SOUTH LEARNS

community vocational school
FIELD TRIP
RESEARCH CONCLUSION

**SOCIAL**
- Crime
- No free time activities
- Bad image
- Weak community / No pride
- Segregation
- Single parent families
- Low education

**SPATIAL**
- Vacant plots
- Food desert
- Connectivity / Infrastructure
- Mono functional areas
- Gang zones
- No access to lakeside

**ECONOMICAL**
- Unemployment
- No economical possibilities
- No housing market
- Low income households
- Catalyst needs
UNEMPLOYMENT IN CHICAGO

UNemployment rate:
- South Chicago: <7%
- 7-14%
- 14-21%
- >21%

21% unemployment rate
South Chicago
YOUTH UNEMPLOYMENT
SOUTH CHICAGO

82% unemployment rate for Black Teens

30% young Latino and Black Males without High School diploma

“I needed money so I chose to sell drugs even though I knew it was wrong — I needed it to provide for my family. The streets welcomed me with open arms.”

MANIFESTO

Not aiming to be the best of the few, but a model for the many

There is need for change
There is need to work
There is need for the South

A development that facilitates and enables the American people to produce for themselves and for their country
There is need for change. The United States of America, a country built on foundations of grandeur and perfection, is in a blinded but urgent state of emergency. As the river of disconnected waste and violently unsustainable consumption continues to swell, the canyon of inequality also grows larger and larger. The land of the free is now stagnant with exploited and isolated minorities exasperated by a lack of hope and possibilities.

There is need to work.

Chicago, the city of neighborhoods, has reached a crucial point in its development. The nation's third city is losing population and faces some of the worst violence and segregation in decades. The Southworks development provides an incredible opportunity to work toward this change.

There is need for the South.

The great American pioneering spirit needs to be rekindled. "South-Works" is a development for the American dream of the 21st Century. A dream built on foundations of humility and hope. A development that facilitates and enables the American people to produce for themselves and for their country. With pride, ingenuity, and radical action, we create an example for the nation.

**LOCAL FACILITIES**

<table>
<thead>
<tr>
<th>SOUTH-CARES</th>
<th>Presidential library</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOUTH-BELIEVES</td>
<td>Ecumenic cluster</td>
</tr>
<tr>
<td>SOUTH-PLAYS</td>
<td>Entertainment</td>
</tr>
<tr>
<td>SOUTH-LEARNS</td>
<td>Vocational schools</td>
</tr>
<tr>
<td>SOUTH-CLEANS</td>
<td>Recycle center</td>
</tr>
<tr>
<td>SOUTH-SINGS</td>
<td>Music studios</td>
</tr>
<tr>
<td>SOUTH-MAKES</td>
<td>Art community</td>
</tr>
</tbody>
</table>

**SOUTH WORKS**
VOCATIONAL EDUCATION
Proudly made in U.S.A.
“Now, you’ve got billions of people from Beijing to Bangalore to Moscow, all of whom are competing with you directly. And they’re — those countries are working every day, to out-educate and outcompete us.”

President Obama speech in Brooklyn
EDUCATION SYSTEM IN THE US

- High School Diploma
  - Kindergartens
  - Elementary/Primary School
  - Middle Schools
  - Junior High Schools
  - Senior High Schools
  - Combined Junior/Senior High Schools

- Associate Degree
  - Vocational Technical Institutions
  - Junior or Community Colleges

- Bachelor's Degree
  - Undergraduate Programs

- Master's Degree
  - Master Degree Studies

- Ph.D. or Advanced Professional Degree
  - Doctoral Studies
  - Professional Schools

- Postdoctoral Studies & Research
VOCATIONAL EDUCATION

Vocational Schools

[Diagram showing various levels of education including postdoctoral studies, doctoral studies, professional schools, and different types of schools like 4-year high schools, middle schools, junior high schools, senior high schools, combined junior/senior high schools, elementary/primary schools, kindergartens, and nurseries.]
President Obama Wants America to Be Like Germany—What Does That Really Mean?

