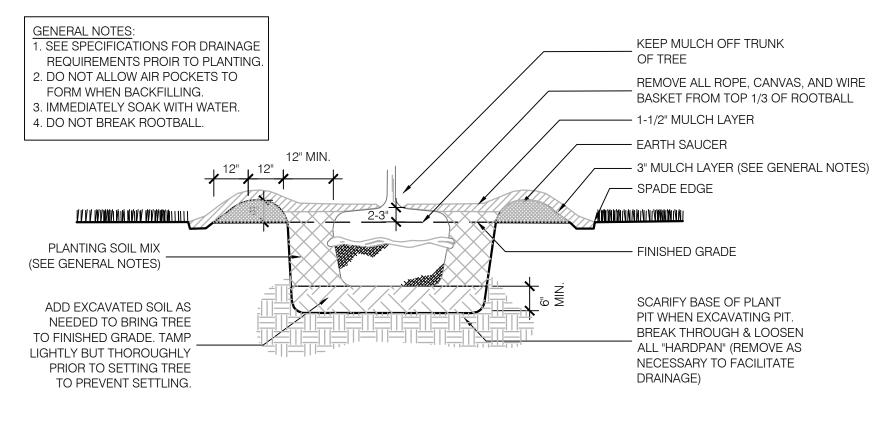
 3. INSTALL PLANTS, MULCH AND WATER THOROUGHLY. DO NOT ALLOW AIR
- POCKETS TO FORM WHEN BACKFILLING.

02

L200

SHRUB PLANTING DETAIL

Scale: NTS



PLANTING PROCEDURE

 EXCAVATE ROOTBALL PIT
 ADD EXCAVATED SOIL & TAMP.
 SET TREE SUCH THAT TOP OF ROOTBALL IS 2-3" HIGHER THAN FINISHED GRADE.

3. BACKFILL WITH SOIL MIX & "WATER IN"

- SAU
 ROOTBALL EDG
 GRADE. 5. STA
- 4. COMPLETE BACKFILLING, CONSTRUCT SAUCER, SPADE EDGE & ADD MULCH 5. STAKE & GUY SECURELY (AS REQUIRED)

01

Scale: NTS

TREE PLANTING DETAIL



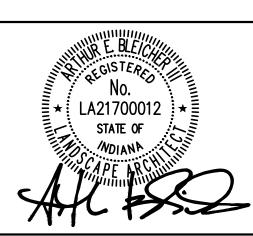
155 Indiana Avenue Valparaiso, IN 46383



7260 Shadeland Station | Indianapolis, Indiana 46256 TEL 317.547.5580 | FAX 317.543.0270 www.structurepoint.com

PORTER COUNTY NORTH ANNEX

3560 WILLOWCREEK RD PORTAGE, IN 46368



CERTIFIED BY

ISSUANCE INDEX
DATE:
08/17/2018
PROJECT PHASE:
CONSTRUCTION DOCUMENTS

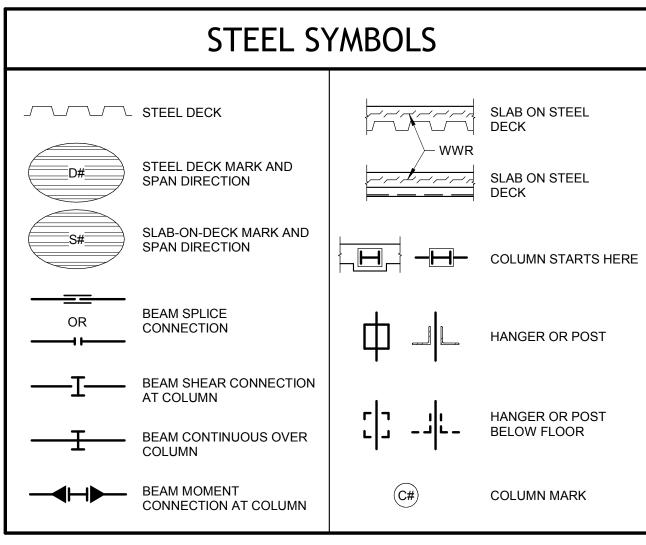
REVISION SCHEDULE

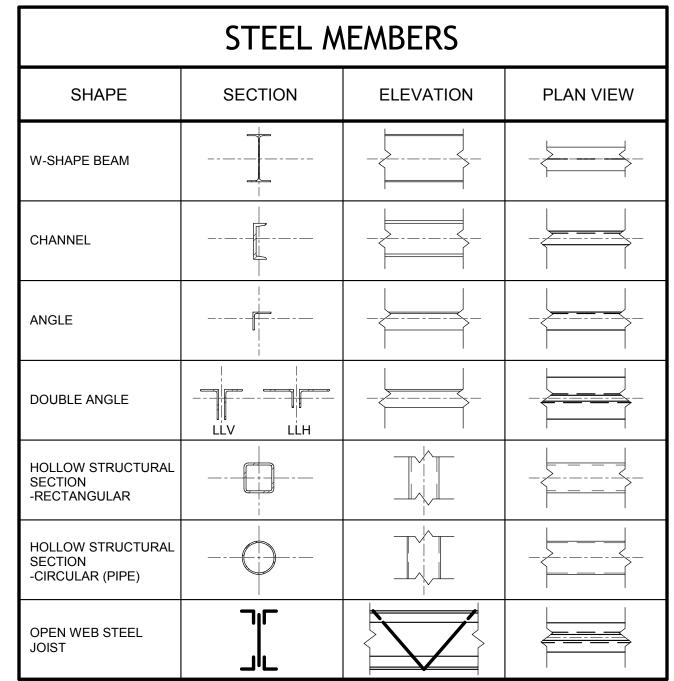
NO. DESCRIPTION DATE

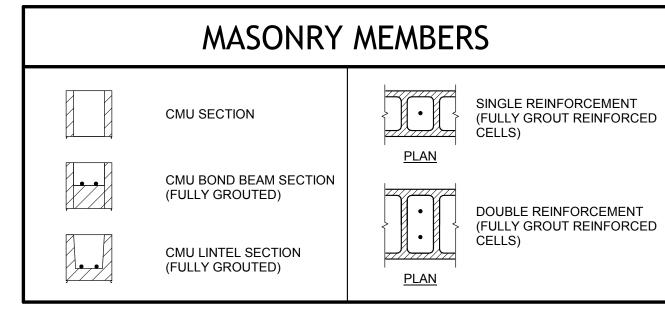
Project Number 2017.01279

LANDSCAPE DETAILS

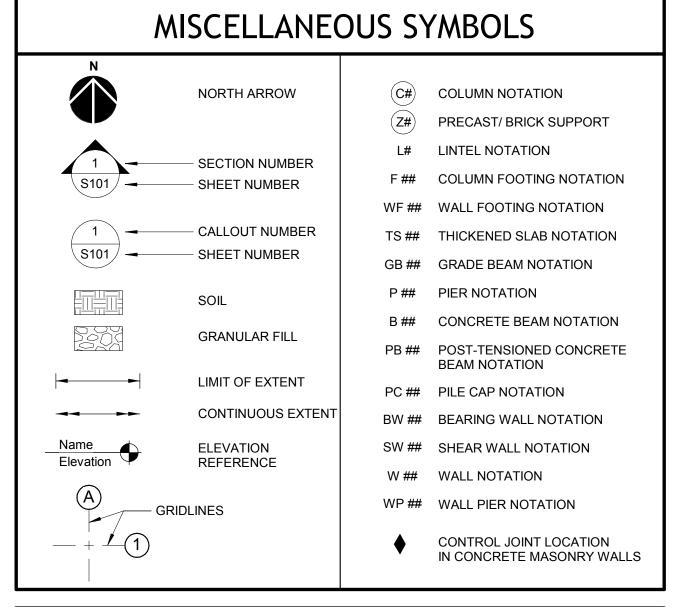
L200

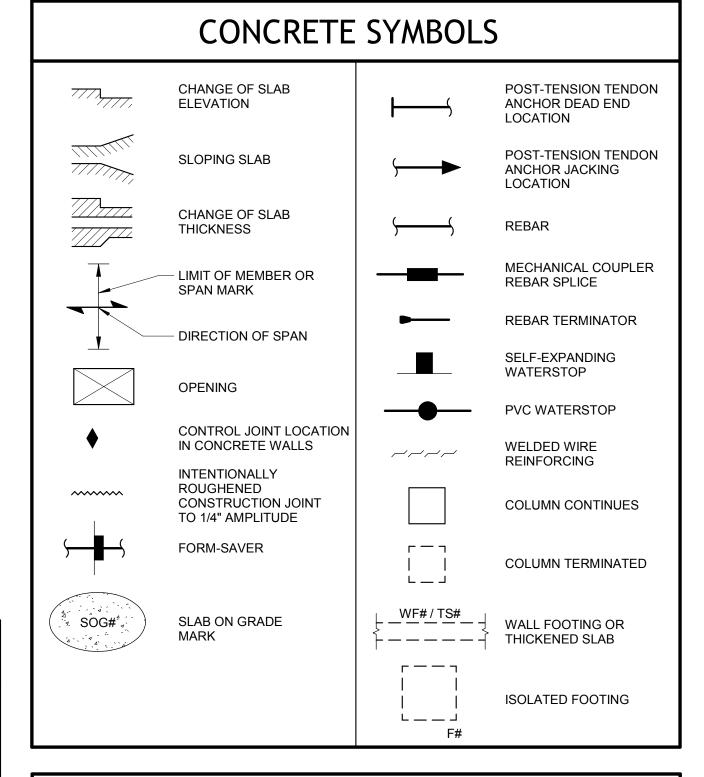






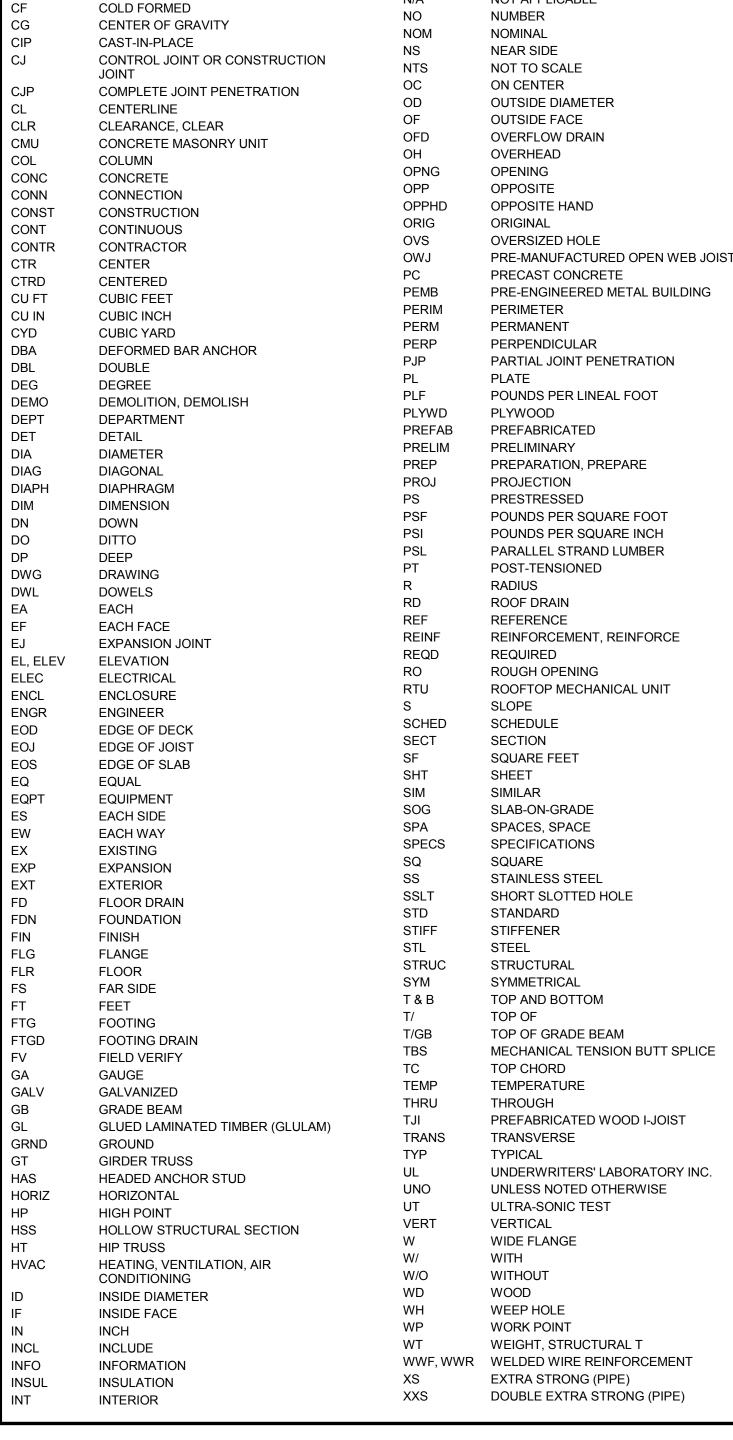
CONNECTORS						
CONNECTOR	SECTION	END/ALT VIEW				
CAST-IN ANCHOR ROD	‡	0				
POST-INSTALLED MECHANICAL ANCHOR		0				
POST INSTALLED ADHESIVE ANCHOR		0				
HEADED STUD		0				
BOLT		0				





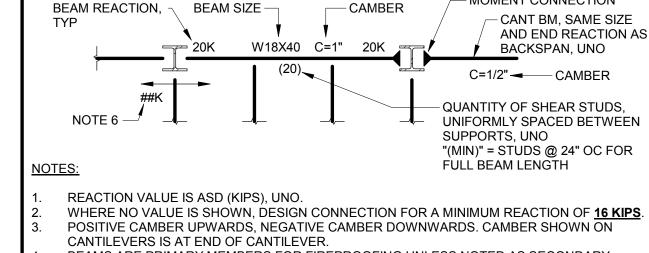
COLD-FORMED	COLD-FORMED STEEL SYMBOLS				
CF TRACK	BEARING WALL (BELOW)				
CF STUD/JOIST/RAFTER	+ SCREW				
PRODUCT IDENTIFICATION KEY:					
MEMBER DEPTH: (EXAMPLE: 6" = 600 X 1/100 INCHES) ALL MEMBER DEPTHS ARE TAKEN IN 1/100 INCHES. FOR ALL "T" SECTIONS MEMBER DEPTH IS THE INSIDE TO INSIDE DIMENSION. 600	FLANGE WIDTH: (EXAMPLE: 1 5/8" = 1.625" = 162 X 1/100 INCHES) ALL FLANGE WIDTHS ARE TAKEN IN 1/100 INCHES.				
STYLE: (EXAMPLE: STUD OR JOIST SECTION = S) THE FOUR ALPHA CHARACTERS UTILIZED BY THE DESIGNATOR SYSTEM ARE: S = STUD OR JOIST SECTIONS T = TRACK SECTIONS U = CHANNEL SECTIONS F = FURRING CHANNEL SECTIONS	MATERIAL THICKNESS: (EXAMPLE: 0.054 IN = 54 MILS; 1 MIL = 1/100 IN) MATERIAL THICKNESS IS THE MINIMUM BASE METAL THICKNESS IN MILS. MINIMUM BASE METAL THICKNESS REPRESENTS 95% OF THE DESIGN THICKNESS.				
GAUGE THICKNESS EQUIVALENTS:					
33 MIL = 20 GA 68 MIL = 14 GA 43 MIL = 18 GA 97 MIL = 12 GA 54 MIL = 16 GA 118 MIL = 10 GA					

STRUCTURAL DRAWINGS ABBREVIATIONS J/BRG JOIST BEARING ARCHITECT/ENGINEER JST JOIST AMERICAN CONCRETE INSTITUTE JOINT ADDL **ADDITIONAL** KNEE BRACE ADJ ADJACENT KIP, K 1,000 POUNDS AGGR AGGREGATE KO KNOCK-OUT AISC AMERICAN INSTITUTE OF STEEL KIPS PER SQUARE INCH CONSTRUCTION ANGLE OR LENGTH **ALTERNATE** LABORATORY ANSI AMERICAN NATIONAL STANDARDS POUND INSTITUTE LINEAL FOOT AMERICAN PLYWOOD ASSOCIATION LIN LINEAL, LINEAR APPROX **APPROXIMATE** LONG LEG HORIZONTAL ANCHOR ROD LLV LONG LEG VERTICAL ARCH **ARCHITECTURAL** LONGIT LONGITUDINAL ASTM AMERICAN SOCIETY FOR TESTING AND LOW POINT MATERIALS LSL LAMINATED STRAND LUMBER AWS AMERICAN WELDING SOCIETY LSLT LONG SLOTTED HOLE **BOTTOM OF** LTWT LIGHT WEIGHT BALANCE LVL LAMINATED VENEER LUMBER **BOTTOM CHORD** MAS MASONRY BOARD MATL MATERIAL **BRACED FRAME** MAXIMUM BLDG BUILDING MACHINE BOLT BLK BLOCK MISCELLANEOUS CHANNEL BLKG BLOCKING MECHANICAL BEAM **MEMB** MEMBRANE BOTTOM MEP MECHANICAL/ ELECTRICAL/ PLUMBING BRG BRKT **BEARING** MF MOMENT FRAME **BRACKET** MFR MANUFACTURER BTWN BETWEEN MIN MINIMUM BUILT UP MISC **MISCELLANEOUS** STANDARD CHANNEL MASONRY OPENING CANTILEVER MULTIPLE **CENTER TO CENTER** NOT APPLICABLE COLD FORMED NUMBER CENTER OF GRAVITY NOMINAL NOM

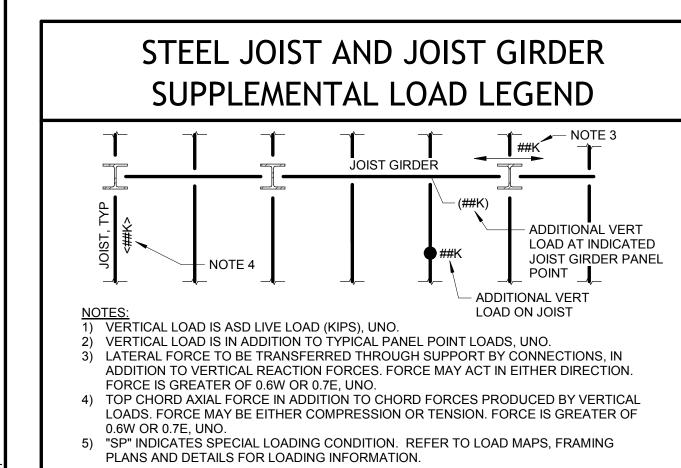


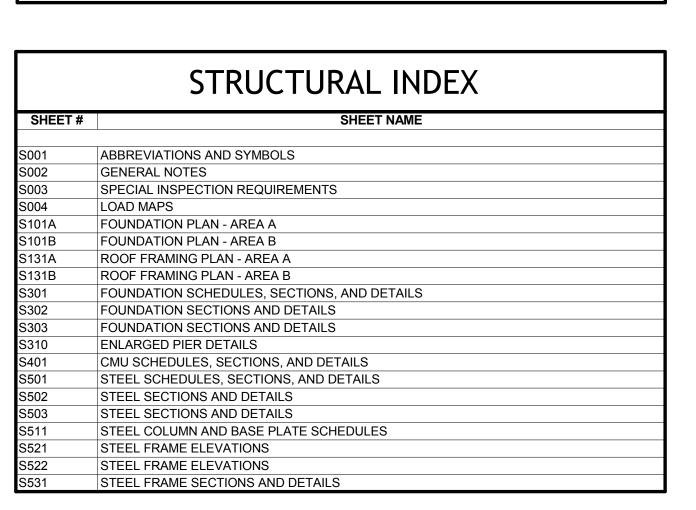


- MOMENT CONNECTION



WHERE NO VALUE IS SHOWN, DESIGN CONNECTION FOR A MINIMUM REACTION OF 16 KIPS.
POSITIVE CAMBER UPWARDS, NEGATIVE CAMBER DOWNWARDS. CAMBER SHOWN ON CANTILEVERS IS AT END OF CANTILEVER.
BEAMS ARE PRIMARY MEMBERS FOR FIREPROOFING UNLESS NOTED AS SECONDARY.
"M" IN PLACE OF BEAM SIZE INDICATES W10X12.
LATERAL FORCE TO BE TRANSFERRED THROUGH SUPPORT BY CONNECTIONS IN ADDITION TO VERTICAL REACTION FORCES. FORCE MAY ACT IN EITHER DIRECTION. FORCE IS GREATER OF 0.6W OR 0.7E, UNO. WHERE NO VALUE IS SHOWN, DESIGN CONNECTION FOR A MINIMUM OF 5 KIPS.





PORTED COUNT

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PORTER COUNTY - NORTH ANNEX

PORTAGE, IN



ISSUANCE INDEX
DATE:
08.20.18
PROJECT PHASE:
100% CONSTRUCTION DOCUMENTS - BP1

REVISION SCHEDULE

NO. DESCRIPTION DATE

Project Number 2017.01279

ABBREVIATIONS AND SYMBOLS

INFORMATION.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT CONSTRUCTION LOADS DO NOT EXCEED THE CAPACITY OF ANY STRUCTURAL ELEMENT AT THE TIME THE LOADS ARE APPLIED, INCLUDING BUT NOT LIMITED TO: WEIGHTS OF MATERIALS, WEIGHTS OF EQUIPMENT AND WORKERS, AND ALL LOADS APPLIED FROM TEMPORARY LIFTS, HOISTS AND CRANES, ETC.

THE STRUCTURAL DRAWINGS AND SPECIFICATIONS SHALL BE USED IN CONJUNCTION

WITH THE DRAWINGS AND SPECIFICATIONS OF ALL OTHER DISCIPLINES, TRADES, AND

DELEGATED DESIGN ELEMENTS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF THE STRUCTURAL WORK WITH ALL OTHER APPLICABLE TRADES. THE GENERAL NOTES ON THE DRAWINGS ARE TO BE USED IN CONJUNCTION WITH

THE FULL WRITTEN MATERIAL SPECIFICATIONS (IF ANY) FOR THE PROJECT.

DO NOT SCALE THE DRAWINGS. REFER TO THE WRITTEN DIMENSIONS AND

IF A DISCREPANCY IS NOTED ON THE DRAWINGS, GENERAL NOTES, OR SPECIFICATIONS THE CONTRACTOR SHALL SUBMIT TO THE STRUCTURAL ENGINEER A WRITTEN REQUEST FOR CLARIFICATION AND SHALL NOT PROCEED WITH THE AFFECTED WORK WITHOUT DOCUMENTED RESOLUTION OF THE DISCREPANCY, ALL COSTS RESULTING FROM THE CONTRACTOR IMPROPERLY PROCEEDING WITH THE AFFECTED WORK PRIOR TO DOCUMENTED RESOLUTION OF THE DISCREPANCY, INCLUDING COST OF REMOVAL AND REPLACEMENT OF NON-CONFORMING WORK, SHALL BE BORNE BY THE

PENETRATIONS AND EMBEDDED ITEMS

CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

CONTRACTOR SHALL COORDINATE WITH ALL AFFECTED TRADES THE REQUIRED SIZES TYPES, AND LOCATIONS OF ALL EMBEDDED ITEMS IN, AND ALL PENETRATIONS THROUGH, STRUCTURAL ELEMENTS PRIOR TO CONSTRUCTION.

NO PENETRATIONS THROUGH STRUCTURAL ELEMENTS, OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS, SHALL BE MADE WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.

NO ITEMS (INCLUDING, BUT NOT LIMITED TO, CONDUIT, PIPING, ETC.), OTHER THAN

THOSE SHOWN ON THE STRUCTURAL DRAWINGS, SHALL BE EMBEDDED IN STRUCTURAL ELEMENTS WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER. ALL EMBEDDED ITEMS IN EXPOSED EXTERIOR CONCRETE SHALL BE GALVANIZED, PLASTIC, OR EPOXY-COATED.

CONCRETE MIX DESIGN SUBMITTAL

OF PLACEMENT.

THE CONTRACTOR SHALL SUBMIT FOR THE REVIEW OF THE STRUCTURAL ENGINEER A MIX DESIGN FOR EACH PROPOSED CLASS OF CONCRETE. EACH MIX DESIGN SHALL BE IDENTIFIED BY A MIX NUMBER OR OTHER UNIQUE IDENTIFICATION. THE CONTRACTOR SHALL NOT VARY FROM THE MIX DESIGNS NOR USE ANY CONCRETE OTHER THAN THE APPROVED MIX DESIGNS WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER. MIX DESIGN SUBMITTALS SHALL INCLUDE THE FOLLOWING INFORMATION:

- 1. MIX DESIGN NUMBER OR UNIQUE IDENTIFICATION AND INTENDED LOCATION
- 2. CEMENT TYPE. PROPORTION AND NAME OF MANUFACTURER. . FLY ASH PROPORTION (WHEN USED), LABORATORY ANALYSIS CERTIFICATION, AND NAME AND LOCATION OF SUPPLIER.
- 4. COURSE AGGREGATE PROPORTION, GRADATION REPORT, NAME AND LOCATION OF SUPPLIER. FINE AGGREGATE PROPORTION, GRADATION REPORT, NAME AND LOCATION
- 6. MIXING WATER PROPORTION AND SOURCE. ADMIXTURE DOSAGES, PRODUCT NAME(S) AND MANUFACTURER NAME(S). FIBER REINFORCEMENT DOSAGE (WHEN USED), PRODUCT NAME AND
- MANUFACTURER NAME 9. DESIGN 28-DAY COMPRESSIVE STRENGTH (F'C).
- 10. DESIGN SLUMP RANGE. DESIGN AIR-ENTRAINMENT (FOR CONCRETE REQUIRING ENTRAINED AIR). 12. STATISTICAL ANALYSIS OF LABORATORY STRENGTH TEST DATA IN ACCORDANCE WITH "STANDARD DEVIATION" DETERMINATION OUTLINED IN

DELEGATED DESIGN

FOR ALL SUBMITTALS INDICATED AS "DELEGATED DESIGN." THE CONTRACTOR SHALL ENGAGE A SPECIALTY STRUCTURAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED TO DESIGN AND DETAIL THE ITEMS NOTED IN THE STRUCTURAL SUBMITTALS AND SPECIFICATIONS AS A DELEGATED DESIGN.

DELEGATED DESIGN CALCULATIONS AND RELATED DRAWINGS SHALL CONTAIN THE FOLLOWING. AS A MINIMUM:

- 1. COVER PAGE SIGNED AND SEALED BY THE SPECIALTY STRUCTURAL ENGINEER INCLUDING A STATEMENT OF CERTIFICATION THAT THE SUBMITTED CALCULATIONS ARE IN CONFORMANCE WITH THE DESIGN CRITERIA PROVIDED IN THE CONTRACT DOCUMENTS AND THAT THE RELATED SHOP DRAWINGS ARE IN
- CONFORMANCE WITH THE SUBMITTED CALCULATIONS. TABLE OF CONTENTS, PLACED ON, OR IMMEDIATELY FOLLOWING THE COVER 3. SUMMARY OF APPLICABLE CODE CRITERIA, LOAD DATA AND PERFORMANCE
- CRITERIA AS OUTLINED IN THE CONTRACT DOCUMENTS. CLEAR DEFINITION OF THE LOCATION(S) IN THE STRUCTURE WHERE EACH
- CALCULATION APPLIES.
- 5. LOCATION, TYPE, MAGNITUDE AND DIRECTION OF ALL LOADS IMPOSED ON THE STRUCTURE BY THE DELEGATED DESIGN SYSTEM/COMPONENTS.

SUBMITTALS THAT DO NOT CONTAIN THE INFORMATION NOTED ABOVE WILL BE REJECTED WITHOUT COMMENT.

THE STRUCTURAL ENGINEER'S REVIEW OF DELEGATED DESIGN SUBMITTALS WILL BE FOR GENERAL CONFORMANCE WITH THE DESIGN LOADING, DESIGN INTENT AND LOADS

SHOP DRAWING SUBMITTALS

THE CONTRACTOR SHALL PREPARE DETAILED SHOP DRAWINGS TO ENABLE ALL PARTS OF THE WORK TO BE FABRICATED AND CONSTRUCTED IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS. THESE SHOP DRAWINGS WILL BE REVIEWED FOR GENERAL COMPLIANCE WITH THE DESIGN INTENT ONLY. THE CONTRACTOR IS RESPONSIBLE FOR ALL DIMENSIONS, ACCURACY AND FIT OF WORK.

ALL SHOP DRAWINGS SHALL BE REVIEWED BY THE CONTRACTOR PRIOR TO SUBMITTAL TO THE STRUCTURAL ENGINEER. DRAWINGS SUBMITTED WITHOUT CONTRACTOR'S REVIEW WILL BE RETURNED UNCHECKED.

PROVIDE ALL SUBMITTALS IN ELECTRONIC PDF FORMAT.

- SUBMIT SHOP DRAWINGS FOR EACH OF THE FOLLOWING ITEMS:
- 2. CONCRETE MASONRY REINFORCEMENT (INCLUDING PLANS AND ELEVATIONS FOR EACH WALL INDICATING ALL CMU REINFORCING REQUIREMENTS, INCLUDING SHEAR WALLS)
- 3. CONCRETE MASONRY CONTROL JOINT LOCATIONS STRUCTURAL STEEL
- STEEL JOISTS AND JOIST GIRDERS (INCLUDING ALL BRIDGING AND BRACING) 6. STEEL DECK
- SUBMIT DELEGATED DESIGN SHOP DRAWINGS FOR EACH OF THE FOLLOWING ITEMS:
- 1. STRUCTURAL STEEL CONNECTIONS (INCLUDING DESIGN CALCULATIONS AND SUMMARY PAGE FOR CONNECTIONS NOT SPECIFICALLY DETAILED IN THE
- CONTRACT DRAWINGS) GLAZING SYSTEMS - CURTAIN WALL AND STOREFRONT (INCLUDING DESIGN CALCULATIONS AND CONNECTION DETAILS)
- COLD-FORMED STEEL FRAMING (INCLUDING DESIGN CALCULATIONS, MEMBER PROPERTIES, FASTENER REQUIREMENTS, ASSEMBLY DETAILS AND **CONNECTION DETAILS)**

PRODUCT DATA SUBMITTALS

THE CONTRACTOR SHALL SUBMIT FOR APPROVAL PRODUCT DATA FOR THE SPECIFIC ITEMS LISTED BELOW. CONTRACTOR SHALL NOT USE PRODUCTS OTHER THAN THOSE SUBMITTED WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.

SUBMIT HARD COPIES OR FLECTRONIC VERSIONS OF PRODUCT DATA. FOR HARD COPY OPTION, SUBMIT A MINIMUM OF TWO COPIES OF PRODUCT DATA TO THE STRUCTURAL ENGINEER FOR REVIEW (ONE COPY SHALL BE RETAINED BY THE STRUCTURAL ENGINEER), FOR ELECTRONIC OPTION, SUBMIT PRODUCT DATA IN ADOBE PDF FORMAT.

- 1. FIBER REINFORCEMENT FOR CONCRETE CONCRETE CURING COMPOUND
- CONCRETE JOINT SEALANT MASONRY JOINT REINFORCEMENT
- EXPANSION ANCHORS ADHESIVE ANCHORS
- NON-SHRINK GROUT
- COLD-FORMED STEEL FRAMING COLD-FORMED STEEL FRAMING CONNECTOR HARDWARE 10. VAPOR RETARDER

RENOVATION (EXISTING CONDITIONS)

INFORMATION SHOWN FOR THE EXISTING STRUCTURE ON THESE DRAWINGS WAS TAKEN FROM DRAWINGS THAT WERE PREPARED FOR BOYD E PHELPS INC. ENTITLED NORTH PORTER COUNTY GOVERNMENT COMPLEX, PREPARED BY GEROMETTA & KINEL ARCHITECTS, INC, DATED 20TH NOVEMBER 1978.

WORK SHOWN ON THESE PLANS ASSUMES THAT THE ORIGINAL CONSTRUCTION WAS PERFORMED IN ACCORDANCE WITH THE ABOVE INDICATED ORIGINAL DRAWINGS INCLUDING (BUT NOT LIMITED TO) DIMENSIONS, ELEVATIONS, MEMBER SIZES, MATERIALS, DETAILS, ETC. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE CONDITIONS RELATING TO THE EXISTING STRUCTURE AND TO NOTIFY THE STRUCTURAL ENGINEER IMMEDIATELY OF ANY DISCREPANCIES OR CONFLICTS.

WHERE NEW WORK IS TO BE FITTED TO OLD WORK, THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AND CONDITIONS IN THE FIELD, AND REPORT ANY ERRORS OR DISCREPANCIES TO THE STRUCTURAL ENGINEER PRIOR TO THE FABRICATION AND ERECTION OF ANY NEW MEMBERS.

EXISTING MATERIALS TO BE REMOVED AND REINSTALLED AS PART OF THIS PROJECT THAT BECOME DAMAGED, SHALL BE REPLACED WITH NEW MATERIAL OF EQUAL QUALITY AND APPEARANCE, AT THE CONTRACTOR'S EXPENSE.

ALL WORK SHALL BE PERFORMED WITHOUT DAMAGE TO ADJACENT RETAINED WORK. ADJACENT EXISTING CONSTRUCTION SHALL BE PROTECTED FROM DUST, DIRT AND DEBRIS ACCUMULATION AT ALL TIMES.

FOUNDATION EXCAVATIONS AND SOIL RELATED WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT NUMBER 18SB0022 PREPARED BY ALT & WITZIG ENGINEERING, INC DATED 30TH MARCH 2018.

DESIGN NET SOIL PRESSURE:

SPREAD FOOTINGS: CONTINUOUS WALL FOOTINGS: 1500 PSF

FOUNDATIONS AND SOILS RELATED WORK SHALL BE INSPECTED BY A LICENSED GEOTECHNICAL ENGINEER. WRITTEN FIELD REPORTS SHALL BE FORWARDED TO THE STRUCTURAL ENGINEER AS SOON AS THEY BECOME AVAILABLE. FOUNDATION CONDITIONS NOTED DURING CONSTRUCTION, WHICH DIFFER FROM THOSE DESCRIBED IN THE GEOTECHNICAL REPORT. SHALL BE REPORTED TO THE

STRUCTURAL ENGINEER AND GEOTECHNICAL ENGINEER BEFORE FURTHER CONSTRUCTION IS ATTEMPTED. EXCAVATIONS FOR SPREAD FOOTINGS, COMBINED FOOTINGS, CONTINUOUS FOOTINGS AND MAT FOUNDATIONS SHALL BE CLEANED AND HAND TAMPED TO

UNIFORM SURFACE AND SHALL BE PROTECTED AND MAINTAINED UNIFORM UNTIL CONCRETE IS PLACED. BELOW-GRADE WALLS

DO NOT BACKFILL AGAINST BELOW-GRADE CONCRETE (OR MASONRY) WALLS UNTIL THE CONCRETE (OR MASONRY ASSEMBLAGE) HAS REACHED ITS 28-DAY COMPRESSIVE STRENGTH.

WHERE BACKFILL IS REQUIRED ON BOTH SIDES OF BELOW-GRADE WALLS, BACKFILL EVENLY ON EACH SIDE OF EACH WALL TO PREVENT UNBALANCED SOIL LOADS AGAINST THE WALL.

ANY INSULATION SHOWN ON THE STRUCTURAL DRAWINGS IS FOR GENERAL VISUAL REFERENCE ONLY, UNLESS NOTED OTHERWISE. SEE THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR EXACT LOCATION, PLACEMENT, THICKNESS AND MATERIAL REQUIREMENTS.

<u>CONCRETE</u>

REINFORCED CONCRETE HAS BEEN DESIGNED IN ACCORDANCE WITH THE BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318) AND COMMENTARY (ACI 318R).

MIXING, TRANSPORTING, AND PLACING OF CONCRETE SHALL CONFORM TO THE LATEST EDITION OF THE SPECIFICATIONS FOR STRUCTURAL CONCRETE (ACL 301). READY-MIXED CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF ASTM C94. IN CASE OF A DISCREPANCY, THE PLANS AND SPECIFICATIONS SHALL GOVERN. CEMENT SHALL CONFORM TO ASTM C150, TYPE I, UNO.

FLY ASH SHALL CONFORM TO ASTM C618, CLASS C OR F.

NORMAL WEIGHT AGGREGATES SHALL CONFORM TO ASTM C33.

WATER-REDUCING ADMIXTURES SHALL CONFORM TO ASTM C494. AIR-ENTRAINING ADMIXTURES SHALL CONFORM TO ASTM C260 AND SHALL BE CERTIFIED BY THE MANUFACTURER TO BE COMPATIBLE WITH OTHER ADMIXTURES. CALCIUM CHLORIDE ADMIXTURES OR ADMIXTURES CONTAINING MORE THAN 0.1 PERCENT CHLORIDE IONS SHALL NOT BE USED.

IN COLD WEATHER CONDITIONS, MIXING, PLACING, FINISHING, CURING AND PROTECTION OF CONCRETE SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF ACI 306R, COLD WEATHER CONCRETING.

IN HOT WEATHER CONDITIONS, MIXING, PLACING, FINISHING, CURING AND PROTECTION OF CONCRETE SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF ACI 305R, HOT WEATHER CONCRETING.

USE OF CONSTRUCTION JOINTS AT LOCATIONS OTHER THAN THOSE INDICATED ON THE DRAWINGS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW. SLUMP FOR PUMPED CONCRETE SHALL BE MEASURED AT POINT OF DISCHARGE.

NORMAL WEIGHT CONCRETE SHALL HAVE THE PROPERTIES AS INDICATED IN THE CONCRETE MIX SCHEDULE AND SPECIFICATIONS.

FLOWABLE FILL

WHERE INDICATED ON THE STRUCTURAL DRAWINGS, FLOWABLE FILL SHALL BE A CONTROLLED LOW-STRENGTH MATERIAL (CLSM) PRODUCED AND PLACED IN ACCORDANCE WITH RECOMMENDATIONS OF ACI 229. PROVIDE MATERIAL WITH 28-DAY COMPRESSIVE STRENGTH OF 1,000 PSI UNLESS NOTED OTHERWISE.

CONCRETE SLABS ON GRADE

SLABS ON GRADE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION (ACI 302.1R).

PLACE CONCRETE IN A MANNER SO AS TO PREVENT SEGREGATION OF THE MIX. DELAY FLOATING AND TROWELING OPERATIONS UNTIL THE CONCRETE HAS LOST SURFACE WATER SHEEN OR ALL FREE WATER. DO NOT SPRINKLE FREE CEMENT ON THE SLAB SURFACE.

PROVIDE CURING OF CONCRETE SLABS ON GRADE AS REQUIRED TO ACCOMMODATE FLOOR FINISHES AND FINISH MATERIALS PER THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS. REVIEW ALL FLOOR FINISH REQUIREMENTS PRIOR TO PLACEMENT OF CONCRETE SLABS AND COORDINATE SLAB MIX, PLACEMENT AND CURING TO COMPLY WITH FINISH FLOORING MATERIAL MANUFACTURER'S REQUIREMENTS. CURING PROCEDURES SHALL COMPLY WITH ACI 302.1R AND USE OF CURING

FLAT AND SMOOTH TO RESULT IN A UNIFORM APPEARANCE AND MINIMIZE SURFACE MARKINGS AND BLEMISHES.

MATERIALS SHALL BE APPLIED IN STRICT ACCORDANCE WITH MANUFACTURER'S

REQUIREMENTS. MOISTURE RETENTION COVERS. IF USED. SHALL BE APPLIED

UNLESS NOTED OTHERWISE, OR UNLESS MORE STRINGENT REQUIREMENTS APPLY, **CURE SLABS ON GRADE AS FOLLOWS:**

SLABS RECEIVING FLOOR COVERING MATERIALS: MOIST CURE A MINIMUM OF 7 DAYS (OR, IF APPROVED BY FLOOR FINISH MATERIAL MANUFACTURER, USE ASTM C309, TYPE 1, CLASS B, WATERBORNE, MEMBRANE-FORMING CURING

COMPOUND, DISSIPATING). REMOVAL OF CURING COMPOUND MATERIAL, IF REQUIRED FOR PROPER INSTALLATION OF FLOOR FINISH MATERIALS, SHALL BE PERFORMED BY THE CONCRETE CONTRACTOR.

EXPOSED SLABS UNO: ASTM C1315, TYPE 1, CLASS A, WATERBORNE, MEMBRANE FORMING CURING AND SEALING COMPOUND.

PROVIDE SLABS ON GRADE WITH A SMOOTH TROWEL FINISH UNLESS NOTED OTHERWISE

CONTRACTOR SHALL REVIEW ALL REQUIRED FLOOR FINISH MATERIAL REQUIREMENTS PRIOR TO PLACEMENT OF CONCRETE AND SHALL PROVIDE FLOOR SLAB FLATNESS AND LEVELNESS MEETING THE FINISH MATERIAL SUPPLIER'S WRITTEN REQUIREMENTS. FLATNESS AND LEVELNESS SHALL BE THE MORE STRINGENT OF THE FINISH MATERIAL REQUIREMENTS AND THE FOLLOWING

SEE THE SLAB ON GRADE FLATNESS / LEVELNESS SCHEDULE.

CONTRACTOR SHALL PROVIDE ALL NECESSARY REPAIR, GRINDING AND/OR LEVELING OF THE CONCRETE SLAB TO ACCOMMODATE ALL FLOOR FINISHES PRIOR TO INSTALLATION OF THE FINISH MATERIALS WITH NO ADDITIONAL COST TO THE PROJECT. THE MINIMUM LOCAL AREA SHALL BE ANY BAY DEFINED BY COLUMN LINES.

UNLESS SHOWN OR NOTED OTHERWISE. PROVIDE CONTROL OR CONSTRUCTION JOINTS IN SLABS-ON-GRADE AT A MAXIMUM SPACING OF 36 TIMES THE SLAB THICKNESS. PROVIDE JOINTS AT ALL COLUMN LOCATIONS. LOCATE JOINTS TO ELIMINATE RE-ENTRANT CORNERS AND TO CREATE SQUARE OR RECTANGULAR SECTIONS WITH MAXIMUM LONG SIDE TO SHORT SIDE RATIO OF 1.5 TO 1. CONTROL JOINTS IN SLABS ON GRADE SHALL NOT RECEIVE JOINT FILLER MATERIAL

UNLESS NOTED OTHERWISE. FINISH SLABS WITH FIBER REINFORCEMENT IN ACCORDANCE WITH THE FIBER MANUFACTURER'S RECOMMENDATIONS AND AS REQUIRED TO MINIMIZE FIBER EXPOSURE AT THE SLAB SURFACE. FOR SLABS WITH APPLIED FINISHES AND/OR MATERIALS. INCLUDING POLISHED CONCRETE FINISHES WHEN USED. REMOVE ALL PROTRUDING FIBERS PER THE FIBER MANUFACTURER'S RECOMMENDATIONS AND AS REQUIRED TO PROPERLY INSTALL THE FINISHES AND/OR MATERIALS. FOR SLABS EXPOSED TO VIEW IN THE COMPLETED CONSTRUCTION, REMOVE ALL PROTRUDING FIBERS PRIOR TO COMPLETION OF CONSTRUCTION PER THE FIBER MANUFACTURER'S RECOMMENDATIONS.

VAPOR RETARDER

FOUNDATION TOP REINFORCEMENT:

STANDARD HOOKS, UNLESS NOTED OTHERWISE.

FIBER REINFORCEMENT (SYNTHETIC)

VAPOR RETARDER SHALL BE ASTM E1745 CLASS A WITH A PERMEANCE OF 0.1 PERMS OR LESS, UNO. INSTALL, INSPECT AND REPAIR IN ACCORDANCE WITH ASTM E1643 AND MANUFACTURER'S WRITTEN REQUIREMENTS. INSTALL VAPOR RETARDER ONLY AT LOCATIONS SPECIFICALLY INDICATED.

REINFORCING STEEL

REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615 AND SHALL HAVE A MINIMUM YIELD STRENGTH OF 60,000 PSI. REINFORCING BAR DETAILING, FABRICATING, AND PLACING SHALL CONFORM TO THE LATEST EDITION OF THE FOLLOWING STANDARDS: ACI 301, ACI 315, ACI 318, ACI DETAILING MANUAL (SP66), AND CRSI MANUAL OF STANDARD PRACTICE. THE CONTRACTOR SHALL PROVIDE BAR SUPPORTS AND SPACERS AS REQUIRED TO MAINTAIN PROPER SUPPORT AND POSITIONING OF THE REINFORCING STEEL

THROUGHOUT CONCRETE PLACEMENT OPERATIONS, DESIGN OF THE SUPPORT

SYSTEM SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

UNLESS A GREATER AMOUNT OF COVER IS INDICATED ON THE DRAWINGS, PROVIDE THE FOLLOWING MINIMUM CONCRETE COVER OVER REINFORCEMENT AS FOLLOWS: CONCRETE CAST AGAINST EARTH: 3 INCHES

2 INCHES

FOUNDATION BOTTOM AND SIDE REINFORCEMENT: 3 INCHES REINFORCING STEEL SHALL NOT BE TACK WELDED, WELDED, HEATED OR CUT UNLESS INDICATED ON THE CONTRACT DOCUMENTS OR APPROVED BY THE

STRUCTURAL ENGINEER. WHERE LAP SPLICE LENGTHS ARE NOT SHOWN OR NOTED, PROVIDE A CLASS "B" LAF ALL 90 DEGREE AND 180 DEGREE BENDS SHOWN ON THE DRAWINGS SHALL BE

PROVIDE CORNER BARS OF SAME SIZE AND SPACING AS HORIZONTAL BARS AT CORNERS OF ALL WALLS AND GRADE BEAMS. LAP SPLICE CORNERS BARS WITH

UNLESS OTHERWISE SHOWN OR NOTED, PROVIDE 2-#5 BARS (ONE EACH FACE) AROUND UNFRAMED OPENINGS IN CONCRETE WALLS AND GRADE BEAMS. PLACE BARS PARALLEL TO THE SIDES OF THE OPENING AND EXTEND 24" BEYOND CORNERS.

MICRO-FIBER REINFORCEMENT SHALL BE VIRGIN (NON-RECYCLED) NYLON OR POLYPROPYLENE FIBERS COMPLYING WITH ASTM C1116, WITH LONGEST FIBERS NOT LESS THAN 0.75 INCHES.

MACRO-FIBER REINFORCEMENT SHALL BE VIRGIN (NON-RECYCLED) POLYPROPYLENE POLYETHYLENE FIBER BLEND COMPLYING WITH ASTM C1116, WITH LONGEST FIBERS NOT LESS THAN 1.75 INCHES.

FIBERS SHALL BE INTRODUCED INTO CONCRETE MIX AT THE BATCH PLANT AND MIXED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. DOSAGE RATES SHALL BE AS INDICATED IN THE CONTRACT DOCUMENTS. USE ONLY

THE FIBER TYPE INDICATED FOR EACH APPLICATION. SUBSTITUTION OF FIBER TYPES IS NOT PERMITTED.

MAKE ONE SET OF TEST CYLINDERS IN ACCORDANCE WITH ASTM C31 FOR EACH DAY'S POUR AND FOR EACH 100 CUBIC YARDS FOR EACH TYPE OF CONCRETE PLACED. EACH SET SHALL INCLUDE ONE SPECIMEN TESTED AT 7 DAYS, 2 SPECIMENS TESTED AT 28 DAYS (3 SPECIMENS TESTED AT 28 DAYS IF USING 4x8 CYLINDERS) AND ONE SPECIMEN RETAINED IN RESERVE TO BE TESTED AT THE DIRECTION OF THE STRUCTURAL ENGINEER. SPARE CYLINDER MAY BE DISCARDED 90 DAYS AFTER CASTING UNLESS DIRECTED OTHERWISE BY THE STRUCTURAL ENGINEER. THIS SET OF TEST CYLINDERS SHALL BE PROTECTED AGAINST FREEZING.

DURING THE COURSE OF A CONCRETE POUR OR SUBSEQUENT CURING PROCESS. AN ADDITIONAL SET OF CONCRETE TEST CYLINDERS SHALL BE MADE AND TESTER THESE CYLINDERS SHALL BE STORED IMMEDIATELY ADJACENT TO. AND CURED UNDER THE SAME CONDITIONS AS THE BUILDING CONCRETE. SPECIAL CURING BOXES ARE NOT PERMITTED FOR THESE TEST CYLINDERS.

WHEN THE AMBIENT TEMPERATURE IS EXPECTED TO FALL BELOW 40 DEGREES

FORWARD COPIES OF TEST RESULTS TO THE ARCHITECT, STRUCTURAL ENGINEER, READY-MIX SUPPLIER AND CONTRACTOR WITHIN 24 HOURS AFTER TESTING. POTENTIALLY LOW-STRENGTH CONCRETE: CONCRETE WHICH EXHIBITS STRENGTH BASED ON 7-DAY TESTS BELOW 70% OF THE SPECIFIED 28-DAY COMPRESSIVE

STRENGTH SHALL BE CONSIDERED DEFECTIVE WORK AND SHALL BE SUBJECT TO

REPAIR OR REPLACEMENT BY THE CONTRACTOR AT THE DISCRETION OF THE OWNER

CONCRETE UNIT MASONRY

CONCRETE MASONRY HAS BEEN DESIGNED IN ACCORDANCE WITH THE LATEST EDITION OF THE BUILDING CODE REQUIREMENTS FOR CONCRETE MASONRY STRUCTURES (ACI 530).

AND STRUCTURAL ENGINEER AT NO ADDITIONAL COST TO THE OWNER.

CONCRETE MASONRY SHALL CONSIST OF HOLLOW UNITS CONFORMING TO THE REQUIREMENTS OF ASTM C90, WITH A MINIMUM NET AREA COMPRESSIVE STRENGTH OF 2.800 PSI, CONCRETE MASONRY ASSEMBLAGES SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (F'M) OF 2,000 PSI AT 28 DAYS.

MORTAR SHALL BE TYPE S PROPORTIONED IN ACCORDANCE WITH ASTM C270.

ALL MASONRY TO BE LAID IN RUNNING BOND, UNO.

GROUT FOR REINFORCED MASONRY SHALL BE PROPORTIONED IN ACCORDANCE WITH ASTM C476. COARSE AND FINE AGGREGATES SHALL CONFORM TO ASTM C404. USE COARSE GROUT FOR ALL GROUTING EXCEPT HIGH-LIFT POURS DEFINED BY ACI 530 TABLE 1.16.1. WHERE FINE GROUT SHALL BE USED.

PROVIDE 9-GAUGE GALVANIZED STEEL WIRE JOINT REINFORCEMENT IN ALL MASONRY CONSTRUCTION. REINFORCEMENT SHALL BE CONTINUOUS AND BE LAPPED EIGHT INCHES AT SPLICES. CUT REINFORCEMENT AT ALL CONTROL AND EXPANSION JOINTS. SPACE REINFORCEMENT AT 8" ON CENTER FOR PARAPETS AND BELOW GROUND FLOOR ELEVATION. ELSEWHERE SPACE REINFORCEMENT AT 16 INCHES ON CENTER. BEAMS AND LINTELS SHALL BEAR A MINIMUM OF 8 INCHES ONTO SUPPORTING

JOISTS. ETC. SHALL BE GROUTED SOLID A MINIMUM OF ONE COURSE (8 INCHES) BELOW BEARING ELEVATION, UNLESS NOTED OTHERWISE. PROVIDE MASONRY CONTROL JOINTS AT 25'-0" OC MAXIMUM, UNO. LOCATE JOINTS IN ACCORDANCE WITH NCMA TEK 10-2C "CONTROL JOINTS FOR CONCRETE MASONRY

MASONRY, UNLESS NOTED OTHERWISE, BEARING FOR ALL BEAMS, LINTELS.

WALLS - EMPIRICAL METHOD" AT OFFSETS, SETBACKS, WALL INTERSECTIONS,

CORNERS, CHANGES IN THICKNESS, CHANGES IN HEIGHT, OR EDGE OF OPENINGS. **BRICK VENEER MASONRY**

PROVIDE EXPANSION JOINTS IN ACCORDANCE WITH THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.

IF BRICK EXPANSION JOINT LOCATIONS ARE NOT INDICATED ON THE ARCHITECTURAL DRAWINGS OR IN THE SPECIFICATIONS, SUBMIT PROPOSED EXPANSION JOINT LOCATIONS TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION. UNLESS INDICATED OTHERWISE. PROVIDE EXPANSION JOINTS AT 20'-0" OC MAXIMUM. LOCATE JOINTS IN ACCORDANCE WITH BIA TECHNICAL NOTE 18A "ACCOMMODATING EXPANSION OF BRICKWORK" AT OFFSETS, SETBACKS, WALL INTERSECTIONS, CORNERS, CHANGES IN THICKNESS. CHANGES IN HEIGHT. OR EDGES OF OPENINGS.

EXPANSION ANCHORS

EXPANSION ANCHORS SHALL BE HILTI "KWIK BOLT TZ" OR AN EQUIVALENT SUBSTITUTE APPROVED BY THE STRUCTURAL ENGINEER, UNO.

ANCHOR FINISH SHALL BE CARBON STEEL FOR INTERIOR EXPOSURES AND AISI 316 STAINLESS STEEL FOR EXTERIOR AND BELOW GRADE EXPOSURES, UNO. ANCHORS SHALL BE INSTALLED IN CONFORMANCE WITH THE MANUFACTURER'S REQUIREMENTS BY INSTALLERS TRAINED BY THE MANUFACTURER'S REPRESENTATIVE.

ADHESIVE ANCHORS FOR SOLID SUBSTRATES (THREADED ROD AND REBAR)

ADHESIVE ANCHORS FOR SOLID SUBSTRATES SHALL BE HILTI "HIT-HY 200" OR AN

ANCHORS SHALL NOT BE INSTALLED IN CONCRETE OR MASONRY UNTIL IT HAS

ATTAINED ITS SPECIFIED MINIMUM 28 DAY COMPRESSIVE STRENGTH.

EQUIVALENT SUBSTITUTE APPROVED BY THE STRUCTURAL ENGINEER, UNO. THREADED ANCHORS SHALL BE ASTM A36 RODS FOR INTERIOR EXPOSURES AND AISI 316 STAINLESS STEEL FOR EXTERIOR AND BELOW GRADE EXPOSURES, UNO. ANCHORS SHALL BE INSTALLED IN CONFORMANCE WITH THE MANUFACTURER'S REQUIREMENTS BY INSTALLERS TRAINED BY THE MANUFACTURER'S REPRESENTATIVE.

ADHESIVE ANCHORS SHALL NOT BE INSTALLED IN CONCRETE OR MASONRY UNTIL IT

HAS ATTAINED ITS SPECIFIED MINIMUM 28 DAY COMPRESSIVE STRENGTH.

ADDITIONALLY, ADHESIVE ANCHORS SHALL NOT BE INSTALLED IN CONCRETE OR MASONRY WITH AN AGE OF LESS THAN 21 DAYS. MINIMUM EMBEDMENT DEPTH SHALL BE 8 DIAMETERS UNLESS NOTED OTHERWISE

ADHESIVE ANCHORS FOR HOLLOW SUBSTRATES

ADHESIVE ANCHORS FOR HOLLOW SUBSTRATES SHALL BE HILTI "HIT-HY 270" WITH HILTI "HIT-SC" SCREEN TUBE OR AN EQUIVALENT SUBSTITUTE APPROVED BY THE STRUCTURAL ENGINEER, UNO.

ANCHORS SHALL BE ASTM A36 THREADED RODS FOR INTERIOR EXPOSURES AND AISI 316 STAINLESS STEEL FOR EXTERIOR AND BELOW GRADE EXPOSURES, UNO. ANCHORS SHALL BE INSTALLED IN CONFORMANCE WITH THE MANUFACTURER'S

REQUIREMENTS BY INSTALLERS TRAINED BY THE MANUFACTURER'S REPRESENTATIVE.

NON-SHRINK GROUT

GROUT SHALL BE A NON-METALLIC, SHRINKAGE RESISTANT (WHEN TESTED IN ACCORDANCE WITH THE LATEST EDITION OF ASTM C827 OR CRD-C621), PREMIXED. NON-CORROSIVE, NON-STAINING PRODUCT CONTAINING PORTLAND CEMENT, SILICA SANDS, SHRINKAGE COMPENSATING AGENTS AND FLUIDITY IMPROVING COMPOUNDS. GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (F'C) OF 5,000 PSI IN

MASTIC COATING

28 DAYS.

MASTIC COATING FOR PROTECTION OF INDICATED ITEMS SHALL BE BITUMASTIC 50 COAL TAR MASTIC BY CARBOLINE OR EQUIVALENT SUBSTITUTE APPROVED BY THE STRUCTURAL ENGINEER. INSTALL AT LOCATIONS INDICATED ON DRAWINGS. UNLESS NOTED OTHERWISE, APPLY MASTIC TO A COATING THICKNESS OF 18 MILS. PROVIDE FULL COVERAGE OVER ITEMS INDICATED TO RECEIVE COATING.

APPLY MASTIC COATING TO ALL STEEL ITEMS THAT WILL BE IN PERMANENT CONTACT

WITH SOIL OR FILL MATERIALS IN THE COMPLETED CONSTRUCTION.

STRUCTURAL STEEL - ASD

UNLESS NOTED OTHERWISE.

STRUCTURAL STEEL DETAILING, FABRICATION AND ERECTION SHALL CONFORM TO THE ANSI/AISC 360 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS. LATEST EDITION WITH AMENDMENTS, AND THE AISC 303 CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES, LATEST EDITION WITH AMENDMENTS.

STRUCTURAL STEEL WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A992. STRUCTURAL STEEL PLATES AND ROLLED SHAPES OTHER THAN WIDE-FLANGE SHAPES SHALL CONFORM TO ASTM A36, UNLESS NOTED OTHERWISE.

HOLLOW STRUCTURAL STEEL SECTIONS (SQUARE, RECTANGULAR, AND ROUND

TUBES) SHALL CONFORM TO ASTM A500 GRADE C, UNLESS NOTED OTHERWISE. STRUCTURAL PIPE SHALL CONFORM TO ASTM A53, GRADE B.

