

Memo

To: Trustee Ramesh
From: Robert Kosin
CC: Board of Trustees, Village President
Date: September 21, 2012
Re: East Dundee Auto Storage Yard - IAA

The Village has filed the attached comment with engineering comments to the Village of East Dundee as they consider locating an outdoor auto storage yard operated by Insurance Auto Auction

While comments have been provide by Barrington Hills when given the opportunity including the attached as presented to the Board of Trustees, the project received approval by East Dundee.

The prominent issue has been that which involves storm water both in terms of quality and quantity. The residential area of Barrington Hills adjoins the project property and as identified by both municipal engineers, downhill of the drainage way.

The intent with the concurrence of the Board of Trustees, is to pursue these issues before the appropriate regulatory agencies involved with this use and the process.

President
ROBERT G. ABOUD

Trustees
FRITZ GOHL, Pro-Tem
ELAINE M. RAMESH
JOSEPH S. MESSER
KAREN S. SELMAN
PATTY MERONI
HAROLD GIANOPULOS

DOLORES G. TRANDEL, Village Clerk



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(847) 551-3050

September 17, 2012

President and Village Board
Village of East Dundee
120 Barrington Ave.
East Dundee, IL 60118

**RE: Objection to Final Plat of Subdivision
IAA Plat of Subdivision**

President and Trustees:

I am writing on behalf of the Village of Barrington Hills concerning the IAA Final Plat of Subdivision. The Village of Barrington Hills shares the boundary with the Village of East Dundee's proposed IAA subdivision. The Village of Barrington Hills has never received formal notice of the subdivision of this property. However, based upon a review of documents we received through the Freedom of Information Act, the IAA subdivision, as proposed, will result in an increase in stormwater runoff into the Village of Barrington Hills and does not comply with the Kane County Stormwater Management Ordinance. We brought these issues to your ZBA/Plan Commission on September 13, 2012 and were summarily ignored. These issues must be addressed. The Village of East Dundee's Code Chapter 155.028 (D) provides for cooperation with neighboring jurisdictions. We would ask that you comply with the basic provisions the East Dundee Subdivision Code concerning compliance with the Kane County Stormwater Management Ordinance and intergovernmental cooperation. The Code specifically requires that:

(1) Where a proposed stormwater improvement may result in changes to an existing stormwater carrying system of neighboring upstream or downstream communities, copies of the stormwater improvement plans and specifications shall be submitted to the affected communities.

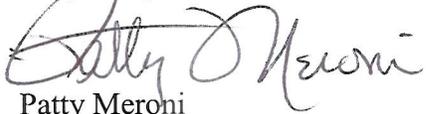
The Code provides that:

(3) If any alterations to the plans and specifications are requested by the affected communities and/or taxing districts and, if the alterations are in accordance with the plans and standards of the affected local governments, the village having jurisdiction may require the applicant to revise the plans and specifications in accordance with the requests of the affected governments.

The Village of Barrington Hills Engineer has prepared the attached analysis outlining our concerns. In this analysis he finds that the IAA subdivision is not in compliance with Kane County Stormwater Management Ordinance. We would further assert that the Final Plat is not in conformance with the mandatory certification requirement of the Illinois Plat Act.

The Village of Barrington Hills objects to the approval of the IAA Plat of Subdivision and opposes its recording until such time as our concerns regarding stormwater runoff and stormwater management are adequately addressed. We would ask that you address the concerns we have raised in the attached memorandum prior to approving the Final Plat of Subdivision. The Village of Barrington Hills will make its Village Engineer available to you and IAA to develop a plan to resolve the concerns we have raised.

Very Truly,

A handwritten signature in cursive script, appearing to read "Patty Meroni".

