LOCAL DISPOSAL OPTIONS FOR NON-TSCA REGULATED WASTE

Lower Ley Creek Subsite

October 29, 2013

By:

PALMERTON GROUP
A Division of GZA GeoEnvironmental, Inc.

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BACKGROUND

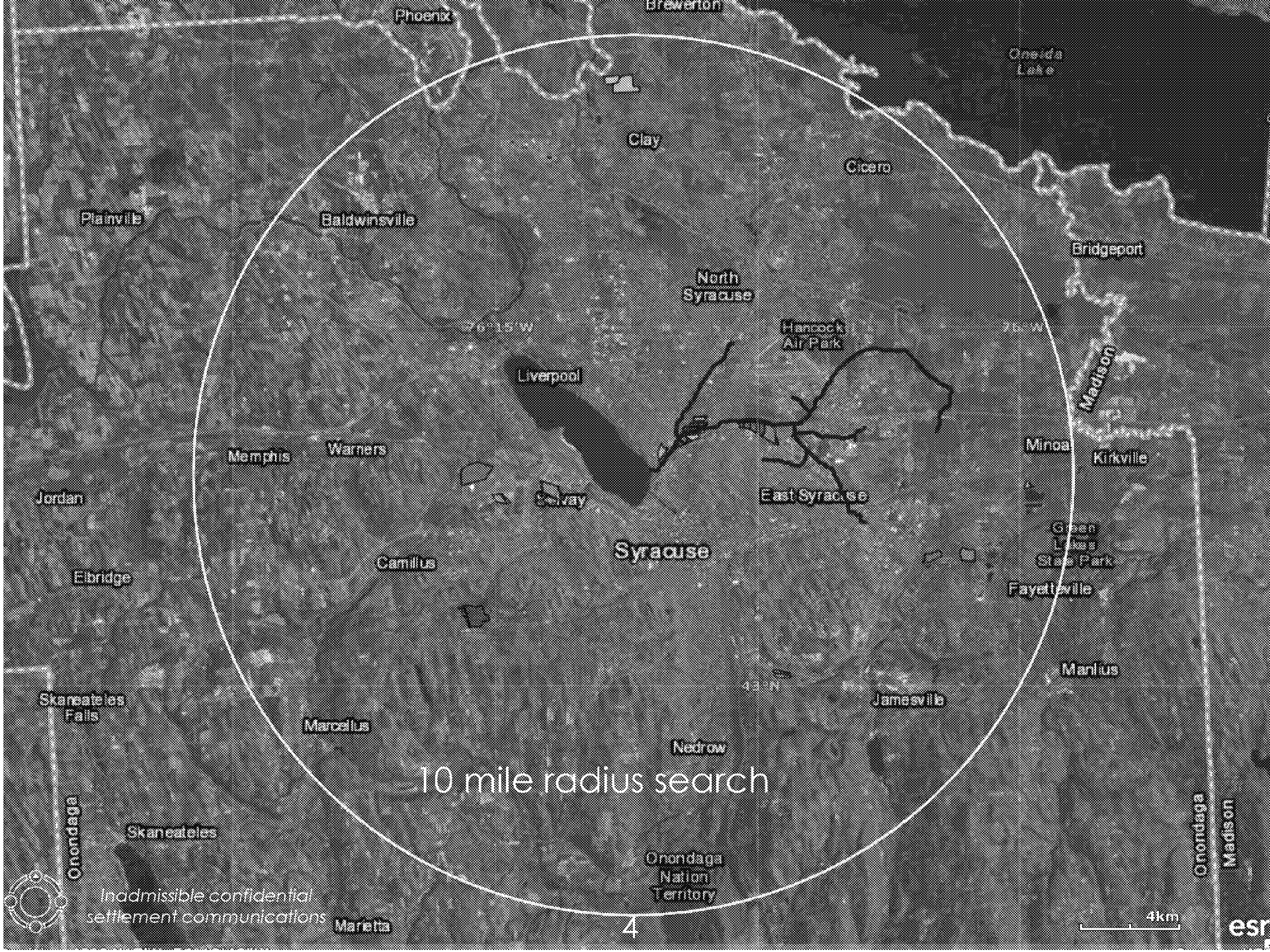
- EPA cost estimates prepared for GM negotiations identified roughly 180,000 cubic yards of soil and sediment as potentially requiring disposal for the Lower Ley Creek project.
- Palmerton Group tasked to identify and screen local disposal options with the potential to benefit the Lower Ley Creek & (possibly Upper Ley Creek) project(s).
  - This effort follows up on prior discussions between the PRPs and EPA on the importance of containing/reducing project costs.
  - Work intended to support inclusion of local disposal options in the FS and identification of key issues requiring resolution.
  - Support broader discussions with EPA regarding site solutions, recognizing the PRPs contest their liability for PCB contamination.

PRESENTATION OVERVIEW

- Identification and Screening of 22 candidates
  - proximity to Ley Creek
  - technical and administrative feasibility screening
- Highest Screened Local Disposal Options (preliminary only)
  - Plaza East Property alternatives
  - Town of Salina Landfill
  - Cooper Crouse Hinds North Landfill
  - Wastebed13 Sediment Consolidation Area (SCA)
- Preliminary Design Concepts
- Discussion

CANDIDATE IDENTIFICATION PROCESS

- Reviewed local, state, and federal records for current and historic disposal sites
- Inclusion criteria:
  - Within 10 miles of Ley Creek Site
  - >5 acres
- Identified site specific information (site history, ownership, zoning, regulatory status, size, etc.)



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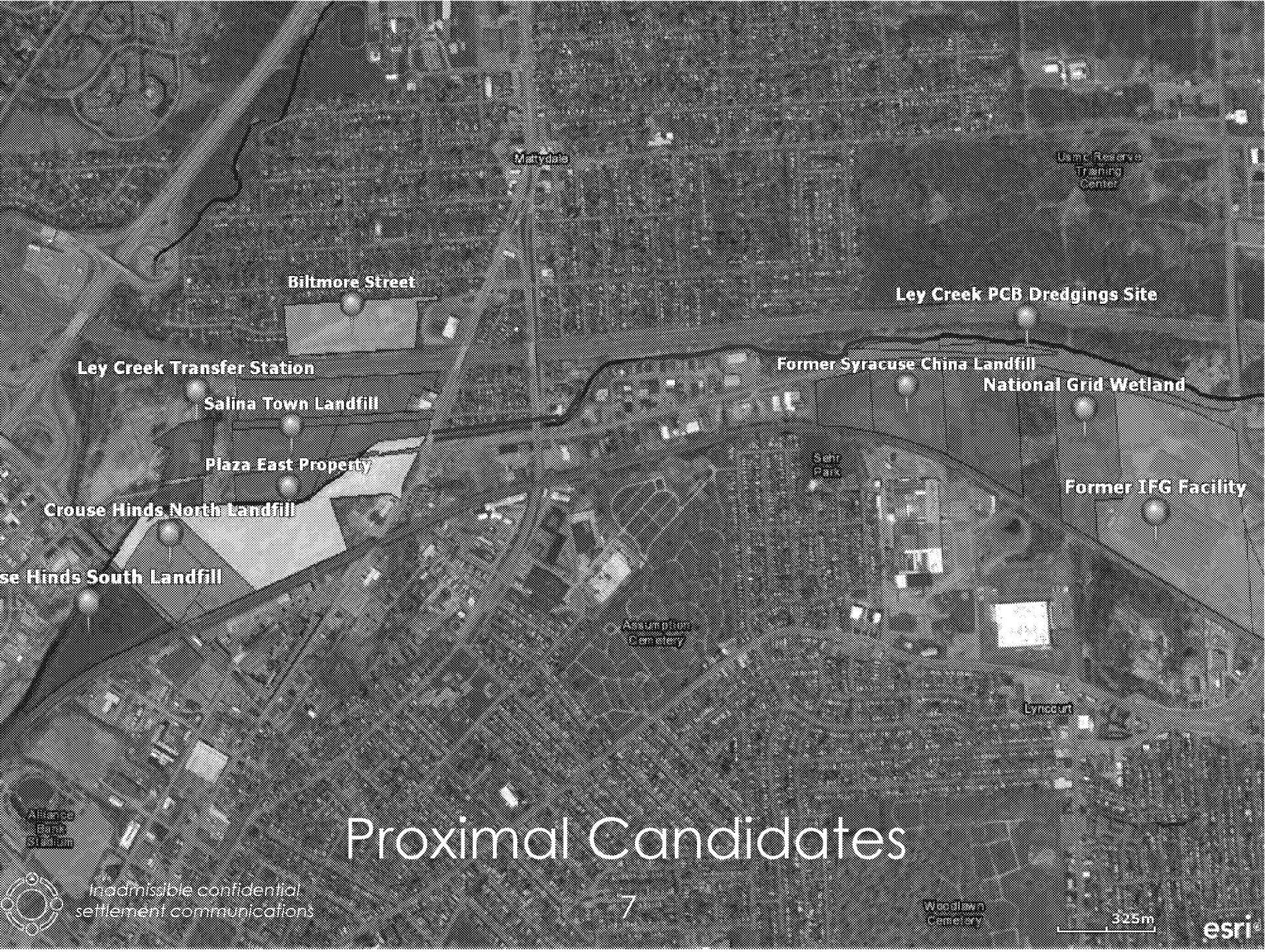
IDENTIFIED DISPOSAL CANDIATES

