

Ms. Jacki Byerley, Planner
Town of Andover
36 Bartlett Street
Andover, MA 01810

October 12, 2022

Ref. T1126

Re: Stormwater Peer Review #2
Burt Road Development – Executive Place
Andover, MA

Dear Ms. Byerley and Members of the Planning Board:

On behalf of the Owner/Applicant, TEC is pleased to submit this response to comments letter and attached revised documents for your review. Comments from the 2nd Horsley Witten Group letter dated on October 10, 2022 are shown in **bold**, with TEC responses in *italics*. Comments that were marked by HW as “no further comment” have been removed from this letter for brevity.

Stormwater Review

TEC has reviewed the comments made from HW and has the following comments regarding Stormwater management design:

- 8. Standard 8 requires a plan to control construction related impacts including erosion, sedimentation or other pollutant sources.**
 - d. The Applicant has noted that it has reviewed Section IX.H of the stormwater regulations. HW previously recommended reviewing Section IX.F of the 2009 Stormwater Regulations that reference Erosion Control. HW recommends that the Applicant confirm it has reviewed Section IX.F. and that it complies with the construction sequencing and phasing as applicable.**
 - d. TEC Response: TEC has completed a review of Section IX.F of the 2009 Andover Stormwater Regulations. The project fully complies with all 28 of the “Erosion Control” requirements. TEC can also confirm that the erosion controls and construction sequencing plan (Sheet C-6) have remain unchanged from the previously approved Plans.*
- 9. Standard 9 requires a Long-Term Operation and Maintenance (O & M) Plan be provided.**
 - c. The Applicant has provided a Drainage Structures Type Table on the Operations & Maintenance Plan figure that lists 12 catch basins and 8 manholes. However, the Drainage Structure Data Table on the Grading & Drainage Plan list 14 catch basins and 11 manholes. HW recommends that the Applicant adjust the Drainage Structures Type Table and the Operations and Maintenance Plan figure to be consistent with the Grading & Drainage Plan. Additionally, HW recommends that the Applicant shade in the extents of the proposed pervious pavement access**

drive like the Layout & Materials Plan. HW also recommends that the Applicant call out the areas for snow storage.

- c. *TEC Response: TEC has included the drainage structures within the Burt Road Transportation project to the O&M Plan to be consistent with the Grading & Drainage Plan. TEC also shaded the extents of the proposed pervious pavement access drive. Callouts have been added to the snow storage areas.*

Please do not hesitate to contact me directly if you have any questions at 978-794-1792. Thank you for your consideration.

Sincerely,
TEC, Inc.
"The **Engineering Corporation**"



Peter F. Ellison, PE
Director of Strategic Land Planning

STORMWATER MANAGEMENT OPERATIONS AND MAINTENANCE PLAN

Burt Road Development

**Burt Road, Andover,
MASSACHUSETTS**

Prepared for: **MCP/Howland Burt Owner, LLC**
260 Franklin St.
Boston, MA 02110

Prepared by: **TEC, Inc.**
282 Merrimack St, Floor 2
Lawrence MA, 01843

August 28, 2019
Revised November 12, 2019
Revised February 27, 2020
Revised January 19, 2021
Revised August 30, 2022
Revised September 27, 2022
Revised October 12, 2022

Stormwater Management Operation and Maintenance Plan
January 19, 2021

Name of Applicant: MCP/Howland Burt Owner, LLC
Name of Facility: Burt Road Development
Location: Burt Road, Andover, MA 01810

A detailed, written log of all scheduled preventative and corrective maintenance performed for the stormwater management measures must be kept on site, including a record of all inspections and copies of maintenance-related work orders.

Attachment 1, "Inspection and Maintenance Check List" shall be maintained as a record of regularly scheduled inspection and maintenance items as outlined below for every year. Maintenance required and actions taken shall be recorded in Attachment 2, Inspection and Maintenance Log". The funding, operation, and maintenance of all stormwater management Best Management Practices (BMPs) shall be provided by MCP/Howland Burt Owner, LLC or their appointee.

Maintenance routine and schedule: Routine inspections will be conducted on a monthly basis and thorough investigations will be conducted twice a year. Tasks that are common to all systems include regular removal of accumulated sediments, floatables and debris. Inspections will occur after every major storm event for the first six (6) months after construction. Inspections will be conducted by a person trained in stormwater management systems and experienced in drainage design.