Patty Meroni
Trustee, Village of Barrington Hills
Chairman, Roads & Bridges

TECHNICAL MEMORANDUM

To: Robert Kosin, Village Administrator
Village of Barrington Hills

From: Dan Strahan, P.E., CFM
Gewalt Hamilton Associates

Date: September 17, 2012

Re: Insurance Auto Auction Site Plan
Stormwater Management Calculations

850 Forest Edge Drive, Vernon Hills, IL 60061

TEL 847.478.9700 ■ FAX 847.478.9701

820 Lakeside Drive, Suite 5, Gurnee, IL 60031

TEL 847.855.1100 ■ FAX 847.855.1115

www.gha-engineers.com

Per your request our office has reviewed the engineering plans prepared for the Insurance Auto Auction site in East Dundee, immediately adjacent to Pondgate Subdivision in the Village of Barrington Hills. This memorandum presents our analysis and calculations related to the expected stormwater impacts from this proposed development. These calculations and analysis have been prepared using the following documents:

- Engineering plans prepared by Kimley Horn and Associates, Inc., dated August 7, 2012.
- Stormwater Management Report prepared by Kimley Horn and Associates, Inc., dated August 16, 2012.

Background

Recently the Village of Barrington Hills learned of a proposed industrial development for a property adjoining the southern boundary of the Village in the area of Pondgate Subdivision. The Insurance Auto Auction site is proposed on a 35-acre parcel generally bound by Pondgate Farms Subdivision (Barrington Hills) to the north, Spring Creek Valley Forest Preserve to the east, Commonwealth Drive to the west, and the remaining undeveloped land to the south. Though the Village of East Dundee is primarily in Kane County, this particular property is located in Cook County. However, East Dundee has adopted the Kane County Stormwater Ordinance to apply throughout the entire Village.

The primary use proposed for the property is storage of automobiles, trucks, and other vehicles awaiting resale. An initial review of the engineering plans demonstrated that the proposed development will increase the area tributary to the Pondgate Farms Subdivision and much of this area will be impervious. Runoff from this area enters a wetland basin at the north end of the IAA site which is shared with Lot 31 of Pondgate Farms Subdivision- Phase II. Based on this initial review, the Village requested a more detailed analysis of the anticipated increase in runoff.

IAA Stormwater Report & Review

The stormwater management report for the IAA site does not include detailed calculations for the area of the site tributary to the north. The author of the report states, *"Since the northwest portion of the site will continue to flow to the existing wetlands and the drainage characteristics of this area will not change significantly from the pre-development conditions, we are not proposing to provide further detention or water quality treatment for this area"* (page 4).

Based on our review we would not concur with the characterization that the drainage characteristics of the area “will not change significantly”. While the term “significantly” can be subjective, the Kane County Stormwater Ordinance (KCSO) provides objective criteria for when the intensity of a development requires mitigation for the impacts of increased stormwater runoff (i.e. detention). Per section 200(b)3 of the code, detention is required if “any non-residential land use is to be developed on a site one acre or more in size, unless such development consists solely of the installation, repair or replacement of the underground or overhead lines of a public utility within a public right-of-way.” Based on this criterion, the KCSO requires detention for the northwest portion of the development.

As the report does not include an analysis of the site runoff to the north, our office utilized Haestad Methods’ *Pond Pack for Windows* program to create a simple stormwater model to analyze the projected impacts for the proposed development. The proposed IAA development will increase the runoff to Pondgate Subdivision to the north primarily for two reasons: (1) grading of the development will increase the tributary area to the north, and (2) the development will increase the amount of impervious area tributary to the north, from none in the existing condition to approximately 7.2 acres in the proposed condition. Each impact is discussed further below:

- (1) The report does include an analysis of the tributary area of the northwest portion of the site, projecting that the tributary area will increase from 10.99 acres in the existing condition to 13.08 acres in the proposed condition based on one-foot contour data for the site. All other things being equal this would increase the runoff rate by approximately 19%. Based on the spot grades shown on sheet C2.0 of the engineering plans the actual existing tributary area appears to be closer to 8.7 acres, but for purposes of this analysis the reported tributary areas of 10.99 acres and 13.08 acres were utilized.
- (2) It is apparent that the report does not consider the gravel of the auto storage section to be impervious, as the water quality calculation for the southern portion of the site utilizes an impervious area of 0.6 acres instead of 23.4 acres. The KCSO requires water quality treatment measures for proposed detention basins based on the amount of “hydraulically connected impervious area”. “Hydraulically connected impervious area” is a term specifically defined in the KCSO as “*those areas of concrete, asphalt and gravel that, along with building roof surfaces, conveys flows directly to an improved drainage system consisting of storm sewers or paved channels...*”. Village staff has indicated that this area was not considered impervious because the definition of hydraulically connected impervious area excludes “*roadways whose primary conveyance is through open ditches and swales.*” This exclusion in the ordinance is intended to apply to linear public road development and in any event does not apply to this development as the area in question is a parking lot sheet draining to a detention pond, not a roadway discharging to an open ditch or swale. The ordinances of Kane, Lake, and McHenry County as well as the draft Cook County Ordinance all define graveled area as impervious. For purposes of our analysis a CN value of 98 was utilized for gravel areas based on consultation with Kane County.

The Pondpack model compared the results from a 24-hour storm duration using the 10-year and 100-year return intervals using Bulletin 70 statistics. The attached table summarizes the model results, showing the projected increases in the runoff rate to Pondgate Subdivision and the impacts to the downstream detention basin:

	Existing Condition	Proposed Condition
10-year Release Rate	2.91 cubic feet per second (cfs)	5.09 cfs
100-year Release Rate	6.70 cfs	10.22 cfs
10-year HWL	846.44	846.63
100-year HWL	847.56	847.80

Based on the model results, the proposed development will increase runoff to the wetland area by 75% during the 10-year, 24-hour storm, and by 52% for the 100-year, 24-hour storm. In each case the development will result in an increase in the high water level of the downstream detention basin in Pondgate Subdivision.

The KCSO would also require water quality treatment for this runoff per Section 203(g)(1) for a volume of water equivalent to a 0.75" rainfall event over the hydraulically connected impervious area. This volume is 19,874 CF, or 0.45 acre-feet. From a practical standpoint provision of this treatment volume would be a higher priority than providing the full detention volume. The effects of the increase in runoff may be difficult to observe for a given rainfall event on the downstream properties as it is not projected to overtop the detention pond banks, but the increased sediment load from untreated stormwater runoff would have a more negative impact on the downstream wetland, the detention basin, and the depressional area to which the detention basin discharges. This impact to the wetland can be quantified based on Section 417 of the KCSO, which requires that, "*Preserved wetlands shall be protected during development such that an FQI calculated two years after the commencement of development will not be more than 2 points less than the FQI originally calculated.*" To date we have not seen any type of wetland report from the applicant or the Village, so our office will be visiting the site to prepare an initial FQI (Floristic Quality Index) calculation so that this requirement may be reviewed in the future.

MASTER DESIGN STORM SUMMARY

Network Storm Collection: Pondgate-Bull170

Return Event	Total Depth in	Rainfall Type	RNF ID
10-24	4.1500	Synthetic Curve	0-10 3rdQ 50%
100-24	6.9000	Synthetic Curve	50-400 3rdQ 50%

MASTER NETWORK SUMMARY
SCS Unit Hydrograph Method

(*Node=Outfall; +Node=Diversion;)
(Trun= HYG Truncation: Blank=None; L=Left; R=Rt; LR=Left&Rt)

Node ID	Type	Return Event	HYG Vol ac-ft	Trun	Qpeak hrs	Qpeak cfs	Max WSEL ft	Max Pond Storage ac-ft
DET. BASINF	IN	POND 10	4.893		15.7000	9.46		
DET. BASINF	IN	POND 100	12.374		15.6500	23.71		
DET. BASINF	OUT	POND 10	4.884		16.1500	8.13	846.44	.746
DET. BASINF	OUT	POND 100	12.365		16.2000	21.07	847.56	1.802
*JUNC 10	JCT	10	4.884		16.1500	8.13		
*JUNC 10	JCT	100	12.365		16.2000	21.07		
NORTHWEST IAA	AREA	10	1.498		15.6000	2.91		
NORTHWEST IAA	AREA	100	3.525		15.6000	6.70		
PONDGATE BASIN F	AREA	10	3.394		15.8000	6.59		
PONDGATE BASIN F	AREA	100	8.849		15.7500	17.07		

