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**NOTICE TO CONTRACTORS AND BIDDERS**  
 THESE CONSTRUCTION PLANS RELY UPON THE SPECIAL PROVISIONS AND THE SPECIFICATIONS TO PROVIDE FOR A COMPLETE DESCRIPTION OF THE WORK AND CONSTRUCTION REQUIREMENTS. THE PLANS SHALL ONLY BE USED IN CONJUNCTION WITH ALL CONTRACT DOCUMENTS.

No. Issue/Description	Sheets Changed	Date	By

C:\084325\00544\0840180\DRAWINGS\SHEETS\01-COVER.DWG MAR 04, 2010 9:11AM HAUSM00682

ITEM NO: 3A  
 LETTING DATE: APRIL 23, 2010

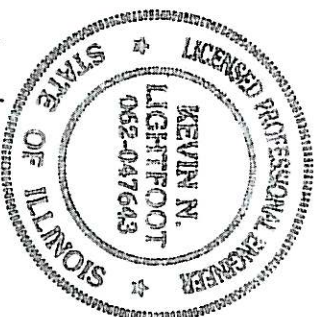
**CONSTRUCTION PLANS**

**PERIMETER FENCING INSTALLATION**

**BOLINGBROOK'S CLOW INTERNATIONAL AIRPORT (1C5)  
 BOLINGBROOK, WILL COUNTY, ILLINOIS**

**AIP PROJECT NO. 3-17-0135-B2  
 IDA PROJECT NO. 1C5-3995**

**BO001  
 TOTAL SHEETS - 17**



3/4/2010  
 EXPIRES: 11/30/2011

SHEET NO. 1 OF 17



EXP.  
 11/30/2011

Seal  
 (Sheets 13 thru 17)

Date of Plans

*Kevin N. Lightfoot*  
 Kevin N. Lightfoot, P.E.  
 FEBRUARY 26, 2010

Seal  
 (Sheets 1 thru 12)

Date of Plans

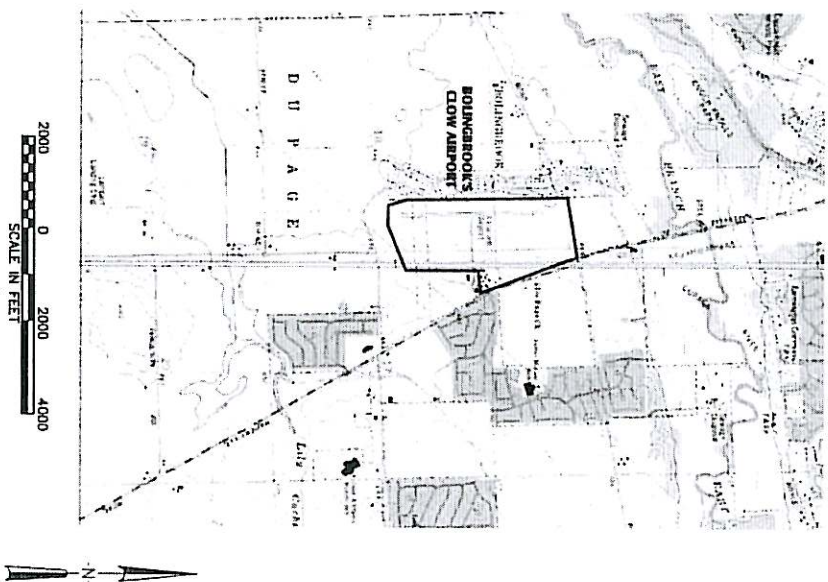
*Lindsay D. Haisman*  
 Lindsay D. Haisman, P.E.  
 FEBRUARY 26, 2010



**HANSON PROFESSIONAL SERVICES INC.**  
 815 Commerce Drive, Suite  
 200 Oak Brook, Illinois 60523  
 Telephone: 630.990.3800 Fax:  
 630.990.3801



**BOLINGBROOK'S CLOW AIRPORT**  
 VILLAGE OF BOLINGBROOK, ILLINOIS  
 375 West Brercliff Road  
 Bolingbrook, Illinois 60440  
 Telephone: 630.226.8400



VICINITY MAP

## SUMMARY OF QUANTITIES

### BASE BID

Item No.	Description	Unit	As Bid	Record Paid
AR108051	Power Cable In Unit Duct	Linear Feet	395.0	
AR109200	Install Electrical Equipment	Lump Sum	1.0	
AR110011	1" Directional Bore	Linear Feet	32.0	
AR110014	4" Directional Bore	Linear Feet	36.0	
AR150510	Engineer's Field Office	Lump Sum	1.0	
AR208606	6" Aggregate Base Course	Square Yard	187.0	
AR501604	4" PCC Sidewalk	Square Feet	1,675.0	
AR800991	Remove Fence	Linear Feet	430.0	
AR901510	Seeding	Acre	2.0	
AR904510	Sodding	Square Yard	323.0	
AR908510	Mulching	Acre	2.0	

### BID A

Item No.	Description	Unit	As Bid	Record Paid
AR800951	Electric Gate - 24' Bid A	Each	1.0	
AR800953	Class E Fence 10' w/ 2' Buried - Bid A	Linear Feet	8,350.0	
AR800954	44' (Double 22') Sliding Gate - Bid A	Each	7.0	
AR800955	24' Sliding Gate - Bid A	Each	6.0	
AR800956	10' (Double 5') Pedestrian Gate - Bid A	Each	2.0	
AR800957	5' Pedestrian Gate - Bid A	Each	5.0	

### BID B

Item No.	Description	Unit	As Bid	Record Paid
AR800952	Electric Gate - 24' Bid B	Each	1.0	
AR800958	Arch. Fence 8' - Bid B	Linear Feet	8,350.0	
AR800959	44' (Double 22') Arch. Sliding Gate - Bid B	Each	7.0	
AR800960	24' Arch. Sliding Gate - Bid B	Each	6.0	
AR800969	10' (Double 5') Arch. Pedestrian Gate - Bid B	Each	2.0	
AR800970	5' Arch. Pedestrian Gate - Bid B	Each	5.0	

DATE	REVISION

Village of Bolingbrook, Illinois  
 375 West Briarcliff Road  
 Bolingbrook, Illinois 60440  
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IL PROJ.: 1C5-3995

A.I.P. PROJ.: 3-17-0135-B2

Hanson No. 08A0180  
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 Scale NTS  
 Date 01/28/10

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DRAWN	LDH	01/28/10
REVIEWED	RMH	xx/xx/xx

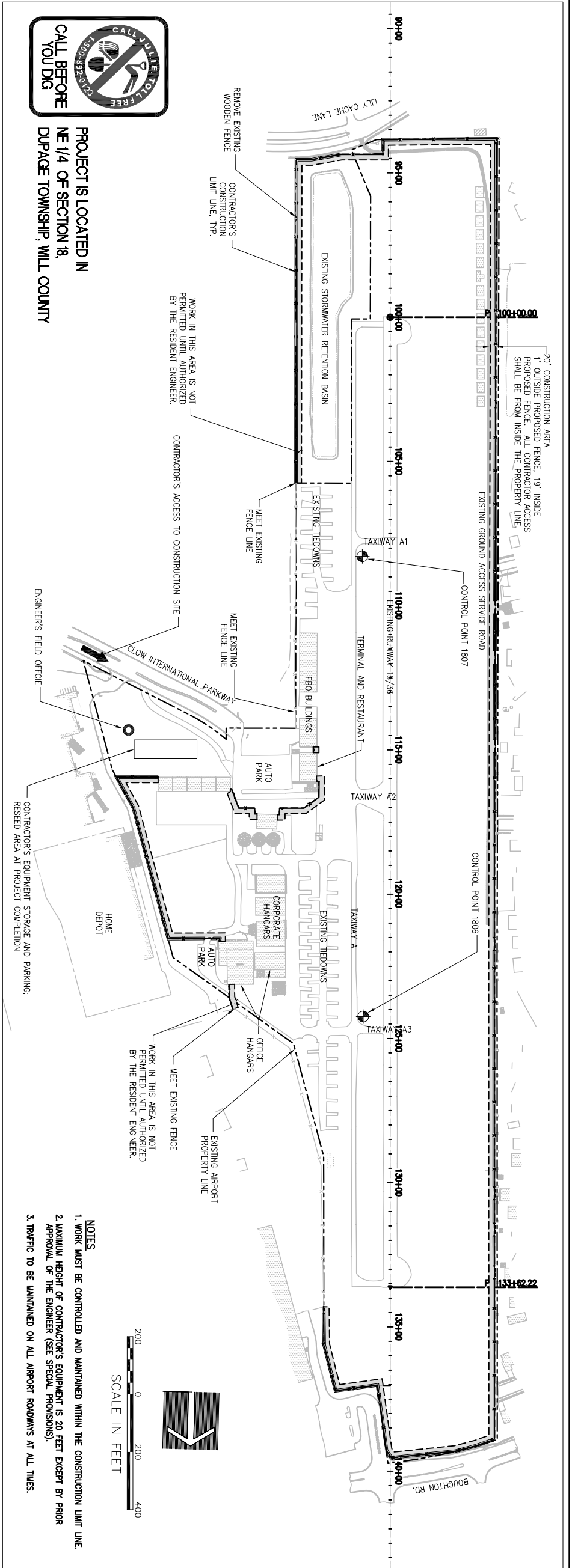


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 Oak Brook, Illinois 60523

PERIMETER FENCE  
 INSTALLATION

SUMMARY OF QUANTITIES



PROJECT IS LOCATED IN  
 NE 1/4 OF SECTION 18,  
 DUPAGE TOWNSHIP, WILL COUNTY

**GENERAL NOTES**

**PROJECT DESCRIPTION**

THIS PROJECT IS TO INSTALL PERIMETER FENCING AT BOLINGBROOK'S CLOW INTERNATIONAL AIRPORT IN BOLINGBROOK, ILLINOIS, INCLUDING, AMONG OTHER INCIDENTAL WORK, THE FOLLOWING ITEMS:  
 - INSTALLATION OF PERIMETER FENCING.  
 - INSTALLATION OF ELECTRIC AND NON-ELECTRIC FENCE GATES.  
 - TOPSOILING AND SEEDING OF DISTURBED AREAS.

**CONTRACTOR'S USE OF SITE**

WORK TO BE PERFORMED SHALL BE AS SCHEDULED IN THE BASE BID AND EITHER BID A OR BID B. BID A IS FOR GALVANIZED CHAIN LINK FENCE AND GATES AS DETAILED. BID B IS FOR ARCHITECTURAL FENCE AND GATES AS DETAILED. BIDDERS SHALL SUBMIT COSTS FOR FOR BID A ITEMS AND BID B ITEMS IN ADDITION TO THE BASE BID ITEMS.

**PROTECTION OF EXISTING AIRPORT FACILITIES**

THE CONTRACTOR IS TO BE RESPONSIBLE FOR THE PROTECTION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES AND LIGHTING EQUIPMENT, DRIVEWAY AND ROAD PAVEMENT AND SHOULDERS, RUNWAY, TAXIWAY AND APRON PAVEMENTS AND TURFED AREAS THAT ARE UTILIZED IN OR AFFECTED BY THE CONTRACTOR'S ACTIVITIES. ITEMS DAMAGED BY THE CONTRACTOR ARE TO BE REPAIRED AT CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE AIRPORT MANAGER AND THE RESIDENT ENGINEER.

