Guadalajara

CIUDAD CREATIVA DIGITAL

CARLORATTIASSOCIATI SRL with DENNIS FRENCHMAN

ACCENTURE + ARUP + ENGRAM STUDIO + FUNDACION METROPOLI + MOBILITY IN CHAIN
MIT SENSEABLE CITY LAB + STUDIO FM MILANO

Guadalajara

CIUDAD CREATIVA DIGITAL

Plan Maestro de Guadalajara - Ciudad Creativa Digital
Noviembre 2012

CIUDAD CREATIVA DIGITAL

Un proyecto para:
Guadalajara CCD A.C.

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Mexico City

2009 2010 2011 2012 2013 2015 2019 2023

May June July August September October November December January February March April May June July August September October November December January February March April May June July August September October November December January February March April May June July August September October November December January February March

From concept to masterplan

- Initial concept design for **CCD** — Mexico City
- Initial research of **creative places** — Mexico City
- First research trip to US media companies — California
- Research trip to European media companies — UK/France
- Development of conceptual vision of CCD smart city — Mexico City
- Research into **smart cities** — Mexico City
- **Initial contact with MIT** for expert validation on concept — Boston
- Research trip to smart city projects — Shanghai/Seoul DMC/Songdo/Singapore
- Development of Strategic Guidelines by MIT-CRA — Boston/Turin
- Workshop at MIT on Strategic Guidelines — Boston
- Submission of **Strategic Guidelines Report** — Mexico City
- Conceptualization of Smart City Telecom Infrastructure — Mexico City/Guadalajara
- Initial plans for Telecom infrastructure - Guadalajara
- **Masterplan design awarded to CRA Consortium** — Boston/London/New York/Turin/Milan/Madrid/Mexico City
- Masterplan "kick off" workshop — Guadalajara
- Masterplan workshop — Guadalajara
- Masterplan workshop — Barcelona
- **Submission of Masterplan Design** — Guadalajara

Site selection to land development

- Scoring analysis of candidate cities — Mexico City
- Initial site scouting — Guadalajara/Tijuana/Puebla/Monterrey
- **Four finalist cities notified** — Guadalajara/Tijuana/Puebla/Monterrey
- **Site assessment trip** — Guadalajara/Tijuana/Puebla/Monterrey
- MIT-CRA work on site selection analysis
- **Site selected** and notified — Guadalajara
- Initial land acquisition — Guadalajara
- **Phase 1: mobilize development of catalyst projects**
- **Phase 2: expand to critical mass**
- **Phase 3: complete build of CCD polygon**

Project governance and investment

- **ProMexico joined DUIS** group — Mexico City
- Design of **ProaAV Fund** - Mexico City
- Initial project discussion with **Secretería de Economía** (SE) — Mexico City
- Implementation of ProAV Fund
- **Directive Board established** for project headed by Lorenza Martínez (SE) — Mexico City
- DUIS prevalidation process — Guadalajara/Tijuana/Puebla/Monterrey
- Development of **Phase 1 Business Plan and Governance Model** — Guadalajara/Mexico City/London
- ProMexico Joined MIT Senseable City Lab Consortium — Boston
- Formalization of **Guadalajara CCD A.C.** headed by Octavio Pargar (CANIETI)
- IBM confirm participation in project — Guadalajara
- **Inauguration of newly elected mayor of Guadalajara** Ramiro Hernandez Garcia
- DUIS approved — Guadalajara
- **Inauguration of newly elected President of Mexico** Enrique Peña Nieto
- **Inauguration of newly elected Governor of Jalisco** Aristoteles Sandoval Diaz

Socialization and promotion of CCD

- Development of initial CCD branding — Mexico City
- Preparation of promotional material for World Economic Forum — Boston/Turin/Milan/Mexico City
- CCD presented at **World Economic Forum** — Davos
- **Public unveilment** of CCD project — Guadalajara
- **Socialization process** with public initiated — Guadalajara
- Initial roadshow - London
- European Roadshow — UK/France/Germany
- West Coast Roadshow — San Diego/LA/San Francisco/Vancouver/Seattle
- East Coast Roadshow — NY/Montreal/Toronto
- Foro Ciudad 3 — Guadalajara
- Foros "Cauce de Participacion Institucional" — Guadalajara

EL EQUIPO

carlorattiassociati srl
Walter Nicolino & Carlo Ratti

carlorattiassociati | Walter Nicolino & Carlo Ratti es un estudio de arquitectura en rápido crecimiento establecido durante el verano de 2002 en Turín, Italia. Basado en el estudio de Carlo Ratti en el Massachussetts Institue of Technology, la oficina se encuentra actualmente involucrada en el desarrollo de proyectos en Europa, America y Asia. El trabajo de la oficina de arquitectura se enfoca en revolucionar el como utilizamos la informática urbana en el ámbito de la arquitectura, trabajando todas y cada escala hacia un futuro social, económica y ambientalmente sustentable. Entre sus proyectos mas recientes se encuentran el diseño de la sede de la casa de moda líder Trussardi en el centro de Milán, Italia, las viviendas Tsunami-Safe[r] en Sri Lanka, The Cloud para los Juegos Olimpicos de Londres 2012 y el Pabellón de Agua Digital de la Expo en Zaragoza, España. El estudio se encuentra actualmente involucrado en el diseño de nuevas ciudades tanto en la Región del Golfo como en Centroamérica. El estudio ha sido seleccionado en repetidas ocasiones como una de las oficinas de mayor nivel y prestigio en Italia por la Bienal de Venecia en 2004, 2006 y 2010, a si mismo a recibido numerosos galardones internacionales, incluyendo 'Best Invention of the Year´ por parte de Time Magazine y su trabajo ha sido destacado en reconocidas publicaciones internacionales incluyendo el New York Times, el Boston Globe, Der Spiegel, Discovery Channel, BBC, Domus y Abitare.

Team
Carlo Ratti / Walter Nicolino / Jenni Young / Andrea Galanti / Giovanni de Niederhausern / Alberto Bottero / Andrea Cassi / Pietro Leoni / Antonio Atripaldi / Rene Perez Ignacio / Sofia Cornejo / Luis Mesejo

junto a:

Prof. Dennis Frenchman

Con motivos de este proyecto, participara junto a CRA, el Profesor Dennis Frenchman de MIT, quien jugó un papel central en la selección del Parque Morelos como área del proyecto, en el desarrollo de las líneas de actuación estratégica y en el diseño urbano de CCD. El profesor Frenchman se encuentra entre las autoridades lideres del mundo con respecto al diseño y desarrollo de ciudades creativas y de medios digitales, así como en el sector digital publico. Entre su experiencia cabe destacar el diseño de Seoul Media City en Korea, Milán Digital en Zaragoza, España, Media City: UK en Manchester y Twofour54 Media Zone en Abu Dahbi. Es director del Centro de Urbanismo Avanzado de MIT e investigador co-principal en Making Clean Energy Cities en China, un estudio de suma importancia para la Energy Foundation.

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Accenture es una firma global en manejo en consultaría, tecnología de servicios y externalizacion de compañías con mas de 257,000 personas sirviendo a cliente en mas de 120 países. Combinando una inigualable experiencia, capacidades integrales que comprenden todas las industrias y funciones de negocio, asi como una extensiva investigación acerca de las compañías mas exitosas del mundo; Accenture colabora con sus clientes para ayudarlos a convertirse en negocios y gobiernos de alto rendimiento. Accenture es una compañía Fortune 500 enlistada en la bolsa de valores de Nueva York. La compañía generó ingresos por $27.9 billones de dólares durante el año fiscal finalizado el 31 de Agosto de 2012. La oficina de Ciudades Globales Inteligentes de Accenture esta comprendida por profesionales expertos dedicados al programa de desarrollo urbano. Cuentan con proyectos tanto concluidos como en desarrollo en America Latina, Asia, Europa y el Medio Oriente. El trabajo con respecto a Ciudades Inteligentes es cliente-independiente y se impulsa por su valor. Trabajan con ciudades para identificar sus retos y oportunidades para así desarrollar soluciones arquitectónica y programáticamente relevantes. Su enfoque esta en ayudar a las ciudades a alcanzar su valor estratégico de TIC resolviendo sus retos urbanos y trabajando a la punta del diseño físico y digital, no solo con un enfoque de soluciones tecnológicas, también con componentes 'suaves' como modelos de negocio, modelos de gobernanza, y estrategias de innovación financiera que fomenten la creación de un valor socio-económico y ambiental a largo plazo. Accenture cuenta con oficinas y operaciones en mas de 200 ciudades en 54 países. Con motivos de este proyecto han formado un equipo involucrando expertos con experiencia en mercados locales, su centro internacional de excelencia en Ciudades Inteligentes con base en Londres, así como expertos en tecnologías provenientes de EU.

Team
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Arup
www.arup.com

Arup es una firma global de diseñadores, ingenieros, planeadores y consultores de negocio que proporciona una diversa gama de servicios profesionales a clientes alrededor del mundo. Arup cuenta con un personal que supera los 10,000 trabajadores, ubicados en 92 oficinas en 37 países; trabajando de forma paralela en mas de 10,000 proyectos en el campo del diseño y la construcción. Arup es reconocido por sus expertos especializados en múltiples disciplinas que comprenden todos los aspectos del medio físico construido, proporcionando así, un alcance interdisciplinario que provee una completa gama de habilidades técnica y de conocimiento. Desde su concepción en 1946, ha sido la fuerza creativa detrás de la mayoría de los diseños mas innovativos y sustentables del mundo. Arup se enfoca en la practica de tres principales áreas a nivel global: edificación, infraestructura y consultaría. Aunado al hecho de contar con un acercamiento interdisciplinario que significa que cada proyecto puede involucrar gente de todos o cada uno de los sectores en los cuales opera, su objetivo fundamental es el de reunir al mejor equipo profesional en el mundo para responder a las necesidades de sus clientes. Con motivos de este proyecto Arup ha conformado un equipo de expertos en sustentabilidad, infraestructura urbana e informática urbana. El equipo esta integrado por personal en nuestras oficina de Madrid, Londres y Nueva York.

Team
Pablo Lazo / Chris Lyth / Lean Doody / Ramon Rodriguez / Francisco Aguirre / Vincent Lee / Alex Mitchell / Jose Garcia

Fundación Metrópoli
www.fmetropoli.org

Fundación Metrópoli es una organización internacional a la vanguardia en la generación de nuevas instituciones de capital intelectual cuya aspiración es contribuir a la innovación y el desarrollo de ciudades y regiones a través de la investigación, intercambio e implementación de conocimiento con el objetivo de construir un futuro sustentable. El objetivo de la Fundación es fungir como catalizadora de transformaciones positivas en las ciudades y paisajes del siglo 21. Con base en Madrid (España) desde 1997, Fundación Metrópoli tiene sus orígenes en la primera 'City Science Center' fundada por la Universidad de Pensilvania, EU. No existe institución individual capaz de responder a la complejidad de un mundo globalizado, por tal motivo una característica clave de Fundación Metrópoli es su trabajo en colaboración con redes de excelencia internacional. Por lo que busca asociarse con un amplia gama de profesionales provenientes de diferentes lugares y bagajes educativos para así generar conocimiento hacia una nueva cultura espacial. Su filosofía enfocada a la acción, guía el entendimiento que se tiene sobre las dinámicas de la ciudad, su conexión con el entorno y su papel en las futuras actividades de una sociedad del siglo 21. Su objetivo fundamental es el de concebir una mejor calidad de vida fomentada a su vez por la participación de aquellos que viven, trabajan, juegan y aprenden en las ciudades.

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Alfonso Vegara / Guillermo Sánchez / Ángel de Diego / Mark Dwyer / Lorena Sicilia / Andrea Imaz / María Diez / Aaron Kelley

Engram srl
www.engram.it

Engram es una oficina de visualización digital con base en Italia con mas de 15 años de experiencia, cuya especialización se basa en la visualización arquitectónica. Gracias a su bagaje arquitectónico, su trabajo toma una forma precisa, teniendo por objetivo la comunicación emocional material generada desde la arquitectura misma. Calidad, responsabilidad, habilidades orientadas a la resoluciones de problema y capacidades técnicas, hacen de Engram Studio la opción que una amplia gama de arquitectos alrededor del mundo eligen.

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Paolo Zambrini / Riccardo Zema / Thomas Arici / Francesco Spendio / Samuele Ballardini

Mobility In Chain
www.michain.com

MIC | Mobility in Chain con base en Milan, nace de la creencia de que la movilidad tiene una fuerte influencia en la forma en que vivimos y nuestra calidad de vida. Así mismo, MIC se creo a partir de la ambición de mejorar la calidad de vida a través de un profundo entendimiento de como nos movemos. En línea con su previa experiencia profesional, el equipo de MIC se enfoca en proveer consultaría en transporte a desarrolladores, planes maestros y entidades publicas en general alrededor del mundo. MIC adopta una visión innovativa y sustentable de la movilidad basada en la creencia de que el proceso de planeación urbana no debe ser objeto del pensamiento individual en busca de acercamientos de impulso al tráfico; por el contrario el seguimiento del nuevo urbanismo, el cual alienta los barrios compactos, densos y de uso mixto que a su vez marcan las premisas correctas para la aplicación de una forma de transporte original, caminable y de fomento al ciclismo y al transporte público como medios de movilización favorecidos. La particularidad de MIC yace en la combinación de los principios previamente mencionados y del entendimiento de la necesidades de sus cliente sumado a los requerimientos de las entidades publicas, que a su vez afrontan todos y cada uno de los temas relacionados a los medios transporte, desde impacto del trafico hasta estudios de ingenierías civiles.

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Studio FM milano srl
www.studiofmmilano.it

Studio FM Milano es una oficina de diseño grafico líder. Con sede en Milán, Italia, se especializa en diseño grafico, con especial atención a dirección de arte, identidad corporativa, libros, exhibiciones e instalaciones tanto de diseño así como diseño web. Los proyectos de Studio FM han recibido numerosos galardones incluyendo el European Design Award en el '08, '09' y '10 en Estocolmo, Zurich y Rotterdam.

Team
Sergio Menichelli / Luca Terraneo

THE TEAM

carlorattiassociati srl
Walter Nicolino & Carlo Ratti

carlorattiassociati | Walter Nicolino & Carlo Ratti is a rapidly growing architectural practice that was established in the summer of 2002 in Turin, Italy. Drawing on Carlo Ratti's research at the Massachusetts Institute of Technology, the office is currently involved in many projects in Europe, America and Asia. The work of the practice aims to revolutionize how we use urban informatics in architecture, working at every scale towards a future that is socially, economically and environmentally sustainable. Among the most recent projects are the design of the headquarters of the leading Trussardi fashion house in the center of Milan, Italy, 1000 Tsunami-Safe(r) houses in Sri Lanka, the Cloud for the London 2012 Olympics and the Digital Water Pavilion at the 2008 World Expo in Zaragoza, Spain. The office is also currently involved in the design of new cities in the Gulf region and Central America. The practice, selected in 2004, 2006 and 2010 for The Venice Biennale exhibition as one of the top offices in Italy, has received many awards, including Time Magazine's 'Best Invention of the Year' - and its work has been featured in leading publications worldwide, including the New York Times, the Boston Globe, Der Spiegel, Discovery Channel, BBC, Domus and Abitare.

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together with:

Prof. Dennis Frenchman

For this project, CRA will be joined by Professor Dennis Frenchman of MIT, who played a central role in the selection of the Parque Morelos site, development of Strategic Guidelines, and urban design of CCD. Professor Frenchman is among the world's leading authorities on the design and development of digital media and creative cities, and the digital public realm. Among his experience is design of the Seoul Digital Media City in Korea; Mila Digital in Zaragoza, Spain; Media City: UK, Manchester; Twofour54 Media Zone in Abu Dhabi. At MIT he is director of the Centre for Advanced Urbanism and co-Principal Investigator on Making Clean Energy Cities in China, a major study for the Energy Foundation.

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Accenture is a global management consulting, technology services and outsourcing company, with more than 257,000 people serving clients in more than 120 countries. Combining unparalleled experience, comprehensive capabilities across all industries and business functions, and extensive research on the world's most successful companies, Accenture collaborates with clients to help them become high-performance businesses and governments. Accenture is a Fortune 500 company listed on the New York Stock Exchange. The company generated net revenues of US$27.9 billion for the fiscal year ended Aug. 31, 2012. Accenture's global Intelligent Cities practice is composed of experienced professionals dedicated to the urban development agenda. They have City projects either ongoing or recently completed in Latin America, Asia, Europe and the Middle East. The work within Intelligent Cities is vendor-agnostic and value-driven. They work with cities to identify their challenges and opportunities and to develop architect relevant and pragmatic solutions. They focus on helping cities to realize the strategic value of ICT in solving urban challenges, working at the apex of physical and digital design; not only focused on technology solutions, but also on the important 'softer' components of business model, governance model and financing strategy innovation, which enable long term socio-economic and environmental value creation. Accenture has offices and operations in more than 200 cities in 54 countries. In this case they will team local market expertise and experience with their global Centre of Excellence in Intelligent Cities based in London and technology experts from the US.

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Arup
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Arup is a global firm of designers, engineers, planners and business consultants providing a diverse range of professional services to clients around the world. Arup have more than 10,000 staff located in 92 offices in 37 countries; at any one time, working on over 10,000 projects in the fields of design and construction. Arup are renowned for their specialist expertise in multiple disciplines encompassing all aspects of the built environment. At the same time, they are dedicated to an interdisciplinary approach that brings their full range of skills and knowledge to each project. Since their inception in 1946, they have been the creative force behind many of the world's most innovative and sustainable designs. Arup has three main global practice areas: buildings, infrastructure and consulting. Although their multi-disciplinary approach means that any given project may involve people from any or all of the sectors in which they operate, their fundamental aim is to bring together the best professional team in the world to meet the clients' needs. For this project Arup has assembled a team of experts in Sustainability, Urban Infrastructure and Urban Informatics. The team draws from staff in our Madrid, London and New York offices.

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Fundación Metrópoli
www.fmetropoli.org

Fundación Metrópoli is an international organization, at the forefront of a new generation of "intellectual capital institutions" that aspires to contribute to the innovation and development of cities and regions through the research, sharing and implementation of knowledge, and with the objective of building a sustainable future. The aim of the Fundación is to be a catalyst for the positive transformation of cities and landscapes in the 21st century. Based in Madrid (Spain) since 1997, the Fundación Metrópoli originates from the first ever 'City Science Center' founded by the University of Pennsylvania, USA. No single institution can respond to the complexity of the globalizing world, thus a key characteristic of the Fundación Metrópoli is to work in cooperation with a global network of excellence. It seeks partners from a wide range of places and professional backgrounds to generate knowledge towards a new spatial culture. Its action–oriented philosophy is guiding its understanding of the dynamic of cities, the connections with their surroundings, and their role in future oriented activities of 21st century society. Its overarching aim is a better quality of life enhanced by the active participation of those living, working, playing and learning in cities.

Team
Alfonso Vegara / Guillermo Sánchez / Ángel de Diego / Mark Dwyer / Lorena Sicilia / Andrea Imaz / María Diez / Aaron Kelley

Engram srl
www.engram.it

Engram is a digital visualization office based in Italy, specialising in architectural visualization for more than 15 years. Being architects gives their work a precise shape, aiming to create emotional communication material generated from the architecture itself. Quality, reliability, strong problem-solving and tecnical capabilities make Engram Studio the choice of a wide range of architects all over the world.

Team
Paolo Zambrini / Riccardo Zema / Thomas Arici / Francesco Spendio / Samuele Ballardini

Mobility In Chain
www.michain.com

MIC | Mobility in Chain was founded on the belief that mobility influences the way we live and the quality of our lives. MIC was also created with the ambition of improving the quality of our lives through a profound understanding of how we move about. In line with their previous professional experience, the MIC team is strongly focused on international work, providing transport consultancy to developers, master planners and public bodies all over the world. MIC embraces an innovative and sustainable vision for mobility based on the belief that town planning processes should not be subject to the single-minded pursuit of traffic-driven approaches, and new urbanism, which enhances compact, dense, mixed-use neighbourhoods that in addition set the right premises to enforce the original form of transport, walking, followed closely by cycling and public transport, as the most favoured mode of movement. MIC's peculiarity lies in the combination of the principles above with the understanding of the needs of the client, and with the requirements of the public bodies dealing with every kind of transport issue ranging from traffic-impact studies to civil engineering. Based in Milan, Italy.

Team
Federico Parolotto / Francesca Arcuri / Jelena Crnogorcic / Carlotta Bonvicini /Claudio Minelli / Nicola Tedoldi / Sebastiano Scacchetti

Studio FM milano srl
www.studiofmmilano.it

Studio FM Milano is a leading graphic design office. Headquartered in Milan, Italy, it specializes in graphic design, specifically art direction, corporate identity, books, exhibit/installation design and web design. Studio FM projects have received many awards, including the European Design Awards '08, '09 and '10 in Stockholm, Zurich and Rotterdam.

Team
Sergio Menichelli / Luca Terraneo

Guadalajara Ciudad Creativa Digital

Una oportunidad de transformar nuestro futuro

Guadalajara Ciudad Creativa Digital, representa la gran apuesta de México por consolidarse en el mundo de la economía del conocimiento y la creatividad; una apuesta liderada por el Gobierno Federal y complementada con la fuerte y decidida participación del Gobierno del Estado de Jalisco, el Municipio de Guadalajara, la industria de Alta Tecnología, las Universidades y la Sociedad en general. Constituye nuestra oportunidad de consolidar a Guadalajara como el primer nodo global de Producción creativa digital en el mundo hispano parlante y en uno de los 10 mejores a nivel internacional.

A través de la estrategia Guadalajara Ciudad Creativa Digital, pretendemos no solamente la atracción de inversiones, generación de empresas, generación de empleos de alto valor agregado, incremento en la innovación y generación de propiedad intelectual; pretendemos contar con un nuevo modelo de territorio sustentable, de desarrollo integral económico- urbano-social-cultural que facilite el impulso de nuestro talento hacia una economía basada en el conocimiento. Ciudad Creativa Digital es una oportunidad histórica de transformar nuestra economía, nuestra industria tecnológica, nuestro modelo educativo, nuestro mosaico urbano y de servicios en el centro de Guadalajara continuando así la evolución e innovación de nuestra ciudad, dentro de un mundo cambiante y demandante, de competencia global y de creatividad constante.

Ciudad Creativa Digital, es además una valiosa oportunidad para remodelar nuestra ciudad como un referente de ciudad futura, incluyente y sustentable, que se pueda replicar en el resto del país para potenciar los territorios, para generar una verdadera ciudad-ecosistema de innovación y conocimiento, que genere prosperidad y gusto por habitarla, impulsando así el desarrollo de nuestra región y de nuestro México.

El Plan Maestro, presentado en este documento es una síntesis de la visión estratégica de Guadalajara Ciudad Creativa Digital, este plan maestro incorpora además los mecanismos de gobernanza, colaboración y trabajo en equipo tanto de instituciones públicas y privadas como de la sociedad civil y vecinos. El plan esta basado en las mejores practicas internacionales para el rediseño de ciudades, la creación de espacios creativos altamente atractivos con infraestructura de vanguardia para fomentar una gran calidad de vida, respetando nuestra identidad e historia; fincando en nuestras raíces culturales nuestra visión por un mejor futuro.

Un mejor futuro, esto es la Ciudad Creativa Digital, una oportunidad histórica que estamos consolidando y que estamos construyendo con pasión, energía y determinación.

Octavio Parga
Presidente de Consejo
Guadalajara Ciudad Creativa Digital AC

The opportunity to transform our future

Guadalajara Ciudad Creativa Digital, the transformation strategy for a new digital and creative cluster, is Mexico's big venture into breaking through and exploiting knowledge and creativity-based economies. It is a strategy led by Mexico's Federal Government and strongly complemented by active participation from Jalisco and Guadalajara State and Municipal Governments, as well as the regional high-tech cluster, universities and civil society in general.

Ciudad Creativa Digital represents our opportunity to consolidate Guadalajara as the first Spanish-speaking global creative and digital production hub and one of the top ten leading developments worldwide.

Through the Ciudad Creativa Digital strategy, we are pursuing not only the attraction of new investment, establishing new businesses, creating high-value-added jobs and increasing innovation and intellectual property generation, but also developing a new sustainable and integrated urban, economic, social and cultural model that will foster and drive our talent towards a knowledge-based economy.

Ciudad Creativa Digital is a unique opportunity to transform our economy, technology industries, educational model and urban footprint. This will allow us to continue to evolve and innovate our city, increasing our competitive and creative values in a constantly changing and ever more demanding global environment.

Ciudad Creativa Digital is also a valuable occasion to reshape Guadalajara to become a sustainable and inclusive model for future cities that can be replicated across the globe to generate true innovative citywide ecosystems of knowledge, prosperity and pride of living, encouraging the development of Jalisco and the whole of Mexico.

The master plan presented in this document is a compendium of the strategic vision of Guadalajara Ciudad Creativa Digital. This master plan incorporates ruling mechanisms of governance, collaboration and cross-functional teamwork of public and private institutions, as well as civil society and community members. The plan is based on top-end international benchmarks for regenerating cities, by providing highly attractive creative spaces with cutting-edge infrastructure that encourage an increased quality of living. We can achieve this while drawing on our cultural identity and history to create a healthier and enriched urban environment.

Guadalajara Ciudad Creativa Digital represents the promise of a better future; a landmark opportunity we are building through passion, energy and determination.

Octavio Parga
Chairman of the Board
Guadalajara Ciudad Creativa Digital AC

Board and advisory members / Miembros del consejo y asesores consultivos

CADELEC, Cadena Productiva de la Electrónica, A. C.
CANIETI, Cámara Nacional de la Industria Electrónica de Telecomunicaciones y Tecnologías de la Información
CCIJ, Consejo de Cámaras de Industriales de Jalisco
CONACULTA, Consejo Nacional para la Cultura y las Artes de México
Gobierno del Estado de Jalisco, Oficina del Gobernador
Gobierno del Estado de Jalisco, Secretaria de Planeación
Gobierno del Estado de Jalisco, Secretaria de Promoción Económica
H. Ayuntamiento Constitucional de Guadalajara, Presidencia Municipal
H. Ayuntamiento Constitucional de Guadalajara, Sria. de Planeación
H. Ayuntamiento Constitucional de Guadalajara, Sria. de Promoción Económica
ITESM, Instituto Tecnológico y de Estudios Superiores de Monterrey
ITESO, Instituto Tecnológico y de Estudios Superiores de Occidente
PROMEXICO
Secretaría de Economía Gobierno Federal
SHF, Sociedad Hipotecaria Federal
U de G, Universidad de Guadalajara

Special thanks / Agradecimientos especiales

3 DMX, 3D Estudios A. C.
3MB, Convergencia Tecnológica de Occidente S. A. de C.V.
ANADIC, Asociación Nacional de Distribuidores de Tecnología Informática y Comunicaciones
APZUSA, Automatización de Procesos Zugasti S.A. de C.V.
CAAV, Centro Universitario de Medios Audiovisuales
CANACO, Cámara Nacional de Comercio Guadalajara
CANACO CENTRO, Cámara Nacional de Comercio Centro
CANADEVI, Cámara Nacional de la Industria de Desarrollo y Promoción de Vivienda
CANAGRAF, Cámara Nacional de la Industria de Artes Gráficas
CESJAL, Consejo Económico y Social del Estado de Jalisco
CINVESTAV, Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional
CMIC, Cámara Mexicana de la Industria de la Construcción
COECYTJAL, Consejo Estatal de Ciencia y Tecnología de Jalisco
Colegio de Arquitectos del Estado de Jalisco, A.C.
Colegio de Arquitectos y Urbanistas del Estado de Jalisco, A.C.
Colegio de Ingenieros Civiles del Estado de Jalisco, A.C.
COMCE, Consejo Empresarial Mexicano de Comercio Exterior, Inversión y Tecnología
Comunaingeniería S.A de C.V.
Continental, Continental Automotive Guadalajara México S.A. de C.V.
COPARMEX, Confederación Patronal de la republica Mexicana
Dell, Dell México, S.A. de C.V.
Diseño y Planeación S.C
EA, Energía y Arquitectura
Empresarios Centro Histórico
EPS, Estudios, Proyectos y Señalización
Euzen
Exodo, Exodo Digital Worshop S.A. de C.V.
FOXCONN, PCE Paragon Solutions México S.A. de C.V.
Grupo Naggar Proyectos Urbanos
Guadalajara 2020
Gyroscopik Studios, S.A. de C.V.
Haiku
HILFE Consultores S.C.
HP, Hewlett Packard de México, S.A. de C.V.
IBM, IBM de México Manufactura y Tecnología S.A. de C.V.
IJALTI, Instituto Jalisciense de Tecnologías de la Información A.C.
INDAT COM
INTEL, Intel Tecnología de México S.A. de C.V.
IUSACELL, Iusacell, S.A. de C.V.
JALTEC, Sistema Universitario Tecnológico de Jalisco
Kaxan, Kaxan Games S. de R.L. de C.V.
MasFusion, MasFusion Multimedia S.C.
Mor & More
MTQ, Constructora Guadalajara
Patronato Centro Histórico
Plan V
PROPULSAR, Propulsar Estrategias y Políticas Públicas, S.C.
PUNTO ROJO, Marketing Consulting Group
Rubicon Ambiental
SCT, Secretaria de Comunicaciones y Transportes
Secretaria de Educación Jalisco
SITI, S.A. de C.V.
Toshiba, Toshiba de México SA de CV
UAD, Universidad de Artes Digitales
UAG, Universidad Autónoma de Guadalajara
UNIVA, Universidad del Valle de Atemajac
UP, Universidad Panamericana
UVM, Universidad del Valle de México
Vecinos de Colonia Centro
Vecinos de Colonia La Perla
Vecinos de la Colonia El Retiro
Vecinos del Parque Morelos
Vecinos y Comerciantes de Esteban Alatorre
Viraje, Arquitectura y Marketing

CCD Visión

Todos estamos familiarizados sobre como la revolución digital ha venido transformando nuestras vidas durante las ultimas décadas. La forma en que vivimos, trabajamos, el acceso que tenemos al conocimiento, como nos relacionamos con nuestros familiares y amigos, como buscamos un restaurante o simplemente el tomar un taxi, se asemeja poco a como solíamos realizar estas actividades hace solo 5, 10 o 15 años. Como es que esta revolución digital va a cambiar nuestras ciudades? Como afectara ésta el campo de la arquitectura y el diseño urbano?

Que mejor lugar para la experimentación de estos aspectos que Ciudad Creativa Digital (CCD) – un proyecto diseñado desde su concepción para convertirse en centro de creación digital. CCD busca fomentar no solo la vida urbana, si no también el posicionar la identidad de Guadalajara y México dentro de la creciente industria de medios, tales como Internet, cine, juegos digitales y aplicaciones móviles – creando así un centro global de contenido digital original para el mundo de habla hispana.

En respuesta a los retos que supone esta revolución, el plan maestro a continuación combina el diseño físico con la planeación maestra digital, conciente de que para el entorno urbano del mañana un bit será igual de vital que un átomo y silicón como material de construcción tendrá la misma importancia que el concreto. Este Plan de naturaleza digital, incluye un numero de formas en las que el sector digital hará de CCD un lugar único para vivir y trabajar.

Un sistema operativo urbano actuara como columna vertebral para la integración de todos los servicios digitales en CCD y permitirá retroalimentar en tiempo real por medio de la ciudad misma, visualizando datos a través de múltiples dispositivos y formatos de fácil acceso a los ciudadanos, trabajadores y visitantes. A través de esta integración de servicios a lo largo de la ciudad, CCD fungirá como ciudad líder en creación digital y escaparate global, capaz de exportar su contenido y servicios, negocios y modelos de gobernanza a otras ciudades.

Espacios públicos responsivos aumentaran el tejido urbano histórico de Guadalajara por medio de un diseño digital, así como soluciones digitales que permitan a los habitantes tener acceso y contribuir a generar un continuo intercambio de información que resulte en una dinámica social y medioambientalmente sustentable. Por otra parte, estas soluciones digitales funcionaran no solo como medios de externalizacion de información, si no que también permitirán una mayor divulgación hacia lograr una ciudad mas inclusiva.

Se anticipa el resultado de un nuevo estilo de vida y trabajo que refleje la evolución global de las dinámicas de trabajo fomentadas por ubicua cobertura WiFi. El Plan se beneficia del maravilloso clima de Guadalajara y prevé un nuevo estilo de trabajo para siglo 21 que ocurre tanto exteriores como en interiores, reinventando así la arquitectura tradicional del patio y proponiendo los espacio abiertos como nuevas plataformas de trabajo.

En suma, el Plan Maestro para CCD es una visión colectiva de lograr una vida del siglo 21 en la antigua y culturalmente rica ciudad de Guadalajara. Esta emerge de una colaboración sin precedentes entre la industria privada, los varios niveles de gobierno, expertos internacionales, así como con la ciudadanía e instituciones de Guadalajara. Juntos han definido un modelo de ciudad avanzada que mueve conjuntamente el tejido urbano existente a través de nuevas compañías digitales, de producción, educación en habilidades del siglo 21 y espacios de vivienda, comercio, gastronomía y esparcimiento – todos estos concentrados en el Corazón histórico de la ciudad alrededor del Parque Morelos.
El Plan dispone de una ruta practica para el alance de estos objetivos con base en una estrategia integral de desarrollo en etapas. La Fase 1 comenzara el proceso con una seria de proyecto catalíticos para establecer la infraestructura física y un marco institucional en CCD. Los catalizadores incluyen: la restauración del Parque Morelos como pieza central y puerta principal al proyecto, la creación del "Ingenium" – un campus dedicado al desarrollo de capacidades laborales de la industria creativa digital; y un nuevo Museo Mexicano de Medios y Centro de Mercadeo. Se planea que estas instalaciones aceleren el crecimiento de firmas locales en periodos de creación, así como la atracción al distrito de una reconocida compañía ancla internacional.

La Fase 2 se enfoca en la atracción de masas criticas de producción y compañías de medios y servicios en las áreas de fideicomiso alrededor del Parque Morelos en CCD, e impulsar la integración de servicios digitales que apoyen a las compañías, trabajadores y residentes. Finalmente la Fase 3, durante los próximos 10 a 12 años se vera una maduración de CCD por medio de comercios, restaurantes, esparcimiento y vivienda a lo largo de calles urbanas activas y propiciando una alta calidad de vida.

De muchas formas CCD se encuentra actualmente en marcha. Ha sido impulsada con el establecimiento de la Asociacion Civil Guadalajara CCD (A.C.), una asocion de entidades publico y privadas que getiona el proceso de elaboracion del plan maestro, avanzando en la implementacion de los proyectos cataliticos. Tras un extensivo analisis CCD ha sido reconocida con la certificacion DUIS, otorgada por el Gobierno Federal, como un proyecto de caracter sustenatble y viable sujeto a apoyos federales.

El Plan Maestro de CCD a sido diseñado para ser documento robusto y viviente en el que elementos pueden ser ajustado sin perder la vision general. En los capitulos a continuacion, se especifican la cualidades de diseño urbano pretendidas, la infraestrucra y servicios, asi como las estrategias de negocio, gobernanza y mercadeo que hacen viable al proyecto. Estas ultimas representan la vanguardia al 'hacer ciudad', mas no estan escritas en piedra. Inevitablemente, nuevas oportunidades y retos surgiran a lo largo de la siguiente decada, particularmente dentro de la industries de medios digitales. Dado el prgreso de CCD a la fecha, no tenemos la menor duda de que CCD A.C. y Guadalajara sabran responder a estas oportunidades con entusiamo y exito.

El Plan Maestro para CCD es una visión colectiva de lograr una vida del siglo 21 en la ciudad de Guadalajara.

We are all familiar with the way the digital revolution has been transforming our lives over the past decades. The way we live, work, access knowledge, meet and mate, find a restaurant, or simply catch a taxi, bear very little resemblance with the way we used to do these same activities just 5, 10 or 15 years ago. How is this digital revolution going to change our cities? How will it affect the fields of architecture and urban design?

No place is better positioned to explore these aspects than Ciudad Creativa Digital (CCD) – a project being designed from its inception to become a center of digital creation. CCD aims to enhance not only urban life, but also the identity of Guadalajara and Mexico in the growing media industry involving Internet, film, digital games, and mobile applications – creating a global center of original digital content for the Spanish-speaking world.

Responding to the challenges of this revolution, the following Master Plan for CCD blends physical design with digital master planning, with the awareness that in tomorrow's urban environments, bits will be as vital as atoms, silicon as important a building material as concrete. This "digitally native" Plan includes a number of ways in which the digital realm will make CCD a unique place to live and work.

An Urban operating system will act as the backbone for the integration of all digital services in the CCD and allow for real-time feedback throughout the city, displaying data on multiple devices and formats for easy access to citizens, workers, and visitors. With this integration of services throughout the city, the CCD can become a leading creative digital city and global showcase, able to export its content and services, business, and governance models to other cities.

Responsive public spaces will augment Guadalajara's historic urban fabric with digital design and functional solutions, allowing inhabitants to access and contribute to an on-going exchange of data and resulting in an environmental and social dynamic that is sustainable. Moreover, these digital solutions will function as a means not only to publically deliver information, but also facilitate a wider outreach and work towards achieving a more inclusive city.

A new digital working lifestyle is anticipated, reflecting a global evolution of working dynamics enabled by ubiquitous WiFi coverage. The Plan takes advantage of Guadalajara's wonderful climate to envision a 21st century work-style that occurs outside as well as inside, reinventing traditional courtyard architecture and proposing open spaces as new working platforms.

In sum, the Master Plan for CCD is a collective vision to achieve 21st century life in the ancient and culturally rich city of Guadalajara. It has emerged from an unprecedented collaboration of private industry, all levels of government, international experts, and the citizens and institutions of Guadalajara. Together they have defined the model of an advanced city that weaves together the existing urban fabric with new digital enterprises, production, education in 21st century skills, and places to live, shop, eat, and play – all centered on Parque Morelos in the historic heart of the city.

The Plan lays out a practical roadmap to achieve these objectives, based on an integrated strategy of phased development. Phase 1 will begin the process with a series of "catalyst" projects to establish the physical infrastructure and institutional framework of CCD. The catalysts include: restoration of Parque Morelos as the centerpiece and "front door" of the project; creation of the "Ingenium" – a campus devoted to training for work in digital media industries; and a new Mexico Media Museum and Marketing center. Facilities are planned to accelerate the growth of local start-up firms, as well as to attract a flagship global company to anchor the district. Phase 2 efforts will focus on attracting a critical mass of production and media firms and services on CCD Trust owned sites surrounding Parque Morelos, and launching a host of digital services to support companies, workers and residents. Finally, Phase 3, in the next 10-12 years, will see maturation of CCD with retail, restaurants, entertainment, and housing along active urban streets that provide a high quality of life.

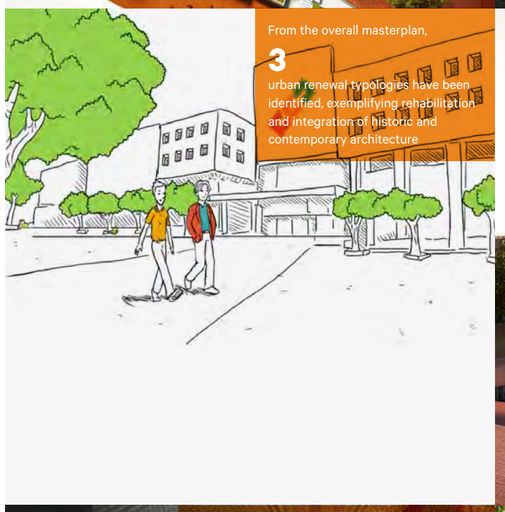
In many ways CCD is already underway. It was launched with the establishment of the Guadalajara CCD Asociación Civil (A.C.), a partnership of public and private entities, which managed the master planning process and is pushing forward on the implementation of catalyst projects. After extensive analysis CCD has received DUIS certification from the Federal Government as a sustainable and feasible project eligible for federal assistance. The city of Guadalajara and the State of Jalisco have committed substantial resources and outstanding professional staff to the effort. And finally the technology industry has provided management expertise and a strong commitment to implement recommendations in the Plan.

The Master Plan for CCD has been designed to be a robust, living document in which elements can be adjusted without loosing the overall vision. The chapters that follow specify intended qualities of urban design, infrastructure and services, and the business, governance and marketing strategies to make the project feasible. These represent the state of the art in city-making, but are not cast in stone. Inevitably, new opportunities and challenges will emerge over the next decade, particularly in the digital media industry. Given the progress on CCD to date, we have no doubt that the CCD A.C. and Guadalajara will meet these opportunities with enthusiasm and success.

The Master Plan for CCD is a collective vision to achieve 21st century life in the city of Guadalajara.

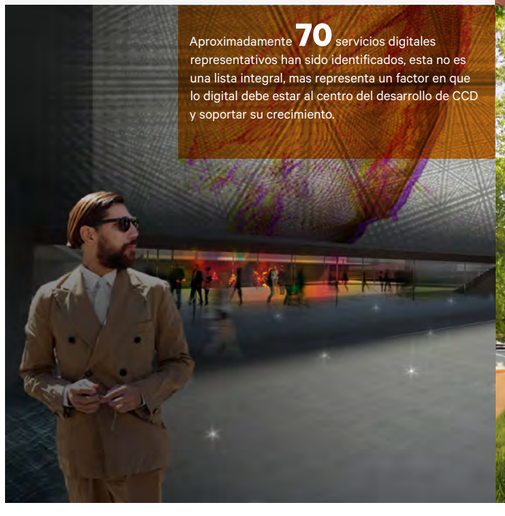
11
proyectos catalizadores a lo largo de todas las etapas de desarrollo impulsaran en completa potencial de CCD, pocisionandola como ciudad lider y centro de innovación y creatividad.

The origins of Guadalajara date back to
1532
and the courtyard ecology of CCD is based on the culturally and historically rich architecture of the city

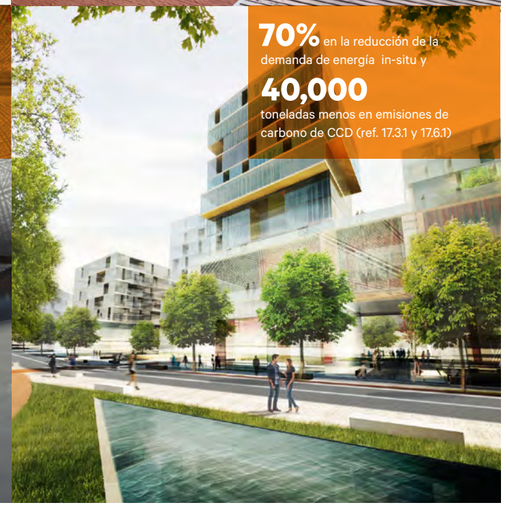


From the overall masterplan,
3
urban renewal typologies have been identified, exemplifying rehabilitation and integration of historic and contemporary architecture

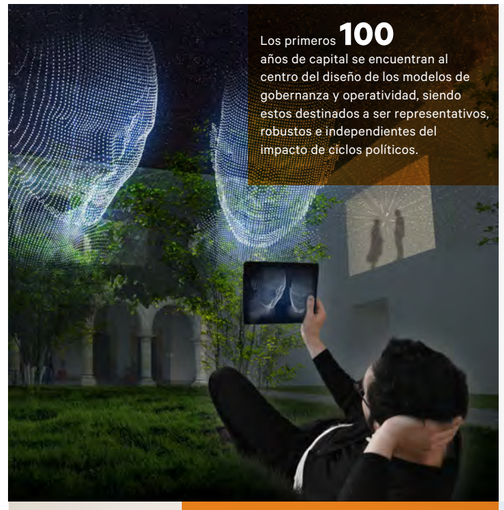
100% de provisión de servicios digitales para: la medición inteligente de energías renovables, medición del consumo de agua, estacionamiento y alumbrado publico inteligente.



Aproximadamente **70** servicios digitales representativos han sido identificados, esta no es una lista integral, mas representa un factor en que lo digital debe estar al centro del desarrollo de CCD y soportar su crecimiento.



70% en la reducción de la demanda de energía in-situ y
40,000
toneladas menos en emisiones de carbono de CCD (ref. 17.3.1 y 17.6.1)



Los primeros **100**
años de capital se encuentran al centro del diseño de los modelos de gobernanza y operatividad, siendo estos destinados a ser representativos, robustos e independientes del impacto de ciclos políticos.

CCD creara la primera infraestructura verde en Guadalajara en el Parque Morelos. Un sistema de estanque para la retención de agua de
25 hectáreas
para la captación de aguas pluviales provenientes de los edificios aledaños.

83
Fichas DUIS presentadas. La estrategia DUIS se alinea al esfuerzo del Gobierno Federal por promover un desarrollo urbano mas ordenado y sustentable en las ciudades Mexicanas.

Mas de **100** instituciones e individuales involucradas en el desarrollo de CCD. Por medio de un acercamiento digital de empoderamiento ciudadano, CCD se convierte en plataforma ideal para propiciar el uso interactivo de nuevas tecnologías digitales de inclusión comunitaria.

Una reducción del **45%** del numero total de los cajones de estacionamiento requeridos por el código estándar, gracias al acercamiento transito multimodal sustentable y un incremento en eficiencia de estacionamiento relacionados a su vez también a la gestión digital.

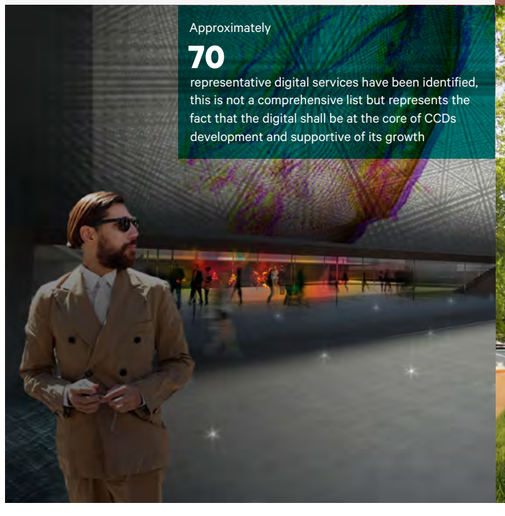
18%
se refiere al incremento del trafico AM PH al 2024, generado a partir de las predicciones de tendencias de crecimiento independientes a CCD. Por consiguiente, una reducción del 13% de la velocidad de medios vehiculares destaca la gran importancia de la implementación de medidas de control del tráfico a gran escala.

11
catalyst projects are envisioned for different development phases of the project to boost the full potential of CCD and position the city as a leading center of innovation and creativity

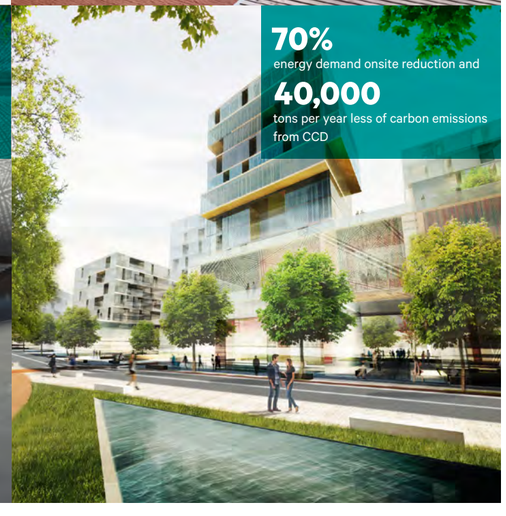
The origins of Guadalajara date back to
1532
and the courtyard ecology of CCD is based on the culturally and historically rich architecture of the city

From the overall masterplan,
3
urban renewal typologies have been identified, exemplifying rehabilitation and integration of historic and contemporary architecture

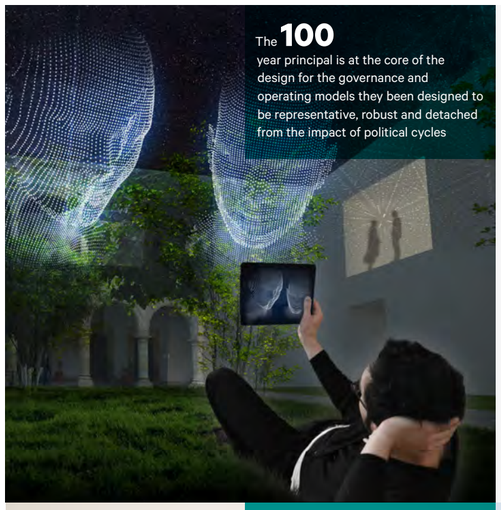
100%
provision of digital services for: smart metering renewable energy, measure water consumption, smart parking and intelligent street lighting



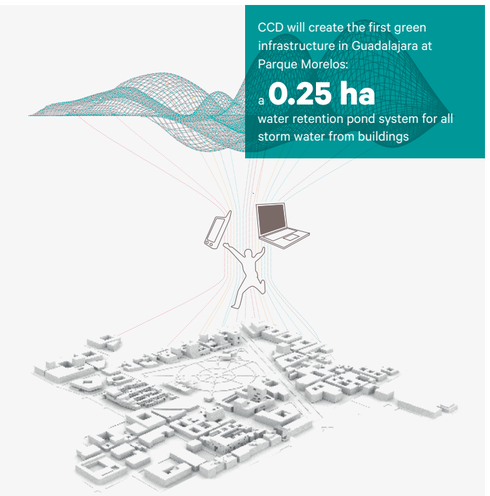
Approximately
70
representative digital services have been identified, this is not a comprehensive list but represents the fact that the digital shall be at the core of CCDs development and supportive of its growth



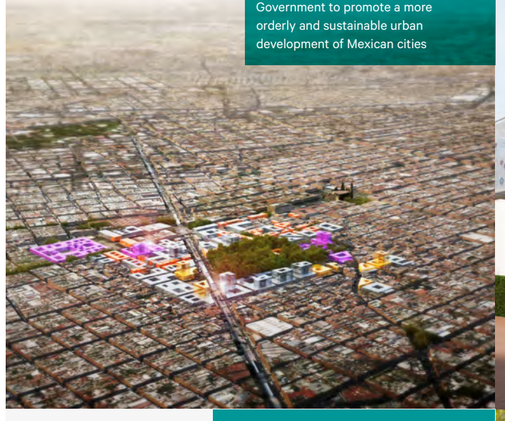
70%
energy demand onsite reduction and
40,000
tons per year less of carbon emissions from CCD



The **100**
year principal is at the core of the design for the governance and operating models they been designed to be representative, robust and detached from the impact of political cycles



CCD will create the first green infrastructure in Guadalajara at Parque Morelos:
a **0.25 ha**
water retention pond system for all storm water from buildings



83
Fichas DUIS submitted: the DUIS strategy is an align effort of Federal Government to promote a more orderly and sustainable urban development of Mexican cities

More than **100**
institutions and individuals are involved on the development of CCD - with a digital approach of citizen empowerment, the CCD can be the ideal way for enhancing interactive use of new technologies and digital inclusion within the community

A **45%**
reduction of the overall number of parking spaces required by standard code, thanks to the sustainable multimodal transit approach and to the increase in parking efficiency also related to the digital management

18%
is the AM PH traffic increment in 2024 due to the forecasted growth trends independent from the CCD - a 13% reduction of the mean vehicular speed highlights the great importance of implementing traffic control measures at the wider scale

2

Towards an Inclusive City

by Alberto Pérez Martínez
& Héctor Castañón R.

2.1 **An Inclusive Approach for Guadalajara CCD**
2.2 **Understanding the Local Community**
2.3 **Shaping the Inclusive City**

2.1.

An Inclusive Approach for Guadalajara CCD

2.1.1. Creating a Social Partnership

The area selected for the Creative Digital City in Guadalajara (CCD) shows a complex composition of actors and interests suggesting a high conflict possibility but at the same time represents a great opportunity to create new ways for management and connection.

Inclusion is a key principle when we speak about an Urban Transformation such as the one proposed for Guadalajara CCD. Inclusion does not mean everybody is involved in everything all the time. It is rather a project feature from conception to operation stage: an Urban Design with borders facing towards the outskirts of the planning area, allowing continuity and flow of change dynamics. It is about designing an open system, as opposed to the usually logic on integrated enclaves where the edges are barriers trying to keep inline the context of inserted urban elements.

Inclusion also refers to the management and planning in regards to its capacity to attract and allow participation of actors with an honest interest in the development of the intervention area. It assumes the recognition of the potential input of each actor when entering into a multilateral exchange in the search of opportunities and solutions. Local actors have a high creative potential that should be included in the equation of a city model recovering its identity and intellectual, economic, and cultural resources in order to plan a new direction. This is what can make CCD unique and different.

Territorial planning interrelates with a wide range of national, regional, local and community policies. Foremost among these are the regional development for urban planning, housing and infrastructure. However, **sectorial interests, approaches, and expertise continue to predominate over horizontal/territorial ones.** Consistency of action should be sought, considering that space, land, or territory is a limited commodity, and its ruling and uses dictate possible future development.

The concept of Territorial Governance suggests planning should be understood as an organization process and practice of the various relations, distinguishing the interaction in a territory between actors and their different interests. The result of this organization is a development of a shared territorial vision, based on the identification and valuation of territorial capital, as is necessary to achieve a sustainable territorial cohesion from a local to a supranational level.

Such a concept of building social partnership involves various challenges among which are the following:

First: At the heart of the planning process, citizens and government face limited resources together with dilemmas and implicit conflicts in a zero-sum game. Sharing dilemmas and facing rationalities of other groups allows the forging of a "common good" and building a "collective will" to strengthen the city community project and coexistence. This dramatically expands the involvement of the local population, rather than only in the neighborhood benefiting from the experience and technical knowledge of each objective and how they are interlinked. From this point of view, it is necessary to understand **participation as a Cognitive Mobilization Process.**

Second: The creation of trusting conditions allows a collective rationality around the future as a project to be built. For this reason, a fundamental State task (or in this case a development agency task) is to generate and share information that allows **transfer, advancement, and qualification of sectorial discussion.** An unmanageable and abstract problem will turn into metrics which can be used by citizens to understand and manage their environment. It is suggested that a **participative process** be used from conception of the city vision, in projects and programs, through to the **maintenance** of these spaces in order to generate collective appropriation of public works projects.

Third: The enforcement of legal tools ensures the reliability and relevance of the planning process. As stated in the Urban Development Law, Citizen Participation Law, Human Settlements General Law, as well as the Urban Code of the State of Jalisco, citizen participation should be included during the whole public works, from projects and programs to implementation and maintenance. However, in a Regulation or Law, citizen participation it is not clearly specified. The lack of definition results in multiple interpretations of the law and regulations, opening the possibility of misuse from authorities due to the ease of meeting the formalities of the process without achieving the real objective.

The influencial power of citizens through interest or territorial social groups has gained strength recently, and with it the ability to facilitate debate in order to block urban infrastructure and public works. Even in a disorganized and uninformed way, these are the citizens who began to demand participation laws be changed in order to facilitate their enforcement.
Therefore, a model of social management should cover at least three fields:

- **Informative:** consisting of creating a greater understanding of developments in municipal territory.
- **Pedagogical-Participatory:** consisting of a better knowledge of urban development tools and their reach.
- **Legal-regulatory:** consisting of process compliance according to the applicable legislation.

Inclusion also refers to the management and planning in regards to its capacity to **attract and allow participation of actors with an honest interest** in the development of the intervention area.

2.1.2. The Social Management Model

The Social Management Model aims to build a "critical local mass" and to increase interaction quality between different territorial and sectorial levels. In order to do this, it is necessary to expand the understanding of social processes. For example, proposals generated by urban developers are frequently incompatible with community needs. At the regulation margin, there is a breakdown between how the informal city performs and the way the formal city builds. This situation demands a new approach for urbanization processes, and understanding of how communities handle these processes, in a way that enables amply socialized proposals to be made, in order to respond to social reality.

The Social Management strategy considers that participation is required for certain actors is , in addition to the application of specific communication and interaction methodologies for each stage of the project (Figure 1). Social Management is viewed as a permanent process that endeavors to find consolidated spaces and partnership formulas amongst involved actors, with an ownership and control perspective over decisions that affect them.

As shown in the chart, information and communication mechanisms for public opinion are present throughout the whole process, such that community interests can be included and to ensure timely access of information for decision making.

The implementation of the social management strategy for Guadalajara CCD is already underway. Stage I, consisting of research and participatory diagnosis, has included the following activities:

1. Data collection of existing historical and urban contexts in areas such as: research work, participatory workshops, publications and official diagnosis.

2. Development of specific studies on location, aspiration, and needs of renovation projects in the area (including an attitude survey of 380 area residents) from which the following inputs for planning and design were realized.

a. Characterization of actors in the area
b. Identification of formal and informal leaderships
c. Individual and group interests
d. Issues and conflict topics
e. Social Dynamic mapping
f. Proposals for area improvement

3. Meetings with area neighbors to consult, discuss the aforementioned studies' results, and review previous data.

Figure 1 > Project Development Stages

Project Profile	Research	Prospective	Selection of Alternatives	Participation of Schemes	Project Development	Project Implementation	Appropriation	Operation	Evaluation
Collective definition of objectives	Selection of high quality professionals and participatory diagnosis	Master plan	Collective discussion of alternatives and project validation	Definition of governance and business model	Selection process for project assignment	Monitoring and accountability instrument design	Animation program	Operation and maintenance scheme	Indicators system and evaluation mechanism
Identification of stakeholders and induction	Networking		Formation of a technical and social council		Selection committee	Thematic task groups	Inclusive design commitee for event program	Operation and management committee	Evaluation committee
Foro Ciudad I	Foro Ciudad II	Foro Ciudad III	Workshops with multiple stakeholders		Open + invited competition	Progress report	In-situ and exsitu publicity campaign	Follow up assemblies and reports	Periodic reports
Information and contact center									
Social communication program									

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2.2.

Understanding the Local Community

2.2.1. Study of Social Dynamics

A study in the area of intervention was done in order to understand how residents could access and relate to the project, with the following objectives:

1. Learning the potential positions of the different social groups in the area towards a residential and commercial densification renovation project in the vacant property surrounding Parque Morelos.

2. Draw scenarios that enable identification of possible interaction fields between community reasoning and that of the actors promoting the intervention.

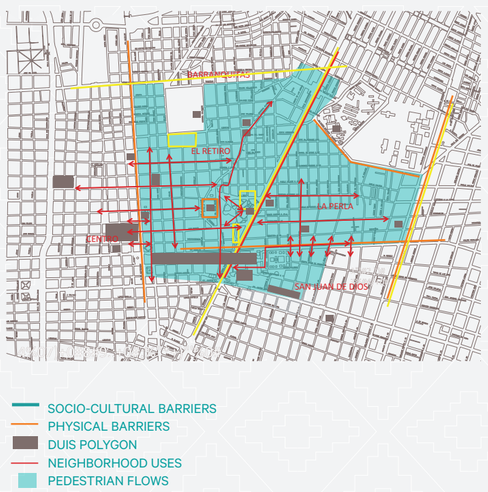
3. Explore the conditions in which the affected parties of the area would agree to an intervention project.

Initially, delimitation of the area of study was established by observing the conformation of identity processes related to different stages of city growth. The northern limit is located where, for two centuries, there has been a border marked with the name “barranquitas” (the name is still used today). Jesús García-Tenerías Street runs directly along the limit of this urbanized area. This geographical feature maintains a blurry boundary between the centro-barranquita and alcalde-barranquitas neighborhoods. By comparison, limits to the East, South and West initially align to physical boarders assumed by high transit streets and urban developments that have consolidated as space limits for neighborhood dynamics for the last thirty years, such as the Centro Médico and Plaza Tapatía. It is important to note that within delimitation of the area of study is one of the most significant socio-cultural boarders in the history of the city. The Calzada Independencia traditionally has marked a deep division between East and West so requires the recovery of flows and exchange, which will promote community integration among those urban hemispheres.

This old division has marked the formation and development of the main neighborhoods within the area of study. During the 16th century San Juan de Dios and Santuario neighborhoods were consolidated, providing the basis for the differentiation of two areas within the polygon. The same areas were later subdivided in order to form La Perla and El Retiro; neighborhoods which now constitute the heart of the intervention area.
Social Dynamics within the area are related the socio-spatial references that structure the daily movements of residents and area users. Mainly they have to do with public spaces, markets, schools, churches, and commercial areas. It is important to note that each of the neighborhoods show a certain level of self-restraint on their dynamics due to the diverse sevices and goods offered in their boundaries.
In relation to converging spaces, Plaza Tapatía is an area visited by habitants of both neighborhoods. Equally, but less visited, Parque Morelos plays a central role in the social imagination as a recreational area and natural beauty, especially because of a former relationship with a river. Due to failed urban interventions, the actual condition of the park generates a strong dispossession feeling in both neighborhoods.
Pedestrian flow and interaction spaces were mapped by identifying the main attractors in the neighborhood surroundings. Access to mass transportation stations adds to the description of the neighborhood flow and relationship with neighboring areas (Figure 2).

Social Dynamics within the area are related the **socio-spatial references** that structure the daily movements of residents and area users.

Figure 2 > Pedestrian flow and current interaction spaces



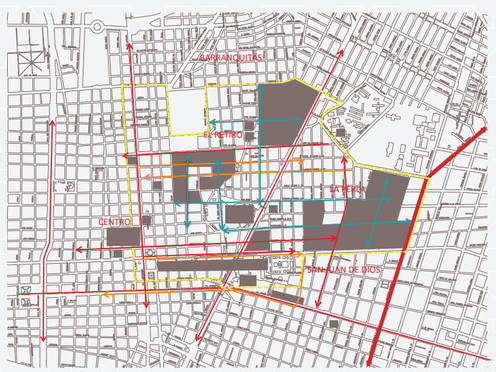
For the project scenario, emerging flows from the incorporation of new attractors are drawn (Figure 3) with the purpose of boosting improvements in the area. Identification of these new poles of attraction for urban renovation was determined for the following components:

1. Land Size
2. Land cost
3. Inventory of Heritage and its intervention
4. Current neighborhood dynamics
5. Urban economic flows
6. Susceptible areas for urban renovation

A relevant aspect regarding the way local actors live today in their neighborhood has much to do with the failure of developing Villa Panamericana in the surrounding areas of Parque Morelos. The loss of security, mobility, and more acute urban decay are blamed on the authorities since the abandonment of the neighborhood. The residents are aware of the main problems in the surrounding areas, and avoiding these identified danger zones affects the way they move in the area,

The residents are aware of the main problems in the surrounding areas, and **avoiding these identified danger** zones affects the way they move in the area.

Figure 3 > Projected neighborhood flows by mode of transport



2.2.2.
Characteristics of neighborhood typology

Durante el trabajo de campo para el mapeo de las dinámicas sociales, se llevó a cabo también un ejercicio de identificación de actores alrededor y dentro del polígono de intervención, identificándose los conjuntos que se muestran de manera esquemática en la siguiente ilustración. Cada uno de ellos puede subdividirse en más categorías, sin embargo los ejercicios de gestión han procurado formar estos conjuntos para discutir los distintos intereses que convergen en la zona.

The Management strategy contemplates the application of Interest Group Analysis Methodology that allows identification of positions, interests, abd potential allies and opponents, in addition to solution proposals from each acting group. (Figure 5)

According to the 2010 Population Census, approximately thirty thousand people live in the area of intervention. An intense urban sprawl process has provoked the city's downtown depopulation. Currently 13 percent of homes have been identified as unoccupied, while the underuse rate has not been calculated. Both phenomena generate a sense of abandonment; however fundamental actors are present for planning and developing urban renovation projects consisting of actual residents with determined voices and a high degree of ownership of their neighborhood. Some aspects of the resident profile and habitability conditions are presented below.

These results were derived from a survey done of neighbors residing within the DUIS polygon:

1. Gender distribution is balanced (47 percent female and 53 percent male).

2. Significantly, almost half of the interviewed people are single (46 percent). For those who are single the home is shared with other family members. This population group could foster a strong desire to live in other parts of the city; nevertheless, they present strong family ties and a strong identification with the area.

3. Similar to the previous point, it stands out that half (49 percent) of the interviewed people are between 18 and 34 years of age. Adding this group to the one of 35 to 44 years of age, an important young population of youngsters and children is implied. Many of those represent a third or fourth generation in the area.

fundamental actors are present for planning and developing urban renovation projects consisting of actual residents with determined voices and a high degree of ownership of their neighborhood.

4. The majority of participants (60 percent) live in a family owned property. When owners were asked what they most valued of their homes, the most common answer was ownership. This accentuates the attachment to the area due to the strong link to fixed assets. In the case of those living in a leased property, the vast majority expressed a strong bond to the area as well, particularly derived from familiar network and social relationships developed in their surroundings.

5. Generally, residents of the area state they are partially or totally satisfied with their environment conditions (78 percent). They have found a way to coexist with the problems affecting the neighborhood and the majority say that, in spite of recognizing security issues, they live peacefully because they do not get involved with others. The main element that generates satisfaction is proximity to family and friends, and all types of services.

6. Ownership of their homes, together with the satisfaction of environment conditions explains the high percentage of interviewed people (70%) that have not considered leaving the area where they live.

Figure 4 >
Caracterization of actors from territorial perspective in the area of study

A. commerce around the park (organized or indipendent)
B. neighbors around Parque Morelos
C. neighbors of El Refugio distrct
D. owners in Republica Avenue
E. commerce along Esteban Alatorre corridor
F. neighbors of La Perla district
G. Medical cluster of Guadalajara's Centro Médico and Hospital Civil
H. Users of Parque Morelos

Figure 5 > Matrix of analysis of interest groups

Stakeholder	Position related to the project (pro /con)	Argument (reason for their position)	Interest (underlying)	Allies (A-G)	Antagonists (A-G)	Power level(perception)	Proposals (conditions)	Other
a								
b								
c								
d								
e								
f								
g								
h								

2.2.3.
Actors, Interest Groups and Common Interests

Very diverse positions exist among the actors facing investment and renovation projects in the area. What stands out is the heterogeneity of visions, interests, and perspectives that turn social management into a truly complex matter.

In the chart presented below, opinions gathered from a group of 30 to 40 neighbors are displayed. The group formed from their opposition to the Villa Panamericana project. They identify themselves as neighbors with no intent of leaving the area in the case of a possible intervention, and are therefore not interested in selling their properties:

Positive expectations of the CCD reported by neighbors around Parque Morelos	Uncertainties / Questions about CCD by neighbors around Parque Morelos
If there are opportunities and benefits for all, go ahead	How are you going to solve the current problem of parking, and that of the new demand created by CCD?
We want to produce things here thart are normally made elsewhere, so that the benefits remain here	What is going to happen with micro and small businesses in the area? What are you going to do for them to survive?
We want international companies, like Disney to invest in recreational parks for children	Where will the new housing projects be located?
We want employment for elders in the project and programs planned for the CCD	What happens with the houses that already here?
	How are you going to deal with the homelessness, drunkards and petty criminals in the area?
	What is your proposal to deal with the prostitution?
	It seems like your are already making plans for our properties
	We need clear information and good communication with the government
	Are there going to be alternatives and compensations for those who have been renting a house or a room in the area for many years?
	There is so much confusion caused by the media
	We do not want to run the risks involved in projects built in the area
	For those of us who are not owners, we want to have a possibility of buying a house in the area
	We fear the negative environmental impacts due to the project and the takeover technology
	We fear that you will take away our properties
	We fear that speculation will force us to sell
	Do not take our properties away, do not cheat us!

Residents and users of the area have already suffered the consequences of abandonment during these past years and they urge authority intervention. However, there is the perception that an intervention bringing large-scale economical investment will end up affecting the interests of local neighbors and merchants.

Some actors from different social sectors show concerns regarding the viability of the project; they fear that the chaos Villa Panamericana left in the field will be repeated, especially due to the lack of information during the whole management of that project.

The failure of Villa Panamericana is directly associated to the lack of a citizen participation strategy, keeping a close relationship with the community, especially residents. On one hand, there was a failure of keeping the actors informed of the process, and on the other hand there was a lack of involvement with regards to decision making.

Different actors repeatedly expressed a great interest in being informed, being included in decision making, and in showing the damage to their homes and immediate surroundings caused by uncertainty. They promote the idea that, in order for Guadalajara CCD to succeed, community participation during all stages of the project is essential.

In brief and according to field research, the actual residents of the area main interests are:

A. To not lose what they have:
Their fixed assets (60 percent live in owned homes)
Their quality of life (78 percent are satisfied or fully satisfied to live in the area)
Their life project (70 percent have not considered leaving the area where they live)
Their roots (the average living time in the area is greater than 22 years)

B. Recover what they have lost:
97 percent think it is necessary to make changes to improve surroundings and restore the quality of life they enjoyed in the past.
67 percent think it is an unsafe area and wishes for it to be peaceful again.
80 percent vote for recovering the Parque Morelos for the families.

C. Avoid new threats
The main threat perceived by residents is an intervention project that will intensify traffic problems and override the infrastructure of the area.

In addition, some aspects of potential positions are listed below for actors not living or having assets in the area:

Sector	Points of conflict	Keys for negotiation
NGOs	1. Gentrificatino 2. Exclusion / Opaciity 3. Preference given toindividual rather than city interest	Ensure an inclusive planning and management process. Adopt as fundamental the principles of urban sustainability for the project.
Academic and specialists	1. Quality of technical studies and professionals 2. Exclusion	Ensure that technicians assigned for studies have proven capacity and recognition.
Developers, contractors and consultants	1. Opportunities of contracts and businesses assigned discretionally	Establish clear and accessible criteria for the distribution of participation opportunities.
Media	1. Restricted access of information	Open communication channels for timely information access.

It can be surmised from previous sections, that the following need to be set as base principals for any area of intervention:

- **Community Integration:** allow actors to express their needs and develop solutions in order to satisfy them.
- **Economic Inclusion**: boost the local economy with the existence of new opportunities and the possibility of taking advantage of them.
- **Environmental Sustainability:** consolidate technologies and management systems to reduce impact and allow coexistence of human, natural, and built elements.
- **Strengthening Institutional and Public Trust:** establish organizational schemes to promote co-responsibility, observation of the law, and social harmony between all the different actors.
- **Connectivity and Accessibility:** understand the relation between public space and socio-economical dynamics that allow people to be mobile. Urban accessibility is a concept that characterizes all those public spaces that do not segregate - those spaces that permit unlimited mobility without barriers or boundaries, allowing equivalent access to all city benefits. In order to make an accessible city, specific design criteria must be applied, taking into account the wide ranging needs of all people using the spaces, no matter their condition, age, gender, or motor skills.

2.3. Shaping the Inclusive City

2.3.1. Social Management Roadmap

It is planned to continue Management under an open coordination model. Coordination does not imply action uniformity, rather consistency and compatibility. The issue is not the heterogeneity of involved actors, but inconsistency and lack of coordination. There is hence an urgent need to imagine a new model of close interaction and deliberation when it comes to design, implementation and evaluation of project development policies.

Within the context of Guadalajara CCD, there are two strategies adopted by institutional actors for the purposes of moving forward with the consolidation of a participatory governance model:

- Promote the construction of networks and maintain the stability thereof by their legitimacy.
- Become managers of those networks, taking the role of mediator, stimulating internal relations, and resolving conflicts through dialogue and reaching consensus.

The above leads to a decision to form discussion spaces in order to analyze proposals generated throughout the process, with regards to a general vision of the project. These spaces have been conceived as Technical Advisors Councils. The following section provides a detailed list of objectives and scopes of these councils in terms of urban development and community management.

It is planned to continue Management under an open coordination model. Coordination does not imply action **uniformity, rather consistency and compatibility**.

2.3.2. Technical Advisors Councils

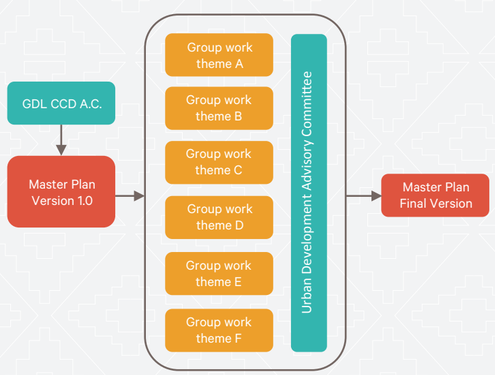
The Technical Advisor Committee for Urban Development (CTA-DU) has the primary objective to discuss and create an urban intervention proposal for the polygon CCD-DUIS; working to ensure adherence to the guideline principles of sustainable urban development and the possibility of broader agreements.

For this purpose, the committee should coordinate a collective deliberation on the city's renovation, derived from both the master plans of the site polygons (DUIS and CCD) and the executive plans for the different urban pieces (mosaics), in addition to the metropolitan impact actions related to this initiative.

The first formal task of the CTA-DU was to review and issue recommendations to adjust (if necessary) the first version of the Master Plan for the CCD-DUIS polygon. To achieve this, thematic work tables were formed, integrated by specialists in seven different areas of urban development: public space, mobility, housing, infrastructure, equipment, environment, heritage, and architectural design.

The graphic below shows the components of the Advising Council and their relationship to the revision of the master plan for the DUIS Urban Mosaic.

Outline of Consultation and Revision of the Master Plan Draft



During specialized workshops on the validity and relevance of strategies, the first version of the Master Plan was discussed. It is intended that subject-matter authorities formally and informally recognize, and back up, proposals set out in the final version of the Urban Mosaic Master Plan.

Also, in order to guarantee partnerships with affected neighbors in the Urban Mosaic, the integration of a Community Management Committee (CGB) is proposed. The central objective would be to feedback and inform on the intervention proposal from the perspective of local actors, in such a way that guarantees integration and inclusion in the project development on a communitarian level.

The specific objectives of this committee are:

- To facilitate participation of the various local acting groups; including their concerns, proposals, and individual development projects in the debate.
- To coordinate meetings and communication tasks with the different neighborhoods, and to take the results generated from such meetings to other committees.

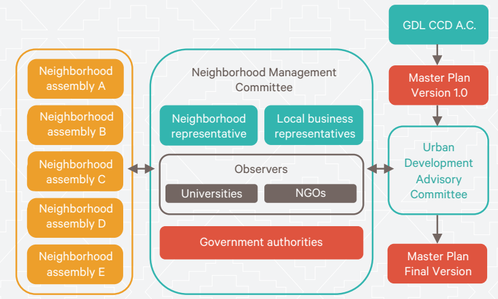
In the first stage, the intention is for the CGB to present and validate, in each case, the base studies comprising the first version of the Master Plan, and discuss the feasibility and relevance of the strategies foreseen in said document.

The main elements of discussion generated from the community representation at the specialist workshops are taken to the committee, as well as any ideas raised from community meetings. The CGB in return feedback to their representatives in the Technical Advisors Committee of Urban Development (CTA-DU), guaranteeing that community perspectives are included at the final discussion of the Master Plan.

The relationship between neighborhood meetings, members of the CGB, and the CTA-DU are shown in the following scheme:

a. Three representatives of each neighborhood included in the site polygon.
b. Three representatives of the major economic clusters in the area.
c. A representative from each of the three university members of CCD-GDL, A.C.
d. A representative from each of three civil society organizations, who specialize in neighborhood management.
e. Three representatives of the member authorities of CCD-GDL, A.C., whose participation will be mandatory. The same representative must be maintained throughout the process.

Outline of relations of the CGB



2.3.3. Actions and Results

Throughout the early stages of the project, an overall management strategy was developed and directed not only at a neighborhood level but also to other areas that have an impact on public opinion such as specialists, universities, trade union bodies, chambers, social networks and media. The purpose has been to generate dialogue between the various perspectives, increasing comprehension of the different groups' needs and to look for the highest consensus level.

A detailed record of actions taken at the different stages of social management, in addition to future ones, is given below:

SYNTHESIS STAGE I (OCTOBER 2011 - JUNE 2012):

1 social impact study, 380 interviews for survey, 42,180 entries, 6 informative sessions with locals, 4 workshops with locals, 25 interviews with key actors, 2 city forums, 6 social dynamics maps, 10 reports of on-site observations, 9 previous research works consulted, 9 postgraduate researchers.

SYNTHESIS STAGE II (JULY - SEPTEMBER, 2012):

280 academics and specialists consulted, 1 city forum, 7 working groups for master plan analysis, 2 workshops with locals about public space and urban design, 3,768 likes for the Facebook profile, 6 informative session and workshops with neighbors.

STAGE III. PARTICIPATORY MANAGEMENT OF THE PROJECT

The work on social management will continue the discussions on catalytic projects foreseen as the centerpiece of the Urban Mosaic. This implies the establishment of a more formal line of direct communication, in order to discuss individual projects, and the formalization of collective production spaces for proposals that should be included in the catalytic projects.

To increase the socialization scope of the process, social community actions will be reinforced in order to make public the information generated during the first stages of the work. Similarly, the intention is to establish an information center on the site (INFOBOX), and make it accessible to all interested parties wanting to learn about the project, propose an initiative, or join the development in the following stages.

3

The Strategic Principles

3.1 Genus Loci
3.2 Human Scale
3.3 Connected City
3.4 Innovation Ecology
3.5 Digital Infrastructure
3.6 Creative Cluster
3.7 Sense Experience
3.8 Model Future

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3.

The Strategic Principles

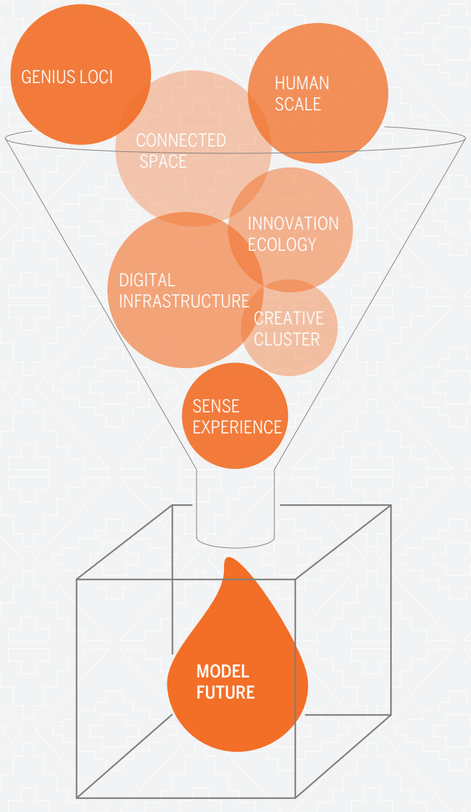
Overview

Guadalajara successfully beat the competition in a national search for the site of Ciudad Creativa Digital (CCD). Through a multi-month process, supported by leading academics at MIT, a dozen cities were assessed across multiple characteristics - including macro-economic picture, quality of environment, industrial base, and potential for growth. The assessment of the four finalist cities (over a dozen sites) captured the full range of physical, institutional, and implementational issues that could confront the success of the project.

To succeed in the large-scale development of Parque Morelos in downtown Guadalajara, CCD project must be both sustainable and technologically sophisticated. In 2011, a full assessment of the physical, institutional and implementation issues along with general economic and social data that would confront the success of the project was completed. From this, the work was done in preparing a more detailed synthesis of directions for the project, including conceptual level recommendations for overall physical organization, infrastructure, place-making concepts, digital systems and development approach. These recommendations were developed in collaboration with ProMéxico and the Guadalajara City team at the Strategic Planning Workshop (MIT, 6th and 7th November 2011) where a list of goals for the project were developed:

1/ Future proof the project
2/ Improve social and physical connectivity
3/ Develop creative appeal
4/ Engage citizens of Guadalajara
5/ Create global hub for world-class media production
6/ Make Guadalajara a global design destination
7/ Enhance sustainability agenda
8/ Bring high value jobs to Guadalajara
9/ Develop and leverage digital assets of value to all of Mexico
10/ Brand the place as a model for social sustainability

Derived from these objectives, and the vision for a new way of living and working in the context of Guadalajara that acknowledges emerging digital technologies and human interaction with the city, and takes full advantage of the local conditions, a framework of guidelines were developed for the successful implementation of the CCD project. It was from these principles that the CCD masterplan took root and they continue to be at the heart of the project.



3.1

Genus Loci

Build on the unique qualities of downtown Guadalajara

3.2

Human Scale

Create a high quality of urban life with 3d mixed use space

3.3

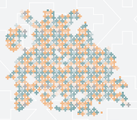
Connected City

Integrate the site with the city, physically and socially

3.4

Innovation Ecology

Reconceive Parque Morelos as a 21st century place of creative work and culture



3.5

Digital Infrastructure

Design urban systems that respond to the needs of the city in real time

3.6

Creative Cluster

Attract (the right) mix of enterprises, institutes and people

3.7

Sense Of Experience

Live, Eat, Breath And Think Knowledge

3.8

Model Future

Establish the vision for a truly sustainable, transformative project

3.1.

Genus Loci

Build on the unique qualities of downtown Guadalajara

The DCC must build on the assets of the historic area of downtown Guadalajara, proposing a new type of development that weaves together traditional buildings with 21st century technology and activities. The Hospicio Cabañas, a Unesco World Heritage Site, as well as many courtyard buildings in the centre of Guadalajara, provide the organizing principle of the DCC, integrating living, working and leisure in a human-scaled urban environment that can be changed, added to, and adapted over time.

LOCATION AND NARRATIVE: BUILDING ON THE PAST

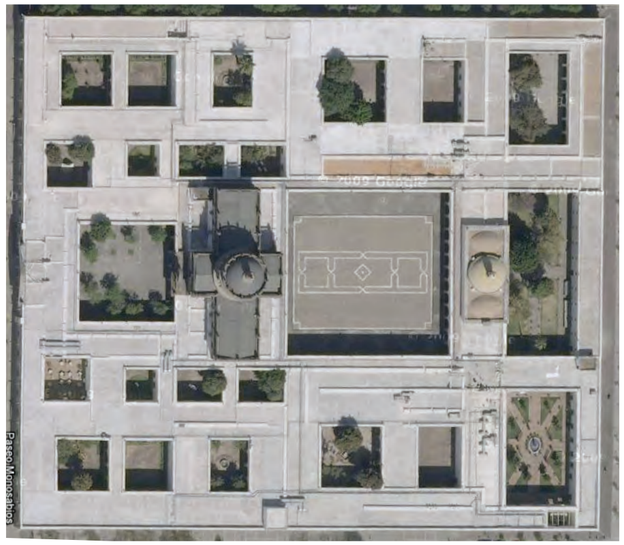
Downtown Guadalajara, where Parque Morelos is located, is one of the most historic and memorable city centers in Mexico. A collection of architectural monuments interspersed with public squares, it not only has a powerful built image, but it is also a great place to live and work: the cultural and commercial heart of Mexico's second largest city with shops, schools, theatres, museums and restaurants. It is interesting that the district is not entirely historic fabric. It weaves in contemporary architecture, shops, offices, and pedestrian spaces linking the Cathedral with Hosipico Cabanas, a world heritage site. DCC will build-on this cultural-commercial area, extending it to Parque Morelos using a fabric that mixes traditional ways of building with technology and 21st century activities. The development will develop virally and integrate into the existing city, having a positive effect on the city, its citizens and industries, as a whole.

One of the most significant challenges of making the DCC is to create an urban design identity across multiple buildings and projects implemented over time.

REINVENTING THE COURTYARD FABRIC: TAKING INSPIRATION FROM HOSPICIO CABANAS

One of the most significant challenges of making the DCC is to create an urban design identity across multiple buildings and projects implemented over time. The design must also serve 21st century modes of work that are less connected to specialized spaces and corporate structures and more oriented to projects and teams that assemble and recombine. Creative workplaces are becoming less like 20th century office towers and parks and more like traditional cities. The traditional building types of central Guadalajara – organized around multiple courtyards, most beautifully illustrated by the Hospicio Cabanas – we see as an ideal model for urban life and creative work-styles in the 21st century. Such an environment would mix inside and outside spaces, some private, some public, containing a variety of uses organized around courtyards, which are in turn organized around the park. The reinvention of this meaningful, traditional form, to create a 21st century urban environment could draw global attention to the project.

Hospicio Cabanas > Dolum veles modiEmoluptatem consequi blam sunt que pos doloribus, estis verunda dolut erae etus dolorem ollaciae por aut



Key design theme: the courtyard typology

3.2.

Human Scale

Create a high quality of urban life with 3D mixed use space

The DCC must be a mixed use, highly functioning city with defined streetscapes and all of the commercial and cultural activity we would expect to find in a thriving downtown. This mixed use should be found on both the street scale as well as the scale of individual building, developing a permeable 'podium', which engages the street and includes all kinds of mixed uses - commerical, restaurants and leisure - as well as production and creative space.

CREATING A 3D MIXED USE SPACE

The mixed use of space is a key feature of the DCC project and other creative cluster developments. If the modernist architecture of the Charter of Athens preached a subdivision of cities and buildings, with Jane Jacobs and the post-modern movement we find that the beauty of the place lies in their being a mosaic of different cultures and knowledge. Richard Florida argues in his writings that the sectoralisation of the working environment does not create the proper interaction between workers, instead creating barriers and divisions. The presence of several activities within the same building and shared common spaces, on the contrary, creates a melting pot of cultures and interests, a fertile environment in which activities related to the DCC can find a good ecosystem. With the digital revolution, where the concept of cloud technology is an important development for mixed use and flexible work spaces in the contemporary world. This concept leads us to design the buildings of the DCC in a complex system, in which formal and informal working spaces are mixed, blending into each other through common areas and work spaces of different natures. The intended use is replaced by the possibility of use in which the key concept is the flexibility of the rooms. The application of mixed use public space to create multi-functional sites, can also accommodate different activities at different times of day or night, increasing the quality of city life as discussed in the following pages.

IMPROVING SUSTAINABILITY WITH LIVELY SPACES: A WALKABLE CITY WITH SOFT EDGES

The potential to create a high quality of urban life emanates from the design of city spaces; creating a lively, safe and sustianable street life where people are invited to walk, bike and stay. The potential for a safe city is strengthened generally when more people move about and stay in city space. This includes the street and open public spaces but also extends to life in the buildings. Urban areas with mixed functions provide more activities in and near buildings around the clock.

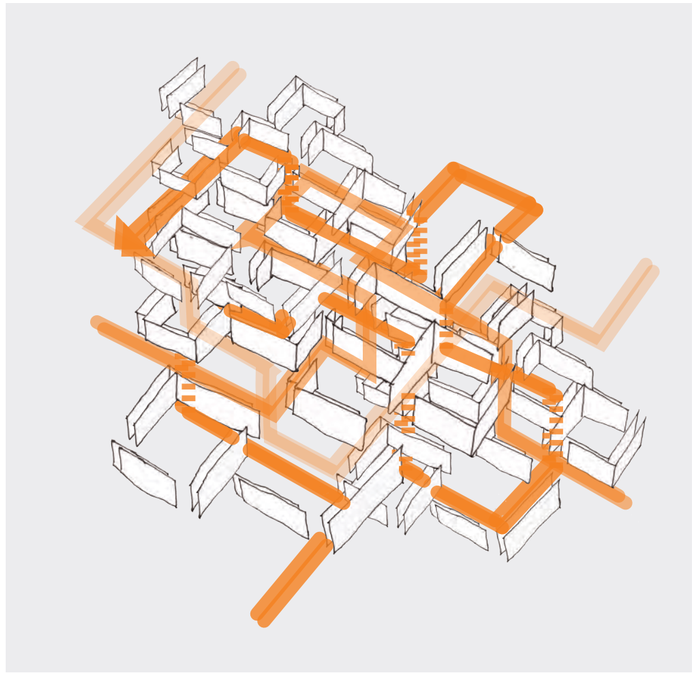
For decades the human dimension has been an overlooked and haphazardly addressed urban planning topic, but life happens on foot and urban planners and architects must reinforce pedestrianism as an integrated city policy to develop lively, sustainable and healthy cities. This is a strategy which should be integrated into the strategic plan of the DCC, and can be done in a number of ways:

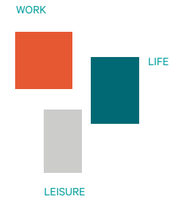
- Integrating green spaces
- Creating a pedestrian friendly, safe city
- Connecting the site with the existing city; creating a pedestrian only monumental axis
- Encouraging cycling, public transport (including BRT, park and ride); developing an integrated door-to-door transport network

In addition to the quality of the street for walking, the spaces in which the users of the city pause, rest and enjoy are also vitally important, as well as the treatment of the city's edges, particularly the lower floors of buildings where you enter and leave buildings, where indoor and outdoor life can interact. As pedestrians, we experience ground floors closely and immensely. City edges constitute our main experience zone of the city; a wealth of detail and information providing stimulation.

"It is widely believed that the lively city needs high building density and large concentrations of dwellings and workplaces. But what the lively city really needs is a combination of good inviting city space and a certain critical mass of people who want to use it."

Jan Gehl, Cities for People





1931 > Charte d'Athene

1960 > Jane Jacobs

2010 > Digital Revolution

3.3.

Connected City

Integrate the site with the city physically and socially

In order to integrate CCD into the social life of Guadalajara residents and attract global creatives, CCD must be a pedestrian friendly place to live with an efficient, sustainable transport network. The development should endeavour to maintain the present grid of streets and blocks with their current pedestrian and vehicular circulation system, providing good connectivity to the city and movement throughout the site. In addition, emphasis should be placed on pedestrian access and connectivity across busy streets repaired with iconic pedestrian experiences.

The location of the project between two very distinctive areas of the city introduces the element of connectivity, both physically and socially

Downtown Guadalajara, where Parque Morelos is located, is one of the most historic and memorable city centers in Mexico. The main thoroughfare runs from east to west, a cultural and commercial heart of the city, with shops, schools, theatres, museums and restaurants, interspersed with public squares and pedestrian links. CCD will develop to intersect this cultural-commercial centre and thus encourage the diverse mix of historical and contemporary urban fabric, creating a connective axis between CCD and the existing downtown.

Intersecting the DCC with downtown Guadalajara will involve maintaining the existing grid of streets and creating new connective tissue and spaces for the inhabitants of Guadalajara to use and enjoy. In addition, the courtyards which become the main urban fabric will be flexible, permeable spaces. Pedestrians can choose to experience the street life of Guadalajara or wander through internal courtyards and public spaces.

REALIZING A SUSTAINABLE TRANSPORT STRATEGY

The road system of Guadalajara has some innovative features already proven in other parts of Central and South America that represent good examples of innovation in public transport, especially with a view to relieve a situation like that in Mexico, where the level of traffic is very high and alarming level of pollution.

- Parque Morelos is reached from the corridor on the east side of the BTR system bus rapid transport system, which functions as a surface tube and that in fact, running up the city, becomes an important link.
- Significant is also the light rail system, which intersects directly with the BTR, but with which it is connected.
- The infrastructure system around Parque Morelos is formed by one-way streets, using part of the road as a parking lot. This trend is common to much of the city and could be regularized through the study of the road network and the use of restricted traffic areas, which could transform the streets on weekdays into pedestrian areas.
- The city of Guadalajara has already begun implementing a plan for bicycle lanes and a policy to develop the bicycle as their main primary method of movement within the city. The pressure for change and the importance of cycling as a key to a profound change of lifestyle will encourage Guadalajara to increase the number of cycle paths and sponsor the use of the bike.
- The creation of an intelligent infrastructure is the missing link for an integrated transport system for the city. The aim is that the citizen can easily communicate with the public infrastructure, so as to facilitate the use of resources and decrease the use of private vehicles. In this way the city would increase his feeling with the public transport system.
- The centralization of all transport systems into a single network is a key element for the growth of the city and for the optimization of the forces of change.

CONNECTING PARQUE MORELOS WITH EMPHASIS ON PEDESTRIAN ACCESS

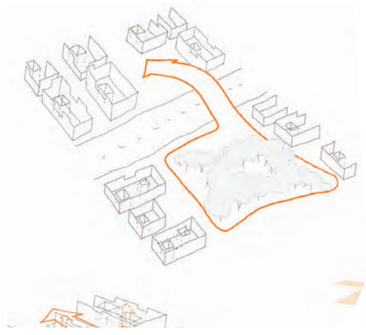
The location of the project site between two very different places each introduces a distinct character, introduces the element of connectivity both physically and socially. The search for a continuum between the two parts of the city determines the creation of a passage in the physical form of the bridge, which crosses the Avenida da Indipendecia, Norte. It is a social glue, able to attract inhabitants from their barrios, to break the boundaries that divide the two areas, experiencing a transverse fluid is drawn to places of interest on one side or the other of the project site. Examples such as the MACBA in Barcelona show how the boundaries are broken by architectural spaces designed to attract people from different social backgrounds, but united by common interests, a beautiful place in the city, such as Parque Morelos.

Furthermore, vital to the success of CCD is the connectivity of these areas with pedestrian access over what are currently two major highways: one running east-west south of Parque Morelos and the other running northeast-southwest carrying the BRT line. Emphasis should be placed on these access points with iconic pedestrian experiences.

SUBMISSION FOR REVIEW

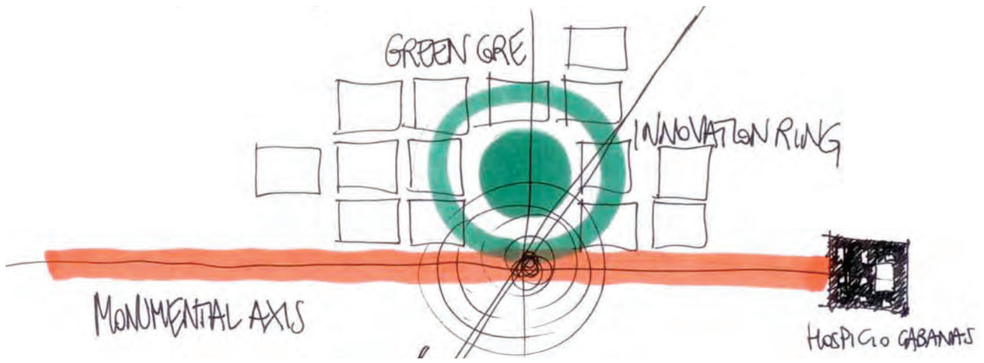
NOT FOR DISTRIBUTION

The High Line, New York, is a great example of how a space of passage can become an element of appreciation for a large part of the city



EyeStop (MIT Senseable City Lab) is an exploration of the next generation of smart urban furniture; a digitally enhanced bus shelter with interactive touch screens and E-ink digital displays that can deliver information seamlessly to citizens and users.

New Road in Brighton, UK, is a 'pedestrian priority street' and is used for many different activities; it has far more users than when it was an 'ordinary traffic street'.



3.4.

Innovation Ecology

Reconceive Parque Morelos as a 21st century place of creative work and culture

CCD must recognise and adapt to the current changes in patterns of work, particularly in the digital and creative industries, designing and developing spaces of 'convergence' which are comfortable, sociable, and incorporate creative stimuli, bringing together both social and work environments.

REVOLUTIONIZING WORK; EMERGING PATTERNS OF INNOVATION

It is no longer disputable: the later of networked digital devices - sensors, microcontrollers, mobile compputers, smart-phones and GPS etc - distributed throughout our urban environment have provided cities with a new layer of functionality and citizens with new ways to work and play. A radical shift in the design and use of space is taking place that will create benefits in terms of economic, social and environmental sustainability.

DESIGNING A NEW TYPOLOGY OF CONVERGENCE SPACE: FLEXIBLE AND ADAPTIVE

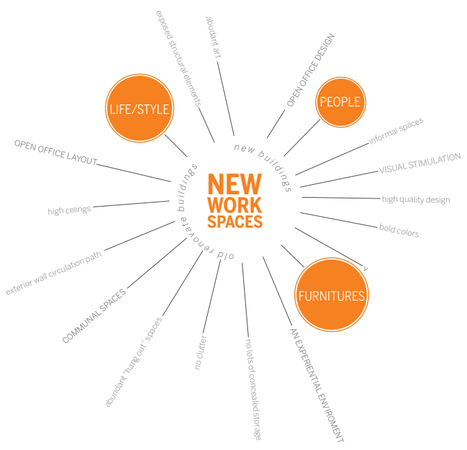
The survival of Hospicio Cabanas over the centuries, as well as other courtyard buildings in central Guadalajara, attests to their enduring value, as well as superb adaptation to the climate. No doubt they are wonderful places to be, but they are also extremely flexible and could accommodate any number of uses over time. These are the characteristics of a sustainable architecture and urban design. Given the rapid changes in digital media and technology, we really can't predict what work and production will be like in 50 years. Given this the strategy for the DCC should be to encourage development of a highly livable fabric that can be changed, added to, and adapted over time, rather than a series of modern monuments that will be quickly outdated. With its focus around the park and central downtown location, Parque Morelos is ideally suited for design of this kind.

The concept of temporary is undeniable in the society we live because we are dealing with a changing world that constantly requires updates, like those in the world of technology, which are illustrated on the physical sphere and the shape of our city, having a knock-on effect on our work and life. The challenge at the architectural level is the creation of places that can be easily modified and adapted to fit the uses required. The spaces of the DCC should be designed to ensure a high level of flexibility, both in terms of their use and management. This provides the ability to change the intendeded use of buildings, drastically reducing energy and cost required to maintain the DCC as a world-class project.

CREATING ATTRACTIVE, RESPONSIVE OUTDOOR SPACES: THE PARQUE MORELOS OPPORTUNITY

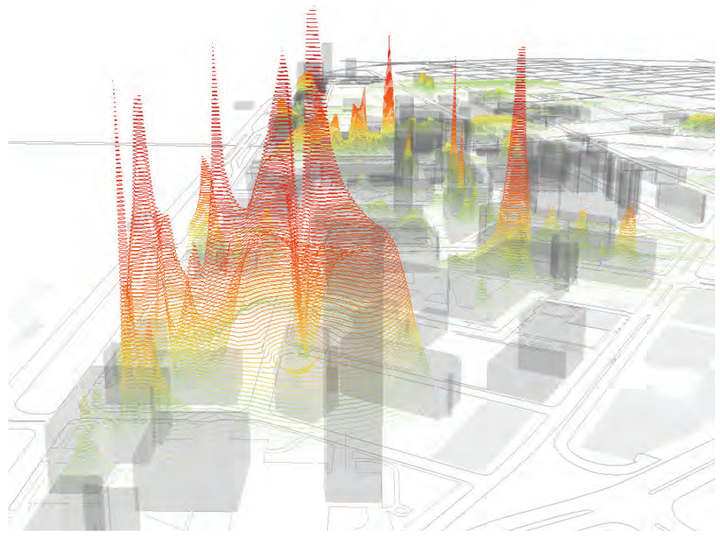
As we begin to take for granted ubiquitous wifi coverage and devices that allow us to work anyplace, anytime, the creation of a responsive outdoor environment that can support and foster these new modes and methods of working becomes increasingly important Guadalajara, with its subtropical climate, and the DCC project with its 'creative class' focus, provides the ideal environment for making use of outdoor spaces and implementing climate responsive architecture; more focus on green spaces within the city. This will provide citizens with a place to work, meet and interact in a comfortable, protected and yet outdoor environment. As they become successful hubs of activity, they will provide a branding opportunity for the city and state, furthering the creative class image.

"Fifty years ago computers were absent from office life... in 50 years time things will be much the same. There will be no machines on our desktops."
The Financial Times



The sub-tropical climate in Guadalajara provides the ideal opportunity to work outdoors.

Projects like iSpots (MIT Senseable City Lab) analyse real-time distribution of people in a defined space, examining each computer connection to a wireless network. The results showed a high concentration of people connecting from outdoors in summer, from cafeterias during lunch breaks, and from the entrances to conference rooms before the start of events. Of course, whereas the MIT campus used to be at the forefront of ubiquitous connectivity with the number of smart-phones rising and whole cities beginning to implement wifi coverage, almost everywhere is witnessing this change.



3.5.

Digital Infrastructure

Design urban systems that respond to the needs of the city in real time

The CCD will be an attractive place to work in leading-edge digital creative services, but also a physical smart city with a highly interactive, sustainable built environment. A range of digital technologies must be embedded in the urban fabric, allowing increased efficiency and management of precious resources, as well as improving the productivity at work by bringing people together in the virtual and physical space - a living lab to trial new urban technologies and a prototype for sustainable development solutions. The CCD should be open to all residents of Guadalajara, who will have access to all of its cutting edge infrastructure, promoting a new model for social digital inclusion.

CITY OF ATOMS, CITY OF BITS

The city is where the digital and physical world merge. Its is both a city of bits and a city of atoms; that is, atoms are augmented by bits of information and a layer of networked digital elements blanketing its built environments, blending the information sphere and the physical space of its inhabitants in a seamless way. Just a couple of decades ago many urbanists and sociologists were predicting the end of cities. The Internet, they said, would eliminate problems of distance and space. Despite the influence of the global Internet, the physical world is still important and the network functions to strengthen the physical structures. But the digital revolution has significantly changed our reality.

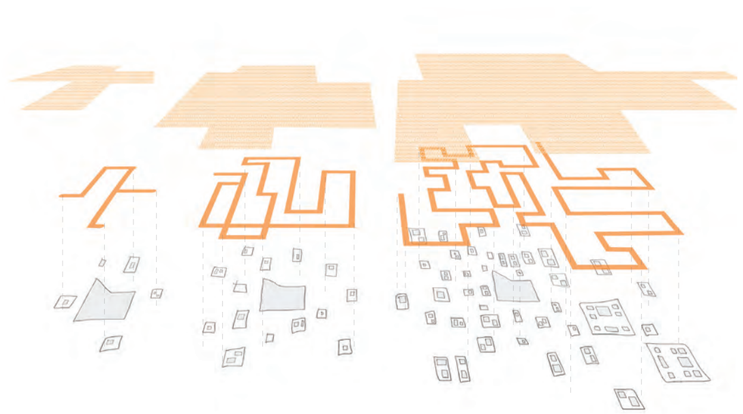
There is an undeniable charm in working with real-time data in an urban context as it reflects “in this moment” specific dynamics directly or indirectly caused by human activity.

A new layer of digital gadgets enrich the urban environment with new functions and offer people new ways of working and organizing. With tiny electronics so thoroughly embedded and distributed, the built environment (cities, buildings and objects) is learning to talk. Embedded devices, so called “smart dust”, let us collect and analyse data in real time and distribute it to anyone, anywhere. A radical shift in the design and use of space is taking place that will create benefits in terms of economic, social and environmental sustainability. Processing urban information captured in real time and making it publicly accessible can enable the people of Guadalajara to make better decisions about their interactions, improve the efficiency of the city, and make the city a safer place to live.

THE VISION OF A WORLD-CLASS DIGITAL INFRASTRUCTURE

The world has come a long way in terms of communication technology in the last ten years. We have moved from being able to deliver Kilobits-per-second (Kbps) via dial-up modem in the late 20th century to Gigabits-per-second (Gbps) via fibre today. Enabling the transition from the former to the latter in a practical and economic manner globally has proven to be somewhat complicated. The economic models for rolling out these utopian technologies to expectant end-Users are not clear-cut with most Governments struggling to find scalable economic solutions. The major issue behind enabling the transition for end-Users is the cost to roll-out a new infrastructure based upon fibre where an existing copper based network exists, and is already delivering higher-capacity services that are perceived to be sufficient for current User needs in the majority of cases.

Urban fibre ring.....Ut maxime optaernam volorehent eiur sinvend ernatum aditinctis eius, conecta



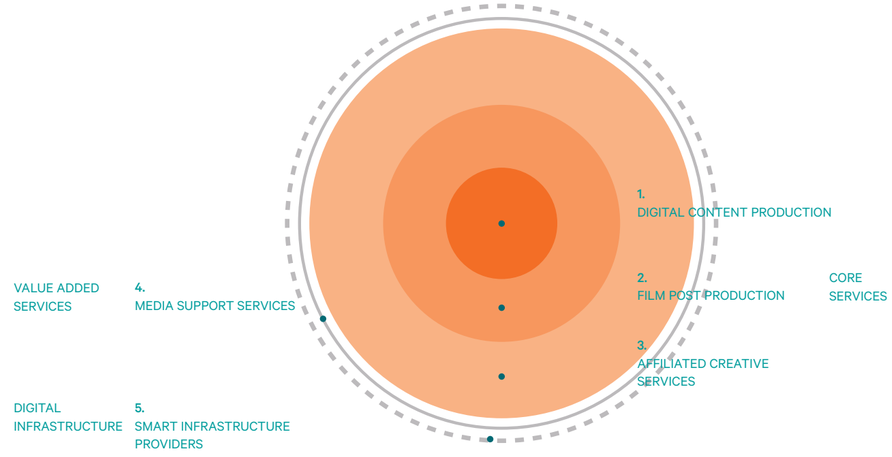
An example of connected and responsive urban architecture > Digital Water Pavilion, Zaragoza Expo 2008 (carlorattiassociati and MIT Senseable City Lab)

Over the past decade, cities have been pervaded by digital devices such as sensors and mobile electronic devices often connected via telecommunication technologies to form networks > Sample visualization from the Trash Track project (MIT Senseable City Lab) tracking a tagged aluminum can as it travels trough the garbage collection network of the city

3.6.

Creative Cluster

There are three layers to a successful DCC: the identified CORE SERVICES drive the required DIGITAL INFRASTRUCTURE and support the provision of VALUE-ADDED SERVICES.



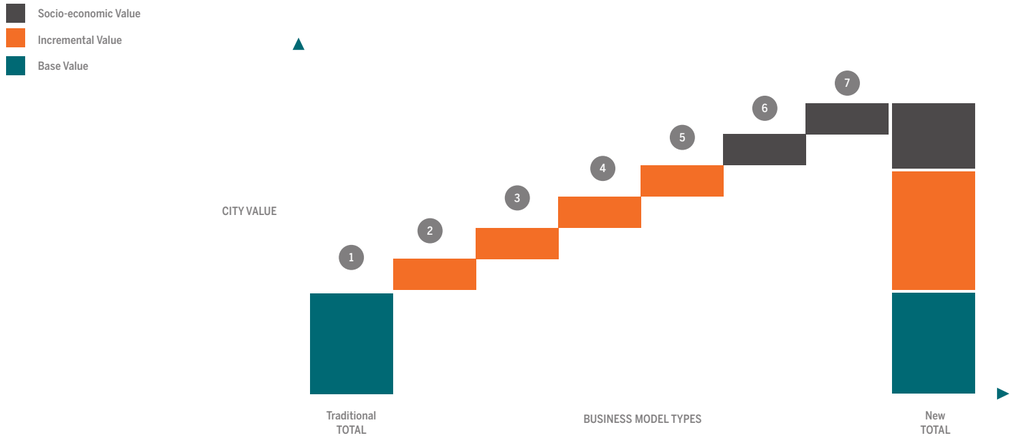
Attract (the right) mix of enterprises, institutions and creative talent

In order to create a competitive cluster that cements Mexico's position as a global leader for spanish-speaking media we need to understand what the key industries and supporting services will be in the DCC. At the core are the companies that create digital content (digital animation for advertisements/films and computer games production). This core is closely followed by film post production (creating a synergy with Chapala Film Park), app development and digital publication. On a third concentric ring, we could add the other affiliated creative services activities – around advertising agencies, media software tool creation, music production etc. The city will also need to attract a number of the new media support services, such as: financial services to support angel investments and VC, legal services that specialise in media law to support digital rights protection, relevant curricula at local universities to provide adequate talent and finally packaging/physical distribution of end products.

In addition to this industrial sector we need to include some Smart City service providers. They are an important part of the equation in helping to realise a highly-digitised built environment. The different infrastructure layers can be segmented as follows: mobility, waste, water, security, digital signage etc. The DCC would also need to include local and global players that are specialists in the field of "smartening" these infrastructures as well as global system integrators and those with supercomputing capacity that could support the heavy analytics that will be required to draw insights from the city, for example Intel.

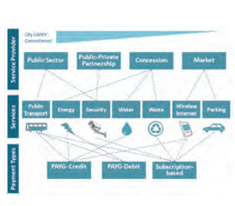
We want to develop Guadalajara as a world-class global hub for digital media production but, what is a **Digital Media Cluster?**

The business models presented here are intended to act as a starting point for discussions and not as the definitive list of options. They are not mutually exclusive and one would expect to see many, if not all, of these business models in operation within the DCC. The business models will help to inform the governance structure, operating model, organisation structure and financing strategy for the DCC > Source: Business Model Analysis for Ciudad Creativa Digital - Thinking beyond Real-Estate, Accenture (December 2011)

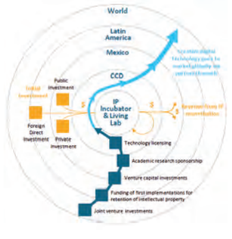


1. Real-Estate

2. Service-Based



3. Intellectual Property



4. Information Marketplace

5. Advertising & Product

6. Social Enterprise

7. Public Service

3.7.

Sense Experience

Live, eat, breath and think knowledge

A TAXONOMY OF SENSORIAL SPACES

Designing in Mexico means designing and experience as well as a physical place. When you visit a city all your senses are involved and the experience is one of total immersion. What we want to design in Guadalajara is not only an aesthetic context, but an experiential environment in which the user is fully engaged in an atmosphere linked to local tradition, but at the same time contemporary and full of new references.

The research therefore concentrates on the meaning of 'sensory space'. A development of the kind such as CCD involves the design of both private and public places, and areas of green streets, but what does it take to translate this into design? Sensory experience is expressed through performances, demonstrations, sitting in a restaurant or a park, shopping in a store, and interacting with other users of the space.

We must first understand that what we need create is in every respect Mexican, which includes the use of light, colors, material and the entire context in which Mexicans express themselves, then creating an infrastructure that expresses the vitality of the local culture. The end result in the physical realm is through the design of spaces suitable for this purpose and from managing the perspective of the space, including policies to encourage use of public spaces as generators of experience.

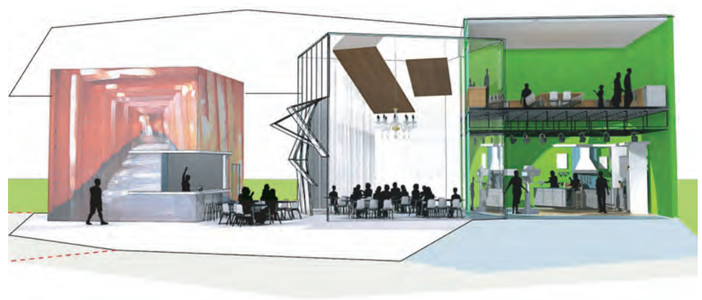
Key themes that should be incorporated into CCD as a place of experience are:

- Food: restaurants, cafes, markets and links with the media industry
- Water: designing static, dynamic and digital interventions with water
- Sound and performance: the spaces and infrastructure
- Knowledge: creating an experience of knowledge and Mexican digital media production

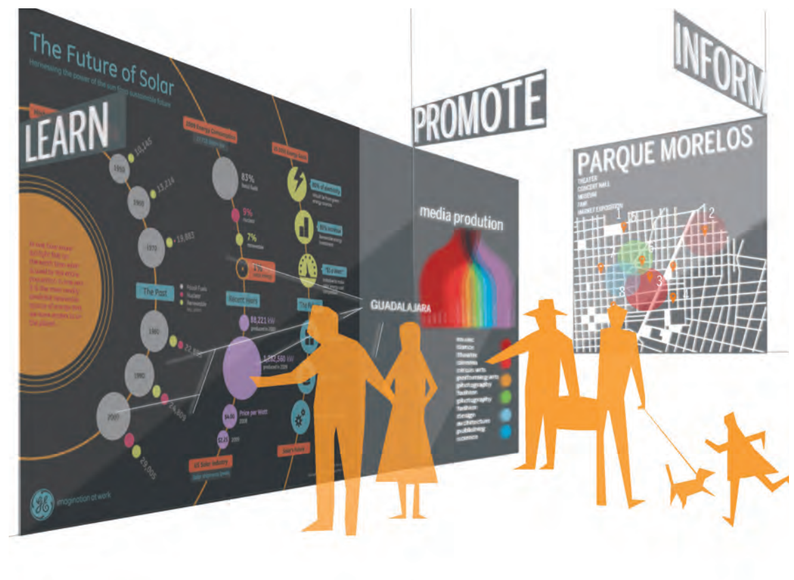
CCD - a place that delivers and tracks knowledge through the senses

Designing with water: A key element in Mexican architecture, water, becomes a fundamental theme of the CCD project. In addition to a value given by the restoring its historical importance, water allows us to ameloriate public and private spaces. Use of water can trace the ancient river routes with fountains, pools and water walls, along the street and in public spaces, as well as more symbolic interpretations using innovative technologies. In addition, water can be used in small fountains within the courtyards. Here water has two purposes: it is a visual spectacle to those that use the space but also reduces the ambient air temperature through evaporation, improving the climatic characteristics of the outdoors. We can continue to experiment with the use of water, and create innovative solutions within CCD.

The Food Principle: CCD can provide access to local food and world class cuisine through the provision of numerous restaurants and cafes on site. Market stalls around Parque Morelos can provide impromptu and fixed markets selling local produce. But to create a 3-dimensional experience of food in CCD will mean to include other elements on site such as the 'Food Network', a cookery school and TV studios for the Food Channel. By integrating these elements with the everyday experience of CCD, the entire experience of food can be brought to the next level. Going to the restaurant where your favourite TV chef is cooking, or being able to buy the ingredients of the food they're producing at the same place where they're recording the show will all become attractions of CCD. > FOOD NETWORK (MEDIA CITY: UK) (by Alexis Sanyal and Dennis Frenchman)



An Experience of Knowledge: The guidelines of CCD call for a centre of excellence in terms of knowledge and a place of knowledge that inspires the next generate - a knowledge ecosystem. These guidelines necessitate a new institution in CCD to display and curate the media products of the DCC in real time; engage and teach school age kids and their parents in the science and art of digital media technology; and serve as a marketing centre for mexican media content - promoting the products of the DCC to an international audience of consumers and firms. The experience of the DCC as a museum will spread to the street life of Guadalajara so that the project includes and involves everyone, making the place a museum of itself and the entire experience one of a knowledge community.



3.8.

Model Future

Live, eat, breath and think knowledge

CCD provides the opportunity to create a new urban regeneration model for emerging markets, especially in the Latin American context. At the core of this project is creating a place that is social, economically, environmentally sustainable in the urban context.

SUSTAINABLE DESIGN

The importance of sustainability in CCD is threefold - social, economic and environmentable - and consolidates all ideas raised in this masterplan. The project must push the boundary of what a sustainable development is; setting goals for environmental performance, implementing best practices and embedding management systems in the urban fabric. But just as true sustainability is not just environmental, it is also not something that can be considered as a standalone guideline. Moreover, it is a resultant of all the guidelines presented here - covering the practical elements including: ventilation, water, building typology and energy consumption, but also resource management, social and digital inclusion, and political sector involvement.

While CCD is concerned with the localized area of Parque Morelos, DUIS (Desarrollo Urbano Integral Sustentable) is concerned with the halo effect of the entire project, and the larger redevelopment of the city. Real sustainabiity cannot be achieved by tacking things like photovoltaics or insulation or more efficient boilers on to the old modernist city - it can only emerge from a different urban form and way of operating the city. By creating an urban form that is more livable, comfortable, dense, mixed use, and digitally efficient, we can also make a city that is socially, economically and environmentally sustainable. The urban fabric of CCD provides the ideal platform to develop a digital strategy that integrates technology into the sustainability strategy of Guadalajara, providing new and innovative solutions to urban sustainability that increase the viability of the project.

WORKING TOWARDS A CRITICAL MASS

Given that CCD will be a new city embedded within the context of an existing city and a continuum of older local culture and newer ideas. The project area should begin with the development of public facilities and properties already owned (and in some cases partially cleared) by the city and public entities and grow outward as properties can be acquired or redeveloped privately over time, weaving the project together in an incremental and flexible fashion. Within this frame, some buildings, or even whole blocks or street sections, may not be acquired but will redevelop on their own through step by step private reuse. It will be vital to connect the new design with existing architecture, in-situ facilities, and the interests of the local population. Key to this project is creating a sustainable inclusive urban environment that involves the current residents of Guadalajara.

In all, approximately 42 ha could potentially be made available for the project on blocks surrounding or near to the park. This includes the area of the park, itself, which would remain a public space as well as a place for 21st century forms of recreation and work. As with any urban site, to accommodate the anticipated program of uses will necessitate relatively dense development, encouraging the integration of uses and opportunities for creative interaction sought in the 21st century creative environments. However, it is a mistake to think of the CCD as limited to parcels that can be acquired around Parque Morelos. As the project matures, digital media production or other activities of the cluster could easily occupy vacant buildings in and around the city center, providing support for the real estate industry while returning historic structures to active use.
The cluster would also include existing incubators and facilities such as Chapala Media Park, all digitally interconnected.

Our principles for CCD aim to develop a new evolutionary model for designing a creative new city in harmony with its environment - and a innovative mode of urban living. In order to ensure this, CCD should be flexible, parametric and open-source - ensuring that the project evolves and adapts as best possible as it grows over space and time. The design for CCD lies within the rich context of mexican architecture and ways of live, yet it crucially takes heed of the need to adapt to the future. In this way, the courtyard typology that is presented here is intented to be implemented, not in the planned way of early modernism but with organic growth of early cities, learning from the local parameters of its own climate and the feedback from its digital environment. It absorbs lessons from the past as it charts paths for the future.

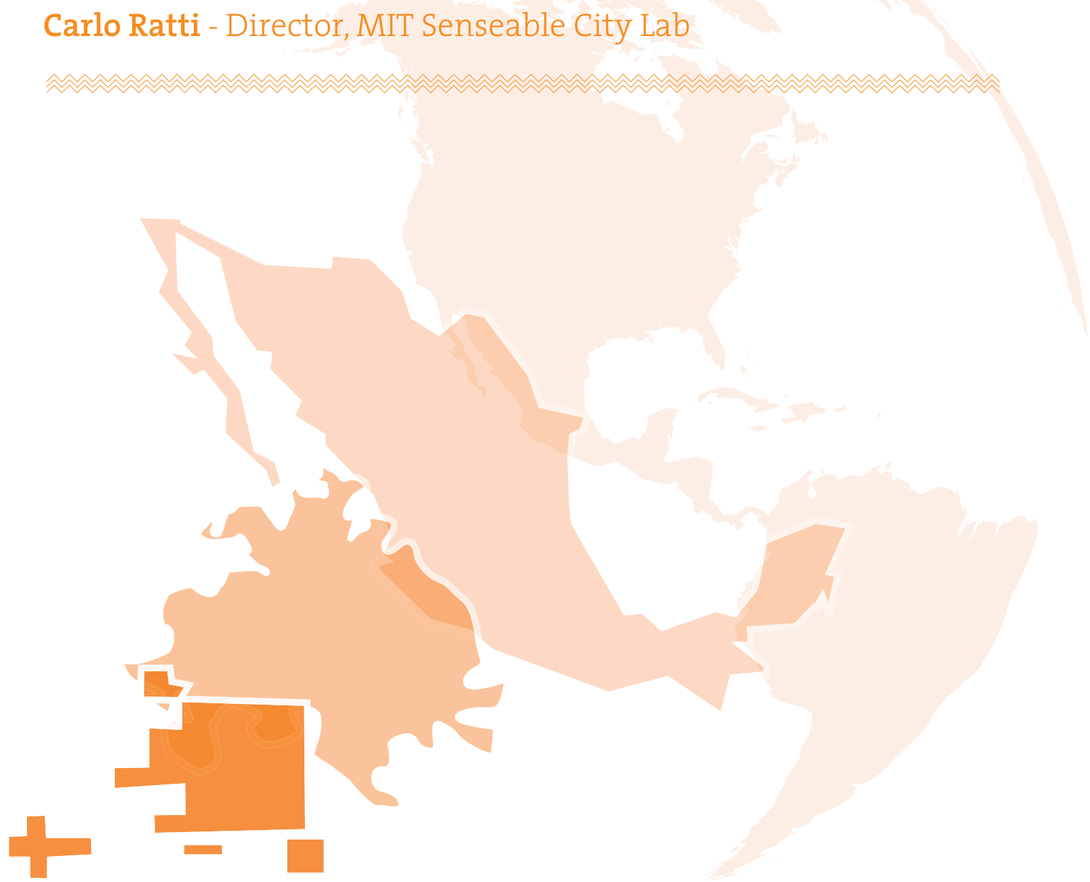
CREATING AN EXPORTABLE MODEL

One of the goals of CCD is to create a world-class hub of digital media development that will become a new model of urban and economic development for the country, and provide the infrastructure and policy framework platform that will help the country attain the position of leadership in creative and media industries. Together the elements and recommendations discussed in this Strategic Report offer the dynamic design for a 21st century, adaptive, sustainable city, leveraging human talent and digital design to evolve organically, enhancing bothe the human and natural environment, and optimising the provision of social, economic and physical resources.