- Plaza East Property*
- Crouse Hinds South Landfill*
- Crouse Hinds North Landfill*
- Salina Town Landfill*
- Ley Creek Transfer Station*
- Biltmore Street*
- Former Syracuse China Landfill*
- National Grid Wetland*
- Ley Creek PCB Dredging Subsite*
- Former GM IFG Facility*
- Historic City of Syracuse Landfill*
- Wastebed 13 SCA
- Clay Town Landfill
- Matthews Avenue Site
- Village of Solvay Landfill
- LCP Chemical
- Camillus Landfill
- Tripoli Landfill
- Brighton Ave Landfill
- Town of Dewitt Landfill
- Town of Manlius Landfill
- Village of Minoa Landfill

*Proximal to Ley Creek

Proximal Candidates

Privileged/Confidential Joint Defense Material



Proximal Candidates

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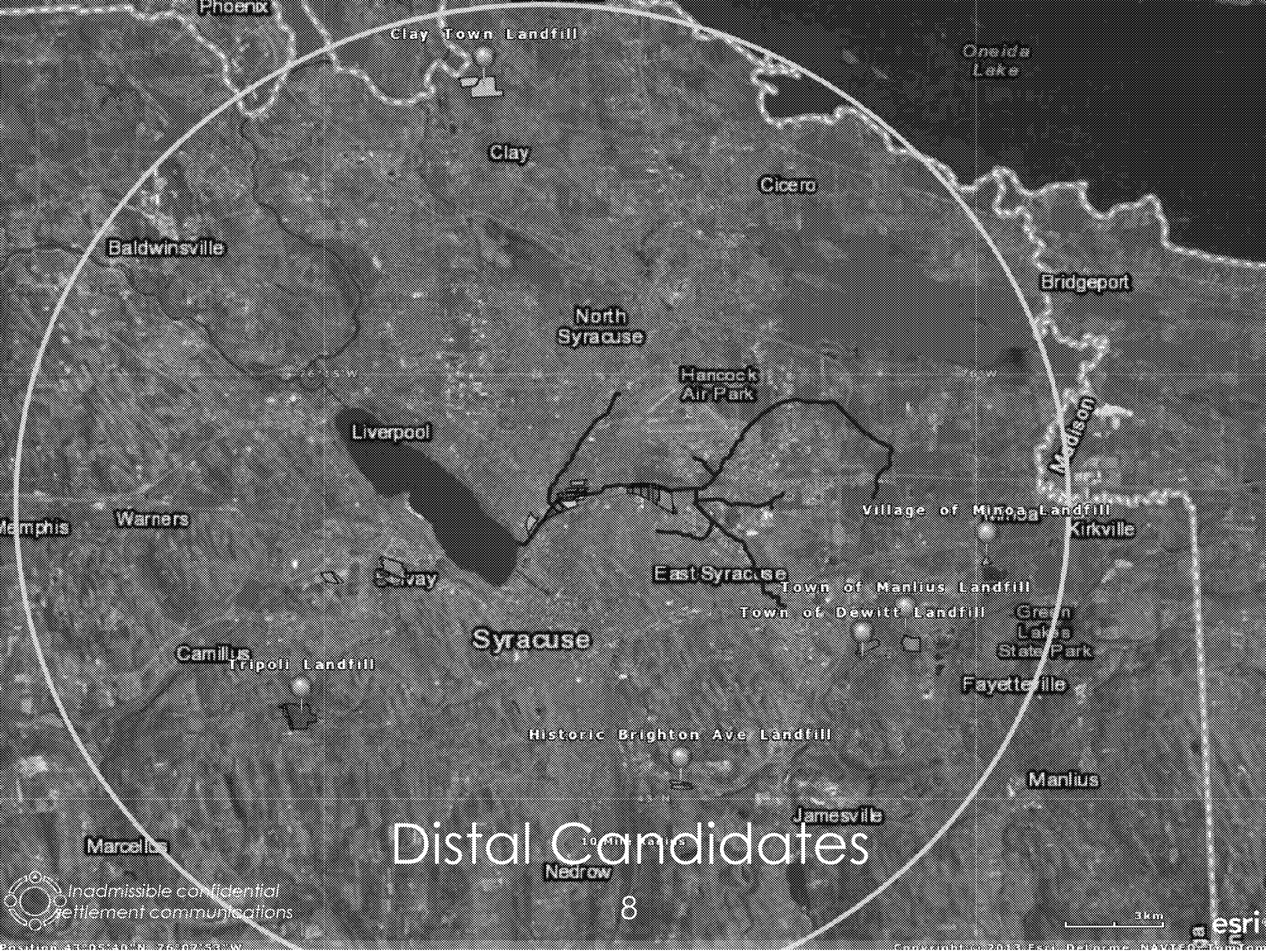

Distal Candidates

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Distal Candidates

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TECHNICAL FEASIBILITY SCREENING

- Ability to comply with disposal ARARs (Part 360)
  - >5' above groundwater elevation
  - >100' from property line, surface water, controlled lakes/streams (water supply)
  - >150' from Inactive Hazardous Waste Disposal Sites
  - >500' from tributary leading to drinking water reservoir
  - outside boundary of wetlands
  - outside 100-Year floodplain
- Waste stream compatibility
- Proximity to Lower Ley Creek
- Public Road Use
- Constructability
- Capacity to accept ~200,000 CY with a 100 ft. property-line setback

TECHNICAL FEASIBILITY SCREENING

Candidate	Ability to Comply with Disposal ARARS	Waste Stream Compatibility	Proximity to Lower Ley Creek (Miles)	Public Road use	Constructability	Capacity
Plaza East Property	Medium	MSW, dredge spoils	Borders creek	No	part of project	High
Crouse Hinds South Landfill	Medium	MSW,Industrial, dredge spoils	South Landfill-Borders creek	No	No apparent issues	Low - Medium
Crouse Hinds North Landfill	Medium	MSW, Industrial, dredge spoils	Adjacent (3rd Party access required)	No	Wetlands	Low - Medium
Salina Town Landfill	Medium	MSW, Industrial, dredge spoils	Borders creek	No	Utility ROW	High
Ley Creek Transfer Station	Low	Transfer Station	Borders creek	No	Utility ROW restricts use; limited available space	Low
Biltmore Street	Low	Unknown	1.3	Yes	Abuts Residential Area	Low - Medium
Former Syracuse China Landfill	Medium - Low	Industrial, sediment	2	Yes	Wetlands	Low - Medium
National Grid Wetland	Low	industrial (liquid)	2.4	Yes	Shallow GW; wetlands	Low - Medium
Ley Creek PCB Dredge Spoils	Low	Dredge spoils	2	Yes	limited access; limited available space	Low
Former GM IFG Facility	Medium	Industrial	2.7	Yes	No apparent issues	High
Historic City of Syracuse Landfill	Medium	MSW, C &D, Dredge spoils	Adjacent (3rd Party access required)	Yes	Shallow GW; Access may be restricted	High