STEVEN HILL | FEB 21 2013, 10:59 AM ET

3-4 days apprenticeship + 1-2 days theoretical classes
NEW SCHOOL MODELS IN US
P-TECH SCHOOL
HIGH SCHOOL + COLLEGE + WORLD OF WORK
EARLY COLLEGE SCIENCE TECHNOLOGY ENGINEERING AND MATHEMATICS SCHOOLS (ECSS)

- high school diploma
- college credits
- apprenticeship

[Diagram]

- corporate sponsor
ECSS SCHOOLS IN CHICAGO
EARLY COLLEGE SCIENCE TECHNOLOGY ENGINEERING AND MATHEMATICS SCHOOLS (ECSS)
COMMUNITY BASED SCHOOL
VOCATIONAL SCHOOL ORGANIZATION

- theoretical classes
- hands-on training
- apprenticeship
- community space

startups
BUT WHERE ARE THE JOBS?

Unemployment in South Chicago
Jobs in South Works:
- construction
- green technologies
- hospitality
- etc.
SOUTH CHICAGO WORKS

+ Practical Skills
+ Entrepreneurship education
SOUTH CHICAGO WORKS
JOBS IN SOUTH CHICAGO

Practical Skills

Entrepreneurship education

Small Business Improvement Fund (SBIF)
COMMERCIAL AVENUE TIF

DESIGNATION: 2002
EXPIRATION: 2025
TOTAL PROJECT COST: $6,175,000
TIF APPROVED: $2,175,000

- reinforce the retail, service and residential amenities
- rehabilitation and new structures
- streetscaping, landscaping, etc.
- bring private investment near the area’s three Metra stations
- support job readiness programs

SOUTH CHICAGO TIF

DESIGNATION: 2000
EXPIRATION: 2024
TOTAL PROJECT COST: $6,000,000
TIF APPROVED: $2,000,000

- facilitate the neighborhood’s revitalization
- site assembly and land preparation for new construction projects
- promotion of existing structure
- job training
- day care services
VOCATIONAL SCHOOL
PROGRAM ANALYSIS
TYPICAL VOCATIONAL SCHOOL

- SERVICE SPACES: 25% of total program, 2300 m²
  - Common, administrative, and service spaces

- TEACHING ROOMS: 35% of total program, 2700 m²
  - Classrooms, library

- WORKSHOPS: 40% of total program, 4000 m²
  - Workshops, machines, and materials

Total program area: 9000 m²
Number of students: 1000
URBAN STRATEGY
GANG ZONES
DIVISION OF NEIGHBOURHOOD

LATIN KINGS

BLACK P STONES
RESIDENTIAL BLOCK IN SOUTH CHICAGO
RESIDENTIAL BLOCKS ACROSS THE USA
CHICAGO, DETROIT, STLOUIS, INDIANAPOLIS, PITTSBURGH
VACANT PLOTS
ACROSS THE USA
BLOCK INFILL

vacant land
FAR = 0

multi-story residential
FAR = 1.2

single floor retail
FAR = 1.2
ZONING REGULATIONS

Zoning:
RT 4- residential two-flat, townhouse, multi-unit
FAR - 1.2
VARIATIONS

Zoning:
RT 4- residential two-flat, townhouse, multi-unit
FAR - 1.2

single plot
max area 378m²

double plot
max area 756m²

three plots
max area 1134m²

four plots
max area 1512m²
SPECIALIZATIONS
CULINARY SCHOOL
ENTREPRENEURSHIP SCHOOL
SPECIALIZATIONS
BLOCK SCHOOL

Carpentry School

Culinary School

Entrepreneurship Program

Community Activities
DAILY ACTIVITIES OVERLAP

carpentry school starts work
culinary breakfast service
pre-school daycare
entrepreneurship classes

kitchen biggest activity for lunch
serving both school and public

increase of after-school activities
daycare and basketball

dinner in restaurant
after work classes

last activities basketball
CANTEEN / EVENT SPACE
CARPETNRY SCHOOL
OPTIMAL SPATIAL ORGANIZATION