Here the two examples show the difference between a historical downtown which has retained its original form (Bologna) and development has been forced to the outskirts, and a city (London) which has developed organically and integrated contemporary architecture into its historic skyline.

"Imagine combining Silicon Valley entrepeneurship with Mexico's unique culture and traditions; digital media creativity with outdoor working environments of unparalleled lifestyle. The new magnet for the global creative class; that's what Guadalajara is set to become through the Ciudad Creativa Digital."

Carlo Ratti - Director, MIT Senseable City Lab



4

The CCD Context: **Mexico, Jalisco and Guadalajara**

4.1 **Geographic Location**
4.2 **Climate and Natural Context**
4.3 **Connectivity**
4.4 **Economic Status**
4.5 **Demographics**
4.6 **Lifestyle and Cultural Context**

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4.

The Mexican Context

With regards to commerce, economy, and culture, Jalisco is one of the most developed states in Mexico. It accounts for 6% of the national GDP and it receives 6.5% of foreign direct investment (FDI). Its territorial extension and diverse geographic characteristics have allowed for the successful development of various economic sectors, including agriculture, industry, and tourism.

The city of Guadalajara, capital of Jalisco, is the most significant urban concentration in the state, and the Southwest region of Mexico

Ample human capital and economic resources help explain Guadalajara's strong position in industry, services, and tourism. By population, Guadalajara is the second largest city in the country.By geographical position, it acts as a cultural and economic pole, a center for natural resources, a leader in technical and university education, and a pioneer in technological development. The combination of these factors has allowed Guadalajara to become attractive and competitive as a mid-sized global city.

In just a few decades, Guadalajara experienced the full evolution of the traditional colonial city. From compact buildings and low urban density, the city dynamically transformed in population and urban expansion, eventually joining 8 municipalities to become the second largest metropolitan area in the country (behind only México City).

As a principle economic and cultural hub in Mexico, Guadalajara owes its level of development in large part to many recent projects financed by foreign investment, low levels of unemployment, a high percentage of youth population, and a relative ease of doing business.

Though economic activity in Guadalajara is rather diversified, the city has a very strong industrial sector, with significant contributions from the subsectors of technological and electrical manufacturing. There is a notable presence of large national and international enterprises, and a well-developed commercial infrastructure. The principle economic activities in the metropolitan area are industrial manufacturing, commerce, and personal and professional services.

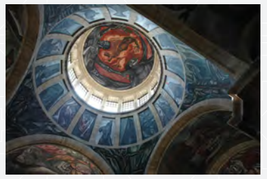
Beyond economic facts indicators, the tangible charms of Guadalajara are equally significant. To speak of Guadalajara is to speak of what it is to be Mexican. Guadalajara is among the cities that have contributed most to the national identity. This is the town that witnessed the birth of the mariachi, and watched folk songs like "la Negra" and "el Jarabe Tapatío" in national anthems. It is also the town that invented tequila, pioneered Mexican folklore arts and crafts, and generated the gastronomic traditions that have become recognizable around the world as Mexican cuisine.

Currently, Guadalajara is experiencing one of the strongest cultural and educational shifts in the Americas, principally supported through a combination of government actions, public and private universities, a wide offering of museums and cultural centers, and the organization of large festivals and cultural events. The city exhibits international artists, and acts as a showcase for international cultural events, extending its radius of influence throughout the countries of Latin America, and the Southwestern United States.





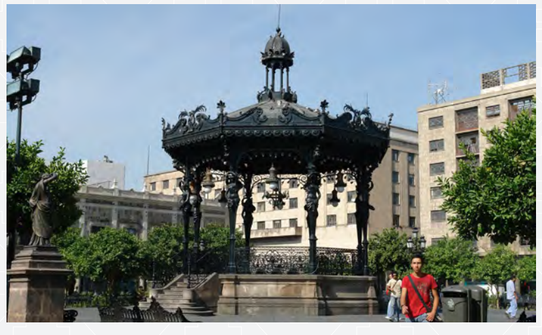
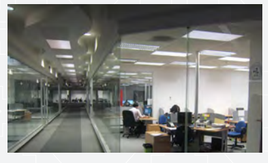
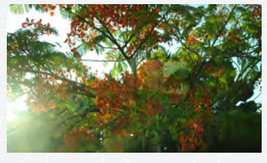
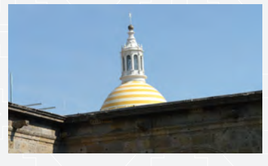


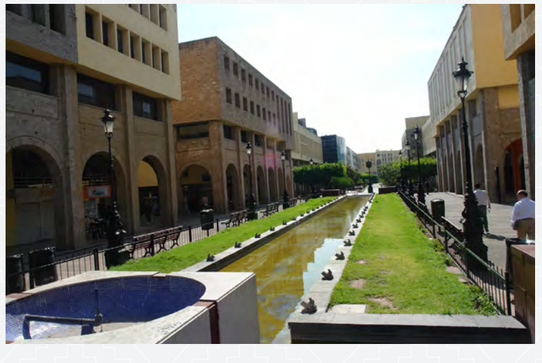
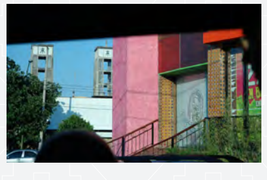
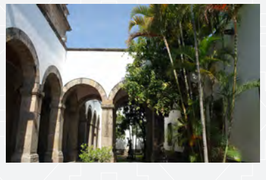




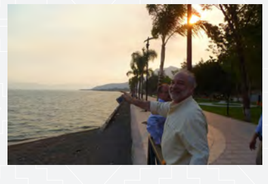




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4.1.

Geographic Location

THE CCD IN MEXICO

The process of selecting the site for DCC began with an assessment of potential cities across the country conducted by ProMexico in the Spring of 2011. The assessment compared a dozen cities across 14 characteristics, including their macro-economic picture, quality of environment, industrial base, and conditions for growth. From this analysis Guadalajara, Monterrey, Tijuana, and Puebla were identified as having the strongest potential to support development of the DCC.

The consulting team conducted its own research and analysis of the sites, collecting and reviewing material gathered from site visits and a series of follow-up conference calls with the cities and ProMexico to identify their strengths and weaknesses. Each of the alternative sites was assessed and rated by criteria outlined and agreed with ProMexico. The criteria captured the full range of physical, institutional and implementation issues that would confront the success of the project at a specific location.

Taking all of the criteria into account, including the analysis previously done by ProMexico, Guadalajara, and specifically the site of Parque Morelos, was established as having the greatest potential as the site for the DCC. Many of the sites suggested by the cities represent outstanding development opportunities in one dimension or another, and all of the cities had at least one site among the top contenders. However, Parque Morelos ranked higly across virtually all of the criteria we considered, underscoring what we see as a remarkable set of strengths upon which to build the new industry chapter.

The following chapter provides an overview of the city and context for the DCC, presenting a full review of the qualities of the site, which together demonstrate why it was the best choice for the site of the DCC. These characteristics have informed the development of the strategic plan for the DCC, and many of the natural qualities of Parque Morelos - it's business and university context, location and traditional building types - have been the foundation of the design of an urban fabric that mixes with technology and 21st century activities to create a model of sustainable development.

MEXICO - KEY FACTS

SOURCE: CIA WORLD FACTBOOK

- Area: 1, 964, 375 sq km
  - Slightly less than three times the size of Texas
- Coastline: 9, 330 km
- Lowest point: Laguna Salada - 10 m
- Highest point: Volcan Pico de Orizaba - 5, 700 m
- Population: 113, 724, 226 (July 2011 est.)
- Urban population: 78% of total population (2010)
- Rate of urbanization: 1.2% annual rate of change (2010-2015 est.)

Latitude: 20° 36' 40" - 20° 45' 00" N
Longitude: 103° 16" 00" - 103° 24' 00" O
Altitude: 1,700 masl

JALISCO

Jalisco is one of the 31 states which, with the Federal District, comprise the 32 Federal Entities of Mexico. It is located in Western Mexico and divided in 125 municipalities and its capital city is Guadalajara.

Economically, it is ranked third in the country, with industries centered in the Guadalajara metropolitan area, the second largest metropolitan area in Mexico. The state is home to two significant indigenous populations, the Huichols and the Nahuas. There is also a significant foreign population, mostly retirees from the United States and Canada, living in the Lake Chapala and Puerto Vallarta areas.

LOCAL GEOGRAPHY

With a total area of 78,599km^2, Jalisco is the seventh largest state in Mexico, accounting for 4.1% of the country's territory. The state is in the center west of the country, bordering the states of Nayarit, Zacatecas, Aguascalientes, San Luis Potosí, Guanajuato, Colima and Michoacán with 342km of coastline on the Pacific Ocean tothe west.

Jalisco is made up of a diverse terrain that includes forests, beaches, plains and lakes. Altitudes in the state vary from between 0 and 4,300 meters above sea level from the coast to the top of the Nevado de Colima. The Jalisco area contains all five of Mexico's natural ecosystems: arid and semi arid scrublands, tropical evergreen forests, tropical deciduous and thorn forests, grasslands and mesquite grasslands and temperate forests with oaks, pines and firs. Over 52% of the bird species found in Mexico live in the state, with 525, 40% of Mexico's mammals with 173 and 18% of its reptile species. There are also 7,500 species of veined plants. One reason for its biodiversity is that is lies in the transition area between the temperate north and tropical south. It also lies at the northern edge of the Sierra Madre del Sur and is on the Trans-Mexican Volcanic Belt, which provides a wide variety of ecological conditions from tropical rainforest conditions to semi arid areas to areas apt for conifer forests.

Its five natural regions are Northwestern Plains and Sierras, Sierra Madre Occidental, Central Plateau, Trans-Mexican Volcanic Belt, which covers most of the state and the Sierra Madre del Sur. It has an average altitude of 1550 masl, but ranges from 0 to over 4000 masl. Most of the territory is semi flat of between 600 and 2,050 masl, followed by rugged terrain of between 900 and 4,260 masl and a small percentage of flat lands of between 0 and 1,750 masl. Priniciple elevations include the Nevado de Colima, the Volcan de Colima, the Sierra El Madroño, the Tequila Volcano, the Sierra Tapalpa, Sierra Los Huicholes, Sierra San Isidro, Sierra Manantlán, Cerro El Tigre, Cerro García, Sierra Lalo, Sierra Cacoma, Cerro Gordo, Sierra Verde and the Sierra Los Guajolotes.

Jalisco's rivers and streams eventually empty into the Pacific Ocean and are divided into three groups: the Lerma/Santiago River and its tributaries, rivers that empty directly into the Pacific and rivers in the south of the state. Jalisco has several river basins with the most notable being that of the Lerma/Santiago River, which drains the northern and northeastern parts of the state. The Lerma River enters extends from the State of Mexico and empties into Lake Chapala on the east side. Lake Chapala is the largest and most important freshwater lake in Mexico, accounting for about half of the country's lake surface. The lake acts as a regulator of the flow of both the Lerma and Santiago Rivers. There are a number of seasonal and salty lakes linking to form the Zacoalco-Sayula land-locked system. There are other smaller lakes called Cajititlán, Sayula, San Marcos, and Atotonilco. Dams include the Cajón de Peña, Santa Rosa, La Vega, Tacotán and Las Piedras. Jalisco's surface water accounts for fifteen percent of the surface freshwater in Mexico.
Jalisco has eight areas under conservation measures totaling 208,653.8 hectares. Two contains scientific research centers. These areas cover 4.8% of the state and only one, the Sierra de Manantlán Biosphere accounts for sixty percent of all legally protected land at 139,500 hectares. The other protected areas include the Chamela-Cuitzmala Bioshere Reserve (13,143 hectares), Nevado de Colima National Park (10,143 hectares), Bosque de la Primavera (30,500 hectares), Sierra de Quila (15,1923 hectares) and the Marine Turtle Protection Zone (175.8 hectares) .

In 1986, four beaches in Jalisco were designated as federal marine turtle sanctuaries: El Tecuán, Cuitzmala, Teopa and Playón de Mismaloya, with an extension of eight km. Playa Majahuitas is 27km southwest of Puerto Vallarta with a rugged coastline, numerous inlets and outcroppings. The Cañon Submarino underwater canyon is located offshore. Chamela Bay has the greatest number of islets in Mexico, many of which are inhabited by numerous bird species.

Jalisco is one of the more important states in Mexico because of its natural resources as well as its history. Many of the characteristic traits of Mexican culture, particularly outside Mexico, are originally from Jalisco, such as mariachi, ranchera music, tequila, jaripeo, etc.

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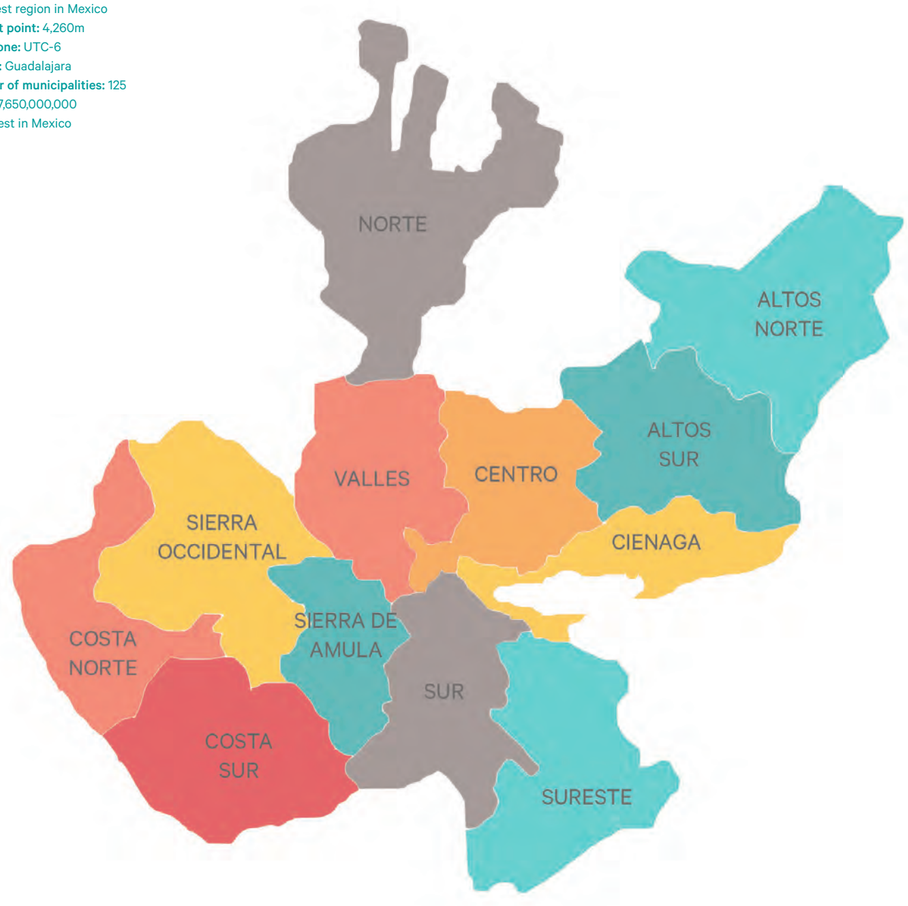
THE TWELVE REGIONS OF JALISCO

JALISCO - KEY FACTS
SOURCE: CIA WORLD FACTBOOK

- **Number of inhabitants:** 6.75 million 6.5% of country's population 4º most populous region in Mexico
- **Total surface area:** 80,360 Km^2 6º largest region in Mexico
- **Highest point:** 4,260m
- **Time zone:** UTC-6
- **Capital:** Guadalajara
- **Number of municipalities:** 125
- **GDP:** 97,650,000,000 4º highest in Mexico



4.2.

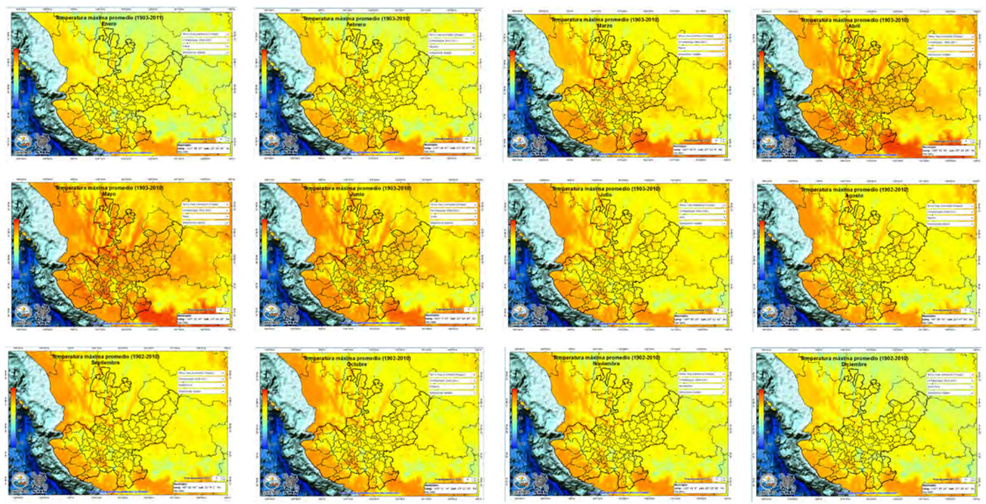
Climate and Natural Context

Most of the state has a temperate climate with humid summers which are tropical. There is a distinct rainy season from June to October. The climate can be divided into 29 different zones from hot to cold and from very dry to semi moist.

Guadalajara has a humid subtropical climate, featuring dry, mild winters and warm, wet summers. Guadalajara's climate is influenced by its high altitude and the general seasonality of precipitation patterns in western North America. Although the temperature is warm year-round, Guadalajara has very strong seasonal variation in precipitation. The northward movement of the Inter-Tropical Convergence Zone brings a great deal of rain, whereas for the rest of the year, the climate is very arid.

Climate data for Guadalajara

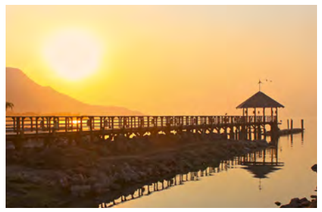
MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
AVERAGE HIGH °C (°F)	20 (68)	22 (72)	26 (79)	28 (82)	31 (88)	29 (84)	26 (79)	26 (79)	26 (79)	26 (79)	25 (77)	21 (70)	25.5 (77.9)
DAILY MEAN °C (°F)	16 (61)	16 (61)	18 (64)	21 (70)	23 (73)	24 (75)	22 (72)	22 (72)	21 (70)	20 (68)	18 (64)	16 (61)	19.8 (67.6)
AVERAGE LOW °C (°F)	5 (41)	6 (43)	8 (46)	13 (55)	15 (59)	16 (61)	16 (61)	16 (61)	15 (59)	12 (54)	7 (45)	4 (39)	11.1 (52)
PRECIPITATION MM	18	5	3	8	33	168	249	208	150	48	18	13	921



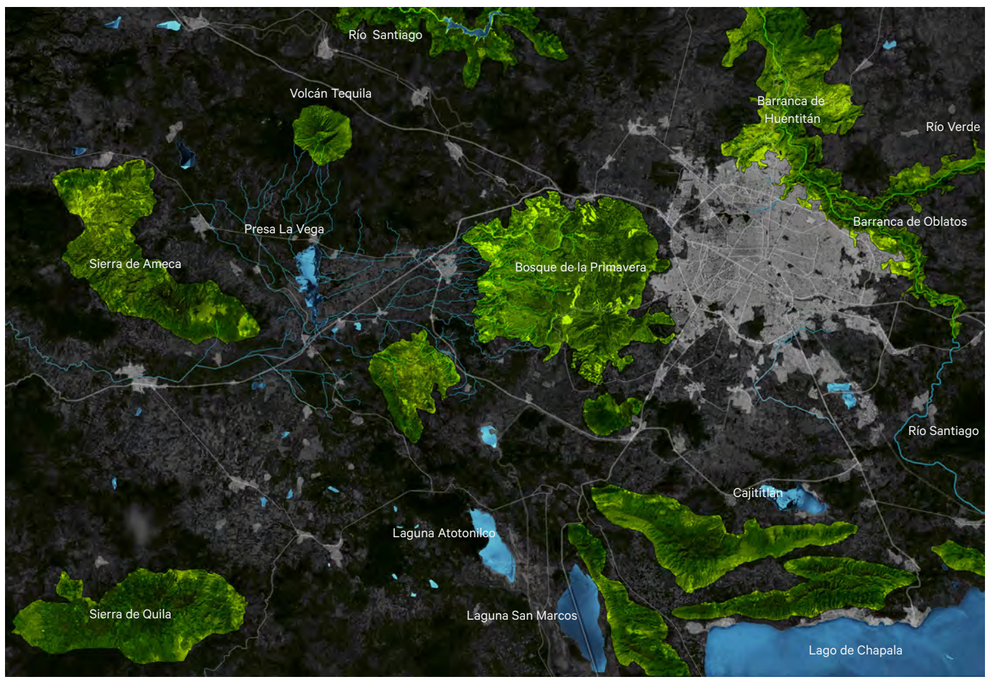
The city of Guadalajara is surrounded by valuable natural reserves. In East and North-East is located the rio Grande de Santiago and its imposing canyon; to the West is the Bosque de la Primavera forest and south of the city are the valleys of low slopes and high agricultural productivity, that ends on the largest lake of the country: Lago Chapala.

Bosque de la primavera

Barranca huentitán



Lago de chapala



4.3.

Connectivity

GUADALAJARA IN MEXICO

Jalisco is the second most important transportation hub; most of the roads in the state radiate outwards from Guadalajara

Until relatively recently, reaching the capital meant traveling down and up steep canyons on narrow winding roads in slow traffic filled with trucks. Today, most of these gorges are traversed by long bridges, making travel far easier.

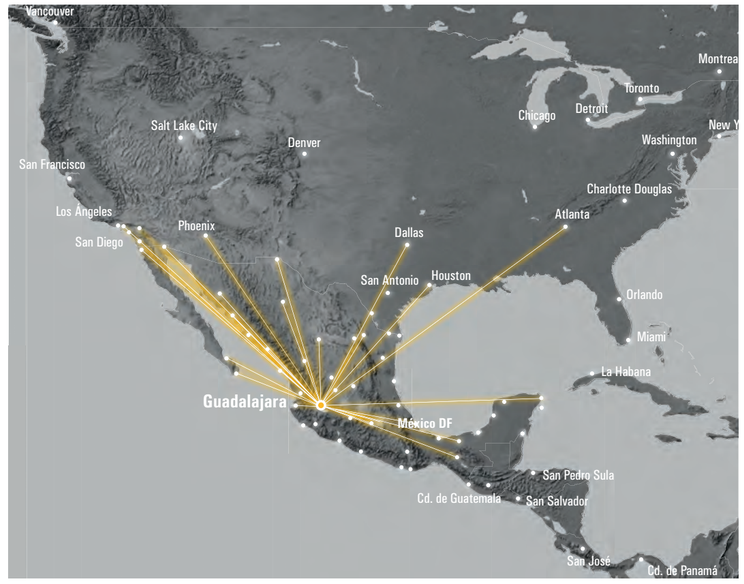
The state has a total of 1,180 km of rail line. The main bus station is the Central de Autobuses of Guadalajara which serves state, national and international destinations. There are four major airports in the state, the largest being Miguel Hidalgo Airport in the community of Tlajomulco de Zuñiga, which serves the city of Guadalajara. The city of Guadalajara represents an important connectivity point northwest of Mexico, looking to the Pacific.

Road

Rail

Sea

Aerport connectivity



NAFTA big comercial corridors

Source: North American Forum on Integration and Programa Nacional de Infraestructura 2006-2012

4.4.

Economic Status

REGIONAL ECONOMY

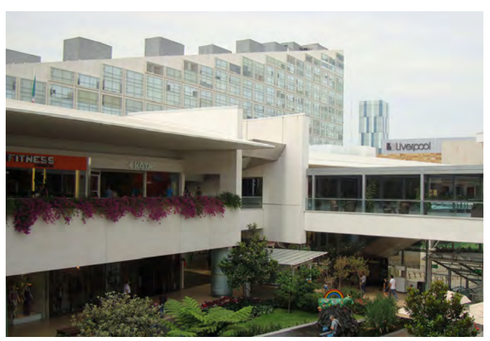
The economy of the state accounts for 6.3% of Mexico's GDP. It is ranked third in socioeconomic indicators behind Nuevo León and the Federal District of Mexico City

The main sectors of the economy are commerce, restaurants and hotels at 26.1%, services at 21.5%, manufacturing (food processing, bottling and tobacco) at 19.4%, transport, storage and communications at 11.8%, financial services and real estate at 11.2%, agriculture, forestry and fishing at 5.5%, and construction at 4.4%.Jalisco earns just under six percent of Mexico foreign earnings from tourism and employment from the various multinational corporations located in the state, exporting more than $5 billion annually to 81 countries and ranks first among the states in agribusiness, computers and the manufacturing of jewellery. Just over 57% of the population of the state is economically active, the sixth highest percentage in Mexico. 96.6% of this population has employment, of which 15.88% are employed in agriculture, livestock, forestry and fishing, 28.96% are in mining, utilities and construction and 54.82% are in commerce and services. The major employers are industry in general, commerce and services. Guadajalara drives the state's economic growth, making Jalisco third in construction in the country.

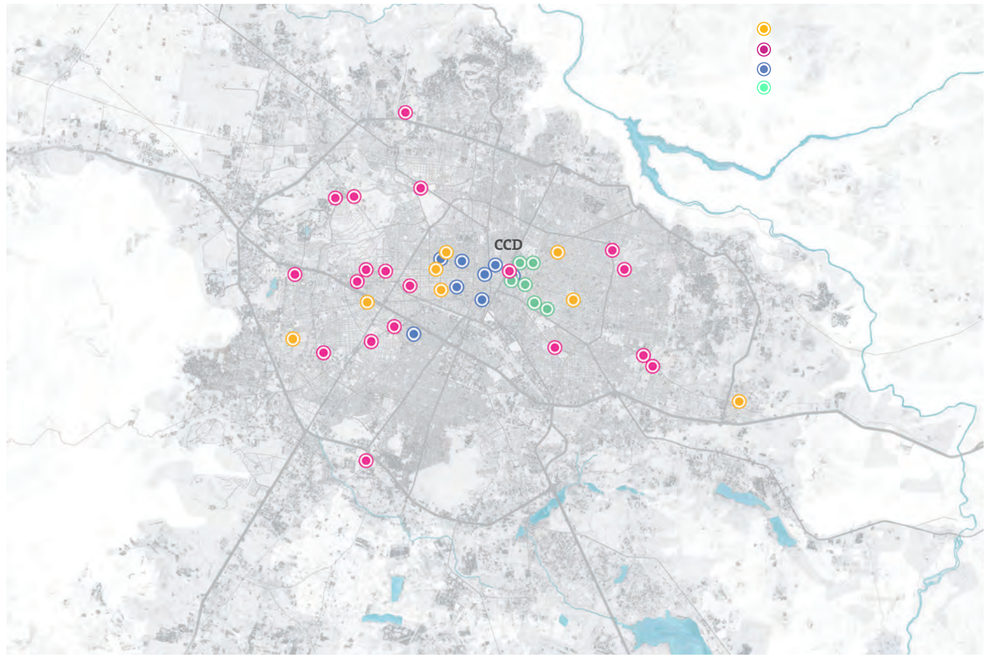
Guadalajara's economy is based on industry, especially electronics and cybernetics, much of which is located just outside the city center. These industries account for about 75% of the state's production of goods. Jalisco supports the creation and acceleration of IT Mexican companies and has developed a robust infrastructure for global companies to conduct business in and from Jalisco. As such the state is a national leader in industries such as IT and exports and investments, and Guadalajara alone is home to over 600 IT enterprises..

The state has created advanced technology centers such as the Software Center, the Software and Integrated IT Services Park both in Guadalajara and the Media Park in the city of Chapala. Over 70 international companies are offering advanced IT services including application design, development and testing, embedded software for the automotive industry, wireless applications, printers and medical devices, and several areas related to multimedia development. Intel Corporation created the Systems Research Center and the Guadalajara Design Center, both attracting high level talent and the largest concentration of PhD graduates in the country. Similarly, IBM Corporation turned the successful factory of Thinkpads into the Systems Design Center, also hosting important branches for consultancy services.

In order to raise the quality of life level in the area, initiatives from Government and private sector are aimed at Guadalajara becoming the Mexican High Tech western ecosystem, and with the support of Canieti, the private electronics industry chamber who will part of the implementation team for the proposed DCC, have promoted Jalisco as the Mexican "Silicon Valley".
Another important sector of the economy is handcrafts, especially ceramics. Jalisco is the leader in Mexico by volume, quality and diversity of the produced exported which total more than 100 million dollars annually.Jalisco accounts for ten percent of all the handcrafts exported from Mexico. The most representative of the state are the ceramics of Tlaquepaque, Tonalá and Tuxpan, but other common items include the huarache sandals of Concepción de Buenos Aires, piteado from Colotlán, majolica pottery from Sayula, blown glass from Tlaquepaque and Tonalá, equipal chairs from Zacoalco de Torres, jorongo blankets from Talpa and the Los Altos Region and baskets from various parts of the state.
Guadalajara's tourism is mostly concentrated in Puerto Vallarta and Guadalajara. The state has the second largest number of hotels and tour agencies in Mexico and the third highest number of hotel rooms. The state ranks second in banking services and third in professional, technical and other specialized services.
Most of Guadalajara's economic growth since 1990 has been tied with foreign investment. International firms have invested here to take advantage of the relatively cheap but educated and highly productive labor, establishing manufacturing plants which re-export their products to the United States, as well as provide goods for the internal Mexican market. Exports from the city went from 3.92 billion USD in 1995 to 14.3 billion in 2003. Guadalajara is the distribution center for the region and its demands as such have led to a shifting of employment from traditional agriculture and crafts to manufacturing and commerce in urban centers. This has led to mass migration from the rural areas to the metropolitan area.



Guadalajara is the second commercial city of Mexico
Source: Secretaría de Promoción Económica, Ayuntamiento de Guadalajara



ECONOMIC GROWTH IN GUADALAJARA

Most of Guadalajara's economic growth since 1990 has been tied with foreign investment. International firms have invested here to take advantage of the relatively cheap but educated and highly productive labor, establishing manufacturing plants which re-export their products to the United States, as well as provide goods for the internal Mexican market. Exports from the city went from 3.92 billion USD in 1995 to 14.3 billion in 2003. Guadalajara is the distribution center for the region and its demands as such have led to a shifting of employment from traditional agriculture and crafts to manufacturing and commerce in urban centers. This has led to mass migration from the rural areas to the metropolitan area.

MEXICAN'S SILICON VALLEY SOURCE: GOBIERNO DE JALISCO, LAST 14 YEARS

- 4, 560 MUSD investment
- 147, 590 MUSD export
- 50, 000 increase in number of employers
- 87, 000 total employment
- 12 OEM'S
- 14 CEM'S / EMS (one of the most important EMS's concentration worldwide)
- 380 increase in number of specialized suppliers
- 20 BPO / ITO centers
- 36 Design Centers
  +21 companies entering or already focused in aerospace industry
- 4 research centers
  +150 software companies
- 2 software parks + 1 multimedia park
- Software center & tecnopolo (CINVESTAV)
- 2 high tech incubators

AEROSPACE

Global Vantage
ST soluciones tecnologicas
flextronics
CGM
JABIL
ZOLTEK
HYDRA techonologies
SANMINA-SCI
Benchmark

ELECTRONIC MANUFACTURING

foxconn
flextronics
hp
IBM
kodak
siemens
sanmina-sci
technicolor

SOFTWARE AND SERVICE

IBM
hp
TATA
softtek
iGATE
DELL
Aportia
Innevo
AM
giro
computation en accion
Netcommerce
level 5
Hildebrando
estrasol

ELECTRONIC DESIGN

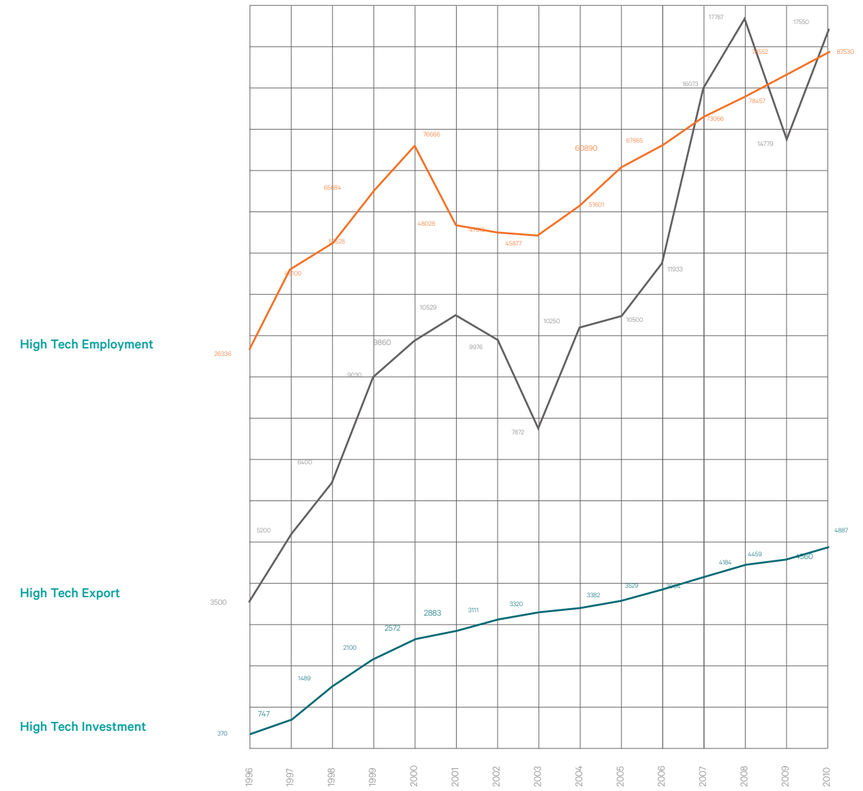
A2e
intel
Continental
freescale
ST
ARTECHE
SOLUTIONSgroup
Gollet
Testing House
Eneri

AUTOMOTIVE

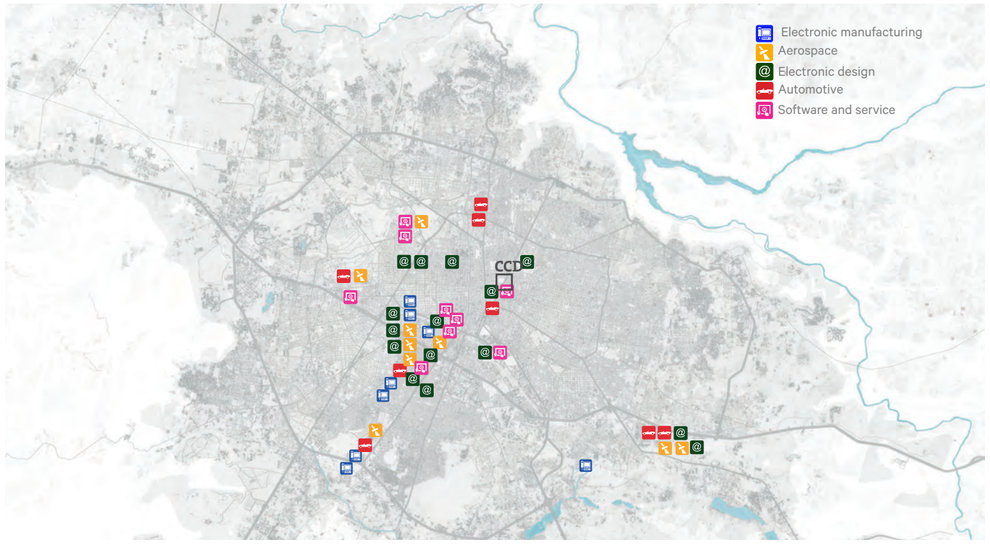
continental
ZF
EPIQmx
BorgWarner Morse TEC
Interplex industries Inc.
JABIL
VOGT eletronic
trend

CANIETI
www.canieti.org

HIgh-Tec industry growth



Ecosistem of High-Tec industry in Guadalajara



4.4.1 Creative media project

MEDIA VOCATION IN GUADALAJARA

Guadalajara was the highest ranking major Mexican city having the second strongest economic potential of any major North American city and only Chicago scored more highly for sheer economic potential, in the same research was considered the "city of the future" due to its youthful population, low unemployment and large number of recent foreign investment deals, it was also found the third most business friendly city in North America.

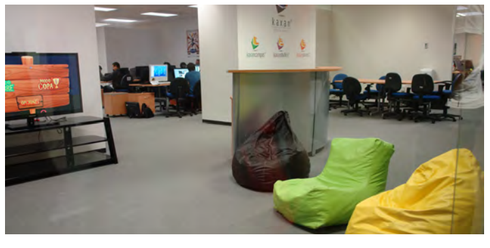
Remarkably, Intel Corporation created the Systems Research Center and the Guadalajara Design Center, both attracting high level talent and the largest concentration of PhD graduates in the country. Similarly, IBM Corporation turned the successful factory of Thinkpads into the Systems Design Center, also hosting important branches for consultancy services.

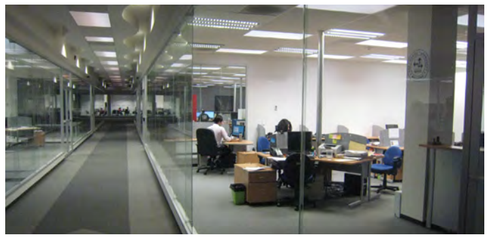
There is easy acess in Guadalajara to many Universities and technical training programs including the University of Guadalajara School of Digital Arts, CAAAV Audio Visual Arts Center, CUCEI Science and Engineering campus as well as many others.

As such a large number of companies are working in Guadalajara in the fields of film, commercial animation and video gaming producing material for Mexican and global distribution

TECH MEDIA INCUBATORS

In addition to the 12 OEM's, 14 CEM's and 20 BPO/ITO centres, Guadalajara is home to 36 Design Centres, 2 Software Parks, 2 High Tech Incubators and 1 Multimedia Park. The Jalisco State Science and Technology Council and the Economic Promotion Council has been instrumental in attracting or creating 600 high tech business, 150 software and services ventures and 8 small business incubators and technology parks. 2 of these successful incubators have been set up in-town with a host of media startups.





Guadalajara International Film Festival
The mose prestigious film festival in Latin America

FESTIVAL INTERNACIONAL de Cine en Guadalajara

kaxan®
MEDIA·GROUP

CHAPALA MEDIA PARK

Recently rescued, Chapala Lake has become an ideal place for new ventures, including the media industry, research venues and recreational business areas. The Chapala Media Park project mission is to design, install and organize the functionality of a Digital Art and Interactive Media International Consortium in the Chapala Area in Jalisco. Facilities include:

- Two buildings with the capacity of housing more than 200 digital arts designers;
- A conference space specifically designed for the use of multimedia technologies;
- Post production capability;
- High definition audio cabin;
- Offices, meeting rooms, general services, all fitted with the latest technology.
- The world´s most modern and biggest animation equipment in Latin America.

Minerva Fashion
A critical platform showcasing the best footwear, clothing, jewelry and textile products created in Jalisco

FASHION AND JEWELLERY

Bazart is a bi-monthly fashion exhibition hosted at the Larva events center at Del Tepeyac 54. There, about 35 fashion designers show and sell their clothes, accesories and shoes. This event has been gaining in popularity since it's foundation two years ago by Argentinian fashion designer Andy Dabula and his partner Julia Mayfair from Guadalajara. One of the main aims to promote Mexican identity in the design of their offering, making their fashion fairly unique and original.

Guadalajara is a very modern city full of many fashion forward teens and young adults who want to keep up with the latest trends and styles, as such the local fashion scene is strong. But at the same time Guadalajara has a strong tradition in local handicrafts. City guides will point you towards the small towns of Tlaquepaque and Tonala, which are now within the metropolitan area.

*Reevolver is the digital ID for Salvador Ramirez Madriz a graduate from Cinematography and Animation living and working in Guadalajara.

DIGITAL MEDIA EDUCATION

Guadalajara has over 6,000 graduates from Engineering and the Arts every year. There are a number of courses available in digital media including four degrees at the specialist University of Digital Arts, Guadalajara. The first institution in Mexico dedicated 100% to digital media development, with official recognition of studies and support from the Chamber of Commerce, the UDA offers courses in:
- Animation

- Digital Design
- Audiovisual Production
- Games Development

4.5.

Demographics

THE POPULATION OF GUADALAJARA

As of 2010, the state population is 7,350,682, the fourth most populated state in Mexico, with 6.5% of Mexico's total population. 87% of the population lives in urban centers compared to 78% nationally. Over half of the state's population lives in the Guadalajara metro area.

Guadalajara, capital of Jalisco state in southwest Mexico, is the second largest city of Mexico. The total population of the metropolitan area totaled 4,364,069 inhabitants in 2010, distributed in the eight municipalities in the area, ie a total area of 2,734 km ² with an average density of 159.6 inhabitants per hectare , the most populous municipality in the Guadalajara area is a population of nearly 1.5 million people in contrast to Juanacatlán with just over 13 thousand inhabitants, the latter being the least populated of the eight municipalities.

Since 1995, over 22% of the state population was born somewhere else. About three quarters of these live in the Greater Guadalajara area. Those who migrate into the state are from Michoacán, Mexico City, State of Mexico, Sinaloa and Baja California. Another distinct group living in the state is foreign temporary residents or expats, an overwhelming majority of which are from the United States and Canada, concentrated in and around the small town of Ajijic by Lake Chapala.

POBLACIÓN DE LAS ZONAS METROPOLITANAS DE MÉXICO (MILES DE HABITANTES)

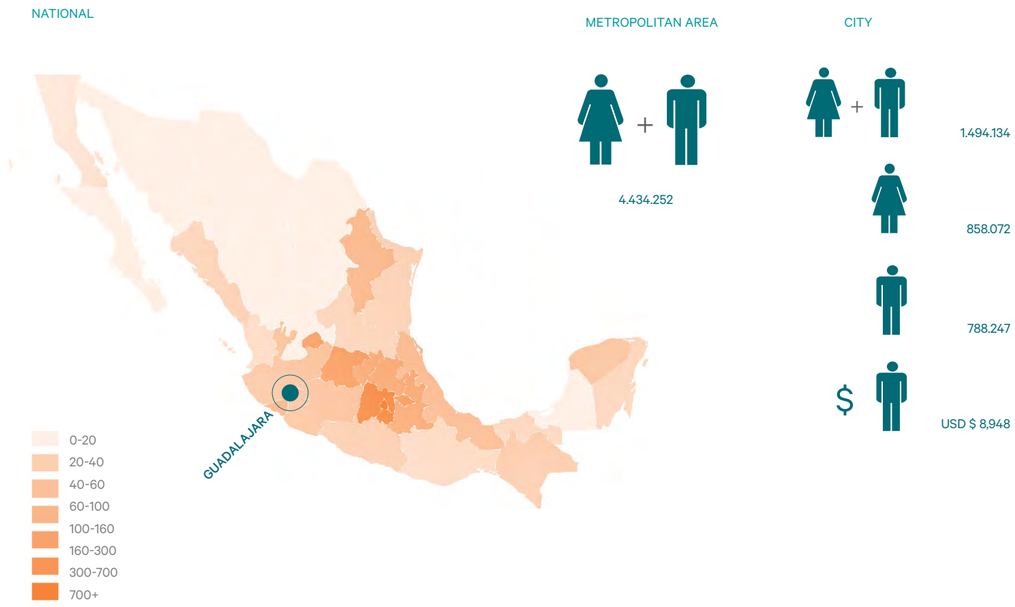
DEMOGRAPHIC GROWTH

The results of Mexico's 2010 population census revealed that the population residing in the Guadalajara Metropolitan Area (GMA) increased from 3.7 million in 2000 to 4.4 million. The census results also show clearly that the GMA is continuing to experience the effects of suburbanization and counter-urbanization.

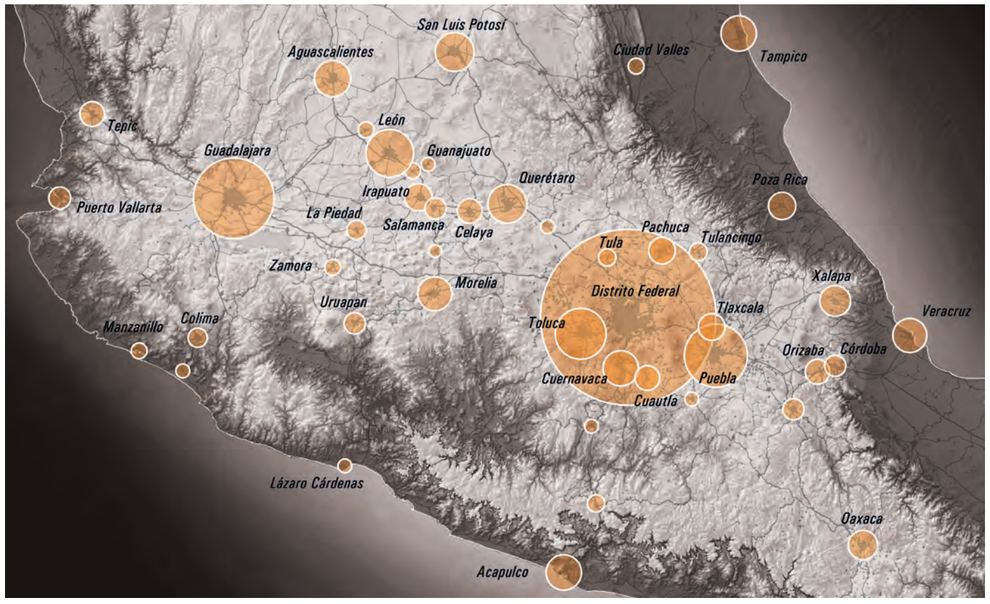
Note, that the population of Guadalajara proper (the municipality of that name) has actually declined significantly since 2000, from 1,647,720 to 1,494,134. The city is not bounded by the municipal boundary, but spreads into several adjoining municipalities, all of which have experienced population growth between 2000 and 2010.

YEAR	PEOPLE	GROWTH
1950	478.912	6,08%
1970	1.527.984	3,37%
1990	3.003.868	2,7%
1995	3.482.417	1,4%
2000	3.699.136	1,8%
2005	4.095.853	1,7%
2010	4.434.252	-

DEMOGRAPHY



URBAN SYSTEM OF CENTRAL MEXICO



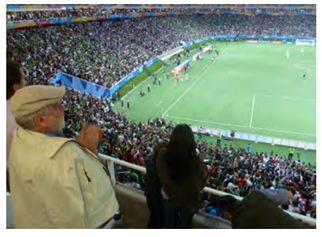
4.6.

Lifestyle and Cultural Context

Guadalajara is the cultural center of western Mexico and the second most important cultural center in the country - it is nicknamed the “Pearl of the West.” While it is a modern city, it has kept many of the rural traditions of Jalisco, such as mariachi and a strong sense of catholicism. Guadalajara is a center of learning with six universities, two culinary institutes and a thriving art scene. The city’s Centro Histórico (Historic Center) is dotted with proud colonial relics that house museums, government offices, bars and hotels. There are dozens of leafy plazas with gushing fountains, strolling families and shredding skaters. The Zona Rosa, more modern and spread out, is sprinkled with fashionable restaurants, coffee houses and nightclubs. Guadalajara residents (nicknamed ‘tapatíos’, which also refers to anyone Jalisco-born) are warm and eager to share the essence of their city.





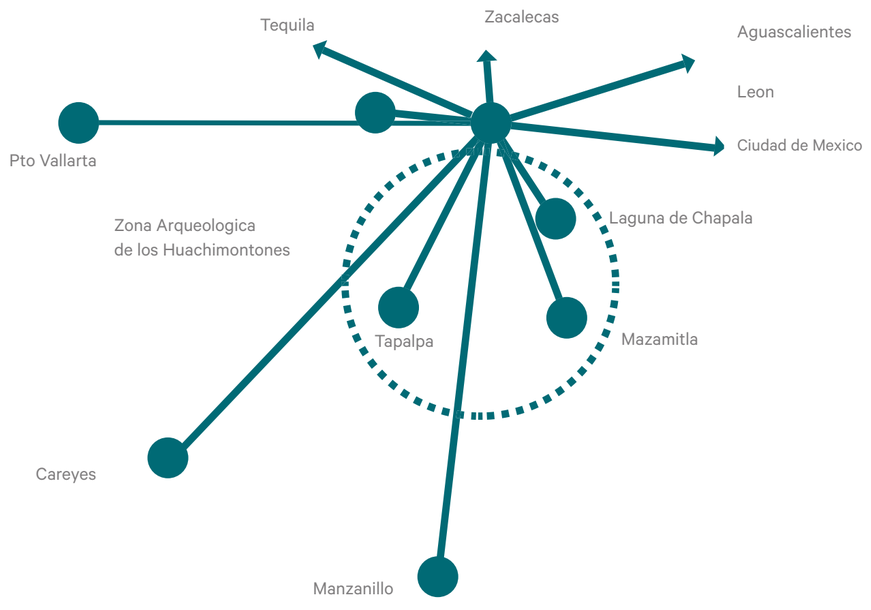




TOURISM

Cultural tourism is one of the most important economic activities, especially in the historic center, its tourism infrastructure is both national, international and local. There are hotels, motels, guesthouses, suites, apartments, campsites and trailer parks scattered throughout the city of Guadalajara. According to figures from the Ministry of Tourism of Jalisco, in 2006 there were 180 hotels in the city amounted to 12,248 rooms in total. Within the metropolitan area the number of hotels and rooms amounted to 261 and 18,113 respectively..

TYPE OF HOTEL	NUMBER OF HOTELS	TOTAL OF ROOMS
GRAN TURISMO	8	996
5 STAR	9	1843
4 STAR	51	5327
3 STAR	39	2960
2 STAR	20	862
1 STAR	46	2202
BASIC	39	1837
UNCLASSIFIE	49	2736
TOTAL	261	18113

TOURISM FIGURES IN THE METROPOLITAN AREA OF GUADALAJARA



4. 6. 1
Cultural attractions

Cultural activity is strong in the city as well as sports and recreation. Among the assets, this urban area is well served by hotel and condos areas, and brings important tournaments of golf, tennis, and soccer. The Pan American Games 2011, the most important sports competition in the region have been pushing infrastructure works for stadiums, transportation, lodging and services.

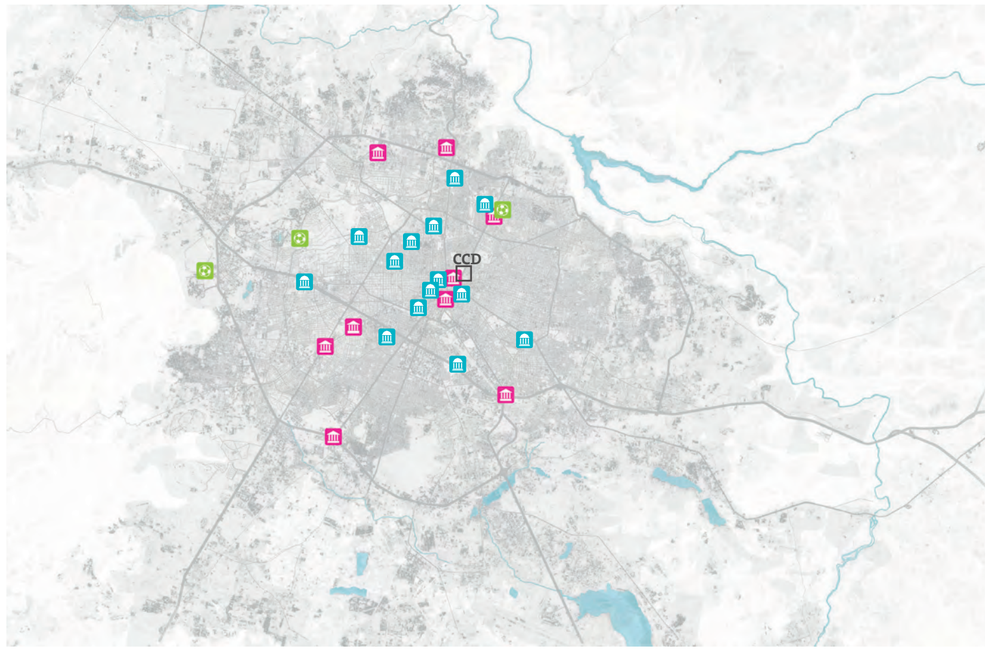
Guadalajara has twenty two museums, which include the Regional Museum of Jalisco, the Wax Museum, the Trompo Mágico children's museum and the Museum of Anthropology.

The Hospicio Cabañas in the historic center is a World Heritage Site. Guadalajara is home to two of the most important cultural events in Latin America with the GIBF (Guadalajara International Book Fair) and the International Film Festival

The city is also considered home of the mariachi music, a very typical representation of Mexico's cultural activity, and the Jalisco State, of which Guadalajara is the capital, is the birthplace of the world renowned tequila. For these attributes and others, the city was named an American Capital of Culture in 2005.

Cultural attractions in Guadalajara

Museums
Cultural facilities
Soccer stadiums



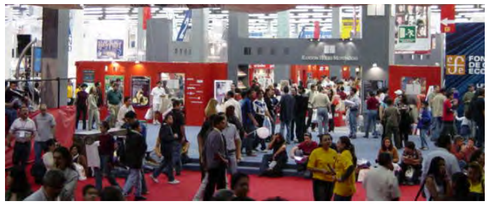
MUSEUMS

1. Casa Museo López Portillo
2. Casa Taller José Clemente Orozco
3. Centro de Ciencia y Tecnología Planetario
4. Centro de Información sobre Guadalajara
5. Colegio del Aire de la Fuerza Aérea Mexicana
6. Globo Museo del Niño de Guadalajara
7. Instituto de las Artesanías Jalisciense
8. Museo de Arqueología de Occidente de México
9. Museo de Arte de Zapopan "MAZ"
10. Museo de Arte Huichol Wixárica
11. Museo de Caza Benito Albarrán
12. Museo de Cera
13. Museo de lo Increíble
14. Museo de la Ciudad
15. Museo de la Virgen de Zapopan
16. Museo de las Artes "MUSA"
17. Museo de las Artes Populares
18. Museo de Paleontología de Guadalajara
19. Museo del Ejército y de la Fuerza Áerea
20. Museo del Periodismo y las Artes Gráficas (Casa de los Perros)
21. Museo Pantaleón Panduro del Premio Nacional de la Cerámica
22. Museo Raúl Anguiano
23. Museo Regional de Guadalajara
24. Museo Regional de la Cerámica
25. Museo Regional de la Cerámica de Tlaquepaque
26. Museo Tonallán
27. Trompo Mágico Museo Interactivo
28. Museo Virtual de Jalisco
29. Museo de Palacio de Gobierno
30. Museo de arte moderno y contemporáneo

FESTIVALS

- Encuentro Internacional del Mariachi y la Charrería
- La Feria Municipal del Libro de Guadalajara
- Festival Cultural de Mayo
- Fotoseptiembre
- Las Fiestas de Octubre
- Zapopúm!
- Muestra Internacional de Danza Contemporánea en Guadalajara
- Festival "Onesimo González" de Danza Contemporánea
- Festival Chroma, artes audiovisuales
- Festival Internacional de Cine en Guadalajara

Main entrance during the 2002 Guadalajara International Book Fair
The most important publishing gathering in Ibero-America



Modern and Contemporary Art Museum
Designed by Herzog and De Meuron

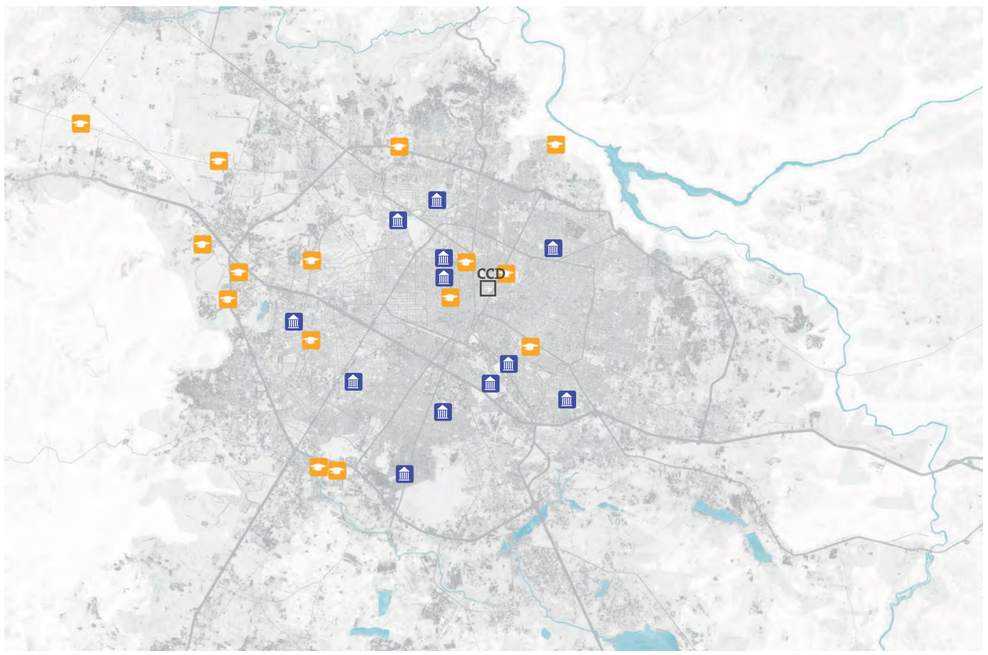
4. 6. 2 Education

Guadalajara is a very important hub for universities and educational centers with national and worldwide prestige, such as Universidad Panamericana, ITESO, Universidad de Guadalajara, Monterrey Institute of Technology and the Universidad Autonoma de Guadalajara (U.A.G.), among others. It has several U.S. accredited Universities. These options highlight the city as a learning center and includes technology training centers and diverse options like two culinary institutes, a renowned philharmonic orchestra and art schools.

Basic education accounts for 356,000 students and 1,700 schools: for technical and higher education almost 80 institutions registered 75,000 students by 2009. The region generated almost 18,000 graduates on Information technology and related professions.

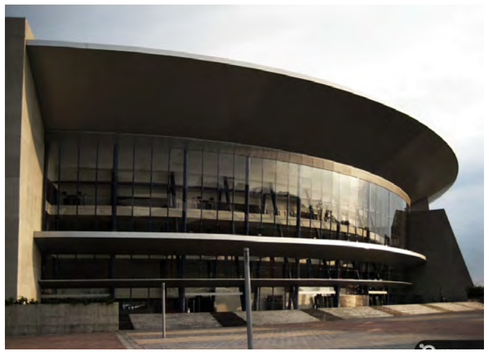
	GUADALAJARA	JALISCO
POPULATION OF 6 YEARS OLD, 2010	1,334,690	6,426,598
POPULATION OF 5 YEARS OLD WITH PRIMARY SCHOOL, 2010	406,151	2,466,609
POPULATION OF 18 YEARS OLD PROFESSIONAL LEVEL, 2010	252,847	821,983
POPULATION OF 18 YEARS OLD WITH POSTGRADUATE SPECIALIZATION, 2010	19,141	65,256
AVERAGE GRADE OF SCHOOLING OF THE POPULATION 15 AND OVER, 2010	10.0	8.8
PUBLIC LIBRARIES, 2009	13	182
CONSULTATIONS IN PUBLIC LIBRARIES, 2009	134,765	1,797,640

Universities and main libraries in Guadalajara



University of Guadalajara Rectory

University of Guadalajara Cultural Center



UNIVERSITIES

- Instituto Tecnológico de Ciudad Guzmán
- Universidad Autónoma de Guadalajara (UAG)
- Universidad Autónoma de Occidente UAO
- Universidad de Guadalajara (UDG) Centro Universitario de Ciencias Exactas e Ingeniería(CUCEI)
- Universidad de Guadalajara (UDG) Centro Universitario de Ciencias Biológicas y Agropecuarias (CUCBA)
- Universidad de Guadalajara (UDG) Centro Universitario de Ciencias de la Salud
- Universidad de Guadalajara (UDG) Centro Universitario de Ciencias Económicas y Administrativas (CUCEA)
- Universidad de Guadalajara (UDG) Centro Universitario de Ciencias Sociales y Humanidades
- Universidad de Guadalajara (UDG) Centro Universitario de la Ciénega
- Universidad de Guadalajara (UDG) Centro Universitario de la Costa Sur
- Universidad de Guadalajara (UDG) Centro Universitario de los Altos
- Universidad de Guadalajara (UDG) Centro Universitario del Norte
- Universidad de Guadalajara (UDG) Centro Universitario del Sur
- Universidad del Valle de Atemajac
- Universidad La Salle Guadalajara
- Universidad Panamericana. Plantel Guadalajara
- Universidad Panamericana (UP)
- Universidad Pedagógica Nacional

LIBRARIES

- Biblioteca Agustín Yáñez
- Biblioteca Santiago Méndez Bravo
- Biblioteca de Ciencias Sociales y Humanidades
- Biblioteca Gabriel Covarrubias
- Biblioteca Iberoamericana
- Biblioteca Ma. Luisa Hidalgo Riestra
- Biblioteca Pública del Estado
- Biblioteca del Periodismo
- Biblioteca Beatriz Hernández
- Biblioteca Esmeralda
- Biblioteca Fray Antonio de Segovia
- Biblioteca José Cornejo Franco

5

The CCD in **Guadalajara**

5.1 **Metropolitan Scale**

5.2 **The Historical Center as an Ecosystem of Innovation**

5.3 **DUIS Mosaico**

5.4 **The Mosaico in Detail**

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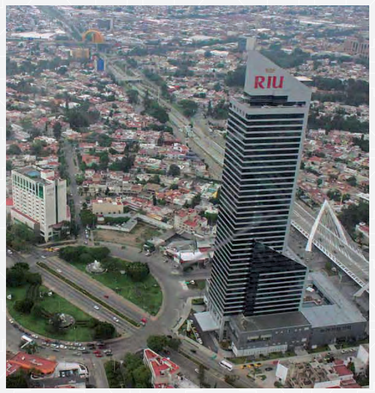
5.

The CCD in Guadalajara

Guadalajara, "The Pearl of the West," was established in three other places before where it is now. The city has deep colonial roots which are evident everywhere around the city. The city center is laid out like a cross, which consists of the Guadalajara cathedral and 4 surrounding plazas. The historical center of Guadalajara contains the greatest concentration of urban architectural heritage in the metropolis. Much of this heritage is religious in character, including the Guadalajara Cathedral, Barroque Temples, and various Cloisters. These buildings are artifacts from the Colonial Period (XVI - XVIII centuries). The Guadalajara metropolitan area includes seven adjacent municipalities with a reported population of 4,364,000 in 2011, making it the second most populous metropolitan area in Mexico, behind Mexico City. The growth of Guadalajara and adjacent municipalities has manifested horizontally with unrelenting, uninhibited outward expansion. As a result, a dense network of nodes of urban intensity, economic activity, shopping and industry are sprinkled in between vast expanses of residence, necessitating the organization and management of this large territory with a truly metropolitan focus. Reinforcing the metropolitan growth model requires substantial efforts to align the city in the direction of sustainability. The densification of the interior of the city can significantly reduce the costs of urbanization, namely by taking advantage of existing infrastructure and services, eliminating settlement in inappropriate or unsafe areas, and reversing the urban fragmentation in particular municipalities. The city possesses very central urban areas that have great potential for redevelopment, but are surrounded by degraded neighborhoods, a circumstance that requires wider interventions in order to encourage lasting, positive synergies. This is the case in the city center, where the most traditional neighborhoods are in general disrepair, and in need of revitalization efforts.

The great challenge for Guadalajara is not just densification and rehabilitation, is to reconvert the center of Guadalajara into an ecosystem of innovation; is to create the conditions necessary for making the central area of Guadalajara the most diverse, the densest, and the most connected area of the city, with a complimentary layer of new spaces for creativity and innovation.

With this intention, the strategy of the Mosaico focuses on creating ecosystem of innovation taking advantage of the historical center of Guadalajara that exhibits the ideal scale, architecture, character, and location for this type of ambition. To fully take advantage of these strengths, the historical center must realign to provide the physical and virtual spaces for collaboration, symbiosis, and synergy between different businesses and people. Its mission is to provide open spaces for residents, visitors, artists, businesspeople, the young and the elderly to interact. These are the places in which art and technology, past and future, and the physical and virtual coexist.







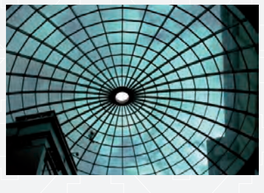














5.1.

Metropolitan Scale

The city of Guadalajara is located in the central region of Jalisco, in the geographic area known as the Atemajac Valley. As the principle urban concentration in Jalisco, Guadalajara is second only to metropolitan Mexico D.F. in population. With a total of 4,364,000 inhabitants, Guadalajara includes the municipalities of Guadalajara, Zapopan, Tlaquepaque, Tonalá, Tlajomulco de Zúñiga, El Salto, Juanacatlán e Ixtlahuacán. Its critical mass, location, and extension of infrastructure has historically placed Guadalajara in an important role in the systems of México, positioning the city as the central connector between the central and northwest regions of the country.

Guadalajara is the principle urban and commercial center of Jalisco and the western region of Mexico. It is also a primary service sector center, especially in advanced production services. Additionally, the city boasts substantial, diversified economies in the sectors of manufacturing and commerce. Urban improvements, including recent successes with iconic projects like the XVI Pan-American games, have combined to create a modern, attractive image for Guadalajara, a factor which continues to stimulate urban tourism. The offering of commercial, health, and educational infrastructure, along with personal, financial, and corporate services is the most developed in Jalisco. Together, these strengths combine to create Guadalajara's most significant economic sector, and indicate a highly advanced economic structure.

The growth of Guadalajara and adjacent municipalities have manifested in an horizontally with unrelenting, uninhibited outward expansion. As a result, a dense network of nodes of urban intensity, economic activity, shopping, industry are sprinkled in between vast expanses of residence, necessitating the organization and management of this large territory with a truly metropolitan focus.

Metropolitan Zone of Guadalajara

Municipality	Population
Guadalajara	1,469,000
Zapopan	1,225,000
Tlaquepaque	603,000
Tonalá	471,000
Tlajomulco de Zuñiga	405,000
El Salto	138,000
Ixtlahuacán de los Membrillos	41,000
Juanacatlán	13,000
TOTAL MZG	**4,364,000**

Source: INEGI, 2011

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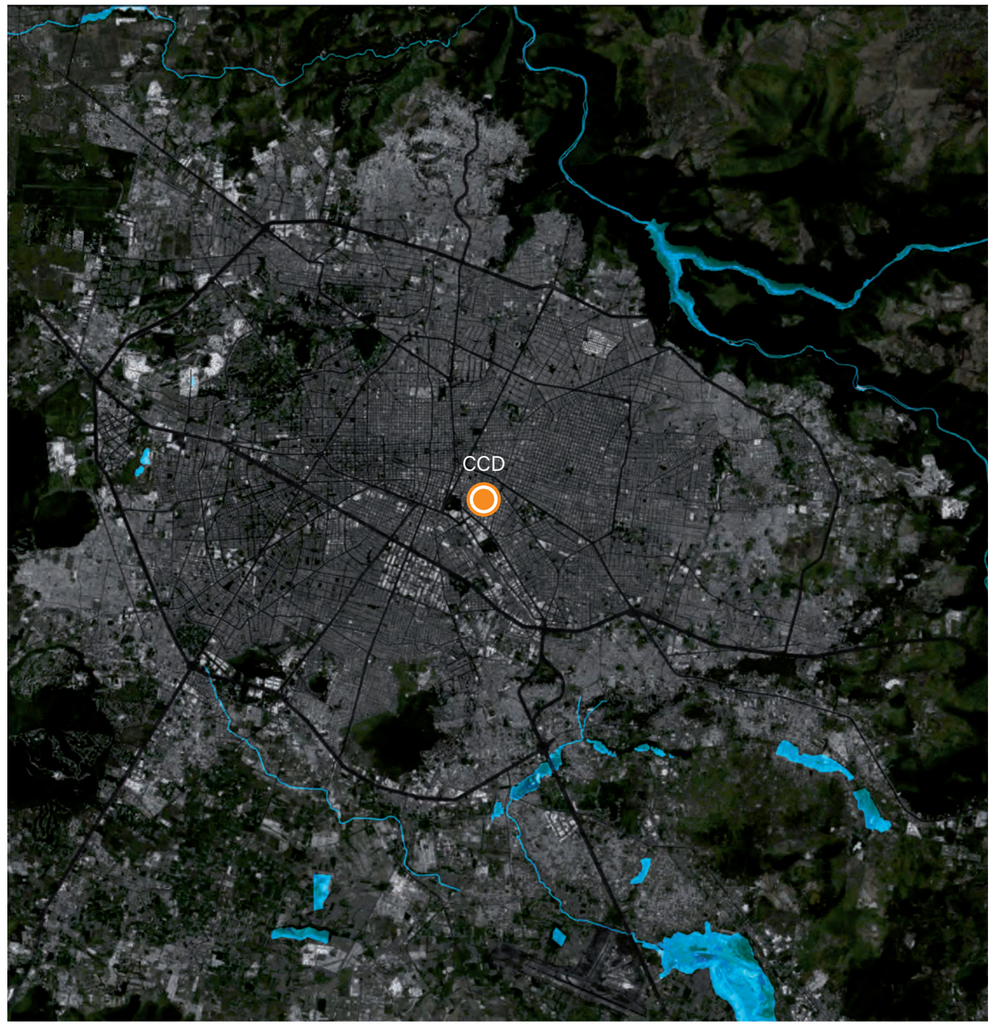
The CCD in the geographical and historical center Guadalajara



5.1.1
The Expansive Growth Model

Over the last three decades, Guadalajara has experienced a permanent transformation driven by population growth and territorial expansion. The unrelenting demand for land for real estate development has further accentuated the lack of correspondence between population growth and urban expansion. Indeed, the SEDESOL organization (Secretary of Social Development) has calculated that in the last 30 years the urban footprint of Guadalajara has quadrupled, while the population has only grown by a factor of 1.98.

As a result of the past 30 years of transformation, this prevailing metropolitan model that favors expansion and low density throughout at least 6 population centers (Guadalajara, El Salto Tlajomulco de Zúñiga, Tlaquepaque, Tonalá y Zapopan), has produced a total footprint of 62 million Hectares, a population density of 73 people per hectare, and a housing density of 23 residences per hectare.

Due to a lack of metropolitan planning instruments, on the whole, the metropolis is characterized by a lack of organization in urban land uses, infrastructure and service facilities, a shortage of urban services, and discontinuity in the urban grid. Without overall metropolitan guidance, these urban patterns result from various factors, principle among which is the fact that each municipality has had the responsibility of applying its own processes for proposing, developing, and administering land uses, and the overall transformation of the territory.

In the future, the metropolitan growth model assumes no significant change. By including the "land offering" of other adjacent municipalities (Juanacatlán, Ixtlahuacán de los Membrillos, Zapotlanejo, Chápala) the current extension of the Metropolitan Area of Guadalajara is close to 53 million Hectares, insinuating an even more extensive metropolitan footprint. Moreover, metropolitan planning schemes have yet to be implemented.

Under these conditions, the municipalities of the Metropolitan Area of Guadalajara face the common challenges of governability, governance, and the implementation of public policies that respond to city and regional planning concepts, urban housing policy, and inter-municipal communication.

5.1.2
Towards a more Sustainable City

The metropolitan zone of Guadalajara must refocus the chaotic growth of its built urban footprint. The construction of residential and commercial developments on the periphery demand large amounts of water, transportation infrastructure, and municipal services that are nearly impossible for the municipality to provide. Furthermore, this expansion implies the loss of agriculture, areas for aquifer recharge, and other essential environmental services. At this scale the horizontal growth model imposes excessive levels of economic, social, and environmental costs, for citizens and for government.

Reinforcing the metropolitan growth model requires substantial efforts to align the city in the direction of sustainability. The densification of the interior of the city can significantly reduce the costs of urbanization, namely by taking advantage of existing infrastructure and services, eliminating settlement in inappropriate or unsafe areas, and reversing the urban fragmentation in particular municipalities.

Fortunately the process of transformation has already begun. The construction of various taller buildings is changing the skyline and the urban profile of Guadalajara, mostly in the form of offices, high-dollar apartments and hotels. Another promising sign of a more sustainable Guadalajara is the strategic orientation that the present administration has taken to incentivize the densification of the center, implement major improvements in the urban environment, reactivate the economy, and encourage social cohesion through the instruments of urban planning and integral mobility.

Guadalajara has many areas with extensive infrastructure and urban services, but with very low densities. Given this imbalance, urban sites that are vacant or underutilized in these areas represent considerable opportunities for redevelopment and strengthening of the urban economy.
In other cases, the city possesses very central urban areas that have great potential for redevelopment, but are surrounded by degraded neighborhoods, a circumstance that requires wider interventions in order to encourage lasting, positive synergies. This is the case in the city center, where the most traditional neighborhoods are in general disrepair, and in need of revitalization efforts.

In addition to the physical deterioration of the city, there are many sites in acceptable shape, but with obsolete uses. This presents yet another revitalization opportunity, that is, the introduction of new uses and typologies into the existing urban fabric, recycling select buildings and urban infrastructures into new residences and workplaces. This type of intervention, linked with key improvements in public space and mobility, catalyze new economic clusters and rehabilitate architectural heritage.

The opportunity to create a more competitive city and optimize the use of natural resources supposes an urgent need to fortify urban policies that combat inequality and poverty, that stimulate sustainable metropolitan form and urban development. This requires an equitable distribution of infrastructure and services, particularly for lower income populations.

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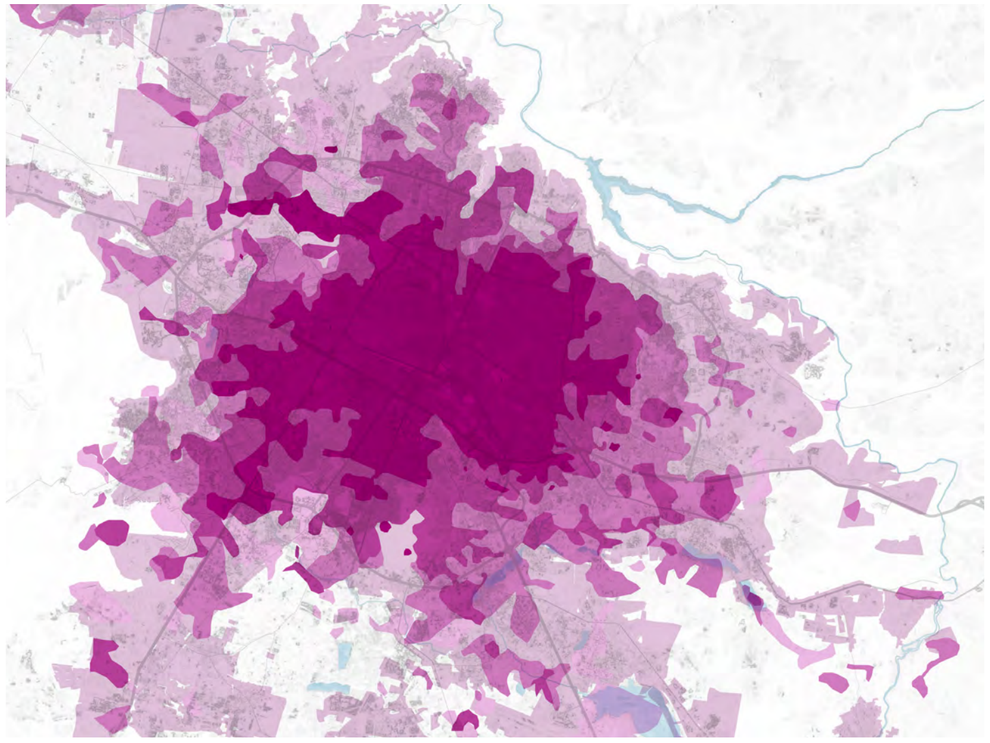
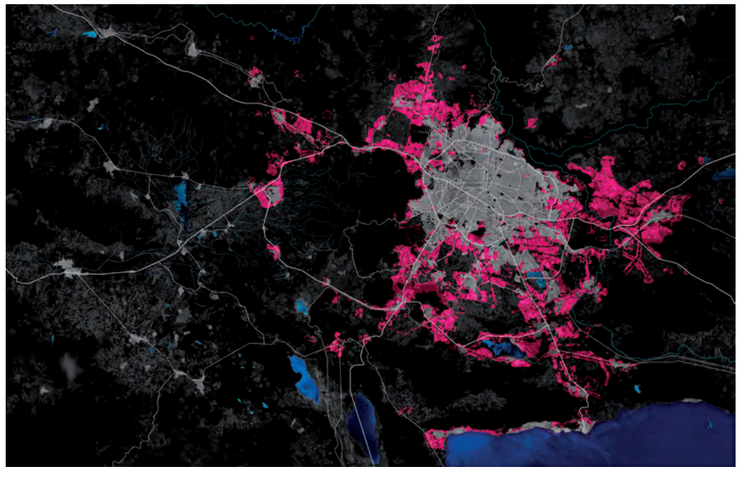
Urban Ecolution

- 1972
- 1985
- 1993
- 2000

Source: Atlas de la Producción del Suelo en el Área Metropolitana de Guadalajara





Urban Expansion

Área urbana actual	72,977 Has
Reservas urbanas	52,022 Has

Source: Planes Municipales de la ZM de Guadalajara

5.1.3 Connection Infrastructure

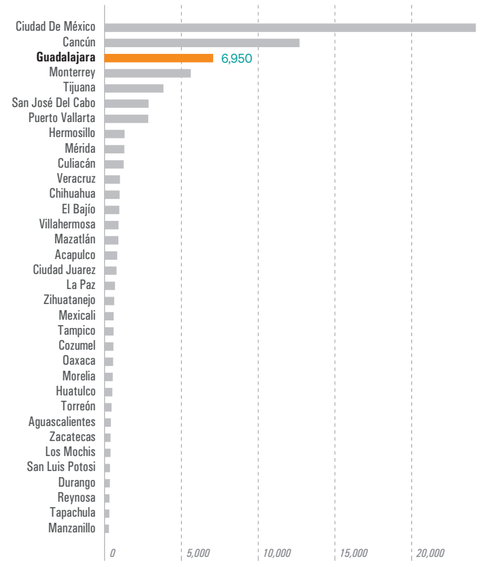
AIRPORT
The "Don Miguel Hidalgo y Costilla" International Airport is located in the south of the metropolitan area of Guadalajara, in the municipality of Tlajomulco de Zúñiga. It is 17 km from the historical center, a trip that takes about 45 minutes via the Chapala Highway.

The airport of Guadalajara ranks as third in passenger traffic in Mexico, and second in air cargo traffic. It connects to 70% of possible national destinations, and various international destinations (mainly in North America).

RAIL
The railroad only services freight traffic. Rapid urban expansion from the center towards the principal freight station and rail line has engulfed the rail, which now passes through a rather central part of the city, creating a sizeable barrier. In its current alignment, the rail line enters the metropolitan area from the southeast, and cuts completely through the city to the northwest, parallel to the Nogales Highway.

LONG-DISTANCE BUS TERMINALS
There are two main bus hubs in the metropolitan area. The first, called Central Camionera Vieja, is located on the corner of 5 de Febrero and Dr. Roberto Michel Avenue in the municipality of Guadalajara. It operates 3 lines that cover radius of 100 km from Guadalajara. The second, called la Nueva Central de Autobuses de Guadalajara, is located on the Zapotlanejo Highway in the municipality of Tlaquepaque. It boasts routes and destinations throughout the entire country.

Mexican Airports. Thousands of passengers/year

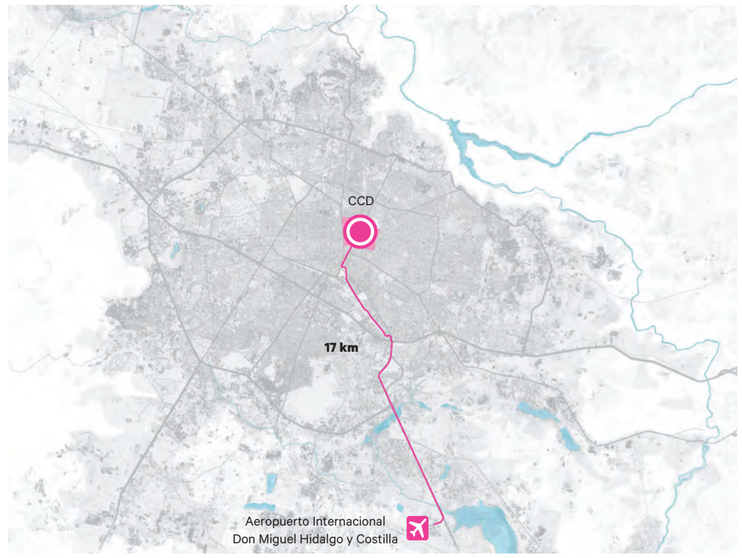


Source: Secretaría de Comunicaciones y Transportes, 2009

Central Camionera Vieja /
The Old Bus Terminal

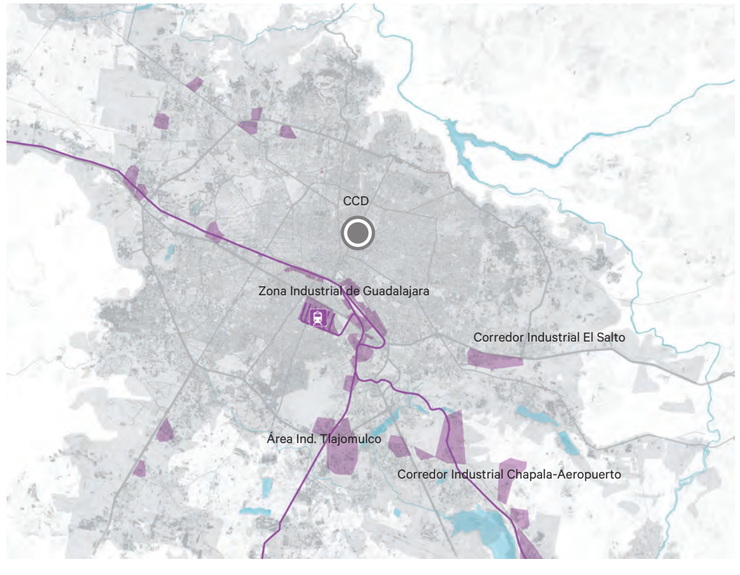
Nueva Central Camionera /
The New Bus Terminal

Guadalajara International Airport



Rail and Industrial Areas

Large Industrial Areas
Freight Station
Railroad Line



Source: FM Elaboración propia

5.1.4 Metropolitan Highway Network

Guadalajara is accessed by 7 principle highways, which combine to make up a 1,107 km long highway network. With reference to the overall highway network of the metropolis, CCD couldn't be better situated. Despite being in the very center of the city, CCD has access to multiple primary roads that circumvent the city. Among these is the Av. Independencia that crosses through the CCD, the Av. Alcalde which marks the western border, Belisario Domínguez Av. which passes through the east, Hidalgo-Republica and Vallarta-Javier Mina Av. in the south, and the Av. Circunvalación in the north.

5.1.5 Public Transportation

(Poner texto de CRA, cap 8. Connectivity)

A Guadalajara se llega por 7 accesos carreteros principales que se integran a una red vial con una longitud total de 1,107 km. Con respecto a la estructura vial de la ZMG, el CCD tiene una inmejorable localización ubicándose en la parte central de la ciudad, teniendo vialidades de primer orden llegando o inmediatas al polígono de actuación. Así, La importante calzada Independencia cruza el CCD y el ámbito se encuentra flanqueado al poniente por la Av. Alcalde; al oriente por la Av. Belisario Domínguez; al sur por las avenidas Hidalgo–Republica y Vallarta–Javier Mina que juntas operan como un par vial este-oeste; y al norte la vía principal inmediata es la Av. Circunvalación.

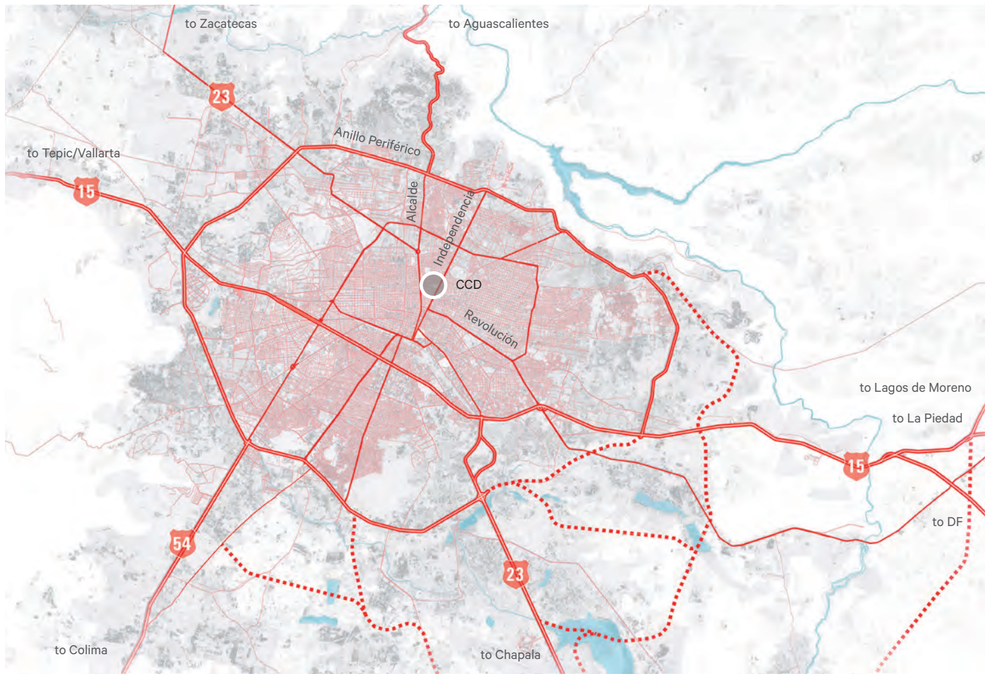
Roads Network

- Highways
- Principle Roads
- Secondary Roads
- Proposed Linkages

Source: FM Elaboración propia

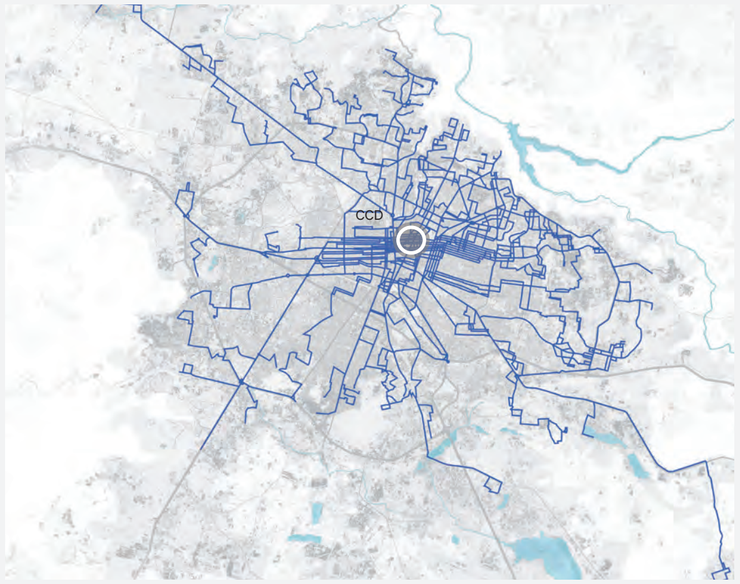
Level of saturation of public transit corridors

Source: SEDEUR 2006



Public Transportation Routes

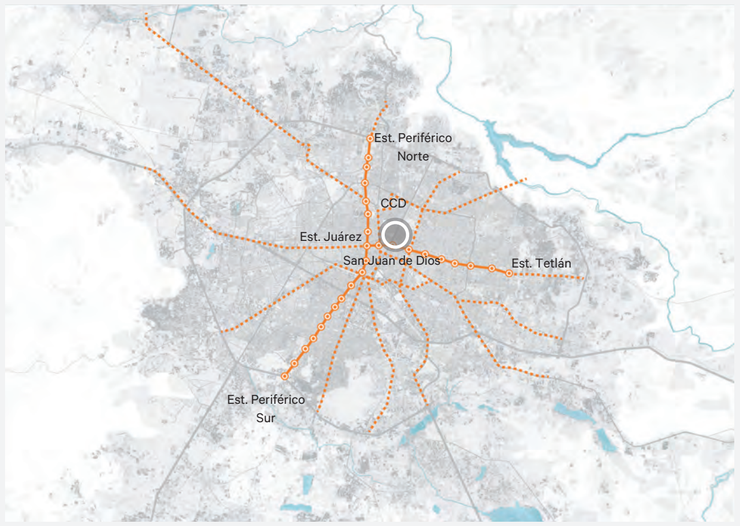
Source: Ayuntamiento de Guadalajara



Light Rail

- Existing
- Planned
- Current Stations

Source: Ayuntamiento de Guadalajara



Macrobus

- Existing
- Planned
- Current Stations

Source: Ayuntamiento de Guadalajara

5.2.

The Historical Center as an Ecosystem of Innovation

5.2.1 The History

The city was established in three other places before where it is now. The first settlement in 1532 was in Mesa del Cerro, now known as San Juan. This site was settled by Juan de Oñate as commissioned by Nuño de Guzmán. This site did not last long due to the lack of water, so in 1533, it was moved to a location near Tonalá. Two years later, Guzmán ordered that the village be moved to Tlacotán. While the settlement was here, Spanish king Charles V granted the coat of arms the city has today.

Mexico's second-largest city reflects a fusion of the past and present. The city's heart is the "Centro Historico", with preserved buildings from the colonial era providing a picturesque backdrop to the modern constructions that have recently emerged at the suburban areas.

The historic downtown of Guadalajara centers on Paseo Morelos/Paseo Hospicio running east-west from the Plaza de Armas, where the seats of ecclesiastical and secular power are, to the Plaza de Mariachis and the Hospicio Cabañas.

The Plaza de Armas is a rectangular plaza with gardens, ironwork benches and an ironwork kiosk which was made in Paris in the 19th century. On this square the Catedral de Guadalajara began construction in 1558 and was consecrated in 1616. Its two towers were built in the 19th century after an earthquake destroyed the originals. They are considered one of the city's iconic symbols with a mix of Gothic, Baroque, Moorish and Neoclassical architecture.

The Plaza de la Liberación on the east side of the Cathedral is nicknamed the Plaza de las Dos Copas, referring to the two fountains on the east and west sides. Facing this plaza is the Teatro Degollado. It was built in the mid nineteenth century in Neoclassical design. The main portal has a pediment with a scene in relief called "Apollo and the Muses" sculpted in marble by Benito Castañeda. Inside the vaulted ceiling contains a fresco which depicts a scene from the Divine Comedy painted by Jacobo Gálvez and Gerardo Suárez. Behind the theatre is another plaza with a fountain called the Fuente de los Fundadores (Fountain of the Founders). The plaza is located in the exact spot where the city was founded and contains a sculpture depicting Cristobal de Oñate at the event.

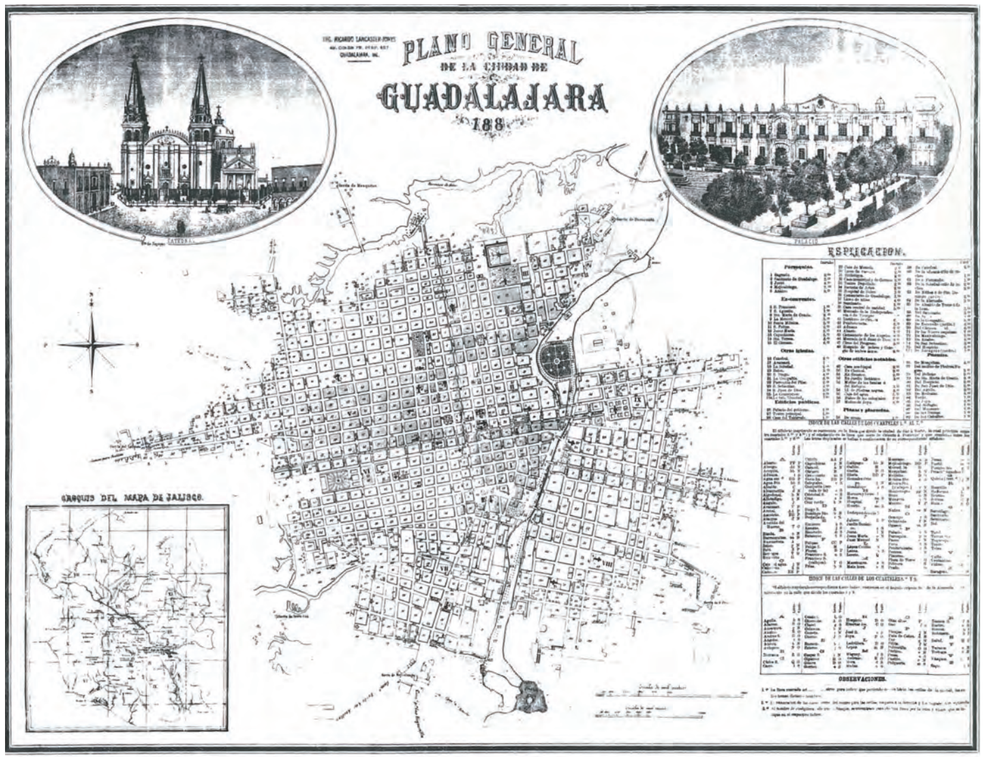
Plaza Liberación

Plaza Guadalajara and the Portales

Plaza de Armas

Jardín de la Reforma

Historic map of Guadalajara



Degollado Theater

Palacio Municipal

5.2.2 The Historical Center

The historical center of Guadalajara contains the greatest concentration of urban architectural heritage in the metropolis. Much of this heritage is religious in character, including the Guadalajara Cathedral, Barroque Temples, and various Cloisters. These buildings are artifacts from the Colonial Period (XVI - XVIII centuries). Additional heritage buildings, including civic architecture like the Jalisco Civic Museum are from the XIX century.

HERITAGE BOUNDARIES

The boundary of the "historical center" was established by multiple governmental institutions, including the National Institute of Anthropology and History (INAH), the National Institue of Fine Arts (INBA), the Board of the Historic Center, and the Municipality of Guadalajara.

There are two levels of heritage protection in the center of Guadalajara, delimited by two concentric boundary lines ("A" and "B"). The Historical Monument zone ("A") demarks the oldest parts of the city, extending from the original settlement to the boundaries in 1900. This area is 7.8 km2 with 842 documented blocks.

The Artistic Monument zone ("B") is 16.2 km2, with 802 documented blocks. This area hosts a large concentration of developments with marked cultural relevance. Architectural highlights include traditional and vernacular works, ranging from XIX Century Eclectic and Vernacular to XX Century Art Nouveau, Art Deco, Indigenous Vernacular, Regionalist, Neocolonial and some of the preliminary works of the Modernist movement (1917-1950).

Buildings of Great Significance

Monument	Period	Style
Catedral	Century XVI-XIX	Renaissance, Neoclassicism, Neogothic
Sagrario Metropolitano	Century XIX	Neoclassicism
Palacio de Gobierno	Century XVII-XVIII	Baroque
Teatro Degollado	Century XIX	Neoclassicism
Museo Regional	Century XVII	Baroque
Panteón de Belén	Century XIX	Eclecticism
Edificio del Hospital Civil (Belén)	Century XVIII	Neoclassicism
Templo del Rosario	Century XX	Neogothic
Templo de Belén	Century XVIII-XIX	Baroque-Neoclassicism
Templo y Convento de San Agustín	Century XVIII	Baroque
Templo de Santa María de Gracia	Century XVIII	Baroque
Templo el Divino Redentor	Century XIX	Neogothic
Templo San José de Gracia	Century XIX-XX	Neoclassicism
Templo de Santa Mónica	Century XVIII	Baroque
Templo y Claustro de Santa Teresa	Century XVIII	Baroque
Templo y claustro de Nuestra Señora de la Merced	Century XVIII-XX	Baroque-XXI
Edificio Preparatoria Nº 1	Century XVIII-XIX	Baroque-Eclecticism
Escuela de Artes Plásticas, antiguo claustro de Santa María	Century XVIII-XX	Baroque-XXI
Edificio de XV Zona Militar	XIX-XX	Eclecticism
Palacio Municipal	XX	Neocolonial

Location of Historical Center

Heritage Architecture

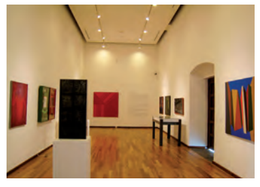
Vew of the Historical Center of Guadalajara

Vallarta - Juárez Axis: 5 Centuries of history between San Juan de Dios market and Glorieta Minerva. 36 Heritage Buildings

Source: Vía RecreActiva. Arquitectura y Patrimonio para Todos

Hospicio Cabañas

At the far east end is the Plaza de los Mariachis andthe Hospicio Cabañas. This building was constructed by Manuel Tolsá beginning in 1805 under orders of Carlos III. It was inaugurated and began its function as an orphanage in 1810, in spite of the fact that it would not be finished until 1845. It was named after Bishop Ruiz de Cabañas y Crespo. The façade of the building is Neoclassical and its main entrance is topped by a triangular pediment. Today, it is the home of the Instituto Cultural Cabañas (Cabañas Cultural Institute) and its main attraction is the murals by José Clemente Orozco, which covers the main entrance hall. Among these murals is "Hombre del Fuego" (Man of Fire) considered to be one of Orozco's finest works. The Hospicio Cabañas was declared a World Heritage Site by UNESCO in 1997.



5.2.3

The Historical Center as an Ecosystem of Innovation

"Ecosystems of Innovation" are places that provide ideal conditions for innovations and transformation when facing the challenges of the future. Much like natural ecosystems, ecosystems of innovation are spaces that foment that change and experimentation that allow living beings, in this case societies, to adapt to changing contexts. The factors that determine the ability to develop innovations are also similar to those of natural ecosystems: Diversity, complexity, density, openness to exterior systems, and connectivity are essential aspects for stimulating creative and innovative spaces.

Spaces for research and knowledge sharing that concentrate talent and creativity are the "keystone species" of ecosystems of innovation, as their contributions are absolutely fundamental. The rules and reasons for locating successful research and development centers continue to change, as a result, dynamic and attract cities play an important part in the creation of ecosystems of innovation. The new generation of spaces for innovation are no longer the technology and office parks of recent decades, rather, they are historical centers, central business districts, neighborhoods of architectural value, parks, and rural and agricultural landscapes etc. That is to say, that places that offer high quality of life and identity, with the ability to integrate living, working, learning, and leisure are the innovation centers of the 21st century. Attractive, tolerant, and receptive environments are those that can attract the diversity necessary for creativity and innovation.

To make the center of Guadalajara into an ecosystem of innovation is to create the conditions necessary for making the central area of Guadalajara the most diverse (economically, socially, experientially), the densest, and the most connected and area of the city, with a complimentary layer of new spaces for creativity and innovation.

In many cities, the historic center and other areas of concentrated architectural interest or tradition have become the epicenters of art, creativity, design, technology and multimedia. These spaces of identity become in a sense, stages for creative interactions, especially because of the variety of lifestyle options, mobility choices, and public services that they offer.

This is especially clear when these types of spaces are compared with the suburbs, which lack similar densities of infrastructure, services, and lifestyle varieties. Additionally high-character urban centers particularly well suited operating in a globally connected 21st century economy, by easing the provision of digital infrastructure to more people, and by providing the widest variety of working environments available. Under this paradigm, creating ecosystems of innovation is a matter of taking advantage of existing places of value, like the historical center of Guadalajara, for welcoming value-added activities and uses. The center of Guadalajara exhibits the ideal scale, architecture, character, and location for this type of ambition. To fully take advantage of these strengths, the historical center must realign to provide the physical and virtual spaces for collaboration, symbiosis, and synergy between different businesses and people. Its mission is to provide open spaces for residents, visitors, artists, businesspeople, the young and the elderly to interact. These are the places in which art and technology, past and future, and the physical and virtual coexist.

The great challenge for modern cities is the creation of fusion and integration spaces, or, tolerant and supportive places where the most imaginative people can live and work. The city of Guadalajara is positioning itself to become a global reference as the creative city, with the freedom to design its own future in the context of global competition and cooperation.

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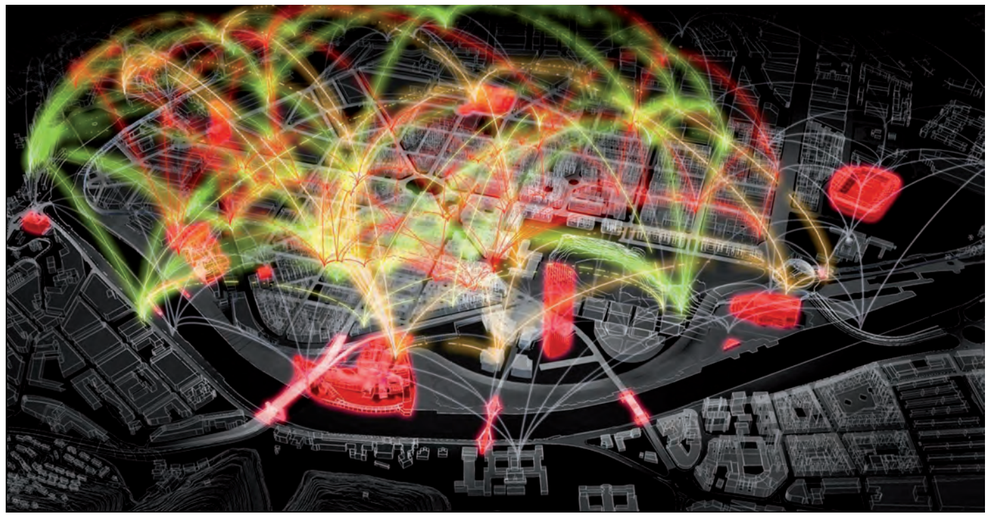
Analogy: BILBAO NEXT.

Bilbao Next strategy presents the ideal "hinge point" for Bilbao between its successful urban transformation and a future knowledge based economy built on creativity, innovation, talent and design.

Bilbao Next programs, events, initiatives, actors and budgets will be realized through the development of the City Center as a "technological park of the future", counting on strong institutional support, and organized around art , eco-technology and urban solutions.

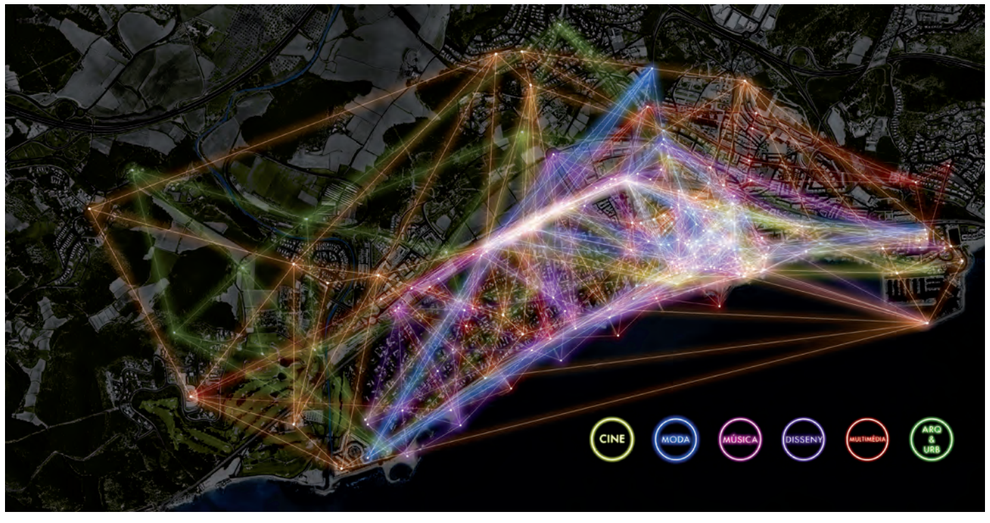
BilbaoNext
New economy+territory



Analogy: Qualia Sitges, Barcelona. Fundación Metropoli

Sitges Qualia is a project designed to transform Sitges into a reference in Cataluña and Europe for the development of the creative economy. It is a fusion space for art, technology, and university education, and it is a place for innovation and creativity. The project explores the intersection of the physical and virtual worlds, and the dynamics between local activity and international networks.

QUALIA Sitges
Espai Creatiu del Mediterrani



5.3.

DUIS mosaico

The Mosaico project considers the opportunity to rehabilitate as essential for the historical center of Guadalajara. This, with ends of overcoming traditional social, economic, and environmental barriers between the neighborhoods to the east and west of the center, and the areas beyond San Juan de Dios river and the traditional boundaries of the city.

The urban strategy employs the concept of the "Urban Mosaic" (Mosaico in Spanish), where a collection of areas with distinct urban identities and profiles are woven together in a mosaic of colors and urban spaces, and unique architectural experiences. The project consists of seven renovation operations, which are aligned around axes and nodes of unique urban fabrics. The project assumes a sustainability model based on the revitalization of the historical center.

The concept developed as a response to three basic elements of analysis: components of excellence, priorities, and critical deficits/needs in the urban structure and infrastructure of the center. The analysis aimed to reveal quantitative factors such as the center's current economic and social profile, as well as qualitative factors such as the perceived quality of spaces in the public realm. A synthesis of these factors arrived upon a future vision for the historical center, incorporating a series of public participation events with local leaders.

Global Design Strategy

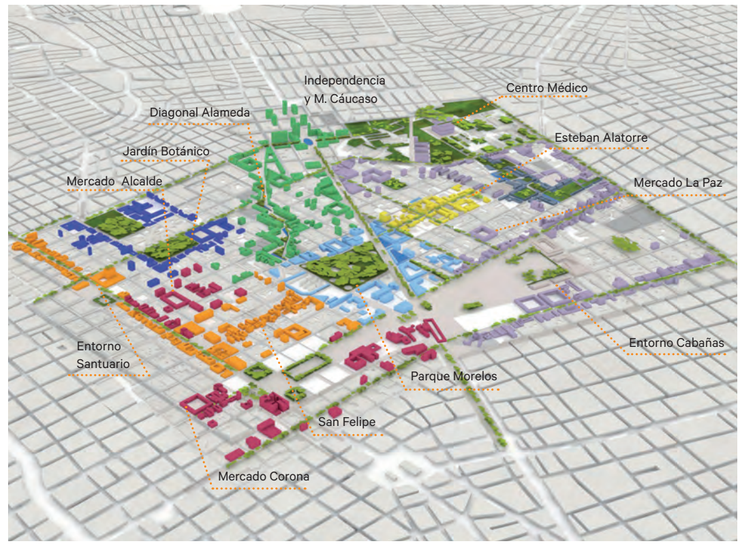
Calzada Independencia

"Xchange" Spaces

For the development and construction of the master plan, various levels of implementation were defined. The first level is based on 12 areas/spaces called "Xchange", indicating various catalysts to spur the integral rehabilitation of the urban fabric.

"Xchange" Spaces are:

- Key opportunity areas for integral rehabilitation of the historical center's urban fabric
- High intensity nodes and axes, with high volume land uses and substantial flows of people
- Dynamic spaces for creativity that are attractive to talent and innovation
- Spaces of high social density to maximize interaction and ideas exchange
- Fusion spaces - Hybrids for living, working, playing, and learning
- Nodes and axes of revitalization that reactivate degraded neighborhoods.



5.4.

The Mosaico in detail

The Mosaico of Guadalajara is an integral strategy for rehabilitation of the historical center that is based on its identity and diversity. The moniker comes from the urban strategy of "urban mosaic", a combination of pieces of distinct identity that fuse into a mosaic of colors, urban spaces, and unique architecture.
The Mosaico is a model for urban sustainability based on the recuperation of the city center. It consists of 7 urban renovation options, which are organized around axes and transformation nodes of distinct urban fabric. The operations are: The Digital Hub (the CCD), the Design Axes, the Monumental Axis, the Alcalde axis, the Ecoboulevard of Independencia, the Axis of Health, and the Ecocity of La Perla-San Juan de Dios.

Digital Hub: This principal node of the Mosaico consists of the area around Parque Morelos. As the principal catalyst in the Mosaico, the Digital Hub encompasses not only the renovation of the park and the improvement of urban connections (Plaza Tapatía and the Eastern part of Calzada Independencia), but rather, the focusing of foreign, national, and local investments in a concerted effort to create the first Creative Digital City of Mexico.

Design Axes: These axes frame the Digital Hub within a larger context, extending the interventions of the CCD synergetically through 3 distinct urban environments: The axis of design and fashion through calle Esteban Alatorre; the axis of design and gastronomy through the Paseo Alameda; and the commercial axis through calle San Felipe.

The Monumental Axis: This is the area that encompasses Plaza Tapatía and the Cruz de las Plazas, with the massing of the city's most important patrimonial building, including Hospicio Cabañas, the Cathedral, and Teatro Degollado. Main interventions include the rehabilitation of key architectural icons, the holistic renovation of building façades, the improvement of the pedestrian realm, improvement of the function and design of streets, and the introduction of urban furniture, way finding, and vegetation.

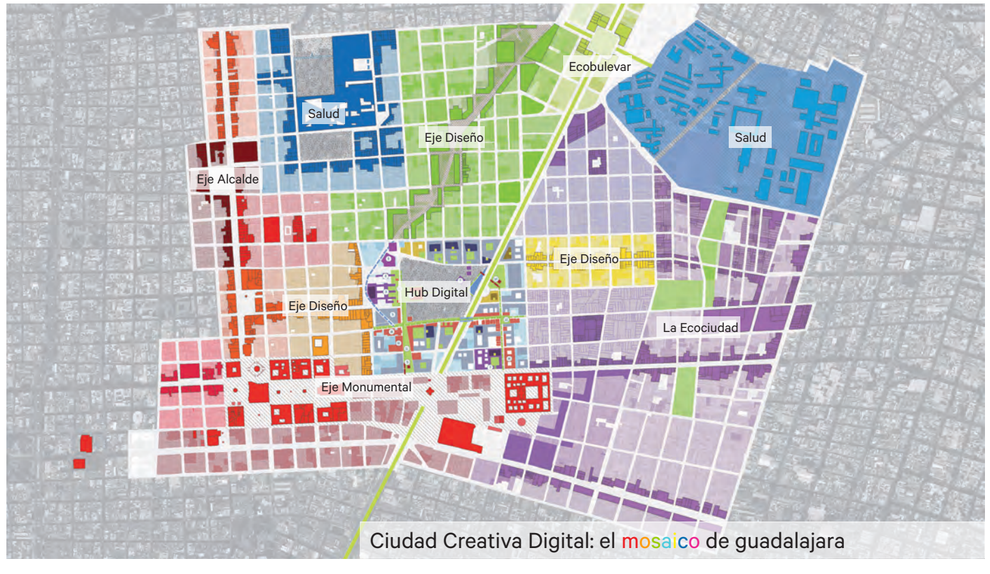
The Alcade Axis: This piece is conceived as the axis of urban renovation and rehabilitation through Avenida Alcalde. It is an axis ideal for further densification, rehabilitation of façades, and the placement of "Xchange" spaces and/or renovation nodes. These interventions are especially appropriate in the Santuario de Guadalupe, Mercado Alcalde, the Templo de San José and Jardín Reforma, and the Mercado Corona.

Ecoboulevard of Independencia: This is the transformation of one of the most significant axes in the city into an "Ecoboulevard", fulfilling the following roles: a structuring urban axis, a green axis, a public transportation axis, a space for pedestrians, bicycles, and cars, a transversally permeable axis, an axis of urban intensity, a mixed-use space, an axis of creativity and innovation, an axis of urban renovation, and an axis of architecture and bioclimatic urbanism.

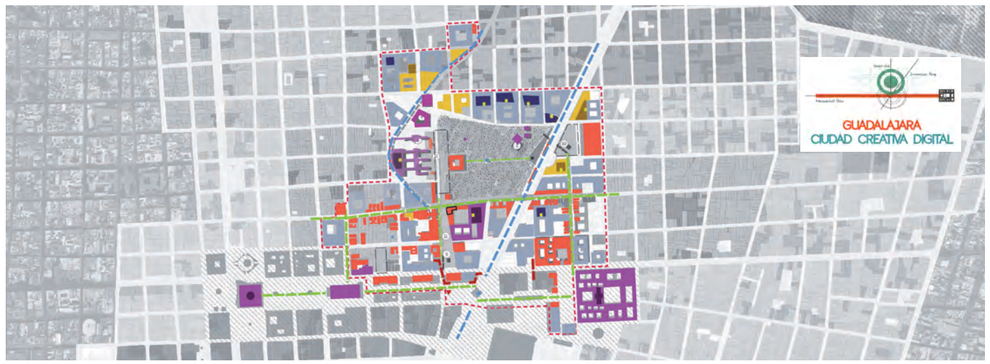
The Axis of Health: The spaces between the Hospital Civil and the Centro Médico present the opportunity for the Axis of Health, which has already begun to emerge organically. Rehabilitation interventions, select densification, the improvement of green spaces, the installation of additional health-related services and commerce, and practical improvements like parking are all part of this design strategy.

The Ecocity of La Perla- San Juan de Dios: The ecocity is an urban community encompassing the most progressive criteria of eco-urbanism, such as: Integration of public transportation systems, sustainable mobility, bioclimatic architecture and urbanism, diversity in architectural typologies, residential spaces, and economic activities, diversity and interconnection in public spaces, public services as a factor of social cohesion, renewable energy sources, healthy construction practices, complete water cycle management, and intelligent waste management.