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TECHNICAL FEASIBILITY SCREENING

Candidate	Ability to Comply with Disposal ARARS	Waste Stream Compatibility	Proximity to Lower Ley Creek (Miles)	Public Road Use	Constructability	Capacity
Wastebed 13 SCA	Medium	sediment	5.8	Yes	No significant issues	High
Clay Town Landfill	Low	MSW, industrial	13.7	Yes	Shallow GW; reopen closed site	High
Matthews Avenue Site	Medium	Industrial	4.8	Yes	Shallow GW	Medium
Village of Solvay Landfill	Medium	MSW, (?)	4.8	Yes	Shallow GW; Reopen closed site	Low - Medium
LCP Chemical	Medium	Industrial,SCA	4.8	Yes	Shallow GW	High
Camillus Landfill	Medium	C&D	7.1	Yes	Shallow GW	High
Tripoli Landfill	Medium	MSW, industrial	8	Yes	Shallow GW; Reopen closed site	High
Brighton Ave Landfill	Medium	MSW	8.1	Yes	Developed area; reopen closed site	Low
Town of Dewitt Landfill	Low	MSW, industrial	9.3	Yes	Shallow GW; Reopen closed site	High
Town of Manlius Landfill	Low	unknown	9.9	Yes	Abuts Residential Area; unsuitable; reopen closed site	High
Village of Minoa Landfill	Medium	unknown	13	Yes	Wetlands within footprint; limited available space; reopen closed site	Low

ADMINISTRATIVE FEASIBILITY SCREENING

- Potential to be considered "on-site" by USEPA
  - Within or adjacent to Ley Creek Site
  - Existing contaminants
- Potential for landowner cooperation
- State/local government approvability
  - Level of current state/local government involvement
  - Is the area considered "closed"?

ADMINISTRATIVE FEASIBILITY

Candidate	Potential to be Considered "On-Site" by USEPA				Potential for Landowner Cooperation	State/Local Government Approvability		
	Within LLC Site	Adjacent to Site	Existing Contamination	Summary		Current Involvement	Site Status	Summary
Plaza East Property	Yes	Yes	PCBs >50 ppm; metals	high	high	State still involved in Salina landfill area.	State has transferred lead to USEPA for Old Ley Creek Channel Portion	medium
Crouse Hinds South Landfill	No	Yes		medium	medium	NYSDEC -lead	ROD calls for consolidation of N and S landfills and wetland sediment with PCB 1-50 ppm	medium
Crouse Hinds North Landfill	No	Yes	PCBs> 50 ppm (to be removed)	medium	medium	NYSDEC -lead	ROD calls for consolidation of N and S landfills and wetland sediment with PCB 1-50 ppm	medium
Salina Town Landfill	No	Yes	PCBs > 50 ppm removed from Site; VOCS, SVOCs, Metals	medium	medium	NYSDEC –lead. Town performing work.	Remedial Design completed 2010; closure scheduled for Sept.2013.	medium
Ley Creek Transfer Station	No	Yes	PCBs1-32 ppm (dredge spoils/floodplain soil)	low	medium	Active County facility	Active	low
Billmore Street	No	No	info not found	low	low	none	-	low
Former Syracuse China Landfill	No	No	Lead	low	low	NYSDEC -lead	Remedial Action completed in 2002.	low
National Grid Wetland	No	No	PCBs> 50 ppm (to be removed); Metals	low	medium	NYSDEC -lead	Remedial Design in progress.	low
Ley Creek PCB Dredgings subsite	No	No	PCBs > 50 ppm removed from Site; other contaminants present.	low	medium	USEPA-lead	Remedial Action completed in 2000.	low
Former General Motors Inland Fisher Guide Facility	No	No	PCBs > 50 ppm removed from Site; other contaminants present.	low	medium	NYSDEC -lead	Remedial Design in progress.	low
Historic City of Syracuse Landfill	No	Yes	metals, PAHs	low	low	none	closed	low

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ADMINISTRATIVE FEASIBILITY

Candidate	Potential to be Considered "On-Site" by USEPA				Potential for Landowner Cooperation	State/Local Government Approvability		
	Within LLC Site	Adjacent to Site	Existing Contamination	Summary		Current Involvement	Site Status	Summary
Wastebed 13 SCA	No	No	Hg, PCB (incl. GM PCBj, PAH	low	low-medium	NYSDEC-lead	active	medium
Town of Clay Landfill	No	No	VOCs, PCBs, metals	low	low	NYSDEC-lead	Closed	low
Matthews Avenue Site	No	No	PCBs, VOCs, PAHs, Metals	low	low	NYSDEC -lead	open	low
Village of Solvay Landfill	No	No	PCBs	low	low	NYSDEC -lead	closed	low
LCP Chemical	No	No	Mercury, Xylenes	low	low	NYSDEC -lead	open	low
Camillus Landfill	No	No		low	low	Active Town Facility	open	low
Tripoli Landfill	No	No	PCBs	low	low	NYSDEC -lead	closed	low
Brighton Ave Landfill	No	No		low	low	none	closed	low
Town of Dewitt Landfill	No	No	VOCs, Metals	low	low	NYSDEC -lead	closed	low
Town of Manlius Landfill	No	No		low	low	none	closed	low
Village of Minoa Landfill	No	No		low	low	none	closed	low