STRUCTURAL STEEL ROD HANGERS AND BRACING SHALL CONFORM TO ASTM A36,

ANCHOR RODS SHALL CONFORM TO ASTM F1554, GRADE 36, UNLESS NOTED

BOLTS IN STRUCTURAL STEEL JOINTS SHALL CONFORM TO ASTM F3125 AND SHALL BE

3/4" DIAMETER GRADE A325, UNLESS NOTED OTHERWISE. (TWIST-OFF TENSION CONTROL BOLTS. IF USED. SHALL CONFORM TO ASTM F3125 AND SHALL BE 3/4" DIAMETER GRADE F1852, UNLESS NOTED OTHERWISE.) BOLTED CONNECTIONS SHALL CONFORM TO THE SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS, APPROVED BY THE RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS. UNLESS NOTED OTHERWISE, BOLTED CONNECTIONS

SHALL BE TIGHTENED TO THE SNUG TIGHT CONDITION. EXCEPT BOLTED

CONNECTIONS IN BRACE ELEMENTS ARE TO BE FULLY PRETENSIONED WITH CLASS A FAYING SURFACES. BURNING OF HOLES IN STRUCTURAL STEEL IS EXPLICITLY PROHIBITED UNLESS WRITTEN PERMISSION IS GRANTED BY THE STRUCTURAL ENGINEER. DO NOT FLAME-CUT HOLES OR ENLARGE HOLES BY BURNING. DRILL HOLES IN STRUCTURAL STEEL. DO NOT FNLARGE UNFAIR HOLES IN MEMBERS BY BURNING OR BY USING DRIFT PINS. REAM HOLES THAT MUST BE ENLARGED TO ADMIT BOLTS. FIELD MODIFICATIONS TO

HOLES IN STRUCTURAL STEEL ARE EXPLICITLY PROHIBITED UNLESS WRITTEN

PERMISSION IS GRANTED BY THE STRUCTURAL ENGINEER. WELDING PROCEDURES SHALL CONFORM TO THE LATEST EDITION OF THE AMERICAN WELDING SOCIETY'S STRUCTURAL WELDING CODE FOR STEEL ANSI/AWS D1.1. WELDED CONNECTIONS USING ASTM A992 STEEL AS A BASE METAL SHALL BE MADE WITH E70XX LOW HYDROGEN ELECTRODES. UNLESS OTHERWISE SHOWN OR NOTED ON THE DRAWINGS, OTHER WELDED CONNECTIONS MAY BE MADE WITH STANDARD

E70XX ELECTRODES. STRUCTURAL STEEL SHALL BE PROVIDED WITH THE FOLLOWING SHOP FINISH UNLESS SPECIFICALLY NOTED OTHERWISE:

STRUCTURAL STEEL THAT RECEIVES FINISH PAINT SHALL BE SHOP-PRIMED WITH

RUST-INHIBITING PRIMER. VERIFY PRIMER IS COMPATIBLE WITH FINISH COAT SYSTEM SPECIFIED BY THE ARCHITECT. COORDINATE FINISH PAINTING REQUIREMENTS WITH THE ARCHITECT. STRUCTURAL STEEL THAT IS NOT EXPOSED IN THE FINISHED CONSTRUCTION AND DOES NOT RECEIVE FINISH PAINT SHALL NOT BE SHOP-PRIMED.

ALL EXTERIOR STRUCTURAL STEEL EXPOSED TO WEATHER SHALL BE HOT DIP GALVANIZED, UNLESS NOTED OTHERWISE.

STRUCTURAL STEEL NOTED TO BE GALVANIZED SHALL BE HOT-DIP GALVANIZED IN CONFORMANCE WITH ASTM A123. DO NOT PAINT OR GALVANIZE THE FOLLOWING SURFACES: SURFACES TO BE WELDED.

2. SURFACES TO RECEIVE BOLTED SLIP-CRITICAL CONNECTIONS.

3. SURFACES TO RECEIVE SHEAR STUD CONNECTIONS.

4. SURFACES TO RECEIVE SPRAYED-ON FIREPROOFING ALL ABRASIONS TO GALVANIZED SURFACES OR SURFACES TO RECEIVE AN ARCHITECTURAL FINISH COAT SHALL BE TOUCHED-UP AFTER ERECTION IS COMPLETE FOR PAINTED STEEL, USE A PRIMER EQUIVALENT TO THE SHOP PAINT. FOR

GALVANIZED STEEL, USE A ZINC-RICH COLD-GALVANIZING PAINT. DESIGN CONNECTIONS NOT SHOWN IN ACCORDANCE WITH THE ASD SPECIFICATION AND MANUAL OF STEEL CONSTRUCTION. UNLESS NOTED OTHERWISE ON THE DRAWINGS, DESIGN BEAM CONNECTIONS NOT SHOWN, TO SUPPORT A MINIMUM SHEAR REACTION OF 16 KIPS ASD. PROVIDE NO LESS THAN 2 BOLTS IN ANY VERTICAL

ROW OF BOLTS, UNLESS SPECIFICALLY INDICATED ON THE DRAWINGS. AT STRUCTURAL STEEL AND STEEL JOIST FRAMED ROOFS PROVIDE L4X4X1/4 FRAMED OPENINGS FOR ALL ROOF PENETRATIONS 12 INCHES OR LARGER ALONG ANY SIDE, UNLESS LARGER FRAMING IS INDICATED. REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR PENETRATIONS. COORDINATE FRAMED OPENING SIZES AND

DEFORMED BAR ANCHORS AND HEADED ANCHOR STUDS

YIELD STRENGTH OF 70 KSI.

LOCATIONS WITH THE MECHANICAL AND PLUMBING CONTRACTORS.

DEFORMED BAR ANCHORS (DBA) AND HEADED ANCHOR STUDS (HAS) USED TO ANCHOR STEEL ELEMENTS TO CONCRETE SHALL BE SUPPLIED AND INSTALLED BY THE STRUCTURAL STEEL CONTRACTOR, UNLESS NOTED OTHERWISE.

ANCHORS SHALL BE FULL-BASE WELDED USING AUTOMATICALLY TIMED WELDING

EQUIPMENT AND APPROPRIATE FERRULE IN ACCORDANCE WITH APPLICABLE PROVISIONS OF AWS D1.5. DEFORMED BAR ANCHORS SHALL BE TYPE C DEFORMED STEEL BARS MANUFACTURED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A496, WITH A

HEADED ANCHOR STUDS SHALL BE MANUFACTURED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A108, WITH A YIELD STRENGTH OF 50 KSI. **SEPARATION OF DISSIMILAR METALS**

DISSIMILAR METALS INCLUDING STRUCTURAL SHAPES, PLATES, CONNECTORS, ETC.

SHALL BE ELECTRICALLY ISOLATED TO PREVENT GALVANIC CORROSION VIA NON-

CONDUCTIVE WASHERS, SHOULDER WASHERS, GASKETS, COATINGS, OR

EQUIVALENT SUBSTITUTE APPROVED BY THE STRUCTURAL ENGINEER, UNO.

STEEL JOISTS

BETWEEN COLUMN FLANGES.

STEEL JOISTS SHALL BE DESIGNED, FABRICATED, ERECTED AND BRACED IN ACCORDANCE WITH THE LATEST STEEL JOIST INSTITUTE (SJI) SPECIFICATIONS.

SPECIAL JOISTS SHALL BE FABRICATED IN ACCORDANCE WITH THE DESIGNATION SHOWN FOR EACH JOIST ON THE DRAWINGS. THE DESIGNATIONS FOLLOW THE FORM:

WHERE DD INDICATES THE MAXIMUM JOIST DEPTH, K INDICATES THE JOIST SERIES, TL/LL INDICATES THE DESIGN TOTAL LOAD AND LIVE LOAD RESPECTIVELY IN POUNDS

PER LINEAL FOOT.

DEFLECTION OF STEEL JOISTS SHALL BE LIMITED TO THE FOLLOWING:

LL DEFLECTION DL+LL DEFLECTION WHERE BEARING DEPTH, LENGTH AND END ANCHORAGE FOR STEEL JOISTS ARE NOT SHOWN OR NOTED, PROVIDE ANCHORAGE AS REQUIRED BY THE SJI SPECIFICATIONS.

HORIZONTAL BRIDGING AND DIAGONAL BRIDGING FOR STEEL JOISTS SHALL BE LOCATED AND DESIGNED AS REQUIRED BY THE SJI SPECIFICATIONS. BRIDGING MEMBERS SHALL BE CONNECTED TO THE JOIST CHORDS BY WELDING OR OTHER MECHANICAL MEANS. THE ENDS OF BRIDGING LINES TERMINATING AT CONCRETE WALLS, CONCRETE BLOCK WALLS OR STEEL BEAMS SHALL BE SECURELY ANCHORED THERETO AT TOP AND BOTTOM CHORDS. BRIDGING SHALL RUN THE FULL LENGTH/ WIDTH OF THE BUILDING.

HANGERS AND OTHER SUPPORTS SHALL BE LOCATED AT THE INTERSECTION OF THE CHORD AND WEB MEMBERS (PANEL POINTS). CONCENTRATED LOADS IN EXCESS OF 100 POUNDS OTHER THAN THOSE SHOWN ON THE DRAWINGS SHALL NOT BE APPLIED WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER.

WHERE COLUMNS ARE NOT FRAMED IN AT LEAST TWO DIRECTIONS WITH STEEL BEAMS THE JOIST AT OR NEAREST EACH COLUMN LINE SHALL BE BOLTED TO SUPPORTING MEMBERS DURING ERECTION. STEEL JOISTS SHALL BE SUPPLIED WITH A SHOP COAT OF RUST-INHIBITIVE PRIMER

EXPOSED OR TO RECEIVE FINISH PAINT. JOIST MANUFACTURER SHALL TRIM JOIST SEATS IN THE SHOP AS REQUIRED TO FIT

PAINT. COORDINATE PRIMER PAINT WITH THE ARCHITECT FOR JOISTS TO REMAIN

STEEL ROOF DECK PROVIDE AND ERECT STEEL DECK IN ACCORDANCE WITH THE LATEST EDITION OF THE PLAN NORTH-SOUTH DIRECTION: STEEL DECK INSTITUTE'S SPECIFICATIONS AND CODE OF STANDARD PRACTICE.

ITEMS ARE DETAILED ON THE CONTRACT DOCUMENTS. FASTEN ROOF DECK TO STEEL SUPPORTS AS INDICATED ON THE DRAWINGS.

DECK MANUFACTURER SHALL PROVIDE ALL ROOF DECK ACCESSORIES, INCLUDING

CLOSURES, SUPPLEMENTARY FRAMING, AND SUMP PANS, WHETHER OR NOT SUCH

PERFORM WELDING IN ACCORDANCE WITH ANSI/AWS D1.3. ROOF DECK SHALL BE INSTALLED IN A MINIMUM THREE SPAN CONDITION WHEREVER POSSIBLE. WHERE THREE SPAN CONDITION IS NOT POSSIBLE, NOTIFY STRUCTURAL ENGINEER PRIOR TO FABRICATION OF DECK SO THAT EVALUATION OF THE LESSER SPAN CONDITION(S) CAN BE PERFORMED.

GLAZING SYSTEMS (CURTAIN WALL AND STOREFRONT)

SUPPLIER OF GLAZING SYSTEM IS RESPONSIBLE FOR THE DESIGN, DETAILING AND INSTALLATION OF THE CURTAIN WALL SYSTEM.

PROVIDE STEEL ROOF DECK WITH FINISH AS INDICATED ON THE DRAWINGS.

FRAMING AND CONNECTIONS REQUIRED TO TRANSMIT THE GRAVITY AND/OR LATERAL LOADS TO THE STRUCTURE NOT DETAILED ON THE STRUCTURAL DRAWINGS IS THE RESPONSIBILITY OF THE GLAZING SYSTEM SUPPLIER TO DESIGN, DETAIL AND INSTALL CONNECTIONS TO TRANSMIT LATERAL LOADS TO THE STRUCTURE SHALL NOT BE MADE TO THE BOTTOM FLANGES OF BEAMS, BOTTOM CHORDS OF JOIST GIRDERS OR

WHERE COLD-FORMED STEEL FRAMING KNEE WALLS ARE PRESENT UNDER THE GLAZING SYSTEM THE VERTICAL MULLIONS SHALL BE SUPPORTED BY STRUCTURAL FRAMING (WHERE INDICATED). WHERE STRUCTURAL FRAMING IS NOT INDICATED. VERTICAL MULLIONS SHALL BE SUPPORTED BY COLD-FORMED STEEL KNEE WALL FRAMING DESIGNED BY THE COLD-FORMED STEEL DESIGNER FOR THE APPROPRIATE REACTIONS PROVIDED BY THE GLAZING SYSTEM DESIGNER. COORDINATE LOCATIONS, REACTIONS, AND CONNECTION REQUIREMENTS WITH THE COLD-FORMED

BOTTOM CHORDS OF JOISTS WITHOUT APPROVAL OF THE STRUCTURAL ENGINEER

COLD-FORMED STEEL FRAMING (STUDS, JOISTS, TRACK, ETC.)

STEEL FRAMING DESIGNER PRIOR TO FABRICATION.

MAXIMUM).

THE SUPPLIER OF THE COLD-FORMED STEEL FRAMING SHALL BE RESPONSIBLE FOR THE DESIGN OF ALL COLD-FORMED STEEL MEMBERS, COMPONENTS, ASSEMBLIES AND

STRUCTURAL PROPERTIES OF FRAMING MEMBERS SHALL BE CALCULATED IN

INSTITUTE (AISI) SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STEEL

ACCORDANCE WITH REQUIREMENTS OF THE CURRENT AMERICAN IRON AND STEEL

STRUCTURAL MEMBERS. ALL COLD-FORMED STEEL FRAMING MATERIALS SHALL CONFORM TO ASTM A653 WITH ZINC COATING CONFORMING TO ASTM A924. PLATES, GUSSETS AND CLIPS SHALL HAVE A MINIMUM YIELD STRENGTH OF 40 KSI AND SHALL HAVE THICKNESS AS

REQUIRED FOR SPECIFIC CONDITIONS. TRACKS, BRACING, FURRING AND BRIDGING SHALL HAVE A MINIMUM YIELD STRENGTH OF 33 KSI. ALL FASTENERS SHALL CONFORM TO ASTM A90. ALL SCREWS SHALL BE SELF-TAPPING SELF-DRILLING.

COLD-FORMED STEEL FRAMING SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS AND AS REVIEWED BY THE STRUCTURAL ENGINEER. COLD-FORMED STEEL FRAMING SYSTEM SHALL BE INSTALLED TO ACCOMMODATE CONSTRUCTION TOLERANCES, DEFLECTION OF BUILDING STRUCTURAL MEMBERS, AND CLEARANCES OF INTENDED OPENINGS. PROVIDE DEFLECTION ALLOWANCE IN STUD TRACK, DIRECTLY BELOW BUILDING FRAMING FOR NON-LOAD BEARING FRAMING.

INSTALL WALL STUD BRIDGING PER THE MANUFACTURER'S REQUIREMENTS (4'-0" O.C.

DESIGN DATA

SNOW LOAD DESIGN DATA

NEW STRUCTURES ON THESE DRAWINGS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE 2014 INDIANA BUILDING CODE.

SEE LOAD MAPS FOR DESIGN LOADS.

GROUND SNOW LOAD (P_G) = 30 PSF SNOW EXPOSURE FACTOR (C_E) = 1.0

THERMAL FACTOR (C_T) = 1.0 (BUILDING), 1.2 (CANOPY) SNOW LOAD IMPORTANCE FACTOR (I_S) = 1.1 LOW-SLOPE ROOF SNOW LOAD (PF) = 23.1 PSF MINIMUM LOW-SLOPE ROOF SNOW LOAD $(P_M) = 22 \text{ PSF}$

WIND LOAD DESIGN DATA BASIC WIND SPEED (3-SECOND GUST) = 120 MPH

WIND EXPOSURE = C WIND DESIGN PRESSURE (P) = VARIES WITH HEIGHT AND LOCATION

BASIC STRUCTURAL SYSTEM / SEISMIC RESISTING SYSTEM:

EARTHQUAKE DESIGN DATA

SHORT PERIOD SPECTRAL RESPONSE (S_S) = 0.121 1-SECOND SPECTRAL RESPONSE $(S_1) = 0.063$ SEISMIC IMPORTANCE FACTOR (I_E) = 1.25 RISK CATEGORY = III

SITE CLASSIFICATION = D SEISMIC DESIGN CATEGORY = B SHORT PERIOD SPECTRAL RESPONSE $(S_{DS}) = 0.129$ 1-SECOND SPECTRAL RESPONSE $(S_{D1}) = 0.101$

SEISMIC RESPONSE COEFFICIENT (Cs) = 0.054

OF THE FOLLOWING, UNLESS NOTED OTHERWISE:

REINFORCED MASONRY SHEAR WALLS

STEEL NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE AND ORDINARY REINFORCED MASONRY SHEAR WALLS ANALYSIS PROCEDURE UTILIZED = EQUIVALENT LATERAL FORCE PROCEDURE RESPONSE MODIFICATION COEFFICIENT (R) = 3.0

LATERAL LOAD RESISTING SYSTEM

ATERAL FORCE RESISTANCE IN THE COMPLETED STRUCTURE IS PROVIDED AS FOLLOWS: ELEVATED ROOF DECKS SERVE AS HORIZONTAL DIAPHRAGMS TO TRANSFER LATERAL LOADS TO THE VERTICAL LATERAL LOAD RESISTING ELEMENTS WHICH IN TURN TRANSFER THOSE LOADS TO THE FOUNDATION SYSTEM. VERTICAL LATERAL LOAD RESISTING ELEMENTS ARE INDICATED ON THE DRAWINGS AND CONSIST

STEEL MOMENT FRAMES

PLAN EAST-WEST DIRECTION:

STEEL MOMENT FRAMES REINFORCED MASONRY SHEAR WALLS

PORTER COUNTY -

PORTAGE, IN

7260 Shadeland Station

Indianapolis, IN 46256

E: dmccloskey@structurepoint.com

SKILLMAN

E: dmanderson@skillman.com

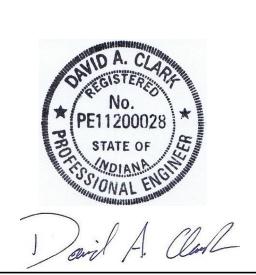
P: 317.547.5580

F: 317.543.0270

8006 Aetna Street

P: 219.942.2787

Merrillville, IN 46410



ISSUANCE INDEX 08.20.18

100% CONSTRUCTION DOCUMENTS - BP1

REVISION SCHEDULE

PROJECT PHASE:

NO. DESCRIPTION DATE

Project Number 2017.01279

GENERAL NOTES

SPECIAL INSPECTION SERVICES SCHEDULE - STEEL CONSTRUCTION REFER TO IBC 2012 CHAPTER 17 AND AISC 360-10 APPLICABLE TO PERFORM OR ITEM REFERENCE **TASK** PROJECT (Y/N) OBSERVE WELDED MEMBERS PRIOR TO WELDING: WELDING PROCEDURE VERIFY CONTRACTOR MAINTAINS WELDING PROCEDURE SPECIFICATIONS PERFORM | AISC 360 TABLE N5.4-SPECIFICATIONS READILY AVAILABLE FOR ALL WELDERS FOR ALL TYPES OF WELDS PERFORMED ON THE PROJECT WELD MATERIAL PERFORM | AISC 360 TABLE N5.4-1 VERIFY MATERIAL CERTIFICATIONS ARE AVAILABLE FOR ALL CONSUMABLE CERTIFICATIONS WELDING MATERIALS WELD MATERIAL VERIFY ALL WELD MATERIALS ARE PROPERLY MARKED WITH VALID AISC 360 TABLE N5.4-1 DENTIFICATION TYPE/GRADE IDENTIFICATION WELDER IDENTIFICATION VERIFY FABRICATOR/ERECTOR AS APPLICABLE MAINTAINS RECORDS OF AISC 360 TABLE N5.4-WHO WELDED EVERY JOINT SYSTEM IT-UP OF GROOVE WELDS INSPECT FOR PROPER FIT-UP INCLUDING JOINT PREPARATION. AISC 360 TABLE N5.4-DIMENSIONS, CLEANLINESS, TACKING, AND BACKING (WHERE BACKING IS ACCESS HOLES INSPECT FOR CONFIGURATION AND FINISH OF ACCESS HOLES AISC 360 TABLE N5.4-FIT-UP OF FILLET WELDS INSPECT FOR PROPER FIT-UP INCLUDING DIMENSIONS, CLEANLINESS, AND AISC 360 TABLE N5.4-TACKING DURING WELDING: QUALIFIED WELDERS VERIFY USE OF QUALIFIED WELDERS OBSERVE AISC 360 TABLE N5.4-2 WELDING CONSUMABLES INSPECT FOR PROPER PACKAGING, STORAGE AND PROTECTION OBSERVE AISC 360 TABLE N5.4-2 TACK WELDS VERIFY NO WELDING OCCURS OVER CRACKED TACK WELDS AISC 360 TABLE N5.4-2 FIELD CONDITIONS VERIFY WIND SPEED WITHIN LIMITS AND PROPER OBSERVE | AISC 360 TABLE N5.4-2 PROTECTION/PREPARATION FOR PRECIPITATION AND TEMPERATURE WELDING PROCEDURE VERIFY WELDING PROCEDURE SPECIFICATIONS ARE FOLLOWED OBSERVE AISC 360 TABLE N5.4-2 SPECIFICATION (NOTE 2 - SEE AISC 360) WELDING TECHNIQUES AISC 360 TABLE N5.4-2 VERIFY EACH PASS MEETS PROFILE LIMITATIONS AND QUALITY OBSERVE REQUIREMENTS, INTERPASS AND FINAL CLEANING OBSERVE COMPOSITE BEAM HEADED INSPECT FOR PROPER PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS AFTER WELDING: OBSERVE AISC 360 TABLE N5.4-WELDS CLEANED VERIFY PROPER CLEANING OF COMPLETED WELDS SIZE, LENGTH, LOCATION, AND 📗 INSPECT WELDS TO CONFIRM PROPER SIZE, LENGTH, LOCATION AND AISC 360 TABLE N5.4-3 /ISUAL ACCEPTANCE CRITERIA VISUAL ACCEPTANCE CRITERIA (CRACK PROHIBITION, WELD/BASE METAL (NOTE 3 - SEE AISC 360) FUSION, CRATER CROSS SECTION, WELD PROFILES, WELD SIZE, UNDERCU POROSITY) AS FOLLOWS: VISUALLY INSPECT AND VERIFY ULTRASONIC TESTING IS PERFORMED FOR PERFORM 100% OF ALL CJP WELDS VISUALLY INSPECT 100% OF ALL CJP WELDS PERFORM VISUALLY INSPECT 100% OF WELDS IN LATERAL LOAD RESISTING MOMENT PERFORM FRAMES AND BRACED FRAMES VISUALLY INSPECT 20% OF ALL FILLET WELDS NOT IN LATERAL LOAD PERFORM RESISTING MOMENT FRAMES AND BRACED FRAMES ARC STRIKES VISUALLY INSPECT TO CONFIRM NO ARC STRIKES PERFORM | AISC 360 TABLE N5.4-3 VISUALLY INSPECT ALL DOUBLER PLATES, CONTINUITY PLATES AND k"-AREA WELDING PERFORM AISC 360 TABLE N5.4-3 STIFFENER PLATES WHERE WELDING OCCURS WITHIN THE k-AREA OF THE STEEL SECTION TO CONFIRM NO CRACKS IN THE MEMBER WEB BACKING AND WELD TABS VISUALLY INSPECT TO CONFIRM PROPER REMOVAL OF ALL BACKING AISC 360 TABLE N5.4-3 REMOVED REMOVED. VERIFY ALL WELD TABS REMOVED (IF REQUIRED) VERIFY APPROVED REPAIRS OF NON-CONFORMING ITEMS (WHEN REPAIRS AISC 360 TABLE N5.4-3 REQUIRED) ARE PROPERLY COMPLETED OCUMENTATION DOCUMENT ACCEPTANCE OR REJECTION OF WELDED CONNECTIONS PERFORM | AISC 360 TABLE N5.4-3 BOLTED MEMBERS PRIOR TO BOLTING: MATERIAL CERTIFICATIONS VERIFY MANUFACTURER'S CERTIFICATIONS ARE AVAILABLE FOR FASTENER PERFORM | AISC 360 TABLE N5.6-OBSERVE | AISC 360 TABLE N5.6-1 FASTENER MARKINGS VERIFY FASTENERS ARE MARKED PER ASTM STANDARDS FASTENER SELECTIONS VERIFY CORRECT GRADE, TYPE, AND SUFFICIENT LENGTH FOR THREADS OBSERVE AISC 360 TABLE N5.6-1 EXCLUDED FROM THE SHEAR PLANE (ONLY WHERE SPECIFICALLY BOLTING PROCEDURE VERIFY PROPER BOLTING PROCEDURE FOR THE JOINT OBSERVE AISC 360 TABLE N5.6-1 CONNECTING ELEMENTS VERIFY CONNECTING ELEMENTS, INCLUDING FAYING SURFACES AND HOLE AISC 360 TABLE N5.6-PREPARATION (IF SPECIFIED) MEET APPLICABLE REQUIREMENTS RE-INSTALLATION VERIFY PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION OBSERVE AISC 360 TABLE N5.6-1 VERIFICATION PERSONNEL IS OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED PROPER STORAGE VERIFY PROPER STORAGE OF BOLTS, NUTS, WASHERS AND OTHER OBSERVE AISC 360 TABLE N5.6-7 FASTENER COMPONENTS DURING BOLTING: PROPER POSITIONING VERIFY ALL FASTENING ELEMENTS ARE PROPERLY POSITIONED IN THE OBSERVE | AISC 360 TABLE N5.6-2 JOINT PRIOR TO TIGHTENING BOLT TIGHTENING VERIFY COMPONENT NOT TURNED BY THE WRENCH IS PREVENTED FROM OBSERVE | AISC 360 TABLE N5.6-2 ROTATING DURING TIGHTENING PRETENSIONED BOLTS SNUG VERIFY ALL BOLTS AT A CONNECTION TO BE PRETENSIONED ARE FIRST OBSERVE AISC 360 TABLE N5.6-2 BROUGHT INTO SNUG-TIGHT CONDITION PRIOR TO START OF PRE-TIGHTENED PRETENSIONED BOLTS VERIFY FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH RCSC OBSERVE | AISC 360 TABLE N5.6-2 ΓIGHTENING SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS AFTER BOLTING: DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS PERFORM | AISC 360 TABLE N5.6-3 DOCUMENTATION STEEL FRAMING (GENERAL) COLUMN BASES INSPECT INSTALLATION OF ALL BASE PLATES FOR PROPER ANCHORAGE (INCLUDING WELDED PLATE WASHERS WHERE INDICATED) AND GROUTING BENEATH BASE PLATE INSPECT ALL COLUMN SPLICES TO CONFIRM THAT GAPS BETWEEN COLUMN SPLICES PERFORM BEARING ELEMENTS DO NOT EXCEED 1/16-INCH BEAM, GIRDER AND COLUMN INSPECT FOR CONFORMANCE WITH REQUIRED SIZE, SPACING AND PERFORM MEMBERS CONNECTION REQUIREMENTS ROOF AND FLOOR DECK/SLAB | INSPECT SUPPORT MATERIALS FOR PROPER SIZE, POSITIONING AND EDGE SUPPORTS CONNECTIONS BRACED FRAMES AND INSPECT INSTALLATION OF ALL MEMBERS AND CONNECTIONS IN BRACED MOMENT FRAMES FRAMES AND MOMENT FRAMES FOR PROPER SIZE, POSITIONING AND CONNECTIONS COMPOSITE STEEL FRAMING INSPECT COMPOSITE STEEL FRAMING PRIOR TO PLACEMENT OF CONCRETE AS FOLLOWS: VERIFY PROPER PLACEMENT AND INSTALLATION OF STEEL DECK PERFORM | AISC 360 TABLE N6.1 PERFORM | AISC 360 TABLE N6.1 INSPECT DIAMETER, LENGTH, QUANTITY AND POSITIONING OF STEEL HEADED STUD ANCHORS RING TEST 100% OF HEADED STUD ANCHORS WITH A 3 LB HAMMER PERFORM BEND TEST QUESTIONABLE HEADED STUD ANCHORS TO 15 DEGREES PERFORM DOCUMENT ACCEPTANCE OR REJECTION OF COMPOSITE STEEL FRAMING PERFORM STEEL GRATING INSPECT STEEL GRATING AS FOLLOWS: VERIFY PROPER SIZE, TYPE AND FINISH VERIFY PROPER ATTACHMENTS TO SUPPORTING STRUCTURE(S) PERFORM

SPECIAL INSPECTIONS BASIC SERVICES - SOILS AND EARTHWORK						
	REFER TO IBC 2012 CHAPTER 17 TABLE 1705.6					
ITEM	TASK	APPLICABLE TO PROJECT (Y/N)	FREQUENCY	REFERENCE		
BEARING SOILS FOR SHALLOW FOUNDATIONS	VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY	Y	PERIODIC			
EXCAVATIONS	VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL	Y	PERIODIC			
FILL MATERIALS	VERIFY CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS IS PERFORMED	Y	PERIODIC			
FILL MATERIAL PLACEMENT	VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL	Y	CONTINUOUS			
SUBGRADE PREPARATION	PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY	Y	PERIODIC			
BACKFILL AT BELOW-GRADE	VERIFY THAT BELOW-GRADE WALLS WITH UNEVEN BACKFILL CONDITIONS	Y	PERIODIC			

SEE CONTRACT DOCUMENTS FOR WELDING REQUIREMENTS. SEE AISC 360 FOR ADDITIONAL INFORMATION.

"PERFORM" REQUIRES TASKS TO BE PERFORMED FOR EACH OPERATION, JOINT OR MEMBER AS APPLICABLE.

TEMPORARY BRACING IS PROVIDED

"OBSERVE" REQUIRES OBSERVATION ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.

ARE NOT BACKFILLED UNTIL FLOOR CONSTRUCTION AT TOPS OF WALLS

(OR OTHER PERMANENT BRACING WHERE APPLICABLE) IS COMPLETE OR

SEE AISC 360 FOR SPECIFIC REQUIRED ELEMENTS OF WELD PROCEDURE SPECIFICATION.

SEE AISC 360 FOR SPECIFIC REQUIRED VISUAL ACCEPTANCE CRITERIA.

	REFER TO IBC 2012 CHAPTER 17 TABLE 1705.3 AND	ACI 318-11		
ITEM	TASK	APPLICABLE TO PROJECT (Y/N)	FREQUENCY	REFERENCE
REINFORCEMENT	INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS (WHERE APPLICABLE) AND VERIFY CORRECT PLACEMENT	Y	PERIODIC	ACI 318 SECTIONS 3.5 AND 7.1 THROUGH 7.7; IBC 1910.4
REINFORCING BAR WELDING	VERIFY WELDABILITY OF BARS OTHER THAN ASTM A706	N	PERIODIC	AWS D1.4, ACI 318 SECTION 3.5.2
ANCHORS AND EMBEDDED ITEMS CAST IN CONCRETE	INSPECT ALL ANCHORS AND EMBEDDED ITEMS FOR PROPER SIZE, TYPE, QUANTITY, LOCATION, POSITION, PROJECTION AND EMBEDMENT	Y	PERIODIC	ACI 318 SECTIONS 3.8.6, 8.1.3, 21.2.8; IBC 1908.5, 1909.1
ANCHORS POST-INSTALLED IN HARDENED CONCRETE	INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS	Y	PERIODIC	ACI 318 SECTIONS 3.8.6, 8.1.3, 21.2.8; IBC \1909.1
CONCRETE MIX	VERIFY USE OF REQUIRED CONCRETE MIX AT EACH APPLICATION	Y	PERIODIC	ACI 318 CHAPTER 4, SECTIONS 5.2 THROUGH 5.4; IBC 1904.2, 1910.2, 1910.3
CONCRETE TESTING	PERFORM CONCRETE SAMPLING AND TESTING IN ACCORDANCE WITH CONSTRUCTION DOCUMENTS	Y	CONTINUOUS	ASTM C172, ASTM C31, ACI 318 5.6, 5.8; IBC 1910.10
CONCRETE PLACEMENT	INSPECT FOR PROPER PLACEMENT TECHNIQUES	Y	CONTINUOUS	ACI 318 SECTIONS 5.9, 5.10; IBC 1910.6, 1910.7, 1910.8
SHOTCRETE PLACEMENT	MENT INSPECT FOR PROPER APPLICATION TECHNIQUES		CONTINUOUS	ACI 318 SECTIONS 5.9, 5.10; IBC 1910.6, 1910.7, 1910.8
CONCRETE CURING	VERIFY MAINTENANCE OF PROPER CONCRETE TEMPERATURE AND CURING TECHNIQUES	Y	PERIODIC	ACI 318 SECTIONS 5.11 THROUGH 5.13; IBC 1910.9
PRESTRESSED CONCRETE	INSPECT FOR PROPER APPLICATION OF PRESTRESSING FORCES	N	CONTINUOUS	ACI 318 SECTION 18.20
PRESTRESSED CONCRETE	INSPECT FOR PROPER GROUTING OF BONDED PRESTRESSING TENDONS	N	CONTINUOUS	ACI 318 SECTION 18.18.4
ERECTION OF PRECAST CONCRETE MEMBERS	VERIFY WELDING PROCEDURE SPECIFICATIONS ARE FOLLOWED	N	PERIODIC	ACI CHAPTER 16
ERECTION OF PRECAST CONCRETE MEMBERS	INSPECT ALL CONNECTIONS OF THE PRECAST ELEMENTS TO THE FOUNDATIONS FOR CONFORMANCE TO THE CONTRACT DOCUMENTS	N	PERIODIC	ACI CHAPTER 16
ERECTION OF PRECAST CONCRETE MEMBERS	INSPECT ALL CONNECTIONS OF THE PRECAST ELEMENTS TO THE STRUCTURAL FRAMING FOR CONFORMANCE TO THE CONTRACT DOCUMENTS	N	PERIODIC	ACI CHAPTER 16
IN-SITU CONCRETE STRENGTH - PRE-STRESSING	VERIFY IN-PLACE CONCRETE STRENGTH PRIOR TO STRESSING TENDONS IN POST-TENSIONED CONCRETE	N	PERIODIC	ACI 318 SECTION 6.2
IN-SITU CONCRETE STRENGTH - FORMS AND SHORES	VERIFY IN-PLACE CONCRETE STRENGTH PRIOR TO REMOVAL OF FORMS AND SHORES FROM BEAMS AND STRUCTURAL SLABS	N	PERIODIC	ACI 318 SECTION 6.2
FORMWORK	INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE	Y	PERIODIC	ACI 318 SECTION 6.1.1

VERIFY ALL WATER STOPS ARE PROPERLY INSTALLED AND ANCHORED INTO

POSITION PRIOR TO PLACEMENT OF CONCRETE

PERIODIC

WATER STOPS

	REFER TO IBC 2012, CHAPTER 17			
ITEM	TASK	APPLICABLE TO PROJECT (Y/N)	FREQUENCY	REFERENCE
PRIOR TO DECK PLACEMENT:				
MATERIAL COMPLIANCE	VERIFY COMPLIANCE OF DECK AND ALL DECK ACCESSORIES WITH CONSTRUCTION DOCUMENTS, INCLUDING PROFILES, MATERIAL PROPERTIES AND BASE METAL THICKNESS	Y	PERIODIC	AWS D1.3, SDI C, NC AND R (AS APPLICABLE)
MATERIAL ACCEPTANCE	DOCUMENT ACCEPTANCE OR REJECTION OF DECK AND DECK ACCESSORIES	Y	PERIODIC	
AFTER DECK PLACEMENT: STEEL DECK INSTALLATION	VERIFY PROPER INSTALLATION OF STEEL DECK AND ACCESSORIES	Y	PERIODIC	SDI C, NC AND R
MATERIAL MILL	VERIFY DECK MATERIALS ARE REPRESENTED BY APPROPRIATE MILL	Y	PERIODIC	(AS APPLICABLE)
CERTIFICATIONS NSTALLATION ACCEPTANCE	CERTIFICATIONS DOCUMENT ACCEPTANCE OR REJECTION OF DECK AND DECK	Y	PERIODIC	
PRIOR TO WELDING:	ACCESSORIES INSTALLATION			
WELDING PROCEDURE SPECIFICATION(S)	VERIFY WELDING PROCEDURE SPECIFICATION (WPS) AVAILABLE	Y	PERIODIC	AWS D1.3, SDI C, NC AND R (AS APPLICABLE)
WELDING CONSUMABLES MANUFACTURER CERTIFICATIONS	VERIFY MANUFACTURER'S CERTIFICATIONS ARE AVAILABLE FOR WELDING CONSUMABLES	Y	PERIODIC	AWS D1.3, SDI C, NC AND R (AS APPLICABLE)
WELDING MATERIAL TYPE/GRADE	VERIFY WELDING MATERIAL TYPE/GRADE	Y	PERIODIC	AWS D1.3, SDI C, NC AND R (AS APPLICABLE)
WELDING EQUIPMENT	VERIFY WELDING EQUIPMENT IN GOOD WORKING ORDER	Y	PERIODIC	AWS D1.3, SDI C, NC AND R (AS APPLICABLE)
DURING WELDING: QUALIFIED WELDERS	VEDIEV HOE OF OHALIFIED WELDEDO	Y	DEDIODIO	ANNO D4 0
WELDING CONSUMABLES	VERIFY USE OF QUALIFIED WELDERS VERIFY PROPER CONTROL AND HANDLING OF WELDING CONSUMABLES	Y	PERIODIC PERIODIC	AWS D1.3
ENVIRONMENTAL CONDITIONS	DOCUMENT ENVIRONMENTAL CONDITIONS (WIND SPEED, MOISTURE,	Y	PERIODIC	AWS D1.3
WPS FOLLOWED	TEMPERATURE) ARE ACCEPTABLE VERIFY PROPER WPS IS FOLLOWED DURING WELDING	Y	PERIODIC	AWS D1.3
AFTER WELDING:	VERIFT PROPER WPS IS FOLLOWED DURING WELDING	T	PERIODIC	AWS D1.3
FIELD WELDING	INSPECT FIELD WELDS FOR PROPER SIZE, LOCATION, PATTERN, AND SPACING FOR ALL WELDS	Y	PERIODIC	AWS D1.3, SDI C, NC AND R (AS APPLICABLE)
VISUAL ACCEPTANCE	VERIFY WELDS MEET VISUAL ACCEPTANCE CRITERIA	Y	PERIODIC	AWS D1.3, SDI C, NC AND R (AS APPLICABLE)
REPAIR ACTIVITIES	VERIFY DEFICIENT WELDS ARE PROPERLY REPAIRED	Y	PERIODIC	AWS D1.3, SDI C, NC AND R (AS APPLICABLE)
WELD ACCEPTANCE	DOCUMENT ACCEPTANCE OR REJECTION OF WELDS	Y	PERIODIC	AWS D1.3, SDI C, NC AND R (AS APPLICABLE)
PRIOR TO MECHANICAL FASTENING:				
MANUFACTURER INSTRUCTIONS	VERIFY MANUFACTURER INSTALLATION INSTRUCTIONS ARE AVAILABLE FOR MECHANICAL FASTENERS	Y	PERIODIC	SDI C, NC AND R (AS APPLICABLE)
PROPER TOOLS	VERIFY PROPER TOOLS AVAILABLE FOR FASTENER INSTALLATION	Y	PERIODIC	SDI C, NC AND R (AS APPLICABLE)
FASTENER STORAGE	VERIFY PROPER STORAGE FOR MECHANICAL FASTENERS	Y	PERIODIC	SDI C, NC AND R (AS APPLICABLE)
DURING MECHANICAL FASTENING:				
POSITIONING	VERIFY FASTENERS ARE POSITIONED AS REQUIRED (INCLUDING PROPER	Y	PERIODIC	SDI C, NC AND R
NSTALLATION	PATTERN, SPACING, ETC.) VERIFY FASTENERS ARE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS	Y	PERIODIC	(AS APPLICABLE) SDI C, NC AND R (AS APPLICABLE)
AFTER MECHANICAL FASTENING:	INVARION ACTUALITY INCHIONS			(AO AFFLIOADLE)
SUPPORT FASTENERS	VERIFY PROPER PATTERN, SPACING, TYPE AND INSTALLATION	Y	PERIODIC	SDI C, NC AND R (AS APPLICABLE)
PERIMETER FASTENERS	VERIFY PROPER PATTERN, SPACING, TYPE AND INSTALLATION	Y	PERIODIC	SDI C, NC AND R (AS APPLICABLE)
SIDELAP FASTENERS	VERIFY PROPER SPACING, TYPE AND INSTALLATION	Y	PERIODIC	SDI C, NC AND R (AS APPLICABLE)
REPAIR ACTIVITIES	VERIFY DEFICIENT FASTENERS ARE PROPERLY REPAIRED	Y	PERIODIC	SDI C, NC AND R (AS APPLICABLE)
FASTENER ACCEPTANCE	DOCUMENT ACCEPTANCE OR REJECTION OF FASTENERS	Y	PERIODIC	SDI C, NC AND R (AS APPLICABLE)

of EditioAttoN(0)				(AS APPLICABLE)
WELDING CONSUMABLES MANUFACTURER CERTIFICATIONS	VERIFY MANUFACTURER'S CERTIFICATIONS ARE AVAILABLE FOR WELDING CONSUMABLES	Y	PERIODIC	AWS D1.3, SDI C, NC AND R (AS APPLICABLE)
WELDING MATERIAL TYPE/GRADE	VERIFY WELDING MATERIAL TYPE/GRADE		PERIODIC	AWS D1.3, SDI C, NC AND R (AS APPLICABLE)
WELDING EQUIPMENT	VERIFY WELDING EQUIPMENT IN GOOD WORKING ORDER	Y	PERIODIC	AWS D1.3, SDI C, NC AND R (AS APPLICABLE)
DURING WELDING:				
QUALIFIED WELDERS	VERIFY USE OF QUALIFIED WELDERS	Υ	PERIODIC	AWS D1.3
WELDING CONSUMABLES	VERIFY PROPER CONTROL AND HANDLING OF WELDING CONSUMABLES	Y	PERIODIC	AWS D1.3
ENVIRONMENTAL CONDITIONS	DOCUMENT ENVIRONMENTAL CONDITIONS (WIND SPEED, MOISTURE, TEMPERATURE) ARE ACCEPTABLE	Y	PERIODIC	AWS D1.3
WPS FOLLOWED	VERIFY PROPER WPS IS FOLLOWED DURING WELDING	Y	PERIODIC	AWS D1.3
AFTER WELDING:				
FIELD WELDING	INSPECT FIELD WELDS FOR PROPER SIZE, LOCATION, PATTERN, AND SPACING FOR ALL WELDS	Y	PERIODIC	AWS D1.3, SDI C, NC AND R (AS APPLICABLE)
VISUAL ACCEPTANCE	VERIFY WELDS MEET VISUAL ACCEPTANCE CRITERIA	Y	PERIODIC	AWS D1.3, SDI C, NC AND R (AS APPLICABLE)
REPAIR ACTIVITIES	VERIFY DEFICIENT WELDS ARE PROPERLY REPAIRED	Y	PERIODIC	AWS D1.3, SDI C, NC AND R (AS APPLICABLE)
WELD ACCEPTANCE	DOCUMENT ACCEPTANCE OR REJECTION OF WELDS	Y	PERIODIC	AWS D1.3, SDI C, NC AND R (AS APPLICABLE)
PRIOR TO MECHANICAL FASTENING:				
MANUFACTURER INSTRUCTIONS	VERIFY MANUFACTURER INSTALLATION INSTRUCTIONS ARE AVAILABLE FOR MECHANICAL FASTENERS	Y	PERIODIC	SDI C, NC AND R (AS APPLICABLE)
PROPER TOOLS	VERIFY PROPER TOOLS AVAILABLE FOR FASTENER INSTALLATION	Y	PERIODIC	SDI C, NC AND R (AS APPLICABLE)
FASTENER STORAGE	VERIFY PROPER STORAGE FOR MECHANICAL FASTENERS	Y	PERIODIC	SDI C, NC AND R (AS APPLICABLE)
DURING MECHANICAL FASTENING:				
POSITIONING	VERIFY FASTENERS ARE POSITIONED AS REQUIRED (INCLUDING PROPER PATTERN, SPACING, ETC.)	Y	PERIODIC	SDI C, NC AND R (AS APPLICABLE)
INSTALLATION	VERIFY FASTENERS ARE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS	Y	PERIODIC	SDI C, NC AND R (AS APPLICABLE)
AFTER MECHANICAL FASTENING:				
SUPPORT FASTENERS	VERIFY PROPER PATTERN, SPACING, TYPE AND INSTALLATION	Y	PERIODIC	SDI C, NC AND R (AS APPLICABLE)
PERIMETER FASTENERS	VERIFY PROPER PATTERN, SPACING, TYPE AND INSTALLATION	Y	PERIODIC	SDI C, NC AND R (AS APPLICABLE)
SIDELAP FASTENERS	VERIFY PROPER SPACING, TYPE AND INSTALLATION	Y	PERIODIC	SDI C, NC AND R (AS APPLICABLE)
REPAIR ACTIVITIES	VERIFY DEFICIENT FASTENERS ARE PROPERLY REPAIRED	Υ	PERIODIC	SDI C, NC AND R (AS APPLICABLE)
FASTENER ACCEPTANCE	DOCUMENT ACCEPTANCE OR REJECTION OF FASTENERS	Y	PERIODIC	SDI C, NC AND R (AS APPLICABLE)
 "CONTINUOUS" REQUIRES TA INSPECT FOR CONFORMANCE 	RVATION ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING ASKS TO BE CONTINUOUSLY PERFORMED FOR EACH OPERATION, CONNECTION E WITH CONSTRUCTION DOCUMENTS, INSTALLATION DRAWINGS, SHOP DRAW ABLE REFERENCED STANDARDS.	OR MEMBER AS	APPLICABLE.	FACTURER'S

SPECIAL INSPECTION SERVICES SCHEDULE - MASONRY CONSTRUCTION LEVEL B INSPECTION

REFER TO IBC 2012 CHAPTER 17 AND ACI 530.1-11 TABLE 4

ITEM	TASK	APPLICABLE TO PROJECT (Y/N)	FREQUENCY	REFERENCE (ACI 530-11)	REFERENCE (ACI 530.1-11)
GENERAL COMPLIANCE	VERIFY MASONRY UNITS AND MATERIALS COMPLY WITH APPROVED SUBMITTALS	Y	PERIODIC		ARTICLE 1.5
TESTING OF SELF- CONSOLIDATING GROUT VERIFY THAT SLUMP FLOW AND VISUAL STABILITY INDEX (VSI) TESTS ARE PROVIDED FOR SELF- CONSOLIDATING GROUT		Y	PERIODIC		ARTICLE 1.5B.1.b.3
TESTING OF GROUT COMPRESSIVE STRENGTH	WHEN REQUIRED I'm EXCEEDS 2,000 PSI, VERIFY A PRISM STRENGTH TEST OF GROUT IS PERFORMED FOR EACH 5,000 SFT OR LESS OF WALL AREA	N	PERIODIC		ARTICLE 1.4B
AT START OF MASONRY CONSTRUCTION:					
SITE-PREPARED MORTAR	VERIFY PROPORTIONS OF SITE-PREPARED MORTAR ARE IN CONFORMANCE WITH CONSTRUCTION DOCUMENTS	Y	PERIODIC		ARTICLES 2.1, 2.6A
MORTAR JOINTS	VERIFY PROPER MORTAR JOINT CONSTRUCTION	Y	PERIODIC		ARTICLE 3.3B
REINFORCEMENT AND CONNECTORS	VERIFY LOCATION OF REINFORCEMENT AND CONNECTORS	Y	PERIODIC		ARTICLE 3.4
PRESTRESSING TENDONS	VERIFY GRADE, TYPE AND SIZE OF PRESTRESSING TENDONS AND ANCHORAGES	N	PERIODIC		ARTICLE 2.4
PRESTRESSING TENDONS	VERIFY LOCATION OF PRESTRESSING TENDONS AND ANCHORAGES	N	PERIODIC		ARTICLES 3.4, 3.6A
PRESTRESSING TECHNIQUE	VERIFY PRESTRESSING TECHNIQUE AND MONITORING IS IN CONFORMANCE WITH CONSTRUCTION DOCUMENTS	N	PERIODIC		ARTICLE 3.6B
PRIOR TO GROUTING:					
GROUT SPACE	VERIFY GROUT SPACES ARE PREPARED AND CLEARED PRIOR TO GROUT PLACEMENT	Y	PERIODIC		ARTICLE 3.2D, 3.2F
REINFORCEMENT AND ANCHOR MATERIALS	VERIFY PROPER GRADE, SIZE, AND TYPE OF REINFORCEMENT, ANCHOR BOLTS AND EMBEDDED ITEMS	Y	PERIODIC	SECTION 1.16	ARTICLE 2.4, 3.4
REINFORCEMENT AND ANCHOR PLACEMENT	VERIFY LOCATION, SIZE, QUANTITY, TYPE AND SUPPORT FOR ALL REINFORCEMENT, ANCHOR BOLTS AND EMBEDDED ITEMS	Y	PERIODIC	SECTION 1.16	ARTICLES 3.2E, 3.4
SITE-PREPARED GROUT	VERIFY PROPORTIONS OF SITE-PREPARED GROUT	Y	PERIODIC		ARTICLE 2.6B
MORTAR JOINTS	VERIFY PROPER MORTAR JOINT CONSTRUCTION WITHOUT OBSTRUCTIONS THAT WOULD DETRIMENTALLY AFFECT GROUT PLACEMENT	Y	PERIODIC		ARTICLE 3.3B
PRESTRESSING TENDONS	VERIFY GRADE, TYPE AND SIZE OF PRESTRESSING TENDONS AND ANCHORAGES	N	PERIODIC		ARTICLE 2.4
PRESTRESSING TENDONS	VERIFY LOCATION OF PRESTRESSING TENDONS AND ANCHORAGES	N	PERIODIC		ARTICLES 3.4, 3.6A
GROUT FOR BONDED TENDONS DURING CONSTRUCTION:	VERIFY PROPORTIONS OF PRE-STRESSING GROUT FOR BONDED TENDONS	N	PERIODIC		ARTICLE 2.4 G.1.b
STRUCTURAL ELEMENTS	VERIFY SIZE AND LOCATION OF STRUCTURAL	Y	PERIODIC		ARTICLE 3.3F
ANCHORAGES	VERIFY TYPE, SIZE AND LOCATION OF ANCHORS INCLUDING DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES AND OTHER CONSTRUCTION	Y	PERIODIC	SECTIONS 1.16.4.3, 1.17.1	
WELDING OF REINFORCEMENT	WHERE SPECIFICALLY PERMITTED, VERIFY WELDING OF REINFORCEMENT CONFORMS TO INDICATED STANDARDS	N	CONTINUOUS	SECTIONS 2.1.7.7.2, 3.3.3.4 (c), 8.3.3.4 (b)	
COLD WEATHER / HOT WEATHER	VERIFY PREPARATION, CONSTRUCTION AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40F) AND HOT WEATHER (TEMPERATURE ABOVE 90F)	Y	PERIODIC		ARTICLES 1.8C, 1.8
PLACEMENT OF GROUT	VERIFY PROPER PLACEMENT AND CONSOLIDATION OF GROUT	Y	CONTINUOUS		ARTICLE 3.5
TEST SPECIMENS	OBSERVE PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS	Y	PERIODIC		ARTICLES 1.4B.2.a 1.4B.2.b.3, 1.4B.2.c. 1.4B.3, 1.4B.4
PRESTRESSING FORCE APPLICATION	VERIFY APPLICATION AND MEASUREMENT OF PRESTRESSING FORCE IS IN CONFORMANCE WITH CONSTRUCTION DOCUMENTS	N	CONTINUOUS		ARTICLE 3.6B
PRESTRESSING GROUT PLACEMENT	VERIFY PLACEMENT OF GROUT FOR BONDED PRESTRESSING TENDONS CONFORMS TO INDICATED REQUIREMENTS	N	CONTINUOUS		ARTICLE 3.6C
AUTOCLAVED AERATED					
CONCRETE (AAC) MASONRY: COMPRESSIVE STRENGTH TEST	VERIFY AAC f'AAC PRIOR TO CONSTRUCTION AND FOR EVERY 5,000 SFT OF WALL	N	PERIODIC		ARTICLE 1.4B
AAC THIN-BED MORTAR	VERIFY PROPERTIES OF THIN-BED MORTAR FOR AAC	N	NOTE 2		ARTICLE 2.1C
AAC PLACEMENT	VERIFY PROPER PLACEMENT OF AAC MASONRY UNITS	N	NOTE 2		ARTICLE 3.3B.8
NOTES:	AND CONSTRUCTION OF THIN-BED MORTAR JOINTS			<u>l</u>	<u> </u>

SPECIAL INSPECTION

THE OWNER OR OWNER'S AGENT SHALL EMPLOY INDEPENDENT AGENCY(IES) OR INDIVIDUAL(S) TO PROVIDE SPECIAL INSPECTION FOR ITEMS AS INDICATED ON THE

SPECIAL INSPECTION IS A MANDATORY REQUIREMENT FOR VERIFYING CONFORMANCE OF THE INDICATED CONSTRUCTION. SPECIAL INSPECTION IS REQUIRED IN ADDITION TO ALL MATERIAL TESTS AND INSPECTIONS IDENTIFIED ELSEWHERE IN THE CONSTRUCTION DOCUMENTS.

THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON, WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL AND THE STRUCTURAL ENGINEER, FOR INSPECTION OF EACH PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

"PERIODIC" SPECIAL INSPECTION IS DEFINED AS "THE PART-TIME OR INTERMITTENT OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK HAS BEEN OR IS BEING PERFORMED AND AT THE COMPLETION OF THE WORK." "CONTINUOUS" SPECIAL INSPECTION IS DEFINED AS "THE FULL-TIME OBSERVATION

OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK IS BEING PERFORMED." SUBMIT TO THE STRUCTURAL ENGINEER FOR REVIEW A MINIMUM OF 14 DAYS PRIOR

TO COMMENCEMENT OF CONSTRUCTION OF ELEMENTS REQUIRING SPECIAL INSPECTION THE FOLLOWING: 1. NAME(S), ADDRESS(ES), TELEPHONE NUMBER(S), EMAIL ADDRESS(ES), AND

ENGAGED ON THE PROJECT.

2. A LISTING OF ALL ITEMS TO RECEIVE SPECIAL INSPECTION, DESIGNATION WHETHER INSPECTIONS WILL BE CONTINUOUS OR PERIODIC AND THE NAME OF THE INDIVIDUAL THAT WILL BE PERFORMING INSPECTION FOR EACH ITEM. THE CONTRACTOR SHALL COORDINATE WITH THE SPECIAL INSPECTOR SUFFICIENTLY IN ADVANCE OF WORK REQUIRING SPECIAL INSPECTION AND SHALL

STATEMENT(S) OF QUALIFICATIONS OF ALL SPECIAL INSPECTOR(S) TO BE

PROVIDE ACCESS TO THE SITE AND TO THE CONSTRUCTION DOCUMENTS (CURRENT DRAWINGS AND SPECIFICATIONS) FOR THE SPECIAL INSPECTOR CARRY OUT THE REQUIRED OPERATIONS. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK REQUIRING SPECIAL

INSPECTION FOR CONFORMANCE TO THE CONSTRUCTION DOCUMENTS. ALL NON-CONFORMING WORK SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE IMMEDIATE ATTENTION OF THE OWNER OR OWNER'S AGENT AND STRUCTURAL ENGINEER.

THE SPECIAL INSPECTOR SHALL SUBMIT PERIODIC PROGRESS REPORTS TO THE OWNER OR OWNER'S AGENT, CONTRACTOR AND STRUCTURAL ENGINEER IDENTIFYING ALL SPECIAL INSPECTION OPERATIONS PERFORMED. REPORTS SHALL BE SUBMITTED NO MORE THAN 7 DAYS FOLLOWING EACH SPECIAL INSPECTION OPERATION. REPORTS SHALL IDENTIFY THE ITEM(S) INSPECTED AND AN INDICATION OF WHETHER THE INSPECTED ITEMS WERE IN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS.

AT THE COMPLETION OF ALL WORK REQUIRING SPECIAL INSPECTION, THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT TO THE OWNER OR OWNER'S AGENT, CONTRACTOR AND STRUCTURAL ENGINEER STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE SPECIAL INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS.