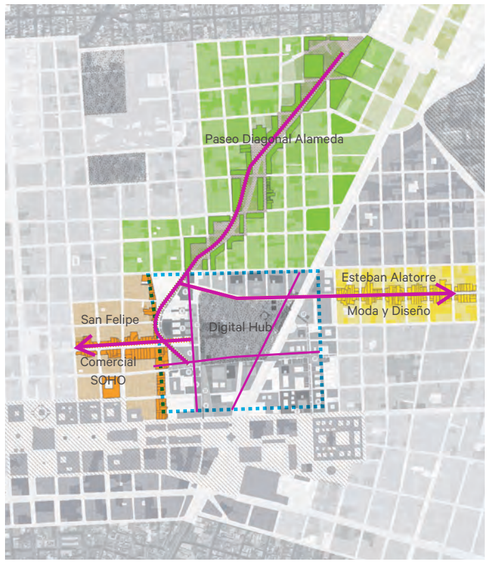
CCD. The Mosaico



Digital Hub



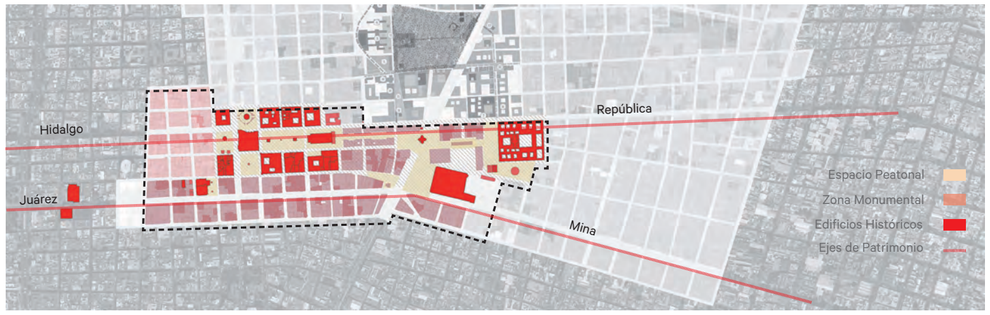
Design Axes

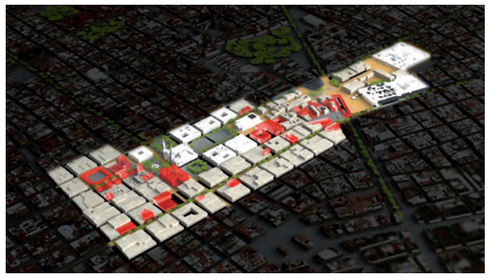


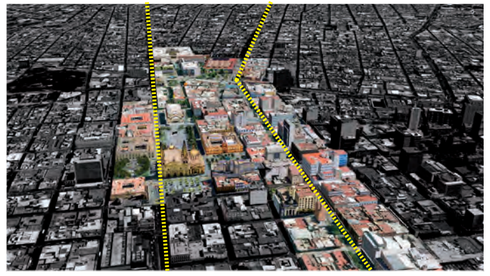
Esteban Alatorre. Design and fashion axis

The Design Axes linked to the CCD

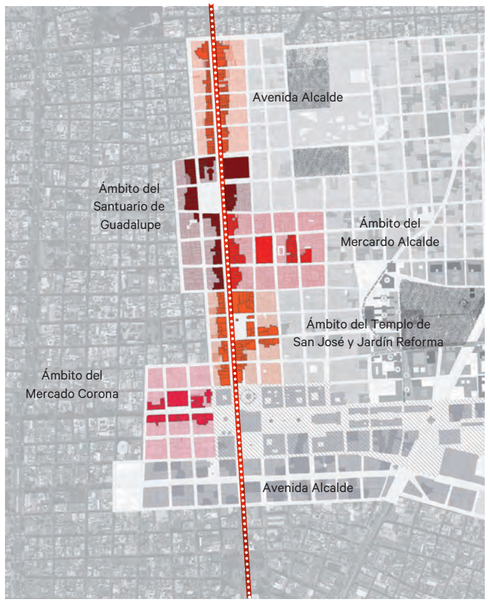
Eje Monumental

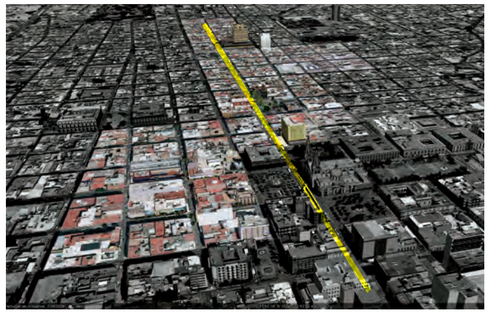




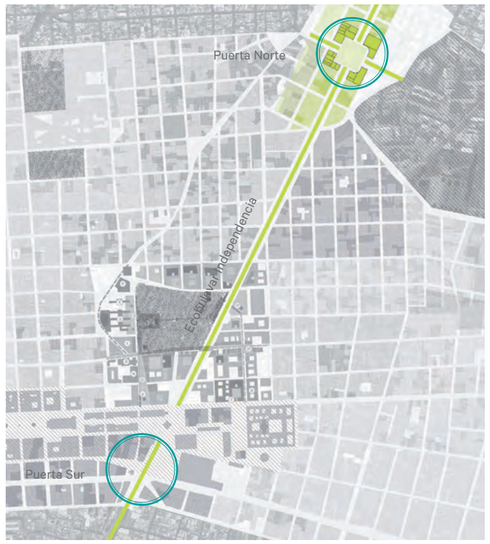


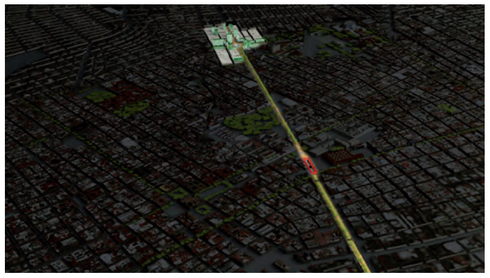
Eje Alcalde

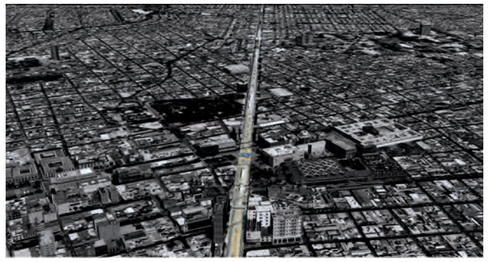




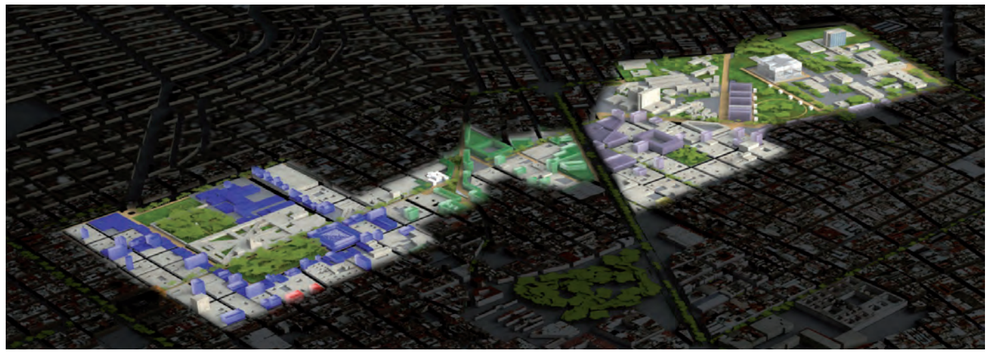
Ecobulevar Independencia



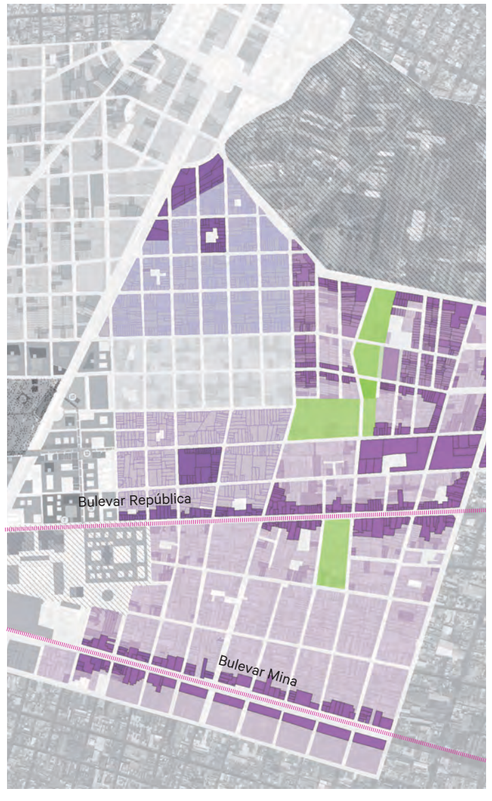




Eje de la Salud



Ecociudad Digital



Network of public spaces

Pedestrian itineraries

Nodes and axes of transformation

6

The CCD Context: **Parque Morelos**

6.1 **The Park's History**
6.2 **Geographic Location**
6.3 **Land use and Activities**
6.4 **Socio Economic Context**
6.5 **Connectivity**
6.6 **Architectural Context**

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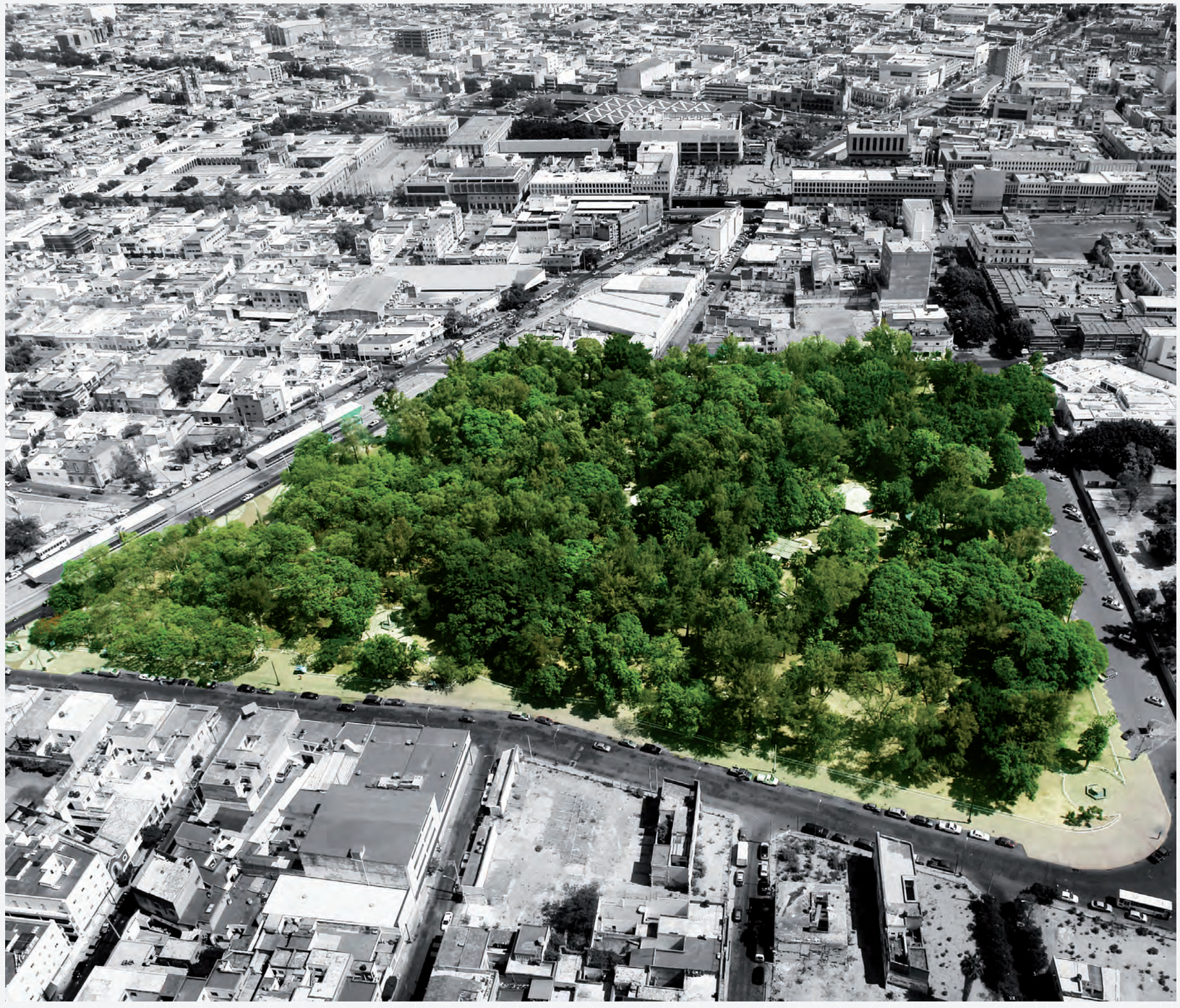
6. Parque Morelos

The economic strength of the historical center of Guadalajara is commerce and the service sector, employing approximately 129,000 people. The greatest concentration of shopping and services is concentrated around Parque Morelos; on the axis of Plaza Tapatía, the axis of Alcalde-16 de Septiembre, and around Calzada Independencia. Esteban Alatorre is also known for its commercial character.

One of the primary strengths of the CCD Project is its highly central location in the historical center of Guadalajara. A large part of the metropolitan service infrastructure is within close proximity of the CCD, including very well established areas that synergize with the various stages of implementation and operation of the project.

The Monument Zone is where the most important heritage buildings and public spaces, and arts and culture monuments are located; Large Markets and Supply Centers are also in close proximity to the project. Important markets like Libertad, Corona and Alcalde shape the distribution dynamic of the entire city center. Large hospitals and health service centers are also present. The Centro Médico de Occidente and the Hospital Civil, are among these facilities. Linked to Parque Morelos is calle Esteban Alatorre the traditional footwear market of Guadalajara.
Historicaly, Parque Morelos is the first Alameda of Guadalajara and was the result of the San Juan de Dios river bifurcation creating an open natural area very close to the city. Today, the principal public spaces in the center of the city are Parque Morelos, and the network of monuments throughout Plaza Tapatía –Cruz de Plazas. The park is the main green space in the area, and the central social space for residents. Additionally, there are some relevant pedestrian walkways that connect these larger spaces such as Pedro Moreno, Morelos, and Pedro Loza. Connected to Parque Morelos are the additional public spaces of Parque Reforma, Plazota de Padre Glaván, and Jardín Botánico (botanical garden).The identity of place has been a complex socio-cultural construction that formed and transformed historically with the tangible and intangible cultural assets of the area. Part of this historical construction are the elements that make day to day to living possible, and that lend distinctive character to the neighborhoods around Parque Morelos.
The area of Parque Morelos is marked by a juxtaposition of the identity traditional neighborhoods and the elements of daily urban use. El Retiro, Las Fresas, La Perla, and San Juan de Dios, are neighborhoods of historic character with a strong shared identities, especially in the day to day commercial relationships between residents and shop owners.In respect of connectivity, as a result of the great level of metropolitan centrality that the Historical Center and Parque Morelos possess, there is a great influx of vehicular traffic towards the interior of the study area, causing an overuse of the capacity of the street network, and more simply, great deal of congestion. Parking is also a theme to be considered, because of the negative aspect and the impact that it creates on traffic flows, obstructing and delaying vehicular flow, especially that of public transit. Another negative impact is the reduction of space for the pedestrians, bicyclists, and vegetation, which are essential qualities of the urban image.



6.1.

The Park's History

6.1.1 Origin

In the middle of the XVIII century, as a result of its meanders and bifurcations, the riverbed of the San Juan de Dios River still existed as an open natural area that was used for laundry and tanneries. Years later, this space became a large urban park for the people of Guadalajara.

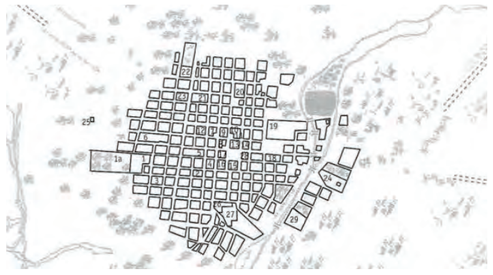
Around 1750, the municipality initiated large public works to beautify the city, during which it created the park of the Alameda as a riverfront to the San Juan de Dios River.

The Alameda (currently Parque Morelos) is not a wetland landscape like that of Agua Azul lake, is rather, it is a piece of solid land shaped by the bifurcation of the river. Of course, the area was replete with riverbank vegetation, principally characterized by willows and junipers. For these reasons, the Alameda originally became a desirable urban park space for the residents of Guadalajara.

Even with the proximity of countryside to the city, at the beginning of the XIX century the Alameda was treasured as an open air space for recreation, at which point it was the first and the largest recreational green space in the city.

Since the foundation of the city of Guadalajara, the same river segregated the "criolla city" (Spanish colonial) in the west and the native community in the east.

Guadalajara Century XVIII
Source: Eduardo López Moreno, La Cuadrícula, Plano 7, Guadalajara en 1753/ Adaptación del plano original en poder del Archivo Histórico de Jalisco, INAH.



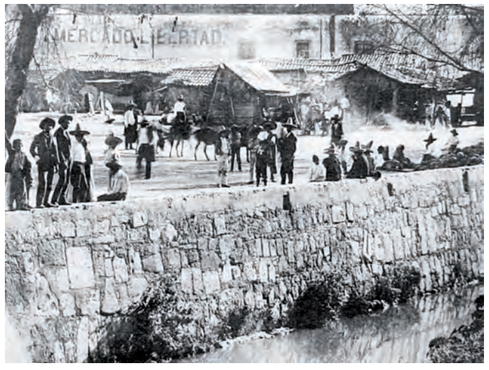
Guadalajara Cemtury XIX

6.1.2 Design

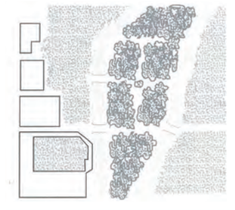
At the end of the XVII century the Parque de Alameda public garden project showcased the geometry typical of the urbanism of the Baroque period, with radial and diagonal paths traversing the space, and with highly manicured symmetrical plantings. This patterning was repeated in later years in other parks and plazas throughout the city, such as the Parque Alcalde, and Escobedo park.

Parque Morelos, the first Alameda of Guadalajara

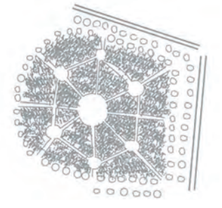
The design of the Alameda



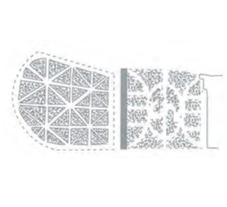
El Parque de la Alameda
Source: Archivo histórico de Jalisco



1800



1895

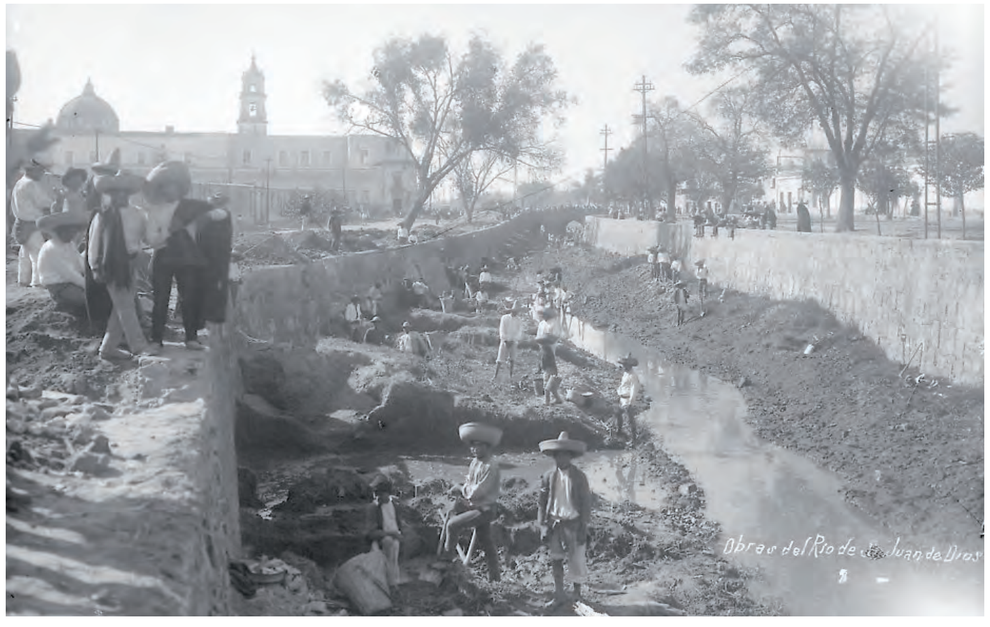


1906

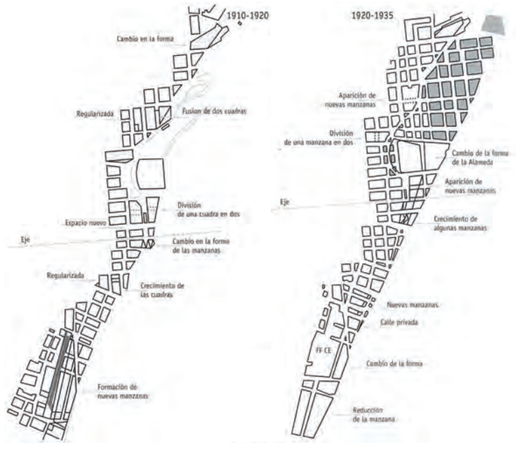
1935

Calzada Independencia-poniente (adaptaciones parcelarias 1910-1935)
After the conclusion of piping the river San Juan de Dios (1910), the government began a huge effort of creation, rectification and alignment of streets. Calzada Independencia was build and several new blocks added.

Source: Archivo histórico de Jalisco



Nuevas cuadras
Regularización
División
Anterior
Proyecto 1935

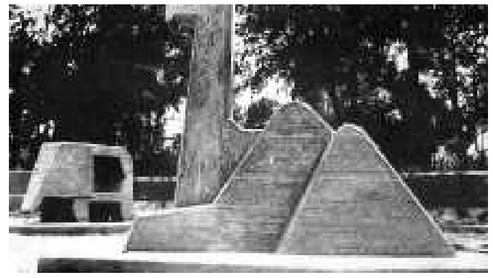


XX Century

In 1934, the municipality commissioned the local architect Rafael Urzúa, who worked in the public works branch of the government, with the remodeling and restoration of Parque Morelos. The widening of the park and the restructuring of particular urban axes like Doctor Baeza are owed to the efforts of Urzúa, as the park would come to be framed by the city's first Red Cross, and the Centro Escolar Basilio Vadillo. Urzúa's original design has been modified in many different iterations over the years.

In 1967, architects Javier Media and Alejandro Zhon designed the children's playgrounds of Parqu Morelos, which went on to win 2° prize in the III Bienal of Sculpture. The playgrounds are a collection of sculptures based on zoological forms, integrated into the natural landscape of the park.

Playground sculptures of Medina and Zhon architects



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6.2.

Geographic Location

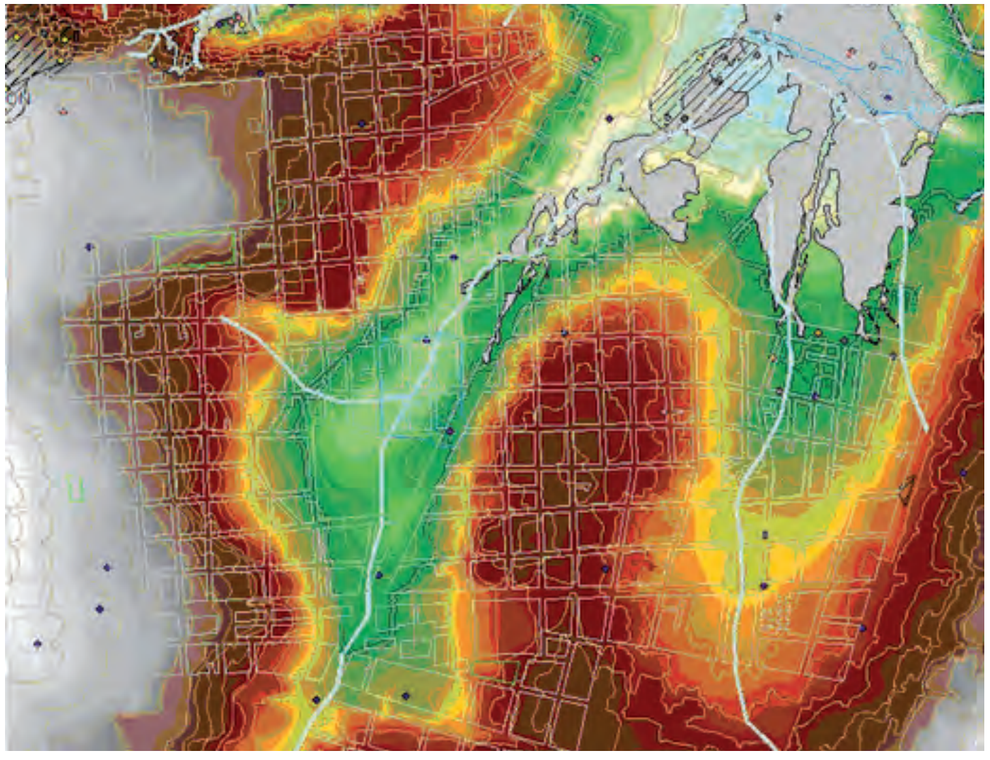
The geomorphology of the Parque Morelos area is organized around of the ancient course San Juan de Dios River.

This low point in the topographic system (1528 mbsl) runs along Calzada Independencia and through Parque Morelos. Since Parque Morelos was originally surrounded by a branch of the river, it formed a small island which would come to be occupied by the Alameda. The topographic profile is one of gentle undulations, registering a maximum slope of 3% towards Calzada Independencia .

Topographic levels and the runoff dynamics of the area indicate that the areas in the north and the east of Parque Morelos that border with Calzada Independencia are susceptible to light flooding during the rainy season and throughout part of the fall. According to official data, these reoccurring flood points can reach levels between 30cm and 100cm of accumulated water.

Topography and risk of flooding
Towards the north of Parque Morelos and along Calzada Independencia there are a few areas that experience flood risk.
Source: Atlas de Riesgos Físicos del Municipio de Guadalajara

Hydrographic map of the area around Parque Morelos.
The map indicates flow towards the basin of the San Juan de Dios River, and principal water courses in the area.
Source: Atlas de Riesgos Físicos del Municipio de Guadalajara



6.3.

Land use and activities

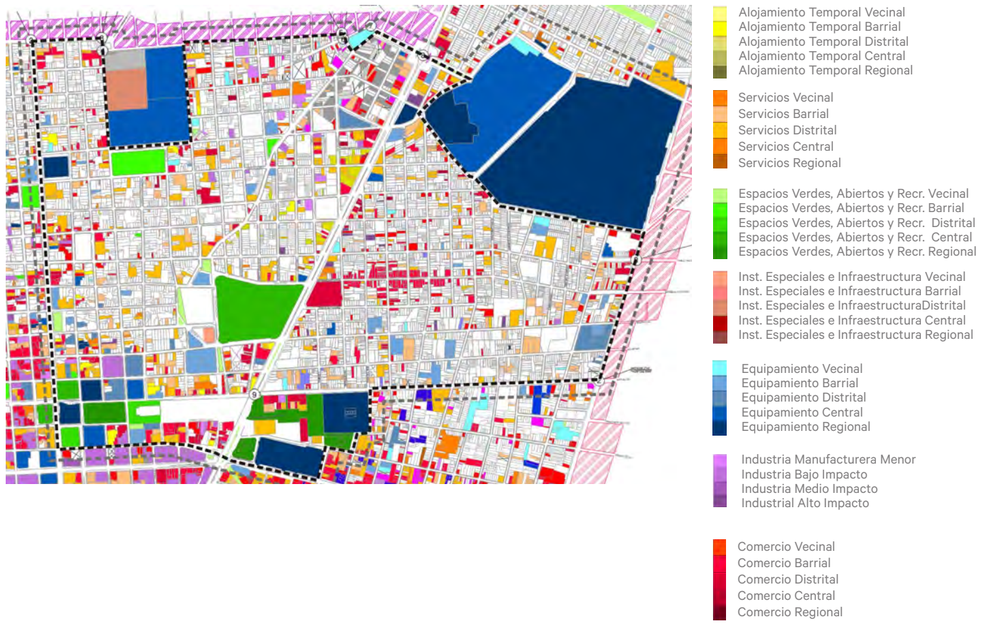
6.3.1. Land use

The economic strength of the historical center of Guadalajara is commerce and the service sector, employing approximately 129,000 people. The greatest concentration of shopping and services is concentrated around Parque Morelos; on the axis of Plaza Tapatía, the axis of Alcalde-16 de Septiembre, and around Calzada Independencia. Esteban Alatorre is also known for its commercial character.

Another substantial land use is that of public services, including centers of regional interest like the hospitals to the north of Parque Morelos or like state or municipal public administration buildings. Of course, at the district or neighborhood scale, there are also a variety of public buildings, including cultural centers and daycare centers.

A distinguishing characteristic of the land use in the center is the mix of shops, services and residences. In the vicinity of Parque Morelos, housing is extensive, especially in the neighborhood of Retiro in the immediate north, and the neighborhood of La Perla crossing the Calzada Independencia towards the west.

Land uses, where is notable the mix use of commerce, services and housing



6.3.2. Activities

One of the primary strengths of the CCD Project is its highly central location in the historical center of Guadalajara. A large part of the metropolitan service infrastructure is within close proximity of the CCD, including very well established areas that synergize with the various stages of implementation and operation of the project.

MONUMENT ZONE

This is the heart of the historical center, including the Cruz de Plazas and Plaza Tapatía areas. The most important heritage buildings, public spaces, and arts and culture monuments are located within this area. The area is also characterized by principal public services and administration centers, such as the state and municipal central executive government buildings, the state congress, the state supreme court, civil justices, etc. Furthermore, this area contains a substantial concentration of shops and services.

LARGE MARKETS AND SUPPLY CENTERS

In close proximity to the project, there are at least three important, traditional supply centers. El Mercado de la Libertad, (a.k.a. San Juan De Diós) is considered the largest regional market in Latin America, the Mercado Corona, where one would find toy stores, retail commerce, large storage centers, and groceries, and the Mercado Alcalde, which also features a variety of retail options. These markets and supply centers shape the distribution dynamic of the entire city center.

HEALTH CENTERS

Large hospitals and health Service centers are also present. The Centro Médico de Occidente and the Hospital Civil, are among these facilities. The Centro Médico de Occidente, serves the entire region, linking various specialties, health services, and investigation centers. The Hospital Civil is one of the oldest health institutions in Guadalajara, also offering a fairly wide spectrum of health services. These large facilities support an ecosystem of smaller complementary health services, including laboratories, pharmacies, consultancies, etc.

FOOTWEAR AREA

Calle Estaban Alatorre is the traditional footwear market of Guadalajara. Even though it is not as dominant in footware sales as it had been in the past, the wholesale lady's footwear market is still quite generous. The footwear mark of Esteban Alatorre consists of 14 blocks of commercial land use, which dialogue directly with the CCD and with Parque Morelos.

COMMERCIAL CORRIDORS

Along with the areas previously indicated, there are 4 main avenues that intersect the CCD that are marked by services and commercial uses and that are known for their business and dynamism throughout the metropolitan area: calzada Independencia, avenida Alcalde, avenida Hidalgo-República and Juárez-Javier Mina. These avenues give structure not only to mobility systems, but also to central urban areas, public spaces, patrimonial areas, historical buildings, etc.

As an example of this, the north-south avenue, avenida Alcalde, integrates the Sanctuary of Nuestra Señora de Guadalupe, the Jardín Reforma, the Cruz de Plazas and the Jardín de San Francisco. The avenida Independencia, which hosts route 1 of the Macrobús runs along Parque Morelos and CCD in order to compromise the topographic drop from Plaza Tapatía, and Mercado de la Libertad. Meanwhile, the Juárez – Hidalgo axis ties the center of the city to the Minerva area in the west.

Main traditional markets close to Parque Morelos

1

2

3

Existing facilities in the Metropolitan Center of Guadalajara. Regional, state and metropolitan level

	Nivel regional	Nivel estatal	Nivel intermedio	Nivel medio
Educación		Escuela de Medicina de la Universidad de Guadalajara	Centro Universitario de Ciencias de la Salud CUCS, Universidad de Guadalajara. Este núcleo, además del centro educativo especializado en la enseñanza de la medicina, contiene la Biblioteca Cedosi y la Preparatoria número 11	
Salud y asistencia social		Hospital Civil de Guadalajara Fray Antonio Alcalde	Hospital Civil J L Menchaca Centro Médico de Occidente (IMSS) conformado por los Hospitales de Especialidades, Regional, de Gineco-Obstetricia, de Pediatría, la Unidad de Investigación Social Epidemiológica en Servicios de Salud, Banco de Sangre Central, las Unidades de Anatomía Patológica, Radioneurocirugía y el Laboratorio Regional de Citología Centro de Investigación Biomédica de Occidente (IMSS)	Unidad Médica Familiar #1 (IMSS) Hospital Materno Infantil "López Mateos"
Comercio y servicios	Mercado San Juan de Dios (el más grande en Latinoamérica) Plaza Tapatía Concentración de servicios y comercios cuasi especializado (joyería, calzado, vestido, etc) Mercado Municipal Corona	Mercado Municipal Fray Antonio Alcalde Mercado Municipal Jesús		
Cultura	Instituto Cultural Cabañas Teatro Degollado Museo Regional de Historia Rotonda de los Hombres Ilustres Claustro de San Agustín Biblioteca Iberoamericana Ex Convento del Carmen	Museo Panteón de Belén		Museo de Paleontología de Guadalajara Instituto de la Artesanía Teatro Experimental de Jalisco Teatro Guadalajara Museo de Arqueología de Occidente y Biblioteca Pública Casa de la Cultura
Administración pública	Palacio de Gobierno del Estado Palacio Legislativo del Estado Supremo Tribunal de Justicia del Estado Juzgados Civiles del Estado Palacio Municipal de Guadalajara	Palacio Federal Correos	Dirección General de Seguridad Pública del Municipio de Guadalajara Dirección de Obras Públicas del Municipio de Guadalajara Procuraduría General de Justicia del Gobierno del Estado Edificio Administrativo del IMSS	Subdelegación Juárez IMSS
Recreación y deporte	Plaza Guadalajara Plaza de Armas Plaza de la Liberación Plaza Tapatía Plaza López Portillo Plaza Universidad Jardín del Carmen Parque Revolución	Jardín Botánico Plaza El Santuario Plaza del Padre Galván		Parque Agua Azul Plaza Juárez

Salud

Centro Médico
Hospital Civil
Laboratorios
Farmacias
Consultorios

Mercado Alcalde

Mercado Alcalde
Usos Comerciales

Mercado Corona

Mercado Corona
Juguetes
Comercio Minorista
Grandes Alamacenes
Abarrotes
Productos Perecederos

El Retiro

Barrio Tradicional
Habitacional
Comercio Barrial
Mezcla de Usos

Parque Morelos

Parque Morelos

Monumental

Casco Histórico
Arquitectura Patrimonial
Arte y Cultura
Espacios Públicos
Mercado San Juan de Dios

Independencia

Macrobús
Avenida Principal
Usos Comerciales

Esteban Alatorrre

Zona Zapatera
Comercio
Bodegas

San Juan de Dios

Barrio Tradicional
Habitacional
Mezcla de Usos

La Perla

Barrio Tradicional
Habitacional
Comercio Barrial
Bodegas

Large areas identified for its general conditions of use

6.4.

Socio economic context

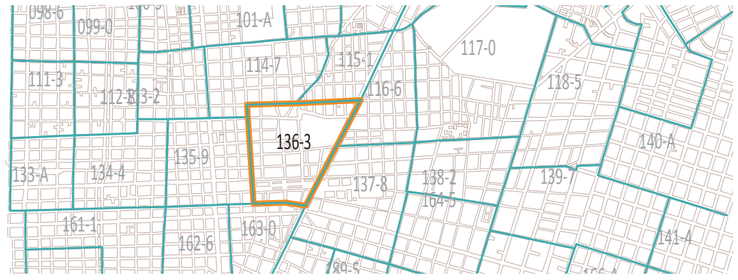
6.4.1. Economic Profile

Currently in Parque Morelos (AGEB 136-3) there are 500 business, of which there are: 173 are shops; 80 of which of professional services; and 63 of which are food and beverage vendors.

Of the shopping that is available in Parque Morelos, there are a wide variety of clothing and accessories options, including perfumes and jewelry. The food and beverage offering exhibits a wide selection of traditional ice cream and frappe shops.

AGEBs (Basic Statistical Area) of the Parque Morelos neighborhood

Source: INEGI, 2011



AGEB 136-3

Source: INEGI. Encuesta Nacional de Ocupación y Empleo. Indicadores estratégicos. Indicadores de ocupación y empleo al segundo trimestre de 2011. SEIJAL, Jalisco en el contexto laboral 2011.

Sector	AGEB 136-3
46 Comercio al por menor	173
72 Servicios de alojamiento temporal y de preparacion de alimentos y bebidas	63
81 Otros servicios excepto actividades gubernamentales	55
54 Servicios profesionales, cientificos y tecnicos	80
43 Comercio al por mayor	13
31 Industrias manufactureras	16
62 Servicios de salud y de asistencia social	9
52Servicios financieros y de seguros	9
33 Industrias manufactureras	4
32 Industrias manufactureras	6
56 Servicios de apoyo a los negocios y manejo de desechos y servicios de remediacion	16
61 Servicios educativos	14
93 Actividades legislativas, gubernamentales, de imparticion de justicia y de organismos internacionales y extraterritoriales	32
71 Servicios de esparcimiento culturales y deportivos, y otros servicios recreativos	3
53 Servicios inmobiliarios y de alquiler de bienes muebles e intangibles	5
51 Informacion en medios masivos	1
23 Construccion	
48 Transportes, correos y almacenamiento	
99 No especificado	
49 Transportes, correos y almacenamiento	1
TOTAL	**500**

6.4.2. Population and Social Reference

IDENTITY OF PLACE

The identity of place has been a complex socio-cultural construction that formed and transformed historically with the tangible and intangible cultural assets of the area. Part of this historical construction are the elements that make day to day to living possible, and that lend distinctive character to the neighborhoods around Parque Morelos.

In the same way, the churches, monuments, architecture, and symbolic spaces of historical center are the primary foundation of the identity of place. Upon this foundation, public spaces (streets, plazas, parks, gardens) are superimposed as an additional layer of shared experience, offering the necessary urban components of recreation, culture, commerce, and education, and rooting the identity of the citizen in place.

The area of Parque Morelos is marked by a juxtaposition of the identity traditional neighborhoods and the elements of daily urban use. El Retiro, Las Fresas, La Perla, and San Juan de Dios, are neighborhoods of historic character with a strong shared identities, especially in the day to day commercial relationships between residents and shop owners. Likewise, the principal service elements and intense daily use of the areas around the markets of Libertad, Alcalde, Corona, and La Paz are what further lend character to the identity of place.

Regarding public spaces, those of the strong identity are: Parque Morelos, the Botanical Garden, the Plazoleta del templo del Padre Galván, and Plaza Tapatía. Jardín Refoma, Jardín del Santuario, Jardín López Portillo, and Plaza Guadalajara.

SOCIO-SPATIAL RELATIONSHIPS

Traditionally, one of the most significant socio-cultural borders has been the calzada Independencia, which marks a notable division between the east and the west. This long-established division has given shape to the development of main neighborhoods within the intervention area.

The establishment of the neighborhoods of Santuario and San Juan de Dios during the XVI century, along with the additions fo the neighborhoods of La Perla and el Retiro (to the east and west of the calzada Independencia respectively) forms the principal social and neighborhood differentiation continues through today.

Among the elements that form the socio-spatial differences between neighborhoods in the area are public spaces, markets, temples, commercial areas, and public buildings. The three major neighborhood references in are the Cathedral, Plaza Tapatía, and Mercado San Juan de Dios. Even though comparatively the park is less visited, it holds a place is the social memory of residents as a place of leisure and respite. This is due in part to its original relationship with the river.

Historic neighborhoods and the traditional socio-economic division between them
Source: Estudio de Impacto Social del polígono DUIS, HILFE Consultores.

Socio-spatial referents of inhabitants of the traditional neighborhoods

POPULATION AND LIVING

Over the past 10 years, the population of the municipality of Guadalajara has decreased by almost 7% as a result of the migration to the municipalities of the Zapopan and Tlajomulco conurbantion. The historical center is the area that suffered the greatest loss of population; a total of 30,000 people, or more the 16% of the original population.

In the 14 AGEBs that were analyzed for the area of the Mosaico, there are 31, 562 inhabitants. In this analysis, the most populated areas form a crown that goes from the northwest to the southeast and corresponds mostly with the residential neighborhoods of El Retiro, La Perla, Las Fresas, and San Juan de Dios. In the area of Parque Morelos (AGEB 136-3) there are 1,650 inhabitants, while in the western and southwestern areas adjacent to Parque Morelos there are fewer inhabitants.

Following INEGI data, the socioeconomic level of the area is “lower-middle” “C-” (salaries between 10 and 15 times the minimum salary). Moreover, the level of social marginalization in the urban area of Parque Morelos is classifiable as medium-high.

With respects to housing, the Parque Morelos area (AGEB 136-3) registers a total of 463 housing units, 429 of which are occupied by an average of 3.53 inhabitants per household. Like in population, the adjacent traditional neighborhoods have greater numbers of residences, with a slightly lower average density of 3.46 inhabitants per household.

Degree of urban marginalization

La Calzada Independencia constituye la principal frontera social histórica que ha dividido la ciudad marcando una clara diferenciación socioeconómica y del entorno urbano. Esto ha generado un grado de segregación socio-espacial, que se manifiesta en los análisis territoriales de marginación, y que limita los flujos e intercambios en el sentido poniente-oriente.

Source: Censos y conteos INEGI 2010

- Very low
- Low
- Medium
- High
- Very high
- Non applicable

Population

Source: Censos y conteos of INEGI 2010

Inhabitants

- 0-2000
- 2000-2300
- 2300-2700
- 2700-3030
- 3030-3500
- 3500-10000

Housing

Source: Censos y conteos of INEGI 2010

Occupied housing

- 0 - 400
- 400 - 640
- 640 - 700
- 700 - 820
- 820 - 1000
- 1000 - 1350

6.5. Connectivity

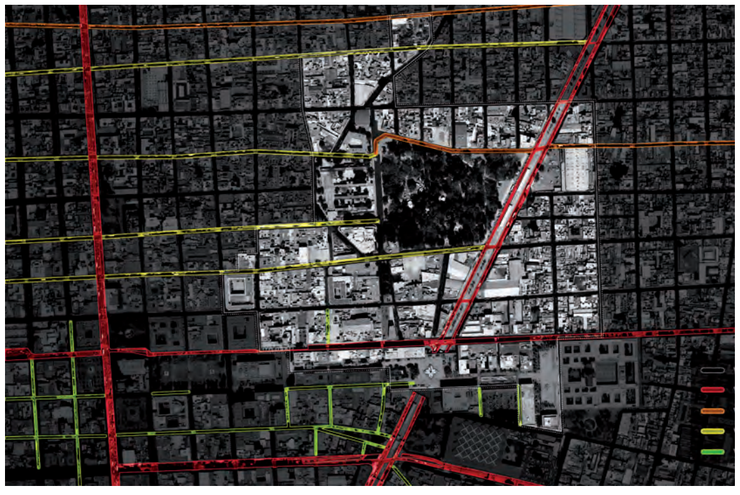
6.5.1. Street Network

The principal streets of the area are; Av. Alcalde (in the west); Calzada Independencia (in the center), Belisario Domínguez (in the west), and the set formed by the parallel avenues of Javier Mina-Juárez, and Hidalgo-República.

Within the secondary system of collector streets, there are four that operate according to their classification, but are unable to fulfill the street-section regulations of the state of Jalisco, they are; Hospital, Juan Álvarez, Manuel Acuña, and Esteban Alatorre-San Diego. A similar case arises in the streets identified as sub-collectors, with the following streets: Jesús García, Monte Cáucaso, Sierra Nevada, Héroes de Nacozari-Salvador de Quevedo, Herrera y Cairo, Garibaldi, San Felipe and Juan Manuel. The rest of the streets are of local character, and function mostly for neighborhood trips.

The following pedestrian passages are also found within this hierarchy of streets: Pedro Moreno; Independencia between Degollado and Av. Corona a 16 de Septiembre; Dr. Baeza Alzaga y Humboldt between Pedro Moreno and Independencia; Paseo Herreros y Alfareros between Dionisio Rodríguez and Paseo Hospicio.

As a result of the great level of metropolitan centrality that the Historical Center and Parque Morelos possess, there is a great influx of vehicular traffic towards the interior of the study area, causing an overuse of the capacity of the street network, and more simply, great deal of congestion. The traffic studies of the Parque Moreloa are indicate 6,000 private vehicles parked in the streets for daily users, plus the other thousands the pass through the area in order to arrive at other points in the city.



Streets

Local Street
Principal Street
Collector Street
Sub-collector Street
Traffic-Calmed Street

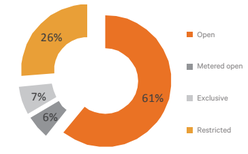
6.5.2. Parking

Of the parking on street and off-street parking options, there is a hierarchy of sub-classifications that further characterize the offering. On street parking is classified as: open parking, metered open parking, exclusive parking, and restricted parking. Off-street parking includes: public lots, private lots, and garages. Within the delimitations of the Mosaico (260 blocks), there is a total of 13,300 parking spaces.

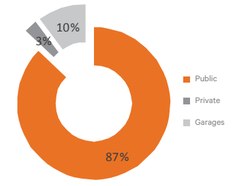
The public parking offering is mostly located close to the poles of vehicular attraction, such as the hospital centers in the north (creating a significant demand for parking), to the southwest of Parque Morelos where there are diverse government offices and union buildings. In these areas, on-street parking operates almost continually at or over capacity. The total on-street capacity is calculated as operating at 90% of total capacity.

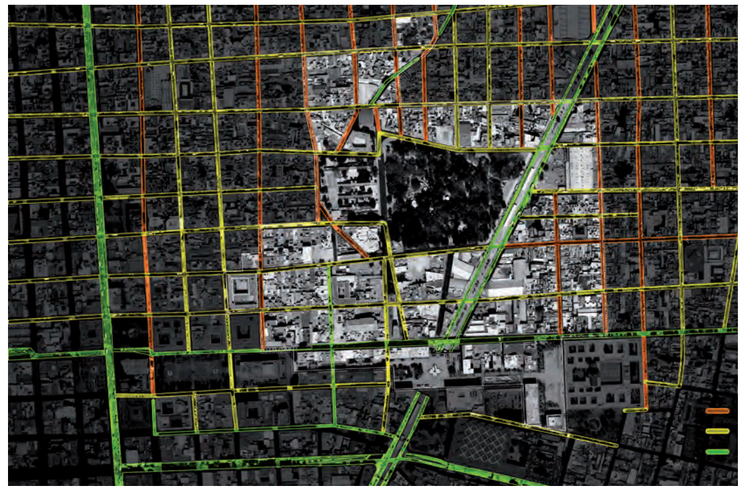
An important, negative aspect of open parking in the street is the impact that it creates on traffic flows, obstructing and delaying vehicular flow, especially that of public transit. Another negative impact is the reduction of space for the pedestrians, bicyclists, and vegetation, which are essential qualities of the urban image. The areas with the largest offerings of on street parking are located around the old Hospital Civil, the Diagonal Alameda between Tenerías and Hospital, and aroung the new Hospital Civil and medical center. On the other end of the spectrum of on-street parking, calle Dr. Baeza next to Parque Morelos provides an example of where on-street parking has been prohibited in favor of surface parking lots.

Offering of On-Street Parking
Source: Estudio de Impacto de Movilidad del polígono DUIS, EPS 2012



Offering of Off-Street Parking
Source: Estudio de Impacto de Movilidad del polígono DUIS, EPS 2012





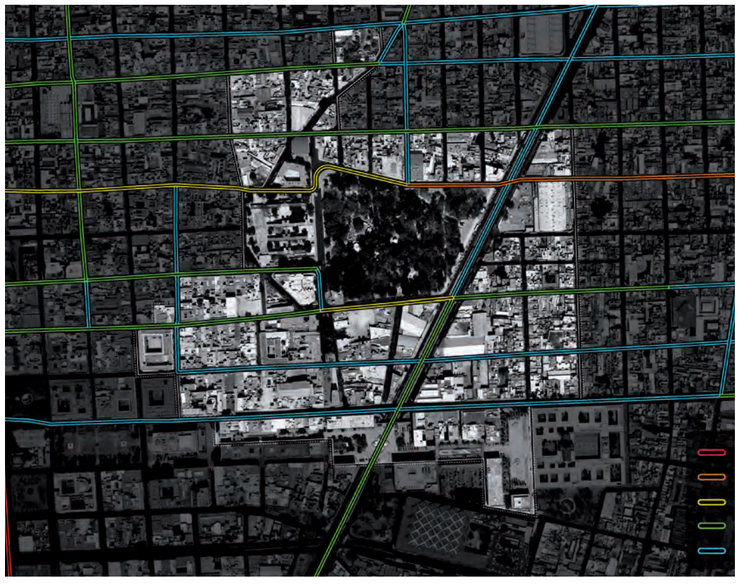
Analysis of parking lanes by street
Source: Estudio de Impacto de Movilidad del polígono DUIS, EPS 2012

2 lane parking
1 lane parking
0 lane parking

6.5.3. Public transport

Regarding public transport, the wide, 5 Km radius around the area of Parque Morelos presents a high level of connectivity due to the amount of service vehicles that circulate in the area. The total quantity of public transit routes is 210, with 12 different public transit operators. This includes the 2 light rail lines, the Macrobús and its feeder lines, and the network of night buses. At this scale of analysis, the public transportation system is nearly flawless, providing an admirable variety of options for visitors and residents.

Despite the diversity of options in the aforementioned 5 km radius, the public transportation lines in the Historic Center, particularly in Parque Morelos are congested. This is due in part to the historic urban structure, dominated by low capacity local streets, and the high frequencies required to serve visitors and to serve lines that are passing through this very central location to arrive upon other destinations in Guadalajara. An additional obstacle for the public transportation network is the system used for bus stops, which in theory are regulated so that they are the only points of entry and exit into a vehicle, but in practice, are often ignored.



Public transport

9 - 26 Routes
7 - 8 Routes
5 - 6 Routes
3 - 4 Routes
1 - 2 Routes

6.5.2. Public space

The principal of public spaces are Parque Morelo, and the network of monuments throughout Plaza Tapatía –Cruz de Plazas. The park is the main green space in the area, and the central social space for residents. Additionally, there are some relevant pedestrian walkways that connect these larger spaces such as Pedro Moreno, Morelos, and Pedro Loza. Connected to Parque Morelos are the additional public spaces of Parque Reforma, Plazota de Padre Glaván, and Jardín Botánico (botanical garden).

The historic downtown of Guadalajara centers on Paseo Morelos/Paseo Hospicio running east-west from the Plaza de Armas, where the seats of ecclesiastical and secular power are, to the Plaza de Mariachis and the Hospicio Cabañas.

The Plaza de Armas is a rectangular plaza with gardens, ironwork benches and an ironwork kiosk which was made in Paris in the 19th century. The Catedral de Guadalajara, surrounded on all four sides by squares including the Plaza de Armas, began construction in 1558 and was consecrated in 1616. Its two towers were built in the 19th century after an earthquake destroyed the originals. They are considered one of the city's iconic symbols with a mix of Gothic, Baroque, Moorish and Neoclassical architecture.

The Plaza de la Liberación on the east side of the Cathedral is nicknamed the Plaza de las Dos Copas, referring to the two fountains on the east and west sides. Facing this plaza is the Teatro Degollado. It was built in the mid nineteenth century in Neoclassical design. The main portal has a pediment with a scene in relief called "Apollo and the Muses" sculpted in marble by Benito Castañeda. Inside the vaulted ceiling contains a fresco which depicts a scene from the Divine Comedy painted by Jacobo Gálvez and Gerardo Suárez. Behind the theatre is another plaza with a fountain called the Fuente de los Fundadores (Fountain of the Founders). The plaza is located in the exact spot where the city was founded and contains a sculpture depicting Cristobal de Oñate at the event.

Between the Cathedral and the Hospicio is a large plaza called Plaza Tapatía. It is an important cultural and commercial area which covers an area of 70,000 m^2. Its centerpiece if the large Quetzalcoátl sculpture/fountain.Southeast of this plaza is the Mercado Libertad, also called the Mercado de San Juan de Dios. It is one of the largest traditional markets in Mexico. Next to it is the Temple of San Juan de Dios constructed in the 17th century of Baroque style.

At the far east end is the Plaza de los Mariachis and the Hospicio Cabañas. The Plaza de los Mariachis is faced by a number of restaurants in which one can hear live mariachis play, especially at night. The Hospicio Cabañas extends along the entire east side of the Plaza. This building was constructed by Manuel Tolsá beginning in 1805 under orders of Carlos III. It was inaugurated and began its function as an orphanage in 1810, in spite of the fact that it would not be finished until 1845. It was named after Bishop Ruiz de Cabañas y Crespo. The façade of the building is Neoclassical and its main entrance is topped by a triangular pediment. Today, it is the home of the Instituto Cultural Cabañas (Cabañas Cultural Institute) and its main attraction is the murals by José Clemente Orozco, which covers the main entrance hall. Among these murals is "Hombre del Fuego" (Man of Fire) considered to be one of Orozco's finest works.

Public spaces

Parques y jardínes
Plazas

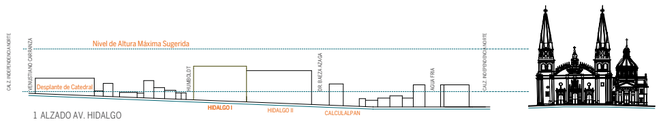
6.5.

Architectural context

The proposed DCC development for Parque Morelos would be to preserve and revitalize the park as the centerpiece of the project. Downtown Guadalajara, where Parque Morelos is located, is one of the most historic and memorable city centers in Mexico. A collection of architectural monuments interspersed with public squares, it not only has a powerful built image, but it is also a great place to live and work: the cultural and commercial heart of Mexico's second largest city with shops, schools, theatres, museums and restaurants. It is interesting that the district is not entirely historic fabric. It weaves in contemporary architecture, shops, offices, and pedestrian spaces linking the Cathedral with Hosipico Cabañas, a world heritage site. CCD will build-on this cultural commercial area, extending it to Parque Morelos using a fabric that mixes traditional ways of building with technology and 21st century activities. .
Approximately 27 ha are available on blocks around the square, most already publically acquired for Pan American games that were not eventually used.
An additonal 37 ha are potentially available as expansion space on deteriorated adjacent blocks (through infill or clearance) as well as scattered buildings downtown. Limited land would need dense development and reuse of scattered structures in downtown, which in turn would create widespread rejuvenation for downtown Guadalajara.Use of historic Hospicio Cabanas as the architecture model for the new development, blending old and new, would be a very strong iconic project that reinterprets and reinforces the architectural character of the historic city center and park, bringing them into the 21st century with a new urban courtyard fabric with space for mid-rise development.

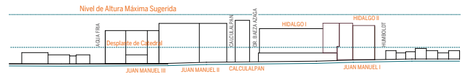
Sections through parque Morelos

1-1



1 ALZADO AV. HIDALGO

2-2

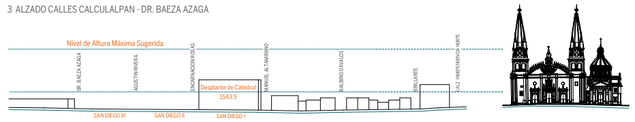


2 ALZADO CALLE JUAN MANUEL

3-3

3 ALZADO CALLES CALCULALPAN - DR. BAEZA AZAGA

4-4



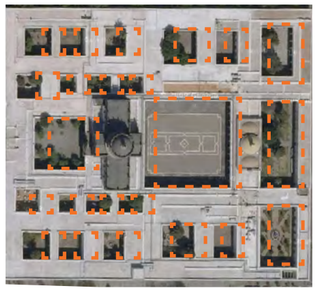
4 ALZADO CALLE SAN DIEGO

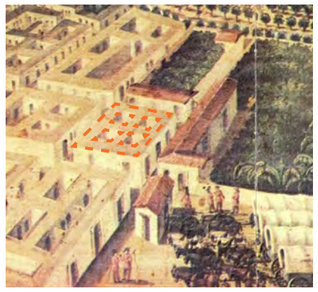
5-5

5 ALZADO CALLE GARIBALDI - PARQUE MORELOS

SUBMISSION FOR REVIEW

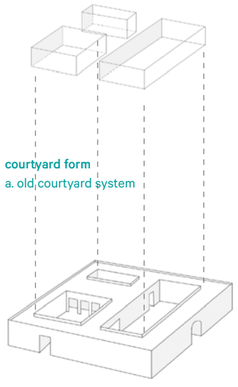
NOT FOR DISTRIBUTION





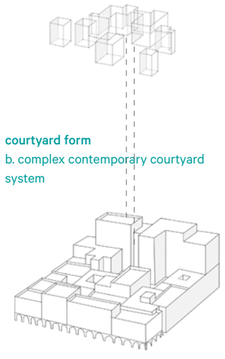
before

now



courtyard form
a. old courtyard system

block form
a. old neighborhood typology



courtyard form
b. complex contemporary courtyard system

block form
b. complex multilevel neighborhood

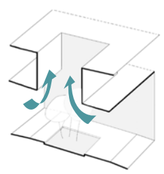
URBAN FORM

The architectural style of the colony is the result of Spanish architectural trends that, during the founding of Guadalajara, showed up on the European continent leaving a parallel influence in this city. In the historical center the purest example of neoclassical architecture can be appreciated at the Metropolitan Cathedral, Teatro Degollado and nearby buildings, in the French colony “Lafayette” this architectural style is in some residential houses that were converted into boutiques and restaurants.

Prevalent in the architecture of central Guadalajara are traditional building types organized around multiple courtyards, most beautifully illustrated in the Hospicio Cabañas. Drawing inspiration from Mexico’s colonial architecture and weaving the the DCC project into the urban fabric of Guadalajara must take careful consideration of the areas of cultural heritage and conservation.

A / double ways street section

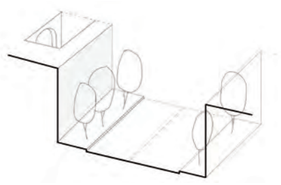
B / COURTYARD FORM



A
1. BRT lane
2. commercial
3. pedestrian path
4. residential buildings
5. green area

B
1. green area
2. patio
3. pedestrian path

C / double ways street section

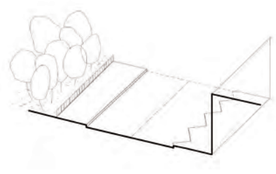


D / one way street section

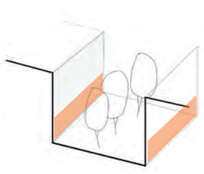
C
1. hard edge
2. commercial
3. pedestrian path
4. residential buildings
5. green area
6. Hospitio Cabanas

D
1. pedestrian path
2. residential buildings
3. commercial area

E / one way street park section



F / pedestrian street



E
1. park
2. pedestrian path
3. one way street
4. parking area
5. pedestrian path
6. buldings

F
1. pedestrian path
2. residential buildings
3. commercial
4. green area

Protected buildings

Types of patrimonial protection

Historical Monument
Historical Environmental Building
Relevant Artistic Value
Environmental Artistic Value

Level of intervention allowed

Conservation

Arquitectura Vernácula
The built vernacular heritage is a result of the organic and traditional way in communities produced their own habitat. This is part of the continuing process, which include the changes and upgrades necessary to adapt to social and environmental requirements.

The most consistent architectural characteristics are the use of local building materials, like adobe and brick covered in enjarre (a mixture of sand and lime), flat roofs, and relative contextual harmony (continuity in building heights, frequency and sequence of apertures).

Following available information, the District Plan Urban Development for the area that hosts the CCD project indicates 2,384 vernacular or popular buildings, all of which were built in the XIX and XX century.

The neighborhood of Alcalde Barranquitas, to the northwest of Parque Morelos in the vicinity of Hospital Civil, is the area that boasts the greatest spatial concentration of architecture catalogued as vernacular. The zone to the south of the park is less representative in this category because of its adjacency to the Plaza Tapatía, a place that was conceived during the second half of the XX century by way of a large government intervention.

School of Basilio Vadillo
Date of Establishment: 19020-1940
Architect: Arq. Alfredo Navarro Branca
Conservation Status: Good
Grade of Alteration: Whole/Unaltered
Classification: Estate of Relevant Artistic Value
Permissible Level of Intervention: Conservation

Built according to the Art Déco tradition, the building mass is formed principally by a group of 5 two-story buildings aligned around a central corridor (and stairway). The principal entryway is on calle San Felipe, and is characterized by its geometry and the use of various elevated planes. Of austere fabrication, there is continuity among the surfaces of the building volumes, which are interrupted by square windows of reticulated metal. Each volume features access through the northern façade and windows in the south, directly ventilating interior patios between the buildings. A perimeter fence surrounds the school complex. Towards the main entrance this fence is cut, allowing entry to the service area which is gardened with dense arboreal vegetation.

7

Urban Design: **Program & Land Use**

7.1 **The Site**
7.2 **Land-use**
7.3 **Sub-areas**

Urban Design

Overview

Land use within CCD will be driven by the proposed concept of generating a 3-dimensional model of mix uses. In other words, with regard to the horizontal land uses must prove to respond to different functions while reflecting this concept also in a vertical axis. Thus, integrating uses for (i) the creative industry, (ii) housing, (iii) institutional and (iv) commercial, will develop a rich context for users to live and be provided with their everyday services at walking distances. This proximity of services aims to generate sustainable result by reducing commuting travels and time, therefore increasing quality of life. Moreover, the new proposed land uses work towards higher density, which will resembled the sustainable model of the compact city.

The development of CCD aims to generate a combination of compatible and complementary uses that would serve the creative industry as well as the local community in general. Hence, the development of CCD in downtown Guadalajara must follow the premise of enabling mix uses not only on the horizontal plane but also in the vertical plane. The combination of functions that go from institutional commercial, residential and that from the creative industry will result in a rich urban tissue able to provide user with all services required within walking distances. Proximity of users to activities and services will result in shorter commuting time periods and in turn have an impact on the citizen quality of life, making CCD a better and more pleasant place to live

Envisioned land use for CCD follows a 3-dimensional model of mix uses, combining functions on the horizontal plane as well as in higher density vertical axes.

Furthermore, in order to integrally develop CCD as a complete and functional site, four key subareas have been identified based on their strong cultural identity. Development of these subareas draws on their particular character and boosts its future development. Although each subarea will strongly respond to functions, each of them will prove to include the 3-dimensional model of mixed uses. Thus, these subareas will be recognized as (i) Parque Morelos subarea, (ii) The Ingenium Campus, (iii) Calle Cabañas and (iv) Degollado Quadrant.

The first subarea is compound by the immediate context of Parque Morelos and its surroundings as shown in the following plan. The Ingenium Campus, taking place in the current Basilo Vadillo school facilities, becomes main character of the second subarea. The Ingenium project will be an incrementally developed educational facility, therefore providing a strong educational character to the area. Followed by the third and World Heritage subarea around Calle Cabañas, located on the east side of Parque Morelos across Calzada Independencia, is today home to Instituto Cultural Cabañas. The Institute includes schools of art and crafts, exhibition rooms, and areas for theatre, music and dance, as well as world famous murals by Mexican artist José Clemente Orozco, which decorate the Chapel. Degollado Quadrant, fourth subarea, which takes its name from the iconic Teatro Degollado will be further developed as of an integration of activities currently found in Calle Juan Manuel as well as the inclusion of new uses.

3

1. Office and production spaces in Calle Cabañas sub-district
2. Retail and resturants along E-W axis
3. Degollado District - entertainment and clubs in historic structures
4. Housing - development of additional units northwest of Parque Morelos and on Independencia Nte.

TOT footprints (* cumulative)

- 290.000 sm
- 70.800 sm
- 84.000 sm
- 130.000 sm
- 100.000 sm

2

1. Expansion of Institute for Digital Media and Arts
2. Hotel Cabañas - Tourism Hub
3. North Side - Creative Industry
4. E-W pedestrian spine
5. Calle Juan Manuel serviced apartments
6. Calle Cabañas office and production spaces
7. Accelerator expansion

TOT footprints (* cumulative)

- 160.000 sm
- 57.800 sm
- 49.000 sm
- 65.000 sm
- 79.000 sm

1

1. Rambla - N-S pedestrian spine
2. Parque Morelos reconstruction
3. Ingenium Campus
4. MMMM
5. Block 11
6. Accelerator and Pedestrian Connector
7. Theatre-in-the-Park
8. BRT stations on Independencia Nte.

TOT footprints (* cumulative)

- 20.000 sm
- 37.650 sm
- 8.000 sm
- 68196 sm

0

1. Parque Morelos

TOT footprints (* cumulative)

- 68196 sm

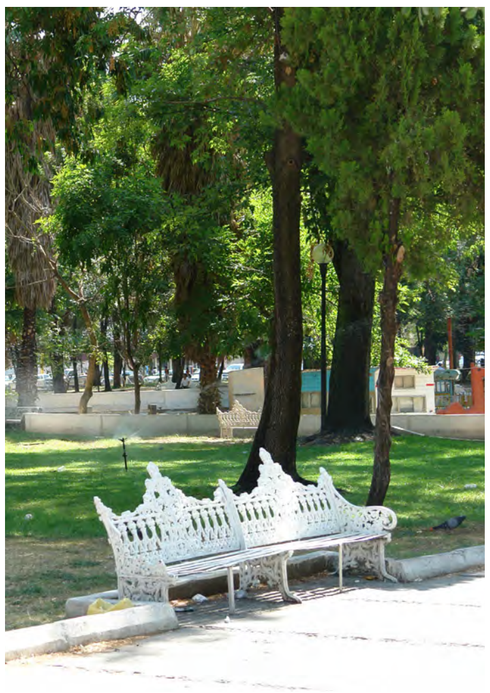
Map key

- Creative Industries
- Commerce
- Institutional
- Residential

7.1. The Site

7.1.1. Summary of site conditions

The proposed CCD development for Parque Morelos would be to preserve and revitalize the park as the centerpiece of the project. Downtown Guadalajara, where Parque Morelos is located, is one of the most historic and memorable city centers in Mexico. A collection of architectural monuments interspersed with public squares, it not only has a powerful built image, but it is also a great place to live and work: the cultural and commercial heart of Mexico's second largest city with shops, schools, theatres, museums and restaurants. It is interesting that the district is not entirely historic fabric. It weaves in contemporary architecture, shops, offices, and pedestrian spaces linking the Cathedral with Hosipico Cabañas, a world heritage site. CCD will build-on this cultural- commercial area, extending it to Parque Morelos using a fabric that mixes traditional ways of building with technology and 21st century activities.



The plan below shows the boarders of the polygon in which CCD spreads, where Parque Morelos can be clearly identified as core of the site.

7.1.2. Site Density Comparision

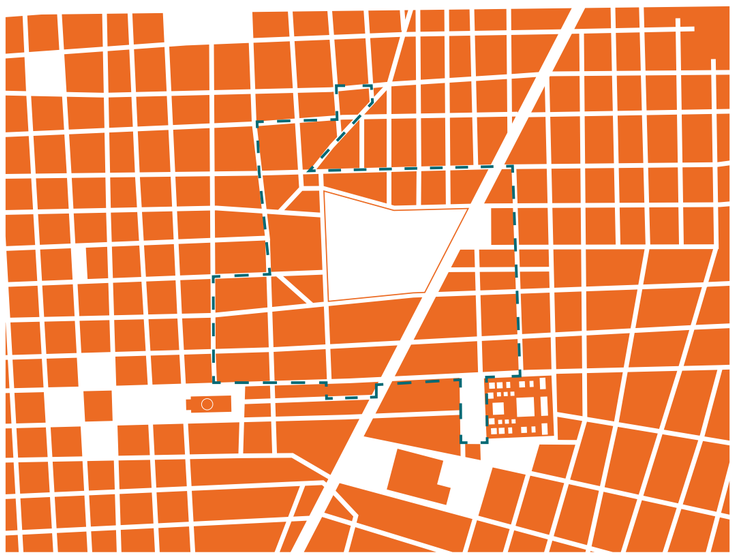
REPLICABILITY AND SCALABILITY OF CCD

CCD will be a place to work in leading-edge digital creative services, but also a physical smart city with a highly interactive sustainable built environment. A range of digital technologies can be embedded in the urban fabric, offering citizens and businesses differentiated live/work experiences and helping foster the growth of future media enterprises. Ciudad Creativa Digital Guadalajara will become a place where digital technology allows increased efficiency, helping to save energy and better manage precious resources, such as water. The same technologies will also improve productivity at work by bringing people together in the virtual and physical space. CCD will be open to all residents of Guadalajara, who will have access to its entire cutting edge infrastructure, promoting a new model for social digital inclusion. Moreover, CCD provides the opportunity to create a new urban regeneration model for emerging markets, especially in the Latin American context. It will be one of the largest developments of its kind in the region - effectively a living lab to develop new, sustainable technologies that could be scaled globally

For the development of CCD it is of outmost importance for its sustainability to glocalize the concept of function of the creative industry. For that reason global activities and functions must be make use of local materials, typologies and traditions. The essence of Guadalajara must be preserved, however brought to the 21st century by hosting the creative industry within its traditional urban fabric, that way becoming a national and international a well known world-wide best practice of a sustainable urban regeneration project: reinforcing is character as the Mexican Silicon Valley.

In the following, three international as well as national best practices are presented and compared with the site of CCD under the parameters of scale and land uses. The first, and more similar example, recalls Washington Square Park in the neighborhood of Greenwich Village in New York City, park, which serves various roles within the community. Furthermore this best practice is comparable to Parque Morelos the scene that is an example of urban regeneration of one of the most ancient parks in the city.

> “CCD aims to develop Guadalajara as a better place to live and work, transform the image of Mexico and create a sustainable model for the future.”
>
> **Dennis Frenchman,** *MIT Strategic Planning Workshop*



CCD city boundary

WASHINGTON SQUARE PARK - USA

Historic Parque Morelos is the centerpiece of the Plan, providing a front door to CCD, as well as a major amenity for those who live, work, and study in this area of Guadalajara, much as Washington Square Park now serves New York University and the Greenwich Village neighborhood in New York City, in addition to various roles for its community throughout the years, adapting to meet its needs.

Here a plan of the immediate context of Washington Square Park in New York, providing the land use within a ¼-mile round area showing all services provided within a less than 5-minute walk.

SILICON ROUNDABOUT - UK

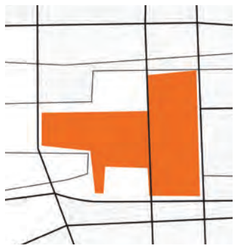
The idea of CCD to foster the creative industry recalls Old Street roundabout. Old Street roundabout and the surrounding area is sometimes known as Silicon Roundabout owing to the high number of web businesses located there, and as a reference to Silicon Valley in California.

Here a plan of the immediate context of Silicon Roundabout in London, providing the land use within a ¼-mile round area showing all services provided within a less than 5-minute walk

COLONIA CONDESA - MEXICO

Parque México is a large urban park located in Colonia Hipódromo in the La Condesa area of Mexico City. The park not only serves as the center of Colonia Hipodromo, it is also the defining element of the “La Condesa” zone of the city, which consists of Colonias Condesa, Hipódromo and Hipódromo Condesa. The park is also considered to be “lungs” of the Condesa area. Parque Mexico and its sorrounding colonias become ideal examples to be consider for the regeneration of the urban context around Parque Morelos in Guadalajara.

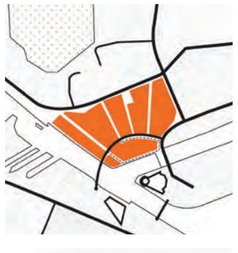
Here a plan of the immediate context of Parque Mexico in Mexico City, providing the land use within a ¼-mile round area showing all services provided within a less than 5-minute walk..



TWOFOUR54 - ABU DHABI

Twofour54 is a roposed hub of media for the Arab world; integrated studios and support services, museum, incubator, office buildings, residential.

Total area = 18.2 ha
Year of foundation: 2002
Dimension of core area (Digital Medial Street) 30 ha
Total area: 40 ha
Companies already moved in: 300
Number of jobs: 80,000
The planimetric scheme on the left provides a general understanding of relations between areas and connections at Twofour54

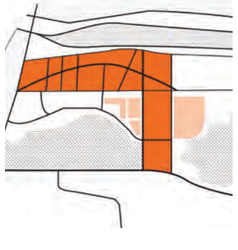


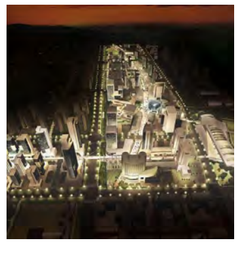
MEDIA CITY - UK

Media City: UK, the new home of BBC with major studios, production and incubator, hotels, education, residential and mixed uses.

Total area = 15 ha
Year of foundation: 2007
Dimension: 15 ha
378 new apartments, 218 bed Holiday Inn, and 2,200 space car park

The planimetric scheme on the left provides a general understanding of relations between areas and connections at Silicon Roundabout





SEOUL DIGITAL MEDIA CITY - SOUTH KOREA

Is one of the largest media clusters in Asia, with production facilities for three major networks, gaming companies, LG telecom headquarters, incubators, hotels, retail, high schools and office buildings.

Core area (Digital Media Street) = 30 ha; Total area = 40 ha
Year of foundation: 1865
Dimension: 18.2 ha
Number of academic staff : 1,009
Number of students: 10,384
The planimetric scheme on the left provides a general understanding of relations between areas and connections at Seoul’s Digital Media City

7.2.

Land-use

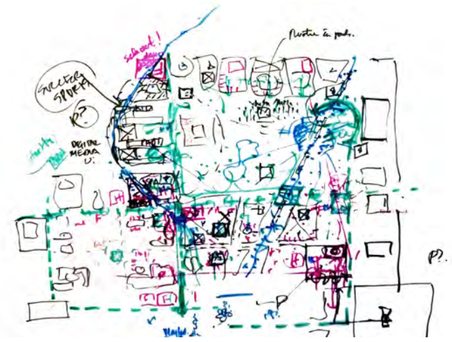
7.2.1. Plan Overview

Guadalajara is currently affected by a problem common to most cities in rapid states of growth. A downtown that is gradually emptying and a periphery in the process of expansion. The project area is no exception.

In general, the Plan envisions incremental development of parcels surrounding the park and adjacent to the city's civic axis connecting the Cathedral with Hospicio Cabañas. Development would mix a variety of uses, concentrating on space for media related industries and support services, but also including educational and cultural institutions, marketing services, retail stores and restaurants, hotels, housing, and recreation. The aim is to create a high quality, socially integrated urban environment that provides an attractive place for creative people to live and work.

Affected by mass-migration from the centre to the city edge, the downtown now has a large number of empty, or rundown, areas, which are in opposition to its nature as a city rich in artistic value.

To achieve this objective, the infrastructure and urban fabric of the project has been very carefully considered. As specified in the guidelines and shown in the Plan, the existing grid of city streets serves to bind together CCD, as well as connect it to the surrounding city. Traffic will be maintained on all of these routes with the exception of two cross streets which form the backbone of CCD. Alzaga, a north-south axis will be closed to traffic and become an extension of the park. Juan Manual, an east west axis will be redesigned principally to accommodate pedestrians (although traffic may be allowed during certain times of the day or week). Both of these are seen as the locus for shops, restaurants, services, entertainment, and other activities that will be the center of life in CCD. In two locations, where connectivity has been broken by a highway and the BRT, iconic Multi-level Pedestrian Connector and a second pedestrian bridge are proposed to heal these scars integrating CCD tightly together with its context.



The first design sketch of the CCD developed as a group at the CCD-MIT Workshop in November 2011

Here the two examples show the difference between a historical downtown which has retained its original form (Bologna) and development has been forced to the outskirts, and a city (London) which has developed organically and integrated contemporary architecture into its historic skyline.

Creative Industries
/low-rise buildings
/middle-rise buildings

Institutional
/low-rise buildings
/middle-rise buildings

Commerce
/low-rise buildings
/middle-rise buildings

Residential
/low-rise buildings
/middle-rise buildings

7. 2. 2.
Creative Industry

FOSTERING A CREATIVE CLUSTER

CCD, cluster of creative minds, fosters a world-class industry providing them with a whole range of infrastructure needed for their optimum performance. As part of a comprehensive plan, the creative industry will be hosted in a set of facilitates found a long the site. The creative hub of Ciudad Creativa Digtial aims to provide a space for a wide range of creative industries such as electronic manufacturing, automotive, aerospace, software and/or service and electronic design. Thus, in order to boost and guide development of towards achieving a digital creative city, it is envision that for the 1st phase of intervention low-rise as well as high-rise buildings will take place. Lead by the insertion of two key projects: (i) The Incubator for media start-ups and (ii) the Digital Creative Accelerator Center, several other interventions will be allocated hosting creative industry studios, production and offices.

First, the Incubator for media-start ups, will consist of physical space for programs to take place to foster the successful development of creative companies through an array of business support of resources and services. This incubator will take place in the block located on the southwest corner of Parque Morelos, next to the Ingenium and near to the Accelerator. After initial support of media start-ups, these will have the opportunity to be relocated and acquire a space at the Accelerator for further support. Thus, the Digital Creative Accelerator Center will be a space for growing media companies, containing service and retail facilities, hold together around a public courtyard. The main concept of this project consists of providing moderate-cost spaces and shared services for small to medium sized companies, which will be moving up from the incubator space. In addition, it will accommodate short-term project groups and independent producers, for which suitable facilities such as co-working spaces and telepresence rooms should be provided.

Within the general CCD creative hub, sub-clusters of facilities will develop in strategic areas such as the North-side and the Cabañas Quadrant. The mixture of low and high-rise buildings for purpose of the creative industry will mainly settle on the North-side next to Parque Morelos, taking advantage of the greenery and the views. On the other hand, the sub-cluster of facilities for the industry located in the Cabañas Quadrant will profit from its proximity to Hospicio Cabañas and Plaza Tapatia.

Creative Industry Phase 3

low-rise buildings

middle-rise buildings

1. Incubator for media-start ups
2. Accelerator space for growing media companies; service and retail, public courtyard
3. Creative industry studios, production, offices
4. Block 11

7. 2. 3.
Institutional

Institutional facilities within CCD are lead by the strong presence of Hospicio cabañas as conceptual model, and boosted through two key catalyst projects: the Mexican Media Museum and marketing Center and the Ingenium Campus. As network of support of this two key projects several other interventions will take place such as a theater and open-air stage inside Parque Morelos, a pond and wading pool recalling the former bank of the San Juan de Dios River, a community gym, and an auditorium as well as public digital galleries, cafés and happenings in general.

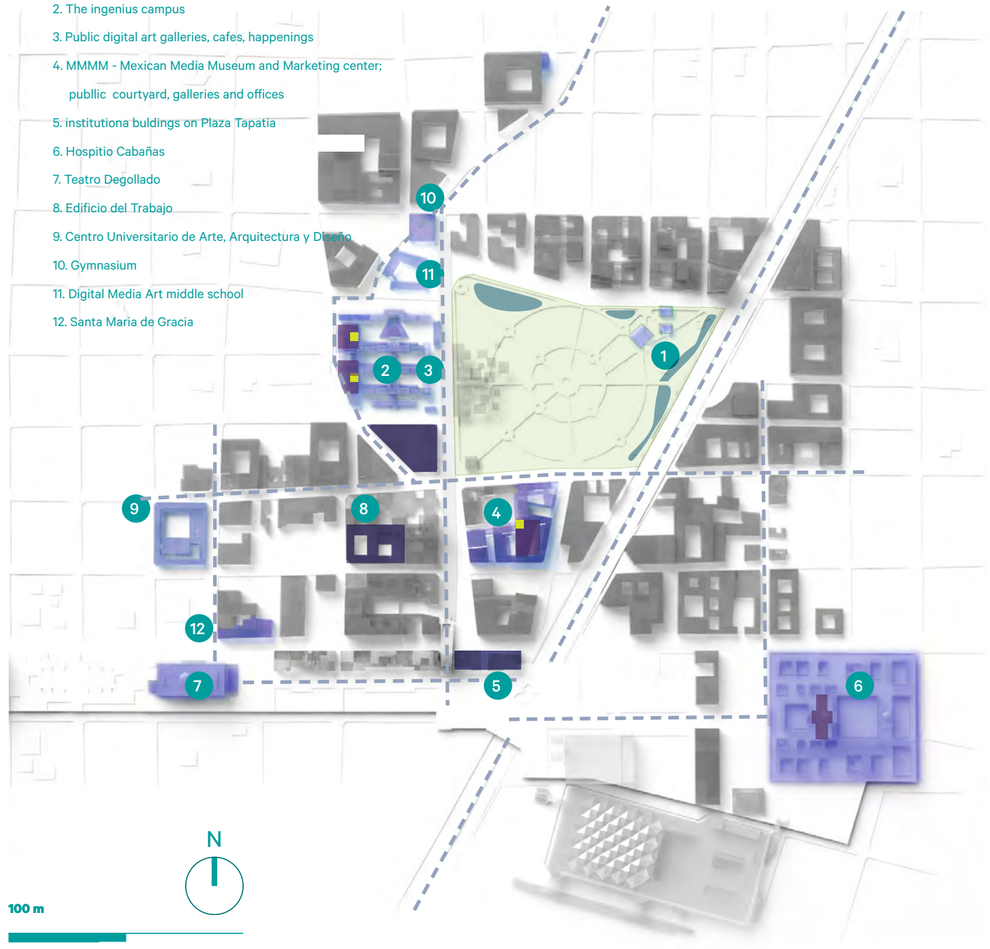
Institutional facilities within CCD are lead by the strong presence of Hospicio cabañas as conceptual model

Institutional Phase 3

Institutional, education low-rise

Institutional, education middle-rise

1. Theatre in park
2. The ingenius campus
3. Public digital art galleries, cafes, happenings
4. MMMM - Mexican Media Museum and Marketing center; publlic courtyard, galleries and offices
5. institutiona buldings on Plaza Tapatia
6. Hospitio Cabañas
7. Teatro Degollado
8. Edificio del Trabajo
9. Centro Universitario de Arte, Arquitectura y Diseño
10. Gymnasium
11. Digital Media Art middle school
12. Santa Maria de Gracia



7. 2. 4. Commerce

THE COMMERCIAL CLUSTER

As part of the comprehensive strategy towards achieving sustainability of Ciudad Creativa Digital, reactivating commercial activity within the site plays a major role towards enhancing a 24-hour cycle of activities, among others. Commercial functions within CCD Guadalajara will be triggered as of the existing bustle and enlarged with new types of commences. For this purpose, a north-south commercial axis intersected at the Multi-level Pedestrian Connector with a west-east spine is envisioned. Additionally, the development of two key catalyst projects tackled in different phases is proposed.

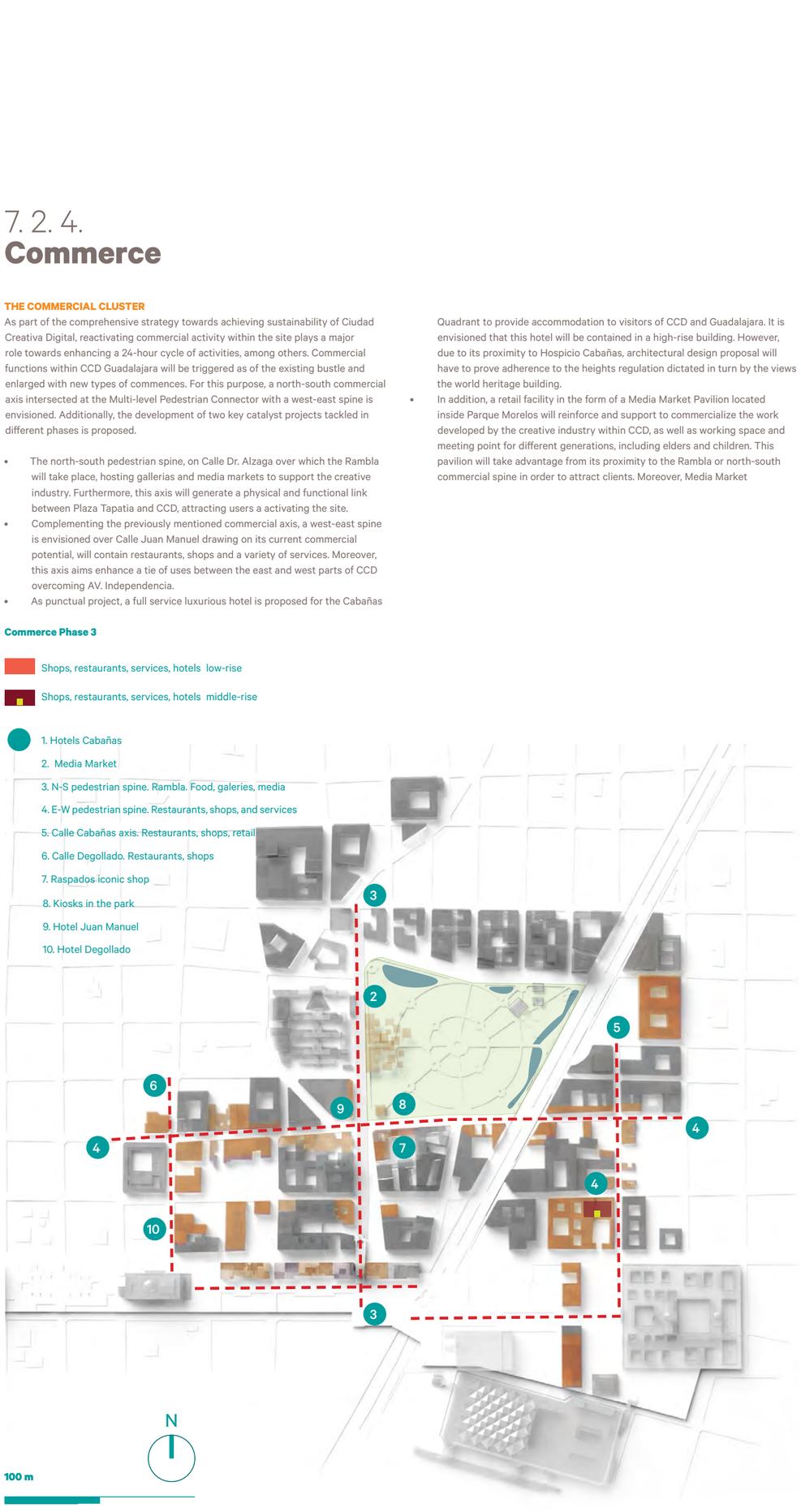
- The north-south pedestrian spine, on Calle Dr. Alzaga over which the Rambla will take place, hosting gallerias and media markets to support the creative industry. Furthermore, this axis will generate a physical and functional link between Plaza Tapatia and CCD, attracting users a activating the site.
- Complementing the previously mentioned commercial axis, a west-east spine is envisioned over Calle Juan Manuel drawing on its current commercial potential, will contain restaurants, shops and a variety of services. Moreover, this axis aims enhance a tie of uses between the east and west parts of CCD overcoming AV. Independencia.
- As punctual project, a full service luxurious hotel is proposed for the Cabañas Quadrant to provide accommodation to visitors of CCD and Guadalajara. It is envisioned that this hotel will be contained in a high-rise building. However, due to its proximity to Hospicio Cabañas, architectural design proposal will have to prove adherence to the heights regulation dictated in turn by the views the world heritage building.
- In addition, a retail facility in the form of a Media Market Pavilion located inside Parque Morelos will reinforce and support to commercialize the work developed by the creative industry within CCD, as well as working space and meeting point for different generations, including elders and children. This pavilion will take advantage from its proximity to the Rambla or north-south commercial spine in order to attract clients. Moreover, Media Market

Commerce Phase 3

Shops, restaurants, services, hotels low-rise

Shops, restaurants, services, hotels middle-rise

1. Hotels Cabañas
2. Media Market
3. N-S pedestrian spine. Rambla. Food, galeries, media
4. E-W pedestrian spine. Restaurants, shops, and services
5. Calle Cabañas axis. Restaurants, shops, retail
6. Calle Degollado. Restaurants, shops
7. Raspados iconic shop
8. Kiosks in the park
9. Hotel Juan Manuel
10. Hotel Degollado



7. 2. 5. Residential

THE RESIDENTIAL CLUSTER

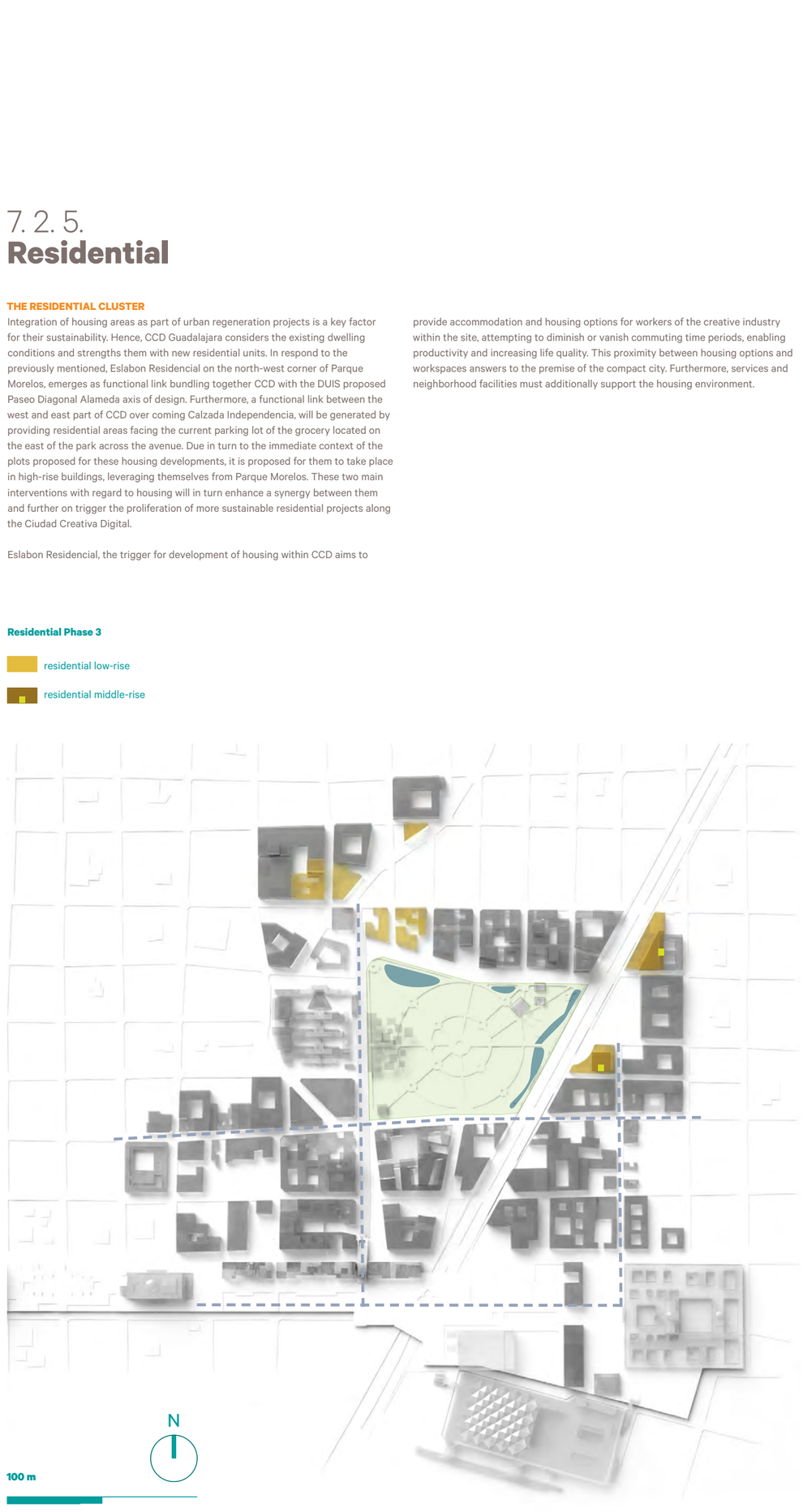
Integration of housing areas as part of urban regeneration projects is a key factor for their sustainability. Hence, CCD Guadalajara considers the existing dwelling conditions and strengths them with new residential units. In respond to the previously mentioned, Eslabon Residencial on the north-west corner of Parque Morelos, emerges as functional link bundling together CCD with the DUIS proposed Paseo Diagonal Alameda axis of design. Furthermore, a functional link between the west and east part of CCD over coming Calzada Independencia, will be generated by providing residential areas facing the current parking lot of the grocery located on the east of the park across the avenue. Due in turn to the immediate context of the plots proposed for these housing developments, it is proposed for them to take place in high-rise buildings, leveraging themselves from Parque Morelos. These two main interventions with regard to housing will in turn enhance a synergy between them and further on trigger the proliferation of more sustainable residential projects along the Ciudad Creativa Digital.

Eslabon Residencial, the trigger for development of housing within CCD aims to provide accommodation and housing options for workers of the creative industry within the site, attempting to diminish or vanish commuting time periods, enabling productivity and increasing life quality. This proximity between housing options and workspaces answers to the premise of the compact city. Furthermore, services and neighborhood facilities must additionally support the housing environment.

Residential Phase 3

residential low-rise

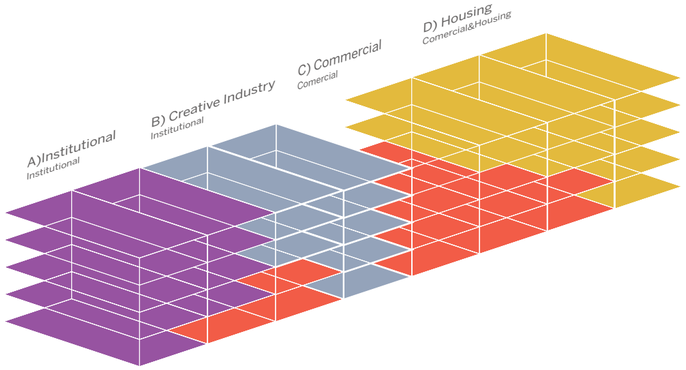
residential middle-rise

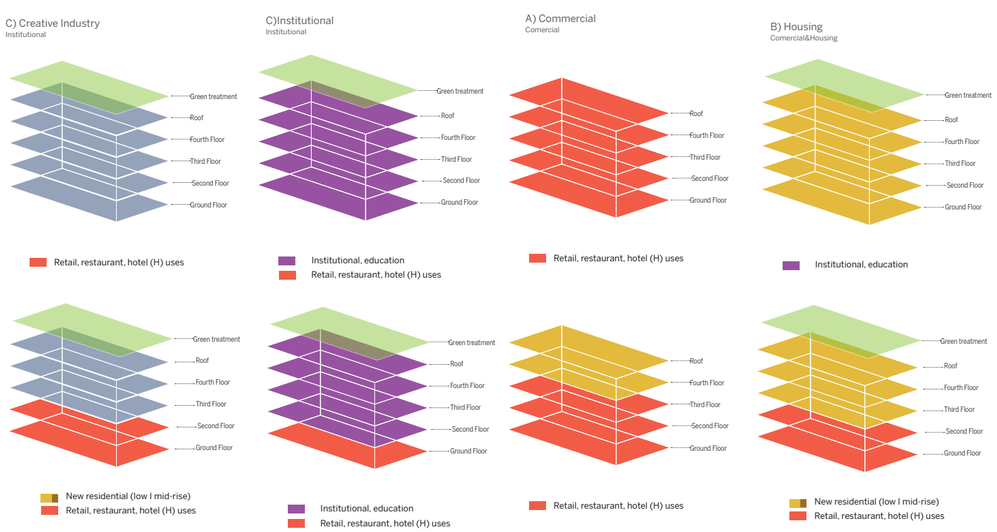


7. 2. 6. Taxonomy of Mixed Uses

The mix of activities envisioned to take places on the horizontal plane proposed in the general land use for the site scale or the patios in particular, would also occur and extrude on to the vertical axis, enabling a three dimensional model of mixed spaces. The following diagrams exemplified in detail the wide spectrum of possible combination of uses within building structures or blocks. The model contemplates the integration of uses for the (i) creative industry, (ii) housing, (iii) institutional, and (iv) commercial in order to achieve a richer function of the space, which will allow proximity of the user to the most service required to avoid communing.
The basic block of the new CCD will be a 3-5 storey podium at street level, which will host the activities of work, retail, green spaces and new public spaces.
The podiums are organized in a way that allows a porous organization of the buildings, to create complex internal flows. Commercial spaces, public spaces will overlap and alternate seamlessly with workspaces.

Mixed uses following the new kind of three-dimensional model, will produce a “permeable” realm, blending public and private activities.





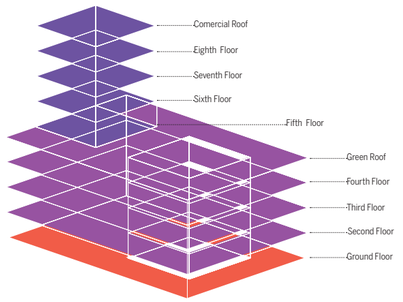
7. 2. 7. Mixed Use Blocks

THE 3-DIMENSIONAL URBAN MODEL

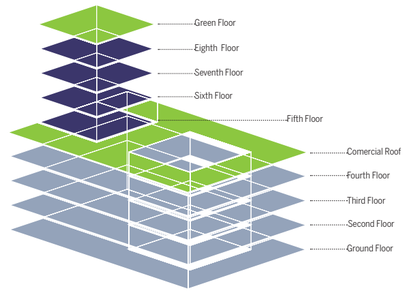
The following illustrations diagrammatically show how this mix of activities could be achieved in the area in and around Parque Morelos. All of the buildings – no matter what the use – are designed with a lower lever podium of 3-5 stories, which generally extends to the street wall. The podium aims to insure streets of human scale and provide space for shops, restaurants, services and other activities. On the interior of blocks the typical podium is punctuated with courtyards or other larger scale spaces to serve different functions. In many cases, the courtyards would be open to the public, providing more intimate spaces for outdoor dining, art shows, performances, or work. In other cases the courts would serve more private functions – such as a sound stage – related to businesses or occupants of the block. These courts need not be limited to the ground, but could be created on upper levels of the podium as well, also open to the public, providing spaces for social gatherings or collaborative work, bars, or other activities overlooking the street and courtyards below. The totality is envisioned as a new kind of three-dimensional, “permeable” realm, blending public and private activities.

Above the podium, taller 8-10 story structures (lower than the Cathedral), may be developed. These serve several functions. First, they enable greater density, which will be needed to accommodate the anticipated program of development for the CCD within its constrained urban setting. At the same time density will add to the level of street life and overall concentration of activity contributing to creative interaction and a sense of place in the district. Second, the taller elements provide the opportunity for flagship companies and institutions to develop

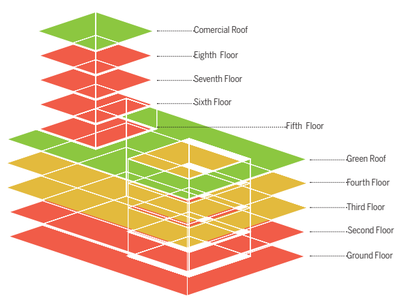
their own identity and space for operations in the CCD. The towers would be visible in the district but not free-standing, since they would emerge out of the podiums below and be required to set-back from the street wall, preserving a pedestrian scale environment at the street level, where it matters. Third, the small towers will serve a critical sustainability function, by providing the opportunity to naturally ventilate not only their own volumes, but also the low-rise podium buildings and courtyards below. Each tower will include an interior atrium or chimney space designed to evacuate warm air through natural convection (or recapture and recirculate it in the evening of cooler months if necessary). Interconnecting the system with lower level podium buildings and spaces could provide natural cooling for an entire block. Use of planting and water within courtyard spaces will accentuate the cooling effect.



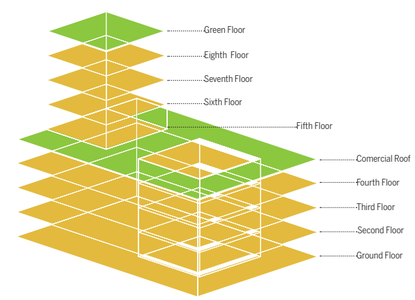
Insitutional



Creative industry



Commerce



Residential

7. 2. 8.
CCD Mixed Use Ecology

The physical and functional integration of uses within the CCD site is, as previously demonstrated, a key component towards achieving sustainability. Fusing functions a scalable manner, thus, within the building, block, site and further on city scale, results in a mixed-use ecology that as stated by Jane Jacobs in The Death and Life of Great American Cities, encourages the development of a healthier urban tissue. Thus the mixture of functions related to (i) the creative industry, (ii) commercial activity, (iii) institutional use, and (iv) housing; enhances land-use synergies, where residents, workers and visitors provide costumers for retail, which in turn provide amenities and services for the site.

The rich and vivid urban fabric product of the replication of the 3-dimensional mixed-uses model increases accessibility and proximity. In other words, the proposed land use will result in a reduction of distances for CCD citizens; enabling them dwelling opportunities near to workspaces and with all their daily service requirements covered within short distances. Moreover, the envisioned land use within CCD Guadalajara matches the premise of fostering the creative industry and therefore focuses on providing all the services and facilities needed to fulfill this purpose.

It is expected that a mixed land use will contribute decreasing commuting among users and reduce travels; therefore having and a positive impact on ameliorating traffic conditions. Furthermore, increasing urban density by inserting medium to high-rise buildings within the area will contribute to sustainability.

The development of CCD aims to generate a combination of compatible and complementary uses that would serve the creative industry as well as the local community in general. Hence, the development of CCD in downtown Guadalajara must follow the premise of enabling mix uses not only on the horizontal plane but also in the vertical plane. The combination of functions that go from institutional commercial, residential and that from the creative industry will result in a rich urban tissue able to provide user with all services required within walking distances. Proximity of users to activities and services will result in shorter commuting time periods and in turn have an impact on the citizen quality of life, making CCD a better and more pleasant place to live.

In a schematic manner, the Plan illustrates how the guidelines, further explained in detail, are intended to shape development of Ciudad Creativa Digital (CCD) in and around Parque Morelos in Guadalajara. The Plan illustrates both the intended Urban Structure of the district as well as the potential pattern of Land Uses and activities that could evolve, as illustrated in the accompanying diagrams. The Plan is not a fixed design, but illustrates what might be considered an ideal direction for the project that will ultimately take a decade or more to fully achieve. All aspects of the Strategic Plan were developed in concert with participants from the City of Guadalajara, State of Jalisco, Pro-México and Canieti

> “The district and indeed as many of its internal parts, must serve more than one primary function; preferably more then two.”
>
> **Jane Jacobs, The Death and Life of Great American Cities**

The plan above illustrates the diversity of uses to be generated along CCD; a mixture of functions for the cretive industry, housing, commerce and institutional.

7.3.

Sub-areas

7.3.1 Overview

As of the site analysis the area in which CCD takes place has been strategically divided for purposes of land use development into four subareas: (i) Parque Morelos, (ii) the Ingenium Campus, (iii) Calle Cabañas, and (iv) Degollado Quadrant. These subareas have been identified based on their particular cultural features and therefore CCD aims to boost future development of them by showcasing each subarea's singular identity.

The first subarea is compound by the immediate context of Parque Morelos and its surroundings as shown in the following plan. In order to boost this subarea, the narrative of Parque Morelos will be reclaimed, its former condition as an island between two rivers and strong relation to water will be reinterpreted in the new layout. The midd-19th century formal landscape design, which once positioned it as the symbolic heart of the community, will be readapted. In addition to a complex program of functions, among which a Pavilion hosting an Infobox and an ephemeral media market should be located on the west edge in front of the Ingenium and integrally be connected to the Rambla. Integrating an outdoor theater with a stage, art pavilions and stands, digital water features that allow citizens to visualize sustainaboloty, and the integration of new technologies.

The Ingenium Campus, taking place in the current Basilo Vadillo school facilities, becomes main character of the second subarea. The Ingenium project will be an incrementally developed educational facility, which based on the guiding phases of an adaptable strategic plan will become a platform for education, research, workshops, and seminars for students and workers of the digital innovative media industry. The aim behind creating such an institute is to promote a link between the worlds of education and industry, while enhancing collaborative work and production of new ideas. The on-site incubator will serve as a platform to enable young talent to flourish and attract private investment for its development, while incrementing the on-site presence of digital creative professionals. Therefore, the Ingenium will focus on the three following concepts:

Followed by the third and World Heritage subarea around Calle Cabañas, located on the east side of Parque Morelos across Calzada Independencia, is today home to Instituto Cultural Cabañas. The Institute includes schools of art and crafts, exhibition rooms, and areas for theatre, music and dance, as well as world famous murals by Mexican artist José Clemente Orozco, which decorate the Chapel.

Degollado Quadrant, fourth subarea, which takes its name from the iconic Teatro Degollado will be further developed as of an integration of activities currently found in Calle Juan Manuel as well as the inclusion of new uses.

1. Parque Morelos
2. The Ingenium Campus
3. Calle cabañas
4. Degollado Quadrant

7. 3. 2.
Parque Morelos

Historic Parque Morelos is the centerpiece of the Masterplan, providing a front door to CCD, as well as a major amenity for those who live, work, and study in this area of Guadalajara. Currently the potential of the park is underutilized. The Plan calls for it to be redesigned recalling its former 1940's layout, and at the same time, including new facilities and landscape to support activities including: Restaurants, food and covered working places in a new Marketplace Pavilion on the western edge of the park containing the Infobox; an outdoor Theater in the Park for concerts and productions; a reflecting pool and digital fountain stretching along Independencia Nte. (recalling the river which once flowed there); soccer field in connection with sports facilities in the northwest corner; playground; smaller pavilions and kiosks to support outdoor work and recreational use of the Park. The historic alley of trees which once opened onto the river would be restored to once again serve as the centerpiece of the park.

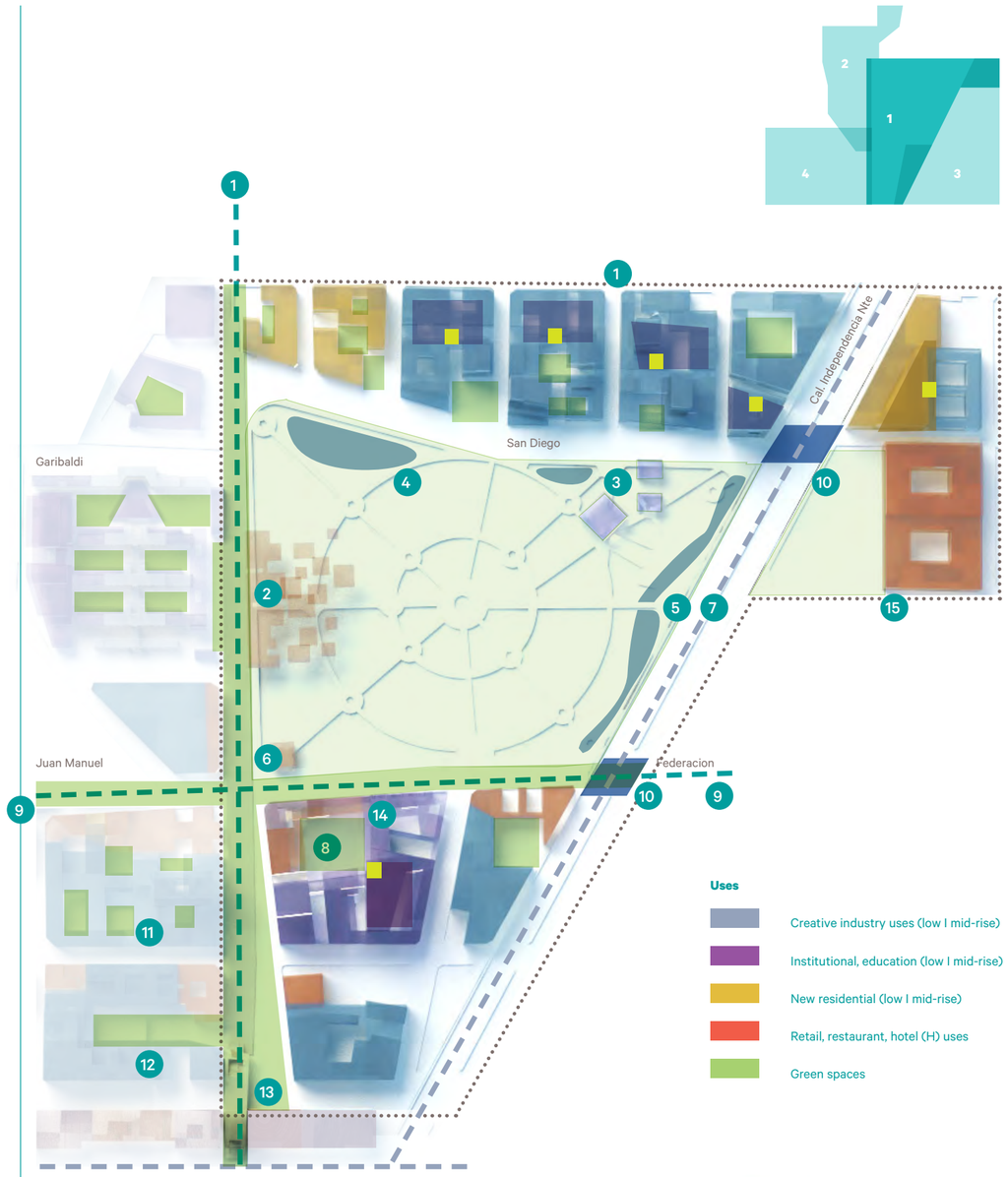
To the north and south of the Park, new development oriented to the Digital Media industry would occupy now cleared parcels owned by the city. As recommended in the Plan, structures are designed to include lower level podiums that generally extend to the street wall, punctuated by courtyards in the centers of the blocks.

On each block, a small tower rises from the podium to provide additional space for companies, as well as natural ventilation to the buildings and courtyards below via a wind tower or atrium, as illustrated in the Plan. Street fronts and some courtyards are lined with shops, restaurants and other activities to serve the local population.

Infrastructure improvements will take place overcoming existing barriers to accessing the Park, and the CCD. To the east and south, the Plan illustrates closing Calle Alzaga to traffic and converting the right-of-way into a pedestrian thoroughfare, effectively extending the Park. To the south the new Multi-level Pedestrian Connector would carry the park – much like the High-Line in New York City – across the existing Hidalgo expressway into the central civic axis of the city. The aim would be to create an iconic. 21st century piece of landscape urbanism that is both elegant and provocative. In a similar vein, a new pedestrian bridge – in the spirit of the High Line -- would be created linking Calle Cabañas across the BRT to Parque Morelos. This is relatively simple to do, since the end of Calle Cabañas is situated a full story above the grade of the BRT along Independencia Nte. below. The Plan illustrates the conversion of the existing parking lot at this location to green space, another extension of the park, which could be achieved by developing a garage below grade.

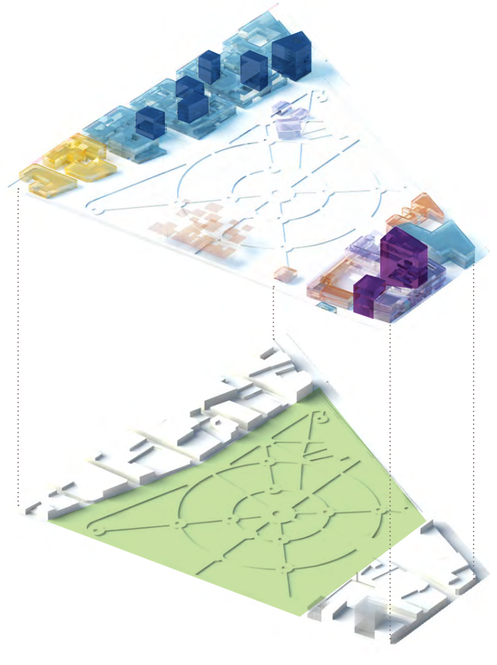
Finally, the Plan envisions reestablishing Independencia Nte. as the front door to the Park, as it was before the advent of the BRT. It proposes moving the existing stations, which block views of the Park's main axis, to locations immediately to the north and south. The boulevard, itself, will be made more pedestrian friendly with interpretive features designed to recall that this was once a riverfront in the city. For example, the grade crossing at Juan Manuel -- one of the pedestrian axes of the CCD – could be demarcated with water walls that rise to block buses and cars as people cross (and vice versa). As another example, LED lighting along Independencia Nte. could be programmed to shine blue, or simulate movement, or create other effects on the theme of water, reinforcing the image of the CCD as a special, creative environment.

Historic Parque Morelos is the centerpiece of the Masterplan, providing a front door to CCD, as well as a major amenity for those who live, work.



Parque Morelos District

1. N-S pedestrian spine. Rambla. Food, galleries, media
2. Info box - Cafè - Market
3. Theatre-in-Park
4. Pond
5. Water fountains
6. Kiosk
7. BRT stations on Independencia Nte.
8. MMMM's courtyard
9. E-W pedestrian spine. Restaurants, shops, and services
10. Special street crossing
11. Block 11
12. Accelerator
13. Pedestrian connector
14. mmmm
15. Shopping center



7. 3. 3.
The Ingenium campus

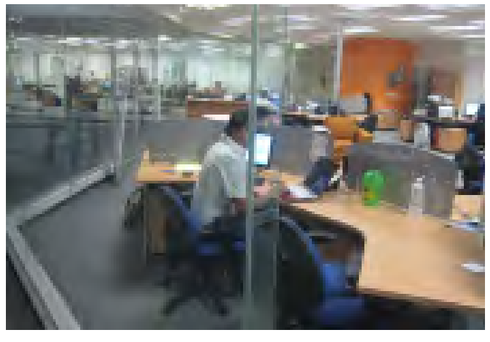
West of the Park are a beautiful collection of public institutions and buildings. Included is the Basilio Vadillo art deco elementary school built in the 1920's along with a wonderful gymnasium and sports facilities that have lost students as the population of the surrounding neighborhood declined in recent years. There is a proposal to consolidate the school in another location, which would leave the buildings available for re-use. Also in this location is a Red Cross Infirmary, which is slated to move to a new location.

The Plan envisions redevelopment of these facilities into a node of education, professional training, and incubation to build the skills and human social capital that will be needed by creative industries. This is critical to the success of the project and to engaging the citizens of Guadalajara in the benefits of CCD. Development of these new institutions could be aided by investments from creative industries themselves, since they stand to benefit directly from the availability of a trained workforce.

Four elements of a program are proposed: First, the existing elementary school existing elementary school with approximately 150 students would remain on the site and developed to become a magnet school on the theme of digital arts. Students from the neighborhood would attend, of course, but it would also be open to children from across Guadalajara. Second, the majority of existing buildings will be converted into The Ingenium Campus, offering professional training at the college level for students wishing to enter the digital media field. Students would benefit from direct engagement with industries of CCD, which would provide internships as well as some of the teaching staff. The institute could be associated with the University of Guadalajara, which has several programs in the digital arts and technology, or a new, free-standing school associated with industry. Third, the former infirmary is an ideal location for a new high-tech incubator on the order of the two existing incubators in Guadalajara that have been developed and managed by Canieti. Space and services would be made available at reduced cost to start-up media production and related companies. Finally, the school gymnasium and sports facilities – which have a greater capacity that the elementary school requires – would be opened to residents and employees of media companies as a benefit of living and working in the neighborhood. If needed, additional soccer fields could be developed in Parque Morelos directly across the street.

Publically owned parcels to the north of the campus, which intersect the surrounding neighborhood, would make an excellent location for new housing. This is a critical component of the overall CCD program, which must include convenient, quality places for students and employees to live. Ideally, these would be in CCD, rather than the suburbs where a commute is required. It is also critical to the city center, which has lost population in recent years and needs to attract a new group of residents.

Redevelopment of these facilities into a node of education, professional training, and incubation will build the skills and human social capital needed by creative industrie.

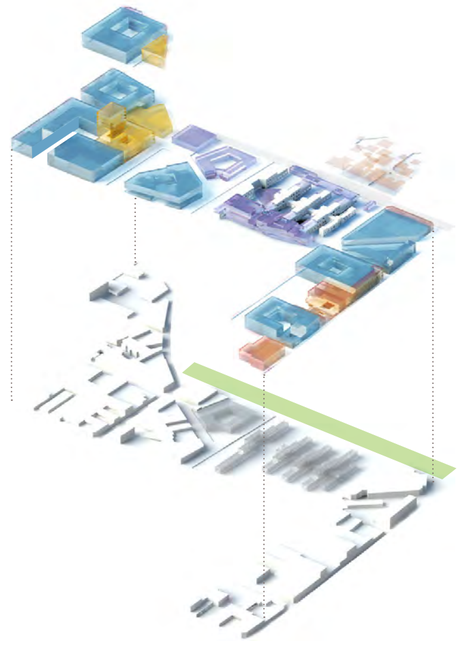


Parque Morelos District

1. N-S pedestrian spine. Rambla. Food, galleries, media
2. Ingenium Campus
3. Magnet middle school for Digital Arts
4. Gymnasium
5. incubator
6. Park infobox and media market
7. E-W pedestrian spine. Restaurants, shops, and services
8. Ingenium campus expansion
9. residential area
10. Creative indusrty

N

100 m



7. 3. 4.
Calle Cabañas

The area of the city east of the Park – and the river -- once represented the outskirts of the city where the lower class and less fortunate lived. This was the site chosen by the Bishop of Guadalajara in the late 18th century for the construction of Hospicio Cabañas to house the homeless, the old, and the orphans of the town. The magnificent complex which arose, arranged around twenty-three courtyards, is now a World Heritage Site and home to the Cabañas Cultural Institute. The Institute includes schools of art and crafts, exhibition rooms, and areas for theatre, music and dance, as well as world famous murals by Mexican artist José Clemente Orozco, which decorate the Chapel.

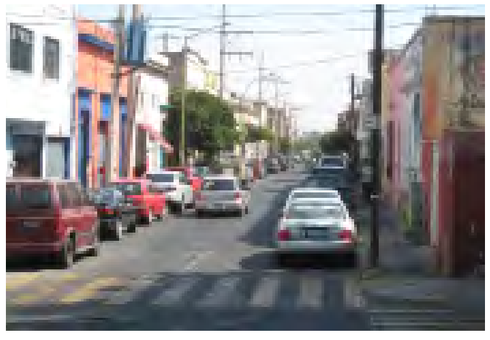
Outside the building, Hospicio Cabañas lies on axis with the Cathedral of Guadalajara to the west, forming the central spine of the city, which crosses the former river course. Perpendicular to the north, Calle Cabañas leads into the traditional lower class section of Guadalajara and in a few blocks back to the river. Much of this area now lies underutilized or abandoned. The beautiful plaza in front of Hospicio Cabañas offers an outstanding opportunity to Calle Cabañas connect CCD visually, symbolically, and functionally into the heart of the city.

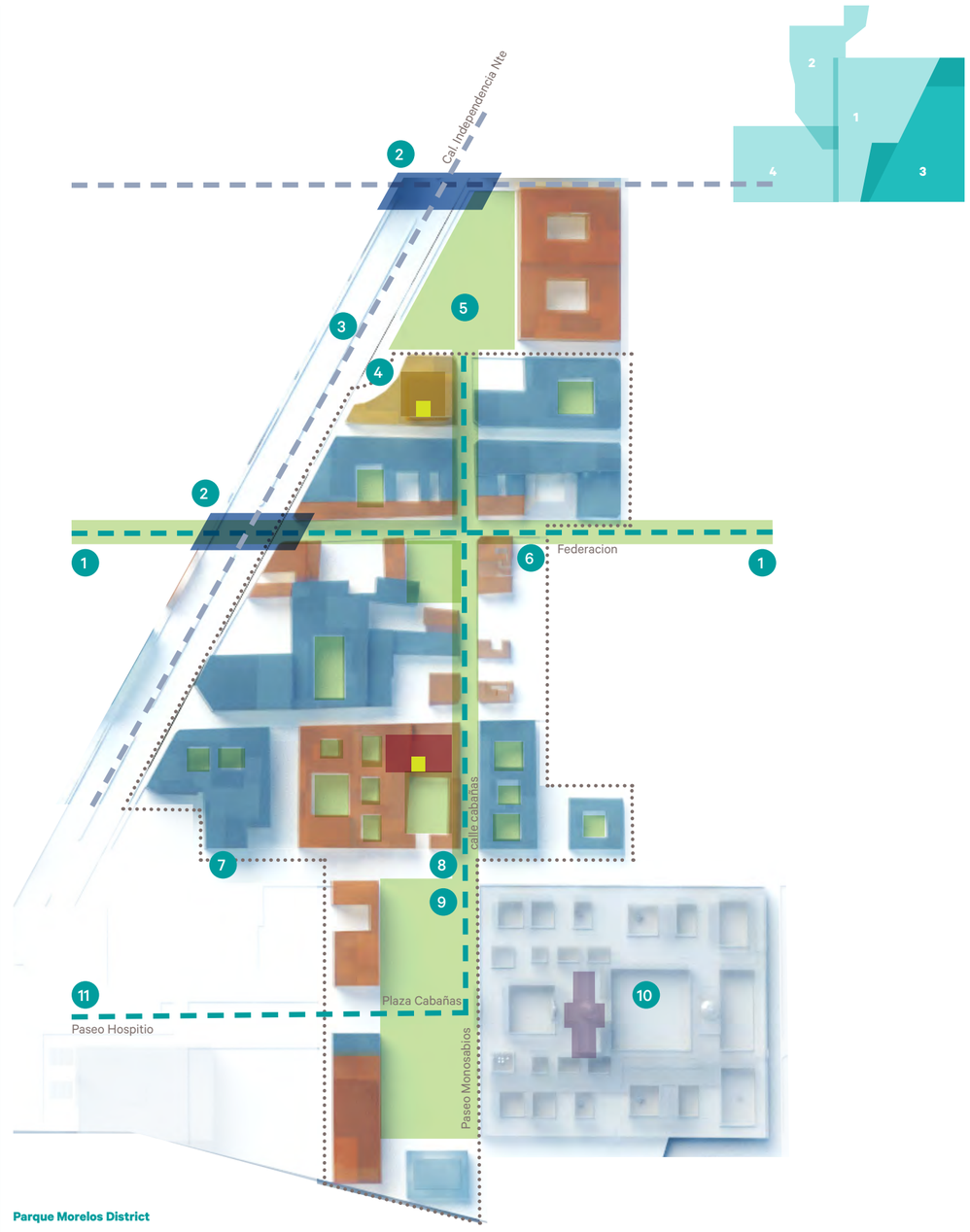
In further phases of the project CCD will be expanded to east side integrating the Calle Cabañas as catalyst of a creative hub. This area located on the east side of Parque Morelos across Av. Independencia, takes its name from Hospcio Cabañas due to its proximity and reliance on it. This district will be developed along a the Calle Cabañas as north-south axis, beginning at Plaza Hospicio Cabañas and running along the site, merging the La Perla quarter with CCD while connecting Calle San Diego. Furthermore, the area takes advantage from its accessibility by being directly next to Av. Independencia and Plaza Tapatia.

The development of Calle Calabañas aims to be triggered and supported on existing commercial and service activities such as the shoe industry. This last commercial activity is really characteristic of the area and

Moreover, boosting tourism within the site will draw on the strong cultural identity and local traditions, turning these elements into main attractions for international and national visitors. Existing attractions such as San Juan de Dios Market increase the value of the district, adding folklore and providing a local atmosphere characteristic of Guadalajara.