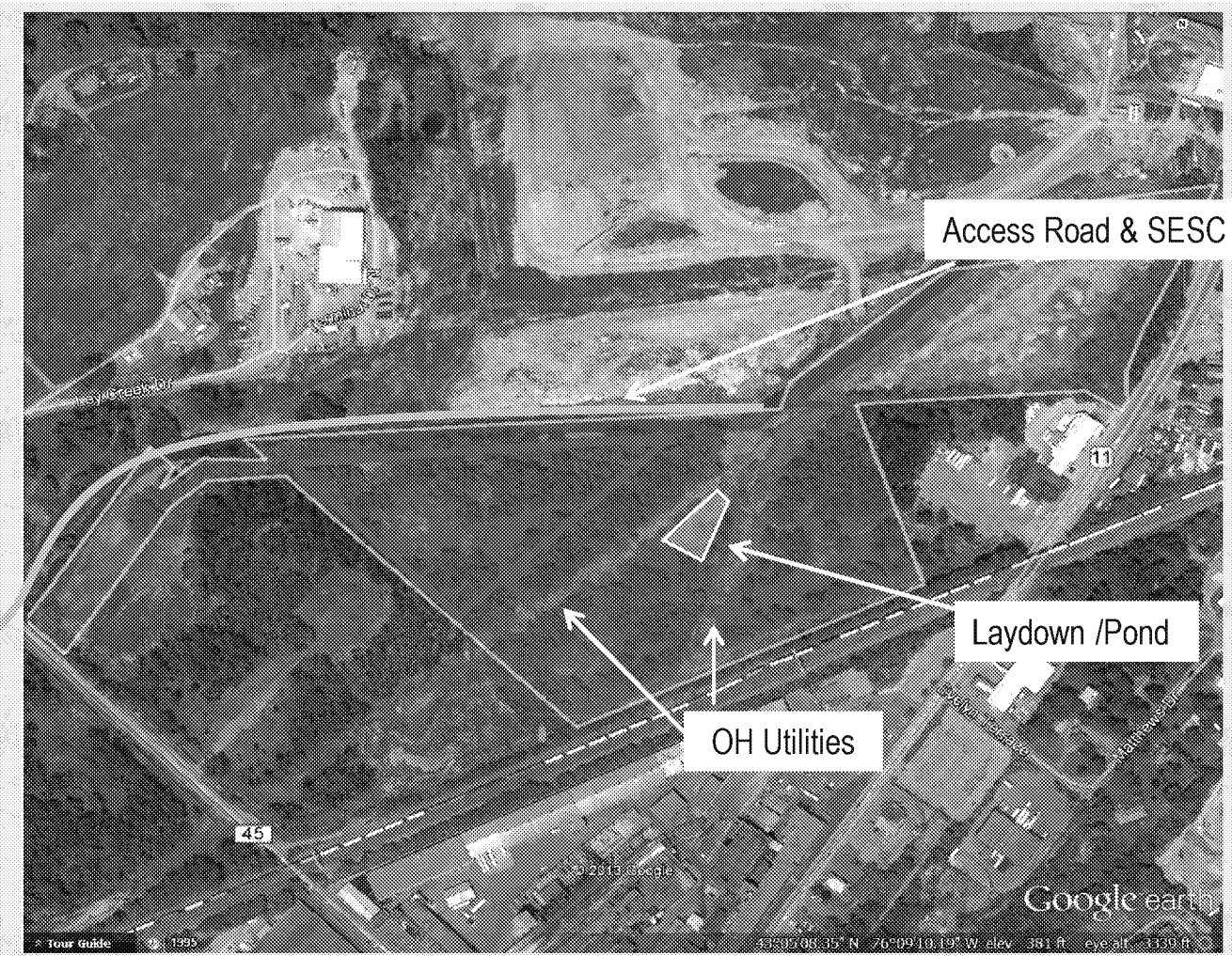
HIGH POTENTIAL LOCAL DISPOSAL OPTIONS

- Plaza East Property-two areas
- Town of Salina Landfill-Parcel 2
- Crouse Hinds- North Landfill
- Wastebed 13- SCA

PLAZA EAST

Plaza East North
2.8 Acres
Clean Fill
Plaza East South
- 5.5 Acres w setbacks
- Potentially Impacted Mat'l
45
Google earth

PLAZA EAST - SOUTH



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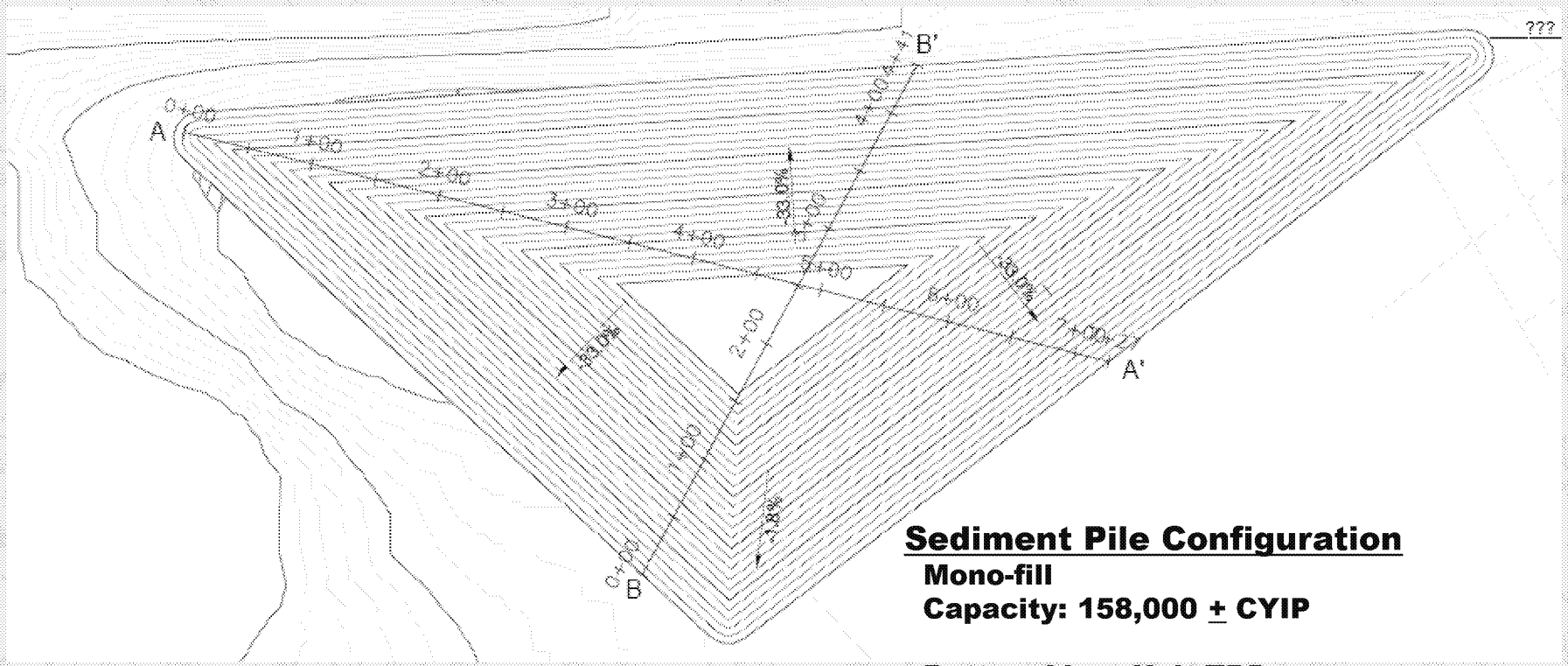
PLAZA EAST - SOUTH



Sediment Pile Configuration

Mono-fill

Capacity: 158,000 ± CYIP

Bottom Liner Unit-TBD

Cap Unit (~2ft Thick)

Gas Vent & Leachate Collection-TBD

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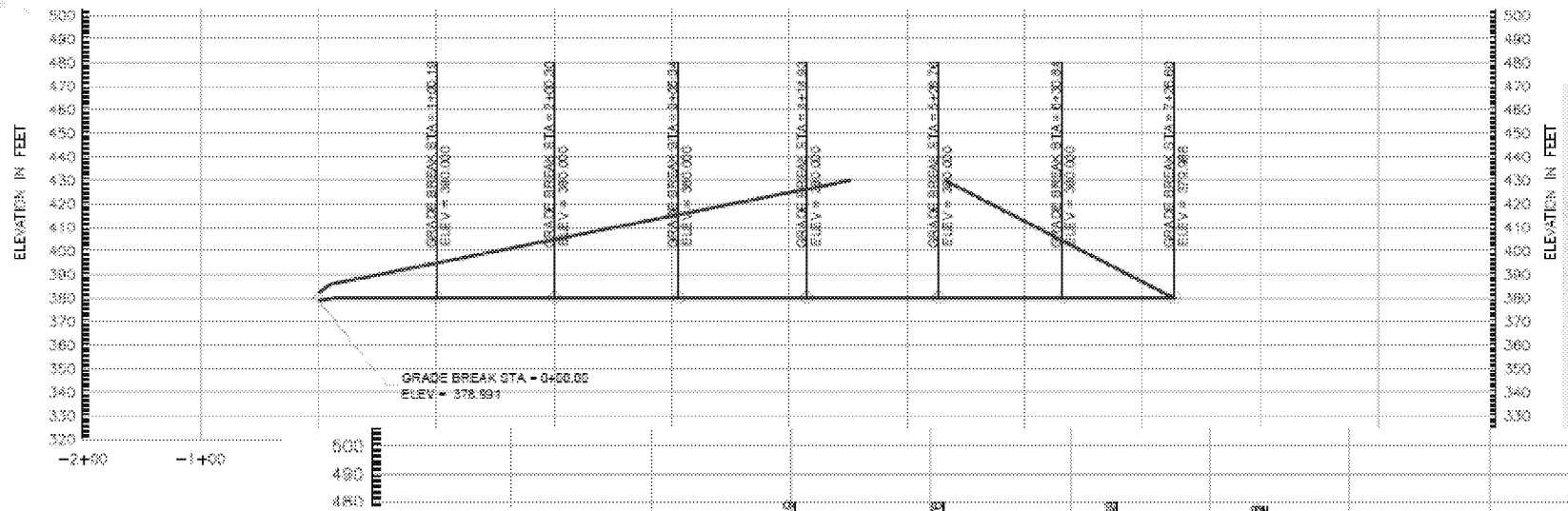
PLAZA EAST - SOUTH

