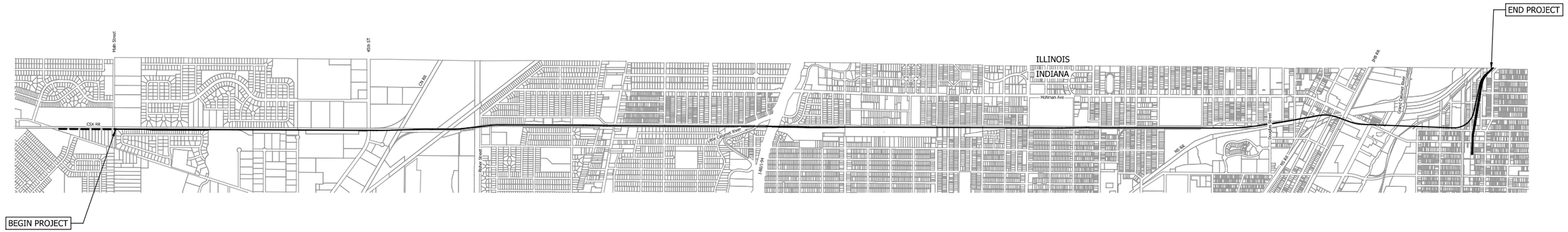
Appendix E. Engineering Drawings
(Part 3 of 10)

This page is intentionally left blank.

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT

WEST LAKE CORRIDOR
MILEPOST 61.38 TO MILEPOST 69.18
DYER TO HAMMOND, INDIANA

STATION & FACILITY PLANS



PROJECT MAP
Not to Scale

NOT FOR CONSTRUCTION

SERIES STGN-01 OF STGN-02

PLOT DATE: 7/19/2017 11:07:00 PM JKIELLMA

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

DYER TO HAMMOND, INDIANA

DESIGNED:	
DRAWN:	
CHECKED:	
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

COVER SHEET

FILENAME	_SHT_WL_FA_CV_00A_Cover.dgn
SCALE	AS NOTED

SHEET 1 OF 361

SHEET INDEX

General

Station & Facility

PLOT DATE: 7/21/2017 1:27:20 PM JKJELLMA

NOT FOR CONSTRUCTION

SERIES STGN-02 OF STGN-02

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631

www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	
DRAWN:	
CHECKED:	
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

SHEET INDEX

FILENAME	_SHT_WL_FA_CV_01A_Index.dgn
SCALE	AS NOTED

SHEET 2 OF 361

A/C	AIR CONDITIONING
A/E	ARCHITECT/ENGINEER
A	AMPERE
AB	ANCHOR BOLT
ABAN	ABANDON
ABC	AGGREGATE BASE COURSE
ABT	ABOUT
AC	ALTERNATING CURRENT
ACK	ACKNOWLEDGE
ACP	ACOUSTIC CEILING PANEL, ASPHALTIC CONCRETE PAVEMENT
ACST	ACOUSTIC
AD	ADDENDUM, AREA DRAIN
ADDL	ADDITIONAL
ADH	ADHESIVE
ADJ	ADJUSTABLE, ADJACENT
AF	AMP FRAME, AMP FUSE
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
AGGR	AGGREGATE
AI	AREA INLET, ANALOG INPUT
AIC	AMPS INTERRUPTING CAPACITY
ALIG	ALIGNMENT
ALT	ALTERNATE, ALTITUDE
ALUM	ALUMINUM
AM	ACOUSTICAL MATERIAL
AMB	AMBIENT
ANC	ANCHOR
AO	ANALOG OUTPUT
AP	ACCESS PANEL
APRX	APPROXIMATE
APVD	APPROVED
ARCH	ARCHITECTURAL
ASSY	ASSEMBLY
AT	ACOUSTICAL TILE, AMP TRIP
ATC	ACOUSTICAL TILE CEILING
ATM	ATMOSPHERE
AUTO	AUTOMATIC
AUX	AUXILIARY
AVE	AVENUE
AVG	AVERAGE
AWG	AMERICAN WIRE GAGE
AWT	ACOUSTICAL WALL TILE
B TO B	BACK TO BACK
BAL	BALANCE
BBD	BULLETIN BOARD
BC	BASE CABINET, BOTTOM CHORD, BOLT CENTER, BOLT CIRCLE
BD	BOARD
BE	BOTH ENDS, BELL END
BF	BOTH FACES, BOTTOM FACE, BLIND FLANGE, BOARD FEET
BITUM	BITUMINOUS
BKG	BACKING
BL	BASE LINE
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BENCHMARK, BEAM
BOC	BACK OF CURB
BOD	BOTTOM OF DUCT
BOG	BOTTOM OF GRILLE
BOL	BOTTOM OF LOUVER, BOLLARD
BOP	BOTTOM OF PIPE
BOR	BOTTOM OF REGISTER
BOT	BOTTOM
BOU	BOTTOM OF UNIT
BP	BASE PLATE
BRG	BEARING
BRGP	BEARING PLATE
BRKT	BRACKET
BS	BOTH SIDES
BTU	BRITISH THERMAL UNIT
BTW	BETWEEN
BTWLD	BUTT WELD
BU	BELL UP, BUILT-UP
BUR	BUILT-UP ROOFING
BW	BOTH WAYS
BYP	BYPASS
CTOC	CENTER TO CENTER
C&G	CURB AND GUTTER
C	CHANNEL SHAPE, CENTIGRADE, CONDUIT
CAB	CABINET
CAP	CAPACITY
CAT	CATALOG, CATALOGIORY
CAV	CAVITY
CB	CATCH BASIN
CCB	CONCRETE BLOCK
CCW	COUNTER CLOCKWISE
CDF	CONTROLLED-DENSITY FILL
CE	CONCRETE EDGE
CER	CERAMIC
CF	CUBIC FEET (FOOT)
CFL	COUNTER FLASHING
CHBD	CHALKBOARD
CHD	CHORD
CHFR	CHAMFER
CHH	COMMUNICATION HANDHOLE
CI	CURB INLET
CIP	CAST-IN-PLACE
CIPB	CONCRETE INTERLOCKING PAVER BALLAST
CIRC	CIRCULATION, CIRCULAR
CJ	CONSTRUCTION JOINT
CKT	CIRCUIT
CL	CENTERLINE, CLASS, CLOSE
CLG	CEILING
CLKG	CAULKING
CLR	CLEAR
CMH	COMMUNICATION MANHOLE
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CO	CLEANOUT, CONCRETE OPENING
COL	COLUMN
COM	COMMON
COMB	COMBINATION
COMM	COMMUNICATION
COMP	COMPOSITION, COMPRESSIBLE, COMPOSITE
CON	CONCENTRIC
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
COOR	COORDINATE
CORR	CORROSIVE, CORRUGATED
CP	CHECKER PLATE, CONTROL POINT
CPLG	COUPLING
CRL	CORROSION-RESISTANT LINING
CSC	COMPRESSION SLEEVE COUPLING
CSK	COUNTERSINK
CSS	CLINIC SERVICE SINK
CT	CERAMIC TILE
CTJ	CONTRACTION JOINT
CTR	CENTER
CTRL	CONTROL
CVT	CULVERT
CU	COPPER, CUBIC
CW	CLOCKWISE
CY	CUBIC YARD
d	PENNY (NAIL MEASURE)
D	DEEP, DIFFUSER, DRAIN
DB	DUCT BANK, DECIBEL, DRY BULB
DBA	DEFORMED BAR ANCHOR
DBL	DOUBLE
DC	DIRECT CURRENT
DEG	DEGREE
DEG C	DEGREE CENTIGRADE
DEG F	DEGREE FAHRENHEIT
DEMO	DEMOLITION
DEP	DEPRESSED
DEPT	DEPARTMENT
DET	DETAIL
DI	DROP INLET, DUCTILE IRON, DIGITAL INPUT
DIA	DIAMETER
DIAG	DIAGONAL, DIAGRAM
DIFF	DIFFERENTIAL, DIFFERENCE
DIM	DIMENSION
DISCH	DISCHARGE
DIST	DISTANCE, DISTRIBUTION
DIV	DIVISION
DL	DEAD LOAD
DMJ	DOUBLE MECHANICAL JOINT
DMPF	DAMP PROOFING
DN	DOWN
DO	DISSOLVED OXYGEN, DIGITAL OUTPUT, DITTO
DP	DEPTH
DPDT	DOUBLE POLE, DOUBLE THROW
DPST	DOUBLE POLE, SINGLE THROW
DS	DOWN SPOUT
DT	DOUBLE TEE, DRIP TRAP ASSEMBLY
DUP	DUPLICATE
DWG	DRAWING
DWL	DOWEL
DWR	DRAWER
E	EAST
EA	EACH, EXHAUST AIR
EC	ELECTRICAL CONTRACTOR
ECC	ECCENTRIC
ED	EQUIPMENT DRAIN
EDB	ELECTRICAL DUCT BANK
EE	EACH END
EF	EACH FACE
EFF	EFFLUENT, EFFICIENCY
EHH	ELECTRICAL HANDHOLE
EIFS	EXTERIOR INSULATION & FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELBOW, ELEVATION
ELEC	ELECTRICAL
EMBD	EMBEDDED
EMER	EMERGENCY
EMH	ELECTRICAL MANHOLE
ENCL	ENCLOSURE
ENGR	ENGINEER
ENTR	ENTRANCE
EOP	EDGE OF PAVEMENT
EQ	EQUAL
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
ES	EACH SIDE, EQUAL SPACE, EMERGENCY SHOWER
ESEW	EMERGENCY SHOWER AND EYE WASH
EST	ESTIMATE
EW	EACH WAY, EMERGENCY EYE/FACE WASH
EWC	ELECTRIC WATER COOLER
EWEF	EACH WAY, EACH FACE
EWTB	EACH WAY, TOP AND BOTTOM
EXC	EXCAVATION
EXH	EXHAUST
EXP	EXPANSION, EXPOSED
EXST	EXISTING
EXT	EXTERIOR, EXTERNAL, EXTENSION
F TO F	FACE TO FACE
F&B	FACE AND BYPASS
FAB	FABRICATE
FB	FLOOR BEAM
FBD	FIBERBOARD
FBG	FIBERGLASS
FBM	BOARD FOOT MEASURE
FBO	FURNISHED BY OWNER
FC	FLUSHING CONNECTION
FCA	FLANGED COUPLING ADAPTER
FD	FLOOR DRAIN
FDC	FLEXIBLE DUCT CONNECTION
FDR	FEEDER
FDTN	FOUNDATION
FE	FLANGED END
FEC	FIRE EXTINGUISHER CABINET
FES	FLARED END SECTION
FEXT	FIRE EXTINGUISHER
FF	FAR FACE, FACTORY FINISH, FLAT FACE
FG	FINISHED GRADE
FH	FIRE HYDRANT
FIG	FIGURE
FIN	FINISH
FJT	FLUSH JOINT
FL	FLOW, FLOW LINE
FLEX	FLEXIBLE
FLG	FLANGE
FLOR	FLUORESCENT
FLR	FLOOR
FLS	FLASHING, FLUSH
FN	FENCE
FO	FINISHED OPENING
FOB	FLAT ON BOTTOM
FOC	FACE OF CONCRETE, FACE OF CURB
FOF	FACE OF FINISH
FOM	FACE OF MASONRY
FOS	FACE OF STUDS
FOT	FLAT ON TOP
FPT	FEMALE PIPE THREAD
FR	FRAME
FRP	FIBERGLASS REINFORCED PLASTIC
FRTM	FIRE RETARDANT TREATED MATERIAL
FS	FLOOR SINK, FAR SIDE
FT	FEET, FOOT
FTG	FOOTING, FITTING
FUR	FURRED, FURRING
FURN	FURNITURE, FURNISH
FUT	FUTURE
FV	FACE VELOCITY
FW	FIELD WELD, FIRE WALL
FWD	FORWARD
FWE	FURNISHED WITH EQUIPMENT
FXTR	FIXTURE
G	GRILLE, GROUND
GA	GAGE (METAL THICKNESS)
GAL	GALLON
GALV	GALVANIZED
GB	GRAB BAR, GRADE BREAK
GC	GROOVED COUPLING
GD	GUARD
GEN	GENERAL
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFMU	GROUND FACE MASONRY UNIT
GG	GUTTER GRADE
GJ	GROOVED JOINT
GL	GLASS
GLB	GLASS BLOCK, GLULAM BEAM
GND	GROUND
GP	GUY POLE
GR	GRADE
GRTG	GRATING
GSB	GYPSUM SHEATHING BOARD
GT	GREASE TRAP
GVL	GRAVEL
GW	GUY WIRE
GWB	GYPSUM WALLBOARD
GYP	GYPSUM HARDBOARD
H	HIGH
HB	HOSE BIBB
HBD	HARDBOARD
HC	HANDICAPPED, HOLLOW CORE, HORIZONTAL CURVE, HORIZONTAL CENTERLINE
HD	HEAD, HOT DIP
HDR	HEADER
HDW	HARDWARE
HEX	HEXAGONAL
HGR	HANGER
HH	HANDHOLE
HID	HIGH-INTENSITY DISCHARGE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HP	HIGH POINT, HORSEPOWER
HPC	HORIZONTAL POINT OF CURVATURE
HPS	HIGH-PRESSURE SODIUM
HPT	HORIZONTAL POINT OF TANGENCY
HR	HOSE REEL, HOUR
HS	HEADED STUD, HIGH STRENGTH
HSS	HOLLOW STRUCTURAL SHAPE
HT	HEIGHT
HTG	HEATING
HV	HIGH VOLTAGE
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
HWD	HARDWOOD
HWL	HIGH WATER LEVEL
HYD	HYDRAULIC
HZ	HERTZ, CYCLES PER SECOND
ID	INSIDE DIAMETER, INTERIOR DIMENSION
IE	INVERT ELEVATION, FOR EXAMPLE
IF	INSIDE FACE
IH	INTAKE HOOD
IMP	IMPACT
IN	INCH
INC	INCLUDE, INCANDESCENT
INF	INFLUENT
INSTR	INSTRUMENTATION
INSUL	INSULATION
INT	INTERIOR, INTERSECTION
INTR	INTERMEDIATE, INTERIOR
INV	INVERT
IPS	IRON PIPE SIZE
IPT	INTERNAL PIPE THREAD
IR	INSIDE RADIUS, IRON ROD
IRR	IRRIGATION
ISO	ISOMETRIC
JB	JUNCTION BOX
JCT	JUNCTION
JF	JOINT FILLER
JST	JOIST
JT	JOINT
K	KIP
KB	KNEE BRACE
KCMIL	THOUSAND CIRCULAR MILS
KD	KNOCK DOWN
KO	KNOCK OUT
KSI	KIPS PER SQUARE INCH
KW	KILOWATT
L	ANGLE, LENGTH, LAVATORY, LINTEL
LAD	LADDER
LAM	LAMINATE
LATL	LATERAL
LB	LAG BOLT, POUND
LCTB	LIQUID CHALK AND TACK BOARD
LDG	LANDING
LDR	LEADER
LE	LIFTING EYE
LF	LINEAR FOOT
LG	LONG
LH	LEFT HAND
LIN	LINEAR
LIQ	LIQUID
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LMLU	LIQUID MARKER LECTURE UNIT
LNG	LONGITUDINAL
LOC	LOCATION
LP	LOW POINT
LPS	LOW-PRESSURE SODIUM
LR	LONG RADIUS
LT	LEFT
LTD	LIMITED
LTG	LIGHTING
LTL	LINTEL
LTNG	LIGHTNING
LV	LOW VOLTAGE
LVL	LAMINATED VENEER LUMBER
LVR	LOUVER
LW	LIGHTWEIGHT
LWC	LIGHTWEIGHT CONCRETE
LWL	LOW WATER LEVEL
MA	MIXED AIR
MACH	MACHINED
MAINT	MAINTENANCE
MAN	MANUAL
MATL	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MBR	MEMBER
MC	MECHANICAL CONTRACTOR, MECHANICAL COUPLING, MOMENT CONNECTION
MCB	METAL CORNER BEAD
MCJ	MASONRY CONTROL JOINT
MDMJ	MODIFIED DOUBLE MECHANICAL JOINT
MECH	MECHANICAL
MED	MEDIUM
MFR	MANUFACTURER
MH	MANHOLE, METAL HALIDE
MIN	MINIMUM
MIR	MIRROR
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
ML	MASONRY LINTEL
MLO	MAIN LUGS ONLY
MMB	MEMBRANE
MO	MASONRY OPENING
MOD	MODULAR, MODIFY
MON	MONUMENT
MPT	MALE PIPE THREAD
MRGWB	MOISTURE-RESISTANT GYPSUM WALLBOARD
MS	MOP SINK
MSL	MEAN SEA LEVEL
MT	MOUNT
MU	MASONRY UNIT
MULL	MULLION
MV	MEDIUM VOLTAGE
MW	MONITORING WELL
N	NORTH, NEUTRAL
NA	NOT APPLICABLE
NAT	NATURAL, NATIONAL
NC	NORMALLY CLOSED
NEG	NEGATIVE
NF	NEAR FACE, NON-FUSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN, NUMBER
NOM	NOMINAL
NPS	NOMINAL PIPE SIZE
NPT	NATIONAL PIPE THREAD
NS	NEAR SIDE
NTS	NOT TO SCALE
NWL	NORMAL WATER LEVEL
O TO O	OUT TO OUT
OA	OUTSIDE AIR, OVERALL
OC	ON CENTER
OCPD	OVER CURRENT PROTECTION DEVICE
OD	OUTSIDE DIAMETER
OED	OPEN END DUCT
OF	OUTSIDE FACE, OFFICE FURNISHING
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED OWNER INSTALLED
OG	ORIGINAL GROUND
OH	OVERHEAD
OPNG	OPENING
OPP	OPPOSITE
OPT	OPTIONAL
OR	OUTSIDE RADIUS
ORD	OVERFLOW ROOF DRAIN
ORIG	ORIGINAL
OVFL	OVERFLOW
OVHG	OVERHANG
OZ	OUNCE
P	PAINT
PA	PUBLIC ADDRESS
PAR	PARALLEL, PARAPET
PB	PANIC BAR, PULL BOX
PBD	PARTICLE BOARD
PC	POINT OF CURVE, PIECE, PRECAST
PCC	POINT OF COMPOUND CURVATURE
PCF	POUNDS PER CUBIC FOOT
PCT	PERCENT
PE	PLAIN END
PED	PEDESTAL
PEN	PENETRATION
PERF	PERFORATED
PERM	PERMANENT
PERP	PERPENDICULAR
PF	POWER FACTOR
PFMU	PREFACED MASONRY UNIT
PH	PHASE
PI	POINT OF INTERSECTION
PKG	PACKAGE
PL	PLATE, PROPERTY LINE, PRECAST LINTEL
PLAS	PLASTER
PLAT	PLATFORM
PLBG	PLUMBING
PLF	POUNDS PER LINEAR FOOT
PNEU	PNEUMATIC
POL	POLISH
POS	POSITIVE, POSITION
PP	POLYPROPYLENE, POWER POLE
PRC	POINT OF REVERSE CURVATURE
PREF	PREFINISHED
PREFAB	PREFABRICATED
PRELIM	PRELIMINARY
PREP	PREPARE
PRES	PRESSURE
PRI	PRIMARY
PROP	PROPERTY, PROPOSED
PROT	PROTECTION
PS	PIPE SUPPORT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
PSIG	POUNDS PER SQUARE INCH GAGE
PST	PRESTRESSED
PT	POINT, POINT OF TANGENCY
PTN	PARTITION
PVC	POLYVINYL CHLORIDE, POINT OF VERTICAL CURVE
PVMT	PAVEMENT
PWD	PLYWOOD
PWJ	PLYWOOD WEB JOIST
PZ	PIEZOMETER
Q	RATE OF FLOW
QT	QUARRY TILE
QTR	QUARTER
QTY	QUANTITY
QUAL	QUALITY
R&R	REMOVE AND REPLACE
R&S	REMOVE AND SALVAGE
R	RADIUS, REGISTER, RISER
RA	RETURN AIR
RB	RESILIENT BASE, ROCK BERM
RCPT	RECEPTACLE
RD	ROOF DRAIN
REC	RECESS
RECD	RECEIVED
RECT	RECTANGULAR
RED	REDUCER
REF	REFERENCE
REINF	REINFORCING
REM	REMOVE
REQD	REQUIRED
RESIL	RESILIENT
RET	RETAINING, RETURN
REV	REVISION, REVERSE
RF	RESILIENT FLOORING
RFG	ROOFING
RFL	REFLECTED, REFLECTOR
RGH	ROUGH
RGS	RIGID GALVANIZED STEEL
RGS-PVC	PVC COATED RGS
RH	RELIEF HOOD, RIGHT HAND, RELATIVE HUMIDITY
RL	REQUIRED LAP
RLFA	RELIEF AIR
RND	ROUND
RNG	RUNNING
RO	ROUGH OPENING
ROW	RIGHT-OF-WAY
RPM	REVOLUTIONS PER MINUTE
RR	RAILROAD
RSP	ROCK SLOPE PROTECTION
RT	RIGHT
RVT	RESILIENT VINYL TILE
RY	READY
S	SOUTH, SINK
SA	SUPPLY AIR
SAMU	SOUND-ABSORBING MASONRY UNIT
SAN	SANITARY
SB	SPLASH BLOCK
SC	SOLID CORE
SCH	SCHEDULE
SCHEM	SCHEMATIC
SCN	SCREEN
SE	STEEL/ALUMINUM EDGE
SEC	SECONDARY, SECONDS
SECT	SECTION
SEP	SEPARATE
SF	SQUARE FOOT, SILT FENCE
SG	SHEET GLASS, SEALANT GROOVE
SH	SHOWER
SHT	SHEET
SHTG	SHEATHING
SIL	SILENCE
SIM	SIMILAR
SJ	SLAB JOINT
SL	SLOPE, STEEL LINTEL
SLTD	SLOTTED
SLV	SLEEVE
SMLS	SEAMLESS
SOG	SLAB ON GRADE
SP	SOUNDPROOF, STANDPIPE
SPA	SPACING
SPEC	SPECIFICATION
SPLY	SUPPLY
SPST	SINGLE POLE SINGLE THROW
SPT	SET POINT
SQ	SQUARE
SR	SHORT RADIUS
SS	SERVICE SINK
SST	STAINLESS STEEL
ST	STREET
STA	STATION
STD	STANDARD
STIF	STIFFENER
STIR	STIRRUP
STL	STEEL
STOR	STORAGE
STR	STRUCTURAL, STRAIGHT
SUB	SUBSTITUTE
SUC	SUCTION
SUSP	SUSPENDED
SY	SQUARE YARD
SYM	SYMBOL
SYMM	SYMMETRICAL
SYN	SYNTHETIC
SYS	SYSTEM
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
T	TILE, TREAD
TA	TOILET ACCESSORY, TEMPERED AIR
TAN	TANGENT
TBM	TEMPORARY BENCHMARK
TCE	TEMPORARY CONSTRUCTION EASEMENT
TEF	TROWELED EPOXY FLOORING
TEMP	TEMPORARY, TEMPERATURE
THD	THREAD
THK	THICK
THRESH	THRESHOLD
TKBD	TACK BOARD
TOB	TOP OF BOLT, TOP OF BANK, TOP OF BEAM, TOP OF BERM
TOC	TOP OF CURB, TOP OF CONCRETE
TOD	TOP OF DUCT
TOF	TOP OF FOOTING
TOG	TOP OF GRATING
TOL	TOLERANCE, TOP OF LEDGER
TOM	TOP OF MASONRY
TOP	TOP OF PLATE
TOPO	TOPOGRAPHY
TOS	TOP OF SLAB, TOP OF STEEL, TOE OF SLOPE
TOW	TOP OF WALL
TP	TOILET PARTITION, TELEPHONE POLE, TOE PLATE, TRAP PRIMER
TPD	TOILET PAPER DISPENSER
TPG	TOPPING, THROUGH PLATE GIRDER
TR	TRANSOM
TRANS	TRANSITION
TRD	TRENCH DRAIN
TYP	TYPICAL
U	URINAL
UG	UNDERGROUND
ULT	ULTIMATE
UNFN	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UTIL	UTILITY
V	VENT, VELOCITY, VOLT
VA	VOLT AMPERE
VAC	VACUUM
VAR	VARNISH, VARIABLE, VOLT AMPERES REACTIVE
VB	VAPOR BARRIER, VINYL BASE, VALVE BOX
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
VCT	VINYL COMPOSITION TILE, VERTICAL CENTERLINE
VEL	VELOCITY
VENT	VENTILATION
VERT	VERTICAL
VERTS	VERTICAL REINFORCING
VG	VERTICAL GRAIN
VIF	VERIFY IN FIELD
VIN	VINYL
VOL	VOLUME
VPC	VERTICAL POINT OF CURVATURE
VPI	VERTICAL POINT OF INTERSECTION
VPT	VERTICAL POINT OF TANGENCY
VS	VERSUS, VAPOR SEAL
VTR	VENT THROUGH ROOF
VWC	VINYL WALL COVERING
W/	WITH
W/O	WITHOUT
W	WATT, WEST, WIDE, WINDOW, WIRE, WIDE FLANGE BEAM
WB	WOOD BASE
WC	WATER CLOSET, WATER COLUMN
WD	WOOD, WIDTH
WF	WIDE FLANGE, WASH FOUNTAIN
WG	WIRE GLASS, WATER GAGE
WH	WALL HYDRANT, WEEP HOLE
WI	WROUGHT IRON
WL	WATER LEVEL
WLD	WELDED
WM	WIRE MESH
WP	WEATHERPROOF
WS	WATERSTOP, WATER SURFACE
WSCT	WAINSCOT
WT	WEIGHT, WATER TIGHT
WTHP	WATERPROOF, WORKING POINT
WWF	WELDED WIRE FABRIC
XP	EXPLOSION-PROOF
XS	EXTRA STRONG
XSECT	CROSS SECTION
XXS	DOUBLE EXTRA STRONG
YH	YARD HYDRANT
YS	YIELD STRENGTH

GENERAL NOTES:

1. THESE ABBREVIATIONS APPLY TO THE ENTIRE SET OF CONTRACT DRAWINGS.
2. LISTING OF ABBREVIATIONS DOES NOT IMPLY THAT ALL ABBREVIATIONS ARE USED IN THE CONTRACT DRAWINGS.
3. ABBREVIATIONS SHOWN ON THIS SHEET INCLUDE VARIATIONS OF A WORD. FOR EXAMPLE, "MOD" MAY MEAN MODIFY OR MODIFICATION, "INC" MAY MEAN INCLUDED OR INCLUDING, AND "REINF" MAY MEAN REINFORCE OR REINFORCING.
4. SEE INSTRUMENTATION AND GENERAL LEGEND SHEETS FOR PROJECT-SPECIFIC EQUIPMENT AND PIPING SYSTEM ABBREVIATIONS.

NOT FOR CONSTRUCTION

SERIES **AR-0003**

PLOT DATE: 7/18/2017 10:03:59 AM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	S.CHERIAN
DRAWN:	E.WANG
CHECKED:	J.HUANG/J.SPENCE
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

ABBREVIATIONS

FILENAME

SCALE 12" = 1'-0"

SHEET 3 OF 361

C:\rvt\2016\10013118-A-CENTRAL-GENERAL_XWANG.rvt

MATERIALS IN PLAN/SECTION

- ACOUSTICAL CEILING TILE (SECTION)
- ASPHALT (PLAN OR SMALL-SCALE SECTION)
- ASPHALT (LARGE-SCALE SECTION)
- BATT INSULATION (SECTION)
- BRICK MASONRY (PLAN AND/OR SECTION)
- CHECKERED PLATE (PLAN)
- CONCRETE (PLAN AND/OR SECTION)
- CONCRETE MASONRY (PLAN AND/OR SECTION)
- DEMOLITION (PLAN AND/OR SECTION)
- EARTH (SECTION)
- FILTER POINT MAT (PLAN)
- FINISHED WOOD (SECTION)
- GLULAM LUMBER (SECTION)
- GRANULAR FILL (SECTION)
- GRATING (SECTION)
- GRATING (PLAN)
- GROUT (SECTION)
- GYPSUM BOARD (SECTION)
- METAL (SECTION)
- ORIENTED STRAND BOARD (SECTION)
- PARTICLE BOARD (SECTION)
- PLYWOOD (LARGE-SCALE SECTION)
- PLYWOOD (SMALL-SCALE SECTION)
- PRECAST CONCRETE (PLAN AND/OR SECTION)
- RIGID INSULATION (SECTION)
- RIPRAP (PLAN AND/OR SECTION)
- SAND (SECTION)
- SOD (SECTION)
- WEEP JOINT MORTAR PROTECTION SYSTEM (SECTION)
- WOOD - CONTINUOUS (SECTION)
- WOOD - BLOCKING (SECTION)

GENERAL SYMBOLOGY

ARROW INDICATES DIRECTION OF PLAN NORTH

NORTH ARROW

X PLAN
1/4" = 1'-0"

PLAN TITLE

ARROW INDICATES DIRECTION OF SECTION CUT
SECTION LETTER
SHEET WHERE SECTION IS LOCATED

FULL BUILDING SECTION CUT MARKER

SECTION LETTER
FLAG INDICATES DIRECTION OF SECTION CUT
SHEET WHERE SECTION IS LOCATED

SECTION CUT MARKER

SECTION LETTER
X SECTION
XXX 3/8" = 1'-0"
SHEET WHERE SECTION VIEW IS FIRST CUT *

SECTION TITLE

DETAIL NUMBER
XXX
SHEET WHERE DETAIL IS LOCATED *

DETAIL MARKER

FOR REFERENCING DETAILS INCLUDED IN DRAWING SET.

XXXXXX

DETAIL MARKER

FOR REFERENCING DETAILS BOUND IN SPECIFICATIONS OR SEPARATE VOLUME.

DETAIL NUMBER
X DETAIL
XXX 1/4" = 1'-0"
SHEET WHERE DETAIL IS LOCATED *

DETAIL TITLE

* EXCEPTIONS WHERE THE SHEET NUMBER IS REPLACED BY A DASH (-).
1) FOR COMMON DETAILS. SECTIONS. ELEVATIONS OR DETAILS THAT ARE CUT OR CALLED OUT ON MULTIPLE SHEETS.
2) SECTIONS. ELEVATIONS OR DETAILS THAT ARE LOCATED ON THE SAME SHEET THEY ARE CUT OR CALLED OUT ON.

ARROW INDICATES POINT OF VIEW
ELEVATION NUMBER
INTERIOR X XXX
EXTERIOR X XXX
SHEET WHERE ELEVATION IS LOCATED *

SINGLE ELEVATION OR PHOTO MARKER

ELEVATION NUMBER
ARROW INDICATES POINT OF VIEW ELEVATION
INDICATES SHEET WHERE ELEVATION IS LOCATED

MULTIPLE ELEVATION OR PHOTO MARKER

ELEVATION IDENTIFICATION NUMBER
X ELEVATION
XXX 3" = 1'-0"
SHEET WHERE POINT OF VIEW MARKER CAN BE FOUND *

ELEVATION TITLE

TARGET ELEVATION

ARCHITECTURAL

ROOM NAME
XX-XX — ROOM NUMBER

XXX / X — DOOR NUMBER

A — COLUMN GRID LINE

X — WALL TYPE

X — WINDOW TYPE

X — LOUVER

X — ACCESSORY, FURNITURE, AND MISCELLANEOUS EQUIPMENT IDENTIFIER

KEY NOTE DESIGNATION

— KEY NOTE NUMBER

GENERAL LINE SYMBOLOGY

- 4-HOUR FIRE RATED WALL
- 3-HOUR FIRE RATED WALL
- 2-HOUR FIRE RATED WALL
- 1-HOUR FIRE RATED WALL
- COLUMN GRID LINE/CENTERLINE

IDENTIFICATION SYMBOLOGY

PIPING

FIGURE	36"-PLE	EXAMPLE
LINE SIZE		36"
SERVICE		PLANT EFFLUENT

EQUIPMENT IDENTIFICATION

ALTERNATIVE 1

NPWP2023

FIGURE	EXAMPLE
SERVICE ABBREVIATION	INDICATES NON-POTABLE WATER
EQUIPMENT ABBREVIATION	INDICATES PUMP
BUILDING OR STRUCTURE NUMBER	BUILDING 20
EQUIPMENT NUMBER	PUMP 23

ALTERNATIVE 2

NPWP-23

FIGURE	EXAMPLE
SERVICE ABBREVIATION	INDICATES NON-POTABLE WATER
EQUIPMENT ABBREVIATION	INDICATES PUMP
EQUIPMENT NUMBER	PUMP 23

SHEET NAMING CONVENTION

DISCIPLINE DESIGNATOR & DISCIPLINE ORDER

G	GENERAL
V	SURVEYING/MAPPING
X	DEMOLITION
C	CIVIL
U	MULTI-DISCIPLINE
S	STRUCTURAL
AR	ARCHITECTURAL
D	PROCESS
M	MECHANICAL (HVAC)
P	PLUMBING
E	ELECTRICAL
Y	INSTRUMENTATION

BUILDING NAMES

1	MUNSTER DYER STATION
2	MUNSTER RIDGE STATION
3	SOUTH HAMMOND STATION
4	HAMMOND GATEWAY STATION
5	STATION TYPICAL SHEETS
6	HOMMOND YARD - MAINTENANCE & STORAGE FACILITY
7	HOMMOND YARD - CONSIST WASH

SHEET TYPE DESIGNATOR

0	GENERAL (SYMBOLS, LEGENDS)
1	PLANS
2	ELEVATIONS
3	SECTIONS
4	LARGE SCALE VIEWS
5	DETAILS
6	SCHEDULES AND DIAGRAMS
7	PROFILES
9	3D REPRESENTATIONS

EXAMPLE

FACILITY ARCHITECTURAL SECTION, DRAWING 01

AR	-					ARCHITECTURAL DISCIPLINE DESIGNATOR
		6				HOMMOND YARD - MAINTENANCE & STORAGE FACILITY BUILDING NAMES
			3			SECTIONS SHEET TYPE DESIGNATOR
				0	1	SHEET 01 SHEET NUMBER
AR	-	6	3	0	1	EXAMPLE

GENERAL NOTES:

1. THIS IS A STANDARD SHEET SHOWING COMMON SYMBOLOGY. ALL SYMBOLS ARE NOT NECESSARILY USED ON THIS PROJECT.
2. SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE PROPOSED IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK. REFER TO CONTEXT OF EACH SHEET FOR USAGE.

NOT FOR CONSTRUCTION

SERIES AR-0004

PLOT DATE: 7/18/2017 10:03:59 AM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	S.CHERIAN
DRAWN:	E.WANG
CHECKED:	J.HUANG/J.SPENCE
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

SYMBOLS AND GENERAL NOTES

FILENAME

SCALE 12" = 1'-0"

SHEET 4 OF 361

C:\rvt\2016\10013118-A-CENTRAL-GENERAL_XWANG.rvt

CODE REVIEW ANALYSIS

1.0 INTRODUCTION

THE FOLLOWING CODE REVIEW NARRATIVE IS PROVIDED TO SERVE AS A BASIS OF UNDERSTANDING FOR THE DEVELOPMENT OF THE DESIGN, DRAWINGS AND SPECIFICATIONS FOR NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT GATEWAY (AND TYPICAL) STATIONS FOR THE WESTLAKE CORRIDOR PROJECTS CONNECTING DYER TO HAMMOND, INDIANA.

1.1 APPLICABLE CODES PER AHJ

STATE OF INDIANA ADOPTED CODES WITH AMENDMENTS	
BUILDING CODE	2014 INDIANA BUILDING CODE (2012 IBC)
FIRE CODE	2014 INDIANA FIRE CODE (2012 IFC)
MECHANICAL CODE	2014 INDIANA MECHANICAL CODE (2012 IMC)
PLUMBING CODE	2012 INDIANA PLUMBING CODE (2006 IPC)
ELECTRICAL CODE	2009 INDIANA ELECTRICAL CODE (2008 NEC)
ENERGY CODE	2010 INDIANA ENERGY CONSERVATION CODE (2007 ASHRAE 90.1)
FULE GAS CODE	2014 INDIANA FUEL GAS CODE (2012 IFGC)
LIFE SAFETY CODE	NA*
STATE OF INDIANA ADOPTED STANDARDS	
ELEVATOR SAFETY	2007 ANSI/ASME A17.1
ACCESSIBILITY	2009 ANSI/ICC A117.1
OTHER REFERENCE GUIDES:	

** THE STATE OF INDIANA HAS NOT ADOPTED THE NFPA 101, LIFE SAFETY CODE.*

1.2 APPLICABLE AMENDMENTS

1.2.1 IBC (STATE OF INDIANA REGISTER - 04/26/2017)

§903.2.1.3	AMEND SECTION 903.2.1.3, GROUP A-3, AS FOLLOWS: (1) ADD EXCEPTION 1 TO READ AS FOLLOWS: FIRE AREAS NOT EXCEEDING 7,000 SQUARE FEET (650.3 M2) USED PRIMARILY FOR WORSHIP WITH OR WITHOUT FIXED SEATING AND NOT USED FOR EXHIBITION OR DISPLAY, AND THE FIRE AREA IS NOT LOCATED ON A FLOOR LEVEL OTHER THAN THAT OF EXIT DISCHARGE. (2) ADD EXCEPTION 2 TO READ AS FOLLOWS: THE FIRE AREA IS LOCATED ON A FLOOR OTHER THAN THE LEVEL OF EXIT DISCHARGE. FOR PURPOSES OF DETERMINING THE LEVEL OF EXIT DISCHARGE, MEZZANINES OF 2,000 S.F. OR LESS IN AREA IN COMPLIANCE WITH SECTION 505 SHALL BE CONSIDERED A PORTION OF THE STORY BELOW IF THE TOTAL FLOOR AREA AND OCCUPANT LOAD, INCLUDING THE MEZZANINE, ARE COMPLIANT WITH BOTH CONDITIONS (1) AND (2).
TABLE §1004.1.2	MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT: INSERT A SEPARATE BOX FOR "INDUSTRIAL AREAS" UNDER THE "FUNCTION OF SPACE" CATEGORY AND ADD "100 GROSS IN THE "OCCUPANT LOAD FACTOR" CATEGORY
§1005.3.1	STAIRWAYS: DELETE IN THE EXCEPTION, "AND AN EMERGENCY VOICE/ALARM COMMUNICATION SYSTEM IN ACCORDANCE WITH SECTION 907.5.2.2" WITHOUT SUBSTITUTION.
§1005.3.2	OTHER EGRESS COMPONENTS: DELETE IN THE EXCEPTION, "AND AN EMERGENCY VOICE/ALARM COMMUNICATION SYSTEM IN ACCORDANCE WITH SECTION 907.5.2.2" WITHOUT SUBSTITUTION.
§1009.0.1	(ADD) STAIRWAYS. STAIRS AND LADDERS USED TO ACCESS AREAS USED EXCLUSIVELY FOR MECHANICAL EQUIPMENT ARE EXEMPT FROM THIS SECTION.
§1013.4	OPENING LIMITATIONS, EXCEPTION 3, BY DELETING THE TEXT AND INSERTING TO READ AS FOLLOWS: 3. AT ELEVATED WALKING SURFACES FOR ACCESS TO AND USE OF ELECTRICAL, MECHANICAL, OR PLUMBING SYSTEMS, FIRE DEPARTMENT ACCESS DOORS REQUIRED BY THE INDIANA FIRE CODE (675 IAC 22) THAT ARE NOT A REQUIRED EXIT, OR EQUIPMENT, GUARDS SHALL HAVE BALUSTERS OR BE OF SOLID MATERIALS SUCH THAT A SPHERE WITH A DIAMETER OF 21 INCHES (533 MM) CANNOT PASS THROUGH ANY OPENING.
§1016.2.2	(ADD) ESFR SPRINKLERS. BUILDINGS OR AREAS PROTECTED BY ESFR SPRINKLER SYSTEM ARE PERMITTED TO HAVE 400 FEET EXIT TRAVEL DISTANCE.

1.2.2 IPC (STATE OF INDIANA REGISTER - 04/26/2017)

§2902.1.1	(ADDING) EXCEPTION 2 TO READ AS FOLLOWS: 2. THE ACTUAL NUMBER OF OCCUPANTS FOR WHOM EACH OCCUPIED SPACE, FLOOR OR BUILDING IS DESIGNED, ALTHOUGH LESS THAN THOSE DETERMINED BY CALCULATION, SHALL BE PERMITTED TO BE USED IN THE DETERMINATION OF THE DESIGN OCCUPANT LOAD FOR FIXTURE CALCULATIONS. THE ACTUAL NUMBER OF OCCUPANTS FOR WHICH A PARKING GARAGE IS DESIGNED FOR PURPOSES OF THIS SECTION MAY BE ZERO (0).

1.2 APPLICABLE AMENDMENTS (CONT'D)

1.2.3 IFC (STATE OF INDIANA REGISTER - 04/26/2017)

§903.3.6	AMEND SECTION 903.3.6 TO DELETE THE TEXT AND INSERT THE FOLLOWING: FIRE HOSE THREADS USED INCONNECTION WITH AUTOMATIC SPRINKLER SYSTEMS SHALL BE COMPATIBLE WITH THE EQUIPMENT USED BY THE SERVICING FIRE DEPARTMENT....
§903.3.7	AMEND SECTION 903.3.7 TO DELETE THE TEXT AND INSERT TO READ AS FOLLOWS: FIRE DEPARTMENT CONNECTIONS. WHEN THERE IS A LOCAL ORDINANCE SPECIFYING THE LOCATION OF THE FIRE DEPARTMENT CONNECTIONS, THEY SHALL BE PLACED ACCORDINGLY. WHEN NO ORDINANCE IS PRESENT, THE SERVICING FIRE DEPARTMENT SHALL BE CONSULTED PRIOR TO PLACEMENT. ...
§903.4.2	AMEND SECTION 903.4.2 TO DELETE THE TEXT AND INSERT THE FOLLOWING: LISTED AUDIBLE AND VISIBLE DEVICES SHALL BE CONNECTED TO EVERY AUTOMATIC SPRINKLER SYSTEM. SUCH SPRINKLER WATER-FLOW ALARM DEVICES SHALL BE ACTIVATED BY WATER FLOW EQUIVALENT TO THE FLOW OF A SINGLE SPRINKLER OF THE SMALLEST ORIFICE SIZE INSTALLED IN THE SYSTEM. ALARM DEVICES SHALL BE PROVIDED ON THE EXTERIOR OF THE BUILDING FACING THE PUBLIC STREET, ROAD, OR HIGHWAY THAT IS IN ACCORDANCE WITH ITS LEGAL ADDRESS. WHERE A BUILDING IS NOT DIRECTLY FACING, OR IS IN EXCESS OF TWO HUNDRED FIFTY (250) FEET FROM THE PUBLIC STREET, ROAD, OR HIGHWAY, THE SERVICING FIRE DEPARTMENT SHALL BE CONSULTED IN DETERMINING A LOCATION PRIOR TO THE INSTALLATION OF THE EXTERIOR AUDIBLE AND VISIBLE DEVICE. WHERE A FIRE ALARM SYSTEM IS INSTALLED, ACTUATION OF THE AUTOMATIC SPRINKLER SYSTEM SHALL ACTUATE THE BUILDING FIRE ALARM SYSTEM. EXCEPTION: SPRINKLER SYSTEMS WHICH ARE MONITORED BY AN APPROVED SUPERVISORY STATION ARE NOT REQUIRED TO HAVE THE LISTED AUDIBLE AND VISIBLE DEVICE LOCATED ON THE EXTERIOR WALL FACING THE PUBLIC STREET, ROAD, OR HIGHWAY. ...

1.3 NFPA ADOPTED CODES & STANDARDS

NFPA-EDITION	TITLE
10-2010	**PORTABLE FIRE EXTINGUISHERS**
11-2005	LOW EXPANSION FOAM AND COMBINED SYSTEMS
12-2005	CARBON DIOXIDE EXTINGUISHING SYSTEMS
13-2010	**INSTALLATION OF SPRINKLER SYSTEMS**
13R-2010	SPRINKLER SYSTEMS IN RESIDENTIAL OCCUPANCIES UP TO FOUR STORIES IN HEIGHT
14-2000	INSTALLATION OF STANDPIPE AND HOSE SYSTEMS
15-2001	WATER SPRAY FIXED SYSTEMS
17-2002	DRY CHEMICAL EXTINGUISHING SYSTEMS
17A-2002	WET CHEMICAL EXTINGUISHING SYSTEMS
20-1999	INSTALLATION OF CENTRIFUGAL FIRE PUMPS
25-2011	**INSPECTION, TESTING AND MAINTENANCE OF WATER BASED FIRE PROTECTION SYSTEMS**
33-2003	**SPRAY APPLICATION USING FLAMMABLE AND COMBUSTIBLE MATERIALS**
34-2003	DIPPING AND COATING PROCESSES USING FLAMMABLE OR COMBUSTIBLE LIQUIDS
37-2002	INSTALLATION AND USE OF STATIONARY COMBUSTION ENGINES AND GAS TURBINES
50-2001	BULK OXYGEN SYSTEMS AND CONSUMER SITES
50B-1999	LIQUEFIED HYDROGEN SYSTEMS AT CONSUMER SITES
51-2002	DESIGN AND INSTALLATION OF OXYGEN-FUEL SYSTEMS FOR WELDING, CUTTING AND ALLIED PROCESSES
51A-1997	ACETYLENE CYLINDER CHARGING PLANTS
51B-2003	**FIRE PREVENTION IN USE OF CUTTING AND WELDING PROCESSES**
52-2002	**COMPRESSED NATURAL GAS (CNG) VEHICULAR FUEL SYSTEMS**
58-2004	LIQUEFIED PETROLEUM GAS CODE
59-2004	STORAGE AND HANDLING OF LIQUEFIED PETROLEUM GASES AT UTILITY GAS PLANTS
59A-2001	PRODUCTION AND STORAGE AND HANDLING OF LIQUEFIED NATURAL GAS (LNG)
61B-1989	FIRES AND EXPLOSIONS IN GRAIN ELEVATORS AND FACILITIES HANDLING BULK RAW AGRICULTURAL COMMODITIES
70-2008	**NATIONAL ELECTRICAL CODE**
72-2010	**NATIONAL FIRE ALARM CODE**
82-2004	INCINERATORS, WASTE AND LINEN HANDLING SYSTEMS AND EQUIPMENT
86-2003	OVENS AND FURNACES - DESIGN, LOCATION AND EQUIPMENT
385-2000	TANK VEHICLES FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS
386-1990	PORTABLE SHIPPING TANKS FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS
407-2001	AIRCRAFT FUEL SERVICING
495-2001	EXPLOSIVE MATERIALS CODE
704-2001	IDENTIFICATION OF THE FIRE HAZARDS OF MATERIALS
1123-2006	OUTDOOR DISPLAY OF FIREWORKS
1126-2001	USE OF PYROTECHNICS BEFORE A PROXIMATE AUDIENCE
2001-2004	CLEAN AGENT FIRE EXTINGUISHING SYSTEMS

NOT FOR CONSTRUCTION

SERIES **AR-0005**

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631

www.hdrinc.com

PLOT DATE: 7/20/2017 12:25:50 PM

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

DYER TO HAMMOND, INDIANA

DESIGNED:	Designer
DRAWN:	Author
CHECKED:	Checker
DATE:	05/26/17

NICTD - WEST LAKE CORRIDOR - MP 69.0
PROJECT NAME

CONCEPTUAL BUILDING FIRE & LIFE SAFETY CODE ANALYSIS

FILENAME
SCALE

SHEET 5 OF 361

C:\rvt\2016\WL_AR_GATEWAYSTN_02_ELI.rvt

CODE DATA TABLE

2.0 GATEWAY STATION

2.1 DESCRIPTION

THE FOLLOWING CODE REVIEW NARRATIVE IS PROVIDED TO SERVE AS A BASIS OF UNDERSTANDING FOR THE DEVELOPMENT OF THE DESIGN, DRAWINGS AND SPECIFICATIONS FOR NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT GATEWAY (AND TYPICAL) STATIONS FOR THE WESTLAKE CORRIDOR CONNECTING DYER TO HAMMOND, INDIANA. ALL CODE REFERENCES ARE TO THE 2014 INDIANA BUILDING CODE (IBC) AND INDIANA FIRE CODE (IFC) UNLESS NOTED OTHERWISE.

2.1.1 ASSUMPTIONS

CODE ANALYSIS DOES NOT REQUIRE AN AUTOMATIC SPRINKLER SYSTEM FOR AN A-3 (ASSEMBLY) OCCUPANCY THAT MAINTAINS ALL A-2 OCCUPANCY AREAS AS ACCESSORY (< 10% AGGREGATE) AND/OR BELOW THE CLASSIFICATION REQUIREMENTS OF §303.1.2 FOR SMALL ASSEMBLY SPACES AS FOLLOWS:
1. A ROOM OR SPACE USED FOR ASSEMBLY PURPOSES WITH AN OCCUPANT LOAD OF LESS THAN 50 PERSONS AND ACCESSORY TO ANOTHER OCCUPANCY SHALL BE CLASSIFIED AS A GROUP B OR AS PART OF THAT OCCUPANCY.
2. A ROOM OR SPACE USED FOR ASSEMBLY PURPOSES THAT IS LESS THAN 750 SQUARE FEET IN AREA AND AND ACCESSORY TO ANOTHER OCCUPANCY SHALL BE CLASSIFIED AS A GROUP B OR AS PART OF THAT OCCUPANCY.

GROUP A-2 AUTOMATIC SPRINKLER REQUIREMENTS

FIRE AREA	> 5,000 SF, OR > 100 OCCUPANTS, OR NOT AT LEVEL OF EXIT DISCHARGE	§903.2.1.1	
SUPERVISION	ALL VALVES, CRITICAL AIR SWITCHES, WATERFLOW SWITCHES, SMOKE DETECTOR ABOVE CONTROL PANEL, MANUAL PULL STATION	§903.4	
MONITORING	APPROVED SUPERVISING STATION BY A LISTED FIRE ALARM CONTROL UNIT & DUCT DETECTORS PER IMC.	§903.4 §907.2	
ALARMS	AUDIBLE DEVICE AT EXTERIOR (WATER FLOW ALARM DEVICE)	§903.4.2	

2.1.2 TYPICAL STATION CODE COMPLIANCE SUMMARY AND BUILDING DATA

TYPICAL STATIONS ARE EITHER EQUIVALENT TO, OR LESS RESTRICTIVE THAN, THE CODE ANALYIS PROVIDED FOR THE GATEWAY STATION. THE TYPICAL STATION IS CONSIDERED A SMALL ASSEMBLY BUILDING PER §303.1.1 OF THE 2014 IBC AND SHALL BE CLASSIFIED AS A GROUP B OCCUPANCY BASED ON THE FOLLOWING BUILDING DATA SUMMARY:

BUILDING/FIRE AREA	1,500 SF
HEIGHT	13'-4" (1 STORY/NO MEZZANINES)
TYPE OF CONSTRUCTION	II-B
FIRE SEPARATION DISTANCE	GREATER THAN 30'-0"
FIRE PROTECTION SYSTEMS	NOT REQUIRED
OCCUPANT LOAD (TOTAL)	53

2.2 GENERAL BUILDIGN DATA SUMMARY

OCCUPANCY CLASSIFICATION(S)	A-3, ASSEMBLY (PASSENGER TERMINAL/TRANSPORTATION FACILITY)
BUILDING AREA	1,500 SF
FIRE AREA	1,500 SF
HEIGHT	13'-4" (1 STORY/NO MEZZANINE)
TYPE OF CONSTRUCTION	II-B
FIRE SEPARATION DISTANCE	GREATER THAN 30'-0"
FIRE PROTECTION SYSTEMS	FIRE AREA < 12,000 SF OCCUPANT LOAD < 300 FIRE AREA @ LVL OF DISCHARGE
OCCUPANT LOAD (TOTAL)	53

2.3 USE & OCCUPANCY CLASSIFICATION:		IBC	IFC
OCCUPANCY GROUP(S):	A-3, ASSEMBLY	§311.2	§202
ACCESS. OCCUPANCY (<10%)	NA	§303.3	§202
HAZARDOUS MATERIALS	< M.A.Q.	§307.1	§
CLASSIFICATION OF HAZARDS	LIGHT	NA	-
2.4 SPECIAL REQUIREMENTS:		**IBC**	**IFC**
NA			-

2.5 BUILDING HEIGHTS & AREAS:		IBC	IFC
ACTUAL HEIGHT & AREA	13'-4" (1 STORY) 1,500 SF		-
ALLOWABLE AREA/STORY	16,625 SF	§503.1	-
ALLOWABLE HEIGHT	55 FT (2 STORIES)*	§504.1	-
MEZZANINE AREA (%)	NA	§505.2	-
INCREASES TAKEN FOR:	NOT REQUIRED	§506.1	-
AREA MODIFICATIONS:	At = 9,500 SF If = 75% = 0.75 Is = 0	§506.1 TABLE §503 §506.2 §506.3	-
UNLIMITED AREA BUILDINGS	NA	§507	-
MIXED-USE & OCCUPANCY	A-3, ASSEMBLY WITH ACCESSORY BUSINESS NON-SEPARATED	§508.2	-
INCIDENTAL USES	FIRE BARRIER	§509.4	-
SPECIAL PROVISIONS	NA	§510	-
2.6 TYPES OF CONSTRUCTION:		**IBC**	**IFC**
CONSTRUCTION TYPE:	II-B (NON-COMBUSTIBLE)	§602.5	
FIRE-RESISTANCE RATINGS	0-HR	§T601	
FIRE SEPARATION DISTANCE	> 60 FT	§T602	
2.7 FIRE & SMOKE PROTECTION:		**IBC**	**IFC**
EXTERIOR WALLS	UNPROTECTED/NONSPRINKLERED	TABLE §705.8	
FIRE BARRIERS	1-HOUR RATED ASSEMBLY	§707.1	
INCIDENTAL USES	FIRE BARRIER (NOT REQUIRED)	§707.1	
2.8 INTERIOR FINISHES:		**IBC**	**IFC**
CEILING & WALL	CLASS A OR C	§TB03.9	
FLOOR	CLASS II	§804.4	
2.9 FIRE PROTECTION SYSTEMS:		**IBC**	**IFC**
GAS DETECTION SYSTEM	NOT REQUIRED	§406.8.5	
AUTOMATIC SPRINKLER SYSTEM	NOT REQUIRED	§903.2.9.1	
STANDPIPE SYSTEMS	NOT REQUIRED	§905.3	§905.3
PORTABLE FIRE EXTINGUISHERS	2-A REQUIRED PER OCCUPANCY	§906.1	
	MAXIMUM TRAVEL DISTANCE 75 FT MAXIMUM 3,000 SF/A	§906.1	NFPA 10
FIRE ALARM AND DETECTION	NOT REQUIRED	§907.2	
FIRE DEPARTMENT CONNECTIONS	NOT APPLICABLE	§903.3.7 & §912.1	
POST-INDICATOR VALVE	NOT APPLICABLE	§903.3.7	
MIN. HYDRANTS (SPACING)	1 (500 FT)*		
2.10 MEANS OF EGRESS:		**IBC**	**IFC**
CUMMULATIVE OCCUPANT LOAD	53 OCCUPANTS	§1004.1	-
ASSEMBLY W/OUT FIXED SEATS	1:15 SF (NET) = 40		-
RETAIL AREAS	1:30 SF (GROSS) = 12		-
STORAGE	1:300 SF (GROSS) = 1		-
ACCESS. STORAGE/MECH/EQUIP RM	TBD (1:300 SF GROSS) = 0		-
EGRESS CAPACITY PER O.L.	0.3(STAIRS) & 0.2(OTHER)*	§1005.3	-
EXIT ACCESS C.P.T.	75 FT	§T1014.3	-
EXIT ACCESS T.D.	A: 200 FT*	§T1016.2	-
MIN. EXIT DOORS	2 PROVIDED (O.L.)	§1015.1	-
EXIT DISCHARGE	SAFE DISPERSAL AREA(S) ACCESSIBLE ROUTE TO P.R.O.W.	§1027.5	-
2.11 ACCESSIBILITY:		**IBC**	**IFC**
ASSEMBLY AREAS	NO EXEMPTIONS	§1102	-
EMPLOYEE WORK AREAS	CIRCULATION ROUTE	§1102	-

CODE DATA TABLE (CONT'D)

2.0 GATEWAY STATION

2.12 HAZARDOUS MATERIALS (MAX. ALLOWABLE QUANTITIES):	IBC	IFC
MATERIALS: NONE SPECIFIED		

2.29 PLUMBING SYSTEMS:		IBC	IFC
MINIIMUM PLUMBING FIXTURES		§2902	
OCCUPANCY CLASSIFICATION(S)	A-3, ASSEMBLY		
PLUMBING FIXT. OCCUPANT LOAD	53	§1015.1	-
ACTUAL OCCUPANT LOAD*	NA	§2902.1.1	-
MALE (REQUIRED)	PROVIDED (REQUIRED)	TABLE §2902.1	-
WATER CLOSETS (1/500)	1		-
LAVATORIES (1/750)	1		-
FEMALE (REQUIRED)		TABLE §2902.1	-
WATER CLOSETS (1/500)	1		-
LAVATORIES (1/750)	1		-
MISCELLANOUS		TABLE §2902.1	-
DRINKING FOUNTAINS (HI-LO)	1		-
SERVICE SINK (1)	1		-

3.0 APPLICABLE FIRE CODE ASSUMPTIONS AND REQUIREMENTS

3.1 FIRE FLOW DEMAND

SHOULD THE GROUP A-2 OCCUPANCY AT THE GATEWAY STATION REQUIRE PROTECTION BY AN AUTOMATIC SPRINKLER SYSTEM, THE FIRE FLOW DEMAND SHALL BE AS SPECIFIED IN APPENDIX B, TABLE §B105.1 FOR A FIRE AREA OF 5,576 SF OF TYPE II-B CONSTRUCTION. A 75% REDUCTION IS PERMITTED FOR BUILDINGS PROTECTED THROUGHOUT BY AN AN APPROVED AUTOMATIC SPRINKLER SYSTEM (NFPA 13), BUT SHALL NOT BE LESS THAN 1,500 GALLONS PER MINUTE (GPM) FOR THE DURATION LISTED IN TABLE §B105.1.
TABULAR FIRE-FLOW: 1,500 GPM FOR 2 HOUR FLOW DURATION
75% REDUCTION: NA
MINIMUM FIRE FLOW: 1,500 GPM FOR 2 HOURS

3.1.1 FIRE PROTECTION WATER SUPPLY		IBC	IFC
FIRE FLOW	PER APPENDIX B, TABLE B105.1	-	§507.3
WATER SUPPLY TEST	VERIFY REQUIREMENTS WITH AHJ AND PROVIDE APPROVED DOCUMENTATION	-	§507.4
FIRE HYDRANT SYSTEMS	WITHIN 600 FT APPROVED HOSE LAY LENGTH OF ALL PORTIONS/EXTERIOR WALLS	-	§507.5
POST-INDICATOR VALVE	MINIMUM 40 FT FROM BUILDING UNLESS APPROVED	-	§503.2.7
FIRE DEPARTMENT CONNECTION	APPROVED LOCATION BY FIRE CODE OFFICIAL	-	§903.3.7
AUTOMATIC SPRINKLER SYSTEM	NOT REQUIRED FOR A-3 OCCUPANCY	§903.2.1.3	§503.6 §90

PLOT DATE: 7/20/2017 12:25:59 PM

NOT FOR CONSTRUCTION

SERIES **AR-0006**

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

DYER TO HAMMOND, INDIANA

DESIGNED:	Designer
DRAWN:	Author
CHECKED:	Checker
DATE:	05/19/17

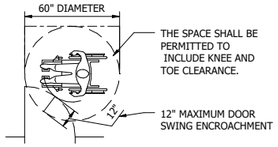
NICTD - WEST LAKE CORRIDOR - MP 69.0
PROJECT NAME

CONCEPTUAL BUILDING FIRE & LIFE SAFETY CODE ANALYSIS

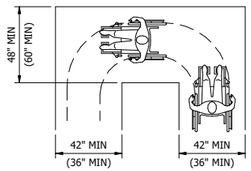
FILENAME
SCALE

SHEET 6 OF 361

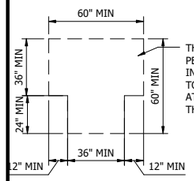
C:\rvt\2016\WL_AR_GATEWAYSTN_02_ELI.rvt



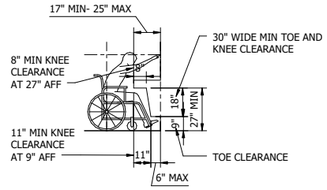
B CIRCULAR TURNING SPACE



D CLEAR WIDTH AT 180° TURN

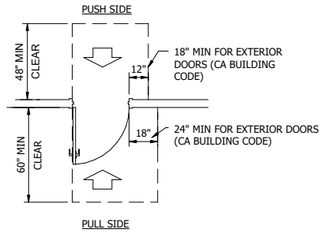


A T-SHAPED TURNING SPACE

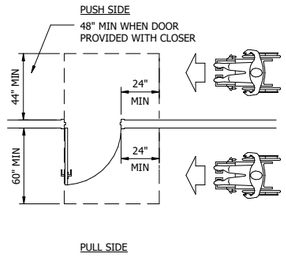


C TOE AND KNEE CLEARANCES

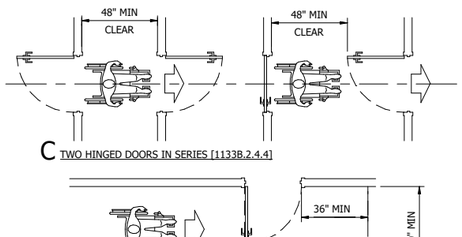
1 ADA-TURNING RADII
1/4" = 1'-0"



A FRONT APPROACHES [1133B.2.4.3]

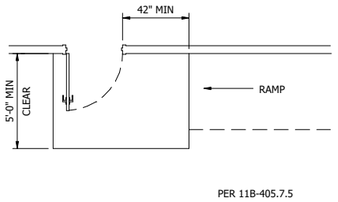


B LATCH SIDE APPROACHES [1133B.2.4.3]



C TWO HINGED DOORS IN SERIES [1133B.2.4.4]

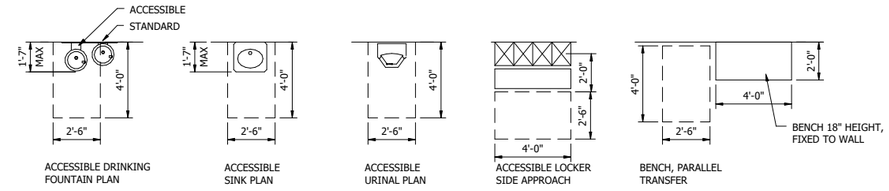
D HINGE SIDE APPROACHES [1133B.2.4.3]



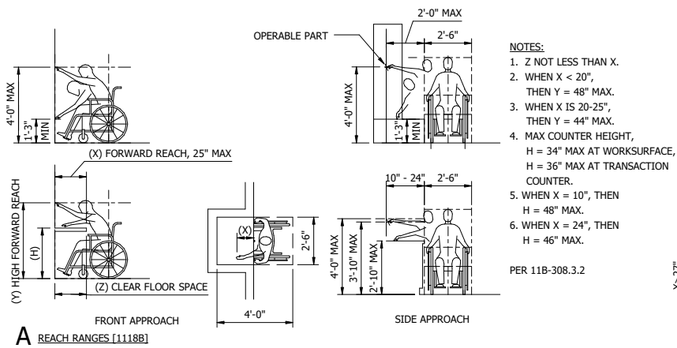
PER 11B-405.7.5

E ENCROACHMENT OF DOORS ONTO RAMPS [1133B.5.4.4]

2 ADA FLOOR CLEARANCE
1/4" = 1'-0"



3 ADA - CLEAR FLOOR SPACE
1/4" = 1'-0"



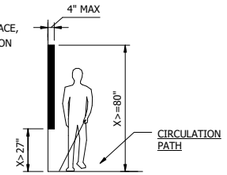
A REACH RANGES [1118B]

NOTE:
OPERABLE PARTS SHALL BE PLACED WITHIN ONE OR MORE OF THE REACH RANGES SPECIFIED IN 308.

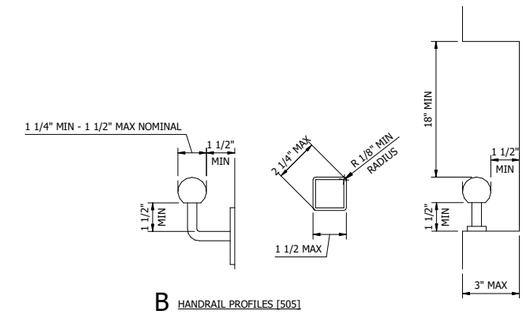
NOTES:
1. Z NOT LESS THAN X.
2. WHEN X < 20", THEN Y = 48" MAX.
3. WHEN X IS 20-25", THEN Y = 44" MAX.
4. MAX COUNTER HEIGHT, H = 34" MAX AT WORKSURFACE, H = 36" MAX AT TRANSACTION COUNTER.
5. WHEN X = 10", THEN H = 48" MAX.
6. WHEN X = 24", THEN H = 46" MAX.

PER 11B-308.3.2

4 ADA- REACH RANGES
1/4" = 1'-0"

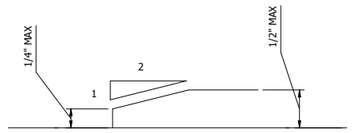


B PROTRUDING OBJECTS [1133B.8.6]

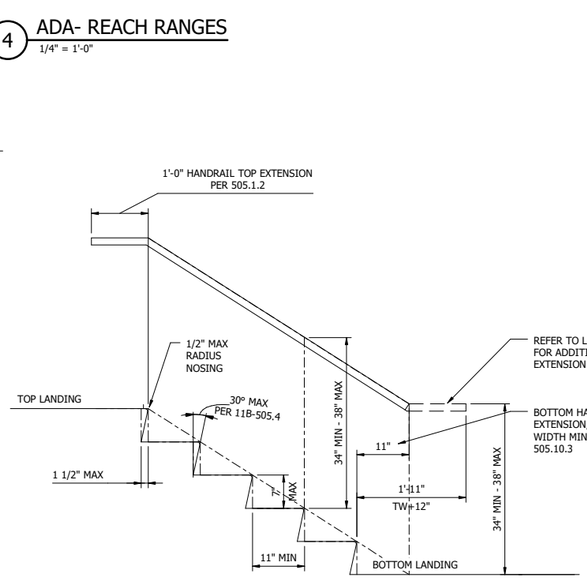


B HANDRAIL PROFILES [505]

6 ADA- HANDRAIL PROFILE
3" = 1'-0"

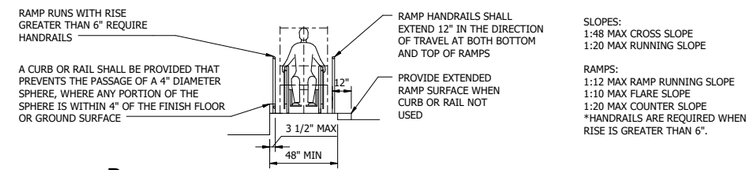


7 ADA- THRESHOLD
1/2" = 1'-0"

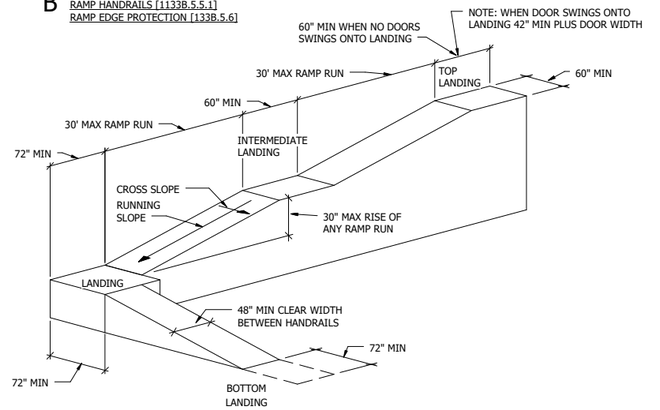


A STAIR SECTION

5 ADA-STAIR AND HANDRAIL
3/4" = 1'-0"



B RAMP HANDRAILS [1133B.5.5.1]
RAMP EDGE PROTECTION [133B.5.6]



A RAMPS [1133B.5.2]

8 ADA- RAMPS
1/4" = 1'-0"

Note:
Diagrams Illustrate Minimum Requirements

NOT FOR CONSTRUCTION

SERIES AR-0007

PLOT DATE: 7/19/2017 4:17:01 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	R. Krieger
DRAWN:	K. Gonzales
CHECKED:	U. Bamert
DATE:	07/21/17

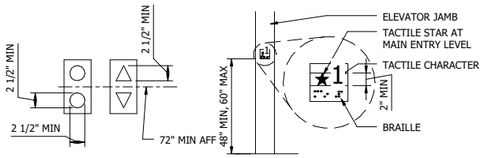
NICTD - WEST LAKE CORRIDOR - MP 65.6
PROJECT NAME

CODE COMPLIANCE DIAGRAMS

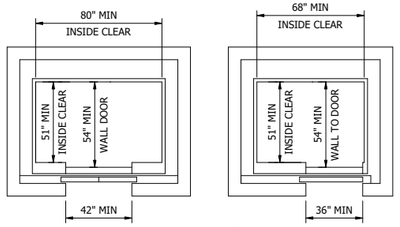
FILENAME
SCALE As indicated

SHEET 7 OF 361

C:\rvt\2016\WL_AR_SOHAMSTN_02_ELI.rvt

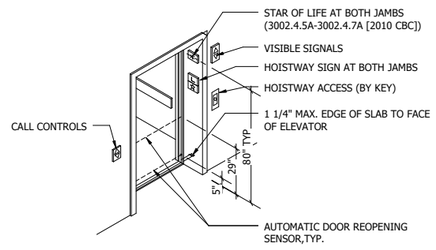


VISIBLE SIGNALS (407.2.2.2) HOISTWAY SIGNS (407.2.3)



A CENTER OPENING (407.4.1)

B SIDE OPENING (407.4.1)



HOISTWAY / ELEVATOR ENTRANCE

BASED ON 2016 ADA

407 ELEVATORS

407.1 GENERAL
ELEVATORS SHALL COMPLY WITH 407 AND WITH ASME A17.1

407.2.1 CALL CONTROLS
WHERE ELEVATOR CALL BUTTONS OR KEYPADS ARE PROVIDED, THEY SHALL COMPLY WITH 407.2.1 AND 309.4.

407.2.1.1 HEIGHT
CALL BUTTONS AND KEYPADS SHALL BE LOCATED WITHIN ONE OF THE REACH RANGES SPECIFIED IN 308, MEASURED TO THE CENTERLINE OF THE HIGHEST OPERABLE PART.

407.2.1.2 SIZE AND SHAPE
CALL BUTTONS SHALL HAVE SQUARE SHOULDERS, BE ¾ INCH (19 MM) MINIMUM IN THE SMALLEST DIMENSION AND SHALL BE RAISED 1/8 INCH PLUS OR MINUS 1/32 INCH ABOVE THE SURROUNDING SURFACE. THE BUTTONS SHALL BE ACTIVATED BY A MECHANICAL MOTION THAT IS DETECTABLE.

407.2.1.3 CLEAR FLOOR OR GROUND SPACE
A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 305 SHALL BE PROVIDED AT CALL CONTROLS.

407.2.2.1 VISIBLE AND AUDIBLE SIGNALS
A VISIBLE AND AUDIBLE SIGNAL SHALL BE PROVIDED AT EACH OISTWAY ENTRANCE TO INDICATE WHICH CAR IS ANSWERING A CALL AND THE CAR'S DIRECTION OF TRAVEL. WHERE IN-CAR SIGNALS ARE PROVIDED, THEY SHALL BE VISIBLE FROM THE FLOOR AREA ADJACENT TO THE HALL CALL BUTTONS.

407.2.2.2 VISIBLE SIGNALS
VISIBLE SIGNAL FIXTURES SHALL BE CENTERED AT 72 INCHES MINIMUM ABOVE THE FINISH FLOOR OR GROUND. THE VISIBLE SIGNAL ELEMENTS SHALL BE MINIMUM 2 ½" HIGH BY 2 ½" WIDE. SIGNALS SHALL BE VISIBLE FROM THE FLOOR AREA ADJACENT TO THE HALL CALL BUTTON.

407.2.2.3 AUDIBLE SIGNALS
AUDIBLE SIGNALS SHALL SOUND ONCE FOR THE UP DIRECTION AND TWICE FOR THE DOWN DIRECTION.

407.2.3 HOISTWAY SIGNS
407.2.3.1 FLOOR DESIGNATION
FLOOR DESIGNATIONS COMPLYING WITH 703.2 AND 703.4.1 AND SHALL BE PROVIDED ON BOTH JAMBS OF ELEVATOR HOISTWAY ENTRANCES. FLOOR DESIGNATIONS SHALL BE PROVIDED IN BOTH RAISED CHARACTERS AND BRAILLE. RAISED CHARACTERS SHALL BE 2" HIGH MINIMUM. A RAISED STAR, PLACED TO THE LEFT OF THE FLOOR DESIGNATION, SHALL BE PROVIDED ON BOTH JAMBS AT THE MAIN ENTRY LEVEL. THE OUTSIDE DIAMETER OF THE STAR SHALL BE 2 INCHES AND ALL POINTS SHALL BE OF EQUAL LENGTH. RAISED CHARACTERS, INCLUDING THE STAR, SHALL BE WHITE ON A BLACK BACKGROUND. BRAILLE COMPLYING WITH SECTION 703.3 SHALL BE PLACED BELOW THE CORRESPONDING RAISED CHARACTERS AND THE STAR. THE BRAILLE TRANSLATION FOR THE STAR SHALL BE "MAIN". APPLIED PLATES ARE ACCEPTABLE IF THEY ARE PERMANENTLY FIXED TO THE JAMB.

407.3 ELEVATOR DOOR REQUIREMENTS
HOISTWAY AND CAR DOORS SHALL COMPLY WITH 407.3.

407.3.3 REOPENING DEVICE
ELEVATOR DOORS SHALL BE PROVIDED WITH A REOPENING DEVICE COMPLYING WITH 407.3.3 THAT SHALL STOP AND REOPEN A CAR DOOR AND HOISTWAY DOOR AUTOMATICALLY IF THE DOOR BECOMES OBSTRUCTED BY AN OBJECT OR PERSON.

407.3.3.1 HEIGHT
THE DEVICE SHALL BE ACTIVATED BY SENSING AN OBSTRUCTION PASSING THROUGH THE OPENING AT 5" NOMINAL AND 29" NOMINAL ABOVE THE FINISH FLOOR.

407.4 ELEVATOR CAR REQUIREMENTS
ELEVATOR CARS SHALL COMPLY WITH 407.4.

407.4.1 CAR DIMENSIONS
INSIDE DIMENSIONS OF ELEVATOR CARS AND CLEAR WIDTH OF ELEVATOR DOORS SHALL COMPLY WITH TABLE 407.4.1.

407.4.6 ELEVATOR CAR CONTROLS
WHERE PROVIDED, ELEVATOR CAR CONTROLS SHALL COMPLY WITH 407.4.6 AND 309.4.

NOTE:
SEE REQUIREMENTS FROM LOCAL JURISDICTIONS HAVING AUTHORITY.

216 SIGNS (SCOPING REQUIREMENTS)

216.2 DESIGNATIONS.
INTERIOR AND EXTERIOR SIGNS IDENTIFYING PERMANENT ROOMS AND SPACES SHALL COMPLY WITH 703.1 (GENERAL), 703.2 (RAISED CHARACTERS), 703.3 (BRAILLE) AND 703.5 (VISUAL CHARACTERS). WHERE PICTOGRAMS ARE PROVIDED AS DESIGNATIONS OF PERMANENT ROOMS AND SPACES, THE PICTOGRAMS SHALL COMPLY WITH 703.6 AND SHALL HAVE TEXT DESCRIPTORS COMPLYING WITH 703.2 (RAISED CHARACTERS) AND 703.5 (VISUAL CHARACTERS).

EXCEPTION: EXTERIOR SIGNS THAT ARE NOT LOCATED AT THE DOOR TO THE SPACE THEY SERVE SHALL NOT BE REQUIRED TO COMPLY WITH 703.2.

[ADVISORY 216.2 SECTION 216.2 APPLIES TO SIGNS THAT PROVIDE DESIGNATIONS, LABELS, OR NAMES FOR INTERIOR ROOMS OR SPACES WHERE THE SIGN IS NOT LIKELY TO CHANGE OVER TIME. EXAMPLES INCLUDE INTERIOR SIGNS LABELING RESTROOMS, ROOM AND FLOOR NUMBERS OR LETTERS, AND ROOM NAMES.]

216.3 DIRECTIONAL AND INFORMATIONAL SIGNS
SIGNS THAT PROVIDE DIRECTION TO OR INFORMATION ABOUT INTERIOR and EXTERIOR SPACES AND FACILITIES OF THE SITE SHALL COMPLY WITH 703.5 (VISUAL CHARACTERS).

[ADVISORY 216.3 DIRECTIONAL AND INFORMATIONAL SIGNS. INFORMATION ABOUT INTERIOR SPACES AND FACILITIES INCLUDES RULES OF CONDUCT, OCCUPANT LOAD, AND SIMILAR SIGNS. SIGNS PROVIDING DIRECTION TO ROOMS OR SPACES INCLUDE THOSE THAT IDENTIFY EGRESS ROUTES.]

216.4 MEANS OF EGRESS

216.4.1 EXIT DOORS
SIGNS REQUIRED BY 1013.4 AT DOORS TO EXIT PASSAGEWAYS, EXIT DISCHARGE, AND EXIT STAIRWAYS SHALL COMPLY WITH 703.1 (GENERAL), 703.2 (RAISED CHARACTERS), AND 703.5 (VISUAL CHARACTERS).

216.4.2 AREAS OF REFUGE AND EXTERIOR AREAS FOR ASSISTED RESCUE.
SIGNS REQUIRED BY 1009.11 TO PROVIDE INSTRUCTIONS IN AREAS OF REFUGE SHALL COMPLY WITH 703.5 (VISUAL CHARACTERS).

216.4.3 DIRECTIONAL SIGNS
SIGNS REQUIRED BY 1009.10 TO PROVIDE DIRECTIONS TO ACCESSIBLE MEANS OF EGRESS SHALL COMPLY WITH 703.5 (VISUAL CHARACTERS).

216.5 PARKING
SIGNS IDENTIFYING PARKING SPACES AND SIGNS WITHIN PARKING FACILITIES SHALL COMPLY WITH SECTION 216.5.

216.5.1 PARKING SPACES.
PARKING SPACE IDENTIFICATION SIGNS SHALL INCLUDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY COMPLYING WITH 703.7.2.1 IN WHITE ON A BLUE BACKGROUND. SIGNS IDENTIFYING VAN PARKING SPACES SHALL CONTAIN ADDITIONAL LANGUAGE OR AN ADDITIONAL SIGN WITH THE DESIGNATION "VAN ACCESSIBLE". SIGNS SHALL BE 60 INCHES MINIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE MEASURED TO THE BOTTOM OF THE SIGN.

216.6 ENTRANCES
IN EXISTING BUILDINGS AND FACILITIES WHERE NOT ALL ENTRANCES COMPLY WITH 404, ENTRANCES COMPLYING WITH 404 SHALL BE IDENTIFIED BY THE INTERNATIONAL SYMBOL OF ACCESSIBILITY. DIRECTIONAL SIGNS COMPLYING WITH 703.5 (VISUAL CHARACTERS) THAT INDICATE THE LOCATION OF THE NEAREST ENTRANCE COMPLYING WITH 404 SHALL BE PROVIDED AT ENTRANCES THAT DO NOT COMPLY WITH 404.

216.7 ELEVATORS
WHERE EXISTING ELEVATORS DO NOT COMPLY WITH 407, ELEVATORS COMPLYING WITH 407 SHALL BE CLEARLY IDENTIFIED WITH THE INTERNATIONAL SYMBOL OF ACCESSIBILITY COMPLYING WITH 703.7.2.1

216.8 TOILET ROOMS AND BATHING ROOMS
WHERE EXISTING TOILET ROOMS OR BATHING ROOMS ARE NOT ACCESSIBLE, DIRECTIONAL SIGNS INDICATING THE LOCATION OF THE NEAREST TOILET ROOM OR BATHING ROOM COMPLYING WITH 603 WITHIN THE FACILITY SHALL BE PROVIDED. SIGNS SHALL COMPLY WITH 703.5 (VISUAL CHARACTERS) AND SHALL INCLUDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY.

703 SIGNS (TECHNICAL REQUIREMENTS)

703.1 GENERAL
SIGNS SHALL COMPLY WITH 703. WHERE BOTH VISUAL AND TACTILE CHARACTERS ARE REQUIRED, EITHER ONE SIGN WITH BOTH VISUAL AND TACTILE CHARACTERS, OR TWO SEPARATE SIGNS, ONE WITH VISUAL, AND ONE WITH TACTILE CHARACTERS, SHALL BE PROVIDED.

703.2 RAISED CHARACTERS
RAISED CHARACTERS SHALL COMPLY WITH 703.2 AND SHALL BE DUPLICATED IN BRAILLE COMPLYING WITH 703.3. RAISED CHARACTERS SHALL BE INSTALLED IN ACCORDANCE WITH 703.4.

703.3 BRAILLE
BRAILLE SHALL BE CONTRACTED (GRADE 2) AND SHALL COMPLY WITH 703.3 AND 703.4.

703.4 INSTALLATION HEIGHT AND LOCATION
SIGNS WITH TACTILE CHARACTERS SHALL COMPLY WITH 703.4.

703.4.1 HEIGHT ABOVE FINISH FLOOR OR GROUND
TACTILE CHARACTERS ON SIGNS SHALL BE LOCATED 48 INCHES MINIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE LOWEST BRAILLE CELLS AND 60 INCHES (1525 MM) MAXIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE HIGHEST LINE OF RAISED CHARACTERS.

EXCEPTION : TACTILE CHARACTERS FOR ELEVATOR CAR CONTROLS SHALL NOT BE REQUIRED TO COMPLY WITH 703.4.1.