The beautiful plaza in front of Hospicio Cabañas offers an outstanding opportunity to Calle Cabañas connect CCD visually, symbolically, and functionally into the heart of the city.



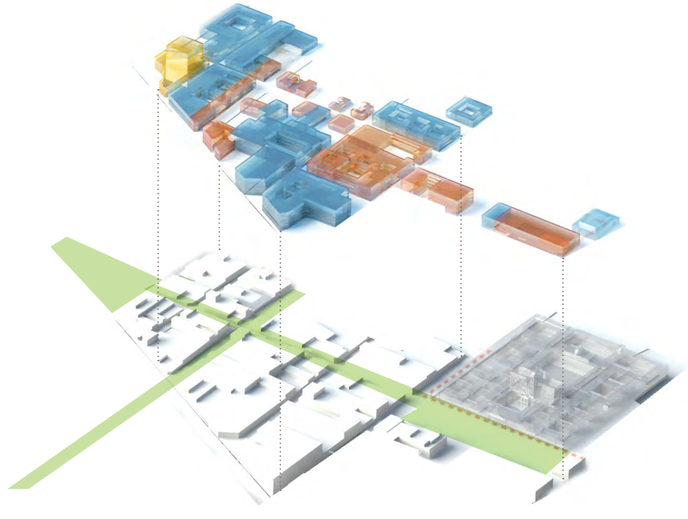


Parque Morelos District

1. E-W pedestrian spine. Restaurants, shops, and services
2. Special crossing
3. BRT station
4. Residential
5. Park - Parking
6. Calle Cabañas commercial axis
7. Creative industry
8. Hotel cabañas
9. Paseo Hospitio
10. Hospitio Cabañas

N

100 m



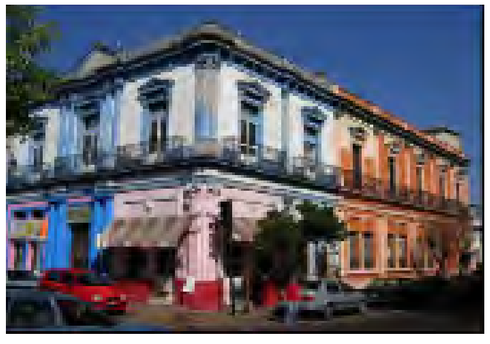
7. 3. 5.
Degollado Quadrant

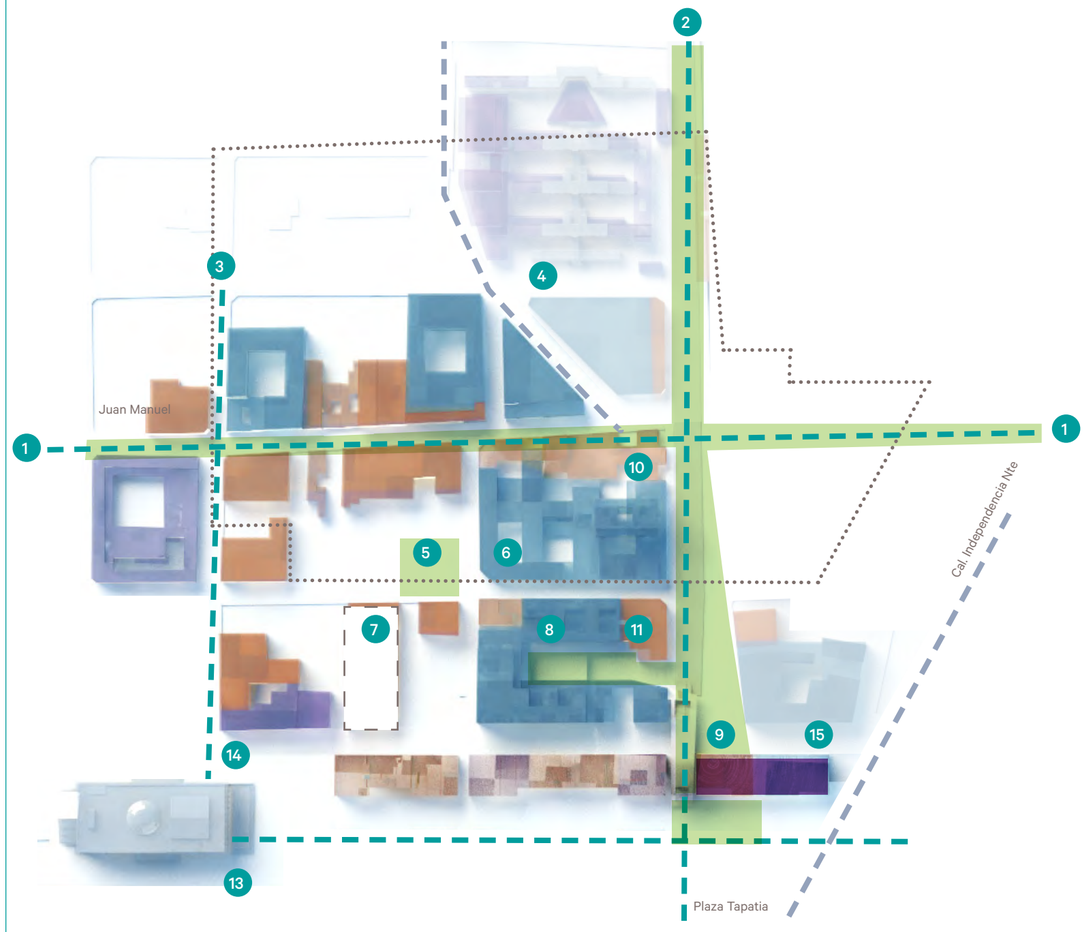
Teatro Degollado is one of Guadalajara's cultural gems and an icon of the city. Located along the central axis between the Cathedral and Hospicio Cabañas it marks a key gateway to CCD via Calle Carranza. As illustrated in the Plan, Calle Caranza demarks one edge of a four block quadrant adjacent to the theatre, packed with a mix of large government agencies and small businesses with a unique character and strong sense of place. The northern edge of the quadrant is defined by Calle Juan Manuel, one of the key pedestrian routes in CCD. This area of Juan Manuel has undergone a renaissance of sorts in recent years with the renovation of many colonial buildings to house shops and apartments.

The Plan envisions the creation of a strong connection between this district and CCD along Juan Manuel by developing a unified, high quality pedestrian street experience. The aim is to encourage expansion of the fabric and mix of uses down the street to Parques Morelos at the center of CCD. The interior of the quadrant – so close to the theatre and other cultural attractions – offers an opportunity to develop restaurants, clubs and entertainment oriented to urban nightlife. A natural complement would be hotels, which are illustrated in the Plan at the northeast corner of the quadrant facing the park, where they would also be convenient to CCD cluster of industries and institutions.

This district includes a number of high quality street views in the existing Degollado quadrant historic buildings that should preserved. Not only is it enlightened public policy to conserve the city's architectural heritage, but also if renovated and reused these structures will add enormously to the economic value and distinctiveness of this area of Guadalajara and CCD by attracting a new group of visitors and residents. The Plan recommends that the quadrant be incorporated into an historic district to restrict demolition, and that incentives be provided as part of CCD development strategy to encourage reuse of the structures for new businesses.

Degollado District takes its name for its proximity to Guadalajara's 19th century architectural and cultural gem: Teatro Degollado



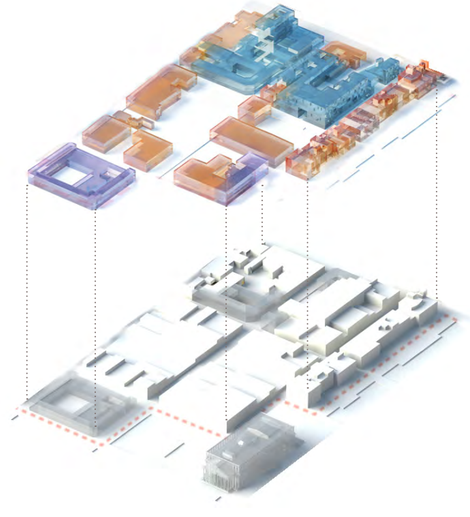


Degollado Quadrant

1. E-W pedestrian spine. Restaurants, shops, and services
2. N-S pedestrian spine. Rambla. Food, galleries, media
3. Connection to Degollado teathre
4. Incubator
5. Public square
6. Edificio del Trabajo
7. Parking area
8. Accelerator
9. pedestrian connector
10. Hotel Morelos (old Secretaria de Salud)
11. Historical building
12. Plaza tapatia
13. degollado Teathre
14. Santa Maria de Gracia
15. Goverment building

N

100 m



8

Urban Design: **Project Phasing**

8.1 **Phase 0: Land ownership and acquisition**

8.2 **Phase 1: Mobilize development of catalyst projects**

8.3 **Phase 2: Expand to critical mass**

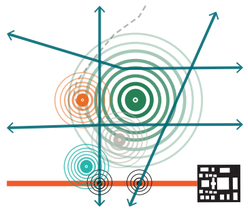
8.4 **Phase 3: Complete build of CCD polygon**

8.5 **Phase 4: Expand into DUIS and provide global model**

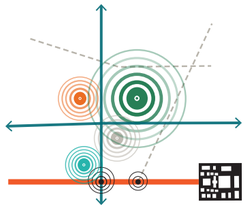
8.1. Phasing Strategy

8.1.1. Three Phases of Development

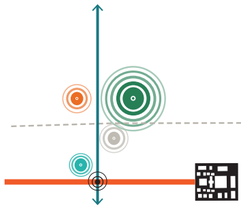
Phase 3 - Complete building CCD polygon



Phase 2 - Critical Mass



Phase 1 - Mobilization



8.1.2. Land Acquisition & Development

The initial review of existing land ownership should highlight the current status and define priority acquisitions. The focus should be on filling out partially owned blocks, and particularly the blocks surrounding Parque Morelos. Target areas have already been researched for the sites of the catalyst project sites, but whilst this phase initiates with the start, and even in advance of phase one, it is an on-going process throughout the project. A certain amount of flexibility has been considered for this in the final masterplan such that the design of CCD can be adapted to fit the conditions of the day.

- Target areas for re-use incentive program: Grants to encourage reuse of privately owned historic buildings and fabric
- Existing Publically owned property
- Priority for acquisition
- Key institutions (low | mid-rise)
- BRT station

w8.2.

Phase 1: Mobilization

8.2.1. Mobilize development of catalyst projects

Start-up activities to establish the institutional and physical framework for longer term CDD development. Initial public and private projects to enhance the public realm, create anchors of activity, and catalyze further development in Phase 2.

Phase 1 will begin the process with a series of "catalyst" projects to establish the physical infrastructure and institutional framework of CCD. The catalysts include: restoration of Parque Morelos as the centerpiece and "front door" of the project; creation of the "Ingenium" – a campus devoted to training for work in digital media industries; and a new Mexico Media Museum and Marketing center. Facilities are planned to accelerate the growth of local start-up firms, as well as to attract a flagship global company to anchor the district.

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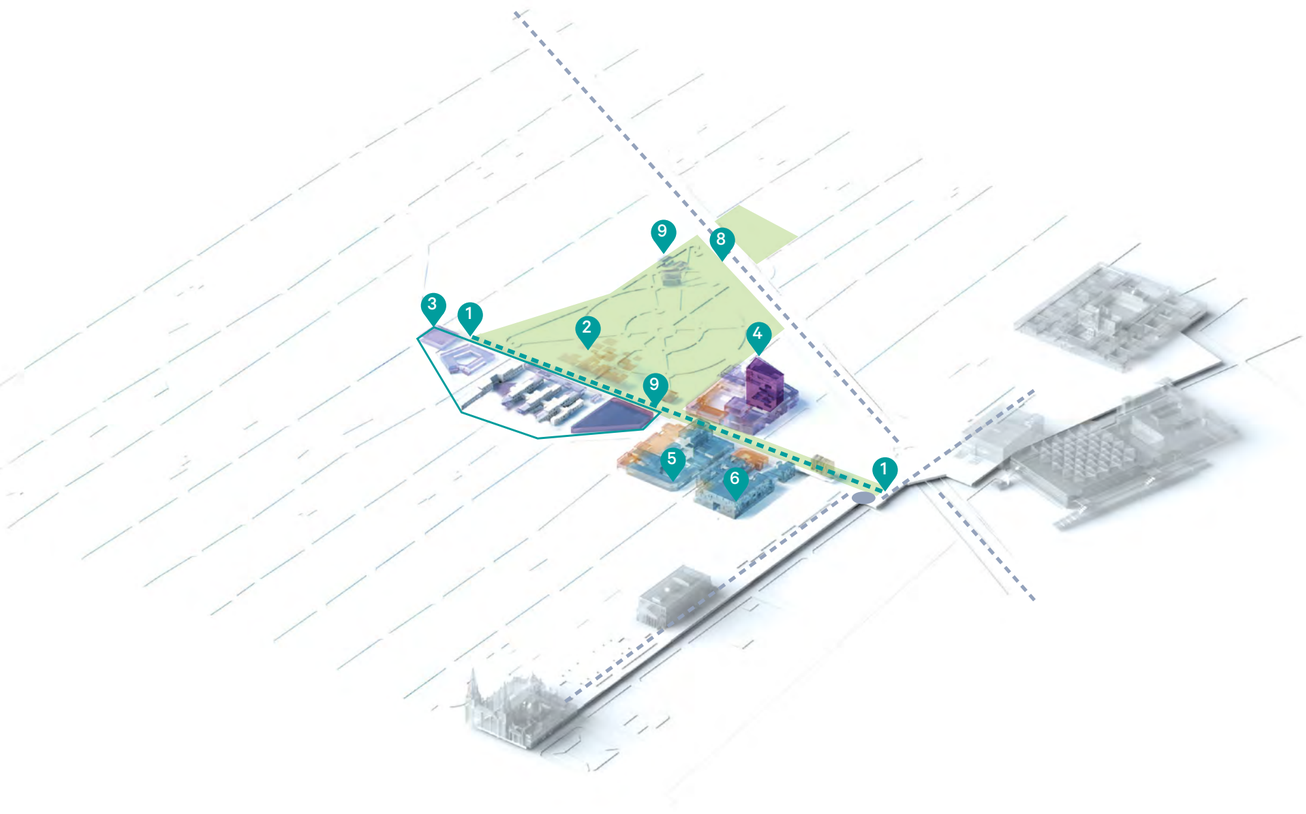
1. N-S pedestrian spine. Rambla. Food, Infobox
2. Parque Morelos recostruction
3. Ingenium Campus
4. MMMM
5. Block 11
6. Accelerator and Pedestrian Connector
7. Theatre-in-Park
8. BRT stations on Indipendencia Nte.
9. incubator

Uses

- Creative Industries
- Commerce
- Institutional
- Residential
- Public spaces

TOT footprints (* cumulative)

- 20.000 sm
- 37.650 sm
- 8.000 sm
- 68196 sm



8.2.2 Upgrade infrastructure

During phase 1, the urban infrastructure of CCD will incorporate the design guidelines for all new buildings in terms of telecoms connectivity to the smart grid system, new water management mechanisms and on-site recycling areas for solid waste. The various ICT and network requirements for the specific digital industry should be procured aiming for CCD to have ownership of both the infrastructure and the services provided.

Key infrastructure elements and systems initiated in this phase are highlighted on the plan below and includes:

- Placement of fibre backbone for telecoms
- Wireless network in place for CCD hub, including Parque Morelos, Rambla, and new campus
- All buildings will reduce energy consumption and have renewable sources
- Buildings will have built in smart metering in place

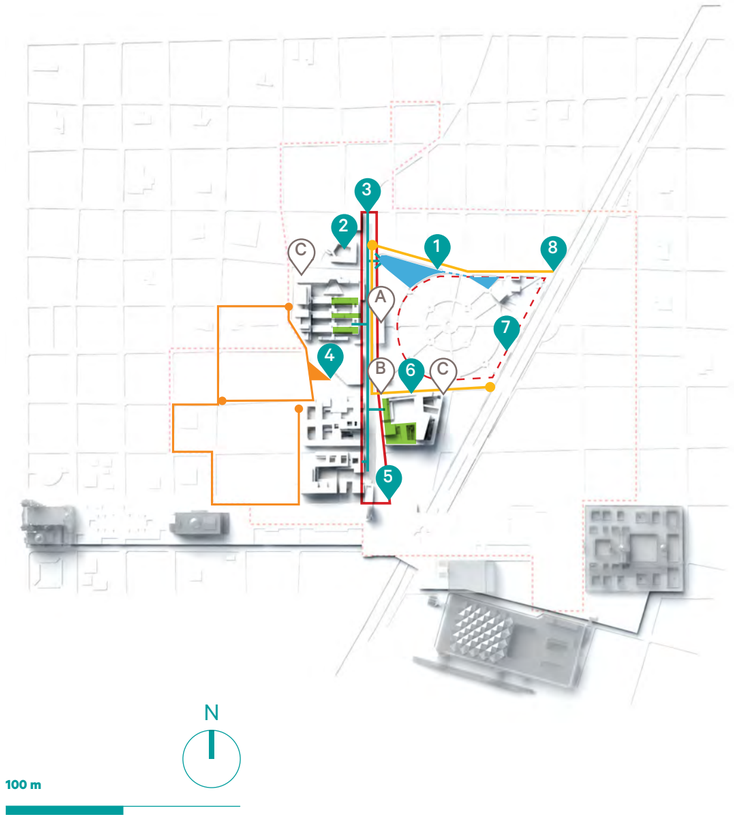
Finally, demonstration projects to launch the network platform, heighten public understanding and support and provide a more friendly and responsive urban environment.

URBAN INFRASTRUCTURE

1. Parque Morelos water retention pond system at northern edge
2. On site waste recycling point and collection centre
3. new storm water network to the park along the ramblas
1. proposed upgrade of buried power lines for phase 1
1. Wireless network
2. Green roofs on 35% of roof surface area for new buildings
3. Wireless network in place for Parque Morelos, Ramblas, Digital Art
4. Fibre backbone for telecoms phase 1

SUSTAINABILITY

A. Infobox fully operational with 100% energy supplied by renewables sourcesInfobox fully operational with 100% energy supplied by renewables source
B. Microclimate; protection on the ramblas for direct sunlight through a responsive shading system
C. Energy efficiency on buildings with solar panels and pasive design allowing 40% reduction on energy demand

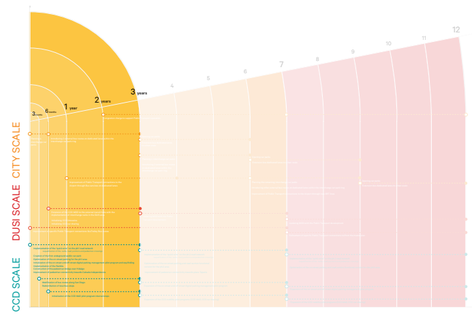


8.2.3 Mobility

Some of the most immediate and effective interventions that are planned from the very first phase and will improve the overall quality of the master plan road network are tied to the progress of the master plan construction as well as to the lay-down of the utilities. In particular the implementation of those “quick wins“ that refers to the upgrade of the road junctions and sections through the renewal of the road network is here phased-out with the implicit necessity of a further coordination with the overall master plan development.

In this phase the key mobility infrastructure and developments would be:

- Reconstruction of pedestrian bridge over Hildalgo
- Development of ‘Rambla’ pedestrian axis
- Street and sidewalk reconstruction around Parque Morelos
- Pedestrian crossing improvements across Independencia
- First underground public parking facilities
- MoD, car sharing, DRT (CCD limousine) CCD pilot programs

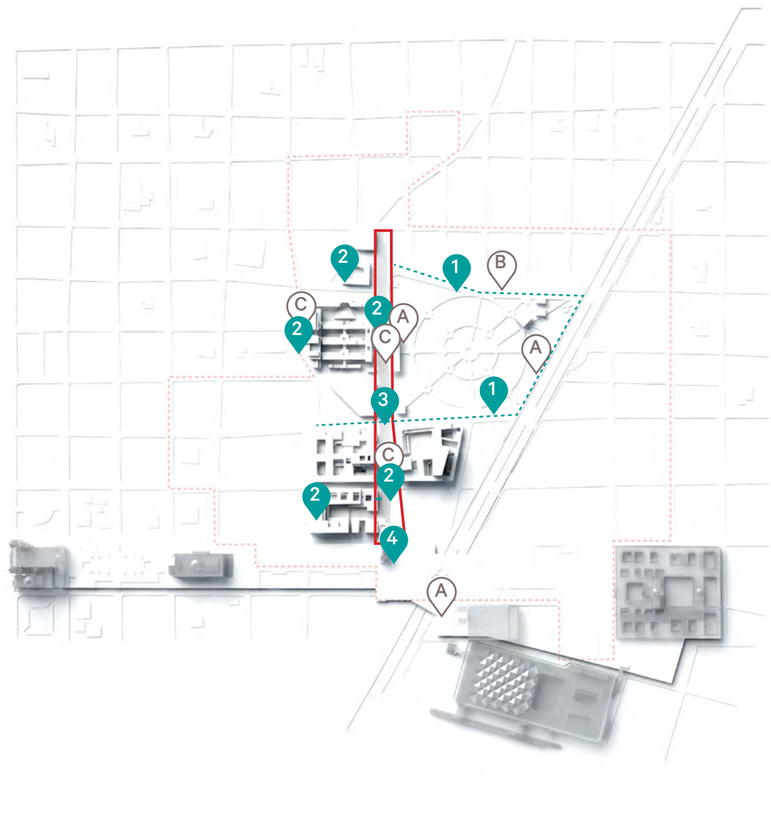


MOBILITY INFRASTRUCTURE

1. Implementation of the “Quick Wins“ strategy
2. Creation of the first underground public car parks
3. Implementation of the ramblas
4. Construction o f the pedestrian bridge ver Hidalgo

SYSTEMS

A. Initilization of the CCD MoD pilot program internal stops
B. Modifiacation of bus routes and stops’ redistribution
C. Initialization of the on and off-street digital parking management pilot program system and wayfinding



8. 2. 4
Phase 1 - program areas

PHASE 01: YRS 1-3
MOBILIZATION

CREATIVE INDUSTRY	**20,000**
OFFICE	/
PRODUCTION	/
POST PRODUCTION ETC.	/
INCUBATOR	5,000
ACCELERATOR (OR PHASE 01)	15'000
COMMERCIAL	**8,000**
HOTEL (40 m2/rm+meeting)	/
LTS HOTEL/ SERVICED APTS (60m2rm)	/
SHOPS RESTAURANT SERVICES	4,000
MEDIA MARKET IN PARK	4,000
INSTITUTIONAL	**37,650**
INSTITUTE+LEASE SPACE TO SCHOOL (EXIST)	16,200
INSTITUTE+LEASE SPACE TO SCHOOL (NEW)	/
MAGNET MEDIA MIDDLE SCHOOL (EXIST)	/
REC FACILITIES (EXIST GYM /AUDITORIUM)	/
MEXICAN MEDIA MUSEUM /MMMM	18,650
PARK TEMPORARY PAVILIONS	2,800
REDSDENTIAL	**/**
APARTMENT UNITS (AVAREGE SIZE = 100m2)	/
RESIDENTS (ACCENTURE = 25m2/person)	/
TOTAL DEVELOPMENT	**65,650**

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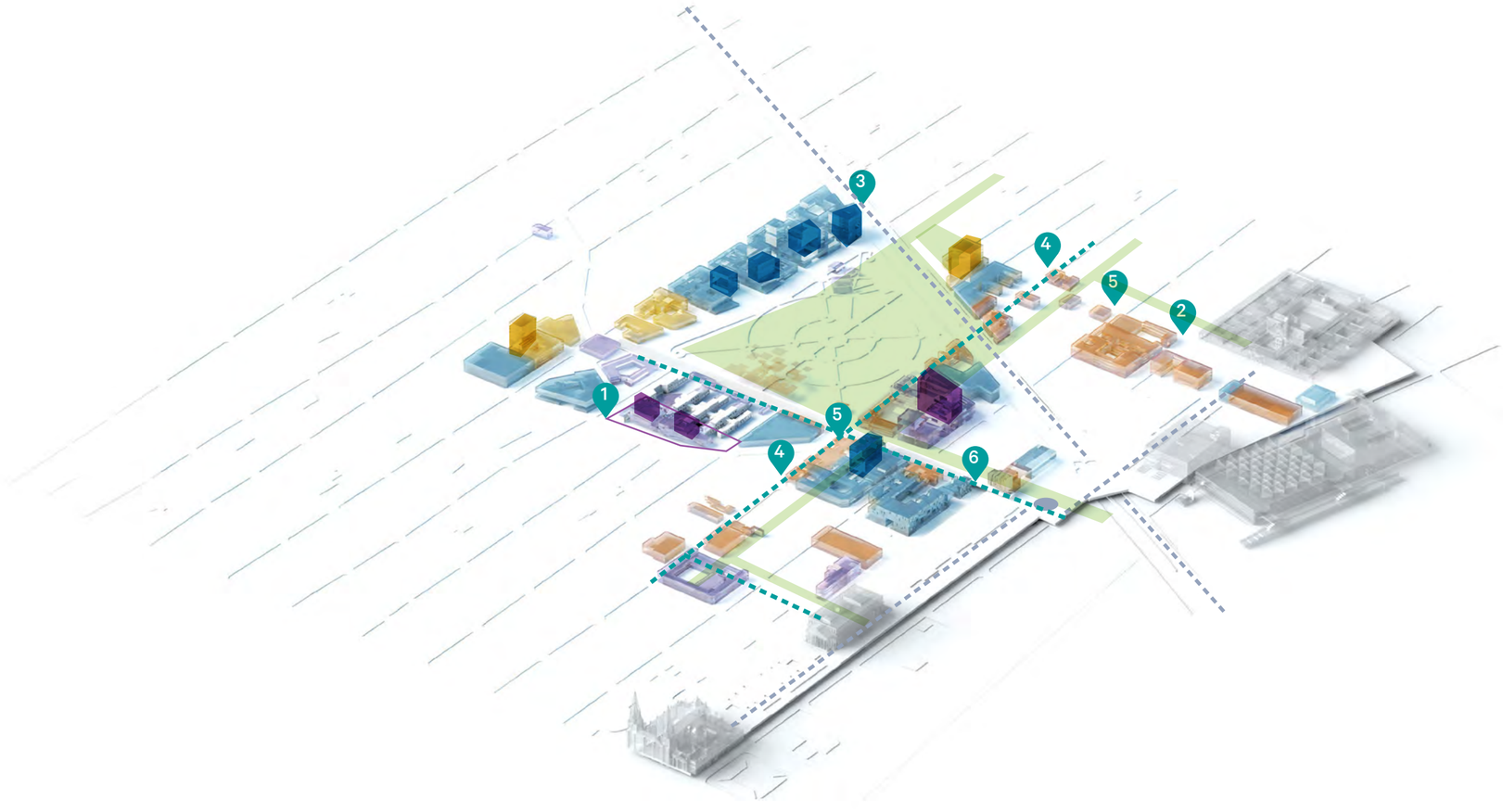
8.3.

Phase 2: Critical Mass

8.3.1 Expand to Critical Mass

Achievement of a critical mass of activities and development on the site so that it is self-sustaining without further major public investment. Major effort is placed on attracting a widening scope of creative industries and support services.

Phase 2 efforts will focus on attracting a critical mass of production and media firms and services on CCD Trust owned sites surrounding Parque Morelos, and launching a host of digital services to support companies, workers and residents. Land acquisition continues on key parcels surrounding Parque Morelos to provide sites for creative industries.



1. N-S pedestrian spine. Rambla. Food, 2_Infobox
2. Parque Morelos recostruction
3. Ingenium Campus
4. MMMM
5. Block 11
6. Accelerator and Pedestrian Connector
7. Theatre-in-Park
8. BRT stations on Indipendencia Nte.

Uses

- Creative Industries
- Commerce
- Institutional
- Residential
- Public spaces

TOT footprints (* cumulative)

- 160.000 sm
- 57.800 sm
- 49.000 sm
- 65.000 sm
- 79.000 sm

8. 3. 2
Integrate additional infrastructure requirements

During phase 2, once a critical mass of new development is achieved, CCD and the city of Guadalajara should start the upgrading of systems on storm water main routes to integrate the proposed on-site water retention systems in the park to this network. Also, by this phase, the power and electricity lines should be buried and the proposed street lighting should be rolled out through the main streets of CCD.

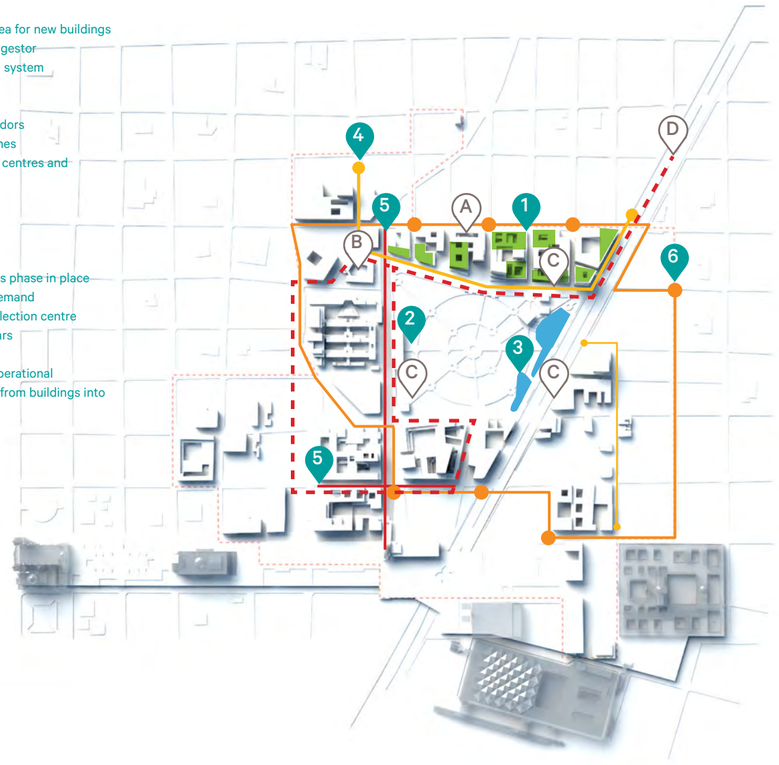
Whilst the provision of a wireless LAN mesh network infrastructure and cellular network infrastructure should be in place from phase 1 of the project, the telecoms ducts and fibre network should be rolled out, or upgraded, in phases.

URBAN INFRASTRUCTURE

1. Green roofs on 35% of roof surface area for new buildings
2. On site organic waste container biodigestor
3. Parque Morelos water retention pond system at eastern edge
4. Fibre backbone for telecoms full site
5. Intelligent street lighting on key corridors
6. proposed upgrade of buried power lines for phase 2 and 3 including reflexion centres and substations

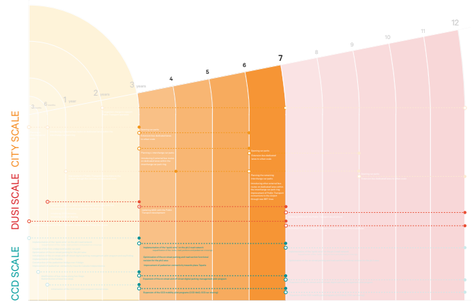
SUSTAINABILITY

A. Energy efficiency on buildings for this phase in place allowing 40% reduction on energy demand
B. On site waste recycling point and collection centre
C. in place electric charging point for cars and bicycles on street
D. Smart grid energy centre built and operational to manage feed back energy surplus from buildings into the CCD network



8. 3. 3
Mobility

The incremental introduction of dedicated bus lanes for the city's local public transport, and the way these interventions will be supported and coordinated with other broader strategies such as the creation of an interchange car park ring or the introduction of a road pricing strategy, are bundled to the necessary improvements of accessibility to the city centre and to CCD itself.

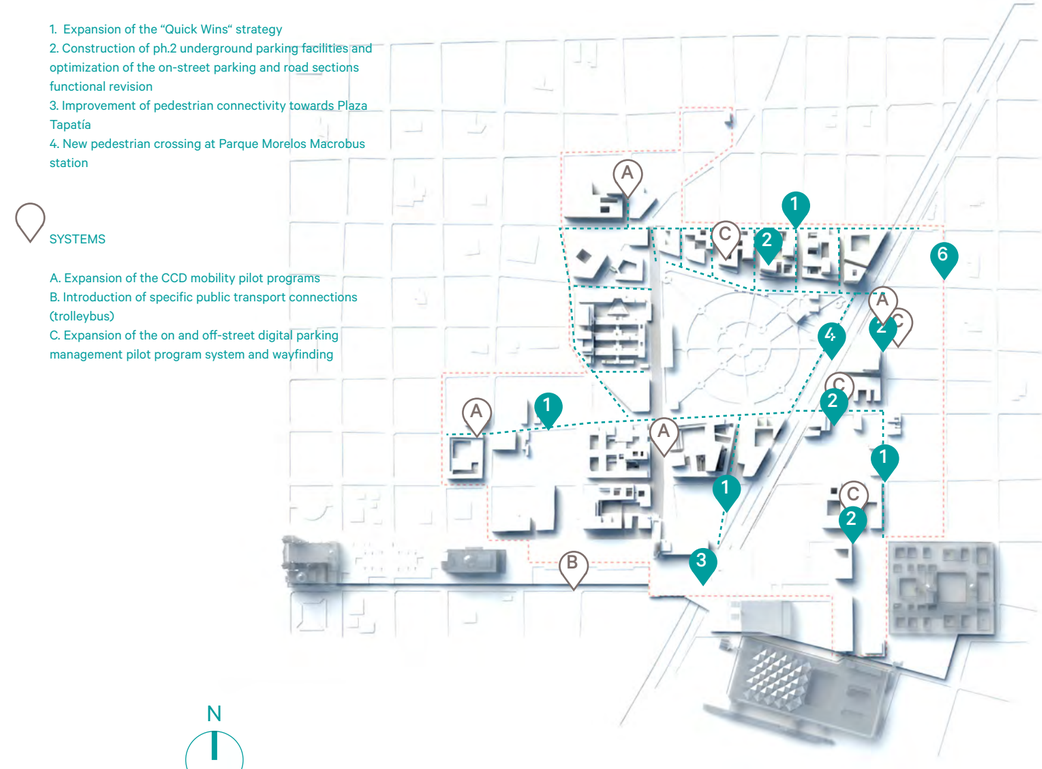


MOBILITY INFRASTRUCTURE

1. Expansion of the "Quick Wins" strategy
2. Construction of ph.2 underground parking facilities and optimization of the on-street parking and road sections functional revision
3. Improvement of pedestrian connectivity towards Plaza Tapatía
4. New pedestrian crossing at Parque Morelos Macrobus station

SYSTEMS

A. Expansion of the CCD mobility pilot programs
B. Introduction of specific public transport connections (trolleybus)
C. Expansion of the on and off-street digital parking management pilot program system and wayfinding



08. 3. 4
Phase 2: program areas

	PHASE 01: YRS 1-3 MOBILIZATION	PHASE 02: YRS 3-7 CRITICAL MASS
CREATIVE INDUSTRY	**20,000**	**140,000**
OFFICE	/	93,750
PRODUCTION	/	36,250
POST PRODUCTION ETC.	/	10,000
INCUBATOR	5,000	/
ACCELERATOR (OR PHASE 01)	15'000	/
COMMERCIAL	**8,000**	**41,000**
HOTEL (40 m2/rm+meeting)	/	15,000
LTS HOTEL/ SERVICED APTS (60m2rm)	/	/
SHOPS RESTAURANT SERVICES	4,000	26,000
MEDIA MARKET IN PARK	4,000	/
INSTITUTIONAL	**37,650**	**20,150**
INSTITUTE+LEASE SPACE TO SCHOOL (EXIST)	16,200	/
INSTITUTE+LEASE SPACE TO SCHOOL (NEW)	/	11,000
MAGNET MEDIA MIDDLE SCHOOL (EXIST)	/	7,400
REC FACILITIES (EXIST GYM /AUDITORIUM)	/	1,750
MEXICAN MEDIA MUSEUM /MMMM	18,650	/
PARK TEMPORARY PAVILIONS	2,800	/
REDSDENTIAL	**/**	65,000
APARTMENT UNITS (AVAREGE SIZE = 100m2)	/	650 UNITS
RESIDENTS (ACCENTURE = 25m2/person)	/	2600 RES.
TOTAL DEVELOPMENT	**65,650**	**266,150**

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8.4.

Phase 3: Ultimate Build

08. 4. 1 Complete build out of CCD polygon

Completion of development on all readily available blocks in the polygon and expansion of programs and activities to make a fully functioning industry cluster. CCD becomes an attraction and center for life in downtown Guadalajara providing business and social benefits to the wider community.

Continued development of creative industy and production space as companies move to the cluster. Solidification of retail, services and housing to create vibrant sub-areas. Acquisition of miscellaneous parcels of land are completed as needed in phase 3 to secure threatened historic buildings or assist businesses.

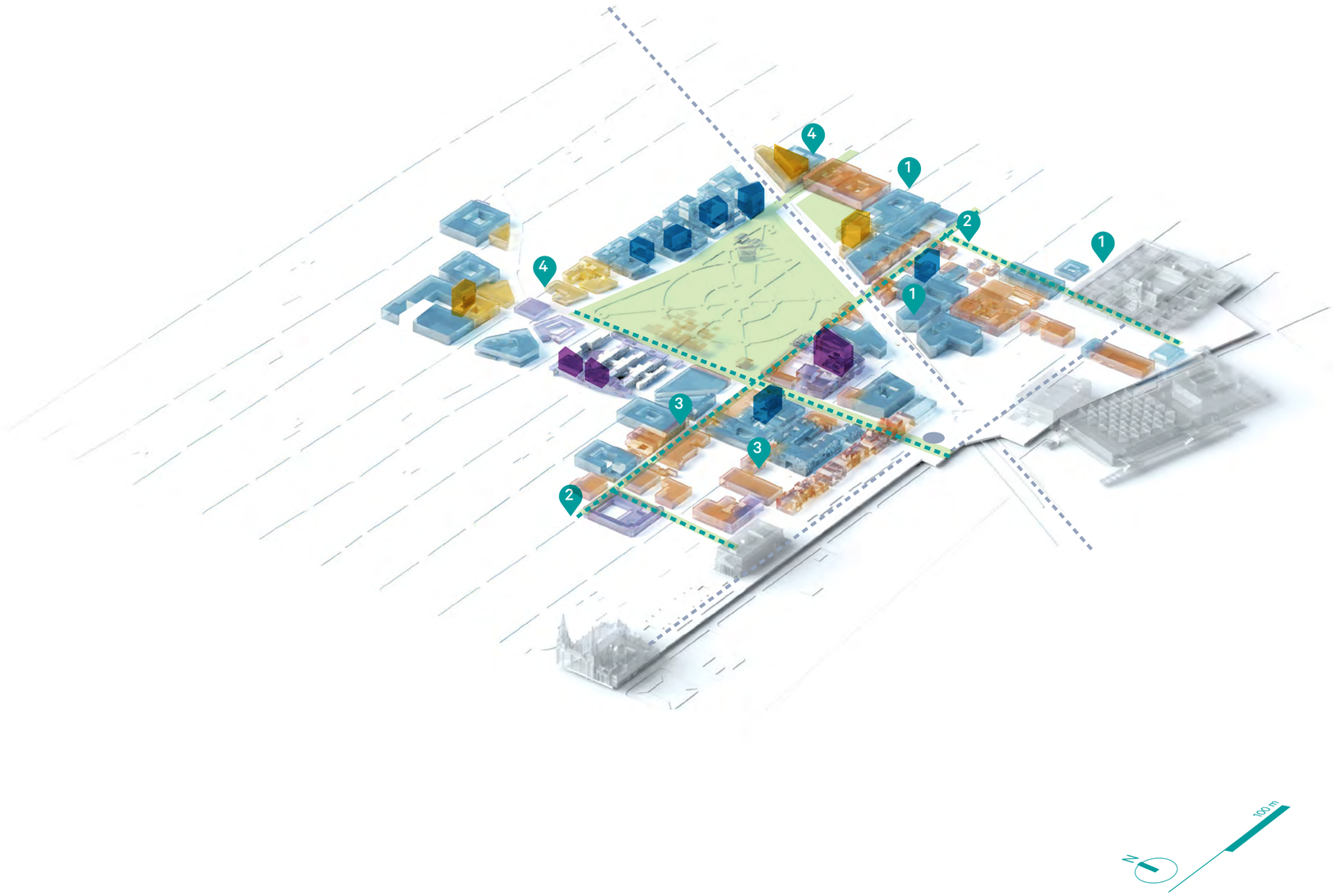
1. Office and production spaces in Calle Cabañas sub-district
2. Retail and resturant along E-W axis
3. Degollado district entarteiment and clubs in historic structures
4. Housing, development of additional units in the northwest of Parque Morelos and on Indipendentia

Uses

- Creative Industries
- Commerce
- Institutional
- Residential
- Public spaces

TOT footprints (* cumulative)

- 290.000 sm
- 70.800 sm
- 84.000 sm
- 130.000 sm
- 100.000 sm



08. 4. 2
Upgrade infrastructure

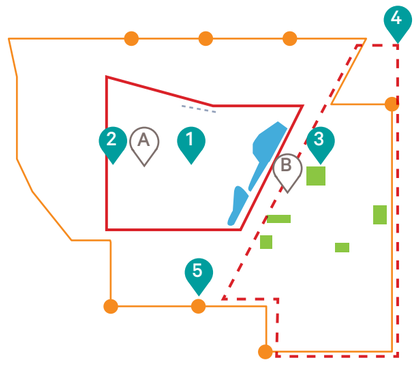
In phase 3, with the completion of all the developable areas and with the construction of the majority of the residential components, the on-site solid waste strategy should be upgraded with the proposed alternatives of underground collection systems. As the infrastructure would run beneath secondary streets, it is envisaged that all the utilities upgrades for other infrastructure elements should be done in coordination.

URBAN INFRASTRUCTURE

1. Intelligent street lighting on park
2. CCD Infobox, store of apps from users and exchange on info for other apps
3. Green roofs on 35% of roof surface area for new buildings
4. Complete wireless network for phase 3
5. Iproposed upgrade of buried power lines for phase 2 and 3 including reflexion centres and substations

SUSTAINABILITY

A. energy centre for public realm services operational
B. Energy efficiency on buildings for this phase in place allowing 40% reduction on energy demand



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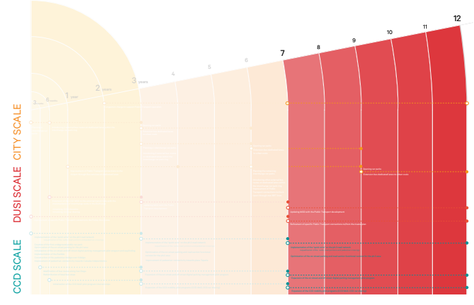
100 m

SUBMISSION FOR REVIEW

NOT FOR DISTRIBUTION

08. 4. 3
Mobility

Long term improvements to traffic and transport system in the CCD polygon and surrounding DUIS context. Complementary access improvements in the DUIS area and city-wide enhance access to CCD polygon. These may include a circumferential shuttle, expanded BRT service, and road and traffic management improvements.



MOBILITY INFRASTRUCTURE

1. Expansion of the “Quick Wins“ strategy
2. Construction of ph.2 underground parking facilities and optimization of the on-street parking and road sections functional revision

SYSTEMS

A. Expansion of the CCD mobility pilot programs
B. Introduction of specific public transport connections (trolleybus)
C. Expansion of the on and off-street digital parking management pilot program system and wayfinding

N

100 m

08. 4. 4
Phase 3 - program areas

	PHASE 01: YRS 1-3 MOBILIZATION	PHASE 02: YRS 3-7 CRITICAL MASS	PHASE 03: YRS 7-12 ULT BUILD OUT
CREATIVE INDUSTRY	**20,000**	**140,000**	**130,000**
OFFICE	/	93,750	101,250
PRODUCTION	/	36,250	23,750
POST PRODUCTION ETC.	/	10,000	5,000
INCUBATOR	5,000	/	/
ACCELERATOR (OR PHASE 01)	15'000	/	/
COMMERCIAL	**8,000**	**41,000**	**35,000**
HOTEL (40 m2/rm+meeting)	/	15,000	/
LTS HOTEL/ SERVICED APTS (60m2rm)	/	/	15,000
SHOPS RESTAURANT SERVICES	4,000	26,000	20,000
MEDIA MARKET IN PARK	4,000	/	/
INSTITUTIONAL	**37,650**	**20,150**	**13,000**
INSTITUTE+LEASE SPACE TO SCHOOL (EXIST)	16,200	/	/
INSTITUTE+LEASE SPACE TO SCHOOL (NEW)	/	11,000	13,000
MAGNET MEDIA MIDDLE SCHOOL (EXIST)	/	7,400	/
REC FACILITIES (EXIST GYM /AUDITORIUM)	/	1,750	/
MEXICAN MEDIA MUSEUM /MMMM	18,650	/	/
PARK TEMPORARY PAVILIONS	2,800	/	/
REDSDENTIAL	**/**	65,000	**65,000**
APARTMENT UNITS (AVAREGE SIZE = 100m2)	/	650 UNITS	650 UNITS
RESIDENTS (ACCENTURE = 25m2/person)	/	2600 RES.	2600 RES.
TOTAL DEVELOPMENT	**65,650**	**266,150**	**243,000**

SUBMISSION FOR REVIEW
NOT FOR DISTRIBUTION

8. 4.

Phase 4: City Wide Benefits

8. 2. 1.

Expand into DUIS and provide Global Model

Completion of development on all readily available blocks in the polygon and expansion of programs and activities to make a fully functioning industry cluster. CCD becomes an attraction and center for life in downtown Guadalajara providing business and social benefits to the wider community. Economic and social benefits of CCD raise values in the surrounding DUIS mosaic, encouraging further investment and development. In this way, CCD becomes the centerpiece of a wider regeneration strategy for central Guadalajara.

Model scalability

DUIS PLAN

1. Eje de la Salud
2. Eje Alcalde
3. Eje Diseño
4. Eje Monumental
5. Hub Digital
6. Ecobulevar
7. La Ecociudad - la Perla /San Juan
8. CCD

9

Urban Design: **The Courtyard Typology**

9. 1 Courtyard Ecology
9. 2 Courtyard Evolution
9 3 21st Century Courtyard
9 4 The Courtyard Model
9 5 Urban Design Guidelines

9.1.

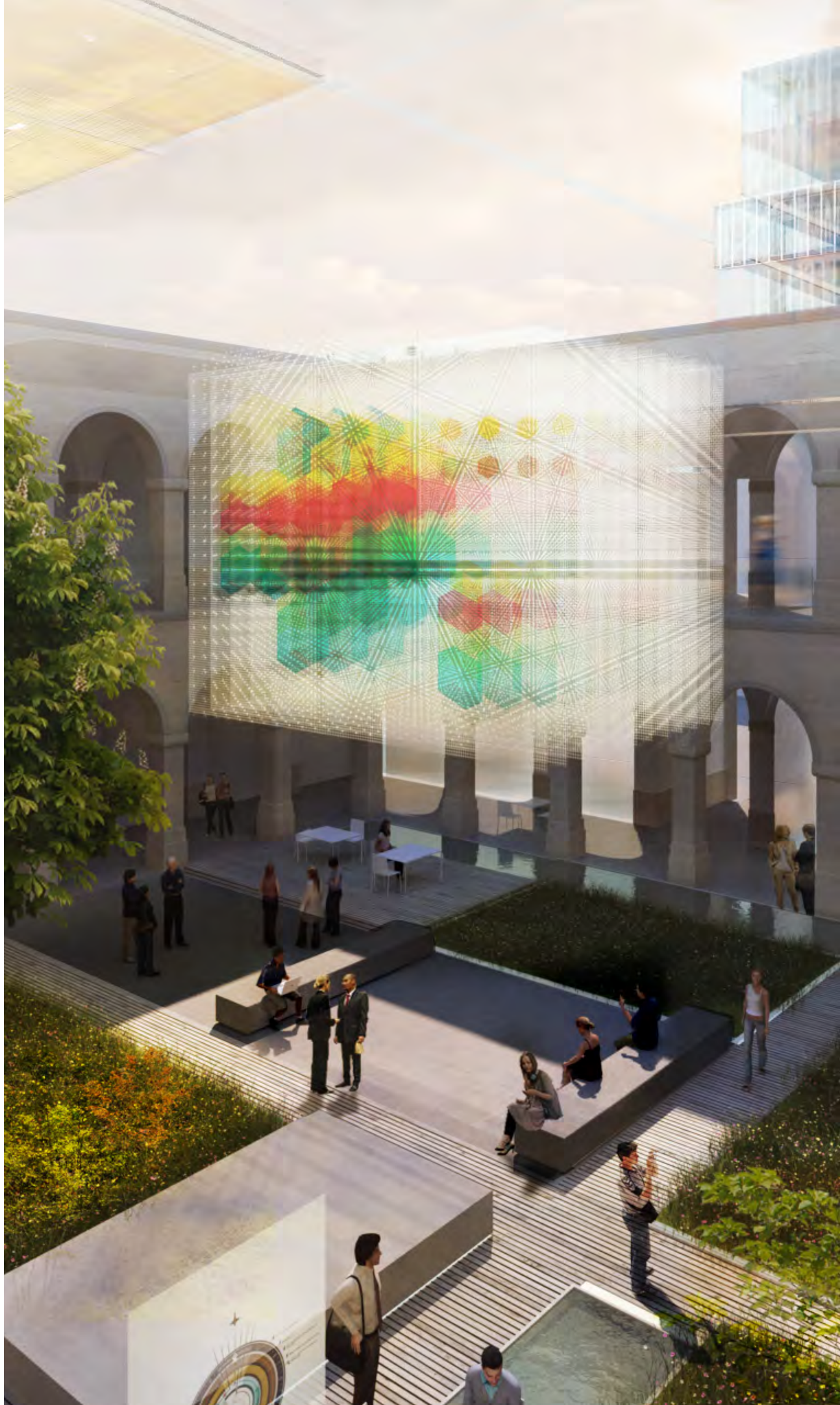
Courtyard Ecology

Overview

The historic context along which CCD unfurls provides a set of assets to be considered towards facing contemporary societal demands. Building on the past represents an opportunity to provide physical record of the historic development of society, therefore in an attempt to generate a link with tradition, the courtyard has been identify as representative and recurrent element within the site, and therefore acquires a starring role. In the following chapter an analysis of the traditional features as well as evolution along time will be provided, succeeded by an overall perspective of the patios brought to the 21st century and the proposed model to be carried out in the courtyards. In the first section of this chapter, defined as courtyard ecology, an extensive analysis of the courtyards found in the site is provided based on their history and current existence. In the following sections, an analysis of the evolution of the courtyard is presented approach with support of international and national examples that help understand their scalability. The former analysis of evolution prepares the field for introducing a vision on the 21st century courtyard, section which presents the patios as outdoor working spaces, while providing environmental solutions for customizing them to the new users based on international best practices. Finally the courtyard model proposed, stating the different typologies of open space found in the are to which the patios belong, and ordering them according to possible privacy level,

The courtyard, historical generator and organizer of space, will now dictate paths for the development of contemproray urban design and new functions of the space within the urban block, CCD and further on the city of Guadalajara.

As mentioned before, CCD lays in one of the foundational quarters of Guadalajara located in a historic context of high value for the city. Therefore, regenerating the built environment as of the formal shape of the courtyard requires to be approached in a respectful and proper manner, highlighting architectural value of existing structures, while integrating them to new architectural interventions, which in t respond to current functional demands. Three possible scenarios of reconfigur of the urban fabric have been identified based on the conditions and challenge presented in the structures designated for the catalyst projects. Therefore, urb design guidelines to lead the process of integration of new and historic buildin were formulated considering building assessment, footprint, volumetric form a or technical specifications. These guidelines describe and illustrate in detailed the measurements that need be implemented for: (i) Re-use of historic building (ii) Integration of old and new buildings, and (iii) Integration of low and high-ris buildings. First, the 're-use of historic buildings' guidelines suggest approaches for proper rehabilitation of current existing buildings for previously recognized suitable for conservation and restoration structures. Presented as followed gui a proposal to guide the integration of historic and new contemporary buildings within blocks, named 'mix of new and old' . Finally, in order to achieve optimum density within the area the insertion of tower is envisioned and therefore their integration within the site is carefully proposed through the guidelines for 'low high-rise building integration'.



9.1.1. Building on the past

One of the most significant challenges of making the CCD is to create an urban design identity across multiple buildings and projects implemented over time. The design must also serve 21st century modes of work that are less connected to specialized spaces and corporate structures and more oriented to projects and teams that assemble and recombine. Creative workplaces are becoming less like 20th century office towers and parks and more like traditional cities.

The traditional building types of central Guadalajara – organized around multiple courtyards, most beautifully illustrated by the Hospicio Cabanas – we see as an environment would mix inside and outside spaces, some private, some public, containing a variety of uses organized around courtyards, which are in turn organized around the park. The reinvention of this meaningful, traditional form, to create a 21st century urban environment could draw global attention to the project.

TRADITIONAL COURTYARDS IN GUADALAJARA

Today's courtyards are the result of an evolutionary and transformation process, which has been taking place since the development of first colonial structures. Traditionally the house typology in Guadalajara was based on a deductive model following the arabo-andalusian style. Therefore, the inner central courtyards or atriums, as they used to be called, represented an hegemonic architectural model persisting since the foundation of the city in 1542 until around the 1900.

However with regards to housing typologies with a central patio, two different typologies took place. The first type of houses appeared mainly in the surroundings of Plaza Mayor, where a higher income sector of the population was settled and consisted of some structures of two story high similar to the administrative buildings of the area. In turn, the second typology prevailed on the rest of the city consisting of single story level buildings. However the higher formal homogeneity present in most houses around the city suggests a cause and effect design relation, meaning that the spatial structure and organization of the diverse housing functions might have been product of the plot distribution (four plots per one block).

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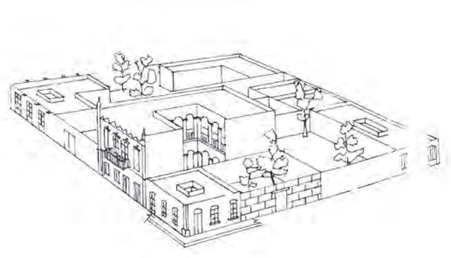
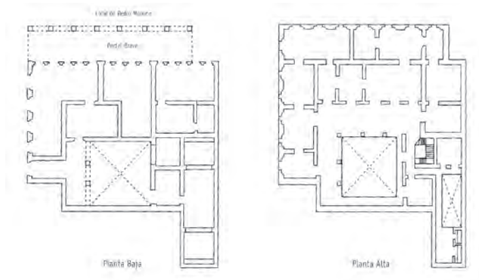
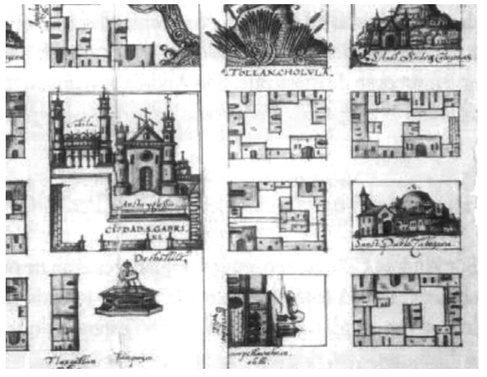


Prevalent in the architecture of central Guadalajara are traditional building types organized around multiple courtyards, most beautifully illustrated in the Hospicio Cabañas.



The images from the top show the high presence of courtyards within the buildings and/or urban fabric in Guadalajara's historic center, while the one from the bottom provides an example of an inner patio in Hospicio Cabañas.



9.1.2.
The courtyard city

Parque Morelos is understood as core of the site and becomes leitmotiv of Ciudad Creativa Digital. The park metaphorically represents the whole concept and idea of the courtyard on a bigger scale. Spatially, the relation between built and void spaces, which the continuous presence of courtyards generates within the urban fabric are scaled up in the park as public space. Additionally, the functional program contained within the patios virally spreads through the city, enters the park and fusions with its activities. In other words, the use provided by the creative industry to the courtyards, driven by the idea of them as outdoor spaces for work, has the possibility of also be extended in to the park. Vice versa, Parque Morelos will contribute providing vegetation so that the greenery and presence of it will be able to be perceived inside the patios. Hold together by this a matrix of greenery and functions, the cluster of outdoor working spaces, hosted in the courtyards, will foster the generation of the creative hub.

For purpose of the transformation process of the city the importance of the patio has been identified as former generator of the city and currently driver of the incremental regeneration that the city is about to go through. The development of CCD lies on the formal typology of the courtyard, which in turn will stipulate the morphological patterns of the city, at the same time that will become symbol of renewal based on tradition. The Patio regardless of its historic, modern or contemporary architectural features is recognized as an element of absolute continuity and familiarity among local inhabitants, condition that turns it in an inevitable guiding principle for the rehabilitation of the whole city center, and further on the whole city.

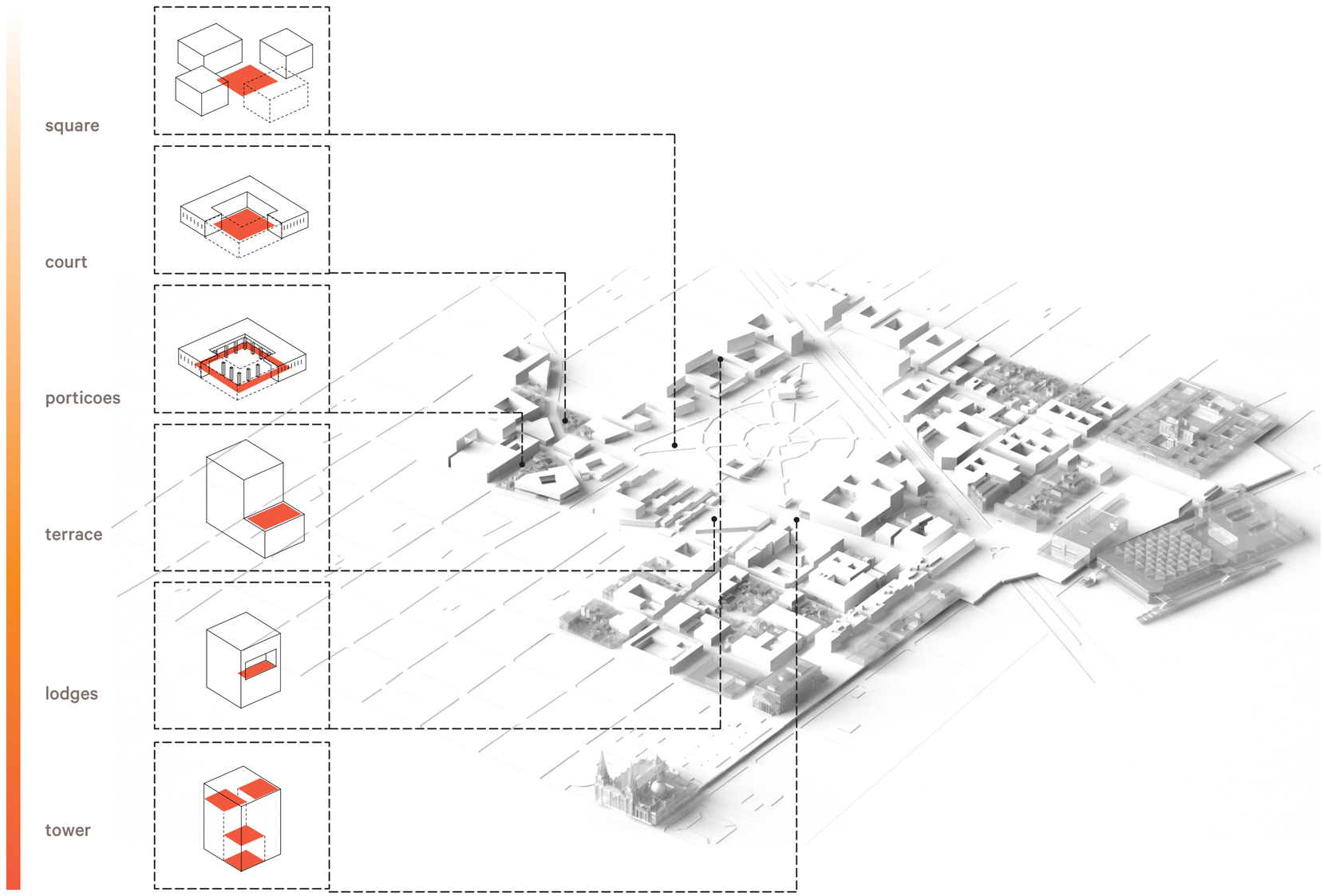
9.4.5
CCD ecology

THE NEW URBAN AND BUSINESS GENERATOR

The following graphic provides a taxonomy of the formal configuration of the different open spaces found within the site or additional spaces proposed to be incorporated. Their analysis structure follows the level of privacy that takes place within each space. First, the public square configured by the surrounding buildings is a space free of boundaries and fully opened to the public. Followed by the courtyard, which operates on a higher level of privacy than the previously mentioned space, since it is circumscribed within the block. Third, the porticos are elements subject to analysis belong in this case, to the interior of the block, serving as frame to the courtyard, and therefore have a similar degree of privacy. However, Porticos might also be found as elements surrounding the exterior of the block and then they can be completely used by the public. The fourth example focuses on the rooftop as terrace and open space, which depending on the designated use provided will very its level of privacy. The lodges and balconies, fifth concept, might take part in buildings and will be used be upon need and ownership. Finally, we found open spaces embedded within the towers, representing one the highest levels of privacy among open spaces.

"The site enables the generation of a wide range of open space typologies, which level of privacy is driven by the functions and activities hosted."

The above illustration different typologies of open spaces found or proposed for the CCD site in descendant order of privacy level.



9.2.

Courtyard Evolution

9.2.1. Traditional courtyard analysis

The form of the city of Guadalajara, around its patios is the symbol of the evolution of a typology born fare away, between Europe and North Africa. The population around the world re-design this typology following them aesthetic, interest, local condition and uses.

The architectural style of the colony is the result of Spanish-Andalusian architectural trends that, during the founding of Guadalajara, showed up on the European continent leaving a parallel influence in this city. In the modern age the original layout of this places changed as the old Arabic-Hispanic model changed following the new necessity of the people. Now the original draw and uses of this spaces is determinate by the evolution of the city , its sprawl and it required an evolution to provide the citizen spaces adapt to them activities

The CCD project have to follow this trend, the parallel evolution of the courtyards and the lifestyle is deep correlated. The new creative society , its new lifestyle and the new use of the outdoor spaces push us to reinvent this spaces following the future necessity of the people and the renovation of the city.

“The rectangular patio, crowded with pots, used to be covered in blue during the day and studded with stars at night”

Benitez, J.R. (1963), La Conquista de la Nueva Galicia: Fundadores de Guadalajara

Lorem ipsum

The picture above positions in the map the different approaches given by cities, neighborhoods or quarters to patios a long history in the international and Mexican national context.

A_ARCHETYPE
Arabes-Andaluz
1. Marrakech
2. Cordoba

B_CONTEMPORARY
New style
3. Masdar
4. Hackescher Markt

H_HISTORICAL
Colonial hispanic
5. San Miguel de Allende
6. San Cristobal de las Casas

THE COURTYARD AROUND THE GLOBE

For purpose of this analysis different typologies around the world have been identified and according to their characteristics they have been grouped in three main categories: (i) archetype, (ii) contemporary and (iii) historical.
The first category, archetype of courtyard typologies refers to sites, which urban fabric has been mainly characterized by the recurrent presence of courtyards such as Marrakech and Cordoba. The aim behind this is to provide an overall understanding of international contexts with similar conditions found within the urban tissue, in this case driven by the patio of the arabo-andaluz architectural typology. Second, contemporary solutions implemented within courtyard fabrics or new sites developed as of the physical form of patios are investigated and presented based on the cases of Masdar and Hackescher Markt in the district of Berlin, Germany. Finally, in attempt to provide example of more similar contexts to the one in CCD, the Mexican cases of San Miguel de Allende, Guanajuato and San Cristobal de las Casas in Chiapas are shown.

9.2.2. Marrakech Souks

POPULATION

Official estimate is 1 million although recent studies suggest this figure is inaccurate, and the population is actually thought to be close to 2 million

PERIOD

Started in 12 century by the Almoravid dynasty

HISTORY

Marrakech is the second largest city in Morocco after Casablanca. Prior to the advent of the Almoravids in the 11th century, the area was ruled from the city of Aghmat. The Almoravid leader, AbuBakr Ibn-Umar decided Aghmat was becoming overcrowded and decided to build a new capital. He decided to build it in a plain, away from the mountains and rivers, and chose the site of Marrakech as being in neutral territory between two tribes who were vying for the honor of hosting the new capital. The city experienced its greatest period under the leadership of Yacoub el Mansour, the third Almohad sultan. A number of poets and scholars entered the city during his reign, and he began the construction of the Koutoubia Mosque and a new kasbah. Marrakech was dominated in the first half of the 20th century by T'hami El Glaoui, Lord of the Atlas and Pasha of Marrakesh. Gradual political reforms in the 1990's resulted in the establishment of a bicameral legislature in 1997, and with the death of King Hassan II of Morocco in 1999, the more litberal-minded Crown Prince Sidi Mohammed, who assumed the title of Mohammed VI, took the throne. He has since enacted successive reforms to modernize Morocco, and the country has seen a marked improvement in its human rights record.

Research Area 52500 100%

Streets/Puplic Space

Courtyards

9.2.3. Cordoba, Andalucia

POPULATION

Official estimate is 325,453 citizen with a density of 260/km2

PERIOD

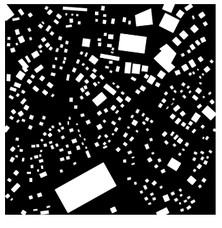
Cordoba was been founded in 169 BC, was a roman colony.

HISTORY

The first trace of human presence in the area are remains of a Neanderthal Man, dating to c. 32,000 BC. At the time of Julius Caesar, Córdoba was the capital of the Roman province of Hispania Ulterior Baetica. Great Roman philosophers such as Lucius Annaeus Seneca the Younger, orators such as Seneca the Elder and poets such as Lucan came from Roman Cordoba. Córdoba was captured in 711 by an Arab/Berber Muslim army. In 716 it became a provincial capital, subordinate to the Caliphate of Damascus (1000 AD), Córdoba had a population of roughly 500,000 inhabitants, though estimates range between 350,000 and 1,000,000. In the 10th and 11th centuries, Córdoba was one of the most advanced cities in the world. The Great Mosque of Córdoba dates back to this time; under caliph Al-Hakam II Córdoba had 3,000 mosques, splendid palaces and 300 public baths, and received what was then the largest library in the world, housing from 400,000 to 1,000,000 volumes. On 29 June 1236, after a siege of several months, it was captured by King Ferdinand III of Castile, during the Spanish Reconquista. The city was divided into 14 colaciones, and numerous new church buildings were added. The city declined especially after Renaissance times. In the 18th century it was reduced to just 20,000 inhabitants. The population and economy started to increase only in the early 20th century. With the most extensive historical heritages in the world declared World Heritage Site by UNESCO.

Research Area 168.000 sqm 100%

Streets/Puplic Space



Courtyards

9.2.4. San Miguel de Allende

POPULATION

Official estimate is 139,297 citizen
The area in the municipality is 1.537,19 km^2
density 90,62 hab/km^2

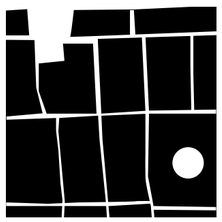
PERIOD

The city was founded in 1541 by Spanish.

HISTORY

San Miguel de Allende is a city and municipality located in the far eastern part of the state of Guanajuato in central Mexico. in 1826, the first municipality was declared independent of Spanish rule by the nascent insurgent army during the Mexican War of Independence. However, the town waned during and after the war, and at the beginning of the 20th century was in danger of becoming a ghost town. Its Baroque/Neoclassical colonial structures were "discovered" by foreign artists who moved in and began art and cultural institutes such as the Instituto Allende and the Escuela de Bellas Artes. This gave the town a reputation, attracting artists such as David Alfaro Siqueiros, who taught painting. This attracted foreign art students, especially former U.S. soldiers studying on the G.I. Bill after the Second World War. Since then, the town has attracted a very large number of foreign retirees, artists, writers and tourists, which is shifting the area's economy from agriculture and industry to commerce catering to outside visitors and residents. The main attraction of the town is its well-preserved historic center, filled with buildings from the 17th and 18th centuries. This and the nearby Sanctuary of Atotonilco have been declared World Heritage Sites.

Research Area 168.000 sqm 100%



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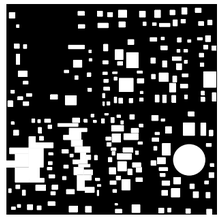


Courtyards

9.2.5. San Cristobal de Las Casas

POPULATION

Official estimate is 166,460 citizen
The area in the municipality is 484 km2
City elevation 2200 m.

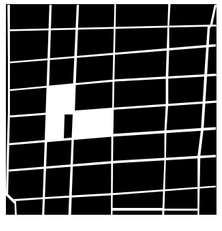
PERIOD

The city was founded in 1528 by Spanish.

HISTORY

San Cristóbal de las Casas, also known by its native Tzotzil name, Jovel, is a city and municipality located in the Central Highlands region of the Mexican state of Chiapas. It was the capital of the state until 1892, and is still considered the cultural capital of Chiapas. The municipality is mostly made up of mountainous terrain, but the city sits in a small valley surrounded by hills. The city's center maintains its Spanish colonial layout and much of its architecture, with red tile roofs, cobblestone streets and wrought iron balconies often with flowers.Most of the city's economy is based on commerce, services and tourism. Tourism is based on the city's history, culture and indigenous population, although the tourism itself has affected the city, giving it foreign elements. Major landmarks of the city include the Cathedral, the Santo Domingo church with its large open air crafts market and the Casa Na Bolom museum. The municipality has suffered severe deforestation, but it has natural attractions such as caves and rivers.

Research Area 168.000 sqm 100%



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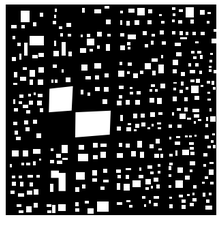


Courtyards

9.2.6. Masdar

POPULATION

Official estimate is 50000 citizen
The area in the municipality is 6 km2

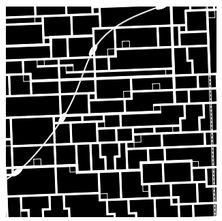
PERIOD

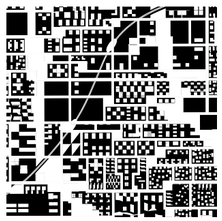
21st century development

HISTORY

Masdar City, literally Source City is a project in Abu Dhabi, in the United Arab Emirates. Its core is a planned city, which is being built by the Abu Dhabi Future Energy Company, a subsidiary of Mubadala Development Company, with the majority of seed capital provided by the government of Abu Dhabi. Designed by the British architectural firm Foster and Partners, the city will rely entirely on solar energy and other renewable energy sources, with a sustainable, zero-carbon, zero-waste ecology. The city is being constructed 17 kilometres (11 mi) east-south-east of the city of Abu Dhabi, beside Abu Dhabi International Airport.
Masdar City will host the headquarters of the International Renewable Energy Agency (IRENA).The city is designed to be a hub for cleantech companies. Its first tenant is the Masdar Institute of Science and Technology, which has been operating in the city since it moved into its campus in September 2010. The city as a whole was originally intended to be completed by 2016 but that date has now been pushed back to 2025. The project is headed by Masdar, a subsidiary of Mubadala Development Company. The city is planned to cover 6 square kilometres (2.3 sq mi) and will be home to 45,000 to 50,000 people and 1,500 businesses, primarily commercial and manufacturing facilities specialising in environmentally friendly products, and more than 60,000 workers are expected to commute to the city daily.

Research Area 4.000.000 100%





9.2.7. Hackescher Höfe

POPULATION

The area in the municipality is 6 km2

PERIOD

The city was founded in 2006.

HISTORY

Berlin's Hackesche Höfe (Hof means courtyard) – just off S-Bahn Station Hackescher Markt, is a heritage site consisting of eight communicating, restored rear courtyards accessible through Rosenthalerstrasse 40's main arched entrance. The area, also known as the Scheunenviertel is one of Berlin's top entertainment hubs, popular with Berliners and visitors alike and a magnet for club-goers since the 1990's. The restoration of this heritage building completed in 1997, was a central factor in the emergence of one of Berlin's liveliest quarters since reunification. Since the 1990s the area around Hackesche Höfe has been synonymous with the vibrant urban renewal of the New Berlin, combining a mix of business and offices, residential housing, entertainment venues, art galleries, boutiques, bars and restaurants - the unmissable urban mix of the New Berlin which emerged in the 1990s. The energy of post-unification Germany, a quest for renewal and reinvention, found expression in cutting-edge creativity in the arts and fashion and state-of-the-art design. The result is an original, new entrepreneurial spirit characterised by an exuberant convergence of life with lifestyle. The Höfe are an example of how this spirit was realised.

Research Area 72.900 sqm 100%

Streets/Puplic Space Courtyards

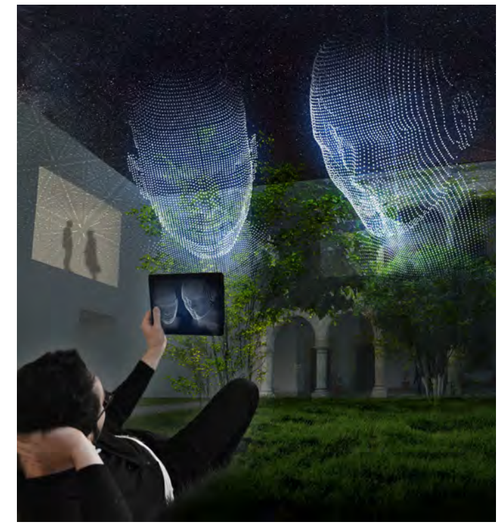
9.3. Courtyard Evolution

9.3.1. Outdoor workspaces

The CCD project have to follow this trend, the parallel evolution of the courtyards and the lifestyle is deep correlated. The new creative society , its new lifestyle and the new use of the outdoor spaces push us to reinvent this spaces following the future necessity of the people and the renovation of the city.
We are living in a rapidly changing world, where innovation is a key to success. Projects such as the Digital Creative City (DCC) foster innovation through bringing together people from creative industries - to brainstorm, collaborate and advance solutions for existing problems. Part of being innovative is imagining the future and exploring ideas for what might be and how we will live, work and play beyond what we know today. All around the world industries, governments and institutions are converging to create new geographic clusters that promote specific business sectors

INTELLECTUAL COURTYARD: A BACKGROUND

The opportunity of the CCD is create an innovative urban ecosystem focused on the development and promotion of digital media and creative industries; a project aimed at developing human social capital and new industries in Mexico that can develop and distribute original Mexican content intended for the Latin world, as well as promoting local IP and service exports to international markets. The goal of this project is to create a world-class hub of digital media development that will become a new model of urban and economic development for the country. The DCC will be supported in Mexico's natural potential in the media world, particularly, but not restrictive to the Spanish speaking countries, and provide the Mexican and international talent pool with a world class infrastructure and policy framework platform that will help the country attain the position of leadership in creative and media industries, bringing and retaining foreign direct investment and talent.
The reach of the DCC project will encompass creative industries from TV, cinema, and advertising to videogames, digital animation, interactive multimedia and e-learning. In recent years, these industries have undergone a rapid shift in their core production, distribution and consumption models, and have become strongly oriented to digital content development. While it is impossible to predict the trajectoevolutionary flexibility to meet the demands of the future.



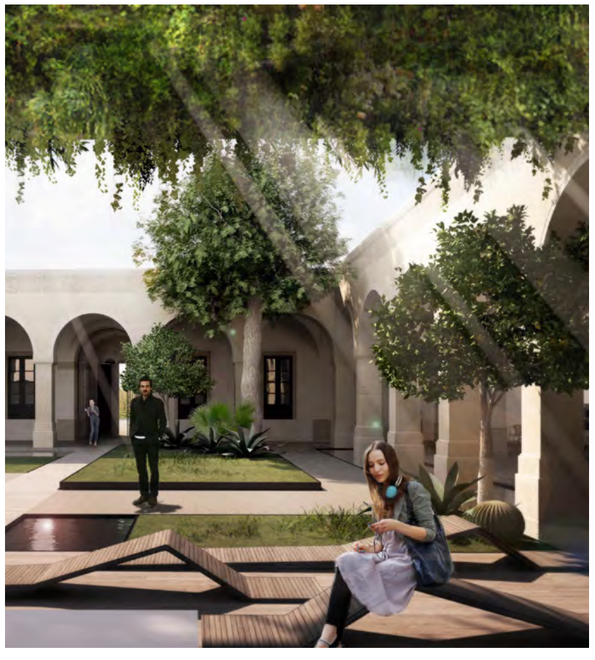
1931 > Charte d'Athene **1960** > Jane Jacobs **2010** > Digital Revolution

9.2.8.
Inner garden

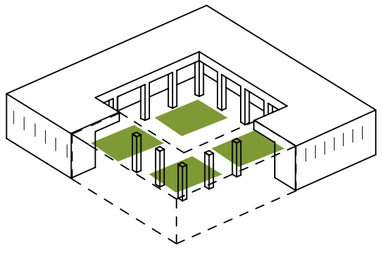
As mentioned in previous chapters, Parque Morelos is leitmotiv of CCD, therefore makes himself recurrently present in every courtyard, embedding himself in the built environment. Providing patios with ecological elements aims to create a matrix of urban biotopes, in order to reconcile the natural relation between people and nature, enhancing day-to-today interaction. Of outmost importance for the development of green patios is to approach the landscape design using local and native flora and fauna, in order not to alter the general ecosystem.

"Urban biotopes within courtyards fit people's everyday lifes and activities, reconciling the relationship human-nature."

The following picture presents proof of the atmosphere generated through the presence of green and vegetated elements within courtyards in La Alhambra.



The illustration of the right provides an idea for integration of green surfaces, while the image beneath exemplifies possible environments resulting from the integration of vegetation in a courtyard.



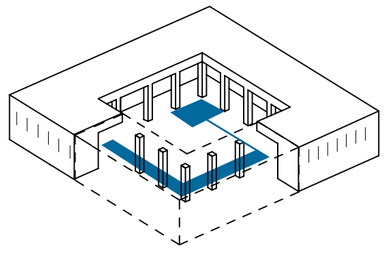
9.2.9.
Water

The cooling effect in courtyards can be achieve through the provision of water elements such as fountains. The courtyard's open-air aperture channels warm air entering into the building, which in turn passes over the water feature, cools down, thus assisting in the convection of heat to exit back through an envisioned open-air aperture. This style of natural air-conditioning has been prevalent in many countries for years and is remarkably successful.

"Incorporation of water features as part of the landscape design of courtyards helps increase temperature comfort."

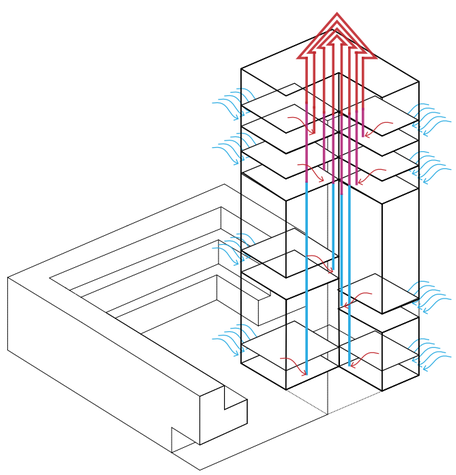
The following picture presents proof of the atmosphere generated through the presence of water features such as fountain within courtyards.

The illustration of the right provides an idea for incorporating water elements while the image beneath exemplifies possible environments resulting from the integration water in a courtyard.



9.2.10.
Wind catcher

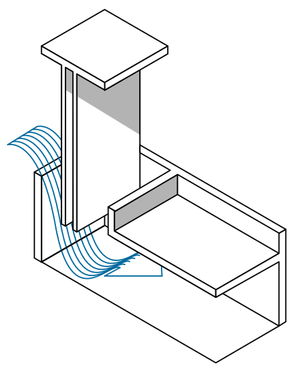
The way windcatchers work is that the moving air masses (wind, breeze, etc.) at the top of windcatchers create a pressure gradient between the top of the windcatcher and its base, inside, at the bottom of the shaft. This pressure gradient sucks out rising hot air from inside the shaft while the colder dense air remains. The superb heat resistant material of the walls of the ab anbar further create an insulating effect that tends to lower the temperature inside an ab anbar, similar to a cave. The ventilating effect of the windcatchers prevent any stagnant air and hence any dew or humidity from forming inside, and the overall effect is pure, clean, cold water all year round.dolore eu fugiat nulla pariatur.



"Contemporary interpretations of traditional passive systems might be applied to regulate temperature."

Dennis Frenchman, MIT Strategic Planning Workshop

The following picture presents proof of the atmosphere generated through the presence of green and vegetated elements within courtyards in La Alhambra.



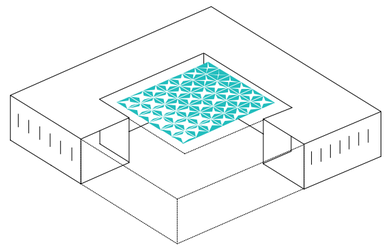
9.2.11.
Solar canopy

The cooling effect in courtyards can be achieve through the provision of water elements such as fountains. The courtyard's open-air aperture channels warm air entering into the building, which in turn passes over the water feature, cools down, thus assisting in the convection of heat to exit back through an envisioned open-air aperture. This style of natural air-conditioning has been prevalent in many countries for years and is remarkably successful.

"Incorporation of water features as part of the landscape design of courtyards helps increase temperature comfort."

The illustrations of the right provide an idea for incorporating solar protection in the form of horizontal canopies, applied in Marrakech.

The illustration of the right provides an idea for incorporating water elements while the image beneath exemplifies possible environments resulting from the integration water in a courtyard.



9.4.

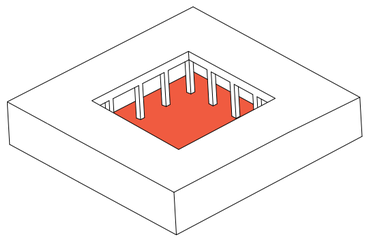
The Courtyard Model

9.4.1. Courtyard of Scale

BUILDING

The courtyard within the building scale has a traditional architectural nature of determining and organizing spaces. Recalling this premise, today, the courtyard becomes the core for the development of a mix of activities, fostering spaces for creation and holding together the different uses hosted within its surrounding buildings. This patios recognized as hubs of the urban block, will spread out the new lifestyle and function as stimulus to trigger innovation a long the buildings, blocks, neighborhoods, and further on the whole city.

Lorem ipsum



BLOCK

The configuration of the courtyard within the block scale responds to a series of factors previously identify in the existing conditions of the block. However, the recurrent presence of this concentrically void space is assured whether rehabilitation of current structures or the incorporation of new interventions will be carried out. Furthermore, the provision of green elements in the courtyards evoking Parque Morelos will increase the habitability of the spaces contained within the blocks of CCD and setting a showcase of the new lifestyle proposed for the creative industry for its further replication.

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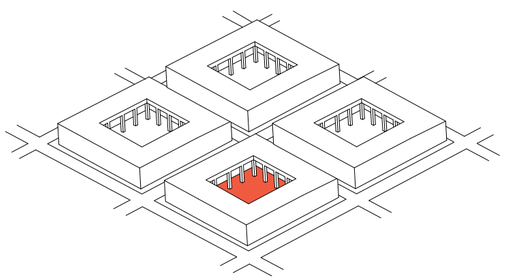

CITY

The configuration of the courtyard within the block scale responds to a series of Zooming out the perspective into the city scale the integral aim of a perforated and permeable urban fabric generated by the recurrent presence of courtyards, will not only result in an environmentally sustainable solution, but will also enhance social interaction diffusing the boundaries between what is public and private. Furthermore, balancing the built and void spaces through reintegrating traditional courtyard typolgies will result in the reconfiguration of the city's former urban morphology.

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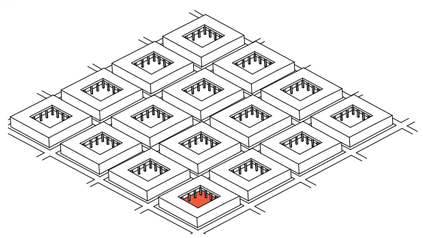

9.4.2. Reinventing the courtyard

The new blocks will be designed according to different features within the site. But, all of the buildings – no matter what the use – are designed with a lower lever podium of 3-5 stories which generally extends to the street wall. The podium aims to insure streets of human scale and provide space for shops, restaurants, services and other activities. On the interior of blocks the typical podium is punctuated with courtyards or other larger scale spaces to serve different functions. In many cases, the courtyards would be open to the public, providing more intimate spaces for outdoor dining, art shows, performances,

or work. In other cases the courts would serve more private functions – such as a sound stage – related to businesses or occupants of the block. These courts need not be limited to the ground, but could be created on upper levels of the podium as well, also open to the public, providing spacest for social gatherings or collaborative work, bars, or other activities overlooking the street and courtyards below. The totality is envisioned as a new kind of three-dimensional, "permeable" realm, blending public and private activities.

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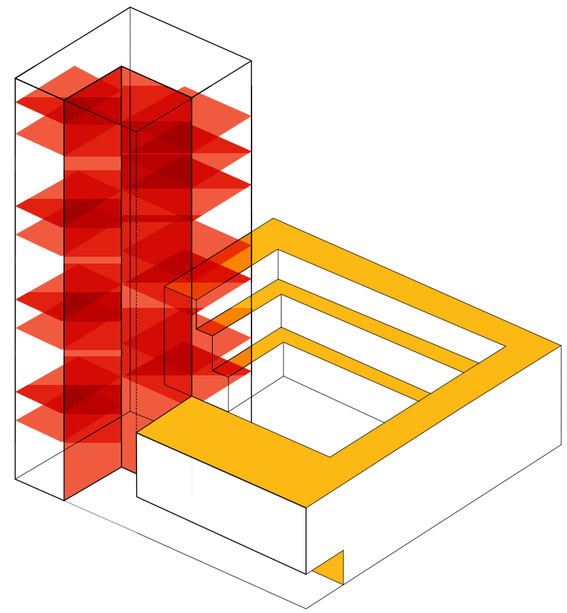
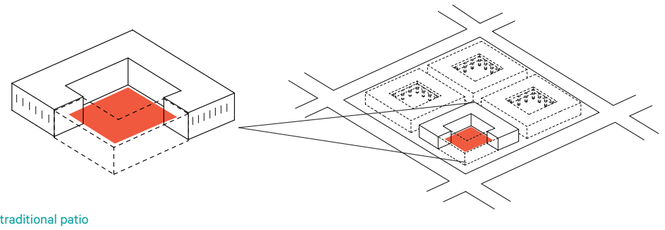


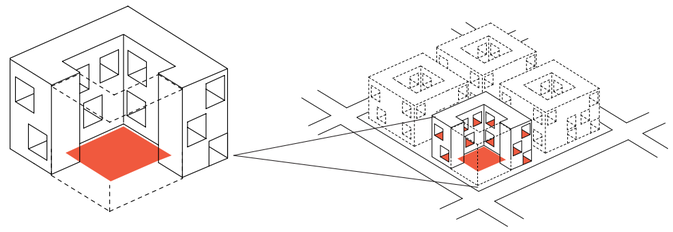
9.4.3
Taxonomy - Patios

inspiration for this kind of fabric. The complex consists of a series of interior spaces and exterior shaded courtyards that interconnect to form a comfortable, beautiful environment that could serve a wide variety of uses, as indeed it has over the centuries. It is also ideally suited to digital creative production, providing a matrix of intimate spaces as well as large spaces that could function equally well as exterior courtyards or enclosed studios. Given that digital work may now be productively pursued in almost any space - linked by mobile devices, the internet, and cloud computing - and the fact that the industry is changing so rapidly, the first aim of urban design in the DCC should be to build a beautiful, flexible, humanly-scaled fabric of places where people want to be, and can comfortably live and work. A combination of existing infrastructure and modern approaches for digital media spaces may allow for very innovative uses of land beyond traditional approaches, with an innovative and integrated architectural approach. Occae nonet et auta dollor se dolupic iatur, culparcimpor simaiore nonserit quo dus vendeserion porporr ovitinctias nature et mossi options equiam fuga. Cera doluptae. Ratin nobitio nsecust optata dipsapedis vel et la sectiae modiossum quam a volent inulparias dolo que dolupid esciundam, quatiume alic

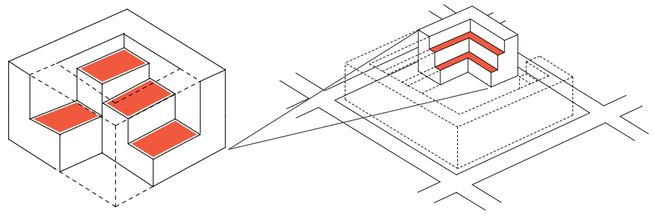
The above illustration presents a taxonomy of the different morphological typologies to balance built and void spaces as courtyards within the urban block.



traditional patio



lodge

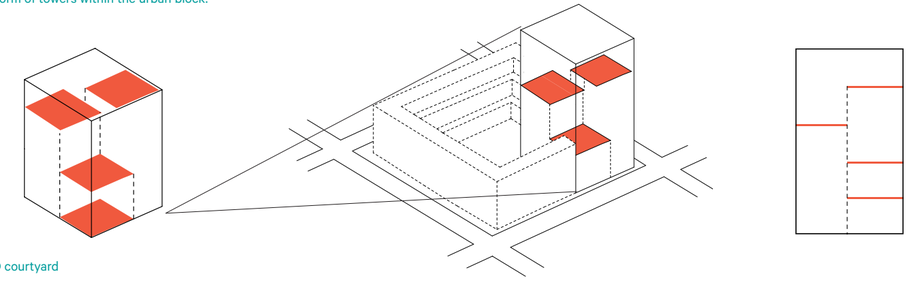


terrace

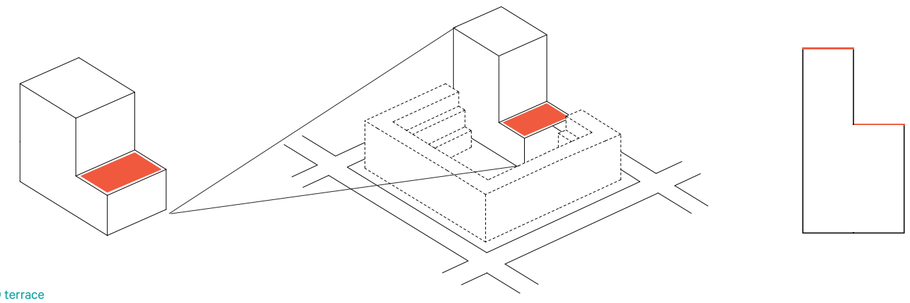
9.4.4
Taxonomy - Towers

Insertion of medium-rise towers within CCD is of outmost importance for achieving the aimed sustainability of the project, approaching its ecological and social dimension. These elements will enable higher density within the site while assuring a human scale in a four stories podium. Additionally, these towers will augment passive acclimatization of buildings and cool down the spaces using wind catchers as its historical Arabic origins established. The extrusion of the 2D surface of the patios a long the full height of the buildings becomes a particularity of their physical design. Moreover, the courtyard becomes generator of the tower's workspaces and core element for its spatial distribution, connecting with lodges and terraces. By linking these contemporary symbolic elements with the traditional and historical spatial forms of the courtyard, the city is enriched with a functional system adept to respond to the complexity of the existent context. The three variations presented in the taxonomy have the possibility to be overlapped, adding complexity to the spaces in order to respond to the different demands of the user.

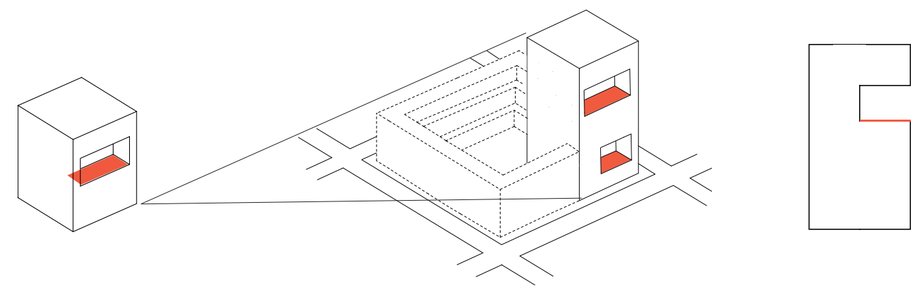
The above illustration presents a taxonomy of the different morphological typologies to incorporate high-density elements in the form of towers within the urban block.



3D courtyard



3D terrace



3D lodge

9.5.

Urban Design Guidelines

9.4.1. Vision

CCD lays in one of the foundational quarters of Guadalajara located in a historic context of high value for the city. Therefore, regenerating the built environment must prove to be approached in a respectful and proper manner, highlighting architectural value of existing structures at the same time that integrates them with contemporary interventions, adapting the area to new functional demands. For that reason, a set of urban design guidelines will be provided leading the transformation process with regards to the urban image towards achieving a harmonic built environment, integrating structures of different historic periods. The selected site for CCD belongs to 'Perimeter A' of Urban Conservation defined in the 'Acuerdo Institucional para la Proteccion del Patrimonio Historico y Artistico Edificio' (Institutional Agreement for the protection of Historic and Artistic Heritage Buildings). Therefore, the new guidelines and measures are based on existing official building assessments and prove to incorporate local regulations for the conservation of historic buildings.

Bearing in mind this assessment of architectural value of the properties within the area of CCD, three main conditions and possible scenarios have been identify as intervention typologies, and will be exemplified with a specific catalyze project. These measures will assure proper development of the urban image with regards to footprint, volumetric design, use of space and/or technical specifications. Therefore, these conditions can be grouped as followed: (i) Re-use of historic buildings, (ii) Integration of old and new buildings, and (iii) Integration of low and high-rise buildings.

lorem ipsum

9.4.1. Historical context

Due in turn to the historical character of the context, a previous analysis defining the possible actions within structures is provided. Categorization of buildings responds to the architectural historic value of structures and current state of properties by defining the level of intervention that can be carried out. The degree of intervention and measures allowed directly depends on the historic value of the building previously determined by the corresponding authority (INAH, Secretaria de Cultura, Ministry of Culture or Ayuntamiento, Municipality)

This analysis identifies buildings within the site grouping them according to their availability for (i) conservation, (ii) restoration, (iii) control adaptation, urban image conditioning or (iv) controlled replacement.

The first category, conservation, implies that buildings require only minimal interventions since its current state is not gravelly deteriorated. In contrast to the previous category, the second, restoration, states that the structure has a higher level of deterioration and therefore actions must be carried out in order to recover its historic value and characteristics as well as artistic features. Furthermore, actions and measurements applied to buildings identify under this previous category, must deal with alterations on their architectural elements and original physical shape. The third category, control adaptation, refers to buildings, for which refurbish measures will take place provided that its composition, structure, style or image remain intact. The follow, fourth category of urban image conditioning consists on determining buildings with no historic value, which can be partially modified in order to be adapted and integrated into the urban context. Finally, control replacement means that buildings have the possibility of being substitute with new structures of contemporary architectural features.

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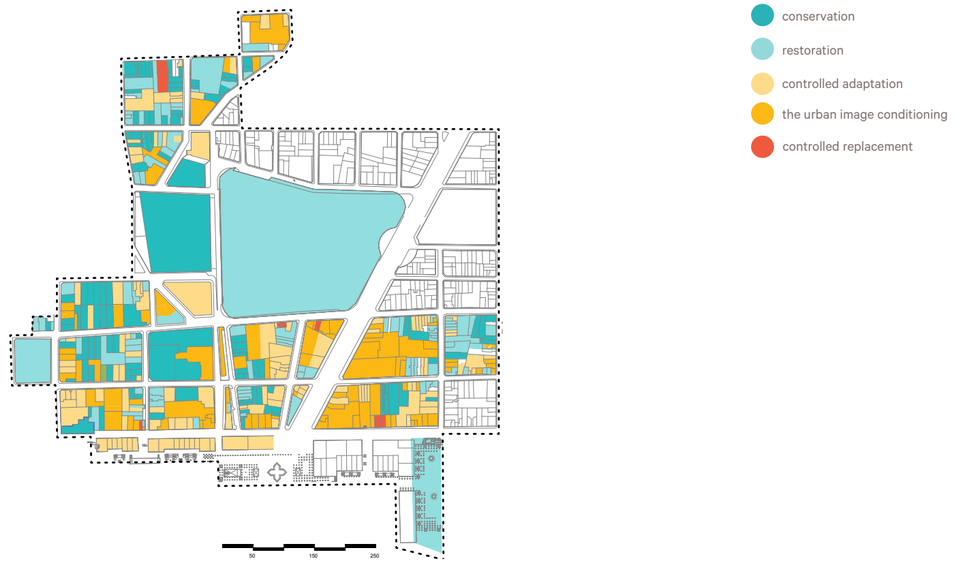

9.5.1. Re-use of Historic

The first scenario is the typology proposed for 're-use of historic buildings', which deals with properties classified as available for conservation, restoration and control adaptation. As of the previous building assessment, structures subject to these previous interventions are identified in the following map as existing buildings able to be re-use. Whether provision of these buildings with a new adaptive-use or preservation of their current functions takes place, the historic and artistic features must be brought up and/or reconfigured to the buildings former morphology. Guidelines for interventions on the horizontal plane or footprint will be provided as well as the vertical plane or volumetric shape. Use of space considering the relation of green spaces to open spaces featured within the historic structure must also be envisioned, and therefore its percentage is stipulated as a guideline. Comprehensive implementation of these guidelines will be represented in The Ingenium Center, exemplification of re-use of the existing Basilio Vadillo school building as new institute for digital arts.

Adequating existing historic structures to provided with a new adaptive re-use, in order to respond to contemporary demands.

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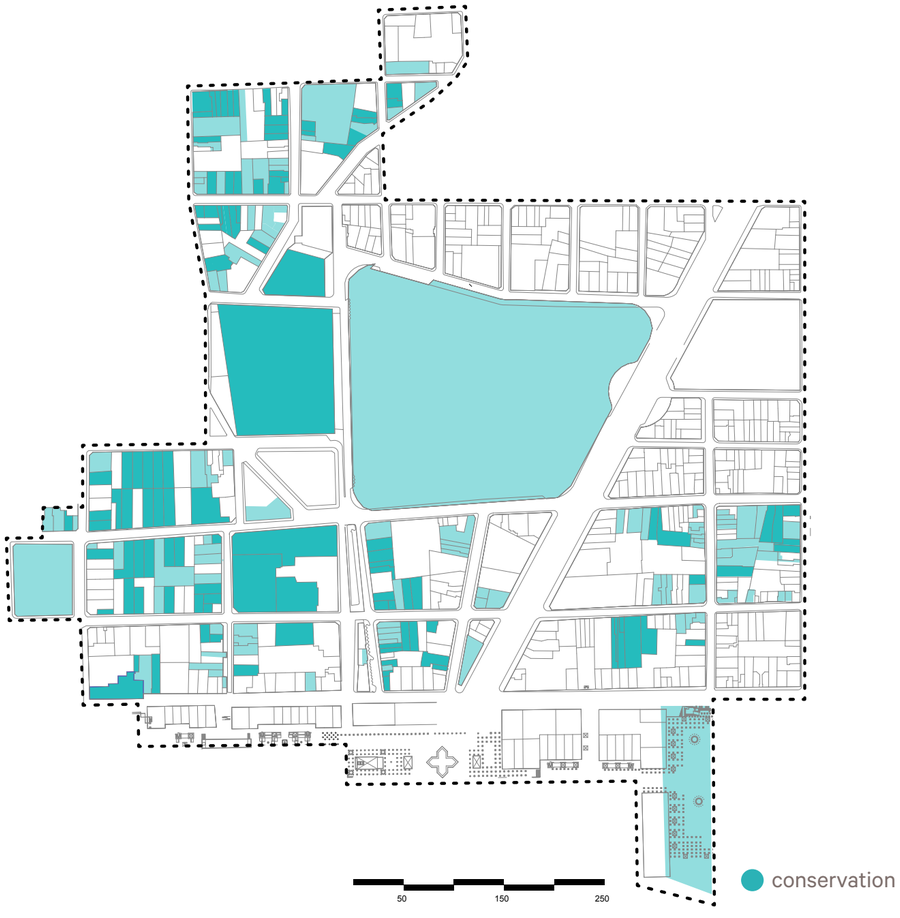
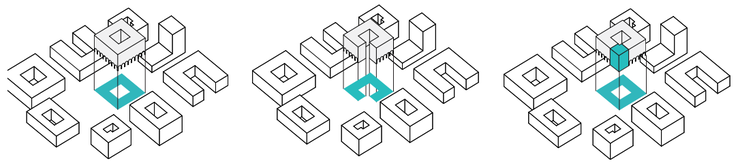


FOOTPRINT

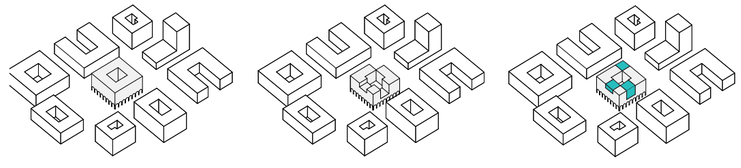
- The amount of ground area covered by the building will respond and match the historical footprint boundaries



past present future

VOLUMETRIC

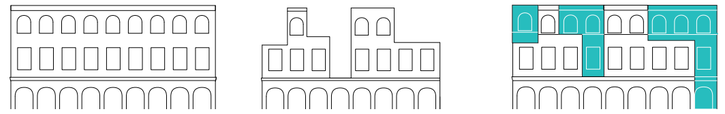
- The volume and physical shape of the building must be preserved and/or recreated



past present future

FACADES

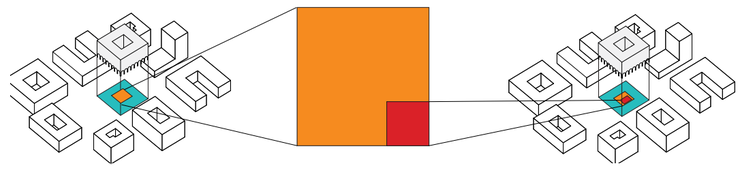
- The façade of the buildings must be completely restored and preserved _Depending on the historic value and assessment of the building the structure must be maintained intact



past present future

USE OF SPACE

- X% of green spaces in relation to open spaces



existing open space design green space

9.5.2. Mix of old and new

The second typology of urban design guidelines, comprises the 'integration of old and new buildings', which is proposed in an attempt to achieve homogenization and reconfiguration of the historic morphology of the block. Guidelines towards restructuring the urban image are provided for intervening mix-value blocks, which contain buildings identified within 'controlled adaptation' and 'urban image conditioning' categories, highlighted in the following plane. The mix of buildings that belong to different periods and therefore varying in architectural value found within one urban block, demands guidelines for proper ingeneration of historic and contemporary architecture. Which stipulate optimal actions to be followed for the footprint and volumetric aspects as well as the relation among different uses of the space. Therefore The Accelerator Center appears as physical prove of this measures, integrating new functions contained in contemporary designed buildings within the existing block.

Integrating existing historic buildings and contemporary architectural interventations within urban blocks

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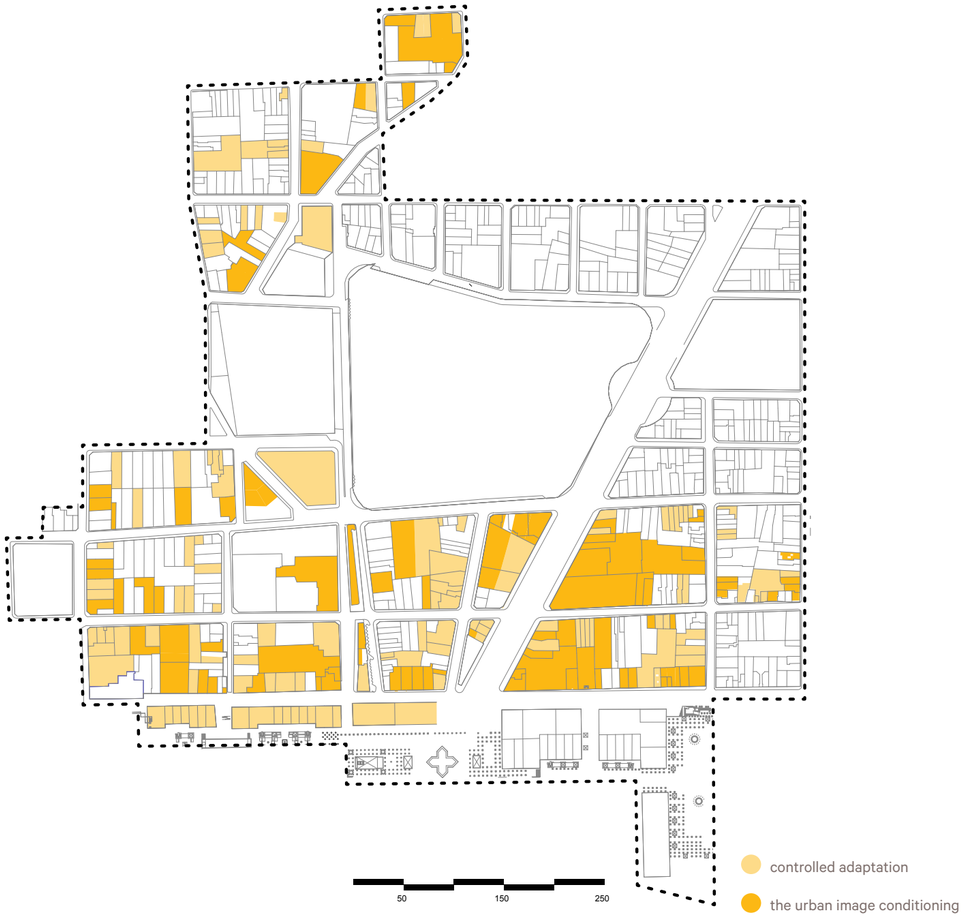
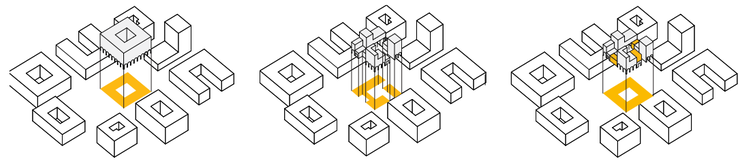


FOOTPRINT

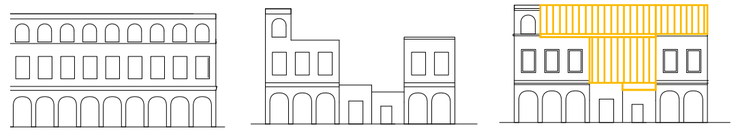
- The of ground area covered by the new building must maintain or recreate the historic footprint of the block, delimitating the historic fringe and aligning the facades



historic existing design

VOLUMETRIC

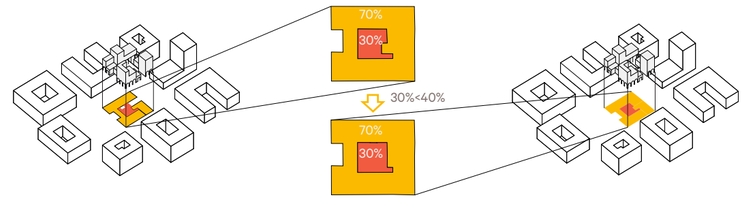
- Homogenize and integrate different heights among historic and contemporary buildings within the block
- The facades of new buildings should respect and consider the height levels of facades in adjacent historic buildings
- Integration of the new façades into the urban context, considering alignment with existing floor levels
- New building interventions above the rooftop level of the original structure must be staged and tucked in to the inside of the block



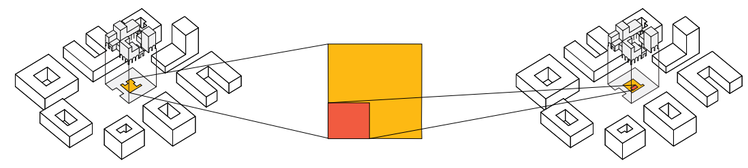
historic existing design

USE OF SPACE

- X % of open space in relation to built area
- X % of green spaces in relation to open spaces
- Central courtyards must be open to the users of the block
- Provide uses for the rooftops (e.g. Urban farming, rain water harvesting, restaurants, etc.)



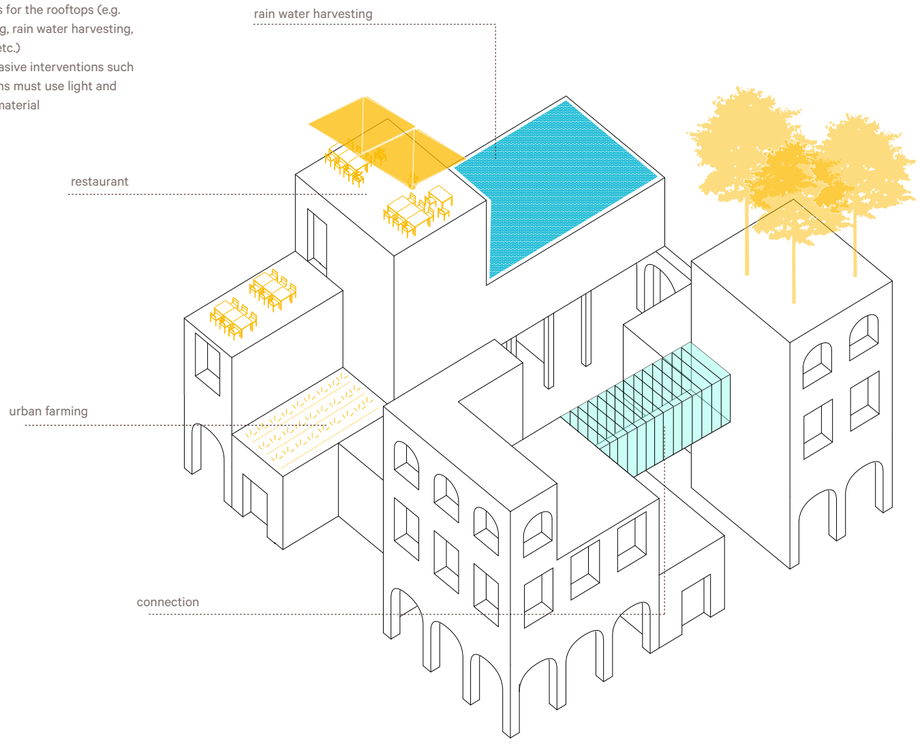
existing design



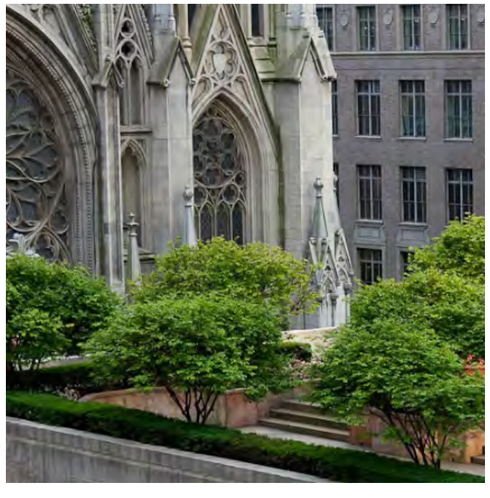
existing open space design green space

TECHNICAL SPECIFICATION

_Provide uses for the rooftops (e.g. Urban farming, rain water harvesting, restaurants, etc.)
_New low invasive interventions such as connections must use light and transparent material



In the to pictures above the rooftop gardens at Rockefeller Center in New York City are presented, and showing the integration of vegetation within the built envionrment



9.5.3. Low to high-rise building integration

The guidelines for integration of low to high-rise buildings within the urban block, approaches in a parallel manner two building typologies: (i) the tower and (ii) the podium. The first, the insertion of high-rise buildings or towers, is part of the strategy towards achieving the aimed sustainability for CCD, however, with regards to urban image this becomes a critical action, which should be guided respecting the context and assuring their proper integration. These elements of higher density must be designed based on heights, generated visuals, and/or shadows casted on their surroundings. In general, integration of their formal appearance within the historic context should be carefully studied and implemented. On the other hand, the lower elements compounding the podium of the block must as well follow a set of guides to regulate heights based on visuals and their immediate surrounding. The Mexican Media and Marketing Museum will illustrate the expected outcomes that result of the implementation of these guidelines.

Integrating low-rise block podiums and higher density towers within the urban block.

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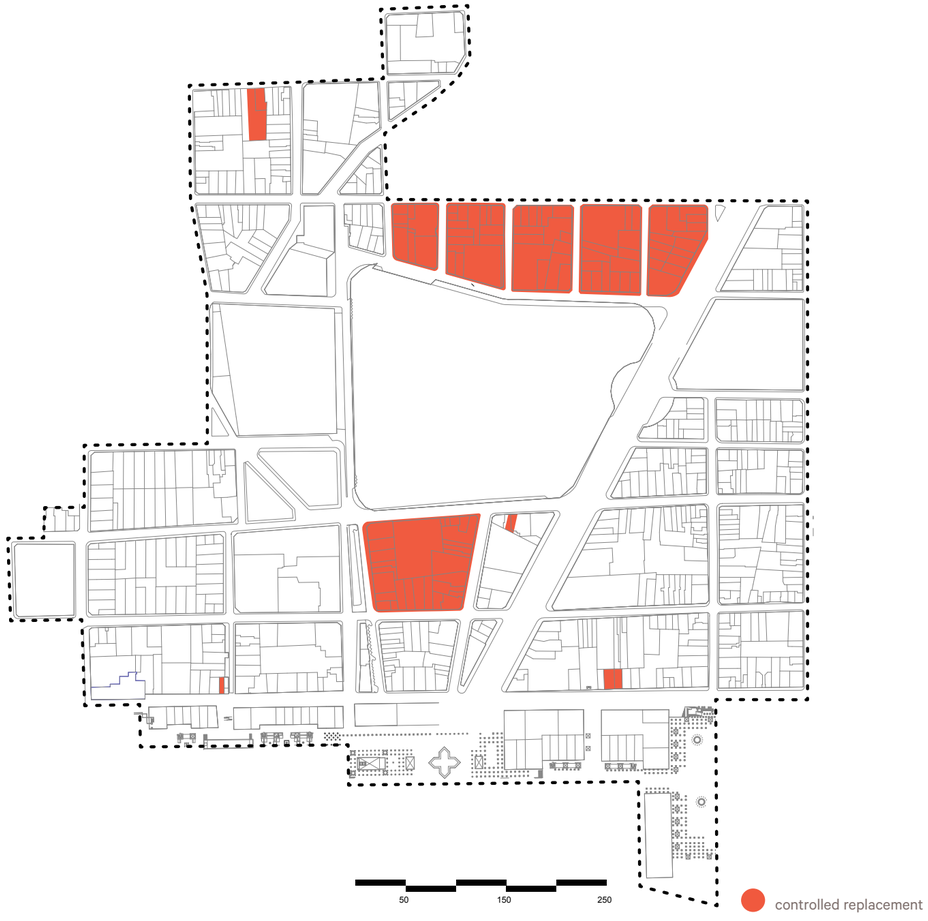
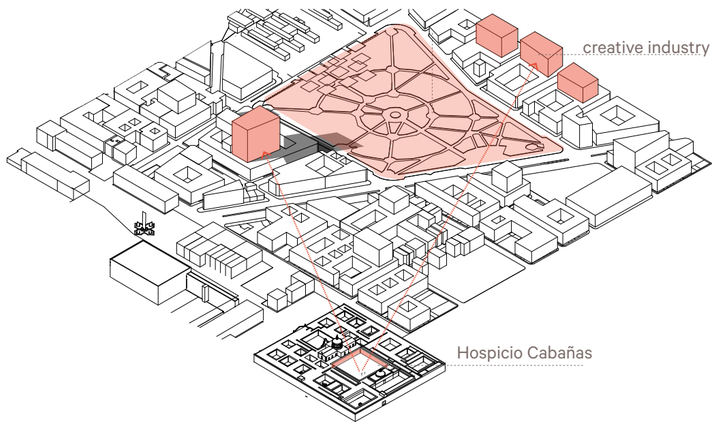
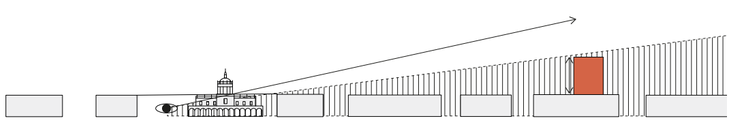


VOLUMETRIC

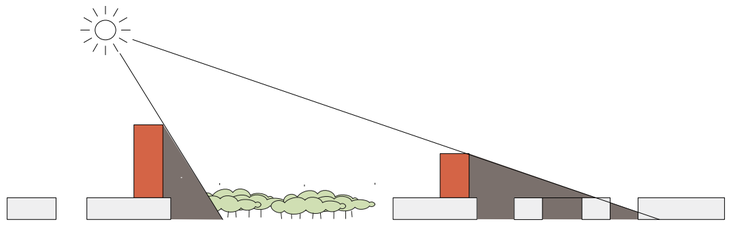
_ General heights of high-rise buildings will depend on the following conditions:
a. View angles as of the main courtyard of the Hospicio Cabañas
b. Shadows cast on the park and adjacent courtyards
c. Maximal height restriction on the block



Height of towers is in turn defined based on the visuals as of Hospicio Cabañas, ensuring to be imperceptible to the users eye.



Height of the towers must additionally bear in mind shadows forecasted into to surroundings.



The following maps provides guide for heights allow within urban blocks in the CCD site.

VOLUMETRIC

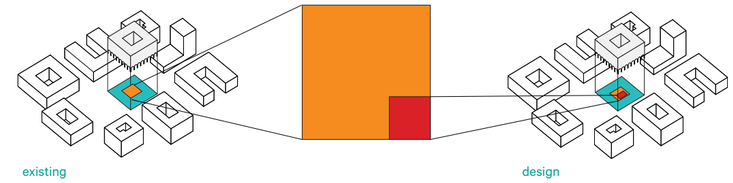
- Heights around large courtyards might be max. 6 story high
- Heights around small courtyards might be max. 3 story high
- Every block and intervention should have views and orientation towards Parque Morelos
- General heights for low-medium rise buildings (block podium) will depend on the following conditions:

1. a. Width of the street
2. b. The height of surrounding blocks
3. c. Should not exceed the 6 story limit

- Width of the podium will max. 20m and min. 10m
- The corner building should define the heights of the podium and be min. 3 stories and max. 6 stories high.
- Shadow angles from both sides of the street should be the same More stories can be added by offsetting them.

USE OF SPACE

- _X % of open space in relation to built areas
- _X % of green spaces in relation to open spaces
- _ Central courtyards must be open to all users of the block
- _ Provide uses for the rooftops (e.g. Urban farming, rain water harvesting, restaurants, etc.)