Annual reports will be prepared detailing the status of the stormwater system and the maintenance performed. A copy of the annual report will be sent to the Town of Andover, if requested.

The owner agrees to comply with a minimum maintenance schedule as follows:

1. Monthly inspection for damaged or clogged catch basins.

Catch basin grates shall be inspected and cleared of debris to maintain inlet capacity. Culvert shall also have outlet cleared of debris to maintain capacity.

2. Monthly sweeping of the parking lot.

The parking lot shall be swept monthly. Sweepings should be concentrated in the late spring after winter sanding and late fall after the leaves have fallen.

3. Cleaning of catch basins

Sumps and inlets shall be cleaned four times per year and inspected on a monthly basis. All sediments shall be properly handled and disposed of in accordance with local, state and federal guidelines and regulations.

4. Inspection and cleaning of drainage pipes and manholes.

Drainage pipes and manhole structures shall be inspected and cleaned of sediment at least every five (5) years or as required to maintain adequate functionality of the stormwater conveyance system. All sediments shall be properly handled and disposed of in accordance with local, state and federal guidelines and regulations.

5. Sediment Forebays

The Sediment Forebays shall be inspected on a monthly basis, and accumulated sediment shall be quarterly, or when filled with at least 3-6 inches of sediment. All sediments shall be properly handled and disposed of in accordance with local, state and federal guidelines and regulations.

6. Infiltration Basins

As a minimum, the basin will be inspected after every major storm event greater than 0.5", for the first six months after construction, to ensure functionality and inspect for erosion. Thereafter, inspections will occur at twice per year and after every major storm event greater than the 2- year storm event (3.20").

At least twice during growing seasons, the infiltration basin side slopes, embankments, outlet structures, and emergency spillways will be cleared of accumulated sediment, grass clippings, leaves, and trash and then mowed. Sediment collected inside the basin will be removed at a minimum of once every ten (10) years by hand or mechanical equipment. Eroded areas and slopes will be loamed, seeded, and mulched or stabilized with rock rip-rap. All flared end sections and rock rip-rap will be cleaned of all sediment and debris and reset if necessary, to ensure that stormwater flows coming into the basin(s) are not being impeded. Outlet structures should have debris removed to maintain consistent release velocities. Collected debris will be properly disposed of, in accordance with state and federal requirements, at a local facility.

7. Grass Landscaping

The grass landscaping and plantings will be inspected after every major storm event for the two (2) months after seeding to ensure functionality. Thereafter, inspections should take place every six (6) months in the spring and fall and after severe storm events. Grass and

mulched landscaping showing signs of wear and erosion will be re-loamed/re-seeded or re-mulched as necessary to prevent further erosion from taking place.

8. Ernst Mesic to Dry Native Pollinator Mix Landscaping

The Ernst Mesic to Dry Native Pollinator Mix landscaping areas, as referenced in the attached Mowing Plan, will be inspected after every major storm event for the six (6) months following seeding to ensure functionality. Thereafter, inspections should take place every six (6) months in the spring and fall and after severe storm events. Mix landscaping showing signs of wear and erosion will be re-loamed/re-seeded as necessary to prevent further erosion from taking place. Mowing of these areas shall occur once a year, and between October 15th – April 15th for protection of ground nesting birds, pollinators, and other wildlife using these areas.

9. Snow Removal

Snow will be stored within the landscape islands onsite. During large storm events, snow will be trucked offsite.

10. Pervious Pavement

Pervious pavement shall be inspected monthly and cleaned as needed. All inspection and maintenance of pervious pavement shall follow the requirements of the attached Pervious Pavement Maintenance Guide.

11. Slopes adjacent to Pervious Pavement

Slopes adjacent to pervious pavement shall be inspected on a monthly basis to identify any areas of breakout or erosion. During construction, slopes will be stabilized with a combination of hydroseed and jute mesh erosion control. If erosion or breakout occurs, slopes shall be stabilized immediately with additional seeding and jute mesh. If long term erosion occurs, slopes will be stabilized with rip rap stone, minimum 6" diameter.

12. Grass Drainage Swales

Inspect channels monthly for first 6 months after construction and twice annually thereafter. Inspect to make sure vegetation is adequate and for signs of rilling and gullyng. Repair any rills or gullies. Replace dead vegetation. Mow swales as necessary to maintain a grass height less than 6 inches. Remove sediment and debris manually, by hand shovel, once per year. Reseed swales as necessary to maintain grass cover.