**CONTRACTOR'S ACCESS AND TEMPORARY FACILITIES**

CONTRACTOR'S ACCESS TO THE PROJECT WHEN ON AIRPORT PROPERTY IS SHOWN ON THIS SHEET. CONTRACTOR'S ACCESS TO THE AIRPORT ITSELF IS TO BE PROVIDED BY PUBLIC RIGHTS-OF-WAY. THE CONTRACTOR IS TO SECURE ALL NECESSARY PERMITS FOR THE USE OF ANY PUBLIC RIGHTS-OF-WAY AND IS TO MAINTAIN TRAFFIC ON THESE PUBLIC ROADS AT ALL TIMES. WITH THE COSTS OF PERMITTING, CLEANING AND REPAIRING OF PAVEMENT DAMAGED BY CONTRACTOR'S ACTIVITIES INCIDENTAL TO THE CONTRACT. USE OF AND REPAIRS TO ANY PUBLIC FACILITIES ARE TO BE COMPLETED TO THE SATISFACTION OF THE FACILITY'S OWNER.

THE CONTRACTOR IS TO PROVIDE TEMPORARY CONSTRUCTION ROADS WITHIN THE CONSTRUCTION LIMIT LINES AS MAY BE REQUIRED BY HIS ACTIVITIES AT HIS OWN EXPENSE AND DISCRETION. SUBJECT TO THE APPROVAL OF THE RESIDENT ENGINEER. HEAVY VEHICLES SHALL NOT CROSS EXISTING OR NEW PAVEMENT SURFACES EXCEPT AS APPROVED BY THE AIRPORT MANAGER AND THE RESIDENT ENGINEER. ANY DAMAGE TO PAVEMENTS THAT MAY OCCUR BY THE CONTRACTOR'S ACTIVITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE AIRPORT MANAGER AND THE RESIDENT ENGINEER.

THE CONTRACTOR SHALL PROVIDE EQUIPMENT STORAGE AND PARKING AREAS FOR HIS OWN USE AT THE LOCATIONS SHOWN ON THIS SHEET. THE CONTRACTOR WILL BE RESPONSIBLE TO MAINTAIN THE ACCESS ROADS AND STORAGE AREA DURING CONSTRUCTION AND TO RESTORE THE AREAS AT PROJECT COMPLETION TO CONDITIONS SUITABLE TO THE AIRPORT MANAGER AND THE RESIDENT ENGINEER. THE COST OF PROVIDING, MAINTAINING AND RESTORING THE TEMPORARY FACILITIES IS INCIDENTAL TO THE CONTRACT.

**RESPONSIBILITY FOR EXISTING UTILITIES**

THE LOCATION, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND AND/OR ABOVEGROUND UTILITIES INDICATED ON THE PLANS ARE NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY WHATSOEVER IN RESPECT TO THE ACCURACY, COMPLETENESS, OR SUFFICIENCY OF THE INFORMATION. THERE IS NO GUARANTEE, EITHER EXPRESSED OR IMPLIED, THAT THE LOCATIONS, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ARE REPRESENTATIVE OF THOSE TO BE ENCOUNTERED IN THE CONSTRUCTION.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES OF HIS OPERATIONAL PLANS AND SHALL OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION AND ASSISTANCE RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULE OF THE COMPANIES FOR REMOVAL OR ADJUSTMENT WHERE REQUIRED. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY OF JURISDICTION. THE OWNER'S REPRESENTATIVE AND/OR THE RESIDENT ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY DAMAGE TO SUCH MAINS AND SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.

ALL UTILITY CABLES AND LINES SHALL BE LOCATED BY THE RESPECTIVE UTILITY. **CONTACT JULE (JONI) UTILITY LOCATION INFORMATION FOR EXCAVATORS FOR UTILITY INFORMATION, PHONE: 1-800-892-0123.** CONTACT THE FAA (FEDERAL AVIATION ADMINISTRATION) FOR ASSISTANCE IN LOCATING FAA CABLES AND UTILITIES. LOCATION OF FAA POWER, CONTROL, AND COMMUNICATION CABLES SHALL BE COORDINATED WITH AND/OR LOCATED BY THE FAA. ALSO CONTACT AIRPORT DIRECTOR/MANAGER AND AIRPORT PERSONNEL FOR ASSISTANCE IN LOCATING UNDERGROUND AIRPORT CABLES AND/OR UTILITIES. ALSO COORDINATE WORK WITH ALL ABOVEGROUND UTILITIES.

**EXISTING BENCHMARKS**

- CONTROL POINT 1807  
 LAT 41°41'37.09"  
 LONG 88°07'43.58"  
 ELEV. 656.39  
 N. 1831019.48  
 E. 1040171.88
- CONTROL POINT 1806  
 LAT 41°41'52.85"  
 LONG 88°07'44.23"  
 ELEV. 664.48  
 N. 1832613.98  
 E. 1040065.14
- CONTROL POINT 1808  
 LAT 41°41'52.85"  
 LONG 88°07'44.23"  
 ELEV. 664.48  
 N. 1832613.98  
 E. 1040065.14
- CONTROL POINT 1809  
 LAT 41°41'52.85"  
 LONG 88°07'44.23"  
 ELEV. 664.48  
 N. 1832613.98  
 E. 1040065.14

**CONSTRUCTION SAFETY NOTES**

**WORK SCHEDULE**

TO MINIMIZE DISRUPTIONS TO AIRPORT OPERATIONS, CONSTRUCTION OPERATIONS MUST BE CONTROLLED THROUGHOUT THE PROJECT'S DURATION AND WORK MUST BE COMPLETED EXPEDITIOUSLY. THE CONTRACTOR IS TO PREPARE AND FOLLOW A STAGING PLAN THAT COORDINATES HIS WORK WITH THE WORK OF HIS SUBCONTRACTORS AND THE WORK OF OTHER CONTRACTORS ON-FIELD. THIS STAGING PLAN MUST BE SATISFACTORY TO THE OWNER'S REPRESENTATIVE AND THE AIRPORT MANAGER. THE CONTRACTOR SHALL EXPEDITE WORK AT THOSE STAGES WHEN ACTIVE TAXIWAYS, APRONS, ROADWAYS OR PARKING LOTS MUST BE CLOSED TO MINIMIZE THE LENGTH OF TIME THAT AIRPORT OPERATIONS ARE RESTRICTED.

**AIRFIELD OPERATIONAL SAFETY DURING CONSTRUCTION**

ALL CONSTRUCTION TRAFFIC AND PERSONNEL SHALL REMAIN WITHIN THE CONSTRUCTION LIMIT LINE SHOWN ON THE SITE PLAN. CONTRACTOR'S PERSONNEL AND EQUIPMENT MUST NOT OPERATE WITHIN 200 FEET OF ANY ACTIVE RUNWAY CENTERLINE, 400 FEET OF THE THRESHOLD OF AN ACTIVE RUNWAY, 60 FEET OF ACTIVE TAXIWAY CENTERLINES OR WITHIN 10 FEET OF AN ACTIVE APRON EDGE. THE CONTRACTOR SHALL MAINTAIN A MINIMUM CLEARANCE OF 20 FEET WITHIN THE CONSTRUCTION LIMIT LINE FROM THE CENTER OF THE RUNWAY, TAXIWAY, APRON, ROADWAY, PARKING LOTS, AIRFIELD OR ROADWAY LIGHTING CIRCUITS OR OTHER AIRPORT OPERATIONAL FACILITIES.

WHEN IT IS NECESSARY FOR CONSTRUCTION VEHICLES TO OPERATE ON OR WITHIN THESE LIMITS, THE TAXIWAYS OR APRON MUST BE CLOSED. THE CONTRACTOR WILL PROVIDE POSITIVE CONTROL OF CONSTRUCTION VEHICLES USING RADIO-EQUIPPED FLAGGERS. ALL CONTRACTOR'S EQUIPMENT USED IN ACTIVE AIRPORT OPERATIONS AREAS SHALL BE EQUIPPED WITH A FAA-STANDARD FLAG AS REFERENCED IN FAA AC 150/5370-2. CURRENT ISSUE. AIRCRAFT SHALL HAVE THE RIGHT-OF-WAY. CONSTRUCTION VEHICLES SHALL NOT CROSS ANY ACTIVE RUNWAYS. THE COST OF ALL TRAFFIC CONTROL, BOTH WITHIN AND OUTSIDE OF AIRPORT OPERATIONS AREAS, IS TO BE INCIDENTAL TO THE CONTRACT. **THE CLOSING OF THE RUNWAY SHALL NOT BE PERMITTED DURING THIS PROJECT.**

WHEN NOT IN USE AND DURING NONWORKING HOURS, CONTRACTOR'S EQUIPMENT SHALL BE PARKED WITHIN THE CONTRACTOR'S EQUIPMENT, STORAGE AND PARKING AREA. AT NO TIME SHALL THE CONTRACTOR OPERATE OR PARK EQUIPMENT SO AS TO OBSTRUCT AN ACTIVE RUNWAY APPROACH SURFACE.

BEFORE REOPENING TEMPORARILY CLOSED TAXIWAYS, APRONS, ROADWAYS OR PARKING LOTS, THE CONTRACTOR SHALL INSPECT AND CLEAN, AS NECESSARY, THE PAVEMENT TO ASSURE THAT NO MATERIALS OR OBJECTS THAT MAY DAMAGE AIRCRAFT OR VEHICLES REMAIN. ANY REQUIRED CLEANING SHALL BE TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE AND AIRPORT MANAGER AND IS INCIDENTAL TO THE CONTRACT.

**NOTIFICATIONS BY CONTRACTOR**

THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER AND AIRPORT DIRECTOR 72 HOURS IN ADVANCE OF THE CONTRACTOR'S CLOSING OF ACTIVE TAXIWAYS, APRONS, ROADWAYS, PARKING LOTS, AIRFIELD OR ROADWAY LIGHTING CIRCUITS OR OTHER AIRPORT OPERATIONAL FACILITIES.

**CONTRACTOR'S USE OF SITE**

THE CONTRACTOR SHALL NOT OPERATE WITHIN, ENROACH UPON OR OBSTRUCT AIRPORT OPERATIONAL AREAS, INCLUDING ACTIVE RUNWAY, TAXIWAYS AND APRON SAFETY AREAS, OBJECT AND OBSTACLE FREE ZONES, RUNWAY PROTECTION ZONES AND AIRPORT MANDATORY SURFACES AS DEFINED IN FEDERAL AVIATION REGULATIONS (FAR) PART 77, "OBJECTS AFFECTING NAVIGABLE AIRSPACE".

**UTILITY OUTAGES AND SHUTDOWNS**

THE CONTRACTOR SHALL PROVIDE 72 HOURS PRIOR NOTICE OF ANY OUTAGES OR SHUTDOWNS TO THE OWNER AND THE AGENCY OWNING THE AFFECTED UTILITY. THE CONTRACTOR SHALL PROVIDE ANY TEMPORARY CONNECTIONS OR OTHER MEASURES AS MAY BE REQUIRED TO MAINTAIN SERVICE AS MAY BE REQUIRED BY THE OWNING AGENCY AT NO COST TO THE OWNER.

**NOTES**

1. WORK MUST BE CONTROLLED AND MAINTAINED WITHIN THE CONSTRUCTION LIMIT LINE.
2. MAXIMUM HEIGHT OF CONTRACTOR'S EQUIPMENT IS 20 FEET EXCEPT BY PRIOR APPROVAL OF THE ENGINEER (SEE SPECIAL PROVISIONS).
3. TRAFFIC TO BE MAINTAINED ON ALL AIRPORT ROADWAYS AT ALL TIMES.