10

Urban Design: **Catalyst Projects**

10. 1 Parque Morelos
10. 2 The Ingenium Campus
10. 3 Mexican Media and Marketing Museum
10. 4 Block 11
10. 5 Digital Creative Accelerator & MulitPedestrian Connector
10. 6 The Rambla
10. 7 North-side
10. 8 Hotel Hospicio Cabañas
10. 9 Calle Cabañas Creative Hub
10. 10 Degollado District
10. 11 Eslabón Residencial

10. 1

Parque Morelos

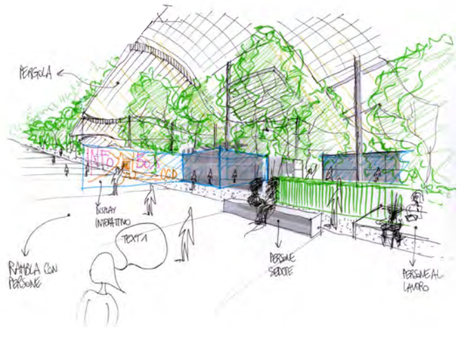
10. 1. 1 The heart of CCD

Parque Morelos will be recognized as leitmotiv of CCD. The park as a green core surrounded by the built environment will represent the concept of the traditional courtyard in Guadalajara on a larger scale. The park will sprawl and virally integrate into the urban fabric becoming a green matrix for CCD. Entering the urban blocks and greening the historic as well as the new courtyards, the park will improve the livability of the semi-public outdoor spaces. However, the landscape must be upgraded, new facilities to support public activities should be provided, and programs related to culture and the arts should take place in order to recover the status the park once had.

The narrative of Parque Morelos will be reclaimed, its former condition as an island between two rivers and strong relation to water will be reinterpreted in the new layout.

The midd-19th century formal landscape design, which once positioned the park as symbolic heart of the community, will be readapted.

A complex program of functions, among which a Pavilion hosting an Infobox and an ephemeral media market should be located on the west edge in front of the DAI and integrally be connected to the Rambla. In addition, an outdoor performance space, art pavilions and stands, digital water features, and integration of new technologies will be provided and result in a 24-hour cycle of use of the park and its surroundings.



SUBMISSION FOR REVIEW

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10. 1. 2
The history of the park

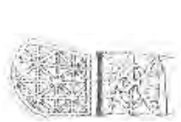
The current place of Parque Morelos used to be in former times the 'Paseo de la Alameda', which consisted of a densely wooded island formed by the fork of Rio San Juan de Dios. This island comprised a wide range of activities such as bowling and billiard saloons, ice cream and 'horchatas' stands everywhere and in the center a plane path seats would be rented to public. To bridges joined this 'Alameda', the first Molino de Chocolate de las Beatas (today Federalismo Avenue) and 'Punete de los Borrachos', at the end of the promenade in direction to the El Retiro neighborhood. Later on, after tubing San Juan de Dios River, during the 20th century, the Tapatio renowned architect Rafael Urzua developed a renewal project of the park.

The current place of Parque Morelos used to be in former times the 'Paseo de la Alameda', which consisted of a densely wooded island formed by the fork of Rio San Juan de Dios.

El parque de la Alameda > 1800

> 1895

> 1905



> 1995

Parque Morelos > 1890s

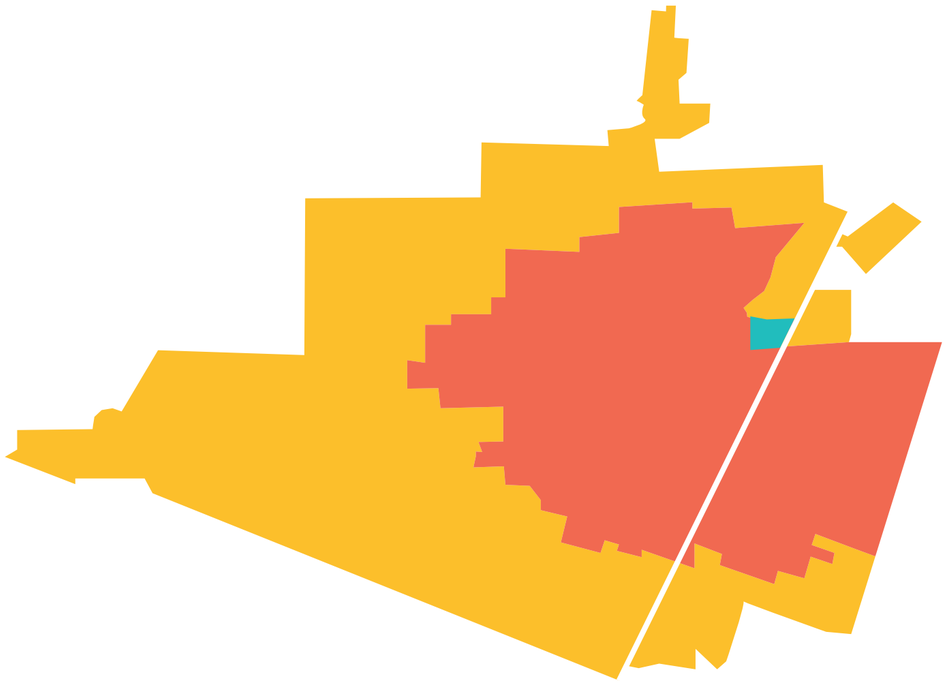
Parque Morelos > 1940s

10. 1. 3
Parque Morelos today

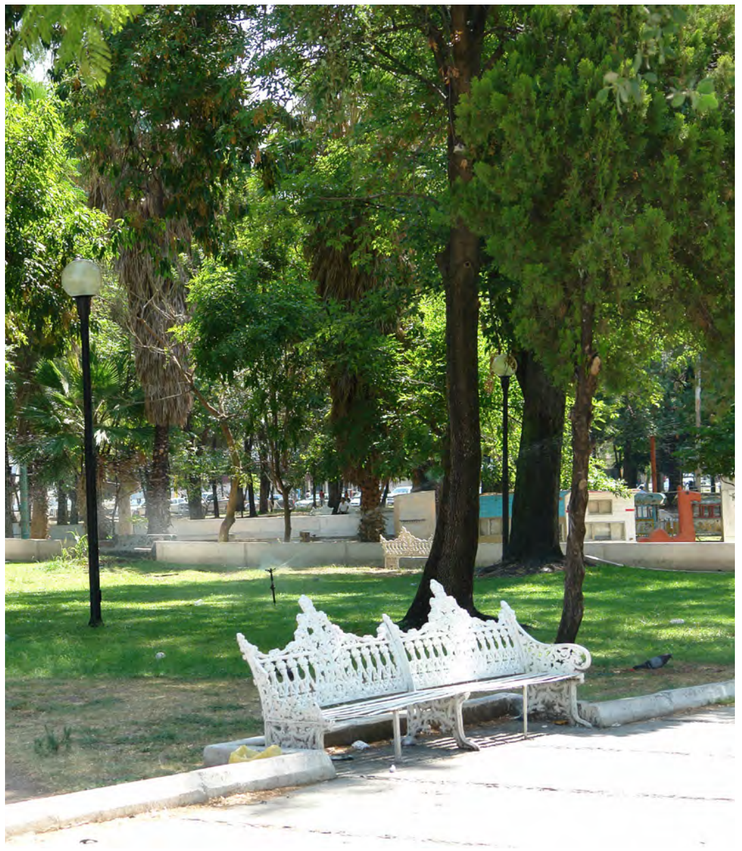
Downtown Guadalajara, where Parque Morelos is located, is one of the most historic and memorable city centers in Mexico. A collection of architectural monuments interspersed with public squares, it not only has a powerful built image, but it is also a great place to live and work: the cultural and commercial heart of Mexico's second largest city with shops, schools, theatres, museums and restaurants. It is interesting that the district is not entirely historic fabric. It weaves in contemporary architecture, shops, offices, and pedestrian spaces linking the Cathedral with Hosipico Cabañas, a world heritage site. CCD will build-on this cultural- commercial area, extending it to Parque Morelos using a fabric that mixes traditional ways of building with technology and 21st century activities.

The proposed CCD development for Parque Morelos would be to preserve and revitalize the park as the centerpiece of the project.

Perímetros de protección al Patrimonio Histórico



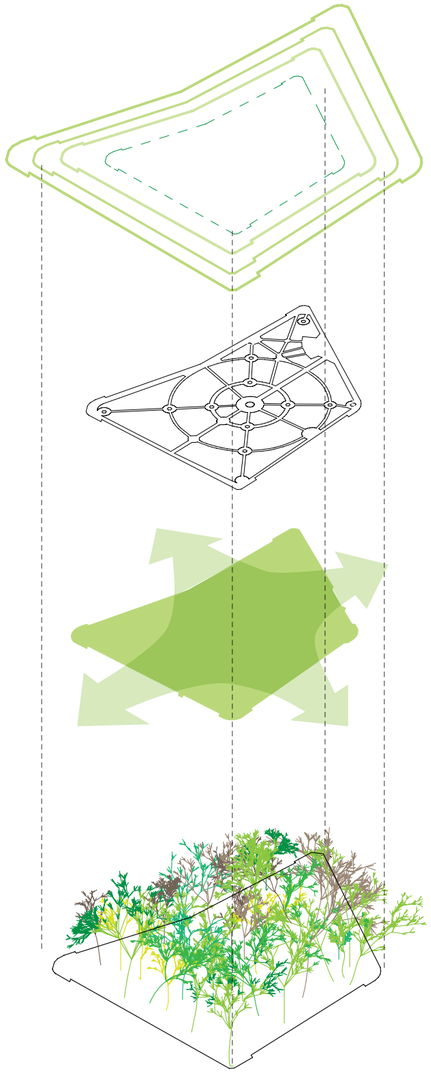
PARQUE MORELOS



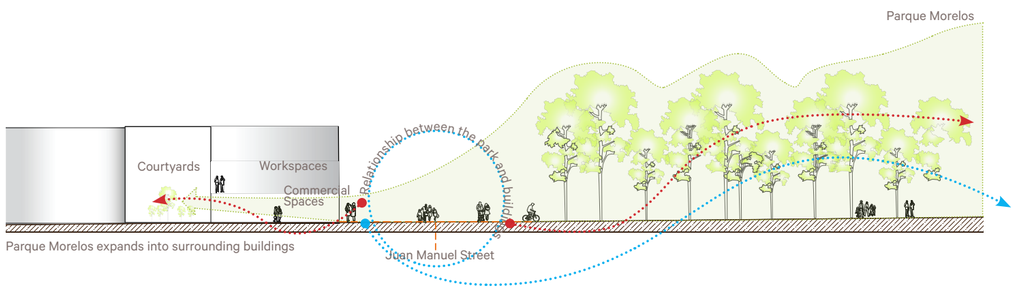
10. 1. 4
Key principles for Parque Morelos

Parque Morelos as core of CCD has the responsibility to provide proper functions that respond to the needs and demands of residents and visitors of CCD. The park becomes main platform of social interaction and pretends to host a set of activities to enhance the former. Thus, the master plan of CCD envisions a set of principles to be implemented in park in order bosst its functional capacity. Those principles are identified as followed: (i) to conserve and reinforce the historical character of the park by recalling its former layout of 1940's, (ii) to expand the green surface and presence of the park a long the site, increasing the amount of public spaces, and (iii) to upgrade its uses to respond to the needs of a 21st century society.

The Park will be developed as the first catalyst proyect within CCD, contemplating the inteagration of a Media Market Pavillion and the Infobox. The Media Market Pavillion will provide public spaces adequated for ourdoor working, in order to function as a platform for exhibition of working activities of the creative industry. The Infobox, which is in turn contained inside the pavilion will be a public digital platform to inform and receive input from inhabitants and visitors in general.



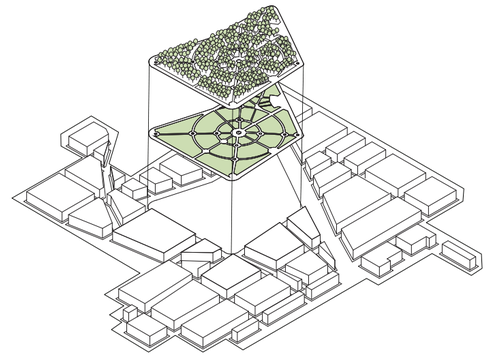
The park becomes main platform of social interaction and pretends to host a set of activities to enhance the former



MAINTAIN HISTORICAL IMAGE OF PARK

Preservation and reinforcement of the historical character of Parque Morelos will be achieved on the physical level by reclaiming its former design layout from 1940. The image and function of the park that once prevailed in Guadalajara as powerful center for the community to now serve the residents and users of CCD.

Maintain historical image of park



EXPAND PARK AND INCREASE PUBLIC SPACE

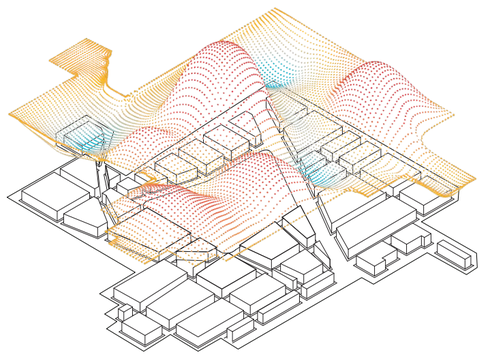
The second principle stipulates the expansion of Parque Morelos and the addition of more and new public spaces. The park aims to be extended and virally expanded a long the site in order to enter the built environment and make itself resent in every block. The park is understood as catalyst of nature and vegetation providing a green matrix for CCD. Furthermore, the park will be adapted to foster interaction of society members by increasing the amount of public spaces.

Expand park and increase public space

UPGRADE FOR 21ST CENTURY USE

In general Parque Morelos will be provided with digital cutting edge design solutions in order to upgrade its function as 21st century facility. Responsive public spaces will take place along the park fostering interaction with and among society. A complex program of functions, among which a Pavilion hosting an Infobox and an ephemeral media market should be located on the west edge in front of the Ingenium Campus and integrally be connected to the Rambla

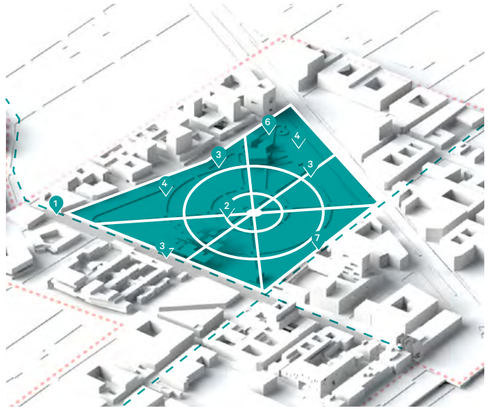
Upgrade for 21st century use



10. 1. 5
Vision for Parque Morelos

PROJECT PROGRAM

- Public spaces must be increased and the green surface of the park should be extended into the surrounding area
- A link between the park and the development along the edge should be generated by designing blocks in order to compliment and extend the park function with the courtyards and street spaces, however the street wall overall should be held on the north and south.
- Complimentary activities should be added where possible through the exchange of functions, for example outdoor spaces for work, meetings, presentations, etc.
- Digital functions will be provided in order to upgrade the uses for 21st century demands
- Temporary pavilions and flexible functions should be provided in order to accommodate specific uses.
- The park should provide a flexible structure for stage events
- A pavilion for outdoor working, a cafe, space for the elderly, park activities, and restrooms will be developed at the west end opposite to the institute and maintained by the institute on the Ramblas. It will contain an Infobox to function as an exhibit and information center of the vision, development and input on the CCD, including digital tools to learn about the project, for example as a test space for digital systems, exhibition space for students, responsive flexible space, etc.
- The pavilion should incorporate complimentary functions and services such as: gastronomic, outdoor working places, aged accessible spaces, Infobox, restrooms, coved informal seating, small event and class spaces under protective shade.



FACILITIES

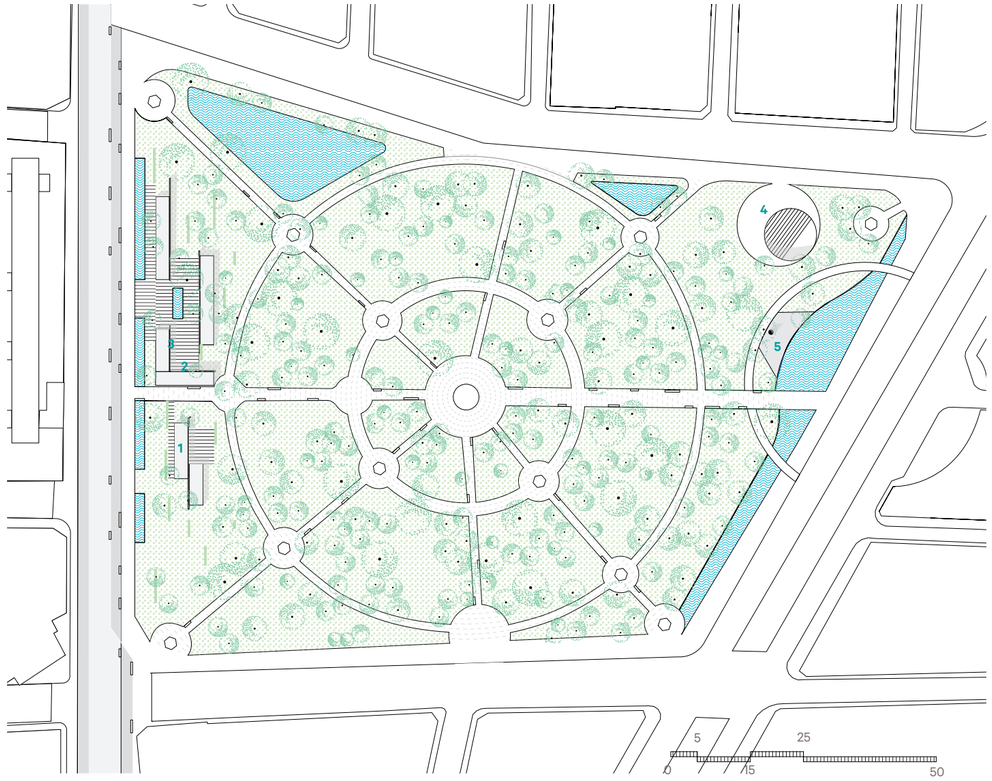
1. N-S Rambla pedestrian spine:
   Food, galeries, media,2 Media market
2. Restore historic park landscape
3. Park Infobox and Media Market
4. Pond, wading pool (recalling former river bank and buering BRT)
5. Relocated Statue
6. Theatre in park
7. W-E spine: Food, galeries, retail

Andador central del Parque Morelos >
1966

Materials

Essences

1 - Infobox
2 - Restaurant
3 - Cafe
4 - Theatre
5 - Sculpture

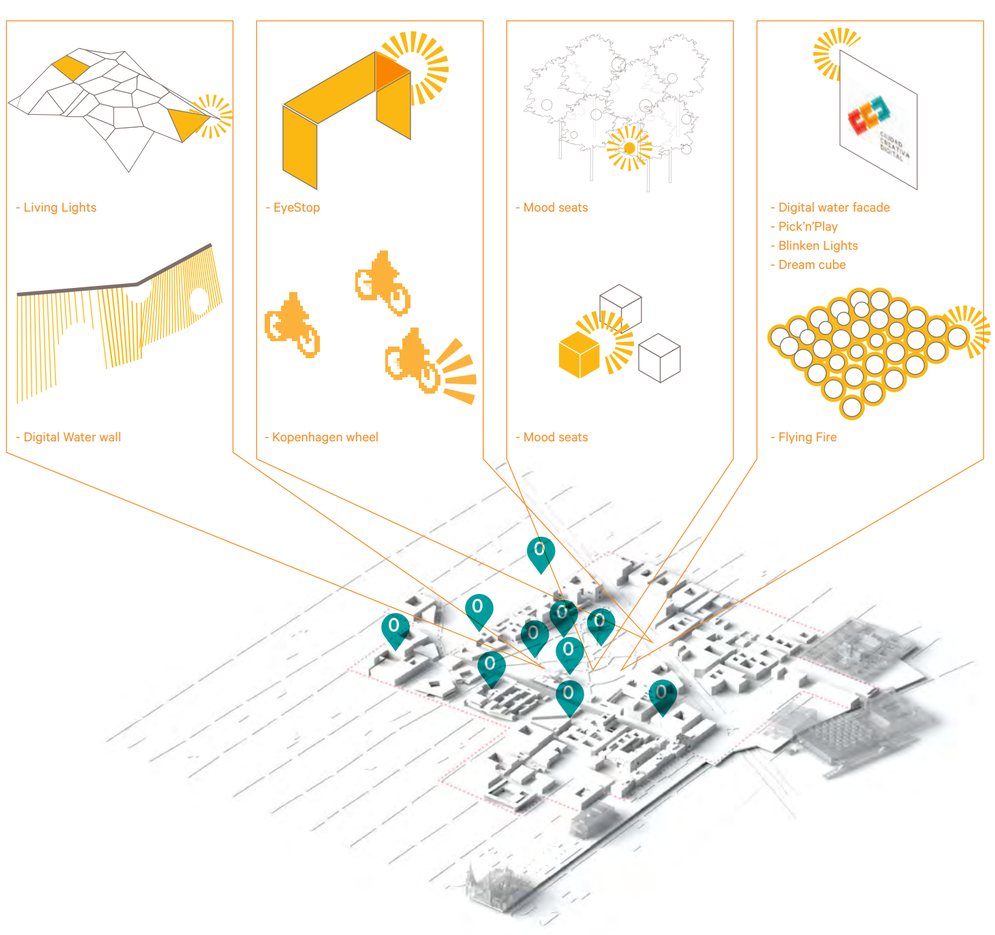


10. 1. 6
Facilities in the park

CCD master plan proposes to augment the responsiveness of the park by integrating several international best practices. A diverse range of digital solutions are proposed to be integrated to the functions of Parque Morelos, form bicycles that interact with the user proving them with information about theier travels such as the Coppenhagen Weehl to Digital Water Walls that respond to the movement of the actuator. The park aims to become life and communicate with the community through its new 21st century digital feautures. Moreover, the park will be provided with an open theater containing a stage for performance and cultural activities to take place.

A set of digital and media elements for public use are envisioned to take place a long the park, generating a vivid and enriched responsive environment.

Facilities in Parque Morelos.



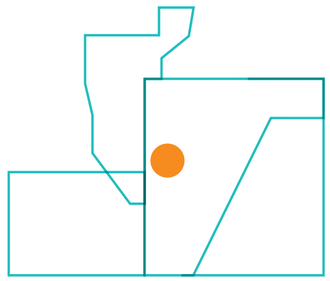
10. 1. 7
Park Pavilion

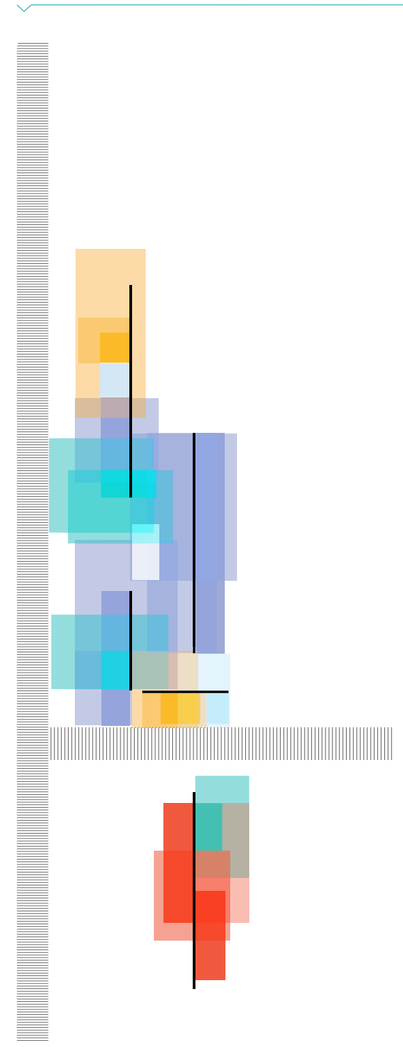
The Media Market pavilion is envisioned to take place inside Parque Morelos at the west edge of the park facing the Ingenium Campus across the Rambla. Its location has been strategically selected because of its centrality and condition of meeting point. The main purpose of this structure is to serve the creative industry and users in general by providing them with proper spaces for outdoor working. Design solutions that deal with environmental conditions as well as the provision of specific infrastructure to host these activities will be provided. Furthermore, the pavilion will become a platform to exhibit daily work activities of the industry, generating a better understanding of their work.

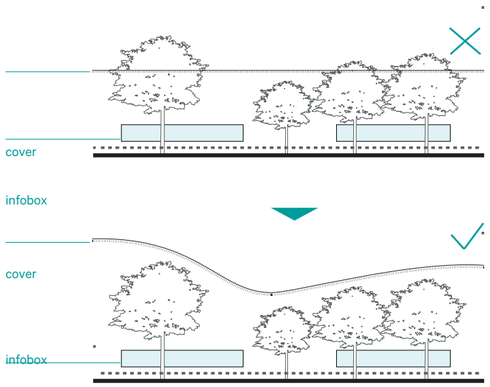
The design features of the pavilion respond to the local climate conditions, therefore propose shelter for the sun as well as the rain. Enhancing collaboration among students and workers the structure will also contemplate more private spaces to focus concentration. Moreover, a pleasant atmosphere will be generated through the provision of water elements in addition to its interaction with nature.

The park pavilion is a place to host and showcase the working activities of the creative industry as well as those from the students; generating an informal meeting point for the educational and professional world.

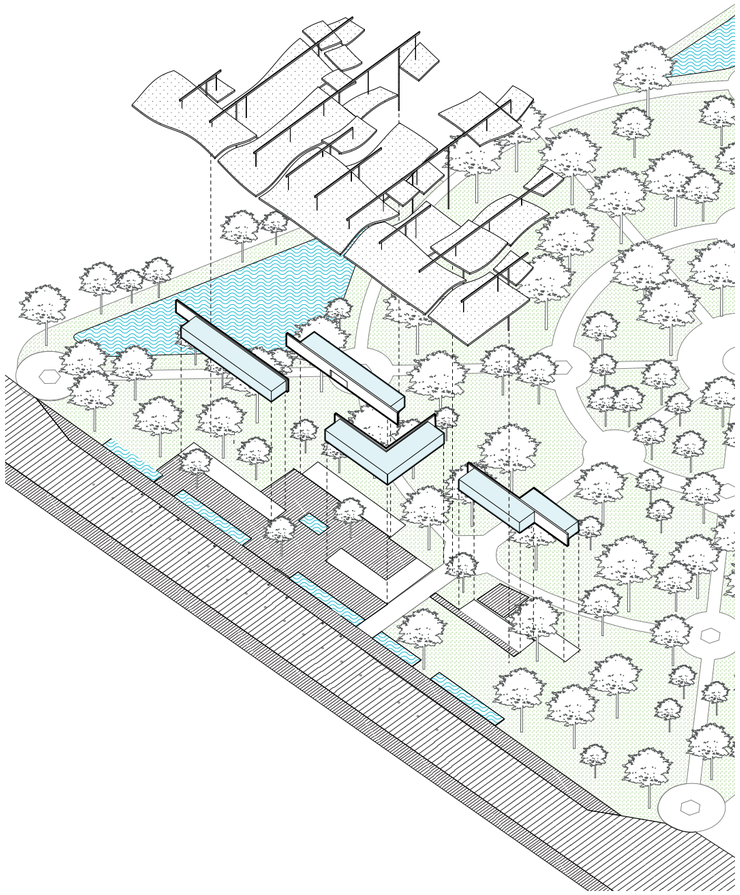
The illustration illustrates the location of the pavilion within the site of CCD.







The illustration below provides example of possible design solutions of shelter for the Park Pavillion.



Infobox: Axonometric exploded

10. 3. 4
Best practice

Jardin Botanico de Medellin, Colombia, by: plan:b, Alejandro Bernal, Camilo Restrepo, J. Paul Restrepo

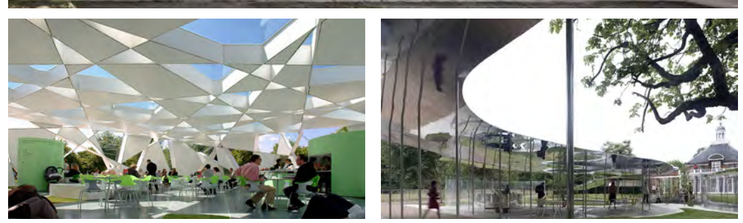
Olympic Park 'Park Live' Pavilion, London 2012

Nordic Pavilion, Venice, by Sverre Fehn

Serpentine Gallery Pavilion, London:

> 2006, by architect Rem Koolhaas and structural engineer Cecil Balmond, with Arup (left)

> 2009, by Kazuyo Sejima and Ryue Nishizawa of SANAA (right)

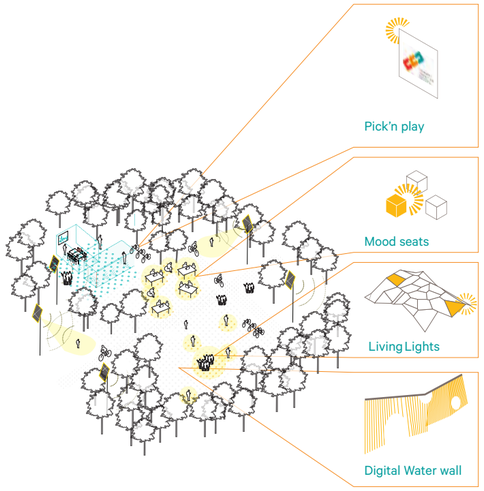


10. 1. 7
CCD Infobox

BRIEF

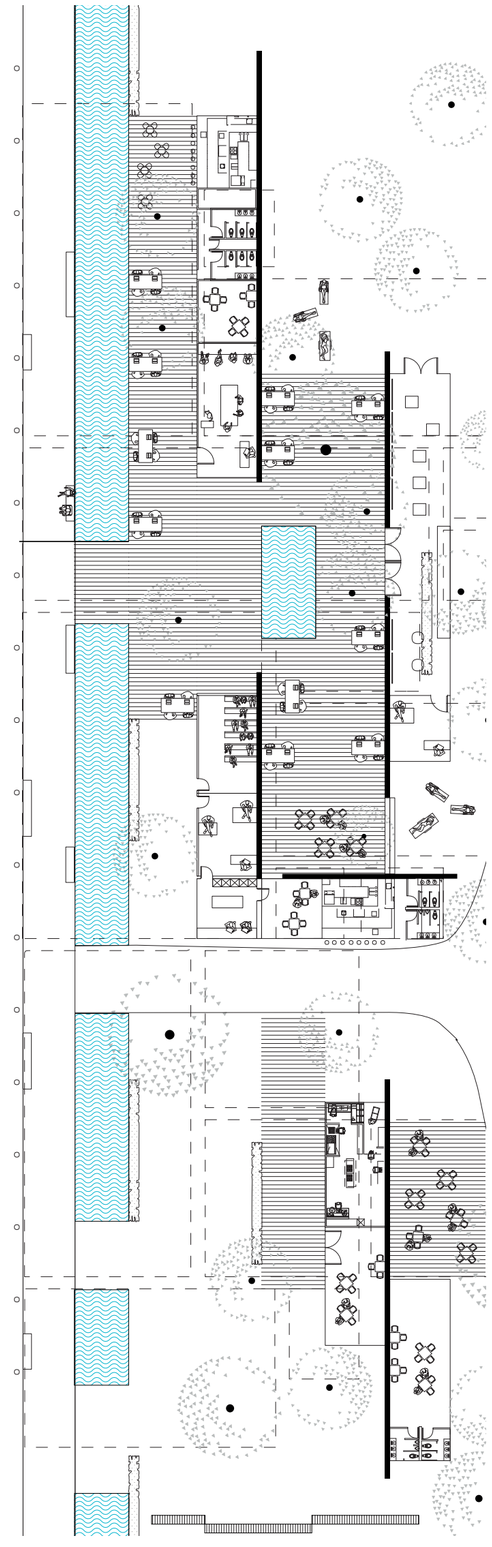
The Infobox will serve as means to promote a better understanding of the CCD's philosophy. It will help to raise awareness and highlight the benefits of the new digital lifestyle, as well as communicate and inform about up-coming projects and interventions. It will function as a platform for the community to participate and share their concerns and ideas with the CCD and the public authorities. Moreover, it must also be understood as an informal space for interaction with target groups including children, students, and the elderly in order to create ties for cooperation. The Infobox will aim to generate social engagement through digital empowerment within the community.

As part of the first implementation strategies of Phase 0, the Infobox will be situated in Parque Morelos under the umbrella of the pavilion. It should become a milestone on the overall creative processes as well as the integration of digital solutions within a historical context. The design will follow the principles of interface, interaction, scalability and respect for the local traditions, and therefore properly adapt to the historical layout using natural materials and local design solutions. Furthermore, the structure will be highly integrated to the park in order to enable spaces for experiencing the digital-life style within a green environment.



PROGRAM

- The infobox will serve as a mean to raise awareness, communicating and highlighting the benefits of the new digital lifestyle, up-coming projects and interventions, etc.
- The infobox will function as a platform for the community to interact, participate and share their concerns with the CCD and public autorities
- The infobox must also be understood as an informal space for interaction with target groups such as children students, elderly, etc.. In order to create ties for corporation
- The infobox will host cultural activities related to the digital lifestyle
- The Infobox should also be used as a social infrastructure in order to host external educational programs and workshops related to digital interactive art



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10.1.10

DESIGN GUIDELINES FOR PARQUE MORELOS

- The design of the park should be based on the historical layout of the 1940's.
- The design of a pool of water on the eastern edge of the park will recall the original edge of the San Juan de Dios River (at the park's lowest level for water retention and flooding mitigation).
- The new design of the park and all its features should maintain as many healthy, contributing trees as possible. However some trees will need to be removed because of their poor conditions or overgrown; additional removal may be needed to accommodate activities, but any loss should be replaced with new trees so there is no net loss.
- The design of all physical interventions must include the use of natural and local materials, such as wood, canopies, etc.
- All sides of the park should be designed to compliment pedestrian movement:
  1. The west edge will be pedestrianized providing space for the Ramblas.
  2. The south edge will have a shared pedestrian and vehicular right of way.
  3. The north edge will have an urban street to accommodate traffic and buses but with generous pedestrian sidewalks and plazas along.
  4. To the east heavy traffic should be buffered with water and the topography.
- The park pavilion must have tall roofs, in order to allow see through visuals to the park

THE INFOBOX

- The infobox will be contained within the Parque Morelos and will be placed as a permanent structure within the pavilion
- The infobox should have the possibility of being an incremental and flexible structure based on the demands
- The design of the infobox must prove to be integrated into the historical layout of the 1940's of the Parque Morelos
- The design of all physical interventions must include the use of natural and local materials, such as wood, canopies, etc.
- The physical layout of the info-box must be representative of the whole vision of the CCD as a socially inclusive project through a digital and creative lifestyle
- Accessible solution must be integrated to the design of the structure

10. 2

The Ingenium Campus

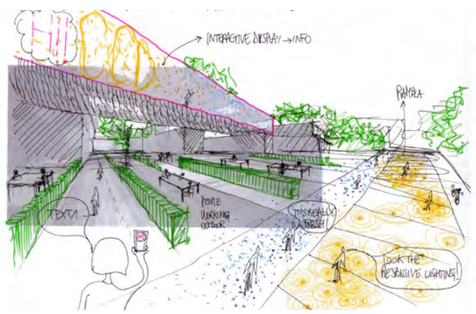
10. 2. 1 Vector of Knowledge

The Ingenium project will be an incrementally developed educational facility, which based on the guiding phases of an adaptable strategic plan will become a platform for education, research, workshops, and seminars for students and workers of the digital innovative media industry. The aim behind creating such an institute is to promote a link between the worlds of education and industry, while enhancing collaborative work and production of new ideas. The on-site incubator will serve as a platform to enable young talent to flourish and attract private investment for its development, while incrementing the on-site presence of digital creative professionals. Therefore, the Ingenuim will focus on the three following concepts:

1. Educational multi-media – The involvement of internet platforms, mobile applications, and distance collaborations
2. Smart cities – The integration of the media into the public realm by using the CCD as a living laboratory to experiment and test products
3. Media and the Arts – The encouragement of creative applications and artistic expressions through digital means

The envisioned location for the Ingenium Center is the existing Basillo Vadillo School hosted in the block on the north edge of Parque Morelos. Due to the historic character of the school building, the project will highlight the importance of conservation of historical structures and adaptation to 21st century digital technology demands. Furthermore, the school is an already recognized educational facility in Guadalajara because of being a representative exemplification of social mix. Historically the school has shown the higher number of enrollment of Huichol background students in the city; concept of social integration, which will aim to be maintained as part of the philosophy of the CCD.

The Ingenium Campus will serve as a platform to enable young talent to flourish and attract private investment for its development, while incrementing the on-site presence of digital creative professionals.



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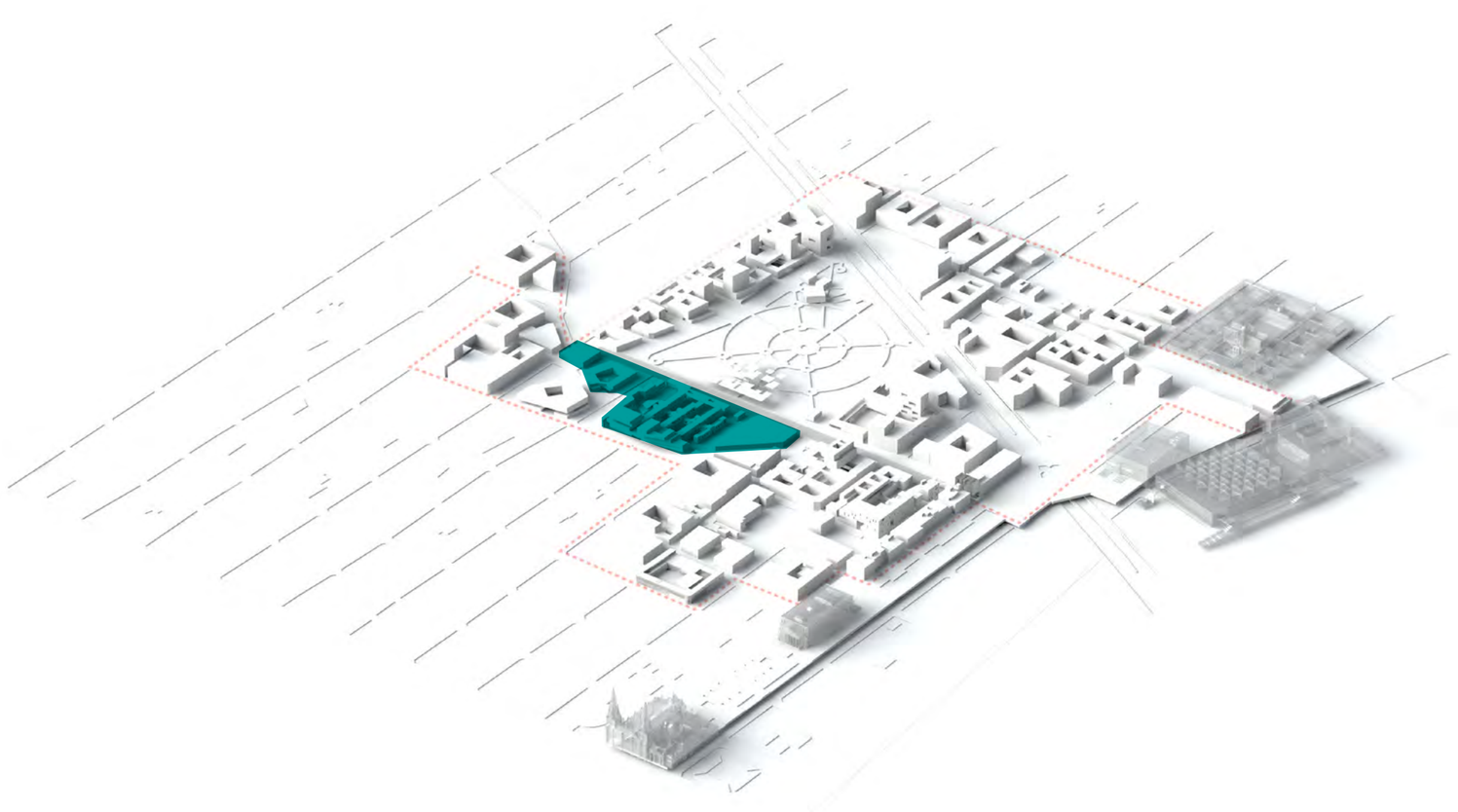


10. 2. 1
Ingenium Campus

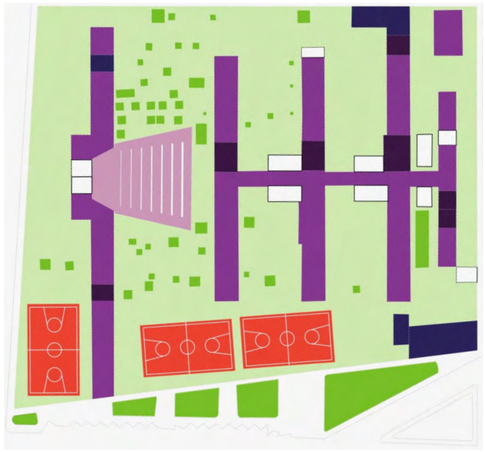
THE IMMEDIATE CONTEXT OF EDUCATION

Due to historic value of the Vasilo Badillo School where the Ingenium Campus is envisioned to located, to local heritage regulations applied will prove to be incorporated and fulfilled. Design solutions for the historic structure will prove to adhere to the local norms and therefore architectural interventions to the school will follow the INAH recommendations in order to properly expose the historic character of the Art Nouveau Building. Furthermore, renewal of the existing school building will become best practice an set guidelines for the development of future projects with same characteristics.

Architectural interventions to the school will follow the INAH recommendations in order to properly expose the historic character of the Art Nouveau Building. A continuum between the park and the school will be developed and generate diverse spaces, which will provide hybrid environments mainly allocated in the courtyards of the building. These open air spaces will host semi-public uses, which will serve the students and workers while allowing an informal exhibition of the Institute's creative activities. Consequently, the currently strong local identity is expected to be reinforced on the neighborhood scale through the support and involvement of an already existing hub of synergies. In addition to the creation of a 'vector of knowledge', which will have an impact on the city scale.

Architectural interventions to the school will follow the INAH recommendations in order to properly expose the historic character of the Art Nouveau Building.

Existing plan of Basilio Vadillo school



Legend:

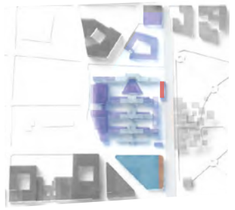
- class rooms
- new residential
- green spaces
- leisure
- administration office
- services

10. 2. 2
Vision for the Ingenium Campus

PROJECT PROGRAM

- The Ingenium for basic to advanced college level courses and experience in all forms of digital media
- The Ingenium must provide functions open to the park that invite the public to connect to the functions of the school: café, digital art galleries, classrooms for public education
- A city-wide magnet elementary school focused on visual media arts
- Auditorium, sports, and recreation facilities open to local residents and employees of CCD
- An industry incubator providing low-cost space and services for start-up media arts companies
- Space for joint-training programs offered by the institute in combination with the industry must be incorporated into the design of public and private spaces
- Studio spaces for lease to local schools with digital arts programs
- Provide outdoor working spaces

FOOTPRINT



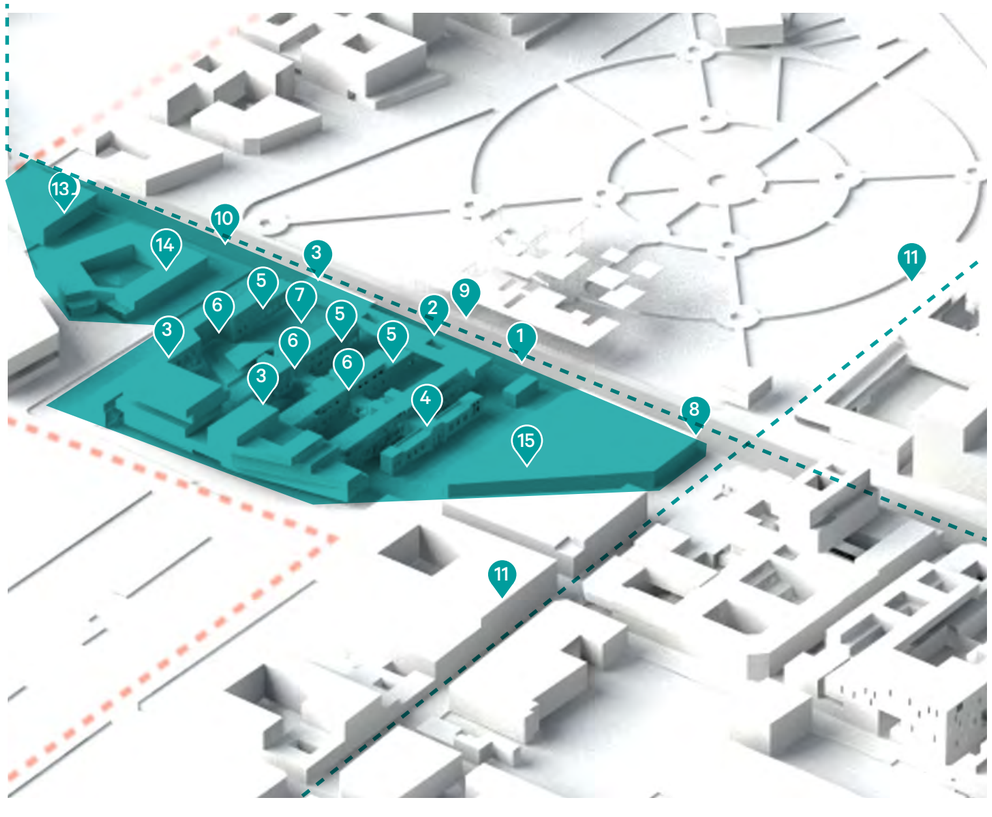
Educational - 5282m2

Services - 328m2

Developed Public Spaces - 10640m2

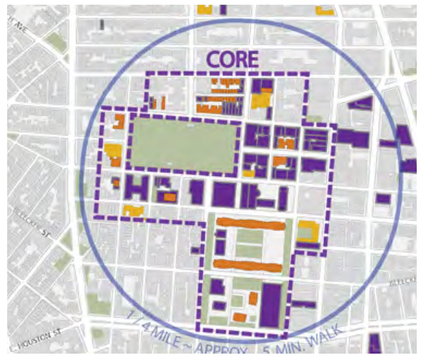
INGENIUM CAMPUS FACILITIES

1. Book/coee shop, ramblas seating,
2. Galeries and open studios,
3. Galleries and restaurant with ramblas seating,
4. Institute entrance administration,
5. Institute training (also upper foors),
6. Lease space for local Univerity programs,
7. Outdoor performace,
8. Ramblas pedestrian passeo,
9. Plaza and court spaces for public engagement,
events, digital environmental art,
10. N-S Rambla pedestrian spine:
Food, galeries, media,
11. W-E ped. spine: Food, retail,
12. Community gym and auditorium
13. Magnet Digital Arts Middle School

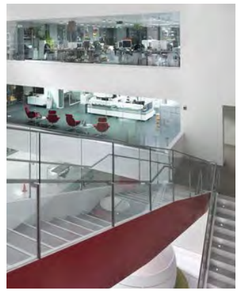


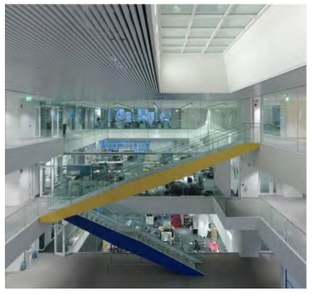
10. 2. 3
Best practice

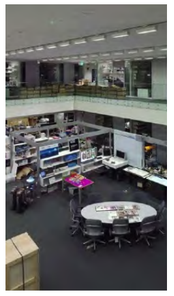
NYU Wahington Park, New York, U.S.A.



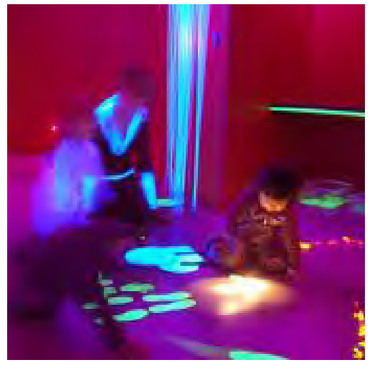
MediaLab, Boston (Ma), Fumihiko Maki







Fondazione RegioChildren;
ReggioEmilia, Italy



KulturalCampus Frankfurt, Germany;
Adjaye Associates

10.2.4

INGENIUM GUIDELINES

- The project must incorporate the reuse typology of historically structures
- The historic building form must remain preserved and visible to a practical degree
- The current shape of the building must be maintained
- Corridors and additional elements that make the complex more functional can be added through the use of glass and alternative transparent architecture
- The building courtyards must be opened on the west to the Ramblas.
- The addition of a new structure of 4 to 6 stories on west side can be considered in order to provide additional space.
- The design of all physical interventions must assure the use of natural and local materials, such as bris-soleil, etc.
- The design proposal must incorporate the use of digitally function water features, for example 'Reggio Children' project

The Image below provides a view of possible design solutions for The Ingenium Campus, which morphology follows the former river paths.

The Ingenium campus becomes a key component of the smart citY, integrating the media into the public realm, using CCD as a living laboratory to experiment and test products

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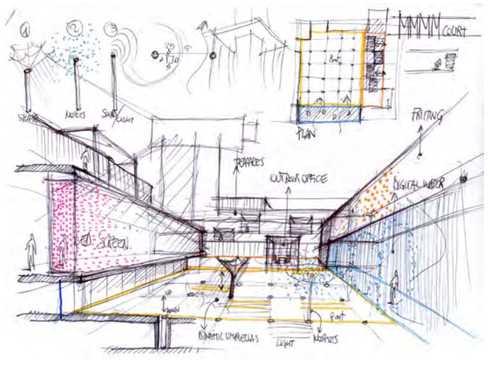
10. 3
M4

10. 3. 1
Mexican Media and Marketing Museum

The Mexican Media Museum and Market Center will be a platform for sharing knowledge generated by the creative industry not only on the local level but internationally as well. The museum character of the center is shown on its exhibition features, while the market aspects will be represented in the possibility for young and local talent to promote their work in order to access consolidated the creative industry markets.
The MMMM Center will be located on the block adjoing Calle Juan Manuel to north, Calle Aguafria to the East, Calle Independencia to the south, and Calle Calpulalpan to the south. The site was selected because of integrating several strategic features such as being the intersection point between the commercial axis generated in Calle Juan Manuel and the Ramblas and Parque Morelos.

The project for the M4 Center will be a prototype representation of the architectural design of a block aiming to integrate low and high rise contemporary architectural interventions with historically protected structures.

The new buildings should work as a frame in order to highlight the importance and historical value of the historic urban fabric. Moreover, the architectural design and physical features of the structures will respond to the inner functions and complexity of the project. Consequently, the volumes of the complex will vary in use and therefore heights, resulting in a low to high-rise mixture.



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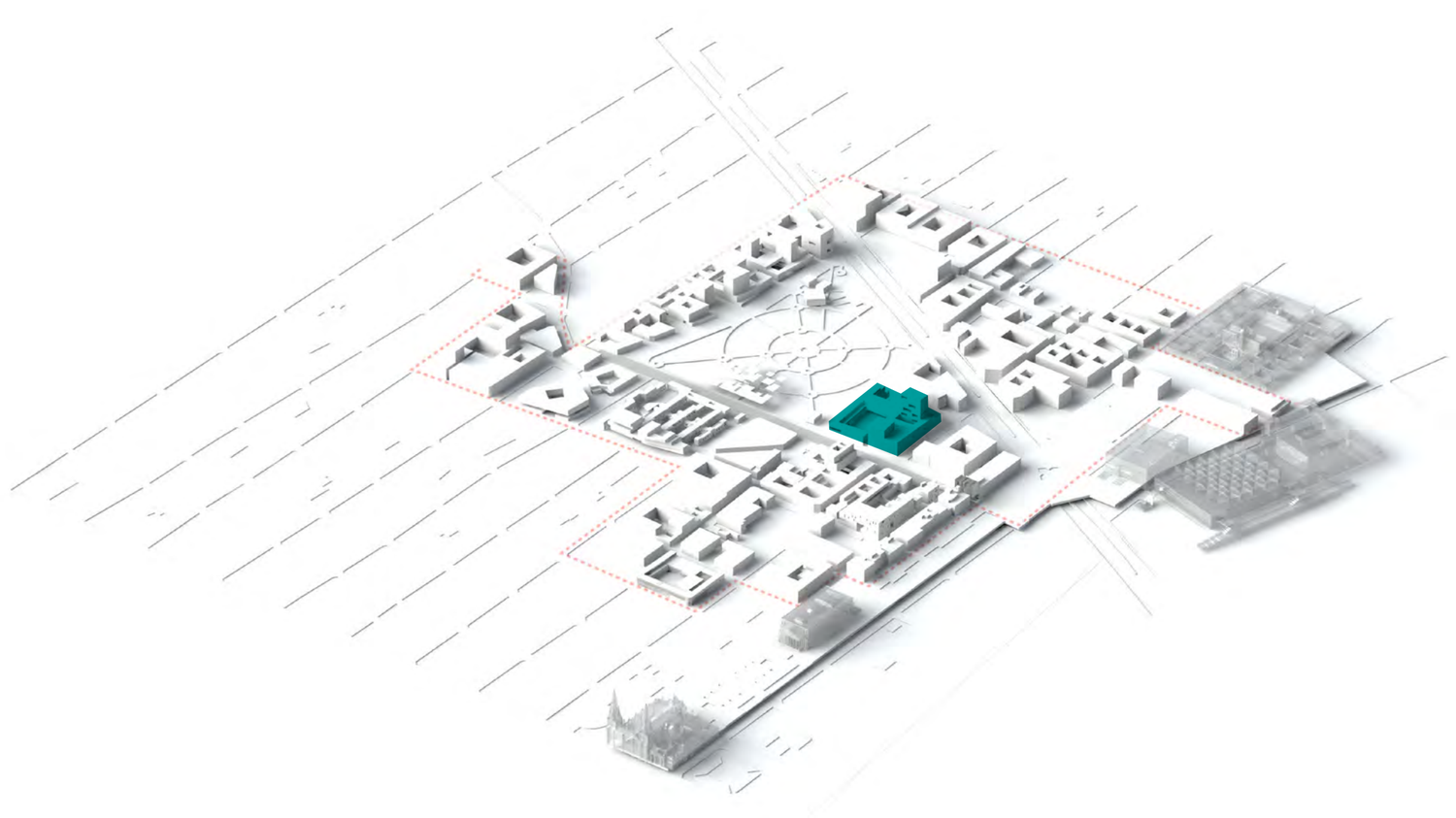
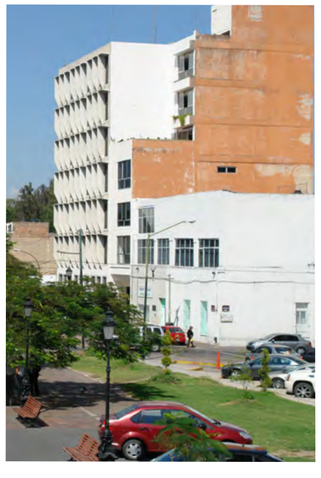


10. 3. 2
M4

The Mexican Media Museum and Market Center will be a platform for sharing knowledge generated by the creative industry not only on the local level but the internationally as well.

IN-SITU FEATURES

The development of the MMMM next to Parque Morelos will provide exemplification of the integration of low to high-rise buildings within the urban block. Therefore, it is of outmost importance to carefully follow the historical regulations in order to achieve proper results. The new structure of the museum aims to integrate a corner building, which currently hosts a Raspados store. Historical value of this building dates back to the nineteen hundred and therefore fusion of contemporary architectural interventions must prove to highlight its cultural value.

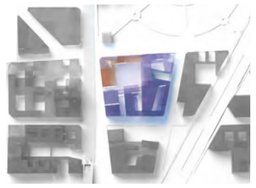


10. 3. 3
Vision for the M⁴

PROJECT PROGRAM

- The museum will function as institutional facility of public nature
- Retail uses will be incorporated in order enhance diversity of functions
- The MMMM will host business and marketing of the creative industry
- Public and outdoor spaces for social interaction and exhibition opn air performances

FOOTPRINT

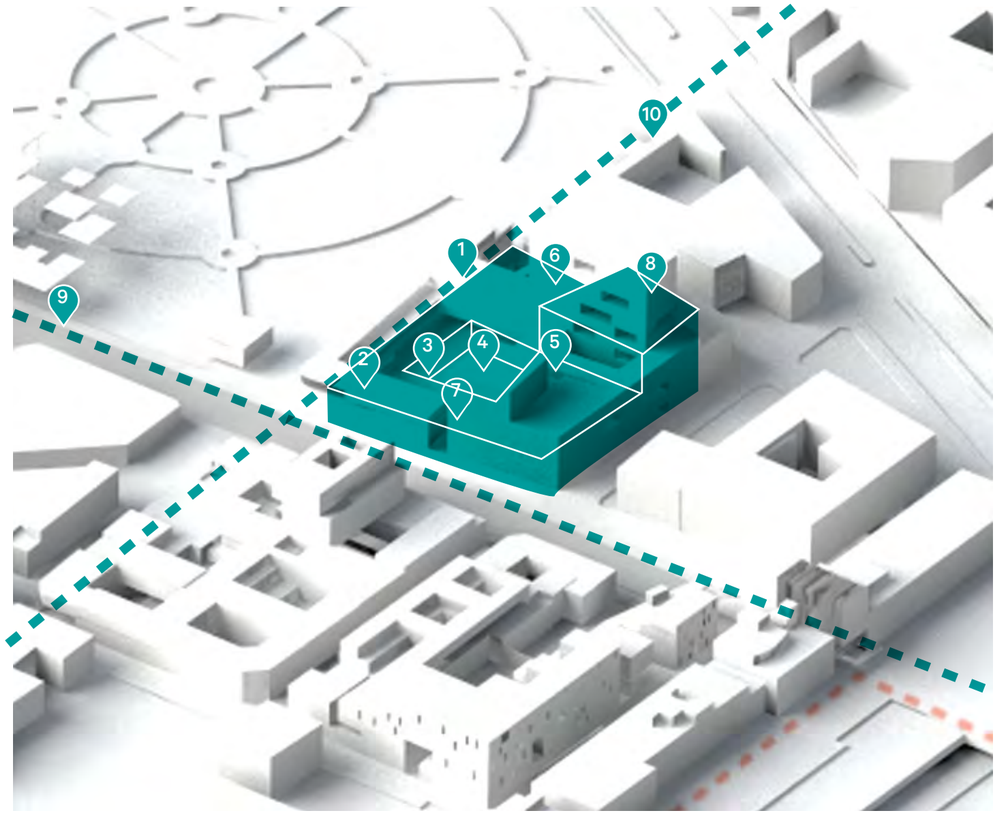


- Educational (mid rise) - 1670m2
- Educational (low rise) - 3105m2
- Services - 1590m2
- Developed Public Spaces - 3060m2

MMMM

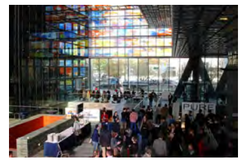
1. Museum Entrance Court 4 stories
2. Rooftop and courtyard terraces
3. Restaurants, Museum Shop
4. Media court: Movies, digital art open to public
5. Museum lower levels 4 stories
6. Historic and "interesting" buildings/uses incorporated into fabric (outline)
7. Archives (former CTM) 7 stories
8. Tower: Marketing Center oces
9. N-S Rambla pedestrian spine: Food, galeries, media,
10. W-E ped. spine: Food, retail,

The architectural design shape of the MMMM is driven by the configuration of a central public courtyard resembling the traditional block.



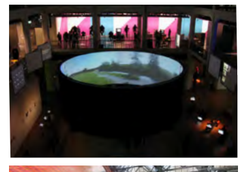
10. 3. 4
Best practice

Netherland Institute for sound and vision, Hilversum, Nederlands; Neutelings Riedijk

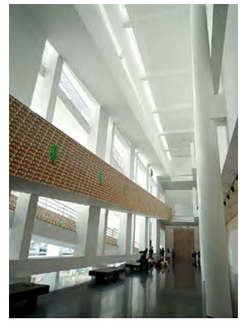


XXI National film archive; Mexico City; Mexico; Rojkind Architects

Zentrum for Art and Media, Karlsruhe, Germany; OMA



MACBA, Barcelona, Spain; Richard Meier



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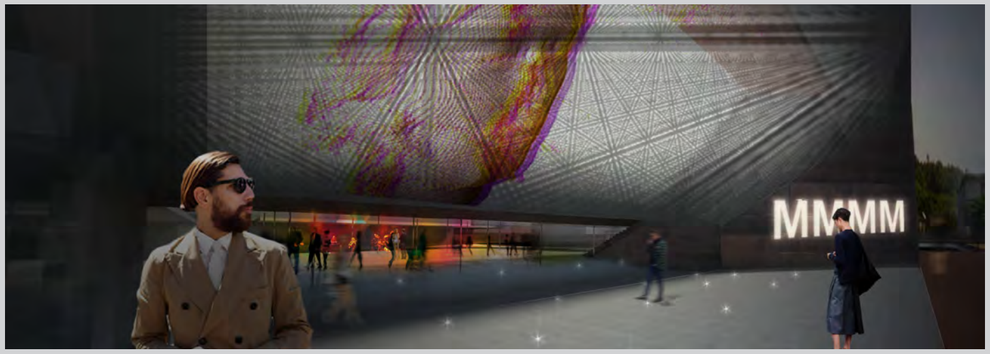
10.3.5

M4 GUIDELINES



- New buildings within the block will be designed to meet both sides of the corner (raspados) building
- The design must assure the intact preservation of the corner building where the 'raspados' (ice cream) store is located, with retail and restaurants extending down the streetscape. The rooftop of the corner building should host a terrace
- A taller element in order to house the administration services and offices for the Mexico media marking centre and the museum, a new federal agency must be integrated and located on the south of the block, in order for it not to cast a shadow over the park
- The design of the block must contemplate a central entry courtyard to provide space for media events (film screenings) and outdoor environmental art. This courtyard must be an extension of the museum in addition to other smaller courts as three-dimensional space for more private outdoor work functions. Moreover, the design must always assure the integration of both water and green features
- The MMMM should incorporate a digital responsive façade on the park or the Alzaga Mall whichever is main entrance and in side the central entry courtyard
- The building block must respond to a low and high typology

Contemporary design structures shaping the MMMM will prove to integrate and highlight the historical architectural features of the 'Raspados' building, located on northwest corner building.

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10. 4

Block 11

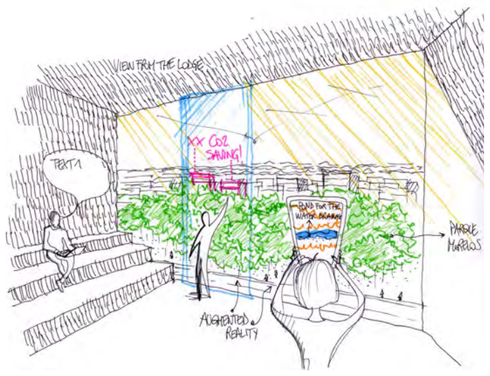
10. 4. 1 Digital Flagship Company

Similar to the other projects, Block 11 will also be an intervention of combined diverse uses. However, in contrast to the other catalysts within the phase 0 of the CCD, it will consider major private investment with focus on the creative industry and commercial activities.

Due to its strategic location, Block 11 will profit from the currently active Degollado district and the fluxes of the Rambla; the MMMM and the Digital Creative Accelerator as essential factors to boost its economic potential.

The inner courtyard will serve as an archetype generator for the design of the block typology.
The functions of this space will be provided by the surrounding character, always assuring a mixture of a private, public and semi-public uses.
The physical shape of Block 11 will respond to the historical morphology of the urban fabric, integrating old and contemporary structures around the inner courtyard.
The layout of the block will host mix uses on the horizontal plane as well as their distribution on a vertical axis, generating a three-dimensional model of functions.
Moreover, in an attempt to maintain and reinforce the current identity of the inner city most of the local businesses located in Calle Juan Manuel should be integrated into the program of functions.

The historic building located on the southwest corner of the block will be provided with a new adaptive use hosting the creative industry activities. Both of the adjacent structures with a certain level of protection should be rehabilitated and improved in order to respond to 21st century demands. In addition, the buildings will also be adaptively reused as hotels, retail facilities, restaurants and/or coffee shops. The remaining building located on the east edge of the block, which has no degree of protection, will be replaced with a medium rise building designated to commercial and creative industry activities.



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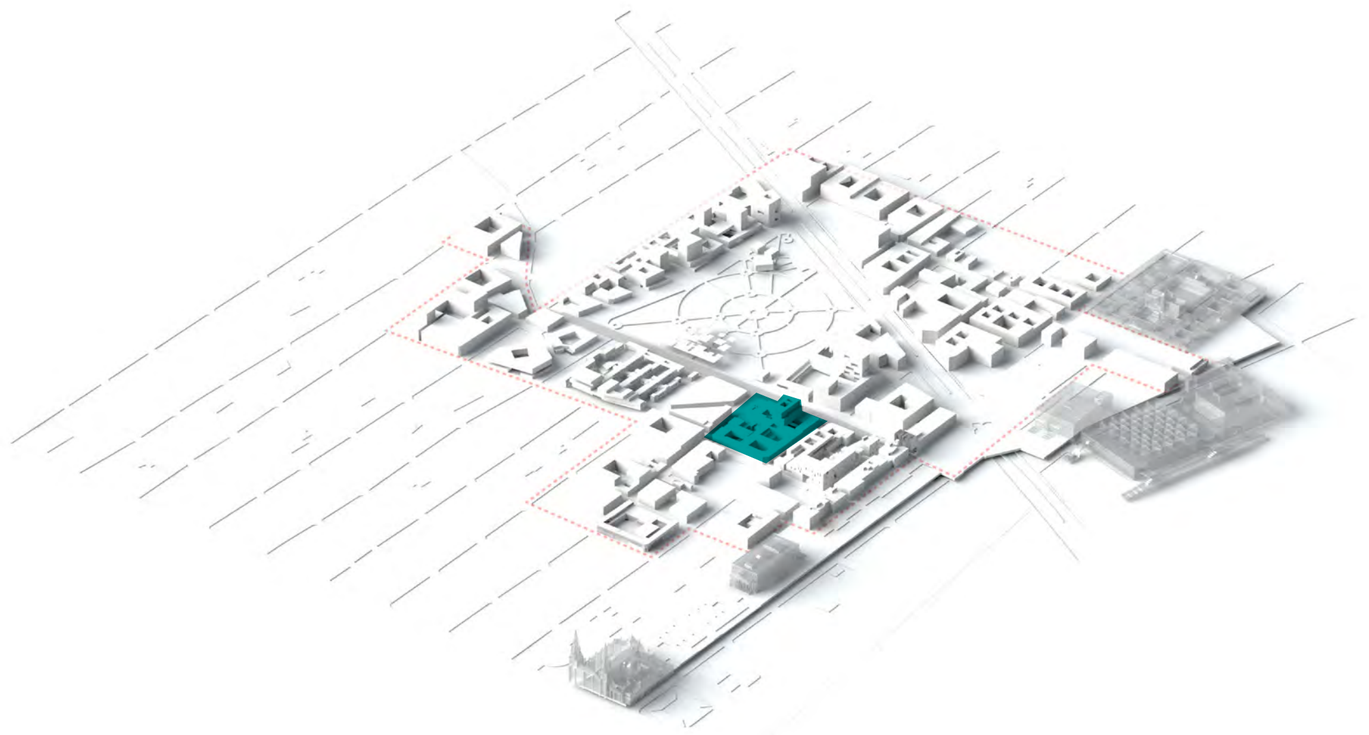


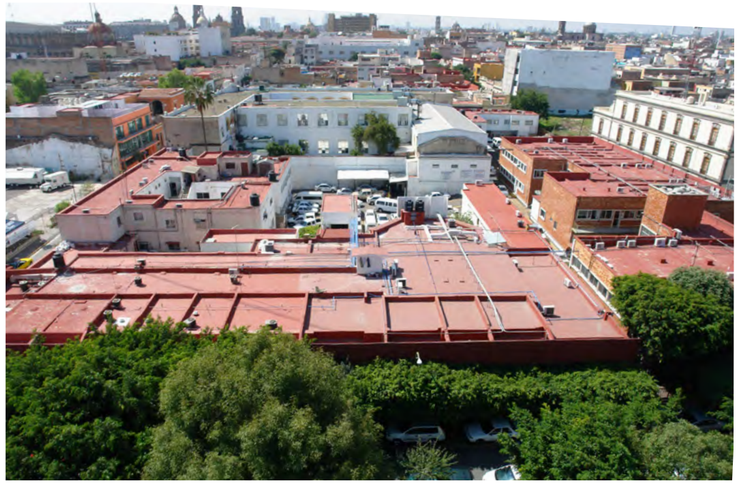
10. 4. 2
The Context of Block 11

THE SURROUNDING ASSETS

The ecology of the historical context in which Block 11 takes place demands the integration of three architectural styles of three different periods. Thus, the designated plot for Block 11 hosts two important buildings from two different periods in addition two the new contemporary interventions. First, the historical building of Edifico del Trabajo located on southwest corner of the block and main milestone, will be rehabilitated and provided with a new adaptive use as hosting studios and offices for the creative industry. On the opposite corner at the intersection of Calle Juan Manuel and the Rambla, the Secretaria de Salud, building of modern architectural features, will transform its functions and serve as serviced apartments to accommodate the creative workers.

The footprint of Block 11 will also follow local historical regulations by reconfiguring the physical shape of the courtyard guiding the organization of spaces of the buildings around. This layout will go in hand with the principles of CCD of enabling outdoor working spaces, fostering the new creative life style. Furthermore, architectural design of block eleven will integrate the old and new buildings around the courtyard tying them together through a connector bridge on the side of the Rambla.

The ecology of the historical context in which Block 11 takes place demands the integration of three architectural styles of three different periods.

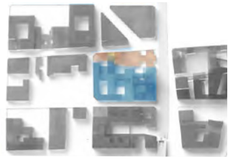


10. 4. 3
Vision for Block 11

PROJECT PROGRAM

- The historic building, “Edificio del Trabajo” located on the south west corner will be provided with a new use as facility for creative industry activities.
- Both of the adjacent to “Edificio del Trabajo” protected buildings will also be provided with a mixture of uses such as residential and commercial
- The modern building on the north side of the block will function as a Hotel which intern will serve the visitors of the CCD
- The south-east corner building which has no degree of protection will be replace with a new medium rise building designated to commercial and creative industries activities
- Additionally an interaction between uses within the block and the public spaces in order to create tension points and serve the users

FOOTPRINT

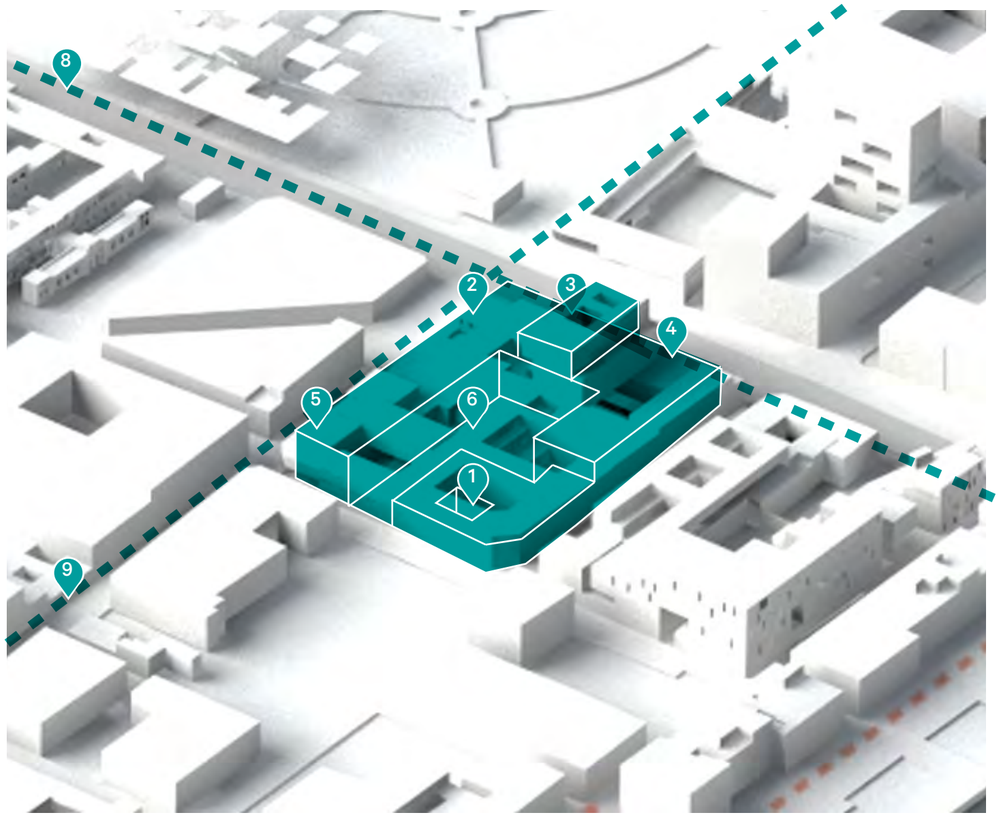


- Creative Industry (medium rise) - 1500m2
- Creative Industry (low rise) - 4040m2
- Services - 1500m2
- Developed Public Spaces - 2894m2

BLOCK 11

1. Ex Edificio del Trabajo
2. Hotel
3. High Rise building
4. Anchor Company / Creative Industry
5. Historical building
6. Block 11 inner courtyard
8. N-S Rambla pedestrian spine: Food, galeries, media,
9. W-E ped. spine: Food, retail,

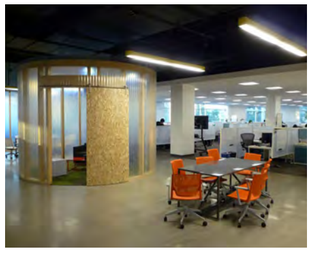
The architectural design of block 11 will integrate the old and new buildings around the courtyard tying them together through a connector bridge at the Rambla.



10. 4. 4
Best practice

AOL - Palo Alto



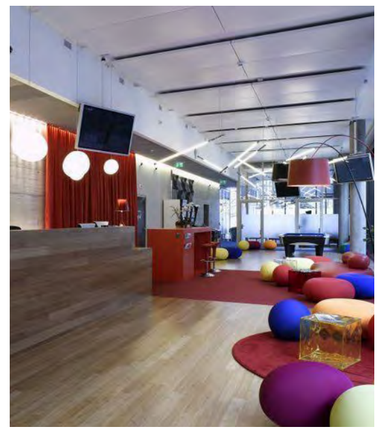


IBM - Roma



Google - Madrid





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10.4.5

BLOCK 11 GUIDELINES

- Of outmost importance is the generation of a physical and sensorial connection between the inner courtyard and Parque Morelos through the use of water features and green spaces
- The physical shape of the block must respect the historical morphology of the urban fabric
- The layout of the buildings must respond to the form of the inner courtyards
- All the edges of the block must be permeable to the inner courtyard to a certain degree
- In order to assure an environmentally sustainable design with natural ventilation and lighting, optimal spatial distributions, etc. the prototype 3 dimensional model previously propose must be followed
- The height within the block will vary according to the local regulations that applied to each of the buildings
- The rooftops and terraces should be efficiently utilized in order to generate new private and public spaces

The footprint of Block 11 will reconfigure the physical shape of the block as of the courtyard, which will guide the organization of spaces and buildings around.

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10. 5

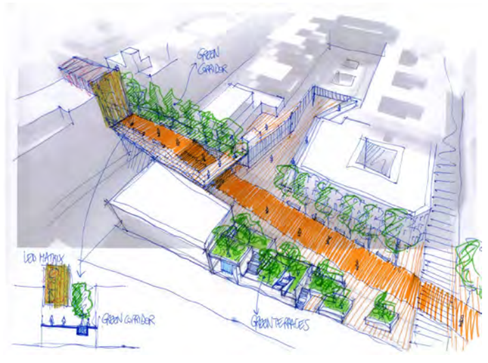
Digital Creative Accelerator & Pedestrian Connector

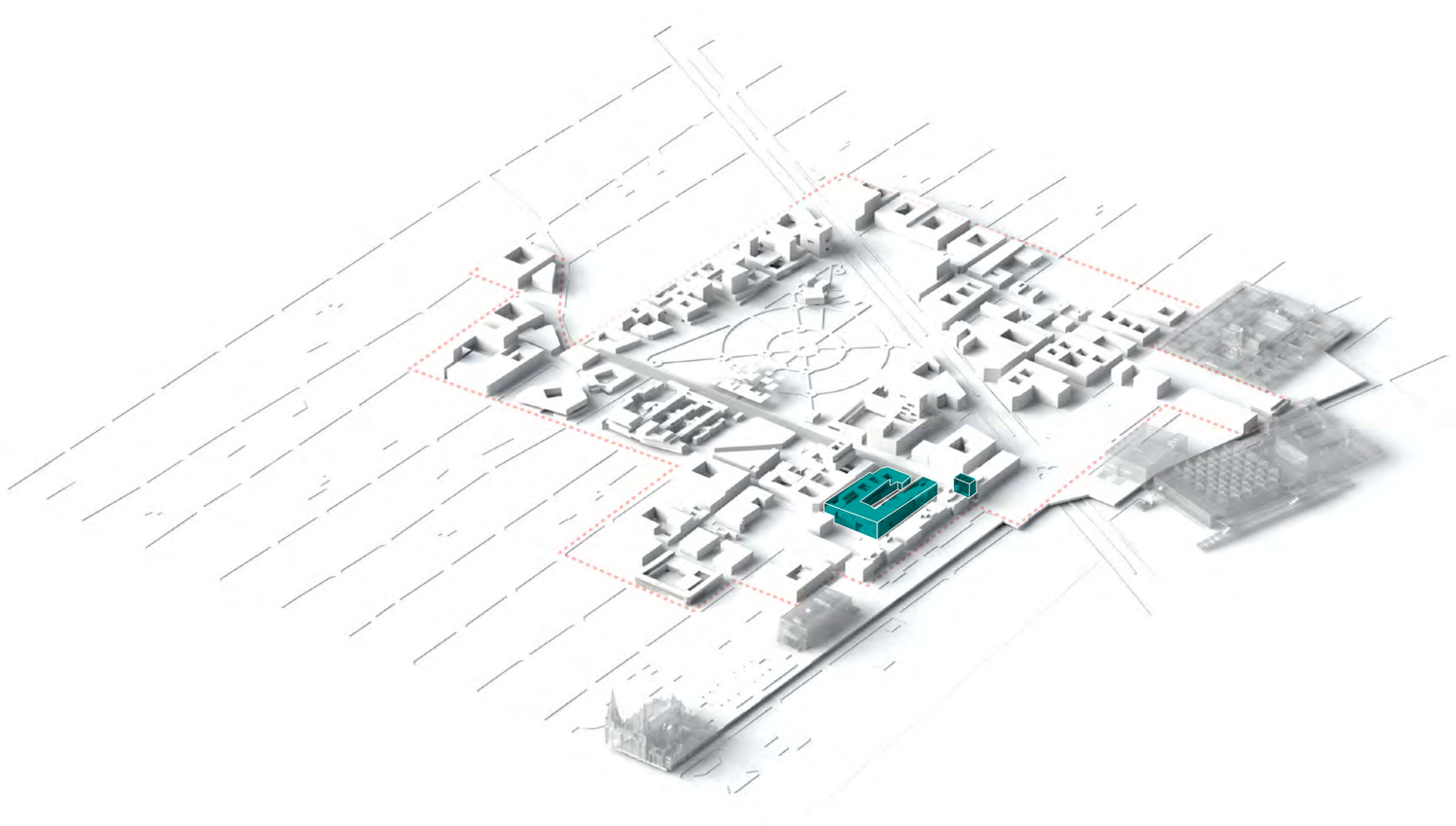
10. 5. 1 Creative Startup

The Digital Creative Accelerator (DCA) consists of a multiuse block, which hosts combined diverse activities and facilities designated to retail, small-medium sized businesses for the creative industries, shared digital creative services, and cafes. The result of this combination and inclusion of all the variables will refer to the 'both-and's' thought of Robert Venturi (Robert Venturi, 'Complexity and Contradiction in Architecture'). Moreover, the main concept of the project consists of providing moderate-cost spaces and shared services for small to medium sized companies, which will be moving up from the incubator space. In addition, it will accommodate short-term project groups and independent producers, for which suitable facilities such as co-working spaces and telepresence rooms should be provided.

The architectural design of the Accelerator will integrate the pedestrian connector and vice versa, resulting in a fusion of functions. The Multilevel Pedestrian Connector will be a physical link dealing with the disparity in heights between the historical axis of Plaza Tapatia, the CCD site and the DUIS plan. It will run over Calle Dr. Baeza Alzaga and work as an extension of the Rambla, which in turn will be an extension of the park fusing itself in the Accelerator. The connector will aim to function as an urban suture for the physical and perceptive barrier generated by Av. Hidalgo and will serve as an activator of social and economical synergies. Furthermore, because of the previously mentioned conditions and its character as an entrance from Plaza Tapatia into the CCD, the Multilevel Pedestrian Connector will be a pivotal intervention and should become a landmark for the project point of access. nimporatus sunt ea nos el incimpo rerehent, que volutem re non poria nimus con rerum quam accae re milique exeria nos et id ullisti usapitium ulparum ipis exped ut expliciet lab is qui comnihiligni quam rae omnimus aperum ea aboriatia sim utem et ipsanda epudae. Nem aut dolorep elictur sinist alitat.

The pedestrian connector will run over Calle Dr. Baeza Alzaga and work as an extension of the Rambla, which in turn will be an extension of the park fusing itself with the Accelerator Center.





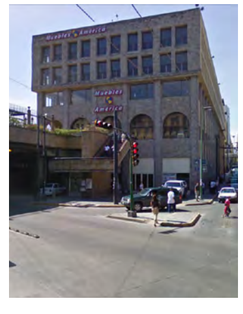
10. 5. 2
Context of the Digital Creative Accelerator

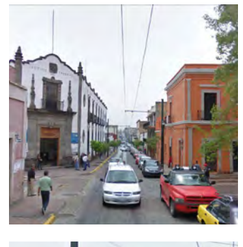
DRAWING UPON HISTORY

The DCA will be located on the block next to Av. Hildago and framed to the East by Calle Dr. Baeza Alzaga, to the North with Calle Independencia and the West by Calle Humboldt. Because of the DCA's proximity to the Multilevel Pedestrian Connector dealing with the uneven heights between the Plaza Tapatía and the CCD as well as the physical barrier of Av. Hidalgo, both interventions should be highly integrated. The block is publically owned and largely vacant; it is currently conformed by buildings with and without architectural value and therefore it will become the ideal exemplification of hybrid architecture between historic and contemporary interventions for its further replication.

The architectural design of the Multilevel Pedestrian Connector should be flexible. The integration with the Creative Digital Accelerator would be an opportunity to create multilevel connections, which should respond to a more pliable and livable design than that of a conventional bridge and be in agreement with the CCD's philosophy. However, the creation of physical and visual connections between the areas does not have to result in major expenses or complex construction solutions. For instance, minimal physical invasion of the Ministry of Finance building. Although, in relation to this building, further studies of the ground floor potential uses as well as possible integration treatments for the plazas urban furniture will be required. Due to the important character of the Multilevel Pedestrian Connector as entrance into the CCD and adherent structure among several crucial spaces, it must become a manifesto on how digital strategies applied should sprawl along the connector, the CCD, the DUIS plan, and further on into the whole city.

The courtyards as generators and organizers of spaces are envisioned to be restored in order to refer to the traditional Mexican colonial house.

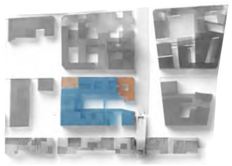




10. 5. 3
Vision for the Digital Creative Accelerator

BRIEF

The Digital Creative Accelerator will consist of a multiuse block, which will host combined diverse activities and facilities designated to retail, small-medium sized businesses for the creative industries, shared digital creative services, and cafes.
The result of this combination and inclusion of all the variables will refer to the 'both-and's' thought of Robert Venturi (Robert Venturi, 'Complexity and Contradiction in Architecture'). Moreover, The main concept of the project consists of providing moderate-cost spaces and shared services for small to medium sized companies, which will be moving up from the incubator space. In addition, it will accommodate short-term project groups and independent producers, for which suitable facilities such as co-working spaces and telepresence rooms should be provided.
The DCA will be located on the block next to Av. Hildago and framed to the East by Calle Dr. Baeza Alzaga, to the North with Calle Independencia and the West by Calle Humboldt. Because of the DCA's proximity to the Multilevel Pedestrian Connector dealing with the uneven heights between the Plaza Tapatia and the CCD as well as the physical barrier of Av. Hidalgo, both interventions should be highly integrated.
The block is publically owned and largely vacant; it is currently conformed by buildings with and without architectural value and therefore it will become the ideal exemplification of hybrid architecture between historic and contemporary interventions for its further replication.
The building located on the northeast corner of the block will be fully rehabilitated and adapted to its new functions. The courtyards as generators and organizers of spaces will be envisioned or restored in order to refer to the traditional Mexican colonial house. The allocation of the new interventions will be dictated as of the courtyards shape in order to provide indoor and outdoor semi-public spaces and enable the presence of Parque Morelos. The architectural design of the DCA building will follow the general guidelines and philosophy on environmental sustainability of the CCD, as well as the demand program of functions of the creative industry such as workspaces, labs and studios.



FOOTPRINT

Creative Industry (low rise) - 4356m2

Services - 1465m2

Developed Public Spaces - 1607m2

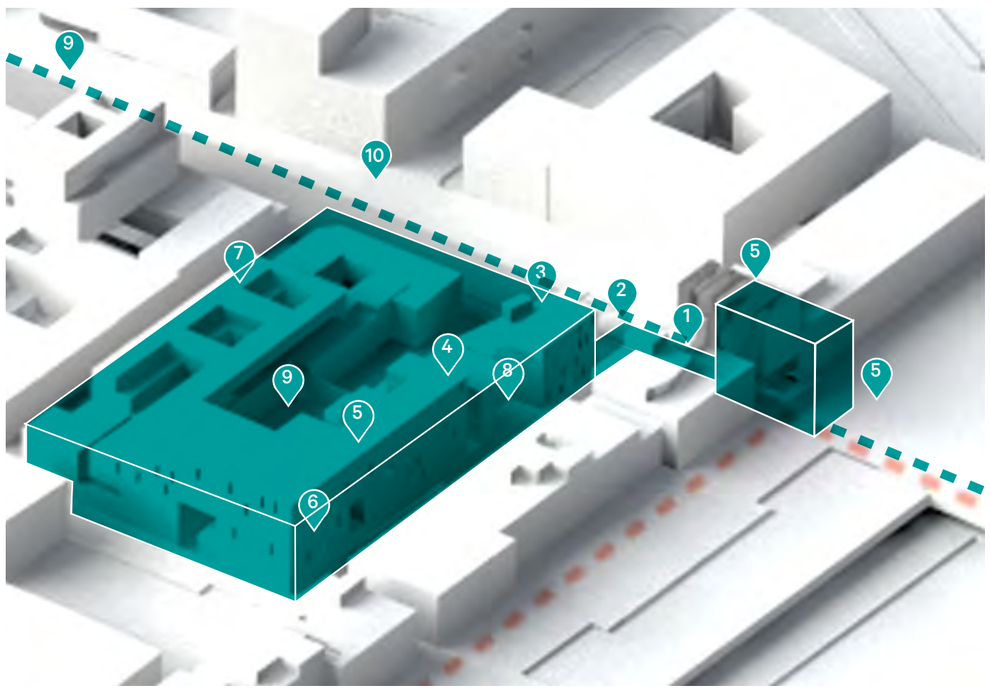
PROGRAM

Introduction

- The Digital Creative Accelerator Centre will host different functions and uses such as: retail, creative industries (accelerators for small-medium sized businesses), shared digital creative services, cafes etc.
- The Accelerator must provide moderate-cost spaces and shared spaces for small to medium size companies
- The creative industry areas within the Digital Creative Accelerator Centre should contain co-working facilities, labs and studios, individual workspaces, telepresence rooms, meeting rooms, etc.

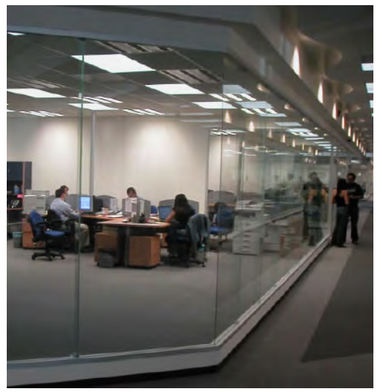
ACCELERATOR

1. Bridge (planted)
2. Bridge level Garden court/ restaurant (2+ story)
3. Bridge elevator/stairs
4. Garden Court 3 story
5. Garden court 4 story
6. Accellerator space 6 stories
7. Accellertor 4 stories
8. Theatre
9. Interior court outdoor work, accessible to public
10. Historic and interesting buildings/ uses incorporated into fabric (outlined)
11. N-S Rambla pedestrian spine: Food, galeries, media,

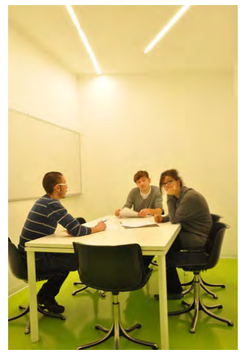


10. 5. 4
Best practice

Software center - Guadalajara



ToolBox, Turin, Italy



The Hub, Milan, Italy

10. 5. 6
Vision for the Multi-level Pedestrian Connector

BRIEF

The Multilevel Pedestrian Connector will be a physical link dealing with the disparity in heights between the historical axis of Plaza Tapatia, the CCD site and the DUIS plan. It will run over Calle Dr. Baeza Alzaga and work as an extension of the Rambla, which in turn will be an extension of the park. The connector will aim to function as an urban suture for the physical and perceptive barrier generated by Av. Hidalgo and will serve as an activator of social and economical synergies. Furthermore, because of the previously mentioned conditions and its character as an entrance from Plaza Tapatia into the CCD, the Multilevel Pedestrian Connector will be a pivotal intervention and should become a landmark for the project point of access.

The architectural design of the Multilevel Pedestrian Connector should be flexible. The integration with the Creative Digital Accelerator would be an opportunity to create multilevel connections, which should respond to a more pliable and livable design than that of a conventional bridge and be in agreement with the CCD's philosophy. However, the creation of physical and visual connections between the areas does not have to result in major expenses or complex construction solutions. For instance, the minimal physical invasion of the Ministry of Finance building. Although, in relation to this building, further studies of the ground floor potential uses as well as possible integration treatments for the plazas urban furniture will be required. Due to the important character of the Multilevel Pedestrian Connector as entrance into the CCD and adherent structure among several crucial spaces, it must become a manifesto on how digital strategies applied should sprawl along the connector, the CCD, the DUIS plan, and further on into the whole city.

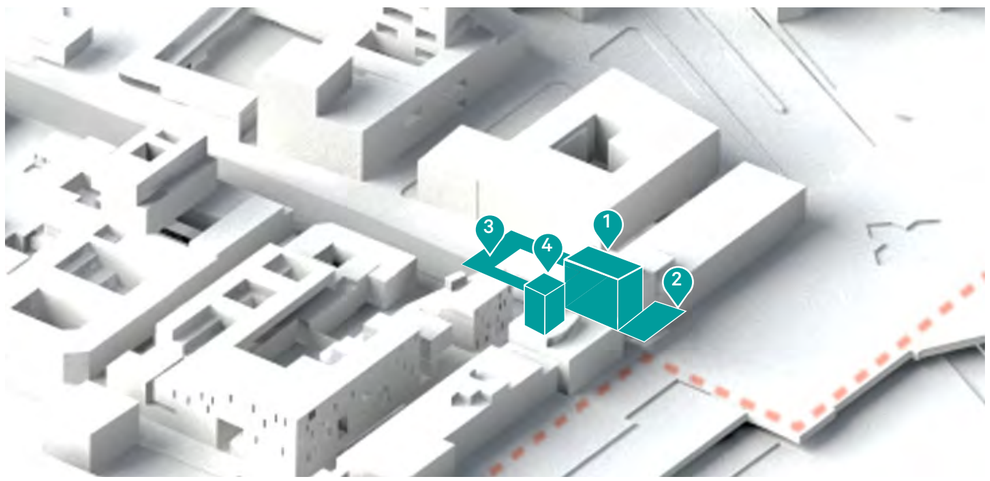
PROGRAM

Introduction

- New digital features must be added to the space
- New uses should be integrated such as: digital information kiosks, temporary market stands, cafes, children's playgrounds, etc.
- The pedestrian connector must become a landmark for the CCD project and welcome the user functioning as a key entrance to the area

PEDESTRIAN CONNECTOR

1. Led matrix
2. Balcony on Plaza tapatia
3. Bridge level Garden court
4. Bridge elevator/stairs



10. 5. 7
Best Practice

The High Line, New York (U.S.A.); James Corner Field Operations (Project Lead), Diller Scofidio + Renfro, and planting designer Piet Oudolf

Promenade Plantèe, Paris

10.5.8

GUIDELINES

DIGITAL CREATIVE ACCELERATOR

- The design of the accelerator will be a hybrid between the historic and contemporary fabric typology.
- Historic buildings and new structures must be integrated into an overall complex and be organized around central interior courtyards,
- The connectors and spaces should be accessible from the Alzaga Mall, together with the pedestrian connector in turn linked to the upper level courtyards. This will create a fabric of old and new and a three dimensional public space

MULTI-LEVEL PEDESTRIAN CONNECTOR

- As the multi-level pedestrian connector enters into Plaza Tapatia it will provide a view over the public square and diffuse with the space; integrating itself with pavilions and buildings and around the plaza
- The pedestrian connector will pass through the building located on the north side of Plaza Tapatia, there is the possibility of structurally intersecting this building
- The pedestrian connector will be composed of a series of livable and green terraces
- The pedestrian connector linking the CCD and the Plaza Tapatia must be integrated with building located on the south-east corner of the block as well as the internal courtyards of the accelerator
- Digital responsive public spaces should be incorporated

Historic buildings contained within the block of the Accelerator Center and new contemporary structures must be integrated into an overall complex and be organized around central interior public courtyard.

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10. 6 The Rambla

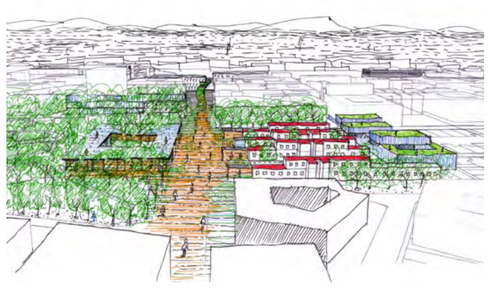
10. 6. 1 Connective Tissue

The proposed pedestrianlzed commercial axis referred to as the Rambla, will run north-south over Calle Dr. Baeza Alzaga linking the west edge of Parque Morelos to the Multilevel Pedestrian Connector and Plaza Tapatia, linking all the key interventions in the first phase of the project. It will serve as a tissue between the park and the Digital Creative Institute. The park will sprawl along the Rambla diffusing its edges, and together they will embed themselves into the built environment, permeating through the blocks until reaching the courtyards. Vice versa, the buildings will expand their functions and activities into the courtyards and out on to the Rambla until the reaching the park. The axis will function as a shared street under the system of traffic integration; in other words, it will give pedestrians the first priority in use and allow bicycles and cars to slowly transit.

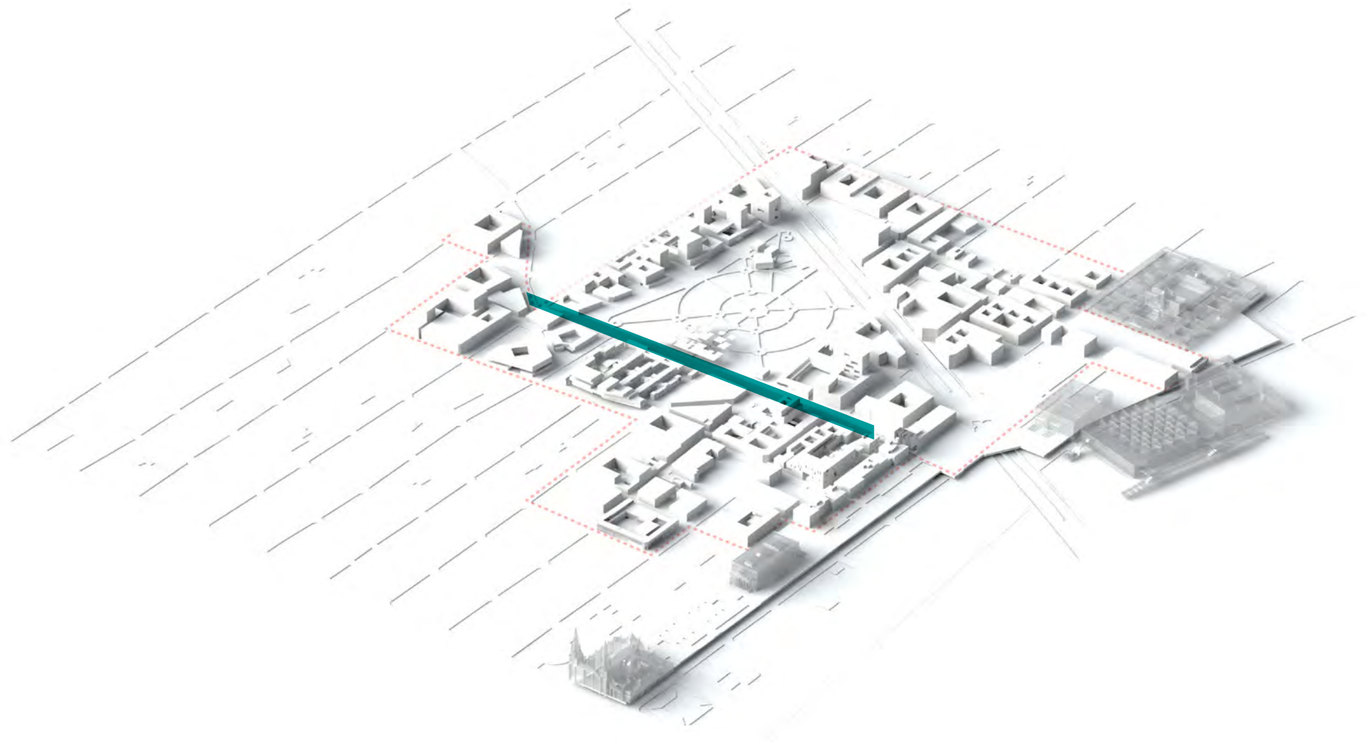
The Rambla will be equipped with a digital layer, which will spread out along CCD and be provided with digital information kiosks, temporary market stands, cafes, and children playgrounds, among others.

Furthermore, in order to improve the livability of this pedestrian axis and extension of the park, adequate and original urban furniture as well as shaded areas and water features will be envisioned.

Moreover, the Rambla will host cultural activities and also function as a platform for expression of the community and general citizens. Due to its multiuse function the axis will enroll a 24-hour life cycle, which in turn will have an impact on the whole site enhancing the perception of a safety environment for its the users. For that reason, the Rambla will generate a model of public space of upmost importance for its replicability within the whole city of Guadalajara.



Initial sketch showing the connective tissue of the Rambla linking all the catalyst projects



10. 6. 2
The Rambla

The proposed pedestrian commercial axis referred to as the Rambla, will run north-south over Calle Dr. Baeza Alzaga linking the west edge of Parque Morelos to the Multilevel Pedestrian Connector and Plaza Tapatia, linking all the key interventions in the first phase of the project. It will serve as a tissue between the park and the Digital Creative Institute. The park will sprawl along the Rambla diffusing its edges, and together they will embed themselves into the built environment, permeating through the blocks until reaching the courtyards. Vice versa, the buildings will expand their functions and activities into the courtyards and out on to the Rambla until the reaching the park.
The Rambla will be equipped with a digital layer, which will spread out over the whole CCD and be provide with digital information kiosks, temporary market stands, cafes, and children playgrounds among others. Furthermore, in order to improve the livability of this pedestrian axis and extension of the park, adequate and original urban furniture as well as shaded areas and water features will be envisioned.

Moreover, the Rambla will host cultural activities and also function as a platform for expression of the community and general citizens. Due to its multiuse function the axis will enroll a 24-hour life cycle, which in turn will have an impact on the whole site enhancing the perception of a safety environment for its the users. For that reason, the Rambla will generate a model of public space of upmost importance for its replicability within the whole city of Guadalajara.

The axis will function as a shared street under the system of traffic integration; in other words, it will give pedestrians the first priority in use and allow bicycles and cars to slowly transit.















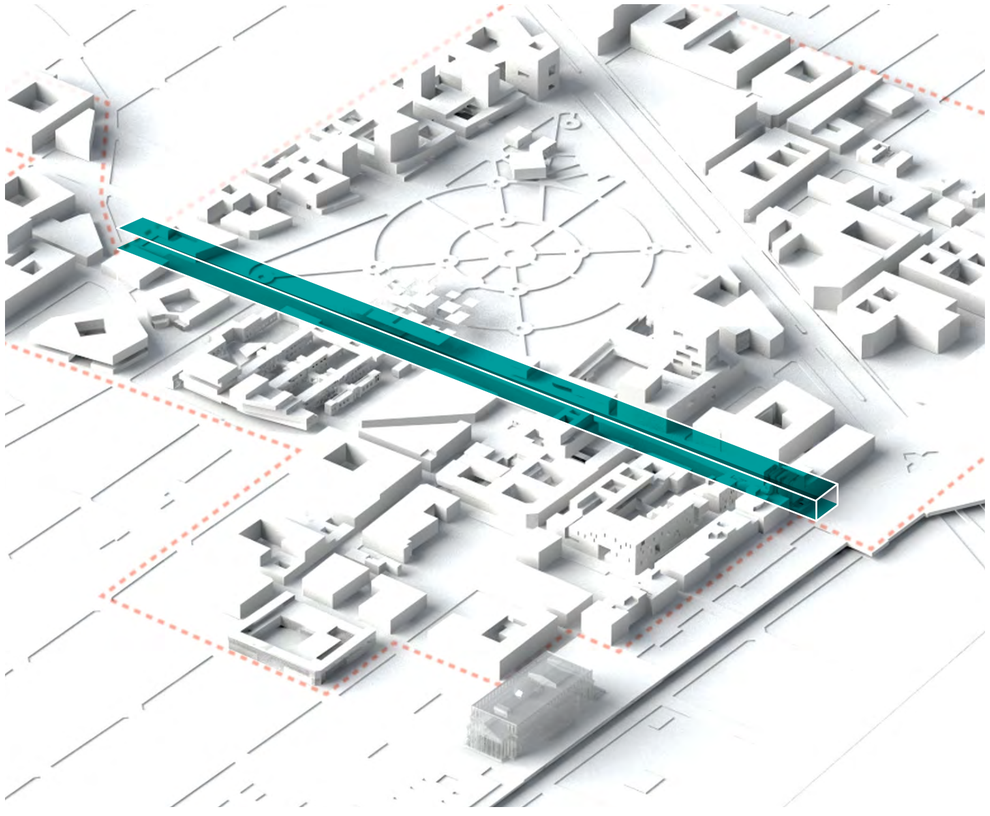
10. 6. 3
Vision for the Rambla

PROJECT PROGRAM

- The Rambla will be a pedestrianized zone.
- The Rambla should function as a new connective tissue between the park and the school.
- New digital features must be added to the space.
- New uses should be integrated such as: digital information kiosks, temporary market stands, cafes, children's playgrounds, etc.
- Shaded areas a long the Rambla must be provided

RAMBLA

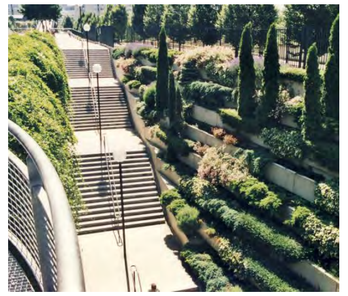
1. Bridge (planted)
2. Bridge level Garden court/ restaurant (2+ story)
3. Bridge elevator/stairs
4. Garden Court 3 story
5. Garden court 4 story
6. Accellerator space 6 stories
7. Accellertor 4 stories
8. Theatre
9. Interior court outdoor work, accessible to public
10. Historic and interesting buildings/ uses incorporated into fabric (outlined)
11. N-S Rambla pedestrian spine: Food, galeries, media,



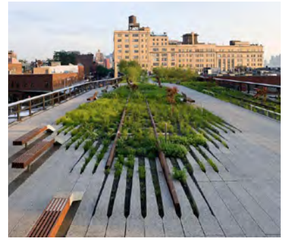
10. 6. 4
Best practice

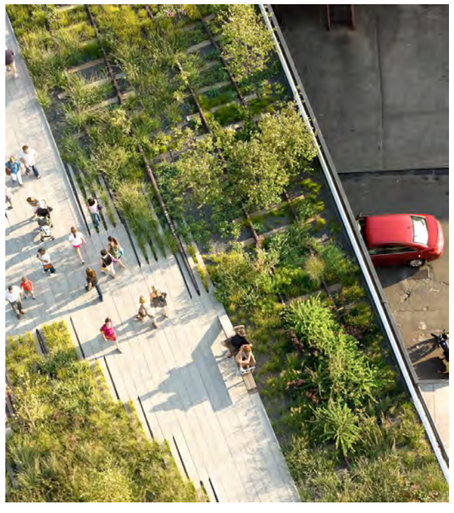
La Rambla, Barcelona

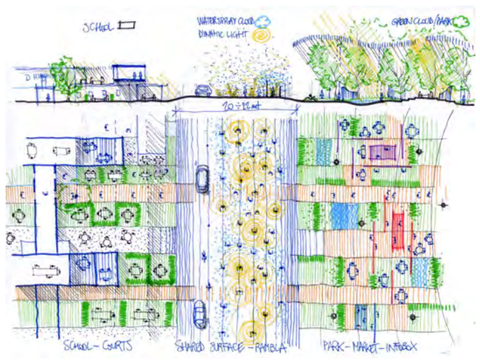
Promenade Plantèe; Paris



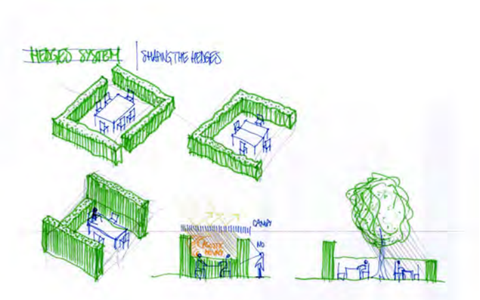
High Line, New York, U.S.A.

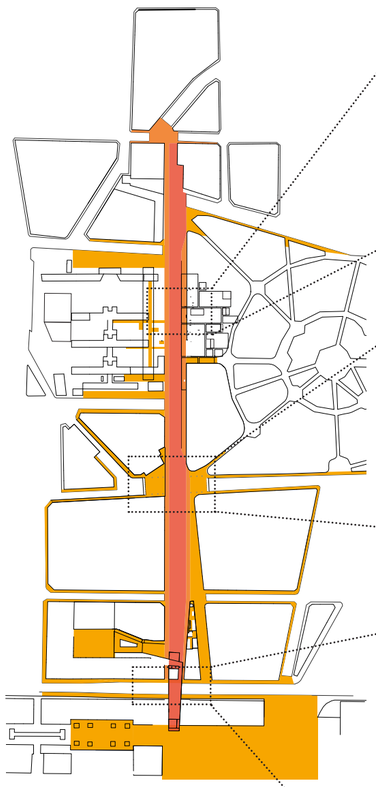






A long the Rambla 3 intersection point of interest and interaction have been identified and will be approached with proper design solutions that help boost their full potential and functionality.





Planimetric details

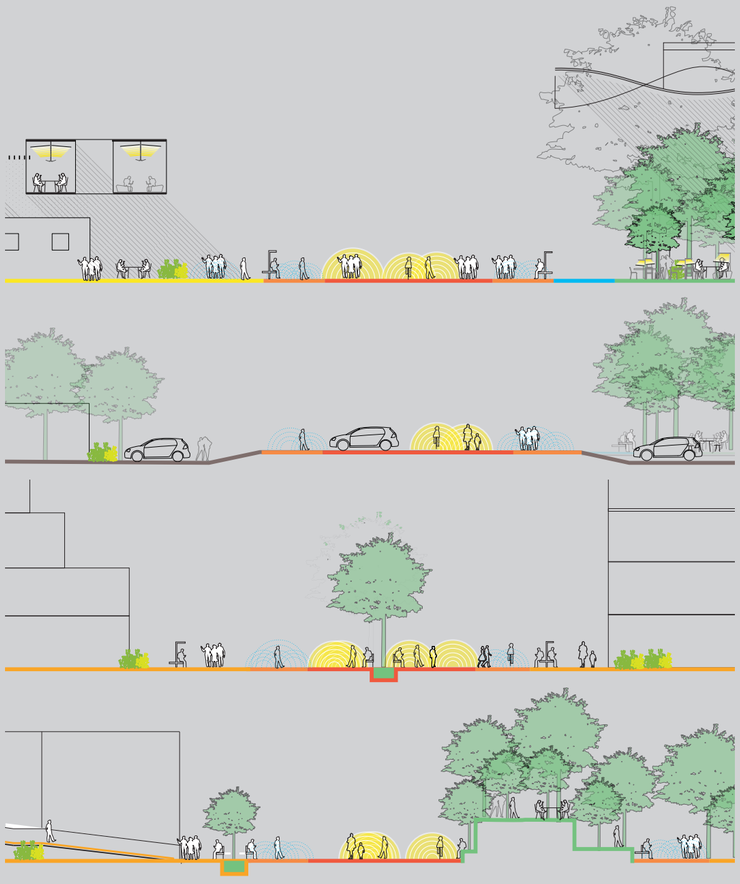
10.5.8

GUIDELINES FOR THE RAMBLA

- The park pedestrian area should be extended through the Rambla
- Different treatments of materials should be applied a long the Rambla, responding to the needs of each subareas or intersection point.
- Proper design solutions to enhance pedestrian use and reduce velocity of vehicles should take place where required.
- Differences in heights as design solutions to tackle issues related to the mix of uses such as pedestrian and vehicular should take place.
- Integration of greenery must be applied following the landscape demands of native vegetation.
- Accessible design solutions should be envisioned.

Proper design solutions and treatments should be applied a long the Rambla considering its diversity in use, responding to the individual need of each subarea or intersection point.

The Rambla: Sections



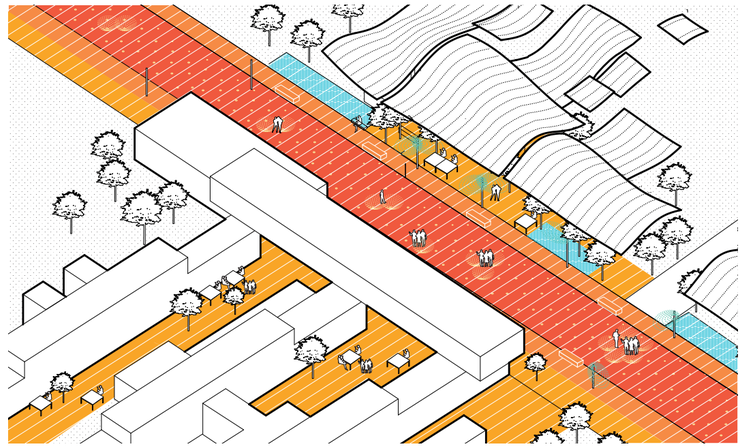
Ingenium Campus - Parque Morelos

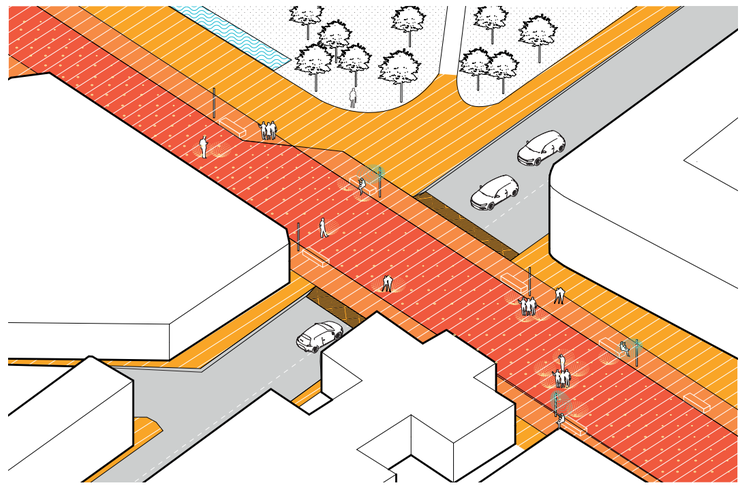
Calle Juan Manuel

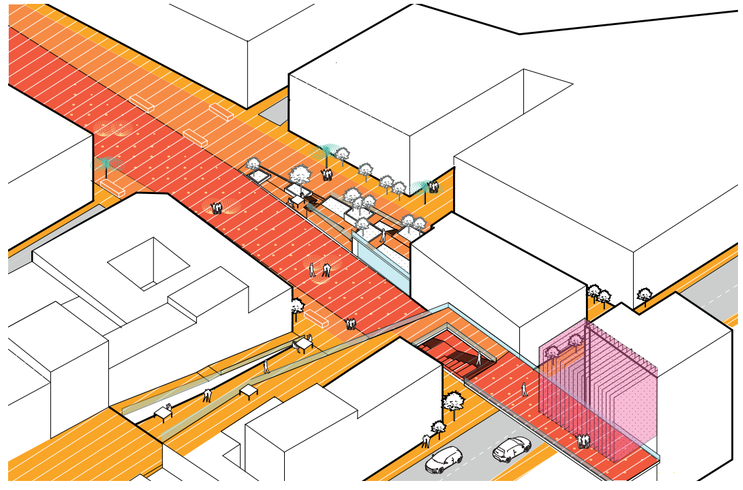
Block 11 - M4

Accelerator - Terrace

The Rambla: Axonometric views







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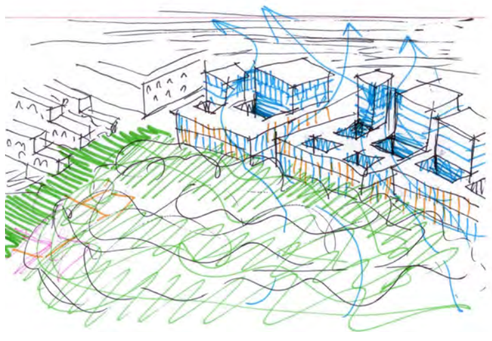
10.7 North-side

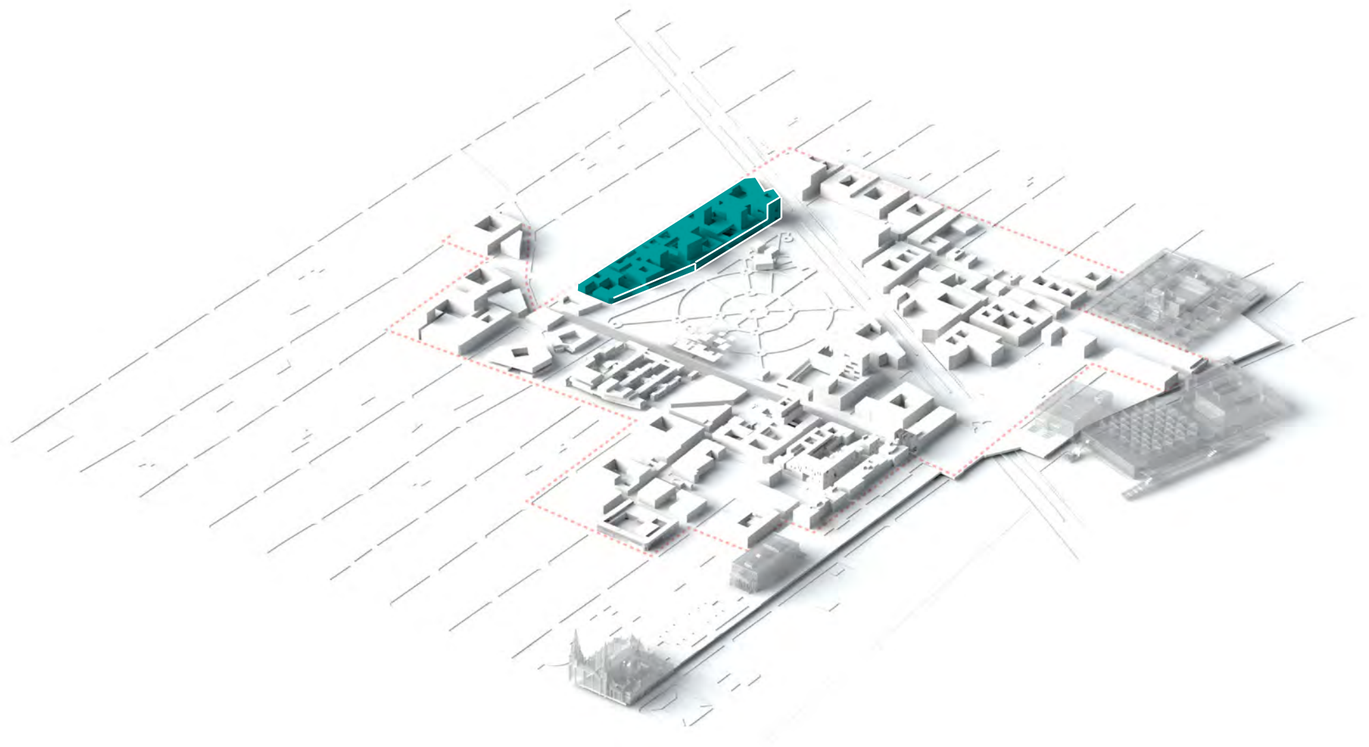
10. 7. 1 The creative cluster

The North Side as catalyst project refers to the development of the adjoin blocks located on the north edge of Parque Morelos, which are conceived to host higher density and mix-use buildings in the form of towers. The logic behind this proposal emerges in respond to a set of local condition previously analyzed.
The towers proposed to be built in the blocks facing the park on the north side represent the ideal location with regards to visuals and heights. Their proximity to the park enables wonderful views and assures natural lighting, increasing their environmental and economic value. Moreover, the North Side of Parque Morelos is also the lower topographic level within the site and therefore, in an attempt to minimize alternations of the urban image, allocation of high-rise structure within the north four blocks will signify less difference in heights with respect to Hospicio Cabañas. In other words, positioning the towers at a lower topographic level than Hospicio Cabañas will allow towers to be higher while fulfilling the local regulation on heights that stipulates the views of the heritage building. However, this last condition of low altitude takes place due in turn due to the former path of the river, therefore the north side of the park is more prone to risk of flooding. Condition which will be managed through a system of water capture proposed to take place in pools inside Parque Morelos and explained in detail in previous chapters.