SPECIAL INSPECTION - CONTINUED

NOT LIMITED TO:

- FAILURE TO PERFORM SPECIAL INSPECTION FOR THE INDICATED CONSTRUCTION OR FAILURE TO CORRECT NON-CONFORMING WORK SHALL CONSTITUTE A BASIS FOR REJECTION OF THE WORK AND REMOVAL AND REPLACEMENT BY THE GENERAL CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER, INCLUDING, BUT
- 1. THE COST OF REMOVAL AND REPLACEMENT OF ALL WORK FOR WHICH SPECIAL INSPECTION WAS REQUIRED BUT NOT PERFORMED, INCLUDING
- THE COST OF TESTING AND SPECIAL INSPECTION FOR THE REPLACEMENT
- 2. THE COST OF ALL RELATED WORK MADE NECESSARY BY THE REMOVAL AND REPLACEMENT OF THE UNINSPECTED WORK PER ITEM 1 ABOVE. 3. THE COST FOR DESIGN PROFESSIONAL'S SERVICES RELATED TO ALL WORK FOR WHICH SPECIAL INSPECTION WAS REQUIRED BUT NOT PERFORMED

AND SERVICES RELATED TO THE REPLACEMENT WORK. PROVIDE SPECIAL INSPECTION FOR THE FOLLOWING CONSTRUCTION:

SOILS AND EARTHWORK CONCRETE CONSTRUCTION MASONRY CONSTRUCTION - LEVEL B INSPECTION STEEL CONSTRUCTION COLD-FORMED STEEL DECK

SEE TABLES ON THE DRAWINGS FOR SPECIAL INSPECTION PROGRAM

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8006 Aetna Street Merrillville, IN 46410 P: 219.942.2787 E: dmanderson@skillman.com

PORTER COUNTY -**NORTH ANNEX**

PORTAGE, IN



ISSUANCE INDEX 08.20.18

100% CONSTRUCTION DOCUMENTS - BP1

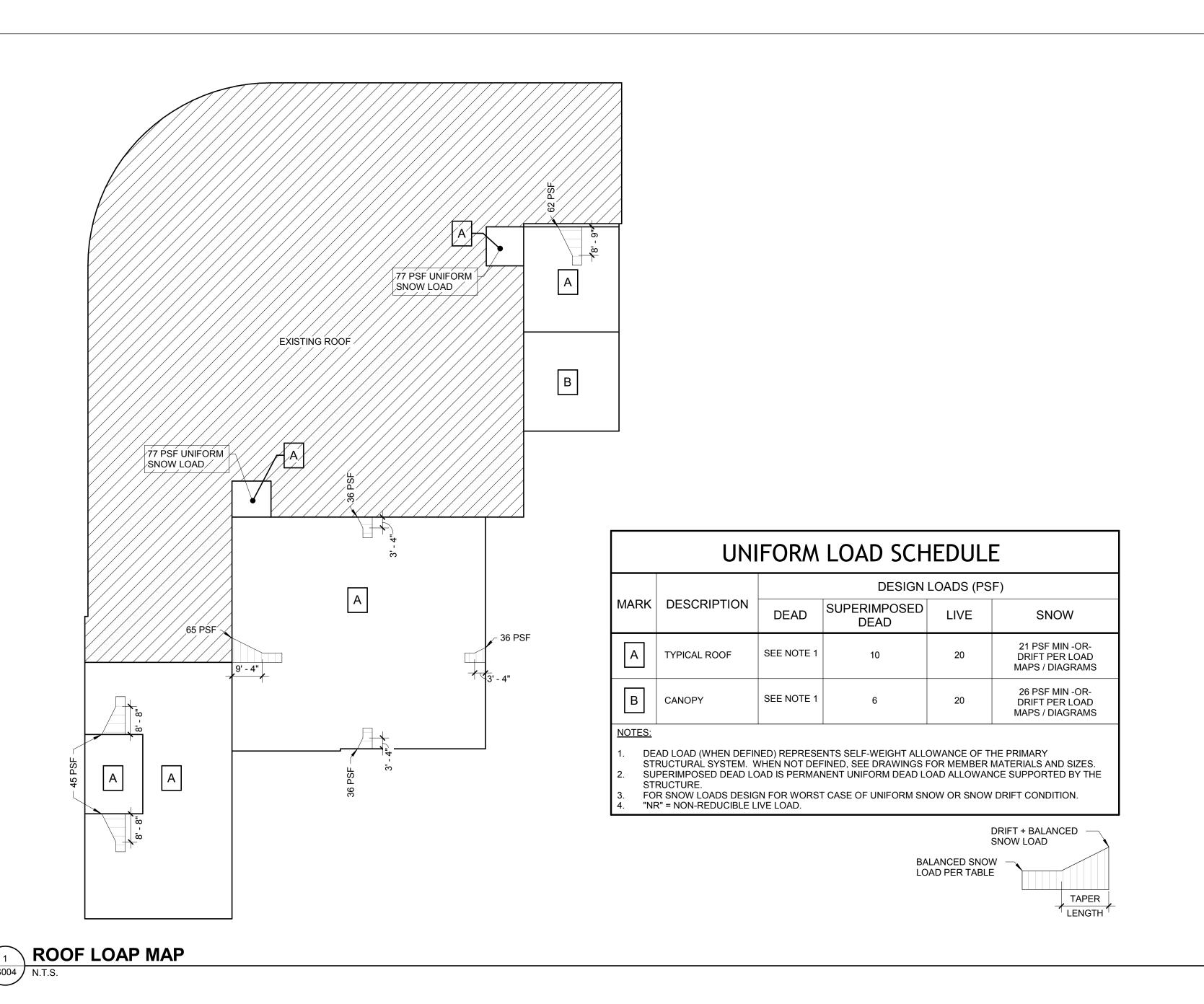
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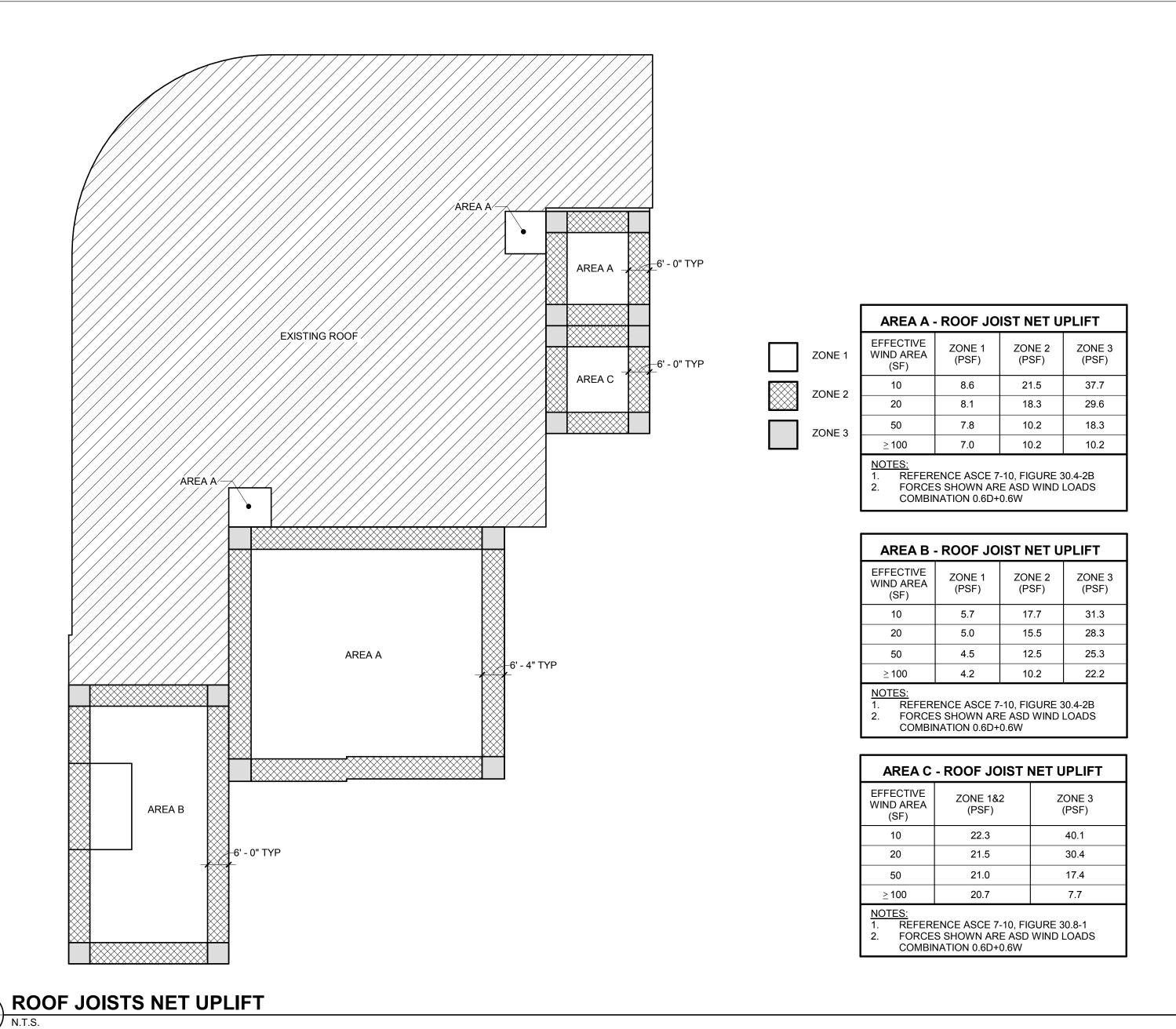
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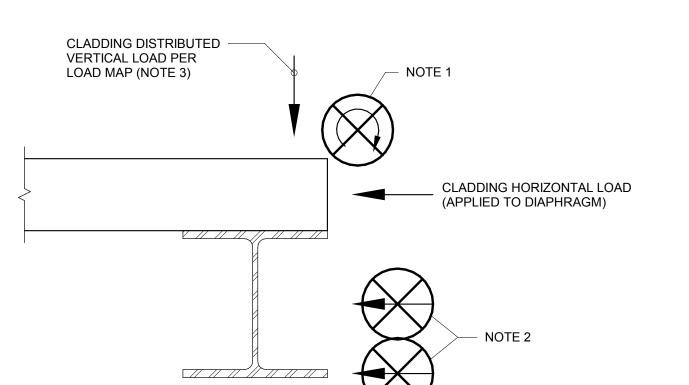
Project Number 2017.01279

SPECIAL INSPECTION REQUIREMENTS

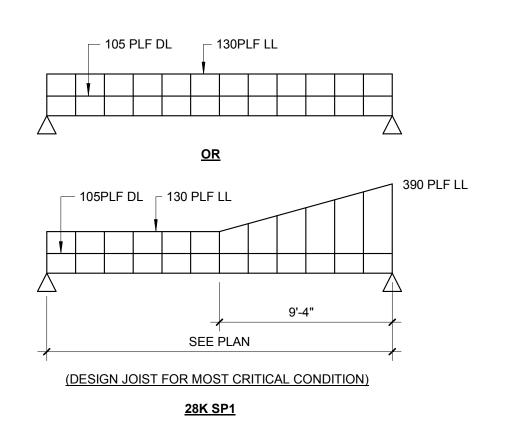
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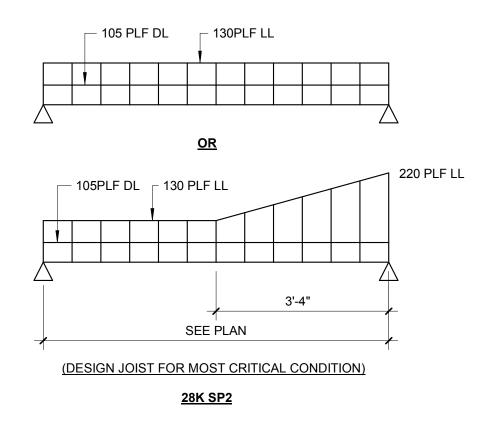


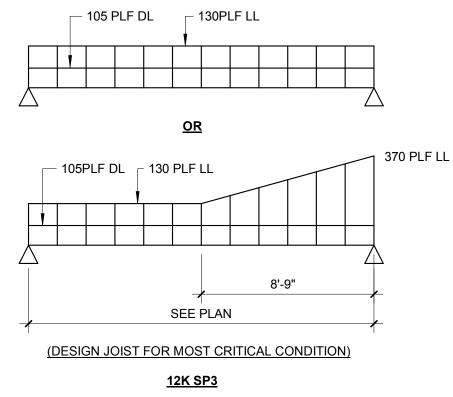












SPECIAL JOIST LOAD DIAGRAM

S004 N.T.S.

SPECIAL JOIST LOAD DIAGRAM

N.T.S.

SPECIAL JOIST LOAD DIAGRAM

PORTER COUNT

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PORTER COUNTY - NORTH ANNEX

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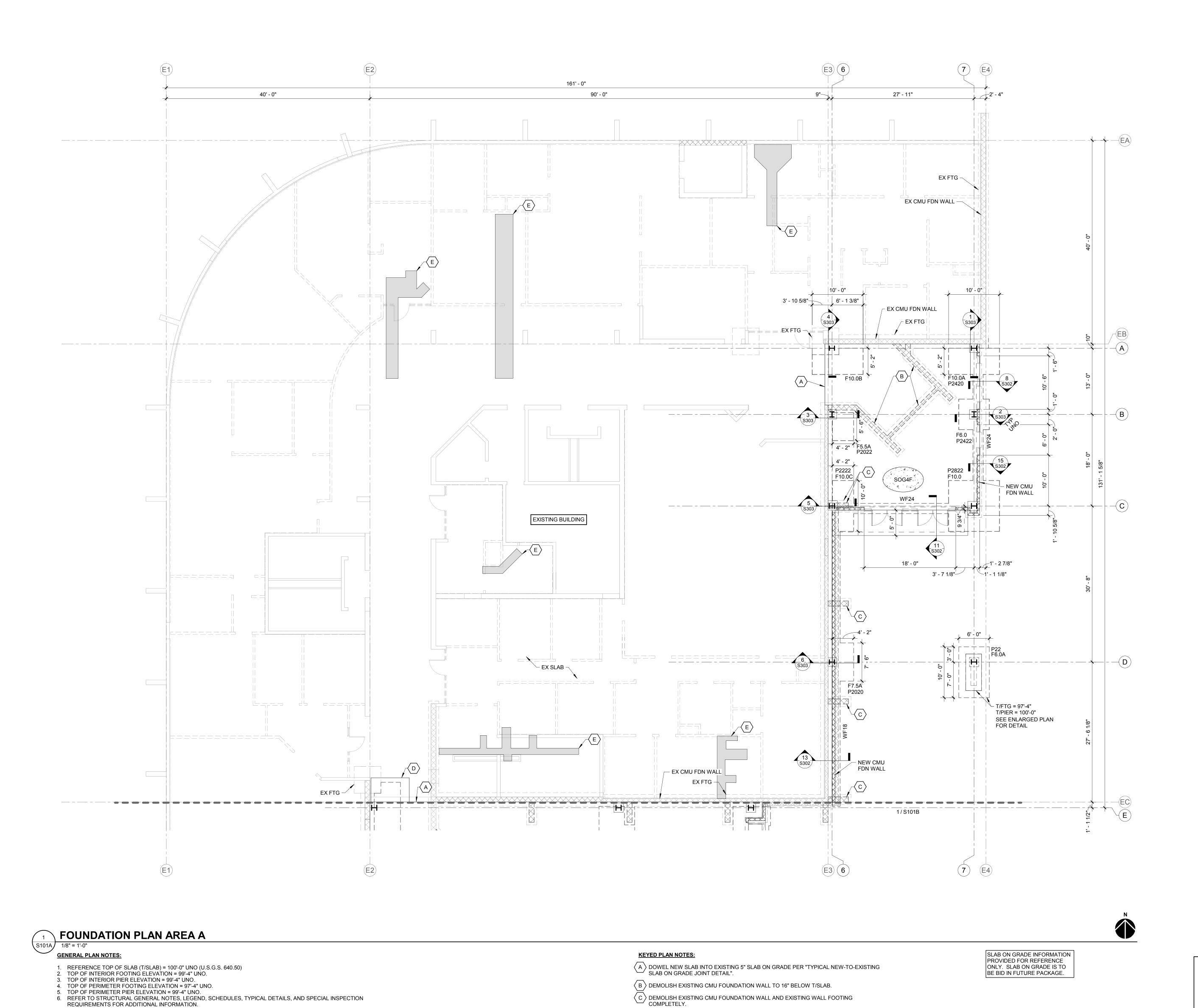
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LOAD MAPS



D DEMOLISH EXISTING SLAB AS REQUIRED TO INSTALL NEW FOOTING. NEW SLAB TO MATCH ADJACENT NEW SLAB. DOWEL NEW SLAB INTO EXISTING 5" SLAB ON GRADE PER "TYPICAL NEW-TO-EXISTING SLAB ON GRADE JOINT DETAIL".

E INFILL SLAB WITH COMPACTED GRANULAR FILL AND NEW SOG TO MATCH EXISTING SLAB THICKNESS PER "TYPICAL NEW-TO-EXISTING SLAB ON GRADE JOINT" DETAIL. PROVIDE CONTROL JOINTS PER GENERAL NOTES.

PORTER COUNTY

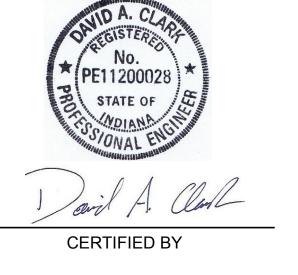
STRUCTUREPOINT INC.

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AREA "A"

AREA "B"

KEY PLAN

Project Number 2017.01279

FOUNDATION PLAN -AREA A

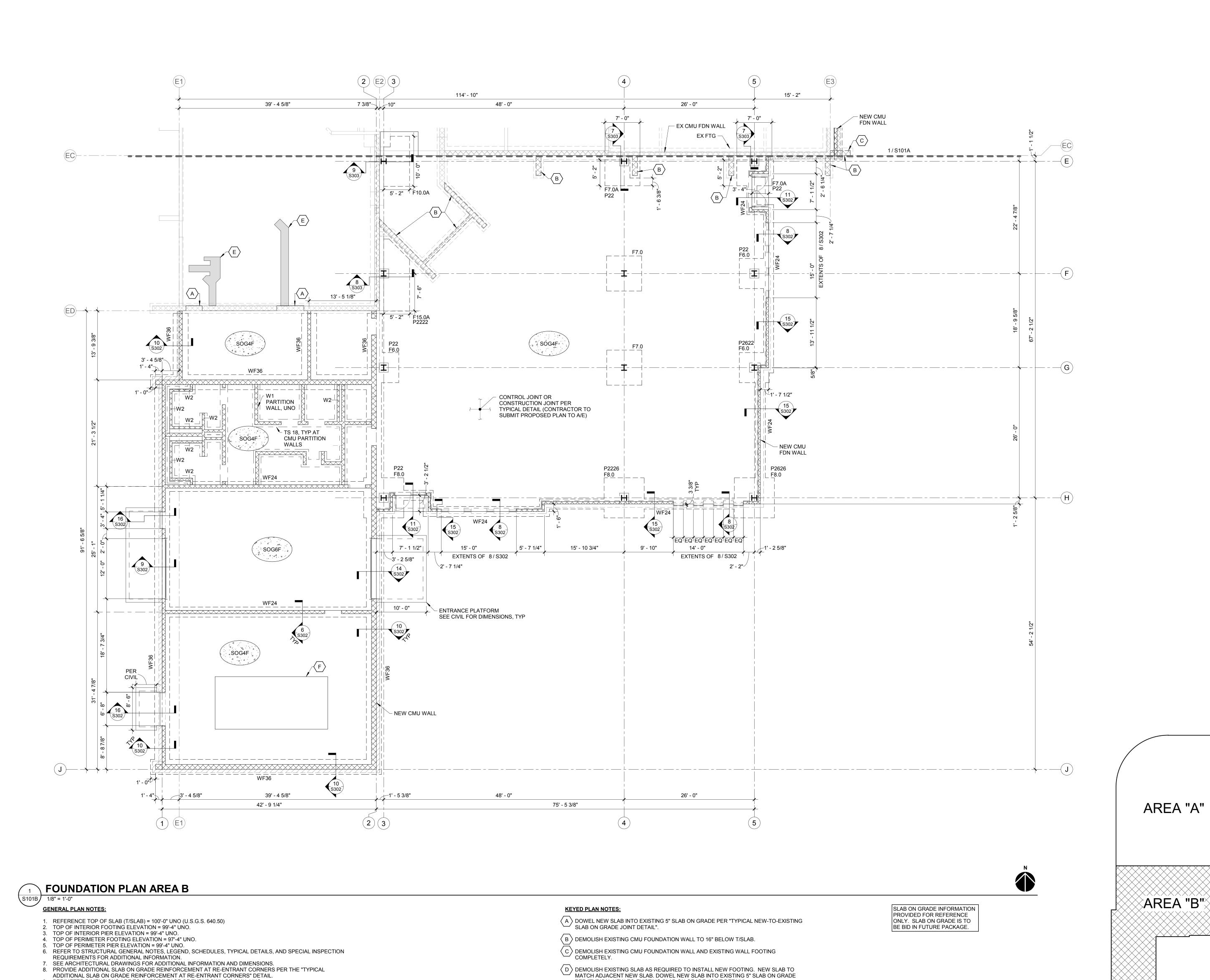
3101A

7. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION AND DIMENSIONS.

8. PROVIDE ADDITIONAL SLAB ON GRADE REINFORCEMENT AT RE-ENTRANT CORNERS PER THE "TYPICAL"

ADDITIONAL SLAB ON GRADE REINFORCEMENT AT RE-ENTRANT CORNERS" DETAIL.

9. PERIMETER DIMENSIONS ARE TO OUTSIDE FACE OF TURNDOWN OR CMU, UNO.



PER "TYPICAL NEW-TO-EXISTING SLAB ON GRADE JOINT DETAIL".

E INFILL SLAB WITH COMPACTED GRANULAR FILL AND NEW SOG TO MATCH EXISTING SLAB THICKNESS PER "TYPICAL NEW-TO-EXISTING SLAB ON GRADE JOINT" DETAIL. PROVIDE CONTROL JOINTS PER GENERAL NOTES.

F HOUSEKEEPING PAD PER TYPICAL DETAIL. COORDINATE SIZE AND LOCATION WITH MECHANICAL.

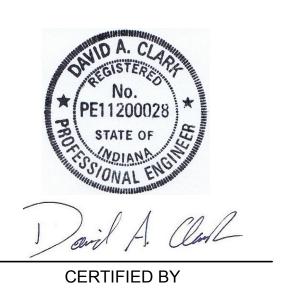
9. PERIMETER DIMENSIONS ARE TO OUTSIDE FACE OF TURNDOWN OR CMU, UNO.

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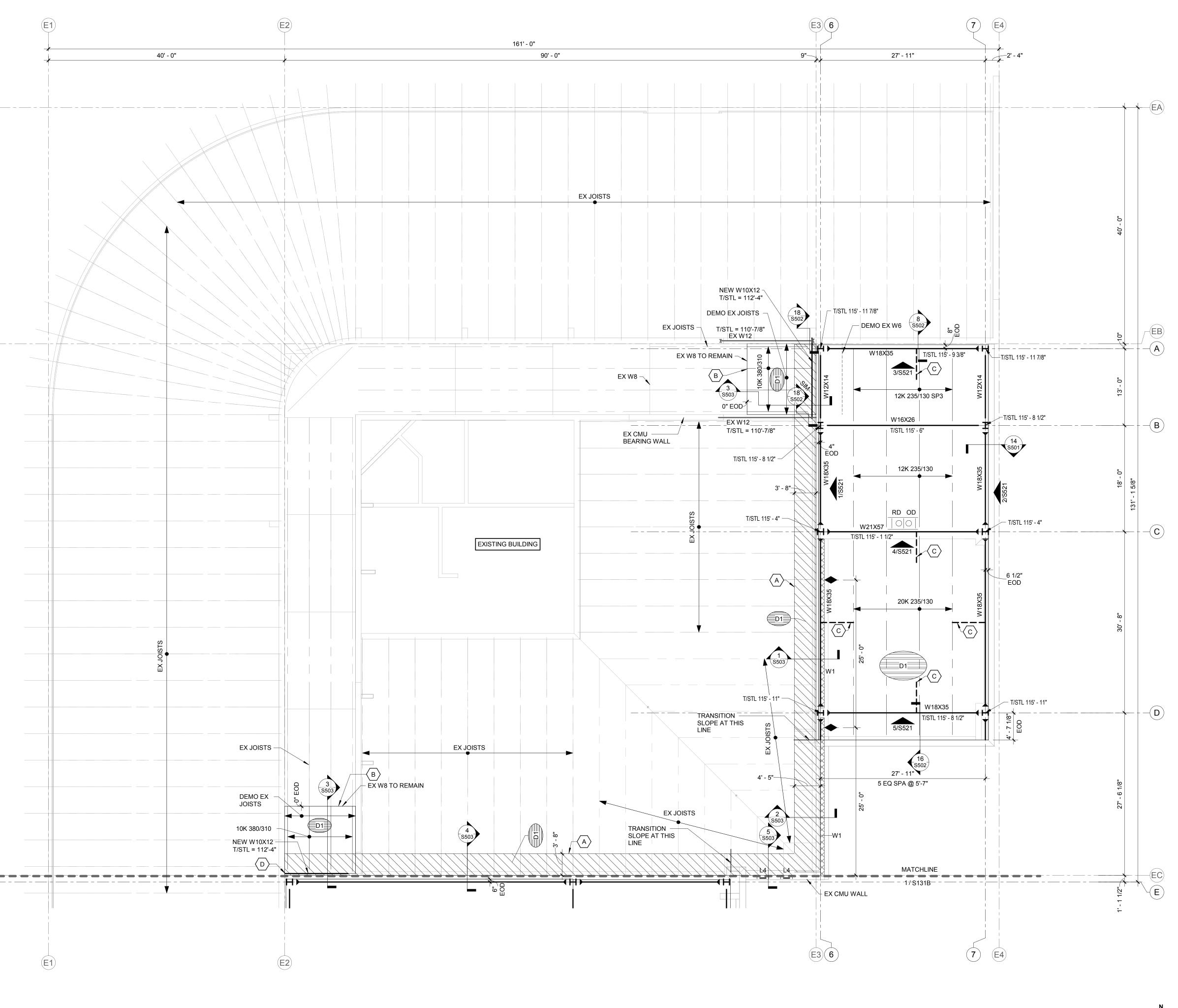
ISSUANCE INDEX 08.20.18 PROJECT PHASE: 100% CONSTRUCTION DOCUMENTS - BP

> REVISION SCHEDULE NO. DESCRIPTION DATE

Project Number 2017.01279

FOUNDATION PLAN -AREA B

KEY PLAN



ROOF FRAMING PLAN AREA A

\$\frac{1}{16}^{2} \text{ = 10}^{2}\$

\$\frac{6}{15}(31) \text{ | 16}^{2} \text{ | 16}^{2} \text{ | 16}^{2}\$

\$\frac{6}{15}(31) \text{ | 16}^{2} \text{ | 16}^{2}}\$

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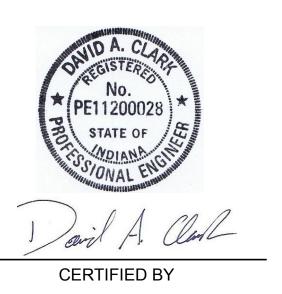
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PORTER COUNTY - NORTH ANNEX

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DATE:

08.20.18

PROJECT PHASE:

100% CONSTRUCTION DOCUMENTS - BP1

REVISION SCHEDULE

NO. DESCRIPTION DATE

AREA "A"

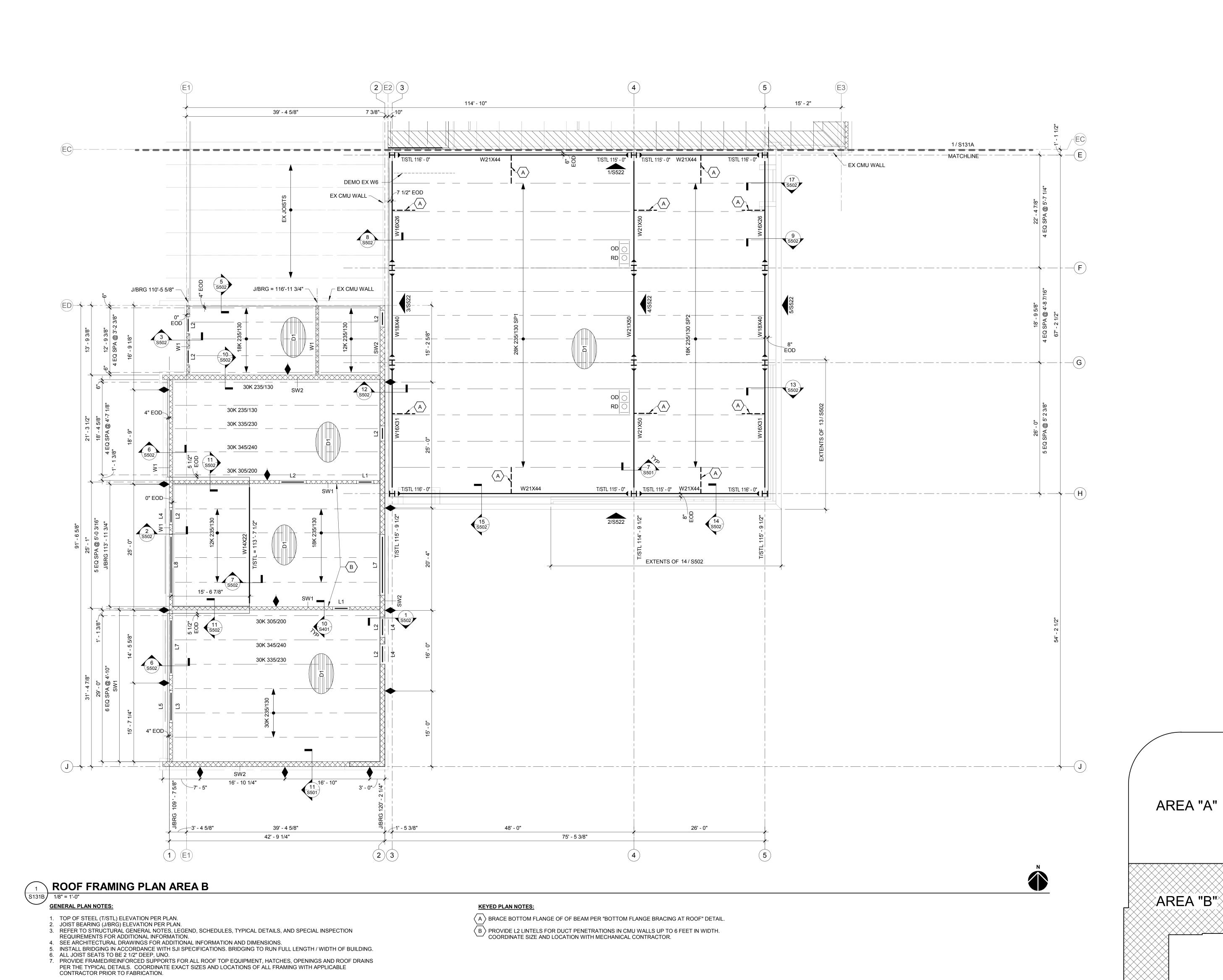
AREA "B"

KEY PLAN

Project Number 2017.01279

ROOF FRAMING PLAN - AREA A

3131A



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PORTER COUNTY - NORTH ANNEX

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PE11200028

STATE OF

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STATE OF

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100% CONSTRUCTION DOCUMENTS - BP1

REVISION SCHEDULE

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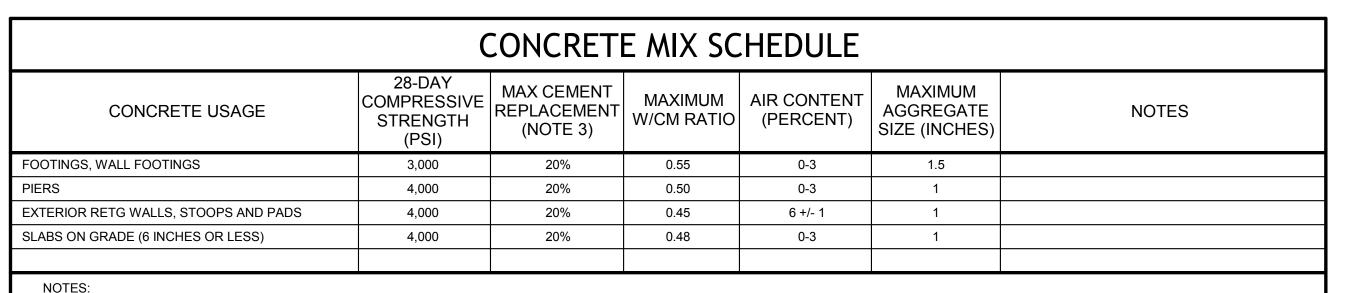
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Project Number 2017.01279

KEY PLAN

ROOF FRAMING PLAN - AREA B

3131R



I. SEE GENERAL NOTES AND SPECIFICATIONS FOR ADDITIONAL INFORMATION

CONCRETE MIX SCHEDULE

BAR SIZE

#7

#10

#11

NOTES:

S301 N.T.S.

CONCRETE INFILL

CONCRETE INFILL

f 'c = 3000 PSI

Ld Ldt Lt Ltt

17 23 23 29

33 | 43 | 43 | 56

48 | 63 | 63 | 82

55 | 72 | 72 | 93

81 81

69 90 90 117

76 | 99 | 99 | 129

Ldt = DEVELOPMENT LENGTH OF TOP BARS IN TENSION

Ltt = TENSION LAP SPLICE LENGTH OF TOP BARS

Lc = TIED COLUMN LAP SPLICE IN COMPRESSION

Lcs = SPIRAL COLUMN LAP SPLICE IN COMPRESSION

REBAR DEVELOPMENT/SPLICE LENGTHS ARE BASED

ON ACI 318. REINFORCEMENT YIELD STRENGTH, Fy = 60 KSI.

LARGER DIAMETER SPLICE LENGTHS GOVERN AT BAR SIZE

"TOP BARS" = HORIZONTAL BEAM, MAT, OR SLAB REINFORCING WITH

FOR LIGHTWEIGHT CONCRETE, MULTIPLY TABLE VALUES BY 1.33, UNC

CONCRETE INFILL

MATERIAL

— CONTROL -

JOINT, TYP

- COLUMN PER PLAN -

CONCRETE INFILL

1/2" EXP JT MATERIAL

CONTROL

JOINT, TYP

- COLUMN PER PLAN -

TYPICAL STEEL COLUMN ISOLATION JOINT DETAILS

Lb = COMPRESSION DEVELOPMENT LENGTH

4. ALL SPLICES SHALL BE TENSION SPLICES, UNO.

. db = NOMINAL BAR DIAMETER

MORE THAN 12" CAST BELOW

Ld = TENSION DEVELOPMENT LENGTH

Lt = TENSION LAP SPLICE LENGTH

29 | 29 | 38

37 | 37 | 48

ALL CONCRETE IS NORMAL WEIGHT AND CEMENT IS ASTM C150 TYPE 1, UNO. DO NOT USE LIGHTWEIGHT CONCRETE UNLESS SPECIFICALLY INDICATED ACCEPTABLE CEMENT REPLACEMENT MATERIAL, WHERE PERMITTED, SHALL BE FLY ASH, ASTM C618 TYPE C OR F, UNO.

4. TARGET SLUMP SHALL BE DETERMINED BY THE CONTRACTOR AS NEEDED FOR PROPER PLACEMENT. WHERE NOTED. BLENDED AGGREGATE WITH ZONE 2 COARSENESS PER ACI 302 IS MANDATORY.

COORDINATE LOCATIONS OF ALL POLISHED CONCRETE SLABS (WHEN USED) AND REVIEW THE CONCRETE MIX REQUIREMENTS WITH THE POLISHED CONCRETE CONTRACTOR PRIOR TO SUBMITTAL OF CONCRETE MIXES. IF THE POLISHED CONCRETE CONTRACTOR REQUESTS TO DEVIATE FROM THE REQUIREMENTS OF THIS SCHEDULE, CONTACT THE STRUCTURAL ENGINEER TO REVIEW THE REQUESTS PRIOR TO SUBMISSION OF THE POLISHED CONCRETE MIX(ES)

NON-COATED REINFORCING BAR DEVELOPMENT AND SPLICE LENGTHS

f 'c = 4000 PSI

BAR SIZE

#10

CONCRETE REINFORCEMENT DEVELOPMENT AND LAP SPLICE TABLE

EDGE OF SLAB -

<u>PERIMETER</u>

- SLEEVE FOR PIPE, 2" DIA LARGER

AS FOOTING

Ld Ldt Lt

19 | 25 | 25 |

15 | 20 | 20 | 26

24 | 32 | 32 | 41

29 | 38 | 38 | 50

42 | 55 | 55 | 71

48 63 63 82

60 | 78 | 78 | 102

#11 66 86 86 112

TABLE VALUES SHALL BE MULTIPLIED BY 1.5 IF THE FOLLOWING

COLUMN / BEAM

DEVELOPMENT

1/2" EXP JT -

CONCRETE INFILL

CONCRETE INFILL

1/2" EXP JT

MATERIAL

COLUMN

PER PLAN

MATERIAL

PER PLAN

CRITERIA ARE <u>NOT</u> MET:

SLAB / WALL

TYPICAL REINFORCING BAR DEVELOPMENT / SPLICE DETAILS

EDGE OF

SLAB

NOTE 3

EDGE OF

SLAB

MECHANICAL

COUPLER

MECHANICAL SPLICE STAGGER

1/2" EXP JT -

EDGE OF SLAB

CONCRETE INFILL

CONCRETE INFILL

- EDGE OF SLAB

CORNER

1/2" EXP JT

MATERIAL

- EDGE OF

SLAB

MATERIAL

	SLAB ON GRADE SCHEDULE							
MARK	MARK SIZE REINFORCEMENT VAPOR PROTECTION REMARKS							
SOG4F	4"	1.5 LBS/CYD MICRO-FIBER	10 MIL VAPOR RETARDER					
SOG6F	SOG6F 6" 3.0 LBS/CYD MACRO-FIBER 10 MIL VAPOR RETARDER							
VAPOR PROTECTION PER SCHEDULE SUB-BASE VAPOR PROTECTION AND SUB-BASE DETAIL								
NOTES:	OVIDE 6" C	OMPACTED DRAINAGE FILL SI	JB-BASE, UNO.					

OVERALL

15

20

25

30

40

SLAB-ON-GRADE SCHEDULE

20

25

35

45

DIFFER FROM THIS SCHEDULE, THE MORE STRINGENT REQUIREMENTS SHALL APPLY.

ALL NECESSARY REPAIR, GRINDING, AND / OR LEVELING OF THE CONCRETE SLAB TO

COLUMN & FOOTING — ►

ANCHOR RODS PER COLUMN SCHEDULE

BETWEEN COLUMN AND ISOLATION JOINT.

CIRCULAR ISOLATION JOINT.

1. FOR COLUMNS PLACED AFTER SLAB-ON-GRADE, SIZE ISOLATION

MINIMUM CLEAR BETWEEN COLUMN AND ISOLATION JOINT.

2. FOR COLUMNS PLACED BEFORE SLAB-ON-GRADE, SIZE ISOLATION JOINT AS REQUIRED TO KEEP ALL ANCHOR RODS WITHIN THE

3. FOR CIRCULAR ISOLATION JOINTS AT PERIMETER AND CORNERS

- #4 @ 12" OC (MAX) EACH WAY AT MID-DEPTH

TURN-DOWN ALL 4 SIDES

- 6" (MIN) COMPACTED

CRUSHED STONE BASE

ANGLE OF INTERSECTION BETWEEN JOINT AND WALL TO BE A

MINIMUM OF 90 DEGREES TO PREVENT RETURN OF SLAB BEHIND

JOINT AS REQUIRED TO ALLOW FOR BASE PLATE INSTALLATION AND

TIGHTENING OF ANCHOR RODS AND MAINTAIN NOT LESS THAN 4"

ISOLATION JOINT AND MAINTAIN NOT LESS THAN 4" MINIMUM CLEAR

AND COLUMN BASE DETAIL

FLATNESS/LEVELNESS SCHEDULE

GENERAL CONTRACTOR SHALL COORDINATE WITH THE FINISH FLOORING SUPPLIER TO PROVIDE

- FILL W/ CONCRETE

- 1/2" ISOLATION JOINT

- 1" CHAMFER TYP

#4 @ 12" OC

AT CORNERS

-3" CLR

ACCOMMODATE ALL FLOOR FINISHES PRIOR TO INSTALLATION OF FINISH MATERIALS WITH NO

FLOOR TYPE / LOCATION

EXPOSED WAREHOUSE, MANUFACTURING AREAS, UNO

TILE UP TO 16" LONG DIMENSION, >=1/4" GROUT JOINTS

TILE UP TO 16" LONG DIMENSION, 3/16" GROUT JOINTS

TILE UP TO 16" LONG DIMENSION, 1/8" GROUT JOINTS

TILE >16" TO <36" LONG DIMENSION, >=1/4" GROUT JOINTS

TILE >16" TO <36" LONG DIMENSION, <1/4" GROUT JOINTS

EXPOSED UTILITY/MECHANICAL AREAS, UNO

FLOORS WITH POLISHED CONCRETE FINISH

FLOORS WITH CARPET, VCT FINISH, UNO

TILE >36" LONG DIMENSION

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EDGE OF SLAB

- CONTROL JOINT, TYP

NOTE 3

RE-ENTRANT

CORNER

_ EDGE OF

- CONTROL JOINT, TYP

SLAB

ADDITIONAL COST TO THE PROJECT.

SLAB ON GRADE

FOOTING PER PLAN

NOTES:

CLASSIFICATION

CONVENTIONAL

VERY FLAT

SUPER FLAT

MODERATELY FLAT

COLUMN FOOTING SCHEDULE				
MARK	FTG SIZE	REINFORCEMENT	REMARKS	
F5.5A	PER PLAN x 1'-0"	(5) #5 BOT LONG & (7) #5 BOT SHORT		
F6.0	6'-0" x 6'-0" x 1'-0"	(6) #5 EW BOT		
F6.0A	PER PLAN x 1'-0"	(6) #5 BOT LONG & (12) #5 BOT SHORT		
F7.0	7'-0" x 7'-0" x 1'-0"	(8) #6 EW BOT		
F7.0A	PER PLAN x 1'-0"	(6) #5 BOT LONG & (7) #5 BOT SHORT		
F7.5A	PER PLAN x 1'-0"	(5) #5 BOT LONG & (7) #5 BOT SHORT		
F8.0	8'-0" x 8'-0" x 1'-0"	(8) #6 EW BOT		
F10.0	10'-0" x 10'-0" x 1'-0"	(8) #6 EW BOT		
F10.0A	PER PLAN x 1'-0"	(4) #6 BOT LONG & (8) #6 BOT SHORT		
F10.0B	PER PLAN x 1'-3"	(4) #6 BOT LONG & (10) #6 BOT SHORT		
F10.0C	PER PLAN x 1'-0"	(4) #6 BOT LONG & (6) #6 BOT SHORT		
F15.0A	PER PLAN x 1'-0"	(6) #6 BOT LONG & (14) #6 BOT SHORT		

WALL FOOTING SCHEDULE					
MARK	SIZE (W x D)	FTG REINF	REMARKS		
WF18	1'-6" x 1'-0"	(2) #5 CONT BOTTOM			
WF24	2'-0" x 1'-0"	(2) #5 CONT BOTTOM			
WF36	3'-0" x 1'-0"	(3) #5 CONT BOTTOM			

PIER SCHEDULE PIER VERT MARK PIER TIES TYPE REMARKS REINF P2020 20" x 20" (8) #6 #3 @ 12" OC SEE 10 / S310 P2022 20" x 22" #3 @ 12" OC SEE 5/S310 (8) #6P22 22" x 22" #3 @ 12" OC P2222 22" x 22" #3 @ 12" OC SEE: 4/S310, 9/S310 #3 @ 12" OC P2226 SEE 8/S310 22" x 26" (10) #6 SEE 1/S310 P2420 24" x 20" (8) #6 #3 @ 12" OC P2422 24" x 22" (10) #6 #3 @ 12" OC SEE 2/S310 P2622 26" x 22" (10) #6 #3 @ 12" OC SEE 6/S310 P2626 26" x 26" (12) #6#3 @ 12" OC SEE 7/S310 P2822 (10) #6 #3 @ 12" OC SEE 3/S310 28" x 22"

PROVIDE (3) TIES @ 3" OC AT TOP OF EACH PIER. TIE SIZE TO MATCH TYPICAL PIER TIES.

REFERENCE TYPICAL COLUMN ON PIER DETAIL FOR ADDITIONAL INFORMATION.

PROVIDE TIES AT SPACING INDICATED IN SCHEDULE FOR REMAINDER OF PIER LENGTH.

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7260 Shadeland Station

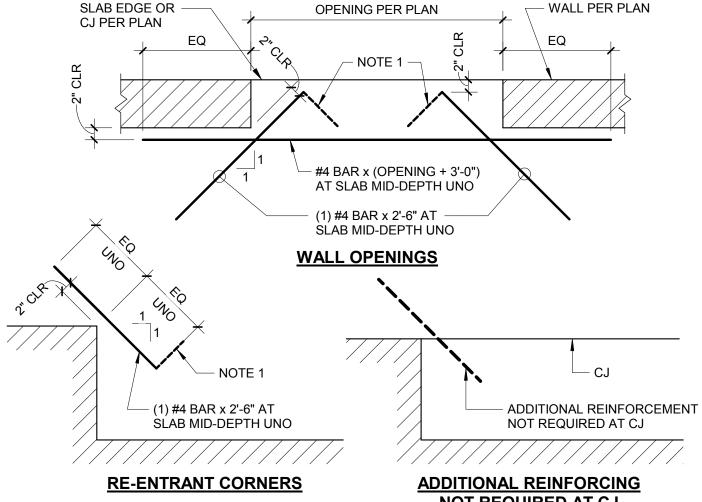
Indianapolis, IN 46256

P: 317.547.5580

F: 317.543.0270

STRUCTUREPOIN[®]

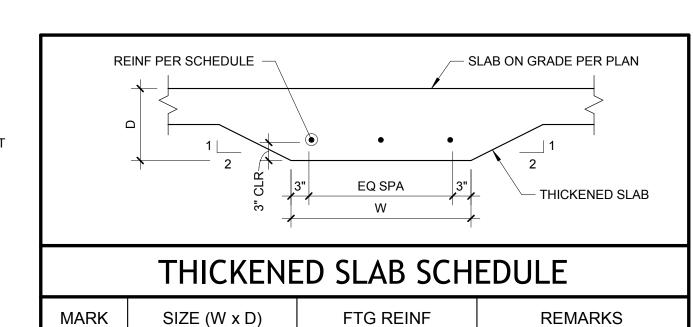
COLUMN AND WALL FOOTING SCHEDULES



ADDITIONAL REINFORCING
NOT REQUIRED AT CJ

WHERE THERE IS INSUFFICIENT ROOM TO INSTALL A STRAIGHT BARAS SHOWN CENTERED WITH EQUAL LENGTH EACH SIDE OF THE RE-ENTRANT CORNER, PROVIDE BAR WITH A 90- OR 180-DEGREE HOOK INSTALLED ON THE SIDE WITH SHORTER EMBEDMENT. FOR SLABS WITH 2 LAYERS OF REINFORCEMENT, INSTALL ADDITIONAL REINFORCEMENT AT

REINF AT RE-ENTRANT CORNERS DETAIL



(2) #5 CONT

THICKENED SLAB SCHEDULE

1'-6" x 1'-0"

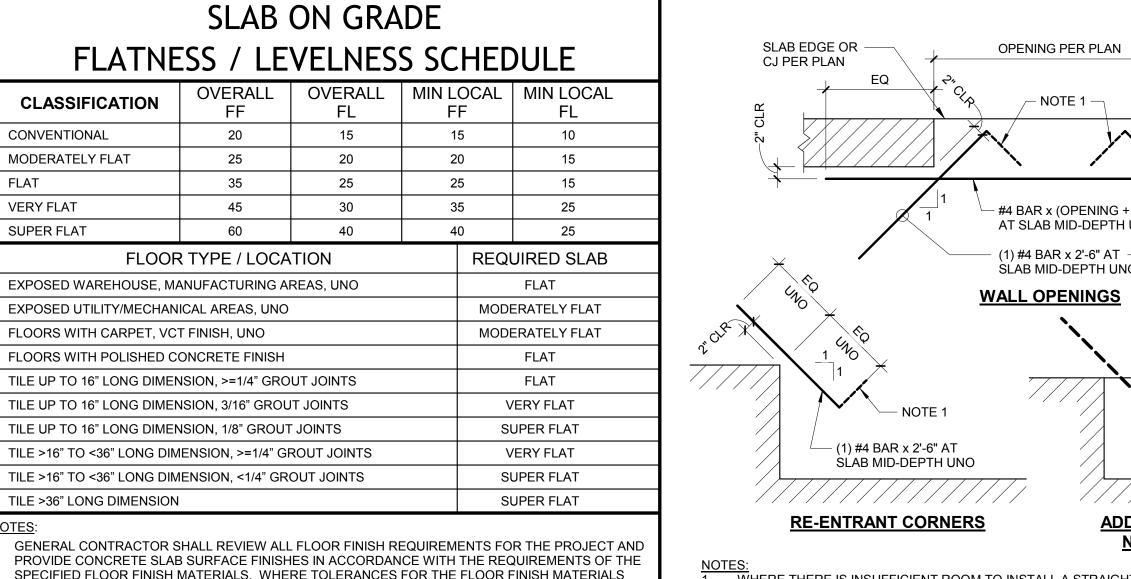
NOTES:

S301 N.T.S.

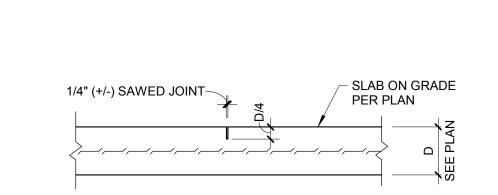
TS18

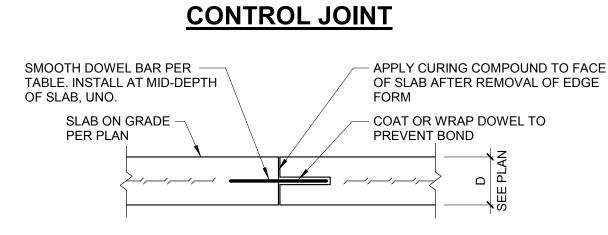
S301 N.T.S.

PIER SCHEDULE



ELEVATION OF TOP LAYER ONLY. TYPICAL ADDITIONAL SLAB ON GRADE

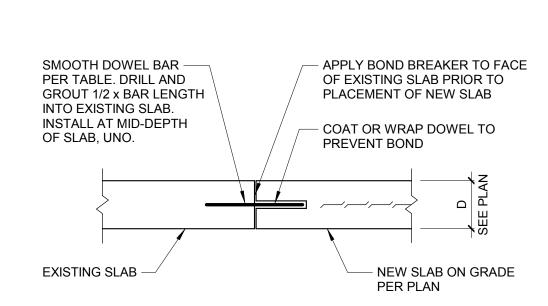




CONSTRUCTION JOINT

DOWEL SIZE AND SPACING				
SLAB DEPTH (IN)	DOWEL BAR DIAMETER (IN)	TOTAL BAR LENGTH (IN)	BAR SPACING (CTR - CTR) (IN)	
4	3/4	16	24	
5-6	3/4	16	12	

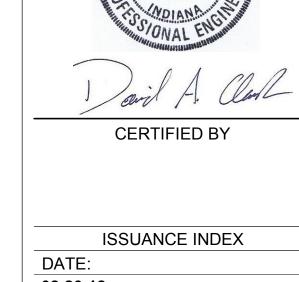
10 TYPICAL SLAB ON GRADE JOINTS DETAIL



CONSTRUCTION JOINT

DOWEL SIZE AND SPACING				
SLAB DEPTH (IN)	DOWEL BAR DIAMETER (IN)	TOTAL BAR LENGTH (IN)	BAR SPACING (CTR - CTR) (IN)	
4	3/4	16	24	
5-6	3/4	16	12	

TYPICAL NEW-TO-EXISTING SLAB ON GRADE JOINT DETAIL S301 N.T.S.



PE11200028

08.20.18 PROJECT PHASE: 100% CONSTRUCTION DOCUMENTS - BP

REVISION SCHEDULE NO. DESCRIPTION DATE

VERTICAL FACE — OR TRANSITION JOINT SEALANT -

THAN PIPE, CENTERED WALL FOOTING SEAL VOID WITH PERMANENT PER PLAN COMPRESSIBLE FILLER LEAN CONCRETE OR FLOWABLE FILL, SAME WIDTH

1' - 6" | 1' - 6"

PENETRATION BELOW FOOTING

CL OF PIPE

SEAL VOID WITH PERMANENT COMPRESSIBLE FILLER WALL FOOTING PER PLAN - PROVIDE (2) #5 x 4'-0" AT PENETRATION, CENTERED SLEEVE FOR PIPE, 2" DIA LARGER THAN PIPE, CENTERED WALL FOOTING -PER PLAN PROVIDE ADDITIONAL REINF TO MATCH WALL FOOTING REINF (LAP 24") 1' - 6" 1' - 6" CL OF PIPE

PENETRATION THROUGH FOOTING

1. SEE PLUMBING DRAWINGS FOR LOCATION AND SIZE OF PENETRATIONS. 2. DETAIL SHOWN IS FOR MAXIMUM OF 12" DIA PIPE. FOR LARGER SIZE, CONTACT STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION.

TYPICAL EXTERIOR EQUIPMENT PAD DETAIL

4. COORDINATE EXACT LOCATION WITH CIVIL AND MECHANICAL DRAWINGS, AND EQUIPMENT

CENTER-TO-CENTER, UNO. SEAL JOINTS WITH WEATHER-RESISTANT SEALANT.

2. PROVIDE SAW-CUT CONTROL JOINTS SPACED NOT MORE THAN 24 TIMES THE SLAB THICKNESS

1. CONCRETE 28-DAY COMPRESSIVE STRENGTH = 4000 PSI, MINIMUM.

AIR ENTRAINMENT = 6% + /- 1%

3. SEE PLANS FOR OVERALL PAD DIMENSIONS.

MAX W/C RATIO = 0.45

BROOM FINISH SURFACE

T/PAD
PER CIVIL

GRADE PER CIVIL

1/2" EXPANSION JOINT MATERIAL -

14 TYPICAL SOG ISOLATION JOINT \ S301 \ N.T.S.

S301 N.T.S.