**PERIMETER FENCE INSTALLATION**

**SITE PLAN AND GENERAL AND SAFETY NOTES**

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Hanson No.	08A0180	
Filename	03-SITE PLAN & GEN	
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LAYOUT	LDH	01/27/10
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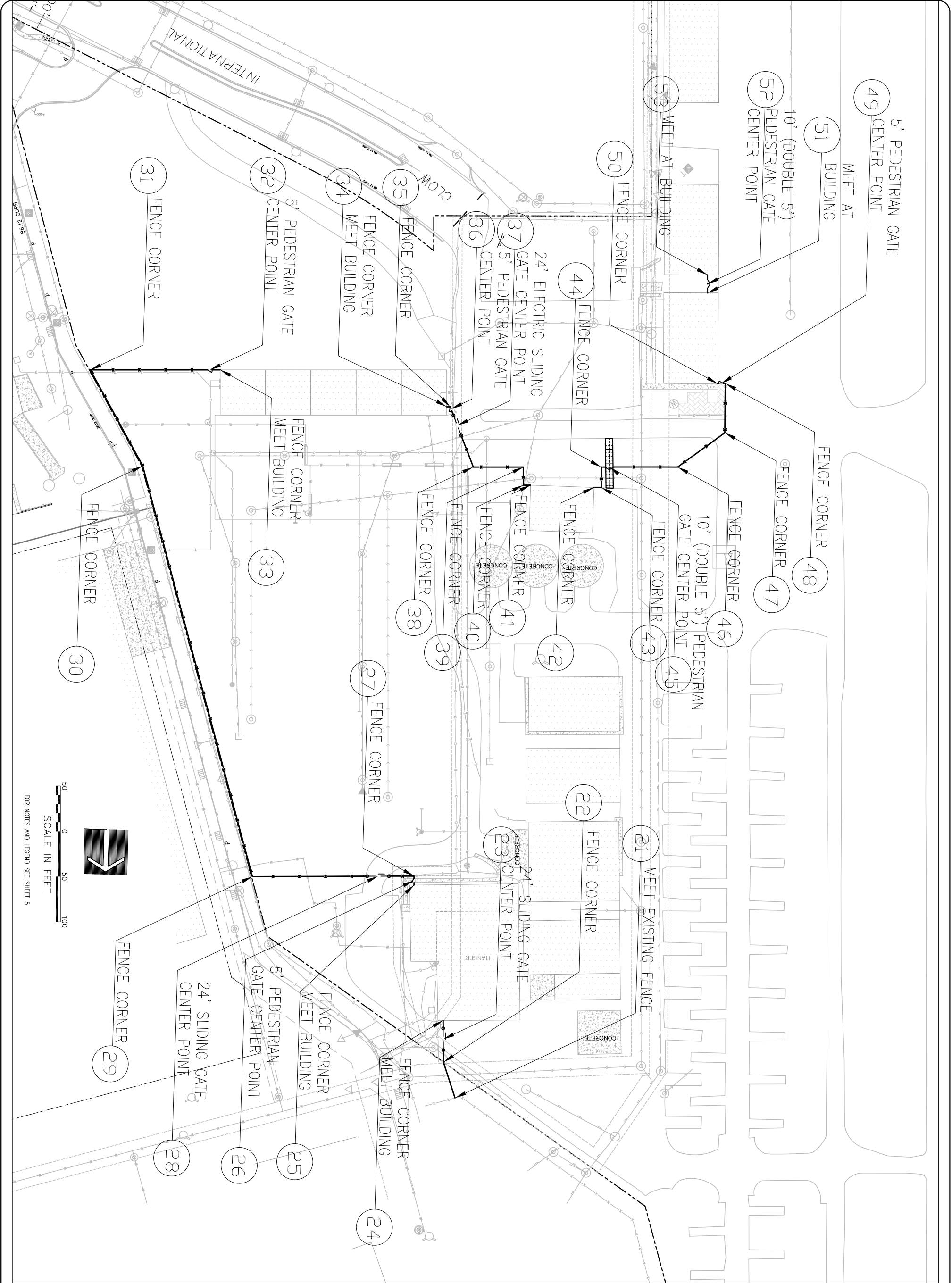
Village of Bolingbrook, Illinois  
 375 West Briarcliff Road  
 Bolingbrook, Illinois 60440  
 Telephone: 630.226.8400

DATE	REVISION





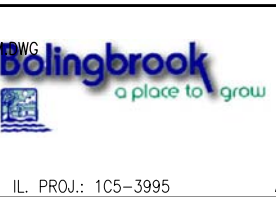




**PERIMETER FENCE INSTALLATION**  
**FENCING PLAN**  
**TERMINAL AND HANGAR AREA**

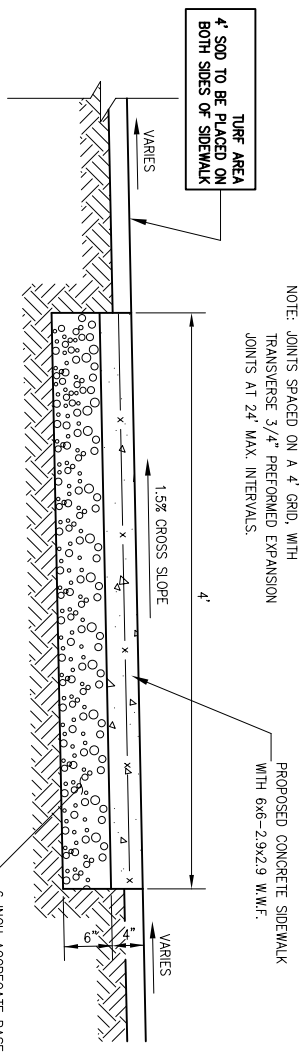
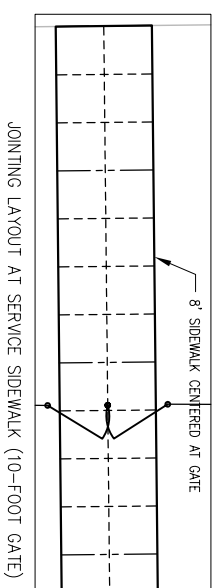
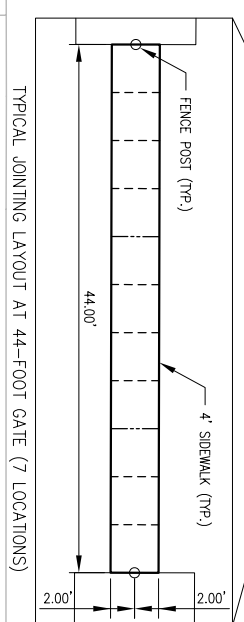
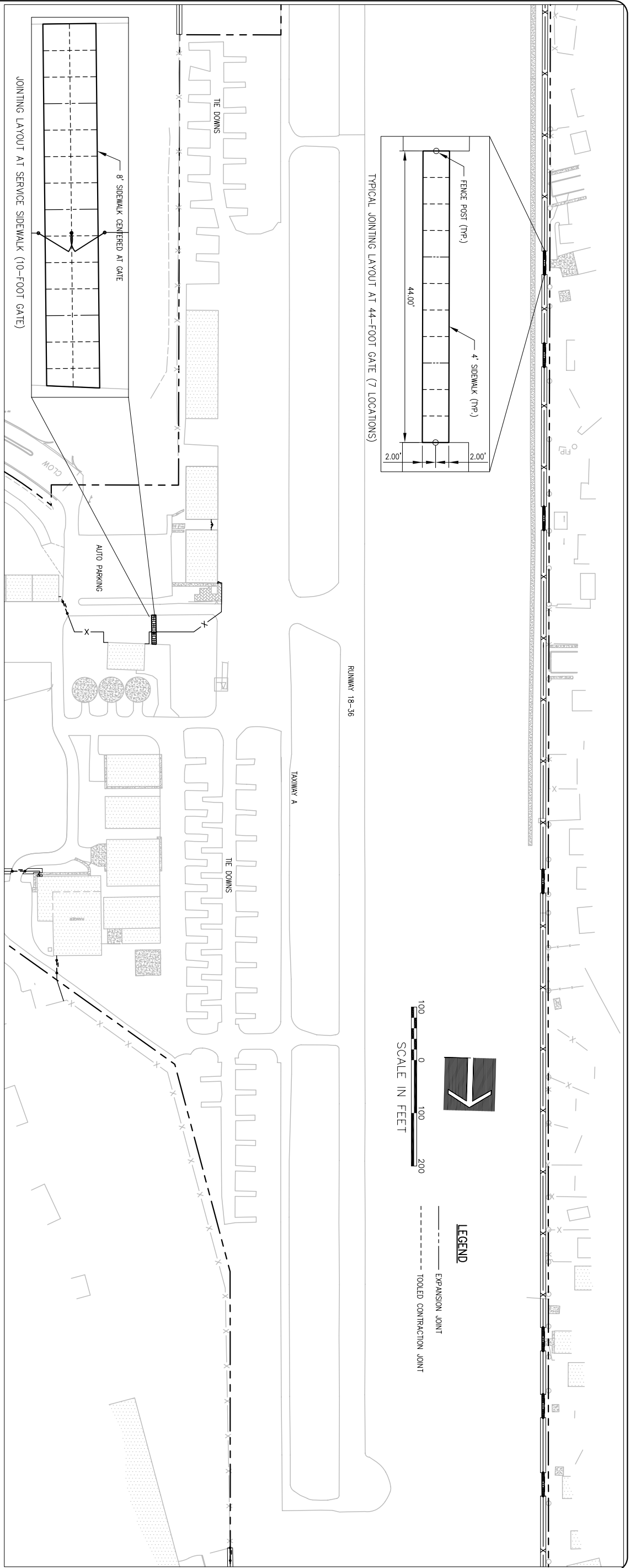


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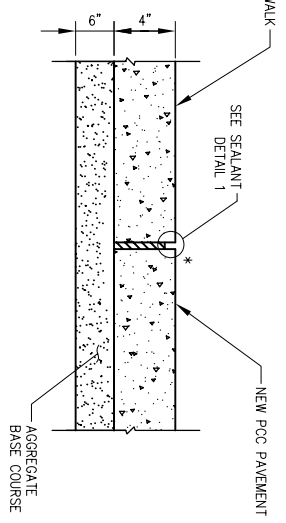
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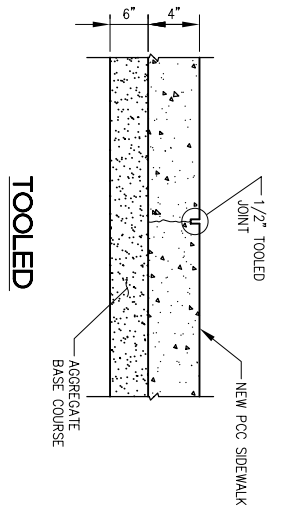


**NOTES**  
 1. 3/4" PREFORMED JOINT FILLER TO BE USED IN ALL LOCATIONS WHERE SIDEWALK IS ADJACENT TO EXISTING PAVEMENT.  
 2. SIDEWALK SHALL BE SET AT 2 INCHES ABOVE EXISTING GRADE AND SLOPED TRANSVERSELY TO MEET FENCE GRADE.