703.4.2 LOCATION
WHERE A TACTILE SIGN IS PROVIDED AT A DOOR, THE SIGN SHALL BE LOCATED ALONGSIDE THE DOOR AT THE LATCH SIDE.

703.6 PICTOGRAMS

703.6.1 PICTOGRAM FIELD
PICTOGRAMS SHALL HAVE A FIELD HEIGHT OF 6 INCHES (150 MM) MINIMUM. CHARACTERS AND BRAILLE SHALL NOT BE LOCATED IN THE PICTOGRAM FIELD.

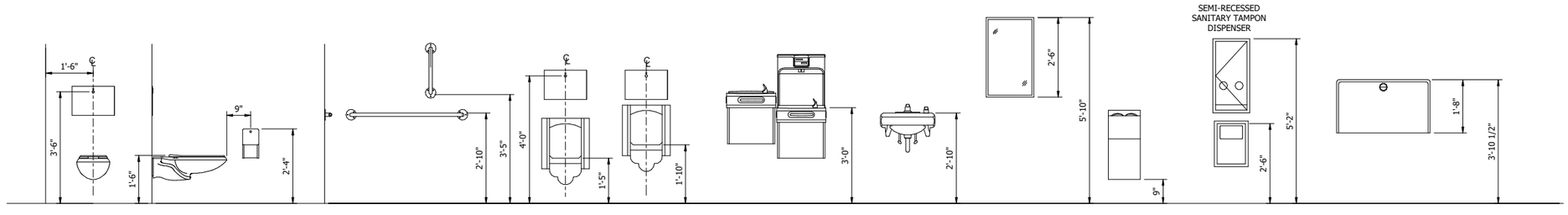
703.6.3 TEXT DESCRIPTORS
PICTOGRAMS SHALL HAVE TEXT DESCRIPTORS LOCATED DIRECTLY BELOW THE PICTOGRAM FIELD. TEXT DESCRIPTORS SHALL COMPLY WITH 703.2 (RAISED CHARACTERS), 703.3 AND 703.4 (INSTALLATION HEIGHT AND LOCATION).

1 2 3 4

703.7 SYMBOLS OF ACCESSIBILITY. SYMBOLS OF ACCESSIBILITY SHALL COMPLY WITH 703.7.
1. INTERNATIONAL SYMBOL OF ACCESSIBILITY
2. INTERNATIONAL SYMBOL OF TTY
3. INTERNATIONAL SYMBOL OF ACCESS FOR HEARING LOSS
4. VOLUME CONTROL TELEPHONE

1 ACCESSIBLE ELEVATOR
1/4" = 1'-0"

2 ACCESSIBLE SIGNAGE
3" = 1'-0"



TOILET | TOILET TISSUE DISPENSER | GRAB BAR | URINAL | DRINKING FOUNTAINS | WALL MOUNTED LAVATORY WITH AUTOMATIC FAUCET AND SOAP DISPENSER | TILTED MIRROR | ACCESSIBLE ELECTRIC HAND DRYER | RECESSED SANITARY NAPKIN DISPOSAL | HORIZONTAL BABY CHANGING STATION

GENERAL NOTES
1. THE PURPOSE OF THIS SHEET IS TO ILLUSTRATE TYPICAL DETAILS IN REGARDS TO CLEARANCES AND MOUNTING HEIGHTS AND SHALL APPLY UNLESS OTHERWISE NOTED OR DIMENSIONED ON THE ARCHITECTURAL SET OF DRAWINGS.
2. IT IS THE INTENT OF THIS DESIGN TO PROVIDE ALL ITEMS SHOWN TO BE ACCESSIBLE TO MEET ALL APPLICABLE BUILDING AND ACCESSIBILITY CODES. IF A CONFLICT IS DISCOVERED, THE APPROVED CODE REQUIREMENTS TAKE PRECEDENCE. INFORM THE ARCHITECT OF ANY CONFLICTS BEFORE INSTALLATION.
3. THIS SHEET MAY ILLUSTRATE ITEMS THAT DO NOT OCCUR IN THE SCOPE OF WORK OF THIS PROJECT.
4. MOUNTING HEIGHTS OR CONFIGURATIONS FOR ITEMS NOT SHOWN ON THIS DRAWING MAY BE ILLUSTRATED ON OTHER DRAWINGS WITHIN THIS DRAWING SET OR NOTED IN THE PROJECT SPECIFICATIONS.

3 ADA - TOILET
1/2" = 1'-0"

NOT FOR CONSTRUCTION

SERIES **AR-0008**

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

DYER TO HAMMOND, INDIANA

DESIGNED:	R. Krieger
DRAWN:	K. Gonzales
CHECKED:	U. Bamert
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP 65.6
PROJECT NAME

CODE COMPLIANCE DIAGRAMS

FILENAME	
SCALE	As indicated

SHEET 8 OF 361

PLOT DATE: 7/19/2017 4:17:02 PM

C:\rvt\2016\WL_AR_SOHAMSTN_02_ELI.rvt

WET SYSTEM - OH2

DRY SYSTEM - OH2

WET SYSTEM - EH
HIGH-PILE STORAGE

DRY SYSTEM - OH2

60'-9"

GARAGE 124 796 sf

MECH. 1 123 139 sf

VESTIBULE 2 122

VESTIBULE 1 101

STAIR 2 121

ELEVATOR SHAFT 120

SUPER. 1 126

REPORT RM. 125

TRUCK UNLOADING 130

HIGH-PILE STORAGE
4,255 sf

10,983 sf

69,642 sf

HEAVY ELECTRIC SHOP 132

AIR BRAKE ROOM 131

LARGE PARTS STORE 128

CATINARY POWER PANTOGRAMS REPAIR HI-PANEL

ELEC. FOR LIFT &LED. STR. AND ELEC. CHARGE PIT

REPAIR AND CLEAN BRAKING SYSTEM COMPONENTS (E.G. GASKETS)

WHEELS, GEAR BOX, SPRINGS, ETC. HIGH-PILE RACK SYSTEM ON WOOD PALLETS.

SUPER. 2 129

RAMP UP

MACHINE SHOP 127

STAIR 4 TO DROP TABLE PIT

LUNCH ROOM/MULTI PURPOSE RM. 104

WASHER/ DRYER 103

6,015 sf 870 sf

STAIR 1 119

F.MAN B&B F.MAN 116

CONFERENCE RM. 117 sf

STR. 2 115

CLOSET1 116

CORRIDOR1 102

WR 1 108

STR. 1 109

IT RM 110

RECEPTION 114

M-WR 1 105

JAN 1 107

77 LOCKERS

25 LOCKERS

AST. SUPER. 111

F. MAN OFFICES 112

SUPERINT. 1 113

W-WR 1 106

STAIR 3 150

WHEEL SHOP AREA 149

WHEEL TRUCK RELEASE TRACKS

WHEEL TRUCK DROP TABLE TRACK

TRUCK ACCESS 133

WHEEL TRUCK / WHEEL / AXLE SHOP 134

WHEEL HORIZONTAL LATHE

AXLE MEASUREMENT SYSTEM

WHEEL SET MEASUREMENT SYSTEM

WHEEL MACHINING CENTER

WHEEL PRESS

AXLE LATHES

15T OH CRANE ABOVE

DROP TABLE (80TON)

15 TON OVERHEAD CRANE SPAN

15T OH CRANE ZONE

576 sf

OH-2
56,128 sf

MAINTENANCE SHOP AREA 148

WHEEL TRUING AREA 147

WHEEL TRUING PIT

12'4"W x 7'2"10"H x 76'2"L PAINT BOOTH

MAINTENANCE TRACK (PIT)

MAINTENANCE TRACK TOP BELOW

WHEEL TRUING TRACK (W/TRACTION POWER)

LOCOMOTIVE STORAGE/ FUTURE MAINTENANCE TRACK (PIT)

ELECTRIC RM 139

WHEEL STORAGE SPACE 137

GEAR REPAIR SHOP 138

TRACTION MOTOR REPAIR AREA 136

SMALL PARTS WASH ROOM 135

25,165 sf

MOTOR TEST ING

CYCLONE DEGREASE

NO SIZE ON COMPRESSOR YET

WR 143

GEAR BOX RACK 3,046 sf

MECH. RM 2 140

PUMP RM 141

COMPRESSOR RM 142

PAINT ST. 144

SMALL PARTS PAINT BOOTH 145

SPRINKLER PUMP ROOM

COVERED LOCOMOTIVE STORAGE TRACK 146

CHIP CONTAINERS

PROPANE

SECURE HAZ. WASTE

LUBE DRUM STORAGE AREA

OPEN FENCED AREA WASTE MANAGEMENT SPACE (SPILL KIT/HAZARDOUS WASTE/ SORTED WASTE)

DRY SYSTEM - OH2

REMOVE WALL AT DIESEL LOCOMOTIVE SOTRAGE ROOF AND COLUMNS ONLY.

103'-3"

1 FIRST FLOOR
1/16" = 1'-0"

NOT FOR CONSTRUCTION

SERIES AR-0009

PLOT DATE: 4/21/2017 3:40:00 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

DYER TO HAMMOND, INDIANA

DESIGNED:	MICHEL MASON
DRAWN:	MICHEL MASON
CHECKED:	S. CHERIAN
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 68.46
HAMMOND YARD - MAINTENANCE & STORAGE FACILITY

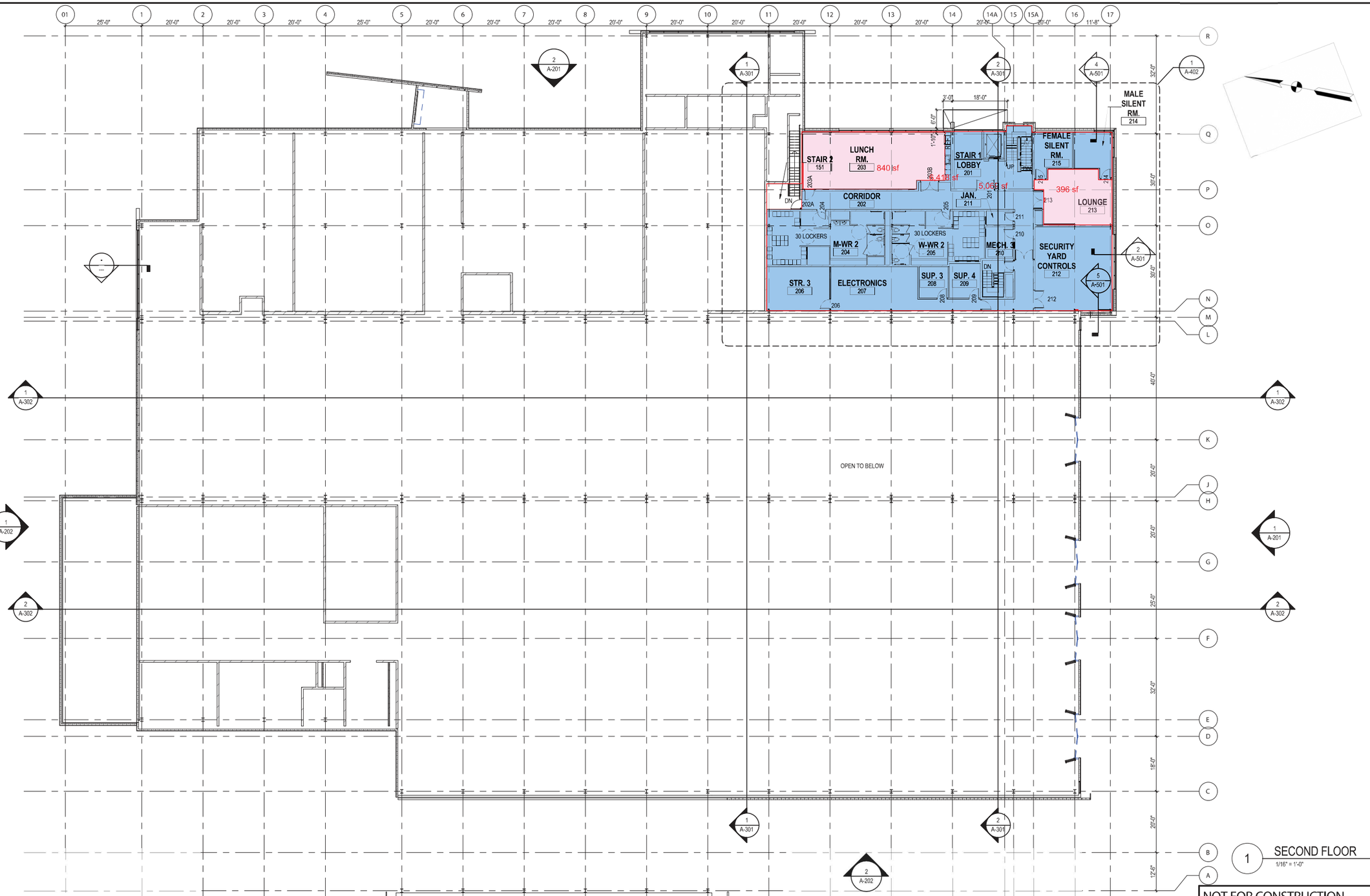
GROUND FLOOR LIFE SAFETY PLAN

FILENAME

SCALE 1/16" = 1'-0"

SHEET 9 OF 361

C:\rvt\2016\10013118-FACILITIES-A-CENTRAL_XWANG.rvt



1 SECOND FLOOR
1/16" = 1'-0"

NOT FOR CONSTRUCTION

SERIES AR-0010

PLOT DATE: 4/18/2017 2:18:11 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER
TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	MICHEL MASON
DRAWN:	MICHEL MASON
CHECKED:	S. CHERIAN
DATE:	07/21/17

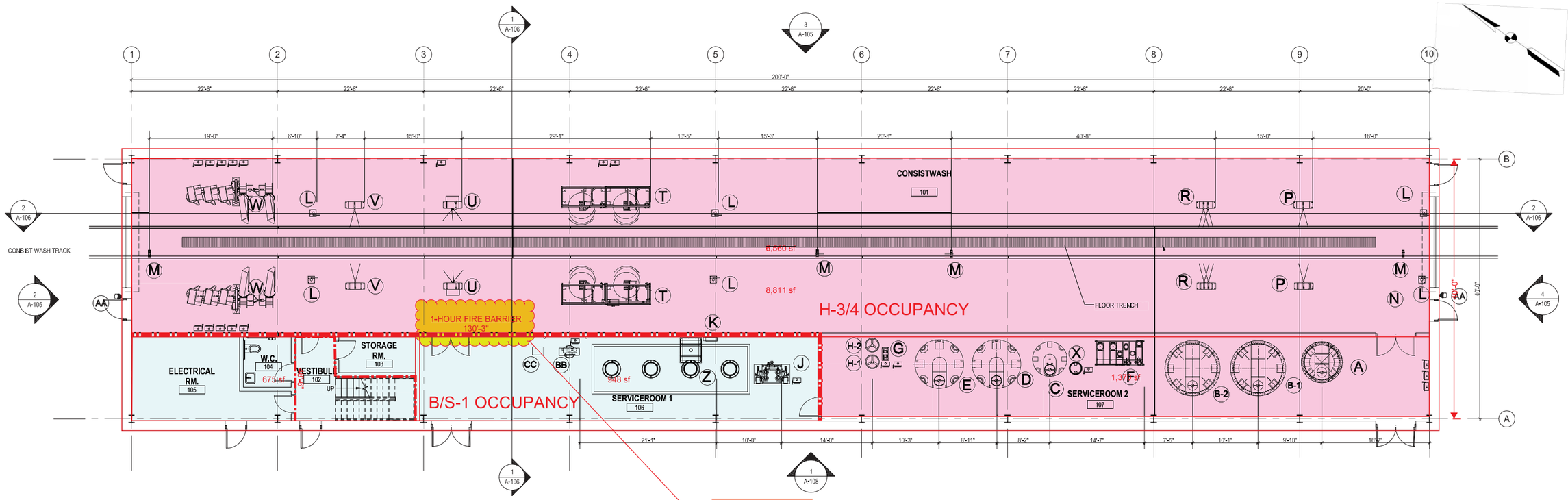
NICTD - WEST LAKE CORRIDOR - MP WL 68.46
HAMMOND YARD - MAINTENANCE & STORAGE FACILITY

SECOND FLOOR LIFE SAFETY PLAN

FILENAME
SCALE 1/16" = 1'-0"

SHEET 10 OF 361

C:\rvt\2016\10013118-FACILITIES-A-CENTRAL_XWANG.rvt



1 GROUND FLOOR PLAN
1/8" = 1'-0"

ITEM	DESCRIPTION	COMMENT
A	1500 GALLON DBL WALL TANK	ACID TANK, 76" Ø X 136" H
B-1	3000 GALLON DBL WALL TANK	DETERGENT TANK, 102" Ø X 142" H
B-2	3000 GALLON DBL WALL TANK	DETERGENT TANK, 102" Ø X 142" H
C	1000 GALLON SINGLE WALL TANK	FRESH WATER TANK, 64" Ø X 90" H
D	3000 GALLON SINGLE WALL TANK	RECLAIMED WATER TANK, 90" Ø X 127" H
E	2000 GALLON SINGLE WALL TANK	NEUTRALIZATION TANK, 90" Ø X 87-1/2" H
F	PRIMARY PUMP SKID	
G	NEUTRALIZATION SKID	
H-1	110 GALLON DBL WALL TANK	ACID NEUTRALIZATION TANK
H-2	110 GALLON DBL WALL TANK	ALKALINE NEUTRALIZATION TANK
J	RECLAIM SKID	
K	OIL SKIMMER w/ 275 GAL TOTE	
L	PHOTO EYES	
M	TRACK SPEED SENSORS	
N	UNDERCARRIAGE	20 GPM @ 250 PSI
P	PRE-WET TOWER	40 GPM @ 250 PSI
R	CHEMICAL TOWER	40 GPM @ 250 PSI
T	BRUSH TOWER / BLASTER TOWER	140 GPM @ 100 PSI
U	HP SPINNER BLASTER TOWER	200 GPM @ 350 PSI
V	RINSE TOWER	40 GPM @ 250 PSI
W	BLOWER TOWER	7.5 HP BLOWERS - 10 QTY
X	WAX DRUM 55 GAL.	
Y	REMOTE FILL	
Z	SUB GRADE COLLECTION AND SEPERATION	
AA	STATUS LIGHT	
BB	AIR COMPRESSOR	
CC	REFRIGERATED DRYER	

WHITING SYSTEMS, INC

NOT FOR CONSTRUCTION

SERIES AR-0011

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

DYER TO HAMMOND, INDIANA

DESIGNED:	MICHEL MASON
DRAWN:	MICHEL MASON
CHECKED:	S. CHERIAN
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 68.46
HAMMOND YARD - CONSIST WASH

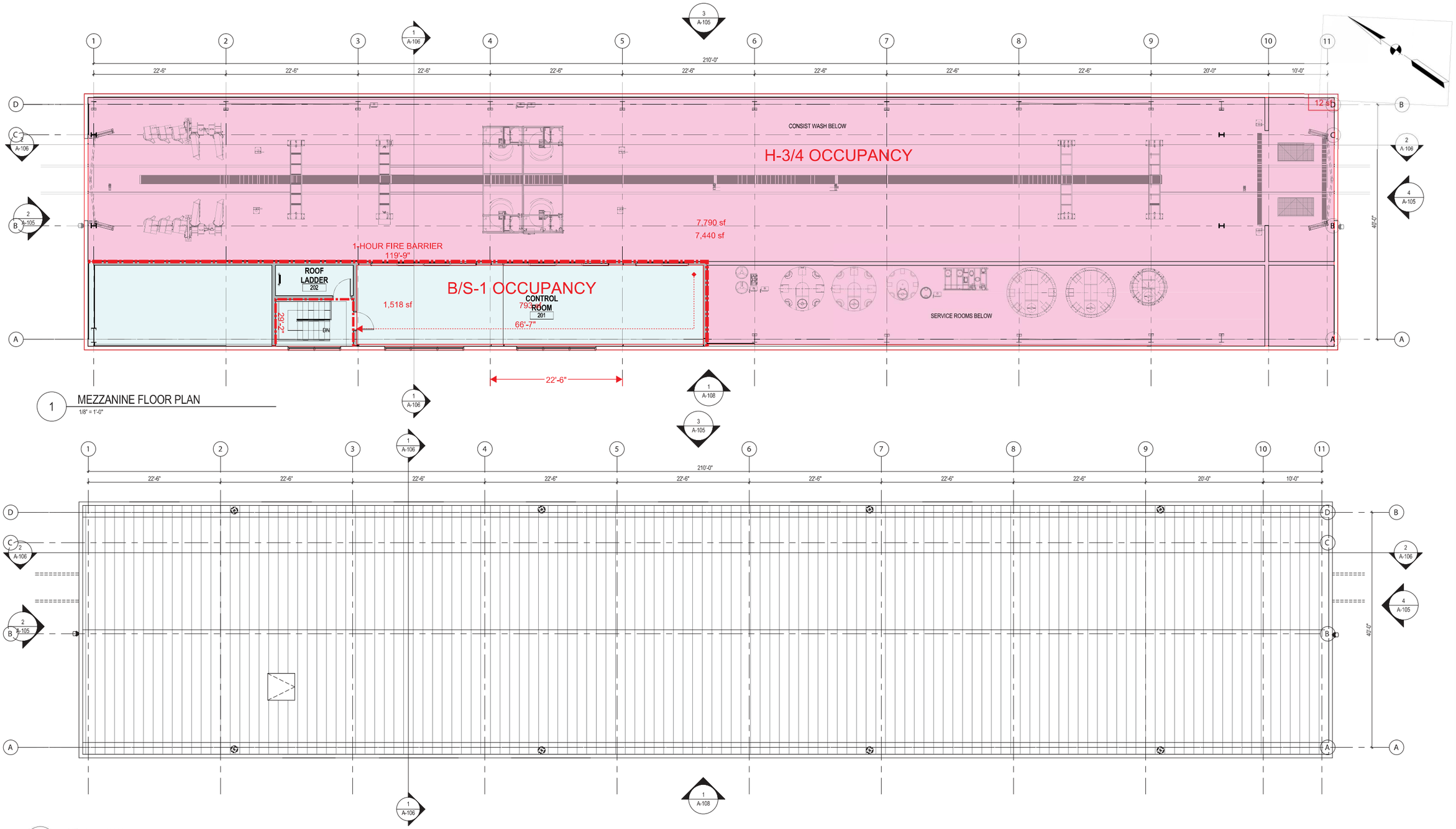
GROUND LEVEL LIFE SAFETY PLAN

FILENAME
SCALE 1/8" = 1'-0"

SHEET 11 OF 361

PLOT DATE: 4/20/2017 10:40:57 AM

C:\rvt\2016\10013118-FACILITIES-A-CENTRAL-CONSIST WASH_aazieli.rvt



1 MEZZANINE FLOOR PLAN
1/8" = 1'-0"

2 U/S OF ROOF
1/8" = 1'-0"

NOT FOR CONSTRUCTION

SERIES AR-0012

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

DYER TO HAMMOND, INDIANA

DESIGNED:	MICHEL MASON
DRAWN:	MICHEL MASON
CHECKED:	S. CHERIAN
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 68.46
HAMMOND YARD - CONSIST WASH

MEZZANINE PLAN AND ROOF PLANS

FILENAME	
SCALE	1/8" = 1'-0"

SHEET 12 OF 361

PLOT DATE: 4/28/2017 4:51:05 PM

C:\rvt\2016\10013118-FACILITIES-A-CENTRAL-CONSIST WASH_aazizi.rvt

NOTES

1. ELEMENTS SHOWN ARE INDICATING APPROXIMATE LOCATION ONLY.
2. ALL EMERGENCY TELEPHONES SHALL BE ADA COMPLIANT.
3. COMMUNICATIONS CABINETS ACCESSABLE FROM PUBLIC AREAS SHALL INCLUDE INTRUSION MONITORING.
4. CCTV CAMERAS TO PROVIDE COVERAGE OF PARKING LOTS. FINAL QUANTITY AND LOCATION OF PARKING LOT CCTV CAMERAS TO BE DETERMINED BY FINAL LIGHTING DESIGN. EMERGENCY TELEPHONES LOCATED IN THE PARKING LOTS MUST RECIEVE CCTV COVERAGE.
5. ELEMENTS SHOWN ARE PART OF THE STATION LAN NETWORK. STATION COMMUNICATIONS CABINETS TO COMMUNICATE TO STATION COMMUNICATIONS HUB VIA 24-STRAND SINGLE MODE FIBER OPTIC CABLE.
6. STATION WAN CONNECTION TO BE PROVIDED BY 12-STRAND SINGLE MODE FIBER OPTIC DROP CABLE TO COMMUNICATIONS HUB. SEE COMMUNICATIONS PLANS FOR ADDITIONAL INFORMATION.
7. NUMBER AND LOCATION OF EQUIPMENT MAY VARY. NOT ALL EQUIPMENT MAY BE REQUIRED. NUMBER OF SWITCHES TO BE DETERMINED BY THE NUMBER OF REQUIRED PORTS.
8. SEE STATION SYSTEMS AND SECURITY BASIS OF DESIGN DOCUMENT FOR ADDITIONAL INFORMATION.
9. THE FOLLOWING STATION ELEMENTS ARE TO COMMUNICATE DIRECTLY TO THE CLOSEST (WITHIN 150 FT) MANAGED GIGABIT PoE ETHERNET SWITCH VIA CAT 6 CABLE:
   - CCTV CAMERAS
   - TICKET VENDING MACHINES
   - REAL-TIME PASSENGER INFORMATION SYSTEM DISPLAYS WITH INTEGRATED CONTROLLERS
   - EMERGENCY TELEPHONES
10. THE FOLLOWING STATION ELEMENTS ARE TO COMMUNICATE DIRECTLY TO THE COMMUNICATIONS HUB MANAGED GIGABIT PoE ETHERNET SWITCH VIA CAT 6 CABLE:
    - PUBLIC ADDRESS SYSTEM
11. SEE FINAL DESIGN PLANS FOR INFORMATION REGARDING CONDUIT AND CABLE ROUTING. CONDUIT AND CABLE ROUTING ARE NOT SHOWN IN THESE PLANS.
12. PRIOR TO CONSTRUCTION, REFER TO THE COMMUNICATIONS AND ELECTRICAL FINAL DESIGN PLANS AND DOCUMENTS FOR EQUIPMENT INSTALLATION DETAILS.
13. THE DESIGN AND LOCATION OF SYSTEMS COMPONENTS INCLUDING CCTV CAMERAS, EMERGENCY TELEPHONES, TICKET VENDING MACHINES, REAL-TIME PASSENGER INFORMATION DISPLAYS, PUBLIC ADDRESS SPEAKERS, AMBIENT NOISE SENSORS, COMMUNICATIONS CABINETS, SWITCHES, ASSOCIATED CONDUIT, ASSOCIATED WIRING, ASSOCIATED CABLING, AND OTHER REQUIRED EQUIPMENT ARE FOR REFERENCE ONLY. REFER TO FINAL DESIGN PLANS FOR ACTUAL QUANTITIES AND LOCATIONS.

STATEMENT OF ESTIMATED QUANTITIES - HAMMOND GATEWAY

ITEM	UNIT	QUANTITY
24 STRAND SINGLE MODE FIBER OPTIC CABLE	LF	4000
CAT 6 CABLE	LF	33000
FIBER OPTIC PATCH PANEL	EA	9
WALL MOUNT COMMUNICATIONS CABINET	EA	8
12-PORT MANAGED POE SWITCH	EA	8
24-PORT MANAGED POE SWITCH	EA	1
24-PORT MANAGED FIBER OPTIC SWITCH	EA	1
REAL-TIME PASSENGER INFORMATION DISPLAY - DUAL SIDED	EA	8
PUBLIC ADDRESS SPEAKERS	EA	28
AMPLIFIER	EA	2
ZONE CONTROLLER	EA	2
AMBIENT NOISE SENSOR	EA	6
AMBIENT NOISE PROCESSOR	EA	2
CLOSED CIRCUIT TELEVISION (CCTV) CAMERA - FIXED DOME	EA	64
EMERGENCY TELEPHONE - WALL MOUNT	EA	4
EMERGENCY TELEPHONE - POLE MOUNT	EA	6
TICKET VENDING MACHINE	EA	8

STATEMENT OF ESTIMATED QUANTITIES - SOUTH HAMMOND

ITEM	UNIT	QUANTITY
24 STRAND SINGLE MODE FIBER OPTIC CABLE	LF	4000
CAT 6 CABLE	LF	18000
FIBER OPTIC PATCH PANEL	EA	10
WALL MOUNT COMMUNICATIONS CABINET	EA	9
12-PORT MANAGED POE SWITCH	EA	9
24-PORT MANAGED POE SWITCH	EA	1
24-PORT MANAGED FIBER OPTIC SWITCH	EA	1
REAL-TIME PASSENGER INFORMATION DISPLAY - DUAL SIDED	EA	4
PUBLIC ADDRESS SPEAKERS	EA	10
AMPLIFIER	EA	1
ZONE CONTROLLER	EA	1
AMBIENT NOISE SENSOR	EA	2
AMBIENT NOISE PROCESSOR	EA	1
CLOSED CIRCUIT TELEVISION (CCTV) CAMERA - FIXED DOME	EA	28
EMERGENCY TELEPHONE - WALL MOUNT	EA	3
EMERGENCY TELEPHONE - POLE MOUNT	EA	9
TICKET VENDING MACHINE	EA	4

STATEMENT OF ESTIMATED QUANTITIES - MUNSTER RIDGE

ITEM	UNIT	QUANTITY
24 STRAND SINGLE MODE FIBER OPTIC CABLE	LF	1000
CAT 6 CABLE	LF	13000
FIBER OPTIC PATCH PANEL	EA	3
WALL MOUNT COMMUNICATIONS CABINET	EA	3
12-PORT MANAGED POE SWITCH	EA	2
24-PORT MANAGED POE SWITCH	EA	1
24-PORT MANAGED FIBER OPTIC SWITCH	EA	1
REAL-TIME PASSENGER INFORMATION DISPLAY - DUAL SIDED	EA	2
PUBLIC ADDRESS SPEAKERS	EA	10
AMPLIFIER	EA	1
ZONE CONTROLLER	EA	1
AMBIENT NOISE SENSOR	EA	2
AMBIENT NOISE PROCESSOR	EA	1
CLOSED CIRCUIT TELEVISION (CCTV) CAMERA - FIXED DOME	EA	24
EMERGENCY TELEPHONE - WALL MOUNT	EA	2
EMERGENCY TELEPHONE - POLE MOUNT	EA	1
TICKET VENDING MACHINE	EA	4

STATEMENT OF ESTIMATED QUANTITIES - MUNSTER DYER

ITEM	UNIT	QUANTITY
24 STRAND SINGLE MODE FIBER OPTIC CABLE	LF	4000
CAT 6 CABLE	LF	23000
FIBER OPTIC PATCH PANEL	EA	10
WALL MOUNT COMMUNICATIONS CABINET	EA	9
12-PORT MANAGED POE SWITCH	EA	9
24-PORT MANAGED POE SWITCH	EA	1
24-PORT MANAGED FIBER OPTIC SWITCH	EA	1
REAL-TIME PASSENGER INFORMATION DISPLAY - DUAL SIDED	EA	3
PUBLIC ADDRESS SPEAKERS	EA	10
AMPLIFIER	EA	1
ZONE CONTROLLER	EA	1
AMBIENT NOISE SENSOR	EA	2
AMBIENT NOISE PROCESSOR	EA	1
CLOSED CIRCUIT TELEVISION (CCTV) CAMERA - FIXED DOME	EA	43
EMERGENCY TELEPHONE - WALL MOUNT	EA	5
EMERGENCY TELEPHONE - POLE MOUNT	EA	11
TICKET VENDING MACHINE	EA	4

NOT FOR CONSTRUCTION

SERIES AR-0013

PLOT DATE: 7/21/2017 9:52:15 AM JKOELLMA

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	T. HILES
DRAWN:	J. MERSEREAU
CHECKED:	S. WICKS
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

SYSTEMS NOTES AND SCHEDULES STATION

FILENAME	SHT_WL_TE_GN_01.dgn
SCALE	AS NOTED

SHEET 13 OF 361

DESIGN DATA

1. DESIGN DATA:
   ALL DESIGN IS IN CONFORMANCE WITH THE 2014 INDIANA BUILDING CODE (2012 INTERNATIONAL BUILDING CODE AS AMENDED BY THE INDIANA ADMINISTRATIVE CODE) (IBC). ALL BUILDINGS AND STRUCTURES ARE CONSIDERED RISK CATEGORY TYPE II.

2. DESIGN DEAD LOADS: WEIGHT OF ALL MATERIALS OF CONSTRUCTION INCORPORATED INTO THE BUILDING INCLUDING BUT NOT LIMITED TO WALLS, FLOORS, ROOFS, CEILINGS, STAIRWAYS, BUILT IN PARTITIONS, FINISHES, CLADDING, EQUIPMENT AND OTHER SIMILARLY INCORPORATED ITEMS AND EQUIPMENT.

3. DESIGN LIVE LOADS

	UNIFORM (PSF)	CONC. (LBS)
PLATFORMS	100	-----
CATWALK	40	300
FIRST FLOOR CORRIDOR	100	-----
OTHER CORRIDORS	80 (MIN)	-----
OFFICE	50	2,000
STAIRS AND EXITWAYS	100	300
STORAGE ROOMS	100	1,000
ROOF LIVE LOAD	20	300
MECHANICAL ROOMS	150	1,000

LIVE LOAD REDUCTION NOT USED

4. WIND LOADING CRITERIA
   ULTIMATE 3-SECOND WIND SPEED V=115 MPH
   I= 1.0
   EXPOSURE B
   GCPI=±0.18 (ENCLOSED STRUCTURES)
   GCPI=0.00 (OPEN STRUCTURES)

5. SNOW LOADING CRITERIA
   PG=45 PSF
   PF=SEE TALBE BELOW
   I=1.0
   CE=1.0
   CT=SEE TABLE BELOW

STRUCTURE	Pf	Ct
GATEWAY STATION BUILDING	32	1.0
GATEWAY STATION CANOPY	38	1.2
MUNSTER DYER BUILDING	32	1.0
MUNSTER DYER CANOPY	38	1.2
MUNSTER RIDGE CANOPY	38	1.2
SOUTH HAMMOND BUILDING	32	1.0
SOUTH HAMMOND CANOPY	38	1.2
HAMMOND MAINTENANCE FACILITY	35	1.1
CONSIST WASH	32	1.0

6. SEISMIC DESIGN CRITERIA
   I=1.0
   SS =0.135
   S1 =0.064
   SDS=0.144
   SD1=0.102
   SITE CLASS D
   SEISMIC DESIGN CATEGORY B
   BASIC SEISMIC FORCE RESISTING SYSTEM - SEE TABLE BELOW
   SEISMIC RESPONSE COEFFICIENT - CS = SEE TABLE BELOW
   RESPONSE MODIFICATION FACTOR - R = SEE TABLE BELOW
   DESIGN BASE SHEAR - V = SEE TABLE BELOW
   ANALYSIS PROCEDURE-EQUIVALENT LATERAL FORCE

STRUCTURE	Cs	R	V	LRFS
GATEWAY STATION BUILDING	0.0480	3	XX	1
GATEWAY STATION CANOPY	0.1152	1.25	XX	2
MUNSTER DYER BUILDING	0.0480	3	XX	1
MUNSTER DYER CANOPY	0.1152	1.25	XX	2
MUNSTER RIDGE CANOPY	0.1152	1.25	XX	2
SOUTH HAMMOND BUILDING	0.0480	3	XX	1
SOUTH HAMMOND CANOPY	0.1152	1.25	XX	2
HAMMOND MAINTENANCE FACILITY	0.0480	3	XX	1
CONSIST WASH	0.0480	3	XX	1

1 STEEL SYSTEM NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE
2 STEEL ORDINARY CANTILEVERED COLUMN SYSTEMS

7. SOIL INFORMATION:

   NET ALLOWABLE SOIL BEARING PRESSURE BELOW FOOTINGS ON NATURAL MATERIAL IS ???? PSF. IF ALLOWABLE SOIL BEARING PRESSURE CANNOT BE ACHIEVED, OVER EXCAVATE.

   DESIGN MAXIMUM PILE LOAD IS AS FOLLOWS:
   COMPRESSION CAPACITY = ??? KIPS AT TIP EL.=??? FOR ??? DIAMETER PILE
   TENSION CAPACITY = ??? KIPS AT TIP EL.=??? FOR ??? DIAMETER PILE

8. MATERIALS:
   CAST-IN-PLACE CONCRETE F'C=4000 PSI
   REINFORCING STEEL FY=60 KSI (ASTM A615 U.N.O.)
   WELDED WIRE FABRIC - ASTM A1064
   CMU F'M=2000 PSI (NET AREA COMPRESSIVE STRENGTH OF UNITS = 2800 PSI) ASTM C-90
   MORTAR - ASTM C270 - TYPE S
   GROUT - ASTM C476 - COMPRESSIVE STRENGTH 2500 PSI (MIN)
   STRUCTURAL STEEL:
   W-SECTIONS - ASTM A992
   PLATES, BARS, RODS, ANGLES AND CHANNELS - A36
   HOLLOW STRUCTURAL STEEL (HSS) - ASTM A500 GRADE B
   ANCHOR RODS - ASTM F1554, GRADE 36
   HIGH STRENGTH BOLTS: A325
   SNUG TIGHT CONNECTIONS SHALL BE PERMITTED FOR ALL CONNECTIONS EXCEPT FOR MEMBERS OF THE LATERAL FORCE RESISTING SYSTEM.
   PRETENSIONED CONNECTIONS SHALL BE USED AT ALL CONNECTIONS FOR THE LATERAL FORCE RESISTING SYSTEM.

   FILLER METAL FOR WELDING: SHIELDED METAL ARC WELDING - AWS A5.1 OR A5.5 OR E70XX.

   STRUCTURAL ALUMINUM:
   ALLOY SHAPES - 6061-T6 (ASTM B308)
   PLATES - 6061-T6 (ASTM B308)
   BOLTS - 2024-T9
   NUTS - 6262-T9 OR 6061-T6 (ASTM F467)
   WASHERS - ALCAD 2026-T6
   WELDING - AWS D1.6

9. DESIGN STANDARDS:
   ACI 318-11 "BUILDING CODE REQUIREMENTS FOR CONCRETE"
   ACI 530-11 "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" - ASD
   ANSI/AISC 360-10 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" - ASD
   AISI 2012 "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" - ASD

SOILS AND FOUNDATIONS

1. REMOVE TOPSOIL, ORGANIC MATERIAL, FILL, ASPHALT, CONCRETE, ANY DEBRIS FOUND AND ANY LOOSE MATERIAL OR SOILS INDICATED IN THE SOILS REPORT. THE EXPOSED SUBGRADE SHALL BE PROOF ROLLED WITH A MEDIUM-WEIGHT ROLLER TO CHECK FOR SOFT MATERIAL AS DIRECTED BY THE GEOTECHNICAL ENGINEER. BACKFILL SHALL BE ENGINEERED FILL COMPACTED AS REQUIRED BY GEOTECHNICAL ENGINEER.

2. SLAB-ON-GRADE:
   EXCAVATE AS REQUIRED TO PERFORM THE FOLLOWING OPERATIONS:
   PLACE AND COMPACT 6" OF DRAINAGE COURSE
   PLACE VAPOR RETARDER
   ALL LEVELS SHALL BE COMPACTED AS REQUIRED BY GEOTECHNICAL ENGINEER.

3. CONSTRUCTION JOINTS IN STRIP FOOTINGS AND WALLS MAY BE LOCATED AT THE DISCRETION OF THE CONTRACTOR SUBJECT TO REVIEW BY THE ENGINEER. UNLESS SPECIFICALLY NOTED OTHERWISE REINFORCING SHALL BE CONTINUOUS ACROSS JOINTS. SEE TYPICAL CONCRETE WALL AND FOOTING CONSTRUCTION JOINT DETAIL.

4. AFTER FOUNDATION CONSTRUCTION IS COMPLETE, PROPERLY PLACE AND COMPACT BACKFILL MATERIAL. WALLS BACKFILLED ON BOTH SIDES SHALL HAVE BACKFILL PLACED AGAINST BOTH FACES SIMULTANEOUSLY. WALLS BACKFILLED ON ONE SIDE ONLY SHALL BE BRACED (TEMPORARY BY CONTRACTOR OR BY FINAL CONSTRUCTION) SO THAT BACKFILL CAN BE PROPERLY PLACED AND COMPACTED WITHOUT DISPLACEMENT OF WALLS.

5. FOR BELOW GRADE WALLS PLAN AREA OF EXCAVATION SHOULD EXTEND OUTWARD FROM THE OUTSIDE EDGE OF THE STRUCTURES FOUNDATION A DISTANCE EQUAL TO THE DEPTH OF OVEREXCAVATION (IF APPLICABLE) PLUS 3 FEET. THE SIDE OF THE EXCAVATION SHOULD BE SLOPED OR BRACED AS REQUIRED PER LOCAL, STATE AND FEDERAL SAFETY REGULATIONS. PLACE AND COMPACT SOIL IN 8 INCH LOOSE LIFTS TO AND COMPACT AS REQUIRED BY GEOTECHNICAL ENGINEER.

6. AT ALL DOORS DEPRESS ALL FOUNDATION WALLS 8 INCHES BELOW TOP OF SLABS, U.N.O.

GENERAL

1. THE INFORMATION ON THIS SHEET SHALL APPLY TO ALL STRUCTURAL DRAWINGS.

2. INFORMATION ON THIS SHEET SUPPLEMENTS THE PROJECT SPECIFICATIONS. REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

3. UNLESS OTHERWISE NOTED, ALL DETAILS, SECTIONS AND NOTES ON THE DRAWINGS ARE INTENDED TO INDICATE DESIGN INTENT AND ARE TO BE TYPICAL FOR SIMILAR SITUATIONS ELSEWHERE.

CONCRETE AND REINFORCING STEEL

1. ALL REINFORCEMENT LAP AND DEVELOPMENT LENGTHS SHALL SATISFY THE MINIMUM REQUIREMENTS.

2. WHERE BARS OF TWO DIFFERENT SIZES ARE SPLICED, THE SPLICE LENGTH SHALL BE THE REQUIRED LAP LENGTH FOR THE SMALLER BAR, BUT NOT LESS THAN THE DEVELOPMENT LENGTH FOR THE LARGER BAR.

3. ALL REINFORCING BARS SHALL BE CONTINUOUS AT CORNERS. PROVIDE DOWELS OR CORNER BARS AS REQUIRED AND INSTALL PRIOR TO PLACING CONCRETE.

4. SLABS-ON-GRADE: (FINISH EXPOSED) FIBER REINFORCED WITH POLYOLEFIN MACRO-FIBERS AT THE RATE OF 3 POUNDS PER CUBIC YARD OF CONCRETE. THE FIBERS THAT PENETRATE THE SURFACE IN AREAS OF SLAB-ON-GRADE THAT ARE EXPOSED TO VIEW AND DO NOT RECEIVE ANY FLOOR COVERING SHALL BE TORCHED LIGHTLY. CONTRACTOR SHALL TAKE CARE TO NOT BURN OR SCORCH THE EXPOSED CONCRETE.

5. CONCRETE REINFORCEMENT SHOWN IS DIAGRAMMATIC AND ONLY INTENDED TO SHOW THE GENERAL CONFIGURATION, SIZE AND QUANTITY OF REINFORCEMENT. CONTRACTOR/FABRICATOR SHALL FOLLOW THE LAP AND EMBEDMENT LENGTHS PROVIDED AND ACI 315 "ACI DETAILING MANUAL" FOR PROPER DETAILING REQUIREMENTS AND THE CONCRETE REINFORCING STEEL INSTITUTE'S (CRSI) "MANUAL OF STANDARD PRACTICE."

6. ALL CONTROL OR CONSTRUCTION JOINTS IN CONCRETE SLABS-ON-GRADE TO BE PLACED AT A MAXIMUM OF 12 FEET ANY DIRECTION. IN NO CASE SHALL LENGTH-TO-WIDTH RATIO OF CONCRETE SLAB ON GRADE EXCEED 1.25 ALL CONTROL JOINTS TO BE SAW CUT WITHIN 6 HOURS AFTER PLACING CONCRETE.

7. CONCRETE STANDARDS SHALL CONFORM TO ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE".

8. CHAMFER EXPOSED CONCRETE EDGES 3/4" U.N.O.

9. UNLESS SPECIFICALLY NOTED ON THE DRAWINGS, CONTROL JOINTS ARE NOT REQUIRED FOR ELEVATED SLABS ON METAL DECK AND ELEVATED CONCRETE SLABS.

PRECAST CONCRETE UNITS

1. ALL PRECAST STRUCTURAL CONCRETE MEMBERS AND THEIR CONNECTIONS SHALL BE IN ACCORDANCE WITH PCI MANUALS.

2. UNITS SHALL NOT BE ERECTED UNTIL 21 DAYS (MIN) AFTER FORM REMOVAL.

STRUCTURAL AND MISCELLANEOUS STEEL

1. CONTRACTOR SHALL PROVIDE 3/8" (MIN.) PLATE WELDED TO BOTTOM FLANGE (U.N.O.) OF STEEL BEAM SUPPORTING MASONRY CONSTRUCTION. WIDTH OF PLATE SHALL BE 1/2" LESS THAN THICKNESS OF THE SUPPORTED WALL.

2. AT ALL STEEL BEAMS AND LINTELS SUPPORTING MASONRY WALLS, PROVIDE STUD 1/2" DIA. X 6" LONG HEADED STUDS SPACED @ 16" O.C. WELD TO STEEL BEAM AND STEEL LINTELS.

3. ALL EXTERIOR STEEL, STEEL LINTELS AND RELIEF ANGLES SHALL BE HOT-DIP GALVANIZED AND PAINTED. REPAIR ANY DAMAGE TO THESE COATINGS THAT MAY OCCUR DURING CONSTRUCTION ACTIVITIES.

4. ALL TUBE STEEL, HOLLOW STRUCTURAL STEEL AND PIPE SECTIONS IN EXTERIOR APPLICATIONS SHALL BE DETAILED TO KEEP WATER FROM ENTERING THE CLOSED SECTION.

5. PROVIDE MISCELLANEOUS LOOSE L7X4X $\frac{3}{8}$ (LLH) LINTEL WITH A MINIMUM 8" BEARING AT EACH END ABOVE OPENINGS IN BRICK/STONE FACADE WHERE OTHER SUPPORT IS NOT SHOWN.

METAL BUILDING SYSTEM

1. THE METAL BUILDING SYSTEM SHALL BE DESIGNED AND ENGINEERED TO MEET THE BUILDING CODE AND LOADING CRITERIA INDICATED IN THE "DESIGN DATA" PARAGRAPH OF THIS SHEET. DESIGN METAL BUILDING SYSTEM, INCLUDING COMPREHENSIVE ENGINEERING ANALYSIS BY A QUALIFIED PROFESSIONAL ENGINEER, LICENSED IN THE STATE WHERE THE PROJECT IS TO BE BUILT, USING PERFORMANCE REQUIREMENTS AND DESIGN CRITERIA INDICATED.

2. PROVIDE STRUCTURAL MEMBERS CAPABLE OF WITHSTANDING DESIGN LOADS WITHIN LIMITS AND UNDER CONDITIONS INDICATED. MAXIMUM DEFLECTIONS UNDER DESIGN LOADS SHALL BE 1/240 OF SPAN.

COLD FORMED STEEL

1. THE MINIMUM YIELD STRENGTH OF MEMBERS SHALL BE AS FOLLOWS:
   12 GA., 14 GA., & 16 GA. FY = 50KSI ASTM A653
   18 GA., AND HIGHER FY = 33KSI ASTM A653

2. PROVIDE MEANS TO KEEP DISSIMILAR METALS FROM COMING INTO CONTACT WITH COLD FORM STEEL MEMBERS (I.E. BRASS, COPPER, ETC.).

3. PROVIDE COLD-FORMED METAL FRAMING WITH A MINIMUM MATERIAL THICKNESS AS FOLLOWS:
   14 GAUGE - LINTELS, BEAMS, COLUMN STUDS, SHEAR WALL END POSTS
   16 GAUGE - BEARING WALLS, TRACK RUNNERS AND FRAMING AROUND ALL OPENINGS
   18 GAUGE - NON-BEARING PARTITIONS (EXTERIOR)

4. PROVIDE ALL HANGERS AND CONNECTORS AS NECESSARY TO SUPPORT AND TRANSFER INDUCED LOADS TO THE CONNECTED STRUCTURE. PROVIDE DRIFT OR DEFLECTION CLIPS AS NECESSARY TO ACCOMMODATE STRUCTURAL MOVEMENT.

5. WHERE MEMBER SIZES ARE GIVEN THEY SHALL BE NOMINAL UNLESS SPECIFICALLY DESIGNATED AS ACTUAL DIMENSIONS.

6. FRAMING DEFLECTION LIMITS SHALL BE AS FOLLOWS FOR TOTAL LOAD:
   EXTERIOR WALL BEHIND BRICK/STONE - L/600
   TRUSS & TRUSS GIRDERS - L/360
   MISCELLANEOUS FRAMING - L/360

MASONRY

1. ALL MASONRY JOINTS SHALL HAVE CONCAVE JOINTS.

2. TRUSS TYPE REINFORCEMENT SHALL BE PLACED IN HORIZONTAL MORTAR JOINTS AT 16" O.C. VERTICAL SPACING, AND AT TOP AND BOTTOM OF WALL OPENINGS (EXTEND 2 FEET PAST OPENING). JOINT REINFORCEMENT SHALL BE PLACED AT 8 INCH O.C. IN PARAPETS.

3. VERTICAL CONTROL JOINTS IN CMU WALLS SHALL BE LOCATED AT MAX. SPACING OF 20'-0" PROVIDED THAT THE LENGTH TO HEIGHT RATIO OF WALL BETWEEN ADJACENT JOINTS DOES NOT EXCEED 1.5. IN ADDITION, CONTROL JOINTS SHALL BE LOCATED AT THE FOLLOWING LOCATIONS: CHANGES IN WALL THICKNESS, ABOVE CONTROL JOINTS IN FOUNDATION OR CONCRETE WALLS, AT LOCATIONS AS SHOWN ON ARCHITECTURAL DRAWINGS, AT INTERSECTION OF EXTERIOR (OR MAIN) WALL WITH INTERIOR WALL. DO NOT LOCATE CONTROL JOINTS IN CMU WALLS OF ELEVATOR SHAFTS.

4. ALL GROUTING TO BE PLACED USING LOW LIFT METHOD. MAXIMUM HEIGHT OF LIFT SHALL BE 5 FEET.

5. ALL WALLS SHALL BE REINFORCED. REINFORCEMENT SHALL BE PROPERLY EMBED AND TIED OFF INTO THE SLAB OR FOUNDATION PRIOR TO CONCRETE PLACEMENT. CONTRACTOR MAY PLACE REINFORCEMENT AFTER THE CONCRETE HAS BEEN POURED BY FIELD DRILLING HOLES AND EPOXY EMBEDDING THE REINFORCEMENT.

6. REINFORCEMENT SHALL BE PROPERLY POSITIONED AND TIED OFF WITHIN MASONRY PRIOR TO GROUTING AND SHALL HAVE PROPER DEVELOPMENT AND LAP LENGTH.

7. CMU BOND BEAMS SHALL BE PLACED AS INDICATED IN THE DRAWINGS. IN ADDITION THEY SHALL BE LOCATED AT THE TOP OF ALL WALLS AND PARAPETS, AT A MAXIMUM VERTICAL SPACING OF 8'-0" AND AT THE BOTTOM OF WALLS SUPPORTED BY ELEVATED SLABS.

8. REINFORCEMENT SHALL BE GROUTED WITHIN MASONRY AND SHALL BE DETAILED TO HAVE THE DEVELOPMENT AND LAP LENGTH INDICATED IN THE CMU REINFORCEMENT LAP AND DEVELOPMENT LENGTH SCHEDULE

POST-INSTALLED ANCHORS

1. UNLESS NOTED OTHERWISE, POST-INSTALLED ANCHORS AND DOWELS SHALL BE INSTALLED WITH A TWO PART CHEMICAL ANCHORING SYSTEM IN ACCORDANCE WITH AN APPROVED MATERIAL TESTING AND INSTALLATION REPORT. PROVIDE BASIS OF DESIGN PRODUCT INDICATED BELOW OR APPROVED EQUAL.

   ADHESIVE ANCHORS FOR CRACKED AND UNCRACKED CONCRETE
   HILTI HIT-HY 200 WITH HILTI HOLLOW DRILL BIT SYSTEM AND HAS-E THREADED ROD

   ADHESIVE ANCHORAGE FOR REBAR DOWELING INTO CRACKED AND UNCRACKED CONCRETE
   HILTI HIT-HY 200 WITH HILTI HOLLOW DRILL BIT SYSTEM

   ADHESIVE ANCHORS FOR SOLID-GROUTED MASONRY
   HILTI HIT-HY 70 MASONRY ADHESIVE WITH HAS-E THREADED ROD OR REBAR

   ADHESIVE ANCHORS FOR HOLLOW/MULTI-WYTHE MASONRY
   HILTI HIT-HY 70 MASONRY ADHESIVE WITH HAS-E THREADED ROD OR REBAR
   SELECT A SCREEN TUBE PER MANUFACTURER'S RECOMMENDATIONS.

2. ANCHOR CAPACITY USED IN DESIGN SHALL BE BASED ON THE TECHNICAL DATA PUBLISHED BY HILTI OR SUCH OTHER METHOD AS APPROVED BY THE STRUCTURAL ENGINEER OF RECORD. SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS MUST BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO USE. CONTRACTOR SHALL PROVIDE CALCULATIONS DEMONSTRATING THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERFORMANCE VALUES OF THE SPECIFIED PRODUCT. SUBSTITUTIONS WILL BE EVALUATED BY THEIR HAVING AN ICC ESR SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE FOR SEISMIC USES, LOAD RESISTANCE, INSTALLATION CATEGORY, AND AVAILABILITY OF COMPREHENSIVE INSTALLATION INSTRUCTIONS. ADHESIVE ANCHOR EVALUATION WILL ALSO CONSIDER CREEP, IN-SERVICE TEMPERATURE AND INSTALLATION TEMPERATURE.

3. INSTALL ANCHORS PER MANUFACTURER'S INSTRUCTIONS.

NOT FOR CONSTRUCTION

SERIES ST-0001

PLOT DATE: 19-Jul-17 3:30:16 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

DLZ

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	VMR
DRAWN:	VMR
CHECKED:	CVAN
DATE:	07/21/17

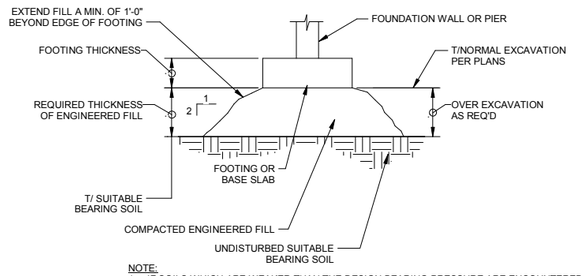
NICTD - WEST LAKE CORRIDOR - MP ___
Project Name

STRUCTURAL GENERAL NOTES

FILENAME
SCALE

SHEET 14 OF 361

C:\Users\vrednour\Documents\WL_ST_GENERAL_02_vrednour.rvt

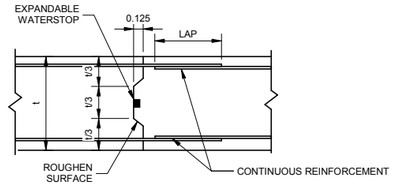


NOTE:
1. IF SOILS WHICH ARE WEAKER THAN THE DESIGN BEARING PRESSURE ARE ENCOUNTERED AT THE FOOTING ELEVATIONS INDICATED, UNDERCUTTING AND REPLACEMENT WITH BACKFILL WILL BE REQUIRED.

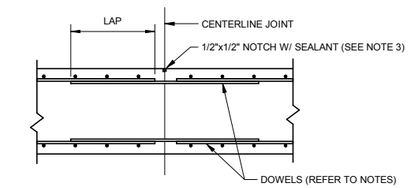
1 OVEREXCAVATION DETAIL
NTS

	4000 PSI CONCRETE			
	LAP LENGTH		DEVELOPMENT LENGTH	
BAR SIZE	TOP	OTHER	TOP	OTHER
#3	24"	19"	19"	15"
#4	32"	25"	25"	19"
#5	40"	31"	31"	24"
#6	48"	37"	37"	29"
#7	70"	54"	54"	42"
#8	80"	62"	62"	48"
#9	91"	70"	70"	54"

2 CONCRETE REINFORCING LAP & DEVELOPMENT LENGTH REQUIREMENTS
NTS

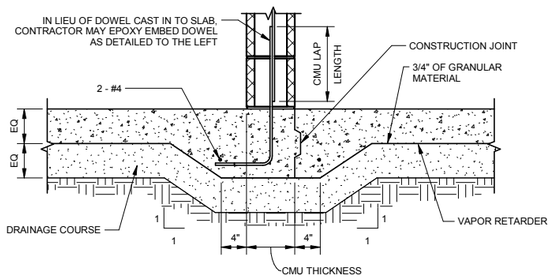


3 CONCRETE WALL OR FOOTING CONSTRUCTIONJOINT
NTS

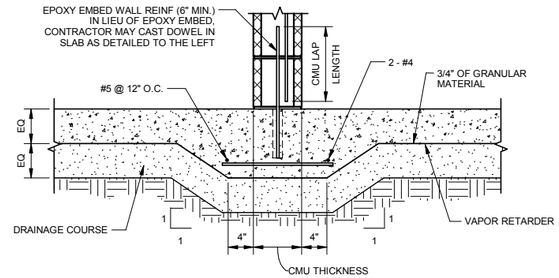


NOTES:
1. DOWELS TO MATCH AND LAP 50% OF HORIZONTAL STEEL.
2. IN LIEU OF USING DOWELS 50% OF HORIZONTAL STEEL MAY EXTEND THRU AND LAP WITH OTHER REINFORCING STEEL.
3. NOTCH AND SEALANT TO BE PROVIDED ON ALL EXPOSED CONCRETE FACES.
4. SPACE CONTROL JOINTS AT A MAXIMUM SPACING OF 30'-0"

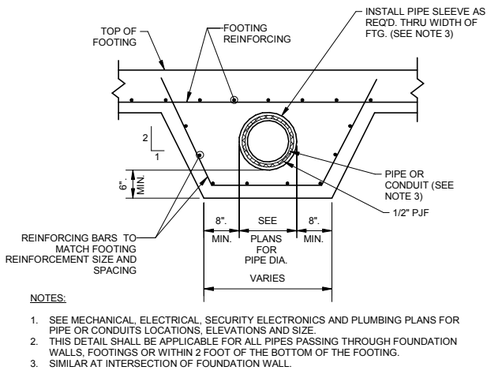
4 TYPICAL WALL CONTROL JOINT DETAIL
NTS



5 THICKENED SLAB WITH CONSTRUCTION JOINT
NTS

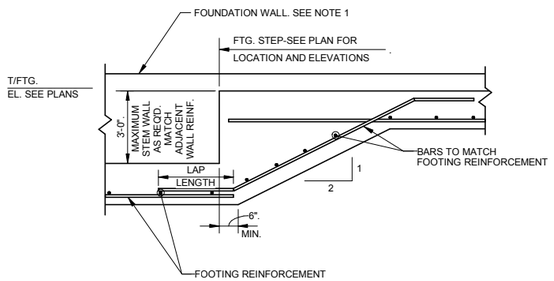


6 THICKENED SLAB WITH NO CONSTRUCTION JOINT
NTS



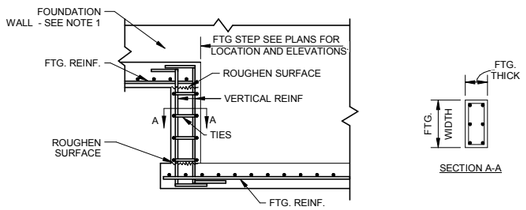
NOTES:
1. SEE MECHANICAL, ELECTRICAL, SECURITY ELECTRONICS AND PLUMBING PLANS FOR PIPE OR CONDUITS LOCATIONS, ELEVATIONS AND SIZE.
2. THIS DETAIL SHALL BE APPLICABLE FOR ALL PIPES PASSING THROUGH FOUNDATION WALLS, FOOTINGS OR WITHIN 2 FOOT OF THE BOTTOM OF THE FOOTING.
3. SIMILAR AT INTERSECTION OF FOUNDATION WALL.

7 INTERSECTION OF UNDERGROUND PIPING WITH FOUNDATION
NTS



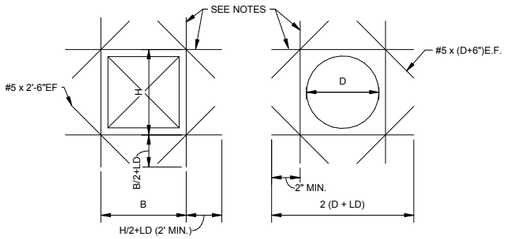
NOTE:
1. REINFORCING THROUGH FOUNDATION WALL SHALL MATCH ADJACENT FOUNDATION WALL REINFORCING. WHEN ADJACENT FOUNDATION WALL DOES NOT EXIST, I.E. INTERIOR FOOTING LOCATIONS AS NOTED, PROVIDE MINIMUM OF #5@12" O.C. EACH FACE VERTICALLY AND HORIZONTALLY WITH THE FOUNDATION WALL BETWEEN STEPS EQUAL IN THICKNESS TO THE SUPPORTED WALL THICKNESS. HOOK BAR ENDS WITH 90° ACI STD HOOKS.

8 STEPPED FOOTING DETAIL (3' MAX)
NTS



NOTE:
1. REINFORCING THROUGH FOUNDATION WALL SHALL MATCH ADJACENT FOUNDATION WALL REINFORCING. WHEN ADJACENT FOUNDATION WALL DOES NOT EXIST, I.E. INTERIOR FOOTING LOCATIONS AS NOTED, PROVIDE MINIMUM OF #5@10" O.C. EACH FACE VERTICALLY AND HORIZONTALLY WITH THE FOUNDATION WALL BETWEEN STEPS EQUAL IN THICKNESS TO THE SUPPORTED WALL THICKNESS. HOOK BAR ENDS WITH 90 DEG. ACI STD HOOKS.

9 STEPPED FOOTING DETAIL (3' MIN)
NTS



RECTANGULAR OPENING CIRCULAR OPENING

NOTES:
1. THESE DETAILS APPLY TO ALL OPENINGS WHERE REINF. IS INTERSECTED IN CAST-IN-PLACE CONCRETE WALLS OR SLABS UNLESS NOTED OTHERWISE ON THE DRAWINGS.
2. THE AREA OF ADDITIONAL REINF. REQUIRED IN EACH FACE ON EACH SIDE OF THE OPENING SHALL BE A MINIMUM OF 50% OF THE AREA OF BARS CUT IN EACH FACE IN EACH DIRECTION, RESPECTIVELY.
3. LD=DEVELOPMENT LENGTH.

10 REINFORCING AROUND OPENING IN CIP CONCRETE
NTS

NOT FOR CONSTRUCTION

SERIES ST-0701

PLOT DATE: 19-Jul-17 3:30:17 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

DLZ

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	VMR
DRAWN:	VMR
CHECKED:	CVAN
DATE:	07/21/17

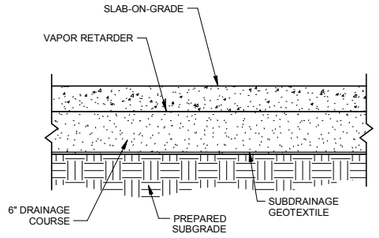
NICTD - WEST LAKE CORRIDOR - MP ___
Project Name

STRUCTURAL TYPICAL DETAILS

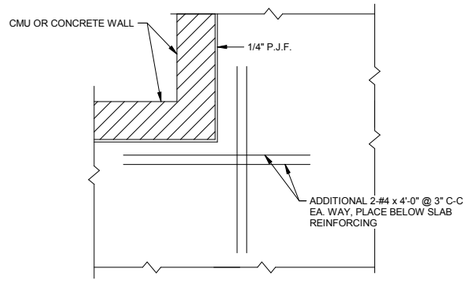
FILENAME
SCALE NTS

SHEET 15 OF 361

C:\Users\vrednour\Documents\WL_ST_GENERAL_02_vrednour.rvt



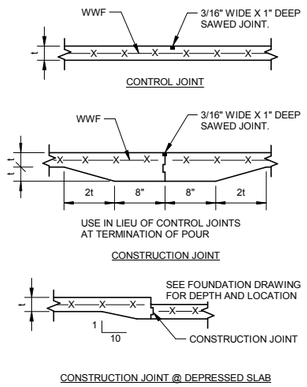
1 TYPICAL SLAB-ON-GRADE DETAIL
NTS



PLAN

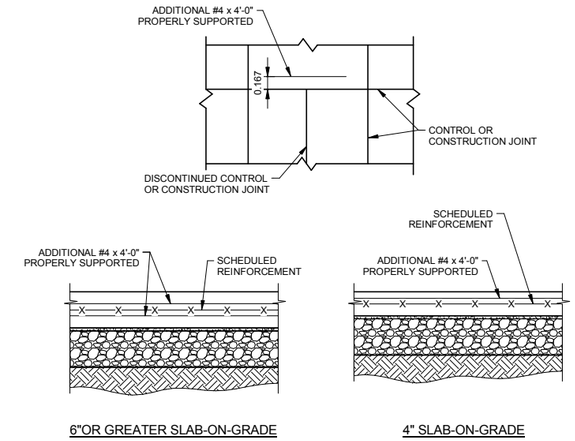
NOTE:
1. USE THIS DETAIL ONLY IF THERE ARE NO CONSTRUCTION OR CONTROL JOINTS IN THE SLAB AT THE CORNER

2 SLAB-ON-GRADE REENTRANT CORNER REINFORCING
1/8" = 1'-0"



CONSTRUCTION JOINT @ DEPRESSED SLAB

3 SLAB CONTROL/CONSTRUCTION JOINT
NTS



6"OR GREATER SLAB-ON-GRADE

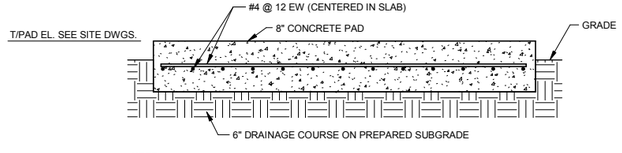
4" SLAB-ON-GRADE

4 TYPICAL REINFORCEMENT AT DISCONTINUOUS JOINT
NTS

NOTES:
1. MINIMUM BEND LENGTH = 12 BAR DIAMETERS.
2. CORNER BARS MAY BE AN EXTENSION OF THE WALL REINF AT THE OPTION OF THE CONTRACTOR.
3. L = THE LAP LENGTH OF THE SMALLER BAR OR THE DEVELOPMENT LENGTH OF THE LARGER BAR WHICH EVER IS GREATER.
4. VERTICAL WALL REINFORCEMENT NOT SHOWN.
5. SEE PLANS AND DETAILS FOR SIZE OF HORIZONTAL AND VERTICAL REINFORCEMENT
6. DETAIL SIMILAR AT WALLS WITH A SINGLE MAT OF REINFORCEMENT.

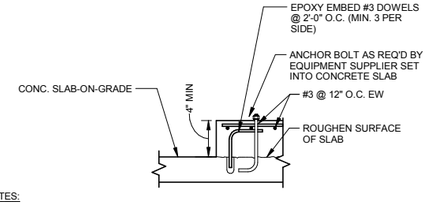
5 STANDARD HORIZONTAL CORNERS AND "T" WALL REINFORCEMENT DETAILS
NTS

6 TYPICAL TRENCH DRAIN SECTION
1" = 1'-0"



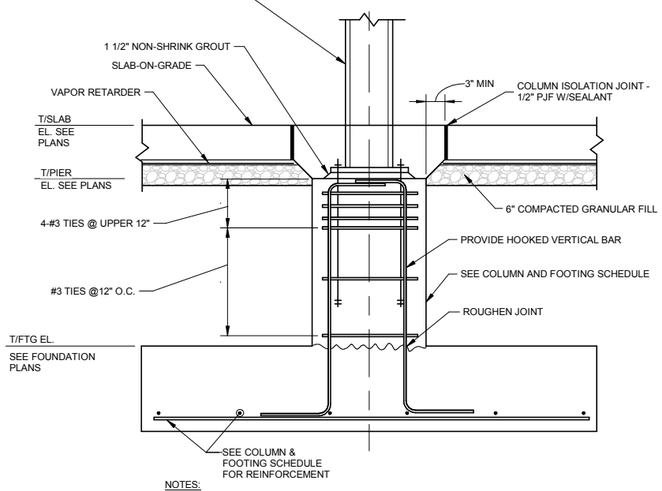
NOTE:
1. COORDINATE LOCATION AND SIZE OF EQUIPMENT PAD WITH EQUIPMENT MANUFACTURER, MECHANICAL AND ELECTRICAL PLANS.

7 TYPICAL EXTERIOR EQUIPMENT PAD DETAIL
NTS



NOTES:
1. COORDINATE LOCATION OF PAD AND SIZE WITH EQUIPMENT MANUFACTURER. REFER TO ELECTRICAL, PLUMBING, AND MECHANICAL DRAWINGS.
2. PAD TO BE A MINIMUM 6" LARGER THAN EQUIPMENT ON ALL SIDES.
3. IN LIEU OF BENT ANCHOR BOLT SHOWN, PROVIDE EPOXY ANCHOR WITH A MINIMUM EMBEDMENT INTO CONCRETE OF 3".

8 TYPICAL INTERIOR CONCRETE EQUIPMENT PAD REINFORCING DETAIL
NTS



NOTES:
1. SIMILAR AT INTERIOR COLUMNS WITHOUT PIERS.
2. WHERE COLUMN IS LOCATED AT EXTERIOR WALL, FOUNDATION WALL HORIZONTAL REINFORCEMENT SHALL EXTEND THROUGH CONCRETE PIER OR COLUMN.

9 TYPICAL STEEL COLUMN SPREAD FOOTING DETAIL
NTS

NOT FOR CONSTRUCTION

SERIES **ST-0702**

PLOT DATE: 19-Jul-17 3:30:17 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

DLZ

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

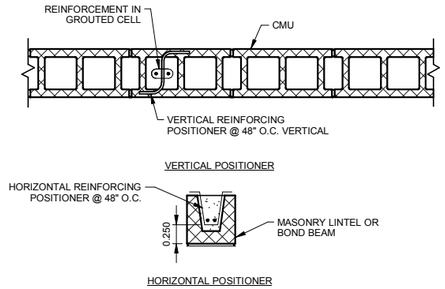
DESIGNED:	VMR
DRAWN:	VMR
CHECKED:	CVAN
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP ___
Project Name

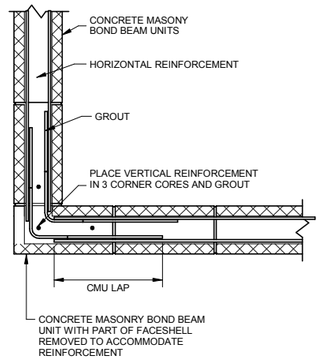
STRUCTURAL TYPICAL DETAILS

FILENAME		SHEET
SCALE	As indicated	16 OF 361

C:\Users\vrednour\Documents\WL_ST_GENERAL_02_vrednour.rvt

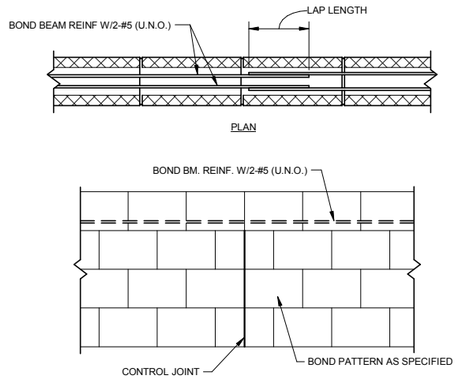


1 TYPICAL CMU REINFORCING POSITIONERS
NTS



NOTE:
1. AS AN ALTERNATIVE TO USING BOND BEAM UNITS AS SHOWN, STANDARD UNITS CAN BE SAW-CUT TO REMOVE PART OF THE CROSS-WEBS TO ACCOMMODATE THE HORIZONTAL REINFORCEMENT.

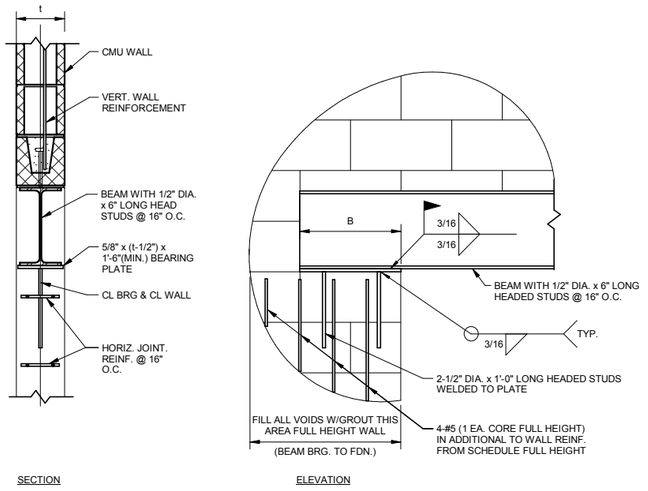
2 BOND BEAM AT CORNER DETAIL
NTS



3 BOND BEAM AT CONTROL JOINT DETAIL
NTS

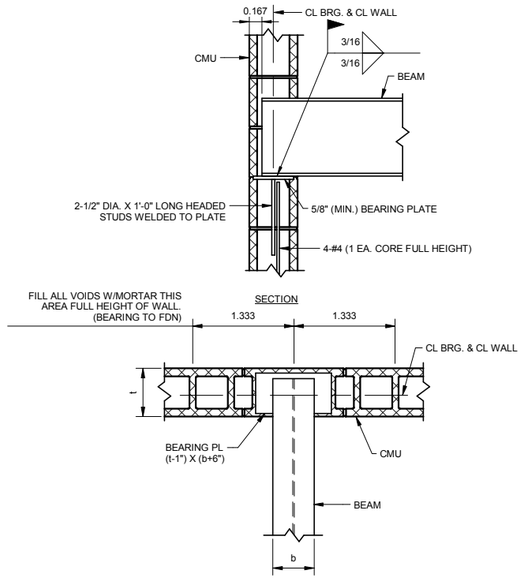
BAR SIZE	LAP LENGTH	HORIZ. REINF DEVELOPMENT LENGTH	VERTICAL CMU DEVELOPMENT LENGTH			
			12" CMU	10" CMU	8" CMU	6" CMU
#3	15"	12"	12"	12"	12"	12"
#4	20"	22"	13"	13"	13"	18"
#5	25"	36"	20"	20"	20"	28"
#6	30"	73"	38"	38"	38"	-
#7	35"	107"	52"	52"	52"	-
#8	40"	175"	79"	79"	79"	-

4 CMU REINFORCING LAP & DEVELOPMENT LENGTH REQUIREMENTS
NTS

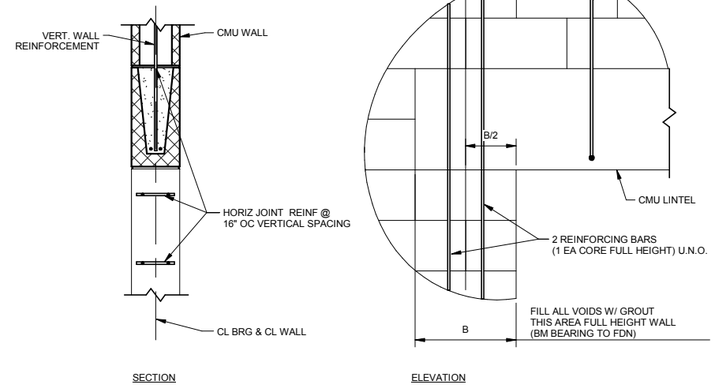


NOTES:
1. PLACEMENT OF VERTICAL CONDUIT SHALL NOT BE ALLOWED IN GROUTED CELLS.

5 TYPICAL STEEL BEAM BEARING ON PARALLEL CMU WALL DETAIL
NTS



6 TYPICAL STEEL BEAM BEARING ON PERPINDICULAR CM WALL DETAIL
NTS



7 CMU LINTEL BEARING DETAIL
NTS

NOT FOR CONSTRUCTION

SERIES **ST-0703**

PLOT DATE: 19-Jul-17 3:30:18 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

DLZ

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	VMR
DRAWN:	VMR
CHECKED:	CVAN
DATE:	07/21/17

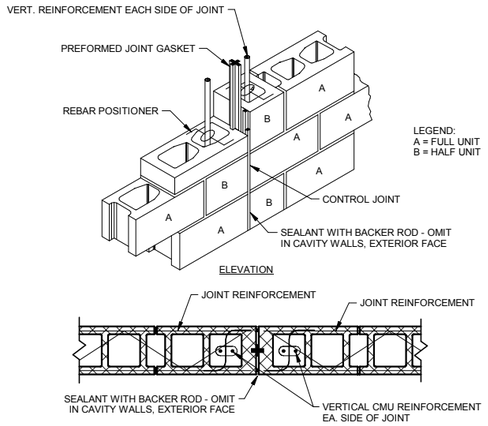
NICTD - WEST LAKE CORRIDOR - MP ___
Project Name

STRUCTURAL TYPICAL DETAILS

FILENAME
SCALE NTS

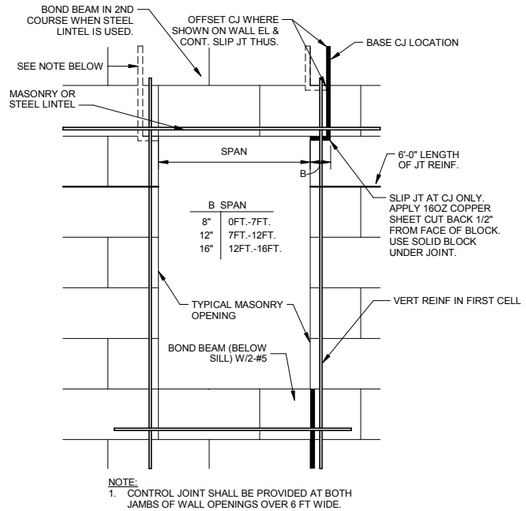
SHEET **17 OF 361**

C:\Users\vrednour\Documents\WL_ST_GENERAL_02_vrednour.rvt



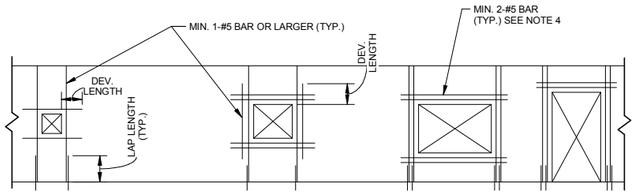
NOTES:
1. APPLICABLE TO THE CONSTRUCTION OF ALL CONTROL JOINTS IN CMU WALLS.

1 CMU WALL CONTROL JOINT DETAIL
NTS



NOTE:
1. CONTROL JOINT SHALL BE PROVIDED AT BOTH JAMBS OF WALL OPENINGS OVER 6 FT WIDE.

2 CONTROL JOINT AT CMU OPENING
NTS



CASE I:

APPLIES TO (1) ALL OPENINGS IN NON-BEARING CMU WALLS AND (2) ANY OPENING 2- FEET OR LESS BOTH WAYS IN LOAD BEARING OR EXTERIOR CMU WALLS.

CASE II:

APPLIES TO LOAD BEARING AND EXTERIOR CMU WALLS WHEN OPENING EXCEEDS 2-FEET BUT NOT MORE THAN 4-FEET IN EITHER DIRECTION.

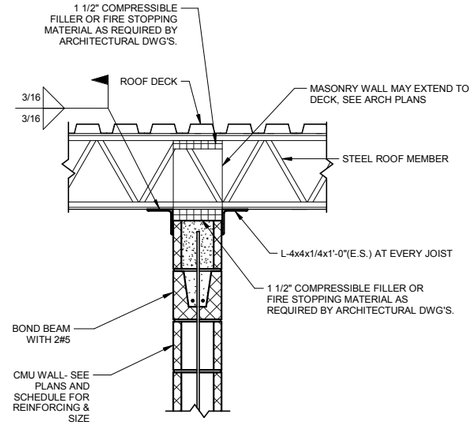
CASE III:

APPLIES TO LOAD BEARING AND EXTERIOR CMU WALLS WHEN OPENING EXCEEDS 4-FEET IN EITHER DIRECTION AND ALL OPENING IN CMU SHEAR WALLS.

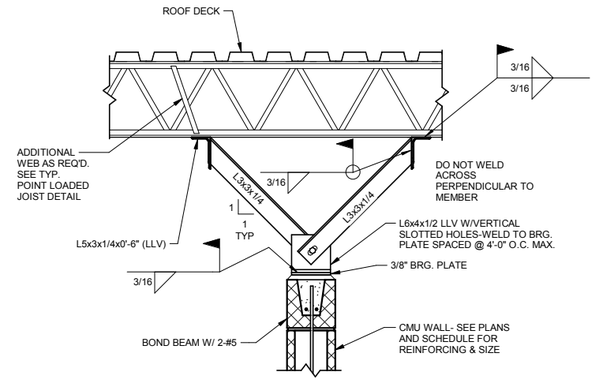
NOTES:

1. VERTICAL REINFORCEMENT CONSISTING OF 2 BARS, SHALL BE PLACED IN SEPARATE ADJACENT CELLS.
2. VERTICAL BARS SHALL BE OF THE SAME SIZE, EXTENT, AND ANCHORAGE AS THE TYPICAL REINFORCING IN THAT WALL UNLESS OTHERWISE INDICATED.
3. VERTICAL BARS CAN BE PART OF NORMAL REINFORCING IN THE WALL.
4. REINFORCEMENT AT TOP OF OPENING SHALL NOT BE LESS THAN THAT REQUIRED BY THE LINTEL SCHEDULE.