TYPICAL WALL FOOTING AT PIPE / CONDUIT PENETRATION DETAIL

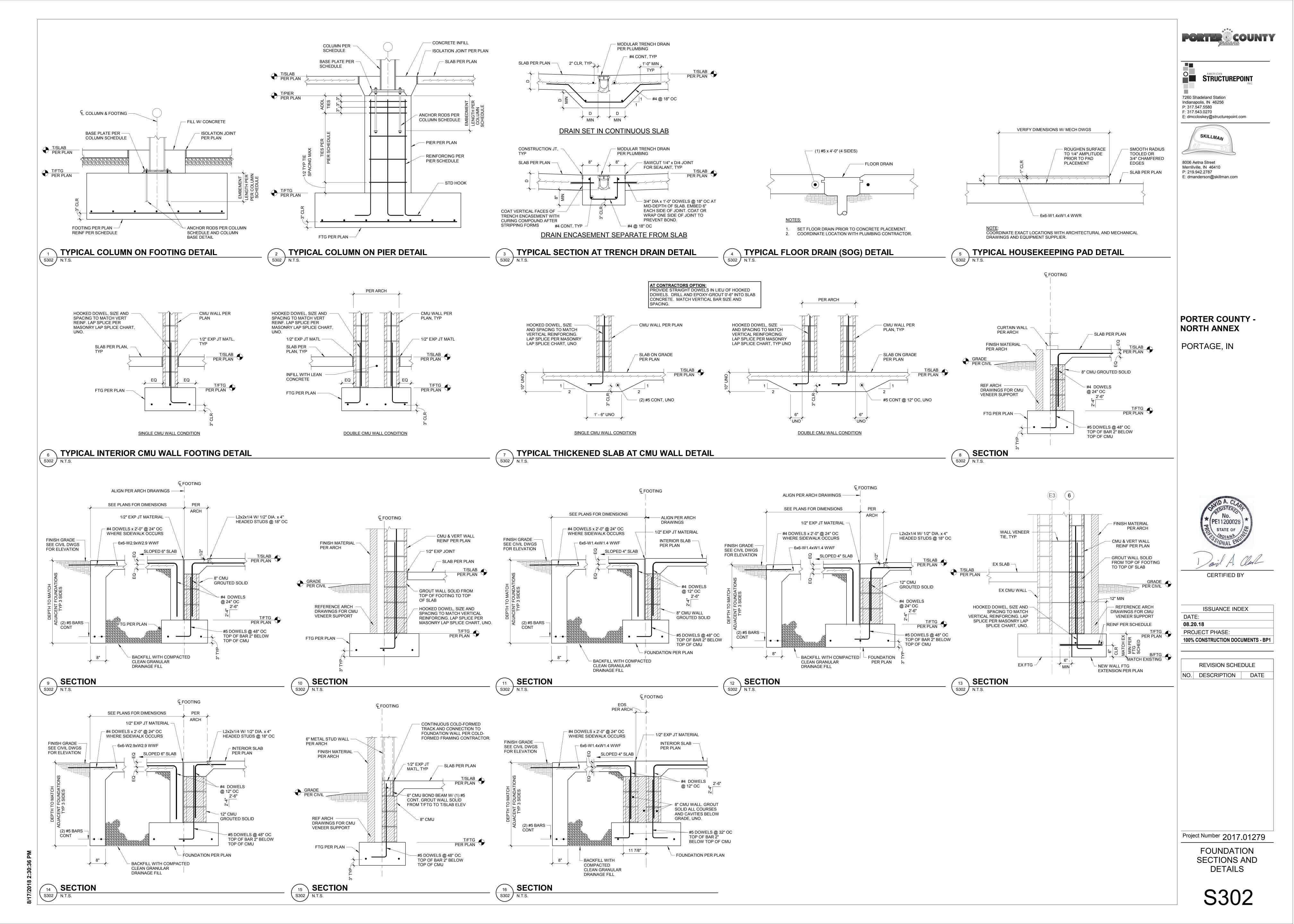
Project Number 2017.01279

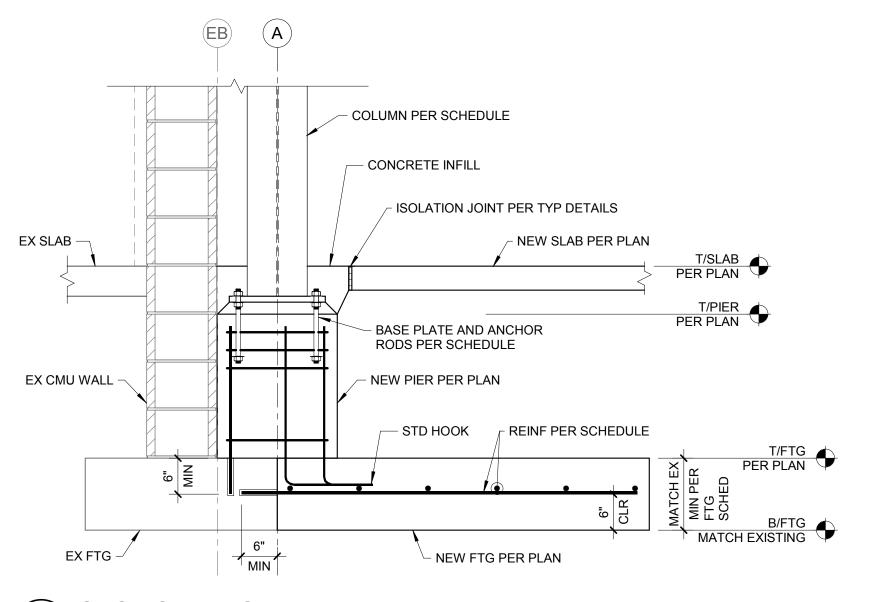
FOUNDATION

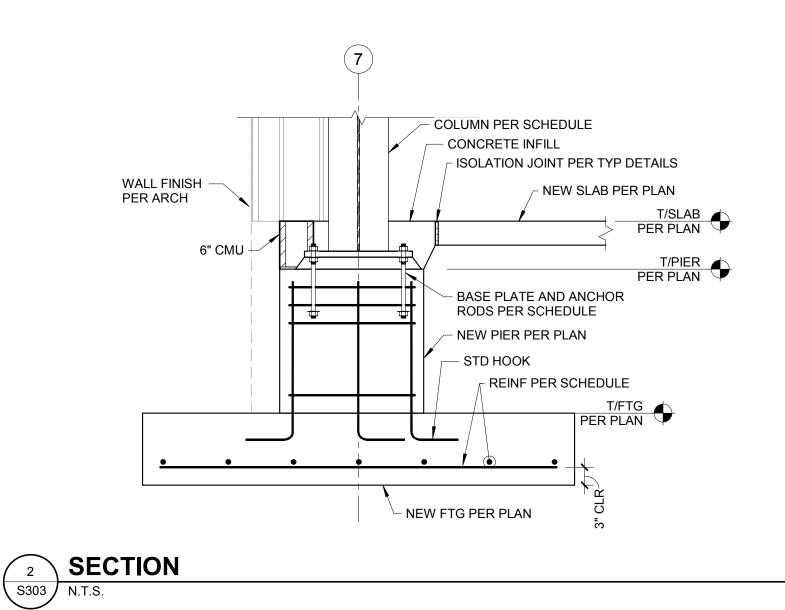
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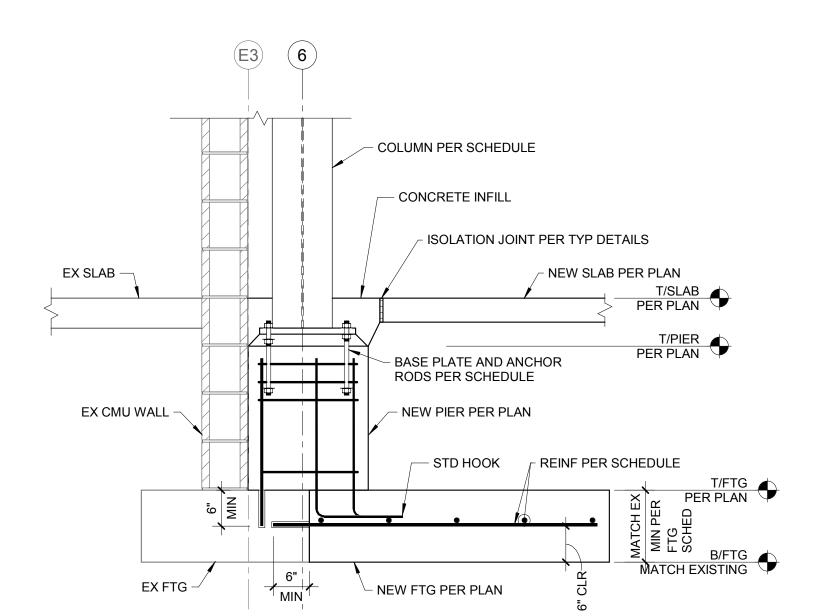
SECTIONS, AND

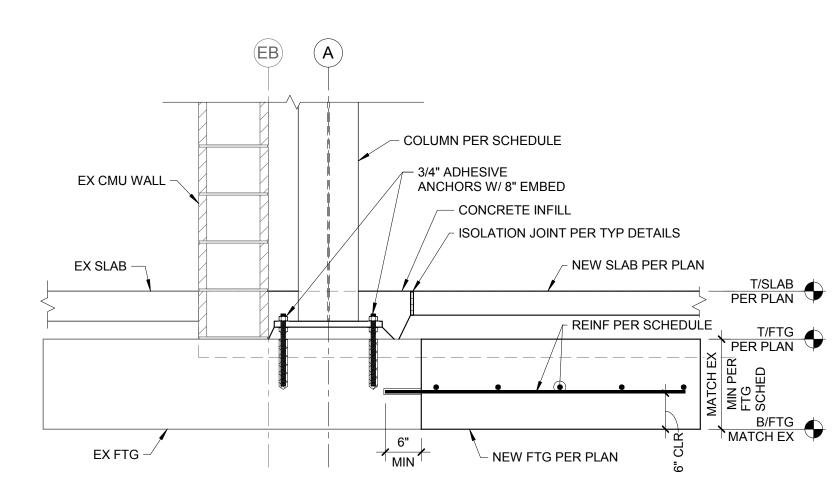
DETAILS











4 SECTION AT GRID A-6



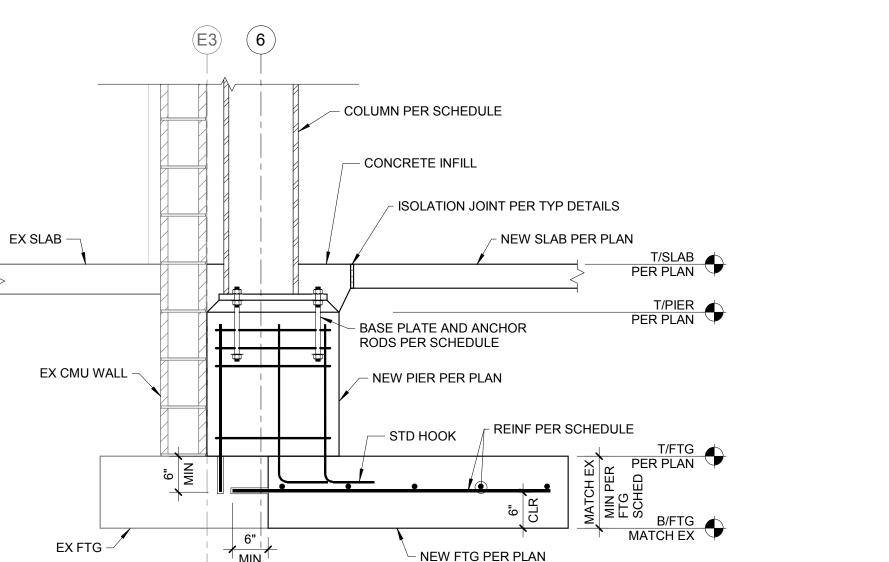
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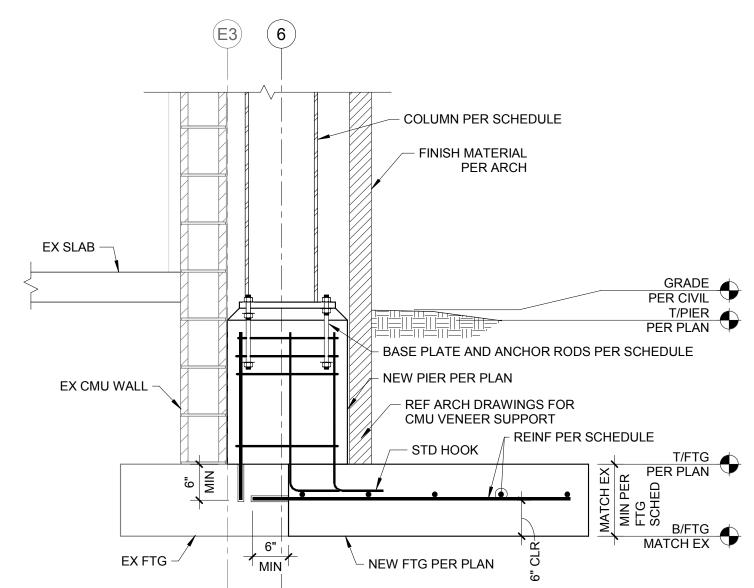
7260 Shadeland Station Indianapolis, IN 46256 P: 317.547.5580 F: 317.543.0270 E: dmccloskey@structurepoint.com

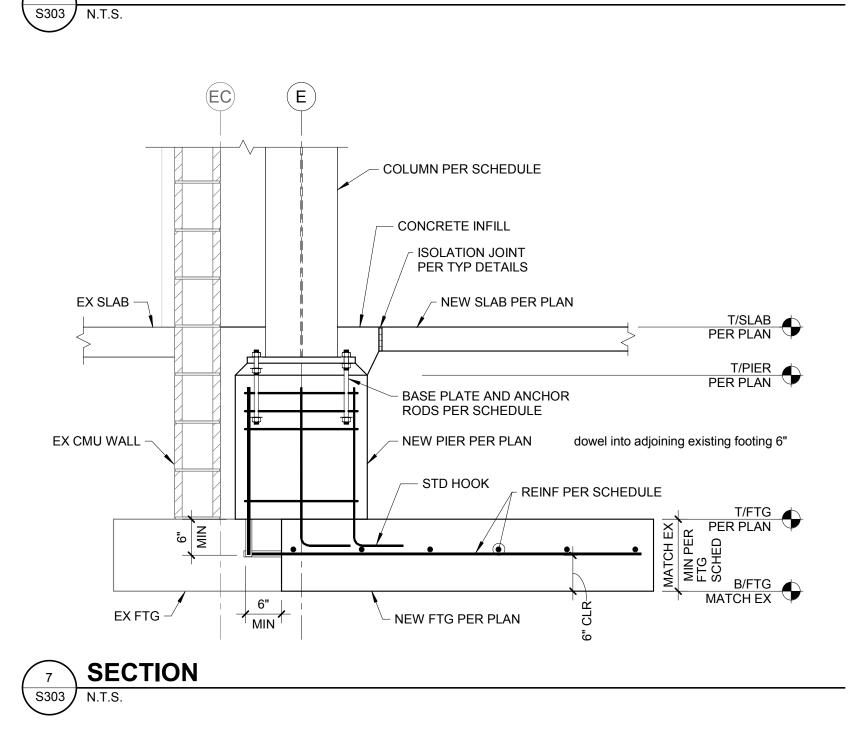
SKILLMAN 8006 Aetna Street Merrillville, IN 46410 P: 219.942.2787

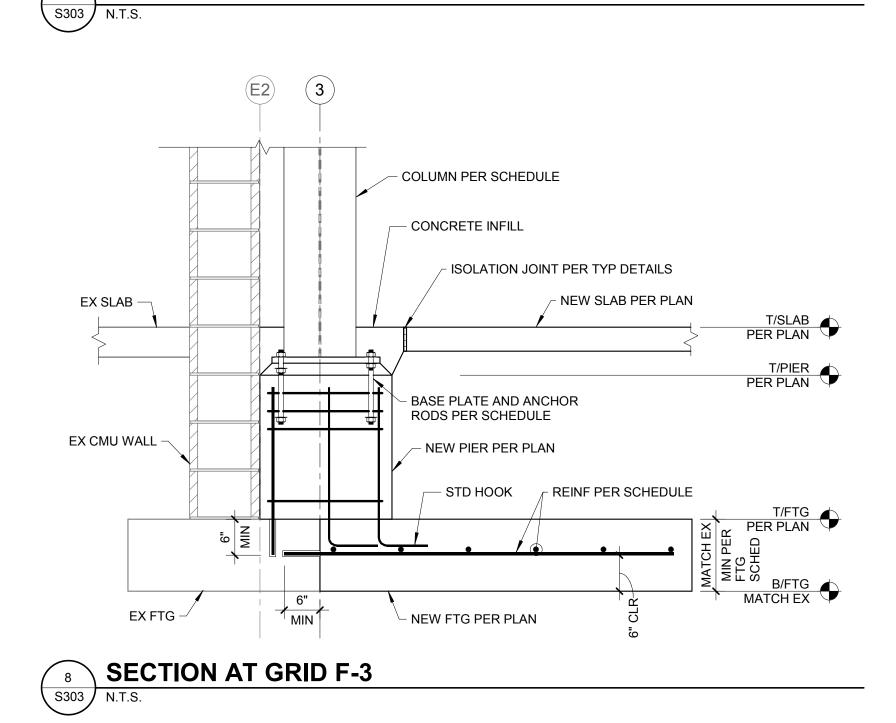
E: dmanderson@skillman.com

\setminus SECTION AT GRID A-7

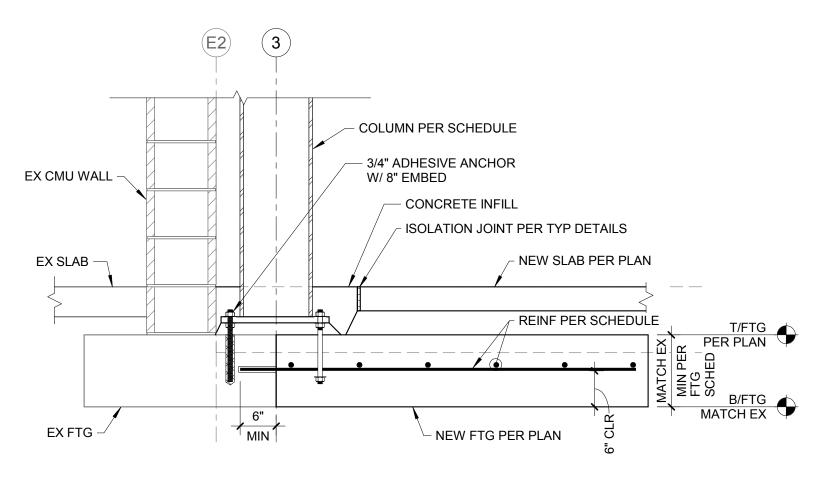


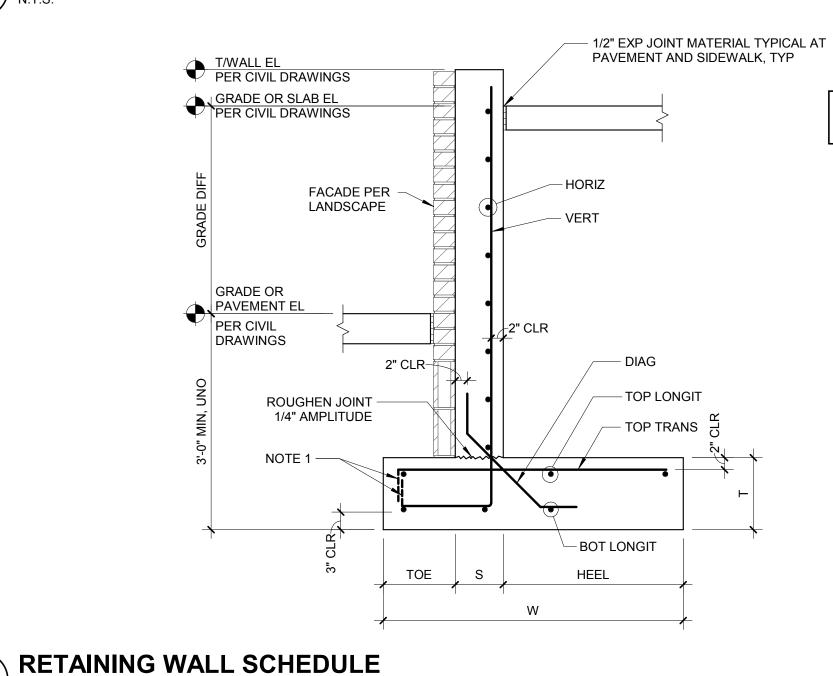


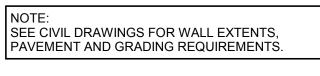




SECTION AT GRID C-6







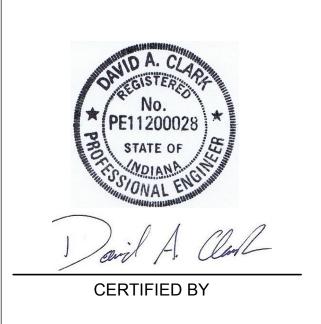
SECTION AT GRID B-6

GEOMETRY							
MARK	GRADE DIFF	W	HEEL	S	TOE	Т	
RW2	2'-0" MAX	3'-2"	1'-6"	8"	1'-0"	1'-0"	
RW4	4'-0" MAX	4'-5"	2'-4"	8"	1'-5"	1'-0"	
REINFO	DRCEMENT						
MARK	VERT	HORIZ	DIAG	TOP LONGIT	TOP TRANS	BOT LONGI	
RW2	#5 @ 12" H	#4 @ 12"	#4 @ 12"	(3) #4	#5 @ 12"	(3) #4	
RW4	#5 @ 12"	#4 @ 12"	#4 @ 12"	(3) #4	#5 @ 12"	(3) #4	

PORTER COUNTY -

NORTH ANNEX

PORTAGE, IN



	ISSUANCE INDEX
	DATE:
	08.20.18
	PROJECT PHASE:
	100% CONSTRUCTION DOCUMENTS - BI

	REVISION SCHE	DULE
NO.	DESCRIPTION	DATE

Project Number 2017.01279

FOUNDATION SECTIONS AND DETAILS



FINISH __ GRADE

FINISH_____GRADE

RETAINING WALL BACKFILL DETAIL

GENERAL NOTES:

A. SEE RETAINING WALL STRUCTURAL DETAILS FOR REINFORCEMENT, DIMENSIONS, AND ADDITIONAL INFORMATION.

SECTION AT GRID D-6

B. SEE CIVIL DRAWINGS FOR WALL LOCATIONS, LENGTHS, ELEVATIONS, GRADING AND ADDITIONAL INFORMATION.

C. ALL SOILS AND BACKFILL OPERATIONS SHALL BE INSPECTED AND APPROVED BY THE PROJECT GEOTECHNICAL TESTING AGENCY. D. BACKFILL EQUALLY ON BOTH SIDES OF WALL UNTIL LOWER SIDE GRADE IS WITHIN 8 INCHES (MAX) OF FINAL GRADE BEFORE PLACING REMAINDER OF HIGH SIDE GRADE. USE HAND-OPERATED COMPACTION EQUIPMENT WITHIN 6 FEET OF WALL.

 PLACE BACKFILL IN LIFTS AND COMPACT IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. COMPACTED GRANULAR FILL SHALL CONSIST OF NATURALLY OR ARTIFICIALLY GRADED MIXTURE OF NATURAL OR CRUSHED GRAVEL, CRUSHED STONE. AND NATURAL OR CRUSHED SAND: ASTM D-2940; WITH AT LEAST 90 PERCENT PASSING A 1-1/2-INCH (37.5-MM) SIEVE AND NOT MORE THAN 12 PERCENT PASSING A NO. 200 (0.075-MM) SIEVE OR OTHER SUITABLE GRANULAR FILL APPROVED BY THE PROJECT GEOTECHNICAL ENGINEER. COMPACTED FILL SHALL BE SUITABLE CLEAN COMPACTABLE SOIL MATERIAL APPROVED BY THE PROJECT GEOTECHNICAL TESTING AGENCY.

H. FILTER FABRIC SHALL BE A LIGHTWEIGHT, NONWOVEN, 100% POLYPROPYLENE GEOTEXTILE WEIGHING NOT LESS THAN 3.5 OUNCES PER SQUARE YARD, MEETING ASTM D-4632 50% ELONGATION AT BREAK, WITH APPARENT OPENING SIZE EQUAL TO A #50 SIEVE AND FLOW RATE PER ASTM D-4491

DETAIL NOTES: (#)

1. ZONE OF COMPACTED GRANULAR FILL. 2. ZONE OF COMPACTED FILL AND FINISH GRADE MATERIALS. SEE CIVIL DRAWINGS. 3. LINE OF EXCAVATION AND/OR BENCHING AS DETERMINED BY THE CONTRACTOR FOR THE SITE SOIL CONDITIONS IN ACCORDANCE WITH RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL REPORT AND THE PROJECT GEOTECHNICAL TESTING AGENCY. CONTRACTOR IS SOLELY

- RESPONSIBLE FOR MAINTAINING SAFETY DURING ALL EARTHWORK OPERATIONS. 4. EXISTING SOIL OR COMPACTED FILL. 5. KEY (WHERE REQUIRED). INSTALL IN SUITABLE EXISTING FIRM UNDISTURBED SOIL OR COMPACTED FILL. 6. INSTALL FOOTING ON AND WITHIN SUITABLE FIRM UNDISTURBED SOIL OR COMPACTED FILL. 7. ZONE OF COMPACTED FILL AND FINISH GRADE MATERIALS PER CIVIL DRAWINGS.
- FROST DEPTH OR 3'-0" BELOW LOWER FINISH GRADE ELEVATION. IF A DIMENSIONAL DISCREPANCY OCCURS THAT WOULD IMPLY PLACEMENT WITH LESS THAN REQUIRED SOIL COVER, NOTIFY THE STRUCTURAL ENGINEER IMMEDIATELY AND DO NOT INSTALL THE FOOTING WITHOUT PRIOR REVIEW BY THE STRUCTURAL ENGINEER. 9. WHERE WEEP HOLES ARE INDICATED ON STRUCTURAL DETAILS, INSTALL 2'-0" X 2'-0" CONTINUOUS BED OF COMPACTED GRANULAR FILL WRAPPED IN

8. INSTALL FOOTINGS TO ELEVATIONS INDICATED ON THE DRAWINGS. IN NO CASE SHALL BOTTOMS OF FOOTINGS BE LESS THAN THE GREATER OF LOCAL

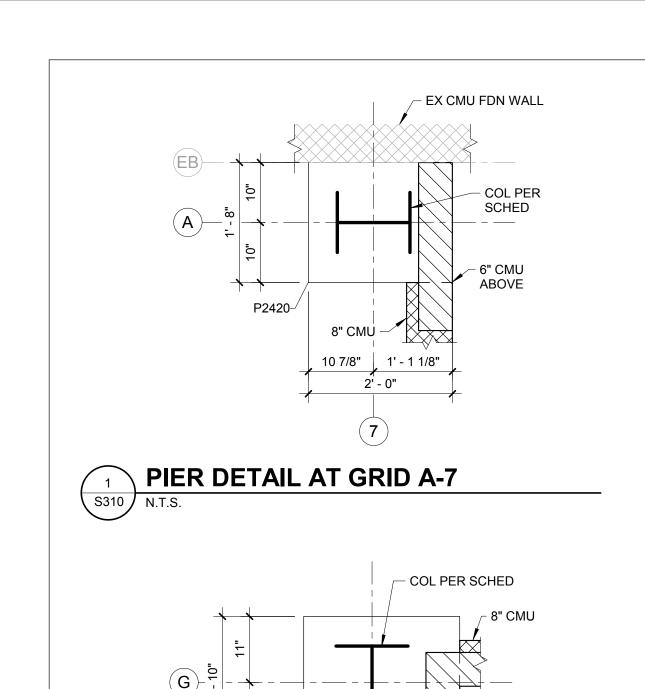
FILTER FABRIC, TIGHT TO WALL, CENTERED ON WEEP HOLE CENTERLINE ELEVATION. WHERE WEEP HOLES ARE INDICATED BUT NOT OTHERWISE SIZED, USE 2-INCH DIAMETER PVC PIPE SPACED AT A MAXIMUM OF 10'-0" OC, UNO. 10. WHERE FOOTING DRAINS ARE INDICATED ON STRUCTURAL DETAILS, INSTALL 2'-0" WIDE BED OF COMPACTED GRANULAR FILL WRAPPED IN FILTER FABRIC, FULL-HEIGHT FROM TOP OF FOOTING TO TOP OF GRANULAR FILL LAYER. WHERE FOOTING DRAINS ARE INDICATED BUT NOT OTHERWISE SIZED,

USE MINIMUM OF 6-INCH DIAMETER PERFORATED PVC PIPE, EXTENDED TO DRAINAGE OUTLET AS INDICATED ON THE CIVIL DRAWINGS. FULLY WRAP

DRAINS WITH FILTER FABRIC PRIOR TO SETTING IN PLACE.

11 TYPICAL RETAINING WALL BACKFILL DETAIL

1



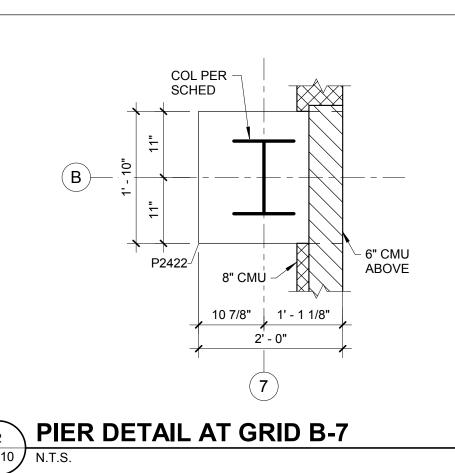
6" CMU ABOVE

11 3/8" | 1' - 2 5/8"

PIER DETAIL AT GRID G-5

S310 N.T.S.

2' - 2"



11 3/8" 1' - 2 5/8"

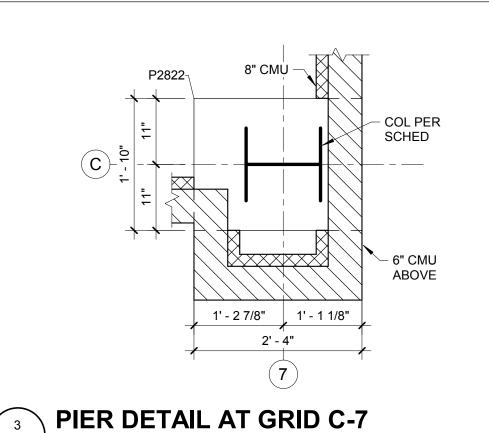
PIER DETAIL AT GRID H-5

S310 N.T.S.

2' - 2"

- COL PER SCHED

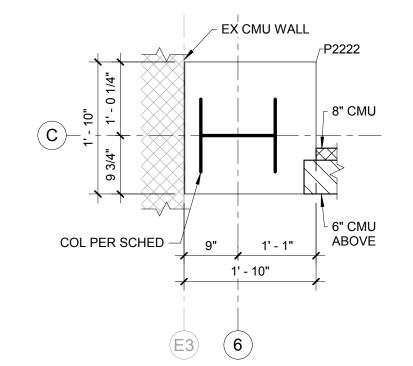
− 6" CMU ABOVE

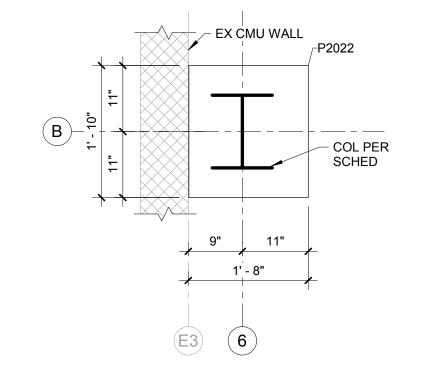


1' - 10"

P2226₇

PIER DETAIL AT GRID H-4





- COL PER SCHED

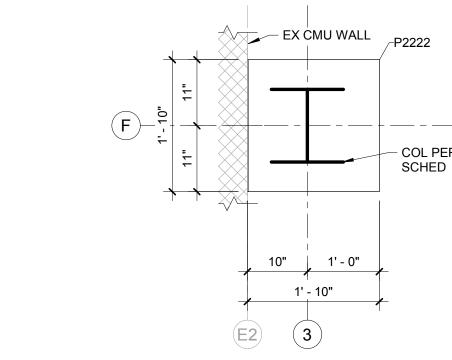
- NEW CMU WALL



STRUCTUREPOINT

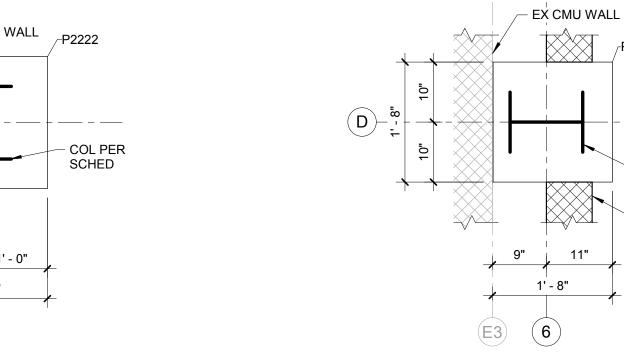
7260 Shadeland Station
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E: dmccloskey@structurepoint.com SKILLMAN 8006 Aetna Street Merrillville, IN 46410 P: 219.942.2787 E: dmanderson@skillman.com

PIER DETAIL AT GRID C-6 PIER DETAIL AT GRID B-6

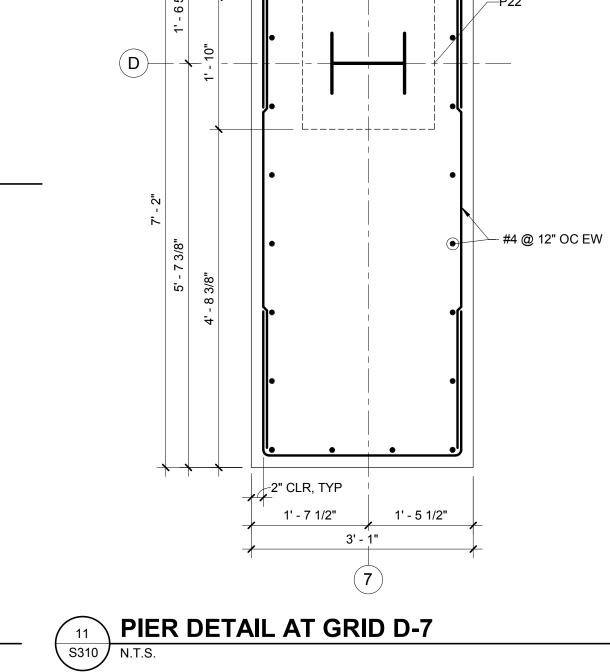


PIER DETAIL AT GRID F-3

S310 N.T.S.



PIER DETAIL AT GRID D-6



PORTER COUNTY -**NORTH ANNEX**

PORTAGE, IN

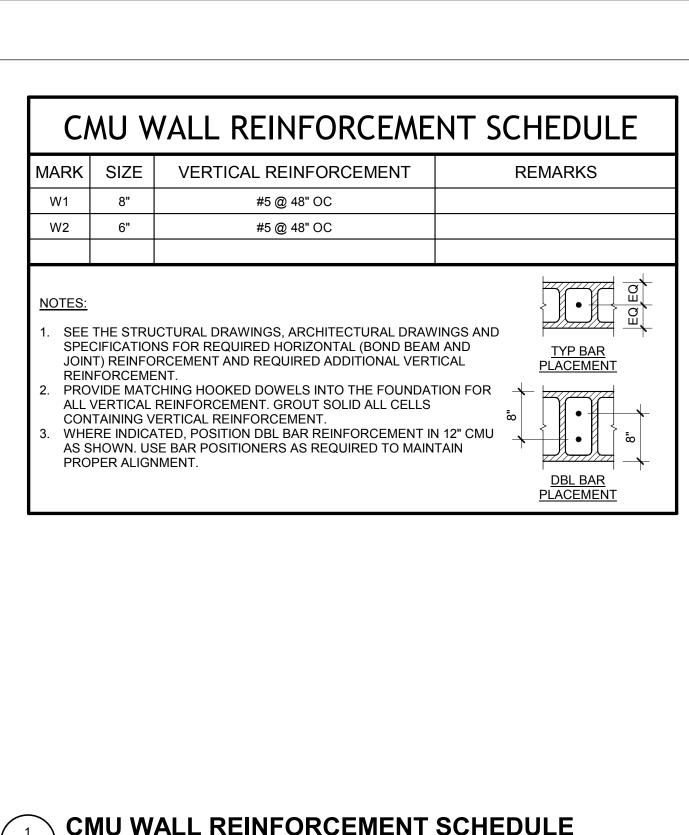
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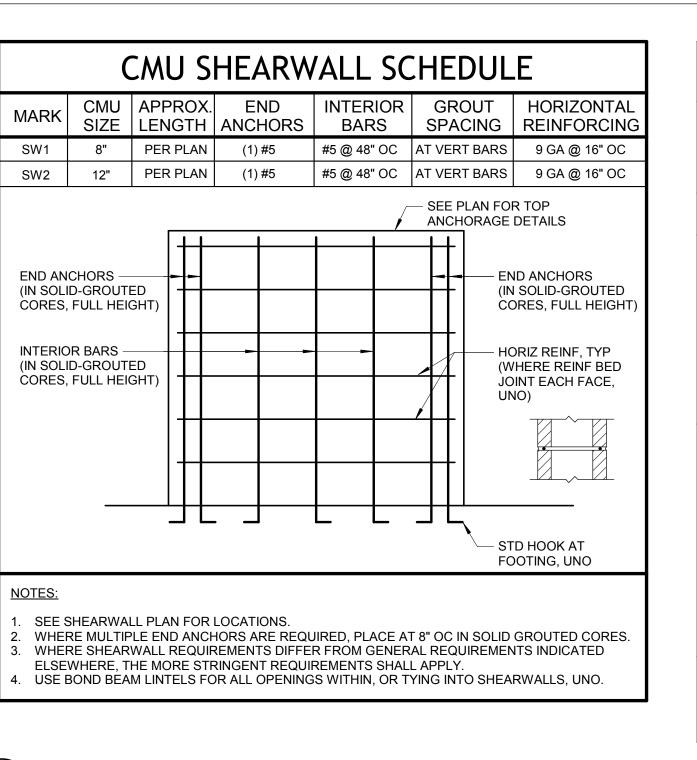
ISSUANCE INDEX 08.20.18 PROJECT PHASE: 100% CONSTRUCTION DOCUMENTS - BP1

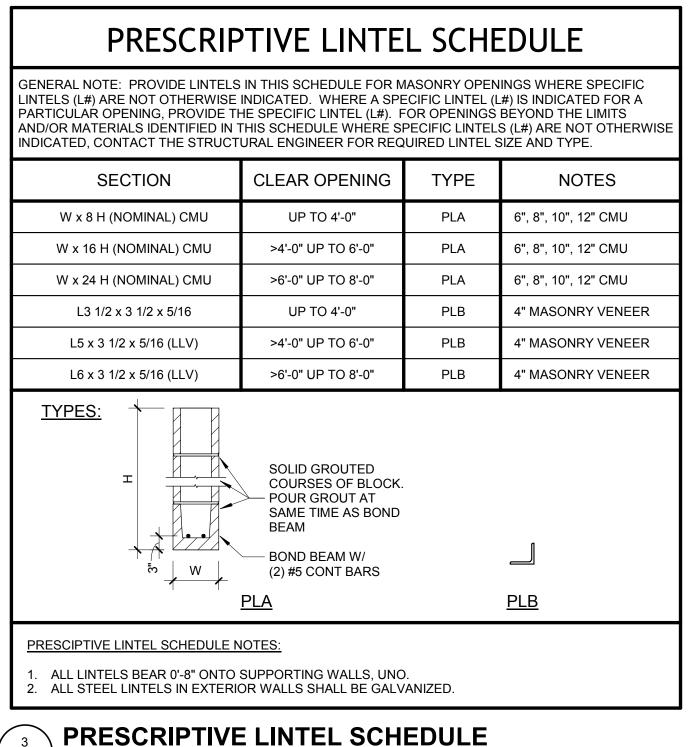
REVISION SCHEDULE NO. DESCRIPTION DATE

Project Number 2017.01279

ENLARGED PIER **DETAILS**







CUT CMU WEBS AND FACE -

ARE UNINTERRUPTED, TYP

SO GROUT AND REINF

1. VERTICAL REINFORCEMENT INDICATED

ADDITION TO SCHEDULED VERTICAL

REINFORCEMENT, UNLESS SCHEDULED

REINFORCEMENT ALREADY OCCURS AT

TYPICAL CMU WALL JOINT DETAILS

ON THIS DETAIL IS REQUIRED IN

THE INDICATED LOCATIONS.

REINFORCEMENT.

2. PROVIDE LAPPED DOWELS INTO

FOUNDATION AT ALL VERTICAL

COMPRESSIBLE FILLER

MATERIAL AS REQUIRED

CMU WALL PER PLAN —

ÀT TOP OF WALL)

GENERAL NOTE: POCKET CMU WALL AT

FRAMING AND BRACING TO

3/16

CMU WALL PER PLAN

ALLOW 0'-2" DEFLECTION

(SOLID GROUTED COURSE

PER ARCH

/ 3/16 /

VERTICAL REBAR SIZE

TO MATCH WALL REINF

CORNER BARS MATCH

BOND BEAM REINF

W/ OPEN BOTTOM

VERTICAL REBAR SIZE

TO MATCH WALL REINF

PREFABRICATED L-SHAPE

MATCH CONTINUOUS JOINT

- DECK PER PLAN

- FRAMING PER PLAN

CLARITY)

(WEB OMITTED FOR

1/4x4 x 10" BENT PLATE (LLV)

BETWEEN JOIST TOP CHORDS

(OR BEAM TOP FLANGES) AS

CUT TO LENGTH TO FIT UP

SHOWN. INSTALL FLUSH AGAINST WALL AS SHOWN.

(SEE DETAIL AT RIGHT)

BOND BEAM WITH (2) #5

HEIGHT COURSE BELOW

POCKET CMU WALL AT FRAMING AND

BRACING TO ALLOW 0'-2" DEFLECTION

- COMPRESSIBLE FILLER MATERIAL

- DECK PER PLAN

- L3x3x1/4 x 0'-6"

PLAN, TYP

FLUSH AGAINST WALL.

JOIST OR BEAM PER

WELD TO L3 x 3 AS SHOWN.

- L3x3x1/4 @ 48" OC UNO ON FRAMING PLAN.

CHORDS (OR BEAM TOP

FLANGES) AS SHOWN.

SPAN BETWEEN JOIST TOP

TYP (ALT)

AS REQUIRED PER ARCH

CONT AT FIRST FULL-

BOTTOM OF FRAMING

WALL PERPENDICULAR TO JOISTS

TYPICAL SHEAR WALL ANCHORAGE AT JOISTS DETAIL

REINF AND LAP SPLICE 6" MIN.

JOINT REINF AT WALL CORNER.

CMU BOND BEAM UNIT

SPLICE)

<u>CORNER</u>

<u>CORNER</u>

BOND BEAM REINF (LAP

BAR SPLICE LENGTHS					
BAR	UNCOATE	ED BARS	EPOXY-CO	ATED BARS	
DAK	TYPE 1.0LD	TYPE 1.5LD	TYPE 1.0LD	TYPE 1.5LI	
#3	20"	36"	29"	54"	
#4	26"	48"	39"	72"	
#5	32"	60"	48"	90"	
#6	39"	72"	58"	108"	
#7	45"	84"	68"	126"	
#8	52"	96"	77"	144"	
#9	58"	109"	87"	164"	
NOTES: 1. ALL SPLICES ARE TYPE 1.0LD, UNO. 2. BARS LARGER THAN #9 ARE REQUIRED TO BE SPLICED BY MECHANICAL CONNECTORS, UNO. 3. SPLICES BASED ON Fs = 32,000 PSI AND fm >= 1500 PSI. 4. ALL BARS ARE UNCOATED, UNO. 5. USE EPOXY-COATED BARS ONLY IN PARKING STRUCTURE MASONRY					

- PRE-FORMED CONTROL

JOINT GASKET IN SASH

BACKER ROD AND

BOND BEAM REINF TERMINATE 2" BACK

(EXCEPTION: AT BOND BEAM AT TOP OF

PERIMETER AND LOAD-BEARING WALLS

STOP CJ AT BOTTOM OF BOND BEAM

AND MAINTAIN TOP BOND BEAM AND

- PRE-FORMED CONTROL

JOINT GASKET IN SASH

FROM CONTROL JOINT EACH SIDE.

SEALANT EACH

REINF CONTINUOUS, UNO)

BLOCK CMU

BACKER ROD AND

<u>END</u>

WALL PARALLEL TO JOISTS

— COMPRESSIBLE FILLER MATERIAL

L4x3x1/4 (LLV) BETWEEN

FRAMING. INSTALL FLUSH

AGAINST WALL AS SHOWN.

JOIST OR BEAM PER PLAN

(WEB OMITTED FOR CLARITY)

AS REQUIRED PER ARCH

3/16

3/16

JOIST OR BEAM)

OPTIONAL ALTERNATE ANGLE

EACH SIDE OF CMU AT EACH

LOCATION (L4x3x1/4 x 1'-0" (LLV)

TYP (ALT)

SEALANT EACH

JOINT REINF.

EACH SIDE

CONTROL JOINT

TYP

DECK PER PLAN -

CMU WALL PER PLAN

TYP

3/16

TERMINATE 2" BACK

FROM CONTROL JOINT

CONTROL JOINT

BLOCK CMU

VERTICAL REBAR SIZE TO

MATCH WALL REINF, TYP

BOND BEAM REINF.

TERMINATE 2" BACK

FROM END OF WALL

VERTICAL REBAR SIZE TO

MATCH WALL REINF, TYP

JOINT REINF.

TERMINATE 2" BACK

FROM END OF WALL

MASONRY LAP SPLICE TABLE

VERTICAL REBAR SIZE TO

BOND BEAM DETAILS

VERTICAL REBAR SIZE TO

PREFABRICATED T-SHAPE

JOINT REINF AT WALL

INTERSECTION. MATCH

REINF AND LAP SPLICE 6"

JOINT REINFORCEMENT DETAILS

CONTINUOUS JOINT

MATCH WALL REINF, TYP

MATCH WALL REINF, TYP

INTERSECTION BARS

MATCH BOND BEAM

REINF (LAP SPLICE)

BOND BEAM REINF

W/ OPEN BOTTOM

INTERSECTION

<u>INTERSECTION</u>

1/2" DIA ADHESIVE ANCHOR.

HALF OF VERTICAL SLOT.

(3" EMBEDMENT) TIGHTEN

THREADS.

INSTALL ANCHOR AT BOTTOM

NUT FINGER TIGHT AND FOUL

1/4 x4" x 10" —

BENT PLATE (LLV)

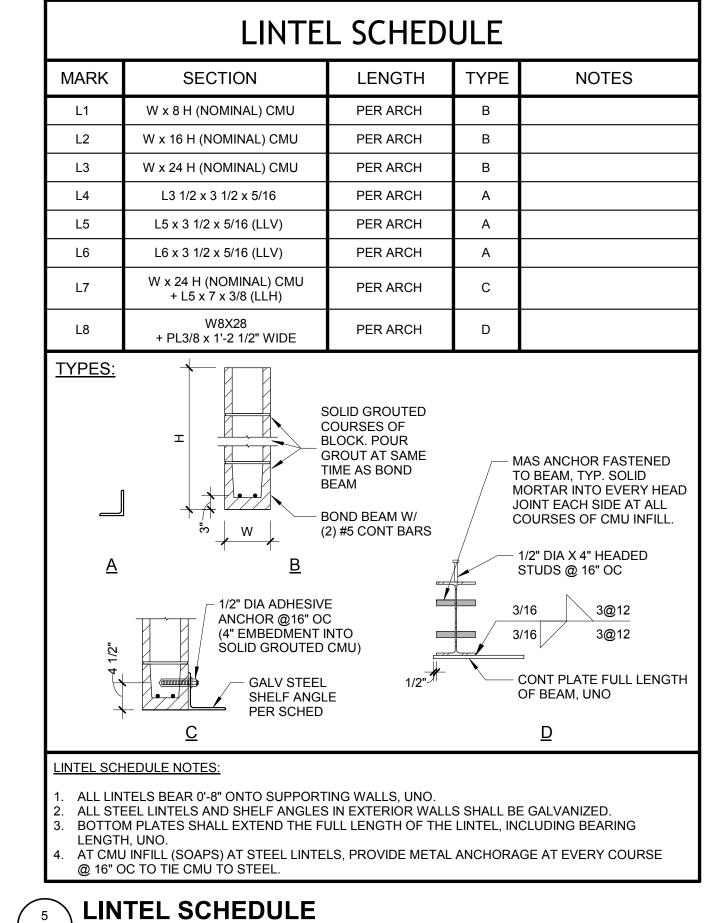
5/8" x 3" VERT -

SLOT @ 48" OC

BENT PLATE

ANCHOR DETAIL

CMU BOND BEAM UNIT





PORTAGE, IN

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SKILLMAN

E: dmanderson@skillman.com

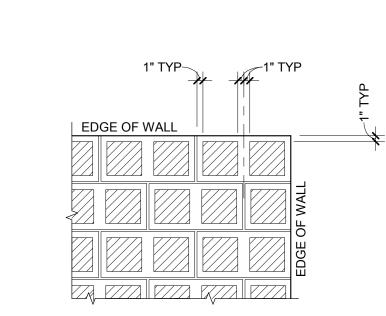
P: 317.547.5580

F: 317.543.0270

8006 Aetna Street

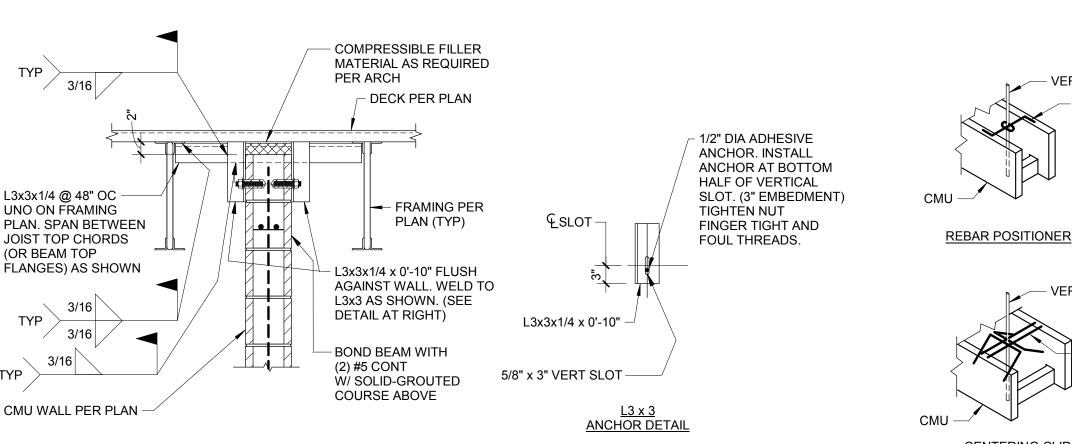
P: 219.942.2787

Merrillville, IN 46410



. ONLY ONE ANCHOR MAY BE PLACED IN EACH CORE. SHADED AREAS ARE ACCEPTABLE AREAS TO USE POST-INSTALLED ANCHORS. ANCHOR LOCATIONS MUST STAY 1" CLEAR OF MORTAR JOINTS. . ANCHOR LOCATIONS MUST CLEAR INTERIOR WALLS OF CMU.

ACCEPTABLE LOCATIONS FOR POST-INSTALLED ANCHORS IN CMU WALLS



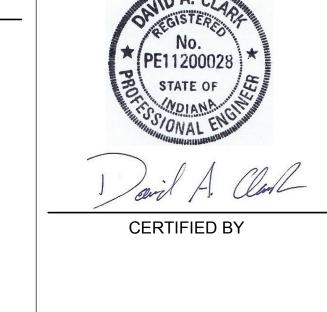


VERT REINF

VERT REINF

- REBAR POSITIONER

- CENTERING CLIF



DAT	E:
08.2	0.18
PRO	DJECT PHASE:
100%	CONSTRUCTION DOCUMENTS - B

REVISION SCHEDULE						
10.	DESCRIPTION	DATE				

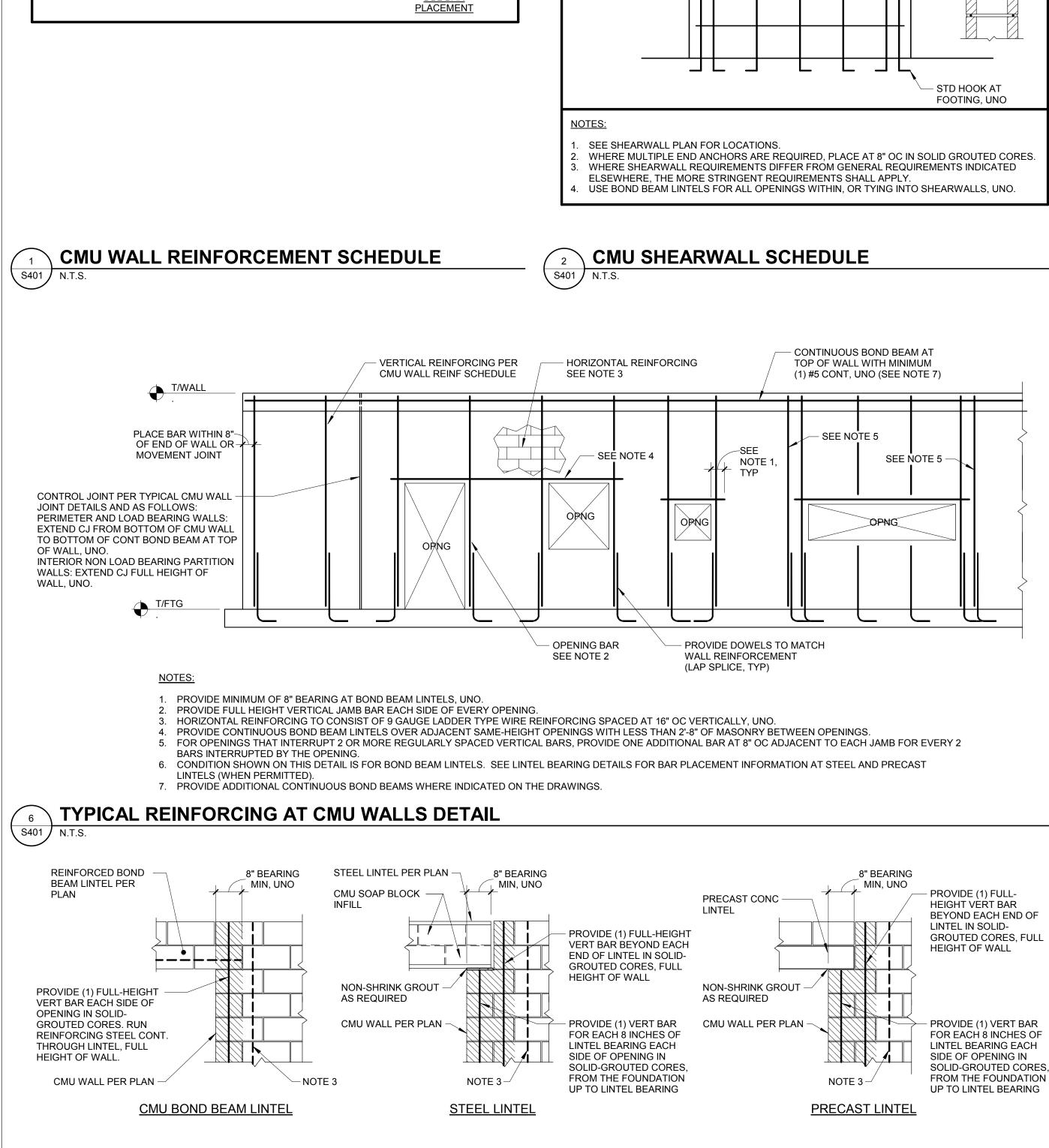
CMU PARTITION WALL BRACING SCHEDULE								
CMU SIZE	*INTERSECTING WALL MAX SPACING	MAX BRACE SPACING	REMARKS					
4"	10'-0"	4'-0"						
6"	15'-4"	6'-0"						
8"	8" 18'-0" 6'-0"							
*NOTE: PROVIDE BRACING AS SHOWN FOR ALL CMU PARTITION WALLS (WHICH ARE NOT OTHERWISE BRACED AT TOP) AT ALL LOCATIONS WHERE								

THE DISTANCE BETWEEN INTERSECTING WALLS EXCEEDS THE MAXIMUM

Project Number 2017.01279

CMU SCHEDULES SECTIONS, AND **DETAILS**





INSTALL LINTELS TO PROVIDE EQUAL BEARING LENGTH EACH SIDE OF OPENING, UNO.

8" OC ADJACENT TO EACH JAMB FOR EVERY 2 BARS INTERRUPTED BY THE OPENING.

BEAM PER PLAN

CMU WALL PER PLAN

GROUT SOLID AFTER

SETTING BEAM

- PL1/2x6x8 AT 8" CMU

PL1/2x8x8 AT 10" CMU

PL1/2x10x10 AT 12" CMU

W/ (2) 1/2" DIA X 6" HEADED STUDS

WITH CMU WALL FACE AT BEAM SIDE AS

PROVIDE 1/2" DIA x 6" EMBED ADHESIVE

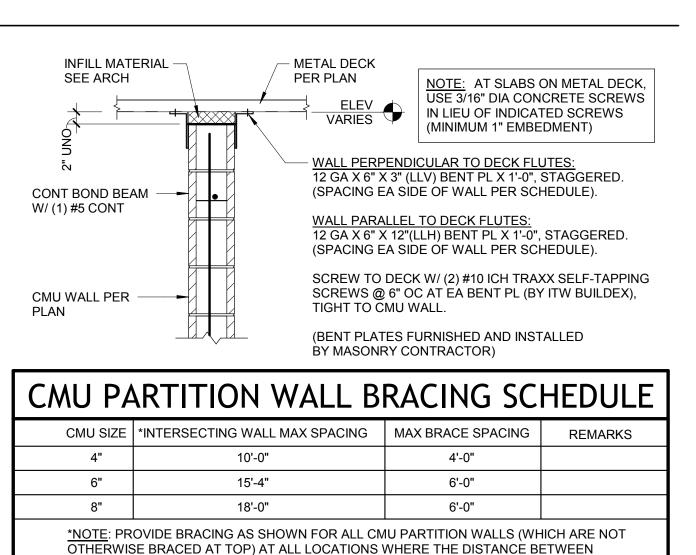
ANCHORS AT EXISTING CMU WALLS

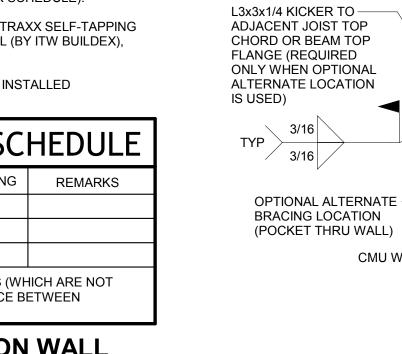
POSITION EDGE OF PLATE FLUSH

TYPICAL LINTEL BEARING DETAILS

VERTICAL BARS SHALL BE THE SAME SIZE AS TYPICAL VERTICAL WALL REINFORCEMENT, UNO.

3. FOR OPENINGS THAT INTERRUPT 2 OR MORE REGULARLY SPACED VERTICAL BARS, PROVIDE ONE ADDITIONAL FULL-HEIGHT BAR @





TYPICAL FULL-HEIGHT CMU PARTITION WALL

WALL PARALLEL TO FRAMING WALL PERPENDICULAR TO FRAMING TYPICAL FULL-HEIGHT CMU PARTITION WALL BRACING TO JOIST / BEAM DETAIL

3/16

3/16 2

GROUT SOLID BELOW -

WIDE X FULL HEIGHT OF

BEAM BEARING 24" (MIN)

WALL, CENTERED UNDER

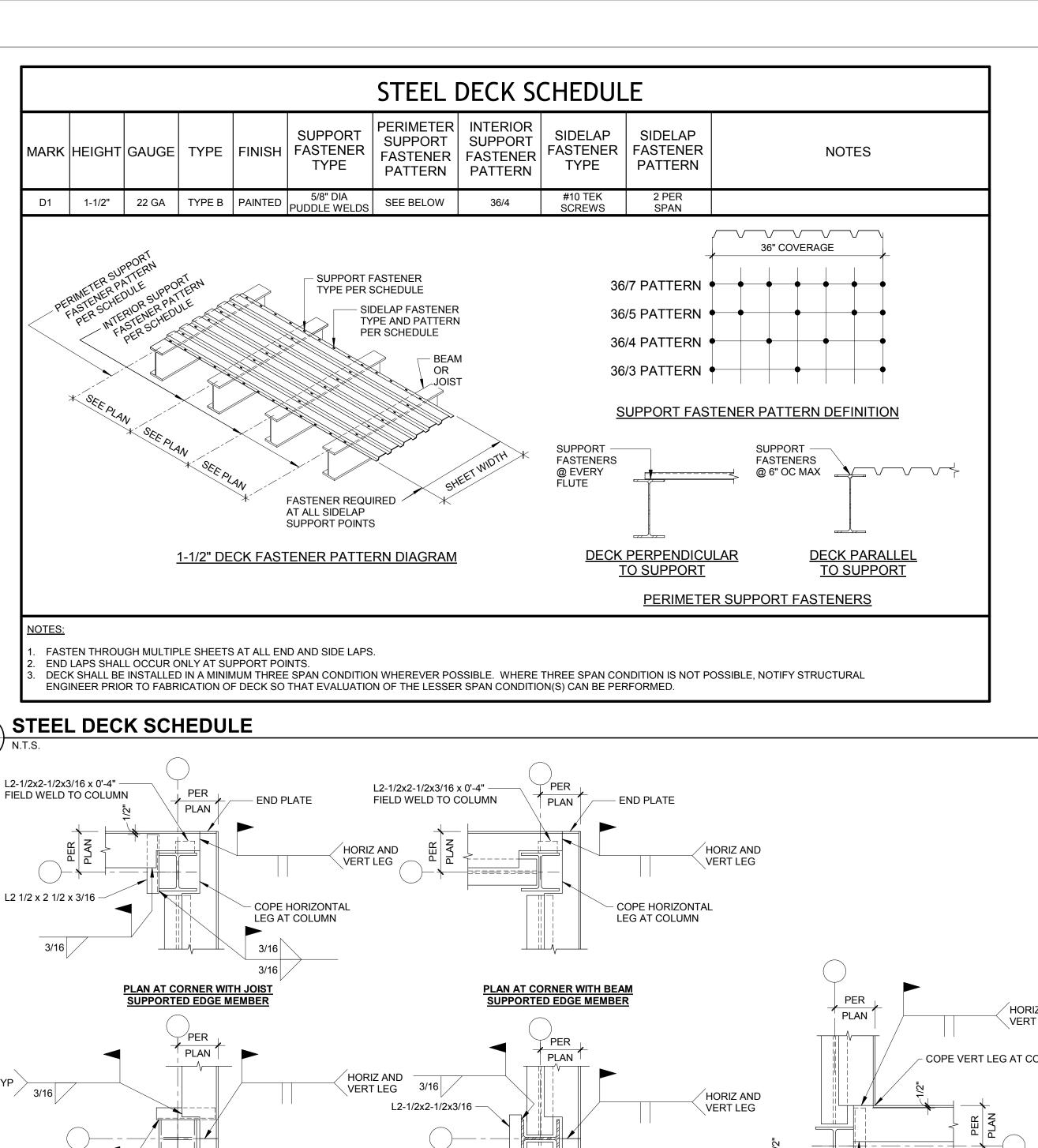
TYPICAL BEAM BEARING ON

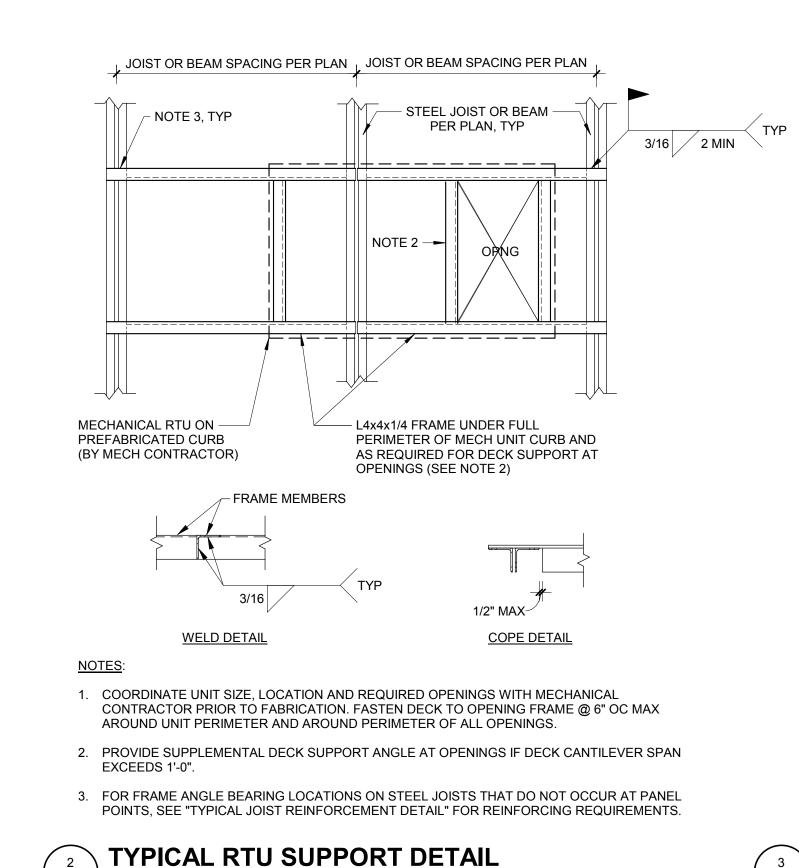
(PERPENDICULAR TO) CMU WALL DETAIL

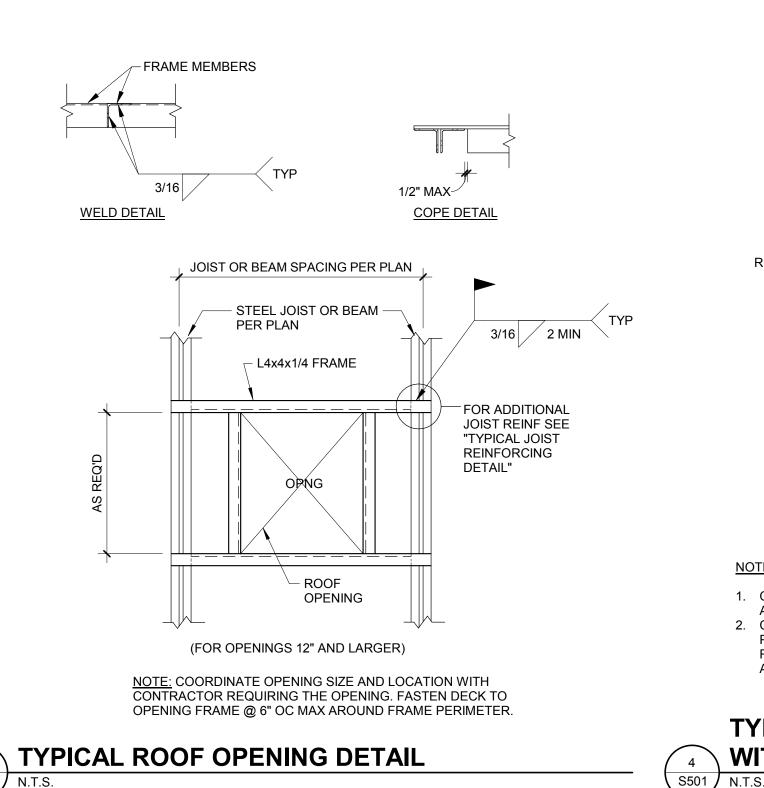
BRACING TO ROOF DECK DETAIL

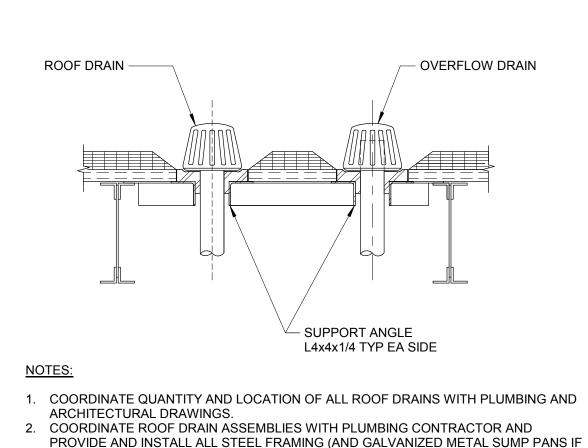
INTERSECTING WALLS EXCEEDS THE MAXIMUM SPACING SHOWN.