MASTER DESIGN STORM SUMMARY

Network Storm Collection: Pondgate-Bull170

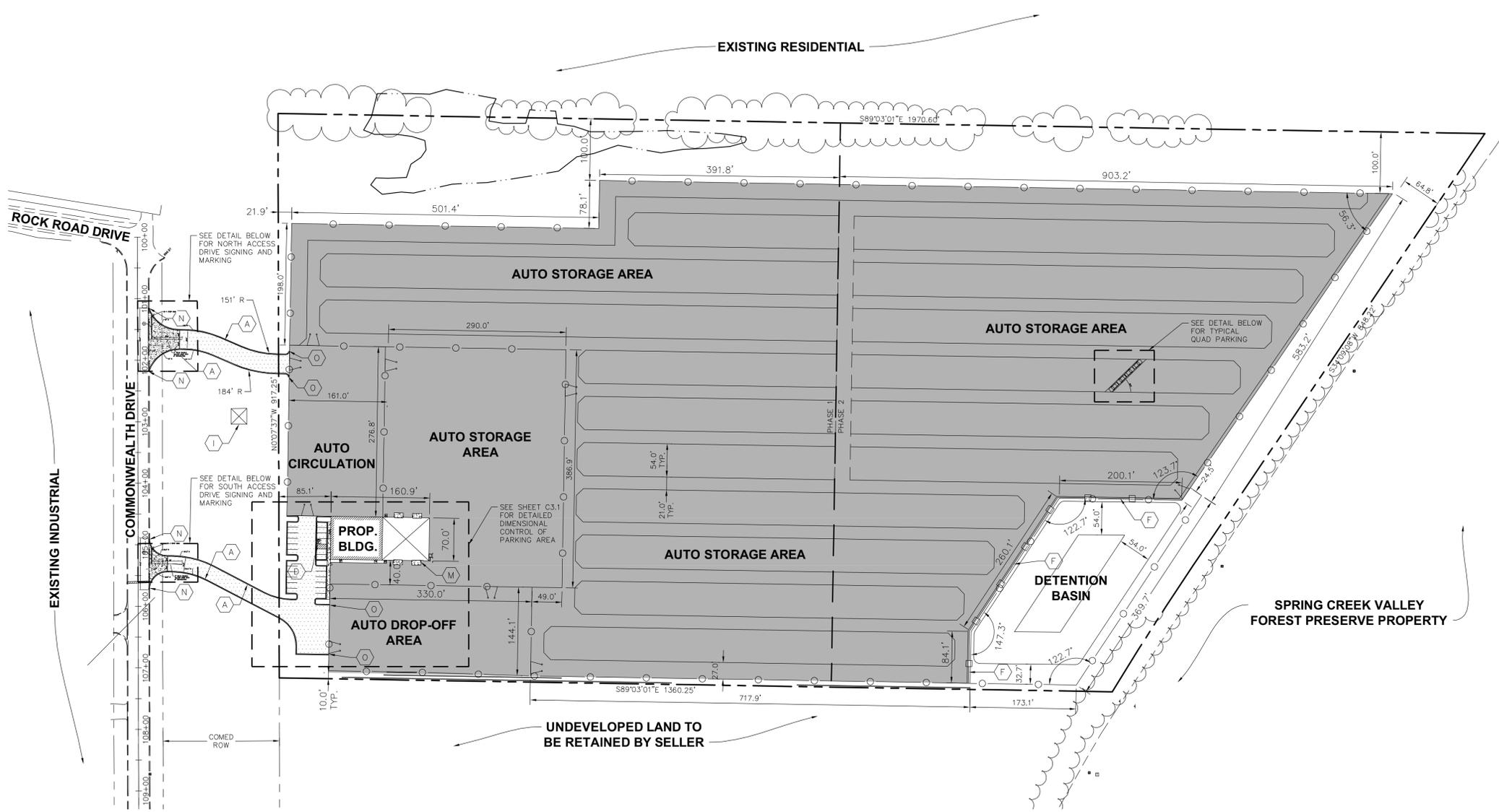
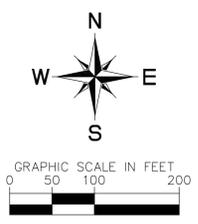
Return Event	Total Depth in	Rainfall Type	RNF ID
10-24	4.1500	Synthetic Curve	0-10 3rdQ 50%
100-24	6.9000	Synthetic Curve	50-400 3rdQ 50%

