Background and Research Objectives:
Construction workers are one of the largest groups of all service providers in our cities. As with other informal-sector workers, their contribution to the urban economy is rarely recognized. There are an estimated 1 lakh construction workers in Ahmedabad, of which more than half are intra-state and inter-state seasonal migrants. They come from tribal districts within Gujarat, tribal districts of Rajasthan and Madhya Pradesh and also other states like Maharashtra, Uttar Pradesh, Bihar and Jharkhand. Many have been coming to the city for more than 10 years, spending a total of 6-10 months in the city and returning to their villages for 15 days to a couple of months during festivals and sowing / harvesting time. There are also temporary short-duration migrants who come to the city to work in construction in times of distress etc. These non-permanent migrant workers face greater exploitation and vulnerability compared to other informal sector workers. However, the dynamics of their employment and migration, and the links of these dynamics to their housing needs in the city, are little understood. As a result, urban planning and housing policies do not make provision for them, forcing them to live in extremely dismal conditions. Their shelters and settlements are generally excluded in the government’s slum initiatives and many are frequently subjected to eviction threats and displacement. This is the case in many other Indian cities also.

This research study has been undertaken with three objectives: (i) to understand the existing conditions of construction workers’ housing in Ahmedabad in terms of their existing access to land for housing, the physical condition of their shelters and settlements, their access to basic services and amenities, and the set of actors and institutions that have a bearing on these conditions; (ii) to understand the factors that influence housing choices and housing mobility amongst construction workers such as location of nakas and construction sites, affordability, social networks, duration of stay in the city and migration dynamics; and (iii) to develop a framework and proposal for improving construction workers’ housing. In September 2014, Government of Gujarat released a press note stating that the Gujarat Building and Other Construction Workers’ Welfare Board has allocated funds of Rs.200 crore for construction workers’ permanent housing and Rs.20 crore for temporary housing. It is intended that the framework and proposal developed through this study would help put forth ideas for the productive utilization of these funds.

Typologies of Construction Workers’ Settlements:
This study identifies five typologies of settlements in which construction workers find shelter: (i) shelters / settlements on pavements and street edges, under flyovers and bridges; (ii) shelters / settlements on government or private lands, which are not recognized slums; (iii) rental housing in slums on government of private lands, which are generally recognized slums; (iv) shelters / settlements on private-sector
construction sites; and (v) shelters / settlements on public-sector construction sites. The first three typologies are of off-site settlements while the latter two are of on-site settlements.

**Research Findings:**

**Tenure security**

On-site settlements have high tenure security for the duration of the construction work. Among off-site settlements, rental housing in the city’s recognized slums have highest tenure security even though the rental agreement with the landlord, who is an informal occupier of the land, is undocumented. The other two off-site typologies have low tenure security despite residents having lived at the same location for many years. The most vulnerable are the shelters / settlements on pavements and street edges, under flyovers and bridges, where residents often face violence in the form of evictions and harassment, leading to losses of belongings and investments they have made in their housing as well as an everyday experience of uncertainty and insecurity about their shelter and belongings. This is also true of some shelters / settlements on government or private lands which are non-recognized slums, especially those on railway lands and government lands being reclaimed by the local authority. This low tenure security is a direct result of the state’s attitude towards informality and the urban poor, compounded by its attitude towards recent and non-permanent migrants from lower-income backgrounds. These tenure conditions deny large numbers of construction workers a secure space in the city and access to basic services.

**Housing Quality**

Four main types of shelters were found in construction workers’ settlements in Ahmedabad. The first is *potla* type shelters which are arrangements where residents tie up their belongings with tarpaulin during the day when away for work and open the *potla* in the evenings to set up a sleeping and cooking area. This is found in the off-site settlements with very low tenure security. These shelters are extremely vulnerable to weather conditions, rodent and mosquito infestation and theft of belongings. The second type is *kutcha* shelters made from tarpaulin, and are found in off-site settlements with low tenure security as well as on-site settlements of smaller construction sites. They are unstable structures vulnerable to weather conditions, rodent and mosquito infestation, theft of belongings and flooding in case of waterlogging in the settlement. The third type is *kutcha* shelters made entirely from tin sheets. These are found in on-site settlements of small to medium-size construction sites. They are susceptible to over-heating and have little or no ventilation, leading to extreme discomfort for its residents and posing health risks. The fourth type is the semi-*pucca* shelter consisting of brick walls and tin sheet roofing. They are found in on-site settlements of larger construction sites, and off-site settlements of rental housing and the more consolidated and secure settlements on government land. These are less vulnerable to weather compared to the other three types, although the tin roofs still lead to heating up of the shelters. Rodent and mosquito infestation can be controlled and the structure provides security of belongings.