SPACING SHOWN.





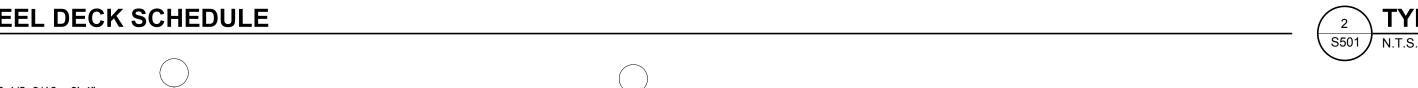


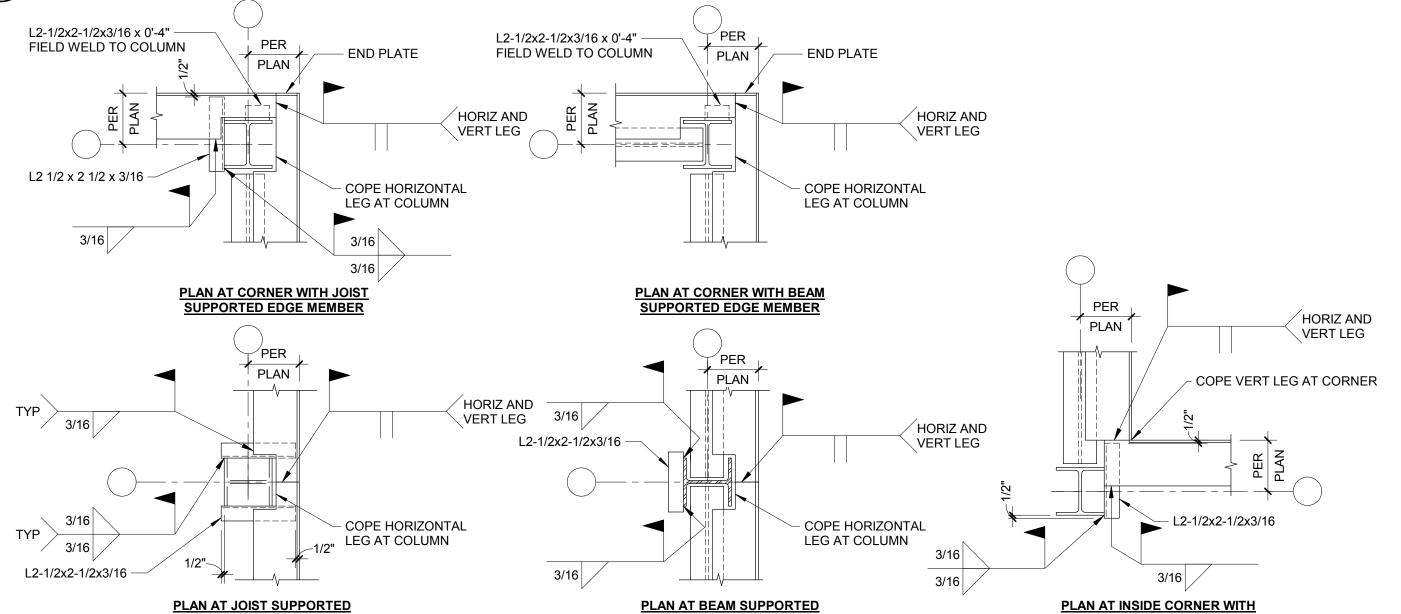


TYPICAL ROOF DRAIN SUPPORT **WITH OVERFLOW DRAIN**

REQUIRED) AS NECESSARY FOR COMPLETE SUPPORT OF ALL ROOF DRAIN

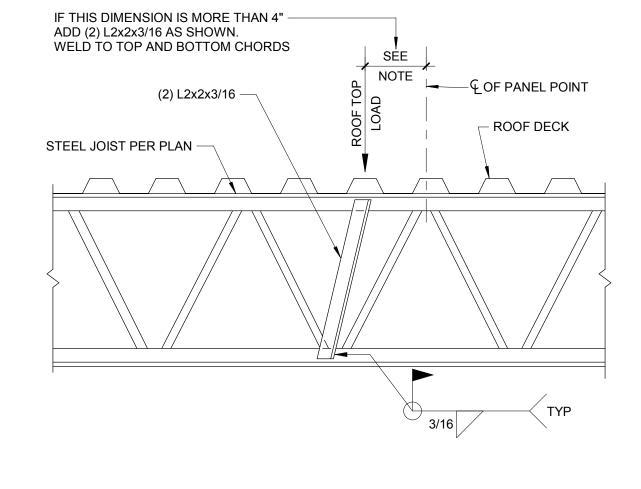
ASSEMBLIÉS.

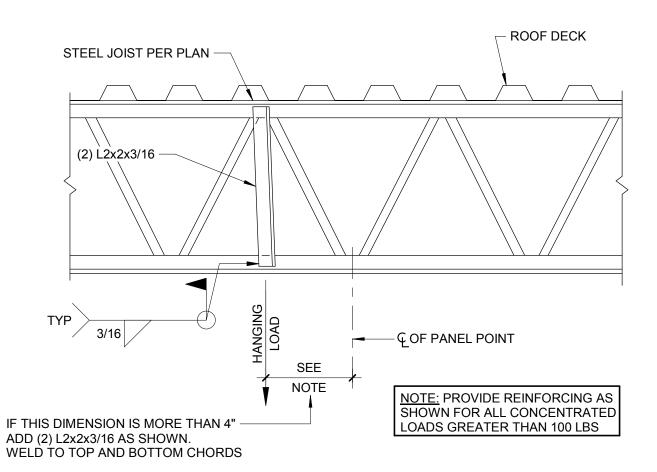


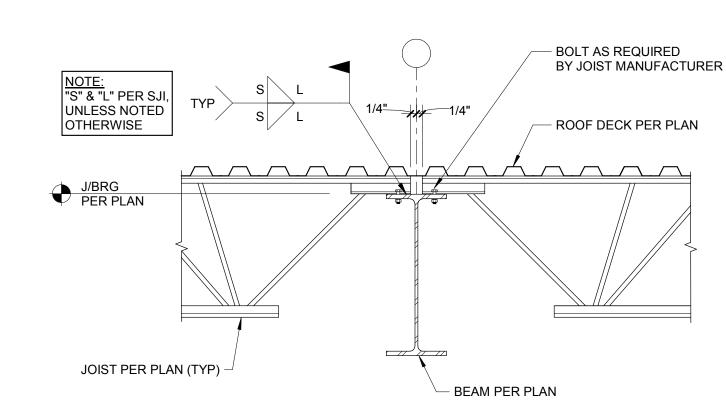


EDGE MEMBER

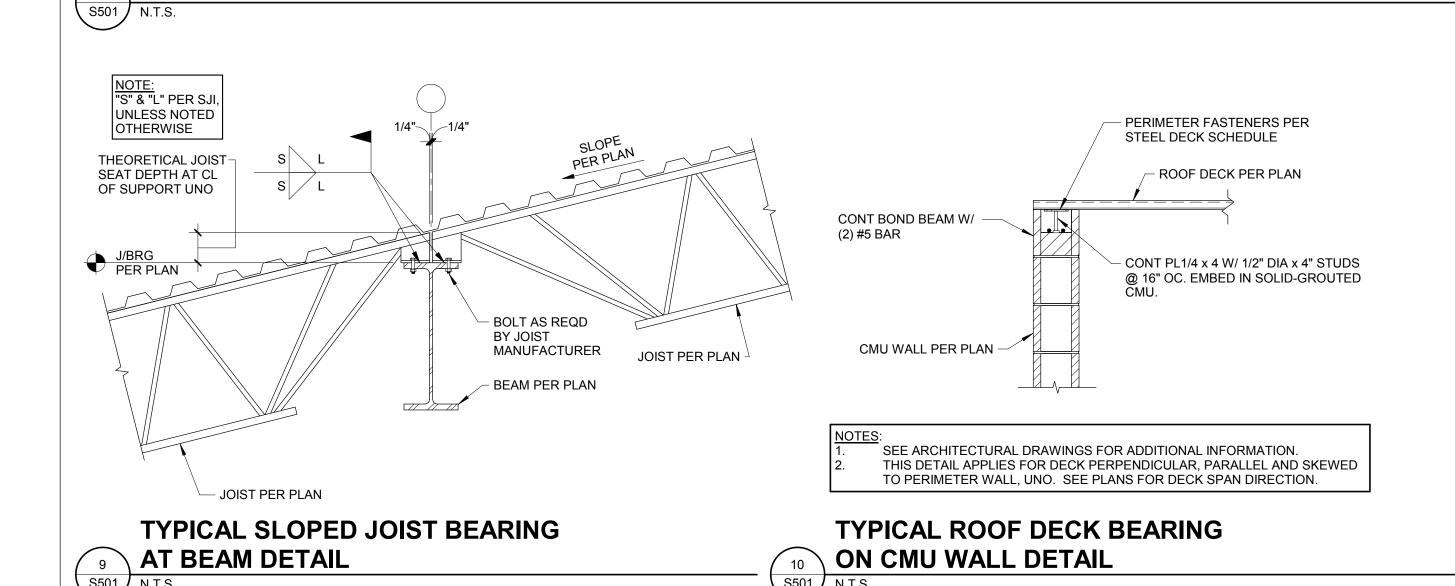
JOIST SUPPORTED EDGE MEMBER

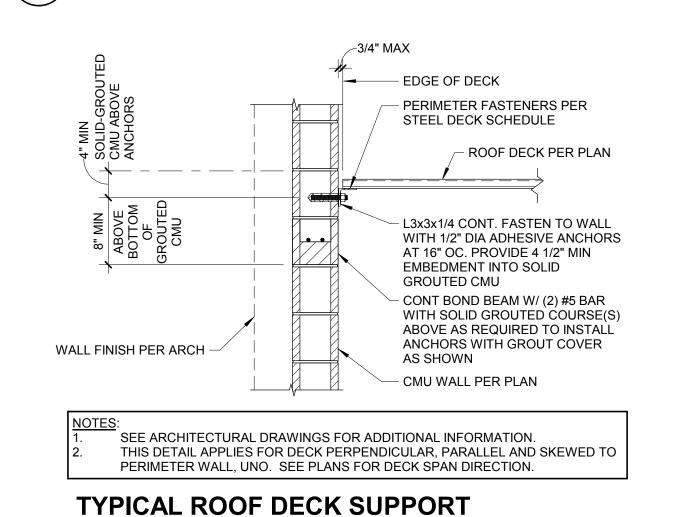




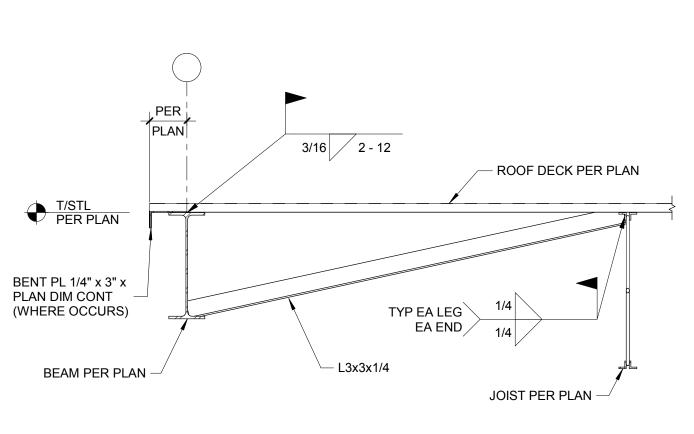


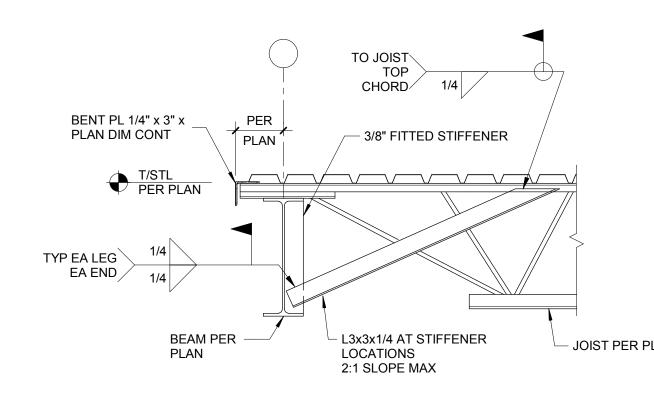






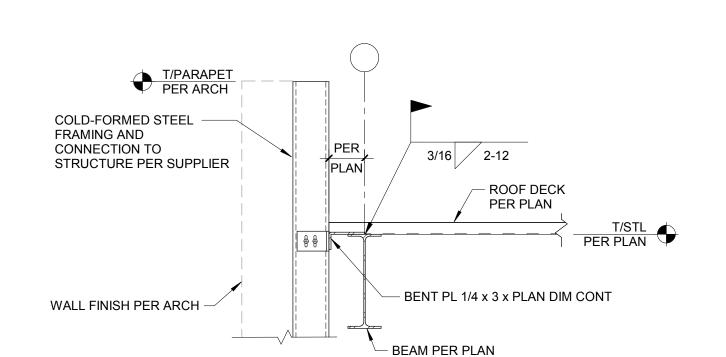
AT CMU WALL DETAIL





BOTTOM FLANGE BRACING AT ROOF (DECK PARALLEL) DETAIL

BOTTOM FLANGE BRACING AT ROOF (DECK PERPENDICULAR) DETAIL S501 N.T.S.

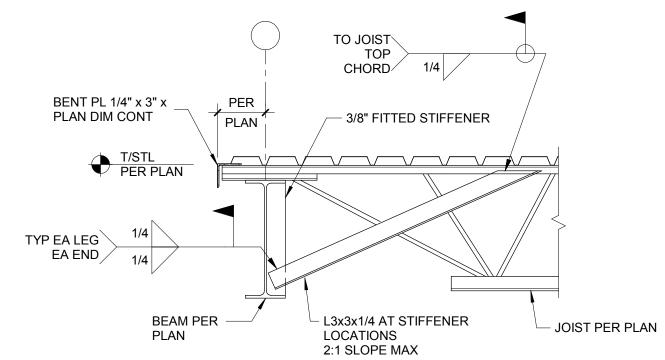


EDGE MEMBER

TYPICAL EDGE ANGLE / BENT PLATE SUPPORT AT COLUMNS DETAIL

14 SECTION

NOTE: SEE PLAN FOR DECK ORIENTATION.



Project Number 2017.01279

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PORTER COUNTY -

PE11200028

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ISSUANCE INDEX

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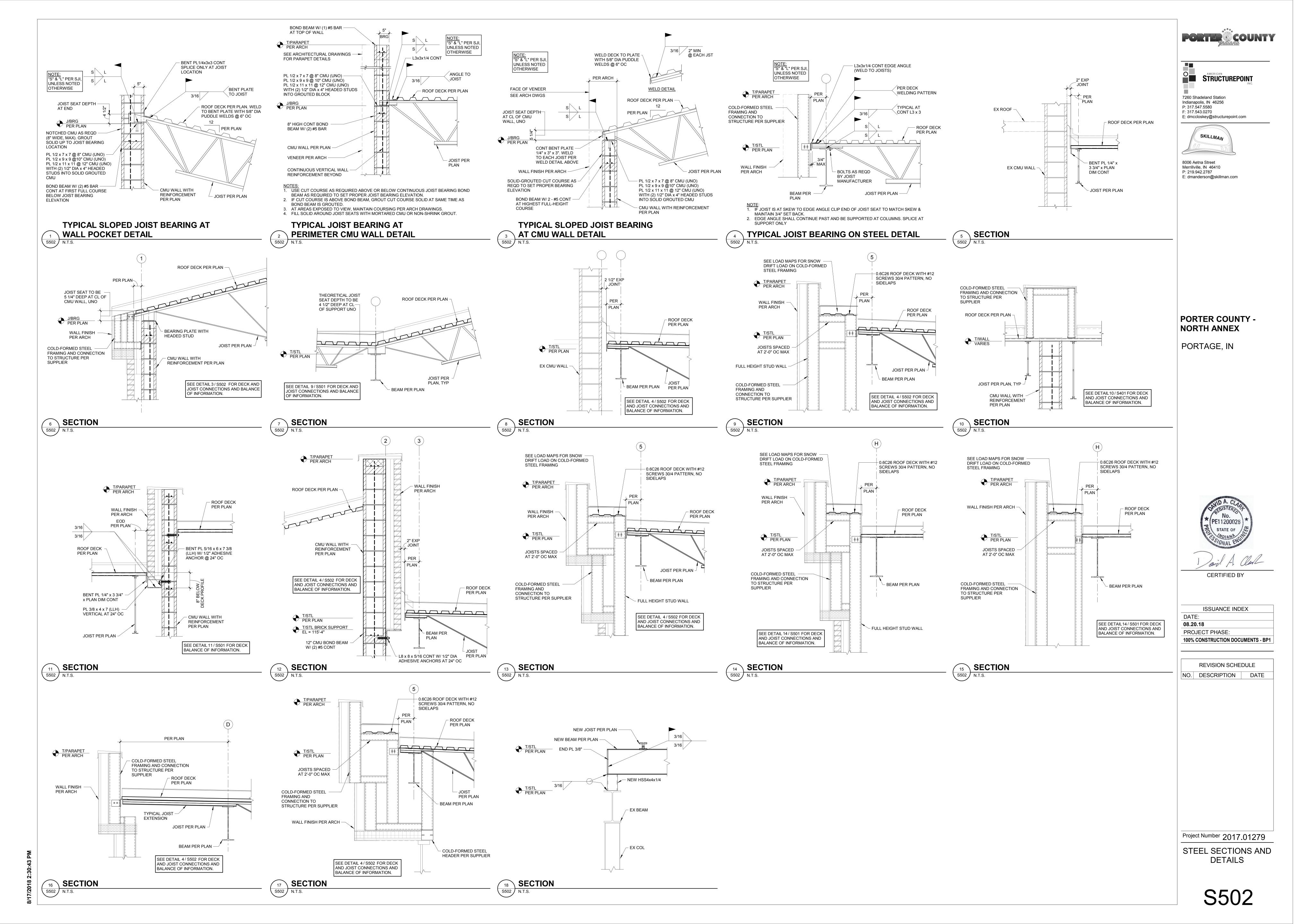
NORTH ANNEX

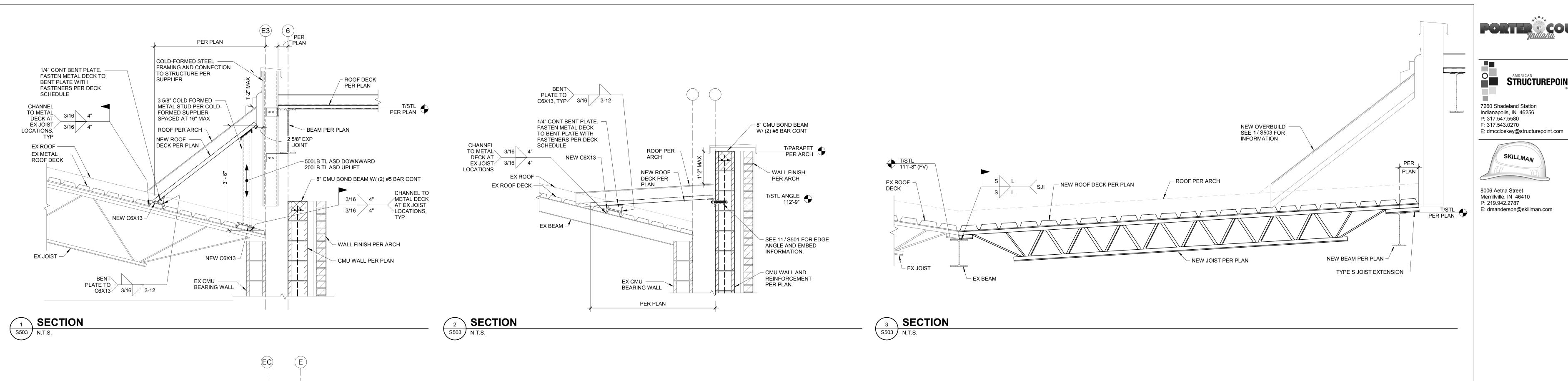
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E: dmccloskey@structurepoint.com

SKILLMAN

STEEL SCHEDULES, SECTIONS, AND **DETAILS**





NEW 8" CMU WITH #5 CENTERED AT 16" OC.

WITH 6" MIN EMBED

- NEW ROOF

T/STL ANGLE 112'-9"

DECK PER PLAN

SEE 11/S501 FOR EDGE ANGLE AND EMBED

- WALL FINISH PER ARCH

INFORMATION.

DOWEL INTO EXISTING CMU

T/PARAPET PER ARCH

BENT PLATE TO C6X13, TYP 3/16 3-12

NEW C6X13 -

EX BEAM -

PER PLAN

EX CMU BEARING WALL

─ ROOF PER

ARCH

1/4" CONT BENT PLATE.

FASTEN METAL DECK

TO BENT PLATE WITH

FASTENERS PER DECK SCHEDULE

CHANNEL SCHEDU
TO METAL 3/16
DECK AT EX JOIST 3/16
LOCATIONS

EX ROOF

EX ROOF DECK

LOCATIONS

5 SECTION N.T.S.



STRUCTUREPOINT

SKILLMAN W

ISSUANCE INDEX DATE: 08.20.18 PROJECT PHASE: 100% CONSTRUCTION DOCUMENTS - BP1

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Project Number 2017.01279

STEEL SECTIONS AND **DETAILS**

PER PLAN

- ROOF DECK

T/STL PER PLAN

CHANNEL TO METAL DECK

AT EX JOIST LOCATIONS,

PER PLAN

─ BEAM PER PLAN

JOINT

500LB TL ASD DOWNWARD 200LB TL ASD UPLIFT

COLD-FORMED STEEL FRAMING AND CONNECTION

ROOF PER ARCH ~

NEW ROOF ---

DECK PER PLAN

NEW C6X13 -

EX CMU — BEARING WALL

3 5/8" COLD ——FORMED METAL

NEW C6X13

BENT PLATE TO C6X13 3/16 3-12

STUD PER COLD-FORMED SUPPLIER SPACED AT 16" MAX

TO STRUCTURE PER SUPPLIER

1/4" CONT BENT PLATE. -FASTEN METAL DECK TO

FASTENERS PER DECK

TO METAL 3/16 4"
DECK AT S/16 4"
EX JOIST JOINS, TYP

BENT PLATE WITH

SCHEDULE

CHANNEL TO METAL

EX ROOF —

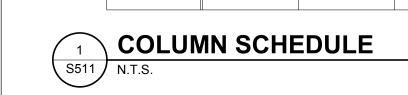
EX JOIST -

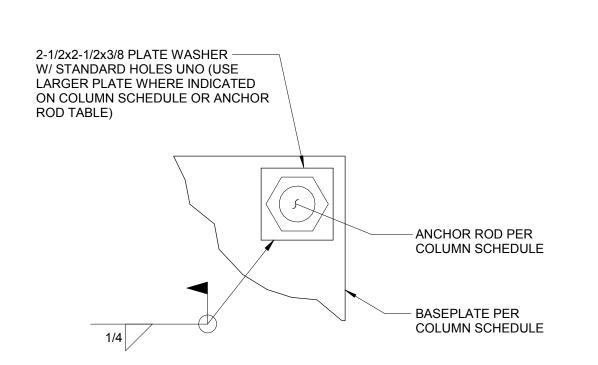
SECTION
S503 N.T.S.

EX METAL -

ROOF DECK

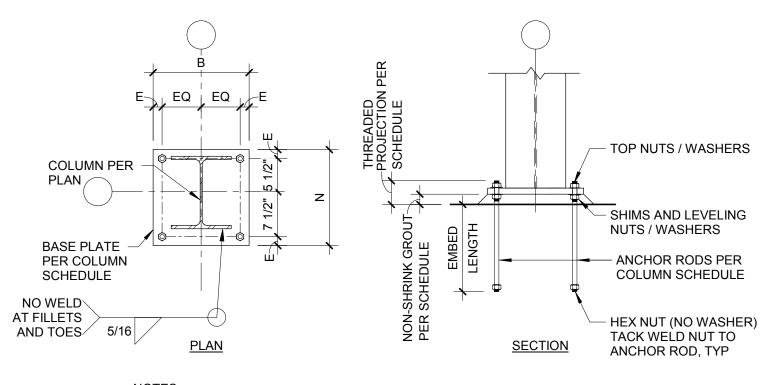






NOTES:
1. THIS DETAIL APPLIES AT ALL COLUMN ANCHOR RODS AT BRACED FRAMES AND MOMENT FRAMES UNO.

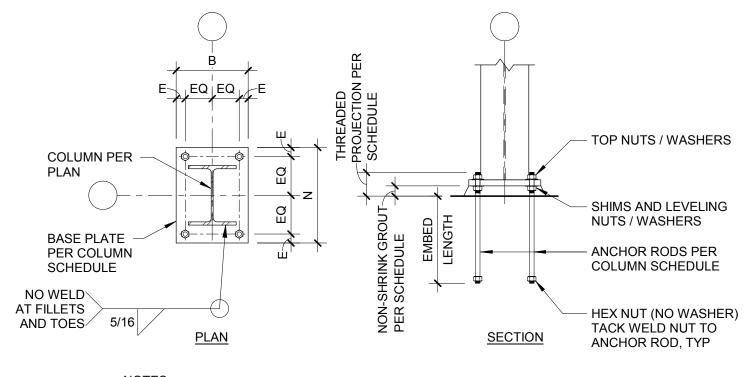
TYPICAL WELDED PLATE WASHER DETAIL S511 N.T.S.



NOTES:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SUFFICIENT TEMPORARY SUPPORT OF COLUMN BASE PLATES USING LEVELING PLATES, LEVELING NUTS / WASHERS OR STEEL SHIMS (OR COMBINATION THEREOF) PRIOR TO PLACEMENT AND CURING OF NON-SHRINK GROUT.

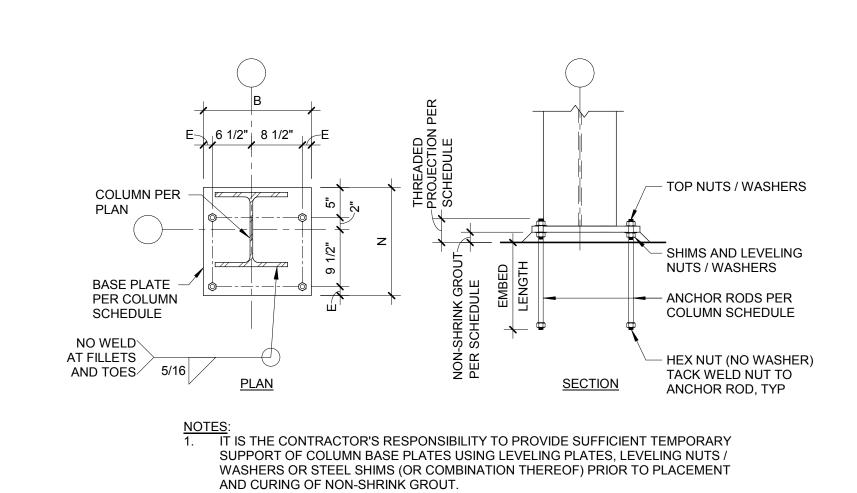




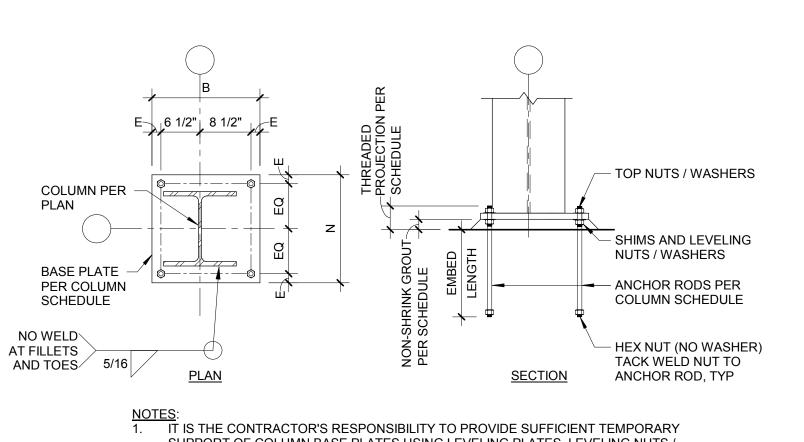
NOTES:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SUFFICIENT TEMPORARY SUPPORT OF COLUMN BASE PLATES USING LEVELING PLATES, LEVELING NUTS / WASHERS OR STEEL SHIMS (OR COMBINATION THEREOF) PRIOR TO PLACEMENT AND CURING OF NON-SHRINK GROUT.

TYPICAL W COLUMN BASE DETAIL N.T.S

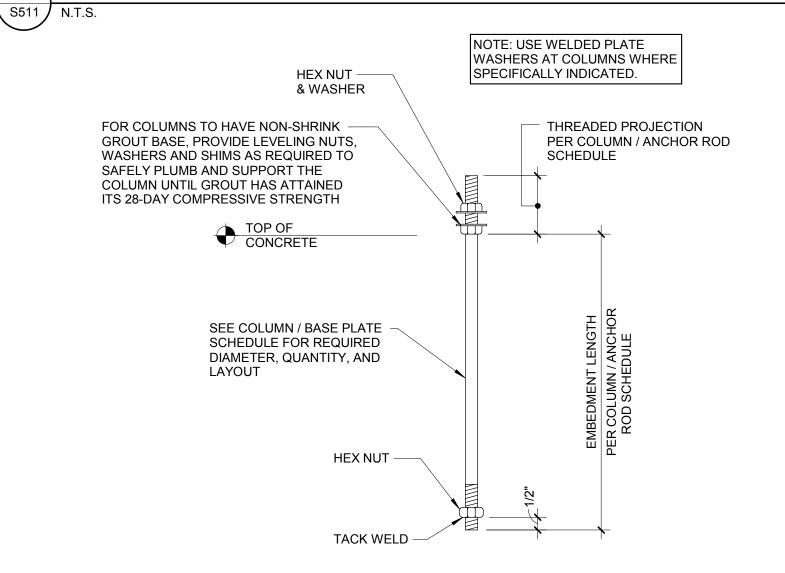


8 **BP6**S511 N.T.S.



NOTES:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SUFFICIENT TEMPORARY SUPPORT OF COLUMN BASE PLATES USING LEVELING PLATES, LEVELING NUTS / WASHERS OR STEEL SHIMS (OR COMBINATION THEREOF) PRIOR TO PLACEMENT AND CURING OF NON-SHRINK GROUT.

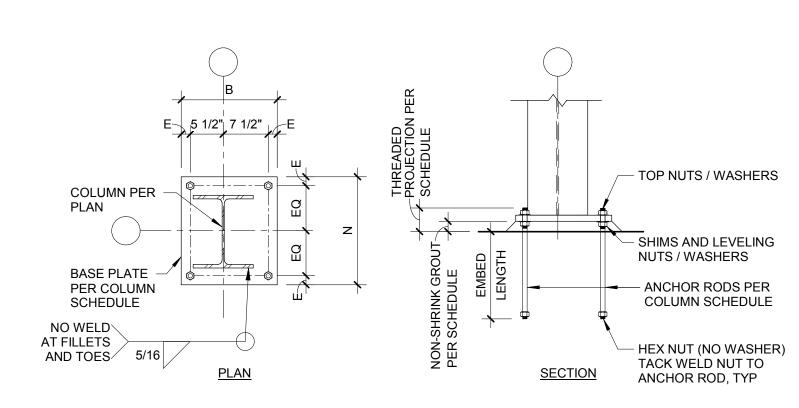


9 TYPICAL COLUMN ANCHOR ROD DETAIL

	COLUMN BASE PLATE SCHEDULE							
	PLATE SIZE	ANCHOR RODS		EMBED	DEMARKO			
MARK	B" X N" X T"	QTY	DIA	LENGTH	REMARKS			
BP1	18" X 18" X 3/4"	4	3/4"	12"	SEE DETAIL 4/S511			
BP2	16" X 18" X 3/4"	4	3/4"	12"	SEE DETAIL 4/S511			
BP3	18" X 18" X 3/4"	4	3/4"	12"	SEE DETAIL 5/S511			
BP4	16" X 18" X 3/4"	4	3/4"	12"	SEE DETAIL 6/S511			
BP5	16" X 16" X 3/4"	4	3/4"	12"	SEE DETAIL 7/S511			
BP6	18" X 18" X 3/4"	4	3/4"	12"	SEE DETAIL 8/S511			
	•		•		·			

ANCHOR ROD TABLE							
ANCHOR ROD DIA	BASEPLATE HOLE DIA	MINIMUM WASHER SIZE	MINIMUM WASHER THICKNESS	MINIMUM PROJ ABOVE T/CONC	NON-SHRINK GROUT BED THK	MIN EDO DISTANC	
3/4"	1 5/16"	2"	1/4"	8"	2"	1 1/2"	
1"	1 13/16"	3"	3/8"	8"	2"	2"	
1 1/4"	2 1/16"	3"	1/2"	10"	3"	2"	
1 1/2"	2 5/16"	3 1/2"	1/2"	10"	3"	2 1/2"	
1 3/4"	2 3/4"	4"	5/8"	10"	3"	3"	
NOTES:							
1. ANC	HOR RODS ARE	ASTM F1554 GR	. 36 UNO.				

COLUMN BASE PLATE SCHEDULE AND ANCHOR ROD TABLE



NOTES:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SUFFICIENT TEMPORARY SUPPORT OF COLUMN BASE PLATES USING LEVELING PLATES, LEVELING NUTS / WASHERS OR STEEL SHIMS (OR COMBINATION THEREOF) PRIOR TO PLACEMENT AND CURING OF NON-SHRINK GROUT.





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PORTER COUNTY -NORTH ANNEX

PORTAGE, IN

PE11200028

STATE OF

STATE OF

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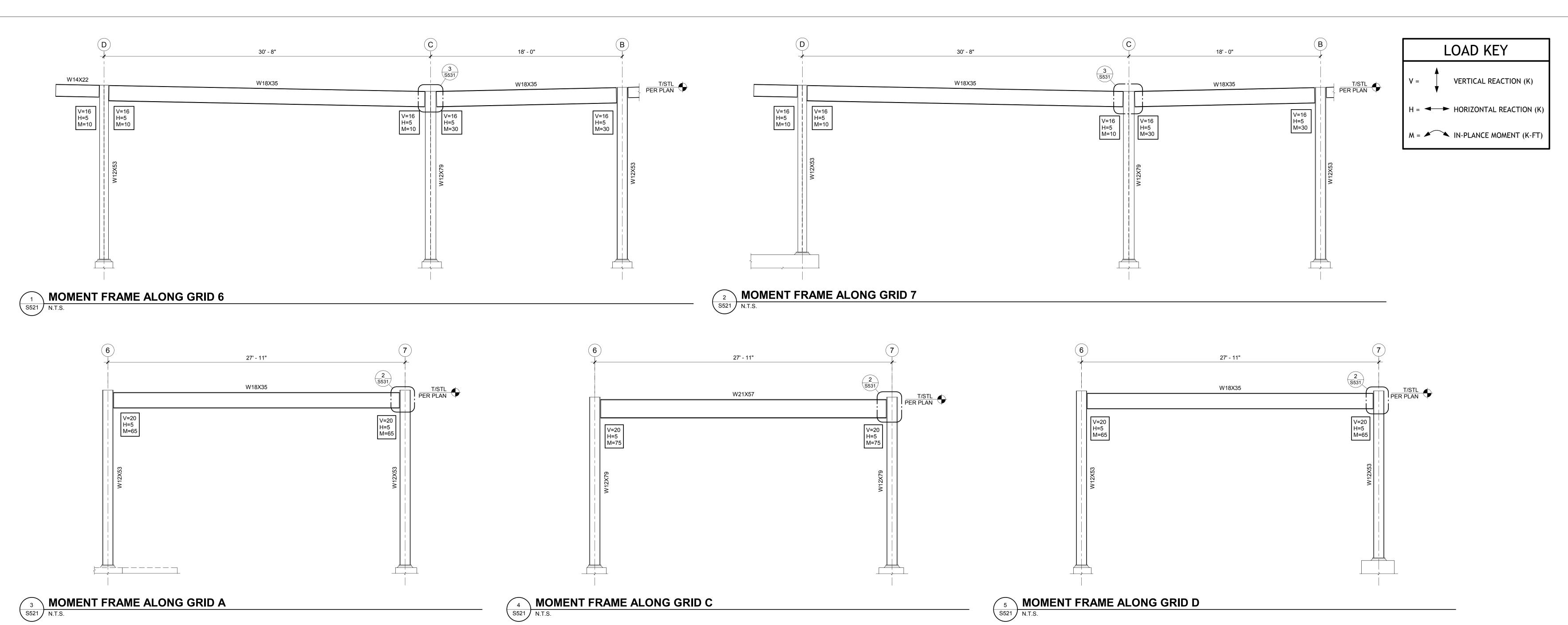
ISSUANCE INDEX
DATE:
08.20.18
PROJECT PHASE:
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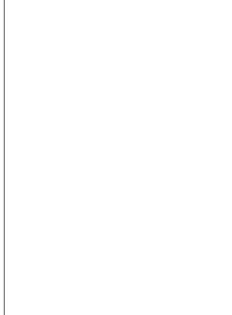
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STEEL COLUMN AND BASE PLATE SCHEDULES





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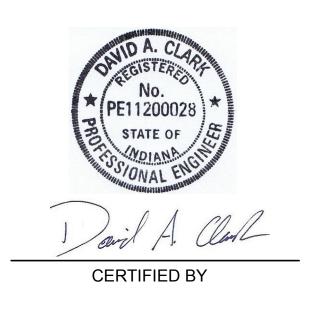
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TORTAGE, IIV



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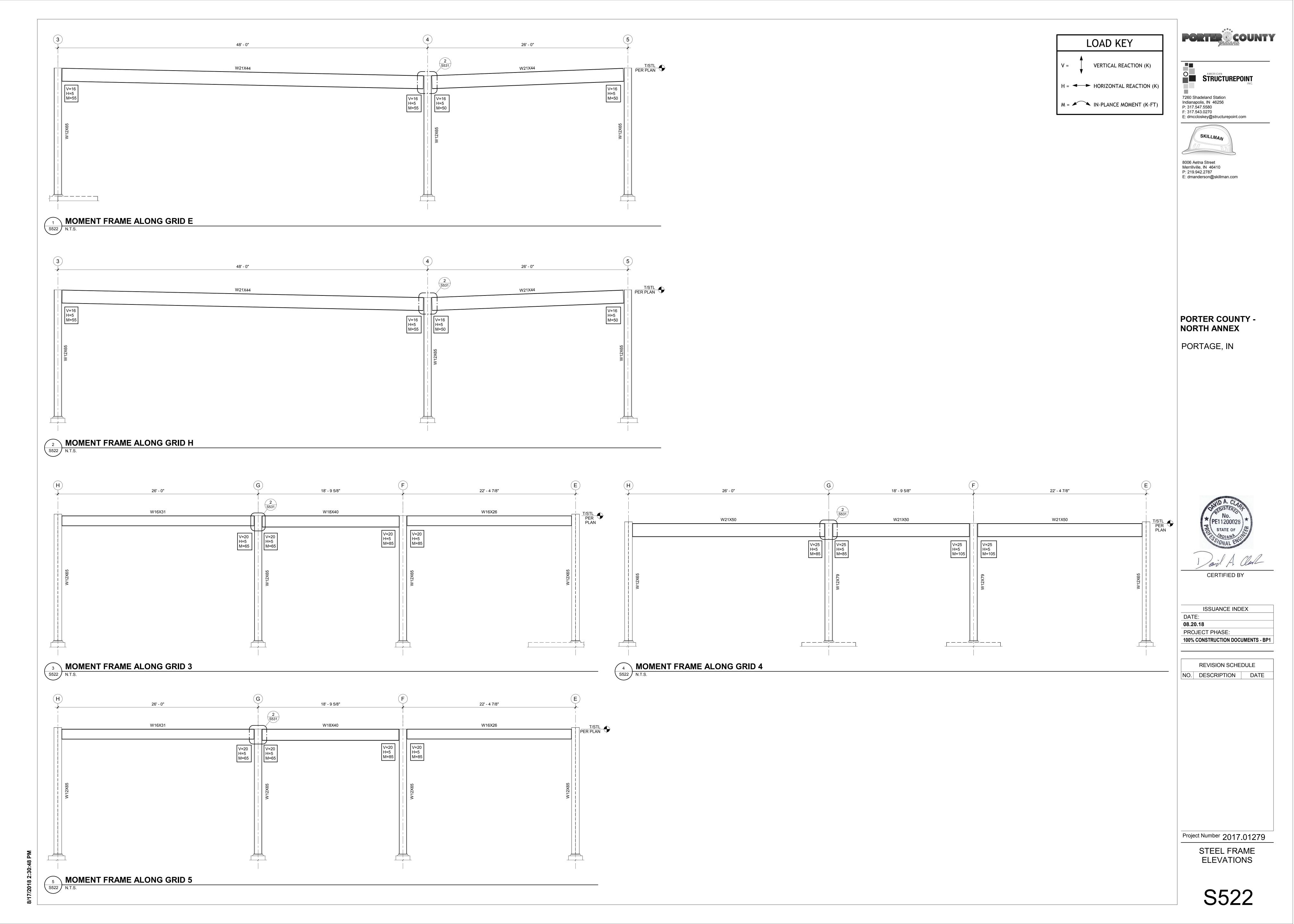
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Project Number 2017.01279

STEEL FRAME ELEVATIONS



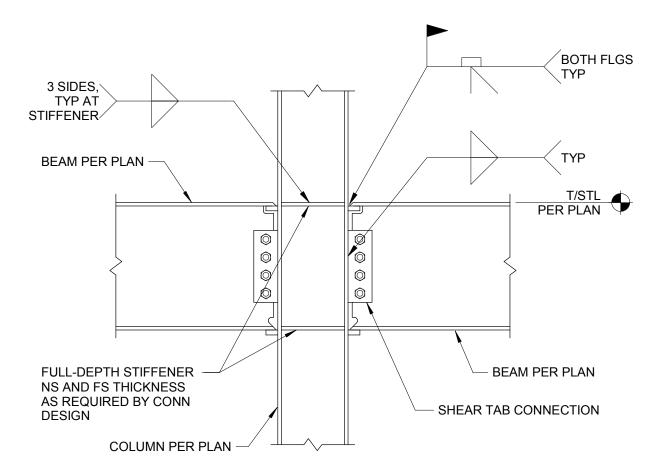
MOMENT FRAME GENERAL NOTES

- 1. FORCES SHOWN ARE THE MORE CRITICAL OF ALL APPLICABLE BUILDING CODE ASD LOAD COMBINATIONS.
- 2. CONNECTIONS SHALL BE DESIGNED FOR FORCES INDICATED ON ELEVATION ACTING CONCURRENTLY WITH BEAM REACTION AND ANY INDICATED TRANSFER FORCES. ECCENTRICITY SHALL BE CONSIDERED IN DESIGN OF CONNECTION.
- 3. EACH MEMBER'S CONNECTION SHALL BE SYMMETRIC ABOUT THE CENTER OF GRAVITY OF THAT MEMBER.
- 4. ALL BOLTED CONNECTIONS SHALL HAVE FULLY TENSIONED HIGH STRENGTH BOLTS WITH CLASS A FAYING SURFACES.

GENERAL:
ALL FRAME CONNECTIONS SHALL BE DESIGNED BY THE STEEL FABRICATOR, UNO. CONNECTION DETAILS INDICATED ON THE STRUCTURAL DRAWINGS ARE PROVIDED TO SHOW CONNECTION CONCEPT ONLY AND ARE NOT TO BE CONSIDERED A FINAL DESIGN. FABRICATOR'S REGISTERED PROFESSIONAL ENGINEER SHALL DESIGN AND DETAIL ALL FINAL CONNECTIONS AS REQUIRED TO SAFELY TRANSFER THE DESIGN FORCES AND ALLOW FOR FIELD FIT-UP

MOMENT FRAME GENERAL NOTES (ASD)

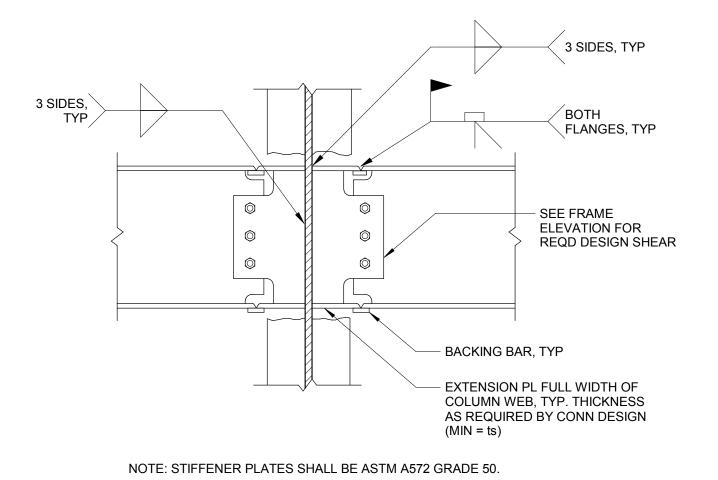
AND ERECTION TOLERANCES.



NOTE: STIFFENER PLATES SHALL BE ASTM A572 GRADE 50.

TYPICAL BEAM MOMENT CONNECTION TO COLUMN FLANGE

S531 N.T.S.



DICAL REAM MOMENT CONNECTION

TYPICAL BEAM MOMENT CONNECTION TO COLUMN WEB

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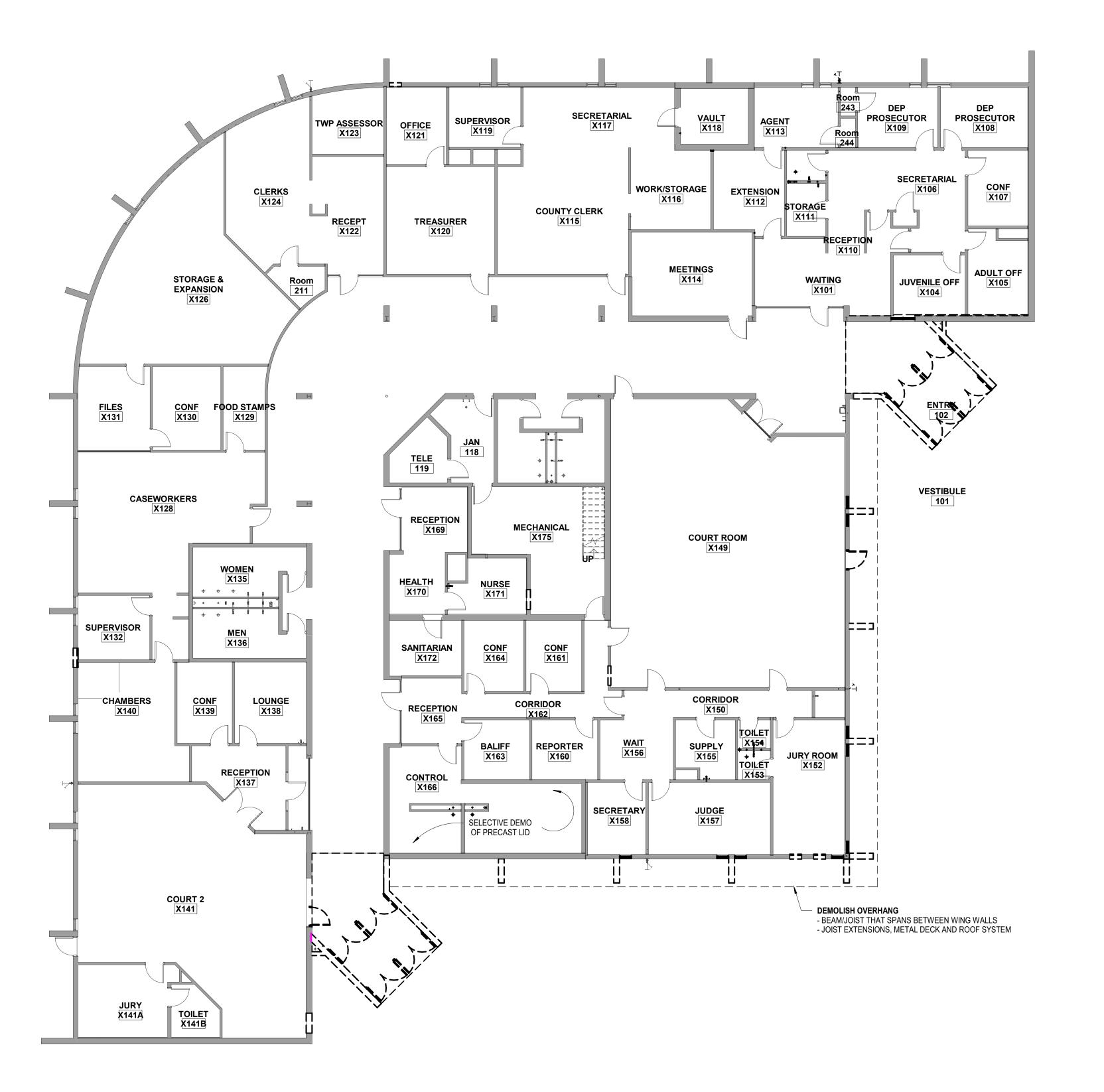
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STEEL FRAME SECTIONS AND DETAILS



GENERAL DEMOLITION NOTES

- A. VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK. NOTIFY THE ARCHITECT OF ANY CONFLICTS PRIOR TO PROCEEDING
- B. ALL FURNITURE AND FURNISHINGS WILL BE REMOVED, RELOCATED AND/OR STORED BY OWNER UNLESS NOTED OTHERWISE.

 C. ALL ITEMS BEING REMOVED SHALL REMAIN THE PROPERTY OF THE OWNER UNTIL
- C. ALL ITEMS BEING REMOVED SHALL REMAIN THE PROPERTY OF THE OWNER UNTIL CONFIRMATION HAS BEEN MADE AS TO WHETHER THE OWNER WILL RETAIN SUCH ITEMS. CONTRACTOR SHALL COORDINATE WITH OWNER REGARDING DELIVERY OF ALL ITEMS BEING RETAINED; ALL ITEMS NOT BEING RETAINED BY THE OWNER OR DESIGNATED ON THE DRAWINGS TO BE SALVAGED, RELOCATED OR REINSTALLED SHALL BE COMPLETELY REMOVED FROM THE SITE.

 D. THE DEMOLITION CONTRACTOR SHALL PROVIDE AND INSTALL TEMPORARY DUST
- D. THE DEMOLITION CONTRACTOR SHALL PROVIDE AND INSTALL TEMPORARY DUST PARTITIONS, CONSTRUCTION BARRIERS, TEMPORARY DOORS, WALK-OFF MATS AND EQUIPMENT PROTECTION WHERE SHOWN ON THE DOCUMENTS OR IF NOT SHOWN, AS REQUIRED BY THE WORK BEING PERFORMED. TEMPORARY DUST PARTITION SHALL BE COMPLETELY SEALED TO PREVENT CONSTRUCTION DUST FROM ENTERING OWNER'S ADJACENT SPACES. DUST PARTITION DOOR TO BE SELF CLOSING, POSITIVE LATCHING, AND PAD-LOCKABLE. SUCH PROTECTION SHALL BE MAINTAINED AND REPAIRED PROMPTLY IF DAMAGED TO AVOID DUST INFILTRATION INTO ADJACENT AREAS. PROVIDE HEPA FILTER FILTRATION AND NEGATIVE AIR MACHINES WITH MONITORING GAGES.
- E. COVER ALL RETURN AIR GRILLES AND EXHAUST GRILLES IN CONSTRUCTION AREA WITH MIN. MERV 13 FILTER MEDIA, CHANGED REGULARLY.
 F. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DOCUMENTS FOR RESPECTIVE DEMOLITION INFORMATION
- F. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DOCUMENTS FOR RESPECTIVE DEMOLITION INFORMATION.
 G. FILL ALL FLOOR CONSTRUCTION WHERE PIPING, CONDUITS, AND OTHER PENETRATIONS HAVE BEEN REMOVED.
- H. DEMOLITION WORK SHALL BE PERFORMED DURING NORMAL WORKING HOURS UNLESS NOISE WILL EXCEED OSHA THRESHOLDS. IF NOISE IS ANTICIPATED TO EXCEED OSHA THRESHOLDS, CONTRACTOR SHALL COORDINATE WITH OWNER TO ADJUST WORK HOURS TO MORE APPROPRIATE TIMES. CONTRACTOR SHALL USE ALL METHODS TO DECREASE NOISE IMPACT.
- I. ASBESTOS CONTAINING MATERIAL IS NOT ANTICIPATED IN THE AREA OF DEMOLTION. IF ACM'S ARE SUSPECTED OR ENCOUNTED, CONTRACTOR SHALL NOTIFY THE ARCHITECT
- J. REMOVE ALL WALL COVERING, OTHER WALL TREATMENT, AND ATTACHMENTS. PATCH, SKIM COAT, AND PREPARE FOR FINAL FINISH ON WALLS NOT BEING COVERED BY NEW
- CONSTRUCTION.

 K. IF USING A DEMOLITION CHUTE, IT SHALL BE FULLY ENCLOSED.





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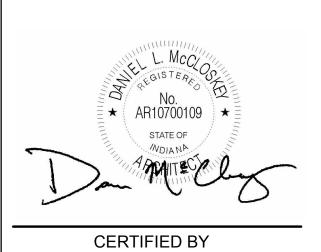
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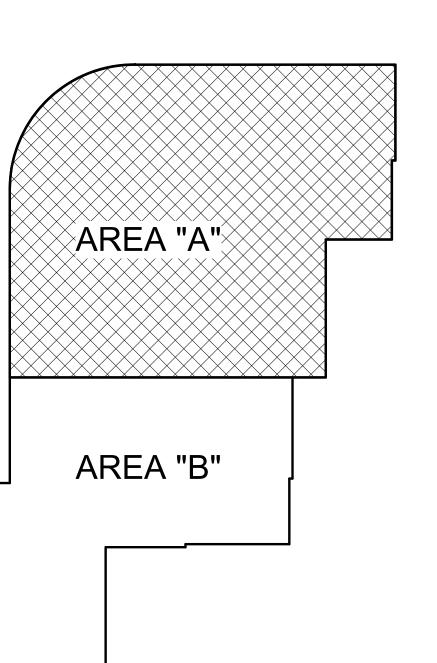


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PORTER COUNTY ANNEX

3560 WILLOWCREEK RD PORTAGE, IN 46368





KEY PLAN

DATE:

08.20.18

PROJECT PHASE:

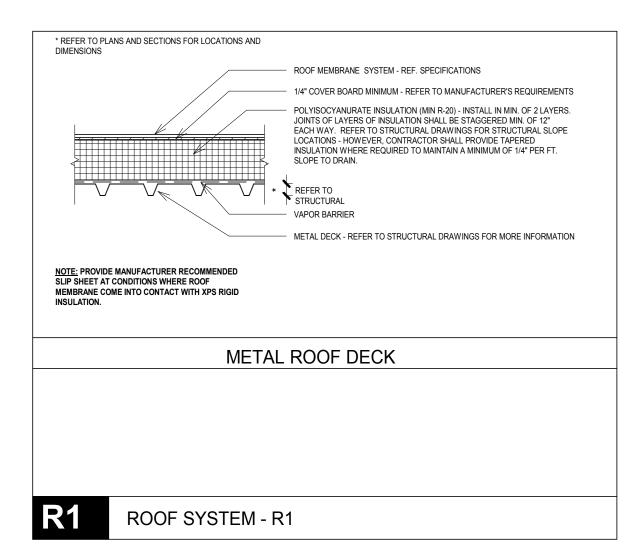
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FIRST FLOOR DEMOLITION PLAN



- REFER TO SCHEDULE BELOW FOR PARTITION WIDTH

RESTROOMS AND JANITOR'S CLOSETS, TYPICAL.

- METAL STUD FRAMING @ 16" O.C. MAX.

ONE LAYER 5/8" (TYPE-X) GYPSUM WALL BOARD, ONE SIDE

SEALANT AND BACKER ROD; ONE SIDE, CONT.

OCCURS; REFER TO FLOOR PLANS AND ROOM FINISH SCHEDULE FOR OCCURRENCE, LOCATION, AND EXTENT OF WALL COVERAGE. 5/8" MOISTURE

PROVIDE SOUND ATTENUATION INSULATION AS REQUIRED - SEE SCHEDULE BELOW

RESISTANT GYPSUM WALL BOARD REPLACES TYPE-X AS SUBSTRATE IN ALL

- LATERAL BRACING AT 4'-0" O.C. MAX.

METAL RUNNER

PROVIDE SOUND AT

METAL RUNNER

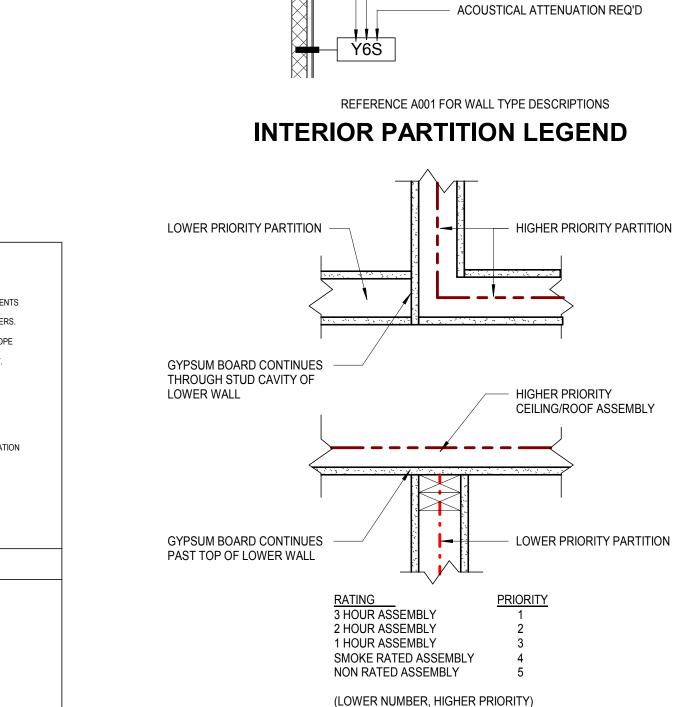
NO SOUND ATTENUATION DESIGNATION DESIGNATI

F3 F3S 3 - 5/8" 4 - 1/4" NON-RATED NA

F8 F8S 8" 8 - 5/8" NON-RATED NA

WALL PARTITION TYPE

STRUCTURE // 🖔



RATED WALL PRIORITY

- REFER TO SCHEDULE BELOW FOR PARTITION WIDTH

SEALANT AND BACKER ROD; BOTH SIDES, CONT.