This area has been also chosen because of being favored with excellent road accessibility, which beacomes an asset to develop complex and mix blocks

Furthermore, propinquity to the existing axis of commercial and service activities will.

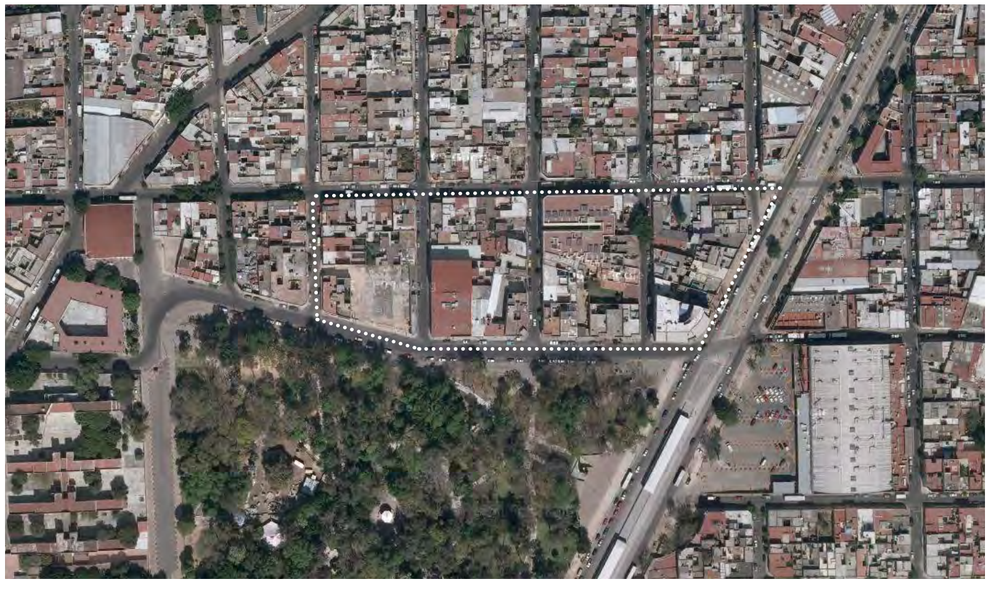


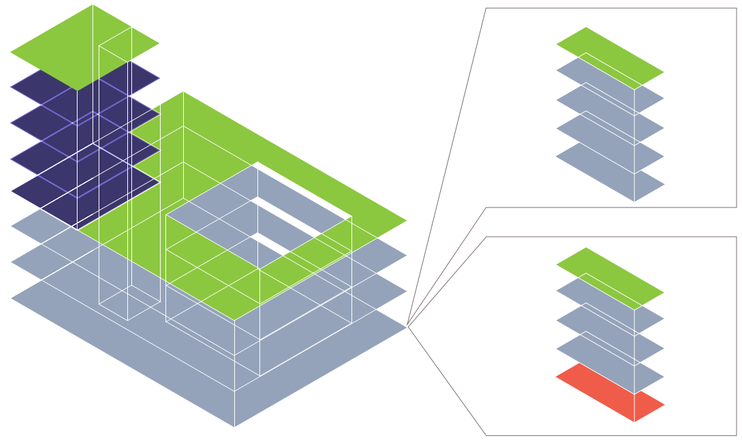


10. 7. 2
Best practice

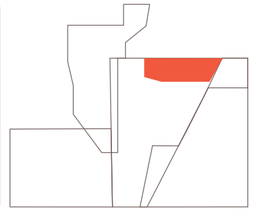
Development of Parque Morelos adjoin blocks located on its north edge are envisioned to host higher density and mix-use buildings in the form of towers to fulfill the needs of the creative industry.

The Yunlong Digital and Technology Park, Zhuzhou, China; NAUTA Architecture



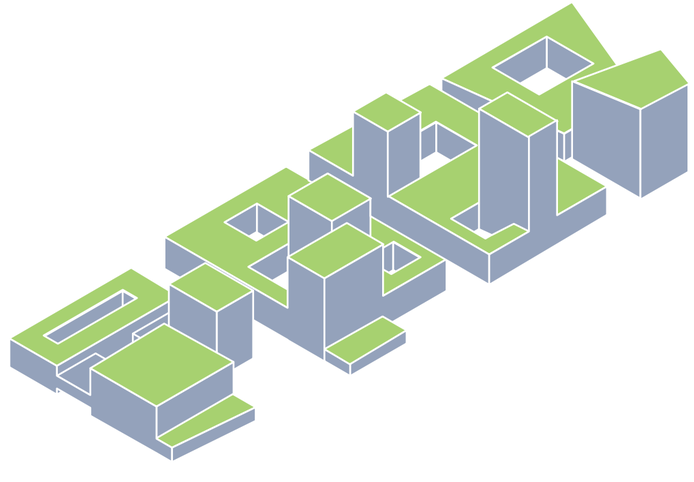


The plan bellow shows the exact location of the North Side within the site, which is in turn divided into its 4 subareas. The diagrams on the left provide illustration of the high-reis and low mixed block typology, which would lead development of the area take.



Uses

- Creative industry
- Retail, restaurant, hotel (H) uses
- New residential (low-rise)
- Green spaces



Footprints

	14600 sm
	4500 sm
	3650 sm
Total=	12665 sm

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10. 8

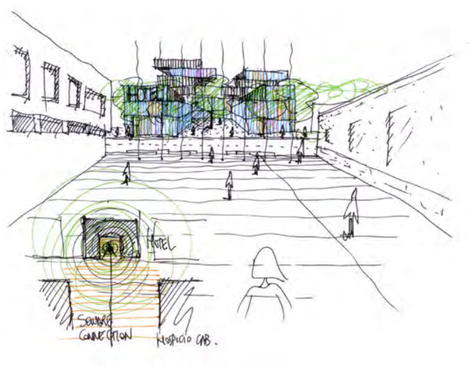
Hotel Hospicio Cabañas

10. 8. 1 Cabañas Tourism Hub

It has been conceived as a catalyst project of CCD the development of a full service hotel with luxuries and quaint boutique style features. The hotel named Hotel Hospcio, will be located on the Cabañas Quadrant on the north side of Hospicio Cabañanas next and easy to approach from Plaza Tapatia through to the Plaza Cabañas.

The purpose of this luxurious full-serviced hotel is to provide accommodation within the area for workers of the creative industry as well visitors in general.

Therefore, the block in which the hotel is located will be developed as a medium-rise podium of 4-stories, which will follow the regulations on heights for the design of blocks that stating the prohibition of buildings able to be seen as of Hospicio Cabañas. The development of this block as full service hotel will combine a set of functions such as bars, restaurants, and retail shops, among others. With the insertion of such an accommodation facility, it is expected to complement all the services required by the workers of creative industry.



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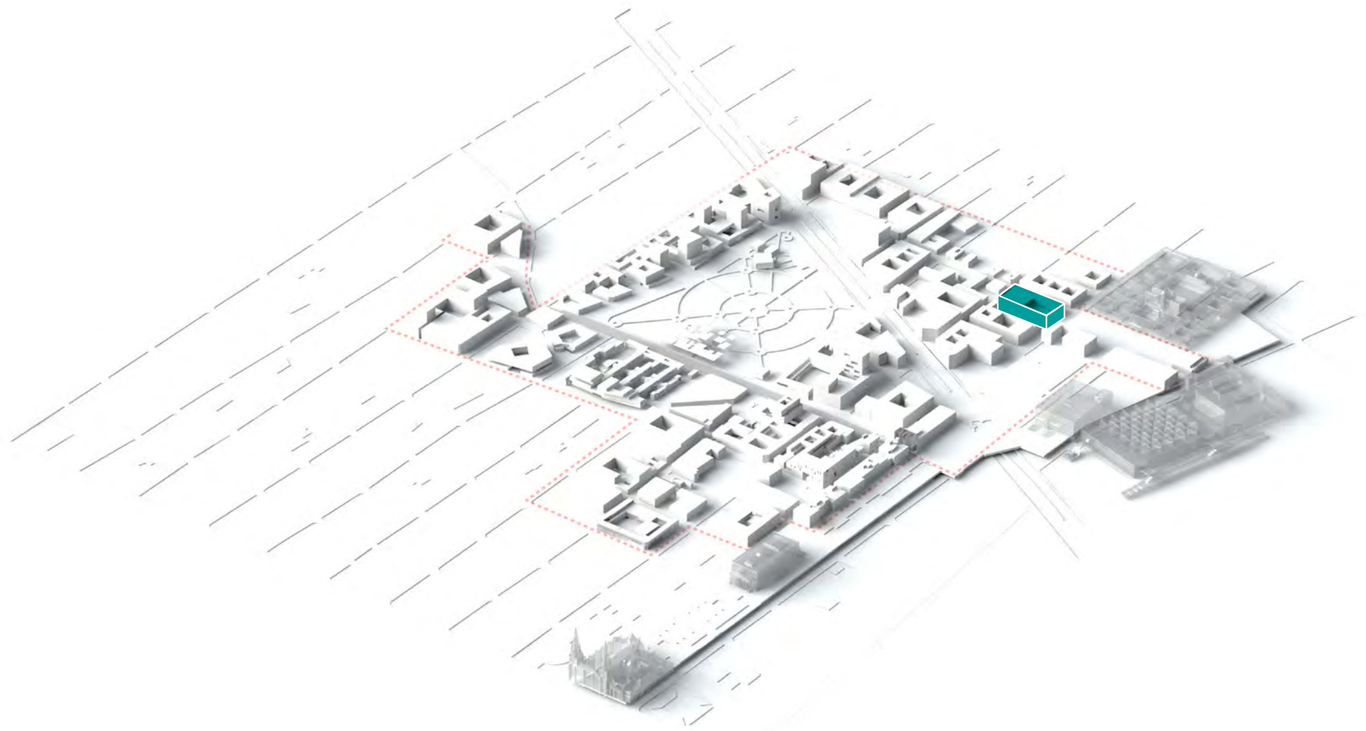


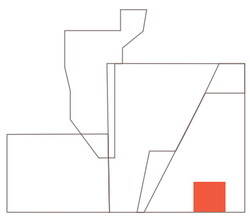
10. 8. 2
Best practice

The selected block for the Hotel contemplates the development of a medium-rise podium due to its proximity to Hospicio Cabañas, since regulations on heights for its design should be carefully considered.

Hotel Demetria, Guadalajara




The plan bellow shows the exact location of the Hotel Hospicio Cabañas within the site, which is in turn divided into its 4 subareas. The diagrams on the left provide illustration of the mix-use block typology in which the hotel would take place.



Uses

Retail, restaurant, hotel (H) uses

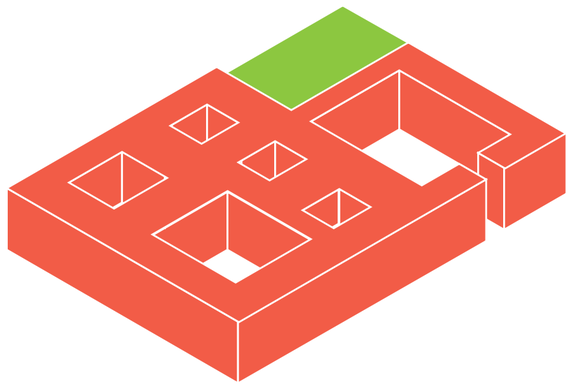
Green spaces

Footprints

5000 sm

1800 sm

Total= 12665 sm



10. 9

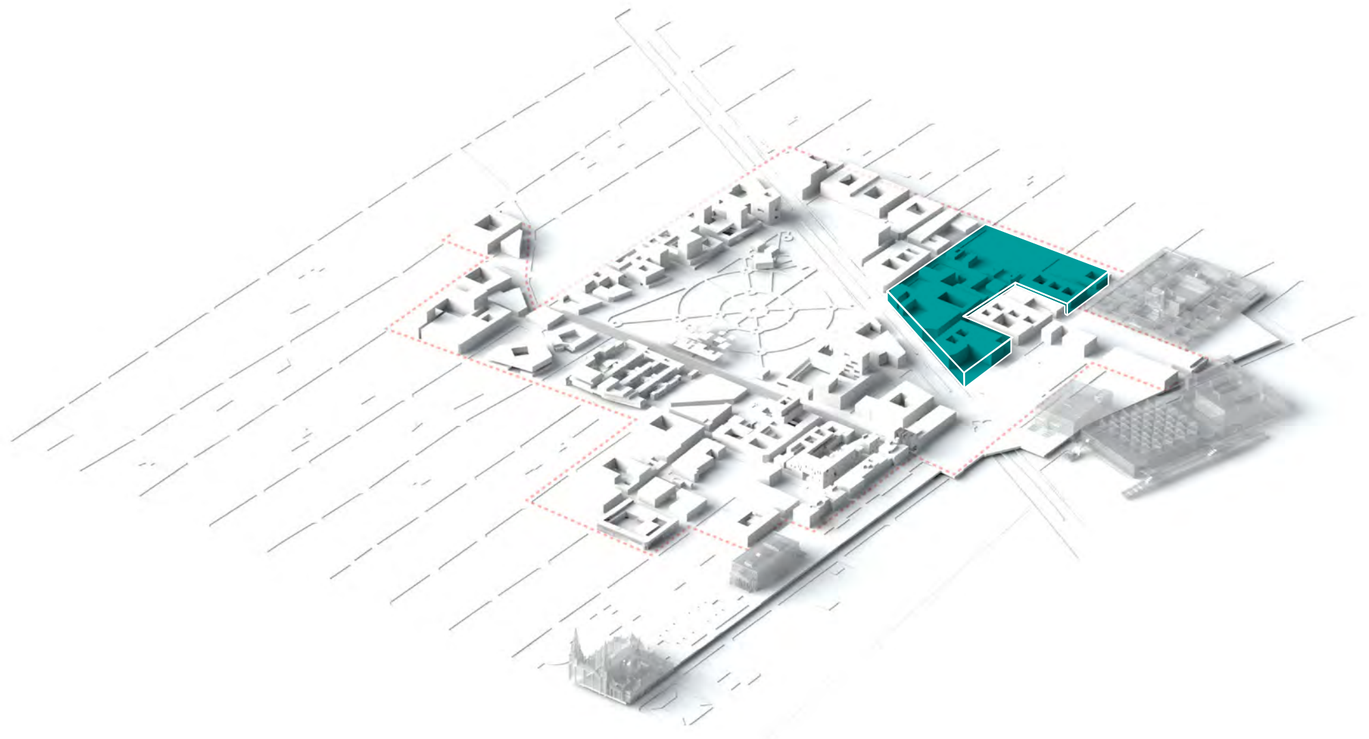
Calle Cabañas Creative Hub

10. 8. 1 Creative Cluster

In further phases of the project CCD will be expanded to east side integrating the Calle Cabañas as catalyst of a creative hub. This area located on the east side of Parque Morelos across Av. Independencia, takes its name from Hospcio Cabañas due to its proximity and reliance on it. This district will be developed along a the Calle Cabañas as north-south axis, beginning at Plaza Hospicio Cabañas and running along the site, merging the La Perla quarter with CCD while connecting Calle San Diego. Furthermore, the area takes advantage from its accessibility by being directly next to Av. Independencia and Plaza Tapatia.

The development of Calle Cabañas aims to be triggered and supported on the existing commercial activitie and services such as its intersectio on the north zone with the shoe industry.

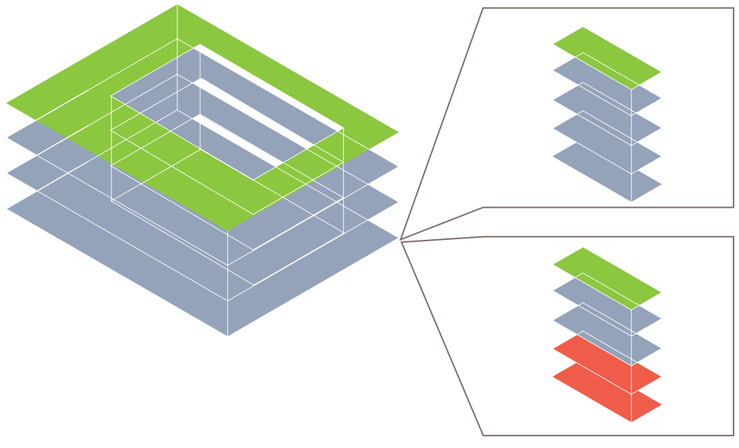
This last commercial activity is really characteristic of the area and Moreover, boosting tourism within the site will draw on the strong cultural identity and local traditions, turning these elements into main attractions for international and national visitors. Existing attractions such as San Juan de Dios Market increase the value of the district, adding folklore and providing a local atmosphere characteristic of Guadalajara.



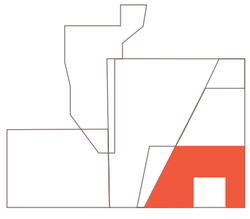
10. 9. 2
Best practice

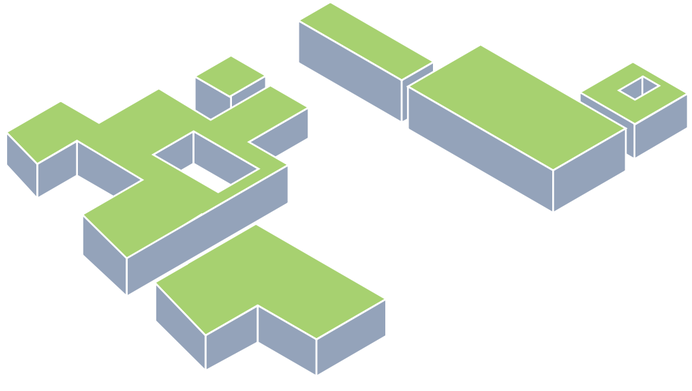
Boosting tourism within the site will draw upon its strong cultural identity and local traditions, turning these elements into main attractions for international and national visitors.

Silicon Roundabout, East London, England



The plan bellow shows the exact location of Calle Cabañas within the site, which is in turn divided into its 4 subareas. The diagrams on the left provide illustration of the mix-use block typology that would take place a long Calle Cabañas area.





Uses

- Creative industry
- Retail, restaurant, hotel (H) uses
- New residential (low-rise)
- Institutional
- Green spaces

Footprints

	5500 sm
	600 sm
	3155 sm
	3410 sm
Total=	12665 sm

10. 10

Degollado district

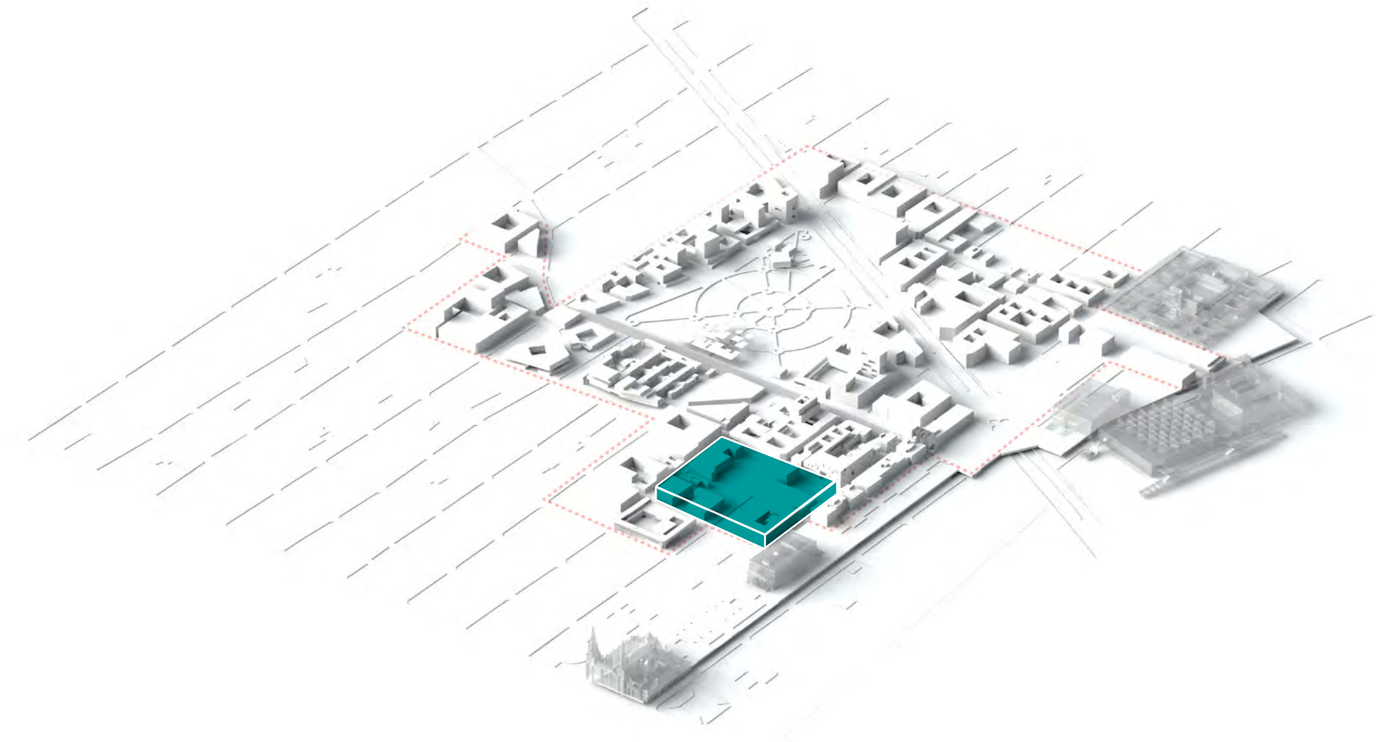
10. 10. 1 Creativity and commerce

Degollado District takes its name from Guadalajara's 19th century architectural and cultural landmark Teatro Degollado. The theater is located within the central axis between the Cathedral and Hospicio Cabañas setting a key gateway to CCD via Calle Carranza. As illustrated in the Plan, Calle Carranza demarks one edge of a four block quadrant adjacent to the theatre, packed with a mix of large government agencies and small businesses with a unique character and strong sense of place. The northern edge of the quadrant is defined by Calle Juan Manuel, one of the key pedestrian routes in CCD. This area of Juan Manuel has undergone a renaissance of sorts in recent years with the renovation of many colonial buildings to house shops and apartments.
The Plan envisions the creation of a strong connection between this district and CCD along Juan Manuel by developing a unified, high quality pedestrian street experience.

The aim is to encourage expansion of the fabric and mix of uses down the street to Parques Morelos at the center of CCD.

The interior of the quadrant – so close to the theatre and other cultural attractions – offers an opportunity to develop restaurants, clubs and entertainment oriented to urban nightlife. A natural complement would be hotels, which are illustrated in the Plan at the northeast corner of the quadrant facing the park, where they would also be convenient to CCD cluster of industries and institutions.

This district includes a number of high quality street views in the existing Degollado quadrant historic buildings that should preserved. Not only is it enlightened public policy to conserve the city's architectural heritage, but also if renovated and reused these structures will add enormously to the economic value and distinctiveness of this area of Guadalajara and the DCC by attracting a new group of visitors and residents. The Plan recommends that the quadrant be incorporated into an historic district to restrict demolition, and that incentives be provided as part of the DCC development strategy to encourage reuse of the structures for new businesses.



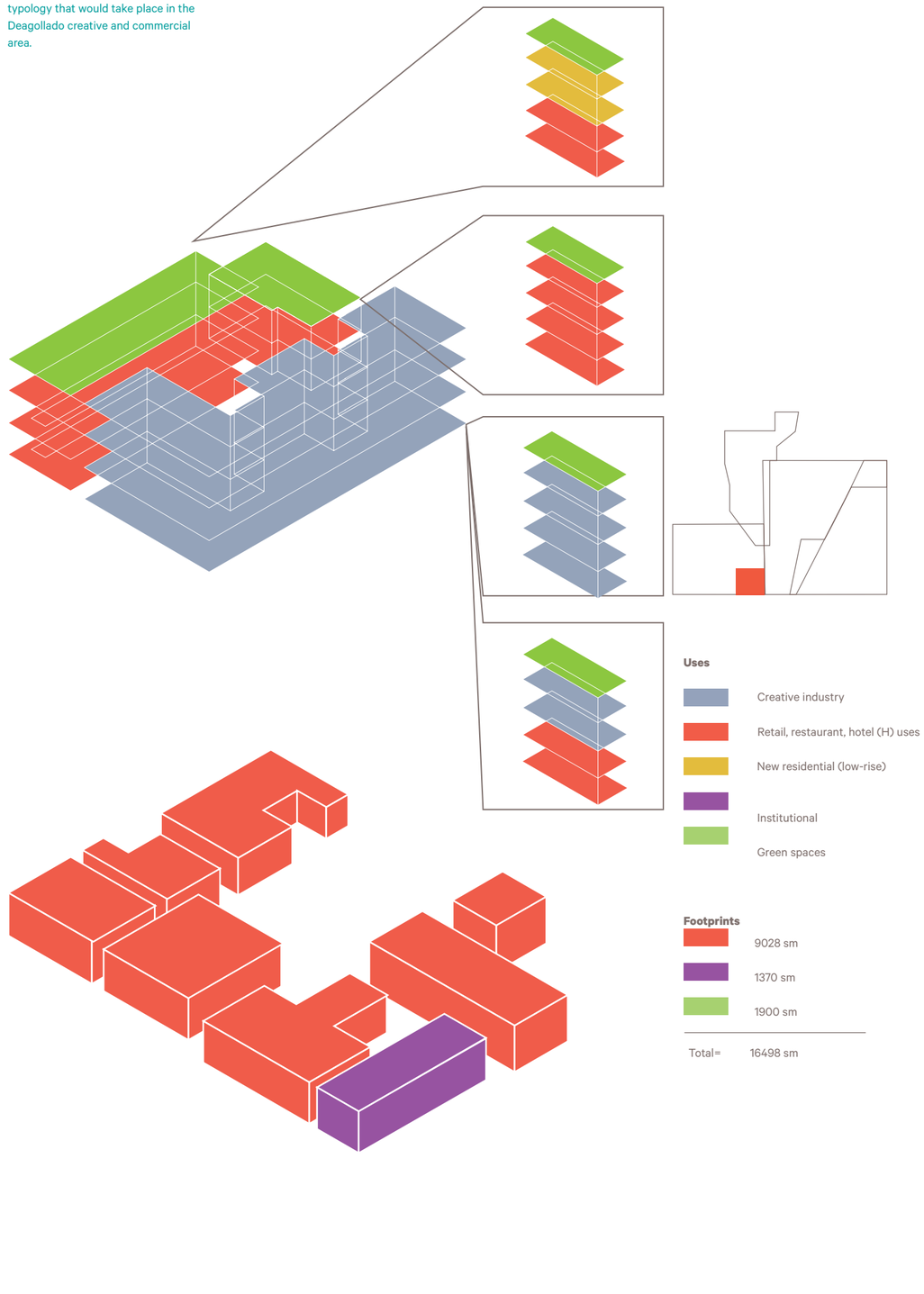
10. 10. 2
Best practice

The Plan envisions to enhance a strong connection between this district and CCD along Juan Manuel by developing a unified, high quality pedestrian street experience.

Central Academy of Fine Arts, Beijing, China

Toolbox Coworking, Turin, Italy

The plan bellow shows the exact location of the Degollado District within the site, which is in turn divided into its 4 subareas. The diagrams on the left provide illustration of the mix-use block typology that would take place in the Deagollado creative and commercial area.



10. 11

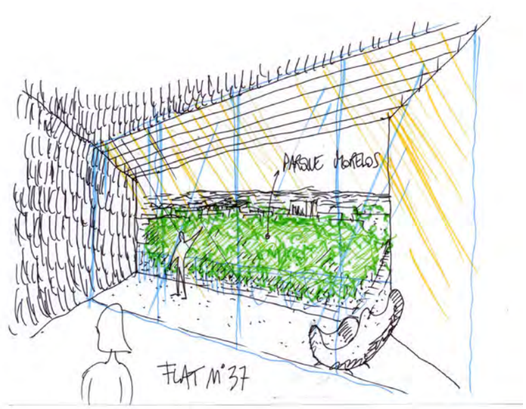
Eslabón Residencial

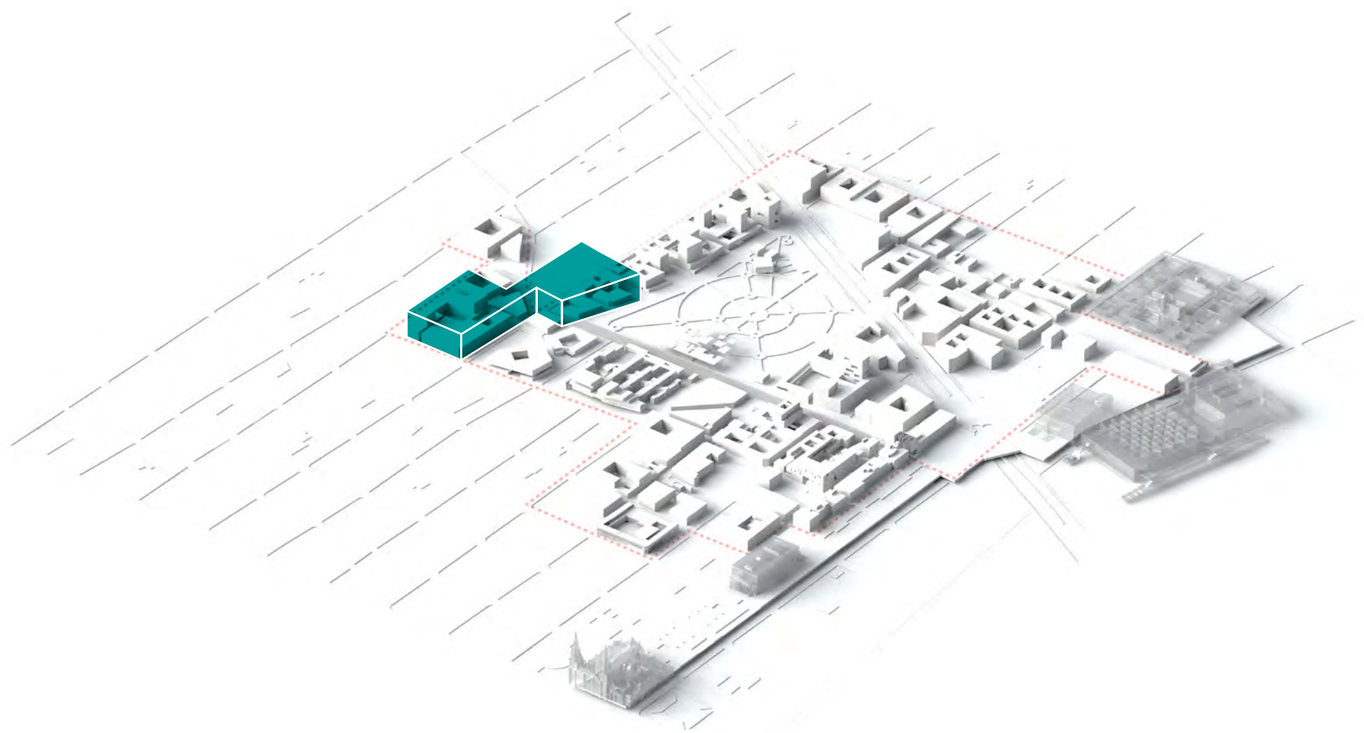
10. 11. 1 Dwelling CCD

Of outmost importance for further phases in CCD is the development of housing and residential areas. Therefore the master plan for Ciudad Creativa Digital conceives a housing cluster to be developed in to serve the industry and general users. This residential link or Eslabón Residencial, for its named in Spanish, located at the north-west corner of Parque Morelos, aims to become a living tie and hold together CCD with the DUIS plan providing an entrance that connects with the design axis: Paseo Diagonal Alameda.

The development of a residential bundle aims to provide accommodation and housing options for workers of the creative industry within the site, attempting to diminish or vanish commuting time periods, enabling productivity and increasing life quality.

This proximity between housing options and workspaces answers to the premise of the compact city. Furthermore, services and neighborhood facilities must additionally support the housing environment.

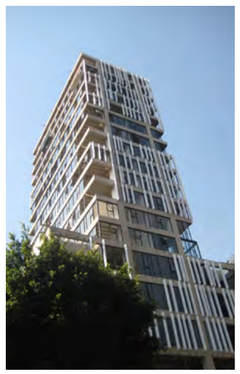


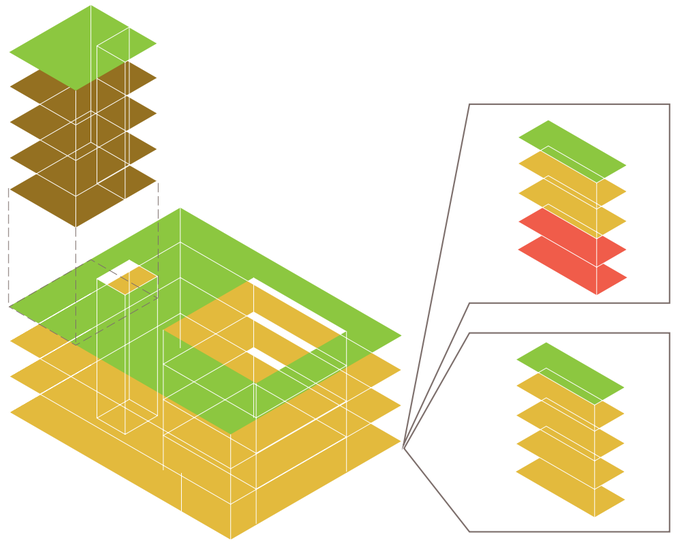


10. 11. 2
Best practice

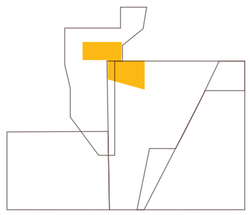
Eslabón Residencial located at the north-west corner of Parque Morelos, aims to become a living tie and hold together CCD with the DUIS plan providing an entrance, connecting with the design axis called 'Paseo Diagonal Alameda'.

viviendas, colonia condesa, Mexico City; Mexico; Dellekamp Arquitectos





The plan bellow shows the exact location of Eslabon residencial within the site, which is in turn divided into its 4 subareas. The diagrams on the left provide illustration of the mix-use block typology that would take place in residential areas.

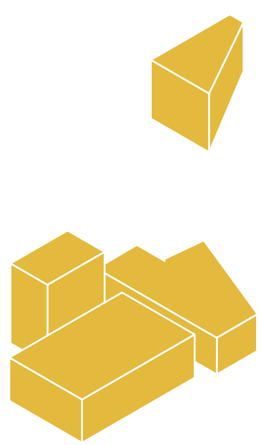


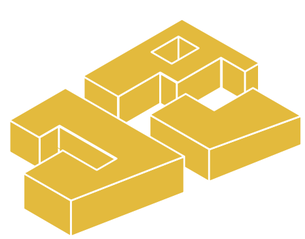
Uses

- New residential (low I mid-rise)
- Retail, restaurant, hotel (H) uses
- Green spaces

Footprints

	1912 sm
	523 sm
	1380 sm
Total=	3815 sm





11

Digital Lifestyle: **The Vision for CCD**

11.1 Data, Sensors, Networks
11.2 The CCD Context and Drivers for Change
11.3 Hierarchy of Needs by Segment
11.4 Inhabitants as Actuators
11.5 A Day in CCD

SUBMISSION FOR REVIEW

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11.

CCD Digital Lifestyle

Executive Summary

The CCD will be an attractive place to work in leading-edge digital creative services, but also a physical smart city with a highly interactive, sustainable built environment. A range of digital technologies must be embedded in the urban fabric, allowing increased efficiency and management of precious resources, as well as improving the productivity at work by bringing people together in the virtual and physical space - a living lab to trial new urban technologies and a prototype for sustainable development solutions. The CCD should be open to all residents of Guadalajara, who will have access to all of its cutting edge infrastructure, promoting a new model for social digital inclusion.

A new layer of digital gadgets enrich the urban environment with new functions and offer people new ways of working and organizing. With tiny electronics so thoroughly embedded and distributed, the built environment (cities, buildings and objects) is learning to talk. Embedded devices, so called “smart dust”, let us collect and analyse data in real time and distribute it to anyone, anywhere. A radical shift in the design and use of space is taking place that will create benefits in terms of economic, social and environmental sustainability. Processing urban information captured in real time and making it publicly accessible can enable the people of Guadalajara to make better decisions about their interactions, improve the efficiency of the city, and make the city a safer place to live.

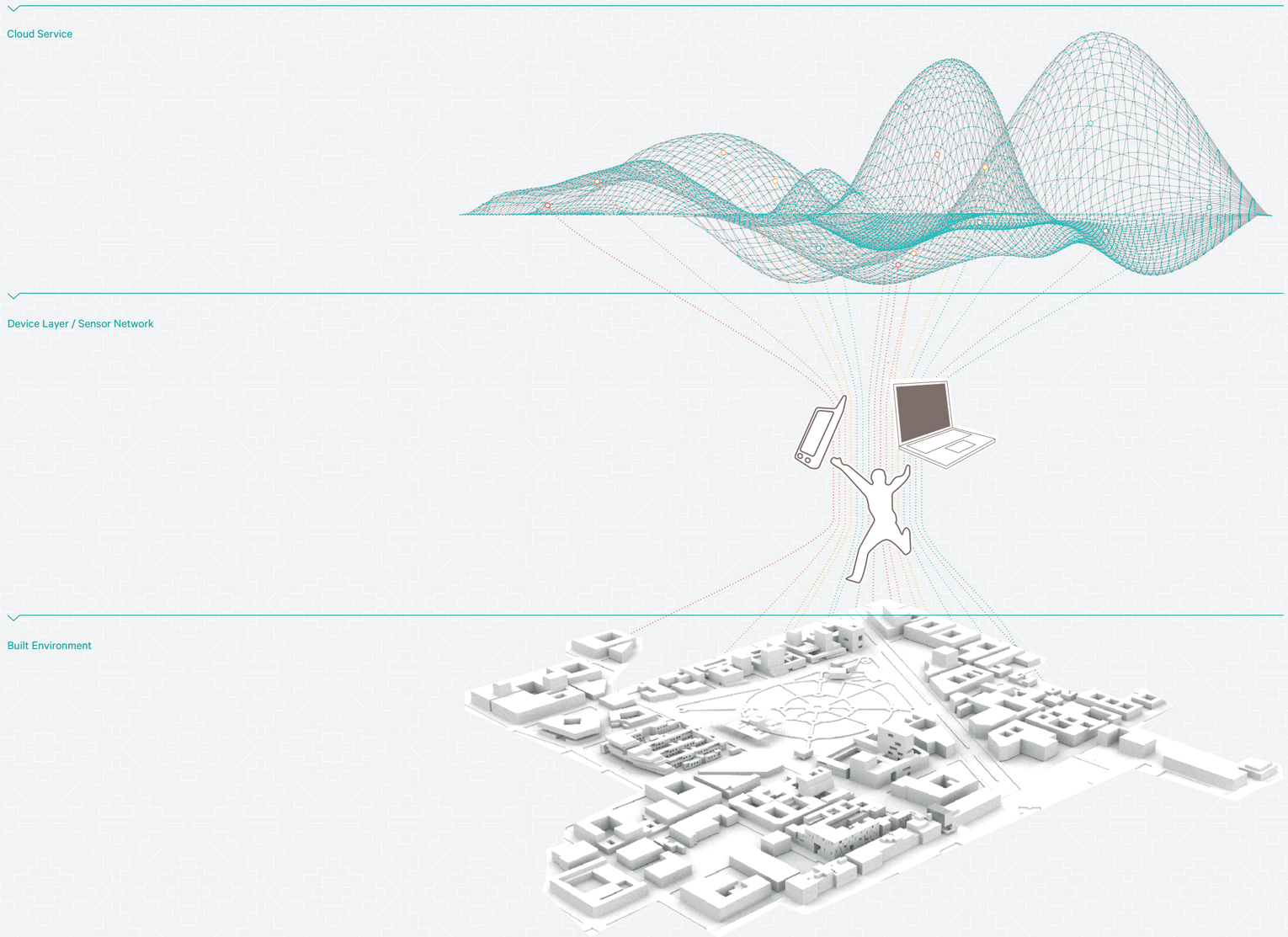
Our contemporary lives are being completely mediated by digital technologies

The vision for the digital lifestyle of CCD is presented here in four parts: (i) the CCD operating system and provision of digital services; (ii) the design of responsive public spaces; (iii) mobile working in the Guadalajara context and (iv) citizen empowerment through digital methods of social inclusion.

The CCD operating system will act as the backbone for the integration of all the digital services in the CCD and allow for real-time feedback throughout the city, displaying data on multiple devices and formats for easy access to citizens, workers and visitors. With this integration of services throughout the city, the CCD can become a leading creative digital city, able to export its content, services and business and governance models to other cities. This will make the CCD a global showcase of how city services can be integrated to maximise the value to every stakeholder.

Aiming to provide individuals with platforms to deliver and acquire information, Guadalajara’s historic urban fabric will be augmented with digital design and functional solutions. This on-going exchange of data will allow inhabitants to realize their desires and regulate their needs, resulting in an environmental and social sustainable dynamic. Moreover, these digital portals functioning as means not only to publically deliver information but also to gather will facilitate a wider outreach of audience towards achieving a more inclusive city.

Evolution of working dynamics has been triggered by the ubiquitous wifi coverage. Nowadays, workers are less attached to offices, opening up a world of possibilities in the field of workspace design. In an endeavour to glocalize this global working trend, CCD takes advantage of the pleasant climate of Guadalajara and proposes its open spaces as new working platforms. Making available and customizing its multiple outdoor areas such as parks, courtyards and terraces, Ciudad Creativa Digital becomes a living manifesto of a new digital working lifestyle.



11.1.

Data, Sensors, Networks

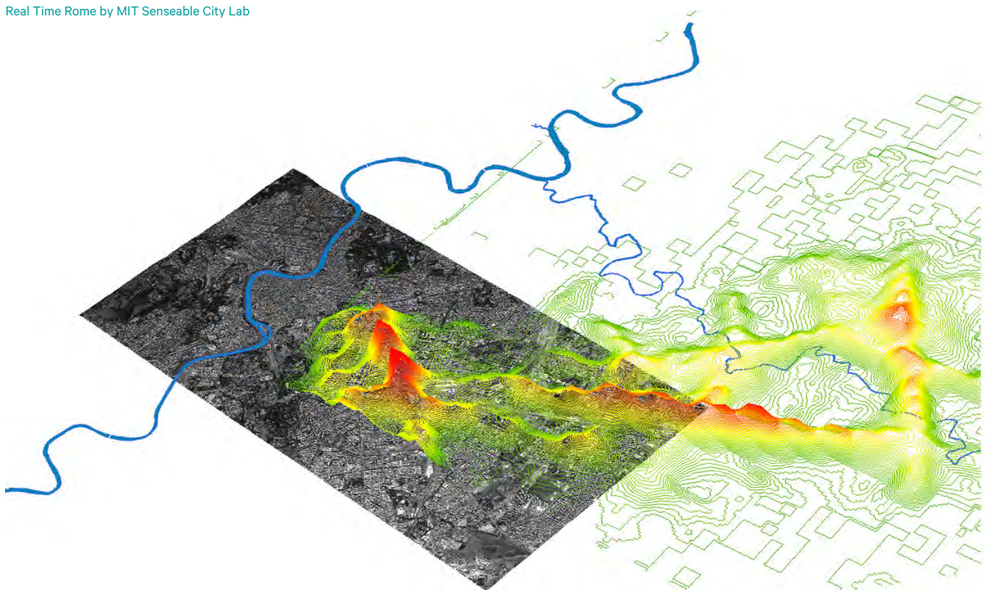
The city is where the digital and physical world merge. Its is both a city of bits and a city of atoms; that is, atoms are augmented by bits of information and a layer of networked digital elements blanketing its built environments, blending the information sphere and the physical space of its inhabitants in a seamless way. Just a couple of decades ago many urbanists and sociologists were predicting the end of cities. The Internet, they said, would eliminate problems of distance and space. Despite the influence of the global Internet, the physical world is still important and the network functions to strengthen the physical structures. But the digital revolution has significantly changed our reality.

Having access to data in the very moment it is being generated allows for its consideration in the process of individual and community decision making, leading to feedback loops as described below, capable of increasing the complex an d dynamic aspects of the city, optimising the efficiency and economic, social and environmental sustainability of the places we inhabit.

An increasing amount of digital devices are distributed in today's cities that record, store and transfer data triggered by ambient conditions and use dynamics - sensors of different kinds which are distributed among people as mobile devices, vehicles as well as building structures and products. With their wired or wireless telecommunication capabilities these devices result in interconnected sensor networks, able to reflect a large variety of a city's dynamics linked to aspects such as transportation, environmental parameters, communication and social patterns, structural conditions of a city's built infrastructure just to name a few.

There is an undeniable charm in working with real-time data in an urban context as it reflects "in this moment" specific dynamics directly or indirectly caused by human activity.

Real Time Rome by MIT Senseable City Lab



VIRAL SENSING

How can we sense CCD and its dynamics? One approach is to leverage systems already in place that have been developed for other reasons, but can function as sources of information about how the city operates. We define this as viral sensing, since the computational algorithms of sensing practices install themselves on the digital networks that already augment cities, much like a virus settles in an already-operational environment within another organism in order to support its internal bio-processes. The premise of such sensing practices is that the contemporary subject voluntarily and involuntarily leaves digital traces on various networks that are juxtaposed over urban areas. Every time a credit card is used, a text message or an email is sent, a Google query is submitted, a phone call is made on land-line or cellphone network, a Facebook profile is updated, a photo is uploaded or tagged on Flickr, or a purchase is made on a major, on-line store like Amazon.com, an entry with the time and location of this action is added to a dataset on a central server, administered and maintained by the organizational entity providing the platform for these and hundreds of other day-to-day operations. Once the datasets are spatially and temporally attached to entities and phenomena in the physical terrain, the urban landscapes that accommodate these traces are transformed to info-scapes. As digital technologies are increasingly deployed in transport networks, data generated by their operations can offer new perspectives on a city's overall dynamics. In the context of the Olympic games, when millions of visitors flock to host cities, transport networks are placed under considerable strain. The interactive combination, and exploration, of real-time transportation data can help operators best serve both the community and its guests throughout the games, and even inspire new services and tools into supporting current, and future, urban mobility options.

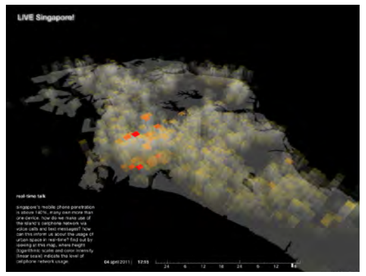
SENSOR NETWORKS

Aside from tapping into existing networks, customized sensor networks can also be implemented to decode various flows within CCD. As a cybernetic city, CCD can receive its input from different networks of sensing mechanisms. The first is a network of centrally managed sensing agents embedded within the fabric of the city. To this effect, smart dust saturates the space of urbanity, extracting large amounts of information about the processes contained within the built environment and constructed spaces, and channeling it to a central control and command mechanism. From there, this data is aggregated, managed, and used as the basis for how the monitored space of the city should be regulated and actuated. If the sensors are well situated within the physical terrain, meaning that the digitally encoded transactions they send the server are annotated with their exact locations, this network allows the cybernetic system of the city to create a virtual model of the physical terrain that is perpetually updated with real-time information about the context. Depending on the nature of the sensed data, the virtual model can represent different aspects of the physical terrain. In urban sensing mechanisms that operate based on networks with central control and command structure, and with algorithms that allow for the context-sensitive interpretation of the information transmitted to the database, we arrive at spatial scenarios where the whole city is digitally augmented by the ubiquity of these sensor/transmitter devices. In the extreme version of this scenario, one can envision that any object in CCD is capable of sensing its context and reporting it back to a central data-management facility where its identity, its real-time location, and its contextual state are cross-referenced, stored, and managed computationally. Sensing mechanisms can be implemented as self-reporting sensor networks or request-based sensor networks. Also, sensor networks can consist of fixed sensor agents, or they can incorporate agents capable of navigating or probing the monitored terrain outstanding location for a major hotel, which along with the two institutions (and nearby city Market) could create a major tourist destination, activating the plaza.

CROWD SENSING

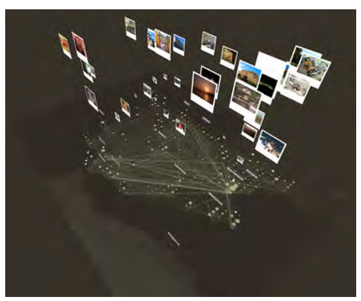
Instead of such top-down approaches, we should also consider more grassroots, bottom-up systems for sensing the dynamics of CCD. One possibility is thinking of each resident of CCD as a human sensor, an agent for sensing and reporting his or her individual experience through tapping into data generated by user-contributed content on content sharing platforms. Hence, we arrive at the third possibility of urban sensing: crowdsensing. User-generated content sharing platforms allow everybody to report his or her experience to others in real-time, and in a multi-modal, high-resolution format. On these platforms, the users constantly project the physical world onto the digital world. Websites such as Flickr, Twitter, Facebook, and Wikipedia are repositories of what people "sense" in the city. This dynamic is gradually creating a digital world that mirrors the physical world. For CCD, a parallel digital version, as rich in diversity and content as its physical counterpart, will spread across different platforms and systems. This is because the digitally augmented, contemporary urbanite uploads pictures of popular events, sends tweets about new happenings in real time, and creates and updates pages on Wikipedia about the city. These acts of communication generate different kinds of data that provide unique views on how people experience, navigate, and view CCD. The crowd therefore becomes a distributed network of sensors that allows us to understand the dynamic patterns of the city and the experiences of its citizens at a quasi real-time rate. Hence, we call this phenomenon crowdsensing. Accessing the possibilities offered by user-generated content sharing platforms, crowdsensing mechanisms reveal the dynamic of civic landscapes of CCD, as viewed and collaboratively reported by its inhabitants and visitors.

LIVE Singapore! (by MIT Senseable City Lab) explores the development of an open platform for the collection, elaboration and distribution of a large and growing number of different kinds of real-time data that originate in a city. Inspired by recent data.gov initiatives, the platform is structured to become itself a tool for developer communities, allowing them to analyze data and write applications that create links between a city's different real-time data streams, offering new insights and services to citizens. Being a compact island based city-state metropolis, Singapore offers a unique context for this study.



Visualization from the Trash Track project (by MIT Senseable City Lab) tracking a tagged aluminum can as it travels trough the garbage collection network of the city. The project consists of digitally enhanced tags that were attached to objects and could report their location to an Internet backbone infrastructure via cellular network. The platform allowed designers and planners to analyze the acquired data, and make well-informed, high-level decisions about waste management and the perceptual relationship that a city or region has with its waste disposal habits.

Los Ojos del Mondo/the World's Eyes (by MIT Senseable City Lab) focuses on revealing the dynamic of civic landscapes, as viewed and collaboratively reported by their inhabitants. For example, the attractiveness and popularity of places and events are revealed by visualizing the density of user-generated data, in particular, the photographs tagged with information about their location and time uploaded by Flickr users.



11.2.

The CCD Context and Drivers for Change

DIGITAL SERVICES VISION

The city of Guadalajara provides ideal setting for integration of digital services for it to be boost as of CCD towards becoming a lead nucleus for development of creative works. Digital services can drive innovation and contribute to overarching the vision of CCD, creating a truly differentiated place for businesses wishing to function in the creative digital space, for the people who will travel there and for the people who will live there. Hence, within the context of the city, key factors have been identified as opportunities; lead by its economic potential, population's affinity to smart technologies, educational capacities and general infrastructure and facilities to foster innovation, five design principles have been developed. However, these design principles, additionally driven by the challenges facing both the current residents and visitors of the CCD and its future residents and visitors. By using a people-centric approach and an integrated digital planning, current and future challenges can be addressed and the needs of each CCD user can be addressed.

The vision for digital services is driven by key context and challenges that affect CCD. Design principles have been laid out that will support on-going development of services in the future.

DESIGN PRINCIPLES FOR DIGITAL SERVICES:

MODULARITY

Refers to the ability of the for the compartmentalization and inter-relation of the different parts of the city operating package; by building the system with modularity in mind, additional services can be easily added or subtracted to the city's operating system

EXPORTABILITY

Refers to the ability of the system to e exported to a wider scale; this means that the service can be used as an example of global best practice and transferred to other markets

INTEROPERABILITY

Property of the city's system, whose interfaces are completely understood, to work with other products or systems, present or future, without any restricted access or implementation; this means that additional systems, from third parties can easily operate within the same system

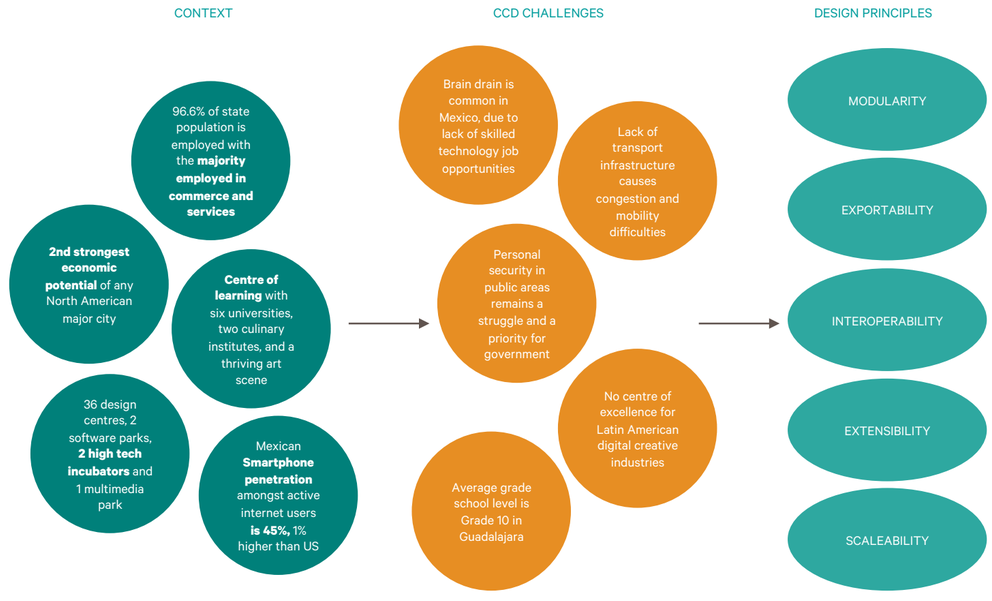
EXTENSIBILITY

The implementation of the system must take into account the future growth and expansion, and this prinicple ensures this ability is built into the system's functions

SCALEABILITY

Refers to the ability of the system to be scale to larger areas; the city's system will first be implemented in a small area of the CCD, but by ensuring the system remains scalable, it can grow and be implemented in more and larger areas

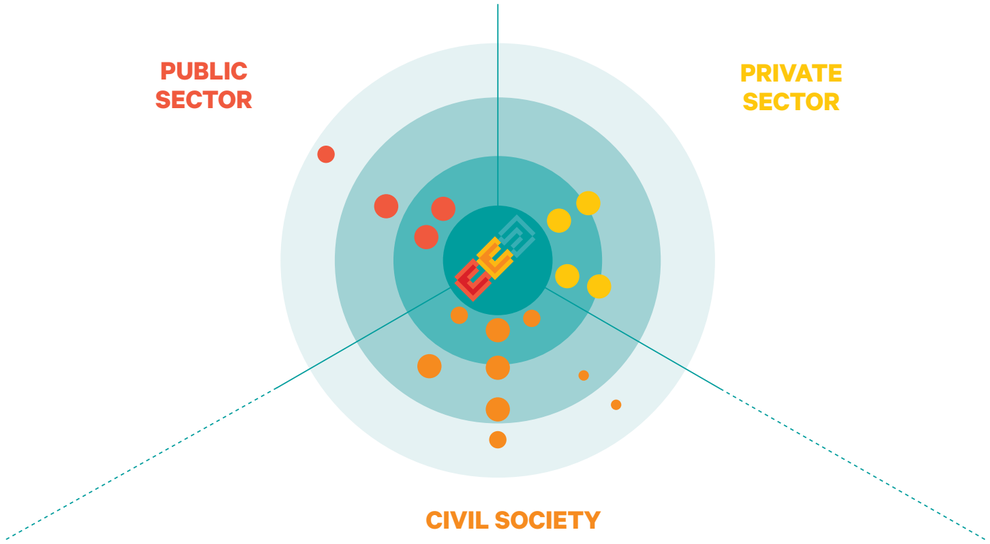
CCD and Guadalajara context and drivers for change



11.3.

The Hierarchy of Needs

Analysis of the needs of key stakeholder groups supports identification of key digital services, strengthening the value case for CCD



KEY USERS

SME Entrepreur

Large corporate decision maker

Family

Visitor to CCD

Neighbors

OTHER TARGET GROUPS

Expat Programmer

Service Worker

Student

Elderly

Temporary Worker

Hierarchy of needs by segment

KEY USERS	HIGH	MEDIUM	LOW
SME ENTREPREUR	• Scalable, high speed broadband provision • Access to business financing / grants • Availability of skilled labour • 20 – 35 years old • Wants to set up a business within the CCD • Lives in the CCD	• Flexible office space • Frequent public transport • High quality, affordable housing • Range of leisure facilities • High quality urban spaces • Ease of mobility • Platform for providing digital services	• Secure public spaces • Range of leisure facilities • Access to retail shops • Technologies for data collection • Access to business support functions • Technologies for data storage
LARGE CORPORATE DECISION MAKER	• Multi-national company • Looking to open an office in Guadalajara	• Scalable, high speed broadband provision • Skilled local labour • IP security / protection • Proximity to international airport • Prestige office space • Ease of mobility	• Accessibility of office by road and public transport • Technologies for data storage • Technologies for data collection • Safety provision for workers and business	• High quality housing for relocating workers • Access to varied labour force for support functions • Hotels and amenities for visiting business people
FAMILY	• Family with children aged 0 to 16 • Lives outside the CCD • Parents work in the CCD • Current resident or new migrant	• High quality education for children • Working opportunities close to schools • Urban space safety • Access to quality healthcare • Ability to combine modes of transport	• Smart lighting infrastructure • Weekend leisure opportunities • Public play areas for children (parks) • High quality and affordable housing	• Transport links to outside the Guadalajara area • Training programs for new technologies and services • Solutions for parking vehicles
VISITOR TO CCD	• Lives outside the CCD • Visits the CCD to access leisure facilities	• Transport links to areas outside the CCD • Urban space safety • Access to event listings and leisure activities inside the CCD • Variety and easy access to places to stay	• Access to information eg. weather and travel in public locations • Availability of high quality emergency healthcare • Access to places to go out and relax • Ability to combine modes of transport	• Selection of retail shops offering a variety of goods and services • Internet access in public spaces
NEIGHBORS	• Currently lives within the CCD • Will continue to stay within the CCD once development begins	• Urban public space safety • Work opportunities within the CCD • High quality and affordable transport links • Safe and clearly marked pedestrian pathways • High quality healthcare	• Easily accessible and available parking within CCD • Weekend leisure opportunities • High speed quality internet connection	• Large selection of quality housing • Secure internet access in public areas • Large selection of retail shops offering a variety of goods

11.4.

Inhabitants as Actuators

Once the inhabitable spaces of CCD are transformed to context-aware, decision-making entities with the aid of sensing mechanisms that are also capable of analyzing the sensed data, the city's inhabitants can be incorporated as entities with transient desires, needs, and preferences. This allows the environment to acknowledge its inhabitants' input, or at least the specificities of their behavior. Inhabitants are then identifiable, each deserving specific treatment from the space she inhabits.

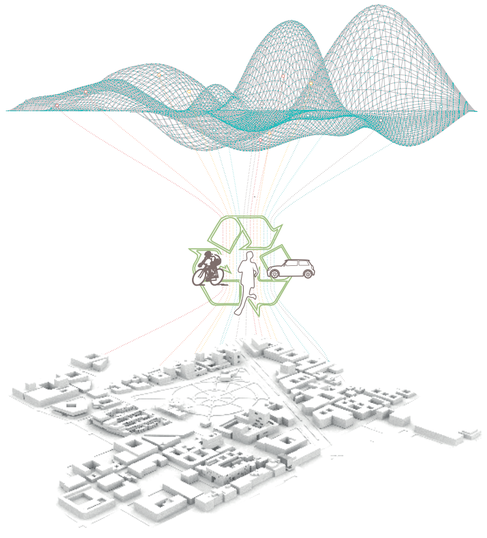
A user-subject is a hyper-individualized inhabitant, and the interactive spaces of the CCD respect the specificities of, and offer a customized experience for, each one. What is more, the city that is saturated with different sensing mechanism, transforms to a smart meter of spatial dynamics that is contained within it. Questions such as those germane to ecological urbanism will be easier to address: what is the carbon footprint of different urban dynamics? What is the impact of urbanite's life style decisions on regional and global climate change?

Offering a real-time view of how human, material, digital and financial resources travel through the landscape of their daily lives will perceptually expand each citizen's sphere of responsibility from the domestic space, to the space of the city – the city being the smart meter of all these factors. Perhaps such real-time urbanity can result in a more responsible urbanity after all. Hence, manipulating space through embedded actuators is not the only possible means of spatially regulating cybernetic urban systems.

The inhabitants of the CCD themselves can be considered possible agents of regulation and actuation. In this point of view, the space of the city is envisioned as the provider of real-time access to information for a body that corporeally inhabits it. Hence, spatial design does not limit itself to the allocation of material resources, but takes into account the temporal allocation of information relevant to the specific location or context of those occupying it.

The new, analytical understanding of the spatial dynamics offered by the delivery of real-time and geographically situated information can be fed back to the individuals inhabiting these landscapes, to help them make well-informed decisions. In such scenarios, not the space, but the inhabitants of the space are actuated, and the efficient regulation of spatial dynamics is based on their decisions.

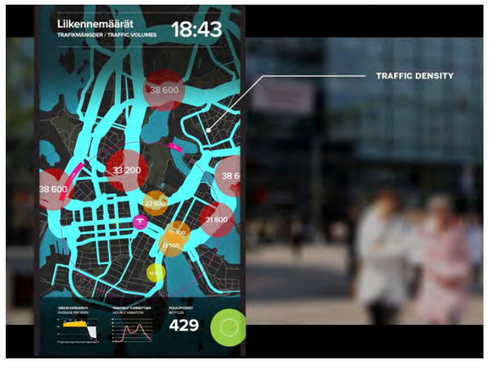
Truly smart cities will emerge as inhabitants and their many electronic devices are recruited as real-time sensors of daily life



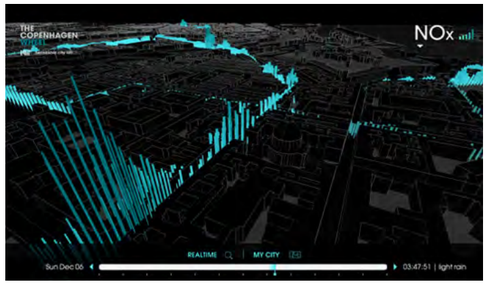
Citizen Connect (City of Boston, MA) is the City of Boston's award-winning effort to empower Boston residents to be the City's "eyes and ears" throughout their neighborhoods. Through this program, you can use your mobile phone in five different ways (ring, text, web, tweet, app) to alert the City of Boston to neighborhood issues such as potholes and graffiti.

NYC Big Apps (NYCEDC) is an annual software competition for individuals or companies to develop online and mobile applications that utilize official City datasets. NYC BigApps serves to stimulate innovation in the information technology and media sectors and the winners receive cash prizes.

As a rich, digital service, Urbanflow can provide users with immediate, useful information. The situated nature of urban screens means that the 'one size fits all' approach to street cartography can be discarded and replaced with a living system that adapts to individual users' needs and requests. Variables such as date, time and location may be reflected in the map's content. The depth of the concept comes from a range of layers built upon the Urbanflow city map, designed to maximise the potential of Helsinki's situated urban screens.



Smart, responsive, and elegant, the Copenhagen Wheel (MIT SENSEable City Lab for the City of Copenhagen in cooperation with Ducati Energia) quickly transforms ordinary bicycles into hybrid e-bikes that also function as mobile sensing units. The Copenhagen Wheel captures the energy dissipated while cycling and braking, and saves it for when the biker needs a bit of a boost. It also maps pollution levels, traffic congestion, and road conditions in real-time. Controlled through the cyclist's smart phone, the Copenhagen Wheel becomes a natural extension of the cyclist's everyday life. The phone can be used to unlock and lock the bike, change gears, and select how much the motor assists the biker.



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11.5.

A Day in CCD

Due in turn to the diversity of functions offered by CCD, a day in CCD means the integration of several activities developed by different actors. In the following five comic strips we have identified five main activities that will occur in key areas to be represented by future users. Thus, this diversity is shown in (i) a journey to work, (ii) walking and working in the Rambla, (iii) co-working courtyards, (iv) interacting in the Infobox, and (v) an evening stroll in CCD providing possible scenarios to be lived in CCD .

• 'A journey to work' tells the story of the pleasant commuting process of a young workingwoman of the creative industry. It comprises all the services provided by CCD with regard to mobility and how she makes use of them to arrive in her office.

• Followed by 'walking and working in the Rambla', which provides an insight to the life of two students of the Ingenium Campus and how they interact with the context of the Rambla and Parque Morelos as physical infrastructure, at the same time that they profit from E-learning programs and Adobe Hotspots.

• The third cartoon is called 'co-working courtyards' because it graphically illustrates the daily life of a worker in CCD and its possibilities to work outdoors. The aim behind this story is to demonstrate the benefits of working within terraces, the freedom and flexibility that these spaces provide, showing interaction with co-workers and mix of activities.

• 'Interacting in the Infobox', fourth scenario, explains a set of activities that might be carried out by people of all ages, form children to elder. Providing an understanding of CCD as pedagogical site for education and recreation children and families.

• Finally, 'an evening stroll in CCD' focuses on leisure activities. Telling the story of multicultural couple having their first date on the site, enjoying the mix of Mexican culture and 21st century technologies.

A JOURNEY TO WORK

WALKING AND WORKING IN THE RAMBLA

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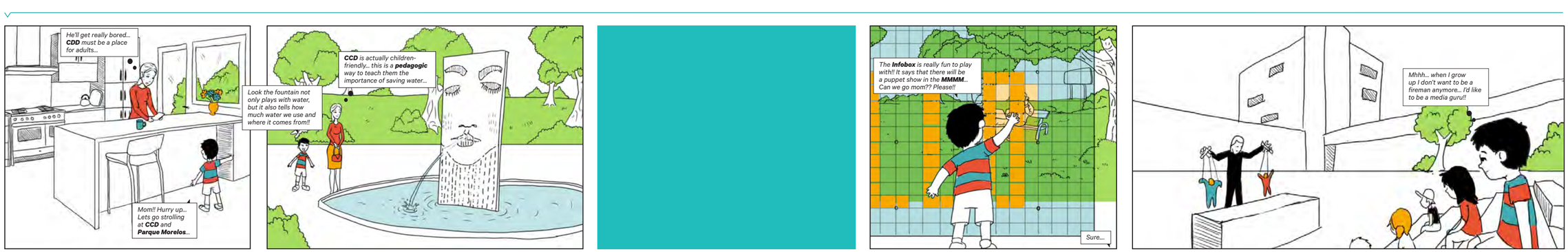
CO-WORKING COURTYARDS

INTERACTING IN THE INFOBOX



AN EVENING STROLL IN CCD

12

Digital Lifestyle: **The Operating System**

12.1 The CCD Operating System
12.2 The Digital Services Portfolio
12.3 The Priority Services
12.4 Roadmap for Implementation
12.5 Digital Service In Detail: Intelligent Street Lighting
12.6 Digital Service In Detail: Smart Parking
12.7 Digital Service In Detail: E-Learning
12.8 Digital Service In Detail: Digital Public Displays
12.9 Digital Service In Detail: Cloud Based Creative Software
12.10 Digital Service In Detail: Live Labor Marketplace

12.

The Operating System

Overview

CCD has ten strategic guidelines to direct the development of the city and the digital services that are implemented for the use of the citizens and visitors of CCD. CCD will: build on the unique qualities of downtown Guadalajara; create a high quality of urban life with 3D mixed life space; integrate the site with the city, both physically and socially; reconceive Parque Morelos as a 21st century place of creative work and culture; design urban systems that respond to the needs of the city in real time; attract (the right) mix of enterprises, institutes and people; live, eat, breath and think knowledge; and establish the vision for a truly sustainable, transformative project.

The digital services implemented throughout CCD will help achieve these guidelines and ambitions, and will also directly support the design of a system that responds to the needs of the city in real time.

The Urban Operating System will act as the backbone for the integration of all the digital services in CCD and allow for real-time feedback throughout the city, displaying data on multiple devices and formats for easy access to citizens, workers and visitors.

With this integration of services throughout the city, CCD can become a leading creative digital city, able to export its content, services and business and governance models to other cities. This will make CCD a global showcase of how city services can be integrated to maximise the value to every stakeholder.

As CCD begins to be recognised as a global showcase for integrating city services to respond to the needs of the city and its citizens in real-time, funding from foreign direct investment can become a more prominent funding source. This will help continue to fund the build and implementation of the additional digital services within the city.

However, throughout the longer phasing of CCD, the digital services will become self-sufficient, becoming independent and sustainable business models rather than relying on funding from external sources. This will decrease the requirement for continued funding for CCD while also providing continued revenue streams for either the owner / operator of the service of CCD itself.

Additional revenue from these digital services can be funnelled back into CCD, continuing the development of the city while providing high quality city services to its residents and workers and the city's visitors.

The build and implementation of digital services within CCD will also help the city and the wider DUIS region achieve its sustainability vision and targets. Digital services can be used to raise consumer awareness and knowledge of sustainability targets, track sustainability performance on varying scales (citywide, block, neighbourhood or individual buildings), or help drive consumer behaviour change to reduce energy consumption. Services can also help decrease CCD emissions by raising efficiencies in standard city services, or by providing low carbon alternatives. Various services create both primary and secondary sustainability benefits.

The digital services that are implemented within CCD will help achieve the goals of CCD and wider governance team: helping to develop creative appeal for citizens, workers and visitors; enhancing the sustainability agenda; leveraging digital assets of value to all of Mexico; and branding CCD as a place for social sustainability. These services are instrumental in differentiating the site from other creative digital hubs, and will help make the site truly unique on the global scale.

12.1.

The CCD Operating System

A vision has been developed for digital services in CCD that is driven by an objective of answering key challenges that affect the area and the larger DUIS zone. Design principles such as modularity, interoperability and scalability have been laid out that will support on-going development of services in the future. The foundations for our digital services in CCD lie in the following statements.

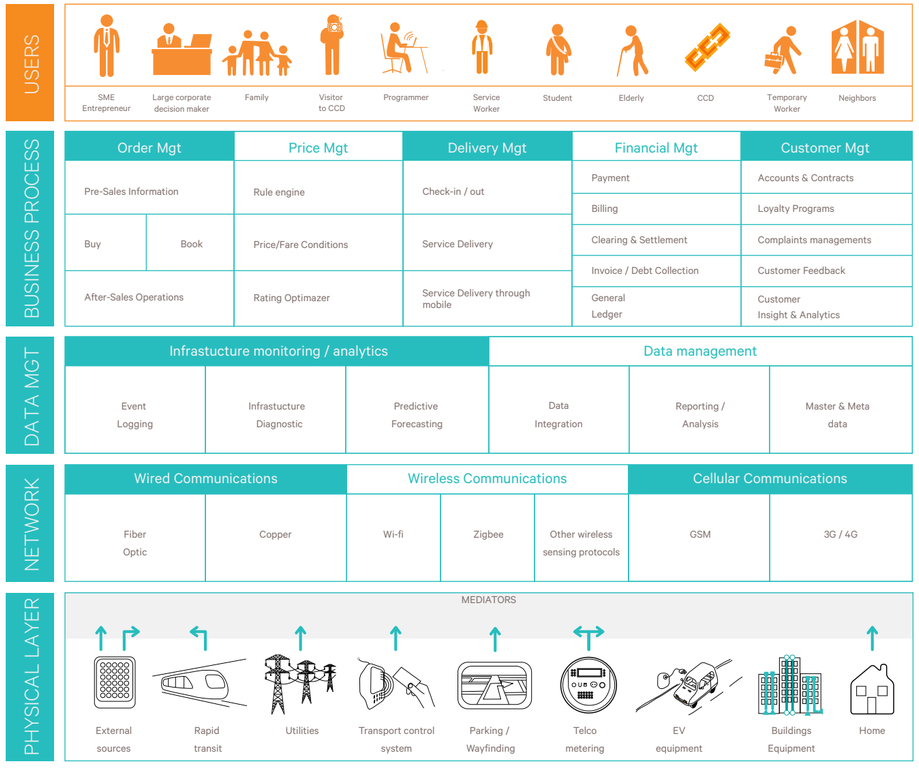
• Digital services can drive innovation and contribute to the overarching vision of the CCD, creating a truly differentiated place for businesses wishing to operate in the creative digital industry, for the people who will travel there and for the people who will live there.

• The digital services in the CCD will be driven by the challenges facing both the current residents and visitors of the CCD and its future residents and visitors.

• By using a people-centric approach and integrated digital planning, current and future challenges can be addressed and the needs of each CCD user can be addressed.

A platform has been designed in line with the core principles outlined above that utilises a broad range of data sources from within the urban fabric and allows for public sector bodies, developers and entrepreneurs to innovate and provide services that support the vision for CCD. The solution is pre-configured, integrated, modular and based on open architectures and industry standards allowing for continued innovation, 'open' and 'closed' payment solutions and a plug and play approach.

The Urban Operating System Platform



12.1.1. Platform Overview

PLATFORM ARCHITECTURE

CCD aspiration to become a digital hub of international profile requires a comprehensive vision for the digital platform that would support all the various digitial services this industry will demand.

The CCD Operating System (OS) will be an **incubator for future services**, not just those that are currently being envisioned. By creating a modular system, which third party providers can add services and applications to, the system will help **encourage innovative digital services** as the needs and challenges of the CCD continue to evolve.

The CCD OS provides the infrastructural back bone and core administrative services that will enhance the day-to-day business and life activities for each CCD stakeholder

GUIDING PRINCIPLES:

- The system will support the creation of innovative and flexible business models, supporting transaction-based pricing model
- The solution will allow for great flexibility in terms of devices selected and integration approach as it supports all types of devices
- The deployment strategies should accommodate with different geographical and environments constraints, creating greater potential for international export, allow for incorporation of future services

DUIS REQUIREMENTS:

There are a number of Information and Communications Technology (ICT) related requirements and proposals that DUIS certified building developments should consider. The summary list is below:

- Public telecoms network requirements
- Public space information service requirements
- Residential housing requirements
- Urban maintenance services
- Public safety services
- Digital hub requirements

All these requirements are further explained in detail in Chapter 18.

SOLUTION DESIGN:

- The solution is pre-configured and integrated, modular and based on open architectures and industry standards allowing for continued innovation
- Support combined 'open' and 'closed' payment solutions
- Support the requirements of different schemes by a plug and play approach

The physical layer of the Operating System is made up of individual sensors placed throughout the CCD, in strategic locations. These will include sensing capabilities in different utilities, including public transit, parking and individual home sensing. These sensors will feed data directly, and in real-time, to the network through a combination of wired, wireless or cellular communications.

This data will then be managed appropriately, and analyzed through the data management layer, logging incidences or forecasting future action.

Finally, this data will be processed according to business domain and end use, and this data will be fed to the appropriate end user / stakeholder.

For example, parking data could be sensed from individual parking spaces, which would check whether the space is available or not. This data would be fed wirelessly through the CCD Operating System network in real-time, and be managed and processed according to the owner / operator of the parking services. This data would then be available for the user, giving real-time information to the user about which parking spaces were free to park in.

12.1.2. The Physical Layer

DIGITAL PLACEMAKING
In order to provide an environment where CCD residents and visitors can interact with urban information and services an element of digital place-making is proposed.

This concept allows the CCD project area to be described in terms of the digital services offered that will transform the lifestyle of residents, workers and visitors.

As a starting point, for phase 1 this would consist of providing urban informatics in a key pedestrian corridor where the interaction between the data streams and the users will be experienced. These real time displays will be connected to the phase 1 proposed buildings various programs and activities. The key elements of this phase proposed are:

SERVICE NODES
A series of 'service nodes' in key areas, where citizens can interact with urban digital services and specifically with e-government services, through the use of extended digital kiosks

SERVICE CORRIDORS
Urban information displays to pedestrians passing through 'digital services corridor' Could take the form of interactive sidewalks, visual displays on the side of buildings, interactive bus stops and other street furniture
Information that could be displayed includes CCD energy usage mapping, air quality mapping, water quality in the park, traffic information, etc.

12.1.3. Networks

The first component of the network is for the Urban OS. This a fundamental component as it would be the main conductor of the various data streams used by the various digital services at CCD.

It is intended that CCD has two main networks:

1. PRIVATE FIBRE NETWORK THE FOLLOWING ELEMENTS:

UTILITY SERVICES
CCD might want to run its own private fibre backbone network to provide wide area network connectivity between key CCD buildings and to support utility services such as smart parking, intelligent transport systems and smart grid systems.

SECURITY SERVICES
Providing security services to the CCD is likely to be a very important issue in order to attract businesses and residents. A backbone fibre network would be required to provide the capacity for the video traffic from CCTV cameras across the CCD area.

URBAN INFORMATICS
In order to provide CCD residents with innovative ways of interacting with local information and services the extended use of digital kiosks and urban informatics will be required. A CCD fibre network will support a closer interaction with e-government services and visualisation of urban information such as energy consumption, water quality, air quality, traffic statistics, etc.

DATA CENTRE
A data centre will be required for storage and analysis of information from multiple different CCD systems. The location for such a data centre has been suggested as being in the MMMM building, as described in the Sustainability Energy Strategy section of this report but further considerations have to be done at the next stage of the masterplan.

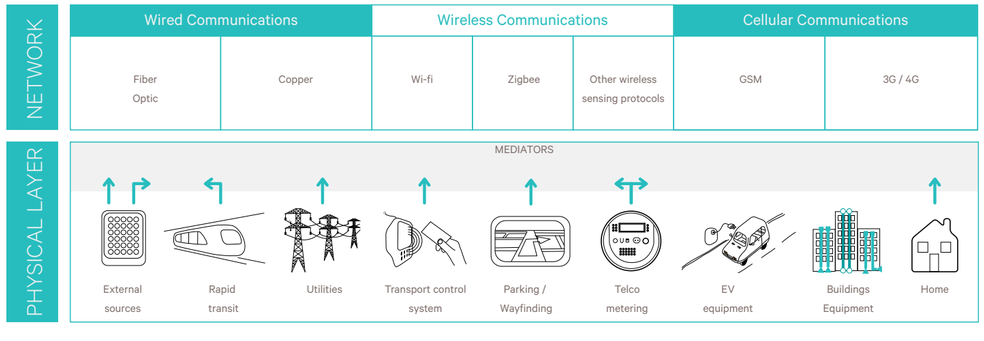
2. WIRELESS MESH NETWORK
The CCD would provide an environment for multiple wireless mesh networks to operate:

- Core mesh network providing coverage throughout CCD
- Multiple localised mesh networks for providing different services such as smart parking

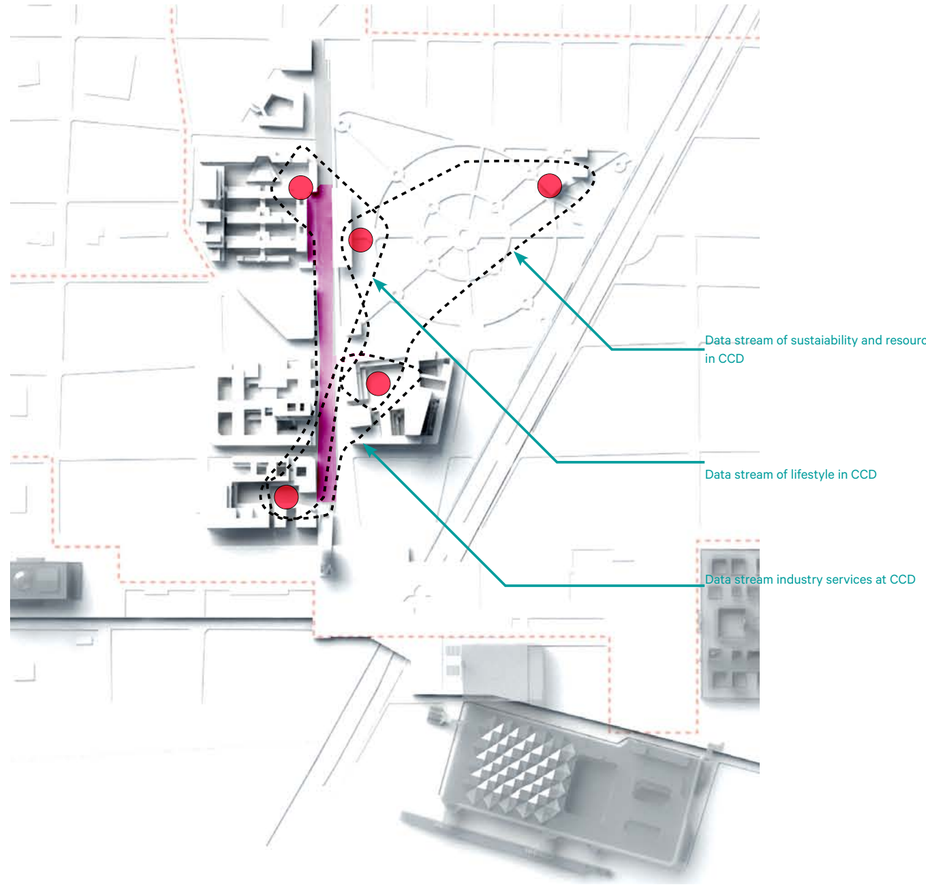
The core mesh network would potentially operate on the 802.11 family of protocols and would provide public internet access over wi-fi, as well as provide virtual LANs for transmitting signals from more localised networks such as smart parking.

Multiple mesh networks for localised services such as smart parking, operating on a protocol such as Zigbee or Enocean, could bridge into the core network in order to provide connectivity back to a data centre. For Further detail of this network please refer to chapter 18.

The Physical and Network Layers of the Platform



Illustrative plan of three flows of data and sensoring areas overlapping at CCD.



Urban Service Corridor
Urban informatics displays showing 'the heartbeat of the city' on the side of buildings, bus stops, and other public infrastructure along this corridor between service nodes
Display of information through interactive sidewalks – e.g. Nissan ineractive sidewalk at Lisbon airport

Urban Service Nodes
Specific areas of popular pedestrian congregation and access where Interactive digital kiosks could be placed in order to engage the citizen with urban information – e.g. 10 squared development in Canary Wharf
A place to interact with e-government services, but also interact with urban informatics displays showing urban data such as air and water quality, traffic information, energy consumption, waste recycling, etc.

Examples of digital interactive displays

12.1.4. The Data Management Platform Layer

Streamlining data management processes will allow for increased efficiency in the delivery of digital services across CCD and become a catalyst for footprint growth across Guadalajara The data management layers will allow collection standardisation and storage of the urban data streams. The following outlines some examples of them modules shown in this section:

PREDICTIVE FORECASTING:
Infrastructure monitoring and analytics will provide internal services for improved facility management and increased utilisation of key assets. This will in turn drive annual productivity yields of 2-3% and reduce facility management costs by 10-15%.

REPORTING / ANALYSIS:
Data management systems can allow for city leadership to extract accurate metrics on the performance of the city along a vast range of .key performance indicators.

The data management layer provides a standardisation and storage function for the platform facilitating analysis of long term sensor data

Analytics can extract useful trends in large datasets

High level functional requirements of the data management layer

Infrastucture monitoring / analytics

The infrastructure monitoring function is **the analytics module** and shall:

- Store event data with regards between users and the platform
- Provide diagnostic capabilities for infrastructure and other urban data streams
- Utilise data for predicative forecasting across the urban data streams
- Host standard tools for analytics on the data module

Data management

The data management function is **for directing primary-interactions with the user** and shall:

- Provide an integration and categorisation function for all urban data streams
- Provide access and search functions for developers on the urban data base
- Manage reporting and analysis queries and provide standardised output to the request
- Manage master database
- Manage meta-database

Data management platform level

DATA MGT	Infrastucture monitoring / analytics			Data management		
	Event Logging	Infrastucture Diagnostic	Predictive Forecasting	Data Integration	Reporting / Analysis	Master & Meta data

12.1.5. Data Taxonomy

DATA TAXONOMY
The following diagram outlines a taxonomy for potential urban data streams that can be combined to provide valuable digital services across CCD. These data streams can be measured through a variety of sensors in the built environment and could transmit, collect and distribute data across the various platforms.

A coordination of any of these data streams would need to be further specified at the next stage of design depending on the final model of the governance model choosen. Some of the technical requirements for specific data streams would affect the proposed telecom platform.

URBAN OPERATING SYSTEM INTEGRATION
The CCD urban operating system will require providers of digital services in the CCD area to integrate to a common platform. Interoperability, defined as the ability of service providers and systems to share information and services, will underpin this integration to a common platform. In order to implement interoperability the creation and enforcement of realistic and measurable standards will be required.
Core interface agreements, and subsequent interoperability standards, for CCD service providers need be defined on multiple levels, as described below.

OPERATIONAL INTEROPERABILITY: defines how various service providers might share business processes.

INFORMATION INTEROPERABILITY: defines what information is to be shared and how this sharing will be achieved across service providers. Standards will need to be introduced that ensure a common ontology amongst service providers in the areas of information structure, quality, access, and security. It is crucial that an integrated information security model is developed right from the outset, rather than bolted on at a later stage.

TECHNICAL INTEROPERABILITY: defines how technical components will interact in order to support the operational and information interoperability requirements. This will include standards for the communication, storage, processing and access of data.

The broad interoperability requirements outlined above will require refining such that they meet all the needs of the CCD. An example of further specifying Information Interoperability is the Degrees of Interoperability used by NATO, as shown below. These degrees, for example, could be very useful in specifying the way in which information has to be exchanged between the various service providers and systems in the urban operating system.

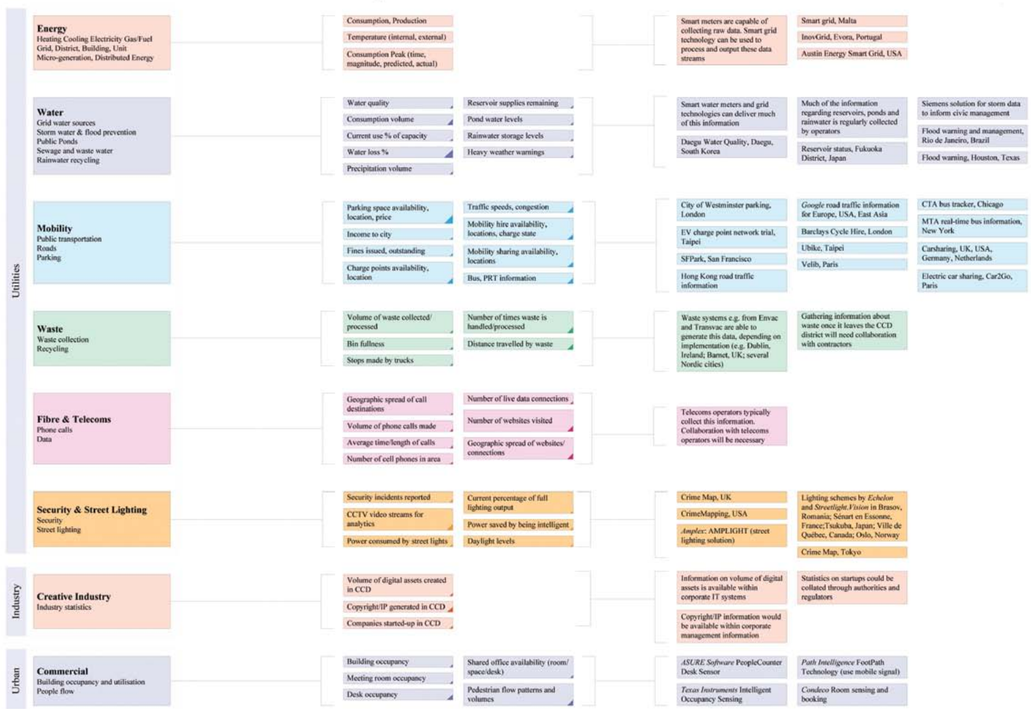
Degree 1: Unstructured Data Exchange - the exchange of human-interpretable unstructured data, such as the free text found in operational estimates, analysis, and papers.
Degree 2: Structured Data Exchange - the exchange of human-interpretable structured data intended for manual and/or automated handling, but requires manual compilation, receipt, and/or message dispatch.
Degree 3: Seamless Sharing of Data - the automated sharing of data amongst systems based on a common exchange model.
Degree 4: Seamless Sharing of Information - an extension of Degree 3 to the universal interpretation of information through data processing based on co-operating applications.
The intent of refining the levels of interoperability is to ensure that they are sufficiently detailed to become technically meaningful. Operational and technical interoperability should be refined in a similar way.

Open standards should be adopted by the DDA wherever possible, in order to assist in the interoperability of service providers. Before defining which standards should be used, a detailed analysis of the business requirements of the DDA will be required. However some example standards for information and technical interoperability are highlighted below.

EXAMPLE INFORMATION INTEROPERABILITY STANDARDS:
Data interface and transport – XML
Modelling language – UML
Relational database access – SQL
Biometric data exchange - common biometric exchange formats framework
Geospatial data - GML

EXAMPLE TECHNICAL INTEROPERABILITY STANDARDS:
LAN/WAN connectivity – TCP, IPv4 and IPv6
TCP/IP security – IPSec, SSL, TLS, SSH
File transfer protocol – FTP
Wireless mesh network connectivity – 802.11 family of standards
Directory services - LDAP

Data taxonomy outlining potential urban services and data streams



12.1.6. The Business Process Layer

HIGH LEVEL FUNCTIONAL REQUIREMENTS OF THE DATA MANAGEMENT LAYER

Order Mgt

The order management function is **for directing primary interactions with the user** and shall:

- Provide specific and detailed pre-sales application information to the user
- Provide a system for the user to initiate purchase of the application
- Allow for initiation of a booking process without financial commitment from the user
- Collect after sales information and provide it to the user

Price Mgt

The price management function is **for managing all aspects of price and feedback** and shall:

- Include rules for pricing that can be utilised by developers and will provide users with pricing details
- Define price and fare conditions for the services
- Provide the capability for price reductions including but not limited to vouchers, discounts and subscription schemes
- Provide the capability for users to feedback about services provided to them this will be displayed on the user interface

The business process layer or service delivery platform provides the core back office functions for potential digital services to use with the customer base

Delivery Mgt

The delivery management function is **for directing primary interactions with the user** and shall:

- Take purchase order from order management through pricing and make request of financial management function
- Control access rights and usage of services by the user
- Manage download centre and release of software to the user
- Provide delivery of services parcel in a protocol that allows for mobile identification

Financial Mgt

The financial management function **controls all financial elements in the transaction** and shall:

- Receive a financial order from the delivery management functions with order and price data
- Verify user data with the customer management system, test and verify any loyalty or discount requests
- Request payment from correct partner financial institutions
- Clear payment with partner financial institutions
- Allocate the payment to the correct accounts within the platform
- Store invoicing and general ledger information and deliver it to the correct function upon request

Customer Mgt

The customer management function **holds and manages all customer information** and shall:

Hold all customer accounts and contracts and provide information or approval on request from other functions

Manage a database of loyalty programs that can be accessed by the other functions as required

Collect and categorise complaints submitted by users distributing them to the correct management function for resolution

Handle and categorise customer feedback by application, provide information as a display to the user

Access required data to perform customer analytics which can be used by developers for insight

Business Process Layer of the Urban Operating System

BUSINESS PROCESS	Order Mgt	Price Mgt	Delivery Mgt	Financial Mgt	Customer Mgt
	Pre-Sales Information	Rule engine	Check-in / out	Payment	Accounts & Contracts
				Billing	Loyalty Programs
	Buy / Book	Price/Fare Conditions	Service Delivery	Clearing & Settlement	Complaints managements
				Invoice / Debt Collection	Customer Feedback
	After-Sales Operations	Rating Optimazer	Service Delivery through mobile	General Ledger	Customer Insight & Analytics

12.2. The Digital Services Portfolio

A portfolio of approximately 70 services was identified to illustrate the potential of the platform, although this list is by no means exhaustive and the expectation is that many services will be innovational and as yet undefined in terms of the need they service of their delivery platform. From this list a representative sample of high impact services was selected and analyzed in more depth. The selection methodology included range of stakeholders affected, triple bottom line value, and ease of implementation.

Value creation delivered by the services impact across economic, social and environmental metrics. The identified services combine resource efficiency gains, communication, drive sustainable behavior, improved utilization of workforce, and education support. Illustrative use cases were created to detail how these services will affect the lives of citizens.

A benchmarking of international vendors and products identified some key lessons that can be utilized when implementing similar services in CCD. Some vendors have been identified who focus on specific services, such as Streetline, a smart parking solution provider or iTunes U, a remote education platform. Conversely, technology partners that offer a broad range of services, such as Accenture and IBM have also been studied in detail. Using a combination of these providers (both vendor specific and broader partners) will ensure the CCD operates as a fully integrated creative digital city.

A value case was developed for the identified services and demonstrated not just economic value but also incremental value add that will spread out into the wider city. Incremental value elements include gross value added, levels of employment and citizen satisfaction, where these metrics are relevant.

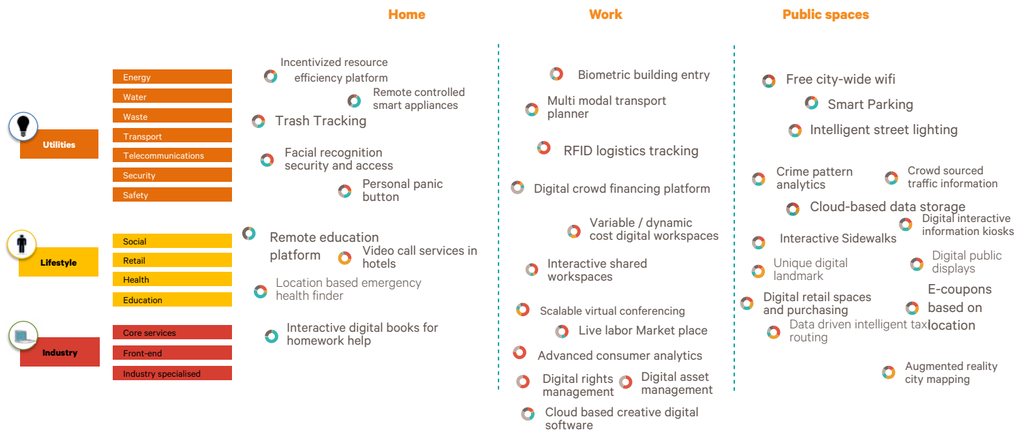
12.2.1. Digital Services to the Citizen

Core services to the citizens can be broken down into three groupings that will allow for growth of digital creative services and a sustainable lifestyle. These three groups cover the specific areas within CCD and the location where each service will be used; the home, the office or work and public spaces. The attractiveness of the digital services varies from group to group, while all may be utilised by each stakeholder group, there will be clear differentiation of value between each. Some individual stakeholders give a higher value to services used in a specific area, such as the large corporate decision maker and services that are based in the work space. By analysing services on different spatial levels it ensures the digital services for CCD run throughout the lives of the citizens and visitors to CCD.

Multiple digital services have been analyzed to address the unique needs and challenges of each stakeholder group in CCD

Portfolio and value of digital services to potential users

Value at stake for each of the users



USERS

OTHER TARGET GROUPS

Although services also apply to the other target groups there maybe additional specific services

Service impact of potential digital services

KEY USERS

HIGH | MEDIUM | LOW

SME Entrepreur

- 20 – 35 years old
- Wants to set up a business within the CCD
- Lives in the CCD

HIGH: Online business funding applications & support; Variable / dynamic cost digital workspaces; Interactive shared workspaces

MEDIUM: Live Labour Marketplace; Scalable virtual conferencing systems; Multi-modal transport planner

LOW: Provision of wireless medium for service integration; Digital crowd financing platform; Apps for location of events and leisure activities; Cloud based creative software

Large corporate decision maker

- Multi-national company
- Looking to open an office in Guadalajara

HIGH: Biometric building entry; Digital asset management; Integrated interactive workspaces

MEDIUM: Digital rights management; Cloud based data storage; RFID logistics tracking; Data driven intelligent taxi routing

LOW: Scalable virtual conferencing systems; Advanced consumer analytics

Family

- Family with children aged 0 to 16
- Lives inside CCD
- Parents work in the CCD
- Current resident or new migrant

HIGH: Intelligent lighting in public spaces; Multi-modal transport planner; Crime pattern analytics

MEDIUM: Crowd sourced traffic information; e-coupons based on location; Location based emergency health finder

LOW: Remote education platform; Apps to send alert if children have been in an accident; Interactive digital books for homework help for children

Visitor to CCD

- Lives outside the CCD
- Visits the CCD to access leisure facilities

HIGH: Digital public displays; Data driven intelligent taxi routing; Digital interactive kiosks with free visitor information; Interactive sidewalks

MEDIUM: Unique digital landmark; Digital retail spaces and purchasing; Augmented reality City mapping; Multi-modal transport planner

LOW: Free city-wide wi-fi; e-coupons based on location; Video-call service in hotels

Neighbors

- Currently lives within the CCD
- Will continue to stay within the CCD once development begins

HIGH: Personal panic buttons; Smart parking; Remote controlled smart appliances; Trash tracking

MEDIUM: Remote education platform; Facial recognition security and access; Intelligent lighting in public spaces

LOW: Multi-modal transport planner; Data driven intelligent taxi routing; Incentivised resource efficiency platform

12.2.2. Digital Services Scoring Methodology

Each digital service was scored and ranked to create a matrix measuring number of people impacted and the level of importance of each service. Indicative lifetime cost of each service was used to compare each service

Digital services scoring methodology descriptions

NUMBER OF PEOPLE SERVICE AFFECTS

This value used the identified segments of residents, visitors and workers to the CCD; the greater number of stakeholders impacted by the service, the higher the service scored. 10% was subtracted to the total number of stakeholders impacted to make it a comparable value to other metrics.

LEVEL OF IMPORTANCE OF SERVICE:

This was assessed based on the findings from the Institutional Participation Process conducted by Fundacion Metropoli. Values from the survey were used when available, otherwise level of importance was ranked whether the service would differentiate the CCD from other digital creative cities.

LIFETIME COSTS:

This assesses the lifetime costs of each service, including capital expenditure, operating expenditure (annual)and predicted repeated expenditure (at time intervals). The lower lifetime cost, the higher the score to represent a greater ease of implementation for the CCD or the private sector.

7-10 — This service will have an impact on 8-11 of the stakeholder segments identified

4-6 — This service will have an impact on 5-7 of the stakeholder segments identified

1-3 — This service will have an impact on less than 5 stakeholder segments identified

7-10 — This service was scored with high importance during the Institutional Participation Process; exact values from the survey were used here

4-6 — The service is of medium importance but was not been identified during the Institutional Participation Process

1-3 — This service is not crucial to the differentiation of the CCD and was not been identified during the Institutional Participation Process

7-10 — This service has a lifetime cost below $5M (USD)

4-6 — This service has a lifetime cost between $5-100M (USD)

1-3 — This service has a lifetime cost over $100M (USD)

EXAMPLE: FREE CITY WIDE WIFI

9.9 This service will impact every stakeholder group of the CCD. Because the service is offered for no cost to the user, lower income residents as well as visitors to the CCD can take advantage.

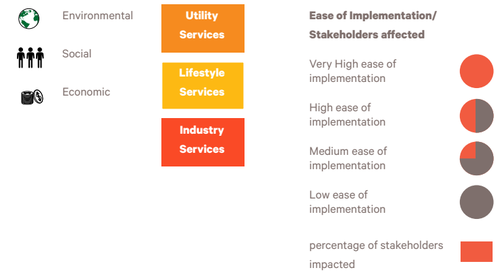
9.3 This service will impact every stakeholder group of the CCD. Because the service is offered for no cost to the user, lower income residents as well as visitors to the CCD can take advantage.

6.0 Wireless internet has typical costs of approximately $10-15 million USD for cities. This will vary based on number of households and when the service is implemented, but this cost projection has been used here.

12.2.3. Phase 1 Services (Years 1-3)

EXAMPLE: FREE CITY WIFI

Free city wifi is an important part of CCD infrastructure that will help enable the urban operating system to function within the city, and provide a wide range of services to residents, professionals and visitors to CCD. Free city wifi will have a high lifestyle impact on all stakeholder groups within CCD as visitors could gain access to the services and use this service to gain travel directions, weather forecasts or hot spots to travel to amongst other services outlined here, or those that have not yet been identified. Additionally, professionals could have access to creative digital software, or other applications in the cloud, and residents could gain travel information, or access websites with these services. Free city wide wifi provides a backbone for digital services that have been identified here, as well as service that have not been identified or created. With the high number of stakeholders impacted by the service, the lifestyle gain will also be high. Free city wifi is also crucial for CCD to become globally competitive as a creative digital city as this service is currently being provided in many cities around the world. Environmental impact is quite low as there is no direct environmental or greenhouse gas (GHG) impact, and there will be little financial gain as the service will be offered free to the city, however additional revenue streams could be added for the provider through advertisement space or sponsorship. However, social gain is high with extensive benefits to the citizens and visitors of CCD. Ease of implementation will be based on the phasing of the growth of the city; as the city expands, the infrastructure for the wireless network would also have to grow; however, once the service has been implemented within CCD, the operating costs and maintenance will be low when compared to other city services.



Long list of potential digital services for Phase 1

Service	Description	Lifestyle Impact	Stakeholders Affected	Value Low High	Ease of Implementation
Free city wide wifi	Wireless connectivity that provides a secure and stable connection for all visitors and residents of the CCD free of charge. The service will provide appropriate bandwidth to enable access to other city-wide digital services. Premium access can be provided to heavier business users in the outdoor/indoor workspaces concept.	High			
Control of interactive water features in Parque Morelos	Water features throughout the park which can be controlled by visitors and residents of the CCD; the interactive features can include digital signage or fountains.	High			
High speed broadband throughout the CCD	Seamless, secure and resilient high-speed internet connectivity services for the CCD. Premium access can be provided for heavy industry users for an additional cost.	High			
Intelligent street lighting	Intelligent lighting can utilise new technologies to optimise light intensity, and integrate lighting infrastructure with other city services like security, and environmental sensing. Additional sensing capabilities and retail space on the light post can be added.	High			
Dynamic electronic road user charging	Cars are fitted with equipment that automatically charges the owner if the cars drives beneath one of the city's electronic toll gates at specific times; charges can be dynamically based on road congestion, like the Congestion Charge in the City of London.	High			
Cloud data storage services	Data storage services in the cloud, making the data accessible from any location or internet enabled device. This enables access from personal computers, office spaces, outdoor locations or in public locations like interactive kiosks.	High			
Digital public signs	Public signage which has audio and video capabilities to provide innovate advertisement and announcement space. Digital public signage can include dynamic speed limits, specific company advertisements or weather information.	High			
Visualisation of water quality in Parque Morelos	Measures and displays the water quality at Parque Morelos water entry and exit points, viewable to CCD residents and visitors. This water quality visualisation will let users know whether they can swim in the local ponds and larger bodies of water.	Medium			
Adaptive traffic lights	Lights that have advanced signalling devices that an detect traffic patterns to minimise time spent waiting for lights to change. This means that cars will typically wait for a shorter amount of time at lights, which will decrease time spent travelling as well as emissions.	Medium			
Crowd sourcing traffic information	Analyses what people say on Twitter and other social media sites, aiming to give commuters traffic information in real time . This gives people the most up to date traffic information, and will help decrease traffic congestion and time spent travelling.	Medium			
Cloud based creative software for registered educational users	Creative software in the cloud allows for any registered user to use leading creative software to maximise the potential value of any project / product. Software can be accessed on personal computers or offices, or public locations such as kiosks.	Medium			

12.2.4. Phase 2 Services (Years 3-7)

Long list of potential digital services for Phase 2

Service	Description	Lifestyle Impact	Stakeholders Affected	Value Low High	Ease of Implementation
Intelligent urban security systems	Security surveillance system that analyses information from security cameras to determine specified information about the content such as suspicious objects, behaviour or attitude. Face in the crowd analysis means that CCTV can be more effective, and cost to serve will decrease.	High			
Smart parking	Smart parking solutions connect sensor-enabled parking spots with smartphone apps and public kiosks to provide drivers with information on available spaces, and ability to pre-book specific spots. Premium services can be provided to enable valet parking, car wash and clean , car detailing, and maintenance checks.	High			
Digital interactive information kiosks	Kiosks located throughout the CCD which provide users with instant information regarding public transport, parking locations or weather forecasts. These kiosks can also be integrated with other services offered within the CCD such as remote education or cloud based creative digital software.	High			
Multi-modal transport for varying distances	Gives commuters real time information on transport times, both for personal cars and public transit, improving commuter experience and decreasing congestion and time spent travelling. This information can be transmitted via smartphones, public kiosks or on bus stops or on other forms of public transit.	High			
Scalable and pervasive virtual conferencing	Video conferencing allows real-tome video sessions and meetings to take place between two or more users from two or more locations. Includes WebEx and Telepresence facilities. This greatly decreases the requirement for transport, as well as increasing the ability and ease of collaboration.	High			
Dynamic building management	Centralised computer control system within a building which manages the buildings mechanical and electrical equipment, normally including HVAC and energy and water usages.	High			
Interactive billboards	Employs touch-screen technology to deliver information instantly to users, benefitting retail tenants by attracting more customers and improving the delivery of information and promotions. These will help tenants as well as giving consumers more information about new products and promotions.	Medium			
Unique digital landmark	Distinctive landmark that can be recognised on the global scale, distinguishing the CCD from other creative digital cities. This will help increase tourism for the CCD, as well as differentiate the site from other creative digital cities.	Medium			
Digital retail spaces and purchasing	Integration of e-payment services at retail stations; either smart cards that allows users to pay via 'touch and go' action with a physical card, or mobile payments using any smartphone.	Medium			
Remote global education opportunities	Allows residents to complete online education courses and receive world leading training from any location. This will help increase the overall level of qualifications of people within the CCD as gaining qualifications becomes easier, and can be attained at any pace.	Medium			
e-coupons based on GPS location	Leverages on automated technology to provide consumers with product information, and coupons based on exact location. This will help retailers can extra customers and increased foot traffic.	Medium			
"Buzz map"	Crowd sourcing information to determine hot spots for leisure activities based on number of people. This will help tourists find busy locations and attractions within the CCD.	Medium			
Interactive sidewalks	Interactive capabilities displayed in pedestrian pavements and can be updated to incorporate new designs or advertising. These can help residents and tourists plan journeys or give users additional information.	Medium			

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Long list of potential digital services for Phase 2

Service	Description	Lifestyle Impact	Stakeholders Affected	Value Low High	Ease of Implementation
Interactive shared workspaces	Variable costs for prepared digital workspaces based on hours needed, enabling people to work from any location across the CCD.	Medium			
Digital crowd financing platform	Platform to aggregate crowd-sourcing financial sites to make it easier both to fund ideas and raise funds for ideas. This is a service that allows citizens to fund business ideas or services that they are interested in or would liked to be offered .	Medium			
Variable / dynamic cost for digital workspaces	Interactive workspaces equipped with digital displays to include relevant necessary information and other advertisements or promotions relevant to the workspace.	Medium			
Online business funding application support	Business application funding support for SMEs and large corporations based online to enable easy access from any location. This helps simplify the process of gaining funding from multiple sources or people.	Medium			
Digital asset management	Stores and catalogues information in a manner that each asset is easily retrieved and distributed from a central repository. This helps businesses access and control information in a simple manner.	Medium			
Royalty management	Allows content development companies to reduce the complexity of collecting and tracking royalties owed by providing a single point of contact.	Medium			
Digital rights management	Enables content owners to protect their content from being accessed illegally by users without an access license. This service ensures that businesses are recouped all of their costs.	Medium			
Advanced consumer analytics	Provides information about shopper dynamics and behaviours which can be used to guide future marketing strategies and other commercial activities to drive traffic performance.	Medium			
Video call services in hotels	Services that facilitate real-time video sessions between two or more users from two or more locations, in hotels for visitors of the CCD.	Medium			
Incentivised resource efficiency platform	An incentive scheme to encourage low carbon and energy efficient activities, like cycling or installing insulation. Incentives can be coupons or tax incentives.	Low			
Data driven intelligent taxi routing	Using real-time information, routing taxi drivers to avoid congested areas or telling taxi drivers to wait in areas with high predicted pedestrian volume.	Low			
RFID logistics tracking	Utilises RFID item-level tagging for in-store inventory management to significantly reduce the time needed for storewide inventory counts. Can be the catalyst for developing consolidation centers to reduce delivery truck traffic and digital retail across CCD and DUIS.	Low			

12.2.5. Phase 3 Services (Years 7-11)

Long list of potential digital services for Phase 3

Service	Description	Lifestyle Impact	Stakeholders Affected	Value Low High	Ease of Implementation
Crime analytics	By analysing crime, spotting patterns and figuring out where to send patrols, crime can be cut by 30% by stopping it before it happens. Safety is a high priority for the CCD and this may help decrease overall crime rates dramatically.	High			
Personal panic buttons	Emergency response services that can be located on public kiosks or personal mobile phones to alert emergency services in the city of an incident, quickly and easily. This gives citizens an extra sense of safety in public locations.	High			
Face in the crowd analytics for public security	Analytic services that captures individual faces from a live video CCTV steam and can complete face identification in less than 1 second.	High			
Digital public displays	Digital displays which can be used to display a variety of sustainability metrics such as renewable energy generation, air and water quality, or green, multi-modal transport information.	High			
Live Labour Marketplace	Gives the ability to both post and apply for short and long term jobs, easing the requirement for publishing job applications. This will help increase job prospects for citizens within the CCD.	High			
Interactive digital books for homework help	Digital books that can be accessed from any internet enabled device to help students with their homework and other school projects or assignments.	High			
Augmented reality city mapping	Live view of the CCD whose elements are augmented by computer generated sensory input to give a view of the city as a whole.	High			
Systems to detect earthquakes	Services to detect and pre-empt natural disasters in order to prevent or minimise damage to life, property and infrastructure. This helps ensure that emergency services are deployed immediately after an incident.	Medium			
Biometric building entry	Biometric technology operates by acquiring unique biological data from an individual before allowing building entry; biometric data can use veins, iris', fingerprints or facial recognition.	Medium			
Visualisation of renewable energy generation	Displays and measures the amount of energy being generated through renewable on-site sources on multiple applications (at home, mobile and in public locations). This information can be used for sustainability performance management or reporting.	Medium			
Smart metering to manage water supply and demand	Smart meters display water usage to drive behavioural change in consumers by giving them increased accuracy of consumption data. This information is used to help decrease energy consumption by increasing awareness.	Medium			
Integrated control of all home systems	Users can control all switches and appliances (lighting, air conditioning etc) in home with ability to set preferences to manage consumption rates and costs during peak times.	Medium			
Remote controlled appliances for the home	Appliances whose energy consumption can be monitored and controlled remotely, to help decrease energy consumption in home. This allows users to remotely turn their appliances on and off, or set schedules for when appliances are used.	Medium			

SUBMISSION FOR REVIEW

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Long list of potential digital services for Phase 3

Service	Description	Lifestyle Impact	Stakeholders Affected	Value Low High	Ease of Implementation
Detection of potential burst areas and leakage reports	Sensors for early detection and diagnosis of problems in the water system of the CCD; this helps reduce operating costs through automatic fault detection based on exact location.	Medium			
Visualization of air quality, temperature and humidity	Visual displays of air quality, air temperature and humidity in specific areas visible to residents and visitors of the CCD. This information can be used for public consumption or for sustainability performance management or reporting.	Low			
Facial recognition security for the home	Using facial recognition as a form of biometric entry to allow access to a secure home. This gives personal homes an added security method, and can be implemented in larger areas or neighbourhoods or individual houses.	Low			
Real time suggestions for energy saving tactics	Energy efficiency and saving suggestions for the home, such as weather forecasting to decrease air conditioning used. This will help decrease energy consumption, giving a high environmental benefit.	Low			
Location based emergency health finder	Locates the nearest walk-in doctor or emergency room using smartphone GPS location services. This will help both residents of the CCD who require medical services, or tourists that are unaware of the location of services.	Low			
App showing emergency rom and doctor waiting rooms	Web based service that allows patients to book urgent care appointments in advance so that they can wait at home rather than waiting in the emergency room.	Low			
Trash Tracking	Using small, smart, location-aware tags that attach to different types of trash, to allow items to be followed through the city's waste management system in real-time visualisations.	Low			
Smart irrigation services	Sensors which detect soil moisture, and incorporates information about weather to determine optimal irrigation levels. This help decrease the amount of water used in irrigation services.	Low			
City wide supply chain management	Consolidate demand for inventory for city activities like construction materials during build, and offer services to supply inventory to multiple users, reducing the need for stockrooms. This service will subsequently help reduce operating costs.	Low			
Sewage treatment and recycling statistics	Incorporation of data from wastewater and sewerage treatment in the Urban Operating System for sustainability reporting. This information can also be used for sustainability performance, or for public consumption.	Low			
Measurement of water levels in ponds and reservoirs	Sensors that measure volume to detect leakages, or in times of heavy rain fall, can detect the capacity of storm water systems. This gives information of potential floods before they take place.	Low			
Waste process and pickup optimisation	Sensors to determine amount (by weight) of waste generated across the site to determine when pick up is needed. This reduces operating costs as trash is only picked up when necessary. Pick up can also incur costs, which will help drive decrease in trash generation.	Low			
Crowd sourcing noise pollution	Noise pollution sensing can be crowd sourced through the use of mobile phones. This information can be used for sustainability performance management or reporting.	Low			

12.3.

The Priority Services

12.3.1. Prioritising the Shortlist

The total number of affected stakeholders measures the value to all stakeholders of CCD, including residents, visitors and businesses. Individual segments of stakeholders were listed earlier in this chapter. This analysis also incorporates improvement in the provision of municipal services and also the potential impact a service has on the life of a citizen. Importance of the service was measured in terms of the Institutional Participation Process workshops held by Fundacion Metropoli in October 2012. Direct scores were used here were appropriate, and if there was not a direct value from this analysis, a separate value was assigned.

The top right quadrant will provide the solutions for early targeting which will be implementable in the near term and have this highest value to CCD, its citizens and businesses. Services for further analysis were selected based on their location on this matrix, as well as the category of each service (Utilities, lifestyle and Industry). Services were also selected on whether they would differentiate CCD as a leading global creative digital city.

NB: All 66 services were scored against each other, however only a selection are shown here as an illustration of key services and their placement on the matrix

1 / Digital crowd sourcing financing platform
2 / Variable cost for digital workplaces
3 / RFID tracking logistics
4 / Royalty management
5 / Bike safety app
6 / Video calls in hotels
7 / Online business funding application support
8 / Scalable and pervasive virtual conferencing
9 / Cloud data storage services
10 / Digital public signs
11 / Interactive sidewalks
12 / App showing emergency room and doctor waiting rooms
13 / Remote controlled appliances for the home
14 / Crowd sourcing noise pollution
15 / Waste pickup and process optimization
16 / Incentivised resource platform
17 / Free City Wi-Fi

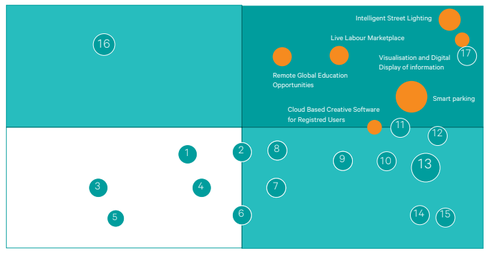
12.3.2. Service Innovation and Maturity Potential

The CCD will need to identify digital services that are innovative enough to differentiate the region and attract key target segments, but more mature services may be able to realise greater near term value. A combination of these services will help establish and differentiate the CCD as a leading creative digital city, to attract the right mix of people.

There is no direct correlation between the value selection analysis and phasing. As such, it is likely that the digital services that are selected may be spread across the maturity curve, providing a wider selection, as well as multiple options throughout the phasing of a project. Services will become more mature over the time period of the phasing of the project, and this maturity curve will subsequently be updated.

Selected services are spread across the innovation and maturity curve to help ensure that CCD is differentiated against other creative digital hubs and will attract the right mix of people

Services were ranked according to level of importance and number of stakeholders affected to determine priority services for CCD



Services were also ranked according to market size and maturity to help determine phasing

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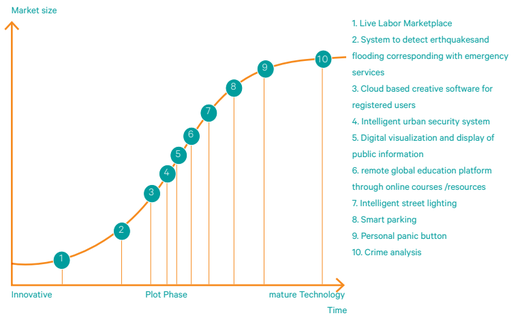


12.3.3. The Shortlist of Digital Service Solutions

INTELLIGENT STREET LIGHTING
Intelligent lighting can utilise new technologies to optimise light intensity, and integrate lighting infrastructure with the security requirements of the city. This monitoring can ensure that urban lighting is not wasted when areas are either not in use or lit naturally. Sensing services can include monitoring people traffic, climate integration and sensing of sustainability metrics such as air quality. Applying a dynamic tele-management system on urban lighting can save up to 1,700 hours of annual consumption and approximately 30% of annual consumption and emissions.

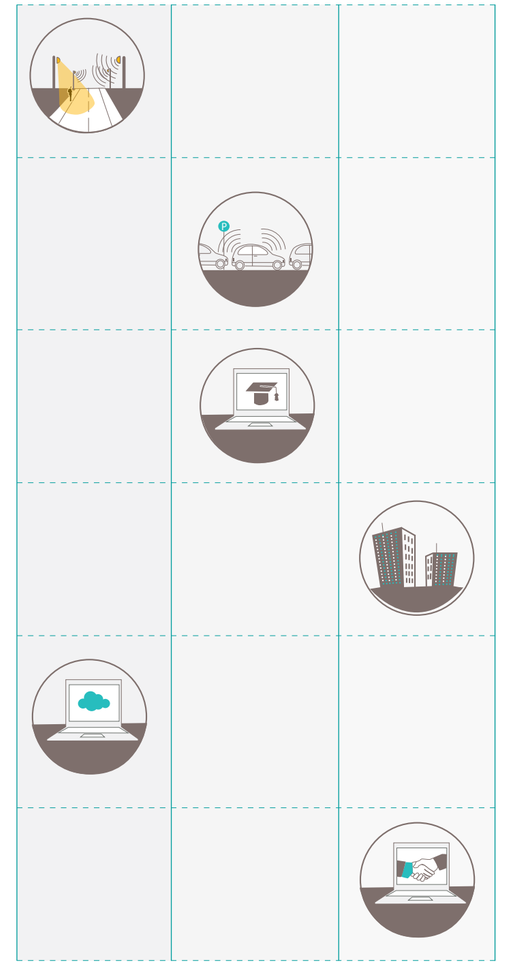
SMART PARKING
Smart parking solutions connect sensor enabled parking spaces with smartphone apps and public kiosks to provide drivers with information on availability, and ability to pre book specific spaces. This maximises the utilisation of parking spaces throughout the city, while decreasing the time drivers spend looking for parking spots. These systems subsequently decrease carbon emissions from idling cars looking for a space, as well as eliminating time wasted.