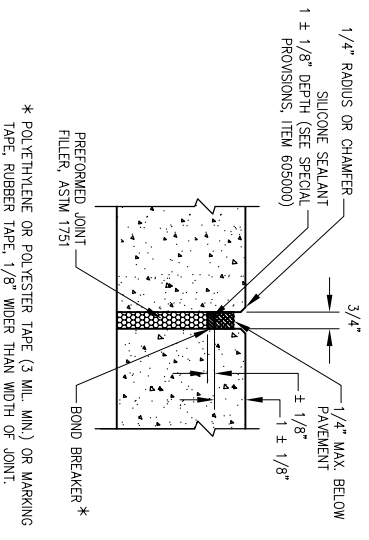
**EXPANSION JOINT**



**TOOLED CONTRACTION JOINT**



**DETAIL 1 - SEALANT**



PERIMETER FENCE INSTALLATION

SIDEWALK PAN AND DETAILS



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Hanson No.	08A0180	
Filename	08-SIDEWALK PLAN.DWG	
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LAYOUT	LDH	01/28/10
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REVIEWED	RMH	01/28/10



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IL PROJ.: 1C5-3995

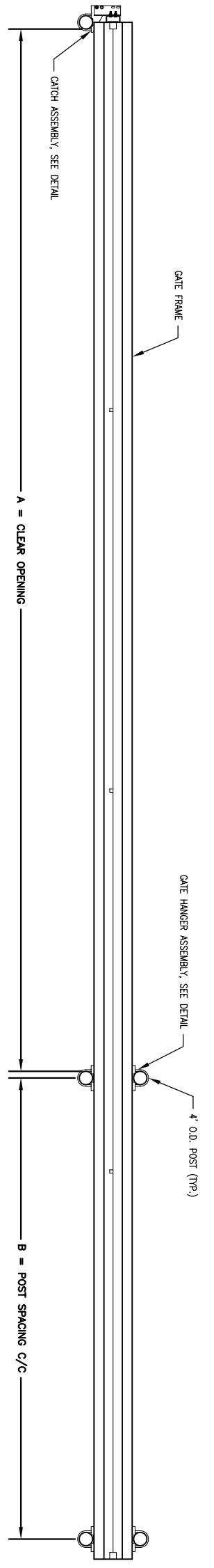
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DATE	REVISION

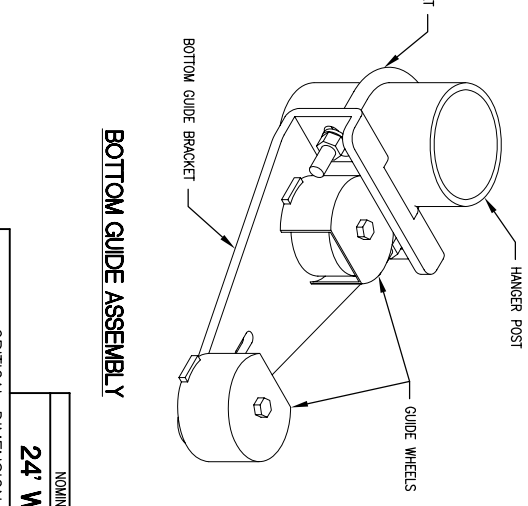
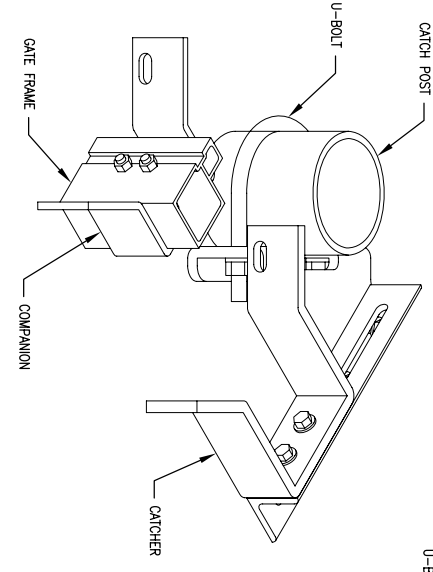
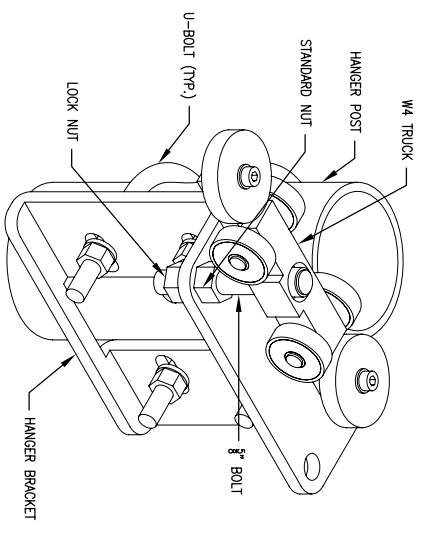
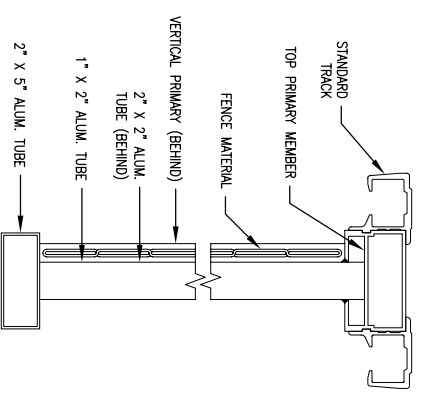
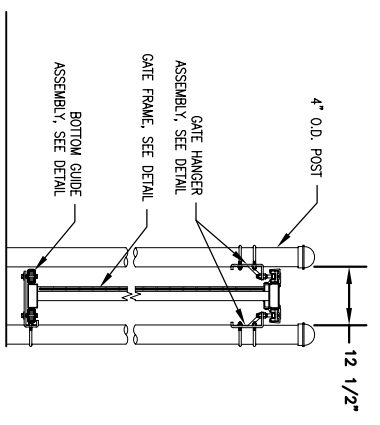
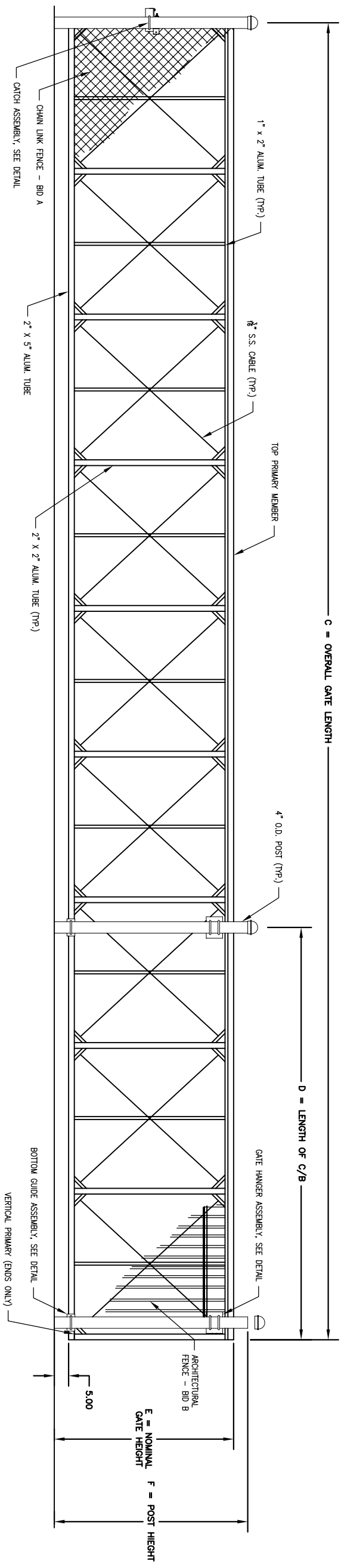








NOTE:  
 GATE ELEVATION IS VIEWED FROM THE OUTSIDE OF THE SECURE AREA LOOKING IN.



**ELEVATION**

**ASSEMBLY SECTION**

**GATE FRAME SECTION**

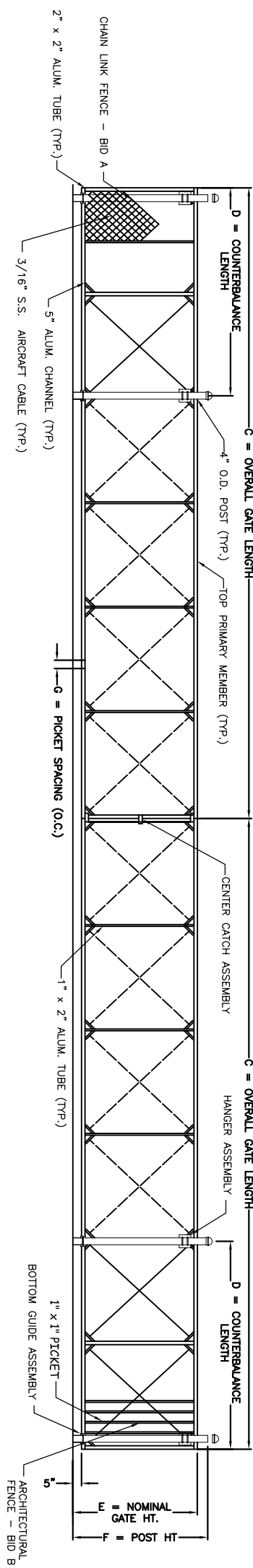
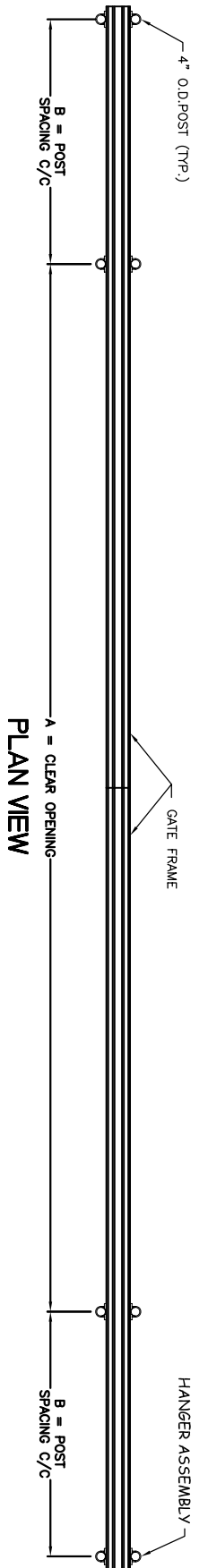
**GATE HANGER ASSEMBLY**

**CATCH ASSEMBLY**

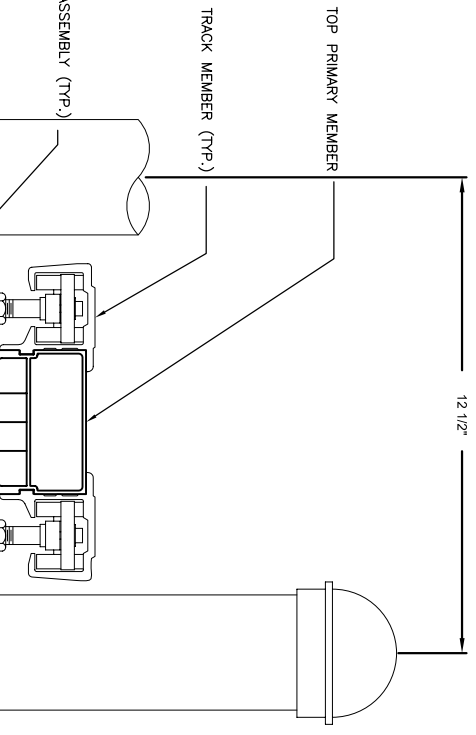
**BOTTOM GUIDE ASSEMBLY**

CRITICAL DIMENSION CHART		NOMINAL GATE SIZE
		24' W X 8' H
A	CLEAR OPENING	24'-0"
B	COUNTERBALANCE POST SPACING C/C	11'-1"
C	OVERALL GATE LENGTH	36'-0"
D	COUNTERBALANCE LENGTH	12'-0"
E	NOMINAL GATE HEIGHT	8'-0"
F	POST HEIGHT	8'-6"

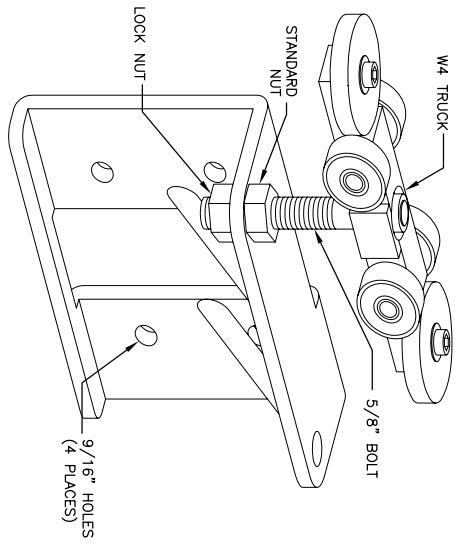
NOTES:  
 1. FOR GATES THAT REQUIRE FABRICATION IN ONE PIECE, A 2" x 5" ALUMINUM TUBE WILL BE SUBSTITUTED FOR THE ALUMINUM CHANNEL BOTTOM MEMBER.