RESTROOMS AND JANITOR'S CLOSETS, TYPICAL

METAL STUD FRAMING @ 16" O.C. MAX.

ONE LAYER 5/8" (TYPE-X) GYPSUM WALL BOARD, EACH SIDE

SEALANT AND BACKER ROD; BOTH SIDES, CONT.

NO SOUND WITH SOUND STUD PART. FIRE UL LISTING SOUND DESIGNATION DESIGNATION WIDTH WIDTH RATING

ATTENUATION ATTENUATION STUD PART. FIRE ULLISTING

B1 B1S 1 - 5/8" 2 - 7/8" NON-RATED NA

B2 B2S 2 - 1/2" 3 - 3/4" NON-RATED NA

B3 B3S 3 - 5/8" 4 - 7/8" NON-RATED NA

B6 B6S 6" 7 - 1/4" NON-RATED NA

B8 B8S 8" 9 - 1/4" NON-RATED NA

B WALL PARTITION TYPE

OCCURS; REFER TO FLOOR PLANS AND ROOM FINISH SCHEDULE FOR OCCURRENCE, LOCATION, AND EXTENT OF WALL COVERAGE. 5/8" MOISTURE

RESISTANT GYPSUM WALL BOARD REPLACES TYPE-X AS SUBSTRATE IN ALL

STRUCTURE

LINE OF CEILING

WALL TYPE SYMBOL

WALL TYPE DESIGNATION

- STRUCTURAL CORE SIZE

GENERAL PARTITION NOTES

- A. ALL WALLS ARE TO BE TYPE 'A3' U.N.O. B. PARTITION SYMBOLS APPEAR ON LARGEST SCALE FLOOR PLAN PROVIDED FOR AREA. C. REFER TO FINISH PLANS FOR WALL FINISH, BASE, AND CEILING INFORMATION.
- D. REFER TO WALL SECTIONS FOR EXTERIOR WALL CONSTRUCTION. E. PROVIDE WATER-RESISTANT GYPSUM BOARD ON WALLS WITH PLUMBING FIXTURES AND WITHIN 4'-0 OF DRINKING FOUNTAINS / WATER COOLERS, U.N.O.
- F. PROVIDE LATERAL BRACING FOR PARTITIONS WHICH EXTEND ABOVE CEILINGS. G. PROVIDE FIRE RESISTIVE RATED GYPSUM WALL BOARD AT ALL RATED ASSEMBLIES TO
- MEET ASSEMBLY REQUIREMENTS. H. PROVIDE FIRE RESISTIVE JOINT SYSTEMS EQUAL TO WALL RATING AT ALL PENETRATIONS AND AT HEAD/FLOOR INTERSECTIONS WITH RATED ASSEMBLIES.
- I. PROVIDE ACOUSTICAL SEALANT AT WALL SILL, HEAD, PENETRATIONS, AND ADDITIONAL SPECIFIED SOUND ATTENUATION COMPONENTS AT SOUND RATED WALLS. J. PROVIDE SPECIFIED TILE BACKER BOARD AT ALL WALLS SCHEDULED TO HAVE CERAMIC
- K. FRAME DOOR OPENINGS 4" FROM FACE OF PERPENDICULAR WALL ON HINGE SIDE AND 1'-6" MIN. FROM FACE OF PERP. WALL ON LATCH SIDE, UNLESS NOTED OTHERWISE. PROVIDE GYPSUM BOARD CONTROL JOINTS AND MASONRY CONTROL JOINTS AT WALLS
- OVER 30'-0 IN LENGTH. LOCATE ABOVE EDGE OF OPENING WHEN POSSIBLE M. AT FIRE RATED WALLS WHERE OPENINGS ARE GREATER THAN 16 SQUARE INCHES OR WHERE TOTAL AREA OF OPENINGS EXCEEDS 100 SQUARE INCHES IN 100 SQUARE FEET, WRAP 5/8 TYPE 'X' GYPSUM BOARD BEHIND OPENINGS PER U.L. DESIGN #U510. N. ISOLATE NON-LOAD-BEARING STUD FRAMING FROM BUILDING STRUCTURE TO PREVENT

TRANSFER OF VERTICAL LOADS INTO PARTITION WHILE PROVIDING LATERAL SUPPORT

REQUIRED VIA USE OF DOUBLE TRACK TYPE (SECONDARY TRACK SET INSIDE DEEP-LEG

- TRACK) OR SLOTTED TRACK TYPE, EACH ALLOWING VERTICAL MOVEMENT OF THE STRUCTURE, PREVENTING ROTATION OF STUDS BUT MAINTAINING STRUCTURAL PERFORMANCE OF PARTITION. O. LINE OF STRUCTURE INDICATED FOR EACH PARTITION IS DIAGRAMMATIC ONLY AND DOES
- NOT INDICATE EXACT CONSTRUCTION CONDITIONS OR GEOMETRY. P. FIRE RESISTANCE RATED PARTITIONS SHALL USE RATED FIRE RESISTANT FILL MATERIAL IN CONJUNCTION WITH AN APPROPRIATE RATED FIRESTOPPING SYTEM. Q. NON-RATED PARTITIONS SHALL USE ACOUSTICAL SEALANT. R. PROVIDE SHEET METAL OR FIRE RETARDANT WOOD BLOCKING IN WALL CAVITIES FOR
- ITEMS THAT ARE REQUIRED TO BE SECURED TO THE WALLS. REFERENCE MECHANICAL, PLUMBING, ELECTRICAL AND TECHNOLOGY DRAWINGS. COORDINATE WITH FURNITURE SUPPLIER WHERE APPROPRIATE. S. TAPE AND SPACKLE ALL PENETRATIONS IN GYPSUM BOARD PARTITIONS, INCLUDING, BUT NOT LIMITED TO WATER LINES, DRAINS, CONDUIT, THERMOSTATS, ETC. INSTALL FIRE

RETARDANT SEALANT AT PENETRATIONS IN RATED PARTITIONS AS REQUIRED.

- T. ALL CONCRETE MASONRY UNITS SHALL BE NORMAL WEIGHT UNITS LAID IN RUNNING BOND UNLESS NOTED OTHERWISE. U. ALL CMU WALLS SHALL EXTEND TO 4" MINIMUM ABOVE HIGHEST ADJACENT CEILING U.N.O. V. FOR PARTITIONS INDICATED TO RECEIVE SOUND ATTENUATION (S), EXTEND ATTENUATION TO FULL HEIGHT OF PARTITION U.N.O. FLOOR TRACK TO BE SET IN A CONTINUOUS BED
- OF SEALANT. W. IN AREAS DESIGNATED TO HAVE A RATED CEILING, BUILD WALLS THAT ARE NOT INDICATED TO GO TO DECK TO UNDERSIDE OF RATED CEILING. X. ALTHOUGH WALL STUD SIZE / SPACING ARE LISTED, CONTRACTOR WILL VERIFY AND PROVIDE APPROPRIATE SIZE / GAGE / SPACING OF STUDS REQUIRED FOR CONDITIONS INDICATED AND NOTIFY ARCHITECT OF ANY DISCREPANCY PRIOR TO FABRICATION /

INSTALLATION.





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PORTER COUNTY OFFICE BUILDING

PORTAGE, IN



ISSUANCE INDEX 08.17.18 PROJECT PHASE: 100% CONSTRUCTION DOCUMENTS - BP1

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LINE O CEILIN	SECTION V			OCC RES	CURRENCE, LC ISTANT GYPSI	CATION, AND EXTE	NT OF WALL COVERAGE. 5/8" MOISTURE EPLACES TYPE-X AS SUBSTRATE IN ALL IS,TYPICAL	
	EW PLAN VIEW			_		MING @ 16" O.C. MA YPE-X) GYPSUM W	X. ALL BOARD, EACH SIDE	
LINE O STRUCTUR					OVIDE SOUND	ATTENUATION INSU	ILATION AS REQUIRED - SEE SCHEDULE BELOW	
	, , ,			SEA	LANT AND BAG	CKER ROD; BOTH S	IDES, CONT.	
NO SOUND ATTENUATION DESIGNATION	WITH SOUND ATTENUATION DESIGNATION	STUD WIDTH	PART. WIDTH	FIRE RATING	UL LISTING	STC: NO SOUND WITH SOUND	REMARKS	
A1	A1S	1 - 5/8"	2 - 7/8"	NON- RATED	NA			
A2	A2S	2 - 1/2"	3 - 3/4"	NON- RATED	NA			Project Number 2017.01279
A3	A3S	3 - 5/8"	4 - 7/8"	NON- RATED	NA			WALL TYPES
A6	A6S	6"	7 - 1/4"	NON- RATED	NA			
A8	A8S	8"	9 - 1/4"	NON- RATED	NA			

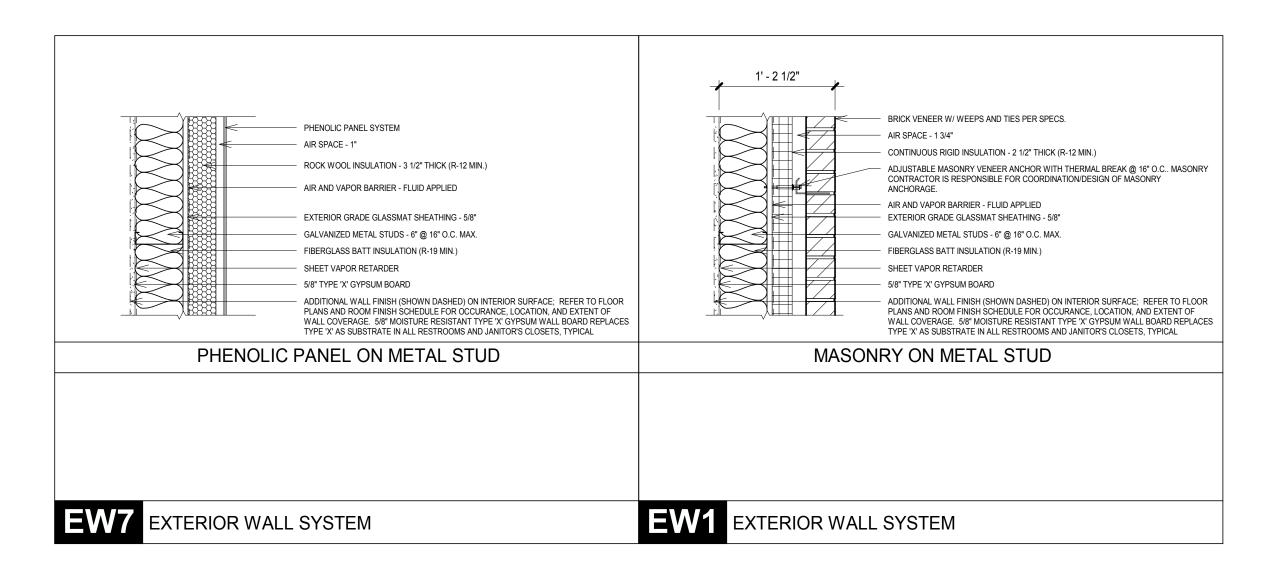
ADDITIONAL WALL FINISH (SHOWN DASHED) ON ONE OR BOTH SIDES WHERE

OCCURS; REFER TO FLOOR PLANS AND ROOM FINISH SCHEDULE FOR

- LATERAL BRACING AT 4'-0" O.C. MAX.

STRUCTURE

WALL PARTITION TYPE



RESTROOMS AND JANITOR'S CLOSETS, TYPICAL.

METAL STUD FRAMING @ 16" O.C. MAX.

SEALANT AND BACKER ROD; ONE SIDE, CONT.

PROVIDE SOUND ATTENUATION INSULATION AS REQUIRED - SEE SCHEDULE BELOW

LINE OF STRUCTURE STRUCTU

NO SOUND ATTENUATION DESIGNATION DESIGNATI

G2 G28 2 - 1/2" 3 - 1/8" NON-RATED NA

G3 G3S 3 - 5/8" 4 - 1/4" NON-RATED NA

G6 G6S 6" 6 - 5/8" NON-RATED NA

G8 G8S 8" 8 - 5/8" NON-RATED NA

G WALL PARTITION TYPE

ADDITIONAL WALL FINISH (SHOWN DASHED) ON ONE OR BOTH SIDES WHERE

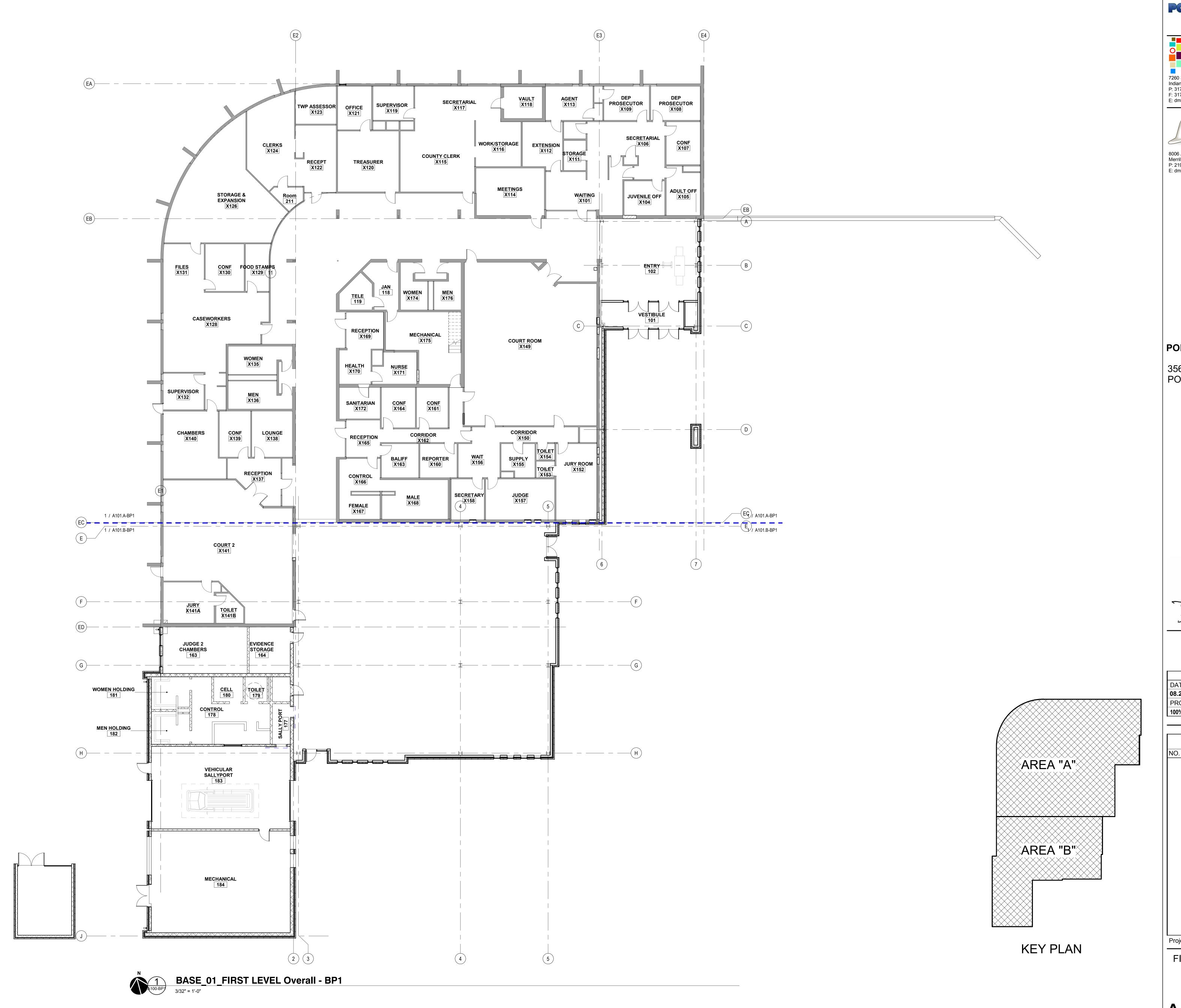
OCCURS; REFER TO FLOOR PLANS AND ROOM FINISH SCHEDULE FOR OCCURRENCE, LOCATION, AND EXTENT OF WALL COVERAGE. 5/8" MOISTURE

RESISTANT GYPSUM WALL BOARD REPLACES TYPE-X AS SUBSTRATE IN ALL

SEALANT AND BACKER ROD: ONE SIDE, CONT.

METAL RUNNER

LINE OF CEILING





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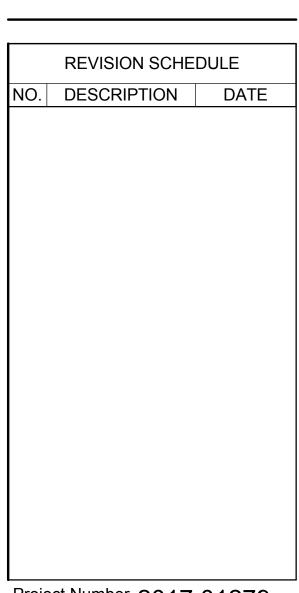
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PORTER COUNTY ANNEX

3560 WILLOWCREEK RD PORTAGE, IN 46368



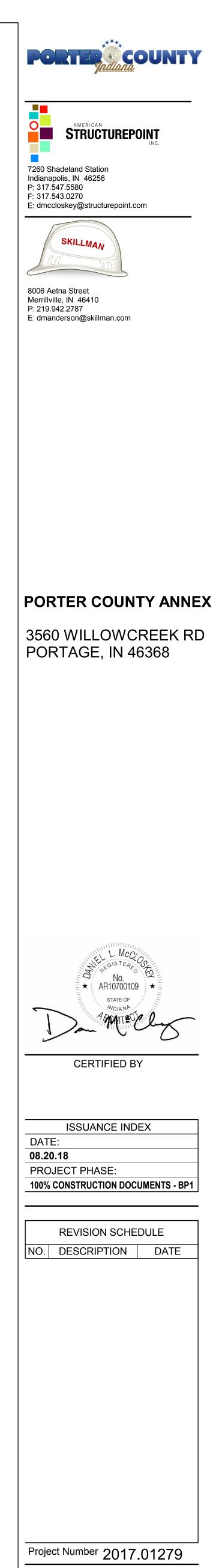
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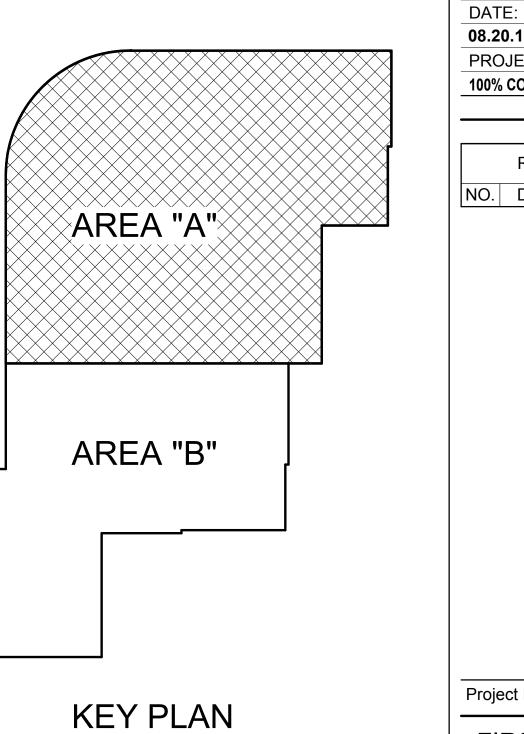


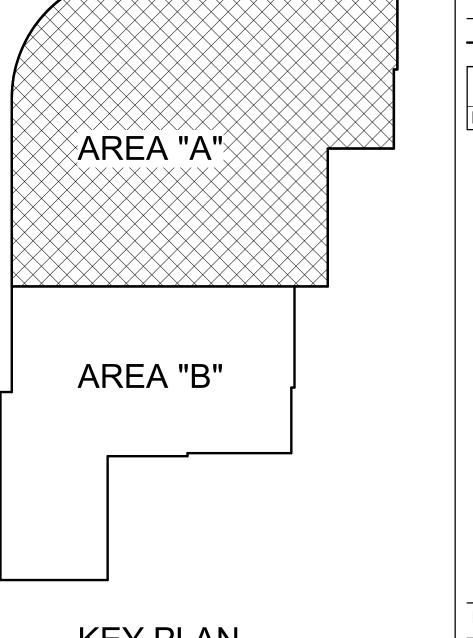
FIRST FLOOR PLAN OVERALL

O V LI V (LL

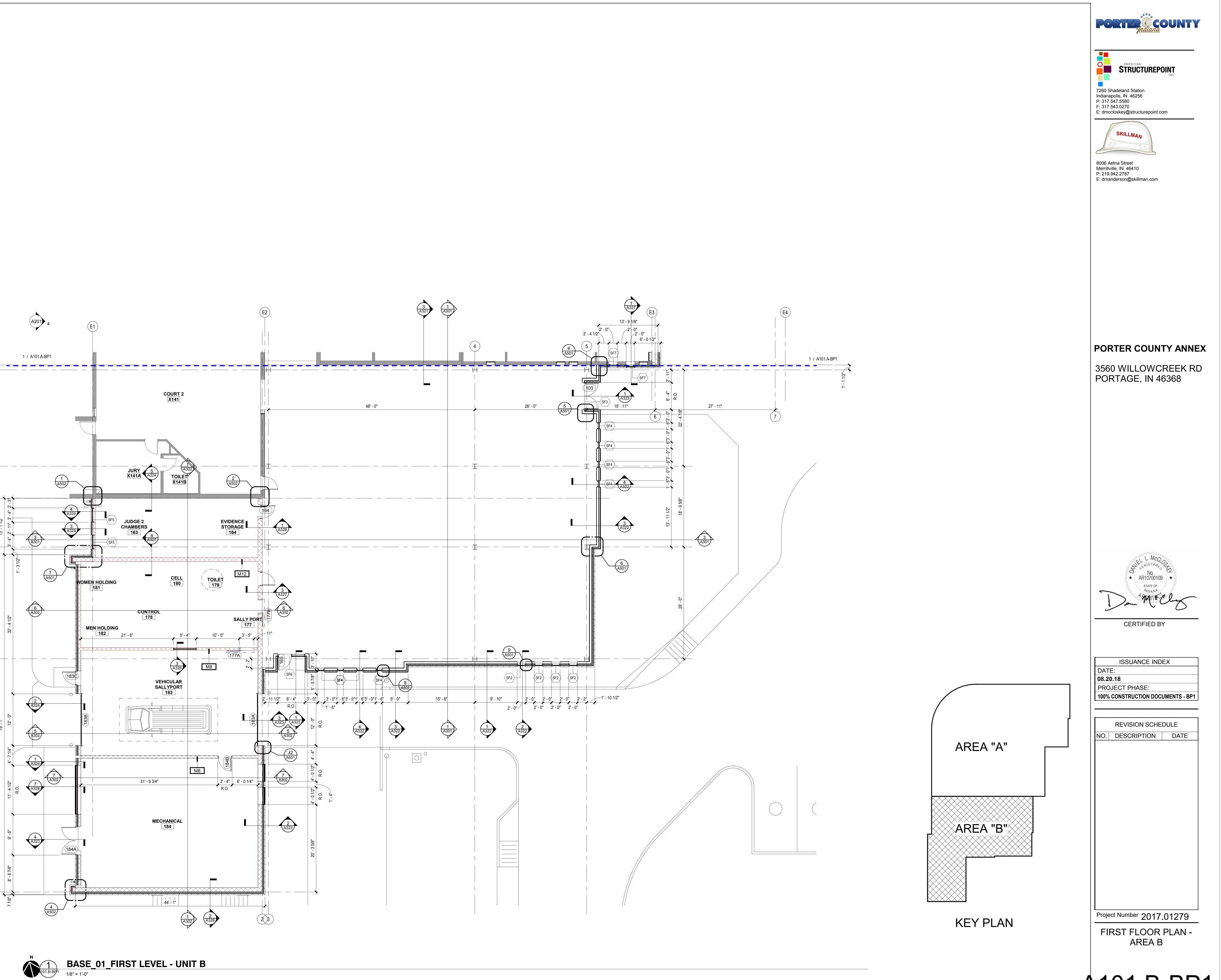


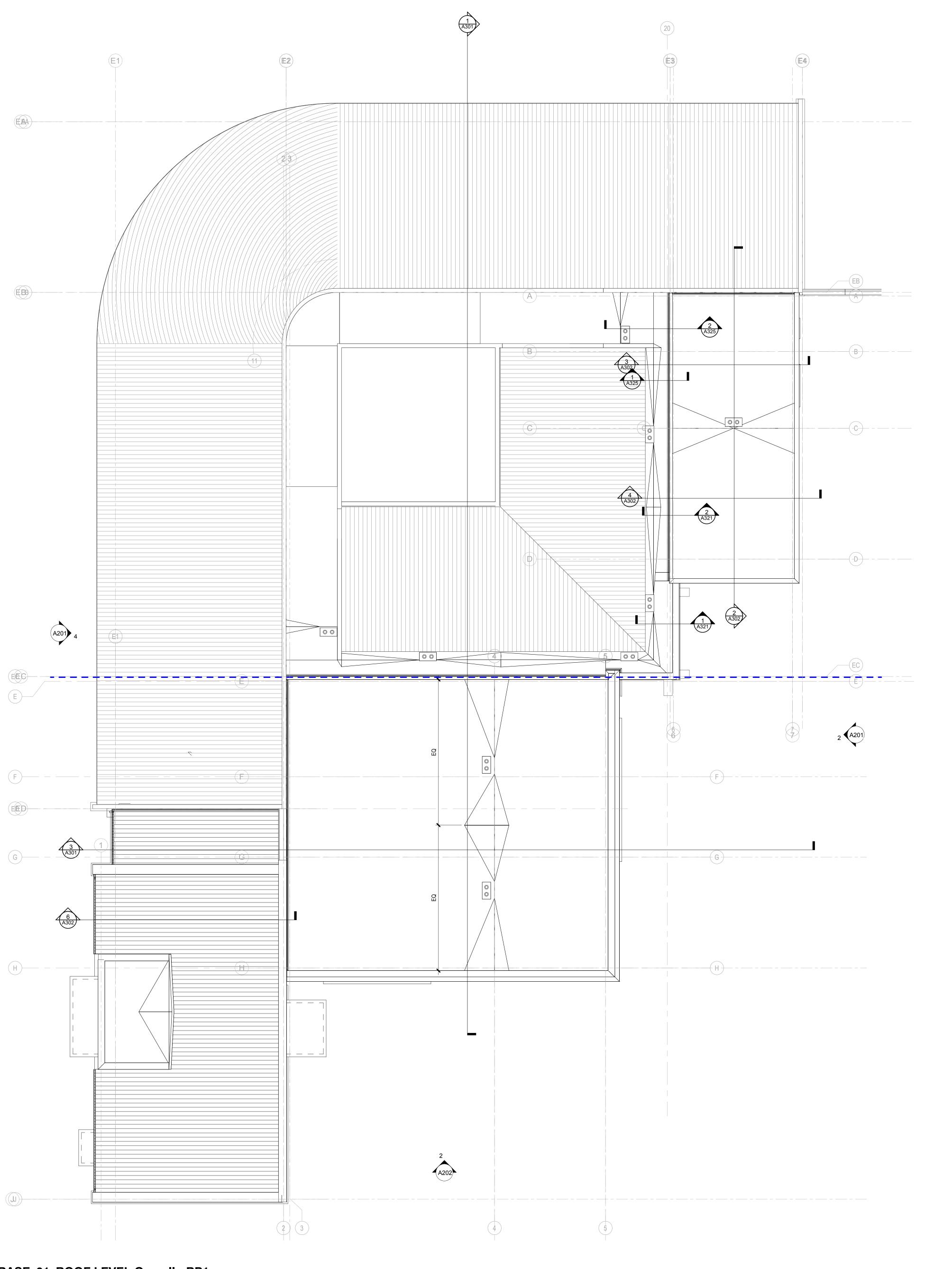






FIRST FLOOR PLAN -AREA A





KEYED ROOF PLAN NOTES (NOTED WITH 1)

- 1 STANDING SEAM METAL ROOFING SYSTEM. PROVIDE A 3:12 SLOPE AND REFER TO SPECIFICATIONS 2 FULLY ADHERED MEMBRANE ROOFING SYSTEM (MEMBRANE OVER
- POLYISO ROOF INSULATION). INSTALL ROOF INSULATION IN MIN. 2 LAYERS WITH JOINTS OFFSET BY 12" MIN. PROVIDE TAPERED INSULATION TO ACHIEVE MIN. 1/4:12 SLOPE TO ENSURE POSITIVE DRAINAGE TO INTERNAL ROOF DRAIN LOCATIONS
- 3 PRE-FINISHED METAL COPING OVER PARAPET WALL 4 ROOF DRAIN AND OVERFLOW SYSTEM. COORDINATE W/ PLUMBING
- DRAWINGS FOR STORM DRAINAGE PIPING AND CONNECTIONS TO 5 LOCATION OF ROOFTOP HVAC UNITS SHOWN FOR REFERENCE ONLY. COORDINATE FINAL LOCATIONS WITH MECHANICAL & STRUCTURAL DRAWINGS. CREATE CRICKET AT UNIT HIGH SIDE TO ENSURE POSITIVE DRAINAGE AROUND UNIT. PROVIDE ADDITIONAL CONCRETE WALKWAY
- PAD AT CONDENSATE DRAIN LINE. 6 BUILDING/ROOF EXPANSION JOINT - REFER TO DETAIL XXX

AREA "A"

AREA "B"

KEY PLAN





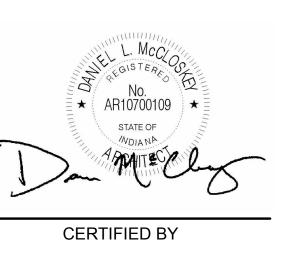
7260 Shadeland Station

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PORTER COUNTY ANNEX

3560 WILLOWCREEK RD PORTAGE, IN 46368



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ROOF PLAN -OVERALL

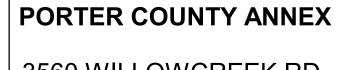
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- INSULATION TO ACHIEVE MIN. 1/4:12 SLOPE TO ENSURE POSITIVE DRAINAGE TO INTERNAL ROOF DRAIN LOCATIONS 3 PRE-FINISHED METAL COPING OVER PARAPET WALL
- 4 ROOF DRAIN AND OVERFLOW SYSTEM. COORDINATE W/ PLUMBING DRAWINGS FOR STORM DRAINAGE PIPING AND CONNECTIONS TO
- 5 LOCATION OF ROOFTOP HVAC UNITS SHOWN FOR REFERENCE ONLY. COORDINATE FINAL LOCATIONS WITH MECHANICAL & STRUCTURAL DRAWINGS. CREATE CRICKET AT UNIT HIGH SIDE TO ENSURE POSITIVE DRAINAGE AROUND UNIT. PROVIDE ADDITIONAL CONCRETE WALKWAY PAD AT CONDENSATE DRAIN LINE.
- 6 BUILDING/ROOF EXPANSION JOINT REFER TO DETAIL XXX

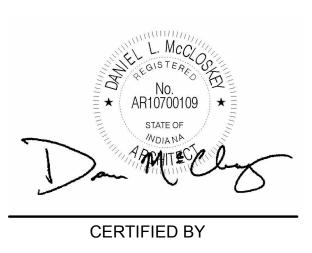


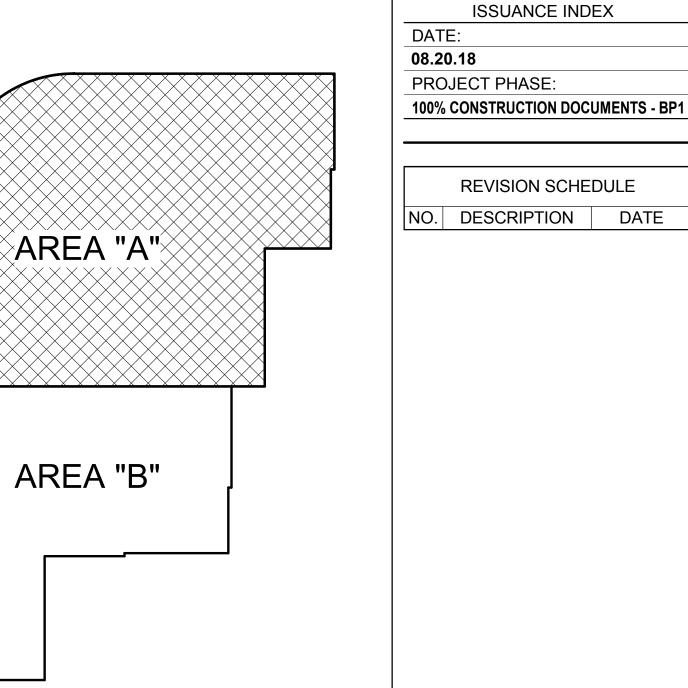






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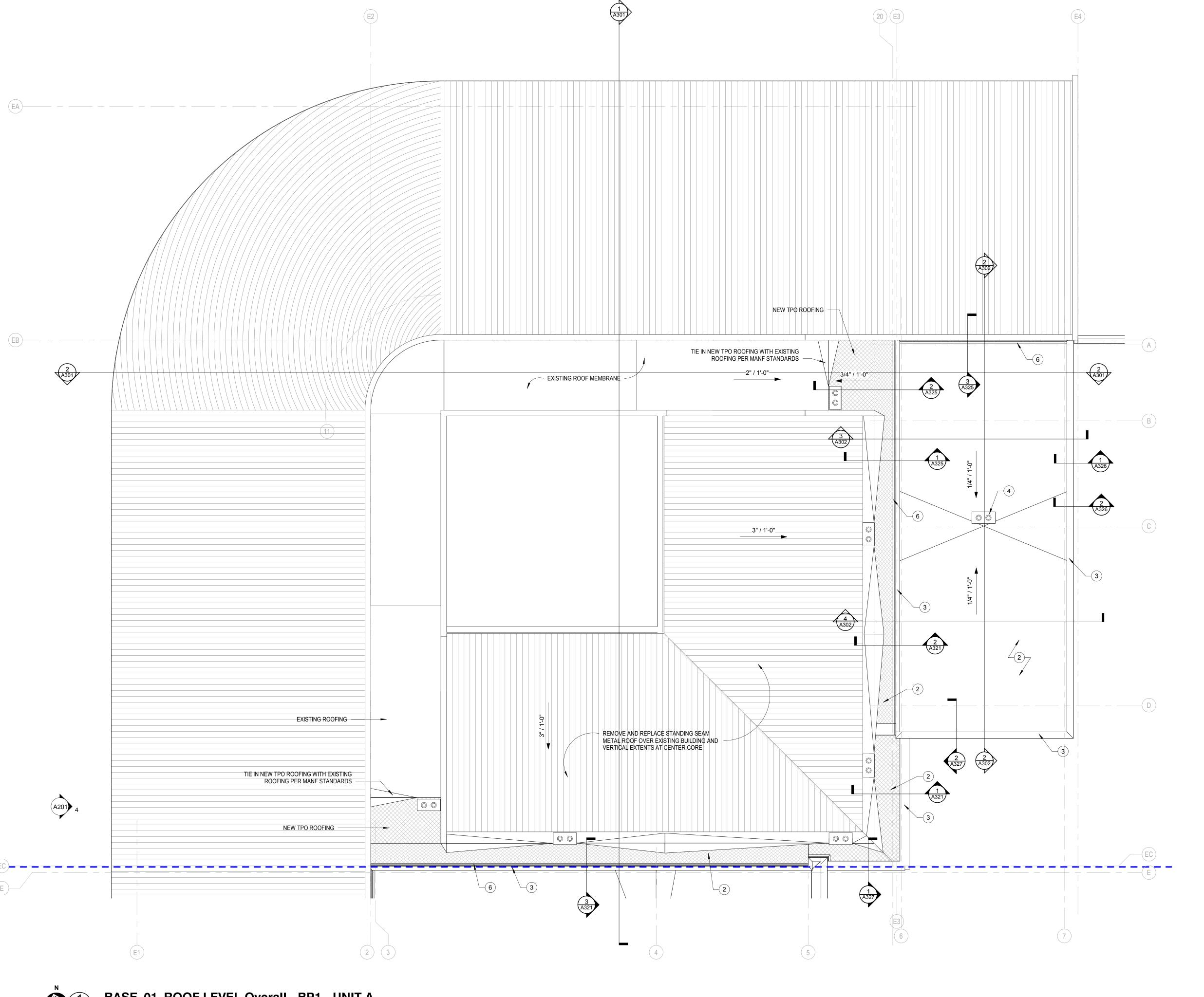




KEY PLAN

Project Number 2017.01279 ROOF PLAN - AREA A





KEYED ROOF PLAN NOTES (NOTED WITH 1)

- 1 STANDING SEAM METAL ROOFING SYSTEM. PROVIDE A 3:12 SLOPE AND REFER TO SPECIFICATIONS 2 FULLY ADHERED MEMBRANE ROOFING SYSTEM (MEMBRANE OVER POLYISO ROOF INSULATION). INSTALL ROOF INSULATION IN MIN. 2 LAYERS WITH JOINTS OFFSET BY 12" MIN. PROVIDE TAPERED
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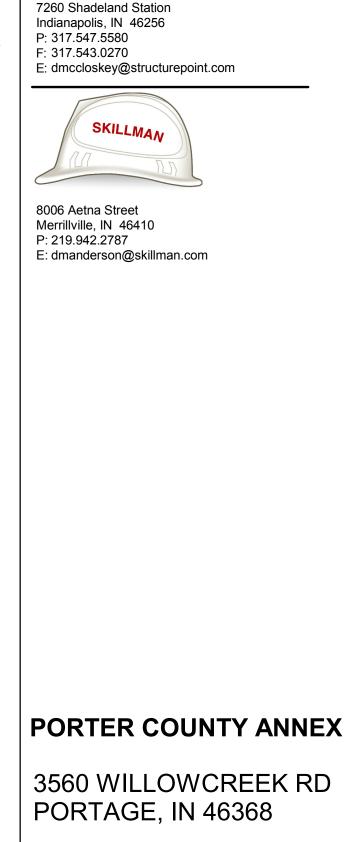
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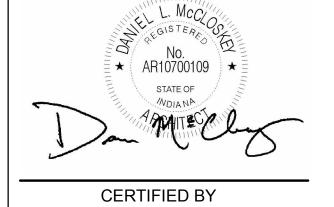
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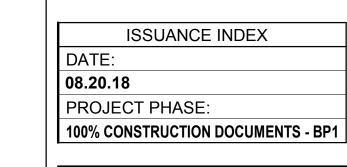
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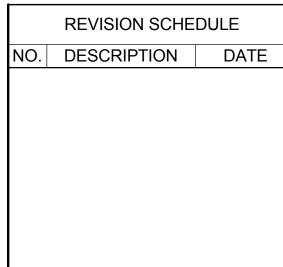


STRUCTUREPOINT





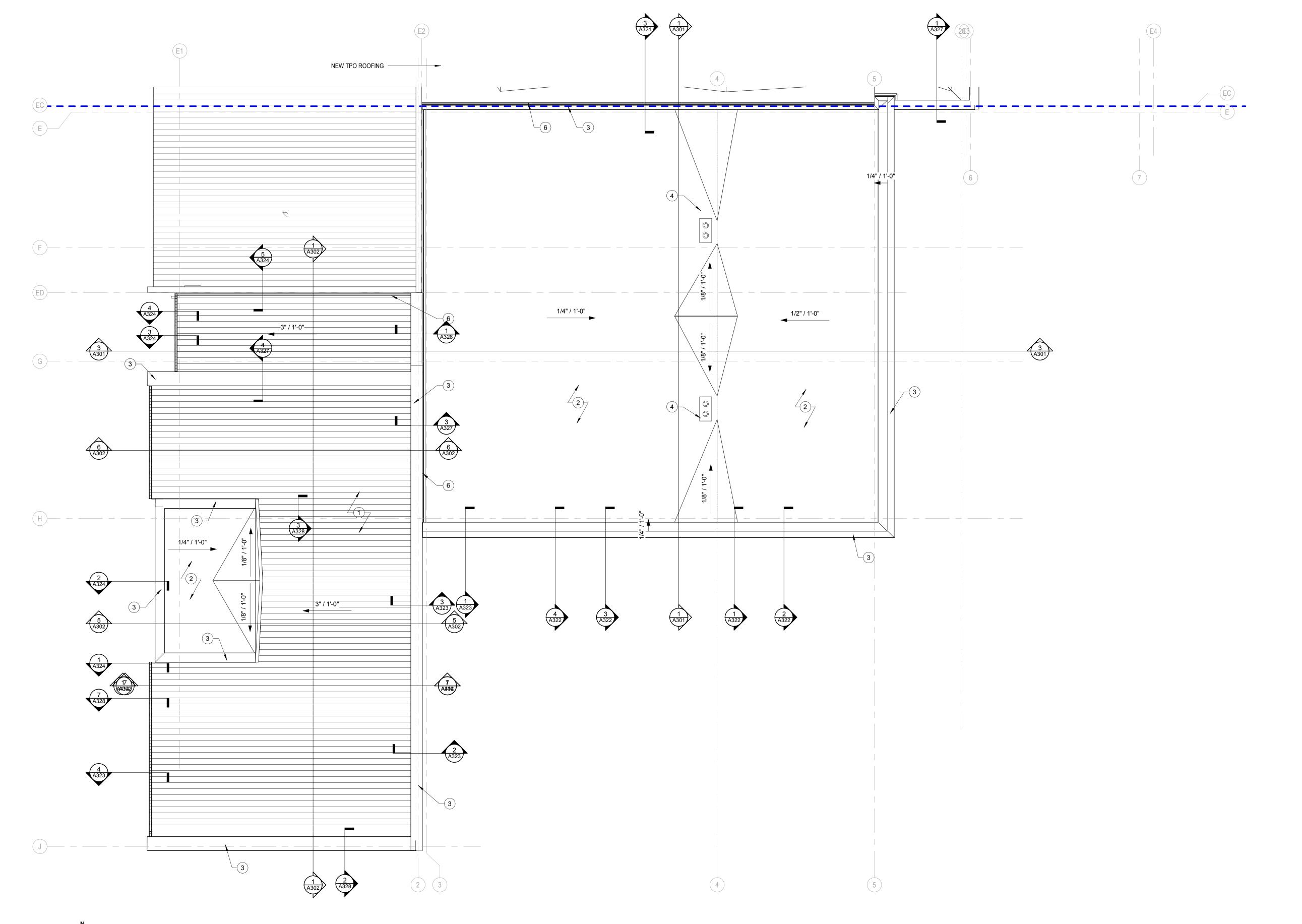


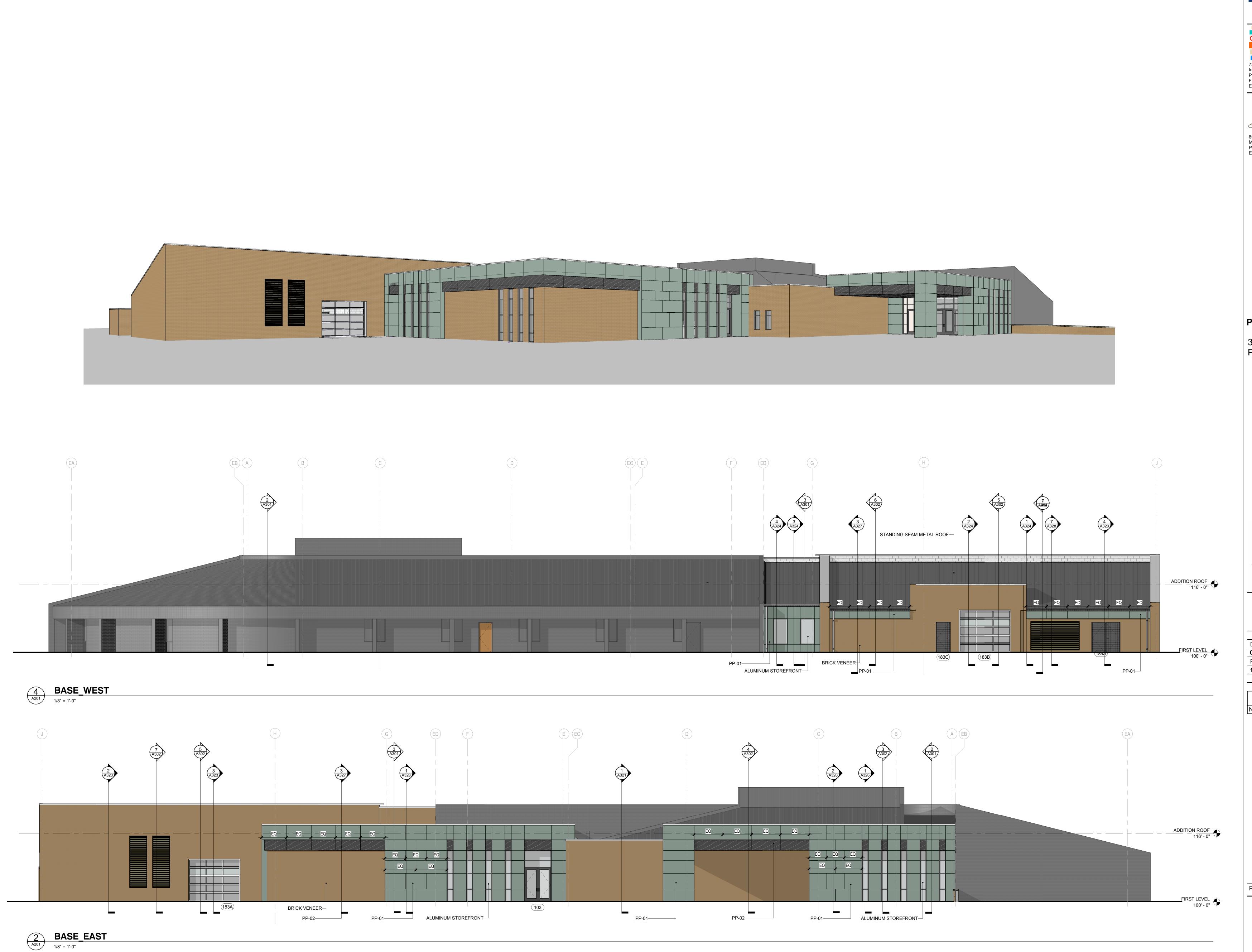




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ROOF PLAN - AREA B





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PORTER COUNTY ANNEX

3560 WILLOWCREEK RD PORTAGE, IN 46368



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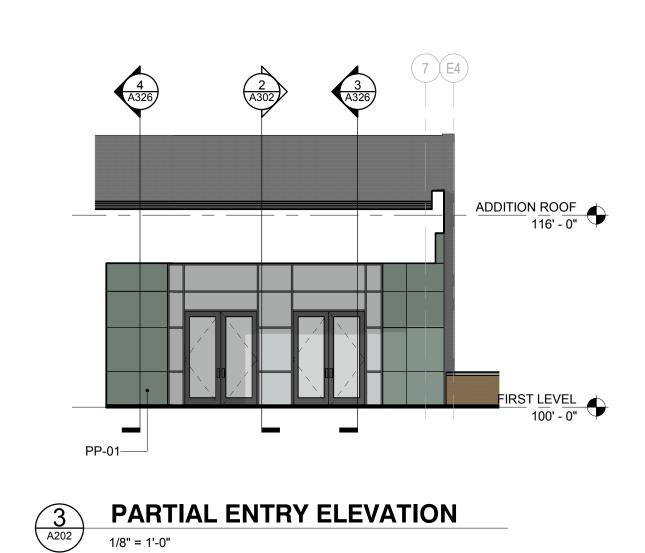
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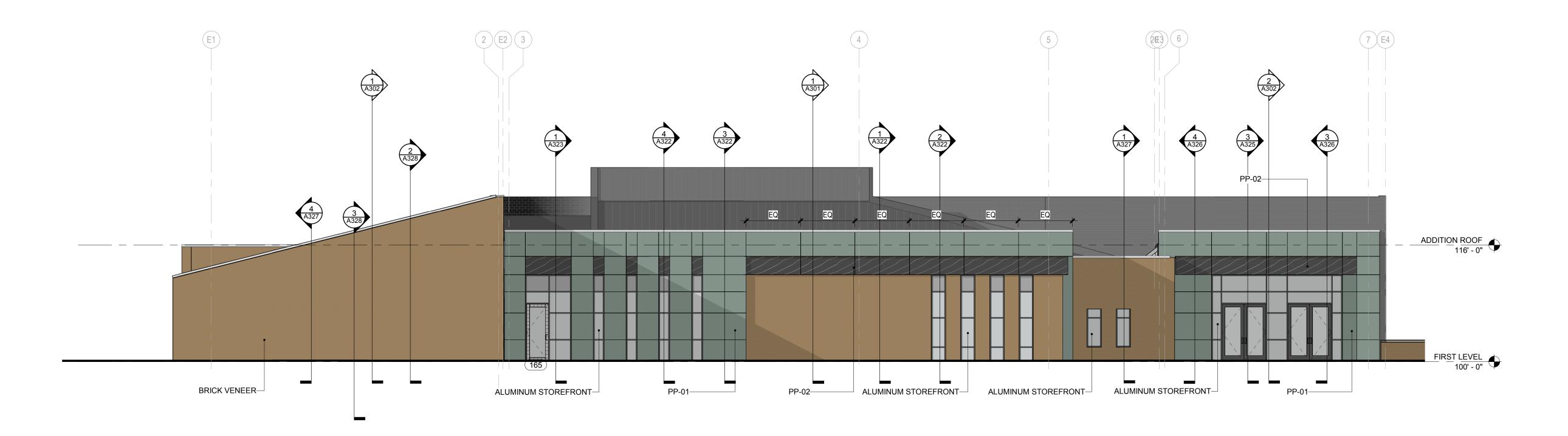
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EXTERIOR ELEVATIONS

A201







1/8" = 1'-0"

2 BASE_SOUTH
1/8" = 1'-0"





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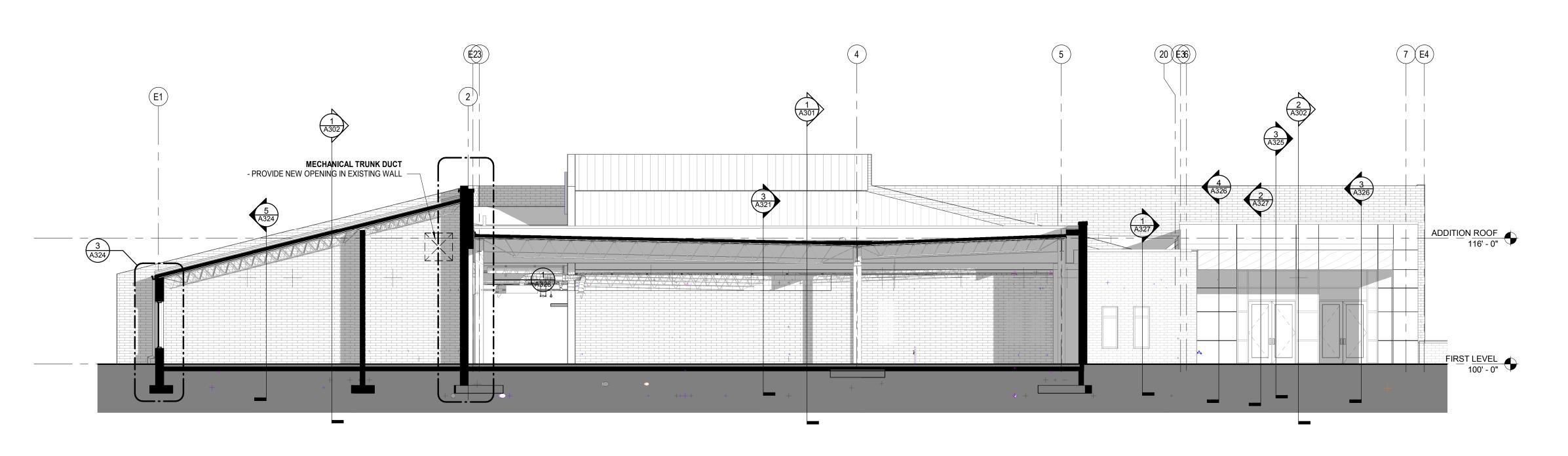
REVISION SCHEDULE

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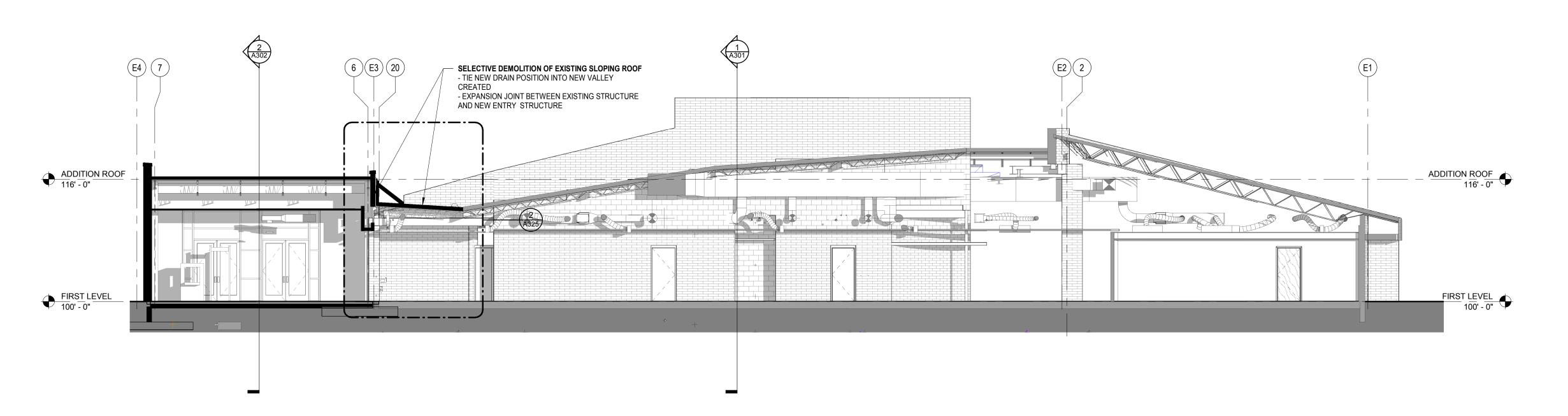
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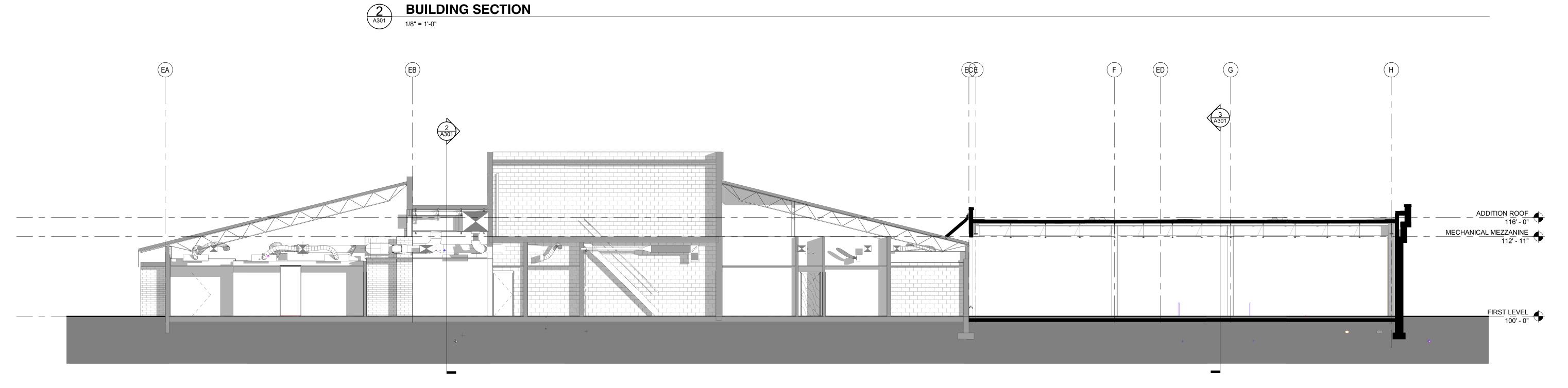
4202



BUILDING SECTION

1/8" = 1'-0"





BUILDING SECTION

1/8" = 1'-0"



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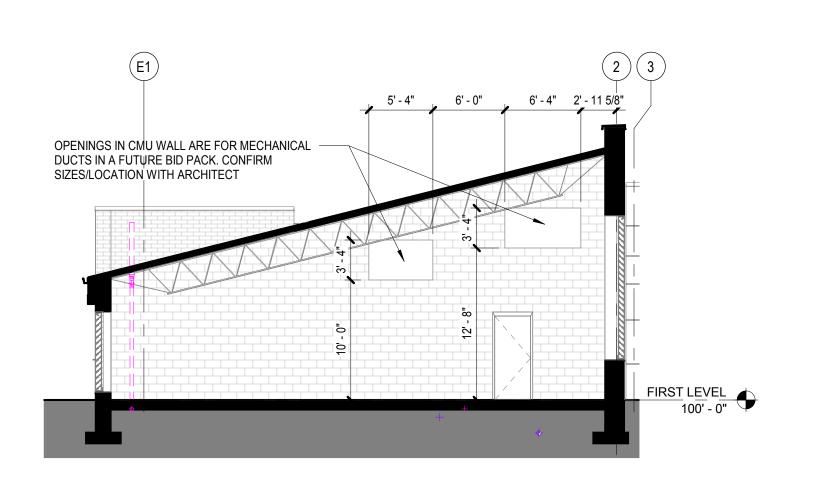
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REVISION SCHEDULE