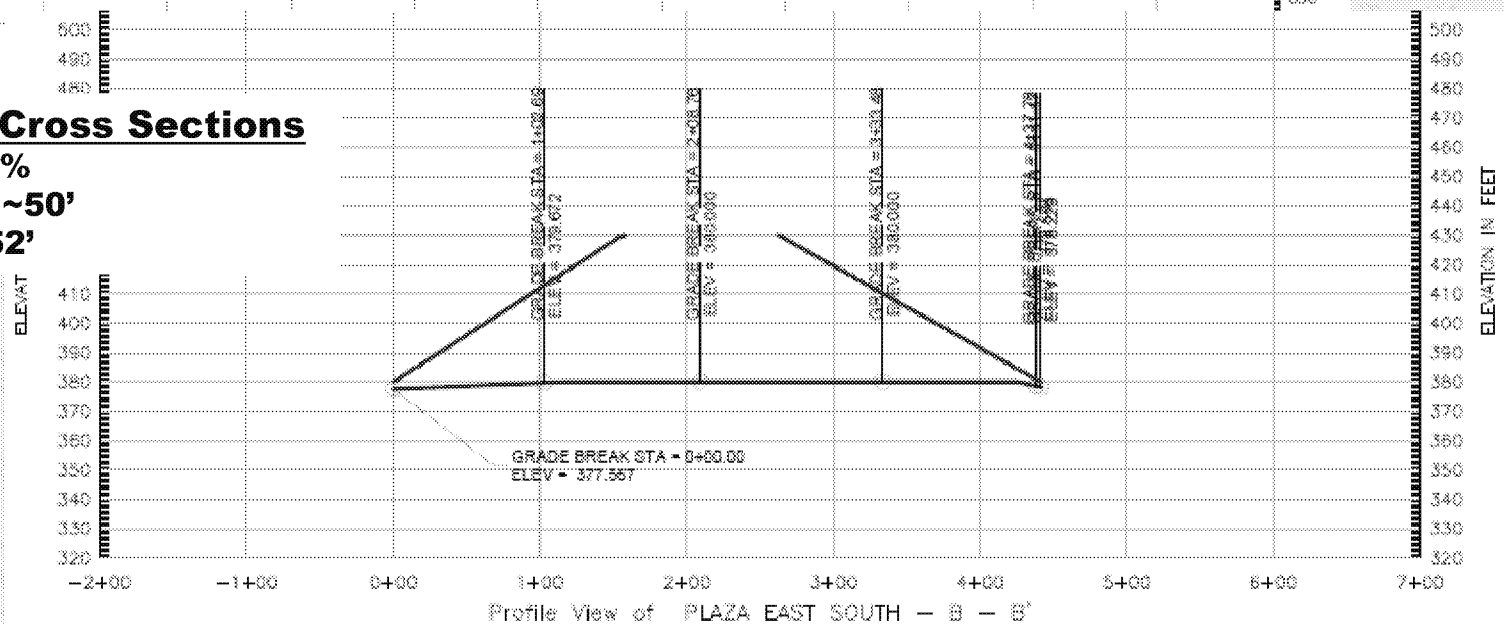


Sediment Pile Cross Sections

Max Grade = 33%

Waste Height = ~50'

Cap Height = ~52'



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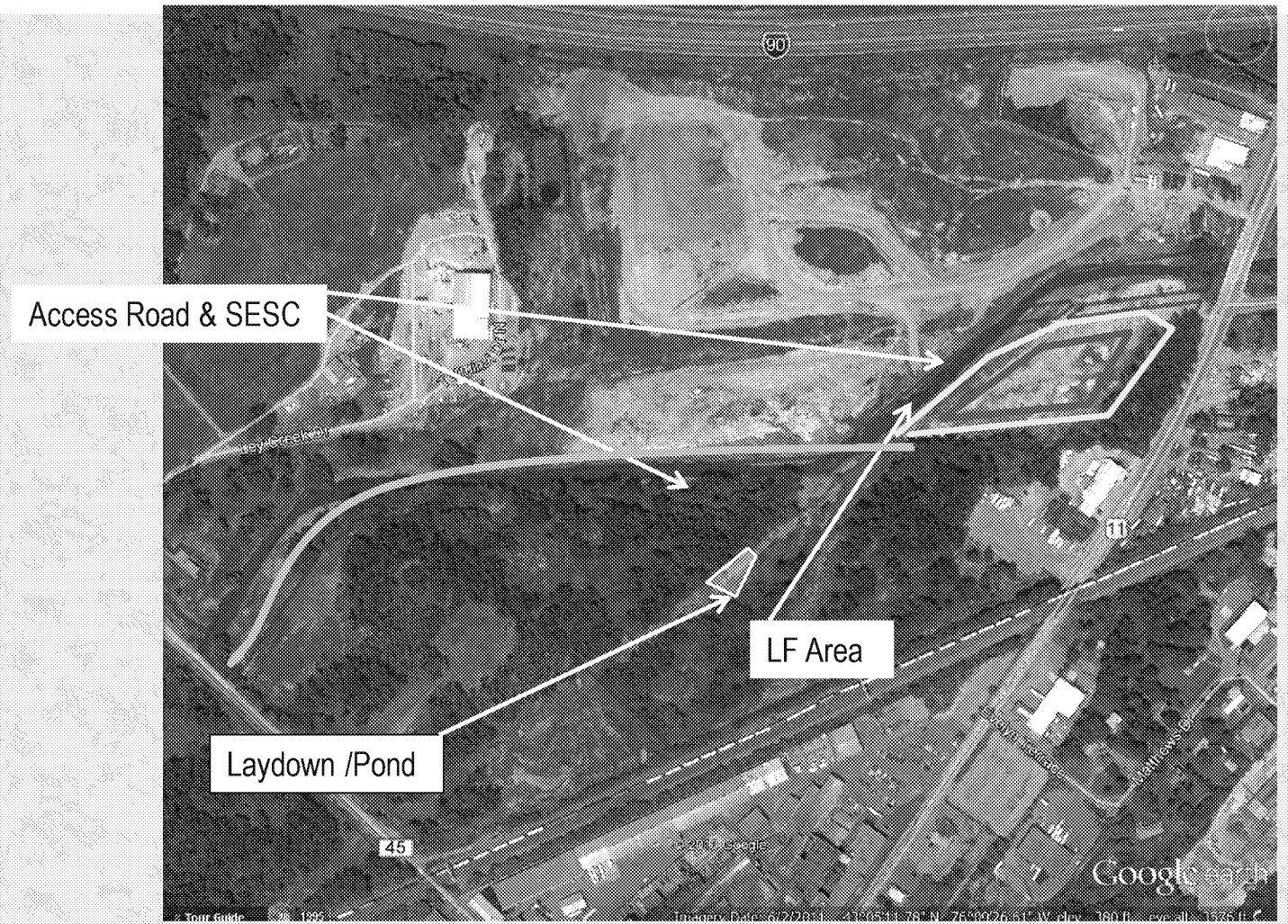
PLAZA EAST - NORTH