ELEVATION

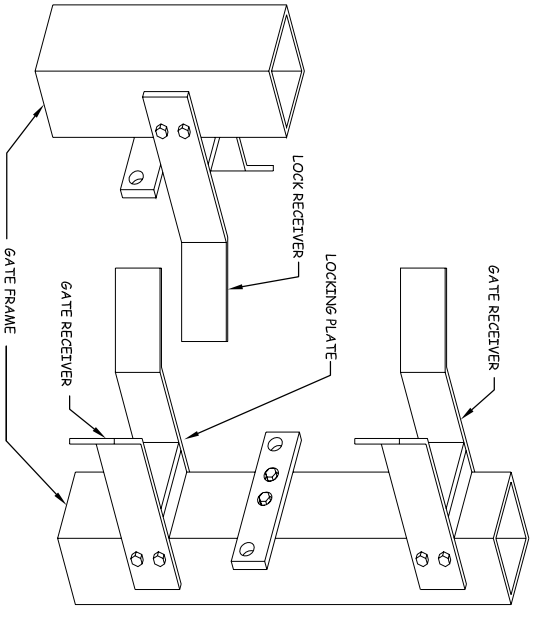


ASSEMBLY SECTION

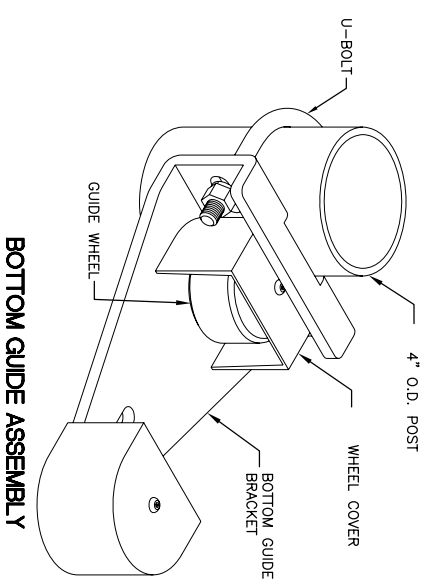


GATE HANGER ASSEMBLY

CRITICAL DIMENSION CHART	
A	CLEAR OPENING 44'-0"
B	COUNTERBALANCE POST SPACING C/C 10'-1"
C	OVERALL GATE LENGTH 33'-0"
D	COUNTERBALANCE LENGTH 11'-0"
E	NOMINAL GATE HEIGHT 8'-0"
F	POST HEIGHT 8'-6"
G	PICKET SPACING 0'-5"



CATCH ASSEMBLY



BOTTOM GUIDE ASSEMBLY

DATE	REVISION

Village of Bolingbrook, Illinois  
 375 West Briarcliff Road  
 Bolingbrook, Illinois 60440  
 Telephone: 630.226.8400



Hanson No.	08A0180	
Filename	12-44' GATE DETAILS.DWG	
Scale	No Scale	
Date	01/27/10	
LAYOUT	KMS	01/27/10
DRAWN	KMS	01/27/10
REVIEWED	RMH	xx/xx/xx

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PERIMETER FENCE  
 INSTALLATION  
 44' GATE DETAILS

	CABLE TERMINATOR/LUG, TERMINAL BLOCK, OR SPLICE
	TRANSFORMER
	DISCONNECT SWITCH
	FUSIBLE DISCONNECT SWITCH
	CIRCUIT BREAKER
	THERMAL MAGNETIC CIRCUIT BREAKER
	NORMALLY OPEN (N.O.) CONTACT
	NORMALLY CLOSED (N.C.) CONTACT
	TOGGLE SWITCH / 2 POSITION SWITCH
	FUSE
	TRANSIENT VOLTAGE SURGE SUPPRESSOR OR SURGE PROTECTOR DEVICE
	GROUND - GROUND ROD, GROUNDING ELECTRODE, OR AT EARTH POTENTIAL
	INDICATING LIGHT
	MOTOR
	LOAD, MOTOR, # = HORSEPOWER
	ELECTRIC UTILITY METER BASE
	JUNCTION BOX WITH SPLICE OR TERMINALS
	EQUIPMENT, XXX = DEVICE DESCRIPTION
	GROUND BAR, GROUND BUS OR GROUND TERMINAL
	SOLID NEUTRAL, NEUTRAL BUS, OR NEUTRAL TERMINAL
	PANELBOARD WITH MAIN LUGS
	PANELBOARD WITH MAIN BREAKER
	FUSE PANEL WITH MAIN FUSE PULLOUT
	DUPLEX RECEPTACLE 120V SINGLE PHASE GROUNDING TYPE
	CONTROL STATION
	TRANSFER SWITCH: N = NORMAL EM = EMERGENCY L = LOAD
	ENGINE GENERATOR SET

	CONDUIT (EXPOSED)
	CONDUIT OR UNIT DUCT (CONCEALED OR BURIED)
	DUCT
	BURIED/UNDERGROUND ELECTRIC
	OVERHEAD ELECTRIC
	TOGGLE SWITCH
	PUSH BUTTON STATION
	WALL OR CEILING MTD. JUNCTION BOX, CONFIGURATION VARIES WITH USE
	SINGLE THROW DISCONNECT SWITCH
	SINGLE THROW, FUSIBLE DISCONNECT SWITCH
	ENCLOSED CIRCUIT BREAKER
	MOTOR
	TRANSFORMER
	ELECTRIC UTILITY METER
	ENCLOSURE
	CIRCUIT BREAKER PANEL-SEE SCHEDULES
	CONTROL PANEL
	GROUND ROD
	POLE WITH CAMERA

A.F.F.	ABOVE FINISHED FLOOR
A. AMP	AMPERES
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BKR	BREAKER
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CR	CONTROL RELAY
CU	COPPER
DDPT	DOUBLE POLE DOUBLE THROW
DDST	DOUBLE POLE SINGLE THROW
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
ENCL	ENCLOSURE
EP	EXPLOSION PROOF
ES	EMERGENCY STOP
ETL	INTERTEX - ELECTRICAL TESTING LABS
ETM	ELAPSE TIME METER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFI	GROUND FAULT INTERRUPTER
GRD	GROUND
GRSC	GALVANIZED RIGID STEEL CONDUIT
HID	HIGH INTENSITY DISCHARGE
HOA	HAND OFF AUTOMATIC
HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
J	JUNCTION BOX
KVA	KILOVOLT AMPERE(S)
KW	KILOWATTS
LC	LIGHTING CONTACTOR
LTFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT (UL LISTED)
LTS	LIGHTING
LP	LIGHTING PANEL
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MCL	THOUSAND CIRCULAR MIL
MDP	MAIN DISTRIBUTION PANEL
MFR	MANUFACTURER
MH	METAL HALIDE
MIN	MINIMUM
MLO	MAIN LUGS ONLY
NEC	NATIONAL ELECTRICAL CODE (NFPA 70)
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NSS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC
OL	OVERLOAD

PB	PULL BOX
PC	PHOTO CELL
PDB	POWER DISTRIBUTION BLOCK
PNL	PANEL
RPCP	RECEPTACLE
R	RELAY
S	STARTER
SPD	SURGE PROTECTION DEVICE
SPST	SINGLE POLE SINGLE THROW
TSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TP	TYPICAL
UG	UNDERGROUND
UE	UNDERGROUND ELECTRIC
UL	UNDERWRITER'S LABORATORIES
V	VOLTS
W/	WITH
W/O	WITHOUT
WP	WEATHER PROOF
WFR	TRANSFER
XPAR	TRANSFORMER

ASSS	AUTOMATED SURFACE OBSERVING SYSTEM
ATCT	AIR TRAFFIC CONTROL TOWER
AMOS	AUTOMATED WEATHER OBSERVING SYSTEM
CCR	CONSTANT CURRENT REGULATOR
DME	DISTANCE MEASURING EQUIPMENT
FAR	FEDERAL AVIATION REGULATION
GS	GRADE SLOPE FACILITY
HIRL	HIGH INTENSITY RUNWAY LIGHT
ILS	INSTRUMENT LANDING SYSTEM
IM	INNER MARKER
LR	LOW IMPACT-RESISTANT
LOC	LOCALIZER FACILITY
MALS	MEDIUM INTENSITY APPROACH LIGHTING SYSTEM
MALS	MEDIUM INTENSITY APPROACH LIGHTING SYSTEM WITH RUNWAY ALIGNMENT INDICATING LIGHTS
MRL	MEDIUM INTENSITY RUNWAY LIGHT
MTL	MEDIUM INTENSITY TAXIWAY LIGHT
NDB	NON-DIRECTIONAL BEACON
PAPI	PRECISION APPROACH PATH INDICATOR
PLSI	PULSE LIGHT APPROACH SLOPE INDICATOR
RAIL	RUNWAY ALIGNMENT INDICATING LIGHTS
REL	RUNWAY END IDENTIFIER LIGHT
RFR	RUNWAY VISUAL RANGE
VADI	VISUAL APPROACH DESCENT INDICATOR
VASI	VISUAL APPROACH SLOPE INDICATOR
VOR	VERY HIGH FREQUENCY OMBIDIRECTIONAL RANGE FACILITY
WC	WIND CONE

- NOTES:**
- ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70 - NATIONAL ELECTRICAL CODE (NEC) MOST CURRENT ISSUE IN FORCE. THE RESPECTIVE EQUIPMENT MANUFACTURER'S DIRECTIONS AND ALL OTHER APPLICABLE LOCAL CODES, LAWS, ORDINANCES, AND REQUIREMENTS IN FORCE. ANY INSTALLATIONS WHICH VOID THE U.L. LISTING, ETL LISTING (OR OTHER THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE WILL NOT BE PERMITTED.
  - ALL WORK, POWER OUTAGES, AND/OR SHUT DOWN OF EXISTING SYSTEMS SHALL BE COORDINATED WITH THE AIRPORT DIRECTOR/MANAGER. ONCE SHUT DOWN, THE CIRCUITS SHALL BE LABELED AS SUCH TO PREVENT ACCIDENTAL ENERGIZING OF THE RESPECTIVE CIRCUITS. ALL PERSONNEL SHALL FOLLOW U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA) 29 CFR PART 1910 OCCUPATIONAL SAFETY & HEALTH STANDARDS FOR ELECTRICAL SAFETY AND LOCKOUT/TAGOUT PROCEDURES INCLUDING, BUT NOT LIMITED TO, 29 CFR SECTION 1910.147 THE CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT).
  - COLOR CODE PHASE AND NEUTRAL CONDUCTOR INSULATION FOR NO. 6 AWG OR SMALLER. PROVIDE COLORED INSULATION OR COLORED MARKING TAPE FOR PHASE AND NEUTRAL CONDUCTORS FOR NO. 4 AWG AND LARGER. INSULATED GROUND CONDUCTORS SHALL HAVE GREEN COLORED INSULATION FOR ALL CONDUCTOR AWG AND/OR KCMIL TO COMPLY WITH NEC 250.119. NEUTRAL CONDUCTORS SHALL HAVE WHITE COLORED INSULATION FOR NO. 6 AWG AND SMALLER TO MEET THE REQUIREMENTS OF NEC 200.6. STANDARD COLORS FOR POWER WIRING AND BRANCH CIRCUITS SHALL BE AS FOLLOWS:  
 208/120 VAC, 3 PHASE, 4 WIRE  
 PHASE A BLACK  
 PHASE B RED  
 PHASE C BLUE  
 NEUTRAL WHITE  
 GROUND GREEN
  - SEE RESPECTIVE SITE PLANS FOR SITE LEGEND INFORMATION.
  - LTFMC DENOTES LIQUID TIGHT FLEXIBLE METAL CONDUIT UL LISTED, SUNLIGHT RESISTANT, & SUITABLE FOR GROUNDING. LIQUID TIGHT FLEXIBLE METAL CONDUIT AND ASSOCIATED FITTINGS SHALL BE UL LISTED TO MEET THE REQUIREMENTS OF NEC 350.6. LIQUID TIGHT FLEXIBLE METAL CONDUIT THAT IS USED FOR FLEXIBILITY (INCLUDING CONNECTIONS TO COR'S & TRANSFORMERS) SHALL REQUIRE AN EXTERNAL BONDING JUMPER OR INTERNAL EQUIPMENT GROUNDING CONDUCTOR PER NEC 350.60. EXTERNAL BONDING JUMPERS USED WITH COR INSTALLATIONS SHALL BE #6 AWG COPPER (MINIMUM). DO NOT INSTALL LTFMC THAT IS NOT UL LISTED. CONFIRM LTFMC BEARS THE UL LABEL PRIOR TO INSTALLATION.
  - ALL ENCLOSURES RATED NEMA 4, 4X SHALL HAVE WATER-TIGHT HUBS AT CONDUIT ENTRANCES UL LISTED NEMA 4, 4X FOR THE RESPECTIVE ENCLOSURE. TO MAINTAIN THE NEMA 4, 4X RATING.
  - HIGH VOLTAGE & LOW VOLTAGE CIRCUITS SHALL NOT BE INSTALLED IN THE SAME WIREWAY, CONDUIT, DUCT, OR HANDHOLE.
  - PER NEC 513 THE ENTIRE AREA OF A HANGAR INCLUDING ANY ADJACENT AND COMMUNICATING AREAS NOT SUITABLY CUT OFF FROM THE HANGAR, SHALL BE CLASSIFIED AS A CLASS 1, DIVISION 2 HAZARDOUS LOCATION UP TO A LEVEL 18 INCHES ABOVE THE FLOOR. PER NEC 513.3(C) "VICINITY OF AIRCRAFT" THE AREA WITHIN 5 FT. HORIZONTALLY FROM AIRCRAFT POWER PLANTS OR AIRCRAFT FUEL TANKS SHALL BE CLASSIFIED AS A CLASS 1, DIVISION 2 LOCATION THAT SHALL EXTEND UPWARD FROM THE FLOOR TO A LEVEL 5 FT. ABOVE THE UPPER SURFACE OF WINGS AND OF ENGINE ENCLOSURES. ALL ELECTRICAL INSTALLATIONS IN CLASSIFIED HAZARDOUS LOCATIONS SHALL BE AWDED UNLESS SPECIFICALLY APPROVED FOR SUCH LOCATIONS AND INSTALLED IN CONFORMANCE WITH NEC 500, 501, AND 513 AS WELL AS OTHER APPLICABLE CODES AND REQUIREMENTS.