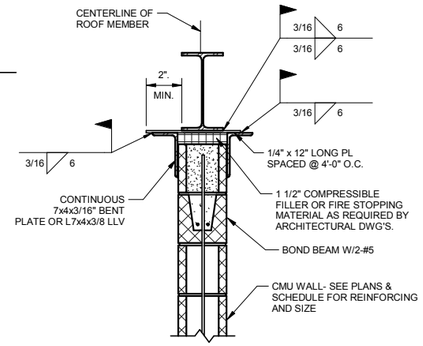
3 REINFORCEMENT AROUND OPENING IN CMU
NTS



WALL PERPENDICULAR TO MEMBER

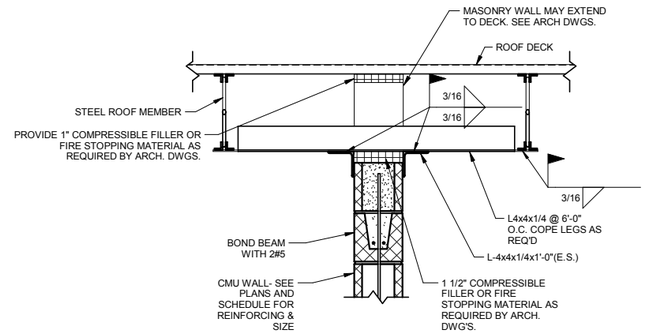


WALL NOT EXTENDED TO THE UNDERSIDE OF DECK



NOTE:
1. WALL AND MEMBER CENTER LINE MAY BE OFFSET 8" MAX.

WALL PARALLEL TO UNDERSIDE OF MEMBER



WALL PARALLEL TO MEMBER

4 TYPICAL TOP OF NON-BEARING CMU WALL ATTACHMENT TO STEEL DETAIL
NTS

NOT FOR CONSTRUCTION

SERIES ST-0704

PLOT DATE: 19-Jul-17 4:50:51 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

DLZ

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	VMR
DRAWN:	VMR
CHECKED:	CVAN
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP ___
Project Name

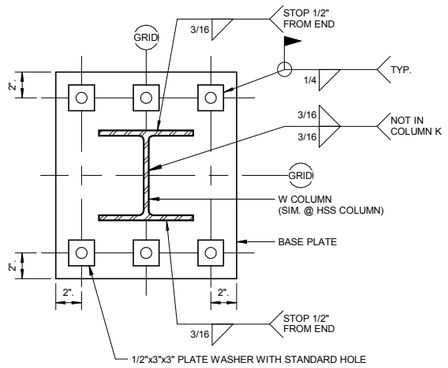
STRUCTURAL TYPICAL DETAILS

FILENAME

SCALE NTS

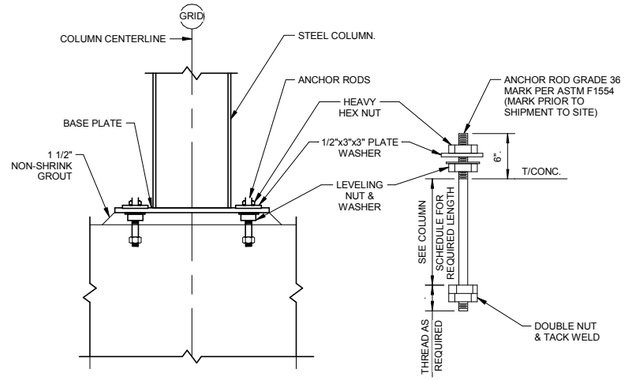
SHEET 18 OF 361

C:\Users\vrednour\Documents\WL_ST_GENERAL_02_vrednour.rvt

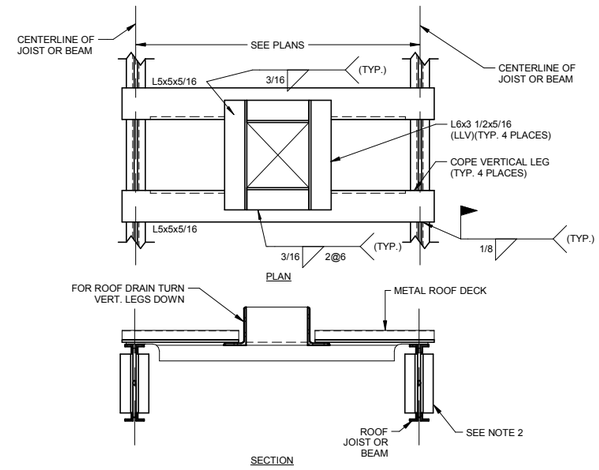


ROD DIA.	B.P. HOLE DIA. (IN.)	PLATE WASHER
3/4"	1 5/16"	2"x2"x3/8"
1"	1 13/16"	3"x3"x3/8"
1 1/4"	2 1/16"	3"x3"x1/2"
1 1/2"	2 5/16"	3 1/2"x3 1/2"x1/2"

1 TYPICAL COLUMN BASE PLATE
1" = 1'-0"



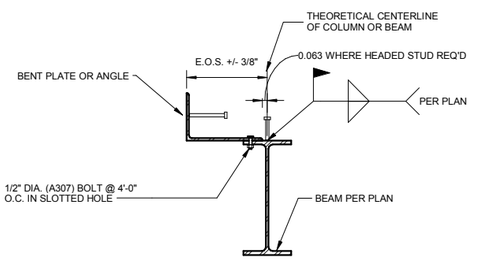
2 TYPICAL STEEL COLUMN ANCHOR DETAIL
1" = 1'-0"



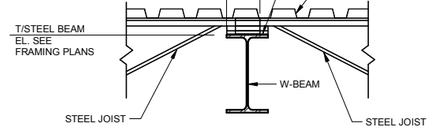
NOTE:

1. DIM. OF OPENINGS VARY. SEE ARCHITECTURAL ROOF PLAN AND VARIOUS MECH. & KITCHEN PLANS, CONTRACTOR SHALL COORDINATE. FRAME NOT REQ'D FOR OPENINGS SMALLER THAN 12"x12". FOR OPENINGS BETWEEN 6" AND 12" REINFORCE OPENINGS WITH 16 GA. MATERIAL, FASTEN TO DECK @ 8"O.C.
2. WHERE FRAME SUPPORTS EQUIPMENT HEAVIER THAN 400 LBS. PROVIDE ADDITIONAL JOIST WEB REINFORCEMENT.

3 TYPICAL METAL ROOF OPENING FRAMING
1" = 1'-0"



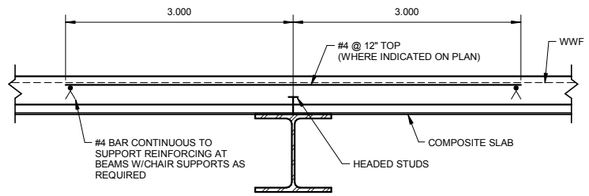
4 TYPICAL POUR STOP DETAIL
1" = 1'-0"



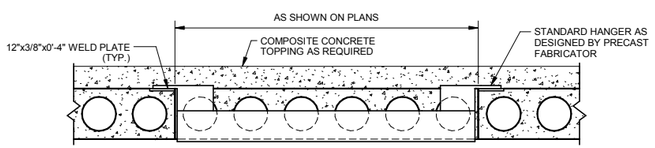
NOTES:

1. AT DOUBLE LOADED JOIST BEARING STAGGER JOIST AS REQUIRD FOR MIN. 3" BEARING.

5 TYPICAL STEEL JOIST BEARING ON STEEL BEAM DETAIL
1" = 1'-0"



6 TYPICAL REINFORCED COMPOSITE SLAB DETAILS
1" = 1'-0"



NOTE:

1. PROVIDE POUR STOP AS REQUIRED FOR COMPOSITE CONCRETE TOPPING.
2. CONTRACTOR SHALL COORDINATE OPENING, SIZES AND LOCATIONS REQUIRED BY MECHANICAL, ELECTRICAL, PLUMBING PLANS.

7 TYPICAL PRECAST HOLLOWCORE SLAB-ROOF/FLOOR OPENING
1" = 1'-0"

NOT FOR CONSTRUCTION

SERIES **ST-0705**

PLOT DATE: 19-Jul-17 4:50:51 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

DLZ

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	VMR
DRAWN:	VMR
CHECKED:	CVAN
DATE:	07/21/17

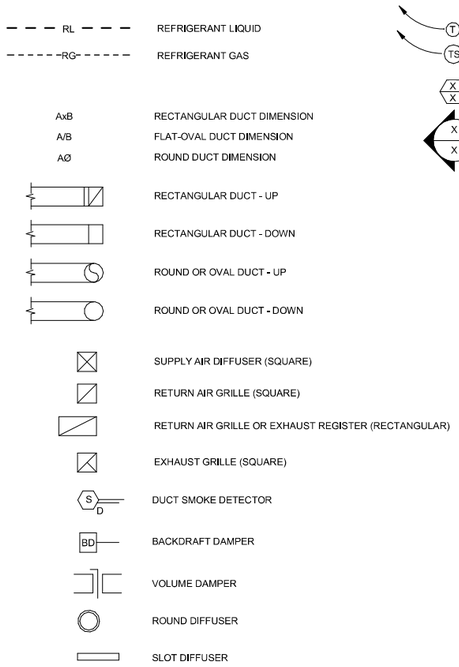
NICTD - WEST LAKE CORRIDOR - MP ___
Project Name

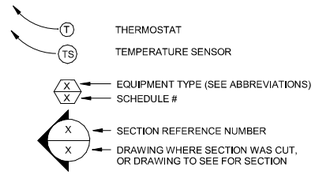
STRUCTURAL TYPICAL DETAILS

FILENAME		SHEET	19 OF 361
SCALE	1" = 1'-0"		

C:\Users\vrednour\Documents\WL_ST_GENERAL_02_vrednour.rvt

SYMBOLS





GENERAL NOTES

1. ALL WORK SHALL BE IN CONFORMANCE WITH THE INTERNATIONAL MECHANICAL CODE - LATEST EDITION ADOPTED BY INDIANA, THE INDIANA AMENDMENTS, INDIANA ENERGY CODE, LOCAL/MUNICIPAL CODES, AND THE AUTHORITY HAVING JURISDICTION.
2. ALL DUCTS IN FINISHED ROOMS AND SPACES SHALL BE CONCEALED IN CHASES OR ABOVE THE CEILINGS, UNLESS OTHERWISE NOTED.
3. ALL LISTED DUCTWORK DIMENSIONS ARE CLEAR AIR FLOW DIMENSIONS.
4. COORDINATE WORK WITH OTHER TRADES.
5. MAXIMUM LENGTH OF FLEX DUCT SHALL BE 5'-0". FLEX DUCT SHALL NOT BE USED WHERE DUCTWORK IS EXPOSED.
6. FIELD VERIFY LOCATION OF BEAMS, GENERAL STRUCTURE, LIGHTING, PIPING, ETC., BEFORE FABRICATION AND INSTALLATION OF DUCTWORK. COORDINATE ELEVATIONS, OFFSETS, AND TRANSITIONS AS REQUIRED.
7. CONNECTION TO EQUIPMENT SHALL CONFORM TO MANUFACTURER'S SPECIFICATION.
8. ALL HANGER SYSTEMS FOR PIPING AND EQUIPMENT SHALL BE SECURED TO BUILDING STRUCTURAL SYSTEM. CONTRACTORS SHALL COORDINATE HANGERS CONNECTED TO STEEL JOISTS TO ENSURE HANGERS ARE ATTACHED AT JOIST PANEL POINTS.
9. PROVIDE ACCESS DOORS FOR DAMPERS AS NEEDED. COORDINATE LOCATION AND INSTALLATION WITH OTHER TRADES.
10. IF NON BASE-DESIGN EQUIPMENT IS SELECTED, THIS CONTRACTOR SHALL BEAR ANY ADDITIONAL COSTS FOR MODIFICATION TO THE PROPOSED BUILDING SYSTEM CAUSED BY SELECTION OF THE NON BASE-DESIGN EQUIPMENT.
11. VOLUME DAMPERS SHALL BE INSTALLED IN ALL BRANCH DUCTS.
12. THE ELBOWS FOR DUCTWORK SHALL HAVE TURNING VANES UNLESS NOTED OTHERWISE.
13. ALL MECHANICAL EQUIPMENT REQUIRING NATURAL GAS SHALL BE FURNISHED WITH PRESSURE REGULATOR. THE GAS PRESSURE REGULATOR SHALL REGULATE THE GAS PRESSURE BETWEEN THE INLET AND OPERATING PRESSURE OF THE EQUIPMENT. PROVIDE VENT TO OUTDOOR FROM EACH REGULATOR.
14. ALL STRUCTURAL OPENINGS SHALL BE COORDINATED WITH THE STRUCTURAL DRAWING. COORDINATE ANY STRUCTURAL SUPPORTS FOR OPENINGS WITH STRUCTURAL TRADES.

GENERAL MECHANICAL NOTES

A. DUCT AND PIPING LAYOUTS ARE SCHEMATIC IN NATURE. ADDITIONAL TRANSITIONS, ELBOWS, OFFSETS, AND COORDINATE ANY STRUCTURAL SUPPORTS FOR OPENINGS WITH STRUCTURAL TRADES.

B. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING WORK TO PERMIT ACCESS AND SERVICE CLEARANCES TO ALL SYSTEMS. COORDINATE DUCT WITH ELECTRICAL J-BOXES TO PREVENT OBSTRUCTIONS.

C. DO NOT SCALE DRAWINGS FOR DIMENSIONS. REFER TO DIMENSIONED DRAWINGS.

ABBREVIATIONS

AMPS	AMPERES
ADJ.	ADJUSTABLE
ATC	AUTOMATIC TEMPERATURE CONTROL
APD	AIR PRESSURE DROP
A.F.F.	ABOVE FINISHED FLOOR
CFM	CUBIC FEET PER MINUTE
CO.	COMPANY
COND.	CONDENSATE
D	DRAIN
DSP	DUCT STATIC PRESSURE
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EDB	ENTERING DRY BULB
EF	EXHAUST FAN
EFF	EFFICIENCY
ELECT.	ELECTRICAL
ESP	EXTERNAL STATIC PRESSURE
EWB	ENTERING WET BULB
EWC	ELECTRIC WATER COOLER
F	FIRE DAMPER
FPM	FEET PER MINUTE
FD	FLOOR DRAIN
FT	FEET
GAL	GALLON
GPM	GALLONS PER MINUTE
GC	GENERAL CONTRACTOR
HC	HEATING COIL
HP	HORSE POWER
HR	HOUR
HTG.	HEATING
I.D.	IDENTIFICATION
IH	INTAKE HOOD
IN	INCH
L	LOUVER
LAT	LEAVING AIR TEMPERATURE
LDB	LEAVING DRY BULB
LBS	POUNDS
LWB	LEAVING WET BULB
MAX	MAXIMUM
MBH	1000 BRITISH THERMAL UNITS PER HOUR
MIN.	MINIMUM
NO.	NUMBER
OA	OUTSIDE AIR
P.C.	PLUMBING CONTRACTOR
PH	PHASE
PSI	POUNDS PER SQUARE INCH
RA	RETURN AIR
RF	RELIEF AIR FAN
RH	RELIEF AIR HOOD
RM	ROOM
RTU	ROOF TOP UNIT
SA	SUPPLY AIR
S	SMOKE DAMPER
SENS	SENSIBLE
TSP	TOTAL STATIC PRESSURE
V	VENT
VAV	VARIABLE AIR VOLUME BOX
VOLTS	VOLTAGE
VFD	VARIABLE FREQUENCY DRIVE
W.C.	WATER COLUMN
W.O.	WALL OPENING
WPD	WATER PRESSURE DROP

HVAC BASIS OF DESIGN	
SUMMER	
OUTDOOR	96°FDB, 76°F WB
INDOOR	SPACE DEPENDENT
WINTER	
OUTDOOR	-4°F DB
INDOOR	SPACE DEPENDENT

1 HVAC SYMBOLS
NTS

NOT FOR CONSTRUCTION

SERIES **M-0001**

PLOT DATE: 7/17/2017 7:35:37 AM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

DLZ

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	ZEA
DRAWN:	ZEA
CHECKED:	ESA
DATE:	07/21/2016

NICTD - WEST LAKE CORRIDOR - MP MP 7,36
Project Name

HVAC-SYMBOLS, LEGENDS, ABBREVIATIONS

FILENAME		SHEET	20 **OF** 361
SCALE	12" = 1'-0"		

C:\Users\zalderman\Documents\10013118-FACILITIES-M-CENTRAL_zalderman.rvt

PLUMBING GENERAL NOTES

1. INSTALLATION OF PLUMBING FIXTURES AND ACCESSORIES, INCLUDING FLUSH CONTROL VALVES INTENDED FOR PEOPLE WITH DISABILITIES, SHALL BE IN ACCORDANCE WITH ADA REQUIREMENTS.
2. INSTALLATION OF PLUMBING PIPING SHALL BE FULLY COORDINATED WITH STRUCTURAL, ARCHITECTURAL, ELECTRICAL, AND HVAC DRAWINGS TO AVOID CONFLICT.
3. NO PLUMBING (WATER, DRAINS, VENT, OR GAS PIPING) SHALL BE INSTALLED DIRECTLY ABOVE ANY ELECTRICAL PANELS. COORDINATE WITH OTHER DIVISIONS BEFORE PROCEEDING WITH INSTALLATION.
4. IF NON BASE-DESIGN EQUIPMENT IS SELECTED, CONTRACTOR SHALL BEAR ADDITIONAL COSTS FOR MODIFICATIONS TO THE ORIGINAL SYSTEM(S).
5. PROVIDE WATER HAMMER ARRESTERS AT PLUMBING FIXTURES AND GROUPS OF PLUMBING FIXTURES THAT ARE SUBJECT TO WATER HAMMER. SELECT ARRESTERS IN ACCORDANCE WITH THE PLUMBING AND DRAINAGE INSTITUTE STANDARD.
6. ALL PLUMBING SERVICES GOING INTO THE BUILDING AND LEAVING THE BUILDING SHALL BE CONNECTED TO THE SITE UTILITIES. COORDINATE WITH SITE UTILITIES DWGS. COORDINATE ALL EXTERIOR UNDERGROUND PLUMBING WORK WITH THE SITE UTILITIES BEFORE COMMENCING WORK. COORDINATE ALL UNDERGROUND PIPING WITH FOUNDATION DRAWINGS.
7. ALL PLUMBING PIPING IN TRENCHES SHALL REMAIN OPEN UNTIL INSPECTED, TESTED, AND APPROVED BY THE GOVERNING AUTHORITY HAVING JURISDICTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE BARRICADES AND SIGNS TO ALL UNCOVERED TRENCHES FOR PUBLIC SAFETY.
8. ALL PLUMBING WORK SHALL BE IN CONFORMANCE WITH THE INTERNATIONAL PLUMBING CODE, LATEST EDITION ADOPTED BY THE STATE OF INDIANA WITH INDIANA AMENDMENTS, MUNICIPAL OR CITY CODES, AND THE AUTHORITY HAVING JURISDICTION.
9. INSTALL BALL VALVE CLOSE TO WATER MAIN ON EACH BRANCH AND RISER SERVING PLUMBING EQUIPMENT AND FIXTURES.
10. REFER TO FIRE PROTECTION DRAWINGS FOR ADDITIONAL INFORMATION.

PLUMBING SYMBOLS

	BALL VALVE
	CALIBRATED BALANCING VALVE
	CHECK VALVE
	SOLENOID VALVE
CW	RAW DOMESTIC COLD WATER
HW	DOMESTIC HOT WATER (110 DEG F)
HW(140)	DOMESTIC HOT WATER (140 DEG F)
HWR	DOMESTIC HOT WATER RETURN
SAN	SANITARY
V	VENT
G	GAS

1 PLUMBING NOTES
NTS

NOT FOR CONSTRUCTION

SERIES **MP-0001**

PLOT DATE: 7/17/2017 7:35:40 AM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

DLZ

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	ZEA
DRAWN:	ZEA
CHECKED:	ESA
DATE:	07/21/2017

NICTD - WEST LAKE CORRIDOR - MP MP 7,36
Project Name

PLUMBING-SYMBOLS, LEGENDS, AND ABBREVIATIONS

FILENAME		SHEET 21 **OF** 361
SCALE	1/8" = 1'-0"	

C:\Users\zalderman\Documents\10013118-FACILITIES-M-CENTRAL_zalderman.rvt

WIRING DEVICE SYMBOLS

STRUCTURE	WALL	CEILING	
	$a		SINGLE POLE TOGGLE SWITCH, LOWER CASE LETTER DENOTES OUTLETS CONTROLLED
	$ D,K,P,T		TOGGLE SWITCH: "D" INDICATES DOOR OPERATED, "K" KEY OPERATED, "P" WITH PILOT LIGHT, "T" WITH THERMAL OVERLOAD ELEMENT
	$2		TWO POLE TOGGLE SWITCH
	$3		THREE POLE TOGGLE SWITCH
	S$	(S)	OCCUPANCY SENSOR SWITCH
PB	PB		SPLICE BOX, JUNCTION BOX OR PULL BOX WITH BLANK COVER, MINIMUM SIZE AS REQUIRED BY INDIANA CODE (EXPOSED)
JB	JB	(J)	
			DUPLEX FLUSH RECEPTACLE, 20A.,125V.,3W GROUNDING TYPE
			SINGLE RECEPTACLE, 20A,120V,3W GROUNDING TYPE
	PB		PUSHBUTTON
			START-STOP PUSHBUTTON
	WP		WP NEXT TO DEVICE INDICATES WEATHERPROOF ENCLOSURE NEMA 3R
	GFI		GFI NEXT TO DEVICE INDICATES GROUND FAULT INTERRUPTER

LIGHTING/EXIT SIGNAGE SYMBOLS

- FLUORESCENT OR LED FIXTURE ON NORMAL CIRCUIT
- FLUORESCENT OR LED FIXTURE ON RELIABLE CIRCUIT
- FLUORESCENT OR LED FIXTURE ON EMERGENCY CIRCUIT
- LIGHT LINE WEIGHT FIXTURE EXISTING
- DARK LINE WEIGHT FIXTURE NEW
- B, 1a — INCANDESCENT LIGHTING FIXTURE TYPE "B", ON CIRCUIT NO. 1 CONTROLLED BY SWITCH "a"
- F1, LP-3;2 — NOMENCLATURE: CIRCUIT NUMBER, PANEL, FIXTURE TYPE
- CEILING MOUNTED EXIT SIGN ON EMERGENCY CIRCUIT WITH OR WITHOUT ARROW AS REQUIRED. SHADED AREA(S) INDICATES VIEWING FACE(S).
- WALL MOUNTED EXIT SIGN ON EMERGENCY CIRCUIT WITH OR WITHOUT ARROW AS REQUIRED. SHADED AREA(S) INDICATE VIEWING FACE(S).
- EMERGENCY LIGHTING BATTERY UNIT WITH ATTACHED AND REMOTE HEADS AS REQUIRED.
- SIGN — ILLUMINATED ELECTRIC SIGN

CONDUIT SYMBOLS

- CONDUIT STUBBED UP
- CONDUIT STUBBED DOWN
- CONCEALED CONDUIT ABOVE CEILING
- UNDERGROUND OR UNDERSLAB CONDUIT. ON DEMOLITION PLAN CONDUIT TO BE REMOVED.
- HOMERUN TO PANEL
- FLEXIBLE CONDUIT
- J — FINAL CONNECTION TO EQUIPMENT
- HT — HEAT TRACE CABLE, 8 WATT/FOOT, 120VAC
- X — CABLE/CONDUIT DESIGNATION

FIRE ALARM SYMBOLS

- SD — SMOKE DETECTOR
- HD — HEAT DETECTOR
- FACP — FIRE ALARM CONTROL PANEL, FIRE ALARM PANEL AUDIO VISUAL FIRE ALARM SPEAKER/HORN W/FLASHING INDICATING LIGHT
- AR — ADDRESSABLE RELAY
- FAA — FIRE ALARM ANNUNCIATOR PANEL

ELECTRICAL PANEL SYMBOLS

- NMDP — NORMAL MAIN DISTRIBUTION PANEL. 120/208V, 3ø, 4 WIRE

ABBREVIATIONS FOR TYPE OF PANEL

PPEH	ELECTRIC HEATING PANEL
LP-1/LP-A/LP-2	LIGHTING PANEL
PPA	POWER PANEL
FACP	FIRE ALARM CONTROL PANEL
EP-1	ELEVATOR/ESCALATOR EQUIP. PANEL
CP-1	COMMUNICATIONS PANEL

POWER SYMBOLS

- M — NIPSCO METER
- TRANSFORMER (SHOWN IN ENCLOSURE)
- NIPSCO CURRENT TRANSFORMER IN COMPARTMENT
- 30 AMP — CIRCUIT BREAKER RATING AS NOTED (SINGLE POLE UNLESS NOTED OTHERWISE)
- 30 AMP — FUSE, UL RATED FOR 30 AMP
- PANELBOARD CONNECTED TO NORMAL POWER LP=LIGHTING PANEL HP=HEATING PANEL
- 30A/3P — 240V. NON-FUSIBLE HORSEPOWER RATED MOTOR DISCONNECT SWITCH, (U.N.O.) SIZE, LETTER AND NUMBER DENOTES SWITCH SIZE. M.H. = 4'-6" A.F.F. U.N.O.
- 30A/3P — 240V. FUSIBLE MOTOR DISCONNECT SWITCH (U.N.O.) SIZE, LETTER AND NUMBER DENOTES SWITCH SIZE. M.H. = 4'-6" A.F.F. U.N.O.
- COMBINATION FUSED DISCONNECT SWITCH AND MAGNETIC MOTOR STARTER. NEMA RATED. SIZES DESCRIBED ON DRAWINGS.
- E, N, BP, BP — AUTOMATIC TRANSFER SWITCH (N- NORMAL, E- EMERGENCY, L- LOAD, BP- BYPASS)
- BOLTED PRESSURE SWITCH
- FRONT OF SWITCHGEAR
- CABLE LIMITER
- SS — SILL HEATER
- DC — DOOR CONTACT SWITCH
- LP-1;2 — DEVICE, CIRCUIT NUMBER, PANEL
- MOTOR
- ATM — AUTOMATIC TELLER MACHINE
- MON — BERTHING MONITOR
- GFI — GROUND FAULT INTERRUPT TRIP FOR CIRCUIT BREAKER
- ST — SHUNT TRIP

CONTROL SYMBOLS

- R — RELAY COIL
- C — CONTACTOR COIL
- NORMALLY OPEN CONTACT OF RELAY OR STARTER
- NORMALLY CLOSED CONTACT OF RELAY OR STARTER
- OL — OVERLOAD RELAY CONTACT
- THERMAL OVERLOAD RELAY
- FU — CONTROL CKT. FUSE
- PUSH BUTTON NORMALLY CLOSED MOMENTARY CONTACT
- PUSH BUTTON NORMALLY OPEN MOMENTARY CONTACT
- 1, 2 — TWO POSITION SELECTOR SWITCH; INDICATES POSITION WHERE CONTACT IS CLOSED
- TDO — TIMED CONTACT NORMALLY OPEN TIMED OPEN
- TDC — TIMED CONTACT NORMALLY CLOSED TIMED CLOSED
- THERMAL LIMIT CONTROL OR THERMOSTAT SWITCH
- PILOT LIGHT INDICATING THE STATE OF A CIRCUIT
- PILOT LIGHT WITH PUSH TO TEST BUTTON

NOTE:

REFER TO COMMUNICATION DRAWINGS FOR EXACT LOCATION OF ALL DEVICES AND TO COMMUNICATION SPECIFICATION FOR EACH DEVICE.

NOT FOR CONSTRUCTION

SERIES E-0001

PLOT DATE: 07/19/2017 8:10:52 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR
X

ELECTRICAL SYMBOL LIST

FILENAME	SHT_WL_E_STATION_GN_01	SHEET	22 OF 361
SCALE	NONE		

M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\SHT_WL_E_STATION_GN_01.DWG

GENERAL NOTES:

1. ALL ELECTRICAL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS AND ALL OTHER DRAWINGS RELATED TO THE PERFORMANCE OF THE WORK.

2. THE CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THIS WORK SHALL BECOME THOROUGHLY FAMILIAR WITH THE PROJECT SPECIFICATIONS BEFORE COMMENCING ANY WORK. THE PROJECT SPECIFICATIONS AND DRAWINGS FORM THE BASIS OF THIS CONTRACT REQUIREMENTS AND INCLUDE THE TYPE AND GRADE OF MATERIALS TO BE INSTALLED, EQUIPMENT TO BE FURNISHED, THE MANNER BY WHICH TO BE INSTALLED AND WHERE TO BE LOCATED. IN THE EVENT OF A CONFLICT BETWEEN THE PROJECT SPECIFICATIONS AND DRAWINGS, SPECIFICATIONS GOVERN UNLESS THE AUTHORITY DIRECTS OTHERWISE.

3. THE CONTRACTOR SHALL CHECK CAREFULLY ALL CONSTRUCTION DRAWINGS AND SPECIFICATIONS THAT ARE PART OF THIS PROJECT TO INSURE THAT NO FIXTURE, OUTLET, ALARM STATION OR CONTROL AND POWER WIRING IS OMITTED. THE CONTRACTOR SHALL CONSULT ALL TRADES FURNISHING EQUIPMENT AND OBTAIN FROM THEM ALL DATA. IN SOME CASES EQUIPMENT, FIXTURES AND DEVICES ARE SHOWN FOR REFERENCE ONLY. ASCERTAIN AND PROVIDE THE WIRING AND CONTROL STATIONS REQUIRED FOR THE PROPER FUNCTION OF THE STATION EQUIPMENT.

4. EQUIPMENT LABELS AND INSTRUCTIONS REGARDING THE APPLICATION AND INSTALLATION OF THE LISTED EQUIPMENT SHALL BE FOLLOWED TO INSURE THAT THE EQUIPMENT IS BEING INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S LISTING INSTRUCTIONS. THE TEMPERATURE RATING OF THE EQUIPMENT TERMINATIONS SHALL BE CAREFULLY CORRELATED WITH THE CONDUCTOR AMPACITY TO PREVENT OVERHEATING AND PREMATURE FAILURE.

5. ELECTRICAL DRAWINGS ARE DIAGRAMMATIC IN NATURE. NO DIMENSIONS SHALL BE SCALED OFF ELECTRICAL DRAWINGS. CONTRACTOR SHALL CONSULT ARCHITECTURAL FLOOR PLANS, ELEVATIONS AND REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF LIGHTING FIXTURES, MISCELLANEOUS DEVICES AND OUTLETS.

6. COORDINATE WITH OTHER TRADES AND INSTALL CONDUIT AND BOXES TO CLEAR EMBEDDED DUCTS, OPENINGS AND OTHER STRUCTURAL FEATURES.

7. ALL LIGHTING FIXTURES ARE TO BE LOCATED AS REQUIRED ON THE JOB TO CLEAR DUCTS, PIPING, EQUIPMENT, AND/OR MECHANICAL UNITS.

8. CONDUIT RUNS SHOWN ON THE DRAWINGS ARE DIAGRAMMATIC. ALL CONDUITS SHALL RUN CONCEALED, EXCEPT IN EQUIPMENT ROOMS AND WHERE APPROVED BY THE AUTHORITY.

9. FURNISH AND INSTALL EQUIPMENT DISCONNECT SWITCHES IN STRICT COMPLIANCE WITH INDIANA ELECTRICAL CODE REQUIREMENTS.

10. CONTRACTOR SHALL COORDINATE EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL DEVICES WITH THE ARCHITECTURAL PLANS, INCLUDING BUT NOT LIMITED TO ARCHITECTURAL DETAILS, ELEVATIONS.

11. ALL BRANCH CIRCUITS SHALL BE GROUPED INTO PHASE BALANCED MULTIPLE CIRCUIT HOMERUNS. NOT MORE THAN 6 CIRCUITS ARE ALLOWED IN ONE HOMERUN CONDUIT. A GROUND WIRE SHALL BE INSTALLED IN EACH CONDUIT FEEDER.

12. PROVIDE ALL BRANCH CIRCUITING FROM EACH WIRING DEVICE, FIXTURE, MOTOR, UTILIZATION EQUIPMENT, OR APPLIANCE TO CIRCUIT AND PANEL/SOURCE INDICATED ON PLANS. UNLESS NOTED OTHERWISE, 15 AND 20 AMP 120 VOLT BRANCH CIRCUITS SHALL UTILIZE MINIMUM #12 AWG FOR CIRCUITS UP TO 75 FEET IN LENGTH, #10 AWG FOR CIRCUITS 76 FEET TO 100 FEET IN LENGTH, AND #8 AWG FOR CIRCUITS OVER 100 FEET IN LENGTH. THE LENGTH OF THE CIRCUIT SHALL BE MEASURED FROM THE LAST DEVICE OR OUTLET ON THE CIRCUIT TO THE PANEL/SOURCE. A GROUND WIRE SHALL BE INSTALLED IN EVERY CONDUIT CONTAINING BRANCH CIRCUITS. A GROUND WIRE SHALL BE EXTENDED TO EACH DEVICE. A 2 PERCENT VOLTAGE DROP SHALL BE MAINTAINED FOR LIGHTING CIRCUITS & A 3 PERCENT VOLTAGE DROP FOR ALL OTHERS. VOLTAGE DROPS SHALL BE TAKEN FROM SERVICE PANEL TO FARTHEST DEVICE.

13. ALL EXHAUST FANS SHALL BE CONTROLLED PER SCHEMATICS SHOWN ON THE DRAWINGS. PROVIDE AND INSTALL ALL DEVICES (SELECTOR SWITCHES, THERMOSTAT, RELAYS AND NEMA 12 BOX). THE CONTRACTOR SHALL FURNISH DETAIL SHOP DRAWINGS INDICATING ROUTING OF ALL CONDUITS FOR AUTHORITY REVIEW.

14. FOR ALL CONDUITS PENETRATING FOUNDATION WALLS, CONDUIT HOLES SHALL BE CORE DRILLED AND ALL PENETRATIONS SHALL BE PROPERLY SEALED.

15. ALL ELECTRIC HEATERS SHALL BE CONTROLLED AS SHOWN ON THE DRAWINGS. PROVIDE ALL CONTROL DEVICES AS REQUIRED.

16. ALL CONDUIT CROSSING STRUCTURAL EXPANSION JOINTS SHALL BE PROVIDED WITH EXPANSION JOINT FITTINGS.

17. THE CONTRACTOR SHALL PREPARE AS BUILD SHOP DRAWINGS FOR ALL ELECTRICAL INSTALLATIONS INDICATING ROUTING OF ALL CONDUITS (POINT A TO POINT B), SIZE OF CONDUITS, NUMBER AND SIZE OF CABLES AND NAMES AND NUMBERS OF ALL CIRCUITS FROM WHICH PANELBOARDS.

18. MECHANICAL EQUIPMENT MIGHT HAVE SHIFTED TO ACCOMMODATE CLARITY OF DRAWINGS. CONTRACTOR SHALL COORDINATE EXACT LOCATIONS WITH MECHANICAL CONTRACTOR.

19. ELECTRIC UNIT HEATERS (EUH'S) ELECTRIC WALL HEATERS (EWH'S) AND EXHAUST FANS ARE PROVIDED WITH INTERNAL DISCONNECTING MEANS.

20. CONTRACTOR SHALL PROVIDE TEMPORARY POWER AS REQUIRED DURING CONSTRUCTION.

21. COORDINATE ALL CONDUIT ROUTES WITH OTHER TRADES AND AVOID INTERFERENCE.

22. CONTRACTOR SHALL COORDINATE WITH MANUFACTURER OF ELEVATOR AND PROVIDE ALL WIRE AND CONDUIT FOR ELEVATOR EQUIPMENT AS REQUIRED, INCLUDING COMMUNICATION, ALARM, AND FIRE ALARM CIRCUITS.

23. CONTRACTOR SHALL RUN ALL CIRCUITS IN CONTINUOUS RUN FROM PANEL TO LOAD DEVICE TERMINALS. NO SPLICES ARE ALLOWED IN RUN.

24. PROVIDE EXTRA LENGTH OF CABLES IN JUNCTION BOXES FOR FUTURE REPAIRS.

25. CONTRACTOR SHALL WRAP WIRING TAPE AROUND ALL SWITCHES AND OUTLET TERMINALS TO AVOID EXPOSED TERMINALS.

26. PROVIDE #4/0 BARE GROUND CABLE TO GROUND EACH COLUMN IN MAINTENANCE STORAGE FACILITY. CADWELD TO EACH COLUMN AND CONNECT TO GROUNDING GRID.

27. ALL CONDUITS SHALL BE RIGIDLY SUPPORTED.

28. CONTRACTOR SHALL LABEL ALL PANELBOARDS FROM WHICH PANELBOARD FEEDER IS COMING FROM.

29. CONTRACTOR SHALL PROVIDE ACCURATE LOAD LETTERS TO NIPSCO FOR ALL SERVICES,INCLUDE ALL STATIONS, MSF, CONSIST WASH, SUBSTATIONS, GRADE CROSSING CONTROL AND NONCONTROL POINTS (SEE SIGNAL POWER SINGLE LINE DIAGRAMS SYSTEM DRAWING IN SYSTEM PLANS).

30. PHOTOMETRICS FOR PLATFORM SHOWN ON SHEET E-3605 AND E-3606 ARE TYPICAL PLATFORM LIGHTING FOR STATIONS MUNSTER DYER, MUNSTER RIDGE, AND SOUTH HAMMOND. THE DIFFERENT RAMP CONFIGURATIONS AT EACH STATION IS NOT INCLUDED.

31. FOR RAMP AND UNDERPASSES ADJUST FIXTURE DISTRIBUTION AS REQUIRED TO PROVIDE EVEN ILLUMINATION ON ALL SURFACES.

32. FOR PARKING LOT LIGHTING, CONTRACTOR SHALL ADD SHIELDING TO AVOID SPILLOVER TO NEIGHBORS.

33. LIGHTING CONTROL PANEL SHALL HAVE CONTACTORS, ASTRONOMICAL TIME CLOCK, BATTERY BACKUP CONTROL, REMOTE MOUNTED PHOTOCELL AND INDIVIDUAL CIRCUIT BREAKER OVERLOADS.

34. POWER CONDUITS SHALL RUN UNDER STATION PLATFORMS AND LIGHTING CONDUITS SHALL BE ROUTED UNDER CANOPY.

35. ALL MESSAGE BOARDS SHALL HAVE LOCAL DISCONNECT SWITCHES.

36. PROVIDE POWER FOR ELEVATOR SUMP PUMP.

37. ROUTE TO COMMUNICATION PANELS, ELEVATOR ALARMS, TELEPHONE AND CAMERA CIRCUITS AND COMMUNICATION AND SUMP PUMP HIGH LEVEL ALARMS AND RUNNING/TROUBLE ALARMS.

38. CONTRACTOR TO PROVIDE TRANSFORMER PAD FOR NIPSCO SERVICE TRANSFORMER PER NIPSCO SPECIFICATIONS. FOR PRIMARY FEEDS. COORDINATE LOCATION IN FIELD.

39. ALL ELECTRICAL SERVICE METERING REQUIREMENTS MUST BE PER NIPSCO REQUIREMENTS.

ABBREVIATIONS USED

A, AMP	AMPERE
A/C	AIR CONDITIONER
A.C.	ALTERNATING CURRENT
A.F.F.	ABOVE FINISHED FLOOR
A.F.G.	ABOVE FINISHED GRADE
AWG	AMERICAN WIRE GAUGE
ADD.	ADDENDUM
ARCH	ARCHITECTURAL
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AVM	AUTOMATIC VENDING MACHINE
BE	ELECTRONIC BALLAST (RELIABLE POWER)
BKR.	BREAKER
BN	ELECTRONIC BALLAST (NORMAL POWER)
BPS	BOLTED PRESSURE SWITCH
BU	ELECTRONIC BALLAST (EMERGENCY)
C	CONDUIT
CA	CUSTOMER ASSISTANCE CALL STATION
CCTV	CLOSED CIRCUIT TELEVISION
CKT.	CIRCUIT
CM	COIN CHANGER MACHINE
COL.	COLUMN
CONFIG.	CONFIGURATION
CONN.	CONNECTION
CT	CURRENT TRANSFORMER
CUH	ELECTRIC CABINET UNIT HEATER
D.C.	DIRECT CURRENT
DCC	DC CONTROLLER
DET.	DETAIL
DIA.	DIAMETER
DISC.SW., DS	DISCONNECT SWITCH
DN.	DOWN
DTS	MANUAL OPERATED DOUBLE THROW SWITCH
DWG.	DRAWING
E.O.	ELECTRICALLY OPERATED
EA.	EACH
EC	END CABINET
EH	ELECTRIC HOT WATER HEATER
EJ	EXPANSION JOINT
ELEC.	ELECTRIC
ELEV.	ELEVATION
EM	EMERGENCY
EQUIP.	EQUIPMENT
ESC.	ESCALATOR
EWC	ELECTRIC WATER COOLER
EX, EXIST.	EXISTING
EXP.	EXPOSED
F	FUSE
FACP	FIRE ALARM CONTROL PANEL
FC	FARE CONTROL
FDS	FUSED DISCONNECT SWITCH
FL	FLOOR
FLEX.	FLEXIBLE
FLUOR	FLUORESCENT
FOE	FIBER OPTICS EQUIPMENT
FT	FEET, FOOT
GFI	GROUND FAULT INTERRUPTER
GA	GAUGE
GALV.	GALVANIZED
GEN.	GENERATOR
GRD.	GROUND
GRC	GALVANIZED RIGID STEEL CONDUIT
H	HOT WIRE
H.D.G.	HOT DIPPED GALVANIZED
HP	HORSEPOWER, HEATING PANELBOARD
HT	HEIGHT
HT. TR.	HEAT TRACE
HTR.	HEATER
I.C.	INTERCOM
I.T.C.	INTERFACE TERMINAL CABINET
J.B.,J-BOX	JUNCTION BOX
KVA	KILOVOLT AMPERES
KW	KILOWATT
LAM.	LAMINATED
LP	LIGHTING PANELBOARD
LTG.	LIGHTING
M	METER
M/A	MOTOR ALTERNATOR SET
M.H.	MOUNTING HEIGHT
MECH.	MECHANICAL
MISC.	MISCELLANEOUS
MT	METER FOR TENANT
MTG.	MOUNTING
MTR.	MOTOR
N	NEUTRAL WIRE
N.C.	NORMALLY CLOSED
N.I.C.	NOT IN CONTRACT
N.O.	NORMALLY OPEN
N.T.S.	NOT TO SCALE
NB	NORTH BOUND
NEC	NATIONAL ELECTRICAL CODE
NICTD	NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
NIPSCO	NORTHERN INDIANA PUBLIC SERVICE COMPANY
NMDP	NORMAL MAIN DISTRIBUTION PANEL
NO.	NUMBER
P	POLE
P.B.	PULL BOX
PA	PUBLIC ADDRESS SYSTEM
PDP	POWER DISTRIBUTION PANEL
PLTF.	PLATFORM
PNL.	PANEL
PVC	POLYVINYL CHLORIDE
PWR	POWER
RCP	ALARM RELAY CONTROL PANEL
RECPT.	RECEPTACLE
REL.	RELIABLE TRANSPORTATION SYSTEM
RELOC.	RELOCATED
REV.	REVISION
RG	ROTO GATE
RLP	RELIABLE LIGHT PANEL
RM.	ROOM
RMDP	RELIABLE MAIN DISTRIBUTION PANEL
SB	SOUTH BOUND
SF	SUPPLY FAN
SHT.	SHEET
ST	SHUNT TRIP
STA.	STATION
STL.	STEEL
T, TEL	TELEPHONE
TB-E	TERMINAL STRIP
TB-R	-R DENOTES RELIABLE POWER
TB-N	-N DENOTES NORMAL POWER
TB-E	-E DENOTES EMERGENCY POWER
TTC	TELEPHONE TERMINAL CABINET
U.N.O.	UNLESS NOTED OTHERWISE
UH	UNIT HEATER
UL	UNDERWRITERS LABORATORIES
UPS	UNINTERRUPTIBLE POWER SUPPLY SYSTEM
V.	VOLTS
V.A.C.	VOLTS ALTERNATING CURRENT
W.P.	WEATHER PROOF
W/	WITH

NOT FOR CONSTRUCTION

SERIES E-0002

PLOT DATE: 07/19/2017 8:11:21 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR
X

ELECTRICAL GENERAL NOTES AND ABBREVIATIONS

FILENAME	SHT_WL_E_STATION_GN_02	SHEET	23 OF 361
SCALE	NONE		

M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\SHT_WL_E_STATION_GN_02.DWG

NOTES:

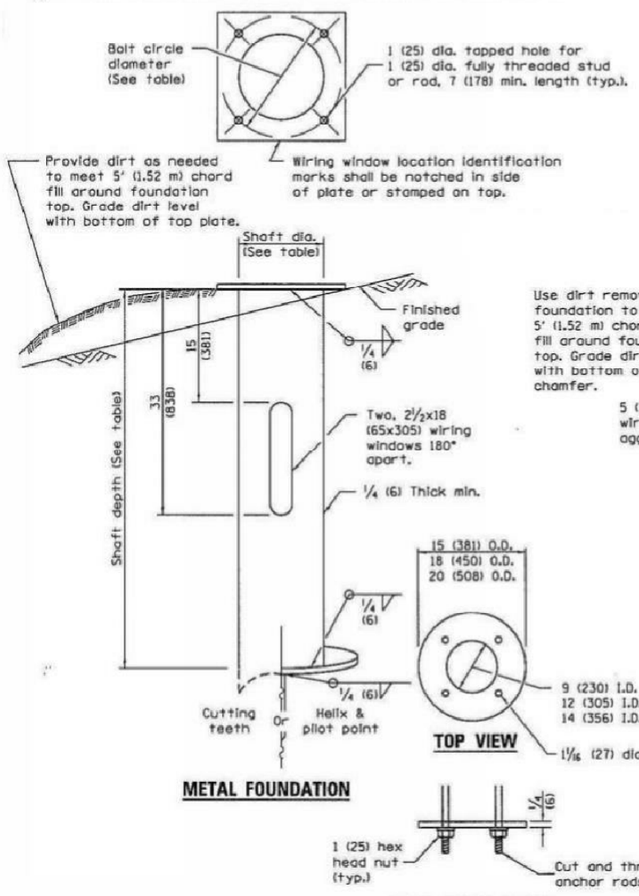
1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.

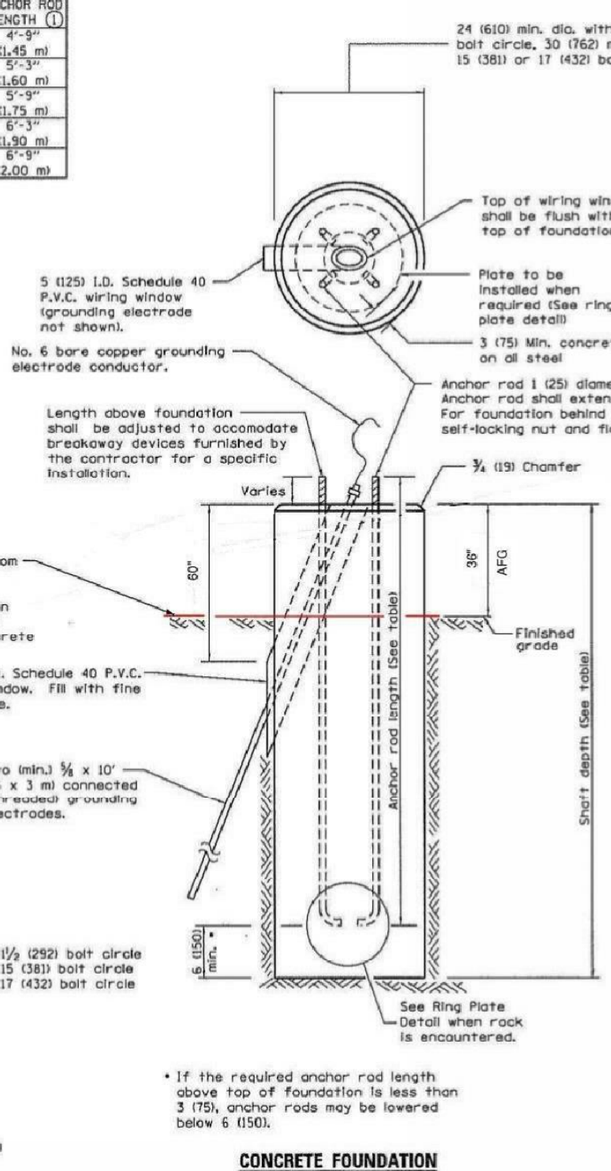
LIGHT POLE MOUNTING HEIGHT	BOLT CIRCLE DIAMETER	METAL FOUNDATION SHAFT DIAMETER	METAL FOUNDATION SHAFT DEPTH	METAL FOUNDATION TOP PLATE (min)	CONCRETE FOUNDATION SHAFT DIAMETER	CONCRETE FOUNDATION SHAFT DEPTH	CONCRETE FOUNDATION ANCHOR ROD LENGTH (1)
≤30' (9.1 m)	11½ (292)	8⅝ (220)	6' (1.83 m)	12 x 12 x 1 (300 x 300 x 25)	24 (610)	5'-0" (1.52 m)	4'-9" (1.45 m)
31'-35' (9.4 m - 10.7 m)	11½ (292)	8⅝ (220)	6' (1.83 m)	12 x 12 x 1 (300 x 300 x 25)	24 (610)	5'-6" (1.67 m)	5'-3" (1.60 m)
36'-40' (10.9 m - 12.2 m)	15 (381) (3)	8⅝ (220)	6' (1.83 m) (2)	15 x 15 x 1¼ (375 x 375 x 31)	30 (762)	6'-0" (1.83 m)	5'-9" (1.75 m)
41'-45' (12.5 m - 13.7 m)	15 (381) (3)	8⅝ (220)	6' (1.83 m) (2)	15 x 15 x 1¼ (375 x 375 x 31)	30 (762)	6'-6" (1.98 m)	6'-3" (1.90 m)
46'-50' (14.0 m - 15.2 m)	15 (381) (3)	8⅝ (220)	8' (2.44 m)	15 x 15 x 1¼ (375 x 375 x 31)	30 (762)	7'-0" (2.13 m)	6'-9" (2.00 m)

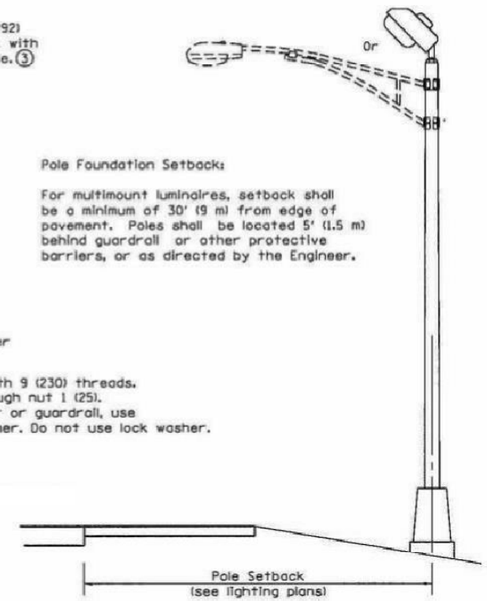
(1) Length does not include 4 (100) hook.

(2) 8⅝ x 8'-0" (220 x 2.44 m) for twin luminaires.

(3) Bolt circle diam. shall be 17 (430) when a transformer base is used.







Pole Foundation Setback:

For multimount luminaires, setback shall be a minimum of 30' (9 m) from edge of pavement. Poles shall be located 5' (1.5 m) behind guardrail or other protective barriers, or as directed by the Engineer.

GENERAL NOTES

All foundations are designed to be located on slopes not exceeding 2:1 where soils have an unconfined compressive strength of at least 1.0 TSF. The Contractor shall verify the soil strength during drilling for concrete foundations or by monitoring installation resistance of metal foundations and notify the Engineer if other conditions are encountered.

When rock is encountered the foundation depth may be reduced 6 (150) for every 12 (300) of embedment in rock. The minimum foundation depth shall be 4'-6" (1.37 m) with cut anchor rods 6 (150) above bottom of excavated hole. See ring plate detail.

Anchor rods shall be increased in diameter as needed for 50' (15.2 m) mounting height or above. The Contractor shall match the breakaway device size or slotted hole size in the pole base plate to accomodate larger rod sizes.

Transformer bases shall not be used on metal foundations.

All dimensions are in inches (millimeters) unless otherwise shown.

See fixture schedule for fixture type, pole type and mounting requirements.

NOT FOR CONSTRUCTION

SERIES E-0501

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING OBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

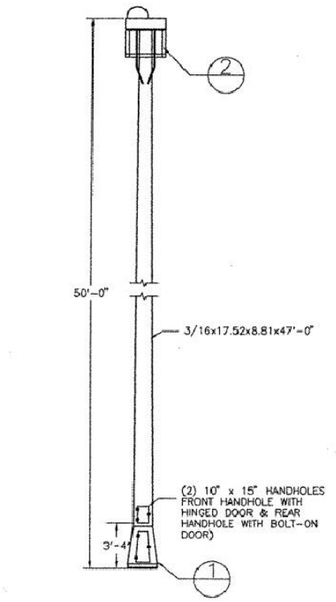
NICTD - WEST LAKE CORRIDOR

LIGHTING FOUNDATION DETAILS

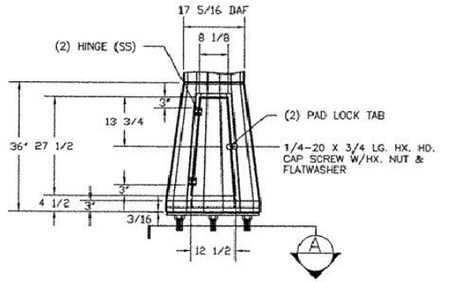
FILENAME	SHT_WL_E_STATION_DT_01	SHEET	24 OF 361
SCALE	NONE		

PLOT DATE: 07/19/2017 8:06:53 PM

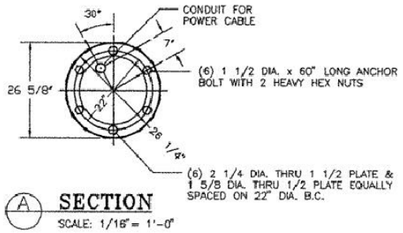
M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\SHT_WL_E_STATION_DT_01.DWG



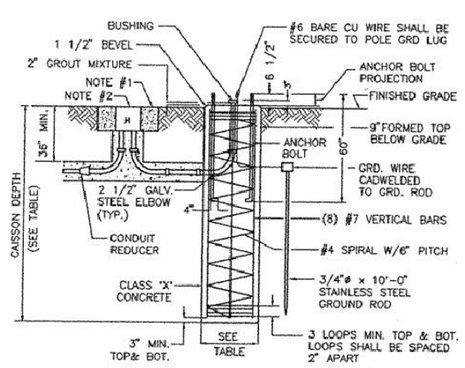
50'-0" LIGHTING POLE ASSEMBLY
SCALE: 1"=50'-0"



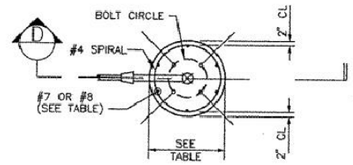
1 50'-0" POLE BASE DETAIL
SCALE: 1/16"= 1'-0"



A SECTION
SCALE: 1/16"= 1'-0"



D SECTION
SCALE: 3/8"=1'-0"

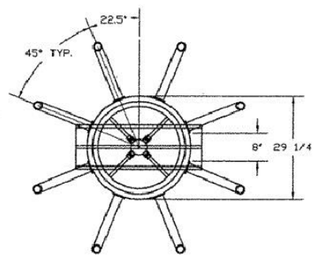


C TOP VIEW
SCALE: 1/2"=1'-0"

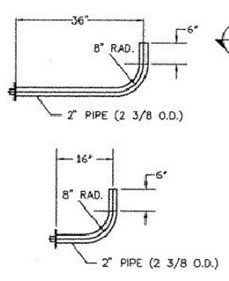
LIGHT POLE FOUNDATION DETAILS

LIGHT POLE FOUNDATION TABLE								
POLE	CAISSON		REINF.	BOLT	NO.	ANCHOR BOLTS		
HGT	DIA	DEPTH		CIRCLE	BOLTS	SIZE	LENGTH	PROJECTION
50'-0"	32"	11'-6"	8 #7	22"	6	1 1/2"	60"	6 1/2"

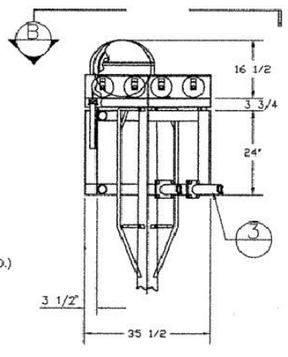
ANCHOR BOLT NOTE: 1 1/2" ANCHOR BOLTS SHALL HAVE A MINIMUM YIELD STRENGTH, Fy= 115 ksi



B TOP VIEW (NOTE #1)



3 SLIPFITTER DETAILS (NOTE #2)



2 LUMINAIRE MAST HEAD ASSEMBLY DETAIL
SCALE: 1/16"= 1'-0"

NOTES:

1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. THE CONTRACTOR SHALL PROVIDE AN OPEN BOTTOM STACKABLE 14"x14"x13¼ " GASKETED CONCRETE UNDERGROUND HANDHOLE WITH COVER AND HOLES AS REQUIRED FOR THE NUMBER OF CONDUITS ENTERING THE JUNCTION BOX. ENCLOSURES AND COVERS SHALL BE CONSTRUCTED OF POLYMER CONCRETE AND REINFORCED BY HEAVY-WEAVE FIBERGLASS AND RATED FOR NO LESS THAN 8,000 LBS OVER 10"x10" AREA. JUNCTION BOX COVERS SHALL HAVE "LIGHTING" LOGO ON THEM. UNDERGROUND HANDHOLES SHALL BE AS MANUFACTURED BY QUAZITE, CARLON, OR HARTFORD.
3. THE CONTRACTOR SHALL PROVIDE 10" WIDE CONCRETE RING AROUND THE HANDHOLE.
4. 16" OR 36" SLIPFITTERS SHALL BE USED TO OBTAIN PROPER AIMING ANGLES.
5. PROVIDE NEW FOUNDATION AT LOCATION SHOWN ON DRAWINGS.
6. MAST HEAD ASSEMBLY, WITH 16" VERTICAL SLIPFITTERS. QUANTITY OF SLIPFITTERS TO MATCH FIXTURE TYPE F2-2B OR F2-4A, 2 OR 4 HEADS PER POLE.

PLOT DATE: 07/19/2017 8:10:04 PM

NOT FOR CONSTRUCTION

SERIES E-0502

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR

LIGHTING FOUNDATION DETAILS

FILENAME	SHT_WL_E_STATION_DT_02
SCALE	NONE

SHEET 25 OF 361

M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\SHT_WL_E_STATION_DT_02.DWG

LIGHTING FIXTURE SCHEDULE

TYPE		DESCRIPTION	MANUFACTURER & CATALOG NUMBER	NUMBER OF LAMPS	LAMP TYPE & WATTAGE	VOLTAGE	MOUNTING	MOUNTING HEIGHT	NOTES	INPUT WATTAGE
F1-1A		POLE MOUNTED LED FIXTURE	LITHONIA #DSX1-1000-40K-T4M-MV6 OR APPROVED EQUAL		LED	120	POLE	28'-0"	4, 8	140
F1-2A		POLE MOUNTED LED FIXTURE BACK-TO-BACK 2 FIXTURES PER POLE	LITHONIA #DSX1-1000-40K-T4M-MV6 OR APPROVED EQUAL		LED	120	POLE	28'-0"	4, 8	280
F2-2B		POLE MOUNTED LED FIXTURE (MAINTENANCE TRAIN YARD) 2 FIXTURES PER POLE	LITHONIA #HLF2-LED-P2-40K-MLF-MVOLT-IS OR APPROVED EQUAL		LED	120	POLE	50'-0"	4, 5, 7	975
F2-4A		POLE MOUNTED LED FIXTURE (MAINTENANCE TRAIN YARD) 4 FIXTURES PER POLE	LITHONIA #HLF2-LED-P1-40K-MLF-MVOLT-IS OR APPROVED EQUAL		LED	120	POLE	50'-0"	4, 6, 7	1315
F3-1B		PLATFORM CANOPY MOUNTED LED FIXTURE	STERNBERG #1970LED-10ARC45T3R-MDLO3-SV-1 OR APPROVED EQUAL		LED	120			2	160
F3-1C		PLATFORM CANOPY MOUNTED LED FIXTURE	STERNBERG #1970LED-10ARC45T5-MDLO3-SV-1 OR APPROVED EQUAL		LED	120				160
F3-1D		PLATFORM CANOPY MOUNTED LED FIXTURE	STERNBERG #1970LED-8ARC45T5-MDLO3-SV-1 OR APPROVED EQUAL		LED	120				125
F4-1A		INDUSTRIAL LED FIXTURE	LITHONIA #IBH-15000LM-SD080-MD-OZ10-40K OR APPROVED EQUAL		LED	120				140
F4-1B		INDUSTRIAL LED FIXTURE	LITHONIA #IBH-18000LM-SD080-MD-OZ10-40K OR APPROVED EQUAL		LED	120				150
F4-1C		INDUSTRIAL LED FIXTURE	LITHONIA #IBH-24000LM-SD080-MD-OZ10-40K OR APPROVED EQUAL		LED	120				225
F5-1A		WEATHERPROOF LED FIXTURE	LITHONIA #JHBL-3000LM-GL-WD-40K-80CRI OR APPROVED EQUAL		LED	120			3	260
F5-1B		WEATHERPROOF LED FIXTURE	LITHONIA #JHBL-12000LM-GL-WD-40K-80CRI OR APPROVED EQUAL		LED	120				110
F6-1A		WEATHERPROOF LED DOWNLIGHT	ACUITY BRAND #L6-33LM-40K-120V-G3-90CR1-FD-F-HM-CP-WET OR APPROVED EQUAL		LED	120				35

NOTES:

1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. LOCATED ON GATEWAY HAMMOND SOUTH SHORE PLATFORM.
3. LOCATED IN HAMMOND TRAIN CONSIST WASH BUILDING.
4. COORDINATE WITH ARCHITECT FOR FINISH COLOR.
5. TWO (2) HEADS PER POLE. MOUNTED ON 50'-0" MILLERBERND POLE WITH LOWERING DEVICE. SEE SHEET E-0502.
6. FOUR (4) HEADS PER POLE. MOUNTED ON 50'-0" MILLERBERND POLE WITH LOWERING DEVICE. SEE SHEET E-0502.
7. COORDINATE THE ANGLE OF AIMING FIXTURE FOR OPTIMUM COVERAGE.
8. FIXTURE POLE SHALL BE LITHONIA #SSS-25-5G SERIES WITH MOUNTING TO MATCH FIXTURE. OR APPROVED EQUAL POLE COLOR TO BE COORDINATED WITH ARCHITECT. FIXTURE POLE BOLT CIRCLE IS REQUIRED TO MATCH FOUNDATION. COORDINATION IS REQUIRED.

NOT FOR CONSTRUCTION

SERIES E-0601

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING
DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER
TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR

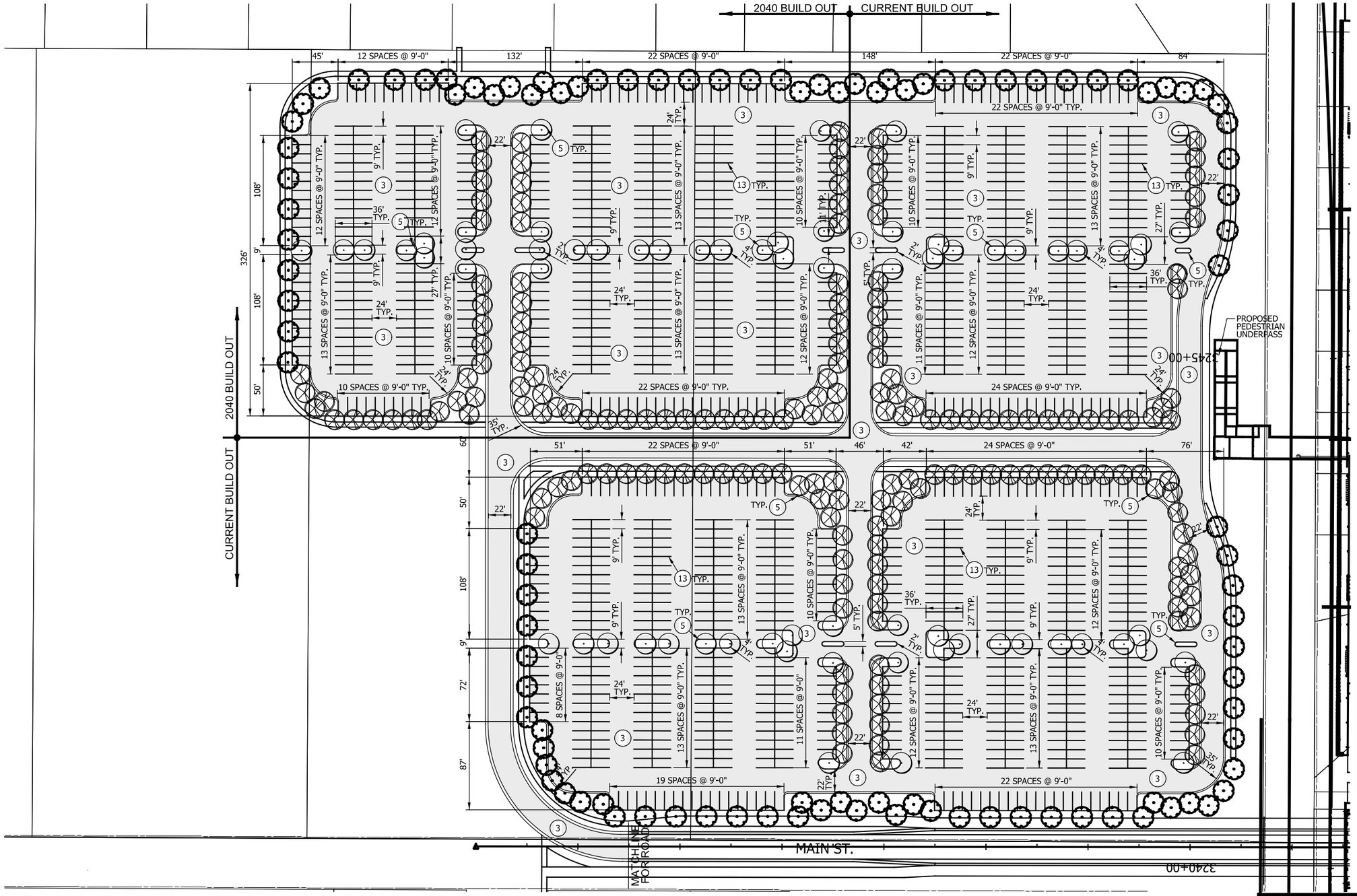
LIGHTING FIXTURE SCHEDULE

FILENAME	SHT_WL_E_STATION_GN_03
SCALE	NONE

SHEET 26 OF 361

PLOT DATE: 07/19/2017 8:11:55 PM

M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\SHT_WL_E_STATION_GN_03.DWG



GENERAL IMPROVEMENT NOTES

1. UTILITIES SHOWN ARE APPROXIMATE. FIELD VERIFY PRIOR TO CONSTRUCTION.
2. DIMENSIONS ARE TAKEN FROM THE FACE OF CURBS, WALLS AND/OR BUILDINGS UNLESS OTHERWISE NOTED.
3. ALL AREAS DISTURBED, NOT BUILT, PAVED OR OTHERWISE COVERED BY CONSTRUCTION, SHALL BE SEEDED WITH A PERMANENT TYPE TURFGRASS.
4. NOT ALL KEY NOTES USED ON EVERY SHEET.

PARKING SPACES

SITE IMPROVEMENT KEY

1. CONCRETE PAVEMENT, TYPE 1
2. CONCRETE PAVEMENT, TYPE 2
3. ASPHALT PAVEMENT, TYPE 1
4. ASPHALT PAVEMENT, TYPE 2
5. CONCRETE CURB
6. OUTDOOR BENCH
7. OUTDOOR WASTE RECEPTACLE
8. ACCESSIBLE PARKING POST SIGN
9. ACCESSIBLE PARKING PAVEMENT MARKING
10. FLAGPOLE
11. BOLLARD
12. CONCRETE PARKING BLOCK
13. PAVEMENT MARKING - 4"
14. PAVEMENT MARKING HATCH - 4"@3' O.C., 45°
15. PAVEMENT MARKING CROSSWALK - 24"W, 8'L, @ 4' O.C.
16. FENCE
17. LOUVERED SCREEN ENCLOSURE
18. DUMPSTER
19. UTILITY
20. COMPACTED AGGREGATE STORAGE
21. BALLAST STONE

LANDSCAPE PLANTING LEGEND

- DECIDUOUS SHADE TREE
- DECIDUOUS CANOPY TREE
- DECIDUOUS ORNAMENTAL TREE
- SHRUB

PARKING SPACES	CURRENT	2040
TYPE	QUANTITY	QUANTITY
EXISTING	-	-
KISS AND RIDE	-	-
PARK AND RIDE	847	1305
ADA	-	-
STANDARD	-	-
TOTAL	847	1305

SCALE: 1" = 50'
0' 25' 50'

NOT FOR CONSTRUCTION

SERIES C-1101

PLOT DATE: 7/19/2017 11:10:48 PM JKIELLMA

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

shrewsberry
Shrewsberry & Associates, LLC
7321 Shadeland Station
Suite 160
Indianapolis, IN 46256

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

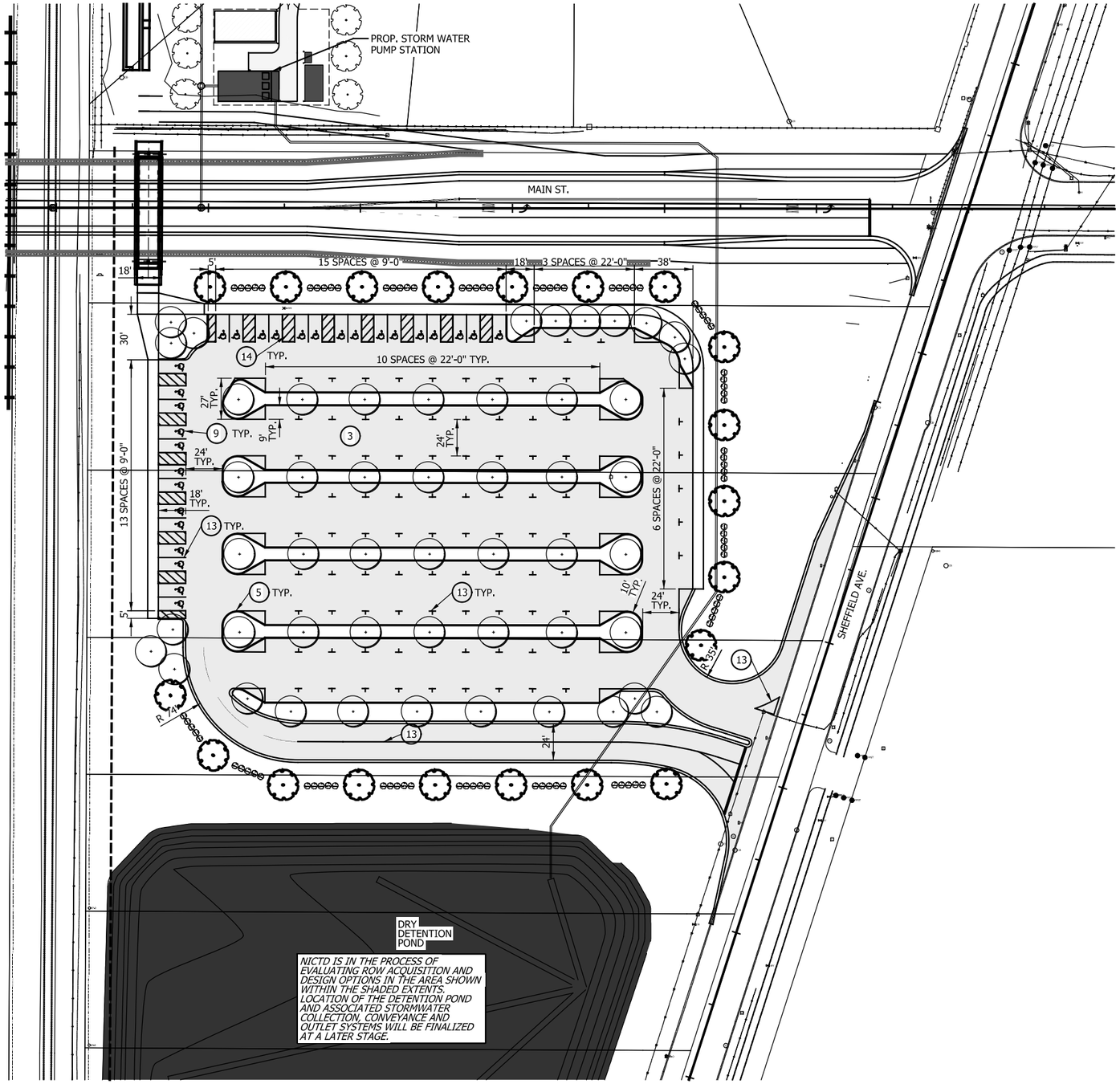
DESIGNED:	
DRAWN:	
CHECKED:	
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

MUNSTER DYER STATION W PARKING FACILITY

FILENAME	SHT_WL_FA_MD PARK_PL_01.dgn
SCALE	AS NOTED

SHEET 27 OF 361



GENERAL IMPROVEMENT NOTES

1. UTILITIES SHOWN ARE APPROXIMATE. FIELD VERIFY PRIOR TO CONSTRUCTION.
2. DIMENSIONS ARE TAKEN FROM THE FACE OF CURBS, WALLS AND/OR BUILDINGS UNLESS OTHERWISE NOTED.
3. ALL AREAS DISTURBED, NOT BUILT, PAVED OR OTHERWISE COVERED BY CONSTRUCTION, SHALL BE SEEDED WITH A PERMANENT TYPE TURFGRASS.
4. NOT ALL KEY NOTES USED ON EVERY SHEET.

PARKING SPACES

SITE IMPROVEMENT KEY

1. CONCRETE PAVEMENT, TYPE 1
2. CONCRETE PAVEMENT, TYPE 2
3. ASPHALT PAVEMENT, TYPE 1
4. ASPHALT PAVEMENT, TYPE 2
5. CONCRETE CURB
6. OUTDOOR BENCH
7. OUTDOOR WASTE RECEPTACLE
8. ACCESSIBLE PARKING POST SIGN
9. ACCESSIBLE PARKING PAVEMENT MARKING
10. FLAGPOLE
11. BOLLARD
12. CONCRETE PARKING BLOCK
13. PAVEMENT MARKING - 4"
14. PAVEMENT MARKING HATCH - 4"@3' O.C., 45°
15. PAVEMENT MARKING CROSSWALK - 24"W, 8'L, @ 4' O.C.
16. FENCE
17. LOUVERED SCREEN ENCLOSURE
18. DUMPSTER
19. UTILITY
20. COMPACTED AGGREGATE STORAGE
21. BALLAST STONE

LANDSCAPE PLANTING LEGEND

DECIDUOUS SHADE TREE

DECIDUOUS CANOPY TREE

DECIDUOUS ORNAMENTAL TREE

SHRUB

PARKING SPACES	
TYPE	QUANTITY
EXISTING	-
KISS AND RIDE	100
PARK AND RIDE	-
ADA	28
STANDARD	-
TOTAL	128

SCALE: 1" = 40'
0' 20' 40'

NOT FOR CONSTRUCTION

SERIES C-1102

PLOT DATE: 7/19/2017 11:11:24 PM JKJELLMA

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

shrewsberry
Shrewsberry & Associates, LLC
7321 Shadeland Station
Suite 160
Indianapolis, IN 46256

ISSUE	DATE	DESCRIPTION

NICTD
NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

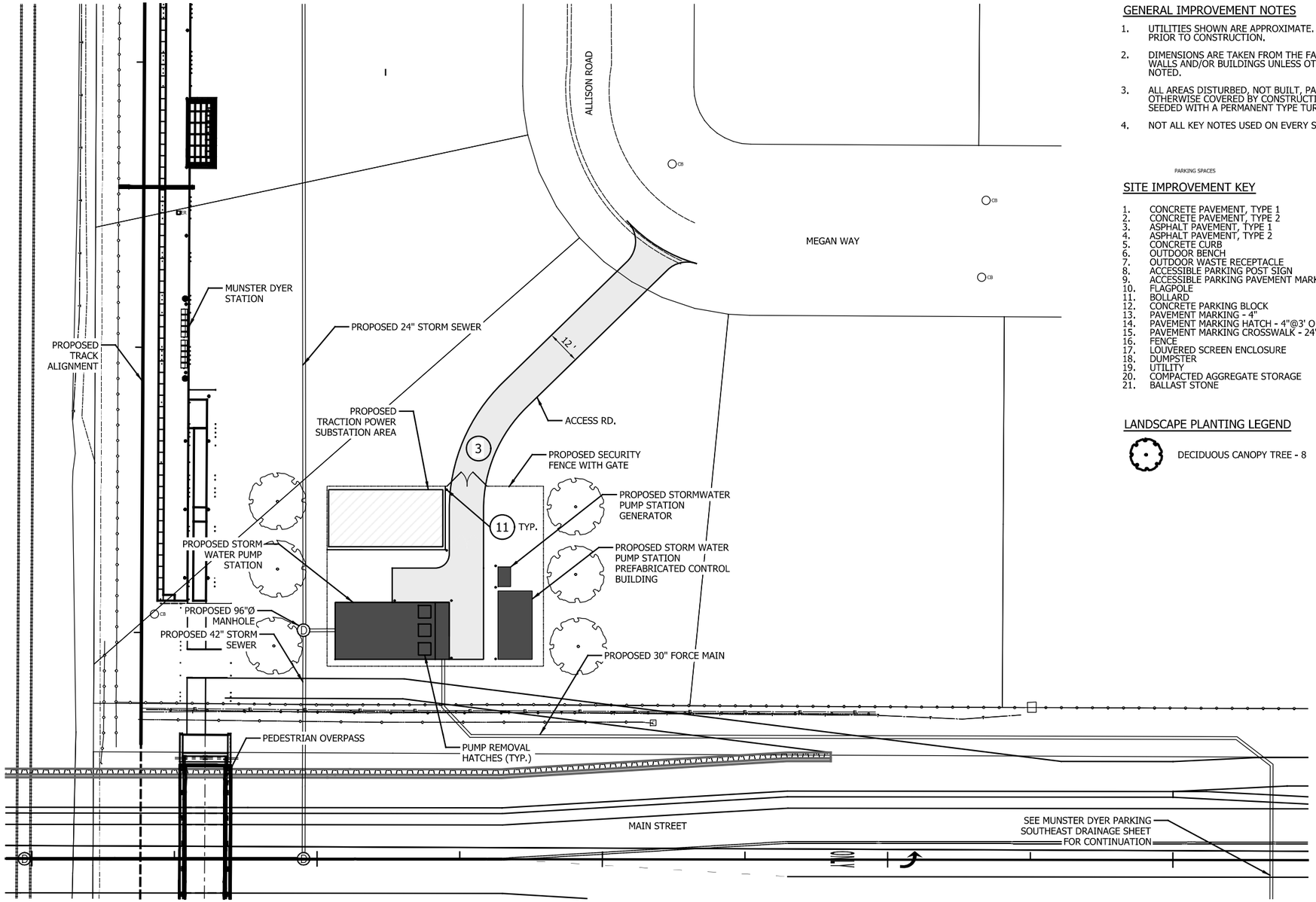
WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	
DRAWN:	
CHECKED:	
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

MUNSTER DYER STATION SE PARKING FACILITY

FILENAME	SHT_WL_FA_MD PARK_PL_02.dgn	SHEET	28 OF 361
SCALE	AS NOTED		



GENERAL IMPROVEMENT NOTES

1. UTILITIES SHOWN ARE APPROXIMATE. FIELD VERIFY PRIOR TO CONSTRUCTION.
2. DIMENSIONS ARE TAKEN FROM THE FACE OF CURBS, WALLS AND/OR BUILDINGS UNLESS OTHERWISE NOTED.
3. ALL AREAS DISTURBED, NOT BUILT, PAVED OR OTHERWISE COVERED BY CONSTRUCTION, SHALL BE SEEDED WITH A PERMANENT TYPE TURFGRASS.
4. NOT ALL KEY NOTES USED ON EVERY SHEET.