REMOTE EDUCATION PLATFORM
Service which allows residents to complete online education courses, and receive world leading training from any location. Multiple levels and types of courses can be included across all industries and areas of specialization which helps increase the education levels of the larger population. By improving the ability for citizens to gain qualifications, ability to generate employment is raised, and citizens are more likely to stay within CCD if they can gain any qualification remotely.

DIGITAL PUBLIC DISPLAYS
Public displays in a variety of locations that display a variety of sustainability performance metrics. These metrics can include water quality, amount of renewable energy generation, and air quality and can be displayed in public areas like interactive public kiosks, on buildings, or on individual displays throughout the city. These metrics can be used to benchmark CCD and wider DUIS region against other cities in terms of sustainability performance reporting.

CLOUD BASED CREATIVE SOFTWARE FOR REGISTERED EDUCATIONAL USERS
Creative software in the cloud allows for any registered user to use leading creative digital software to maximise the potential of a project / product. This software is based in the cloud to be accessible by any internet enabled device and can enable content to be produced in any location by a registered user. This software is then available anywhere, and can be accessed in public locations such as public kiosks, or public buildings. This raises the overall quality of material produced in CCD, giving the area a distinct differentiation and competitive advantage.

LIVE LABOR MARKETPLACE
Gives the ability to both post and apply for short and long term jobs, easing the requirement for publishing job applications, and enabling people to complete short term work based on needs requirements. This marketplace helps people both find jobs and find professionals for any positions that require filling, raising the employment rate significantly within CCD. In addition, by making it easier for people to find a job within CCD, overall emigration from the region is likely to decrease significantly.



PHASE 1 PHASE 2 PHASE 3

2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

Phasing the shortlist solutions

12.4.

Roadmap for Implementation

12.4.1. Digital Governance Authority

Digital Governance includes the people, skills, leadership, organization, processes, policies and standards required to successfully administer and manage the integration of digital services (both hardware and software) across CCD.

The key functions include but are not limited to :

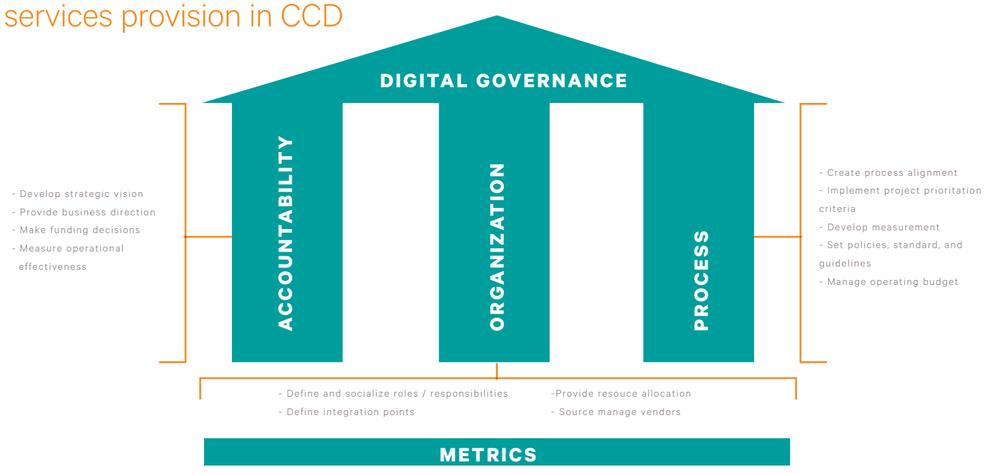
- Providing the **guidance** to ensure that data is accurate & consistent, complete, available, and secure and that integration of disparate systems follows set guidance, policies and standards.
- **Is not an IT function** – it must be owned by CCD and should be instituted across the enterprise.
- Is **a long-term initiative** which must be planned and sponsored at the highest levels of the enterprise.
- Is instituted throughout the enterprise and cannot be viewed as optional.
- Digital services data governance initiatives should be legitimized by
- Communicating a compelling vision;
- Setting achievable performance targets;
- Allocating enterprise resources;

Establishing a Digital Governance Authority whose structure takes into account the “Three Pillars” of governance: accountability, organization, and process – ultimately leads to effective decision making on digital services provision in CCD

Successful Data Governance starts with the correct organizations, roles and responsibilities. All models should include, at a minimum, include the following roles:

- **Executive sponsor(s)** – who are typically legally accountable for the quality and accuracy of data and must rely upon internal controls to manage data access, usage and quality.
- **Management committee** such as a Steering committee which must have **real authority** including the ability to resolve business issues, approve projects and settle disputes. The committee will be headed by a Data Governance lead
- **Data Owners or Business Stewards** are responsible for data creation and the enforcement of enterprise business rules including Data Policies and Standards.
- Data Stewards are caretakers of the data and are accountable for the management of data assets. They have some very clear responsibility which include:
  - Ensure that **data is understood, used and shared effectively, and meets quality and integrity standards**.
  - Help **enforce standardization and the adherence to standards and policies**.
  - **Facilitate the involvement of supporting organizations** (e.g., legal, internal audit etc.) to ensure that data is complete in content, and meets all business requirements.

Digital governance structure and role



12.4.2. High Level Technology Assessment

Three potential technology partners provide the infrastructure for cities to enable large scale integration of systems across city services.

accenture

Accenture is a vendor agnostic hardware and software partner, with experience in multiple products. They have proven experience in end-to-end solutions and the Urban Operating System solution can help cities create a unified architecture for service delivery and a functioning marketplace for information services.

Accenture’s Urban Operating System provides the technology and communications infrastructure to enable integration across city departments and services, including widespread, high speed data infrastructure, service delivery platforms, and open application architecture.

The Urban Operating System is a city wide IT and Communication system that operates at three levels:

1. A data platform that collates data from multiple sources, cleanses and stores it before applying analytics to derive new insights about the city’s operations
2. A Service Delivery Platform which provides a single transaction platform on which service providers can deliver services across multiple infrastructure layers (mobility, energy, waste etc.)
3. Urban applications that operate on the Service Delivery Platform can enable citizens and businesses to transact.

CISCO

Cisco has products and services across smart grid, video conferencing, dynamic transport management, smart home solutions and an urban operating platform, Smart+Connected Communities.

Cisco’s Smart+Connected Communities helps transform physical communities into connected communities to help:

- Realize sustainable economic growth
- Enable environmental sustainability through resource management and operational efficiencies
- Enhance the quality of life of the communities citizens

Smart+Connected Communities citizens have access to information and services that enrich their lives with solutions for their homes, schools, transportation methods, and more.

The Smart+Connected Community solution is a combination of Cisco’s Community+Connect and Community+Exchange solution which helps provide cities with a solution that encompasses all government services, public partners and private companies.

Lake Nona recently became one of the nine global Cisco Smart+Connected cities in the world, and the first in the U.S.

IBM

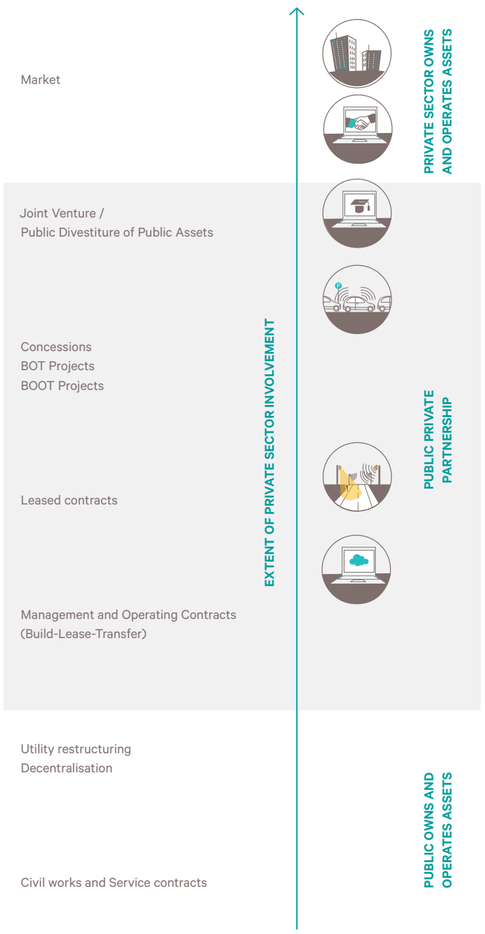
IBM offers a range of products and services, including network solutions, utilities operations, asset management and cyber security. They are a proven vendor with extensive industry experience. IBM has well-developed channels, extensive resources and a large ecosystem of system integrators and third party suppliers to support its multiple offerings for the City.

IBM has the ability to scale to deal with demanding and complex implementations, however products typically require extensive installation and customisation work and users report that the user interface can be difficult to get used to and product installation and integration are more difficult than they expect.

IBM’s Intelligent Operations Centre for Smarter
Cities provides an executive dashboard to help city leaders gain insight into all aspects of the city. The dashboard spans agencies and enables specialised management of individual city services such as emergency management, public safety, social services, transportation, or utility management. IBM’s Intelligent Operations enables city leaders to:
Leverage information across city services and system to enable more intelligent, system wide decisions
Anticipate problems to minimise the impact of disruptions to city services and operations
Coordinate cross-agency resources to respond to issues rapidly and effectively

12.4.3. Taxonomy of Public-Private Partnerships (PPP)

These services have been identified as concession based services as CCD can easily create Service Level Agrements with third parties



References:
EPEC Emergy Efficient Street Lighting paper
IMF Working Paper: "Optimal Capital Structure of Public-Private Joint Ventures" by Marian Moszoro and Paweł Gąsiorowski
Wright (1987), pp. 143–216, and Viscusi et al. (2000), pp. 448-449

DIGITAL PUBLIC DISPLAYS
As part of the sustainability vision which the CCD is offering its residents and projecting to the world, visualisation of renewable energy use is an important showcase technology Other information can be displayed including air and water quality, and green transport options. Smart metres can encourage behavioural change in individuals and can serve as a visual representations of the sustainable activities of companies encouraging further awareness and investment in sustainable and renewable energy.

As this is part of the vision of the CCD and not a revenue generating focused project, we would recommend this is funded by the CCD through a leased contract concession under a BOT structure. There is possibility of revenue streams being generated from commercial buy in of the project for use in offices.

CLOUD BASED CREATIVE SOFTWARE FOR REGISTERED EDUCATIONAL USERS
Cloud based creative software will allow registered users to use the software in any location where thy have access to the cloud. This will increase the overall quality of creative digital content and projects coming from the CCD as users have access to the latest software throughout any location

Revenues could be generated from subscription fees and from advertising revenue. Therefore, we believe that there will be strong private market interest in this venture. Our recommendation would be for the CCD to sell the concession rights in a leased concession BOT or BOOT structure. This would allow for monopoly supply of this service within the CCD area. This would encourage the provision of this service by allowing the provider to invest in the infrastructure in a low risk environment. Additionally, it would generate revenue for the CCD.

INTELLIGENT STREET LIGHTING
Street lighting is a key public service provided by public authorities at the local and municipal level. Good lighting is essential for road sand personal safety. Street lighting ensures visibility in the dark for motorists, cyclists and pedestrians, thereby reducing road accidents. Street lighting also indirectly facilitates crime prevention by increasing the sense of personal safety and security of adjacent public and private properties.

Due to its Public nature (non-excludable use, non-rival use) it would not be supplied by the private market without Public incentive. Therefore our primary recommendation is of a concession based around a Build-Operate-Transfer structure which will be bid for by potential suppliers who wish to compete for the Public authority contract.

SMART PARKING
Parking is costly and limited in almost every major city in the world. Innovative parking systems for meeting near-term parking demand are needed to increase time and emission efficiency of drivers.

Due to the high demand for time and fuel saving services, this could be a highly profitable venture and therefore our recommendation is for the concession to be awarded through a bidding process and run on a Build-Own-Operate-Transfer operation. The auction creates revenue for the CCD, allows for private sector 'know-how' to run the operation and still allows for control over public land such as roads.

REMOTE EDUCATION PLATFORM
Increasing accessibility to Remote Education Services for local residents through physical infrastructure is a Public service which will operate low levels of operator revenues, through advertising rather than usage charges.

Therefore our primary recommendation is for this to be serviced through a licenced concession under a Build-Operate-Transfer structure. Allowing the contract to cover original infrastructure investment and an agreed profit margin will overcome the public nature of this service.

LIVE LABOR MARKETPLACE
A Digital hub such as CCD attracts a highly specialised labor force as residents. This opens up opportunity for digital. Companies to make use of highly targeted role advertising and make use of unemployed workers as their skills are likely to be appropriate for their needs. This could be expanded from specialised job adve\rtisements to be a live marketplace where demand is quickly filled by local specialised labor minimising lag time and delay costs and offering support where needed.

Our primary recommendation for encouraging the creation of a publically accessible labor marketplace is to allow market forces shape the project, encouraged by a highly regulated market where the license to run the app is concessioned to a certain number of players or a single player.

12.4.4. Types of Business Models

WHY ARE INTELLIGENT STREET LIGHTING, SMART PARKING AND REMOTE EDUCATION DIGITAL BUSINESS BEST SUITED FOR CONCESSION?

To deliver the most effective provision of services for the end user and the deliver the most effect use of the CDDs financial resources.

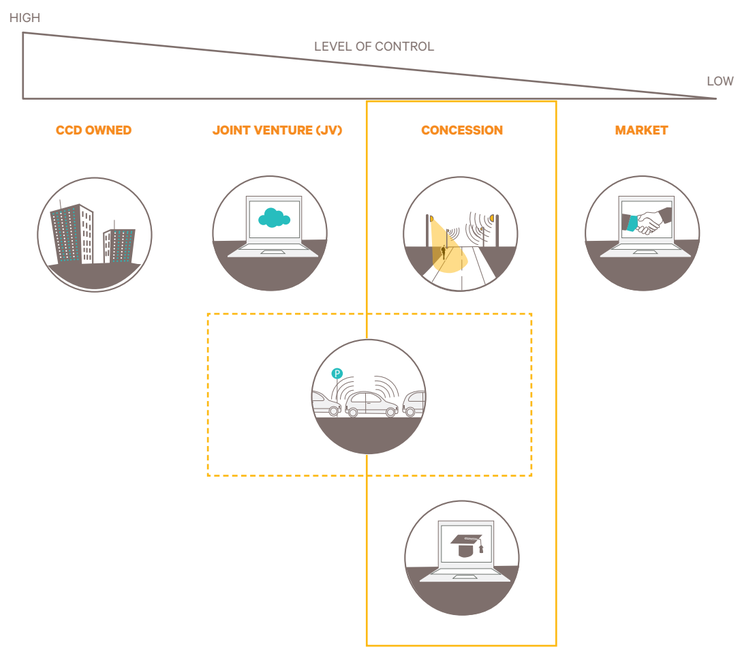
- High technical knowledge or expertise demanded of supplier
- Attractive profit making potential allows for auction allocated concessions – the most economically efficient allocation of concession
- High capital expenditure demands leave little attraction without Public body support and security
- Education is a public good, which uncoordinated markets driven by self-interested parties may be unwilling to provide
- Concessioning can re-align the market by including the value to society in the cost-benefit-analysis of investment

Analysis of four different business models shows how these digital services can be provided to CCD.

Analysis of four different business models shows how these digital services can be provided to the CCD.

NOTE: The initial phase of smart parking may need to be a JV business model to develop the technology, however future assets and service delivery could be completed by a concession based business model

These services have been identified as concession based services as CCD can easily create Service Level Agreements with third parties to



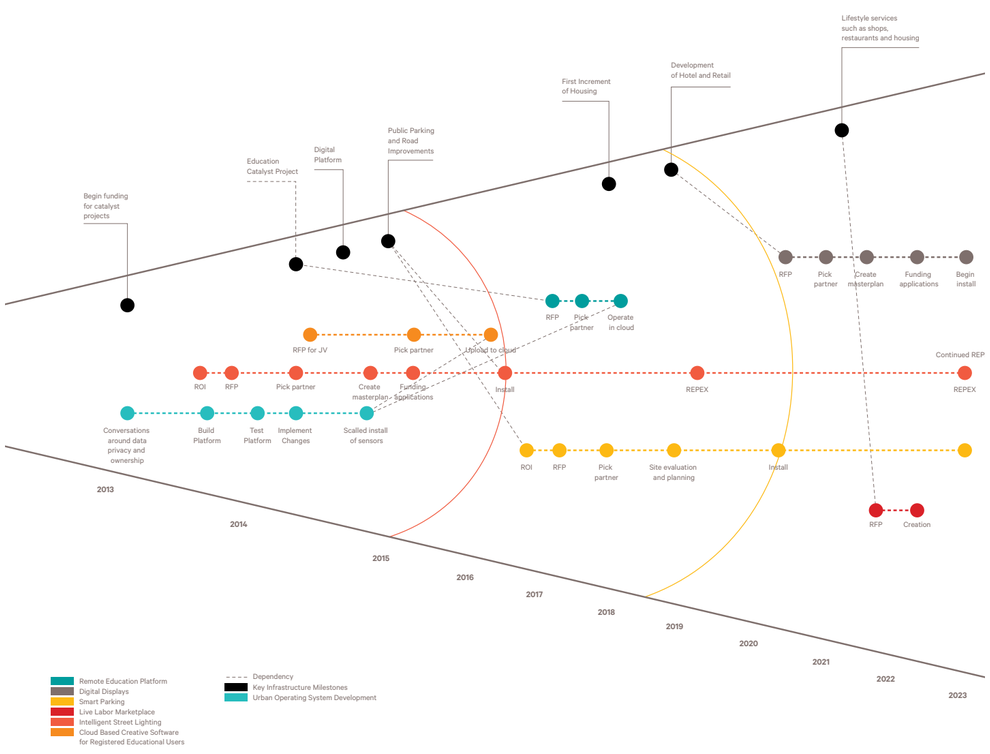
12.4.5. Digital Services Roadmap

A delivery roadmap was created revealing key near term actions, milestones and required stages to establish a digital service strategy that will supports CCDs growth as a major economic and social hub into the future.

The critical pathway of each digital service will be dependent on key infrastructure milestones and wider phasing of the whole project. Timing for each service may vary based on the number and quality of responses from Request for Information (ROIs) and Requests for Proposals (RFPs). It is important to note that the Urban Operating System acts as the wireless backbone for all future sensing capabilities and cloud based services such as Remote Education Platform and the Creative Digital Software for registered users. Funding is a key requirement for each service based on the business model selected by CCD and the partners chosen for implementation.

Implementation of digital services will require a number of near-time actions and outlining key milestones for the projects

Digital Services Platform implementation roadmap



12.4.6. Near Term Actions

Actions within the next six months should focus around identifying potential partners for services and technologies and determining timelines and potential sources of funding. Key actions for the next six months are:

- ☐ Establish technology partner for Urban Operating System
- ☐ Define functional and technical requirements for the platform
- ☐ Begin conversations for data ownership and privacy concerns for open data streams on the Urban Operating System
- ☐ Create ROI for Intelligent Lighting system
- ☐ Create ROI for cloud based creative digital software for registered users
- ☐ Investigate potential funding sources
- ☐ Determine timelines for applicable funding applications
- ☐ Begin the procurement process for Intelligent Lighting
- ☐ Begin procurement process for cloud based creative digital software
- ☐ Determine entire digital service list that will be implemented in the CCD and phasing of each service

URBAN OPERATING SYSTEM

The Urban Operating System will provide the wireless integration for all digital services within CCD, and this should be one of the first priorities for the CCD. The development of the Urban Operating System is going to comprise of the following six main sections: the conversations, agreements and legal contracts for data ownership and management; designing the system; building the system; testing the system; implementing these updates and changes; and deployment.

Agreements and legal contracts for the data ownership of public data, and satisfying potential privacy concerns from citizens of the CCD will likely be the phase which is the most time consuming.

Defining the technical and functional requirements of the city and designing the system to satisfy these requirements will also be time intensive as during this stage. Technical and functional requirements will be based on the chosen data streams which will be included in the system. An extensive site evaluation will also need to take place during this stage.

DIGITAL SERVICES

Although a list of six digital services has been selected for the three phases of CCD development, additional services listed within this report may be included in further phasing. An entire list of digital services and requirements should be created and finalised for CCD.

Once this list has been created, potential export markets can be determined for each service or to replicate . This allows CCD to target specific export markets to achieve the digital services vision.

INVESTIGATE AND DETERMINE FUNDING TIMELINES

Funding will be a key requirement in order to implement the selected digital services within CCD. There will be specific external funding sources, whether foreign direct investment, or investors who are directly interested in supporting the growth of digital services. Any source of potential funding should be investigated in detail to establish the likelihood of funding, the amount of funding available, and the requirements that are needed from CCD to gain this funding.

With this information, a roadmap for funding requirements and deadlines should be created in an effort to maximise the potential for funding sources. If deadlines for applications for specific funding pools are within a short timeline, applications should be started, and the correct consortium of people should be contacted and involved.

INTELLIGENT LIGHTING

Creating the Request for Information for this service will attract specific lighting vendors with master plans specific to CCD. This process aims to collect information about the capabilities of various suppliers who could provide this service within CCD. This will help create innovative plans which will create the maximum triple line benefit for the stakeholders of CCD.

Following this process, the exact size and scope of the Intelligent Lighting project must be made. This will involve consultation with municipal stakeholders, decisions surrounding what technologies will be used and how these will benefit CCD. During this process, the interaction between CCD and the selected third party should be determined. This will establish the role the CCD must play for this service, and what infrastructure and work must be done by the city itself.

Following an ROI, writing a Request for Proposal will outline what project CCD wishes to implement and what solutions and services this will involve. The RFP will identify interested suppliers who can complete the work necessary. An RFP must be sent out and made publically available before any municipal work is conducted.

CLOUD BASED CREATIVE DIGITAL SOFTWARE

Creating the Request for Information for this service will attract specific education vendors and institutions with their plans to implement the software within CCD. The Request for Information process aims to collect information about the capabilities of specific vendors, and this will give CCD the ability to choose the vendor which best suits their needs and specific context requirements for this service.

After the Request for Information's have been submitted be vendors, a Request for Proposal can be written to procure the best vendor for the project outlined. During the writing stage of the Request for Proposal, CCD must determine what the business model for the service is, and what role CCD will play. This will determine the interaction between the city and the third party, and what this means for CCD and the infrastructure and work that they must do.

This proposal should aim to attract a large number of vendors so that CCD benefits from the best suited provider.

12.5.

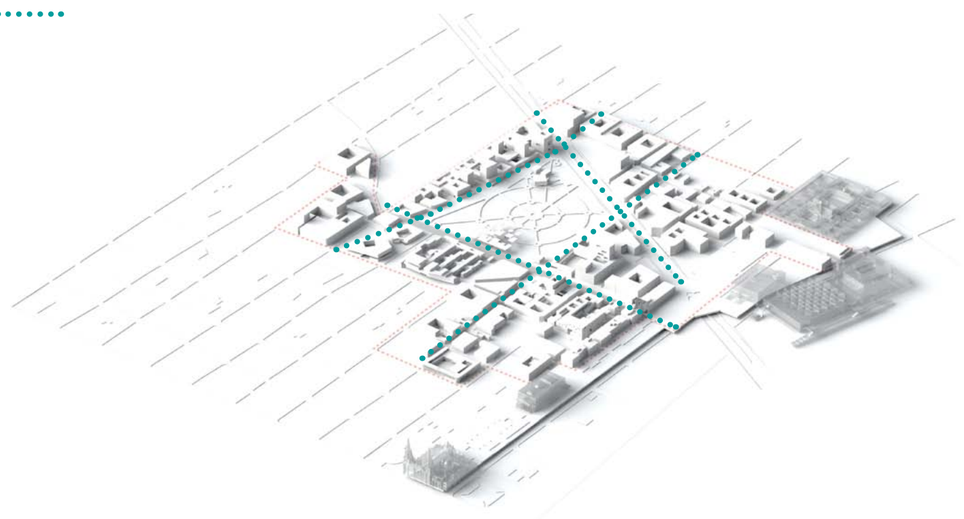
In Detail: Intelligent Street Lighting

- Intelligent street lighting **combines public realm lighting with other technologies** which can range from sensing capabilities to security
- Intelligent street lights uses the most up-to-date LED technology to decrease energy consumption and operating costs while prolonging the life of the light bulb
- The lighting system utilises new technologies to optimise light intensity according to the situation by dimming area and street lighting.
- All lamps communication with each other, as well as to a central control facility. This gives the city control over entire areas of lighting if required in an emergency
- **Automatic sensing capabilities** can detect peoples movements and pedestrian traffic, road conditions, daylight conditions, and weather to automatically change light intensity and colour
- Additional sensing capabilities can be added as required such as air quality, particulate emissions, or noise pollution
- **Tele-management of lighting** infrastructure means that electricity is not wasted when lighting is not needed when areas are not in use or they are lit naturally
- Benefits of intelligent lighting include reduced energy costs due to dimming controls, reduction in greenhouse gas emissions, reduced operation and maintenance costs as bulbs need to be changed less frequently and higher community and social satisfaction
- Additional infrastructure can be added on the lighting infrastructure to provide additional revenue streams such as wifi hotspots or advertisements

Intelligent street lighting will reduce both the environmental and financial impact of public lighting

Responsive lighting

Responsive Lighting in CCD



12.5.1. Current Context

CURRENT CONTEXT AND PROPOSED SOLUTION

The current street lighting infrastructure in the CCD is comprised of old equipment and subsequently follows an out-of-date Mexican code for energy usage and light intensity. These two factors mean that the lighting infrastructure is expensive to operate and maintain, creating an opportunity for clear financial savings by integrating a new lighting system. This new system can also deliver environmental and social benefits, generating strong triple bottom line benefits.

The street lights currently used in the CCD do not direct their light intensity at a downward angle, causing large amounts of wasted light energy and causing light pollution. This increases energy consumption, thereby increasing cost to operate. By reducing the angle of each light, amongst other energy saving techniques, both cost and environmental impact can be decreased.

The proposed solution for an intelligent lighting system includes remote sensing and communication capabilities as well as new LED technologies. These technologies will reduce lighting energy requirements by 50% or more, while decreasing operating and maintenance costs because of their longer life cycle. A large bulk of financial and environmental savings can also be achieved through the integration of the system with the UOS platform. By wirelessly connecting each light bulb, automatic fault detection can take place which will further reduce cost to fix any broken or dead light bulbs. Furthermore, sensing capabilities can be used for automatic dimming and control of light intensity which will further reduce energy costs, by ensuring that the street lights are only used when they are needed. This means that when areas are not being used by pedestrians or traffic or when areas are naturally lit, there is no additional lighting turned on at the source. Finally, central control of the lighting system means that should there be a need to remotely turn off or on entire areas of lighting, this can be done from the central control facility.

CURRENT PLAYERS

The street lightning in the Guadalajara region is managed by The Federal Electricity Commission (CFE). The CFE manages the short and long term contracts for the public street lighting in the region as well as the suppliers, material and equipment tenders, and the maintenance and daily operation of the lighting network.

Last year, Guadalajara paid $14M (USD) for street lighting electricity, and has since set specific targets towards the reduction of energy consumed. These targets will help decrease energy spend for the City of Guadalajara, which will decrease the burden on the public purse.

The targets created by the city include the reduction of energy consumption by 30%. This will be achieved by replacing 35% of the 80,000 street lamps in Guadalajara with LED technology lights. The public tender to choose the vendor for this wide scale replacement was awarded to the private company Philips and Luart for an approximate amount of $3M (USD).

Source:
Smart Grid – A Top Export Prospect for México, US Commercial Chamber, 2012; Sector Privado y generación de energía eléctrica, Centro de Estudios Sociales y de Opinión Pública, 2010; México Energy Display Requirements, Association of Home Appliance Manufacturers, 2011; http://www.cfe.gob.mx/Industria/InformacionCliente/Paginas/medidor.aspx

Guadalajara City Council is introducing LED bulbs to 35% of their street lighting network demonstrating their commitment to reducing costs and environmental impact

CURRENT CAPABILITIES

Nearly all of the 80,000 street lamps in the city of Guadalajara are conventional mercury or high pressure sodium light bulbs with no additional energy saving capabilities.

In February, the city council announced a project that replace 35% (or 28,000) lights with LED technology. This technology swap can save up to 50% of energy consumption or more, and lead to decreased costs due to lower electricity consumption, longer predicted life time and lower maintenance and operation costs.

REGULATORY AND LEGAL CONSTRAINTS

According to Article 27 of the Mexican Constitution, it is the responsibility for the Nation to generate, conduct, transform, distribute and supply electricity for the provision of public services, such as public street lighting. The Federal Electricity Commission (CFE), is the company in charge of the supply of electricity to customers in the public service.

CFE's procurement process can be either by invitation or by open international tender. The company is open to new technologies and welcomes commercial presentations, which may lead to invitations or specific technology recommendations. This means that a concession based business model and innovative technologies and service which can deliver triple bottom line benefits

PHILIPS

CFE Comisión Federal de Electricidad

12.5.2. Use Case

Although Rodrigo's two children, Mateo and Sofia, aged 13 and 15 respectively, are old enough to walk home from school by themselves, he used to feel a great sense of worry due to the level of security within the CCD. However, now with the introduction of the intelligent street lights tele-management system within the city, he feels much more comfortable letting his children walk home from school alone.

Rodrigo knows that the lampposts throughout the CCD are now equipped with automatic sensing, which senses people's movements, traffic densities, and weather and road conditions. These sensing capabilities mean that the street lights are always on when there are people walking, or traffic passes nearby, which makes Rodrigo feel much safer when walking around the city center. He has also noticed that there are less individual light bulbs out in the city area, and this is also due to the introduction of the tele-management system. As each light communicates with each other and a central control facility, it is easy for the city to identify faulty lights or lights that require replacement due to end of life.

Since the addition of the intelligent lighting system, the city has also dramatically reduced costs required due to lower maintenance costs required as lights have automatic fault detection as well as a longer life span due to new LED technologies, and lower energy consumption. Secondly, this system has helped the CCD achieve its sustainability targets as greenhouse gas emissions from the lighting infrastructure have decrease due to lower usage hours.

Rodrigo – a father with two children who lives in the CCD now feels that his children are much safer following the introduction of intelligent street lighting

12.5.3. Value Creation

Provision of intelligent street lighting will generate value for three key stakeholder groups:

CCD & DUIS

Role:

- Provision of areas for lighting and lampposts throughout the CCD and wider DUIS area

- Decrease impact on the public purse due to service provision by the private sector
- Reduced carbon emissions by switching to LED light bulbs
- Decreased spend on health services if green commuting increases as a result of improved lighting infrastructure

OWNER / OPERATOR

Role:

- Installation of LED lights and lampposts at specific locations based on traffic and pedestrian densities
- Installation of additional sensing capabilities on lampposts
- Maintenance of lights and sensors
- Continued provision of lighting service, including electricity spend
- Installation of security infrastructure integrated with lighting system

VALUE CREATED

- Standard rate of return from municipality for provision of lighting service
- Additional revenue streams through lamp post real-estate, for additional sensing capabilities or advertising space
- Decreased maintenance costs through predictive fault management and lower operational costs of LEDs

USER

Role:

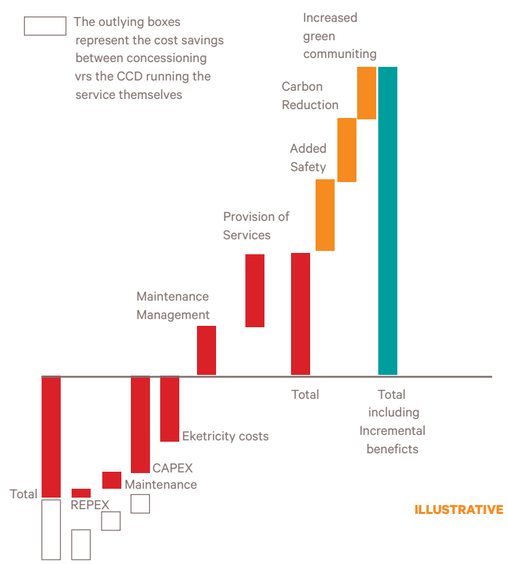
- Travelling on roads and pedestrian pathways lined with street lights
- Utilisation of additional services in terms of added security

- Increased feeling of safety in city areas, of up to 70-80%
- Increased possibility of green commuting, which can increase health

- Revenue is based on a public private partnership, that delivers benefit to both the public and the private sector
- The public partner (buyer) benefits from costs savings, better financial performance and quality of service, lower risk and robust long term management
  - The specialist knowledge of the concessioner could allow for greater efficiency than in the CCD ran the service
- The private partner (provider) benefits from long term guaranteed revenue streams and access to new markets
- The greatest proportion of cost for an intelligent street lighting project is the electricity costs throughout the life cycle
- Additional intangible benefits include increased feeling of safety of citizens and visitors to CCD, carbon reductions based on switching from conventional mercury or high pressure sodium bulbs to LEDs and an increase in green commuting, which can result in decreased healthcare spending

The use of intelligent and energy saving lighting will generate considerable financial benefits in addition to long-term tangible benefits

Predicted costs and revenues from intelligent lighting



Triple bottom line value created from Intelligent Street Lighting

Environmental

LOW HIGH

- Decrease impact on the public purse due to service provision by the private sector
- Reduced carbon emissions by switching to LED light bulbs
- Decreased spend on health services if green commuting increases as a result of improved lighting infrastructure

Social

LOW HIGH

- Standard rate of return from municipality for provision of lighting service
- Additional revenue streams through lamp post real-estate, for additional sensing capabilities or advertising space
- Decreased maintenance costs through predictive fault management and lower operational costs of LEDs

Economical

LOW HIGH

- Increased feeling of safety in city areas, of up to 70-80%
- Increased possibility of green commuting, which can increase health

Source:
LED Street Lights Life-cycle Cost Analysis . U-Tron, 2008; The Value of Public Space: How high quality parks and public spaces create economic, social and environmental value. Cane Space, 2004; LIGHTING THE CLEAN REVOLUTION: The rise of LEDs and what it means for cities. The Climate Group, 2012; The Effects of Light Pollution in Hong Kong. Friends of the Earth, 2011; White light: Transforming your urban night-scape. Phillips, 2011. Copenhagen Solutions: For Sustainable Cities 2011

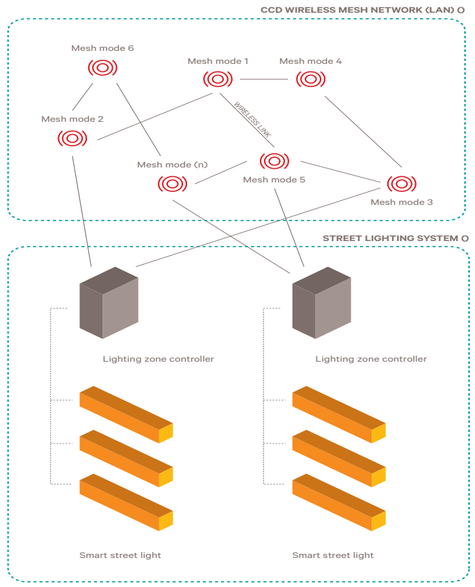
12.5.4. Intelligent Lighting Infrastructure

SERVICE PROVISION:

- Centralised lighting control for different CCD zones – zones of control might be parks, residential, commercial
- Automatic control of lighting through light sensing systems
- Sensing of pedestrian movement, weather conditions, traffic speed, traffic volume in order to provide on-demand lighting
- Feedback from lighting system to display lighting information to public – amount of energy consumed, amount of lighting currently on, etc.

INFRASTRUCTURE REQUIREMENTS:

- Could use power-line communication but this has additional engineering costs associated with bridging power networks if streetlights are on isolated power lines
- Best to use wireless sensors and actuators to collect data and respond to controls. This functionality is all built into the smart street light control unit which is installed into each separate light
- Sensors built into the street light could include motion detection,
- Wireless mesh network to connect each street light to the lighting zone controller
- Wireless connectivity between zone controllers and core CCD wireless mesh network



SUBMISSION FOR REVIEW

NOT FOR DISTRIBUTION

12.5.5. Case Studies

INTELLIGENT STREET LIGHTING, TSUKUBA, JAPAN

The Japanese Ministry of the Environment is currently piloting the first smart street light project in Tsukuba City, Japan. This system uses PLC communication capabilities and has highly efficient LED lighting bulbs, which have been fitted onto 210 street lights. The PLC communication network is used to monitor overall electricity consumption , cumulative hours of use, and has integrated automatic fault detection abilities . The system is also fitted with optimal light adjustment settings to ensure the system operates at the highest efficiencies.

The street lights used in this pilot can achieve 20-50% energy efficiency with lower energy consumption of LED bulbs compared to conventional mercury / high pressure sodium bulbs. Outage hours of the street lights are also minimized through the automatic fault detection and fault prevention based on end of life predictions. These detection systems ensure the system works at the highest capacity, subsequently increasing citizen safety in the piloted area.

INTELLIGENT STREET LIGHTING PILOT, EINDHOVEN

Phillips recently deployed its FreeSreet solution for a town square in the Dutch city of Eindhoven. The system uses LED's embedded with cable to deliver energy efficient illumination of public spaces without additional ground infrastructure. The system provides less but more focused light than traditional Sodium based street lighting which results in a 40% reduction in energy consumption and decreased light pollution.

The pole free system blends seamlessly into the urban environment which helps increase freedom of movement in the streets, whilst enabling greater use of the atmospheric square, which is a popular and pleasant social meeting-point.

The innovativeness of the system has been recognized by being awarded the Dutch Design Award (DDA) in the category Best professional product

GOTHENBURG

In Gothenburg wireless intelligent street lighting has been tested. The system automatically reacts to external factors, such as traffic density, road conditions and the weather, providing on-demand lighting levels

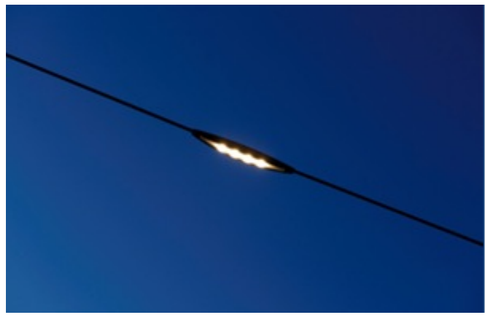
OSLO

In Oslo 10,000 intelligent street lights eliminated 1,440 tons of CO2 emissions and reduced energy usage hugely

Intelligent street lighting solutions have been installed in various cities with the respective city authority experiencing small payback periods and high social and environmental benefits

Tsukuba, Japan

Eindhoven



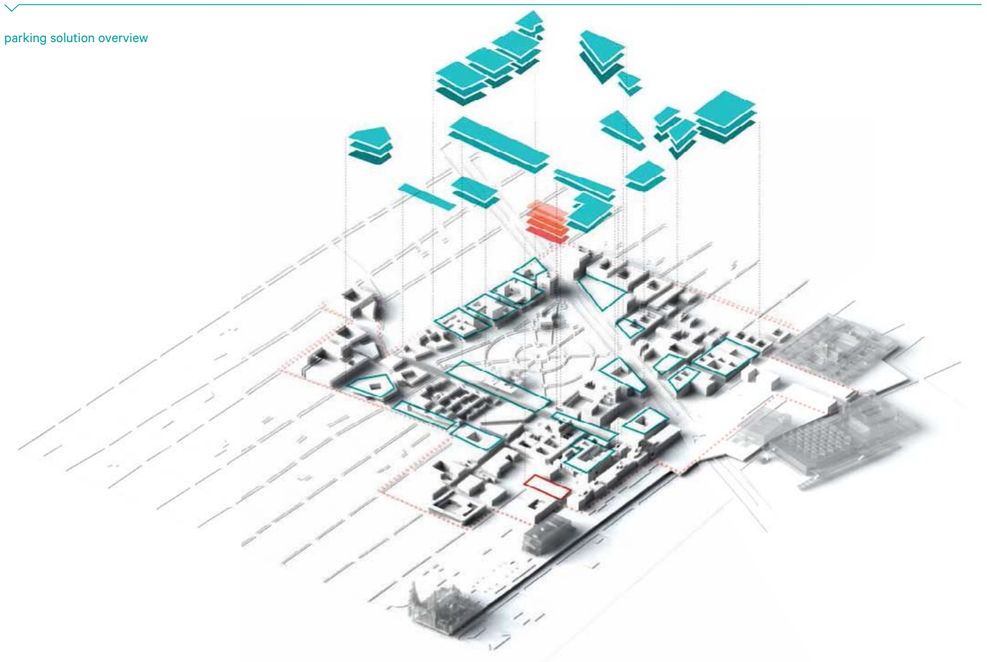
12.6.

In Detail: Smart Parking

- Smart parking solutions **connect sensor enabled parking spots with smartphone apps** and public kiosks to provide cities and drivers with parking options
- The sensor enabled parking spots allow for **pre booking of specific parking spots**, giving commuters the ability to book specific spots near their destination from their smartphone or a nearby kiosk
- Spots can **be booked and paid for in advance** which is cheaper than on-the-door parking fee
- License plate information is required upon booking to track payment and use
- LED lights in the ground surround each parking space, showing green if the spot is available, and red when the space has been allocated
- **Premium parking spots** can yield premium parking fees while additional revenue streams can be found in advertisements and sponsorships
- By making it easier for drivers to find parking spaces within CCD, car emissions will greatly decrease, and social wellbeing will increase due to the amount of time saved by not having to circle to find a parking space
- In addition, parking owners can better track the usage of their spaces, and identify possible dynamic pricing schemes for more centrally located parking spots
- These owners can also better monitor spaces for when cleaning and everyday maintenance is required

Smart parking is sensor enabled solution to enable users to pre-book and pay for parking spots using smartphones or other digital delivery mediums

parking solution overview



SUBMISSION FOR REVIEW

NOT FOR DISTRIBUTION

12.6.1. Current Context

CURRENT CONTEXT AND PROPOSED SOLUTION

According to the Secretaria de Finanzas del Estado de Jalisco (or the Ministry of Finances of the State of Jalisco), the vehicular fleet in the Guadalajara Metropolitan Zone has tripled from 509,566 vehicles in 1997 to over 1.5 million vehciles in 2009. Furthermore, the currently average number of vehicles added daily to city streets in Guadalajara is 350 vehicles. This increase in vehicle numbers in Guadalajara creates a clear value case for the introduction of a smart parking system within CCD.

The Guadalajara Metropolitan Zone, with a population of more than 4.6 million (according to National Institute of Statistic and Geography), currently has a higher index of cars per inhabitants than Mexico City. The exponential growth of cars reflects what has not been done regarding public transportation and urban mobility.

With the high and increasing number of personal cars on the road, congestion is a difficult problem for residents and visitors of CCD. This helps create the value case for smart parking, as 30% of congestion can be attributed to drivers trying to find a parking space, and eliminating these cars from the road will help decrease time spent in traffic.

Also, the pollution levels in Guadalajara are higher than levels experienced in Mexico City. Only 31% of the population that has an automobile for private use is responsible for 86% of the total atmospheric contamination in the city. This clearly shows the link between vehicle use and the decrease in air quality.

CURRENT PLAYERS

There are several service providers for smart parking in México and specifically in the Guadalajara city center. The main services provided by these companies are access controls which help control the flow of people and vehicles inside the company's private car parking facilities. These controls also include specific "critical" or restricted areas, where only authorized personnel are allowed to access, giving them both priority access and parking.

There are also parking systems which grant access to their facilities through specific company departments (specific areas for Human Resources professionals, etc.), grant access based on remote or locally automated CCTV systems or use even higher security methods including biometric entry.

The main companies that are able to provide these services are Alta Tecnología En Automatización S.A. de C.V., OMEI, S.A. de C.V., Smart Parking S.A. de C.V., Mex-Parking S.A. de C.V. and ALSE S.A. de C.V.

CURRENT CAPABILITIES

Public systems about traffic information and updates based on congestion and road use are not available to citizens in the Guadalajara area. However, there are private

Traffic congestion is a main concern for drivers and public systems about traffic information are not currently available in the Guadalajara region creating an opportunity for a smart parking system within CCD

developers in the region that have begun to create traffic applications based on Google Maps, but these apps do not give real-time information, and act more as a journey planner as opposed to giving users real-time traffic updates and information.

The lack of current capabilities within Guadalajara presents an opportunity for CCD to create a useable solution which can be exported to the wider Mexican context so the benefits can be realized.

REGULATORY AND LEGAL CONSTRAINTS

There are no legal constraints that can affect the development of the current business model for smart parking applications.

Currently, there are no government concessions or tenders for parking spaces in Guadalajara area, but there is no legal constraint or regulation stating that this would not be possible for future projects.

Source:
Smart Traffic for Guadalajara City: Crowdsourcing, analytics and forecasting for commuting time optimization; Universidad de Guadalajara, 2012; http://smartparking.com.mx/0924-PDF.html

12.6.2. Use Case

Fernando wakes up in the morning, and remembers he has a busy day ahead which means he needs to bring his presentation material, computer and his briefcase to work. Knowing that he will be unable to carry all of his work suppliers very far, he remembers that he can pre-book a parking space right in front of his office.

Fernando sits down and picks up his smartphone where he has downloaded the CCD_UPark app. This app allows both residents and visitors to CCD to book specific parking spaces in central Guadalajara for a small premium cost. All Fernando has to do now is enter his license plate number, and pay the small premium booking fee using his credit card or other digital payment method. Having booked his parking space in advance, Fernando no longer needs to rush to work to spend the extra time driving around to find a parking space. He enjoys the rest of his morning coffee at home, and tries to relax before his busy day.

After Fernando has moved all of his work materials to his car, he starts to drive to the office, feeling much calmer knowing that he has a parking space right in front of the office. The CCD_UPark app has saved him both time and money since he downloaded it, as he no longer needs to drive around looking for a parking space wasting his morning and his petrol.

When he finds his parking space, there are red LED lights in the ground indicating that someone has booked the space and Fernando drives into the space knowing that it is the one he booked on his smartphone an hour earlier. The parking space automatically senses his license plate number which assures Fernando that he is in the right space, only meters away from his office.

Fernando – a worker and resident of the CCD is now able to pre book his favorite parking space close to his office in the morning

12.6.3. Value Creation

Provision of smart parking will generate value for three key stakeholder groups:

CCD & DUIS

Role:

- Provision of sufficient parking spaces to meet the needs of both workers, residents and visitors to the CCD
- Provides the platform to enable additional services and revenue generation

OWNER / OPERATOR

Role:

- Installation of required sensors / equipment at parking locations and online services e.g. booking and payment
- Maintenance of parking spaces
- Provide a journey planner / router that can be used on a sat-nav or via smartphone
- Issues fines if un-used bookings are not cancelled, or for parking when not subscribed to the service

USER

Role:

- Uses online booking system to reserve parking space
- Uses the online 'check-in' system when they arrive at the parking space to start the reservation

VALUE CREATED

- Maximum utilisation of parking spaces
- Increases parking capacity locally by the provision of flexible and secure parking
- Reduced congestion leading to decrease in particulate emissions from idling and slow moving cars
- Lower incidence of health problems due to improved air quality

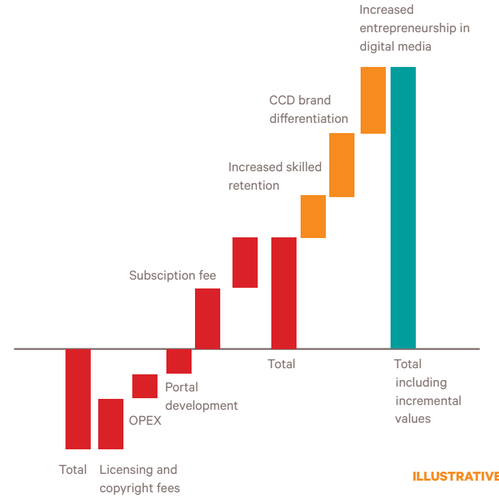
- Additional revenues streams from premium booking fee
- Maximisation of allocated parking spaces lowers the maintenance costs involved with unused spaces
- Scalable system that can be rolled out to DUIS / rest of Guadalajara / other locations
- Ability to track usage of specific spaces and areas to rank pricing structure

- Saves time and reduces petrol wasted spent searching for parking space
- Can choose a parking location that is convenient / close to final destination
- Convenient booking – can be made anywhere using a smartphone / tablet
- Online payment eliminates need to carry cash for parking
- Benefit from decreased congestion due to large scale traffic reorganisation

- The greatest proportion of cost for a smart parking system is in the capital cost of the infrastructure for each parking space
- Revenue streams are based on:
  - Variable costs to consumer, as consumers can both park in specific spots available on demand or book spots in advance for a premium cost
  - Sponsorship and ads can be added to the app to increase revenue for the owner/operator of the service
  - Sponsorship and advertising can be added to the physical parking spaces
- Intangible benefits include:
  - Increased parking capacity in the area
  - Time saved from driving around the city looking for an available parking space
  - Reduced stress levels and time pressure levels for users of the service
  - Decreased congestion
  - Reduced emissions

Smart parking usage will provide CCD with traditional revenue streams and deliver value added services to residents and visitors

Predicted costs and revenues from Smart Parking



ILLUSTRATIVE

Triple bottom line value created from Intelligent Smart Parking

Environmental

LOW HIGH

- 30% of vehicles on the roads in the downtown area of large cities are looking for a parking space; eliminating idling and driving around in circles can significantly cut vehicle emissions by over 10% for each journey

Social

LOW HIGH

- Looking for a parking space can waste an average of 20 minutes; eliminating this time can significantly decrease driver frustration and lead to macro-economic growth through improved productivity
- 73% of drivers in Mexico City reported to have not made it to their destination due to the inability to find a parking space in the right location

Economical

LOW HIGH

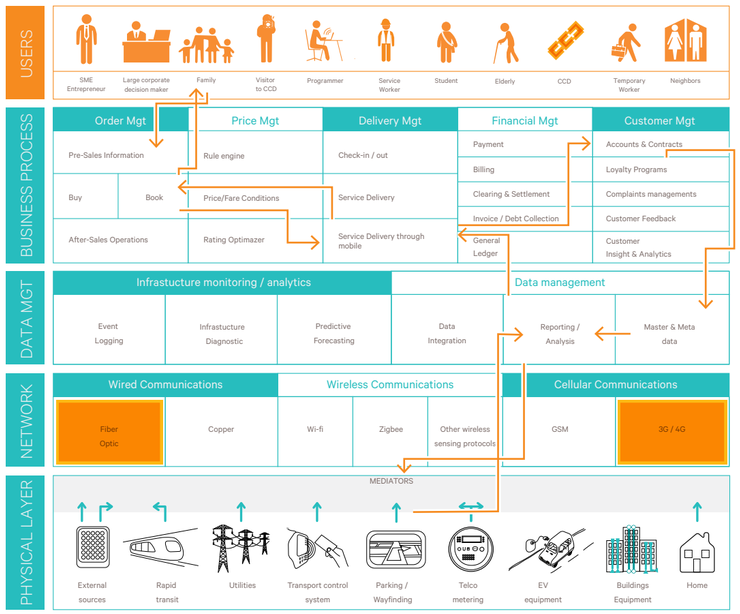
- Additional revenue stream for parking providers can be added to allow for premium advanced booking
- Smart parking solutions are expected to generate over $2 trillion in revenue worldwide by 2015

Source:
A new "Smart Parking" System Infrastructure and Implementation, Yangeng Geng and Christos G Cassandras, 2012; IBM Launches City Parking Analytics System, 2011; IBM Global Parking Survey: Drivers Share Worldwide Parking Woes, 2011

12.6.4. Smart Parking and the OS

The UOS provided allows UPark to provide an innovative digital parking service to CCD, directly solving parking capacity and congestion challenges, creating financial, environmental and productivity benefits in a secure ecosystem

Smart parking road-map



As an example, Fernando, a parent living in CCD uses his smartphone to book a parking space using he smart parking system:

- A request is sent through the order management function for the U_Park app.
- The delivery management function converts the mobile application protocol into a compatible language for the data base.
- The customer management function accesses the profile and skill set of the programmer and passes it to the Master data base.
- The master database requests any additional inputs from external parties and responds to the service delivery module with an up to date data account of available parking spots and booking information.
- Fernando chooses and books a specific spot near his office.
- A booked response is registered and passed to Fernando as confirmation.

Type of network communication used

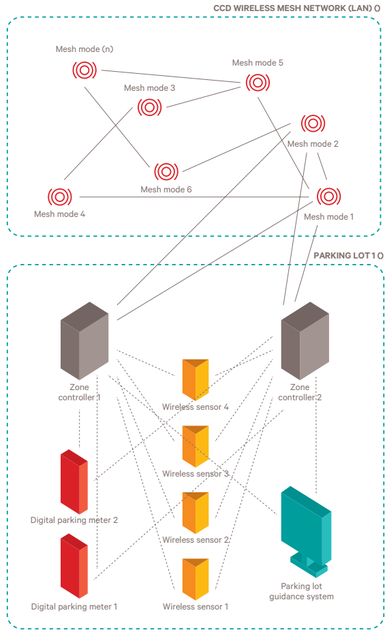
12.6.5. Smart Parking Infrastructure

SERVICE PROVISION

- Detection of on-street and parking facility parking occupancy – joined up approach to view all parking within CCD
- Ability to control real-time parking pricing dependent on demand
- Parking availability preview and booking – potentially off-street bookable, on-street non-bookable
- Way-finding with real-time information, digital signage, mobile mapping

INFRASTRUCTURE REQUIREMENTS

- Wireless ulstrasonic , infrared or magnetometer sensors per parking space
- Reserved space visual indicator for off-street parking
- Data collection/dissemination server (zone controller) per parking area
- Numberplate recognition cameras
- Copper/wireless connectivity to parking lot guidance displays
- Wireless connectivity to wireless mesh network
- Fibre/wireless connectivity to digital signage and public information displays



12.6.6. Case Studies

SFPARK, SAN FRANCISCO

SFpark uses a combination of technology and governance structures to improve parking in the downtown San Francisco region. Using real-time information, SFpark finds available parking spaces for drivers, which decreases the time spent driving around the city centre. In addition, parking is dynamically priced to match demand, which help encourages drivers to park in underused areas and garages, reducing demand in the city centre.

SFpark also has extended time limits and additional payment options for drivers which is expected to lead to a decrease in parking violations and fewer parking tickets. Data from the sensors may also be used to adjust parking enforcement officers schedules and routing.

SFpark is currently being trialled at 7,000 out of the total 28,000 of San Francisco's metered parking spaces, and 12,250 spaces in 15 of the 20 city-owned parking garages.

SMART PARKING TRIAL, LONDON

The City of Westminster in London is trialling a new smart parking system to help alleviate traffic and direct drivers to unoccupied spaces. Currently Westminster has 12,000 parking spaces, and it is estimated that 30% of traffic flow is due to motorists looking for a parking space. In addition, 15% of spaces remain unoccupied because drivers are unaware of their location.

The trial solution involves wireless infrared sensors monitoring the occupancy of each parking space, and a zone controller which uses GPRS to send data back to a data centre. Data is then provided to Parkopedia who transmit the information to a front-end (smartphone) parking app, allowing users to see the number of parking spaces available on any given street, in real time.

With this information, drivers can plan their route to available parking spaces which reduces the time spent looking for a spot. As a result, congestion caused by circling is significantly decreased.

Smart parking applications have been gaining popularity as cities seek to better manage both traffic and parking issues

San Francisco

London

Source:
SmartEye and SmartApp trail, City of Westminster, London: http://smartparking.com/case-studies/smarteye-and-smartapp-trial-%E2%80%93-city-of-westminster,-london/; Westminster considering extending parking sensors trial to 35,000 bays, Computer World UK: http://www.computerworlduk.com/news/public-sector/3408551/westminster-considering-extending-parking-sensors-trial-to-35000-bays/

12.7.

In Detail: E-Learning

- Remote education platform is a **formalised teaching and learning system designed to be carried out remotely** using electronic communication, such as video and audio conferencing
- Students have the ability to take single courses or entire degrees online, while having local support with tutors and individual study groups
- Remote education can include either **synchronous learning** where the delivery of the lesson or lecture happens when all participants are "present" at the same time or **asynchronous**, where participants access and move through course materials at their own time and convenience
- Both of these methods brings separate benefits, and both styles can be used within one remote education platform
- **Multiple collaboration methods can be used** including video conferencing, word communication, and document sharing
- Access to a **knowledge library**, shared amongst students and teachers, can cultivate and facilitate the sharing of knowledge and organisational learning

Remote education is a delivery method for online teaching that is available from any location

Access to educational content on any platform, from any location

12.7.1. Current Context

CURRENT CONTEXT AND PROPOSED SOLUTION

The commonly used public distance learning mode in Mexico, also known as Telesecundaria, consists of lectures delivered via satellite TV to registered students in any location. These distance secondary schools have one teacher per grade to facilitate lectures, and these teachers assist students with their schoolwork, and answer questions asked by their students.

Under the current operating plan for distance education, the Ministry of Public Education (referred to as SEP in Spanish) is in charge of all aspects related to academic services. These aspects include:

- Production of materials
- Distribution of the television broadcast
- Training for advisers and teachers
- Evaluation, design, and application of the curriculum
- Support for implementation and follow-up

In 2008, 1.8 million students were enrolled in distance-learning lower secondary schools in Mexico. This represents about 20% of the total enrollment in this level.

Past research has shown distance learning to be a cost-effective model for delivery of lower secondary education. Currently however, student achievement results and completion rates are lower in distance education, clearly showing that there is need for investment and further improvement of distance education services within Mexico and the Guadalajara region.

CURRENT PLAYERS

In the private sector, there are a large number of courses and institutions that can provide the distance education services for students in Mexico and Guadalajara. The average length of a course (including masters courses) in a subject related to digital creative services is between 8-18 months. Tuition for these courses varies based on the quality and recognition of the institution.

One of the highest valued online programs is the Monterrey Institute of Technology (ITSM for its Spanish abbreviation), as well as the Anahuac University and Iberoamericana University. These three institutions have a wide variety of courses as well as a known tradition and reputation in the private education industry.

While other institutions provide courses for the creative digital industry, these courses do not include the same level of support, technological network or the faculty as the above courses.

Private universities are the most popular remote education courses, but tuition is expensive and internet connection rates are costly which make it difficult for students to register

CURRENT CAPABILITIES

Distance-learning schools need very little infrastructure and only one facilitator or teacher per grade. The assistant teacher is often a generalist that helps students with schoolwork and answers questions that are raised by students.

Currently, lectures are given via satellite TV in 15-minute programs and class sizes are smaller than in standard schools (22 versus 35 students on average). In addition to the TV programs, students also receive free supplementary materials and textbooks.

Private institutions and universities require an Internet connection and a personal computer to attend the courses, install and use design related software and develop new multimedia material.

REGULATORY AND LEGAL CONSTRAINTS

The Internet penetration and user rates are still below in comparison with other developed countries across the globe. Areas with an unstable network and expensive Internet rates may produce many frustrated students and limit the number of students who are able to register for these courses.

Source:
Distance Education in the OCDE Countries -The Development and Future of Distance Education, 2010; Education in México: Challenges and opportunities. Santibanez, Vernez y Razquín, 2010; http://www.diplomados.uia.mx/articulos.php?id_discipline=15; http://www.ruv.itesm.mx/portal/principal/oe/info/homedoc.htm; http://uva.anahuac.mx/index.php?option=com_content&view=article&id; http://unesdoc.unesco.org/images/0012/001231/123157e.pdf

12.7.2. Use Case

Mariana wakes up in the morning knowing that the day is going to be busy, with classes, catching up on some lectures that she missed last week, as well as a doctor's appointment that she booked weeks ago. Even though it will be a busy day, Mariana knows that she will be able to fit everything into her schedule as the remote education program she is enrolled in gives her the flexibility to attend classes when she is free.

Mariana sits down at her desk, and logs into the system, just in time to start her 9am lecture. This lecture is through video conferencing, so she can see all the other students in the lecture as well as the lecturer. She takes notes at her desk, but also knows that all the material presented during the lecture will be automatically uploaded to the online knowledge library immediately after the lecture.

Once the lecture is finished, Mariana logs off the system and heads to her doctors appointment. After her appointment, she will catch up on some old lecturers that she missed last week. Catching up on missed time is easy, as each lecture, with detailed lecture notes, is online and easily accessible from any location.

Mariana really enjoys her courses now, knowing that she is receiving a world class education, with students from around the world, which is accessible from the desk in her house. This education will ensure that she is prepared for any job which she applies for after she graduates.

Mariana – a student in CCD can now attend classes at times which suit her schedule and is receiving a leading global education

12.7.3. Value Creation

Provision of a remote education platform will generate value for three key stakeholder groups:

CCD & DUIS

Role:

- Coordinate collaboration between universities and students within CCD
- Possible addition of materials on public kiosks within CCD to increase access

- Ability to provide global education will help ensure students stay within the CCD

OWNER / OPERATOR

Role:

- Provide the online platform for courses, and communication between teachers and students
- Creation of the online knowledge library
- Maintenance of the platform to ensure down time is minimised
- Hire teachers and lead the collaboration necessary between education institutes

VALUE CREATED

- Revenue from each registered student for both individual courses and degree studies
- Increased number of potential students by providing courses which can be accessed in any location

USER

Role:

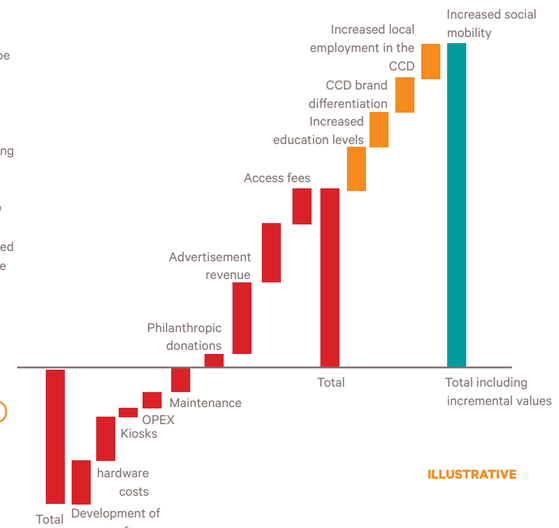
- Register for a specific online course, or a larger degree programme
- Attend lectures, either at specific times, or catch up lectures at any time desired

- World leading education is available from any location and is extremely easy to access
- Access to materials which can be accessed via any computer, or can be printed or downloaded as audiocasts to any smart device and accessed on the move
- Ability to compete on the global level for jobs after graduation

- Remote education is a platform system which will offer access either for free or for a subsidised or fully paid subscription fee to a variety of general education as well as digital media and Latin American focussed educational programs.
- Courses will be accessed for free through existing service providers such as itunes-U and Khan academy
- Revenue streams are based on the registration fee paid by users, which will be an annual variable fee
- It is assumed that a certain percentage of users will qualify for free access to the service, for example due to unemployment, age or student status.
- Intangible benefits include:
  - Increased percentage of education amongst citizens in CCD by improving the ease at which students can attend classes
  - Increased number of students staying within CCD
  - The improvement of a local labour force, further differentiating the CCD as an attractive media hub to invest in
  - Increased social mobility as people who previously may not have received education or media specific education can now for free or for a small fee
  - Increased awareness of the CCD corporation and their interaction with local residents

Remote education will help raise the average education rate for CCD by making qualifications available to everyone regardless of location

Predicted costs and revenues from remote education platform



Triple bottom line value created from Remote Education

Environmental

LOW HIGH

- Required travel is reduced as students can work remotely from any location
- Significantly lower infrastructure is required for courses that are based online which decreases the environmental impact and footprint of education

Social

LOW HIGH

- Increased accessibility to education regardless of location should increase the average education rate of residents in CCD
- Number of students registering in online universities has dramatically increased, over 1000% since the Open University was founded in 1971 demonstrating its popularity and demand for these services from students

Economical

LOW HIGH

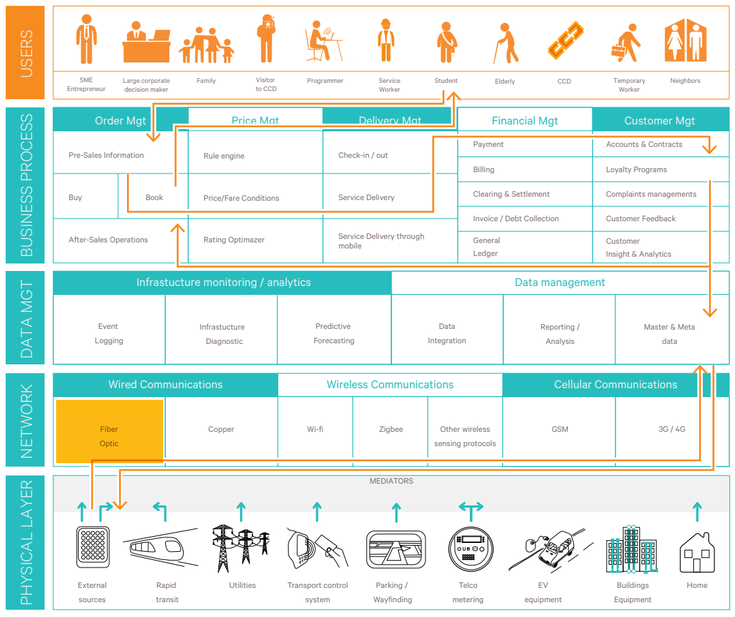
- Costs to provide the same education courses are significantly less due to the lack of physical infrastructure
- Employment is 29% higher with students who have achieved a bachelor degree compared to high school level

Source:
Does higher education really lead to higher employability and wages in the RMI, Ben Graham and Charles Paul, 2002

12.7.4. E-Learning and the OS

The UOS provided allows the remote education platform to provide an innovative education system which improves the education prospects for all residents of the CCD.

E-learning road-map



As an example Marina, a student in CCD, accesses the remote education platform to attend a lecture for her course:

- A request is sent through the order management function for the remote education platform.
- The customer management function accesses the profile and courses that Mariana is registered for and passes it to the Master data base.
- The master database requests any additional inputs from the external education platform and responds to the service delivery module with the lecture information for that specific course and time.
- The student then signs in to the course to mark her attendance at the lecture.
- A response is registered and passed to student as confirmation, and she waits for the lecture to start shortly.

Type of network communication used

12.7.5. Case Studies

THE OPEN UNIVERSITY

The Open University is a world leader in modern distance education, having pioneered teaching and learning methods which enable people to achieve career and academic goals studying at times and places which suit them. The University has over 260,000 students, with close to 7,000 tutors, 1,200 full-time staff and has the support of over 3,500 support and administrative staff to ensure the program runs smoothly.

The Open University offers programs which are available to students worldwide, where students are able to take courses from wherever they chose; their house, workplace, library or any study centre. This means that students can plan to take their courses around other commitments, and work at a pace which suits their schedule. Students registered with

The Open University have the support of: a tutor or online forum for help with specific module material, activities or assignments; a student advisor; specific study facilitates in their regions; and contact with other students at tutorials, or during classes during the day through online conferencing, social networks or student run informal study groups.

This online platform gives students around the world the opportunity to learn together, and benefit from a world-class education regardless of location or schedule.

ITUNES U

iTunes U is an app that allows registered students to access school materials using any internet enabled device, such as an iPhone or iPad. Students can view all the assignments for individual courses on any device and take notes while watching course videos, which are automatically linked to the specific time in the video. iTunes U syncs notes and assignments across all devices, so that students can easily work across devices, at any location or time.

The online platform allows iTunes U to offer a variety of courses in different formats, ranging from the traditional course materials with syllabi, hand outs and quizzes and other formats with unique video and audio lectures, and links to other online resources including the iBookstore, App Store and iTunes Store. Additionally, the iTunes U library includes over 500,000 public resources containing audio and video content from museums, universities, cultural institutions and others.

Institutions around the world have also joined with a public iTunes U site, with courses and material from Stanford, Yale, Oxford and UK Berkeley. Material from MoMA and the New York Public Library has also been uploaded, giving registered unlimited access to these courses, lectures, videos and books.

Remote education has increased in popularity dramatically, with increasing number of both courses offered and overall students from around the world

Source:
iTunes website and The Open University website

12.8.

In Detail: Digital Public Displays

- Digital public displays can be used to show a variety of information including sustainability metrics in terms of water quality, air quality or renewable energy generation, energy consumption. or can display green public transport routes and information
- These metrics can be measured at different scales, such as for the entire DUIS region, CCD, by neighbourhood or by street
- Sustainability performance is a key success factor for CCD and wider DUIS area, and visualization of the success in this area will be a key differentiator for the region
- This information can be displayed in public areas, such as building facades, public interactive kiosks or meters placed throughout the city
- Once selected sustainability metrics have been calculated and displayed, the CCD can be benchmarked against other similarly sized areas
- Visualization of sustainability performance will also provide citizens with tangible information on how their city compares against other international cities
- These displays can also show progress to specific sustainability targets for CCD and wider DUIS region
- Transportation information can include multi-modal transportation routes combining both personal and public transit information and exact times of arrival times and distances
- The display of sustainability performance metrics are aimed to catalyse behavioural change in the citizens and visitors of CCD; by displaying green commuting options, or energy consumption of a region, individual behaviour will begin to change

Digital public displays will be used to a show a variety of sustainability metrics and green commuting options within CCD

Digital Public Displays

12.8.1. Current Context

CURRENT CONTEXT AND PROPOSED SOLUTION

The city council of Guadalajara, through the IT Coordination Area, has recently installed three digital kiosks for speeding up administrative proceedings within the city center. These kiosks are called Multiproceeding Kiosks and they have been placed in strategic venues throughout the city to make them accessible by both visitors and residents of CCD. These kiosks consist of a self-service counter where a wide number of governmental proceedings can be done.

Currently, there are three kiosks situated in Oblatos, Registro Civil and the Olympica area. Services offered at these kiosks include water, electricity and taxes balance inquiry as well as payments. Requests of birth and marriage certificate, and renewals for drivers license and parking tickets can also be requested at these kiosks.

There are plans to expand this kiosk network and include more free services such as weather, traffic information and free wifi connection.

CURRENT PLAYERS

Digital publicity is still a new trend in Mexico, therefore there are not digital kiosk installed in CCD or in the Guadalajara area by private players looking to display public information. However, other kinds of digital publicity and advertisement is being used throughout the Guadalajara area.

Some companies, such as Net Display Systems and Technomedia, are innovating in these fields bye replacing the traditional billboard with digital screens and displays. The advertisement showed is paid by public or private companies and can be seen my both visitors and citizens of CCD.

Public information like weather forecasts, traffic information, and air and water quality is still not displayed on public display kiosks.

Digital displays are currently limited to public administration kiosks and billboards for private advertisements

CURRENT CAPABILITIES

There is currently limited capabilities within this space, as the technology utilized today consists of publicity billboards which are digital screens with a rotation of advertisements. Real-time information is not displayed in any manner within the Guadalajara region.

REGULATORY AND LEGAL CONSTRAINTS

Mexico has made significant progress on implementing relevant cyberlaws on the national scale. Recently Mexico adopted a strict privacy legislation, which includes rules on data breaching notifications and other privacy and content laws.

Further to these new cyberlaws, Mexico also has up-to-date cybercrime legislation in place and has been formally invited to accede to the Convention on Cybercrime.

This context makes data security and management less of a concern as there are strict national legislations and regulations to help prevent crimes from taking place.

Source:
Mexico Smart Grid: Market Forecast (2011-2020), Northeast-group, 2011; Sector Privado y generación de energía eléctrica, Centro de Estudios Sociales y de Opinión Pública, 2010; http://www.nds.eu/Net-Display-Systems-abre-oficina-en-Mexico; http://portal.guadalajara.gob.mx/programas/centros-comunitarios/inicio/740; http://www.cfe.gob.mx/Industria/InformacionCliente/Paginas/medidor.aspx

12.8.2. Use Case

Alejandra has decided to visit CCD and during her day visit walks around the city center to see what CCD has to offer. While walking through the city, she is amazed at the level and scale at which information is publically displayed throughout the CCD. She notices on a nearby building façade, total energy consumption of the building along with total renewable microgeneration is displayed. These displays are fed with real-time data so throughout the day, the values are constantly updated and verified. As Alejandra walks further down the road and into the Parque Morelos, she notices another public display, but this time , the display is showing the air quality and nearby water quality. This information is shown with color coding, giving the users of the Parque detailed information whether the water quality is clean enough to swim in the nearby ponds. As this information is updated in real-time, people have begun to feel more comfortable about the water quality in the Parque and are swimming in the ponds far more often.

When Alejandra is finished her walk throughout CCD, she realizes how far she has walked from her hotel, and wonders what the fastest and easiest way would be to return to her room. Nearby on one of the bus stops, there is another display for real-time green transport information. This display tells her that there is a bus coming in 5 minutes from the same stop, and that this bus will take her directly to her hotel. If she doesn't want to take the bus, it also outlines a safe walking route. Since she is tried from her day walking through the city and the Parque, Alejandra decides she will take the bus. Without this information, Alejandra would have likely taken a taxi, so she appreciates that because of this information, she has selected both a cheaper and more environmentally friendly mode of transport. While she is waiting for the bus, the display begins to show total renewable energy generation of CCD, total energy consumption, average air quality, and temperature.

Alejandra is amazed at the level and breadth of information that is displayed in multiple ways throughout CCD. While on the bus back to her hotel, she realizes that by displaying this level of information, CCD has differentiated themselves from other creative digital cities, as well as created a public way to demonstrate sustainability achievements and targets. Building owners can now easily show their sustainability progress and CCD can clearly list their own targets and achievements all while better informing the users of the CCD about the city.

Alejandra – a visitor to CCD is interested in the breadth and depth of the information provided throughout the CCD on public displays

12.8.3. Value Creation

Public displays of various data streams including sustainability metrics and transport options create value for all stakeholder groups within CCD

CCD & DUIS

Role:

- Installation and maintenance of visual display of total renewable energy generated
- Installation of sensors to measure additional sustainability metrics such as air and water quality

- Measurements of renewable energy generation provide values to justify achievement of national and international targets
- Measurements can also be used in sustainability performance management and reporting
- Ability to benchmark performance against other similarly sized areas at the national and international scale

OWNER / OPERATOR

Role:

- Installation and maintenance of additional sensing capabilities, such as energy consumption in individual buildings

- External display of sustainability targets and achievements
- Monitoring energy consumption can lead to a decrease in consumption, thereby cutting energy costs for buildings and owners

USER

Role:

- Use of public displays for transport information, or to check water quality of local ponds in Parque Morelos

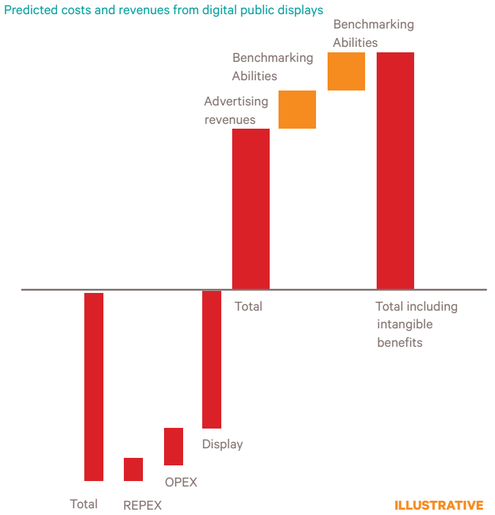
- Assurance that energy is being sustainably sourced
- Information around water quality increases the feeling of safety and allows users to make better use of swimming ponds
- Traffic information can be easily located determining which mode of transport is either fastest, cheapest or the most carbon efficient

VALUE CREATED

- There is great potential within a smart city for advertising space to be created and highly utilised, as well as offering innovative advertising solutions such as interactive advertising or responsive advertising
- The greatest proportion of cost for the renewable energy visualisation comes from cost of purchasing the display equipment
- Due to the increasingly large spending power of the residents of the CCD, and the attraction of highly targeted advertising potential, the expected revenues are high for rental of advertising space and use of the Urban Operating System data to run these adverts
- Intangible benefits include:
  - Citizen assurance that their energy is being sourced sustainably (energy use visualisation)
  - Ability to use these metrics for sustainability performance management reports (energy use visualisation)
  - Ability to benchmark the DUIS region against other similarly sized regions both nationally and internationally in terms of renewable energy target achievements(energy use visualisation)

Digital public displays will add value for sustainability performance management metrics and drive behaviour change

Predicted costs and revenues from digital public displays



Triple bottom line value created from Digital Public Displays

Environmental

LOW HIGH

- By displaying total renewable energy generation, businesses have greater incentives to perform against and achieve their sustainability targets

Social

LOW HIGH

- Displays help drive consumer awareness and decreased energy consumption of 7.8% four months after implementation. However, a Dutch study has found that these savings cannot be sustained in the medium to long term

Economical

LOW HIGH

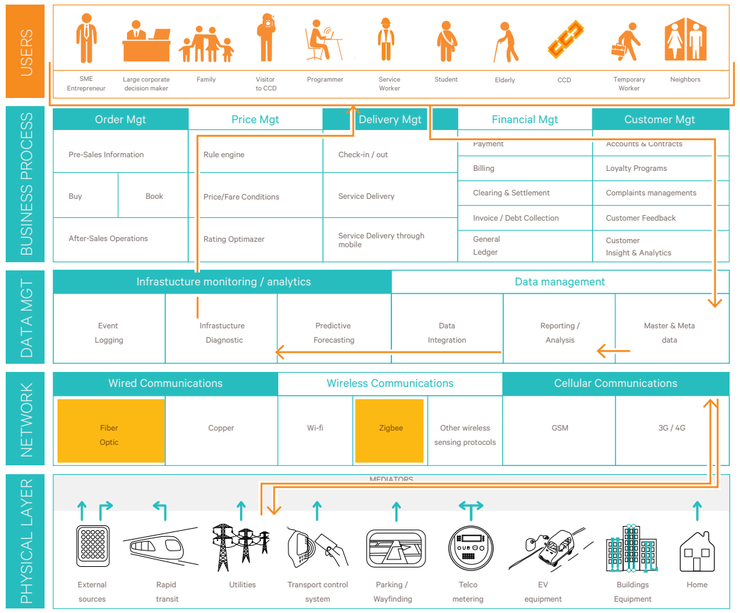
- By decreasing energy consumption as a secondary benefit to measuring and showing energy consumption, businesses can cut energy costs as prices become more volatile and continue to increase

Source:
Home energy monitors: impact over the medium term, S. S. van Dam, C. A. Bakker and J. D. M. van Hal, 2010

12.8.4. Digital Displays and the OS

Digital public displays can show sustainability performance metrics, such as renewable energy generation, water quality or air quality, and can also show citizens, residents and visitors green commuting routes and options

Digital public displays road map



As an example energy information for a building is displayed on a public screen whilst Alejandra is visiting CCD:

- A request is sent through the order management function CCD display board utilises the master database to access information about the energy.
- The master database is continuously updated by meter information from the utilities smart meters.
- The reporting and analysis modules analyses the raw data and outputs the display requirements.
- Diagnosis is undertaken on the output to compare to the pre-defined baseline to show output as savings.
- The output is displayed and recognised by citizens and stakeholders in CCD.

Type of network communication used

12.8.5. Case Studies

THE WEST MIDLANDS INTEGRATED PASSENGER INFORMATION

The West Midlands created a strategy to provide integrated transport information that helps passengers make more informed journey choices based on a variety of different transport methods including walking, cycling or bus transport. The West Midlands wanted to provide their citizens and visitors to the area with accurate real-time transport information, which was accessible to all users via a range of format, convenient to all passengers. They also wanted to provide passengers with sufficient and timely information that was clear and unbiased.

To achieve these targets, the West Midlands is now providing integrated, comprehensive and accurate, multi-modal transport information in multiple formats. Personal travel information is available either from local Transport Information Centres or through "help yourself" digital kiosks or online on mobile phones. Information is available in real-time and can therefore be tracked before the passenger makes their journey, or during the journey itself to see if there are any delays or suspensions to their route.

Digitally, information is available across all types of travelling at transit stops, interchanges, public transport and own individual personal devices. "At a glance" information is also available through digital displays and self-service kiosks.

Services include on vehicle information (providing next stop, disruptions, interchanges and destinations on displays), new portable, personalised travel assistance using technology-based methods such as Twitter, SMS and emails, real-time information online and on the local network and specific timetables on each mode of transport.

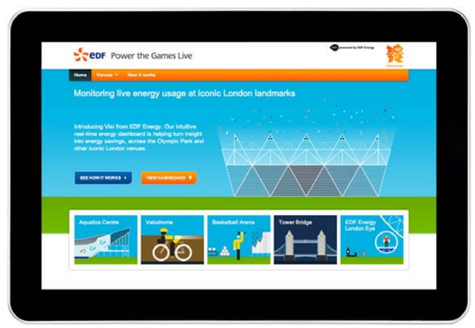
VISUALISING ENERGY FOR LONDON 2012, EDF

As the energy provider for the London 2012 Olympic and Paralympic Games, EDF energy monitoring and visualisation was a key initiative for EDF during the games, as well as a legacy program once the games has ended.

To facilitate monitoring the energy usage from the Olympic sites, EDF designed and built "Power the Games Live", a web-based dashboard which has real-time energy usage data from the Olympic Stadium, Aquatics Centre, Velodrome, Basketball Arena, Tower Bridge and the EDF Energy London Eye tourist attraction. This dashboard displayed historical energy consumption over several years, compared trends over the same time period such as usage during daylight hours versus night time, as well as showing key milestones such as Olympic and Paralympic event listings, and dates like Earth Day. In addition, users could learn about how each building's design was optimised for energy efficiency.

This dashboard was accessible in multiple formats, as it was available online, on a mobile phone app also available on other smart devices, and a public display in the Olympic Park. This display was accessible by all spectators throughout both the Olympic and Paralympic Games.

The dashboard is still live and will continue to collect data even after the Games. EDF has since created Visi, an entirely new business product, providing energy management information to businesses to help engage and educate their employees, to make energy saving much easier.



Remote education has increased in popularity dramatically, with increasing number of both courses offered and overall students from around the world

SINGAPORE

Wireless Water Sentinel project is a demonstrator that shows the potential for a low cost wirless sensor network to monitor parameters within a large urban water distribution system – essentially a step towards the water smart grid.

Source:
West Midlands County website and the EDF website: http://www.appliedworks.co.uk/case-studies/edf-energy-visualising-energy-consumption

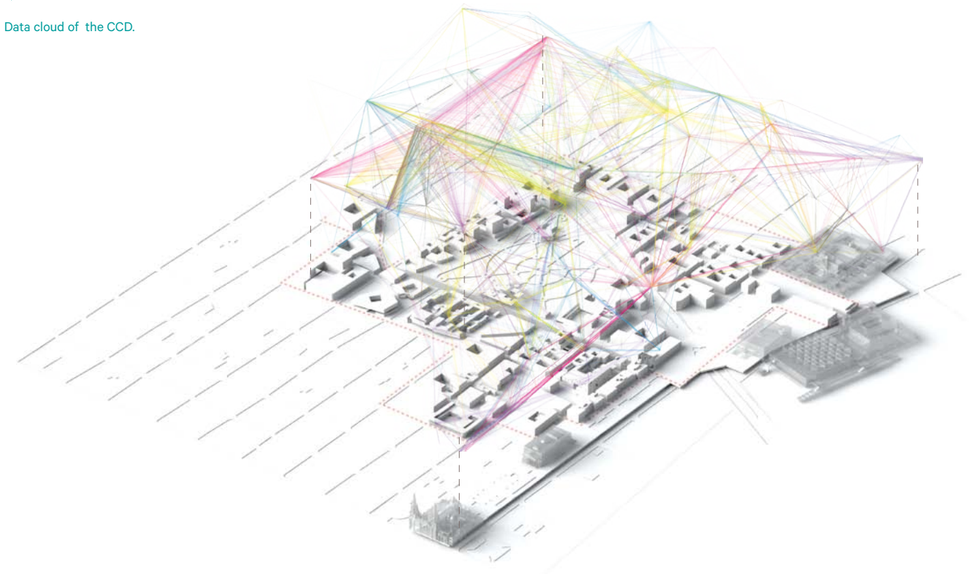
12.9.

In Detail: Cloud Based Creative Software

- Cloud based creative software allows registered users to **use the software in any location** to help increase the value of their specific project or product.
- By basing the software in the cloud, **multiple users can take advantage of world leading software** from any location.
- This will **increase the overall quality** of creative digital content and projects coming from CCD as users have access to the latest software throughout any location.
- Licenses for the software would be purchased by CCD at a lower price due to economies of scale, and would be offered to residents, visitors and workers in CCD on **a pay-as-you-go basis**.
- This would greatly decrease the cost to the user of the software, as they would only pay for the time they use.
- CCD would provide the cloud based storage to enable a greater number of professionals to benefit from the software and decrease the hardware space required for the software.
- This software would be offered at no-cost to students and families, up to a pre-defined limit, to help increase skills and creativity opportunities within CCD
- Software can also be used in public locations such as public kiosks so that users can take advantage regardless of available office or work spaces.
- Alongside the premium storage available, there is additional revenue possible for advertisements and sponsorship.

Digital public displays will be used to a show a variety of sustainability metrics and green commuting options within CCD

Data cloud of the CCD.



12.9.1. Current Context

CURRENT CONTEXT AND PROPOSED SOLUTION

The primary benefit of cloud based services is the low cost required in hosting them in the cloud, however there are multiple additional benefits for both the user and the owner:

Scalability: Server crashes during usage surges can be avoided by businesses and organizations when they use cloud based hosting.

Modularity: Hosting services and software in the cloud further ensures that the RAM, processing and hard drive space requirements are completely met. When a requirement arises, one can expand the capacities easily. The cloud web hosting provider can also add a number of resources to the sites according to the customer's request, making the system completely modular.

Fewer risks: The cloud offers quick and potentially automatic backups, which greatly decreases the risk of data lose to nearly zero. All data is stored in remote locations, and this also increases the security of data, making it a more common form of web hosting for businesses.

Flexible: The cloud platform is highly flexible and is also easy to customize. This gives businesses the opportunity to differentiate their services and software, while retaining the benefits of cloud based services. Also, software updates are automatic which removes the requirement for staff to spend time and resources updating the software when a newer version is released.

Low cost hosting: The clients pay for what the data that they actually use, and therefore, do not have to spend money for unlimited or unnecessary server resources and bandwidth.

Due to the number of benefits associated with hosting services and software in the cloud, it is one of the strongest options in terms of web hosting and ease of use.

CURRENT PLAYERS

The main services for cloud hosting software also include specialized IT services, consulting, testing, software development, Business Processes Outsourcing (BPO), contact centers, IT infrastructure solutions, industrial and engineering services and solutions.

The strongest international players are IBM (who also have a smart data center in Guadalajara), Microsoft, EMC2, and Tata Consultancy Services.

There is also a wide array of locally based cloud hosting companies in the Guadalajara region, like Internetworks with over 14 years in the market, Hosting-México, and others.

México leads cloud hosting development in Latin America, with a wide offer of local and international suppliers

CURRENT CAPABILITIES

The innovation capabilities in the Guadalajara region are guided mainly by The IBM Smarter Data Center, which was opened in June 2012. This data center provides clients with unique 3D tools for IT infrastructure planning, modeling accuracy and real-time virtual access to tools that enable them to monitor their system performance for more informed and timely decision making.

The data center also offers predictive analytic capabilities which help clients prevent and anticipate critical events from impacting their system performance. These capabilities are strong but can be improved on with a greater variety of services as well as service and software options for smaller organizations.

REGULATORY AND LEGAL CONSTRAINTS

Mexico has made significant progress on implementing relevant cyberlaws on the national scale. Recently Mexico adopted a strict privacy legislation, which includes rules on data breaching notifications and other privacy and content laws.

Further to these new cyberlaws, Mexico also has up-to-date cybercrime legislation in place and has been formally invited to accede to the Convention on Cybercrime.

This context makes data security and management less of a concern as there are strict national legislations and regulations to help prevent crimes from taking place.

Source::
México Overview Report 2011, Business Software Alliance, 2011; Sector Privado y generación de energía eléctrica, Centro de Estudios Sociales y de Opinión Pública, 2010.; http://www.microsoft.com/es-xl/cloud/default.aspx; http://www.ibm.com/mx/services/hosting/security.phtml; http://hosting-mexico.net/cloudhosting.htm

12.9.2. Use Case

Claudia runs a small SME based out of CCD, and has recently come up with a new idea for a video game that she believes will be a large success on the national and international market. However, to ensure the game can compete against all the others on the market, she knows that she must create a high quality product that uses the most up-to-date creative digital software.

Traditionally, this software can be quite expensive and must be continually updated on every computer when a new version is released. However, ever since the newest creative digital software has been uploaded to the cloud, Claudia is now able to access it from any computer or smartphone, in any location for a small, up-front registration fee. This has made the creation and production stage of digital content much simpler, and quicker, as Claudia is able to access using any device that can connect to the city-wide wifi.

With the help of the software, Claudia creates the video game that she was planning. While she is in the process of creating her product, Claudia is able to work in multiple locations throughout CCD, using short term office space, her home and the public kiosks placed throughout the CCD. This makes working much easier as she is able to use the software from any location, as well as access her saved work. This means that Claudia is never worried that she will lose progress and the material that she has been working on, as they are all stored wirelessly in the cloud.

The final product of Claudia's was complete ahead of schedule and is of the high quality that is demanded on the global market.

Claudia – the owner of a creative digital SME can now access leading creative digital software from any location

12.9.3. Value Creation

The addition of creative digital software into the cloud will create benefits to all three stakeholder groups within CCD:

CCD & DUIS

Role:

- Provision of the cloud platform for the CCD
- Public kiosks can also be used for the software allowing registered users the ability to use the software regardless of their location

- Creative digital content can be created at a faster pace, and higher quality, making the CCD a strong competitor on the international market
- Retention of creative digital professionals is likely to increase due to ease of accessibility of software

OWNER / OPERATOR

Role:

- Upload most up-to-date creative digital software on the cloud
- Collect fees from subscribed users to ensure licensing and copyright fees are paid
- Maintain the site and software to minimise downtime

VALUE CREATED

- Fixed revenue stream from subscription fee from registered users to the cloud services
- Limited on-going maintenance costs required
- Wider potential audience with lack of geographic barriers, creating higher overall revenues

USER

Role:

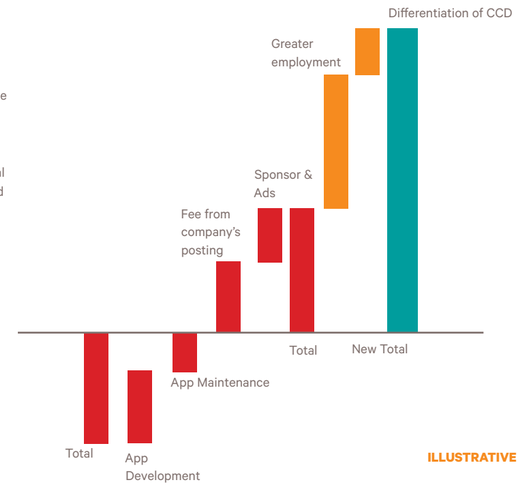
- Pay a registration fee to enable access to the software from any mobile device that can connect to the internet

- Access to the most up-to-date digital creative software available
- Access is available from any device regardless of location
- Content can be created that is of a higher quality with the use of the most recent software
- Content can be made within a faster time frame due to software accessibility

- A service provided by the CCD, the offering of easy and possible PAYG access to the latest cloud based creative digital software will create direct, pecuniary revenue streams from the following:
  - Mass subscription fees from institutions such as local universities
  - Business subscription fees from CCD and DUIS geographically based businesses
  - Individual subscription fees from local residents of the CCD
  - Advertising revenue
- Revenue streams are directly linked to number of registered users; placing the software in the cloud increases the number of potential users by removing potential geographic barriers
- Intangible benefits include:
  - CCD can become a stronger international competitor by creating digital content of a higher quality, as users are able to take advantage of world class software from any location
  - Retention of skilled workers in CCD will increase as content can be created with greater ease
  - Storing software in the cloud allows people to work from any location, both indoors and outdoors
  - Increased accessibility could stimulate entrepreneurship in the digital media landscape in Mexico as more people are able to utilise the software

Delivery of cloud based software as a service solution will reduce operating costs of start-ups and allow for increased skill retention

Predicted costs and revenues from cloud based creative digital software



Triple bottom line value created from Cloud Based Creative Digital Software

Environmental

LOW HIGH

- Using the cloud for software services can cut energy use and carbon emissions by 30% compared to storing the information locally

Social

LOW HIGH

- Storing software in the cloud allows users to work from any location, either in rented work spaces, in public locations or in personal offices; this freedom greatly increases overall productivity of professionals

Economical

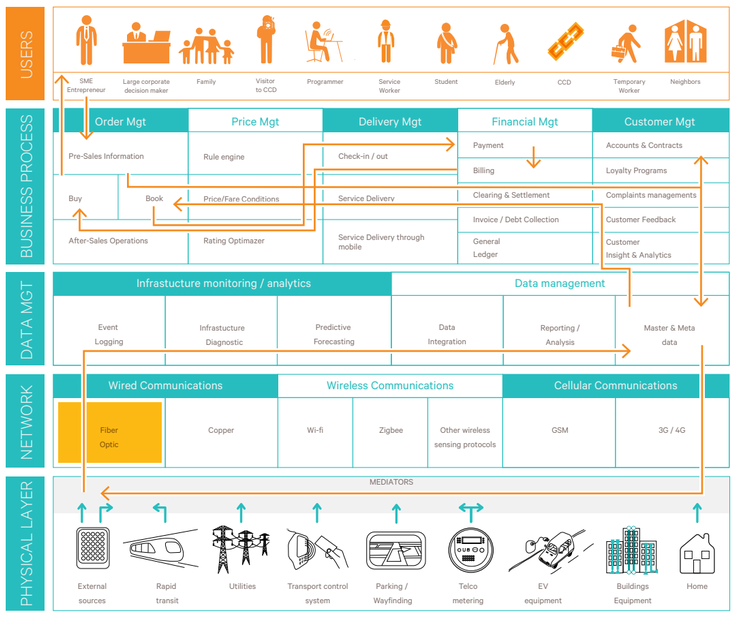
LOW HIGH

- With a subscription fee paid by registered users, the necessity to pay for new versions of software is eliminated

Source:
Cloud Computing and Sustainability: The Environmental Benefits of Moving to the Cloud, Accenture, 2010

12.9.4. Cloud Based Creative Software

The UOS provided supports the delivery of creative digital software that is based in the cloud, creating value for the CCD, owner/operator of the software and the users.



As an example the Programmer uses his smart phone to access the Live Labor Marketplace:

- A request is sent through the order management function for the live labor database.
- The delivery management function converts the mobile application protocol into a compatible language for the data base.
- The customer management function accesses the profile and skill set of the programmer and passes it to the Master data base.
- The master database requests any additional inputs from external parties and responds to the service delivery module with an up to date data base of relevant jobs.
- The Programmer chooses and books themselves to a job.
- The check in / out agent changes the status of the Programmer for a the chosen time period.
- A booked response is registered and passed to the Programmer as confirmation.

Type of network communication used

12.9.5. Case Studies

ADOBE CREATIVE CLOUD

Adobe Creative Cloud is an on-going membership subscription that allows users to download and install any of the Adobe Creative Suite desktop applications, plus another other Adobe applications, including but not limited to, Adobe Photoshop, and Adobe Lightroom. Through this service, users also have access to online services for file sharing, collaboration and publishing. With this membership, updates of all apps are automatically downloaded as soon as they are released, giving users the most up-to-date software, and the ability to create high quality digital content.

Adobe Creative Cloud operates on a monthly subscription fee, and applications are available in eight languages. Users can download as many Adobe applications as they please, which are all automatically updated when newer versions are released.

As an additional benefit, users are also give 20GB of storage space in the cloud with their subscription fee. This storage allowance makes its possible for users to upload and store digital content online, enabling access from any location and removing barriers of physical space requirements.

Basing software in the cloud has become more common as workers work from multiple locations and demand the most up to date software

NETSUITE

NetSuite is a cloud based integrated business suite for new media, publishing, advertising and creative service companies. Key benefits for businesses using NetSuite services include: flexible and easy-to-use cloud based business management services for financials, sales, and analytics; ability to track advertising sales opportunities; streamlining billing processes with end-to-end process integration; performance management and tracking; and assistance in growing subscriber bases through advanced renewal management.

NetSuite provides back office support to creative digital companies, and this enables companies to focus on creation of creative content. This software drives benefits for SMEs and MNCs alike, which makes it beneficial for all business stakeholders in CCD, regardless of size.

Source:
West Midlands County website and the EDF website: http://www.appliedworks.co.uk/case-studies/edf-energy-visualising-energy-consumption

12.10.

In Detail: Live Labor Marketplace

- The live labor marketplace gives users the ability to either post or apply for short term and long term jobs in any domain or industry
- The app is based online so that it can be accessed from any location
- This allows people to both look for work online as well as help find professionals for specific positions that require staffing
- The marketplace is accessible on mobile apps and on public kiosks to enable anyone within CCD to apply for work, at any time
- This gives everyone within CCD the ability to apply for short and long term work, increasing the possibility and likelihood of employment
- This eases the requirement for publishing job applications, and enables people to complete short term work based on needs and requirements
- The ability to hire for short term requirements helps decrease the time required for creation of creative digital content
- By increasing the short term job prospects for workers in CCD, unemployment will likely decrease
- The increase in job prospects will also help increase the rate of retention for creative digital professionals in CCD

Digital public displays will be used to a show a variety of sustainability metrics and green commuting options within CCD

12.10.1. Current Context

CURRENT CONTEXT AND PROPOSED SOLUTION

Mexico's economy grew more slowly in 2011 than it had in the previous year, however, the country has seen some improvements recently in reference to employment figures.

The unemployment rate decrease to 6% in 2011 from 6.4% in 2010 while the youth unemployment rate increased 0.1% to 9.7%. Overall, youth unemployment was 1.7 times higher than adult unemployment, compared with a 2.2 weighted average multiple for Latin America.

The labor force participation rate in Mexico, which includes working age people who have a job and those who are unemployed but looking for a job, rose to 60.3% from 60.1% showing that there is an interest in looking for employment, creating an opportunity and advantage for the live labor marketplace.

Mexico has also recorded a modest increases in wages as formal employment wages increased by 0.8 % while real minimum wages rose 0.7 % from 2010.

Currently, there are two formats for finding a job in Guadalajara. Primarily, someone can directly apply to a specific company and position which can be done in person or online. Secondly, someone can upload their CV information to a job search platform. This second option is the most popular option, which makes the business case for a mobile live labor marketplace which will allow people to look for both short and long term work while automatically tracking their CV and credentials.

CURRENT PLAYERS

Mexico has recently developed internet based labor markets that are available from all computers and directly connect job seekers with job vacancies which are specific for each worker profile.

The national job search engines like OCC Mundial, Bumeran and Monster offers a wide variety of labor opportunities as well as different locations and wages. Universia Empleo is a network leader for young graduates or students looking for a part time job. Compu Trabajo is one of the most common websites for job searching and it has a national scope and a variety of offers in different industries. Tapatios.com and TrabajoGDL.com, are specific websites that search and select job offers in the Guadalajara city area.

Source:
The Labor Market Information System as an Instrument of Active Labor Market Policies, Internationale Weiterbildung und Entwicklung gGbH, Germany, 2010; http://www.aited.com/amerique-latine/ilce-en.htm; http://www.occ.com.mx/Buscar_Empleo/Resultados?bdtype=OCCM&locp=Mexico-Jalisco-Guadalajara&hits=50&page=1&f=true; http://www.bumeran.com.mx/postulantes/panel.bum

Internet based job searching is becoming more popular which helps creates a stronger value case for the Live Labor Marketplace

CURRENT CAPABILITIES

An internet based solution can be accessed 24 hours a day from any computer with internet access, so people can use the service even from home if they have the technical capacity. This allows people to look for jobs with greater ease, while making job sites accessible to everyone.

An internet-based service offers up-to-date information while the barriers for usage of this solution are very low provided the user has a secure and stable internet connection.

REGULATORY AND LEGAL CONSTRAINTS

Regions with an unstable network will likely have a lower penetration rate of users. However, this can be overcome by offering these services at public locations and interactive kiosks in the city center.

occmundial.com
TrabajoGDL.com Grandes oportunidades de empleo
bumeran.com
monster
universia

12.10.2. Use Case

Now that Juan Carlos has moved back to CCD, he is in need of work, but since the introduction of the live labor marketplace, he knows that he will be able to find either short or long term work in the creative digital industry with a job that suits his unique skillset.

Juan Carlos decides to look for short term work opportunities one morning, so he logs onto his smartphone, and opens the Live Labor Marketplace App. This app allows him to see, in real time, any jobs that have been posted, that requires his specific skills in the creative digital industry. He finds a job, which only asks for one day commitment, to code part of a new video game that is currently in production. Knowing that he has the skillset to be able to fulfill the requirements for this job, he applies on his phone. This application process is very easy, as the app already remembers his CV and personal details.

After Juan Carlos has quickly applied for the position, he hears back from the company that was asking for his help. They have received his application and CV in real time, and offer him the job immediately. Due to the speed with which Juan Carlos could apply for the job, as well as the short time period it took for the company to accept his application, Juan Carlos starts works the next day.

Juan Carlos likes the fact that he is able to apply for both short term and long term work with the Live Labor Marketplace App. This way he can match his personal preferences and schedule with the work that he applies for.

Juan Carlos – A programmer, can now find short and long term work in CCD using either his smartphone or publically available kiosks

12.10.3. Value Creation

Provision of the Live Labor Marketplace app will generate value for the three key stakeholder groups:

CCD & DUIS

Role:

- Provision of public wifi enabled kiosks in the city centre with the Live Labor Marketplace App
- Maintenance of public kiosks

- Lower unemployment rates as citizens are able to search for both long and short term work
- Increased retention of creative digital professionals in the CCD
- Creative digital content can be produced in less time, creating higher productivity rates for the city
- Platform can be extended to cover other industries

OWNER / OPERATOR

Role:

- Creation of the Live Labor Marketplace app
- Maintain the quality assurance of the app ensuring that all job postings are legitimate
- Maintenance of the app to ensure no faults or breakdowns

VALUE CREATED

- Revenue from the company or person who posts the job posting on the app
- Subscription fee for mobile app users
- Additional revenue streams possible with the addition of advertisements on the mobile app and the kiosk

USER

Role:

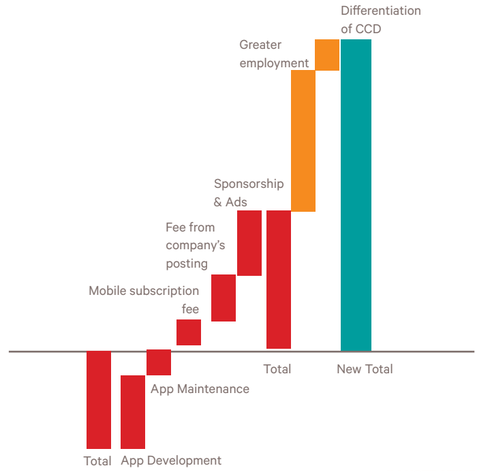
- Upload skill specific CV and personal details
- Apply for work using either the mobile app or the kiosks throughout CCD
- Subscription fee if user wishes to use the mobile app rather than the public kiosk only

- Ability to apply for both short and long term work
- Real time function of the app means that the user can apply for work starting the next day
- Skill specific work that can suit the personal preferences and schedules of the user
- Can apply from both mobile application on a smartphone or a public kiosk available throughout the CCD

- Live Labour Marketplace will be a service to encourage the full utilisation of a specialised labour market which will develop and grow over time
- The greatest proportion of cost for the Live Labour Marketplace app is the creation of the app itself, while there is little maintenance cost once this has taken place
- Revenue streams are based on a subscription fee for the mobile app paid by the individual user, and a percentage 'head-hunting' fee of the cost of the job advertised which the company posting the job will pay. Greater employment
- The second key revenue generator is the use of the app and advertising space (e.g. on smart bus terminals) for advertising
- Intangible benefits include:
  - Greater employment due to varied timescales of available jobs
  - Increased retention of creative digital professionals in the CCD
  - Decreased time to produce creative digital media
  - Increased differentiation of the CCD as a digital media hub as an efficient place to set up a digital media business

The Live Labor Marketplace will help citizens find both short and long term work creating increased employment opportunities

Predicted costs and revenues from Live Labor Marketplace



ILLUSTRATIVE

Triple bottom line value created from Live Labor Marketplace

Environmental

LOW HIGH

- Limited environmental benefit from the creation of the app, but temporary jobs in the environmental / sustainability industries may increase with the creation of the app

Social

LOW HIGH

- Monster.com has 25 million users per month, with other major job websites such as EmploymentGuide.com see 13.0 million/month

Economical

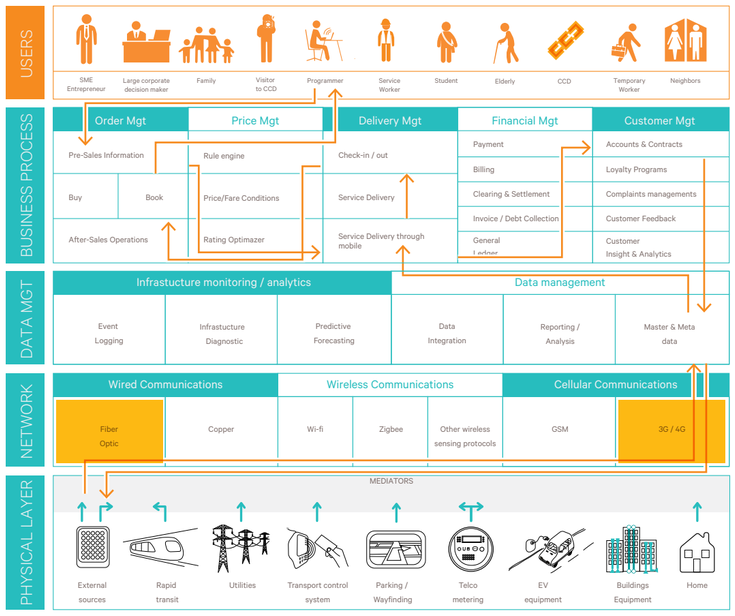
LOW HIGH

- By increasing employment within the CCD, for both short and long term work, average purchasing power will increase,
- Total taxes paid within the CCD increase as well within the CCD

12.10.4. OS Utilization through the Live Labor Marketplace

The UOS provided allows users to access the Live Labor Marketplace app on either their smartphones or public kiosks to apply for both short and long term work within CCD.

Live Labor Marketplace road-map.



As an example, Juan Carlos, a programmer in CCD uses his smart phone to access the Live Labor Marketplace:

- A request is sent through the order management function for the live labor database.
- The delivery management function converts the mobile application protocol into a compatible language for the data base
- The customer management function accesses the profile and skill set of the programmer and passes it to the Master data base
- The master database requests any additional inputs from external parties and responds to the service delivery module with an up to date data base of relevant jobs
- The programmer chooses and books themselves to a job
- The check in / out agent changes the status of the programmer for a the chosen time period
- A booked response is registered and passed to the programmer as confirmation

Type of network communication used

12.10.5. Case Studies

NOW HIRING, MOBILE PHONE APP

Now Hiring is an app available on smartphones which helps subscribers find a new job in the same career or look for an entirely new career. The app saves job searches; includes the ability to email search results to personal email addresses; filter job searches by location, start date, relevance, full/part time; whether it is contract work, an internship or temporary work; and search jobs by city, state, province, or postcode. Now Hiring only retrieves the most up-to-date jobs postings that are open, to ensure that the user does not apply for already closed apps. This app is available for jobs in the US, Canada, UK, Germany, France, Spain and India.

Although this app includes recent job postings, it does not give real time information for the user, nor do the job posters have the ability to post about short term work which is required immediately, for very short periods of time. Also, this app is only of many sites which company's can post to, which means that the user may miss specific jobs that have been posted to a different website. The Live Labor Marketplace aggregates all job postings and gives this information in real-time. Finally, by combining the posting and application process in one app, the Live Labor Marketplace also provides a service to allow users to upload CVs directly applying for the job on the app itself. This helps decrease the time between a company posting a request for work, and it being filled.

JOB FINDER, MOBILE PHONE APP

The Job Finder app differentiates itself from other job apps by aggregating jobs from multiple job sites, instead of having the user visit each site individually.

To find a job posting, the user must specify the location of interest, and other preferences, like user personal details, or desired position level, and the app remembers these details for future searches. The app uses RSS to gather and aggregate information across multiple job posting websites, and organises these posts into 73 separate categories across all different types of careers.

The Live Labor Marketplace innovates on the Job Finder app by allowing users to apply for the job on the same platform, remembering the users CV (if used on a mobile device), which significantly shortens the application process time.

Online applications to help users find work have become more popular with a growing number of job seekers turning online to find work

Source:
Information on applications from individual websites and Mashable review of top 10 job finding apps at: http://mashable.com/2009/03/26/iphone-job-search-apps/

13

Digital Strategies: **Responsive Public Spaces**

13.1 **Responsive Environments**
13.2 **Media Façades**
13.3 **Smart Streets**
13.4 **Responsive Furniture**
13.5 **Interactive Ecology**
13.6 **Design Guidelines for Responsive Spaces**

13.

Responsive Environments

Overview

Driven by the idea of the mobile city, which states that citizens should be able to shape their environment, provision of responsive public spaces along CCD will develop an interface for interaction between the site and the inhabitants. Aiming to provide individuals with platforms to deliver and acquire information, Guadalajara's historic urban fabric will be augmented with digital design and functional solutions. Embedded technologies within physical infrastructure will acquire information, for instance through networks of monitoring devices, at the same time that will deliver information via networks of actuating devices for examples. This on-going exchange of data will allow inhabitants to realize their desires and regulate their needs, resulting in an environmental and social sustainable dynamic. Moreover, these digital portals functioning as means not only to publically deliver information but also to gather will facilitate a wider outreach of audience towards achieving a more inclusive city, allowing inhabitation to be steered and transform by the occupants.

Responsive public spaces throughput CCD aim to provide citizens with a better knowledge and understanding of their environment, enabling them to make more informed and conscious decisions.

Towards transforming the historic landscape of the inner core of the city into an info-space, it is of outmost importance to ensure a long-term vision of proliferation of responsive public spaces, which in the future will connect among each other, embedding computing and communication powers. Therefore, enabling CCD with a set of Responsive Public Spaces will set an example and trigger the development of a "smart" Guadalajara. Hence, a comprehensive approach is proposed by tackling four different elements found within the site and providing them with digital infrastructure: (i) facades, (ii) streets, (iii) furniture, and (iv) green spaces.

Media facades envisioned to be part of the design of every catalyst project of the first phase of development of CCD, will be allocated and socially available in the Ingenium, Infobox, Mexican Media Museum and Marketing Center, and the Multi-level Pedestrian Connector as an example an further on conceptually replicated a long the site. Smart road proposed for CCD will be achieved under two approaches: responsive infrastructure and mobile sensing units. Thus streets and roads will be provided with digital lighting systems as well as smart public devices, for instance bikes that would allow users to become part of the real-time network of information. Moreover, the site will be augmented through responsive furniture, empowering people to play key roles in the system as sensing regulation and actuation. Finally, due to the powerful presence of nature enable by Parque Morelos, an interactive ecology is foreseen to take place in CCD through a set of digital interventions.

MEDIA FAÇADE

In order to trigger a boom appearance of interactive façades the city, a fix number of interventions are envisioned to take place in CCD's key buildings. Thus, a as the following navigator shows, the catalyst projects Ingenium, Infobox, Mexican Media Museum and Marketing Center, and the Multi-level Pedestrian Connector will be provided with media façades.

SMART STREETS

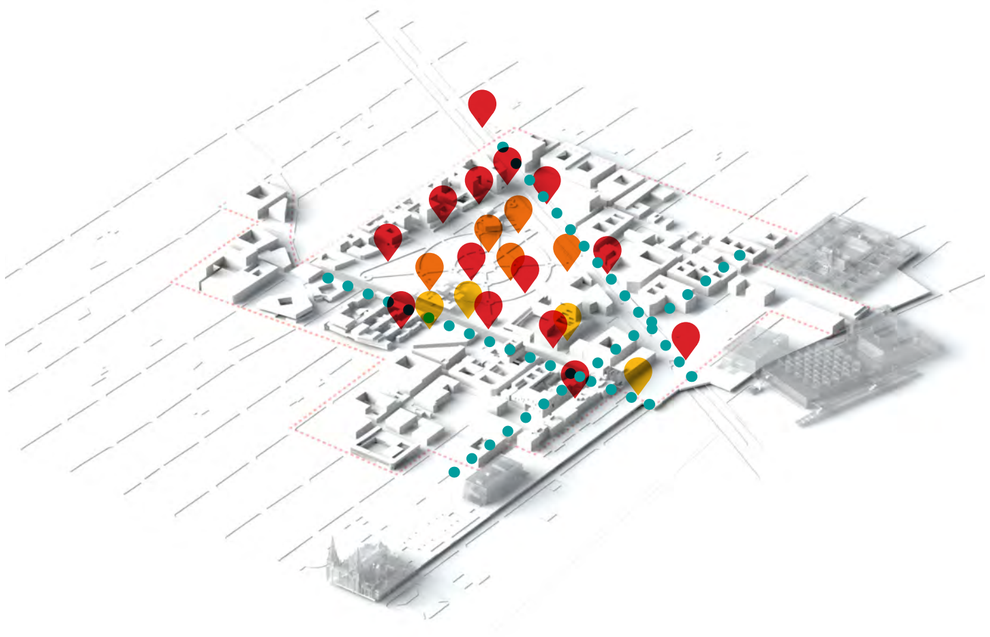
Smart roads refers to a wide range of possible interventions that are not necessarily placed as infrastructure, however, first interventions will be physically localized. Thus, these digital solutions on streets will take place along Av. Independencia, Av. Hidalgo and Calle Dr. Alzaga; this last along where the Rambla will unfold.

RESPONSIVE FURNITURE

Provision of CCD with proper urban equipment considers integration of responsive furniture throughout the site. Key spots have been identified such as the Macrobus stations or specific spots inside Parque Morelos.

INTERACTIVE ECOLOGY

Providing natural areas with digital elements in order to augment their responsiveness are considered mainly for water features within Parque Morelos. Pools, fountains, and/ pavilions containing water elements are expected to set an example with regards to digital interactive ecology.



13.1.

Media Facades

13.1.1. Media Facades

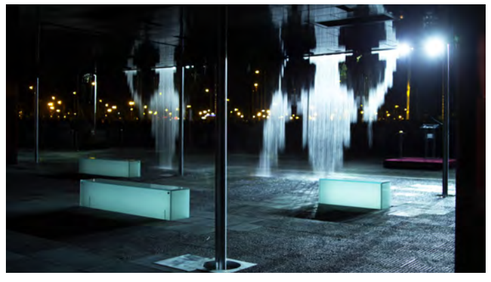
Urban landscapes are generated by an agglomeration of buildings, which facades have the possibility of becoming screen walls for cities. Thus, provision of facades with responsive digital solutions attempts to generate a dialogue between these spaces and the citizens, through transforming them into displays. Adaptability of exterior surfaces of buildings with expressive and performative digital solutions, aims to enhance interaction between the built environment and users. New media facades envisioned to take part in the design of new and existing buildings of CCD would embed technologies in their physical structure for gathering information as well as broadcasting. Moreover, current available technologies make possible for facades to store, filter and redirect thermal light and airflows, for instance, responding to temperature conditions inside the building as well as outside, increasing its energy efficiency. Thus, the following best practices provide example of media facades envisioned to be part of the design of CCD. These media facades will be allocated and become socially available in the Ingenium, Infobox, Mexican Media Museum and Marketing Center, and the Multi-level Pedestrian Connector as illustration an further on conceptually replicated a long the site.

Media Facades will reinforce environmental and social sustainability within CCD, making use of exterior surface of buildings as canvas and screen walls to display as well as gather information from users.

13.1.2. Case studies

THE DIGITAL WATER PAVILION (CARLORATTIASSOCIATI)

To commemorate the once strong relation to water of Parque Morelos, a digital water pavilion based on the Milla Digital Project implemented by Expoagua Zaragoza 2008, could take place on the East edge of the park and function as exemplification of interactive architecture and digital information portal. This pavilion of minimalist expression and small dimensions is simultaneously: a sophisticated machine of high mechanical precision; a building appearing and disappearing thanks to a 12 hydraulic pistons system; and a place where spaces are flexible, changing, and responsive due to the action of 120 meters of water walls digitally controlled by almost 3,000 electromagnetic valves.



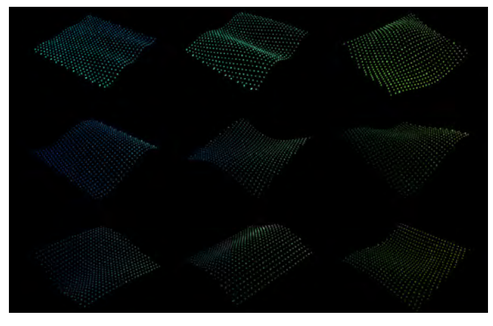
THE CLOUD (CARLORATTIASSOCIATI)

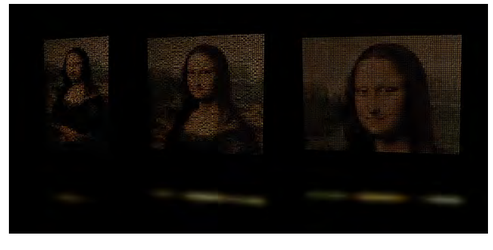
The Cloud provides two resources–energy and data–harvesting both from the natural ecosystem and humanity's complementary cybersphere, and fusing the two. Rainwater trickling over its surfaces and displays is collected and redistributed. Wind energy, amplified at elevation, is harnessed. Photovoltaic inflatables at the fringes can be unreeled during the day and docked at night, or in high winds. Furthermore, In the Cloud display system, the patterns of its animated, spherical skins offer a civic-scale interface for the delivery of real-time information to the inhabitants and visitors of the city.

FLYFIRE (MIT SENSEABLE CITY LAB)

Flyfire explores how display technologies can actuate the space of the city. It uses a large number of self-organizing micro-helicopters that contain small LED's and act as smart pixels. The helicopters are controlled to create synchronized motions and form elastic display surfaces. This allows any ordinary space to transform into a highly immersive and interactive display environment. The proposed mechanism explores the possibility of a free-form spatial display that consists of a swarm of pixels that self-organize in real-time to adapt to the display requirements of any given scenario.

Rendered views illustrating how Flyfire technology can be deployed for displaying raster information as two-dimensional re-created graphics, and vector information as three-dimensional re-created volumetric compositions.





BLINKENLIGHTS

Blinkenlights Stereoscope is the new light installation of Project Blinkenlights, a group that originated form the Chaos Computer Club in 2001. Stereoscope targeted the City Hall in Toronto, Canada and was the biggest and most interactive installation of the group so far. The talk provides insight into how it worked and what technology had been developed to make it all happen.