DATE	REVISION

Village of Bolingbrook, Illinois  
 375 West Briarcliff Road  
 Bolingbrook, Illinois 60440  
 Telephone: 630.226.8400



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A.I.P. PROJ.: 3-17-0135-B2

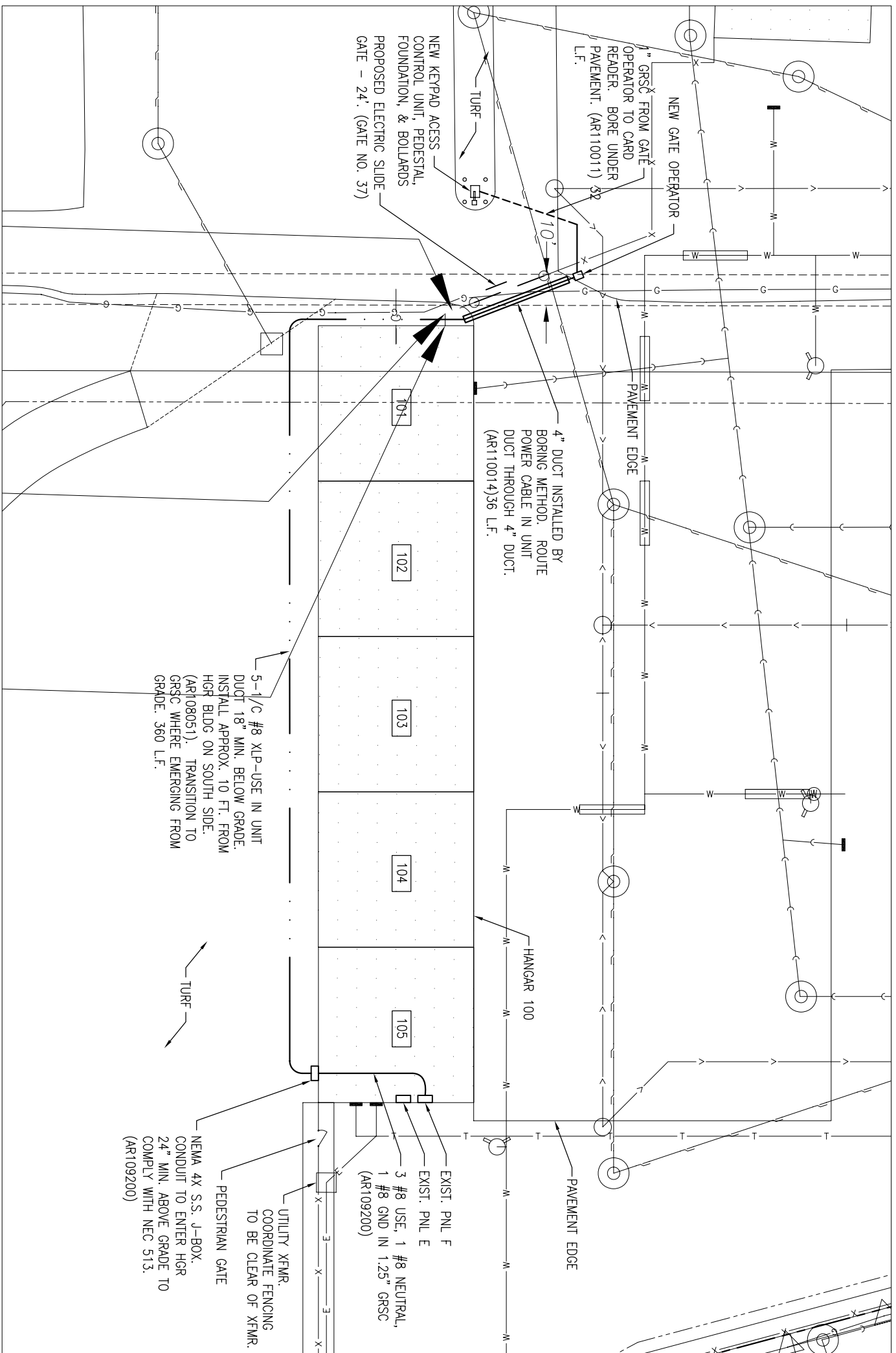
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PERIMETER FENCE  
 INSTALLATION

ELECTRICAL LEGEND  
 AND ABBREVIATIONS

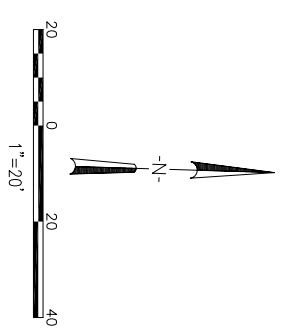


THE LOCATION, SIZE, AND TYPE OF MATERIAL OF EXISTING UNDERGROUND AND/OR ABOVEGROUND UTILITIES INDICATED ON THE PLANS ARE NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY WHATSOEVER IN RESPECT TO THE ACCURACY, COMPLETENESS, OR SUFFICIENCY OF THE INFORMATION, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ARE REPRESENTATIVE OF THOSE TO BE ENCOUNTERED IN THE CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH UTILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES OF HIS OPERATIONAL PLANS AND SHALL OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION AND ASSISTANCE RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULE OF THE COMPANIES FOR REMOVAL OR ADJUSTMENT WHERE REQUIRED. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY OF JURISDICTION. THE OWNER'S REPRESENTATIVE AND/OR THE RESIDENT ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY DAMAGE TO SUCH MAINS AND SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.

ALL UTILITY CABLES AND LINES SHALL BE LOCATED BY THE RESPECTIVE UTILITY. **CONTACT JULIE (JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS) FOR UTILITY INFORMATION, PHONE: 1-800-892-0123.** CONTACT THE FAA (FEDERAL AVIATION ADMINISTRATION) FOR ASSISTANCE IN LOCATING FAA CABLES AND UTILITIES. LOCATION OF FAA POWER, CONTROL, AND COMMUNICATION CABLES SHALL BE COORDINATED WITH AND/OR LOCATED BY THE FAA. ALSO CONTACT AIRPORT DIRECTOR/MANAGER AND AIRPORT PERSONNEL FOR ASSISTANCE IN LOCATING UNDERGROUND AIRPORT CABLES AND/OR UTILITIES. ALSO COORDINATE WORK WITH ALL ABOVEGROUND UTILITIES.

- NOTES:**
1. SEE "PROPOSED ELECTRIC SLIDE GATE DETAILS" SHEET FOR ADDITIONAL REQUIREMENTS ON ELECTRIC SLIDE GATE WORK.
  2. SEE PLAN SHEET 5 FOR ADDITIONAL LEGEND INFO.

- LEGEND**
- E — EXISTING ELECTRICAL CABLES
  - — — PROPOSED ELECTRICAL CABLES
  - W — EXISTING WATER LINE
  - T — EXISTING TELEPHONE LINE
  - G — EXISTING GAS LINE
  - X — PROPOSED FENCE
  - EXISTING MANHOLE
  - ⊙ CARD READER WITH BOLLARDS



DATE	REVISION

Village of Bolingbrook, Illinois  
 375 West Briarcliff Road  
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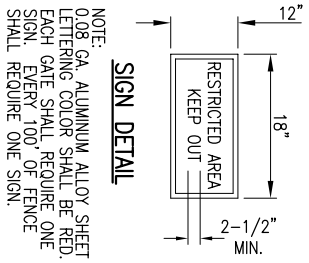
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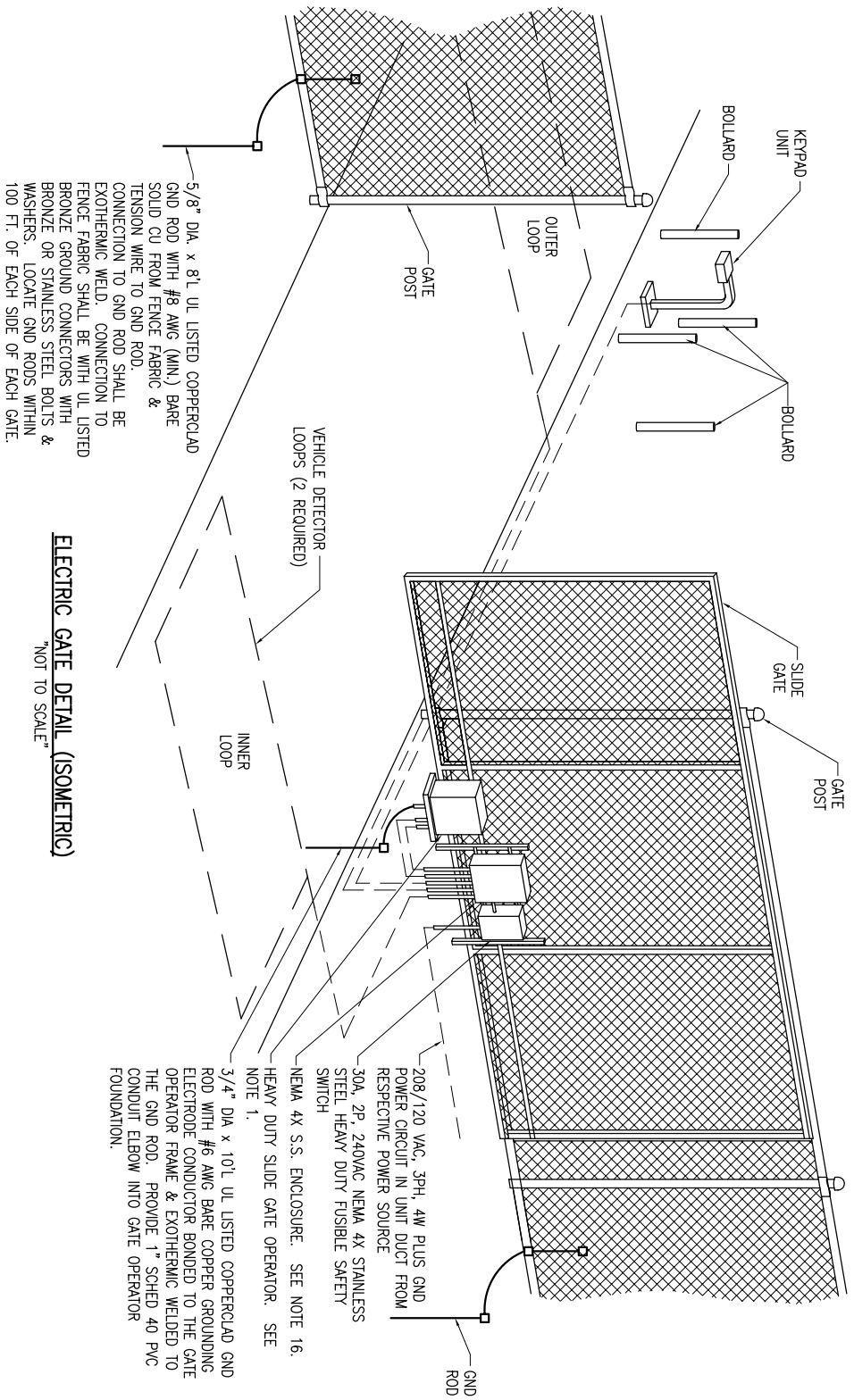
**ELECTRIC SLIDE GATE  
 ELECTRICAL SITE PLAN**