MASTER NETWORK SUMMARY
SCS Unit Hydrograph Method

(*Node=Outfall; +Node=Diversion;)
(Trun= HYG Truncation: Blank=None; L=Left; R=Rt; LR=Left&Rt)

Node ID	Type	Return Event	HYG Vol ac-ft	Trun	Qpeak hrs	Qpeak cfs	Max WSEL ft	Max Pond Storage ac-ft
DET. BASINF	IN	POND	10		15.6500	11.61		
DET. BASINF	IN	POND	100		15.6500	26.86		
DET. BASINF	OUT	POND	10		16.0000	10.17	846.63	.892
DET. BASINF	OUT	POND	100		16.1500	23.79	847.80	2.102
*JUNC 10	JCT		10		16.0000	10.17		
*JUNC 10	JCT		100		16.1500	23.79		
NORTHWEST IAA	AREA		10		15.6000	5.09		
NORTHWEST IAA	AREA		100		14.4500	10.22		
PONDGATE BASIN F	AREA		10		15.8000	6.59		
PONDGATE BASIN F	AREA		100		15.7500	17.07		

Drawing name: K:\UNC_DEVA\68142000\JAN_EastDundee\12_Design\CAD\04_C3.0 DimCon.dwg C3.0 Aug 06, 2012 5:55pm by jmorero
This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kinley-Horn and Associates, Inc. shall be without liability to Kinley-Horn and Associates, Inc.



GENERAL SITE NOTES

- ALL DIMENSIONS SHOWN ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED. BUILDING DIMENSIONS ARE TO THE OUTSIDE FACE OF EXTERIOR BUILDING MATERIAL (REFER TO ARCHITECTURAL PLANS FOR ALL BUILDING DIMENSIONS)
- IF DEMOLITION OR CONSTRUCTION ON SITE WILL INTERFERE WITH ADJACENT PROPERTY OWNER'S TRAFFIC FLOW, THE CONTRACTOR SHALL COORDINATE WITH THE ADJACENT PROPERTY OWNER, TO MINIMIZE THE IMPACT ON TRAFFIC FLOW. TEMPORARY RE-ROUTING OF TRAFFIC IS TO BE ACCOMPLISHED BY USING DOT-APPROVED TRAFFIC BARRICADES, BARRELS, AND/OR CONES. TEMPORARY SIGNAGE AND FLAGMEN MAY BE ALSO NECESSARY.
- THE CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES TO DETERMINE EXACT POINT OF SERVICE CONNECTION TO EXISTING UTILITY. REFER TO BUILDING ELECTRICAL AND PLUMBING DRAWINGS FOR UTILITY SERVICE ENTRANCE LOCATIONS, SIZES AND CIRCUITING.
- LOCATIONS OF Pylon/MONUMENT SIGNS AND ENTER/EXIT SIGNS ARE NOT EXACT. CONTRACTOR TO VERIFY FINAL LOCATION WITH OWNER.
- CONTRACTOR TO PROTECT EXISTING SITE IMPROVEMENTS.
- ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED SMOOTH AND FOUR INCHES OF TOPSOIL APPLIED, IF ADEQUATE TOPSOIL IS NOT AVAILABLE ON SITE, THE CONTRACTOR SHALL PROVIDE TOPSOIL APPROVED BY THE OWNER, AS NEEDED. THE AREA SHALL THEN BE SEEDED/SODDED, FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED IN ALL AREAS. ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE PROJECT SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER.
- THE LOCATION OF THE CONSTRUCTION TRAILER AND FENCING SHALL NOT AFFECT THE ADJACENT PROPERTY TRAFFIC FLOW.
- ALL ACCESSIBLE FEATURES TO BE IN STRICT ACCORDANCE WITH A.D.A. STANDARDS AND LOCAL LAWS.
- ALL INTERIOR ANGLES FOR FENCE LINE ARE 90° UNLESS OTHERWISE NOTED.
- TRASH ENCLOSURE TO BE LOCATED WITHIN THE BUILDING.