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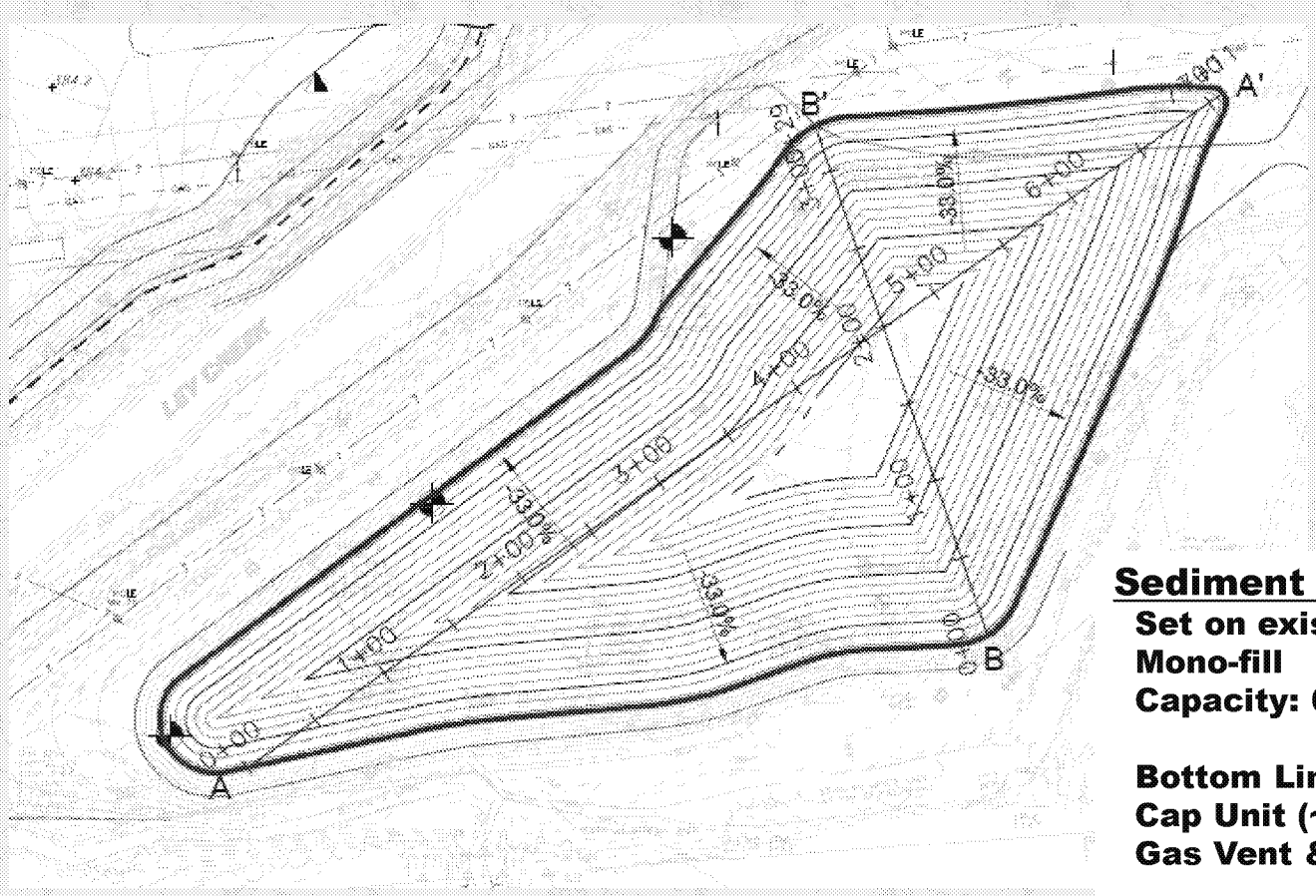
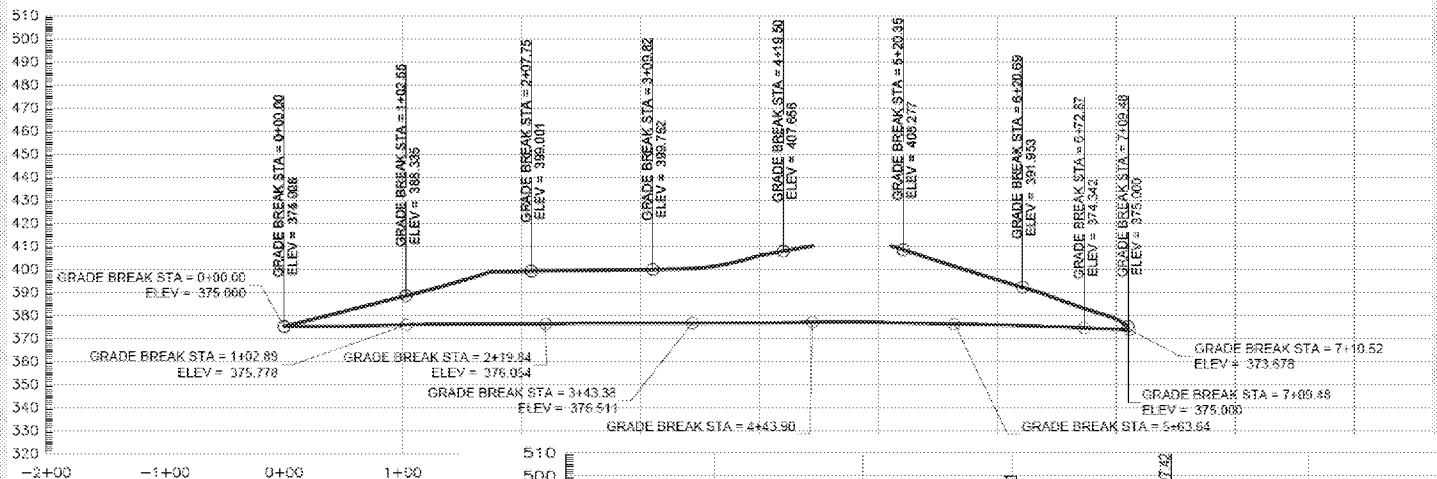


Sediment Pile Configuration

Set on existing fill
Mono-fill
Capacity: 60,000 ± CYIP

Bottom Liner Unit TBD
Cap Unit (~2ft Thick)
Gas Vent & Leachate Collection-TBD

PLAZA EAST - NORTH



Sediment Pile Cross Sections

Max Grade = 33%
Waste Height = ~35'
Cap Height = ~37'