SITE IMPROVEMENT KEY

1. CONCRETE PAVEMENT, TYPE 1
2. CONCRETE PAVEMENT, TYPE 2
3. ASPHALT PAVEMENT, TYPE 1
4. ASPHALT PAVEMENT, TYPE 2
5. CONCRETE CURB
6. OUTDOOR BENCH
7. OUTDOOR WASTE RECEPTACLE
8. ACCESSIBLE PARKING POST SIGN
9. ACCESSIBLE PARKING PAVEMENT MARKING
10. FLAGPOLE
11. BOLLARD
12. CONCRETE PARKING BLOCK
13. PAVEMENT MARKING - 4"
14. PAVEMENT MARKING HATCH - 4"@3' O.C., 45°
15. PAVEMENT MARKING CROSSWALK - 24"W, 8'L, @ 4' O.C.
16. FENCE
17. LOUVERED SCREEN ENCLOSURE
18. DUMPSTER
19. UTILITY
20. COMPACTED AGGREGATE STORAGE
21. BALLAST STONE

LANDSCAPE PLANTING LEGEND

DECIDUOUS CANOPY TREE - 8

SCALE: 1" = 20'
0' 10' 20'

NOT FOR CONSTRUCTION

SERIES C-1103

PLOT DATE: 7/19/2017 11:11:53 PM JKIELLMA

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

shrewsberry
Shrewsberry & Associates, LLC
7321 Shadeland Station
Suite 160
Indianapolis, IN 46256

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

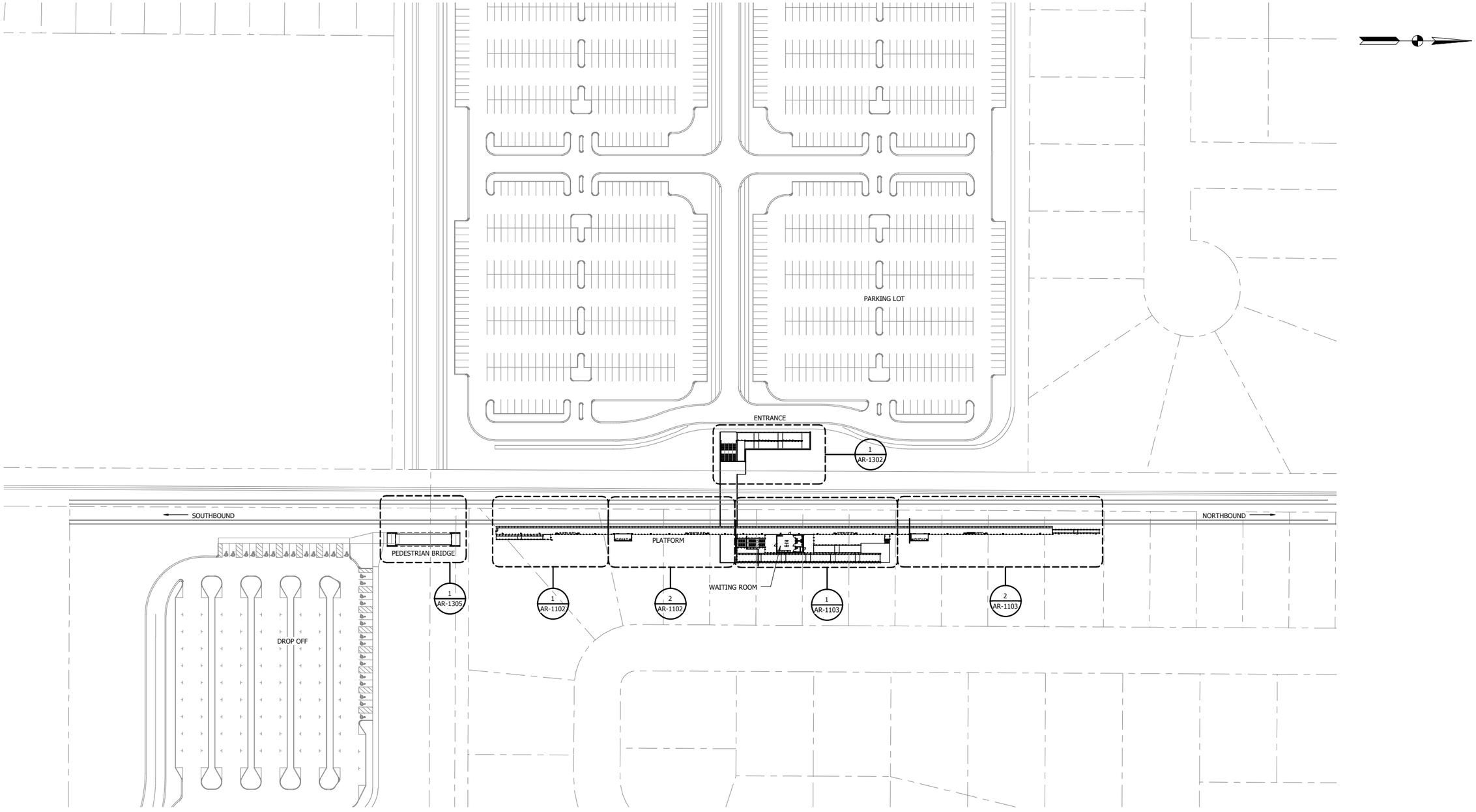
WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	
DRAWN:	
CHECKED:	
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

MUNSTER DYER PUMP STATION FACILITY

FILENAME	SHT_WL_FA_MD PARK_PL_03.dgn	SHEET	29 OF 361
SCALE	AS NOTED		



1 SITE PLAN
1/64" = 1'-0"

NOT FOR CONSTRUCTION

SERIES
AR-1101

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631

www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER
TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

DYER TO HAMMOND, INDIANA

DESIGNED:	Designer
DRAWN:	Author
CHECKED:	Checker
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
PROJECT NAME

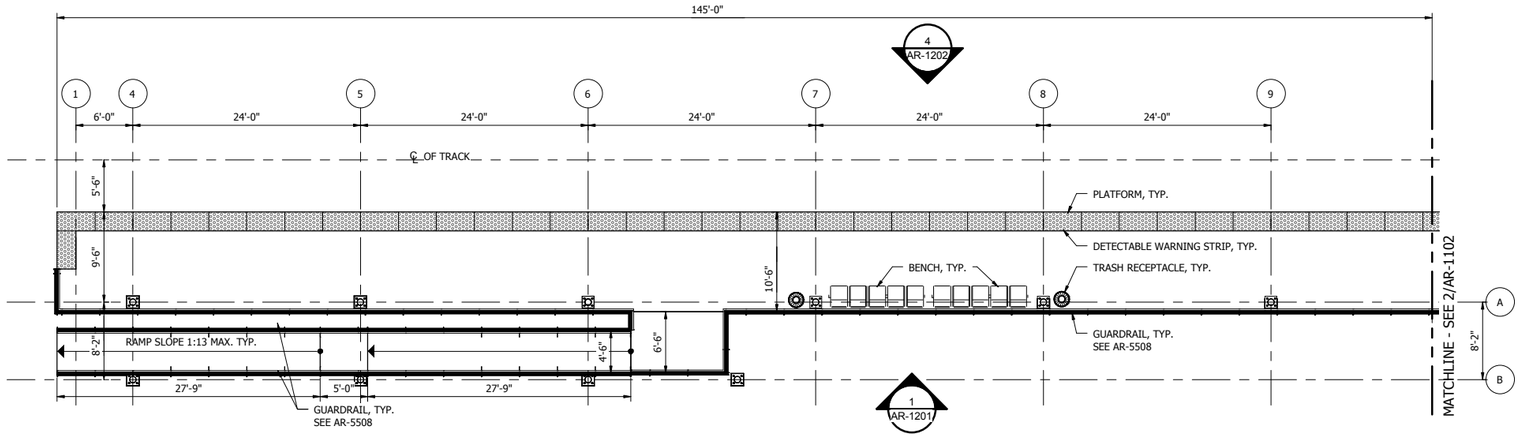
MUNSTER DYER STATION SITE PLAN

FILENAME	
SCALE	1/64" = 1'-0"

SHEET
30 OF 361

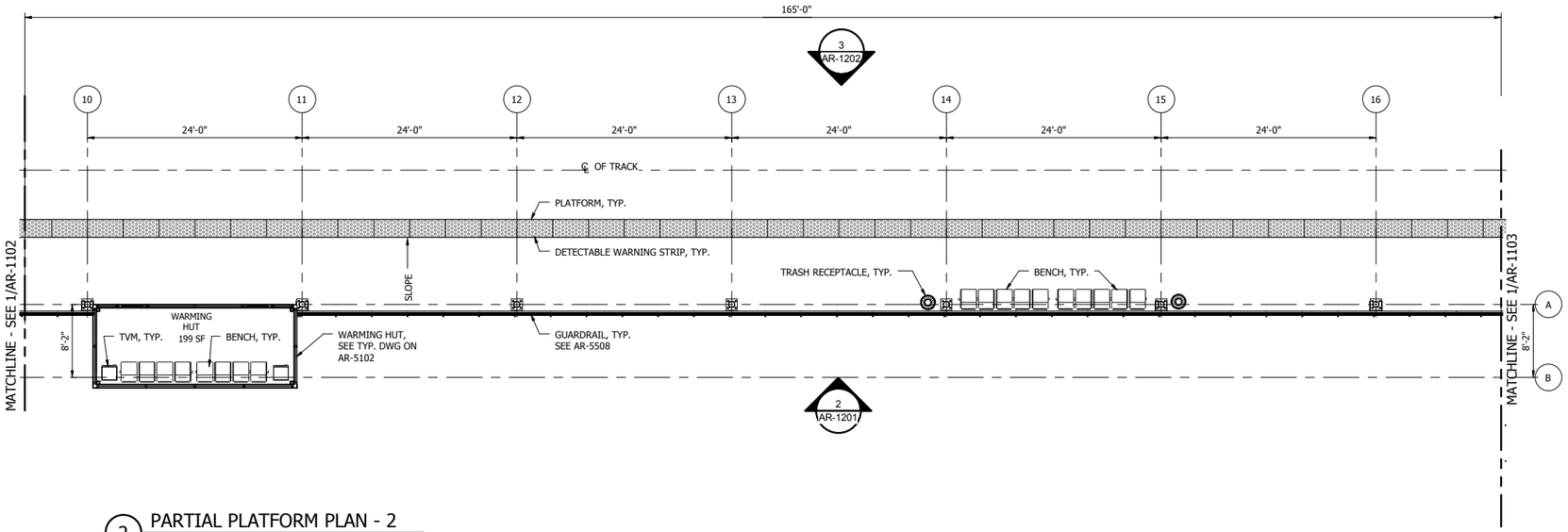
PLOT DATE: 7/20/2017 12:17:21 PM

C:\rvt\2016\WL_AR_MUNDYERSTN_02_NEDUN.rvt



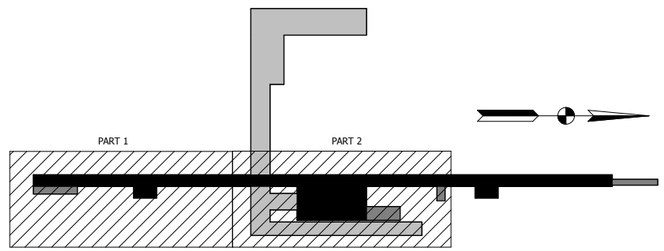
1 PARTIAL PLATFORM PLAN - 1

1/8" = 1'-0"



2 PARTIAL PLATFORM PLAN - 2

1/8" = 1'-0"



SCALE: 1/8" = 1'

0' 4' 8' 16' 32'

NOT FOR CONSTRUCTION

SERIES **AR-1102**

PLOT DATE: 7/20/2017 12:17:28 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631

www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER
TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

DYER TO HAMMOND, INDIANA

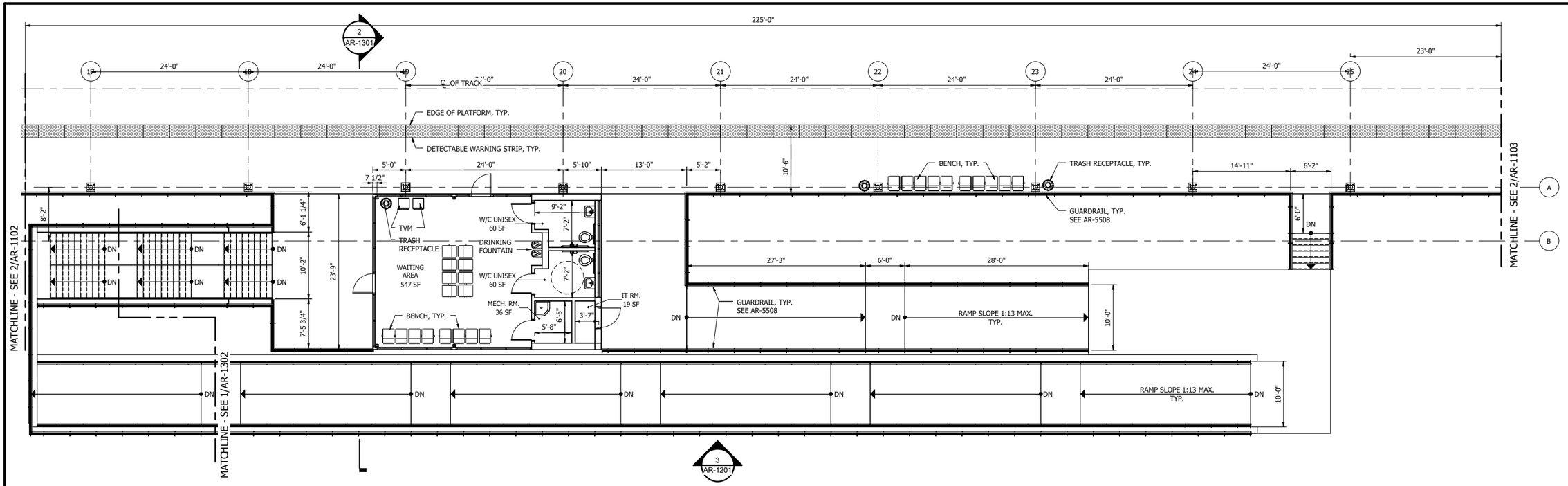
DESIGNED:	R. Krieger
DRAWN:	A. Abel
CHECKED:	Checker
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
PROJECT NAME

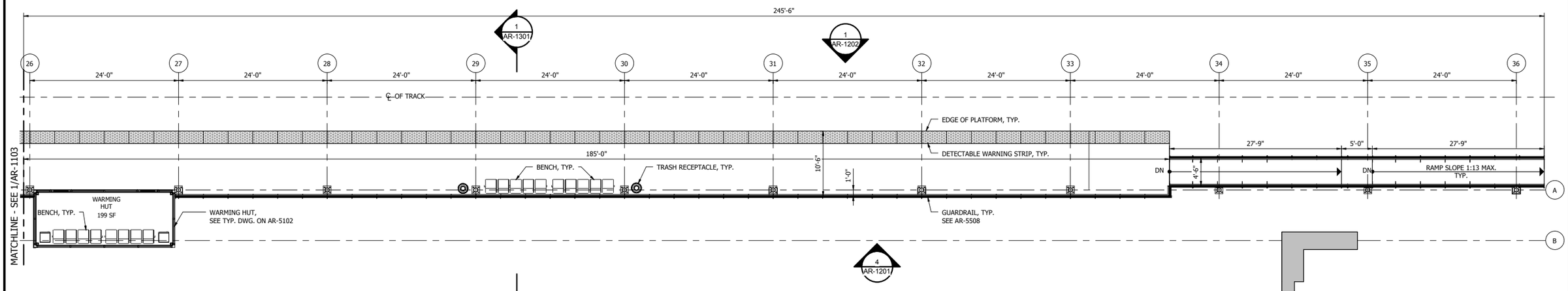
MUNSTER DYER STATION PARTIAL PLATFORM PLANS - 1 AND 2

FILENAME		SHEET	31 OF 361
SCALE	1/8" = 1'-0"		

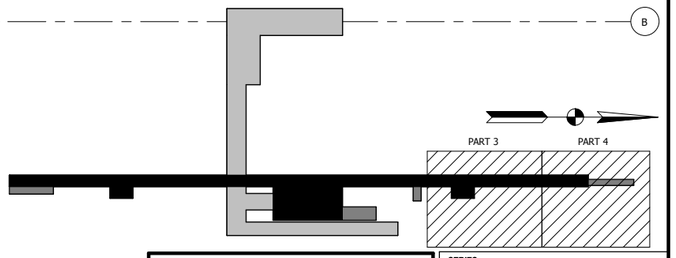
C:\rvt\2016\WL_AR_MUNDYERSTN_02_NEDUN.rvt



1 PARTIAL PLATFORM PLAN - 3
1/8" = 1'-0"



2 PARTIAL PLATFORM PLAN - 4
1/8" = 1'-0"



SCALE: 1/8" = 1'

0' 4' 8' 16' 32'

NOT FOR CONSTRUCTION

SERIES **AR-1103**

PLOT DATE: 7/20/2017 12:17:40 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	R. KRIEGER
DRAWN:	A. ABEL
CHECKED:	Checker
DATE:	07/21/17

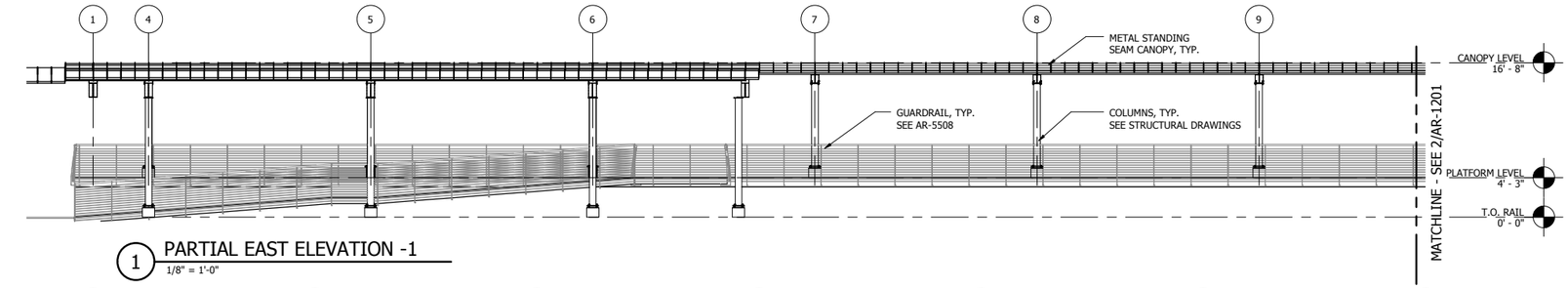
NICTD - WEST LAKE CORRIDOR - MP WL 61.5
PROJECT NAME

MUNSTER DYER STATION PARTIAL PLATFORM PLANS - 3 AND 4

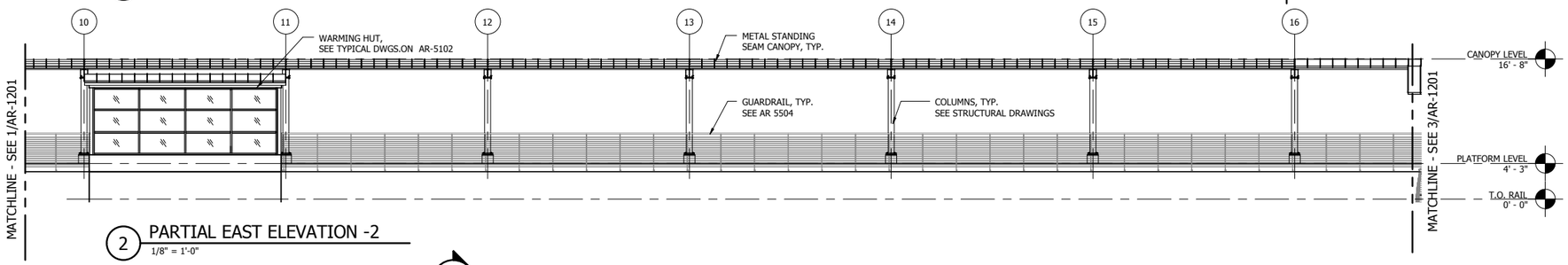
FILENAME	
SCALE	1/8" = 1'-0"

SHEET **32 OF 361**

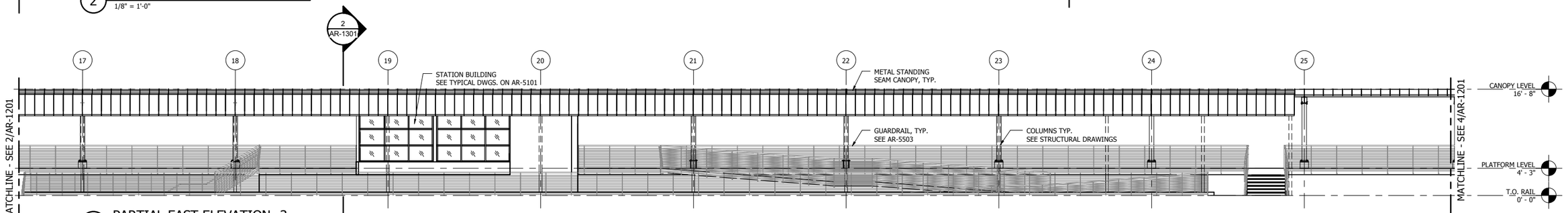
C:\rvt\2016\WL_AR_MUNDYERSTN_02_NEDUN.rvt



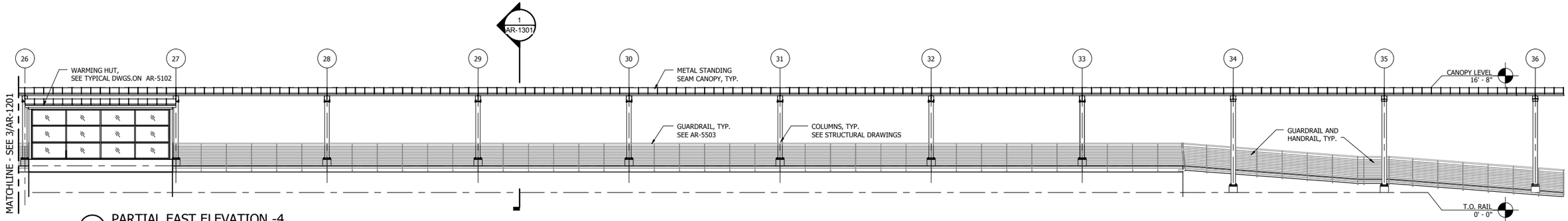
1 PARTIAL EAST ELEVATION -1
1/8" = 1'-0"



2 PARTIAL EAST ELEVATION -2
1/8" = 1'-0"



3 PARTIAL EAST ELEVATION -3
1/8" = 1'-0"



4 PARTIAL EAST ELEVATION -4
1/8" = 1'-0"

SCALE: 1/8" = 1'

0' 4' 8' 16' 32'

NOT FOR CONSTRUCTION

SERIES **AR-1201**

PLOT DATE: 7/20/2017 12:17:44 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

DYER TO HAMMOND, INDIANA

DESIGNED:	R. KRIEGER
DRAWN:	A. ABEL
CHECKED:	Checker
DATE:	07/21/17

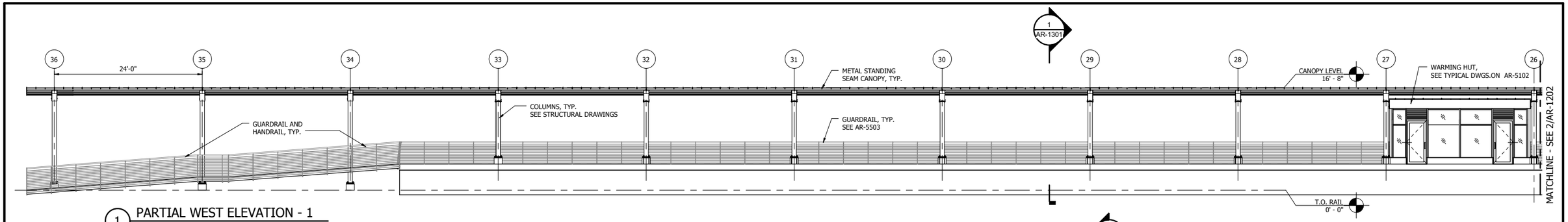
NICTD - WEST LAKE CORRIDOR - MP WL 61.5
PROJECT NAME

MUNSTER DYER STATION
PARTIAL EAST ELEVATIONS

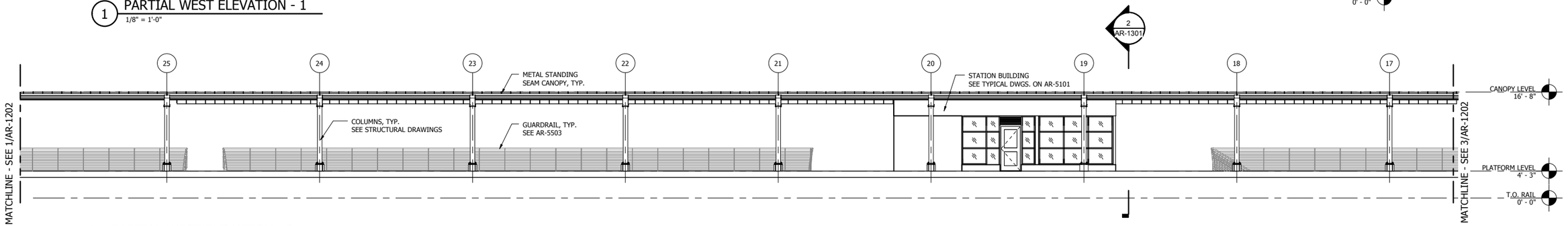
FILENAME	
SCALE	1/8" = 1'-0"

SHEET 33 OF 361

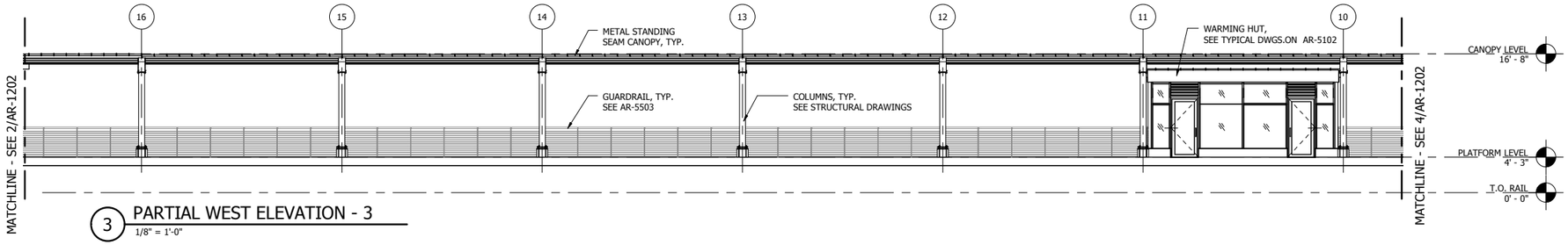
C:\rvt\2016\WL_AR_MUNDYERSTN_02_NEDUN.rvt



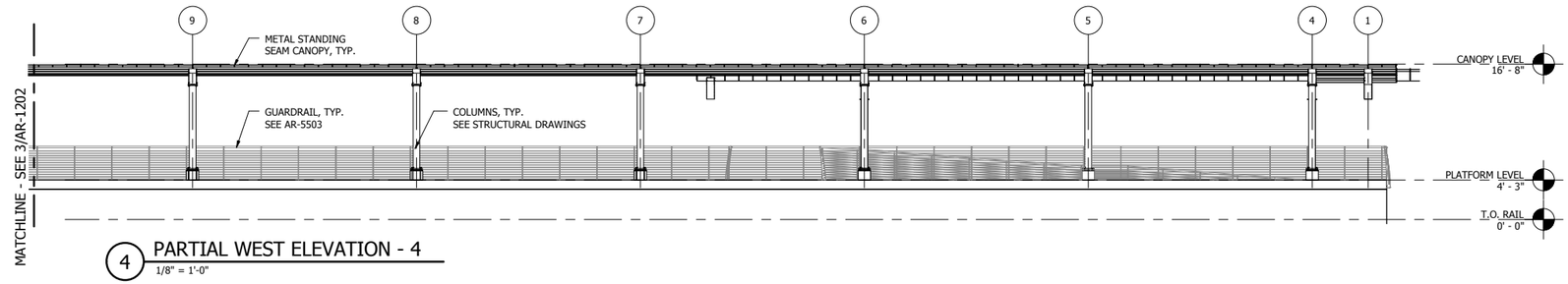
1 PARTIAL WEST ELEVATION - 1
1/8" = 1'-0"



2 PARTIAL WEST ELEVATION - 2
1/8" = 1'-0"



3 PARTIAL WEST ELEVATION - 3
1/8" = 1'-0"



4 PARTIAL WEST ELEVATION - 4
1/8" = 1'-0"

SCALE: 1/8" = 1'

0' 4' 8' 16' 32'

NOT FOR CONSTRUCTION

SERIES **AR-1202**

PLOT DATE: 7/20/2017 12:47 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER
TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

DYER TO HAMMOND, INDIANA

DESIGNED:	R. KRIEGER
DRAWN:	A. ABEL
CHECKED:	Checker
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
PROJECT NAME

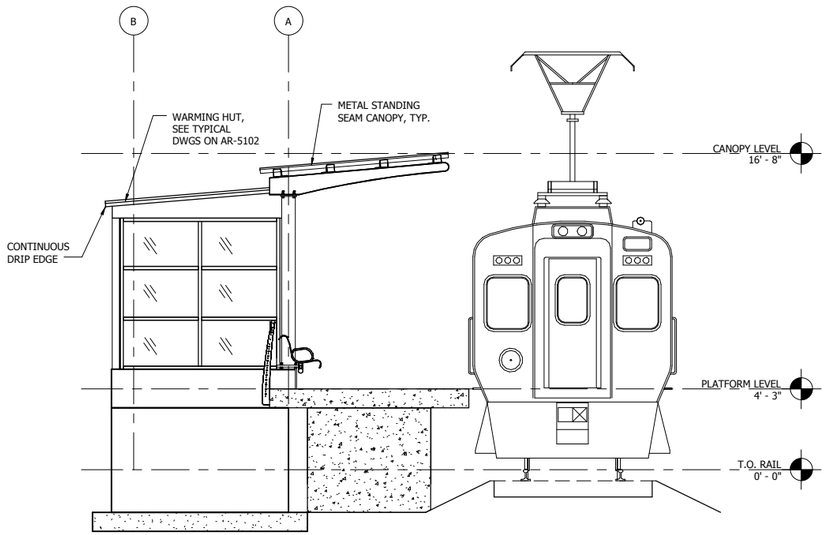
MUNSTER DYER STATION
PARTIAL WEST ELEVATIONS

FILENAME

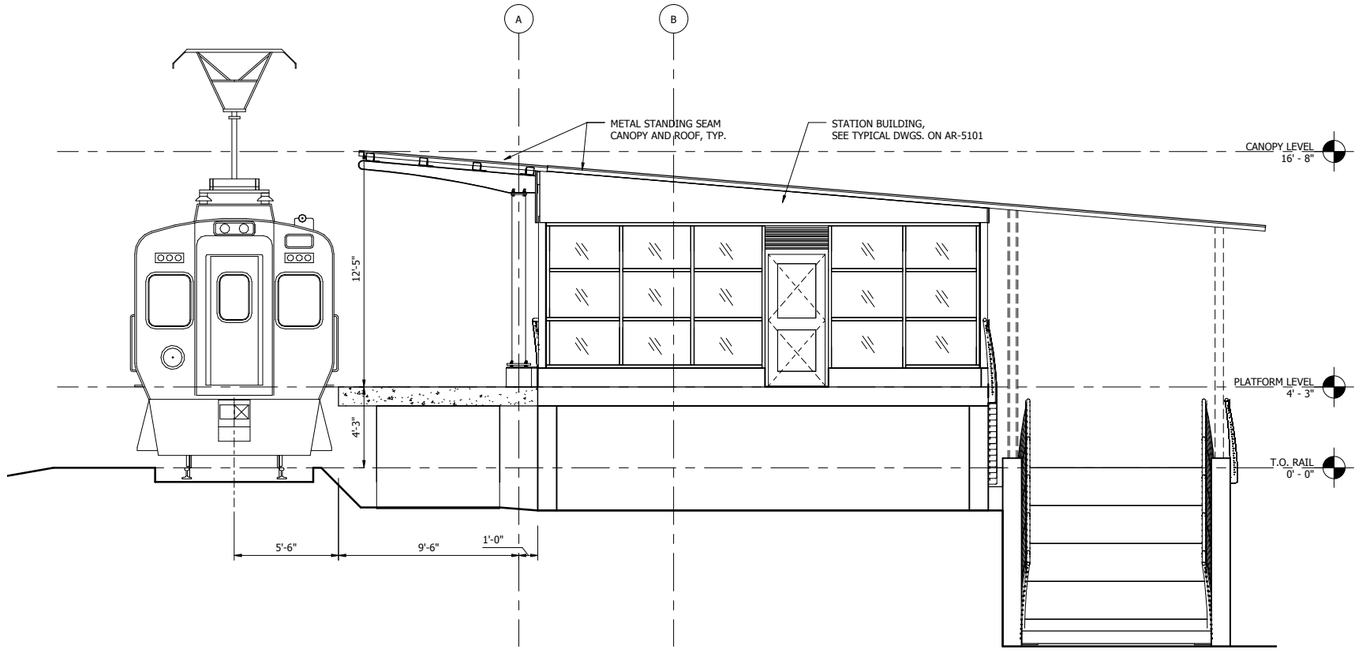
SCALE 1/8" = 1'-0"

SHEET 34 OF 361

C:\rvt\2016\WL_AR_MUNDYERSTN_02_NEDUN.rvt



1 CROSS SECTION
1/4" = 1'-0"



2 CROSS SECTION LOOKING NORTH
1/4" = 1'-0"

NOTES
1. FOR ELEVATIONS AND GRADE, SEE CIVIL DRAWINGS.

NOT FOR CONSTRUCTION

SERIES
AR-1301

PLOT DATE: 7/20/2017 12:17:49 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER
TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	R. KRIEGER
DRAWN:	A. ABEL
CHECKED:	Checker
DATE:	07/21/17

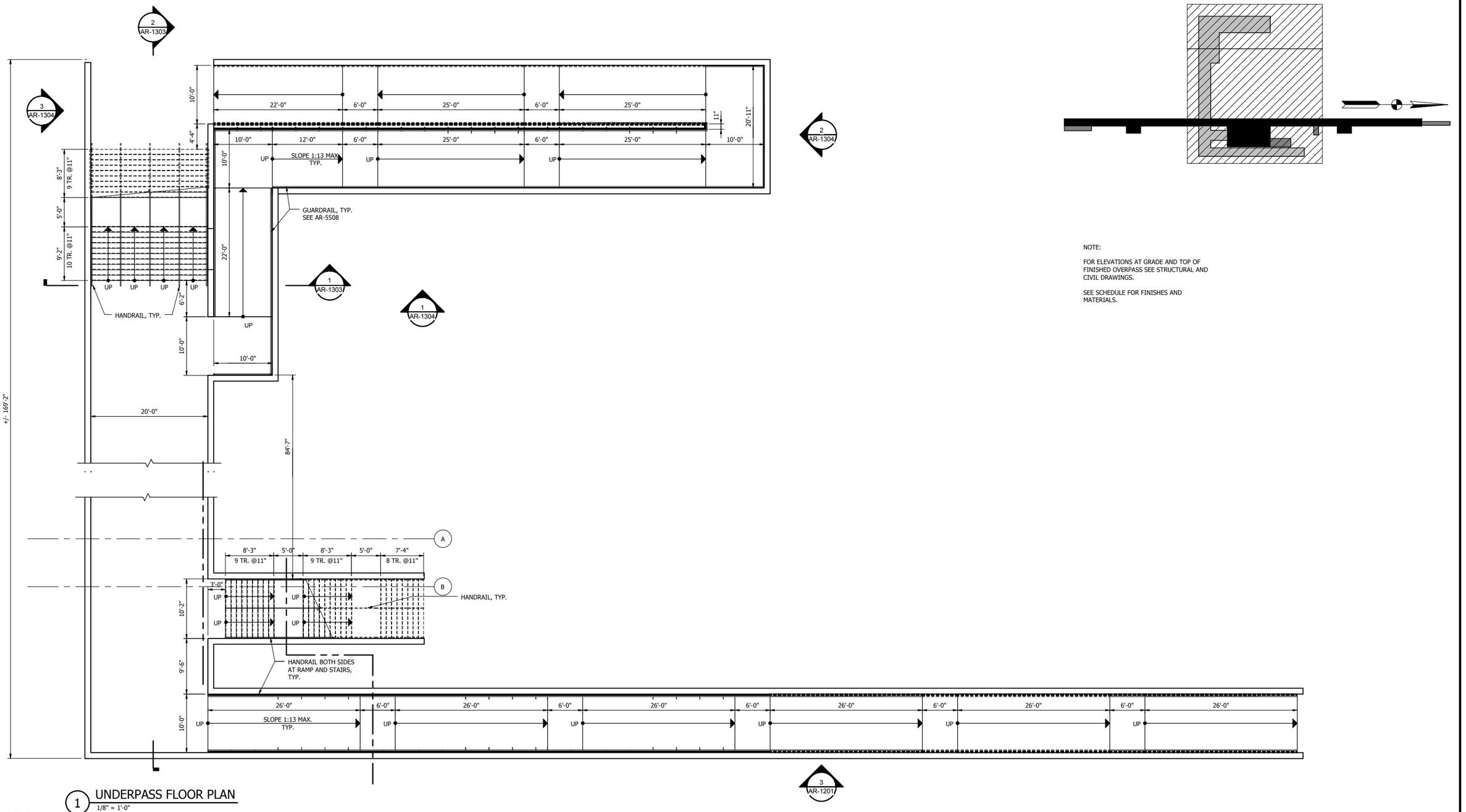
NICTD - WEST LAKE CORRIDOR - MP WL 61.5
PROJECT NAME

MUNSTER DYER STATION CROSS SECTIONS

FILENAME
SCALE 1/4" = 1'-0"

SHEET
35 OF 361

C:\rvt\2016\WL_AR_MUNDYERSTN_02_NEDUN.rvt



1 UNDERPASS FLOOR PLAN
1/8" = 1'-0"

SCALE: 1/8" = 1'

0' 4' 8' 16' 32'

NOTE:

FOR ELEVATIONS AT GRADE AND TOP OF FINISHED OVERPASS SEE STRUCTURAL AND CIVIL DRAWINGS.

SEE SCHEDULE FOR FINISHES AND MATERIALS.

NOT FOR CONSTRUCTION

SERIES **AR-1302**

PLOT DATE: 7/20/2017 12:17:50 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER
TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

DYER TO HAMMOND, INDIANA

DESIGNED:	R. KRIEGER
DRAWN:	A. ABEL
CHECKED:	Checker
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
PROJECT NAME

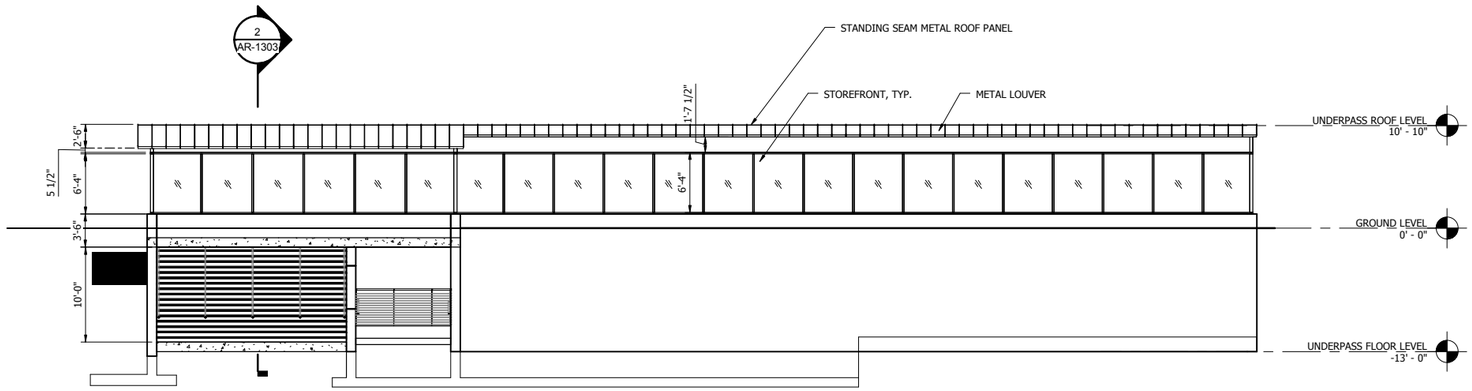
MUNSTER DYER STATION
UNDERPASS FLOOR PLAN

FILENAME

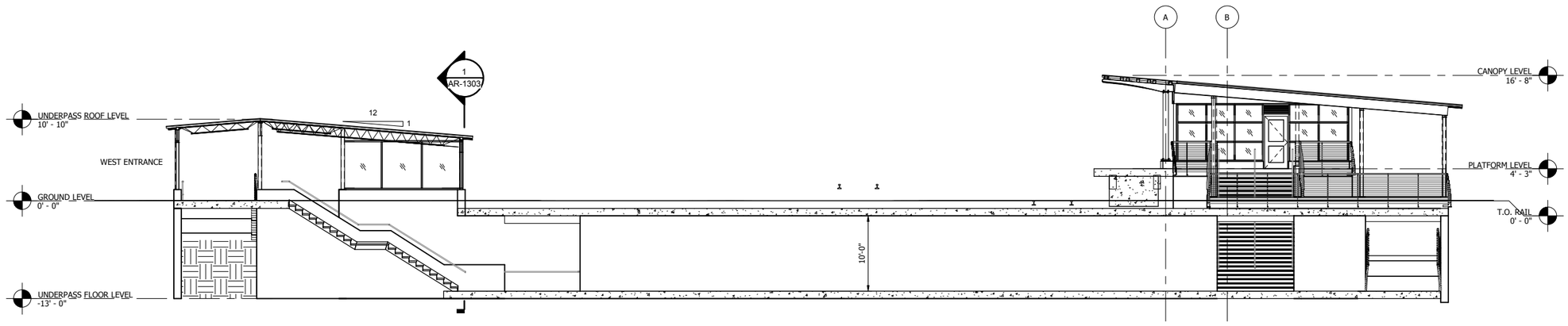
SCALE 1/8" = 1'-0"

SHEET 36 OF 361

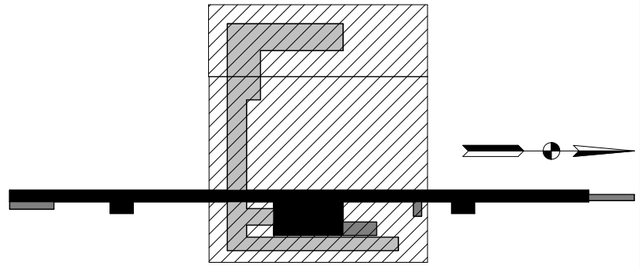
C:\rvt\2016\WL_AR_MUNDYERSTN_02_NEDUN.rvt



1 SECTION THROUGH RAMP
1/8" = 1'-0"



2 SECTION THROUGH PASSAGEWAY
1/8" = 1'-0"



SCALE: 1/8" = 1'

0' 4' 8' 16' 32'

NOT FOR CONSTRUCTION

SERIES
AR-1303

PLOT DATE: 7/20/2017 4:40:33 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER
TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

DYER TO HAMMOND, INDIANA

DESIGNED:	R. KRIEGER
DRAWN:	A. ABEL
CHECKED:	Checker
DATE:	07/21/17

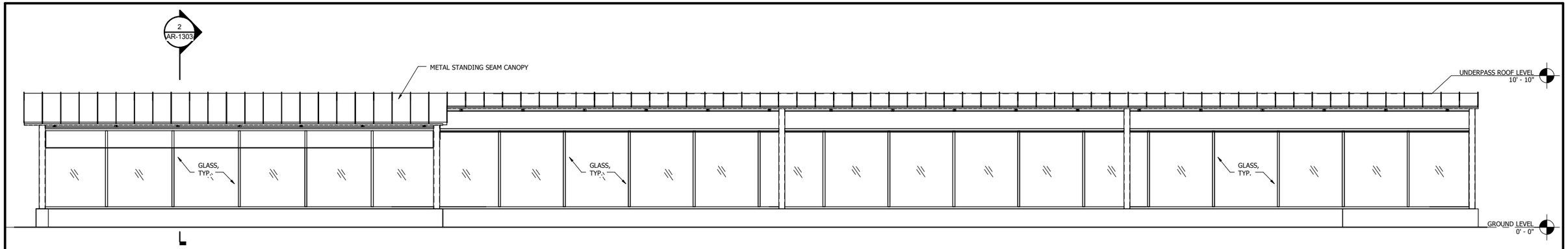
NICTD - WEST LAKE CORRIDOR - MP WL 61.5
PROJECT NAME

MUNSTER DYER STATION
SECTIONS AT UNDERPASS

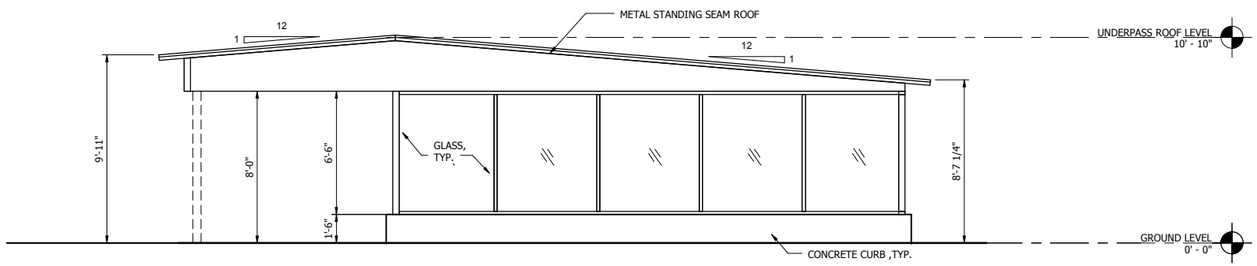
FILENAME	
SCALE	1/8" = 1'-0"

SHEET
37 OF 361

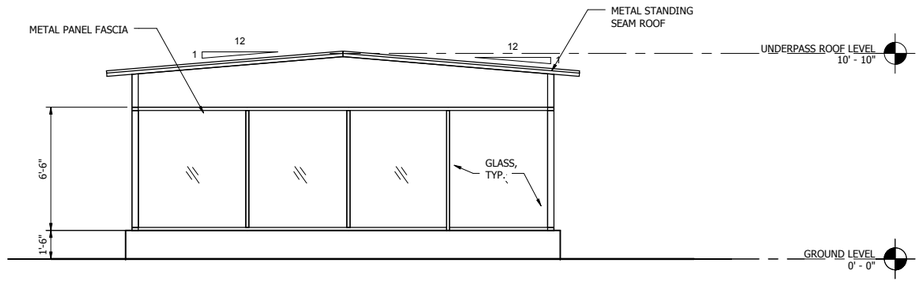
C:\rvt\2016\WL_AR_MUNDYERSTN_02_NEDUN.rvt



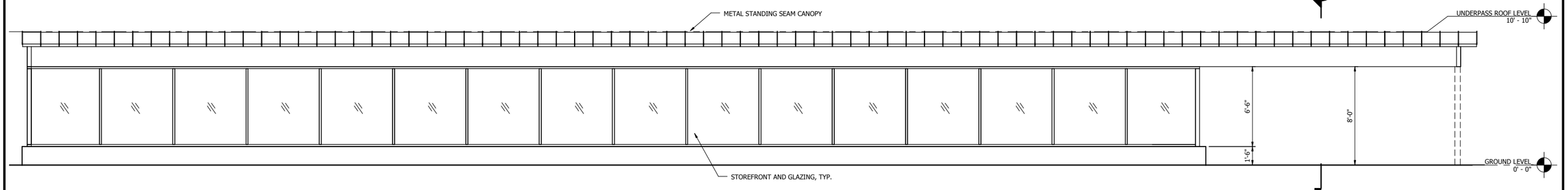
1 WEST ENTRANCE EAST ELEVATION AT GROUND LEVEL
1/4" = 1'-0"



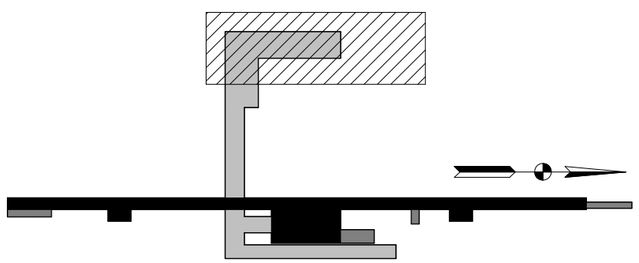
3 WEST ENTRANCE SOUTH ELEVATION AT GROUND LEVEL
1/4" = 1'-0"



2 WEST ENTRANCE NORTH ELEVATION AT GROUND LEVEL
1/4" = 1'-0"



4 WEST ENTRANCE WEST ELEVATION AT GROUND LEVEL
1/4" = 1'-0"



SCALE: 1/4" = 1'

0' 2' 4' 8' 16'

NOT FOR CONSTRUCTION

SERIES **AR-1304**

PLOT DATE: 7/20/2017 12:17:58 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER
TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

DYER TO HAMMOND, INDIANA

DESIGNED:	R. KRIEGER
DRAWN:	A. ABEL
CHECKED:	Checker
DATE:	07/21/17

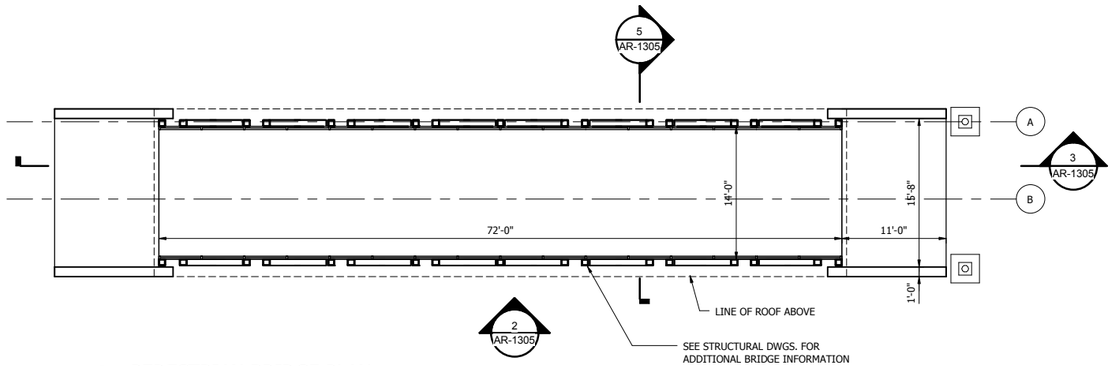
NICTD - WEST LAKE CORRIDOR - MP WL 61.5
PROJECT NAME

WEST ENTRANCE GROUND LEVEL ELEVATIONS

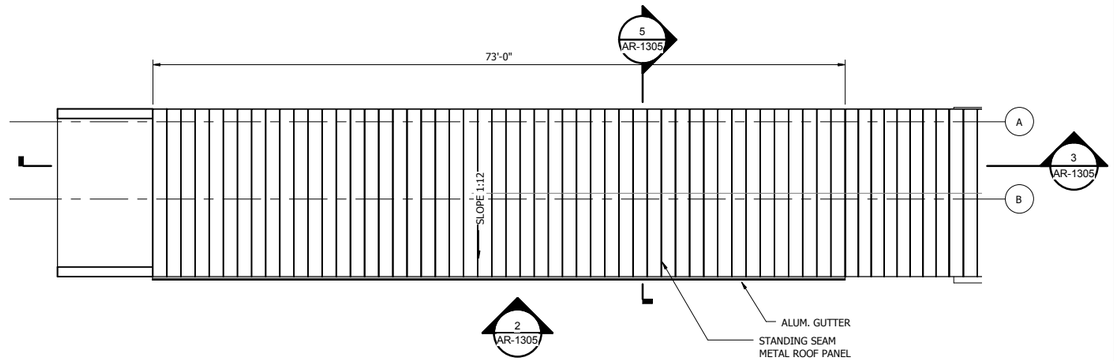
FILENAME	
SCALE	1/4" = 1'-0"

SHEET 38 OF 361

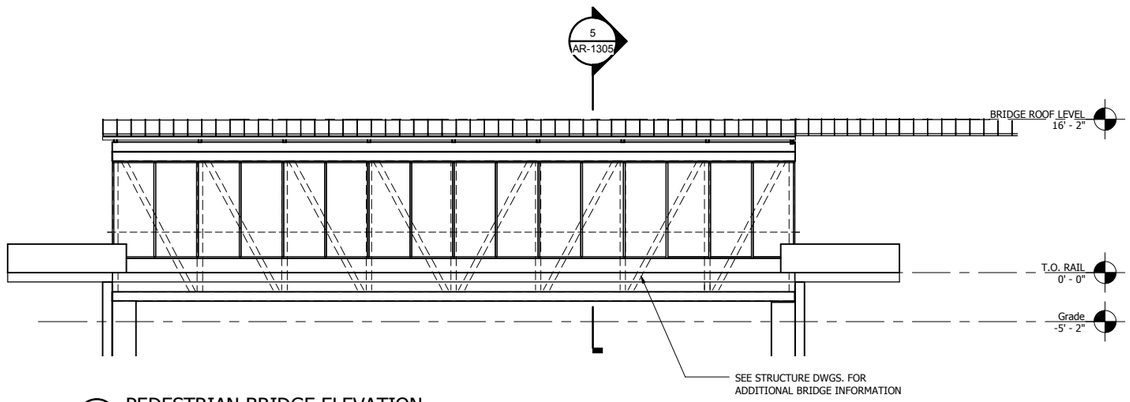
C:\rvt\2016\WL_AR_MUNDYERSTN_02_NEDUN.rvt



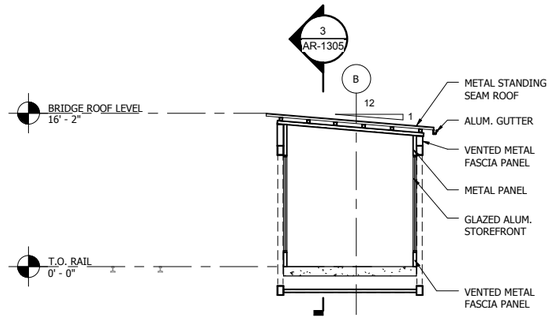
1 PEDESTRIAN BRIDGE PLAN
1/8" = 1'-0"



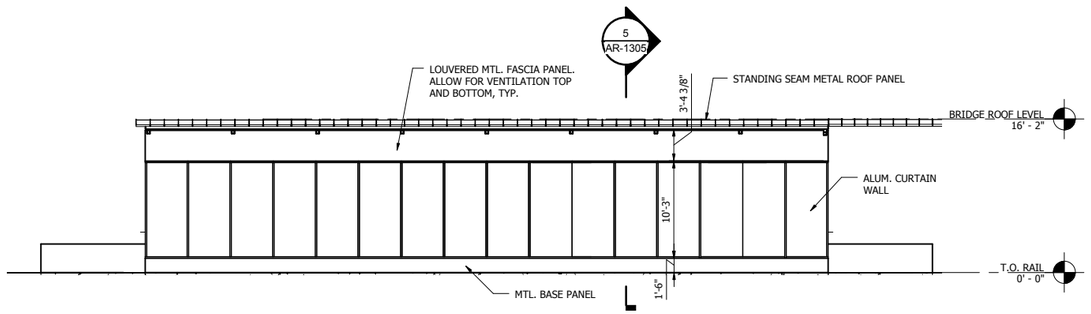
4 BRIDGE ROOF PLAN
1/8" = 1'-0"



2 PEDESTRIAN BRIDGE ELEVATION
1/8" = 1'-0"



5 CROSS SECTION THROUGH BRIDGE
1/8" = 1'-0"



3 LONGITUTINAL SECTION THROUGH BRIDGE
1/8" = 1'-0"

SCALE: 1/8" = 1'

0' 4' 8' 16' 32'

NOT FOR CONSTRUCTION

SERIES **AR-1305**

PLOT DATE: 7/20/2017 12:17:59 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER
TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

DYER TO HAMMOND, INDIANA

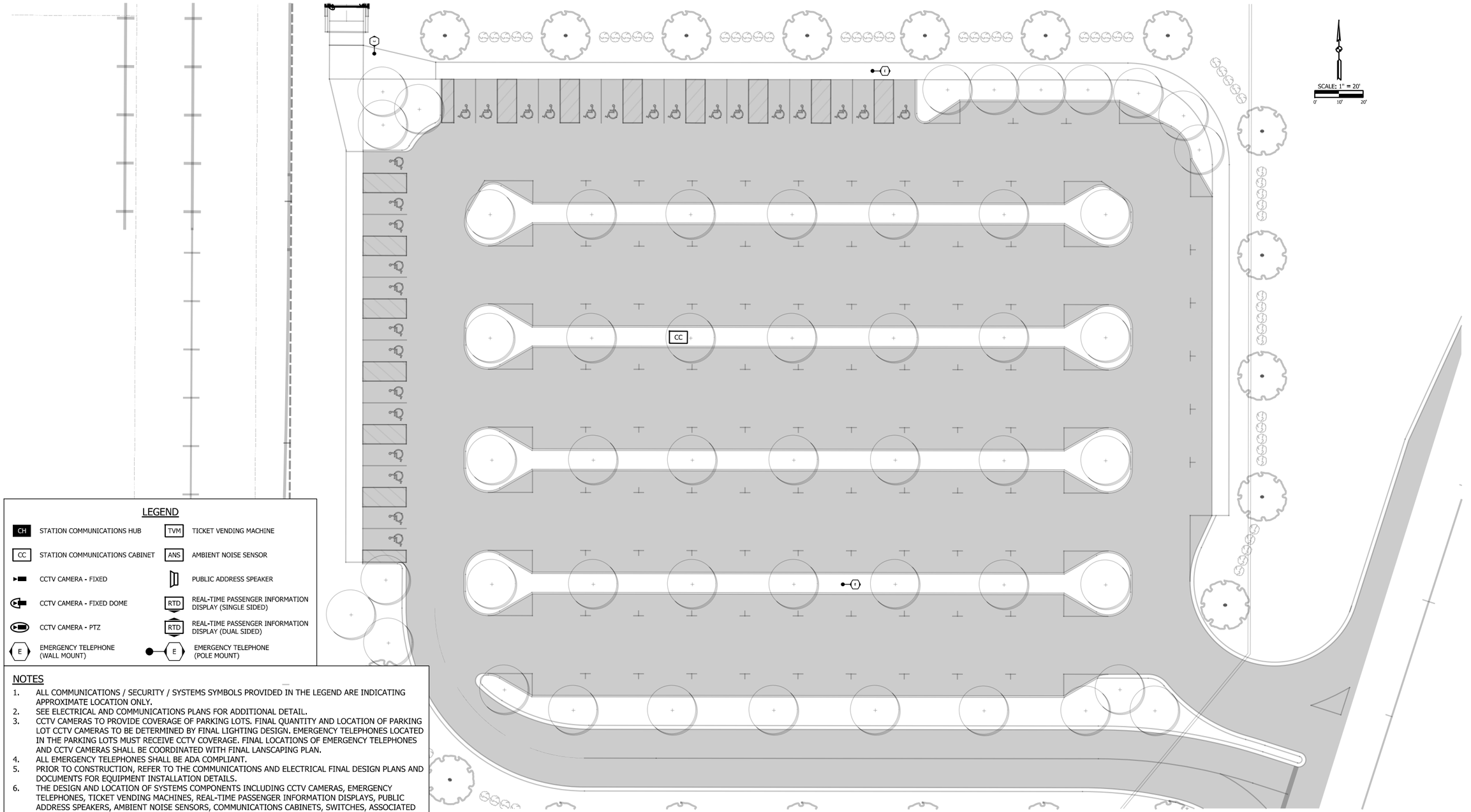
DESIGNED:	R. KRIEGER
DRAWN:	A. ABEL
CHECKED:	Checker
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
PROJECT NAME

MUNSTER DYER STATION PEDESTRIAN BRIDGE PLAN, SECTIONS AND ELEVATIONS

FILENAME		SHEET	39 OF 361
SCALE	1/8" = 1'-0"		

C:\rvt\2016\WL_AR_MUNDYERSTN_02_NEDUN.rvt



LEGEND

CH	STATION COMMUNICATIONS HUB	TVM	TICKET VENDING MACHINE
CC	STATION COMMUNICATIONS CABINET	ANS	AMBIENT NOISE SENSOR
	CCTV CAMERA - FIXED		PUBLIC ADDRESS SPEAKER
	CCTV CAMERA - FIXED DOME	RTD	REAL-TIME PASSENGER INFORMATION DISPLAY (SINGLE SIDED)
	CCTV CAMERA - PTZ	RTD	REAL-TIME PASSENGER INFORMATION DISPLAY (DUAL SIDED)
E	EMERGENCY TELEPHONE (WALL MOUNT)	E	EMERGENCY TELEPHONE (POLE MOUNT)

NOTES

1. ALL COMMUNICATIONS / SECURITY / SYSTEMS SYMBOLS PROVIDED IN THE LEGEND ARE INDICATING APPROXIMATE LOCATION ONLY.
2. SEE ELECTRICAL AND COMMUNICATIONS PLANS FOR ADDITIONAL DETAIL.
3. CCTV CAMERAS TO PROVIDE COVERAGE OF PARKING LOTS. FINAL QUANTITY AND LOCATION OF PARKING LOT CCTV CAMERAS TO BE DETERMINED BY FINAL LIGHTING DESIGN. EMERGENCY TELEPHONES LOCATED IN THE PARKING LOTS MUST RECEIVE CCTV COVERAGE. FINAL LOCATIONS OF EMERGENCY TELEPHONES AND CCTV CAMERAS SHALL BE COORDINATED WITH FINAL LANSCAPING PLAN.
4. ALL EMERGENCY TELEPHONES SHALL BE ADA COMPLIANT.
5. PRIOR TO CONSTRUCTION, REFER TO THE COMMUNICATIONS AND ELECTRICAL FINAL DESIGN PLANS AND DOCUMENTS FOR EQUIPMENT INSTALLATION DETAILS.
6. THE DESIGN AND LOCATION OF SYSTEMS COMPONENTS INCLUDING CCTV CAMERAS, EMERGENCY TELEPHONES, TICKET VENDING MACHINES, REAL-TIME PASSENGER INFORMATION DISPLAYS, PUBLIC ADDRESS SPEAKERS, AMBIENT NOISE SENSORS, COMMUNICATIONS CABINETS, SWITCHES, ASSOCIATED CONDUIT, ASSOCIATED WIRING, ASSOCIATED CABLING, AND OTHER REQUIRED EQUIPMENT ARE FOR REFERENCE ONLY. REFER TO FINAL DESIGN PLANS FOR ACTUAL QUANTITIES AND LOCATIONS.

NOT FOR CONSTRUCTION

SERIES AR-1801

PLOT DATE: 7/20/2017 3:25:59 PM JKIELLMA

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

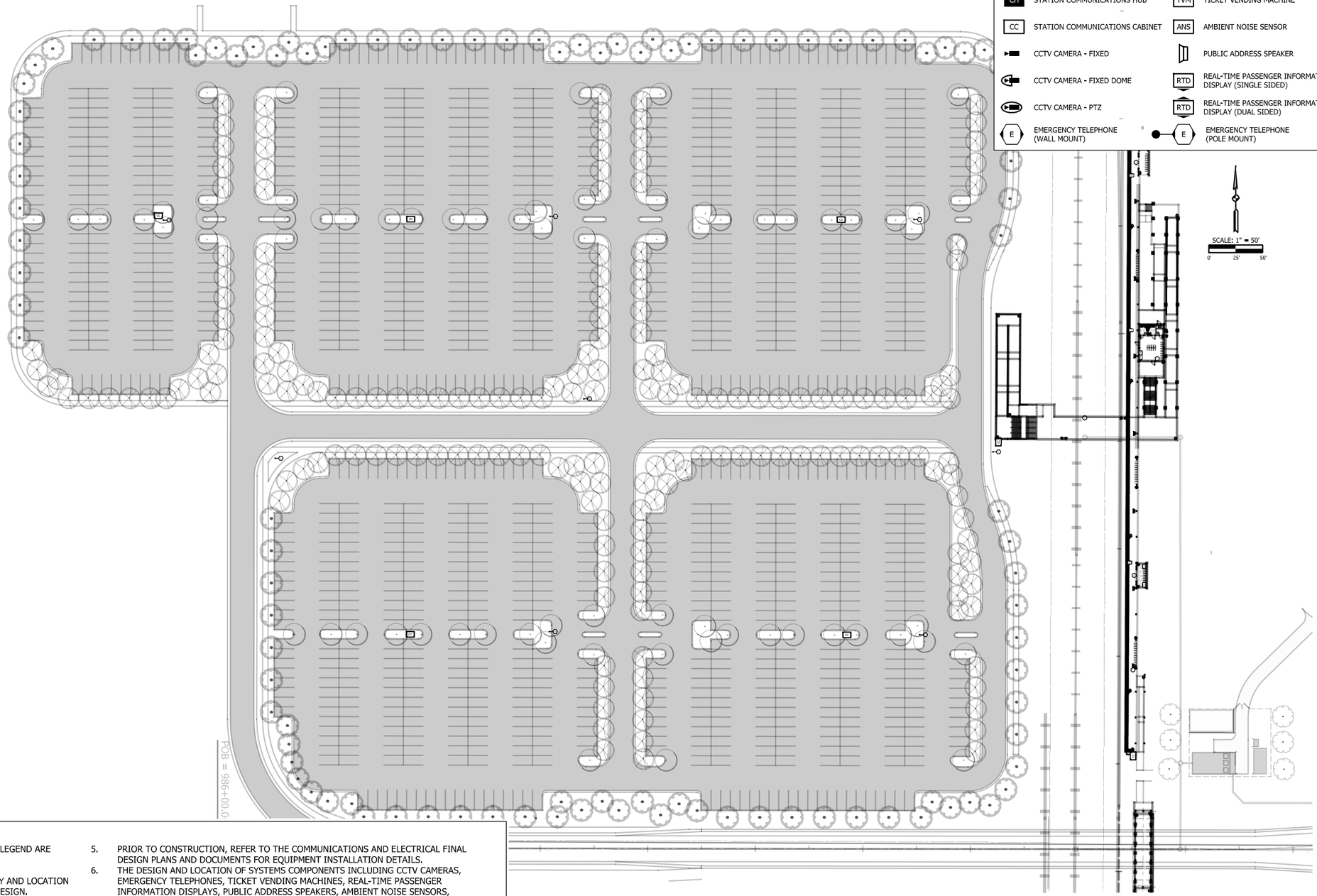
DESIGNED:	T. HILES
DRAWN:	J. MERSEREAU
CHECKED:	S. WICKS
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

SOUTH PARKING SYSTEMS PLAN STATION

FILENAME	SHT_WL_TE_MD_PL_01.dgn
SCALE	AS NOTED

SHEET 40 OF 361



LEGEND

CH	STATION COMMUNICATIONS HUB	TVM	TICKET VENDING MACHINE
CC	STATION COMMUNICATIONS CABINET	ANS	AMBIENT NOISE SENSOR
	CCTV CAMERA - FIXED		PUBLIC ADDRESS SPEAKER
	CCTV CAMERA - FIXED DOME	RTD	REAL-TIME PASSENGER INFORMATION DISPLAY (SINGLE SIDED)
	CCTV CAMERA - PTZ	RTD	REAL-TIME PASSENGER INFORMATION DISPLAY (DUAL SIDED)
E	EMERGENCY TELEPHONE (WALL MOUNT)	E	EMERGENCY TELEPHONE (POLE MOUNT)

NOTES

1. ALL COMMUNICATIONS / SECURITY / SYSTEMS SYMBOLS PROVIDED IN THE LEGEND ARE INDICATING APPROXIMATE LOCATION ONLY.
2. SEE ELECTRICAL AND COMMUNICATIONS PLANS FOR ADDITIONAL DETAIL.
3. CCTV CAMERAS TO PROVIDE COVERAGE OF PARKING LOTS. FINAL QUANTITY AND LOCATION OF PARKING LOT CCTV CAMERAS TO BE DETERMINED BY FINAL LIGHTING DESIGN. EMERGENCY TELEPHONES LOCATED IN THE PARKING LOTS MUST RECEIVE CCTV COVERAGE. FINAL LOCATIONS OF EMERGENCY TELEPHONES AND CCTV CAMERAS SHALL BE COORDINATED WITH FINAL LANSCAPING PLAN.
4. ALL EMERGENCY TELEPHONES SHALL BE ADA COMPLIANT.
5. PRIOR TO CONSTRUCTION, REFER TO THE COMMUNICATIONS AND ELECTRICAL FINAL DESIGN PLANS AND DOCUMENTS FOR EQUIPMENT INSTALLATION DETAILS.
6. THE DESIGN AND LOCATION OF SYSTEMS COMPONENTS INCLUDING CCTV CAMERAS, EMERGENCY TELEPHONES, TICKET VENDING MACHINES, REAL-TIME PASSENGER INFORMATION DISPLAYS, PUBLIC ADDRESS SPEAKERS, AMBIENT NOISE SENSORS, COMMUNICATIONS CABINETS, SWITCHES, ASSOCIATED CONDUIT, ASSOCIATED WIRING, ASSOCIATED CABLING, AND OTHER REQUIRED EQUIPMENT ARE FOR REFERENCE ONLY. REFER TO FINAL DESIGN PLANS FOR ACTUAL QUANTITIES AND LOCATIONS.

NOT FOR CONSTRUCTION

SERIES AR-1802

JK|ELLMA

PLOT DATE: 7/20/2017 3:26:38 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

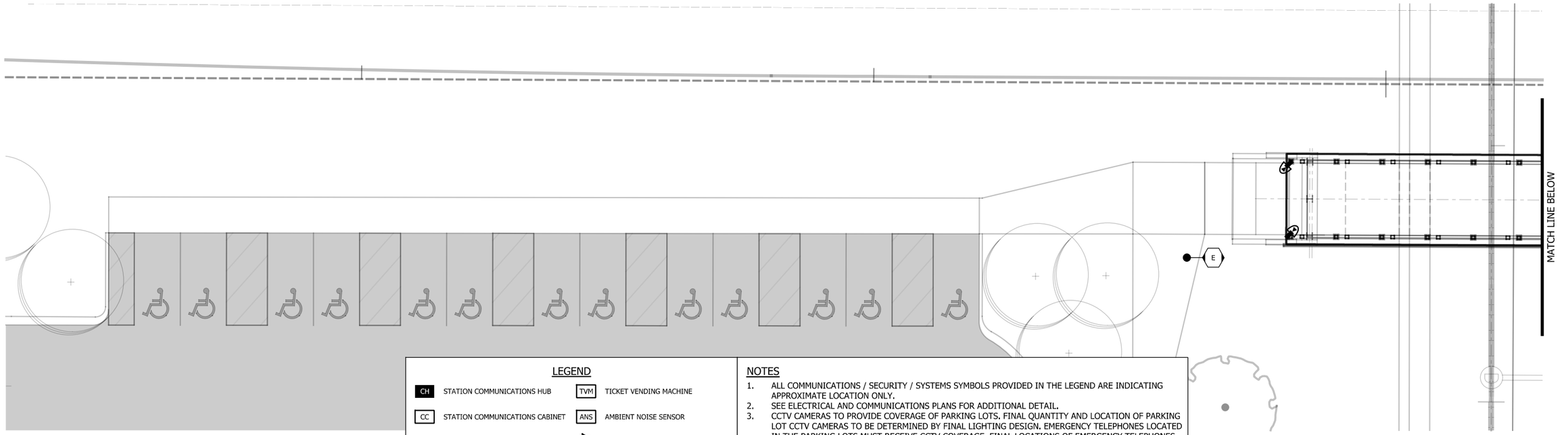
DESIGNED:	T. HILES
DRAWN:	J. MERSEREAU
CHECKED:	S. WICKS
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

WEST PARKING SYSTEMS PLAN STATION

FILENAME	SHT_WL_TE_MD_PL_02.dgn
SCALE	AS NOTED

SHEET 41 OF 361



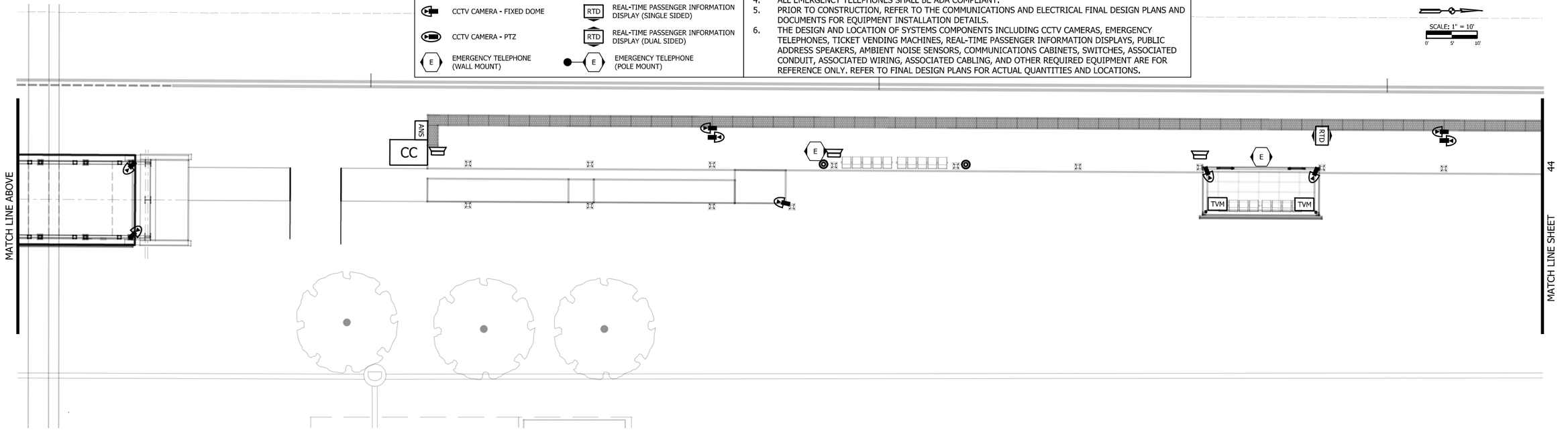
LEGEND

CH	STATION COMMUNICATIONS HUB	TVM	TICKET VENDING MACHINE
CC	STATION COMMUNICATIONS CABINET	ANS	AMBIENT NOISE SENSOR
	CCTV CAMERA - FIXED		PUBLIC ADDRESS SPEAKER
	CCTV CAMERA - FIXED DOME	RTD	REAL-TIME PASSENGER INFORMATION DISPLAY (SINGLE SIDED)
	CCTV CAMERA - PTZ	RTD	REAL-TIME PASSENGER INFORMATION DISPLAY (DUAL SIDED)
E	EMERGENCY TELEPHONE (WALL MOUNT)	E	EMERGENCY TELEPHONE (POLE MOUNT)

NOTES

1. ALL COMMUNICATIONS / SECURITY / SYSTEMS SYMBOLS PROVIDED IN THE LEGEND ARE INDICATING APPROXIMATE LOCATION ONLY.
2. SEE ELECTRICAL AND COMMUNICATIONS PLANS FOR ADDITIONAL DETAIL.
3. CCTV CAMERAS TO PROVIDE COVERAGE OF PARKING LOTS. FINAL QUANTITY AND LOCATION OF PARKING LOT CCTV CAMERAS TO BE DETERMINED BY FINAL LIGHTING DESIGN. EMERGENCY TELEPHONES LOCATED IN THE PARKING LOTS MUST RECEIVE CCTV COVERAGE. FINAL LOCATIONS OF EMERGENCY TELEPHONES AND CCTV CAMERAS SHALL BE COORDINATED WITH FINAL LANSCAPING PLAN.
4. ALL EMERGENCY TELEPHONES SHALL BE ADA COMPLIANT.
5. PRIOR TO CONSTRUCTION, REFER TO THE COMMUNICATIONS AND ELECTRICAL FINAL DESIGN PLANS AND DOCUMENTS FOR EQUIPMENT INSTALLATION DETAILS.
6. THE DESIGN AND LOCATION OF SYSTEMS COMPONENTS INCLUDING CCTV CAMERAS, EMERGENCY TELEPHONES, TICKET VENDING MACHINES, REAL-TIME PASSENGER INFORMATION DISPLAYS, PUBLIC ADDRESS SPEAKERS, AMBIENT NOISE SENSORS, COMMUNICATIONS CABINETS, SWITCHES, ASSOCIATED CONDUIT, ASSOCIATED WIRING, ASSOCIATED CABLING, AND OTHER REQUIRED EQUIPMENT ARE FOR REFERENCE ONLY. REFER TO FINAL DESIGN PLANS FOR ACTUAL QUANTITIES AND LOCATIONS.

SCALE: 1" = 10'
0' 5' 10'



NOT FOR CONSTRUCTION

SERIES AR-1803

PLOT DATE: 7/20/2017 3:27:28 PM JKUELLMA

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

DYER TO HAMMOND, INDIANA

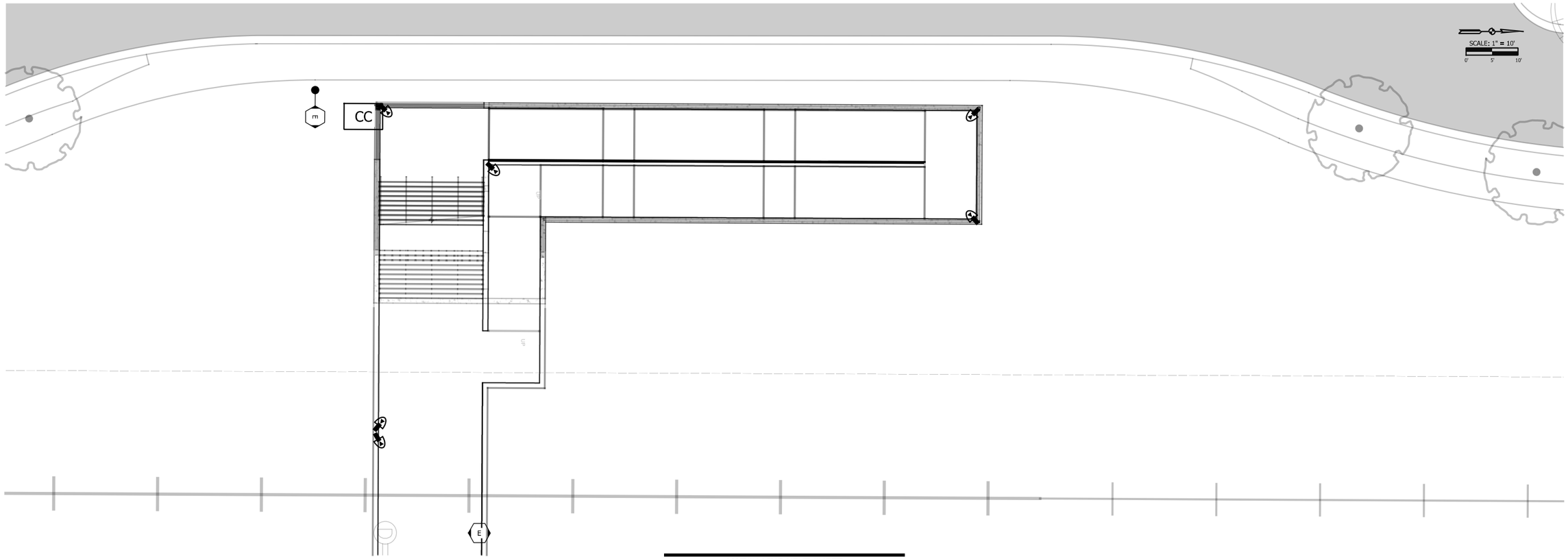
DESIGNED:	T. HILES
DRAWN:	J. MERSEREAU
CHECKED:	S. WICKS
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

PLATFORM SYSTEMS PLAN 1 STATION

FILENAME	SHT_WL_TE_MD_PL_03.dgn
SCALE	AS NOTED

SHEET 42 OF 361



LEGEND

CH	STATION COMMUNICATIONS HUB	TVM	TICKET VENDING MACHINE
CC	STATION COMMUNICATIONS CABINET	ANS	AMBIENT NOISE SENSOR
	CCTV CAMERA - FIXED		PUBLIC ADDRESS SPEAKER
	CCTV CAMERA - FIXED DOME	RTD	REAL-TIME PASSENGER INFORMATION DISPLAY (SINGLE SIDED)
	CCTV CAMERA - PTZ	RTD	REAL-TIME PASSENGER INFORMATION DISPLAY (DUAL SIDED)
E	EMERGENCY TELEPHONE (WALL MOUNT)	E	EMERGENCY TELEPHONE (POLE MOUNT)

NOTES

1. ALL COMMUNICATIONS / SECURITY / SYSTEMS SYMBOLS PROVIDED IN THE LEGEND ARE INDICATING APPROXIMATE LOCATION ONLY.
2. SEE ELECTRICAL AND COMMUNICATIONS PLANS FOR ADDITIONAL DETAIL.
3. CCTV CAMERAS TO PROVIDE COVERAGE OF PARKING LOTS. FINAL QUANTITY AND LOCATION OF PARKING LOT CCTV CAMERAS TO BE DETERMINED BY FINAL LIGHTING DESIGN. EMERGENCY TELEPHONES LOCATED IN THE PARKING LOTS MUST RECEIVE CCTV COVERAGE. FINAL LOCATIONS OF EMERGENCY TELEPHONES AND CCTV CAMERAS SHALL BE COORDINATED WITH FINAL LANSCAPING PLAN.
4. ALL EMERGENCY TELEPHONES SHALL BE ADA COMPLIANT.
5. PRIOR TO CONSTRUCTION, REFER TO THE COMMUNICATIONS AND ELECTRICAL FINAL DESIGN PLANS AND DOCUMENTS FOR EQUIPMENT INSTALLATION DETAILS.
6. THE DESIGN AND LOCATION OF SYSTEMS COMPONENTS INCLUDING CCTV CAMERAS, EMERGENCY TELEPHONES, TICKET VENDING MACHINES, REAL-TIME PASSENGER INFORMATION DISPLAYS, PUBLIC ADDRESS SPEAKERS, AMBIENT NOISE SENSORS, COMMUNICATIONS CABINETS, SWITCHES, ASSOCIATED CONDUIT, ASSOCIATED WIRING, ASSOCIATED CABLING, AND OTHER REQUIRED EQUIPMENT ARE FOR REFERENCE ONLY. REFER TO FINAL DESIGN PLANS FOR ACTUAL QUANTITIES AND LOCATIONS.