The Long-Term Pollution Prevention Plan

The Owner agrees to comply with the following Long-Term Pollution Prevention Plan to ensure long-term stormwater quality discharge from the site:

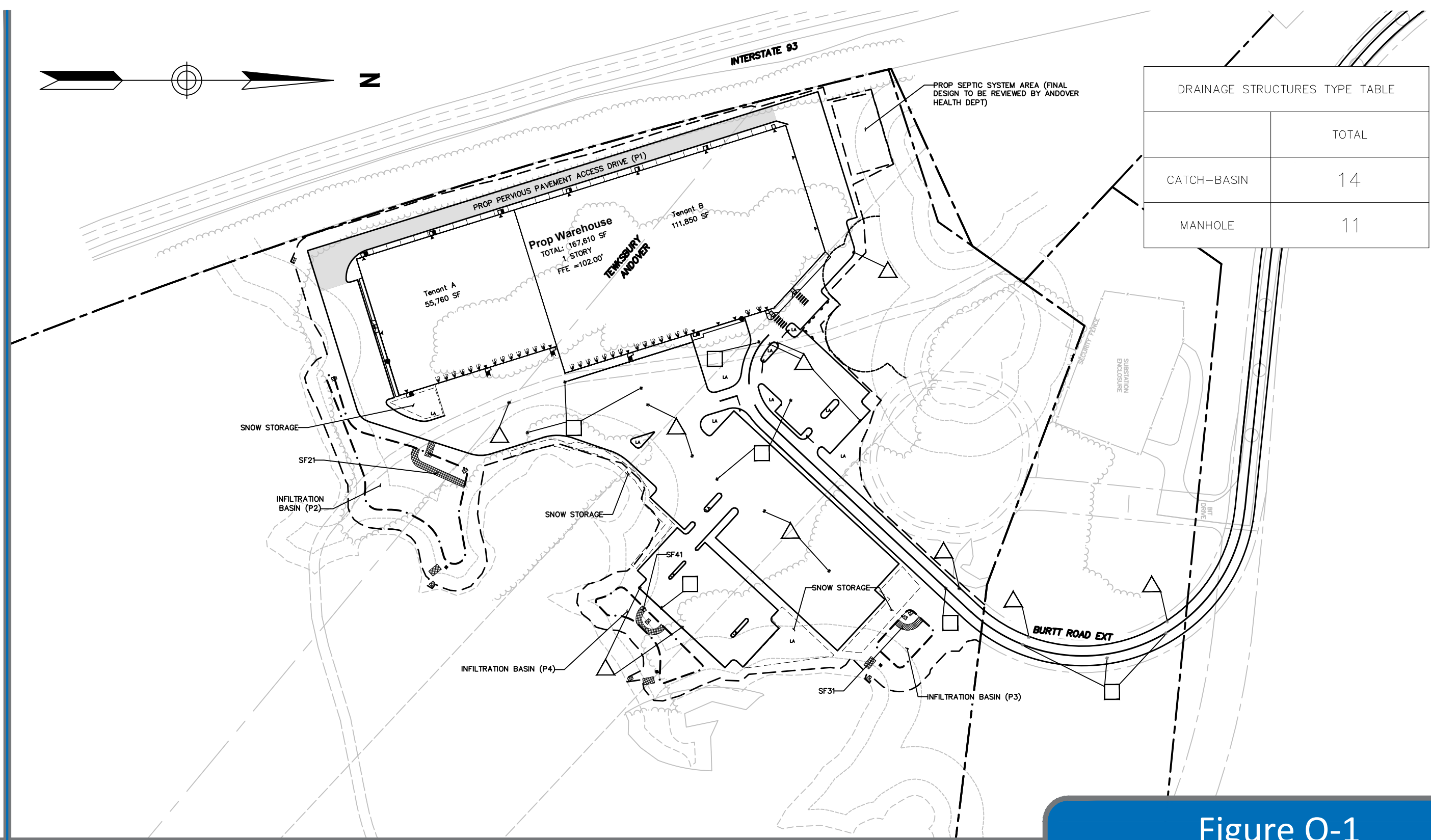
- Good housekeeping practices: The project will be maintained by the owner, including snow removal, de-icing, and BMP inspection and maintenance.
- Provisions for storing materials and waste products inside or under cover: No materials or waste products will be stored on-site.
- Vehicle washing controls: Vehicle washing is not anticipated as a reasonably foreseeable use of the site.
- Requirements for routine inspections and maintenance of stormwater BMPs: The owner will be responsible for providing the necessary inspections and maintenance for the stormwater BMPs.
- Spill prevention and response plans: There are no proposed uses at the site that would provide an opportunity for a spill of oil or hazardous materials, other than a sudden, catastrophic, vehicle failure. If a vehicle release is the result of an accident, the police and fire department will respond and address any release.
- Provisions for maintenance of lawns, gardens, and other landscaped areas: The owner will provide long-term maintenance for the landscaped areas.
- Requirements for storage and use of fertilizers, herbicides, and pesticides: At this time there would be no foreseeable need for fertilizers, herbicides, and pesticides.
- Provisions for operation and management of septic systems: The Owner will be responsible for the operation and management of the septic systems. The Owner will be required to follow Town of Andover standards for inspection and maintenance of the systems.
- Provisions for solid waste management: The development will have a private trash removal contractor that visits the site as needed. All trash will be stored within enclosed dumpsters with closed lids.

