Complete Streets Funding Program
Tier 3 Project Application
Exhibit A - Scope of Work Narrative

Municipality **Manchester-by-the-Sea** **Date** **October 2, 2017**

Please describe the project and how it achieves Complete Streets in your community. What is the asset condition, network gap, accessibility or safety issue that is being addressed? What populations and destinations will be served? (Save as a Word document, do not PDF)

Describe Projects in the order they appear on Tier 3 Project Application:

Project Rank # 1 Title: Beach St. and Union St. $ 27,321

The Town of Manchester has identified this intersection as one of the most in need of improvement and is included in the Downtown Improvement Project Phase II plans. This project includes the installation of pedestrian refuge medians, yield markings, and ADA ramps, and the extension of curb-cuts at the intersection of Union and Beach Street to calm traffic and reduce the pedestrian crossing distance to improve safety and accessibility.

This principal intersection at an entrance to the village center in Manchester is a heavily traveled way for pedestrians and automobiles, and is the site of two auto-pedestrian crashes in recent years and 5 crashes since January 2014. It is a hilltop intersection with wide radius curbs and a required stop from only one direction. Shops line the streets and the single pedestrian crosswalk traverses the street at its widest point.

Improvements to this intersection will improve pedestrian visibility, accessibility and safety and would help set the tone for speed and pedestrian awareness in the village center, where the Town has worked diligently particularly through its Downtown Improvement Project Committee to improve the pedestrian environment. These intersection improvements will extend the traffic calming and pedestrian safety improvements begun in Phase I of the Downtown Improvement Project initiated around 2010.

The work proposed includes all incidental labor materials and equipment necessary to complete the following, but not limited to: pavement markings to provide accommodation for pedestrians (S1), reducing corner radii (S6), intersection reconstruction to reduce complexity and crossing distance (S 13), new curbing (S14), traffic calming measures (S17), ADA compliant curb ramps (P2), detectable warning surfaces (P3), pedestrian refuge island (P7), curb extensions (P8), crosswalks (P9), and medians with ADA/AAB compliant design (P16).

The work includes, but is not limited to unclassified excavation, saw cutting asphalt pavement, installation of concrete sidewalks, curb extensions and wheelchair ramps, granite curb, pavement markings and detectable warning surfaces, and other incidental work. The work also includes erosion and sedimentation control and safety controls for traffic operations.

Project Rank # 2 Title: Central St./Union St., & School St. $ 45,763

This project addresses the intersection of School St., one of two gateway corridors from Route 128 and the in-town portion of State Route 127, where Central and Union Streets meet. The intersection is very busy, serving as the outlet of a gateway corridor, and for many as a route to school. Parking around the intersection is in high demand due to the proximity of destinations including restaurants, shops, the Historic Museum, Library, and Town Hall. Behind Town Hall, there is a municipal parking lot and the town's principal boat launch. The intersection is included as a project in Phase II of the Town's Downtown Improvement Project initiated in 2010.

In its current state the intersection is difficult for all transportation modes due to inadequate site lines, liberal on street parking, and multiple exit and entrance points in close proximity. There have been 13 recorded crashes at this intersection since January 2014. Better traffic control at this intersection will vastly improve safety and accessibility for pedestrians, cyclists and vehicular traffic.

The work consists of intersection reconstruction including major curb extensions to both control traffic and enhance the pedestrian environment with greater visibility and reduced crossing distances, new crosswalks, ADA compliant curb ramps, signage and back in angle parking.

The proposed work includes all incidental labor, material, and equipment necessary to complete the following, but no limited to sidewalk repairs (S1), reducing corner radii (S6), regulatory signs (S7), intersections reconstruction (S13), new curbing (S14), ADA compliant ramps(P2), detectable warning surfaces (P3), curb extensions (P8), and crosswalks (P9).

The work includes, but is not limited to, unclassified excavation, sign post removal and reset, saw cutting asphalt pavement, curb removal and reset, cement concrete sidewalks, thermoplastic for crosswalks, and other pavement markings and other incidental work. The work also includes erosion and sedimentation control and safety controls for traffic operations.