The Stereoscope project marked a new order of magnitude for the project as the 960 windows and two individual towers of the City Hall in Toronto mean a significant increase in size and complexity compared to the last installation at Bibliothèque nationale de France in Paris. Also the logistics involved in producing the necessary material, shipping it to Canada and have it set up in around two weeks

GALERIA DEPARTMENT STORE IN SEOUL (UN STUDIO AND ARUP)

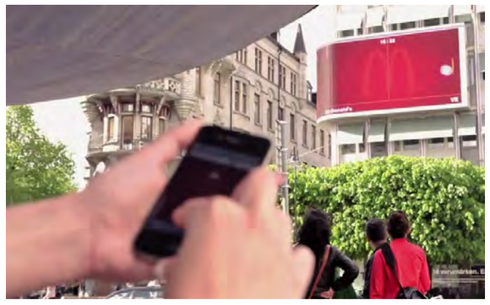
In the Galleria Department Store project, a new façade projects a lively, ever-changing surface. In total, 4,330 glass discs are mounted on the existing concrete skin of the building. The glass discs include special dicroic foil generating a mother-of-pearl effect during the day, whilst during the night each glass disc is lit by LED lights, which are programmable to create a multitude of effects. The chameleon-like facade reflects the subtleties of natural light on the opalescent, dichroic glass discs during the day. At night the discs are individually backlit and controlled by a computer program to create colour schemes all over the building – each disc acting like a big pixel on a screen.

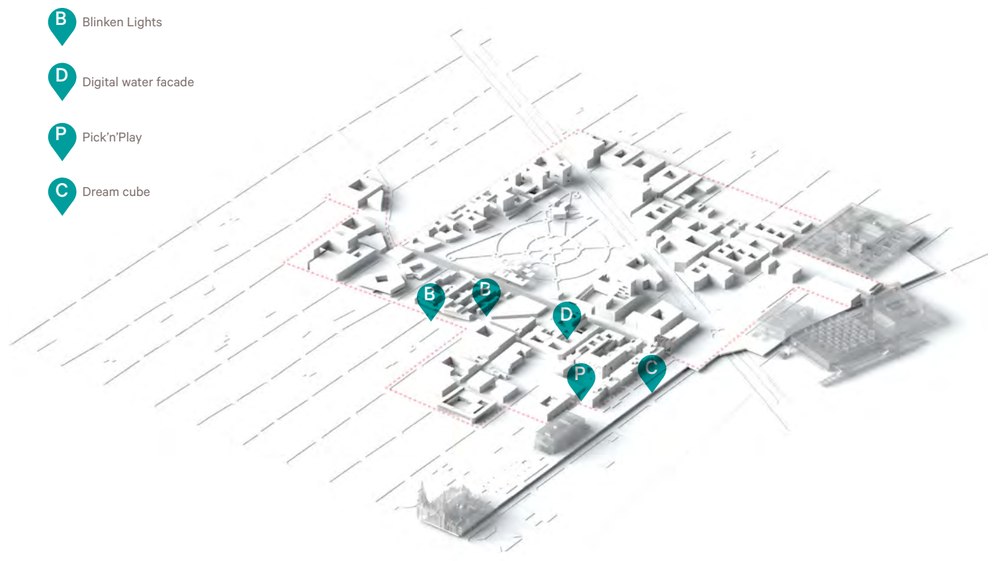
DREAM CUBE (ESI DESIGN)

A massive yet ethereal structure, where thousands of LED rods pulse with light. From the queue, visitors ascend on an escalator, surrounded by bluish light and soft music, into the heart of the Dream Cube. There, they stroll along the “Dreamer’s Path,” a visual story of the city of Shanghai through time – from a small rural village to a vibrant mega-metropolis. Along the path, interactive areas fill with flying butterflies, changing seasons, crowd-sourced images of city life, sculptural lighting and surprise video “portals” that respond to visitor.

PICK N’ PLAY

Pick n’ Play is one of the strategies of advertising and marketing for McDonald’s. The project consists of an interactive game consists of a platform that allows users to play each other in tennis, on a digital screen positioned in various areas of the city, through their mobile devices. Based on an online platform, not an application, the game does not require participants to download any program to be used.





13.2.

Smart Streets

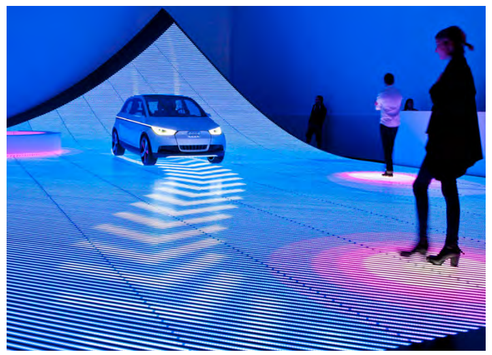
Providing streets and avenues with digital design solutions towards achieving Smart Roads proposed for CCD will be tackled under two approaches: (i) provision of existing infrastructure with responsive elements and (ii) senseable mobility objects. For instance, streets and roads should be provided with digital lighting systems, as shown in following best practices, in order to achieve 24-hour interaction with users and their surroundings. On the other hand, public devices such as bikes that would allow users to become part of the real-time network of information should be achieved through making available gadgets and devices to the public in order to enable smart mobility.

Streets and roads will be provided with digital lighting systems as well as smart public devices that would allow users to become part of an on-going and real-time network of exchange of information.

Case studies

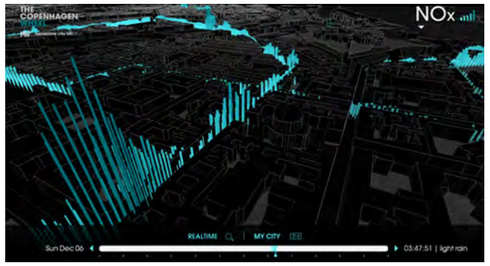
URBAN FUTURE AT DESIGN MIAMI 2011 (BIG+AUDI)

Denmark-based BIG architects and kollision + schmidhuber & partner teamed up to showcase the possibilities of future urban mobility
for AUDI at design miami 2011. the pavillion introduced a city paved with a digital interactive surface,
liberating the streets from existing pedestrian and vehicular boundaries and allowing for flexibility in public spaces.
the entire area was infused with a continuous flow of information, allowing for real-time interaction between the cars and the people on foot.
the 185 square meter (1991 square feet) LED installation had 3D cameras which tracked the movement of passers-by.
this data was processed and generated into artwork which was fed back to the panels, following the moving visitors with colorful pockets.
the AUDI A2 driverless concept car was featured as the centrepiece of urban surface prototype, continuously emitting arrows to
indicate its future path as it navigated between the visitors.



THE COPENHAGEN WHEEL
(MIT SENSEABLE CITY LAB FOR THE CITY OF COPENHAGEN IN COOPERATION WITH DUCATI ENERGIA)

Smart, responsive, and elegant, the Copenhagen Wheel quickly transforms ordinary bicycles into hybrid e-bikes that also function as mobile sensing units. The Copenhagen Wheel captures the energy dissipated while cycling and braking, and saves it for when the biker needs a bit of a boost. It also maps pollution levels, traffic congestion, and road conditions in real-time. Controlled through the cyclist's smart phone, the Copenhagen Wheel becomes a natural extension of the cyclist's everyday life. The phone can be used to unlock and lock the bike, change gears, and select how much the motor assists the biker. As one cycles, the wheel's sensing unit is also capturing one's effort level and information about surroundings, including road conditions, carbon monoxide, NOx, noise, ambient temperature, and relative humidity. People can access this data through their phones or the web, and use it to plan healthier bike routes, to achieve exercise goals, or to meet up with friends on the go. The bikers can also share their collected data with friends, or with city—anonymously if they wish–thereby contributing to a fine-grained database of environmental information from which city inhabitants can all benefit.



MOODWALL (URBAN ALLIANCE)

Moodwall by Urban Alliance is an interactive light installation located in a pedestrian tunnel in Amsterdam.
It is situated in a pedestrian tunnel and interacts with people passing by, improving the atmosphere in the tunnel and making people happy and feel less unsafe.
The interactive urban wallpaper is built out of about 2500 leds behind a ribbed semi-transparent wall. The curves in the wall make it less suitable for grafitti and improve the visibility of the content for the side.
The resolution is horizontally stretched so the images of the screen are better for the side so people are stimulated to watch the screen from outside the tunnel. This prevents the tunnel to become a hang-out spot.
The Moodwall is a pilot project for a 70 meter long media wall proposal by Urban Alliance (in collaboration with Daan Hartoog) which won a competition for ideas to improve the public space of the social unsafe area of the Amsterdam Bijlmer.
The Moodwall was designed by Jasper Klinkhamer (Studio Klink) in collaboration with Remco Wilcke (Cube), who was also responsible for the construction. The content was developed by Hans van Helden and Matthijs ten Berge of Illuminate in collaboration with artist Matthias Oostrik and student of the dutch art academy HKU. contributing to a fine-grained database of environmental information from which city inhabitants can all benefit.

RESPONSIVE URBAN LIGHTING (AALBORG UNIVERSITY)

RUL investigates how human motion intensities can be used as input to light design in a reactive system. Using video from 3 thermal cameras and computer vision analysis, people's flow patterns were monitored and sent as input into a reactive light system. Using physical as well as digital models 4 different light scenarios are designed and tested in full-scale. Furthermore, the experiment showcased power savings up to 90%, depending on the response strategy.

13.3.

Responsive Furniture

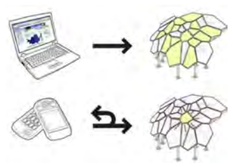
People in cities make use in their everyday lives of an entire network of objects taking them for granted such rubbish containers, letterboxes, shelters, benches and parking meters, among others. As part of CCD's aim of enabling a a site for people to interact with their environment, these daily life present inert objects have been identified as potential to play an active role in the daily life of the population. Vice versa, the site will be augmented through responsive furniture, empowering people to play key roles in the system as sensing regulation and actuation. In detail, these objects generate an exchange of messages and information providing a link of interaction between the CC and the user, at the same time that continue developing their original functions as shelters for the rain, sitting and rest spots or stops. It is precisely responsive furniture a key mean towards achieving smarter cities, identifying manners of transforming standard objects into senseable devices that in un turn communicate among each other. This last might be achieved through creating networks of high-tech as well as low-tech towards enhancing performance of the city as a whole.

Standard objects having a presence in our everyday lives will be augmented with responsive and senseable features, empowering people to play key roles in the system as sensing regulation and actuation.

Case studies

LIVING LIGHT

Living Light is a building facade of the future that displays air quality and public interest in the environment. It is a permanent outdoor pavilion in Peace Park, across from World Cup Stadium in Seoul, Korea. The dome-like structure is made from transparent luminescent panels etched with a street map of the city. When air pollution levels improve in one area, that neighborhood's corresponding panel is illuminated with LEDs. The casual passerby, therefore, begins to understand their city on an entirely new level – a largely invisible level. The same system that controls the illumination of the panels is also connected to a SMS hotline, so the "users" of this piece of architecture can essentially text message the building to get information about air quality. A building that talks to you.



13.4.

Interactive Ecology

The powerful presence of nature enabled by Parque Morelos in CCD will be augmented through digital technologies applied to key ecological features found in the site such as water. An interactive ecology is foreseen to take place in CCD through a set of digital interventions that would raise awareness of among people about the environmental context in which they live. It is expected to engage citizens by generating a better understanding of the human relation to nature through interactive ecology solutions. Thus, resulting in a behavioral change towards a more conscious and committed to taking care of the environment society.

Interactive ecology in CCD fostered by the powerful and augmented presence of Parque Morelos aims to raise awareness among citizens about the natural environment with which they interact on everyday basis.

Case studies

CROWN FOUNTAIN (JAUME PLENSA)
Crown Fountain is an interactive work of public art and video sculpture featured in Chicago's Millennium Park, which is located in the Loop community area. Designed by Catalan artist Jaume Plensa and executed by Krueck and Sexton Architects, it opened in July 2004.The fountain is composed of a black granite reflecting pool placed between a pair of glass brick towers.

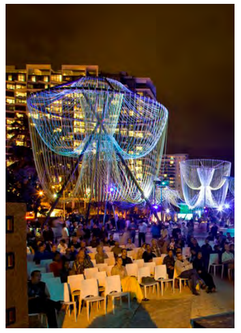
BLUR BUILDING (DILLER SCOFIDIO AND RENFO)
The pavilion is made of filtered lake water shot as a fine mist through 13,000 fog nozzles creating an artificial cloud that measures 300 feet wide by 200 feet deep by 65 feet high. A built-in weather station controls fog output in response to shifting climatic conditions such as temperature, humidity, wind direction, and wind speed. The public can approach the Blur via a ramped bridge. Prior to entering the cloud, each visitor responds to a questionnaire/character profile and receives a "braincoat" (smart raincoat). The coat is used as protection from the wet environment and storage of personal data for communication with the cloud's computer network. Using tracking and location-sensing technologies, each visitor's position can be identified and their character profiles compared to any other visitor's. As visitors pass one another, their coats will compare profiles and change color indicating the degree of attraction or repulsion.

LIGHT DRIFT INTERSECT (HÖWELER + YOON ARCHITECTURE)
Installation for Philadelphia's Schuylkill River waterfront. Opening October 15th, 2010. A field of orbs is animated by the passerby, triggering a line of orbs within the field to illuminate, and creating a light pattern spanning the river and the waterfront. RFID (Radio Frequency Identification) tags allow landed orbs to communicate with water orbs.

COMPOSED NATURE (STAATPLAT SOUNDSYSTEM & LOLA LANDSCAPE)
An interactive installation brings a series of motorized trees shaking causing artificial noise fields. The installation is formed by a matrix of trees on which vibrating motors are mounted and controlled via a DMX dimmer pack connected to a computer. The dimmer controls the voltage per tree and thus the frequency and severity of the vibration, creating artificial noise fields.
Composed Nature is a sensitive but powerful tool that allows visitors to play different compositions within the trees. In this way the forest becomes a public playable instrument. A permanent version is now installed in the Kankenbos, Neerplet, BE, a public forest with a collection of open-air sound installations.

EXHALE (PHU HOANG OFFICE+RACHELY ROTEM STUDIO)

'exhale' is a work of site-specific ephemeral architecture, designed for the oceanfront pavilion for the art basel design miami 2010.
Composed of seven miles of reflective and phosphorescent ropes, the 25,000sq. ft pavilion is designed to interact with its visitors and environment. its ropes not only sway with the breeze but also glow in response to certain wind speeds.
some sensors are mounted at human height, so simply blowing on the ropes will activate the ultraviolet lights in that section, causing it to glow.
the effect of this flow of light echoes the phenomenon of bioluminescent algae visible in the ocean nearby.



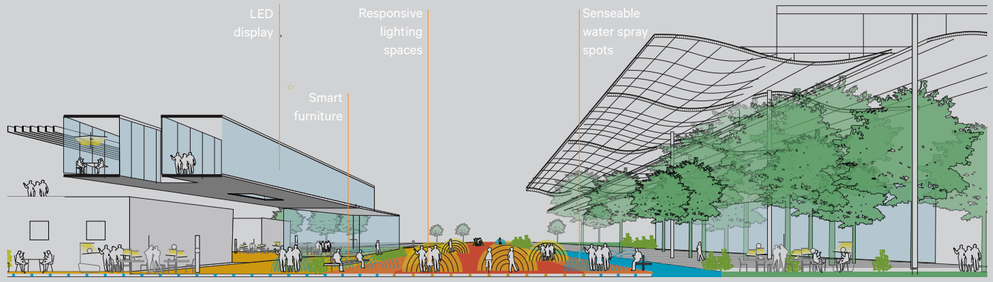
WATERWALL

WATER WALL is an interactive fountain where people can digitally control the streams of water. With a command – by jumping into the water or sending a message through an electronic device – the water can start and stop or change in pressure. This is a monumental urban element like a canal running through the city, but twisted into a vertical plane so that people can experience it from a distance as a landmark or interact with it directly.

13.5.

DESIGN GUIDELINES FOR RESPONSIVE PUBLIC SPACES

- CCD should be provided with digital media facades that would interact with the social and physical environment.
- Exterior surface of buildings in CCD must contain responsive elements that store, filter and redirect thermal light and airflows, for instance, responding to temperature conditions inside the building as well as outside, increasing its energy efficiency.
- Avenues, streets, paths, etc.; should be augmented with digital responsive elements in order to enhance communication with users.
- Smart roads should also be achieved through making available gadgets and devices to the public in order to enable smart mobility.
- Urban equipment that enabling responsiveness of the standard objects such as rubbish containers, letterboxes, shelters, benches or parking meters of daily use to the public must be provided.
- Natural features lead and contained in Parque Morelos should be added with digital interventions that provide citizens with a better knowledge and understanding of their environment.



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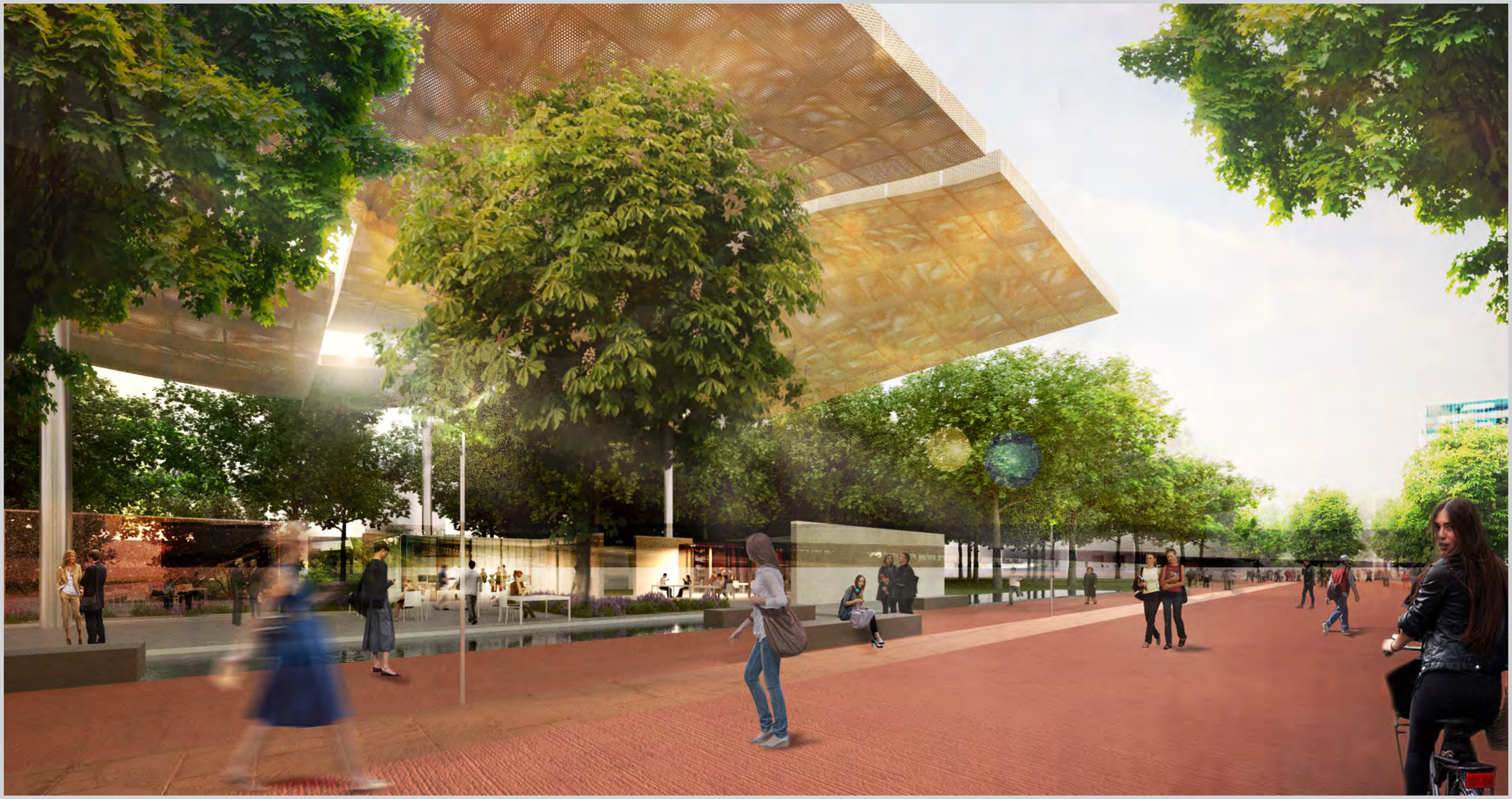

14

Digital Lifestyle: **Mobile Working**

14.1 **Conceiving a 21st Century Place of Creative Work and Culture**
14.2 **Factors Influencing Digital Outdoor Workspaces**
14.3 **Design Considerations: Environment**
14.4 **Design Considerations: Equipment**
14.5 **Design Considerations: Infrastructure**
14.6 **Design Guidelines for Creative Outdoor Workspaces**

14.1.

Conceiving a 21st Century Place of Creative Work and Culture

The CCD courtyards, new places of work, rest and peace, immersed in Guadalajara's year-round pleasant climate, will encourage a unique outdoor working lifestyle – a new magnet for the world's creative talent. CCD will be focused on ensuring a quality of life that is equal to or better than that enjoyed in existing creative clusters around the world.

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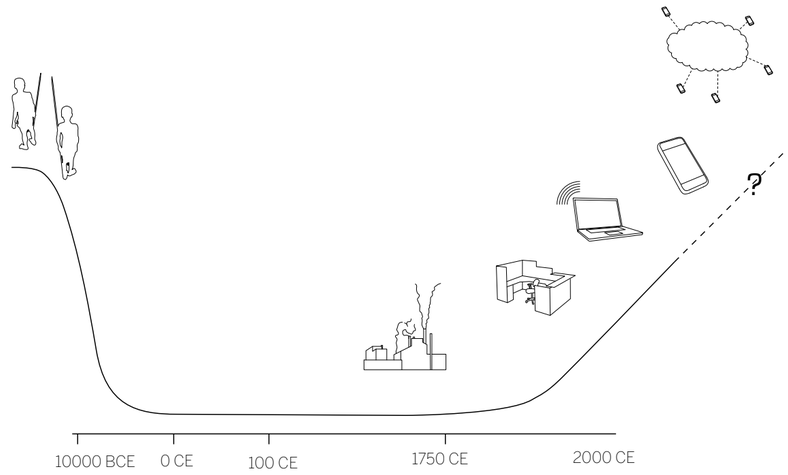
Innovation Ecology

Digital Nomadism
(MIT Senseable City Lab)

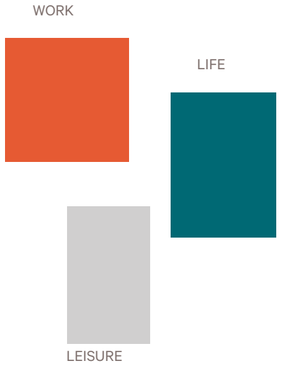


EMERGING PATTERNS OF INNOVATION

One of the two options here considered is the implementation of a road pricing system. This could be though of as a gradient defining the fee on the base of the proximity to the city centre. The introduction of a congestion charge has generally a very notable effect in the very first period, while on the medium term it will then rely on a average reduction of 10% to 15% of the original flow. The through traffic that originally passes through the city centre, tends to redistribute on the secondary and local network, diffusing across the urban grid instead of concentrating on few main axes.
Another possibility relies in the tuning of the parking strategy at the urban scale. There are several new possibilities for the definition of the parking provision at the city scale that have already been implement in many cities around the world and which are oriented to a more innovative and sustainable approach to mobility. It is widely recognized how the availability of parking at destination is one of the most powerful drivers for the mode of transport choice. Setting maximum limits to the parking rates related to a specific land use instead of minimum ones, pushing for the unbundling of the car park provision from the specific function so to promote policies for car park sharing, implementing parking pricing strategies that can also take advantage of the real time information becoming dynamic and adaptive tot he actual demand, all these are options that can efficiently be applied. Moreover, the implementation of an efficient interchange car park system for Guadalajara that works in synergy with the high capacity transit is here explored in grater detail. The parking facilities should be located in correspondence of intersection points between the primary road infrastructure and the high capacity public transport systems. This configuration would allow an efficient trip solution for the user who will tend to leave his car at the car park. Of course pricing and distance from the final destination (the centre) are other two fundamental elements for the successful implementation of the strategy: the distance of the parking ring should in fact be big enough so to not be perceived by the user a short drive away.
In case specific areas withing the interchange car park ring require some dedicated parking facilities or the presence of an on-site provision, then the fee imposed should be carefully tuned in relation to the wider system's pricing, in order to avoid the creation of a more convenient alternative that would make the vehicular penetration more appealing.
An action that can also be intended as a corollary of these wide scale strategies, is the downgrading of the road infrastructure in the most urbanized areas: by changing the originally express vocation of the considered road or junction to a urban and pedestrian friendly shape, a natural re-distribution of the traffic patterns could be achieved. This approach can be applied with more or less radical interventions, that could range from a simple retrofitting to a more substantial modification of the infrastructure layout.

It is no longer disputable: the later of networked digital devices - sensors, microcontrollers, mobile computers, smart-phones and GPS etc - distributed throughout our urban environment have provided cities with a new layer of functionality and citizens with new ways to work and play. A radical shift in the design and use of space is taking place that will create benefits in terms of economic, social and environmental sustainability. These changes directly influence how people live, work, interact with the city and amongst themselves. Pervasive connectivity means we aren't tied to rigid spatial or organisation schemes that characterised our work environment from the 1950s onwards. Wireless technology is redistributing people in profound ways. Wireless networks add an information layer, which changes as the user moves from place to place. When distributed universally, RFID tags will let people, places and things recognize each other and interact. Thanks to the wireless Internet, people can work in parks, cafes or anywhere they like. As the wireless network expands, work and learning will increasingly take place around town, and less often in offices and schools. This newfound freedom poses a question: Given a choice, where and how would we like to work? The DCC must respond to this challenge, adapting space to a new concept of work

1931 - Charte d'Athene



1960 - Jane Jacobs

2000 - Digital Revolution

Workspace Evolution

As we begin to take for granted ubiquitous wifi coverage and devices that allow us to work anyplace, anytime, the creation of a responsive environment that can support and foster these new modes and methods of working becomes increasingly important. MIT researcher Thomas Allen is considered the originator of modern workspace design. His theory underlines the importance of proximity to interaction. Even in the same environment, people more than twenty metres apart are unlikely to interact. But isolation and privacy are equally important to focused concentration. The need to be near cannot override privacy, but must offer the chance for exchange, encounters and interaction. Thus, space must be designed for various levels of privacy: individual offices, shared offices, spaces for shared interaction by multiple actors and spaces open to the public. Canadian journalist and sociologist, Malcom Gladwell says that work spaces need social environments in which creativity is stimulated by informal, casual encounters (as theorized by Jane Jacobs). About social innovation mainly, Gladwell thinks that ideas originate as much from conversations and casual contact as from formal meetings of defined teams. Ideally, interaction actually occurs between people with different assignments and points of view, but who have enough knowledge and common interests to know what might be useful to one another. Creativity is stimulated through visual effects, and relaxed informality encourages expression. Richard Florida calls this new category of worker "no collar". More informal, in dress and work style, they vary their work days and hours. Flexibility is especially desirable for workers with higher levels of training and education.

Contemporary office spaces are radically different from the hierarchical spaces that were common following World War II.

Recent research shows that people prefer public socialising spaces such as libraries, cafes, parks and fitness centres where privacy is respected and varying degrees of concentration and isolation are possible. In small professional studios and large companies, open space is the norm, modeled on traffic patterns and common areas for meetings and breaks with work areas connected to them. Key elements of these new workspaces are:

- Configurability.
- Flexibility in space and furnishing.
- Natural lighting.
- Indirect artificial light in halls and transit areas.
- Open office design and layout.
- High ceilings.
- Perimeter circulation.
- Common spaces that are well designed,comprehensible and uniformly distributed.
- Multiple points for casual meetings and socializing.
- Order (lots of spaces for archives and storage).
- Color-differentiated environments.

Other factors that come into play are the comfort of the space, the presence of others, inspiration and creative stimuli. Different levels of privacy are possible with varying transparency and partitions. Curved glass partitions and elegant work stations give these environments a sense of transparency and openness.

'30's - Taylor in the name of efficiency, broke down complex tasks in discrete, repetitive activities.

60's - the physical office environment and emerging ideas of new ways of working and organisational structure, there were never enough intellectual or financial resources in the fractured supply-side-dominated furniture and construction industries to respond to change.

present - Some elements have had major impacts on the contemporary office: technology, systems furniture...

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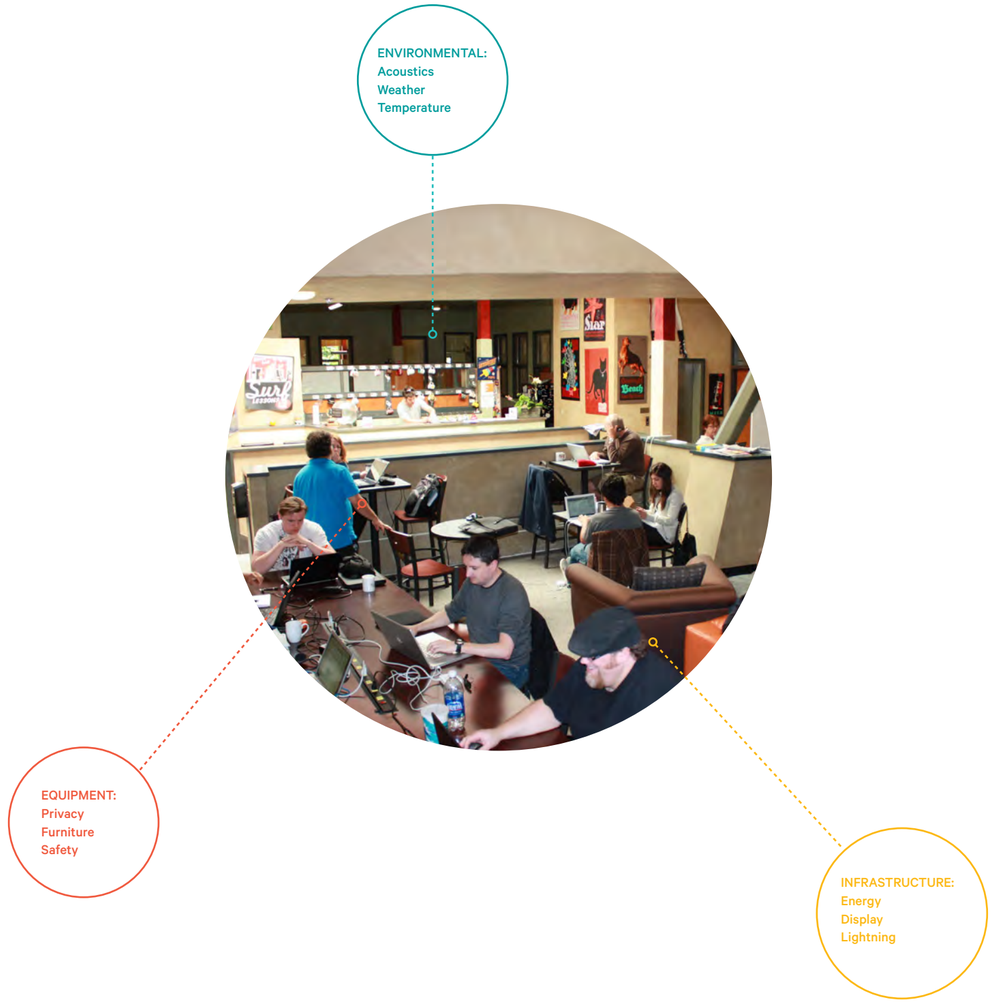
Contemporary Workspace: Identifying the Issues

Towards generating workspaces that respond to 21st century dynamics, informal and ephemeral solutions appear as opportunities to be improved with proper design solutions. Issues must be identified and understood integrally driven by the premise that proximity to interaction is of outmost importance to enhance creative stimuli. Therefore,, environmental factors such as natural lightning and ventilation should be carefully taken into consideration as well as energy efficiency solutions.



CCD Workspace Vision

The envisioned layout of workspaces within CCD understands that autonomy, creativity, and life-work integration have become major drivers of today's global worker. Work is becoming a result-oriented activity, which reduces importance on the process and increases weight on the outcome. By doing so, traditional contained working buildings become obsolete, allowing the office to spread around the city, to challenge private and public boundaries, and blur the line between working and free time. These previous characteristics are identified as guidelines for the design of workspaces within CCD, which further on will turn into spatial evidence of the ambiguity of time relation between work, leisure and commuting. Therefore, in addition to the availability of digital technologies, which enable the extension of working of activities to exteriors, outside outdoor workspaces become fundamental space of CCD. .

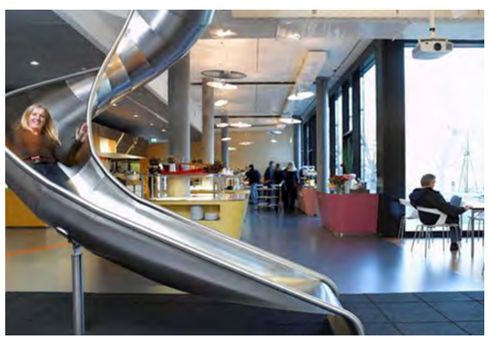
Glocalization of 21st century life-working dynamics allow CCD to propose an innovative outdoor working lifestyle, which responds to the global demands of the creative industry fostered with local resources.

Taking advantage of the yearlong pleasant climate of Guadalajara, the courtyards as traditional architectural feature of the city, become main scenarios to host this new fashion of work. Customized an equipped open-air areas for working are envisioned as recurrent guidelines within CDD, which further on, expected to be replicated, will result in an economic engine for the city as a whole.

green

digital

fun and creative



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14.2.
Factors Influencing Digital Outdoor Workspaces

Working or studying outdoors implies considering specific factors that influence the user's functional environment. Dealing with environmental conditions, customizing equipment to new demands and providing proper infrastructure become main areas of research and new fields for design. Innovative and creative solutions are proposed based on the principles of sustainability: environmental, social and economic.

14.3.
Design Considerations: Environment

WEATHER

Working outdoors implies direct exposure of users to local climate conditions, which might negatively affect their functional environment. Spaces should be provided with traditional protection systems and/ or increase their performance with environmentally responsive devices that cope with undesired weather conditions such as rain.

TEMPERATURE

Changes in temperature affecting the environment of users will take place if working open-air. For that reason, temperature control systems based on senseable devices that recognize the presence of users in order to achieve low consumption of energy might equip the spaces.

ACOUSTICS

Sound factors having a direct impact on users and management of noise generated, can be classified and handled into two main categories: noise pollution control and sound isolation. Both approaches faced in turn through the use of technologies that enable to cancel external noise and precisely direct amplified sound.

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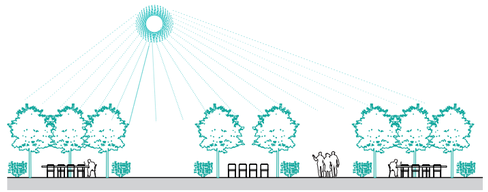
Responding to Sun and Rain

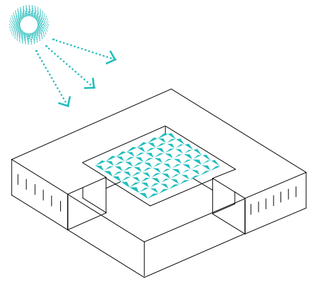
VEGETATION
Shady spots to minimize glare on laptop's screen:



Trees cultivation to shade from direct sunlight

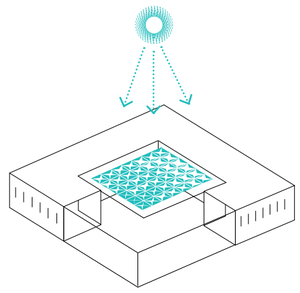
RESPONSIVE CANOPY
Responsive and customized shady spots to minimize glare on laptop's screen: solar canopies, pergolas or lattices:

OPEN



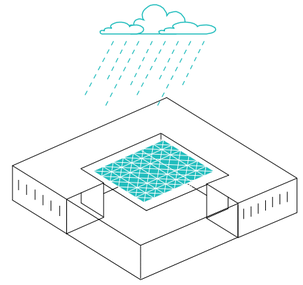
It is estimated that there are 620 hours in the year in which the sum of external temperatures with solar radiation creates overheating, making the courtyard too hot to be comfortable.

RESPONSIVE SHADING

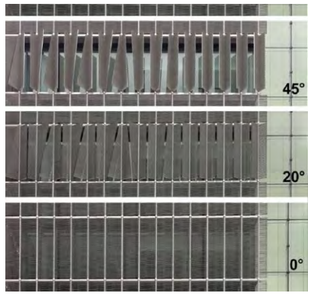


By introducing shading devices in 50% of the courtyard, comfort can be increased by 310 hours.
(160 hours of increased comfort are related to the months April, May and June)

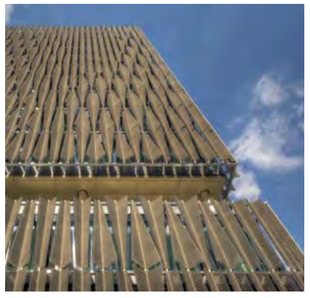
WATERPROOF



CASE STUDIES



Responsive brise soleil systems - (Q1 headquarters, Essen, Germany)



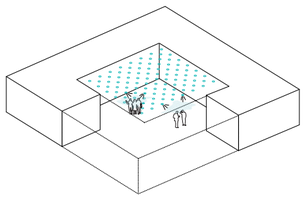
Kinetic cover
(Abu Dhabi Investment Council Headquarters)

Controlling Temperature

HIGH PRESSURE WATER MISTING SYSTEM

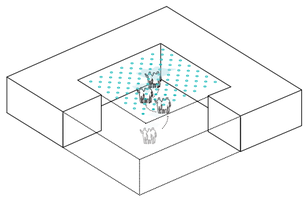
Water spray spots to improve the spatial thermal comfort.

Static water spray system

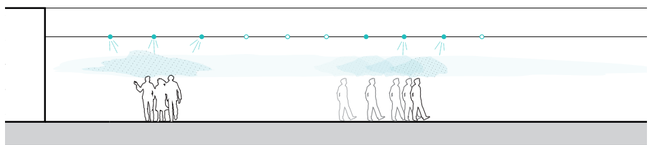


In the hottest day at lunch time (29ºC, 20%RH, 85853Pa) temperature could be decreased up to 10ºC by effect of evaporative cooling.

Senseable water spray system



Evaporative rate and temperature at compressor inlet depend on:
-Initial droplet size
-Initial air temp and humidity
-Initial droplet temp.
-Concentration of water droplets in the air stream (active radius)

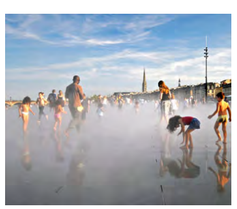


The cooling system of spraying spaces with a water mist might work both manners, static and senseable. However, these environmental-friendly systems increase temperature comfort in outdoor spaces while ensuring low energy consumption..

Mist Cooling utilizes three primary components:
-High Pressure Misting Pumps.
-Fixed Line Tubing & Nozzles
-Misting Fans (optional)

CASE STUDIES

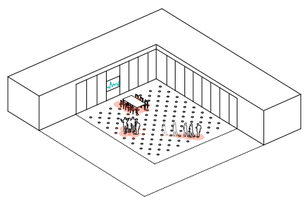
Water Spray Nozzle System

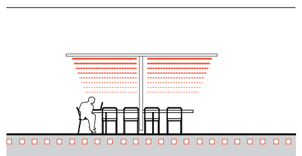


Adams Sangamon Park,
Chicago; Illinois, U.S.A.

SENSEABLE HEATING SYSTEM

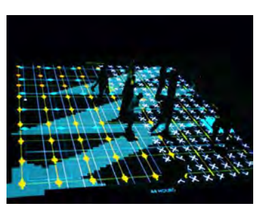
Responsive heating system





Senseable heating systems respond directly to the users need and location, directing the energy only to the specific spots where needed.

CASE STUDIES



HASER, Mahesh Viswanathan,
Boston; Massachussets

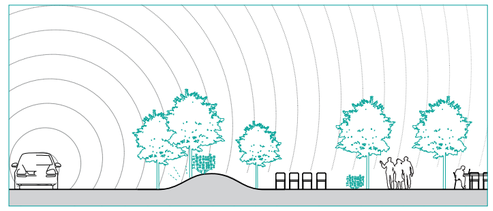
Managing Acoustics

VEGETATION

While not all trees will make effective sound barriers, many can provide some sound-dampening effects. As an added benefit, they also provide a good protec-tion from wind.

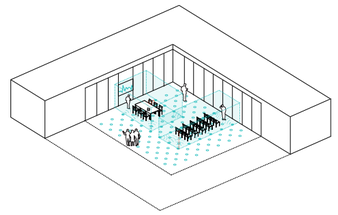
In addition to the trees, it is also best to have a softer ground covering helping to make up the tree belt. Though it may be possible, especially in urban settings, to plant trees next to hard-surface areas such as concrete walks and roads, this is not ideal. A barrier of 65 to 100 feet, along with a soft surface, has the ability to reduce noise pollution by as much as half.

Read more: Trees & Soundproofing | Garden Guides http://www.gardenguides.com/91050-trees-soundproofing.html#ixzz288k4woNu



Natural elements (trees, hedges, rises..) To avoid acoustic pollution

PARAMETRIC SPEAKERS

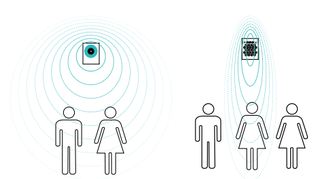


Directing the amplified sound through parametric speakers Maintaining the privacy not allowing users not interested in listening

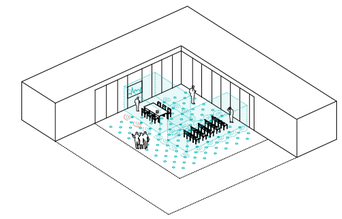
TECHNOLOGY

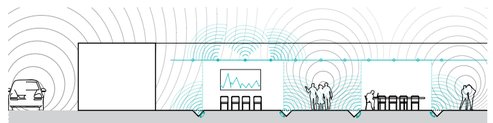
Protecting the space from external noise - Subdividing the space to allow multiple activities active noise control system

Parametric Speakers



ACTIVE NOISE CONTROL





Protecting the space from external noise.
Subdividing the space to allow multiple activities

TECHNOLOGY

Use of noise cancellation technique in some specific spots to recreate a situation of absolute silence for the users who are willing to experience it.
The system will be based on an intricate matrix of speakers and feedback microphone which will constantly provide a localized cancellation of sound field intensity in a very small region of the overall soundfield.

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14.4.

Design Considerations: Equipment

PRIVACY

The issue of privacy within collaborative and outdoor working environments acquires a major role, as Thomas Allen establishes, equally important as proximity to interaction among users. Therefore, design of isolated spaces to focused concentration must be provided and respond to different levels of privacy.

FURNITURE

Furniture setting outdoor working spaces for the creative industry must respond to a set of ergonomic factors as well as to ensure proper and innovative materials, in order to increase comfort and improve functionality.

SAFETY

Rather than creating a traditional, physical form of security: walls, police, etc; the aim is to create a new form of ‘visual’ security that you can not see, but you sense; embedded in the digital and physical form of the space. A selection of possible digital strategies that could be applied would have a direct or indirect impact on enhancing a safe and secure environment.

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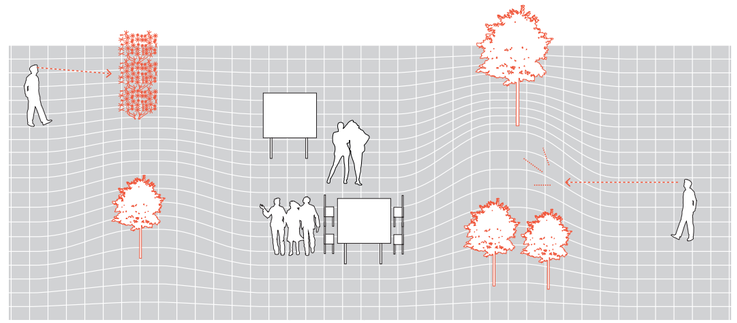
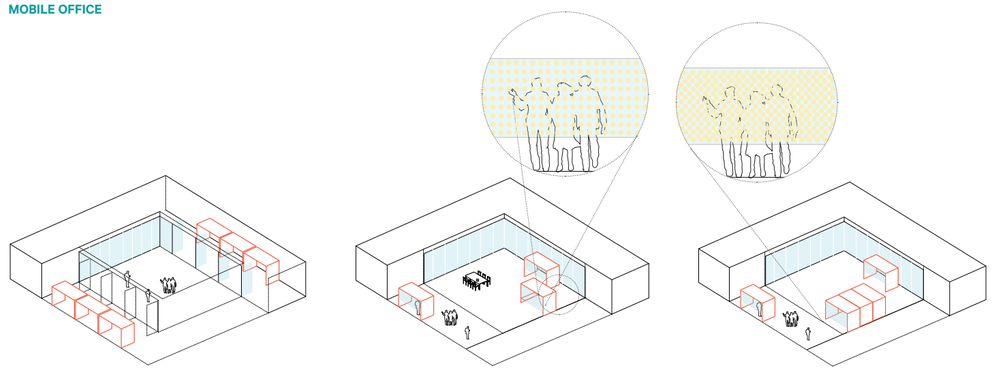
Ensuring Privacy

NATURAL ELEMENTS
privacy from natural elements



MOBILE OFFICE



Modules Inside

Single Modules Outside

Multiple Modules Joined

CASE STUDIES

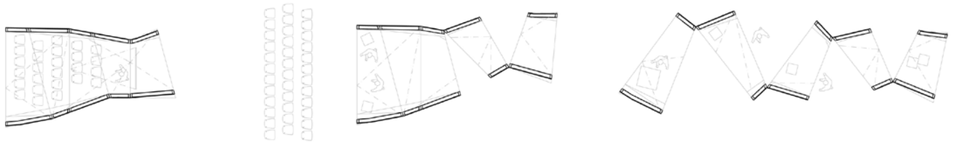
San Francisco architectural firm SpaceFlavor has given tiny living a Feng Shui makeover with its prefabricated mobile cube. The eight-foot (2.4-meter) cube was commissioned for Feng Shui expert Liu Ming, and includes an office, bed, storage and meditation space. Drawing from the Chinese principles of Yin (private and closed) and Yang (public and open), the mobile dwelling was designed to modestly accommodate Ming’s personal activities such as study, meditation and sleep.

Adaptive Fritting Installation at Harvard Graduate School of Design, 2009, Cambridge, MA.

ZenCube

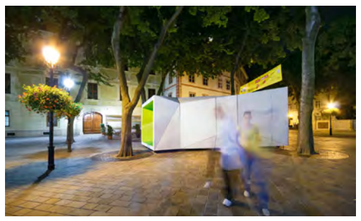
Ensuring Privacy

Flexibility and mobility are main characteristics of the pavilion. The object itself is composed of 5 elements mounted on wheels that can be moved and connected so it becomes closed and compact or loosely open. During the summer months it can be used for various cultural activities: a theater performance, concert or a photography exposition. Similar to how a concert differs from a theater performance the proposed structure can adapt and change.



conference

stage



Ba_Lik - ValloSadofskyArchitect

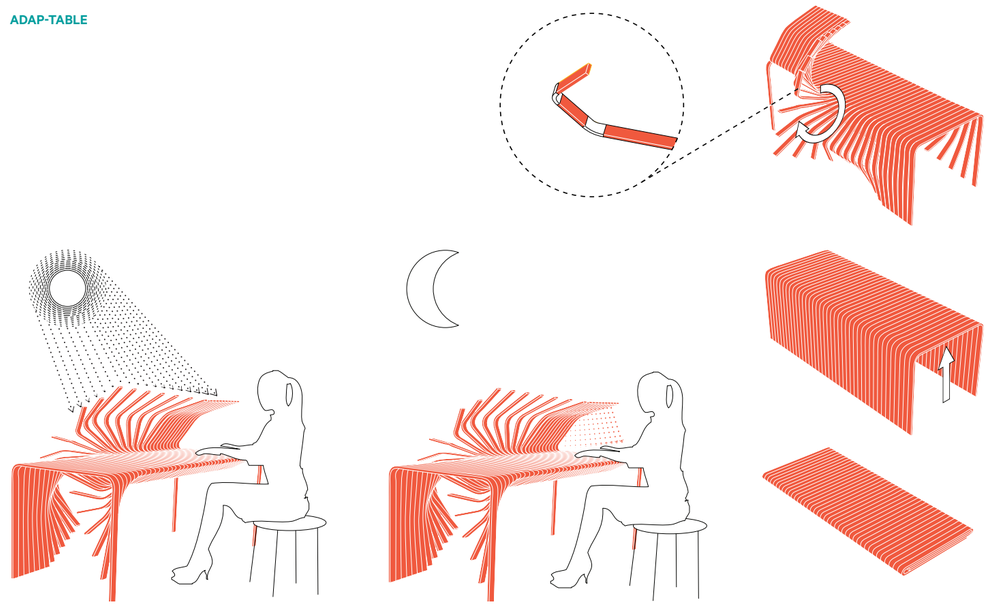
CASE STUDIES

The Kitchen Monument is a mobile sculpture which has two states of being. This zinc sheetclad sculpture can be extended into public space by a pneumatic spatial mantle that transforms it into a temporary collective space. Different programmes are staged in different places. Its broad spectrum of uses includes a banquet hall, conference room, cinema, concert hall, ballroom, dormitory, boxing arena and steam bath.

Kitchen - Raumlabor

Considering Ergonomics

ADAP-TABLE



Catching Daylight

Releasing Daylight

Flexible Table

Wi-Fi Colomer (Adriano Design)

Wi-Fi Colomer (Adriano Design)

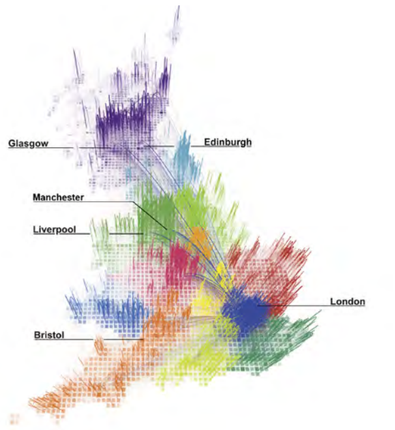
LifeGoods (Adriano Design)

CASE STUDIES

The Pop-Up can be pumped out of the pavement by the inhabitants. After use it can be sunk back and it will disappear into the pavement. The inhabitants have the choice whether they want to use the Pop-Up and in which way. Keys to lift the Pop-Up are suspended among the inhabitants of the neighborhood. Due to the hydraulic cylinder this enables them to fix the whole at different levels.
Read more:
http://popupcity.net/2010/05/street-furniture-pops-up-when-needed/#ixzz27fOILxSW
http://popupcity.net/2012/05/charged-signs-solar-powered-street-charging-stations/#ixzz27fLBEm1O

Ensuring Safety

BORDERLINE (MIT SENSEABLE CITY LAB)



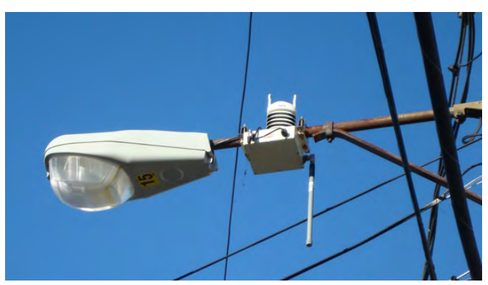
Borderline is an attempt to redraw the map of Great Britain from a network of human interactions, inferred from a large telecommunications database in Great Britain. It examines the exactitude of sociopolitical boundaries defined by governments in respect to the natural ways that people interact across space. Incorporating the data extracted from the telecommunication network, given a geographical area and some measure of the strength of links between its inhabitants, the area can be partitioned through computational algorithms into smaller, non overlapping regions while minimizing the disruption to each person's links, potentially creating a new type of spatial analysis that more closely reflects patterns of human interaction. The interesting point is that the core map based on human interactions seems to capture the reality of relationships between the members of the population more accurately than the official subdivisions of space.

The importance of this project in the context of green, sustainable environmental design and its impact on urbanites' perception of security is that most of the time how the space of the city is divided means that cohabitants of the same spatial pockets establish a sense of community and belonging with their neighbors. It happens that at times the official divisions do not cor
respond to the reality of how the inhabitants are divided into smaller communities; that is, the spatial divisions of the city interrupt the social network of its citizens. Such disruption or displacement can agitate the perception of security. On the other hand, if official divisions are laid out according to the reality of the geographical distribution of social networks, this can enhance the sense of community, and for that matter the perception of safety and security.

SMART SIGNS (MIT SENSEABLE CITY LAB)

The Smart Signs project proposes a platform for supplying and retrieving basic real-time information about the services offered in a city. The system augments conventional signage used to convey information about a commercial enterprise in situ, such as the ones providing services and information to tourists, including hotels, bed-and-breakfasts, restaurants, pubs, coffee shops, bars, and tourist information centers. The platform digitally augments these signs with network capabilities and sensors that register changes to the entities and report these to a central server. These are a natural interface for communicating information to on-site customers and visitors, as well as those who check the availability of services online via the information-delivery component of the system. The sign apparatus does not introduce a new mode of user interaction that demands specific technical knowledge, but digitally enhances conventional modes of interaction. Hence, the Smart Signs can be easily adopted and used by individuals who are not computer savvy, or are not willing to change in their routine use of signs. The goal of the platform is to in crease the visibility of small and local service providers, and to help them to work as a single body by integrating them into a centralized tourist information network.

SMART SIGNS (MIT SENSEABLE CITY LAB)

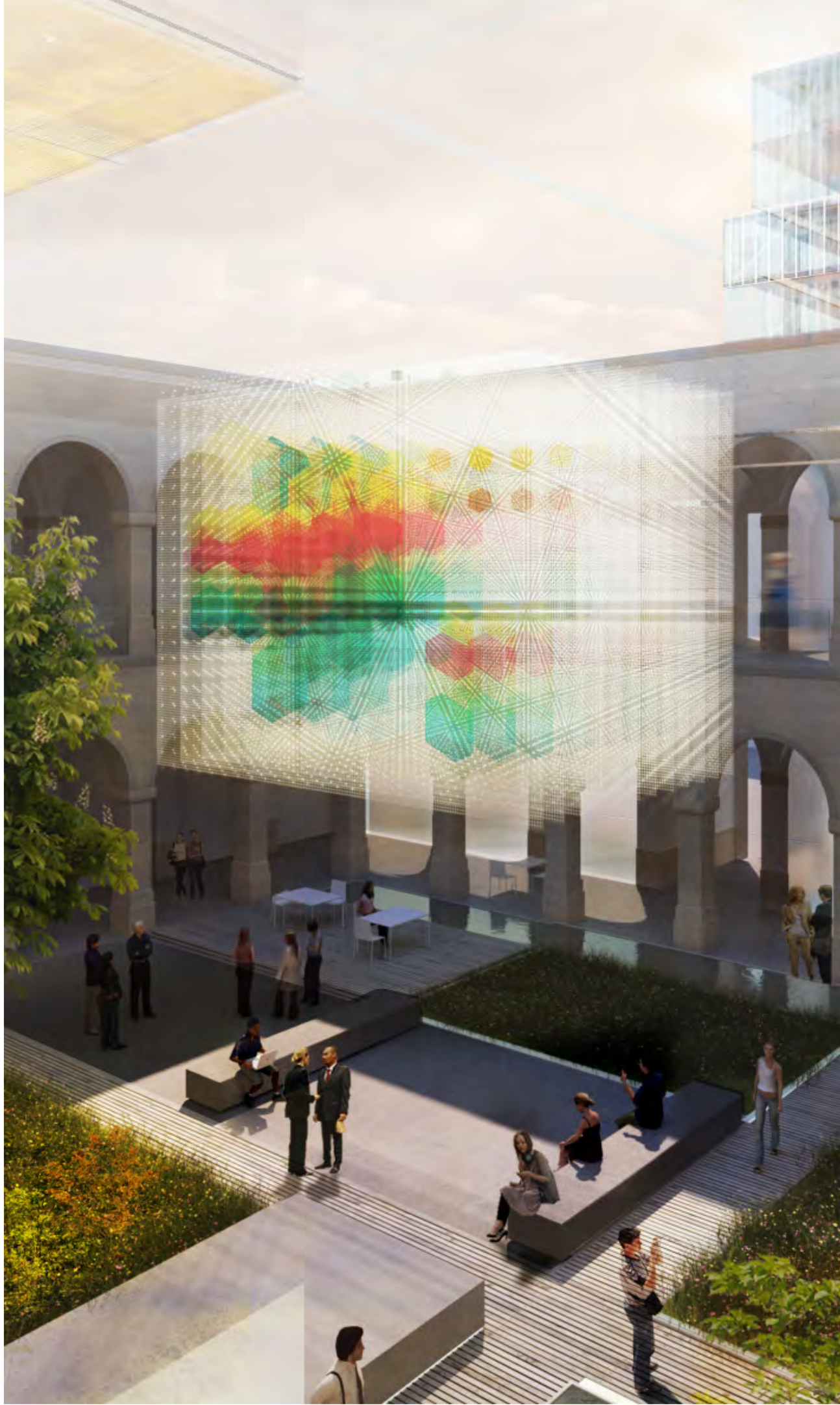


Much research and practice in CPTED has focused on utilizing digital surveillance technology as a preventive measure for urban crime. This is well manifested in a post-9/11 proliferation of CCTV's in metropolitan areas like London and New York. Nowadays, surveillance cameras are everywhere, making some concerned about the Orwellian "Big Brother effect." It generates a certain level of anxiety to think that beyond each of these silent, mysterious, digitally enhanced devices, someone, somewhere is watching all of us: someone with whom we are not necessarily comfortable sharing our privacy. But instead of one "big brother" filming everybody, what if we allow individuals to become "little sisters" reporting their experiences to others in real-time, and in a multimodal, high-resolution format? The proposal for distributed surveillance, or "a thousand little sisters," is built upon the fact that in our contemporary cities, people are now equipped with personal handheld devices—smart phones—that are capable of recording their owners' experiences in multi-modal format and in high-resolution.

These mini-computers are also enhanced with a connectivity capacity that allows them to transmit the captured digital content via wireless networks of communication that provide wider-than ever bandwidth for data transmission.

Once per day, we collect fresh crime reports from CrimeWatch and save them in our database. The technical details on how this is done can be found on Mike's blog, especially in posts from December and January. We are currently exposing crime reports going back one month. Our map view is completely explorable - it's possible to pan and zoom, select date ranges in the past, and view specific kinds of crimes. You can also share links directly to a particular view of the map, which is important for sharing and publishing information.

If you don't have the required Flash plug-in to view the interactive map, we have a browseable crime database with maps in image form for combinations of dates and types of crime. We believe that this map-first approach is a valuable and sensible way to publish information for people to use - everyone knows how to find their house, school, or workplace on a map, but few people remember relevant details such as the city council district or police beat these places occupy.



14.5.

Design Considerations: Infrastructure

ENERGY

To bring out working and studying activities suggests the need of supplying energy in innovative manners. Therefore, outdoor working spaces must provide an energetic strategy to enable functionality of the complete experience, which in this case two different approaches are proposed: to provide the a wireless power supply system and to design outdoor elements that generate energy.

LIGHTING

The need for lighting outdoor working spaces represents the ideal opportunity to explore new design techniques and methodologies that qualify illumination performance in intelligent environments. Adaptive and flexible light design solutions based on the use of sensors and control techniques technologies should be incorporated. The responsive lighting paradigm presents new design challenges as well as to an engineering of the near future responsive light solutions.

DISPLAY

Provision and design of outdoor displays for public use as part of basic infrastructure is envisioned. Such devices enhance exchange of information and enable the creation of presentation platforms in the opens paces, transforming it in a real workspace.

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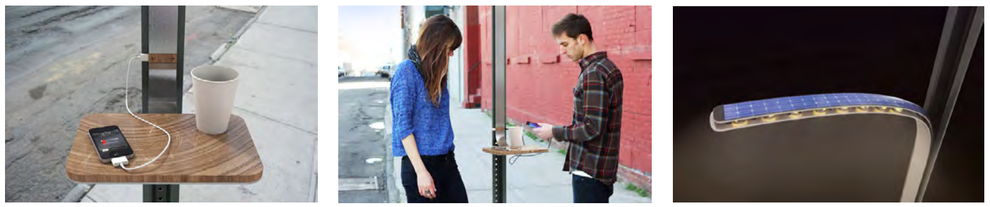
Energy Supply System

CASE STUDY

The idea is to attach a thin structure to existing street infrastructure such as street signs, powered by photovoltaic cells and batteries, allowing passersby to plug in their digital toys with a USB cable. To foster urban connexions, the structure also includes a small table to put down your phone and coffee on: the perfect spot for a place to chat. To increase safety on the street, the photovoltaic cells charge up a light at the top of the structure that creates a more inviting atmosphere, even after sundown.

Read more: http://popupcity.net/2012/05/charged-signs-solar-powered-street-charging-stations/#ixzz27fLBEm1O



Street Charge - Pensa!

The SunTable is designed for ease of use and weather-resistance. The solar cells charge the battery even when partially covered. A charged battery provides more than 4 hours of laptop use.

Recharge yourself and your electronics while relaxing outdoors. The MIT SOFT Rockers are smart, clean energy charging stations disguised as outdoor rocking lounge furniture. Unlike conventional 'hard' urban infrastructure, it leverages its environment a dynamically by using the human power of balance.

Sleek eco-friendly bench will harness the power of the sun to produce energy. Place this bench in your outdoor space and make the most of its dual function. The thin-film solar batteries can generate electricity by gathering sunlight regardless of the weather

Sun Table

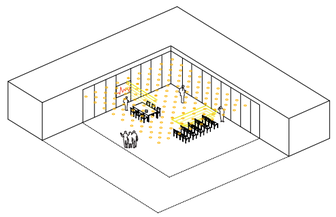
Soft Rockers

Solar Bench

Panasonic recently showed off a prototype table that lets you charge your phone or any device with a Qi battery by just placing it on the table. While we already have many induction-based chargers available on the market, what makes this table different from those chargers is that it gets the energy to juice up your devices by using solar panels.
Another thing special about this table is that the charging panel connects straight to the battery – so in the event you have a spare battery lying around, you don't need to plug the depleted battery into your phone to charge it – just leave it on the table.

Solar powered wireless charging table
(Panasonic)

Responsive Lighting system

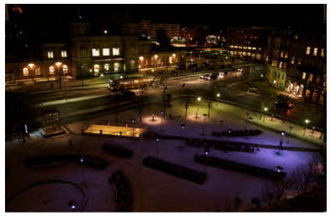


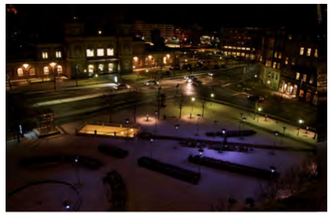
Recognizing user's position

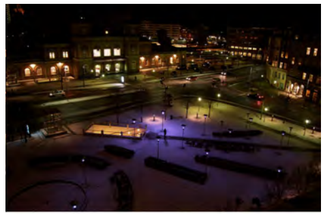
The responsive lighting systems recognize users positions following him around the space in order to provide light in specific spots where need. Becuase unused spaces are not lightened with this localized illumination systems, it results in huge energy savings, due to the . Moreover,

CASE STUDY

Monitor and understanding how the urban space is used in terms of movement and occupancy patterns, we can generate site-specific maps that can be used to control the illumination.
People will in this way interact direct or indirect with elements in the environments, thus establish an exchange also described as feedback in the world of computation.







Kennedy Square, Aalborg, Denmark

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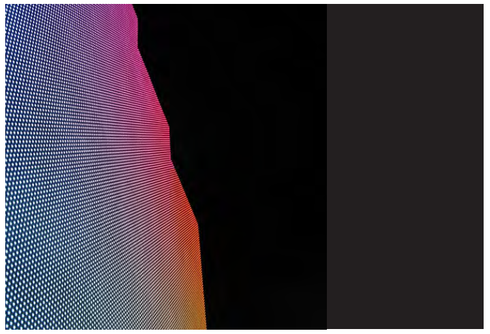
Visual Interface

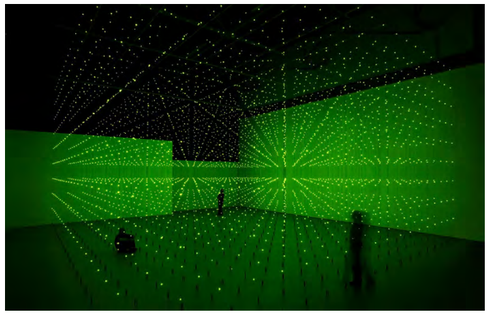
CASE STUDY

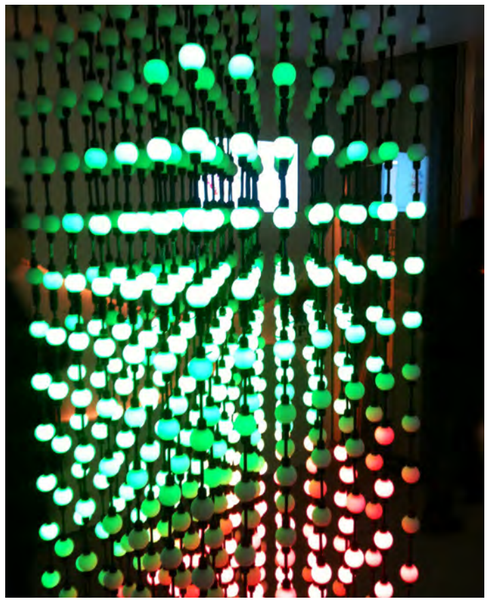
the Medialab-Prado in central Madrid is a beautiful interactive façade that aims to be a space for exchange and communication with both visitors and locals, a brave commission by the Madrid Town Council to develop social interaction and to offer a new digital landmark for their city which is often so closely guarded from development. 144m2 of wall space is covered with some 35,000 Led nodes that are configured to allow both still and moving imagery, allowing the wall, with it's simple traditional madrileño definition to come alive with some beautifully psychedelic imagery.



Action Facade, MediaLab, Madrid, Spain

If we can monitor and potentially understand how the urban space is used in terms of movement and occupancy patterns, we can generate site-specific maps that can be used to control elements in the environment such as the illumination.



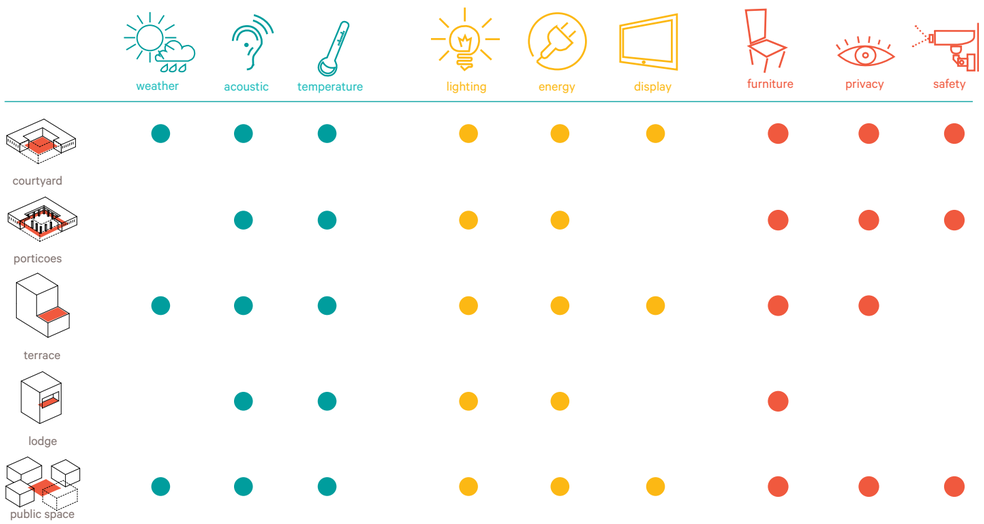


3D LED Matrix

14.6.

Design Guidelines for Creative Outdoor Workspaces

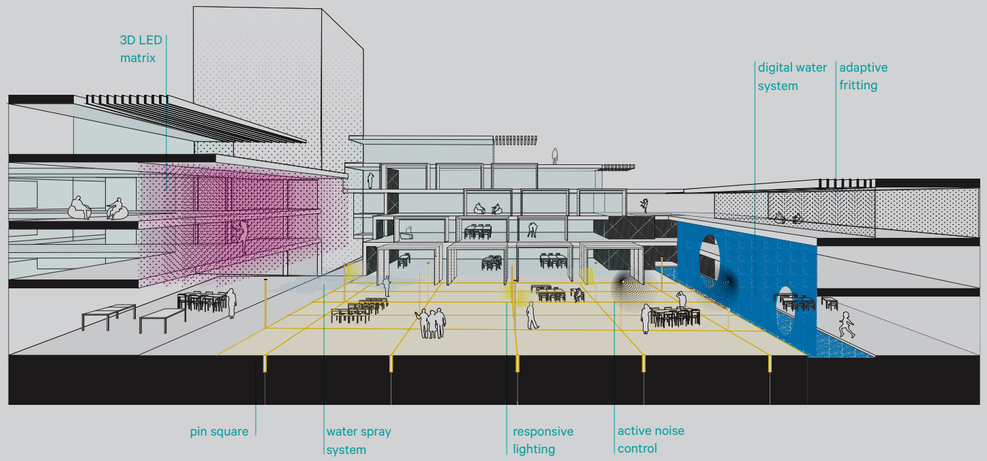
INFLUENTIAL FACTORS BY OUTDOOR WORKSPACE TYPOLOGY



14.7.

DESIGN GUIDELINES FOR CREATIVE OUTDOOR WORKSPACES

- Weather conditions having an impact on outdoor working spaces such as rain or sun must be consider, and proper energy efficient design solutions incorporated.
- Low-carbon technology solutions to regulate temperature in exteriors should be envisioned in order to increase comfort of users.
- Outdoor co-working spaces must prove to manage acoustics, controlling noise pollution and isolating sound for privacy.
- Private spaces within collaborative outdoor areas must be ensured to enable to focus concentration of users.
- The spaces must be equipped with proper furniture, responding to general and punctual ergonomic principles.
- Perception of safeness must be enhanced among users through proper interventions such as illuminated areas and information signing.
- Energy must be supplied and accessible to users in order for them to be able to charge their devices.
- Lighting systems should be integrated in outdoor workspaces to enable illuminated spaces that allow 24-hour dynamics.
- Visual interfaces for display and presentations should be available to users.




CIUDAD
CREATIVA
DIGITAL

15

Digital Lifestyle: **Citizen Empowerment**

15.1 **Vision for Social and Digital Inclusion**
15.2 **Blueprint**
15.3 **Digitalizing Social Inclusion Strategies**
15.4 **Roadmap**

15.1.

Vision for Social and Digital Inclusion

Participation is fundamental to the design process of the CCD Project. From civic engagement exercises the most appropriate ideas for planning at the territorial scale, city-scale interventions, or specific projects is a widely accepted and recognized. Nevertheless, often the mere distribution of information is confused with a focused participation process.

In general terms, participation is understood as the collective work of a group of people in order to identify shared objectives, and potential routes for bringing them to be. Therefore, the concept requires at least two complimentary points of view, or two voices. In the urban realm, these might be the voices of the people living and working in the city, and as counterparts, the people who are analyzing and governing the process of urban transformation. It has been identified that the slow process of this exchange of information between citizens and public authorities or planners, is not able to follow the development dynamics of the 21st century city. For that reason, in order to overcome this weakness with regards to participation process, CCD master plan envisions to reinforce traditional inclusion methods by enabling and encouraging the use of digital technologies that would allow a faster ongoing and real-time exchange of information.

Citizen participation is a concept born from the theories of political science, a field in which the importance of active participation, as encouraged by the government, is recognized as a central element in democracy. The participatory democracy as distinguished from traditional representative democracy in so far as it engages citizens to inform public decisions beyond the polling booth. It is in the urban environment, that the concept has the greatest momentum, where civic engagement is becoming an art in and of itself, and the art of translating consensus into implementation is tested in the public arena. It is in the urban realm that citizens have the greatest expertise, and lend the most essential information, not only relative to their personal interests, needs, or expectations in shared space, but also by way of the creativity and inspiration that is born of the spontaneity of colliding ideas and conversations. This leads to the conclusion that solutions and transformations in the shared spaces of the city are likely to be more robust, better informed, and more creative with a guided engagement process.

The importance of participation processes lies in the role of citizens as actively engaged protagonists in the conception and construction of their city, and not merely recipients of public services. Thus, digital means will foster inclusiveness and accessibility, enabling an ongoing and real-time exchange of information, outreaching a wider range of auctuators.

Accounting for the importance of this part of the urban design and transformation process, it becomes clear that the best urban plan or vision isn't necessarily the most expensive or the most technically profound; rather, it is that which is able to best balance the various demands and aspirations of a community within the bounds of possible public interventions.

From this viewpoint, the early inclusion of public participation in the planning and implementation of urban projects presents enormous advantages:

1. Firstly, to collect and organize valuable information in the form of opinions, attitudes, preferences, to facilitate an appropriate work strategy, incorporating potentially unforeseen sensibilities into the project.
2. To improve the quality of proposals by incorporating suggestions and preferences of involved stakeholders from the beginning.
3. To create an instrument for consensus building, in order to facilitate the creation of a shared vision at the intersection of various differing viewpoints, while accommodating the contributions of each individual.
4. To build social capital, empowering citizens to become leaders in the processes of urban and neighborhood development, and ultimately strengthen social cohesion and the democratic forum.

WHY PARTICIPATE?

The way in which administration is able to enroll participants in the consensus building process, reduces unfounded resistance to changes in the urban realm. It also generates an effect within public administrations that facilitates horizontal dialogues, coordinating actions and avoiding the compartmentalization of responsibilities. Finally, public participation improves institutional performance, that is to say, the ability for public institutions to respond to social needs.

WHO PARTICIPATES?

The final objective is that the community is always instrumental in the decisions over its territory. For this, it is necessary to understand the social fabric, with especial regards to the project and the territory. It is also necessary to identify the stakeholders and local leaders to build a narrative of local interests, conflicts, and ambitions, whether cultural, economic, political, or spatial.

The municipality of Guadalajara and the Civil Association of the Ciudad Creativa Digital have been working towards the identification of stakeholders in public and private sector to involve directly or indirectly in the process. From this preliminary vision, the CCD project is tasked with the challenge of implementing the instruments to achieve agreement and compromise, to institutionalize the entire process, and to assure the continuity of the urban transformation over the long term.

HOW TO PARTICIPATE?

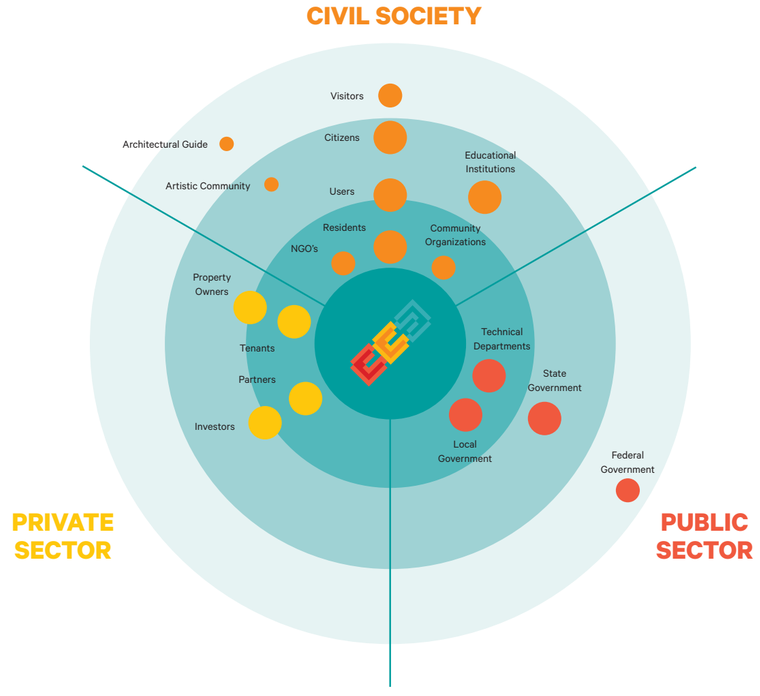
Digital inclusion means represent the possibility to achieve the previously mentioned objectives, providing individuals with platforms to deliver and acquire information. Participation of citizens can be enhanced through use of smart technologies, generating an on-going exchange of data, which would allow inhabitants to realize their desires and regulate their needs, resulting in an environmental and social sustainable dynamic. Digital portals functioning as means not only to publically deliver information but also to gather will facilitate a wider outreach of audience towards achieving a more inclusive city, allowing the city to be steered and transform by the occupants.

"Smart Communities drive the democratization of urbanism and active processes of participation as an effective mechanism for inclusion and social development."

Alfonso Vegara

Identification of possible stakeholders

Recognizing the plurality of actors and lines of relations between them, is necessary to provide a variety of work areas of socialization, with appropriate tools and means to communicate the proposals and implications of the project.



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IDENTIFICATION OF MAIN INTERESTS OF STAKEHOLDERS

The interest around the area, particularly against a backdrop of intervention, arise from different stakeholder groups of various kinds, which have the ability to influence directly or indirectly in the course of events. In the following chart, it is shown schematically the main interests detected from different groups of actors, and some lines of action arising from them to shape multiactoral management in a diverse context.
Source:Estudio de Impacto Social, HILFE Consultores 2012

A. RESIDENTS

Main interests:
1. Do not lose what they have
2. Recover what they have lost
3. Avoid new threats

Main demands: **Transparency + Inclusion**

Management Lines:

Clear and timely information on the implications of the project → Spaces for dialogue → Access to project benefits

B. SPECIALISTS AND SCHOLARS

Main interests:
1. That things are done right and by technical teams recognized
2. That local capacities are taken into account

Main demands: **Legitimacy + Inclusion**

Management Lines:

Legitimacy in the selection of the technical teams responsible for the master plan → Spaces for dialogue / recognition

C. DEVELOPERS, CONTRACTORS AND CONSULTANTS

Main interests:
1. Participate in project opportunities
2. Clarity of criteria in selection processes

Main demands: **Inclusion + Equity**

Management Lines:

Access to information → Criteria and procesdures for participation → Monitoring and control mechanism

G. INFORMAL SECTORS

Main interests:
1. Keep their options for income generation.
2. That their right to earn their living is respected and treated with dignity.
3. That their right to the city and public space is guaranteed.

Main demands: **Recognition + Alternatives**

Management Lines:

Transform the dynamics that lead to irregular activities → Generate income alternatives according to their possibilities → Set clear conditions on the allocation of spaces and alternatives in the case of relocation

D. POLITICAL ACTORS

Main interests:
1. Strengthen the relationship with their electorate to defend their interests
2. Be part of the achievements of the project scope

Main demands: **Incidence + visibility**

Management Lines:

Open and transparent communication channels → Balance and plurality of actors involved in councils partnership and promoter group

E. PUBLIC OPINION

Main interests:
1. Clear and accurate information on the implications of the project
2. Information that allows individuals to think in opportunities
3. Information about the effects and benefits of the project for the city

Main demands: **Transparency + Opportunities + Public Benefits**

Management Lines:

Define channels and spaces of contact for stakeholders (Infobox) → Advertising campaing in mass media → Communication platform and forum with specialist

F. USERS

Main interests:
1. Information on the implications of the project in their daily practices
2. Diverse offer and accessible entertainment

Main demands: **Usability + Public Benefits**

Management Lines:

Information available on the site (Infobox) → Participative design on the program for public space → Clear rules for coexistence of uses and users

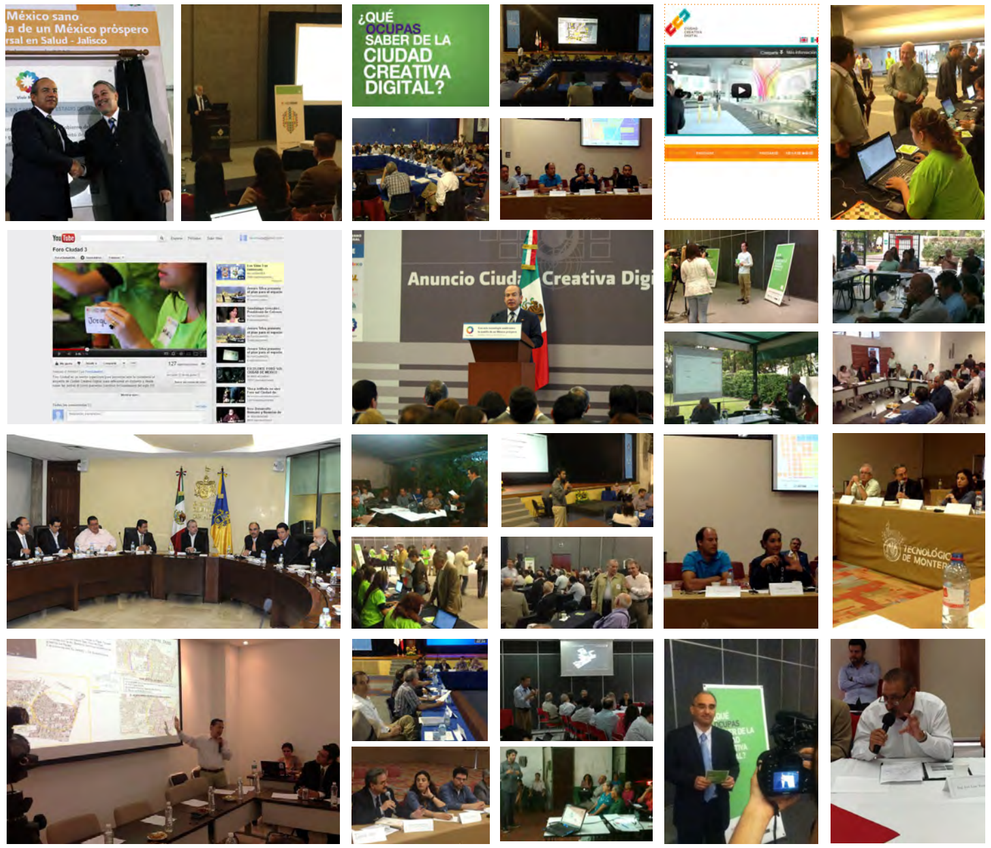
H. MASS MEDIA

Main interests:
1. Access to information and informants in a timely manner
2. To attract the attention of people with key project information

Main demands: **Access + Opportunity**

Management Lines:

Define precise channels and spaces of contact with media → Generate lines of direct communication with the public → Publicc access to information relating to the project



SPECIFIC CHALLENGES WITHIN THE CCD SOCIALIZATION STRATEGY

- To generate a sense of certainty and trust, which enhances a dialogue among stakeholders
- To change the negative opinion towards urban regeneration projects, generated in turn from previous abuses of the concepts of re-densification and mix-uses
- To achieve local appropriation of the project by understanding that it implies individual transformations in patterns and habits
- To expose the benefits of digital technologies
- To generate a general understanding among the residents of the social aspects of the CCD project
- To mitigate the current general misunderstanding of the CCD as an economically aimed project exclusively
- To create intersection points between the top-down strategies and bottom-up efforts, in order to prove the sociability of the project
- To achieve inter-institutional cohesion and lidership to avoid confrontation and lack of shared goals
- To show that different social groups will be benefited by the many features of the project
- To emphasize that the project will strengthen the sense of belonging and will become a sign of collective identity

15.2.

Blueprint

CCD COMMUNITY AND STAKEHOLDER OUTREACH

The communication strategy and management of CCD will take on multiple dimensions throughout the different phases as the project evolves and matures. As such, it will be possible to engage different forms of participation that strengthen the burgeoning "CCD Community".

To encourage a robust interpersonal, institutional, and professional dialogue, the communication strategy will be carried out along three principal platforms or lines of civic engagement.

These platforms will be the "engines" of citizen empowerment in the CCD Project. Each platform occupies distinct physical or digital space to communicate the project objectives and results; however, each platform also provides a new layer of information or interface which can be integrated into the other lines.

This dovetailing of different lines will be most evident in the Parque Morelos, where the diverse activities of the project will be communicated via a digital interface, displaying urban analysis, design proposals, building phases and forum results all contained in the INFO Box project in Phase 1. The physical INFO Box project will combine live or traditional forms of civic engagement together with developing digital mediums in the CCD to share, explain and update the projects progress as they happen. This special project will become a reliable resource for the CCD Community in the years to come.

Live:
The first platform for civic engagement in the CCD project will be "traditional" face to face communication, live in physical space. City Forum exercises, community workshops, cultural activities and local festivals are the most familiar, the most local, and the most visceral methods of community building, and are essential to build civic engagement in the CCD project. While less digital in nature this platforms ensures participation for every citizen, regardless of each individual's relationship with technology.

Web-based:
The second platform for civic dialogue will be web based. This interface encourages instantaneous dialogue around the world and will be the project link to the "global community". As a very unique communication tool, the web interface allows for people to interact in a way that is perhaps more (or sometimes less) contemplated. Web based communication but cater to the full range of people and interests with a clear and direct path to information on the project. The web based platform will also include social media outlets and the development of CCD specific application (apps) for smart devices.

Place-based
The third interface is a fusion of the first two experiences, where digital interfaces will be available at and around the project site. This dialogue will be mostly digital but experienced within the physical contexts of the CCD; manifested in Parque Morelos INFO Box project, CCD Visitors Center (4M) and project designed digital interface panels located in the CCD. Furthermore, the place-based experience will focus on encouraging face to face exchanges, in the presence of the shared digital experience.

DIGITAL INTERFACE STRATEGY

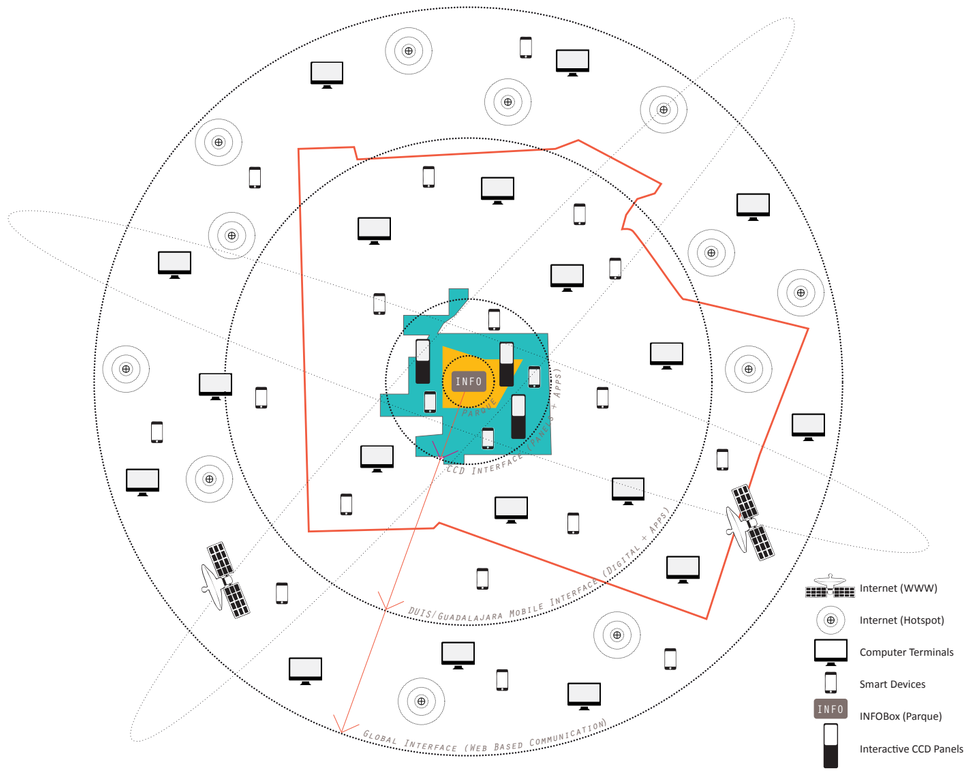
The Digital Interface Strategy (DIS) for the Ciudad Creativa Digital is anticipated at a series of defined geospatial contexts and applied through a variety of digital devices (see diagram below). Depending on an individual's physical proximity to the CCD, the ability to directly contact with different digital interface will be increased both for the CCD Community as well as visitors to the area.

The different contexts allocated for the DIS are described as Parque Morelos, the CCD, DUIS Mosaico/Metropolitan Guadalajara and finally the Global Community. The greatest digital interface will be manifested in the Parque Morelos and CCD designated area and will concentrate on connecting project specific information with local users and visitors. This interface will start with the INFO Box project in Parque Morelos during Phase 1, which will provide information and updates on the status of the CCD progress, new constructions, new companies, events and feedback. The INFO Box signifies the arrival of the CCD in Guadalajara and will serve as a temporary depository and point of access for the project in the early stages of development.

In addition to traditional web based information access (project website, social media outlets), it is recommended that a series of CCD project specific applications or "apps" are to be developed, accessed through smart devices (tablets & smart phones) and digital interface panels located within the CCD. These apps will help to navigate both virtually and physically within the CDD, find and connect different companies, individuals & services, provide maps and directions, share upcoming events and projects occurring in the CCD as well as provide social platforms for individuals to digitally participate in the advancement of the projects through CCD blogs, chat rooms and other forms of digital inputs.

Within the DUIS Mosaico and throughout metropolitan Guadalajara, citizens and professionals will utilize these same CCD apps and web based outlets to learn about this important project in the historic center of the city. Often through laptop and desktop devices located at home and in the office. Similarly, the global community will access and learn about the CCD project via web based internet services. At each level of the DIS it will be important that people can easily locate the specific information they require to best learn about, connect with, invest in or influence the future success of the CCD project.

Series of defined geospatial contexts for the Digital Interface Strategy that includes: Parque Morelos, the CCD, DUIS Mosaico/Metropolitan Guadalajara and finally the Global Community.



15.3.

Digitalizing Social Inclusion Strategies

A DIGITAL APPROACH FOR TRADITIONAL STRATEGIES

Involvement of civil society actors in the planning, designing, implementation and maintenance process of the CCD in Guadalajara is the pillar for the social sustainability of the project. Public involvement is one of the key principles towards good governance, perusing to engage and improve communication between stakeholders from the civil society with the public sector and the private sector.

With a digital approach of social inclusion and community develpment strategies within the CCD can be the ideal way for enhancing digital inclusion processes for the involvement of social groups into the decision-making, as well as the generation of a on-going exchange of information between public authorities, CCD, and the community.

Due in turn to the digital nature of the process, this exchange of information will be developed on real-time basis and wider coverage, therefore enabling a higher rate of social involvement and efficiency. Moreover, the on-going digital consultative process is expected to contribute to generate proper conditions for the development of self-organized community programs and initiatives.

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15.3.1
Awareness raising

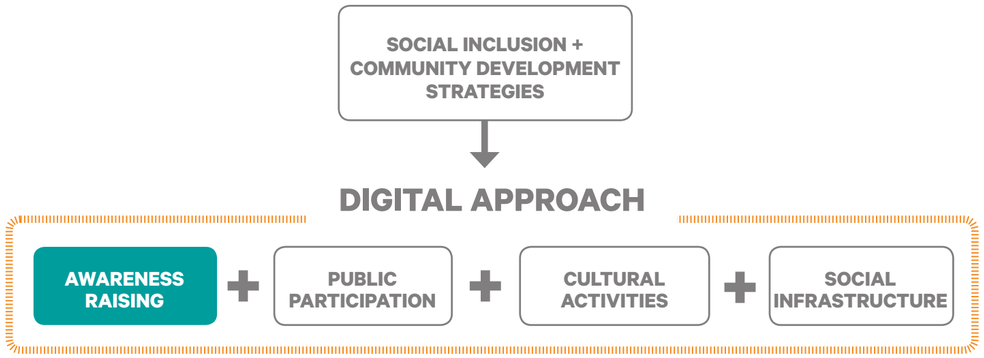
OBJECTIVE

Raising awareness about the particular opportunities and threats that CCD in Guadalajara represents among the local civil society as well as the general public (on the national and international context) is of outmost importance for the social development of the project. The main objective of building awareness as part of the social sustainability dimension of the CCD is to achieve local engagement and commitment towards the CCD project, as well as to generate an affinity between the residents or users and the benefits of a digital life-style. Moreover, although awareness raising might be closely related to public relations, it must also be understood as a mean for interaction with target groups in order to create ties for cooperation.

CONCEPT

Building awareness among stakeholders and general users of the CCD involves several types of initiatives, which might vary in focus and the group the be target, such as:

- Student's cooperation (internships, community service, field trips)
- Involvement of local actors
- Campaigns on selected issues
- Internet platforms and social networks
- Media (TV, radio, press, etc.)
- School Children



Development Process

GENERAL STEPS TOWARDS RAISING AWARENESS

DEFINITION OF GOALS	Enhance knowledge abut certain issues, inform the general public about an up-coming intervention, promote behavioral change among community
DEFINITION OF TARGET GROUPS	Based on the goals the target group should be defined, for example specific social groups (youth, owners, tenants, etc.), general public, public authorities and departments, etc.
COOPERATION WITH POTENTIAL PARTNERS	Based on the goals and target groups, possible cooperation with potential partners might be identify, such as NGO's, technical departments, community groups, neighborhood associations, etc.
DEFINITION OF MESSAGE	Additionally based to the goals and target groups is the message to be transmitted, which could go in this case from highlighting the benefits of a digital life-style to change citizen's environmental behavior
DEFINITION OF MEANS	Based on the goals, target groups and message wish to be delivered the means must be defined. Examples are workshops, public art installations, Internet platforms (Facebook, Twitter, Youtube, etc.), or media (television, radio, press, etc.).
CAMPAIGN DEVELOPMENT	Development and Implementation of the awareness raising campaign

TRADITIONAL METHODS OF RAISING SOCIAL AWARENESS

Communication strategy

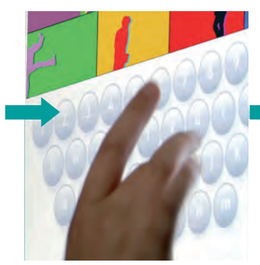
Communication through various media is the most common way of informing about the project. Official announcements, newspaper coverage, official web sites, etc. are resources that have already been applied in CCD project and continue during all phases.

DIGITAL METHODS TO BOOST AWARENESS RAISING

SocialShare
by Snibbes Interactive

SocialShare expands the reach of an immersive exhibit exponentially by spreading into online social networks. People create videos, which they share with their friends in online social networks such as Facebook, MySpace, or Youtube.

People interact with an immersive experience

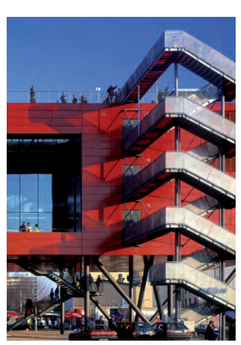


Visitors find a video of themselves or their friends

The video clip spreads virally online

Info Box Berlin
by Schneider und Schumacher

The red pavilion was designed by Schneider und Schumacher as a temporary structure to provide information about, and a viewing station for, the construction around Potsdamer Platz. The exhibits inside provide an excellent orientation to the construction being undertaken in Berlin.



15.3.2 Public participation

OBJECTIVE

Public participation in urban development aims to involve members of society for them to share their concerns and contribute with ideas, in order to ensure transparency of the process, accountability of the actors, equity, efficiency, engagement, long-term sustainability and legitimacy of the interventions.

One of the essential objectives for the definition and development of the project of CCD, should be the search of imaginative mechanisms that allow involve citizens, institutions and different groups of civil society to undertake a project so significant. Therefore, a powerful digital participation strategy is suggested, communication and dissemination supported on traditional media, but primarily in interactive use of new technologies. Moreover, participation processes provide the possibility for self-organized community programs to emerge through the development of an on-going process of information exchange supported in this case by digital technologies.

CONCEPT

The concept of citizen participation has been installed with increasing force in discussions about the development of public projects. At present, there is no doubt that is a fundamental issue to address when formulating an urban project New urban policy axes have been defined around the concentration of efforts on the qualitative aspects of development; that is, to emphasize the quality of urban services and the generation of projects or urban plans, developed on the basis of diversity of the demands of the community and not only from the perspective of technical solutions. From this view, it is argued that structured participatory processes have permanent effects on the formation of urban arrangements in project design and quality plans, and the strengthening of democracy in different levels.

In order to enhance public participation plans should be explained and discussed through workshops and public hearings, as well as digital platforms in order to reach better solutions. Furthermore, the inclusion of the citizens into the development of the CCD must promote individual initiatives and self-organized community programs.

CONTINUOUS PHASES OF DEVELOPMENT FOR PUBLIC PARTICIPATION

TRADITIONAL PUBLIC PARTICIPATION

CITY FORUM

The 'City Forum' is set up specifically for each project in cooperation with local partners. It consists of local urban stakeholders who evaluate and contemplate the different urban indicators to derive the 'components of excellence' for the project. The results of the 'City Forum' help to identify strengths and deficits of the project and extrapolate the project's synergetic 'clusters of excellence', with the aim of setting priorities to make the project truly competitive in a globalizing world.

City Forums (Process of Institutional Participation) to date:

City Forum 01. **Historic Center of Guadalajara**
Forum Location: **Expo Guadalajara**
Date: **26-03-2012.** Forum Participants: **124**

City Forum 02. **Socialization Workshop of the City Forum Results**
Forum Location: **Expo Guadalajara**
Date: **04-2012.** Forum Participants:

City Forum 03. **DUIS Mosaico Master Plan**
Forum Location: **Expo Guadalajara**
Date: **25-07-2012.** Forum Participants:

CCD Sectorial Forum 04. **Neighbors of Parque Morelos**
Forum Location: **Parque Morelos y Calle Esteban Alatorre**
Date: **24/25-09-2012.** Forum Participants: **65**

CCD Sectorial Forum 05. **Real Estate**
Forum Location: **Cámara Mexicana de la industria de la Construcción (CMIC)**
Date: **26-09-2012.** Forum Participants: **20**

CCD Sectorial Forum 04. **Creative Workers**
Forum Location: **CANIETI**
Date: **27-09-2012.** Forum Participants: **42**

To review a synopsis of the CCD Sectorial Forum results, please see: Appendix 3: Forum Results.
To review the complete CCD Sectorial Forum results, including graphed responses, matrixes and forum participants, please see: Annex CCD City Forum (digital version)

ANALYSIS AND DISCUSSION SESSIONS

To continue and strengthen the participation process, the several institutions involved have organized a series of debates for feedback CCD initiative from the point of view of the citizen and recognized technical specialist in different fields. In these debates, the universities of Gudalajara have had a leading role in hosting the various sessions and bringing together different technical specialists on each topic discussed.

Analysis and Discussion Sessions to date:

Session 01. **Public Space**
Forum Location: **ITESO**
Date: **23-08-2012.** Forum Participants: **25**

Session 02. **Environment**
Forum Location: **ITESM, Campus Guadalajara**
Date: **28-08-2012.** Forum Participants: **24**

Session 03. **Infraestructure**
Forum Location: **Cámara Mexicana de la Industria de la Construcción (CMIC)**
Date: **06-09-2012.** Forum Participants: **32**

Session 04. **Urban Facilities**
Forum Location: **Centro Universitario de Ciencias de la Salud, Ude G.**
Date: **07-09-2012.** Forum Participants: **17**

Session 05. **Patrimony**
Forum Location: **Escuela Superior de Arquitectura**
Date: **13-09-2012.** Forum Participants: **22**

Session 06. **Urban Mobility**
Forum Location: **UNIVA**
Date: **08-10-2012.** Forum Participants: **30**

To review the main conclusions of the analysis and discussion sessions go to: http://forociudad.mx/mesas-de-analisis

Several traditional public participation processes have been organized by Guadalajara CCD to involve residents, citizens and institutions.

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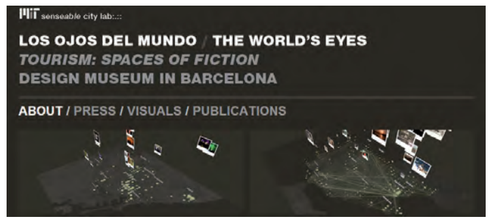
DIGITAL METHODS FOR PUBLIC PARTICIPATION

Voices Beyond Walls
http://www.voicesbeyondwalls.org/projects.html

Voices Beyond Walls is a participatory media initiative that supports creative expression and human rights advocacy among impoverished youth through digital storytelling workshops, new media production, and global dissemination of their work.
The program has been conducted thus far by local and international volunteers in partnership with youth centers in Palestinian refugee camps in the West Bank. In the future we hope to expand the program in other critical international settings and inner-city neighborhoods, supporting civic engagement and empowering the voices of youth through digital media.
Voices Beyond Walls is organized by a collective of independent Palestinian and international media technologists, filmmakers, photographers, educators, and activists.

The World's Eyes
by MIT SENSEable Lab and Universitat Pompei Fabra
http://senseable.mit.edu/worldseyes/

Focuses on revealing the dynamic of civic landscapes, as viewed and collaboratively reported by their inhabitants. for example, the attractiveness and popularity of places and events are revealed by visualizing the density of user- generated data, in particular, the photographs tagged with information about their location and time uploaded by flickr users. then, user-generated electronic trails based on the sequences of photographs are used to reveal the presence and movement of visitors in a city. such data visualizations that geo-localize the content generated by the user's experience of a given urbanity reveals how cities are interpreted by their occupants, e.g., which locations are considered more or less important, and what is captured by the eyes of the people who are there.



My Dot Tour
http://www.timenesia.org/neighborhood/fields-corner

My Dot is a multimedia walking tour centered around the area of Fields Corner in Dorchester, Boston. Dorchester, first established as a town in 1630, then annexed to the City of Boston, has been developing its story for almost 400 years. With My Dot, experience the extensive history of Fields Corner, including ancient jail cells for moonshine producers, rebellious tanners in the Field family, and the world's best concert hall. Then, uncover history in the making through local foods, Buddhist relics, and community centers with a history of making a difference. Finally, hear about what the Tour's seven local youth guides envision for the area's future. Leave a comment about your experiences in Fields Corner too.

Chrome Web Lab
by Google http://www.chromeweblab.com/

Web Lab is made of up 5 Chrome Experiment installations that bring the extraordinary workings of the internet to life and aims to inspire the world about the possibilities of the web.
The installations make up a year-long public exhibition at the Science Museum, London and can be interacted with by anyone, anywhere at chromeweblab.com. Worldwide visitors both on and offline will be able to make music with people across the world; launch information into cyberspace and see where images on the web live; watch their portrait being processed, translated, and then drawn in sand by a robot; and travel instantly to far away places all over the world.

15.3.3 Cultural Activities

OBJECTIVE

Cultural activities within the scope of the CCD will serve as instruments to enhance the benefits of a digital life-style as well as the value and character of the historical structures in order to reinforce the current cultural identity of the area. Moreover through the DUIS analysis it was learned about the high value and affinity that local inhabitants towards cultural events, serving as platforms to create places and opportunities for interaction and communication among stakeholders. Moreover, cultural events will attract local as well as international visitors into the site while maintaining the CCD´s privileged location and importance in the historical center of Guadalajara

CONCEPT

Cultural events in the form of artistic performances, workshops, and seminars should often take place in the site by making use of the proposed social infrastructure. In addition, music concerts, art installations, festivals, etc. carried out in the CCD will improve and strength the artistic and creative character of the project. Digital creativity stems from more traditional forms of creative expression and the project will be well served by supporting these local activities. In addition to the Parque Morelos, future CCD facilities (i.e. Elementary School, 4M) could consider offering flexible space to the community on nights and weekends when the facilities are otherwise unused or underutilized by the CCD. In addition to building a strong connection with programs in the local community the shared spaces will extend the hours and vibrancy within the CCD.

To foster culture and art as part of urban renewal actions is a process that not only has an impact on the aesthetics and image of the city, but it is also a great opportunity to build community and increase appreciation towards our city.

CULTURAL ACTIVITIES TRADITIONAL

Parque Morelos Cultural Activities

Parque Morelos is the ideal place to develop an intense cultural program aimed for neigbors and residents of the center, workers and visitors of the Digital Creative City. From neighborhood activities design for leisure and coexistence of neighbors as dance classes, theater, painting, games, gardening, etc. to organizing activities, exhibitions and different artistic events. The collaboration between artists and residents can achieve goals that go far beyond the aesthetics results. The cultural program of the park can be initiated in the early stages and would be very appreciated by local people living in the neighborhood.

CCD Cultural Program

As part of an overall strategy to strengthen cultural activities in the CCD, this program seek to articulate the forthcoming museum -MMMM- and other space with activities directly related to design and creativity. The incorporation and use of the latest digital technology to the service of art and culture would benefit from the latest advances in technology to encourage artistic and cultural expressions of citizens, where new technologies for artistic expression play a major role. The intersection between art and technology is being used successfully in various innovative cities.

DIGITAL METHODS FOR CULTURAL ACTIVITIES

Biophillia Educational Program
by Björk + New York's Public Library + Children's Museum of Manhattan

Björk team up with New York's Public Library and the Children's Museum of Manhattan in order to launch an educational programming series based on her latest album, Biophilia, and its accompanying iPad apps. The program seeks to teach kids about the connections between technology, art, and natural phenomena.

BMW Guggenheim Lab
by Guggenheim + BMW
http://www.bmwguggenheimlab.org/

The BMW Guggenheim Lab is a mobile laboratory traveling to nine major cities worldwide over six years. Led by international, interdisciplinary teams of emerging talents in the areas of urbanism, architecture, art, design, science, technology, education, and sustainability, the Lab addresses issues of contemporary urban life through programs and public discourse. Its goal is the exploration of new ideas, experimentation, and ultimately the creation of forward-thinking solutions for city life.

15.3.4 Social Infrastructure

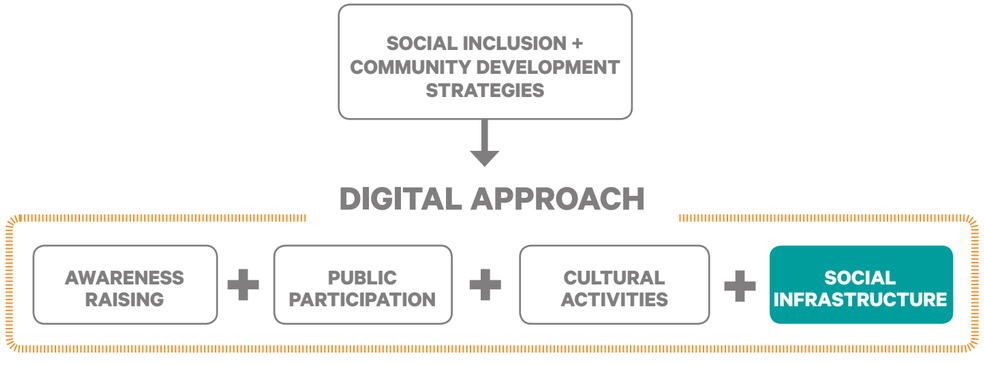
OBJECTIVE

The provision or improvement of the current social infrastructure within the CCD with special emphasis on facilities for education, leisure, and culture are of outmost importance in order to create platforms for community interaction. The spaces designated to social infrastructure will host activities such as, educational workshops, short-term courses, capacity-building trainings, etc., which will help improve the well-being and livelihood of the site. Furthermore, they will server to demonstrate the social concerns of the project.

CONCEPT

Based on the needs of the residents the social infrastructure will be developed along the phases of implementation within the site. However, the following facilities are envisioned for phase 1 to serve as social infrastructure for the CCD:

- The Digital Arts Institute
- The Pavillion and Infobox
- The MMMM
- The Public/Private Inner Courtyards
- The Ramblas and Pedestrian Connector
- The Parque Morelos



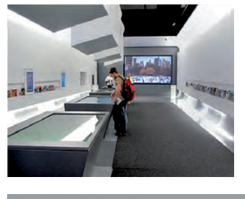
Investment in public spaces needs to focus more on the content they host, that in the way they are physically designed. A public space with content -pedagogically designed-, represents an indispensable tool for the development of social infrastructure for enhancing perceptions of neighborhood life.

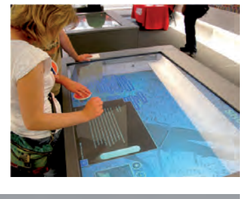
IN SITU SOCIAL INFRASTRUCTURE

According to the results of the different forums, meetings with neighbors and from the analysis and discussion sessions, has been identified as a highly demanded priority the need for social infrastructure and activities in the park.

DIGITAL SOLUTIONS FOR SOCIAL INFRASTRUCTURE

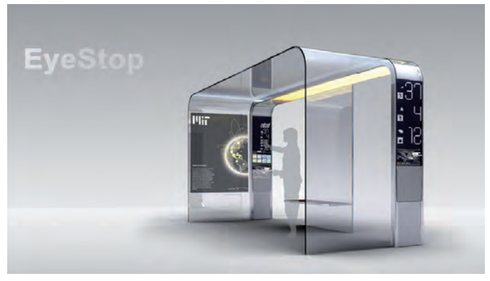
New York Digital Information Center
by City of New York





Eye Stop
by MIT's SENSEable City Lab
http://senseable.mit.edu/eyestop/

EyeStop is an exploration into the next generation of smart furniture; it aims to enrich the city, which state of the arts sensing technologies, interactive services, community information and entertainment. The project is partially covered with touch sensitive e-INK and screens, so it can deliver information seamlessly.



15.4.

Roadmap

15.4.1 Phases of Implementation

As mentioned before, the decision-making process related to the CCD project will impact both the people living in Parque Morelos and in the Historic Center. This decision making process is basically to address and set the negotiation of the several interests that are present in the same territory. For a sustainable result in time and satisfactory to the parties, it is essential that this process puts the emphasis on the agents and actors on the ground, looking for the processes of joint decision-making is firmly rooted in daily routines and dynamics of the Parque Morelos and CCD users.

The different phases of the project will require a different participation process and a set of techniques and procedures tailored to the particular situation and specific objectives that seek to achieve, however, it is possible to identify a basic roadmap with tools that can be useful elements for constructing such processes for each case or particular experience.

For this, there have been identified five major stages where in each one is necessary to develop processes and contextualized methodologies that should be combined together and adjusted to the respective stages of the projewct development. It is necessary to bear in mind that there is no single formula or methodology of socialization and communication, on the contrary, one could say that there is a universe of tools that can be combined and used with all the creativity and flexibility that every actor and moment requires.

Building on the three platforms of civic engagement (Live, Web Based, Place Based), it is important to put in place a clear path for implementation for these different "engines" of the outreach strategy. It is the recommendation of this report that the Guadalajara CDD, as the guiding force, vision and management for the project, acquire the services of a Public Relations (PR) Firm to carry out this vision and implement the various "vehicles" listed in diagram on the following page. This different "vehicles" are where the three platforms of civic engagement will begin to overlap and inform each other under one strategy for the project, sharing ongoing information and updates about the CCD in the years to come. This PR Firm would be tasked with organizing all existing information and project related data & material in addition to project updates, CCD news & recognition, contact information, managing and responding to stakeholder feedback and inquiries, and hiring web site and application (apps) designers to develop CCD specific digital communication and applications for smart devices.

If the Guadalajara CDD requires a revised or completely new CCD website, the PR firm would manage this task, hire the website designer, develop the layout platform and user interface and eventually manage the content under the direction of the Guadalajara CDD. Similarly, the development of new CCD apps could be managed through the PR firm based on the suggestions of this report. In time, other CCD apps should arrive organically as companies and professionals in the CCD will create on their own apps to fill certain needs within the new community. In addition, the PR firm would be tasked with developing a CCD specific social media strategy (Facebook, Twitter) to help build recognition and membership in the local and global community. Finally, the PR firm would help to promote the CCD efforts, companies and products at international trade fairs, conferences, and symposiums in the years ahead.

The PR firm can also connect with other public relations efforts already under way in the central Guadalajara (i.e. DUIS Mosaico) to strengthen its own objectives. CCD should strive to integrate its different outreach strategies in the city and not become an island to its surroundings. Through these distinct efforts, the Guadalajara CDD can imagine a holistic outreach strategy capable of connecting with millions of people in the local and global community.

GUIDING PRINCIPLES OF THE CCD OUTREACH STRATEGY

01. The outreach strategy will be need to evolve as CCD project evolves, meaning that information and communication of the project in year one will differ greatly than in year five and so on. As the project matures and new companies and individuals make CCD their home, the importance of communicating and connecting the project with a wider audience will become more important.

02. Every person in the local and global community has a unique relationship with technology; how they understand it and how they use it. It is important to remember this reality and be careful not to exclude anyone based on their ability to access digital information.

03. Keep all digital and physical information and messaging clear and accessible to everyone in the local and global community. Instrumental in the resiliency and long term competitiveness of CCD will be in its ability to share in the projects growth and success; within CCD, Guadalajara, Mexico and the World. A creative sector worker in Singapore or a software engineer in Germany should be able to learn about CCD happenings and connect with CCD based companies as easily as a local community group in central Guadalajara can locate information on an upcoming CCD sponsored event in Parque Morelos.

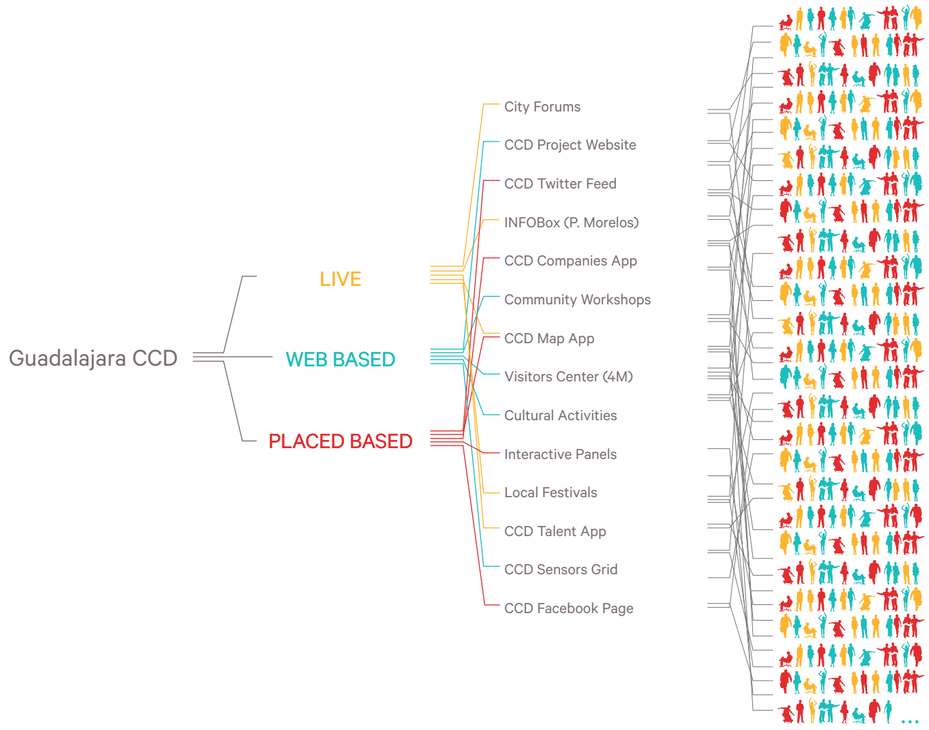
01 ONE Strategy for Stakeholder Outreach and Citizen Empower-

02 THREE CCD Engines for Outreach

03 NEW CCD Specific Outreach Vehicles

04 HIRE P.R. FIRM

05 LOCAL and GLOBAL COMMUNITY



BEST PRACTICES AND RELATED INSTITUTIONS

Public Laboratory for Open Source (PLOTS)
http://publiclaboratory.org/about

The Public Laboratory for Open Technology and Science (PLOTS) is a community, which develops and applies open-source tools to environmental exploration and investigation. By democratizing inexpensive and accessible "Do-It-Yourself" techniques, Public Laboratory creates a collaborative network of practitioners who actively re-imagine the human relationship with the environment.
The core PLOTS program is focused on "civic science" in which we research open source hardware and software tools and methods to generate knowledge and share data about community environmental health. Our goal is to increase the ability of under-served communities to identify, redress, remediate, and create awareness and accountability around environmental concerns. PLOTS achieves this by providing online and offline training, education and support, and by focusing on locally-relevant outcomes that emphasize human capacity and understanding.

Department of Play
http://www.departmentofplay.org/

The Department of Play initiative aims to develop easy-to-use, open-source digital toolkits with corresponding curricula and pedagogical guidance to support youth-led active exploration, participatory learning, and civic engagement among children and adolescents in their neighborhoods. We've already got a few tools in development for capturing GIS maps using weather balloons & kites, using phone voicemail for organizing, and easy to use software to have youth add their own information and media on maps that document or re-conceptualize space in their neighborhoods.

Center for Digital Inclusion (CDI)
http://cdiglobal.org/

We use knowledge to stimulate local economic development and job creation. Technology is one of the most powerful catalysts of change at hand today. But technology, in itself, is just a tool. The true challenge is making technology relevant and useful in the context of marginalized populations. For 17 years CDI has empowered disadvantaged groups to use Information & Communication Technologies (ICTs) as tools to exercise their full capacities as citizens and tackle the issues that affect their communities. CDI Community Centers are technology and learning centers in impoverished communities. Each CDI Community Center is a partnership with an existing leading grassroots organization. The community based organizations provide the infrastructure and CDI provides free computers and software, implements educational methods, trains instructors and monitors the schools.

I wish this was..
http://candychang.com/i-wish-this-was/

Candy created fill-in-the-blank stickers that say "I wish this was ___." She placed boxes of free stickers in businesses around the city and posted grids of blank stickers and a permanent marker on vacant storefronts, so anyone walking by could fill one out. It's a fun, low-barrier tool to provide civic input on site, and the responses reflect the hopes and dreams of different neighborhoods.

SUBMISSION FOR REVIEW
NOT FOR DISTRIBUTION

Apps for Good
http://appsforgood.org/about/

Apps for Good aims to:
• Ignite a passion for technology and social enterprise in young people in the UK
• Encourage young people to use technology to tackle problems for social good
• Increase the entrepreneurial skills and confidence of young people
• Bridge the gap between young people and the business networks and knowledge that can help them
• Build a connected world of young people, business volunteers and educators, inspiring each other to solve problems and succeed through the wonders of mobile technology
During the Apps for Good course, students go through a kind of entrepreneurial process whereby they identify what is wrong with their world before designing a way of fixing it with a mobile app. We combine a broad range of areas in the course, giving young people a foundation in entrepreneurship, community involvement, problem-solving and team work, as well as design and some technical skills.
Apps for Good develops talented and employable young people in an industry with plenty of room for creativity, prosperity and employment.

My City, My Future
http://web.mit.edu/colab/work-project-hbcu.html
http://d-lab.mit.edu/projects/150/my-city-my-future-arterio

This project allows people living in slums to formally recognize assets by mapping available resources, leading to pride in their community and a sense of their ability to improve their future. A high-resolution community mapping tool is coupled with a website to note past and present conditions along with future visions of communities.

What's up Lawrence
http://www.whatsuplawrence.org/

Please use the system to connect with your friends, promote events, and share your interests with others!

Stop and Search
https://www.facebook.com/pages/Stop-And-Search-App-Upload-Your-Experience-UK/273871572643398

Stop & Search allows young people to rate their experience of being stopped and search by the police, to obtain information about their rights and to allow people to map the search and start seeing patterns.