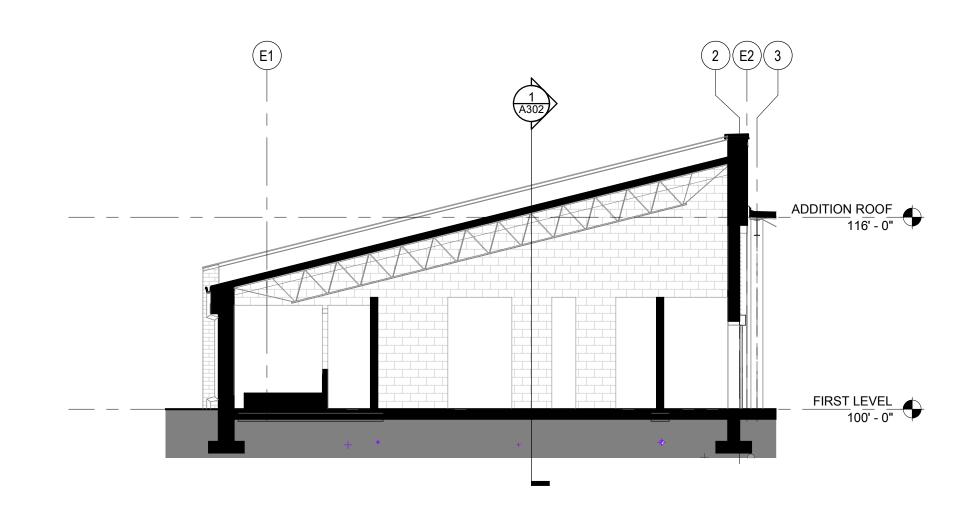
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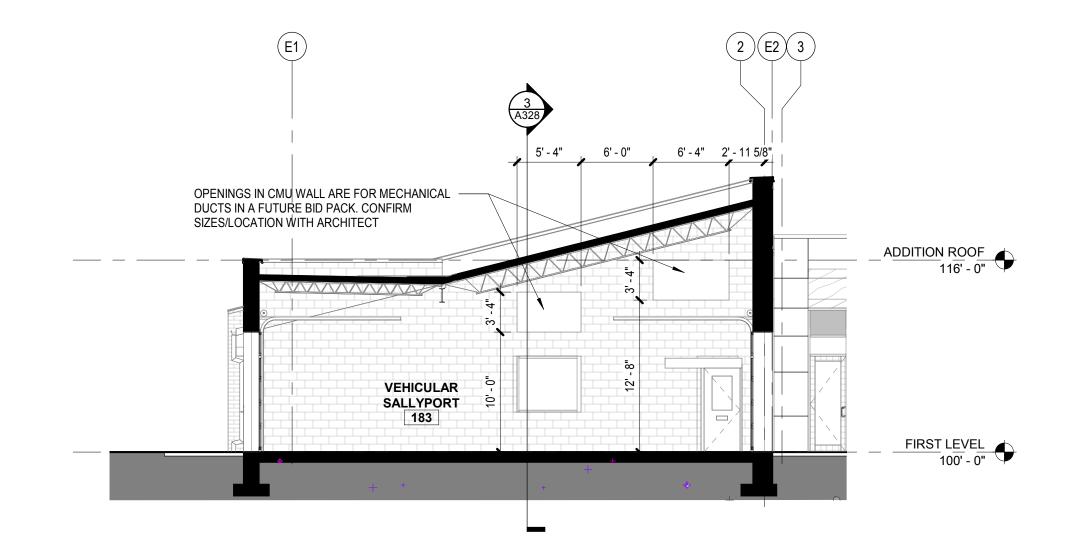
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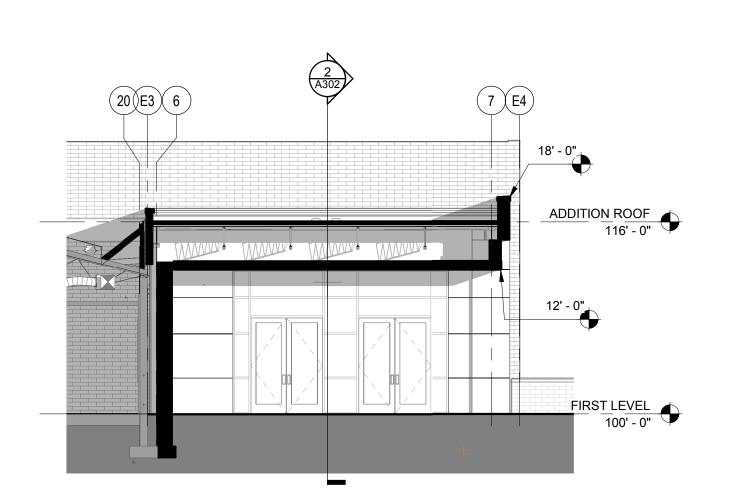
7 WALL SECTION 1/8" = 1'-0"



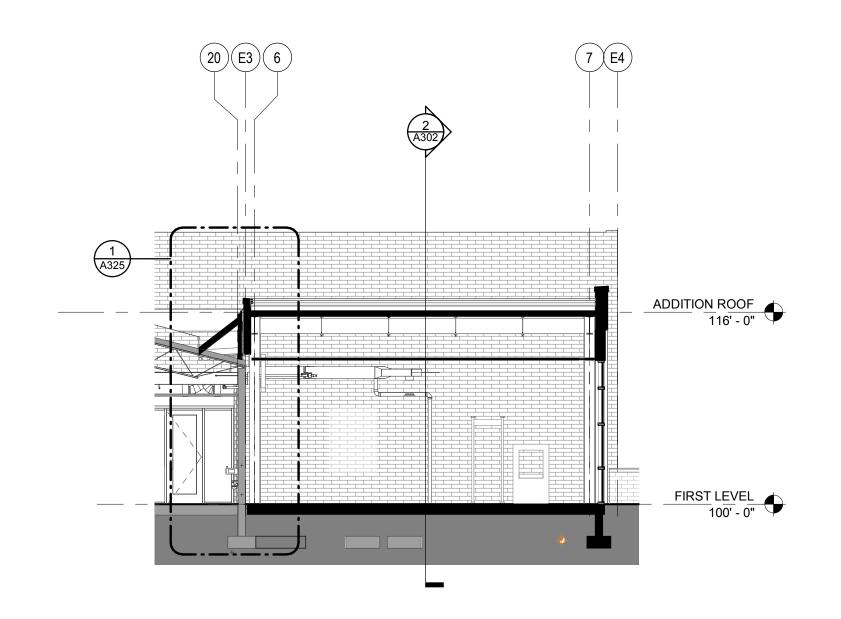
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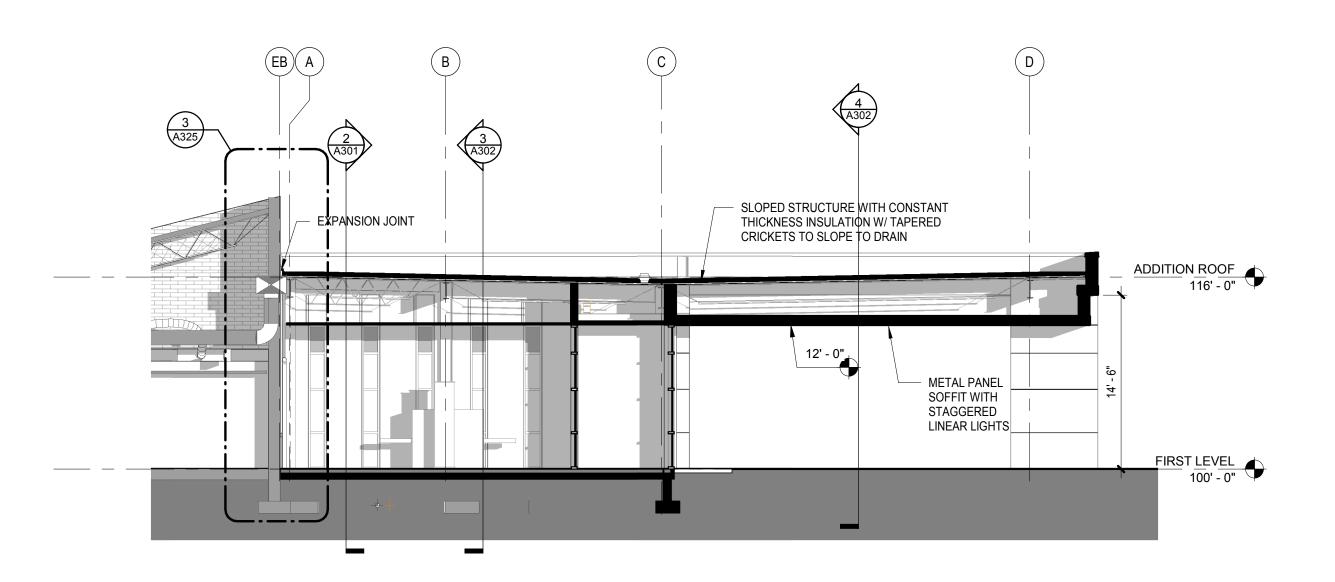
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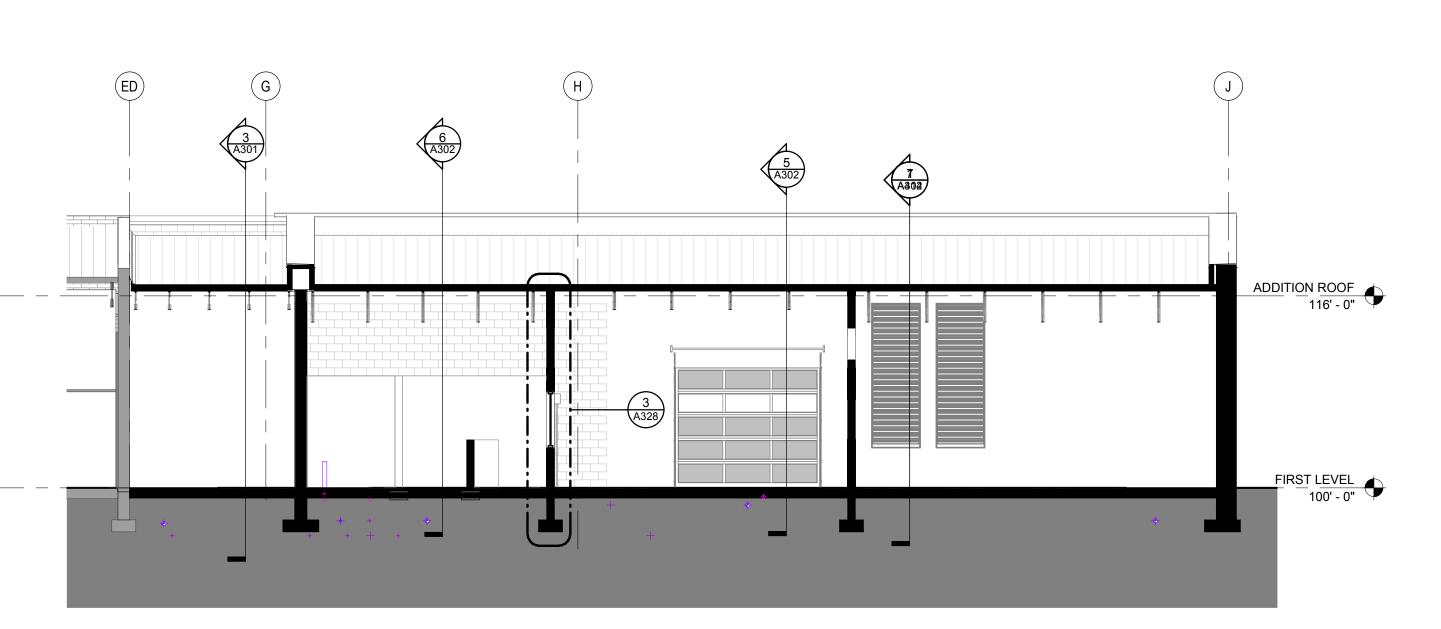
4 BUILDING SECTION
1/8" = 1'-0"



3 BUILDING SECTION 1/8" = 1'-0"



BUILDING SECTION 1/8" = 1'-0"



BUILDING SECTION

1/8" = 1'-0"





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3560 WILLOWCREEK RD PORTAGE, IN 46368



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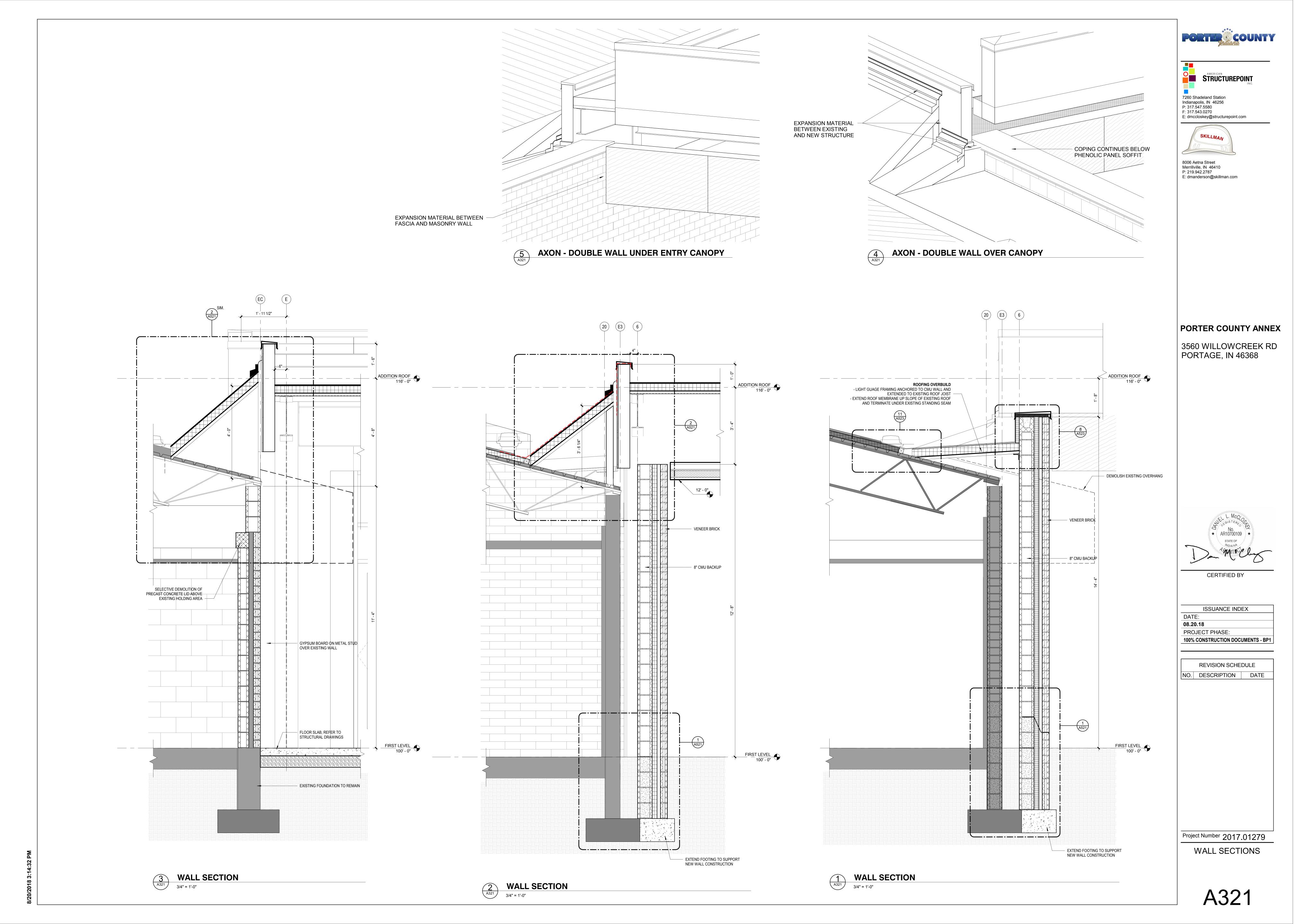
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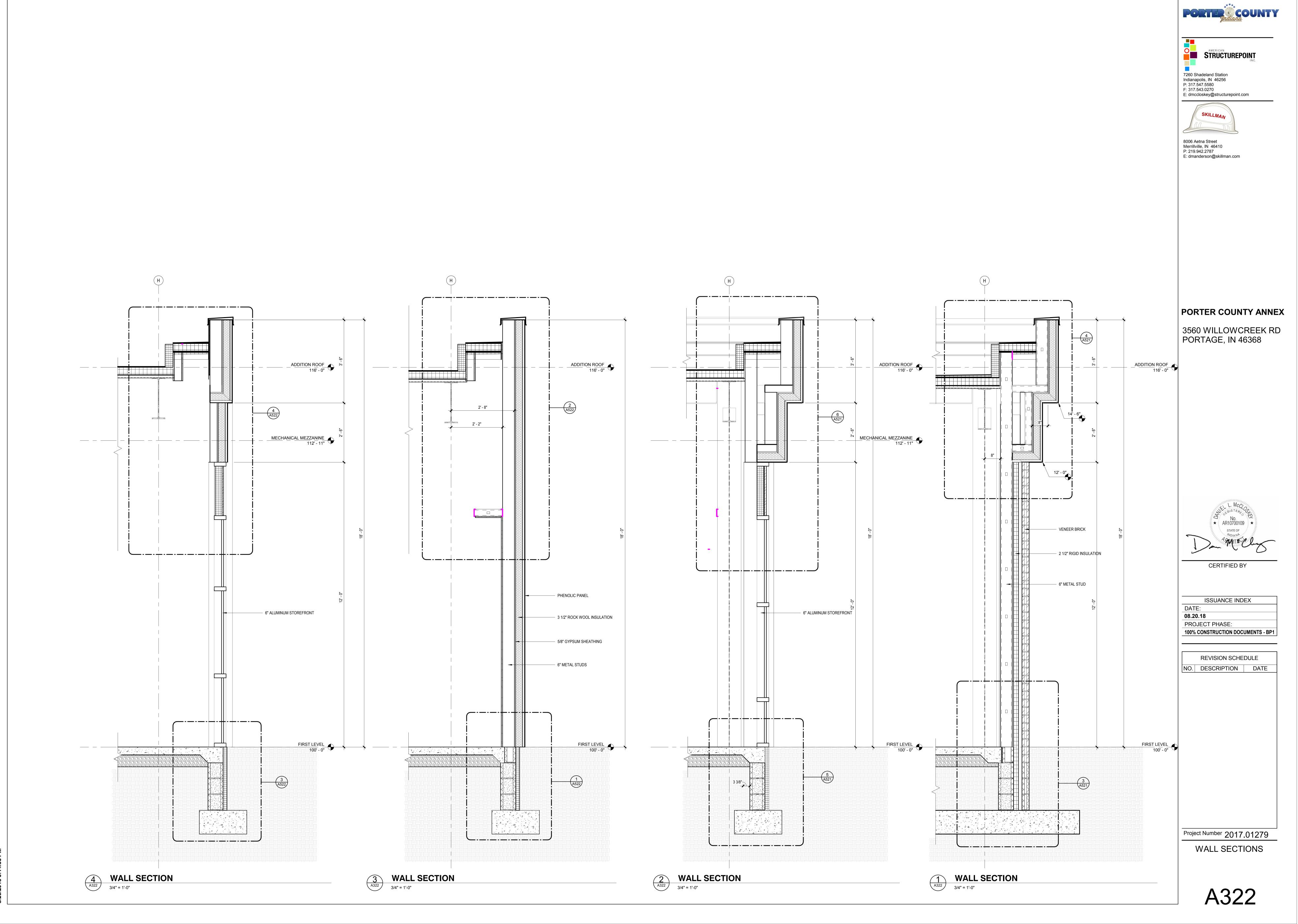
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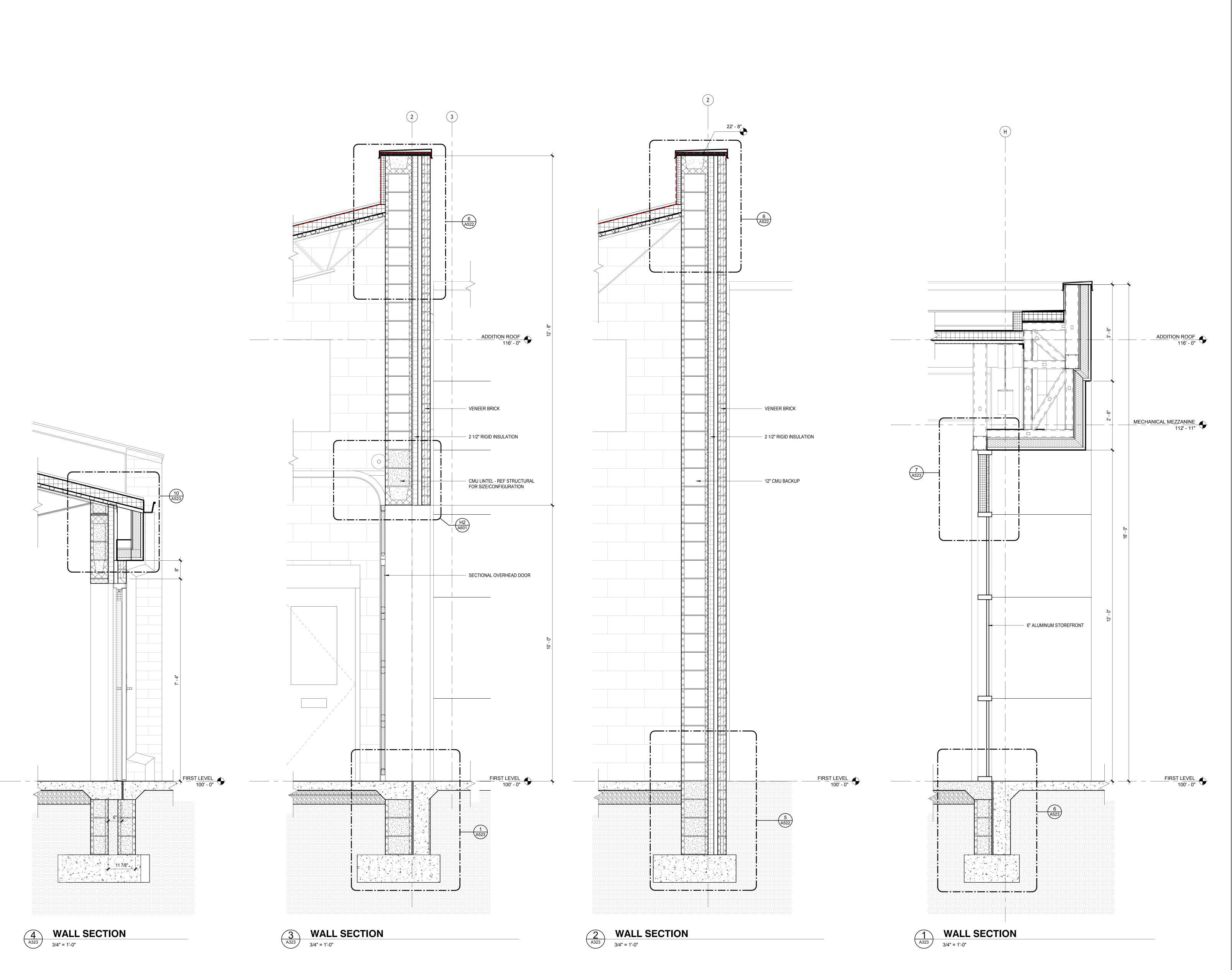
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PORTER COUNTY ANNEX

3560 WILLOWCREEK RD PORTAGE, IN 46368

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08.20.18

PROJECT PHASE:

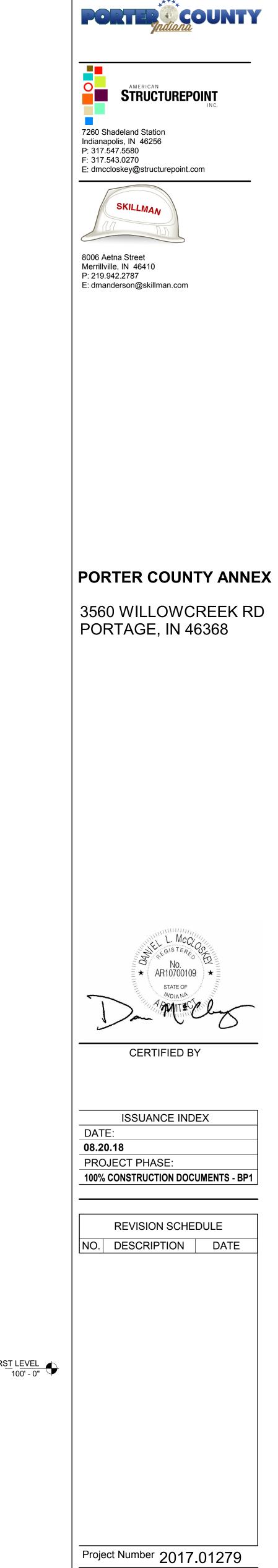
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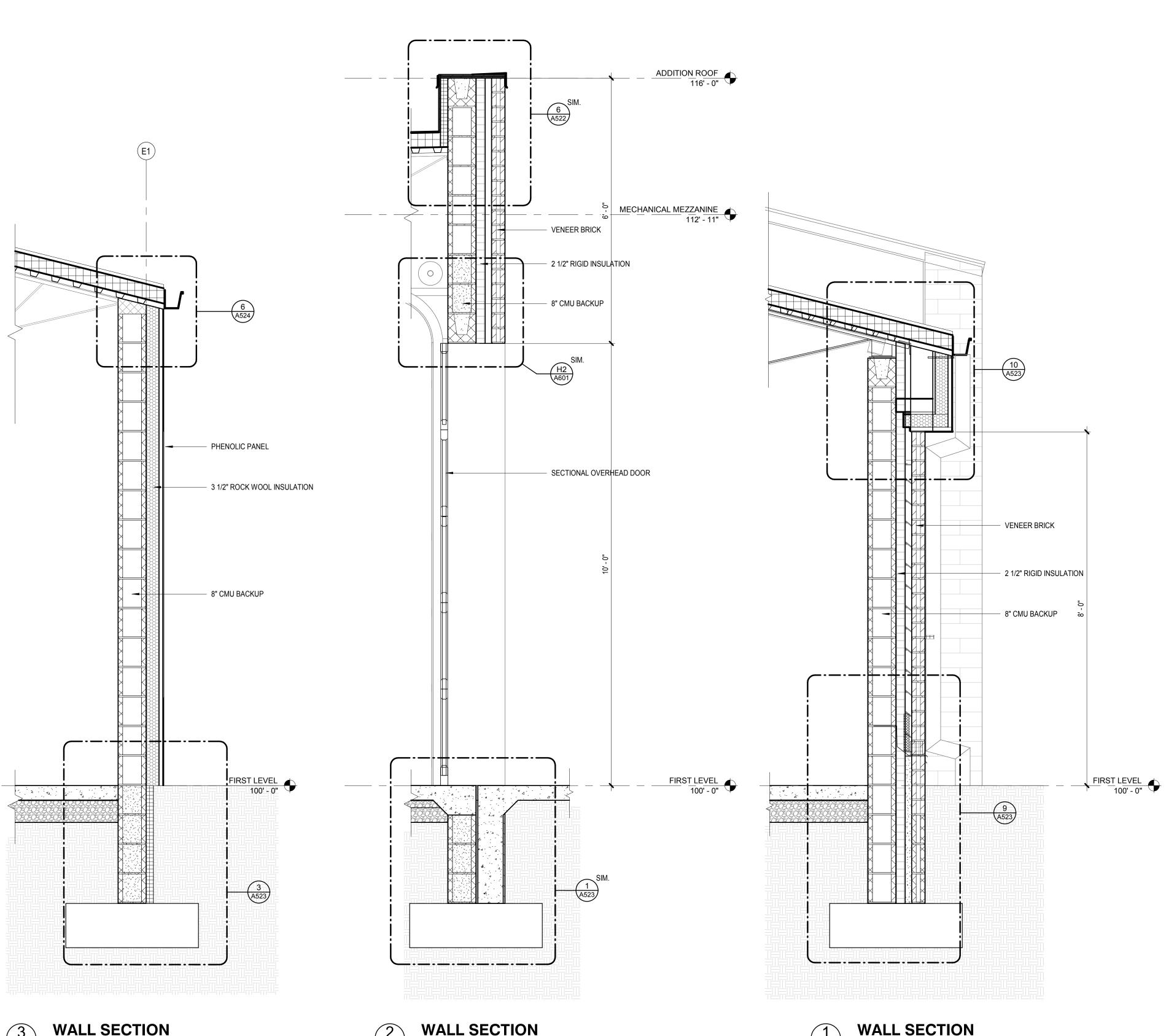
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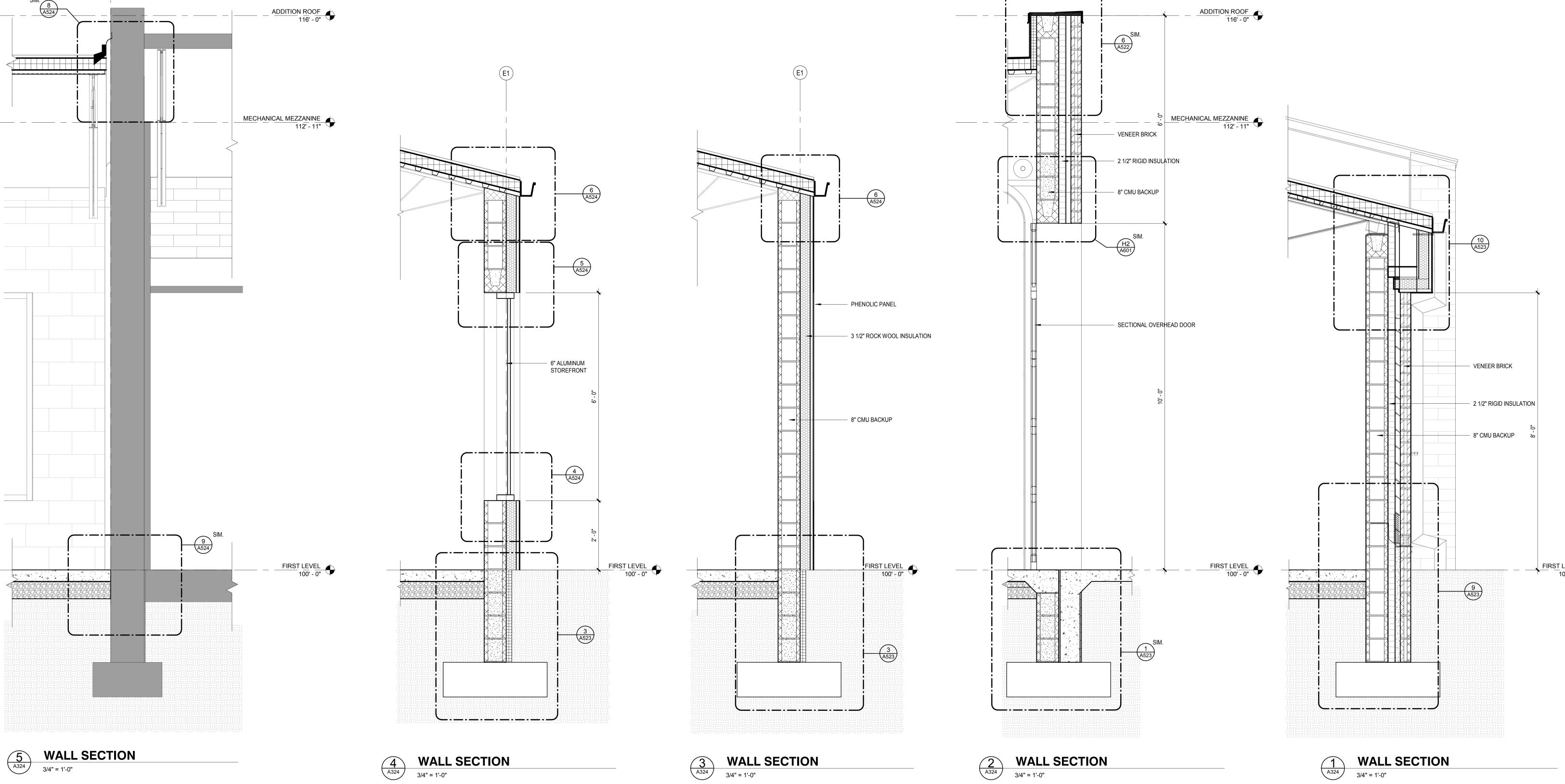
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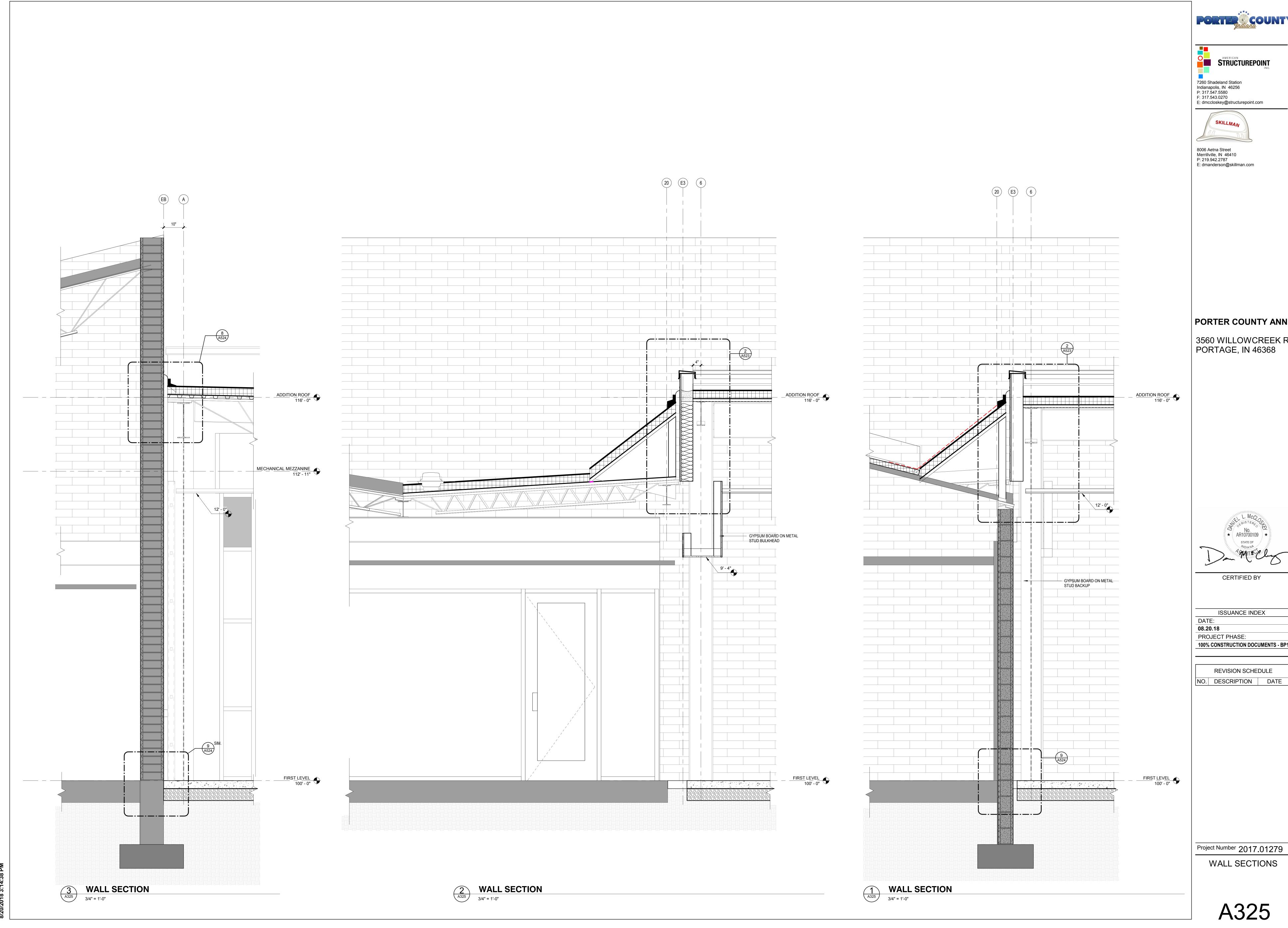
WALL SECTIONS







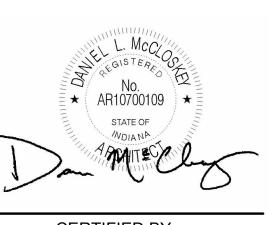
WALL SECTIONS



STRUCTUREPOINT

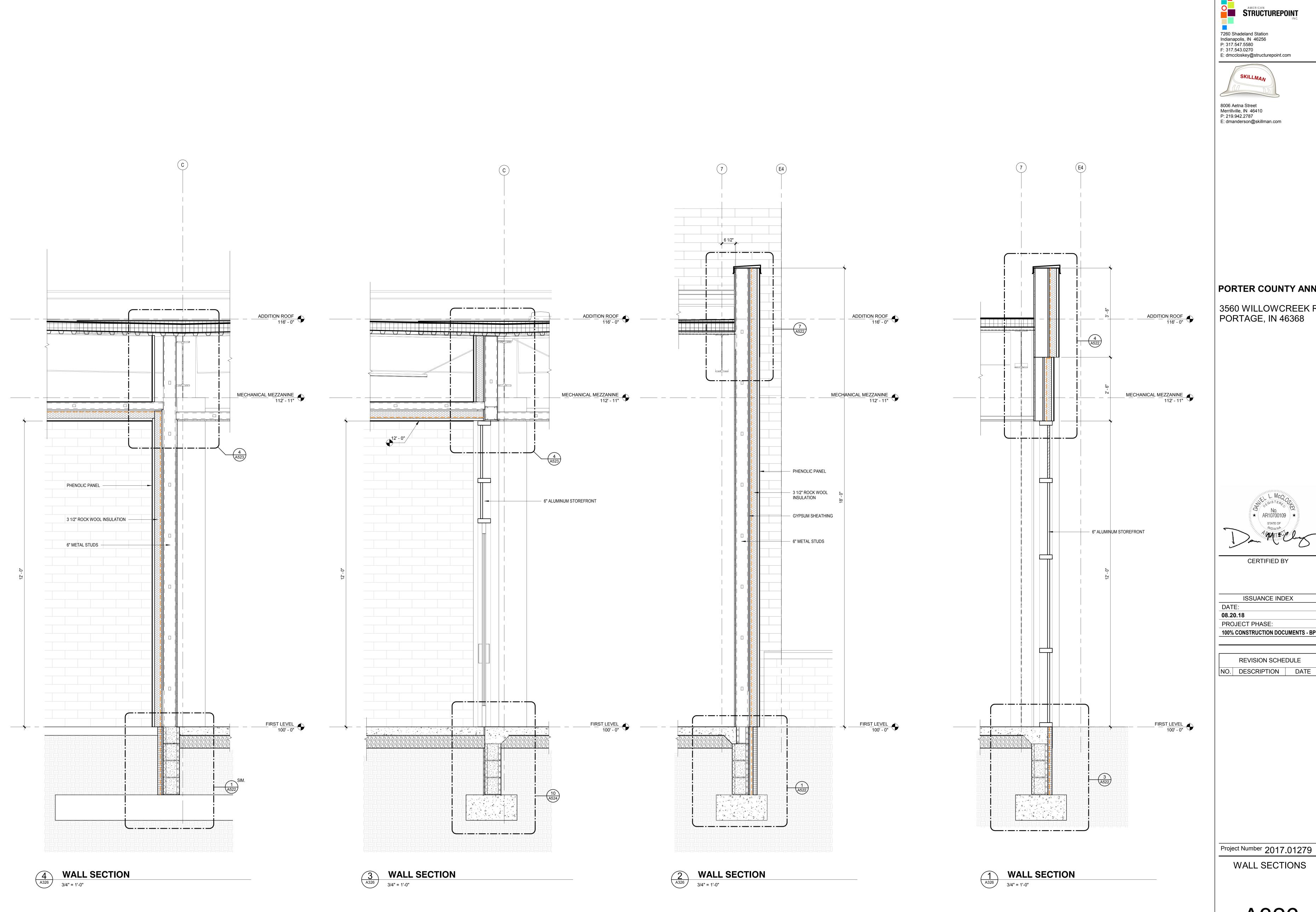
PORTER COUNTY ANNEX

3560 WILLOWCREEK RD PORTAGE, IN 46368



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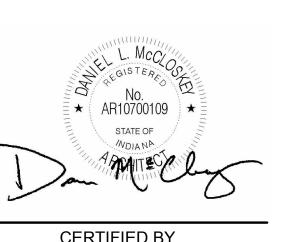




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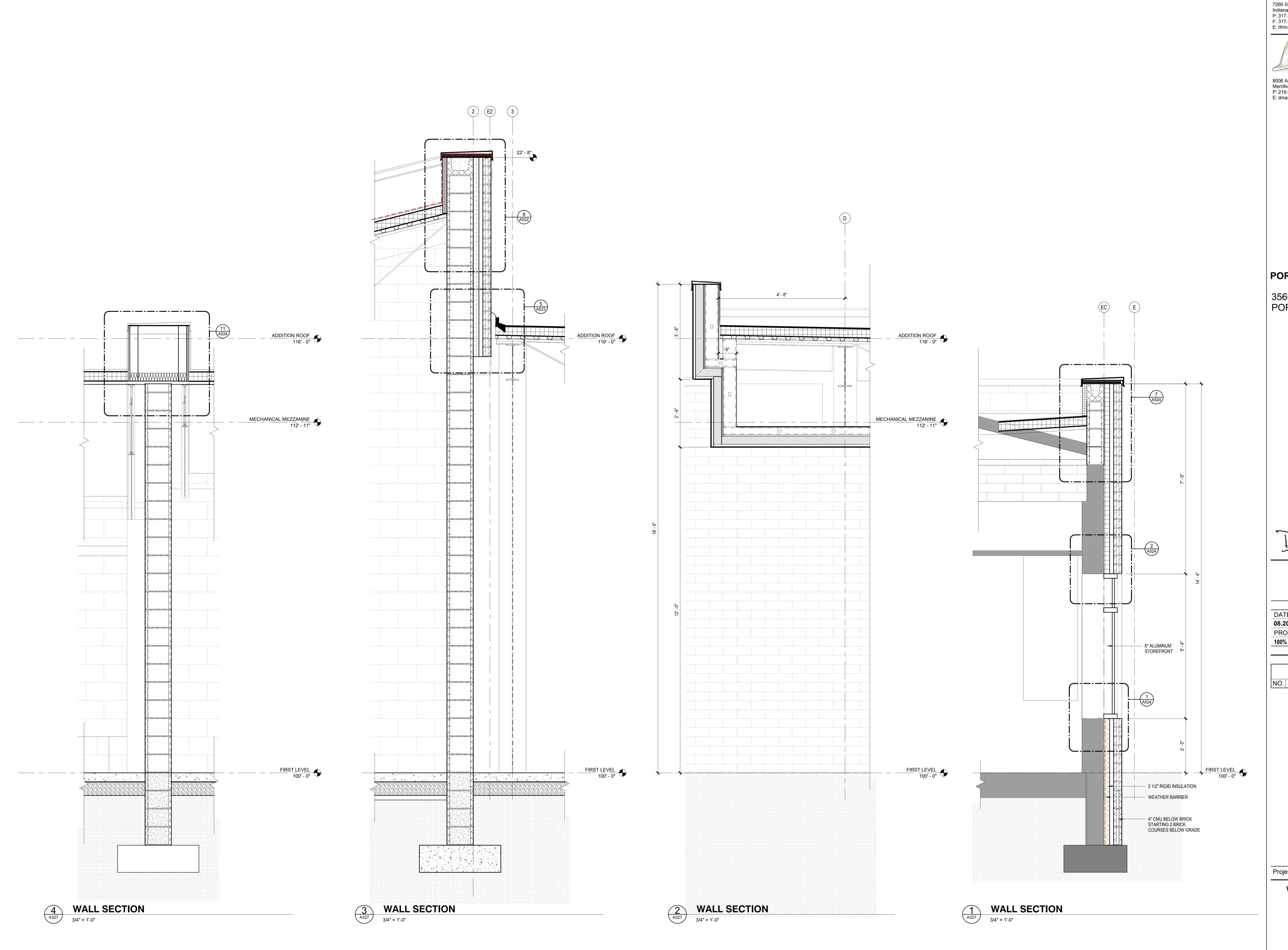
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ISSUANCE INDEX 100% CONSTRUCTION DOCUMENTS - BP1

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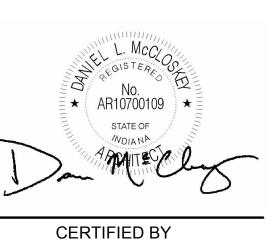
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8006 Aetna Street
Merrillville, IN 46410
P: 219.942.2787
E: dmanderson@skillman.com

PORTER COUNTY ANNEX

3560 WILLOWCREEK RD PORTAGE, IN 46368



ISSUANCE INDEX

DATE:

08.20.18

PROJECT PHASE:

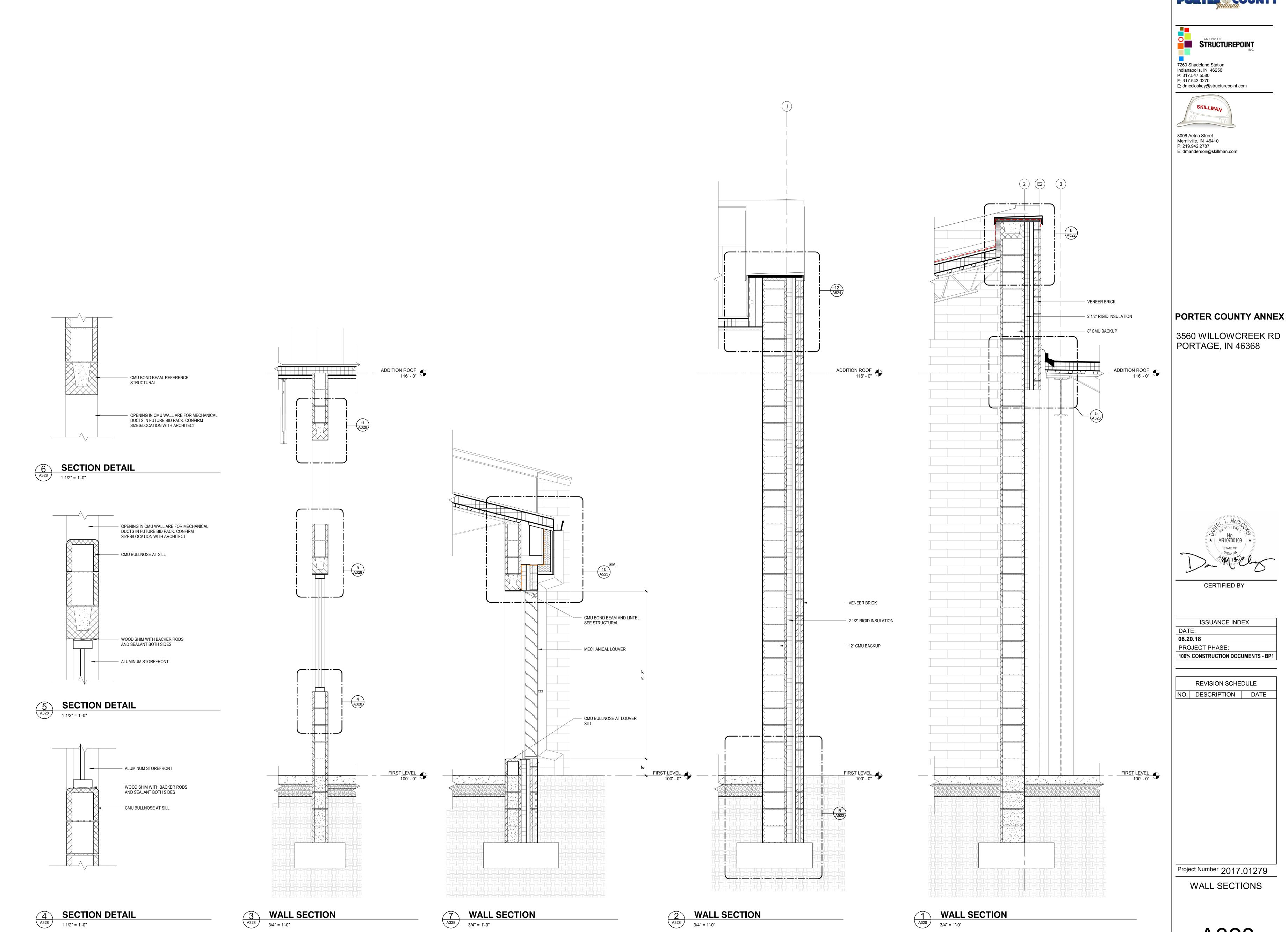
100% CONSTRUCTION DOCUMENTS - BP1

REVISION SCHEDULE

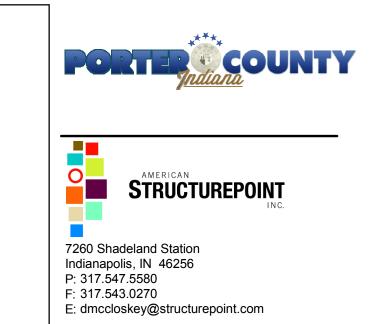
NO. DESCRIPTION DATE

Project Number 2017.01279

WALL SECTIONS



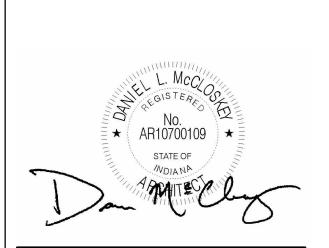
3560 WILLOWCREEK RD PORTAGE, IN 46368



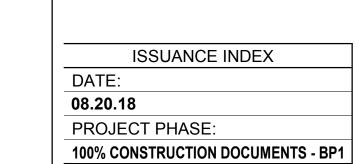




3560 WILLOWCREEK RD PORTAGE, IN 46368



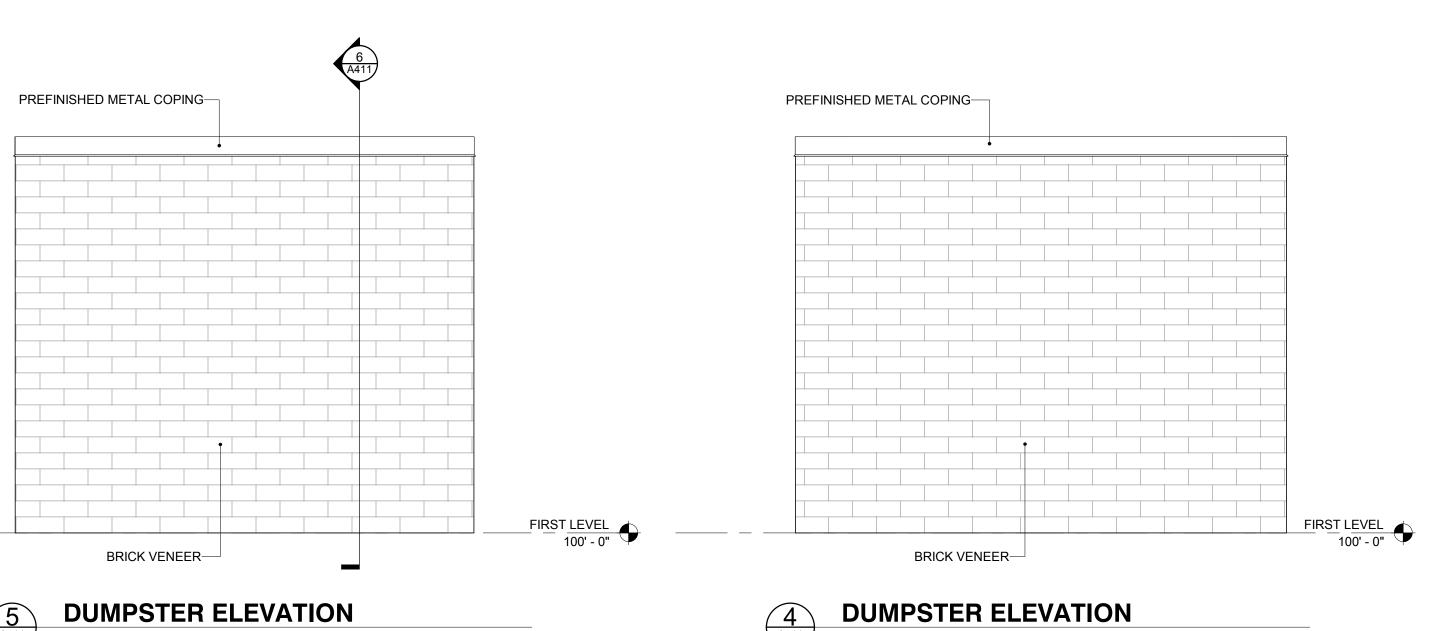
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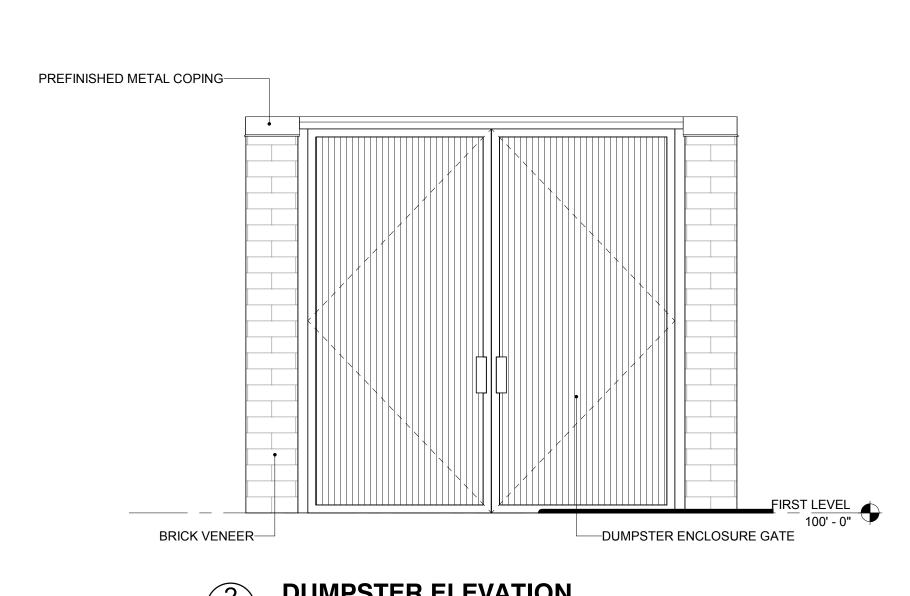


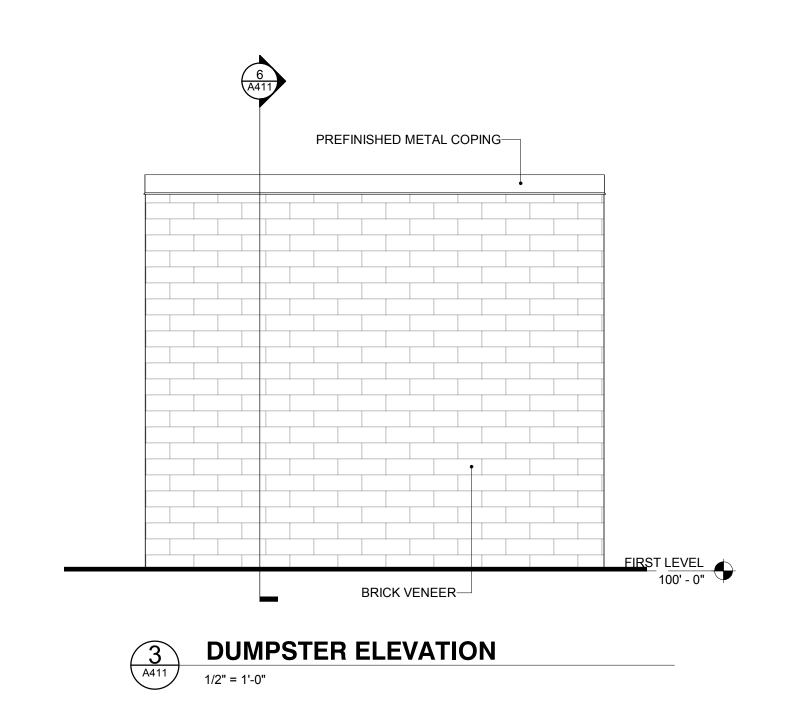
		REVISION SCHE	DULE
	NO.	DESCRIPTION	DATE
ı			

DUMPSTER PLAN AND ELEVATIONS

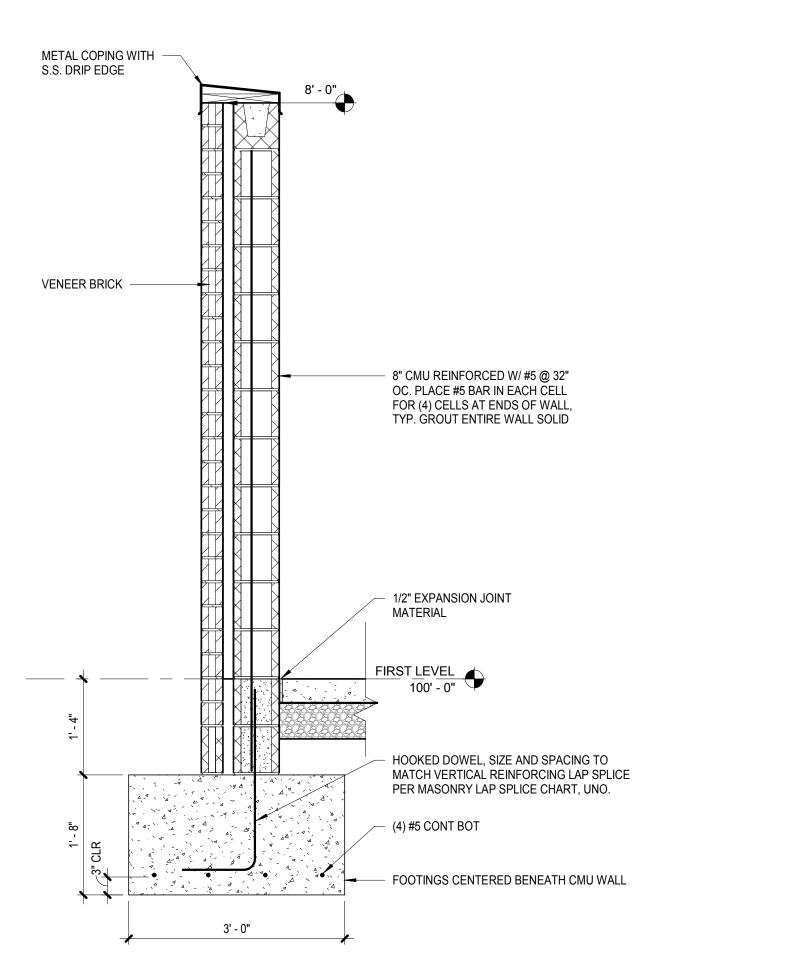
Project Number 2017.01279

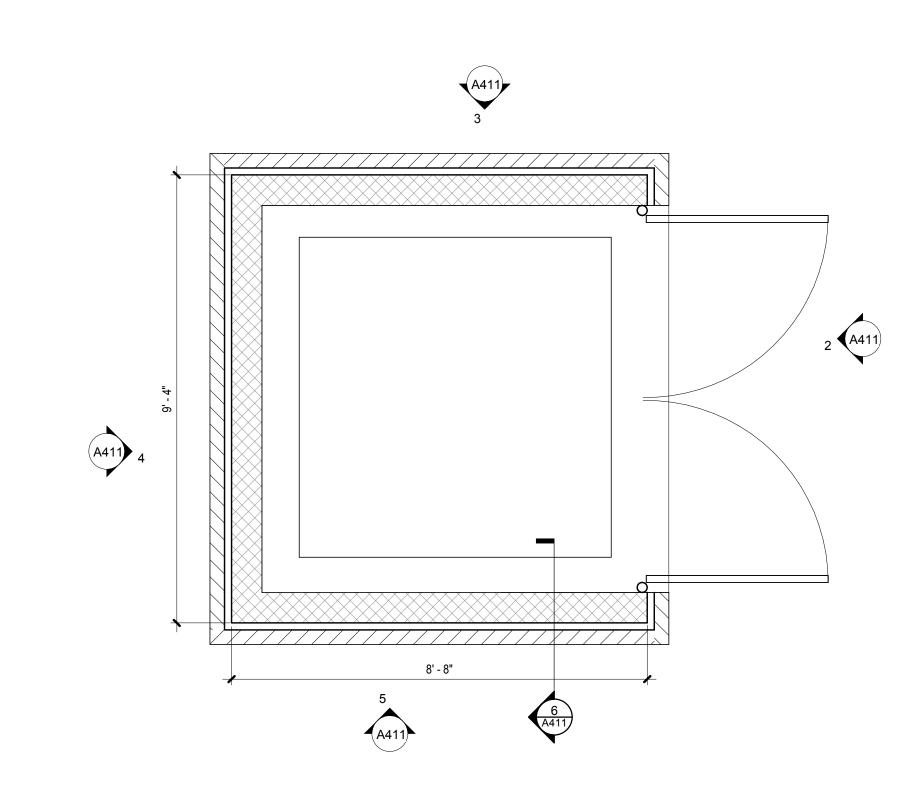






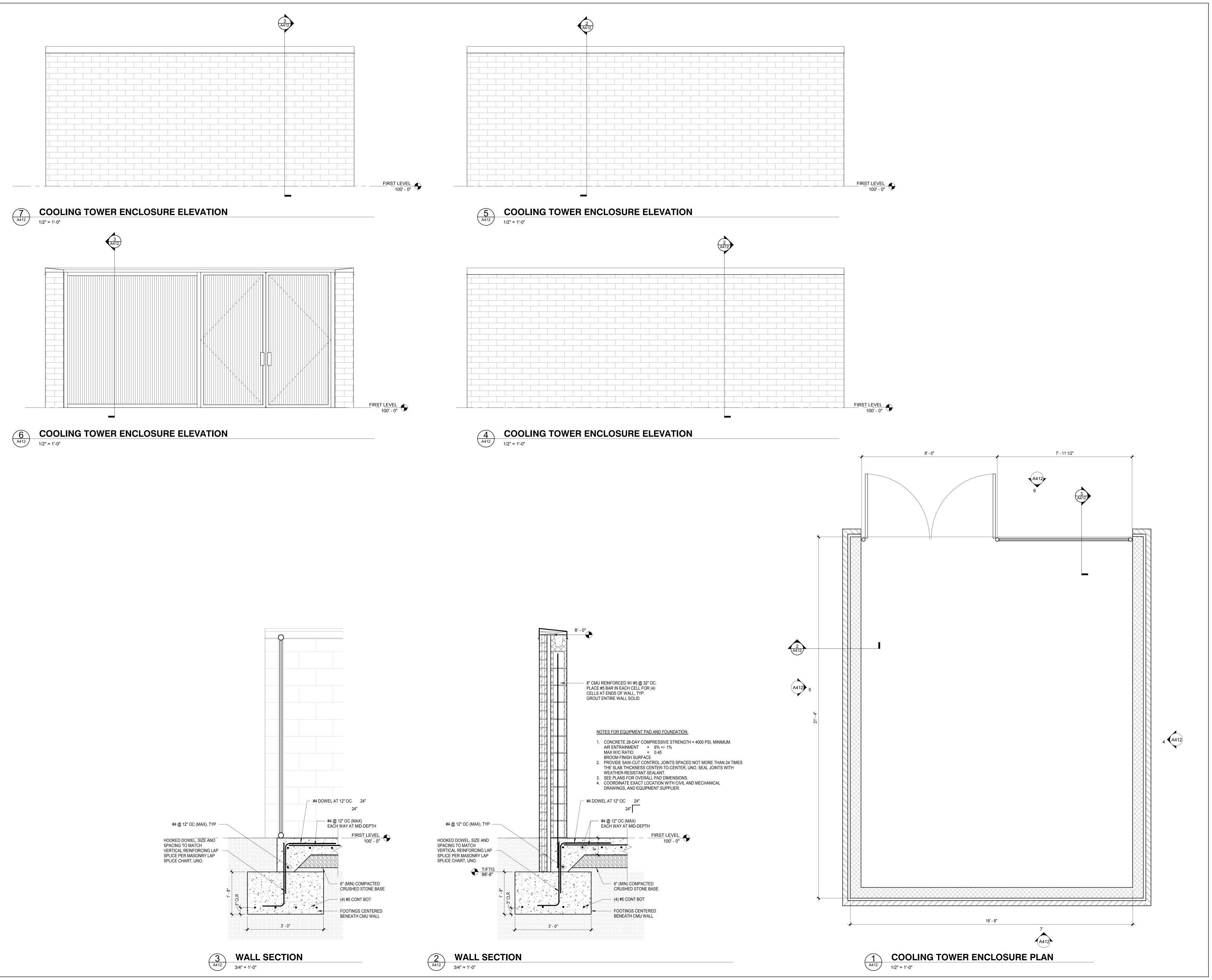






1 ENLARGED DUMPSTER PLAN
1/2" = 1'-0"





PORTED COUNTY

STRUCTUREPOINT INC.