Project Rank # 3 Title: Washington St. / Summer St. / Sea St. $ 47,942

This intersection is considered the eastern entrance to the village center in Manchester. It accommodates the majority of motorists traveling to and from Gloucester and Rockport as well as many students going to and from the Elementary, Middle and High Schools and residents and others going to Singing Beach via Sea Street. The intersection is about one third of a mile from a recently completed Safe Routes to School Project at the corner of Lincoln Street and Summer Street and about 100 feet from a recently installed flashing pedestrian beacon at Spy Rock Hill.

In its current state this intersection allows for excessive speed, and requires automobiles to pull into the roadway when turning off Sea Street to Washington to gain appropriate sight distance for a safe entrance. Motorists exiting Sea Street and taking the immediate left onto Washington Street often accelerate across Summer Street due to lack of an adequate sight line, creating an unsafe environment for motorists and particularly for pedestrians and cyclists. The pedestrian crossing on Washington Street is in excess of 45 feet and is in the area just before the village, where many motorists have not yet slowed.

This project includes the installation of a rapid flashing beacon at a new crosswalk, restriped and re-aligned crosswalks, ADA ramps, considerable pavement markings, flex posts to create a more secure pedestrian zone, and the extension of curb-cuts where Summer St., Sea St. and Washington St. intersect. The changes are intended to slow vehicle speed, increase awareness of pedestrian crossings,

provide vehicular guidance along Summer St. and limit turning movements to create a safer environment for all transportation modes.

Improvements to this intersection will improve sight-lines, accessibility and safety and would help calm traffic and increase pedestrian awareness. Improvements here will also strengthen the connection between the town center and the schools with more safe and accessible sidewalks and crosswalks.

The work proposed includes all incidental labor materials and equipment necessary to complete the following, but not limited to: sidewalk repairs (S1), reducing corner radii (S6), regulatory signs (S7), intersections reconstruction (S13), new curbing (S14), traffic calming (S17), ADA compliant ramps(P2), detectable warning surfaces (P3), pedestrian refuge island (P7), curb extensions (P8), and crosswalks (P9).

The work includes, but is not limited to, unclassified excavation, pavement milling, saw cutting asphalt pavement, curb removal and reset, cement concrete sidewalks, thermoplastic for crosswalks, and other pavement markings, rapid flashing beacon and flex post installation and other incidental work. The work also includes erosion and sedimentation control and safety controls for traffic operations.

Project Rank # 5 Title: Route 127 $ 27,600

State Route 127, a coastal route that connects the northern North Shore communities, is a part of the Essex Coastal Scenic Byway, and provides an important link for commuters, tourists and residents. This principal east west route passes directly through the village center and intersects with the gateway corridors of Pine and School that bring traffic from Route 128, the other east west route. Aside from Route 128, Route 127 allows the highest speed limits in town and prohibits roadside parking with the exception of inside the village core between Ashland Street and Spy Rock Hill.

State Route 127 is also a major route for cyclists though they face considerable challenges due to limited shoulder width and condition, and traffic speed. Sidewalks accommodate pedestrians along most of the corridor, primarily on only one side of the street, outside the town core. The Essex Coastal Scenic Byway Corridor Management Plan encourages Byway communities to improve opportunities for alternative transportation, allowing byway visitors to leave a lighter carbon footprint.

This project would improve awareness of and safety for cyclists with shared lane markings and would help reduce vehicle speed with speed feedback signs west of Ashland Avenue and east of Spy Rock Hill. Increased awareness and reduced speed will create a safer environment for cyclists, pedestrians and motorists.

The work proposed includes all incidental labor materials and equipment necessary to complete the following, but not limited to: installation of radar speed feedback signs (S5), and shared lane markings (B8).