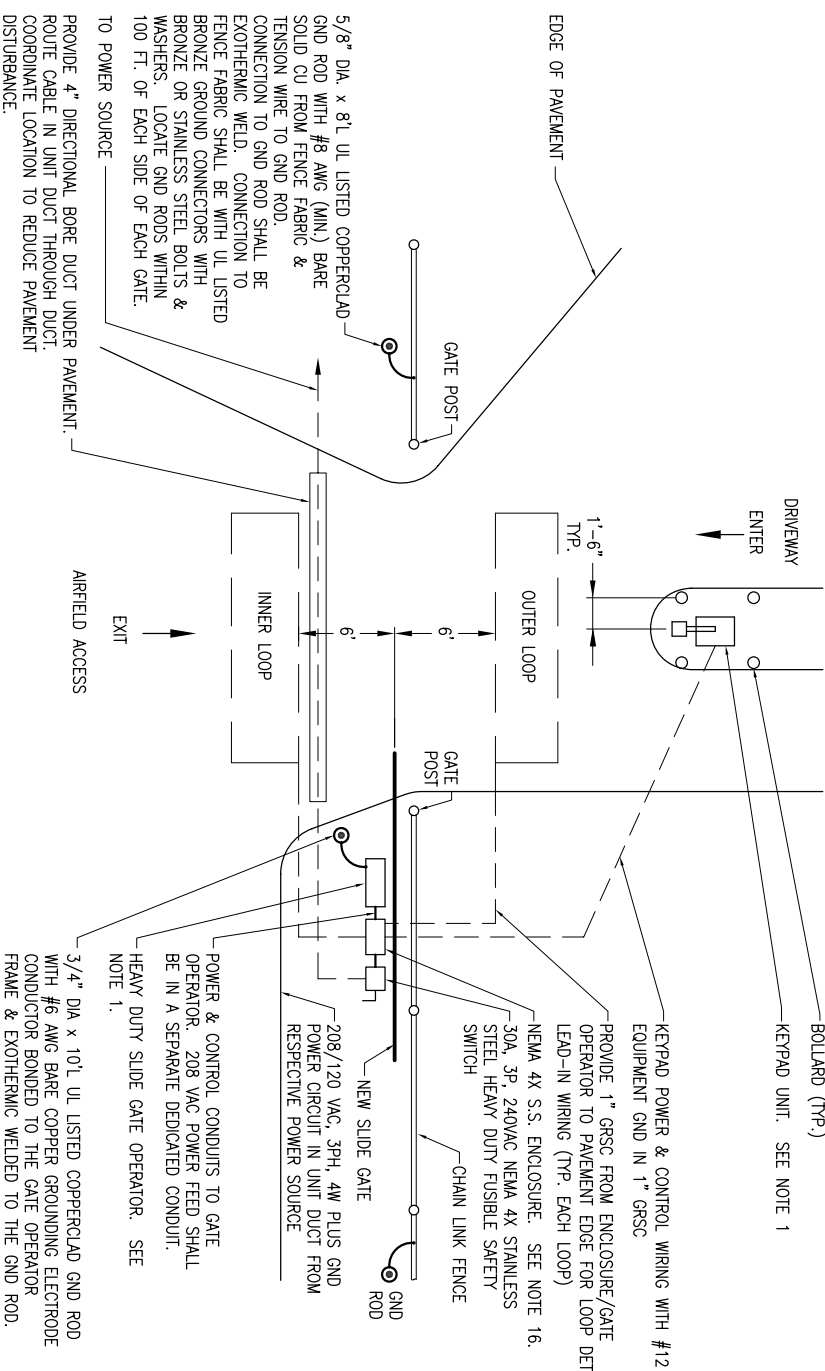
VEHICLE DETECTOR LOOPS		
GATE SIZE	LOOP SIZE	NO. OF TURNS
8' TO 12'	4' X 6'	3 TURNS
12' TO 16'	4' X 10'	2 TURNS
16' TO 20'	4' X 14'	2 TURNS
20' TO 24'	4' X 18'	2 TURNS
24' TO 30'	6' X 22'	2 TURNS
30' TO 34'	6' X 26'	2 TURNS



NOTE: 0.08 GA. ALUMINUM ALLOY SHEET LETTERING COLOR SHALL BE RED. EACH GATE SHALL REQUIRE ONE SIGN EVERY 100' OF FENCE SHALL REQUIRE ONE SIGN.



**ELECTRIC GATE DETAIL (ISOMETRIC)**  
 "NOT TO SCALE"



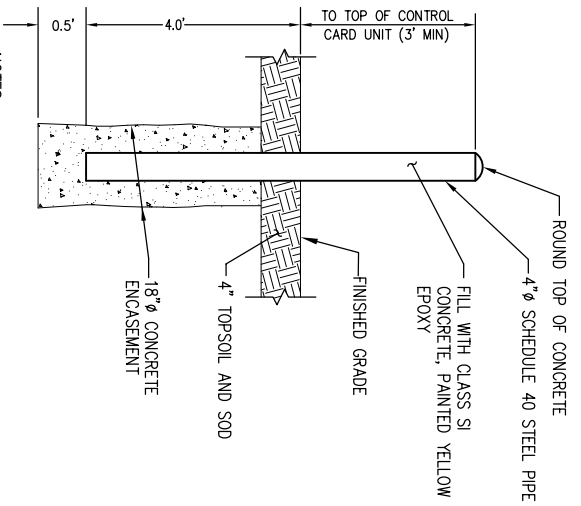
**ELECTRIC GATE PLAN**  
 "NOT TO SCALE"

COORDINATE EQUIPMENT LOCATIONS WITH FENCING AND SITE PLAN

- NOTES:**
- SEE SPECIAL PROVISION SPECS FOR REQUIREMENTS ON RESPECTIVE GATE & GATE OPERATOR SYSTEM.
  - ALL DIMENSIONS AND LAYOUT INFORMATION SHOWN SHOULD BE ADJUSTED AS RECOMMENDED BY THE MANUFACTURER. SEE RESPECTIVE SITE PLAN FOR EACH GATE.
  - CONCRETE FOUNDATIONS SHALL BE PROVIDED FOR THE SLIDE GATE OPERATOR AND THE KEYPAD ACCESS CONTROL UNIT. FOUNDATION FOR THE GATE OPERATOR SHALL BE 48" (MIN.) IN DEPTH AND OF THE SIZE RECOMMENDED BY THE MANUFACTURER. FOUNDATION FOR THE KEYPAD ACCESS CONTROL UNIT SHALL BE 48" (MIN.) IN DEPTH, AS DETAILED HEREIN.
  - 1" GRS CONDUIT WILL BE REQUIRED BETWEEN THE SLIDE GATE OPERATOR AND THE KEYPAD ACCESS CONTROL UNIT AND BETWEEN THE SLIDE GATE OPERATOR AND THE DETECTOR LOOPS. THE MINIMUM BURYING DEPTH IS 24". ALL METAL CONDUITS ENTERING THE GATE OPERATOR SHALL BE BONDED TO THE GATE OPERATOR FRAME WITH A #8 AWG (MIN.) COPPER BONDING JUMPER. CONFRM CONTROL WIRING REQUIREMENTS WITH THE RESPECTIVE GATE OPERATOR SALES AND SERVICE REPRESENTATIVE.
  - THE GUARD/BOLLARD POSTS SHALL BE 4" DIA. STEEL (HEAVY WALL) PIPE, CONCRETE FILLED, AND SHALL EXTEND FROM THE TOP OF THE KEYPAD ACCESS CONTROL UNIT TO A DEPTH OF 48" BELOW THE GROUND LINE. THE CONCRETE FOOTER DIMENSION SHALL BE AS DETAILED HEREIN. THE GUARD/BOLLARD POSTS SHALL BE PAINTED WITH YELLOW COLORED ENAMEL FINISH.
  - THE SLIDING GATE SHALL BE CANTILEVER TYPE OF THE SIZE CALLED FOR ON THE PLANS. SHALL HAVE AN ENCLOSED ROLLER ASSEMBLY WHICH IS PROTECTED FROM FREEZING RAIN AND SNOW. AND SHALL BE AS MANUFACTURED BY TIMEVAL CORPORATION OR APPROVED EQUAL.
  - AS PART OF THIS ITEM 10 REMOVE TRANSMITTERS FOR EACH GATE SHALL BE PROVIDED BY THE CONTRACTOR. COORDINATE PROGRAMMING OF TRANSMITTER FREQUENCIES WITH THE AIRPORT MANAGER.
  - CONTRACTOR SHALL COORDINATE ANY POWER OUTAGES TO EXISTING EQUIPMENT WITH THE RESPECTIVE OWNER'S REPRESENTATIVE AND THE AIRPORT MANAGER.
  - INCLUDE UL LISTED SECONDARY SURGE ARRESTER FOR THE GATE OPERATOR SUITABLE FOR USE ON 208/120 VAC, 3 PHASE, 4 WIRE PLUS GROUND SYSTEM, WITH SURGE CURRENT RATING OF 40 KA PER MODE, J0515VN MODEL 1455-21, OR APPROVED EQUAL.
  - CONCRETE USED FOR INSTALLING THE GATE OPERATOR, KEYPAD ACCESS, CONTROL UNIT, & FENCE SHALL MEET THE REQUIREMENTS OF STRUCTURAL PORTLAND CEMENT CONCRETE ITEM 610.
  - ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70 - NATIONAL ELECTRICAL CODE (NEC) MOST CURRENT ISSUE IN FORCE. THE RESPECTIVE EQUIPMENT MANUFACTURER'S DIRECTIONS AND ALL OTHER APPLICABLE LOCAL CODES, LAWS, ORDINANCES, AND REQUIREMENTS IN FORCE. ANY INSTALLATIONS WHICH VOID THE UL LISTING, ETL LISTING, (OR OTHER THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE WILL NOT BE PERMITTED.
  - PROVIDE A WEATHERPROOF ENGRAVED PHENOLIC OR PLASTIC LEGEND PLATE FOR THE SAFETY SWITCH AT THE RESPECTIVE GATE OPERATOR NOTING THE GATE SERVED, VOLTAGE, AND RESPECTIVE POWER SOURCE CIRCUIT AND LOCATION.
  - PAYMENT FOR EACH SLIDE GATE, KEYPAD ACCESS, CONTROL UNIT, GATE OPERATOR, AND ALL ASSOCIATED CONTROL & SAFETY DEVICES SHALL BE ON A LUMP SUM BASIS AND SHALL BE FULL COMPENSATION FOR ALL MATERIALS, EQUIPMENT, CABLE CONDUIT, GROUNDING, LABOR, TOOLS, COORDINATION, TESTING, AND INCIDENTALS REQUIRED TO INSTALL THE GATE COMPLETE AND IN OPERATING CONDITION.
  - CONTROL CIRCUIT WIRING SHALL NOT BE ROUTED THROUGH THE SAFETY SWITCH/DISCONNECT.
  - LOCATE RECEIVER ANTENNA TO PROVIDE PROPER OPERATION FROM REMOTE TRANSMITTERS FROM A DISTANCE UP TO 150 FEET. INCLUDE CONDUITS & SUPPORT HARDWARE.
  - ALL CONTROL, POWER TRANSFORMERS, POWER SUPPLIES, RECTIFIERS, LOOP DETECTOR AMPLIFIERS, SECONDARY SAFETY DEVICE EQUIPMENT, AND ANY OTHER ASSOCIATED CONTROLS SHALL BE INSTALLED EITHER INSIDE THE GATE OPERATOR CONTROL PANEL OR INSIDE A SEPARATE NEMA 4 STAINLESS STEEL CONTROL PANEL ENCLOSURE. WHERE THE CONTROL EQUIPMENT IS TO BE INSTALLED INSIDE THE GATE OPERATOR CONTROL PANEL, THE CONTRACTOR SHALL COORDINATE THIS WITH THE GATE OPERATOR MANUFACTURER AND THE RESPECTIVE GATE OPERATOR EQUIPMENT SUPPLIER. LOCATING THESE CONTROLS OUTSIDE OF GATE OPERATOR CONTROL PANEL BUT WITHIN THE GATE OPERATOR HOUSING WILL NOT MEET THIS REQUIREMENT.