NOT FOR CONSTRUCTION

SERIES AR-1804

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	T. HILES
DRAWN:	J. MERSEREAU
CHECKED:	S. WICKS
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

WEST STATION SYSTEMS PLAN STATION

FILENAME	SHT_WL_TE_MD_PL_04.dgn
SCALE	AS NOTED

SHEET 43 OF 361

PLOT DATE: 7/20/2017 3:28:06 PM JKIELLMA

LEGEND

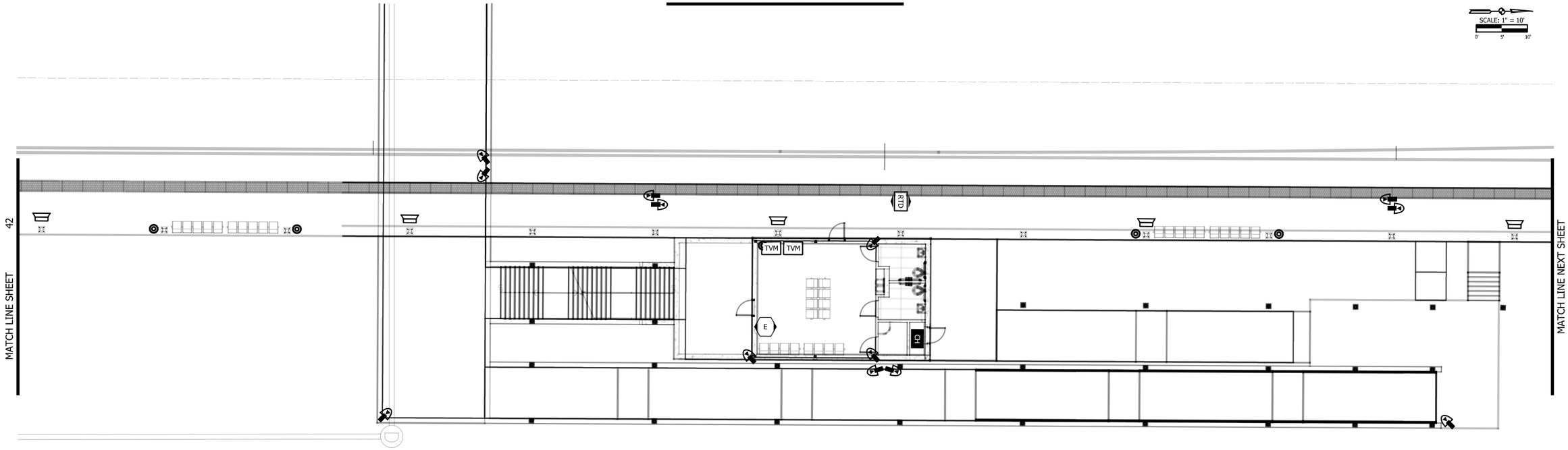
CH	STATION COMMUNICATIONS HUB	TVM	TICKET VENDING MACHINE
CC	STATION COMMUNICATIONS CABINET	ANS	AMBIENT NOISE SENSOR
	CCTV CAMERA - FIXED		PUBLIC ADDRESS SPEAKER
	CCTV CAMERA - FIXED DOME	RTD	REAL-TIME PASSENGER INFORMATION DISPLAY (SINGLE SIDED)
	CCTV CAMERA - PTZ	RTD	REAL-TIME PASSENGER INFORMATION DISPLAY (DUAL SIDED)
E	EMERGENCY TELEPHONE (WALL MOUNT)	E	EMERGENCY TELEPHONE (POLE MOUNT)

NOTES

1. ALL COMMUNICATIONS / SECURITY / SYSTEMS SYMBOLS PROVIDED IN THE LEGEND ARE INDICATING APPROXIMATE LOCATION ONLY.
2. SEE ELECTRICAL AND COMMUNICATIONS PLANS FOR ADDITIONAL DETAIL.
3. CCTV CAMERAS TO PROVIDE COVERAGE OF PARKING LOTS. FINAL QUANTITY AND LOCATION OF PARKING LOT CCTV CAMERAS TO BE DETERMINED BY FINAL LIGHTING DESIGN. EMERGENCY TELEPHONES LOCATED IN THE PARKING LOTS MUST RECEIVE CCTV COVERAGE. FINAL LOCATIONS OF EMERGENCY TELEPHONES AND CCTV CAMERAS SHALL BE COORDINATED WITH FINAL LANSCAPING PLAN.
4. ALL EMERGENCY TELEPHONES SHALL BE ADA COMPLIANT.
5. PRIOR TO CONSTRUCTION, REFER TO THE COMMUNICATIONS AND ELECTRICAL FINAL DESIGN PLANS AND DOCUMENTS FOR EQUIPMENT INSTALLATION DETAILS.
6. THE DESIGN AND LOCATION OF SYSTEMS COMPONENTS INCLUDING CCTV CAMERAS, EMERGENCY TELEPHONES, TICKET VENDING MACHINES, REAL-TIME PASSENGER INFORMATION DISPLAYS, PUBLIC ADDRESS SPEAKERS, AMBIENT NOISE SENSORS, COMMUNICATIONS CABINETS, SWITCHES, ASSOCIATED CONDUIT, ASSOCIATED WIRING, ASSOCIATED CABLING, AND OTHER REQUIRED EQUIPMENT ARE FOR REFERENCE ONLY. REFER TO FINAL DESIGN PLANS FOR ACTUAL QUANTITIES AND LOCATIONS.

MATCH LINE PREVIOUS SHEET

SCALE: 1" = 10'
0' 5' 10'



NOT FOR CONSTRUCTION

SERIES AR-1805

PLOT DATE: 7/20/2017 3:28:45 PM JKJELLMA

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

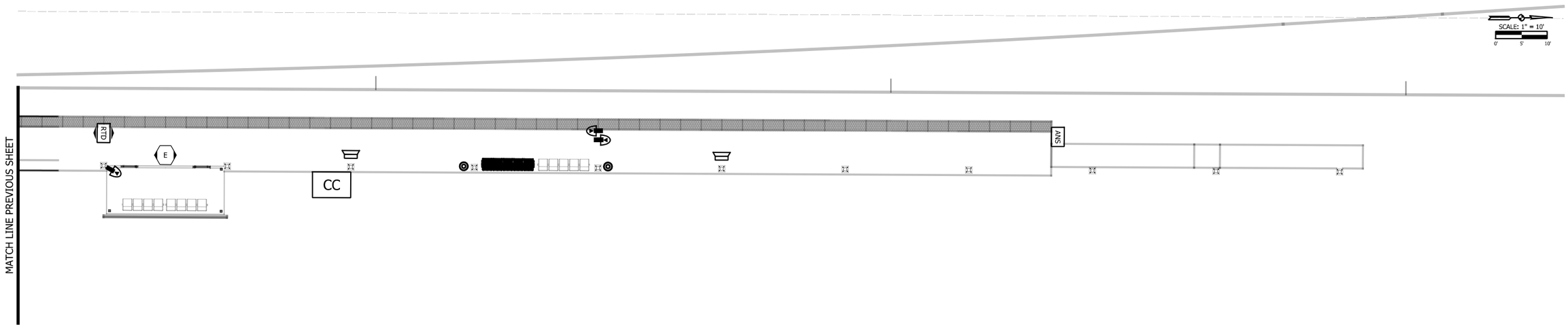
WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	T. HILES
DRAWN:	J. MERSEREAU
CHECKED:	S. WICKS
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

EAST STATION SYSTEMS PLAN STATION

FILENAME	SHT_WL_TE_MD_PL_05.dgn	SHEET	44 OF 361
SCALE	AS NOTED		



LEGEND

CH — STATION COMMUNICATIONS HUB	TVM — TICKET VENDING MACHINE
CC — STATION COMMUNICATIONS CABINET	ANS — AMBIENT NOISE SENSOR
CCTV CAMERA - FIXED	PUBLIC ADDRESS SPEAKER
CCTV CAMERA - FIXED DOME	RTD — REAL-TIME PASSENGER INFORMATION DISPLAY (SINGLE SIDED)
CCTV CAMERA - PTZ	RTD — REAL-TIME PASSENGER INFORMATION DISPLAY (DUAL SIDED)
E — EMERGENCY TELEPHONE (WALL MOUNT)	E — EMERGENCY TELEPHONE (POLE MOUNT)

NOTES

1. ALL COMMUNICATIONS / SECURITY / SYSTEMS SYMBOLS PROVIDED IN THE LEGEND ARE INDICATING APPROXIMATE LOCATION ONLY.
2. SEE ELECTRICAL AND COMMUNICATIONS PLANS FOR ADDITIONAL DETAIL.
3. CCTV CAMERAS TO PROVIDE COVERAGE OF PARKING LOTS. FINAL QUANTITY AND LOCATION OF PARKING LOT CCTV CAMERAS TO BE DETERMINED BY FINAL LIGHTING DESIGN. EMERGENCY TELEPHONES LOCATED IN THE PARKING LOTS MUST RECEIVE CCTV COVERAGE. FINAL LOCATIONS OF EMERGENCY TELEPHONES AND CCTV CAMERAS SHALL BE COORDINATED WITH FINAL LANSCAPING PLAN.
4. ALL EMERGENCY TELEPHONES SHALL BE ADA COMPLIANT.
5. PRIOR TO CONSTRUCTION, REFER TO THE COMMUNICATIONS AND ELECTRICAL FINAL DESIGN PLANS AND DOCUMENTS FOR EQUIPMENT INSTALLATION DETAILS.
6. THE DESIGN AND LOCATION OF SYSTEMS COMPONENTS INCLUDING CCTV CAMERAS, EMERGENCY TELEPHONES, TICKET VENDING MACHINES, REAL-TIME PASSENGER INFORMATION DISPLAYS, PUBLIC ADDRESS SPEAKERS, AMBIENT NOISE SENSORS, COMMUNICATIONS CABINETS, SWITCHES, ASSOCIATED CONDUIT, ASSOCIATED WIRING, ASSOCIATED CABLING, AND OTHER REQUIRED EQUIPMENT ARE FOR REFERENCE ONLY. REFER TO FINAL DESIGN PLANS FOR ACTUAL QUANTITIES AND LOCATIONS.

PLOT DATE: 7/20/2017 3:29:24 PM JKIELLMA

NOT FOR CONSTRUCTION

SERIES AR-1806

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

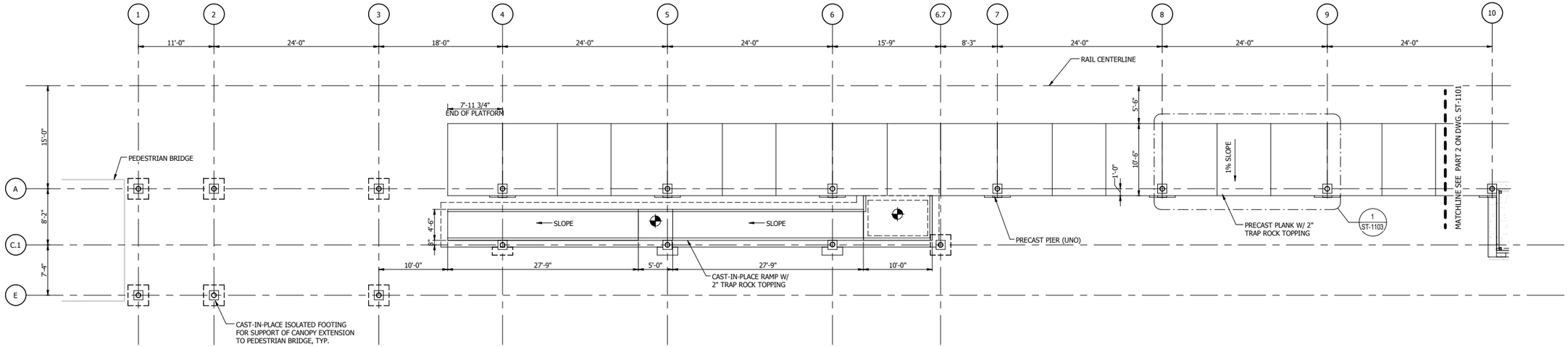
DESIGNED:	T. HILES
DRAWN:	J. MERSEREAU
CHECKED:	S. WICKS
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

PLATFORM SYSTEMS PLAN 2 STATION

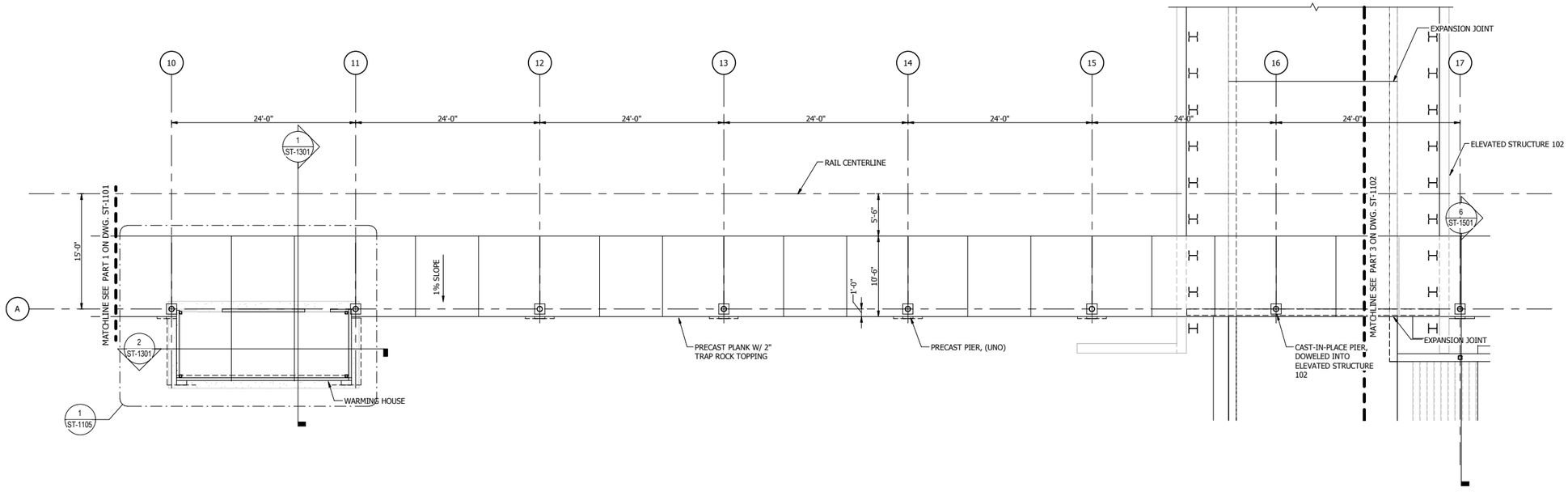
FILENAME	SHT_WL_TE_MD_PL_06.dgn
SCALE	AS NOTED

SHEET 45 OF 361



1 MUNSTER DYER PARTIAL PLATFORM PLAN - 1

1/8" = 1'-0"



2 MUNSTER DYER PARTIAL PLATFORM PLAN - 2

1/8" = 1'-0"

NOT FOR CONSTRUCTION

SERIES **ST-1101**

PLOT DATE: 19-Jul-17 2:05:10 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

DLZ

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER
TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	VMR
DRAWN:	VMR
CHECKED:	CVAN
DATE:	07/21/17

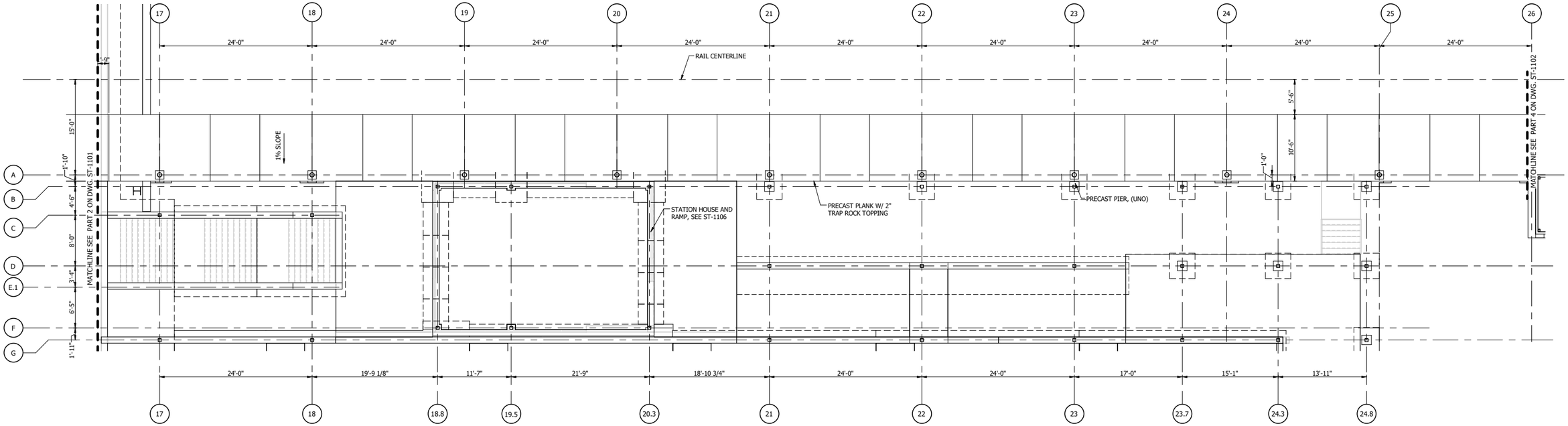
NICTD - WEST LAKE CORRIDOR - MP WL 61.5
Project Name

MUNSTER DYER PLATFORM PLAN - 1

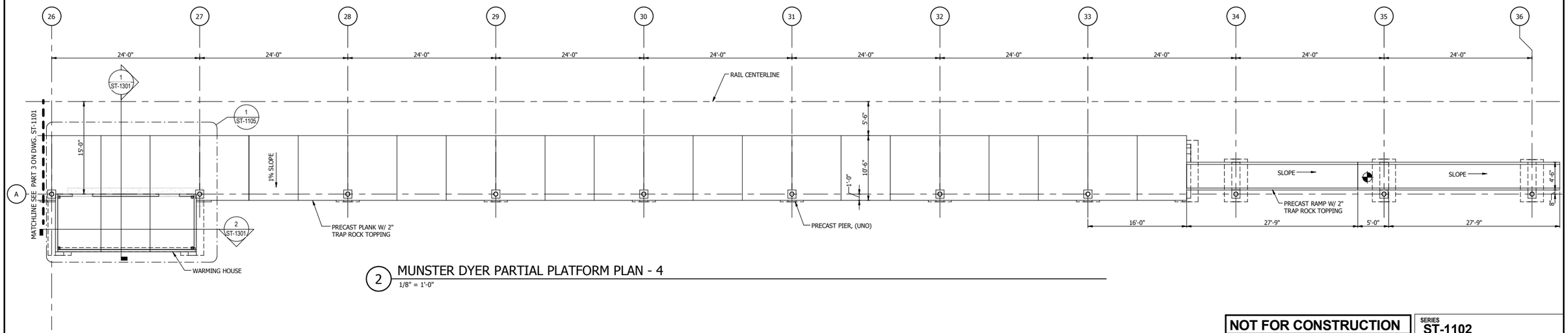
FILENAME	
SCALE	1/8" = 1'-0"

SHEET **46** OF **361**

C:\Users\vrednour\Documents\WL_ST_MUNDYERSTN_02_vrednour.rvt



1 MUNSTER DYER PARTIAL PLATFORM PLAN - 3
1/8" = 1'-0"



2 MUNSTER DYER PARTIAL PLATFORM PLAN - 4
1/8" = 1'-0"

NOT FOR CONSTRUCTION

SERIES **ST-1102**

PLOT DATE: 19-Jul-17 2:05:11 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

DLZ

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	VMR
DRAWN:	VMR
CHECKED:	CVAN
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
Project Name

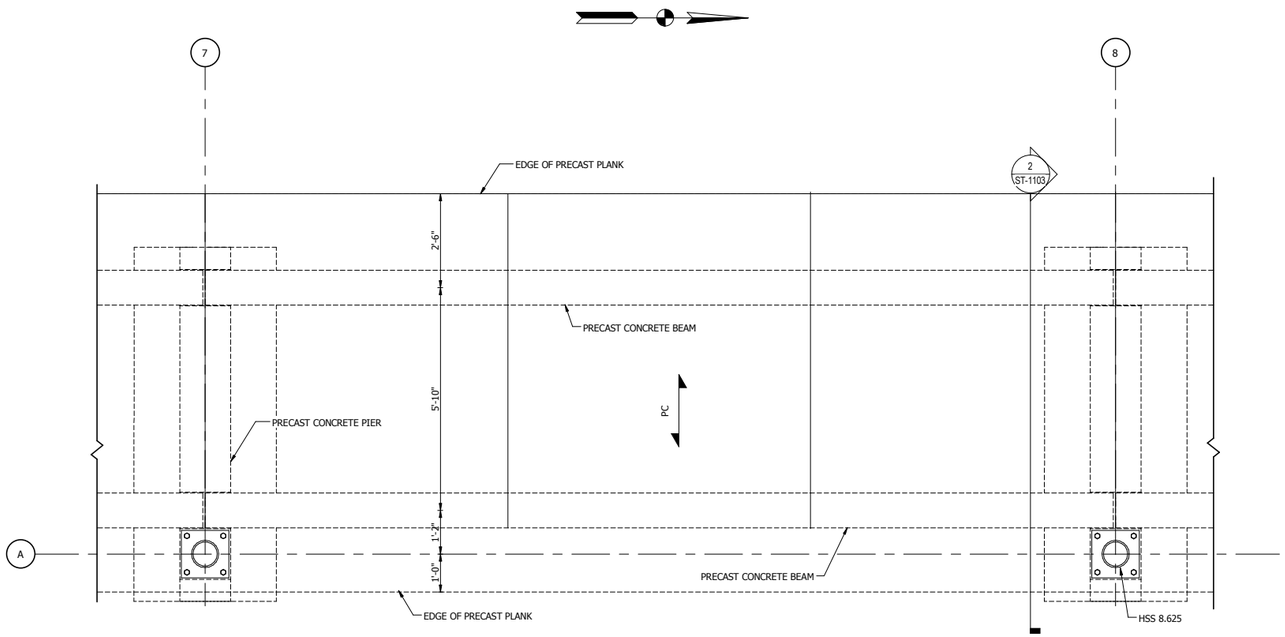
MUNSTER DYER PLATFORM PLAN - 2

FILENAME

SCALE 1/8" = 1'-0"

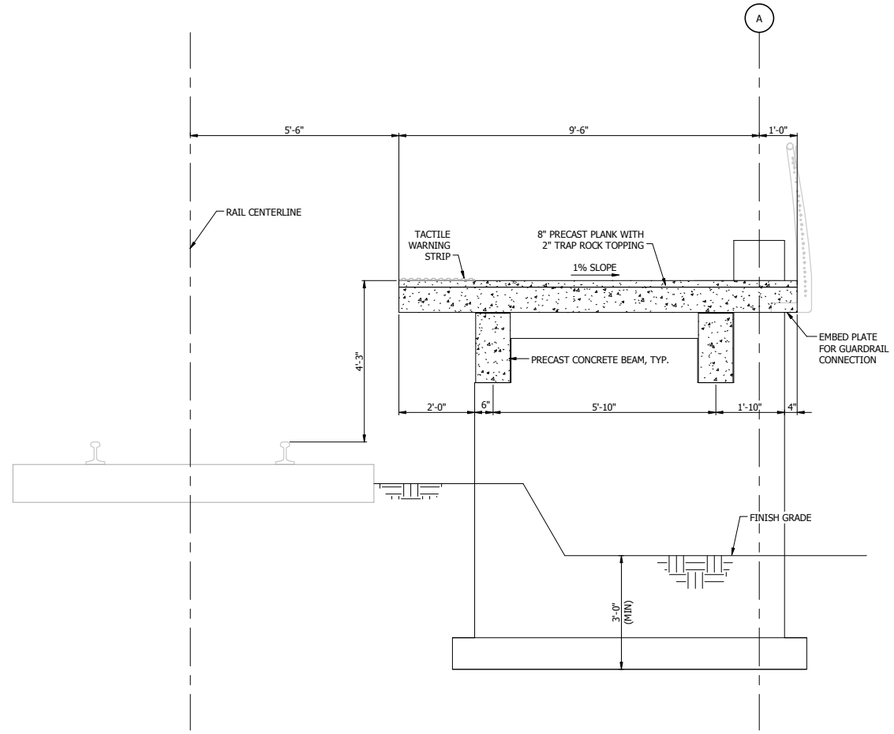
SHEET 47 OF 361

C:\Users\vrednour\Documents\WL_ST_MUNDYERSTN_02_vrednour.rvt



NOTE:
1. FOUNDATION SPACING SHOWN ON PLATFORM PLAN.

1 TYPICAL PLATFORM FRAMING
1/2" = 1'-0"



NOTES:
1. PROVIDE ELECTRAL HEATING MAT INTEGRAL IN PRECAST PLANKS.
2. STEEL COLUMN AND CANOPY NOT SHOWN FOR CLARITY.

2 TYPICAL PLATFORM SECTION
1/2" = 1'-0"

NOT FOR CONSTRUCTION

SERIES **ST-1103**

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

DLZ

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER
TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	VMR
DRAWN:	VMR
CHECKED:	CVAN
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
Project Name

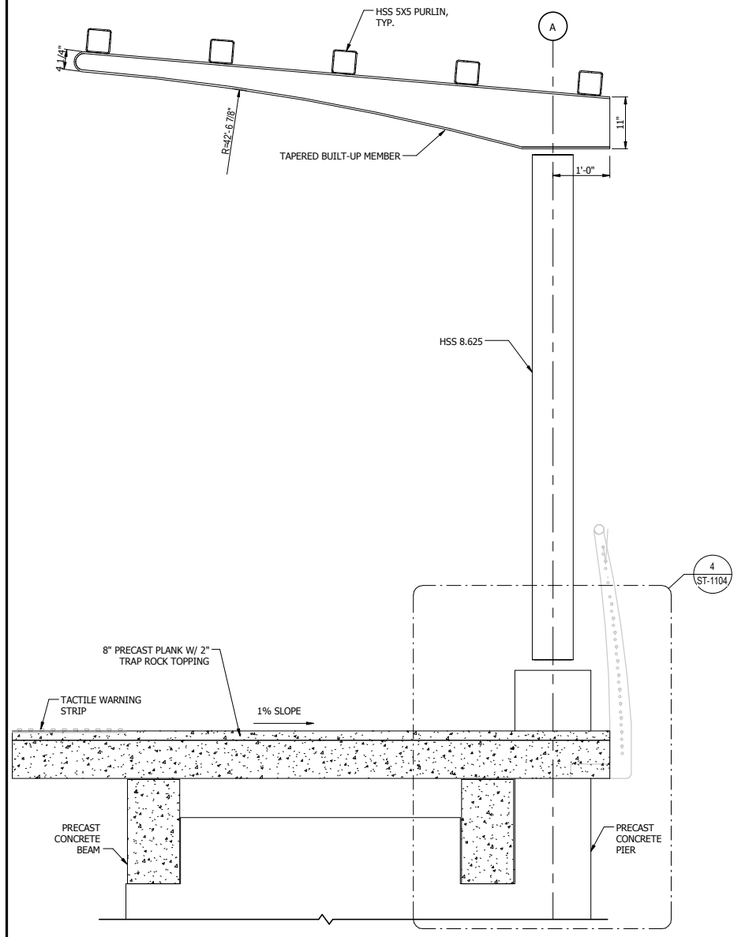
MUNSTER DYER PLATFORM FRAMING PLAN

FILENAME	
SCALE	1/2" = 1'-0"

SHEET **48 OF 361**

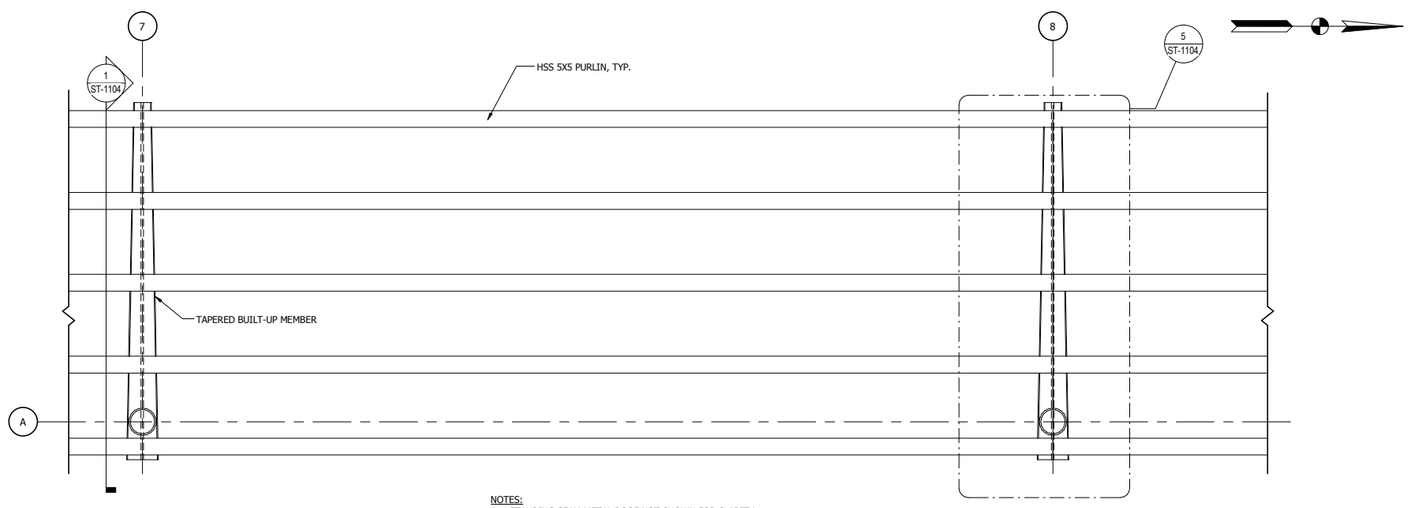
PLOT DATE: 19-Jul-17 2:21:33 PM

C:\Users\vrednour\Documents\WL_ST_MUNDYERSTN_02_vrednour.rvt



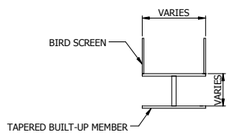
NOTE:
1. STANDING SEAM METAL ROOF NOT SHOWN FOR CLARITY.

1 TYPICAL CANOPY SECTION
3/4" = 1'-0"

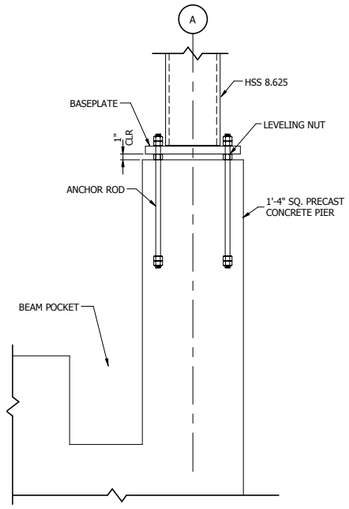


NOTES:
1. STANDING SEAM METAL ROOF NOT SHOWN FOR CLARITY.
2. SEE PLATFORM PLAN FOR GRID SPACING.

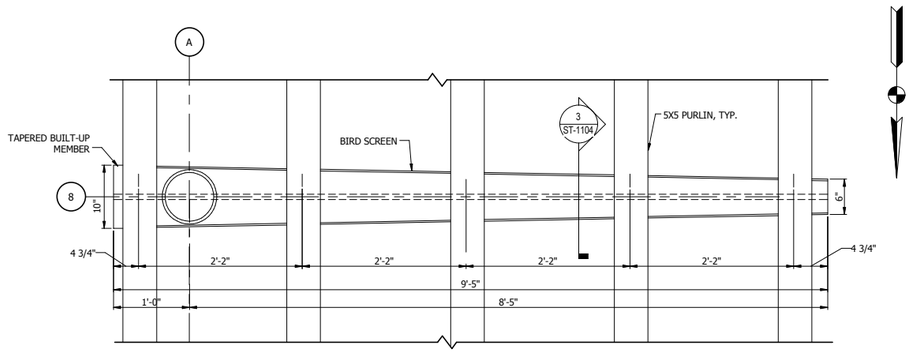
2 TYPICAL CANOPY FRAMING PLAN
1/2" = 1'-0"



3 TAPERED MEMBER SECTION
1" = 1'-0"



4 TYPICAL BASEPLATE CONFIGURATION
1" = 1'-0"



5 TYPICAL CANOPY PURLIN - BEAM DETAIL
1" = 1'-0"

NOT FOR CONSTRUCTION

SERIES **ST-1104**

PLOT DATE: 19-Jul-17 2:05:13 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

DLZ

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	VMR
DRAWN:	VMR
CHECKED:	CVAN
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
Project Name

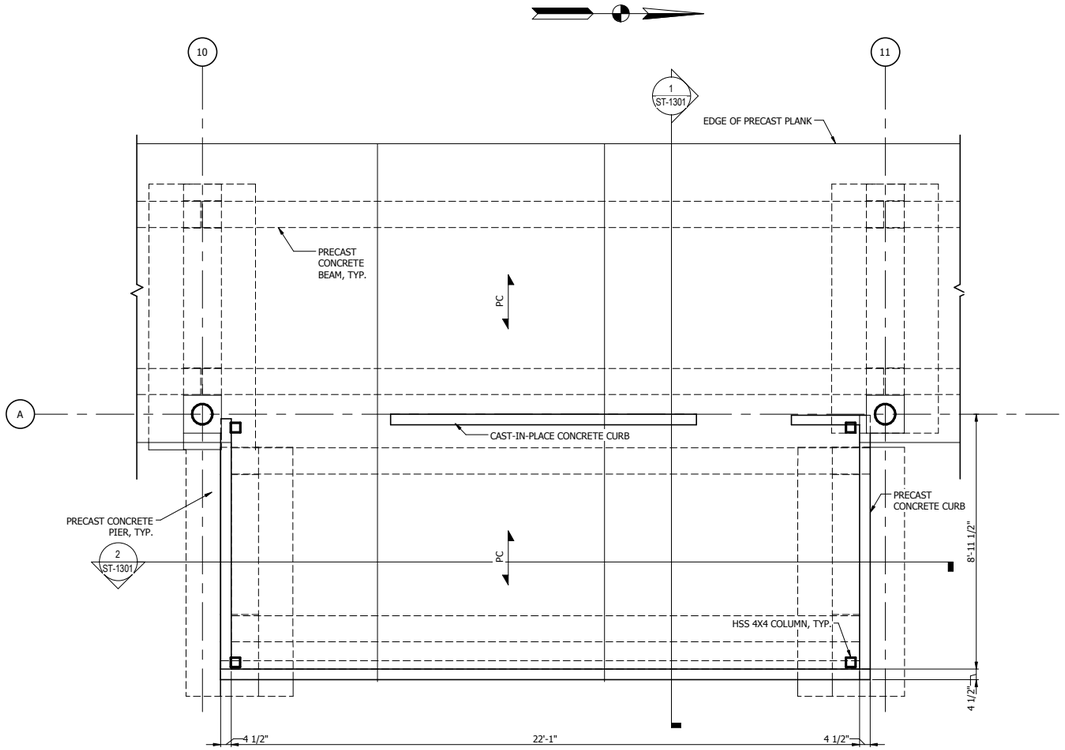
MUNSTER DYER CANOPY ROOF FRAMING PLAN

FILENAME

SCALE As indicated

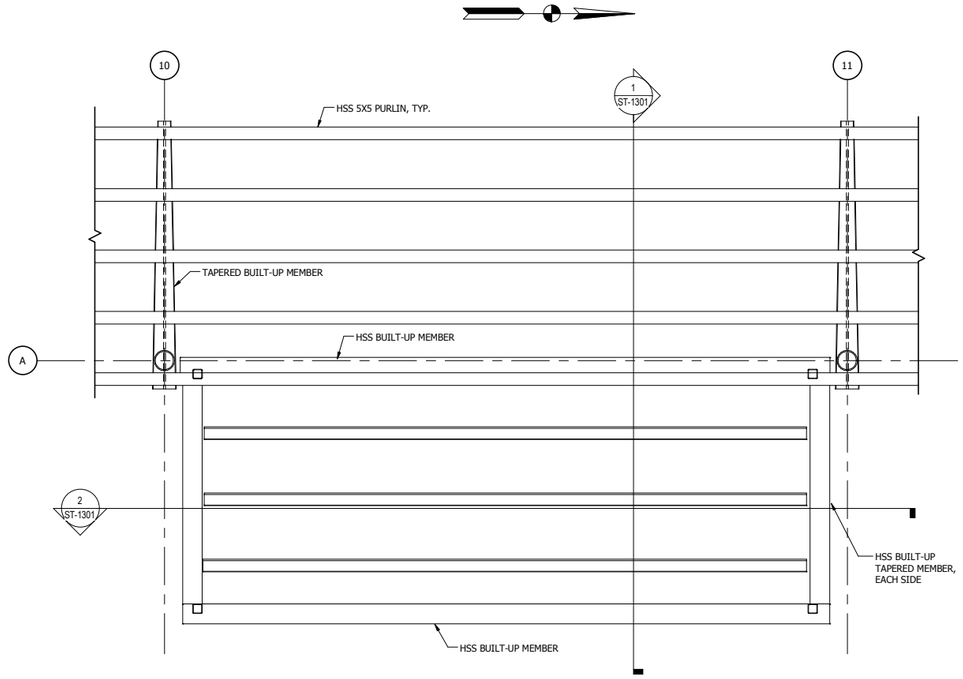
SHEET 49 OF 361

C:\Users\vrednour\Documents\WL_ST_MUNDYERSTN_02_vrednour.rvt



NOTE:
1. SEE PLATFORM FRAMING PLAN FOR TYPICAL GRID SPACING.

1 TYPICAL WARMING HOUSE FRAMING PLAN
3/8" = 1'-0"



NOTES:
1. STANDING SEAM METAL ROOF NOT SHOWN FOR CLARITY.
2. SEE PLATFORM FRAMING PLAN FOR TYPICAL GRID SPACING.

2 TYPICAL WARMING HOUSE ROOF FRAMING PLAN
3/8" = 1'-0"

NOT FOR CONSTRUCTION

SERIES
ST-1105

PLOT DATE: 19-Jul-17 2:05:13 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

DLZ

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER
TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	VMR
DRAWN:	VMR
CHECKED:	CVAN
DATE:	07/21/17

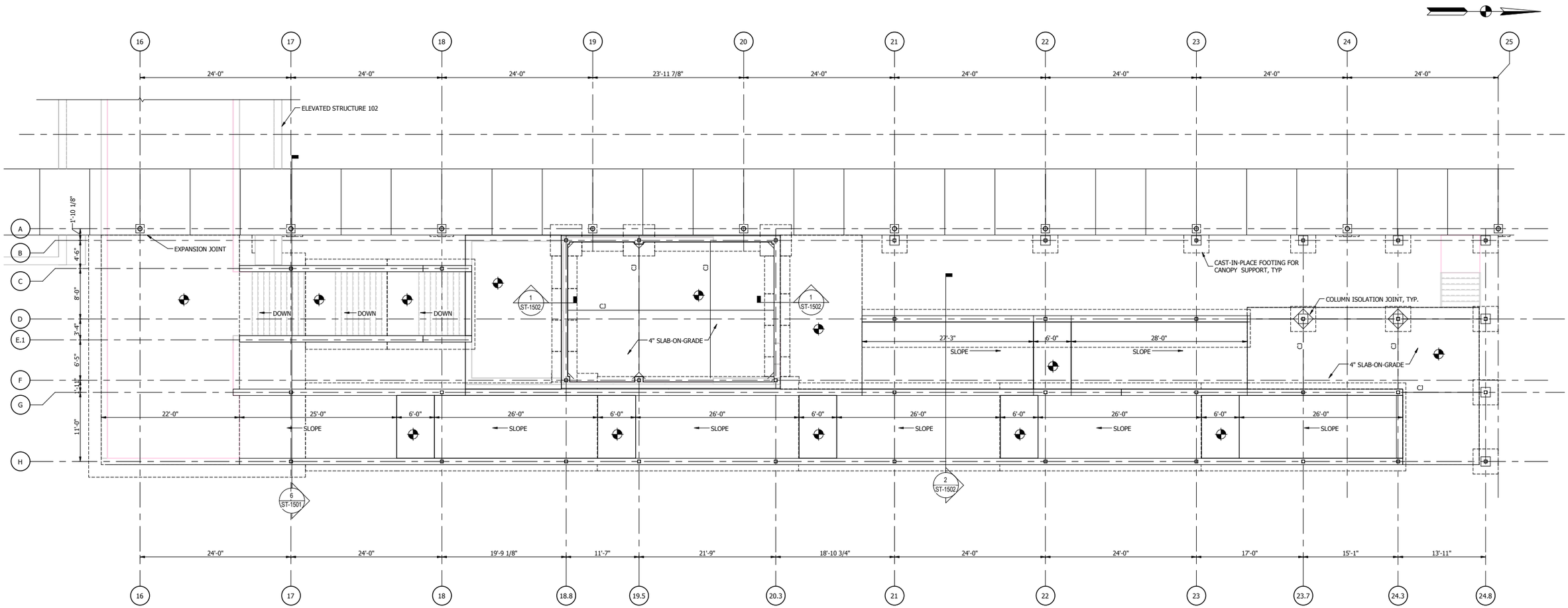
NICTD - WEST LAKE CORRIDOR - MP WL 61.5
Project Name

MUNSTER DYER WARMING HOUSE PLAN

FILENAME	
SCALE	3/8" = 1'-0"

SHEET
50 OF 361

C:\Users\vrednour\Documents\WL_ST_MUNDYERSTN_02_vrednour.rvt



1 STATION HOUSE AND RAMP FOUNDATION PLAN
1/8" = 1'-0"

NOT FOR CONSTRUCTION

SERIES **ST-1106**

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

DLZ

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER
TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	VMR
DRAWN:	VMR
CHECKED:	CVAN
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
Project Name

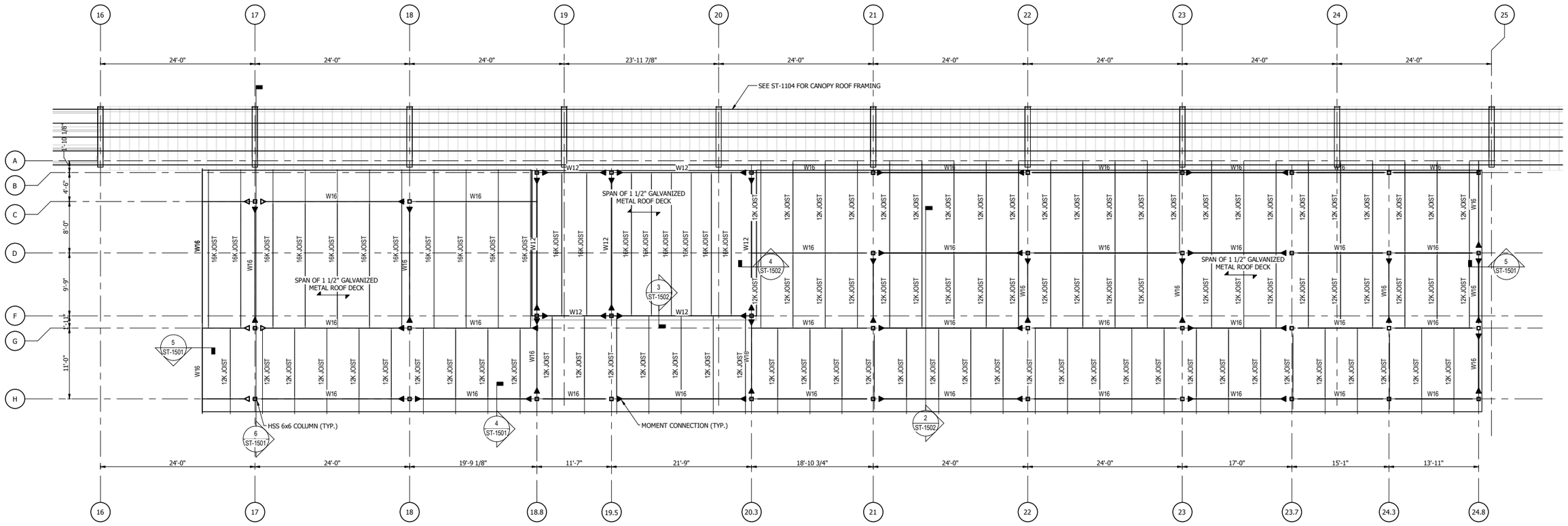
MUNSTER DYER STATION HOUSE AND RAMP FOUNDATION PLAN

FILENAME
SCALE 1/8" = 1'-0"

SHEET **51 OF 361**

PLOT DATE: 19-Jul-17 2:05:13 PM

C:\Users\vrednour\Documents\WL_ST_MUNDYERSTN_02_vrednour.rvt



1 STATION HOUSE AND RAMP FRAMING PLAN
1/8" = 1'-0"

NOT FOR CONSTRUCTION

SERIES ST-1107

PLOT DATE: 19-Jul-17 2:05:14 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

DLZ

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	VMR
DRAWN:	VMR
CHECKED:	CVAN
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
Project Name

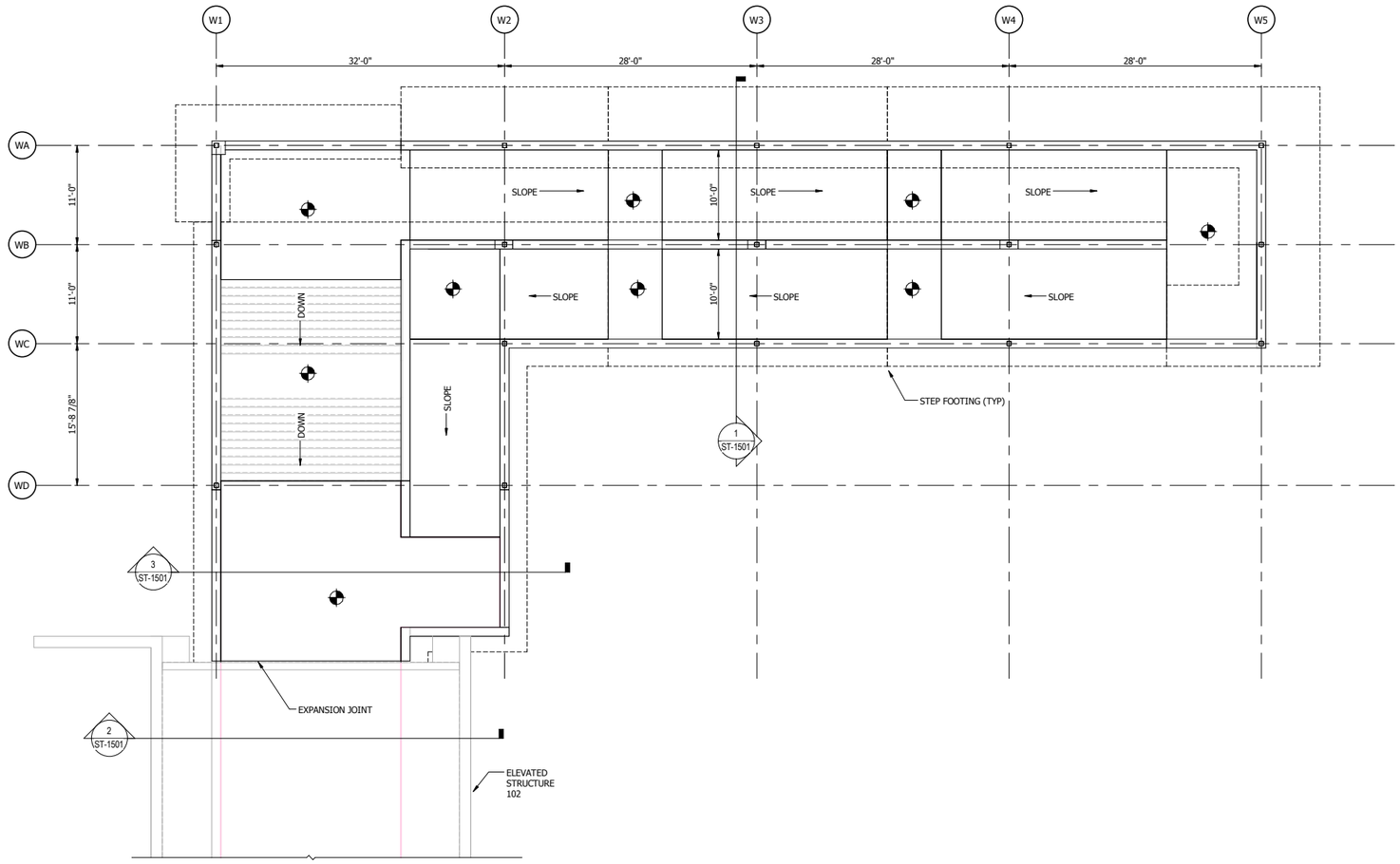
MUNSTER DYER STATION HOUSE AND RAMP ROOF FRAMING PLAN

FILENAME

SCALE 1/8" = 1'-0"

SHEET 52 OF 361

C:\Users\vrednour\Documents\WL_ST_MUNDYERSTN_02_vrednour.rvt



1 UNDERPASS WEST ACCESS FOUNDATION PLAN
1/8" = 1'-0"

NOT FOR CONSTRUCTION

SERIES **ST-1108**

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631

www.hdrinc.com

DLZ

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER
TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	BMV
DRAWN:	BMV
CHECKED:	CVAN
DATE:	07/21/17

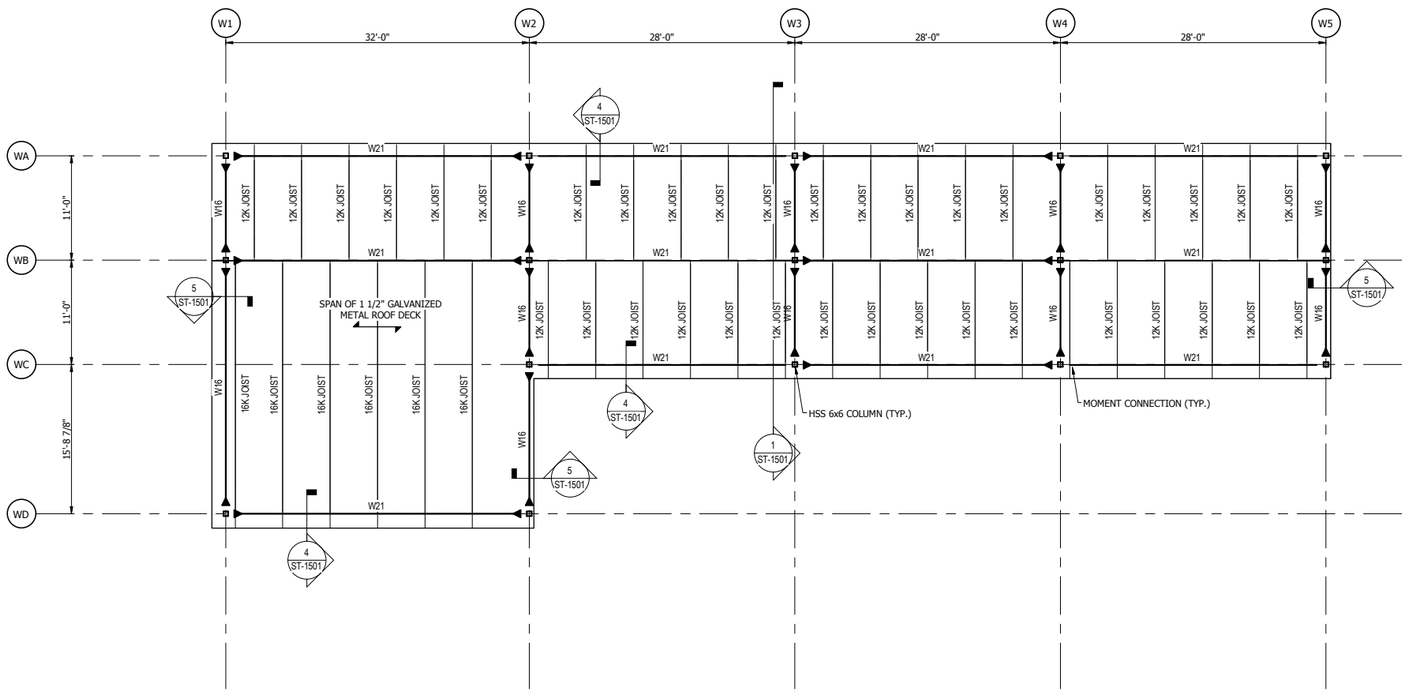
NICTD - WEST LAKE CORRIDOR - MP WL 61.5
Project Name

MUNSTER DYER UNDERPASS WEST ACCESS FOUNDATION PLAN

FILENAME		SHEET	53 OF 361
SCALE	1/8" = 1'-0"		

PLOT DATE: 19-Jul-17 2:05:15 PM

C:\Users\vrednour\Documents\WL_ST_MUNDYERSTN_02_vrednour.rvt



1 UNDERPASS WEST ACCESS FRAMING PLAN
1/8" = 1'-0"

NOT FOR CONSTRUCTION

SERIES **ST-1109**

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

DLZ

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	BMV
DRAWN:	BMV
CHECKED:	CVAN
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
Project Name

MUNSTER DYER UNDERPASS WEST ACCESS FRAMING PLAN

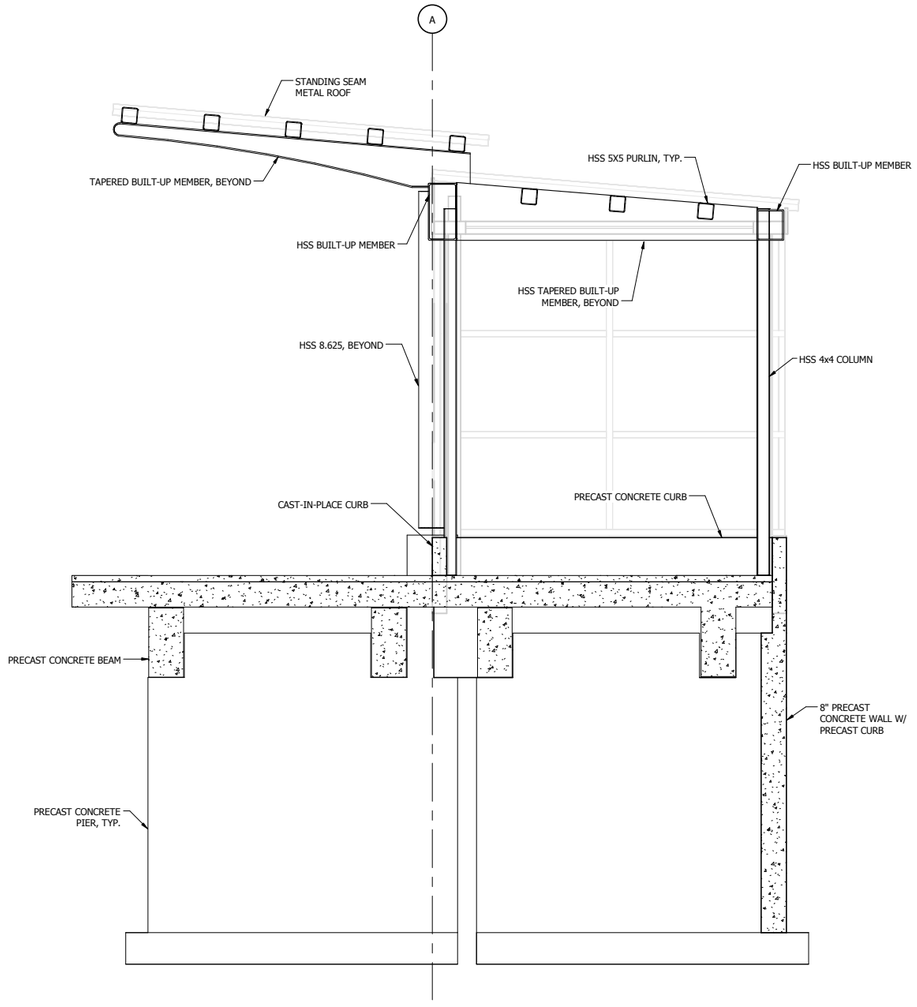
FILENAME

SCALE 1/8" = 1'-0"

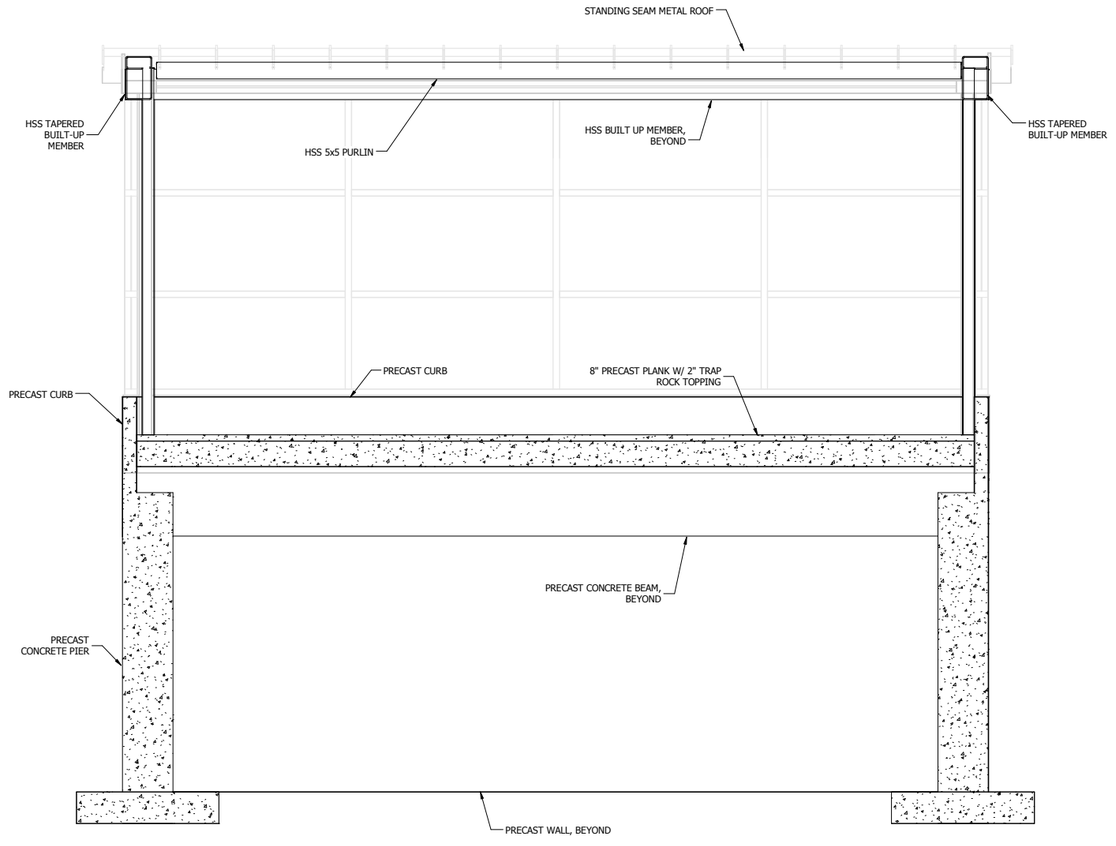
SHEET **54 OF 361**

PLOT DATE: 19-Jul-17 2:05:15 PM

C:\Users\vrednour\Documents\WL_ST_MUNDYERSTN_02_vrednour.rvt



1 TYPICAL WARMING HOUSE SECTION
1/2" = 1'-0"



2 TYPICAL WARMING HOUSE SECTION
1/2" = 1'-0"

NOT FOR CONSTRUCTION

SERIES **ST-1301**

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

DLZ

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	VMR
DRAWN:	VMR
CHECKED:	CVAN
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
Project Name

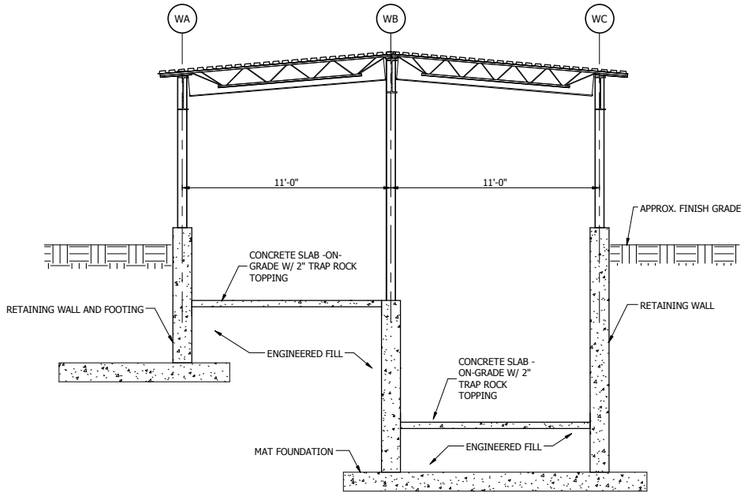
MUNSTER DYER WARMING HOUSE SECTIONS

FILENAME	
SCALE	1/2" = 1'-0"

SHEET **55 OF 361**

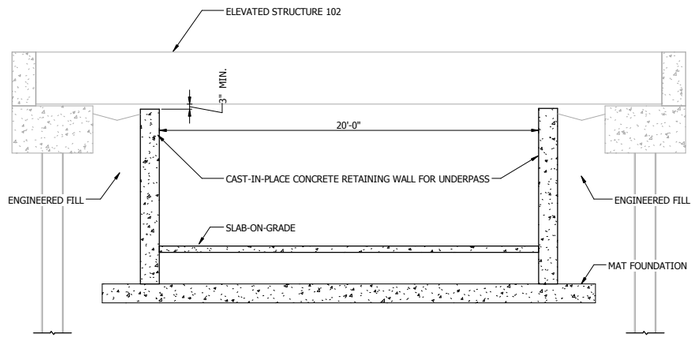
PLOT DATE: 19-Jul-17 2:05:16 PM

C:\Users\vrednour\Documents\WL_ST_MUNDYERSTN_02_vrednour.rvt

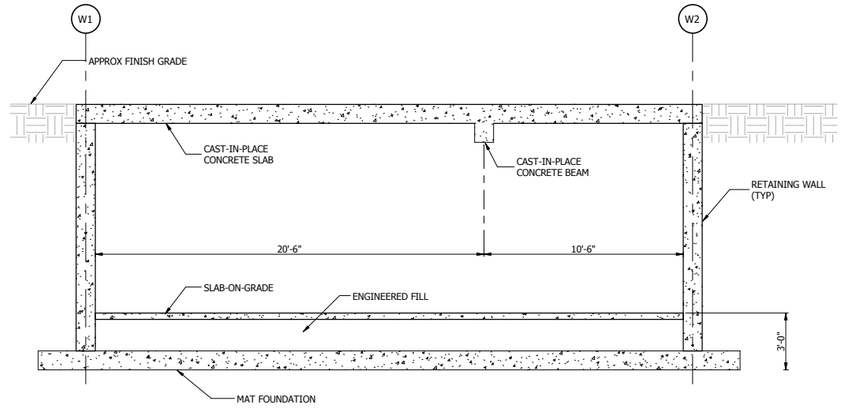


NOTES:
1. PROVIDE RUBBED FINISH ON EXPOSED CONCRETE WALLS
2. REFER TO ARCHITECTURAL DRAWINGS FOR HANDRAILS AND GUARDRAILS

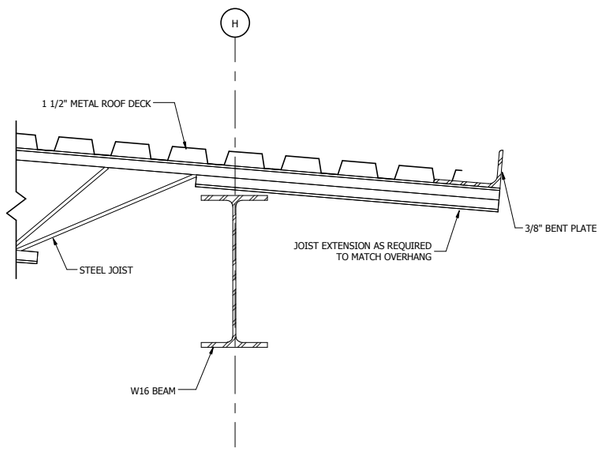
1 SECTION AT WEST BRIDGE ACCESS
1/4" = 1'-0"



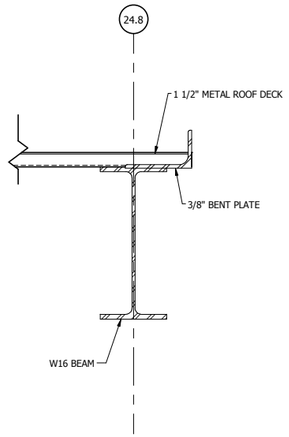
2 UNDERPASS SECTION
1/4" = 1'-0"



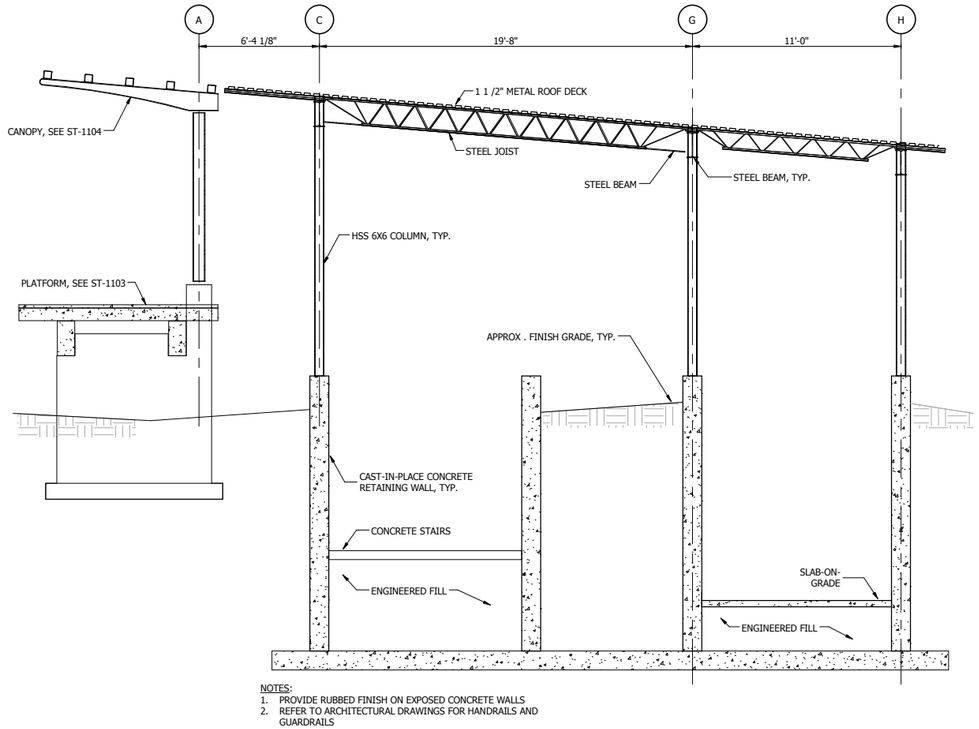
3 UNDERPASS SECTION
1/4" = 1'-0"



4 TYIPICAL JOIST BEARING DETAIL
1 1/2" = 1'-0"



5 TYPICAL DECK BEARING ROOF DETAIL
1 1/2" = 1'-0"



NOTES:
1. PROVIDE RUBBED FINISH ON EXPOSED CONCRETE WALLS
2. REFER TO ARCHITECTURAL DRAWINGS FOR HANDRAILS AND GUARDRAILS

6 EAST UNDERPASS ACCESS SECTION
1/4" = 1'-0"

NOT FOR CONSTRUCTION

SERIES **ST-1501**

PLOT DATE: 19-Jul-17 2:05:17 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

DLZ

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

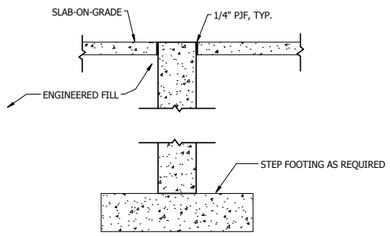
DESIGNED:	VMR
DRAWN:	VMR
CHECKED:	CVAN
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
Project Name

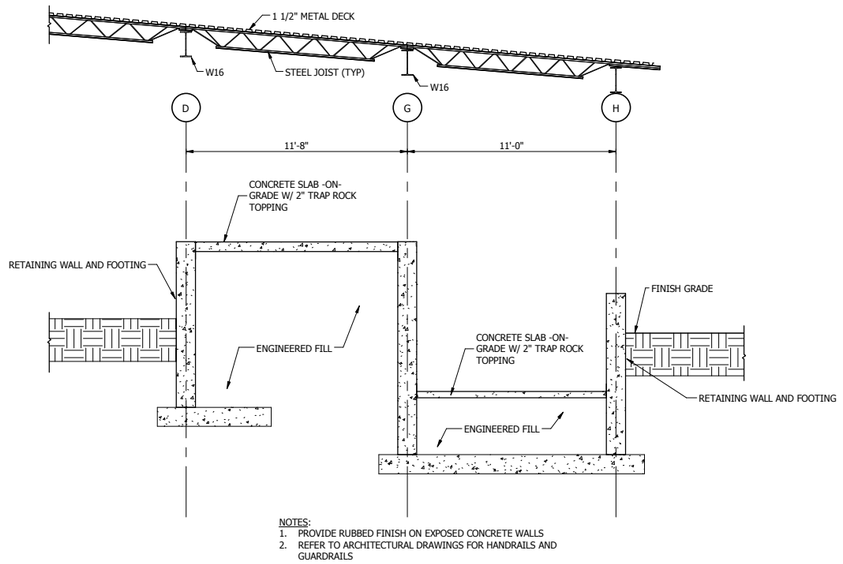
MUNSTER DYER UNDERPASS DETAILS

FILENAME		SHEET 56 OF 361
SCALE	As indicated	

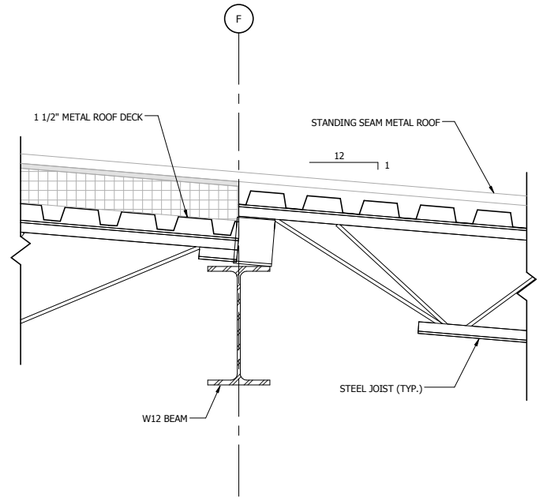
C:\Users\vrednour\Documents\WL_ST_MUNDYERSTN_02_vrednour.rvt



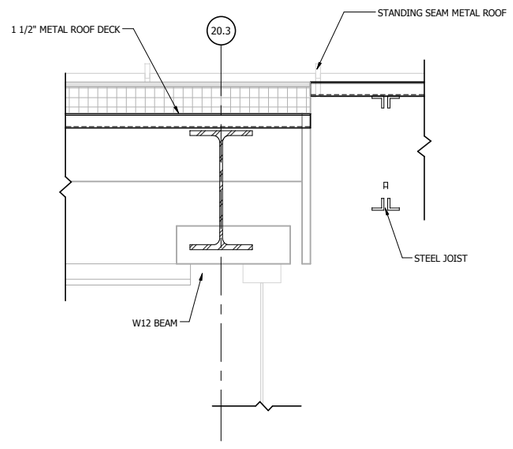
1 TYPICAL FOUNDATION DETAIL
1/2" = 1'-0"



2 EAST UNDERPASS ACCESS SECTION
1/4" = 1'-0"



3 TYIPICAL JOIST BEARING DETAIL
1 1/2" = 1'-0"



4 TYPICAL DECK BEARING ROOF DETAIL
1 1/2" = 1'-0"

NOT FOR CONSTRUCTION

SERIES **ST-1502**

PLOT DATE: 19-Jul-17 2:05:18 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

DLZ

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	VMR
DRAWN:	VMR
CHECKED:	CVAN
DATE:	07/21/17

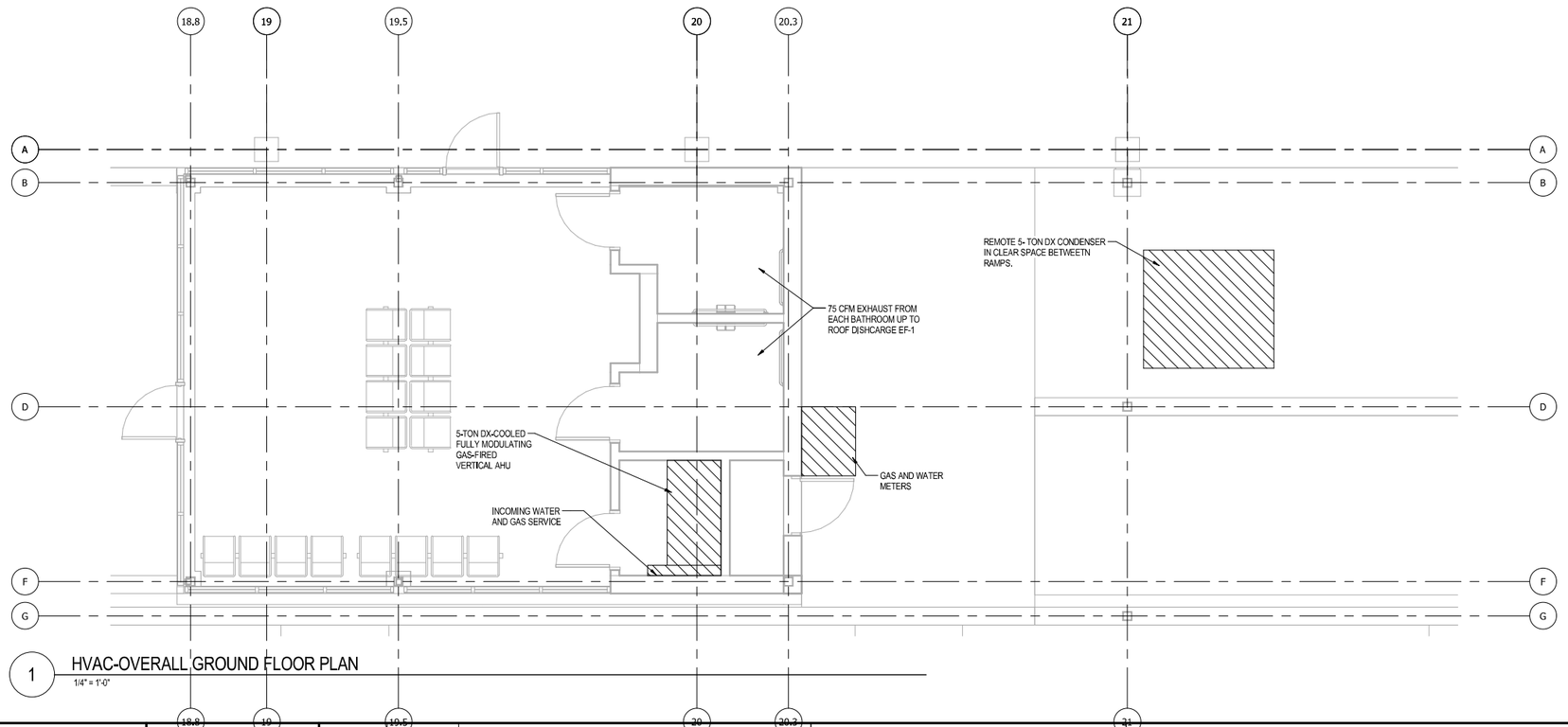
NICTD - WEST LAKE CORRIDOR - MP WL 61.5
Project Name

MUNSTER DYER STATION HOUSE DETAILS

FILENAME	
SCALE	As indicated

SHEET **57 OF 361**

C:\Users\vrednour\Documents\WL_ST_MUNDYERSTN_02_vrednour.rvt



1 HVAC-OVERALL GROUND FLOOR PLAN

1/4" = 1'-0"

NOT FOR CONSTRUCTION

SERIES **M-1101**

PLOT DATE: 7/17/2017 8:21:29 AM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631

www.hdrinc.com

DLZ

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

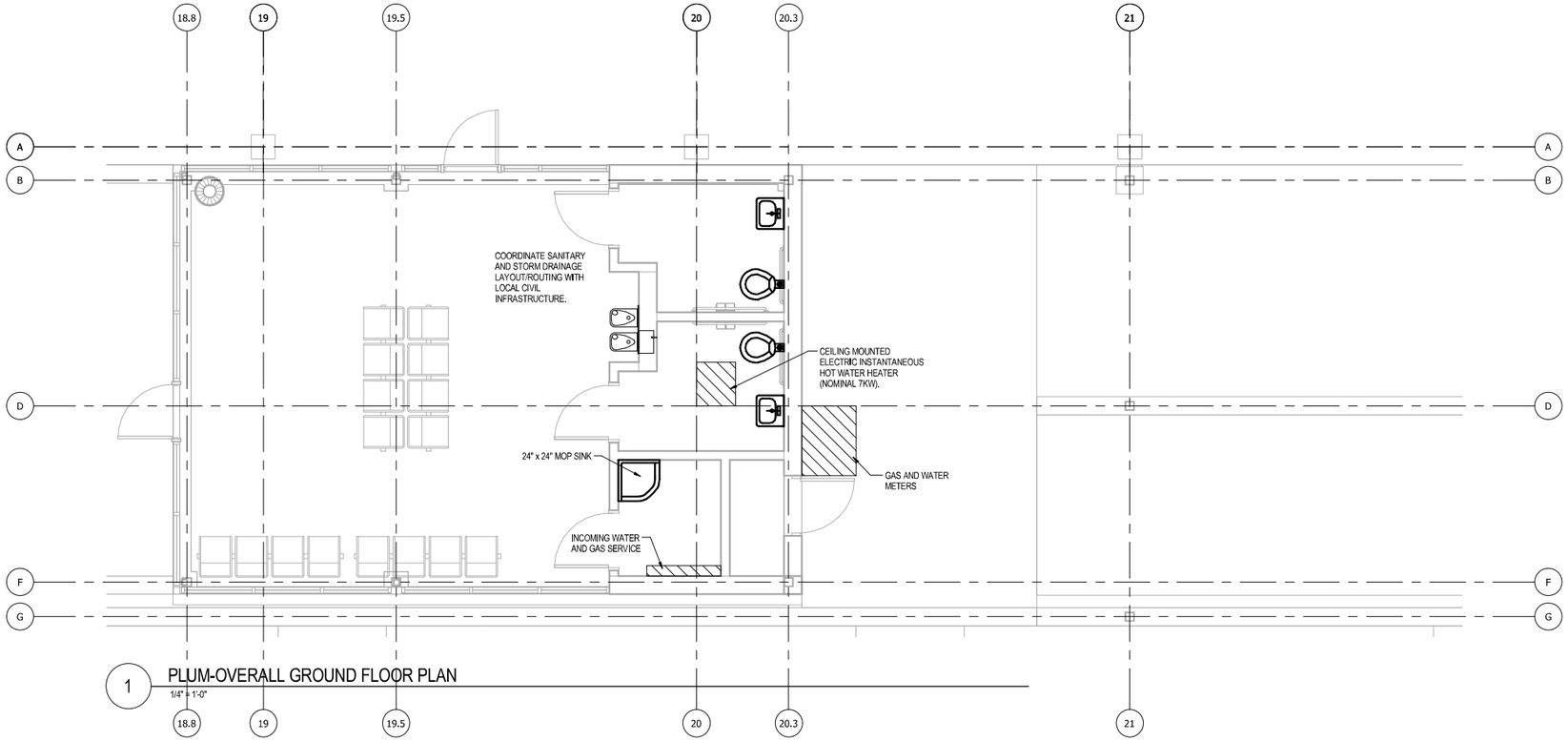
DESIGNED:	ZEA
DRAWN:	ZEA
CHECKED:	ESA
DATE:	07/21/2017

NICTD - WEST LAKE CORRIDOR - MP WL 61,5
Project Name

MUNSTER-DYER HVAC-OVERALL GROUND FLOOR PLAN

FILENAME		SHEET	58 OF 361
SCALE	1/4" = 1'-0"		

C:\Users\zalderman\Documents\WL_MPFP_MUNDYERSTN_02_zalderman.rvt



1 PLUM-OVERALL GROUND FLOOR PLAN

1/4" = 1'-0"

NOT FOR CONSTRUCTION

SERIES **MP-1101**

PLOT DATE: 7/17/2017 8:21:29 AM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631

www.hdrinc.com

DLZ

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	ZEA
DRAWN:	ZEA
CHECKED:	ESA
DATE:	07/21/2017

NICTD - WEST LAKE CORRIDOR - MP WL 61,5
Project Name

MUNSTER-DYER PLUMBING-OVERALL GROUND FLOOR PLAN

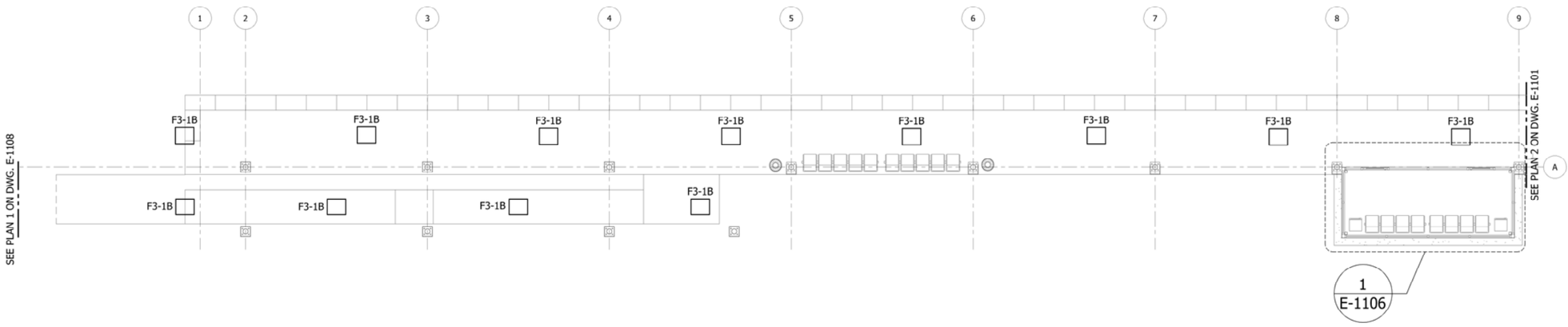
FILENAME	
SCALE	1/4" = 1'-0"

SHEET 59 **OF** 361

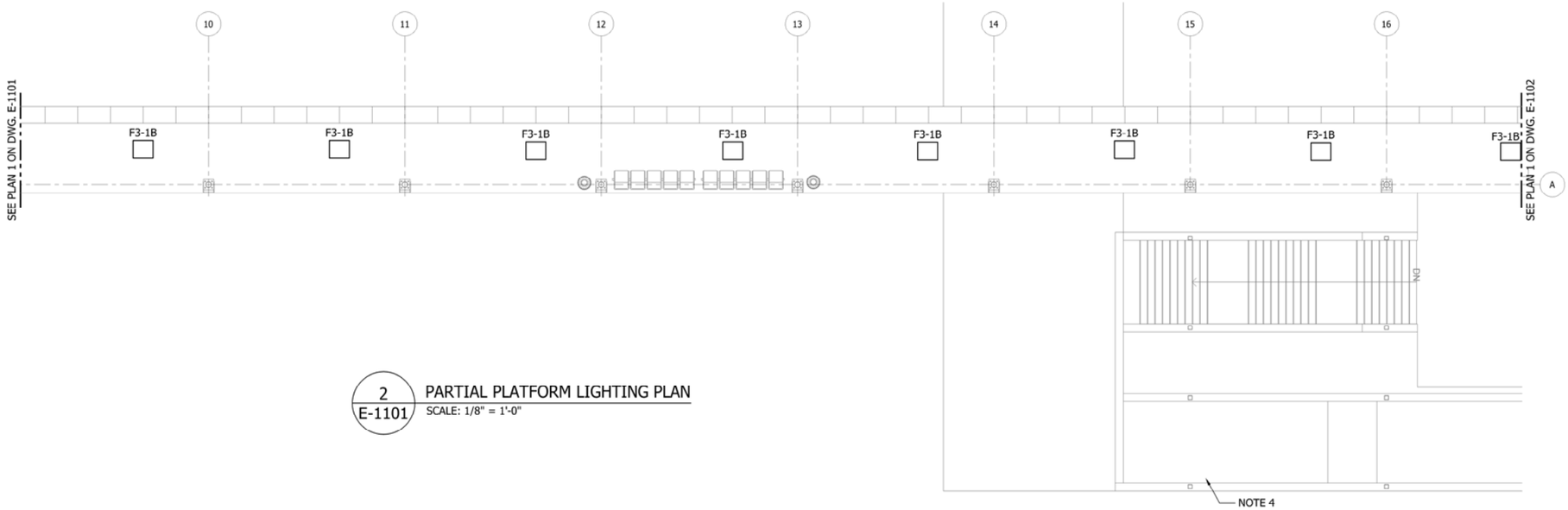
C:\Users\zalderman\Documents\WL_MPFP_MUNDYERSTN_02_zalderman.rvt

NOTES:

1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE SHEET E-1602 FOR CABLE AND CONDUIT SCHEDULE.
3. SEE SHEET E-0601 FOR LIGHTING FIXTURE SCHEDULE.
4. SEE SHEET E-1107 FOR UNDERPASS LIGHTING.