Project Rank # 7 Title: Norwood Ave. & Brook St. $ 14,249

Norwood Avenue and Brook Street intersect at Coach Field, a municipal site supporting recreational fields and parking and abutting the Manchester Memorial Elementary School. It is in a densely populated residential area with both streets serving as primary routes to all three schools in the area

for busses, automobiles, cyclists and pedestrians. While Coach Field includes a parking area, there is also on-street parking throughout the area.

In its current state the Norwood Avenue and Brook Street intersection lacks clear definition for motorists and pedestrians. There is no curb or sidewalk at the corner of the Coach Field site, the stop bars is placed well short of the intersection, and parking lanes are undefined. Brook Street becomes one way east of this intersection and is not adequately signed.

The project would greatly improve a highly traveled intersection that is a principal route for students walking to and from school and for accessing Coach Field. Work would include creating a curb, curb ramp and sidewalk at the northeast corner of the intersection and the pedestrian entrance to Coach Field, extending the curb and sidewalk, installing signs, and providing thermoplastic cross walks, parking lane, and other pavement markings. The project also includes a bike rack at this location.

The work proposed includes all incidental labor materials and equipment necessary to complete the following, but not limited to: sidewalk repairs (S1), reducing corner radii (S6), intersections reconstruction (S13), ADA compliant ramps (P2), detectable warning surfaces (P3), curb extensions (P8), widening existing sidewalks (P10), cross walk (9) and new pedestrian accommodations (P13).

The work includes, but is not limited to, unclassified excavation, pavement milling, saw cutting asphalt pavement, curb removal and reset, cement concrete sidewalks, thermoplastic for crosswalks, and other pavement markings, sign post and bike rack installation, and other incidental work. The work also includes erosion and sedimentation control and safety controls for traffic operations.

Project Rank # 9 Title: Washington St. & Norwood Ave. $10,574

The intersection of Washington Street and Norwood Avenue is the confluence of four streets in a densely settled residential neighborhood a short block from Manchester's village center. All streets except Norwood Avenue are one way. A municipal parking lot, used primarily by downtown business employees is located just north of the intersection on Norwood. Norwood is a principal travel route for all three of the town's schools, as well as Coach Field, a local recreation facility.

In its current state the Washington Avenue and Norwood Street intersection is a wide expanse of pavement with a small green space at its center. A 30 to 40 foot wide slip lane invites automobiles to move from Washington Street to Norwood without stopping and with a minimal speed reduction. While sidewalks exist throughout the area, there are no marked crosswalks

The project improvements including narrowing the existing slip lane by extending the green median, extending curbs with pavement markings and relocating stop lines

The work proposed includes all incidental labor materials and equipment necessary to complete the following, but not limited to: reducing corner radii (S6), intersection reconstruction (S13), new edging on uncurbed street (S14), and traffic calming (S17).

The work includes, but is not limited to, unclassified excavation, saw cutting asphalt pavement, curb removal and reset, topsoil fill and grading, grass seeding, thermoplastic for pavement markings, sign post installation, and other incidental work. The work also includes erosion and sedimentation control and safety controls for traffic operations.

Project Rank # 16 Title: Beach St. $144,000

Beach Street is the single access route to Singing Beach, the town's iconic beach and open space and a regional treasure. More than 100,000 guests visit Singing Beach annually with a typical summer weekend day welcoming up to 5,000 visitors. While on-site parking accommodates around 130 vehicles, most arrive by foot, walking or biking from home or nearby parking areas. Singing Beach is the only major beach in the region that is easily accessible by train so many visitors from outside Manchester take the train to the town center and walk less than a mile to the beach.

Due to the large amount of vehicle, bike and pedestrian activity on Beach Street, the Beach Street Complete Street Project that would develop a ten foot shared use path the length of Beach Street would significantly improve access for all modes of transportation. Today accommodations for pedestrians are limited to a single four foot sidewalk on the south side of Beach Street from Tappan Street to Singing Beach. There are no accommodations for cyclists who share the 11 ½ foot vehicle lane. Close to town center, there is also a parking lane that creates considerable conflict as passengers opening doors on the street side require cyclist to move into the center of the lane. There have been 7 recorded crashes on Beach Street since January 2014.