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TOWN OF SALINA LANDFILL

Approx. Limits of Parcel 2

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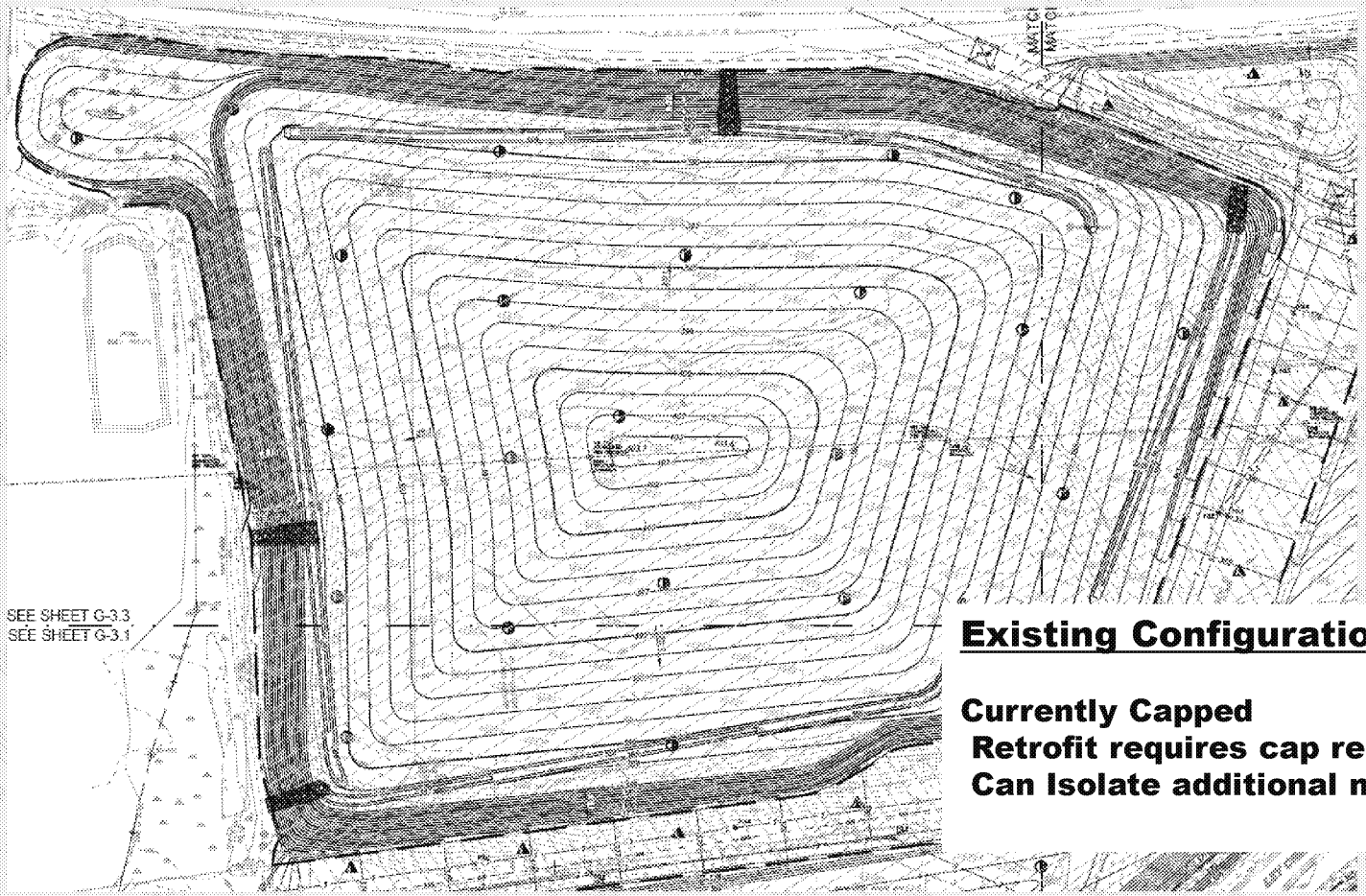
TOWN OF SALINA LANDFILL-PARCEL 2



Existing Configuration

Currently Capped
Retrofit requires cap removal (portion)
Can Isolate additional material w liner

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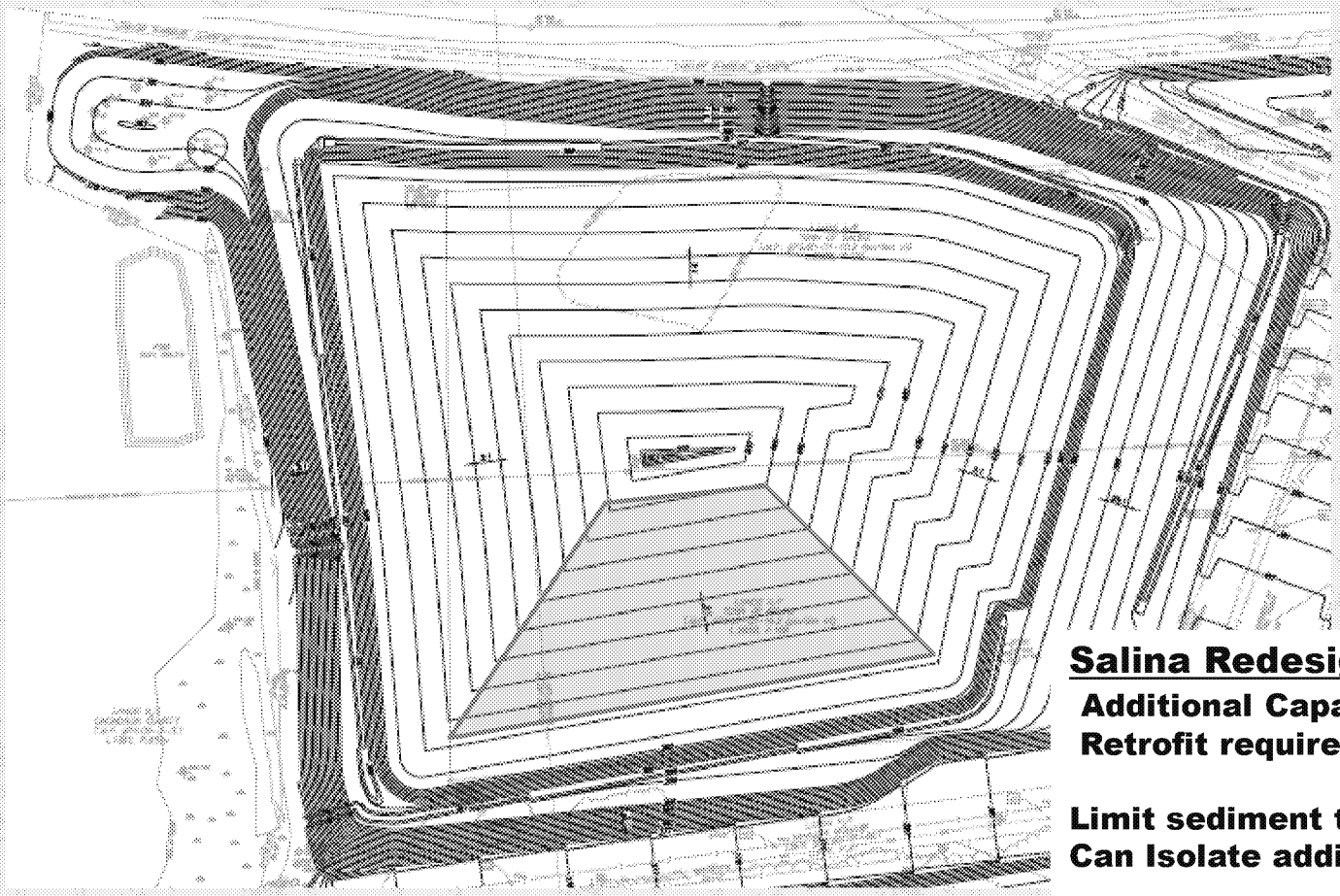
TOWN OF SALINA PARCEL 2– MAX CAPACITY



Salina Redesign for Max Capacity

Additional Capacity: ~ 800,000 CY
Retrofit requires cap removal (portion)