SITE NOTE LEGEND

- (A) B6.12 CURB AND GUTTER (SEE DETAIL SHEET C8.0)
- (B) DEPRESSED CURB (POURED) AND RAMP, TYP. (SEE DETAIL SHEET C8.0)
- (C) CONCRETE SIDEWALK, TYP. (SEE DETAIL SHEET C8.0)
- (D) ACCESSIBLE PAVEMENT MARKING, TYP. (SEE DETAIL SHEET C8.0)
- (E) TRUNCATED DOMES (CONTRASTING COLOR), TYP. (SEE DETAIL SHEET C8.0)
- (F) GUARDRAIL (SEE DETAIL SHEET C8.0)
- (G) 4" WIDE PAINTED SOLID YELLOW LINE, TYP.
- (H) STOP BAR (SEE DETAIL SHEET C8.0)
- (I) EXISTING COMED TOWER
- (J) MONUMENT SIGN - VERIFY LOCATION W/ OWNER
- (K) ACCESSIBLE PARKING SIGN, TYP. (R7-8 PER MUTCD, SEE DETAIL SHEET C8.0)
- (L) PROPOSED TRANSFORMER PAD LOCATION (COORDINATE WITH COMED)
- (M) BOLLARD, TYP. (SEE DETAIL SHEET C8.0)
- (N) CONNECT TO EXISTING CURB/PAVEMENT (MATCH ELEVATION)
- (O) 5' TRANSITION TO ZERO CURB
- (P) CONCRETE CROSS GUTTER (SEE DETAIL SHEET C8.0)

ACCESSIBILITY NOTES

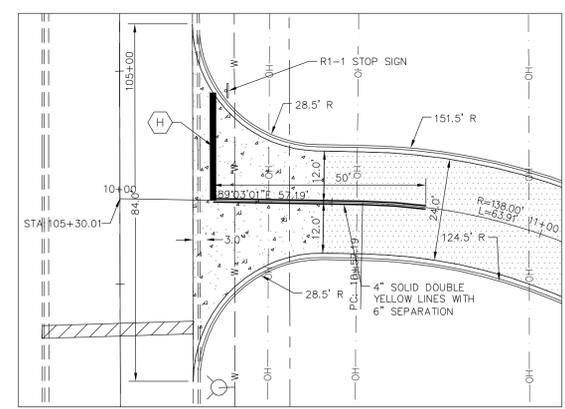
- ALL PUBLIC SIDEWALKS AND CURB CUTS MUST MEET THE SLOPES AS REQUIRED BY THE ILLINOIS ACCESSIBILITY CODE AS TO ALLOWABLE SLOPE (NOT TO EXCEED 5%) AND CROSS SLOPE (NOT TO EXCEED 2%).
- DETECTABLE WARNINGS SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9 IN (23MM) HEIGHT OF NOMINAL 0.2 (5MM) AND CENTER-TO-CENTER SPACING OF NOMINAL 2.35 IN (60MM) AND SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT. THIS IS REQUIRED WHEREVER DETECTABLE SURFACE IS REQUIRED. THIS INCLUDES RAMPS AT STREET INTERSECTIONS.
- REFER TO SHEET C6.2 FOR GRADING INFORMATION ALONG ACCESSIBLE ROUTE.
- REFER TO SHEET C8.0 FOR ALL ACCESSIBLE DETAILS.
- DETECTABLE WARNINGS SHALL BE INSTALLED TO BE CONTRASTING IN COLOR TO THE SURROUNDING SURFACES