In off-site settlements, residents choose to build a particular shelter type depending on the tenure security, migration pattern which shapes their willingness to invest in housing, and affordability. In on-site settlements, there is an absence of government enforcement of existing regulatory frameworks (Inter-State Migrant Workmen Act 1979, The Building and Other Construction Workers Act 1996, PWD and CPWD guidelines, etc) to provide proper housing to construction workers as well as inadequate provisions in these frameworks. As a result, shelter type is linked to the size of the construction site and
duration of work since currently it is the scale of the project which determines whether a developer / contractor thinks it is worthwhile to invest in better shelters or not.

**Basic Services and Amenities**

Off-site settlements generally do not have any basic services like water, sanitation and electricity. Residents often have to pay or do some labour to get access to water. Most lack toilet facilities, nearby pay-and-use facilities are not affordable, and most residents resort to open defecation as a result. Bathing facilities do not exist and many residents have built temporary enclosures for bathing, however, women face privacy issues in this, requiring them to bathe early morning or at night when it is dark. Rental housing may have access to water but sanitation and electricity provision is usually nil or inadequate. Most settlements are prone to waterlogging due to lack of drainage.

On-site settlements are often provided with water, however, at the smaller private-sector construction sites and public-sector flyover construction sites, potable water is not always provided and water storage facilities are often unhygienic. Toilet facilities were not provided at the case-study public-sector flyover construction site, and while they were provided in the other on-site settlements that were studied, they were not well-maintained everywhere, leading to open defecation. The public-sector construction site of IIT Gandhinagar was found to have the best facilities of water, toilets and bathing facilities, and electricity, as well as a crèche and regular health camp. This is due to the keen interest of the IIT Gandhinagar administration in the issues faced by construction workers and their families.

**Documents for Entitlements in the City**

Documents showing proof of residence in the city such as ration card, election card, property tax receipts, and electricity bill are important for the urban poor to build claims to their informal housing spaces and basic urban services as well as realize entitlements to government schemes, including housing programmes. Almost all the seasonal migrants in the study were found to have these documents only for their villages and were not willing to give up these to get new ones at their city address since their migration patterns require them to keep their village documents. However, the lack of documents for entitlements in the city leads to high vulnerability in the city. Alternate documents for such migrants could be obtained through registration with the Building and Other Construction Workers’ Welfare Board, however, registration with the Board is currently difficult. Therefore, construction workers cannot avail of the Board’s schemes, including housing scheme, let alone access housing schemes of the local urban authority. Any policy intervention to improve the housing conditions of construction workers will have to take this into account in its design and implementation so that city-based documentary requirements do not lead to exclusions.

**Construction Work, Migration and Housing**

The typology of settlement in which construction workers find shelter, the mode of obtaining construction work (finding work at a *naka*, or by being part of a labour gang, or by getting regular contract work through contacts one has built up over time) and the dynamics of migration (which includes type of migrant household and migration pattern) are interlinked aspects which need to be understood to propose housing interventions that are viable for construction workers.
Naka workers and regular contract workers live in off-site settlements. Local and permanent migrant naka workers are found across the three off-site typologies, depending on the individual family’s socio-economic condition. Local and permanent migrant regular contract workers are relatively better-off and thus do not live in the most vulnerable off-site settlements, that is, pavements and street edges, under flyovers and bridges. Seasonal migrant naka workers are found across the three off-site typologies, depending on the individual family’s socio-economic condition and also the migrant household type. Thus, only the single males among them live in rental housing. Significantly, the rental housing is affordable to them not only because they share the rent with other single male migrants, but also because arrangements with the landlord and their sharers to pay rent only for when they are living in the city. This rental housing is not affordable to the seasonal migrant naka workers who come to the city as families with children or couples, and it is this group that lives in the most vulnerable off-site settlements.

Construction workers who find work through labour gangs are mostly seasonal migrants and live in on-site settlements as they are provided housing for the duration of the work. However, among this group, those who work in public-sector or private-sector infrastructure-laying work such as road-building or pipeline-laying are not provided housing and they live in off-site settlements on government or private lands, access to which may be informally negotiated by the contractor or mukkadam.