Limit sediment to one location within LF
Can Isolate additional material w/liner

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CROUSE HINDS - NORTH LF

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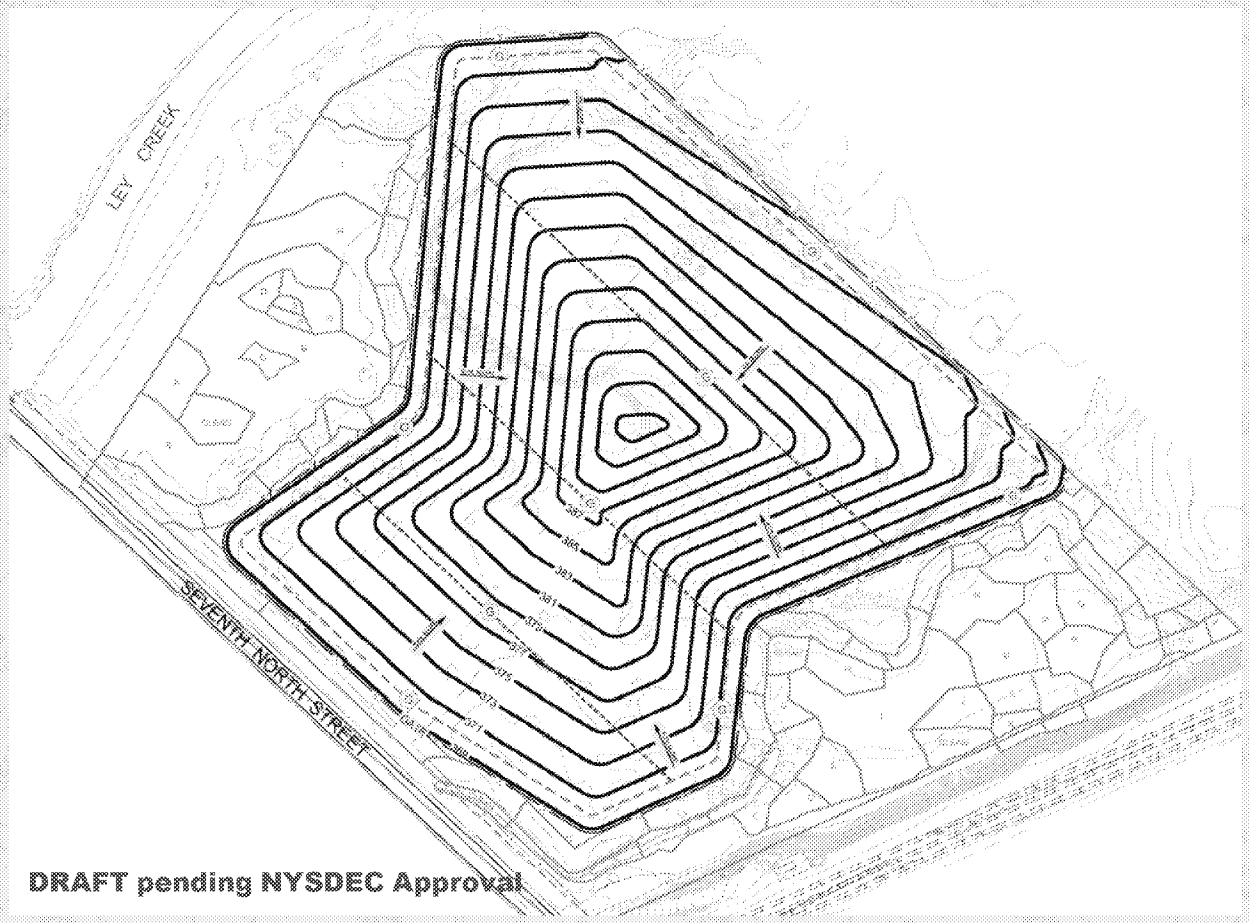
CROUSE HINDS – NORTH LF



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WASTEBED 13-SCA

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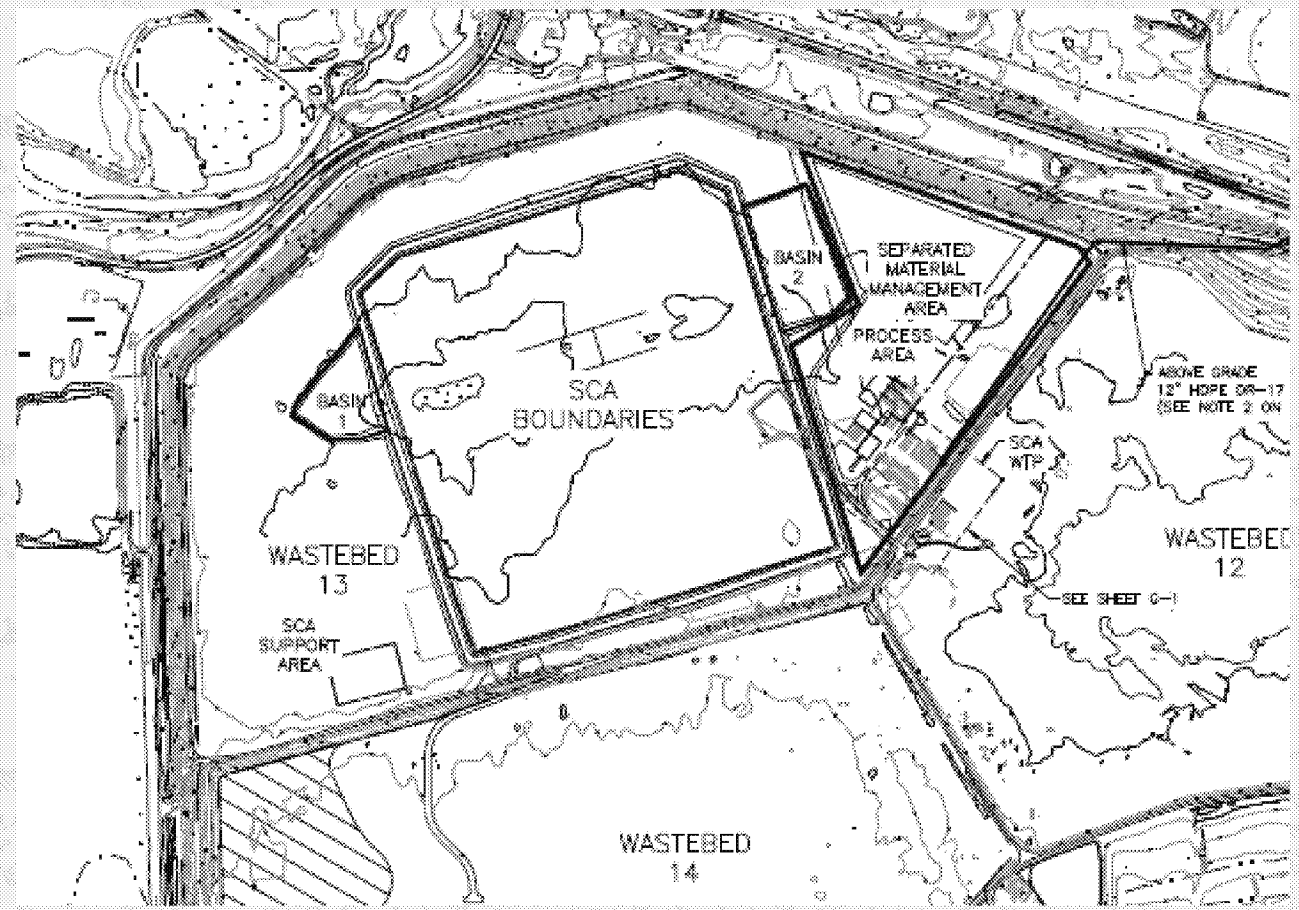
WASTEBED 13 SCA



Total Design Capacity 2,653,000 CY.

Est. volume to be dredged from lake bottom 2,200,000 CY.

Project progress as of 9/10/13: 731,000 CY.

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GREEN REMEDIATION CONSIDERATIONS

- USEPA and NYSDEC guidance call for minimizing environmental footprint of remediation.
- Significant reduction in fuel consumption and CO2 emissions by reducing the transport of a potentially large mass (up to 200,000 CY /~300,000 Tons?) material to a disposal facility.
  - Round trip to High Acres landfill is ~150 miles.
- Potential beneficial re-use of impacted sediment as cover for contaminated soil and/or landfill debris left in-place below engineered cell and cover
- Proper execution of the work and employing "right sized" equipment would reduce emissions and increase efficiency
- Other potential benefits…

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FOLLOW UP ISSUES

- Feedback on siting preferences and technical issues
- Determining landowner's willingness to cooperate and terms for participation
- Refining conceptual design approach
- Quantifying potential benefits – cost and environmental footprint considerations
- Determining potential to support both Lower Ley Creek Projects and Upper Ley Creek Projects.