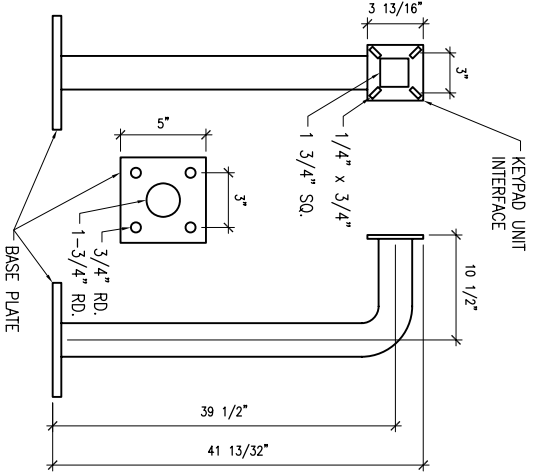
<p>PERIMETER FENCE INSTALLATION</p> <p>ELECTRIC SLIDE GATE DETAILS</p>	<p>Copyright Hanson Professional Services Inc. 2010</p> <p><b>Hanson Professional Services Inc.</b>                  815 Commerce Drive Suite 200                  Oak Brook, Illinois 60523</p>	Hanson No. 08A0180 Filename 16-E-501.DWG Scale NONE Date 01/29/10	<p>Village of Bolingbrook, Illinois                  375 West Briarcliff Road                  Bolingbrook, Illinois 60440                  Telephone: 630.226.8400</p>	DATE REVISION
		LAYOUT KNL 01/22/10 DRAWN MV 01/25/10 REVIEWED xxx xx/xx/xx	IL PROJ.: 1C5-3995 A.I.P. PROJ.: 3-17-0135-B2	16 of 17 sheets 16





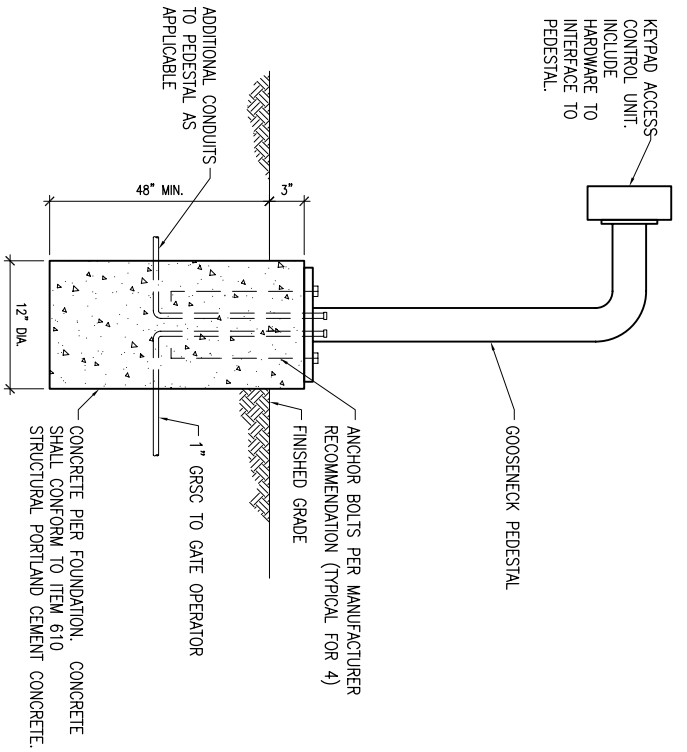
- NOTES**
1. THE EXPOSED PORTION OF THE BOLLARD SHALL BE PAINTED YELLOW EPOXY.
  2. BOLLARD AND ASSOCIATED ITEMS ARE INCIDENTAL TO THE ELECTRIC SLIDING GATE.

**BOLLARD DETAIL**  
 SCALE: NONE



**GOOSENECK PEDESTAL DETAIL**  
 SCALE: NONE

**NOTE:**  
 GOOSENECK PEDESTAL SHALL BE AMERICAN ACCESS SYSTEMS, INC., (7079 SOUTH JORDAN RD., UNIT 6, ENGLEWOOD, CO 80112, PHONE: 800-541-5677, FAX 303-799-9756) MODEL 18-001 OR APPROVED EQUAL.



- NOTES**
1. SEE SPECIAL PROVISION SPECS FOR REQUIREMENTS ON KEYPAD ACCESS CONTROL UNIT.
  2. INCLUDE #12 AWG EQUIPMENT GND WIRE TO KEYPAD UNIT.
  3. FACE OF KEYPAD UNIT SHALL NOT EXTEND BEYOND BOLLARDS.

**KEYPAD ACCESS CONTROL UNIT PEDESTAL ELEVATION DETAIL**  
 SCALE: NONE

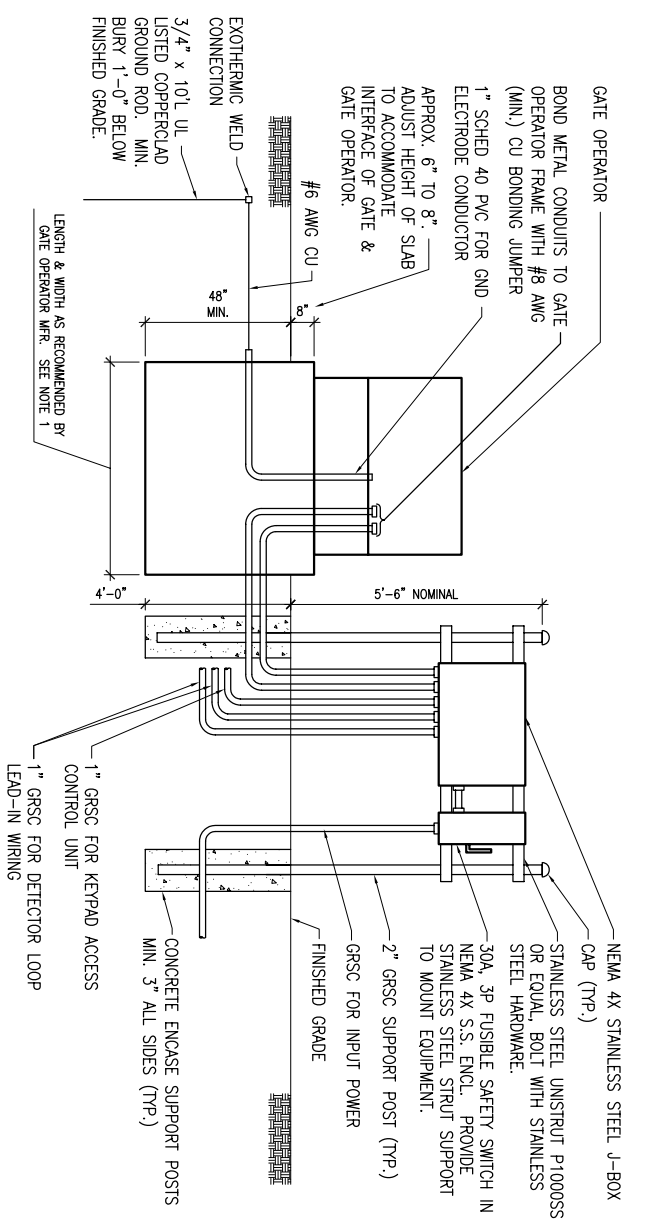
**WARNING**

**Moving Gate Can Cause Serious Injury or Death. KEEP CLEAR!**

Gate May Move At Any Time.  
 Children Should Not Play Near Gate.  
 Children Should Not Operate The Gate.  
 Operate Gate Only When In Sight and Free of People and Obstructions.  
 This Gate System for Vehicles Only.

- NOTES**
1. WARNING SIGNS/PLACARDS AS DETAILED ABOVE OR SIMILAR, SHALL BE INSTALLED WHERE CLEARLY VISIBLE ON BOTH SIDES OF EACH ELECTRIC SLIDE GATE. WARNING SIGNS SHALL BE WEATHERPROOF, CORROSION RESISTANT METAL, AS DETAILED ABOVE, AND IN A ACCORDANCE WITH THE RESPECTIVE GATE MANUFACTURER'S RECOMMENDATIONS, HY-SECURITY PART NO. M4000882, OR EQUAL.

**WARNING SIGN DETAIL**  
 SCALE: NONE



- NOTES**
1. FOUNDATION FOR GATE OPERATOR SHALL BE 48" MIN. IN DEPTH AND OF THE LENGTH & WIDTH RECOMMENDED BY THE MANUFACTURER.
  2. COORDINATE CONDUITS INTO FOUNDATION. ADJUST LOCATION OF SAFETY SWITCH & JUNCTION BOX TO BE CLEAR OF THE GATE OPERATOR, GATE AND OPENING.
  3. CONFIRM CONDUIT SIZES AND WIRING REQUIREMENTS WITH THE GATE OPERATOR MFR. ADJUST/INCREASE CONDUIT SIZES WHERE APPLICABLE. REQUIREMENTS VARY BETWEEN DIFFERENT MANUFACTURERS.
  4. ALL ENCLOSURES RATED NEMA 4, 4X SHALL HAVE WATERTIGHT HUBS AT CONDUIT ENTRANCES U.L. LISTED NEMA 4, 4X FOR THE RESPECTIVE ENCLOSURE, TO MAINTAIN THE NEMA 4, 4X RATING.

**GATE OPERATOR FOUNDATION DETAIL**  
 SCALE: NONE

DATE	REVISION

Village of Bolingbrook, Illinois  
 375 West Briarcliff Road  
 Bolingbrook, Illinois 60440  
 Telephone: 630.226.8400

IL. PROJ.: 1C5-3995      A.I.P. PROJ.: 3-17-0135-B2

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**PERIMETER FENCE INSTALLATION**

**KEYPAD UNIT BOLLARD & GATE OPERATOR DETAILS**