The study also found that kinship and community ties play a central role in determining the settlements that seasonal migrant workers choose to live in. Another important finding was that naka workers, especially the seasonal migrants, walked a maximum distance of 15-20 minutes to reach a naka. This is important since they do not have to incur transport costs to reach a naka where there is no guarantee that they will obtain work every single day. Majority of naka workers obtain work for 10-15 days a month. Housing interventions would have to be sensitive to these aspects.

Household Income and Housing Expenditure
Monthly household income amongst construction workers depends on number of earning members, their skill levels and mode of obtaining work which determines daily wage rates and the number of days for which they get work in a month. The study calculates that for naka workers who have a single earning member household, monthly income is Rs.3000-4500 if he is unskilled and Rs.5000-7500 if he is skilled. For two earning member households, monthly income is Rs.6000-9000 if they are unskilled and Rs.8000-12000 if the male is skilled.

The study found that construction workers live in rental housing with monthly rents in the range of Rs.800-2500, often with additional charges for basic services. Single male migrants share a room, each incurring Rs.300-500 per month for rent and basic services. This is 7-15 per cent of an unskilled single male migrant’s monthly income and 4-10 per cent of a skilled single male migrant’s monthly income. Thus, rental housing is affordable for single male migrants when they share amongst 4-6 males, and each is paying not more than 4-15 per cent of their income on rent and basic services. Those who live on pavements and street edges, under flyovers and bridges, or on government or private lands which are non-recognized slums, incur expenses on building / repair of shelter but this is difficult to estimate. Some of them spend around Rs.300 per month for buying water. For families who live in these types of settlements, rental housing would entail higher expenses of Rs.900-2500 per month, which would be 16-25 per cent of their income. Such a regular expense is unaffordable to them, due to which they do not choose rental housing.
Proposal Summary

This proposal focuses on improving housing conditions for seasonal migrant naka workers who come with their family to the city. They are the most vulnerable with regard to housing conditions in the city. As naka workers, they do not have regular work with a single contractor for a sustained duration of time, as a result of which they must provide for their own housing. As seasonal migrants, they do not have the required city-based documents to build and establish claims in the city to welfare scheme for the urban poor. As families, they cannot afford rental housing on the earnings of 1-2 household members, while the night shelters / rain baseras are not appropriate for them. As a result, they live in the most vulnerable off-site settlement typologies which also largely lack basic services. Among the migrant household types, they are also the most vulnerable due to the presence of women and children.

To improve housing conditions for this group, the proposal proposes a temporary migrant hostel for these families, and develops a preliminary design for a pilot project. While the design is developed for a specific plot of land identified by Prayas in north-eastern Ahmedabad, the proposal also demonstrates the prospects of the typology of hostel for construction workers in terms of its spatial design, construction technology, affordability and issues to be taken into consideration for governance and administration.

The proposed hostel typology for migrant construction workers with families is temporary in nature, both in terms of design and construction of buildings and their duration of their stay. Owing to often complex land tenure issues for housing projects for the urban poor, the dynamics of obtaining work in the construction sector and the changing geographies of construction work as the city expands / transforms, the temporary construction technology proposed here provides the flexibility needed to rapidly build appropriate shelters for this socio-economic group as well as dismantle and move the shelters if and when required. Collapsible and flexible systems of construction and design make it possible to access the lands for short durations. They are also less expensive than conventional construction technologies which is a positive factor given the finite resources of government, the scale of the migrant population that needs to be housed as well as the affordability concerns for migrant families which would not make it viable for them to pay high rents. Additionally, since these families are involved in seasonal migration, the hostel typology gives them the flexibility of incurring reasonable housing costs only for the duration of their stay in the city.

The design proposal puts forth alternatives for a residential unit and residential block for the temporary migrant hostel. Both the unit and the block are repeatable and form smaller clusters of living. It also proposes shared services of water, sanitation and child-care which are necessary for ensuring dignified housing for construction workers and their families. It discusses the affordability of this group, proposing that rent for a unit in the hostel may be in the range of Rs.400-800 per month, including access to water, toilet and bath, and electricity, and that options of weekly rent should also be considered. The proposal also discusses the issues related to governance and administration and makes some suggestions in terms of how land can be provided for such temporary migrant hostels, how eligibility may be defined in order to allot this housing to migrant construction workers, and how the hostel can be run and maintained on a daily basis.