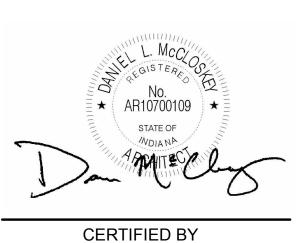
7260 Shadeland Station
Indianapolis, IN 46256
P: 317.547.5580
F: 317.543.0270
E: dmccloskey@structurepoint.com

SKILLMAN 8006 Aetna Street

8006 Aetna Street Merrillville, IN 46410 P: 219.942.2787 E: dmanderson@skillman.com

PORTER COUNTY ANNEX

3560 WILLOWCREEK RD PORTAGE, IN 46368



ISSUANCE INDEX

DATE:

08.20.18

PROJECT PHASE:

100% CONSTRUCTION DOCUMENTS - BP1

REVISION SCHEDULE

NO. DESCRIPTION DATE

Project Number 2017.01279

COOLING TOWER ENCLOSURE PLAN AND ELEVATIONS

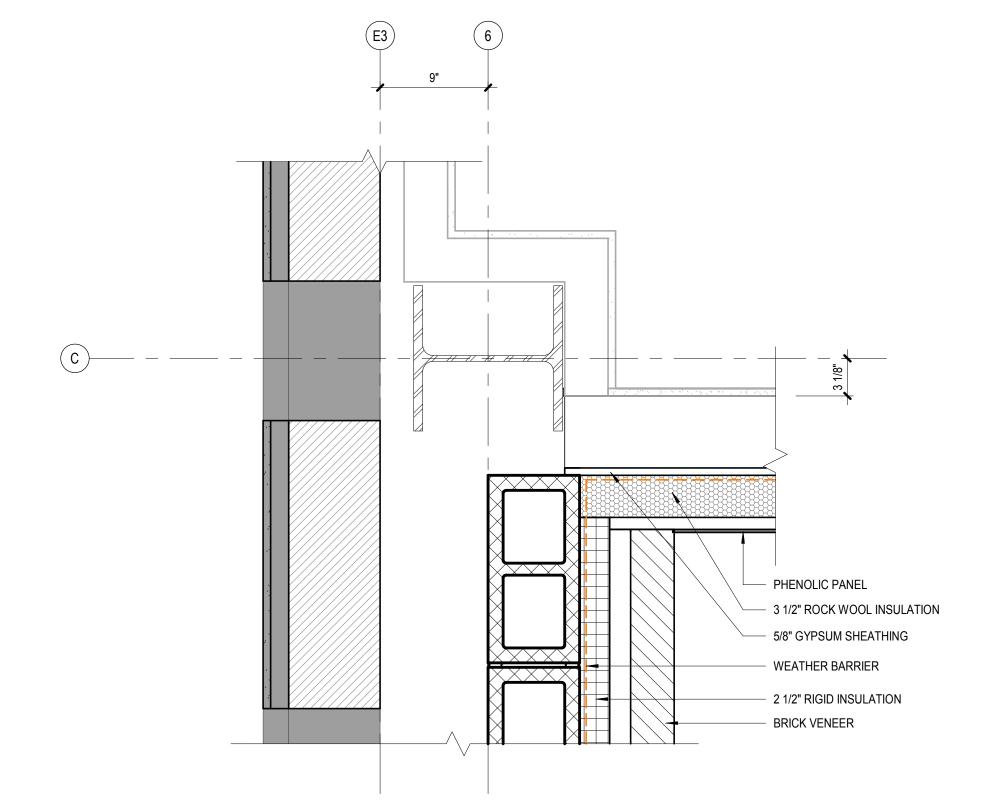
A412







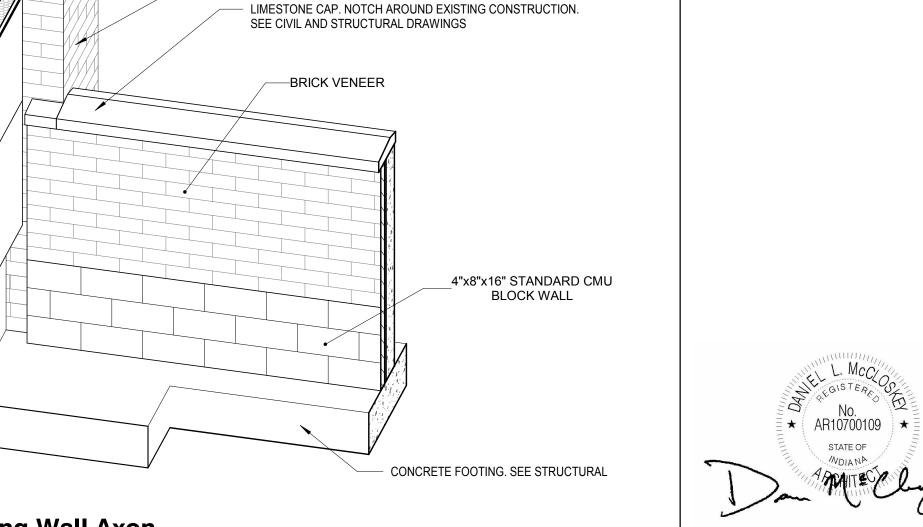




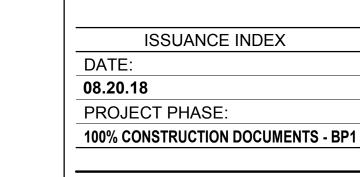
PLAN DETAIL
1 1/2" = 1'-0"

PORTER COUNTY ANNEX



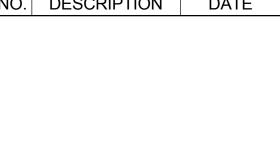


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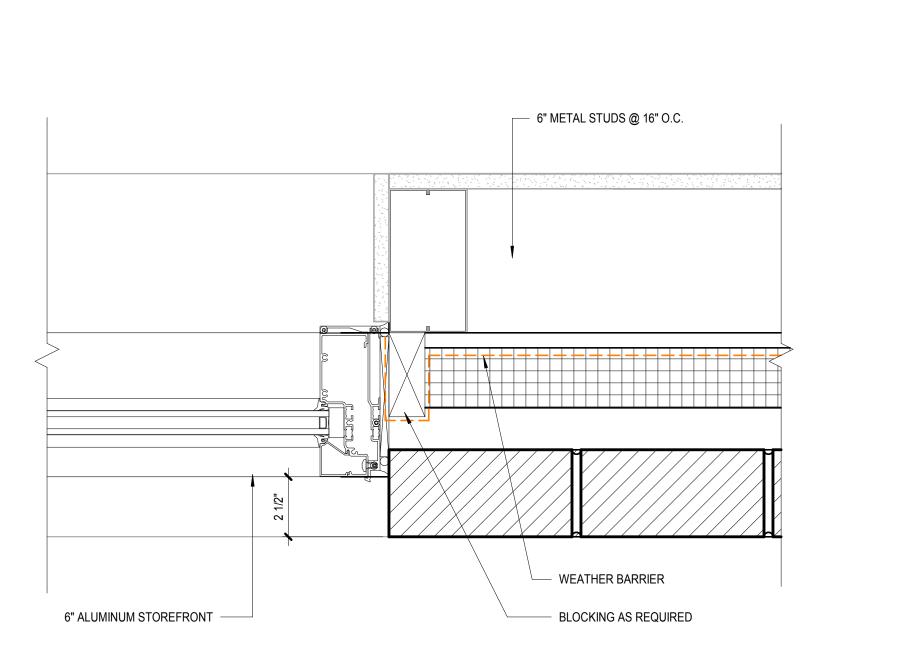


	REVISION SCHE	DULE
NO.	DESCRIPTION	DATE

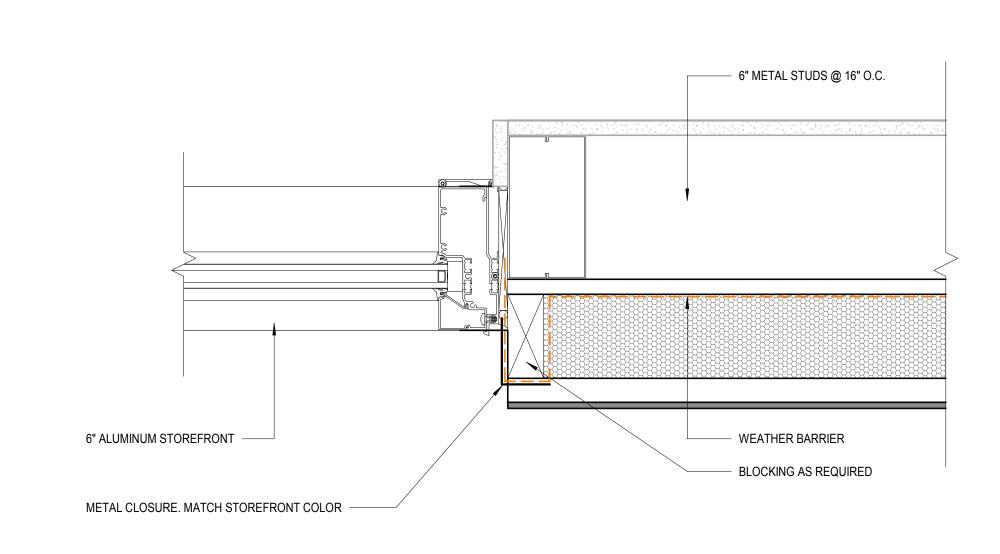
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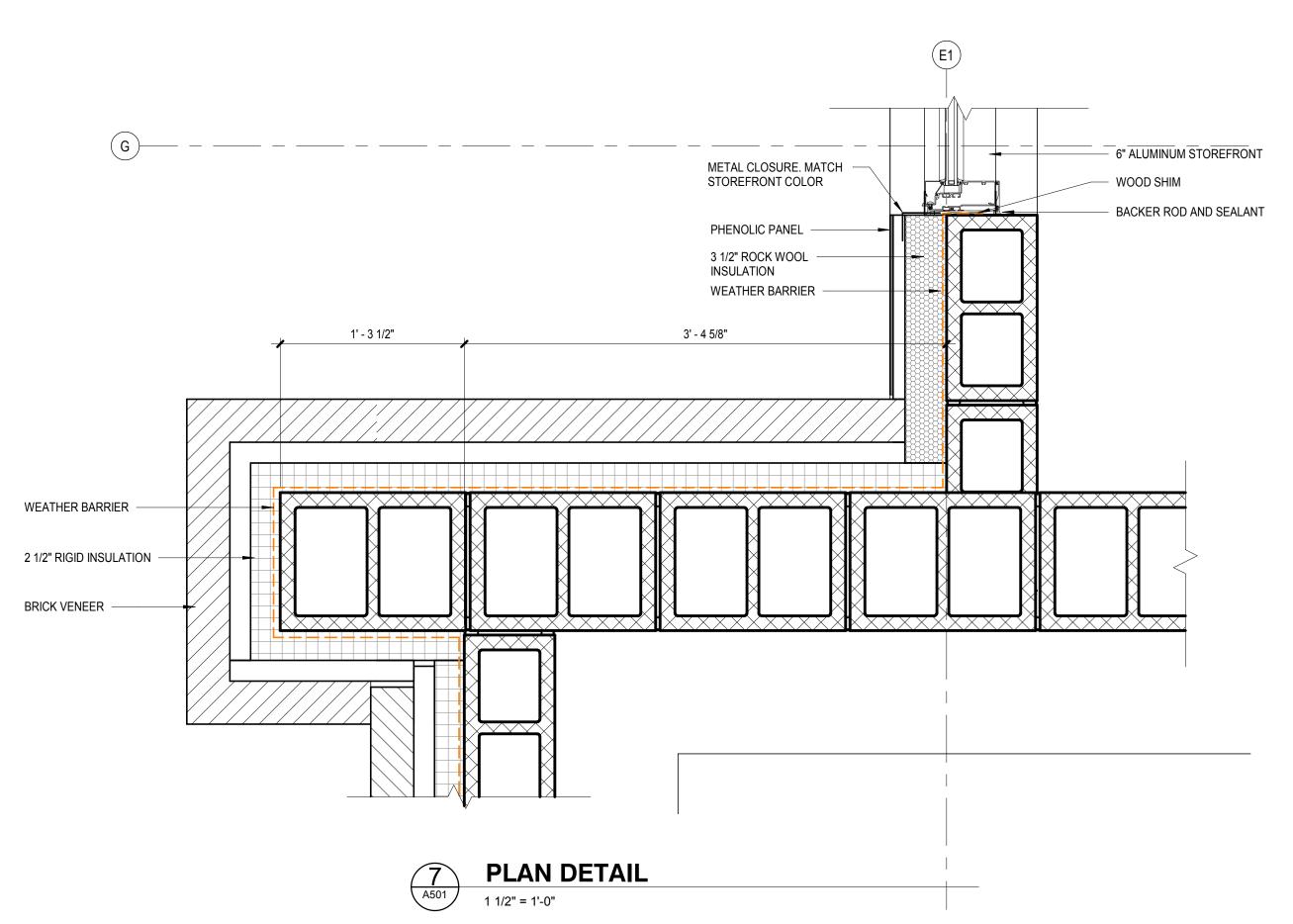
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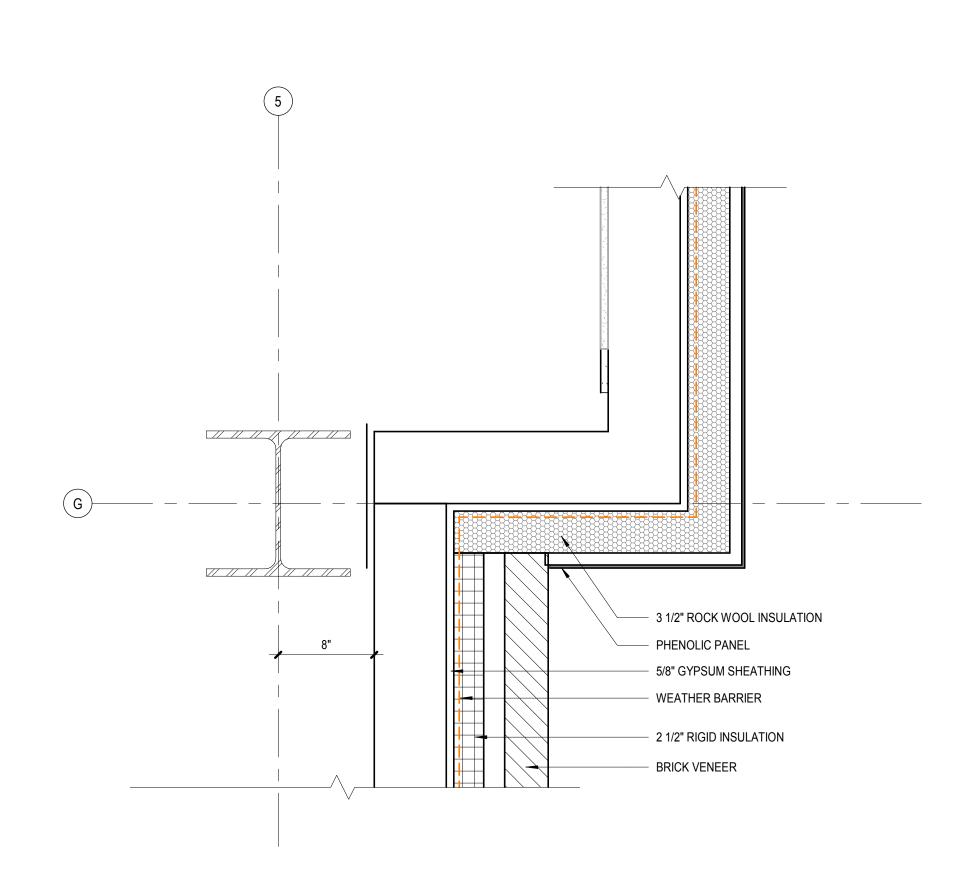


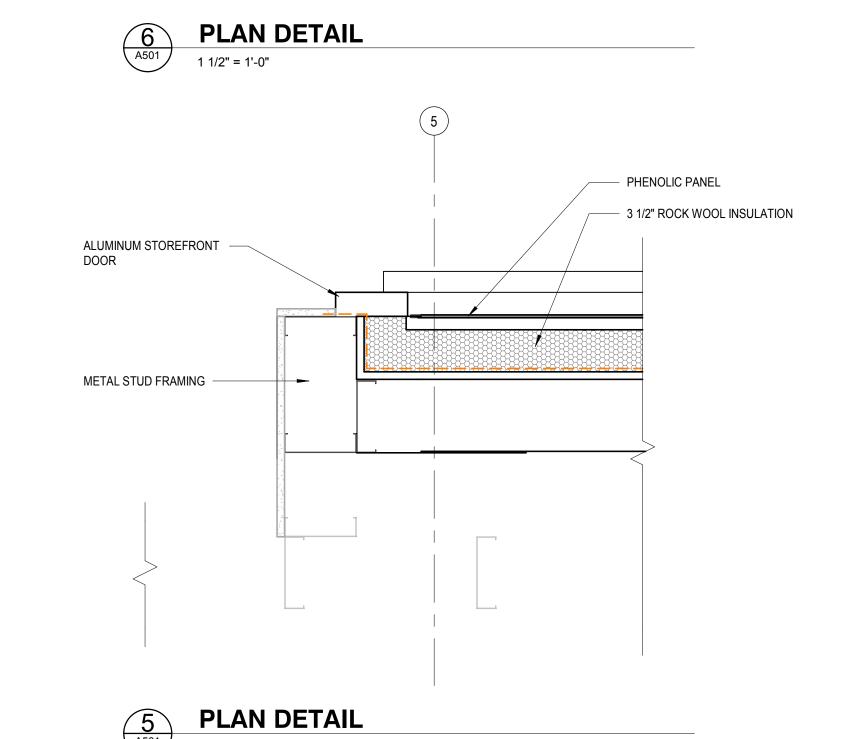


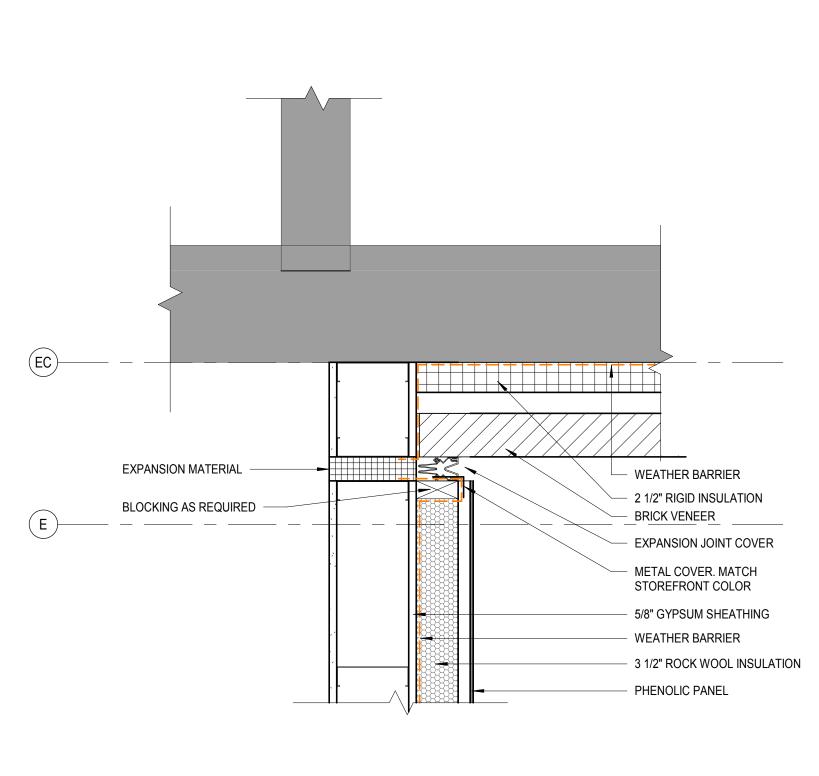


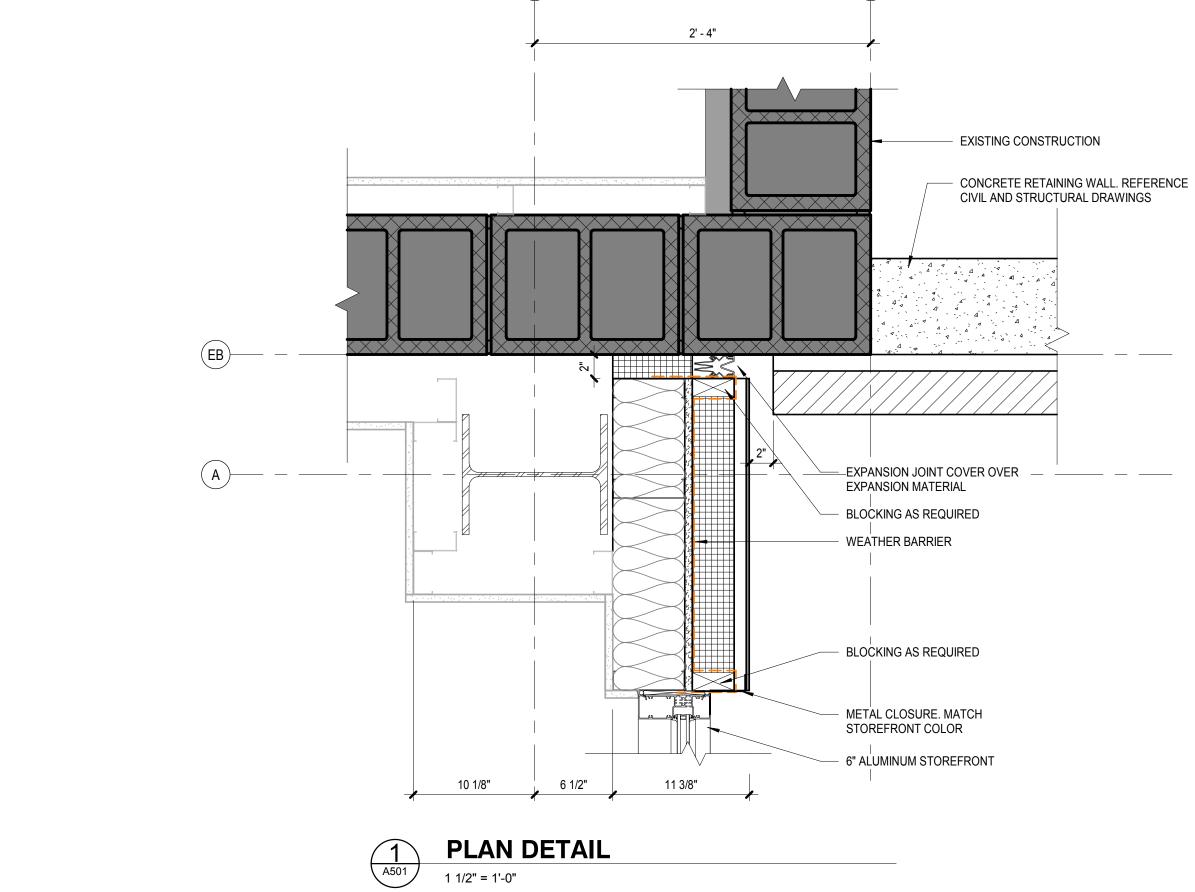
PLAN DETAIL

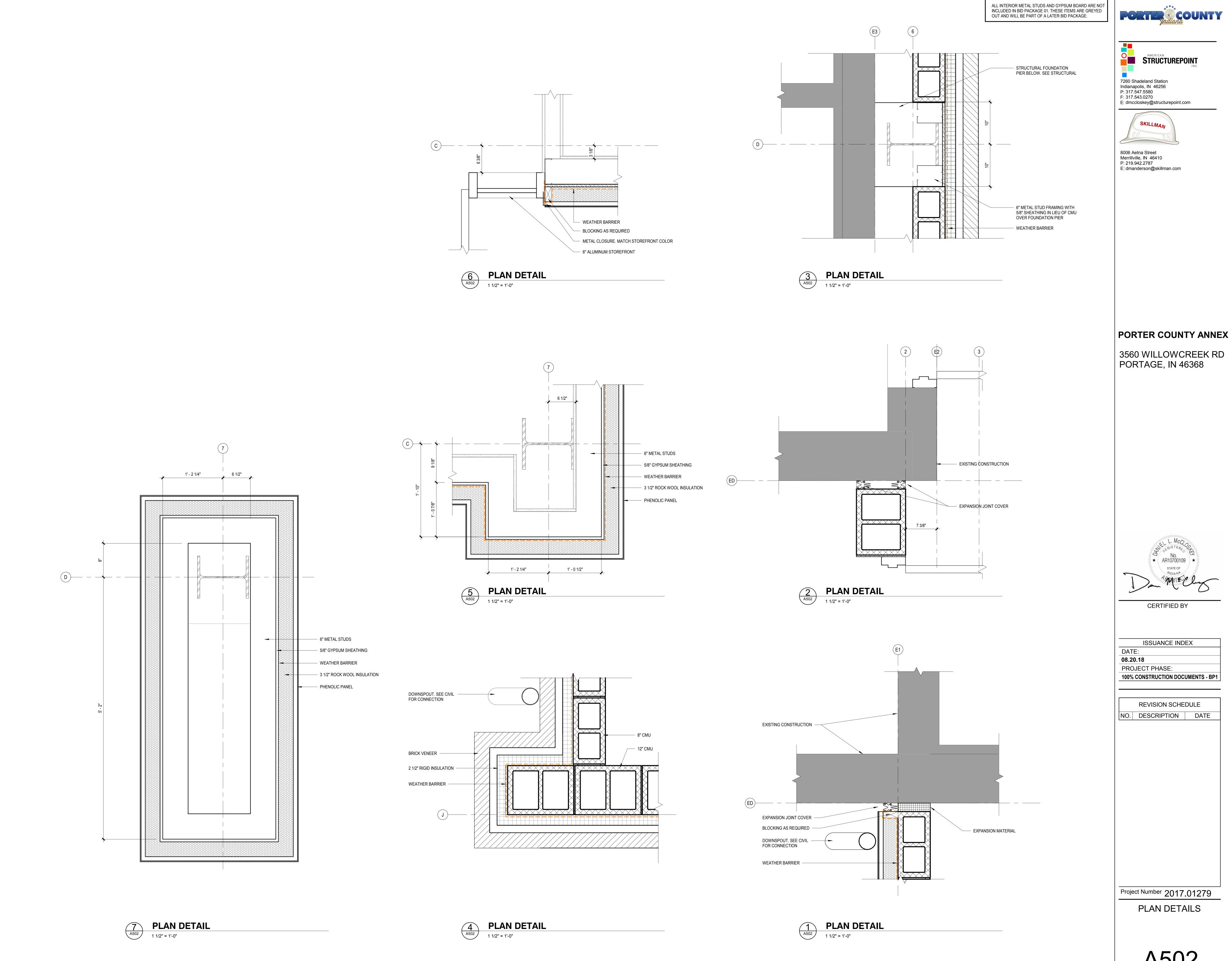




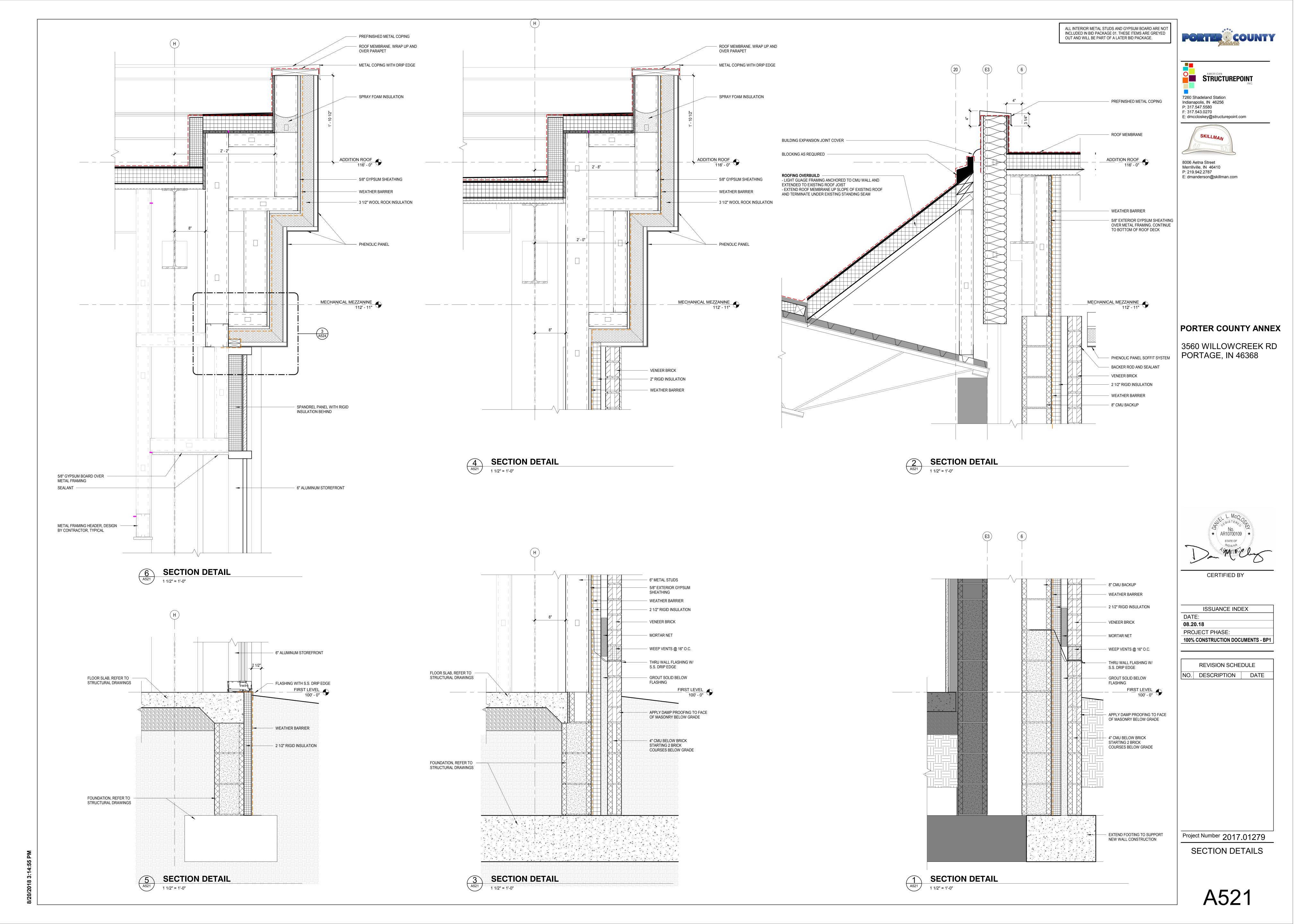


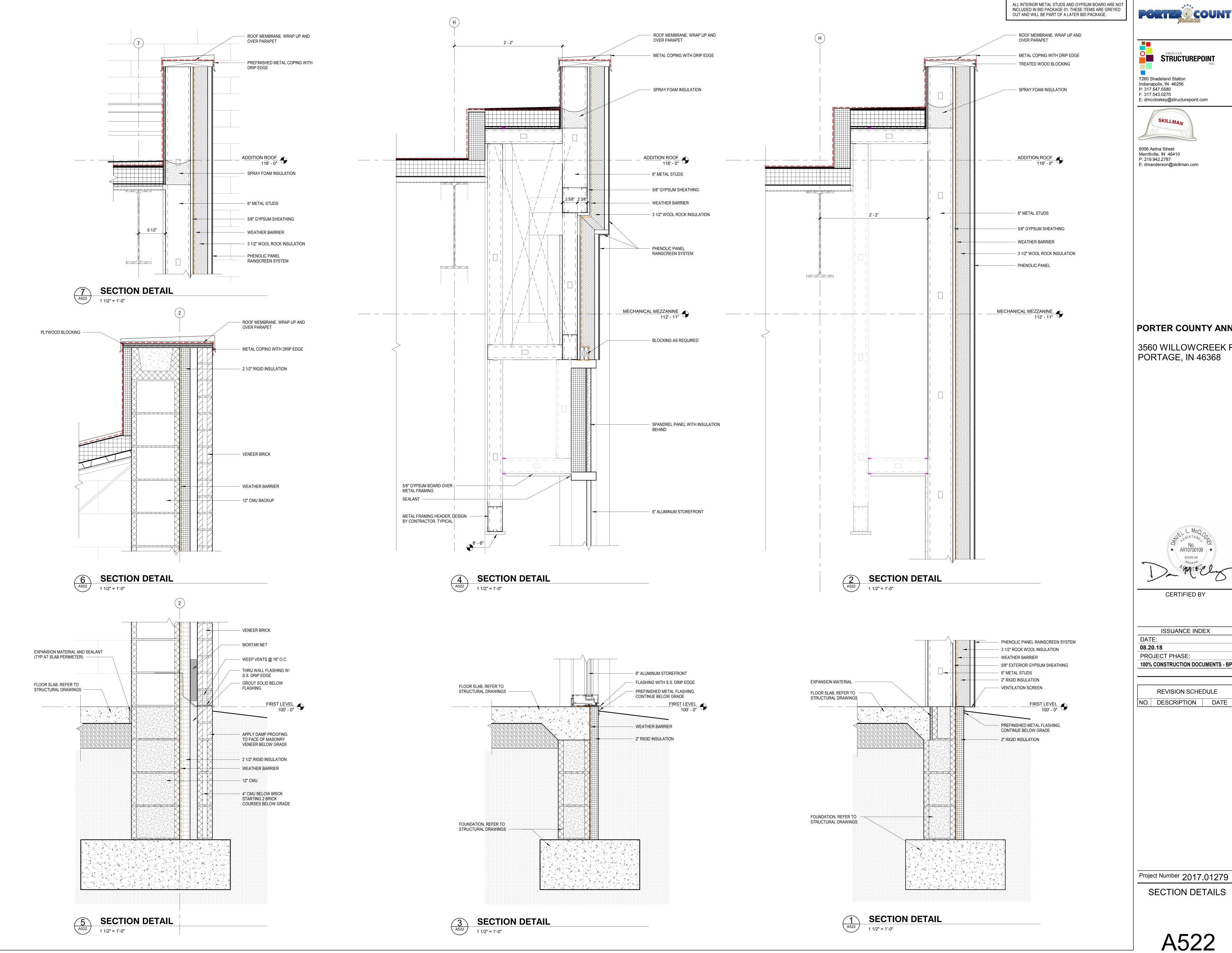






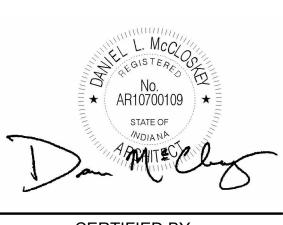
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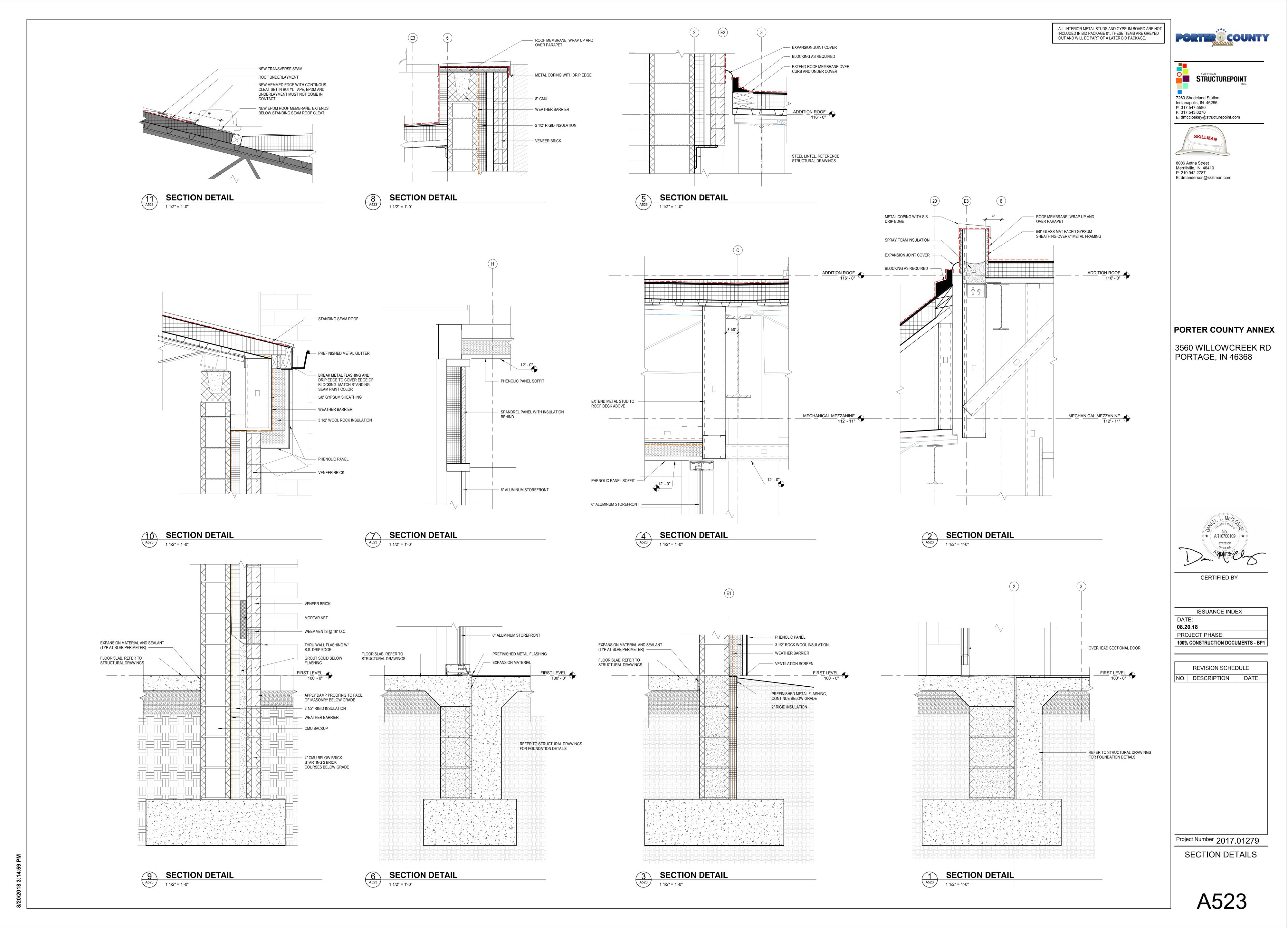


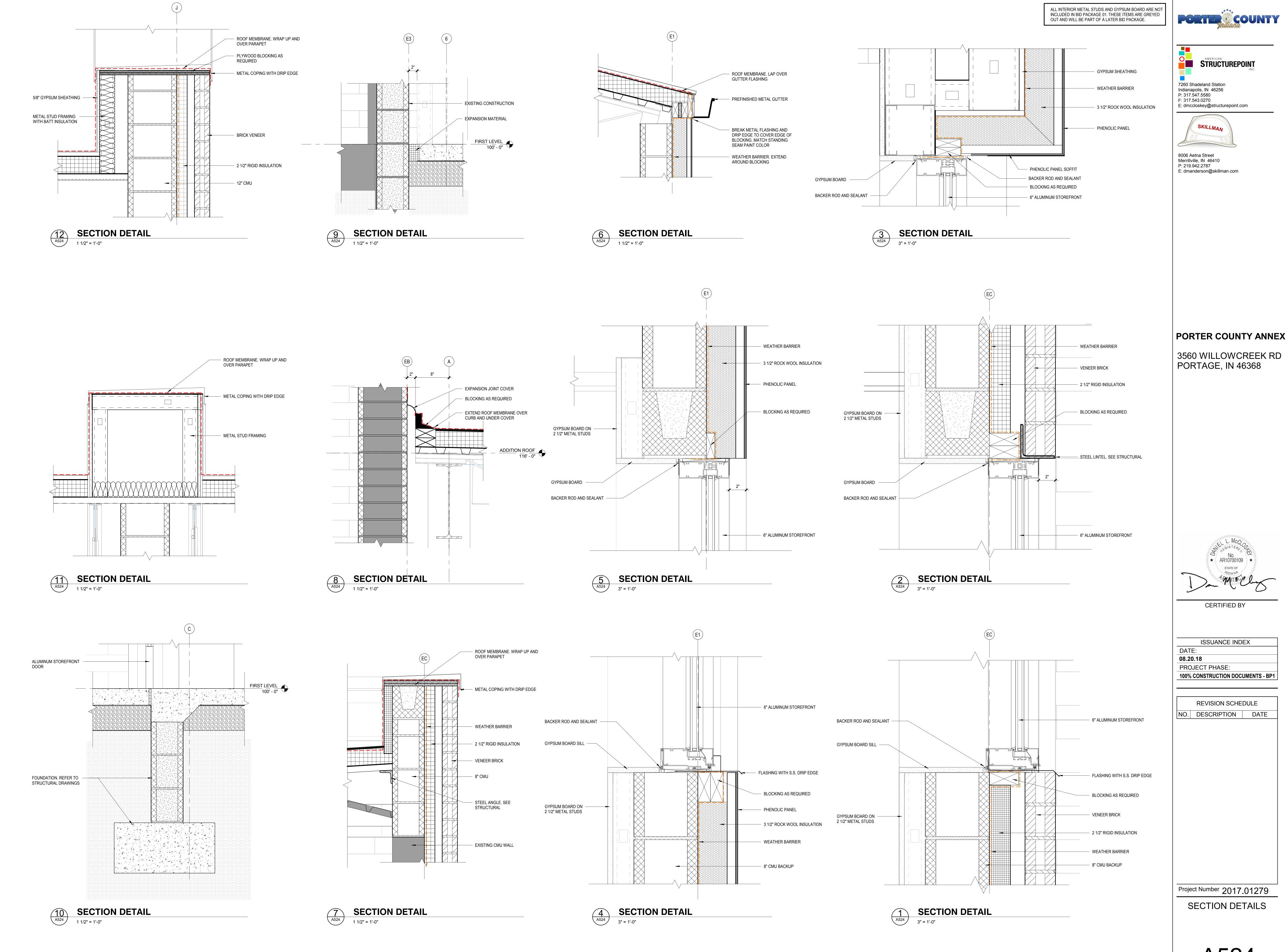
PORTER COUNTY ANNEX

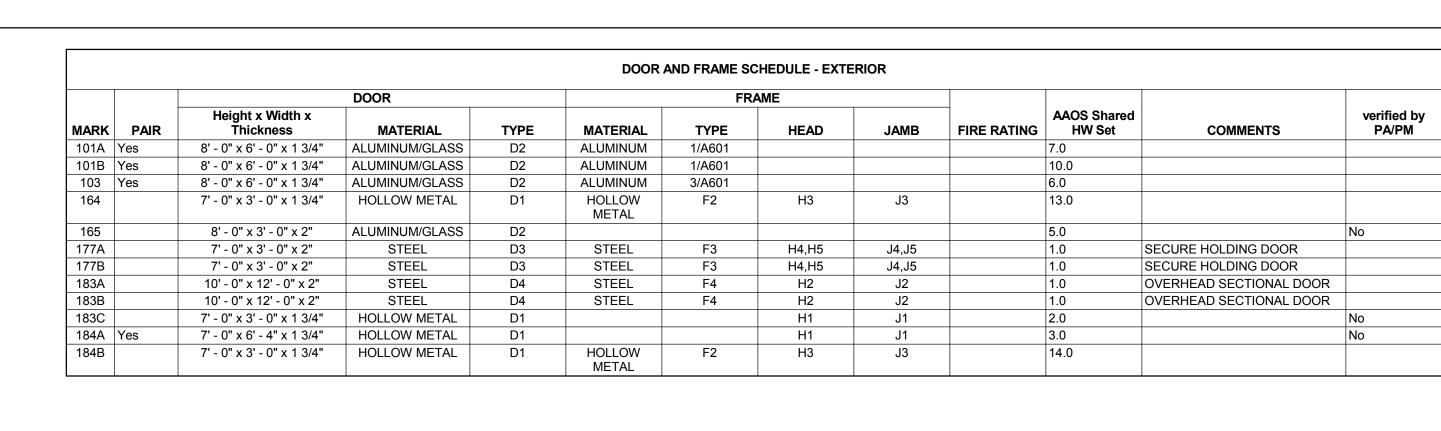
3560 WILLOWCREEK RD

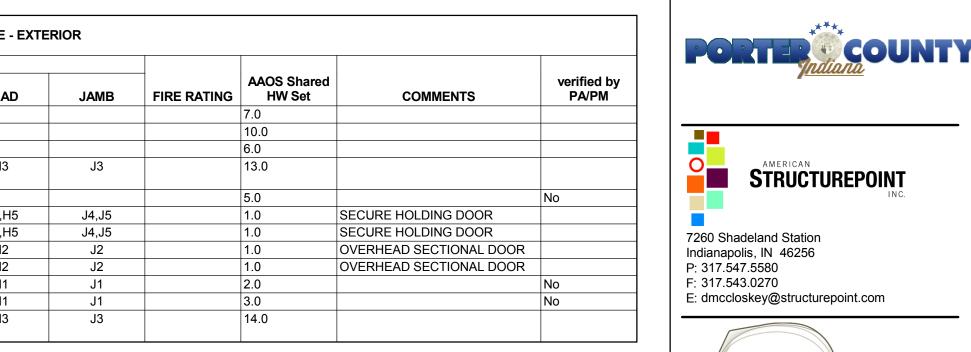


100% CONSTRUCTION DOCUMENTS - BP1





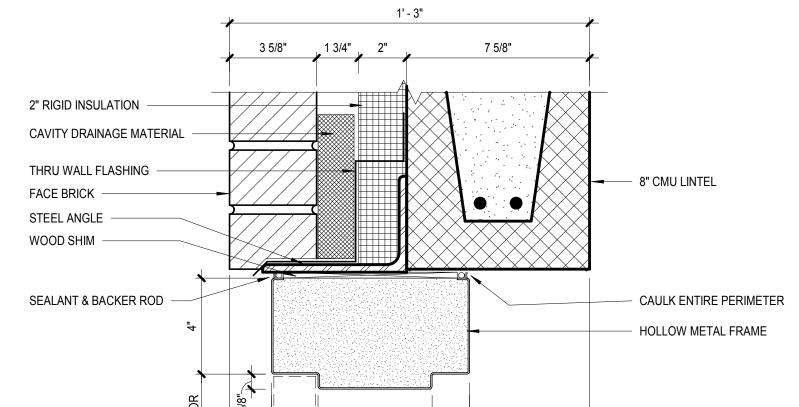






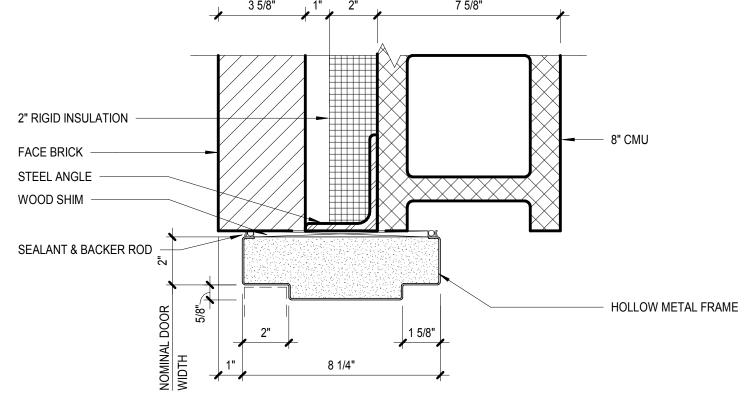
STRUCTUREPOINT

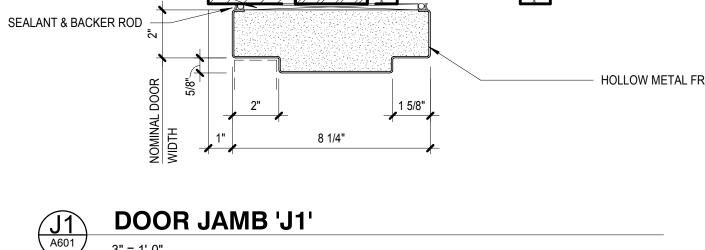


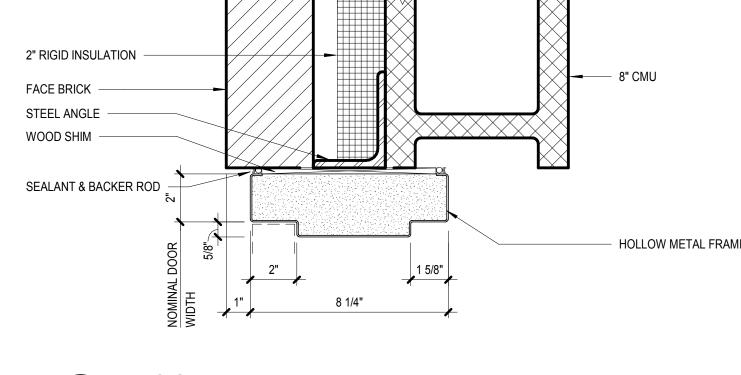


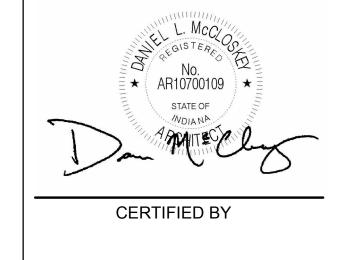


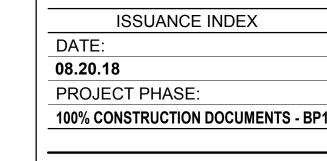
3560 WILLOWCREEK RD PORTAGE, IN 46368











DOOR WIDTH

D4 - OH SECTIONAL

DOOR ELEVATIONS

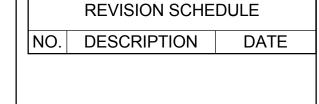
DOOR WIDTH

HOUSING

GUIDE

Ι.			
	REVISION SCHEDULE		
	NO.	DESCRIPTION	DATE

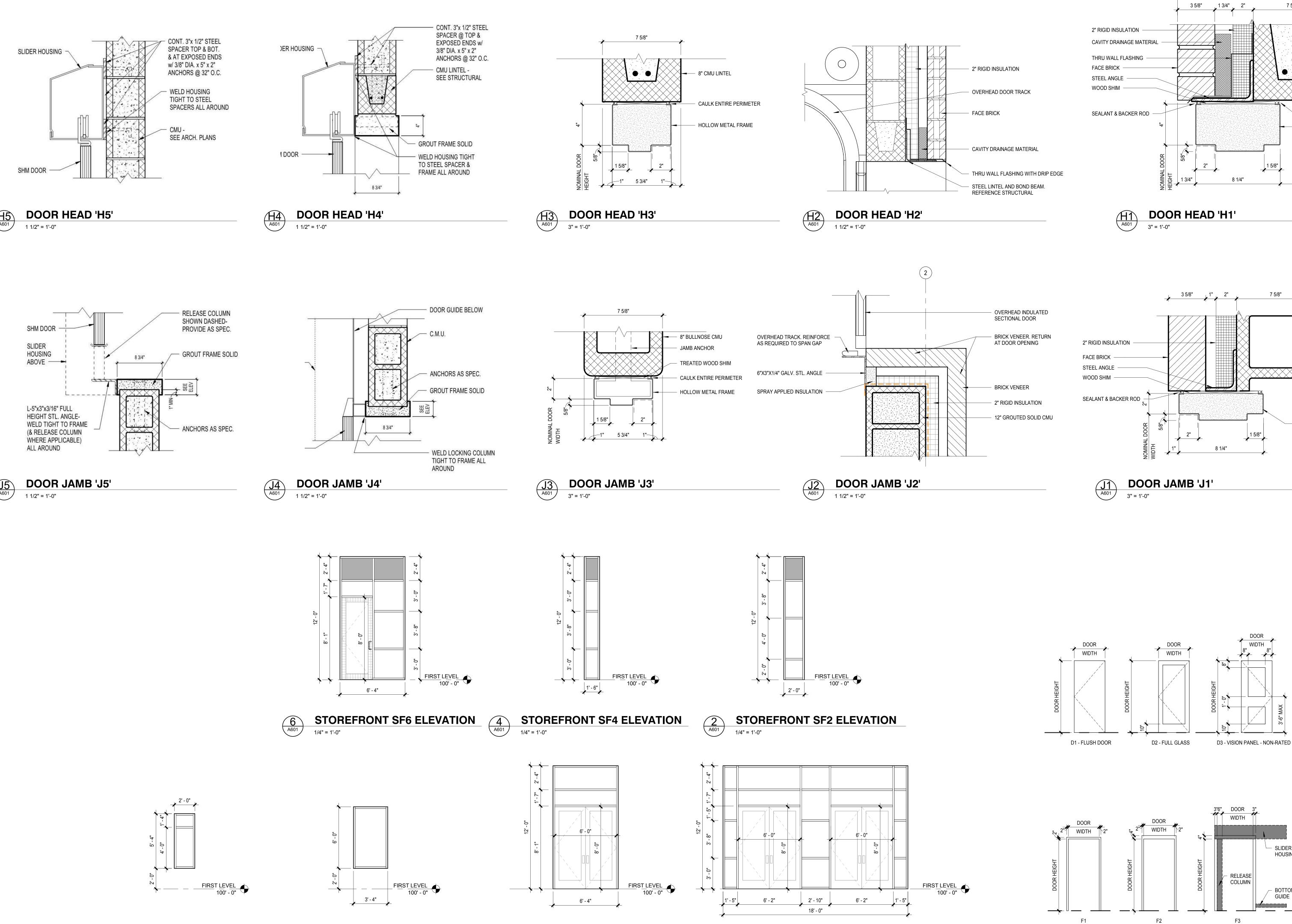
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NO.	DESCRIPTION	DATE





Project Number 2017.01279 DOOR SCHEDULES

A601



STOREFRONT SF1 ELEVATION
1/4" = 1'-0"

STOREFRONT SF7 ELEVATION

5 STOREFRONT SF5 ELEVATION

1/4" = 1'-0"

STOREFRONT SF3 ELEVATION

1/4" = 1'-0"

STOREFRONT SF3 ELEVATION

1/4" = 1'-0"

DOOR FRAME ELEVATIONS