**Data Collection**

**What data will you collect or create?**

Cameras will be deployed along the targeted area and computer vision algorithms will be developed to analyze the collected visual data. Results of the analyses will be aggregated and tabulated to identify mobility trends and problems, then used to inform urban planning recommendations. Any novel algorithms developed will be published along with experimental results. Algorithms will be thoroughly tested and analyzed with real data collected at the installation site. Datasets will be collected throughout the year in a variety of weather and lighting conditions. This unique dataset will be published on-line for use by researchers to advance the fields of computer vision, artificial intelligence, mobility and urban design and planning.

**How will the data be collected or created?**

Cameras will be deployed along the targeted area and computer vision algorithms will be developed to analyze the collected visual data. Results of the analyses will be aggregated and tabulated to identify mobility trends and problems, then used to inform urban planning recommendations. Any novel algorithms developed will be published along with experimental results. Algorithms will be thoroughly tested and analyzed with real data collected at the installation site. Datasets will be collected throughout the year in a variety of weather and lighting conditions

**Documentation and Metadata**

**What documentation and metadata will accompany the data?**

Video data will be collected in a standard compression video format such as H.264. Still frames will be captured and compressed in the JPG format. Standard metadata recorded during capture by the device will be embedded in the data files. Documentation on accessing the data stored on servers will be accessible to the project team. Documentation accompanying the data will record the circumstances of the collection. Standard software (usually default viewers for major operating systems) with the proper codecs will be capable of viewing the data.

**Ethics and Legal Compliance**

**How will you manage any ethical issues?**

If applicable, Municipal and Service Provider Interviews will follow a set of interview and summary standards. All summary reporting will be anonymized.

**How will you manage copyright and Intellectual Property Rights (IP/IPR) issues?**

CMU, PIs, and co-PIs will retain copyright and intellectual property rights for captured data, methods developed, and findings. While industry partners may utilize proprietary approaches to data collection and analysis, which may inform the study, all findings will be subject to the aforementioned rights. Any agreement re industry participation will identify their proprietary restrictions and agreement to our terms. Any issues pertaining to these terms will be resolved through CMU legal.

**Storage and Backup**

**How will the data be stored and backed up during the research?**

RCI and The Robotics Institute will follow cloud, server, and secure drive storage and back up procedures.

**How will you manage access and security?**

Project team will share restricted access to cloud-based platform.

**Selection and Preservation**

**Which data are of long-term value and should be retained, shared, and/or preserved?**

All captured visual data will be stored long-term for future analyses. Sampled visual data will be shared with the research community under terms currently being developed.

**What is the long-term preservation plan for the dataset?**

Data will follow cloud, server, and drive storage and back up procedure. Protocol will be developed with SoA and the Robotics Institute for long-term preservation.

**Data Sharing**

**How will you share the data?**

Data will be shared through restricted cloud access.

**Are any restrictions on data sharing required?**

For research and education purposes only. Users must agree not to recover personal information from the visual data.

**Responsibilities and Resources**

**Who will be responsible for data management?**

Ray Gastil, PI, and Robert Tamburo, Co-PI, will share responsibility.

**What resources will you require to deliver your plan?**

NA