1 E-1101 PARTIAL PLATFORM LIGHTING PLAN
SCALE: 1/8" = 1'-0"



2 E-1101 PARTIAL PLATFORM LIGHTING PLAN
SCALE: 1/8" = 1'-0"

SCALE: 1/8" = 1'
0' 4' 8' 16' 32'

NOT FOR CONSTRUCTION

SERIES E-1101

PLOT DATE: 07/19/2017 8:37:49 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NICTD
NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

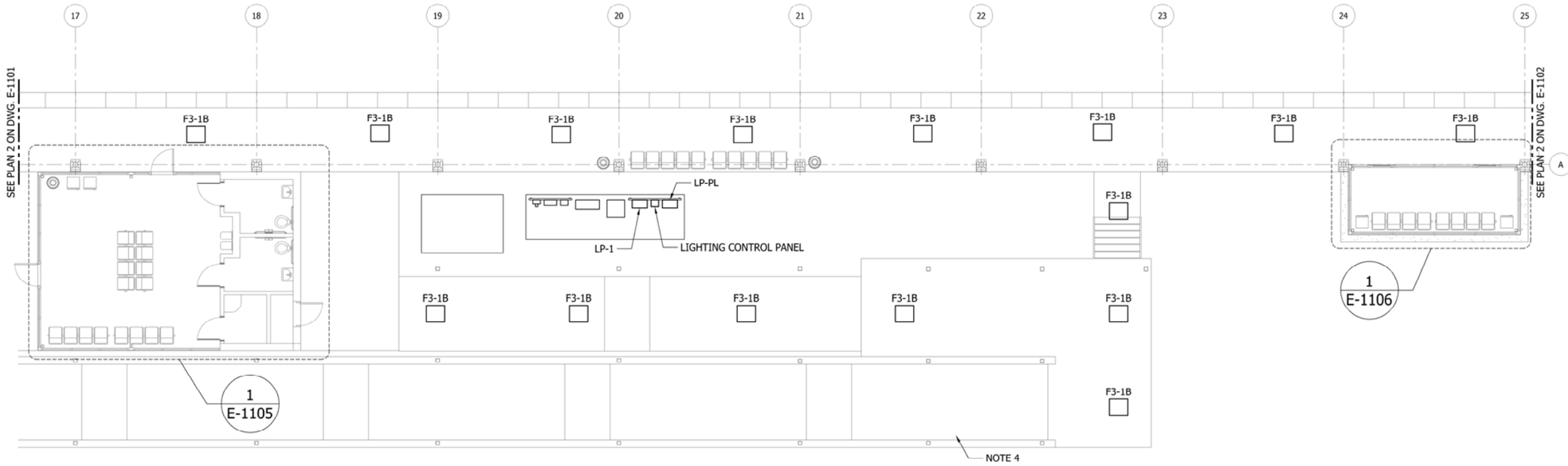
NICTD - WEST LAKE CORRIDOR - MP WL 61.5
MUNSTER-DYER STATION

PARTIAL PLATFORM LIGHTING PLANS

FILENAME	SHT_WL_E_MUNDYER_PL_01
SCALE	1/8" = 1' - 0"

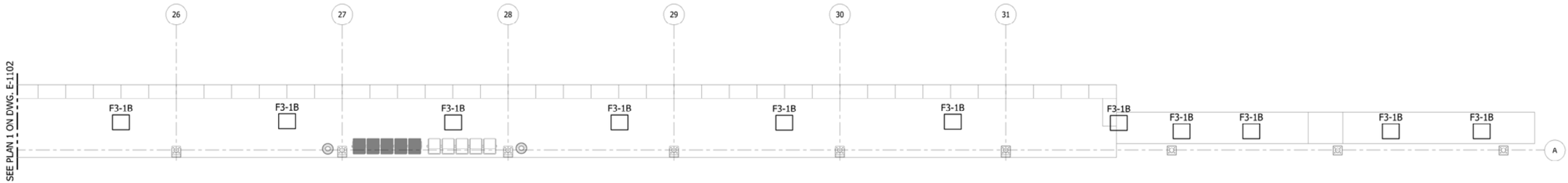
SHEET 60 OF 361

M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER DYER STATION\SHT_WL_E_MUNDYER_PL_01.DWG



1 / E-1102 PARTIAL PLATFORM LIGHTING PLAN

SCALE: 1/8" = 1'-0"



2 / E-1102 PARTIAL PLATFORM LIGHTING PLAN

SCALE: 1/8" = 1'-0"

SCALE: 1/8" = 1'

0' 4' 8' 16' 32'

NOTES:

1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE SHEET E-1602 FOR CABLE AND CONDUIT SCHEDULE.
3. SEE SHEET E-0601 FOR LIGHTING FIXTURE SCHEDULE.
4. SEE UNDERPASS LIGHTING ON SHEET E-1107.

NOT FOR CONSTRUCTION

SERIES E-1102

PLOT DATE: 07/19/2017 8:38:49 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NICTD
NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
MUNSTER-DYER STATION

PARTIAL PLATFORM LIGHTING PLANS

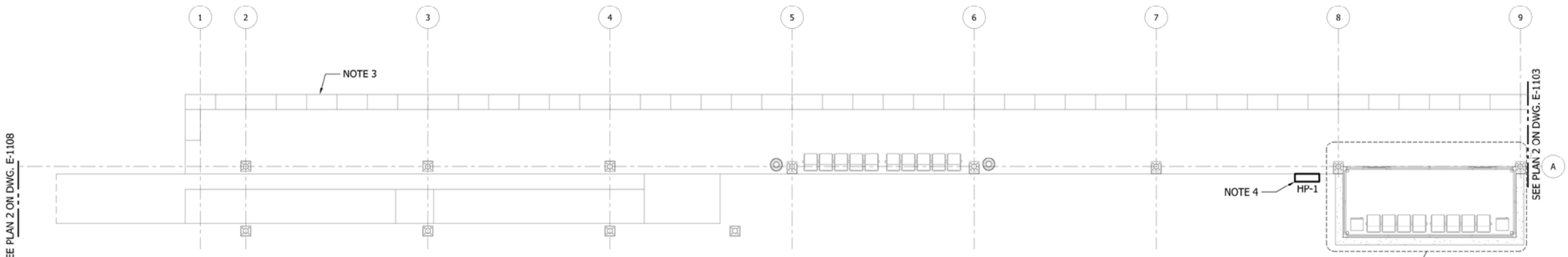
FILENAME	SHT_WL_E_MUNDYER_PL_02
SCALE	1/8" = 1' - 0"

SHEET 61 OF 361

M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER DYER STATION\SHT_WL_E_MUNDYER_PL_02.DWG

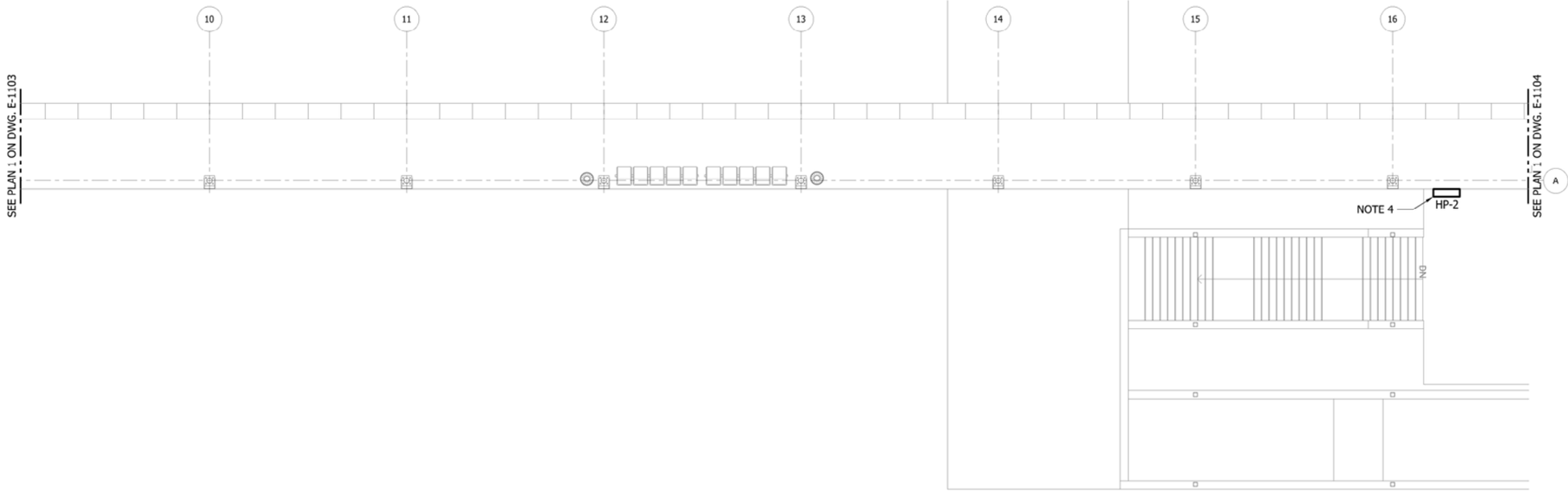
NOTES:

1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE SHEET E-3602 FOR CABLE AND CONDUIT SCHEDULE.
3. PROVIDE HEAT TRACING IN RAMPS, STAIRS AND PLATFORM.
4. APPROXIMATE LOCATION FOR HEAT TRACING PANEL.



1 / E-1103 PARTIAL PLATFORM POWER PLAN
SCALE: 1/8" = 1'-0"

2 / E-1106



2 / E-1103 PARTIAL PLATFORM POWER PLAN
SCALE: 1/8" = 1'-0"

SCALE: 1/8" = 1'
0' 4' 8' 16' 32'

NOT FOR CONSTRUCTION

SERIES E-1103

PLOT DATE: 07/19/2017 8:39:23 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

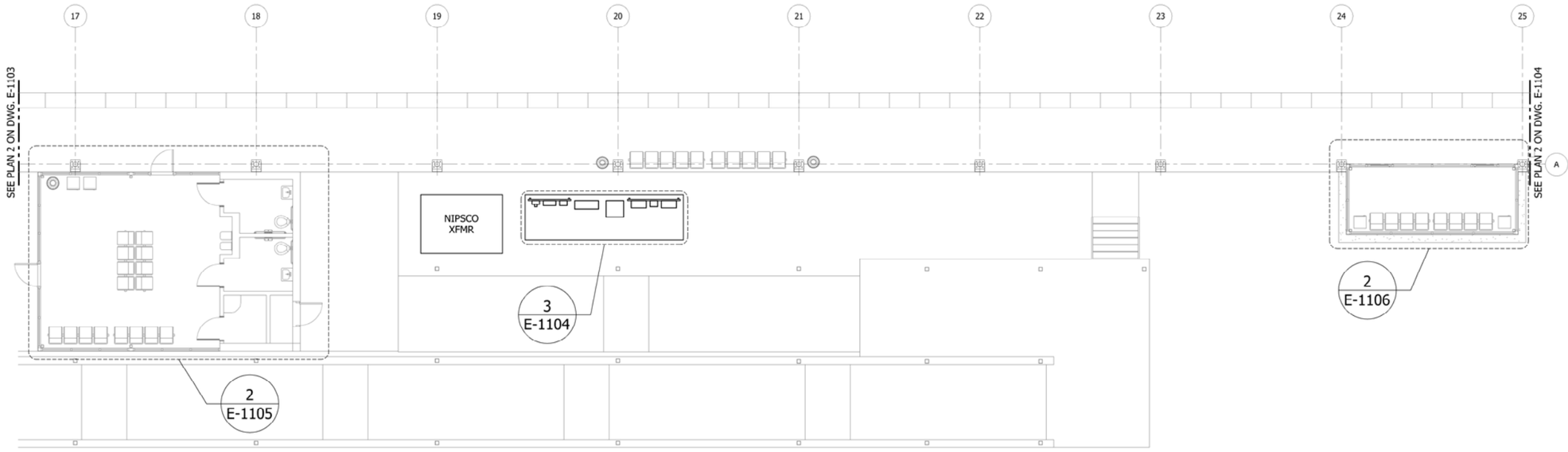
NICTD - WEST LAKE CORRIDOR - MP WL 61.5
MUNSTER-DYER STATION

PARTIAL PLATFORM POWER PLANS

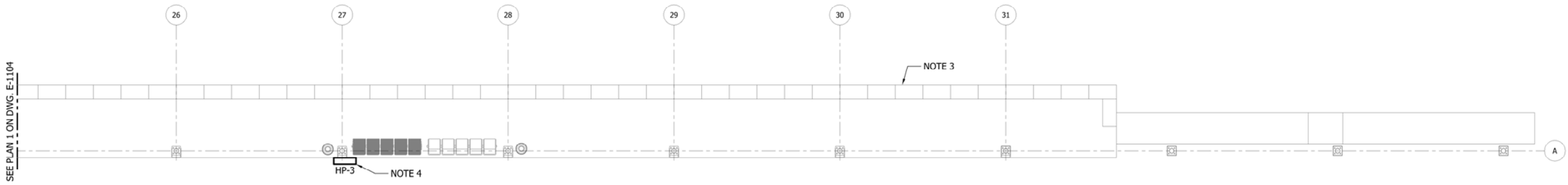
FILENAME	SHT_WL_E_MUNDYER_PL_03
SCALE	1/8" = 1' - 0"

SHEET 62 OF 361

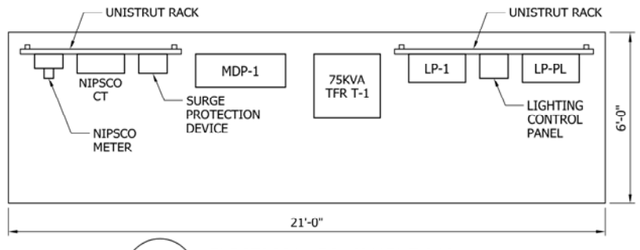
M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER DYER STATION\SHT_WL_E_MUNDYER_PL_03.DWG



1 E-1104 PARTIAL PLATFORM POWER PLAN
SCALE: 1/8" = 1'-0"



2 E-1104 PARTIAL PLATFORM POWER PLAN
SCALE: 1/8" = 1'-0"



3 E-1104 ELECTRICAL EQUIPMENT PAD
SCALE: 3/8" = 1'-0"

SCALE: 1/8" = 1'

0' 4' 8' 16' 32'

NOTES:

1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE SHEET E-3602 FOR CABLE AND CONDUIT SCHEDULE.
3. PROVIDE HEAT TRACING IN RAMPS, STAIRS AND PLATFORM.
4. APPROXIMATE LOCATION FOR HEAT TRACING PANEL.

NOT FOR CONSTRUCTION

SERIES E-1104

PLOT DATE: 07/19/2017 8:40:08 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
MUNSTER-DYER STATION

PARTIAL PLATFORM POWER PLANS

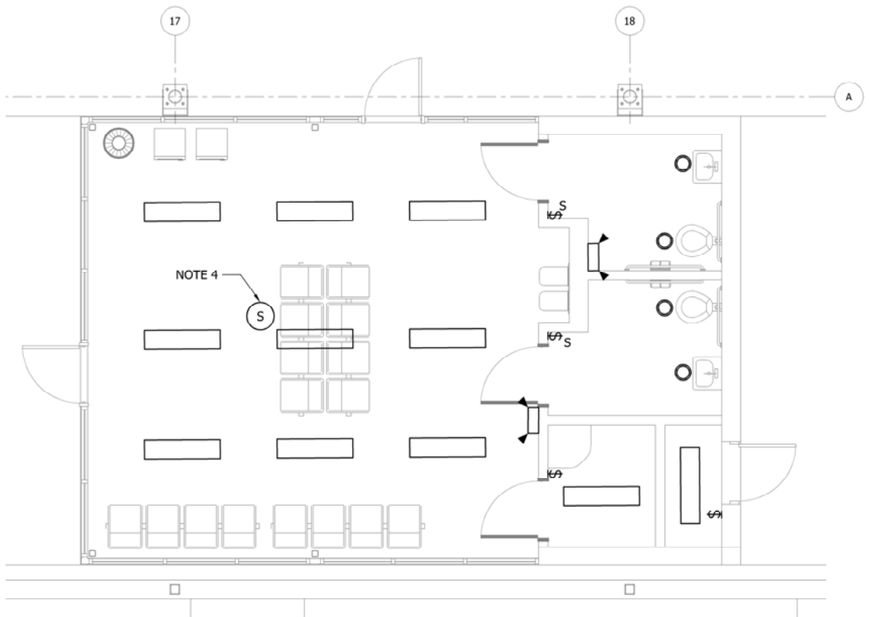
FILENAME	SHT_WL_E_MUNDYER_PL_04
SCALE	1/8" = 1' - 0"

SHEET 63 OF 361

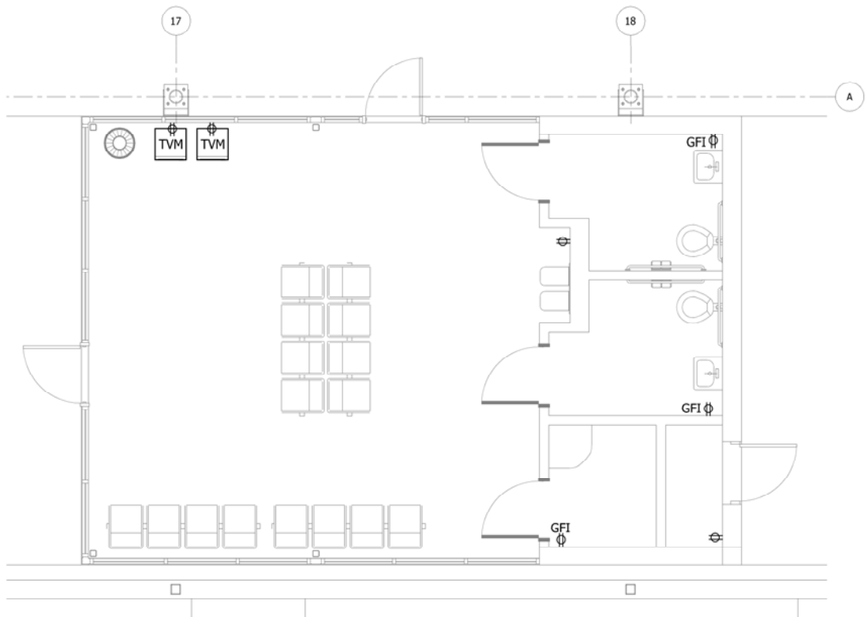
M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER DYER STATION\SHT_WL_E_MUNDYER_PL_04.DWG

NOTES:

1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE SHEET E-1602 FOR CABLE AND CONDUIT SCHEDULE.
3. SEE SHEET E-0601 FOR LIGHTING FIXTURE SCHEDULE.
4. CEILING MOUNTED MOTION SENSOR.



1 / E-1105 STATION BUILDING LIGHTING PLAN
SCALE: 1/4" = 1'-0"



2 / E-1105 STATION BUILDING POWER PLAN
SCALE: 1/4" = 1'-0"

SCALE: 1/4" = 1'
0' 2' 4' 8' 16'

NOT FOR CONSTRUCTION

SERIES E-1105

PLOT DATE: 07/19/2017 8:40:48 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NICTD
NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
MUNSTER-DYER STATION

STATION BUILDING PLANS

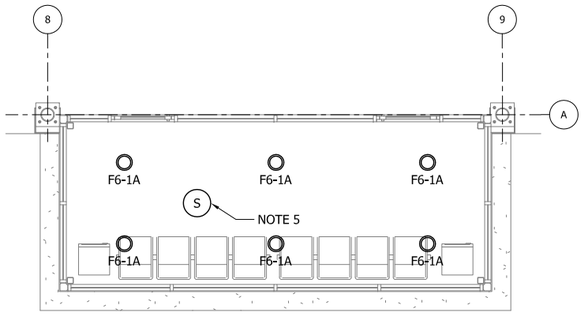
FILENAME	SHT_WL_E_MUNDYER_PL_05
SCALE	1/4" = 1' - 0"

SHEET 64 OF 361

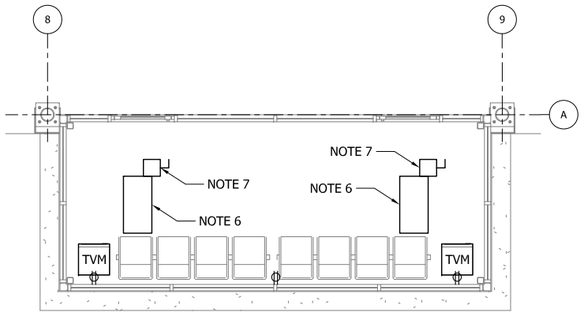
M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER DYER STATION\SHT_WL_E_MUNDYER_PL_05.DWG

NOTES:

1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE SHEET E-1602 FOR CABLE AND CONDUIT SCHEDULE.
3. SEE SHEET E-0601 FOR LIGHTING FIXTURE SCHEDULE.
4. PLANS ON THIS SHEET SHOW ONE WARMING HUT LOCATION. REFER TO PLATFORM PLAN DRAWINGS FOR LOCATION OF OTHER WARMING HUTS AT THIS STATION.
5. CEILING MOUNTED MOTION SENSOR.
6. INFRARED HEATERS.
7. SIZE DISCONNECT SWITCHES FOR INFRARED HEATERS SIZE.



1 E-1106 TYPICAL WARMING HUT LIGHTING PLAN
SCALE: 1/4" = 1'-0"



2 E-1106 TYPICAL WARMING HUT POWER PLAN
SCALE: 1/4" = 1'-0"

SCALE: 1/4" = 1'

0' 2' 4' 8' 16'

NOT FOR CONSTRUCTION

SERIES E-1106

PLOT DATE: 07/19/2017 8:41:40 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
MUNSTER-DYER STATION

TYPICAL WARMING HUT PLANS

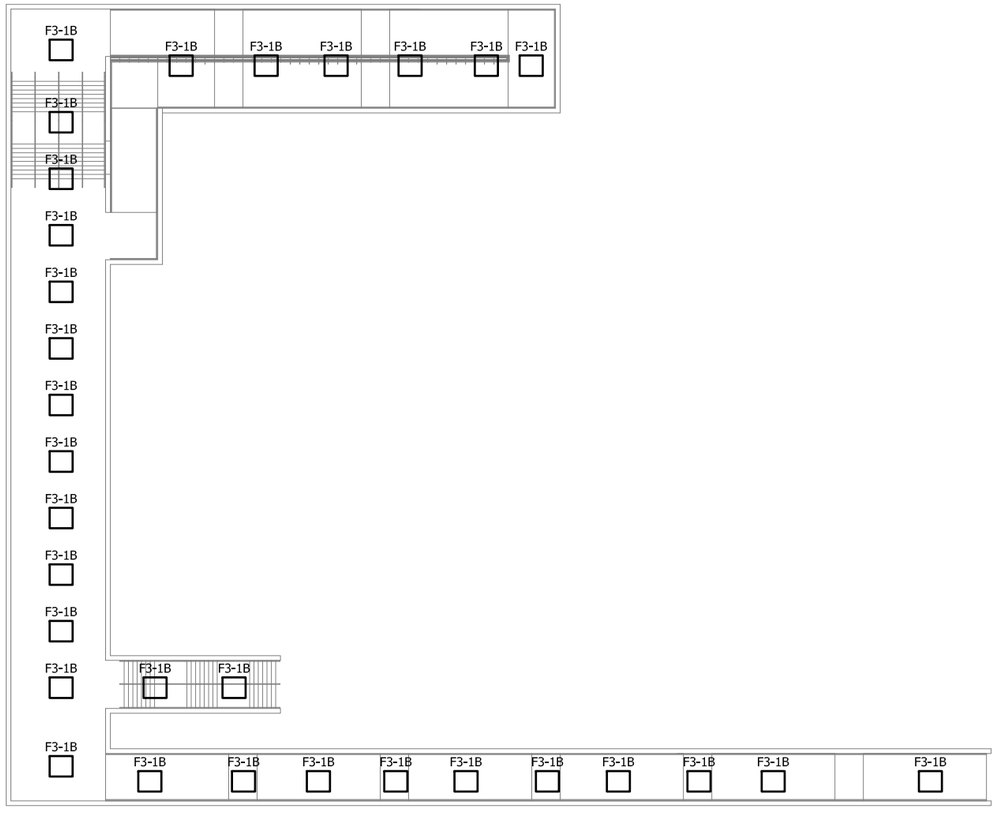
FILENAME	SHT_WL_E_MUNDYER_PL_06
SCALE	1/4" = 1' - 0"

SHEET 65 OF 361

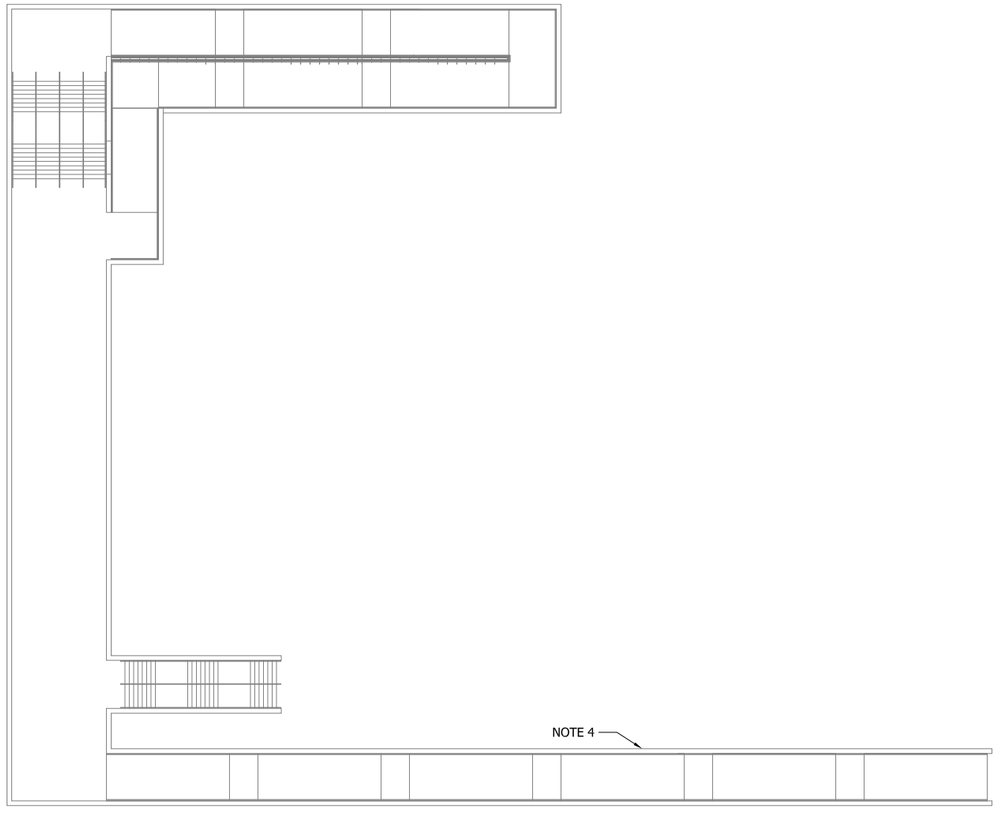
M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER DYER STATION\SHT_WL_E_MUNDYER_PL_06.DWG

NOTES:

1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE SHEET E-1602 FOR CABLE AND CONDUIT SCHEDULE.
3. SEE SHEET E-0601 FOR LIGHTING FIXTURE SCHEDULE.
4. PROVIDE HEAT TRACING ON RAMPS STAIRS AND UNDERPASS.



1 E-1107 PEDESTRIAN UNDERPASS LIGHTING PLAN
SCALE: 1/16" = 1'-0"



2 E-1107 PEDESTRIAN UNDERPASS POWER PLAN
SCALE: 1/16" = 1'-0"

SCALE: 1/16" = 1'
0' 8' 16' 32' 64'

NOT FOR CONSTRUCTION

SERIES E-1107

PLOT DATE: 07/19/2017 8:42:05 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING OBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER
TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
MUNSTER-DYER STATION

PEDESTRIAN UNDERPASS PLANS

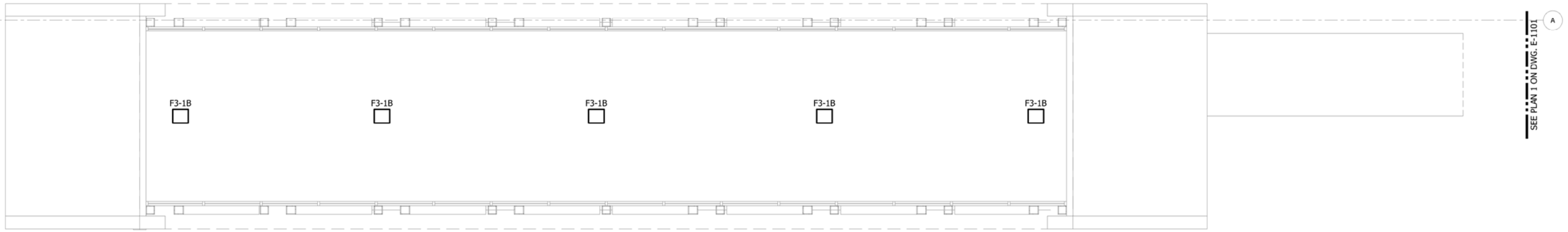
FILENAME	SHT_WL_E_MUNDYER_PL_07
SCALE	1/16" = 1' - 0"

SHEET 66 OF 361

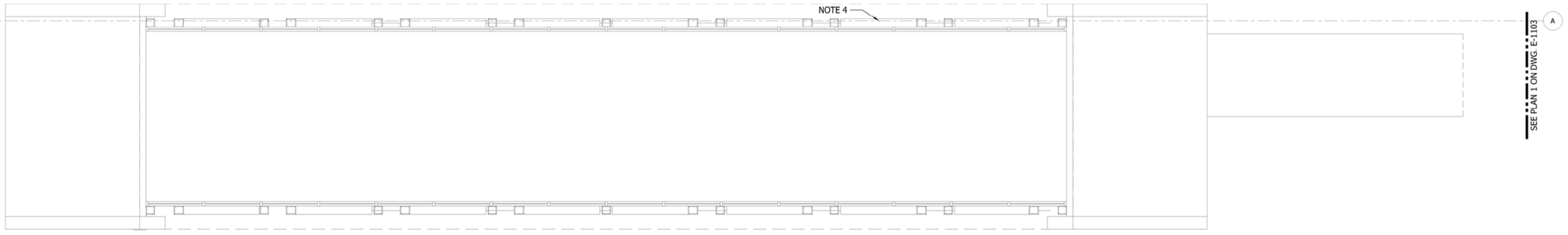
M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER DYER STATION\SHT_WL_E_MUNDYER_PL_07.DWG

NOTES:

1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE SHEET E-1602 FOR CABLE AND CONDUIT SCHEDULE.
3. SEE SHEET E-0601 FOR LIGHTING FIXTURE SCHEDULE.
4. PROVIDE HEAT TRACING.



1 / E-1108 PEDESTRIAN BRIDGE #BR101A LIGHTING PLAN
SCALE: 1/4" = 1'-0"



2 / E-1108 PEDESTRIAN BRIDGE #BR101A POWER PLAN
SCALE: 1/4" = 1'-0"

SCALE: 1/4" = 1'
0' 2' 4' 8' 16'

NOT FOR CONSTRUCTION

SERIES E-1108

PLOT DATE: 07/19/2017 8:42:32 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
MUNSTER-DYER STATION

PEDESTRIAN BRIDGE #BR101A PLANS

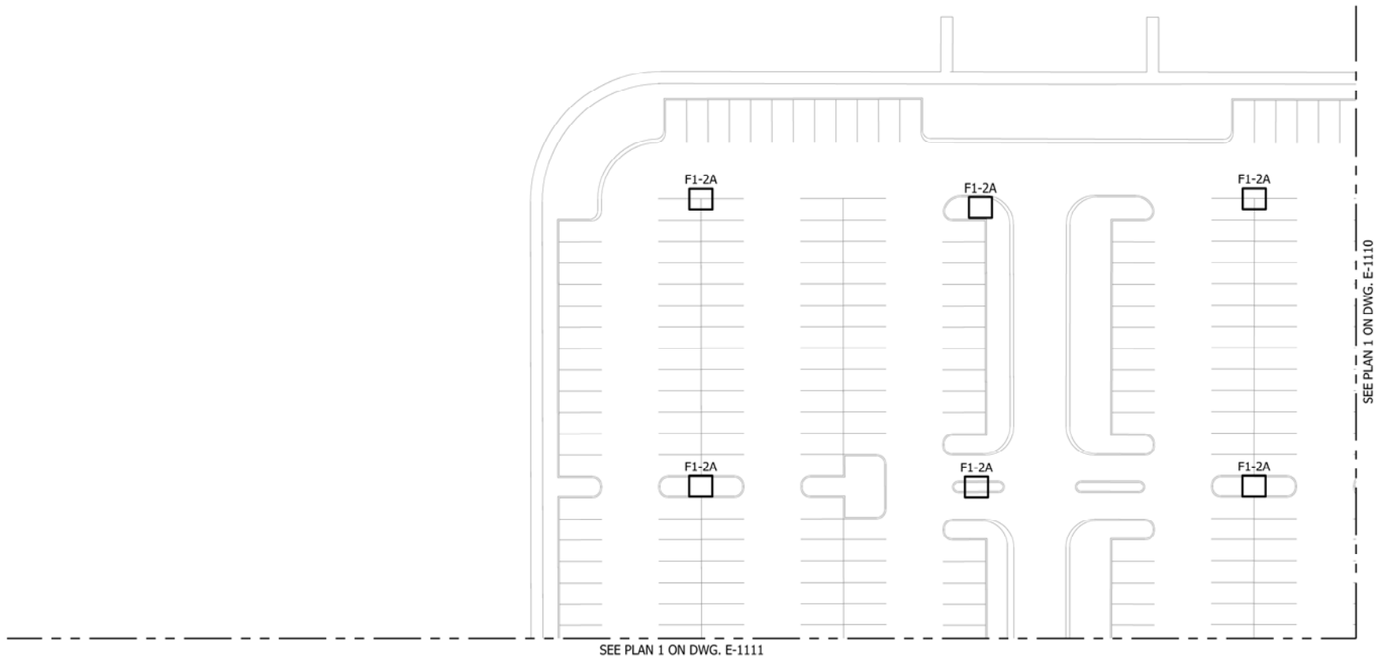
FILENAME	SHT_WL_E_MUNDYER_PL_08
SCALE	1/4" = 1' - 0"

SHEET 67 OF 361

M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER DYER STATION\SHT_WL_E_MUNDYER_PL_08.DWG

NOTES:

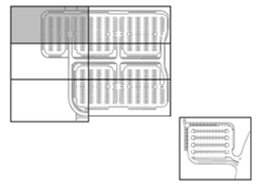
1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE SHEET E-0601 FOR LIGHT FIXTURE SCHEDULE.



1 / E-1109 WEST PARKING LOT PARTIAL LIGHTING PLAN
SCALE: 1/32" = 1'-0"

SCALE: 1/32" = 1'

0' 16' 32' 64' 128'



KEY PLAN

NOT FOR CONSTRUCTION

SERIES E-1109

PLOT DATE: 07/19/2017 8:43:12 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
MUNSTER-DYER STATION

WEST PARKING LOT PARTIAL LIGHTING PLAN

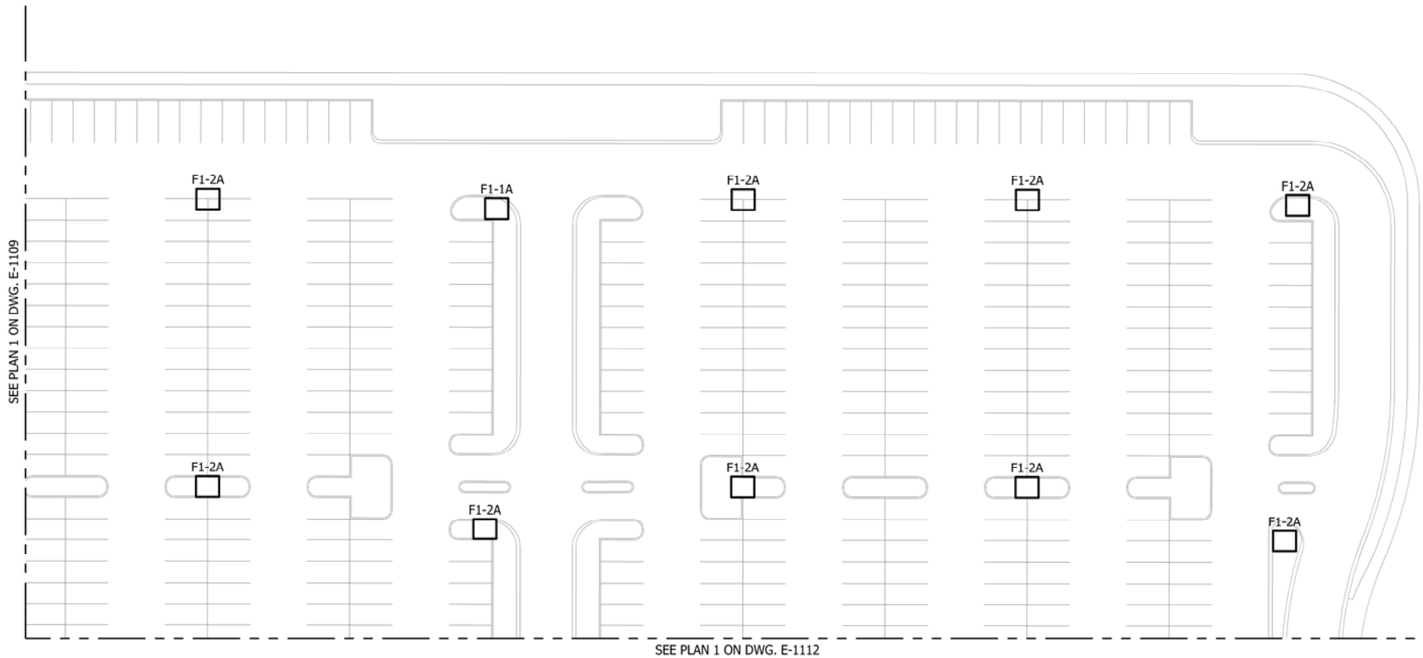
FILENAME	SHT_WL_E_MUNDYER_PL_09
SCALE	1/32" = 1' - 0"

SHEET 68 OF 361

M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER DYER STATION\SHT_WL_E_MUNDYER_PL_09.DWG

NOTES:

1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE SHEET E-0601 FOR LIGHT FIXTURE SCHEDULE.



1 / E-1110 WEST PARKING LOT PARTIAL LIGHTING PLAN
SCALE: 1/32" = 1'-0"

SCALE: 1/32" = 1'

0' 16' 32' 64' 128'

KEY PLAN

NOT FOR CONSTRUCTION

SERIES E-1110

PLOT DATE: 07/19/2017 8:43:54 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
MUNSTER-DYER STATION

WEST PARKING LOT PARTIAL LIGHTING PLAN

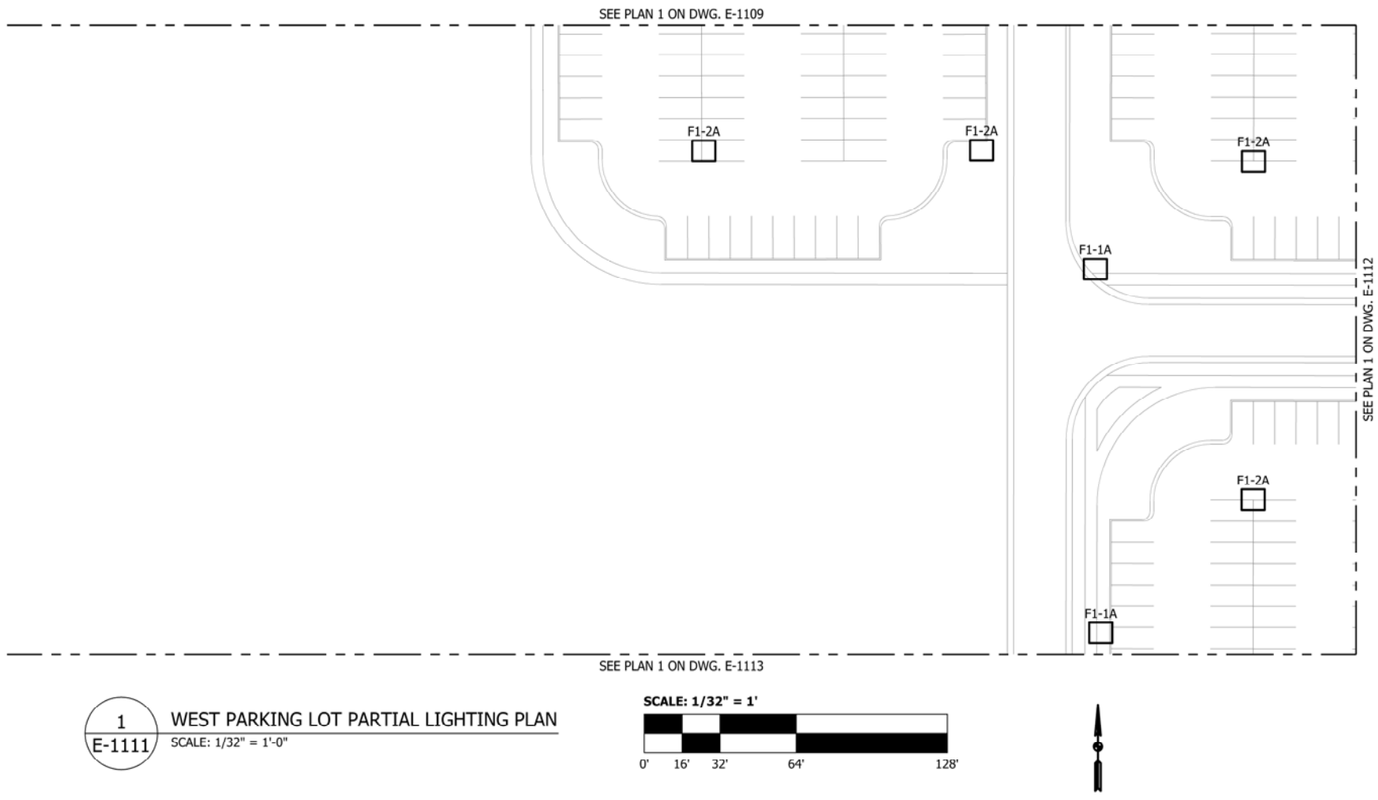
FILENAME	SHT_WL_E_MUNDYER_PL_10
SCALE	1/32" = 1' - 0"

SHEET 69 OF 361

M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER DYER STATION\SHT_WL_E_MUNDYER_PL_10.DWG

NOTES:

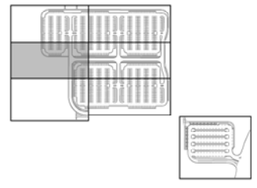
1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE SHEET E-0601 FOR LIGHT FIXTURE SCHEDULE.



1 / E-1111 WEST PARKING LOT PARTIAL LIGHTING PLAN
SCALE: 1/32" = 1'-0"

SCALE: 1/32" = 1'

0' 16' 32' 64' 128'



KEY PLAN

NOT FOR CONSTRUCTION

SERIES E-1111

PLOT DATE: 07/19/2017 8:44:38 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NICTD
NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
MUNSTER-DYER STATION

WEST PARKING LOT PARTIAL LIGHTING PLAN

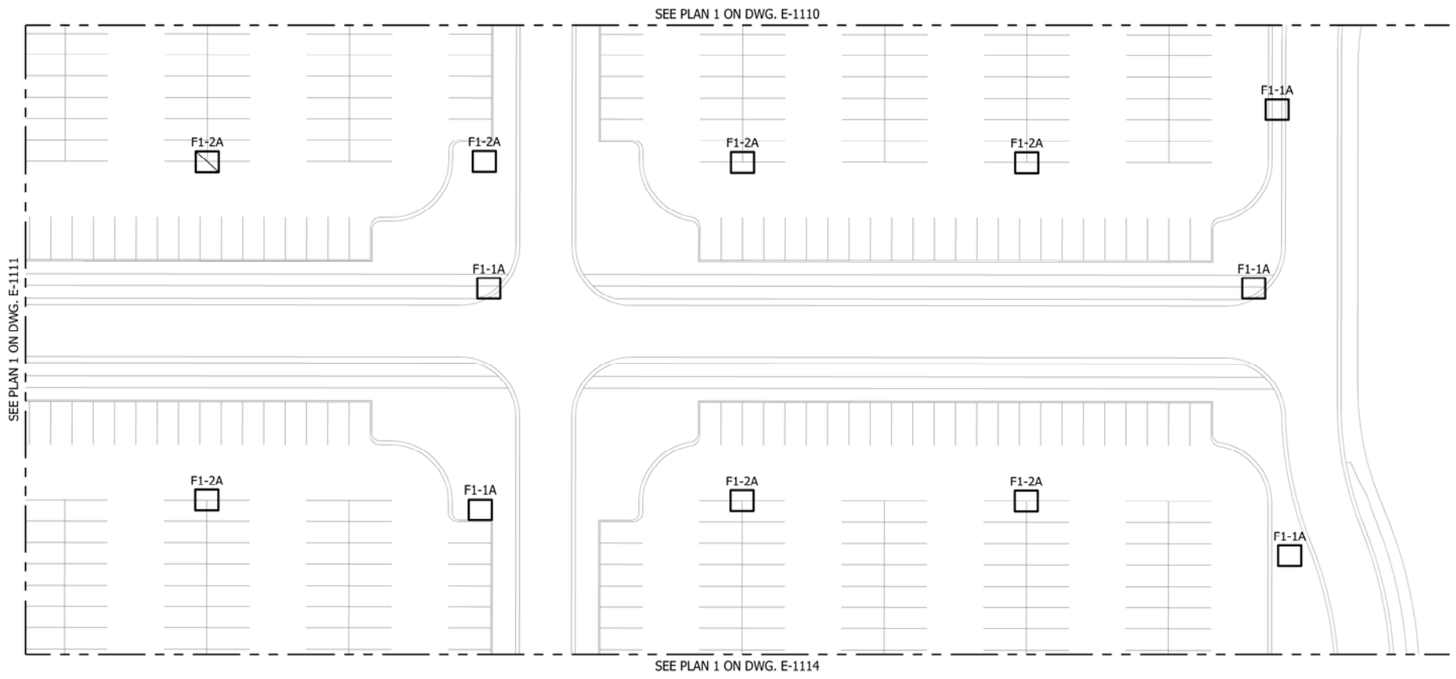
FILENAME	SHT_WL_E_MUNDYER_PL_11
SCALE	1/32" = 1' - 0"

SHEET 70 OF 361

M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER DYER STATION\SHT_WL_E_MUNDYER_PL_11.DWG

NOTES:

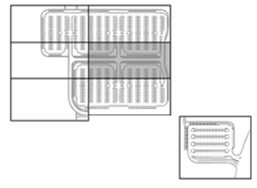
1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE SHEET E-0601 FOR LIGHT FIXTURE SCHEDULE.



1 / E-1112 WEST PARKING LOT PARTIAL LIGHTING PLAN
SCALE: 1/32" = 1'-0"

SCALE: 1/32" = 1'

0' 16' 32' 64' 128'



KEY PLAN

NOT FOR CONSTRUCTION

SERIES E-1112

PLOT DATE: 07/19/2017 8:45:13 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
MUNSTER-DYER STATION

WEST PARKING LOT PARTIAL LIGHTING PLAN

FILENAME	SHT_WL_E_MUNDYER_PL_12
SCALE	1/32" = 1' - 0"

SHEET 71 OF 361

M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER DYER STATION\SHT_WL_E_MUNDYER_PL_12.DWG

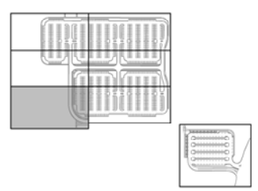
NOTES:

1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE SHEET E-0601 FOR LIGHT FIXTURE SCHEDULE.

1 / E-1113 WEST PARKING LOT PARTIAL LIGHTING PLAN
SCALE: 1/32" = 1'-0"

SCALE: 1/32" = 1'

0' 16' 32' 64' 128'



KEY PLAN

NOT FOR CONSTRUCTION

SERIES E-1113

PLOT DATE: 07/19/2017 8:45:47 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NICTD
NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
MUNSTER-DYER STATION

WEST PARKING LOT PARTIAL LIGHTING PLAN

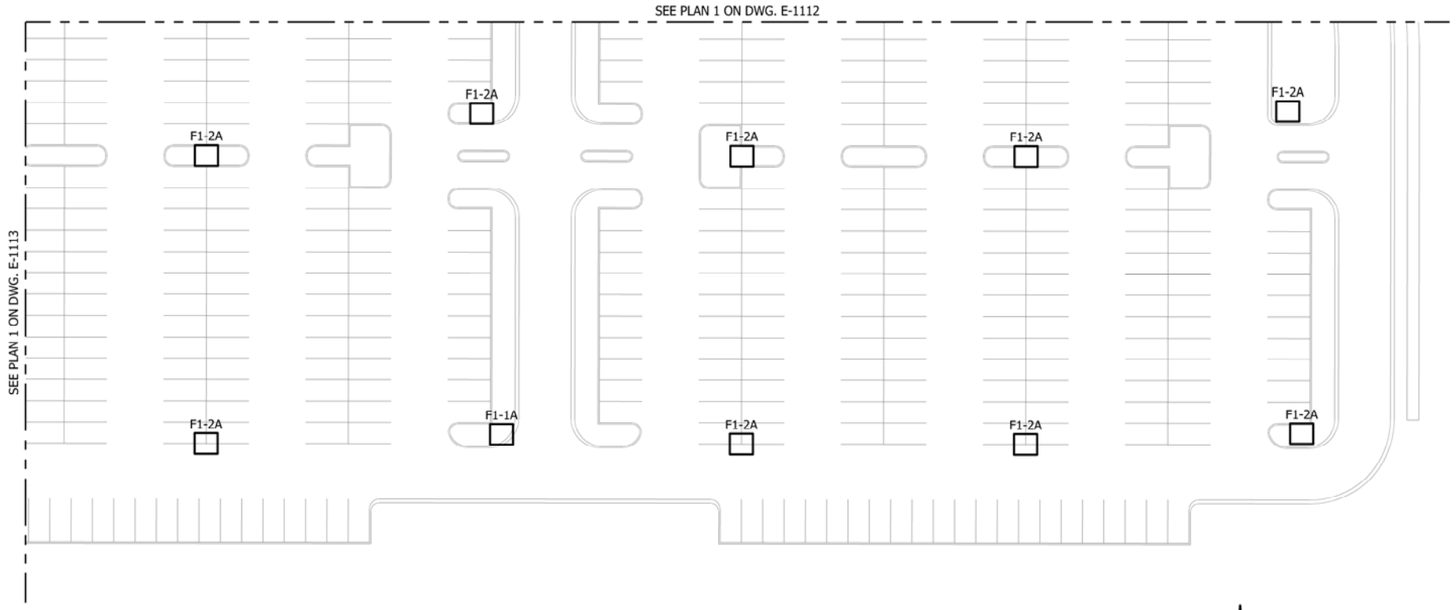
FILENAME	SHT_WL_E_MUNDYER_PL_13
SCALE	1/32" = 1' - 0"

SHEET 72 OF 361

M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER DYER STATION\SHT_WL_E_MUNDYER_PL_13.DWG

NOTES:

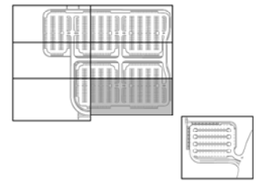
1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE SHEET E-0601 FOR LIGHT FIXTURE SCHEDULE.



1 / E-1114 WEST PARKING LOT PARTIAL LIGHTING PLAN
SCALE: 1/32" = 1'-0"

SCALE: 1/32" = 1'

0' 16' 32' 64' 128'



KEY PLAN

NOT FOR CONSTRUCTION

SERIES E-1114

PLOT DATE: 07/19/2017 8:46:30 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
MUNSTER-DYER STATION

WEST PARKING LOT PARTIAL LIGHTING PLAN

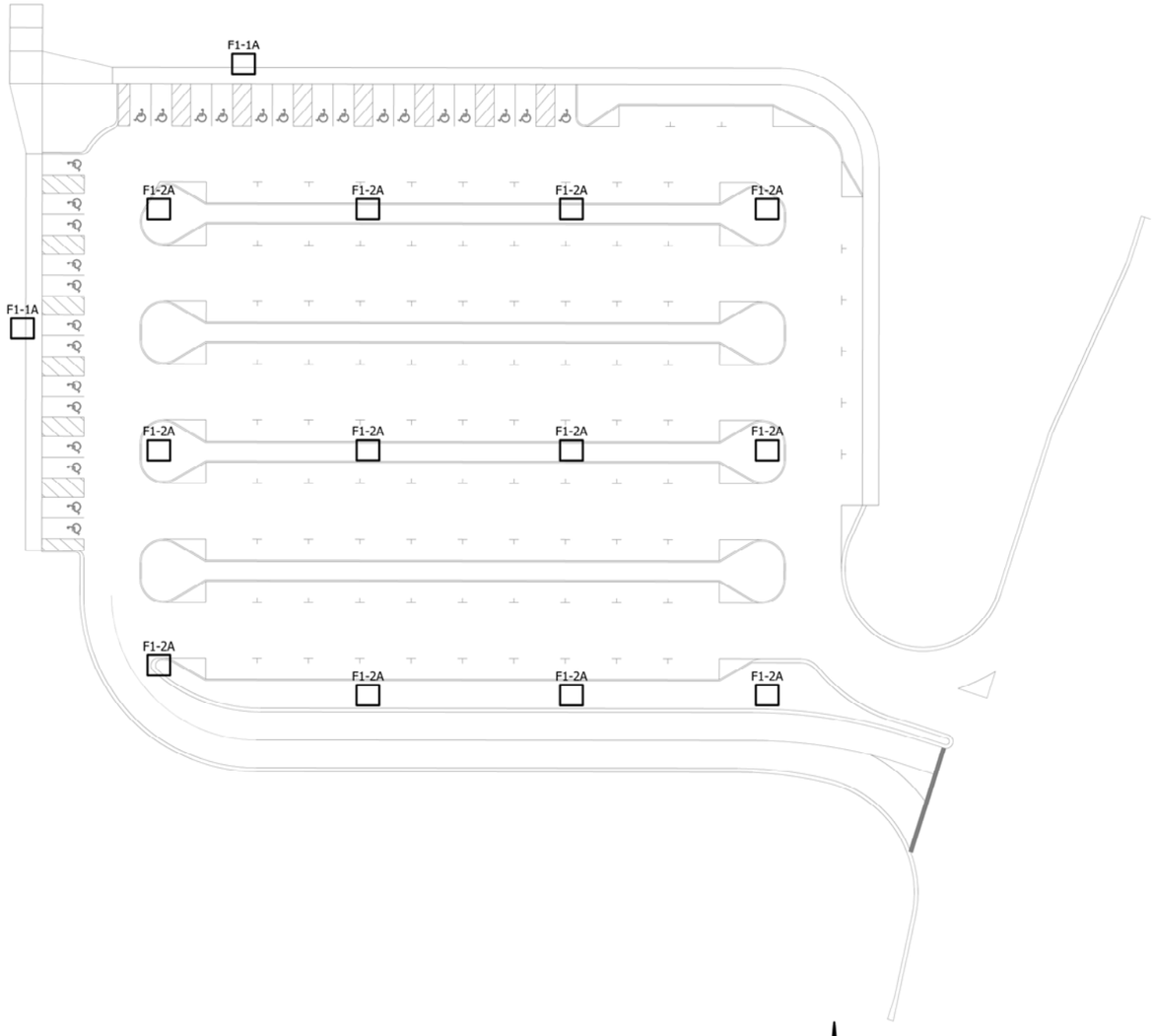
FILENAME	SHT_WL_E_MUNDYER_PL_14
SCALE	1/32" = 1' - 0"

SHEET 73 OF 361

M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER DYER STATION\SHT_WL_E_MUNDYER_PL_14.DWG

NOTES:

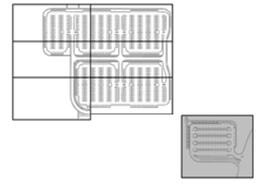
1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE SHEET E-0601 FOR LIGHT FIXTURE SCHEDULE.



1 / E-1115 SOUTH PARKING LOT LIGHTING PLAN
SCALE: 1/32" = 1'-0"

SCALE: 1/32" = 1'

0' 16' 32' 64' 128'



KEY PLAN

NOT FOR CONSTRUCTION

SERIES E-1115

PLOT DATE: 07/19/2017 8:47:04 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NICTD
NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
MUNSTER-DYER STATION

SOUTH PARKING LOT LIGHTING PLAN

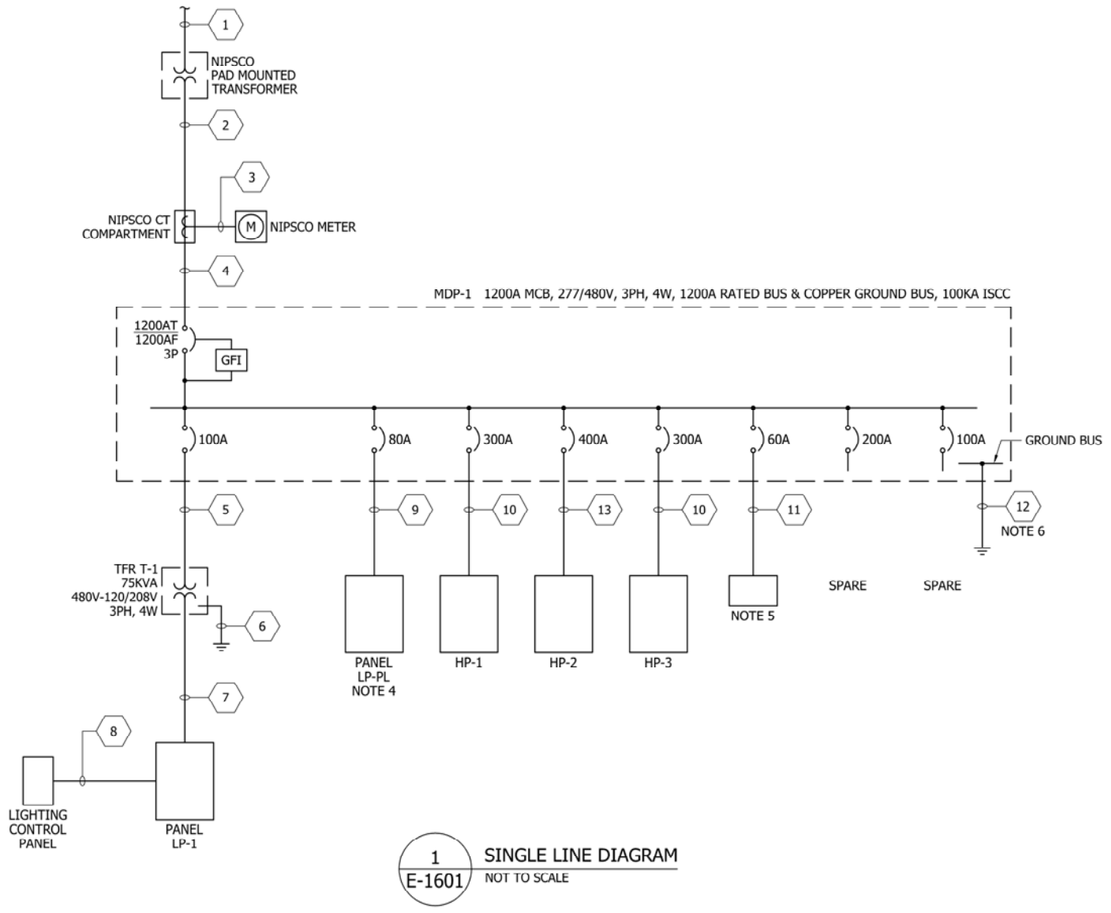
FILENAME	SHT_WL_E_MUNDYER_PL_15
SCALE	1/32" = 1' - 0"

SHEET 74 OF 361

M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER DYER STATION\SHT_WL_E_MUNDYER_PL_15.DWG

NOTES:

1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. ALL PANELBOARDS AND TRANSFORMERS IN STAINLESS STEEL ENCLOSURES, NEMA 3R, GASKETED WITH HEATERS. ALL PANELBOARDS AND TRANSFORMERS ARE MOUNTED OUTSIDE.
3. ALL CIRCUIT BREAKERS ARE 3 POLE, UNO.
4. REMOTE MOUNTED PARKING LOT LIGHT CONTROLLER.
5. SURGE PROTECTION DEVICE. 400KA PER PHASE.
6. GROUND CABLE GROUNDED TO TRIAD OF 3-10 FOOT LONG, ¾" DIA. STAINLESS STEEL GROUNDING RODS.
7. MDP-1 SHALL BE SERVICE ENTRANCE RATED AND UL LISTED.
8. ALL EQUIPMENT SHALL BE MOUNTED ON CONCRETE FOUNDATION/BASE, EXTENDING 6" PAST EQUIPMENT IN ALL DIRECTIONS AND 6" A.F.G.



1 / E-1601 SINGLE LINE DIAGRAM
NOT TO SCALE

NOT FOR CONSTRUCTION

SERIES E-1601

PLOT DATE: 07/19/2017 8:34:57 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
MUNSTER-DYER STATION

SINGLE LINE DIAGRAM

FILENAME	SHT_WL_E_MUNDYER_GN_01
SCALE	NONE

SHEET 75 OF 361

M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER DYER STATION\SHT_WL_E_MUNDYER_GN_01.DWG

CABLE AND CONDUIT SCHEDULE

LEGEND NUMBER	CABLE DESCRIPTION QUANTITY/SIZES	CONDUIT SIZE (INCHES)	NOTES
1		(2) 4	2
2	3 SETS 4 #600 KCMIL & 1 #250 KCMIL GRD	(3) 4	3
3	10 #10 AWG	1	4
4	3 SETS 4 #600 KCMIL & 1 #250 KCMIL GRD	(3) 4	4
5	3 #2 AWG & 1 #8 AWG GRD	1½	4
6	1 #2 AWG GRD	1	4, 5
7	4 #4/0 AWG & 1 #2 AWG GRD	2½	4
8	4 SETS 8 #8 AWG & 1 #10 AWG GRD	(4) 1½	4, 6
9	4 #2 AWG & 1 #4 AWG GRD	2	3
10	4 #500 KCMIL & 1 #3 AWG GRD	3½	4
11	4 #6 AWG & 1 #8 AWG GRD	1	4
12	1 #250 KCMIL GRD	2	4
13	4 #600 KCMIL & 1 #2 AWG GRD	3½	4
14			
15			

NOTES:

1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. 2-4" PVC SCHEDULE 40 CONDUITS TO NIPSCO POLE FOR PRIMARY TRANSFORMER FEEDER CABLE. CABLE FURNISHED AND INSTALLED BY NIPSCO.
3. CONDUIT, PVC SCHEDULE 40.
4. CONDUIT TO BE GRC.
5. GROUND CABLE GROUNDED TO 10 FOOT LONG, ¾" DIA. STAINLESS STEEL GROUNDING ROD.
6. 2 CONDUITS ARE FOR FUTURE.

NOT FOR CONSTRUCTION

SERIES E-1602

PLOT DATE: 07/19/2017 8:35:44 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
MUNSTER-DYER STATION

CABLE AND CONDUIT SCHEDULE

FILENAME	SHT_WL_E_MUNDYER_GN_02
SCALE	NONE

SHEET 76 OF 361

M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER DYER STATION\SHT_WL_E_MUNDYER_GN_02.DWG

PANEL: LP-1
VOLTAGE: 120/208V, 3P, 4W
ENCLOSURE: NEMA 3R

MAIN 225A MCB
MOUNTING
BUS 250A WITH GROUND BUS

CIRCUIT USE	BREAKERS TRIP	BREAKERS POLE	LOAD (VA) A	LOAD (VA) B	LOAD (VA) C	CKT #	CKT #	LOAD (VA) A	LOAD (VA) B	LOAD (VA) C	BREAKERS TRIP	BREAKERS POLE	CIRCUIT USE
SPARE	20	1				1	2				20	1	SPARE
SPARE	20	1				3	4				20	1	SPARE
SPARE	20	1				5	6				20	1	SPARE
SPARE	20	1				7	8				20	1	SPARE
SPARE	20	1				9	10				20	1	SPARE
SPARE	20	1				11	12				20	1	SPARE
SPARE	20	1				13	14				20	1	SPARE
SPARE	20	1				15	16				20	1	SPARE
SPARE	20	1				17	18				20	1	SPARE
SPARE	20	1				19	20				20	1	SPARE
SPARE	20	1				21	22				20	1	SPARE
SPARE	20	1				23	24				20	1	SPARE
SPARE	20	1				25	26				20	1	SPARE
SPARE	20	1				27	28				20	1	SPARE
SPARE	20	1				29	30				20	1	SPARE
SPARE	20	1				31	32				20	1	SPARE
SPARE	20	1				33	34				20	1	SPARE
SPARE	20	1				35	36				20	1	SPARE
SPARE	20	1				37	38				20	1	SPARE
SPARE	20	1				39	40				20	1	SPARE
SPARE	20	1				41	42				20	1	SPARE
TOTALS			0	0	0			0	0	0			

PHASE A:	0 VA	
PHASE B:	0 VA	
PHASE C:	0 VA	
TOTAL CONNECTED VA	0 VA	
AMPS	0 A	CONNECTED
1.25X AMPS	0 A	

NOTES:

1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.

PLOT DATE: 07/19/2017 8:36:31 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER
TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NOT FOR CONSTRUCTION

SERIES E-1603

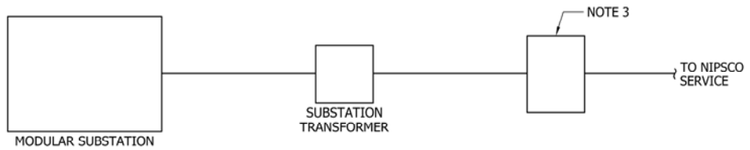
NICTD - WEST LAKE CORRIDOR - MP WL 61.5
MUNSTER-DYER STATION

PANELBOARD SCHEDULES

FILENAME	SHT_WL_E_MUNDYER_GN_03
SCALE	NONE

SHEET 77 OF 361

M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER DYER STATION\SHT_WL_E_MUNDYER_GN_03.DWG



1 / E-1604 SUBSTATION SINGLE LINE DIAGRAM
NOT TO SCALE

2 / E-1604 PICTURE OF TYPICAL SWITCH
NOT TO SCALE

NOTES:

1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE SHEET E-1602 FOR CABLE AND CONDUIT SCHEDULE.
3. 69KV GROUND OPERATED VERTICAL BREAKER SWITCH.
4. USE ALUMINUM WIRING FOR CONNECTION.
5. PROVIDE CONCRETE FOUNDATION FOR SWITCH.
6. PROVIDE FENCING AROUND SWITCH AND TRANSFORMER AND NIPSCO SWITCH AREA AHEAD OF SWITCH. COORDINATE EXACT AREA REQUIREMENTS WITH NIPSCO.
7. PROVIDE TUBULAR I-BEAM SUPPORT STAND.
8. ALL DESIGNS MUST BE CERTIFIED BY STRUCTURAL ENGINEER.
9. PROVIDE LIGHTS ON STRUCTURE UP/DOWN AND AREA WITH WEATHERPROOF LED FLOODLIGHTS.
10. NIPSCO BUS SUPPORT SHALL HAVE LIGHTNING PROTECTION.
11. SWITCH SHALL HAVE HAND OPERATED MANUAL AUXILIARY INLINE SWITCH.
12. STRUCTURE SHALL BE PROPERLY GROUNDED PER NIPSCO SPECIFICATIONS.
13. PROVIDE WEATHERPROOF OUTDOOR GFI SERVICE RECEPTACLES ON EACH SUPPORT LEG OF SWITCH.
14. SWITCH SHALL BE VERTICAL BREAK SWITCH VBI BY EM SPEC OR APPROVED EQUAL. CONTACT MARK SNYDER, 734-645-2886.
15. COORDINATE EXACT LOCATION WITH ARCHITECTURAL SITE PLAN DRAWING.

PLOT DATE: 07/19/2017 8:37:01 PM

NOT FOR CONSTRUCTION

SERIES E-1604

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NICTD
NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.4
MUNSTER-DYER SUBSTATION

MUNSTER-DYER SUBSTATION SERVICE

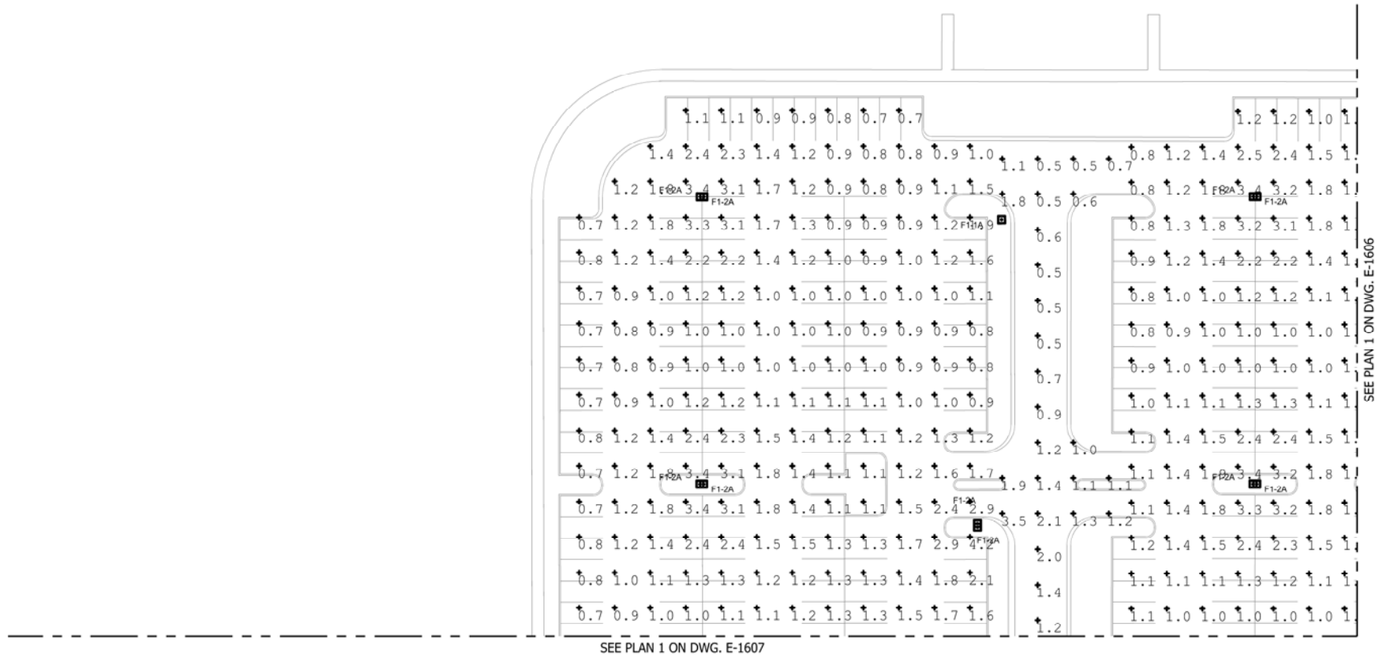
FILENAME	SHT_WL_E_MUNDYER_GN_04
SCALE	NONE

SHEET 78 OF 361

M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER DYER STATION\SHT_WL_E_MUNDYER_GN_04.DWG

NOTES:

1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE SHEET E-0601 FOR LIGHTING FIXTURE SCHEDULE ON LOCATIONS ON THIS DRAWING WHERE 2-F1-2A ARE SHOWN IT IS ONLY 1 POLE WITH 2 HEADS (F1-2A).



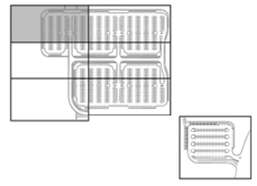
1 / E-1605 WEST PARKING LOT PARTIAL LIGHTING PHOTOMETRICS
SCALE: 1/32" = 1'-0"

SCALE: 1/32" = 1'

0' 16' 32' 64' 128'

Luminaire Schedule								
Symbol	Qty	Tag	Label	Arrangement	Lum. Watts	Mounting Height (ft.)	LLF	Description
	14	F1-1A	DSX1_LED_40C_1000_40K_T4M_MVO_1	SINGLE	138	25	0.700	DSX1 LED 40C 1000 40K T4M MVOLT
	34	F1-2A	DSX1_LED_40C_1000_40K_T4M_MVO	BACK-BACK	138	25	0.700	DSX1 LED 40C 1000 40K T4M MVOLT

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
East -West Connection	Illuminance	Fc	0.86	1.8	0.6	1.43	3.00
East -West Connection_1	Illuminance	Fc	0.84	1.8	0.6	1.40	3.00
North - East Parking Lot	Illuminance	Fc	1.49	3.9	0.7	2.13	5.57
North - West Parking Lot	Illuminance	Fc	1.42	4.2	0.7	2.03	6.00
North - West Parking Lot_1	Illuminance	Fc	1.37	4.2	0.7	1.96	6.00
North-South Center Connection	Illuminance	Fc	1.13	4.3	0.5	2.26	8.60
North-South East Connection	Illuminance	Fc	1.25	3.2	0.5	2.50	6.40
North-South West Connection	Illuminance	Fc	1.10	3.5	0.5	2.20	7.00
South - East Parking Lot	Illuminance	Fc	1.48	4.3	0.8	1.85	5.38
South - West Parking Lot	Illuminance	Fc	1.46	4.4	0.7	2.09	6.29
SW Parking Lot_1	Illuminance	Fc	0.00	0.0	0.0	N.A.	N.A.
W-E Parking Aisle_1A	Illuminance	Fc	0.00	0.0	0.0	N.A.	N.A.



KEY PLAN

NOT FOR CONSTRUCTION

SERIES E-1605

PLOT DATE: 07/19/2017 8:25:16 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NICTD
NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
MUNSTER-DYER STATION

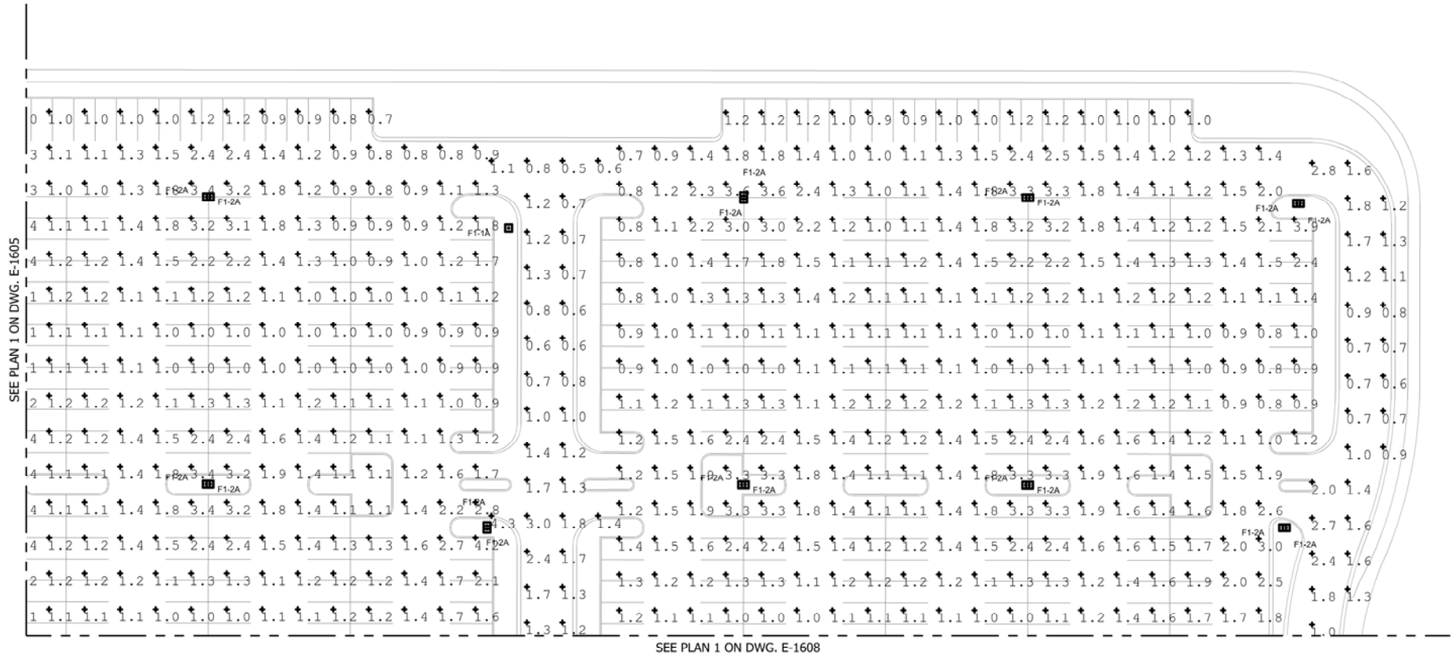
WEST PARKING LOT PARTIAL LIGHTING PHOTOMETRICS

FILENAME	SHT_WL_E_MUNDYER_DP_01	SHEET	79 OF 361
SCALE	1/32" = 1' - 0"		

M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER DYER STATION\SHT_WL_E_MUNDYER_DP_01.DWG

NOTES:

1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE SHEET E-0601 FOR LIGHTING FIXTURE SCHEDULE ON LOCATIONS ON THIS DRAWING WHERE 2-F1-2A ARE SHOWN IT IS ONLY 1 POLE WITH 2 HEADS (F1-2A).



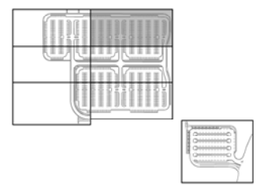
1 / E-1606 WEST PARKING LOT PARTIAL LIGHTING PHOTOMETRICS
SCALE: 1/32" = 1'-0"

SCALE: 1/32" = 1'

0' 16' 32' 64' 128'

Luminaire Schedule								
Symbol	Qty	Tag	Label	Arrangement	Lum. Watts	Mounting Height (ft.)	LLF	Description
	14	F1-1A	DSX1_LED_40C_1000_40K_T4M_MVO_1	SINGLE	138	25	0.700	DSX1 LED 40C 1000 40K T4M MVOLT
	34	F1-2A	DSX1_LED_40C_1000_40K_T4M_MVO	BACK-BACK	138	25	0.700	DSX1 LED 40C 1000 40K T4M MVOLT

Calculation Summary								
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
East -West Connection	Illuminance	Fc	0.86	1.8	0.6	1.43	3.00
East -West Connection_1	Illuminance	Fc	0.84	1.8	0.6	1.40	3.00
North - East Parking Lot	Illuminance	Fc	1.49	3.9	0.7	2.13	5.57
North - West Parking Lot	Illuminance	Fc	1.42	4.2	0.7	2.03	6.00
North - West Parking Lot_1	Illuminance	Fc	1.37	4.2	0.7	1.96	6.00
North-South Center Connection	Illuminance	Fc	1.13	4.3	0.5	2.26	8.60
North-South East Connection	Illuminance	Fc	1.25	3.2	0.5	2.50	6.40
North-South West Connection	Illuminance	Fc	1.10	3.5	0.5	2.20	7.00
South - East Parking Lot	Illuminance	Fc	1.48	4.3	0.8	1.85	5.38
South - West Parking Lot	Illuminance	Fc	1.46	4.4	0.7	2.09	6.29
SW Parking Lot_1	Illuminance	Fc	0.00	0.0	0.0	N.A.	N.A.
W-E Parking Aisle_1A	Illuminance	Fc	0.00	0.0	0.0	N.A.	N.A.