- Material storage
- Supply access
- Main entrance
- CNC room
- Painting room
- Head of workshop
- Bench room
- Classroom
- Restroom
- Wardrobe
- Tool storage
ENTREPRENEURSHIP SCHOOL
OPTIMAL SPATIAL ORGANIZATION

Diagram showing the layout of the ENTREPRENEURSHIP SCHOOL with areas labeled as:
- Teacher office
- Restroom
- Classroom
- Canteen/Event space
- Wardrobe
- Reception
- Library/Study room

Main entrance indicated at the bottom left.
FLEXIBLE SHARED SPACES
MULTIFUNCTIONAL CORE

assembly room, event space, basketball court, canteen, restaurant
SITE PLAN
VOCATIONAL SCHOOL SYSTEM

entrepreneurship school

culinary school

carpentry school

culinary + carpentry school

culinary + entrepreneurship school
1 PLOT SCHOOLS

entrepreneurship school

culinary school

 carpentry school
2 PLOT SCHOOLS

culinary + carpentry school
culinary + entrepreneurship school
4 PLOT SCHOOL
CULINARY+CARPENTRY+ENTREPRENEURSHIP
NEIGHBOURHOOD VOCATIONAL SCHOOLS
NEIGHBOURHOOD VOCATIONAL SCHOOLS

- culinary
- carpenter
- entrepreneurship
CULINARY SCHOOL

fresh vegetables
CARPENTRY SCHOOL

renovation

new buildings
STREETSCAPE

- Parks
- Sport fields
- Green verges
- Back alley renovation
PUBLIC STREET FRONT
SPATIAL PROGRAM

- Corridors: 150m²
- Changing rooms: 52m²
- Restrooms: 86m²
- Administration: 42m²
- Library: 70m²
- Classroom: 48m²
- Classroom: 48m²
- Machine room: 102m²
- Tool storage: 15m²
- Special rooms: 30m²
- Terrace cafe: 70m²
- Training kitchen: 97m²

Total area: 1425 m²
4 PLOTS
SUPPLY AND STORAGE
THEORETICAL CLASSES
TERRACE VISUAL
FLEXIBLE SPACE

bench room

canteen

restaurant

gallery

event space
COMMUNICATION GALLERIES
CLIMATE DIAGRAM SUMMER

- heat pump with hot water tank + shaving boiler
- geothermal probe
- Summer ventilation
  - natural ventilation
  - stack effect
  - manually operable windows
- Winter ventilation water management
  - rain-water collection
  - water tank on terrace to restrooms to tap
  - solar collectors
  - underfloor heating
  - ventilation unit
  - heat exchanger
  - expelled air heat exchanger

natural ventilation stack effect
manually operable windows
CLIMATE DIAGRAM WINTER

- Heat pump with hot water tank + shaving boiler
- Geothermal probe
- Summer ventilation
- Natural ventilation
- Stack effect
- Manually operable windows
- Winter ventilation water management
  - Rain-water collection
  - Water tank on terrace
  - Restrooms to tap
  - Solar collectors
  - Underfloor heating
  - Ventilation unit
  - Heat exchanger
  - Expelled air heat exchanger
  - Expelled air heat exchanger
PRINCIPAL CONSTRUCTION

- Glulam columns
  - 300x300mm

- Concrete foundation

- Glulam beams
  - 50x250mm
FLOOR CONSTRUCTION AND CROSS BRACING

Timber beams
50x250mm

Steel cross-bracing
Ø 20mm
INSULATED SKIN

Vertically sliding glass panels 3x5m

Triple-glazing rooflight

Triple-glazing windows in wood frames

2 layer polycarbonate 40mm; 25mm

Vertically sliding glass panels 3x5m
Mechanically folding steel grating gates

Outer layer

Steel grating 100x100mm

Mechanically folding steel grating gates
FACADE GRATING
FACADE GATE DETAIL

motor for sliding doors

motor for hinged shutter

single glass sheet
WALL SYSTEM

Steel profiles
300/40 mm

Glulam column
300/300 mm
OUTER WALL

polycarbonate multi-wall sheet 40mm
polycarbonate multi-wall sheet 25mm
CLASSROOM WALL

polycarbonate multi-wall sheet 25mm