- Snow disposal and plowing plans relative to Wetland Resource Areas: Snow will be stored adjacent to the various islands onsite temporarily.
- Street sweeping schedules: The owner will be responsible for monthly street sweeping with sweepings concentrated in the Spring and Fall as stated in the Operations and Maintenance plan.
- Provisions for prevention of illicit discharges to the stormwater management system: Only stormwater is proposed to be conveyed through the stormwater management system. No illicit materials will be permitted. The owner will be responsible to maintain this system.
- Documentation that Stormwater BMPs are designed to provide for shutdown and containment in the event of a spill or discharges to or near critical areas or from LUHPPL: Not applicable
- Training for staff or personnel involved with implementing Long-Term Pollution Prevention Plan: Prior to implementation of the LTPPP, the owner shall provide an on-site meeting with the maintenance personnel to present the contents and requirements of the Stormwater Operation and Maintenance Plan and the LTPPP.
- List of Emergency contacts for implementing Long-Term Pollution Prevention Plan:

MCP/Howland Burt Owner, LLC
260 Franklin Street, Suite 620
Boston, MA 02110

X 

Property Owner



DRAINAGE STRUCTURES TYPE TABLE	
	TOTAL
CATCH-BASIN	14
MANHOLE	11

Figure O-1



Scale: 1" = 150'
October 12, 2022

LEGEND	
	CATCH-BASIN
	MANHOLE
	CATCH-BASIN
	PERVIOUS PAVEMENT

Operations & Maintenance
Reference Plan

**INSPECTION AND MAINTENANCE CHECK LIST –
BURTT ROAD DEVELOPMENT, ANDOVER, MA**

For Year: _____

Inspection Item**		Inspection Frequency*											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
1	Drainage Pipes and Manholes	at least every 5 years											
2	Sediment Forebay												
3	Infiltration Basin												
4	Grass Landscaping												
5	Pervious Pavement												
6	Slopes adjacent to Pervious Pavement												
7	Grass Drainage Swale												
8	Mesic to Dry Native Pollinator Mix Landscaping												
Maintenance Item**		Maintenance Frequency*											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
1	Parking Lot Sweeping												
2	Catch Basin Cleaning												
3	Drainage Pipes and Manholes	at least every 5 years											
4	Sediment Forebay												
5	Infiltration Basin												
6	Pervious Pavement	Refer to Pervious Pavement Maintenance Guide											
7	Slopes Adjacent to Pervious Pavement	Re-seed, add jute mesh as needed											
8	Grass Drainage Swale												
9	Mesic to Dry Native Pollinator Mix Landscaping	Mow annually between Oct 15 th -April 15 th											

- * Actual time of inspecting and maintaining items may vary. Chart shall be used to indicate frequency of events
- ** This chart shall be used in conjunction with the attached "Stormwater Management Operations and Maintenance Plan", dated January 19, 2021, and with the attached "Mowing Plan", dated January 19, 2021..

Name of Applicant: MCP/Howland Burt Owner, LLC
Name of Facility: Burt Road
Development Location: Burt Road, Andover, MA 01810

Inspection and Maintenance Log

Inspection No.	Date	Inspections Performed	Maintenance Actions Taken
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			

Additional Sheets shall be added as needed