SITE PLAN LEGEND

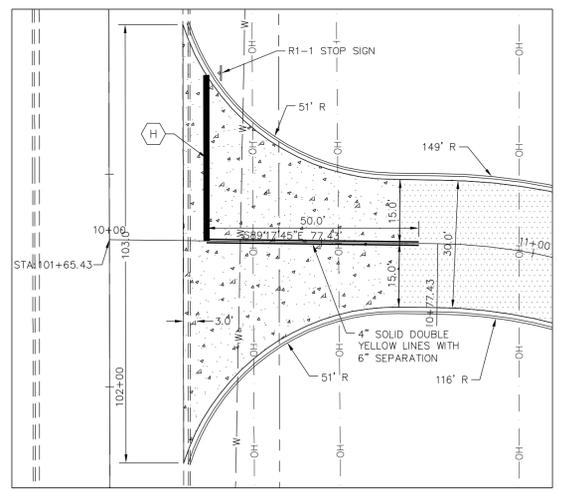
- PROP. FENCE (COMMERCIAL GRADE 8" CHAIN LINK WITH 3 STRANDS BARBED WIRE FACING OUTWARD. GATES TO HAVE 3 SETS OF HINGES WITH 4" GATE AND CORNER POSTS)
- SIDEWALK
- HEAVY DUTY SECTION
- AUTO STORAGE SECTION
- PROP. GUARDRAIL
- 5" THICK CONCRETE SIDEWALK
- 4" THICK CA-6 BASE
- SUBGRADE COMPACTED TO 95% MODIFIED PROCTOR
- 1.5" THICK ASPHALT SURFACE COURSE
- 2" THICK ASPHALT BINDER COURSE
- 12" THICK CA-6 BASE
- SUBGRADE COMPACTED TO 95% MODIFIED PROCTOR
- 3" THICK RECLAIMED ASPHALT MILLINGS
- 6" THICK CA-6 BASE
- 12" THICK LIME STABILIZED SUBGRADE COMPACTED TO 95% MODIFIED PROCTOR

SITE DATA TABLE	
TOTAL LOT AREA	35.00 AC (1,524,600 SF)
TOTAL AREA DISTURBED *	30.70 AC (1,337,390 SF)
PAVED AREA	0.34 AC (14,810 SF)
AUTO STORAGE AREA	25.39 AC (1,106,170 SF)
ROOFED AREA	0.26 AC (11,205 SF)
STORMWATER DETENTION AREA	1.22 AC (53,160 SF)
PARKING STALLS	23 REGULAR 1 ACCESSIBLE

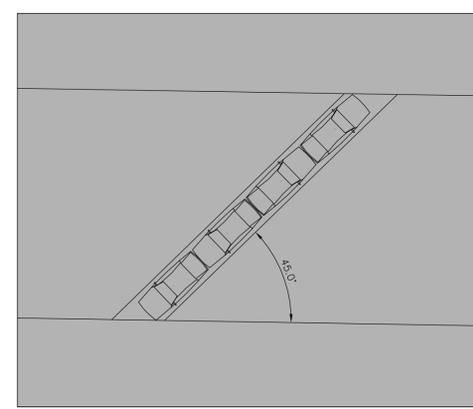
* DOES NOT INCLUDE ANY OFF-SITE DISPOSAL OR BORROW AREAS - CONTRACTOR TO UPDATE AS NECESSARY DURING CONSTRUCTION.



SOUTH ACCESS DRIVE SIGNING AND MARKING
1" = 20'



NORTH ACCESS DRIVE SIGNING AND MARKING
1" = 20'



TYPICAL QUAD PARKING LAYOUT
1" = 20'

SHEET NO.
C3.0

Date of Signature: _____

OVERALL DIMENSIONAL CONTROL
I.A.A. FACILITY
ILLINOIS
EAST DUNDEE

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Project No.: 168142000
Contact: SCOTT WILLSON

REVISION	DATE	DESCRIPTION