KEY PLAN

NOT FOR CONSTRUCTION

SERIES E-1606

PLOT DATE: 07/19/2017 8:26:06 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NICTD
NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
MUNSTER-DYER STATION

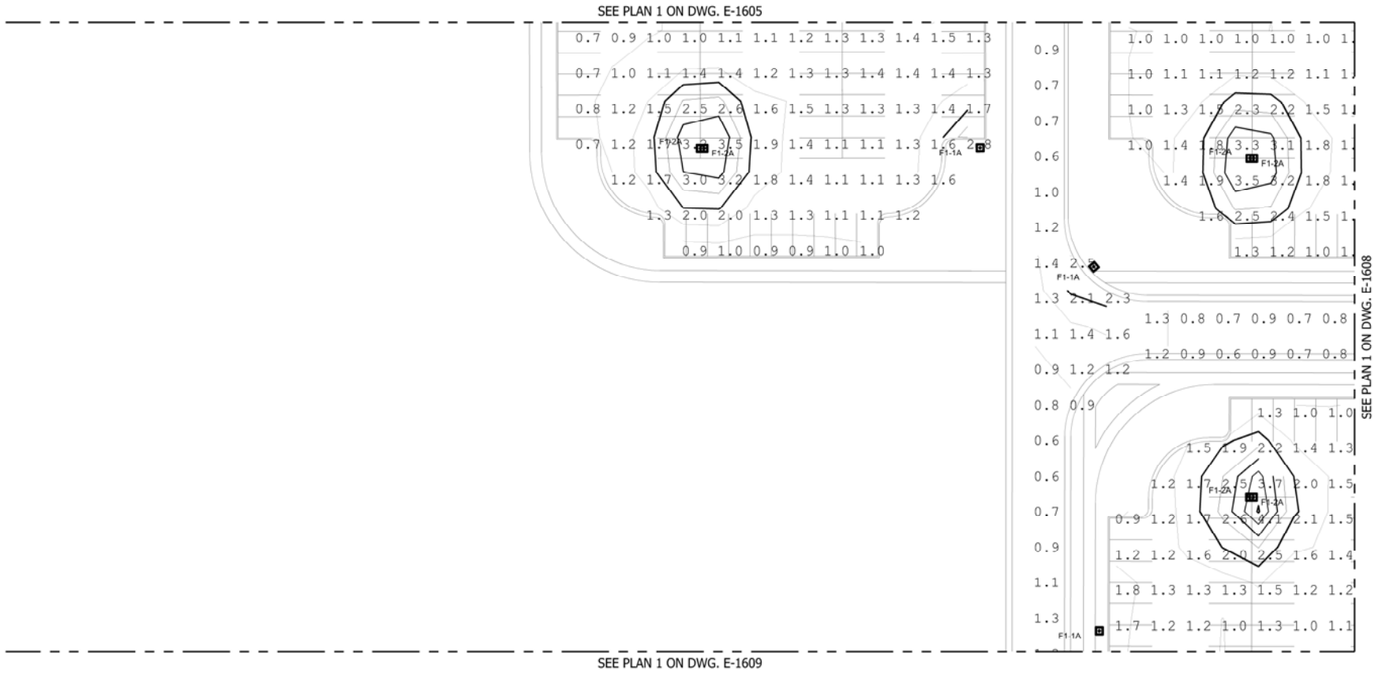
WEST PARKING LOT PARTIAL LIGHTING PHOTOMETRICS

FILENAME	SHT_WL_E_MUNDYER_DP_02	SHEET	80 OF 361
SCALE	1/32" = 1' - 0"		

M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER DYER STATION\SHT_WL_E_MUNDYER_DP_02.DWG

NOTES:

1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE SHEET E-0601 FOR LIGHTING FIXTURE SCHEDULE ON LOCATIONS ON THIS DRAWING WHERE 2-F1-2A ARE SHOWN IT IS ONLY 1 POLE WITH 2 HEADS (F1-2A).

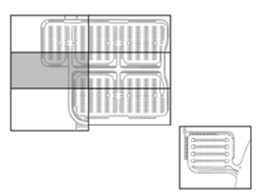


1 E-1607 WEST PARKING LOT PARTIAL LIGHTING PLAN
SCALE: 1/32" = 1'-0"

SCALE: 1/32" = 1'
0' 16' 32' 64' 128'

Luminaire Schedule								
Symbol	Qty	Tag	Label	Arrangement	Lum. Watts	Mounting Height (ft.)	LLF	Description
	14	F1-1A	DSX1_LED_40C_1000_40K_T4M_MVO_1	SINGLE	138	25	0.700	DSX1 LED 40C 1000 40K T4M MVOLT
	34	F1-2A	DSX1_LED_40C_1000_40K_T4M_MVO	BACK-BACK	138	25	0.700	DSX1 LED 40C 1000 40K T4M MVOLT

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
East -West Connection	Illuminance	Fc	0.86	1.8	0.6	1.43	3.00
East -West Connection_1	Illuminance	Fc	0.84	1.8	0.6	1.40	3.00
North - East Parking Lot	Illuminance	Fc	1.49	3.9	0.7	2.13	5.57
North - West Parking Lot	Illuminance	Fc	1.42	4.2	0.7	2.03	6.00
North - West Parking Lot_1	Illuminance	Fc	1.37	4.2	0.7	1.96	6.00
North-South Center Connection	Illuminance	Fc	1.13	4.3	0.5	2.26	8.60
North-South East Connection	Illuminance	Fc	1.25	3.2	0.5	2.50	6.40
North-South West Connection	Illuminance	Fc	1.10	3.5	0.5	2.20	7.00
South - East Parking Lot	Illuminance	Fc	1.48	4.3	0.8	1.85	5.38
South - West Parking Lot	Illuminance	Fc	1.46	4.4	0.7	2.09	6.29
SW Parking Lot_1	Illuminance	Fc	0.00	0.0	0.0	N.A.	N.A.
W-E Parking Aisle_1A	Illuminance	Fc	0.00	0.0	0.0	N.A.	N.A.



KEY PLAN

NOT FOR CONSTRUCTION

SERIES E-1607

PLOT DATE: 07/19/2017 8:26:58 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NICTD
NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

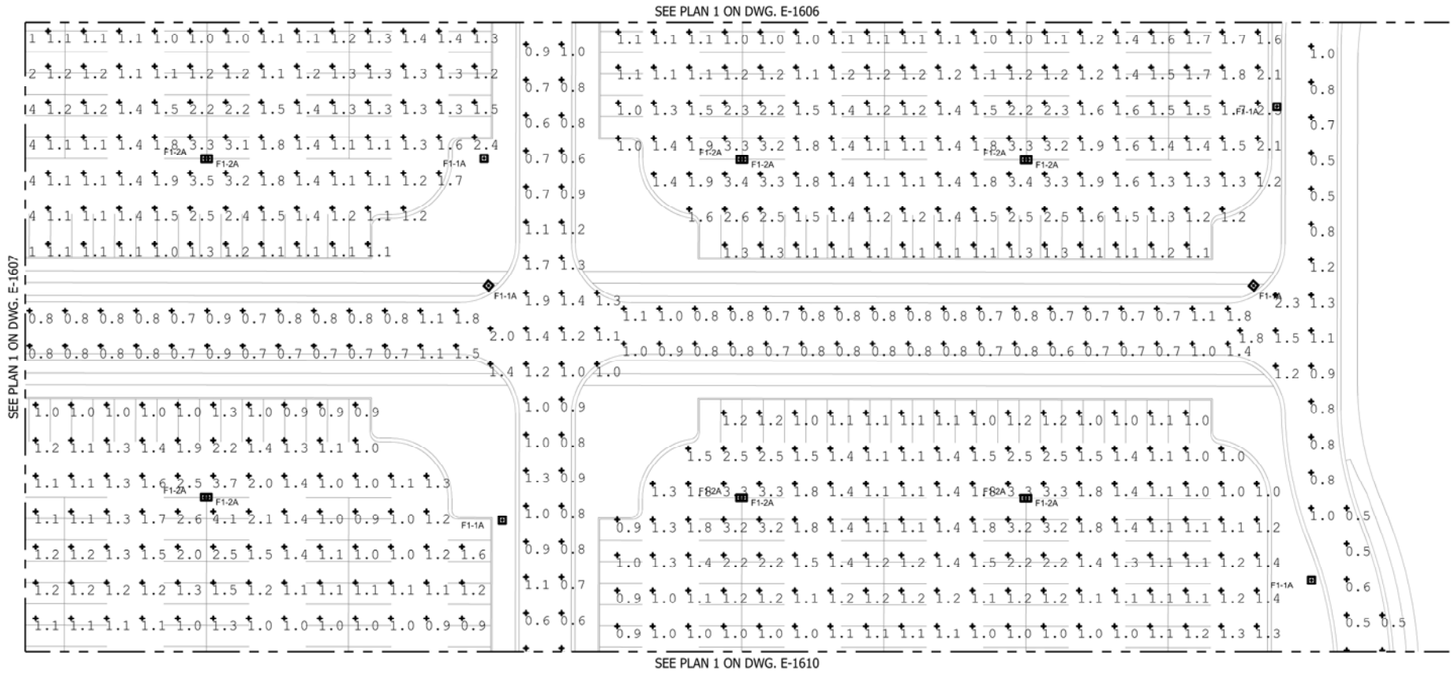
DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
MUNSTER-DYER STATION

WEST PARKING LOT PARTIAL LIGHTING PHOTOMETRICS

FILENAME	SHT_WL_E_MUNDYER_DP_03	SHEET	81 OF 361
SCALE	1/32" = 1' - 0"		

M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER DYER STATION\SHT_WL_E_MUNDYER_DP_03.DWG



1 / E-1608 WEST PARKING LOT PARTIAL LIGHTING PHOTOMETRICS

SCALE: 1/32" = 1'-0"

SCALE: 1/32" = 1'

0' 16' 32' 64' 128'

NOTES:

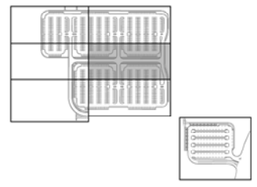
1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE SHEET E-0601 FOR LIGHTING FIXTURE SCHEDULE ON LOCATIONS ON THIS DRAWING WHERE 2-F1-2A ARE SHOWN IT IS ONLY 1 POLE WITH 2 HEADS (F1-2A).

Luminaire Schedule

Symbol	Qty	Tag	Label	Arrangement	Lum. Watts	Mounting Height (ft.)	LLF	Description
	14	F1-1A	DSX1_LED_40C_1000_40K_T4M_MVO_1	SINGLE	138	25	0.700	DSX1 LED 40C 1000 40K T4M MVOLT
	34	F1-2A	DSX1_LED_40C_1000_40K_T4M_MVO	BACK-BACK	138	25	0.700	DSX1 LED 40C 1000 40K T4M MVOLT

Calculation Summary

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
East -West Connection	Illuminance	Fc	0.86	1.8	0.6	1.43	3.00
East -West Connection_1	Illuminance	Fc	0.84	1.8	0.6	1.40	3.00
North - East Parking Lot	Illuminance	Fc	1.49	3.9	0.7	2.13	5.57
North - West Parking Lot	Illuminance	Fc	1.42	4.2	0.7	2.03	6.00
North - West Parking Lot_1	Illuminance	Fc	1.37	4.2	0.7	1.96	6.00
North-South Center Connection	Illuminance	Fc	1.13	4.3	0.5	2.26	8.60
North-South East Connection	Illuminance	Fc	1.25	3.2	0.5	2.50	6.40
North-South West Connection	Illuminance	Fc	1.10	3.5	0.5	2.20	7.00
South - East Parking Lot	Illuminance	Fc	1.48	4.3	0.8	1.85	5.38
South - West Parking Lot	Illuminance	Fc	1.46	4.4	0.7	2.09	6.29
SW Parking Lot_1	Illuminance	Fc	0.00	0.0	0.0	N.A.	N.A.
W-E Parking Aisle_1A	Illuminance	Fc	0.00	0.0	0.0	N.A.	N.A.



KEY PLAN

NOT FOR CONSTRUCTION

SERIES E-1608

PLOT DATE: 07/19/2017 8:27:44 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NICTD
NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
MUNSTER-DYER STATION

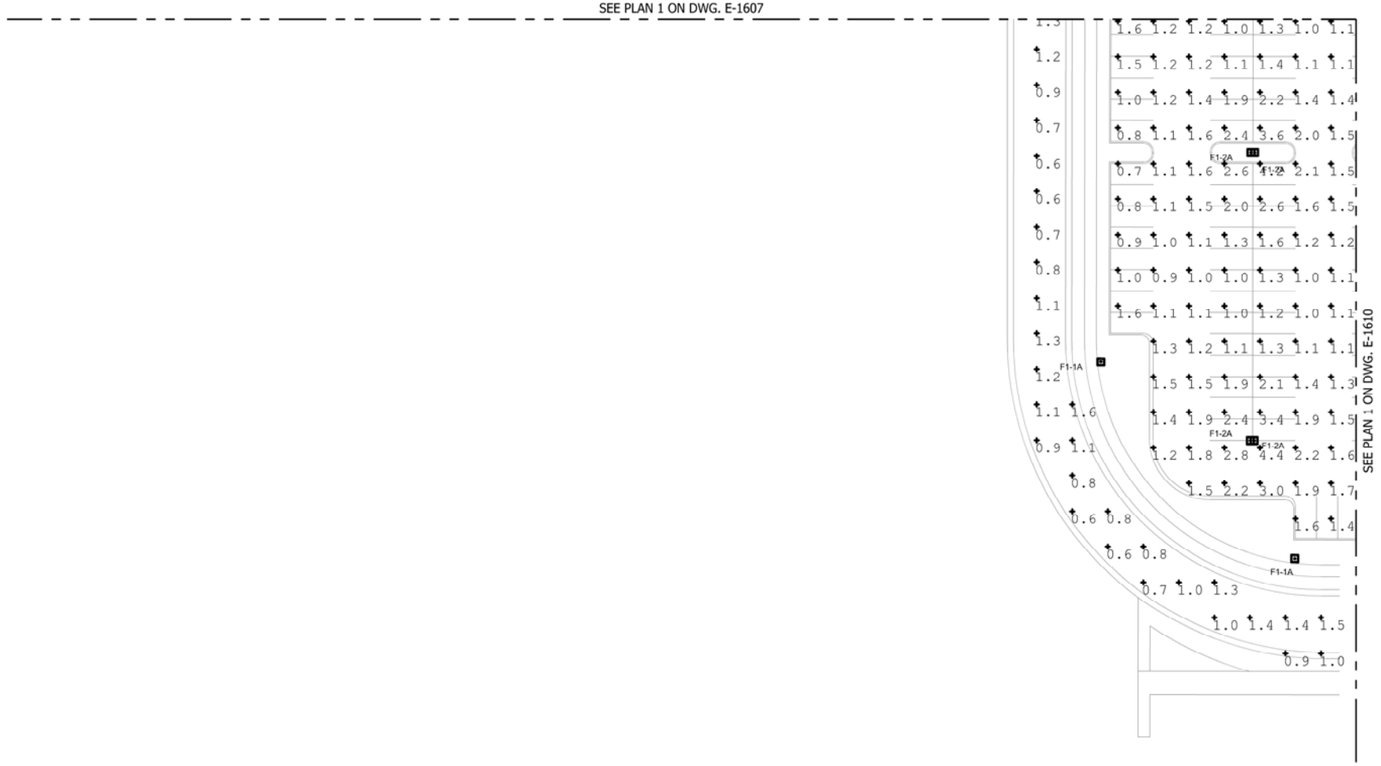
WEST PARKING LOT PARTIAL LIGHTING PHOTOMETRICS

FILENAME	SHT_WL_E_MUNDYER_DP_04
SCALE	1/32" = 1' - 0"

SHEET 82 OF 361

M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER DYER STATION\SHT_WL_E_MUNDYER_DP_04.DWG

SEE PLAN 1 ON DWG. E-1607



1 E-1609 WEST PARKING LOT PARTIAL LIGHTING PHOTOMETRICS

SCALE: 1/32" = 1'-0"

SCALE: 1/32" = 1'

0' 16' 32' 64' 128'

NOTES:

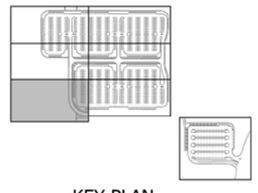
1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE SHEET E-0601 FOR LIGHTING FIXTURE SCHEDULE ON LOCATIONS ON THIS DRAWING WHERE 2-F1-2A ARE SHOWN IT IS ONLY 1 POLE WITH 2 HEADS (F1-2A).

Luminaire Schedule

Symbol	Qty	Tag	Label	Arrangement	Lum. Watts	Mounting Height (ft.)	LLF	Description
	14	F1-1A	DSX1_LED_40C_1000_40K_T4M_MVO_1	SINGLE	138	25	0.700	DSX1 LED 40C 1000 40K T4M MVOLT
	34	F1-2A	DSX1_LED_40C_1000_40K_T4M_MVO	BACK-BACK	138	25	0.700	DSX1 LED 40C 1000 40K T4M MVOLT

Calculation Summary

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
East -West Connection	Illuminance	Fc	0.86	1.8	0.6	1.43	3.00
East -West Connection_1	Illuminance	Fc	0.84	1.8	0.6	1.40	3.00
North - East Parking Lot	Illuminance	Fc	1.49	3.9	0.7	2.13	5.57
North - West Parking Lot	Illuminance	Fc	1.42	4.2	0.7	2.03	6.00
North - West Parking Lot_1	Illuminance	Fc	1.37	4.2	0.7	1.96	6.00
North-South Center Connection	Illuminance	Fc	1.13	4.3	0.5	2.26	8.60
North-South East Connection	Illuminance	Fc	1.25	3.2	0.5	2.50	6.40
North-South West Connection	Illuminance	Fc	1.10	3.5	0.5	2.20	7.00
South - East Parking Lot	Illuminance	Fc	1.48	4.3	0.8	1.85	5.38
South - West Parking Lot	Illuminance	Fc	1.46	4.4	0.7	2.09	6.29
SW Parking Lot_1	Illuminance	Fc	0.00	0.0	0.0	N.A.	N.A.
W-E Parking Aisle_1A	Illuminance	Fc	0.00	0.0	0.0	N.A.	N.A.



KEY PLAN

NOT FOR CONSTRUCTION

SERIES E-1609

PLOT DATE: 07/19/2017 8:31:31 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
MUNSTER-DYER STATION

WEST PARKING LOT PARTIAL LIGHTING PHOTOMETRICS

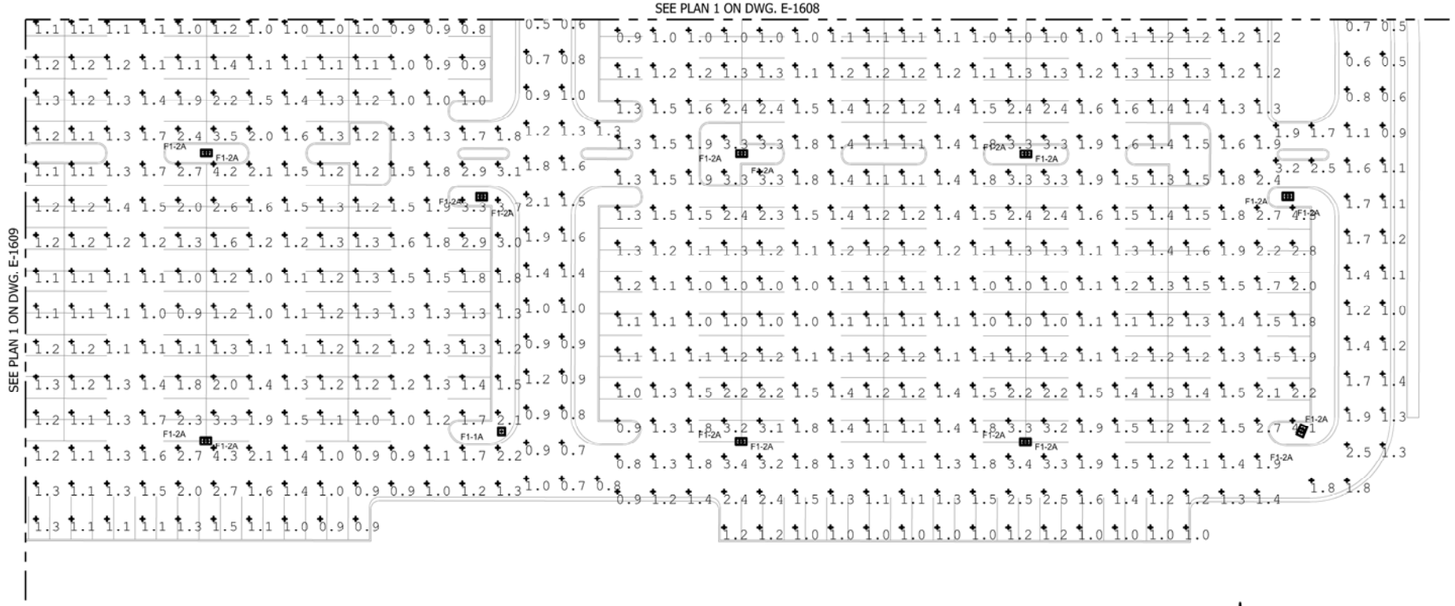
FILENAME	SHT_WL_E_MUNDYER_DP_05
SCALE	1/32" = 1' - 0"

SHEET 83 OF 361

M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER DYER STATION\SHT_WL_E_MUNDYER_DP_05.DWG

NOTES:

1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE SHEET E-0601 FOR LIGHTING FIXTURE SCHEDULE ON LOCATIONS ON THIS DRAWING WHERE 2-F1-2A ARE SHOWN IT IS ONLY 1 POLE WITH 2 HEADS (F1-2A).

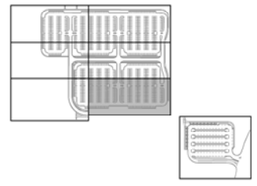


1 / E-1610 WEST PARKING LOT PARTIAL LIGHTING PHOTOMETRICS
SCALE: 1/32" = 1'-0"

SCALE: 1/32" = 1'
0' 16' 32' 64' 128'

Luminaire Schedule								
Symbol	Qty	Tag	Label	Arrangement	Lum. Watts	Mounting Height (ft.)	LLF	Description
	14	F1-1A	DSX1_LED_40C_1000_40K_T4M_MVO_1	SINGLE	138	25	0.700	DSX1 LED 40C 1000 40K T4M MVOLT
	34	F1-2A	DSX1_LED_40C_1000_40K_T4M_MVO	BACK-BACK	138	25	0.700	DSX1 LED 40C 1000 40K T4M MVOLT

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
East -West Connection	Illuminance	Fc	0.86	1.8	0.6	1.43	3.00
East -West Connection_1	Illuminance	Fc	0.84	1.8	0.6	1.40	3.00
North - East Parking Lot	Illuminance	Fc	1.49	3.9	0.7	2.13	5.57
North - West Parking Lot	Illuminance	Fc	1.42	4.2	0.7	2.03	6.00
North - West Parking Lot_1	Illuminance	Fc	1.37	4.2	0.7	1.96	6.00
North-South Center Connection	Illuminance	Fc	1.13	4.3	0.5	2.26	8.60
North-South East Connection	Illuminance	Fc	1.25	3.2	0.5	2.50	6.40
North-South West Connection	Illuminance	Fc	1.10	3.5	0.5	2.20	7.00
South - East Parking Lot	Illuminance	Fc	1.48	4.3	0.8	1.85	5.38
South - West Parking Lot	Illuminance	Fc	1.46	4.4	0.7	2.09	6.29
SW Parking Lot_1	Illuminance	Fc	0.00	0.0	0.0	N.A.	N.A.
W-E Parking Aisle_1A	Illuminance	Fc	0.00	0.0	0.0	N.A.	N.A.



KEY PLAN

NOT FOR CONSTRUCTION

SERIES E-1610

PLOT DATE: 07/19/2017 8:32:10 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
MUNSTER-DYER STATION

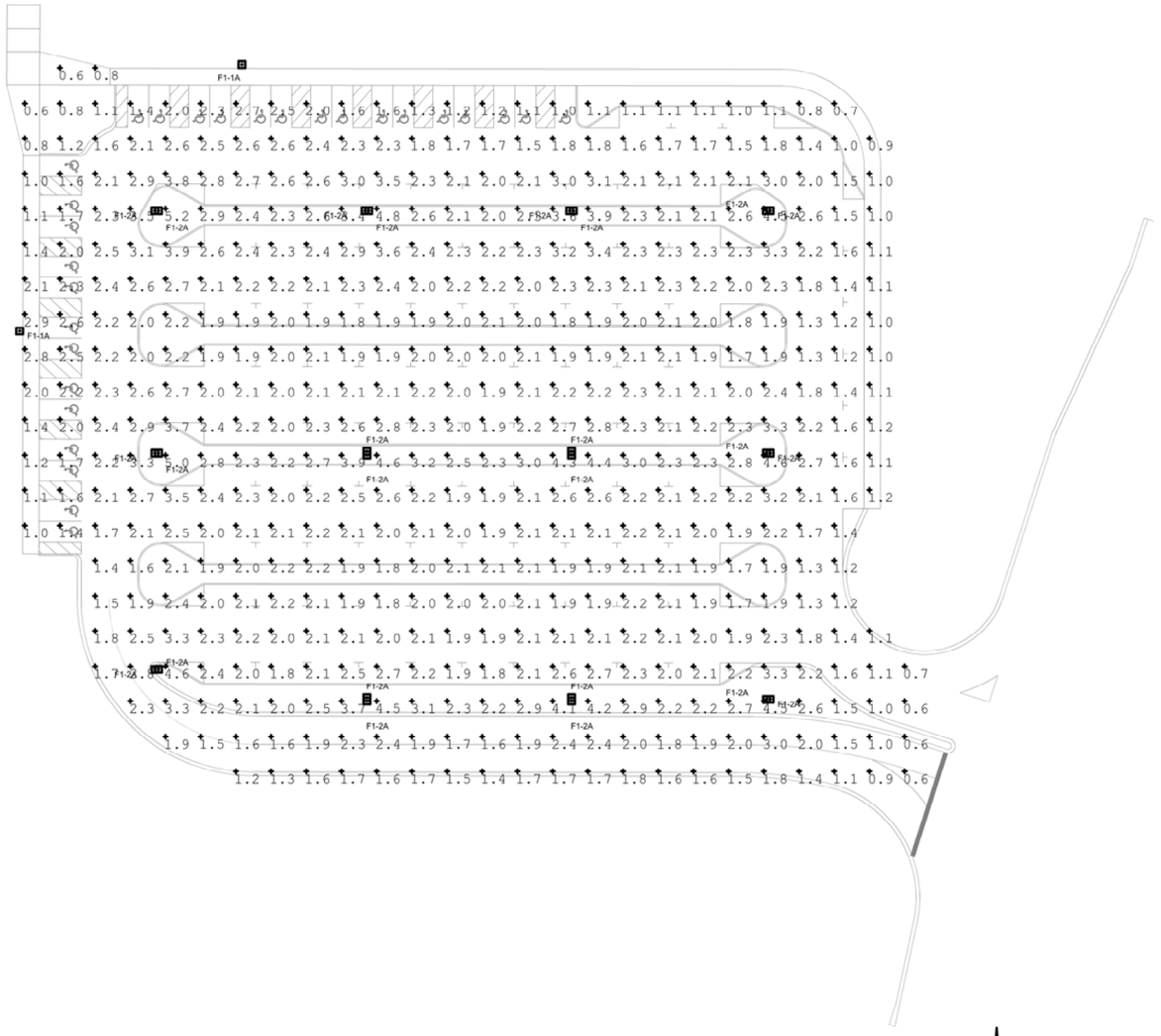
WEST PARKING LOT PARTIAL LIGHTING PHOTOMETRICS

FILENAME	SHT_WL_E_MUNDYER_DP_06	SHEET	84 OF 361
SCALE	1/32" = 1' - 0"		

M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER DYER STATION\SHT_WL_E_MUNDYER_DP_06.DWG

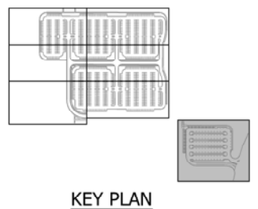
NOTES:

1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE SHEET E-0601 FOR LIGHTING FIXTURE SCHEDULE ON LOCATIONS ON THIS DRAWING WHERE 2-F1-2A ARE SHOWN IT IS ONLY 1 POLE WITH 2 HEADS (F1-2A).



1 / E-1611 SOUTH PARKING LOT LIGHTING PHOTOMETRICS
SCALE: 1/32" = 1'-0"

SCALE: 1/32" = 1'
0' 16' 32' 64' 128'



KEY PLAN

Luminaire Schedule								
Symbol	Qty	Tag	Label	Arrangement	Lum. Watts	Mounting Height (ft.)	LLF	Description
	2	F1-1A	DSX1 LED 40C 1000 40	SINGLE	138	25	0.700	DSX1 LED 40C 1000 40K T4M MVOLT
	12	F1-2A	DSX1 LED 40C 1000 40	BACK-BACK	138	25	0.700	DSX1 LED 40C 1000 40K T4M MVOLT

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Kiss & Ride Parking Lot	Illuminance	Fc	2.12	5.2	0.6	3.53	8.67
Hadicap Parking Area-B	Illuminance	Fc	1.80	2.9	1.0	1.80	2.90
Handicap Parking Area-A	Illuminance	Fc	1.68	2.7	1.0	1.68	2.70

NOT FOR CONSTRUCTION

SERIES E-1611

PLOT DATE: 07/19/2017 8:32:54 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

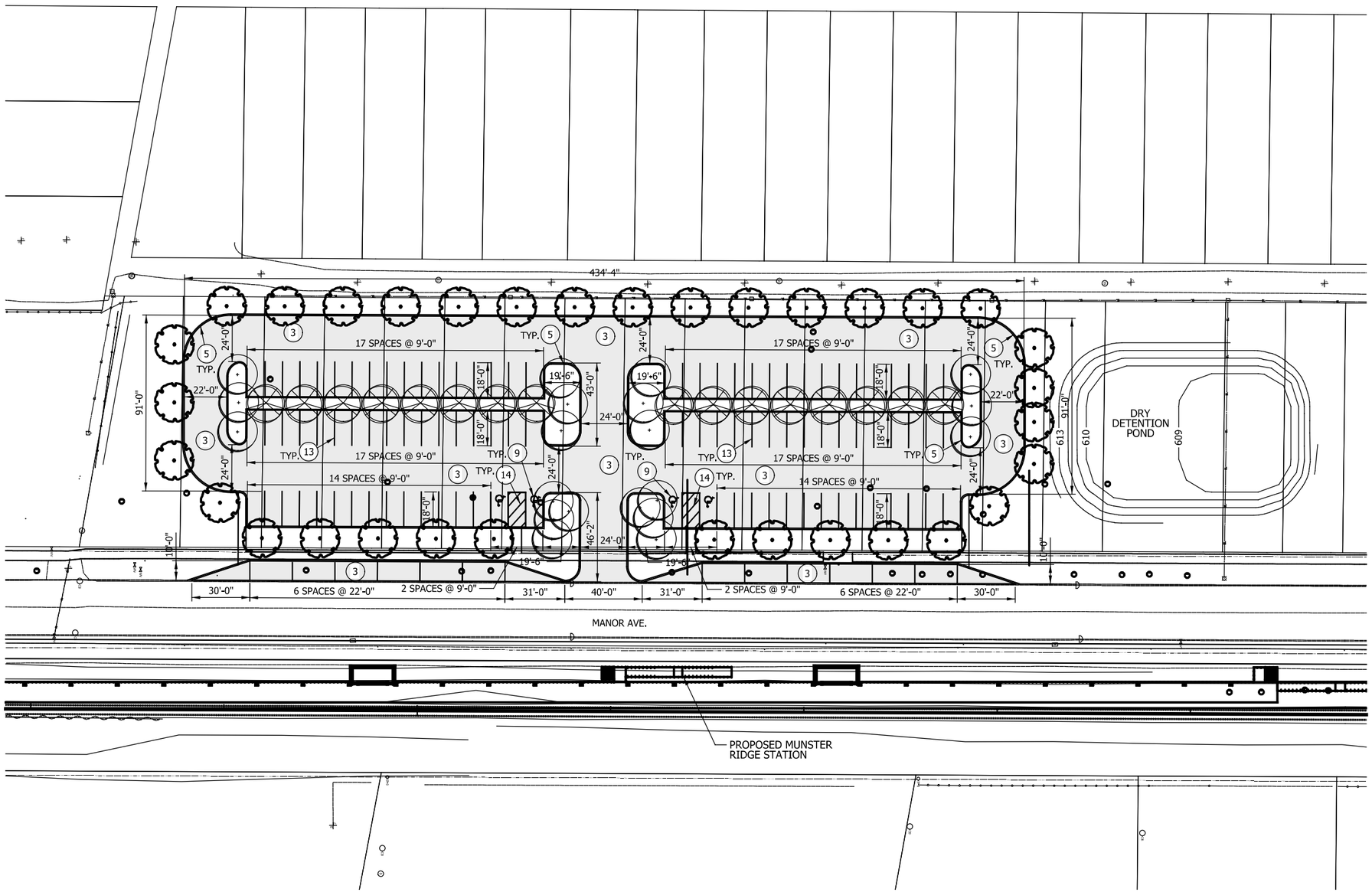
DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.5
MUNSTER-DYER STATION

SOUTH PARKING LOT LIGHTING PHOTOMETRICS

FILENAME	SHT_WL_E_MUNDYER_DP_07	SHEET	85 OF 361
SCALE	1/32" = 1' - 0"		

M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER DYER STATION\SHT_WL_E_MUNDYER_DP_07.DWG



GENERAL IMPROVEMENT NOTES

1. UTILITIES SHOWN ARE APPROXIMATE. FIELD VERIFY PRIOR TO CONSTRUCTION.
2. DIMENSIONS ARE TAKEN FROM THE FACE OF CURBS, WALLS AND/OR BUILDINGS UNLESS OTHERWISE NOTED.
3. ALL AREAS DISTURBED, NOT BUILT, PAVED OR OTHERWISE COVERED BY CONSTRUCTION, SHALL BE SEEDED WITH A PERMANENT TYPE TURFGRASS.
4. NOT ALL KEY NOTES USED ON EVERY SHEET.

PARKING SPACES

SITE IMPROVEMENT KEY

1. CONCRETE PAVEMENT, TYPE 1
2. CONCRETE PAVEMENT, TYPE 2
3. ASPHALT PAVEMENT, TYPE 1
4. ASPHALT PAVEMENT, TYPE 2
5. CONCRETE CURB
6. OUTDOOR BENCH
7. OUTDOOR WASTE RECEPTACLE
8. ACCESSIBLE PARKING POST SIGN
9. ACCESSIBLE PARKING PAVEMENT MARKING
10. FLAGPOLE
11. BOLLARD
12. CONCRETE PARKING BLOCK
13. PAVEMENT MARKING - 4"
14. PAVEMENT MARKING HATCH - 4"@3' O.C., 45°
15. PAVEMENT MARKING CROSSWALK - 24"W, 8'L, @ 4' O.C.
16. FENCE
17. LOUVERED SCREEN ENCLOSURE
18. DUMPSTER
19. UTILITY
20. COMPACTED AGGREGATE STORAGE
21. BALLAST STONE

LANDSCAPE PLANTING LEGEND

- DECIDUOUS SHADE TREE
- DECIDUOUS CANOPY TREE
- DECIDUOUS ORNAMENTAL TREE
- SHRUB

PARKING SPACES	
TYPE	QUANTITY
EXISTING	-
KISS AND RIDE	12
PARK AND RIDE	96
ADA	4
STANDARD	-
TOTAL	112

SCALE: 1" = 30'
0' 15' 30'

NOT FOR CONSTRUCTION

SERIES C-2101

PLOT DATE: 7/19/2017 11:12:27 PM JKJELLMA

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

shrewsberry
Shrewsberry & Associates, LLC
7321 Shadeland Station
Suite 160
Indianapolis, IN 46256

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

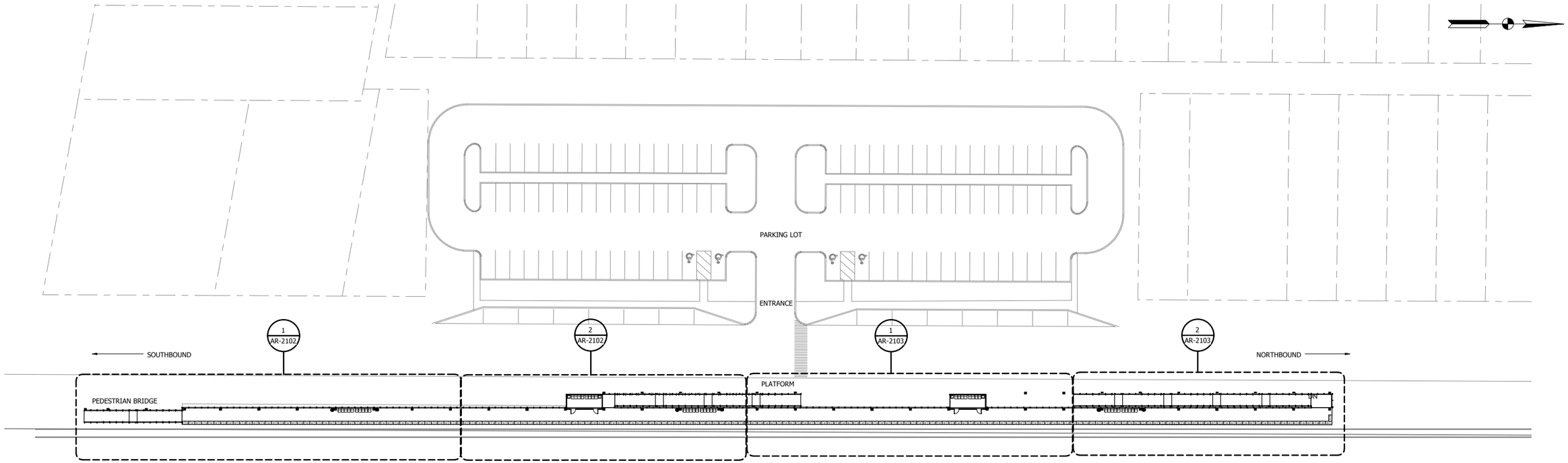
WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

X	DESIGNED:	
X	DRAWN:	
X	CHECKED:	
	DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

MUNSTER RIDGE PARKING FACILITY

FILENAME	SHT_WL_FA_MR PARK_PL_01.dgn	SHEET	86 OF 361
SCALE	AS NOTED		



1 SITE PLAN
1/32" = 1'-0"

NOT FOR CONSTRUCTION

SERIES
AR-2101

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631

www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER
TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

DYER TO HAMMOND, INDIANA

DESIGNED:	R. Krieger
DRAWN:	N. Edun
CHECKED:	Checker
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP 64.2
PROJECT NAME

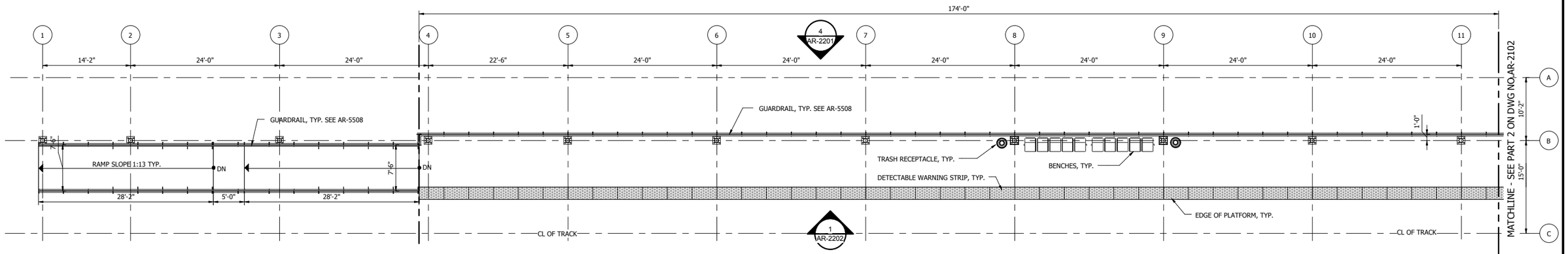
MUNSTER RIDGE SITE PLAN

FILENAME	
SCALE	1/32" = 1'-0"

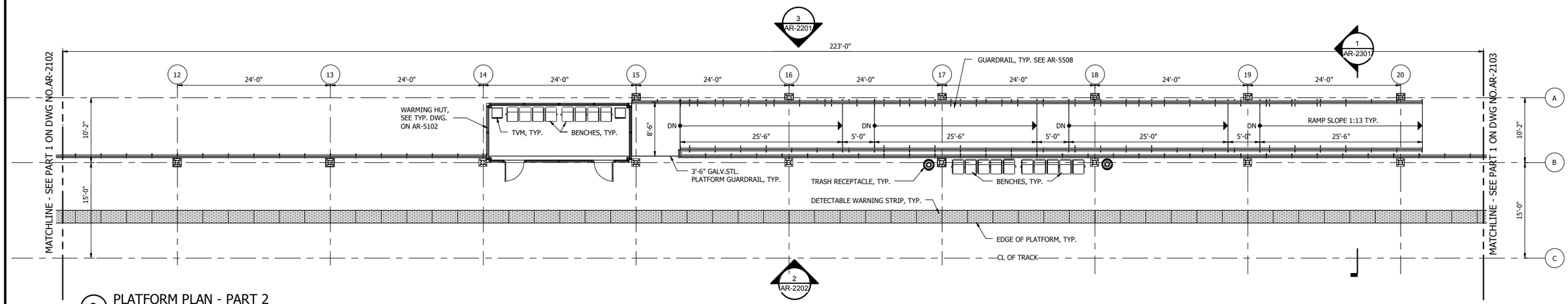
SHEET
87 OF 361

PLOT DATE: 7/20/2017 12:25:20 PM

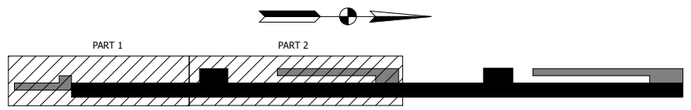
C:\rvt\2016\WL_AR_MUNRIDGESTN_02_NEDUN.rvt



1 PLATFORM PLAN - PART 1
1/8" = 1'-0"



2 PLATFORM PLAN - PART 2
1/8" = 1'-0"



SCALE: 1/8" = 1'

0' 4' 8' 16' 32'

NOT FOR CONSTRUCTION

SERIES **AR-2102**

PLOT DATE: 7/20/2017 12:25:22 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631

www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER
TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	RK
DRAWN:	NE
CHECKED:	Checker
DATE:	07/21/17

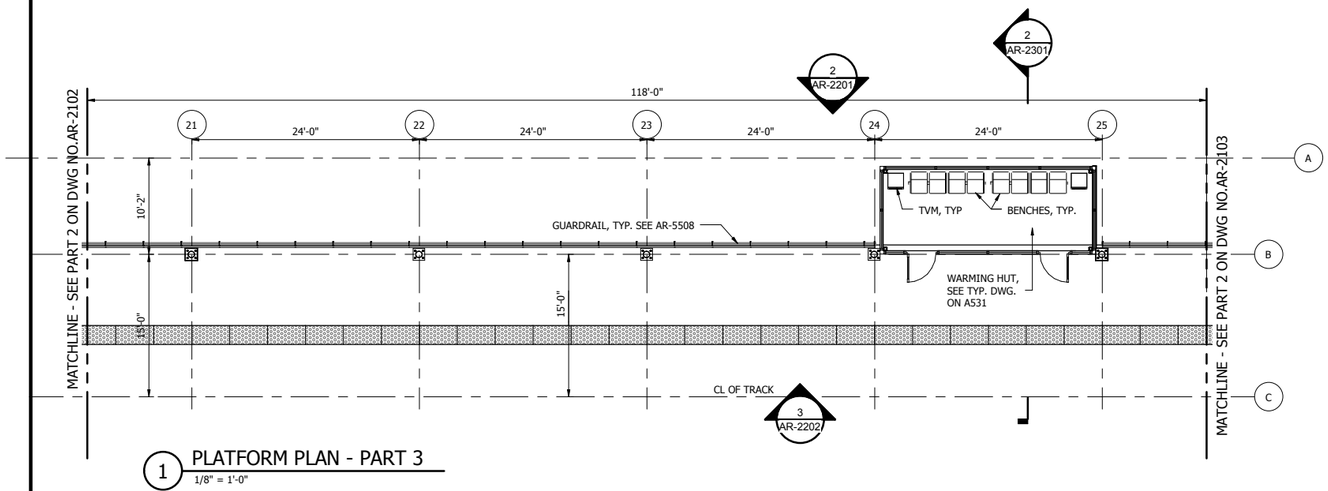
NICTD - WEST LAKE CORRIDOR - MP 64.2
PROJECT NAME

MUNSTER RIDGE PLATFORM PLANS 1

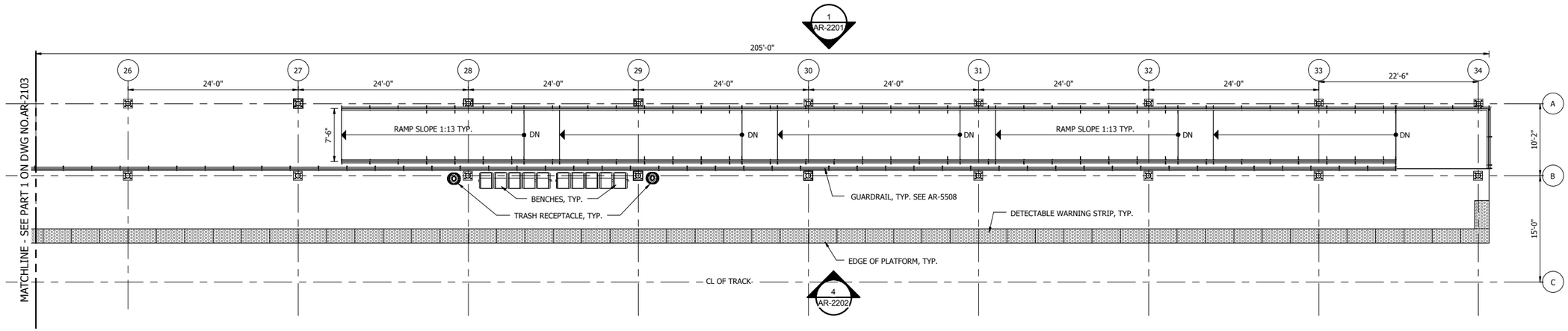
FILENAME	
SCALE	1/8" = 1'-0"

SHEET **88 OF 361**

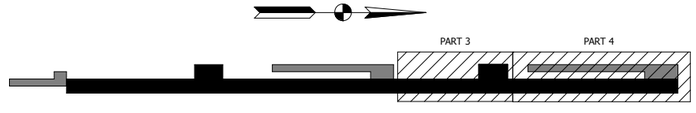
C:\rvt\2016\WL_AR_MUNRIDGESTN_02_NEDUN.rvt



1 PLATFORM PLAN - PART 3
1/8" = 1'-0"



2 PLATFORM PLAN - PART 4
1/8" = 1'-0"



SCALE: 1/8" = 1'

0' 4' 8' 16' 32'

NOT FOR CONSTRUCTION

SERIES AR-2103

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER
TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

DYER TO HAMMOND, INDIANA

DESIGNED:	Designer
DRAWN:	Author
CHECKED:	Checker
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP 64.2
PROJECT NAME

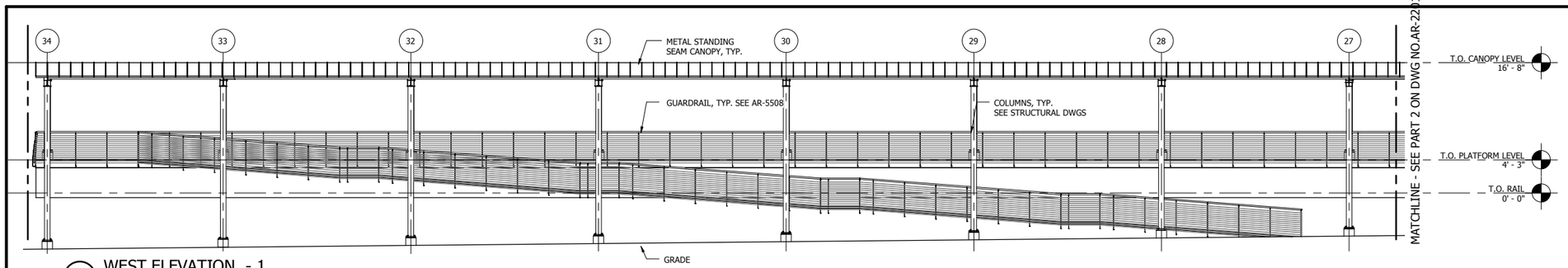
MUNSTER RIDGE PLATFORM PLANS 2

FILENAME	
SCALE	1/8" = 1'-0"

SHEET 89 OF 361

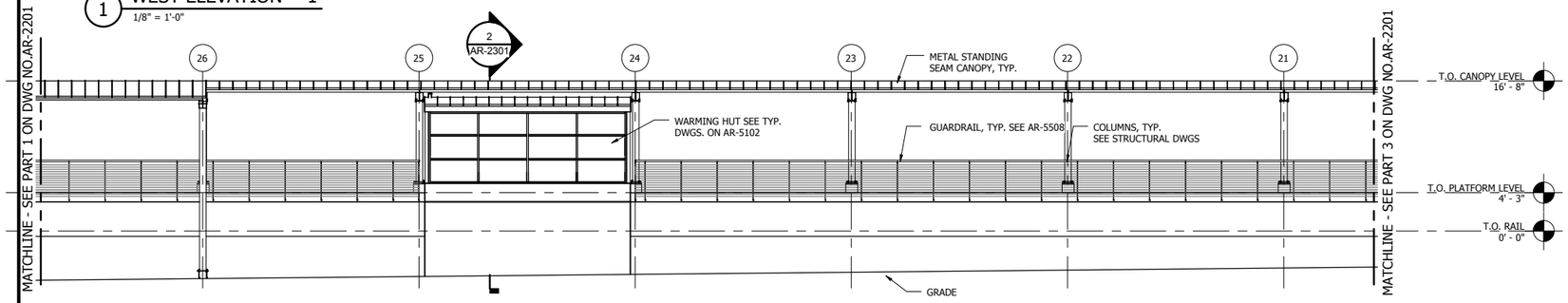
PLOT DATE: 7/20/2017 12:25:24 PM

C:\rvt\2016\WL_AR_MUNRIDGESTN_02_NEDUN.rvt



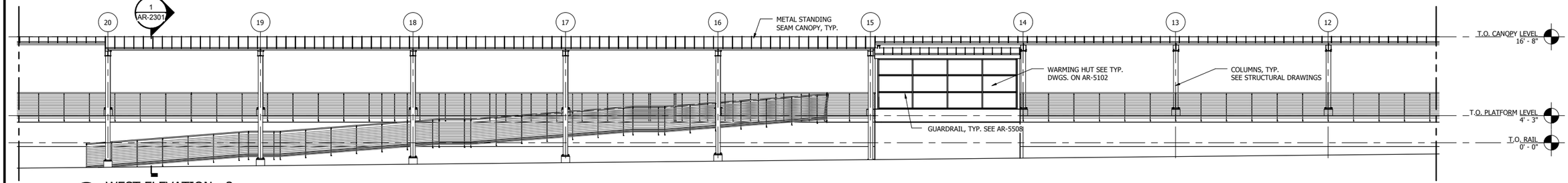
1 WEST ELEVATION - 1

1/8" = 1'-0"



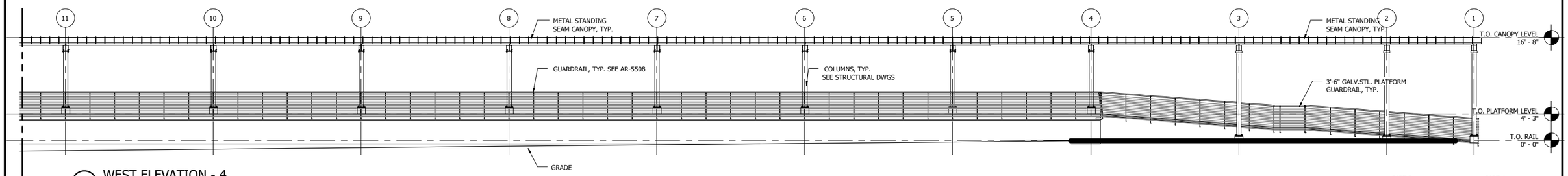
2 WEST ELEVATION - 2

1/8" = 1'-0"



3 WEST ELEVATION - 3

1/8" = 1'-0"



4 WEST ELEVATION - 4

1/8" = 1'-0"

SCALE: 1/8" = 1'

0' 4' 8' 16' 32'

NOT FOR CONSTRUCTION

SERIES **AR-2201**

PLOT DATE: 7/20/2017 12:25:28 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

DYER TO HAMMOND, INDIANA

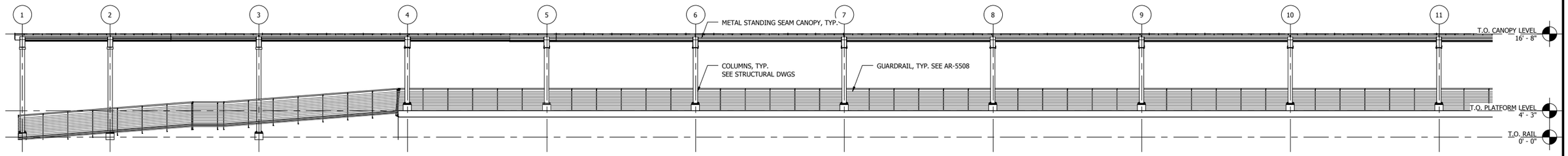
DESIGNED:	RK
DRAWN:	NE
CHECKED:	Checker
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP 64.2
PROJECT NAME

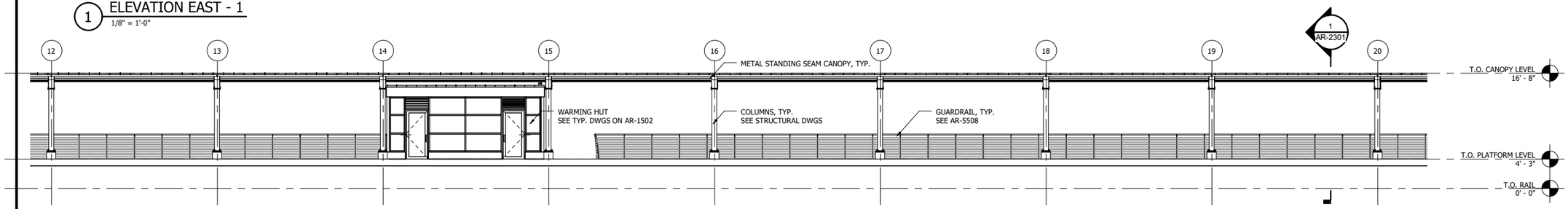
MUNSTER RIDGE WEST ELEVATIONS

FILENAME		SHEET	90 OF 361
SCALE	1/8" = 1'-0"		

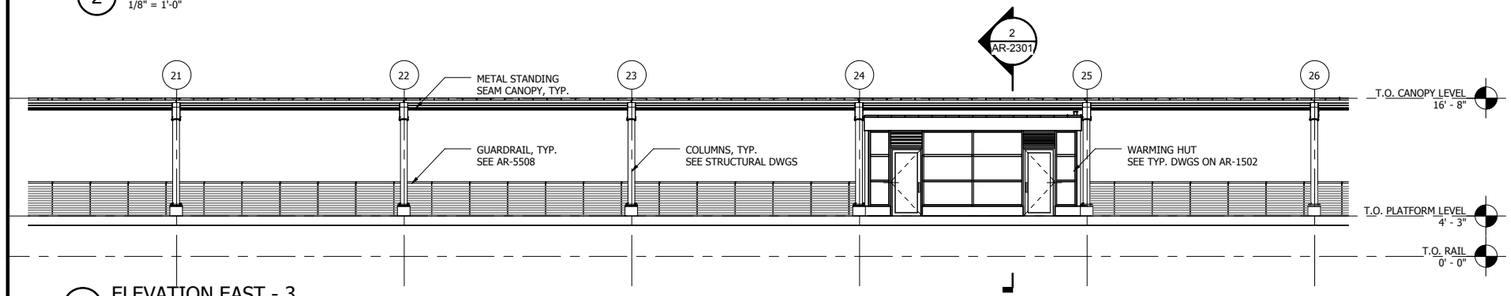
C:\rvt\2016\WL_AR_MUNRIDGESTN_02_NEDUN.rvt



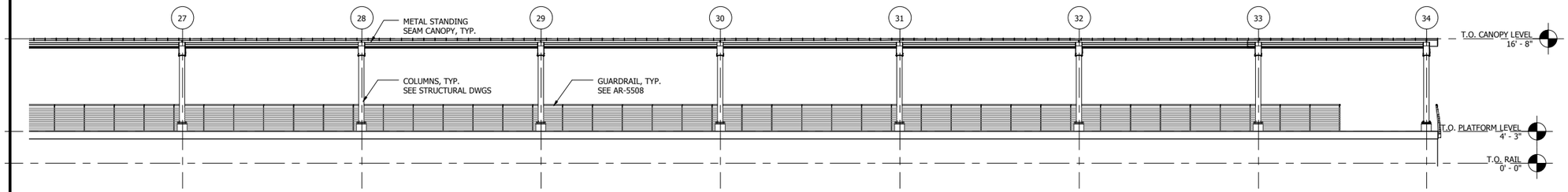
1 ELEVATION EAST - 1
1/8" = 1'-0"



2 ELEVATION EAST - 2
1/8" = 1'-0"



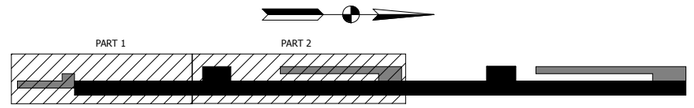
3 ELEVATION EAST - 3
1/8" = 1'-0"



4 ELEVATION EAST - 4
1/8" = 1'-0"

SCALE: 1/8" = 1'

0' 4' 8' 16' 32'



NOT FOR CONSTRUCTION

SERIES
AR-2202

PLOT DATE: 7/20/2017 12:25:31 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER
TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

DYER TO HAMMOND, INDIANA

DESIGNED:	Designer
DRAWN:	Author
CHECKED:	Checker
DATE:	07/21/17

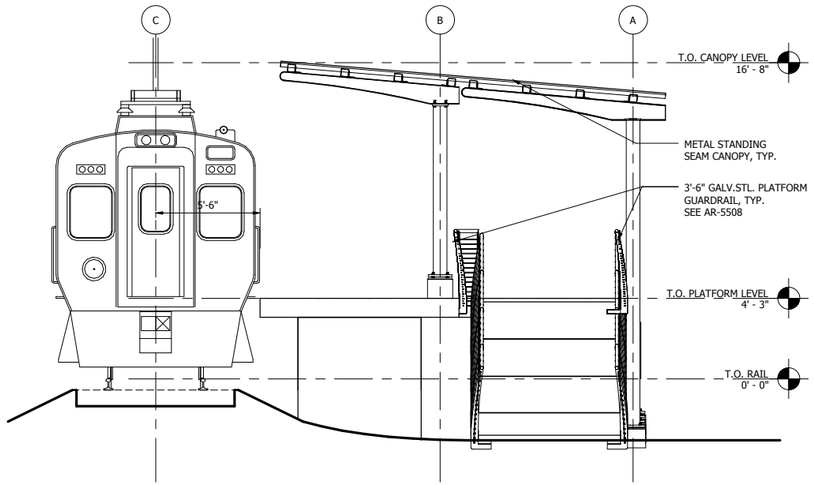
NICTD - WEST LAKE CORRIDOR - MP 64.2
PROJECT NAME

MUNSTER RIDGE EAST ELEVATIONS

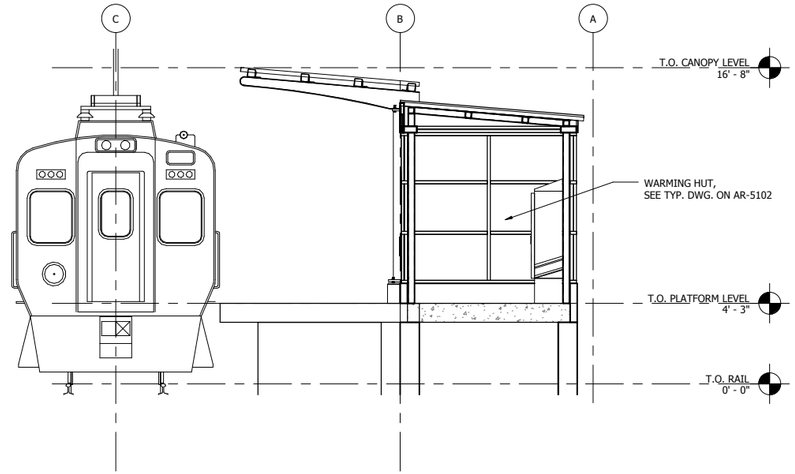
FILENAME	
SCALE	1/8" = 1'-0"

SHEET
91 OF 361

C:\rvt\2016\WL_AR_MUNRIDGESTN_02_NEDUN.rvt



1 CROSS SECTION THROUGH LANDING
1/4" = 1'-0"



2 CROSS-SECTION THROUGH WARMING HUT
1/4" = 1'-0"

NOTES
1. FOR ELEVATIONS AND GRADE, SEE CIVIL DRAWINGS.

SCALE: 1/4" = 1'

0' 2' 4' 8' 16'

NOT FOR CONSTRUCTION

SERIES **AR-2301**

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER
TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

DYER TO HAMMOND, INDIANA

DESIGNED:	RK
DRAWN:	NE
CHECKED:	Checker
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP 64.2
PROJECT NAME

MUNSTER RIDGE CROSS SECTIONS

FILENAME	
SCALE	1/4" = 1'-0"

SHEET **92 OF 361**

PLOT DATE: 7/20/2017 12:25:32 PM

C:\rvt\2016\WL_AR_MUNRIDGESTN_02_NEDUN.rvt

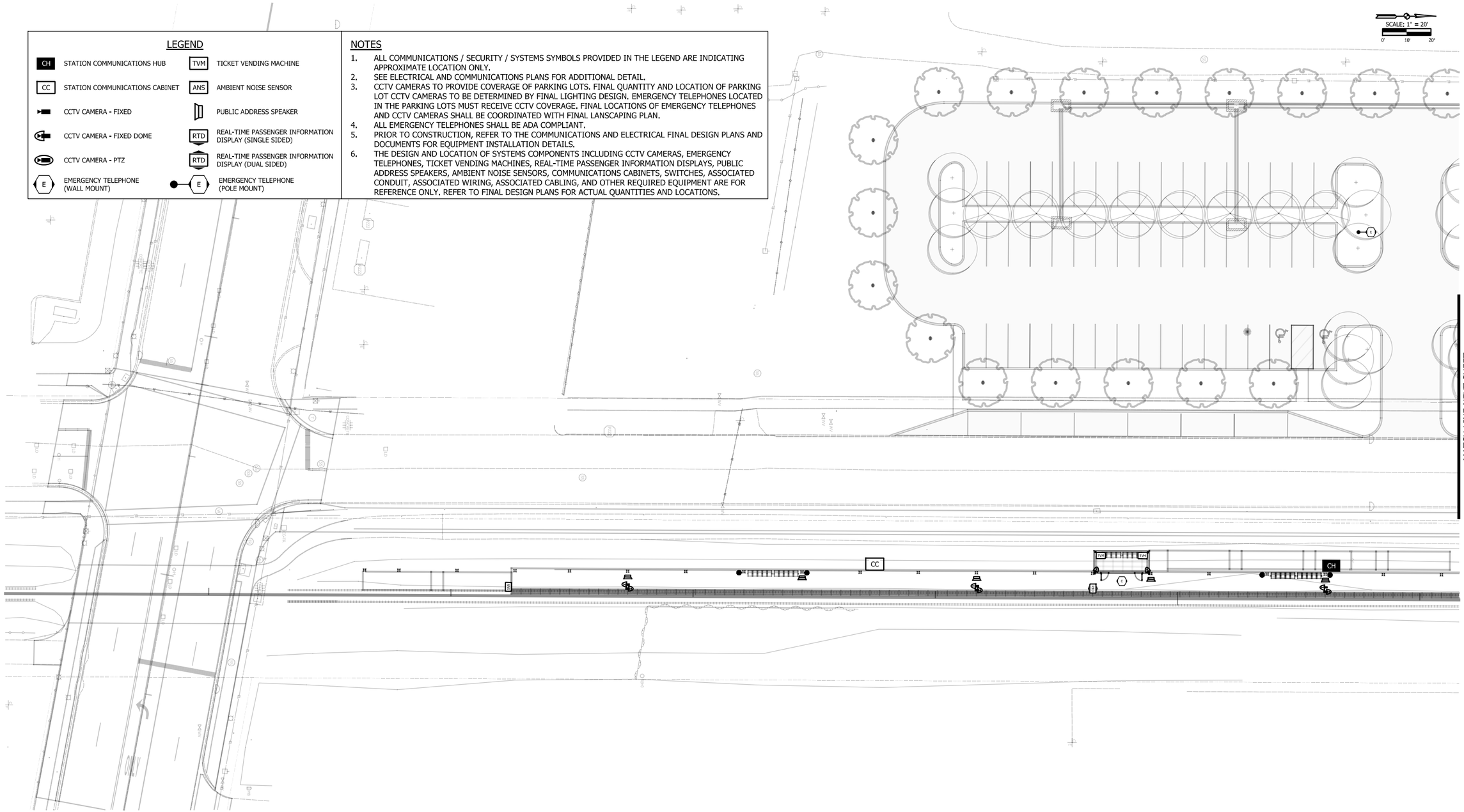
LEGEND

CH	STATION COMMUNICATIONS HUB	TVM	TICKET VENDING MACHINE
CC	STATION COMMUNICATIONS CABINET	ANS	AMBIENT NOISE SENSOR
	CCTV CAMERA - FIXED		PUBLIC ADDRESS SPEAKER
	CCTV CAMERA - FIXED DOME	RTD	REAL-TIME PASSENGER INFORMATION DISPLAY (SINGLE SIDED)
	CCTV CAMERA - PTZ	RTD	REAL-TIME PASSENGER INFORMATION DISPLAY (DUAL SIDED)
E	EMERGENCY TELEPHONE (WALL MOUNT)	E	EMERGENCY TELEPHONE (POLE MOUNT)

NOTES

1. ALL COMMUNICATIONS / SECURITY / SYSTEMS SYMBOLS PROVIDED IN THE LEGEND ARE INDICATING APPROXIMATE LOCATION ONLY.
2. SEE ELECTRICAL AND COMMUNICATIONS PLANS FOR ADDITIONAL DETAIL.
3. CCTV CAMERAS TO PROVIDE COVERAGE OF PARKING LOTS. FINAL QUANTITY AND LOCATION OF PARKING LOT CCTV CAMERAS TO BE DETERMINED BY FINAL LIGHTING DESIGN. EMERGENCY TELEPHONES LOCATED IN THE PARKING LOTS MUST RECEIVE CCTV COVERAGE. FINAL LOCATIONS OF EMERGENCY TELEPHONES AND CCTV CAMERAS SHALL BE COORDINATED WITH FINAL LANSCAPING PLAN.
4. ALL EMERGENCY TELEPHONES SHALL BE ADA COMPLIANT.
5. PRIOR TO CONSTRUCTION, REFER TO THE COMMUNICATIONS AND ELECTRICAL FINAL DESIGN PLANS AND DOCUMENTS FOR EQUIPMENT INSTALLATION DETAILS.
6. THE DESIGN AND LOCATION OF SYSTEMS COMPONENTS INCLUDING CCTV CAMERAS, EMERGENCY TELEPHONES, TICKET VENDING MACHINES, REAL-TIME PASSENGER INFORMATION DISPLAYS, PUBLIC ADDRESS SPEAKERS, AMBIENT NOISE SENSORS, COMMUNICATIONS CABINETS, SWITCHES, ASSOCIATED CONDUIT, ASSOCIATED WIRING, ASSOCIATED CABLING, AND OTHER REQUIRED EQUIPMENT ARE FOR REFERENCE ONLY. REFER TO FINAL DESIGN PLANS FOR ACTUAL QUANTITIES AND LOCATIONS.

SCALE: 1" = 20'
0' 10' 20'



MATCH LINE NEXT SHEET

NOT FOR CONSTRUCTION

SERIES AR-2801

PLOT DATE: 7/20/2017 3:30:14 PM JKIELLMA

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	T. HILES
DRAWN:	J. MERSEREAU
CHECKED:	S. WICKS
DATE:	07/21/17

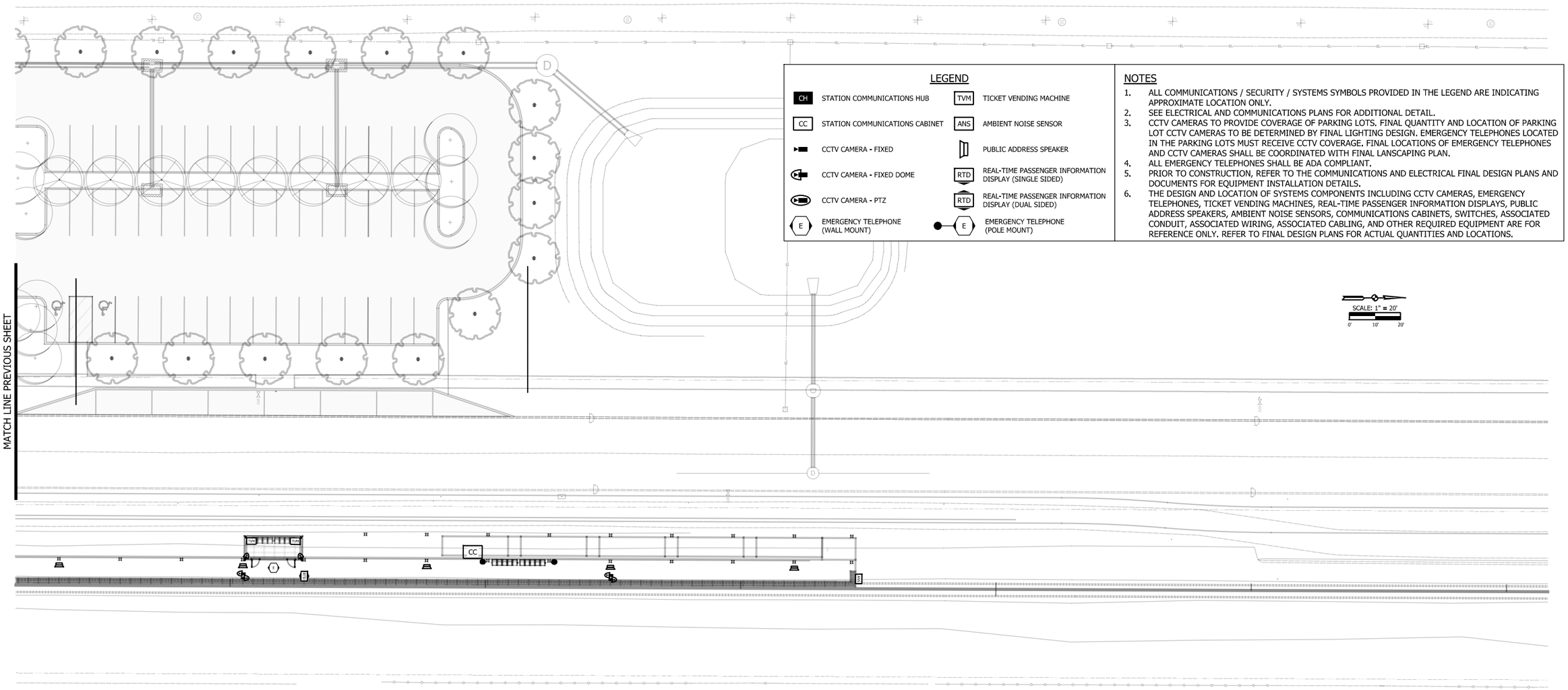
NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

PARKING SYSTEMS PLAN 1 STATION

FILENAME	SHT_WL_TE_MR_PL_01.dgn
SCALE	AS NOTED

SHEET 93 OF 361

MATCH LINE PREVIOUS SHEET



LEGEND

CH	STATION COMMUNICATIONS HUB	TVM	TICKET VENDING MACHINE
CC	STATION COMMUNICATIONS CABINET	ANS	AMBIENT NOISE SENSOR
	CCTV CAMERA - FIXED		PUBLIC ADDRESS SPEAKER
	CCTV CAMERA - FIXED DOME	RTD	REAL-TIME PASSENGER INFORMATION DISPLAY (SINGLE SIDED)
	CCTV CAMERA - PTZ	RTD	REAL-TIME PASSENGER INFORMATION DISPLAY (DUAL SIDED)
E	EMERGENCY TELEPHONE (WALL MOUNT)	E	EMERGENCY TELEPHONE (POLE MOUNT)

NOTES

1. ALL COMMUNICATIONS / SECURITY / SYSTEMS SYMBOLS PROVIDED IN THE LEGEND ARE INDICATING APPROXIMATE LOCATION ONLY.
2. SEE ELECTRICAL AND COMMUNICATIONS PLANS FOR ADDITIONAL DETAIL.
3. CCTV CAMERAS TO PROVIDE COVERAGE OF PARKING LOTS. FINAL QUANTITY AND LOCATION OF PARKING LOT CCTV CAMERAS TO BE DETERMINED BY FINAL LIGHTING DESIGN. EMERGENCY TELEPHONES LOCATED IN THE PARKING LOTS MUST RECEIVE CCTV COVERAGE. FINAL LOCATIONS OF EMERGENCY TELEPHONES AND CCTV CAMERAS SHALL BE COORDINATED WITH FINAL LANSCAPING PLAN.
4. ALL EMERGENCY TELEPHONES SHALL BE ADA COMPLIANT.
5. PRIOR TO CONSTRUCTION, REFER TO THE COMMUNICATIONS AND ELECTRICAL FINAL DESIGN PLANS AND DOCUMENTS FOR EQUIPMENT INSTALLATION DETAILS.
6. THE DESIGN AND LOCATION OF SYSTEMS COMPONENTS INCLUDING CCTV CAMERAS, EMERGENCY TELEPHONES, TICKET VENDING MACHINES, REAL-TIME PASSENGER INFORMATION DISPLAYS, PUBLIC ADDRESS SPEAKERS, AMBIENT NOISE SENSORS, COMMUNICATIONS CABINETS, SWITCHES, ASSOCIATED CONDUIT, ASSOCIATED WIRING, ASSOCIATED CABLING, AND OTHER REQUIRED EQUIPMENT ARE FOR REFERENCE ONLY. REFER TO FINAL DESIGN PLANS FOR ACTUAL QUANTITIES AND LOCATIONS.

SCALE: 1" = 20'
0' 10' 20'

JKIELLMA
PLOT DATE: 7/20/2017 3:30:58 PM

NOT FOR CONSTRUCTION

SERIES AR-2802

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

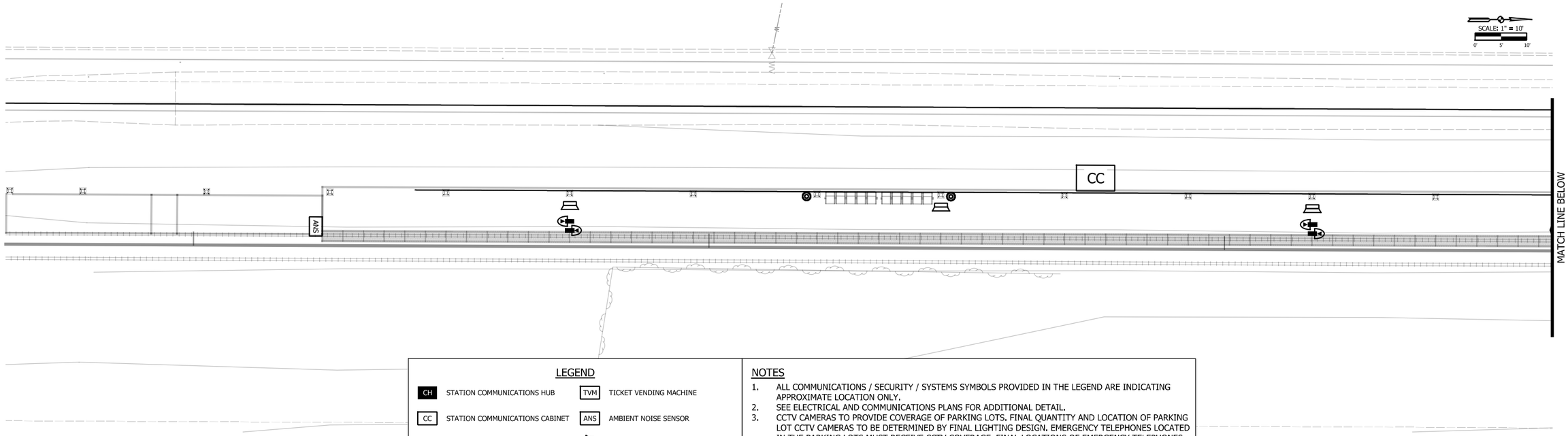
DESIGNED:	T. HILES
DRAWN:	J. MERSEREAU
CHECKED:	S. WICKS
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

PARKING SYSTEMS PLAN 2 STATION

FILENAME	SHT_WL_TE_MR_PL_02.dgn
SCALE	AS NOTED

SHEET 94 OF 361

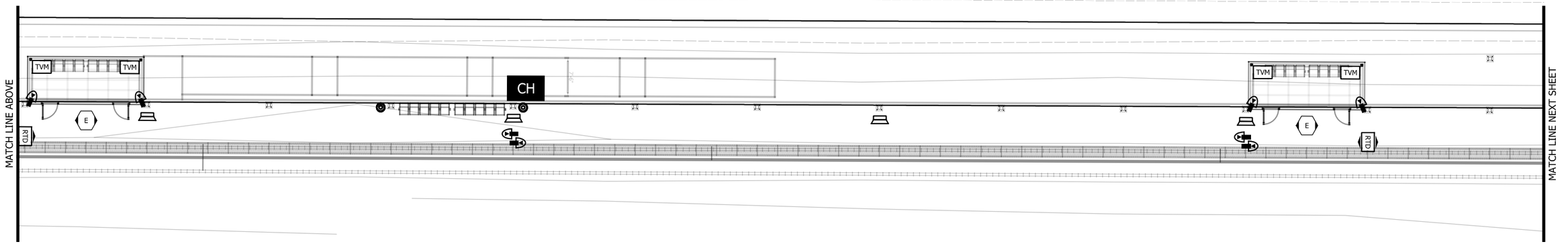


LEGEND

CH	STATION COMMUNICATIONS HUB	TVM	TICKET VENDING MACHINE
CC	STATION COMMUNICATIONS CABINET	ANS	AMBIENT NOISE SENSOR
	CCTV CAMERA - FIXED		PUBLIC ADDRESS SPEAKER
	CCTV CAMERA - FIXED DOME	RTD	REAL-TIME PASSENGER INFORMATION DISPLAY (SINGLE SIDED)
	CCTV CAMERA - PTZ	RTD	REAL-TIME PASSENGER INFORMATION DISPLAY (DUAL SIDED)
E	EMERGENCY TELEPHONE (WALL MOUNT)	E	EMERGENCY TELEPHONE (POLE MOUNT)

NOTES

1. ALL COMMUNICATIONS / SECURITY / SYSTEMS SYMBOLS PROVIDED IN THE LEGEND ARE INDICATING APPROXIMATE LOCATION ONLY.
2. SEE ELECTRICAL AND COMMUNICATIONS PLANS FOR ADDITIONAL DETAIL.
3. CCTV CAMERAS TO PROVIDE COVERAGE OF PARKING LOTS. FINAL QUANTITY AND LOCATION OF PARKING LOT CCTV CAMERAS TO BE DETERMINED BY FINAL LIGHTING DESIGN. EMERGENCY TELEPHONES LOCATED IN THE PARKING LOTS MUST RECEIVE CCTV COVERAGE. FINAL LOCATIONS OF EMERGENCY TELEPHONES AND CCTV CAMERAS SHALL BE COORDINATED WITH FINAL LANSCAPING PLAN.
4. ALL EMERGENCY TELEPHONES SHALL BE ADA COMPLIANT.
5. PRIOR TO CONSTRUCTION, REFER TO THE COMMUNICATIONS AND ELECTRICAL FINAL DESIGN PLANS AND DOCUMENTS FOR EQUIPMENT INSTALLATION DETAILS.
6. THE DESIGN AND LOCATION OF SYSTEMS COMPONENTS INCLUDING CCTV CAMERAS, EMERGENCY TELEPHONES, TICKET VENDING MACHINES, REAL-TIME PASSENGER INFORMATION DISPLAYS, PUBLIC ADDRESS SPEAKERS, AMBIENT NOISE SENSORS, COMMUNICATIONS CABINETS, SWITCHES, ASSOCIATED CONDUIT, ASSOCIATED WIRING, ASSOCIATED CABLING, AND OTHER REQUIRED EQUIPMENT ARE FOR REFERENCE ONLY. REFER TO FINAL DESIGN PLANS FOR ACTUAL QUANTITIES AND LOCATIONS.