In addition to helping meet local safety and accessibility goals, the project would be advancing regional goals. Recommendations of the Essex Coastal Scenic Byway Corridor Management Plan include increasing access from the Byway to regional recreational resources. The Essex Coastal Scenic Byway is unique among byways for the variety of transportation modes it serves. Creating a stronger connection from the train station to a regional destination will build on that characteristic. The idea is also supported by the 1995 North Shore Trail Study where the North Shore Task Force of the Metropolitan Area Planning Council called Beach Street out as "important for making a connection from the commuter rail to the ocean."

The work proposed includes all incidental labor materials and equipment necessary to complete a new shared use path (B10).

The work includes, but is not limited to, unclassified excavation, sidewalk reconstruction, thermoplastic for pavement markings, and other incidental work. The work also includes erosion and sedimentation control and safety controls for traffic operations.

Project Rank # 17 Title: Pine St. & Pleasant St. $ 53,962

Pine Street is one of two gateway corridors leading from Route 128 into Manchester and based on traffic counts in September of 2016 accommodates around 3,000 vehicles a day. Midway along its 2 mile length, Pleasant Street and Walker Road intersect Pine Street at a distance and alignment close enough for the creation of a four way stop. The misalignment accommodates a left turning bay from Pleasant to Pine and unmarked slip lanes from Walker Road. North of the intersection, settlement is considerably less dense and vehicle speed greater than south of the intersection leading into Manchester's center. In an effort to slow traffic moving into Manchester's center, the Town is looking to establish Pine Street as a gateway corridor that would include among other elements a shared bike and pedestrian path. Until a funding source for the shared pedestrian path is identified, the town would like to make changes that will increase pedestrian and cyclist accessibility and safety. The Town is currently restriping the roadway with narrowed driving lanes (10 feet) to create more room for cyclists.

This project would help slow traffic by removing slip and turning lanes and installing a flashing stop sign; and create a better environment for pedestrians with improved crosswalks and ADA compliant curb ramps. It also would create an opportunity for a small gateway element.

The work proposed includes all incidental labor materials and equipment necessary to complete the following, but not limited to: sidewalk repairs (S1), pedestrian signal and timing (S3), intersections reconstruction (S13), traffic calming, ADA compliant ramps (P2), detectable warning surfaces (P3), crosswalks (P9), widening existing sidewalks (P10), and new pedestrian accommodations (P13).

The work includes, but is not limited to, unclassified excavation, saw cutting asphalt pavement, curb removal and reset, cement concrete sidewalks, thermoplastic for crosswalks, and other pavement markings, topsoil fill and grading, grass seeding, sign post installation, and other incidental work. The work also includes erosion and sedimentation control and safety controls for traffic operations.

Project Rank # 18 Title: School St. & Lincoln St. $25,470

School Street is one of two gateway corridors providing access from and to Route 128 into Manchester. It is also a primary route for all modes of student transport. The Manchester County Club fronts on School Street, and the Manchester Athletic Club is accessed directly from School Street. It is among the most densely populated areas in Manchester and within easy walking distance to Town and a number of other destinations.

Community efforts to make local streets safer for all users have recently focused on School Street resulting in pedestrian crossing signs in the middle of crosswalks. The School Street and Lincoln Street intersection is particularly important as the Middle and High Schools are on Lincoln Street and so this intersection supports a lot of pedestrian traffic.

This project would install a crosswalk across Lincoln Avenue along with two ADA compliant curb ramps. It would also install rapid flashing beacons to better alert drivers to the presence of pedestrians.

The work proposed includes all incidental labor materials and equipment necessary to complete the following, but not limited to: sidewalk repairs (S1), ADA compliant ramps (P2), detectable warning surfaces (P3), crosswalks (P9), and crossing treatments (P12).

The work includes, but is not limited to, unclassified excavation, saw cutting asphalt pavement, curb removal and reset, thermoplastic for crosswalks, sign installation, and other incidental work. The work also includes erosion and sedimentation control and safety controls for traffic operations.