JKJELLMA

PLOT DATE: 7/20/2017 3:31:46 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

DYER TO HAMMOND, INDIANA

DESIGNED:	T. HILES
DRAWN:	J. MERSEREAU
CHECKED:	S. WICKS
DATE:	07/21/17

NOT FOR CONSTRUCTION

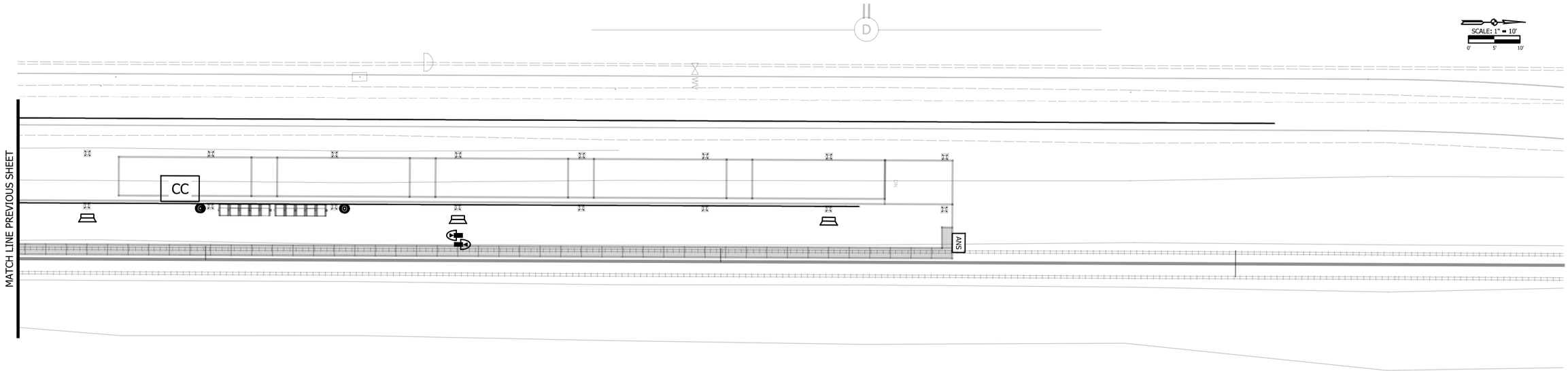
SERIES AR-2803

NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

PLATFORM SYSTEMS PLAN 1 STATION

FILENAME	SHT_WL_TE_MR_PL_03.dgn
SCALE	AS NOTED

SHEET **95 OF 361**



LEGEND

CH — STATION COMMUNICATIONS HUB	TVM — TICKET VENDING MACHINE
CC — STATION COMMUNICATIONS CABINET	ANS — AMBIENT NOISE SENSOR
CCTV CAMERA - FIXED	PUBLIC ADDRESS SPEAKER
CCTV CAMERA - FIXED DOME	RTD — REAL-TIME PASSENGER INFORMATION DISPLAY (SINGLE SIDED)
CCTV CAMERA - PTZ	RTD — REAL-TIME PASSENGER INFORMATION DISPLAY (DUAL SIDED)
E — EMERGENCY TELEPHONE (WALL MOUNT)	E — EMERGENCY TELEPHONE (POLE MOUNT)

NOTES

1. ALL COMMUNICATIONS / SECURITY / SYSTEMS SYMBOLS PROVIDED IN THE LEGEND ARE INDICATING APPROXIMATE LOCATION ONLY.
2. SEE ELECTRICAL AND COMMUNICATIONS PLANS FOR ADDITIONAL DETAIL.
3. CCTV CAMERAS TO PROVIDE COVERAGE OF PARKING LOTS. FINAL QUANTITY AND LOCATION OF PARKING LOT CCTV CAMERAS TO BE DETERMINED BY FINAL LIGHTING DESIGN. EMERGENCY TELEPHONES LOCATED IN THE PARKING LOTS MUST RECEIVE CCTV COVERAGE. FINAL LOCATIONS OF EMERGENCY TELEPHONES AND CCTV CAMERAS SHALL BE COORDINATED WITH FINAL LANSCAPING PLAN.
4. ALL EMERGENCY TELEPHONES SHALL BE ADA COMPLIANT.
5. PRIOR TO CONSTRUCTION, REFER TO THE COMMUNICATIONS AND ELECTRICAL FINAL DESIGN PLANS AND DOCUMENTS FOR EQUIPMENT INSTALLATION DETAILS.
6. THE DESIGN AND LOCATION OF SYSTEMS COMPONENTS INCLUDING CCTV CAMERAS, EMERGENCY TELEPHONES, TICKET VENDING MACHINES, REAL-TIME PASSENGER INFORMATION DISPLAYS, PUBLIC ADDRESS SPEAKERS, AMBIENT NOISE SENSORS, COMMUNICATIONS CABINETS, SWITCHES, ASSOCIATED CONDUIT, ASSOCIATED WIRING, ASSOCIATED CABLING, AND OTHER REQUIRED EQUIPMENT ARE FOR REFERENCE ONLY. REFER TO FINAL DESIGN PLANS FOR ACTUAL QUANTITIES AND LOCATIONS.

NOT FOR CONSTRUCTION

SERIES AR-2804

PLOT DATE: 7/20/2017 3:32:25 PM JKIELLMA

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

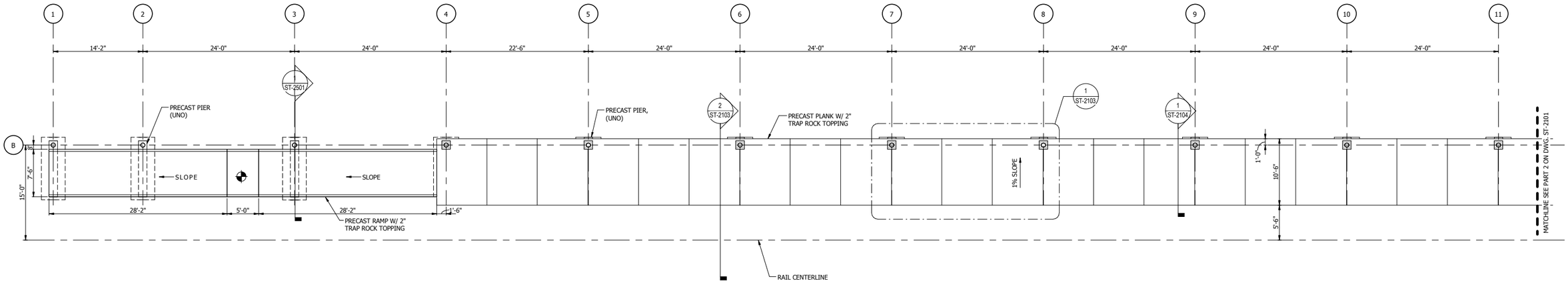
DESIGNED:	T. HILES
DRAWN:	J. MERSEREAU
CHECKED:	S. WICKS
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

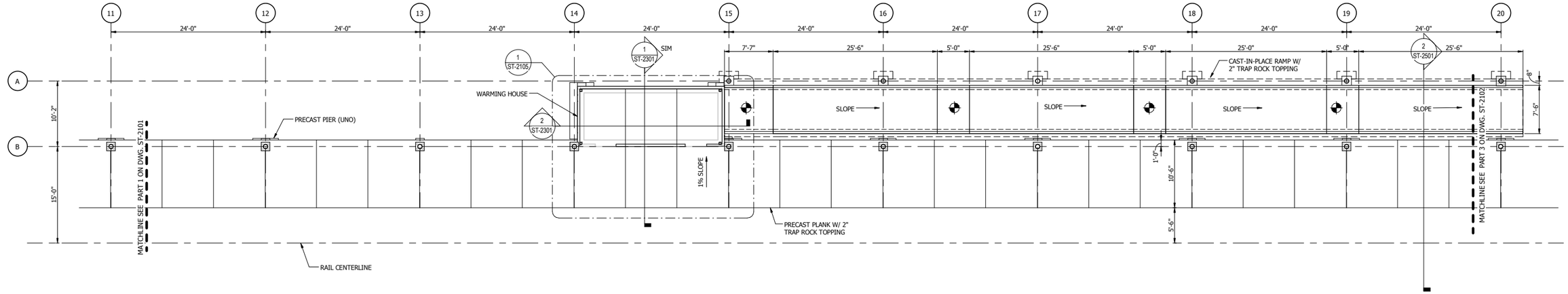
PLATFORM SYSTEMS PLAN 2 STATION

FILENAME	SHT_WL_TE_MR_PL_04.dgn
SCALE	AS NOTED

SHEET 96 OF 361



1 MUNSTER RIDGE PARTIAL PLATFORM PLAN - 1
1/8" = 1'-0"



2 MUNSTER RIDGE PARTIAL PLATFORM PLAN - 2
1/8" = 1'-0"

PLOT DATE: 19-Jul-17 1:49:19 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

DLZ

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	VMR
DRAWN:	VMR
CHECKED:	CVAN
DATE:	07/21/17

SERIES
ST-2101

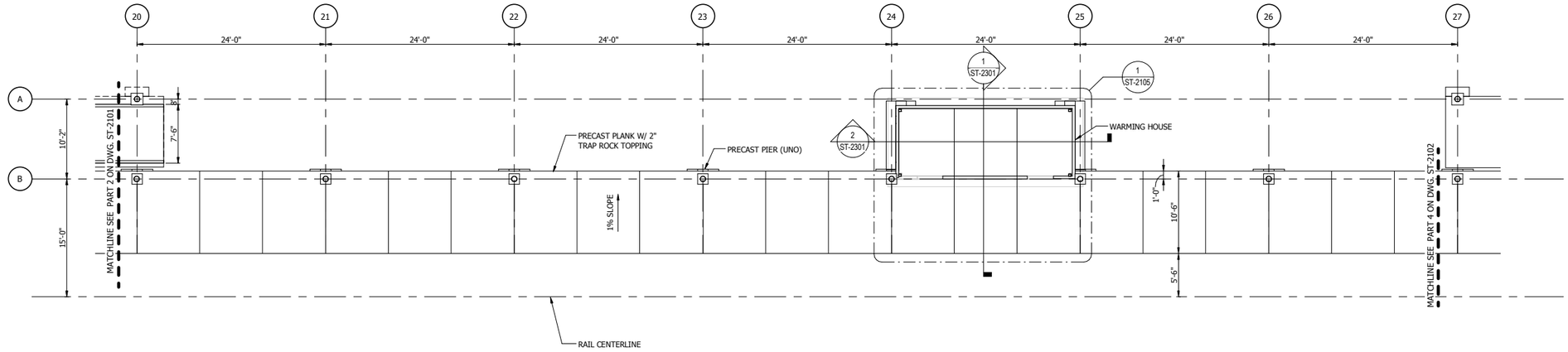
NICTD - WEST LAKE CORRIDOR - MP WL 64.2
PROJECT NAME

MUNSTER RIDGE PLATFORM PLAN - 1

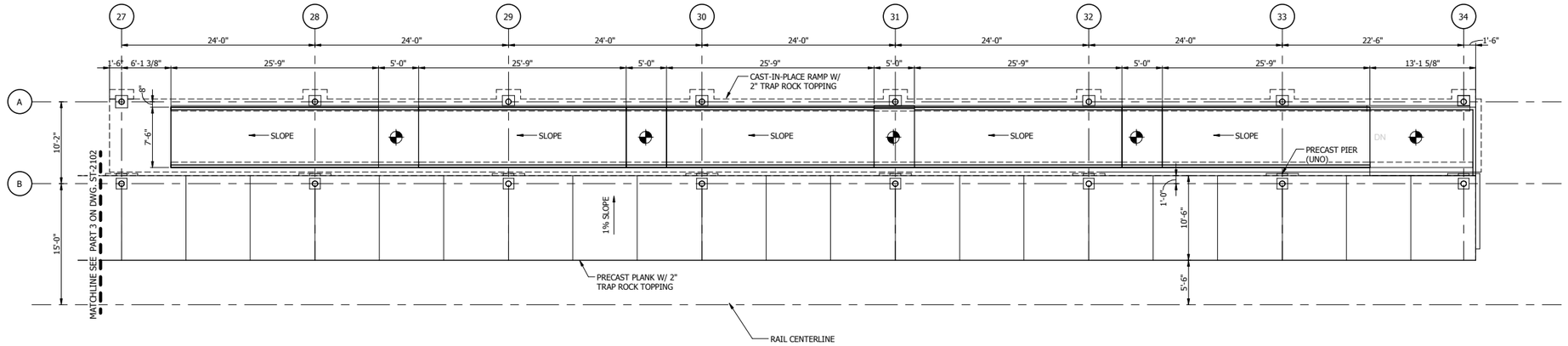
FILENAME
SCALE 1/8" = 1'-0"

SHEET
97 OF 361

C:\Users\vrednour\Documents\WL_ST_MUNRIDGESTN_02_vrednour.rvt



1 MUNSTER RIDGE PARTIAL PLATFORM PLAN - 3
1/8" = 1'-0"



2 MUNSTER RIDGE PARTIAL PLATFORM PLAN - 4
1/8" = 1'-0"

NOT FOR CONSTRUCTION

SERIES **ST-2102**

PLOT DATE: 19-Jul-17 1:49:20 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

DLZ

ISSUE	DATE	DESCRIPTION

NICTD
NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	VMR
DRAWN:	VMR
CHECKED:	CVAN
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 64.2
PROJECT NAME

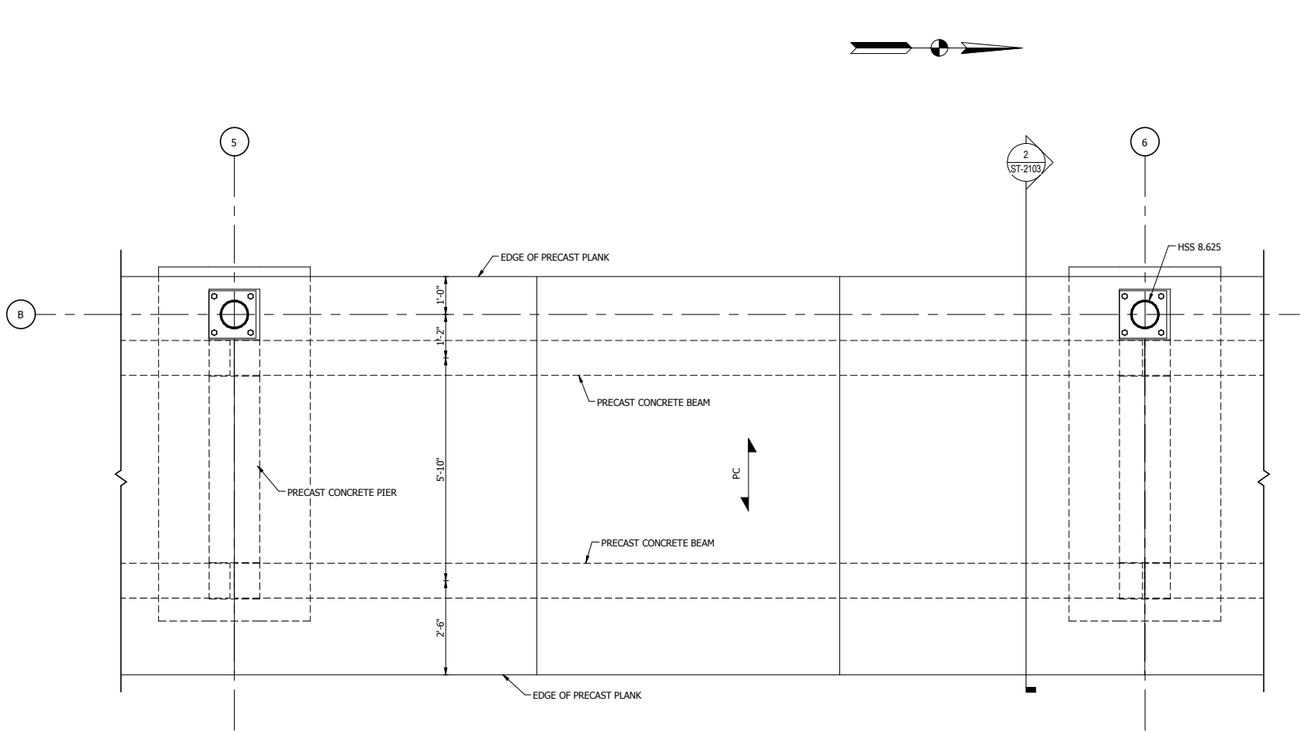
MUNSTER RIDGE PLATFORM PLAN - 2

FILENAME

SCALE 1/8" = 1'-0"

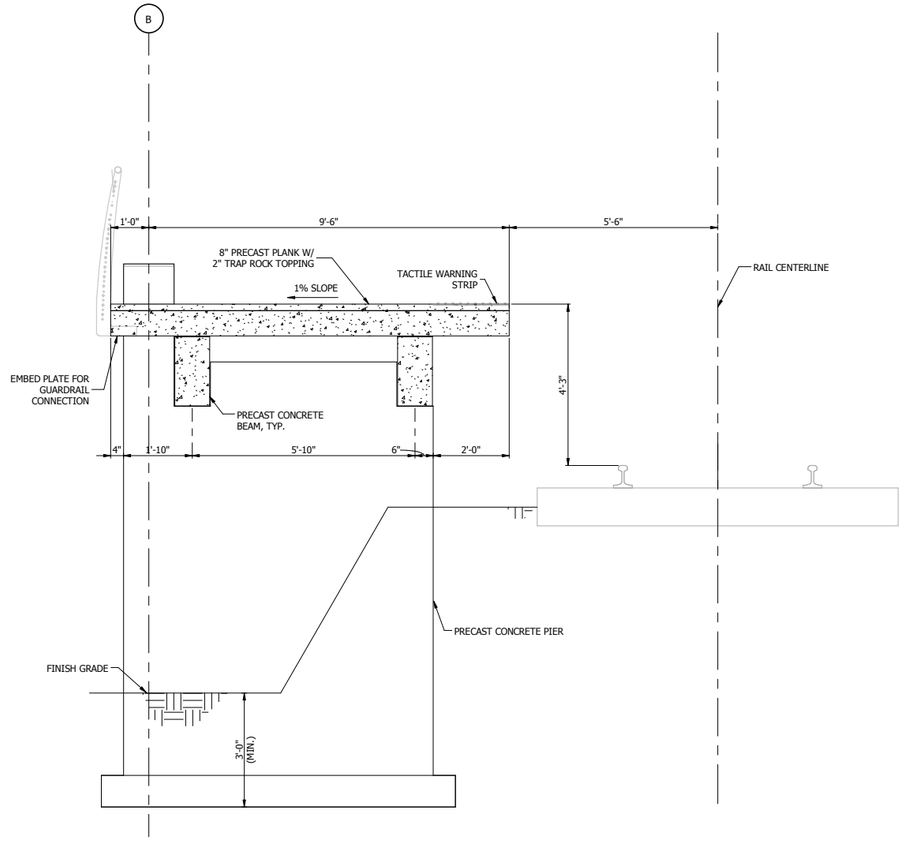
SHEET **98** OF **361**

C:\Users\vrednour\Documents\WL_ST_MUNRIDGESTN_02_vrednour.rvt



NOTE:
1. FOUNDATION SPACING SHOWN ON PLATFORM PLAN.

1 TYPICAL PLATFORM FRAMING PLAN
1/2" = 1'-0"



NOTES:
1. PROVIDE ELECTRICAL HEATING MAT IN PRECAST PLANKS.
2. STEEL COLUMN AND CANOPY NOT SHOWN FOR CLARITY.

2 TYPICAL PLATFORM SECTION
1/2" = 1'-0"

NOT FOR CONSTRUCTION

SERIES **ST-2103**

PLOT DATE: 19-Jul-17 1:49:20 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

DLZ

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER
TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

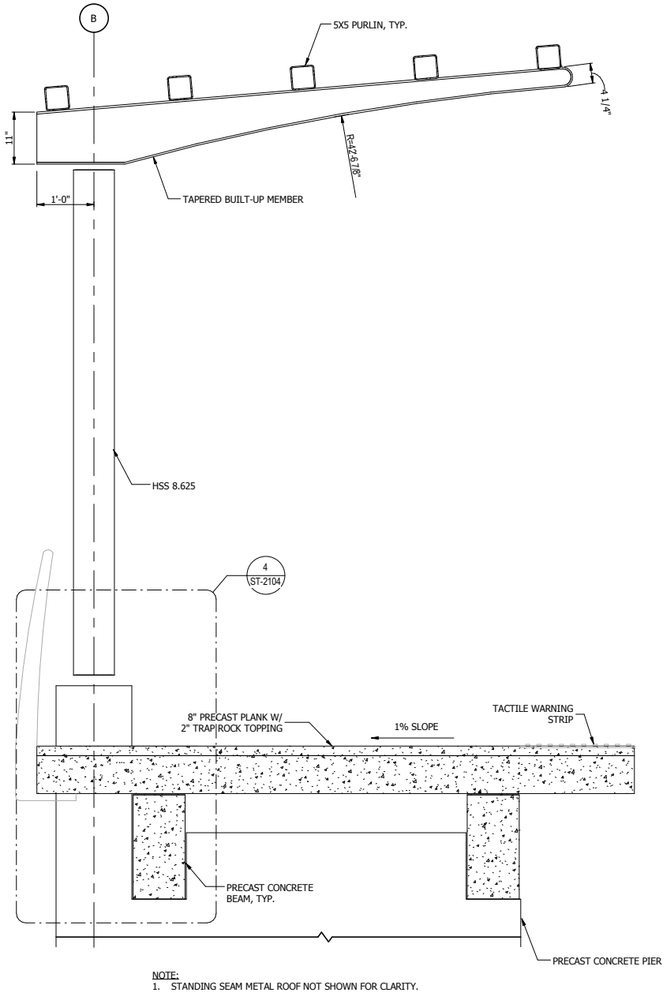
DESIGNED:	VMR
DRAWN:	VMR
CHECKED:	CVAN
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 64.2
PROJECT NAME

MUNSTER RIDGE PLATFORM FRAMING PLAN

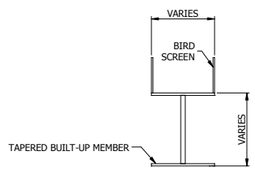
FILENAME		SHEET	99 OF 361
SCALE	1/2" = 1'-0"		

C:\Users\vrednour\Documents\WL_ST_MUNRIDGESTN_02_vrednour.rvt

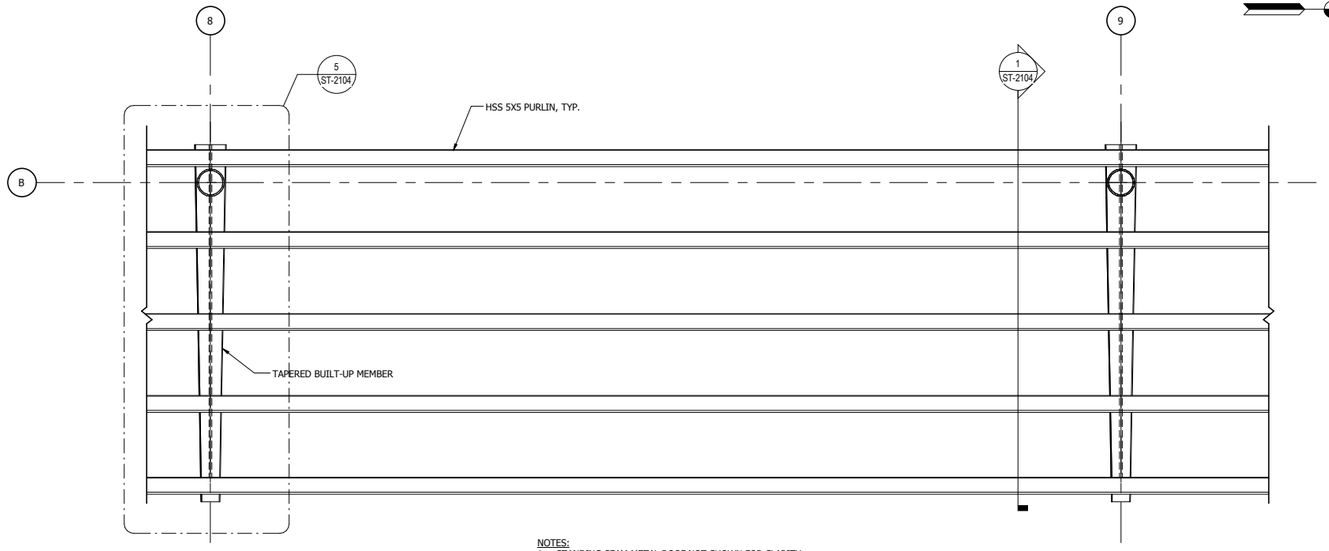


NOTE:
1. STANDING SEAM METAL ROOF NOT SHOWN FOR CLARITY.

1 TYPICAL CANOPY SECTION
3/4" = 1'-0"

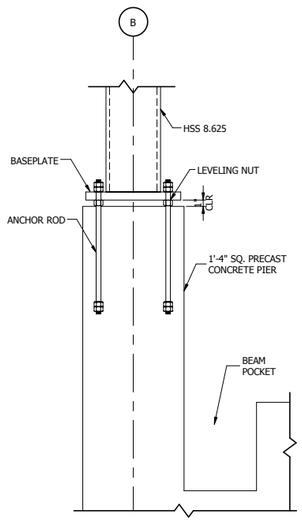


3 TAPERED MEMBER SECTION
1" = 1'-0"

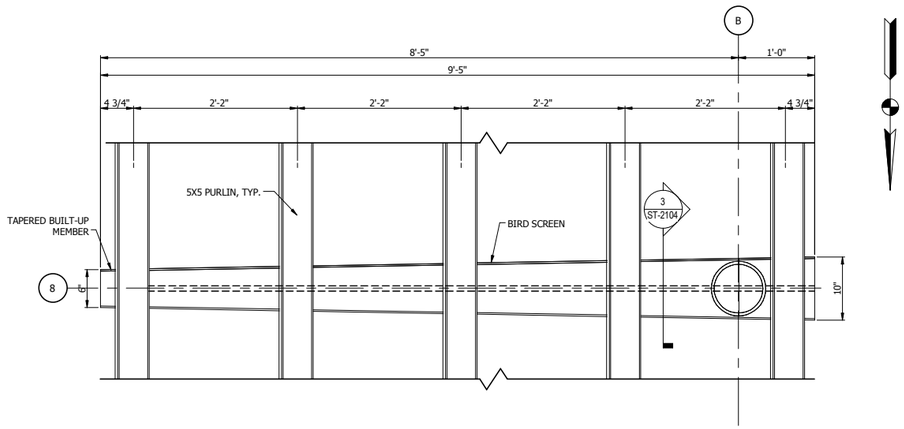


NOTES:
1. STANDING SEAM METAL ROOF NOT SHOWN FOR CLARITY.
2. SEE PLATFORM PLAN FOR GRID SPACING.

2 TYPICAL CANOPY FRAMING PLAN
1/2" = 1'-0"



4 TYPICAL BASEPLATE CONFIGURATION
1" = 1'-0"



5 TYPICAL CANOPY PURLIN-BEAM DETAIL
1" = 1'-0"

NOT FOR CONSTRUCTION

SERIES **ST-2104**

PLOT DATE: 19-Jul-17 2:43:09 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

DLZ

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER
TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	VMR
DRAWN:	VMR
CHECKED:	CVAN
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 64.2
PROJECT NAME

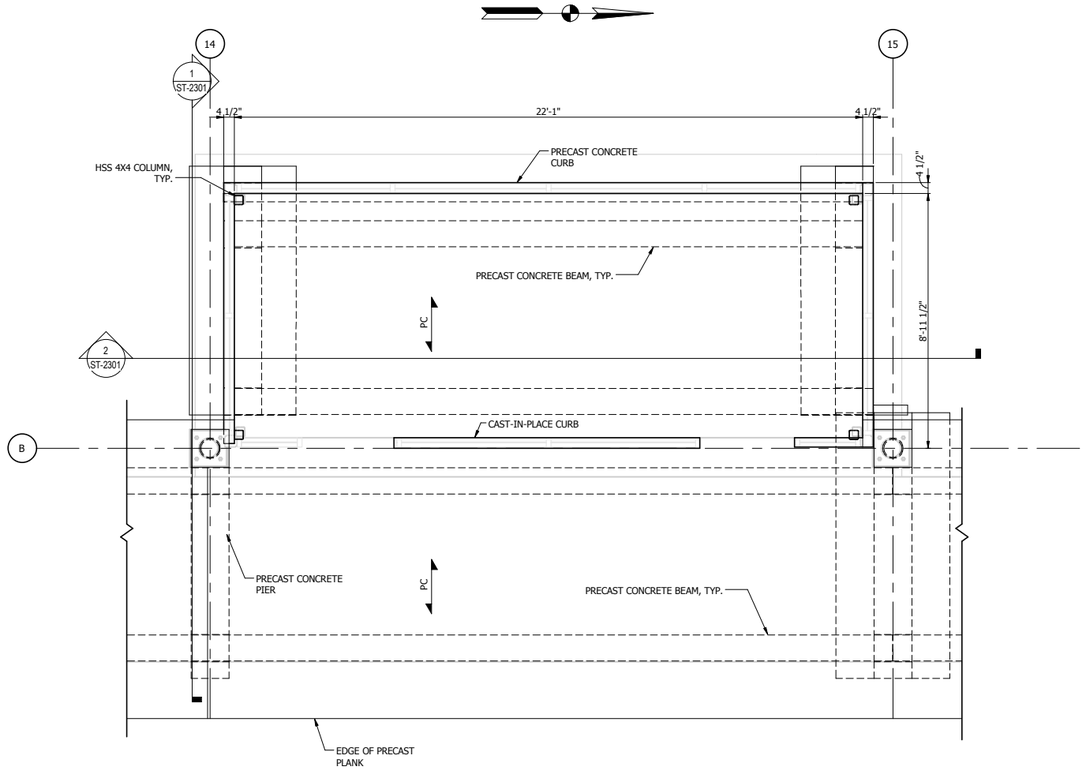
MUNSTER RIDGE CANOPY ROOF FRAMING PLAN AND DETAILS

FILENAME

SCALE As indicated

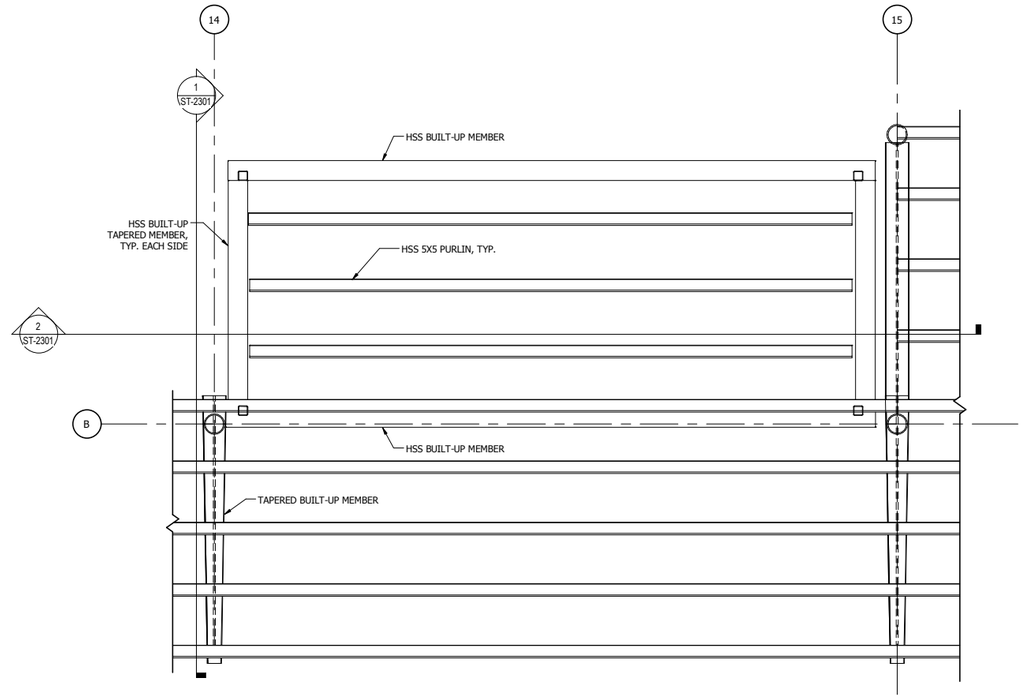
SHEET **100 OF 361**

C:\Users\vrednour\Documents\WL_ST_MUNRIDGESTN_02_vrednour.rvt



NOTE:
1. SEE PLATFORM PLAN FOR GRID SPACING.

1 TYPICAL WARMING HOUSE FRAMING PLAN
3/8" = 1'-0"



2 TYPICAL WARMING HOUSE ROOF FRAMING PLAN
3/8" = 1'-0"

PLOT DATE: 19-Jul-17 1:49:21 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

DLZ

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	VMR
DRAWN:	VMR
CHECKED:	CVAN
DATE:	07/21/17

NOT FOR CONSTRUCTION

SERIES ST-2105

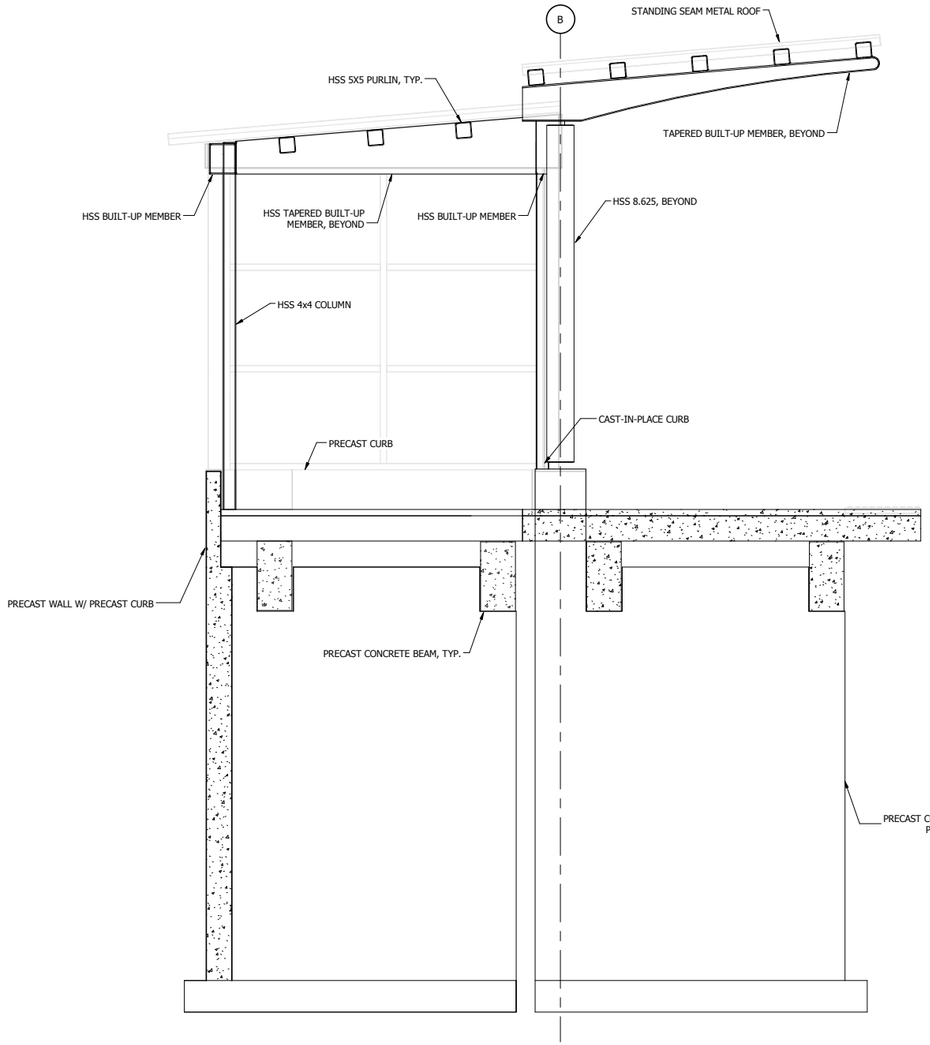
NICTD - WEST LAKE CORRIDOR - MP WL 64.2
PROJECT NAME

MUNSTER RIDGE WARMING HOUSE PLAN

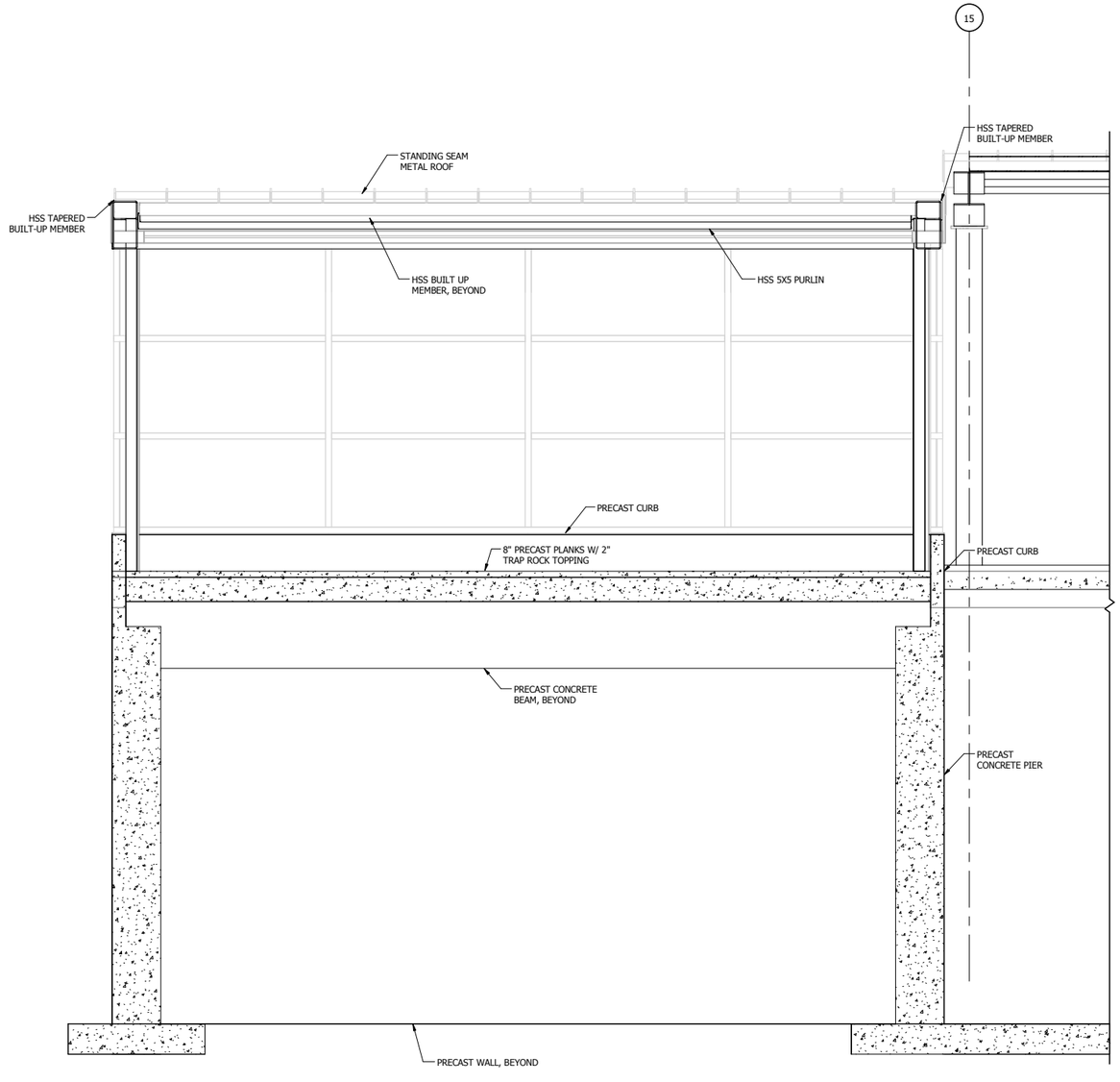
FILENAME	
SCALE	3/8" = 1'-0"

SHEET 101 OF 361

C:\Users\vrednour\Documents\WL_ST_MUNRIDGESTN_02_vrednour.rvt



1 TYPICAL WARMING HOUSE SECTION
1/2" = 1'-0"



2 TYPICAL WARMING HOUSE SECTION
1/2" = 1'-0"

NOT FOR CONSTRUCTION

SERIES **ST-2301**

PLOT DATE: 19-Jul-17 1:49:21 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

DLZ

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	VMR
DRAWN:	VMR
CHECKED:	CVAN
DATE:	07/21/17

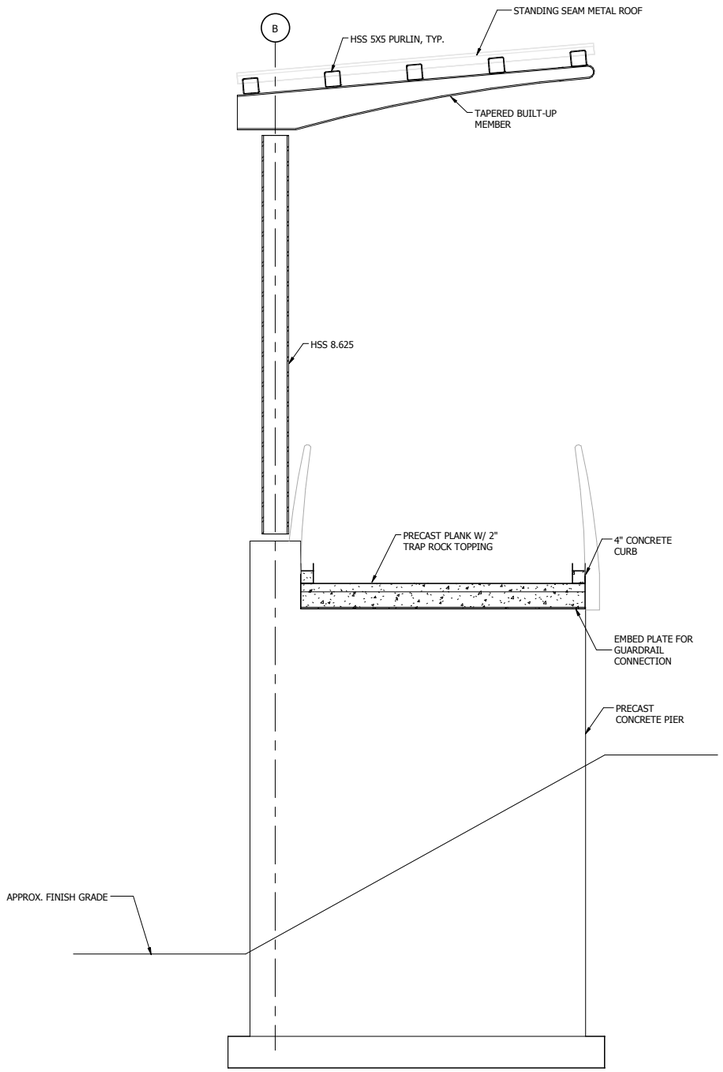
NICTD - WEST LAKE CORRIDOR - MP WL 64.2
PROJECT NAME

MUNSTER RIDGE WARMING HOUSE SECTIONS

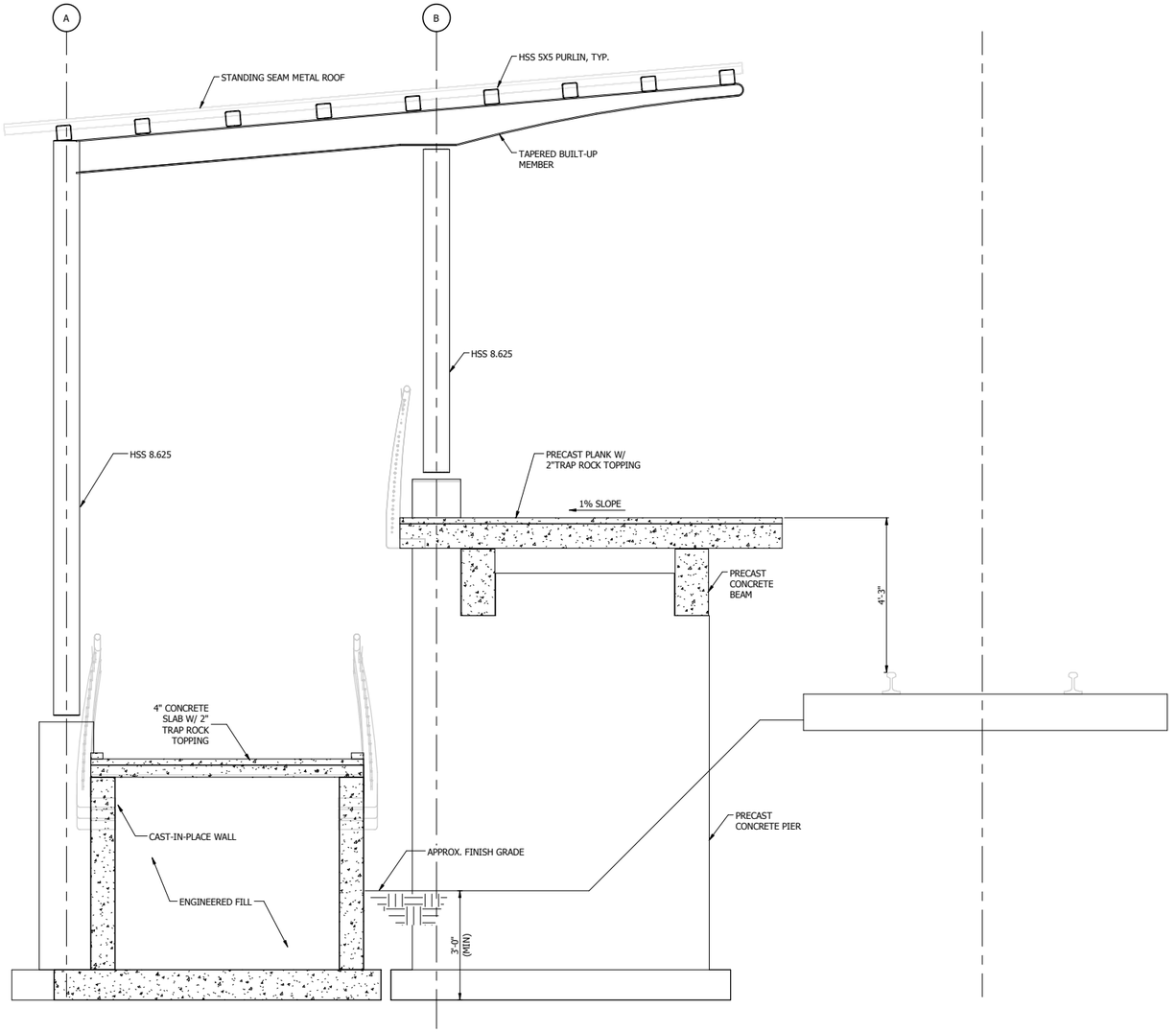
FILENAME	
SCALE	1/2" = 1'-0"

SHEET **102 OF 361**

C:\Users\vrednour\Documents\WL_ST_MUNRIDGESTN_02_vrednour.rvt



1 TYPICAL RAMP SECTION
1/2" = 1'-0"



2 TYPICAL RAMP SECTION
1/2" = 1'-0"

NOT FOR CONSTRUCTION

SERIES ST-2501

PLOT DATE: 19-Jul-17 1:49:22 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

DLZ

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	VMR
DRAWN:	VMR
CHECKED:	CVAN
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 64.2
PROJECT NAME

MUNSTER RIDGE PLATFORM PRECAST RAMP DETAILS

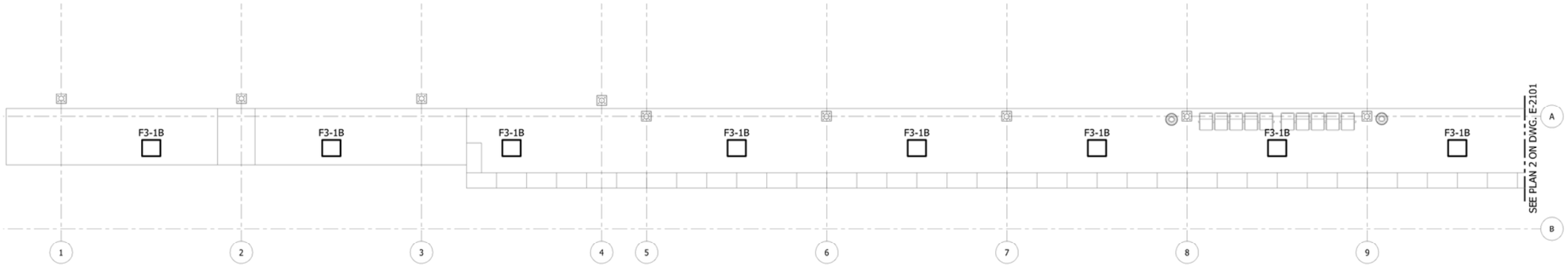
FILENAME
SCALE 1/2" = 1'-0"

SHEET 103 OF 361

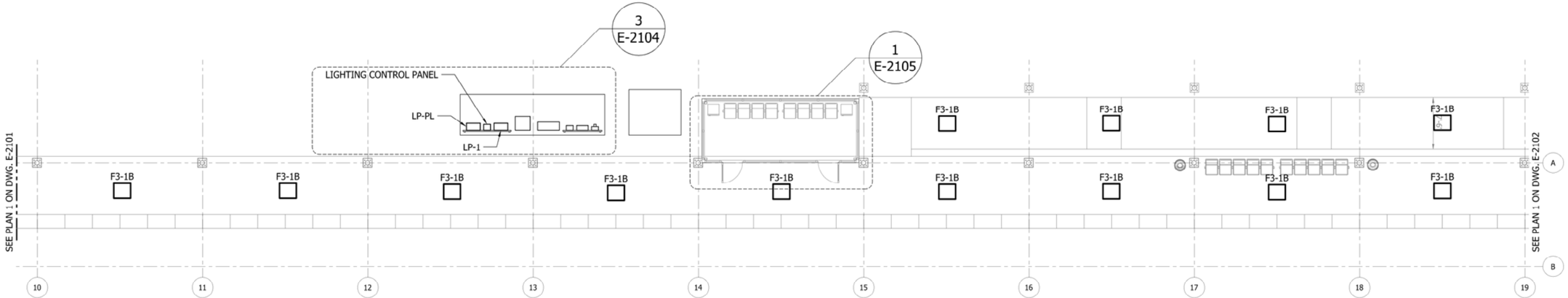
C:\Users\vrednour\Documents\WL_ST_MUNRIDGESTN_02_vrednour.rvt

NOTES:

1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE SHEET E-2602 FOR CABLE AND CONDUIT SCHEDULE.
3. SEE SHEET E-0601 FOR LIGHTING FIXTURE SCHEDULE.



1 / E-2101 PARTIAL PLATFORM LIGHTING PLAN
SCALE: 1/8" = 1'-0"



2 / E-2101 PARTIAL PLATFORM LIGHTING PLAN
SCALE: 1/8" = 1'-0"

SCALE: 1/8" = 1'
0' 4' 8' 16' 32'

NOT FOR CONSTRUCTION

SERIES E-2101

PLOT DATE: 07/19/2017 9:11:14 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NICTD
NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 64.2
MUNSTER-RIDGE STATION

PARTIAL PLATFORM LIGHTING PLANS

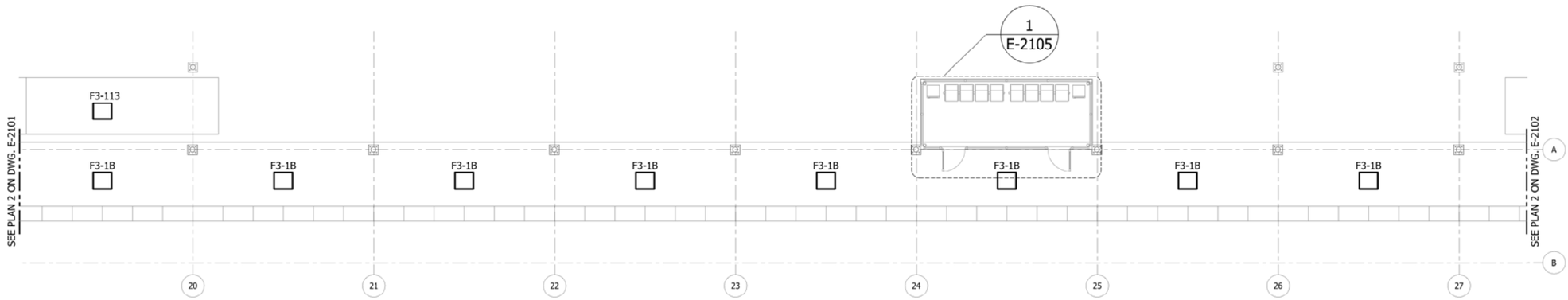
FILENAME	SHT_WL_E_MUNRIDGE_PL_01
SCALE	1/8" = 1' - 0"

SHEET 104 OF 361

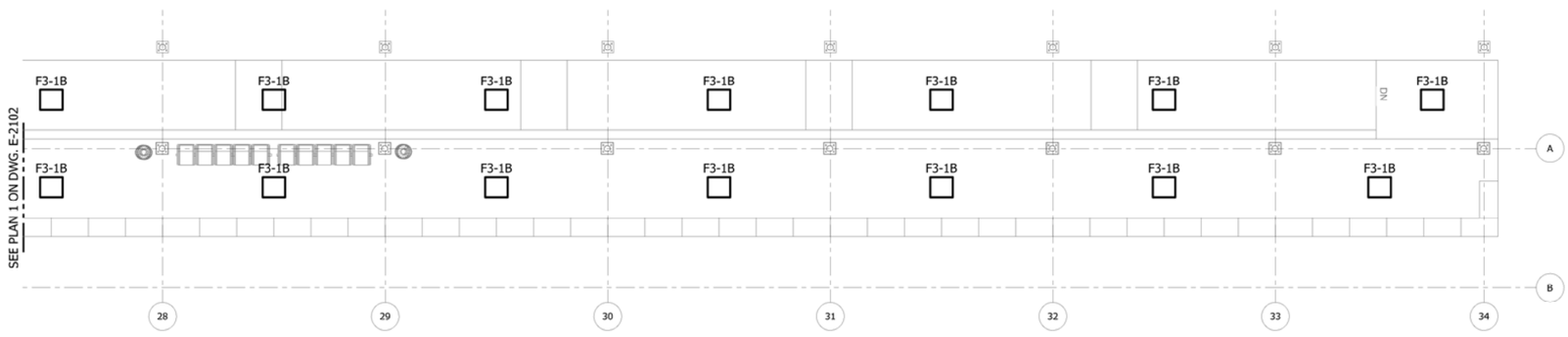
M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER RIDGE STATION\SHT_WL_E_MUNRIDGE_PL_01.DWG

NOTES:

1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE SHEET E-2602 FOR CABLE AND CONDUIT SCHEDULE.
3. SEE SHEET E-0601 FOR LIGHTING FIXTURE SCHEDULE.



1 / E-2102 PARTIAL PLATFORM LIGHTING PLAN
SCALE: 1/8" = 1'-0"



2 / E-2102 PARTIAL PLATFORM LIGHTING PLAN
SCALE: 1/8" = 1'-0"

SCALE: 1/8" = 1'
0' 4' 8' 16' 32'

NOT FOR CONSTRUCTION

SERIES E-2102

PLOT DATE: 07/19/2017 9:11:49 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 64.2
MUNSTER-RIDGE STATION

PARTIAL PLATFORM LIGHTING PLANS

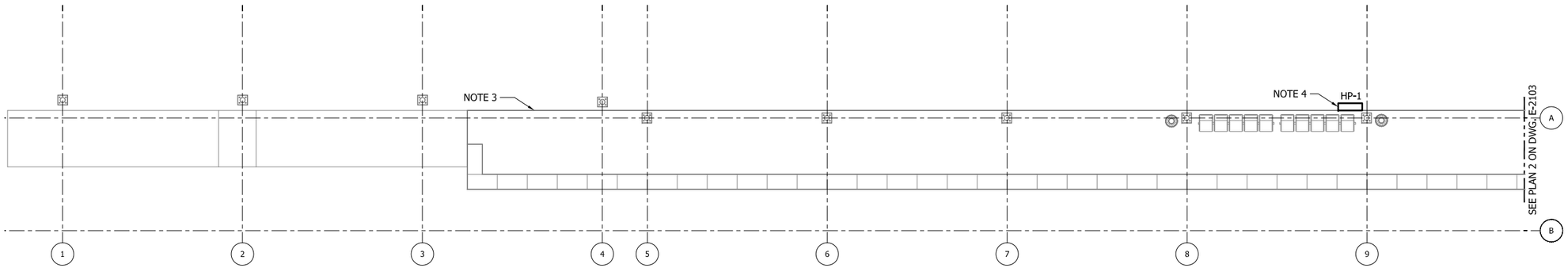
FILENAME	SHT_WL_E_MUNRIDGE_PL_02
SCALE	1/8" = 1' - 0"

SHEET 105 OF 361

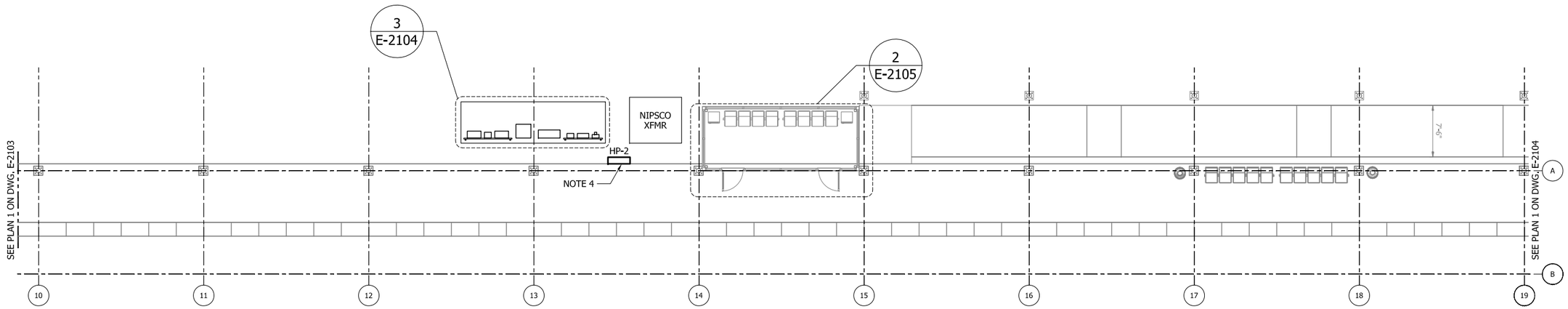
M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER RIDGE STATION\SHT_WL_E_MUNRIDGE_PL_02.DWG

NOTES:

1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE SHEET E-2602 FOR CABLE AND CONDUIT SCHEDULE.
3. PROVIDE HEAT TRACING TO PLATFORM AND RAMPS.
4. APPROXIMATE LOCATION FOR HEAT TRACING PANEL.



1 / E-2103 PARTIAL PLATFORM POWER PLAN
SCALE: 1/8" = 1'-0"



2 / E-2103 PARTIAL PLATFORM POWER PLAN
SCALE: 1/8" = 1'-0"

SCALE: 1/8" = 1'
0' 4' 8' 16' 32'

NOT FOR CONSTRUCTION

SERIES E-2103

PLOT DATE: 07/19/2017 9:12:20 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 64.2
MUNSTER-RIDGE STATION

PARTIAL PLATFORM POWER PLANS

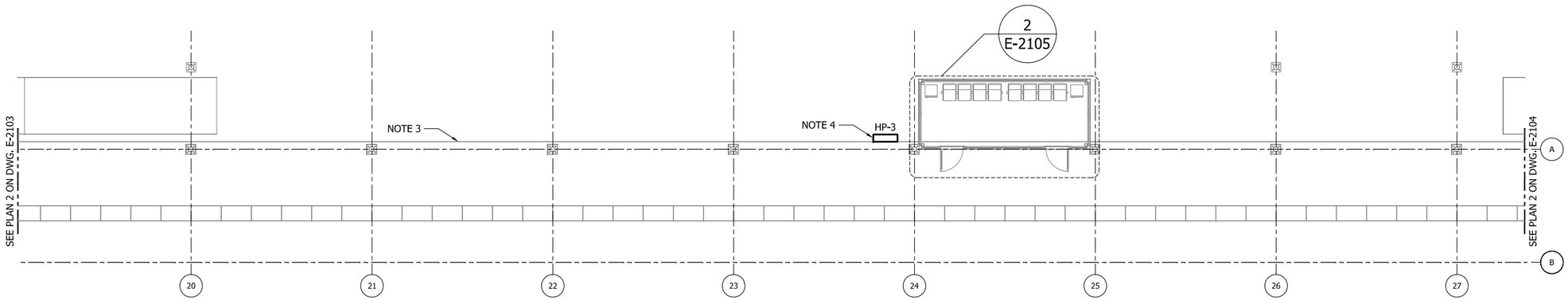
FILENAME	SHT_WL_E_MUNRIDGE_PL_03
SCALE	1/8" = 1' - 0"

SHEET 106 OF 361

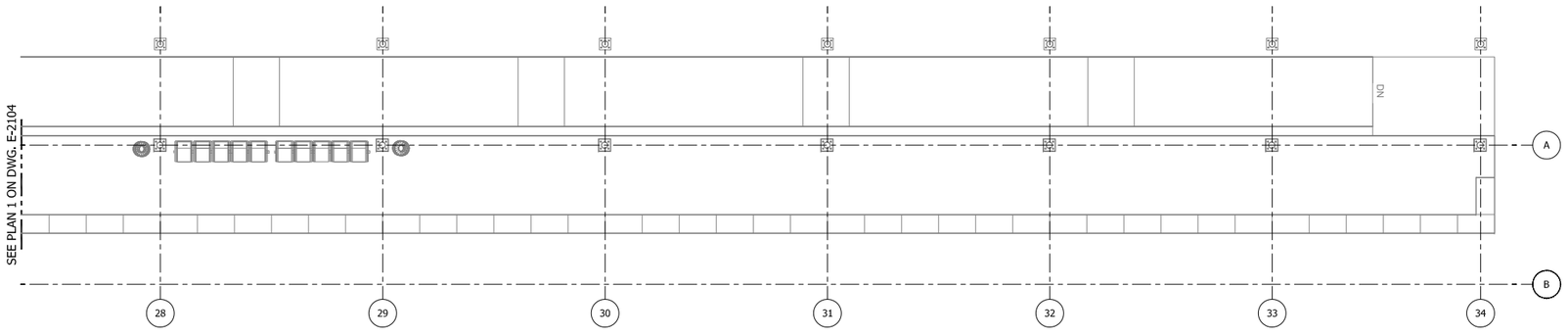
M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER RIDGE STATION\SHT_WL_E_MUNRIDGE_PL_03.DWG

NOTES:

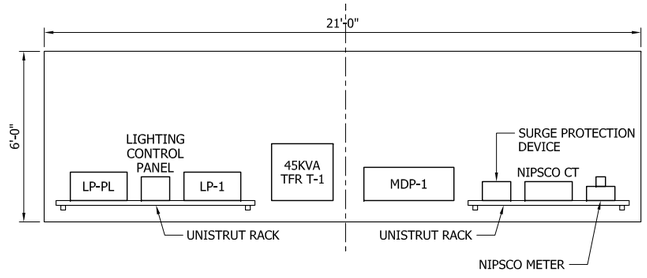
1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE SHEET E-2602 FOR CABLE AND CONDUIT SCHEDULE.
3. PROVIDE HEAT TRACING TO PLATFORM AND RAMPS.
4. APPROXIMATE LOCATION FOR HEAT TRACING PANEL.



1 / E-2104 PARTIAL PLATFORM POWER PLAN
SCALE: 1/8" = 1'-0"



2 / E-2104 PARTIAL PLATFORM POWER PLAN
SCALE: 1/8" = 1'-0"



3 / E-2104 ELECTRICAL EQUIPMENT PAD
SCALE: 3/8" = 1'-0"

SCALE: 1/8" = 1'
0' 4' 8' 16' 32'

NOT FOR CONSTRUCTION

SERIES E-2104

PLOT DATE: 07/19/2017 9:12:46 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 64.2
MUNSTER-RIDGE STATION

PARTIAL PLATFORM POWER PLANS

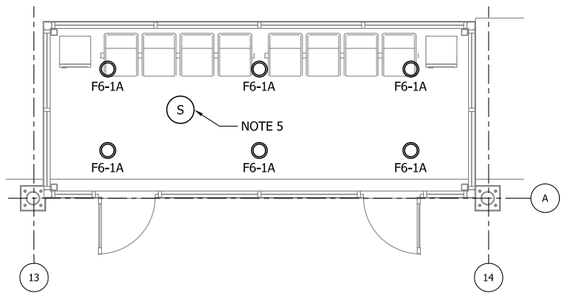
FILENAME	SHT_WL_E_MUNRIDGE_PL_04
SCALE	1/8" = 1' - 0"

SHEET 107 OF 361

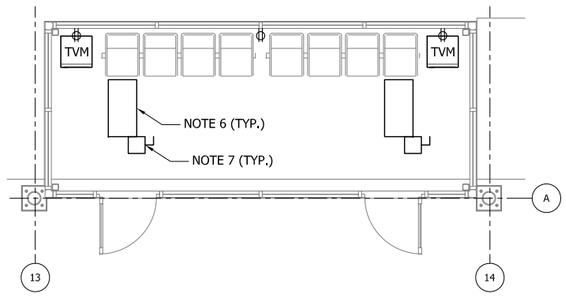
M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER RIDGE STATION\SHT_WL_E_MUNRIDGE_PL_04.DWG

NOTES:

1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE SHEET E-2602 FOR CABLE AND CONDUIT SCHEDULE.
3. SEE SHEET E-0601 FOR LIGHTING FIXTURE SCHEDULE.
4. PLANS ON THIS SHEET SHOW ONE WARMING HUT LOCATION. REFER TO PLATFORM PLAN DRAWINGS FOR LOCATION OF OTHER WARMING HUTS AT THIS STATION.
5. CEILING MOUNTED MOTION SENSOR.
6. INFRARED HEATERS.
7. SIZE DISCONNECT SWITCHES FOR INFRARED HEATERS SIZE.



1 / E-2105 TYPICAL WARMING HUT LIGHTING PLAN
SCALE: 1/4" = 1'-0"



2 / E-2105 TYPICAL WARMING HUT POWER PLAN
SCALE: 1/4" = 1'-0"

SCALE: 1/4" = 1'

0' 2' 4' 8' 16'

NOT FOR CONSTRUCTION

SERIES E-2105

PLOT DATE: 07/19/2017 9:13:14 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 64.2
MUNSTER-RIDGE STATION

TYPICAL WARMING HUT PLANS

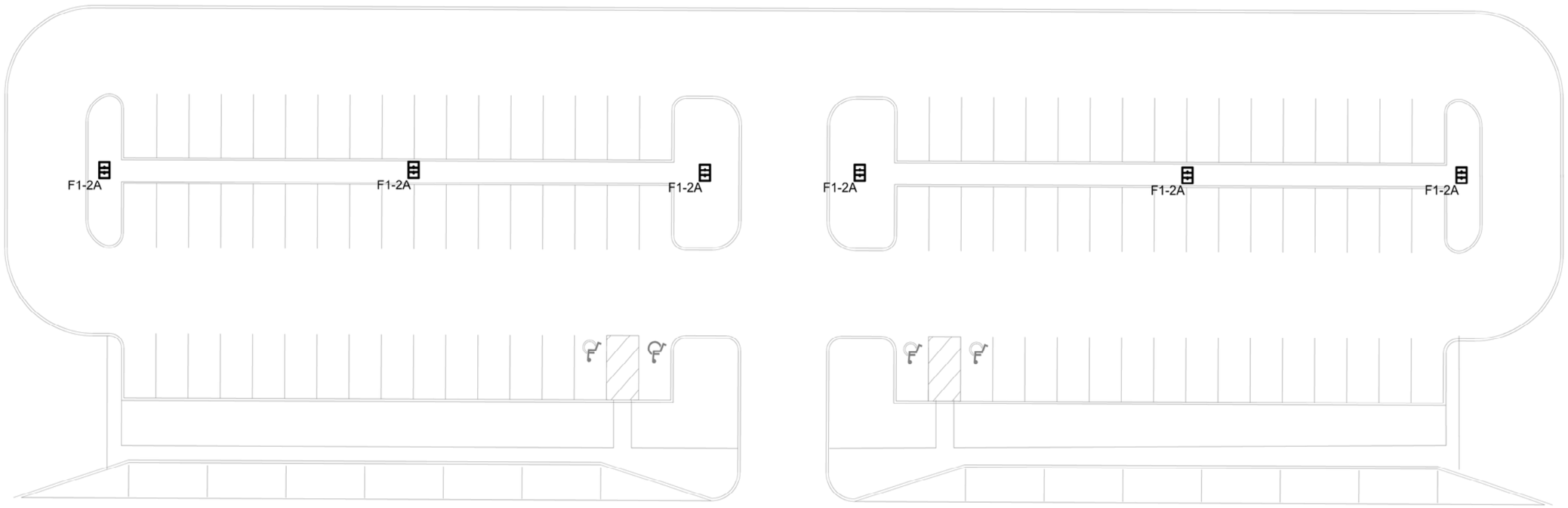
FILENAME	SHT_WL_E_MUNRIDGE_PL_05
SCALE	1/4" = 1' - 0"

SHEET 108 OF 361

M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER RIDGE STATION\SHT_WL_E_MUNRIDGE_PL_05.DWG

NOTES:

1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE SHEET E-2602 FOR CABLE AND CONDUIT SCHEDULE.
3. SEE SHEET E-0601 FOR LIGHT FIXTURE SCHEDULE.



1 / E-2106 PARKING LOT LIGHTING PLAN
SCALE: 1/16" = 1'-0"

SCALE: 1/16" = 1'

0' 8' 16' 32' 64'

NOT FOR CONSTRUCTION

SERIES E-2106

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NICTD
NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 64.2
MUNSTER-RIDGE STATION

PARKING LOT LIGHTING PLAN

FILENAME	SHT_WL_E_MUNRIDGE_PL_06
SCALE	1/16" = 1' - 0"

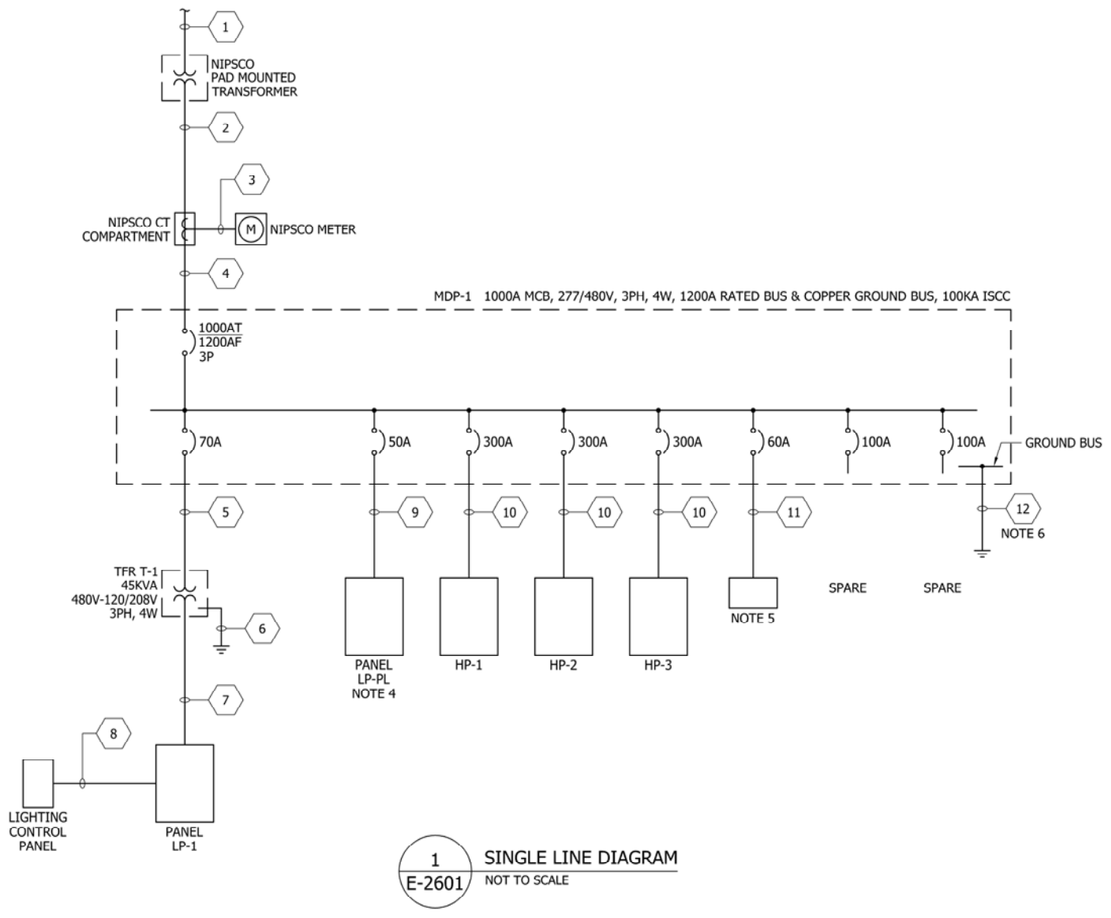
SHEET 109 OF 361

PLOT DATE: 07/19/2017 9:13:29 PM

M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER RIDGE STATION\SHT_WL_E_MUNRIDGE_PL_06.DWG

NOTES:

1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. ALL PANELBOARDS AND TRANSFORMERS IN STAINLESS STEEL ENCLOSURES, NEMA 3R, GASKETED WITH HEATERS. ALL PANELBOARDS AND TRANSFORMERS ARE MOUNTED OUTSIDE.
3. ALL CIRCUIT BREAKERS ARE 3 POLE, UNO.
4. REMOTE MOUNTED PARKING LOT LIGHT CONTROLLER.
5. SURGE PROTECTION DEVICE. 400KA PER PHASE.
6. GROUND CABLE GROUNDED TO TRIAD OF 3-10 FOOT LONG, ¾" DIA. STAINLESS STEEL GROUNDING RODS.
7. MDP-1 SHALL BE SERVICE ENTRANCE RATED AND UL LISTED.
8. ALL EQUIPMENT SHALL BE MOUNTED ON CONCRETE FOUNDATION/BASE, EXTENDING 6" PAST EQUIPMENT IN ALL DIRECTIONS AND 6" A.F.G.



1 / E-2601 SINGLE LINE DIAGRAM
NOT TO SCALE

NOT FOR CONSTRUCTION

SERIES E-2601

PLOT DATE: 07/19/2017 9:10:01 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 64.2
MUNSTER-RIDGE STATION

SINGLE LINE DIAGRAM

FILENAME	SHT_WL_E_MUNRIDGE_GN_01
SCALE	NONE

SHEET 110 OF 361

M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER RIDGE STATION\SHT_WL_E_MUNRIDGE_GN_01.DWG

CABLE AND CONDUIT SCHEDULE

LEGEND NUMBER	CABLE DESCRIPTION QUANTITY/SIZES	CONDUIT SIZE (INCHES)	NOTES
1		(2) 4	2
2	3 SETS 4 #500 KCMIL & 1 #4/0 AWG GRD	(3) 4	3
3	10 #10 AWG	1	4
4	3 SETS 4 #500 KCMIL & 1 #4/0 AWG GRD	(3) 4	4
5	3 #4 AWG & 1 #8 AWG GRD	1½	4
6	1 #4 AWG GRD	1	4, 5
7	4 #2/0 AWG & 1 #4 AWG GRD	2½	4
8	4 SETS 8 #8 AWG & 1 #10 AWG GRD	(4) 1½	4, 6
9	4 #4 AWG & 1 #8 AWG GRD	1½	3
10	4 #500 KCMIL & 1 #3 AWG GRD	3½	4
11	4 #6 AWG & 1 #8 AWG GRD	1	4
12	1 #4/0 AWG GRD	1½	4
13			
14			
15			

NOTES:

1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. 2-4" PVC SCHEDULE 40 CONDUITS TO NIPSCO POLE FOR PRIMARY TRANSFORMER FEEDER CABLE. CABLE FURNISHED AND INSTALLED BY NIPSCO.
3. CONDUIT, PVC SCHEDULE 40.
4. CONDUIT TO BE GRC.
5. GROUND CABLE GROUNDED TO 10 FOOT LONG, ¾" DIA. STAINLESS STEEL GROUNDING ROD.
6. 2 CONDUITS ARE FOR FUTURE.

NOT FOR CONSTRUCTION

SERIES E-2602

PLOT DATE: 07/19/2017 9:10:32 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 64.2
MUNSTER-RIDGE STATION

CABLE AND CONDUIT SCHEDULE

FILENAME	SHT_WL_E_MUNRIDGE_GN_02
SCALE	NONE

SHEET 111 OF 361

M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER RIDGE STATION\SHT_WL_E_MUNRIDGE_GN_02.DWG

PANEL: LP-1
VOLTAGE: 120/208V, 3P, 4W
ENCLOSURE: NEMA 3R

MAIN 150A MCB
MOUNTING
BUS 250A WITH GROUND BUS

CIRCUIT USE	BREAKERS TRIP	BREAKERS POLE	LOAD (VA) A	LOAD (VA) B	LOAD (VA) C	CKT #		LOAD (VA) A	LOAD (VA) B	LOAD (VA) C	BREAKERS TRIP	BREAKERS POLE	CIRCUIT USE
SPARE	20	1				1	2				20	1	SPARE
SPARE	20	1				3	4				20	1	SPARE
SPARE	20	1				5	6				20	1	SPARE
SPARE	20	1				7	8				20	1	SPARE
SPARE	20	1				9	10				20	1	SPARE
SPARE	20	1				11	12				20	1	SPARE
SPARE	20	1				13	14				20	1	SPARE
SPARE	20	1				15	16				20	1	SPARE
SPARE	20	1				17	18				20	1	SPARE
SPARE	20	1				19	20				20	1	SPARE
SPARE	20	1				21	22				20	1	SPARE
SPARE	20	1				23	24				20	1	SPARE
SPARE	20	1				25	26				20	1	SPARE
SPARE	20	1				27	28				20	1	SPARE
SPARE	20	1				29	30				20	1	SPARE
SPARE	20	1				31	32				20	1	SPARE
SPARE	20	1				33	34				20	1	SPARE
SPARE	20	1				35	36				20	1	SPARE
SPARE	20	1				37	38				20	1	SPARE
SPARE	20	1				39	40				20	1	SPARE
SPARE	20	1				41	42				20	1	SPARE
TOTALS			0	0	0			0	0	0			

PHASE A:	0 VA	
PHASE B:	0 VA	
PHASE C:	0 VA	
TOTAL CONNECTED VA	0 VA	
AMPS	0 A	CONNECTED
1.25X AMPS	0 A	

NOTES:

1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.

NOT FOR CONSTRUCTION

SERIES E-2603

PLOT DATE: 07/19/2017 9:10:57 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING OBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 64.2
MUNSTER-RIDGE STATION

PANELBOARD SCHEDULES

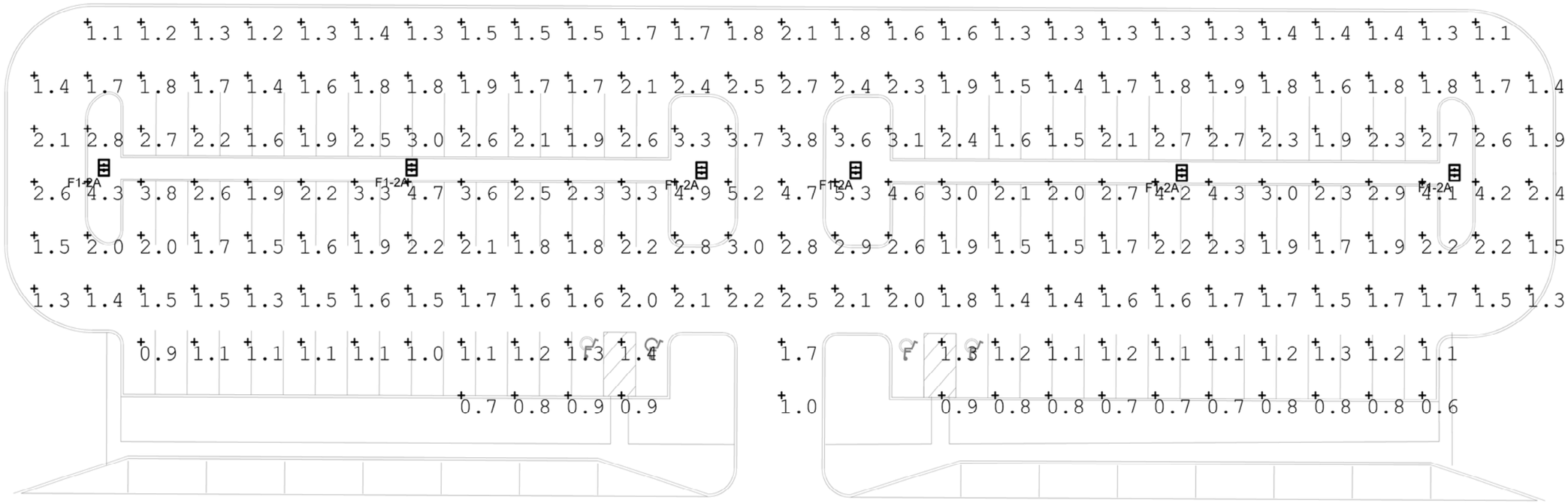
FILENAME	SHT_WL_E_MUNRIDGE_GN_03
SCALE	NONE

SHEET 112 OF 361

M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER RIDGE STATION\SHT_WL_E_MUNRIDGE_GN_03.DWG

NOTES:

1. SEE SHEETS E-0001 AND E-0002 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE SHEET E-0601 FOR LIGHTING FIXTURE SCHEDULE.



1 / E-2604 PARKING LOT LIGHTING PHOTOMETRICS
SCALE: 1/16" = 1'-0"

SCALE: 1/16" = 1'

0' 8' 16' 32' 64'

Luminaire Schedule								
Symbol	Qty	Tag	Label	Arrangement	Lum. Watts	Mounting Height (ft.)	LLF	Description
	6	F1-2A	DSX1 LED 40C 1000 40K T4M MVO 1	BACK-BACK	138	25	0.700	DSX1 LED 40C 1000 40K T4M MVOLT

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Munster Ridge Parking Lot	Illuminance	Fc	1.96	5.3	0.6	3.27	8.83

NOT FOR CONSTRUCTION

SERIES E-2604

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

AAA ENGINEERING DBE CERTIFIED
AAA Engineering, Ltd.
4323 W Irving Park Rd., Suite 200
Chicago, IL 60641
P: 773-657-3300 F: 773-657-3330
www.AAAEngineering.net

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	A. FAREKAS
DRAWN:	C. MARTIN
CHECKED:	M. BLUMENTHAL
DATE:	07/21/17

NICTD - WEST LAKE CORRIDOR - MP WL 64.2
MUNSTER-RIDGE STATION

PARKING LOT LIGHTING PHOTOMETRICS

FILENAME	SHT_WL_E_MUNRIDGE_DP_01
SCALE	1/16" = 1' - 0"

SHEET 113 OF 361

PLOT DATE: 07/19/2017 9:08:53 PM

M:\5050 NICTD WEST LAKE PROJECT\04 - CADD FILES\04 - SHEET FILES\MUNSTER RIDGE STATION\SHT_WL_E_MUNRIDGE_DP_01.DWG